Experience is the solution
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(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

November 21, 2018

Dan Flanigan
OSC Inc
333 Ganson Street
Buffalo, NY 14203

TEL: (716) 856-3333

Work Order No: 181107001

RE: OSC Soil Characterization

Dear Dan Flanigan:

Adirondack Environmental Services, Inc received 6 samples on 11/7/2018 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Krzysztof Trafalski
Laboratory Manager

Adirondack Environmental Services, Inc CASE NARRATIVE

CLIENT:	OSC Inc	**Date:**	*21-Nov-18*
Project:	OSC Soil Characterization		
Lab Order:	181107001		

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

The analysis for TCLP was completed using totals analysis for the following constituents. This is allowed by method SW-846 1311 as per section 1.2.

-Volatile Organics
-Semi-Volatile Organics

Analytical Comments for EPA Method 8260: Samples Grab 3 Top Soil, F001 and AOC1 Non-Haz had a low recovery for the internal standard 1,4-Dichlorobenzene-d4.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:	ND : Not Detected at reporting limit	C: CCV below acceptable Limits
	J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
	B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
	X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
	H: Hold time exceeded	Z: Duplication outside acceptable limits
	N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
	N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	Grab 1 Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-001
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Vinyl chloride	**ND**	14	SC	µg/Kg-dry	1	11/7/2018 7:50:00 PM
Methylene chloride	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Acetone	**ND**	14		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,1-Dichloroethene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,1-Dichloroethane	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
trans-1,2-Dichloroethene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
cis-1,2-Dichloroethene	**ND**	7	C	µg/Kg-dry	1	11/7/2018 7:50:00 PM
Chloroform	**ND**	7	C	µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,2-Dichloroethane	**ND**	7	C	µg/Kg-dry	1	11/7/2018 7:50:00 PM
2-Butanone	**ND**	14	SC	µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,1,1-Trichloroethane	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Carbon tetrachloride	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Trichloroethene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Benzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Tetrachloroethene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Toluene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Chlorobenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Ethylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
m,p-Xylene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
o-Xylene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Methyl tert-butyl ether	**ND**	7	C	µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,3-Dichlorobenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,2-Dichlorobenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,4-Dichlorobenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,4-Dioxane	**ND**	140		µg/Kg-dry	1	11/7/2018 7:50:00 PM
sec-Butylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
4-Isopropyltoluene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
n-Butylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,3,5-Trimethylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
tert-Butylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
1,2,4-Trimethylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
n-Propylbenzene	**ND**	7		µg/Kg-dry	1	11/7/2018 7:50:00 PM
Surr: 1,2-Dichloroethane-d4	**98.5**	64.8-130		%REC	1	11/7/2018 7:50:00 PM
Surr: 4-Bromofluorobenzene	**103**	76.8-122		%REC	1	11/7/2018 7:50:00 PM
Surr: Toluene-d8	**108**	78.5-120		%REC	1	11/7/2018 7:50:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**18.6**	0.1		wt%	1	11/15/2018

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	Grab 2 Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-002
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Vinyl chloride	**ND**	12	SC	µg/Kg-dry	1	11/7/2018 8:14:00 PM
Methylene chloride	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Acetone	**ND**	12		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,1-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,1-Dichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
trans-1,2-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
cis-1,2-Dichloroethene	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:14:00 PM
Chloroform	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,2-Dichloroethane	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:14:00 PM
2-Butanone	**ND**	12	SC	µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,1,1-Trichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Carbon tetrachloride	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Trichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Benzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Tetrachloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Toluene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Chlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Ethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
m,p-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
o-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Methyl tert-butyl ether	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,3-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,2-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,4-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,4-Dioxane	**ND**	120		µg/Kg-dry	1	11/7/2018 8:14:00 PM
sec-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
4-Isopropyltoluene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
n-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,3,5-Trimethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
tert-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
1,2,4-Trimethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
n-Propylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:14:00 PM
Surr: 1,2-Dichloroethane-d4	**97.8**	64.8-130		%REC	1	11/7/2018 8:14:00 PM
Surr: 4-Bromofluorobenzene	**113**	76.8-122		%REC	1	11/7/2018 8:14:00 PM
Surr: Toluene-d8	**113**	78.5-120		%REC	1	11/7/2018 8:14:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**18.5**	0.1		wt%	1	11/15/2018

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	Grab 3 Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-003
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Vinyl chloride	**ND**	12	SC	µg/Kg-dry	1	11/7/2018 8:38:00 PM
Methylene chloride	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Acetone	**ND**	12		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,1-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,1-Dichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
trans-1,2-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
cis-1,2-Dichloroethene	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:38:00 PM
Chloroform	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,2-Dichloroethane	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:38:00 PM
2-Butanone	**ND**	12	SC	µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,1,1-Trichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Carbon tetrachloride	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Trichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Benzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Tetrachloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Toluene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Chlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Ethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
m,p-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
o-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Methyl tert-butyl ether	**ND**	6	C	µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,3-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,2-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,4-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,4-Dioxane	**ND**	120		µg/Kg-dry	1	11/7/2018 8:38:00 PM
sec-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
4-Isopropyltoluene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
n-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,3,5-Trimethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
tert-Butylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
1,2,4-Trimethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
n-Propylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 8:38:00 PM
Surr: 1,2-Dichloroethane-d4	**92.6**	64.8-130		%REC	1	11/7/2018 8:38:00 PM
Surr: 4-Bromofluorobenzene	**96.4**	76.8-122		%REC	1	11/7/2018 8:38:00 PM
Surr: Toluene-d8	**104**	78.5-120		%REC	1	11/7/2018 8:38:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**19.7**	0.1		wt%	1	11/15/2018

CLIENT:	OSC Inc	**Client Sample ID:**	Composite Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3545A - 11/8/2018)						
4,4´-DDD	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
4,4´-DDE	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
4,4´-DDT	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Aldrin	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
alpha-BHC	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
alpha-Chlordane	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
beta-BHC	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
delta-BHC	**ND**	2.0	S	µg/Kg-dry	1	11/8/2018 10:07:33 PM
Dieldrin	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Endosulfan I	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Endosulfan II	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Endosulfan sulfate	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Endrin	**ND**	3.9		µg/Kg-dry	1	11/8/2018 10:07:33 PM
gamma-BHC	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Heptachlor	**ND**	2.0		µg/Kg-dry	1	11/8/2018 10:07:33 PM
Surr: Decachlorobiphenyl	**102**	48.1-135		%REC	1	11/8/2018 10:07:33 PM
Surr: Tetrachloro-m-xylene	**106**	44.6-139		%REC	1	11/8/2018 10:07:33 PM
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 11/8/2018)						
Aroclor 1016	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1221	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1232	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1242	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1248	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1254	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1260	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1262	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Aroclor 1268	**ND**	39		µg/Kg-dry	1	11/8/2018 7:19:38 PM
Surr: Decachlorobiphenyl	**88.6**	48.1-152		%REC	1	11/8/2018 7:19:38 PM
CHLORINATED HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3545A - 11/8/2018)						
2,4,5-TP (Silvex)	**ND**	353		µg/Kg-dry	1	11/8/2018 9:32:06 PM
Surr: Acifluorfen	**121**	51.2-145		%REC	1	11/8/2018 9:32:06 PM
ICP METALS-EPA 6010C						Analyst: **WB**
(Prep: SW3050B - 11/7/2018)						
Arsenic	**ND**	0.294	N	µg/g-dry	1	11/13/2018 2:26:01 PM
Barium	**116**	0.588		µg/g-dry	1	11/13/2018 2:26:01 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	Composite Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP METALS-EPA 6010C						Analyst: **WB**
(Prep: SW3050B - 11/7/2018)						
Beryllium	**0.334**	0.294		µg/g-dry	1	11/13/2018 2:26:01 PM
Cadmium	**3.11**	0.294		µg/g-dry	1	11/13/2018 2:26:01 PM
Chromium	**16.1**	0.294		µg/g-dry	1	11/13/2018 2:26:01 PM
Copper	**17.4**	0.294	N	µg/g-dry	1	11/13/2018 2:26:01 PM
Lead	**17.0**	0.294		µg/g-dry	1	11/13/2018 2:26:01 PM
Manganese	**1170**	5.88		µg/g-dry	10	11/13/2018 2:30:18 PM
Manganese	**931**	0.588		µg/g-dry	1	11/13/2018 2:26:01 PM
Nickel	**20.1**	2.94		µg/g-dry	1	11/13/2018 2:26:01 PM
Selenium	**ND**	0.294		µg/g-dry	1	11/13/2018 2:26:01 PM
Silver	**ND**	1.18	N	µg/g-dry	1	11/13/2018 2:26:01 PM
Zinc	**16.0**	0.588	N	µg/g-dry	1	11/13/2018 2:26:01 PM
MERCURY - SW 7471B						Analyst: **AVB**
(Prep: SW7471B - 11/7/2018)						
Mercury	**0.046**	0.024		µg/g-dry	1	11/7/2018 2:09:51 PM
SEMI-VOLATILE ORGANICS - EPA 8270D						Analyst: **MT**
(Prep: SW3545A - 11/15/2018)						
Phenol	**ND**	290		µg/Kg-dry	1	11/19/2018 7:59:00 PM
2-Methylphenol	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
4-Methylphenol & 3-Methlyphenol	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Naphthalene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Acenaphthylene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Acenaphthene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Dibenzofuran	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Fluorene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Hexachlorobenzene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Pentachlorophenol	**ND**	2000		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Phenanthrene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Anthracene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Fluoranthene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Pyrene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Benz(a)anthracene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Chrysene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Benzo(b)fluoranthene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Benzo(k)fluoranthene	**ND**	290		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Benzo(a)pyrene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Indeno(1,2,3-cd)pyrene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Dibenz(a,h)anthracene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM
Benzo(g,h,i)perylene	**ND**	390		µg/Kg-dry	1	11/19/2018 7:59:00 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	Composite Top Soil
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILE ORGANICS - EPA 8270D						Analyst: **MT**
(Prep: SW3545A - 11/15/2018)						
Surr: 2,4,6-Tribromophenol	**53.0**	26.5-126		%REC	1	11/19/2018 7:59:00 PM
Surr: 2-Fluorobiphenyl	**55.6**	32-136		%REC	1	11/19/2018 7:59:00 PM
Surr: 2-Fluorophenol	**26.3**	30.3-104	S	%REC	1	11/19/2018 7:59:00 PM
Surr: 4-Terphenyl-d14	**66.9**	30.1-145		%REC	1	11/19/2018 7:59:00 PM
Surr: Nitrobenzene-d5	**39.9**	19.5-123		%REC	1	11/19/2018 7:59:00 PM
Surr: Phenol-d5	**29.9**	27-122		%REC	1	11/19/2018 7:59:00 PM
CYANIDE, TOTAL - SW 9012B						Analyst: **KB**
(Prep: 9010C - 11/9/2018)						
Cyanide	**ND**	0.59		µg/g-dry	1	11/9/2018 3:55:15 PM
HEXAVALENT CHROMIUM - SW 7196A (3060A)						Analyst: **DAA**
(Prep: SW3060A - 11/9/2018)						
Chromium, Hexavalent	**ND**	1.2	N	µg/g-dry	1	11/13/2018 9:24:00 AM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**14.9**	0.1		wt%	1	11/15/2018

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	F001
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-005
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 11/9/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	11/9/2018 12:46:36 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 11/8/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	11/12/2018 12:51:48 PM
Barium-TCLP	**0.912**	0.100		mg/L	1	11/12/2018 12:51:48 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	11/12/2018 12:51:48 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	11/12/2018 12:51:48 PM
Lead-TCLP	**ND**	0.050		mg/L	1	11/12/2018 12:51:48 PM
Selenium-TCLP	**ND**	0.050		mg/L	1	11/12/2018 12:51:48 PM
Silver-TCLP	**ND**	0.100		mg/L	1	11/12/2018 12:51:48 PM
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Chloromethane	**ND**	11	SC	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Bromomethane	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Vinyl chloride	**ND**	11	SC	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Chloroethane	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Methylene chloride	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Acetone	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Carbon disulfide	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1-Dichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
trans-1,2-Dichloroethene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
cis-1,2-Dichloroethene	**ND**	6	C	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Chloroform	**ND**	6	C	µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2-Dichloroethane	**ND**	6	C	µg/Kg-dry	1	11/7/2018 6:39:00 PM
2-Butanone	**ND**	11	SC	µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1,1-Trichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Carbon tetrachloride	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Bromodichloromethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2-Dichloropropane	**ND**	6	S	µg/Kg-dry	1	11/7/2018 6:39:00 PM
cis-1,3-Dichloropropene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Trichloroethene	**1700**	6	ZE	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Dibromochloromethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1,2-Trichloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Benzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
trans-1,3-Dichloropropene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Bromoform	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
4-Methyl-2-pentanone	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	F001
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-005
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
2-Hexanone	**ND**	11	C	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Tetrachloroethene	**34**	6	Z	µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1,2,2-Tetrachloroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Toluene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Chlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Ethylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Styrene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
m,p-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
o-Xylene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Methyl tert-butyl ether	**ND**	6	C	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Dichlorodifluoromethane	**ND**	6	SC	µg/Kg-dry	1	11/7/2018 6:39:00 PM
Methyl Acetate	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Trichlorofluoromethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Cyclohexane	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Methyl Cyclohexane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2-Dibromoethane	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,3-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Isopropylbenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,4-Dichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2-Dibromo-3-chloropropane	**ND**	11		µg/Kg-dry	1	11/7/2018 6:39:00 PM
1,2,4-Trichlorobenzene	**ND**	6		µg/Kg-dry	1	11/7/2018 6:39:00 PM
Surr: 1,2-Dichloroethane-d4	**97.9**	64.8-130		%REC	1	11/7/2018 6:39:00 PM
Surr: 4-Bromofluorobenzene	**116**	76.8-122		%REC	1	11/7/2018 6:39:00 PM
Surr: Toluene-d8	**124**	78.5-120	S	%REC	1	11/7/2018 6:39:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**12.9**	0.1		wt%	1	11/15/2018

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC1 Non-Haz
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 11/8/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	11/8/2018 1:17:38 PM
TCLP METALS - SW1311/6010C						Analyst: **KH**
(Prep: SW1311 - 11/7/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	11/8/2018 1:22:42 PM
Barium-TCLP	**0.657**	0.100		mg/L	1	11/8/2018 1:22:42 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	11/8/2018 1:22:42 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	11/8/2018 1:22:42 PM
Lead-TCLP	**0.058**	0.050		mg/L	1	11/8/2018 1:22:42 PM
Selenium-TCLP	**ND**	0.050		mg/L	1	11/8/2018 1:22:42 PM
Silver-TCLP	**ND**	0.100		mg/L	1	11/8/2018 1:22:42 PM
TCLP SEMI-VOLATILES AS TOTALS - EPA 8270D						Analyst: **MT**
(Prep: SW3545A - 11/15/2018)						
1,4-Dichlorobenzene	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
2,4,5-Trichlorophenol	**ND**	1.80		µg/g-dry	1	11/20/2018 12:45:00 PM
2,4,6-Trichlorophenol	**ND**	1.80		µg/g-dry	1	11/20/2018 12:45:00 PM
2,4-Dinitrotoluene	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
2-Methylphenol	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
4-Methylphenol & 3-Methlyphenol	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
Hexachlorobenzene	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
Hexachlorobutadiene	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
Hexachloroethane	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
Nitrobenzene	**ND**	0.36		µg/g-dry	1	11/20/2018 12:45:00 PM
Pentachlorophenol	**ND**	1.80		µg/g-dry	1	11/20/2018 12:45:00 PM
Pyridine	**ND**	1.80		µg/g-dry	1	11/20/2018 12:45:00 PM
Surr: 2,4,6-Tribromophenol	**66.2**	33.2-123		%REC	1	11/20/2018 12:45:00 PM
Surr: 2-Fluorobiphenyl	**59.8**	40.6-136		%REC	1	11/20/2018 12:45:00 PM
Surr: 2-Fluorophenol	**41.1**	12.7-110		%REC	1	11/20/2018 12:45:00 PM
Surr: 4-Terphenyl-d14	**66.8**	42.7-151		%REC	1	11/20/2018 12:45:00 PM
Surr: Nitrobenzene-d5	**47.1**	41.8-113		%REC	1	11/20/2018 12:45:00 PM
Surr: Phenol-d5	**38.4**	28.3-114		%REC	1	11/20/2018 12:45:00 PM
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Chloromethane	**ND**	11	SNC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Bromomethane	**ND**	11	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Vinyl chloride	**ND**	11	SNC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Chloroethane	**ND**	11		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Methylene chloride	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC1 Non-Haz
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
Acetone	**ND**	11		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Carbon disulfide	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1-Dichloroethene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1-Dichloroethane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
trans-1,2-Dichloroethene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
cis-1,2-Dichloroethene	**7**	5	NC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Chloroform	**ND**	5	NC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,2-Dichloroethane	**ND**	5	NC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
2-Butanone	**ND**	11	SNC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1,1-Trichloroethane	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Carbon tetrachloride	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Bromodichloromethane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,2-Dichloropropane	**ND**	5	S	µg/Kg-dry	1	11/7/2018 7:26:00 PM
cis-1,3-Dichloropropene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Trichloroethene	**780**	5	EN	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Dibromochloromethane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1,2-Trichloroethane	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Benzene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
trans-1,3-Dichloropropene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Bromoform	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
4-Methyl-2-pentanone	**ND**	11	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
2-Hexanone	**ND**	11	NC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Tetrachloroethene	**37**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1,2,2-Tetrachloroethane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Toluene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Chlorobenzene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Ethylbenzene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Styrene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
m,p-Xylene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
o-Xylene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Methyl tert-butyl ether	**ND**	5	C	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Dichlorodifluoromethane	**ND**	5	SNC	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Methyl Acetate	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Trichlorofluoromethane	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM
Cyclohexane	**ND**	11	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Methyl Cyclohexane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,2-Dibromoethane	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,3-Dichlorobenzene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Isopropylbenzene	**ND**	5		µg/Kg-dry	1	11/7/2018 7:26:00 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC1 Non-Haz
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS-EPA 8260C (SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/7/2018)						
1,2-Dichlorobenzene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,4-Dichlorobenzene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,2-Dibromo-3-chloropropane	**ND**	11	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
1,2,4-Trichlorobenzene	**ND**	5	N	µg/Kg-dry	1	11/7/2018 7:26:00 PM
Surr: 1,2-Dichloroethane-d4	**105**	64.8-130		%REC	1	11/7/2018 7:26:00 PM
Surr: 4-Bromofluorobenzene	**110**	76.8-122		%REC	1	11/7/2018 7:26:00 PM
Surr: Toluene-d8	**123**	78.5-120	S	%REC	1	11/7/2018 7:26:00 PM
TCLP VOLATILES AS TOTALS - EPA 8260C(SW5035A PREP)						Analyst: **SMD**
(Prep: SW5035A - 11/14/2018)						
1,1-Dichloroethene	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
1,2-Dichloroethane	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
1,4-Dichlorobenzene	**ND**	0.90		µg/g-dry	50	11/14/2018 4:21:00 PM
2-Butanone	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
Benzene	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
Carbon tetrachloride	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
Chlorobenzene	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
Chloroform	**ND**	0.45		µg/g-dry	50	11/14/2018 4:21:00 PM
Tetrachloroethene	**ND**	4.50		µg/g-dry	50	11/14/2018 4:21:00 PM
Trichloroethene	**2.41**	0.45	N	µg/g-dry	50	11/14/2018 4:21:00 PM
Vinyl chloride	**ND**	0.18		µg/g-dry	50	11/14/2018 4:21:00 PM
Surr: 1,2-Dichloroethane-d4	**89.7**	78.8-124		%REC	50	11/14/2018 4:21:00 PM
Surr: 4-Bromofluorobenzene	**97.8**	74.1-129		%REC	50	11/14/2018 4:21:00 PM
Surr: Toluene-d8	**90.0**	81.6-116		%REC	50	11/14/2018 4:21:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**10.9**	0.1		wt%	1	11/16/2018
CORROSIVITY - SW 9040C						Analyst: **DAA**
Corrosivity	**Non Corrosive**	1.0			1	11/8/2018
IGNITABILITY - SW 1030						Analyst: **CA**
Ignitability	**Not Ignitable**	0			1	11/14/2018
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED						Analyst: **KB**
(Prep: E335.4 - 11/19/2018)						
Reactive Cyanide	**ND**	1.0		µg/g	1	11/20/2018 2:01:30 PM

Adirondack Environmental Services, Inc

Date: *21-Nov-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC1 Non-Haz
Work Order:	**181107001**	**Collection Date:**	11/6/2018
Reference:	OSC Soil Characterization /	**Lab Sample ID:**	181107001-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	11/21/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	11/21/2018

Adirondack Environmental Services Inc
314 North Pearl Street
Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

EXPERIENCE IS THE SOLUTION

CHAIN OF CUSTODY RECORD

AES Work Order#: 18110 7001

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: OSC	Address:	
Send Report to: Dan Flanigan	Project Name (Location): OSC Soil Characterization	Samplers Name: K. Amba
Client Phone No: 716-856-3333	PO #:	Samplers Signature:
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	Grab 1 Topsoil	11/6/18	0810	A/P	Soil		X	3	DER-10 VOC, PMOIST
002	Grab 2 Topsoil		0815	A/P			X	3	DER-10 VOC, PMOIST
003	Grab 3 Topsoil		0820	A/P			X	3	DER-10 VOC PMOIST
004	Composite Topsoil		0823	A/P		X		1	DER-10 Part 375 Metals, SVOCs, Pest (Incl Silvex) PCBs, Hex Chrom
005	F001		0918 ~~0850~~	A/P			X	3	PMoist, ~~DER-10~~ VOC, TCLP-Metals
006	AOC1 Non-haz		0856	A/P			X	3	PMoist, ~~DER-10~~ VOC,
				A/P					TCLP-Metals, ~~HAL~~ TCLP-VOC,
				A/P					TCLP-SVOC, Ignitability
				A/P					Corrosivity, Reactivity
				A/P					
				A/P					
				A/P					
				A/P					

Shipment Arrived Via:
FedEx UPS Client (AES) Other: _____

Special Instructions/Remarks:

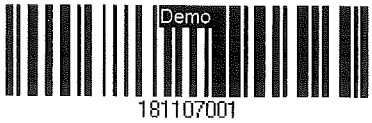
Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☑ Normal
☐ 2 Day ☐ 5 Day

		Date	Time
Relinquished by: (Signature)	Received by: (Signature)	11/06	3:10pm
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received for Laboratory by:	Date 11/7/18	Time 7:18 Am

Sample Temperature
Ambient (Chilled)
Chilling Process begun
Notes: 5°C

Properly Preserved
(Y) N
Notes:

Received Within Holding Times
(Y) N
Notes:



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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

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December 06, 2018

Dan Flanigan
OSC Inc
333 Ganson Street
Buffalo, NY 14203

TEL: (716) 856-3333

Work Order No: 181129007

RE:
Ithaca Site Soil

Dear Dan Flanigan:

Adirondack Environmental Services, Inc received 2 samples on 11/29/2018 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Krzysztof Trafalski
Laboratory Manager

Adirondack Environmental Services, Inc CASE NARRATIVE

CLIENT: OSC Inc **Date:** *06-Dec-18*

Project:

Lab Order: 181129007

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:

- ND : Not Detected at reporting limit
- J: Analyte detected below quantitation limit
- B: Analyte detected in Blank
- X : Exceeds maximum contamination limit
- H: Hold time exceeded
- N: Matrix Spike below acceptable limits
- N+: Matrix Spike is above acceptable limits
- C: CCV below acceptable Limits
- C+: CCV above acceptable Limits
- S: LCS Spike recovery is below acceptable limits
- S+: LCS Spike recovery is above acceptable limits
- Z: Duplication outside acceptable limits
- T : Tentatively Identified Compound-Estimated
- E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *06-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC-1 Non-Haz-1
Work Order:	**181129007**	**Collection Date:**	11/28/2018
Reference:	/ Ithaca Site Soil	**Lab Sample ID:**	181129007-001
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/4/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
2-Butanone-TCLP	**ND**	200		µg/L	20	12/6/2018 4:47:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/6/2018 4:47:00 AM
Surr: 1,2-Dichloroethane-d4	**91.5**	84.3-123		%REC	20	12/6/2018 4:47:00 AM
Surr: 4-Bromofluorobenzene	**84.4**	80.6-121		%REC	20	12/6/2018 4:47:00 AM
Surr: Toluene-d8	**91.9**	83.6-113		%REC	20	12/6/2018 4:47:00 AM

Adirondack Environmental Services, Inc

Date: *06-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC-1 Non-Haz-2
Work Order:	**181129007**	**Collection Date:**	11/28/2018
Reference:	/ Ithaca Site Soil	**Lab Sample ID:**	181129007-002
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/4/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
2-Butanone-TCLP	**ND**	200		µg/L	20	12/6/2018 5:08:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/6/2018 5:08:00 AM
Surr: 1,2-Dichloroethane-d4	**90.6**	84.3-123		%REC	20	12/6/2018 5:08:00 AM
Surr: 4-Bromofluorobenzene	**94.4**	80.6-121		%REC	20	12/6/2018 5:08:00 AM
Surr: Toluene-d8	**95.2**	83.6-113		%REC	20	12/6/2018 5:08:00 AM

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Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

EXPERIENCE IS THE SOLUTION

CHAIN OF CUSTODY RECORD

AES Work Order#: 181129007

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: OSC, Inc	Address:	
Send Report to: Alex Tripevski	Project Name (Location): Ithaca Site Soil	Samplers Name: K. Amba
Client Phone No:	PO #:	Samplers Signature:
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	AOC-1 Non-Haz - 1	11/28/18	1253	A/P	Soil		X	1	TCLP-VOC
002	AOC-1 Non-Haz - 2	11/28/18	1258	A/P	Soil		X	1	TCLP-VOC
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					
				A/P					

Shipment Arrived Via:
(FedEx) UPS Client AES Other:_____

Special Instructions/Remarks:

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☐ Normal
☐ 2 Day ☐ 5 Day

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	**Received for Laboratory by:** Kaitlin Nazarko	Date 11/29/18	Time 9:54am

Sample Temperature	Properly Preserved	Received Within Holding Times
Ambient (Chilled)	(Y) N	(Y) N
Chilling Process begun		
Notes: 5°C	Notes:	Notes:

181129007

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(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

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December 20, 2018

Alen Trpevski
OSC Inc
333 Ganson Street
Buffalo, NY 14203

TEL: (716) 856-3333

Work Order No: 181205057

RE: Laboratory Analysis
Ithaca Site Soil

Dear Alen Trpevski:

Adirondack Environmental Services, Inc received 14 samples on 12/5/2018 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Krzysztof Trafalski
Laboratory Manager

Adirondack Environmental Services, Inc CASE NARRATIVE

CLIENT:	OSC Inc	**Date:**	*20-Dec-18*
Project:	Laboratory Analysis		
Lab Order:	181205057		

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

This report has been updated to correct the sample ID for AOC 30 Deep.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:

ND : Not Detected at reporting limit	C: CCV below acceptable Limits
J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
H: Hold time exceeded	Z: Duplication outside acceptable limits
N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35K
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-001
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1221	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1232	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1242	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1248	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1254	**70**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1260	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1262	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Aroclor 1268	**ND**	37		µg/Kg-dry	1	12/6/2018 3:11:42 PM
Surr: Decachlorobiphenyl	**49.8**	48.1-152		%REC	1	12/6/2018 3:11:42 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:12:09 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:12:09 PM
Surr: Acifluorfen	**125**	52.5-128		%REC	1	12/7/2018 8:12:09 PM
Surr: DCAA	**108**	56.2-139		%REC	1	12/7/2018 8:12:09 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 3:28:51 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:28:51 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:28:51 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:28:51 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:28:51 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 3:28:51 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 3:28:51 PM
Surr: Decachlorobiphenyl-TCLP	**44.0**	51.5-141	S	%REC	1	12/10/2018 3:28:51 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:47:53 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 1:54:09 PM
Barium-TCLP	**0.435**	0.100		mg/L	1	12/7/2018 1:54:09 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 1:54:09 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 1:54:09 PM
Lead-TCLP	**0.165**	0.050		mg/L	1	12/7/2018 1:54:09 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35K
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-001
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 1:54:09 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 1:54:09 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 6:05:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 6:05:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 6:05:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 6:05:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 6:05:00 PM
Surr: 2,4,6-Tribromophenol	**84.4**	43.7-123		%REC	1	12/13/2018 6:05:00 PM
Surr: 2-Fluorobiphenyl	**77.5**	48.7-108		%REC	1	12/13/2018 6:05:00 PM
Surr: 2-Fluorophenol	**80.4**	23.5-101		%REC	1	12/13/2018 6:05:00 PM
Surr: 4-Terphenyl-d14	**71.9**	50.6-121		%REC	1	12/13/2018 6:05:00 PM
Surr: Nitrobenzene-d5	**61.9**	43.7-109		%REC	1	12/13/2018 6:05:00 PM
Surr: Phenol-d6	**72.9**	12.6-93.5		%REC	1	12/13/2018 6:05:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/6/2018)						
1,1-Dichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
1,2-Dichloroethane-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
2-Butanone-TCLP	**ND**	100		µg/L	10	12/11/2018 5:22:00 PM
Benzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Carbon tetrachloride-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Chlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Chloroform-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Tetrachloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Trichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Vinyl chloride-TCLP	**ND**	50		µg/L	10	12/11/2018 5:22:00 PM
Surr: 1,2-Dichloroethane-d4	**94.3**	84.3-123		%REC	10	12/11/2018 5:22:00 PM
Surr: 4-Bromofluorobenzene	**106**	80.6-121		%REC	10	12/11/2018 5:22:00 PM
Surr: Toluene-d8	**98.2**	83.6-113		%REC	10	12/11/2018 5:22:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35K
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-001
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.1**	1.0		pH Units@69F	1	12/11/2018 2:30:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**10.8**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/11/2018
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:49:41 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28Lower
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-002
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1221	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1232	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1242	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1248	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1254	**160**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1260	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1262	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Aroclor 1268	**ND**	36		µg/Kg-dry	1	12/6/2018 2:32:22 PM
Surr: Decachlorobiphenyl	**73.8**	48.1-152		%REC	1	12/6/2018 2:32:22 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:32:33 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:32:33 PM
Surr: Acifluorfen	**95.1**	52.5-128		%REC	1	12/7/2018 8:32:33 PM
Surr: DCAA	**76.5**	56.2-139		%REC	1	12/7/2018 8:32:33 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 3:46:46 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:46:46 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:46:46 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:46:46 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 3:46:46 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 3:46:46 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 3:46:46 PM
Surr: Decachlorobiphenyl-TCLP	**66.0**	51.5-141		%REC	1	12/10/2018 3:46:46 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:49:33 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:02:14 PM
Barium-TCLP	**0.313**	0.100		mg/L	1	12/7/2018 2:02:14 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:02:14 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:02:14 PM
Lead-TCLP	**0.140**	0.050		mg/L	1	12/7/2018 2:02:14 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28Lower
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-002
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:02:14 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:02:14 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 6:30:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 6:30:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 6:30:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 6:30:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 6:30:00 PM
Surr: 2,4,6-Tribromophenol	**66.0**	43.7-123		%REC	1	12/13/2018 6:30:00 PM
Surr: 2-Fluorobiphenyl	**72.3**	48.7-108		%REC	1	12/13/2018 6:30:00 PM
Surr: 2-Fluorophenol	**85.2**	23.5-101		%REC	1	12/13/2018 6:30:00 PM
Surr: 4-Terphenyl-d14	**48.8**	50.6-121	S	%REC	1	12/13/2018 6:30:00 PM
Surr: Nitrobenzene-d5	**65.9**	43.7-109		%REC	1	12/13/2018 6:30:00 PM
Surr: Phenol-d6	**74.3**	12.6-93.5		%REC	1	12/13/2018 6:30:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/6/2018)						
1,1-Dichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
1,2-Dichloroethane-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
2-Butanone-TCLP	**ND**	100		µg/L	10	12/11/2018 5:46:00 PM
Benzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Carbon tetrachloride-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Chlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Chloroform-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Tetrachloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Trichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Vinyl chloride-TCLP	**ND**	50		µg/L	10	12/11/2018 5:46:00 PM
Surr: 1,2-Dichloroethane-d4	**96.4**	84.3-123		%REC	10	12/11/2018 5:46:00 PM
Surr: 4-Bromofluorobenzene	**108**	80.6-121		%REC	10	12/11/2018 5:46:00 PM
Surr: Toluene-d8	**100**	83.6-113		%REC	10	12/11/2018 5:46:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28Lower
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-002
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.5**	1.0		pH Units@71F	1	12/11/2018 2:30:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**9.4**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/11/2018
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:51:28 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28 Upper
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-003
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1221	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1232	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1242	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1248	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1254	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1260	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1262	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Aroclor 1268	**ND**	38		µg/Kg-dry	1	12/6/2018 3:51:00 PM
Surr: Decachlorobiphenyl	**80.6**	48.1-152		%REC	1	12/6/2018 3:51:00 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:52:58 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/7/2018 8:52:58 PM
Surr: Acifluorfen	**107**	52.5-128		%REC	1	12/7/2018 8:52:58 PM
Surr: DCAA	**88.1**	56.2-139		%REC	1	12/7/2018 8:52:58 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:04:35 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:04:35 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:04:35 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:04:35 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:04:35 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:04:35 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 4:04:35 PM
Surr: Decachlorobiphenyl-TCLP	**58.0**	51.5-141		%REC	1	12/10/2018 4:04:35 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:54:38 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:17:09 PM
Barium-TCLP	**1.21**	0.100		mg/L	1	12/7/2018 2:17:09 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:17:09 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:17:09 PM
Lead-TCLP	**0.133**	0.050		mg/L	1	12/7/2018 2:17:09 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28 Upper
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-003
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:17:09 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:17:09 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 6:56:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 6:56:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 6:56:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 6:56:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 6:56:00 PM
Surr: 2,4,6-Tribromophenol	**81.1**	43.7-123		%REC	1	12/13/2018 6:56:00 PM
Surr: 2-Fluorobiphenyl	**80.9**	48.7-108		%REC	1	12/13/2018 6:56:00 PM
Surr: 2-Fluorophenol	**80.5**	23.5-101		%REC	1	12/13/2018 6:56:00 PM
Surr: 4-Terphenyl-d14	**74.7**	50.6-121		%REC	1	12/13/2018 6:56:00 PM
Surr: Nitrobenzene-d5	**61.1**	43.7-109		%REC	1	12/13/2018 6:56:00 PM
Surr: Phenol-d6	**69.5**	12.6-93.5		%REC	1	12/13/2018 6:56:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/6/2018)						
1,1-Dichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
1,2-Dichloroethane-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
2-Butanone-TCLP	**ND**	100		µg/L	10	12/11/2018 6:10:00 PM
Benzene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Carbon tetrachloride-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Chlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Chloroform-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Tetrachloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Trichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Vinyl chloride-TCLP	**ND**	50		µg/L	10	12/11/2018 6:10:00 PM
Surr: 1,2-Dichloroethane-d4	**101**	84.3-123		%REC	10	12/11/2018 6:10:00 PM
Surr: 4-Bromofluorobenzene	**99.9**	80.6-121		%REC	10	12/11/2018 6:10:00 PM
Surr: Toluene-d8	**103**	83.6-113		%REC	10	12/11/2018 6:10:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 28 Upper
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-003
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.0**	1.0		pH Units@71F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**12.6**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:53:14 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1221	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1232	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1242	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1248	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1254	**55**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1260	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1262	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Aroclor 1268	**ND**	34		µg/Kg-dry	1	12/6/2018 4:04:06 PM
Surr: Decachlorobiphenyl	**76.8**	48.1-152		%REC	1	12/6/2018 4:04:06 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/7/2018 9:13:24 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/7/2018 9:13:24 PM
Surr: Acifluorfen	**102**	52.5-128		%REC	1	12/7/2018 9:13:24 PM
Surr: DCAA	**86.9**	56.2-139		%REC	1	12/7/2018 9:13:24 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:22:30 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:22:30 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:22:30 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:22:30 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:22:30 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:22:30 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 4:22:30 PM
Surr: Decachlorobiphenyl-TCLP	**46.0**	51.5-141	S	%REC	1	12/10/2018 4:22:30 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:56:19 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:25:21 PM
Barium-TCLP	**0.740**	0.100		mg/L	1	12/7/2018 2:25:21 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:25:21 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:25:21 PM
Lead-TCLP	**0.113**	0.050		mg/L	1	12/7/2018 2:25:21 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:25:21 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:25:21 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 7:21:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 7:21:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 7:21:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 7:21:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 7:21:00 PM
Surr: 2,4,6-Tribromophenol	**66.4**	43.7-123		%REC	1	12/13/2018 7:21:00 PM
Surr: 2-Fluorobiphenyl	**64.4**	48.7-108		%REC	1	12/13/2018 7:21:00 PM
Surr: 2-Fluorophenol	**72.9**	23.5-101		%REC	1	12/13/2018 7:21:00 PM
Surr: 4-Terphenyl-d14	**49.3**	50.6-121	S	%REC	1	12/13/2018 7:21:00 PM
Surr: Nitrobenzene-d5	**58.1**	43.7-109		%REC	1	12/13/2018 7:21:00 PM
Surr: Phenol-d6	**62.8**	12.6-93.5		%REC	1	12/13/2018 7:21:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/10/2018)						
1,1-Dichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
1,2-Dichloroethane-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
2-Butanone-TCLP	**ND**	100		µg/L	10	12/11/2018 8:09:00 PM
Benzene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Carbon tetrachloride-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Chlorobenzene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Chloroform-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Tetrachloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Trichloroethene-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Vinyl chloride-TCLP	**ND**	50		µg/L	10	12/11/2018 8:09:00 PM
Surr: 1,2-Dichloroethane-d4	**97.8**	84.3-123		%REC	10	12/11/2018 8:09:00 PM
Surr: 4-Bromofluorobenzene	**95.5**	80.6-121		%REC	10	12/11/2018 8:09:00 PM
Surr: Toluene-d8	**103**	83.6-113		%REC	10	12/11/2018 8:09:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-004
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.2**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**7.5**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:54:56 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30 Deep
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-005
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1221	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1232	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1242	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1248	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1254	**12000**	360	Z	µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1260	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1262	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Aroclor 1268	**ND**	360		µg/Kg-dry	10	12/10/2018 2:30:56 PM
Surr: Decachlorobiphenyl	**120**	48.1-152		%REC	10	12/10/2018 2:30:56 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/11/2018 1:49:47 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 1:49:47 PM
Surr: Acifluorfen	**120**	52.5-128		%REC	1	12/11/2018 1:49:47 PM
Surr: DCAA	**104**	56.2-139		%REC	1	12/11/2018 1:49:47 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:40:22 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:40:22 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:40:22 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:40:22 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:40:22 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:40:22 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 4:40:22 PM
Surr: Decachlorobiphenyl-TCLP	**64.0**	51.5-141		%REC	1	12/10/2018 4:40:22 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:57:59 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:33:32 PM
Barium-TCLP	**2.08**	0.100		mg/L	1	12/7/2018 2:33:32 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:33:32 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:33:32 PM
Lead-TCLP	**0.133**	0.050		mg/L	1	12/7/2018 2:33:32 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30 Deep
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-005
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:33:32 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:33:32 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 7:47:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 7:47:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 7:47:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 7:47:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 7:47:00 PM
Surr: 2,4,6-Tribromophenol	**61.6**	43.7-123		%REC	1	12/13/2018 7:47:00 PM
Surr: 2-Fluorobiphenyl	**62.5**	48.7-108		%REC	1	12/13/2018 7:47:00 PM
Surr: 2-Fluorophenol	**71.8**	23.5-101		%REC	1	12/13/2018 7:47:00 PM
Surr: 4-Terphenyl-d14	**47.7**	50.6-121	S	%REC	1	12/13/2018 7:47:00 PM
Surr: Nitrobenzene-d5	**57.2**	43.7-109		%REC	1	12/13/2018 7:47:00 PM
Surr: Phenol-d6	**65.0**	12.6-93.5		%REC	1	12/13/2018 7:47:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/12/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
2-Butanone-TCLP	**ND**	200	S	µg/L	20	12/14/2018 11:20:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/14/2018 11:20:00 AM
Surr: 1,2-Dichloroethane-d4	**86.4**	84.3-123		%REC	20	12/14/2018 11:20:00 AM
Surr: 4-Bromofluorobenzene	**95.0**	80.6-121		%REC	20	12/14/2018 11:20:00 AM
Surr: Toluene-d8	**101**	83.6-113		%REC	20	12/14/2018 11:20:00 AM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 30 Deep
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-005
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.4**	1.0		pH Units@71F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**8.1**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:56:39 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 29
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1221	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1232	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1242	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1248	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1254	**81**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1260	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1262	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Aroclor 1268	**ND**	38		µg/Kg-dry	1	12/6/2018 4:30:15 PM
Surr: Decachlorobiphenyl	**79.6**	48.1-152		%REC	1	12/6/2018 4:30:15 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:12:09 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:12:09 PM
Surr: Acifluorfen	**112**	52.5-128		%REC	1	12/11/2018 2:12:09 PM
Surr: DCAA	**98.5**	56.2-139		%REC	1	12/11/2018 2:12:09 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:58:19 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:58:19 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:58:19 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:58:19 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 4:58:19 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 4:58:19 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 4:58:19 PM
Surr: Decachlorobiphenyl-TCLP	**50.0**	51.5-141	S	%REC	1	12/10/2018 4:58:19 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 2:59:40 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:41:39 PM
Barium-TCLP	**0.701**	0.100		mg/L	1	12/7/2018 2:41:39 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:41:39 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:41:39 PM
Lead-TCLP	**0.143**	0.050		mg/L	1	12/7/2018 2:41:39 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 29
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:41:39 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:41:39 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 8:12:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 8:12:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 8:12:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 8:12:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 8:12:00 PM
Surr: 2,4,6-Tribromophenol	**69.9**	43.7-123		%REC	1	12/13/2018 8:12:00 PM
Surr: 2-Fluorobiphenyl	**77.3**	48.7-108		%REC	1	12/13/2018 8:12:00 PM
Surr: 2-Fluorophenol	**75.2**	23.5-101		%REC	1	12/13/2018 8:12:00 PM
Surr: 4-Terphenyl-d14	**69.4**	50.6-121		%REC	1	12/13/2018 8:12:00 PM
Surr: Nitrobenzene-d5	**59.2**	43.7-109		%REC	1	12/13/2018 8:12:00 PM
Surr: Phenol-d6	**65.9**	12.6-93.5		%REC	1	12/13/2018 8:12:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/12/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
2-Butanone-TCLP	**ND**	200	S	µg/L	20	12/14/2018 11:41:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/14/2018 11:41:00 AM
Surr: 1,2-Dichloroethane-d4	**84.4**	84.3-123		%REC	20	12/14/2018 11:41:00 AM
Surr: 4-Bromofluorobenzene	**96.9**	80.6-121		%REC	20	12/14/2018 11:41:00 AM
Surr: Toluene-d8	**104**	83.6-113		%REC	20	12/14/2018 11:41:00 AM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 29
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-006
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.1**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**12.4**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 1:58:21 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35D
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-007
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1221	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1232	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1242	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1248	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1254	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1260	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1262	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Aroclor 1268	**ND**	40		µg/Kg-dry	1	12/6/2018 4:43:20 PM
Surr: Decachlorobiphenyl	**70.2**	48.1-152		%REC	1	12/6/2018 4:43:20 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:34:31 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:34:31 PM
Surr: Acifluorfen	**71.9**	52.5-128		%REC	1	12/11/2018 2:34:31 PM
Surr: DCAA	**67.0**	56.2-139		%REC	1	12/11/2018 2:34:31 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 5:16:10 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:16:10 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:16:10 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:16:10 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:16:10 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 5:16:10 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 5:16:10 PM
Surr: Decachlorobiphenyl-TCLP	**66.0**	51.5-141		%REC	1	12/10/2018 5:16:10 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 3:01:21 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:49:47 PM
Barium-TCLP	**0.281**	0.100		mg/L	1	12/7/2018 2:49:47 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:49:47 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:49:47 PM
Lead-TCLP	**0.203**	0.050		mg/L	1	12/7/2018 2:49:47 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35D
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-007
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 2:49:47 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/7/2018 2:49:47 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 8:38:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 8:38:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 8:38:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 8:38:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 8:38:00 PM
Surr: 2,4,6-Tribromophenol	**56.3**	43.7-123		%REC	1	12/13/2018 8:38:00 PM
Surr: 2-Fluorobiphenyl	**63.0**	48.7-108		%REC	1	12/13/2018 8:38:00 PM
Surr: 2-Fluorophenol	**72.4**	23.5-101		%REC	1	12/13/2018 8:38:00 PM
Surr: 4-Terphenyl-d14	**48.6**	50.6-121	S	%REC	1	12/13/2018 8:38:00 PM
Surr: Nitrobenzene-d5	**56.5**	43.7-109		%REC	1	12/13/2018 8:38:00 PM
Surr: Phenol-d6	**61.4**	12.6-93.5		%REC	1	12/13/2018 8:38:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/12/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
2-Butanone-TCLP	**ND**	200	S	µg/L	20	12/14/2018 12:24:00 PM
Benzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Chloroform-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/14/2018 12:24:00 PM
Surr: 1,2-Dichloroethane-d4	**92.8**	84.3-123		%REC	20	12/14/2018 12:24:00 PM
Surr: 4-Bromofluorobenzene	**88.2**	80.6-121		%REC	20	12/14/2018 12:24:00 PM
Surr: Toluene-d8	**102**	83.6-113		%REC	20	12/14/2018 12:24:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35D
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-007
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.0**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**17.5**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/11/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 2:00:04 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35A
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-008
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1221	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1232	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1242	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1248	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1254	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1260	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1262	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Aroclor 1268	**ND**	42		µg/Kg-dry	1	12/6/2018 4:56:25 PM
Surr: Decachlorobiphenyl	**66.2**	48.1-152		%REC	1	12/6/2018 4:56:25 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:56:54 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 2:56:54 PM
Surr: Acifluorfen	**82.5**	52.5-128		%REC	1	12/11/2018 2:56:54 PM
Surr: DCAA	**73.4**	56.2-139		%REC	1	12/11/2018 2:56:54 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/7/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 5:34:03 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:34:03 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:34:03 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:34:03 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 5:34:03 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 5:34:03 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 5:34:03 PM
Surr: Decachlorobiphenyl-TCLP	**50.0**	51.5-141	S	%REC	1	12/10/2018 5:34:03 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 3:03:03 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/7/2018 3:04:37 PM
Barium-TCLP	**0.210**	0.100		mg/L	1	12/7/2018 3:04:37 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 3:04:37 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 3:04:37 PM
Lead-TCLP	**0.129**	0.050		mg/L	1	12/7/2018 3:04:37 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35A
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-008
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/6/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/7/2018 3:04:37 PM
Silver-TCLP	**ND**	0.100	N	mg/L	1	12/7/2018 3:04:37 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 9:03:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 9:03:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 9:03:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 9:03:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 9:03:00 PM
Surr: 2,4,6-Tribromophenol	**75.9**	43.7-123		%REC	1	12/13/2018 9:03:00 PM
Surr: 2-Fluorobiphenyl	**78.3**	48.7-108		%REC	1	12/13/2018 9:03:00 PM
Surr: 2-Fluorophenol	**78.1**	23.5-101		%REC	1	12/13/2018 9:03:00 PM
Surr: 4-Terphenyl-d14	**75.3**	50.6-121		%REC	1	12/13/2018 9:03:00 PM
Surr: Nitrobenzene-d5	**61.2**	43.7-109		%REC	1	12/13/2018 9:03:00 PM
Surr: Phenol-d6	**69.4**	12.6-93.5		%REC	1	12/13/2018 9:03:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/12/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
2-Butanone-TCLP	**ND**	200	SN	µg/L	20	12/14/2018 12:46:00 PM
Benzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Chloroform-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/14/2018 12:46:00 PM
Surr: 1,2-Dichloroethane-d4	**89.6**	84.3-123		%REC	20	12/14/2018 12:46:00 PM
Surr: 4-Bromofluorobenzene	**89.2**	80.6-121		%REC	20	12/14/2018 12:46:00 PM
Surr: Toluene-d8	**97.1**	83.6-113		%REC	20	12/14/2018 12:46:00 PM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35A
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-008
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**7.6**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**20.5**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/12/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 2:05:17 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35 H
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-009
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/11/2018)						
Aroclor 1016	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1221	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1232	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1242	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1248	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1254	**100**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1260	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1262	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Aroclor 1268	**ND**	38		µg/Kg-dry	1	12/11/2018 8:05:28 PM
Surr: Decachlorobiphenyl	**78.0**	48.1-152		%REC	1	12/11/2018 8:05:28 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050	S	mg/L	1	12/11/2018 4:26:31 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 4:26:31 PM
Surr: Acifluorfen	**59.4**	52.5-128		%REC	1	12/11/2018 4:26:31 PM
Surr: DCAA	**59.5**	56.2-139		%REC	1	12/11/2018 4:26:31 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018
Surr: Decachlorobiphenyl-TCLP	**56.0**	51.5-141		%REC	1	12/10/2018
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 3:04:44 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:20:54 PM
Barium-TCLP	**0.880**	0.100		mg/L	1	12/12/2018 2:20:54 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:20:54 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:20:54 PM
Lead-TCLP	**0.164**	0.050		mg/L	1	12/12/2018 2:20:54 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35 H
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-009
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:20:54 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/12/2018 2:20:54 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 9:29:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 9:29:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 9:29:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 9:29:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 9:29:00 PM
Surr: 2,4,6-Tribromophenol	**56.2**	43.7-123		%REC	1	12/13/2018 9:29:00 PM
Surr: 2-Fluorobiphenyl	**66.7**	48.7-108		%REC	1	12/13/2018 9:29:00 PM
Surr: 2-Fluorophenol	**73.9**	23.5-101		%REC	1	12/13/2018 9:29:00 PM
Surr: 4-Terphenyl-d14	**51.5**	50.6-121		%REC	1	12/13/2018 9:29:00 PM
Surr: Nitrobenzene-d5	**56.3**	43.7-109		%REC	1	12/13/2018 9:29:00 PM
Surr: Phenol-d6	**63.4**	12.6-93.5		%REC	1	12/13/2018 9:29:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/14/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
2-Butanone-TCLP	**ND**	200		µg/L	20	12/18/2018 10:10:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:10:00 AM
Surr: 1,2-Dichloroethane-d4	**95.5**	84.3-123		%REC	20	12/18/2018 10:10:00 AM
Surr: 4-Bromofluorobenzene	**101**	80.6-121		%REC	20	12/18/2018 10:10:00 AM
Surr: Toluene-d8	**104**	83.6-113		%REC	20	12/18/2018 10:10:00 AM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35 H
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-009
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.2**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**13.0**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/12/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 2:07:02 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 31
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-010
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/11/2018)						
Aroclor 1016	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1221	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1232	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1242	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1248	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1254	**170**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1260	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1262	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Aroclor 1268	**ND**	38		µg/Kg-dry	1	12/11/2018 8:18:52 PM
Surr: Decachlorobiphenyl	**80.0**	48.1-152		%REC	1	12/11/2018 8:18:52 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050	S	mg/L	1	12/11/2018 4:48:57 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 4:48:57 PM
Surr: Acifluorfen	**91.2**	52.5-128		%REC	1	12/11/2018 4:48:57 PM
Surr: DCAA	**79.7**	56.2-139		%REC	1	12/11/2018 4:48:57 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 8:51:00 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 8:51:00 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 8:51:00 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 8:51:00 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 8:51:00 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 8:51:00 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 8:51:00 PM
Surr: Decachlorobiphenyl-TCLP	**40.0**	51.5-141	S	%REC	1	12/10/2018 8:51:00 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 3:06:27 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:29:03 PM
Barium-TCLP	**1.49**	0.100		mg/L	1	12/12/2018 2:29:03 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:29:03 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:29:03 PM
Lead-TCLP	**0.145**	0.050		mg/L	1	12/12/2018 2:29:03 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 31
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-010
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:29:03 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/12/2018 2:29:03 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 9:55:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 9:55:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 9:55:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 9:55:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 9:55:00 PM
Surr: 2,4,6-Tribromophenol	**72.5**	43.7-123		%REC	1	12/13/2018 9:55:00 PM
Surr: 2-Fluorobiphenyl	**77.3**	48.7-108		%REC	1	12/13/2018 9:55:00 PM
Surr: 2-Fluorophenol	**70.1**	23.5-101		%REC	1	12/13/2018 9:55:00 PM
Surr: 4-Terphenyl-d14	**71.3**	50.6-121		%REC	1	12/13/2018 9:55:00 PM
Surr: Nitrobenzene-d5	**54.8**	43.7-109		%REC	1	12/13/2018 9:55:00 PM
Surr: Phenol-d6	**61.8**	12.6-93.5		%REC	1	12/13/2018 9:55:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/14/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
2-Butanone-TCLP	**ND**	200		µg/L	20	12/18/2018 10:32:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:32:00 AM
Surr: 1,2-Dichloroethane-d4	**87.0**	84.3-123		%REC	20	12/18/2018 10:32:00 AM
Surr: 4-Bromofluorobenzene	**99.8**	80.6-121		%REC	20	12/18/2018 10:32:00 AM
Surr: Toluene-d8	**101**	83.6-113		%REC	20	12/18/2018 10:32:00 AM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 31
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-010
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**8.2**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**14.2**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/12/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 2:08:21 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35C
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-014
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: **KF**
(Prep: SW3545A - 12/5/2018)						
Aroclor 1016	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1221	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1232	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1242	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1248	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1254	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1260	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1262	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Aroclor 1268	**ND**	37		µg/Kg-dry	1	12/6/2018 5:09:33 PM
Surr: Decachlorobiphenyl	**61.0**	48.1-152		%REC	1	12/6/2018 5:09:33 PM
TCLP HERBICIDES - EPA 8321B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
2,4,5-TP (Silvex)-TCLP	**ND**	0.050	S	mg/L	1	12/11/2018 5:11:17 PM
2,4-D-TCLP	**ND**	0.050		mg/L	1	12/11/2018 5:11:17 PM
Surr: Acifluorfen	**27.5**	52.5-128	S	%REC	1	12/11/2018 5:11:17 PM
Surr: DCAA	**87.5**	56.2-139		%REC	1	12/11/2018 5:11:17 PM
TCLP PESTICIDES - EPA 8081B						Analyst: **KF**
(Prep: SW3535A - 12/10/2018)						
Chlordane-TCLP	**ND**	0.010		mg/L	1	12/10/2018 9:08:54 PM
Endrin-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 9:08:54 PM
gamma-BHC(Lindane)-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 9:08:54 PM
Heptachlor epoxide-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 9:08:54 PM
Heptachlor-TCLP	**ND**	0.0020		mg/L	1	12/10/2018 9:08:54 PM
Methoxychlor-TCLP	**ND**	0.010		mg/L	1	12/10/2018 9:08:54 PM
Toxaphene-TCLP	**ND**	0.020		mg/L	1	12/10/2018 9:08:54 PM
Surr: Decachlorobiphenyl-TCLP	**54.0**	51.5-141		%REC	1	12/10/2018 9:08:54 PM
TCLP MERCURY - SW1311/7470A						Analyst: **AVB**
(Prep: SW7470A - 12/10/2018)						
Mercury-TCLP	**ND**	0.002		mg/L	1	12/10/2018 3:08:09 PM
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Arsenic-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:37:16 PM
Barium-TCLP	**0.449**	0.100		mg/L	1	12/12/2018 2:37:16 PM
Cadmium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:37:16 PM
Chromium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:37:16 PM
Lead-TCLP	**0.172**	0.050		mg/L	1	12/12/2018 2:37:16 PM

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35C
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-014
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS - SW1311/6010C						Analyst: **WB**
(Prep: SW1311 - 12/7/2018)						
Selenium-TCLP	**ND**	0.050		mg/L	1	12/12/2018 2:37:16 PM
Silver-TCLP	**ND**	0.100		mg/L	1	12/12/2018 2:37:16 PM
TCLP SEMI-VOLATILES - EPA 8270D						Analyst: **MT**
(Prep: SW3535A - 12/13/2018)						
1,4-Dichlorobenzene -TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
2,4,5-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
2,4,6-Trichlorophenol-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
2,4-Dinitrotoluene-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
Cresols, Total-TCLP	**ND**	120		µg/L	1	12/13/2018 10:20:00 PM
Hexachlorobenzene-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
Hexachlorobutadiene-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
Hexachloroethane-TCLP	**ND**	50		µg/L	1	12/13/2018 10:20:00 PM
Nitrobenzene-TCLP	**ND**	50	C	µg/L	1	12/13/2018 10:20:00 PM
Pentachlorophenol-TCLP	**ND**	250		µg/L	1	12/13/2018 10:20:00 PM
Pyridine-TCLP	**ND**	50	SC	µg/L	1	12/13/2018 10:20:00 PM
Surr: 2,4,6-Tribromophenol	**44.4**	43.7-123		%REC	1	12/13/2018 10:20:00 PM
Surr: 2-Fluorobiphenyl	**47.5**	48.7-108	S	%REC	1	12/13/2018 10:20:00 PM
Surr: 2-Fluorophenol	**63.0**	23.5-101		%REC	1	12/13/2018 10:20:00 PM
Surr: 4-Terphenyl-d14	**34.0**	50.6-121	S	%REC	1	12/13/2018 10:20:00 PM
Surr: Nitrobenzene-d5	**45.6**	43.7-109		%REC	1	12/13/2018 10:20:00 PM
Surr: Phenol-d6	**55.7**	12.6-93.5		%REC	1	12/13/2018 10:20:00 PM
TCLP VOLATILES - EPA 8260C						Analyst: **SMD**
(Prep: SW1311 - 12/14/2018)						
1,1-Dichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
1,2-Dichloroethane-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
1,4-Dichlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
2-Butanone-TCLP	**ND**	200		µg/L	20	12/18/2018 10:53:00 AM
Benzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Carbon tetrachloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Chlorobenzene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Chloroform-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Tetrachloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Trichloroethene-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Vinyl chloride-TCLP	**ND**	100		µg/L	20	12/18/2018 10:53:00 AM
Surr: 1,2-Dichloroethane-d4	**96.2**	84.3-123		%REC	20	12/18/2018 10:53:00 AM
Surr: 4-Bromofluorobenzene	**103**	80.6-121		%REC	20	12/18/2018 10:53:00 AM
Surr: Toluene-d8	**103**	83.6-113		%REC	20	12/18/2018 10:53:00 AM

Adirondack Environmental Services, Inc

Date: *20-Dec-18*

CLIENT:	OSC Inc	**Client Sample ID:**	AOC 35C
Work Order:	**181205057**	**Collection Date:**	12/4/2018
Reference:	Laboratory Analysis / Ithaca Site Soil	**Lab Sample ID:**	181205057-014
PO#:		**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PH- SW9045D- NOT CERTIFIABLE PARAMETER						Analyst: **CA**
pH	**9.1**	1.0		pH Units@70F	1	12/18/2018 1:35:00 PM
MOISTURE CONTENT-ASTM D2216 (NOT ELAP CERTIFIED)						Analyst: **TSZ**
Percent Moisture	**11.2**	0.1		wt%	1	12/12/2018
CORROSIVITY - SW 9040C						Analyst: **CA**
Corrosivity	**Non Corrosive**	1.0			1	12/18/2018 1:35:00 PM
CYANIDE, REACTIVE SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 12/12/2018)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	12/13/2018 2:10:05 PM
REACTIVE SULFIDE - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	12/13/2018
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	12/13/2018

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314 North Pearl Street
Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

EXPERIENCE IS THE SOLUTION

CHAIN OF CUSTODY RECORD

AES Work Order#: 181205057 1 of 2

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: OSC Inc	Address:	
Send Report to: Alan Trevisk.	Project Name (Location): Ithaca Site Soil 1 of 2	Samplers Name: K. Amidon
Client Phone No:	PO #:	Samplers Signature:
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	AOC 35K	12/4/18	1255	A/P	Soil		✓	2	TCLP-Metals, TCLP-VOC, TCLP-SVOC, TCLP-Pesticides, TCLP-Herbicides, PCB, Reactivity, Corrosivity, %Solids, pH
002	AOC 28 Lower		1305	A/P			✓		
003	AOC 28 Upper		1314	A/P			✓		
004	AOC 30		1320	A/P			✓		
005	AOC 30 Deep		1330	A/P			✓		
006	AOC 29		1343	A/P			✓		
007	AOC 35D		1350	A/P			✓		
	~~AOC 31~~		~~1355~~	A/P			✓		
008	AOC 35A		1400	A/P			✓		
HOLD 009	AOC 35H		1414	A/P			✓		HOLD
HOLD 010	AOC 31		1425	A/P			✓		HOLD
HOLD 011	AOC 32		1437	A/P			✓		HOLD

Shipment Arrived Via:
FedEx UPS Client AES Other:_____

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☑ Normal
☐ 2 Day ☐ 5 Day

Special Instructions/Remarks:

		Date	Time
Relinquished by: (Signature)	Received by: (Signature)		
Relinquished by: (Signature)	Received by: (Signature)		
Relinquished by: (Signature)	Received for Laboratory by:	12/5/18	3:06

Sample Temperature
Ambient Chilled
Chilling Process begun
Notes: 4°C

Properly Preserved
Y N
Notes:

Received Within Holding Times
Y N
Notes:

Demo
181205057

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Albany, New York 12207
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EXPERIENCE IS THE SOLUTION

CHAIN OF CUSTODY RECORD

AES Work Order#: 18120505 + 2 of 2

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Client Name: OSC Inc	Address:	
Send Report to: Alan Trpovski	Project Name (Location): Itheen Site Soil 2 of 2	Samplers Name: K. Amber
Client Phone No:	PO #:	Samplers Signature:
Client Fax No:		

	AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
HOLD	012	AOC 34 Lower	12/4/18	1447	A P	Soil		✓	2	TCLP-Metals, TCLP-VOC
HOLD	013	AOC 35 G	↓	1455	A P	↓		✓	↓	TCLP-SVOC, TCLP-Pesticide
	014	AOC 35 C	↓	1503	A P	↓		✓	↓	TCLP-Herbicide, PCB
					A P					Reactivity, Corrosivity, % solids
					A P					pH
					A P					
					A P					
					A P					
					A P					
					A P					
					A P					
					A P					
					A P					

Shipment Arrived Via:
FedEx UPS Client AES Other:_____

Special Instructions/Remarks:

Turnaround Time Requested:
☐ 1 Day ☐ 3 Day ☑ Normal
☐ 2 Day ☐ 5 Day

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received for Laboratory by:	Date	Time

Sample Temperature	Properly Preserved	Received Within Holding Times
Ambient Chilled Chilling Process begun	Y N	Y N
Notes:	Notes:	Notes:

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TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

April 25, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on April 19, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30290290001	**AOC29 Section #1 Waste**	Solid	04/18/19 11:10	04/19/19 09:50
30290290002	**AOC29 Section #1 Waste**	Solid	04/18/19 11:10	04/19/19 09:50
30290290003	**AOC29 Section #2 Waste**	Solid	04/18/19 11:50	04/19/19 09:50
30290290004	**AOC29 Section #2 Waste**	Solid	04/18/19 11:50	04/19/19 09:50
30290290005	**AOC29 Section #3 Waste**	Solid	04/18/19 12:30	04/19/19 09:50
30290290006	**AOC29 Section #3 Waste**	Solid	04/18/19 12:30	04/19/19 09:50
30290290007	**AOC28 UPPER Waste**	Solid	04/18/19 13:10	04/19/19 09:50
30290290008	**AOC28 Upper Waste**	Solid	04/18/19 13:10	04/19/19 09:50

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SAMPLE ANALYTE COUNT

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30290290001	**AOC29 Section #1 Waste**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 7471B	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		ASTM D2974-87	ARG	1	PASI-PA
		EPA 1010	RTB	1	PASI-PA
		EPA 9045D	RTB	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-00	PAS	1	PASI-PA
30290290002	**AOC29 Section #1 Waste**	EPA 8260C	JEW	14	PASI-PA
30290290003	**AOC29 Section #2 Waste**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 7471B	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		ASTM D2974-87	ARG	1	PASI-PA
		EPA 1010	RTB	1	PASI-PA
		EPA 9045D	RTB	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-00	PAS	1	PASI-PA
30290290004	**AOC29 Section #2 Waste**	EPA 8260C	JEW	14	PASI-PA
30290290005	**AOC29 Section #3 Waste**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 7471B	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		ASTM D2974-87	ARG	1	PASI-PA
		EPA 1010	RTB	1	PASI-PA
		EPA 9045D	RTB	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500S2F-00	PAS	1	PASI-PA
30290290006	**AOC29 Section #3 Waste**	EPA 8260C	JEW	14	PASI-PA
30290290007	**AOC28 UPPER Waste**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 7471B	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		ASTM D2974-87	ARG	1	PASI-PA
		EPA 1010	RTB	1	PASI-PA
		EPA 9045D	RTB	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-00	PAS	1	PASI-PA
30290290008	**AOC28 Upper Waste**	EPA 8260C	JEW	14	PASI-PA

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.
- AOC29 Section #1 Waste (Lab ID: 30290290001)
- AOC29 Section #2 Waste (Lab ID: 30290290003)
- AOC29 Section #3 Waste (Lab ID: 30290290005)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 6010C**
Description: 6010C MET ICP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 339232

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30290290001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 1651287)
  - Barium
  - Lead

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MSD (Lab ID: 1651288)
  - Barium
  - Chromium
  - Lead

R1: RPD value was outside control limits.

- MSD (Lab ID: 1651288)
  - Barium
  - Chromium
  - Lead

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 339483

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30290290001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 1652068)
  - Barium

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 7471B**
Description: 7471B Mercury
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 7471B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7471B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: 339317

IS: The internal standard response is below criteria. Results may be biased high.

- AOC28 UPPER Waste (Lab ID: 30290290007)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- MS (Lab ID: 1651524)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- MSD (Lab ID: 1651525)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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(724)850-5600

PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Sep Funnel
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 339698

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- AOC28 Upper Waste (Lab ID: 30290290008)
  - 2-Butanone (MEK)
- AOC29 Section #1 Waste (Lab ID: 30290290002)
  - 2-Butanone (MEK)
- AOC29 Section #2 Waste (Lab ID: 30290290004)
  - 2-Butanone (MEK)
- AOC29 Section #3 Waste (Lab ID: 30290290006)
  - 2-Butanone (MEK)
- LB (Lab ID: 1652026)
  - 2-Butanone (MEK)
- LCS (Lab ID: 1652821)
  - 2-Butanone (MEK)
- MS (Lab ID: 1652819)
  - 2-Butanone (MEK)
- MSD (Lab ID: 1652820)
  - 2-Butanone (MEK)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Method: **SM 4500S2F-00**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 25, 2019

General Information:
4 samples were analyzed for SM 4500S2F-00. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #1 Waste **Lab ID: 30290290001** Collected: 04/18/19 11:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	179	110	10	04/22/19 10:09	04/22/19 23:04	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	179	159	10	04/22/19 10:09	04/22/19 23:04	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	179	163	10	04/22/19 10:09	04/22/19 23:04	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	179	131	10	04/22/19 10:09	04/22/19 23:04	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	179	103	10	04/22/19 10:09	04/22/19 23:04	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	179	95.4	10	04/22/19 10:09	04/22/19 23:04	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	179	102	10	04/22/19 10:09	04/22/19 23:04	11096-82-5	ED
PCB, Total	ND	ug/kg	1610	1010	10	04/22/19 10:09	04/22/19 23:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%.	34-114		10	04/22/19 10:09	04/22/19 23:04	877-09-8	
Decachlorobiphenyl (S)	119	%.	38-139		10	04/22/19 10:09	04/22/19 23:04	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B								
Arsenic	**7.9**	mg/kg	0.47	0.45	1	04/22/19 08:16	04/25/19 11:04	7440-38-2	
Barium	**133**	mg/kg	1.9	0.088	1	04/22/19 08:16	04/24/19 11:03	7440-39-3	MH,ML, R1
Cadmium	**0.47**	mg/kg	0.28	0.057	1	04/22/19 08:16	04/24/19 11:03	7440-43-9	
Chromium	**39.5**	mg/kg	0.47	0.087	1	04/22/19 08:16	04/24/19 11:03	7440-47-3	ML,R1
Lead	**61.0**	mg/kg	0.47	0.46	1	04/22/19 08:16	04/24/19 11:03	7439-92-1	MH,ML, R1
Selenium	ND	mg/kg	0.75	0.55	1	04/22/19 08:16	04/24/19 11:03	7782-49-2	
Silver	ND	mg/kg	0.57	0.091	1	04/22/19 08:16	04/24/19 11:03	7440-22-4	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.19; Final pH: 6.36								
Arsenic	ND	mg/L	0.025	0.010	1	04/23/19 11:34	04/25/19 10:32	7440-38-2	
Barium	**1.1**	mg/L	0.050	0.0034	1	04/23/19 11:34	04/24/19 10:07	7440-39-3	MH
Cadmium	ND	mg/L	0.015	0.0017	1	04/23/19 11:34	04/24/19 10:07	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	04/23/19 11:34	04/24/19 10:07	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	04/23/19 11:34	04/24/19 10:33	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	04/23/19 11:34	04/24/19 10:07	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	04/23/19 11:34	04/24/19 10:07	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.19; Final pH: 6.36								
Mercury	ND	ug/L	1.0	0.030	1	04/23/19 10:06	04/23/19 18:52	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B								
Mercury	ND	mg/kg	0.10	0.0051	1	04/23/19 09:11	04/23/19 16:50	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	**207**	ug/kg	70.8	5.1	10	04/22/19 21:01	04/23/19 19:43	208-96-8	
Anthracene	**4710**	ug/kg	70.8	6.4	10	04/22/19 21:01	04/23/19 19:43	120-12-7	
Benzo(a)anthracene	**11600**	ug/kg	70.8	8.3	10	04/22/19 21:01	04/23/19 19:43	56-55-3	
Benzo(a)pyrene	**9570**	ug/kg	70.8	4.4	10	04/22/19 21:01	04/23/19 19:43	50-32-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #1 Waste **Lab ID: 30290290001** Collected: 04/18/19 11:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Benzo(b)fluoranthene	**20900**	ug/kg	708	84.8	100	04/22/19 21:01	04/24/19 19:02	205-99-2	
Benzo(g,h,i)perylene	**3790**	ug/kg	70.8	10.7	10	04/22/19 21:01	04/23/19 19:43	191-24-2	
Benzo(k)fluoranthene	**5240**	ug/kg	70.8	11.9	10	04/22/19 21:01	04/23/19 19:43	207-08-9	
Chrysene	**9350**	ug/kg	70.8	3.7	10	04/22/19 21:01	04/23/19 19:43	218-01-9	
Dibenz(a,h)anthracene	**2190**	ug/kg	70.8	15.7	10	04/22/19 21:01	04/23/19 19:43	53-70-3	
Fluoranthene	**38400**	ug/kg	708	53.6	100	04/22/19 21:01	04/24/19 19:02	206-44-0	
Fluorene	**2110**	ug/kg	70.8	6.5	10	04/22/19 21:01	04/23/19 19:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**4540**	ug/kg	70.8	13.5	10	04/22/19 21:01	04/23/19 19:43	193-39-5	
Naphthalene	**861**	ug/kg	70.8	13.7	10	04/22/19 21:01	04/23/19 19:43	91-20-3	
Phenanthrene	**29200**	ug/kg	708	62.3	100	04/22/19 21:01	04/24/19 19:02	85-01-8	
Pyrene	**13000**	ug/kg	70.8	7.9	10	04/22/19 21:01	04/23/19 19:43	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	90	%.	43-97		10	04/22/19 21:01	04/23/19 19:43	321-60-8	
Terphenyl-d14 (S)	84	%.	56-106		10	04/22/19 21:01	04/23/19 19:43	1718-51-0	
8270D MSSV TCLP Sep Funnel	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.19; Final pH: 6.36								
1,4-Dichlorobenzene	ND	ug/L	100	27.7	1	04/24/19 13:39	04/25/19 14:15	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	35.8	1	04/24/19 13:39	04/25/19 14:15	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	33.0	1	04/24/19 13:39	04/25/19 14:15	87-68-3	
Hexachlorobenzene	ND	ug/L	100	30.5	1	04/24/19 13:39	04/25/19 14:15	118-74-1	
Hexachloroethane	ND	ug/L	100	30.3	1	04/24/19 13:39	04/25/19 14:15	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 14:15	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	200	190	1	04/24/19 13:39	04/25/19 14:15		
Nitrobenzene	ND	ug/L	100	37.5	1	04/24/19 13:39	04/25/19 14:15	98-95-3	
Pentachlorophenol	ND	ug/L	250	105	1	04/24/19 13:39	04/25/19 14:15	87-86-5	
Pyridine	ND	ug/L	100	29.9	1	04/24/19 13:39	04/25/19 14:15	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	250	66.9	1	04/24/19 13:39	04/25/19 14:15	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 14:15	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	79	%.	10-120		1	04/24/19 13:39	04/25/19 14:15	4165-60-0	
2-Fluorobiphenyl (S)	82	%.	10-121		1	04/24/19 13:39	04/25/19 14:15	321-60-8	
Terphenyl-d14 (S)	72	%.	43-119		1	04/24/19 13:39	04/25/19 14:15	1718-51-0	
Phenol-d6 (S)	31	%.	10-58		1	04/24/19 13:39	04/25/19 14:15	13127-88-3	
2-Fluorophenol (S)	44	%.	10-84		1	04/24/19 13:39	04/25/19 14:15	367-12-4	
2,4,6-Tribromophenol (S)	77	%.	33-129		1	04/24/19 13:39	04/25/19 14:15	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.9**	%	0.10	0.10	1		04/23/19 15:39		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		04/23/19 17:33		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**7.9**	Std. Units	2.0	2.0	1		04/20/19 23:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #1 Waste **Lab ID: 30290290001** Collected: 04/18/19 11:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.43	1	04/22/19 17:39	04/22/19 18:47		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.7	10.7	1	04/22/19 17:39	04/22/19 17:48		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #1 Waste **Lab ID: 30290290002** Collected: 04/18/19 11:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 04/23/19 11:03								
Benzene	ND	ug/L	50.0	8.7	10		04/24/19 18:04	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		04/24/19 18:04	78-93-3	CL
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		04/24/19 18:04	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		04/24/19 18:04	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		04/24/19 18:04	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		04/24/19 18:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		04/24/19 18:04	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		04/24/19 18:04	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		04/24/19 18:04	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		04/24/19 18:04	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	110	%.	70-130		10		04/24/19 18:04	17060-07-0	
Toluene-d8 (S)	102	%.	70-130		10		04/24/19 18:04	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	70-130		10		04/24/19 18:04	460-00-4	
Dibromofluoromethane (S)	99	%.	70-130		10		04/24/19 18:04	1868-53-7	

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #2 Waste **Lab ID: 30290290003** Collected: 04/18/19 11:50 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	180	111	10	04/22/19 10:09	04/22/19 23:13	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	180	160	10	04/22/19 10:09	04/22/19 23:13	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	180	164	10	04/22/19 10:09	04/22/19 23:13	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	180	132	10	04/22/19 10:09	04/22/19 23:13	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	180	104	10	04/22/19 10:09	04/22/19 23:13	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	180	96.0	10	04/22/19 10:09	04/22/19 23:13	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	180	102	10	04/22/19 10:09	04/22/19 23:13	11096-82-5	ED
PCB, Total	ND	ug/kg	1620	1020	10	04/22/19 10:09	04/22/19 23:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	101	%.	34-114		10	04/22/19 10:09	04/22/19 23:13	877-09-8	
Decachlorobiphenyl (S)	120	%.	38-139		10	04/22/19 10:09	04/22/19 23:13	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B								
Arsenic	**10.3**	mg/kg	0.50	0.48	1	04/22/19 08:16	04/25/19 11:10	7440-38-2	
Barium	**126**	mg/kg	2.0	0.094	1	04/22/19 08:16	04/24/19 11:09	7440-39-3	
Cadmium	**0.48**	mg/kg	0.30	0.061	1	04/22/19 08:16	04/24/19 11:09	7440-43-9	
Chromium	**30.5**	mg/kg	0.50	0.092	1	04/22/19 08:16	04/24/19 11:09	7440-47-3	
Lead	**58.6**	mg/kg	0.50	0.49	1	04/22/19 08:16	04/24/19 11:09	7439-92-1	
Selenium	ND	mg/kg	0.81	0.59	1	04/22/19 08:16	04/24/19 11:09	7782-49-2	
Silver	ND	mg/kg	0.60	0.097	1	04/22/19 08:16	04/24/19 11:09	7440-22-4	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 8.95; Final pH: 6.28								
Arsenic	ND	mg/L	0.025	0.010	1	04/23/19 11:34	04/25/19 10:41	7440-38-2	
Barium	**1.1**	mg/L	0.050	0.0034	1	04/23/19 11:34	04/24/19 10:15	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	04/23/19 11:34	04/24/19 10:15	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	04/23/19 11:34	04/24/19 10:15	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	04/23/19 11:34	04/24/19 10:41	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	04/23/19 11:34	04/24/19 10:15	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	04/23/19 11:34	04/24/19 10:15	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 8.95; Final pH: 6.28								
Mercury	ND	ug/L	1.0	0.030	1	04/23/19 10:06	04/23/19 18:51	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B								
Mercury	ND	mg/kg	0.11	0.0052	1	04/23/19 09:11	04/23/19 16:55	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	**134**	ug/kg	73.9	5.3	10	04/22/19 21:01	04/23/19 20:19	208-96-8	
Anthracene	**2470**	ug/kg	73.9	6.7	10	04/22/19 21:01	04/23/19 20:19	120-12-7	
Benzo(a)anthracene	**7370**	ug/kg	73.9	8.7	10	04/22/19 21:01	04/23/19 20:19	56-55-3	
Benzo(a)pyrene	**6450**	ug/kg	73.9	4.6	10	04/22/19 21:01	04/23/19 20:19	50-32-8	
Benzo(b)fluoranthene	**9350**	ug/kg	73.9	8.9	10	04/22/19 21:01	04/23/19 20:19	205-99-2	
Benzo(g,h,i)perylene	**2500**	ug/kg	73.9	11.1	10	04/22/19 21:01	04/23/19 20:19	191-24-2	

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(724)850-5600

ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #2 Waste **Lab ID: 30290290003** Collected: 04/18/19 11:50 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Benzo(k)fluoranthene	**4330**	ug/kg	73.9	12.4	10	04/22/19 21:01	04/23/19 20:19	207-08-9	
Chrysene	**6250**	ug/kg	73.9	3.8	10	04/22/19 21:01	04/23/19 20:19	218-01-9	
Dibenz(a,h)anthracene	**1420**	ug/kg	73.9	16.4	10	04/22/19 21:01	04/23/19 20:19	53-70-3	
Fluoranthene	**10800**	ug/kg	73.9	5.6	10	04/22/19 21:01	04/23/19 20:19	206-44-0	
Fluorene	**1150**	ug/kg	73.9	6.8	10	04/22/19 21:01	04/23/19 20:19	86-73-7	
Indeno(1,2,3-cd)pyrene	**2990**	ug/kg	73.9	14.0	10	04/22/19 21:01	04/23/19 20:19	193-39-5	
Naphthalene	**385**	ug/kg	73.9	14.3	10	04/22/19 21:01	04/23/19 20:19	91-20-3	
Phenanthrene	**8430**	ug/kg	73.9	6.5	10	04/22/19 21:01	04/23/19 20:19	85-01-8	
Pyrene	**8340**	ug/kg	73.9	8.3	10	04/22/19 21:01	04/23/19 20:19	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	85	%.	43-97		10	04/22/19 21:01	04/23/19 20:19	321-60-8	
Terphenyl-d14 (S)	75	%.	56-106		10	04/22/19 21:01	04/23/19 20:19	1718-51-0	
8270D MSSV TCLP Sep Funnel	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 8.95; Final pH: 6.28								
1,4-Dichlorobenzene	ND	ug/L	100	27.7	1	04/24/19 13:39	04/25/19 14:38	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	35.8	1	04/24/19 13:39	04/25/19 14:38	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	33.0	1	04/24/19 13:39	04/25/19 14:38	87-68-3	
Hexachlorobenzene	ND	ug/L	100	30.5	1	04/24/19 13:39	04/25/19 14:38	118-74-1	
Hexachloroethane	ND	ug/L	100	30.3	1	04/24/19 13:39	04/25/19 14:38	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 14:38	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	200	190	1	04/24/19 13:39	04/25/19 14:38		
Nitrobenzene	ND	ug/L	100	37.5	1	04/24/19 13:39	04/25/19 14:38	98-95-3	
Pentachlorophenol	ND	ug/L	250	105	1	04/24/19 13:39	04/25/19 14:38	87-86-5	
Pyridine	ND	ug/L	100	29.9	1	04/24/19 13:39	04/25/19 14:38	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	250	66.9	1	04/24/19 13:39	04/25/19 14:38	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 14:38	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	82	%.	10-120		1	04/24/19 13:39	04/25/19 14:38	4165-60-0	
2-Fluorobiphenyl (S)	85	%.	10-121		1	04/24/19 13:39	04/25/19 14:38	321-60-8	
Terphenyl-d14 (S)	73	%.	43-119		1	04/24/19 13:39	04/25/19 14:38	1718-51-0	
Phenol-d6 (S)	32	%.	10-58		1	04/24/19 13:39	04/25/19 14:38	13127-88-3	
2-Fluorophenol (S)	45	%.	10-84		1	04/24/19 13:39	04/25/19 14:38	367-12-4	
2,4,6-Tribromophenol (S)	81	%.	33-129		1	04/24/19 13:39	04/25/19 14:38	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.7**	%	0.10	0.10	1		04/23/19 15:39		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		04/23/19 17:39		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.0**	Std. Units	2.0	2.0	1		04/20/19 23:52		

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Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #2 Waste **Lab ID: 30290290003** Collected: 04/18/19 11:50 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.44	1	04/22/19 17:39	04/22/19 18:50		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	11.0	11.0	1	04/22/19 17:39	04/22/19 17:48		

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #2 Waste **Lab ID: 30290290004** Collected: 04/18/19 11:50 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 04/23/19 11:03								
Benzene	ND	ug/L	50.0	8.7	10		04/24/19 19:10	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		04/24/19 19:10	78-93-3	CL
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		04/24/19 19:10	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		04/24/19 19:10	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		04/24/19 19:10	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		04/24/19 19:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		04/24/19 19:10	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		04/24/19 19:10	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		04/24/19 19:10	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		04/24/19 19:10	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	110	%.	70-130		10		04/24/19 19:10	17060-07-0	
Toluene-d8 (S)	99	%.	70-130		10		04/24/19 19:10	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	70-130		10		04/24/19 19:10	460-00-4	
Dibromofluoromethane (S)	103	%.	70-130		10		04/24/19 19:10	1868-53-7	

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #3 Waste **Lab ID: 30290290005** Collected: 04/18/19 12:30 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	177	109	10	04/22/19 10:09	04/22/19 23:30	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	177	157	10	04/22/19 10:09	04/22/19 23:30	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	177	161	10	04/22/19 10:09	04/22/19 23:30	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	177	129	10	04/22/19 10:09	04/22/19 23:30	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	177	102	10	04/22/19 10:09	04/22/19 23:30	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	177	94.2	10	04/22/19 10:09	04/22/19 23:30	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	177	101	10	04/22/19 10:09	04/22/19 23:30	11096-82-5	ED
PCB, Total	ND	ug/kg	1590	999	10	04/22/19 10:09	04/22/19 23:30	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	106	%.	34-114		10	04/22/19 10:09	04/22/19 23:30	877-09-8	
Decachlorobiphenyl (S)	107	%.	38-139		10	04/22/19 10:09	04/22/19 23:30	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B								
Arsenic	**9.8**	mg/kg	0.49	0.47	1	04/22/19 08:16	04/25/19 11:12	7440-38-2	
Barium	**92.7**	mg/kg	2.0	0.092	1	04/22/19 08:16	04/24/19 11:11	7440-39-3	
Cadmium	**0.35**	mg/kg	0.29	0.060	1	04/22/19 08:16	04/24/19 11:11	7440-43-9	
Chromium	**21.8**	mg/kg	0.49	0.090	1	04/22/19 08:16	04/24/19 11:11	7440-47-3	
Lead	**41.5**	mg/kg	0.49	0.48	1	04/22/19 08:16	04/24/19 11:11	7439-92-1	
Selenium	ND	mg/kg	0.78	0.57	1	04/22/19 08:16	04/24/19 11:11	7782-49-2	
Silver	ND	mg/kg	0.59	0.095	1	04/22/19 08:16	04/24/19 11:11	7440-22-4	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.04; Final pH: 6.61								
Arsenic	ND	mg/L	0.025	0.010	1	04/23/19 11:34	04/25/19 10:43	7440-38-2	
Barium	**0.93**	mg/L	0.050	0.0034	1	04/23/19 11:34	04/24/19 10:18	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	04/23/19 11:34	04/24/19 10:18	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	04/23/19 11:34	04/24/19 10:18	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	04/23/19 11:34	04/24/19 10:44	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	04/23/19 11:34	04/24/19 10:18	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	04/23/19 11:34	04/24/19 10:18	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.04; Final pH: 6.61								
Mercury	ND	ug/L	1.0	0.030	1	04/23/19 10:06	04/23/19 19:02	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B								
Mercury	ND	mg/kg	0.10	0.0051	1	04/23/19 09:11	04/23/19 16:57	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	ND	ug/kg	72.2	5.2	10	04/22/19 21:01	04/23/19 20:54	208-96-8	
Anthracene	**1350**	ug/kg	72.2	6.5	10	04/22/19 21:01	04/23/19 20:54	120-12-7	
Benzo(a)anthracene	**3230**	ug/kg	72.2	8.5	10	04/22/19 21:01	04/23/19 20:54	56-55-3	
Benzo(a)pyrene	**2710**	ug/kg	72.2	4.5	10	04/22/19 21:01	04/23/19 20:54	50-32-8	
Benzo(b)fluoranthene	**4220**	ug/kg	72.2	8.7	10	04/22/19 21:01	04/23/19 20:54	205-99-2	
Benzo(g,h,i)perylene	**963**	ug/kg	72.2	10.9	10	04/22/19 21:01	04/23/19 20:54	191-24-2	

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #3 Waste **Lab ID: 30290290005** Collected: 04/18/19 12:30 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Benzo(k)fluoranthene	**1650**	ug/kg	72.2	12.1	10	04/22/19 21:01	04/23/19 20:54	207-08-9	
Chrysene	**2770**	ug/kg	72.2	3.7	10	04/22/19 21:01	04/23/19 20:54	218-01-9	
Dibenz(a,h)anthracene	**536**	ug/kg	72.2	16.0	10	04/22/19 21:01	04/23/19 20:54	53-70-3	
Fluoranthene	**5470**	ug/kg	72.2	5.5	10	04/22/19 21:01	04/23/19 20:54	206-44-0	
Fluorene	**570**	ug/kg	72.2	6.7	10	04/22/19 21:01	04/23/19 20:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**1160**	ug/kg	72.2	13.7	10	04/22/19 21:01	04/23/19 20:54	193-39-5	
Naphthalene	**277**	ug/kg	72.2	14.0	10	04/22/19 21:01	04/23/19 20:54	91-20-3	
Phenanthrene	**4110**	ug/kg	72.2	6.4	10	04/22/19 21:01	04/23/19 20:54	85-01-8	
Pyrene	**4200**	ug/kg	72.2	8.1	10	04/22/19 21:01	04/23/19 20:54	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	88	%.	43-97		10	04/22/19 21:01	04/23/19 20:54	321-60-8	
Terphenyl-d14 (S)	91	%.	56-106		10	04/22/19 21:01	04/23/19 20:54	1718-51-0	
8270D MSSV TCLP Sep Funnel	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.04; Final pH: 6.61								
1,4-Dichlorobenzene	ND	ug/L	100	27.7	1	04/24/19 13:39	04/25/19 15:00	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	35.8	1	04/24/19 13:39	04/25/19 15:00	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	33.0	1	04/24/19 13:39	04/25/19 15:00	87-68-3	
Hexachlorobenzene	ND	ug/L	100	30.5	1	04/24/19 13:39	04/25/19 15:00	118-74-1	
Hexachloroethane	ND	ug/L	100	30.3	1	04/24/19 13:39	04/25/19 15:00	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 15:00	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	200	190	1	04/24/19 13:39	04/25/19 15:00		
Nitrobenzene	ND	ug/L	100	37.5	1	04/24/19 13:39	04/25/19 15:00	98-95-3	
Pentachlorophenol	ND	ug/L	250	105	1	04/24/19 13:39	04/25/19 15:00	87-86-5	
Pyridine	ND	ug/L	100	29.9	1	04/24/19 13:39	04/25/19 15:00	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	250	66.9	1	04/24/19 13:39	04/25/19 15:00	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 15:00	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	77	%.	10-120		1	04/24/19 13:39	04/25/19 15:00	4165-60-0	
2-Fluorobiphenyl (S)	79	%.	10-121		1	04/24/19 13:39	04/25/19 15:00	321-60-8	
Terphenyl-d14 (S)	68	%.	43-119		1	04/24/19 13:39	04/25/19 15:00	1718-51-0	
Phenol-d6 (S)	30	%.	10-58		1	04/24/19 13:39	04/25/19 15:00	13127-88-3	
2-Fluorophenol (S)	44	%.	10-84		1	04/24/19 13:39	04/25/19 15:00	367-12-4	
2,4,6-Tribromophenol (S)	75	%.	33-129		1	04/24/19 13:39	04/25/19 15:00	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.3**	%	0.10	0.10	1		04/23/19 15:39		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		04/23/19 17:48		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.1**	Std. Units	2.0	2.0	1		04/20/19 23:53		

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #3 Waste **Lab ID: 30290290005** Collected: 04/18/19 12:30 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.43	1	04/22/19 17:39	04/22/19 18:51		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.8	10.8	1	04/22/19 17:39	04/22/19 17:48		

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC29 Section #3 Waste **Lab ID: 30290290006** Collected: 04/18/19 12:30 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 04/23/19 11:03								
Benzene	ND	ug/L	50.0	8.7	10		04/24/19 19:33	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		04/24/19 19:33	78-93-3	CL
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		04/24/19 19:33	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		04/24/19 19:33	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		04/24/19 19:33	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		04/24/19 19:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		04/24/19 19:33	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		04/24/19 19:33	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		04/24/19 19:33	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		04/24/19 19:33	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	104	%.	70-130		10		04/24/19 19:33	17060-07-0	
Toluene-d8 (S)	102	%.	70-130		10		04/24/19 19:33	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	70-130		10		04/24/19 19:33	460-00-4	
Dibromofluoromethane (S)	101	%.	70-130		10		04/24/19 19:33	1868-53-7	

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC28 UPPER Waste **Lab ID: 30290290007** Collected: 04/18/19 13:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	184	114	10	04/22/19 10:09	04/22/19 23:38	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	184	163	10	04/22/19 10:09	04/22/19 23:38	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	184	168	10	04/22/19 10:09	04/22/19 23:38	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	184	135	10	04/22/19 10:09	04/22/19 23:38	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	184	106	10	04/22/19 10:09	04/22/19 23:38	12672-29-6	
PCB-1254 (Aroclor 1254)	**557**	ug/kg	184	98.2	10	04/22/19 10:09	04/22/19 23:38	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	184	105	10	04/22/19 10:09	04/22/19 23:38	11096-82-5	
PCB, Total	ND	ug/kg	1660	1040	10	04/22/19 10:09	04/22/19 23:38	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%.	34-114		10	04/22/19 10:09	04/22/19 23:38	877-09-8	
Decachlorobiphenyl (S)	101	%.	38-139		10	04/22/19 10:09	04/22/19 23:38	2051-24-3	
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3050B								
Arsenic	**22.1**	mg/kg	0.50	0.49	1	04/22/19 08:16	04/25/19 11:14	7440-38-2	
Barium	**287**	mg/kg	2.0	0.095	1	04/22/19 08:16	04/24/19 11:13	7440-39-3	
Cadmium	**1.5**	mg/kg	0.30	0.061	1	04/22/19 08:16	04/24/19 11:13	7440-43-9	
Chromium	**43.2**	mg/kg	0.50	0.093	1	04/22/19 08:16	04/24/19 11:13	7440-47-3	
Lead	**177**	mg/kg	0.50	0.49	1	04/22/19 08:16	04/24/19 11:13	7439-92-1	
Selenium	**1.1**	mg/kg	0.81	0.59	1	04/22/19 08:16	04/24/19 11:13	7782-49-2	
Silver	ND	mg/kg	0.61	0.098	1	04/22/19 08:16	04/24/19 11:13	7440-22-4	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.15; Final pH: 5.94								
Arsenic	ND	mg/L	0.025	0.010	1	04/23/19 11:34	04/25/19 10:50	7440-38-2	
Barium	**2.1**	mg/L	0.050	0.0034	1	04/23/19 11:34	04/24/19 10:24	7440-39-3	
Cadmium	**0.026**	mg/L	0.015	0.0017	1	04/23/19 11:34	04/24/19 10:24	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	04/23/19 11:34	04/24/19 10:24	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	04/23/19 11:34	04/24/19 10:46	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	04/23/19 11:34	04/24/19 10:24	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	04/23/19 11:34	04/24/19 10:24	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.15; Final pH: 5.94								
Mercury	ND	ug/L	1.0	0.030	1	04/23/19 10:06	04/23/19 19:04	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B								
Mercury	**0.43**	mg/kg	0.11	0.0052	1	04/23/19 09:11	04/23/19 17:03	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	ND	ug/kg	73.0	5.2	10	04/22/19 21:01	04/23/19 21:30	208-96-8	
Anthracene	**1360**	ug/kg	73.0	6.6	10	04/22/19 21:01	04/23/19 21:30	120-12-7	
Benzo(a)anthracene	**2800**	ug/kg	73.0	8.6	10	04/22/19 21:01	04/23/19 21:30	56-55-3	
Benzo(a)pyrene	**2300**	ug/kg	73.0	4.6	10	04/22/19 21:01	04/23/19 21:30	50-32-8	IS
Benzo(b)fluoranthene	**3540**	ug/kg	73.0	8.7	10	04/22/19 21:01	04/23/19 21:30	205-99-2	IS
Benzo(g,h,i)perylene	**974**	ug/kg	73.0	11.0	10	04/22/19 21:01	04/23/19 21:30	191-24-2	IS

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(724)850-5600

ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC28 UPPER Waste **Lab ID: 30290290007** Collected: 04/18/19 13:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Benzo(k)fluoranthene	**1260**	ug/kg	73.0	12.2	10	04/22/19 21:01	04/23/19 21:30	207-08-9	IS
Chrysene	**2370**	ug/kg	73.0	3.8	10	04/22/19 21:01	04/23/19 21:30	218-01-9	
Dibenz(a,h)anthracene	**504**	ug/kg	73.0	16.2	10	04/22/19 21:01	04/23/19 21:30	53-70-3	IS
Fluoranthene	**4550**	ug/kg	73.0	5.5	10	04/22/19 21:01	04/23/19 21:30	206-44-0	
Fluorene	**539**	ug/kg	73.0	6.8	10	04/22/19 21:01	04/23/19 21:30	86-73-7	
Indeno(1,2,3-cd)pyrene	**1130**	ug/kg	73.0	13.9	10	04/22/19 21:01	04/23/19 21:30	193-39-5	IS
Naphthalene	**267**	ug/kg	73.0	14.1	10	04/22/19 21:01	04/23/19 21:30	91-20-3	
Phenanthrene	**3900**	ug/kg	73.0	6.4	10	04/22/19 21:01	04/23/19 21:30	85-01-8	
Pyrene	**3520**	ug/kg	73.0	8.2	10	04/22/19 21:01	04/23/19 21:30	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	87	%.	43-97		10	04/22/19 21:01	04/23/19 21:30	321-60-8	
Terphenyl-d14 (S)	87	%.	56-106		10	04/22/19 21:01	04/23/19 21:30	1718-51-0	
8270D MSSV TCLP Sep Funnel	Analytical Method: EPA 8270D Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 04/22/19 09:54 Initial pH: 9.15; Final pH: 5.94								
1,4-Dichlorobenzene	ND	ug/L	100	27.7	1	04/24/19 13:39	04/25/19 15:23	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	35.8	1	04/24/19 13:39	04/25/19 15:23	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	33.0	1	04/24/19 13:39	04/25/19 15:23	87-68-3	
Hexachlorobenzene	ND	ug/L	100	30.5	1	04/24/19 13:39	04/25/19 15:23	118-74-1	
Hexachloroethane	ND	ug/L	100	30.3	1	04/24/19 13:39	04/25/19 15:23	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 15:23	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	200	190	1	04/24/19 13:39	04/25/19 15:23		
Nitrobenzene	ND	ug/L	100	37.5	1	04/24/19 13:39	04/25/19 15:23	98-95-3	
Pentachlorophenol	ND	ug/L	250	105	1	04/24/19 13:39	04/25/19 15:23	87-86-5	
Pyridine	ND	ug/L	100	29.9	1	04/24/19 13:39	04/25/19 15:23	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	250	66.9	1	04/24/19 13:39	04/25/19 15:23	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	36.7	1	04/24/19 13:39	04/25/19 15:23	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	76	%.	10-120		1	04/24/19 13:39	04/25/19 15:23	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	10-121		1	04/24/19 13:39	04/25/19 15:23	321-60-8	
Terphenyl-d14 (S)	68	%.	43-119		1	04/24/19 13:39	04/25/19 15:23	1718-51-0	
Phenol-d6 (S)	28	%.	10-58		1	04/24/19 13:39	04/25/19 15:23	13127-88-3	
2-Fluorophenol (S)	41	%.	10-84		1	04/24/19 13:39	04/25/19 15:23	367-12-4	
2,4,6-Tribromophenol (S)	72	%.	33-129		1	04/24/19 13:39	04/25/19 15:23	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10**	%	0.10	0.10	1		04/23/19 15:39		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		04/23/19 17:48		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.4**	Std. Units	2.0	2.0	1		04/20/19 23:54		

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC28 UPPER Waste **Lab ID: 30290290007** Collected: 04/18/19 13:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.44	1	04/22/19 17:39	04/22/19 18:52		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	11.0	11.0	1	04/22/19 17:39	04/22/19 17:48		

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ANALYTICAL RESULTS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Sample: AOC28 Upper Waste **Lab ID: 30290290008** Collected: 04/18/19 13:10 Received: 04/19/19 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 04/23/19 11:03								
Benzene	ND	ug/L	50.0	8.7	10		04/24/19 19:55	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		04/24/19 19:55	78-93-3	CL
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		04/24/19 19:55	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		04/24/19 19:55	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		04/24/19 19:55	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		04/24/19 19:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		04/24/19 19:55	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		04/24/19 19:55	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		04/24/19 19:55	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		04/24/19 19:55	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	106	%.	70-130		10		04/24/19 19:55	17060-07-0	
Toluene-d8 (S)	104	%.	70-130		10		04/24/19 19:55	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	70-130		10		04/24/19 19:55	460-00-4	
Dibromofluoromethane (S)	98	%.	70-130		10		04/24/19 19:55	1868-53-7	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339466 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651987 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	04/23/19 18:20	

METHOD BLANK: 1651389 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	04/23/19 18:23	

METHOD BLANK: 1651390 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	04/23/19 18:25	

METHOD BLANK: 1651558 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	04/23/19 18:26	

LABORATORY CONTROL SAMPLE: 1651988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	101	80-120	

MATRIX SPIKE SAMPLE: 1651992

Parameter	Units	30290290001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	96	75-125	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

MATRIX SPIKE SAMPLE: 1652053

Parameter	Units	30290109002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1.0 U	2.5	2.5	98	75-125	

SAMPLE DUPLICATE: 1651991

Parameter	Units	30290290001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 1652052

Parameter	Units	30290109002 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	1.0 U	ND		20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339440 Analysis Method: EPA 7471B
QC Batch Method: EPA 7471B Analysis Description: 7471B Mercury
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651930 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.10	0.0049	04/23/19 16:47	

LABORATORY CONTROL SAMPLE: 1651931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.21	0.22	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1651932 1651933

Parameter	Units	30290290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	ND	0.54	0.54	0.64	0.60	111	104	80-120	6	20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339232 Analysis Method: EPA 6010C
QC Batch Method: EPA 3050B Analysis Description: 6010C MET
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651285 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.50	0.48	04/25/19 11:00	
Barium	mg/kg	ND	2.0	0.094	04/24/19 11:40	
Cadmium	mg/kg	ND	0.30	0.061	04/24/19 11:40	
Chromium	mg/kg	ND	0.50	0.092	04/24/19 11:40	
Lead	mg/kg	ND	0.50	0.49	04/24/19 11:40	
Selenium	mg/kg	ND	0.80	0.58	04/24/19 11:40	
Silver	mg/kg	ND	0.60	0.097	04/24/19 11:40	

LABORATORY CONTROL SAMPLE: 1651286

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.6	99	80-120	
Barium	mg/kg	50	52.3	105	80-120	
Cadmium	mg/kg	50	50.4	101	80-120	
Chromium	mg/kg	50	52.6	105	80-120	
Lead	mg/kg	50	50.2	100	80-120	
Selenium	mg/kg	50	48.0	96	80-120	
Silver	mg/kg	25	25.4	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1651287 1651288

Parameter	Units	30290290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	7.9	47.2	47.2	58.0	51.2	106	92	75-125	12	20	
Barium	mg/kg	133	47.2	47.2	363	152	489	40	75-125	82	20	MH, ML, R1
Cadmium	mg/kg	0.47	47.2	47.2	46.7	42.8	98	90	75-125	9	20	
Chromium	mg/kg	39.5	47.2	47.2	93.0	71.3	114	68	75-125	26	20	ML, R1
Lead	mg/kg	61.0	47.2	47.2	156	92.7	202	67	75-125	51	20	MH, ML, R1
Selenium	mg/kg	ND	47.2	47.2	42.8	39.8	91	84	75-125	7	20	
Silver	mg/kg	ND	23.5	23.5	23.0	21.3	98	91	75-125	8	20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339483 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1652064 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	04/25/19 10:24	
Barium	mg/L	ND	0.050	0.0034	04/24/19 09:58	
Cadmium	mg/L	ND	0.015	0.0017	04/24/19 09:58	
Chromium	mg/L	ND	0.025	0.0017	04/24/19 09:58	
Lead	mg/L	ND	0.025	0.025	04/24/19 09:58	
Selenium	mg/L	ND	0.040	0.027	04/24/19 09:58	
Silver	mg/L	ND	0.030	0.0072	04/24/19 09:58	

METHOD BLANK: 1651389 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	04/25/19 10:28	
Barium	mg/L	ND	0.050	0.0034	04/24/19 10:02	
Cadmium	mg/L	ND	0.015	0.0017	04/24/19 10:02	
Chromium	mg/L	ND	0.025	0.0017	04/24/19 10:02	
Lead	mg/L	ND	0.025	0.025	04/24/19 10:02	
Selenium	mg/L	ND	0.040	0.027	04/24/19 10:02	
Silver	mg/L	ND	0.030	0.0072	04/24/19 10:02	

LABORATORY CONTROL SAMPLE: 1652065

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.50	100	80-120	
Barium	mg/L	0.5	0.50	100	80-120	
Cadmium	mg/L	0.5	0.50	101	80-120	
Chromium	mg/L	0.5	0.50	99	80-120	
Lead	mg/L	0.5	0.49	97	80-120	
Selenium	mg/L	0.5	0.51	101	80-120	
Silver	mg/L	0.25	0.25	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1652067 1652068

Parameter	Units	30290290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.57	0.59	113	117	75-125	3	20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1652067 1652068

Parameter	Units	30290290001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	1.1	0.5	0.5	1.6	1.7	105	128	75-125	7	20	MH
Cadmium	mg/L	ND	0.5	0.5	0.55	0.56	110	112	75-125	2	20	
Chromium	mg/L	ND	0.5	0.5	0.48	0.50	97	101	75-125	4	20	
Lead	mg/L	ND	0.5	0.5	0.51	0.52	100	103	75-125	3	20	
Selenium	mg/L	ND	0.5	0.5	0.57	0.57	113	114	75-125	1	20	
Silver	mg/L	ND	0.25	0.25	0.29	0.30	114	119	75-125	4	20	

SAMPLE DUPLICATE: 1652066

Parameter	Units	30290290001 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	1.1	1.1	3	20	
Cadmium	mg/L	ND	.0022J		20	
Chromium	mg/L	ND	ND		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339698 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30290290002, 30290290004, 30290290006, 30290290008

METHOD BLANK: 1652026 Matrix: Solid
Associated Lab Samples: 30290290002, 30290290004, 30290290006, 30290290008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	04/24/19 14:21	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	04/24/19 14:21	
2-Butanone (MEK)	ug/L	ND	100	9.1	04/24/19 14:21	CL
Benzene	ug/L	ND	50.0	8.7	04/24/19 14:21	
Carbon tetrachloride	ug/L	ND	50.0	17.2	04/24/19 14:21	
Chlorobenzene	ug/L	ND	50.0	7.8	04/24/19 14:21	
Chloroform	ug/L	ND	50.0	15.0	04/24/19 14:21	
Tetrachloroethene	ug/L	ND	50.0	17.3	04/24/19 14:21	
Trichloroethene	ug/L	ND	50.0	14.7	04/24/19 14:21	
Vinyl chloride	ug/L	ND	50.0	21.5	04/24/19 14:21	
1,2-Dichloroethane-d4 (S)	%.	112	70-130		04/24/19 14:21	
4-Bromofluorobenzene (S)	%.	99	70-130		04/24/19 14:21	
Dibromofluoromethane (S)	%.	101	70-130		04/24/19 14:21	
Toluene-d8 (S)	%.	104	70-130		04/24/19 14:21	

LABORATORY CONTROL SAMPLE: 1652821

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	15.5	78	45-124	
1,2-Dichloroethane	ug/L	20	17.9	90	57-110	
2-Butanone (MEK)	ug/L	20	12.5	63	46-117	CL
Benzene	ug/L	20	14.9	75	63-110	
Carbon tetrachloride	ug/L	20	16.8	84	59-114	
Chlorobenzene	ug/L	20	17.0	85	70-130	
Chloroform	ug/L	20	16.8	84	65-108	
Tetrachloroethene	ug/L	20	16.9	84	64-114	
Trichloroethene	ug/L	20	16.7	84	61-112	
Vinyl chloride	ug/L	20	16.7	84	54-142	
1,2-Dichloroethane-d4 (S)	%.			114	70-130	
4-Bromofluorobenzene (S)	%.			99	70-130	
Dibromofluoromethane (S)	%.			105	70-130	
Toluene-d8 (S)	%.			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1652819 1652820

Parameter	Units	30290290002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	159	164	79	82	10-133	3	30	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1652819 1652820

Parameter	Units	30290290002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	165	159	83	79	24-111	4	30	
2-Butanone (MEK)	ug/L	ND	200	200	113	120	56	60	10-175	6	30	CL
Benzene	ug/L	ND	200	200	151	144	75	72	15-121	4	30	
Carbon tetrachloride	ug/L	ND	200	200	183	175	92	88	20-125	5	30	
Chlorobenzene	ug/L	ND	200	200	165	171	83	86	10-122	3	30	
Chloroform	ug/L	ND	200	200	168	160	84	80	27-117	4	30	
Tetrachloroethene	ug/L	ND	200	200	180	167	90	84	13-125	7	30	
Trichloroethene	ug/L	ND	200	200	162	184	81	92	10-133	13	30	
Vinyl chloride	ug/L	ND	200	200	162	151	81	76	10-133	7	30	
1,2-Dichloroethane-d4 (S)	%.						110	106	70-130			
4-Bromofluorobenzene (S)	%.						93	94	70-130			
Dibromofluoromethane (S)	%.						105	101	70-130			
Toluene-d8 (S)	%.						98	101	70-130			

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339213 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651224 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	16.2	10	04/22/19 17:16	
PCB-1221 (Aroclor 1221)	ug/kg	ND	16.2	14.3	04/22/19 17:16	
PCB-1232 (Aroclor 1232)	ug/kg	ND	16.2	14.7	04/22/19 17:16	
PCB-1242 (Aroclor 1242)	ug/kg	ND	16.2	11.8	04/22/19 17:16	
PCB-1248 (Aroclor 1248)	ug/kg	ND	16.2	9.3	04/22/19 17:16	
PCB-1254 (Aroclor 1254)	ug/kg	ND	16.2	8.6	04/22/19 17:16	
PCB-1260 (Aroclor 1260)	ug/kg	ND	16.2	9.2	04/22/19 17:16	
Decachlorobiphenyl (S)	%.	82	38-139		04/22/19 17:16	
Tetrachloro-m-xylene (S)	%.	85	34-114		04/22/19 17:16	

LABORATORY CONTROL SAMPLE: 1651225

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	163	138	85	61-105	
PCB-1260 (Aroclor 1260)	ug/kg	163	142	87	70-100	
Decachlorobiphenyl (S)	%.			86	38-139	
Tetrachloro-m-xylene (S)	%.			87	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1651226 1651227

Parameter	Units	30289936001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	1180	1110	1110J	976J	94	88	24-137		25	
PCB-1260 (Aroclor 1260)	ug/kg	ND	1180	1110	1060J	1010J	89	91	19-156		25	
Decachlorobiphenyl (S)	%.						94	84	38-139			
Tetrachloro-m-xylene (S)	%.						101	98	34-114			

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339317 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651522 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthylene	ug/kg	ND	6.7	0.48	04/23/19 13:45	
Anthracene	ug/kg	ND	6.7	0.60	04/23/19 13:45	
Benzo(a)anthracene	ug/kg	ND	6.7	0.78	04/23/19 13:45	
Benzo(a)pyrene	ug/kg	ND	6.7	0.42	04/23/19 13:45	
Benzo(b)fluoranthene	ug/kg	ND	6.7	0.80	04/23/19 13:45	
Benzo(g,h,i)perylene	ug/kg	ND	6.7	1.0	04/23/19 13:45	
Benzo(k)fluoranthene	ug/kg	ND	6.7	1.1	04/23/19 13:45	
Chrysene	ug/kg	ND	6.7	0.34	04/23/19 13:45	
Dibenz(a,h)anthracene	ug/kg	ND	6.7	1.5	04/23/19 13:45	
Fluoranthene	ug/kg	ND	6.7	0.50	04/23/19 13:45	
Fluorene	ug/kg	ND	6.7	0.62	04/23/19 13:45	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.7	1.3	04/23/19 13:45	
Naphthalene	ug/kg	ND	6.7	1.3	04/23/19 13:45	
Phenanthrene	ug/kg	ND	6.7	0.59	04/23/19 13:45	
Pyrene	ug/kg	ND	6.7	0.75	04/23/19 13:45	
2-Fluorobiphenyl (S)	%.	70	43-97		04/23/19 13:45	
Terphenyl-d14 (S)	%.	79	56-106		04/23/19 13:45	

LABORATORY CONTROL SAMPLE: 1651523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthylene	ug/kg	132	102	78	42-109	
Anthracene	ug/kg	132	104	79	54-110	
Benzo(a)anthracene	ug/kg	132	118	89	59-119	
Benzo(a)pyrene	ug/kg	132	113	86	55-125	
Benzo(b)fluoranthene	ug/kg	132	113	86	54-131	
Benzo(g,h,i)perylene	ug/kg	132	125	95	54-122	
Benzo(k)fluoranthene	ug/kg	132	125	94	57-123	
Chrysene	ug/kg	132	114	87	62-111	
Dibenz(a,h)anthracene	ug/kg	132	149	113	60-124	
Fluoranthene	ug/kg	132	116	88	60-116	
Fluorene	ug/kg	132	102	78	49-110	
Indeno(1,2,3-cd)pyrene	ug/kg	132	140	106	59-122	
Naphthalene	ug/kg	132	93.6	71	42-97	
Phenanthrene	ug/kg	132	102	77	52-107	
Pyrene	ug/kg	132	112	85	60-117	
2-Fluorobiphenyl (S)	%.			70	43-97	
Terphenyl-d14 (S)	%.			81	56-106	

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(724)850-5600

QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1651524 1651525

Parameter	Units	30289792001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthylene	ug/kg	11.9	184	184	154	149	77	74	26-144	4	20	
Anthracene	ug/kg	112	184	184	282	273	92	87	10-166	3	20	
Benzo(a)anthracene	ug/kg	137	184	184	345	322	113	101	10-175	7	20	
Benzo(a)pyrene	ug/kg	189	184	184	376	365	101	96	10-175	3	20	IS
Benzo(b)fluoranthene	ug/kg	151	184	184	354	292	110	76	10-175	19	20	IS
Benzo(g,h,i)perylene	ug/kg	199	184	184	342	338	78	76	10-171	1	20	IS
Benzo(k)fluoranthene	ug/kg	147	184	184	207	217	32	38	10-160	4	20	IS
Chrysene	ug/kg	336	184	184	550	551	116	117	10-175	0	20	
Dibenz(a,h)anthracene	ug/kg	34.8	184	184	198	205	88	92	10-149	3	20	IS
Fluoranthene	ug/kg	129	184	184	301	275	93	79	10-175	9	20	
Fluorene	ug/kg	88.4	184	184	247	245	86	85	31-136	1	20	
Indeno(1,2,3-cd)pyrene	ug/kg	64.0	184	184	219	224	84	87	10-151	2	20	IS
Naphthalene	ug/kg	62.3	184	184	200	207	75	78	10-149	3	20	
Phenanthrene	ug/kg	549	184	184	804	773	138	122	10-175	4	20	
Pyrene	ug/kg	441	184	184	674	646	127	111	10-175	4	20	
2-Fluorobiphenyl (S)	%.						72	72	43-97			
Terphenyl-d14 (S)	%.						61	56	56-106			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339790 Analysis Method: EPA 8270D
QC Batch Method: EPA 3510C Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1652019 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	100	27.7	04/24/19 18:58	
2,4,5-Trichlorophenol	ug/L	ND	250	66.9	04/24/19 18:58	
2,4,6-Trichlorophenol	ug/L	ND	100	36.7	04/24/19 18:58	
2,4-Dinitrotoluene	ug/L	ND	100	35.8	04/24/19 18:58	
2-Methylphenol(o-Cresol)	ug/L	ND	100	36.7	04/24/19 18:58	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	200	190	04/24/19 18:58	
Hexachloro-1,3-butadiene	ug/L	ND	100	33.0	04/24/19 18:58	
Hexachlorobenzene	ug/L	ND	100	30.5	04/24/19 18:58	
Hexachloroethane	ug/L	ND	100	30.3	04/24/19 18:58	
Nitrobenzene	ug/L	ND	100	37.5	04/24/19 18:58	
Pentachlorophenol	ug/L	ND	250	105	04/24/19 18:58	
Pyridine	ug/L	ND	100	29.9	04/24/19 18:58	
2,4,6-Tribromophenol (S)	%.	85	33-129		04/24/19 18:58	
2-Fluorobiphenyl (S)	%.	85	10-121		04/24/19 18:58	
2-Fluorophenol (S)	%.	55	10-84		04/24/19 18:58	
Nitrobenzene-d5 (S)	%.	85	10-120		04/24/19 18:58	
Phenol-d6 (S)	%.	43	10-58		04/24/19 18:58	
Terphenyl-d14 (S)	%.	77	43-119		04/24/19 18:58	

LABORATORY CONTROL SAMPLE: 1653135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	353	71	23-95	
2,4,5-Trichlorophenol	ug/L	500	430	86	46-114	
2,4,6-Trichlorophenol	ug/L	500	413	83	40-121	
2,4-Dinitrotoluene	ug/L	500	373	75	47-108	
2-Methylphenol(o-Cresol)	ug/L	500	350	70	28-117	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	656	66	24-122	
Hexachloro-1,3-butadiene	ug/L	500	364	73	17-96	
Hexachlorobenzene	ug/L	500	365	73	16-116	
Hexachloroethane	ug/L	500	365	73	17-103	
Nitrobenzene	ug/L	500	415	83	17-126	
Pentachlorophenol	ug/L	500	409	82	23-138	
Pyridine	ug/L	500	185	37	10-71	
2,4,6-Tribromophenol (S)	%.			80	33-129	
2-Fluorobiphenyl (S)	%.			83	10-121	
2-Fluorophenol (S)	%.			45	10-84	
Nitrobenzene-d5 (S)	%.			79	10-120	
Phenol-d6 (S)	%.			32	10-58	
Terphenyl-d14 (S)	%.			72	43-119	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1653136 1653137

Parameter	Units	30290572001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	100 U	500	500	365	375	73	75	10-121	3	25	
2,4,5-Trichlorophenol	ug/L	250 U	500	500	426	456	85	91	23-132	7	25	
2,4,6-Trichlorophenol	ug/L	100 U	500	500	408	430	82	86	10-143	5	25	
2,4-Dinitrotoluene	ug/L	100 U	500	500	372	396	74	79	36-114	6	25	
2-Methylphenol(o-Cresol)	ug/L	100 U	500	500	357	376	71	75	10-140	5	25	
3&4-Methylphenol(m&p Cresol)	ug/L	200 U	1000	1000	681	719	68	72	10-146	5	25	
Hexachloro-1,3-butadiene	ug/L	100 U	500	500	378	380	76	76	10-136	0	25	
Hexachlorobenzene	ug/L	100 U	500	500	357	351	71	70	10-127	2	25	
Hexachloroethane	ug/L	100 U	500	500	380	393	76	79	10-127	3	25	
Nitrobenzene	ug/L	100 U	500	500	432	451	86	90	10-161	4	25	
Pentachlorophenol	ug/L	250 U	500	500	391	406	78	81	10-175	4	25	
Pyridine	ug/L	100 U	500	500	232	54.7J	46	11	10-117		25	
2,4,6-Tribromophenol (S)	%.						78	79	33-129			
2-Fluorobiphenyl (S)	%.						82	86	10-121			
2-Fluorophenol (S)	%.						46	47	10-84			
Nitrobenzene-d5 (S)	%.						81	84	10-120			
Phenol-d6 (S)	%.						32	35	10-58			
Terphenyl-d14 (S)	%.						71	70	43-119			

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339585 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

SAMPLE DUPLICATE: 1652378

Parameter	Units	30289205001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	76.9	76.1	1	20	

SAMPLE DUPLICATE: 1652379

Parameter	Units	30289207001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	76.8	77.5	1	20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339588 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1652393 Matrix: Water
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		04/23/19 16:23	

SAMPLE DUPLICATE: 1652394

Parameter	Units	30290582001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339194 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

SAMPLE DUPLICATE: 1650981

Parameter	Units	30290290001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	7.9	7.9	0	10	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339303 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651467 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	1.0	0.40	04/22/19 18:38	

LABORATORY CONTROL SAMPLE: 1651468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.4	ND	0	0-8	

SAMPLE DUPLICATE: 1651469

Parameter	Units	30289318001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	

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QUALITY CONTROL DATA

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

QC Batch: 339302 Analysis Method: SM 4500S2F-00
QC Batch Method: SW-846 7.3.4.2 Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

METHOD BLANK: 1651463 Matrix: Solid
Associated Lab Samples: 30290290001, 30290290003, 30290290005, 30290290007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	10	10	04/22/19 17:48	

LABORATORY CONTROL SAMPLE: 1651464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	199	35.8	18	0-52	

SAMPLE DUPLICATE: 1651465

Parameter	Units	30289318001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	

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QUALIFIERS

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
ED	Due to the extract's physical characteristics, the analysis was performed at dilution.
IS	The internal standard response is below criteria. Results may be biased high.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30290290001	**AOC29 Section #1 Waste**	EPA 3546	339213	EPA 8082A	339361
30290290003	**AOC29 Section #2 Waste**	EPA 3546	339213	EPA 8082A	339361
30290290005	**AOC29 Section #3 Waste**	EPA 3546	339213	EPA 8082A	339361
30290290007	**AOC28 UPPER Waste**	EPA 3546	339213	EPA 8082A	339361
30290290001	**AOC29 Section #1 Waste**	EPA 3050B	339232	EPA 6010C	339369
30290290003	**AOC29 Section #2 Waste**	EPA 3050B	339232	EPA 6010C	339369
30290290005	**AOC29 Section #3 Waste**	EPA 3050B	339232	EPA 6010C	339369
30290290007	**AOC28 UPPER Waste**	EPA 3050B	339232	EPA 6010C	339369
30290290001	**AOC29 Section #1 Waste**	EPA 3005A	339483	EPA 6010C	339634
30290290003	**AOC29 Section #2 Waste**	EPA 3005A	339483	EPA 6010C	339634
30290290005	**AOC29 Section #3 Waste**	EPA 3005A	339483	EPA 6010C	339634
30290290007	**AOC28 UPPER Waste**	EPA 3005A	339483	EPA 6010C	339634
30290290001	**AOC29 Section #1 Waste**	EPA 7470A	339466	EPA 7470A	339521
30290290003	**AOC29 Section #2 Waste**	EPA 7470A	339466	EPA 7470A	339521
30290290005	**AOC29 Section #3 Waste**	EPA 7470A	339466	EPA 7470A	339521
30290290007	**AOC28 UPPER Waste**	EPA 7470A	339466	EPA 7470A	339521
30290290001	**AOC29 Section #1 Waste**	EPA 7471B	339440	EPA 7471B	339528
30290290003	**AOC29 Section #2 Waste**	EPA 7471B	339440	EPA 7471B	339528
30290290005	**AOC29 Section #3 Waste**	EPA 7471B	339440	EPA 7471B	339528
30290290007	**AOC28 UPPER Waste**	EPA 7471B	339440	EPA 7471B	339528
30290290001	**AOC29 Section #1 Waste**	EPA 3546	339317	EPA 8270D by SIM	339419
30290290003	**AOC29 Section #2 Waste**	EPA 3546	339317	EPA 8270D by SIM	339419
30290290005	**AOC29 Section #3 Waste**	EPA 3546	339317	EPA 8270D by SIM	339419
30290290007	**AOC28 UPPER Waste**	EPA 3546	339317	EPA 8270D by SIM	339419
30290290001	**AOC29 Section #1 Waste**	EPA 3510C	339790	EPA 8270D	339804
30290290003	**AOC29 Section #2 Waste**	EPA 3510C	339790	EPA 8270D	339804
30290290005	**AOC29 Section #3 Waste**	EPA 3510C	339790	EPA 8270D	339804
30290290007	**AOC28 UPPER Waste**	EPA 3510C	339790	EPA 8270D	339804
30290290002	**AOC29 Section #1 Waste**	EPA 8260C	339698		
30290290004	**AOC29 Section #2 Waste**	EPA 8260C	339698		
30290290006	**AOC29 Section #3 Waste**	EPA 8260C	339698		
30290290008	**AOC28 Upper Waste**	EPA 8260C	339698		
30290290001	**AOC29 Section #1 Waste**	ASTM D2974-87	339585		
30290290003	**AOC29 Section #2 Waste**	ASTM D2974-87	339585		
30290290005	**AOC29 Section #3 Waste**	ASTM D2974-87	339585		
30290290007	**AOC28 UPPER Waste**	ASTM D2974-87	339585		
30290290001	**AOC29 Section #1 Waste**	EPA 1010	339588		
30290290003	**AOC29 Section #2 Waste**	EPA 1010	339588		
30290290005	**AOC29 Section #3 Waste**	EPA 1010	339588		
30290290007	**AOC28 UPPER Waste**	EPA 1010	339588		
30290290001	**AOC29 Section #1 Waste**	EPA 9045D	339194		
30290290003	**AOC29 Section #2 Waste**	EPA 9045D	339194		
30290290005	**AOC29 Section #3 Waste**	EPA 9045D	339194		
30290290007	**AOC28 UPPER Waste**	EPA 9045D	339194		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER EPT SITE -IRM
Pace Project No.: 30290290

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30290290001	**AOC29 Section #1 Waste**	SW-846 7.3.3.2	339303	EPA 9014	339409
30290290003	**AOC29 Section #2 Waste**	SW-846 7.3.3.2	339303	EPA 9014	339409
30290290005	**AOC29 Section #3 Waste**	SW-846 7.3.3.2	339303	EPA 9014	339409
30290290007	**AOC28 UPPER Waste**	SW-846 7.3.3.2	339303	EPA 9014	339409
30290290001	**AOC29 Section #1 Waste**	SW-846 7.3.4.2	339302	SM 4500S2F-00	339407
30290290003	**AOC29 Section #2 Waste**	SW-846 7.3.4.2	339302	SM 4500S2F-00	339407
30290290005	**AOC29 Section #3 Waste**	SW-846 7.3.4.2	339302	SM 4500S2F-00	339407
30290290007	**AOC28 UPPER Waste**	SW-846 7.3.4.2	339302	SM 4500S2F-00	339407

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P895L0-LL0

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

No. 008860

wsp

WSP USA Office Address	11 STANWIX ST. SUITE 950 PITTSBURGH PA 15222
Project Name	FORMER EAT SITE-IRM
WSP USA Contact Name	DAVE RYKACZEWSKI
Project Location	ITHACA, NY
WSP USA Contact E-mail	DAVE.RYKACZEWSKI @wsp.com
Project Number & Task	31401545.001/TASK2
WSP USA Contact Phone	412-375-0282
Sampler(s) Name(s)	NATE WINSTON
Sampler(s) Signature(s)	
Laboratory Name & Location	PACE, Greensburg PA
Laboratory Project Manager	Rachel Christner
Requested Turn-Around-Time	☐ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR 1-WEEK

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs	TCLP SVOCs	Total RCRA 8 Metals	TOTAL PAHs (NOT SVOCs)	TOTAL PCBs	Reactive Sulfide + Cyanide	Ignitability / Chlorine	pH	Percent Solids	Sample Comments
AOC 29 Section #1 Waste	S	—	—	4/18/19	1110	1	X		X	X	X	X	X	X	X	X	Composite 001
AOC 29 Section #1 Waste	S	—	—	/	1110	4		X								X	Grab 002
AOC 29 Section #2 Waste	S	—	—	/	1150	1	X		X	X	X	X	X	X	X	X	Composite 003
AOC 29 Section #2 Waste	S	—	—		1150	4		X									Grab 004
AOC 29 Section #3 Waste	S	—	—		1230	1	X		X	X	X	X	X	X	X	X	Composite 005
AOC 29 Section #3 Waste	S	—	—		1230	4		X									Grab 006
AOC 28 Upper Waste	S	—	—		1310	1	X		X	X	X	X	X	X	X	X	Composite 007
AOC 28 Upper Waster	S	—	—	—	1310	4		X									Grab 008

WO#: 30290290

30290290

	Date	Time		Date	Time		
Relinquished By (Signature)	4/18/19	1545	Received By (Signature)			Shipment Method: Fedex	Tracking Number(s):
Relinquished By (Signature)	Date	Time	Received By (Signature)	4/19/19	0950	Number of Packages	Custody Seal Number(s)

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

30290290

Pace Analytical

Client Name: WSP Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Label MJS
LIMS Login MJS

Tracking #:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used 10 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 3.6 °C Correction Factor: +0.0 °C Final Temp: 3.6 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# N/A — Date and Initials of person examining contents: MJS 4-9-19
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):	✓			7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon (Non aqueous matrix)			✓	16.
All containers meet method preservation requirements.			✓	Initial when completed MJS 4-9-19 — Date/time of preservation — Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:			✓	18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: — Date:

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

April 26, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on April 24, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Timothy Reed for
Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30290853001	**AOC1 NON HAZ WASTE**	Solid	04/23/19 12:30	04/24/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30290853001	**AOC1 NON HAZ WASTE**	EPA 8082A	CWB	9	PASI-PA
		ASTM D2974-87	ARG	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: April 26, 2019

General Information:
1 sample was analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Sample: AOC1 NON HAZ WASTE **Lab ID: 30290853001** Collected: 04/23/19 12:30 Received: 04/24/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.18	0.11	10	04/24/19 20:25	04/25/19 19:23	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.18	0.16	10	04/24/19 20:25	04/25/19 19:23	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.18	0.16	10	04/24/19 20:25	04/25/19 19:23	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.18	0.13	10	04/24/19 20:25	04/25/19 19:23	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.18	0.10	10	04/24/19 20:25	04/25/19 19:23	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.47**	mg/kg	0.18	0.094	10	04/24/19 20:25	04/25/19 19:23	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.18	0.10	10	04/24/19 20:25	04/25/19 19:23	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	94	%.	34-114		10	04/24/19 20:25	04/25/19 19:23	877-09-8	
Decachlorobiphenyl (S)	95	%.	38-139		10	04/24/19 20:25	04/25/19 19:23	2051-24-3	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.4**	%	0.10	0.10	1		04/24/19 13:33		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

QC Batch: 339724
QC Batch Method: EPA 3546
Analysis Method: EPA 8082A
Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30290853001

METHOD BLANK: 1652926
Matrix: Solid
Associated Lab Samples: 30290853001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.017	0.010	04/25/19 15:59	
PCB-1221 (Aroclor 1221)	mg/kg	ND	0.017	0.015	04/25/19 15:59	
PCB-1232 (Aroclor 1232)	mg/kg	ND	0.017	0.015	04/25/19 15:59	
PCB-1242 (Aroclor 1242)	mg/kg	ND	0.017	0.012	04/25/19 15:59	
PCB-1248 (Aroclor 1248)	mg/kg	ND	0.017	0.0096	04/25/19 15:59	
PCB-1254 (Aroclor 1254)	mg/kg	ND	0.017	0.0089	04/25/19 15:59	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.017	0.0095	04/25/19 15:59	
Decachlorobiphenyl (S)	%.	82	38-139		04/25/19 15:59	
Tetrachloro-m-xylene (S)	%.	83	34-114		04/25/19 15:59	

LABORATORY CONTROL SAMPLE: 1652927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	0.17	0.14	82	61-105	
PCB-1260 (Aroclor 1260)	mg/kg	0.17	0.14	85	70-100	
Decachlorobiphenyl (S)	%.			83	38-139	
Tetrachloro-m-xylene (S)	%.			82	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1652928 1652929

Parameter	Units	30289792001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	mg/kg	234 U ug/kg	0.24	0.24	.19J	.2J	81	84	24-137		25	
PCB-1260 (Aroclor 1260)	mg/kg	234 U ug/kg	0.24	0.24	.22J	0.25	93	105	19-156		25	
Decachlorobiphenyl (S)	%.						92	97	38-139			
Tetrachloro-m-xylene (S)	%.						89	89	34-114			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

QC Batch: 339742
QC Batch Method: ASTM D2974-87
Associated Lab Samples: 30290853001

Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture

SAMPLE DUPLICATE: 1652979

Parameter	Units	30289265001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.7	15.9	5	20	

SAMPLE DUPLICATE: 1652980

Parameter	Units	30289265002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.1	12.5	25	20	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALIFIERS

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT Site-Soil Ithaca
Pace Project No.: 30290853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30290853001	**AOC1 NON HAZ WASTE**	EPA 3546	339724	EPA 8082A	339838
30290853001	**AOC1 NON HAZ WASTE**	ASTM D2974-87	339742		

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CHAIN-OF-CUSTODY RECORD

No. 008826

wsp

WSP USA Office Address: 11 STANWIX ST SUITE 650 PITTSBURGH PA 15222

Project Name: FORMER EPT SITE - ITHACA

WSP USA Contact Name: DAVE RYKACZEWSKI

Project Location: ITHACA, NY

WSP USA Contact E-mail: DAVE.RYKACZEWSKI@wsp.com

Project Number & Task: 31401545.001/TASK2

WSP USA Contact Phone: 412-375-0282

Sampler(s) Name(s): NATE WINSTON

Sampler(s) Signature(s):

Laboratory Name & Location: PACE, GREENSBURG PA

Laboratory Project Manager: RACHEL CHRISTNER

Requested Turn-Around-Time: ☐ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ — HR BY 4/26

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	PCB's 6010	Sample Comments
AOC1 NON HAZ WASTE	S	—	—	4/23/19	1230	2	X	COMPOSITE 001

WO#: 30290853

30290853

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	4/23/19	1330		4/24/19	9:30	Fedex	7736 5481 6377
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
						1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP

Project # #-30290853

Label MG
LIMS Login JVB

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 7736 5481 6377

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used 10 Type of Ice: Wet Blue None

Cooler Temperature Observed Temp 3.8 °C Correction Factor: 0 °C Final Temp: 3.8 °C

Temp should be above freezing to 6°C

pH paper Lot# N/A

Date and Initials of person examining contents: MG 4/24/19

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix: SL				
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation.			✓	16.
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				
All containers meet method preservation requirements.	✓			Initial when completed MG Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: MG Date: 4/24/19

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-9 5April2019)

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30298231

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Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

June 21, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

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SAMPLE SUMMARY

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30298231001	**AOC35L**	Solid	06/05/19 09:55	06/06/19 09:40
30298231002	**AOC26-1**	Solid	06/05/19 11:20	06/06/19 09:40
30298231003	**AOC26-2**	Solid	06/05/19 11:40	06/06/19 09:40
30298231004	**AOC26-3**	Solid	06/05/19 12:00	06/06/19 09:40
30298231005	**AOC26-4**	Solid	06/05/19 12:20	06/06/19 09:40
30298231006	**AOC26-BLDG 24**	Solid	06/05/19 13:45	06/06/19 09:40
30298231007	**AOC34-1**	Solid	06/05/19 14:30	06/06/19 09:40
30298231008	**AOC34-2**	Solid	06/05/19 15:50	06/06/19 09:40
30298231009	**TB_060519**	Water	06/05/19 00:01	06/06/19 09:40
30298231010	**AOC34**	Solid	06/05/19 14:30	06/06/19 09:40

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SAMPLE ANALYTE COUNT

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30298231001	**AOC35L**	EPA 8081B	TAW	9	PASI-PA
		EPA 8082A	CWB	10	PASI-PA
		EPA 8151A	MJM	3	PASI-MV
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	SJG	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-00	PAS	1	PASI-PA
30298231007	**AOC34-1**	EPA 8260C	JEW	14	PASI-PA
30298231008	**AOC34-2**	EPA 8260C	JEW	14	PASI-PA
30298231010	**AOC34**	EPA 8081B	TAW	9	PASI-PA
		EPA 8082A	CWB	10	PASI-PA
		EPA 8151A	MJM	3	PASI-MV
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	SJG	18	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-00	PAS	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8081B**
Description: 8081B GCS Pesticides, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 8081B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.
- AOC34 (Lab ID: 30298231010)
- AOC35L (Lab ID: 30298231001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 346269

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30298236001

R1: RPD value was outside control limits.
- MSD (Lab ID: 1684399)
  - PCB-1260 (Aroclor 1260)

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8151A**
Description: 8151 Chlorinate Herbicide TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 8151A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: 346350

IS: The internal standard response is below criteria. Results may be biased high.

- AOC34 (Lab ID: 30298231010)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- AOC35L (Lab ID: 30298231001)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- MS (Lab ID: 1685238)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
- MSD (Lab ID: 1685239)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

QC Batch: 346350

IS: The internal standard response is below criteria. Results may be biased high.

- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Dibenz(a,h)anthracene
- Indeno(1,2,3-cd)pyrene

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 346350

S5: Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

- AOC34 (Lab ID: 30298231010)
  - Terphenyl-d14 (S)
- MS (Lab ID: 1685238)
  - Terphenyl-d14 (S)
- MSD (Lab ID: 1685239)
  - Terphenyl-d14 (S)

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

- AOC34 (Lab ID: 30298231010)
  - Terphenyl-d14 (S)
- MS (Lab ID: 1685238)
  - Terphenyl-d14 (S)
- MSD (Lab ID: 1685239)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 346350

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30298235001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 1685238)
  - Anthracene
  - Benzo(g,h,i)perylene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

QC Batch: 346350

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30298235001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 1685239)
  - Acenaphthylene
  - Anthracene
  - Benzo(g,h,i)perylene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Naphthalene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1685239)
  - Acenaphthylene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3535A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 346511

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- AOC34 (Lab ID: 30298231010)
  - 2,4,6-Tribromophenol (S)
- AOC35L (Lab ID: 30298231001)
  - 2,4,6-Tribromophenol (S)
- LB (Lab ID: 1682992)
  - 2,4,6-Tribromophenol (S)
- LB (Lab ID: 1685290)
  - 2,4,6-Tribromophenol (S)
- LB (Lab ID: 1685500)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 1685751)
  - 2,4,6-Tribromophenol (S)
- MS (Lab ID: 1686274)
  - 2,4,6-Tribromophenol (S)
- MSD (Lab ID: 1686275)
  - 2,4,6-Tribromophenol (S)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 346511

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 1685751)
  - Hexachlorobenzene

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1685751)
  - 2,4-Dinitrotoluene

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 346511

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30298519001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 1686274)
  - Hexachlorobenzene
- MSD (Lab ID: 1686275)
  - Hexachlorobenzene

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1686274)
  - 2,4-Dinitrotoluene
- MSD (Lab ID: 1686275)
  - 2,4-Dinitrotoluene

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
3 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 347555

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30298231001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 1690585)
  - Trichloroethene
- MSD (Lab ID: 1690586)
  - Trichloroethene

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- AOC34 (Lab ID: 30298231010)
- AOC35L (Lab ID: 30298231001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Method: **SM 4500S2F-00**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: June 21, 2019

General Information:
2 samples were analyzed for SM 4500S2F-00. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.
- AOC34 (Lab ID: 30298231010)
- AOC35L (Lab ID: 30298231001)

H2: Extraction or preparation conducted outside EPA method holding time.
- AOC34 (Lab ID: 30298231010)
- AOC35L (Lab ID: 30298231001)

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC35L **Lab ID: 30298231001** Collected: 06/05/19 09:55 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides, TCLP	Analytical Method: EPA 8081B Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 8.64; Final pH: 5.9								
gamma-BHC (Lindane)	ND	ug/L	0.10	0.0024	1	06/13/19 12:47	06/17/19 20:54	58-89-9	
Chlordane (Technical)	ND	ug/L	1.0	0.040	1	06/13/19 12:47	06/17/19 20:54	57-74-9	
Endrin	ND	ug/L	0.20	0.0049	1	06/13/19 12:47	06/17/19 20:54	72-20-8	
Heptachlor	ND	ug/L	0.10	0.0021	1	06/13/19 12:47	06/17/19 20:54	76-44-8	
Heptachlor epoxide	ND	ug/L	0.10	0.0015	1	06/13/19 12:47	06/17/19 20:54	1024-57-3	
Methoxychlor	ND	ug/L	1.0	0.014	1	06/13/19 12:47	06/17/19 20:54	72-43-5	
Toxaphene	ND	ug/L	2.0	0.17	1	06/13/19 12:47	06/17/19 20:54	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	86	%.	24-108		1	06/13/19 12:47	06/17/19 20:54	2051-24-3	
Tetrachloro-m-xylene (S)	84	%.	44-93		1	06/13/19 12:47	06/17/19 20:54	877-09-8	
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	196	121	10	06/07/19 19:25	06/12/19 00:59	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	196	174	10	06/07/19 19:25	06/12/19 00:59	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	196	178	10	06/07/19 19:25	06/12/19 00:59	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	196	143	10	06/07/19 19:25	06/12/19 00:59	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	196	113	10	06/07/19 19:25	06/12/19 00:59	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	196	104	10	06/07/19 19:25	06/12/19 00:59	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	196	111	10	06/07/19 19:25	06/12/19 00:59	11096-82-5	ED
PCB, Total	ND	ug/kg	1760	1110	10	06/07/19 19:25	06/12/19 00:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	78	%.	34-114		10	06/07/19 19:25	06/12/19 00:59	877-09-8	
Decachlorobiphenyl (S)	101	%.	38-139		10	06/07/19 19:25	06/12/19 00:59	2051-24-3	
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Leachate Method/Date: EPA 1311; 06/13/19 11:55								
2,4-D	ND	mg/L	0.0050	0.0000050	1	06/12/19 11:00	06/14/19 01:36	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	06/12/19 11:00	06/14/19 01:36	93-72-1	
Surrogates									
2,4-DCAA (S)	63	%	36-121		1	06/12/19 11:00	06/14/19 01:36	19719-28-9	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 8.64; Final pH: 5.9								
Arsenic	ND	mg/L	0.025	0.010	1	06/11/19 14:51	06/12/19 08:44	7440-38-2	
Barium	**2.6**	mg/L	0.050	0.0034	1	06/11/19 14:51	06/12/19 08:44	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	06/11/19 14:51	06/12/19 08:44	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	06/11/19 14:51	06/12/19 08:44	7440-47-3	
Lead	ND	mg/L	0.25	0.25	10	06/11/19 14:51	06/12/19 09:03	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	06/11/19 14:51	06/12/19 08:44	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	06/11/19 14:51	06/12/19 08:44	7440-22-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC35L **Lab ID: 30298231001** Collected: 06/05/19 09:55 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 8.64; Final pH: 5.9								
Mercury	ND	ug/L	1.0	0.030	1	06/11/19 16:23	06/11/19 22:02	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	**803**	ug/kg	7.9	0.56	1	06/10/19 07:58	06/11/19 00:00	208-96-8	
Anthracene	**2390**	ug/kg	78.9	7.2	10	06/10/19 07:58	06/11/19 00:18	120-12-7	
Benzo(a)anthracene	**3550**	ug/kg	78.9	9.3	10	06/10/19 07:58	06/11/19 00:18	56-55-3	
Benzo(a)pyrene	**2580**	ug/kg	78.9	4.9	10	06/10/19 07:58	06/11/19 00:18	50-32-8	IS
Benzo(b)fluoranthene	**5360**	ug/kg	78.9	9.5	10	06/10/19 07:58	06/11/19 00:18	205-99-2	IS
Benzo(g,h,i)perylene	**610**	ug/kg	7.9	1.2	1	06/10/19 07:58	06/11/19 00:00	191-24-2	IS
Benzo(k)fluoranthene	**2130**	ug/kg	78.9	13.2	10	06/10/19 07:58	06/11/19 00:18	207-08-9	IS
Chrysene	**4190**	ug/kg	78.9	4.1	10	06/10/19 07:58	06/11/19 00:18	218-01-9	
Dibenz(a,h)anthracene	**343**	ug/kg	7.9	1.8	1	06/10/19 07:58	06/11/19 00:00	53-70-3	IS
Fluoranthene	**4780**	ug/kg	78.9	6.0	10	06/10/19 07:58	06/11/19 00:18	206-44-0	
Fluorene	**241**	ug/kg	7.9	0.73	1	06/10/19 07:58	06/11/19 00:00	86-73-7	
Indeno(1,2,3-cd)pyrene	**687**	ug/kg	7.9	1.5	1	06/10/19 07:58	06/11/19 00:00	193-39-5	IS
Naphthalene	**419**	ug/kg	7.9	1.5	1	06/10/19 07:58	06/11/19 00:00	91-20-3	
Phenanthrene	**1110**	ug/kg	7.9	0.70	1	06/10/19 07:58	06/11/19 00:00	85-01-8	
Pyrene	**5700**	ug/kg	78.9	8.9	10	06/10/19 07:58	06/11/19 00:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	81	%.	43-97		1	06/10/19 07:58	06/11/19 00:00	321-60-8	
Terphenyl-d14 (S)	65	%.	56-106		1	06/10/19 07:58	06/11/19 00:00	1718-51-0	
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 8.64; Final pH: 5.9								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	06/11/19 13:11	06/11/19 23:57	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	06/11/19 13:11	06/11/19 23:57	121-14-2	L2
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	06/11/19 13:11	06/11/19 23:57	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	06/11/19 13:11	06/11/19 23:57	118-74-1	L1
Hexachloroethane	ND	ug/L	200	55.5	1	06/11/19 13:11	06/11/19 23:57	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	06/11/19 13:11	06/11/19 23:57	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	06/11/19 13:11	06/11/19 23:57		
Nitrobenzene	ND	ug/L	100	42.6	1	06/11/19 13:11	06/11/19 23:57	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	06/11/19 13:11	06/11/19 23:57	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	06/11/19 13:11	06/11/19 23:57	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	06/11/19 13:11	06/11/19 23:57	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	06/11/19 13:11	06/11/19 23:57	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	69	%.	61-105		1	06/11/19 13:11	06/11/19 23:57	4165-60-0	
2-Fluorobiphenyl (S)	72	%.	56-90		1	06/11/19 13:11	06/11/19 23:57	321-60-8	
Terphenyl-d14 (S)	67	%.	32-90		1	06/11/19 13:11	06/11/19 23:57	1718-51-0	
Phenol-d6 (S)	75	%.	64-101		1	06/11/19 13:11	06/11/19 23:57	13127-88-3	
2-Fluorophenol (S)	79	%.	61-116		1	06/11/19 13:11	06/11/19 23:57	367-12-4	
2,4,6-Tribromophenol (S)	105	%.	55-108		1	06/11/19 13:11	06/11/19 23:57	118-79-6	CH

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC35L **Lab ID: 30298231001** Collected: 06/05/19 09:55 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 06/13/19 14:30								
Benzene	ND	ug/L	50.0	8.7	10		06/17/19 18:39	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		06/17/19 18:39	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		06/17/19 18:39	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		06/17/19 18:39	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		06/17/19 18:39	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		06/17/19 18:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		06/17/19 18:39	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		06/17/19 18:39	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		06/17/19 18:39	79-01-6	MH
Vinyl chloride	ND	ug/L	50.0	21.5	10		06/17/19 18:39	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	119	%.	70-130		10		06/17/19 18:39	17060-07-0	
Toluene-d8 (S)	95	%.	70-130		10		06/17/19 18:39	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130		10		06/17/19 18:39	460-00-4	
Dibromofluoromethane (S)	97	%.	70-130		10		06/17/19 18:39	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		06/18/19 16:25		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		06/20/19 12:06		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.1**	Std. Units	2.0	2.0	1		06/07/19 23:01		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.2	0.48	1	06/13/19 22:10	06/19/19 13:58		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	12.1	12.1	1	06/13/19 22:10	06/13/19 22:13		H1,H2

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC34-1 **Lab ID: 30298231007** Collected: 06/05/19 14:30 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 06/11/19 10:06								
Benzene	ND	ug/L	50.0	8.7	10		06/13/19 15:14	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		06/13/19 15:14	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		06/13/19 15:14	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		06/13/19 15:14	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		06/13/19 15:14	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		06/13/19 15:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		06/13/19 15:14	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		06/13/19 15:14	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		06/13/19 15:14	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		06/13/19 15:14	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	109	%.	70-130		10		06/13/19 15:14	17060-07-0	
Toluene-d8 (S)	94	%.	70-130		10		06/13/19 15:14	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130		10		06/13/19 15:14	460-00-4	
Dibromofluoromethane (S)	114	%.	70-130		10		06/13/19 15:14	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC34-2 **Lab ID: 30298231008** Collected: 06/05/19 15:50 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 06/11/19 10:06								
Benzene	ND	ug/L	50.0	8.7	10		06/13/19 16:31	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		06/13/19 16:31	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		06/13/19 16:31	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		06/13/19 16:31	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		06/13/19 16:31	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		06/13/19 16:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		06/13/19 16:31	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		06/13/19 16:31	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		06/13/19 16:31	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		06/13/19 16:31	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	123	%.	70-130		10		06/13/19 16:31	17060-07-0	
Toluene-d8 (S)	97	%.	70-130		10		06/13/19 16:31	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	70-130		10		06/13/19 16:31	460-00-4	
Dibromofluoromethane (S)	128	%.	70-130		10		06/13/19 16:31	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC34 **Lab ID: 30298231010** Collected: 06/05/19 14:30 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides, TCLP	Analytical Method: EPA 8081B Preparation Method: EPA 3510C Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 9; Final pH: 5.9								
gamma-BHC (Lindane)	ND	ug/L	0.10	0.0024	1	06/13/19 12:47	06/17/19 21:04	58-89-9	
Chlordane (Technical)	ND	ug/L	1.0	0.040	1	06/13/19 12:47	06/17/19 21:04	57-74-9	
Endrin	ND	ug/L	0.20	0.0049	1	06/13/19 12:47	06/17/19 21:04	72-20-8	
Heptachlor	ND	ug/L	0.10	0.0021	1	06/13/19 12:47	06/17/19 21:04	76-44-8	
Heptachlor epoxide	ND	ug/L	0.10	0.0015	1	06/13/19 12:47	06/17/19 21:04	1024-57-3	
Methoxychlor	ND	ug/L	1.0	0.014	1	06/13/19 12:47	06/17/19 21:04	72-43-5	
Toxaphene	ND	ug/L	2.0	0.17	1	06/13/19 12:47	06/17/19 21:04	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	88	%.	24-108		1	06/13/19 12:47	06/17/19 21:04	2051-24-3	
Tetrachloro-m-xylene (S)	82	%.	44-93		1	06/13/19 12:47	06/17/19 21:04	877-09-8	
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	178	110	10	06/07/19 19:25	06/12/19 01:08	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	178	158	10	06/07/19 19:25	06/12/19 01:08	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	178	162	10	06/07/19 19:25	06/12/19 01:08	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	178	130	10	06/07/19 19:25	06/12/19 01:08	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	178	102	10	06/07/19 19:25	06/12/19 01:08	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	178	94.8	10	06/07/19 19:25	06/12/19 01:08	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	178	101	10	06/07/19 19:25	06/12/19 01:08	11096-82-5	ED
PCB, Total	ND	ug/kg	1600	1000	10	06/07/19 19:25	06/12/19 01:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	77	%.	34-114		10	06/07/19 19:25	06/12/19 01:08	877-09-8	
Decachlorobiphenyl (S)	102	%.	38-139		10	06/07/19 19:25	06/12/19 01:08	2051-24-3	
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Leachate Method/Date: EPA 1311; 06/13/19 11:55								
2,4-D	ND	mg/L	0.0050	0.0000050	1	06/12/19 11:00	06/14/19 01:57	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	06/12/19 11:00	06/14/19 01:57	93-72-1	
Surrogates									
2,4-DCAA (S)	50	%	36-121		1	06/12/19 11:00	06/14/19 01:57	19719-28-9	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 9; Final pH: 5.9								
Arsenic	ND	mg/L	0.025	0.010	1	06/11/19 14:51	06/12/19 08:35	7440-38-2	
Barium	**0.65**	mg/L	0.050	0.0034	1	06/11/19 14:51	06/12/19 08:35	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	06/11/19 14:51	06/12/19 08:35	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	06/11/19 14:51	06/12/19 08:35	7440-47-3	
Lead	ND	mg/L	0.25	0.25	10	06/11/19 14:51	06/12/19 08:54	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	06/11/19 14:51	06/12/19 08:35	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	06/11/19 14:51	06/12/19 08:35	7440-22-4	

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC34 **Lab ID: 30298231010** Collected: 06/05/19 14:30 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 9; Final pH: 5.9								
Mercury	ND	ug/L	1.0	0.030	1	06/11/19 16:23	06/11/19 22:04	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	**296**	ug/kg	7.1	0.51	1	06/10/19 07:58	06/11/19 00:36	208-96-8	
Anthracene	**2820**	ug/kg	71.2	6.5	10	06/10/19 07:58	06/11/19 00:54	120-12-7	
Benzo(a)anthracene	**7980**	ug/kg	71.2	8.4	10	06/10/19 07:58	06/11/19 00:54	56-55-3	
Benzo(a)pyrene	**6260**	ug/kg	71.2	4.4	10	06/10/19 07:58	06/11/19 00:54	50-32-8	IS
Benzo(b)fluoranthene	**9160**	ug/kg	71.2	8.5	10	06/10/19 07:58	06/11/19 00:54	205-99-2	IS
Benzo(g,h,i)perylene	**1350**	ug/kg	7.1	1.1	1	06/10/19 07:58	06/11/19 00:36	191-24-2	IS
Benzo(k)fluoranthene	**4020**	ug/kg	71.2	11.9	10	06/10/19 07:58	06/11/19 00:54	207-08-9	IS
Chrysene	**6090**	ug/kg	71.2	3.7	10	06/10/19 07:58	06/11/19 00:54	218-01-9	
Dibenz(a,h)anthracene	**755**	ug/kg	7.1	1.6	1	06/10/19 07:58	06/11/19 00:36	53-70-3	IS
Fluoranthene	**10500**	ug/kg	71.2	5.4	10	06/10/19 07:58	06/11/19 00:54	206-44-0	
Fluorene	**952**	ug/kg	7.1	0.66	1	06/10/19 07:58	06/11/19 00:36	86-73-7	
Indeno(1,2,3-cd)pyrene	**2250**	ug/kg	71.2	13.5	10	06/10/19 07:58	06/11/19 00:54	193-39-5	IS
Naphthalene	**296**	ug/kg	7.1	1.4	1	06/10/19 07:58	06/11/19 00:36	91-20-3	
Phenanthrene	**10000**	ug/kg	71.2	6.3	10	06/10/19 07:58	06/11/19 00:54	85-01-8	
Pyrene	**7450**	ug/kg	71.2	8.0	10	06/10/19 07:58	06/11/19 00:54	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	82	%.	43-97		1	06/10/19 07:58	06/11/19 00:36	321-60-8	
Terphenyl-d14 (S)	50	%.	56-106		1	06/10/19 07:58	06/11/19 00:36	1718-51-0	S5,SR
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 06/10/19 09:55 Initial pH: 9; Final pH: 5.9								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	06/11/19 13:11	06/12/19 00:20	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	06/11/19 13:11	06/12/19 00:20	121-14-2	L2
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	06/11/19 13:11	06/12/19 00:20	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	06/11/19 13:11	06/12/19 00:20	118-74-1	L1
Hexachloroethane	ND	ug/L	200	55.5	1	06/11/19 13:11	06/12/19 00:20	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	06/11/19 13:11	06/12/19 00:20	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	06/11/19 13:11	06/12/19 00:20		
Nitrobenzene	ND	ug/L	100	42.6	1	06/11/19 13:11	06/12/19 00:20	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	06/11/19 13:11	06/12/19 00:20	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	06/11/19 13:11	06/12/19 00:20	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	06/11/19 13:11	06/12/19 00:20	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	06/11/19 13:11	06/12/19 00:20	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	72	%.	61-105		1	06/11/19 13:11	06/12/19 00:20	4165-60-0	
2-Fluorobiphenyl (S)	75	%.	56-90		1	06/11/19 13:11	06/12/19 00:20	321-60-8	
Terphenyl-d14 (S)	71	%.	32-90		1	06/11/19 13:11	06/12/19 00:20	1718-51-0	
Phenol-d6 (S)	94	%.	64-101		1	06/11/19 13:11	06/12/19 00:20	13127-88-3	
2-Fluorophenol (S)	95	%.	61-116		1	06/11/19 13:11	06/12/19 00:20	367-12-4	
2,4,6-Tribromophenol (S)	107	%.	55-108		1	06/11/19 13:11	06/12/19 00:20	118-79-6	CH

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Sample: AOC34 **Lab ID: 30298231010** Collected: 06/05/19 14:30 Received: 06/06/19 09:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.3**	%	0.10	0.10	1		06/20/19 15:52		D6
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		06/20/19 15:53		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.3**	Std. Units	2.0	2.0	1		06/07/19 23:03		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.44	1	06/13/19 22:10	06/19/19 14:00		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-00 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.9	10.9	1	06/13/19 22:10	06/13/19 22:13		H1,H2

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346723 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1686569 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/11/19 21:11	

METHOD BLANK: 1684049 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/11/19 21:26	

METHOD BLANK: 1685291 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/11/19 21:21	

METHOD BLANK: 1685298 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/11/19 21:22	

METHOD BLANK: 1685749 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/11/19 21:24	

LABORATORY CONTROL SAMPLE: 1686570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	.94J	94	80-120	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

MATRIX SPIKE SAMPLE: 1686572

Parameter	Units	30298178001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1.0 U	2.5	2.6	106	75-125	

MATRIX SPIKE SAMPLE: 1686574

Parameter	Units	30298297001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	96	75-125	

SAMPLE DUPLICATE: 1686571

Parameter	Units	30298178001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	1.0 U	ND		20	

SAMPLE DUPLICATE: 1686573

Parameter	Units	30298297001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346695 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1686411 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	06/12/19 08:28	
Barium	mg/L	ND	0.050	0.0034	06/12/19 08:28	
Cadmium	mg/L	ND	0.015	0.0017	06/12/19 08:28	
Chromium	mg/L	ND	0.025	0.0017	06/12/19 08:28	
Lead	mg/L	ND	0.025	0.025	06/12/19 08:28	
Selenium	mg/L	ND	0.040	0.027	06/12/19 08:28	
Silver	mg/L	ND	0.030	0.0072	06/12/19 08:28	

METHOD BLANK: 1685291 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	06/12/19 08:33	
Barium	mg/L	ND	0.050	0.0034	06/12/19 08:33	
Cadmium	mg/L	ND	0.015	0.0017	06/12/19 08:33	
Chromium	mg/L	ND	0.025	0.0017	06/12/19 08:33	
Lead	mg/L	ND	0.050	0.049	06/12/19 08:52	
Selenium	mg/L	ND	0.040	0.027	06/12/19 08:33	
Silver	mg/L	ND	0.030	0.0072	06/12/19 08:33	

LABORATORY CONTROL SAMPLE: 1686412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.48	95	80-120	
Barium	mg/L	0.5	0.50	101	80-120	
Cadmium	mg/L	0.5	0.51	102	80-120	
Chromium	mg/L	0.5	0.47	95	80-120	
Lead	mg/L	0.5	0.49	98	80-120	
Selenium	mg/L	0.5	0.50	100	80-120	
Silver	mg/L	0.25	0.24	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1686414 1686415

Parameter	Units	30298231010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.56	0.54	112	108	75-125	4	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1686414 1686415

Parameter	Units	30298231010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.65	0.5	0.5	1.2	1.2	104	102	75-125	1	20	
Cadmium	mg/L	ND	0.5	0.5	0.58	0.55	115	110	75-125	4	20	
Chromium	mg/L	ND	0.5	0.5	0.48	0.46	96	91	75-125	5	20	
Lead	mg/L	ND	0.5	0.5	0.54	0.54	107	107	75-125	0	20	
Selenium	mg/L	ND	0.5	0.5	0.59	0.57	117	113	75-125	4	20	
Silver	mg/L	ND	0.25	0.25	0.29	0.29	117	114	75-125	2	20	

SAMPLE DUPLICATE: 1686413

Parameter	Units	30298231010 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	0.65	0.64	1	20	
Cadmium	mg/L	ND	.0019J		20	
Chromium	mg/L	ND	ND		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346888 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30298231007, 30298231008

METHOD BLANK: 1686168 Matrix: Solid
Associated Lab Samples: 30298231007, 30298231008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	06/13/19 11:47	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	06/13/19 11:47	
2-Butanone (MEK)	ug/L	ND	100	9.1	06/13/19 11:47	
Benzene	ug/L	ND	50.0	8.7	06/13/19 11:47	
Carbon tetrachloride	ug/L	ND	50.0	17.2	06/13/19 11:47	
Chlorobenzene	ug/L	ND	50.0	7.8	06/13/19 11:47	
Chloroform	ug/L	ND	50.0	15.0	06/13/19 11:47	
Tetrachloroethene	ug/L	ND	50.0	17.3	06/13/19 11:47	
Trichloroethene	ug/L	ND	50.0	14.7	06/13/19 11:47	
Vinyl chloride	ug/L	ND	50.0	21.5	06/13/19 11:47	
1,2-Dichloroethane-d4 (S)	%.	112	70-130		06/13/19 11:47	
4-Bromofluorobenzene (S)	%.	98	70-130		06/13/19 11:47	
Dibromofluoromethane (S)	%.	122	70-130		06/13/19 11:47	
Toluene-d8 (S)	%.	95	70-130		06/13/19 11:47	

LABORATORY CONTROL SAMPLE: 1687219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	12.6	63	45-124	
1,2-Dichloroethane	ug/L	20	14.5	72	57-110	
2-Butanone (MEK)	ug/L	20	11.9	60	46-117	
Benzene	ug/L	20	15.3	77	63-110	
Carbon tetrachloride	ug/L	20	12.1	61	59-114	
Chlorobenzene	ug/L	20	15.9	79	70-130	
Chloroform	ug/L	20	14.9	75	65-108	
Tetrachloroethene	ug/L	20	15.7	79	64-114	
Trichloroethene	ug/L	20	14.4	72	61-112	
Vinyl chloride	ug/L	20	12.2	61	54-142	
1,2-Dichloroethane-d4 (S)	%.			97	70-130	
4-Bromofluorobenzene (S)	%.			99	70-130	
Dibromofluoromethane (S)	%.			106	70-130	
Toluene-d8 (S)	%.			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1687220 1687221

Parameter	Units	30298231007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	162	146	81	73	10-133	10	30	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1687220 1687221

Parameter	Units	30298231007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	183	169	91	85	24-111	8	30	
2-Butanone (MEK)	ug/L	ND	200	200	160	151	80	75	10-175	6	30	
Benzene	ug/L	ND	200	200	175	164	88	82	15-121	7	30	
Carbon tetrachloride	ug/L	ND	200	200	165	153	83	77	20-125	8	30	
Chlorobenzene	ug/L	ND	200	200	215	198	102	93	10-122	8	30	
Chloroform	ug/L	ND	200	200	192	180	96	90	27-117	7	30	
Tetrachloroethene	ug/L	ND	200	200	221	199	110	100	13-125	10	30	
Trichloroethene	ug/L	ND	200	200	193	179	96	89	10-133	8	30	
Vinyl chloride	ug/L	ND	200	200	147	136	74	68	10-133	8	30	
1,2-Dichloroethane-d4 (S)	%.						97	103	70-130			
4-Bromofluorobenzene (S)	%.						100	100	70-130			
Dibromofluoromethane (S)	%.						105	108	70-130			
Toluene-d8 (S)	%.						97	98	70-130			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 347555 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30298231001

METHOD BLANK: 1688363 Matrix: Solid
Associated Lab Samples: 30298231001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	06/17/19 12:37	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	06/17/19 12:37	
2-Butanone (MEK)	ug/L	ND	100	9.1	06/17/19 12:37	
Benzene	ug/L	ND	50.0	8.7	06/17/19 12:37	
Carbon tetrachloride	ug/L	ND	50.0	17.2	06/17/19 12:37	
Chlorobenzene	ug/L	ND	50.0	7.8	06/17/19 12:37	
Chloroform	ug/L	ND	50.0	15.0	06/17/19 12:37	
Tetrachloroethene	ug/L	ND	50.0	17.3	06/17/19 12:37	
Trichloroethene	ug/L	ND	50.0	14.7	06/17/19 12:37	
Vinyl chloride	ug/L	ND	50.0	21.5	06/17/19 12:37	
1,2-Dichloroethane-d4 (S)	%.	109	70-130		06/17/19 12:37	
4-Bromofluorobenzene (S)	%.	97	70-130		06/17/19 12:37	
Dibromofluoromethane (S)	%.	91	70-130		06/17/19 12:37	
Toluene-d8 (S)	%.	96	70-130		06/17/19 12:37	

LABORATORY CONTROL SAMPLE: 1690587

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	13.6	68	45-124	
1,2-Dichloroethane	ug/L	20	15.9	79	57-110	
2-Butanone (MEK)	ug/L	20	14.8	74	46-117	
Benzene	ug/L	20	16.3	81	63-110	
Carbon tetrachloride	ug/L	20	15.0	75	59-114	
Chlorobenzene	ug/L	20	16.5	82	70-130	
Chloroform	ug/L	20	15.6	78	65-108	
Tetrachloroethene	ug/L	20	16.7	84	64-114	
Trichloroethene	ug/L	20	16.0	80	61-112	
Vinyl chloride	ug/L	20	11.5	58	54-142	
1,2-Dichloroethane-d4 (S)	%.			105	70-130	
4-Bromofluorobenzene (S)	%.			101	70-130	
Dibromofluoromethane (S)	%.			105	70-130	
Toluene-d8 (S)	%.			94	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1690585 1690586

Parameter	Units	30298231001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	168	154	84	77	10-133	9	30	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1690585 1690586

Parameter	Units	30298231001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	173	160	86	80	24-111	8	30	
2-Butanone (MEK)	ug/L	ND	200	200	154	167	77	83	10-175	8	30	
Benzene	ug/L	ND	200	200	175	160	87	80	15-121	9	30	
Carbon tetrachloride	ug/L	ND	200	200	151	139	76	70	20-125	8	30	
Chlorobenzene	ug/L	ND	200	200	186	184	89	88	10-122	1	30	
Chloroform	ug/L	ND	200	200	178	161	89	80	27-117	10	30	
Tetrachloroethene	ug/L	ND	200	200	185	186	92	93	13-125	1	30	
Trichloroethene	ug/L	ND	200	200	315	311	157	155	10-133	1	30	MH
Vinyl chloride	ug/L	ND	200	200	98.7	86.0	49	43	10-133	14	30	
1,2-Dichloroethane-d4 (S)	%.						104	102	70-130			
4-Bromofluorobenzene (S)	%.						100	98	70-130			
Dibromofluoromethane (S)	%.						91	80	70-130			
Toluene-d8 (S)	%.						94	97	70-130			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 347037
QC Batch Method: EPA 3510C
Analysis Method: EPA 8081B
Analysis Description: 8081 GCS TCLP Pesticides
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1685290
Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlordane (Technical)	ug/L	ND	1.0	0.040	06/17/19 19:46	
Endrin	ug/L	ND	0.20	0.0049	06/17/19 19:46	
gamma-BHC (Lindane)	ug/L	ND	0.10	0.0024	06/17/19 19:46	
Heptachlor	ug/L	ND	0.10	0.0021	06/17/19 19:46	
Heptachlor epoxide	ug/L	ND	0.10	0.0015	06/17/19 19:46	
Methoxychlor	ug/L	ND	1.0	0.014	06/17/19 19:46	
Toxaphene	ug/L	ND	2.0	0.17	06/17/19 19:46	
Decachlorobiphenyl (S)	%.	88	24-108		06/17/19 19:46	
Tetrachloro-m-xylene (S)	%.	81	44-93		06/17/19 19:46	

LABORATORY CONTROL SAMPLE: 1688044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin	ug/L	1.6	1.4	85	60-103	
gamma-BHC (Lindane)	ug/L	0.8	0.67	84	58-99	
Heptachlor	ug/L	0.8	0.62	77	51-104	
Heptachlor epoxide	ug/L	0.8	0.65	82	59-98	
Methoxychlor	ug/L	8	6.9	86	58-108	
Decachlorobiphenyl (S)	%.			87	24-108	
Tetrachloro-m-xylene (S)	%.			79	44-93	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1688045 1688046

Parameter	Units	30298295002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Endrin	ug/L	ND	1.6	1.6	1.5	1.5	94	94	33-142	0	25	
gamma-BHC (Lindane)	ug/L	ND	0.8	0.8	0.76	0.76	92	92	10-146	0	25	
Heptachlor	ug/L	ND	0.8	0.8	0.68	0.70	80	82	10-138	2	25	
Heptachlor epoxide	ug/L	ND	0.8	0.8	0.73	0.73	87	87	39-115	1	25	
Methoxychlor	ug/L	ND	8	8	7.5	7.5	94	94	10-158	0	25	
Decachlorobiphenyl (S)	%.						71	82	24-108			
Tetrachloro-m-xylene (S)	%.						85	87	44-93			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346269 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1684396 Matrix: Solid
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	16.6	10.3	06/11/19 21:19	
PCB-1221 (Aroclor 1221)	ug/kg	ND	16.6	14.8	06/11/19 21:19	
PCB-1232 (Aroclor 1232)	ug/kg	ND	16.6	15.1	06/11/19 21:19	
PCB-1242 (Aroclor 1242)	ug/kg	ND	16.6	12.2	06/11/19 21:19	
PCB-1248 (Aroclor 1248)	ug/kg	ND	16.6	9.6	06/11/19 21:19	
PCB-1254 (Aroclor 1254)	ug/kg	ND	16.6	8.9	06/11/19 21:19	
PCB-1260 (Aroclor 1260)	ug/kg	ND	16.6	9.5	06/11/19 21:19	
Decachlorobiphenyl (S)	%.	88	38-139		06/11/19 21:19	
Tetrachloro-m-xylene (S)	%.	79	34-114		06/11/19 21:19	

LABORATORY CONTROL SAMPLE: 1684397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	166	131	79	61-105	
PCB-1260 (Aroclor 1260)	ug/kg	166	139	84	70-100	
Decachlorobiphenyl (S)	%.			88	38-139	
Tetrachloro-m-xylene (S)	%.			79	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1684398 1684399

Parameter	Units	30298236001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	543	540	497J	560	91	104	24-137		25	
PCB-1260 (Aroclor 1260)	ug/kg	ND	543	540	1200	1550	220	288	19-156	26	25	M6,R1
Decachlorobiphenyl (S)	%.						98	113	38-139			
Tetrachloro-m-xylene (S)	%.						70	102	34-114			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 117385 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151 GCS Herbicides TCLP
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 555855 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.0025	0.0000030	06/13/19 21:40	
2,4-D	mg/L	ND	0.0050	0.0000050	06/13/19 21:40	
2,4-DCAA (S)	%	50	36-121		06/13/19 21:40	

LABORATORY CONTROL SAMPLE: 555856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	0.01	0.0060	60	44-157	
2,4-D	mg/L	0.03	0.018	59	47-152	
2,4-DCAA (S)	%			54	36-121	

MATRIX SPIKE SAMPLE: 557022

Parameter	Units	30297746003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.01	0.0073	73	48-113	
2,4-D	mg/L	ND	0.03	0.020	65	39-111	
2,4-DCAA (S)	%				63	36-121	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346350 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1685236 Matrix: Solid
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthylene	ug/kg	ND	6.6	0.47	06/10/19 15:05	
Anthracene	ug/kg	ND	6.6	0.60	06/10/19 15:05	
Benzo(a)anthracene	ug/kg	ND	6.6	0.77	06/10/19 15:05	
Benzo(a)pyrene	ug/kg	ND	6.6	0.41	06/10/19 15:05	
Benzo(b)fluoranthene	ug/kg	ND	6.6	0.79	06/10/19 15:05	
Benzo(g,h,i)perylene	ug/kg	ND	6.6	0.99	06/10/19 15:05	
Benzo(k)fluoranthene	ug/kg	ND	6.6	1.1	06/10/19 15:05	
Chrysene	ug/kg	ND	6.6	0.34	06/10/19 15:05	
Dibenz(a,h)anthracene	ug/kg	ND	6.6	1.5	06/10/19 15:05	
Fluoranthene	ug/kg	ND	6.6	0.50	06/10/19 15:05	
Fluorene	ug/kg	ND	6.6	0.61	06/10/19 15:05	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.6	1.2	06/10/19 15:05	
Naphthalene	ug/kg	ND	6.6	1.3	06/10/19 15:05	
Phenanthrene	ug/kg	ND	6.6	0.58	06/10/19 15:05	
Pyrene	ug/kg	ND	6.6	0.74	06/10/19 15:05	
2-Fluorobiphenyl (S)	%.	80	43-97		06/10/19 15:05	
Terphenyl-d14 (S)	%.	85	56-106		06/10/19 15:05	

LABORATORY CONTROL SAMPLE: 1685237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthylene	ug/kg	132	123	93	42-109	
Anthracene	ug/kg	132	126	95	54-110	
Benzo(a)anthracene	ug/kg	132	142	108	59-119	
Benzo(a)pyrene	ug/kg	132	133	101	55-125	
Benzo(b)fluoranthene	ug/kg	132	147	111	54-131	
Benzo(g,h,i)perylene	ug/kg	132	144	109	54-122	
Benzo(k)fluoranthene	ug/kg	132	129	98	57-123	
Chrysene	ug/kg	132	132	100	62-111	
Dibenz(a,h)anthracene	ug/kg	132	145	110	60-124	
Fluoranthene	ug/kg	132	133	101	60-116	
Fluorene	ug/kg	132	122	92	49-110	
Indeno(1,2,3-cd)pyrene	ug/kg	132	144	109	59-122	
Naphthalene	ug/kg	132	109	82	42-97	
Phenanthrene	ug/kg	132	119	90	52-107	
Pyrene	ug/kg	132	132	100	60-117	
2-Fluorobiphenyl (S)	%.			84	43-97	
Terphenyl-d14 (S)	%.			83	56-106	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1685238 1685239

Parameter	Units	30298235001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthylene	ug/kg	0.33 mg/kg	145	144	494	651	112	222	26-144	27	20	MH,R1
Anthracene	ug/kg	0.72 mg/kg	145	144	985	1070	183	242	10-166	8	20	MH
Benzo(a)anthracene	ug/kg	3.0 mg/kg	145	144	3540	4080	406	784	10-175	14	20	M6
Benzo(a)pyrene	ug/kg	3.0 mg/kg	145	144	3600	4430	418	993	10-175	21	20	IS,M6, R1
Benzo(b)fluoranthene	ug/kg	4.3 mg/kg	145	144	5070	6410	525	1450	10-175	23	20	IS,M6, R1
Benzo(g,h,i)perylene	ug/kg	0.81 mg/kg	145	144	1250	1400	302	405	10-171	11	20	IS,MH
Benzo(k)fluoranthene	ug/kg	1.7 mg/kg	145	144	2170	2460	352	557	10-160	13	20	IS,M6
Chrysene	ug/kg	2.5 mg/kg	145	144	3080	3450	413	671	10-175	11	20	M6
Dibenz(a,h)anthracene	ug/kg	0.33 mg/kg	145	144	656	808	227	333	10-149	21	20	IS,MH, R1
Fluoranthene	ug/kg	5.6 mg/kg	145	144	6250	6250	480	480	10-175	0	20	M6
Fluorene	ug/kg	0.39 mg/kg	145	144	716	640	227	176	31-136	11	20	MH
Indeno(1,2,3-cd)pyrene	ug/kg	0.87 mg/kg	145	144	1400	1810	366	647	10-151	25	20	IS,M6, MH,R1
Naphthalene	ug/kg	0.18 mg/kg	145	144	437	410	180	162	10-149	7	20	MH
Phenanthrene	ug/kg	1.1 mg/kg	145	144	1210	1260	78	108	10-175	3	20	
Pyrene	ug/kg	4.6 mg/kg	145	144	5050	5050	291	295	10-175	0	20	M6
2-Fluorobiphenyl (S)	%.						79	76	43-97			
Terphenyl-d14 (S)	%.						54	45	56-106			S5,SR

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(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346511 Analysis Method: EPA 8270D
QC Batch Method: EPA 3535A Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1682992 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	06/11/19 17:55	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	06/11/19 17:55	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	06/11/19 17:55	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	06/11/19 17:55	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	06/11/19 17:55	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	06/11/19 17:55	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	06/11/19 17:55	
Hexachlorobenzene	ug/L	ND	100	22.8	06/11/19 17:55	
Hexachloroethane	ug/L	ND	200	55.5	06/11/19 17:55	
Nitrobenzene	ug/L	ND	100	42.6	06/11/19 17:55	
Pentachlorophenol	ug/L	ND	5000	25.6	06/11/19 17:55	
Pyridine	ug/L	ND	250	19.3	06/11/19 17:55	
2,4,6-Tribromophenol (S)	%.	98	55-108		06/11/19 17:55	CH
2-Fluorobiphenyl (S)	%.	71	56-90		06/11/19 17:55	
2-Fluorophenol (S)	%.	82	61-116		06/11/19 17:55	
Nitrobenzene-d5 (S)	%.	76	61-105		06/11/19 17:55	
Phenol-d6 (S)	%.	80	64-101		06/11/19 17:55	
Terphenyl-d14 (S)	%.	72	32-90		06/11/19 17:55	

METHOD BLANK: 1685290 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	06/11/19 18:18	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	06/11/19 18:18	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	06/11/19 18:18	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	06/11/19 18:18	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	06/11/19 18:18	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	06/11/19 18:18	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	06/11/19 18:18	
Hexachlorobenzene	ug/L	ND	100	22.8	06/11/19 18:18	
Hexachloroethane	ug/L	ND	200	55.5	06/11/19 18:18	
Nitrobenzene	ug/L	ND	100	42.6	06/11/19 18:18	
Pentachlorophenol	ug/L	ND	5000	25.6	06/11/19 18:18	
Pyridine	ug/L	ND	250	19.3	06/11/19 18:18	
2,4,6-Tribromophenol (S)	%.	105	55-108		06/11/19 18:18	CH
2-Fluorobiphenyl (S)	%.	73	56-90		06/11/19 18:18	
2-Fluorophenol (S)	%.	80	61-116		06/11/19 18:18	
Nitrobenzene-d5 (S)	%.	75	61-105		06/11/19 18:18	

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(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

METHOD BLANK: 1685290 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phenol-d6 (S)	%.	78	64-101		06/11/19 18:18	
Terphenyl-d14 (S)	%.	69	32-90		06/11/19 18:18	

METHOD BLANK: 1685500 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	06/11/19 18:41	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	06/11/19 18:41	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	06/11/19 18:41	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	06/11/19 18:41	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	06/11/19 18:41	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	06/11/19 18:41	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	06/11/19 18:41	
Hexachlorobenzene	ug/L	ND	100	22.8	06/11/19 18:41	
Hexachloroethane	ug/L	ND	200	55.5	06/11/19 18:41	
Nitrobenzene	ug/L	ND	100	42.6	06/11/19 18:41	
Pentachlorophenol	ug/L	ND	5000	25.6	06/11/19 18:41	
Pyridine	ug/L	ND	250	19.3	06/11/19 18:41	
2,4,6-Tribromophenol (S)	%.	103	55-108		06/11/19 18:41	CH
2-Fluorobiphenyl (S)	%.	78	56-90		06/11/19 18:41	
2-Fluorophenol (S)	%.	84	61-116		06/11/19 18:41	
Nitrobenzene-d5 (S)	%.	76	61-105		06/11/19 18:41	
Phenol-d6 (S)	%.	80	64-101		06/11/19 18:41	
Terphenyl-d14 (S)	%.	65	32-90		06/11/19 18:41	

LABORATORY CONTROL SAMPLE: 1685751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	270J	54	38-85	
2,4,5-Trichlorophenol	ug/L	500	494J	99	60-110	
2,4,6-Trichlorophenol	ug/L	500	384	77	62-110	
2,4-Dinitrotoluene	ug/L	500	203	41	51-102	L2
2-Methylphenol(o-Cresol)	ug/L	500	389J	78	60-106	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	774J	77	64-106	
Hexachloro-1,3-butadiene	ug/L	500	323	65	27-97	
Hexachlorobenzene	ug/L	500	366	73	36-66	L1
Hexachloroethane	ug/L	500	252	50	37-89	
Nitrobenzene	ug/L	500	352	70	64-108	
Pentachlorophenol	ug/L	500	381J	76	47-107	
Pyridine	ug/L	500	155J	31	20-54	
2,4,6-Tribromophenol (S)	%.			104	55-108	CH

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

LABORATORY CONTROL SAMPLE: 1685751

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%.			68	56-90	
2-Fluorophenol (S)	%.			77	61-116	
Nitrobenzene-d5 (S)	%.			74	61-105	
Phenol-d6 (S)	%.			75	64-101	
Terphenyl-d14 (S)	%.			67	32-90	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1686274 1686275

Parameter	Units	30298519001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	500 U	500	500	279J	280J	56	56	51-85		20	
2,4,5-Trichlorophenol	ug/L	5000 U	500	500	499J	472J	100	94	65-108		20	
2,4,6-Trichlorophenol	ug/L	100 U	500	500	441	443	88	89	61-110	0	20	
2,4-Dinitrotoluene	ug/L	100 U	500	500	207	217	41	43	52-106	5	20	ML
2-Methylphenol(o-Cresol)	ug/L	2000 U	500	500	405J	408J	81	82	65-105		20	
3&4-Methylphenol(m&p Cresol)	ug/L	2000 U	1000	1000	808J	812J	81	81	69-106		20	
Hexachloro-1,3-butadiene	ug/L	100 U	500	500	334	333	67	67	44-90	0	20	
Hexachlorobenzene	ug/L	100 U	500	500	383	376	77	75	36-68	2	20	MH
Hexachloroethane	ug/L	200 U	500	500	263	263	53	53	48-94	0	20	
Nitrobenzene	ug/L	100 U	500	500	354	354	71	71	66-106	0	20	
Pentachlorophenol	ug/L	5000 U	500	500	387J	394J	77	79	49-120		20	
Pyridine	ug/L	250 U	500	500	128J	121J	26	24	10-72		20	
2,4,6-Tribromophenol (S)	%.						104	103	55-108			CH
2-Fluorobiphenyl (S)	%.						74	74	56-90			
2-Fluorophenol (S)	%.						83	79	61-116			
Nitrobenzene-d5 (S)	%.						76	75	61-105			
Phenol-d6 (S)	%.						81	79	64-101			
Terphenyl-d14 (S)	%.						70	68	32-90			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 347907
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30298231001

SAMPLE DUPLICATE: 1691885

Parameter	Units	30298201001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	97.6	94.4	3	20	

SAMPLE DUPLICATE: 1691886

Parameter	Units	30298231001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.4	16.4	6	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 348343
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30298231010

SAMPLE DUPLICATE: 1693760

Parameter	Units	30298231010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.3	6.7	22	20	D6

SAMPLE DUPLICATE: 1693761

Parameter	Units	30299689006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.5	9.6	9	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 348260 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1693426 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		06/20/19 11:59	

SAMPLE DUPLICATE: 1693427

Parameter	Units	30298231001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 346327 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30298231001, 30298231010

SAMPLE DUPLICATE: 1684882

Parameter	Units	30298231001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	8.1	8.1	0	10	H3

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 347004 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1687963 Matrix: Solid
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	1.0	0.40	06/19/19 13:43	

LABORATORY CONTROL SAMPLE: 1687964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.4	ND	0	0-8	

SAMPLE DUPLICATE: 1687965

Parameter	Units	30298621001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	1.3 U	ND		20	

SAMPLE DUPLICATE: 1687966

Parameter	Units	30298782001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	1.0 U	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

QC Batch: 347003 — Analysis Method: SM 4500S2F-00
QC Batch Method: SW-846 7.3.4.2 — Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 1687959 — Matrix: Solid
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	10	10	06/13/19 22:13	

LABORATORY CONTROL SAMPLE: 1687960

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	198	43.7	22	0-52	

SAMPLE DUPLICATE: 1687961

Parameter	Units	30298621001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	12.6 U	ND		20	

SAMPLE DUPLICATE: 1687962

Parameter	Units	30298782001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	10.0 U	ND		20	

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QUALIFIERS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-MV	Pace Analytical Services - Long Island
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
ED	Due to the extract's physical characteristics, the analysis was performed at dilution.
H1	Analysis conducted outside the EPA method holding time.
H2	Extraction or preparation conducted outside EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
IS	The internal standard response is below criteria. Results may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.

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QUALIFIERS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

ANALYTE QUALIFIERS

S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).
SR	Surrogate recovery was below laboratory control limits. Results may be biased low.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30298231

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30298231001	**AOC35L**	EPA 3510C	347037	EPA 8081B	347245
30298231010	**AOC34**	EPA 3510C	347037	EPA 8081B	347245
30298231001	**AOC35L**	EPA 3546	346269	EPA 8082A	346331
30298231010	**AOC34**	EPA 3546	346269	EPA 8082A	346331
30298231001	**AOC35L**	EPA 8151A	117385	EPA 8151A	117599
30298231010	**AOC34**	EPA 8151A	117385	EPA 8151A	117599
30298231001	**AOC35L**	EPA 3005A	346695	EPA 6010C	346761
30298231010	**AOC34**	EPA 3005A	346695	EPA 6010C	346761
30298231001	**AOC35L**	EPA 7470A	346723	EPA 7470A	346756
30298231010	**AOC34**	EPA 7470A	346723	EPA 7470A	346756
30298231001	**AOC35L**	EPA 3546	346350	EPA 8270D by SIM	346457
30298231010	**AOC34**	EPA 3546	346350	EPA 8270D by SIM	346457
30298231001	**AOC35L**	EPA 3535A	346511	EPA 8270D	346718
30298231010	**AOC34**	EPA 3535A	346511	EPA 8270D	346718
30298231001	**AOC35L**	EPA 8260C	347555		
30298231007	**AOC34-1**	EPA 8260C	346888		
30298231008	**AOC34-2**	EPA 8260C	346888		
30298231001	**AOC35L**	ASTM D2974-87	347907		
30298231010	**AOC34**	ASTM D2974-87	348343		
30298231001	**AOC35L**	EPA 1010	348260		
30298231010	**AOC34**	EPA 1010	348260		
30298231001	**AOC35L**	EPA 9045D	346327		
30298231010	**AOC34**	EPA 9045D	346327		
30298231001	**AOC35L**	SW-846 7.3.3.2	347004	EPA 9014	347292
30298231010	**AOC34**	SW-846 7.3.3.2	347004	EPA 9014	347292
30298231001	**AOC35L**	SW-846 7.3.4.2	347003	SM 4500S2F-00	347291
30298231010	**AOC34**	SW-846 7.3.4.2	347003	SM 4500S2F-00	347291

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Pace Analytical®
www.pacelabs.com

WO# : 30298231

30298231

-OF-CUSTODY / Analytical Request Document

-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2203778

Section A — Required Client Information:

Company:	WSP
Address:	11 Stanwix Street, Suite 950
	Pittsburgh, PA 15222
Email To:	Dave.Rykaczewski@wsp.com
Phone:	412-375-0282
Fax:	
Requested Due Date/TAT:	

Required Project Information:

Report To:	Dave.Rykaczewski@wsp.com
Copy To:	Erin.Huntley@wsp.com
Purchase Order No.:	
Project Name:	Former EPT Site – SWMU IRM
Project Number:	31401545.001

Section C — Invoice Information:

Attention:	Environmental Accounts Payable
Company Name:	WSP
Address:	13530 Dulles Technology Drive
Pace Quote Reference:	Herndon, VA 20171
Pace Project Manager:	Rachel Christner
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ~~INVOICE~~

Site Location STATE: NY

Section D — Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	TCLP RCRA8 Metals	TCLP Volatile VOCs	TCLP SVOCs	TCLP Herbicides	TCLP Pesticides	Reactive Sulfide	Reactive Cyanide	Total PCBs	% Solids	Corrosivity by pH	Ignitability (flashpoint)	Total PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	AOC35L	SL	G	—	—	6/5/19	0955		5	5									X	X	X	X	X	X	X	X	X	X	X		001
2	AOC26-1	SL	G	—	—		1120		5	5									X	X	X	X	X	X	X	X	X	X	X		002
3	AOC26-2	SL	G	—	—		1140		5	5									X	X	X	X	X	X	X	X	X	X	X		003
4	AOC26-3	SL	G	—	—		1200		5	5									X	X	X	X	X	X	X	X	X	X	X		004
5	AOC26-4	SL	G	—	—		1220		5	5									X	X	X	X	X	X	X	X	X	X	X		005
6	AOC26-BLDG24	SL	G	—	—		1345		5	5									X	X	X	X	X	X	X	X	X	X	X		006
7	AOC34-1	SL	G	—	—		1430		5	5									X	X	X	X	X	X	X	X	X	X	X		007
8	AOC34-2	SL	G	—	—		1550		5	5									X	X	X	X	X	X	X	X	X	X	X		008
9	TB_060519	SL	G	—	—		—							2																	009
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
NYASP Category B data deliverable	WSP	6/5/19	1645	FedEx	6/5/19	1645				
TB_060519 Total VOCs				PACE	06/06/19	0940	5.3	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Cummings

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 06/05/19

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

RECEIVED
By: ADC Date: 6/6/19

Chain of Custody Form

REVISED
Received by e-mail ADC 6/6/19

30298231

WSP Office Address: 11 STANWIX STREET, SUITE 950 PITTSBURGH, PA 15220

Project Name: FORMER EPT SITE - SOIL IRM

Project Location: ITHACA, NY

Project Number & Task: 31401545.001-2

WSP Contact Name: ERIN HUNTLEY/DAVE RYKACZEWSKI

WSP Contact E-mail: ERIN.HUNTLEY@WSP.COM; DAVE.RYKACZEWSKI@WSP.COM

WSP Contact Phone: 412-375-0265

Sampler(s) Name(s):

Sampler(s) Signature(s):

No. 2203778 (REVISED)

Laboratory Name & Location: PACE GREENSBURG, PA

Laboratory Project Manager: RACHEL CHRISTNER

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 METALS	TCLP VOCs	TCLP SVOCs	TCLP HERBICIDES & PESTICIDES	REACTIVE SULFIDE & CYANIDE	PCBs	% SOLIDS	CORROSIVITY BY pH	IGNITABILITY/FLASHPOINT	PAHs		Sample Comments	
AOC35L	SL			6/5/19	955	5	X	X	X	X	X	X	X	X	X	X		COMPOSITE	001
AOC34	SL			6/5/19	1430	1	X	-	X	X	X	X	X	X	X	X		COMPOSITE AOC34-1 & AOC34-2	010
AOC34-1	SL			6/5/19	1430	4	-	X	-	-	-	-	-	-	-	-		GRAB SAMPLE	006
AOC34-2	SL			6/5/19	1550	4	-	X	-	-	-	-	-	-	-	-		GRAB SAMPLE	007

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP

Project # 30298231

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label LIMS Login

Tracking #: 7783 4211 0842

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used 11 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.3 °C Correction Factor: 0 °C Final Temp: 5.3 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# NA / Date and Initials of person examining contents: 06/20/19 JR3
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:	✓	✓		6. JR3 06/20/19 Encore soil 48hr out of hold
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:				8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed JR3 Date/time of preservation: Lot # of added preservative:
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:	✓			18. not Pace Provided
Trip Blank Custody Seals Present	✓			
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

AOC35L

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	06/12/2019 08:44
7440-39-3	Barium	2.6		mg/L	1	06/12/2019 08:44
7440-43-9	Cadmium	ND	U	mg/L	1	06/12/2019 08:44
7440-47-3	Chromium	ND	U	mg/L	1	06/12/2019 08:44
7439-92-1	Lead	ND	U	mg/L	10	06/12/2019 09:03
7782-49-2	Selenium	ND	U	mg/L	1	06/12/2019 08:44
7440-22-4	Silver	ND	U	mg/L	1	06/12/2019 08:44

SAMPLE NO.

AOC34

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231010 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	06/12/2019 08:35
7440-39-3	Barium	0.65		mg/L	1	06/12/2019 08:35
7440-43-9	Cadmium	ND	U	mg/L	1	06/12/2019 08:35
7440-47-3	Chromium	ND	U	mg/L	1	06/12/2019 08:35
7439-92-1	Lead	ND	U	mg/L	10	06/12/2019 08:54
7782-49-2	Selenium	ND	U	mg/L	1	06/12/2019 08:35
7440-22-4	Silver	ND	U	mg/L	1	06/12/2019 08:35

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 87565

Continuing Calibration Verification Source: 90160

Concentration Units: ug/L Instrument ID: 30ICP3

	Initial Calibration Verification				Continuing Calibration Verification						
	06/12/2019 06:44				06/12/2019 06:49			06/12/2019 07:25			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	2000	1910	95.4	90-110	1000	990	99.0	1000	991	99.1	90-110
Barium	2000	1960	98.2	90-110	1000	1010	100.9	1000	1030	102.7	90-110
Cadmium	2000	1940	96.8	90-110	1000	1010	100.8	1000	987	98.7	90-110
Chromium	2000	1920	96.0	90-110	1000	978	97.8	1000	967	96.7	90-110
Lead	2000	1940	97.2	90-110	1000	988	98.8	1000	989	98.9	90-110
Selenium	2000	1950	97.5	90-110	1000	993	99.3	1000	1010	101.4	90-110
Silver	1000	970	97.0	90-110	500	491	98.3	500	487	97.4	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 90160

Concentration Units: ug/L Instrument ID: 30ICP3

	Continuing Calibration Verification									
	06/12/2019 08:22			06/12/2019 08:46			06/12/2019 09:05			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Arsenic	1000	1000	100.4	1000	1020	101.9	1000	1010	101.4	90-110
Barium	1000	1020	102.4	1000	1040	103.6	1000	1030	103.1	90-110
Cadmium	1000	1010	100.6	1000	1020	102.5	1000	1020	101.8	90-110
Chromium	1000	964	96.4	1000	975	97.5	1000	967	96.7	90-110
Lead	1000	970	97.0	1000	982	98.2	1000	977	97.7	90-110
Selenium	1000	1010	101.0	1000	1030	102.7	1000	1030	103.0	90-110
Silver	500	485	97.0	500	491	98.2	500	491	98.2	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 90298 Analysis Date/Time: 06/12/2019 07:01

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	5.5	109.9	70-130
Barium	10.0	10.5	105.3	70-130
Cadmium	3.0	3.1	104.6	70-130
Chromium	5.0	5.2	104.8	70-130
Lead	5.0	5.3	105.9	70-130
Selenium	8.0	5.6	70.4	70-130
Silver	6.0	6.0	100.2	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 90298 Analysis Date/Time: 06/12/2019 12:06

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	6.2	123.8	70-130
Barium	10.0	10.8	107.9	70-130
Cadmium	3.0	3.3	110.1	70-130
Chromium	5.0	5.1	102.5	70-130
Lead	5.0	3.8	75.9	70-130
Selenium	8.0	6.0	75.5	70-130
Silver	6.0	6.3	105.8	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP3

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	06/12/2019 06:46	C	06/12/2019 07:27	C	06/12/2019 08:24	C	06/12/2019 08:48	C	1686411	C
Arsenic	2.0	U	2.0	U	2.0	U	2.0	J	ND	U
Barium	1.0	J	0.75	J	0.99	J	0.78	J	ND	U
Cadmium	0.34	U	0.34	U	0.50	J	0.36	J	ND	U
Chromium	0.50	J	0.60	J	0.51	J	0.38	J	ND	U
Lead	4.9	U	4.9	U	4.9	U	4.9	U	ND	U
Selenium	5.5	U	5.5	U	5.5	U	5.5	U	ND	U
Silver	1.4	U	1.4	U	1.4	U	1.4	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP3

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)						Leachate Blank	
		C	06/12/2019 09:07	C		C		C	1685291	C
Arsenic			4.0	J					ND	U
Barium			0.68	U					ND	U
Cadmium			0.34	U					ND	U
Chromium			0.45	J					ND	U
Lead			4.9	U						
Selenium			5.5	U					ND	U
Silver			1.4	U					ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP3

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1685291	C
Arsenic										
Barium										
Cadmium										
Chromium										
Lead									ND	U
Selenium										
Silver										

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP3 Solution A Run Date: 06/12/2019 06:54

ICS Source: 89695,89696 Solution AB Run Date: 06/12/2019 06:57

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	51360	102.7	51390	102.8	80-120
Arsenic			-1.988		-0.1918		
Barium		500	0.3794		508.3	101.7	80-120
Cadmium		1000	0.2591		1025	102.5	80-120
Calcium	50000	50000	50830	101.7	50720	101.4	80-120
Chromium		500	0.5724		486.7	97.3	80-120
Iron	20000	20000	20190	101	20200	101	80-120
Lead		1000	2.722		987.4	98.7	80-120
Magnesium	50000	50000	51670	103.3	51660	103.3	80-120
Selenium			-3.001		-3.141		
Silver		1000	0.4258		1034	103.4	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP3 Solution A Run Date: 06/12/2019 11:57

ICS Source: 89695,89696 Solution AB Run Date: 06/12/2019 12:00

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	53880	107.8	51500	103	80-120
Arsenic			-2.493		0.2906		
Barium		500	-0.0304		513.6	102.7	80-120
Cadmium		1000	0.3049		1048	104.8	80-120
Calcium	50000	50000	52560	105.1	50340	100.7	80-120
Chromium		500	0.1849		484.7	96.9	80-120
Iron	20000	20000	20820	104.1	19900	99.5	80-120
Lead		1000	2.124		996.8	99.7	80-120
Magnesium	50000	50000	52480	105	49980	100	80-120
Selenium			-1.984		-4.746		
Silver		1000	0.2367		1051	105.1	80-120

SAMPLE NO.

1686414MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC34

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.56	ND	0.50	112
Barium	mg/L	75-125	1.2	0.65	0.50	104
Cadmium	mg/L	75-125	0.58	ND	0.50	115
Chromium	mg/L	75-125	0.48	ND	0.50	96
Lead	mg/L	75-125	0.54	ND	0.50	107
Selenium	mg/L	75-125	0.59	ND	0.50	117
Silver	mg/L	75-125	0.29	ND	0.25	117

SAMPLE NO.

1686415MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC34

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.54	ND	0.50	108
Barium	mg/L	75-125	1.2	0.65	0.50	102
Cadmium	mg/L	75-125	0.55	ND	0.50	110
Chromium	mg/L	75-125	0.46	ND	0.50	91
Lead	mg/L	75-125	0.54	ND	0.50	107
Selenium	mg/L	75-125	0.57	ND	0.50	113
Silver	mg/L	75-125	0.29	ND	0.25	114

SAMPLE NO.

1686413DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	ND	
Barium	20	0.65	0.64	1
Cadmium	20	ND	0.0019J	
Chromium	20	ND	ND	
Lead	20	ND	ND	
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1686415MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	0.56	0.54	4
Barium	20	1.2	1.2	1
Cadmium	20	0.58	0.55	4
Chromium	20	0.48	0.46	5
Lead	20	0.54	0.54	0
Selenium	20	0.59	0.57	4
Silver	20	0.29	0.29	2

SAMPLE NO.

1686412LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	mg/L	0.50	0.48	95	80	120
Barium	mg/L	0.50	0.50	101	80	120
Cadmium	mg/L	0.50	0.51	102	80	120
Chromium	mg/L	0.50	0.47	95	80	120
Lead	mg/L	0.50	0.49	98	80	120
Selenium	mg/L	0.50	0.50	100	80	120
Silver	mg/L	0.25	0.24	96	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30ICP3

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Lead	5.0	4.9	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Instrument ID: 30ICP3

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Arsenic	0.025	0.010	11/14/2018
Barium	0.050	0.0034	11/14/2018
Cadmium	0.015	0.0017	11/14/2018
Chromium	0.025	0.0017	11/14/2018
Lead	0.025	0.025	11/14/2018
Selenium	0.040	0.027	11/14/2018
Silver	0.030	0.0072	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	7	V	-0.000237	0.000000	No
			Mn	0.000299	0.000000	No
			Cu	-0.000025	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.000327	0.000000	No
			Zr	0.010192	0.000000	No
			Fe	0.000006	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.025925	0.000000	No
			Ca	0.000122	0.000000	No
			Zr	0.010064	0.000000	No
			V	0.000774	0.000000	No
			Fe	-0.000090	0.000000	No
As 189.042 {478}	☒	8	Be	-0.000002	0.000000	No
			Al	-0.000007	0.000000	No
			V	0.000062	0.000000	No
			Cr	-0.007376	0.000000	No
			Fe	-0.000006	0.000000	No
			Co	0.000014	0.000000	No
			Mo	0.002151	0.000000	No
			Tl	-0.000005	0.000000	No
B 208.959 {461}	☒	4	Ti	-0.000004	0.000000	No
			Mo	0.025266	0.000000	No
			Si	0.000182	0.000000	No
			V	0.002651	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	-0.000138	0.000000	No
			Mo	-0.000027	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.002078	0.000000	No
Cd 228.802 {447}	☒	5	V	0.000132	0.000000	No
			Fe	0.000001	0.000000	No
			Ni	0.000011	0.000000	No
			As	0.020553	0.000000	No
			Cr	-0.000019	0.000000	No
Co 228.616 {447}	☒	5	Ti	0.002560	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.000526	0.000000	No
			Ni	0.000117	0.000000	No
			Cr	0.000071	0.000000	No
Cr 267.716 {126}	☒	3	Al	0.000003	0.000000	No
			Mn	0.000476	0.000000	No
			Fe	-0.000007	0.000000	No
Cu 324.754 {104}	☒	5	K	-0.000002	0.000000	No
			V	-0.000066	0.000000	No
			Fe	-0.000081	0.000000	No
			Co	-0.000202	0.000000	No
			Mo	0.000165	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.000607	0.000000	No
			Mo	-0.002646	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000005	0.000000	No
Mo 202.030 {467}	☒	1	V	-0.000023	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Na 818.326 { 41}	☒	1	Fe	0.001089	0.000000	No
Ni 231.604 {446}	☒	1	Tl	0.000160	0.000000	No
P 177.495 {490}	☒	2	Ni	0.002015	0.000000	No
			Cu	0.001781	0.000000	No
Pb 220.353 {453}	☒	7	Al	0.000131	0.000000	No
			Si	0.000091	0.000000	No
			Mn	0.000073	0.000000	No
			Fe	0.000031	0.000000	No
			Cu	0.000321	0.000000	No
			Mo	-0.002279	0.000000	No
			Co	-0.000187	0.000000	No
S 182.034 {485}	☒	5	Al	-0.000176	0.000000	No
			Ca	0.000060	0.000000	No
			Mn	0.001817	0.000000	No
			Fe	0.000034	0.000000	No
			Mo	-0.006150	0.000000	No
Sb 206.833 {463}	☒	6	Al	-0.000002	0.000000	No
			Cr	0.011364	0.000000	No
			Fe	0.000025	0.000000	No
			Mo	-0.007096	0.000000	No
			Zr	-0.001039	0.000000	No
			Ti	0.000274	0.000000	No
Se 196.090 {472}	☒	4	Al	-0.000025	0.000000	No
			Mn	0.000361	0.000000	No
			Mo	0.000392	0.000000	No
			Fe	0.000012	0.000000	No
Si 251.611 {134}	☒	2	V	0.045195	0.000000	No
			Mo	0.008724	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000014	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000321	0.000000	No
			Mo	0.000201	0.000000	No
			V	0.000144	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.000967	0.000000	No
			V	-0.020409	0.000000	No
			Cr	0.000306	0.000000	No
			Mn	0.000741	0.000000	No
			Fe	0.000001	0.000000	No
			Co	0.000727	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000341	0.000000	No
			Cr	-0.001662	0.000000	No
			Mn	-0.000186	0.000000	No
			Fe	-0.000017	0.000000	No
			Mo	-0.000032	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000275	0.000000	No
			Mn	0.000004	0.000000	No
			Fe	-0.000007	0.000000	No
			Co	-0.000002	0.000000	No
			Ni	-0.000001	0.000000	No
			Mo	0.000155	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Instrument ID: 30ICP3 Effective Date:02/22/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	75000
Lead	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Batch: MPRP 25962

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1685291	1685291LB	06/11/2019	50	50
1686411	1686411BLANK	06/11/2019	50	50
1686412	1686412LCS	06/11/2019	50	50
1686413	1686413DUP	06/11/2019	50	50
1686414	1686414MS	06/11/2019	50	50
1686415	1686415MSD	06/11/2019	50	50
30298231001	AOC35L	06/11/2019	50	50
30298231010	AOC34	06/11/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP3 Analysis Method: EPA 6010C

Start Date: 06/12/2019 06:39 End Date: 06/12/2019 12:06

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Pb	Se
11066657CAL0	11066657CAL0	1	06/12/2019	06:39	X	X	X	X	X	X	X
11066658CAL1	11066658CAL1	1	06/12/2019	06:42	X	X	X	X	X	X	X
11066659ICV	11066659ICV	1	06/12/2019	06:44	X	X	X	X	X	X	X
11066660ICB	11066660ICB	1	06/12/2019	06:46	X	X	X	X	X	X	X
11066661CCV	11066661CCV	1	06/12/2019	06:49	X	X	X	X	X	X	X
11066662ICSA	11066662ICSA	1	06/12/2019	06:54	X	X	X	X	X	X	X
11066663ICSAB	11066663ICSAB	1	06/12/2019	06:57	X	X	X	X	X	X	X
11066664CRDL	11066664CRDL	1	06/12/2019	07:01	X	X	X	X	X	X	X
11066665CCV	11066665CCV	1	06/12/2019	07:25	X	X	X	X	X	X	X
11066666CCB	11066666CCB	1	06/12/2019	07:27	X	X	X	X	X	X	X
11066669CCV	11066669CCV	1	06/12/2019	08:22	X	X	X	X	X	X	X
11066670CCB	11066670CCB	1	06/12/2019	08:24	X	X	X	X	X	X	X
1686411BLANK	1686411	1	06/12/2019	08:28	X	X	X	X	X	X	X
1686412LCS	1686412	1	06/12/2019	08:31	X	X	X	X	X	X	X
1685291LB	1685291	1	06/12/2019	08:33	X	X	X	X	X		X
AOC34	30298231010	1	06/12/2019	08:35	X	X	X	X	X		X
1686413DUP	1686413	1	06/12/2019	08:37	X	X	X	X	X		X
1686414MS	1686414	1	06/12/2019	08:40	X	X	X	X	X		X
1686415MSD	1686415	1	06/12/2019	08:42	X	X	X	X	X		X
AOC35L	30298231001	1	06/12/2019	08:44	X	X	X	X	X		X
11067606CCV	11067606CCV	1	06/12/2019	08:46	X	X	X	X	X	X	X
11067607CCB	11067607CCB	1	06/12/2019	08:48	X	X	X	X	X	X	X
1685291LB	1685291	2	06/12/2019	08:52						X	
AOC34	30298231010	10	06/12/2019	08:54						X	
1686413DUP	1686413	10	06/12/2019	08:56						X	
1686414MS	1686414	10	06/12/2019	08:59						X	
1686415MSD	1686415	10	06/12/2019	09:01						X	
AOC35L	30298231001	10	06/12/2019	09:03						X	
11066671CCV	11066671CCV	1	06/12/2019	09:05	X	X	X	X	X	X	X
11066672CCB	11066672CCB	1	06/12/2019	09:07	X	X	X	X	X	X	X
11067622ICSA	11067622ICSA	1	06/12/2019	11:57	X	X	X	X	X	X	X
11067623ICSAB	11067623ICSAB	1	06/12/2019	12:00	X	X	X	X	X	X	X
11067624CRDL	11067624CRDL	1	06/12/2019	12:06	X	X	X	X	X	X	X

Sample Name: CAL0 Acquired: 6/12/2019 6:39:05 Type: Cal
Method: Pace-65002-3-CETAC1(v1269) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0010**	**-.0008**	**.0006**	**.0037**	**.0001**	**-.0101**	**.0005**
Stddev	.0001	.0000	.0003	.0001	.0002	.0000	.0006	.0002
%RSD	985.7	2.695	31.62	13.48	4.475	4.818	5.994	48.25
#1	-.0001	.0010	-.0006	.0005	.0038	.0001	-.0105	.0006
#2	.0001	.0010	-.0010	.0006	.0035	.0001	-.0097	.0003

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0007**	**-.0000**	**.0009**	**.0002**	**2210.**	**-.0010**	**.0025**	**-.0002**
Stddev	.0005	.0001	.0002	.0000	9.	.0003	.0000	.0000
%RSD	79.87	7279.	25.61	13.50	.3970	26.39	1.877	21.49
#1	.0011	-.0000	.0007	.0002	2217.	-.0012	.0025	-.0002
#2	.0003	.0000	.0010	.0002	2204.	-.0008	.0024	-.0002

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0002**	**-.0058**	**-.0001**	**.0003**	**-.0007**	**.0003**	**.0000**
Stddev	.0001	.0003	.0007	.0001	.0001	.0001	.0000	.0001
%RSD	175.8	155.6	12.47	197.5	19.63	19.15	5.233	3323.
#1	-.0000	.0004	-.0063	-.0002	.0003	-.0006	.0003	-.0001
#2	.0001	-.0000	-.0053	.0000	.0002	-.0008	.0003	.0001

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0002**	**.0004**	**.0007**	**-.0001**	**-.0006**	**.0004**	**4027.**
Stddev	.0000	.0002	.0000	.0000	.0000	.0001	.0001	8.
%RSD	17.47	69.27	2.495	4.927	7.989	22.94	17.94	.2068
#1	.0001	.0001	.0004	.0007	-.0001	-.0007	.0004	4033.
#2	.0001	.0004	.0004	.0007	-.0001	-.0005	.0003	4021.

Sample Name: CAL0 Acquired: 6/12/2019 6:39:05 Type: Cal
Method: Pace-65002-3-CETAC1(v1269) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**21420.**	**8882.**	**-.0000**	**-.0004**
Stddev	53.	23.	.0001	.0000
%RSD	.2478	.2637	407.5	7.021
#1	21460.	8899.	-.0001	-.0004
#2	21380.	8865.	.0000	-.0003

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2210.5**	**4026.7**	**21422.**	**8882.0**
Stddev	8.8	8.3	53.	23.4
%RSD	.39701	.20684	.24778	.26373
#1	2216.7	4032.6	21459.	8898.6
#2	2204.2	4020.8	21384.	8865.4

Sample Name: CAL1 Acquired: 6/12/2019 6:42:18 Type: Cal
Method: Pace-65002-3-CETAC1(v1269) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1548**	**1.917**	**.2540**	**.9680**	**9.706**	**5.773**	**1.089**	**4.254**
Stddev	.0013	.035	.0025	.0089	.199	.099	.018	.041
%RSD	.8699	1.816	.9823	.9164	2.052	1.711	1.703	.9665
#1	.1558	1.892	.2522	.9617	9.565	5.703	1.075	4.225
#2	.1539	1.942	.2558	.9742	9.847	5.843	1.102	4.283

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.677**	**.4452**	**.3024**	**.9911**	**1937.**	**1.377**	**3.757**	**.1705**
Stddev	.023	.0062	.0048	.0184	1.	.037	.076	.0034
%RSD	.6378	1.388	1.592	1.861	.0650	2.686	2.021	2.018
#1	3.660	.4495	.2990	.9781	1938.	1.351	3.703	.1681
#2	3.693	.4408	.3058	1.004	1936.	1.403	3.810	.1730

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9552**	**3.025**	**.1649**	**.8413**	**.2601**	**.8016**	**.9325**	**.2752**
Stddev	.0164	.021	.0041	.0080	.0026	.0071	.0107	.0032
%RSD	1.717	.6996	2.499	.9521	1.006	.8839	1.146	1.165
#1	.9436	3.010	.1620	.8356	.2582	.7966	.9249	.2729
#2	.9668	3.040	.1678	.8470	.2619	.8066	.9400	.2775

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1838**	**.2682**	**.5555**	**13.05**	**.8109**	**.3839**	**.5552**	**3854.**
Stddev	.0029	.0061	.0052	.25	.0104	.0054	.0061	6.
%RSD	1.554	2.286	.9424	1.894	1.277	1.410	1.090	.1505
#1	.1818	.2639	.5518	12.88	.8183	.3801	.5595	3858.
#2	.1859	.2726	.5592	13.23	.8036	.3877	.5509	3850.

Sample Name: CAL1 Acquired: 6/12/2019 6:42:18 Type: Cal
Method: Pace-65002-3-CETAC1(v1269) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**20130.**	**8737.**	**2.387**	**.6479**
Stddev	375.	33.	.020	.0129
%RSD	1.861	.3764	.8336	1.995
#1	19860.	8761.	2.373	.6387
#2	20390.	8714.	2.401	.6570

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1937.0**	**3853.7**	**20125.**	**8737.3**
Stddev	1.3	5.8	375.	32.9
%RSD	.06497	.15049	1.8610	.37643
#1	1937.9	3857.8	19861.	8760.6
#2	1936.1	3849.6	20390.	8714.1

Sample Name: ICV Acquired: 6/12/2019 6:44:46 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**969.7**	**19750.**	**1909.**	**1967.**	**1963.**	**1970.**	**19800.**	**1936.**	**1943.**
Stddev	11.4	246.	22.	17.	36.	27.	286.	22.	13.
%RSD	1.170	1.248	1.134	.8629	1.815	1.368	1.443	1.129	.6657
#1	961.7	19570.	1894.	1955.	1938.	1951.	19600.	1920.	1934.
#2	977.8	19920.	1924.	1979.	1988.	1989.	20010.	1951.	1952.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1920.**	**1954.**	**19830.**	**87.88**	**19520.**	**1963.**	**19790.**	**1953.**	**1994.**
Stddev	18.	37.	234.	.23	539.	42.	153.	26.	18.
%RSD	.9136	1.915	1.182	.2596	2.761	2.146	.7719	1.347	.9245
#1	1908.	1927.	19670.	87.72	19140.	1933.	19690.	1934.	1981.
#2	1933.	1980.	20000.	88.04	19900.	1993.	19900.	1971.	2007.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**19620.**	**1931.**	**1927.**	**1945.**	**19710.**	**1938.**	**1950.**	**9914.**	**1955.**
Stddev	425.	18.	13.	16.	178.	15.	18.	143.	22.
%RSD	2.166	.9115	.6678	.8026	.9013	.7834	.9034	1.441	1.108
#1	19320.	1918.	1918.	1933.	19590.	1927.	1937.	9813.	1940.
#2	19920.	1943.	1936.	1956.	19840.	1949.	1962.	10020.	1970.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 6/12/2019 6:44:46 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1948.**	**1889.**	**1908.**	**1940.**	**96.41**	**95.14**	**98.48**	**1935.**	**1995.**
Stddev	34.	18.	28.	23.	.32	.05	.35	23.	27.
%RSD	1.732	.9493	1.442	1.178	.3271	.0576	.3526	1.207	1.328
#1	1924.	1877.	1889.	1924.	96.19	95.18	98.72	1918.	1976.
#2	1972.	1902.	1928.	1956.	96.63	95.10	98.23	1952.	2014.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1942.6**	**3882.1**	**20381.**	**8746.6**
Stddev	5.0	12.7	12.	30.8
%RSD	.25959	.32706	.05762	.35259
#1	1939.0	3873.1	20389.	8768.4
#2	1946.1	3891.1	20372.	8724.8

Sample Name: ICB Acquired: 6/12/2019 6:46:46 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3488	7.555	1.824	1.955	1.008	.9765	24.21	.3357	.2303
Stddev	.0815	3.959	1.358	.099	.163	.1442	2.79	.2000	.5382
%RSD	23.38	52.40	74.45	5.046	16.17	14.76	11.54	59.58	233.7
#1	.4065	10.35	.8638	2.025	1.123	1.078	22.24	.4771	.6109
#2	.2911	4.756	2.784	1.885	.8928	.8745	26.19	.1943	-.1503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.5040	.9313	8.677	98.66	-.6857	2.432	21.24	.7973	10.45
Stddev	.3269	.1419	.976	.78	1.148	.190	6.54	.1010	.06
%RSD	64.85	15.24	11.25	.7862	167.4	7.797	30.80	12.67	.5480
#1	.7351	1.032	7.987	99.21	-1.497	2.298	16.62	.8688	10.49
#2	.2729	.8310	9.367	98.11	.1258	2.566	25.87	.7259	10.41
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	77.77	.3935	-.0554	-.6055	3.994	-.1133	1.583	5.817	1.167
Stddev	63.77	.2329	.9501	3.144	.228	1.817	.990	3.538	.380
%RSD	82.00	59.19	1715.	519.3	5.717	1603.	62.56	60.83	32.59
#1	122.9	.2288	-.7273	1.618	3.832	1.171	.8825	3.315	1.436
#2	32.68	.5582	.6164	-2.829	4.155	-1.398	2.283	8.319	.8981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 6/12/2019 6:46:46 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.038**	**1.902**	**4.417**	**.8645**	**98.56**	**99.09**	**98.77**	**.6404**	**.3630**
Stddev	.105	.070	.687	.0244	.68	.03	.57	.0635	.2638
%RSD	10.14	3.680	15.55	2.817	.6880	.0353	.5790	9.917	72.69
#1	1.113	1.852	3.932	.8817	99.04	99.11	99.18	.6853	.1764
#2	.9639	1.951	4.903	.8472	98.08	99.07	98.37	.5955	.5495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2180.8**	**3968.8**	**21227.**	**8772.9**
Stddev	17.1	27.3	7.	50.8
%RSD	.78615	.68801	.03527	.57903
#1	2192.9	3988.1	21232.	8808.8
#2	2168.7	3949.5	21221.	8736.9

Sample Name: CCV Acquired: 6/12/2019 6:49:15 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**491.3**	**10090.**	**989.6**	**1013.**	**1009.**	**1007.**	**10120.**	**1008.**	**982.0**
Stddev	7.6	2.	17.8	14.	5.	1.	56.	13.	8.6
%RSD	1.543	.0156	1.803	1.363	.4595	.1123	.5483	1.286	.8714
#1	485.9	10090.	977.0	1003.	1006.	1008.	10080.	998.4	975.9
#2	496.6	10100.	1002.	1023.	1012.	1007.	10160.	1017.	988.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**977.7**	**1006.**	**10110.**	**90.82**	**9928.**	**993.5**	**9993.**	**1014.**	**985.9**
Stddev	10.0	4.	12.	.06	139.	6.1	35.	4.	10.3
%RSD	1.020	.4219	.1147	.0675	1.402	.6182	.3526	.4302	1.046
#1	970.6	1003.	10100.	90.87	9830.	989.2	10020.	1010.	978.6
#2	984.7	1009.	10110.	90.78	10030.	997.9	9968.	1017.	993.2
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10010.**	**1005.**	**985.5**	**988.1**	**9873.**	**999.2**	**993.0**	**5056.**	**1011.**
Stddev	141.	14.	14.8	9.5	145.	13.1	10.4	46.	11.
%RSD	1.406	1.368	1.503	.9642	1.465	1.310	1.050	.9011	1.082
#1	9914.	995.3	975.0	981.4	9771.	990.0	985.6	5024.	1003.
#2	10110.	1015.	996.0	994.8	9975.	1009.	1000.	5088.	1018.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/12/2019 6:49:15 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1010.**	**983.7**	**993.2**	**968.5**	**96.72**	**96.83**	**98.51**	**1010.**	**1015.**
Stddev	4.	12.4	14.3	10.7	.45	.29	.01	8.	6.
%RSD	.3548	1.255	1.443	1.100	.4692	.2987	.0098	.7796	.5751
#1	1007.	975.0	983.0	961.0	97.04	97.03	98.52	1005.	1011.
#2	1013.	992.4	1003.	976.0	96.39	96.62	98.51	1016.	1019.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2007.6**	**3894.5**	**20742.**	**8750.0**
Stddev	1.4	18.3	62.	.9
%RSD	.06748	.46924	.29866	.00981
#1	2008.6	3907.4	20786.	8750.6
#2	2006.7	3881.6	20698.	8749.4

Sample Name: ICSA Acquired: 6/12/2019 6:54:36 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.4258**	**51360.**	**-1.988**	**.6678**	**.3794**	**.1173**	**50830.**	**.2591**	**-.1744**
Stddev	.2097	468.	1.484	.1275	.0923	.0385	471.	.0832	.0744
%RSD	49.26	.9115	74.66	19.09	24.32	32.84	.9268	32.12	42.66
#1	.2775	51030.	-3.037	.5776	.4446	.0901	50500.	.3179	-.1218
#2	.5740	51690.	-.9383	.7579	.3142	.1446	51170.	.2002	-.2271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.5724**	**-1.457**	**20190.**	**87.14**	**-14.12**	**1.300**	**51670.**	**.0424**	**1.339**
Stddev	.1866	.226	177.	.16	1.37	.556	595.	.2402	.017
%RSD	32.59	15.51	.8761	.1812	9.686	42.80	1.151	566.4	1.252
#1	.4405	-1.617	20070.	87.03	-15.09	.9066	51250.	-.1274	1.327
#2	.7043	-1.297	20320.	87.25	-13.15	1.693	52090.	.2122	1.351
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**113.9**	**.1538**	**1.048**	**2.722**	**-8.540**	**-2.301**	**-3.001**	**-3.559**	**-.3438**
Stddev	78.8	.1228	.447	3.178	.741	1.952	.519	4.896	.3762
%RSD	69.16	79.82	42.69	116.8	8.677	84.85	17.30	137.6	109.4
#1	169.7	.0670	.7316	4.969	-9.064	-.9204	-3.368	-7.021	-.6098
#2	58.22	.2406	1.364	.4748	-8.016	-3.681	-2.634	-.0972	-.0778
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/12/2019 6:54:36 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2344**	**.3761**	**-.1125**	**1.180**	**95.15**	**94.88**	**97.44**	**.2204**	**-.8273**
Stddev	.0428	.3342	.7707	.107	.25	.18	.04	.0930	.0832
%RSD	18.28	88.86	685.2	9.088	.2626	.1879	.0387	42.19	10.05
#1	-.2041	.6124	-.6574	1.255	94.98	95.00	97.46	.1547	-.8861
#2	-.2647	.1398	.4325	1.104	95.33	94.75	97.41	.2862	-.7684
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1926.2**	**3831.5**	**20324.**	**8654.4**
Stddev	3.5	10.1	38.	3.3
%RSD	.18118	.26259	.18794	.03866
#1	1923.7	3824.4	20351.	8656.8
#2	1928.7	3838.6	20297.	8652.0

Sample Name: ICSAB Acquired: 6/12/2019 6:57:20 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1034.**	**51390.**	**-.1918**	**-.6116**	**508.3**	**514.3**	**50720.**	**1025.**	**490.9**
Stddev	12.	419.	.1362	.4779	5.6	5.6	575.	16.	3.5
%RSD	1.174	.8147	71.05	78.14	1.098	1.090	1.134	1.569	.7098
#1	1025.	51090.	-.0954	-.2737	504.3	510.3	50310.	1013.	488.5
#2	1043.	51680.	-.2881	-.9495	512.2	518.3	51120.	1036.	493.4
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**486.7**	**505.7**	**20200.**	**87.43**	**-6.814**	**.8867**	**51660.**	**505.0**	**.7429**
Stddev	5.4	1.7	128.	.77	13.06	.0610	343.	1.3	.4463
%RSD	1.119	.3282	.6322	.8749	191.6	6.881	.6644	.2609	60.08
#1	482.9	504.5	20110.	87.98	-16.05	.9298	51410.	504.1	.4273
#2	490.6	506.9	20290.	86.89	2.418	.8436	51900.	505.9	1.058
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-49.72**	**982.1**	**-.1461**	**987.4**	**-18.03**	**-.3548**	**-3.141**	**-22.45**	**.6026**
Stddev	33.35	9.4	.3991	8.4	1.07	.8957	.253	2.01	.0812
%RSD	67.09	.9620	273.2	.8492	5.920	252.5	8.055	8.943	13.47
#1	-26.13	975.4	-.4283	981.4	-17.27	-.9881	-2.962	-21.03	.5452
#2	-73.30	988.7	.1361	993.3	-18.78	.2786	-3.320	-23.87	.6600
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 6/12/2019 6:57:20 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2047**	**.0552**	**1.028**	**496.3**	**95.03**	**95.01**	**97.46**	**987.2**	**-1.041**
Stddev	.0309	.2300	1.715	8.2	.82	.01	.23	6.5	.434
%RSD	15.08	416.4	166.8	1.642	.8668	.0148	.2404	.6541	41.70
#1	-.1829	.2179	-.1846	490.5	95.61	95.00	97.63	982.6	-.7344
#2	-.2265	-.1074	2.241	502.1	94.45	95.02	97.30	991.7	-1.349
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1932.7**	**3826.7**	**20352.**	**8656.8**
Stddev	16.9	33.2	3.	20.8
%RSD	.87489	.86684	.01485	.24041
#1	1944.7	3850.2	20350.	8671.5
#2	1920.8	3803.2	20354.	8642.0

Sample Name: CRDL Acquired: 6/12/2019 7:01:33 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.011**	**53.08**	**5.493**	**51.94**	**10.53**	**1.123**	**1060.**	**3.138**	**4.650**
Stddev	.262	.67	1.171	.53	.17	.014	23.	.153	.292
%RSD	4.350	1.256	21.32	1.011	1.630	1.212	2.187	4.859	6.285
#1	6.196	53.55	4.665	51.57	10.40	1.133	1044.	3.245	4.444
#2	5.826	52.61	6.321	52.31	10.65	1.113	1077.	3.030	4.857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.239**	**3.408**	**75.33**	**98.15**	**486.2**	**41.09**	**217.2**	**5.336**	**20.38**
Stddev	.432	1.497	4.96	.19	25.5	.73	3.8	.291	.05
%RSD	8.238	43.93	6.587	.1893	5.247	1.778	1.750	5.447	.2592
#1	4.934	2.349	71.82	98.02	468.2	40.58	214.5	5.130	20.42
#2	5.544	4.466	78.84	98.28	504.2	41.61	219.9	5.541	20.34
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1126.**	**10.31**	**49.51**	**5.297**	**50.40**	**6.442**	**5.635**	**99.73**	**52.95**
Stddev	98.	.03	1.28	.479	1.68	.458	.355	8.61	.12
%RSD	8.677	.3325	2.576	9.053	3.328	7.102	6.300	8.636	.2258
#1	1056.	10.28	48.61	4.958	51.58	6.766	5.384	93.64	53.04
#2	1195.	10.33	50.42	5.636	49.21	6.119	5.886	105.8	52.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 6/12/2019 7:01:33 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.203**	**4.958**	**9.044**	**4.933**	**98.76**	**98.70**	**98.22**	**10.82**	**58.16**
Stddev	.069	.092	1.649	.086	.18	.38	.30	.11	.54
%RSD	1.333	1.861	18.23	1.752	.1847	.3886	.3088	.9706	.9199
#1	5.154	4.893	7.878	4.994	98.63	98.97	98.44	10.75	57.79
#2	5.252	5.023	10.21	4.872	98.89	98.43	98.01	10.89	58.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2169.5**	**3976.9**	**21143.**	**8724.0**
Stddev	4.1	7.3	82.	26.9
%RSD	.18935	.18472	.38855	.30878
#1	2166.6	3971.7	21201.	8743.0
#2	2172.4	3982.1	21085.	8704.9

Sample Name: CCV Acquired: 6/12/2019 7:25:44 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.0**	**10300.**	**990.8**	**1002.**	**1027.**	**996.2**	**10440.**	**987.2**	**954.4**
Stddev	5.7	124.	9.1	8.	14.	12.8	71.	9.9	12.4
%RSD	1.175	1.202	.9215	.8454	1.319	1.286	.6838	1.006	1.300
#1	483.0	10210.	984.4	996.1	1018.	987.1	10390.	980.2	945.7
#2	491.1	10390.	997.3	1008.	1037.	1005.	10490.	994.2	963.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**966.7**	**1026.**	**10260.**	**90.75**	**9976.**	**994.8**	**9916.**	**1052.**	**995.6**
Stddev	7.7	8.	131.	.20	212.	14.7	100.	12.	11.9
%RSD	.7968	.7663	1.278	.2174	2.129	1.475	1.009	1.103	1.197
#1	961.2	1020.	10170.	90.89	9826.	984.4	9846.	1044.	987.2
#2	972.1	1031.	10360.	90.61	10130.	1005.	9987.	1060.	1004.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10230.**	**987.9**	**1002.**	**989.1**	**9836.**	**983.2**	**1014.**	**4977.**	**986.4**
Stddev	312.	9.1	10.	13.6	99.	11.7	9.	40.	10.9
%RSD	3.049	.9217	.9729	1.371	1.009	1.193	.9299	.7939	1.109
#1	10010.	981.5	995.4	979.5	9766.	974.9	1008.	4949.	978.7
#2	10450.	994.3	1009.	998.7	9906.	991.5	1021.	5005.	994.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/12/2019 7:25:44 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1024.**	**991.1**	**970.7**	**931.8**	**97.51**	**96.29**	**96.62**	**991.0**	**1061.**
Stddev	14.	9.8	17.1	9.2	.08	.03	.37	12.1	13.
%RSD	1.354	.9848	1.757	.9853	.0845	.0320	.3826	1.223	1.193
#1	1015.	984.2	958.7	925.3	97.45	96.27	96.89	982.5	1052.
#2	1034.	998.0	982.8	938.3	97.57	96.32	96.36	999.6	1070.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2006.0**	**3926.4**	**20628.**	**8582.1**
Stddev	4.4	3.3	7.	32.8
%RSD	.21743	.08452	.03203	.38255
#1	2009.1	3924.1	20623.	8605.3
#2	2002.9	3928.8	20633.	8558.9

Sample Name: CCB Acquired: 6/12/2019 7:27:48 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1361	5.698	.2697	1.386	.7513	.7600	48.84	.2294	.1070
Stddev	.1666	4.821	.6391	.315	.0733	.1048	5.75	.1809	.1296
%RSD	122.4	84.60	236.9	22.76	9.754	13.79	11.78	78.84	121.1
#1	.0183	9.107	.7216	1.609	.8031	.8341	52.90	.3573	.1986
#2	.2540	2.289	-.1822	1.163	.6994	.6859	44.77	.1015	.0153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.6012	1.398	18.10	97.46	-12.34	1.139	43.26	1.992	4.644
Stddev	.1258	.629	3.33	.09	4.84	.245	6.35	.560	.158
%RSD	20.93	44.99	18.42	.0908	39.24	21.54	14.69	28.12	3.410
#1	.6902	1.842	20.46	97.52	-15.76	.9657	38.76	2.388	4.533
#2	.5122	.9530	15.74	97.40	-8.913	1.313	47.75	1.596	4.756
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	43.08	-.3889	.8810	.5397	4.138	2.571	.5814	5.222	.2035
Stddev	61.47	.2059	.1507	.5465	5.061	.329	.6716	10.30	.9325
%RSD	142.7	52.94	17.11	101.3	122.3	12.79	115.5	197.3	458.3
#1	-.3826	-.2433	.7744	.1533	7.716	2.803	.1065	12.51	.8628
#2	86.54	-.5345	.9875	.9261	.5592	2.338	1.056	-2.062	-.4559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/12/2019 7:27:48 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.8791	2.167	1.624	.3628	97.79	98.86	96.58	.4952	-.3599
Stddev	.1145	.195	.924	.1377	.34	.24	.21	.0326	.0477
%RSD	13.03	9.018	56.91	37.94	.3474	.2398	.2140	6.580	13.26
#1	.9601	2.305	2.278	.4602	98.03	99.03	96.72	.4721	-.3937
#2	.7982	2.029	.9706	.2655	97.55	98.69	96.43	.5182	-.3262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2154.3	3937.6	21178.	8577.9
Stddev	2.0	13.7	51.	18.4
%RSD	.09084	.34745	.23983	.21404
#1	2155.7	3947.3	21214.	8590.9
#2	2152.9	3927.9	21142.	8564.9

Sample Name: CCV Acquired: 6/12/2019 8:22:47 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**484.8**	**10240.**	**1004.**	**1013.**	**1024.**	**989.5**	**10120.**	**1006.**	**955.3**
Stddev	7.1	171.	14.	14.	17.	15.9	173.	17.	11.7
%RSD	1.470	1.670	1.397	1.415	1.695	1.603	1.706	1.731	1.225
#1	479.8	10120.	993.6	1003.	1012.	978.3	10000.	994.1	947.0
#2	489.9	10360.	1013.	1023.	1036.	1001.	10240.	1019.	963.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**963.8**	**1016.**	**10040.**	**88.62**	**10060.**	**1000.**	**9769.**	**1033.**	**993.5**
Stddev	10.6	18.	151.	.36	268.	19.	144.	16.	11.8
%RSD	1.096	1.746	1.505	.4053	2.662	1.861	1.472	1.502	1.186
#1	956.4	1003.	9932.	88.87	9873.	987.2	9668.	1022.	985.2
#2	971.3	1028.	10150.	88.36	10250.	1014.	9871.	1044.	1002.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10490.**	**997.6**	**997.0**	**970.1**	**9854.**	**984.5**	**1010.**	**4976.**	**984.1**
Stddev	194.	12.8	13.0	13.8	120.	12.0	11.	116.	9.8
%RSD	1.846	1.284	1.300	1.422	1.212	1.221	1.109	2.332	.9936
#1	10360.	988.6	987.8	960.4	9770.	976.0	1002.	4894.	977.2
#2	10630.	1007.	1006.	979.9	9939.	993.0	1018.	5058.	991.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/12/2019 8:22:47 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1019.	980.4	952.8	936.4	94.12	94.90	94.64	984.6	1073.
Stddev	18.	9.5	19.9	11.0	.38	.11	.44	12.3	7.
%RSD	1.791	.9739	2.093	1.171	.4033	.1136	.4692	1.249	.6874
#1	1006.	973.7	938.7	928.6	94.39	94.83	94.96	975.9	1067.
#2	1032.	987.2	966.9	944.2	93.85	94.98	94.33	993.3	1078.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1958.8	3790.0	20330.	8406.3
Stddev	7.9	15.3	23.	39.4
%RSD	.40535	.40333	.11356	.46924
#1	1964.5	3800.8	20313.	8434.2
#2	1953.2	3779.2	20346.	8378.4

Sample Name: CCB Acquired: 6/12/2019 8:24:50 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.5932	7.103	.6772	1.334	.9851	.9161	43.62	.4973	-.0934
Stddev	.1775	3.072	2.854	.571	.1489	.1619	3.99	.0822	.0050
%RSD	29.92	43.25	421.4	42.77	15.11	17.68	9.136	16.53	5.389
#1	.4677	4.931	-1.341	1.738	1.090	1.031	46.44	.5554	-.0898
#2	.7187	9.276	2.695	.9306	.8798	.8016	40.80	.4392	-.0969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.5109	.5219	8.571	96.32	-4.052	1.671	21.88	.8890	5.164
Stddev	.3695	.6731	5.215	.65	2.969	.308	10.56	.1810	.073
%RSD	72.32	129.0	60.84	.6799	73.26	18.43	48.28	20.36	1.409
#1	.7722	.0459	12.26	95.85	-6.151	1.889	29.35	1.017	5.113
#2	.2497	.9979	4.884	96.78	-1.953	1.453	14.41	.7611	5.216
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	80.97	-.1082	3.835	.1382	14.12	-1.275	2.854	6.133	.9762
Stddev	71.38	.3392	.331	.8990	1.71	2.713	3.097	2.204	.1595
%RSD	88.16	313.3	8.641	650.4	12.14	212.7	108.5	35.93	16.34
#1	131.4	.1316	3.600	.7739	15.33	-3.193	5.044	7.691	1.089
#2	30.50	-.3481	4.069	-.4975	12.90	.6430	.6637	4.575	.8634
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/12/2019 8:24:50 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.065	1.253	1.669	.4250	96.17	97.74	95.77	.4636	-1.084
Stddev	.169	.135	.974	.1317	.34	.01	.61	.0543	.418
%RSD	15.85	10.80	58.33	30.99	.3504	.0057	.6333	11.70	38.55
#1	1.184	1.349	2.358	.5182	95.93	97.74	96.20	.4252	-.7882
#2	.9454	1.158	.9809	.3319	96.41	97.75	95.34	.5020	-1.379
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2129.1	3872.6	20938.	8506.3
Stddev	14.5	13.6	1.	53.9
%RSD	.67992	.35036	.00566	.63328
#1	2118.8	3863.0	20937.	8544.4
#2	2139.3	3882.2	20939.	8468.2

Sample Name: 1686411_26702 Acquired: 6/12/2019 8:28:58 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4537	-2.568	3.227	.8477	.0913	-.0167	20.23	-.0514	-.0956
Stddev	.6019	7.564	1.457	.3017	.0413	.0133	4.00	.1202	.0220
%RSD	132.7	294.6	45.15	35.58	45.24	79.45	19.78	233.7	22.96
#1	.0281	-7.916	4.257	1.061	.1205	-.0262	23.06	.0335	-.1112
#2	.8792	2.781	2.197	.6344	.0621	-.0073	17.40	-.1364	-.0801

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0787	.7705	.5732	95.74	-19.09	.6787	46.29	.1511	1.300
Stddev	.0335	1.096	.3955	.13	8.69	.5713	20.58	.2606	.312
%RSD	42.49	142.2	69.00	.1393	45.52	84.18	44.46	172.4	24.03
#1	-.1024	1.545	.2935	95.83	-12.94	.2747	31.74	-.0331	1.079
#2	-.0551	-.0044	.8528	95.64	-25.23	1.083	60.85	.3354	1.521

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	44.70	-.3225	-.2999	.5790	6.140	-1.845	-.6895	-2.626	-.5123
Stddev	165.7	.5858	3.341	.7654	4.777	1.323	.7418	3.352	.2359
%RSD	370.6	181.7	1114.	132.2	77.80	71.70	107.6	127.6	46.04
#1	161.9	-.7367	-2.662	1.120	2.762	-2.780	-1.214	-4.996	-.3455
#2	-72.45	.0918	2.062	.0378	9.518	-.9094	-.1650	-.2565	-.6791

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0499	.0241	-.0982	-.0454	95.61	98.65	96.74	1.111	-.0573
Stddev	.0129	.1457	3.386	.0306	.25	.29	.17	.090	.5698
%RSD	25.90	604.5	3448.	67.28	.2657	.2950	.1720	8.125	995.1
#1	-.0591	-.0789	-2.493	-.0670	95.79	98.85	96.86	1.047	.3457
#2	-.0408	.1272	2.296	-.0238	95.43	98.44	96.62	1.175	-.4602

Sample Name: 1686411_26702 Acquired: 6/12/2019 8:28:58 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2116.2	3849.9	21132.	8592.4
Stddev	2.9	10.2	62.	14.8
%RSD	.13925	.26574	.29500	.17205
#1	2118.3	3857.1	21176.	8602.9
#2	2114.2	3842.7	21088.	8582.0

Sample Name: 1686412_26702 Acquired: 6/12/2019 8:31:11 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**241.1**	**5033.**	**475.3**	**498.3**	**503.9**	**490.8**	**4945.**	**508.6**	**453.4**
Stddev	2.6	65.	2.0	4.9	8.1	5.3	64.	5.2	6.7
%RSD	1.082	1.297	.4241	.9784	1.615	1.085	1.289	1.030	1.473
#1	239.3	4987.	473.8	494.9	498.2	487.0	4900.	504.9	448.7
#2	242.9	5079.	476.7	501.8	509.7	494.5	4990.	512.3	458.1

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**474.1**	**504.5**	**4976.**	**90.94**	**4830.**	**495.5**	**4820.**	**511.7**	**480.5**
Stddev	6.7	8.8	89.	.10	128.	7.2	90.	10.6	6.1
%RSD	1.403	1.739	1.780	.1129	2.644	1.449	1.864	2.068	1.268
#1	469.4	498.3	4914.	91.01	4739.	490.5	4757.	504.2	476.2
#2	478.8	510.7	5039.	90.87	4920.	500.6	4884.	519.2	484.8

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5091.**	**494.2**	**489.6**	**491.8**	**4824.**	**483.0**	**501.6**	**2427.**	**485.0**
Stddev	71.	6.9	9.2	6.3	59.	7.1	5.2	60.	4.9
%RSD	1.404	1.388	1.883	1.285	1.215	1.469	1.040	2.457	1.018
#1	5040.	489.3	483.1	487.4	4783.	478.0	497.9	2385.	481.5
#2	5141.	499.0	496.2	496.3	4866.	488.0	505.3	2469.	488.5

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.5**	**472.2**	**457.0**	**463.9**	**94.19**	**96.27**	**96.00**	**483.4**	**490.4**
Stddev	8.0	6.8	7.2	5.1	.29	.32	.14	4.5	16.7
%RSD	1.579	1.435	1.567	1.103	.3059	.3371	.1463	.9353	3.412
#1	499.9	467.4	451.9	460.3	93.98	96.50	96.10	480.2	478.6
#2	511.2	477.0	462.0	467.6	94.39	96.04	95.90	486.6	502.2

Sample Name: 1686412_26702 Acquired: 6/12/2019 8:31:11 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2010.2	3792.6	20623.	8527.0
Stddev	2.3	11.6	70.	12.5
%RSD	.11290	.30592	.33706	.14632
#1	2011.8	3784.4	20672.	8535.8
#2	2008.6	3800.8	20574.	8518.2

Sample Name: 1685291_26702 Acquired: 6/12/2019 8:33:12 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7589**	**35.54**	**5.849**	**10.53**	**4.507**	**.5572**	**192.4**
Stddev	.2713	6.99	3.097	.35	.144	.0668	3.0
%RSD	35.76	19.66	52.96	3.314	3.197	11.98	1.571
#1	.5670	30.60	8.039	10.77	4.609	.6044	190.3
#2	.9507	40.48	3.659	10.28	4.405	.5100	194.5

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.6040**	**-1.565**	**2.098**	**1.853**	**19.13**	**68.03**	**283.3**
Stddev	.0373	.274	.498	.263	1.89	.30	41.9
%RSD	6.180	17.53	23.75	14.17	9.867	.4343	14.78
#1	.5776	-1.371	2.450	2.038	20.46	68.23	253.7
#2	.6304	-1.759	1.745	1.667	17.79	67.82	312.9

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.644**	**27.21**	**1.953**	**4.335**	**1563000.**	**1.824**	**12.66**
Stddev	1.047	5.34	.162	.278	58750.	.571	2.45
%RSD	15.76	19.64	8.275	6.402	3.759	31.33	19.32
#1	5.904	23.43	1.839	4.531	1604000.	2.228	14.39
#2	7.385	30.99	2.068	4.138	1521000.	1.420	10.93

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.754**	**43.27**	**.3632**	**4.888**	**55.72**	**1.101**	**2.102**
Stddev	1.501	6.05	1.762	.153	7.82	.906	.099
%RSD	85.59	13.97	485.0	3.131	14.04	82.32	4.718
#1	-.6924	39.00	1.609	4.996	61.25	1.741	2.172
#2	-2.815	47.55	-.8824	4.780	50.19	.4600	2.032

Sample Name: 1685291_26702 Acquired: 6/12/2019 8:33:12 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.8454	-.7216	1.639	79.77	79.65	87.56	6.562
Stddev	.0433	2.412	.165	.19	.37	3.92	.422
%RSD	5.118	334.2	10.05	.2346	.4602	4.473	6.433
#1	.8760	.9837	1.523	79.91	79.90	84.79	6.860
#2	.8148	-2.427	1.756	79.64	79.39	90.33	6.263

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	1.084
Stddev	.060
%RSD	5.507
#1	1.127
#2	1.042

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1503.7	3212.3	17061.	7777.3
Stddev	6.5	7.5	79.	347.9
%RSD	.43429	.23463	.46017	4.4730
#1	1508.3	3217.6	17117.	7531.3
#2	1499.0	3207.0	17006.	8023.3

Sample Name: 30298231010_26702 Acquired: 6/12/2019 8:35:26 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0350**	**21.83**	**1.163**	**44.68**	**646.9**	**-.6242**	**570300.**
Stddev	.2495	12.93	2.022	.07	5.5	.0472	4115.
%RSD	712.2	59.23	173.8	.1618	.8453	7.556	.7215
#1	.1414	30.97	2.593	44.73	643.1	-.5909	567400.
#2	-.2115	12.68	-.2665	44.63	650.8	-.6576	573200.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.054**	**10.46**	**-.4531**	**2.846**	**15.01**	**62.04**	**4993.**
Stddev	.024	.72	.1554	.636	2.35	.07	98.
%RSD	1.156	6.926	34.30	22.35	15.65	.1154	1.960
#1	2.037	10.97	-.3433	3.296	16.67	62.09	4924.
#2	2.070	9.944	-.5630	2.396	13.35	61.99	5062.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.43**	**35160.**	**3703.**	**2.164**	**1526000.**	**15.24**	**33.66**
Stddev	1.13	266.	33.	.091	23220.	.21	4.68
%RSD	4.612	.7558	.8861	4.209	1.521	1.405	13.91
#1	23.63	34970.	3680.	2.229	1510000.	15.09	36.97
#2	25.23	35350.	3726.	2.100	1543000.	15.39	30.35

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.542**	**747.1**	**-2.095**	**4.211**	**2330.**	**1.435**	**774.4**
Stddev	1.326	3.3	1.091	2.650	12.	.284	8.1
%RSD	29.19	.4374	52.07	62.92	.5068	19.83	1.051
#1	5.480	744.8	-2.866	6.085	2322.	1.234	768.6
#2	3.605	749.4	-1.323	2.337	2338.	1.636	780.1

Sample Name: 30298231010_26702 Acquired: 6/12/2019 8:35:26 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.513**	**-1.776**	**.5414**	**74.30**	**76.02**	**87.31**	**18.69**
Stddev	.075	.523	.1250	.13	.34	.20	.37
%RSD	2.997	29.46	23.09	.1751	.4472	.2237	1.956
#1	2.460	-2.146	.6298	74.21	76.26	87.44	18.43
#2	2.566	-1.406	.4530	74.39	75.78	87.17	18.95

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**-.5915**
Stddev	.1375
%RSD	23.24
#1	-.4943
#2	-.6887

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1371.4**	**2991.9**	**16284.**	**7754.6**
Stddev	1.6	5.2	73.	17.3
%RSD	.11538	.17511	.44717	.22370
#1	1372.6	2988.2	16336.	7766.8
#2	1370.3	2995.6	16233.	7742.3

Sample Name: 1686413_26702 Acquired: 6/12/2019 8:37:43 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4577**	**19.18**	**.7660**	**44.10**	**639.5**	**-.7389**	**561600.**
Stddev	.1473	1.62	.8532	.19	5.4	.0110	3563.
%RSD	32.18	8.432	111.4	.4214	.8383	1.484	.6345
#1	-.3535	18.04	.1627	44.24	635.7	-.7311	559100.
#2	-.5618	20.33	1.369	43.97	643.3	-.7466	564100.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.949**	**10.64**	**.5175**	**2.509**	**12.83**	**62.01**	**4987.**
Stddev	.205	.22	.2256	.100	2.28	.16	97.
%RSD	10.54	2.032	43.59	4.002	17.78	.2613	1.944
#1	2.094	10.80	.3580	2.580	14.45	62.13	4919.
#2	1.804	10.49	.6770	2.438	11.22	61.90	5056.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.74**	**34870.**	**3665.**	**1.453**	**1513000.**	**15.82**	**33.32**
Stddev	1.02	256.	22.	.147	23740.	.01	2.77
%RSD	3.977	.7329	.5996	10.14	1.570	.0556	8.316
#1	25.01	34690.	3650.	1.349	1496000.	15.81	35.28
#2	26.46	35050.	3681.	1.557	1529000.	15.82	31.36

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.350**	**743.8**	**-2.284**	**4.585**	**2330.**	**.8200**	**764.0**
Stddev	.533	17.9	1.539	3.854	14.	1.920	5.9
%RSD	39.49	2.407	67.35	84.05	.5805	234.1	.7723
#1	.9730	731.1	-1.196	7.310	2321.	-.5373	759.8
#2	1.727	756.4	-3.372	1.860	2340.	2.177	768.1

Sample Name: 1686413_26702 Acquired: 6/12/2019 8:37:43 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.103**	**-7.731**	**.2833**	**74.13**	**76.35**	**87.59**	**18.14**
Stddev	.170	4.094	.2612	.01	.21	.10	.02
%RSD	8.067	52.95	92.21	.0199	.2799	.1140	.1209
#1	1.983	-4.836	.4680	74.12	76.50	87.52	18.16
#2	2.223	-10.63	.0986	74.14	76.20	87.66	18.13

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.3041**
Stddev	.2534
%RSD	83.33
#1	.1249
#2	.4833

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1370.8**	**2985.1**	**16355.**	**7780.1**
Stddev	3.6	.6	46.	8.9
%RSD	.26130	.01990	.27990	.11402
#1	1373.3	2984.6	16388.	7773.8
#2	1368.2	2985.5	16323.	7786.3

Sample Name: 1686414_26702 Acquired: 6/12/2019 8:40:00 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**292.1**	**5455.**	**563.4**	**549.1**	**1167.**	**498.5**	**569100.**
Stddev	7.9	81.	6.2	7.1	19.	6.6	7188.
%RSD	2.708	1.480	1.095	1.288	1.656	1.327	1.263
#1	286.6	5398.	559.0	544.1	1153.	493.9	564000.
#2	297.7	5512.	567.8	554.1	1181.	503.2	574200.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**575.4**	**512.1**	**481.1**	**543.0**	**5011.**	**61.66**	**11050.**
Stddev	7.5	4.3	15.6	8.4	84.	.06	316.
%RSD	1.306	.8313	3.239	1.555	1.668	.0943	2.862
#1	570.1	509.1	470.1	537.1	4952.	61.61	10830.
#2	580.8	515.1	492.1	549.0	5070.	61.70	11280.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**602.6**	**39830.**	**4146.**	**582.7**	**1519000.**	**476.6**	**608.1**
Stddev	13.7	520.	50.	5.6	30910.	6.3	8.3
%RSD	2.267	1.305	1.203	.9543	2.034	1.320	1.357
#1	593.0	39460.	4110.	578.8	1498000.	472.2	602.2
#2	612.3	40200.	4181.	586.6	1541000.	481.1	613.9

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**520.3**	**6483.**	**539.1**	**590.2**	**4941.**	**464.1**	**1291.**
Stddev	.2	75.	3.3	7.0	67.	.4	21.
%RSD	.0425	1.156	.6182	1.193	1.346	.0805	1.660
#1	520.5	6430.	536.7	585.2	4894.	463.9	1276.
#2	520.2	6536.	541.4	595.2	4988.	464.4	1306.

Sample Name: 1686414_26702 Acquired: 6/12/2019 8:40:00 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.4**	**409.9**	**493.4**	**74.77**	**76.04**	**88.92**	**495.1**
Stddev	15.6	8.6	14.9	.20	1.59	.19	3.8
%RSD	3.075	2.099	3.023	.2675	2.094	.2176	.7620
#1	495.4	403.8	482.9	74.91	77.17	89.06	492.4
#2	517.4	415.9	504.0	74.62	74.92	88.79	497.8

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**521.1**
Stddev	9.7
%RSD	1.861
#1	514.2
#2	527.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1362.9**	**3010.6**	**16289.**	**7898.1**
Stddev	1.3	8.1	341.	17.2
%RSD	.09432	.26749	2.0937	.21762
#1	1362.0	3016.3	16530.	7910.3
#2	1363.8	3004.9	16048.	7886.0

Sample Name: 1686415_26702 Acquired: 6/12/2019 8:42:08 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**285.9**	**5566.**	**539.3**	**542.9**	**1158.**	**485.5**	**569700.**
Stddev	4.3	77.	10.7	8.2	20.	8.1	11900.
%RSD	1.499	1.383	1.982	1.517	1.705	1.668	2.088
#1	282.9	5512.	531.7	537.1	1144.	479.8	561300.
#2	288.9	5621.	546.8	548.7	1172.	491.3	578100.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**552.3**	**494.9**	**456.3**	**529.5**	**5087.**	**61.83**	**11200.**
Stddev	5.3	7.8	1.8	9.7	111.	.25	370.
%RSD	.9686	1.579	.3943	1.828	2.182	.4043	3.304
#1	548.5	489.4	455.1	522.6	5009.	62.01	10940.
#2	556.0	500.4	457.6	536.3	5166.	61.66	11470.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**585.2**	**40100.**	**4184.**	**578.6**	**1535000.**	**459.1**	**586.4**
Stddev	11.2	1076.	71.	7.4	35950.	4.7	7.5
%RSD	1.906	2.683	1.707	1.282	2.342	1.019	1.274
#1	577.3	39340.	4133.	573.4	1510000.	455.8	581.1
#2	593.1	40860.	4234.	583.8	1561000.	462.4	591.7

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**498.2**	**6454.**	**536.4**	**567.8**	**4961.**	**460.7**	**1279.**
Stddev	8.9	65.	5.0	7.0	100.	6.4	23.
%RSD	1.781	.9998	.9361	1.226	2.009	1.397	1.759
#1	491.9	6409.	532.9	562.9	4891.	456.1	1263.
#2	504.4	6500.	540.0	572.7	5032.	465.3	1295.

Sample Name: 1686415_26702 Acquired: 6/12/2019 8:42:08 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.2**	**401.3**	**469.8**	**75.05**	**76.95**	**88.02**	**476.3**
Stddev	3.1	3.6	1.6	.05	.08	.71	5.3
%RSD	.6333	.9014	.3451	.0725	.1030	.8034	1.120
#1	492.0	398.8	468.7	75.09	77.00	88.52	472.6
#2	496.4	403.9	471.0	75.01	76.89	87.52	480.1

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**534.8**
Stddev	11.4
%RSD	2.136
#1	526.7
#2	542.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1366.8**	**3022.1**	**16484.**	**7817.9**
Stddev	5.5	2.2	17.	62.8
%RSD	.40431	.07253	.10301	.80341
#1	1370.7	3023.6	16496.	7862.3
#2	1362.9	3020.5	16472.	7773.4

Sample Name: 30298231001_26702 Acquired: 6/12/2019 8:44:16 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7589**	**37.63**	**2.554**	**59.00**	**2624.**	**-.3505**	**615600.**
Stddev	.2235	12.05	.785	.02	23.	.0055	3137.
%RSD	29.46	32.02	30.75	.0407	.8881	1.558	.5096
#1	.9170	46.15	1.999	58.98	2607.	-.3544	613400.
#2	.6008	29.11	3.109	59.01	2640.	-.3467	617800.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**14.57**	**.6240**	**1.570**	**5.503**	**28.96**	**61.71**	**3273.**
Stddev	.11	.2777	.300	2.495	.15	.05	62.
%RSD	.7452	44.50	19.12	45.34	.5014	.0792	1.902
#1	14.49	.4276	1.358	7.267	29.06	61.67	3229.
#2	14.64	.8203	1.782	3.738	28.86	61.74	3317.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**31.58**	**15200.**	**1405.**	**6.174**	**1566000.**	**22.10**	**42.78**
Stddev	.66	98.	6.	.286	24070.	.18	3.98
%RSD	2.075	.6463	.4175	4.637	1.538	.8105	9.291
#1	31.11	15130.	1400.	5.971	1549000.	22.22	45.59
#2	32.04	15270.	1409.	6.376	1583000.	21.97	39.97

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.521**	**1749.**	**-4.650**	**3.103**	**2364.**	**2.033**	**1100.**
Stddev	.237	13.	2.338	2.391	26.	1.487	9.
%RSD	9.414	.7656	50.28	77.05	1.084	73.13	.7831
#1	2.689	1739.	-2.997	4.793	2346.	.9819	1094.
#2	2.353	1758.	-6.304	1.412	2382.	3.085	1107.

Sample Name: 30298231001_26702 Acquired: 6/12/2019 8:44:16 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.240**	**-.1534**	**1.567**	**73.85**	**75.77**	**87.42**	**65.44**
Stddev	.594	6.014	.522	.08	.18	.21	.29
%RSD	18.34	3921.	33.30	.1060	.2331	.2416	.4431
#1	2.820	-4.406	1.936	73.79	75.89	87.27	65.23
#2	3.660	4.099	1.198	73.90	75.64	87.57	65.64

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.7004**
Stddev	.0029
%RSD	.4102
#1	.7025
#2	.6984

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1364.0**	**2973.5**	**16230.**	**7764.4**
Stddev	1.1	3.2	38.	18.8
%RSD	.07921	.10605	.23306	.24163
#1	1363.2	2971.3	16257.	7751.2
#2	1364.7	2975.8	16204.	7777.7

Sample Name: CCV Acquired: 6/12/2019 8:46:36 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**491.0**	**10350.**	**1019.**	**1027.**	**1036.**	**1009.**	**10710.**	**1025.**
Stddev	5.0	100.	11.	8.	13.	10.	17.	11.
%RSD	1.016	.9679	1.053	.7575	1.259	.9731	.1621	1.078
#1	487.4	10280.	1011.	1022.	1027.	1002.	10700.	1017.
#2	494.5	10430.	1026.	1033.	1045.	1016.	10720.	1032.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**962.7**	**974.8**	**1034.**	**10240.**	**88.04**	**10160.**	**1013.**	**9993.**
Stddev	9.3	10.6	13.	95.	.01	161.	15.	40.
%RSD	.9643	1.083	1.263	.9227	.0110	1.585	1.433	.4036
#1	956.1	967.4	1025.	10180.	88.03	10040.	1003.	9965.
#2	969.2	982.3	1043.	10310.	88.04	10270.	1023.	10020.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1048.**	**999.7**	F **11720.**	**1009.**	**1010.**	**981.6**	**9935.**	**1001.**
Stddev	9.	9.2	87.	10.	6.	11.9	112.	14.
%RSD	.8255	.9195	.7438	1.032	.5485	1.214	1.127	1.388
#1	1042.	993.2	11780.	1001.	1006.	973.1	9856.	990.9
#2	1054.	1006.	11660.	1016.	1014.	990.0	10010.	1011.
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			10000.					
Range			10.00%					

Sample Name: CCV Acquired: 6/12/2019 8:46:36 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1027.**	**5063.**	**999.4**	**1033.**	**993.9**	**969.8**	**948.0**	**93.01**
Stddev	2.	62.	6.9	12.	9.7	20.5	9.7	.02
%RSD	.1500	1.232	.6902	1.148	.9727	2.111	1.026	.0219
#1	1026.	5019.	994.5	1025.	987.1	955.3	941.1	93.03
#2	1028.	5107.	1004.	1041.	1001.	984.3	954.8	93.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb
Avg	**95.01**	**95.19**	**996.8**	**1079.**
Stddev	.18	.12	10.5	6.
%RSD	.1883	.1221	1.054	.5504
#1	95.13	95.27	989.4	1075.
#2	94.88	95.10	1004.	1084.
Check ?	None	None	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1946.0**	**3745.3**	**20352.**	**8454.4**
Stddev	.2	.8	38.	10.3
%RSD	.01102	.02194	.18826	.12209
#1	1945.8	3745.9	20379.	8461.7
#2	1946.1	3744.7	20325.	8447.1

Sample Name: CCB Acquired: 6/12/2019 8:48:38 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4396	6.651	2.048	1.107	.7811	.7385	61.06	.3650	.0331
Stddev	.5878	2.340	1.618	.551	.0299	.1203	10.05	.1744	.4269
%RSD	133.7	35.18	78.99	49.80	3.824	16.30	16.47	47.78	1291.
#1	.8552	8.305	3.192	1.496	.8023	.8236	68.17	.2416	-.2688
#2	.0240	4.997	.9042	.7169	.7600	.6534	53.95	.4883	.3349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3783	.2305	4.458	95.22	51.90	3.127	21.66	.9534	5.152
Stddev	.2399	.0683	1.941	.09	3.50	.308	3.52	.4759	.302
%RSD	63.43	29.62	43.54	.0996	6.738	9.857	16.24	49.91	5.869
#1	.5480	.2788	5.830	95.28	54.37	3.345	24.15	1.290	5.365
#2	.2086	.1823	3.085	95.15	49.42	2.909	19.17	.6169	4.938
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	117.7	-.2799	-.9577	.8947	8.278	.1562	.8078	8.118	-.3127
Stddev	210.6	.1767	1.444	.5747	.105	3.372	3.908	14.41	1.046
%RSD	179.0	63.13	150.8	64.23	1.274	2159.	483.8	177.5	334.5
#1	266.6	-.1549	-1.979	1.301	8.352	2.541	-1.956	-2.070	-1.052
#2	-31.23	-.4048	.0633	.4884	8.203	-2.228	3.572	18.31	.4269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/12/2019 8:48:38 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.8073**	**1.273**	**2.180**	**.4120**	**94.94**	**97.04**	**95.58**	**.3810**	**-.2682**
Stddev	.1240	.079	.218	.5400	.01	.18	.52	.3878	.1371
%RSD	15.36	6.180	9.978	131.1	.0111	.1878	.5470	101.8	51.12
#1	.8950	1.217	2.334	.7938	94.93	97.17	95.95	.6552	-.3652
#2	.7196	1.329	2.026	.0302	94.94	96.92	95.21	.1068	-.1713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2104.7**	**3822.8**	**20789.**	**8489.7**
Stddev	2.1	.4	39.	46.4
%RSD	.09957	.01110	.18783	.54696
#1	2106.2	3822.5	20816.	8522.5
#2	2103.2	3823.1	20761.	8456.9

Sample Name: 1685291_26702X2 Acquired: 6/12/2019 8:52:27 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7264**	**10.55**	**2.260**	**4.008**	**1.939**	**.0627**	**105.7**	**.2420**
Stddev	.4874	.20	1.164	.017	.064	.0538	13.3	.0206
%RSD	67.10	1.868	51.51	.4228	3.314	85.88	12.60	8.530
#1	.3818	10.69	1.437	3.996	1.894	.0246	96.24	.2274
#2	1.071	10.41	3.083	4.019	1.985	.1007	115.1	.2565

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7795**	**1.101**	**1.430**	**11.87**	**72.98**	**139.2**	**2.809**	**44.18**
Stddev	.3027	.224	1.189	3.09	.26	7.8	.143	22.20
%RSD	38.83	20.35	83.15	26.05	.3613	5.580	5.106	50.25
#1	-.9935	.9425	.5891	14.05	73.16	133.7	2.910	59.88
#2	-.5655	1.259	2.270	9.680	72.79	144.7	2.707	28.49

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3655**	**1.216**	**758700.**	**.1257**	**6.024**	**1.375**	**16.14**	**-.8957**
Stddev	.3831	.296	15710.	.0595	1.916	1.240	1.16	1.463
%RSD	104.8	24.38	2.071	47.35	31.81	90.21	7.193	163.3
#1	.6364	1.426	747600.	.0836	4.669	2.252	16.96	-1.930
#2	.0946	1.006	769800.	.1678	7.379	.4978	15.32	.1385

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.447**	**26.19**	**1.164**	**.6701**	**.1769**	**1.427**	**.2234**	**83.66**
Stddev	5.990	7.49	.647	.0299	.3076	.805	.3405	.38
%RSD	414.0	28.58	55.54	4.469	173.9	56.39	152.4	.4536
#1	-5.682	31.48	.7070	.6489	.3945	.8578	-.0174	83.93
#2	2.789	20.89	1.622	.6912	-.0406	1.996	.4642	83.39

Sample Name: 1685291_26702X2 Acquired: 6/12/2019 8:52:27 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**84.01**	**92.91**	**3.600**	**-.5244**
Stddev	.29	.04	.396	1.127
%RSD	.3472	.0437	11.01	214.9
#1	84.22	92.88	3.880	-1.321
#2	83.80	92.94	3.319	.2724

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1613.1**	**3368.7**	**17996.**	**8252.0**
Stddev	5.8	15.3	62.	3.6
%RSD	.36125	.45356	.34721	.04371
#1	1617.2	3379.5	18041.	8249.4
#2	1609.0	3357.9	17952.	8254.5

Sample Name: 30298231010_26702X10 Acquired: 6/12/2019 8:54:41 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7619**	**3.322**	**3.658**	**4.499**	**62.33**	**-.1050**	**56510.**	**.1589**
Stddev	.0143	4.412	.598	.232	1.75	.0615	1303.	.0708
%RSD	1.882	132.8	16.34	5.152	2.808	58.53	2.306	44.54
#1	.7720	6.442	4.081	4.335	61.10	-.0616	55590.	.2089
#2	.7518	.2015	3.235	4.663	63.57	-.1485	57430.	.1088

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.4555**	**.6505**	**.5952**	**3.488**	**81.87**	**452.2**	**1.862**	**3484.**
Stddev	.1075	.3567	.6831	4.340	.35	4.9	.321	47.
%RSD	23.61	54.84	114.8	124.4	.4304	1.077	17.24	1.336
#1	.3795	.3983	1.078	.4190	82.12	448.8	1.635	3451.
#2	.5315	.9028	.1122	6.556	81.62	455.7	2.089	3517.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**369.1**	**.5634**	**142100.**	**2.042**	**5.445**	**-.5018**	**66.62**	**.5156**
Stddev	8.5	.1856	3901.	.210	.214	.8866	4.76	1.425
%RSD	2.299	32.94	2.744	10.30	3.934	176.7	7.150	276.4
#1	363.1	.6947	139400.	2.190	5.597	.1251	69.98	-.4920
#2	375.1	.4322	144900.	1.893	5.294	-1.129	63.25	1.523

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.109**	**225.0**	**.0396**	**74.83**	**.3302**	**-.4666**	**.2418**	**89.60**
Stddev	2.290	1.8	1.276	1.86	.7174	1.713	.1060	.13
%RSD	73.65	.8001	3221.	2.487	217.3	367.2	43.86	.1493
#1	-1.490	226.2	.9417	73.51	.8375	.7450	.1668	89.70
#2	-4.728	223.7	-.8625	76.14	-.1771	-1.678	.3167	89.51

Sample Name: 30298231010_26702X10 Acquired: 6/12/2019 8:54:41 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**91.28**	**95.26**	**2.350**	**.3871**
Stddev	.13	.22	.013	.1119
%RSD	.1468	.2361	.5312	28.91
#1	91.38	95.42	2.341	.4662
#2	91.19	95.10	2.359	.3080

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1809.6**	**3608.0**	**19554.**	**8461.1**
Stddev	7.8	5.4	29.	20.0
%RSD	.43040	.14932	.14676	.23611
#1	1815.1	3611.8	19574.	8475.3
#2	1804.1	3604.2	19534.	8447.0

Sample Name: 1686413_26702X10 Acquired: 6/12/2019 8:56:54 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1539**	**8.967**	**.5312**	**4.761**	**63.35**	**-.1375**	**57360.**	**-.0710**
Stddev	.3523	1.621	1.873	.511	1.78	.0368	1121.	.0112
%RSD	228.9	18.08	352.5	10.73	2.813	26.76	1.955	15.72
#1	-.0952	7.820	-.7930	4.399	62.09	-.1115	56560.	-.0631
#2	.4031	10.11	1.855	5.122	64.61	-.1635	58150.	-.0788

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.4731**	**.4071**	**-.6341**	**-2.133**	**81.91**	**441.4**	**1.315**	**3510.**
Stddev	.1189	.3115	.4586	1.870	.04	4.0	.144	132.
%RSD	25.12	76.52	72.33	87.66	.0432	.9035	10.92	3.745
#1	.3891	.6273	-.9584	-.8109	81.89	444.2	1.417	3417.
#2	.5571	.1868	-.3098	-3.456	81.94	438.6	1.213	3603.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**373.8**	**.2810**	**144200.**	**1.904**	**1.586**	**.9012**	**71.98**	**.2418**
Stddev	10.1	.3515	3559.	.235	.289	3.992	1.14	.6439
%RSD	2.693	125.1	2.468	12.34	18.25	443.0	1.582	266.3
#1	366.7	.5296	141700.	2.070	1.381	3.724	71.17	-.2135
#2	381.0	.0324	146700.	1.738	1.791	-1.922	72.78	.6971

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.221**	**218.1**	**-.6701**	**76.13**	**.2097**	**-1.852**	**-.1963**	**89.77**
Stddev	2.200	4.3	1.261	1.71	.0422	5.203	.0184	.07
%RSD	52.12	1.962	188.1	2.240	20.11	280.9	9.372	.0730
#1	-2.665	221.1	.2214	74.92	.2396	1.827	-.1833	89.82
#2	-5.777	215.1	-1.562	77.33	.1799	-5.531	-.2093	89.72

Sample Name: 1686413_26702X10 Acquired: 6/12/2019 8:56:54 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**91.29**	**95.74**	**2.303**	**-.0729**
Stddev	.01	.33	.281	.4519
%RSD	.0076	.3424	12.21	620.1
#1	91.29	95.97	2.501	-.3924
#2	91.28	95.51	2.104	.2467

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1810.6**	**3614.8**	**19555.**	**8503.4**
Stddev	.8	2.6	1.	29.1
%RSD	.04319	.07296	.00758	.34238
#1	1810.1	3616.7	19556.	8524.0
#2	1811.2	3612.9	19554.	8482.9

Sample Name: 1686414_26702X10 Acquired: 6/12/2019 8:59:07 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**25.52**	**510.4**	**48.44**	**58.47**	**113.1**	**49.50**	**56830.**	**56.36**
Stddev	.00	12.1	.07	.98	3.4	1.10	1310.	.50
%RSD	.0097	2.378	.1443	1.668	3.025	2.227	2.305	.8894
#1	25.52	501.8	48.39	57.78	110.7	48.72	55900.	56.01
#2	25.52	519.0	48.49	59.16	115.5	50.28	57750.	56.72

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.81**	**50.29**	**52.06**	**490.1**	**81.41**	**978.5**	**54.52**	**3971.**
Stddev	.95	1.66	.94	4.9	.19	54.9	.99	90.
%RSD	1.824	3.297	1.809	.9957	.2349	5.614	1.824	2.262
#1	51.14	49.12	51.39	486.6	81.54	939.7	53.82	3908.
#2	52.47	51.46	52.72	493.5	81.27	1017.	55.22	4035.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**422.1**	**33.83**	**143200.**	**54.24**	**57.62**	**53.72**	**623.2**	**48.36**
Stddev	10.3	1.18	4951.	.20	.28	1.22	16.8	3.43
%RSD	2.435	3.477	3.458	.3659	.4834	2.277	2.699	7.090
#1	414.8	34.66	139700.	54.38	57.42	54.58	611.3	50.79
#2	429.4	32.99	146700.	54.10	57.81	52.86	635.0	45.94

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**46.03**	**471.7**	**41.80**	**125.7**	**49.39**	**34.37**	**48.92**	**89.38**
Stddev	2.70	14.9	.13	3.4	.69	.88	.83	.28
%RSD	5.864	3.158	.3180	2.739	1.397	2.565	1.702	.3149
#1	47.94	461.1	41.90	123.3	48.91	34.99	48.33	89.58
#2	44.13	482.2	41.71	128.1	49.88	33.74	49.51	89.18

Sample Name: 1686414_26702X10 Acquired: 6/12/2019 8:59:07 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**91.70**	**95.53**	**54.82**	**33.33**
Stddev	.21	.27	.25	.96
%RSD	.2275	.2820	.4636	2.877
#1	91.85	95.72	54.64	34.01
#2	91.55	95.34	55.00	32.65

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1799.5**	**3599.2**	**19644.**	**8484.6**
Stddev	4.2	11.3	45.	23.9
%RSD	.23488	.31489	.22752	.28196
#1	1802.5	3607.3	19676.	8501.6
#2	1796.5	3591.2	19612.	8467.7

Sample Name: 1686415_26702X10 Acquired: 6/12/2019 9:01:20 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.30**	**543.0**	**48.39**	**57.98**	**114.5**	**49.46**	**58490.**	**54.25**
Stddev	1.28	1.3	2.06	1.49	2.8	1.12	1186.	.62
%RSD	4.861	.2371	4.249	2.566	2.488	2.271	2.028	1.147
#1	25.40	542.1	49.84	56.93	112.5	48.67	57660.	53.81
#2	27.21	543.9	46.94	59.03	116.5	50.25	59330.	54.69

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.68**	**49.20**	**49.79**	**505.2**	**81.47**	**997.7**	**53.37**	**4087.**
Stddev	.29	.75	.61	11.2	.11	44.3	.72	103.
%RSD	.5767	1.521	1.223	2.222	.1348	4.435	1.341	2.522
#1	49.47	48.67	50.22	497.2	81.39	966.4	52.86	4014.
#2	49.88	49.73	49.36	513.1	81.54	1029.	53.88	4160.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**431.8**	**35.84**	**147200.**	**51.28**	**53.57**	**53.52**	**623.3**	**47.33**
Stddev	10.3	.98	4062.	.13	1.78	.20	19.0	1.80
%RSD	2.387	2.743	2.759	.2571	3.325	.3807	3.053	3.805
#1	424.5	36.53	144400.	51.37	52.31	53.67	609.9	48.60
#2	439.1	35.14	150100.	51.19	54.83	53.38	636.8	46.05

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**46.06**	**483.3**	**41.66**	**127.9**	**50.23**	**35.78**	**47.85**	**89.13**
Stddev	2.29	2.8	2.22	2.8	.27	.10	.47	.29
%RSD	4.983	.5765	5.320	2.225	.5391	.2767	.9815	.3249
#1	47.69	481.4	43.23	125.9	50.04	35.71	47.51	89.33
#2	44.44	485.3	40.10	129.9	50.42	35.85	48.18	88.92

Sample Name: 1686415_26702X10 Acquired: 6/12/2019 9:01:20 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**91.16**	**95.42**	**53.41**	**36.66**
Stddev	.34	.49	.29	.41
%RSD	.3693	.5107	.5511	1.131
#1	91.40	95.77	53.20	36.36
#2	90.93	95.08	53.62	36.95

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1800.7**	**3588.9**	**19529.**	**8475.5**
Stddev	2.4	11.7	72.	43.3
%RSD	.13475	.32486	.36935	.51074
#1	1799.0	3597.2	19580.	8506.1
#2	1802.5	3580.7	19478.	8444.9

Sample Name: 30298231001_26702X10 Acquired: 6/12/2019 9:03:32 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7073**	**9.141**	**2.076**	**5.757**	**258.4**	**.0809**	**62600.**	**1.360**
Stddev	.0289	.574	.385	.052	7.0	.0605	1480.	.160
%RSD	4.084	6.282	18.54	.9128	2.713	74.81	2.365	11.78
#1	.7277	9.547	2.348	5.794	253.4	.1237	61560.	1.473
#2	.6869	8.735	1.804	5.720	263.3	.0381	63650.	1.247

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2479**	**.8584**	**.2606**	**-.1464**	**81.08**	**261.6**	**2.055**	**1554.**
Stddev	.2944	.2604	3.344	2.468	.00	1.0	.176	46.
%RSD	118.8	30.34	1283.	1685.	.0009	.3674	8.589	2.967
#1	-.0397	.6743	-2.104	-1.891	81.08	260.9	1.931	1522.
#2	-.4561	1.043	2.625	1.599	81.08	262.3	2.180	1587.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**145.1**	**1.671**	**150700.**	**2.415**	**3.807**	**1.269**	**164.0**	**-1.569**
Stddev	1.5	.995	4194.	.876	2.797	2.310	4.2	.597
%RSD	1.012	59.56	2.784	36.25	73.46	182.0	2.554	38.06
#1	144.1	.9670	147700.	1.796	5.785	2.902	161.0	-1.992
#2	146.2	2.374	153600.	3.034	1.830	-.3642	166.9	-1.147

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.9700**	**226.8**	**1.575**	**109.9**	**.8772**	**1.926**	**-.0270**	**88.64**
Stddev	1.876	4.1	.358	2.6	.0456	4.422	.2385	.04
%RSD	193.4	1.803	22.75	2.336	5.195	229.5	882.7	.0491
#1	-2.297	229.7	1.828	108.1	.8450	5.053	-.1957	88.61
#2	.3567	223.9	1.322	111.7	.9094	-1.200	.1416	88.67

Sample Name: 30298231001_26702X10 Acquired: 6/12/2019 9:03:32 Type: Unk
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**90.61**	**95.11**	**7.474**	**-.1464**
Stddev	.24	.31	.055	.0275
%RSD	.2601	.3242	.7384	18.79
#1	90.78	95.33	7.513	-.1659
#2	90.44	94.90	7.434	-.1270

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1792.2**	**3569.3**	**19410.**	**8448.0**
Stddev	.0	1.8	50.	27.4
%RSD	.00095	.04913	.26008	.32421
#1	1792.2	3568.0	19446.	8467.4
#2	1792.2	3570.5	19375.	8428.7

Sample Name: CCV Acquired: 6/12/2019 9:05:47 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.9**	**10300.**	**1014.**	**1028.**	**1031.**	**997.7**	**10120.**	**1018.**	**961.7**
Stddev	7.2	175.	9.	12.	17.	17.0	174.	7.	8.5
%RSD	1.464	1.699	.8729	1.142	1.607	1.700	1.718	.6609	.8827
#1	485.8	10180.	1008.	1020.	1019.	985.7	10000.	1013.	955.7
#2	496.0	10420.	1020.	1036.	1042.	1010.	10250.	1023.	967.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**966.8**	**1028.**	**10100.**	**88.02**	**10110.**	**1009.**	**9807.**	**1033.**	**999.2**
Stddev	9.6	19.	186.	.23	262.	20.	137.	17.	11.4
%RSD	.9978	1.812	1.842	.2567	2.586	1.959	1.394	1.687	1.141
#1	960.0	1015.	9972.	87.86	9928.	994.9	9710.	1021.	991.1
#2	973.6	1041.	10240.	88.18	10300.	1023.	9904.	1046.	1007.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10610.**	**1006.**	**1013.**	**977.1**	**9954.**	**1003.**	**1030.**	**4983.**	**994.3**
Stddev	116.	9.	12.	9.4	97.	11.	9.	99.	9.7
%RSD	1.089	.8679	1.173	.9584	.9775	1.141	.8935	1.979	.9714
#1	10530.	999.4	1004.	970.5	9885.	994.9	1023.	4913.	987.5
#2	10690.	1012.	1021.	983.8	10020.	1011.	1036.	5052.	1001.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/12/2019 9:05:47 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1029.	993.2	966.2	941.3	93.12	94.05	94.64	992.9	1084.
Stddev	18.	12.7	19.5	10.7	.28	.34	.58	9.1	9.
%RSD	1.700	1.275	2.019	1.134	.3045	.3663	.6136	.9166	.8313
#1	1017.	984.2	952.4	933.8	92.92	94.30	95.05	986.5	1078.
#2	1042.	1002.	980.0	948.9	93.32	93.81	94.23	999.4	1091.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1945.7	3749.8	20148.	8405.7
Stddev	5.0	11.4	74.	51.6
%RSD	.25671	.30451	.36634	.61356
#1	1942.2	3741.7	20200.	8442.2
#2	1949.3	3757.9	20096.	8369.3

Sample Name: CCB Acquired: 6/12/2019 9:07:51 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.7802	4.193	4.007	1.480	.6219	.5901	33.69	-.0001	-.0754
Stddev	.0528	1.353	1.755	.176	.0910	.0991	10.86	.0683	.0030
%RSD	6.769	32.26	43.79	11.86	14.64	16.79	32.23	51960.	3.963
#1	.7429	5.150	5.248	1.356	.5576	.6602	26.01	.0482	-.0775
#2	.8176	3.237	2.766	1.605	.6863	.5201	41.36	-.0484	-.0733
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4513	-.4526	5.628	94.44	11.68	2.161	26.02	.5463	5.251
Stddev	.3101	1.644	4.033	.15	4.83	.262	16.37	.1586	.023
%RSD	68.72	363.3	71.65	.1578	41.38	12.11	62.89	29.02	.4357
#1	.6706	-1.615	2.777	94.55	8.259	2.346	14.45	.6585	5.267
#2	.2320	.7100	8.480	94.34	15.09	1.976	37.59	.4342	5.235
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	79.30	.4514	.7676	-.5443	2.353	.4743	.5103	7.645	1.163
Stddev	41.62	.5207	.5936	.4600	1.292	1.507	2.072	.094	.965
%RSD	52.49	115.3	77.34	84.51	54.90	317.7	406.1	1.231	83.00
#1	49.87	.8196	.3478	-.8696	1.440	1.540	1.975	7.712	.4805
#2	108.7	.0832	1.187	-.2191	3.267	-.5912	-.9549	7.579	1.846
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/12/2019 9:07:51 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.6308	.9613	2.129	.0880	94.04	96.49	94.85	.3165	-.1500
Stddev	.0859	.2431	1.493	.3697	.13	.22	.26	.2103	.9189
%RSD	13.62	25.28	70.14	420.3	.1370	.2308	.2725	66.44	612.5
#1	.6916	1.133	1.073	.3493	94.14	96.65	95.03	.1678	-.7998
#2	.5700	.7895	3.185	-.1734	93.95	96.33	94.66	.4652	.4997
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2087.6	3786.9	20670.	8424.2
Stddev	3.3	5.2	48.	23.0
%RSD	.15782	.13704	.23084	.27246
#1	2090.0	3790.6	20704.	8440.4
#2	2085.3	3783.2	20636.	8408.0

Sample Name: ICSA Acquired: 6/12/2019 11:57:32 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2367	53880.	-2.493	.3626	-.0304	-.0935	52560.	.3049	.2005
Stddev	.0546	441.	2.561	.3413	.0052	.0644	650.	.0708	.0133
%RSD	23.06	.8175	102.7	94.12	16.99	68.90	1.237	23.22	6.649
#1	.1981	53570.	-4.304	.1213	-.0341	-.1390	52100.	.2549	.2099
#2	.2752	54190.	-.6822	.6040	-.0268	-.0479	53020.	.3550	.1911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1849	-2.249	20820.	82.88	65.75	.8793	52480.	.2180	1.826
Stddev	.0859	1.272	167.	.29	14.85	.2102	244.	.0722	.321
%RSD	46.49	56.55	.8042	.3485	22.59	23.91	.4654	33.13	17.58
#1	.2457	-3.149	20700.	82.68	76.25	.7306	52310.	.1670	1.599
#2	.1241	-1.350	20940.	83.09	55.25	1.028	52650.	.2691	2.053
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	385.5	-.1324	1.110	2.124	6.216	-3.270	-1.984	10.66	.4914
Stddev	96.0	.3124	1.621	.198	2.197	2.975	1.026	.84	.7033
%RSD	24.90	235.9	146.0	9.330	35.35	90.97	51.71	7.924	143.1
#1	453.4	-.3533	-.0361	1.983	7.769	-1.167	-2.709	10.06	.9887
#2	317.6	.0885	2.256	2.264	4.662	-5.374	-1.259	11.26	-.0060
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/12/2019 11:57:32 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1659**	**.4175**	**.8829**	**.8377**	**88.86**	**90.32**	**95.25**	**.5938**	**-.8301**
Stddev	.0505	.0002	3.164	.3742	.27	.20	.32	.2654	.2593
%RSD	30.42	.0498	358.4	44.67	.3057	.2197	.3388	44.69	31.24
#1	-.1302	.4173	-1.355	.5731	88.67	90.46	95.48	.4061	-1.013
#2	-.2016	.4176	3.120	1.102	89.06	90.18	95.02	.7814	-.6467
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1832.1**	**3578.3**	**19348.**	**8460.2**
Stddev	6.4	10.9	43.	28.7
%RSD	.34849	.30567	.21971	.33882
#1	1827.6	3570.6	19378.	8480.4
#2	1836.6	3586.0	19318.	8439.9

Sample Name: ICSAB Acquired: 6/12/2019 12:00:37 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1051.**	**51500.**	**.2906**	**-1.240**	**513.6**	**508.3**	**50340.**	**1048.**	**491.1**
Stddev	15.	761.	.2963	.640	8.5	7.7	925.	11.	5.3
%RSD	1.460	1.478	101.9	51.64	1.656	1.513	1.838	1.022	1.081
#1	1040.	50960.	.5002	-.7874	507.6	502.9	49690.	1040.	487.4
#2	1062.	52040.	.0811	-1.693	519.6	513.7	51000.	1055.	494.9
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**484.7**	**515.5**	**19900.**	**82.92**	**44.87**	**1.002**	**49980.**	**497.4**	**.7335**
Stddev	5.4	8.6	263.	.07	18.82	.182	822.	7.4	.4083
%RSD	1.118	1.663	1.319	.0796	41.94	18.16	1.645	1.478	55.67
#1	480.8	509.5	19720.	82.88	58.18	1.131	49390.	492.2	.4448
#2	488.5	521.6	20090.	82.97	31.56	.8735	50560.	502.6	1.022
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**198.8**	**1001.**	**1.553**	**996.8**	**2.246**	**-2.029**	**-4.746**	**-10.63**	**-.0806**
Stddev	63.0	11.	.244	6.2	4.090	2.134	1.953	4.12	.2756
%RSD	31.69	1.077	15.74	.6253	182.1	105.2	41.14	38.77	341.8
#1	154.3	993.6	1.380	992.4	-.6459	-3.538	-6.127	-13.54	-.2755
#2	243.4	1009.	1.726	1001.	5.138	-.5202	-3.366	-7.715	.1142
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 6/12/2019 12:00:37 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2252**	**.0546**	**.9159**	**491.1**	**88.86**	**90.33**	**95.51**	**982.1**	**-.1634**
Stddev	.0062	.0288	1.623	6.6	.13	.11	.56	11.9	.1705
%RSD	2.731	52.70	177.2	1.348	.1459	.1238	.5895	1.213	104.3
#1	-.2208	.0342	-.2319	486.4	88.77	90.41	95.90	973.7	-.2840
#2	-.2295	.0749	2.064	495.8	88.95	90.25	95.11	990.5	-.0429
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1833.0**	**3578.1**	**19349.**	**8482.9**
Stddev	1.5	5.2	24.	50.0
%RSD	.07964	.14587	.12379	.58953
#1	1831.9	3574.4	19366.	8518.2
#2	1834.0	3581.8	19332.	8447.5

Sample Name: CRDL Acquired: 6/12/2019 12:06:54 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.349**	**55.70**	**6.188**	**54.84**	**10.79**	**1.037**	**1080.**	**3.303**	**4.905**
Stddev	.662	1.76	1.653	.01	.10	.015	5.	.050	.070
%RSD	10.43	3.165	26.70	.0270	.9028	1.481	.4948	1.520	1.431
#1	6.818	54.46	7.357	54.85	10.72	1.026	1084.	3.267	4.856
#2	5.881	56.95	5.020	54.82	10.86	1.048	1076.	3.338	4.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.123**	**4.023**	**76.37**	**92.73**	**568.7**	**42.81**	**215.3**	**5.695**	**21.02**
Stddev	.095	.864	.10	.32	.9	.69	15.0	.103	.50
%RSD	1.862	21.49	.1347	.3494	.1546	1.618	6.953	1.814	2.356
#1	5.056	3.411	76.44	92.51	569.3	42.32	225.9	5.768	20.67
#2	5.191	4.634	76.30	92.96	568.1	43.30	204.7	5.622	21.37
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1285.**	**10.73**	**52.25**	**3.793**	**64.56**	**6.559**	**6.037**	**111.7**	**53.16**
Stddev	34.	.15	.37	1.168	4.61	1.448	.096	13.3	.01
%RSD	2.620	1.430	.7096	30.79	7.147	22.08	1.582	11.95	.0159
#1	1309.	10.84	52.51	2.967	61.30	7.583	6.105	102.2	53.17
#2	1261.	10.62	51.99	4.619	67.83	5.534	5.970	121.1	53.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 6/12/2019 12:06:54 Type: QC
Method: Pace-65002-3-CETAC1(v1269) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.455**	**4.945**	**9.247**	**4.656**	**92.07**	**94.59**	**96.52**	**10.91**	**67.34**
Stddev	.096	.018	.826	.158	.68	.09	.06	.05	1.34
%RSD	1.763	.3614	8.936	3.386	.7335	.0915	.0572	.4226	1.985
#1	5.387	4.933	9.832	4.544	91.59	94.65	96.56	10.94	66.40
#2	5.523	4.958	8.663	4.767	92.55	94.53	96.48	10.87	68.29
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2049.9**	**3707.4**	**20262.**	**8573.2**
Stddev	7.2	27.2	19.	4.9
%RSD	.34940	.73346	.09154	.05717
#1	2044.8	3688.2	20276.	8576.7
#2	2054.9	3726.6	20249.	8569.7

Prep Log Report

Batch Information: TCLP 8649/346367; 8650/346368; 8651/346370

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/10/2019 09:55:38:876	Tumbler Start Temp. (C)	21.3
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 88823	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1685290**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	LB	**1685500**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
TCLP	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
TCLP	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
TCLP	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
TCLP	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100
TCLP	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
TCLP	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
TCLP	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
TCLP	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
TCLP	PS	**30298295002**	Y		J	30TBL5	HP001	Other	Y	Y	7.73	1.71	5	100
TCLP	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
TCLP	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
TCLP	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
TCLP	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685291**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1685749**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
1311MET_L	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
1311MET_L	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
1311MET_L	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
1311MET_L	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
1311MET_L	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
1311MET_L	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
1311MET_L	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
1311MET_L	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
1311MET_L	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
1311MET_L	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
1311MET_L	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685298**	Y		1	30TBL5	HP001		Y	Y	4.88		5	0
1311MET_L	PS	**30297106001**	Y		2	30TBL5	HP001	Other	Y	Y	9.84	1.72	5	100
1311MET_L	PS	**30297106002**	Y		3	30TBL5	HP001	Other	Y	Y	9.78	1.74	5	100
1311MET_L	PS	**30297106003**	Y		4	30TBL5	HP001	Other	Y	Y	9.73	1.87	5	100
1311MET_L	PS	**30297106004**	Y		5	30TBL5	HP001	Other	Y	Y	9.8	1.67	5	100
1311MET_L	PS	**30297106005**	Y		6	30TBL5	HP001	Other	Y	Y	9.72	1.7	5	100
1311MET_L	PS	**30297106006**	Y		7	30TBL5	HP001	Other	Y	Y	9.72	1.83	5	100
1311MET_L	PS	**30296663001**	Y		8	30TBL5	HP001	Other	Y	Y	5.89	1.83	5	95
1311MET_L	PS	**30296842001**	Y		9	30TBL5	HP001	Other	Y	Y	8.58	1.64	5	100
1311MET_L	PS	**30296842004**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100
1311MET_L	PS	**30296842005**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1685290**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324				
TCLP	LB	**1685500**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570				
TCLP	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171				
TCLP	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108				
TCLP	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320				
TCLP	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065				
TCLP	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199				
TCLP	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351				
TCLP	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670				
TCLP	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950				
TCLP	PS	**30298295002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 11:02:37:439				
TCLP	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389				
TCLP	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643				
TCLP	PS	**30298519001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314				
TCLP	PS	**30298297001**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1685291**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324	Y			
1311MET_L	LB	**1685749**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570	Y			
1311MET_L	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171	Y			
1311MET_L	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108	Y			
1311MET_L	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320	Y			
1311MET_L	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065	Y			
1311MET_L	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199	Y			
1311MET_L	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351	Y			
1311MET_L	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670	Y			
1311MET_L	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950	Y			
1311MET_L	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389	Y			
1311MET_L	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643	Y			
1311MET_L	PS	**30298519001**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314	Y			
1311MET_L	PS	**30298297001**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282	Y			
1311MET_L	LB	**1685298**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.89	06/11/2019 11:36:59:553	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30297106001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.38	06/11/2019 11:37:00:433	Y			
1311MET_L	PS	**30297106002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.28	06/11/2019 11:37:01:257	Y			
1311MET_L	PS	**30297106003**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.27	06/11/2019 11:59:31:063	Y			
1311MET_L	PS	**30297106004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.32	06/11/2019 11:59:31:918	Y			
1311MET_L	PS	**30297106005**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.24	06/11/2019 11:59:32:845	Y			
1311MET_L	PS	**30297106006**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.19	06/11/2019 11:59:33:797	Y			
1311MET_L	PS	**30296663001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.04	06/11/2019 11:59:35:141	Y			
1311MET_L	PS	**30296842001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.56	06/11/2019 11:59:36:021	Y			
1311MET_L	PS	**30296842004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:19:146	Y	475.7	476.9	1.2
1311MET_L	PS	**30296842005**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:21:353	Y	475.7	476.9	1.2

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1685290**								2000	
TCLP	LB	**1685500**								2000	
TCLP	PS	**40188615001**								2000	1*
TCLP	PS	**30296741001**								2000	clay/rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**30297196001**								2000	stone
TCLP	PS	**30297929001**								2000	rock
TCLP	PS	**30298178001**								2000	mulch
TCLP	PS	**30298276001**								2000	soil/sand
TCLP	PS	**30298142001**								2000	clay
TCLP	PS	**30298142002**								2000	fabric
TCLP	PS	**30298295002**								2000	clay
TCLP	PS	**30298231001**								2000	clay
TCLP	PS	**30298231010**								2000	dirt/rock
TCLP	PS	**30298519001**								2000	2*
TCLP	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685291**								2000	
1311MET_L	LB	**1685749**								2000	
1311MET_L	PS	**40188615001**								2000	1*
1311MET_L	PS	**30296741001**								2000	clay/rock
1311MET_L	PS	**30297196001**								2000	stone
1311MET_L	PS	**30297929001**								2000	rock
1311MET_L	PS	**30298178001**								2000	mulch
1311MET_L	PS	**30298276001**								2000	soil/sand
1311MET_L	PS	**30298142001**								2000	clay
1311MET_L	PS	**30298142002**								2000	fabric
1311MET_L	PS	**30298231001**								2000	clay
1311MET_L	PS	**30298231010**								2000	dirt/rock
1311MET_L	PS	**30298519001**								2000	2*
1311MET_L	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685298**								2000	
1311MET_L	PS	**30297106001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30297106002**								2000	rock
1311MET_L	PS	**30297106003**								2000	rock
1311MET_L	PS	**30297106004**								2000	rock
1311MET_L	PS	**30297106005**								2000	rock
1311MET_L	PS	**30297106006**								2000	rock
1311MET_L	PS	**30296663001**								1900	paper
1311MET_L	PS	**30296842001**								2000	shavings
1311MET_L	PS	**30296842004**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	oil
1311MET_L	PS	**30296842005**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	3*

Sample Notes:

1*: carbon pellets 2*: sand/sludge 3*: solid portion

Prep Log Report

Batch Information: MPRP 346695-3005 B TCLP

Template Version: F-PA-I-001-Rev.00 (5May2016)

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	06/11/2019 14:51:13:517
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	95.2	Correction Factor (C)	-0.2
Corrected Temp. (C)	95.00	Therm. Position	5.3	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	06/11/2019 15:25:14:043
Digestion End Time	06/11/2019 20:49:26:676	Digestion Vessel	84128	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By	BKH	Reviewed By Date	06/21/2019 11:42	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B ST_P	BLANK	**1686411**	Water	Yes	50	88823 (1)	89448 (2.5)	50					
3005B ST_P	LCS	**1686412**	Water	Yes	50	88823 (1)	89448 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30298231010**	Solid	Yes	50	88823 (1)	89448 (2.5)	50					
3005B ST_P	DUP	**1686413**	Solid	Yes	50	88823 (1)	89448 (2.5)	50					
3005B ST_P	MS	**1686414**	Solid	Yes	50	88823 (1)	89448 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	MSD	**1686415**	Solid	Yes	50	88823 (1)	89448 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30298231001**	Solid	Yes	50	88823 (1)	89448 (2.5)	50					
3005B ST_P	LB	**1685291**	Water	Yes	50	88823 (1)	89448 (2.5)	50		EF 1G 6/10			

Standard Notes:

87420: 6010-SPK1 ICP

87421: 6010-SPK2 ICP

87422: 6010-SPK3 ICP

SAMPLE NO.

AOC35L

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	06/11/2019 22:02

SAMPLE NO.

AOC34

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231010 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	06/11/2019 22:04

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 90554

Continuing Calibration Verification Source: 90552

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	06/11/2019 21:03				06/11/2019 21:05			06/11/2019 21:34			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	0.97	97.0	90-110	5.0	5.2	103.0	5.0	5.2	104.0	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 90552

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification									
	06/11/2019 21:55			06/11/2019 22:16			06/11/2019 22:37			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Mercury	5.0	5.2	105.0	5.0	5.2	105.0	5.0	5.2	104.8	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 90552

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification			
	06/11/2019 22:49			Control Limit
Analyte	True	Found	%R	
Mercury	5.0	5.4	108.6	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 90509,90510,90549 Analysis Date/Time: 06/11/2019 21:09

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.20	100.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	06/11/2019 21:07	C	06/11/2019 21:37	C	06/11/2019 21:57	C	06/11/2019 22:18	C	1686569	C
Mercury	0.030	U	0.030	U	0.030	U	0.030	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)						Leachate Blank	
		C	06/11/2019 22:39	C	06/11/2019 22:51	C		C	1685291	C
Mercury			0.030	U	0.030	U			ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1685298	C
Mercury									ND	U

FORM III INORGANIC-4

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1685749	C
Mercury									ND	U

FORM III INORGANIC-5

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1684049	C
Mercury									ND	U

SAMPLE NO.

1686572MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30298178001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.6	1.0 U	2.5	106

SAMPLE NO.

1686574MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30298297001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.4	ND	2.5	96

SAMPLE NO.

1686571DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	1.0 U	ND	

SAMPLE NO.

1686573DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1686570LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	0.94J	94	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	1.0	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Batch: MERP 10829

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1684049	1684049LB	06/11/2019	25	25
1685291	1685291LB	06/11/2019	25	25
1685298	1685298LB	06/11/2019	25	25
1685749	1685749LB	06/11/2019	25	25
1686569	1686569BLANK	06/11/2019	25	25
1686570	1686570LCS	06/11/2019	25	25
1686571	1686571DUP	06/11/2019	25	25
1686572	1686572MS	06/11/2019	25	25
1686573	1686573DUP	06/11/2019	25	25
1686574	1686574MS	06/11/2019	25	25
30298231001	AOC35L	06/11/2019	25	25
30298231010	AOC34	06/11/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 06/11/2019 20:51 End Date: 06/11/2019 22:51

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11064883CAL0	11064883CAL0	1	06/11/2019	20:51	X
11064884CAL1	11064884CAL1	1	06/11/2019	20:53	X
11064885CAL2	11064885CAL2	1	06/11/2019	20:54	X
11064886CAL3	11064886CAL3	1	06/11/2019	20:56	X
11064887CAL4	11064887CAL4	1	06/11/2019	20:58	X
11064888CAL5	11064888CAL5	1	06/11/2019	21:00	X
11064889ICV	11064889ICV	1	06/11/2019	21:03	X
11064890CCV	11064890CCV	1	06/11/2019	21:05	X
11064891ICB	11064891ICB	1	06/11/2019	21:07	X
11064892CRDL	11064892CRDL	1	06/11/2019	21:09	X
1686569BLANK	1686569	1	06/11/2019	21:11	X
1686570LCS	1686570	1	06/11/2019	21:12	X
1685291LB	1685291	1	06/11/2019	21:21	X
1685298LB	1685298	1	06/11/2019	21:22	X
1685749LB	1685749	1	06/11/2019	21:24	X
1684049LB	1684049	1	06/11/2019	21:26	X
30298297001	30298297001	1	06/11/2019	21:27	X
1686573DUP	1686573	1	06/11/2019	21:29	X
1686574MS	1686574	1	06/11/2019	21:31	X
11064893CCV	11064893CCV	1	06/11/2019	21:34	X
11064894CCB	11064894CCB	1	06/11/2019	21:37	X
30298178001	30298178001	1	06/11/2019	21:51	X
1686571DUP	1686571	1	06/11/2019	21:53	X
11064895CCV	11064895CCV	1	06/11/2019	21:55	X
11064896CCB	11064896CCB	1	06/11/2019	21:57	X
1686572MS	1686572	1	06/11/2019	21:59	X
AOC35L	30298231001	1	06/11/2019	22:02	X
AOC34	30298231010	1	06/11/2019	22:04	X
11064898CCV	11064898CCV	1	06/11/2019	22:16	X
11064899CCB	11064899CCB	1	06/11/2019	22:18	X
11064901CCV	11064901CCV	1	06/11/2019	22:37	X
11064902CCB	11064902CCB	1	06/11/2019	22:39	X
11064904CCV	11064904CCV	1	06/11/2019	22:49	X
11064905CCB	11064905CCB	1	06/11/2019	22:51	X

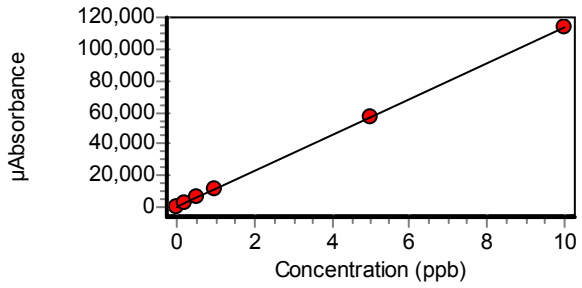
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg061119A.wsz
Date Started: 7/6/2016 3:55:19 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	06/11/19 08:51:19 pm	0.00	14	520.29		1.00	1.00
											1.00	
	Replicates	35.4	-62.7	-19.2	100.7							
CAL1					STD	06/11/19 08:53:22 pm	0.20	2485	2.84		1.00	1.00
											1.00	
	Replicates	2433.4	2533.3	2416.5	2557.3							
CAL2					STD	06/11/19 08:54:59 pm	0.50	5867	0.89		1.00	1.00
											1.00	
	Replicates	5849.2	5824.5	5942.5	5850.0							
CAL3					STD	06/11/19 08:56:37 pm	1.00	11884	0.64		1.00	1.00
											1.00	
	Replicates	11772.1	11903.2	11941.4	11918.4							
CAL4					STD	06/11/19 08:58:15 pm	5.00	56654	0.64		1.00	1.00
											1.00	
	Replicates	56137.5	56666.1	56893.8	56918.5							
CAL5					STD	06/11/19 09:00:52 pm	10.00	114196	0.62		1.00	1.00
											1.00	
	Replicates	113204.9	114156.1	114700.8	114723.8							

Calibration

Equation: A = 160.364 + 11385.460C
R2: 0.99997
SEE: 299.6615
Flags:



ICV					ICV	06/11/19 09:03:33 pm	0.97	11212	0.88		1.00	1.00
	% Recovery	97.07									1.00	
	Replicates	11077.4	11306.5	11260.0	11205.0							
CCV					CCV	06/11/19 09:05:12 pm	5.15	58823	0.63		1.00	1.00
	% Recovery	103.05									1.00	
	Replicates	58287.5	58859.6	59049.1	59096.6							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
										ODF	
ICB				ICB	06/11/19 09:07:56 pm	-0.01	89	47.04		1.00	1.00
										1.00	
Replicates	121.4	105.8	103.0	27.5							
CRDL				CRDL	06/11/19 09:09:36 pm	0.20	2425	1.95		1.00	1.00
% Recovery	99.47									1.00	
Replicates	2384.0	2470.8	2385.2	2461.2							
1686569_12208				PBK	06/11/19 09:11:13 pm	-0.02	-21	171.80		1.00	1.00
										1.00	
Replicates	26.1	-60.8	-30.0	-19.2							
1686570_12208				LCS	06/11/19 09:12:50 pm	0.94	10831	0.76		1.00	1.00
% Recovery	93.72									1.00	
Replicates	10714.2	10874.5	10833.0	10901.3							
1685291_12208				MB	06/11/19 09:21:18 pm	-0.01	55	147.63		1.00	1.00
										1.00	
Replicates	40.7	-41.3	64.5	155.2							
1685298_12208				MB	06/11/19 09:22:56 pm	-0.01	65	31.73		1.00	1.00
										1.00	
Replicates	57.6	95.9	57.6	50.1							
1685749_12208				MB	06/11/19 09:24:35 pm	-0.01	3	116.60		1.00	1.00
										1.00	
Replicates	-12.8	84.9	-68.1	7.9							
1684049_12208				MB	06/11/19 09:26:17 pm	-0.01	23	148.41		1.00	1.00
										1.00	
Replicates	2.3	41.3	62.9	-12.7							
30298297001_12208				UNK	06/11/19 09:27:54 pm	0.00	181	6.90		1.00	1.00
										1.00	
Replicates	184.6	171.6	197.4	171.1							
1686573_12208				DUP	06/11/19 09:29:32 pm	-0.01	96	15.15		1.00	1.00
		RPD 0.00								1.00	
Replicates	83.8	101.2	113.6	83.9							
1686574_12208				MSK	06/11/19 09:31:10 pm	2.38	27318	0.11		1.00	1.00
% Recovery	95.34									1.00	
Replicates	27317.2	27359.2	27303.4	27292.4							
30296663001_12208				UNK	06/11/19 09:32:49 pm	-0.02	-33	167.95		1.00	1.00
										1.00	
Replicates	-15.0	-107.2	25.0	-34.7							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
											ODF	
CCV					CCV	06/11/19 09:34:28 pm	5.20	59343	0.61		1.00	1.00
	% Recovery	103.96									1.00	
	Replicates	58832.9	59348.3	59586.8	59603.9							
CCB					CCB	06/11/19 09:37:09 pm	-0.01	74	100.74		1.00	1.00
											1.00	
	Replicates	142.3	-5.7	134.3	26.8							
30297397001_12208					UNK	06/11/19 09:38:48 pm	-0.01	10	331.70		1.00	1.00
											1.00	
	Replicates	36.5	-5.9	41.1	-30.2							
40188615001_12208					UNK	06/11/19 09:40:26 pm	-0.01	45	102.37		1.00	1.00
											1.00	
	Replicates	-6.3	81.9	84.2	18.4							
30297196001_12208					UNK	06/11/19 09:42:04 pm	0.83	9638	0.46		1.00	1.00
											1.00	
	Replicates	9609.4	9598.8	9695.8	9649.4							
30297929001_12208					UNK	06/11/19 09:43:42 pm	-0.01	79	53.65		1.00	1.00
											1.00	
	Replicates	78.4	130.1	26.2	81.6							
30298519001_12208					UNK	06/11/19 09:45:21 pm	-0.01	93	21.18		1.00	1.00
											1.00	
	Replicates	89.5	68.1	97.2	115.4							
30298276001_12208					UNK	06/11/19 09:47:00 pm	-0.01	56	93.70		1.00	1.00
											1.00	
	Replicates	34.4	110.3	84.5	-6.7							
30298142001_12208					UNK	06/11/19 09:48:38 pm	-0.01	47	17.61		1.00	1.00
											1.00	
	Replicates	46.0	55.6	51.9	36.4							
30298142002_12208					UNK	06/11/19 09:50:17 pm	0.00	112	38.22		1.00	1.00
											1.00	
	Replicates	123.5	85.4	72.6	168.1							
30298178001_12208					UNK	06/11/19 09:51:55 pm	-0.01	66	35.46		1.00	1.00
											1.00	
	Replicates	51.6	100.6	60.3	51.6							
1686571_12208					DUP	06/11/19 09:53:35 pm	-0.01	64	50.28		1.00	1.00
		RPD	0.00								1.00	
	Replicates	97.6	56.2	23.0	80.2							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV				CCV	06/11/19 09:55:14 pm	5.25	59917	0.67		1.00	1.00
% Recovery	104.97									1.00	
Replicates	59338.9	59968.8	60112.6	60247.8							
CCB				CCB	06/11/19 09:57:54 pm	-0.01	93	24.07		1.00	1.00
										1.00	
Replicates	112.1	109.5	84.7	64.9							
1686572_12208				MSK	06/11/19 09:59:33 pm	2.64	30177	1.02		1.00	1.00
% Recovery	105.79									1.00	
Replicates	29787.5	30078.2	30377.4	30464.5							
30296842001_12208				UNK	06/11/19 10:01:11 pm	-0.01	76	30.21		1.00	1.00
										1.00	
Replicates	88.4	42.3	92.5	81.3							
30298231001_12208				UNK	06/11/19 10:02:50 pm	-0.01	82	38.81		1.00	1.00
										1.00	
Replicates	88.8	115.8	83.7	39.2							
30298231010_12208				UNK	06/11/19 10:04:29 pm	0.00	115	15.63		1.00	1.00
										1.00	
Replicates	114.0	136.2	115.8	92.3							
1686581_12209				PBK	06/11/19 10:06:09 pm	-0.01	55	61.04		1.00	1.00
										1.00	
Replicates	43.9	25.8	47.1	103.4							
1686582_12209				LCS	06/11/19 10:07:49 pm	1.02	11732	0.52		1.00	1.00
% Recovery	101.63									1.00	
Replicates	11647.9	11739.6	11793.8	11746.3							
7090339004_12209				UNK	06/11/19 10:09:28 pm	0.41	4826	1.04		1.00	1.00
										1.00	
Replicates	4792.4	4776.0	4852.0	4882.5							
1686583_12209				DUP	06/11/19 10:11:07 pm	0.36	4237	0.63		1.00	1.00
		RPD 13.47								1.00	
Replicates	4239.0	4272.3	4227.9	4208.1							
1686584_12209				MSK	06/11/19 10:12:47 pm	2.94	33582	0.80		1.00	1.00
% Recovery	101.03									1.00	
Replicates	33213.0	33590.7	33669.0	33853.3							
7090339001_12209				UNK	06/11/19 10:14:27 pm	0.01	244	14.20		1.00	1.00
										1.00	
Replicates	213.3	273.8	274.3	214.8							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	06/11/19 10:16:06 pm	5.25	59955	0.79		1.00	1.00
	% Recovery	105.04									1.00	
	Replicates	59295.5	59932.6	60313.1	60277.6							
CCB					CCB	06/11/19 10:18:46 pm	0.00	106	55.69		1.00	1.00
											1.00	
	Replicates	85.0	153.0	31.5	152.5							
7090339002_12209					UNK	06/11/19 10:20:26 pm	0.20	2444	0.77		1.00	1.00
											1.00	
	Replicates	2419.4	2461.9	2454.7	2440.9							
7090339003_12209					UNK	06/11/19 10:22:05 pm	0.50	5823	1.35		1.00	1.00
											1.00	
	Replicates	5705.9	5876.1	5859.4	5849.9							
7092337006_12209					UNK	06/11/19 10:23:45 pm	0.01	312	13.24		1.00	1.00
											1.00	
	Replicates	350.9	303.1	335.3	257.4							
30298163001_12209					UNK	06/11/19 10:25:24 pm	0.05	736	4.01		1.00	1.00
											1.00	
	Replicates	712.7	723.1	779.3	730.3							
1686590_12210					PBK	06/11/19 10:27:04 pm	-0.01	43	110.10		1.00	1.00
											1.00	
	Replicates	2.9	7.0	59.1	102.1							
1686591_12210					LCS	06/11/19 10:28:45 pm	0.98	11285	1.21		1.00	1.00
	% Recovery	97.71									1.00	
	Replicates	11087.8	11311.1	11339.6	11401.3							
30298343014_12210					UNK	06/11/19 10:30:24 pm	-0.01	89	54.05		1.00	1.00
											1.00	
	Replicates	77.0	153.5	86.8	38.0							
1686592_12210					DUP	06/11/19 10:32:04 pm	-0.01	99	11.96		1.00	1.00
			RPD	0.00							1.00	
	Replicates	113.7	85.9	102.1	94.1							
1686593_12210					MSK	06/11/19 10:33:44 pm	2.57	29399	1.33		1.00	1.00
	% Recovery	102.98									1.00	
	Replicates	28917.0	29278.6	29573.9	29827.6							
30298343013_12210					UNK	06/11/19 10:35:25 pm	-0.01	50	86.04		1.00	1.00
											1.00	
	Replicates	92.4	82.7	7.7	18.7							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
											ODF	
CCV					CCV	06/11/19 10:37:04 pm	5.24	59802	1.06		1.00	1.00
	% Recovery	104.77									1.00	
	Replicates	58935.7	59738.2	60178.3	60356.8							
CCB					CCB	06/11/19 10:39:48 pm	-0.01	58	10.80		1.00	1.00
											1.00	
	Replicates	66.1	58.8	51.8	54.5							
30298343015_12210					UNK	06/11/19 10:42:29 pm	-0.01	89	41.51		1.00	1.00
											1.00	
	Replicates	46.5	74.3	132.4	100.9							
30298343018_12210					UNK	06/11/19 10:44:09 pm	-0.01	46	74.44		1.00	1.00
											1.00	
	Replicates	29.4	42.7	95.2	17.2							
30298604001_12210					UNK	06/11/19 10:45:49 pm	0.00	114	39.32		1.00	1.00
											1.00	
	Replicates	155.2	127.7	123.1	50.2							
30298604002_12210					UNK	06/11/19 10:47:30 pm	-0.01	72	43.55		1.00	1.00
											1.00	
	Replicates	38.9	79.9	110.9	56.4							
CCV					CCV	06/11/19 10:49:09 pm	5.43	62023	1.00		1.00	1.00
	% Recovery	108.67									1.00	
	Replicates	61155.2	62001.3	62403.8	62529.8							
CCB					CCB	06/11/19 10:51:55 pm	-0.01	98	7.50		1.00	1.00
											1.00	
	Replicates	106.5	102.5	90.8	93.5							

Prep Log Report

Batch Information: TCLP 8649/346367; 8650/346368; 8651/346370

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/10/2019 09:55:38:876	Tumbler Start Temp. (C)	21.3
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 88823	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1685290**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	LB	**1685500**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
TCLP	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
TCLP	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
TCLP	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
TCLP	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100
TCLP	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
TCLP	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
TCLP	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
TCLP	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
TCLP	PS	**30298295002**	Y		J	30TBL5	HP001	Other	Y	Y	7.73	1.71	5	100
TCLP	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
TCLP	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
TCLP	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
TCLP	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685291**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1685749**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
1311MET_L	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
1311MET_L	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
1311MET_L	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
1311MET_L	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
1311MET_L	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
1311MET_L	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
1311MET_L	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
1311MET_L	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
1311MET_L	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
1311MET_L	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
1311MET_L	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685298**	Y		1	30TBL5	HP001		Y	Y	4.88		5	0
1311MET_L	PS	**30297106001**	Y		2	30TBL5	HP001	Other	Y	Y	9.84	1.72	5	100
1311MET_L	PS	**30297106002**	Y		3	30TBL5	HP001	Other	Y	Y	9.78	1.74	5	100
1311MET_L	PS	**30297106003**	Y		4	30TBL5	HP001	Other	Y	Y	9.73	1.87	5	100
1311MET_L	PS	**30297106004**	Y		5	30TBL5	HP001	Other	Y	Y	9.8	1.67	5	100
1311MET_L	PS	**30297106005**	Y		6	30TBL5	HP001	Other	Y	Y	9.72	1.7	5	100
1311MET_L	PS	**30297106006**	Y		7	30TBL5	HP001	Other	Y	Y	9.72	1.83	5	100
1311MET_L	PS	**30296663001**	Y		8	30TBL5	HP001	Other	Y	Y	5.89	1.83	5	95
1311MET_L	PS	**30296842001**	Y		9	30TBL5	HP001	Other	Y	Y	8.58	1.64	5	100
1311MET_L	PS	**30296842004**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100
1311MET_L	PS	**30296842005**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1685290**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324				
TCLP	LB	**1685500**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570				
TCLP	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171				
TCLP	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108				
TCLP	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320				
TCLP	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065				
TCLP	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199				
TCLP	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351				
TCLP	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670				
TCLP	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950				
TCLP	PS	**30298295002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 11:02:37:439				
TCLP	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389				
TCLP	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643				
TCLP	PS	**30298519001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314				
TCLP	PS	**30298297001**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1685291**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324	Y			
1311MET_L	LB	**1685749**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570	Y			
1311MET_L	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171	Y			
1311MET_L	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108	Y			
1311MET_L	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320	Y			
1311MET_L	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065	Y			
1311MET_L	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199	Y			
1311MET_L	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351	Y			
1311MET_L	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670	Y			
1311MET_L	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950	Y			
1311MET_L	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389	Y			
1311MET_L	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643	Y			
1311MET_L	PS	**30298519001**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314	Y			
1311MET_L	PS	**30298297001**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282	Y			
1311MET_L	LB	**1685298**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.89	06/11/2019 11:36:59:553	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30297106001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.38	06/11/2019 11:37:00:433	Y			
1311MET_L	PS	**30297106002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.28	06/11/2019 11:37:01:257	Y			
1311MET_L	PS	**30297106003**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.27	06/11/2019 11:59:31:063	Y			
1311MET_L	PS	**30297106004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.32	06/11/2019 11:59:31:918	Y			
1311MET_L	PS	**30297106005**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.24	06/11/2019 11:59:32:845	Y			
1311MET_L	PS	**30297106006**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.19	06/11/2019 11:59:33:797	Y			
1311MET_L	PS	**30296663001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.04	06/11/2019 11:59:35:141	Y			
1311MET_L	PS	**30296842001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.56	06/11/2019 11:59:36:021	Y			
1311MET_L	PS	**30296842004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:19:146	Y	475.7	476.9	1.2
1311MET_L	PS	**30296842005**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:21:353	Y	475.7	476.9	1.2

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1685290**								2000	
TCLP	LB	**1685500**								2000	
TCLP	PS	**40188615001**								2000	1*
TCLP	PS	**30296741001**								2000	clay/rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**30297196001**								2000	stone
TCLP	PS	**30297929001**								2000	rock
TCLP	PS	**30298178001**								2000	mulch
TCLP	PS	**30298276001**								2000	soil/sand
TCLP	PS	**30298142001**								2000	clay
TCLP	PS	**30298142002**								2000	fabric
TCLP	PS	**30298295002**								2000	clay
TCLP	PS	**30298231001**								2000	clay
TCLP	PS	**30298231010**								2000	dirt/rock
TCLP	PS	**30298519001**								2000	2*
TCLP	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685291**								2000	
1311MET_L	LB	**1685749**								2000	
1311MET_L	PS	**40188615001**								2000	1*
1311MET_L	PS	**30296741001**								2000	clay/rock
1311MET_L	PS	**30297196001**								2000	stone
1311MET_L	PS	**30297929001**								2000	rock
1311MET_L	PS	**30298178001**								2000	mulch
1311MET_L	PS	**30298276001**								2000	soil/sand
1311MET_L	PS	**30298142001**								2000	clay
1311MET_L	PS	**30298142002**								2000	fabric
1311MET_L	PS	**30298231001**								2000	clay
1311MET_L	PS	**30298231010**								2000	dirt/rock
1311MET_L	PS	**30298519001**								2000	2*
1311MET_L	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685298**								2000	
1311MET_L	PS	**30297106001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30297106002**								2000	rock
1311MET_L	PS	**30297106003**								2000	rock
1311MET_L	PS	**30297106004**								2000	rock
1311MET_L	PS	**30297106005**								2000	rock
1311MET_L	PS	**30297106006**								2000	rock
1311MET_L	PS	**30296663001**								1900	paper
1311MET_L	PS	**30296842001**								2000	shavings
1311MET_L	PS	**30296842004**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	oil
1311MET_L	PS	**30296842005**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	3*

Sample Notes:

1*: carbon pellets 2*: sand/sludge 3*: solid portion

Prep Log Report

Batch Information: MERP 346723-7470 TCLP

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	06/11/2019 16:23:05:184
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	94.8	Correction Factor (C)	-0.8
Corrected Temp. (C)	94.00	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	5.3	Digestion Start Time	06/11/2019 17:56:56:567
Digestion End Time	06/11/2019 19:56:13:930	Digestion Vessel	84128	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	BLANK	**1686569**	N	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	LCS	**1686570**	N	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298297001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	DUP	**1686573**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	MS	**1686574**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			90458 (.25)
7470 ST_P	PS	**30296663001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30297397001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**40188615001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30297196001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30297929001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298519001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298276001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298142001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298142002**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298178001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	DUP	**1686571**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	MS	**1686572**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			90458 (.25)
7470 ST_P	PS	**30296842001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298231001**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30298231010**	N	Solid	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25			
7470 ST_P	LB	**1685291**	N	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25		EF 1G 6/10	
7470 ST_P	LB	**1685298**	N	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25		EF 1P 6/10	
7470 ST_P	LB	**1685749**	N	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25		EF 2G 6/10	
7470 ST_P	LB	**1684049**	Y	Water	Yes	25	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	25		EF 1P 6/7	
HG WATER_Q	CAL0	**CAL0**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	CAL1	**CAL1**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	CAL2	**CAL2**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	CAL3	**CAL3**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	CAL4	**CAL4**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	CAL5	**CAL5**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			
HG WATER_Q	ICV	**ICV**	N	Water	Yes	1	88823 (0.625)	81065 (1.25)	89709 (3.75)	87834 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	BLANK	**1686569**		
7470 ST_P	LCS	**1686570**	83848 (.1)	
7470 ST_P	PS	**30298297001**		
7470 ST_P	DUP	**1686573**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	MS	**1686574**		
7470 ST_P	PS	**30296663001**		
7470 ST_P	PS	**30297397001**		
7470 ST_P	PS	**40188615001**		
7470 ST_P	PS	**30297196001**		
7470 ST_P	PS	**30297929001**		
7470 ST_P	PS	**30298519001**		
7470 ST_P	PS	**30298276001**		
7470 ST_P	PS	**30298142001**		
7470 ST_P	PS	**30298142002**		
7470 ST_P	PS	**30298178001**		
7470 ST_P	DUP	**1686571**		
7470 ST_P	MS	**1686572**		
7470 ST_P	PS	**30296842001**		
7470 ST_P	PS	**30298231001**		
7470 ST_P	PS	**30298231010**		
7470 ST_P	LB	**1685291**		
7470 ST_P	LB	**1685298**		
7470 ST_P	LB	**1685749**		
7470 ST_P	LB	**1684049**		
HG WATER_Q	CAL0	**CAL0**		90548 (1)
HG WATER_Q	CAL1	**CAL1**		90549 (1)
HG WATER_Q	CAL2	**CAL2**		90550 (1)
HG WATER_Q	CAL3	**CAL3**		90551 (1)
HG WATER_Q	CAL4	**CAL4**		90552 (1)
HG WATER_Q	CAL5	**CAL5**		90553 (1)
HG WATER_Q	ICV	**ICV**		90554 (1)

Prep Log Report

Standard Notes:

90548: CALO

90549: CAL1

90550: CAL2

90551: CAL3

90552: CAL4

90553: CAL5

90554: Hg ICV Source 2

SAMPLE NO.

AOC35L

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231001 Percent Moisture: 17.4

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	06/19/2019 13:58
	Flashpoint	>200		deg F	1	06/20/2019 12:06
	Sulfide, Reactive	ND	U	mg/kg	1	06/13/2019 22:13
	pH in water at 25 degrees C	8.1		Std. Units	1	06/07/2019 23:01

SAMPLE NO.

AOC34

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30298231010 Percent Moisture: 8.3

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	06/19/2019 14:00
	Flashpoint	>200		deg F	1	06/20/2019 15:53
	Sulfide, Reactive	ND	U	mg/kg	1	06/13/2019 22:13
	pH in water at 25 degrees C	8.3		Std. Units	1	06/07/2019 23:03

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 68828

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	06/07/2019 14:43			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	4.0	4.0	100.5	98.75-101.25
pH in water at 25 degrees C		4.0		98.75-101.25

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 84019

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	06/07/2019 14:43			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	7.0	7.0	100.0	98.5-101.43
pH in water at 25 degrees C		7.0		98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification				Continuing Calibration Verification						
					06/07/2019 21:17			06/07/2019 21:52			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
pH at 25 Degrees C					7.0	7.0	99.9	7.0	7.0	99.4	98.5-101.43

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification									
	06/07/2019 22:23			06/07/2019 22:45			06/07/2019 23:04			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	100.0	7.0	7.0	100.1	7.0	7.0	99.4	98.5-101.43
pH in water at 25 degrees C	7.0	7.0	100.0	7.0	7.0	100.1	7.0	7.0	99.4	98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 91394

Continuing Calibration Verification Source: 91392

Concentration Units: mg/L Instrument ID: 30WTA5

	Initial Calibration Verification				Continuing Calibration Verification						
	06/19/2019 12:44				06/19/2019 12:59			06/19/2019 13:12			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Cyanide	0.1	0.10	100.9	90-110	0.2	0.20	98.0	0.2	0.19	95.7	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 91392

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification									
	06/19/2019 13:17			06/19/2019 13:30			06/19/2019 13:41			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.20	98.8	0.2	0.20	97.7	0.2	0.20	97.6	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 91392

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification						
	06/19/2019 13:56			06/19/2019 14:07			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.19	95.6	0.2	0.20	99.0	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30WET6

Method Blank Concentration Units: deg F

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1693426	C
Flashpoint									>200	

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WET0

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1687959	C
Sulfide, Reactive									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WTA5

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank (mg/L)		Continuing Calibration Blank (mg/L)						Method Blank	
	06/19/2019 12:45	C	06/19/2019 13:00	C	06/19/2019 13:13	C	06/19/2019 13:18	C	1687963	C
Cyanide	0.0016	U	0.0016	U	0.0016	U	0.0016	U		
Cyanide, Reactive									ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Instrument ID: 30WTA5

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)					
		C	06/19/2019 13:31	C	06/19/2019 13:42	C	06/19/2019 13:57	C
Cyanide			0.0016	U	0.0016	U	0.0016	U
Cyanide, Reactive								

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Instrument ID: 30WTA5

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)					
		C	06/19/2019 14:08	C		C		C
Cyanide			0.0016	U				
Cyanide, Reactive								

SAMPLE NO.

1684882DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: Std. Units

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
pH in water at 25 degrees C	10	8.1	8.1	0

SAMPLE NO.

1687961DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 21.0 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	12.6 U	ND	

SAMPLE NO.

1687962DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Water Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	10.0 U	ND	

SAMPLE NO.

1687965DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 21.0 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	1.3 U	ND	

SAMPLE NO.

1687966DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Water Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	1.0 U	ND	

SAMPLE NO.

1687960LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Sulfide, Reactive	mg/kg	198	43.7	22	0	52

SAMPLE NO.

1687964LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Cyanide, Reactive	mg/kg	99.4	ND	0	0	8

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30WTA5

Concentration Units: mg/L

Analyte	PQL	IDL	IDL Date
Cyanide	0.01	0.0016	01/01/2007

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Instrument ID: 30WTA5

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Cyanide, Reactive	1.0	0.40	11/06/2016

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Instrument ID: 30WET0

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Sulfide, Reactive	10.0	10.0	11/06/2016

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Instrument ID: 30WETG

Concentration Units: Std. Units

Analyte	PQL	MDL	MDL Date
pH in water at 25 degrees	2.0	2.0	11/06/2016

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Batch: WET 50431

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1684882	1684882DUP	06/07/2019	20.08	20
30298231001	AOC35L	06/07/2019	20.03	20
30298231010	AOC34	06/07/2019	20.06	20

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Batch: WETA 42541

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1687959	1687959BLANK	06/13/2019	10.05	200
1687960	1687960LCS	06/13/2019	10.08	200
1687961	1687961DUP	06/13/2019	10.05	200
1687962	1687962DUP	06/13/2019	10.01	200
30298231001	AOC35L	06/13/2019	10	200
30298231010	AOC34	06/13/2019	10.02	200

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Batch: WETA 42542

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1687963	1687963BLANK	06/13/2019	10.05	50
1687964	1687964LCS	06/13/2019	10.06	50
1687965	1687965DUP	06/13/2019	10.05	50
1687966	1687966DUP	06/13/2019	10.01	50
30298231001	AOC35L	06/13/2019	10	50
30298231010	AOC34	06/13/2019	10.02	50

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 1010 Batch: WET 50675

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1693426	1693426BLANK	06/20/2019	1	1
1693427	1693427DUP	06/20/2019	1	1
30298231001	AOC35L	06/20/2019	1	1
30298231010	AOC34	06/20/2019	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET0 Analysis Method: SM 4500S2F-00

Start Date: 06/13/2019 22:13 End Date: 06/13/2019 22:13

Sample Name	Lab Sample ID	D/F	Date	Time	rS
1687959BLANK	1687959	1	06/13/2019	22:13	X
1687960LCS	1687960	1	06/13/2019	22:13	X
1687961DUP	1687961	1	06/13/2019	22:13	X
1687962DUP	1687962	1	06/13/2019	22:13	X
30298621001	30298621001	1	06/13/2019	22:13	X
30298782001	30298782001	1	06/13/2019	22:13	X
AOC34	30298231010	1	06/13/2019	22:13	X
AOC35L	30298231001	1	06/13/2019	22:13	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET6 Analysis Method: EPA 1010

Start Date: 06/20/2019 11:59 End Date: 06/20/2019 15:53

Sample Name	Lab Sample ID	D/F	Date	Time	flpt
1693426BLANK	1693426	1	06/20/2019	11:59	X
AOC35L	30298231001	1	06/20/2019	12:06	X
1693427DUP	1693427	1	06/20/2019	12:27	X
AOC34	30298231010	1	06/20/2019	15:53	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WETG Analysis Method: EPA 9045D

Start Date: 06/07/2019 14:42 End Date: 06/07/2019 23:04

Sample Name	Lab Sample ID	D/F	Date	Time	pH 25	pH 25
11047025CAL1	11047025CAL1	1	06/07/2019	14:42	X	X
11047026CAL2	11047026CAL2	1	06/07/2019	14:42	X	X
11047027CAL3	11047027CAL3	1	06/07/2019	14:42	X	X
11047029CAL5	11047029CAL5	1	06/07/2019	14:42	X	X
11047033CAL4	11047033CAL4	1	06/07/2019	14:42	X	X
11047032ICVA	11047032ICVA	1	06/07/2019	14:43	X	X
11047028ICVB	11047028ICVB	1	06/07/2019	14:43	X	X
11050756CCV	11050756CCV	1	06/07/2019	21:17	X	
11050758CCV	11050758CCV	1	06/07/2019	21:52	X	
11050744CCV	11050744CCV	1	06/07/2019	22:23	X	X
11050747CCV	11050747CCV	1	06/07/2019	22:45	X	X
AOC35L	30298231001	1	06/07/2019	23:01		X
1684882DUP	1684882	1	06/07/2019	23:02		X
AOC34	30298231010	1	06/07/2019	23:03		X
11050746CCV	11050746CCV	1	06/07/2019	23:04	X	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WTA5 Analysis Method: EPA 9014

Start Date: 06/19/2019 12:38 End Date: 06/19/2019 14:08

Sample Name	Lab Sample ID	D/F	Date	Time	CN	rCN
11109232CAL0	11109232CAL0	1	06/19/2019	12:38	X	
11109233CAL1	11109233CAL1	1	06/19/2019	12:39	X	
11109234CAL2	11109234CAL2	1	06/19/2019	12:40	X	
11109235CAL3	11109235CAL3	1	06/19/2019	12:41	X	
11109236CAL4	11109236CAL4	1	06/19/2019	12:42	X	
11109237CAL5	11109237CAL5	1	06/19/2019	12:42	X	
11109238CAL6	11109238CAL6	1	06/19/2019	12:43	X	
11109239ICV	11109239ICV	1	06/19/2019	12:44	X	
11109240ICB	11109240ICB	1	06/19/2019	12:45	X	
11109241CCV	11109241CCV	1	06/19/2019	12:59	X	
11109242CCB	11109242CCB	1	06/19/2019	13:00	X	
11109243CCV	11109243CCV	1	06/19/2019	13:12	X	
11109244CCB	11109244CCB	1	06/19/2019	13:13	X	
11109255CCV	11109255CCV	1	06/19/2019	13:17	X	
11109256CCB	11109256CCB	1	06/19/2019	13:18	X	
11109258CCV	11109258CCV	1	06/19/2019	13:30	X	
11109259CCB	11109259CCB	1	06/19/2019	13:31	X	
11109262CCV	11109262CCV	1	06/19/2019	13:41	X	
11109263CCB	11109263CCB	1	06/19/2019	13:42	X	
1687963BLANK	1687963	1	06/19/2019	13:43		X
1687964LCS	1687964	1	06/19/2019	13:44		X
30298621001	30298621001	1	06/19/2019	13:48		X
1687965DUP	1687965	1	06/19/2019	13:49		X
30298782001	30298782001	1	06/19/2019	13:50		X
1687966DUP	1687966	1	06/19/2019	13:51		X
11109121CCV	11109121CCV	1	06/19/2019	13:56	X	
11109122CCB	11109122CCB	1	06/19/2019	13:57	X	
AOC35L	30298231001	1	06/19/2019	13:58		X
AOC34	30298231010	1	06/19/2019	14:00		X
11109124CCV	11109124CCV	1	06/19/2019	14:07	X	
11109125CCB	11109125CCB	1	06/19/2019	14:08	X	

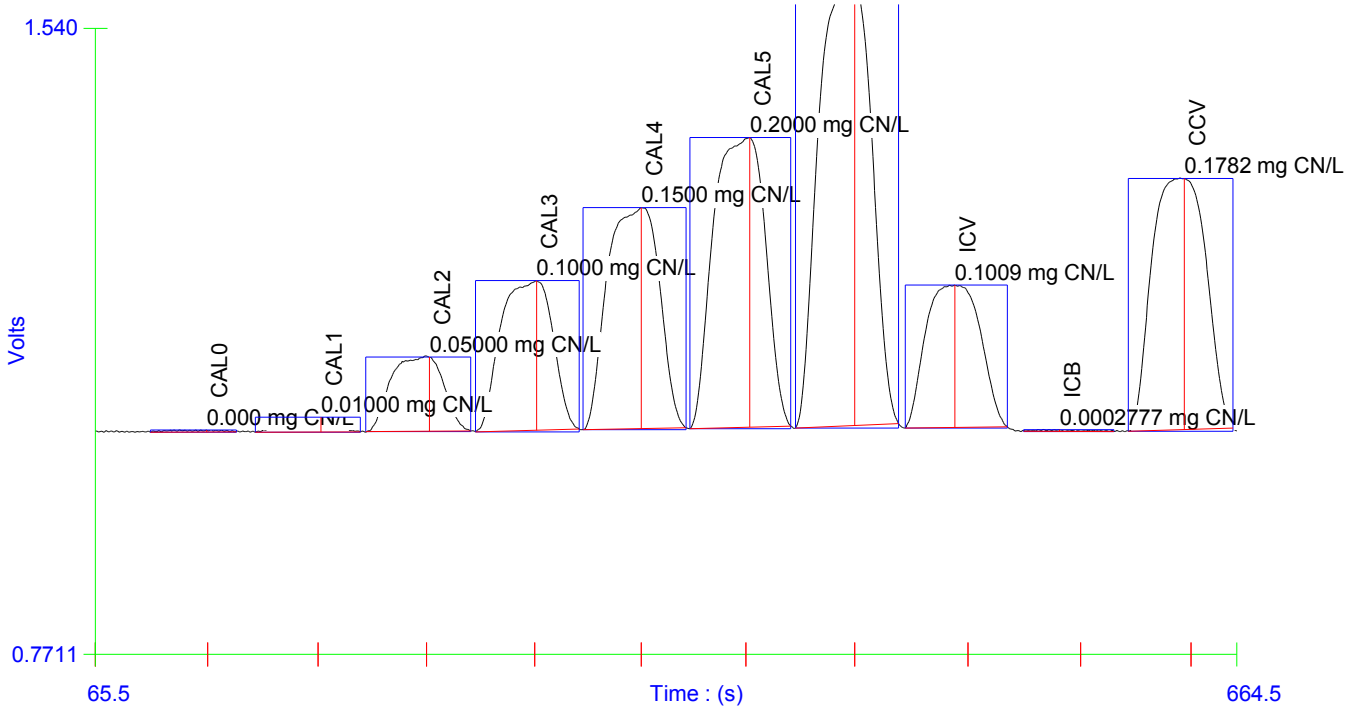
Original Run Filename: OM_6-19-2019_12-37-03PM.OMN Created: 6/19/2019 12:37:03 PM
Original Run Author's Signature: [lachatuser]
Current Run Filename: OM_6-19-2019_12-37-03PM.OMN Last Modified: 6/19/2019 3:16:10 PM
Current Run Author's Signature: [lachatuser]
Description: 10-107-04-1-C

Sample	Channel 1 Cyanide			Detection Time	MDF
	Conc. (mg CN/L)	Area (V.s)	Height (V)		
CAL0	0.000	0.04490	0.002366	6/19/2019@12:38:11 PM	
CAL1	0.01000	0.5770	0.01835	6/19/2019@12:39:11 PM	
CAL2	0.05000	2.916	0.09134	6/19/2019@12:40:08 PM	
CAL3	0.1000	5.776	0.1838	6/19/2019@12:41:06 PM	
CAL4	0.1500	8.570	0.2717	6/19/2019@12:42:03 PM	
CAL5	0.2000	11.24	0.3559	6/19/2019@12:42:58 PM	
CAL6	0.3000	17.19	0.5352	6/19/2019@12:43:53 PM	
ICV	0.1009	5.775	0.1749	6/19/2019@12:44:51 PM	
Known Conc:	0.1000				
Calibration:	Table/Fig. : 1				
ICB	0.0002777	0.04696	0.002184	6/19/2019@12:45:50 PM	
Known Conc:	0.000				
CCV	0.1782	10.17	0.3084	6/19/2019@12:46:49 PM	
Known Conc:	0.2000				
LCP1	0.07645	4.382	0.1325	6/19/2019@12:47:48 PM	1.00
1690617_42637	-5.748e-5	0.02788	0.001639	6/19/2019@12:48:46 PM	1.00
1690618_42637	0.1856	10.59	0.3198	6/19/2019@12:49:43 PM	1.00
1690619_42637	0.004509	0.2878	0.009134	6/19/2019@12:50:41 PM	1.00
30296271003_42637	0.004257	0.2735	0.009403	6/19/2019@12:51:38 PM	1.00
30298186001_42637	0.01092	0.6529	0.02031	6/19/2019@12:52:36 PM	1.00
30298191001_42637	0.005591	0.3494	0.01130	6/19/2019@12:53:33 PM	1.00
30298170001_42637	0.02347	1.367	0.04193	6/19/2019@12:54:29 PM	1.00
30298280001_42637	0.7620	43.40	1.312	6/19/2019@12:55:25 PM	1.00
30297885001_42637	0.01137	0.6784	0.02300	6/19/2019@12:56:22 PM	1.00
1690620_42637	0.1026	5.870	0.1787	6/19/2019@12:57:17 PM	1.00
1690621_42637	0.1007	5.766	0.1734	6/19/2019@12:58:13 PM	1.00
CCV	0.1961	11.19	0.3480	6/19/2019@12:59:11 PM	
Known Conc:	0.2000				
CCB	0.0005996	0.06529	0.002665	6/19/2019@1:00:10 PM	
Known Conc:	0.000				
30297885002_42637	0.008547	0.5176	0.01642	6/19/2019@1:01:07 PM	1.00
30297885005_42637	0.004792	0.3039	0.009856	6/19/2019@1:02:03 PM	1.00
30297899001_42637	0.004680	0.2976	0.009428	6/19/2019@1:02:58 PM	1.00
30297988001_42637	0.005593	0.3495	0.01125	6/19/2019@1:03:54 PM	1.00
30298244001_42637	0.004620	0.2941	0.009481	6/19/2019@1:04:52 PM	1.00
1690622_42637	0.06314	3.625	0.1062	6/19/2019@1:05:49 PM	1.00
1690623_42637	0.05391	3.100	0.09082	6/19/2019@1:06:47 PM	1.00
30298281001_42637	0.02663	1.547	0.04654	6/19/2019@1:07:44 PM	1.00
30298563001_42637	0.3712	21.16	0.6404	6/19/2019@1:08:40 PM	1.00
30298335001_42637	0.004677	0.2974	0.009784	6/19/2019@1:09:37 PM	1.00
30298090013_42637	0.007891	0.4803	0.01535	6/19/2019@1:10:33 PM	1.00
30298653001_42637	2.843	161.8	4.710	6/19/2019@1:11:29 PM	1.00
CCV	0.1914	10.92	0.3434	6/19/2019@1:12:26 PM	
Known Conc:	0.2000				
CCB	0.0008030	0.07686	0.002721	6/19/2019@1:13:26 PM	
Known Conc:	0.000				
30298280001_42637	0.07423	4.256	0.1289	6/19/2019@1:14:24 PM	10.00
30297885001_42637	0.01189	0.7078	0.02220	6/19/2019@1:15:20 PM	1.00
30298653001_42637	0.1560	8.913	0.2675	6/19/2019@1:16:16 PM	20.00
CCV	0.1976	11.28	0.3490	6/19/2019@1:17:13 PM	
Known Conc:	0.2000				
CCB	0.0005927	0.06489	0.002617	6/19/2019@1:18:13 PM	
Known Conc:	0.000				
30298654001_42637	0.005408	0.3389	0.01098	6/19/2019@1:19:11 PM	1.00
30298582001_42637	0.004876	0.3087	0.01001	6/19/2019@1:20:06 PM	1.00
30298297002_42637	0.02287	1.333	0.04102	6/19/2019@1:21:02 PM	1.00
LCP2	0.07926	4.543	0.1393	6/19/2019@1:21:57 PM	1.00

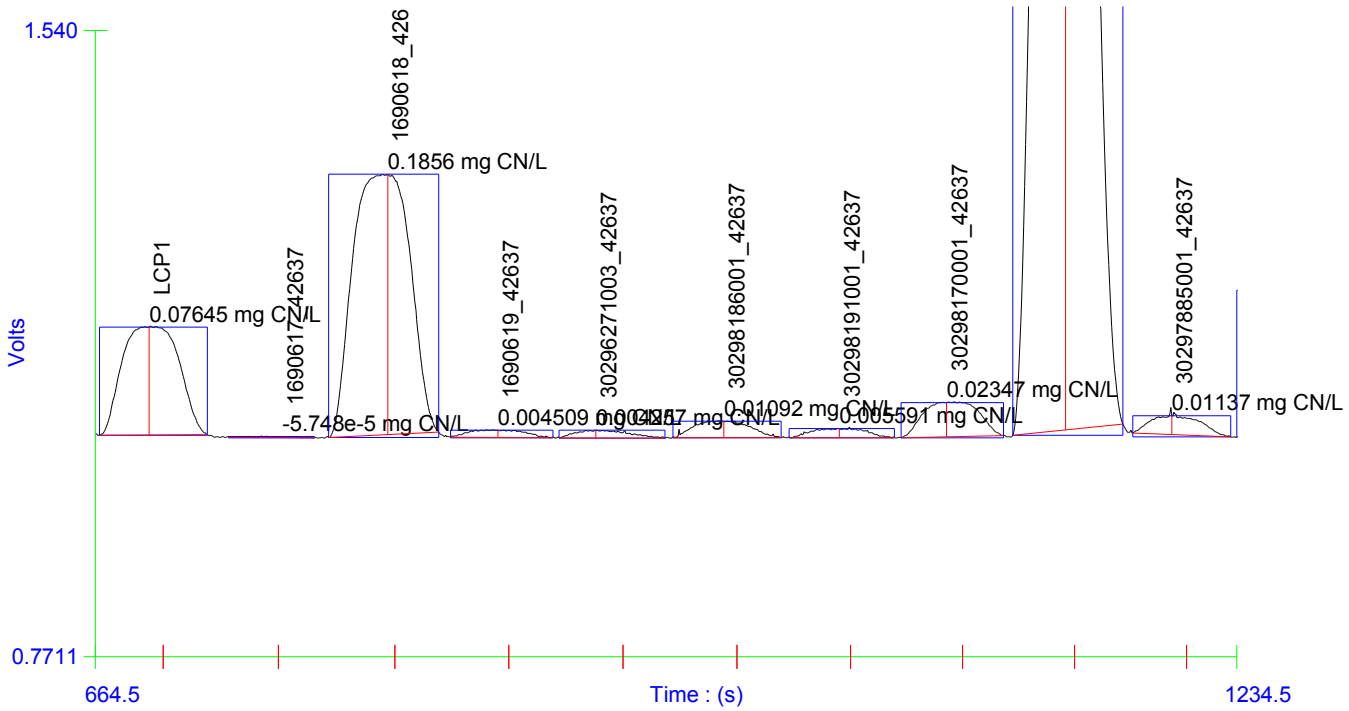
1690646_42636	0.0002486	0.04531	0.002352	6/19/2019@1:22:52 PM	1.00
1690647_42636	0.1791	10.23	0.3088	6/19/2019@1:23:46 PM	1.00
30295301003_42636	0.01899	1.112	0.03305	6/19/2019@1:24:42 PM	1.00
30297209001_42636	0.006398	0.3953	0.01219	6/19/2019@1:25:40 PM	1.00
30298647001_42636	0.006786	0.4174	0.01425	6/19/2019@1:26:38 PM	1.00
1690648_42636	0.08604	4.928	0.1473	6/19/2019@1:27:35 PM	1.00
1690649_42636	0.09196	5.265	0.1601	6/19/2019@1:28:32 PM	1.00
1690647_42636	0.1727	9.860	0.2964	6/19/2019@1:29:27 PM	1.00
CCV	0.1954	11.15	0.3433	6/19/2019@1:30:24 PM	
Known Conc:	0.2000				
CCB	0.0008464	0.07933	0.003102	6/19/2019@1:31:23 PM	
Known Conc:	0.000				
LCP3	0.07851	4.500	0.1362	6/19/2019@1:32:22 PM	1.00
1692297_42706	-9.600e-6	0.03061	0.001717	6/19/2019@1:33:18 PM	1.00
1692298_42706	0.1943	11.09	0.3338	6/19/2019@1:34:14 PM	1.00
30299763001_42706	0.008426	0.5107	0.01700	6/19/2019@1:35:10 PM	1.00
1692299_42706	0.09147	5.238	0.1594	6/19/2019@1:36:06 PM	1.00
1692300_42706	0.09372	5.366	0.1638	6/19/2019@1:37:02 PM	1.00
30299765001_42706	0.007553	0.4611	0.01502	6/19/2019@1:37:57 PM	1.00
30299826001_42706	0.01624	0.9553	0.02979	6/19/2019@1:38:52 PM	1.00
30299883001_42706	0.01064	0.6367	0.02056	6/19/2019@1:39:47 PM	1.00
1690647_42636	0.1962	11.20	0.3459	6/19/2019@1:40:42 PM	1.00
CCV	0.1953	11.15	0.3422	6/19/2019@1:41:39 PM	
Known Conc:	0.2000				
CCB	0.0008070	0.07709	0.002967	6/19/2019@1:42:38 PM	
Known Conc:	0.000				
1687963_42583	0.0002313	0.04432	0.001604	6/19/2019@1:43:35 PM	1.00
1687964_42583	0.0007042	0.07124	0.002812	6/19/2019@1:44:31 PM	1.00
30298297001_42583	0.0003955	0.05367	0.002002	6/19/2019@1:45:29 PM	1.00
30298331001_42583	-0.0004985	0.002781	0.0009671	6/19/2019@1:46:26 PM	1.00
30298521001_42583	7.390e-5	0.03536	0.001575	6/19/2019@1:47:24 PM	1.00
30298621001_42583	0.0005799	0.06416	0.002638	6/19/2019@1:48:21 PM	1.00
1687965_42583	0.0007182	0.07203	0.002862	6/19/2019@1:49:17 PM	1.00
30298782001_42583	0.0004156	0.05481	0.002075	6/19/2019@1:50:14 PM	1.00
1687966_42583	0.0002062	0.04289	0.001736	6/19/2019@1:51:10 PM	1.00
30298782002_42583	0.0004039	0.05414	0.002064	6/19/2019@1:52:06 PM	1.00
30298820001_42583	0.0008053	0.07699	0.009165	6/19/2019@1:53:02 PM	1.00
30298821001_42583	0.0006301	0.06702	0.002324	6/19/2019@1:53:58 PM	1.00
30298822001_42583	0.0005129	0.06035	0.002170	6/19/2019@1:54:53 PM	1.00
30298928001_42583	0.0002559	0.04572	0.002110	6/19/2019@1:55:48 PM	1.00
CCV	0.1913	10.92	0.3351	6/19/2019@1:56:45 PM	
Known Conc:	0.2000				
CCB	0.0007876	0.07598	0.002808	6/19/2019@1:57:44 PM	
Known Conc:	0.000				
30298231001_42583	0.0003283	0.04984	0.002053	6/19/2019@1:58:42 PM	1.00
30298329003_42583	0.0009029	0.08255	0.002774	6/19/2019@1:59:37 PM	1.00
30298231010_42583	0.0004894	0.05901	0.002011	6/19/2019@2:00:33 PM	1.00
92431669001_42583	0.0004078	0.05437	0.001990	6/19/2019@2:01:31 PM	1.00
50227344001_42583	0.0004421	0.05632	0.002261	6/19/2019@2:02:28 PM	1.00
30299284001_42583	0.0001749	0.04111	0.001672	6/19/2019@2:03:25 PM	1.00
30299287001_42583	0.0007526	0.07399	0.002933	6/19/2019@2:04:22 PM	1.00
30299288001_42583	0.0006792	0.06981	0.002742	6/19/2019@2:05:19 PM	1.00
30299289001_42583	0.0005364	0.06169	0.002416	6/19/2019@2:06:16 PM	1.00
CCV	0.1981	11.31	0.3447	6/19/2019@2:07:13 PM	
Known Conc:	0.2000				
CCB	0.0008430	0.07914	0.002821	6/19/2019@2:08:12 PM	
Known Conc:	0.000				
1690868_42651	0.0001438	0.03934	0.001726	6/19/2019@2:09:10 PM	1.00
1690869_42651	0.0003914	0.05344	0.002019	6/19/2019@2:10:06 PM	1.00
40188834024_42651	0.0002897	0.04764	0.001721	6/19/2019@2:11:02 PM	1.00
1690870_42651	0.0002697	0.04651	0.001923	6/19/2019@2:11:58 PM	1.00
40188834025_42651	3.241e-5	0.03300	0.001285	6/19/2019@2:12:53 PM	1.00
40188834026_42651	0.0004347	0.05590	0.002050	6/19/2019@2:13:48 PM	1.00
40188834028_42651	0.0007219	0.07225	0.003125	6/19/2019@2:14:44 PM	1.00
40188834027_42651	0.0005032	0.05980	0.002267	6/19/2019@2:15:39 PM	1.00
40188834034_42651	0.0005032	0.05980	0.002288	6/19/2019@2:16:35 PM	1.00
40188834035_42651	5.546e-5	0.03431	0.001815	6/19/2019@2:17:33 PM	1.00
40188834033_42651	-0.0005641	-0.0009512	-0.001022	6/19/2019@2:18:30 PM	1.00

40188834030_42651	0.0008708	0.08072	0.002847	6/19/2019@2:19:28 PM	1.00
40188834032_42651	0.0005011	0.05968	0.002283	6/19/2019@2:20:24 PM	1.00
CCV	0.1945	11.10	0.3388	6/19/2019@2:21:22 PM	
Known Conc:	0.2000				
CCB	0.001288	0.1045	0.004643	6/19/2019@2:22:22 PM	
Known Conc:	0.000				
40188834029_42651	0.0007074	0.07142	0.002669	6/19/2019@2:23:20 PM	1.00
40188834031_42651	0.0003954	0.05366	0.002655	6/19/2019@2:24:16 PM	1.00
40188834002_42651	-0.0005898	-0.002414	-0.001491	6/19/2019@2:25:13 PM	1.00
40188834001_42651	0.0004171	0.05490	0.002054	6/19/2019@2:26:09 PM	1.00
40188834004_42651	5.852e-5	0.03449	0.001853	6/19/2019@2:27:05 PM	1.00
40188834006_42651	0.002739	0.1871	0.02813	6/19/2019@2:28:00 PM	1.00
40188834005_42651	0.001237	0.1016	0.003745	6/19/2019@2:28:55 PM	1.00
40188834003_42651	0.001068	0.09195	0.003099	6/19/2019@2:29:51 PM	1.00
40188834007_42651	0.0006449	0.06786	0.002630	6/19/2019@2:30:46 PM	1.00
40188834008_42651	0.0004901	0.05905	0.002292	6/19/2019@2:31:42 PM	1.00
CCV	0.1948	11.12	0.3392	6/19/2019@2:32:39 PM	
Known Conc:	0.2000				
CCB	0.001108	0.09423	0.003207	6/19/2019@2:33:38 PM	
Known Conc:	0.000				
1691785_42686	7.097e-6	0.03156	0.001464	6/19/2019@2:34:37 PM	1.00
1691786_42686	0.0002171	0.04351	0.001756	6/19/2019@2:35:35 PM	1.00
92431932060_42686	-0.0002971	0.01425	0.0009713	6/19/2019@2:36:32 PM	1.00
1691787_42686	-0.0001617	0.02195	0.001066	6/19/2019@2:37:29 PM	1.00
92431932061_42686	-0.0004907	0.003226	0.0008311	6/19/2019@2:38:26 PM	1.00
92431932062_42686	0.001212	0.1002	0.003345	6/19/2019@2:39:23 PM	1.00
92431932063_42686	0.0003662	0.05200	0.002236	6/19/2019@2:40:20 PM	1.00
40188834009_42686	0.0006398	0.06757	0.002638	6/19/2019@2:41:16 PM	1.00
40188834010_42686	0.0006133	0.06606	0.002426	6/19/2019@2:42:12 PM	1.00
40188834011_42686	0.0009347	0.08436	0.003394	6/19/2019@2:43:08 PM	1.00
40188834012_42686	0.0004611	0.05740	0.002244	6/19/2019@2:44:04 PM	1.00
40188834013_42686	0.0007194	0.07210	0.002543	6/19/2019@2:45:00 PM	1.00
40188834014_42686	0.0005902	0.06475	0.002217	6/19/2019@2:45:55 PM	1.00
CCV	0.1967	11.23	0.3422	6/19/2019@2:46:53 PM	
Known Conc:	0.2000				
CCB	0.001032	0.08990	0.003246	6/19/2019@2:47:52 PM	
Known Conc:	0.000				
40188834015_42686	0.0006367	0.06739	0.002686	6/19/2019@2:48:50 PM	1.00
40188834016_42686	0.0004836	0.05868	0.002280	6/19/2019@2:49:46 PM	1.00
40188834017_42686	0.0005342	0.06156	0.002181	6/19/2019@2:50:43 PM	1.00
40188834018_42686	0.0009428	0.08482	0.002756	6/19/2019@2:51:40 PM	1.00
40188834019_42686	0.0009970	0.08790	0.003152	6/19/2019@2:52:38 PM	1.00
40188834020_42686	0.0009577	0.08567	0.002961	6/19/2019@2:53:35 PM	1.00
40188834021_42686	0.0008722	0.08080	0.002613	6/19/2019@2:54:32 PM	1.00
40188834022_42686	0.0004009	0.05398	0.002414	6/19/2019@2:55:29 PM	1.00
40188834023_42686	0.0009194	0.08349	0.002998	6/19/2019@2:56:25 PM	1.00
30299858001_42686	0.0005867	0.06455	0.002406	6/19/2019@2:57:21 PM	1.00
CCV	0.2004	11.44	0.3479	6/19/2019@2:58:19 PM	
Known Conc:	0.2000				
CCB	0.001125	0.09521	0.003673	6/19/2019@2:59:18 PM	
Known Conc:	0.000				
LCP	0.07806	4.474	0.1343	6/19/2019@3:00:16 PM	1.00
1692499_42708	0.0002560	0.04572	0.002066	6/19/2019@3:01:12 PM	1.00
1692500_42708	0.1885	10.76	0.3219	6/19/2019@3:02:08 PM	1.00
30298562003_42708	0.003869	0.2514	0.008102	6/19/2019@3:03:04 PM	1.00
1692501_42708	0.08900	5.097	0.1516	6/19/2019@3:04:00 PM	1.00
1692502_42708	0.05871	3.373	0.09992	6/19/2019@3:04:56 PM	1.00
30298757001_42708	0.002873	0.1947	0.006584	6/19/2019@3:05:53 PM	1.00
30299033001_42708	3.172	180.6	5.129	6/19/2019@3:06:49 PM	1.00
30299007001_42708	0.01963	1.148	0.03695	6/19/2019@3:07:47 PM	1.00
30299164001_42708	0.009724	0.5846	0.01714	6/19/2019@3:08:44 PM	1.00
30299164002_42708	0.04280	2.467	0.07329	6/19/2019@3:09:44 PM	1.00
30299164003_42708	0.003540	0.2326	0.007507	6/19/2019@3:10:41 PM	1.00
CCV	0.2084	11.89	0.3567	6/19/2019@3:11:38 PM	
Known Conc:	0.2000				
CCB	0.001088	0.09309	0.003022	6/19/2019@3:12:38 PM	
Known Conc:	0.000				
30299033001_42708	3.160	179.9	5.130	6/19/2019@3:13:43 PM	20.00

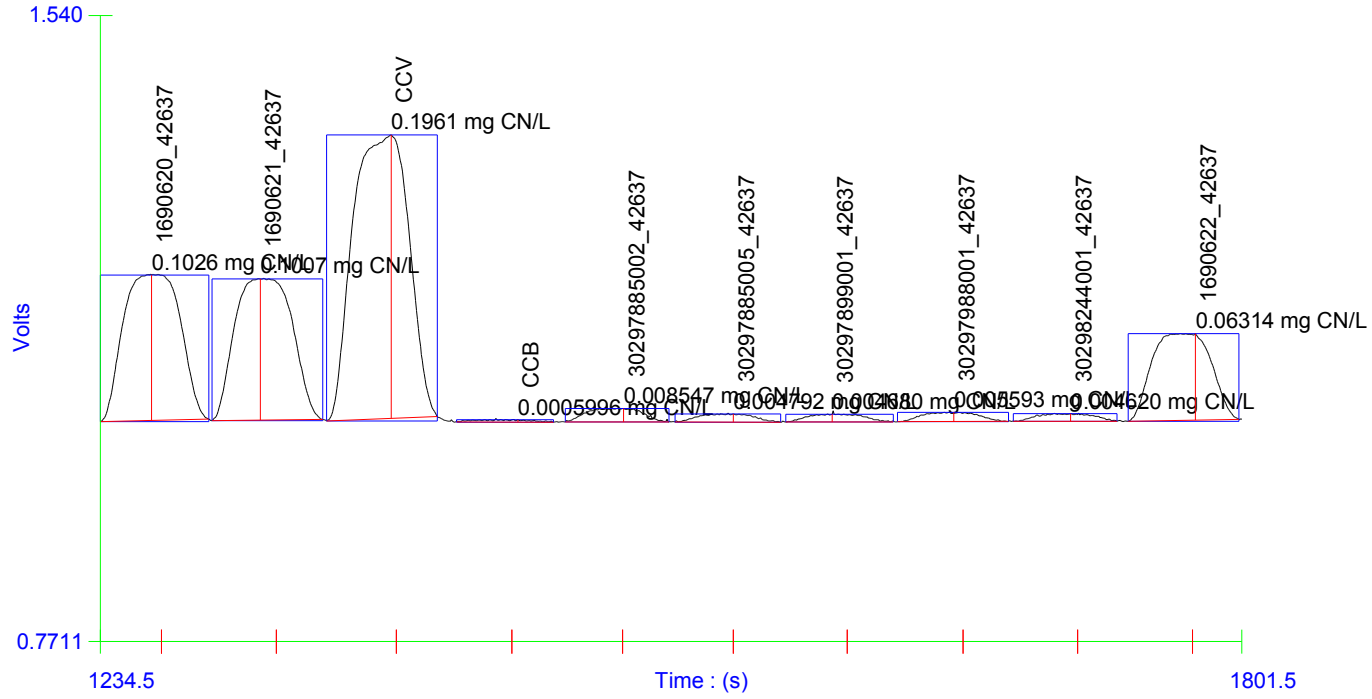
Channel 1 (Cyanide) - Set: 1 / 17



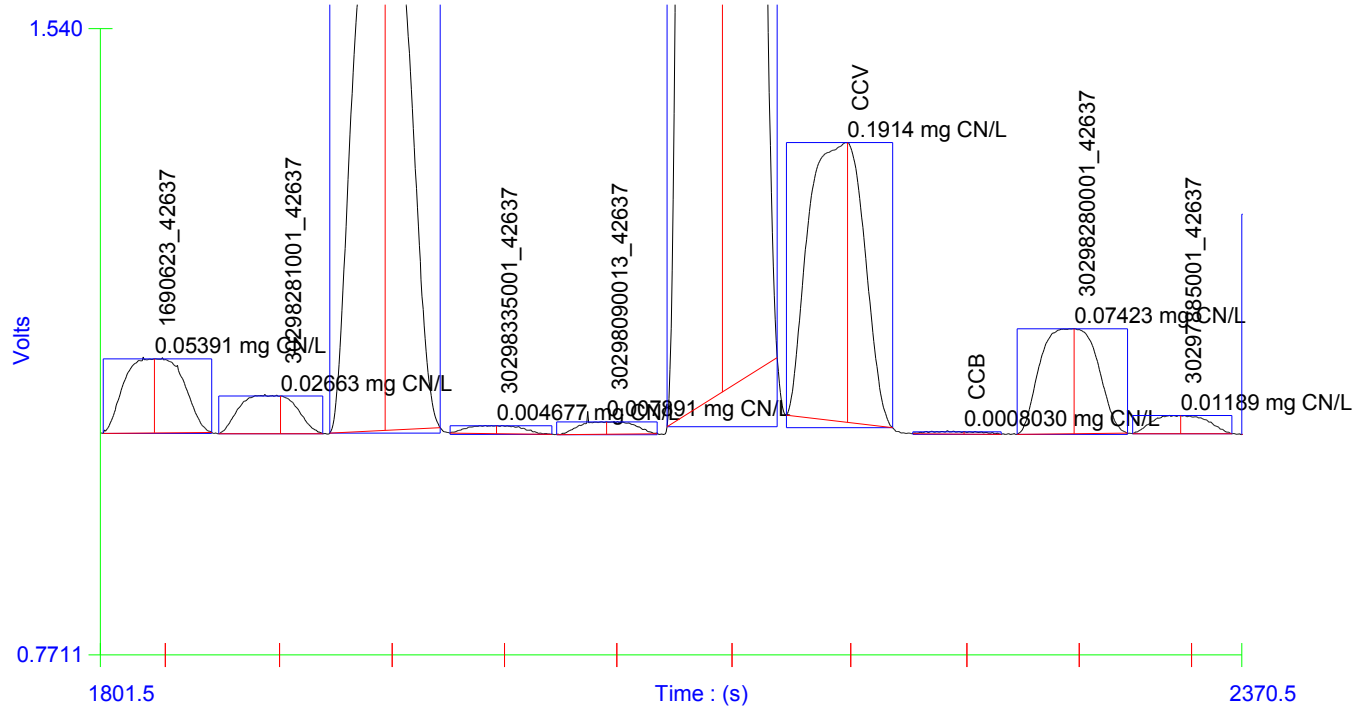
Channel 1 (Cyanide) - Set: 2 / 17



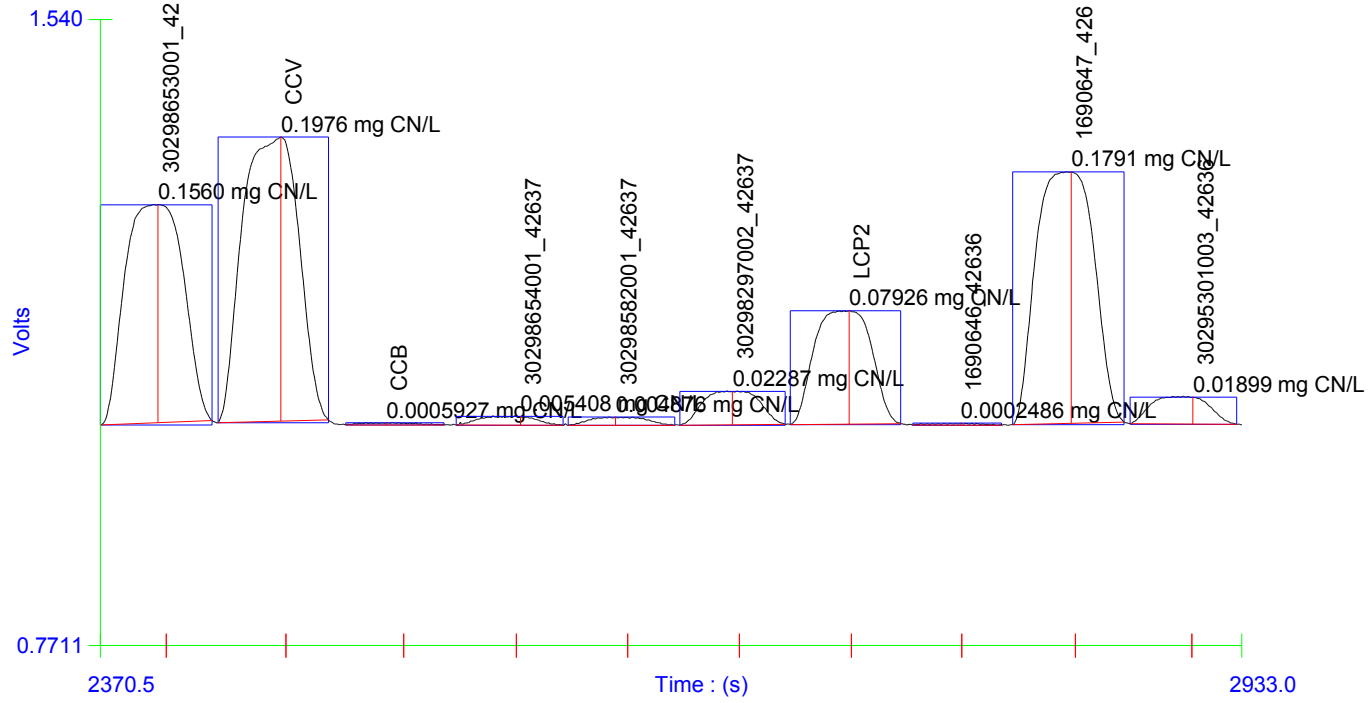
Channel 1 (Cyanide) - Set: 3 / 17



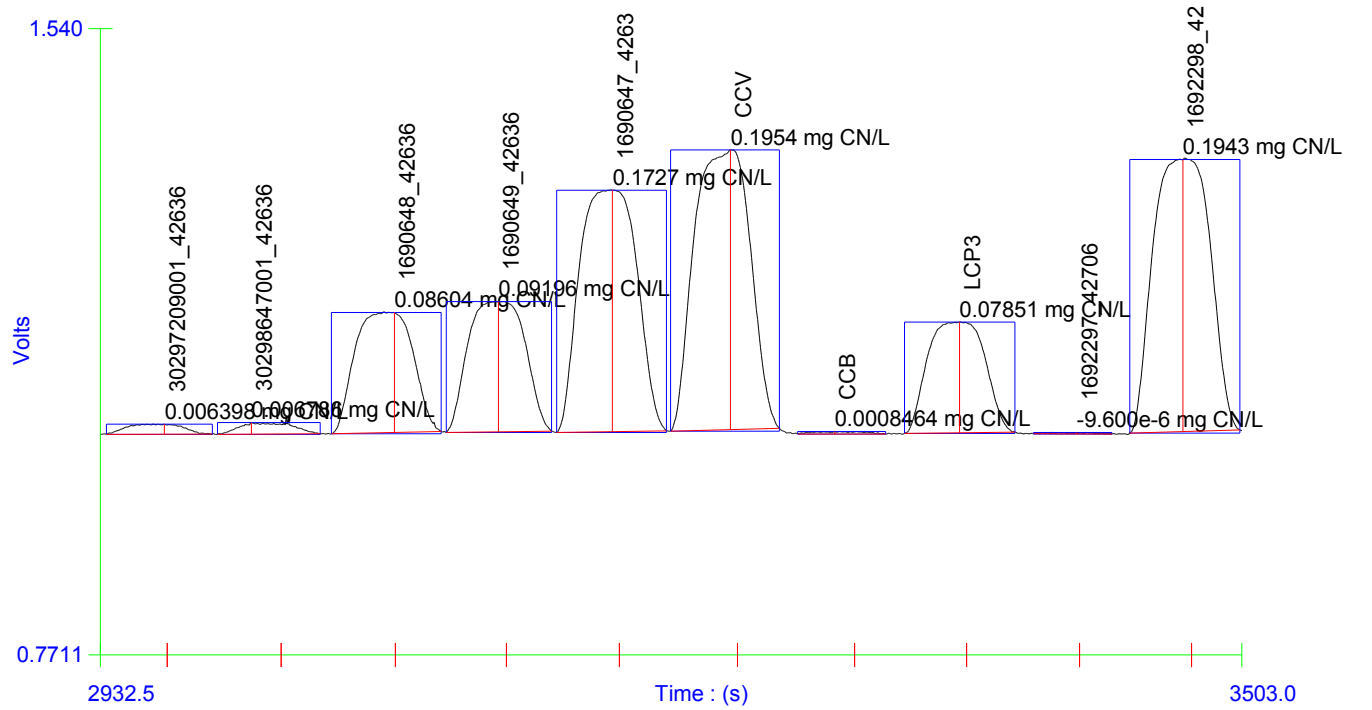
Channel 1 (Cyanide) - Set: 4 / 17



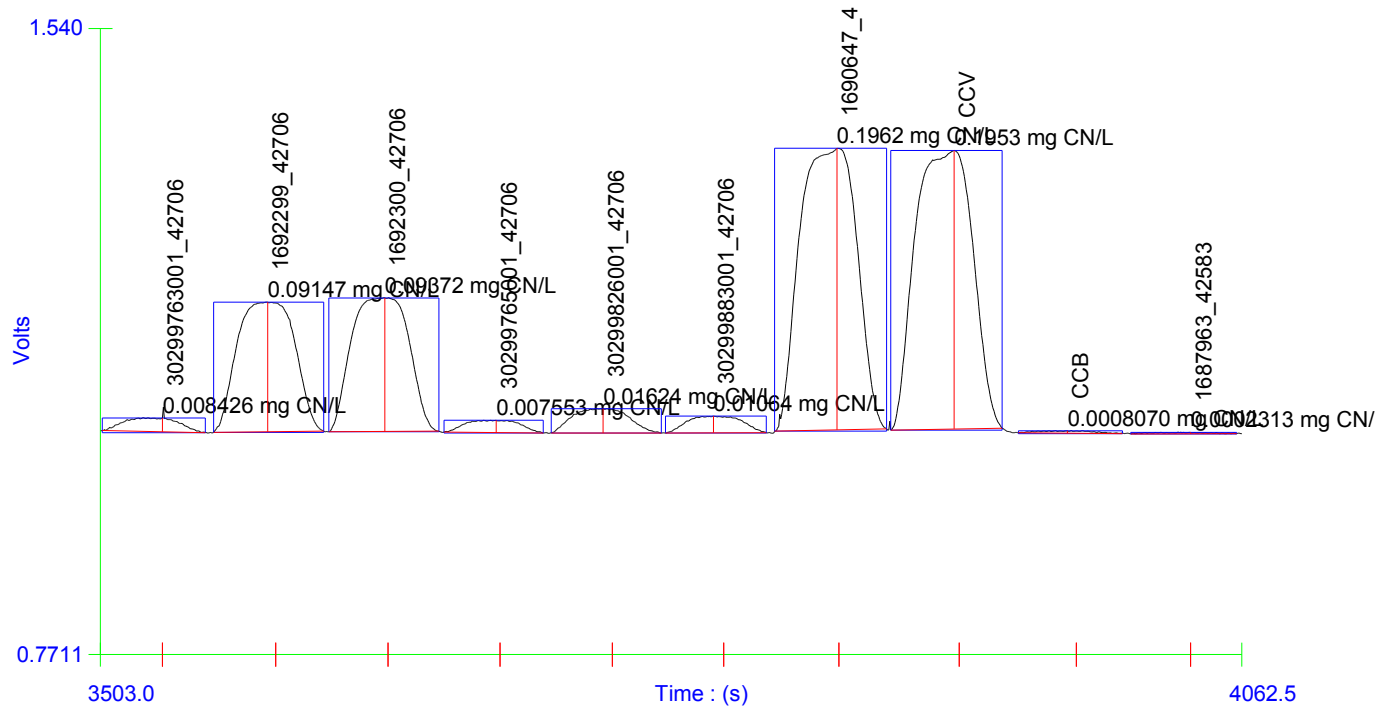
Channel 1 (Cyanide) - Set: 5 / 17



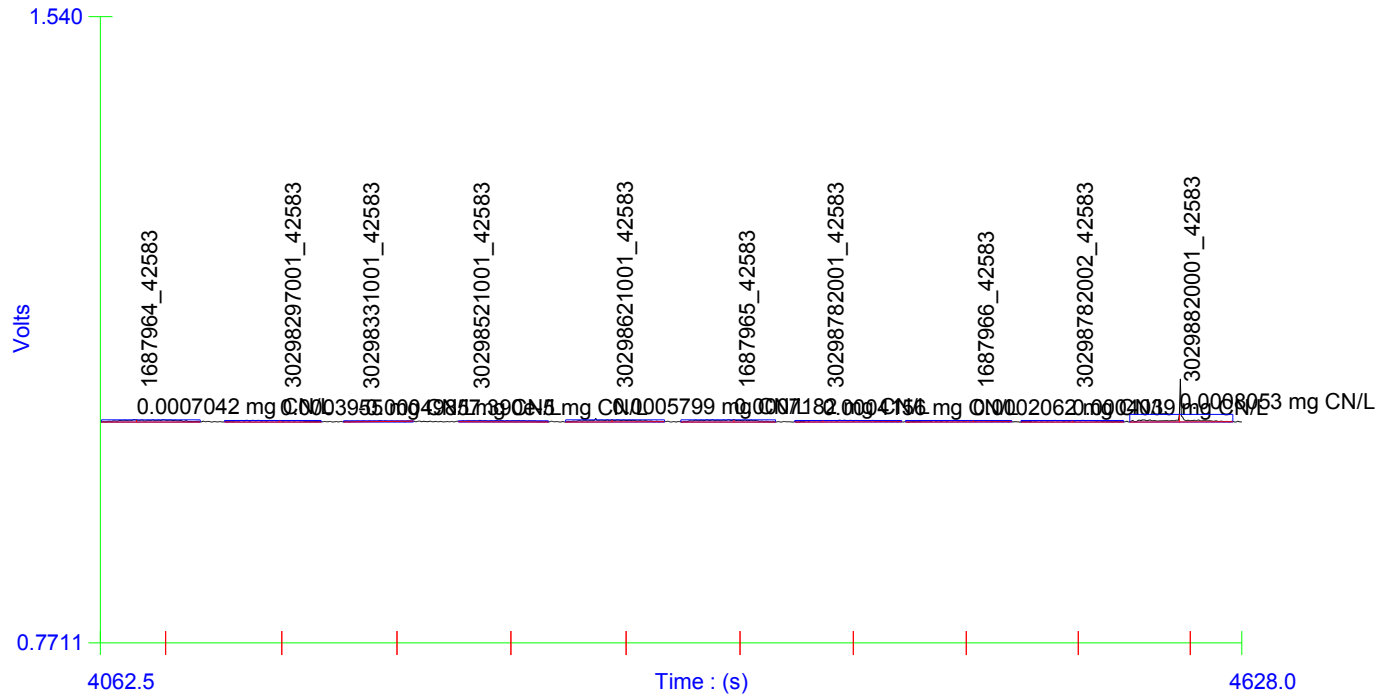
Channel 1 (Cyanide) - Set: 6 / 17



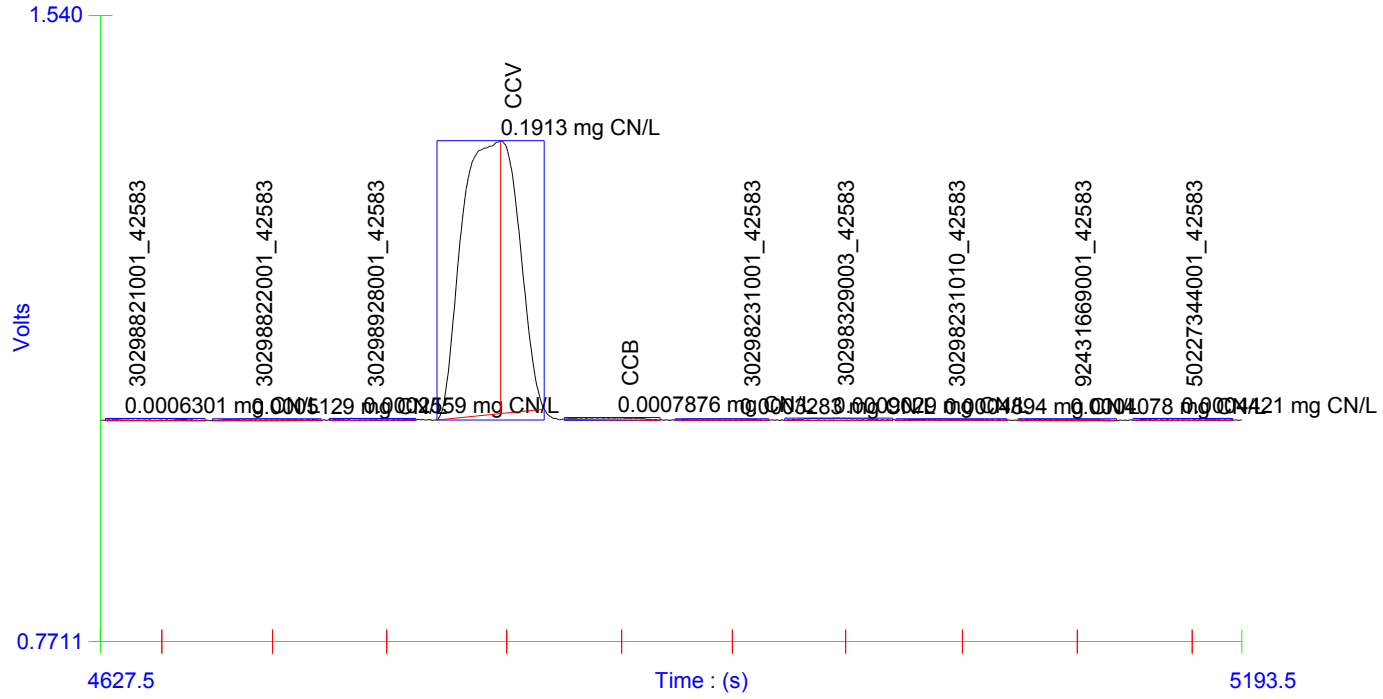
Channel 1 (Cyanide) - Set: 7 / 17



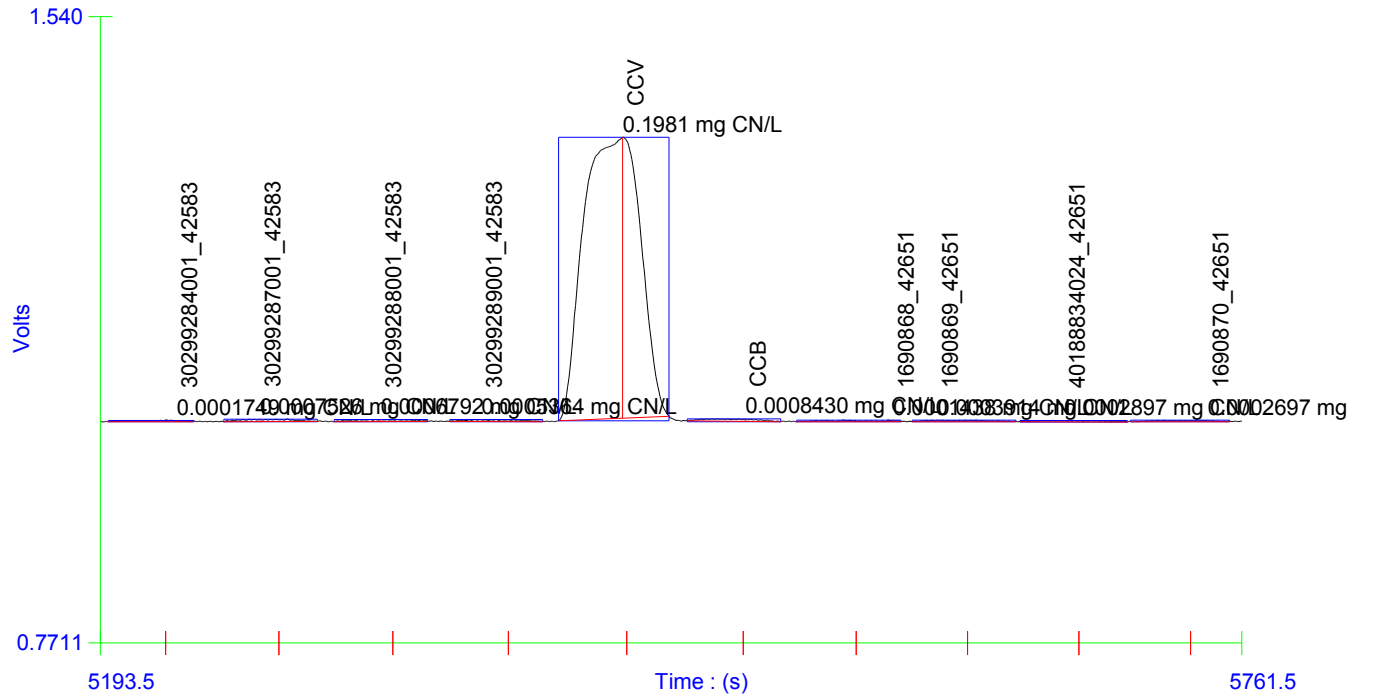
Channel 1 (Cyanide) - Set: 8 / 17



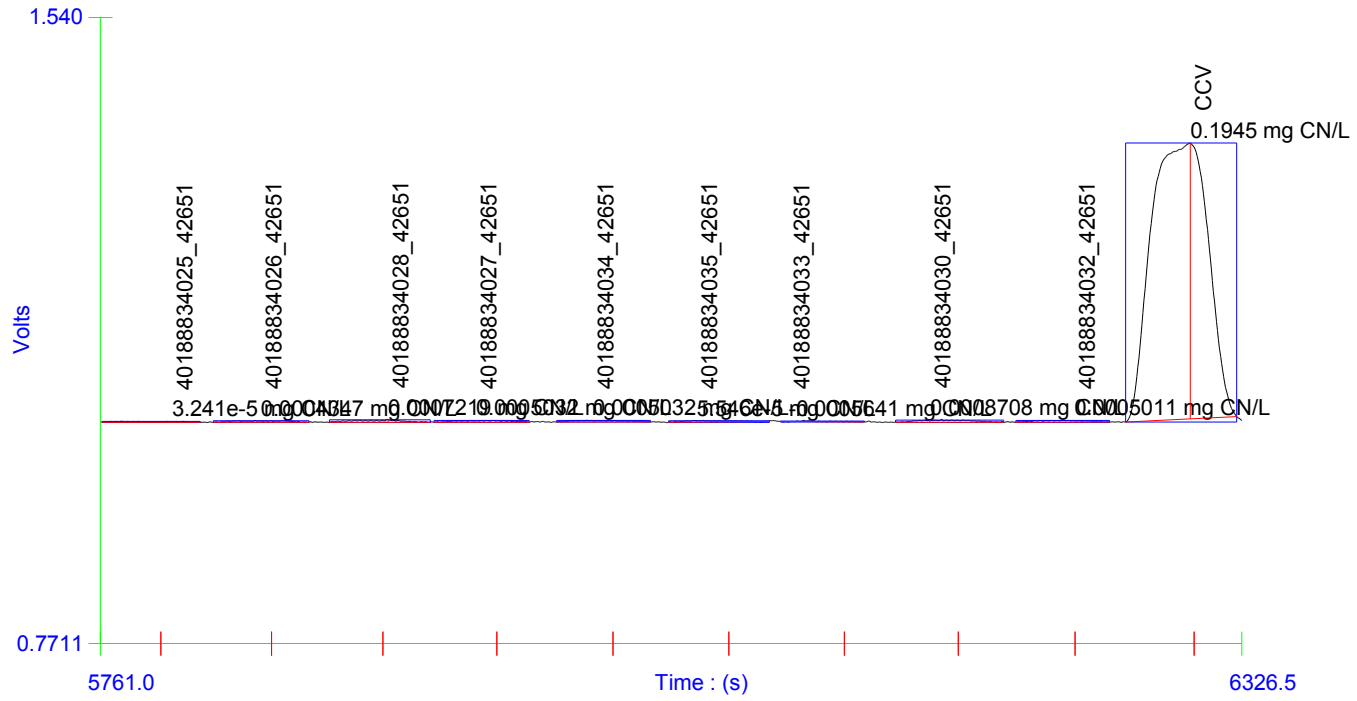
Channel 1 (Cyanide) - Set: 9 / 17



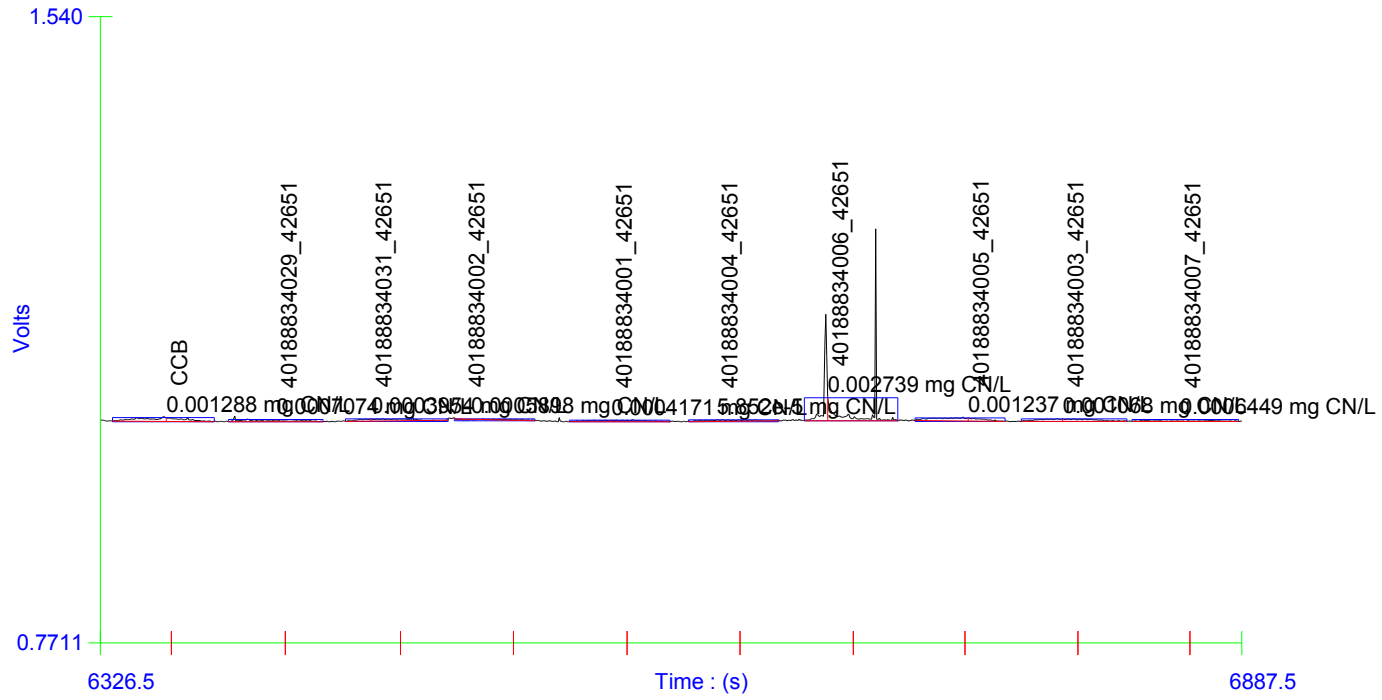
Channel 1 (Cyanide) - Set: 10 / 17



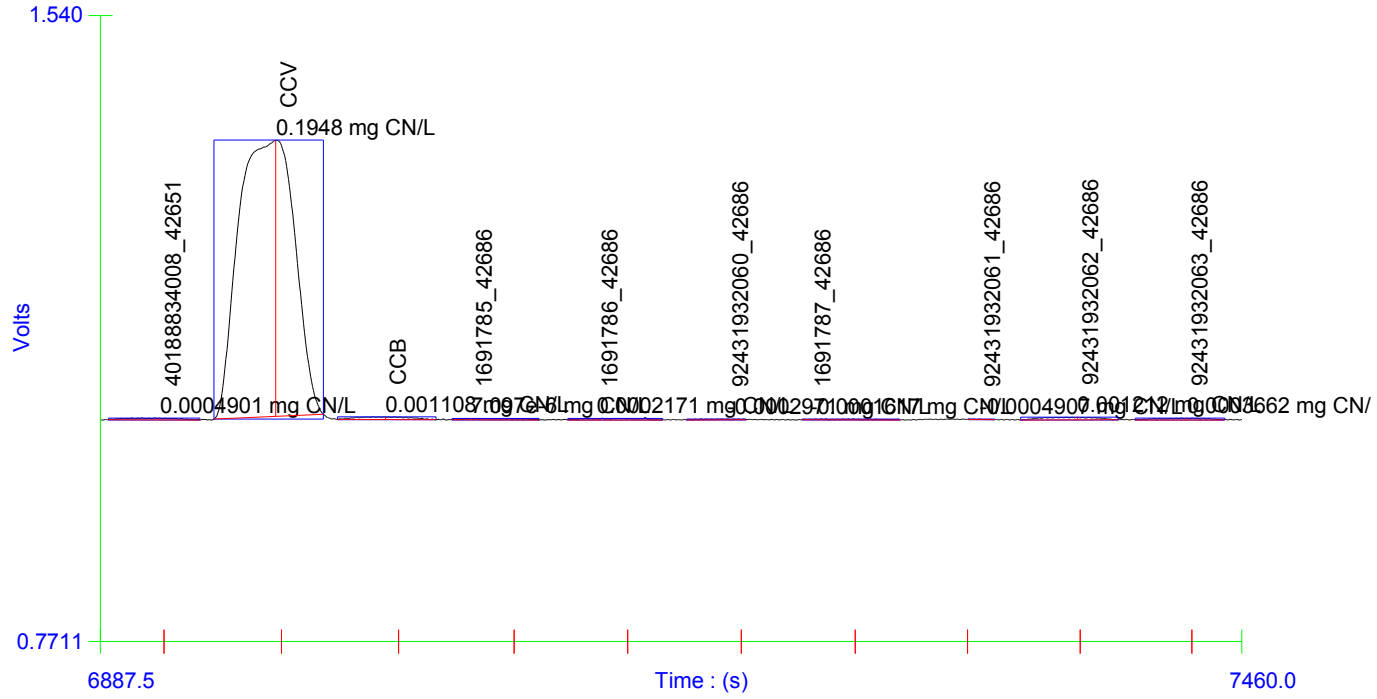
Channel 1 (Cyanide) - Set: 11 / 17



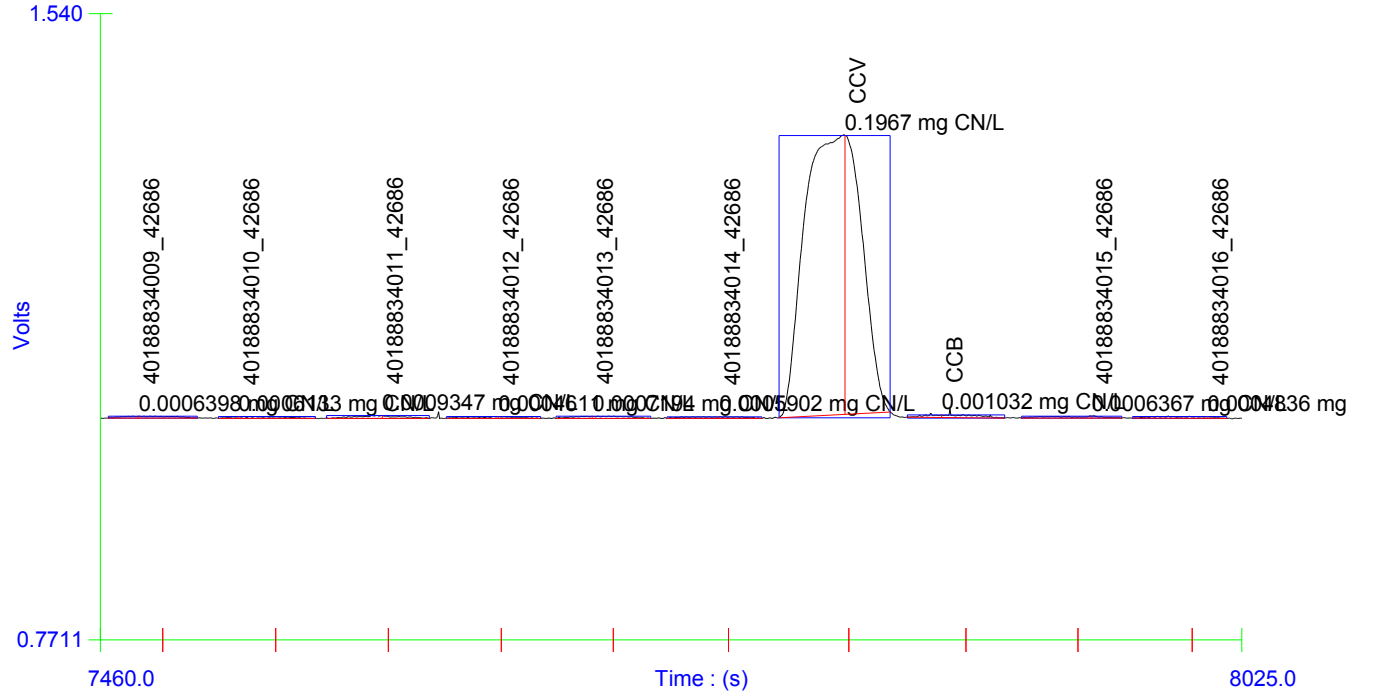
Channel 1 (Cyanide) - Set: 12 / 17



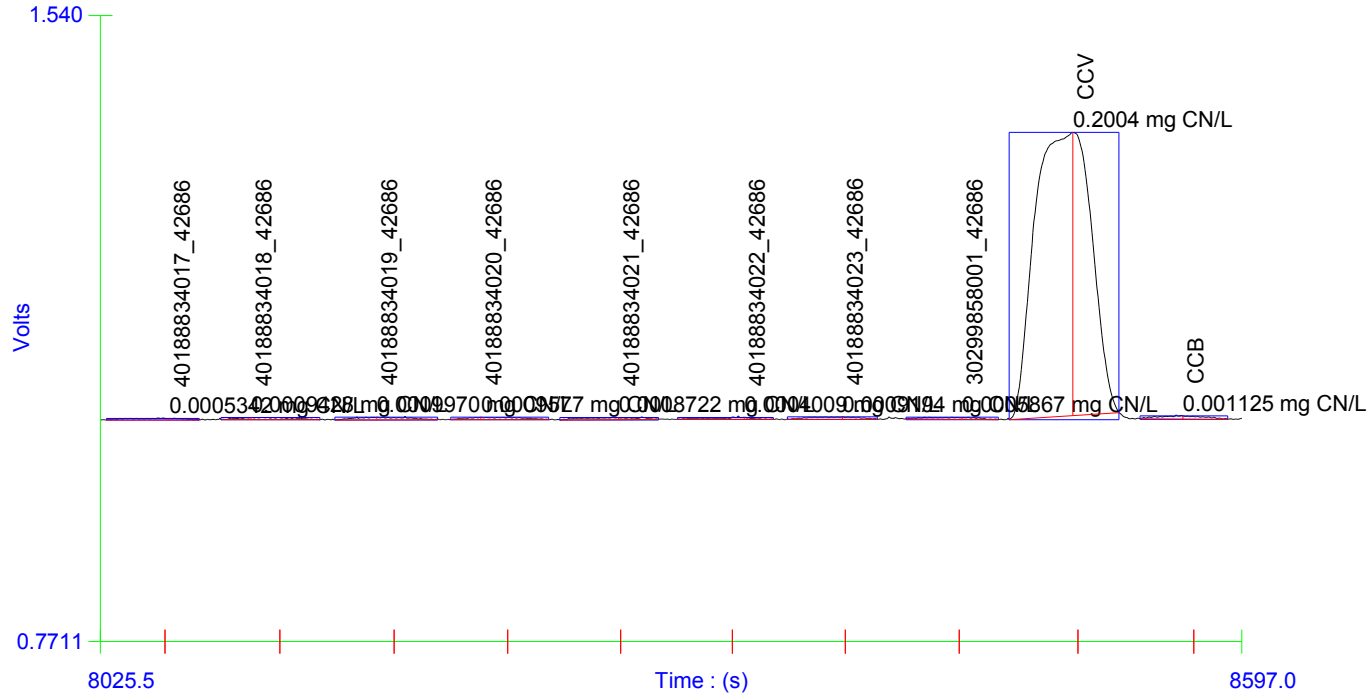
Channel 1 (Cyanide) - Set: 13 / 17



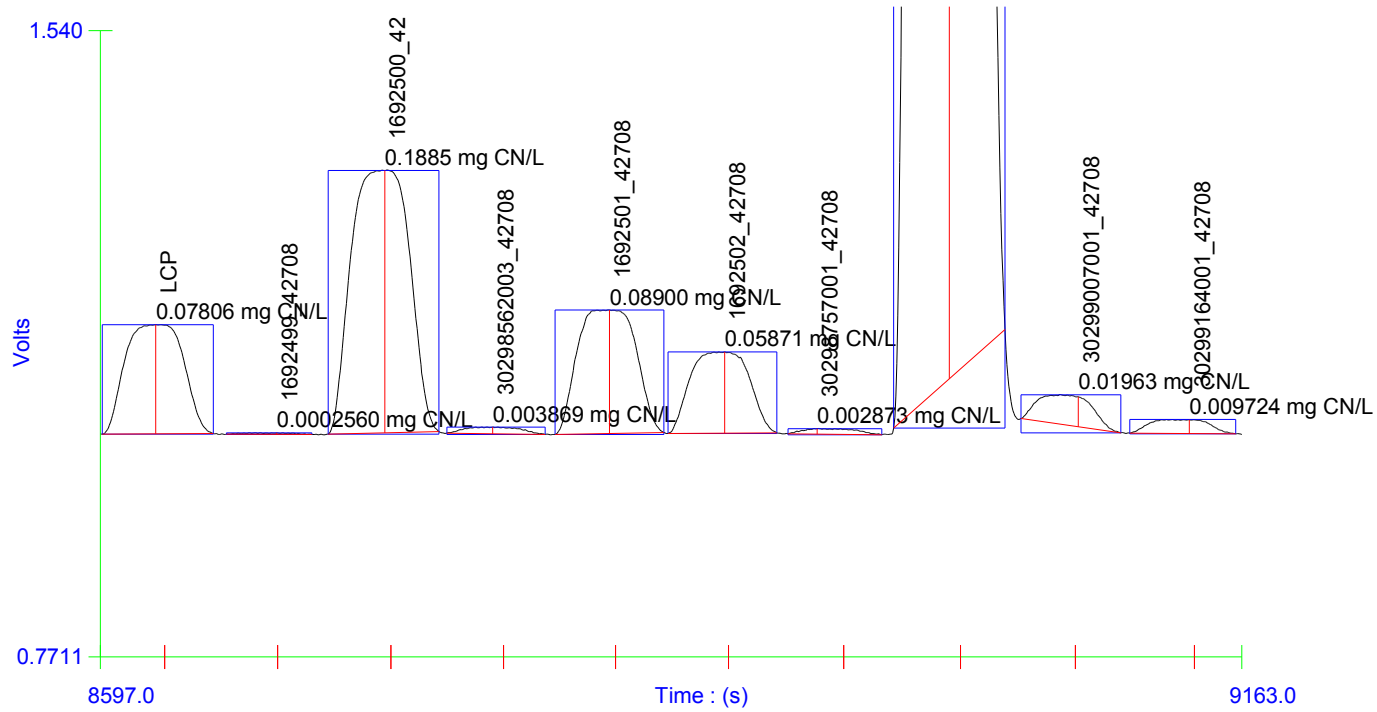
Channel 1 (Cyanide) - Set: 14 / 17



Channel 1 (Cyanide) - Set: 15 / 17



Channel 1 (Cyanide) - Set: 16 / 17



Author: Cody Ray, PAUL STANKO Date : 6/19/2019

Channel 1 (Cyanide) - Set: 17 / 17

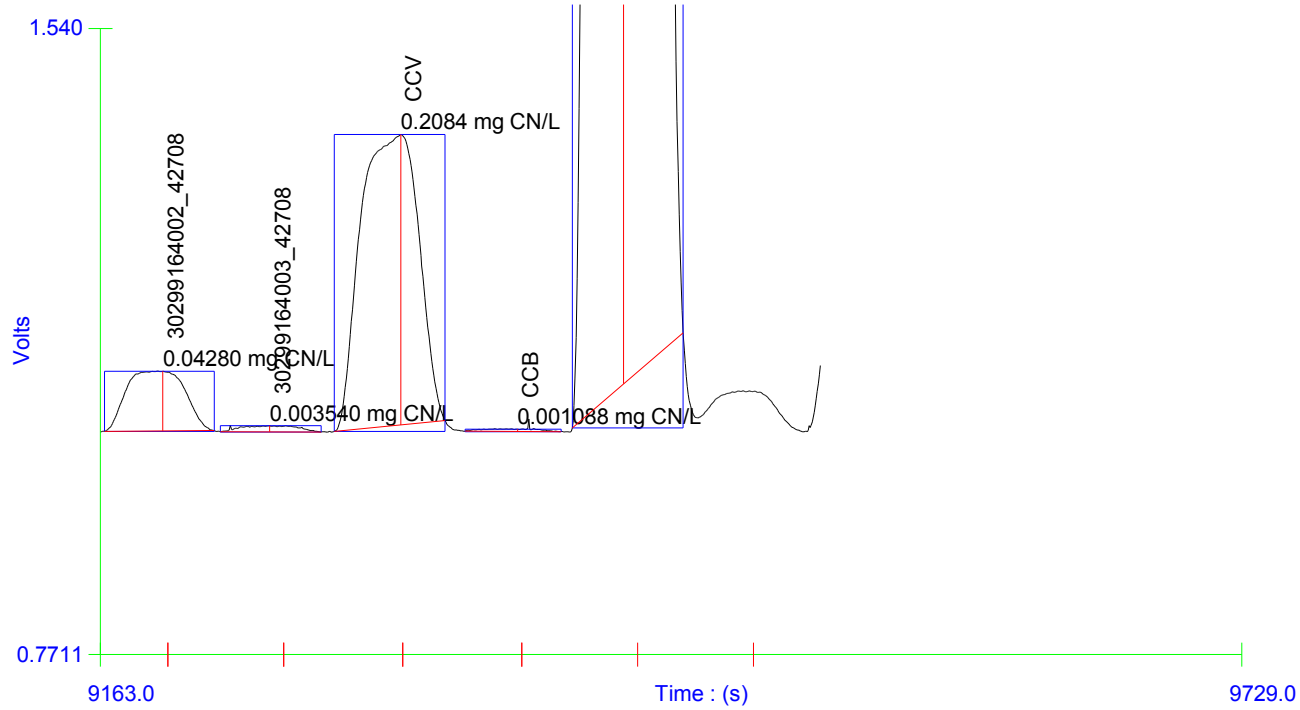
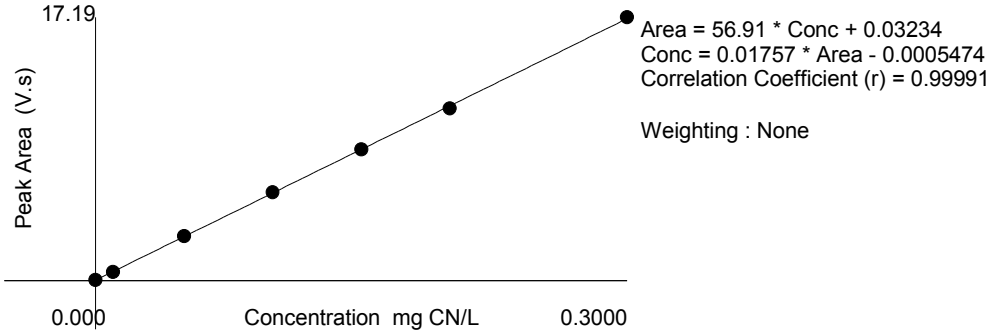


Table : 1 (Cyanide)

	Known Conc. (mg CN/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg CN/L)	Detection Date	Detection Time
1	0.3000	1	17.19	0.5352	0.0	-0.5	0.3015	6/19/2019	12:43:53 PM
2	0.2000	1	11.24	0.3559	0.0	1.5	0.1970	6/19/2019	12:42:58 PM
3	0.1500	1	8.570	0.2717	0.0	0.0	0.1500	6/19/2019	12:42:03 PM
4	0.1000	1	5.776	0.1838	0.0	-0.9	0.1009	6/19/2019	12:41:06 PM
5	0.05000	1	2.916	0.09134	0.0	-1.3	0.05068	6/19/2019	12:40:08 PM
6	0.01000	1	0.5770	0.01835	0.0	4.1	0.009590	6/19/2019	12:39:11 PM
7	0.000	1	0.04490	0.002366			0.0002414	6/19/2019	12:38:11 PM

Figure : 1 (Cyanide)



Prep Log Report

Batch Information: WET 348260 flashpoint2

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	170327318	Correction Factor (F)	0	Barometric Pressure (in Hg)	28.45
Corrected Barometric Pressure Factor (F)	2.2422	Instrument	30WET6	Analyzed By	CMR	p-Xylene	90207
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	06/20/2019 17:24						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVA	**CCVA**	N	06/20/2019 10:57:05	Nonaqueous liuid	78.3	80.54	
1010 W	BLANK	**1693426**	N	06/20/2019 11:57:32	Water	>200	>200	
1010 W	PS	**30298305001**	Y	06/20/2019 12:11:56	Non Aqueous Liquid	105.6	107.84	
1010 W	PS	**30298305001**	N	06/20/2019 12:17:15	Non Aqueous Liquid	108.2	110.44	
1010 W	PS	**30298329003**	Y	06/20/2019 14:32:07	Solid	>200	>200	
1010 W	PS	**30298781001**	Y	06/20/2019 16:19:37	Water	>200	>200	
1010 W	PS	**30298781003**	Y	06/20/2019 16:12:22	Water	>200	>200	
1010 W	PS	**30299631001**	Y	06/20/2019 16:52:41	Water	>200	>200	

Prep Log Report

Batch Information: WET 348260 flashpoint3

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	180063467	Correction Factor (F)	-0.1	Barometric Pressure (in Hg)	28.45
Corrected Barometric Pressure Factor (F)	2.2422	Instrument	30WET6	Analyzed By	CMR	p-Xylene	90207
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	06/20/2019 17:24						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVB	**CCVB**	N	06/20/2019 10:58:37	Nonaqueous liquid	78.8	80.94	
1010 W	BLANK	**1693426**	Y	06/20/2019 11:59:07	Water	>200	>200	
1010 W	PS	**30298231001**	Y	06/20/2019 12:06:46	Solid	>200	>200	
1010 W	DUP	**1693427**	Y	06/20/2019 12:27:38	Solid	>200	>200	
1010 W	PS	**30298324001**	Y	06/20/2019 14:31:34	Solid	>200	>200	
1010 W	PS	**30298331001**	Y	06/20/2019 15:23:21	Solid	>200	>200	
1010 W	PS	**30298231010**	Y	06/20/2019 15:53:00	Solid	>200	>200	
1010 W	PS	**30298781002**	Y	06/20/2019 16:18:55	Water	>200	>200	

Prep Log Report

Batch Information: WET347003/347004 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	06/13/2019 22:10:29:545	Instrument	30BA14
Date/Time On	06/13/2019 18:00:00:473	Date/Time Off	06/13/2019 22:10:23:594	Lead Acetate Solution	90656	Sulfuric Acid	89890
10N Sodium Hydroxide	90173	Reviewed By	BKH	Reviewed By Date	06/14/2019 08:54	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1687959**	10.05	200	No			
733C S_P	BLANK	**1687963**	10.05	50	No			
734S S2_P	LCS	**1687960**	10.08	200	No			85995 (2)
733C S_P	LCS	**1687964**	10.06	50	No		84021 (1)	
734S S2_P	PS	**30298297001**	10	200	No			
733C S_P	PS	**30298297001**	10	50	No			
734S S2_P	PS	**30298331001**	10.02	200	No			
733C S_P	PS	**30298331001**	10.02	50	No			
734S S2_P	PS	**30298521001**	10.01	200	No			
733C S_P	PS	**30298521001**	10.01	50	No			
734S S2_P	RQS	**30298621001**	10.02	200	No			
733C S_P	RQS	**30298621001**	10.02	50	No			
734S S2_P	DUP	**1687961**	10.05	200	No			
733C S_P	DUP	**1687965**	10.05	50	No			
734S S2_P	RQS	**30298782001**	10	200	No			
733C S_P	RQS	**30298782001**	10	50	No			
734S S2_P	DUP	**1687962**	10.01	200	No			
733C S_P	DUP	**1687966**	10.01	50	No			
734S S2_P	PS	**30298782002**	10	200	No			
733C S_P	PS	**30298782002**	10	50	No			
734S S2_P	PS	**30298820001**	10.02	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30298820001**	10.02	50	No			
734S S2_P	PS	**30298821001**	10.08	200	No			
733C S_P	PS	**30298821001**	10.08	50	No			
734S S2_P	PS	**30298822001**	10.08	200	No			
733C S_P	PS	**30298822001**	10.08	50	No			
734S S2_P	PS	**30298928001**	10	200	No			
733C S_P	PS	**30298928001**	10	50	No			
734S S2_P	PS	**30298231001**	10	200	No			
733C S_P	PS	**30298231001**	10	50	No			
734S S2_P	PS	**30298329003**	10.04	200	No			
733C S_P	PS	**30298329003**	10.04	50	No			
734S S2_P	PS	**30298231010**	10.02	200	No			
733C S_P	PS	**30298231010**	10.02	50	No			
734S S2_P	PS	**92431669001**	10.03	200	No			
733C S_P	PS	**92431669001**	10.03	50	No			
734S S2_P	PS	**50227344001**	10.08	200	No			
733C S_P	PS	**50227344001**	10.08	50	No			
734S S2_P	PS	**30299196001**	10.07	200	No			
733C S_P	PS	**30299196001**	10.07	50	No			
734S S2_P	PS	**30299284001**	10	200	No			
733C S_P	PS	**30299284001**	10	50	No			
734S S2_P	PS	**30299287001**	10	200	No			
733C S_P	PS	**30299287001**	10	50	No			
734S S2_P	PS	**30299288001**	10.02	200	No			
733C S_P	PS	**30299288001**	10.02	50	No			
734S S2_P	PS	**30299289001**	10.03	200	No			
733C S_P	PS	**30299289001**	10.03	50	No			

Prep Log Report

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

85995: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 347291 Rx SULFIDE

Template Version: F-PA-I-032-Rev.00 (05Nov2016)

Analysis Method	SM 4500S2F-2011	Analyzed By	PAS	Instrument	30WET0	1:1 HCl (mL)	88025 (2)
Starch Indicator Solution (mL)	84280 (1)	Reviewed By	BKH	Reviewed By Date	06/14/2019 08:54	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	BLANK	**1687959**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9005	0.0000	
734S S2	LCS	**1687960**	Y	06/13/2019 22:13:53	200	88037 (5)	0	3.9	74724 (3.90)	2.20	19.8413	43.6509	
734S S2	PS	**30298297001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30298331001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30298521001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	RQS	**30298621001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	DUP	**1687961**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9005	0.0000	
734S S2	RQS	**30298782001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	DUP	**1687962**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30298782002**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30298820001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30298821001**	Y	06/13/2019 22:13:53	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30298822001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30298928001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30298231001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30298329003**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30298231010**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**92431669001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	
734S S2	PS	**50227344001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	PS	**30299284001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30299287001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30299288001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30299289001**	Y	06/13/2019 22:13:54	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	

Prep Log Report

Batch Information: WET 346237 PH CURVE 06072019

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	PH CURVE	Daily Cal Slope	100.025	Cal Date/Time	100.025	Analyzed By	ZMH
Instrument	30WETG	Reviewed By	BKH	Reviewed By Date	06/10/2019 09:07	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Notes	CAL-STD
WET pH_Q	CAL1	**CAL1**	Y		06/07/2019 14:42:37		2	2	2			80722 (1)
WET pH_Q	CAL2	**CAL2**	Y		06/07/2019 14:42:38		4.06	4.06	4.06			76233 (1)
WET pH_Q	CAL3	**CAL3**	Y		06/07/2019 14:42:39		6.96	6.96	6.96			80724 (1)
WET pH_Q	CAL4	**CAL4**	Y		06/07/2019 14:42:40		9.97	9.97	9.97			67950 (1)
WET pH_Q	CAL5	**CAL5**	Y		06/07/2019 14:42:40		12.91	12.91	12.91			80723 (1)
WET pH_Q	ICVA	**ICVA**	Y		06/07/2019 14:43:07		4.02	4.02	4.02			68828 (1)
WET pH_Q	ICVB	**ICVB**	Y		06/07/2019 14:43:12		7	7	7			84019 (1)

Standard Notes:

67950: WET pH 10.0 Buffer
68828: 2nd pH 4 buffer
76233: WET 1st pH 4.0
80722: WET pH 2.0 Buffer
80723: WET pH 13.0 Buffer
80724: WET pH 7.0 Buffer / CCV
84019: WC29-186-7 ICVB

Prep Log Report

Batch Information: WET 346324 346325 346326 346327 PH

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	SM 4500H+B-2011	Daily Cal Slope	100.025	Cal Date/Time	06/07/2019 21:34:07:748	Analyzed By	ZMH
Instrument	30WETG	Balance ID	30BA14	Shaker On ID | Date/Time | Init	06/07/2019 21:34:10:345 | 06/07/2019 21:34 | ZMH	Shaker Off Date/Time | Init	06/07/2019 21:39 | ZMH
Reviewed By	BKH	Reviewed By Date	06/14/2019 09:42	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		06/07/2019 22:23:30		7	6.96	7	20.4			80724 (1)
4500H+B	PS	**30297902001**	Y		06/07/2019 22:25:34	Water	7.64	7.62	7.64	11.1			
4500H+B	DUP	**1684871**	Y		06/07/2019 22:26:02	Water	7.67	7.65	7.67	11.7			
4500H+B	OQS	**30298350001**	Y		06/07/2019 22:27:02	Water	8.07	8.04	8.07	10.5			
4500H+B	PS	**30298453001**	Y		06/07/2019 22:27:45	Water	6	5.97	6	19.7			
4500H+B	PS	**30298450001**	Y		06/07/2019 22:29:05	Water	5.87	5.85	5.87	20.7			
4500H+B	PS	**30298540001**	Y		06/07/2019 22:29:41	Water	7.82	7.78	7.82	20.1			
4500H+B	PS	**30298388001**	Y		06/07/2019 22:30:09	Water	8.52	8.5	8.52	19.1			
4500H+B	PS	**30298528002**	Y		06/07/2019 22:30:45	Water	7.8	7.85	7.8	19.1			
4500H+B	PS	**30298528003**	Y		06/07/2019 22:34:31	Water	7.49	7.55	7.49	13.8			
4500H+B	PS	**30298528001**	Y		06/07/2019 22:38:12	Water	8.15	8.17	8.15	15.6			
9040 W	PS	**30298521001**	Y		06/07/2019 22:42:16	Water	9.3	9.34	9.3	16.1			
9040 W	DUP	**1684875**	Y		06/07/2019 22:43:49	Water	9.27	9.28	9.27	18.1			
WET pH_Q	CCV	**CCV**	Y		06/07/2019 22:45:02		7.01	7.04	7.01	20.4			80724 (1)
9045 S	PS	**30298363001**	Y		06/07/2019 22:45:45	Solid	8.34	8.36	8.34	21.1	20.06		
9045 S	DUP	**1684877**	Y		06/07/2019 22:46:05	Solid	8.3	8.32	8.3	21.6	20.01		
9045 S	PS	**30298363002**	Y		06/07/2019 22:52:23	Solid	6.5	6.52	6.5	25.1	19.92		
9045 S	PS	**30298483001**	Y		06/07/2019 22:54:04	Solid	7.98	7.96	7.98	21.6	19.97		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
9045 S	PS	**30298481001**	Y		06/07/2019 22:55:17	Solid	5.35	5.35	5.35	21.6	19.95		
9045 S	PS	**30298519001**	Y		06/07/2019 22:57:17	Solid	8.36	8.34	8.36	22.1	19.93		
9045 S	PS	**30298536001**	Y		06/07/2019 22:58:28	Solid	7.17	7.17	7.17	21.2	19.97		
9045 S	PS	**30298621001**	Y		06/07/2019 23:00:00	Solid	7.85	7.83	7.85	21.5	19.95		
9045D S	PS	**30298231001**	Y		06/07/2019 23:01:46	Solid	8.13	8.11	8.13	21.2	20.03		
9045D S	DUP	**1684882**	Y		06/07/2019 23:02:19	Solid	8.12	8.12	8.12	21.6	20.08		
9045D S	PS	**30298231010**	Y		06/07/2019 23:03:21	Solid	8.32	8.35	8.32	21.2	20.06		
WET pH_Q	CCV	**CCV**	Y		06/07/2019 23:04:00		6.96	6.98	6.96	21.2			80724 (1)

Standard Notes:

80724: WET pH 7.0 Buffer / CCV

Prep Log Report

Batch Information: WET347003/347004 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	06/13/2019 22:10:29:545	Instrument	30BA14
Date/Time On	06/13/2019 18:00:00:473	Date/Time Off	06/13/2019 22:10:23:594	Lead Acetate Solution	90656	Sulfuric Acid	89890
10N Sodium Hydroxide	90173	Reviewed By	BKH	Reviewed By Date	06/14/2019 08:54	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1687959**	10.05	200	No			
733C S_P	BLANK	**1687963**	10.05	50	No			
734S S2_P	LCS	**1687960**	10.08	200	No			85995 (2)
733C S_P	LCS	**1687964**	10.06	50	No		84021 (1)	
734S S2_P	PS	**30298297001**	10	200	No			
733C S_P	PS	**30298297001**	10	50	No			
734S S2_P	PS	**30298331001**	10.02	200	No			
733C S_P	PS	**30298331001**	10.02	50	No			
734S S2_P	PS	**30298521001**	10.01	200	No			
733C S_P	PS	**30298521001**	10.01	50	No			
734S S2_P	RQS	**30298621001**	10.02	200	No			
733C S_P	RQS	**30298621001**	10.02	50	No			
734S S2_P	DUP	**1687961**	10.05	200	No			
733C S_P	DUP	**1687965**	10.05	50	No			
734S S2_P	RQS	**30298782001**	10	200	No			
733C S_P	RQS	**30298782001**	10	50	No			
734S S2_P	DUP	**1687962**	10.01	200	No			
733C S_P	DUP	**1687966**	10.01	50	No			
734S S2_P	PS	**30298782002**	10	200	No			
733C S_P	PS	**30298782002**	10	50	No			
734S S2_P	PS	**30298820001**	10.02	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30298820001**	10.02	50	No			
734S S2_P	PS	**30298821001**	10.08	200	No			
733C S_P	PS	**30298821001**	10.08	50	No			
734S S2_P	PS	**30298822001**	10.08	200	No			
733C S_P	PS	**30298822001**	10.08	50	No			
734S S2_P	PS	**30298928001**	10	200	No			
733C S_P	PS	**30298928001**	10	50	No			
734S S2_P	PS	**30298231001**	10	200	No			
733C S_P	PS	**30298231001**	10	50	No			
734S S2_P	PS	**30298329003**	10.04	200	No			
733C S_P	PS	**30298329003**	10.04	50	No			
734S S2_P	PS	**30298231010**	10.02	200	No			
733C S_P	PS	**30298231010**	10.02	50	No			
734S S2_P	PS	**92431669001**	10.03	200	No			
733C S_P	PS	**92431669001**	10.03	50	No			
734S S2_P	PS	**50227344001**	10.08	200	No			
733C S_P	PS	**50227344001**	10.08	50	No			
734S S2_P	PS	**30299196001**	10.07	200	No			
733C S_P	PS	**30299196001**	10.07	50	No			
734S S2_P	PS	**30299284001**	10	200	No			
733C S_P	PS	**30299284001**	10	50	No			
734S S2_P	PS	**30299287001**	10	200	No			
733C S_P	PS	**30299287001**	10	50	No			
734S S2_P	PS	**30299288001**	10.02	200	No			
733C S_P	PS	**30299288001**	10.02	50	No			
734S S2_P	PS	**30299289001**	10.03	200	No			
733C S_P	PS	**30299289001**	10.03	50	No			

Prep Log Report

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

85995: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET

Template Version: F-PA-I-040-Rev.03 (03Apr2019)

Prep Method	SM 4500CNC-2011	Analysis Method	SM 4500CNE-2011	Prepared By	PAS	Prep Date Date/Time	06/19/2019 16:11:26:566
Instrument	30WTA5	Chloramine-T Soln. (CN)	91386	NaOH Soln.	None Added	Pyridine-Barbituric Acid Reage	91124
Reviewed By	BKH	Reviewed By Date	06/19/2019 16:50	Batch Notes	Instrument Traceability- Phos Buffer (89588)		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
WETA CN_Q	CAL0	**CAL0**				No				91387 (1)
WETA CN_Q	CAL1	**CAL1**				No				91388 (1)
WETA CN_Q	CAL2	**CAL2**				No				91389 (1)
WETA CN_Q	CAL3	**CAL3**				No				91390 (1)
WETA CN_Q	CAL4	**CAL4**				No				91391 (1)
WETA CN_Q	CAL5	**CAL5**				No				91392 (1)
WETA CN_Q	CAL6	**CAL6**				No				91393 (1)
WETA CN_Q	ICV	**ICV**				No				91394 (1)
WETA CN_Q	ICB	**ICB**				No				91387 (1)
4500CNE W2	BLANK	**1690617**		6	6	No	Water			
4500CNE W2	LCS	**1690618**		6	6	No	Water			
4500CNE W2	BLANK	**1690619**		6	6	No	Water			
4500CNE W2	PS	**30296271003**		6	6	No	Water			
4500CNE W2	PS	**30298186001**		6	6	No	Water			
4500CNE W2	PS	**30298191001**		6	6	No	Water			
4500CNE W2	PS	**30298170001**		6	6	No	Water			
4500CNE W2	PS	**30298280001**		6	6	No	Water			
4500CNE W2	PS	**30297885001**		6	6	No	Water			
4500CNE W2	MS	**1690620**		6	6	No	Water			
4500CNE W2	MSD	**1690621**		6	6	No	Water			
4500CNE W2	PS	**30297885002**		6	6	No	Water			
4500CNE W2	PS	**30297885005**		6	6	No	Water			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
4500CNE W2	PS	**30297899001**		6	6	No	Water			
4500CNE W2	PS	**30297988001**		6	6	No	Water			
4500CNE W2	PS	**30298244001**		6	6	No	Water			
4500CNE W2	MS	**1690622**		6	6	No	Water			
4500CNE W2	MSD	**1690623**		6	6	No	Water			
4500CNE W2	PS	**30298281001**		6	6	No	Water			
4500CNE W2	PS	**30298563001**		6	6	No	Water			
4500CNE W2	PS	**30298335001**		6	6	No	Water			
4500CNE W2	OQS	**30298090013**		6	6	No	Water			
4500CNE W2	PS	**30298653001**		6	6	No	Water			
4500CNE W2	PS	**30298654001**		6	6	No	Water			
4500CNE W2	PS	**30298582001**		6	6	No	Water			
4500CNE W2	PS	**30298297002**		6	6	No	Water			
9014CN S2	BLANK	**1690646**		.2	6	No	Solid			
9014CN S2	LCS	**1690647**		.2	6	No	Solid			
9014CN S2	PS	**30295301003**		.23	6	No	Solid			
9014CN S2	PS	**30297209001**		.24	6	No	Solid			
9014CN S2	PS	**30298647001**		.25	6	No	Solid			
9014CN S2	MS	**1690648**		.22	6	No	Solid			
9014CN S2	MSD	**1690649**		.24	6	No	Solid			
9014CN S2	BLANK	**1692297**		.2	6	No	Solid			
9014CN S2	LCS	**1692298**		.2	6	No	Solid			
9014CN S2	PS	**30299763001**		.24	6	No	Solid			
9014CN S2	MS	**1692299**		.21	6	No	Solid			
9014CN S2	MSD	**1692300**		.2	6	No	Solid			
9014CN S2	PS	**30299765001**		.21	6	No	Solid			
9014CN S2	PS	**30299826001**		.2	6	No	Solid			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
9014CN S2	PS	**30299883001**		.25	6	No	Solid			
4500CNE W2	BLANK	**1692499**		6	6	No	Water			
4500CNE W2	LCS	**1692500**		6	6	No	Water			
4500CNE W2	PS	**30298562003**		6	6	No	Water			
4500CNE W2	MS	**1692501**		6	6	No	Water			
4500CNE W2	MSD	**1692502**		6	6	No	Water			
4500CNE W2	PS	**30298757001**		6	6	No	Water			
4500CNE W2	PS	**30299033001**		6	6	No	Water			
4500CNE W2	PS	**30299007001**		6	6	No	Water			
4500CNE W2	PS	**30299164001**		6	6	No	Water			
4500CNE W2	PS	**30299164002**		6	6	No	Water			
4500CNE W2	PS	**30299164003**		6	6	No	Water			
4500CNE W2	PS	**30299284002**		6	6	No	Water			
4500CNE W2	BLANK	**1692518**		6	6	No	Water			
4500CNE W2	PS	**30299287002**		6	6	No	Water			
4500CNE W2	PS	**30299288002**		6	6	No	Water			
4500CNE W2	PS	**30299289002**		6	6	No	Water			
4500CNE W2	MS	**1692524**		6	6	No	Water			
4500CNE W2	MSD	**1692525**		6	6	No	Water			
4500CNE W2	PS	**30299325001**		6	6	No	Water			
4500CNE W2	PS	**30299328001**		6	6	No	Water			
4500CNE W2	PS	**30299020001**		6	6	No	Water			
4500CNE W2	PS	**30299020002**		6	6	No	Water			
4500CNE W2	PS	**30299020005**		6	6	No	Water			
4500CNE W2	PS	**30299366001**		6	6	No	Water			
4500CNE W2	PS	**30299841001**		6	6	No	Water			
4500CNE W2	PS	**30300062003**		6	6	No	Water			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
733C S2	BLANK	**1687963**		10.05	50	No	Solid			
733C S2	LCS	**1687964**		10.06	50	No	Solid			
733C S2	PS	**30298297001**		10	50	No	Solid			
733C S2	PS	**30298331001**		10.02	50	No	Solid			
733C S2	PS	**30298521001**		10.01	50	No	Water			
733C S2	RQS	**30298621001**		10.02	50	No	Solid			
733C S2	DUP	**1687965**		10.05	50	No	Solid			
733C S2	RQS	**30298782001**		10	50	No	Water			
733C S2	DUP	**1687966**		10.01	50	No	Water			
733C S2	PS	**30298782002**		10	50	No	Water			
733C S2	PS	**30298820001**		10.02	50	No	Solid			
733C S2	PS	**30298821001**		10.08	50	No	Solid			
733C S2	PS	**30298822001**		10.08	50	No	Solid			
733C S2	PS	**30298928001**		10	50	No	Solid			
733C S2	PS	**30298231001**		10	50	No	Solid			
733C S2	PS	**30298329003**		10.04	50	No	Solid			
733C S2	PS	**30298231010**		10.02	50	No	Solid			
733C S2	PS	**92431669001**		10.03	50	No	Solid			
733C S2	PS	**50227344001**		10.08	50	No	Water			
733C S2	PS	**30299284001**		10	50	No	Solid			
733C S2	PS	**30299287001**		10	50	No	Solid			
733C S2	PS	**30299288001**		10.02	50	No	Solid			
733C S2	PS	**30299289001**		10.03	50	No	Solid			
733C S_P	BLANK	**1690868**		10	50	No	Solid			
733C S_P	LCS	**1690869**		10.07	50	No	Solid		91385 (1)	
733C S_P	PS	**40188834024**		10.05	50	No	Solid			
733C S_P	DUP	**1690870**		10	50	No	Solid			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
733C S_P	PS	**40188834025**		10.01	50	No	Solid			
733C S_P	PS	**40188834026**		10.02	50	No	Solid			
733C S_P	PS	**40188834028**		10.08	50	No	Solid			
733C S_P	PS	**40188834027**		10	50	No	Solid			
733C S_P	PS	**40188834034**		10.03	50	No	Solid			
733C S_P	PS	**40188834035**		10	50	No	Solid			
733C S_P	PS	**40188834033**		10	50	No	Solid			
733C S_P	PS	**40188834030**		10.07	50	No	Solid			
733C S_P	PS	**40188834032**		10	50	No	Solid			
733C S_P	PS	**40188834029**		10.08	50	No	Solid			
733C S_P	PS	**40188834031**		10.07	50	No	Solid			
733C S_P	PS	**40188834002**		10.02	50	No	Solid			
733C S_P	PS	**40188834001**		10	50	No	Solid			
733C S_P	PS	**40188834004**		10.01	50	No	Solid			
733C S_P	PS	**40188834006**		10.08	50	No	Solid			
733C S_P	PS	**40188834005**		10	50	No	Solid			
733C S_P	PS	**40188834003**		10.08	50	No	Solid			
733C S_P	PS	**40188834007**		10	50	No	Solid			
733C S_P	PS	**40188834008**		10.05	50	No	Solid			
733C S2	BLANK	**1691785**		10.02	50	No	Solid			
733C S2	LCS	**1691786**		10.08	50	No	Solid			
733C S2	PS	**92431932060**		10.02	50	No	Water			
733C S2	DUP	**1691787**		10	50	No	Water			
733C S2	PS	**92431932061**		10.02	50	No	Water			
733C S2	PS	**92431932062**		10	50	No	Water			
733C S2	PS	**92431932063**		10.08	50	No	Water			
733C S2	PS	**40188834009**		10.07	50	No	Solid			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CN-SPK (mL)	CAL-STD
733C S2	PS	**40188834010**		10.06	50	No	Solid			
733C S2	PS	**40188834011**		10	50	No	Solid			
733C S2	PS	**40188834012**		10	50	No	Solid			
733C S2	PS	**40188834013**		10.08	50	No	Solid			
733C S2	PS	**40188834014**		10.04	50	No	Solid			
733C S2	PS	**40188834015**		10.08	50	No	Solid			
733C S2	PS	**40188834016**		10	50	No	Solid			
733C S2	PS	**40188834017**		10	50	No	Solid			
733C S2	PS	**40188834018**		10	50	No	Solid			
733C S2	PS	**40188834019**		10.01	50	No	Solid			
733C S2	PS	**40188834020**		10.06	50	No	Solid			
733C S2	PS	**40188834021**		10	50	No	Solid			
733C S2	PS	**40188834022**		10	50	No	Solid			
733C S2	PS	**40188834023**		10.08	50	No	Solid			
733C S2	PS	**30299858001**		10.07	50	No	Solid			
WETA CN_Q	CCV	**CCV**				No				91392 (1)
WETA CN_Q	CCB	**CCB**				No				91387 (1)

Standard Notes:

91387: WET CN CAL0
91388: WET-CN-CAL1
91389: WET-CN-CAL2
91390: WET-CN-CAL3
91391: WET-CN-CAL4
91392: WET-CN-CAL5
91393: WET-CN-CAL6
91394: CN ICV

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1686168	1686168LB	112	98	122	95
1687219	1687219LCS	97	99	106	95
1687220	1687220MS	97	100	105	97
1687221	1687221MSD	103	100	108	98
30298231007	AOC34-1	109	98	114	94
30298231008	AOC34-2	123	96	128	97

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM II VOA-2
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1688363	1688363LB	109	97	91	96
1690585	1690585MS	104	100	91	94
1690586	1690586MSD	102	98	80	97
1690587	1690587LCS	105	101	105	94
30298231001	AOC35L	119	98	97	95

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1687219LCS
Date Extracted: 06/13/2019
Date Analyzed (1): 06/13/2019
Instrument: 30MV6A
LCS Lot No: 90735
Lab File ID: 6190613.B\1.B\60613009-44883.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	15.3	77	63-110
2-Butanone (MEK)	20.0	11.9	60	46-117
Carbon tetrachloride	20.0	12.1	61	59-114
Chlorobenzene	20.0	15.9	79	70-130
Chloroform	20.0	14.9	75	65-108
1,2-Dichloroethane	20.0	14.5	72	57-110
1,1-Dichloroethene	20.0	12.6	63	45-124
Tetrachloroethene	20.0	15.7	79	64-114
Trichloroethene	20.0	14.4	72	61-112
Vinyl chloride	20.0	12.2	61	54-142

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1690587LCS
Date Extracted: 06/17/2019
Date Analyzed (1): 06/17/2019
Instrument: 30MV6A
LCS Lot No: 90735
Lab File ID: 6190617.B\1.B\60617011-44943.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	16.3	81	63-110
2-Butanone (MEK)	20.0	14.8	74	46-117
Carbon tetrachloride	20.0	15.0	75	59-114
Chlorobenzene	20.0	16.5	82	70-130
Chloroform	20.0	15.6	78	65-108
1,2-Dichloroethane	20.0	15.9	79	57-110
1,1-Dichloroethene	20.0	13.6	68	45-124
Tetrachloroethene	20.0	16.7	84	64-114
Trichloroethene	20.0	16.0	80	61-112
Vinyl chloride	20.0	11.5	58	54-142

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1687220MS

Date Extracted: 06/13/2019

Date Analyzed (1): 06/13/2019

Instrument: 30MV6A

Lab File ID: 6190613.B\1.B\60613033.D

Parent Sample ID: AOC34-1

SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	162	81	10-133
1,2-Dichloroethane	200	ND	183	91	24-111
2-Butanone (MEK)	200	ND	160	80	10-175
Benzene	200	ND	175	88	15-121
Carbon tetrachloride	200	ND	165	83	20-125
Chlorobenzene	200	ND	215	102	10-122
Chloroform	200	ND	192	96	27-117
Tetrachloroethene	200	ND	221	110	13-125
Trichloroethene	200	ND	193	96	10-133
Vinyl chloride	200	ND	147	74	10-133

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV6A Matrix Spike Duplicate - Sample No: 1687221MSD

Lab File ID (2): 6190613.B\1.B\60613035.D Date Analyzed (2): 06/13/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	146	73	10	0-30	10-133
1,2-Dichloroethane	200	169	85	8	0-30	24-111
2-Butanone (MEK)	200	151	75	6	0-30	10-175
Benzene	200	164	82	7	0-30	15-121
Carbon tetrachloride	200	153	77	8	0-30	20-125
Chlorobenzene	200	198	93	8	0-30	10-122
Chloroform	200	180	90	7	0-30	27-117
Tetrachloroethene	200	199	100	10	0-30	13-125
Trichloroethene	200	179	89	8	0-30	10-133
Vinyl chloride	200	136	68	8	0-30	10-133

RPD: 0 out of 10 outside limits.

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1690585MS

Date Extracted: 06/17/2019

Date Analyzed (1): 06/17/2019

Instrument: 30MV6A

Lab File ID: 6190617.B\1.B\60617047.D

Parent Sample ID: AOC35L

SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	168	84	10-133
1,2-Dichloroethane	200	ND	173	86	24-111
2-Butanone (MEK)	200	ND	154	77	10-175
Benzene	200	ND	175	87	15-121
Carbon tetrachloride	200	ND	151	76	20-125
Chlorobenzene	200	ND	186	89	10-122
Chloroform	200	ND	178	89	27-117
Tetrachloroethene	200	ND	185	92	13-125
Trichloroethene	200	ND	315	157	10-133
Vinyl chloride	200	ND	98.7	49	10-133

Spike Recovery: 1 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV6A Matrix Spike Duplicate - Sample No: 1690586MSD

Lab File ID (2): 6190617.B\1.B\60617049.D Date Analyzed (2): 06/17/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	154	77	9	0-30	10-133
1,2-Dichloroethane	200	160	80	8	0-30	24-111
2-Butanone (MEK)	200	167	83	8	0-30	10-175
Benzene	200	160	80	9	0-30	15-121
Carbon tetrachloride	200	139	70	8	0-30	20-125
Chlorobenzene	200	184	88	1	0-30	10-122
Chloroform	200	161	80	10	0-30	27-117
Tetrachloroethene	200	186	93	1	0-30	13-125
Trichloroethene	200	311	155	1	0-30	10-133
Vinyl chloride	200	86.0	43	14	0-30	10-133

RPD: 0 out of 10 outside limits.

Spike Recovery: 1 out of 10 outside limits.

SAMPLE NO.

1686168LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6A Matrix: Solid Lab Sample ID: 1686168

Lab File ID: 6190613.B\1.B\60613015-44883.D Date Analyzed: 06/13/2019 Time: 11:47

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1687219LCS	1687219	6190613.B\1.B\60613009-44883.D	06/13/2019 10:30
AOC34-1	30298231007	6190613.B\1.B\60613031.D	06/13/2019 15:14
1687220MS	1687220	6190613.B\1.B\60613033.D	06/13/2019 15:40
1687221MSD	1687221	6190613.B\1.B\60613035.D	06/13/2019 16:06
AOC34-2	30298231008	6190613.B\1.B\60613037.D	06/13/2019 16:31

SAMPLE NO.

1688363LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6A Matrix: Solid Lab Sample ID: 1688363

Lab File ID: 6190617.B\1.B\60617017-44943.D Date Analyzed: 06/17/2019 Time: 12:37

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1690587LCS	1690587	6190617.B\1.B\60617011-44943.D	06/17/2019 11:19
AOC35L	30298231001	6190617.B\1.B\60617045.D	06/17/2019 18:39
1690585MS	1690585	6190617.B\1.B\60617047.D	06/17/2019 19:04
1690586MSD	1690586	6190617.B\1.B\60617049.D	06/17/2019 19:30

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: 6190514.B\1.B\60514007.D BFB Injection Date: 05/14/2019
Instrument ID: 30MV6A BFB Injection Time: 14:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	18.73	
75	30.00 - 60.00% of mass 95	44.96	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.73	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	94.97	
175	5.00 - 9.00% of mass 174	7.23	(7.61)[1]
176	95.00 - 101.00% of mass 174	92.71	(97.63)[1]
177	5.00 - 9.00% of mass 176	5.89	(6.35)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
10936262CAL1	10936262CAL1	6190514.B\1.B\60514009.D	05/14/2019	15:09
10936264CAL2	10936264CAL2	6190514.B\1.B\60514011.D	05/14/2019	15:35
10936266CAL3	10936266CAL3	6190514.B\1.B\60514013.D	05/14/2019	16:01
10936261CAL4	10936261CAL4	6190514.B\1.B\60514015.D	05/14/2019	16:26
10936265CAL5	10936265CAL5	6190514.B\1.B\60514017.D	05/14/2019	16:52
10936269CAL6	10936269CAL6	6190514.B\1.B\60514019.D	05/14/2019	17:18
10936268CAL7	10936268CAL7	6190514.B\1.B\60514021.D	05/14/2019	17:44
10936267CAL8	10936267CAL8	6190514.B\1.B\60514023.D	05/14/2019	18:10
10936263ICV	10936263ICV	6190514.B\1.B\60514027.D	05/14/2019	19:01

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: 6190613.B\1.B\60613003.D BFB Injection Date 06/13/2019
Instrument ID: 30MV6A BFB Injection Time 09:13

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	17.45	
75	30.00 - 60.00% of mass 95	43.85	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.47	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	95.81	
175	5.00 - 9.00% of mass 174	7.64	(7.98)[1]
176	95.00 - 101.00% of mass 174	92.83	(96.89)[1]
177	5.00 - 9.00% of mass 176	6.15	(6.62)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11083374CCV	11083374CCV	6190613.B\1.B\60613005.D	06/13/2019	09:38
1687219LCS	1687219LCS	6190613.B\1.B\60613009-44883.D	06/13/2019	10:30
1686168LB	1686168LB	6190613.B\1.B\60613015-44883.D	06/13/2019	11:47
AOC34-1	30298231007	6190613.B\1.B\60613031.D	06/13/2019	15:14
1687220MS	1687220MS	6190613.B\1.B\60613033.D	06/13/2019	15:40
1687221MSD	1687221MSD	6190613.B\1.B\60613035.D	06/13/2019	16:06
AOC34-2	30298231008	6190613.B\1.B\60613037.D	06/13/2019	16:31

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: 6190617.B\1.B\60617007-BFB.D BFB Injection Date 06/17/2019
Instrument ID: 30MV6A BFB Injection Time 10:28

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	17.78	
75	30.00 - 60.00% of mass 95	45.15	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.92	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	101.19	
175	5.00 - 9.00% of mass 174	7.27	(7.19)[1]
176	95.00 - 101.00% of mass 174	98.40	(97.25)[1]
177	5.00 - 9.00% of mass 176	6.30	(6.40)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11098340CCV	11098340CCV	6190617.B\1.B\60617007.D	06/17/2019	10:28
1690587LCS	1690587LCS	6190617.B\1.B\60617011-44943.D	06/17/2019	11:19
1688363LB	1688363LB	6190617.B\1.B\60617017-44943.D	06/17/2019	12:37
AOC35L	30298231001	6190617.B\1.B\60617045.D	06/17/2019	18:39
1690585MS	1690585MS	6190617.B\1.B\60617047.D	06/17/2019	19:04
1690586MSD	1690586MSD	6190617.B\1.B\60617049.D	06/17/2019	19:30

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11083374CCV Date Analyzed: 06/13/2019

Instrument ID: 30MV6A GC Column: Col 1 Time Analyzed: 09:38

Lab File ID: 6190613.B\1.B\60613005.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		361586	5.888	224144	6.87	446565	4.527
UPPER LIMIT		723172	6.388	448288	7.37	893130	5.027
LOWER LIMIT		180793	5.388	112072	6.37	223282.5	4.027
LAB SAMPLE ID	SAMPLE NO.						
1686168	1686168LB	360116	5.888	218473	6.87	354145	4.527
1687219	1687219LCS	347990	5.888	216560	6.87	388021	4.527
1687220	1687220MS	348651	5.888	217292	6.87	405686	4.527
1687221	1687221MSD	342228	5.888	215956	6.87	400579	4.527
30298231007	AOC34-1	341493	5.888	210368	6.87	355286	4.527
30298231008	AOC34-2	343751	5.888	209391	6.87	322323	4.527

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11098340CCV Date Analyzed: 06/17/2019

Instrument ID: 30MV6A GC Column: Col 1 Time Analyzed: 10:28

Lab File ID: 6190617.B\1.B\60617007.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		336661	5.888	211973	6.87	404562	4.527
UPPER LIMIT		673322	6.388	423946	7.37	809124	5.027
LOWER LIMIT		168330.5	5.388	105986.5	6.37	202281	4.027
LAB SAMPLE ID	SAMPLE NO.						
1688363	1688363LB	312636	5.888	190736	6.87	315599	4.527
1690585	1690585MS	291736	5.888	185834	6.87	324096	4.527
1690586	1690586MSD	298659	5.888	191641	6.87	353195	4.527
1690587	1690587LCS	314783	5.888	196872	6.87	358807	4.527
30298231001	AOC35L	297683	5.888	178773	6.87	276062	4.527

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC35L

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/17/2019 18:39 Lab Sample ID: 30298231001

Date Analyzed: 06/17/2019 18:39 Lab File ID: 6190617.B\1.B\60617045.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 17-JUN-2019 18:39
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 30298231001x10
Misc Info : 44943
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	72054	29.2459	29.2	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	87111	35.6247	35.6	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	276062	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	316329	28.6033	28.6	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	297683	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	5881	0.81466	8.15(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	128541	29.4525	29.4	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Report Date: 18-Jun-2019 10:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	178773	30.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617045.d
Lab Smp Id: 30298231001
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

Calibration Date: 17-JUN-2019
Calibration Time: 10:28
Client Smp ID: AOC35L
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	404562	202281	809124	276062	-31.76
71 Chlorobenzene-d5	336661	168331	673322	297683	-11.58
94 1,4-Dichlorobenze	211973	105987	423946	178773	-15.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30298231
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30298231001
Client Smp ID: AOC35L
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	29.2	97.49	0-130
$ 45 1,2-Dichloroethane	30.0	35.6	118.75	0-138
$ 58 Toluene-d8 (S)	30.0	28.6	95.34	0-124
$ 79 4-Bromofluorobenze	30.0	29.4	98.18	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Report Date: 18-Jun-2019 10:28

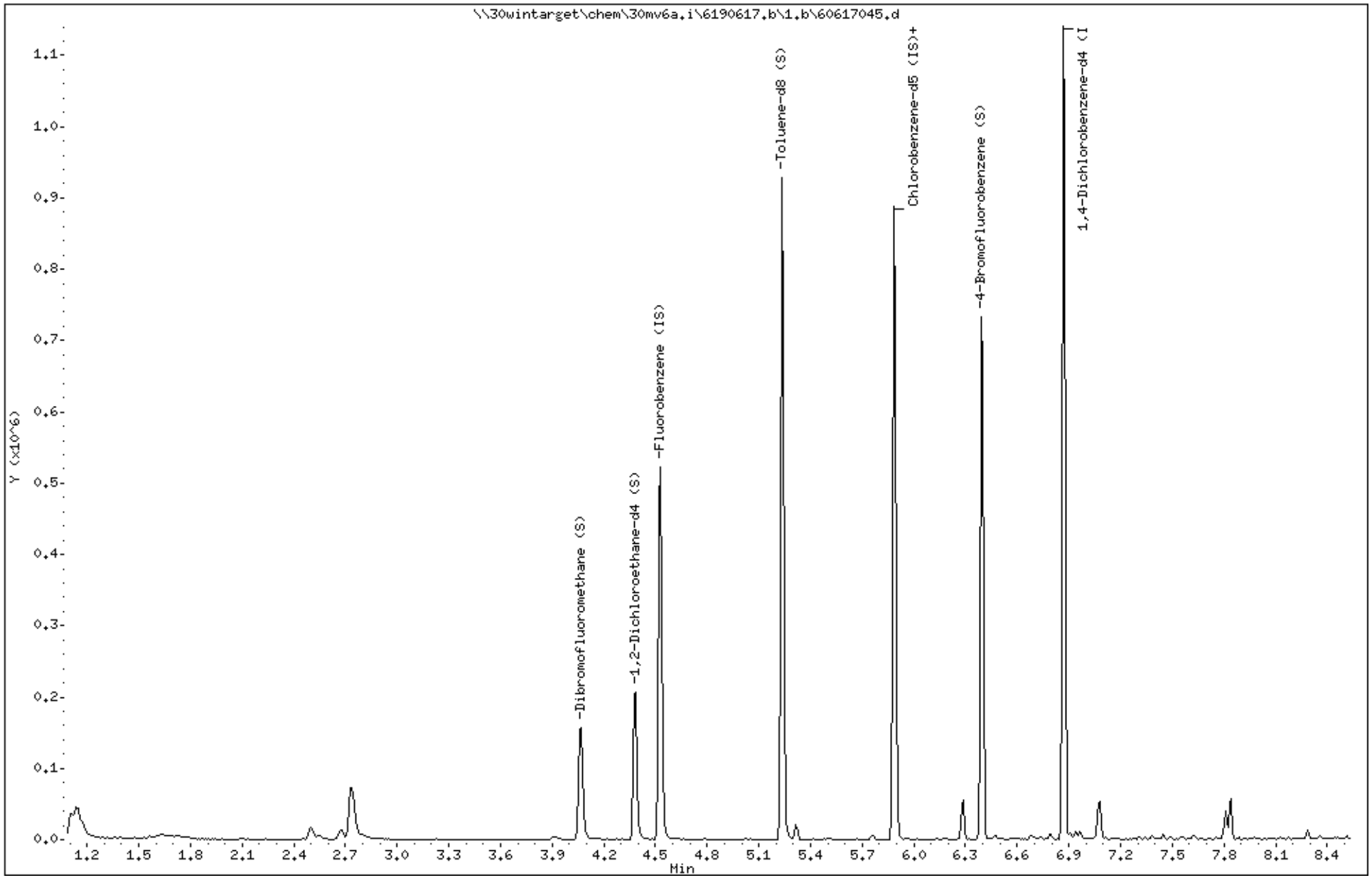
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231001
Client Smp ID: AOC35L
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 44943

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	8.15	J
1868-53-7	Dibromofluoromethane (S)	29.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	35.6	
2037-26-5	Toluene-d8 (S)	28.6	
460-00-4	4-Bromofluorobenzene (S)	29.4	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d
Date : 17-JUN-2019 18:39
Client ID: A0C35L
Instrument: 30mv6a.i
Sample Info: 30298231001x10
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617045.d

Date : 17-JUN-2019 18:39

Client ID: A0C35L

Instrument: 30mv6a.i

Sample Info: 30298231001x10

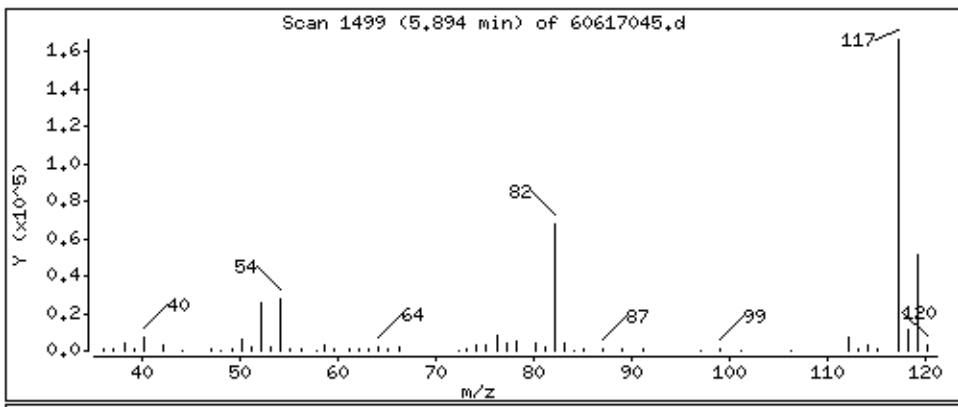
Operator: JEW

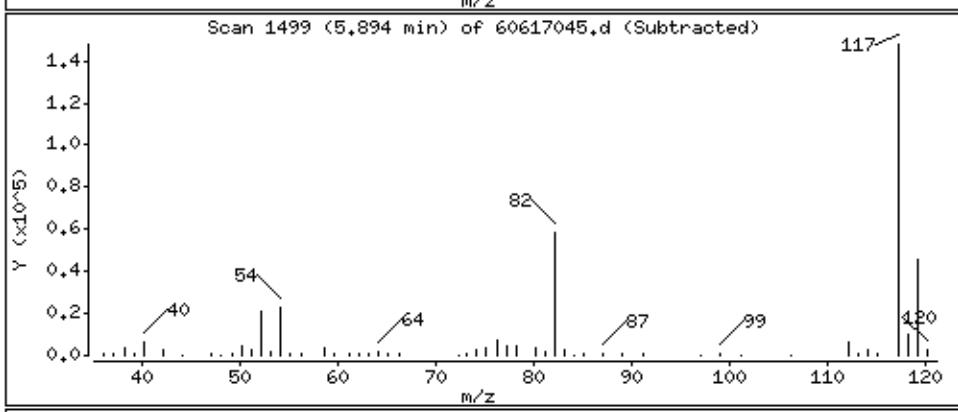
Column phase: RTX-VMS

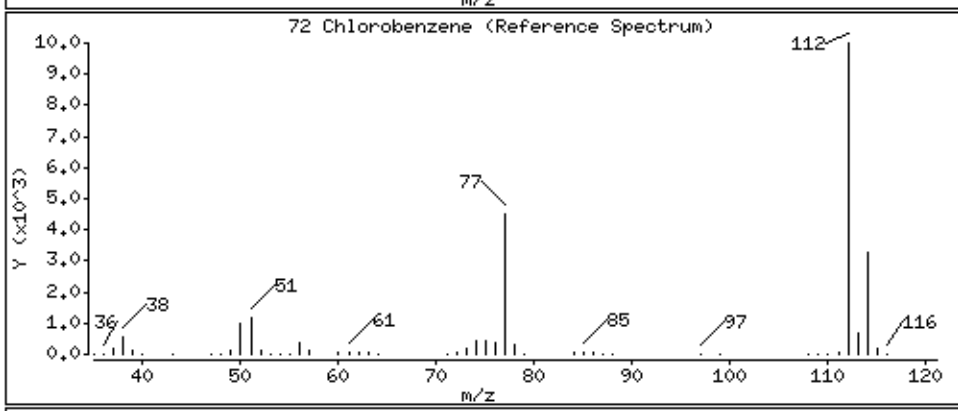
Column diameter: 0.18

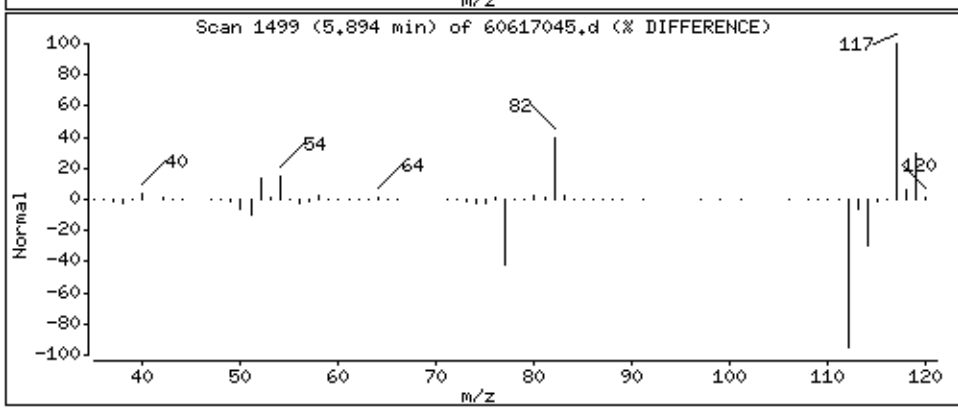
72 Chlorobenzene

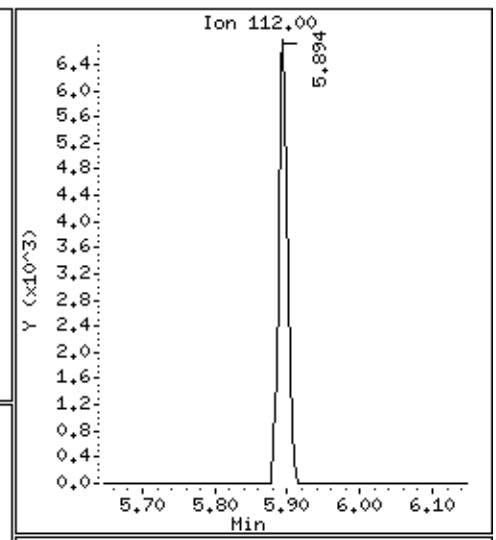
Concentration: 8.15 ug/kg

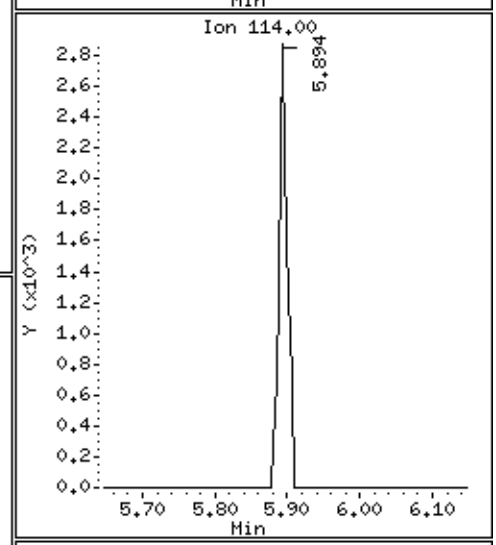


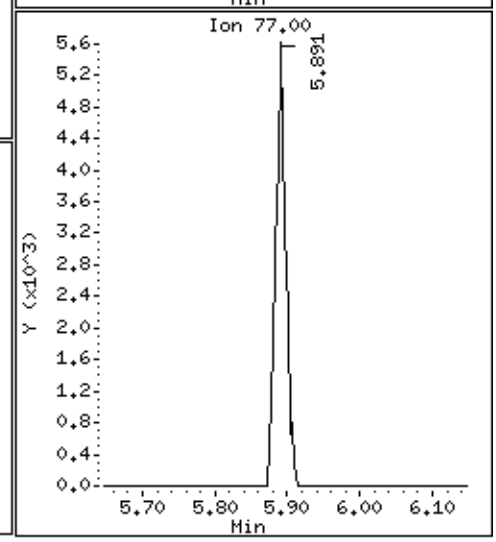












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617045.d
Injection Date: 17-JUN-2019 18:39
Instrument: 30mv6a.i
Lab Sample ID: 30298231001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC34-1

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/13/2019 15:14 Lab Sample ID: 30298231007

Date Analyzed: 06/13/2019 15:14 Lab File ID: 6190613.B\1.B\60613031.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Lab Smp Id: 30298231007 Client Smp ID: AOC34-1
Inj Date : 13-JUN-2019 15:14
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 30298231007x10
Misc Info : 44883
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Meth Date : 14-Jun-2019 08:22 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.059	(0.898)	101251	34.2894	34.3	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.376	(0.968)	95573	32.6584	32.6	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.524	(1.000)	355286	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.236	5.233	(0.889)	354886	28.2056	28.2	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	341493	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	9673	1.15582	11.6(a)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	151020	29.3059	29.3	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Report Date: 14-Jun-2019 09:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	210368	30.0000		
95 1,4-Dichlorobenzene	146	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613031.d
Lab Smp Id: 30298231007
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

Calibration Date: 13-JUN-2019
Calibration Time: 09:51
Client Smp ID: AOC34-1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	416159	208080	832318	355286	-14.63
71 Chlorobenzene-d5	360779	180390	721558	341493	-5.35
94 1,4-Dichlorobenze	224811	112406	449622	210368	-6.42

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.53	0.14
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30298231
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30298231007
Client Smp ID: AOC34-1
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	34.3	114.30	0-130
$ 45 1,2-Dichloroethane	30.0	32.6	108.86	0-138
$ 58 Toluene-d8 (S)	30.0	28.2	94.02	0-124
$ 79 4-Bromofluorobenze	30.0	29.3	97.69	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

TARGET COMPOUNDS

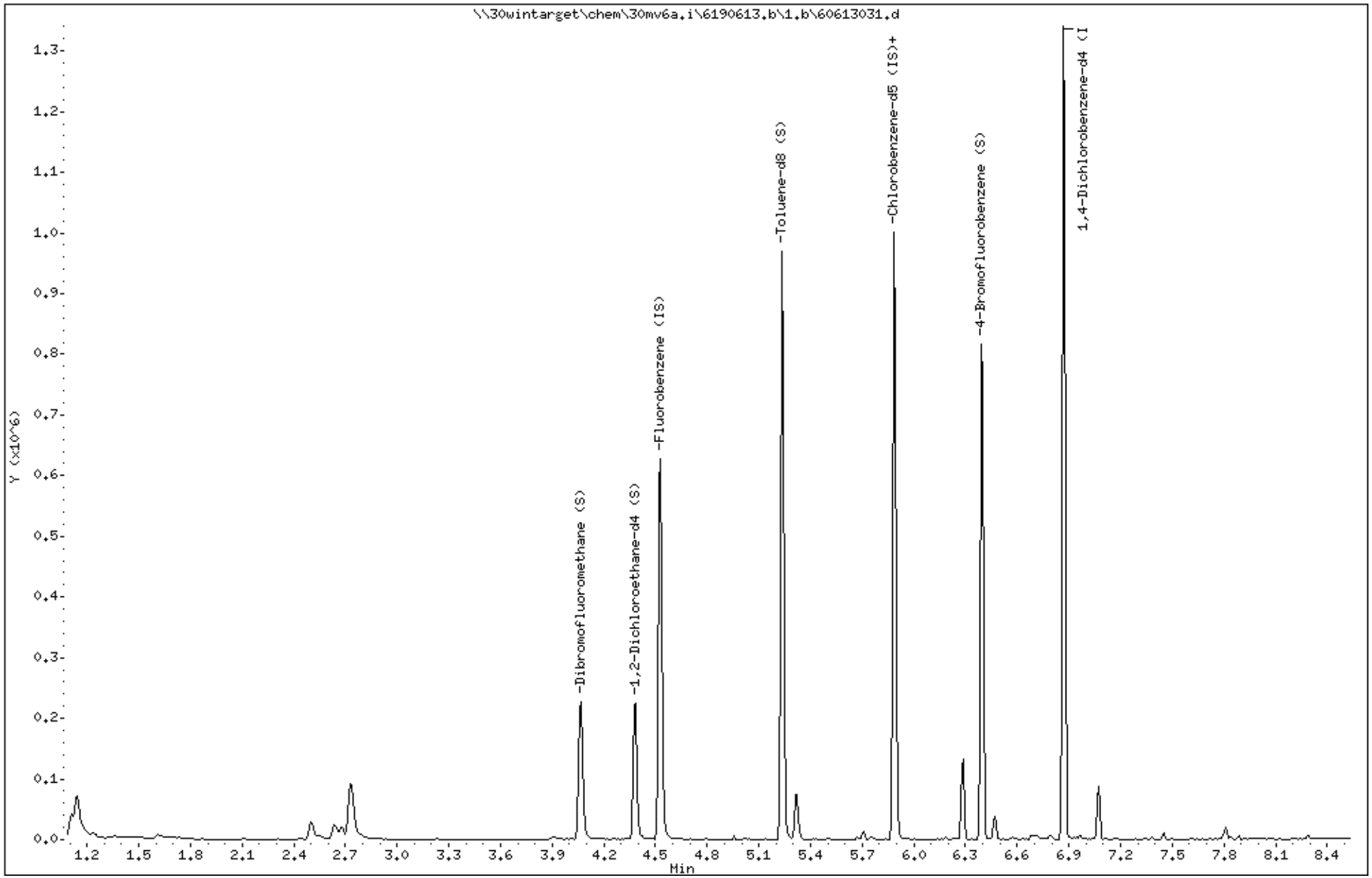
Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231007
Client Smp ID: AOC34-1
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 44883

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	11.6	J
1868-53-7	Dibromofluoromethane (S)	34.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.6	
2037-26-5	Toluene-d8 (S)	28.2	
460-00-4	4-Bromofluorobenzene (S)	29.3	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d
Date : 13-JUN-2019 15:14
Client ID: A0C34-1
Sample Info: 30298231007x10

Instrument: 30mv6a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613031.d

Date : 13-JUN-2019 15:14

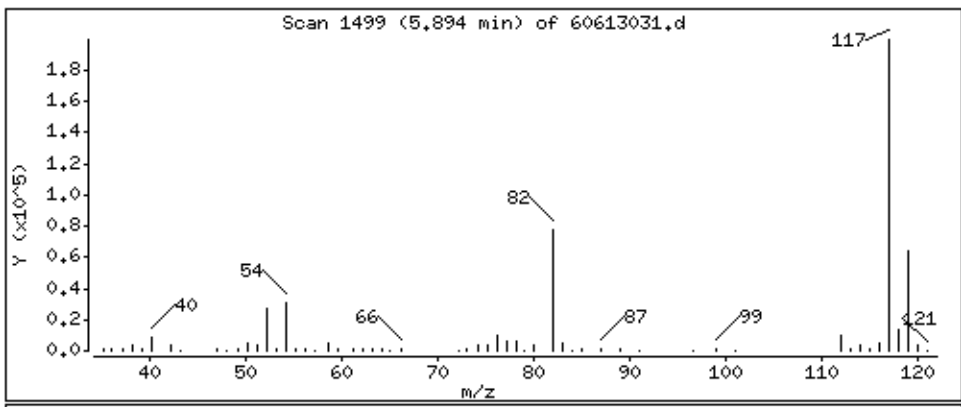
Client ID: AOC34-1 Instrument: 30mv6a.i

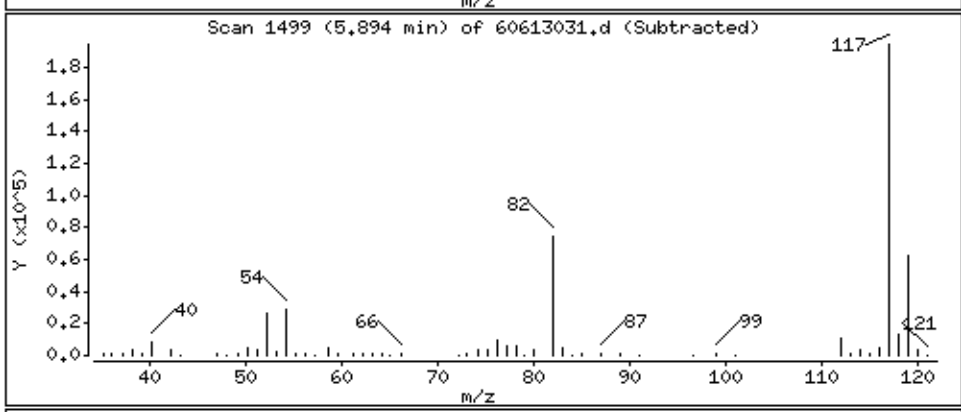
Sample Info: 30298231007x10

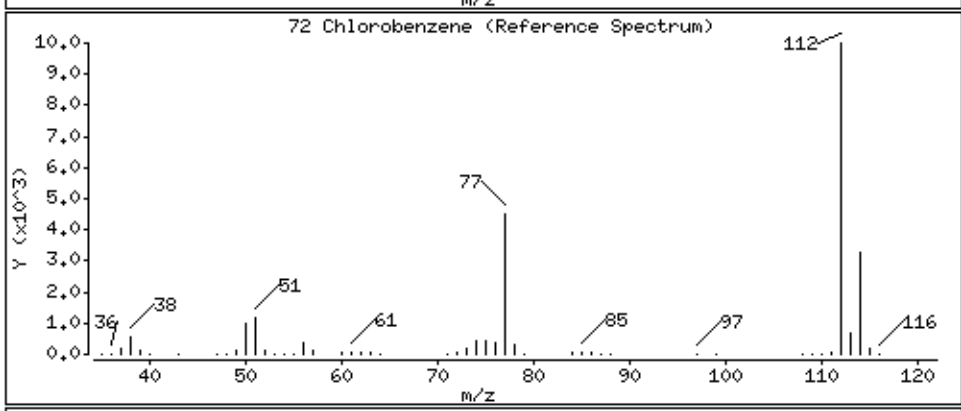
Operator: JEW

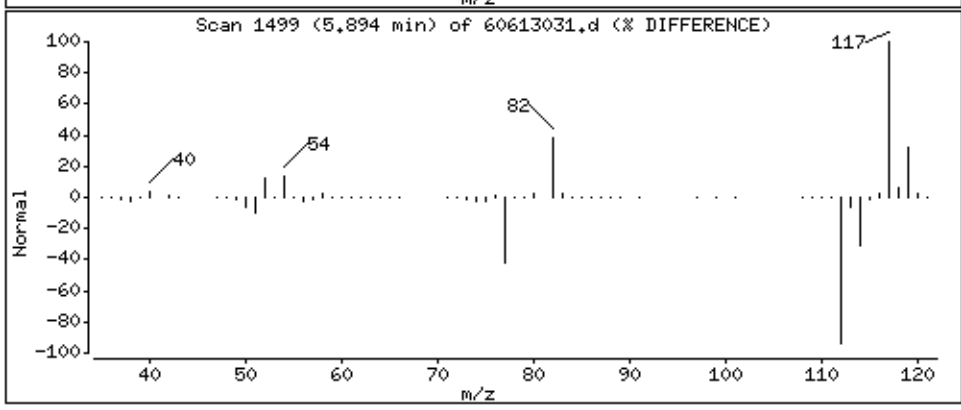
Column phase: RTX-VMS Column diameter: 0.18

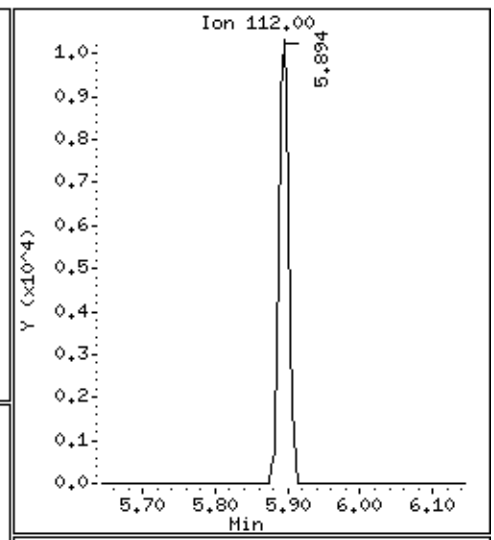
72 Chlorobenzene Concentration: 11.6 ug/kg

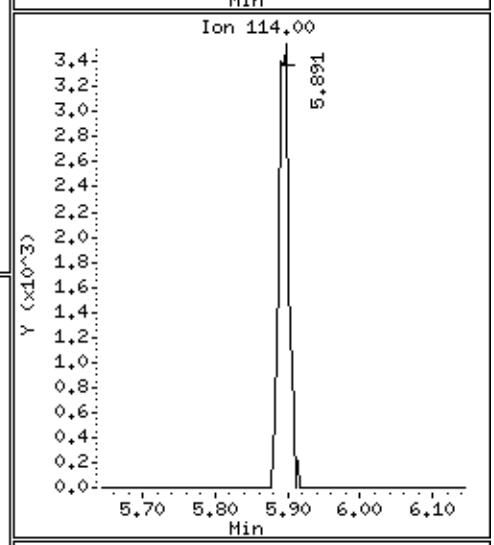


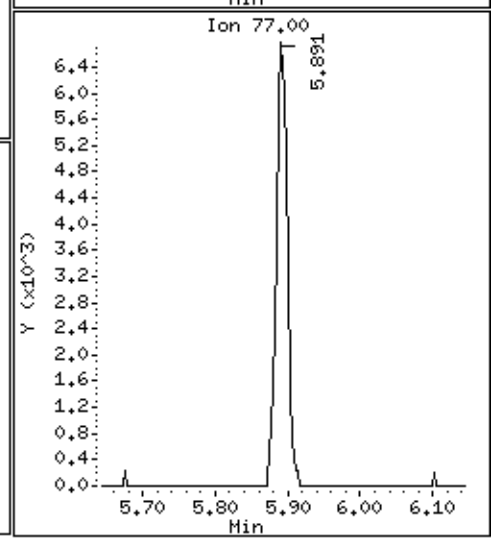












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613031.d
Injection Date: 13-JUN-2019 15:14
Instrument: 30mv6a.i
Lab Sample ID: 30298231007
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC34-2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/13/2019 16:31 Lab Sample ID: 30298231008

Date Analyzed: 06/13/2019 16:31 Lab File ID: 6190613.B\1.B\60613037.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Lab Smp Id: 30298231008 Client Smp ID: AOC34-2
Inj Date : 13-JUN-2019 16:31
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 30298231008x10
Misc Info : 44883
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Meth Date : 14-Jun-2019 08:22 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.059	(0.898)	102650	38.3183	38.3	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.376	(0.967)	98045	36.9293	36.9	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.524	(1.000)	322323	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	368380	29.0858	29.1	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	343751	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	7428	0.88173	8.82(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	146982	28.6554	28.6	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Report Date: 14-Jun-2019 09:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	209391	30.0000		
95 1,4-Dichlorobenzene	146	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613037.d
Lab Smp Id: 30298231008
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

Calibration Date: 13-JUN-2019
Calibration Time: 09:51
Client Smp ID: AOC34-2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	416159	208080	832318	322323	-22.55
71 Chlorobenzene-d5	360779	180390	721558	343751	-4.72
94 1,4-Dichlorobenze	224811	112406	449622	209391	-6.86

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.53	0.14
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30298231
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30298231008
Client Smp ID: AOC34-2
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	38.3	127.73	0-130
$ 45 1,2-Dichloroethane	30.0	36.9	123.10	0-138
$ 58 Toluene-d8 (S)	30.0	29.1	96.95	0-124
$ 79 4-Bromofluorobenze	30.0	28.6	95.52	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Report Date: 14-Jun-2019 09:35

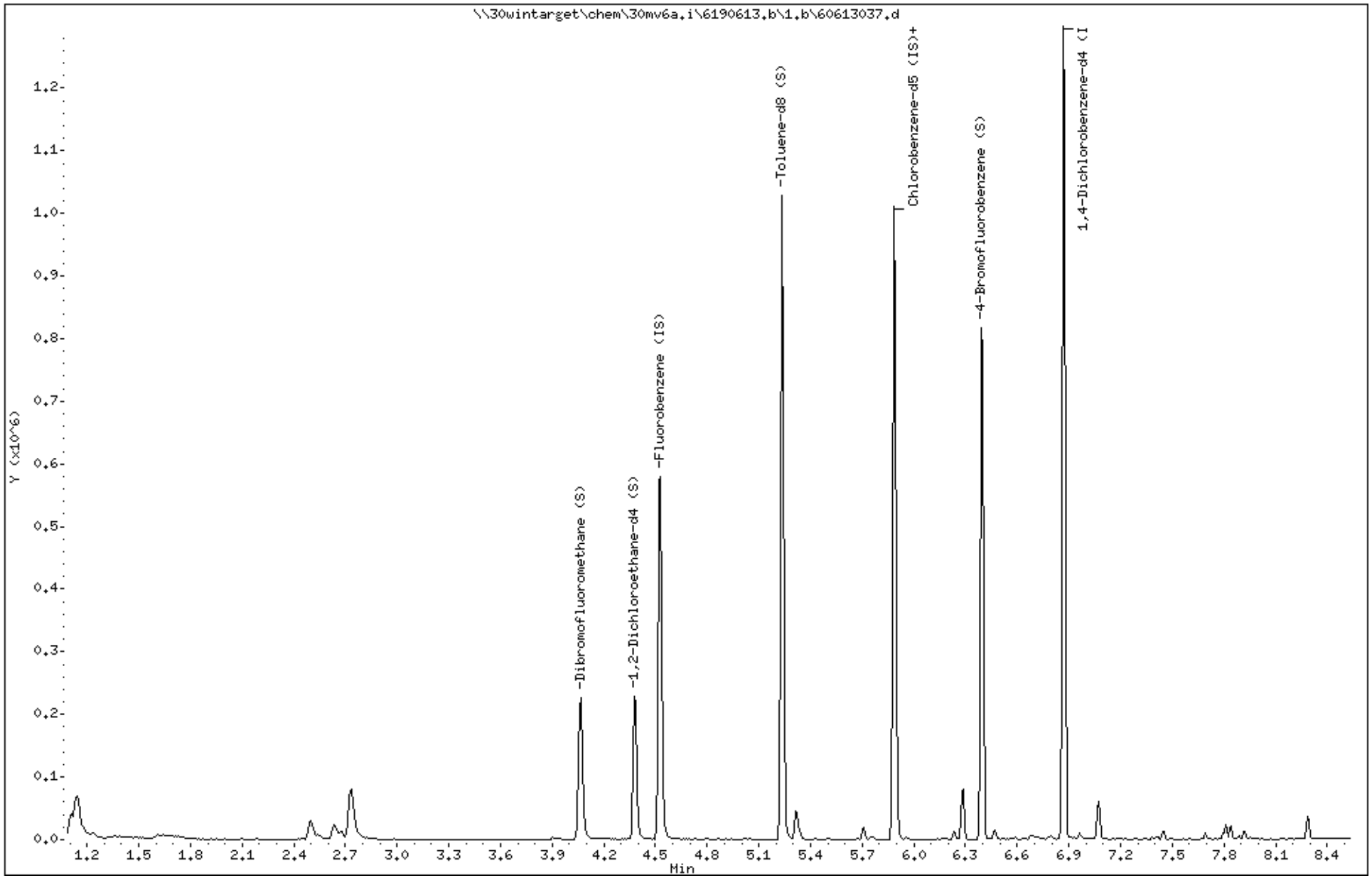
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231008
Client Smp ID: AOC34-2
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 44883

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	8.82	J
1868-53-7	Dibromofluoromethane (S)	38.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	36.9	
2037-26-5	Toluene-d8 (S)	29.1	
460-00-4	4-Bromofluorobenzene (S)	28.6	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d
Date : 13-JUN-2019 16:31
Client ID: A0C34-2
Instrument: 30mv6a.i
Sample Info: 30298231008x10
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613037.d

Date : 13-JUN-2019 16:31

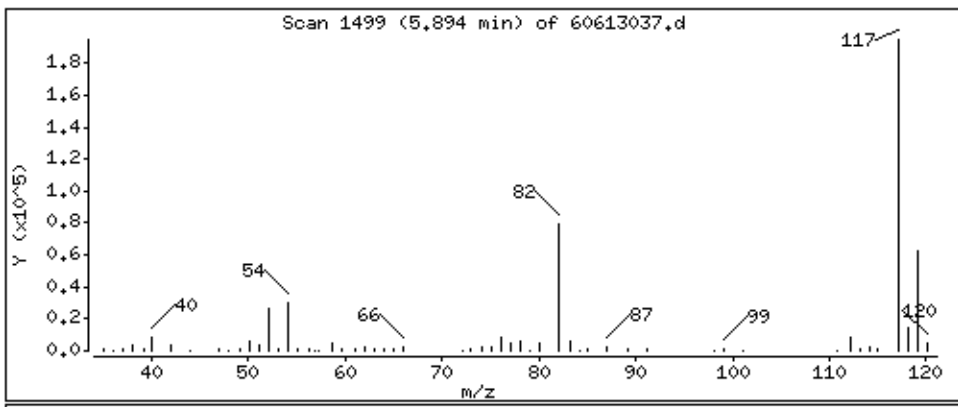
Client ID: AOC34-2 Instrument: 30mv6a.i

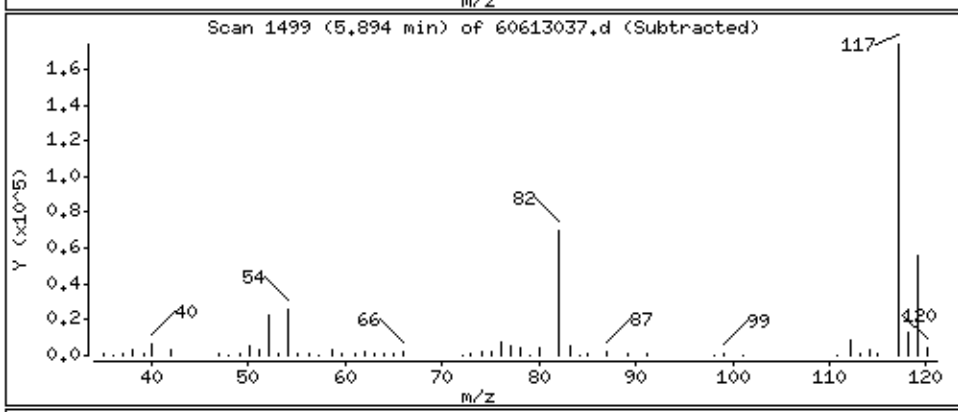
Sample Info: 30298231008x10

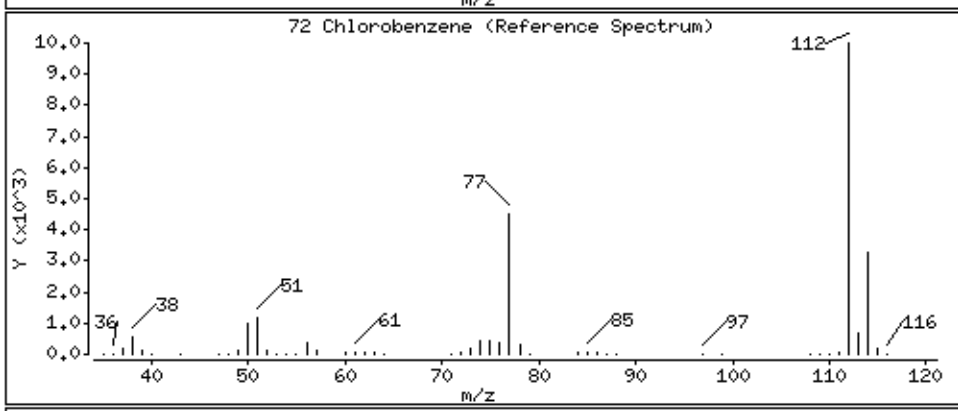
Operator: JEW

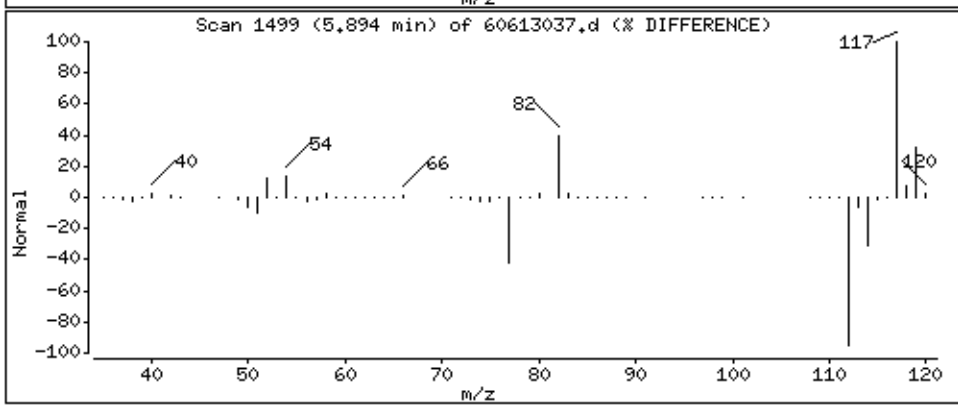
Column phase: RTX-VMS Column diameter: 0.18

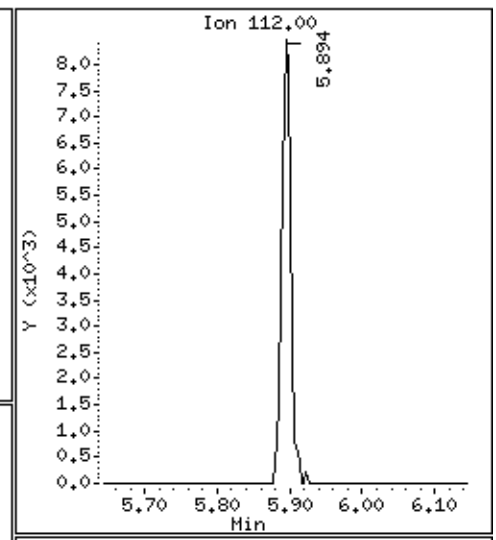
72 Chlorobenzene Concentration: 8.82 ug/kg

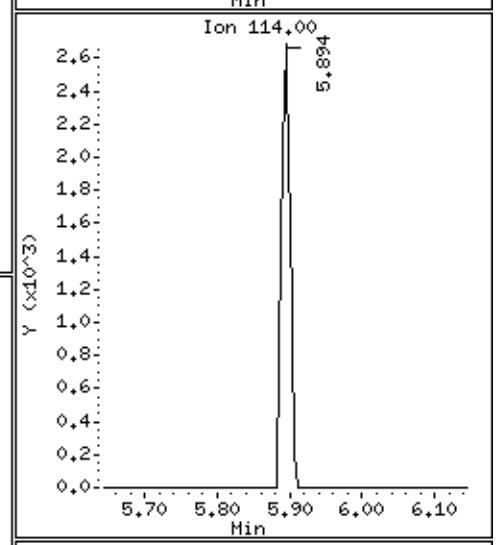


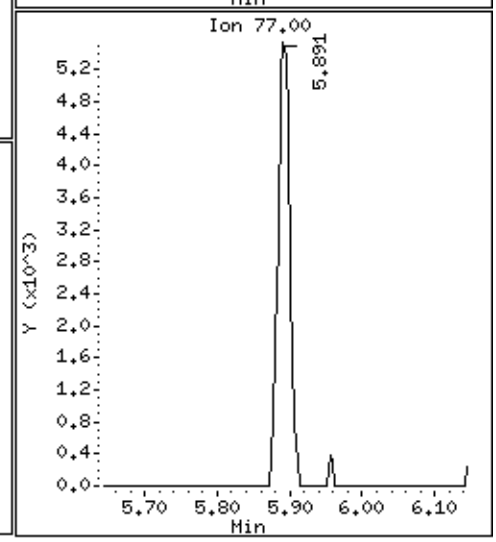












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613037.d
Injection Date: 13-JUN-2019 16:31
Instrument: 30mv6a.i
Lab Sample ID: 30298231008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:09 18:10

LAB FILE ID

CAL1 = 6190514.B\1.B\60514009.D CAL2 = 6190514.B\1.B\60514011.D CAL3 = 6190514.B\1.B\60514013.D

CAL4 = 6190514.B\1.B\60514015.D CAL5 = 6190514.B\1.B\60514017.D CAL6 = 6190514.B\1.B\60514019.D

CAL7 = 6190514.B\1.B\60514021.D CAL8 = 6190514.B\1.B\60514023.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Benzene	Averaged	0.48674	0.78403	0.77690	0.76329	0.75153	0.72875
2-Butanone (MEK)	Averaged		0.11837	0.12925	0.11641	0.11507	0.11842
Carbon tetrachloride	Averaged		0.32512	0.30648	0.31079	0.29520	0.28173
Chlorobenzene	Averaged		0.73593	0.73531	0.75784	0.74527	0.73847
Chloroform	Averaged		0.42221	0.39425	0.35872	0.34062	0.32426
1,2-Dichloroethane	Averaged		0.33142	0.31150	0.29402	0.27712	0.26806
1,1-Dichloroethene	Averaged		0.35288	0.30911	0.32346	0.29836	0.28122
Tetrachloroethene	Averaged		0.26846	0.27322	0.29338	0.30466	0.30439
Trichloroethene	Averaged		0.23181	0.23507	0.25487	0.25800	0.25727
Vinyl chloride	Quadratic		0.29347	0.28165	0.26096	0.23479	0.22231
4-Bromofluorobenzene (S)	Averaged		0.73059	0.72875	0.75099	0.72838	0.72283
Dibromofluoromethane (S)	Averaged		0.29432	0.29379	0.27626	0.25859	0.25346
1,2-Dichloroethane-d4 (S)	Averaged		0.28677	0.28663	0.26738	0.25835	0.25249
Toluene-d8 (S)	Averaged		1.08773	1.09056	1.09893	1.13500	1.14010

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:09 18:10

LAB FILE ID

CAL1 = 6190514.B\1.B\60514009.D CAL2 = 6190514.B\1.B\60514011.D CAL3 = 6190514.B\1.B\60514013.D

CAL4 = 6190514.B\1.B\60514015.D CAL5 = 6190514.B\1.B\60514017.D CAL6 = 6190514.B\1.B\60514019.D

CAL7 = 6190514.B\1.B\60514021.D CAL8 = 6190514.B\1.B\60514023.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Benzene	Averaged	0.66246	0.68335
2-Butanone (MEK)	Averaged	0.12105	0.12001
Carbon tetrachloride	Averaged	0.25299	0.26519
Chlorobenzene	Averaged	0.67905	0.70074
Chloroform	Averaged	0.29541	0.30097
1,2-Dichloroethane	Averaged	0.25777	0.25885
1,1-Dichloroethene	Averaged	0.24632	0.25972
Tetrachloroethene	Averaged	0.27119	0.29696
Trichloroethene	Averaged	0.22676	0.24742
Vinyl chloride	Quadratic	0.19358	0.20247
4-Bromofluorobenzene (S)	Averaged	0.72725	0.73790
Dibromofluoromethane (S)	Averaged	0.25038	0.24735
1,2-Dichloroethane-d4 (S)	Averaged	0.25454	0.25393
Toluene-d8 (S)	Averaged	1.10961	1.13976

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:09 18:10

LAB FILE ID

CAL1 = 6190514.B\1.B\60514009.D CAL2 = 6190514.B\1.B\60514011.D CAL3 = 6190514.B\1.B\60514013.D

CAL4 = 6190514.B\1.B\60514015.D CAL5 = 6190514.B\1.B\60514017.D CAL6 = 6190514.B\1.B\60514019.D

CAL7 = 6190514.B\1.B\60514021.D CAL8 = 6190514.B\1.B\60514023.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Benzene	Averaged	13.93143			0.70463	
2-Butanone (MEK)	Averaged	3.86623			0.11980	
Carbon tetrachloride	Averaged	8.88247			0.29107	
Chlorobenzene	Averaged	3.78639			0.72751	
Chloroform	Averaged	13.55534			0.34806	
1,2-Dichloroethane	Averaged	9.81348			0.28553	
1,1-Dichloroethene	Averaged	12.47099			0.29587	
Tetrachloroethene	Averaged	5.56691			0.28747	
Trichloroethene	Averaged	5.34891			0.24446	
Vinyl chloride	Quadratic		0.99865	0.04485680	0.19044	0.00060
4-Bromofluorobenzene (S)	Averaged	1.27947			0.73238	
Dibromofluoromethane (S)	Averaged	7.56672			0.26774	
1,2-Dichloroethane-d4 (S)	Averaged	5.69989			0.26573	
Toluene-d8 (S)	Averaged	2.09461			1.11453	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 14-MAY-2019 15:09
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal1, 87714:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.229	(0.271)	4821	2.50000	1.75(aQ)	
2	Chloromethane	50	1.344	1.344	(0.297)	3721	2.50000	1.16(aQ)	
3	Vinyl chloride	62	1.395	1.395	(0.308)	5441	2.50000	1.63(aQ)	
4	Bromomethane	94	1.587	1.588	(0.351)	2527	2.50000	2.30(a)	
5	Chloroethane	64	1.648	1.649	(0.364)	5181	2.50000	2.59(Q)	
6	Trichlorofluoromethane	101	1.735	1.736	(0.383)	7167	2.50000	1.78(a)	
7	Diethyl ether (Ethyl ether)	59	1.934	1.934	(0.427)	4870	2.50000	1.97(aQ)	
8	Ethanol	45	2.053	2.053	(0.299)	1152	25.0000	19.1(aQ)	
9	1,1-Dichloroethene	61	2.075	2.076	(0.458)	7180	2.50000	1.75(aQ)	
10	1,1,2-Trichlorotrifluoroethane	151	2.101	2.101	(0.464)	1690	2.50000	0.867(aQ)	
11	Carbon disulfide	76	2.104	2.105	(0.465)	14822	2.50000	2.06(a)	
12	Iodomethane	142	2.187	2.188	(0.483)	2278	2.50000	1.32(aQ)	
13	Acrolein	56	2.316	2.316	(0.512)	792	2.50000	3.46(Q)	
14	Allyl chloride	41	2.415	2.416	(0.534)	33196	12.5000	10.3	
15	Methylene Chloride	49	2.502	2.502	(0.553)	34538	2.50000	6.75	
16	Acetone	43	2.547	2.547	(0.563)	16057	2.50000	10.9(Q)	
17	trans-1,2-Dichloroethene	61	2.627	2.628	(0.580)	7100	2.50000	1.82(a)	
18	Methyl acetate	74	2.646	2.647	(0.585)	2643	2.50000	2.88	
19	n-Hexane	86	2.682	2.682	(0.592)	20424	2.50000	12.9(Q)	
20	Methyl-tert-butyl ether	73	2.717	2.717	(0.600)	15811	2.50000	2.04(aQ)	

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Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.797	2.798	(0.618)	8597	12.5000	13.9(Q)	
	22 Acetonitrile	41	2.938	2.939	(0.649)	3397	12.5000	9.77(Q)	
	23 Diisopropyl ether	45	3.051	3.051	(0.674)	14632	2.50000	1.81(a)	
	24 Chloroprene	53	3.141	3.141	(0.694)	3857	2.50000	1.68(a)	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	9857	2.50000	1.93(a)	
	26 Acrylonitrile	53	3.237	3.237	(0.715)	1815	2.50000	1.54(aQ)	
	27 Ethyl-tert-butyl ether	59	3.420	3.420	(0.755)	16989	2.50000	1.94(aQ)	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	13004	2.50000	2.10(a)	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	8187	2.50000	2.04(a)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	8006	2.50000	1.85(aQ)	
	31 Cyclohexane	56	3.872	3.873	(0.855)	7689	2.50000	1.70(aQ)	
	32 Bromochloromethane	130	3.885	3.885	(0.858)	4570	2.50000	2.19(aQ)	
	33 Chloroform	83	3.943	3.943	(0.871)	10831	2.50000	2.25(aQ)	
	34 Carbon tetrachloride	117	4.020	4.019	(0.888)	5758	2.50000	1.43(aQ)	
	35 Ethyl acetate	43	4.081	4.081	(0.901)	1019	2.50000	4.03(Q)	
	36 Tetrahydrofuran	42	4.055	4.056	(0.896)	4542	2.50000	3.90(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	125268	30.0000	33.8	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	8976	2.50000	2.04(aQ)	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	3415	2.50000	2.06(aQ)	
	40 1,1-Dichloropropene	75	4.148	4.149	(0.916)	4789	2.50000	1.37(aQ)	
	41 Benzene	78	4.302	4.303	(0.950)	16851	2.50000	1.65(a)	
	42 Propionitrile	54	4.328	4.328	(0.956)	2146	2.50000	3.87(Q)	
	43 Methacrylonitrile	41	4.337	4.338	(0.958)	3960	2.50000	2.41(aQ)	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	13068	2.50000	1.89(a)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	119089	30.0000	32.4	
	46 Isobutanol	43	4.443	4.444	(0.982)	3433	12.5000	16.8(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	9528	2.50000	2.41(a)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	415438	30.0000		
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	7911	2.50000	1.85(a)	
	50 Trichloroethene	95	4.613	4.614	(0.784)	4872	2.50000	1.53(a)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	4964	2.50000	2.23(a)	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	4865	2.50000	1.75(a)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	7810	2.50000	2.20(a)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	5409	2.50000	2.92(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	1108	25.0000	24.2(Q)	
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	3137	2.50000	1.92(a)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	8309	2.50000	1.92(a)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	418373	30.0000	28.8	
	59 Toluene	91	5.258	5.259	(0.893)	23351	2.50000	1.81(a)	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	14097	12.5000	12.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	8286	2.50000	2.72(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	5893	2.50000	1.58(a)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	8152	2.50000	1.73(a)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	5975	2.50000	2.21(aQ)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	6344	2.50000	2.24(a)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	6671	2.50000	1.80(a)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	9120	2.50000	1.95(a)	
	68 1,2-Dibromoethane (EDB)	107	5.685	5.686	(0.966)	6296	2.50000	2.04(a)	
	69 2-Hexanone	43	5.759	5.759	(0.978)	8004	2.50000	2.89(Q)	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	8735	2.50000	1.72(a)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	390299	30.0000		
	72 Chlorobenzene	112	5.897	5.897	(1.002)	17352	2.50000	1.83(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	5864	2.50000	1.62(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	22762	5.00000	3.62	

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Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.141	6.141	(1.043)	11604	2.50000	1.87(a)	
76	Styrene	104	6.160	6.161	(1.046)	21458	2.50000	1.96(a)	
77	Bromoform	173	6.186	6.186	(0.900)	5428	2.50000	1.89(a)	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	27118	2.50000	1.70(a)	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	166739	30.0000	29.1	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	31390	2.50000	1.73(a)	
81	Bromobenzene	77	6.446	6.446	(0.938)	13491	2.50000	2.02(a)	
82	1,1,2,2-Tetrachloroethane	83	6.475	6.475	(0.942)	8924	2.50000	2.28(a)	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	24835	2.50000	1.81(a)	
84	2-Chlorotoluene	126	6.516	6.517	(0.948)	7338	2.50000	1.74(aQ)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	3240	2.50000	2.28(a)	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	2637	2.50000	2.14(a)	
87	Cyclohexanone	55	6.571	6.571	(0.956)	4730	12.5000	14.2(Q)	
88	4-Chlorotoluene	126	6.587	6.587	(0.958)	8727	2.50000	1.93(a)	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	21917	2.50000	1.74(a)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	27982	2.50000	1.95(a)	
91	sec-Butylbenzene	105	6.731	6.732	(0.979)	30569	2.50000	1.71(a)	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	29608	2.50000	1.78(a)	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	18184	2.50000	1.94(a)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	234391	30.0000		
95	1,4-Dichlorobenzene	146	6.876	6.876	(1.000)	19395	2.50000	2.03(aQ)	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	25883	2.50000	1.84(a)	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	17593	2.50000	1.96(a)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	234579	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	3227	2.50000	2.27(a)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	13296	2.50000	1.95(a)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	5972	2.50000	1.73(a)	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	13634	2.50000	2.16(a)	
102	Naphthalene	128	7.838	7.839	(1.141)	40158	2.50000	2.51	
103	1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	12449	2.50000	2.26(a)	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	19353	2.50000	2.60	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514009.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	415438	-6.45
71 Chlorobenzene-d5	375201	187601	750402	390299	4.02
94 1,4-Dichlorobenze	228764	114382	457528	234391	2.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	1.75	J
74-87-3	Chloromethane	1.16	J
75-01-4	Vinyl chloride	1.63	J
74-83-9	Bromomethane	2.30	J
75-00-3	Chloroethane	2.59	
75-69-4	Trichlorofluoromethane	1.78	J
60-29-7	Diethyl ether (Ethyl ether)	1.97	J
64-17-5	Ethanol	19.1	J
75-35-4	1,1-Dichloroethene	1.75	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.867	J
75-15-0	Carbon disulfide	2.06	J
74-88-4	Iodomethane	1.32	J
107-02-8	Acrolein	3.46	
107-05-1	Allyl chloride	10.3	
75-09-2	Methylene Chloride	6.75	
67-64-1	Acetone	10.9	
156-60-5	trans-1,2-Dichloroethene	1.82	J
79-20-9	Methyl acetate	2.88	
110-54-3	n-Hexane	12.9	
1634-04-4	Methyl-tert-butyl ether	2.04	J
75-65-0	tert-Butyl Alcohol	13.9	
75-05-8	Acetonitrile	9.77	
108-20-3	Diisopropyl ether	1.81	J
126-99-8	Chloroprene	1.68	J
75-34-3	1,1-Dichloroethane	1.93	J
107-13-1	Acrylonitrile	1.54	J
637-92-3	Ethyl-tert-butyl ether	1.94	J
108-05-4	Vinyl acetate	2.10	J
156-59-2	cis-1,2-Dichloroethene	2.04	J
594-20-7	2,2-Dichloropropane	1.85	J
110-82-7	Cyclohexane	1.70	J
74-97-5	Bromochloromethane	2.19	J
67-66-3	Chloroform	2.25	J
56-23-5	Carbon tetrachloride	1.43	J
141-78-6	Ethyl acetate	4.03	
109-99-9	Tetrahydrofuran	3.90	
71-55-6	1,1,1-Trichloroethane	2.04	J
78-93-3	2-Butanone (MEK)	2.06	J
563-58-6	1,1-Dichloropropene	1.37	J
71-43-2	Benzene	1.65	J
107-12-0	Propionitrile	3.87	
126-98-7	Methacrylonitrile	2.41	J

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	1.89	J
78-83-1	Isobutanol	16.8	
107-06-2	1,2-Dichloroethane	2.41	J
108-87-2	Methylcyclohexane	1.85	J
79-01-6	Trichloroethene	1.53	J
74-95-3	Dibromomethane	2.23	J
78-87-5	1,2-Dichloropropane	1.75	J
75-27-4	Bromodichloromethane	2.20	J
80-62-6	Methyl methacrylate	2.92	
123-91-1	1,4-Dioxane (p-Dioxane)	24.2	
110-75-8	2-Chloroethylvinyl ether	1.92	J
10061-01-5	cis-1,3-Dichloropropene	1.92	J
108-88-3	Toluene	1.81	J
79-46-9	2-Nitropropane	12.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.72	
127-18-4	Tetrachloroethene	1.58	J
10061-02-6	trans-1,3-Dichloropropene	1.73	J
97-63-2	Ethyl methacrylate	2.21	J
79-00-5	1,1,2-Trichloroethane	2.24	J
124-48-1	Dibromochloromethane	1.80	J
142-28-9	1,3-Dichloropropane	1.95	J
106-93-4	1,2-Dibromoethane (EDB)	2.04	J
591-78-6	2-Hexanone	2.89	
100-41-4	Ethylbenzene	1.72	J
108-90-7	Chlorobenzene	1.83	J
630-20-6	1,1,1,2-Tetrachloroethane	1.62	J
7816-60-0	m&p-Xylene	3.62	
95-47-6	o-Xylene	1.87	J
100-42-5	Styrene	1.96	J
75-25-2	Bromoform	1.89	J
98-82-8	Isopropylbenzene (Cumene)	1.70	J
103-65-1	n-Propylbenzene	1.73	J
108-86-1	Bromobenzene	2.02	J
79-34-5	1,1,2,2-Tetrachloroethane	2.28	J
108-67-8	1,3,5-Trimethylbenzene	1.81	J
95-49-8	2-Chlorotoluene	1.74	J
96-18-4	1,2,3-Trichloropropane	2.28	J
110-57-6	trans-1,4-Dichloro-2-butene	2.14	J
108-94-1	Cyclohexanone	14.2	
106-43-4	4-Chlorotoluene	1.93	J
98-06-6	tert-Butylbenzene	1.74	J
95-63-6	1,2,4-Trimethylbenzene	1.95	J

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

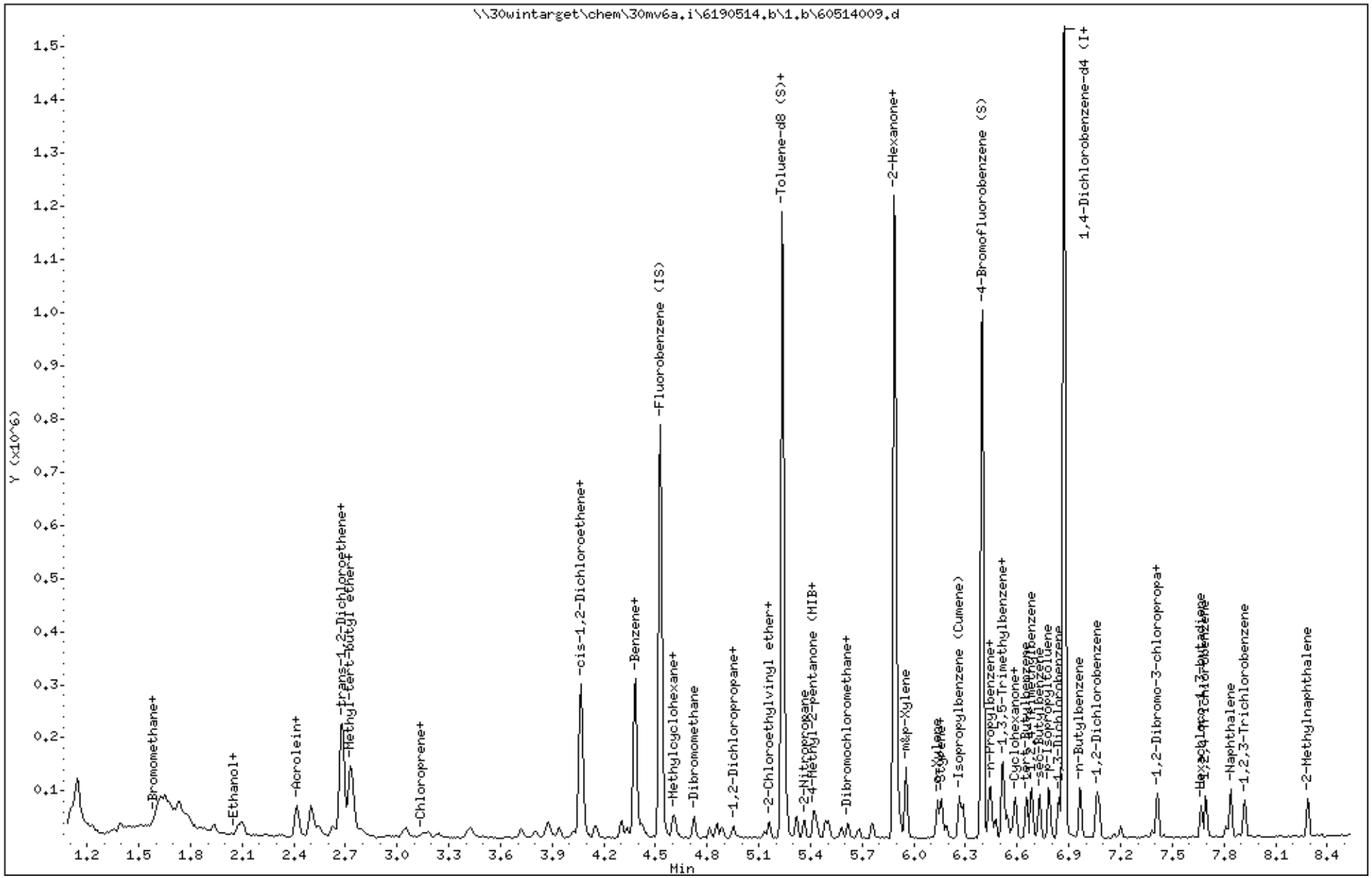
Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	1.71	J
99-87-6	p-Isopropyltoluene	1.78	J
541-73-1	1,3-Dichlorobenzene	1.94	J
106-46-7	1,4-Dichlorobenzene	2.03	J
104-51-8	n-Butylbenzene	1.84	J
95-50-1	1,2-Dichlorobenzene	1.96	J
96-12-8	1,2-Dibromo-3-chloropropane	2.27	J
108-70-3	1,3,5-Trichlorobenzene	1.95	J
87-68-3	Hexachloro-1,3-butadiene	1.73	J
120-82-1	1,2,4-Trichlorobenzene	2.16	J
91-20-3	Naphthalene	2.51	
87-61-6	1,2,3-Trichlorobenzene	2.26	J
91-57-6	2-Methylnaphthalene	2.60	
1868-53-7	Dibromofluoromethane (S)	33.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.4	
2037-26-5	Toluene-d8 (S)	28.8	
460-00-4	4-Bromofluorobenzene (S)	29.1	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514009.d
Date : 14-MAY-2019 15:09
Client ID: CAL1
Sample Info: CAL1, 87714:1

Instrument: 30mv6a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514009.d
Injection Date: 14-MAY-2019 15:09
Instrument: 30mv6a.i
Lab Sample ID: CAL1
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 14-MAY-2019 15:35
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal2, 87715:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:35 Cal File: 60514011.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.231	1.229	(0.272)	16161	5.00000	6.06(Q)	
2	Chloromethane	50	1.353	1.344	(0.299)	18350	5.00000	5.93	
3	Vinyl chloride	62	1.395	1.395	(0.308)	19615	5.00000	6.08	
4	Bromomethane	94	1.587	1.588	(0.351)	6611	5.00000	6.22	
5	Chloroethane	64	1.664	1.649	(0.368)	12442	5.00000	6.44	
6	Trichlorofluoromethane	101	1.745	1.736	(0.385)	24281	5.00000	6.25	
7	Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	13504	5.00000	5.65	
8	Ethanol	45	2.046	2.053	(0.298)	5396	50.0000	93.9(aQ)	
9	1,1-Dichloroethene	61	2.078	2.076	(0.459)	23586	5.00000	5.96	
10	1,1,2-Trichlorotrifluoroethane	151	2.104	2.101	(0.465)	10694	5.00000	5.68(M)	LT
11	Carbon disulfide	76	2.107	2.105	(0.466)	42896	5.00000	6.16	
12	Iodomethane	142	2.184	2.188	(0.483)	7246	5.00000	4.35(M)	LT
13	Acrolein	56	2.329	2.316	(0.514)	1959	5.00000	8.86(QM)	NI
14	Allyl chloride	41	2.422	2.416	(0.535)	94276	25.0000	30.4	
15	Methylene Chloride	49	2.502	2.502	(0.553)	47151	5.00000	9.54	
16	Acetone	43	2.547	2.547	(0.563)	13630	5.00000	9.55(Q)	
17	trans-1,2-Dichloroethene	61	2.630	2.628	(0.581)	22485	5.00000	5.96(M)	LT
18	Methyl acetate	74	2.637	2.647	(0.583)	5161	5.00000	5.82	
19	n-Hexane	86	2.685	2.682	(0.593)	18713	5.00000	12.2	
20	Methyl-tert-butyl ether	73	2.717	2.717	(0.600)	35872	5.00000	4.80(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.794	2.798	(0.617)	15165	25.0000	25.4	
	22 Acetonitrile	41	2.951	2.939	(0.652)	11419	25.0000	34.0(Q)	
	23 Diisopropyl ether	45	3.047	3.051	(0.673)	37470	5.00000	4.80	
	24 Chloroprene	53	3.144	3.141	(0.695)	11867	5.00000	5.36	
	25 1,1-Dichloroethane	63	3.179	3.176	(0.702)	29346	5.00000	5.95	
	26 Acrylonitrile	53	3.243	3.237	(0.716)	7762	5.00000	6.82(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	39565	5.00000	4.69	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	28081	5.00000	4.71	
	29 cis-1,2-Dichloroethene	61	3.724	3.722	(0.823)	22595	5.00000	5.82	
	30 2,2-Dichloropropane	77	3.808	3.805	(0.841)	24430	5.00000	5.85	
	31 Cyclohexane	56	3.875	3.873	(0.856)	24937	5.00000	5.73	
	32 Bromochloromethane	130	3.885	3.885	(0.858)	11674	5.00000	5.79	
	33 Chloroform	83	3.943	3.943	(0.871)	28220	5.00000	6.06	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	21731	5.00000	5.58	
	35 Ethyl acetate	43	4.058	4.081	(0.896)	1081	5.00000	4.43(Q)	
	36 Tetrahydrofuran	42	4.055	4.056	(0.896)	6572	5.00000	5.84	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	118034	30.0000	33.0	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	23554	5.00000	5.54	
	39 2-Butanone (MEK)	43	4.158	4.149	(0.918)	7912	5.00000	4.94(QM)	LT
	40 1,1-Dichloropropene	75	4.154	4.149	(0.918)	17163	5.00000	5.08(Q)	
	41 Benzene	78	4.302	4.303	(0.950)	52404	5.00000	5.33	
	42 Propionitrile	54	4.331	4.328	(0.957)	3067	5.00000	5.73(QM)	GT
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	8460	5.00000	5.34	
	44 tert-Amylmethyl ether	73	4.369	4.370	(0.965)	32026	5.00000	4.79	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	115005	30.0000	32.4	
	46 Isobutanol	43	4.440	4.444	(0.981)	5113	25.0000	25.9	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	22152	5.00000	5.80	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	401034	30.0000		
	49 Methylcyclohexane	83	4.604	4.601	(1.017)	20722	5.00000	5.02	
	50 Trichloroethene	95	4.613	4.614	(0.784)	14430	5.00000	4.74	
	51 Dibromomethane	174	4.816	4.813	(1.064)	11470	5.00000	5.33	
	52 1,2-Dichloropropane	63	4.857	4.855	(1.073)	13754	5.00000	5.13	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	18886	5.00000	5.52	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	9733	5.00000	5.44	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	2106	50.0000	47.8(Q)	
	56 2-Chloroethylvinyl ether	63	5.133	5.131	(1.134)	7158	5.00000	4.53	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	20996	5.00000	5.04	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	406254	30.0000	29.3	
	59 Toluene	91	5.258	5.259	(0.893)	61972	5.00000	5.01	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	28776	25.0000	26.2	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	15853	5.00000	5.39	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	16711	5.00000	4.67	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	19710	5.00000	4.38	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	13228	5.00000	5.10	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	12541	5.00000	4.63	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	16211	5.00000	4.58	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	19883	5.00000	4.45	
	68 1,2-Dibromoethane (EDB)	107	5.685	5.686	(0.966)	12865	5.00000	4.36	
	69 2-Hexanone	43	5.756	5.759	(0.978)	14545	5.00000	5.49	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	24725	5.00000	5.07	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	373489	30.0000		
	72 Chlorobenzene	112	5.897	5.897	(1.002)	45810	5.00000	5.06	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	15395	5.00000	4.45	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	58537	10.0000	9.73	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.141	(1.043)	29280	5.00000	4.92	
76	Styrene	104	6.160	6.161	(1.046)	51306	5.00000	4.89	
77	Bromoform	173	6.186	6.186	(0.900)	11998	5.00000	4.40	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	75387	5.00000	4.96	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	163064	30.0000	29.9	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	86339	5.00000	5.00	
81	Bromobenzene	77	6.446	6.446	(0.938)	31973	5.00000	5.04	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	18406	5.00000	4.95	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	65791	5.00000	5.03	
84	2-Chlorotoluene	126	6.516	6.517	(0.948)	19619	5.00000	4.89	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	6635	5.00000	4.89	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	5784	5.00000	4.92(Q)	
87	Cyclohexanone	55	6.568	6.571	(0.956)	8422	25.0000	26.5(Q)	
88	4-Chlorotoluene	126	6.587	6.587	(0.958)	21304	5.00000	4.95	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	57901	5.00000	4.82	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	68945	5.00000	5.04	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	83400	5.00000	4.89	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	79437	5.00000	5.02	
93	1,3-Dichlorobenzene	146	6.844	6.841	(0.996)	43194	5.00000	4.85	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	223196	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	44986	5.00000	4.94	
96	n-Butylbenzene	91	6.965	6.966	(1.014)	66693	5.00000	4.99	
97	1,2-Dichlorobenzene	146	7.065	7.062	(1.028)	41504	5.00000	4.87	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	223192	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	6511	5.00000	4.82	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	31135	5.00000	4.81	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	15911	5.00000	4.84	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	29111	5.00000	4.84	
102	Naphthalene	128	7.838	7.839	(1.141)	78212	5.00000	5.13	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	25578	5.00000	4.87	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	36828	5.00000	5.20	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514011.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	401034	-9.69
71 Chlorobenzene-d5	375201	187601	750402	373489	-0.46
94 1,4-Dichlorobenze	228764	114382	457528	223196	-2.43

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	6.06	
74-87-3	Chloromethane	5.93	
75-01-4	Vinyl chloride	6.08	
74-83-9	Bromomethane	6.22	
75-00-3	Chloroethane	6.44	
75-69-4	Trichlorofluoromethane	6.25	
60-29-7	Diethyl ether (Ethyl ether)	5.65	
64-17-5	Ethanol	93.9	J
75-35-4	1,1-Dichloroethene	5.96	
76-13-1	1,1,2-Trichlorotrifluoroetha	5.68	
75-15-0	Carbon disulfide	6.16	
74-88-4	Iodomethane	4.35	
107-02-8	Acrolein	8.86	
107-05-1	Allyl chloride	30.4	
75-09-2	Methylene Chloride	9.54	
67-64-1	Acetone	9.55	
156-60-5	trans-1,2-Dichloroethene	5.96	
79-20-9	Methyl acetate	5.82	
110-54-3	n-Hexane	12.2	
1634-04-4	Methyl-tert-butyl ether	4.80	
75-65-0	tert-Butyl Alcohol	25.4	
75-05-8	Acetonitrile	34.0	
108-20-3	Diisopropyl ether	4.80	
126-99-8	Chloroprene	5.36	
75-34-3	1,1-Dichloroethane	5.95	
107-13-1	Acrylonitrile	6.82	
637-92-3	Ethyl-tert-butyl ether	4.69	
108-05-4	Vinyl acetate	4.71	
156-59-2	cis-1,2-Dichloroethene	5.82	
594-20-7	2,2-Dichloropropane	5.85	
110-82-7	Cyclohexane	5.73	
74-97-5	Bromochloromethane	5.79	
67-66-3	Chloroform	6.06	
56-23-5	Carbon tetrachloride	5.58	
141-78-6	Ethyl acetate	4.43	
109-99-9	Tetrahydrofuran	5.84	
71-55-6	1,1,1-Trichloroethane	5.54	
78-93-3	2-Butanone (MEK)	4.94	
563-58-6	1,1-Dichloropropene	5.08	
71-43-2	Benzene	5.33	
107-12-0	Propionitrile	5.73	
126-98-7	Methacrylonitrile	5.34	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	4.79	
78-83-1	Isobutanol	25.9	
107-06-2	1,2-Dichloroethane	5.80	
108-87-2	Methylcyclohexane	5.02	
79-01-6	Trichloroethene	4.74	
74-95-3	Dibromomethane	5.33	
78-87-5	1,2-Dichloropropane	5.13	
75-27-4	Bromodichloromethane	5.52	
80-62-6	Methyl methacrylate	5.44	
123-91-1	1,4-Dioxane (p-Dioxane)	47.8	
110-75-8	2-Chloroethylvinyl ether	4.53	
10061-01-5	cis-1,3-Dichloropropene	5.04	
108-88-3	Toluene	5.01	
79-46-9	2-Nitropropane	26.2	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.39	
127-18-4	Tetrachloroethene	4.67	
10061-02-6	trans-1,3-Dichloropropene	4.38	
97-63-2	Ethyl methacrylate	5.10	
79-00-5	1,1,2-Trichloroethane	4.63	
124-48-1	Dibromochloromethane	4.58	
142-28-9	1,3-Dichloropropane	4.45	
106-93-4	1,2-Dibromoethane (EDB)	4.36	
591-78-6	2-Hexanone	5.49	
100-41-4	Ethylbenzene	5.07	
108-90-7	Chlorobenzene	5.06	
630-20-6	1,1,1,2-Tetrachloroethane	4.45	
7816-60-0	m&p-Xylene	9.73	
95-47-6	o-Xylene	4.92	
100-42-5	Styrene	4.89	
75-25-2	Bromoform	4.40	
98-82-8	Isopropylbenzene (Cumene)	4.96	
103-65-1	n-Propylbenzene	5.00	
108-86-1	Bromobenzene	5.04	
79-34-5	1,1,2,2-Tetrachloroethane	4.95	
108-67-8	1,3,5-Trimethylbenzene	5.03	
95-49-8	2-Chlorotoluene	4.89	
96-18-4	1,2,3-Trichloropropane	4.89	
110-57-6	trans-1,4-Dichloro-2-butene	4.92	
108-94-1	Cyclohexanone	26.5	
106-43-4	4-Chlorotoluene	4.95	
98-06-6	tert-Butylbenzene	4.82	
95-63-6	1,2,4-Trimethylbenzene	5.04	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Report Date: 17-Jun-2019 10:28

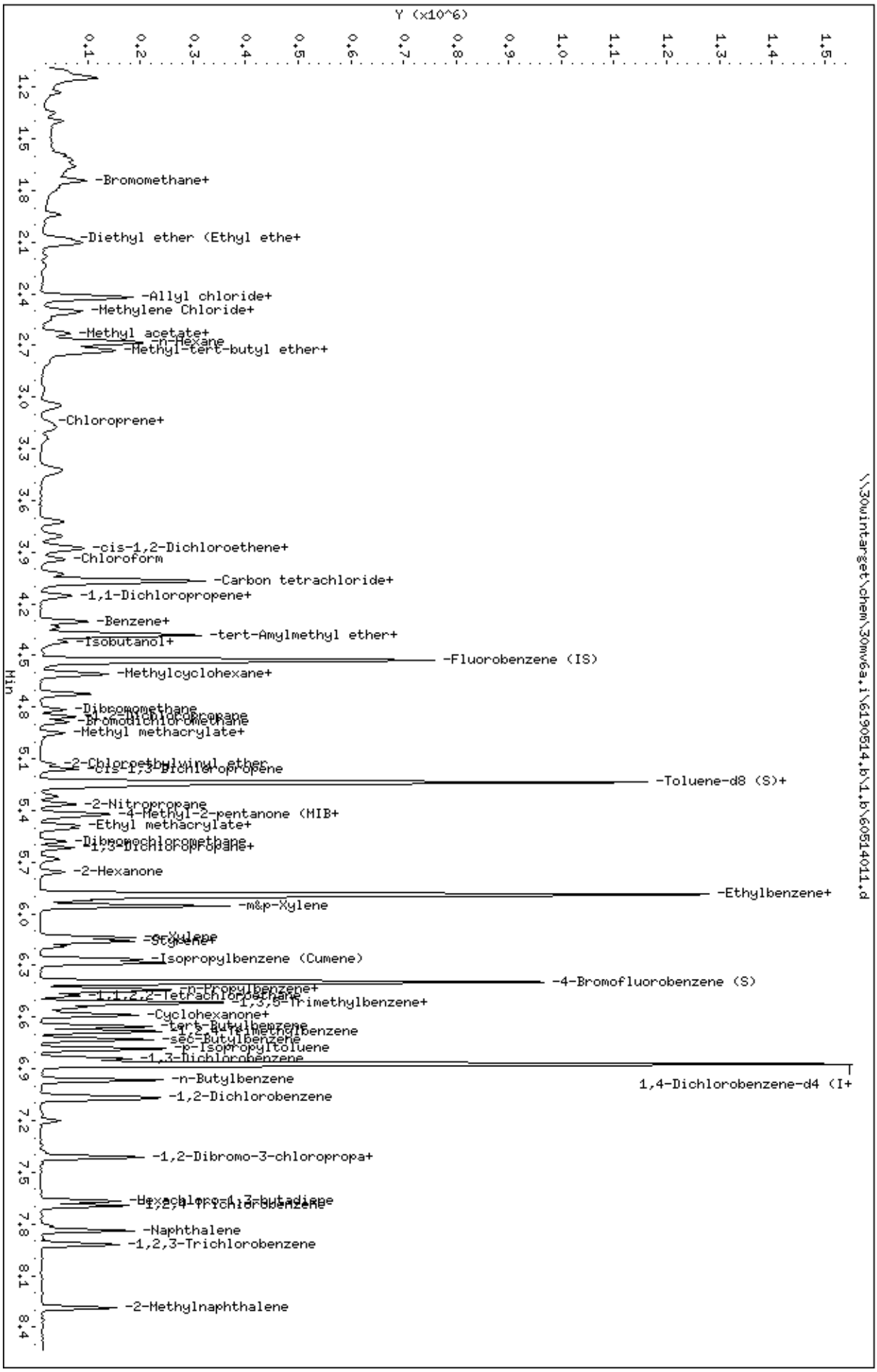
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	4.89	
99-87-6	p-Isopropyltoluene	5.02	
541-73-1	1,3-Dichlorobenzene	4.85	
106-46-7	1,4-Dichlorobenzene	4.94	
104-51-8	n-Butylbenzene	4.99	
95-50-1	1,2-Dichlorobenzene	4.87	
96-12-8	1,2-Dibromo-3-chloropropane	4.82	
108-70-3	1,3,5-Trichlorobenzene	4.81	
87-68-3	Hexachloro-1,3-butadiene	4.84	
120-82-1	1,2,4-Trichlorobenzene	4.84	
91-20-3	Naphthalene	5.13	
87-61-6	1,2,3-Trichlorobenzene	4.87	
91-57-6	2-Methylnaphthalene	5.20	
1868-53-7	Dibromofluoromethane (S)	33.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.4	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	29.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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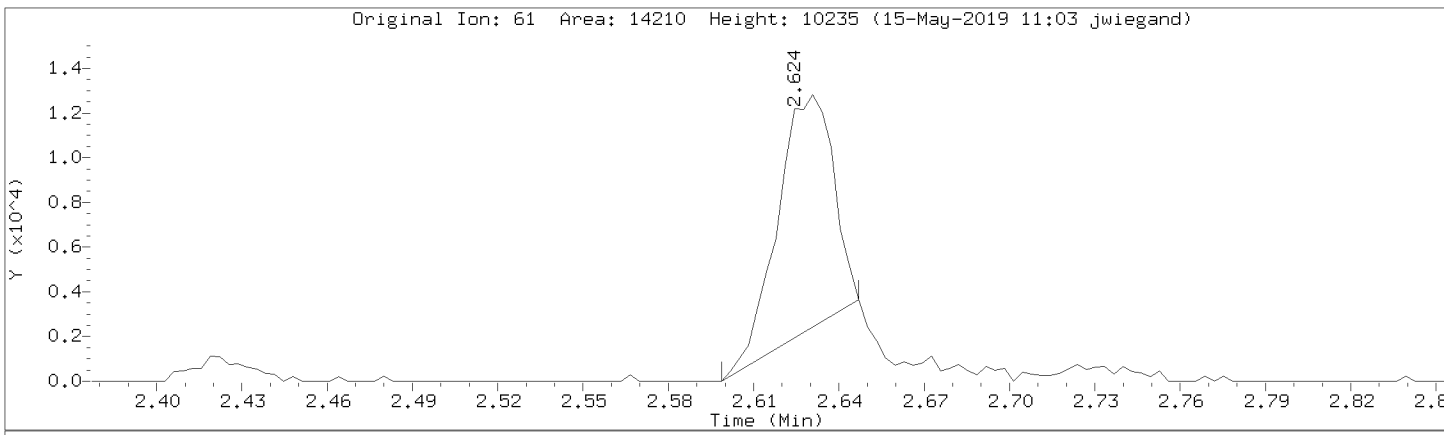
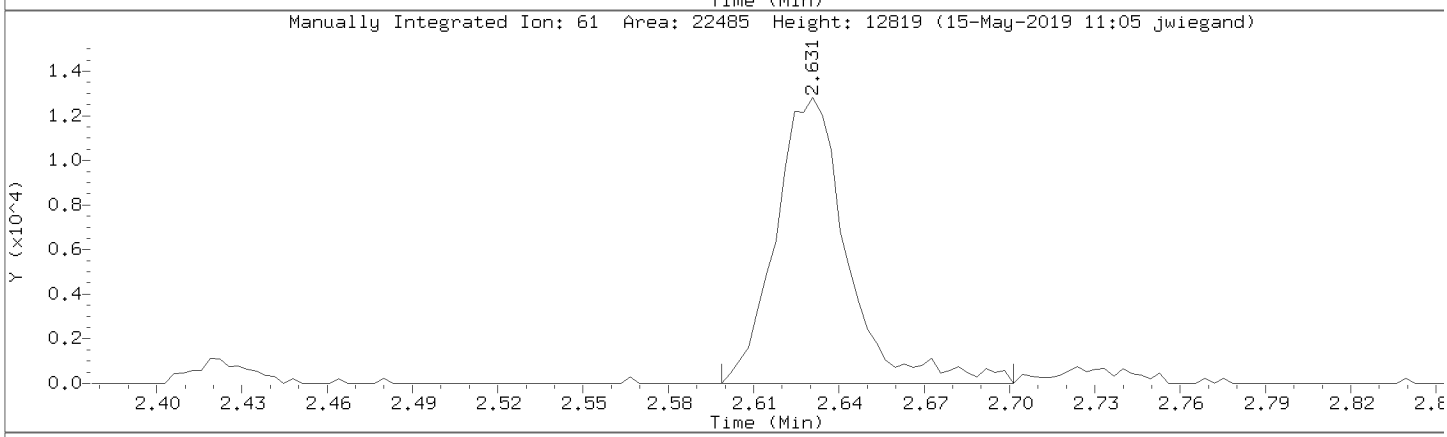
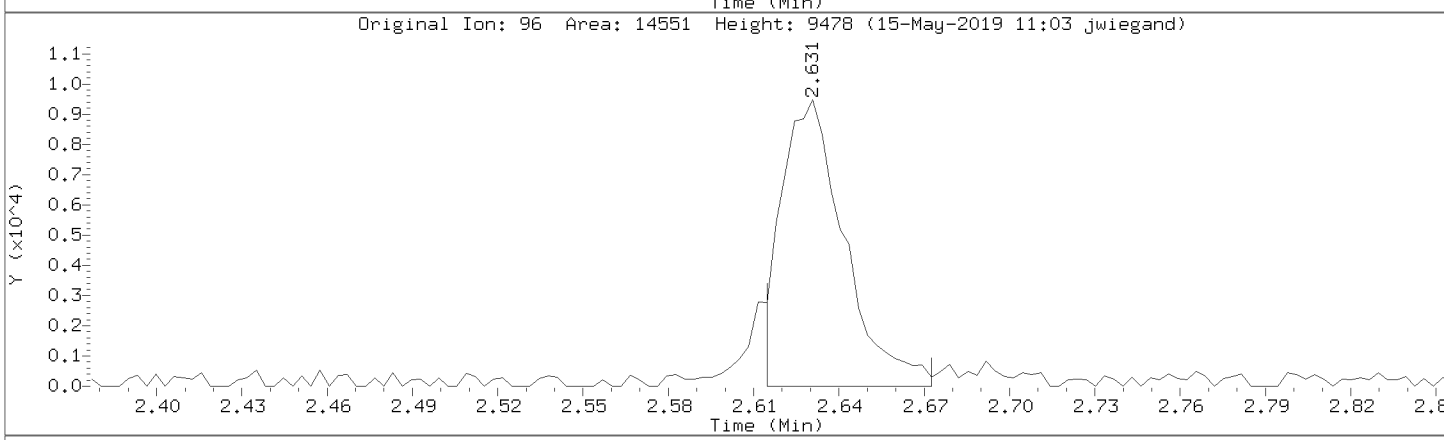
Date : 14-MAY-2019 15:35
Client ID: CAL2
Sample Info: CAL2, 87715:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514011.d
Y (x10^6)
Min
-Bromomethane+
-Diethyl ether (Ethyl ethe+
-Allyl chloride+
-Methylene Chloride+
-Methyl acetate+
-n-Hexane
-Methyl-tert-butyl ether+
-Chloroprene+
-cis-1,2-Dichloroethene+
-Chloroform
-Carbon tetrachloride+
-1,1-Dichloropropene+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
1,3-Dichloropropane+
-2-Hexanone
-Ethylbenzene+
-m&p-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

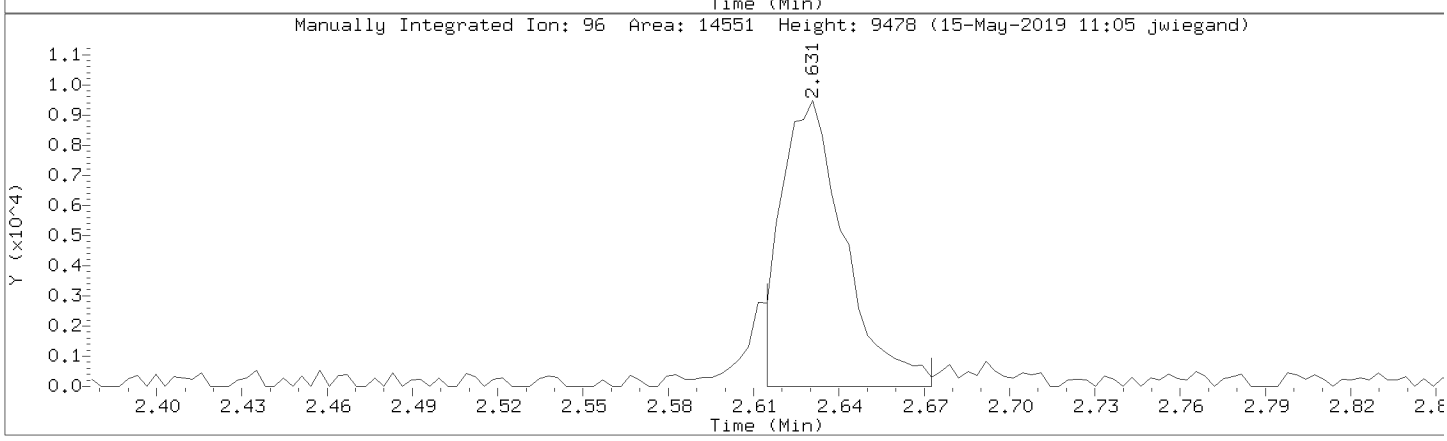
Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514011.d
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: trans-1,2-Dichloroethene Review Code: LT
CAS Number: 156-60-5









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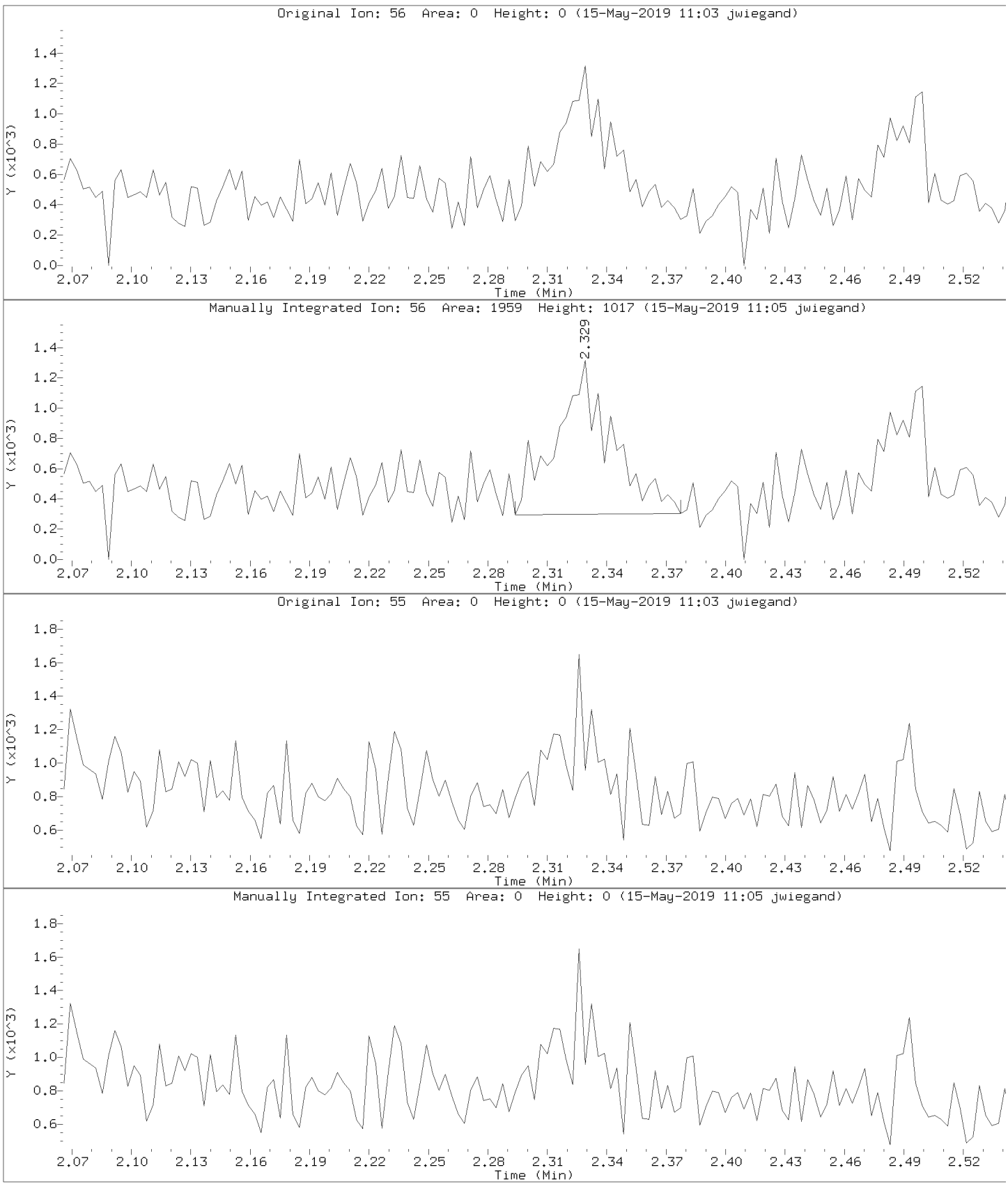
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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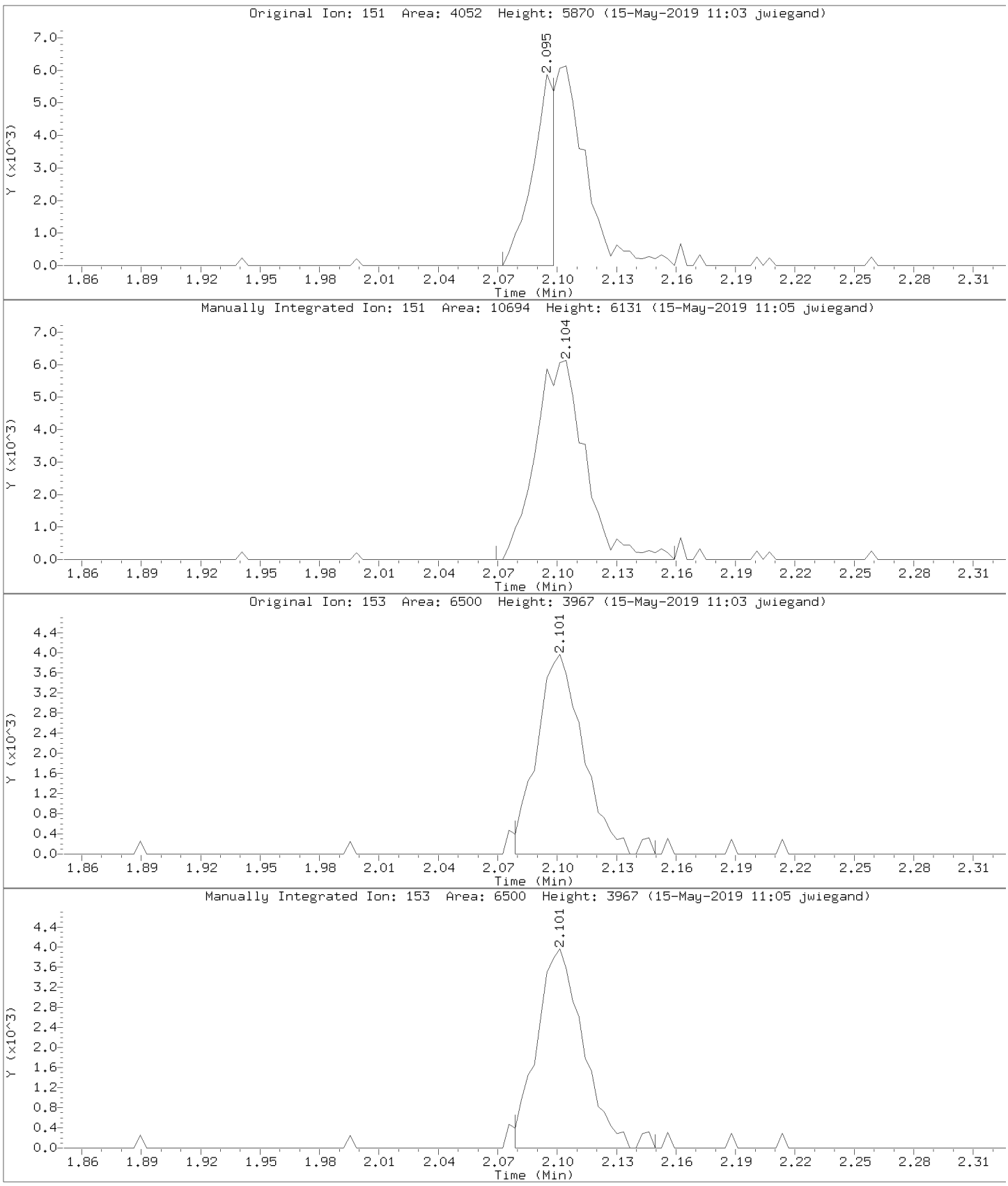
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1



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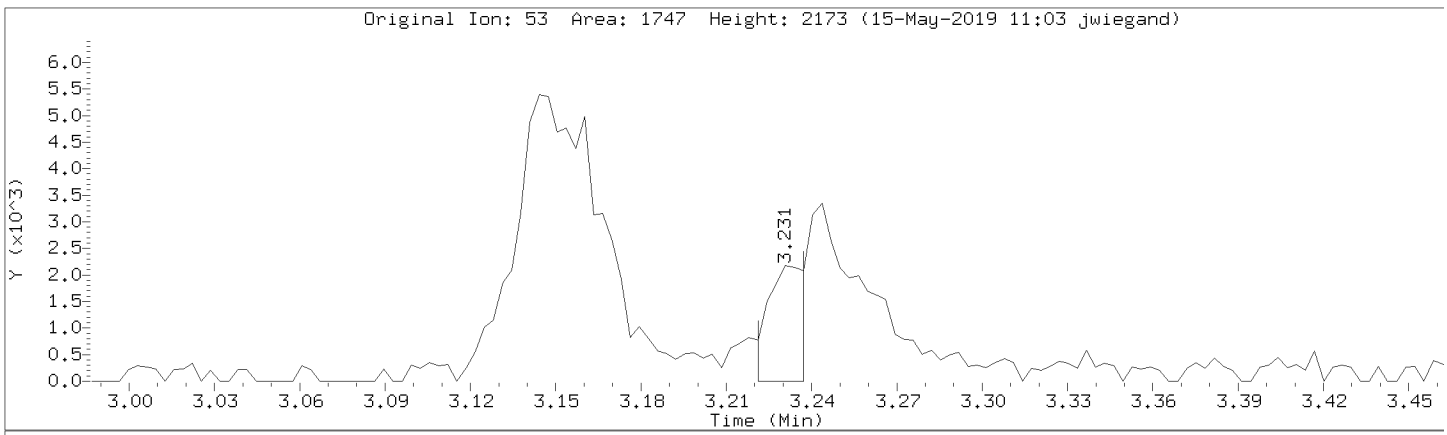
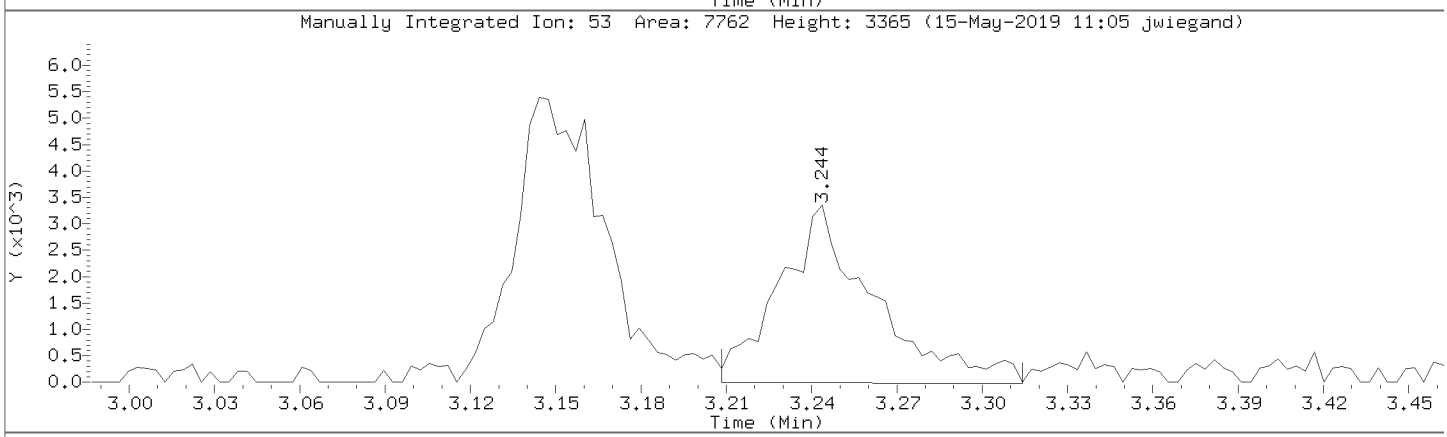
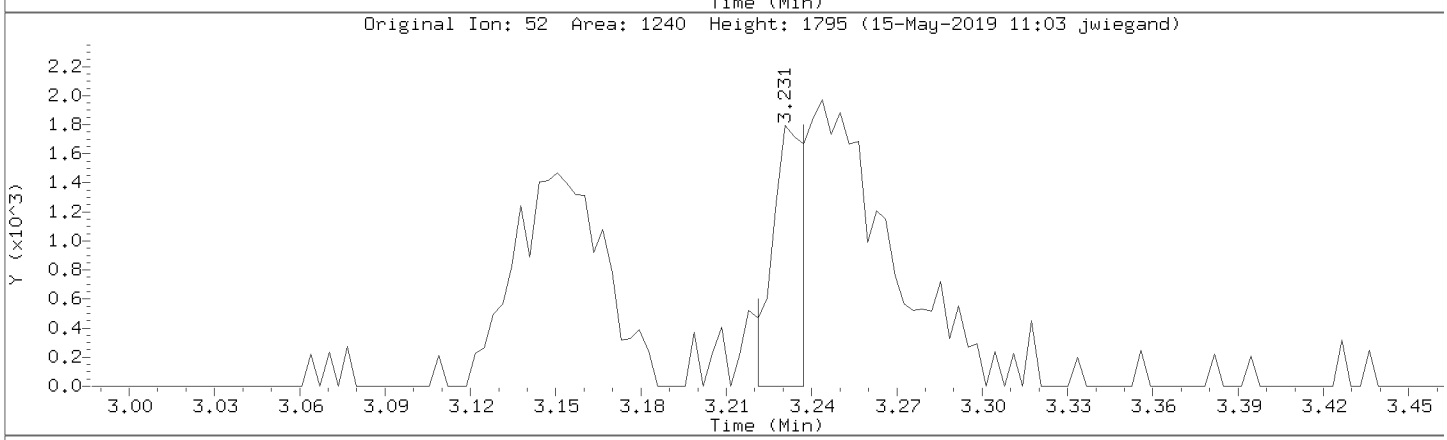
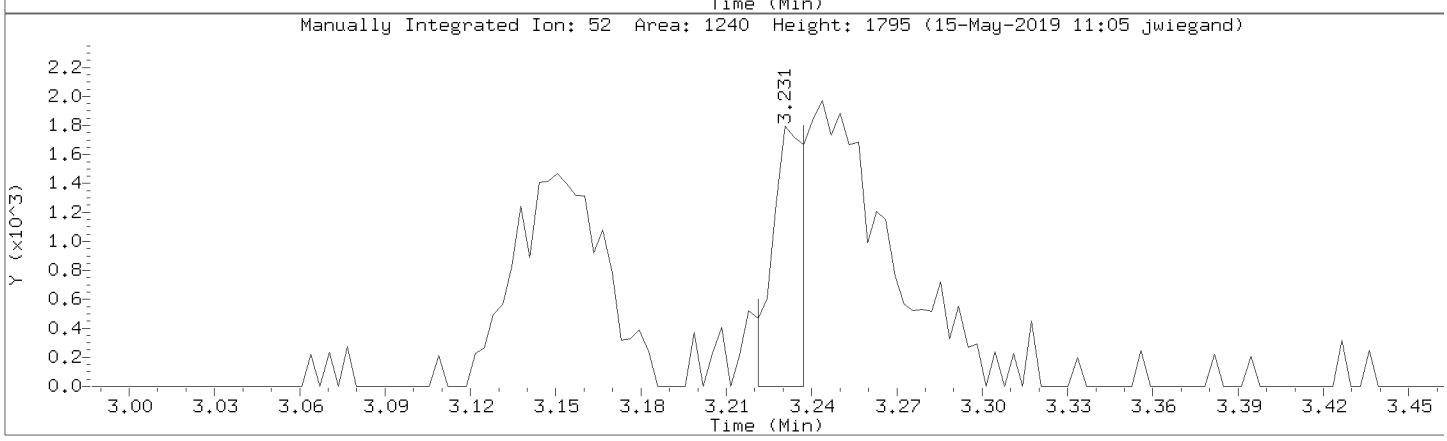
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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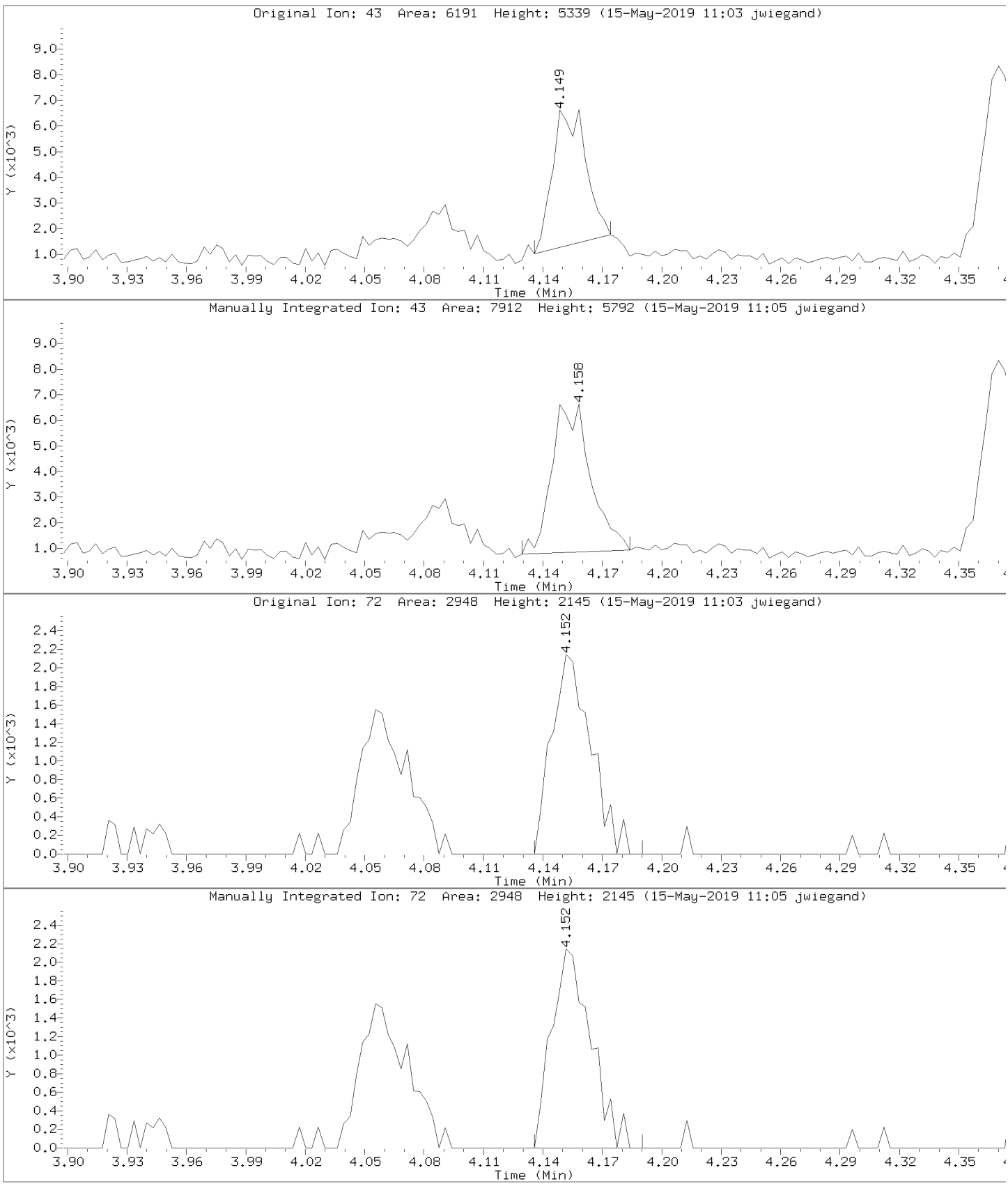
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3



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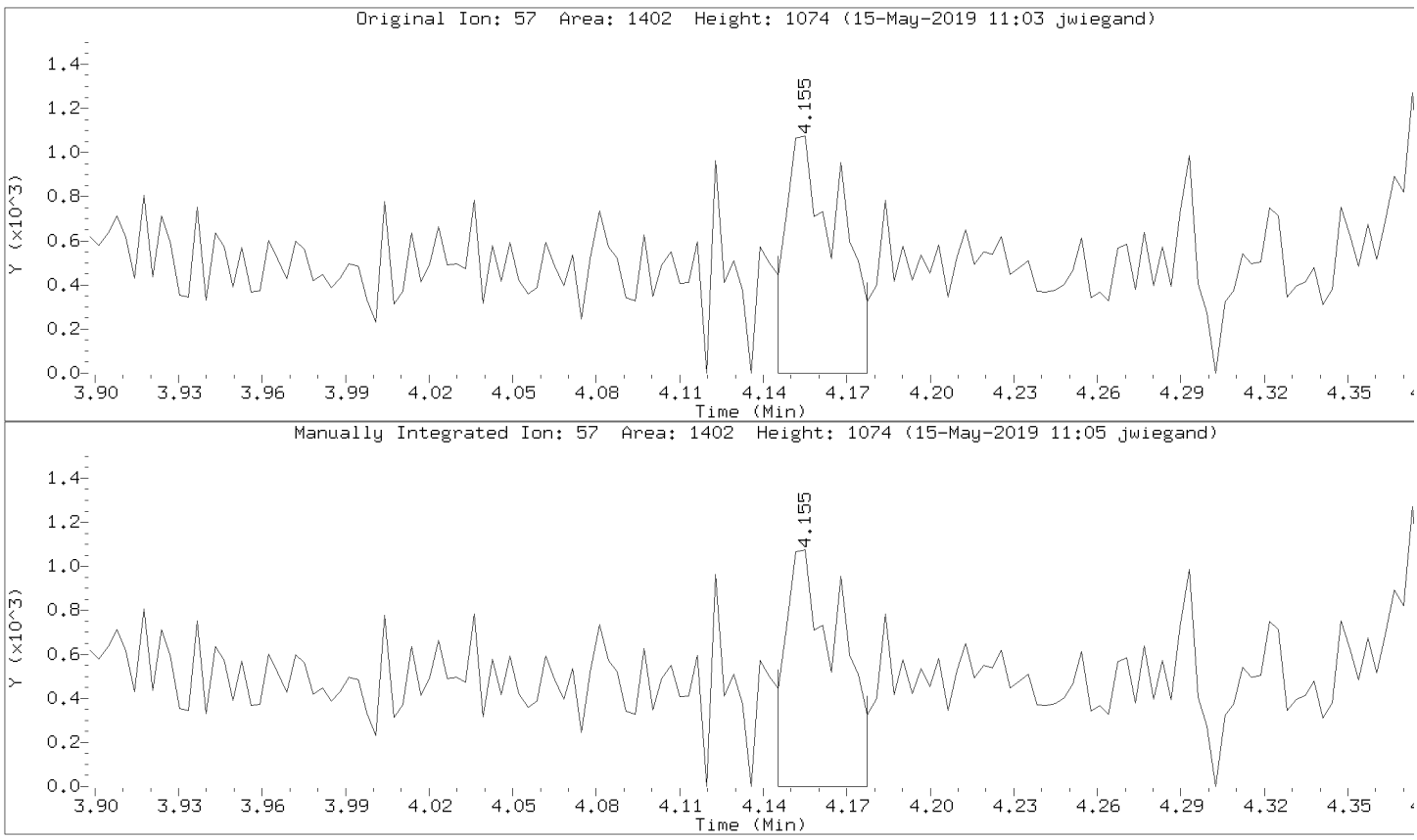
Instrument: 30mv6a.i
Lab Sample ID: CAL2



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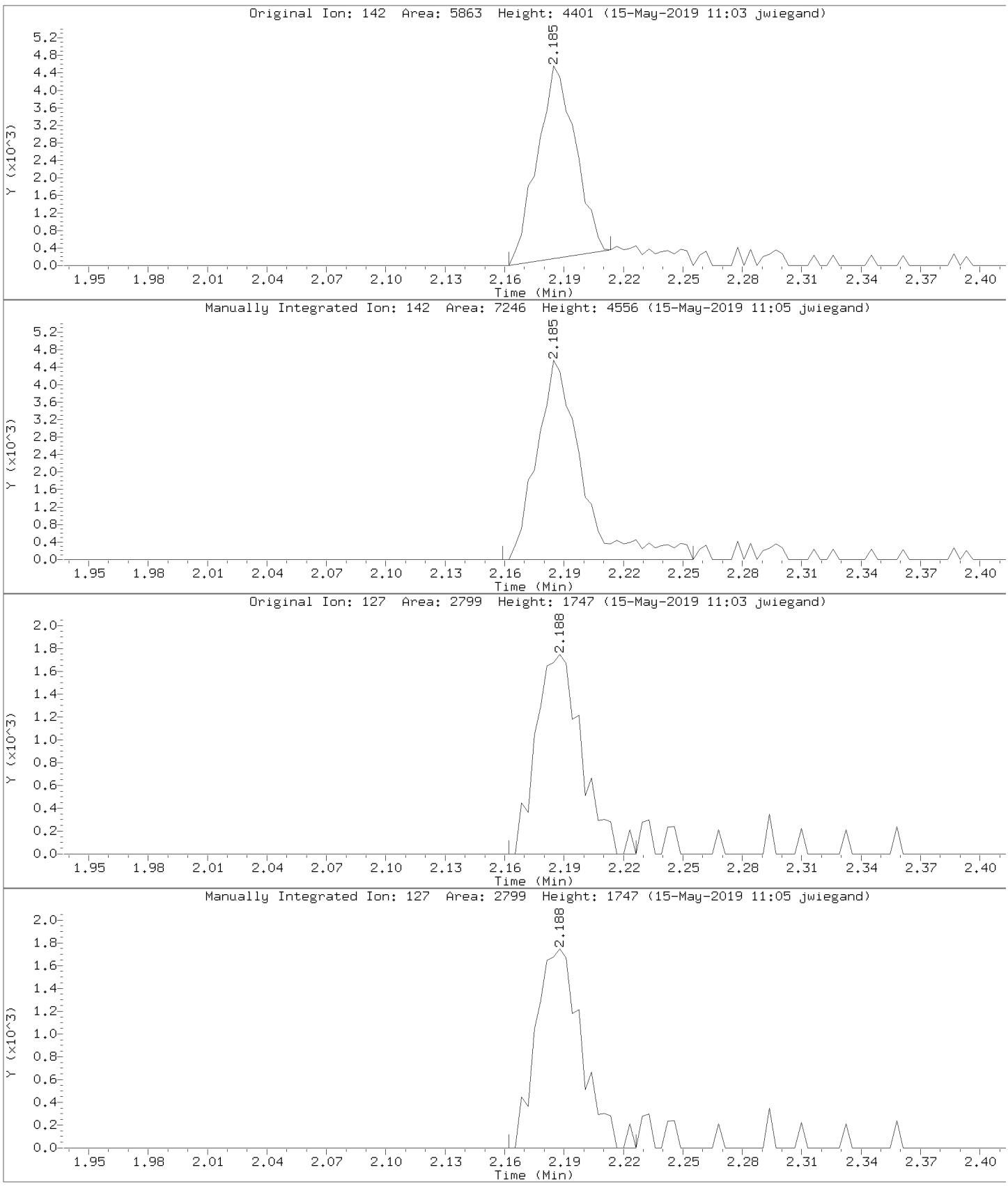
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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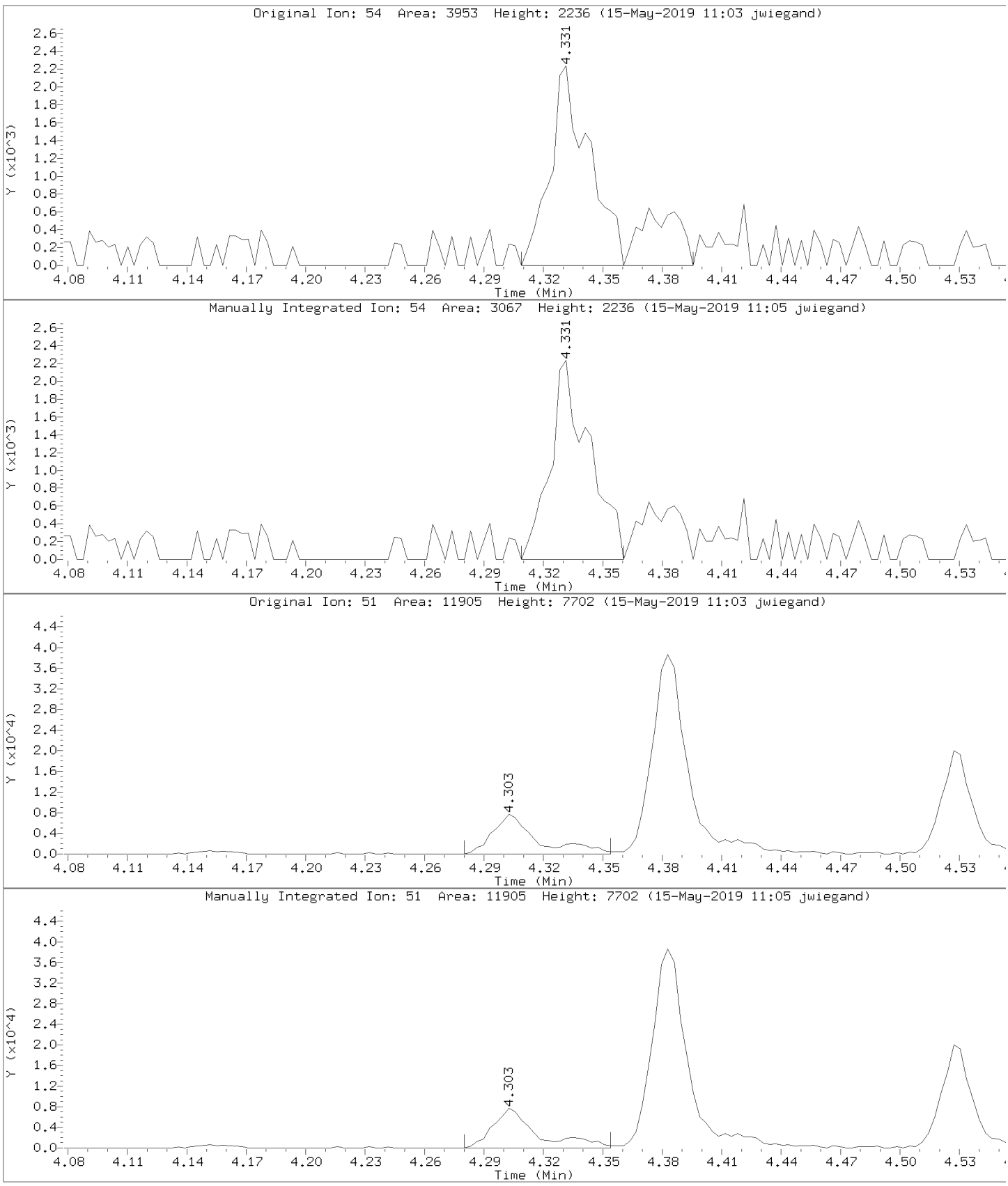
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Propionitrile Review Code: GT
CAS Number: 107-12-0



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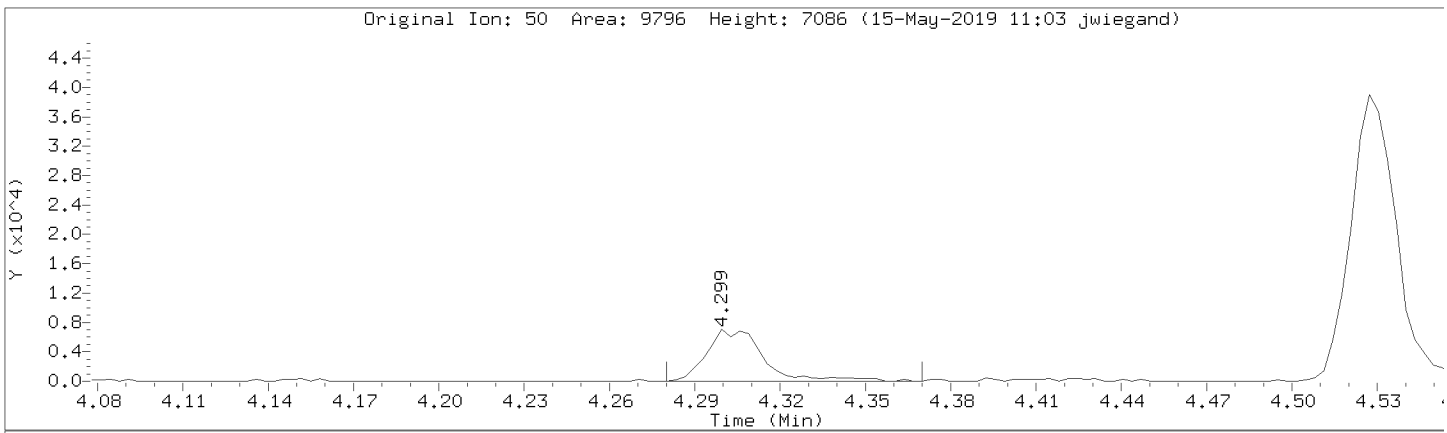
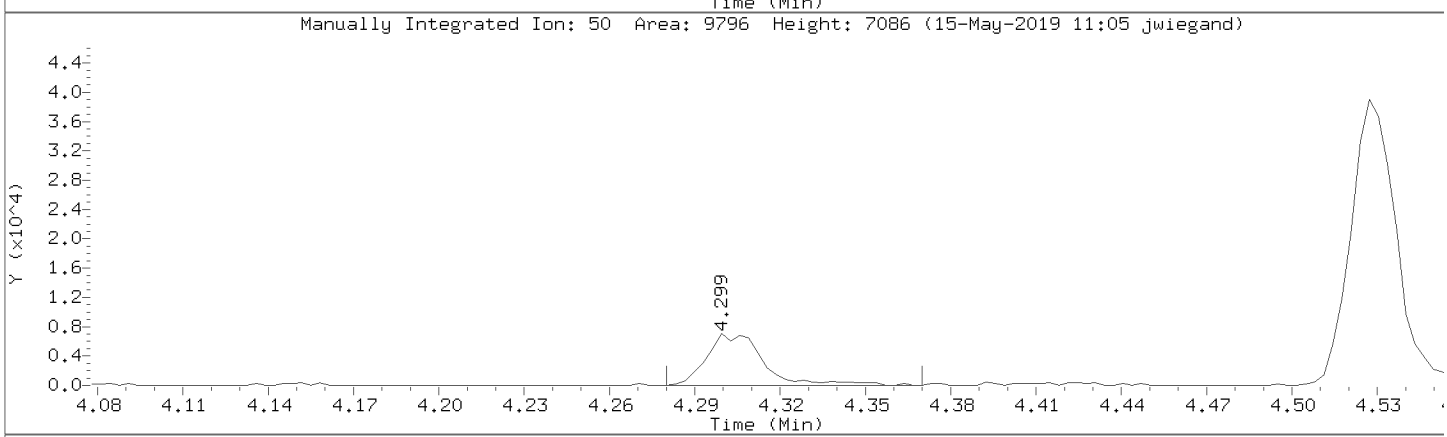
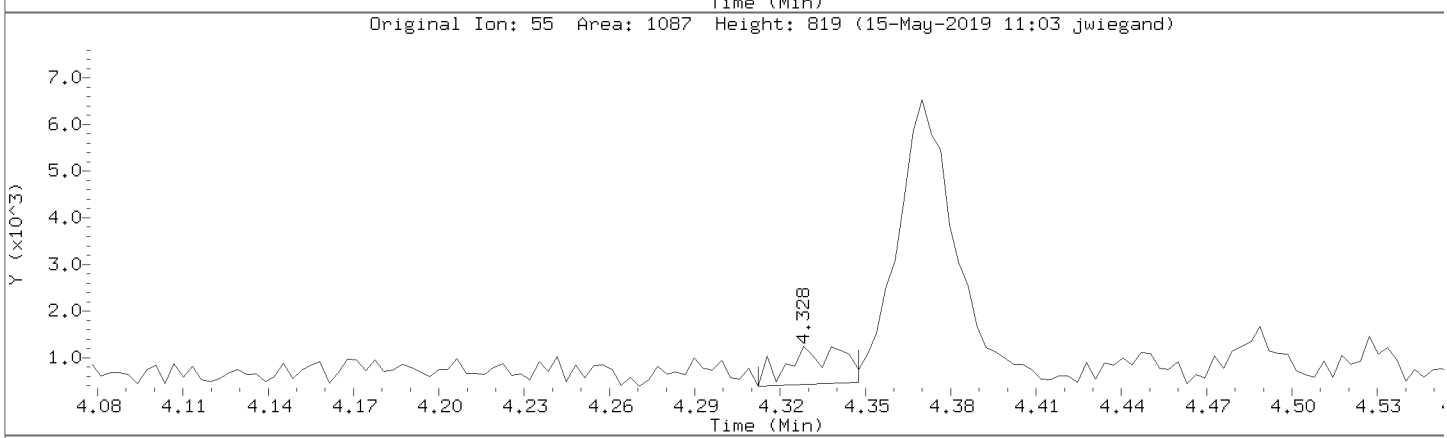
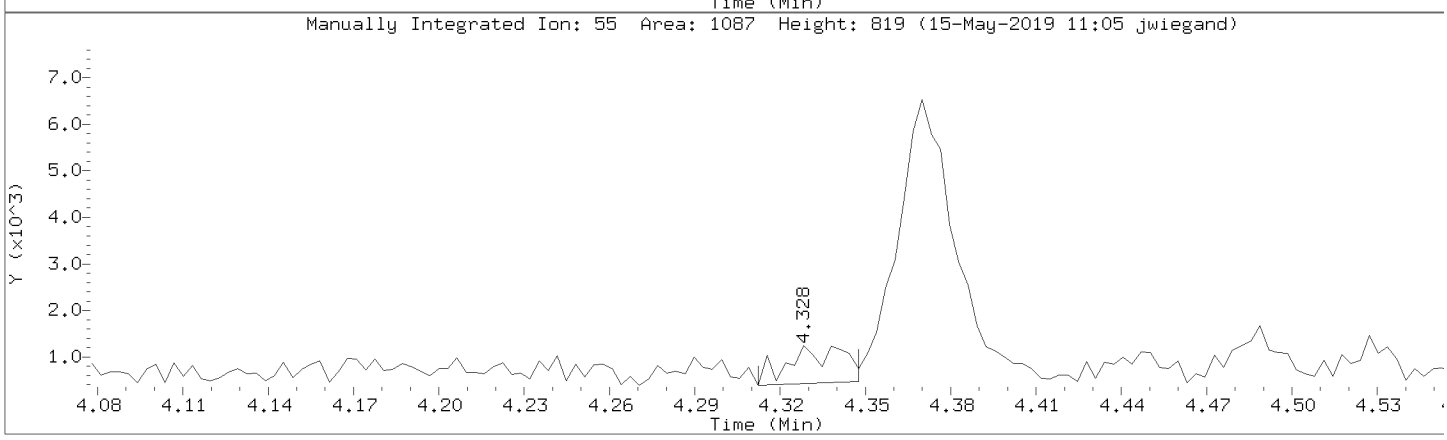
Injection Date: 14-MAY-2019 15:35
Instrument: 30mv6a.i
Lab Sample ID: CAL2









Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 14-MAY-2019 16:01
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal3, 87716:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 16:01 Cal File: 60514013.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.231	1.229	(0.272)	32157	10.0000	11.9(Q)	
2 Chloromethane	50	1.350	1.344	(0.298)	39113	10.0000	12.4	
3 Vinyl chloride	62	1.395	1.395	(0.308)	39574	10.0000	12.1	
4 Bromomethane	94	1.591	1.588	(0.351)	12028	10.0000	11.2	
5 Chloroethane	64	1.658	1.649	(0.366)	25916	10.0000	13.4	
6 Trichlorofluoromethane	101	1.745	1.736	(0.385)	46843	10.0000	12.0	
7 Diethyl ether (Ethyl ether)	59	1.943	1.934	(0.429)	27193	10.0000	11.1	
8 Ethanol	45	2.046	2.053	(0.298)	6365	100.000	130(aQM)	LT
9 1,1-Dichloroethene	61	2.081	2.076	(0.460)	43432	10.0000	10.8	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.101	(0.463)	19760	10.0000	10.2	
11 Carbon disulfide	76	2.107	2.105	(0.466)	84017	10.0000	11.9	
12 Iodomethane	142	2.184	2.188	(0.483)	19208	10.0000	10.7(Q)	
13 Acrolein	56	2.329	2.316	(0.514)	2254	10.0000	11.1(QM)	BA
14 Allyl chloride	41	2.418	2.416	(0.534)	189330	50.0000	60.3	
15 Methylene Chloride	49	2.505	2.502	(0.553)	65510	10.0000	14.9	
16 Acetone	43	2.544	2.547	(0.562)	22079	10.0000	17.4(QM)	LT
17 trans-1,2-Dichloroethene	61	2.630	2.628	(0.581)	42917	10.0000	11.2(Q)	
18 Methyl acetate	74	2.643	2.647	(0.584)	9958	10.0000	11.0	
19 n-Hexane	86	2.682	2.682	(0.592)	23115	10.0000	18.9	
20 Methyl-tert-butyl ether	73	2.714	2.717	(0.600)	78059	10.0000	9.87(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.803	2.798	(0.619)	32946	50.0000	52.7	
	22 Acetonitrile	41	2.961	2.939	(0.654)	18562	50.0000	56.0(Q)	
	23 Diisopropyl ether	45	3.047	3.051	(0.673)	82308	10.0000	9.96	
	24 Chloroprene	53	3.150	3.141	(0.696)	25197	10.0000	11.0	
	25 1,1-Dichloroethane	63	3.179	3.176	(0.702)	57927	10.0000	11.5	
	26 Acrylonitrile	53	3.237	3.237	(0.715)	12045	10.0000	10.7(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.423	3.420	(0.756)	85375	10.0000	9.54	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	61782	10.0000	9.77	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	46247	10.0000	11.7	
	30 2,2-Dichloropropane	77	3.808	3.805	(0.841)	49199	10.0000	11.5	
	31 Cyclohexane	56	3.872	3.873	(0.855)	45452	10.0000	10.2	
	32 Bromochloromethane	130	3.878	3.885	(0.857)	22495	10.0000	10.9	
	33 Chloroform	83	3.943	3.943	(0.871)	55395	10.0000	11.7	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	43062	10.0000	10.7	
	35 Ethyl acetate	43	4.052	4.081	(0.895)	2950	10.0000	11.3(Q)	
	36 Tetrahydrofuran	42	4.058	4.056	(0.896)	13987	10.0000	12.2	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	123839	30.0000	33.5	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	49948	10.0000	11.4	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	18160	10.0000	10.8(Q)	
	40 1,1-Dichloropropene	75	4.154	4.149	(0.918)	36244	10.0000	10.2	
	41 Benzene	78	4.302	4.303	(0.950)	109159	10.0000	10.7	
	42 Propionitrile	54	4.331	4.328	(0.957)	7210	10.0000	13.1(Q)	
	43 Methacrylonitrile	41	4.337	4.338	(0.958)	16568	10.0000	10.1	
	44 tert-Amylmethyl ether	73	4.369	4.370	(0.965)	68070	10.0000	9.62(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	120819	30.0000	32.8	
	46 Isobutanol	43	4.440	4.444	(0.981)	9484	50.0000	46.0(Q)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	43768	10.0000	11.2	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	421519	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	36025	10.0000	8.31	
	50 Trichloroethene	95	4.610	4.614	(0.783)	29508	10.0000	9.53	
	51 Dibromomethane	174	4.812	4.813	(1.063)	24548	10.0000	11.0	
	52 1,2-Dichloropropane	63	4.857	4.855	(1.073)	29661	10.0000	10.6	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	39331	10.0000	11.1	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	19265	10.0000	10.4	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	5151	100.000	110(Q)	
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	14580	10.0000	8.64	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	44249	10.0000	10.1	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	410697	30.0000	29.2	
	59 Toluene	91	5.258	5.259	(0.893)	127910	10.0000	10.3	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	60427	50.0000	52.7	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	32538	10.0000	10.7	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	34297	10.0000	9.40	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	42676	10.0000	9.22	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	27335	10.0000	10.5	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	26162	10.0000	9.46	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	33613	10.0000	9.30	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	42935	10.0000	9.36	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	28333	10.0000	9.33	
	69 2-Hexanone	43	5.756	5.759	(0.978)	27735	10.0000	10.6	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	47861	10.0000	9.76	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	376593	30.0000		
	72 Chlorobenzene	112	5.897	5.897	(1.002)	92304	10.0000	10.1	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	31873	10.0000	8.96	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	118664	20.0000	19.5	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	==========	====	====	========	========	========	=======	=======	========
75	o-Xylene	106	6.138	6.141	(1.043)	58025	10.0000	9.65	
76	Styrene	104	6.160	6.161	(1.046)	103358	10.0000	9.74	
77	Bromoform	173	6.189	6.186	(0.901)	25508	10.0000	9.17	
78	Isopropylbenzene (Cumene)	105	6.266	6.263	(0.912)	145386	10.0000	9.56	
$ 79	4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	162524	30.0000	29.8	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	166972	10.0000	9.68	
81	Bromobenzene	77	6.449	6.446	(0.939)	65103	10.0000	10.3	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	37523	10.0000	10.1	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	127458	10.0000	9.77	
84	2-Chlorotoluene	126	6.516	6.517	(0.949)	38423	10.0000	9.54	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	13638	10.0000	10.0	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.953)	11439	10.0000	9.72	
87	Cyclohexanone	55	6.571	6.571	(0.957)	16525	50.0000	52.6	
88	4-Chlorotoluene	126	6.587	6.587	(0.959)	42272	10.0000	9.81	
89	tert-Butylbenzene	119	6.654	6.655	(0.969)	109712	10.0000	9.08	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.973)	135571	10.0000	9.92	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	158038	10.0000	9.25	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	148683	10.0000	9.42	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.996)	88868	10.0000	9.93	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	223019	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	90519	10.0000	9.92	
96	n-Butylbenzene	91	6.965	6.966	(1.014)	122507	10.0000	9.17	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	85186	10.0000	9.96	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	223015	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	13635	10.0000	10.0	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	61615	10.0000	9.46	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	27219	10.0000	8.25	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	58547	10.0000	9.68	
102	Naphthalene	128	7.838	7.839	(1.141)	155443	10.0000	10.2	
103	1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	50744	10.0000	9.64	
104	2-Methylnaphthalene	142	8.287	8.288	(1.206)	73953	10.0000	10.5	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514013.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	421519	-5.08
71 Chlorobenzene-d5	375201	187601	750402	376593	0.37
94 1,4-Dichlorobenze	228764	114382	457528	223019	-2.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	11.9	
74-87-3	Chloromethane	12.4	
75-01-4	Vinyl chloride	12.1	
74-83-9	Bromomethane	11.2	
75-00-3	Chloroethane	13.4	
75-69-4	Trichlorofluoromethane	12.0	
60-29-7	Diethyl ether (Ethyl ether)	11.1	
64-17-5	Ethanol	130	J
75-35-4	1,1-Dichloroethene	10.8	
76-13-1	1,1,2-Trichlorotrifluoroetha	10.2	
75-15-0	Carbon disulfide	11.9	
74-88-4	Iodomethane	10.7	
107-02-8	Acrolein	11.1	
107-05-1	Allyl chloride	60.3	
75-09-2	Methylene Chloride	14.9	
67-64-1	Acetone	17.4	
156-60-5	trans-1,2-Dichloroethene	11.2	
79-20-9	Methyl acetate	11.0	
110-54-3	n-Hexane	18.9	
1634-04-4	Methyl-tert-butyl ether	9.87	
75-65-0	tert-Butyl Alcohol	52.7	
75-05-8	Acetonitrile	56.0	
108-20-3	Diisopropyl ether	9.96	
126-99-8	Chloroprene	11.0	
75-34-3	1,1-Dichloroethane	11.5	
107-13-1	Acrylonitrile	10.7	
637-92-3	Ethyl-tert-butyl ether	9.54	
108-05-4	Vinyl acetate	9.77	
156-59-2	cis-1,2-Dichloroethene	11.7	
594-20-7	2,2-Dichloropropane	11.5	
110-82-7	Cyclohexane	10.2	
74-97-5	Bromochloromethane	10.9	
67-66-3	Chloroform	11.7	
56-23-5	Carbon tetrachloride	10.7	
141-78-6	Ethyl acetate	11.3	
109-99-9	Tetrahydrofuran	12.2	
71-55-6	1,1,1-Trichloroethane	11.4	
78-93-3	2-Butanone (MEK)	10.8	
563-58-6	1,1-Dichloropropene	10.2	
71-43-2	Benzene	10.7	
107-12-0	Propionitrile	13.1	
126-98-7	Methacrylonitrile	10.1	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	9.62	
78-83-1	Isobutanol	46.0	
107-06-2	1,2-Dichloroethane	11.2	
108-87-2	Methylcyclohexane	8.31	
79-01-6	Trichloroethene	9.53	
74-95-3	Dibromomethane	11.0	
78-87-5	1,2-Dichloropropane	10.6	
75-27-4	Bromodichloromethane	11.1	
80-62-6	Methyl methacrylate	10.4	
123-91-1	1,4-Dioxane (p-Dioxane)	110	
110-75-8	2-Chloroethylvinyl ether	8.64	
10061-01-5	cis-1,3-Dichloropropene	10.1	
108-88-3	Toluene	10.3	
79-46-9	2-Nitropropane	52.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.7	
127-18-4	Tetrachloroethene	9.40	
10061-02-6	trans-1,3-Dichloropropene	9.22	
97-63-2	Ethyl methacrylate	10.5	
79-00-5	1,1,2-Trichloroethane	9.46	
124-48-1	Dibromochloromethane	9.30	
142-28-9	1,3-Dichloropropane	9.36	
106-93-4	1,2-Dibromoethane (EDB)	9.33	
591-78-6	2-Hexanone	10.6	
100-41-4	Ethylbenzene	9.76	
108-90-7	Chlorobenzene	10.1	
630-20-6	1,1,1,2-Tetrachloroethane	8.96	
7816-60-0	m&p-Xylene	19.5	
95-47-6	o-Xylene	9.65	
100-42-5	Styrene	9.74	
75-25-2	Bromoform	9.17	
98-82-8	Isopropylbenzene (Cumene)	9.56	
103-65-1	n-Propylbenzene	9.68	
108-86-1	Bromobenzene	10.3	
79-34-5	1,1,2,2-Tetrachloroethane	10.1	
108-67-8	1,3,5-Trimethylbenzene	9.77	
95-49-8	2-Chlorotoluene	9.54	
96-18-4	1,2,3-Trichloropropane	10.0	
110-57-6	trans-1,4-Dichloro-2-butene	9.72	
108-94-1	Cyclohexanone	52.6	
106-43-4	4-Chlorotoluene	9.81	
98-06-6	tert-Butylbenzene	9.08	
95-63-6	1,2,4-Trimethylbenzene	9.92	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Report Date: 17-Jun-2019 10:28

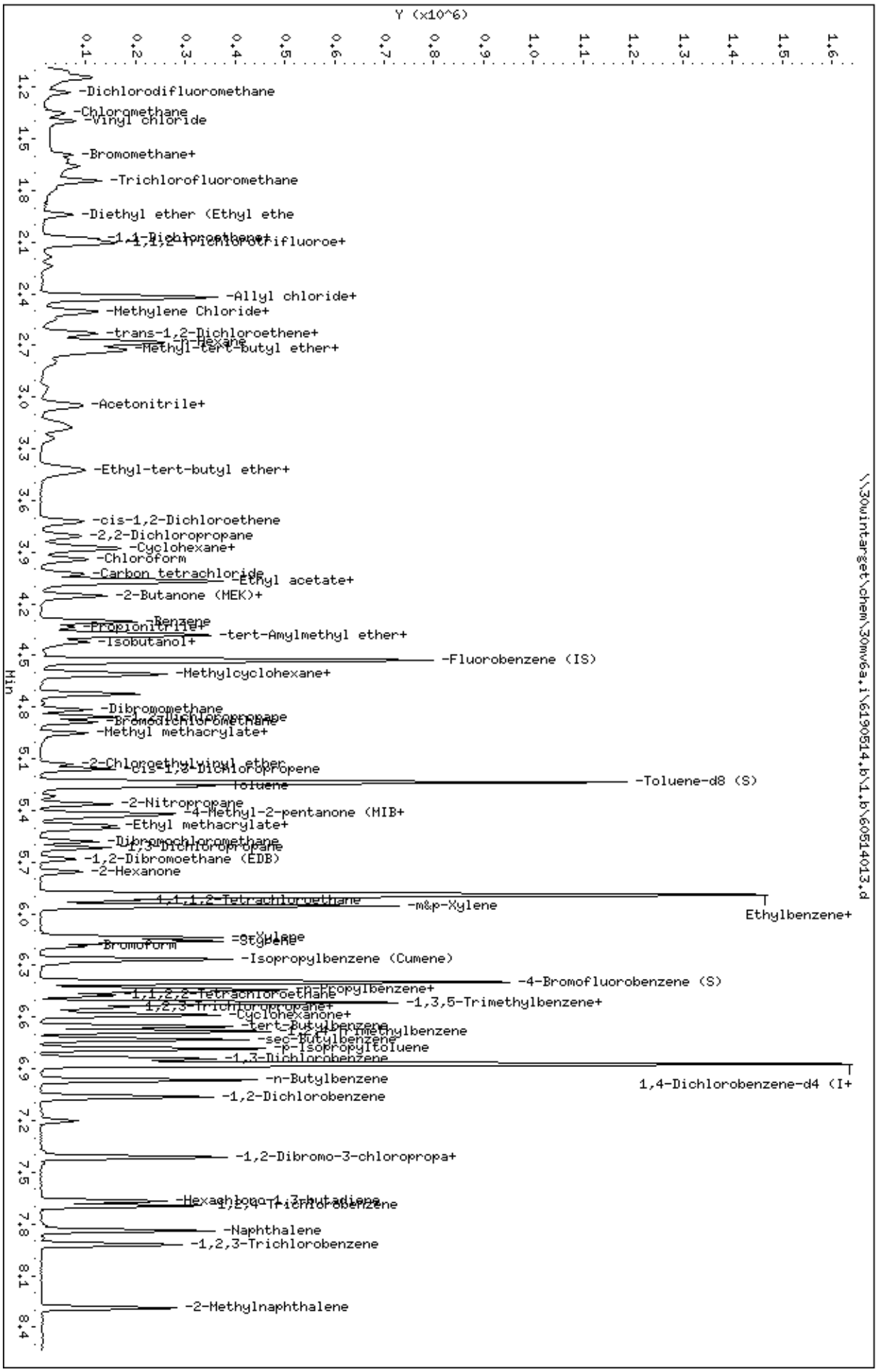
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	9.25	
99-87-6	p-Isopropyltoluene	9.42	
541-73-1	1,3-Dichlorobenzene	9.93	
106-46-7	1,4-Dichlorobenzene	9.92	
104-51-8	n-Butylbenzene	9.17	
95-50-1	1,2-Dichlorobenzene	9.96	
96-12-8	1,2-Dibromo-3-chloropropane	10.0	
108-70-3	1,3,5-Trichlorobenzene	9.46	
87-68-3	Hexachloro-1,3-butadiene	8.25	
120-82-1	1,2,4-Trichlorobenzene	9.68	
91-20-3	Naphthalene	10.2	
87-61-6	1,2,3-Trichlorobenzene	9.64	
91-57-6	2-Methylnaphthalene	10.5	
1868-53-7	Dibromofluoromethane (S)	33.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.8	
2037-26-5	Toluene-d8 (S)	29.2	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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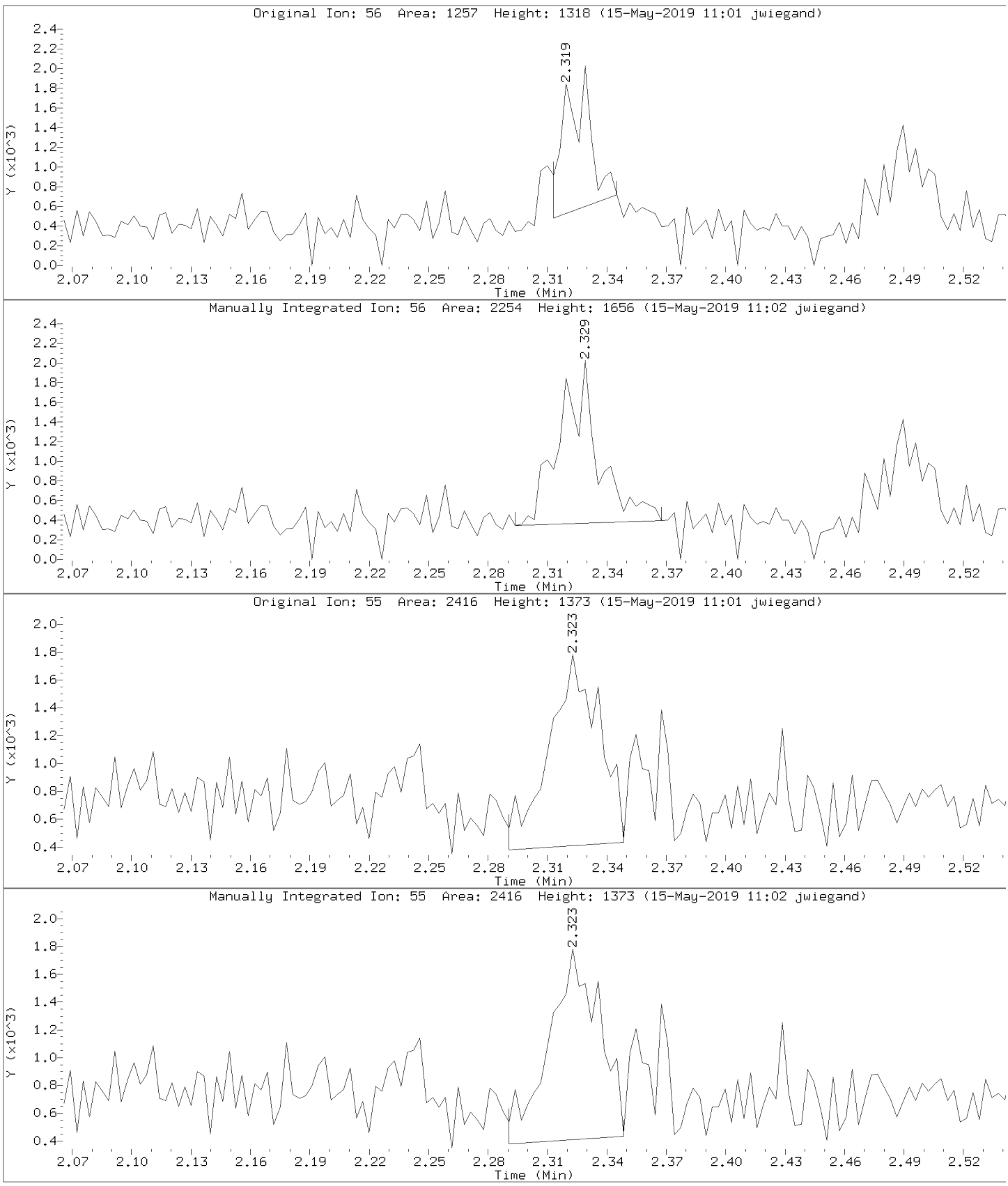
Date : 14-MAY-2019 16:01
Client ID: CAL3
Sample Info: CAL3, 87716:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514013.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514013.d
Injection Date: 14-MAY-2019 16:01
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: BA
CAS Number: 107-02-8



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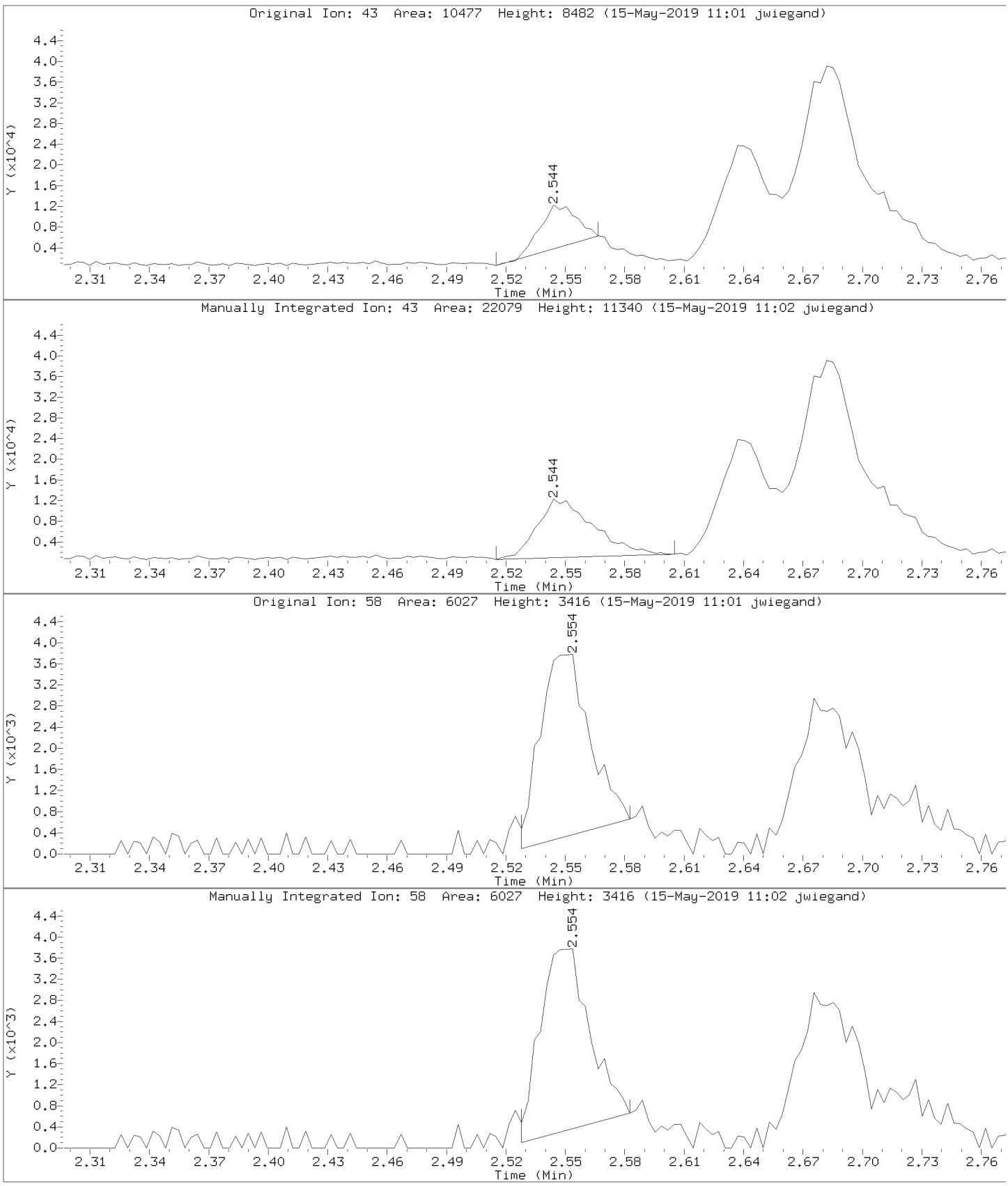
Injection Date: 14-MAY-2019 16:01
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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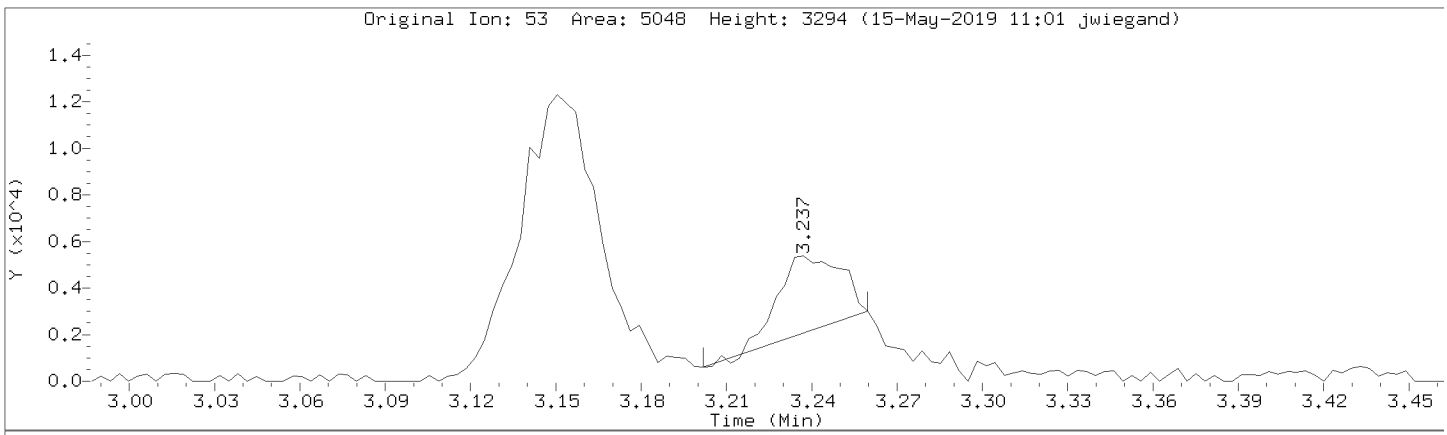
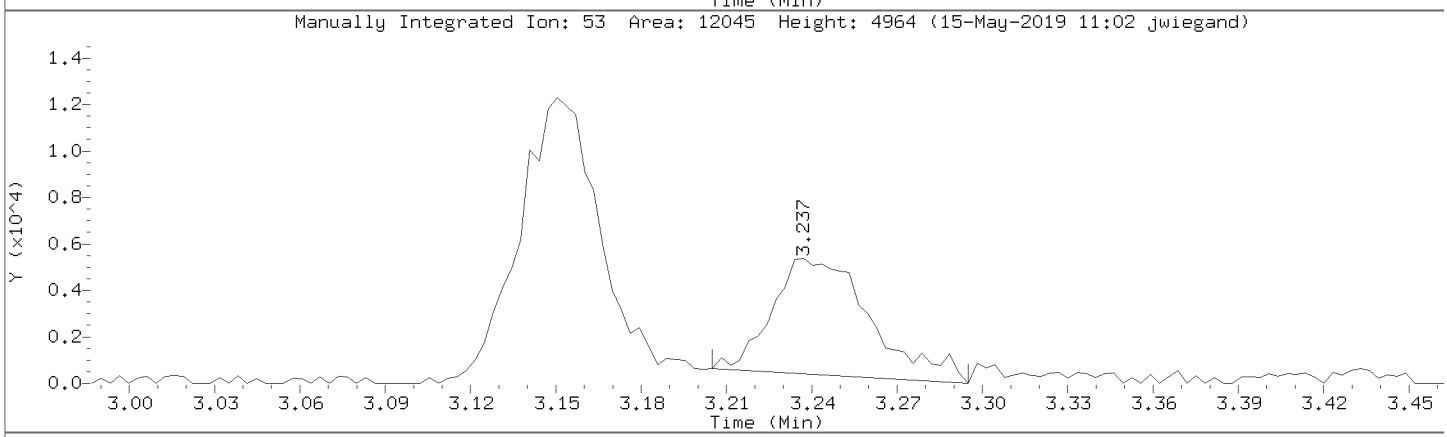
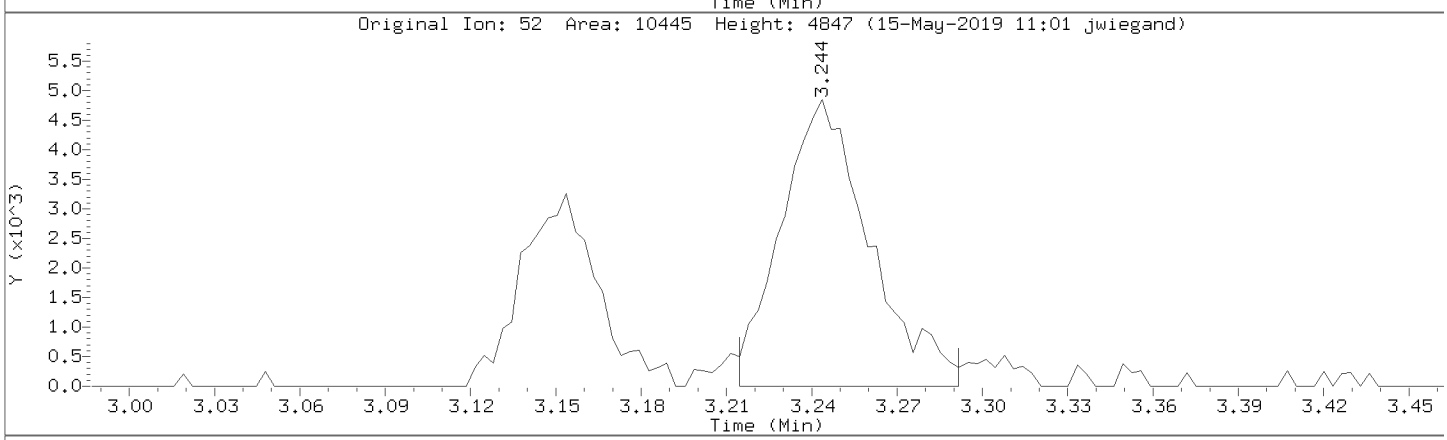
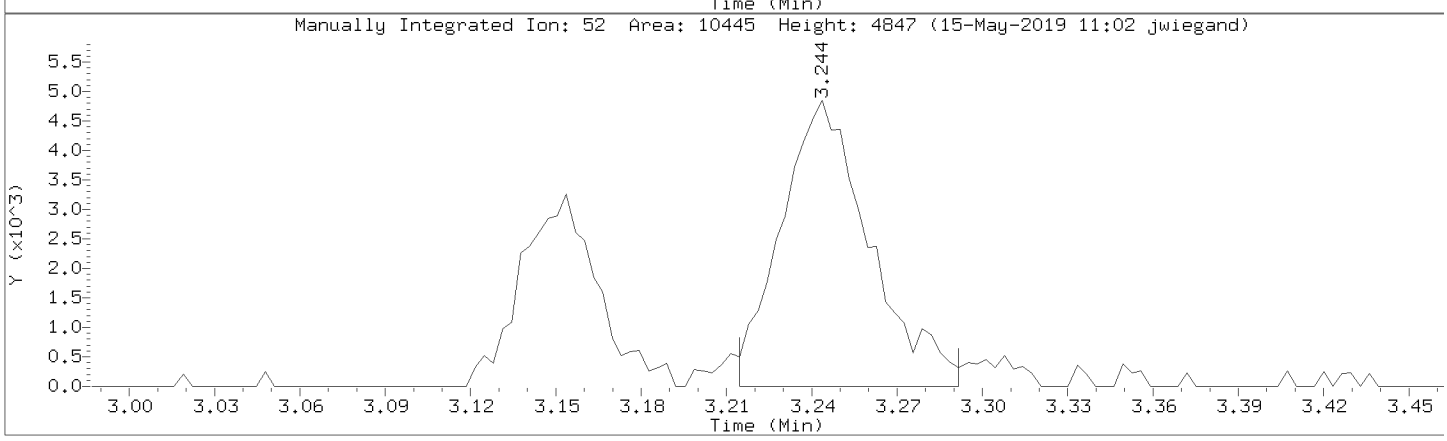
Injection Date: 14-MAY-2019 16:01
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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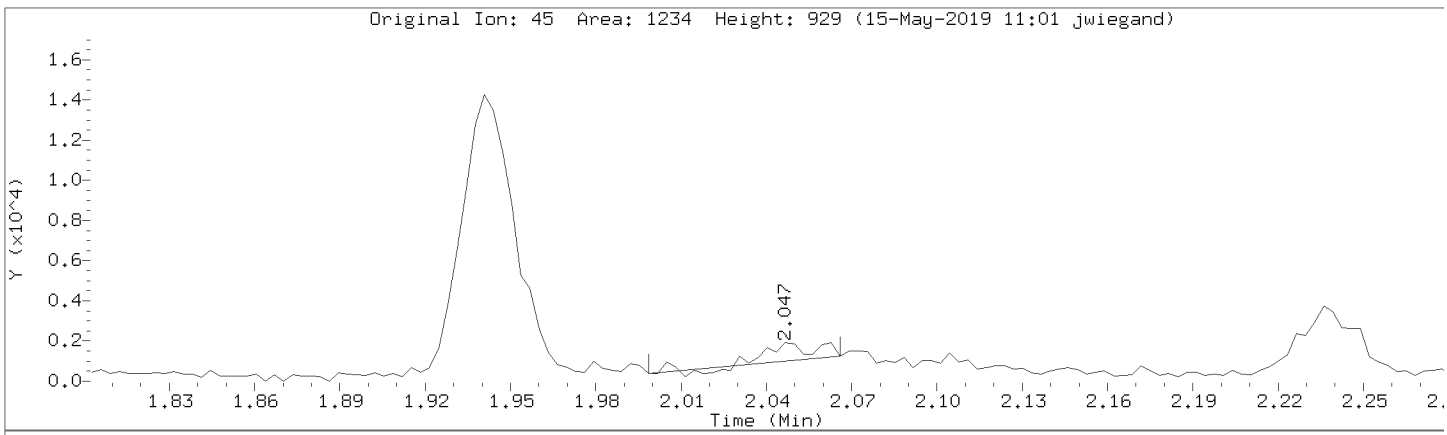
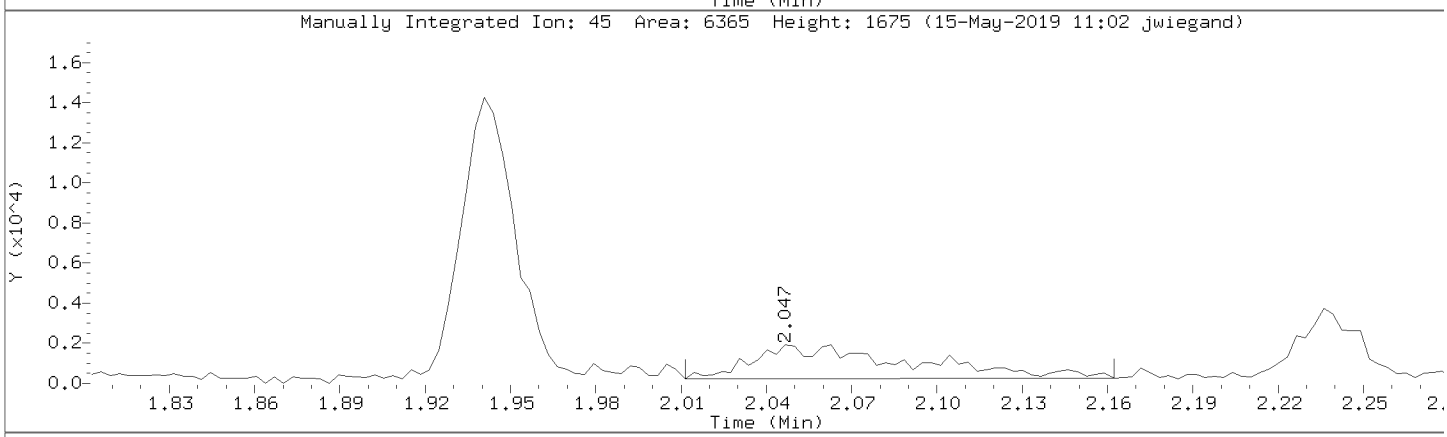
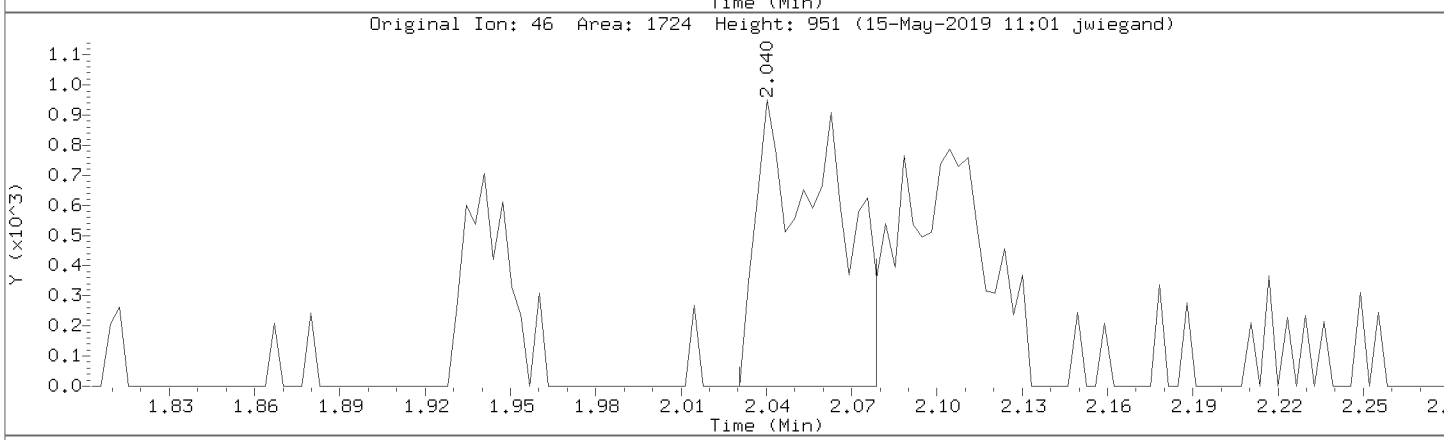
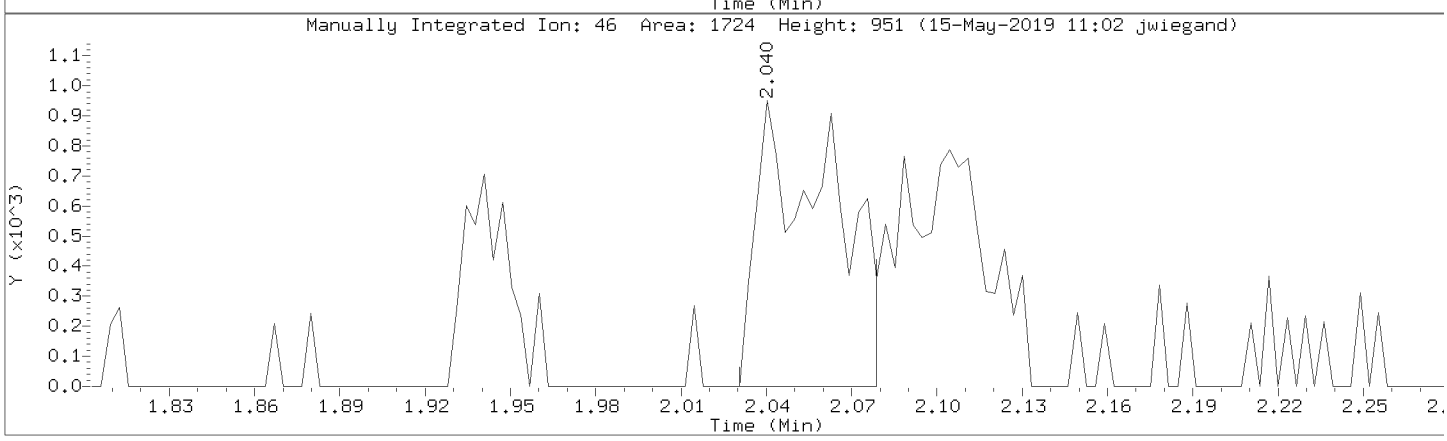
Injection Date: 14-MAY-2019 16:01
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 14-MAY-2019 16:26
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal4, 87717:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 16:26 Cal File: 60514015.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.231	1.229	(0.272)	61934	20.0000	22.6	
2 Chloromethane	50	1.350	1.344	(0.298)	71374	20.0000	22.5	
3 Vinyl chloride	62	1.395	1.395	(0.308)	77480	20.0000	23.4	
4 Bromomethane	94	1.591	1.588	(0.351)	21275	20.0000	19.3	
5 Chloroethane	64	1.661	1.649	(0.367)	48680	20.0000	25.6	
6 Trichlorofluoromethane	101	1.745	1.736	(0.385)	95888	20.0000	24.1	
7 Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	52063	20.0000	20.5	
8 Ethanol	45	2.040	2.053	(0.297)	8062	200.000	174(a)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	96037	20.0000	23.0	
10 1,1,2-Trichlorotrifluoroethane	151	2.104	2.101	(0.465)	44240	20.0000	21.8	
11 Carbon disulfide	76	2.107	2.105	(0.466)	163958	20.0000	23.0	
12 Iodomethane	142	2.188	2.188	(0.483)	34712	20.0000	18.6	
13 Acrolein	56	2.322	2.316	(0.513)	4932	20.0000	23.6(M)	LT
14 Allyl chloride	41	2.419	2.416	(0.534)	362789	100.000	114	
15 Methylene Chloride	49	2.505	2.502	(0.553)	109243	20.0000	26.0	
16 Acetone	43	2.544	2.547	(0.562)	31542	20.0000	27.5	
17 trans-1,2-Dichloroethene	61	2.627	2.628	(0.580)	88657	20.0000	22.4	
18 Methyl acetate	74	2.637	2.647	(0.583)	19651	20.0000	20.9	
19 n-Hexane	86	2.682	2.682	(0.592)	33963	20.0000	32.0	
20 Methyl-tert-butyl ether	73	2.711	2.717	(0.599)	172608	20.0000	20.6	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.794	2.798	(0.617)	66374	100.000	102	
	22 Acetonitrile	41	2.951	2.939	(0.652)	39657	100.000	116	
	23 Diisopropyl ether	45	3.048	3.051	(0.673)	174277	20.0000	19.9	
	24 Chloroprene	53	3.153	3.141	(0.697)	53404	20.0000	22.4	
	25 1,1-Dichloroethane	63	3.179	3.176	(0.702)	115685	20.0000	22.5	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	22118	20.0000	18.9	
	27 Ethyl-tert-butyl ether	59	3.420	3.420	(0.755)	190324	20.0000	19.9	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	129627	20.0000	19.3	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	90555	20.0000	22.4	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	99010	20.0000	22.7	
	31 Cyclohexane	56	3.875	3.873	(0.856)	105206	20.0000	22.4	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	47992	20.0000	22.4	
	33 Chloroform	83	3.943	3.943	(0.871)	106505	20.0000	22.1	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	92275	20.0000	22.1	
	35 Ethyl acetate	43	4.049	4.081	(0.894)	3942	20.0000	14.6	
	36 Tetrahydrofuran	42	4.055	4.056	(0.896)	23650	20.0000	20.4	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	123033	30.0000	32.2	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	102701	20.0000	22.8	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	34562	20.0000	19.7	
	40 1,1-Dichloropropene	75	4.155	4.149	(0.918)	80331	20.0000	21.6	
	41 Benzene	78	4.302	4.303	(0.950)	226625	20.0000	21.3	
	42 Propionitrile	54	4.328	4.328	(0.956)	12097	20.0000	22.3(M)	CO
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	34876	20.0000	20.1	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	140994	20.0000	18.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	119081	30.0000	31.2	
	46 Isobutanol	43	4.440	4.444	(0.981)	20656	100.000	93.4	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	87296	20.0000	21.7	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	445357	30.0000		
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	96251	20.0000	20.3	
	50 Trichloroethene	95	4.610	4.614	(0.783)	63434	20.0000	20.5	
	51 Dibromomethane	174	4.812	4.813	(1.063)	49129	20.0000	21.2	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	61606	20.0000	21.0	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	77660	20.0000	21.3	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	37970	20.0000	19.6	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	10419	200.000	216(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	32589	20.0000	17.8	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	94568	20.0000	20.5	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	410261	30.0000	29.3	
	59 Toluene	91	5.258	5.259	(0.893)	259821	20.0000	21.2	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	123538	100.000	103	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	64457	20.0000	20.3	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	73018	20.0000	19.9	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	88840	20.0000	19.0	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	52960	20.0000	20.7	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	53361	20.0000	19.3	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	70845	20.0000	19.5	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	90202	20.0000	19.6	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	59835	20.0000	19.6	
	69 2-Hexanone	43	5.756	5.759	(0.978)	53080	20.0000	20.6	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	103136	20.0000	21.1	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	373326	30.0000		
	72 Chlorobenzene	112	5.897	5.897	(1.002)	188615	20.0000	20.9	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	67539	20.0000	18.8	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	256015	40.0000	42.2	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.141	(1.043)	123421	20.0000	20.6	
76	Styrene	104	6.160	6.161	(1.046)	221412	20.0000	20.9	
77	Bromoform	173	6.186	6.186	(0.900)	54149	20.0000	19.1	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	331738	20.0000	21.5	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	168221	30.0000	30.7	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	376206	20.0000	21.6	
81	Bromobenzene	77	6.446	6.446	(0.938)	130980	20.0000	20.7	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	72755	20.0000	19.5	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	279717	20.0000	21.2	
84	2-Chlorotoluene	126	6.516	6.517	(0.948)	83770	20.0000	20.5	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	27295	20.0000	20.0	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	23047	20.0000	19.4	
87	Cyclohexanone	55	6.568	6.571	(0.956)	31926	100.000	102	
88	4-Chlorotoluene	126	6.587	6.587	(0.958)	90100	20.0000	20.7	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	258347	20.0000	20.9	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	291343	20.0000	21.2	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	376685	20.0000	21.6	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	346010	20.0000	21.6	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	188332	20.0000	20.9	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	223999	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	192067	20.0000	20.9	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	293119	20.0000	21.5	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	178275	20.0000	20.7	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	224427	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	27493	20.0000	20.2	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	138451	20.0000	20.9	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	72447	20.0000	21.1	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	128931	20.0000	21.1	
102	Naphthalene	128	7.838	7.839	(1.141)	322055	20.0000	21.2	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	113038	20.0000	21.2	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	157892	20.0000	22.7	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514015.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	445357	0.29
71 Chlorobenzene-d5	375201	187601	750402	373326	-0.50
94 1,4-Dichlorobenze	228764	114382	457528	223999	-2.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	22.6	
74-87-3	Chloromethane	22.5	
75-01-4	Vinyl chloride	23.4	
74-83-9	Bromomethane	19.3	
75-00-3	Chloroethane	25.6	
75-69-4	Trichlorofluoromethane	24.1	
60-29-7	Diethyl ether (Ethyl ether)	20.5	
64-17-5	Ethanol	174	J
75-35-4	1,1-Dichloroethene	23.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	21.8	
75-15-0	Carbon disulfide	23.0	
74-88-4	Iodomethane	18.6	
107-02-8	Acrolein	23.6	
107-05-1	Allyl chloride	114	
75-09-2	Methylene Chloride	26.0	
67-64-1	Acetone	27.5	
156-60-5	trans-1,2-Dichloroethene	22.4	
79-20-9	Methyl acetate	20.9	
110-54-3	n-Hexane	32.0	
1634-04-4	Methyl-tert-butyl ether	20.6	
75-65-0	tert-Butyl Alcohol	102	
75-05-8	Acetonitrile	116	
108-20-3	Diisopropyl ether	19.9	
126-99-8	Chloroprene	22.4	
75-34-3	1,1-Dichloroethane	22.5	
107-13-1	Acrylonitrile	18.9	
637-92-3	Ethyl-tert-butyl ether	19.9	
108-05-4	Vinyl acetate	19.3	
156-59-2	cis-1,2-Dichloroethene	22.4	
594-20-7	2,2-Dichloropropane	22.7	
110-82-7	Cyclohexane	22.4	
74-97-5	Bromochloromethane	22.4	
67-66-3	Chloroform	22.1	
56-23-5	Carbon tetrachloride	22.1	
141-78-6	Ethyl acetate	14.6	
109-99-9	Tetrahydrofuran	20.4	
71-55-6	1,1,1-Trichloroethane	22.8	
78-93-3	2-Butanone (MEK)	19.7	
563-58-6	1,1-Dichloropropene	21.6	
71-43-2	Benzene	21.3	
107-12-0	Propionitrile	22.3	
126-98-7	Methacrylonitrile	20.1	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	18.7	
78-83-1	Isobutanol	93.4	
107-06-2	1,2-Dichloroethane	21.7	
108-87-2	Methylcyclohexane	20.3	
79-01-6	Trichloroethene	20.5	
74-95-3	Dibromomethane	21.2	
78-87-5	1,2-Dichloropropane	21.0	
75-27-4	Bromodichloromethane	21.3	
80-62-6	Methyl methacrylate	19.6	
123-91-1	1,4-Dioxane (p-Dioxane)	216	
110-75-8	2-Chloroethylvinyl ether	17.8	
10061-01-5	cis-1,3-Dichloropropene	20.5	
108-88-3	Toluene	21.2	
79-46-9	2-Nitropropane	103	
108-10-1	4-Methyl-2-pentanone (MIBK)	20.3	
127-18-4	Tetrachloroethene	19.9	
10061-02-6	trans-1,3-Dichloropropene	19.0	
97-63-2	Ethyl methacrylate	20.7	
79-00-5	1,1,2-Trichloroethane	19.3	
124-48-1	Dibromochloromethane	19.5	
142-28-9	1,3-Dichloropropane	19.6	
106-93-4	1,2-Dibromoethane (EDB)	19.6	
591-78-6	2-Hexanone	20.6	
100-41-4	Ethylbenzene	21.1	
108-90-7	Chlorobenzene	20.9	
630-20-6	1,1,1,2-Tetrachloroethane	18.8	
7816-60-0	m&p-Xylene	42.2	
95-47-6	o-Xylene	20.6	
100-42-5	Styrene	20.9	
75-25-2	Bromoform	19.1	
98-82-8	Isopropylbenzene (Cumene)	21.5	
103-65-1	n-Propylbenzene	21.6	
108-86-1	Bromobenzene	20.7	
79-34-5	1,1,2,2-Tetrachloroethane	19.5	
108-67-8	1,3,5-Trimethylbenzene	21.2	
95-49-8	2-Chlorotoluene	20.5	
96-18-4	1,2,3-Trichloropropane	20.0	
110-57-6	trans-1,4-Dichloro-2-butene	19.4	
108-94-1	Cyclohexanone	102	
106-43-4	4-Chlorotoluene	20.7	
98-06-6	tert-Butylbenzene	20.9	
95-63-6	1,2,4-Trimethylbenzene	21.2	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Report Date: 17-Jun-2019 10:28

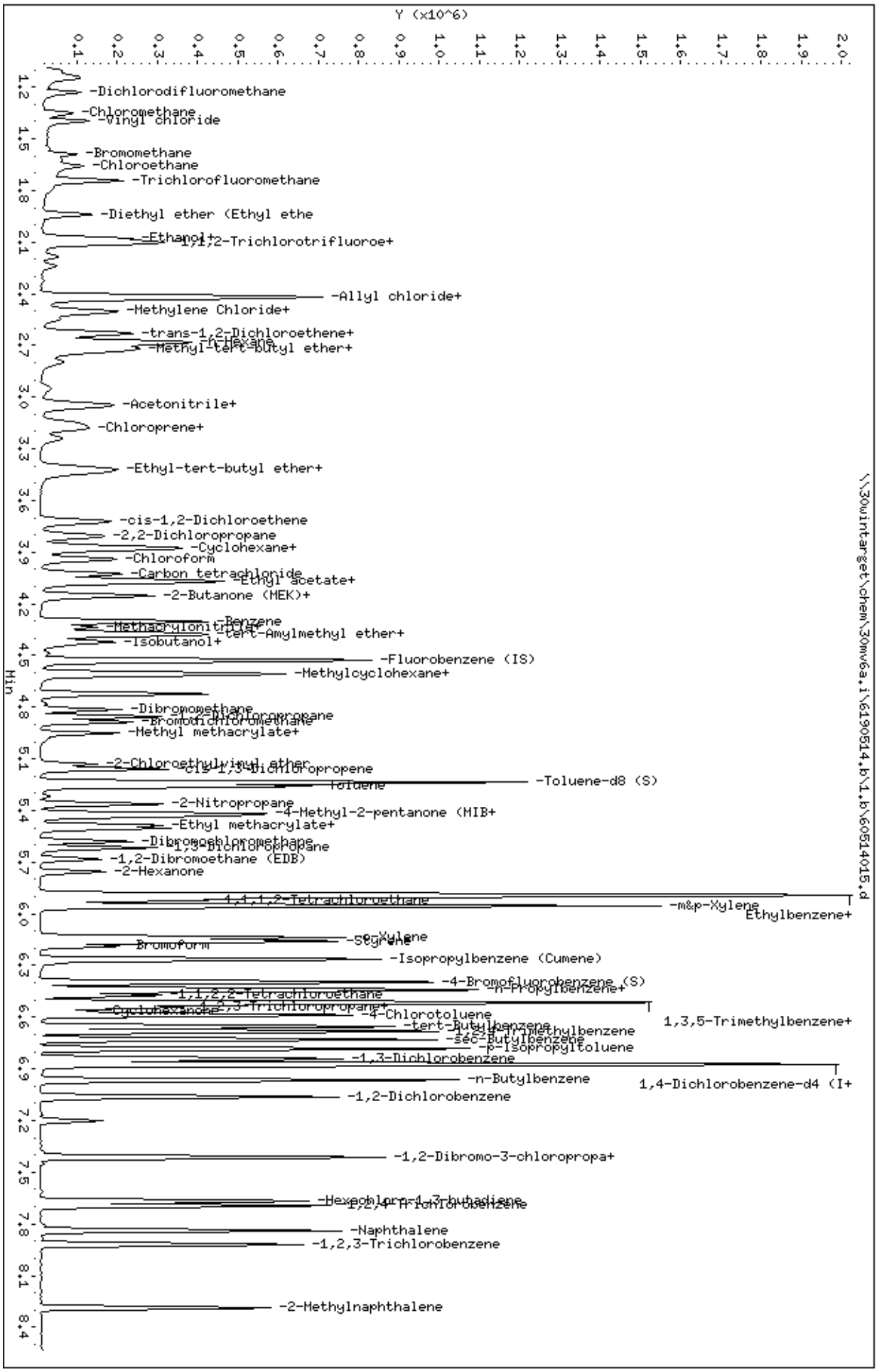
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.6	
99-87-6	p-Isopropyltoluene	21.6	
541-73-1	1,3-Dichlorobenzene	20.9	
106-46-7	1,4-Dichlorobenzene	20.9	
104-51-8	n-Butylbenzene	21.5	
95-50-1	1,2-Dichlorobenzene	20.7	
96-12-8	1,2-Dibromo-3-chloropropane	20.2	
108-70-3	1,3,5-Trichlorobenzene	20.9	
87-68-3	Hexachloro-1,3-butadiene	21.1	
120-82-1	1,2,4-Trichlorobenzene	21.1	
91-20-3	Naphthalene	21.2	
87-61-6	1,2,3-Trichlorobenzene	21.2	
91-57-6	2-Methylnaphthalene	22.7	
1868-53-7	Dibromofluoromethane (S)	32.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.2	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	30.7	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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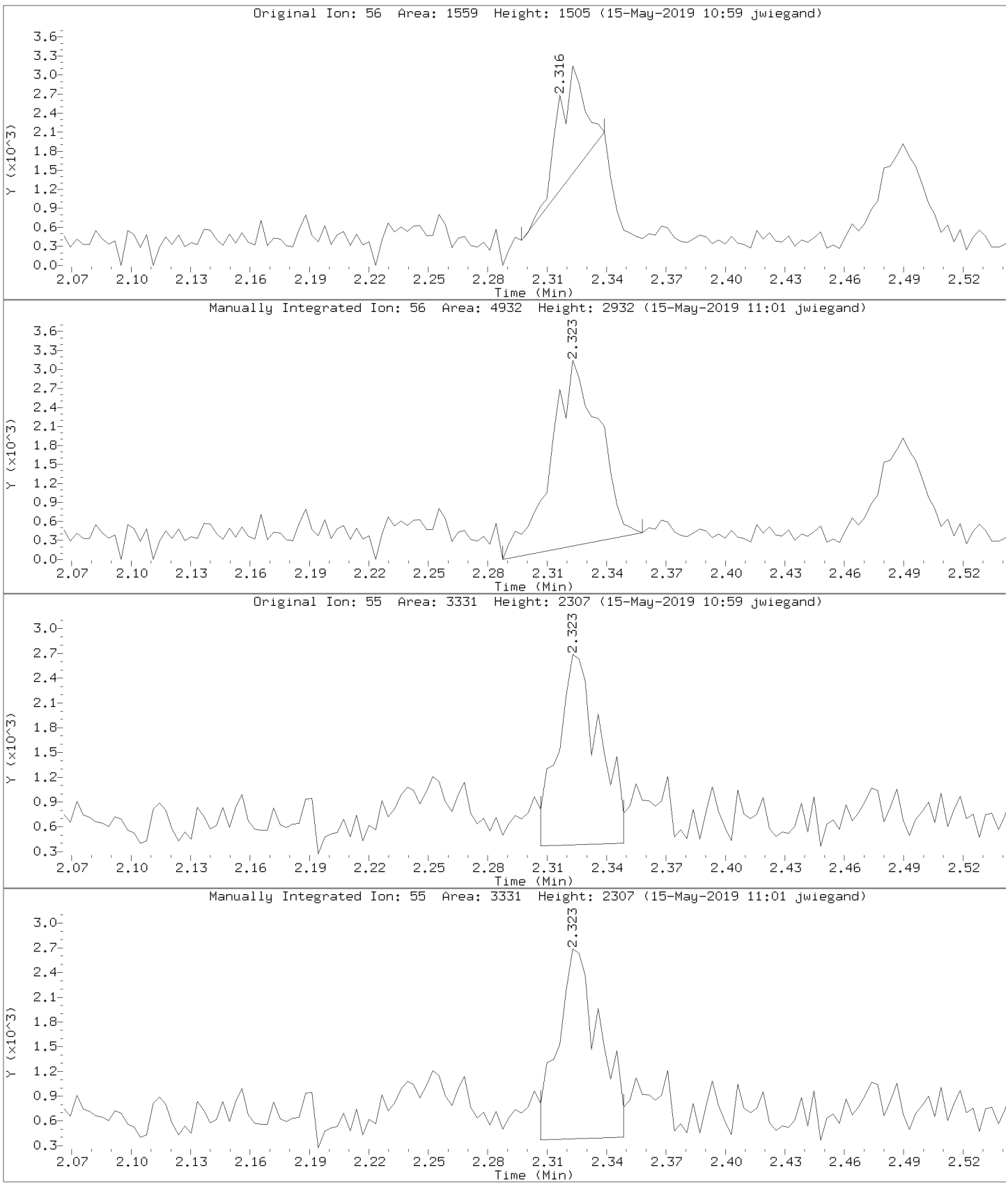
Date : 14-MAY-2019 16:26
Client ID: CAL4
Sample Info: CAL4, 87717:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514015.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514015.d
Injection Date: 14-MAY-2019 16:26
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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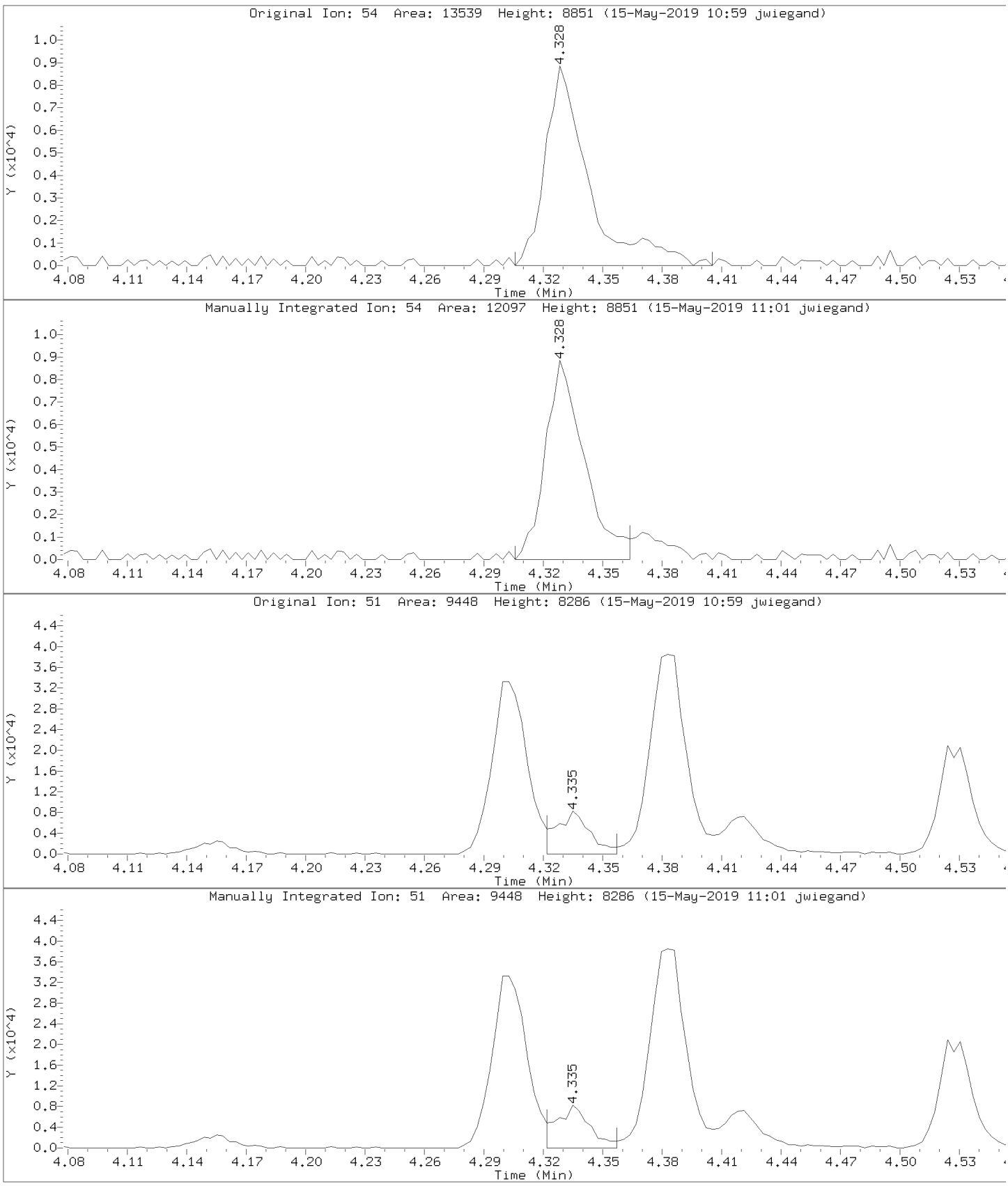
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Propionitrile Review Code: CO
CAS Number: 107-12-0



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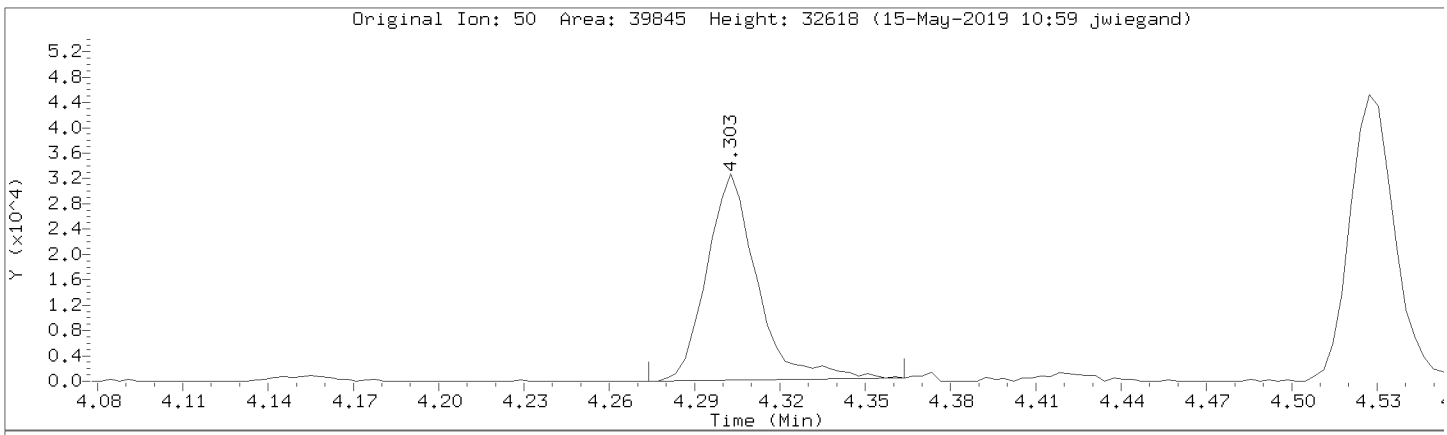

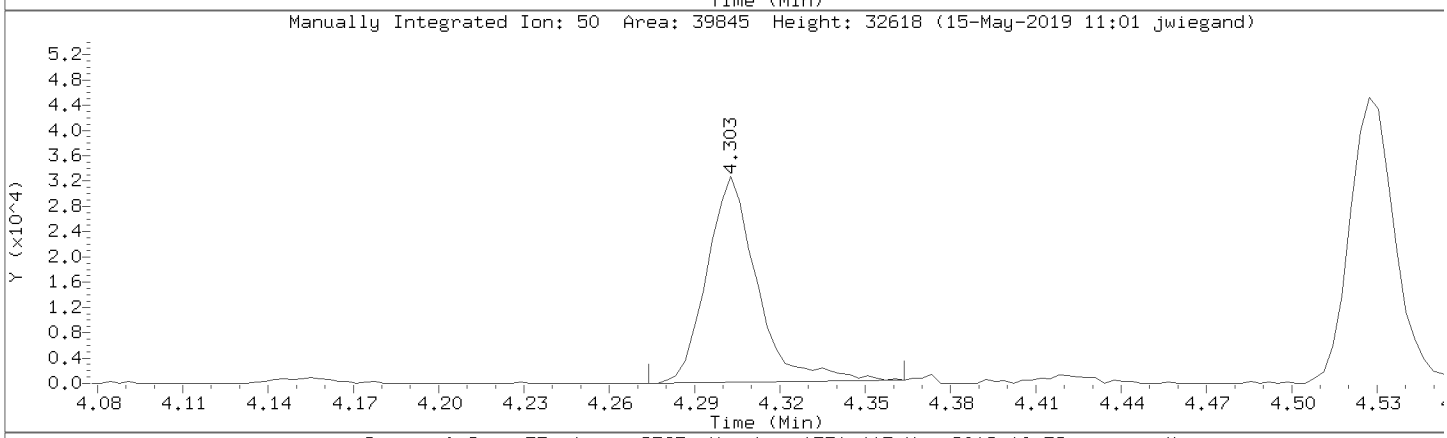

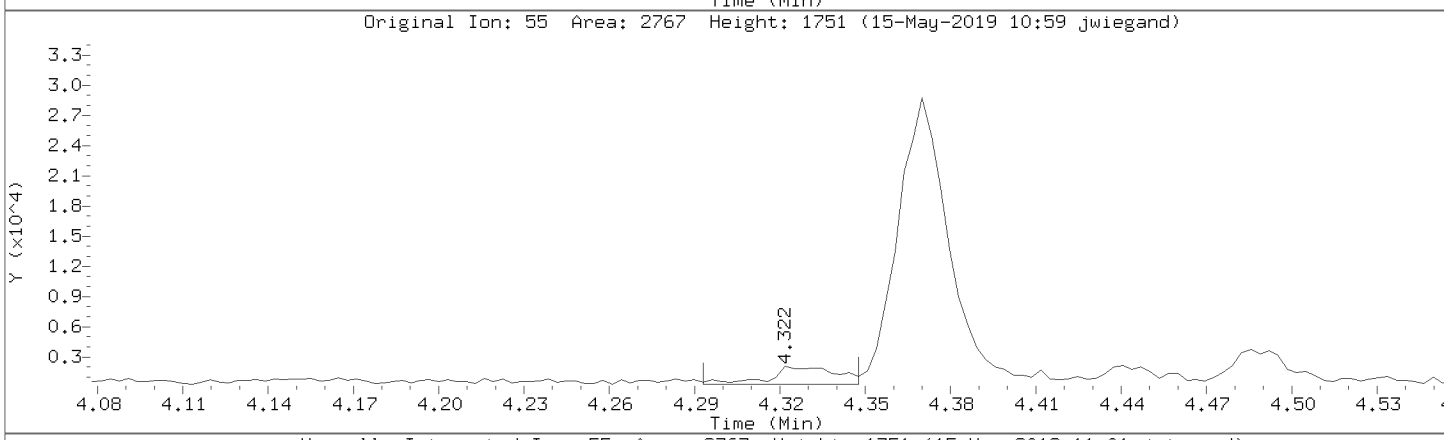

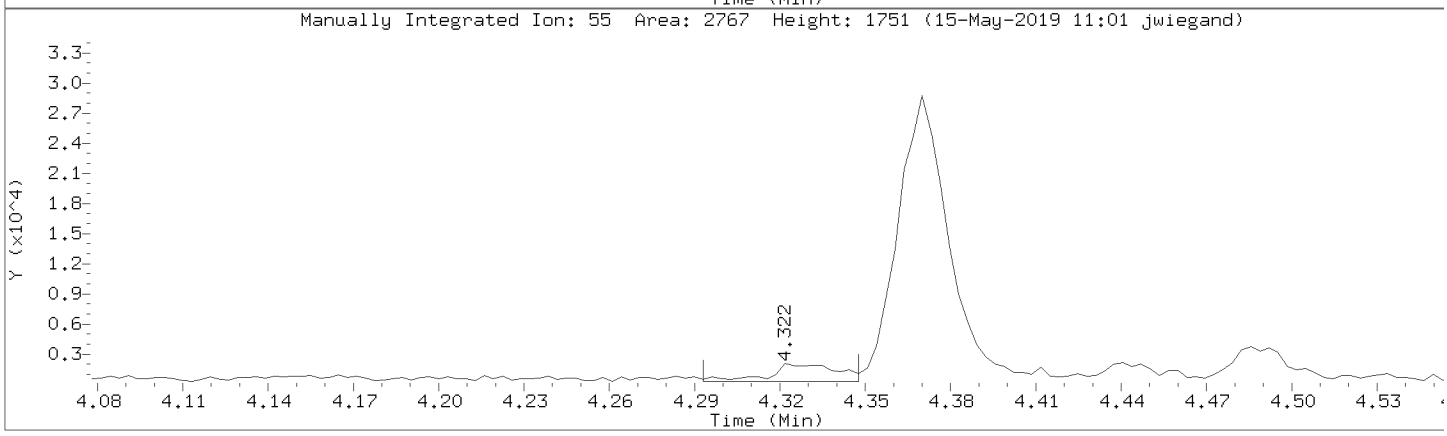

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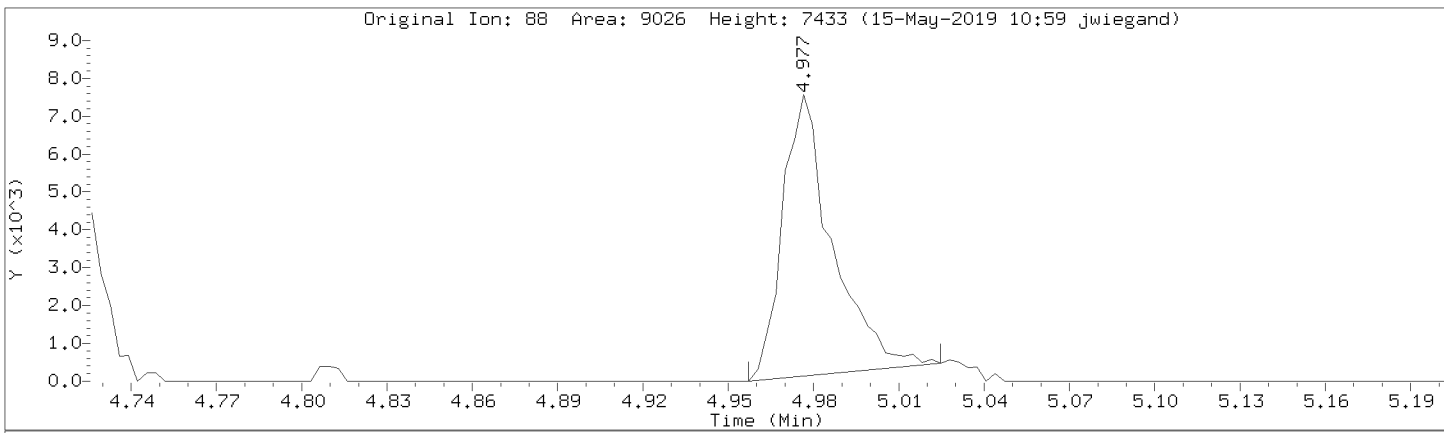
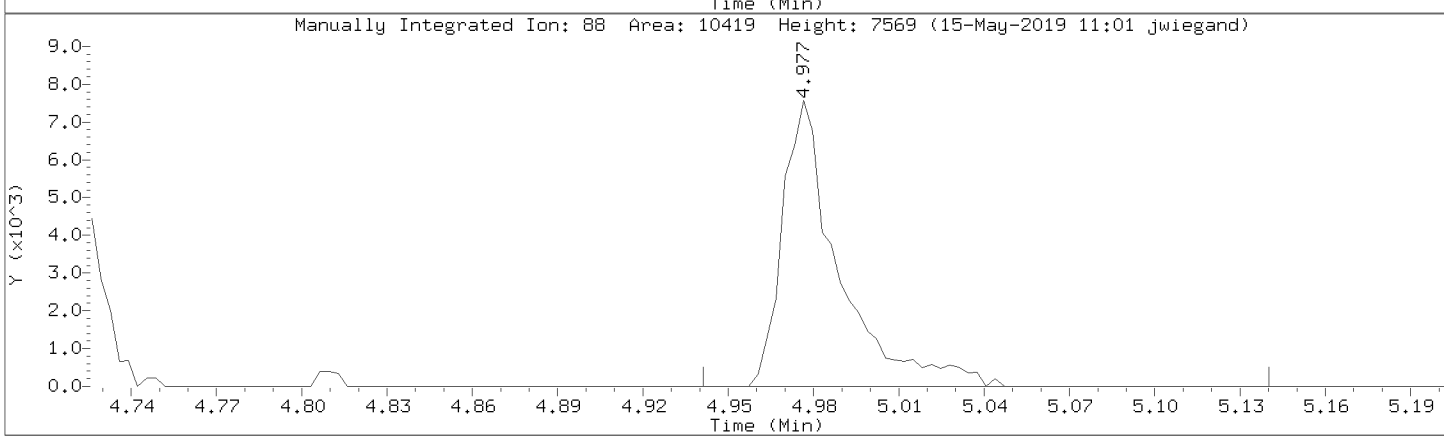
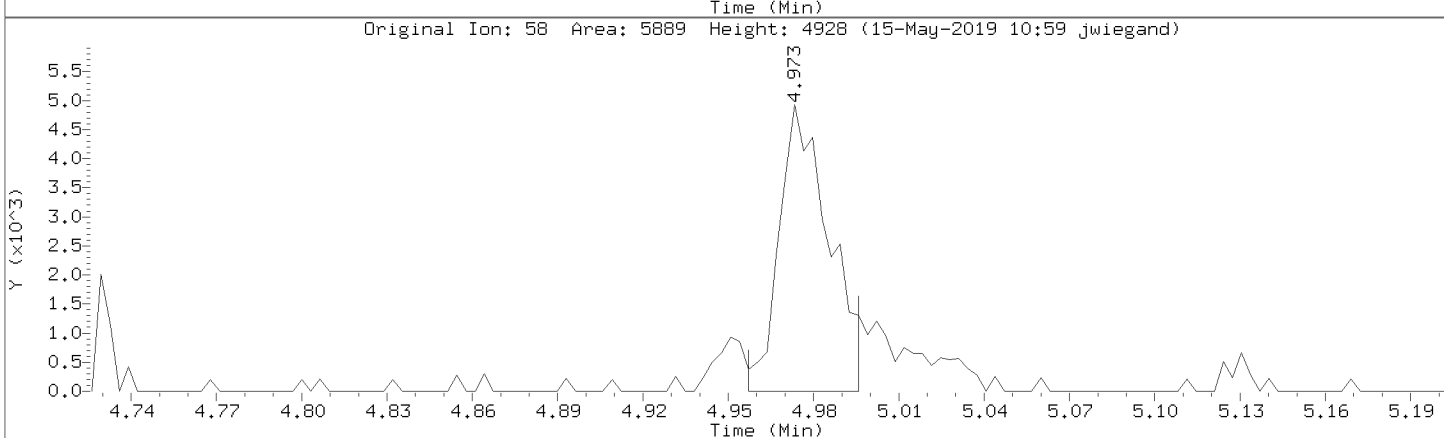
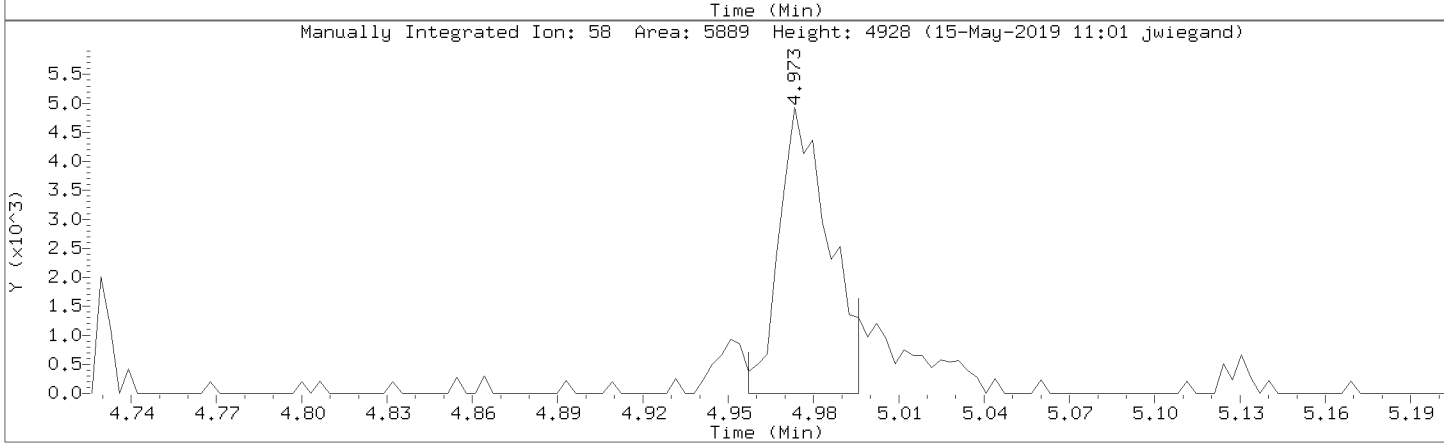
Injection Date: 14-MAY-2019 16:26
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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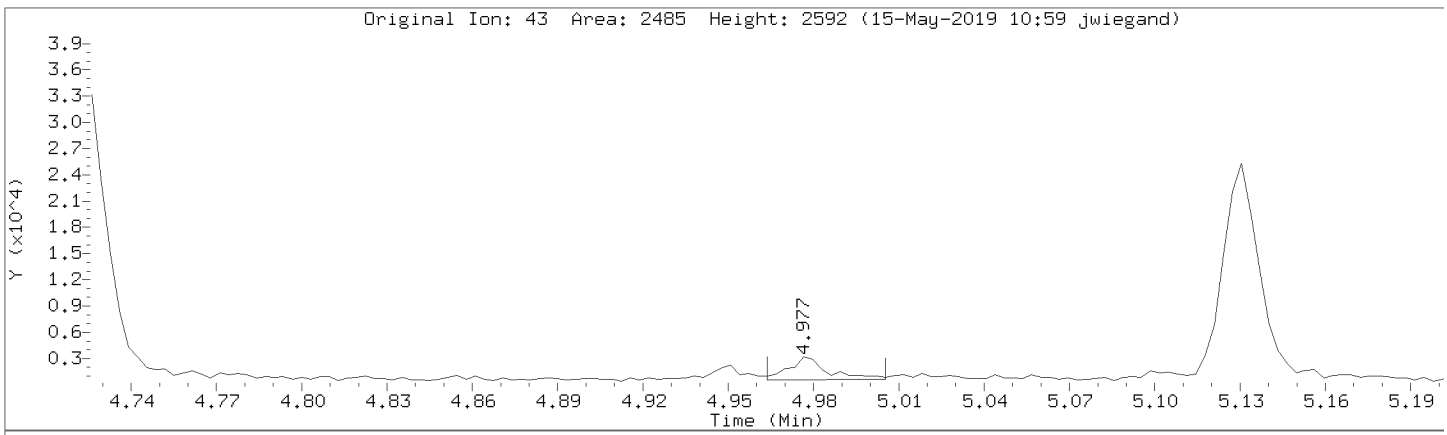
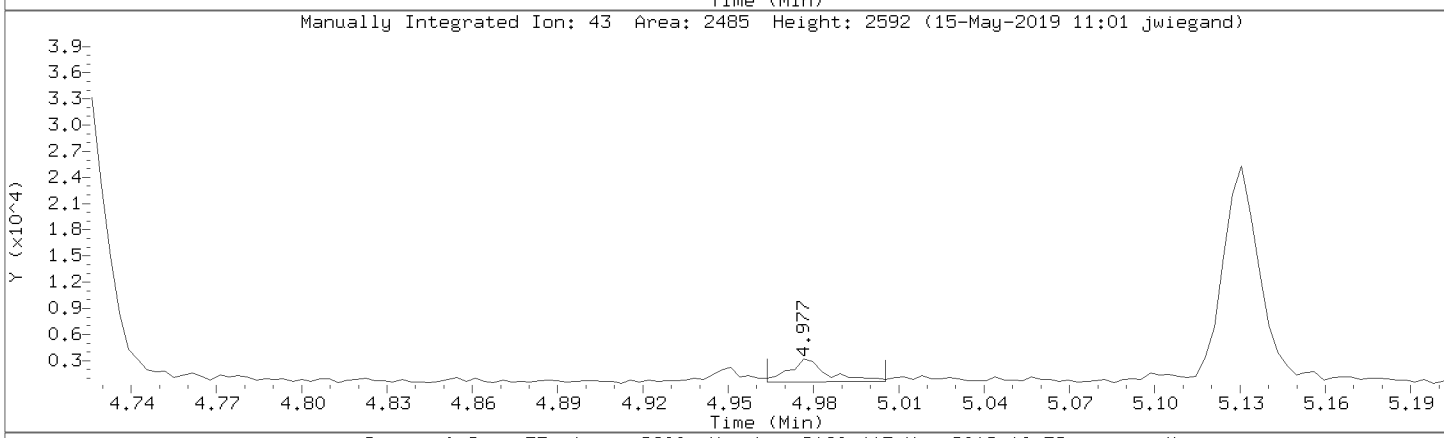
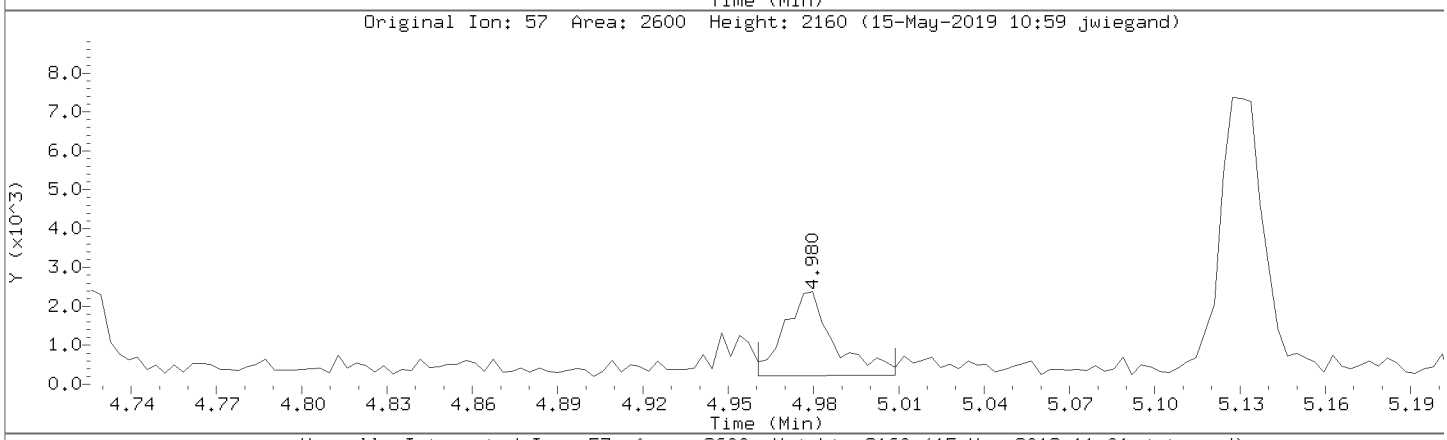
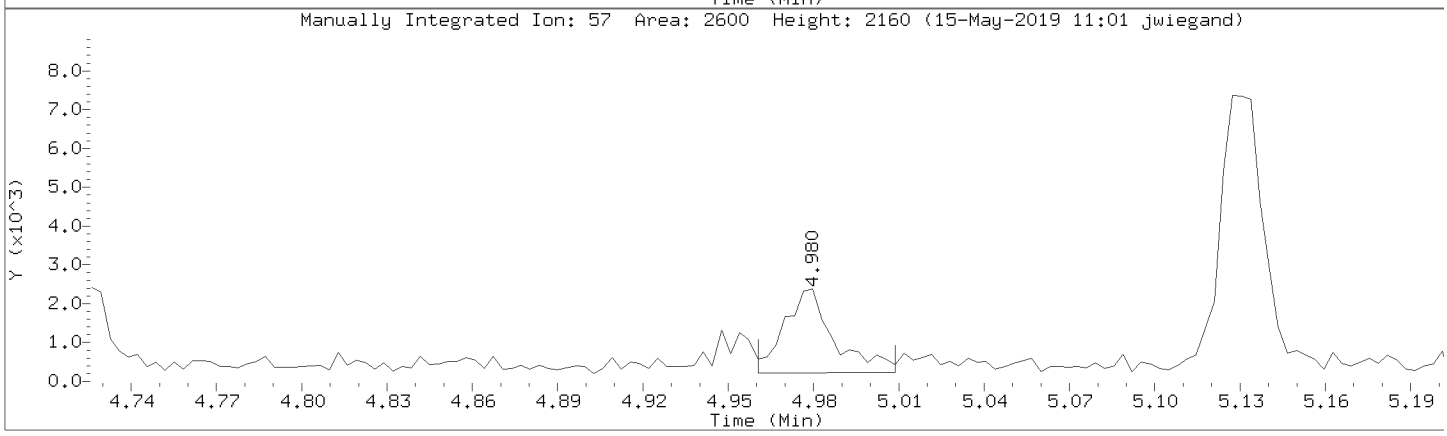
Lab Sample ID: CAL4









Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 14-MAY-2019 16:52
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal5, 87718:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 16:52 Cal File: 60514017.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.229	(0.271)	159635	50.0000	55.6(Q)	
2 Chloromethane	50	1.350	1.344	(0.298)	177528	50.0000	53.6(Q)	
3 Vinyl chloride	62	1.395	1.395	(0.308)	188139	50.0000	55.0(Q)	
4 Bromomethane	94	1.587	1.588	(0.351)	60604	50.0000	50.4(Q)	
5 Chloroethane	64	1.655	1.649	(0.366)	119079	50.0000	62.4(Q)	
6 Trichlorofluoromethane	101	1.741	1.736	(0.385)	227362	50.0000	55.9(Q)	
7 Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	142468	50.0000	52.2(Q)	
8 Ethanol	45	2.046	2.053	(0.298)	29534	500.000	601(Q)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	239073	50.0000	55.0(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.101	(0.463)	116477	50.0000	54.3(Q)	
11 Carbon disulfide	76	2.104	2.105	(0.465)	384520	50.0000	51.8(Q)	
12 Iodomethane	142	2.181	2.188	(0.482)	114172	50.0000	55.8(Q)	
13 Acrolein	56	2.325	2.316	(0.514)	12426	50.0000	57.6(QM)	LT
14 Allyl chloride	41	2.415	2.416	(0.534)	930999	250.000	281(Q)	
15 Methylene Chloride	49	2.502	2.502	(0.553)	236863	50.0000	56.4(Q)	
16 Acetone	43	2.547	2.547	(0.563)	62581	50.0000	55.8(QM)	LT
17 trans-1,2-Dichloroethene	61	2.624	2.628	(0.580)	223624	50.0000	54.0(Q)	
18 Methyl acetate	74	2.640	2.647	(0.583)	50011	50.0000	49.9(Q)	
19 n-Hexane	86	2.682	2.682	(0.592)	63342	50.0000	65.1(Q)	
20 Methyl-tert-butyl ether	73	2.711	2.717	(0.599)	454996	50.0000	50.7(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.800	2.798	(0.619)	168475	250.000	240(Q)	
	22 Acetonitrile	41	2.951	2.939	(0.652)	94851	250.000	268(Q)	
	23 Diisopropyl ether	45	3.044	3.051	(0.673)	476006	50.0000	50.4(Q)	
	24 Chloroprene	53	3.153	3.141	(0.697)	134116	50.0000	53.9(Q)	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	293236	50.0000	54.6(Q)	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	64596	50.0000	50.5(Q)	
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	519105	50.0000	50.3(Q)	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	364449	50.0000	49.8(Q)	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	227409	50.0000	53.6(Q)	
	30 2,2-Dichloropropane	77	3.808	3.805	(0.841)	250005	50.0000	54.9(Q)	
	31 Cyclohexane	56	3.872	3.873	(0.855)	265919	50.0000	54.0(Q)	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	119828	50.0000	53.5(Q)	
	33 Chloroform	83	3.940	3.943	(0.870)	272942	50.0000	54.0(Q)	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	236544	50.0000	53.9(Q)	
	35 Ethyl acetate	43	4.055	4.081	(0.896)	14589	50.0000	47.1(Q)	
	36 Tetrahydrofuran	42	4.049	4.056	(0.894)	64070	50.0000	51.3(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	124323	30.0000	30.7(Q)	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	257969	50.0000	54.9(Q)	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	92202	50.0000	48.5(Q)	
	40 1,1-Dichloropropene	75	4.155	4.149	(0.918)	211139	50.0000	53.6(Q)	
	41 Benzene	78	4.302	4.303	(0.950)	602198	50.0000	53.2(Q)	
	42 Propionitrile	54	4.328	4.328	(0.956)	30970	50.0000	54.4(Q)	
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	92282	50.0000	49.3(Q)	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	403036	50.0000	48.8(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	124210	30.0000	30.4(Q)	
	46 Isobutanol	43	4.440	4.444	(0.981)	55361	250.000	228(Q)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	222052	50.0000	52.2(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	480779	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	263071	50.0000	51.7(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	164424	50.0000	52.1(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	127669	50.0000	51.8(Q)	
	52 1,2-Dichloropropane	63	4.857	4.855	(1.073)	162351	50.0000	52.0(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	203964	50.0000	52.7(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	101442	50.0000	48.1(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.977	(1.100)	26358	500.000	515(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	96623	50.0000	47.6(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	252885	50.0000	51.1(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	434010	30.0000	30.1(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	651046	50.0000	52.5(Q)	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	322609	250.000	251(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	169678	50.0000	49.6(Q)	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	194163	50.0000	51.8(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	244122	50.0000	50.5(Q)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	133665	50.0000	51.5(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	143349	50.0000	50.0(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	186611	50.0000	49.8(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	238841	50.0000	50.4(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	157788	50.0000	50.3(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	132911	50.0000	50.7(Q)	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	260412	50.0000	52.8(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	382387	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	474967	50.0000	52.0(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	184512	50.0000	49.3(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	650270	100.000	106(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.141	(1.043)	316042	50.0000	51.8(Q)	
76	Styrene	104	6.160	6.161	(1.046)	566314	50.0000	52.9(Q)	
77	Bromoform	173	6.186	6.186	(0.900)	145645	50.0000	49.3(Q)	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	847064	50.0000	54.5(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	167747	30.0000	30.0(Q)	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	954047	50.0000	54.3(Q)	
81	Bromobenzene	77	6.446	6.446	(0.938)	334330	50.0000	51.9(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	188216	50.0000	48.7(Q)	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	709173	50.0000	53.2(Q)	
84	2-Chlorotoluene	126	6.516	6.517	(0.948)	217132	50.0000	52.1(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	69496	50.0000	49.5(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	62410	50.0000	50.7(Q)	
87	Cyclohexanone	55	6.568	6.571	(0.956)	81428	250.000	255(Q)	
88	4-Chlorotoluene	126	6.587	6.587	(0.958)	230097	50.0000	52.0(Q)	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	669880	50.0000	53.3(Q)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	746262	50.0000	53.6(Q)	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	952201	50.0000	54.2(Q)	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	883493	50.0000	54.7(Q)	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	480321	50.0000	52.5(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	230303	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	492646	50.0000	52.8(Q)	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	747068	50.0000	54.3(Q)	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	453434	50.0000	51.8(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	230299	30.0000	30.0(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.077)	69270	50.0000	49.5(Q)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	361239	50.0000	53.8(Q)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	185382	50.0000	53.3(Q)	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	329150	50.0000	53.1(Q)	
102	Naphthalene	128	7.838	7.839	(1.141)	822374	50.0000	53.6(Q)	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	290367	50.0000	53.8(Q)	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	383790	50.0000	56.2(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514017.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	480779	8.26
71 Chlorobenzene-d5	375201	187601	750402	382387	1.92
94 1,4-Dichlorobenze	228764	114382	457528	230303	0.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	55.6	
74-87-3	Chloromethane	53.6	
75-01-4	Vinyl chloride	55.0	
74-83-9	Bromomethane	50.4	
75-00-3	Chloroethane	62.4	
75-69-4	Trichlorofluoromethane	55.9	
60-29-7	Diethyl ether (Ethyl ether)	52.2	
64-17-5	Ethanol	601	
75-35-4	1,1-Dichloroethene	55.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	54.3	
75-15-0	Carbon disulfide	51.8	
74-88-4	Iodomethane	55.8	
107-02-8	Acrolein	57.6	
107-05-1	Allyl chloride	281	
75-09-2	Methylene Chloride	56.4	
67-64-1	Acetone	55.8	
156-60-5	trans-1,2-Dichloroethene	54.0	
79-20-9	Methyl acetate	49.9	
110-54-3	n-Hexane	65.1	
1634-04-4	Methyl-tert-butyl ether	50.7	
75-65-0	tert-Butyl Alcohol	240	
75-05-8	Acetonitrile	268	
108-20-3	Diisopropyl ether	50.4	
126-99-8	Chloroprene	53.9	
75-34-3	1,1-Dichloroethane	54.6	
107-13-1	Acrylonitrile	50.5	
637-92-3	Ethyl-tert-butyl ether	50.3	
108-05-4	Vinyl acetate	49.8	
156-59-2	cis-1,2-Dichloroethene	53.6	
594-20-7	2,2-Dichloropropane	54.9	
110-82-7	Cyclohexane	54.0	
74-97-5	Bromochloromethane	53.5	
67-66-3	Chloroform	54.0	
56-23-5	Carbon tetrachloride	53.9	
141-78-6	Ethyl acetate	47.1	
109-99-9	Tetrahydrofuran	51.3	
71-55-6	1,1,1-Trichloroethane	54.9	
78-93-3	2-Butanone (MEK)	48.5	
563-58-6	1,1-Dichloropropene	53.6	
71-43-2	Benzene	53.2	
107-12-0	Propionitrile	54.4	
126-98-7	Methacrylonitrile	49.3	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	48.8	
78-83-1	Isobutanol	228	
107-06-2	1,2-Dichloroethane	52.2	
108-87-2	Methylcyclohexane	51.7	
79-01-6	Trichloroethene	52.1	
74-95-3	Dibromomethane	51.8	
78-87-5	1,2-Dichloropropane	52.0	
75-27-4	Bromodichloromethane	52.7	
80-62-6	Methyl methacrylate	48.1	
123-91-1	1,4-Dioxane (p-Dioxane)	515	
110-75-8	2-Chloroethylvinyl ether	47.6	
10061-01-5	cis-1,3-Dichloropropene	51.1	
108-88-3	Toluene	52.5	
79-46-9	2-Nitropropane	251	
108-10-1	4-Methyl-2-pentanone (MIBK)	49.6	
127-18-4	Tetrachloroethene	51.8	
10061-02-6	trans-1,3-Dichloropropene	50.5	
97-63-2	Ethyl methacrylate	51.5	
79-00-5	1,1,2-Trichloroethane	50.0	
124-48-1	Dibromochloromethane	49.8	
142-28-9	1,3-Dichloropropane	50.4	
106-93-4	1,2-Dibromoethane (EDB)	50.3	
591-78-6	2-Hexanone	50.7	
100-41-4	Ethylbenzene	52.8	
108-90-7	Chlorobenzene	52.0	
630-20-6	1,1,1,2-Tetrachloroethane	49.3	
7816-60-0	m&p-Xylene	106	
95-47-6	o-Xylene	51.8	
100-42-5	Styrene	52.9	
75-25-2	Bromoform	49.3	
98-82-8	Isopropylbenzene (Cumene)	54.5	
103-65-1	n-Propylbenzene	54.3	
108-86-1	Bromobenzene	51.9	
79-34-5	1,1,2,2-Tetrachloroethane	48.7	
108-67-8	1,3,5-Trimethylbenzene	53.2	
95-49-8	2-Chlorotoluene	52.1	
96-18-4	1,2,3-Trichloropropane	49.5	
110-57-6	trans-1,4-Dichloro-2-butene	50.7	
108-94-1	Cyclohexanone	255	
106-43-4	4-Chlorotoluene	52.0	
98-06-6	tert-Butylbenzene	53.3	
95-63-6	1,2,4-Trimethylbenzene	53.6	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Report Date: 17-Jun-2019 10:28

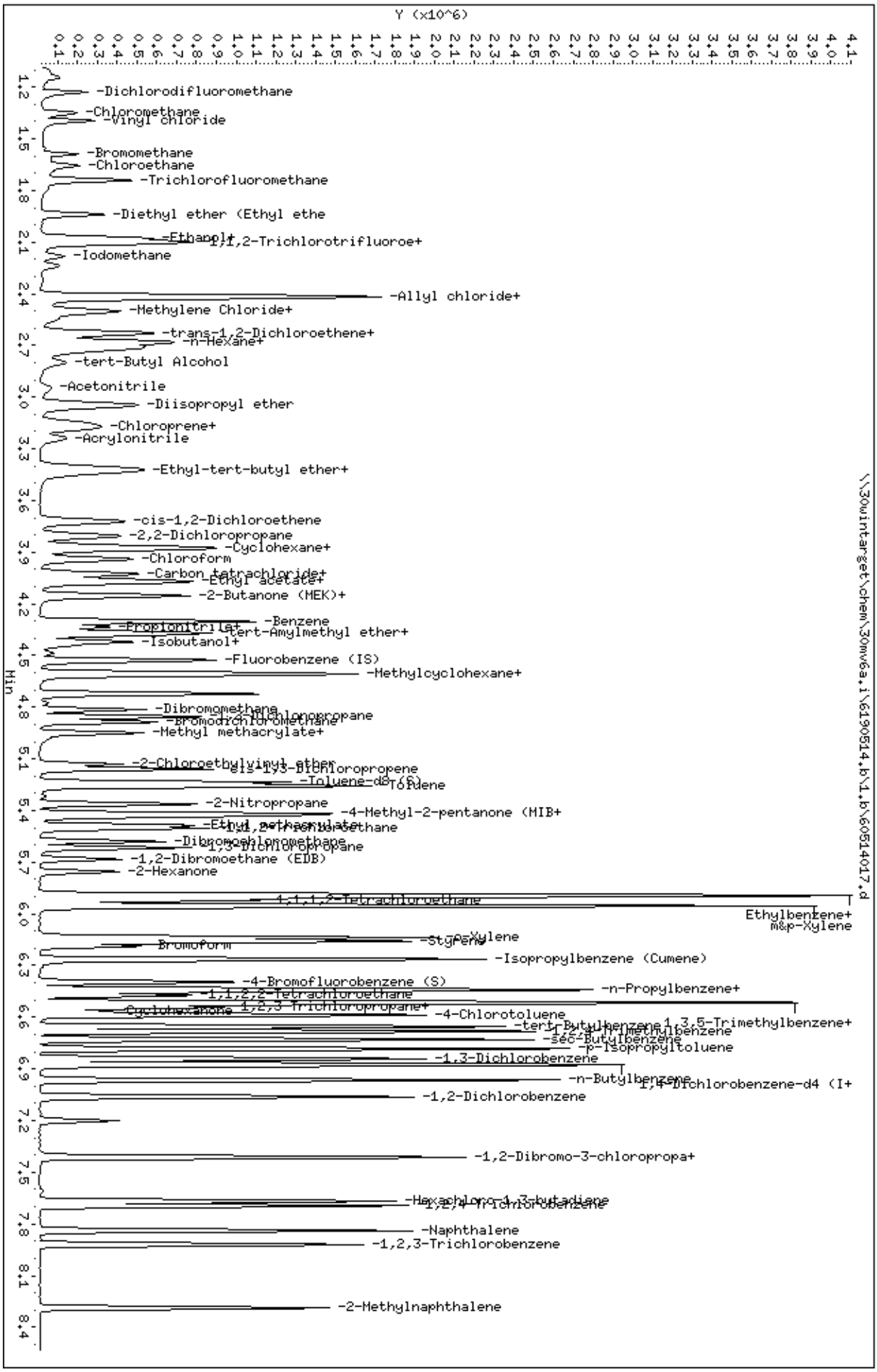
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

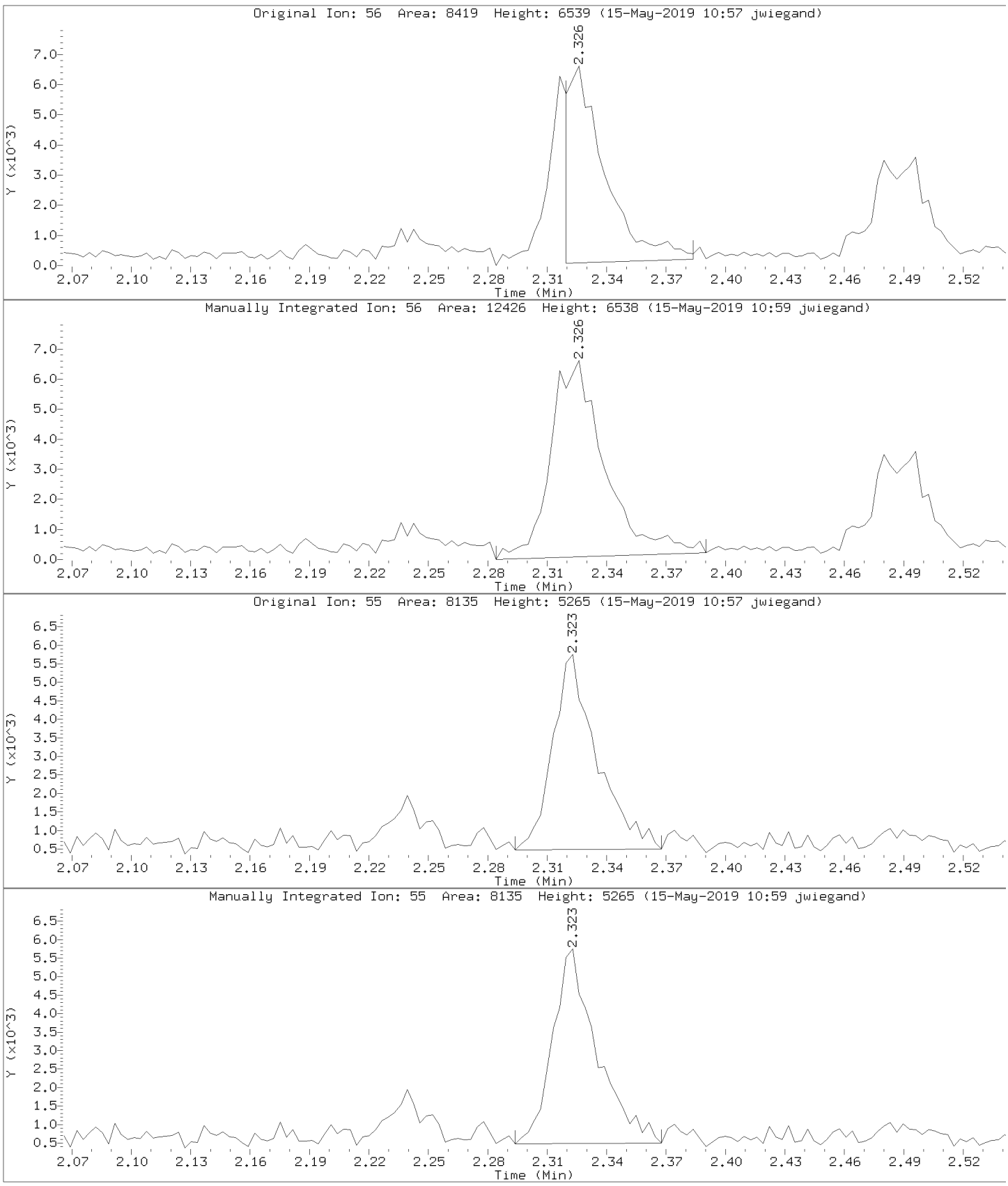
Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	54.2	
99-87-6	p-Isopropyltoluene	54.7	
541-73-1	1,3-Dichlorobenzene	52.5	
106-46-7	1,4-Dichlorobenzene	52.8	
104-51-8	n-Butylbenzene	54.3	
95-50-1	1,2-Dichlorobenzene	51.8	
96-12-8	1,2-Dibromo-3-chloropropane	49.5	
108-70-3	1,3,5-Trichlorobenzene	53.8	
87-68-3	Hexachloro-1,3-butadiene	53.3	
120-82-1	1,2,4-Trichlorobenzene	53.1	
91-20-3	Naphthalene	53.6	
87-61-6	1,2,3-Trichlorobenzene	53.8	
91-57-6	2-Methylnaphthalene	56.2	
1868-53-7	Dibromofluoromethane (S)	30.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.4	
2037-26-5	Toluene-d8 (S)	30.1	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	


Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Date : 14-MAY-2019 16:52
Client ID: CAL5
Sample Info: CAL5, 87718:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514017.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromochloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-4,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
Cyclohexanone
1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514017.d
Injection Date: 14-MAY-2019 16:52
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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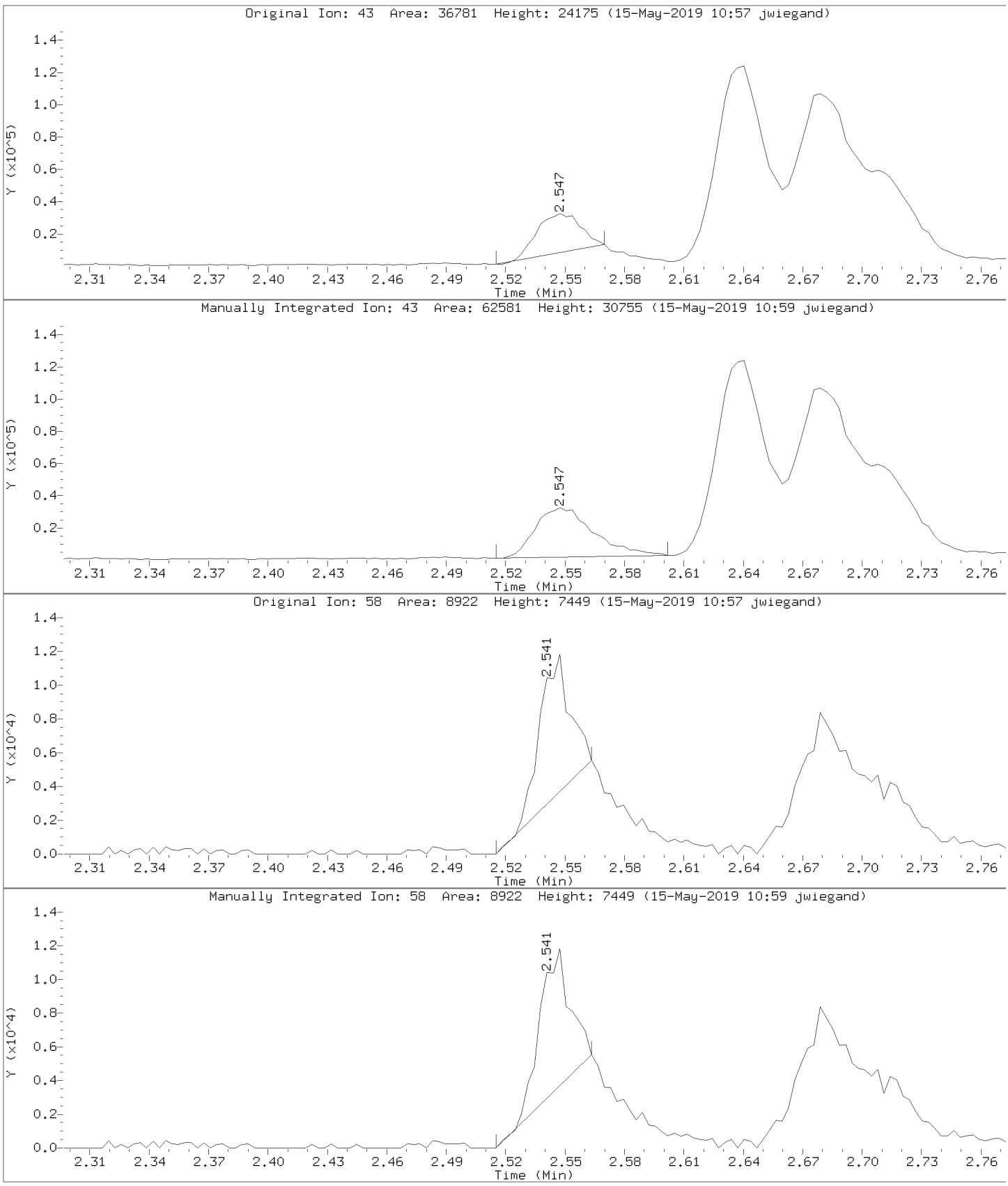
Injection Date: 14-MAY-2019 16:52
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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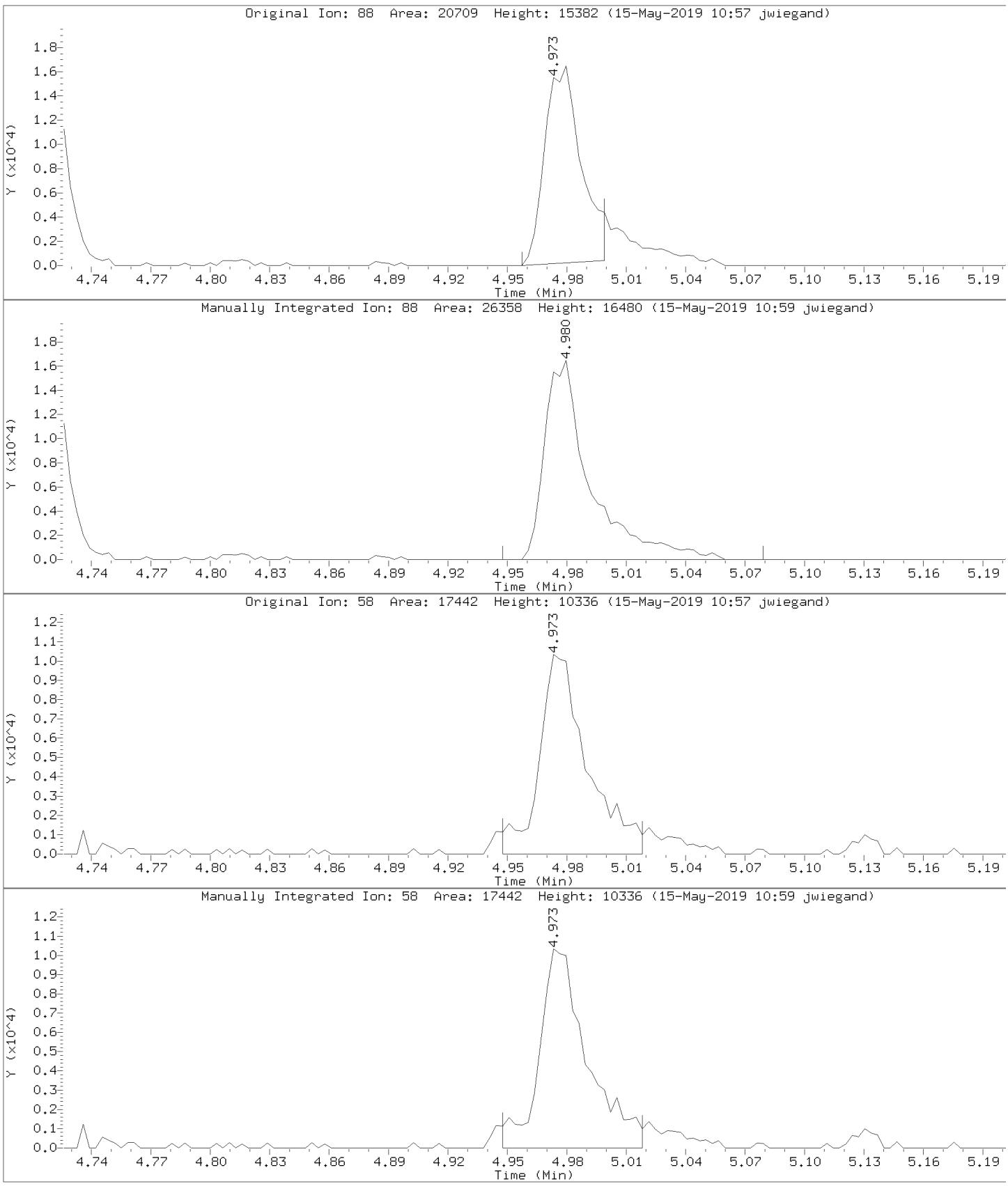
Injection Date: 14-MAY-2019 16:52
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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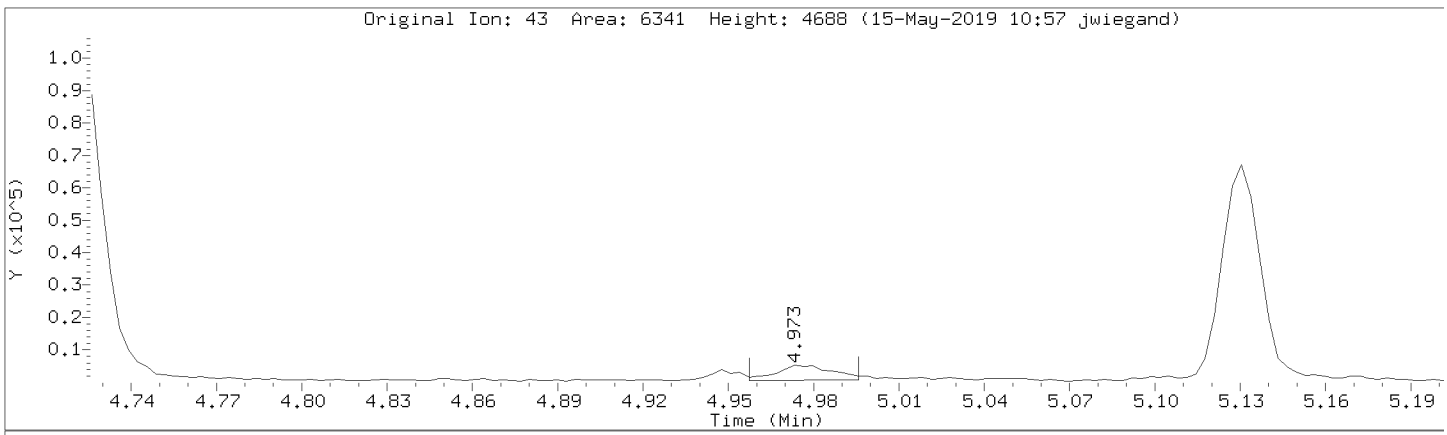
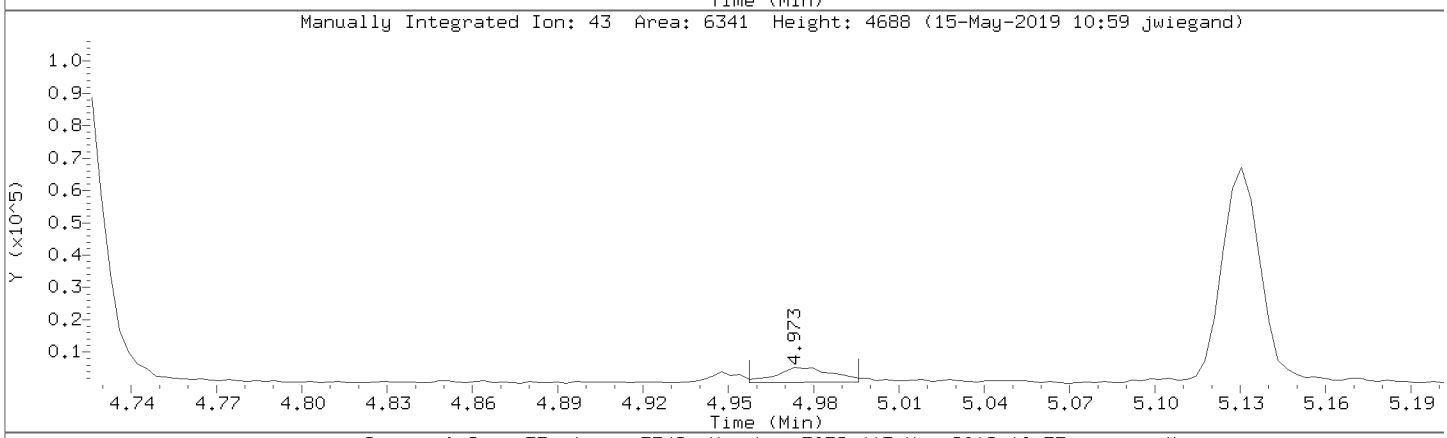
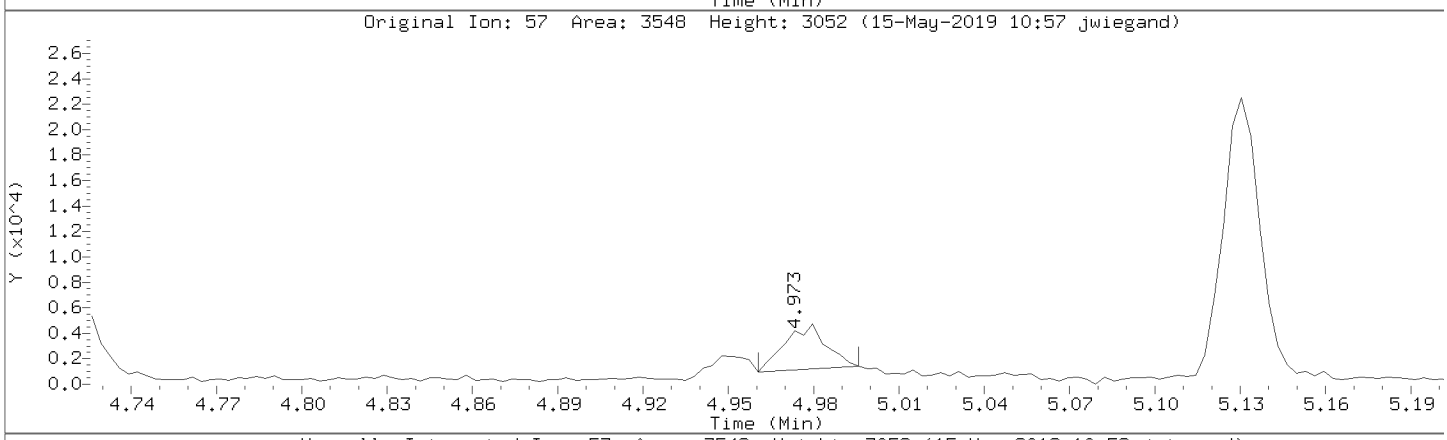
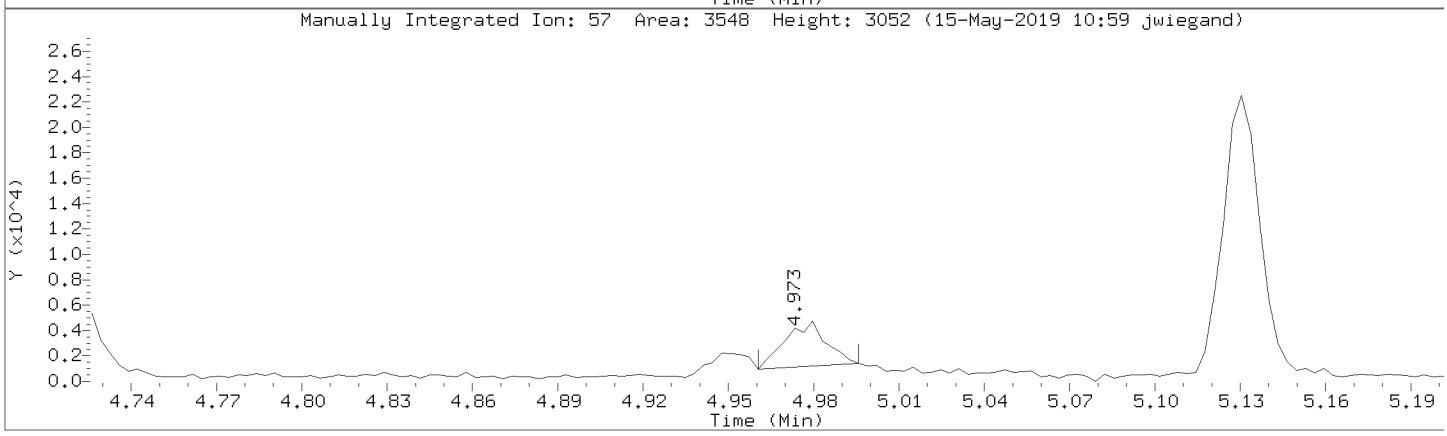
Injection Date: 14-MAY-2019 16:52
Instrument: 30mv6a.i
Lab Sample ID: CAL5









Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 14-MAY-2019 17:18
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal6, 87719:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 17:18 Cal File: 60514019.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.229	(0.271)	305032	100.000	106(Q)	
2	Chloromethane	50	1.350	1.344	(0.298)	349428	100.000	104(Q)	
3	Vinyl chloride	62	1.395	1.395	(0.308)	370931	100.000	108(Q)	
4	Bromomethane	94	1.587	1.588	(0.351)	124190	100.000	99.6(Q)	
5	Chloroethane	64	1.651	1.649	(0.365)	226701	100.000	124(Q)	
6	Trichlorofluoromethane	101	1.738	1.736	(0.384)	450314	100.000	111(Q)	
7	Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	281759	100.000	101(Q)	
8	Ethanol	45	2.053	2.053	(0.299)	59696	1000.00	1240(Q)	
9	1,1-Dichloroethene	61	2.075	2.076	(0.458)	469226	100.000	107(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.094	2.101	(0.463)	230909	100.000	106(Q)	
11	Carbon disulfide	76	2.101	2.105	(0.464)	811574	100.000	106(Q)	
12	Iodomethane	142	2.181	2.188	(0.482)	235494	100.000	115(Q)	
13	Acrolein	56	2.322	2.316	(0.513)	20064	100.000	94.2(Q)	
14	Allyl chloride	41	2.415	2.416	(0.534)	1817775	500.000	550(Q)	
15	Methylene Chloride	49	2.502	2.502	(0.553)	452127	100.000	108(Q)	
16	Acetone	43	2.547	2.547	(0.563)	115258	100.000	103(Q)	
17	trans-1,2-Dichloroethene	61	2.624	2.628	(0.580)	441977	100.000	105(Q)	
18	Methyl acetate	74	2.637	2.647	(0.583)	102235	100.000	98.0(Q)	
19	n-Hexane	86	2.678	2.682	(0.592)	99886	100.000	110(Q)	
20	Methyl-tert-butyl ether	73	2.714	2.717	(0.600)	936099	100.000	101(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.803	2.798	(0.619)	365668	500.000	493(Q)	
	22 Acetonitrile	41	2.948	2.939	(0.651)	189007	500.000	525(Q)	
	23 Diisopropyl ether	45	3.044	3.051	(0.673)	994126	100.000	101(Q)	
	24 Chloroprene	53	3.150	3.141	(0.696)	269212	100.000	107(Q)	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	572279	100.000	106(Q)	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	133904	100.000	101(Q)	
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	1061314	100.000	99.1(Q)	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	759580	100.000	99.7(Q)	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	455062	100.000	106(Q)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	487631	100.000	106(Q)	
	31 Cyclohexane	56	3.872	3.873	(0.855)	527324	100.000	106(Q)	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	241462	100.000	106(Q)	
	33 Chloroform	83	3.939	3.943	(0.870)	541035	100.000	106(Q)	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	470071	100.000	106(Q)	
	35 Ethyl acetate	43	4.052	4.081	(0.895)	30669	100.000	93.2(Q)	
	36 Tetrahydrofuran	42	4.049	4.056	(0.894)	125097	100.000	97.2(Q)	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	126872	30.0000	30.4(Q)	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	500362	100.000	106(Q)	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	197589	100.000	98.8(Q)	
	40 1,1-Dichloropropene	75	4.154	4.149	(0.918)	423308	100.000	106(Q)	
	41 Benzene	78	4.302	4.303	(0.950)	1215919	100.000	105(Q)	
	42 Propionitrile	54	4.331	4.328	(0.957)	59236	100.000	103(Q)	
	43 Methacrylonitrile	41	4.337	4.338	(0.958)	193382	100.000	98.8(Q)	
	44 tert-Amylmethyl ether	73	4.369	4.370	(0.965)	858827	100.000	99.1(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	126383	30.0000	29.9(Q)	
	46 Isobutanol	43	4.440	4.444	(0.981)	127296	500.000	490(Q)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	447258	100.000	102(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	500553	30.0000	(Q)	
	49 Methylcyclohexane	83	4.604	4.601	(1.017)	536241	100.000	102(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	334495	100.000	106(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	256990	100.000	101(Q)	
	52 1,2-Dichloropropane	63	4.857	4.855	(1.073)	330189	100.000	103(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	405237	100.000	102(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	219927	100.000	99.0(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	53688	1000.00	1020(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	208065	100.000	96.9(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	520762	100.000	102(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	444698	30.0000	30.3(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	1321173	100.000	106(Q)	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	666616	500.000	499(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	353475	100.000	98.9(Q)	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	395762	100.000	105(Q)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	500411	100.000	102(Q)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	266973	100.000	102(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	294524	100.000	101(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	386842	100.000	101(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	489943	100.000	102(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	319301	100.000	99.9(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	267310	100.000	100(Q)	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	519142	100.000	105(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	390053	30.0000	(Q)	
	72 Chlorobenzene	112	5.897	5.897	(1.002)	960141	100.000	104(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	386487	100.000	101(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	1297785	200.000	212(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.141	(1.043)	637577	100.000	104(Q)	
76	Styrene	104	6.160	6.161	(1.046)	1115258	100.000	104(Q)	
77	Bromoform	173	6.186	6.186	(0.900)	299083	100.000	96.2(Q)	
78	Isopropylbenzene (Cumene)	105	6.266	6.263	(0.912)	1681668	100.000	106(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	174587	30.0000	29.7(Q)	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	1899681	100.000	106(Q)	
81	Bromobenzene	77	6.446	6.446	(0.938)	680976	100.000	102(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	396222	100.000	97.0(Q)	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	1425063	100.000	104(Q)	
84	2-Chlorotoluene	126	6.519	6.517	(0.949)	440077	100.000	102(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	141783	100.000	96.0(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	126064	100.000	98.1(Q)	
87	Cyclohexanone	55	6.568	6.571	(0.956)	165977	500.000	499(Q)	
88	4-Chlorotoluene	126	6.587	6.587	(0.958)	463921	100.000	101(Q)	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	1336318	100.000	104(Q)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	1496686	100.000	105(Q)	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	1912709	100.000	107(Q)	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	1742911	100.000	106(Q)	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	971568	100.000	103(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	241533	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	990092	100.000	103(Q)	
96	n-Butylbenzene	91	6.965	6.966	(1.014)	1500516	100.000	107(Q)	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	928676	100.000	102(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	241529	30.0000	30.0(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.077)	143219	100.000	97.4(Q)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	719391	100.000	105(Q)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	372890	100.000	104(Q)	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	666880	100.000	105(Q)	
102	Naphthalene	128	7.838	7.839	(1.141)	1664991	100.000	106(Q)	
103	1,2,3-Trichlorobenzene	180	7.918	7.922	(1.152)	586049	100.000	106(Q)	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	722559	100.000	108(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514019.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	500553	12.72
71 Chlorobenzene-d5	375201	187601	750402	390053	3.96
94 1,4-Dichlorobenze	228764	114382	457528	241533	5.58

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	106	
74-87-3	Chloromethane	104	
75-01-4	Vinyl chloride	108	
74-83-9	Bromomethane	99.6	
75-00-3	Chloroethane	124	
75-69-4	Trichlorofluoromethane	111	
60-29-7	Diethyl ether (Ethyl ether)	101	
64-17-5	Ethanol	1240	
75-35-4	1,1-Dichloroethene	107	
76-13-1	1,1,2-Trichlorotrifluoroetha	106	
75-15-0	Carbon disulfide	106	
74-88-4	Iodomethane	115	
107-02-8	Acrolein	94.2	
107-05-1	Allyl chloride	550	
75-09-2	Methylene Chloride	108	
67-64-1	Acetone	103	
156-60-5	trans-1,2-Dichloroethene	105	
79-20-9	Methyl acetate	98.0	
110-54-3	n-Hexane	110	
1634-04-4	Methyl-tert-butyl ether	101	
75-65-0	tert-Butyl Alcohol	493	
75-05-8	Acetonitrile	525	
108-20-3	Diisopropyl ether	101	
126-99-8	Chloroprene	107	
75-34-3	1,1-Dichloroethane	106	
107-13-1	Acrylonitrile	101	
637-92-3	Ethyl-tert-butyl ether	99.1	
108-05-4	Vinyl acetate	99.7	
156-59-2	cis-1,2-Dichloroethene	106	
594-20-7	2,2-Dichloropropane	106	
110-82-7	Cyclohexane	106	
74-97-5	Bromochloromethane	106	
67-66-3	Chloroform	106	
56-23-5	Carbon tetrachloride	106	
141-78-6	Ethyl acetate	93.2	
109-99-9	Tetrahydrofuran	97.2	
71-55-6	1,1,1-Trichloroethane	106	
78-93-3	2-Butanone (MEK)	98.8	
563-58-6	1,1-Dichloropropene	106	
71-43-2	Benzene	105	
107-12-0	Propionitrile	103	
126-98-7	Methacrylonitrile	98.8	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	99.1	
78-83-1	Isobutanol	490	
107-06-2	1,2-Dichloroethane	102	
108-87-2	Methylcyclohexane	102	
79-01-6	Trichloroethene	106	
74-95-3	Dibromomethane	101	
78-87-5	1,2-Dichloropropane	103	
75-27-4	Bromodichloromethane	102	
80-62-6	Methyl methacrylate	99.0	
123-91-1	1,4-Dioxane (p-Dioxane)	1020	
110-75-8	2-Chloroethylvinyl ether	96.9	
10061-01-5	cis-1,3-Dichloropropene	102	
108-88-3	Toluene	106	
79-46-9	2-Nitropropane	499	
108-10-1	4-Methyl-2-pentanone (MIBK)	98.9	
127-18-4	Tetrachloroethene	105	
10061-02-6	trans-1,3-Dichloropropene	102	
97-63-2	Ethyl methacrylate	102	
79-00-5	1,1,2-Trichloroethane	101	
124-48-1	Dibromochloromethane	101	
142-28-9	1,3-Dichloropropane	102	
106-93-4	1,2-Dibromoethane (EDB)	99.9	
591-78-6	2-Hexanone	100	
100-41-4	Ethylbenzene	105	
108-90-7	Chlorobenzene	104	
630-20-6	1,1,1,2-Tetrachloroethane	101	
7816-60-0	m&p-Xylene	212	
95-47-6	o-Xylene	104	
100-42-5	Styrene	104	
75-25-2	Bromoform	96.2	
98-82-8	Isopropylbenzene (Cumene)	106	
103-65-1	n-Propylbenzene	106	
108-86-1	Bromobenzene	102	
79-34-5	1,1,2,2-Tetrachloroethane	97.0	
108-67-8	1,3,5-Trimethylbenzene	104	
95-49-8	2-Chlorotoluene	102	
96-18-4	1,2,3-Trichloropropane	96.0	
110-57-6	trans-1,4-Dichloro-2-butene	98.1	
108-94-1	Cyclohexanone	499	
106-43-4	4-Chlorotoluene	101	
98-06-6	tert-Butylbenzene	104	
95-63-6	1,2,4-Trimethylbenzene	105	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Report Date: 17-Jun-2019 10:28

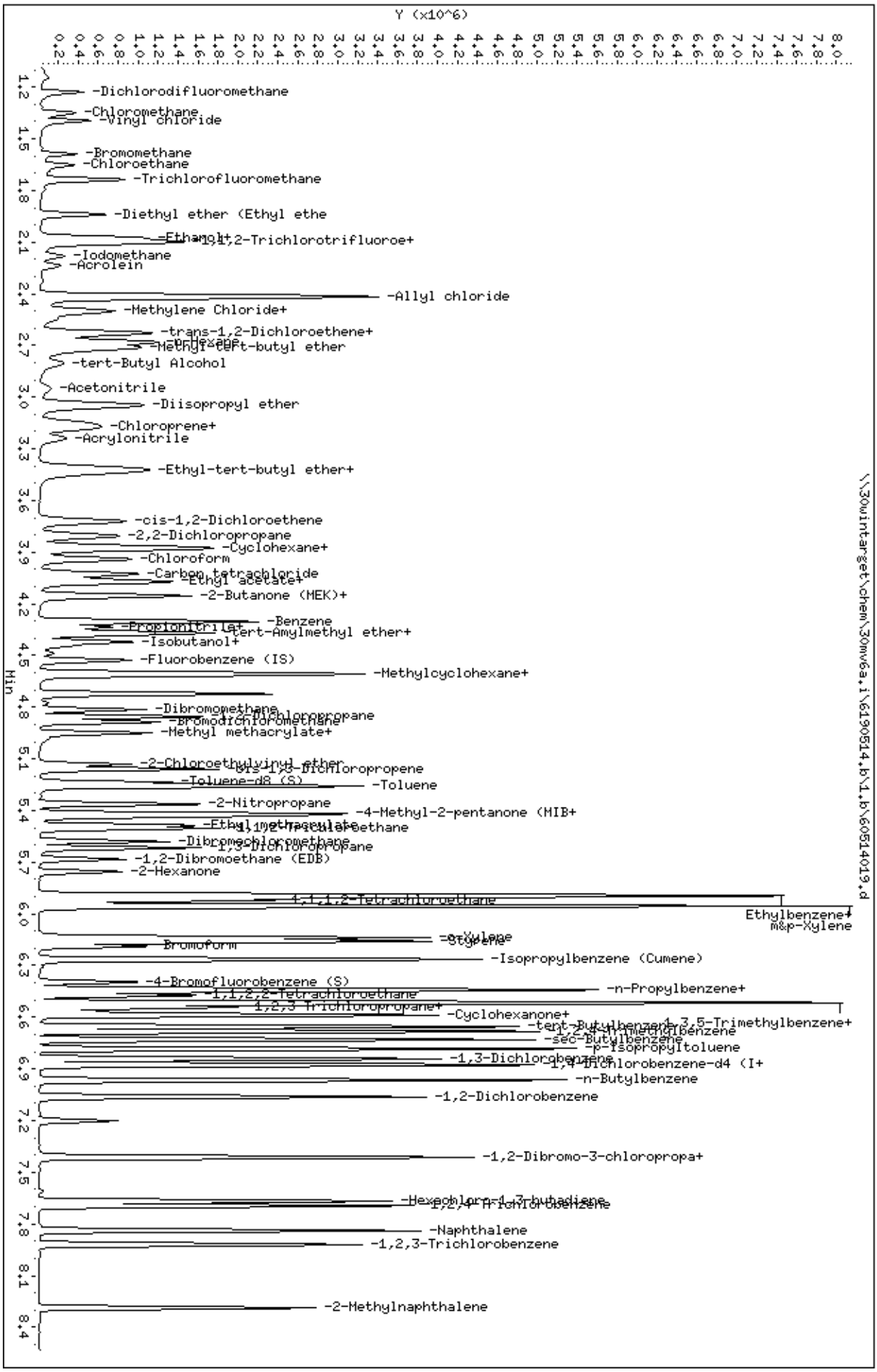
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	107	
99-87-6	p-Isopropyltoluene	106	
541-73-1	1,3-Dichlorobenzene	103	
106-46-7	1,4-Dichlorobenzene	103	
104-51-8	n-Butylbenzene	107	
95-50-1	1,2-Dichlorobenzene	102	
96-12-8	1,2-Dibromo-3-chloropropane	97.4	
108-70-3	1,3,5-Trichlorobenzene	105	
87-68-3	Hexachloro-1,3-butadiene	104	
120-82-1	1,2,4-Trichlorobenzene	105	
91-20-3	Naphthalene	106	
87-61-6	1,2,3-Trichlorobenzene	106	
91-57-6	2-Methylnaphthalene	108	
1868-53-7	Dibromofluoromethane (S)	30.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.9	
2037-26-5	Toluene-d8 (S)	30.3	
460-00-4	4-Bromofluorobenzene (S)	29.7	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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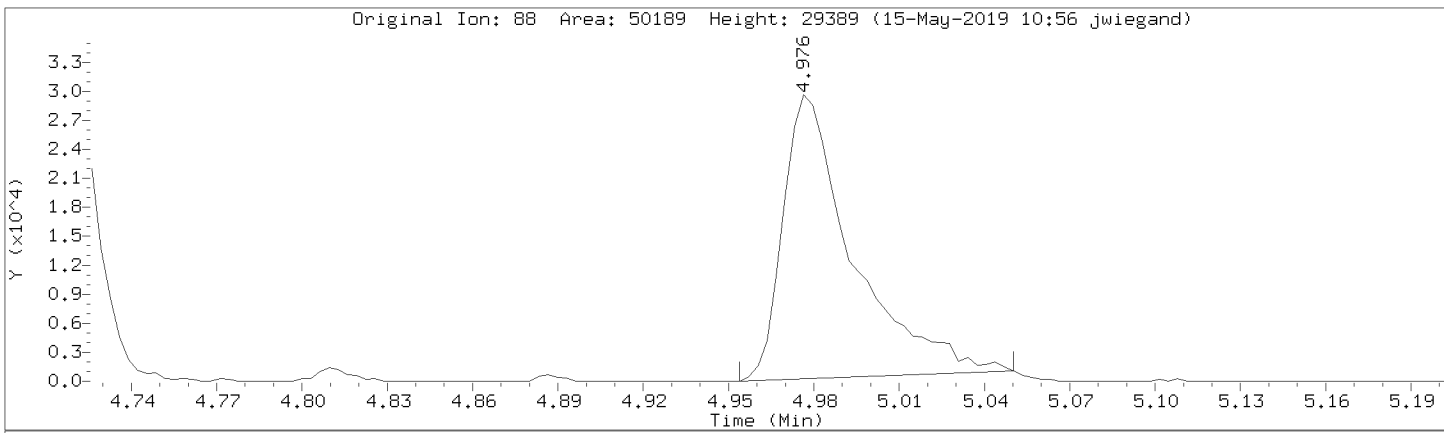
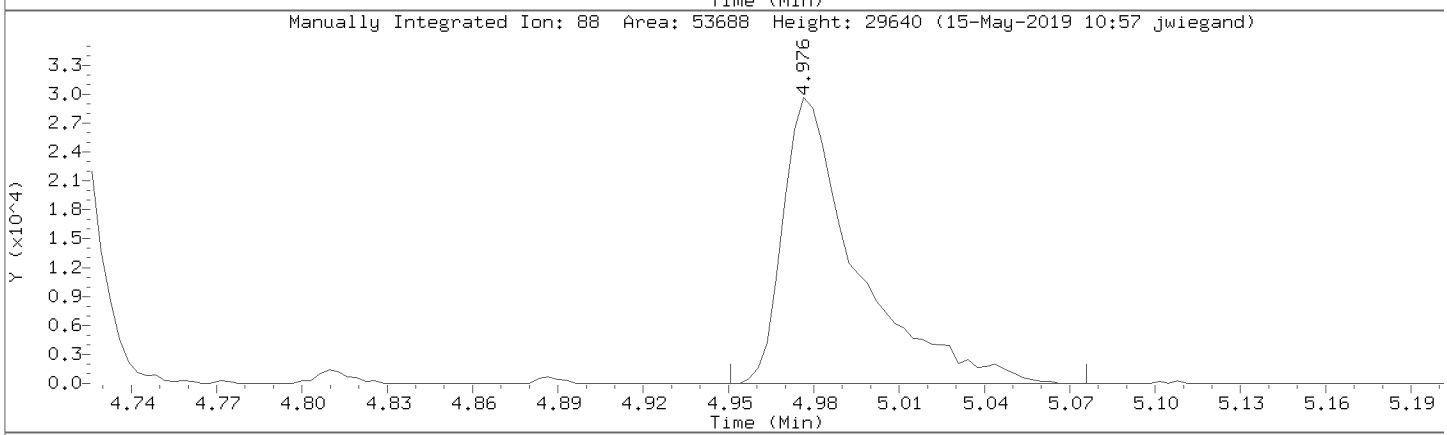
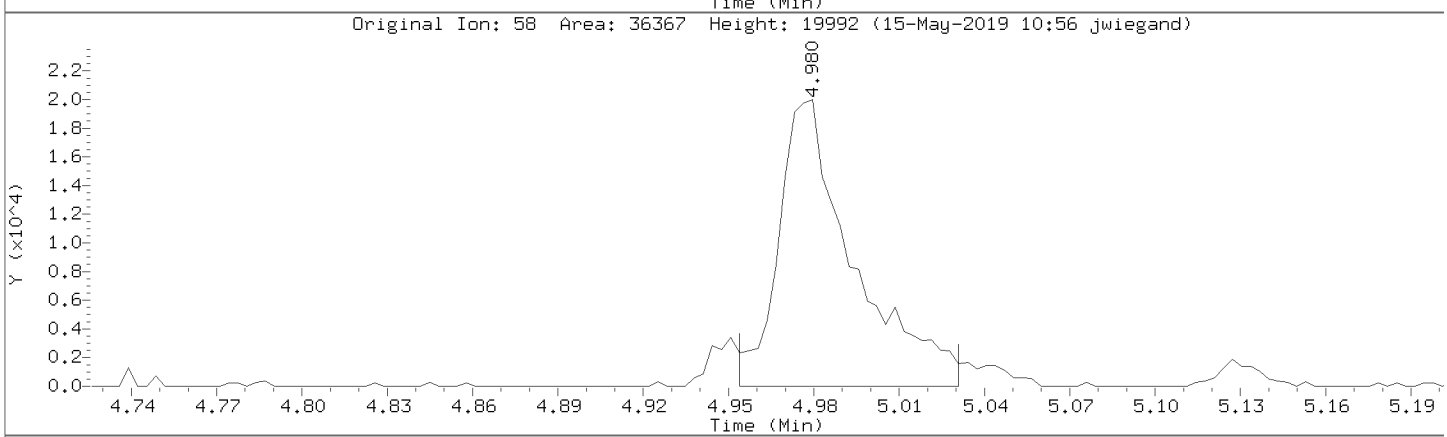
Date : 14-MAY-2019 17:18
Client ID: CAL6
Sample Info: CAL6, 87719:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514019.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene+
-1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

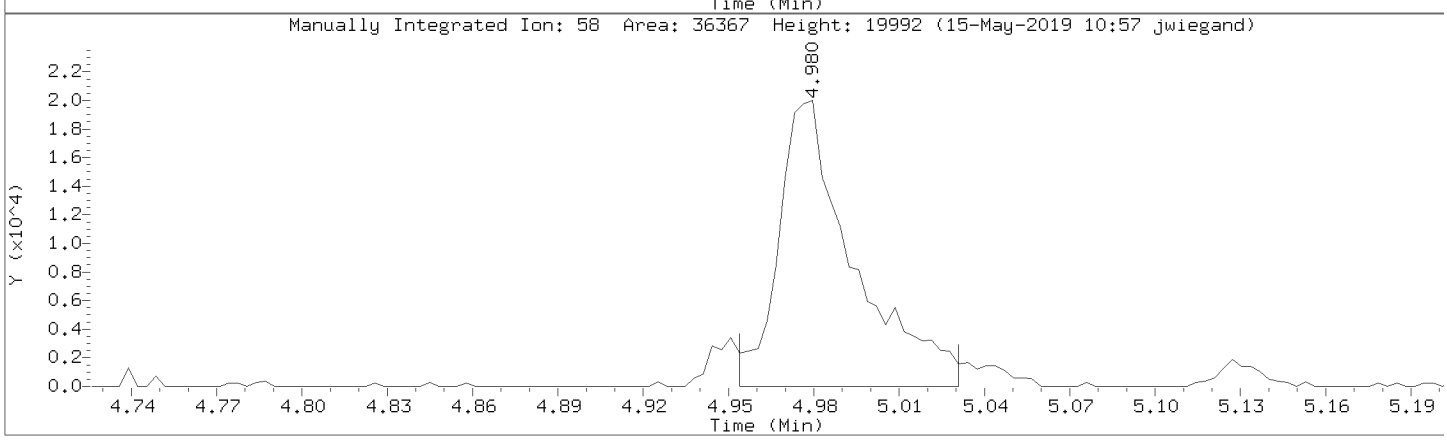
Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514019.d
Injection Date: 14-MAY-2019 17:18
Instrument: 30mv6a.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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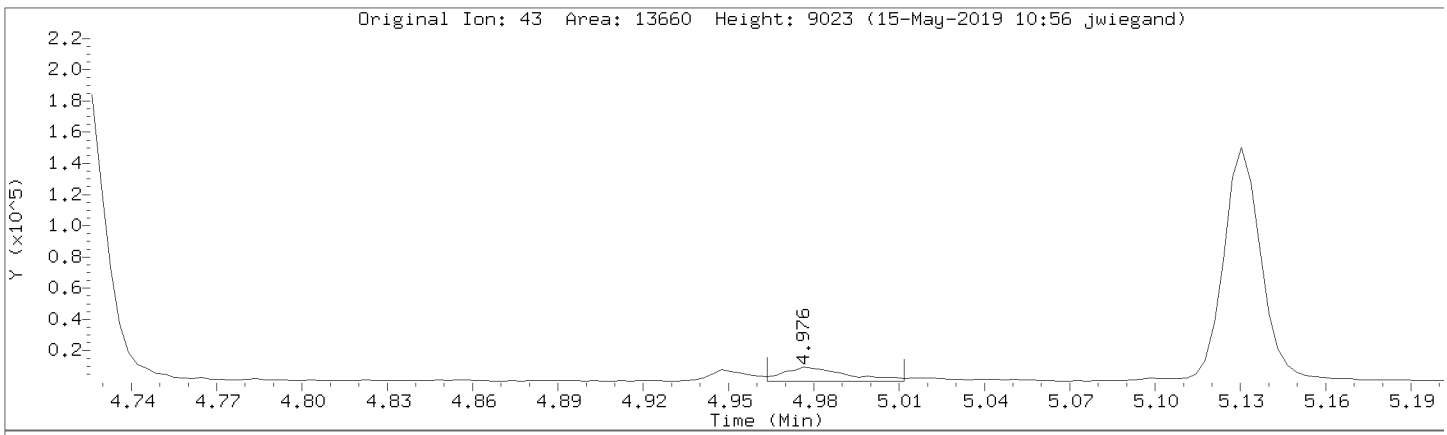
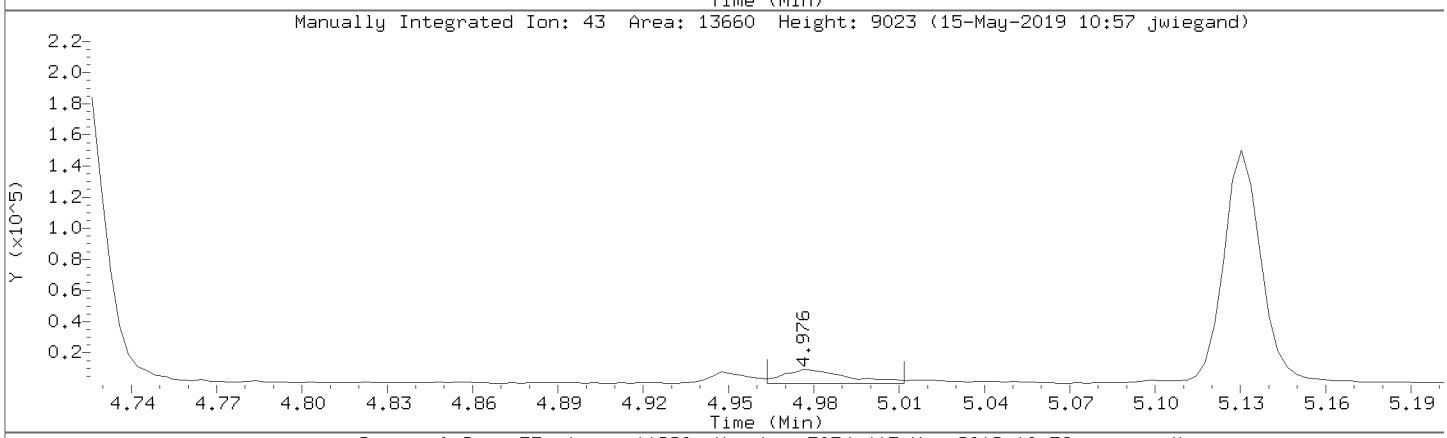
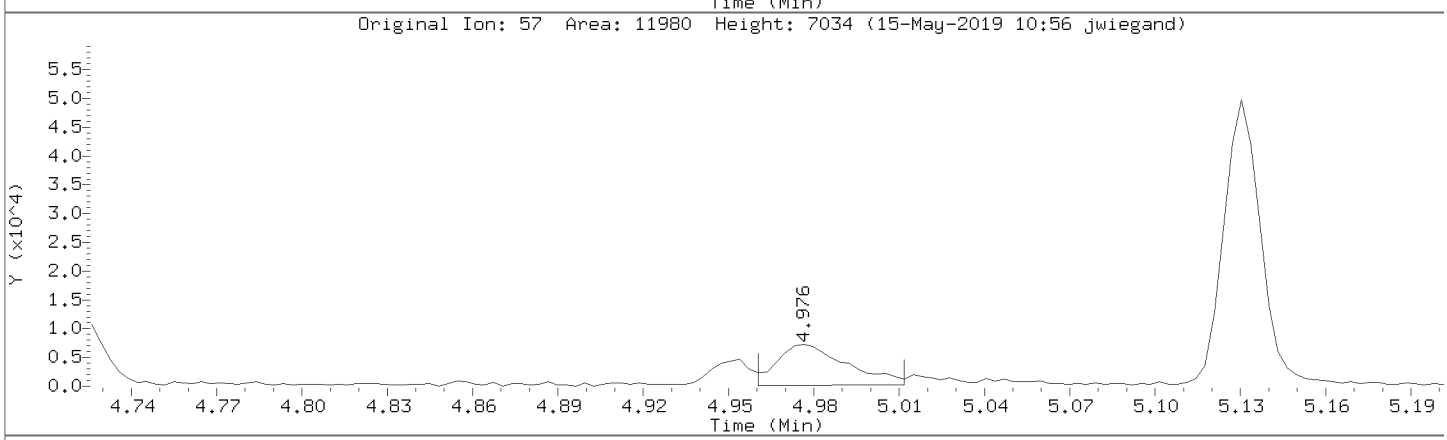
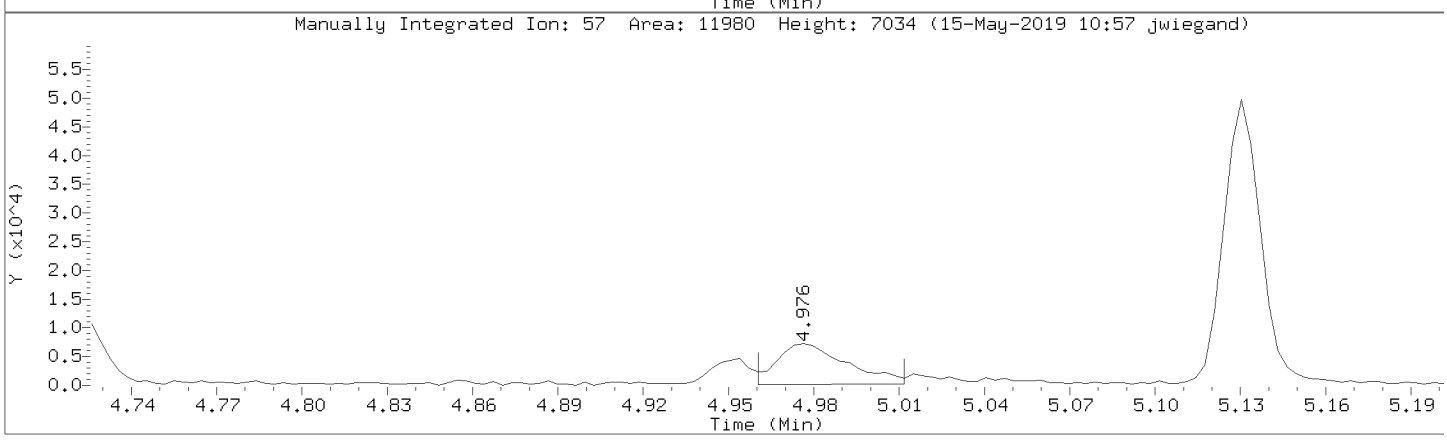
Injection Date: 14-MAY-2019 17:18
Instrument: 30mv6a.i
Lab Sample ID: CAL6









Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 14-MAY-2019 17:44
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal7, 87720:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 17:44 Cal File: 60514021.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.229	(0.271)	562916	200.000	196(Q)	
2	Chloromethane	50	1.347	1.344	(0.298)	628334	200.000	184(Q)	
3	Vinyl chloride	62	1.395	1.395	(0.308)	667449	200.000	196(Q)	
4	Bromomethane	94	1.587	1.588	(0.351)	253353	200.000	196(Q)	
5	Chloroethane	64	1.648	1.649	(0.364)	349627	200.000	211(AQ)	
6	Trichlorofluoromethane	101	1.729	1.736	(0.382)	827712	200.000	208(Q)	
7	Diethyl ether (Ethyl ether)	59	1.937	1.934	(0.428)	573807	200.000	199(Q)	
8	Ethanol	45	2.066	2.053	(0.301)	85562	2000.00	1970(QM)	LT
9	1,1-Dichloroethene	61	2.069	2.076	(0.457)	849295	200.000	195(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.091	2.101	(0.462)	423503	200.000	195(Q)	
11	Carbon disulfide	76	2.098	2.105	(0.463)	1488057	200.000	195(Q)	
12	Iodomethane	142	2.178	2.188	(0.481)	441757	200.000	226(Q)	
13	Acrolein	56	2.322	2.316	(0.513)	45249	200.000	200(Q)	
14	Allyl chloride	41	2.412	2.416	(0.533)	3277166	1000.00	1010(Q)	
15	Methylene Chloride	49	2.499	2.502	(0.552)	815896	200.000	197(Q)	
16	Acetone	43	2.547	2.547	(0.563)	240589	200.000	210(Q)	
17	trans-1,2-Dichloroethene	61	2.621	2.628	(0.579)	830435	200.000	197(Q)	
18	Methyl acetate	74	2.637	2.647	(0.583)	219285	200.000	201(Q)	
19	n-Hexane	86	2.675	2.682	(0.591)	177162	200.000	198(Q)	
20	Methyl-tert-butyl ether	73	2.711	2.717	(0.599)	1910148	200.000	200(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.813	2.798	(0.622)	801376	1000.00	1040(Q)	
	22 Acetonitrile	41	2.948	2.939	(0.651)	381701	1000.00	1050(Q)	
	23 Diisopropyl ether	45	3.047	3.051	(0.673)	1992298	200.000	198(Q)	
	24 Chloroprene	53	3.147	3.141	(0.695)	487742	200.000	193(Q)	
	25 1,1-Dichloroethane	63	3.173	3.176	(0.701)	1070405	200.000	197(Q)	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	271410	200.000	199(Q)	
	27 Ethyl-tert-butyl ether	59	3.417	3.420	(0.755)	2210575	200.000	199(Q)	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	1591719	200.000	202(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	853029	200.000	197(Q)	
	30 2,2-Dichloropropane	77	3.802	3.805	(0.840)	901635	200.000	196(Q)	
	31 Cyclohexane	56	3.869	3.873	(0.855)	970701	200.000	194(Q)	
	32 Bromochloromethane	130	3.879	3.885	(0.857)	462805	200.000	202(Q)	
	33 Chloroform	83	3.940	3.943	(0.870)	1018544	200.000	198(Q)	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	872271	200.000	195(Q)	
	35 Ethyl acetate	43	4.052	4.081	(0.895)	73558	200.000	209(Q)	
	36 Tetrahydrofuran	42	4.052	4.056	(0.895)	273671	200.000	203(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	129493	30.0000	30.2(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	940203	200.000	198(Q)	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	417386	200.000	201(Q)	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	780497	200.000	194(Q)	
	41 Benzene	78	4.302	4.303	(0.950)	2284107	200.000	197(Q)	
	42 Propionitrile	54	4.328	4.328	(0.956)	119469	200.000	204(QM)	CO
	43 Methacrylonitrile	41	4.337	4.338	(0.958)	401718	200.000	198(Q)	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	1782197	200.000	198(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	131645	30.0000	30.0(Q)	
	46 Isobutanol	43	4.443	4.444	(0.982)	278091	1000.00	1020(Q)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	888783	200.000	200(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	517186	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	1032622	200.000	193(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	631602	200.000	191(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	514431	200.000	198(Q)	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	642170	200.000	197(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	796106	200.000	197(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	461081	200.000	200(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.977	(1.100)	110687	2000.00	2050(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	444065	200.000	197(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	1031868	200.000	197(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	463589	30.0000	29.6(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	2520455	200.000	195(Q)	
	60 2-Nitropropane	43	5.364	5.362	(1.185)	1395571	1000.00	1010(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	745369	200.000	201(Q)	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	755345	200.000	191(Q)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	1018821	200.000	196(Q)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	551785	200.000	198(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	603957	200.000	194(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	791734	200.000	194(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	1003915	200.000	196(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	670085	200.000	196(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	573403	200.000	202(Q)	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	995045	200.000	193(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	417795	30.0000	(Q)	
	72 Chlorobenzene	112	5.897	5.897	(1.002)	1891345	200.000	197(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	787690	200.000	193(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	2480873	400.000	390(Q)	

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Report Date: 17-Jun-2019 10:28

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.141	(1.043)	1235461	200.000	191(Q)	
	76 Styrene	104	6.160	6.161	(1.046)	2167064	200.000	193(Q)	
	77 Bromoform	173	6.189	6.186	(0.901)	641980	200.000	197(Q)	
	78 Isopropylbenzene (Cumene)	105	6.266	6.263	(0.912)	3148136	200.000	200(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	180807	30.0000	29.8(Q)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	3582626	200.000	200(Q)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	1338639	200.000	197(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.475	6.475	(0.942)	851445	200.000	199(Q)	
	83 1,3,5-Trimethylbenzene	105	6.516	6.514	(0.948)	2704572	200.000	196(Q)	
	84 2-Chlorotoluene	126	6.520	6.517	(0.949)	852804	200.000	194(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	307195	200.000	198(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.548	6.546	(0.953)	266355	200.000	200(Q)	
	87 Cyclohexanone	55	6.571	6.571	(0.956)	343786	1000.00	1000(Q)	
	88 4-Chlorotoluene	126	6.587	6.587	(0.958)	904833	200.000	193(Q)	
	89 tert-Butylbenzene	119	6.654	6.655	(0.968)	2565518	200.000	197(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	2843591	200.000	199(Q)	
	91 sec-Butylbenzene	105	6.731	6.732	(0.979)	3574516	200.000	201(Q)	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	3277828	200.000	200(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	1876597	200.000	196(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	248617	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	1927188	200.000	198(Q)	
	96 n-Butylbenzene	91	6.966	6.966	(1.014)	2786262	200.000	200(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	1843166	200.000	199(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	248626	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	307708	200.000	200(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	1375587	200.000	199(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	704206	200.000	196(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	1290851	200.000	202(Q)	
	102 Naphthalene	128	7.842	7.839	(1.141)	3291346	200.000	210(Q)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	1124154	200.000	204(Q)	
	104 2-Methylnaphthalene	142	8.288	8.288	(1.206)	1276875	200.000	200(Q)	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514021.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	517186	16.46
71 Chlorobenzene-d5	375201	187601	750402	417795	11.35
94 1,4-Dichlorobenze	228764	114382	457528	248617	8.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	196	
74-87-3	Chloromethane	184	
75-01-4	Vinyl chloride	196	
74-83-9	Bromomethane	196	
75-00-3	Chloroethane	211	E
75-69-4	Trichlorofluoromethane	208	
60-29-7	Diethyl ether (Ethyl ether)	199	
64-17-5	Ethanol	1970	
75-35-4	1,1-Dichloroethene	195	
76-13-1	1,1,2-Trichlorotrifluoroetha	195	
75-15-0	Carbon disulfide	195	
74-88-4	Iodomethane	226	
107-02-8	Acrolein	200	
107-05-1	Allyl chloride	1010	
75-09-2	Methylene Chloride	197	
67-64-1	Acetone	210	
156-60-5	trans-1,2-Dichloroethene	197	
79-20-9	Methyl acetate	201	
110-54-3	n-Hexane	198	
1634-04-4	Methyl-tert-butyl ether	200	
75-65-0	tert-Butyl Alcohol	1040	
75-05-8	Acetonitrile	1050	
108-20-3	Diisopropyl ether	198	
126-99-8	Chloroprene	193	
75-34-3	1,1-Dichloroethane	197	
107-13-1	Acrylonitrile	199	
637-92-3	Ethyl-tert-butyl ether	199	
108-05-4	Vinyl acetate	202	
156-59-2	cis-1,2-Dichloroethene	197	
594-20-7	2,2-Dichloropropane	196	
110-82-7	Cyclohexane	194	
74-97-5	Bromochloromethane	202	
67-66-3	Chloroform	198	
56-23-5	Carbon tetrachloride	195	
141-78-6	Ethyl acetate	209	
109-99-9	Tetrahydrofuran	203	
71-55-6	1,1,1-Trichloroethane	198	
78-93-3	2-Butanone (MEK)	201	
563-58-6	1,1-Dichloropropene	194	
71-43-2	Benzene	197	
107-12-0	Propionitrile	204	
126-98-7	Methacrylonitrile	198	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	198	
78-83-1	Isobutanol	1020	
107-06-2	1,2-Dichloroethane	200	
108-87-2	Methylcyclohexane	193	
79-01-6	Trichloroethene	191	
74-95-3	Dibromomethane	198	
78-87-5	1,2-Dichloropropane	197	
75-27-4	Bromodichloromethane	197	
80-62-6	Methyl methacrylate	200	
123-91-1	1,4-Dioxane (p-Dioxane)	2050	
110-75-8	2-Chloroethylvinyl ether	197	
10061-01-5	cis-1,3-Dichloropropene	197	
108-88-3	Toluene	195	
79-46-9	2-Nitropropane	1010	
108-10-1	4-Methyl-2-pentanone (MIBK)	201	
127-18-4	Tetrachloroethene	191	
10061-02-6	trans-1,3-Dichloropropene	196	
97-63-2	Ethyl methacrylate	198	
79-00-5	1,1,2-Trichloroethane	194	
124-48-1	Dibromochloromethane	194	
142-28-9	1,3-Dichloropropane	196	
106-93-4	1,2-Dibromoethane (EDB)	196	
591-78-6	2-Hexanone	202	
100-41-4	Ethylbenzene	193	
108-90-7	Chlorobenzene	197	
630-20-6	1,1,1,2-Tetrachloroethane	193	
7816-60-0	m&p-Xylene	390	
95-47-6	o-Xylene	191	
100-42-5	Styrene	193	
75-25-2	Bromoform	197	
98-82-8	Isopropylbenzene (Cumene)	200	
103-65-1	n-Propylbenzene	200	
108-86-1	Bromobenzene	197	
79-34-5	1,1,2,2-Tetrachloroethane	199	
108-67-8	1,3,5-Trimethylbenzene	196	
95-49-8	2-Chlorotoluene	194	
96-18-4	1,2,3-Trichloropropane	198	
110-57-6	trans-1,4-Dichloro-2-butene	200	
108-94-1	Cyclohexanone	1000	
106-43-4	4-Chlorotoluene	193	
98-06-6	tert-Butylbenzene	197	
95-63-6	1,2,4-Trimethylbenzene	199	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Report Date: 17-Jun-2019 10:28

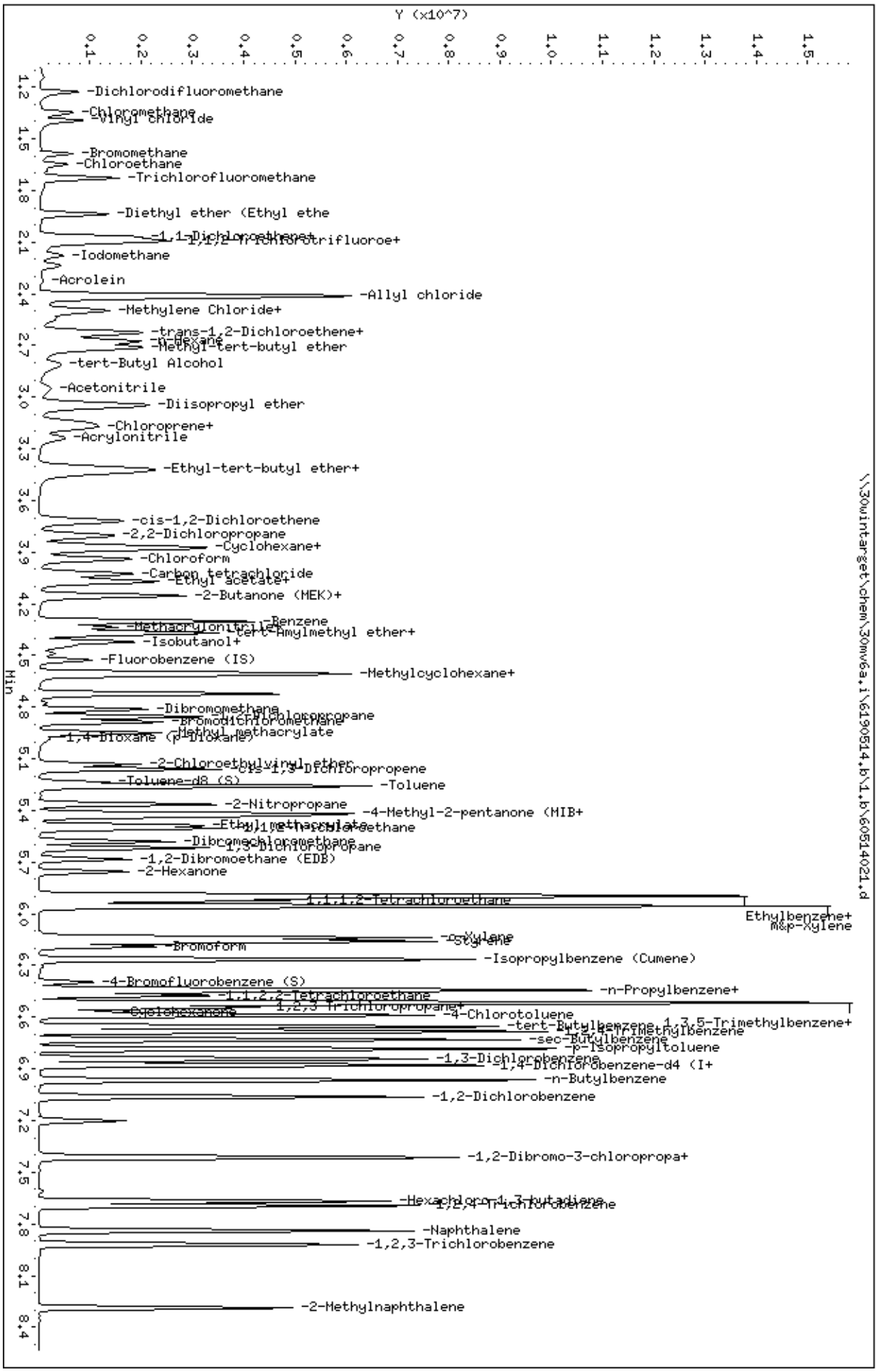
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	201	
99-87-6	p-Isopropyltoluene	200	
541-73-1	1,3-Dichlorobenzene	196	
106-46-7	1,4-Dichlorobenzene	198	
104-51-8	n-Butylbenzene	200	
95-50-1	1,2-Dichlorobenzene	199	
96-12-8	1,2-Dibromo-3-chloropropane	200	
108-70-3	1,3,5-Trichlorobenzene	199	
87-68-3	Hexachloro-1,3-butadiene	196	
120-82-1	1,2,4-Trichlorobenzene	202	
91-20-3	Naphthalene	210	
87-61-6	1,2,3-Trichlorobenzene	204	
91-57-6	2-Methylnaphthalene	200	
1868-53-7	Dibromofluoromethane (S)	30.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	29.6	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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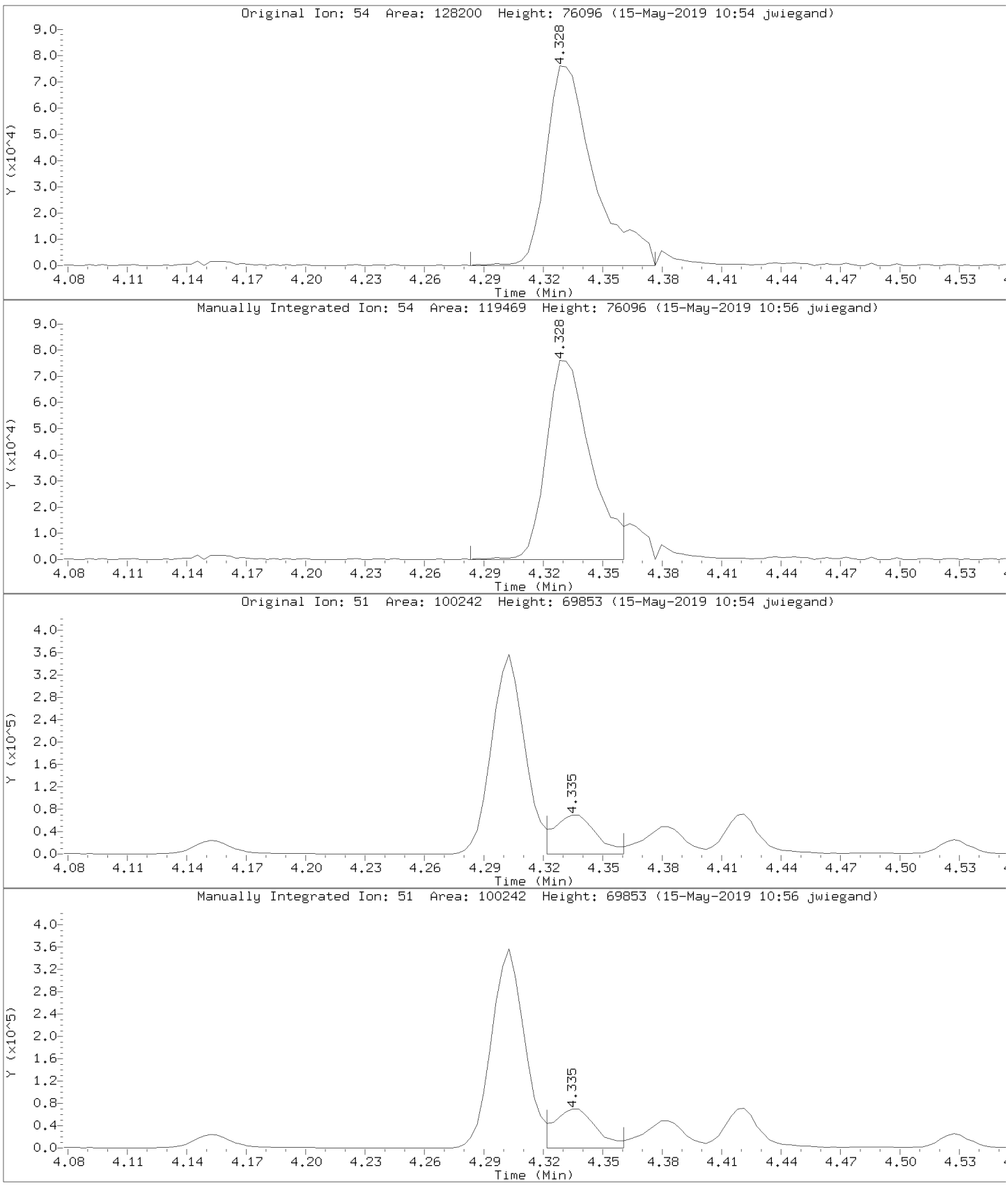
Date : 14-MAY-2019 17:44
Client ID: CAL7
Sample Info: CAL7, 87720:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514021.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
1,1,1,2-Tetrachloroethane
Ethylbenzene+
M&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514021.d
Injection Date: 14-MAY-2019 17:44
Instrument: 30mv6a.i
Lab Sample ID: CAL7

Compound: Propionitrile Review Code: CO
CAS Number: 107-12-0



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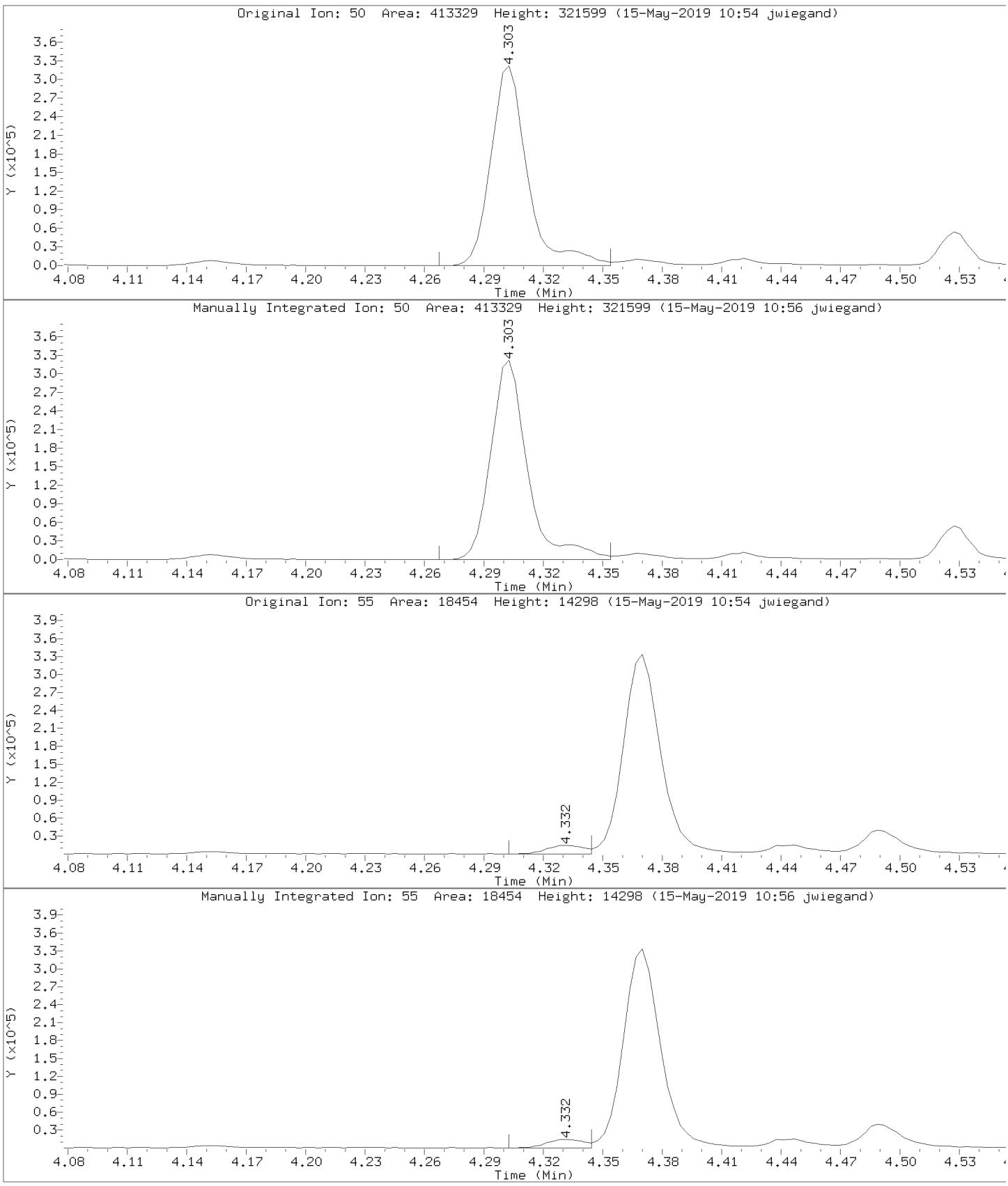
Instrument: 30mv6a.i
Lab Sample ID: CAL7



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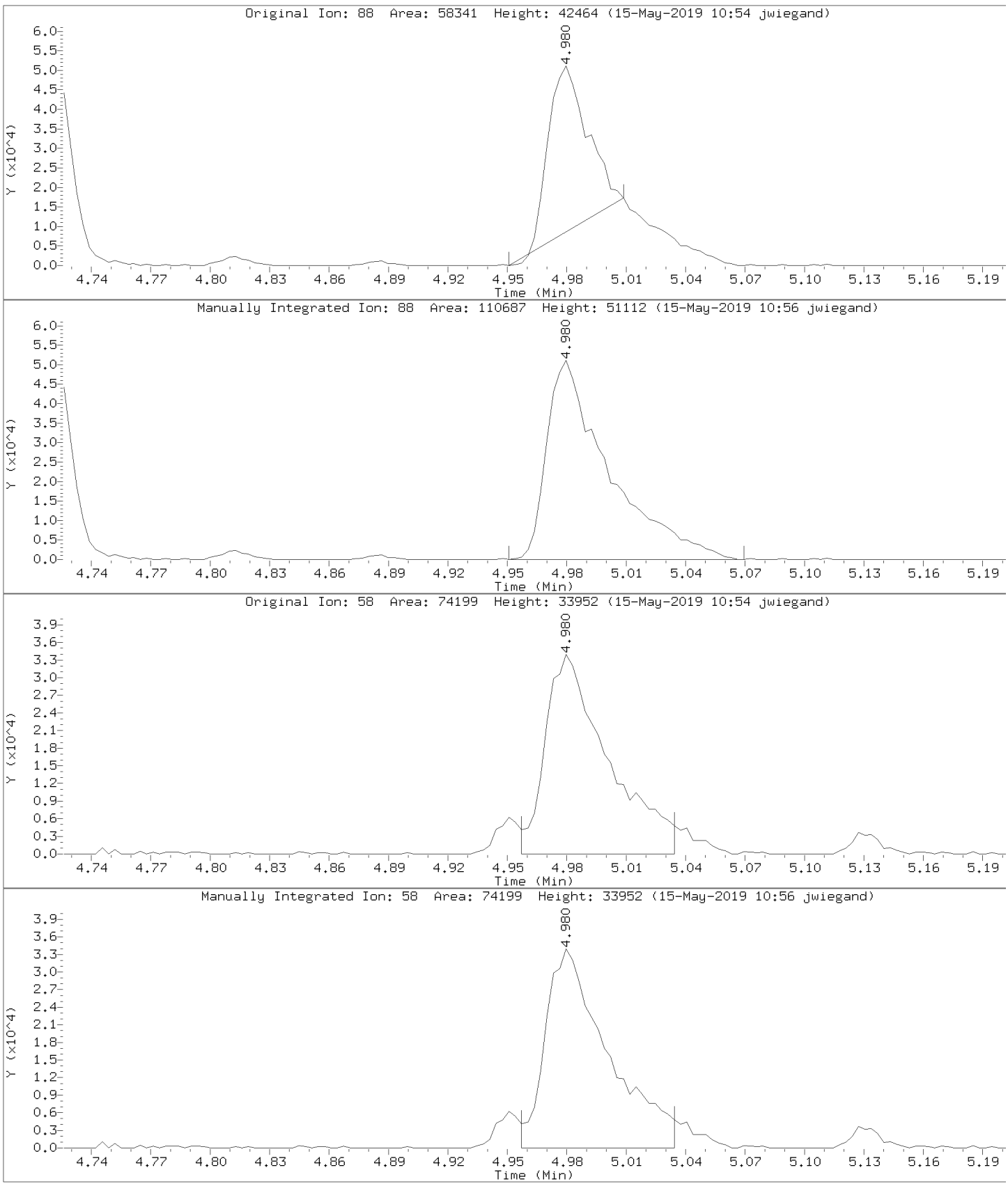
Injection Date: 14-MAY-2019 17:44
Instrument: 30mv6a.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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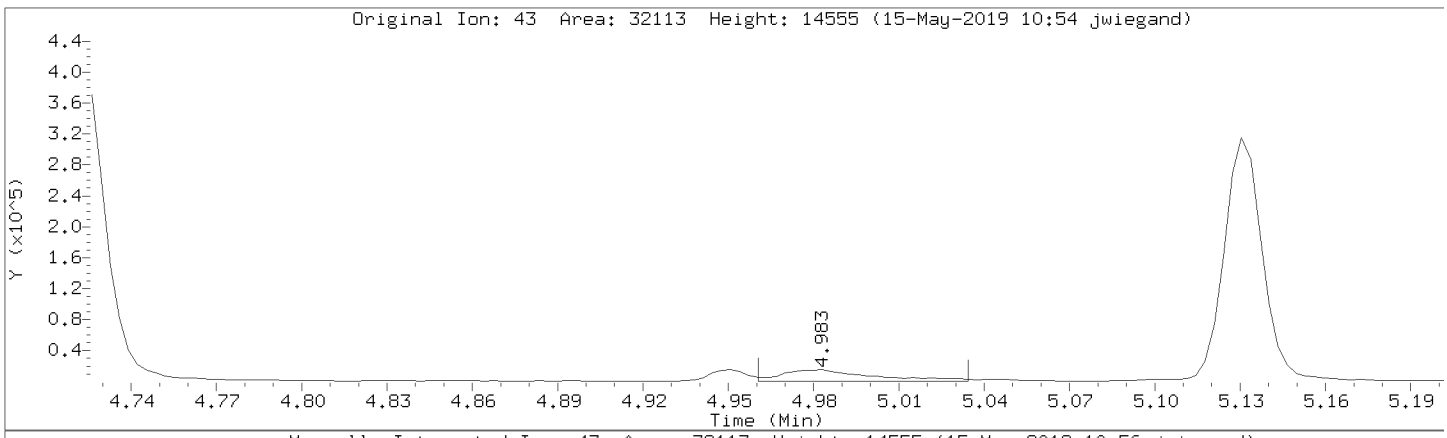
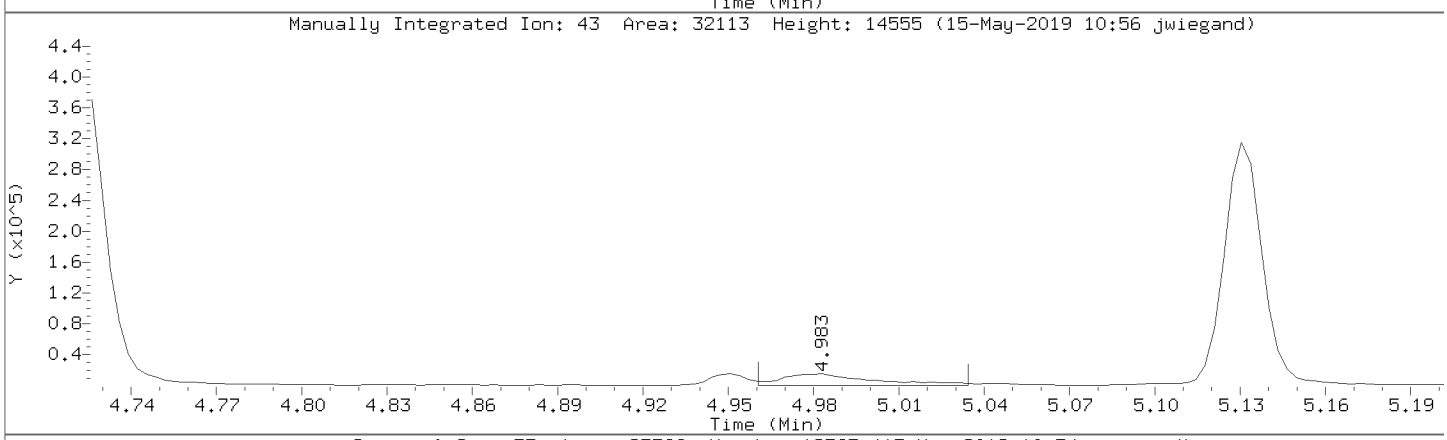
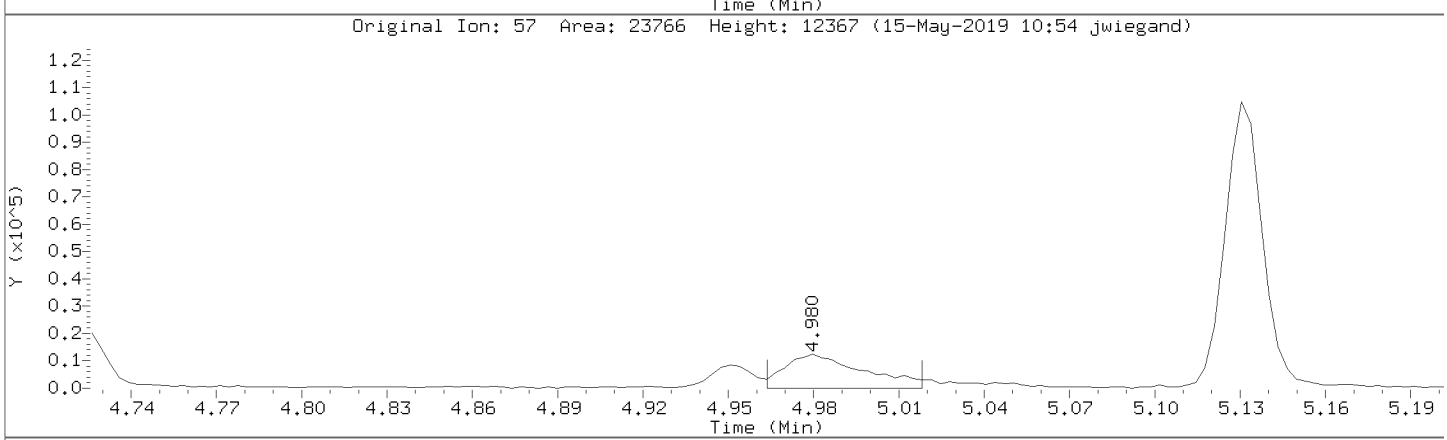
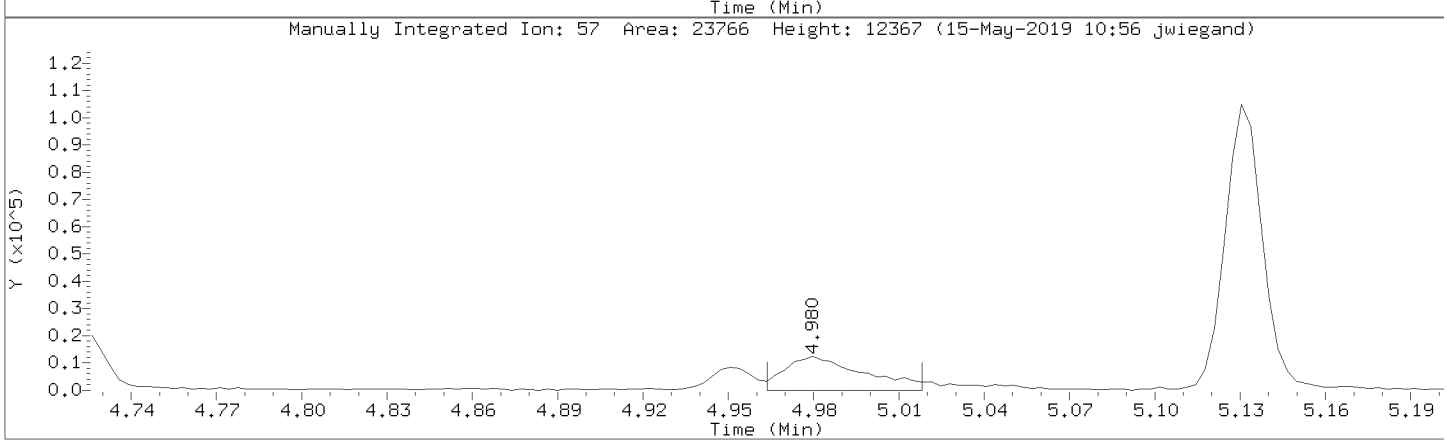
Instrument: 30mv6a.i
Lab Sample ID: CAL7









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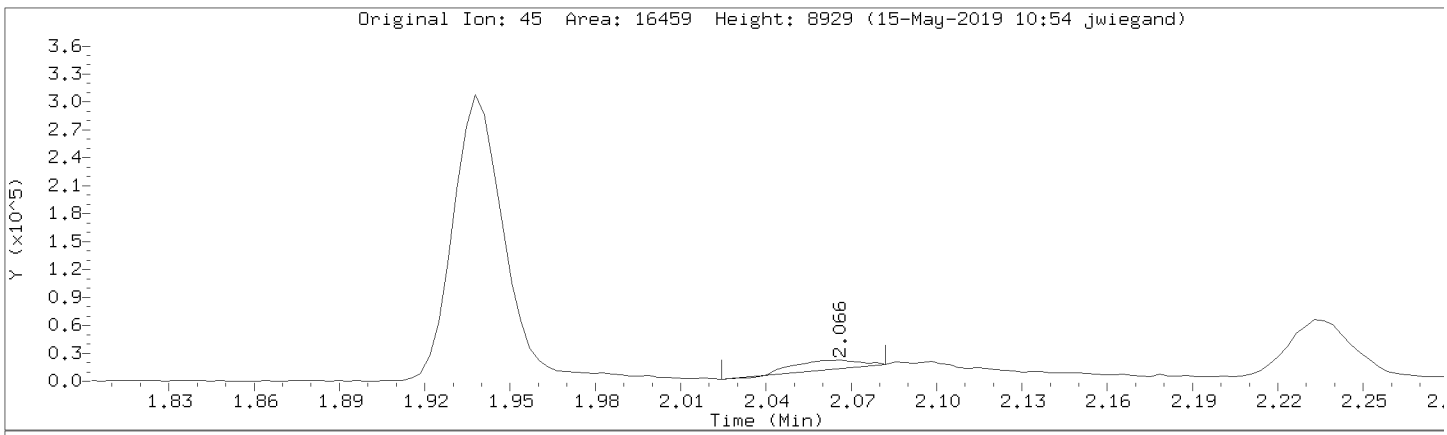
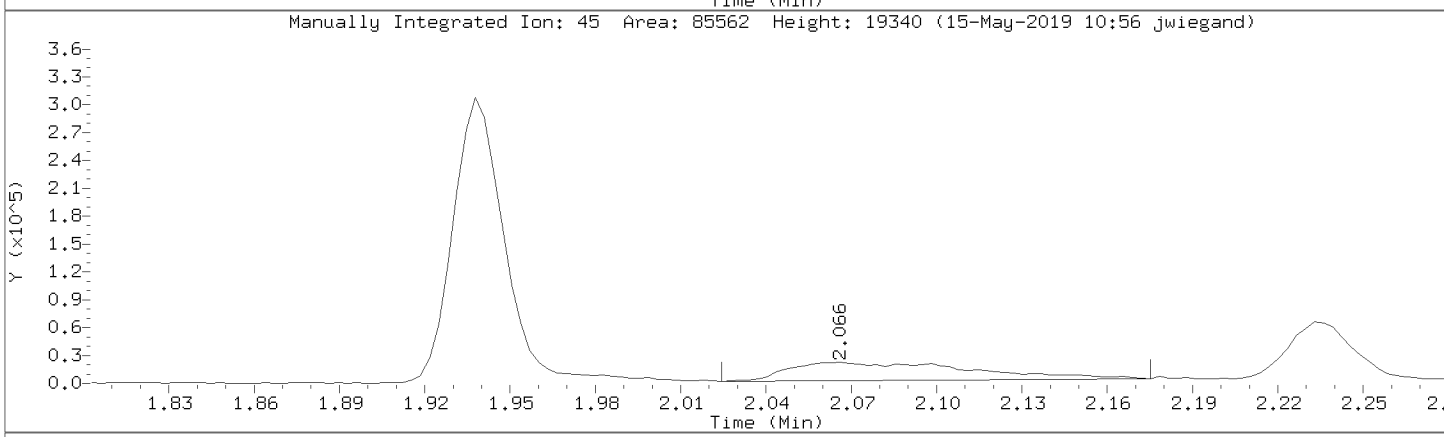
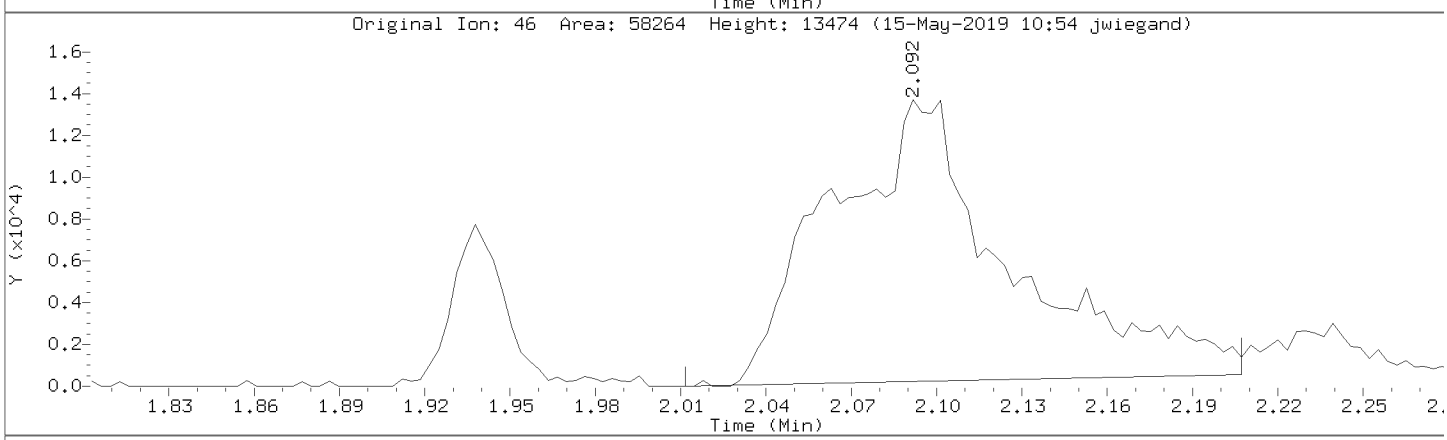
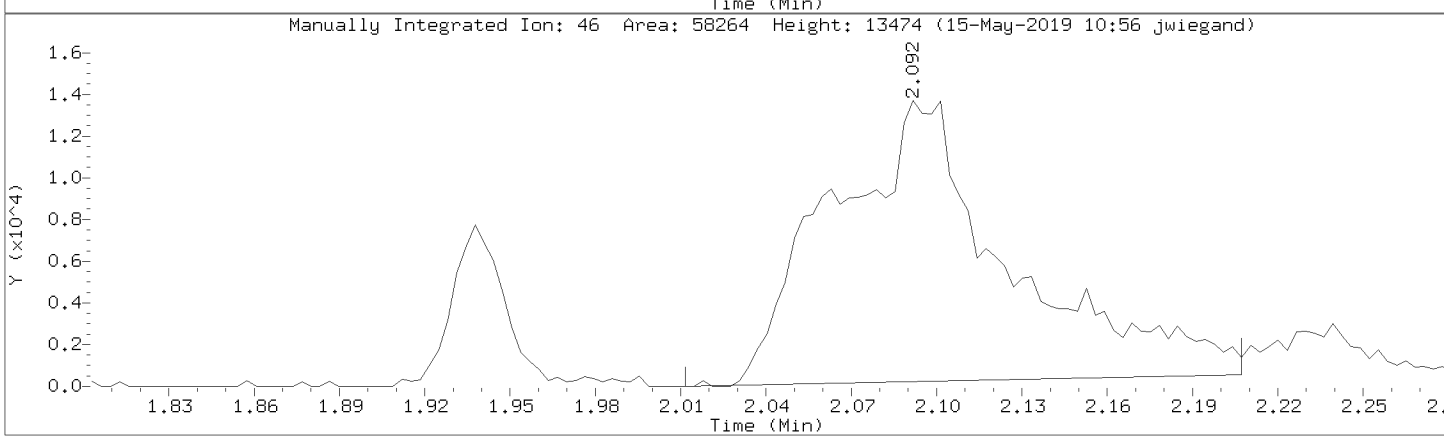
Injection Date: 14-MAY-2019 17:44
Instrument: 30mv6a.i
Lab Sample ID: CAL7

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









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Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 14-MAY-2019 18:10
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal8, 87721:1
Misc Info : 44459,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 18:10 Cal File: 60514023.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.225	1.229	(0.271)	1177884	400.000	400(Q)	
2 Chloromethane	50	1.344	1.344	(0.297)	1478683	400.000	400(Q)	
3 Vinyl chloride	62	1.392	1.395	(0.308)	1398281	400.000	400(Q)	
4 Bromomethane	94	1.584	1.588	(0.350)	527556	400.000	400(Q)	
5 Chloroethane	64	1.645	1.649	(0.363)	626915	400.000	400(AQ)	
6 Trichlorofluoromethane	101	1.719	1.736	(0.380)	1533234	400.000	400(Q)	
7 Diethyl ether (Ethyl ether)	59	1.934	1.934	(0.427)	1157451	400.000	400(Q)	
8 Ethanol	45	2.085	2.053	(0.303)	177427	4000.00	4000(Q)	
9 1,1-Dichloroethene	61	2.062	2.076	(0.456)	1793644	400.000	400(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.082	2.101	(0.460)	889538	400.000	400(AQ)	
11 Carbon disulfide	76	2.091	2.105	(0.462)	3139462	400.000	400(Q)	
12 Iodomethane	142	2.172	2.188	(0.480)	680336	400.000	400(Q)	
13 Acrolein	56	2.319	2.316	(0.512)	90773	400.000	400(AQ)	
14 Allyl chloride	41	2.406	2.416	(0.531)	6437217	2000.00	2000(AQ)	
15 Methylene Chloride	49	2.496	2.502	(0.551)	1689342	400.000	400(AQ)	
16 Acetone	43	2.550	2.547	(0.563)	434415	400.000	400(Q)	
17 trans-1,2-Dichloroethene	61	2.618	2.628	(0.578)	1717800	400.000	400(Q)	
18 Methyl acetate	74	2.637	2.647	(0.583)	433232	400.000	400(Q)	
19 n-Hexane	86	2.672	2.682	(0.590)	363308	400.000	400(AQ)	
20 Methyl-tert-butyl ether	73	2.711	2.717	(0.599)	3838367	400.000	400(AQ)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.833	2.798	(0.626)	1486532	2000.00	2000(Q)	
	22 Acetonitrile	41	2.954	2.939	(0.653)	687577	2000.00	2000(Q)	
	23 Diisopropyl ether	45	3.048	3.051	(0.673)	4058565	400.000	400(AQ)	
	24 Chloroprene	53	3.144	3.141	(0.695)	1044623	400.000	400(Q)	
	25 1,1-Dichloroethane	63	3.169	3.176	(0.700)	2216214	400.000	400(Q)	
	26 Acrylonitrile	53	3.243	3.237	(0.716)	549650	400.000	400(Q)	
	27 Ethyl-tert-butyl ether	59	3.420	3.420	(0.755)	4482618	400.000	400(Q)	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	3129475	400.000	400(AQ)	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	1759238	400.000	400(Q)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	1872964	400.000	400(AQ)	
	31 Cyclohexane	56	3.869	3.873	(0.855)	2069004	400.000	400(AQ)	
	32 Bromochloromethane	130	3.879	3.885	(0.857)	903303	400.000	400(AQ)	
	33 Chloroform	83	3.940	3.943	(0.870)	2078491	400.000	400(Q)	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	1831360	400.000	400(AQ)	
	35 Ethyl acetate	43	4.052	4.081	(0.895)	134240	400.000	400(AQ)	
	36 Tetrahydrofuran	42	4.052	4.056	(0.895)	532736	400.000	400(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	128116	30.0000	30.0(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	1927560	400.000	400(Q)	
	39 2-Butanone (MEK)	43	4.155	4.149	(0.918)	828749	400.000	400(Q)	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	1651906	400.000	400(Q)	
	41 Benzene	78	4.302	4.303	(0.950)	4719180	400.000	400(AQ)	
	42 Propionitrile	54	4.331	4.328	(0.957)	230500	400.000	400(QM)	CO
	43 Methacrylonitrile	41	4.338	4.338	(0.958)	824427	400.000	400(Q)	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	3640743	400.000	400(AQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	131522	30.0000	30.0(Q)	
	46 Isobutanol	43	4.450	4.444	(0.983)	529529	2000.00	2000(AQ)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	1787609	400.000	400(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	517946	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	2218668	400.000	400(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	1345737	400.000	400(AQ)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	1051409	400.000	400(AQ)	
	52 1,2-Dichloropropane	63	4.857	4.855	(1.073)	1329320	400.000	400(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	1641591	400.000	400(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	924004	400.000	400(AQ)	
	55 1,4-Dioxane (p-Dioxane)	88	4.983	4.977	(1.101)	210269	4000.00	4000(Q)	
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	915828	400.000	400(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	2125607	400.000	400(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	464952	30.0000	30.0(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	5152560	400.000	400(Q)	
	60 2-Nitropropane	43	5.364	5.362	(1.185)	2736407	2000.00	2000(AQ)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	1479740	400.000	400(AQ)	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	1615230	400.000	400(Q)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	2079545	400.000	400(AQ)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	1092757	400.000	400(AQ)	
	65 1,1,2-Trichloroethane	97	5.506	5.503	(0.935)	1253205	400.000	400(Q)	
	66 Dibromochloromethane	129	5.583	5.580	(0.948)	1634931	400.000	400(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	2043892	400.000	400(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.685	5.686	(0.966)	1365628	400.000	400(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	1099153	400.000	400(AQ)	
	70 Ethylbenzene	106	5.897	5.897	(1.002)	2078549	400.000	400(AQ)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	407937	30.0000	(Q)	
	72 Chlorobenzene	112	5.897	5.897	(1.002)	3811410	400.000	400(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.920	(1.005)	1656083	400.000	400(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	5104239	800.000	800(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.141	6.141	(1.043)	2644947	400.000	400(Q)	
	76 Styrene	104	6.160	6.161	(1.046)	4553226	400.000	400(AQ)	
	77 Bromoform	173	6.189	6.186	(0.901)	1333291	400.000	400(Q)	
	78 Isopropylbenzene (Cumene)	105	6.266	6.263	(0.912)	6340097	400.000	400(AQ)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	184423	30.0000	30.0(Q)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	7175327	400.000	400(Q)	
	81 Bromobenzene	77	6.449	6.446	(0.938)	2767264	400.000	400(AQ)	
	82 1,1,2,2-Tetrachloroethane	83	6.475	6.475	(0.942)	1722296	400.000	400(AQ)	
	83 1,3,5-Trimethylbenzene	105	6.516	6.514	(0.948)	5627466	400.000	400(Q)	
	84 2-Chlorotoluene	126	6.520	6.517	(0.949)	1818621	400.000	400(Q)	
	85 1,2,3-Trichloropropane	110	6.542	6.539	(0.952)	628452	400.000	400(AQ)	
	86 trans-1,4-Dichloro-2-butene	53	6.548	6.546	(0.953)	537978	400.000	400(Q)	
	87 Cyclohexanone	55	6.571	6.571	(0.956)	685335	2000.00	2000(Q)	
	88 4-Chlorotoluene	126	6.590	6.587	(0.959)	1943607	400.000	400(Q)	
	89 tert-Butylbenzene	119	6.658	6.655	(0.969)	5298963	400.000	400(AQ)	
	90 1,2,4-Trimethylbenzene	105	6.686	6.684	(0.973)	5782595	400.000	400(AQ)	
	91 sec-Butylbenzene	105	6.731	6.732	(0.979)	7105781	400.000	400(Q)	
	92 p-Isopropyltoluene	119	6.786	6.783	(0.987)	6590231	400.000	400(Q)	
	93 1,3-Dichlorobenzene	146	6.844	6.841	(0.996)	3910913	400.000	400(AQ)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	249928	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	3941791	400.000	400(Q)	
	96 n-Butylbenzene	91	6.969	6.966	(1.014)	5602273	400.000	400(Q)	
	97 1,2-Dichlorobenzene	146	7.065	7.062	(1.028)	3725926	400.000	400(AQ)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	250283	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	615064	400.000	400(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	2788474	400.000	400(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	1472395	400.000	400(Q)	
	101 1,2,4-Trichlorobenzene	180	7.697	7.694	(1.120)	2552585	400.000	400(AQ)	
	102 Naphthalene	128	7.838	7.839	(1.141)	6006170	400.000	400(Q)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	2159817	400.000	400(AQ)	
	104 2-Methylnaphthalene	142	8.288	8.288	(1.206)	1813291	400.000	(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  :
CO: Indicates that the analyst had to split two co-eluting peaks
    apart that were not (or could not be) separated by the computer
    system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514023.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:01
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	444078	222039	888156	517946	16.63
71 Chlorobenzene-d5	375201	187601	750402	407937	8.72
94 1,4-Dichlorobenze	228764	114382	457528	249928	9.25

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	400	
74-87-3	Chloromethane	400	
75-01-4	Vinyl chloride	400	
74-83-9	Bromomethane	400	
75-00-3	Chloroethane	400	E
75-69-4	Trichlorofluoromethane	400	
60-29-7	Diethyl ether (Ethyl ether)	400	
64-17-5	Ethanol	4000	
75-35-4	1,1-Dichloroethene	400	
76-13-1	1,1,2-Trichlorotrifluoroetha	400	E
75-15-0	Carbon disulfide	400	
74-88-4	Iodomethane	400	
107-02-8	Acrolein	400	E
107-05-1	Allyl chloride	2000	E
75-09-2	Methylene Chloride	400	E
67-64-1	Acetone	400	
156-60-5	trans-1,2-Dichloroethene	400	
79-20-9	Methyl acetate	400	
110-54-3	n-Hexane	400	E
1634-04-4	Methyl-tert-butyl ether	400	E
75-65-0	tert-Butyl Alcohol	2000	
75-05-8	Acetonitrile	2000	
108-20-3	Diisopropyl ether	400	E
126-99-8	Chloroprene	400	
75-34-3	1,1-Dichloroethane	400	
107-13-1	Acrylonitrile	400	
637-92-3	Ethyl-tert-butyl ether	400	
108-05-4	Vinyl acetate	400	E
156-59-2	cis-1,2-Dichloroethene	400	
594-20-7	2,2-Dichloropropane	400	E
110-82-7	Cyclohexane	400	E
74-97-5	Bromochloromethane	400	E
67-66-3	Chloroform	400	
56-23-5	Carbon tetrachloride	400	E
141-78-6	Ethyl acetate	400	E
109-99-9	Tetrahydrofuran	400	
71-55-6	1,1,1-Trichloroethane	400	
78-93-3	2-Butanone (MEK)	400	
563-58-6	1,1-Dichloropropene	400	
71-43-2	Benzene	400	E
107-12-0	Propionitrile	400	
126-98-7	Methacrylonitrile	400	

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	400	E
78-83-1	Isobutanol	2000	E
107-06-2	1,2-Dichloroethane	400	
108-87-2	Methylcyclohexane	400	
79-01-6	Trichloroethene	400	E
74-95-3	Dibromomethane	400	E
78-87-5	1,2-Dichloropropane	400	
75-27-4	Bromodichloromethane	400	
80-62-6	Methyl methacrylate	400	E
123-91-1	1,4-Dioxane (p-Dioxane)	4000	
110-75-8	2-Chloroethylvinyl ether	400	
10061-01-5	cis-1,3-Dichloropropene	400	
108-88-3	Toluene	400	
79-46-9	2-Nitropropane	2000	E
108-10-1	4-Methyl-2-pentanone (MIBK)	400	E
127-18-4	Tetrachloroethene	400	
10061-02-6	trans-1,3-Dichloropropene	400	E
97-63-2	Ethyl methacrylate	400	E
79-00-5	1,1,2-Trichloroethane	400	
124-48-1	Dibromochloromethane	400	
142-28-9	1,3-Dichloropropane	400	
106-93-4	1,2-Dibromoethane (EDB)	400	
591-78-6	2-Hexanone	400	E
100-41-4	Ethylbenzene	400	E
108-90-7	Chlorobenzene	400	
630-20-6	1,1,1,2-Tetrachloroethane	400	
7816-60-0	m&p-Xylene	800	
95-47-6	o-Xylene	400	
100-42-5	Styrene	400	E
75-25-2	Bromoform	400	
98-82-8	Isopropylbenzene (Cumene)	400	E
103-65-1	n-Propylbenzene	400	
108-86-1	Bromobenzene	400	E
79-34-5	1,1,2,2-Tetrachloroethane	400	E
108-67-8	1,3,5-Trimethylbenzene	400	
95-49-8	2-Chlorotoluene	400	
96-18-4	1,2,3-Trichloropropane	400	E
110-57-6	trans-1,4-Dichloro-2-butene	400	
108-94-1	Cyclohexanone	2000	
106-43-4	4-Chlorotoluene	400	
98-06-6	tert-Butylbenzene	400	E
95-63-6	1,2,4-Trimethylbenzene	400	E

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Report Date: 17-Jun-2019 10:28

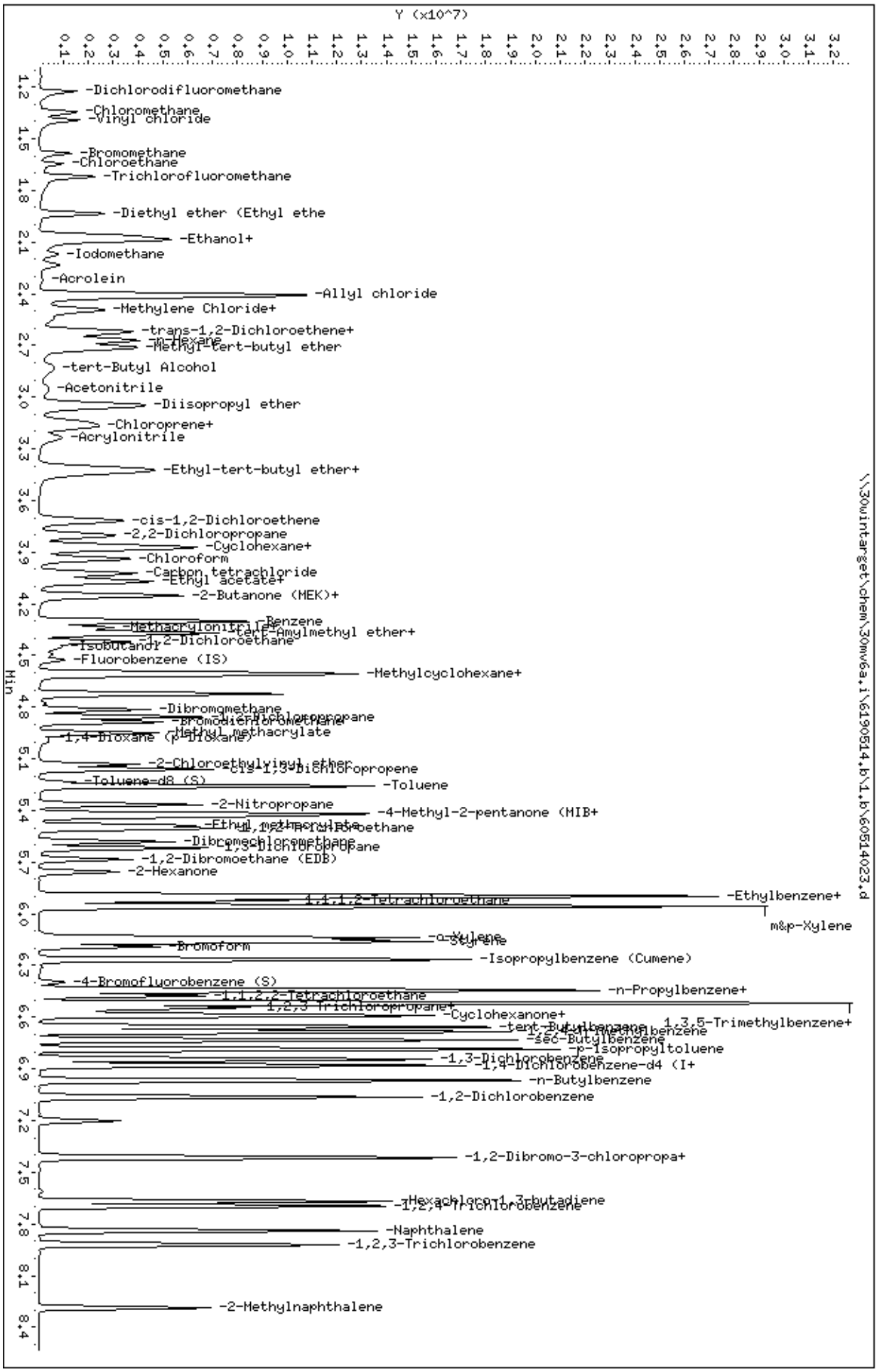
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44459,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	400	
99-87-6	p-Isopropyltoluene	400	
541-73-1	1,3-Dichlorobenzene	400	E
106-46-7	1,4-Dichlorobenzene	400	
104-51-8	n-Butylbenzene	400	
95-50-1	1,2-Dichlorobenzene	400	E
96-12-8	1,2-Dibromo-3-chloropropane	400	
108-70-3	1,3,5-Trichlorobenzene	400	
87-68-3	Hexachloro-1,3-butadiene	400	
120-82-1	1,2,4-Trichlorobenzene	400	E
91-20-3	Naphthalene	400	
87-61-6	1,2,3-Trichlorobenzene	400	E
91-57-6	2-Methylnaphthalene	0.000	J
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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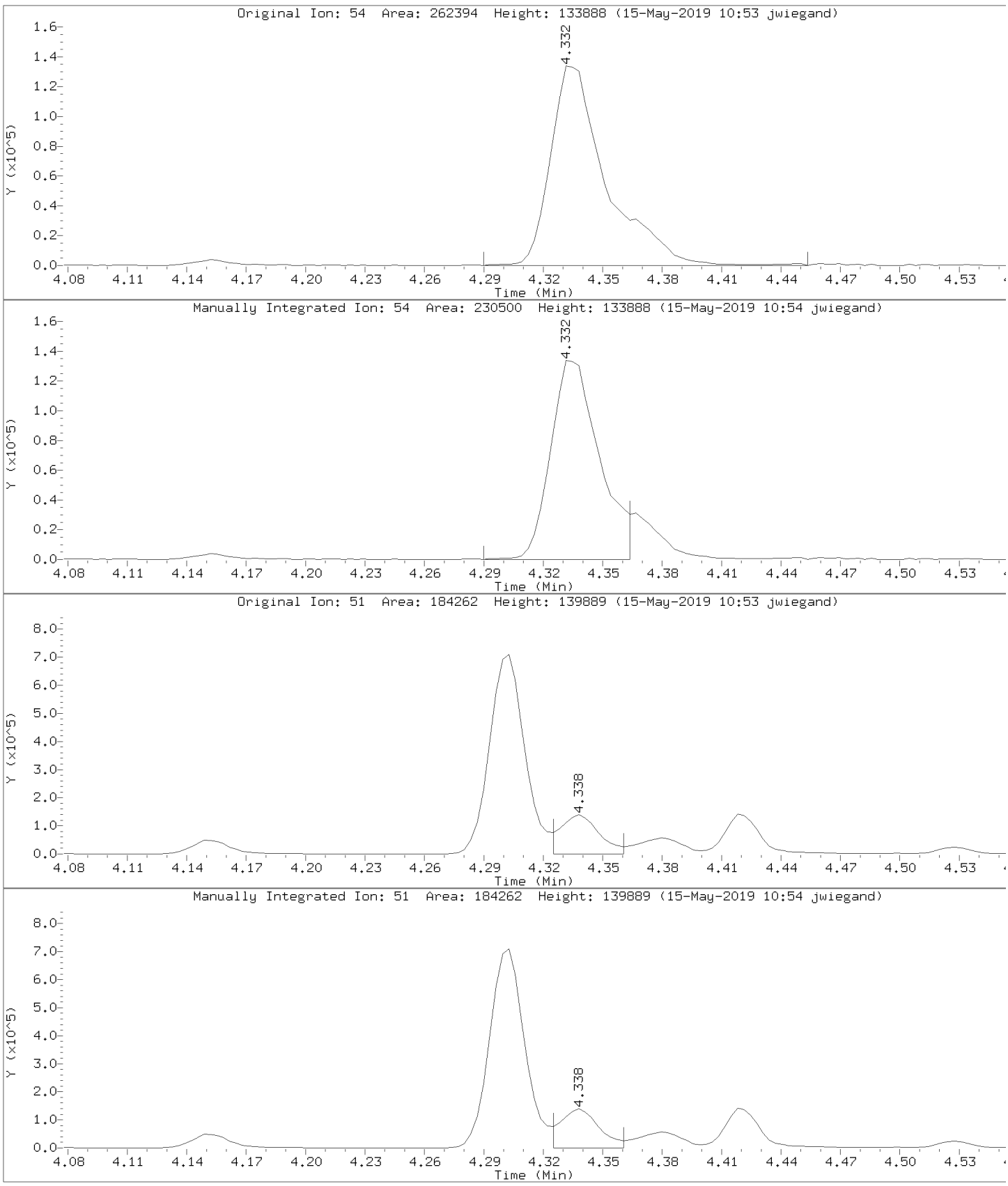
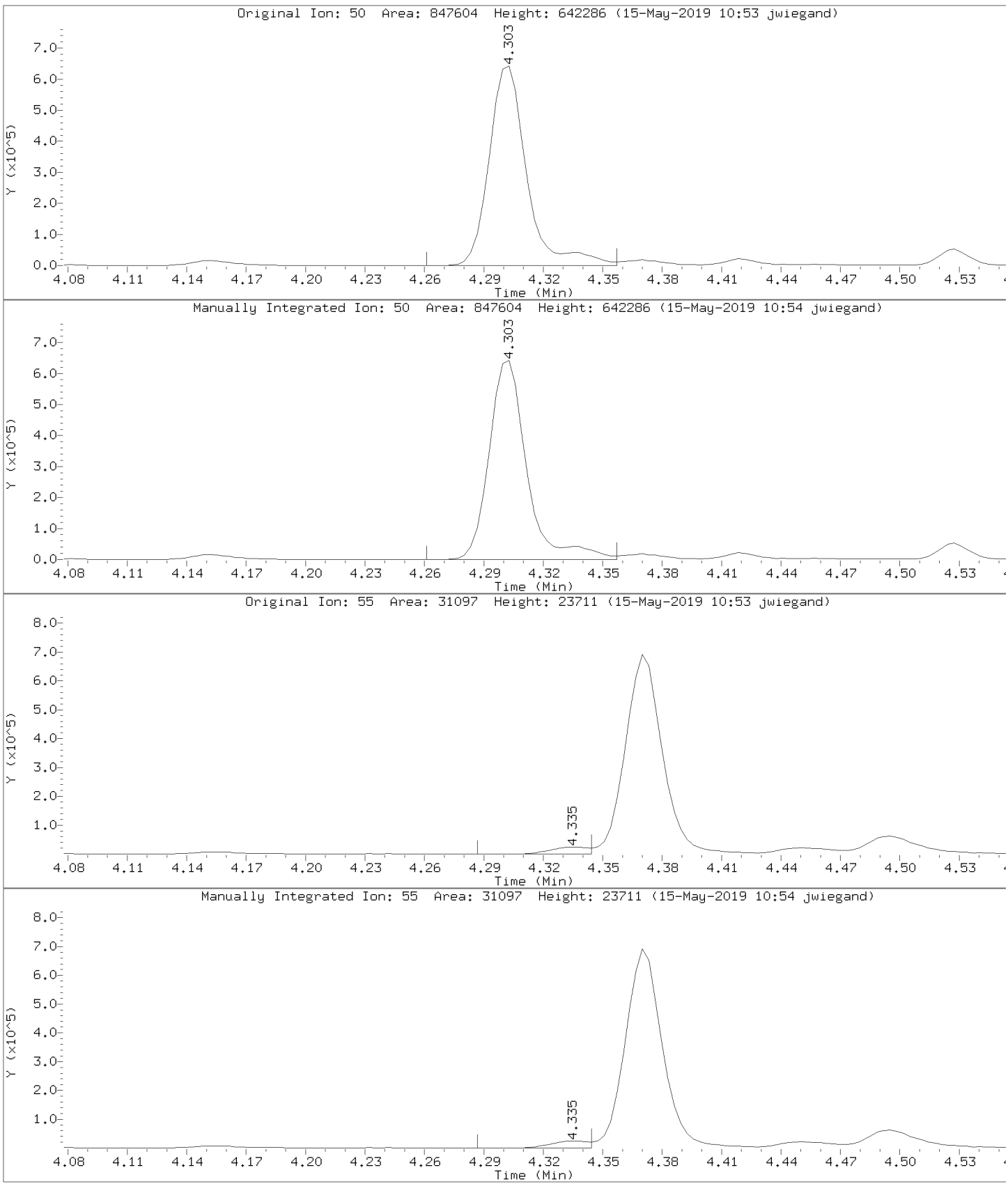
Date : 14-MAY-2019 18:10
Client ID: CAL8
Sample Info: CAL8, 8772:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514023.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514023.d
Injection Date: 14-MAY-2019 18:10
Instrument: 30mv6a.i
Lab Sample ID: CAL8

Compound: Propionitrile Review Code: CO
CAS Number: 107-12-0



Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514023.d
Injection Date: 14-MAY-2019 18:10
Instrument: 30mv6a.i
Lab Sample ID: CAL8



SAMPLE NO.

10936263ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 05/14/2019 Time: 19:01

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 05/14/2019 05/14/2019

Lab File ID: 6190514.B\1.B\60514027.D Init. Calib. Time(s): 15:09 18:10

SDG No.: 30298231

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	0.70463	0.65100	0.0100	-7.6117	30.0000
2-Butanone (MEK)	Averaged	0.11980	0.11659	0.0100	-2.6788	30.0000
Carbon tetrachloride	Averaged	0.29107	0.25423	0.0100	-12.6585	30.0000
Chlorobenzene	Averaged	0.72751	0.65690	0.3000	-9.7061	30.0000
Chloroform	Averaged	0.34806	0.30895	0.0100	-11.2378	30.0000
1,2-Dichloroethane	Averaged	0.28553	0.25526	0.0100	-10.6043	30.0000
1,1-Dichloroethene	Averaged	0.29587	0.25399	0.0100	-14.1546	30.0000
Tetrachloroethene	Averaged	0.28747	0.25073	0.0100	-12.7806	30.0000
Trichloroethene	Averaged	0.24446	0.20514	0.0100	-16.0841	30.0000
Vinyl chloride	Quadratic	20	16.18912	0.0100	-19.0544	30.0000
4-Bromofluorobenzene (S)	Averaged	0.73238	0.74798	0.0100	2.1297	30.0000
Dibromofluoromethane (S)	Averaged	0.26774	0.27512	0.0100	2.7562	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26573	0.25979	0.0100	-2.2352	30.0000
Toluene-d8 (S)	Averaged	1.11453	1.11121	0.0100	-0.2979	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11083374CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/13/2019 Time: 09:38

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 05/14/2019 05/14/2019

Lab File ID: 6190613.B\1.B\60613005.D Init. Calib. Time(s): 15:09 18:10

SDG No.: 30298231

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	0.70463	0.69524	0.0100	-1.3334	20.0000
2-Butanone (MEK)	Averaged	0.11980	0.10170	0.0100	-15.1070	20.0000
Carbon tetrachloride	Averaged	0.29107	0.24479	0.0100	-15.8988	20.0000
Chlorobenzene	Averaged	0.72751	0.72280	0.3000	-0.6485	20.0000
Chloroform	Averaged	0.34806	0.30905	0.0100	-11.2093	20.0000
1,2-Dichloroethane	Averaged	0.28553	0.24027	0.0100	-15.8541	20.0000
1,1-Dichloroethene	Averaged	0.29587	0.25181	0.0100	-14.8906	20.0000
Tetrachloroethene	Averaged	0.28747	0.31682	0.0100	10.2124	20.0000
Trichloroethene	Averaged	0.24446	0.24466	0.0100	0.0833	20.0000
Vinyl chloride	Quadratic	50	54.28915	0.0100	8.5783	20.0000
4-Bromofluorobenzene (S)	Averaged	0.73238	0.74198	0.0100	1.3102	20.0000
Dibromofluoromethane (S)	Averaged	0.26774	0.25385	0.0100	-5.1863	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26573	0.22684	0.0100	-14.6341	20.0000
Toluene-d8 (S)	Averaged	1.11453	1.08410	0.0100	-2.7299	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11098340CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 10:28

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 05/14/2019 05/14/2019

Lab File ID: 6190617.B\1.B\60617007.D Init. Calib. Time(s): 15:09 18:10

SDG No.: 30298231

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	0.70463	0.69415	0.0100	-1.4878	20.0000
2-Butanone (MEK)	Averaged	0.11980	0.10395	0.0100	-13.2272	20.0000
Carbon tetrachloride	Averaged	0.29107	0.25193	0.0100	-13.4471	20.0000
Chlorobenzene	Averaged	0.72751	0.70050	0.3000	-3.7135	20.0000
Chloroform	Averaged	0.34806	0.31818	0.0100	-8.5854	20.0000
1,2-Dichloroethane	Averaged	0.28553	0.26872	0.0100	-5.8878	20.0000
1,1-Dichloroethene	Averaged	0.29587	0.24203	0.0100	-18.1970	20.0000
Tetrachloroethene	Averaged	0.28747	0.30483	0.0100	6.0414	20.0000
Trichloroethene	Averaged	0.24446	0.23906	0.0100	-2.2062	20.0000
Vinyl chloride	Quadratic	50	46.81365	0.0100	-6.3727	20.0000
4-Bromofluorobenzene (S)	Averaged	0.73238	0.74684	0.0100	1.9734	20.0000
Dibromofluoromethane (S)	Averaged	0.26774	0.27110	0.0100	1.2573	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26573	0.26114	0.0100	-1.7248	20.0000
Toluene-d8 (S)	Averaged	1.11453	1.06848	0.0100	-4.1317	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 14-MAY-2019 19:01
Operator : JEW Inst ID: 30mv6a.i
Smp Info : icv, 87722:1
Misc Info : 44459,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Meth Date : 17-May-2019 08:26 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.231	1.229	(0.272)	60943	20.0000	20.6(Q)	
2 Chloromethane	50	1.347	1.344	(0.298)	64762	20.0000	16.8	
3 Vinyl chloride	62	1.395	1.395	(0.308)	65634	20.0000	16.2	
4 Bromomethane	94	1.590	1.588	(0.351)	20289	20.0000	17.2	
5 Chloroethane	64	1.658	1.649	(0.366)	46008	20.0000	17.9	
6 Trichlorofluoromethane	101	1.741	1.736	(0.385)	86926	20.0000	18.6	
7 Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	51188	20.0000	19.3	
8 Ethanol	45	2.056	2.053	(0.299)	9312	200.000	159(a)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	75194	20.0000	17.2	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.101	(0.463)	40323	20.0000	19.4	
11 Carbon disulfide	76	2.104	2.105	(0.465)	132281	20.0000	15.5	
12 Iodomethane	142	2.184	2.188	(0.483)	17234	20.0000	9.34	
13 Acrolein	56	2.325	2.316	(0.514)	6135	20.0000	27.7(M)	LT
14 Allyl chloride	41	2.418	2.416	(0.534)	368788	100.000	99.8	
15 Methylene Chloride	49	2.502	2.502	(0.553)	93740	20.0000	16.5	
16 Acetone	43	2.550	2.547	(0.563)	30293	20.0000	18.4(M)	LT
17 trans-1,2-Dichloroethene	61	2.627	2.628	(0.580)	72914	20.0000	17.5	
18 Methyl acetate	74	2.637	2.647	(0.583)	16541	20.0000	16.8	
19 n-Hexane	86	2.682	2.682	(0.592)	32219	20.0000	18.3	
20 Methyl-tert-butyl ether	73	2.714	2.717	(0.600)	152826	20.0000	18.5	

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.797	2.798	(0.618)	70026	100.000	106	
	22 Acetonitrile	41	2.945	2.939	(0.651)	39927	100.000	107	
	23 Diisopropyl ether	45	3.047	3.051	(0.673)	151833	20.0000	17.6	
	24 Chloroprene	53	3.150	3.141	(0.696)	37787	20.0000	15.4	
	25 1,1-Dichloroethane	63	3.179	3.176	(0.702)	99443	20.0000	18.2	
	26 Acrylonitrile	53	3.243	3.237	(0.716)	18195	20.0000	14.6(M)	LT
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	148038	20.0000	15.8	
	28 Vinyl acetate	43	3.442	3.439	(0.760)	130495	20.0000	19.8	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	72934	20.0000	17.0	
	30 2,2-Dichloropropane	77	3.808	3.805	(0.841)	82241	20.0000	17.8	
	31 Cyclohexane	56	3.872	3.873	(0.855)	88144	20.0000	18.3	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	43497	20.0000	19.5	
	33 Chloroform	83	3.939	3.943	(0.870)	91465	20.0000	17.8	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	75264	20.0000	17.5	
	35 Ethyl acetate	43	4.036	4.081	(0.892)	12044	20.0000	42.3(H)	
	36 Tetrahydrofuran	42	4.052	4.056	(0.895)	25584	20.0000	20.5	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	122173	30.0000	30.8	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	85087	20.0000	18.1	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	34516	20.0000	19.5	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	64414	20.0000	17.2	
	41 Benzene	78	4.302	4.303	(0.950)	192729	20.0000	18.5	
	42 Propionitrile	54	4.328	4.328	(0.956)	11758	20.0000	19.2(M)	CO
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	28176	20.0000	16.1	
	44 tert-Amylmethyl ether	73	4.369	4.370	(0.965)	136777	20.0000	18.5	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	115366	30.0000	29.3	
	46 Isobutanol	43	4.440	4.444	(0.981)	22599	100.000	103	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	75569	20.0000	17.9	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	444078	30.0000		
	49 Methylcyclohexane	83	4.604	4.601	(1.017)	78702	20.0000	17.2	
	50 Trichloroethene	95	4.613	4.614	(0.784)	51312	20.0000	16.8	
	51 Dibromomethane	174	4.812	4.813	(1.063)	43598	20.0000	18.3	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	53059	20.0000	17.9	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	72848	20.0000	19.2	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	36197	20.0000	18.3	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.977	(1.100)	9962	200.000	204	
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	28697	20.0000	16.4	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	85252	20.0000	18.5	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	416926	30.0000	29.9	
	59 Toluene	91	5.258	5.259	(0.893)	217584	20.0000	17.5	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	129073	100.000	106	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	64744	20.0000	19.9	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	62715	20.0000	17.4	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	84660	20.0000	18.7	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	44732	20.0000	17.2	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	47955	20.0000	17.6	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	65410	20.0000	18.4	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	80406	20.0000	17.9	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	55121	20.0000	19.0	
	69 2-Hexanone	43	5.756	5.759	(0.978)	55721	20.0000	20.9	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	89745	20.0000	18.3	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	375201	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	164313	20.0000	18.0	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	60109	20.0000	17.3	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	219869	40.0000	36.4	

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Report Date: 17-Jun-2019 10:28

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75	o-Xylene	106	6.138	6.141	(1.043)	105538	20.0000	17.7	
	76	Styrene	104	6.160	6.161	(1.046)	192998	20.0000	18.3	
	77	Bromoform	173	6.189	6.186	(0.901)	49923	20.0000	17.8	
	78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	286173	20.0000	18.4	
$	79	4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	171111	30.0000	30.6	
	80	n-Propylbenzene	91	6.439	6.440	(0.937)	322704	20.0000	18.2	
	81	Bromobenzene	77	6.446	6.446	(0.938)	116798	20.0000	18.0	
	82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	69103	20.0000	18.1	
	83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	244666	20.0000	18.3	
	84	2-Chlorotoluene	126	6.516	6.517	(0.948)	72463	20.0000	17.6	
	85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	25889	20.0000	18.6	
	86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	24069	20.0000	20.0	
	87	Cyclohexanone	55	6.568	6.571	(0.956)	39411	100.000	121	
	88	4-Chlorotoluene	126	6.587	6.587	(0.958)	79837	20.0000	18.1	
	89	tert-Butylbenzene	119	6.654	6.655	(0.968)	228253	20.0000	18.5	
	90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	259073	20.0000	18.5	
	91	sec-Butylbenzene	105	6.728	6.732	(0.979)	329820	20.0000	18.9	
	92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	308192	20.0000	19.0	
	93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	169713	20.0000	18.6	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	228764	30.0000		
	95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	172022	20.0000	18.4	
	96	n-Butylbenzene	91	6.965	6.966	(1.014)	255965	20.0000	18.7	
	97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	164520	20.0000	18.8	
$	161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	229743	30.0000	30.1	
	98	1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.077)	27538	20.0000	19.9	
	99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	131186	20.0000	19.8	
	100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	61619	20.0000	18.3	
	101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	117228	20.0000	19.0	
	102	Naphthalene	128	7.838	7.839	(1.141)	332848	20.0000	21.3	
	103	1,2,3-Trichlorobenzene	180	7.918	7.922	(1.152)	110796	20.0000	20.6	
	104	2-Methylnaphthalene	142	8.287	8.288	(1.206)	195796	20.0000	27.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  CO: Indicates that the analyst had to split two co-eluting peaks
      apart that were not (or could not be) separated by the computer
      system.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60514027.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 16:26
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	445357	222679	890714	444078	-0.29
71 Chlorobenzene-d5	373326	186663	746652	375201	0.50
94 1,4-Dichlorobenze	223999	112000	447998	228764	2.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-MAY-2019 19:01
Lab File ID: 60514027.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.19930	0.20585	0.20585	0.010	3.28654	20.00000	Aver	(Q)	
2 Chloromethane	20.00000	16.84463	0.21875	0.100	-15.77685	20.00000	Quad		
3 Vinyl chloride	20.00000	16.18912	0.22170	0.010	-19.05438	20.00000	Quad		
4 Bromomethane	0.07944	0.06853	0.06853	0.010	-13.73526	20.00000	Aver		
5 Chloroethane	20.00000	17.93660	0.15541	0.010	-10.31698	20.00000	Quad		
6 Trichlorofluoromethane	20.00000	18.63240	0.29362	0.010	-6.83799	20.00000	Quad		
7 Diethyl ether (Ethyl ether)	0.17880	0.17290	0.17290	0.010	-3.29979	20.00000	Aver		
8 Ethanol	0.00769	0.00611	0.00611	0.010	-20.64531	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.29587	0.25399	0.25399	0.010	-14.15462	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.14072	0.13620	0.13620	0.010	-3.20875	20.00000	Aver		
11 Carbon disulfide	20.00000	15.53602	0.44682	0.010	-22.31988	20.00000	Quad		<-
12 Iodomethane	0.12461	0.05821	0.05821	0.010	-53.28513	20.00000	Aver		<-
13 Acrolein	20.00000	27.70782	0.02072	0.010	38.53908	20.00000	Quad	(M)	<-
14 Allyl chloride	100	100	0.24914	0.010	-0.15221	20.00000	Quad		
15 Methylene Chloride	20.00000	16.48644	0.31663	0.010	-17.56782	20.00000	Line		
16 Acetone	20.00000	18.36025	0.10232	0.010	-8.19876	20.00000	Line	(M)	
17 trans-1,2-Dichloroethene	0.28200	0.24629	0.24629	0.010	-12.66475	20.00000	Aver		
18 Methyl acetate	0.06633	0.05587	0.05587	0.010	-15.76348	20.00000	Aver		
19 n-Hexane	20.00000	18.33784	0.10883	0.010	-8.31082	20.00000	Quad		
20 Methyl-tert-butyl ether	0.55890	0.51621	0.51621	0.010	-7.63706	20.00000	Aver		
21 tert-Butyl Alcohol	0.04463	0.04731	0.04731	0.010	5.99985	20.00000	Aver		
22 Acetonitrile	100	107	0.02697	0.010	6.71229	20.00000	Quad		
23 Diisopropyl ether	0.58411	0.51286	0.51286	0.010	-12.19787	20.00000	Aver		
24 Chloroprene	0.16546	0.12764	0.12764	0.010	-22.85782	20.00000	Aver		<-
25 1,1-Dichloroethane	0.36875	0.33590	0.33590	0.100	-8.90993	20.00000	Aver		
26 Acrylonitrile	20.00000	14.55596	0.06146	0.010	-27.22018	20.00000	Quad	(M)	<-
27 Ethyl-tert-butyl ether	0.63068	0.50004	0.50004	0.010	-20.71373	20.00000	Aver		<-
28 Vinyl acetate	0.44590	0.44078	0.44078	0.010	-1.14750	20.00000	Aver		
29 cis-1,2-Dichloroethene	0.29013	0.24636	0.24636	0.010	-15.08655	20.00000	Aver		
30 2,2-Dichloropropane	0.31230	0.27779	0.27779	0.010	-11.04958	20.00000	Aver		
31 Cyclohexane	0.32571	0.29773	0.29773	0.010	-8.58946	20.00000	Aver		
32 Bromochloromethane	0.15081	0.14692	0.14692	0.010	-2.57866	20.00000	Aver		
33 Chloroform	0.34806	0.30895	0.30895	0.010	-11.23780	20.00000	Aver		
34 Carbon tetrachloride	0.29107	0.25423	0.25423	0.010	-12.65849	20.00000	Aver		
35 Ethyl acetate	20.00000	42.30301	0.04068	0.010	112	20.00000	Quad	(H)	<-
36 Tetrahydrofuran	0.08414	0.08642	0.08642	0.010	2.70722	20.00000	Aver		
$ 37 Dibromofluoromethane (S)	0.26774	0.27512	0.27512	0.010	2.75617	20.00000	Aver		
38 1,1,1-Trichloroethane	0.31820	0.28741	0.28741	0.010	-9.67845	20.00000	Aver		
39 2-Butanone (MEK)	0.11980	0.11659	0.11659	0.010	-2.67875	20.00000	Aver		
40 1,1-Dichloropropene	0.25258	0.21758	0.21758	0.010	-13.85856	20.00000	Aver		
41 Benzene	0.70463	0.65100	0.65100	0.010	-7.61170	20.00000	Aver		

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Report Date: 17-Jun-2019 10:28

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-MAY-2019 19:01
Lab File ID: 60514027.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
42 Propionitrile	20.00000	19.21033	0.03972	0.010	-3.94835	20.00000	Quad	(M)	
43 Methacrylonitrile	0.11842	0.09517	0.09517	0.010	-19.62862	20.00000	Aver		
44 tert-Amylmethyl ether	0.50004	0.46200	0.46200	0.010	-7.60676	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.26573	0.25979	0.25979	0.010	-2.23523	20.00000	Aver		
46 Isobutanol	0.01475	0.01527	0.01527	0.010	3.49812	20.00000	Aver		
47 1,2-Dichloroethane	0.28553	0.25526	0.25526	0.010	-10.60434	20.00000	Aver		
49 Methylcyclohexane	0.30872	0.26584	0.26584	0.010	-13.89095	20.00000	Aver		
50 Trichloroethene	0.24446	0.20514	0.20514	0.010	-16.08412	20.00000	Aver		
51 Dibromomethane	0.16094	0.14726	0.14726	0.010	-8.49775	20.00000	Aver		
52 1,2-Dichloropropane	0.20052	0.17922	0.17922	0.010	-10.61991	20.00000	Aver		
53 Bromodichloromethane	0.25572	0.24606	0.24606	0.010	-3.77707	20.00000	Aver		
54 Methyl methacrylate	0.13379	0.12227	0.12227	0.010	-8.61565	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00330	0.00336	0.00336	0.010	2.02009	20.00000	Aver		<-
56 2-Chloroethylvinyl ether	0.11819	0.09693	0.09693	0.010	-17.98450	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.31176	0.28796	0.28796	0.010	-7.63398	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.11453	1.11121	1.11121	0.010	-0.29792	20.00000	Aver		
59 Toluene	0.99263	0.86987	0.86987	0.010	-12.36679	20.00000	Aver		
60 2-Nitropropane	0.08228	0.08720	0.08720	0.010	5.97444	20.00000	Aver		
61 4-Methyl-2-pentanone (MIBK)	0.21999	0.21869	0.21869	0.010	-0.58907	20.00000	Aver		
62 Tetrachloroethene	0.28747	0.25073	0.25073	0.010	-12.78061	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.36137	0.33846	0.33846	0.010	-6.34035	20.00000	Aver		
64 Ethyl methacrylate	0.20816	0.17883	0.17883	0.010	-14.08964	20.00000	Aver		
65 1,1,2-Trichloroethane	0.21757	0.19172	0.19172	0.010	-11.88162	20.00000	Aver		
66 Dibromochloromethane	0.28400	0.26150	0.26150	0.010	-7.92362	20.00000	Aver		
67 1,3-Dichloropropane	0.35881	0.32145	0.32145	0.010	-10.41158	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.23140	0.22037	0.22037	0.010	-4.76763	20.00000	Aver		
69 2-Hexanone	0.21285	0.22276	0.22276	0.010	4.65672	20.00000	Aver		
70 Ethylbenzene	0.39145	0.35879	0.35879	0.010	-8.34401	20.00000	Aver		
72 Chlorobenzene	0.72751	0.65690	0.65690	0.300	-9.70613	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.27809	0.24031	0.24031	0.010	-13.58695	20.00000	Aver		
74 m&p-Xylene	0.48300	0.43950	0.43950	0.010	-9.00502	20.00000	Aver		
75 o-Xylene	0.47780	0.42193	0.42193	0.010	-11.69480	20.00000	Aver		
76 Styrene	0.84268	0.77158	0.77158	0.010	-8.43709	20.00000	Aver		
77 Bromoform	0.36666	0.32734	0.32734	0.100	-10.72293	20.00000	Aver		
78 Isopropylbenzene (Cumene)	2.04304	1.87643	1.87643	0.010	-8.15498	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.73238	0.74798	0.74798	0.010	2.12968	20.00000	Aver		
80 n-Propylbenzene	2.32087	2.11596	2.11596	0.010	-8.82911	20.00000	Aver		
81 Bromobenzene	0.85247	0.76584	0.76584	0.010	-10.16162	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.49997	0.45311	0.45311	0.300	-9.37292	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.75634	1.60427	1.60427	0.010	-8.65823	20.00000	Aver		
84 2-Chlorotoluene	0.53968	0.47514	0.47514	0.010	-11.95986	20.00000	Aver		
85 1,2,3-Trichloropropane	0.18224	0.16975	0.16975	0.010	-6.85238	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Report Date: 17-Jun-2019 10:28

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-MAY-2019 19:01
Lab File ID: 60514027.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\msv6051419a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.15786	0.15782	0.15782	0.010	-0.02462	20.00000	Aver		
87 Cyclohexanone	0.04268	0.05168	0.05168	0.010	21.09040	20.00000	Aver		<-
88 4-Chlorotoluene	0.57851	0.52349	0.52349	0.010	-9.51001	20.00000	Aver		
89 tert-Butylbenzene	1.61505	1.49665	1.49665	0.010	-7.33122	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.84031	1.69874	1.69874	0.010	-7.69280	20.00000	Aver		
91 sec-Butylbenzene	2.29082	2.16262	2.16262	0.010	-5.59627	20.00000	Aver		
92 p-Isopropyltoluene	2.12491	2.02081	2.02081	0.010	-4.89903	20.00000	Aver		
93 1,3-Dichlorobenzene	1.19738	1.11280	1.11280	0.010	-7.06372	20.00000	Aver		
95 1,4-Dichlorobenzene	1.22457	1.12794	1.12794	0.010	-7.89057	20.00000	Aver		
96 n-Butylbenzene	1.79656	1.67836	1.67836	0.010	-6.57946	20.00000	Aver		
97 1,2-Dichlorobenzene	1.14577	1.07875	1.07875	0.010	-5.84886	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00028	1.00428	1.00428	0.010	0.39974	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.18159	0.18057	0.18057	0.010	-0.56382	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.87062	0.86018	0.86018	0.010	-1.19843	20.00000	Aver		
100 Hexachloro-1,3-butadiene	0.44169	0.40403	0.40403	0.010	-8.52589	20.00000	Aver		
101 1,2,4-Trichlorobenzene	0.80917	0.76866	0.76866	0.010	-5.00566	20.00000	Aver		
102 Naphthalene	2.04983	2.18248	2.18248	0.010	6.47105	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.70542	0.72649	0.72649	0.010	2.98694	20.00000	Aver		
104 2-Methylnaphthalene	0.95164	1.28383	1.28383	0.010	34.90658	20.00000	Aver		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.00439
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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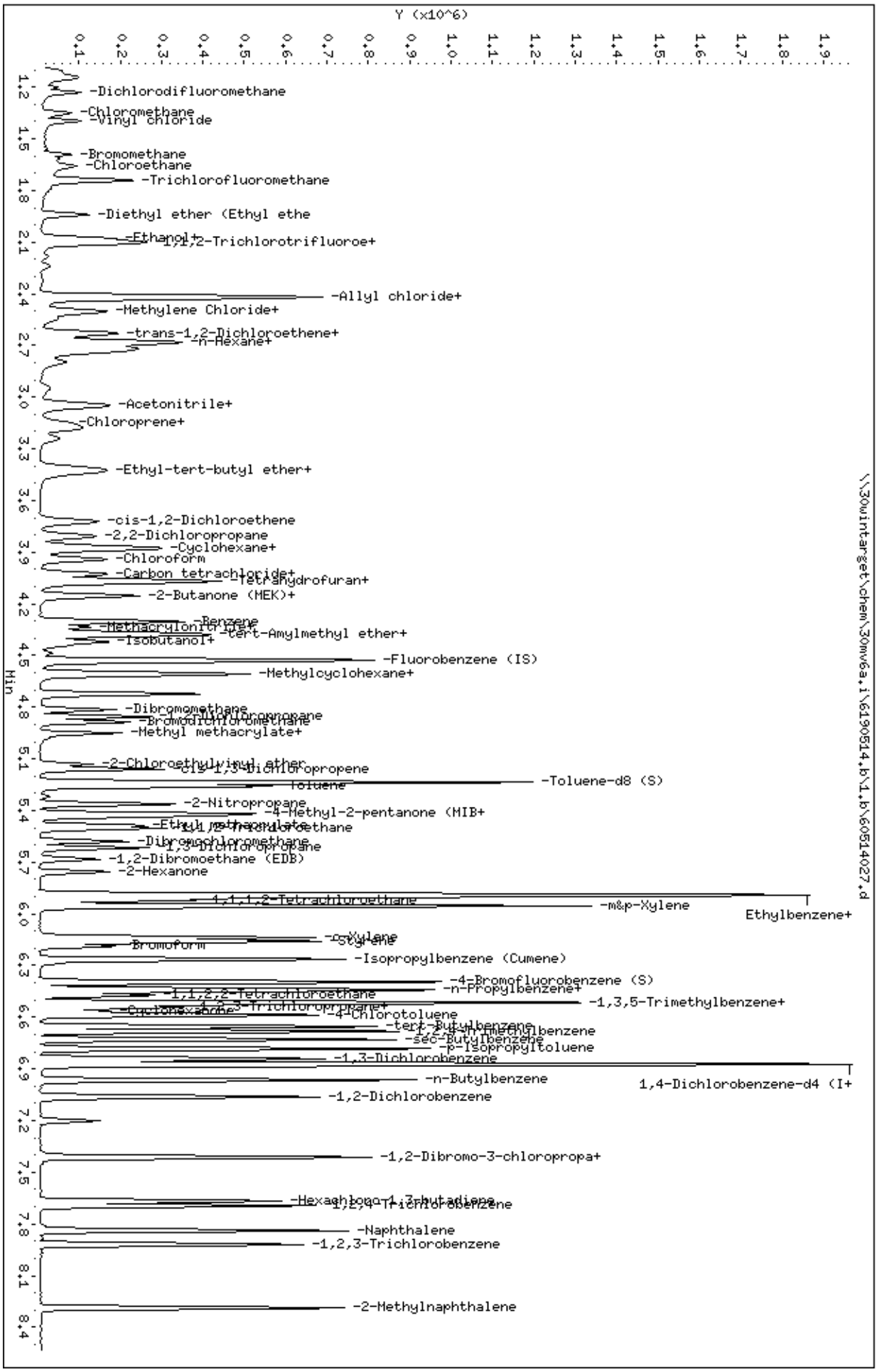
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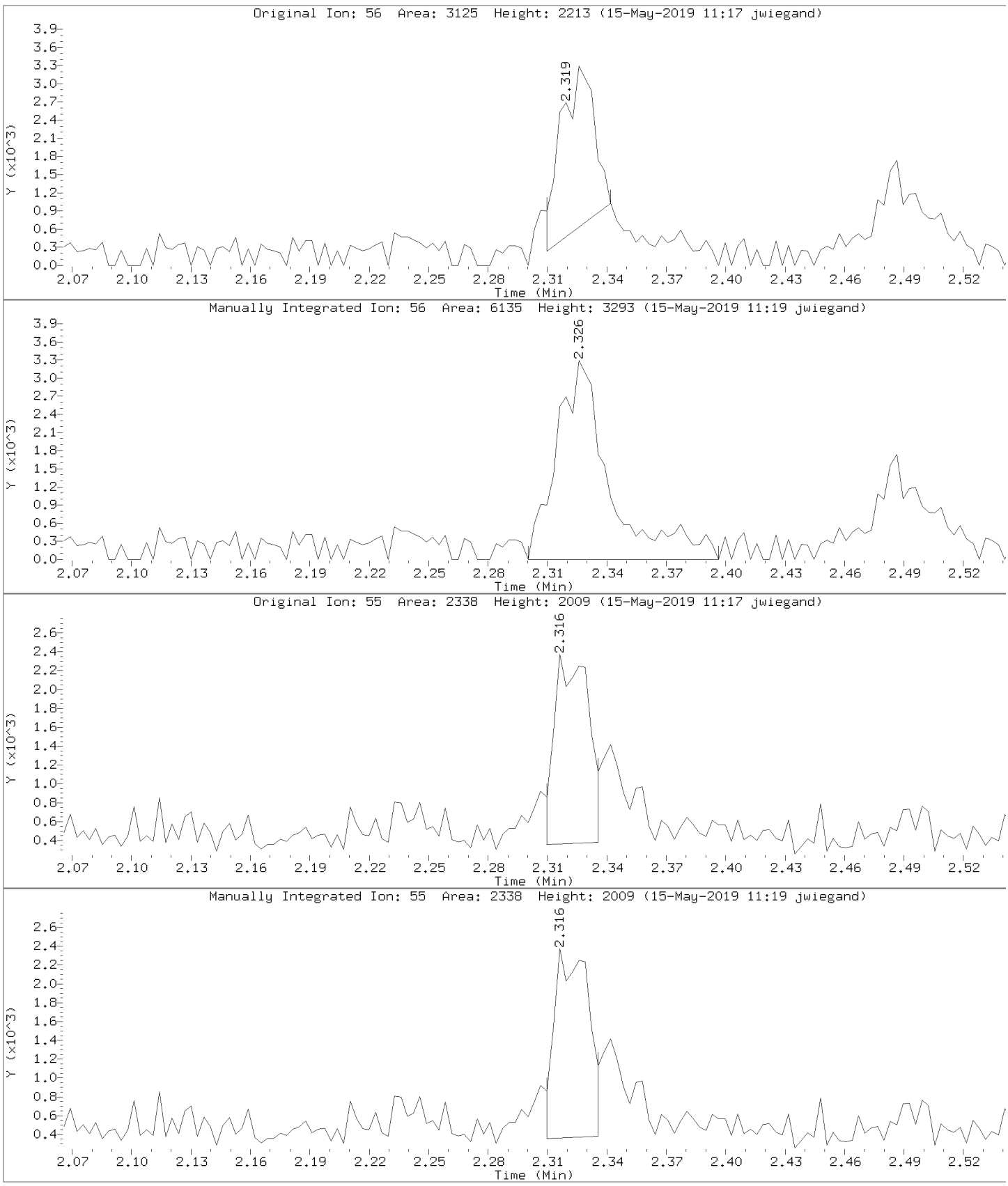
Date : 14-MAY-2019 19:01
Client ID: ICV
Sample Info: ICV, 877221
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514027.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b/60514027.d
Injection Date: 14-MAY-2019 19:01
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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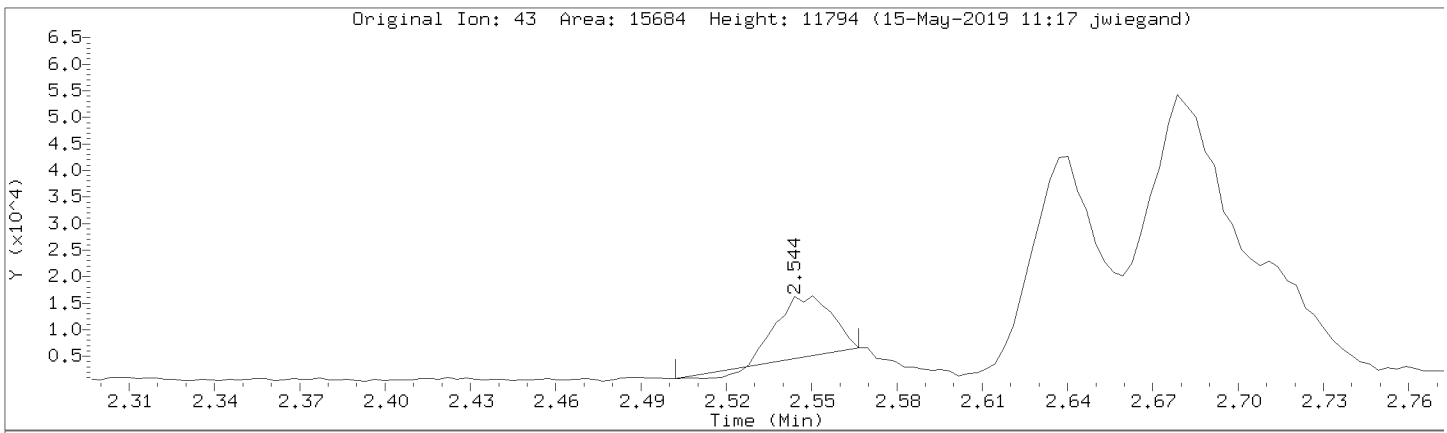
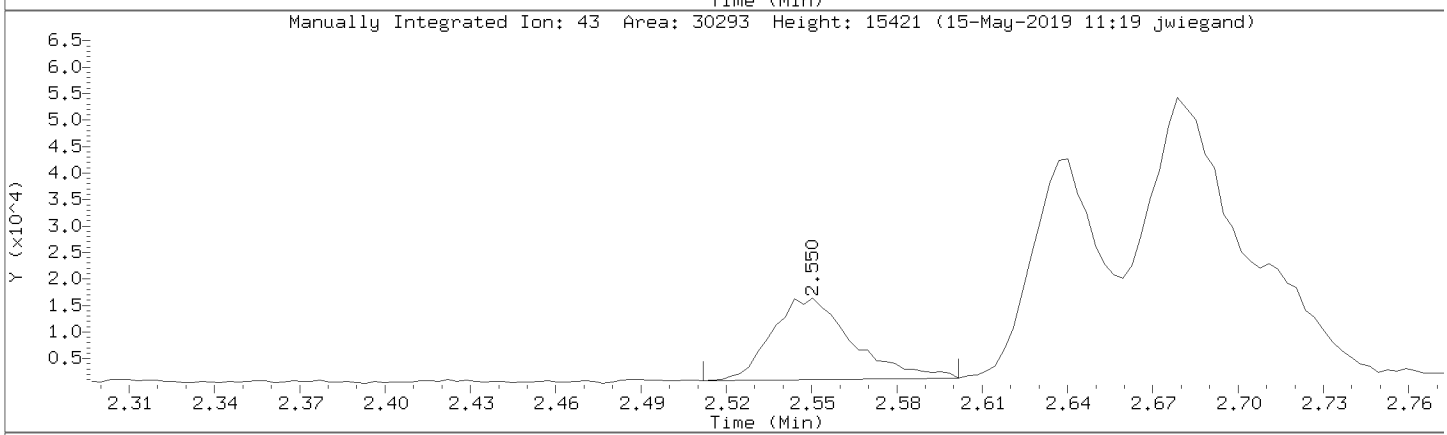
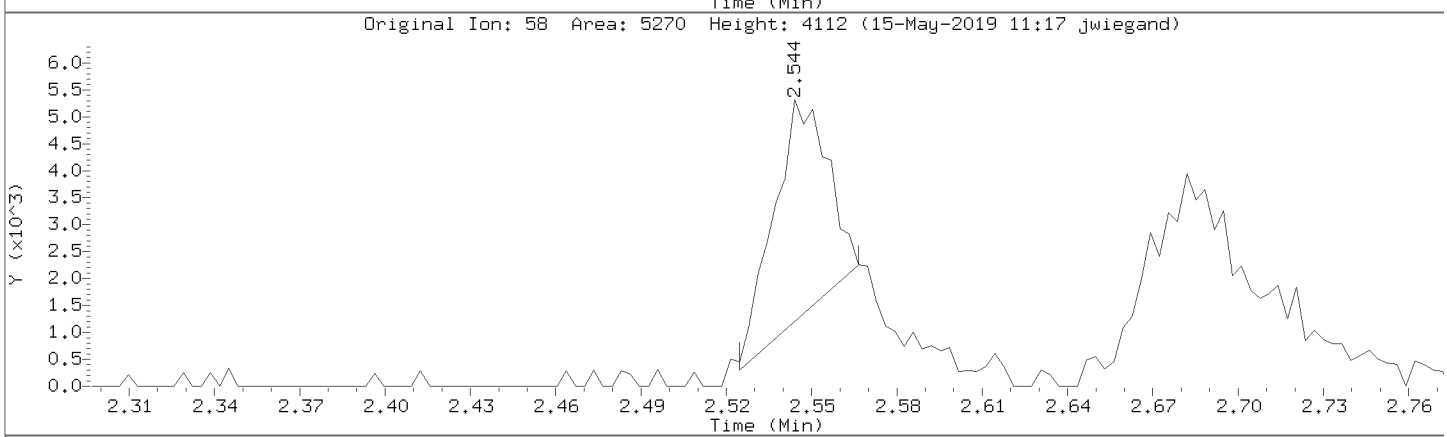
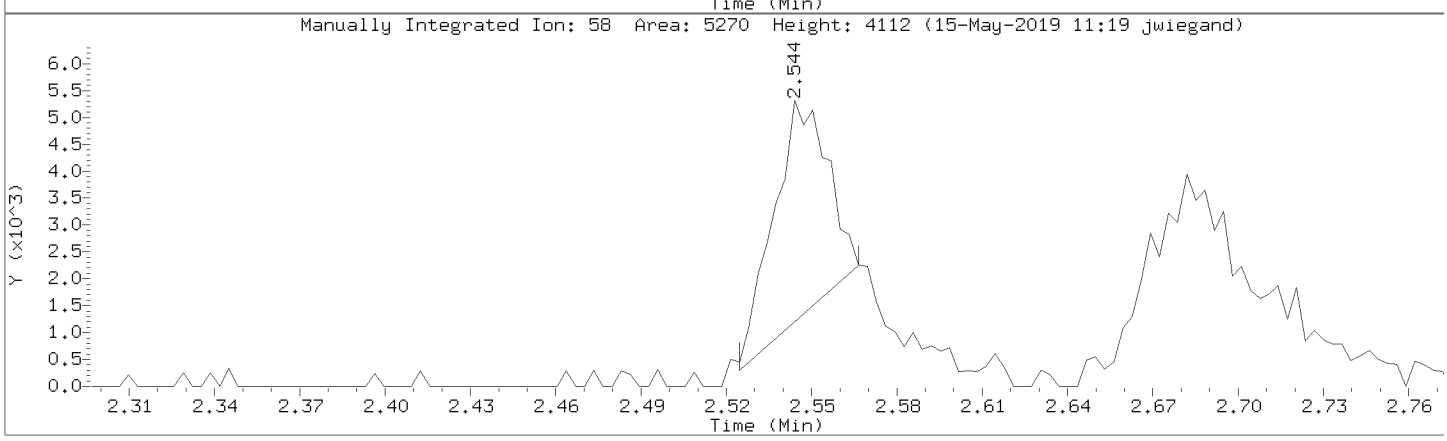
Injection Date: 14-MAY-2019 19:01
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1









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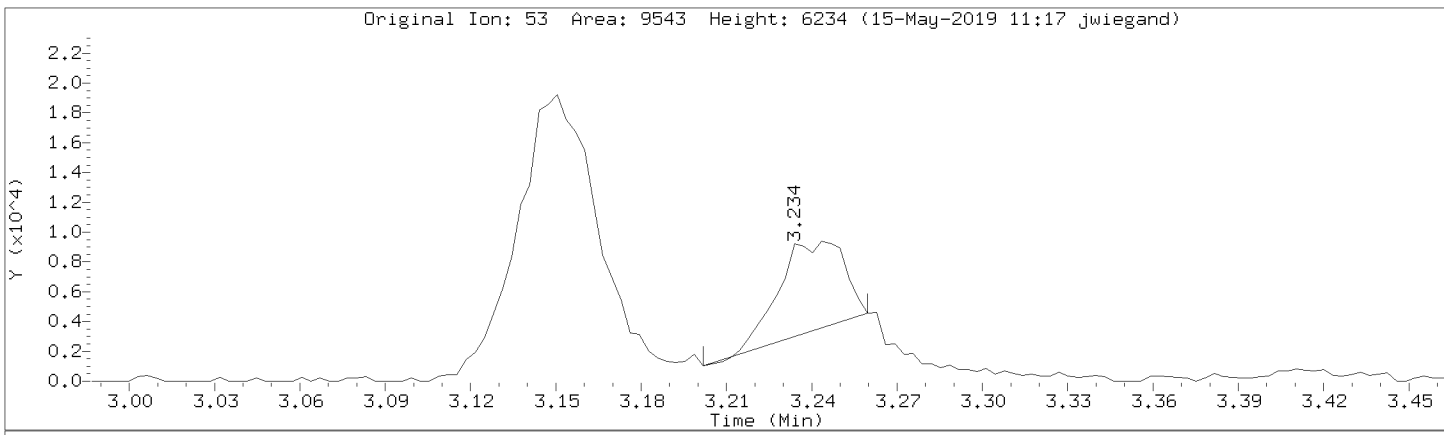
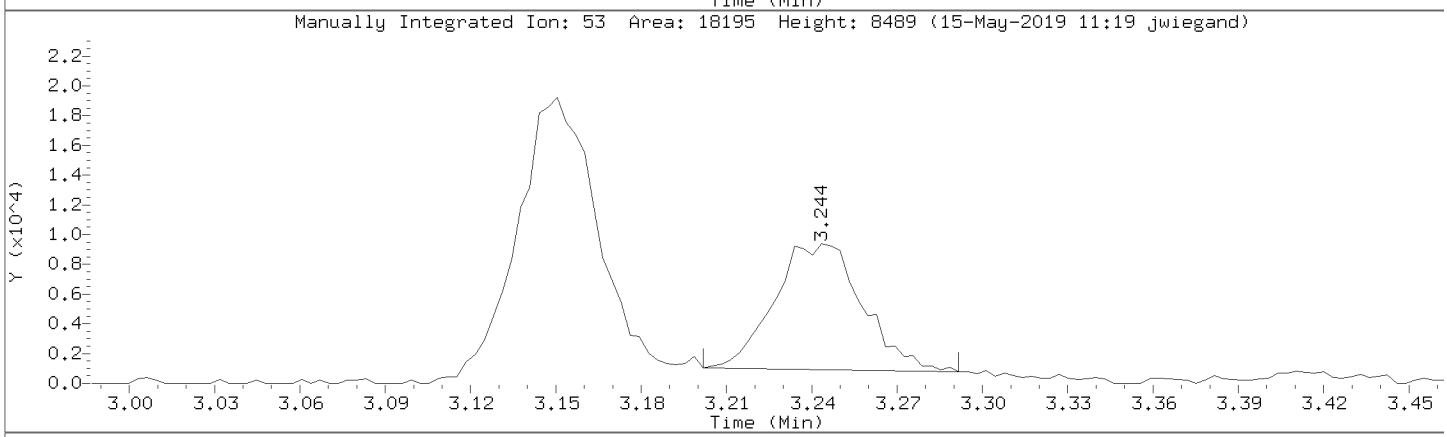
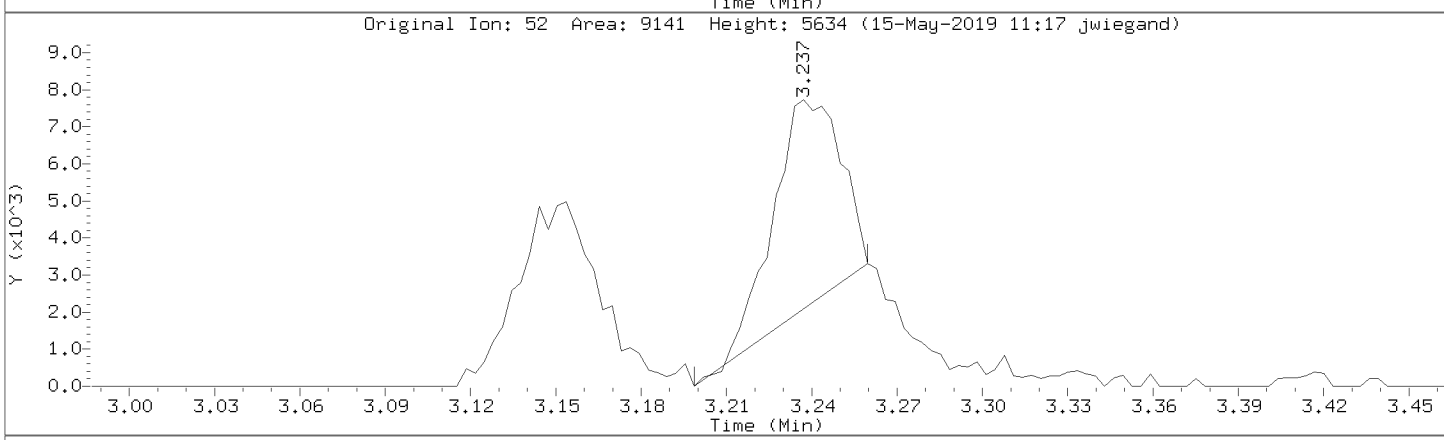
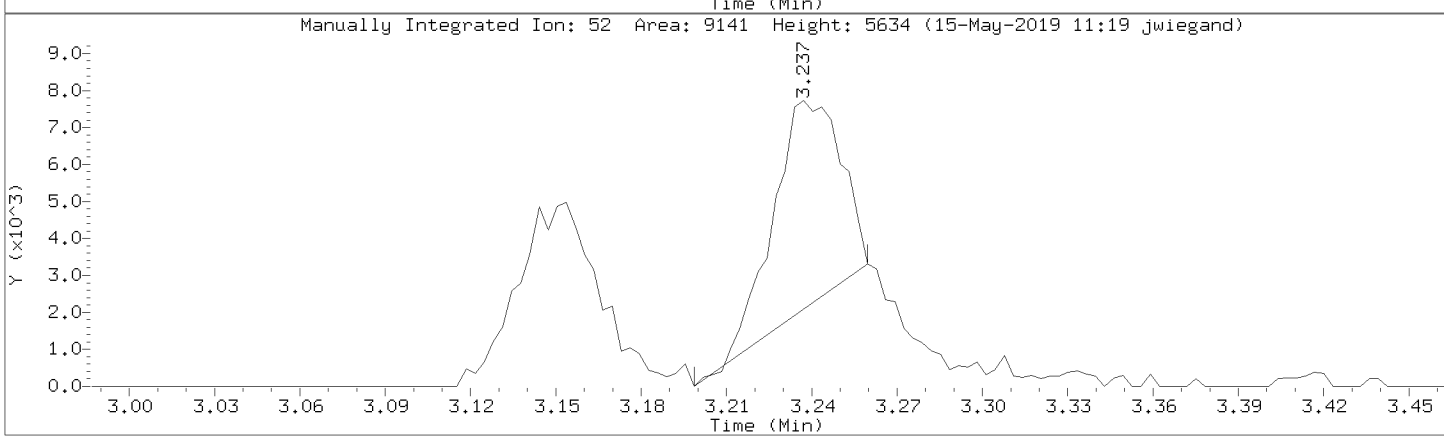
Injection Date: 14-MAY-2019 19:01
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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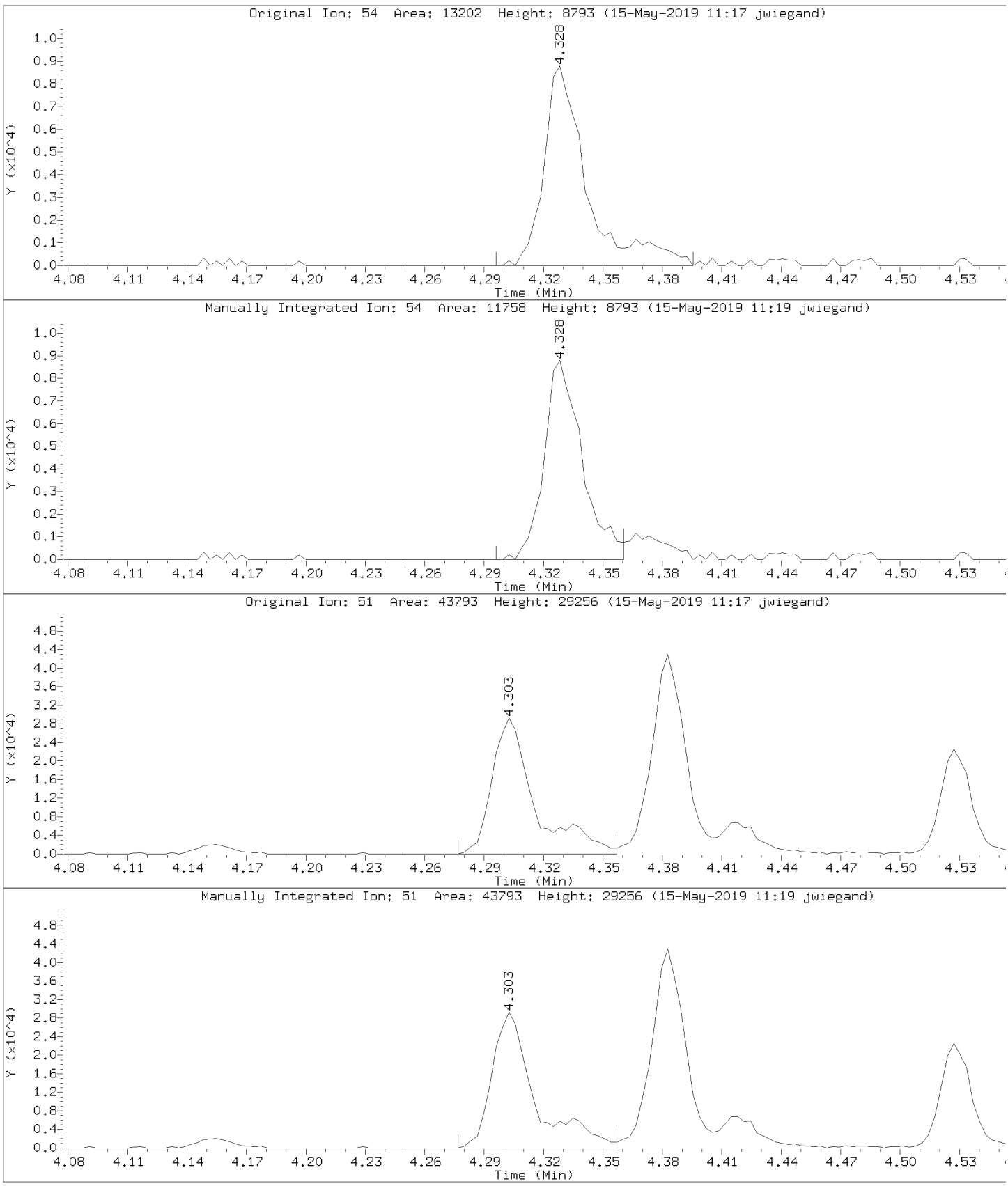
Injection Date: 14-MAY-2019 19:01
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Propionitrile Review Code: CO
CAS Number: 107-12-0



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Injection Date: 14-MAY-2019 19:01
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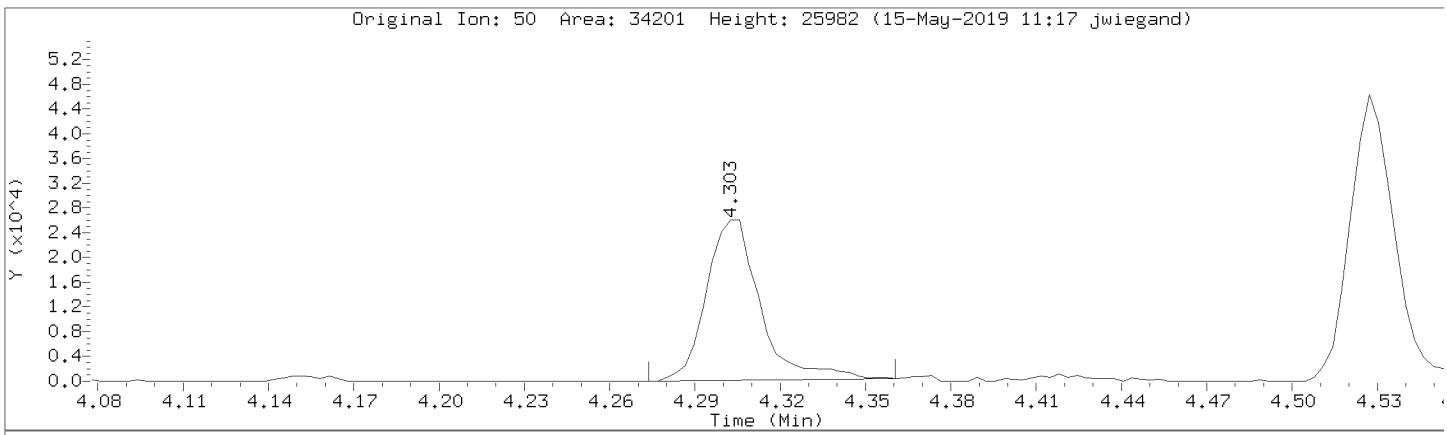
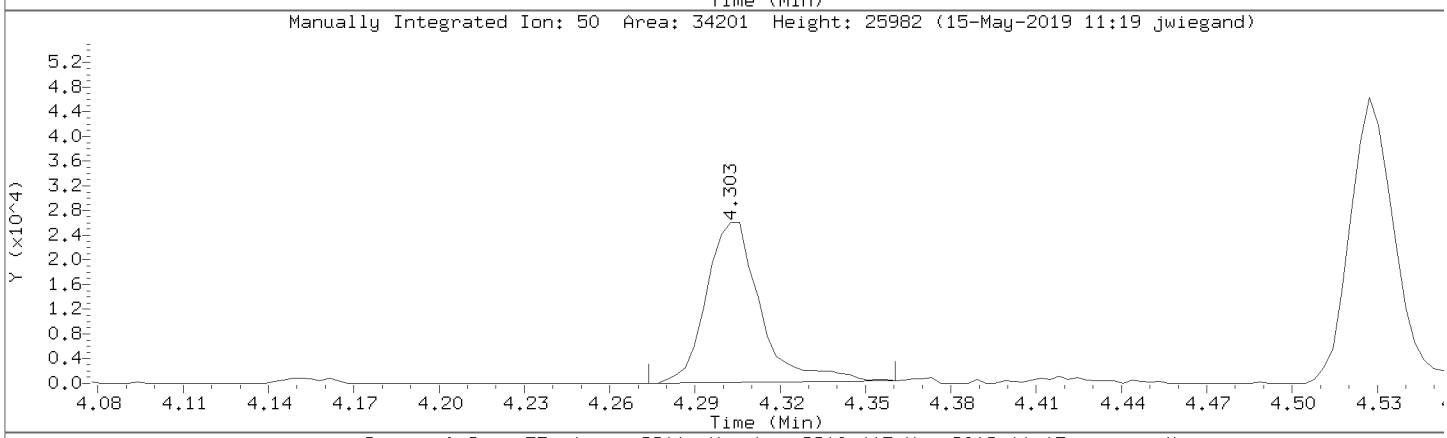
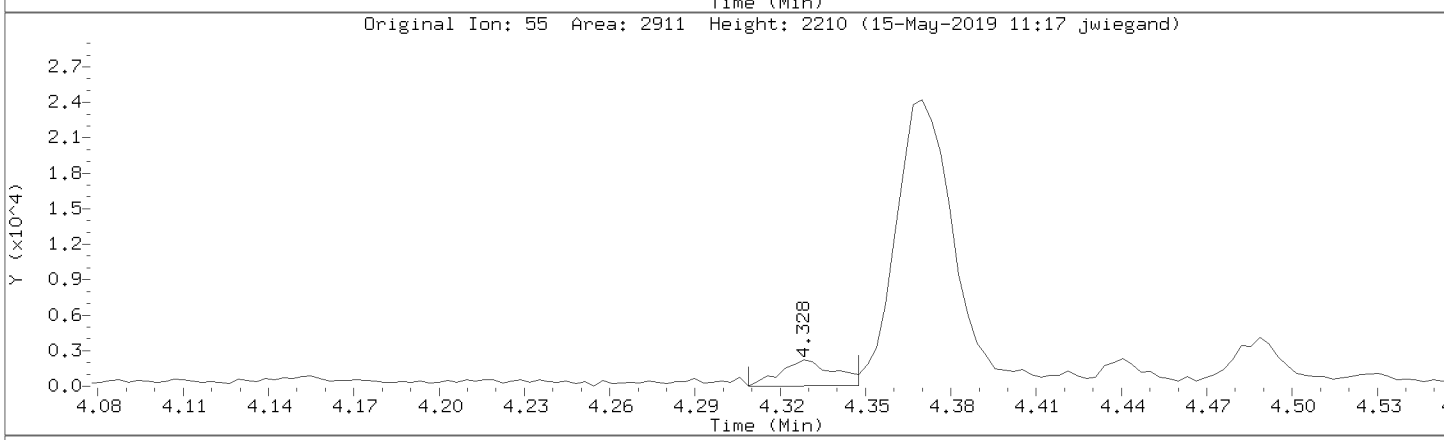
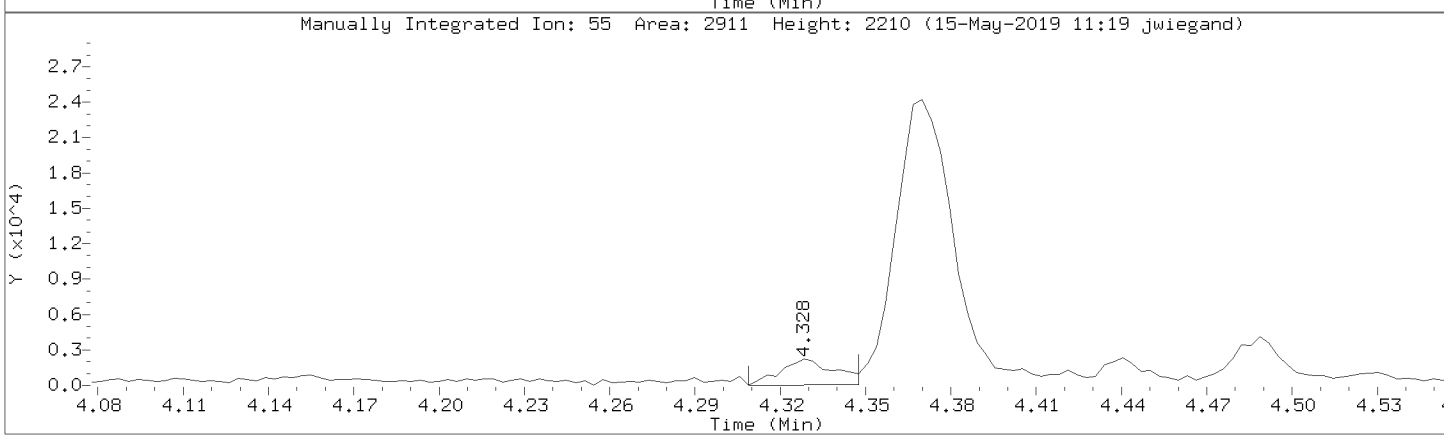
Lab Sample ID: ICV









Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 13-JUN-2019 09:38
Operator : JEW Inst ID: 30mv6a.i
Smp Info : ccv, 90733:1
Misc Info : 44459,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m
Meth Date : 13-Jun-2019 10:00 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.229	(0.271)	153007	50.0000	51.6(Q)	
2 Chloromethane	50	1.347	1.344	(0.298)	120864	50.0000	39.4	
3 Vinyl chloride	62	1.395	1.395	(0.308)	174806	50.0000	54.3	
4 Bromomethane	94	1.587	1.588	(0.351)	31250	50.0000	26.4	
5 Chloroethane	64	1.655	1.649	(0.366)	101711	50.0000	50.8	
6 Trichlorofluoromethane	101	1.738	1.736	(0.384)	218722	50.0000	53.6	
7 Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	122076	50.0000	45.9	
8 Ethanol	45	2.046	2.053	(0.298)	17865	500.000	311	
9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	187417	50.0000	42.6	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.101	(0.463)	110560	50.0000	52.8	
11 Carbon disulfide	76	2.101	2.105	(0.464)	355805	50.0000	50.8	
12 Iodomethane	142	2.181	2.188	(0.482)	61946	50.0000	33.4	
13 Acrolein	56	2.322	2.316	(0.513)	15914	50.0000	80.8(M)	LT
14 Allyl chloride	41	2.415	2.416	(0.534)	869249	250.000	271	
15 Methylene Chloride	49	2.499	2.502	(0.552)	172616	50.0000	38.8	
16 Acetone	43	2.547	2.547	(0.563)	45426	50.0000	34.7	
17 trans-1,2-Dichloroethene	61	2.624	2.628	(0.580)	181131	50.0000	43.1	
18 Methyl acetate	74	2.637	2.647	(0.583)	24717	50.0000	25.0	
19 n-Hexane	86	2.678	2.682	(0.592)	37613	50.0000	26.4	
20 Methyl-tert-butyl ether	73	2.710	2.717	(0.599)	386356	50.0000	46.4	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.800	2.798	(0.619)	151095	250.000	227	
	22 Acetonitrile	41	2.948	2.939	(0.651)	77184	250.000	214	
	23 Diisopropyl ether	45	3.047	3.051	(0.673)	378556	50.0000	43.5	
	24 Chloroprene	53	3.147	3.141	(0.695)	187442	50.0000	76.1	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	236298	50.0000	43.0	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	58585	50.0000	49.2	
	27 Ethyl-tert-butyl ether	59	3.413	3.420	(0.754)	423787	50.0000	45.1	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	312729	50.0000	47.1	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	182430	50.0000	42.2	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	198551	50.0000	42.7	
	31 Cyclohexane	56	3.869	3.873	(0.855)	232624	50.0000	48.0	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	107464	50.0000	47.9	
	33 Chloroform	83	3.939	3.943	(0.870)	230017	50.0000	44.4	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	182194	50.0000	42.0	
	35 Ethyl acetate	43	4.119	4.081	(0.910)	407	50.0000	6.38	
	36 Tetrahydrofuran	42	4.052	4.056	(0.895)	59285	50.0000	47.3	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	113361	30.0000	28.4	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	221413	50.0000	46.7	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	75692	50.0000	42.4	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	179377	50.0000	47.7	
	41 Benzene	78	4.302	4.303	(0.950)	517447	50.0000	49.3	
	42 Propionitrile	54	4.328	4.328	(0.956)	26235	50.0000	47.1	
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	75924	50.0000	43.1	
	44 tert-Amylmethyl ether	73	4.369	4.370	(0.965)	363174	50.0000	48.8	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	101299	30.0000	25.6	
	46 Isobutanol	43	4.440	4.444	(0.981)	48321	250.000	220	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	178824	50.0000	42.1	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	446565	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	228654	50.0000	49.8	
	50 Trichloroethene	95	4.610	4.614	(0.783)	147443	50.0000	50.0	
	51 Dibromomethane	174	4.812	4.813	(1.063)	119217	50.0000	49.8	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	135918	50.0000	45.5	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	161078	50.0000	42.3	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	95573	50.0000	48.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.977	(1.099)	24265	500.000	494(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	79936	50.0000	45.4	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	212695	50.0000	45.8	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	391996	30.0000	29.2	
	59 Toluene	91	5.255	5.259	(0.893)	581895	50.0000	48.6	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	201443	250.000	164	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	133318	50.0000	40.7	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	190931	50.0000	55.1	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	202953	50.0000	46.6	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	106204	50.0000	42.3	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	128982	50.0000	49.2	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	155545	50.0000	45.4	
	67 1,3-Dichloropropane	76	5.614	5.618	(0.954)	209920	50.0000	48.5	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	143957	50.0000	51.6	
	69 2-Hexanone	43	5.756	5.759	(0.978)	102602	50.0000	40.0	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	239426	50.0000	50.7	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	361586	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	435588	50.0000	49.7	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	164902	50.0000	49.2	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	604588	100.000	104	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.141	(1.043)	293106	50.0000	50.9	
76	Styrene	104	6.160	6.161	(1.046)	496186	50.0000	48.8	
77	Bromoform	173	6.186	6.186	(0.900)	114269	50.0000	41.7	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.912)	784606	50.0000	51.4	
$ 79	4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	166310	30.0000	30.4	
80	n-Propylbenzene	91	6.436	6.440	(0.937)	865948	50.0000	49.9	
81	Bromobenzene	77	6.446	6.446	(0.938)	296457	50.0000	46.5	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	173206	50.0000	46.4	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	652262	50.0000	49.7	
84	2-Chlorotoluene	126	6.516	6.517	(0.949)	201258	50.0000	49.9	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	65975	50.0000	48.4	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.953)	51907	50.0000	44.0	
87	Cyclohexanone	55	6.568	6.571	(0.956)	75104	250.000	236	
88	4-Chlorotoluene	126	6.587	6.587	(0.959)	216972	50.0000	50.2	
89	tert-Butylbenzene	119	6.654	6.655	(0.969)	629655	50.0000	52.2	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.973)	684519	50.0000	49.8	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	892861	50.0000	52.2	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	832537	50.0000	52.4	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.996)	464228	50.0000	51.9	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	224144	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.876	(1.001)	479292	50.0000	52.4	
96	n-Butylbenzene	91	6.965	6.966	(1.014)	692122	50.0000	51.6	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	451676	50.0000	52.8	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	224141	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	61899	50.0000	45.6	
99	1,3,5-Trichlorobenzene	180	7.411	7.415	(1.079)	369350	50.0000	56.8	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	194144	50.0000	58.8	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	345370	50.0000	57.1	
102	Naphthalene	128	7.838	7.839	(1.141)	812338	50.0000	53.0	
103	1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	300814	50.0000	57.1	
104	2-Methylnaphthalene	142	8.288	8.288	(1.206)	415893	50.0000	58.5	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613005.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 12-JUN-2019
Calibration Time: 12:02
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	445357	222679	890714	446565	0.27
71 Chlorobenzene-d5	373326	186663	746652	361586	-3.14
94 1,4-Dichlorobenze	223999	112000	447998	224144	0.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-JUN-2019 09:38
Lab File ID: 60613005.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.19930	0.20558	0.20558	0.010	3.14918	20.00000	Aver	(Q)	
	2 Chloromethane	50.00000	39.42691	0.16239	0.100	-21.14619	20.00000	Quad		<-
	3 Vinyl chloride	50.00000	54.28916	0.23487	0.010	8.57832	20.00000	Quad		
	4 Bromomethane	0.07944	0.04199	0.04199	0.010	-47.14851	20.00000	Aver		<-
	5 Chloroethane	50.00000	50.83465	0.13666	0.010	1.66929	20.00000	Quad		
	6 Trichlorofluoromethane	50.00000	53.62209	0.29387	0.010	7.24418	20.00000	Quad		
	7 Diethyl ether (Ethyl ether)	0.17880	0.16402	0.16402	0.010	-8.26731	20.00000	Aver		
	8 Ethanol	0.00769	0.00478	0.00478	0.010	-37.84827	20.00000	Aver		<-
	9 1,1-Dichloroethene	0.29587	0.25181	0.25181	0.010	-14.89065	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.14072	0.14855	0.14855	0.010	5.56400	20.00000	Aver		
	11 Carbon disulfide	50.00000	50.81105	0.47806	0.010	1.62209	20.00000	Quad		
	12 Iodomethane	0.12461	0.08323	0.08323	0.010	-33.20916	20.00000	Aver		<-
	13 Acrolein	50.00000	80.83337	0.02138	0.010	61.66675	20.00000	Quad	(M)	<-
	14 Allyl chloride	250	271	0.23358	0.010	8.34429	20.00000	Quad		
	15 Methylene Chloride	50.00000	38.75473	0.23193	0.010	-22.49055	20.00000	Line		<-
	16 Acetone	50.00000	34.72680	0.06103	0.010	-30.54639	20.00000	Line		<-
	17 trans-1,2-Dichloroethene	0.28200	0.24337	0.24337	0.010	-13.70096	20.00000	Aver		
	18 Methyl acetate	0.06633	0.03321	0.03321	0.010	-49.93099	20.00000	Aver		<-
	19 n-Hexane	50.00000	26.41040	0.05054	0.010	-47.17920	20.00000	Quad		<-
	20 Methyl-tert-butyl ether	0.55890	0.51910	0.51910	0.010	-7.11989	20.00000	Aver		
	21 tert-Butyl Alcohol	0.04463	0.04060	0.04060	0.010	-9.02321	20.00000	Aver		
	22 Acetonitrile	250	214	0.02074	0.010	-14.20289	20.00000	Quad		
	23 Diisopropyl ether	0.58411	0.50862	0.50862	0.010	-12.92298	20.00000	Aver		
	24 Chloroprene	0.16546	0.25185	0.25185	0.010	52.21273	20.00000	Aver		<-
	25 1,1-Dichloroethane	0.36875	0.31749	0.31749	0.100	-13.90233	20.00000	Aver		
	26 Acrylonitrile	50.00000	49.22101	0.07871	0.010	-1.55797	20.00000	Quad		
	27 Ethyl-tert-butyl ether	0.63068	0.56940	0.56940	0.010	-9.71680	20.00000	Aver		
	28 Vinyl acetate	0.44590	0.42018	0.42018	0.010	-5.76842	20.00000	Aver		
	29 cis-1,2-Dichloroethene	0.29013	0.24511	0.24511	0.010	-15.51546	20.00000	Aver		
	30 2,2-Dichloropropane	0.31230	0.26677	0.26677	0.010	-14.57868	20.00000	Aver		
	31 Cyclohexane	0.32571	0.31255	0.31255	0.010	-4.03948	20.00000	Aver		
	32 Bromochloromethane	0.15081	0.14439	0.14439	0.010	-4.26023	20.00000	Aver		
	33 Chloroform	0.34806	0.30905	0.30905	0.010	-11.20927	20.00000	Aver		
	34 Carbon tetrachloride	0.29107	0.24479	0.24479	0.010	-15.89883	20.00000	Aver		
	35 Ethyl acetate	50.00000	6.37834	0.00055	0.010	-87.24332	20.00000	Quad		<-
	36 Tetrahydrofuran	0.08414	0.07965	0.07965	0.010	-5.33010	20.00000	Aver		
$	37 Dibromofluoromethane (S)	0.26774	0.25385	0.25385	0.010	-5.18634	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.31820	0.29749	0.29749	0.010	-6.50985	20.00000	Aver		
	39 2-Butanone (MEK)	0.11980	0.10170	0.10170	0.010	-15.10703	20.00000	Aver		
	40 1,1-Dichloropropene	0.25258	0.24101	0.24101	0.010	-4.58137	20.00000	Aver		
	41 Benzene	0.70463	0.69524	0.69524	0.010	-1.33335	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-JUN-2019 09:38
Lab File ID: 60613005.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	50.00000	47.07207	0.03525	0.010	-5.85587	20.00000	Quad		
	43 Methacrylonitrile	0.11842	0.10201	0.10201	0.010	-13.85388	20.00000	Aver		
	44 tert-Amylmethyl ether	0.50004	0.48796	0.48796	0.010	-2.41648	20.00000	Aver		
$	45 1,2-Dichloroethane-d4 (S)	0.26573	0.22684	0.22684	0.010	-14.63413	20.00000	Aver		
	46 Isobutanol	0.01475	0.01298	0.01298	0.010	-11.97344	20.00000	Aver		
	47 1,2-Dichloroethane	0.28553	0.24027	0.24027	0.010	-15.85407	20.00000	Aver		
	49 Methylcyclohexane	0.30872	0.30722	0.30722	0.010	-0.48778	20.00000	Aver		
	50 Trichloroethene	0.24446	0.24466	0.24466	0.010	0.08333	20.00000	Aver		
	51 Dibromomethane	0.16094	0.16018	0.16018	0.010	-0.47367	20.00000	Aver		
	52 1,2-Dichloropropane	0.20052	0.18262	0.18262	0.010	-8.92624	20.00000	Aver		
	53 Bromodichloromethane	0.25572	0.21642	0.21642	0.010	-15.36856	20.00000	Aver		
	54 Methyl methacrylate	0.13379	0.12841	0.12841	0.010	-4.02258	20.00000	Aver		
	55 1,4-Dioxane (p-Dioxane)	0.00330	0.00326	0.00326	0.010	-1.15515	20.00000	Aver	(M)	<-
	56 2-Chloroethylvinyl ether	0.11819	0.10740	0.10740	0.010	-9.12667	20.00000	Aver		
	57 cis-1,3-Dichloropropene	0.31176	0.28577	0.28577	0.010	-8.33585	20.00000	Aver		
$	58 Toluene-d8 (S)	1.11453	1.08410	1.08410	0.010	-2.72993	20.00000	Aver		
	59 Toluene	0.99263	0.96557	0.96557	0.010	-2.72555	20.00000	Aver		
	60 2-Nitropropane	0.08228	0.05413	0.05413	0.010	-34.21112	20.00000	Aver		<-
	61 4-Methyl-2-pentanone (MIBK)	0.21999	0.17912	0.17912	0.010	-18.57496	20.00000	Aver		
	62 Tetrachloroethene	0.28747	0.31682	0.31682	0.010	10.21240	20.00000	Aver		
	63 trans-1,3-Dichloropropene	0.36137	0.33677	0.33677	0.010	-6.80725	20.00000	Aver		
	64 Ethyl methacrylate	0.20816	0.17623	0.17623	0.010	-15.33957	20.00000	Aver		
	65 1,1,2-Trichloroethane	0.21757	0.21403	0.21403	0.010	-1.62742	20.00000	Aver		
	66 Dibromochloromethane	0.28400	0.25810	0.25810	0.010	-9.11912	20.00000	Aver		
	67 1,3-Dichloropropane	0.35881	0.34833	0.34833	0.010	-2.92004	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.23140	0.23888	0.23888	0.010	3.23160	20.00000	Aver		
	69 2-Hexanone	0.21285	0.17025	0.17025	0.010	-20.01355	20.00000	Aver		<-
	70 Ethylbenzene	0.39145	0.39729	0.39729	0.010	1.49257	20.00000	Aver		
	72 Chlorobenzene	0.72751	0.72280	0.72280	0.300	-0.64846	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.27809	0.27363	0.27363	0.010	-1.60385	20.00000	Aver		
	74 m&p-Xylene	0.48300	0.50161	0.50161	0.010	3.85450	20.00000	Aver		
	75 o-Xylene	0.47780	0.48637	0.48637	0.010	1.79220	20.00000	Aver		
	76 Styrene	0.84268	0.82335	0.82335	0.010	-2.29346	20.00000	Aver		
	77 Bromoform	0.36666	0.30588	0.30588	0.100	-16.57653	20.00000	Aver		
	78 Isopropylbenzene (Cumene)	2.04304	2.10027	2.10027	0.010	2.80143	20.00000	Aver		
$	79 4-Bromofluorobenzene (S)	0.73238	0.74198	0.74198	0.010	1.31015	20.00000	Aver		
	80 n-Propylbenzene	2.32087	2.31801	2.31801	0.010	-0.12329	20.00000	Aver		
	81 Bromobenzene	0.85247	0.79357	0.79357	0.010	-6.90877	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	0.49997	0.46365	0.46365	0.300	-7.26480	20.00000	Aver		
	83 1,3,5-Trimethylbenzene	1.75634	1.74601	1.74601	0.010	-0.58809	20.00000	Aver		
	84 2-Chlorotoluene	0.53968	0.53874	0.53874	0.010	-0.17527	20.00000	Aver		
	85 1,2,3-Trichloropropane	0.18224	0.17661	0.17661	0.010	-3.09271	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-JUN-2019 09:38
Lab File ID: 60613005.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
86 trans-1,4-Dichloro-2-butene	0.15786	0.13895	0.13895	0.010	-11.97997	20.00000	Aver	
87 Cyclohexanone	0.04268	0.04021	0.04021	0.010	-5.79458	20.00000	Aver	
88 4-Chlorotoluene	0.57851	0.58080	0.58080	0.010	0.39696	20.00000	Aver	
89 tert-Butylbenzene	1.61505	1.68549	1.68549	0.010	4.36147	20.00000	Aver	
90 1,2,4-Trimethylbenzene	1.84031	1.83236	1.83236	0.010	-0.43207	20.00000	Aver	
91 sec-Butylbenzene	2.29082	2.39006	2.39006	0.010	4.33177	20.00000	Aver	
92 p-Isopropyltoluene	2.12491	2.22858	2.22858	0.010	4.87879	20.00000	Aver	
93 1,3-Dichlorobenzene	1.19738	1.24267	1.24267	0.010	3.78200	20.00000	Aver	
95 1,4-Dichlorobenzene	1.22457	1.28299	1.28299	0.010	4.77093	20.00000	Aver	
96 n-Butylbenzene	1.79656	1.85271	1.85271	0.010	3.12524	20.00000	Aver	
97 1,2-Dichlorobenzene	1.14577	1.20907	1.20907	0.010	5.52478	20.00000	Aver	
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00028	0.99999	0.99999	0.010	-0.02943	20.00000	Aver	
98 1,2-Dibromo-3-chloropropane	0.18159	0.16569	0.16569	0.010	-8.75350	20.00000	Aver	
99 1,3,5-Trichlorobenzene	0.87062	0.98869	0.98869	0.010	13.56252	20.00000	Aver	
100 Hexachloro-1,3-butadiene	0.44169	0.51969	0.51969	0.010	17.65979	20.00000	Aver	
101 1,2,4-Trichlorobenzene	0.80917	0.92450	0.92450	0.010	14.25404	20.00000	Aver	
102 Naphthalene	2.04983	2.17451	2.17451	0.010	6.08229	20.00000	Aver	
103 1,2,3-Trichlorobenzene	0.70542	0.80523	0.80523	0.010	14.15020	20.00000	Aver	
104 2-Methylnaphthalene	0.95164	1.11328	1.11328	0.010	16.98535	20.00000	Aver	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.49881
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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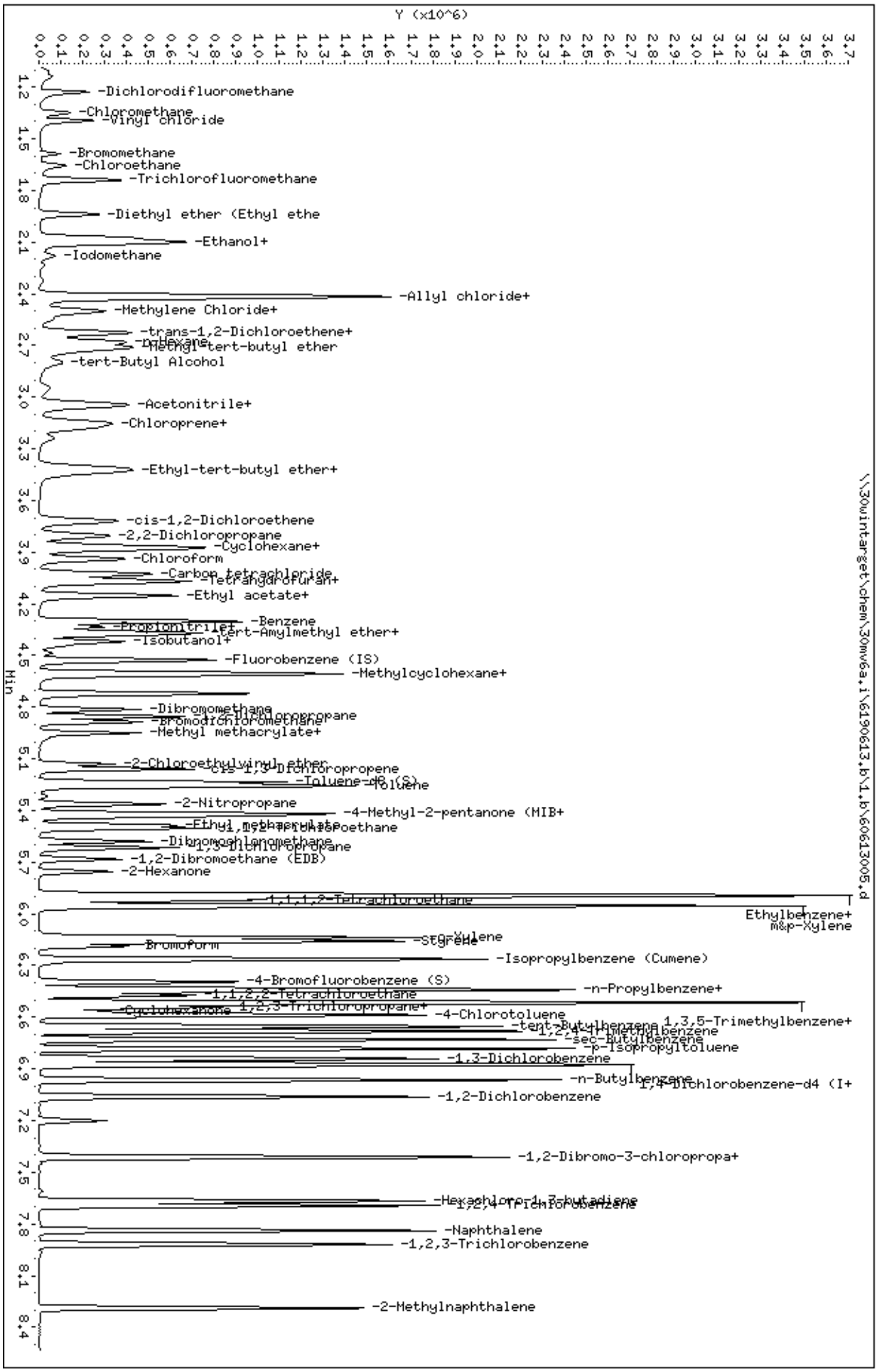
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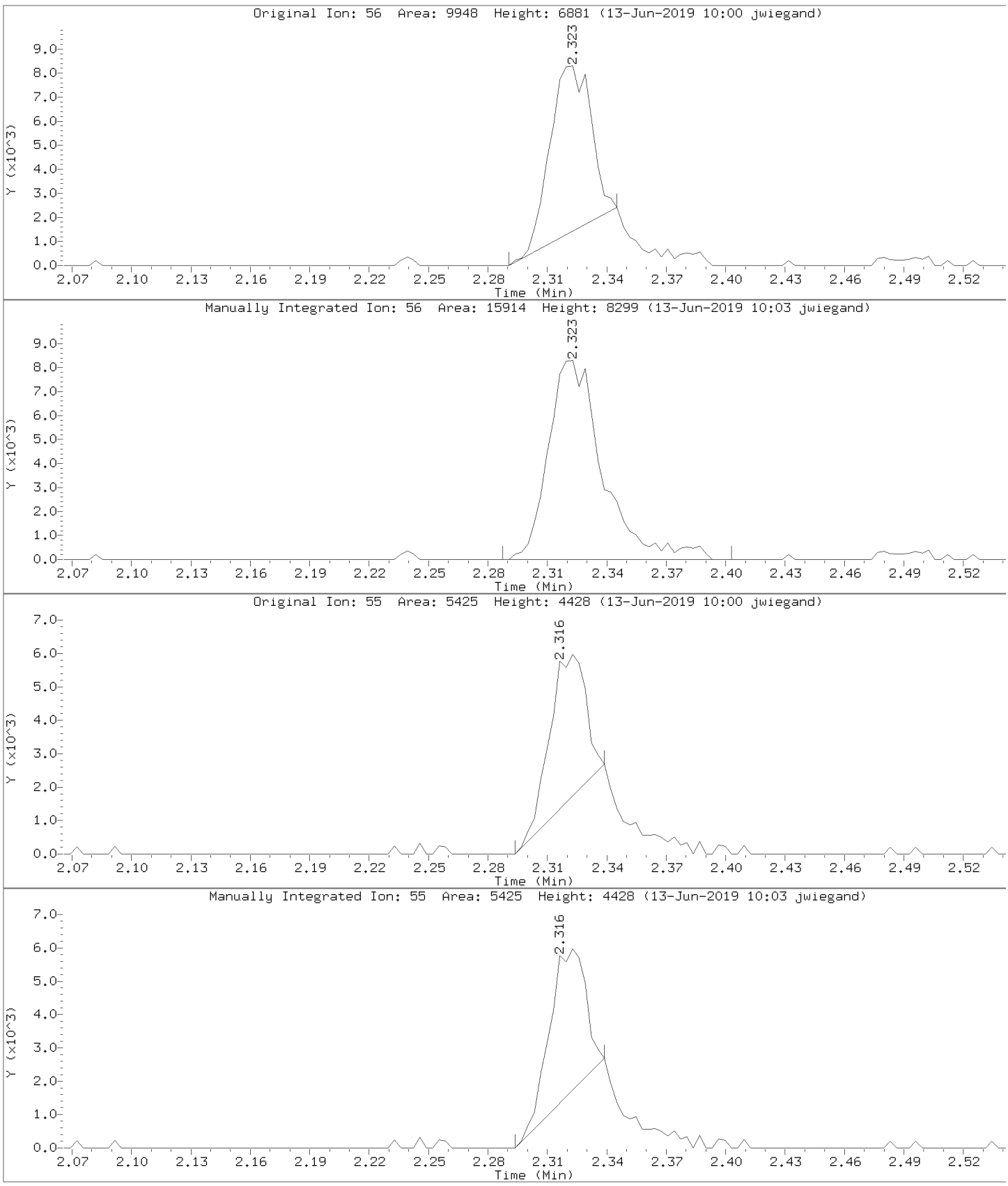
Date : 13-JUN-2019 09:38
Client ID: CCV
Sample Info: CCV, 907331
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613005.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Tetrahydrofuran+
-Ethyl acetate+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone
-1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613005.d
Injection Date: 13-JUN-2019 09:38
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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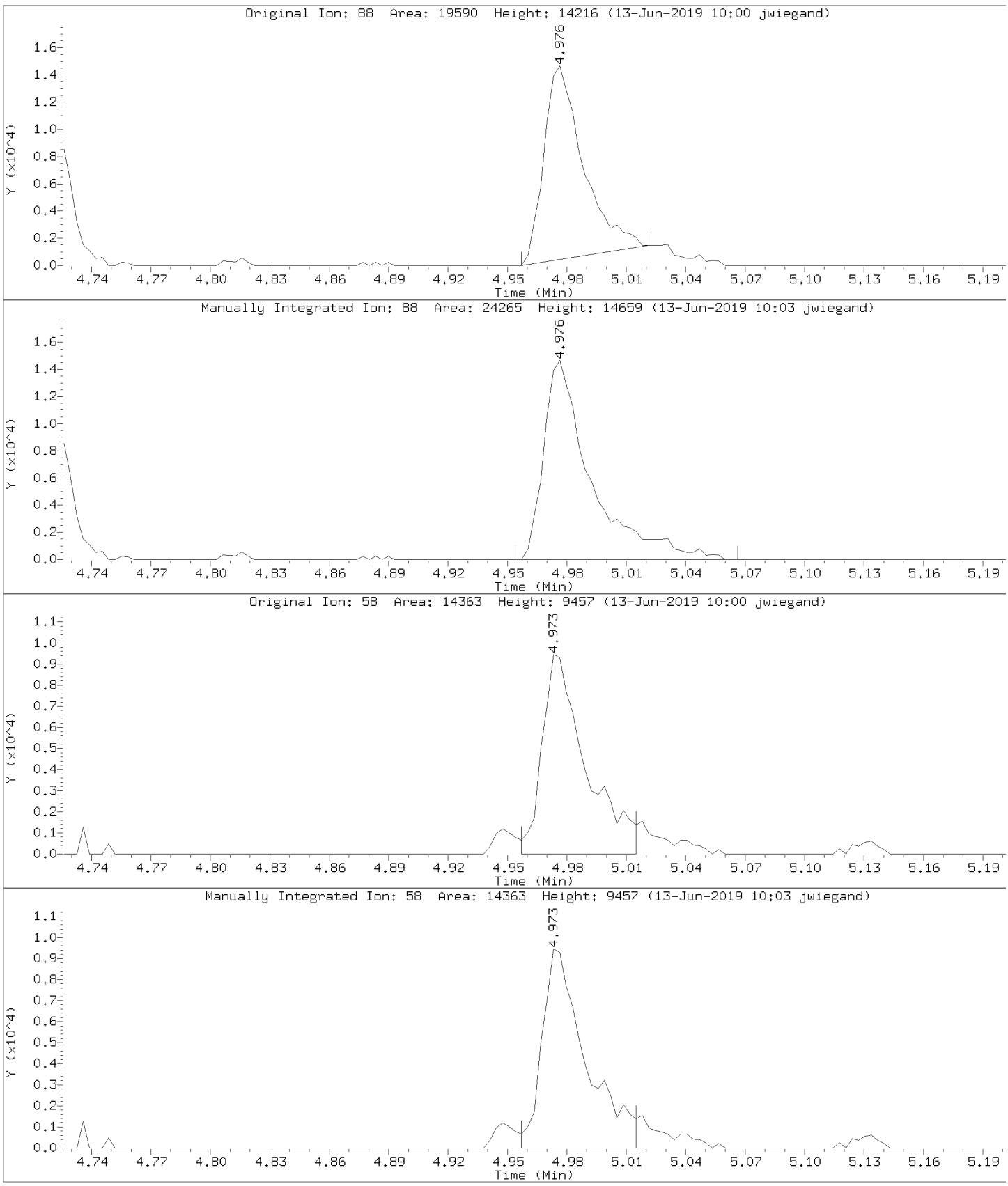
Injection Date: 13-JUN-2019 09:38
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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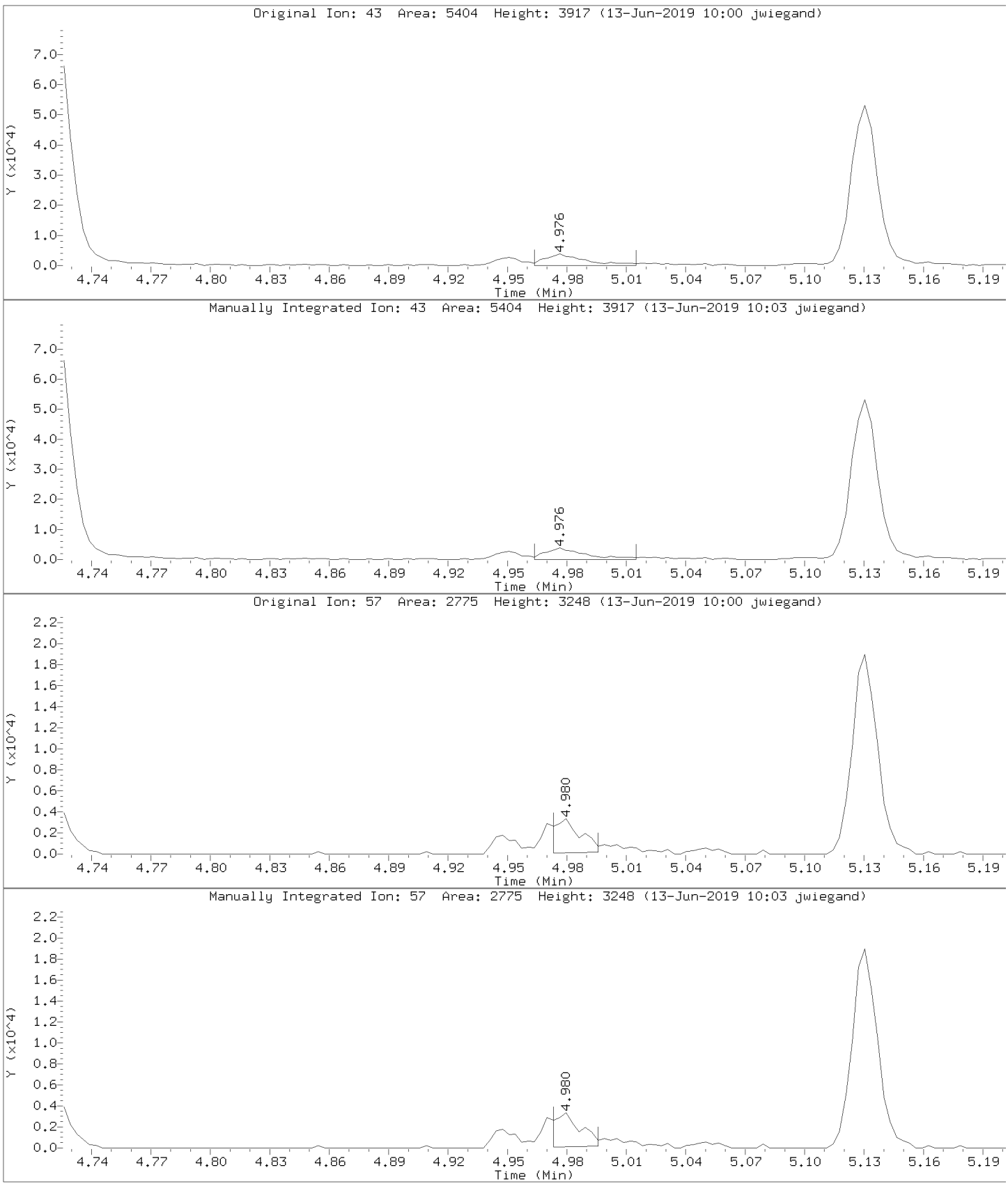
Injection Date: 13-JUN-2019 09:38
Instrument: 30mv6a.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 10:28
Operator : JEW Inst ID: 30mv6a.i
Smp Info : ccv, 90733:1
Misc Info : 44459,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.229	(0.271)	121676	50.0000	45.3(Q)	
2 Chloromethane	50	1.347	1.344	(0.298)	100084	50.0000	35.3	
3 Vinyl chloride	62	1.395	1.395	(0.308)	138962	50.0000	46.8	
4 Bromomethane	94	1.587	1.588	(0.351)	31082	50.0000	29.0	
5 Chloroethane	64	1.655	1.649	(0.366)	91869	50.0000	50.6	
6 Trichlorofluoromethane	101	1.741	1.736	(0.385)	200184	50.0000	54.2	
7 Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	115666	50.0000	48.0	
8 Ethanol	45	2.053	2.053	(0.299)	23960	500.000	441	
9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	163193	50.0000	40.9	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.101	(0.463)	105288	50.0000	55.5	
11 Carbon disulfide	76	2.104	2.105	(0.465)	311380	50.0000	48.9	
12 Iodomethane	142	2.184	2.188	(0.483)	60530	50.0000	36.0	
13 Acrolein	56	2.319	2.316	(0.512)	14713	50.0000	82.6(M)	LT
14 Allyl chloride	41	2.415	2.416	(0.534)	804785	250.000	277	
15 Methylene Chloride	49	2.499	2.502	(0.552)	165723	50.0000	41.7	
16 Acetone	43	2.547	2.547	(0.563)	40962	50.0000	34.5(M)	LT
17 trans-1,2-Dichloroethene	61	2.624	2.628	(0.580)	165878	50.0000	43.6	
18 Methyl acetate	74	2.633	2.647	(0.582)	23497	50.0000	26.3	
19 n-Hexane	86	2.678	2.682	(0.592)	37165	50.0000	31.7	
20 Methyl-tert-butyl ether	73	2.710	2.717	(0.599)	375186	50.0000	49.8	
21 tert-Butyl Alcohol	59	2.797	2.798	(0.618)	146471	250.000	243	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.948	2.939	(0.651)	66926	250.000	205	
	23 Diisopropyl ether	45	3.044	3.051	(0.673)	364022	50.0000	46.2	
	24 Chloroprene	53	3.147	3.141	(0.695)	178352	50.0000	79.9	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	217946	50.0000	43.8	
	26 Acrylonitrile	53	3.237	3.237	(0.715)	40961	50.0000	37.7(M)	BA
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	404492	50.0000	47.6	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	297327	50.0000	49.4	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	170006	50.0000	43.4	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	189992	50.0000	45.1	
	31 Cyclohexane	56	3.869	3.873	(0.855)	207797	50.0000	47.3	
	32 Bromochloromethane	130	3.878	3.885	(0.857)	102071	50.0000	50.2	
	33 Chloroform	83	3.939	3.943	(0.870)	214540	50.0000	45.7	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	169869	50.0000	43.3	
	35 Ethyl acetate	43	4.077	4.081	(0.901)	3690	50.0000	17.6	
	36 Tetrahydrofuran	42	4.049	4.056	(0.894)	57472	50.0000	50.6	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	109678	30.0000	30.4	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	208574	50.0000	48.6	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	70091	50.0000	43.4	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	162241	50.0000	47.6	
	41 Benzene	78	4.302	4.303	(0.950)	468043	50.0000	49.2	
	42 Propionitrile	54	4.328	4.328	(0.956)	24311	50.0000	48.2	
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	72982	50.0000	45.7	
	44 tert-Amylmethyl ether	73	4.366	4.370	(0.965)	349601	50.0000	51.8	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	105649	30.0000	29.5	
	46 Isobutanol	43	4.440	4.444	(0.981)	42522	250.000	214	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	181192	50.0000	47.0	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	404562	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	202170	50.0000	48.6	
	50 Trichloroethene	95	4.610	4.614	(0.783)	134139	50.0000	48.9	
	51 Dibromomethane	174	4.812	4.813	(1.063)	111694	50.0000	51.5	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	122989	50.0000	45.5	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	157304	50.0000	45.6	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	90182	50.0000	50.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.973	4.977	(1.099)	22046	500.000	496(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	82841	50.0000	52.0	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	202733	50.0000	48.2	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	359715	30.0000	28.8	
	59 Toluene	91	5.255	5.259	(0.893)	526212	50.0000	47.2	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	209474	250.000	189	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	134311	50.0000	45.3	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	171042	50.0000	53.0	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	197308	50.0000	48.6	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	108124	50.0000	46.3	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	121395	50.0000	49.7	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	149629	50.0000	46.9	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	196728	50.0000	48.8	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	136151	50.0000	52.4	
	69 2-Hexanone	43	5.756	5.759	(0.978)	101360	50.0000	42.4	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	211633	50.0000	48.2	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	336661	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	393050	50.0000	48.1	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	149457	50.0000	47.9	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	532866	100.000	98.3	
	75 o-Xylene	106	6.138	6.141	(1.043)	264338	50.0000	49.3	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.161	(1.046)	463525	50.0000	49.0	
	77 Bromoform	173	6.186	6.186	(0.900)	109549	50.0000	42.3	
	78 Isopropylbenzene (Cumene)	105	6.263	6.263	(0.912)	702287	50.0000	48.6	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	158309	30.0000	30.6	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	763247	50.0000	46.5	
	81 Bromobenzene	77	6.446	6.446	(0.938)	268956	50.0000	44.6	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	155042	50.0000	43.9	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	585497	50.0000	47.2	
	84 2-Chlorotoluene	126	6.516	6.517	(0.949)	178327	50.0000	46.8	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	61266	50.0000	47.6	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.953)	54118	50.0000	48.5	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	80658	250.000	267	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	190952	50.0000	46.7	
	89 tert-Butylbenzene	119	6.654	6.655	(0.969)	558719	50.0000	49.0	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.973)	607732	50.0000	46.7	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	782052	50.0000	48.3	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	731885	50.0000	48.7	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.996)	414253	50.0000	49.0	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	211973	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.876	(1.001)	425105	50.0000	49.1	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	604578	50.0000	47.6	
	97 1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	401432	50.0000	49.6	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	211969	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	57714	50.0000	45.0	
	99 1,3,5-Trichlorobenzene	180	7.411	7.415	(1.079)	313956	50.0000	51.0	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	162729	50.0000	52.1	
	101 1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	297352	50.0000	52.0	
	102 Naphthalene	128	7.838	7.839	(1.141)	728204	50.0000	50.3	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	260570	50.0000	52.3	
	104 2-Methylnaphthalene	142	8.288	8.288	(1.206)	367228	50.0000	54.6	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617007.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-JUN-2019
Calibration Time: 09:02
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44459,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	445357	222679	890714	404562	-9.16
71 Chlorobenzene-d5	373326	186663	746652	336661	-9.82
94 1,4-Dichlorobenze	223999	112000	447998	211973	-5.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 17-JUN-2019 10:28
Lab File ID: 60617007.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.19930	0.18046	0.18046	0.010	-9.45614	20.00000	Aver	(Q)	
	2 Chloromethane	50.00000	35.27600	0.14843	0.100	-29.44801	20.00000	Quad		<-
	3 Vinyl chloride	50.00000	46.81365	0.20609	0.010	-6.37269	20.00000	Quad		
	4 Bromomethane	0.07944	0.04610	0.04610	0.010	-41.97491	20.00000	Aver		<-
	5 Chloroethane	50.00000	50.65025	0.13625	0.010	1.30050	20.00000	Quad		
	6 Trichlorofluoromethane	50.00000	54.22919	0.29689	0.010	8.45838	20.00000	Quad		
	7 Diethyl ether (Ethyl ether)	0.17880	0.17154	0.17154	0.010	-4.06013	20.00000	Aver		
	8 Ethanol	0.00769	0.00678	0.00678	0.010	-11.85786	20.00000	Aver		<-
	9 1,1-Dichloroethene	0.29587	0.24203	0.24203	0.010	-18.19696	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.14072	0.15615	0.15615	0.010	10.96763	20.00000	Aver		
	11 Carbon disulfide	50.00000	48.90611	0.46180	0.010	-2.18777	20.00000	Quad		
	12 Iodomethane	0.12461	0.08977	0.08977	0.010	-27.95996	20.00000	Aver		<-
	13 Acrolein	50.00000	82.59642	0.02182	0.010	65.19285	20.00000	Quad	(M)	<-
	14 Allyl chloride	250	277	0.23871	0.010	10.98292	20.00000	Quad		
	15 Methylene Chloride	50.00000	41.68578	0.24578	0.010	-16.62844	20.00000	Line		
	16 Acetone	50.00000	34.49581	0.06075	0.010	-31.00837	20.00000	Line	(M)	<-
	17 trans-1,2-Dichloroethene	0.28200	0.24601	0.24601	0.010	-12.76283	20.00000	Aver		
	18 Methyl acetate	0.06633	0.03485	0.03485	0.010	-47.46059	20.00000	Aver		<-
	19 n-Hexane	50.00000	31.66577	0.05512	0.010	-36.66846	20.00000	Quad		<-
	20 Methyl-tert-butyl ether	0.55890	0.55643	0.55643	0.010	-0.44083	20.00000	Aver		
	21 tert-Butyl Alcohol	0.04463	0.04345	0.04345	0.010	-2.65094	20.00000	Aver		
	22 Acetonitrile	250	205	0.01985	0.010	-18.08759	20.00000	Quad		
	23 Diisopropyl ether	0.58411	0.53988	0.53988	0.010	-7.57262	20.00000	Aver		
	24 Chloroprene	0.16546	0.26451	0.26451	0.010	59.86804	20.00000	Aver		<-
	25 1,1-Dichloroethane	0.36875	0.32323	0.32323	0.100	-12.34436	20.00000	Aver		
	26 Acrylonitrile	50.00000	37.72865	0.06075	0.010	-24.54270	20.00000	Quad	(M)	<-
	27 Ethyl-tert-butyl ether	0.63068	0.59990	0.59990	0.010	-4.88065	20.00000	Aver		
	28 Vinyl acetate	0.44590	0.44096	0.44096	0.010	-1.10775	20.00000	Aver		
	29 cis-1,2-Dichloroethene	0.29013	0.25213	0.25213	0.010	-13.09498	20.00000	Aver		
	30 2,2-Dichloropropane	0.31230	0.28177	0.28177	0.010	-9.77454	20.00000	Aver		
	31 Cyclohexane	0.32571	0.30818	0.30818	0.010	-5.38131	20.00000	Aver		
	32 Bromochloromethane	0.15081	0.15138	0.15138	0.010	0.37633	20.00000	Aver		
	33 Chloroform	0.34806	0.31818	0.31818	0.010	-8.58540	20.00000	Aver		
	34 Carbon tetrachloride	0.29107	0.25193	0.25193	0.010	-13.44708	20.00000	Aver		
	35 Ethyl acetate	50.00000	17.55577	0.00547	0.010	-64.88845	20.00000	Quad		<-
	36 Tetrahydrofuran	0.08414	0.08524	0.08524	0.010	1.30316	20.00000	Aver		
$	37 Dibromofluoromethane (S)	0.26774	0.27110	0.27110	0.010	1.25731	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.31820	0.30933	0.30933	0.010	-2.78741	20.00000	Aver		
	39 2-Butanone (MEK)	0.11980	0.10395	0.10395	0.010	-13.22720	20.00000	Aver		
	40 1,1-Dichloropropene	0.25258	0.24062	0.24062	0.010	-4.73648	20.00000	Aver		
	41 Benzene	0.70463	0.69415	0.69415	0.010	-1.48784	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 17-JUN-2019 10:28
Lab File ID: 60617007.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	50.00000	48.23708	0.03606	0.010	-3.52584	20.00000	Quad		
	43 Methacrylonitrile	0.11842	0.10824	0.10824	0.010	-8.59457	20.00000	Aver		
	44 tert-Amylmethyl ether	0.50004	0.51849	0.51849	0.010	3.68931	20.00000	Aver		
$	45 1,2-Dichloroethane-d4 (S)	0.26573	0.26114	0.26114	0.010	-1.72476	20.00000	Aver		
	46 Isobutanol	0.01475	0.01261	0.01261	0.010	-14.49508	20.00000	Aver		
	47 1,2-Dichloroethane	0.28553	0.26872	0.26872	0.010	-5.88780	20.00000	Aver		
	49 Methylcyclohexane	0.30872	0.29984	0.29984	0.010	-2.87883	20.00000	Aver		
	50 Trichloroethene	0.24446	0.23906	0.23906	0.010	-2.20617	20.00000	Aver		
	51 Dibromomethane	0.16094	0.16565	0.16565	0.010	2.92698	20.00000	Aver		
	52 1,2-Dichloropropane	0.20052	0.18240	0.18240	0.010	-9.03336	20.00000	Aver		
	53 Bromodichloromethane	0.25572	0.23330	0.23330	0.010	-8.77059	20.00000	Aver		
	54 Methyl methacrylate	0.13379	0.13375	0.13375	0.010	-0.03377	20.00000	Aver		
	55 1,4-Dioxane (p-Dioxane)	0.00330	0.00327	0.00327	0.010	-0.87045	20.00000	Aver	(M)	<-
	56 2-Chloroethylvinyl ether	0.11819	0.12286	0.12286	0.010	3.95346	20.00000	Aver		
	57 cis-1,3-Dichloropropene	0.31176	0.30067	0.30067	0.010	-3.55799	20.00000	Aver		
$	58 Toluene-d8 (S)	1.11453	1.06848	1.06848	0.010	-4.13172	20.00000	Aver		
	59 Toluene	0.99263	0.93782	0.93782	0.010	-5.52135	20.00000	Aver		
	60 2-Nitropropane	0.08228	0.06213	0.06213	0.010	-24.48556	20.00000	Aver		<-
	61 4-Methyl-2-pentanone (MIBK)	0.21999	0.19919	0.19919	0.010	-9.45169	20.00000	Aver		
	62 Tetrachloroethene	0.28747	0.30483	0.30483	0.010	6.04143	20.00000	Aver		
	63 trans-1,3-Dichloropropene	0.36137	0.35164	0.35164	0.010	-2.69165	20.00000	Aver		
	64 Ethyl methacrylate	0.20816	0.19270	0.19270	0.010	-7.42781	20.00000	Aver		
	65 1,1,2-Trichloroethane	0.21757	0.21635	0.21635	0.010	-0.55921	20.00000	Aver		
	66 Dibromochloromethane	0.28400	0.26667	0.26667	0.010	-6.10315	20.00000	Aver		
	67 1,3-Dichloropropane	0.35881	0.35061	0.35061	0.010	-2.28511	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.23140	0.24265	0.24265	0.010	4.86233	20.00000	Aver		
	69 2-Hexanone	0.21285	0.18064	0.18064	0.010	-15.13161	20.00000	Aver		
	70 Ethylbenzene	0.39145	0.37717	0.37717	0.010	-3.64702	20.00000	Aver		
	72 Chlorobenzene	0.72751	0.70050	0.70050	0.300	-3.71352	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.27809	0.26636	0.26636	0.010	-4.21726	20.00000	Aver		
	74 m&p-Xylene	0.48300	0.47484	0.47484	0.010	-1.68889	20.00000	Aver		
	75 o-Xylene	0.47780	0.47111	0.47111	0.010	-1.40198	20.00000	Aver		
	76 Styrene	0.84268	0.82610	0.82610	0.010	-1.96727	20.00000	Aver		
	77 Bromoform	0.36666	0.31008	0.31008	0.100	-15.43030	20.00000	Aver		
	78 Isopropylbenzene (Cumene)	2.04304	1.98786	1.98786	0.010	-2.70092	20.00000	Aver		
$	79 4-Bromofluorobenzene (S)	0.73238	0.74684	0.74684	0.010	1.97337	20.00000	Aver		
	80 n-Propylbenzene	2.32087	2.16041	2.16041	0.010	-6.91406	20.00000	Aver		
	81 Bromobenzene	0.85247	0.76129	0.76129	0.010	-10.69519	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	0.49997	0.43885	0.43885	0.300	-12.22363	20.00000	Aver		
	83 1,3,5-Trimethylbenzene	1.75634	1.65728	1.65728	0.010	-5.64007	20.00000	Aver		
	84 2-Chlorotoluene	0.53968	0.50476	0.50476	0.010	-6.47049	20.00000	Aver		
	85 1,2,3-Trichloropropane	0.18224	0.17342	0.17342	0.010	-4.84248	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 17-JUN-2019 10:28
Lab File ID: 60617007.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:09 18:10
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
86 trans-1,4-Dichloro-2-butene	0.15786	0.15318	0.15318	0.010	-2.96154	20.00000	Aver	
87 Cyclohexanone	0.04268	0.04566	0.04566	0.010	6.98105	20.00000	Aver	
88 4-Chlorotoluene	0.57851	0.54050	0.54050	0.010	-6.56972	20.00000	Aver	
89 tert-Butylbenzene	1.61505	1.58148	1.58148	0.010	-2.07862	20.00000	Aver	
90 1,2,4-Trimethylbenzene	1.84031	1.72022	1.72022	0.010	-6.52561	20.00000	Aver	
91 sec-Butylbenzene	2.29082	2.21364	2.21364	0.010	-3.36934	20.00000	Aver	
92 p-Isopropyltoluene	2.12491	2.07164	2.07164	0.010	-2.50697	20.00000	Aver	
93 1,3-Dichlorobenzene	1.19738	1.17256	1.17256	0.010	-2.07289	20.00000	Aver	
95 1,4-Dichlorobenzene	1.22457	1.20328	1.20328	0.010	-1.73849	20.00000	Aver	
96 n-Butylbenzene	1.79656	1.71129	1.71129	0.010	-4.74643	20.00000	Aver	
97 1,2-Dichlorobenzene	1.14577	1.13627	1.13627	0.010	-0.82870	20.00000	Aver	
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00028	0.99998	0.99998	0.010	-0.02997	20.00000	Aver	
98 1,2-Dibromo-3-chloropropane	0.18159	0.16336	0.16336	0.010	-10.03775	20.00000	Aver	
99 1,3,5-Trichlorobenzene	0.87062	0.88867	0.88867	0.010	2.07333	20.00000	Aver	
100 Hexachloro-1,3-butadiene	0.44169	0.46061	0.46061	0.010	4.28351	20.00000	Aver	
101 1,2,4-Trichlorobenzene	0.80917	0.84167	0.84167	0.010	4.01701	20.00000	Aver	
102 Naphthalene	2.04983	2.06122	2.06122	0.010	0.55548	20.00000	Aver	
103 1,2,3-Trichlorobenzene	0.70542	0.73756	0.73756	0.010	4.55616	20.00000	Aver	
104 2-Methylnaphthalene	0.95164	1.03946	1.03946	0.010	9.22756	20.00000	Aver	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 9.65016
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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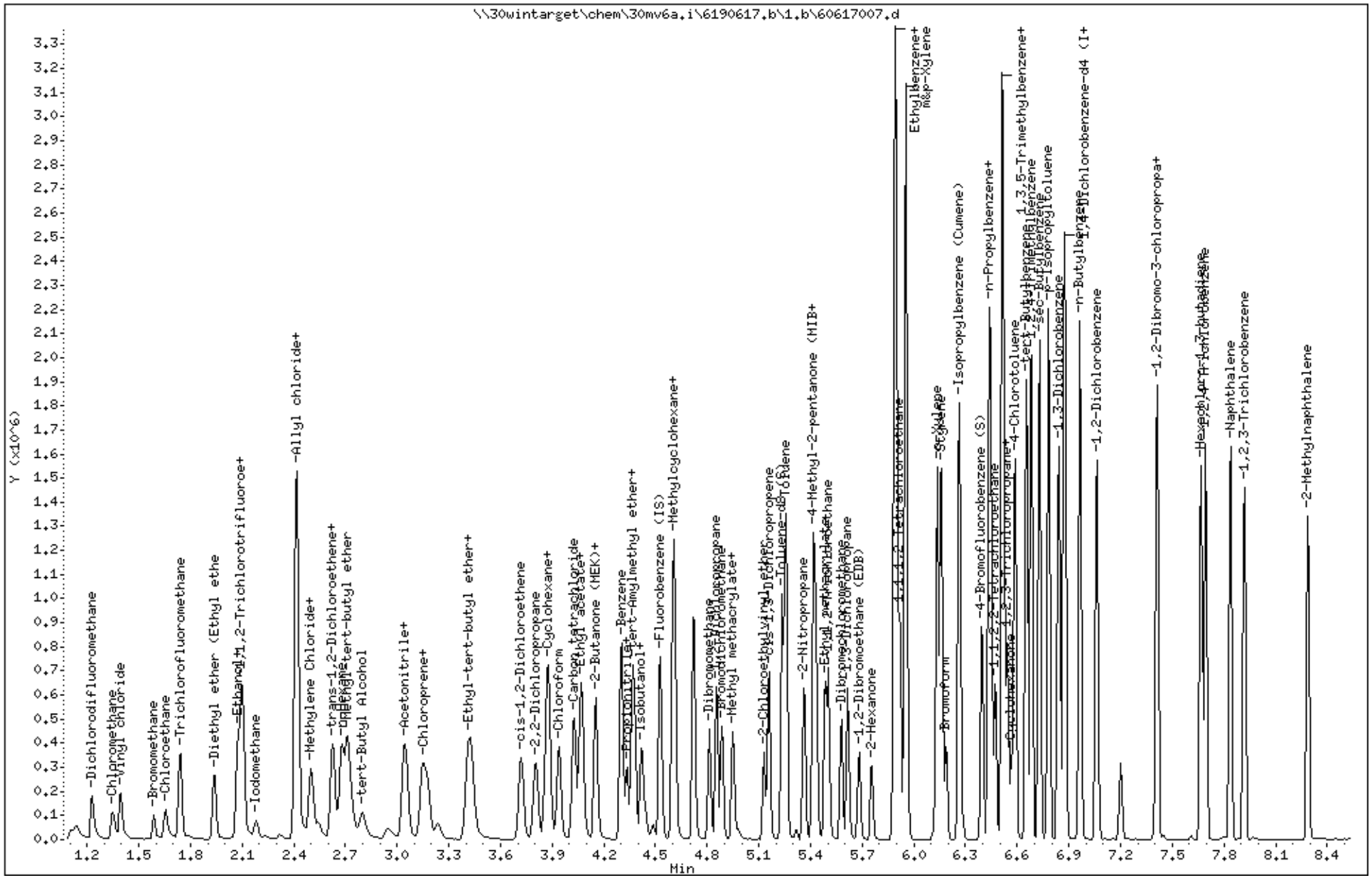
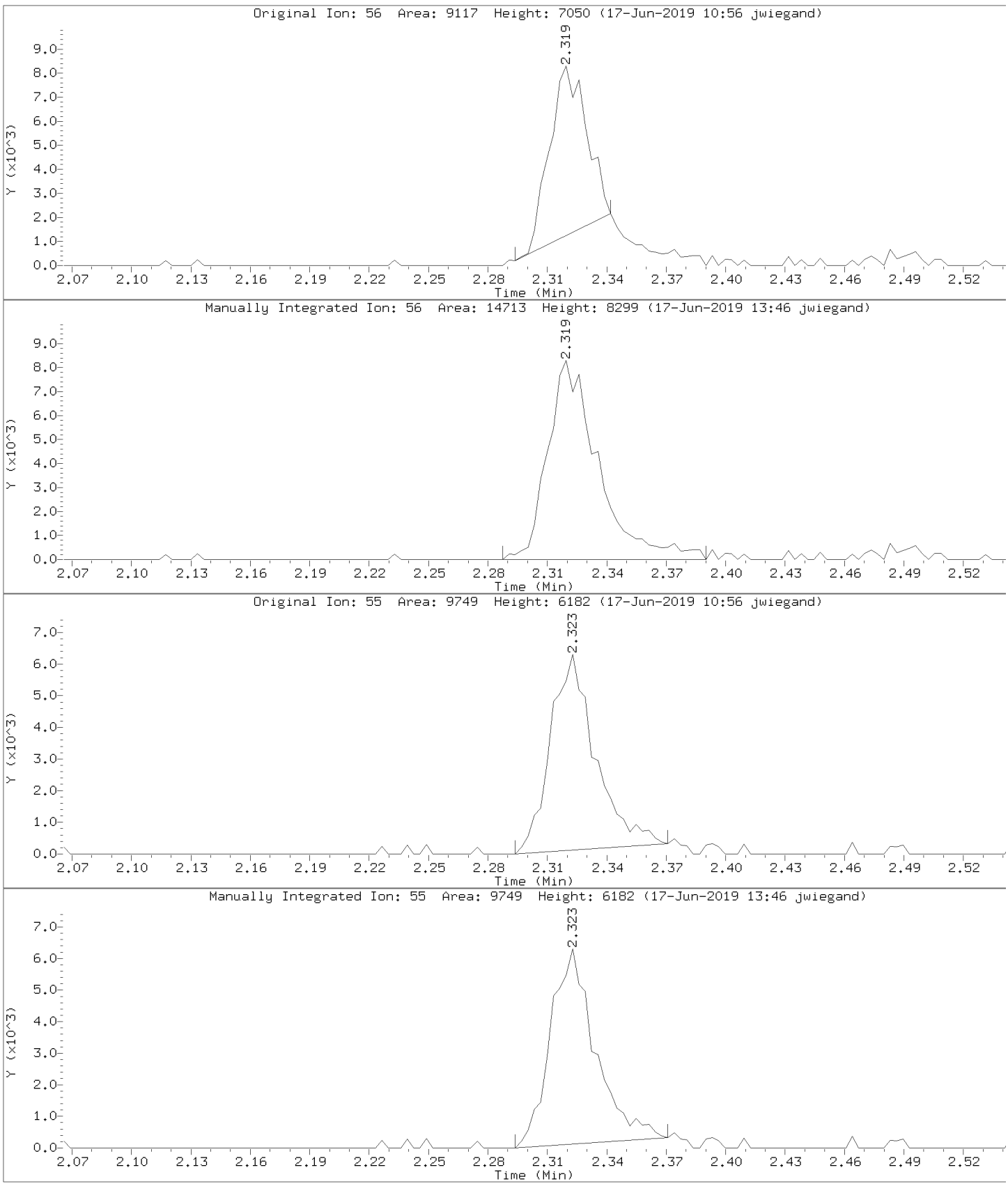
Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007.d
Date : 17-JUN-2019 10:28
Client ID: CCV
Instrument: 30mv6a.i
Sample Info: CCV, 90733:1
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617007.d
Injection Date: 17-JUN-2019 10:28
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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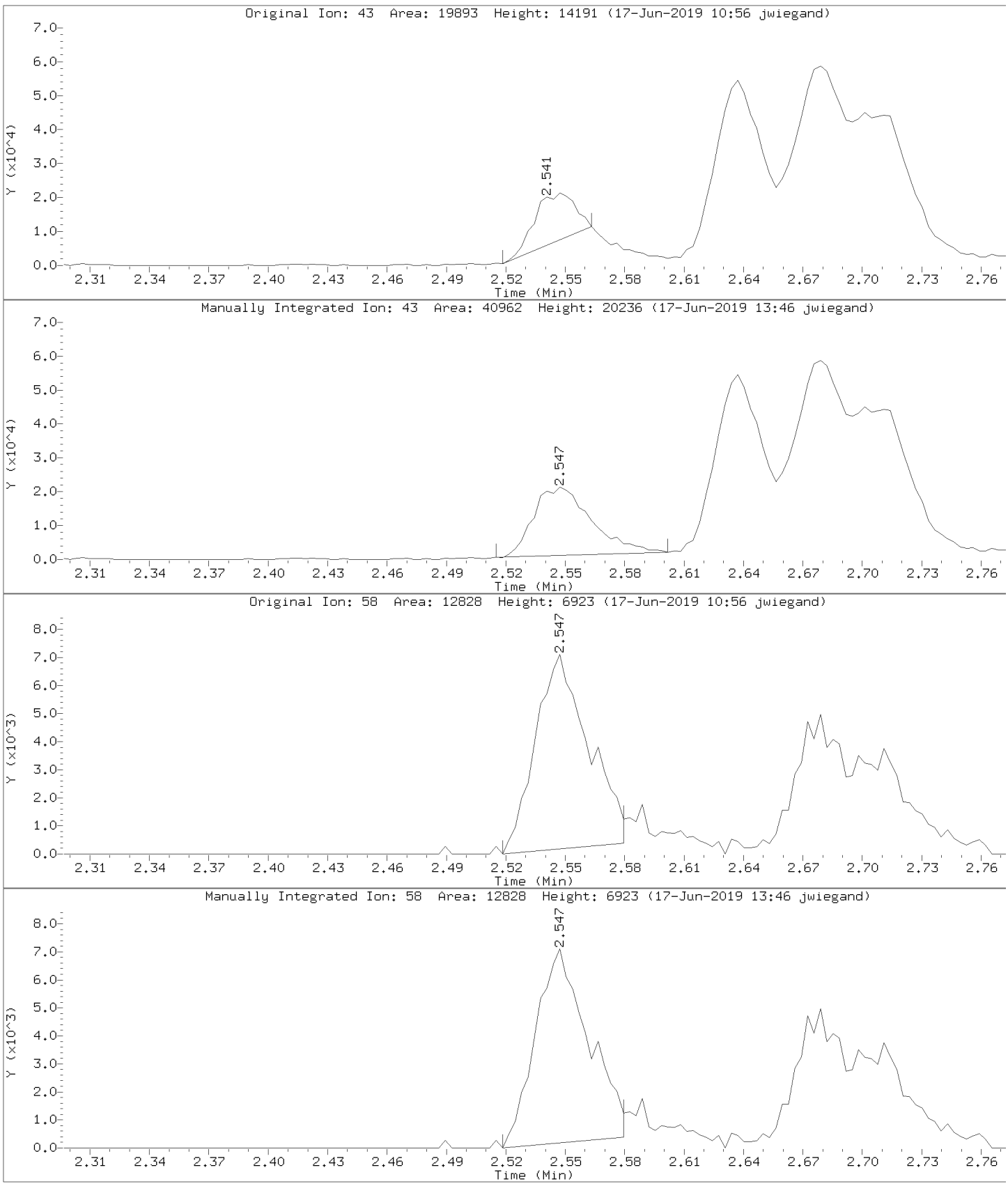
Injection Date: 17-JUN-2019 10:28
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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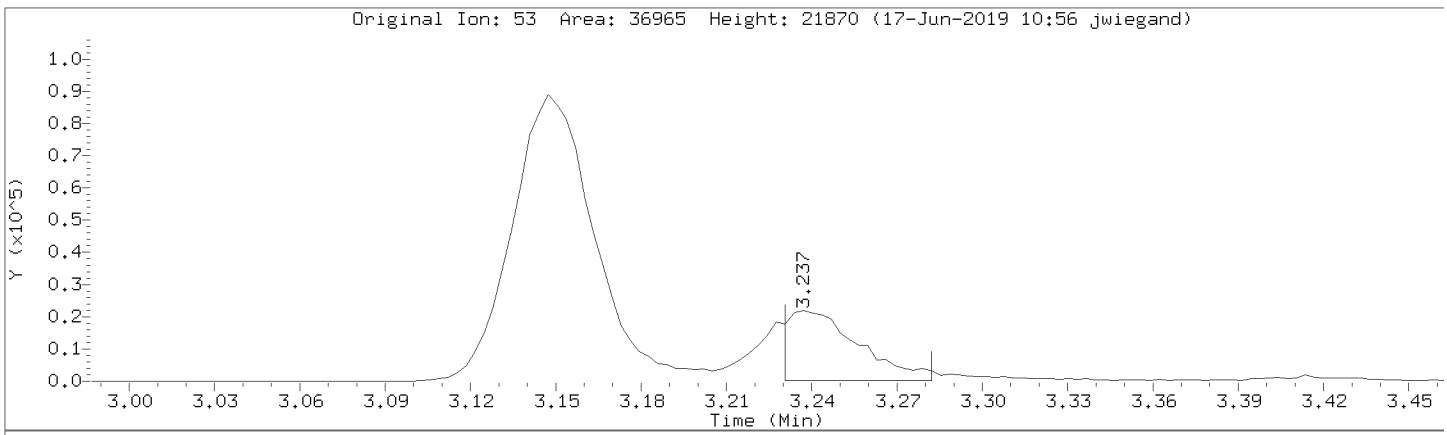
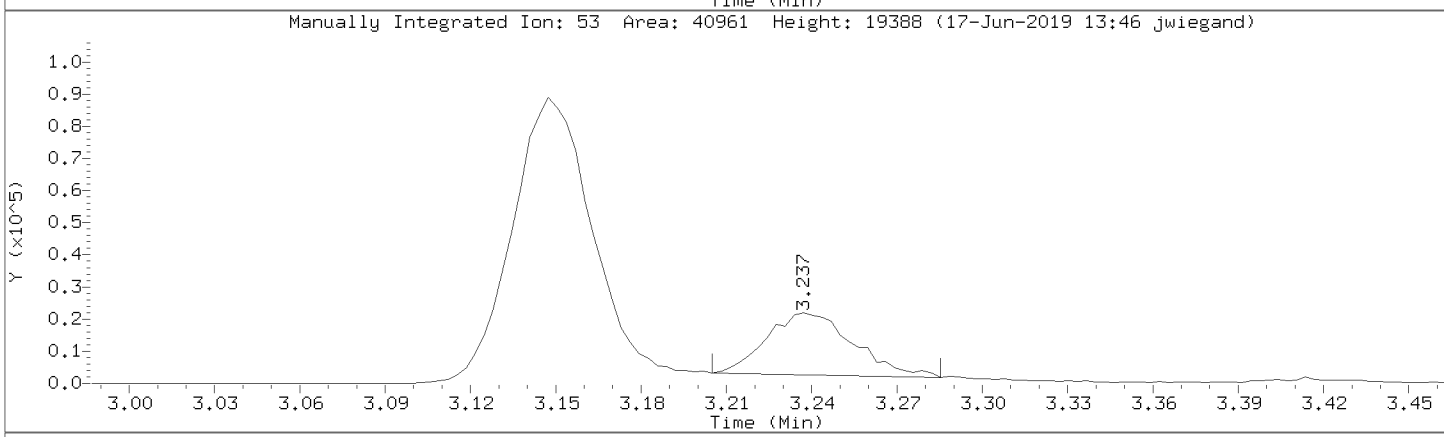
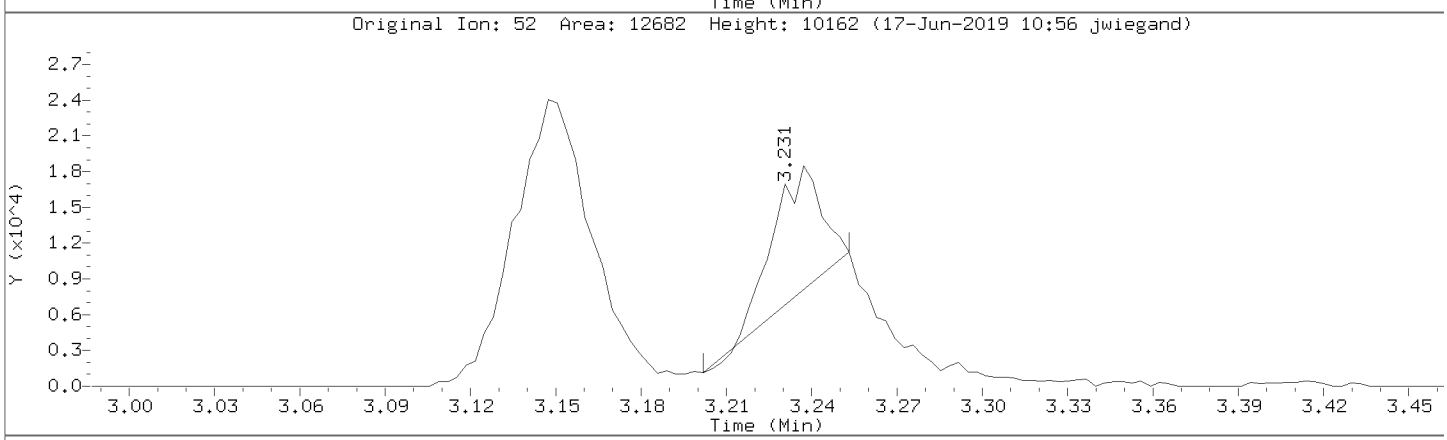
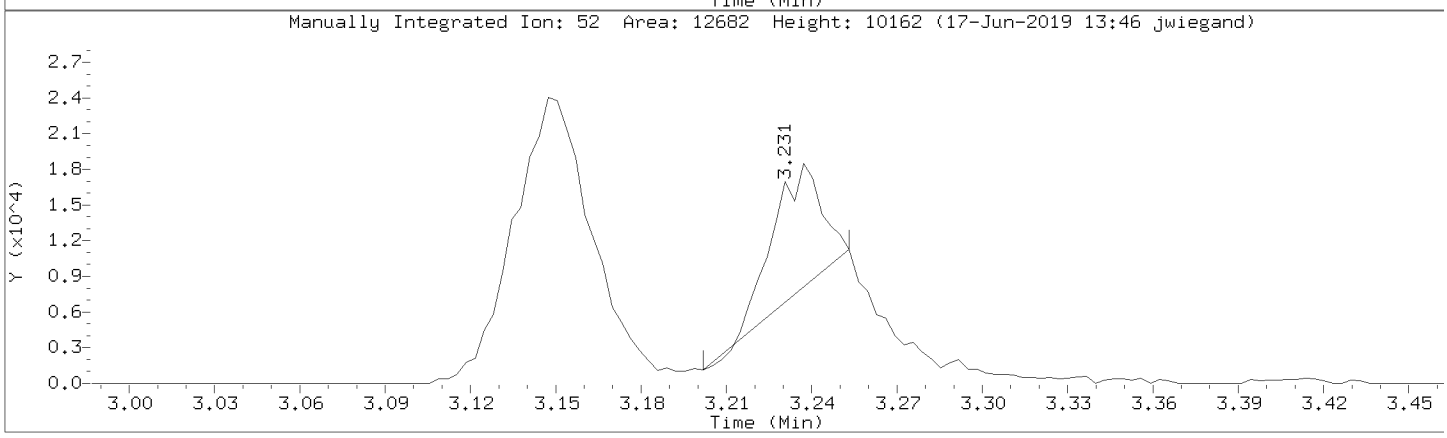
Injection Date: 17-JUN-2019 10:28
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrylonitrile Review Code: BA
CAS Number: 107-13-1



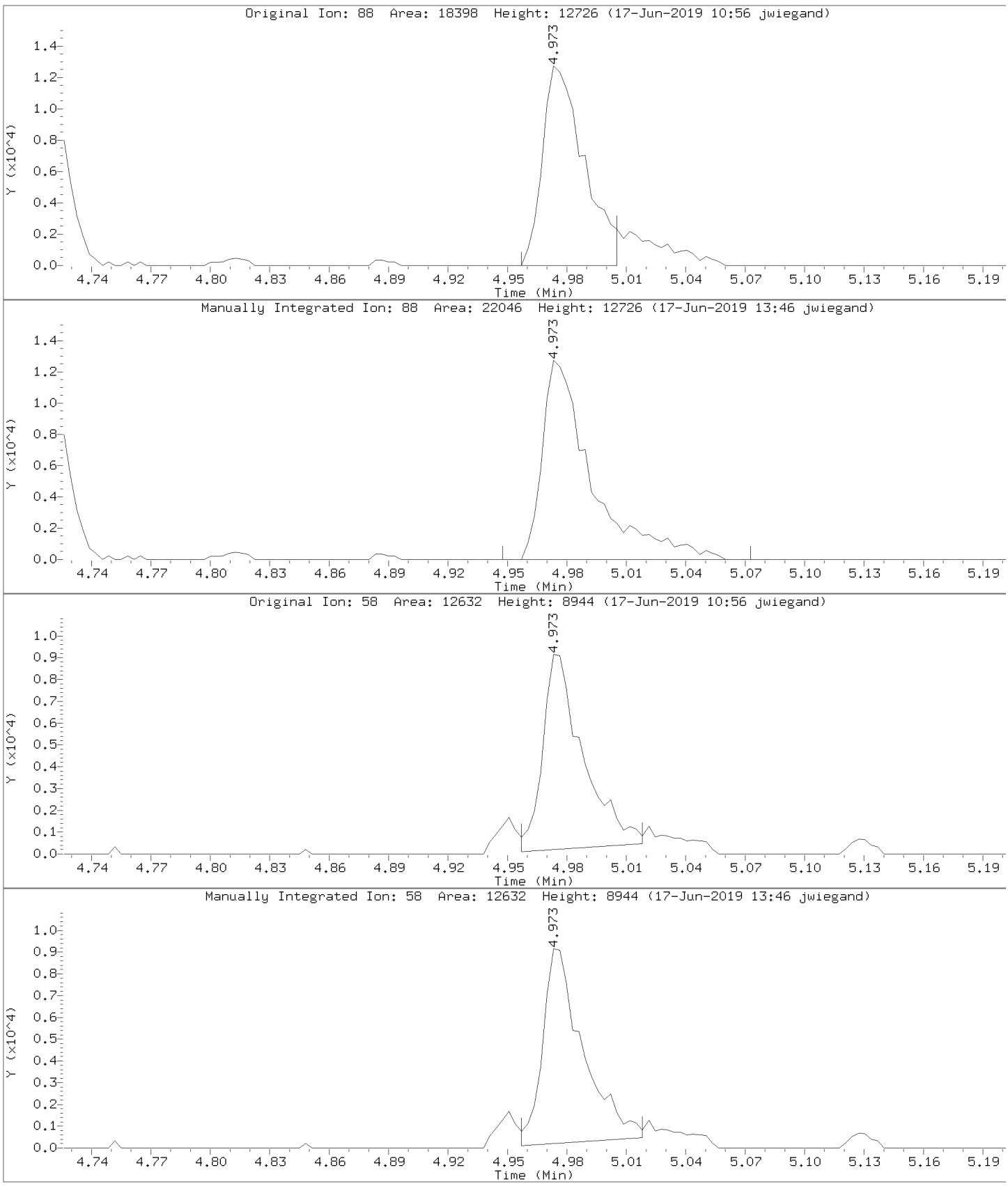




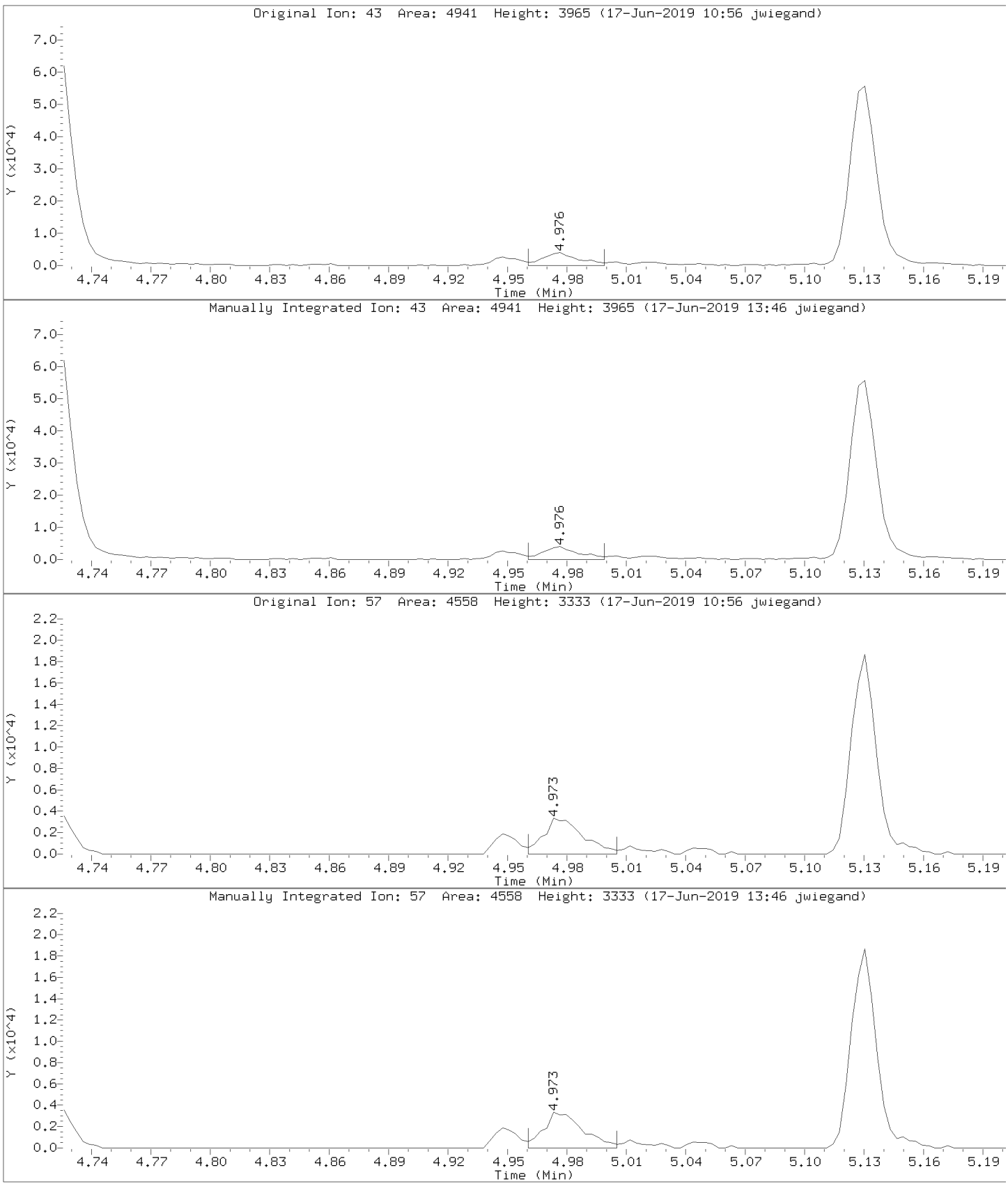


Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617007.d
Injection Date: 17-JUN-2019 10:28
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617007.d
Injection Date: 17-JUN-2019 10:28
Instrument: 30mv6a.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514007.d

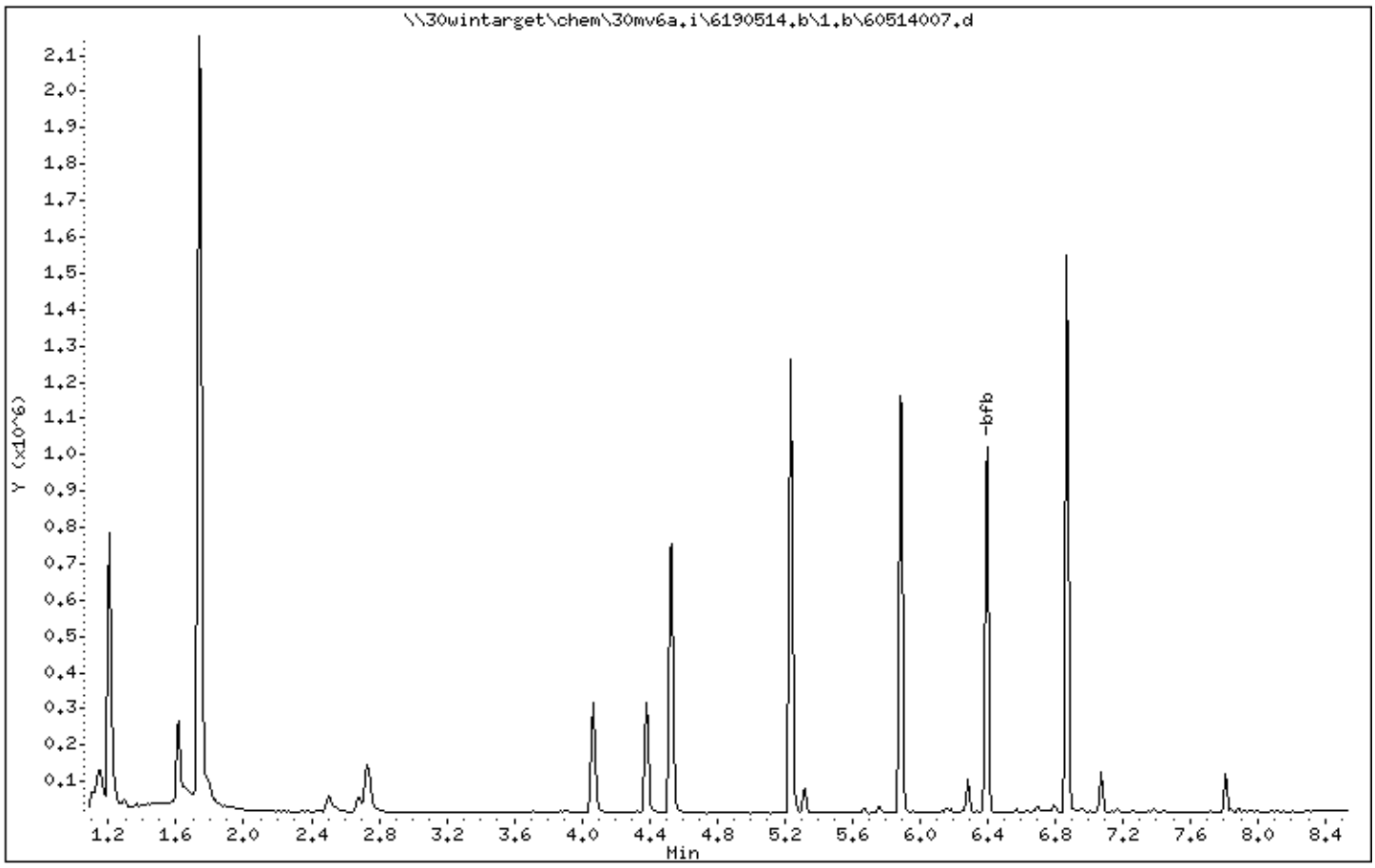
Date : 14-MAY-2019 14:43

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190514.b\1.b\60514007.d

Date : 14-MAY-2019 14:43

Client ID: TUNE

Instrument: 30mv6a.i

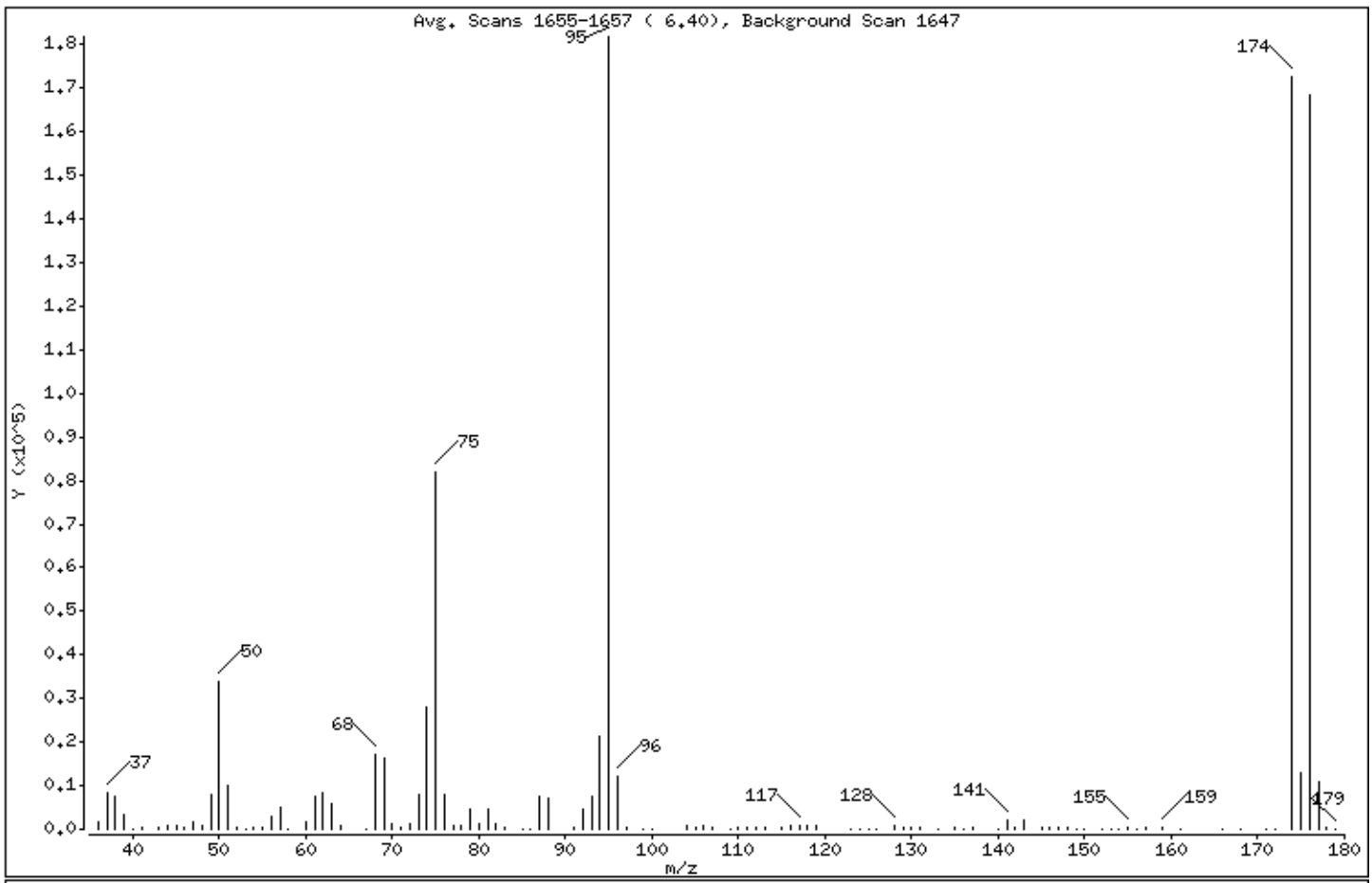
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.73
75	30.00 - 60.00% of mass 95	44.96
96	5.00 - 9.00% of mass 95	6.73
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	94.97
175	5.00 - 9.00% of mass 174	7.23 (7.61)
176	95.00 - 101.00% of mass 174	92.71 (97.63)
177	5.00 - 9.00% of mass 176	5.89 (6.35)

Date : 14-MAY-2019 14:43

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60514007.d
Spectrum: Avg. Scans 1655-1657 (6.40), Background Scan 1647
Location of Maximum: 95.00
Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1464	68.00	17040	100.00	74	141.00	2049
37.00	8318	69.00	16440	104.00	821	142.00	380
38.00	7440	70.00	1362	105.00	447	143.00	1924
39.00	3140	71.00	263	106.00	856	145.00	246
40.00	21	72.00	1100	107.00	240	146.00	420
41.00	219	73.00	7870	109.00	82	147.00	355
43.00	315	74.00	28144	110.00	235	148.00	390
44.00	995	75.00	81752	111.00	369	149.00	69
45.00	1015	76.00	7870	112.00	312	150.00	81
46.00	280	77.00	643	113.00	326	152.00	78
47.00	1857	78.00	944	115.00	341	153.00	83
48.00	1016	79.00	4530	116.00	779	154.00	203
49.00	7747	80.00	1427	117.00	989	155.00	552
50.00	34064	81.00	4413	118.00	676	156.00	82
51.00	10105	82.00	1174	119.00	980	157.00	357
52.00	603	83.00	343	123.00	69	159.00	363
53.00	86	85.00	113	124.00	176	161.00	141
54.00	324	86.00	127	125.00	23	166.00	86
55.00	534	87.00	7490	126.00	73	168.00	67
56.00	2842	88.00	7258	128.00	815	171.00	148
57.00	5216	91.00	548	129.00	218	172.00	72
58.00	43	92.00	4742	130.00	616	174.00	172672
60.00	1508	93.00	7520	131.00	374	175.00	13137
61.00	7597	94.00	21224	133.00	81	176.00	168576
62.00	8443	95.00	181824	135.00	294	177.00	10706
63.00	5905	96.00	12229	136.00	126	178.00	471
64.00	719	97.00	459	137.00	326	179.00	70
67.00	115	99.00	86	140.00	109		

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613003.d

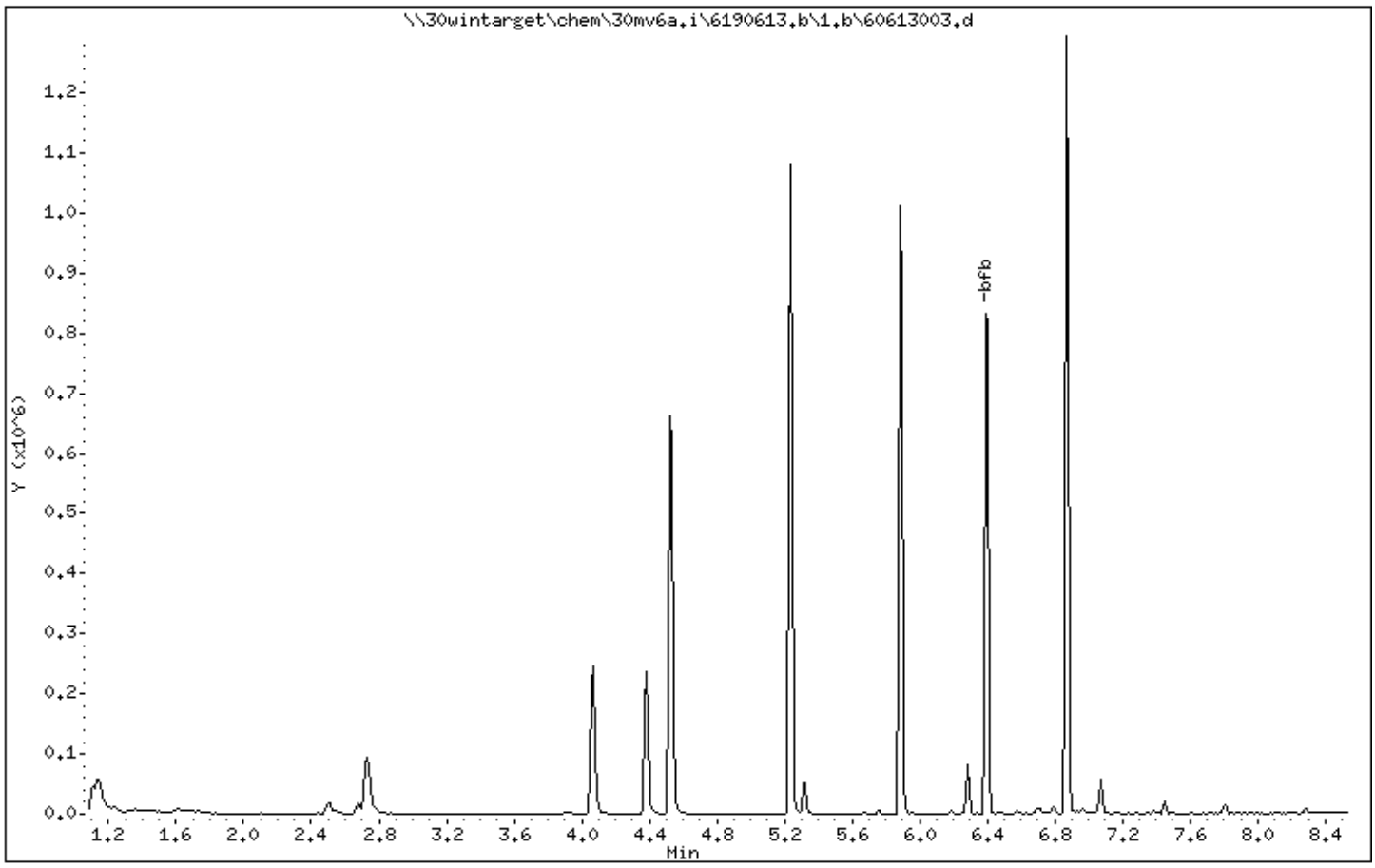
Date : 13-JUN-2019 09:13

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00



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Date : 13-JUN-2019 09:13

Client ID: TUNE

Instrument: 30mv6a.i

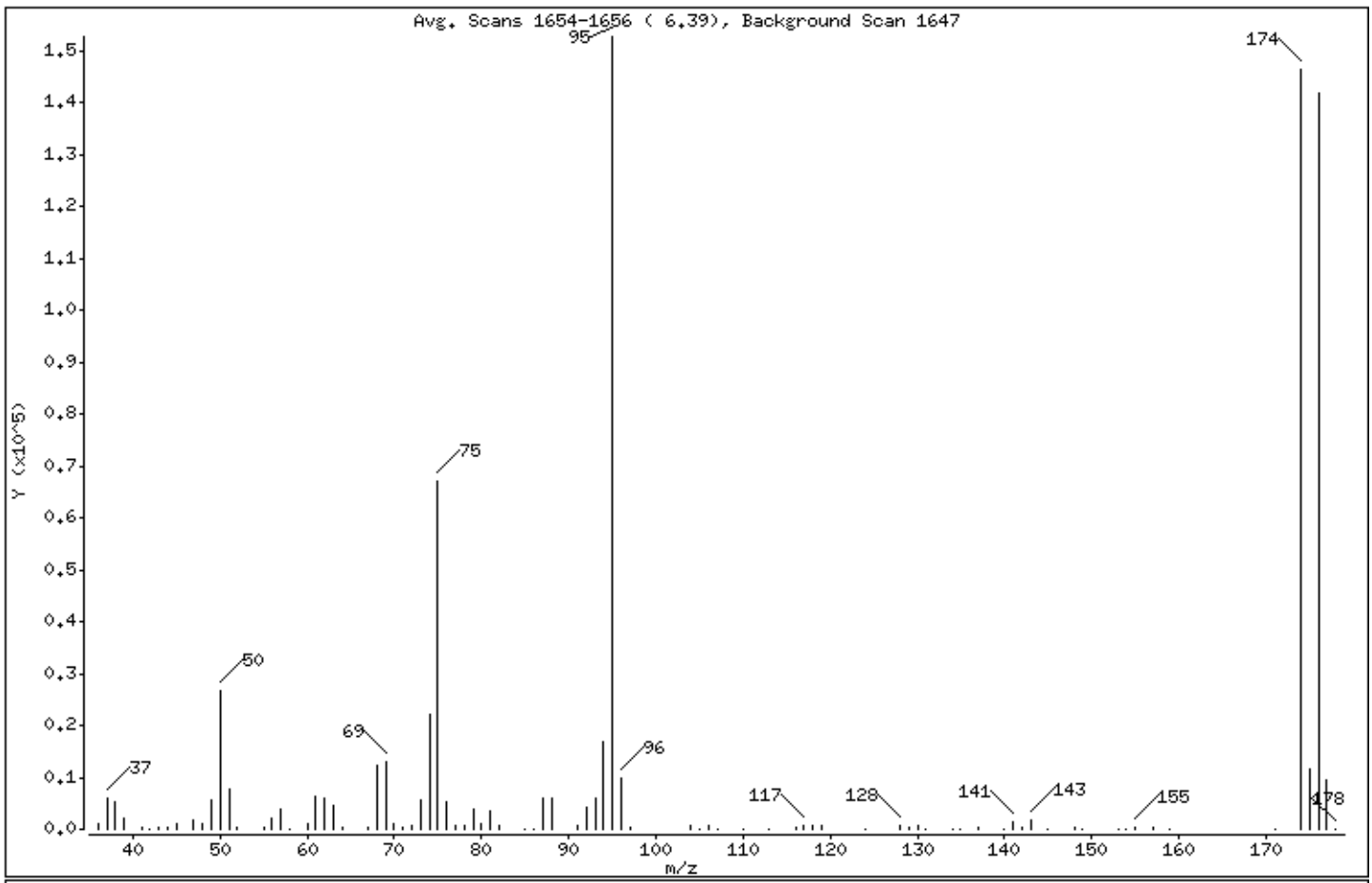
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.45
75	30.00 - 60.00% of mass 95	43.85
96	5.00 - 9.00% of mass 95	6.47
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	95.81
175	5.00 - 9.00% of mass 174	7.64 (7.98)
176	95.00 - 101.00% of mass 174	92.83 (96.89)
177	5.00 - 9.00% of mass 176	6.15 (6.62)

Date : 13-JUN-2019 09:13

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60613003.d
Spectrum: Avg. Scans 1654-1656 (6.39), Background Scan 1647
Location of Maximum: 95.00
Number of points: 87

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1180	63.00	4721	91.00	571	134.00	83
37.00	6044	64.00	314	92.00	4081	135.00	174
38.00	5163	67.00	343	93.00	5866	137.00	400
39.00	2055	68.00	12253	94.00	16992	140.00	155
41.00	196	69.00	12836	95.00	152704	141.00	1576
42.00	118	70.00	1002	96.00	9887	142.00	256
43.00	444	71.00	202	97.00	326	143.00	1632
44.00	453	72.00	865	104.00	624	145.00	98
45.00	984	73.00	5631	105.00	122	148.00	388
47.00	1637	74.00	22216	106.00	684	149.00	93
48.00	920	75.00	66968	107.00	71	153.00	120
49.00	5487	76.00	5437	110.00	77	154.00	79
50.00	26640	77.00	827	113.00	107	155.00	425
51.00	7783	78.00	589	116.00	450	157.00	340
52.00	457	79.00	3810	117.00	868	159.00	162
55.00	415	80.00	944	118.00	727	171.00	75
56.00	2087	81.00	3685	119.00	598	174.00	146304
57.00	3892	82.00	784	124.00	70	175.00	11674
58.00	81	85.00	67	128.00	602	176.00	141760
60.00	1128	86.00	88	129.00	422	177.00	9390
61.00	6410	87.00	5973	130.00	530	178.00	175
62.00	6129	88.00	5844	131.00	102		

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007-bfb.d

Date : 17-JUN-2019 10:28

Client ID: TUNE

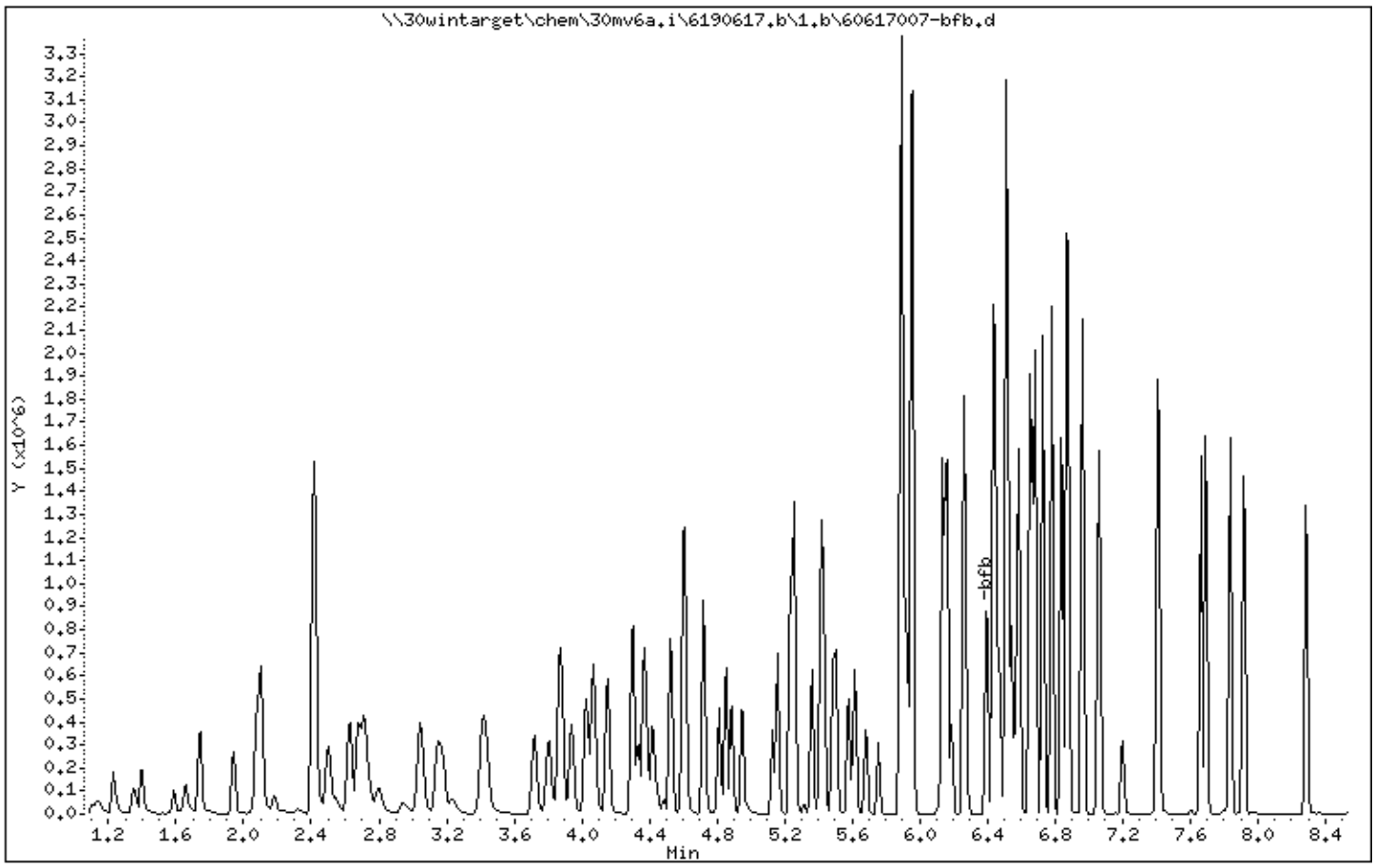
Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617007-bfb.d

Date : 17-JUN-2019 10:28

Client ID: TUNE

Instrument: 30mv6a.i

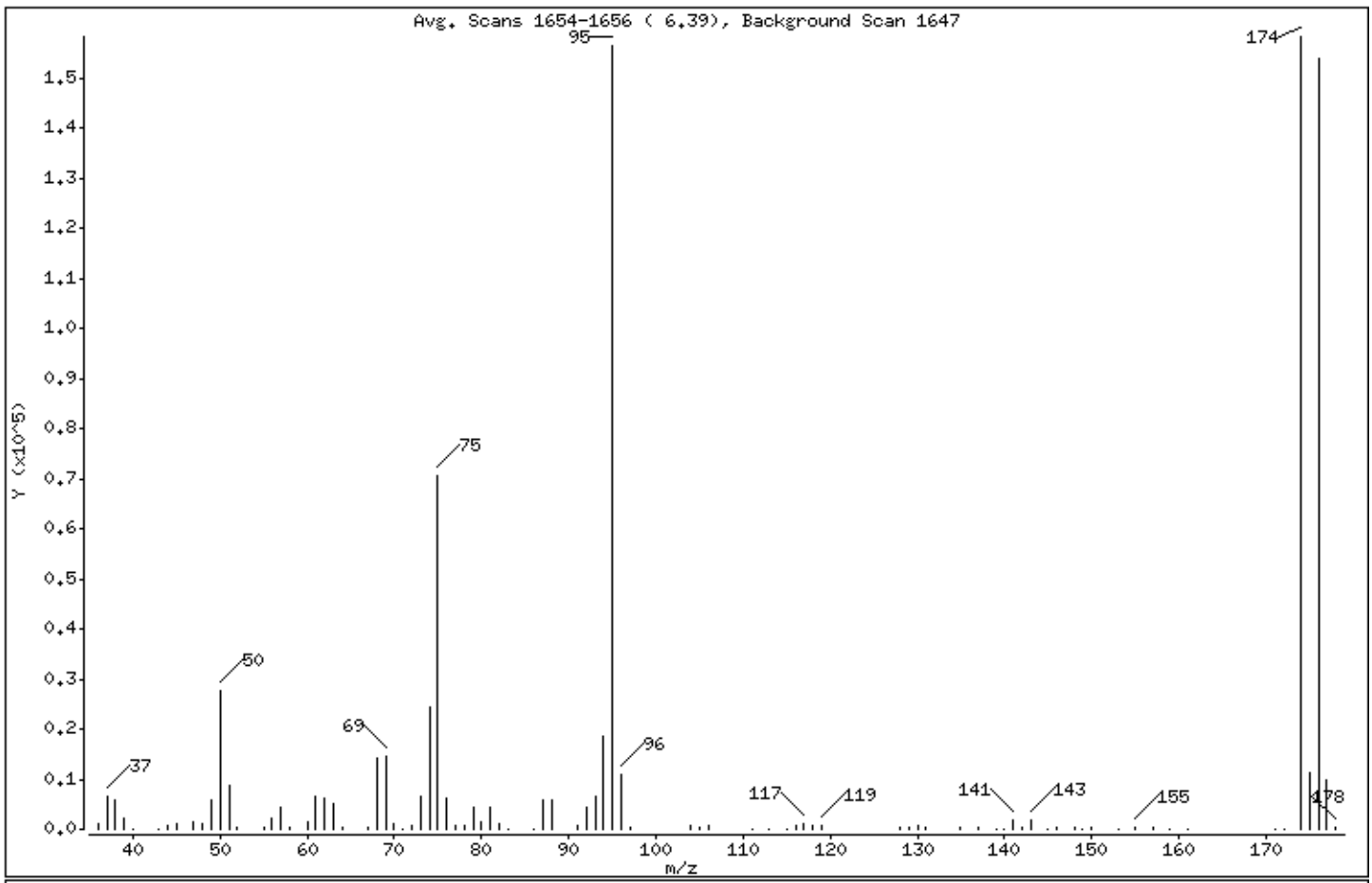
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.78
75	30.00 - 60.00% of mass 95	45.15
96	5.00 - 9.00% of mass 95	6.92
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	101.19
175	5.00 - 9.00% of mass 174	7.27 (7.19)
176	95.00 - 101.00% of mass 174	98.40 (97.25)
177	5.00 - 9.00% of mass 176	6.30 (6.40)

Date : 17-JUN-2019 10:28

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60617007-bfb.d
Spectrum: Avg. Scans 1654-1656 (6.39), Background Scan 1647
Location of Maximum: 174.00
Number of points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1182	67.00	489	94.00	18400	142.00	194
37.00	6442	68.00	14115	95.00	156352	143.00	1858
38.00	5650	69.00	14688	96.00	10815	145.00	100
39.00	2231	70.00	1070	97.00	317	146.00	192
40.00	118	71.00	168	104.00	550	148.00	464
43.00	159	72.00	783	105.00	234	149.00	76
44.00	689	73.00	6552	106.00	691	150.00	255
45.00	1196	74.00	24280	111.00	77	153.00	161
47.00	1584	75.00	70592	113.00	168	155.00	505
48.00	1044	76.00	6186	115.00	173	157.00	310
49.00	5963	77.00	796	116.00	676	159.00	80
50.00	27800	78.00	771	117.00	1161	161.00	150
51.00	8749	79.00	4210	118.00	716	171.00	125
52.00	483	80.00	1302	119.00	903	172.00	130
55.00	519	81.00	4409	128.00	545	174.00	158208
56.00	2232	82.00	937	129.00	312	175.00	11368
57.00	4386	83.00	117	130.00	584	176.00	153856
58.00	286	86.00	77	131.00	184	177.00	9848
60.00	1281	87.00	5978	135.00	244	178.00	270
61.00	6548	88.00	5744	137.00	249		
62.00	6174	91.00	665	139.00	78		
63.00	5239	92.00	4338	140.00	176		
64.00	509	93.00	6443	141.00	1937		

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Water SDG No.: 30298231

Date Extracted: 06/13/2019 10:30 Lab Sample ID: 1687219

Date Analyzed: 06/13/2019 10:30 Lab File ID: 6190613.B\1.B\60613009-44883.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	15.3	
78-93-3	2-Butanone (MEK)	11.9	
56-23-5	Carbon tetrachloride	12.1	
108-90-7	Chlorobenzene	15.9	
67-66-3	Chloroform	14.9	
107-06-2	1,2-Dichloroethane	14.5	
75-35-4	1,1-Dichloroethene	12.6	
127-18-4	Tetrachloroethene	15.7	
79-01-6	Trichloroethene	14.4	
75-01-4	Vinyl chloride	12.2	

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Lab Smp Id: 1687219 Client Smp ID: MBLCS
Inj Date : 13-JUN-2019 10:30
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1687219,90735:5,,
Misc Info : 44883,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m
Meth Date : 13-Jun-2019 10:00 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.229	(0.271)	44889	17.4138	17.4(Q)	
2	Chloromethane	50	1.347	1.344	(0.298)	37498	7.72460	7.72(RM)	LT
3	Vinyl chloride	62	1.395	1.395	(0.308)	47554	12.2243	12.2(R)	
4	Bromomethane	94	1.587	1.588	(0.351)	10703	10.4163	10.4(R)	
5	Chloroethane	64	1.658	1.649	(0.366)	33296	13.3393	13.3(R)	
6	Trichlorofluoromethane	101	1.741	1.736	(0.385)	64541	15.1858	15.2	
7	Diethyl ether (Ethyl ether)	59	1.940	1.934	(0.429)	33199	14.3555	14.4	
8	Ethanol	45	2.046	2.053	(0.298)	4642	83.5746	83.6(Q)	
9	1,1-Dichloroethene	61	2.075	2.076	(0.458)	48078	12.5636	12.6(R)	
10	1,1,2-Trichlorotrifluoroethane	151	2.101	2.101	(0.464)	25847	14.2013	14.2	
11	Carbon disulfide	76	2.104	2.105	(0.465)	80100	9.02557	9.02(R)	
12	Iodomethane	142	2.181	2.188	(0.482)	13928	8.64155	8.64(RM)	LT
13	Acrolein	56	2.325	2.316	(0.514)	8496	47.4981	47.5(QRM)	LT
14	Allyl chloride	41	2.419	2.416	(0.534)	221557	60.4146	60.4	
15	Methylene Chloride	49	2.502	2.502	(0.553)	56121	8.05202	8.05(R)	
16	Acetone	43	2.540	2.547	(0.561)	18292	8.06695	8.07(QRM)	WP
17	trans-1,2-Dichloroethene	61	2.627	2.628	(0.580)	48956	13.4220	13.4(R)	
18	Methyl acetate	74	2.640	2.647	(0.583)	11920	13.8947	13.9(R)	
19	n-Hexane	86	2.678	2.682	(0.592)	7441		(aQR)	
20	Methyl-tert-butyl ether	73	2.711	2.717	(0.599)	107299	14.8433	14.8(Q)	
21	tert-Butyl Alcohol	59	2.800	2.798	(0.619)	41099	71.2002	71.2(Q)	
22	Acetonitrile	41	2.942	2.939	(0.650)	26244	78.0905	78.1(QR)	
23	Diisopropyl ether	45	3.044	3.051	(0.673)	99522	13.1732	13.2(R)	

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	3.147	3.141	(0.695)	23370	10.9205	10.9(R)	
	25 1,1-Dichloroethane	63	3.176	3.176	(0.702)	68499	14.3620	14.4	
	26 Acrylonitrile	53	3.240	3.237	(0.716)	14193	12.8645	12.9(QR)	
	27 Ethyl-tert-butyl ether	59	3.416	3.420	(0.755)	100691	12.3438	12.3	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	68098	11.8076	11.8(R)	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	52209	13.9132	13.9(R)	
	30 2,2-Dichloropropane	77	3.802	3.805	(0.840)	55018	13.6207	13.6(R)	
	31 Cyclohexane	56	3.872	3.873	(0.855)	54424	12.9190	12.9(R)	
	32 Bromochloromethane	130	3.882	3.885	(0.858)	33791	17.3233	17.3	
	33 Chloroform	83	3.940	3.943	(0.870)	67206	14.9285	14.9	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	45723	12.1451	12.1(R)	
	35 Ethyl acetate	43	4.074	4.081	(0.900)	1444	10.1967	10.2(QR)	
	36 Tetrahydrofuran	42	4.052	4.056	(0.895)	16325	15.0010	15.0	
$	37 Dibromofluoromethane (S)	111	4.068	4.065	(0.899)	110125	31.8012	31.8	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	59162	14.3749	14.4	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	18456	11.9113	11.9	
	40 1,1-Dichloropropene	75	4.151	4.149	(0.917)	45688	13.9852	14.0(R)	
	41 Benzene	78	4.302	4.303	(0.950)	139505	15.3071	15.3	
	42 Propionitrile	54	4.325	4.328	(0.955)	8384	15.0250	15.0(Q)	
	43 Methacrylonitrile	41	4.334	4.338	(0.957)	16873	11.0166	11.0(R)	
	44 tert-Amylmethyl ether	73	4.370	4.370	(0.965)	96760	14.9609	15.0	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.383	(0.967)	100468	29.2319	29.2	
	46 Isobutanol	43	4.437	4.444	(0.980)	10592	55.5169	55.5(QR)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	53401	14.4596	14.4	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	388021	30.0000		
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	51772	12.9656	13.0(R)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	40799	14.3881	14.4	
	51 Dibromomethane	174	4.812	4.813	(1.063)	35420	17.0156	17.0	
	52 1,2-Dichloropropane	63	4.854	4.855	(1.072)	38917	15.0057	15.0	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	48107	14.5446	14.5	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	24009	13.8742	13.9(R)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.977	(1.100)	7286	170.790	171(QRM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	22578	14.7699	14.8	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	61108	15.1544	15.2	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	369559	28.5856	28.6	
	59 Toluene	91	5.258	5.259	(0.893)	170529	14.8104	14.8	
	60 2-Nitropropane	43	5.361	5.362	(1.184)	49604	46.6108	46.6	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	39788	13.9837	14.0	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	52360	15.7025	15.7	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	58748	14.0150	14.0	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	26413	10.9389	10.9(R)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	37190	14.7362	14.7	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	44528	13.5165	13.5(R)	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	61836	14.8570	14.8	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	41297	15.3856	15.4	
	69 2-Hexanone	43	5.756	5.759	(0.978)	32331	13.0947	13.1(R)	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	70698	15.5699	15.6	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	347990	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	133848	15.8608	15.9	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	43623	13.5233	13.5(R)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	172511	30.7913	30.8	
	75 o-Xylene	106	6.138	6.141	(1.043)	85055	15.3463	15.3	
	76 Styrene	104	6.160	6.161	(1.046)	149918	15.3373	15.3	
	77 Bromoform	173	6.186	6.186	(0.900)	30780	11.6291	11.6(R)	

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.912)	223848	15.1782	15.2	
$ 79	4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	156416	29.5860	29.6	
80	n-Propylbenzene	91	6.436	6.440	(0.937)	248321	14.8219	14.8	
81	Bromobenzene	77	6.446	6.446	(0.938)	90177	14.6542	14.6	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	49919	13.8314	13.8(R)	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	191277	15.0868	15.1	
84	2-Chlorotoluene	126	6.519	6.517	(0.949)	58732	15.0757	15.1	
85	1,2,3-Trichloropropane	110	6.536	6.539	(0.951)	19891	15.1200	15.1	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.953)	13580	11.9172	11.9	
87	Cyclohexanone	55	6.568	6.571	(0.956)	20794	67.4900	67.5(R)	
88	4-Chlorotoluene	126	6.587	6.587	(0.959)	63561	15.2204	15.2	
89	tert-Butylbenzene	119	6.654	6.655	(0.969)	180614	15.4920	15.5	
90	1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	199865	15.0449	15.0	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	253664	15.3395	15.3	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	247197	16.1156	16.1	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.996)	138479	16.0211	16.0	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	216560	30.0000		
95	1,4-Dichlorobenzene	146	6.876	6.876	(1.001)	145137	16.4187	16.4	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	199031	15.3469	15.3	
97	1,2-Dichlorobenzene	146	7.062	7.062	(1.028)	136863	16.5475	16.5	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	216567	29.9925	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	18173	13.8637	13.9(R)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	111882	17.8023	17.8	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	49159	15.4179	15.4	
101	1,2,4-Trichlorobenzene	180	7.694	7.694	(1.120)	103123	17.6547	17.6	
102	Naphthalene	128	7.838	7.839	(1.141)	255918	17.2952	17.3	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.153)	92562	18.1773	18.2	
104	2-Methylnaphthalene	142	8.291	8.288	(1.207)	138197	20.1172	20.1	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613009-44883.d
Lab Smp Id: 1687219
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m
Misc Info: 44883,

Calibration Date: 13-JUN-2019
Calibration Time: 09:38
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	446565	223283	893130	388021	-13.11
71 Chlorobenzene-d5	361586	180793	723172	347990	-3.76
94 1,4-Dichlorobenze	224144	112072	448288	216560	-3.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1687219 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\msv6051419a.m
Misc Info: 44883,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.0	17.4	87.07	70-130
2 Chloromethane	20.0	7.72	38.62*	70-130
3 Vinyl chloride	20.0	12.2	61.12*	70-130
4 Bromomethane	20.0	10.4	52.08*	70-130
5 Chloroethane	20.0	13.3	66.70*	70-130
6 Trichlorofluoromet	20.0	15.2	75.93	70-130
8 Ethanol	200	83.6	41.79	10-175
9 1,1-Dichloroethene	20.0	12.6	62.82*	70-130
10 1,1,2-Trichlorotri	20.0	14.2	71.01	50-150
11 Carbon disulfide	20.0	9.02	45.13*	70-130
12 Iodomethane	50.0	8.64	17.28*	70-130
13 Acrolein	20.0	47.5	237.49*	70-130
14 Allyl chloride	50.0	60.4	120.83	70-130
15 Methylene Chloride	20.0	8.05	40.26*	70-130
16 Acetone	20.0	8.07	40.33*	70-130
17 trans-1,2-Dichloro	20.0	13.4	67.11*	70-130
18 Methyl acetate	20.0	13.9	69.47*	70-130
19 n-Hexane	20.0	0.000	0.00*	50-150
20 Methyl-tert-butyl	20.0	14.8	74.22	50-150
22 Acetonitrile	50.0	78.1	156.18*	70-130
23 Diisopropyl ether	20.0	13.2	65.87*	70-130
24 Chloroprene	20.0	10.9	54.60*	70-130
25 1,1-Dichloroethane	20.0	14.4	71.81	70-130
26 Acrylonitrile	20.0	12.9	64.32*	70-130
27 Ethyl-tert-butyl e	20.0	12.3	61.72	50-150
28 Vinyl acetate	20.0	11.8	59.04*	70-130
29 cis-1,2-Dichloroet	20.0	13.9	69.57*	70-130
30 2,2-Dichloropropan	20.0	13.6	68.10*	70-130
31 Cyclohexane	20.0	12.9	64.59*	70-130
32 Bromochloromethane	20.0	17.3	86.62	70-130
33 Chloroform	20.0	14.9	74.64	70-130
34 Carbon tetrachlori	20.0	12.1	60.73*	70-130
35 Ethyl acetate	20.0	10.2	50.98*	70-130
36 Tetrahydrofuran	20.0	15.0	75.00	70-130
38 1,1,1-Trichloroeth	20.0	14.4	71.87	70-130
39 2-Butanone (MEK)	20.0	11.9	59.56	50-150
40 1,1-Dichloropropen	20.0	14.0	69.93*	70-130
41 Benzene	20.0	15.3	76.54	70-130
42 Propionitrile	20.0	15.0	75.12	70-130
43 Methacrylonitrile	20.0	11.0	55.08*	70-130

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44	tert-Amylmethyl et	20.0	15.0	74.80	50-150
46	Isobutanol	20.0	55.5	277.58*	70-130
47	1,2-Dichloroethane	20.0	14.4	72.30	70-130
49	Methylcyclohexane	20.0	13.0	64.83*	70-130
50	Trichloroethene	20.0	14.4	71.94	70-130
51	Dibromomethane	20.0	17.0	85.08	70-130
52	1,2-Dichloropropan	20.0	15.0	75.03	70-130
53	Bromodichlorometha	20.0	14.5	72.72	70-130
54	Methyl methacrylat	20.0	13.9	69.37*	70-130
55	1,4-Dioxane (p-Dio	20.0	171	853.95*	50-150
56	2-Chloroethylvinyl	20.0	14.8	73.85	50-150
57	cis-1,3-Dichloropr	20.0	15.2	75.77	70-130
59	Toluene	20.0	14.8	74.05	70-130
60	2-Nitropropane	50.0	46.6	93.22	70-130
61	4-Methyl-2-pentano	20.0	14.0	69.92	50-150
62	Tetrachloroethene	20.0	15.7	78.51	70-130
63	trans-1,3-Dichloro	20.0	14.0	70.08	70-130
64	Ethyl methacrylate	20.0	10.9	54.69*	70-130
65	1,1,2-Trichloroeth	20.0	14.7	73.68	70-130
66	Dibromochlorometha	20.0	13.5	67.58*	70-130
67	1,3-Dichloropropan	20.0	14.8	74.29	70-130
69	2-Hexanone	20.0	13.1	65.47*	70-130
70	Ethylbenzene	20.0	15.6	77.85	70-130
72	Chlorobenzene	20.0	15.9	79.30	70-130
73	1,1,1,2-Tetrachlor	20.0	13.5	67.62*	70-130
74	m&p-Xylene	40.0	30.8	76.98	50-150
75	o-Xylene	20.0	15.3	76.73	70-130
76	Styrene	20.0	15.3	76.69	70-130
77	Bromoform	20.0	11.6	58.15*	70-130
80	n-Propylbenzene	20.0	14.8	74.11	70-130
81	Bromobenzene	20.0	14.6	73.27	70-130
82	1,1,2,2-Tetrachlor	20.0	13.8	69.16*	70-130
83	1,3,5-Trimethylben	20.0	15.1	75.43	70-130
84	2-Chlorotoluene	20.0	15.1	75.38	70-130
85	1,2,3-Trichloropro	20.0	15.1	75.60	70-130
86	trans-1,4-Dichloro	20.0	11.9	59.59	50-150
87	Cyclohexanone	50.0	67.5	134.98*	70-130
88	4-Chlorotoluene	20.0	15.2	76.10	70-130
90	1,2,4-Trimethylben	20.0	15.0	75.22	70-130
92	p-Isopropyltoluene	20.0	16.1	80.58	50-150
93	1,3-Dichlorobenzen	20.0	16.0	80.11	70-130
95	1,4-Dichlorobenzen	20.0	16.4	82.09	70-130
97	1,2-Dichlorobenzen	20.0	16.5	82.74	70-130
98	1,2-Dibromo-3-chlo	20.0	13.9	69.32*	70-130
100	Hexachloro-1,3-but	20.0	15.4	77.09	50-150
101	1,2,4-Trichloroben	20.0	17.6	88.27	70-130
102	Naphthalene	20.0	17.3	86.48	70-130
103	1,2,3-Trichloroben	20.0	18.2	90.89	70-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	31.8	106.00	70-130

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	29.2	97.44	70-130
$ 58 Toluene-d8 (S)	30.0	28.6	95.29	70-130
$ 79 4-Bromofluorobenze	30.0	29.6	98.62	70-130
$ 161 1,2-Dichlorobenzen	30.0	30.0	99.98	10-200

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1687219
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Dichlorodifluoromethane	17.4	
74-87-3	Chloromethane	7.72	
75-01-4	Vinyl chloride	12.2	
74-83-9	Bromomethane	10.4	
75-00-3	Chloroethane	13.3	
75-69-4	Trichlorofluoromethane	15.2	
60-29-7	Diethyl ether (Ethyl ether)	14.4	
64-17-5	Ethanol	83.6	
75-35-4	1,1-Dichloroethene	12.6	
76-13-1	1,1,2-Trichlorotrifluoroetha	14.2	
75-15-0	Carbon disulfide	9.02	
74-88-4	Iodomethane	8.64	
107-02-8	Acrolein	47.5	
107-05-1	Allyl chloride	60.4	
75-09-2	Methylene Chloride	8.05	
67-64-1	Acetone	8.07	
156-60-5	trans-1,2-Dichloroethene	13.4	
79-20-9	Methyl acetate	13.9	
110-54-3	n-Hexane	0.000	J
1634-04-4	Methyl-tert-butyl ether	14.8	
75-65-0	tert-Butyl Alcohol	71.2	
75-05-8	Acetonitrile	78.1	
108-20-3	Diisopropyl ether	13.2	
126-99-8	Chloroprene	10.9	
75-34-3	1,1-Dichloroethane	14.4	
107-13-1	Acrylonitrile	12.9	
637-92-3	Ethyl-tert-butyl ether	12.3	
108-05-4	Vinyl acetate	11.8	
156-59-2	cis-1,2-Dichloroethene	13.9	
594-20-7	2,2-Dichloropropane	13.6	
110-82-7	Cyclohexane	12.9	
74-97-5	Bromochloromethane	17.3	
67-66-3	Chloroform	14.9	
56-23-5	Carbon tetrachloride	12.1	
141-78-6	Ethyl acetate	10.2	
109-99-9	Tetrahydrofuran	15.0	
71-55-6	1,1,1-Trichloroethane	14.4	
78-93-3	2-Butanone (MEK)	11.9	
563-58-6	1,1-Dichloropropene	14.0	
71-43-2	Benzene	15.3	
107-12-0	Propionitrile	15.0	
126-98-7	Methacrylonitrile	11.0	

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1687219
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	15.0	
78-83-1	Isobutanol	55.5	
107-06-2	1,2-Dichloroethane	14.4	
108-87-2	Methylcyclohexane	13.0	
79-01-6	Trichloroethene	14.4	
74-95-3	Dibromomethane	17.0	
78-87-5	1,2-Dichloropropane	15.0	
75-27-4	Bromodichloromethane	14.5	
80-62-6	Methyl methacrylate	13.9	
123-91-1	1,4-Dioxane (p-Dioxane)	171	
110-75-8	2-Chloroethylvinyl ether	14.8	
10061-01-5	cis-1,3-Dichloropropene	15.2	
108-88-3	Toluene	14.8	
79-46-9	2-Nitropropane	46.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	14.0	
127-18-4	Tetrachloroethene	15.7	
10061-02-6	trans-1,3-Dichloropropene	14.0	
97-63-2	Ethyl methacrylate	10.9	
79-00-5	1,1,2-Trichloroethane	14.7	
124-48-1	Dibromochloromethane	13.5	
142-28-9	1,3-Dichloropropane	14.8	
106-93-4	1,2-Dibromoethane (EDB)	15.4	
591-78-6	2-Hexanone	13.1	
100-41-4	Ethylbenzene	15.6	
108-90-7	Chlorobenzene	15.9	
630-20-6	1,1,1,2-Tetrachloroethane	13.5	
7816-60-0	m&p-Xylene	30.8	
95-47-6	o-Xylene	15.3	
100-42-5	Styrene	15.3	
75-25-2	Bromoform	11.6	
98-82-8	Isopropylbenzene (Cumene)	15.2	
103-65-1	n-Propylbenzene	14.8	
108-86-1	Bromobenzene	14.6	
79-34-5	1,1,2,2-Tetrachloroethane	13.8	
108-67-8	1,3,5-Trimethylbenzene	15.1	
95-49-8	2-Chlorotoluene	15.1	
96-18-4	1,2,3-Trichloropropane	15.1	
110-57-6	trans-1,4-Dichloro-2-butene	11.9	
108-94-1	Cyclohexanone	67.5	
106-43-4	4-Chlorotoluene	15.2	
98-06-6	tert-Butylbenzene	15.5	
95-63-6	1,2,4-Trimethylbenzene	15.0	

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Report Date: 14-Jun-2019 09:34

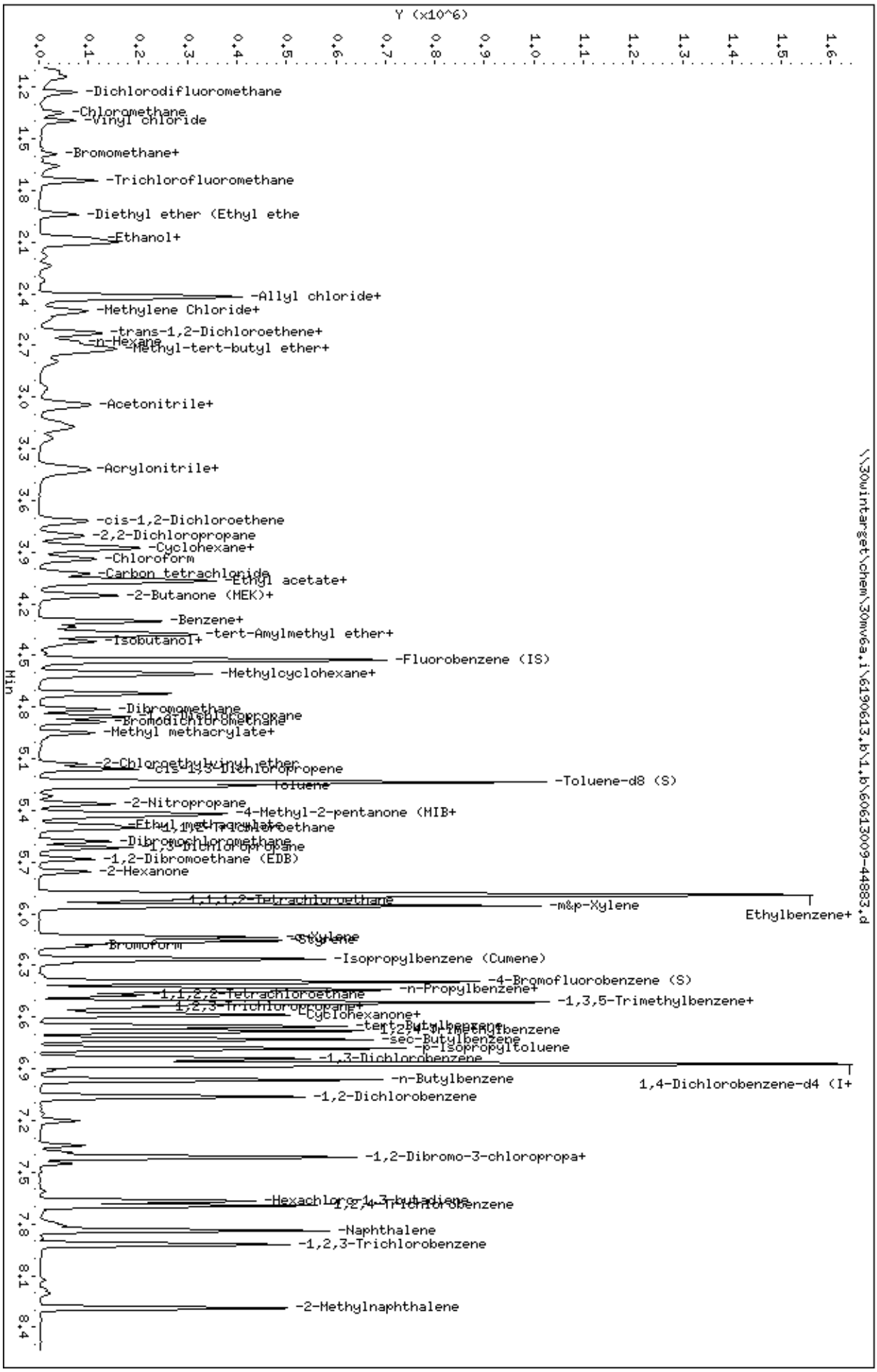
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1687219
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	15.3	
99-87-6	p-Isopropyltoluene	16.1	
541-73-1	1,3-Dichlorobenzene	16.0	
106-46-7	1,4-Dichlorobenzene	16.4	
104-51-8	n-Butylbenzene	15.3	
95-50-1	1,2-Dichlorobenzene	16.5	
96-12-8	1,2-Dibromo-3-chloropropane	13.9	
108-70-3	1,3,5-Trichlorobenzene	17.8	
87-68-3	Hexachloro-1,3-butadiene	15.4	
120-82-1	1,2,4-Trichlorobenzene	17.6	
91-20-3	Naphthalene	17.3	
87-61-6	1,2,3-Trichlorobenzene	18.2	
91-57-6	2-Methylnaphthalene	20.1	
1868-53-7	Dibromofluoromethane (S)	31.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.2	
2037-26-5	Toluene-d8 (S)	28.6	
460-00-4	4-Bromofluorobenzene (S)	29.6	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 13-JUN-2019 10:30
Client ID: HBLCS
Sample Info: 1687219,90735;5,,
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Acrylonitrile+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
-m&p-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

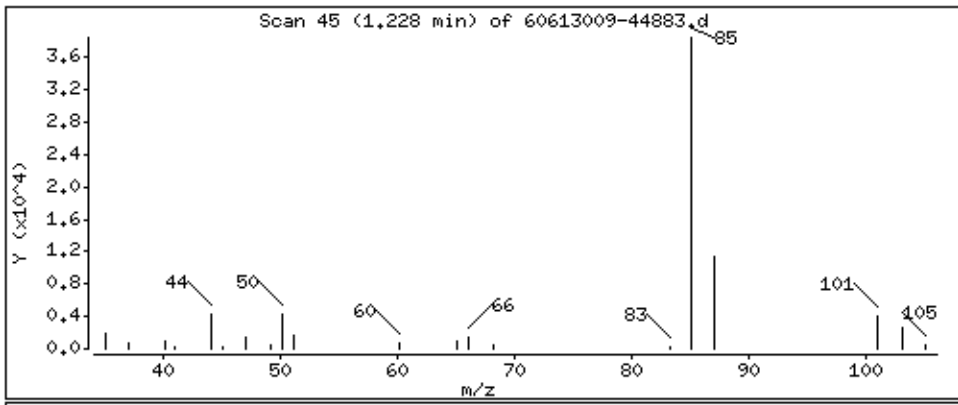
Operator: JEW

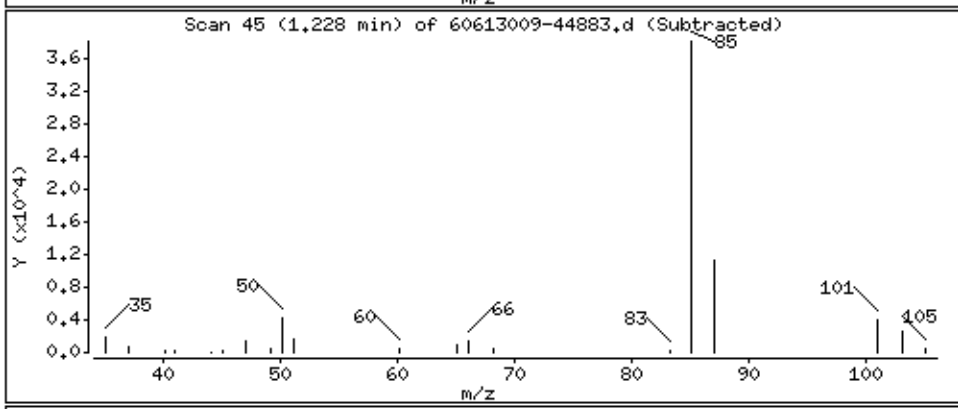
Column phase: RTX-VMS

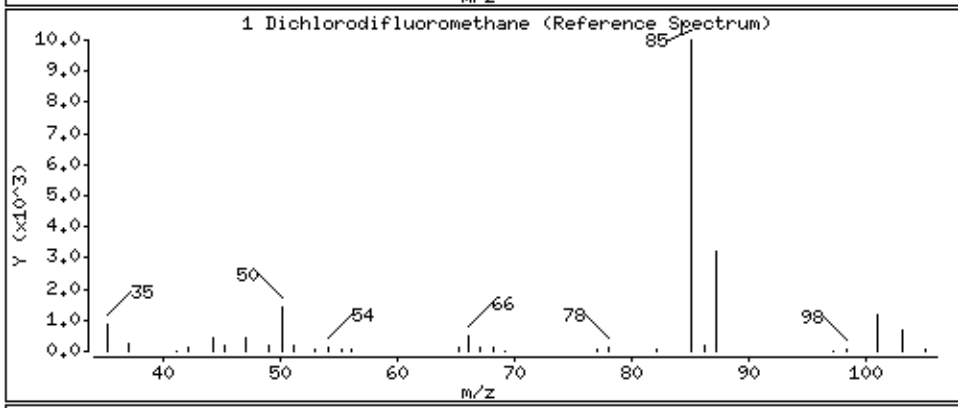
Column diameter: 0.18

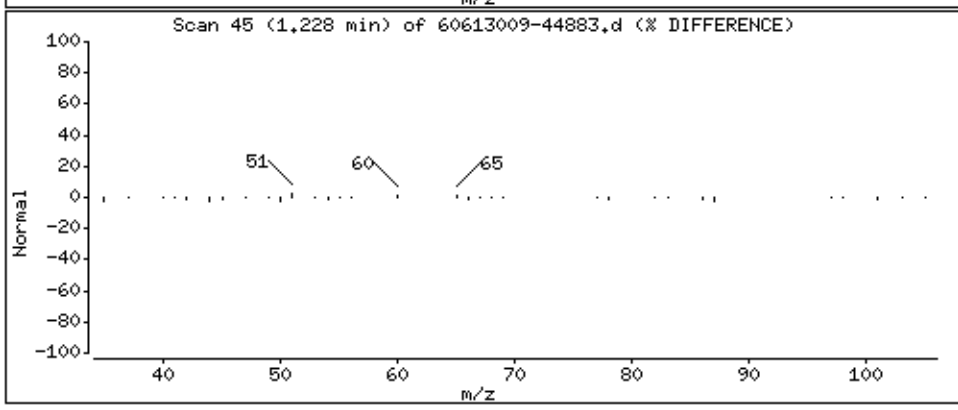
1 Dichlorodifluoromethane

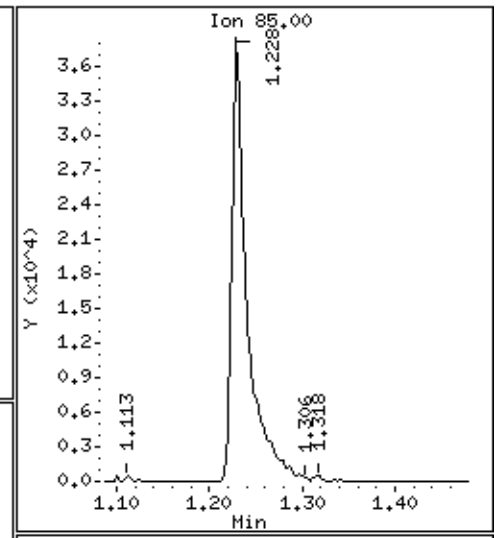
Concentration: 17.4 ug/L

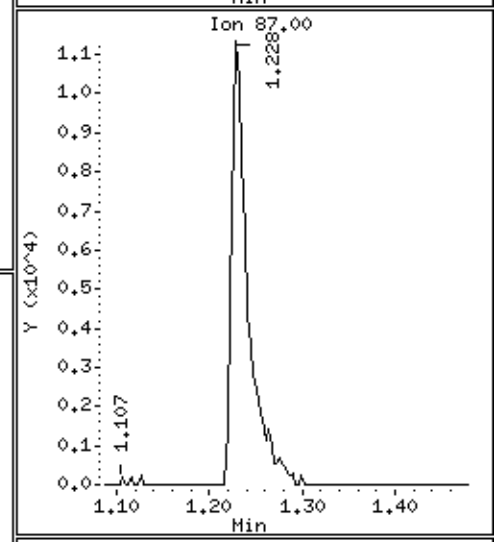


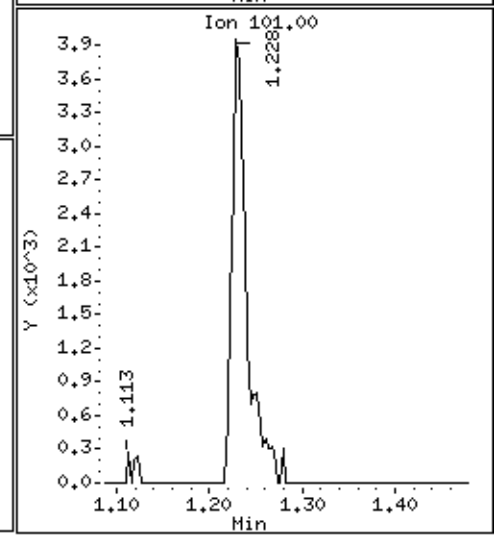












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

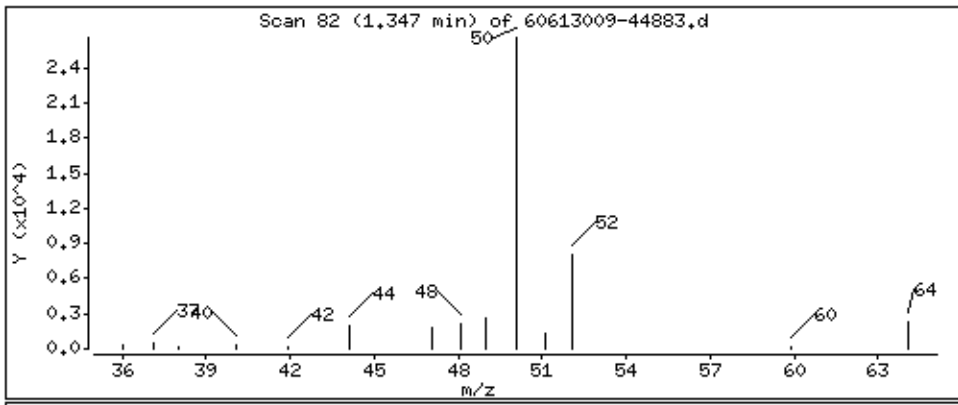
Operator: JEW

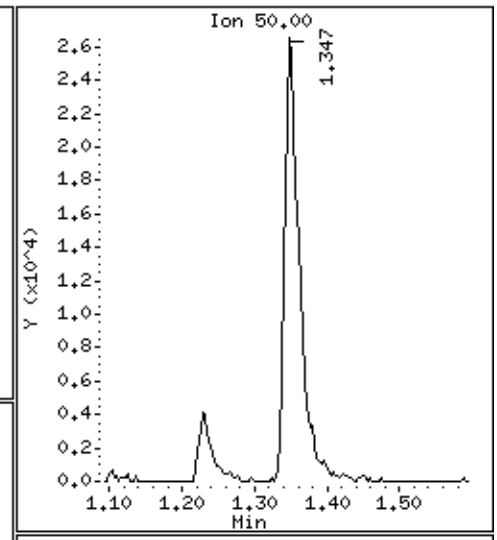
Column phase: RTX-VMS

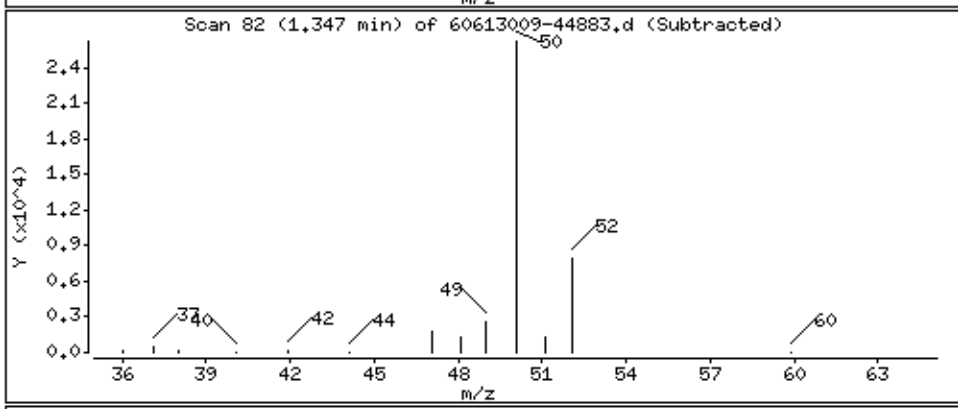
Column diameter: 0.18

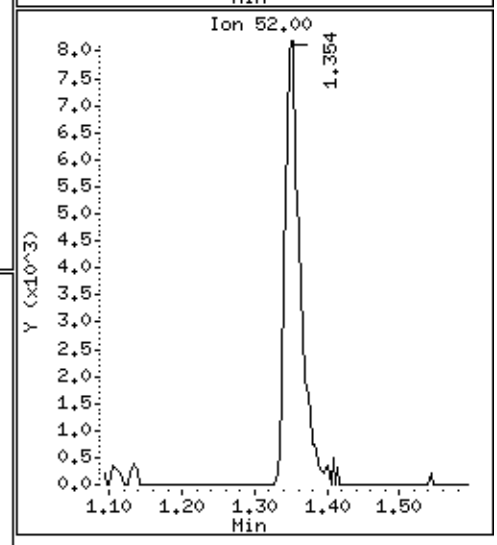
2 Chloromethane

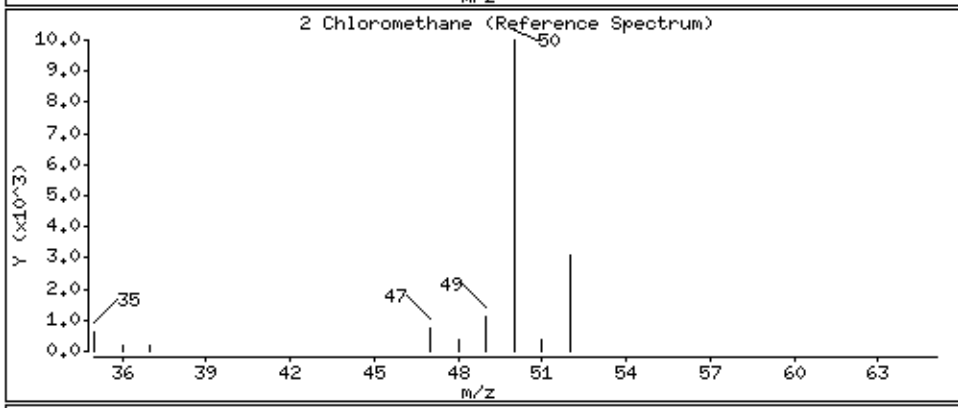
Concentration: 7.72 ug/L

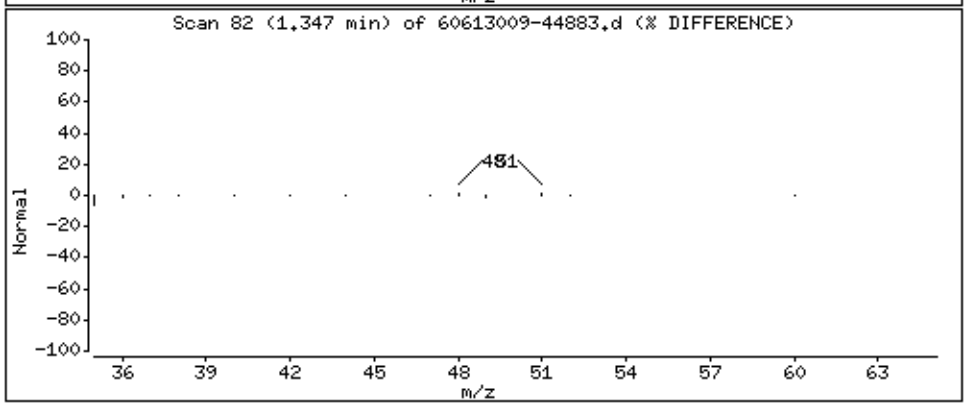












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

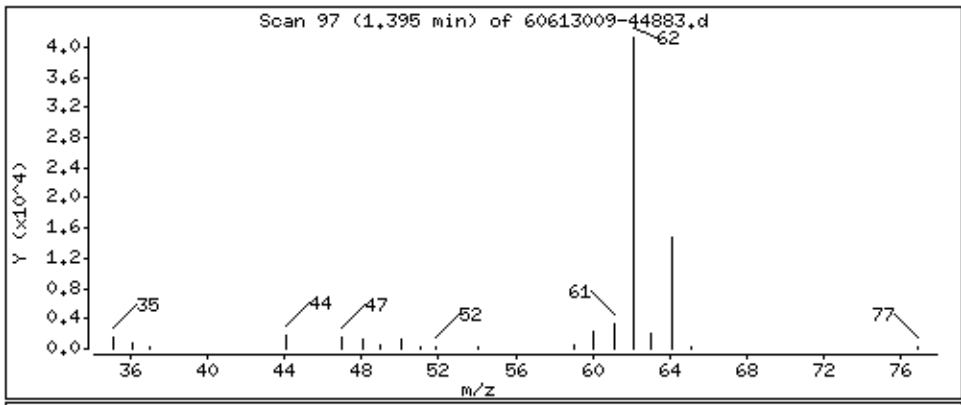
Operator: JEW

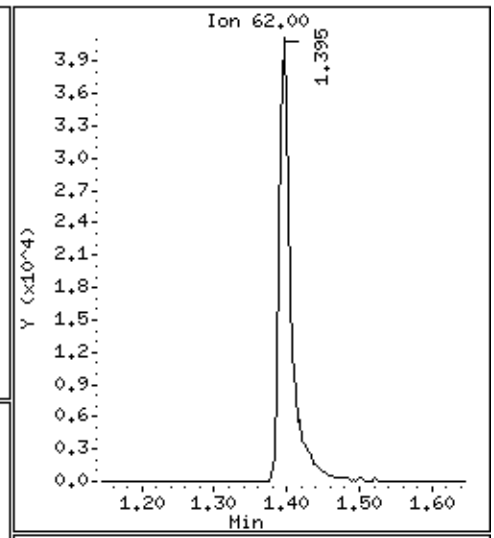
Column phase: RTX-VMS

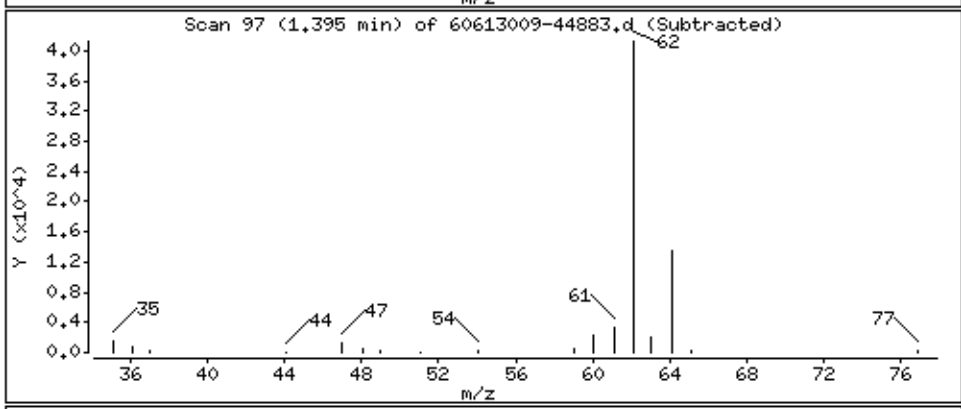
Column diameter: 0.18

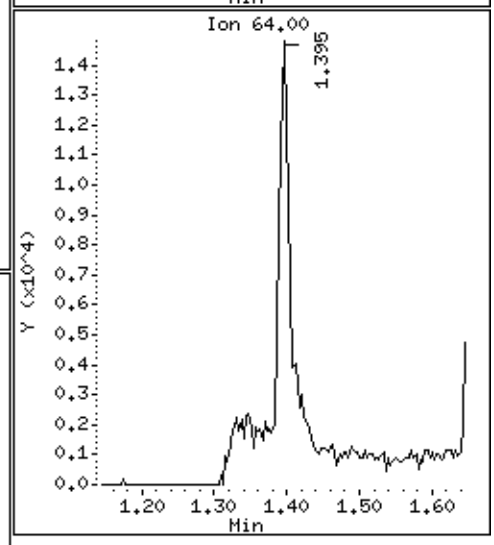
3 Vinyl chloride

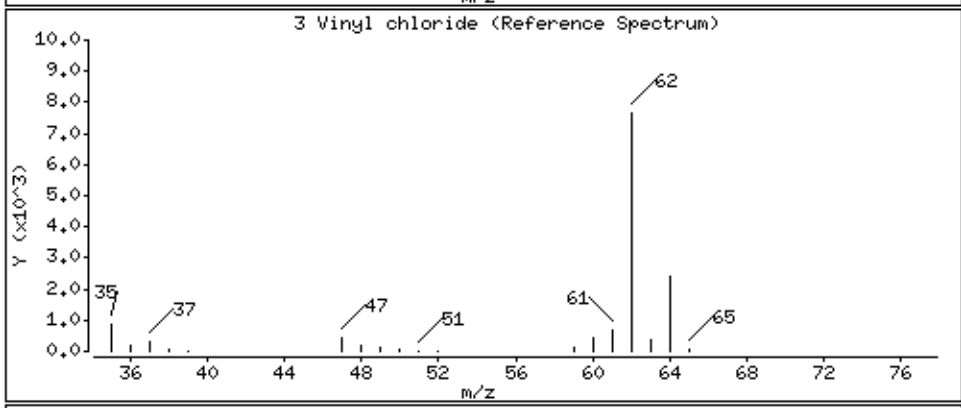
Concentration: 12.2 ug/L

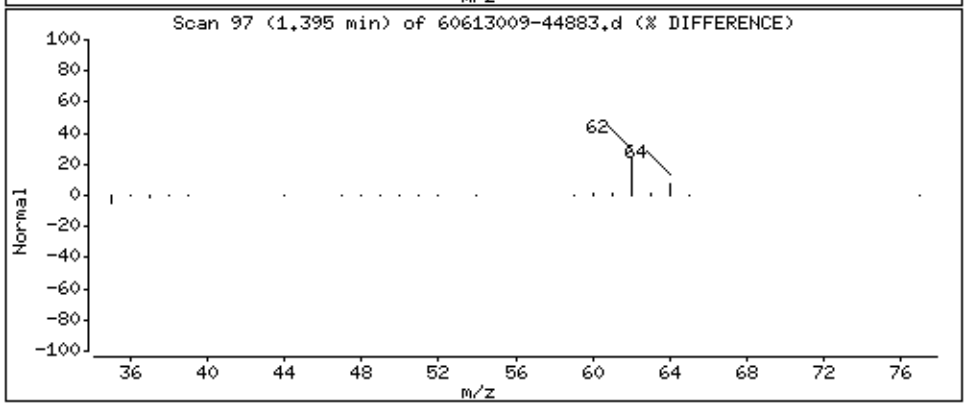












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

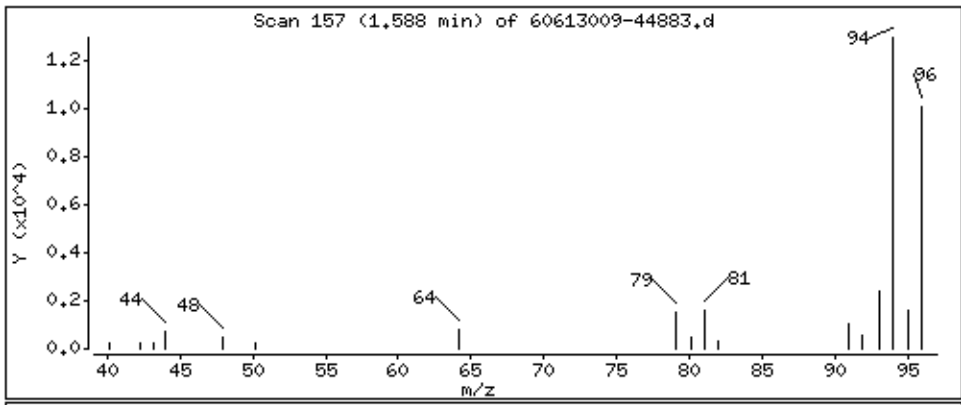
Operator: JEW

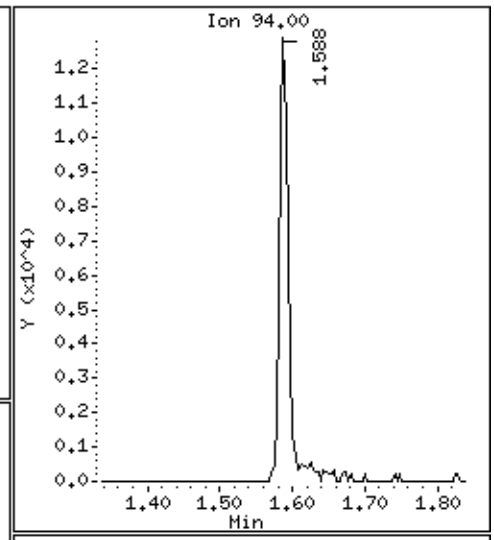
Column phase: RTX-VMS

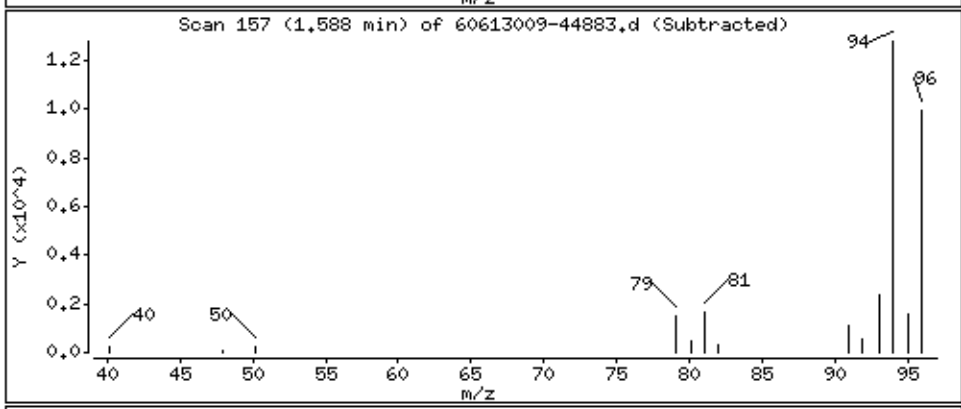
Column diameter: 0.18

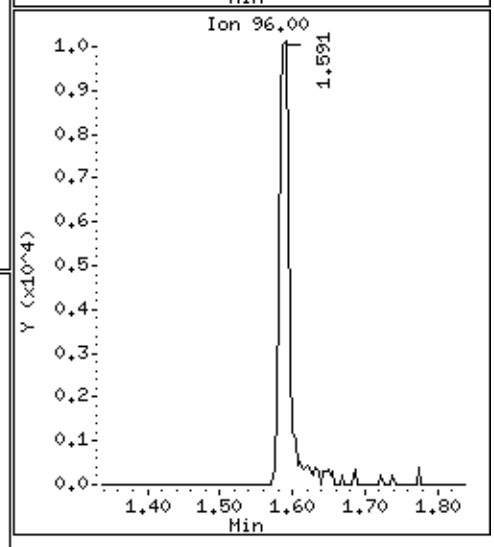
4 Bromomethane

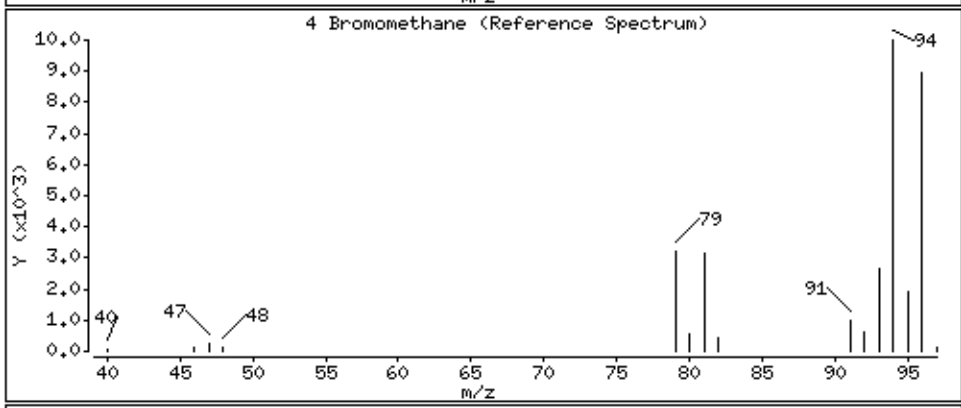
Concentration: 10.4 ug/L

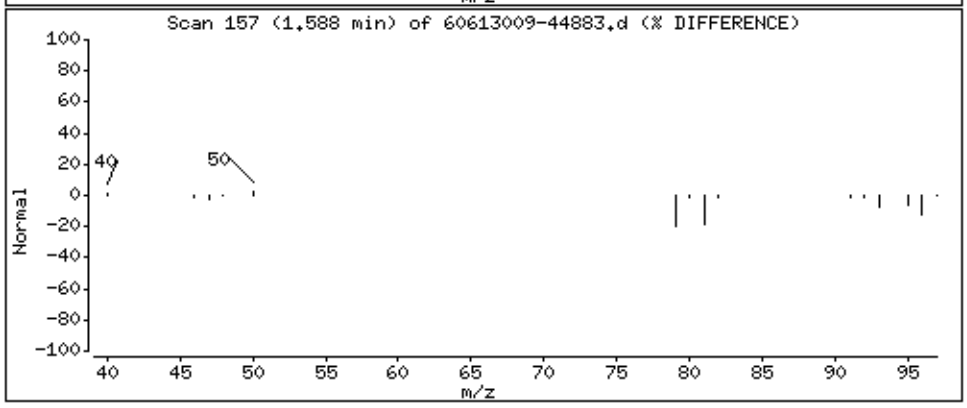












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

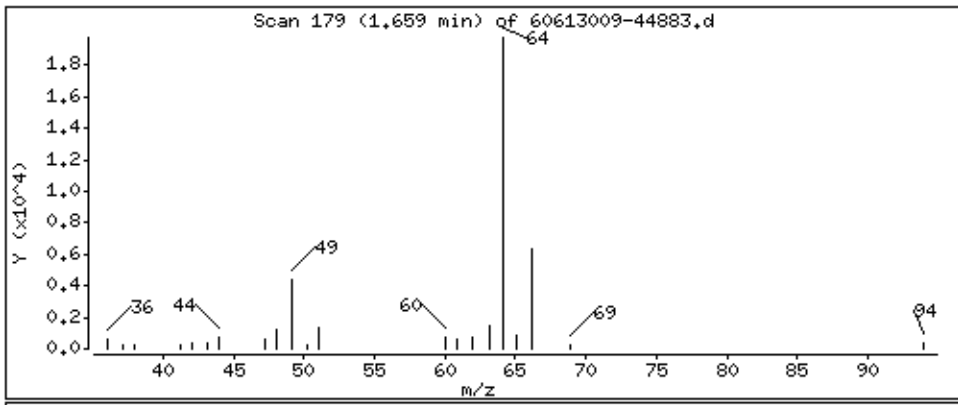
Operator: JEW

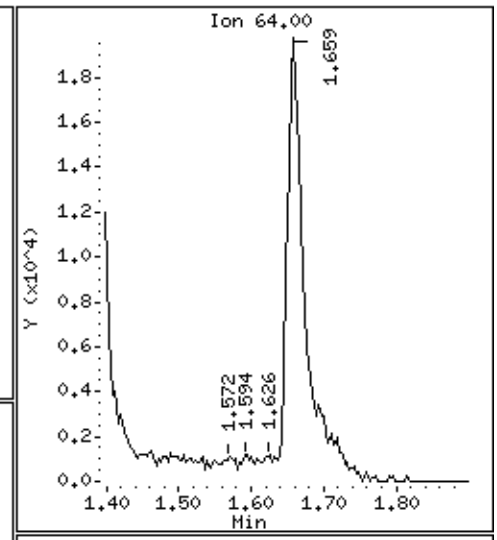
Column phase: RTX-VMS

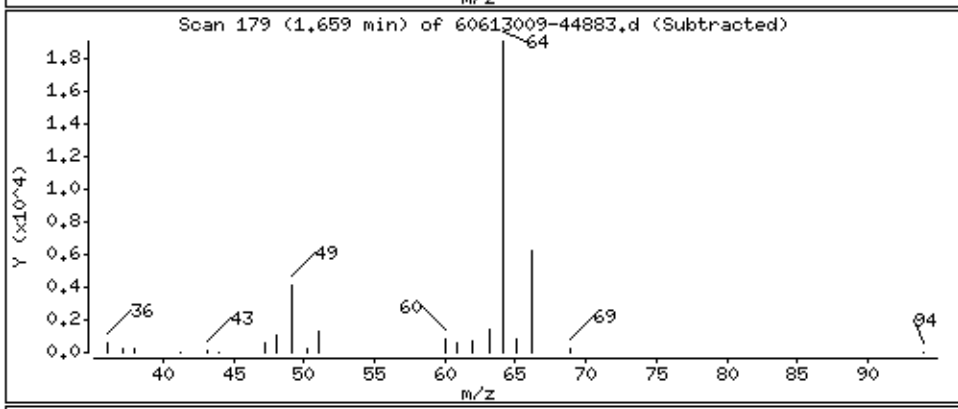
Column diameter: 0.18

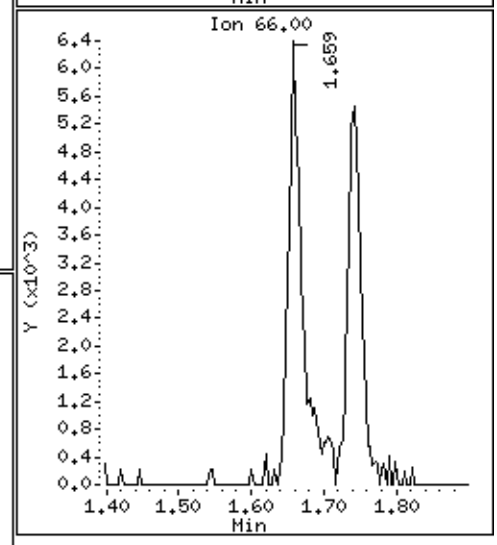
5 Chloroethane

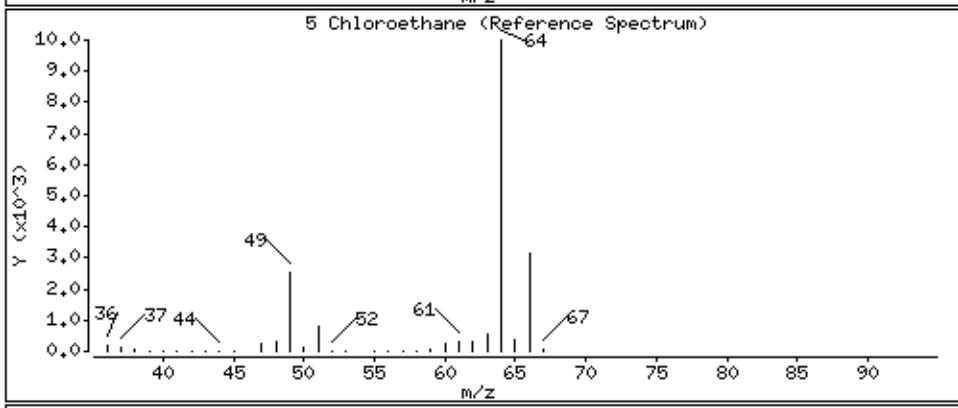
Concentration: 13.3 ug/L

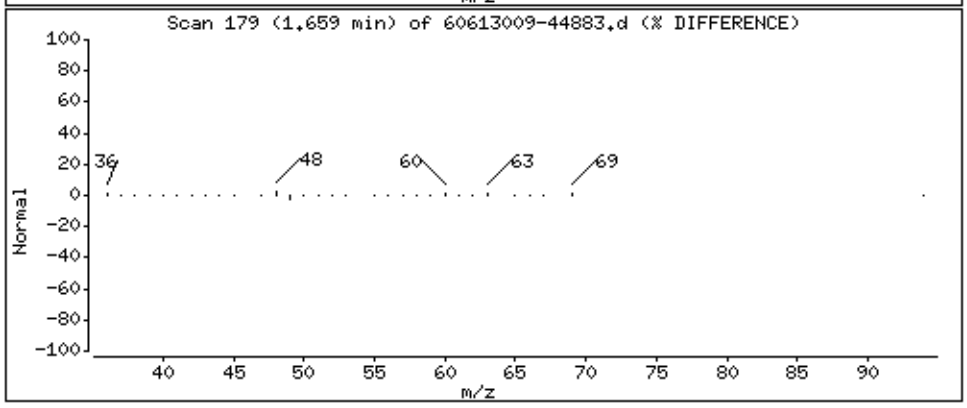












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

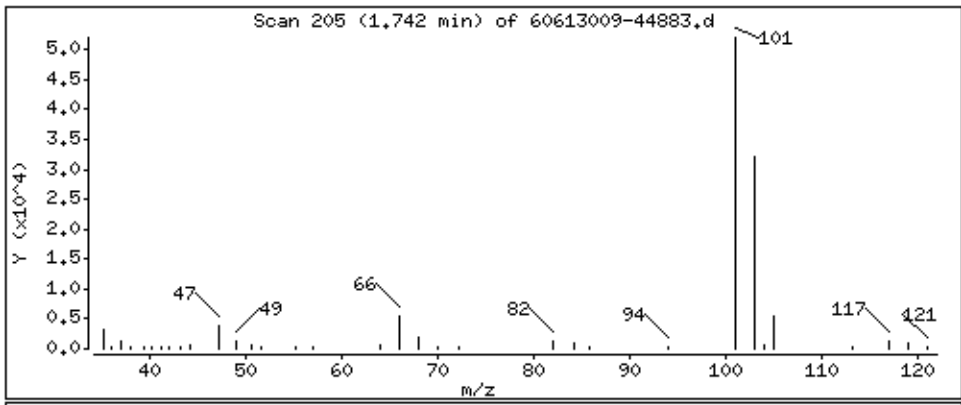
Operator: JEW

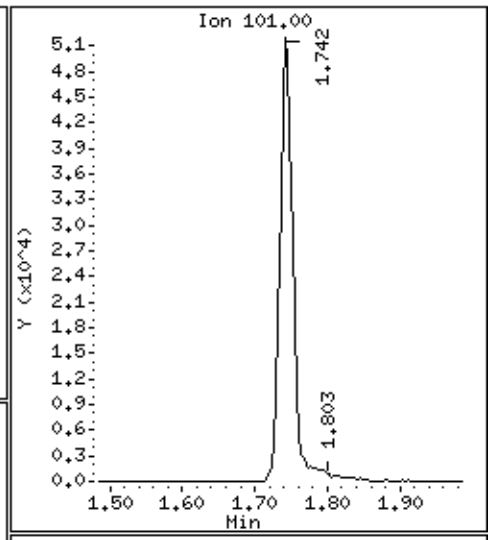
Column phase: RTX-VMS

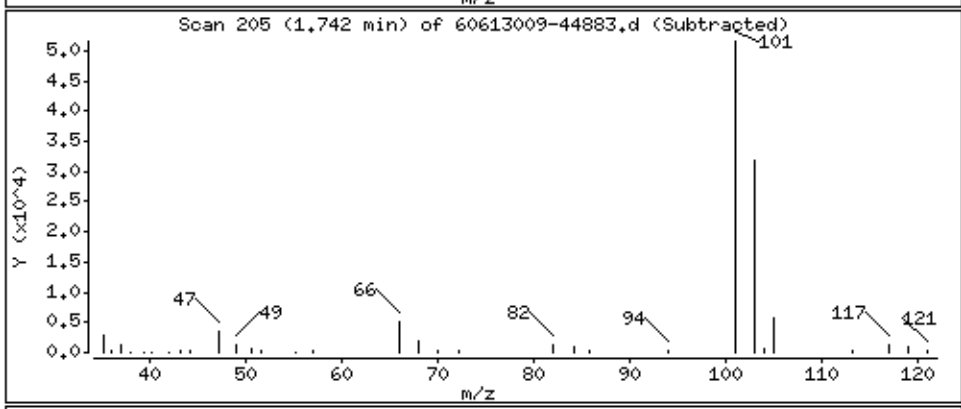
Column diameter: 0.18

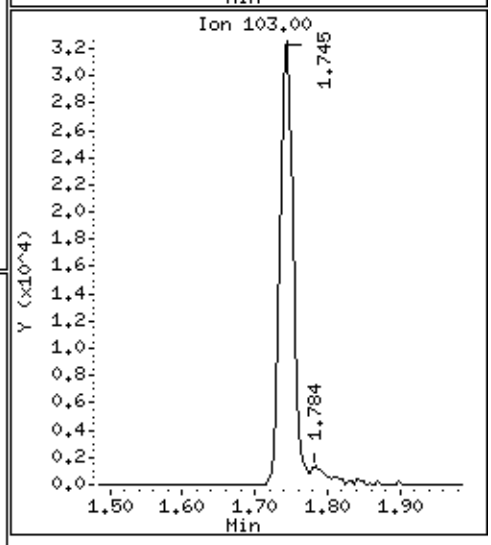
6 Trichlorofluoromethane

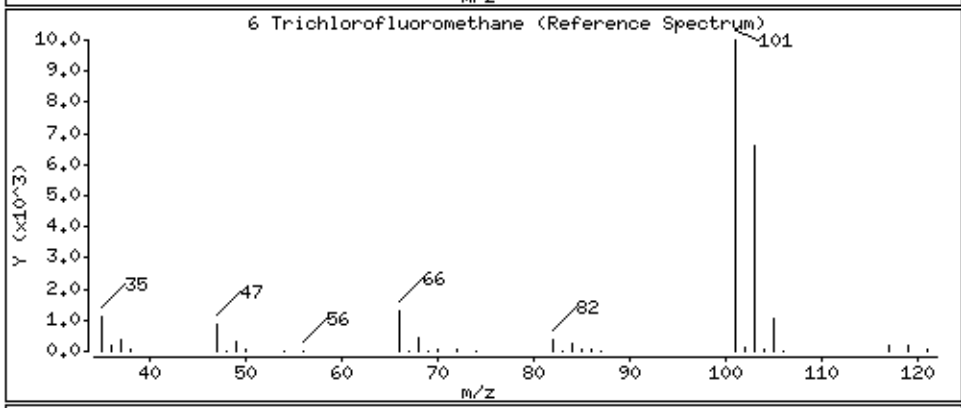
Concentration: 15.2 ug/L

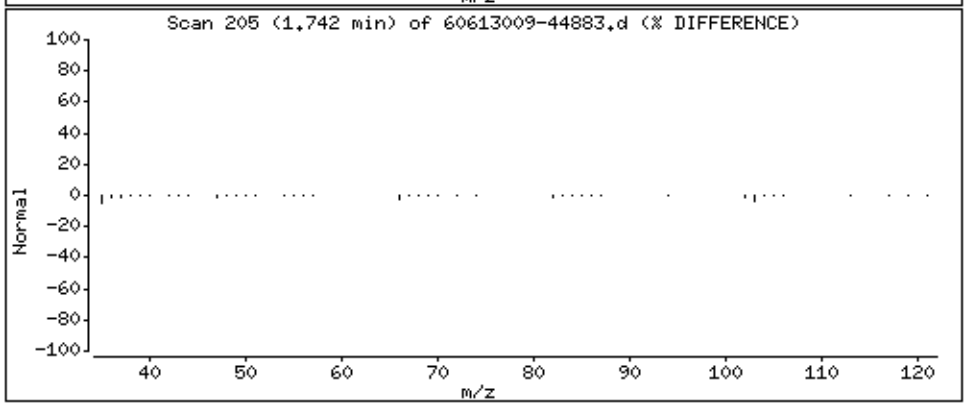












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

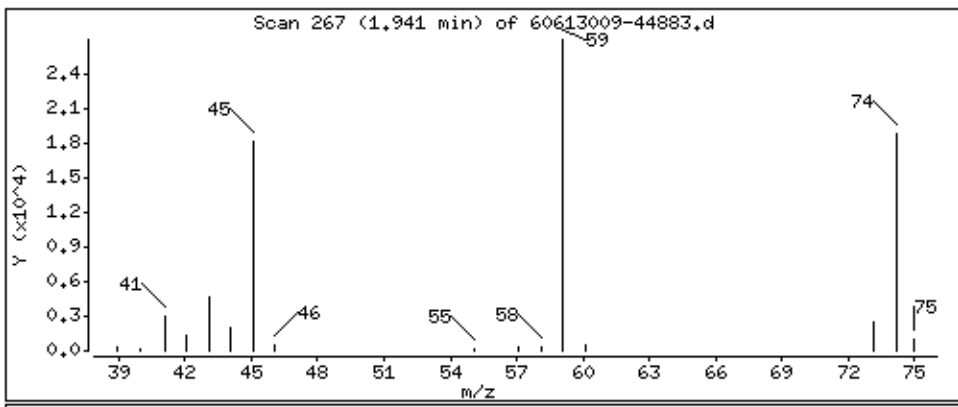
Operator: JEW

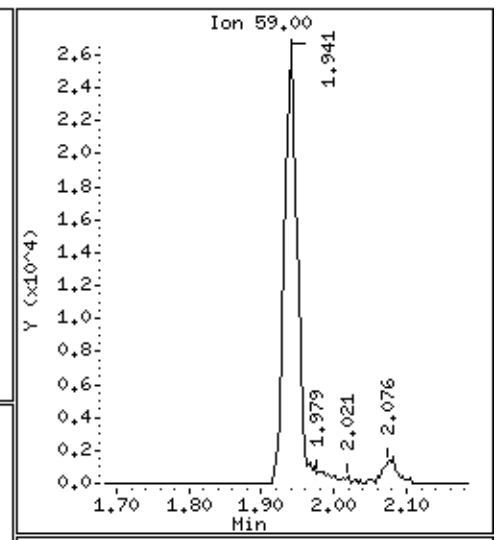
Column phase: RTX-VMS

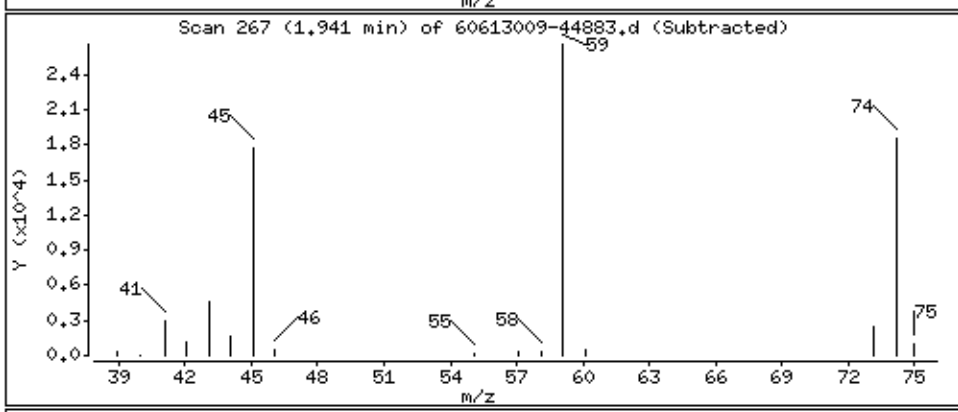
Column diameter: 0.18

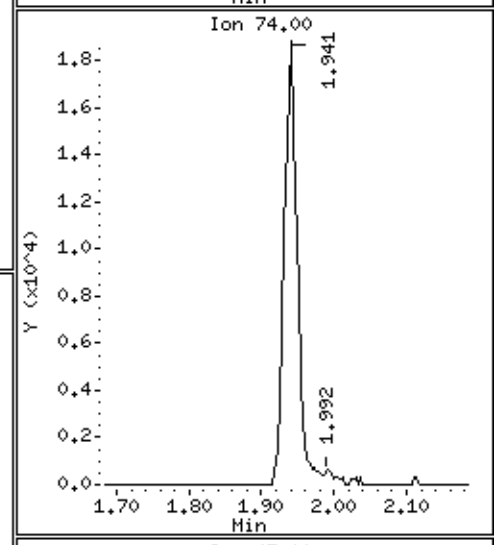
7 Diethyl ether (Ethyl ether)

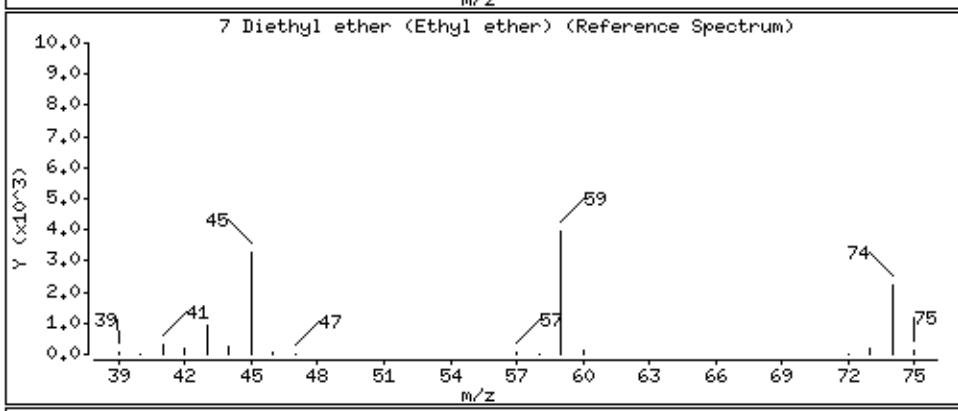
Concentration: 14.4 ug/L

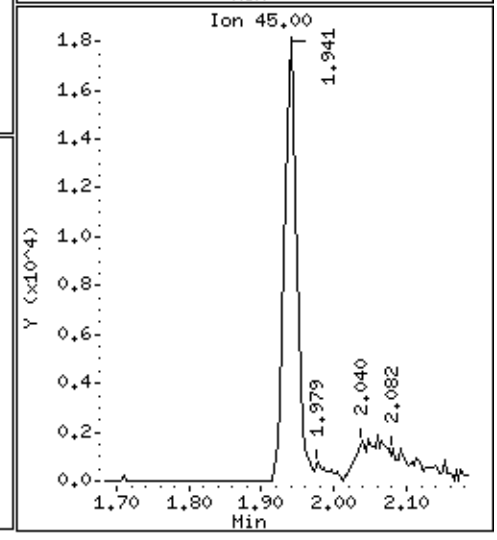


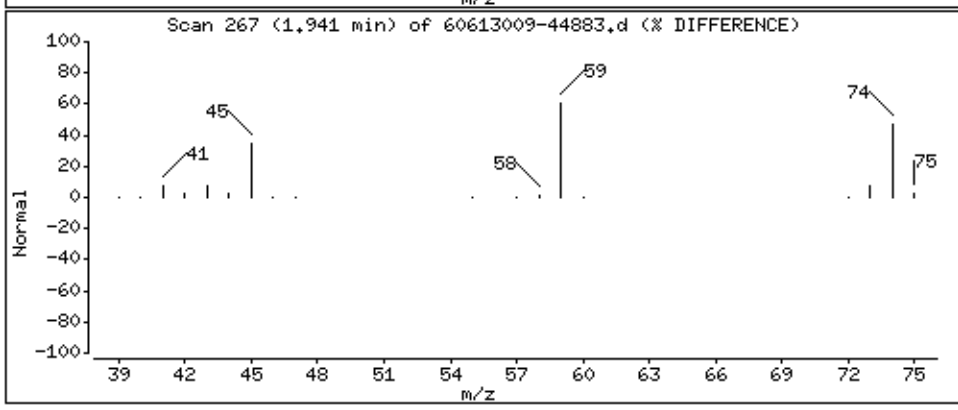












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

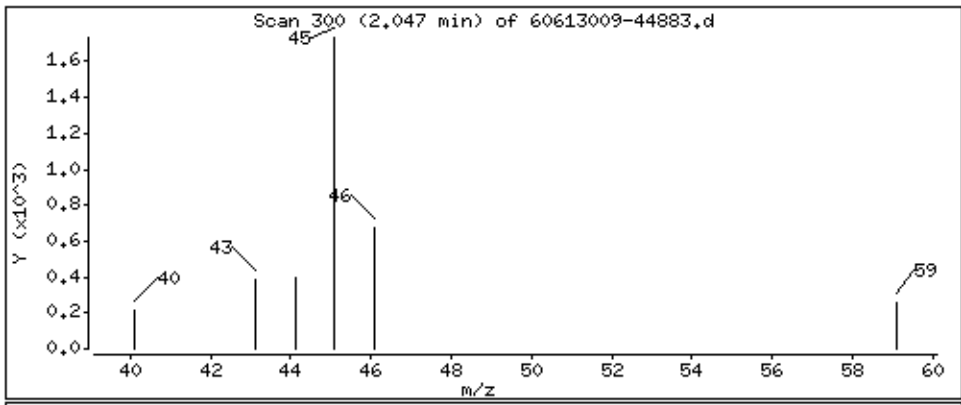
Operator: JEW

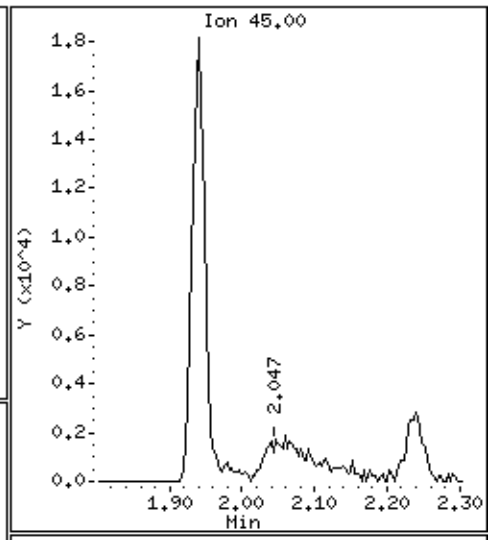
Column phase: RTX-VMS

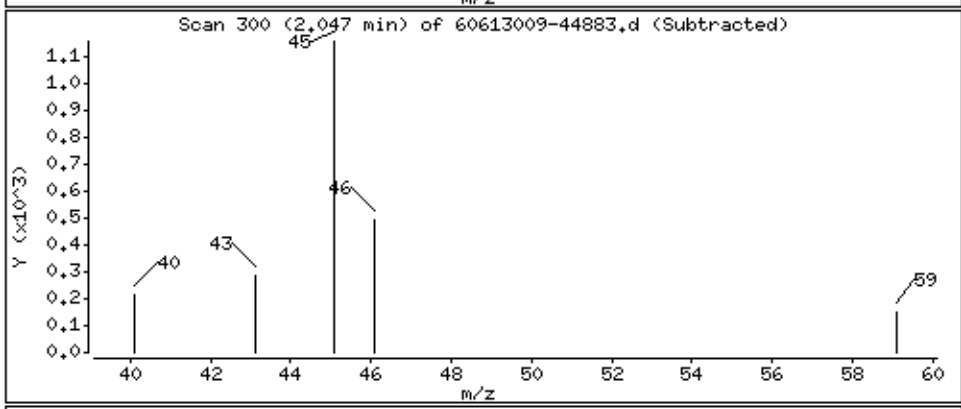
Column diameter: 0.18

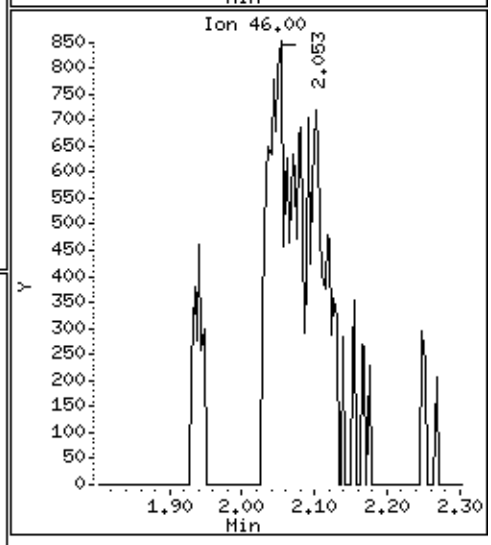
8 Ethanol

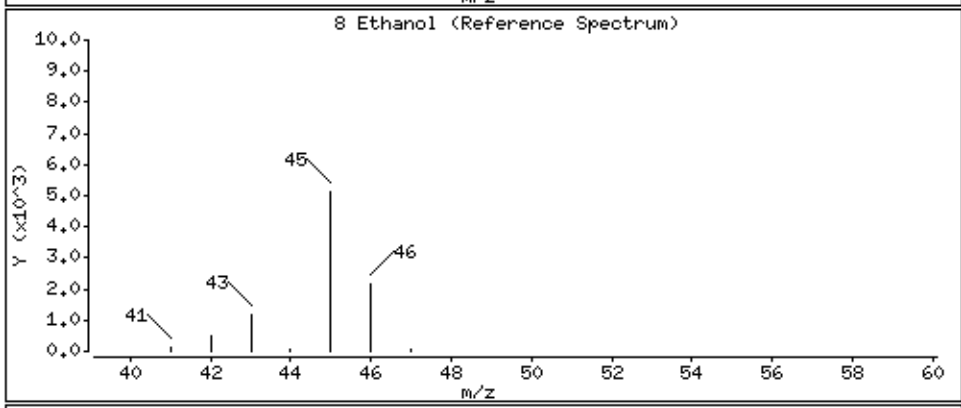
Concentration: 83.6 ug/L

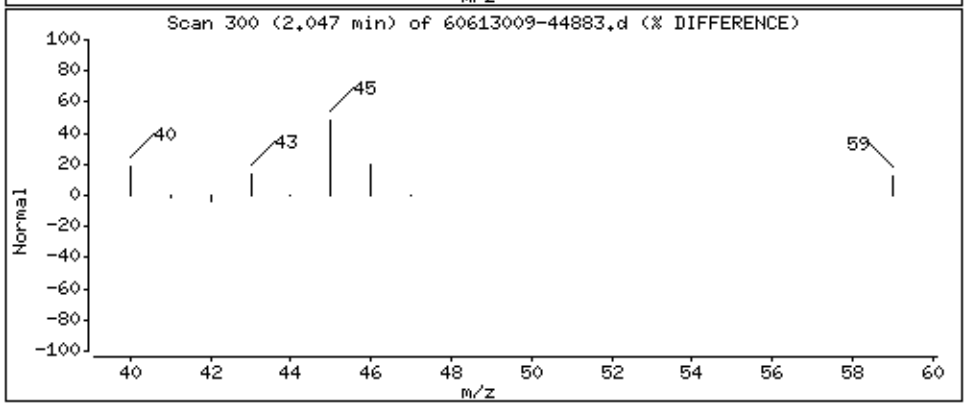












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

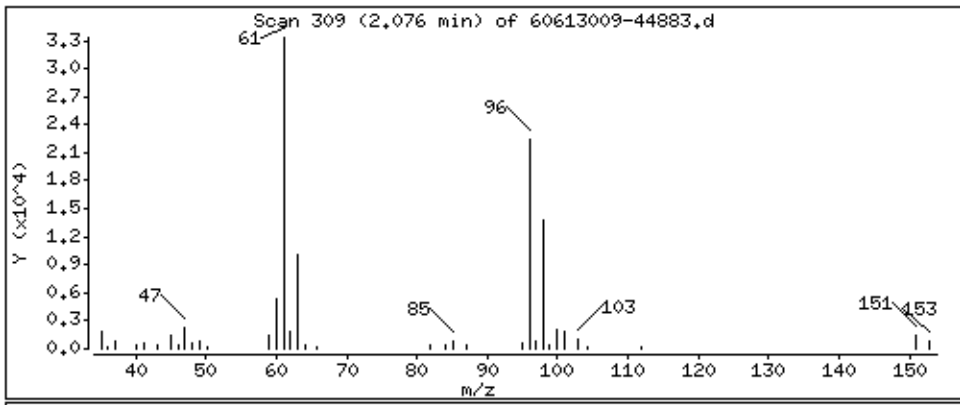
Operator: JEW

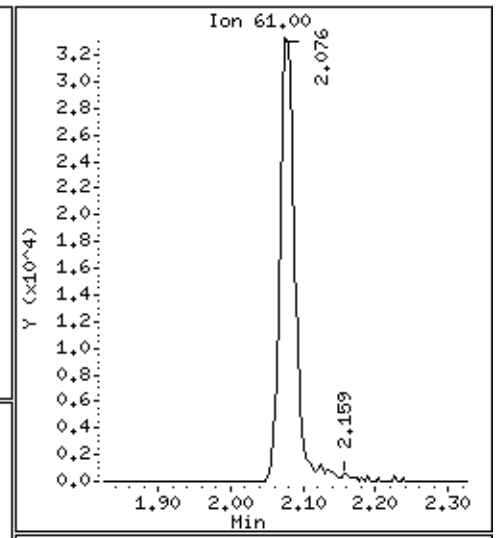
Column phase: RTX-VMS

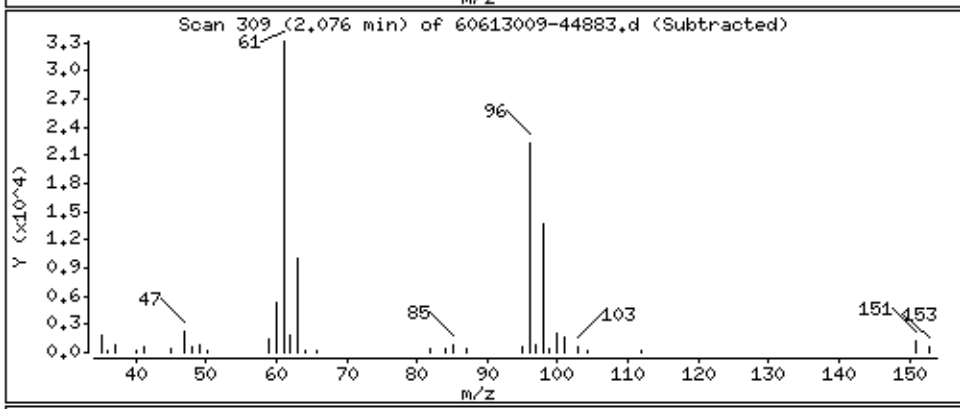
Column diameter: 0.18

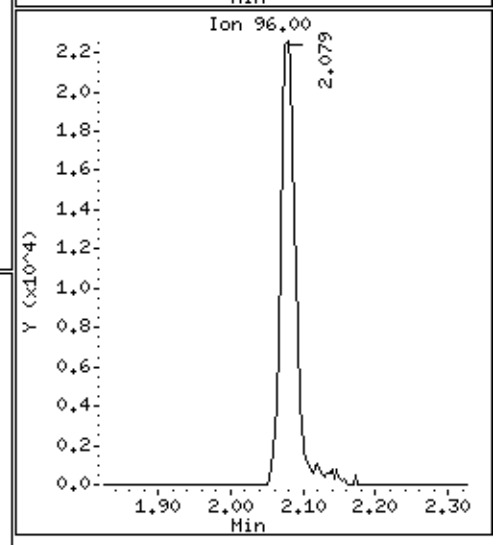
9 1,1-Dichloroethene

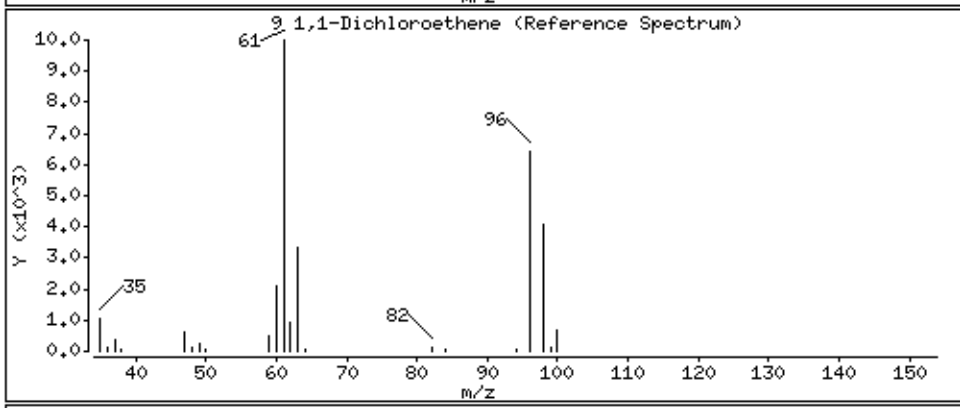
Concentration: 12.6 ug/L

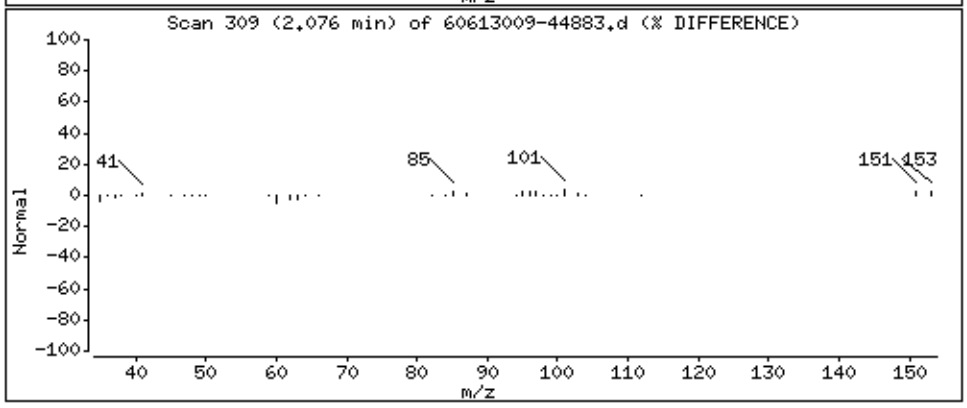












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

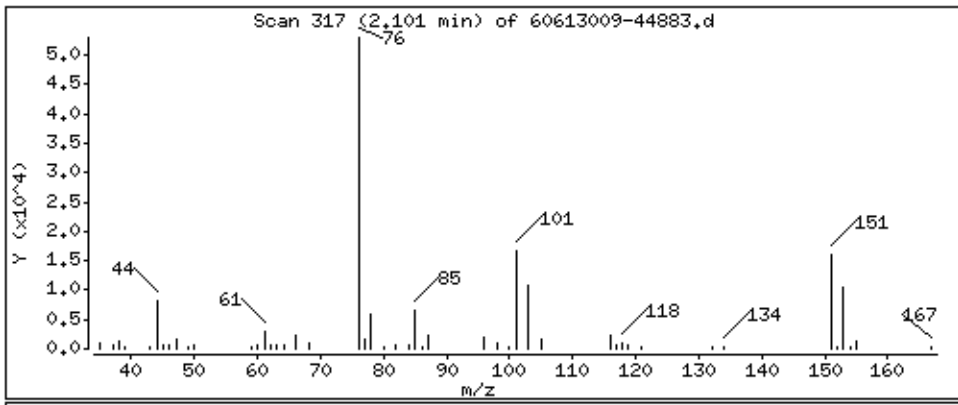
Operator: JEW

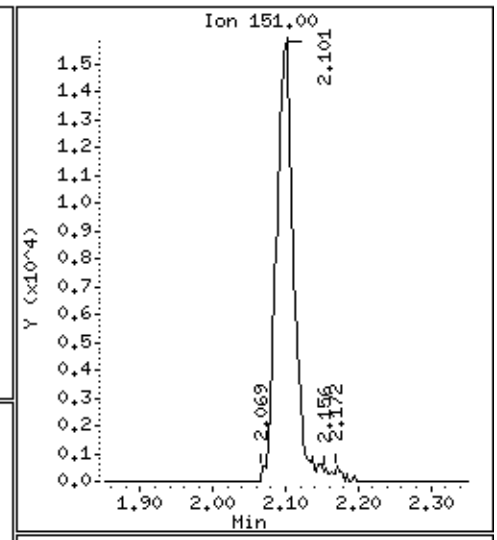
Column phase: RTX-VMS

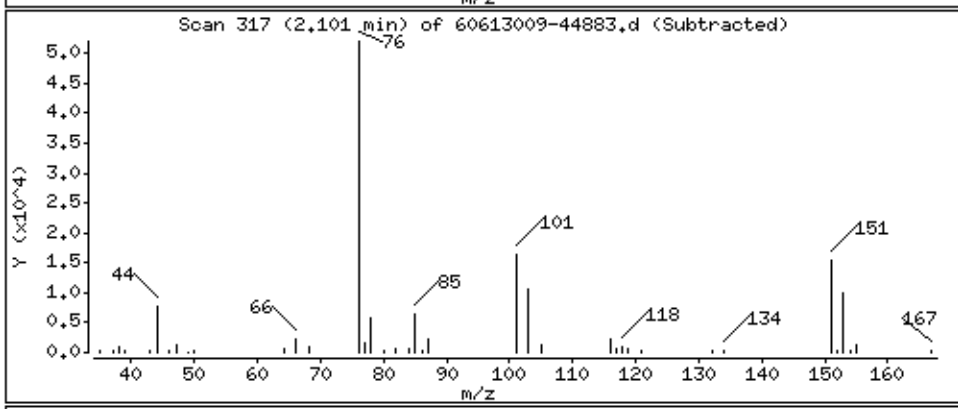
Column diameter: 0.18

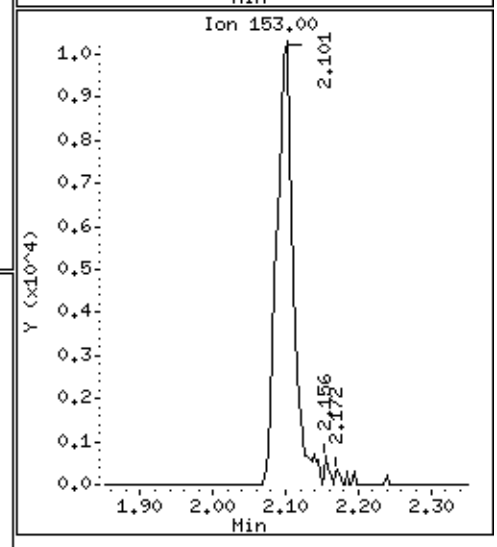
10 1,1,2-Trichlorotrifluoroethane

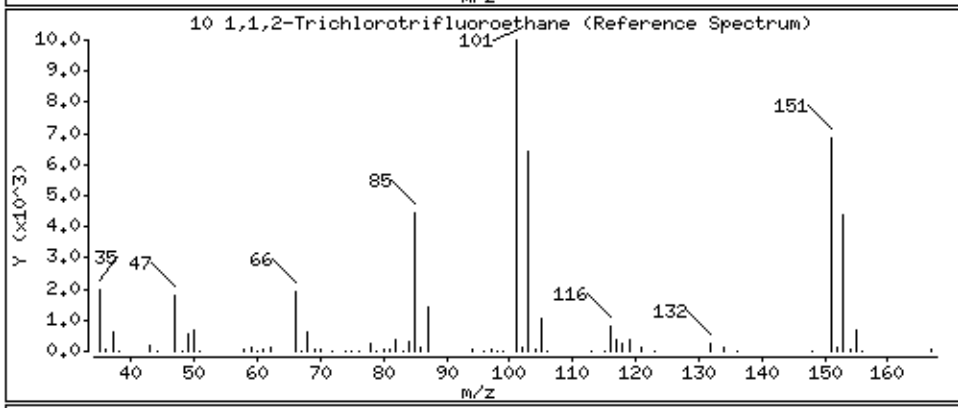
Concentration: 14.2 ug/L

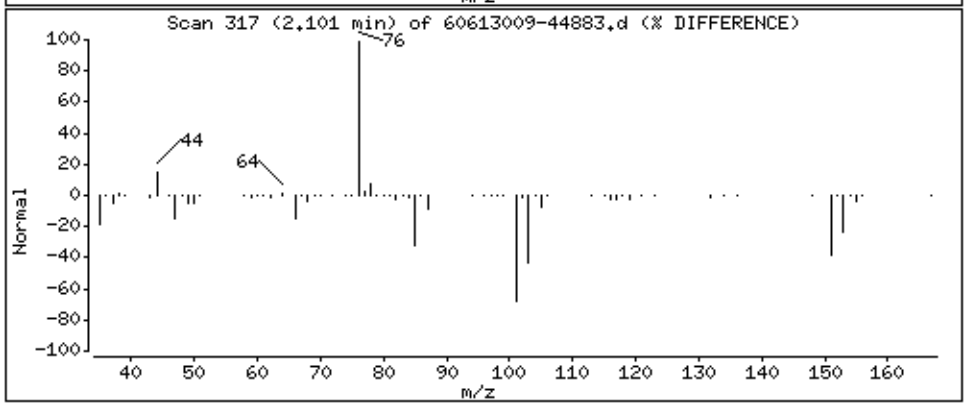












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

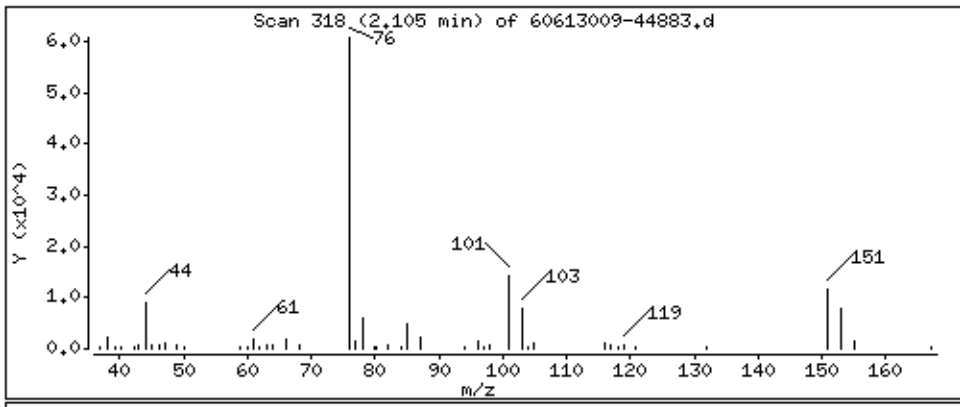
Operator: JEW

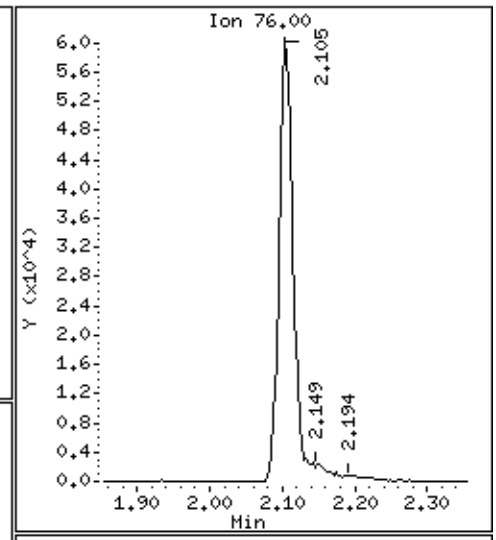
Column phase: RTX-VMS

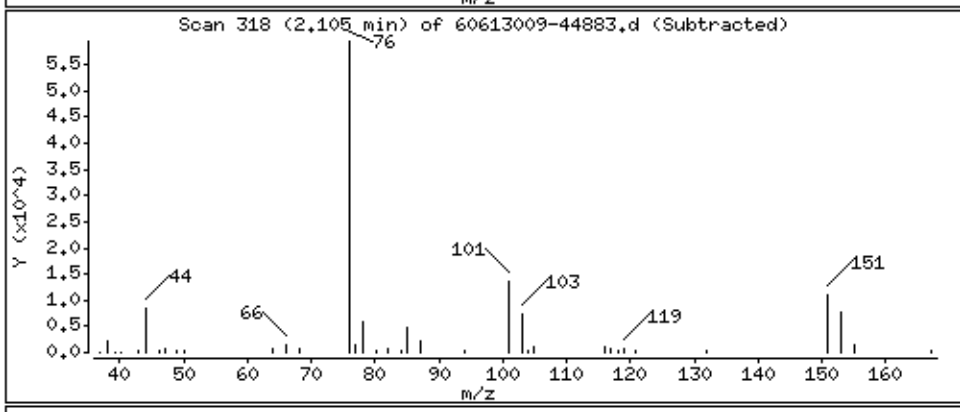
Column diameter: 0.18

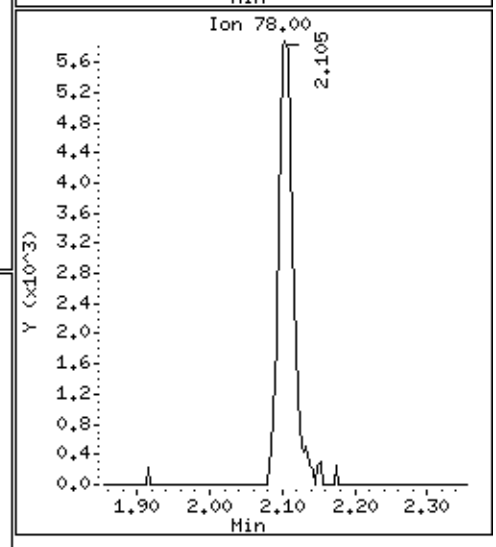
11 Carbon disulfide

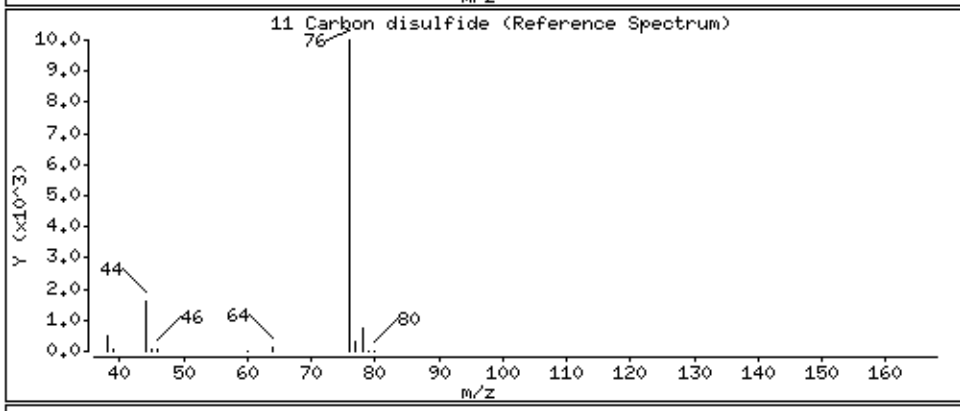
Concentration: 9.02 ug/L

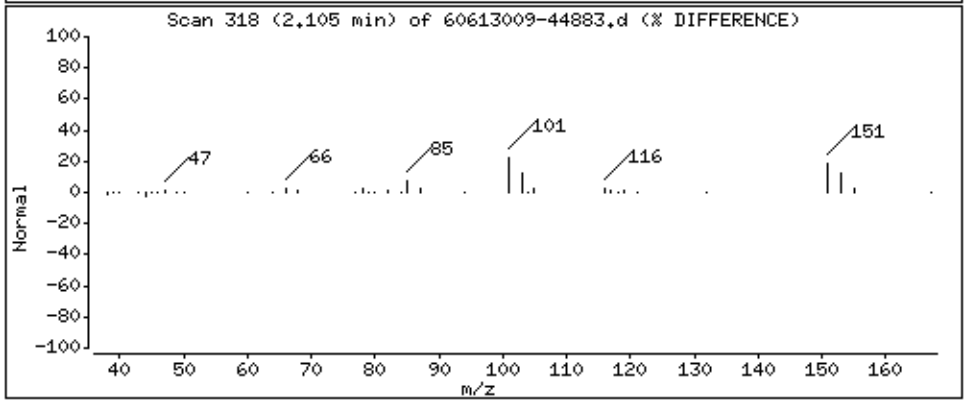












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

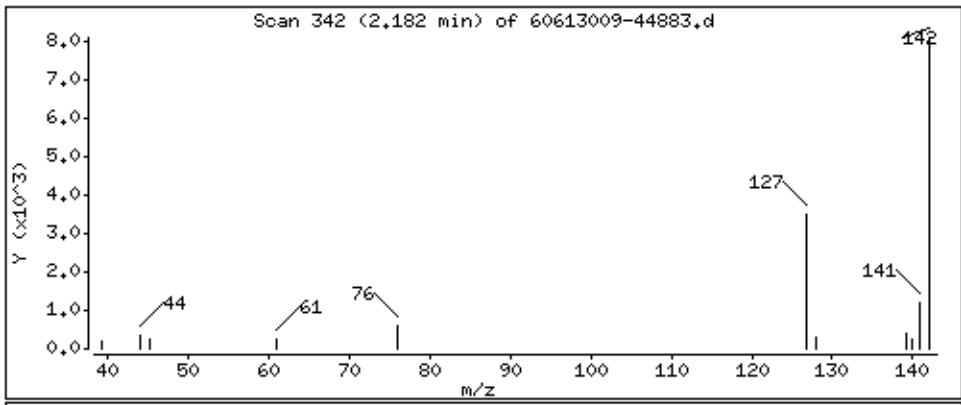
Operator: JEW

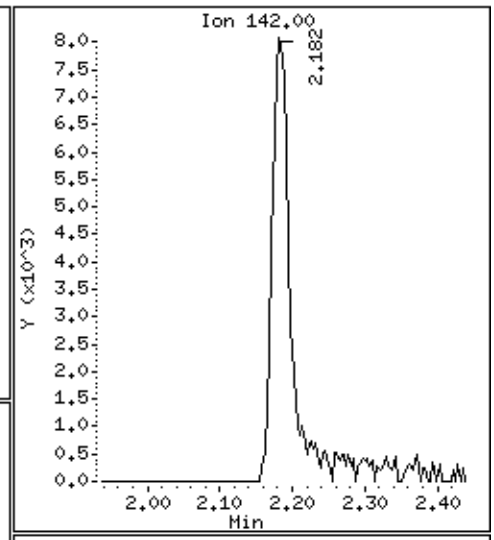
Column phase: RTX-VMS

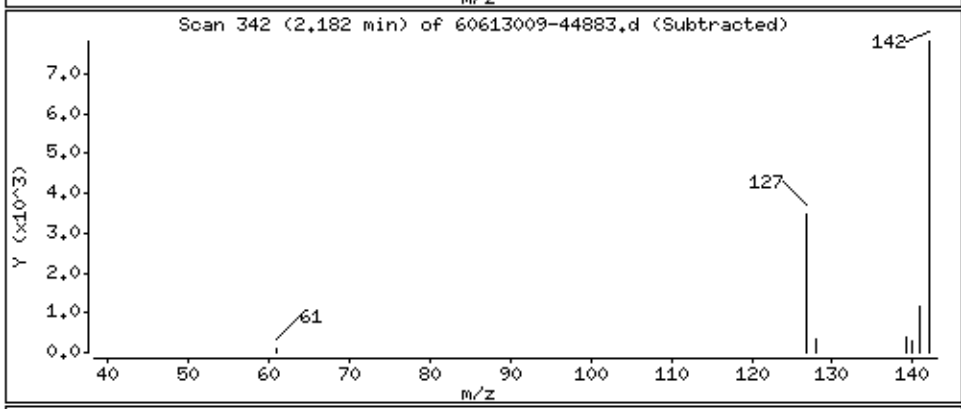
Column diameter: 0.18

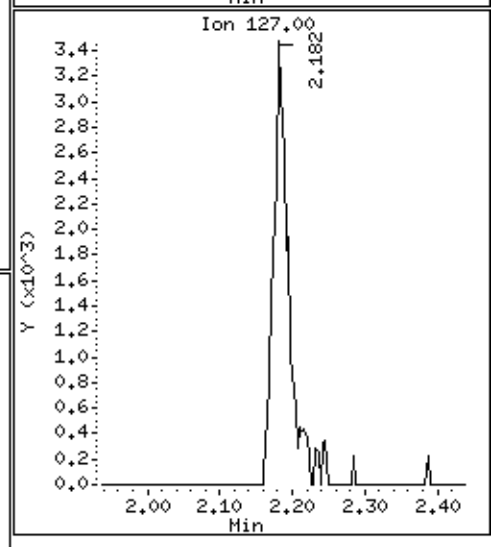
12 Iodomethane

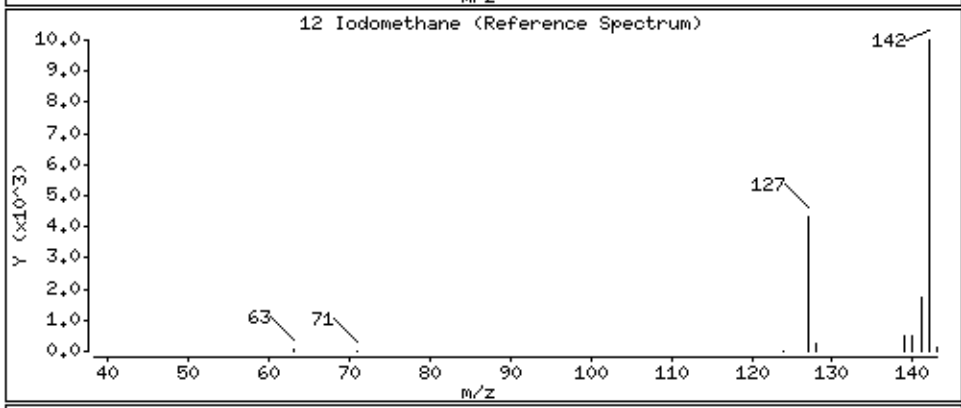
Concentration: 8.64 ug/L

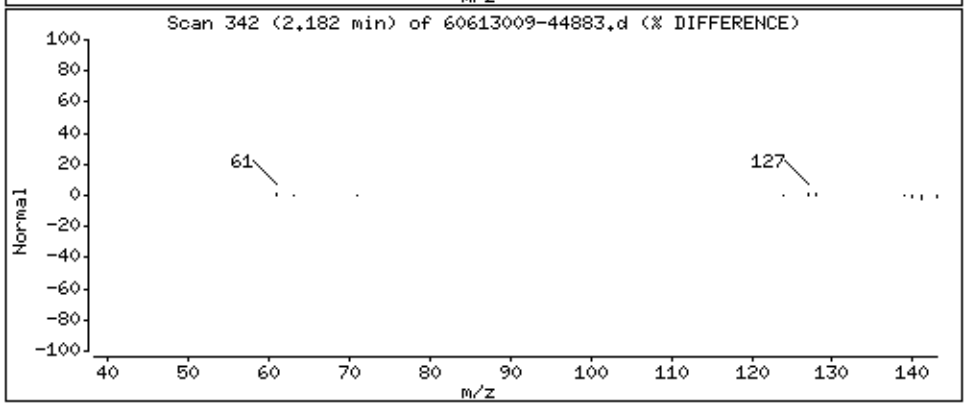












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

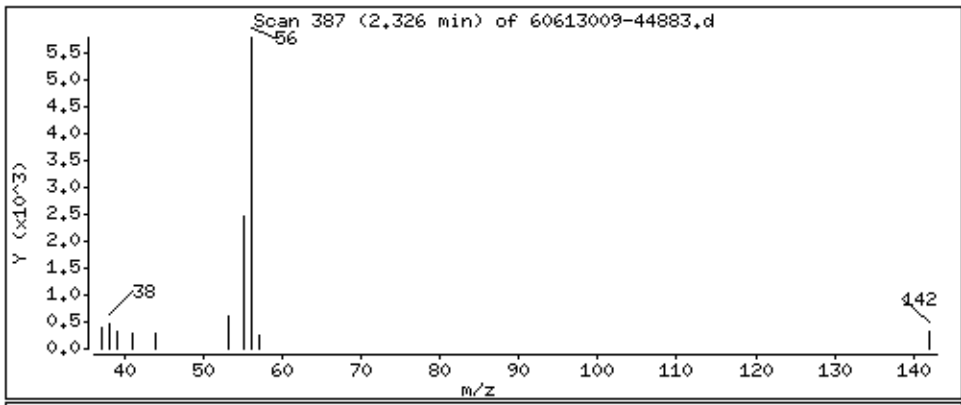
Operator: JEW

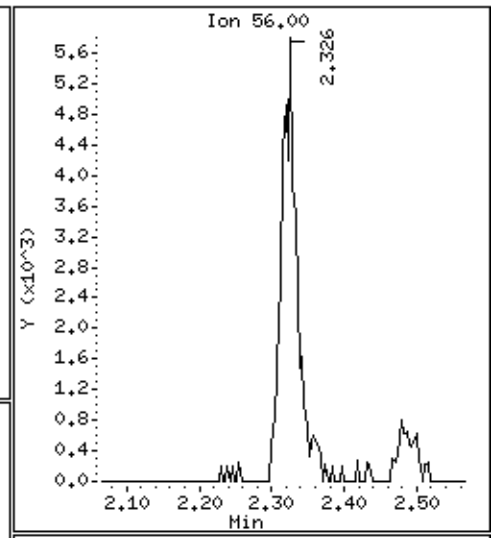
Column phase: RTX-VMS

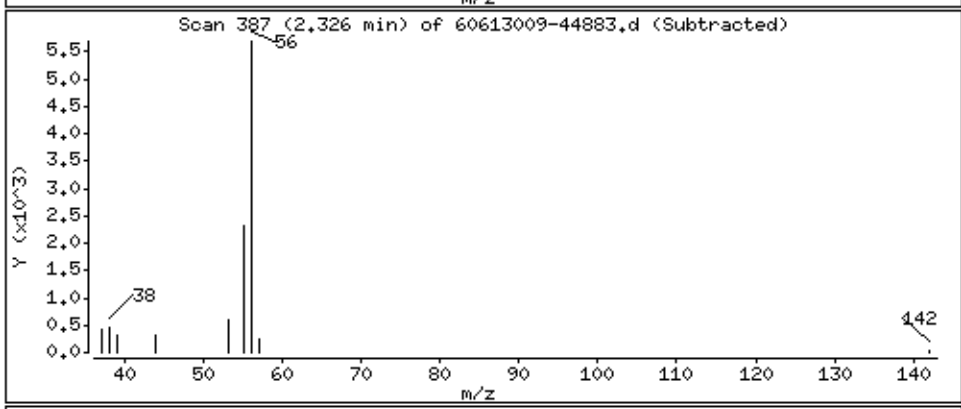
Column diameter: 0.18

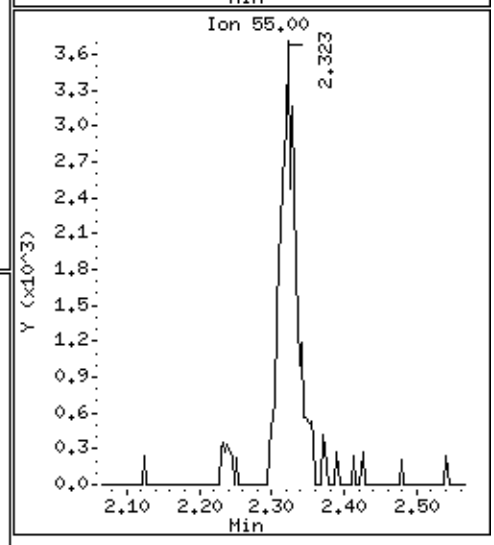
13 Acrolein

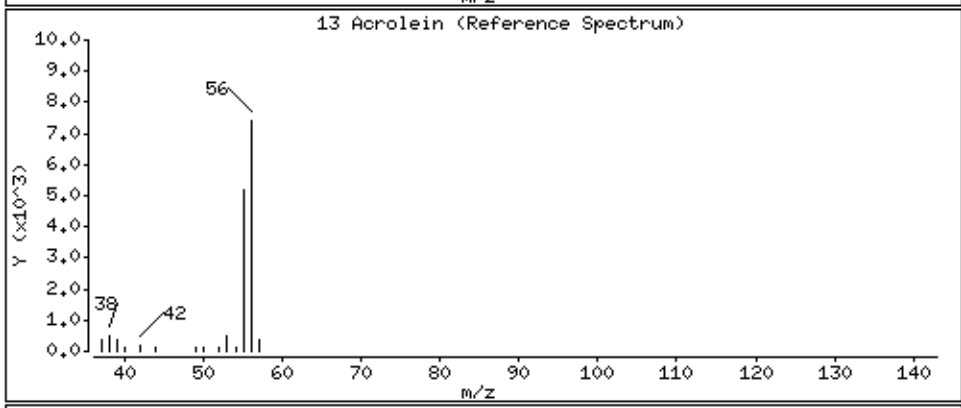
Concentration: 47.5 ug/L

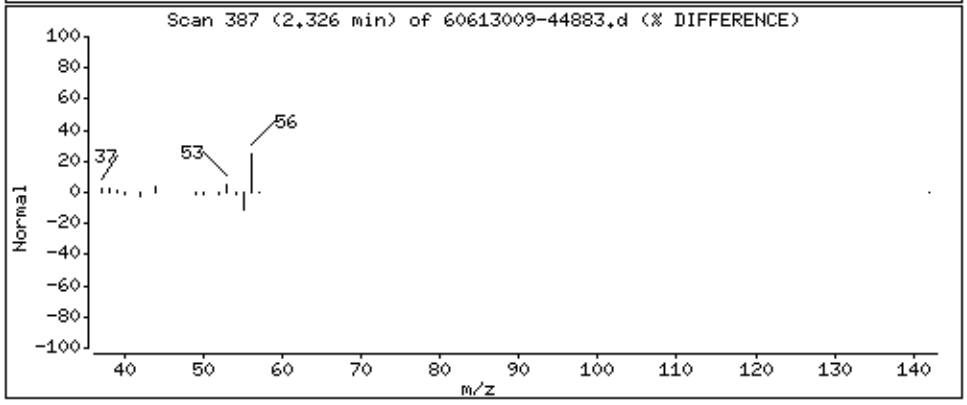












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

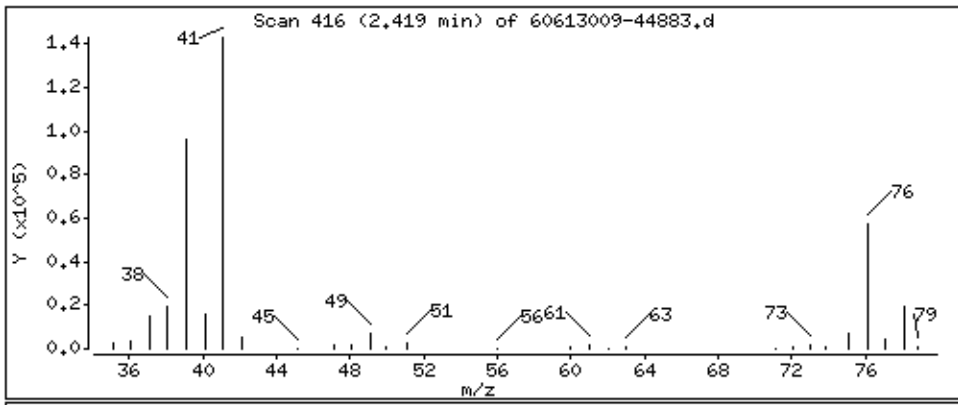
Operator: JEW

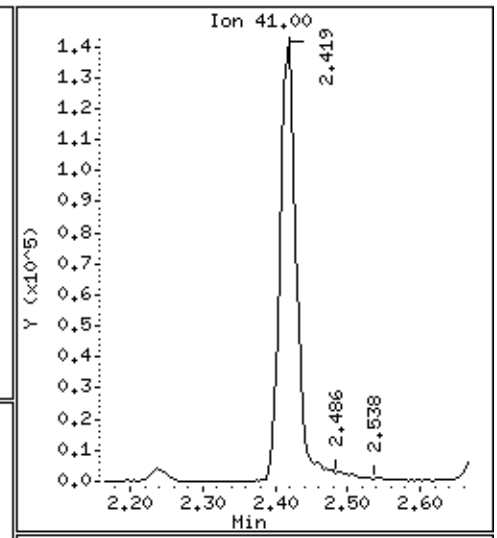
Column phase: RTX-VMS

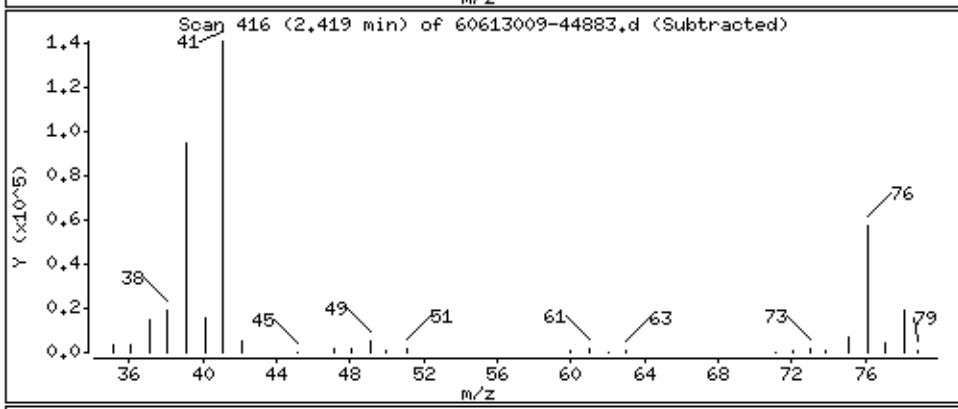
Column diameter: 0.18

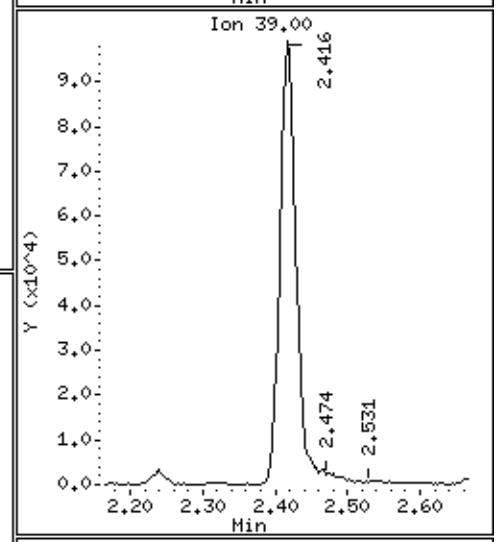
14 Allyl chloride

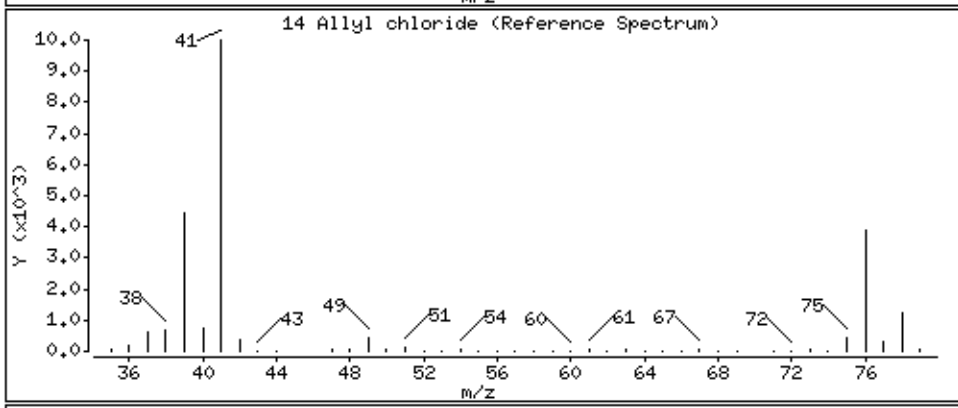
Concentration: 60.4 ug/L

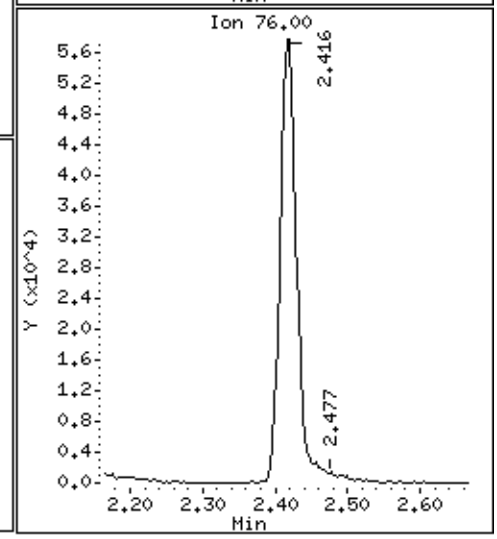


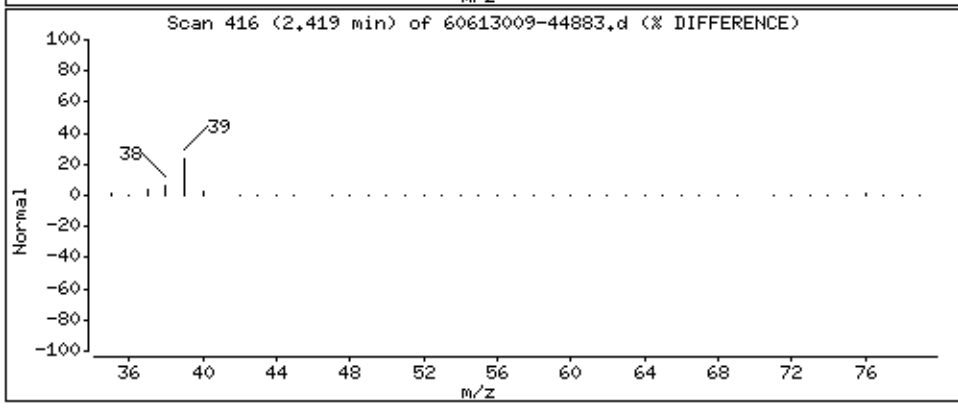












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

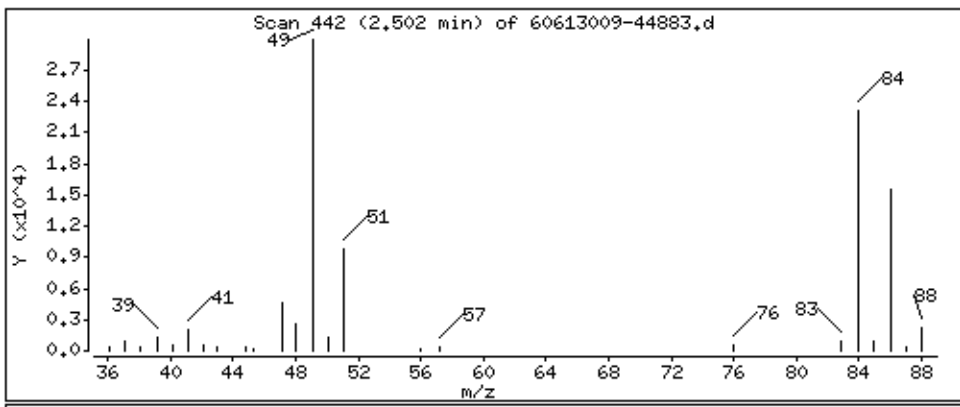
Operator: JEW

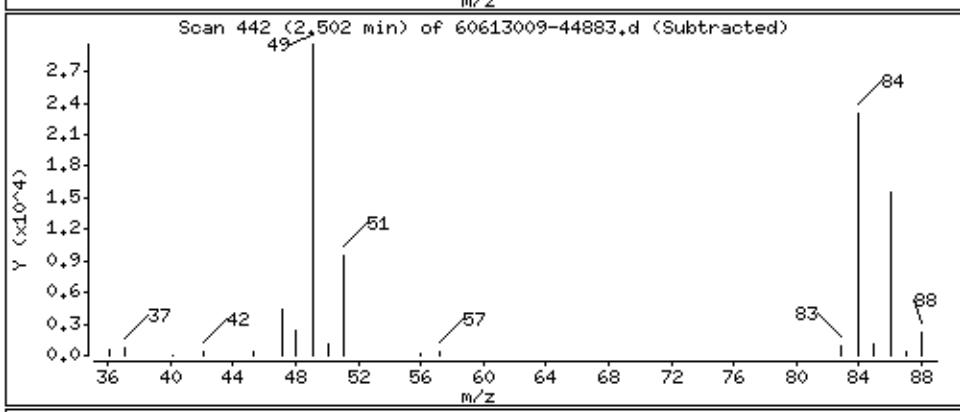
Column phase: RTX-VMS

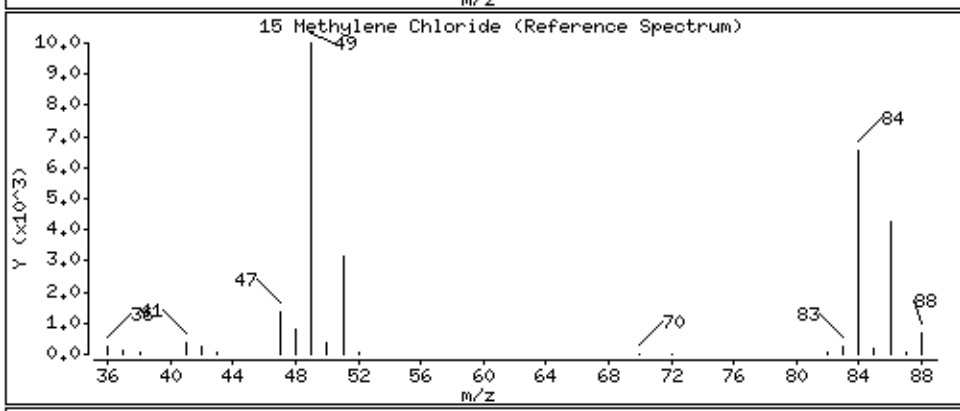
Column diameter: 0.18

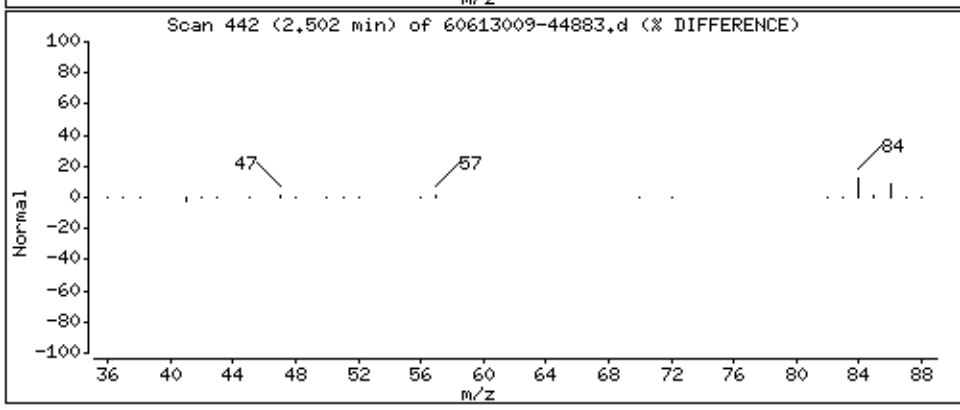
15 Methylene Chloride

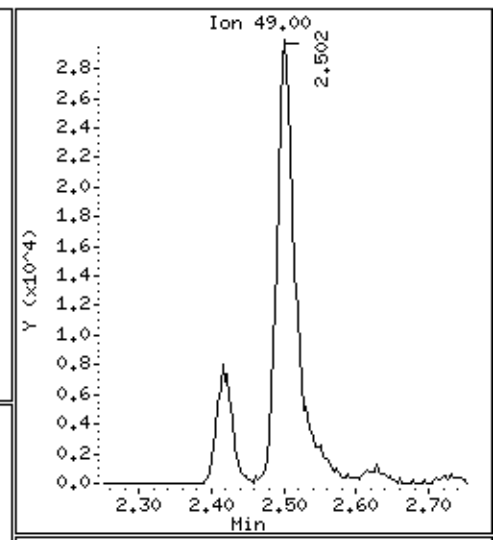
Concentration: 8.05 ug/L

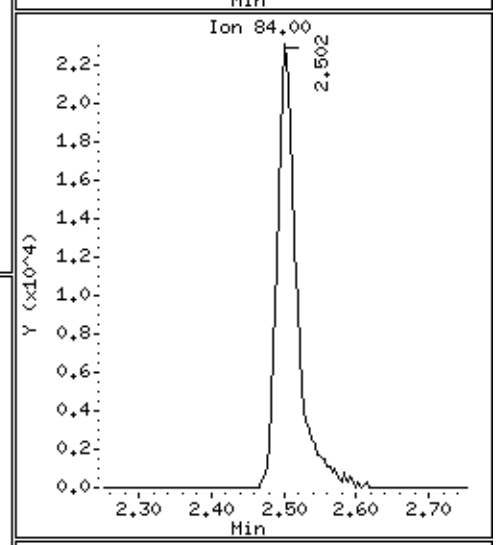


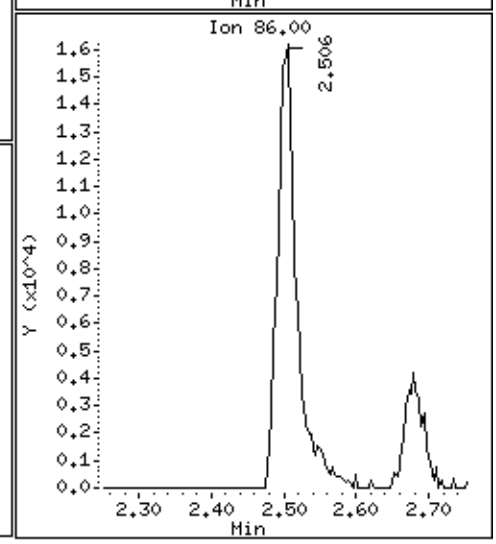












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

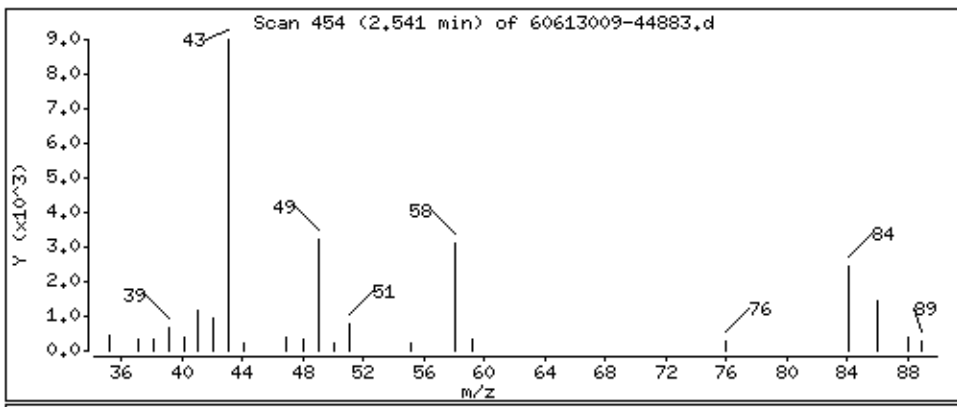
Operator: JEW

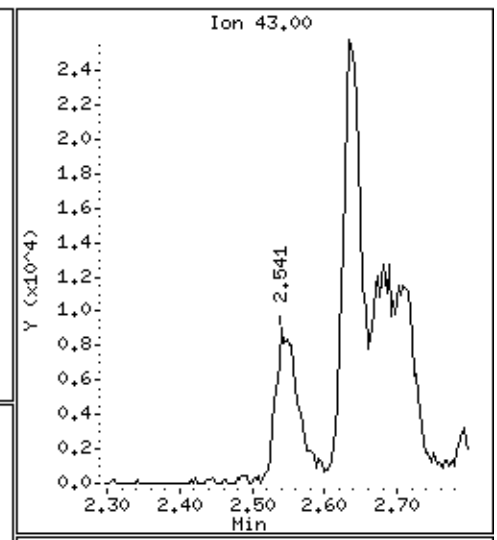
Column phase: RTX-VMS

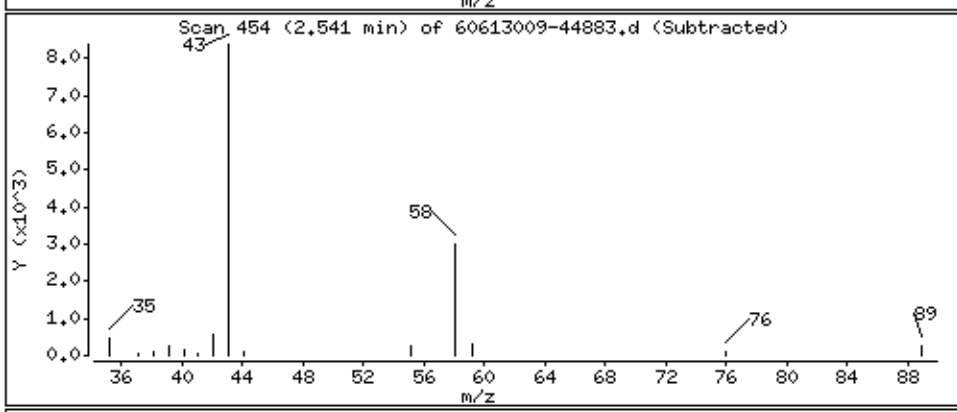
Column diameter: 0.18

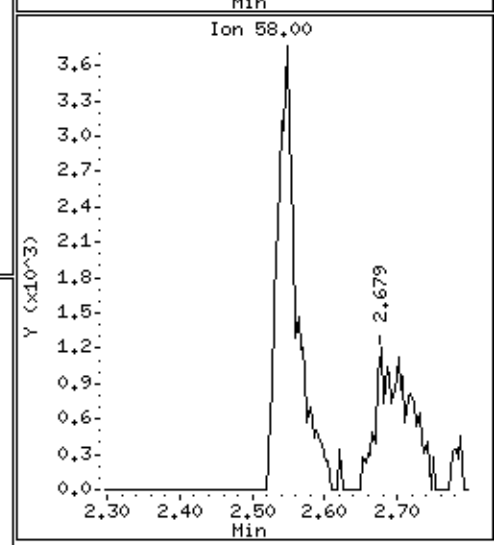
16 Acetone

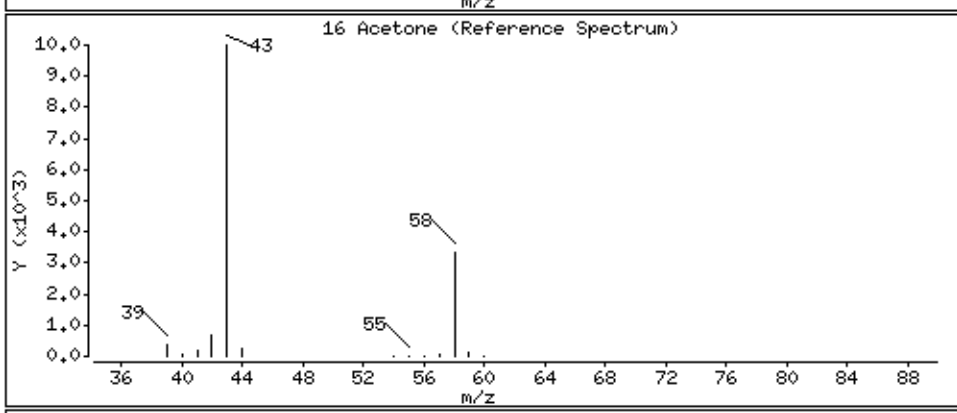
Concentration: 8.07 ug/L

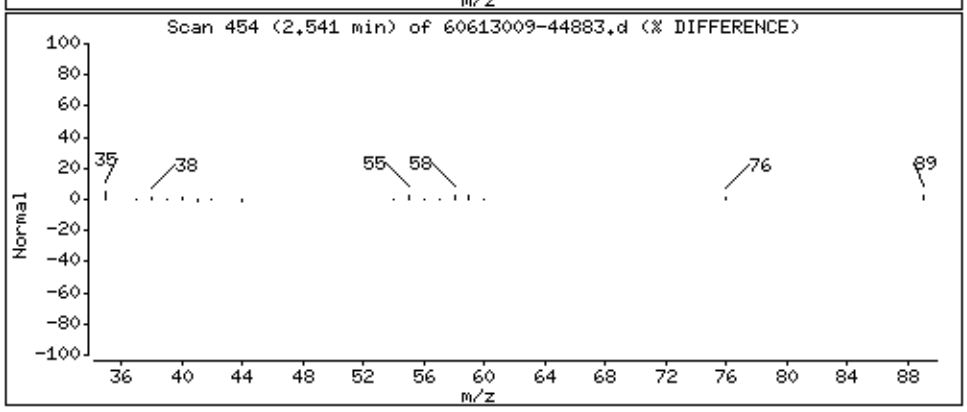












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

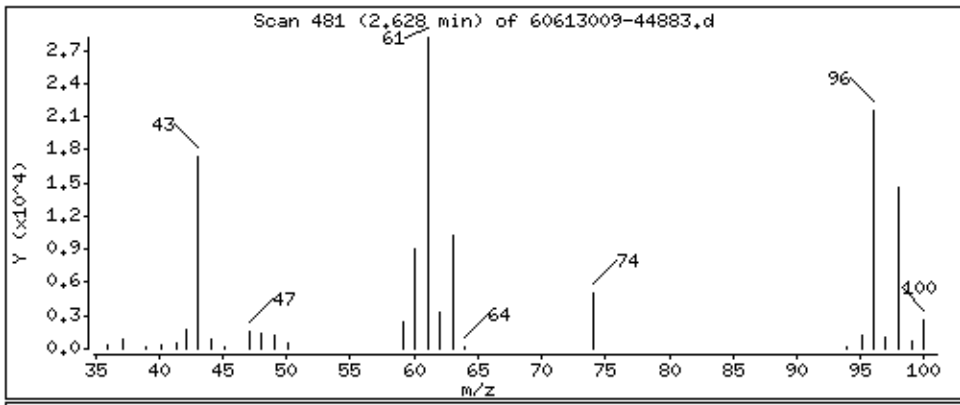
Operator: JEW

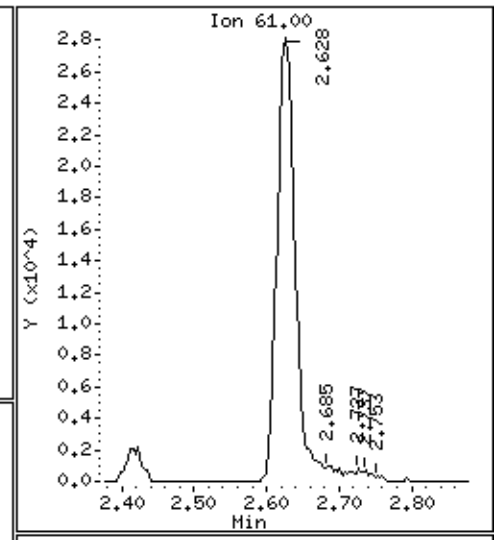
Column phase: RTX-VMS

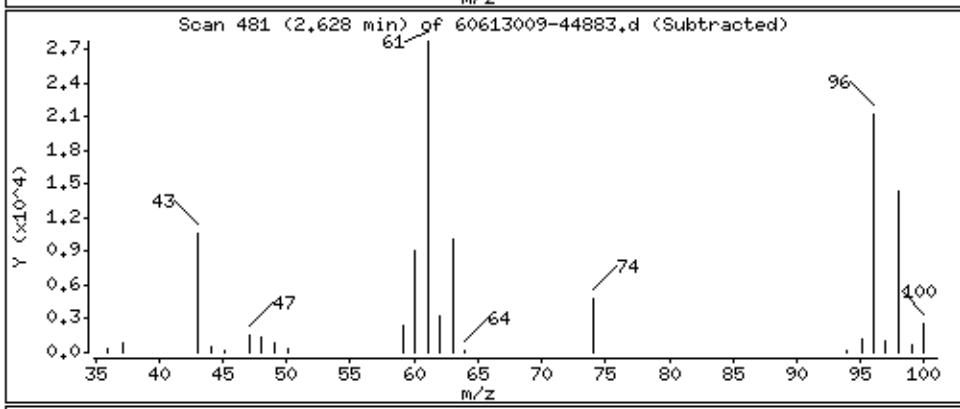
Column diameter: 0.18

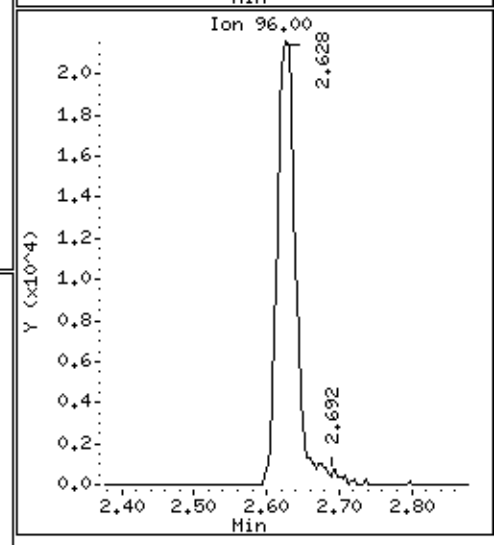
17 trans-1,2-Dichloroethene

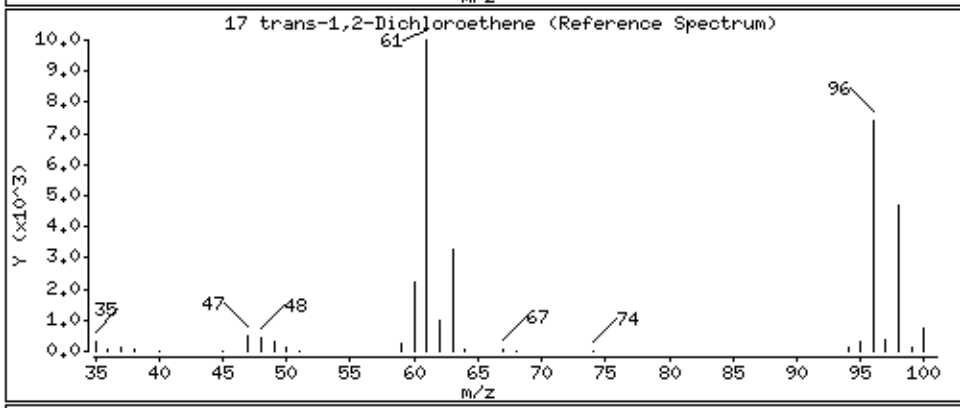
Concentration: 13.4 ug/L

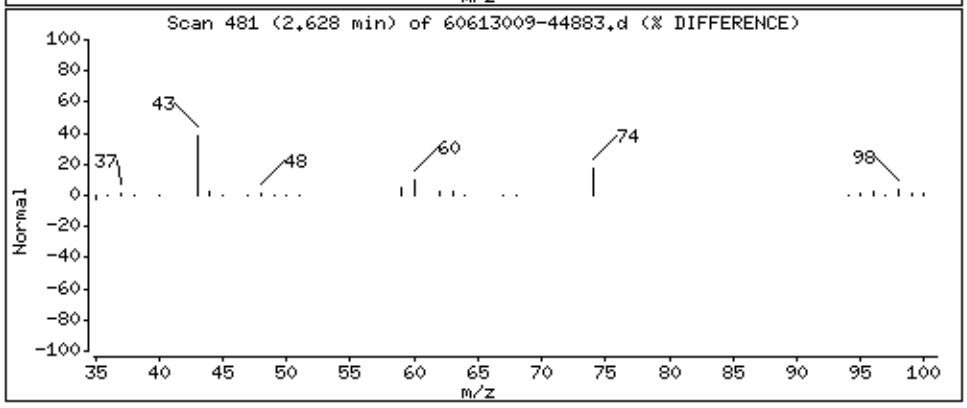












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

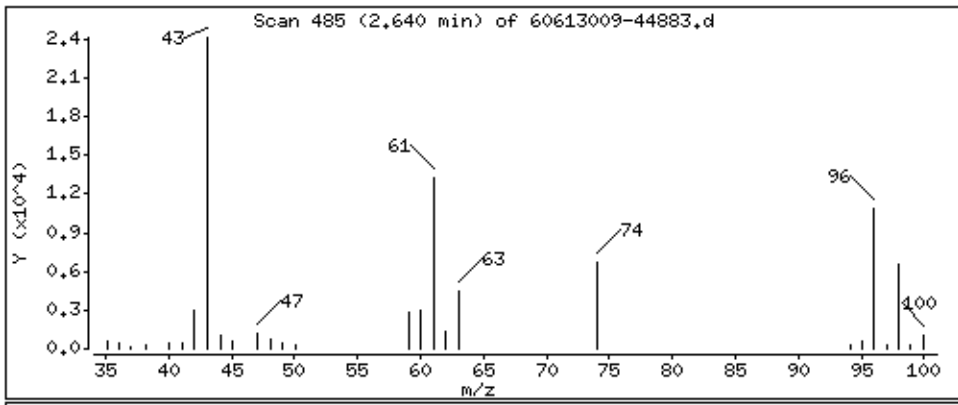
Operator: JEW

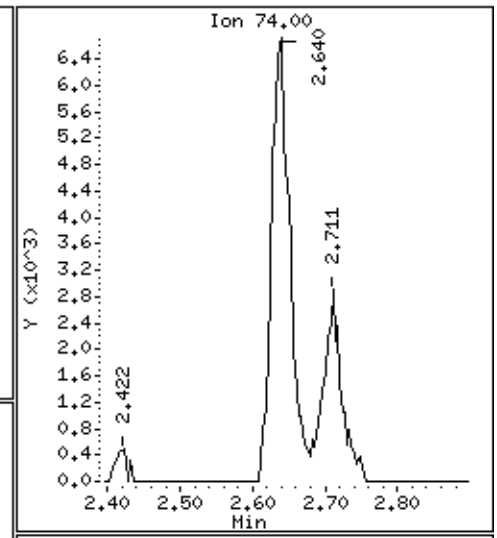
Column phase: RTX-VMS

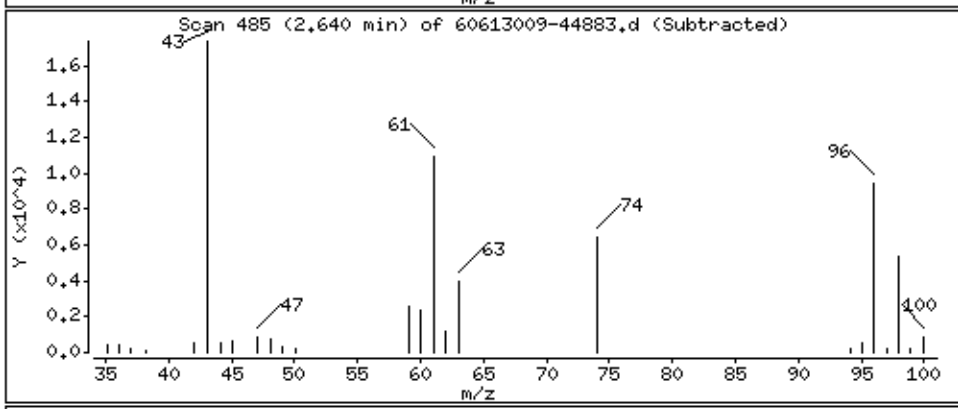
Column diameter: 0.18

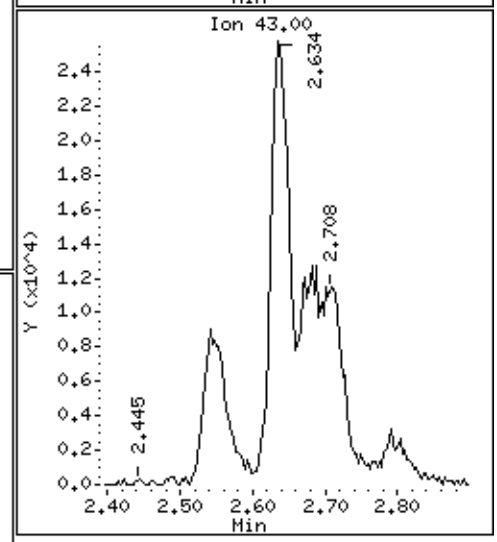
18 Methyl acetate

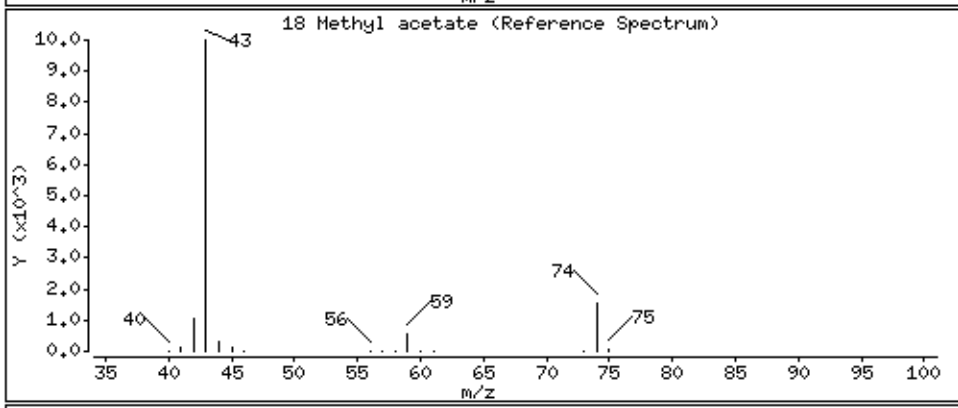
Concentration: 13.9 ug/L

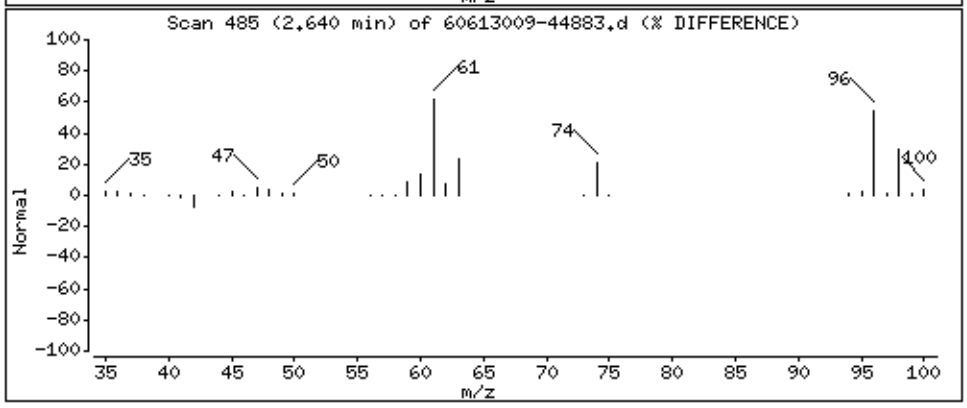












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

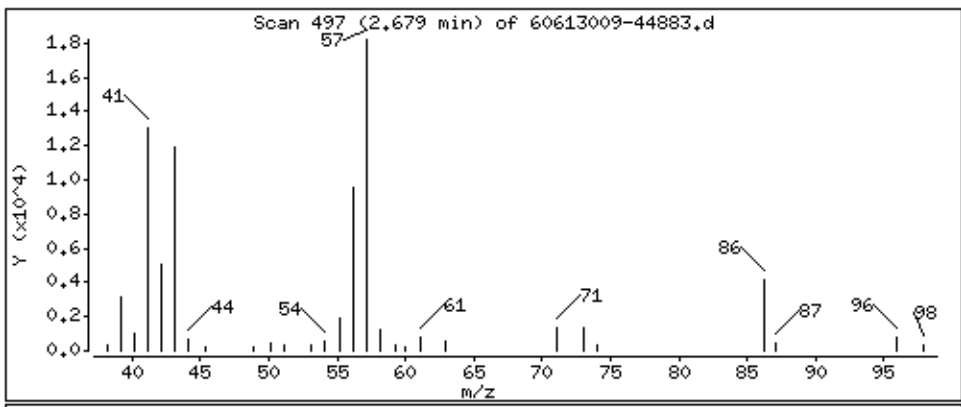
Purge Volume: 5.0

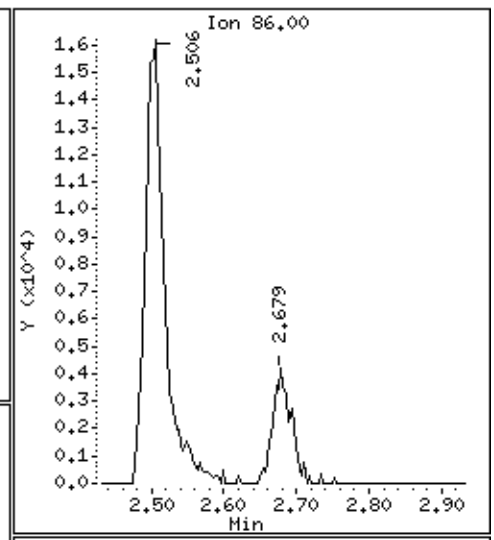
Operator: JEW

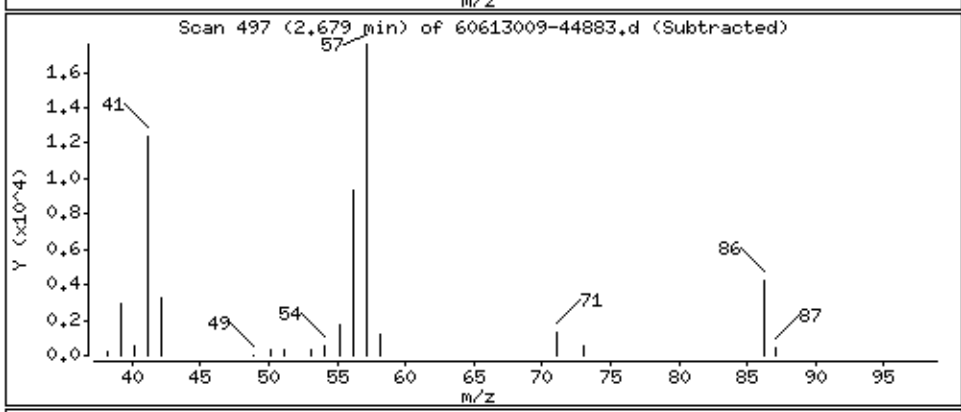
Column phase: RTX-VMS

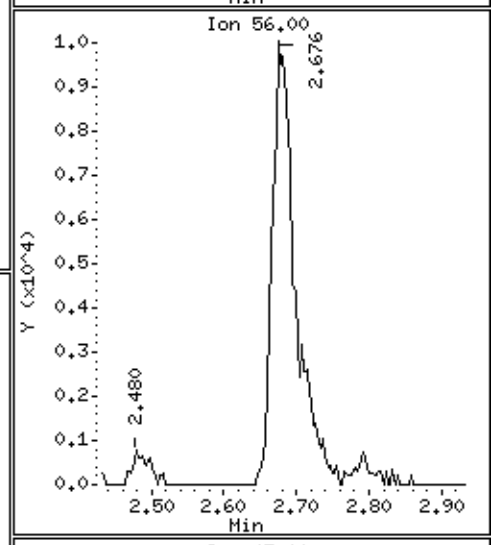
Column diameter: 0.18

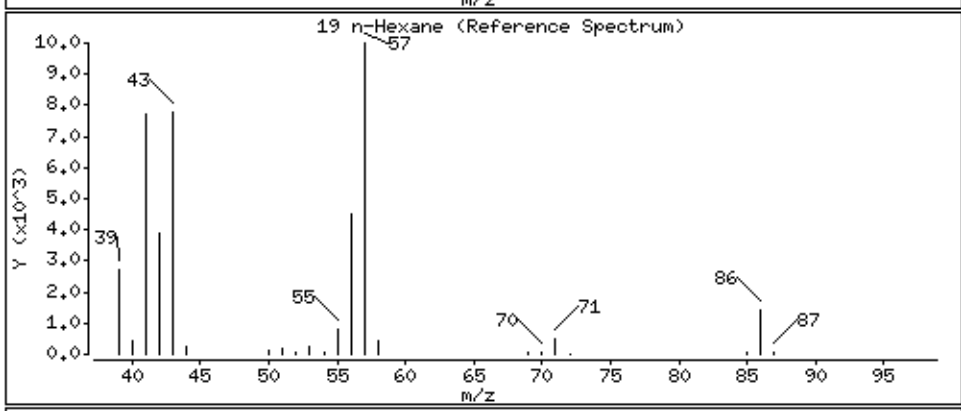
19 n-Hexane

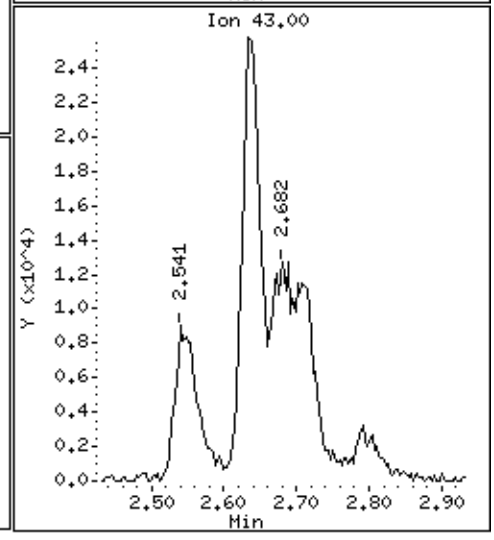


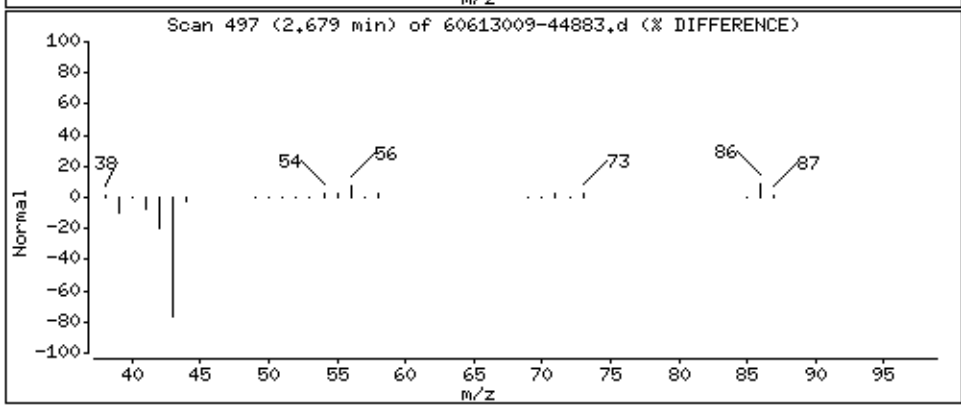












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

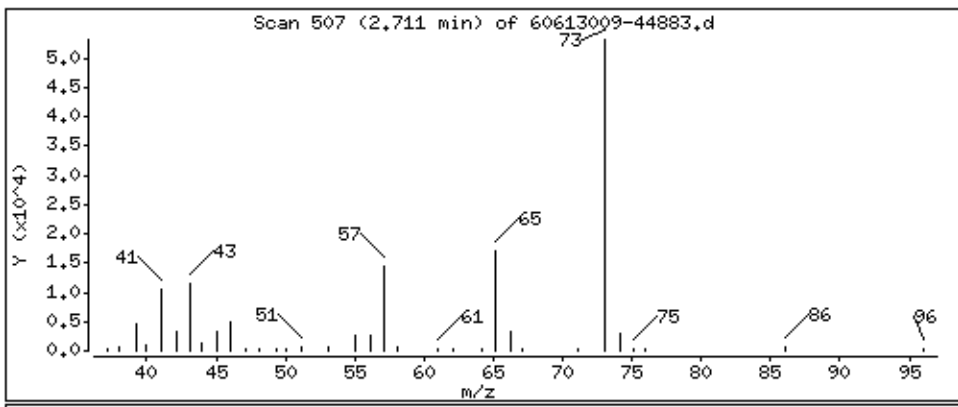
Operator: JEW

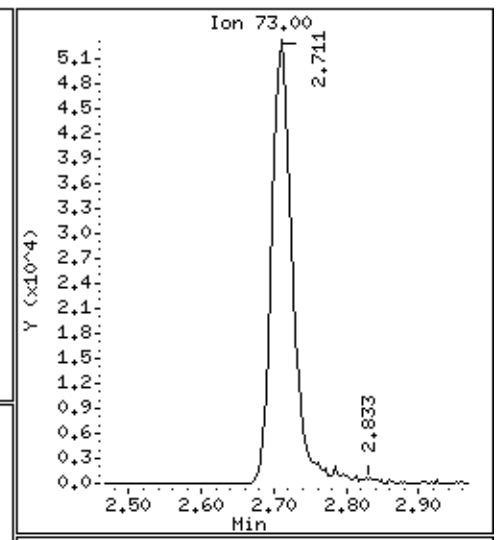
Column phase: RTX-VMS

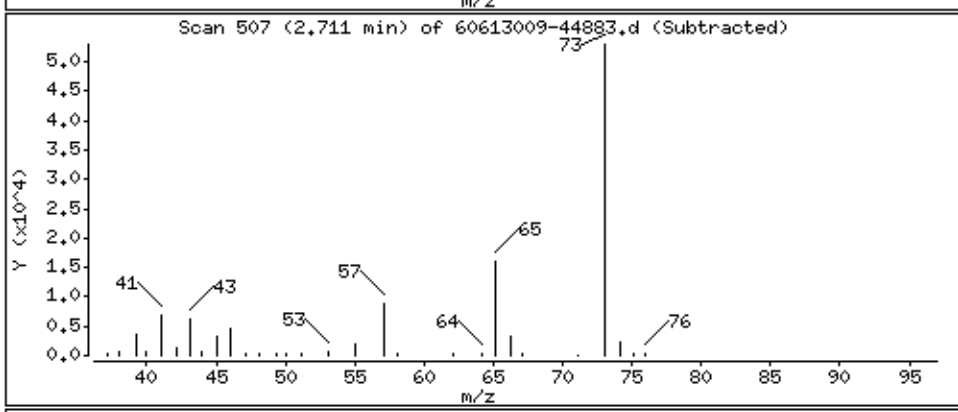
Column diameter: 0.18

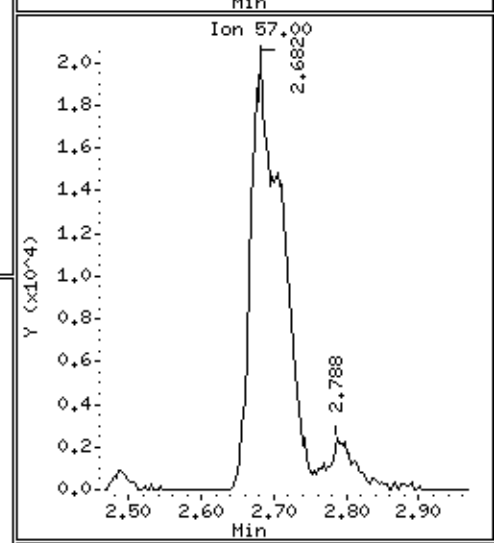
20 Methyl-tert-butyl ether

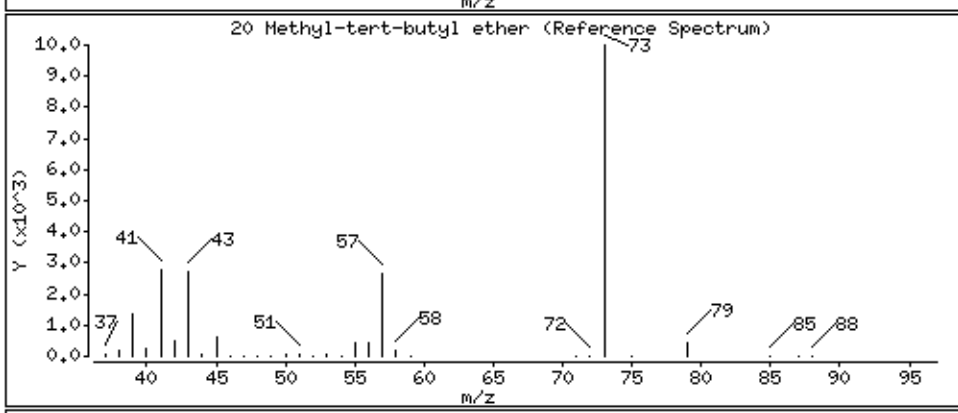
Concentration: 14.8 ug/L

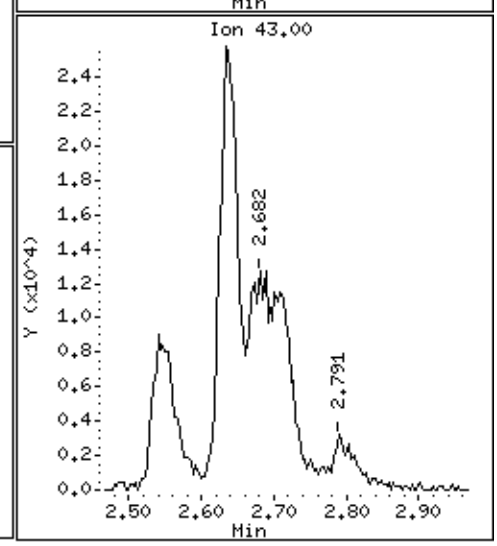


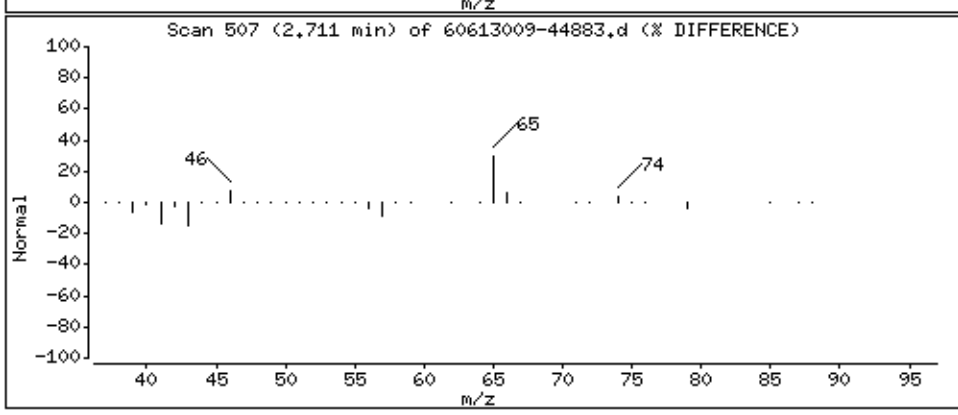












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

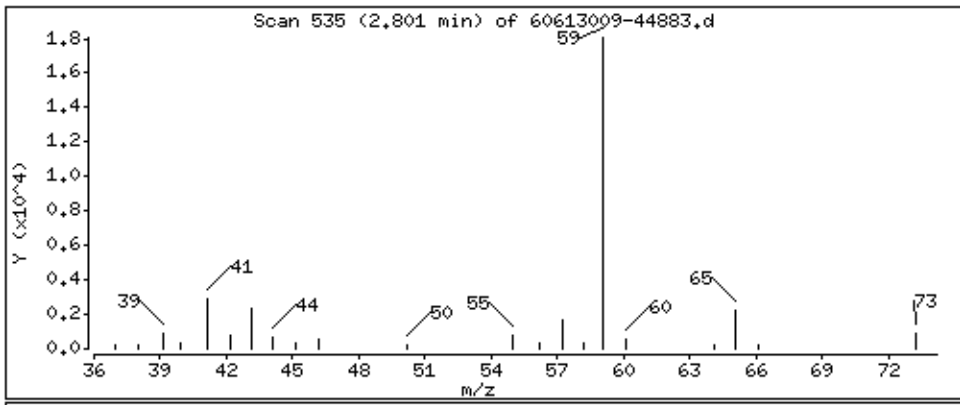
Operator: JEW

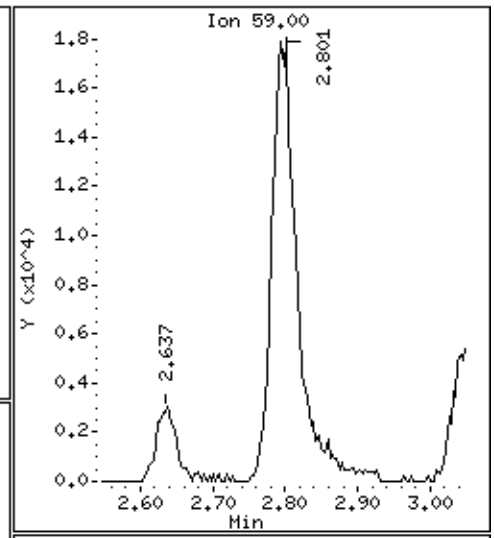
Column phase: RTX-VMS

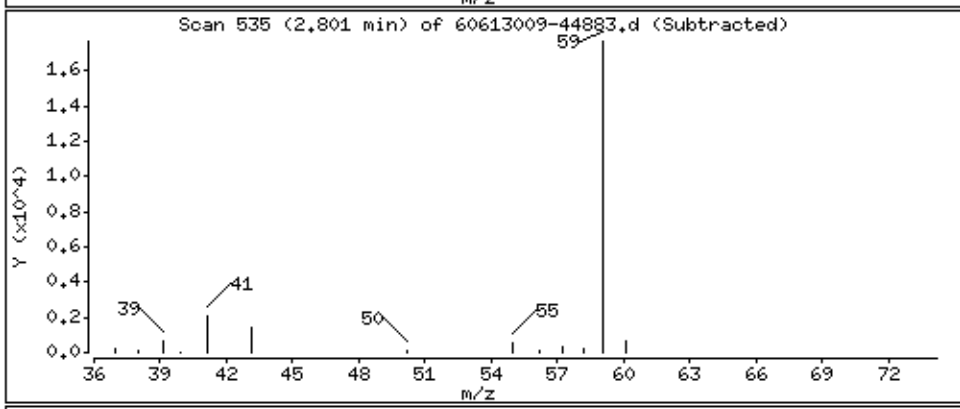
Column diameter: 0.18

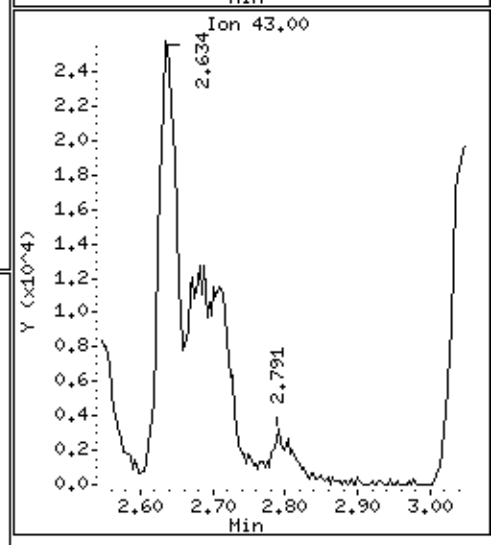
21 tert-Butyl Alcohol

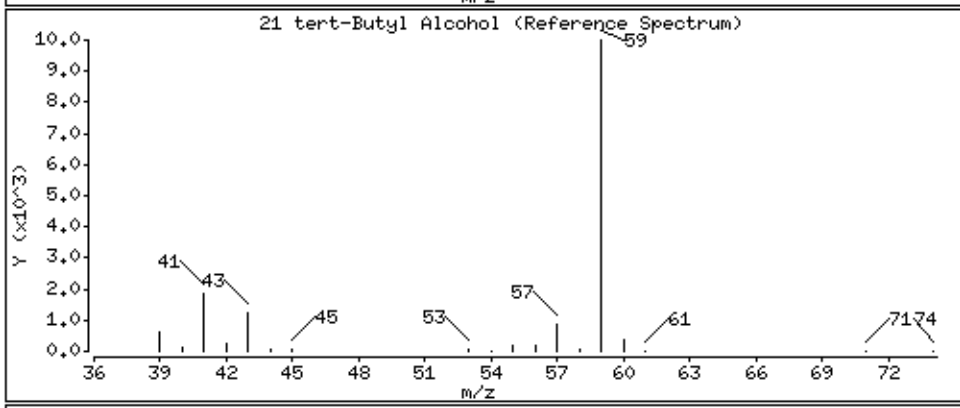
Concentration: 71.2 ug/L

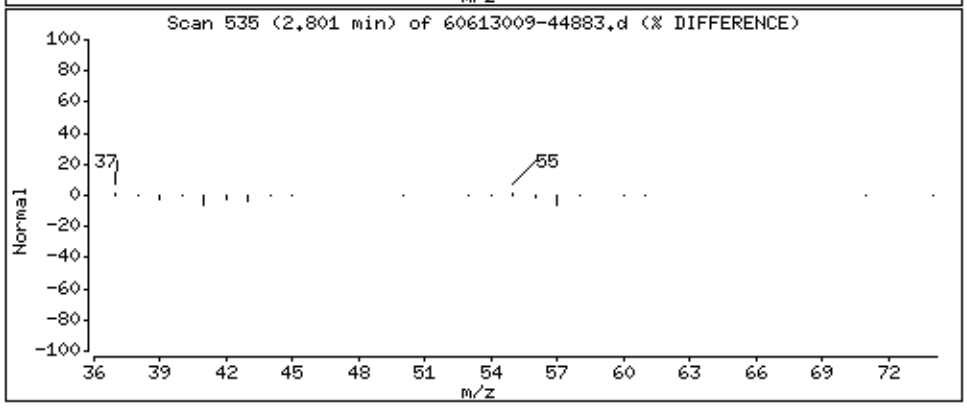












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

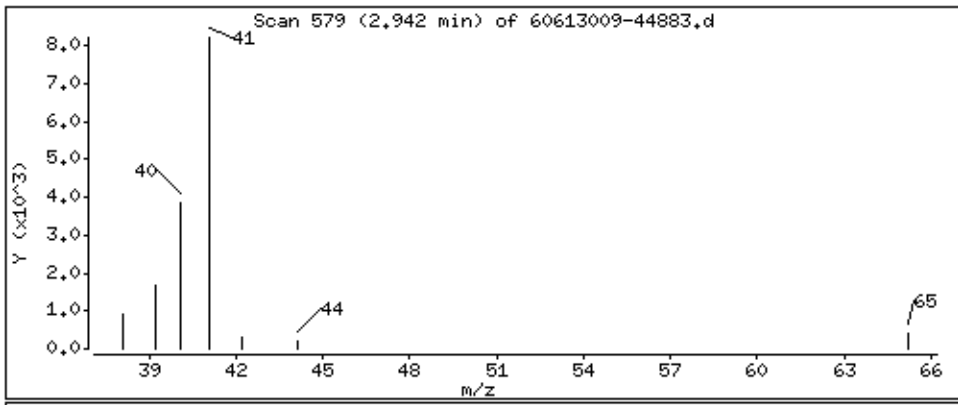
Operator: JEW

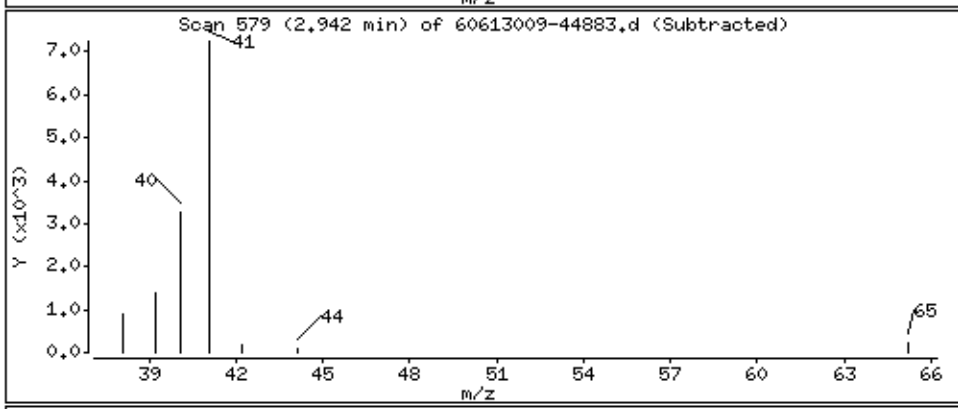
Column phase: RTX-VMS

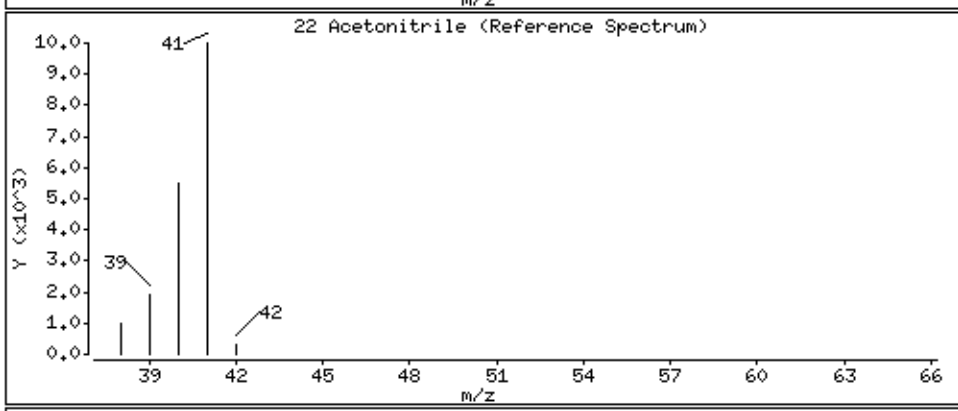
Column diameter: 0.18

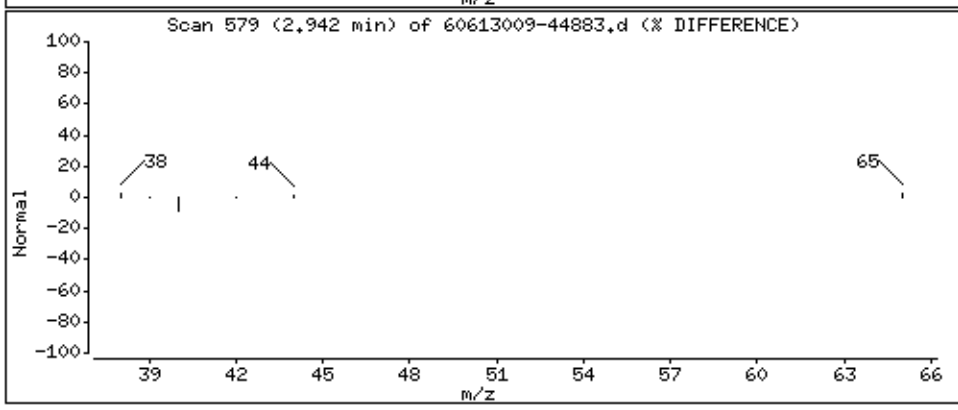
22 Acetonitrile

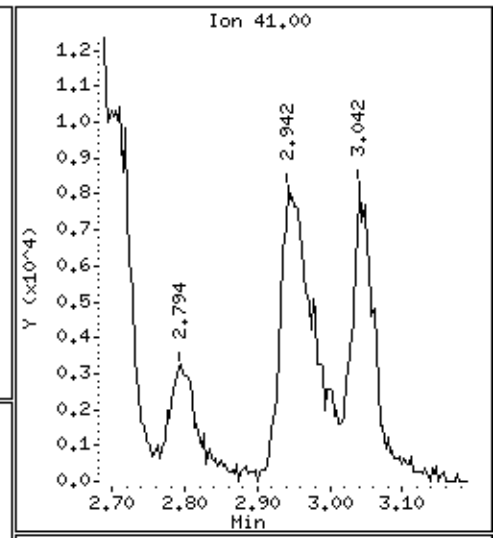
Concentration: 78.1 ug/L

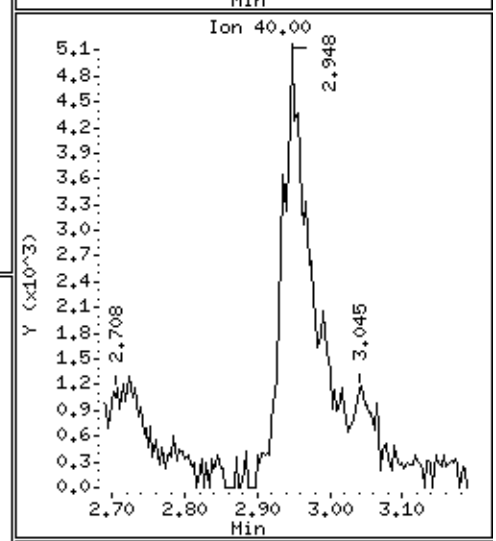


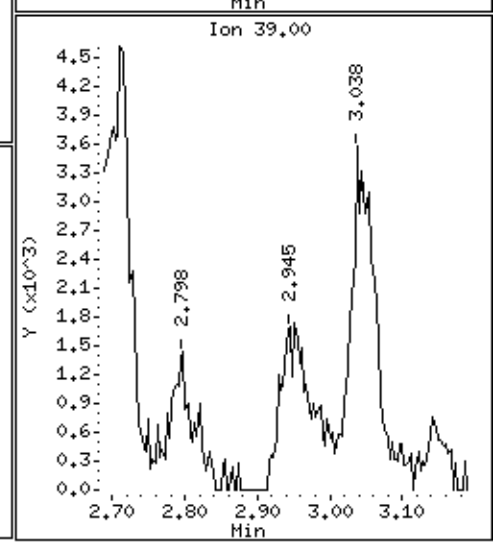












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

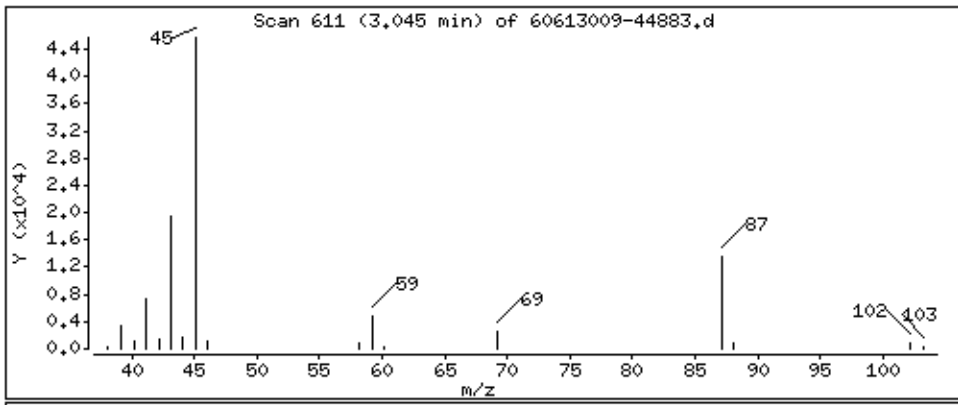
Operator: JEW

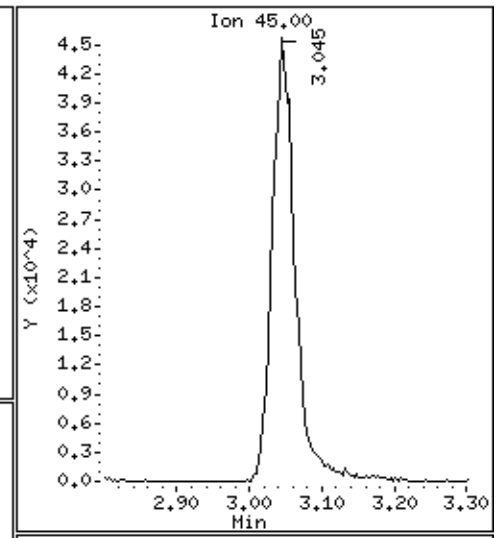
Column phase: RTX-VMS

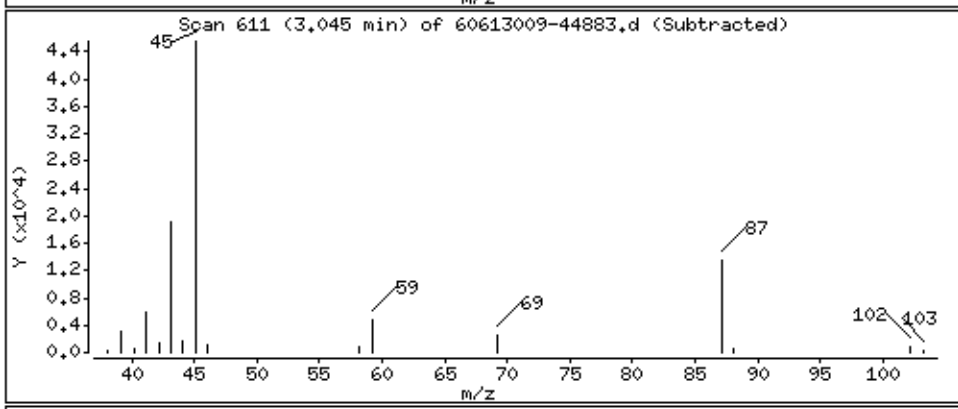
Column diameter: 0.18

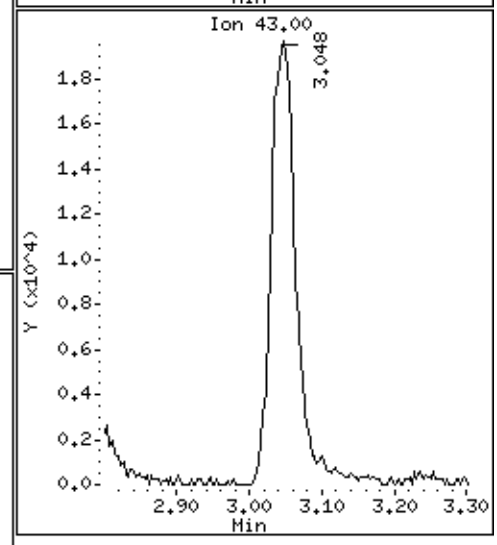
23 Diisopropyl ether

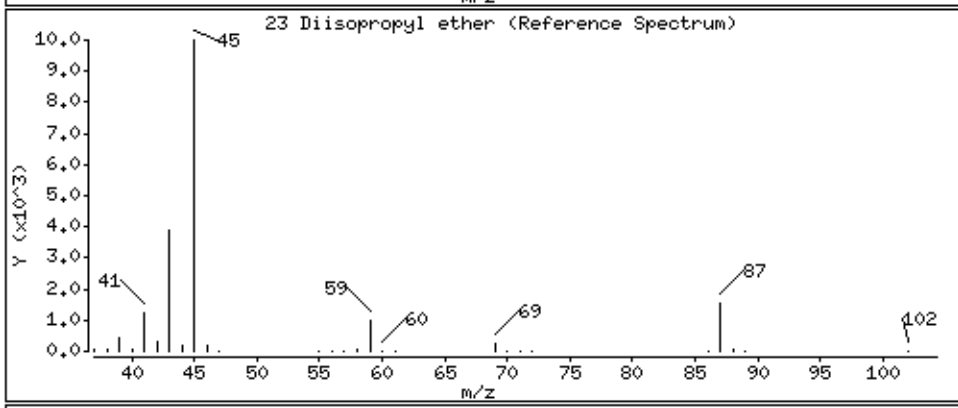
Concentration: 13.2 ug/L

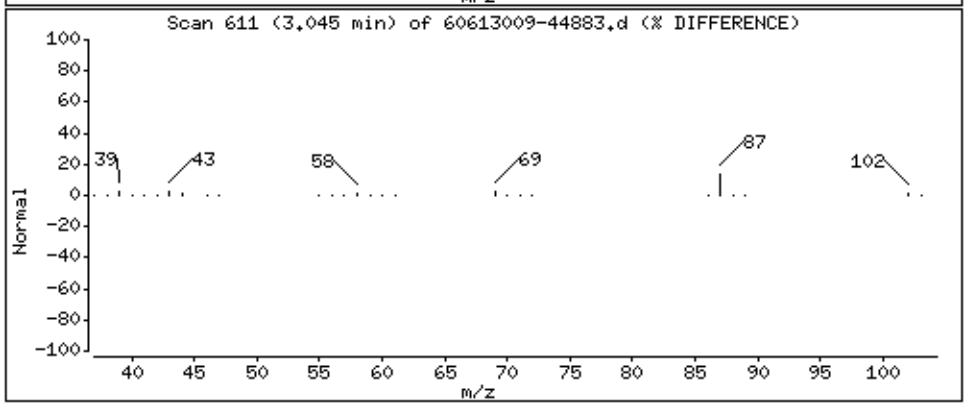












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

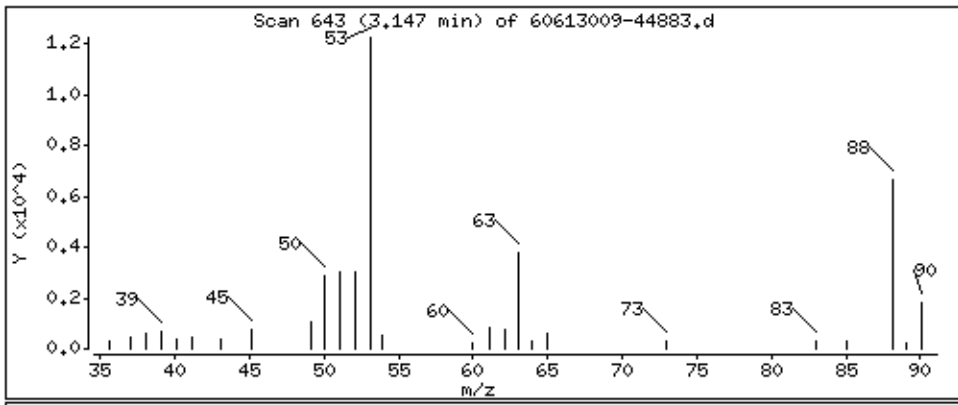
Operator: JEW

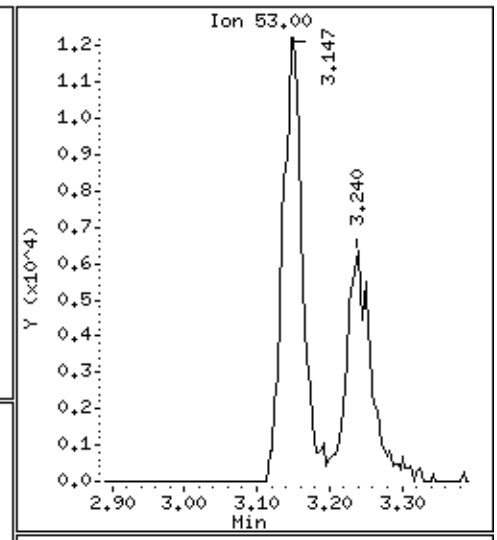
Column phase: RTX-VMS

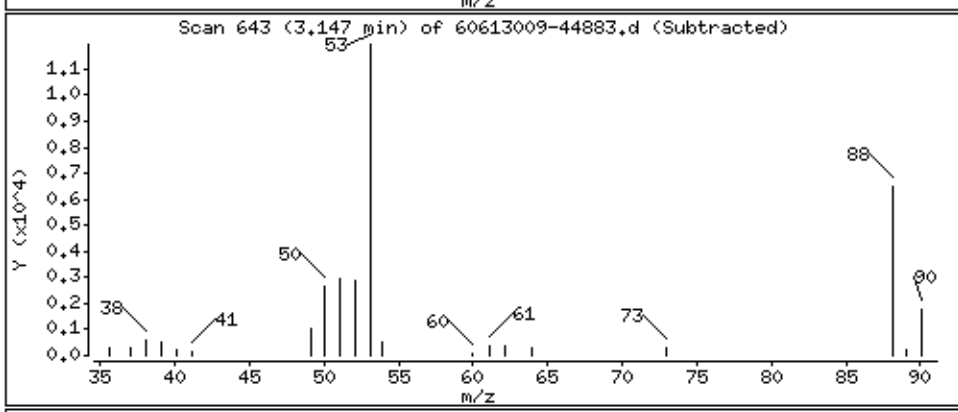
Column diameter: 0.18

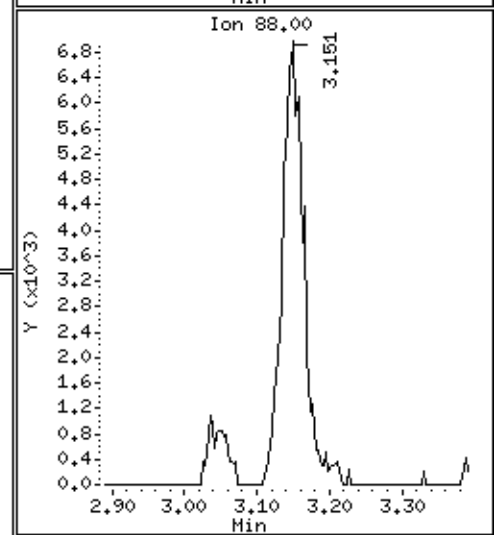
24 Chloroprene

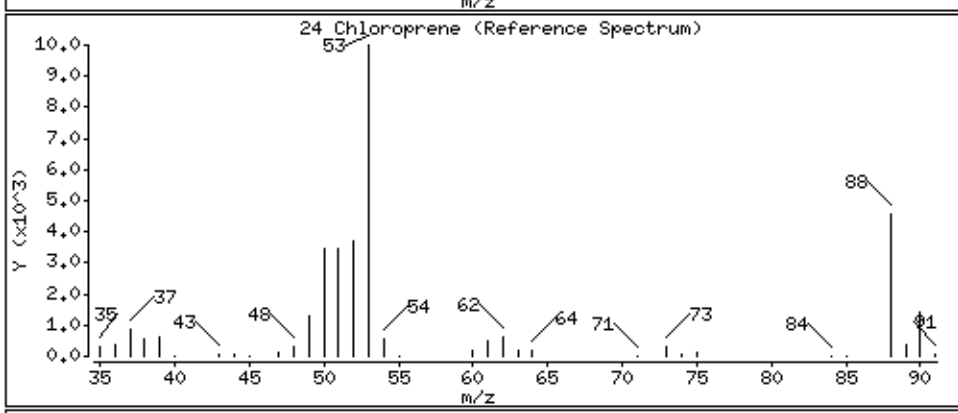
Concentration: 10.9 ug/L

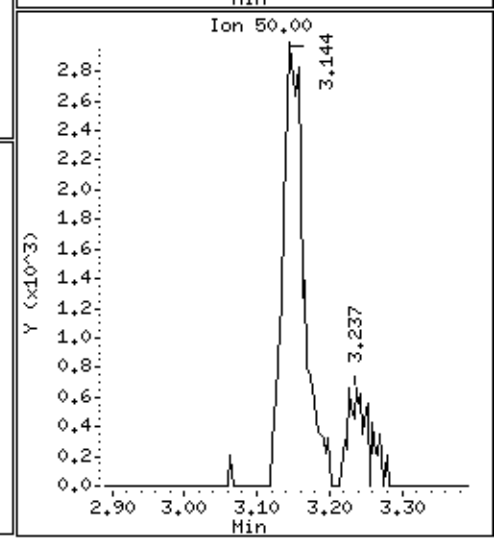


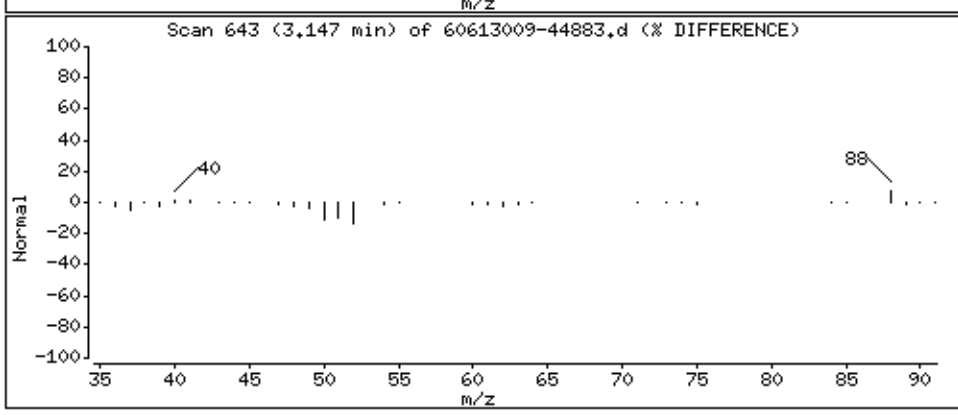












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

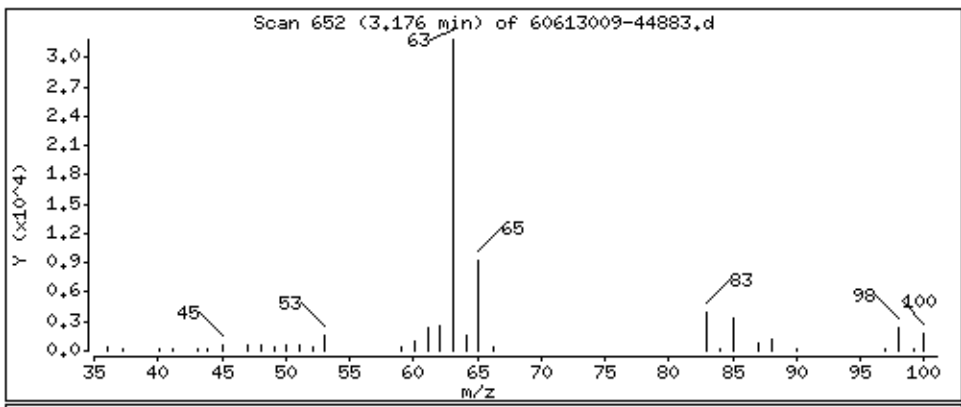
Operator: JEW

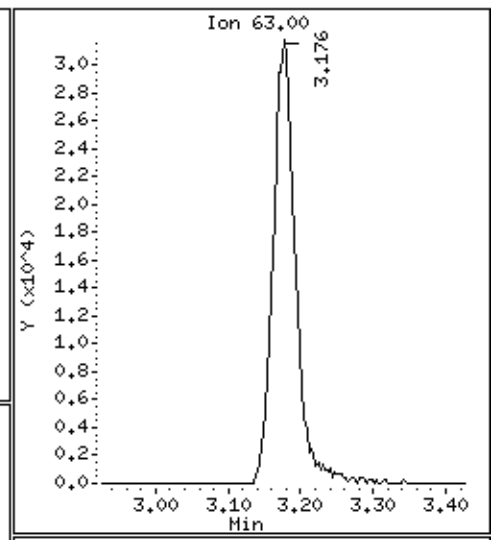
Column phase: RTX-VMS

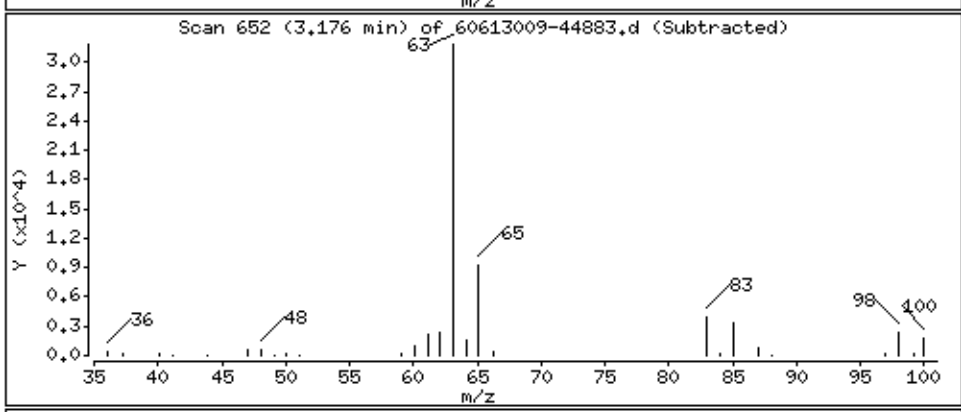
Column diameter: 0.18

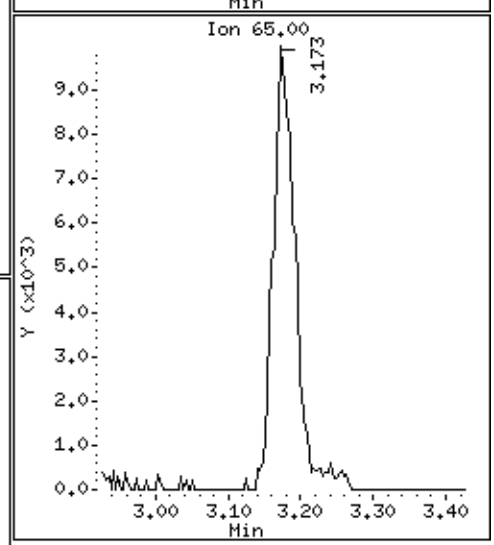
25 1,1-Dichloroethane

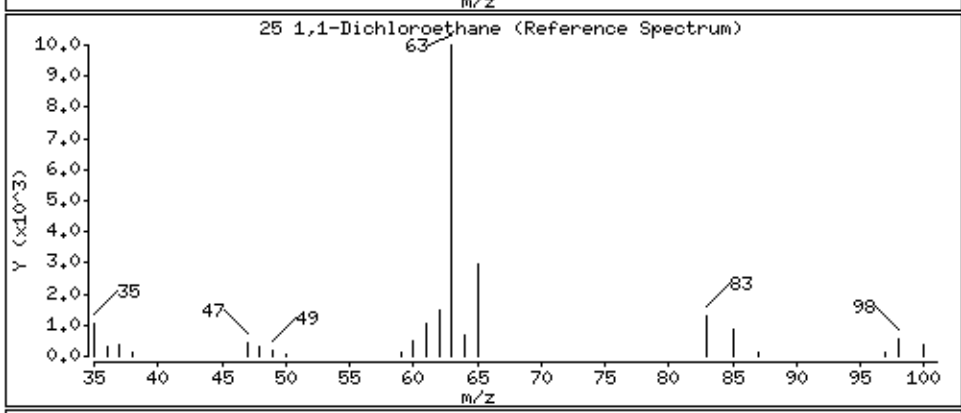
Concentration: 14.4 ug/L

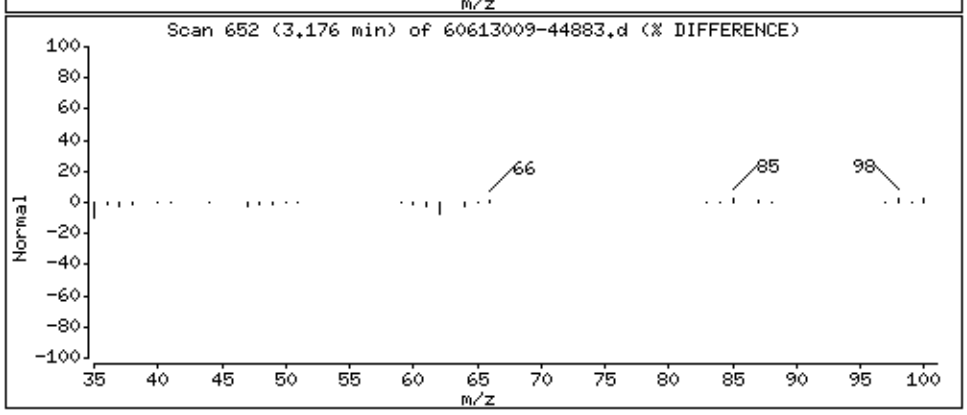












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

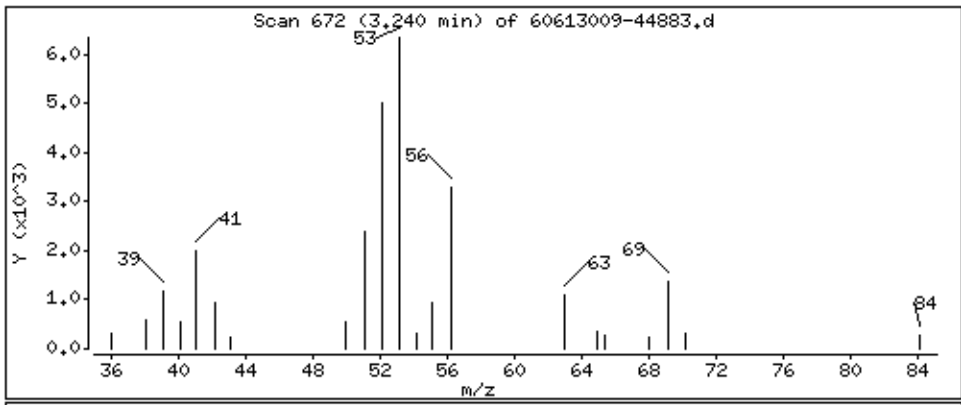
Operator: JEW

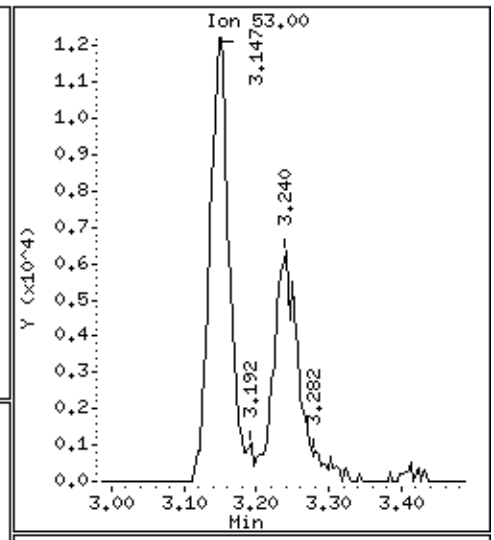
Column phase: RTX-VMS

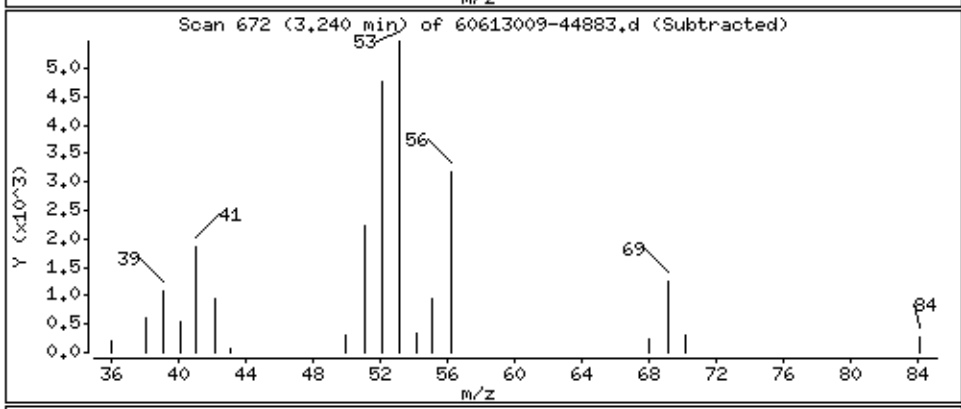
Column diameter: 0.18

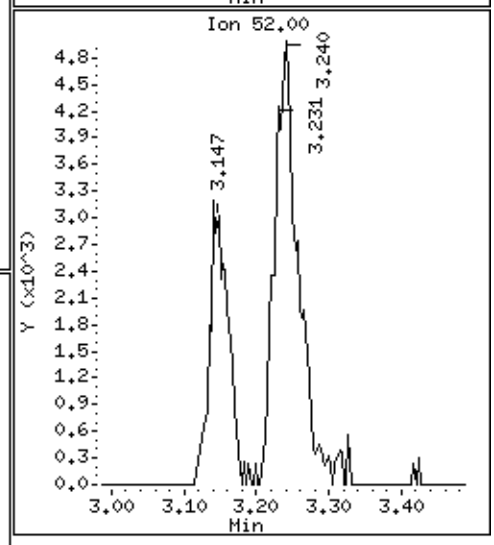
26 Acrylonitrile

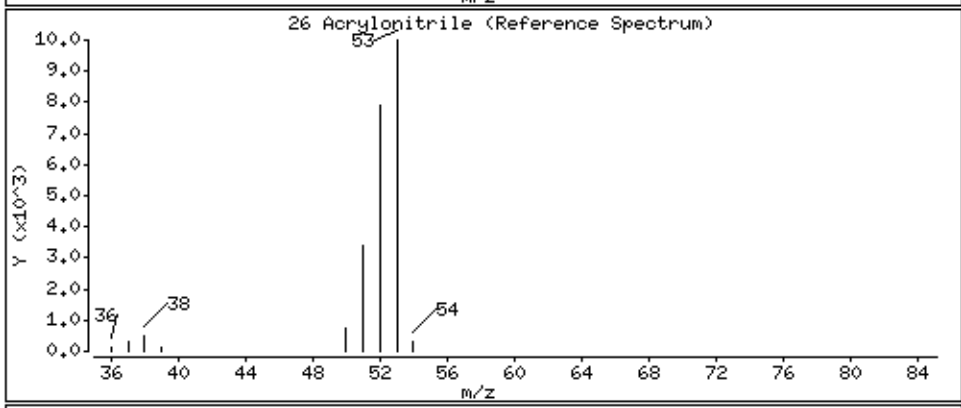
Concentration: 12.9 ug/L

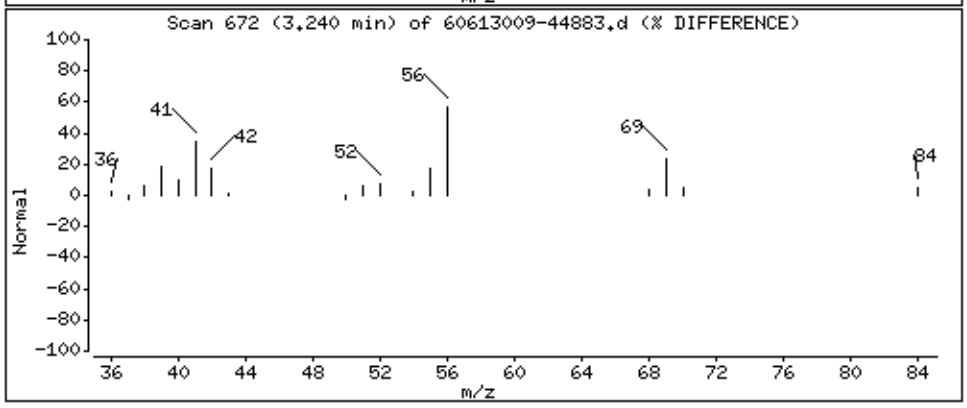












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

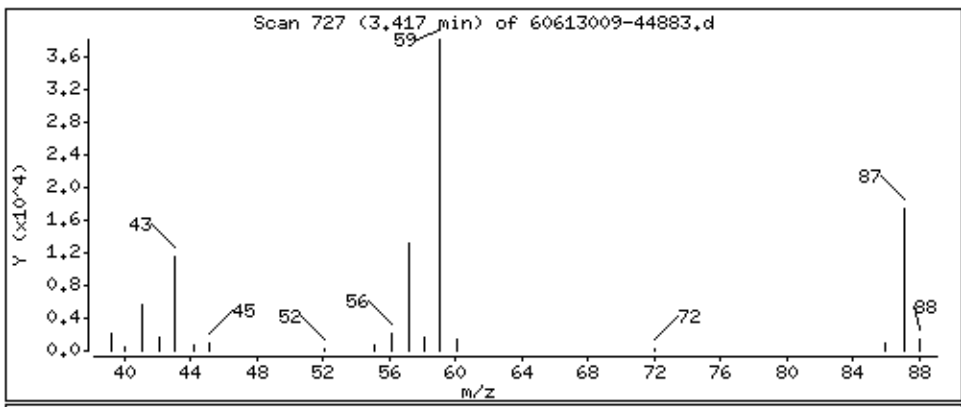
Operator: JEW

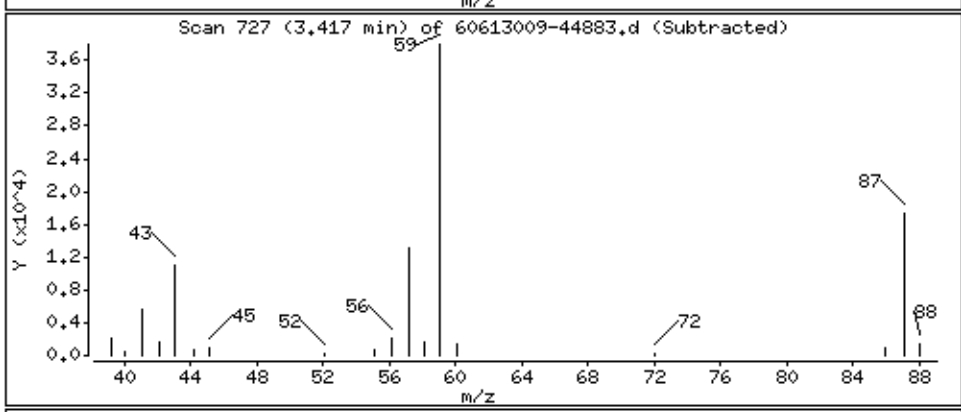
Column phase: RTX-VMS

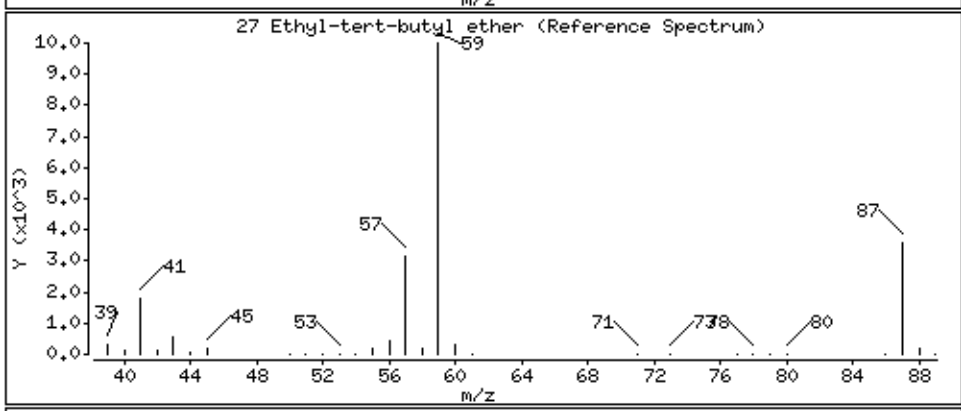
Column diameter: 0.18

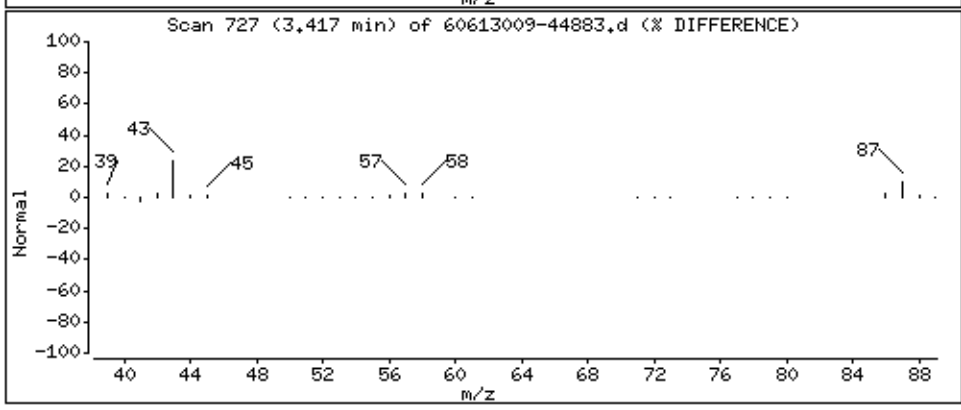
27 Ethyl-tert-butyl ether

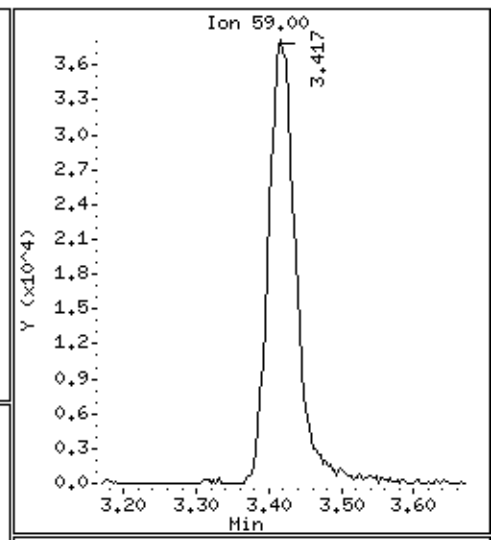
Concentration: 12.3 ug/L

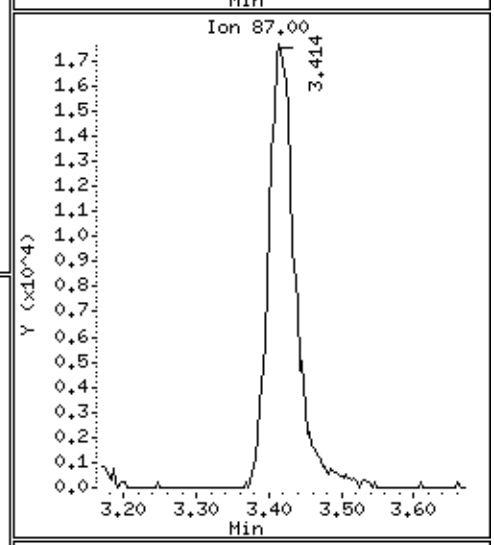


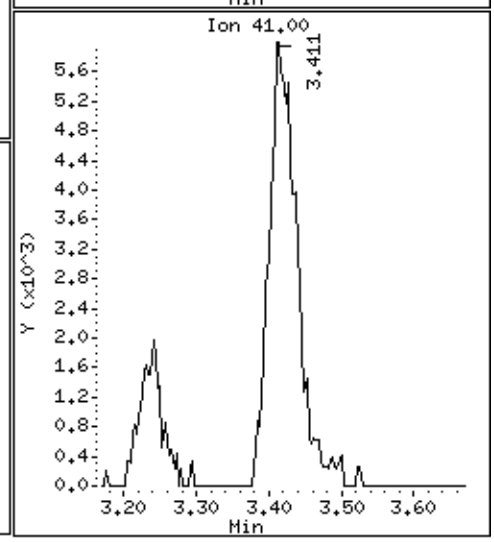












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

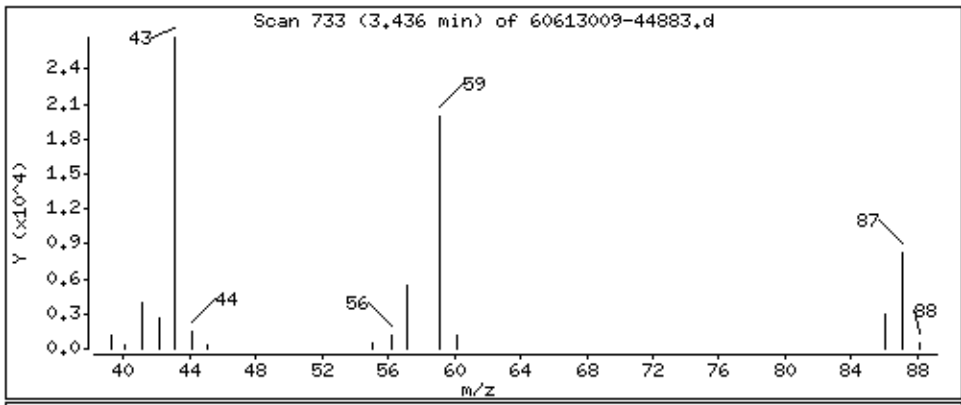
Operator: JEW

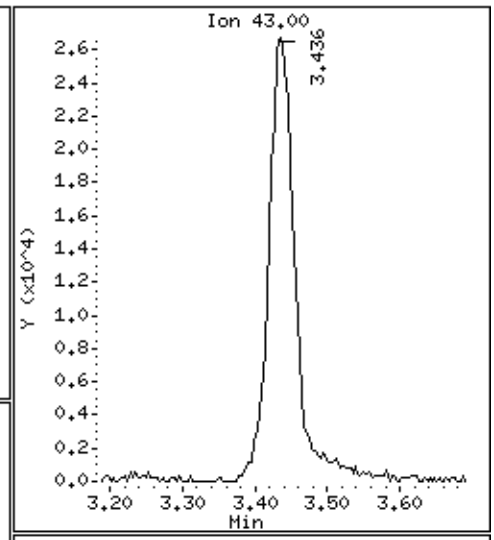
Column phase: RTX-VMS

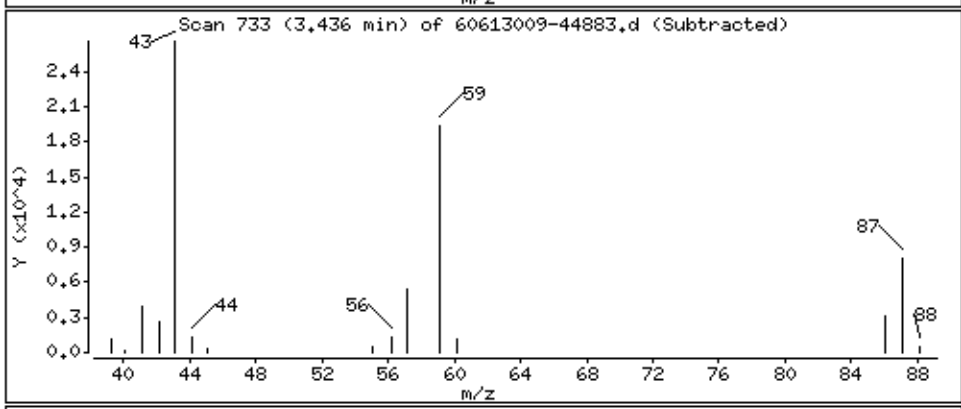
Column diameter: 0.18

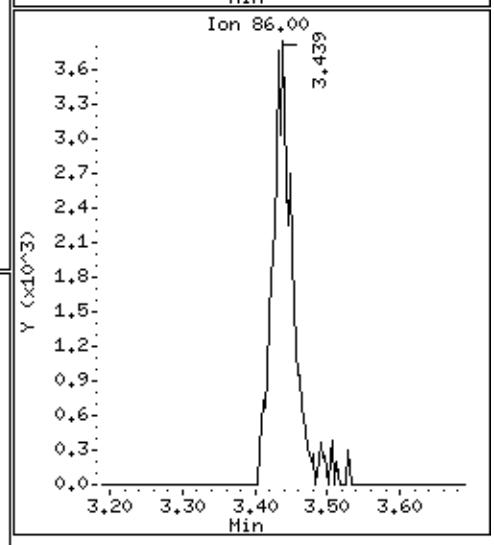
28 Vinyl acetate

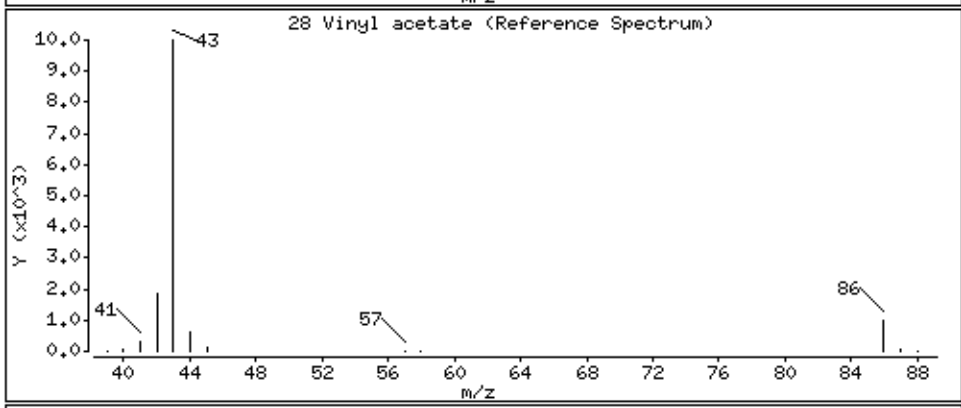
Concentration: 11.8 ug/L

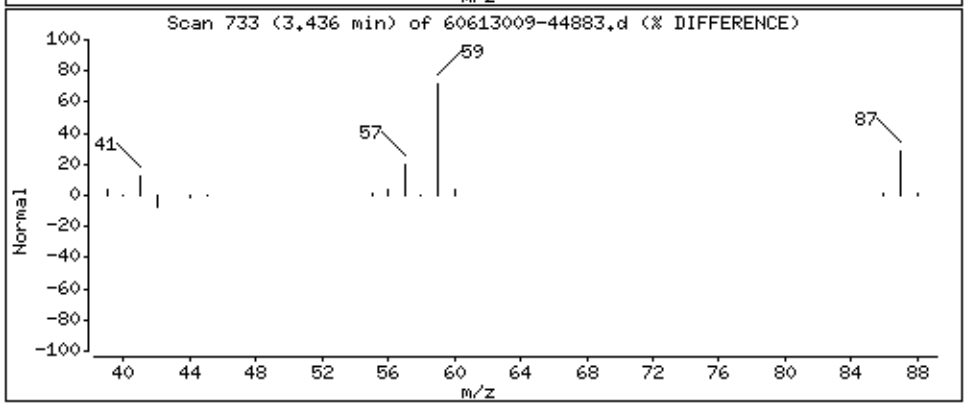












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

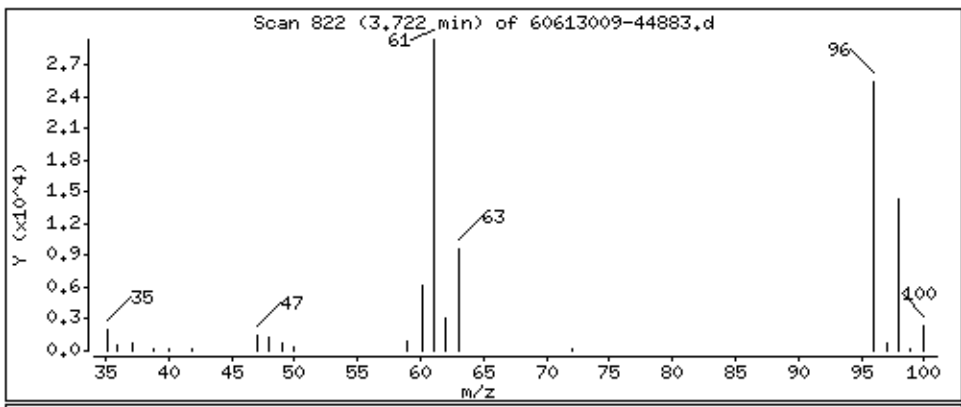
Operator: JEW

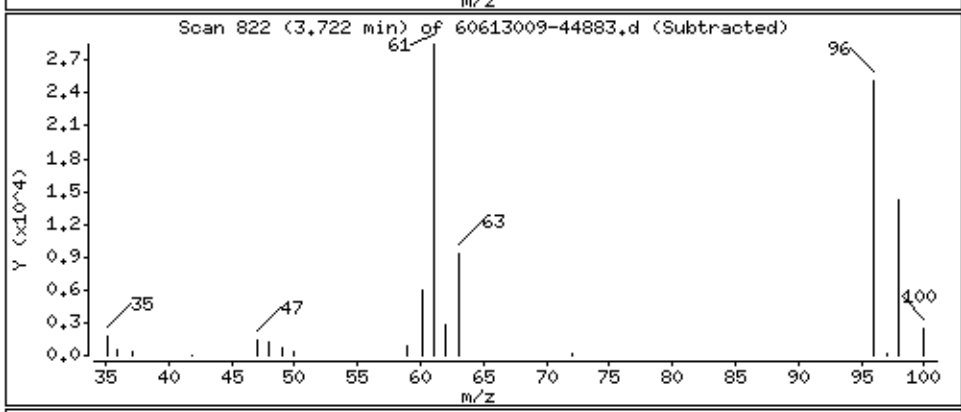
Column phase: RTX-VMS

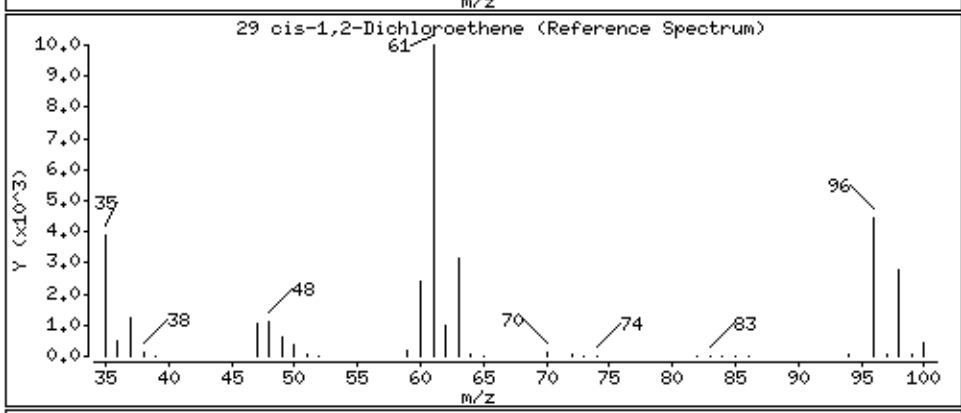
Column diameter: 0.18

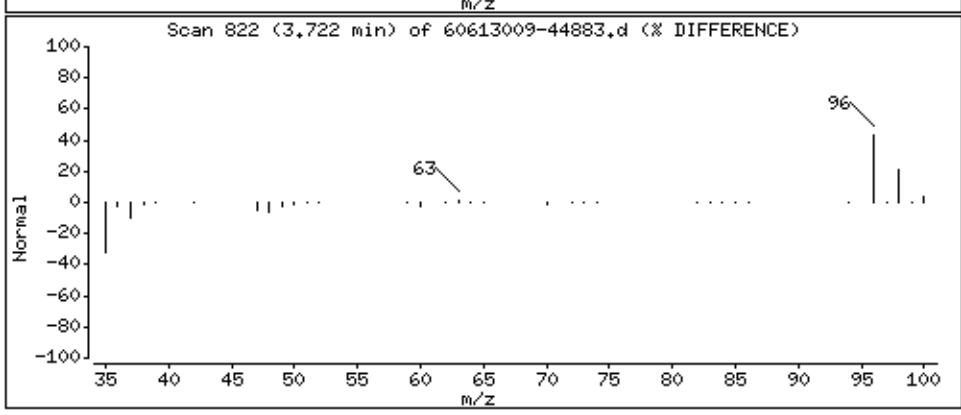
29 cis-1,2-Dichloroethene

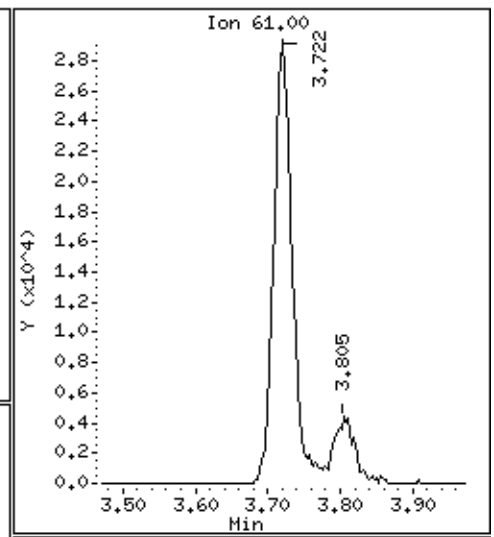
Concentration: 13.9 ug/L

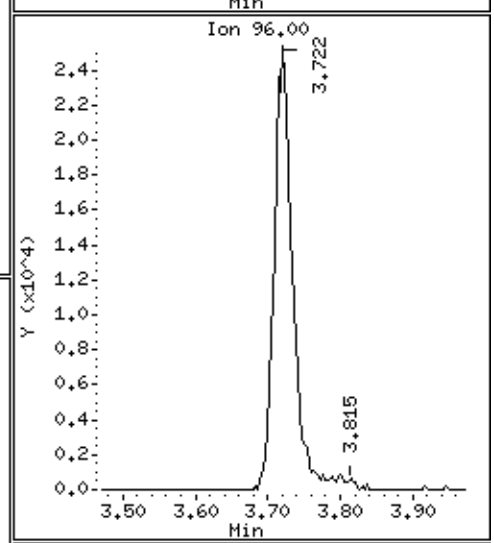


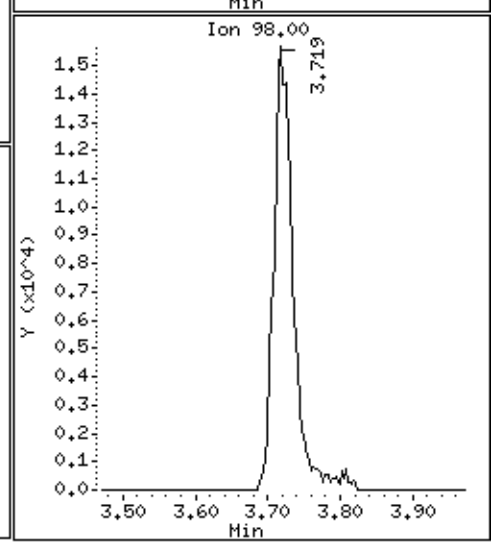












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

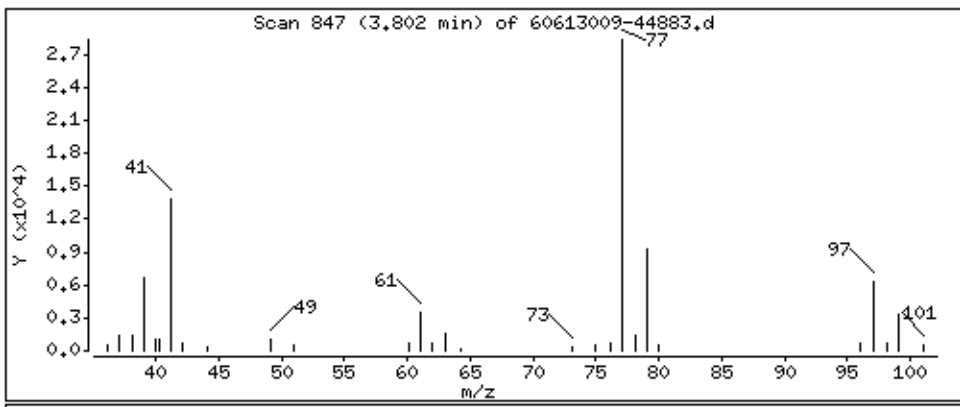
Operator: JEW

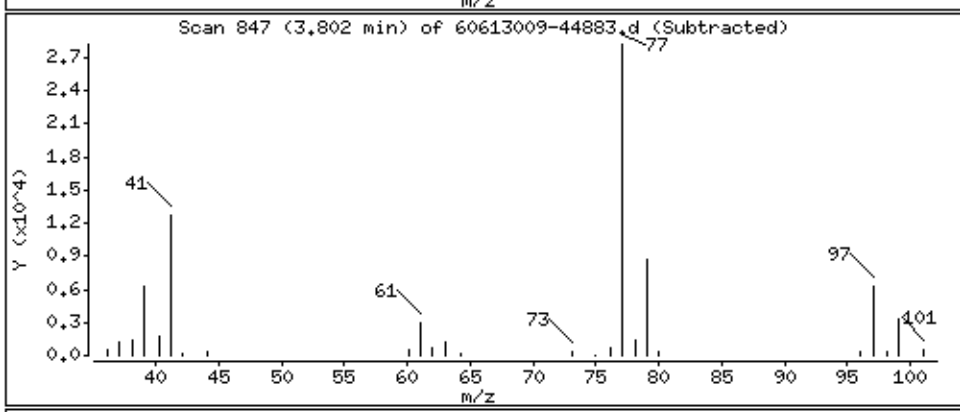
Column phase: RTX-VMS

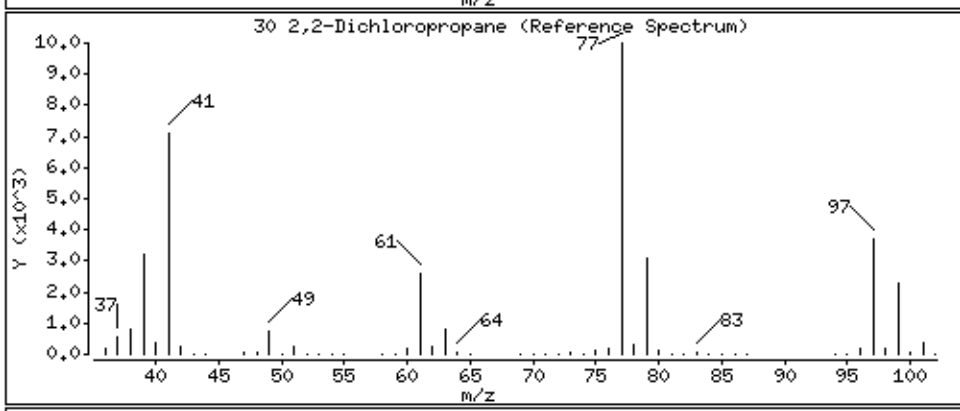
Column diameter: 0.18

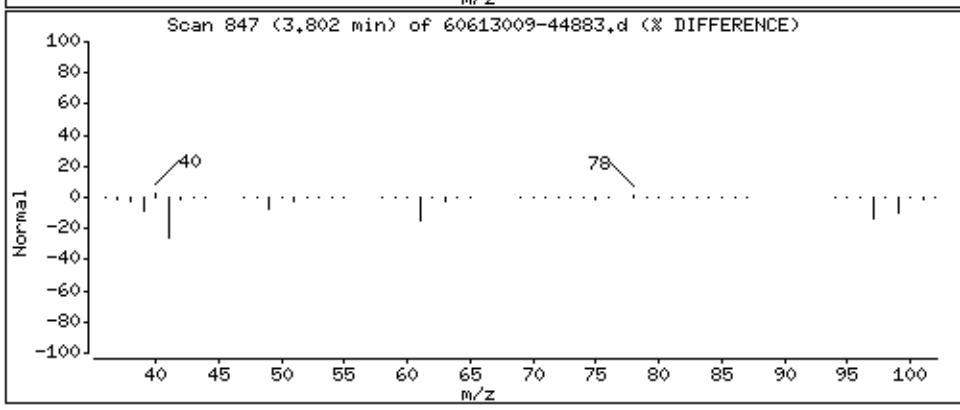
30 2,2-Dichloropropane

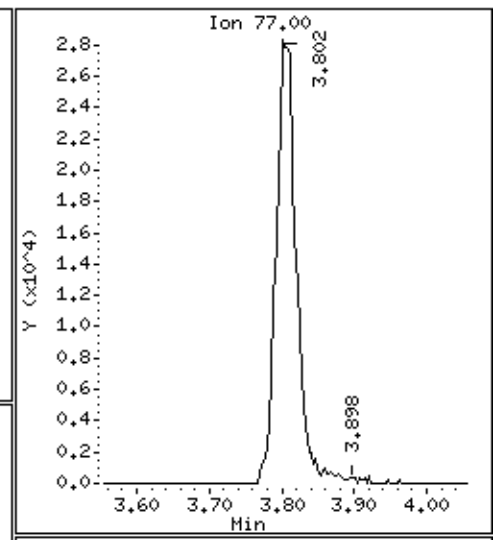
Concentration: 13.6 ug/L

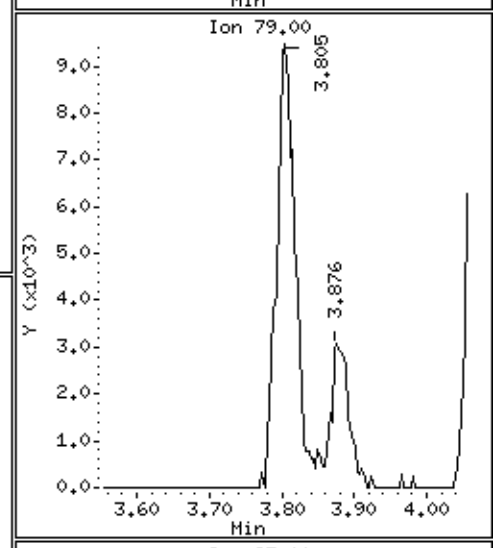


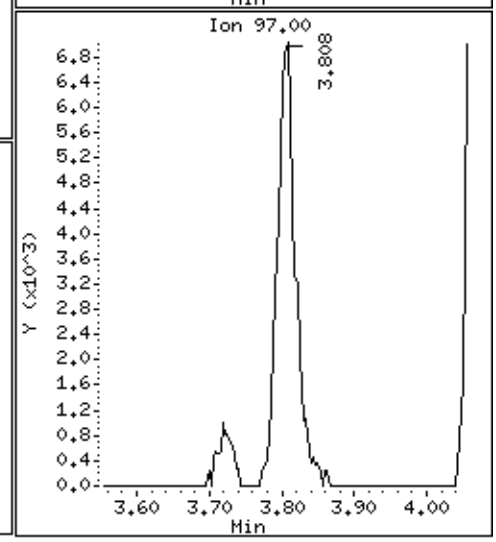












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

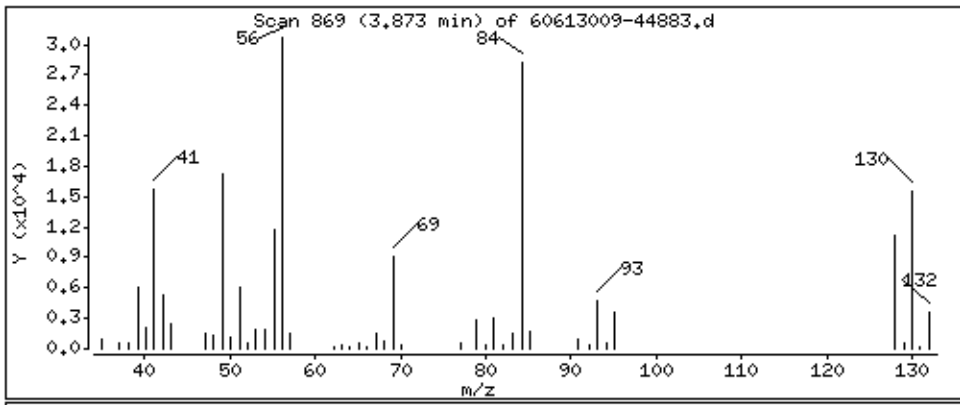
Operator: JEW

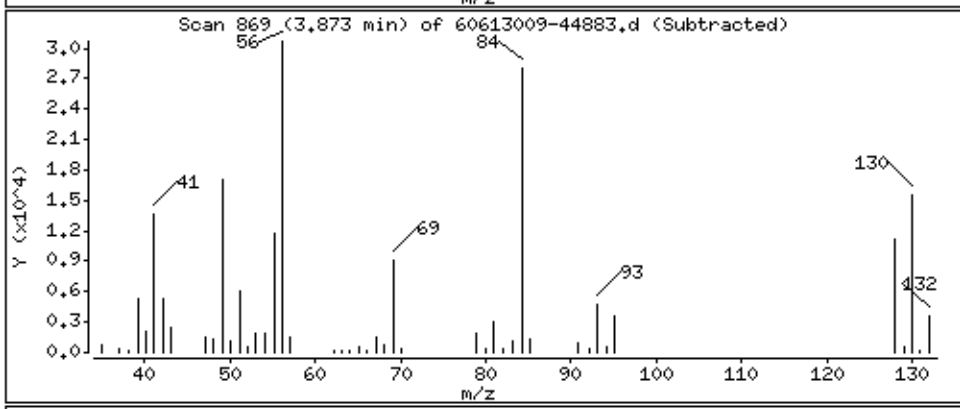
Column phase: RTX-VMS

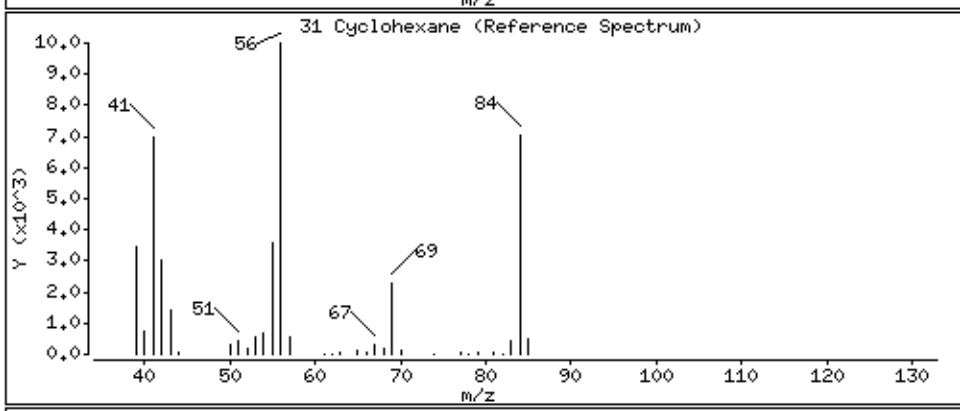
Column diameter: 0.18

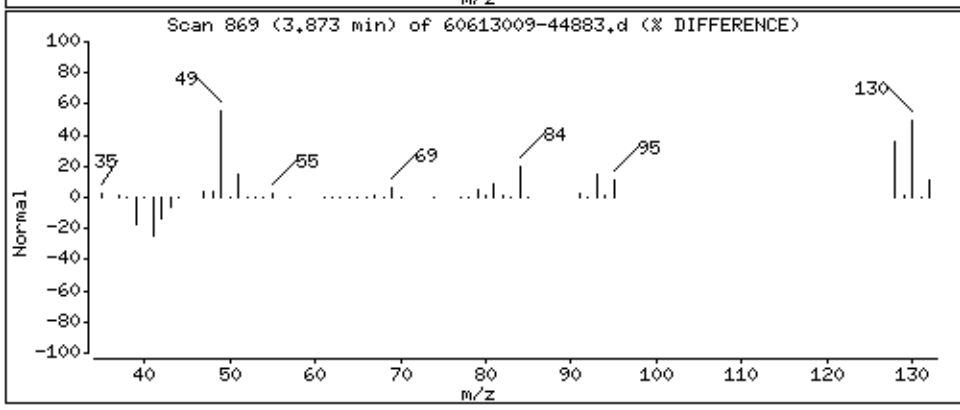
31 Cyclohexane

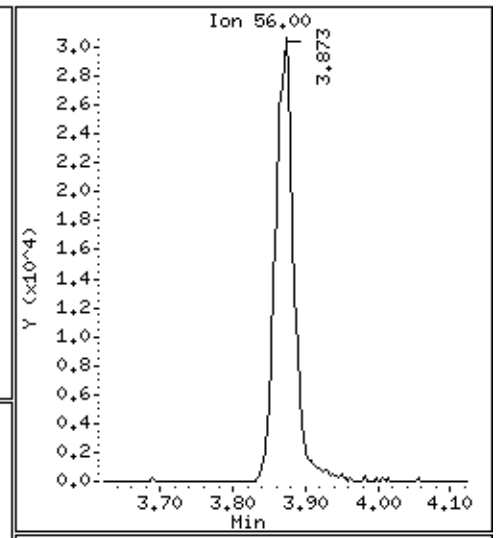
Concentration: 12.9 ug/L

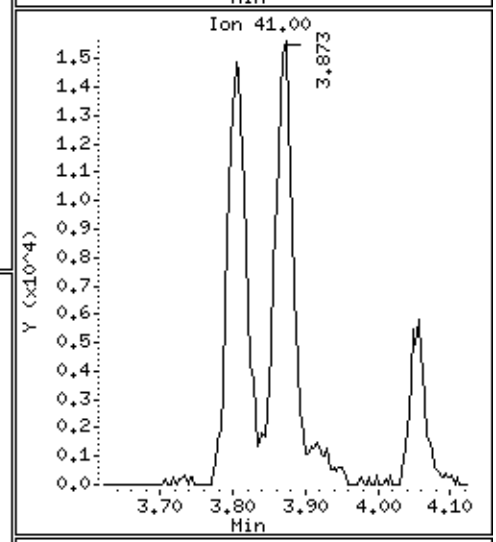


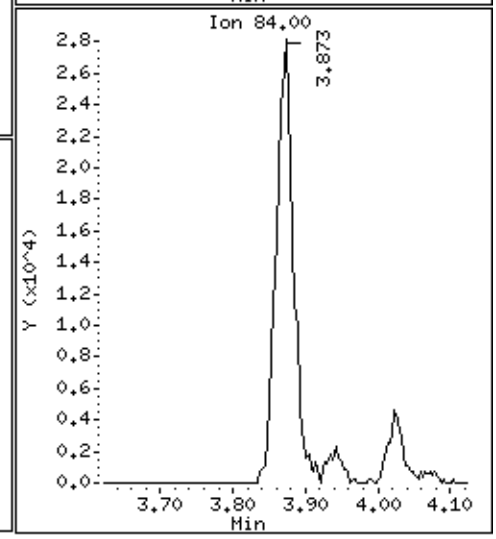












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

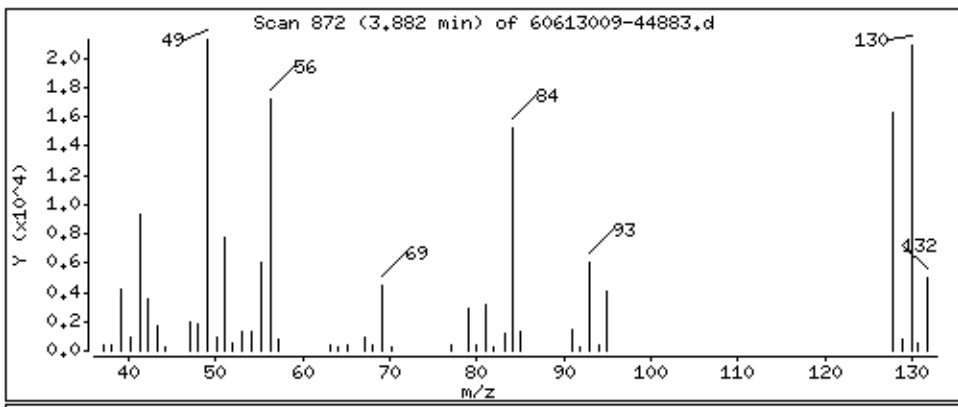
Operator: JEW

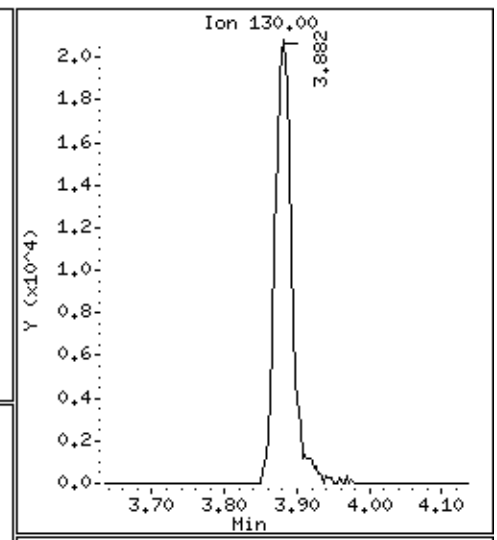
Column phase: RTX-VMS

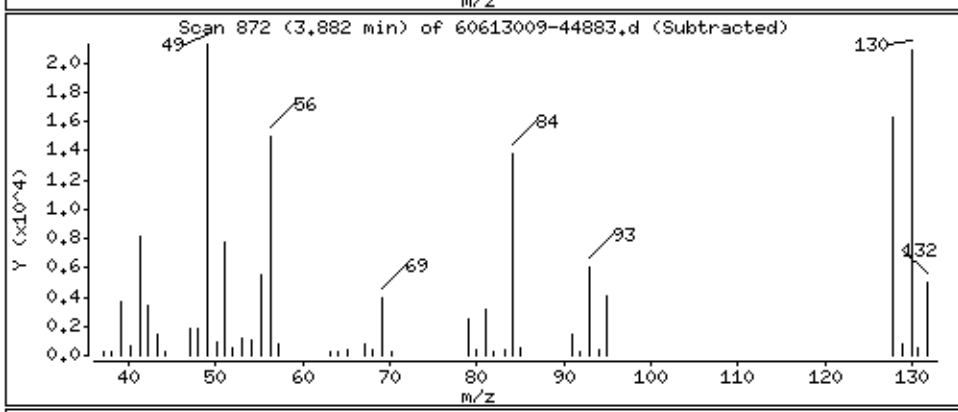
Column diameter: 0.18

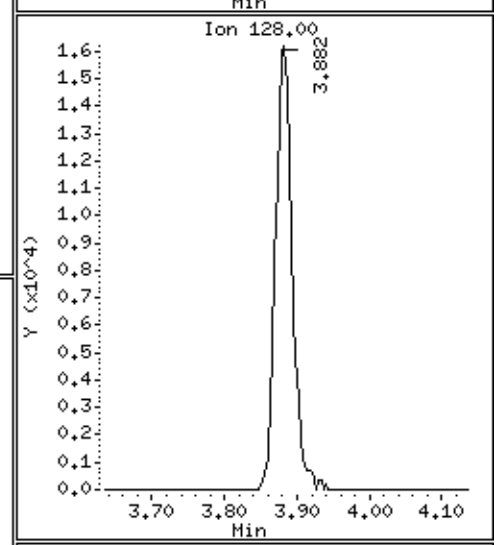
32 Bromochloromethane

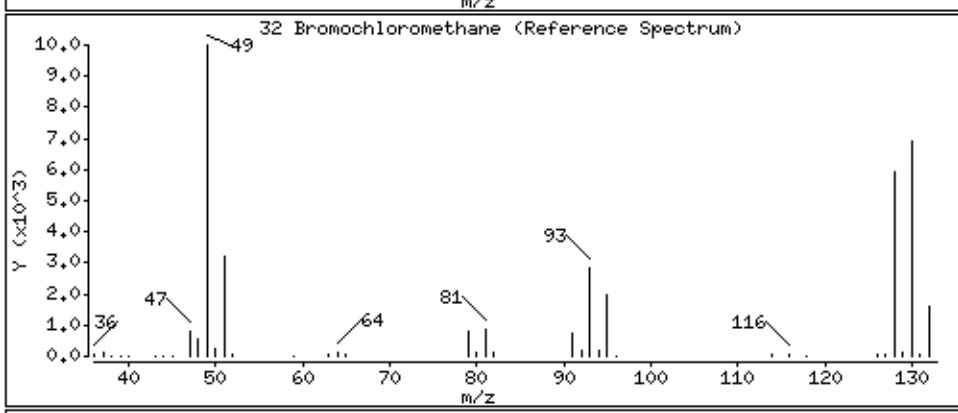
Concentration: 17.3 ug/L

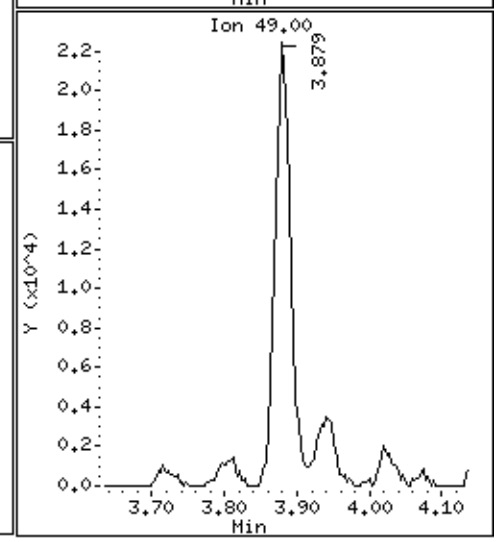


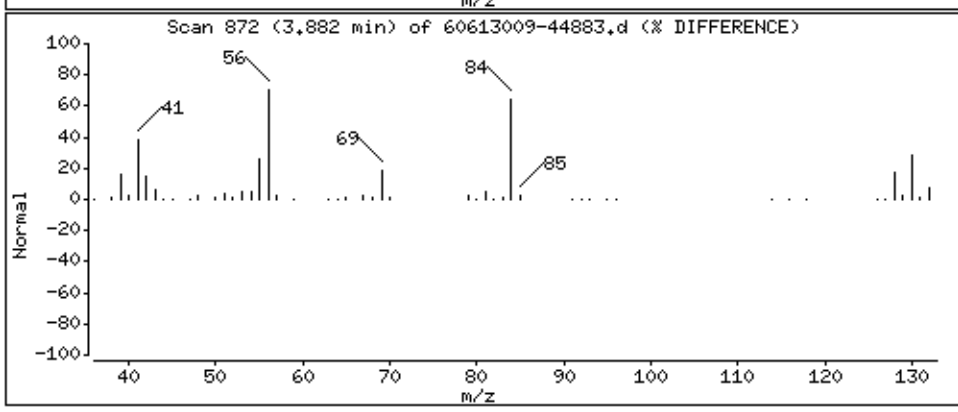












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

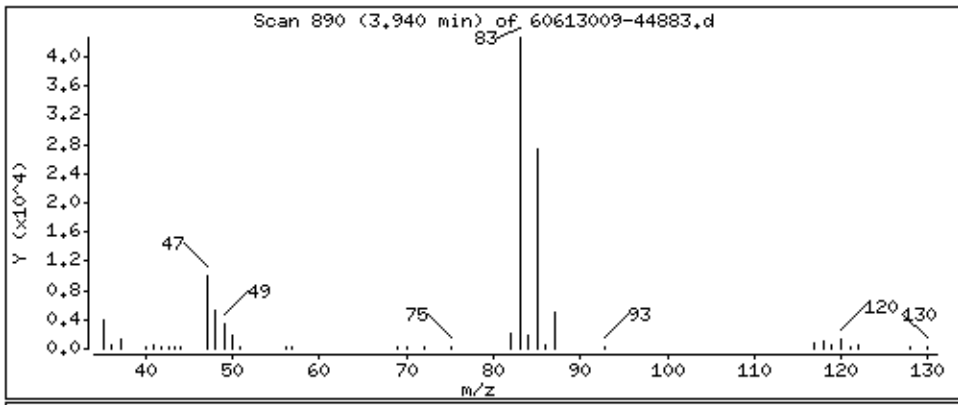
Operator: JEW

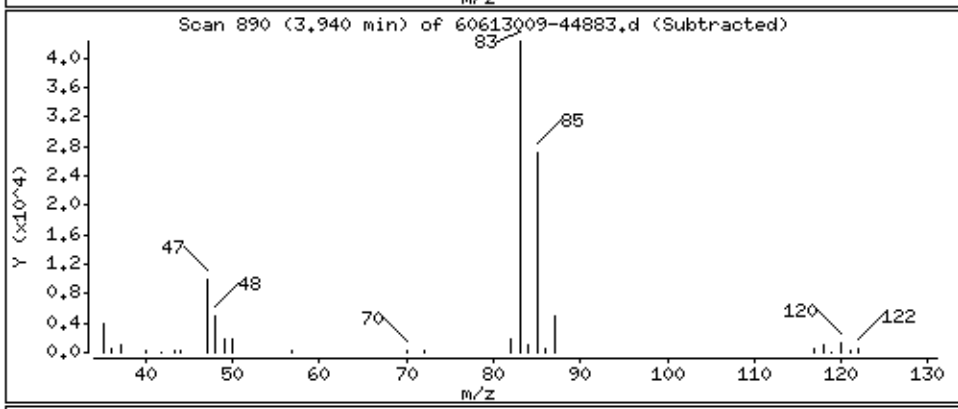
Column phase: RTX-VMS

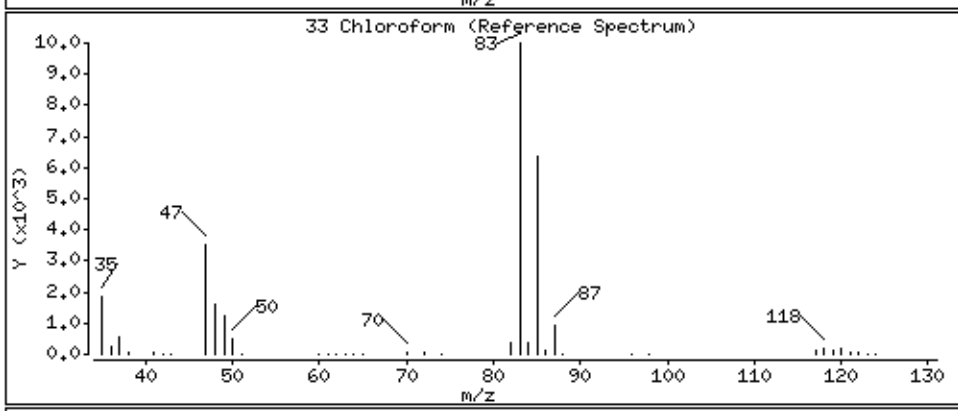
Column diameter: 0.18

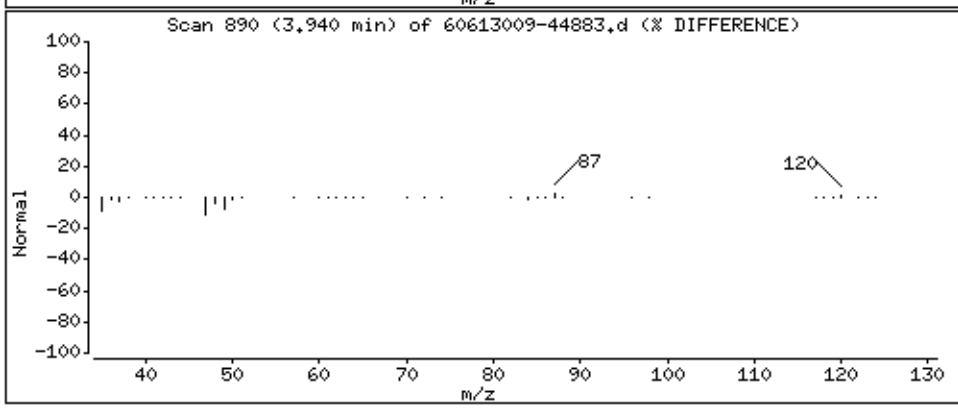
33 Chloroform

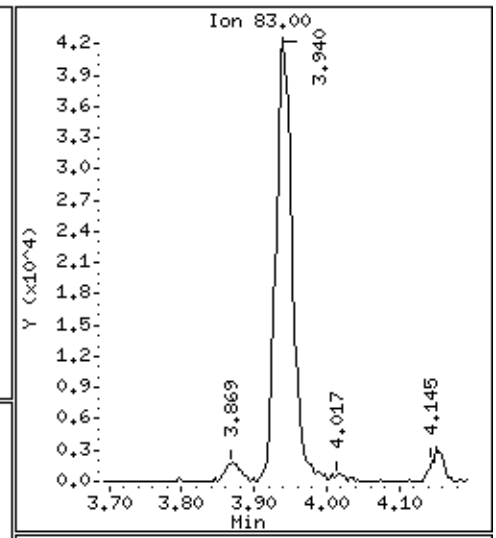
Concentration: 14.9 ug/L

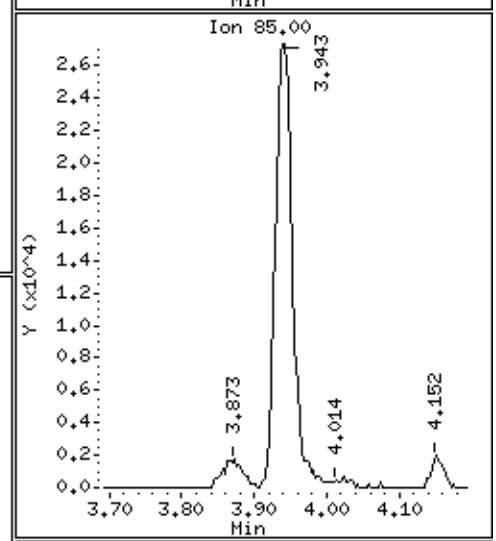


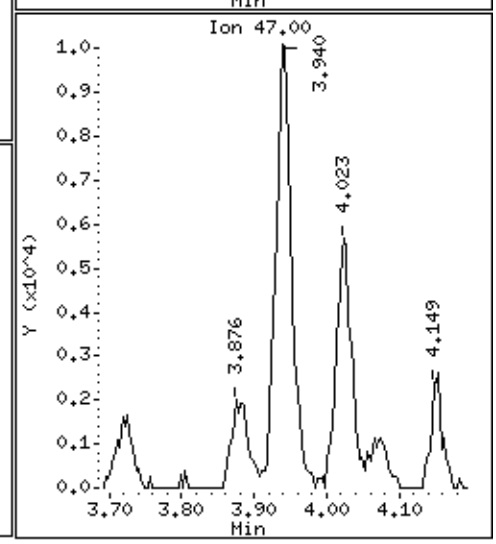












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

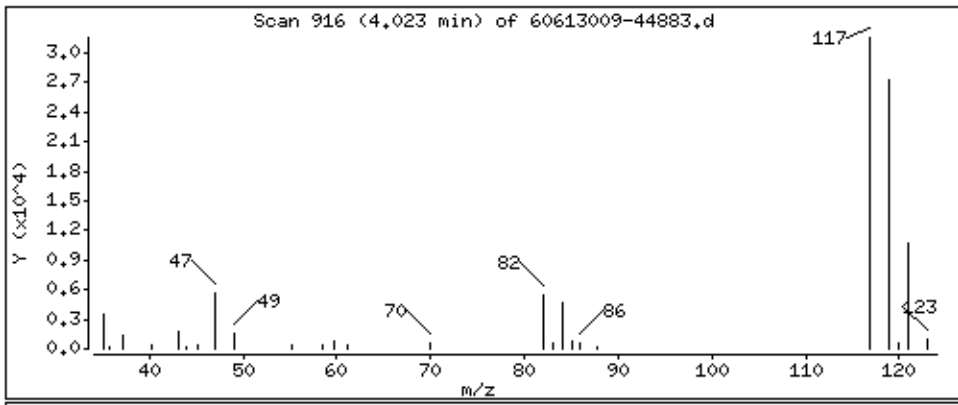
Operator: JEW

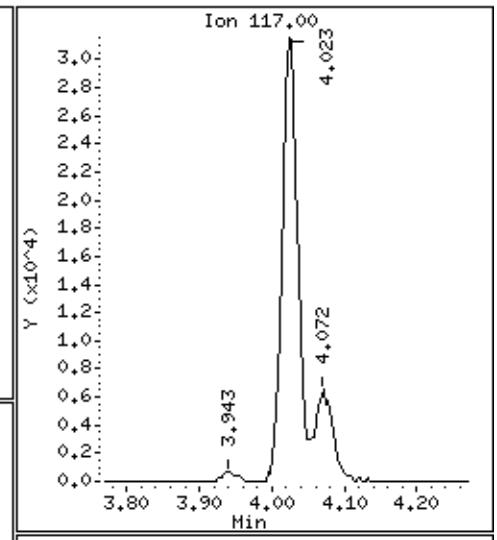
Column phase: RTX-VMS

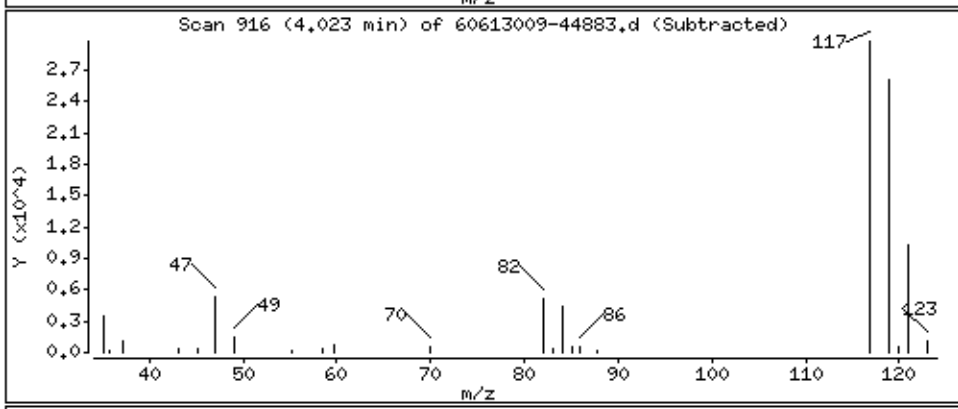
Column diameter: 0.18

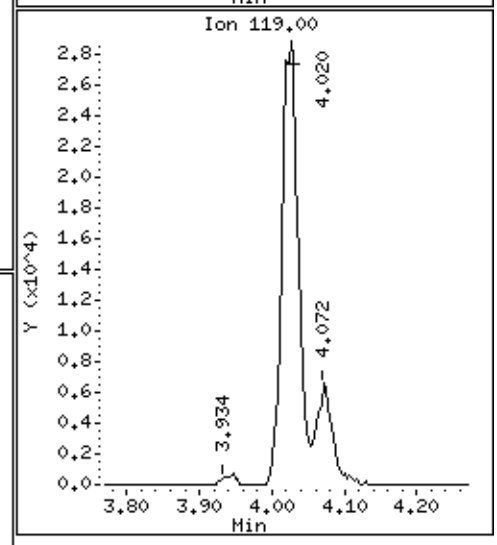
34 Carbon tetrachloride

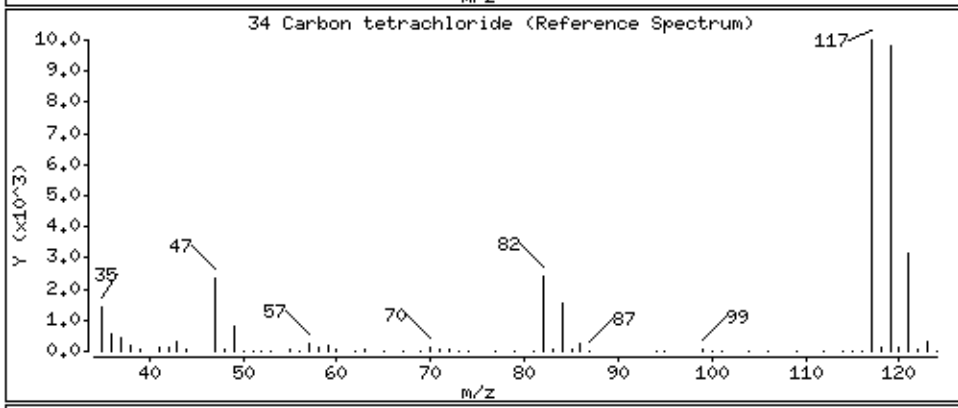
Concentration: 12.1 ug/L

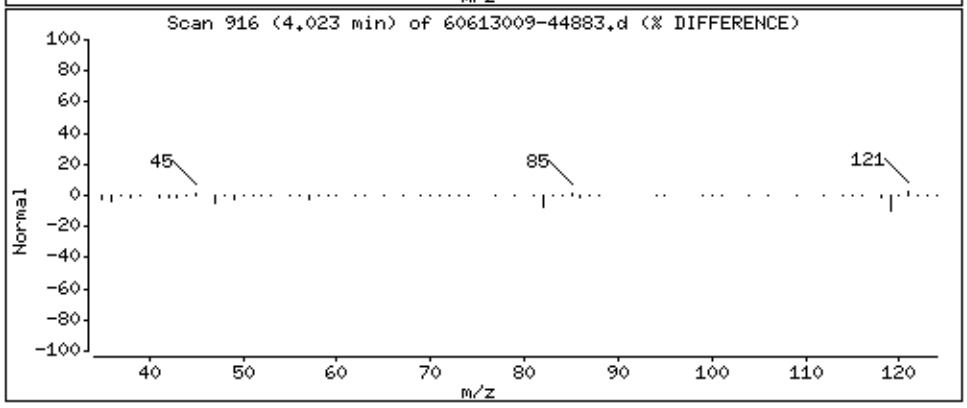












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

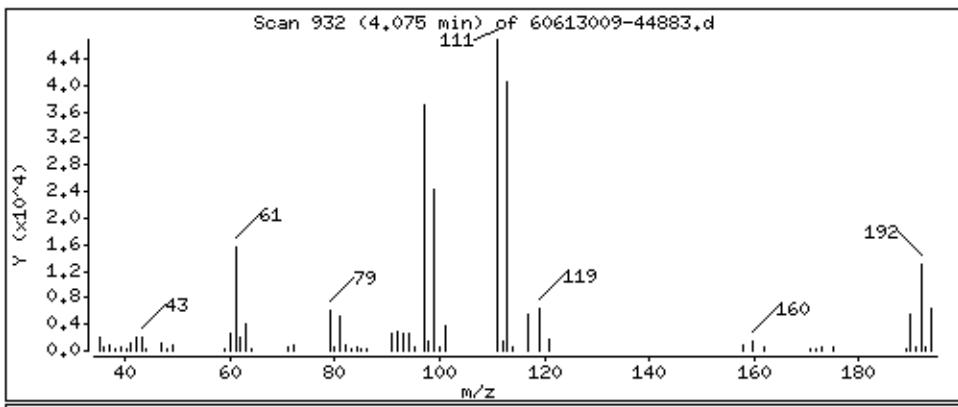
Operator: JEW

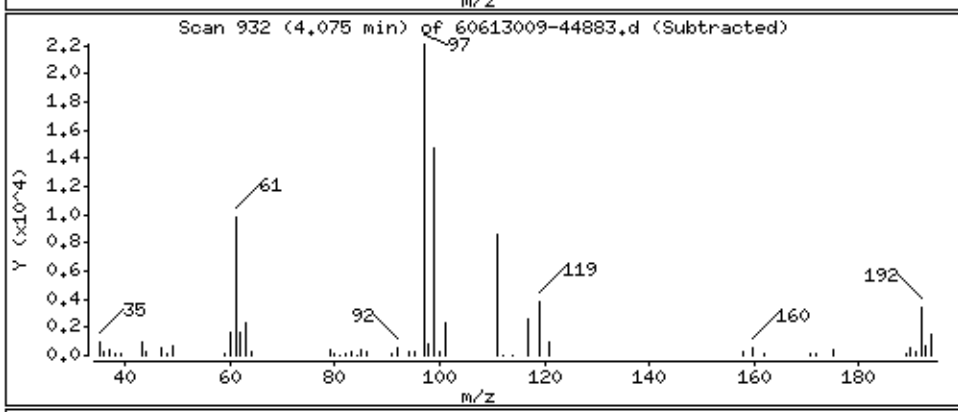
Column phase: RTX-VMS

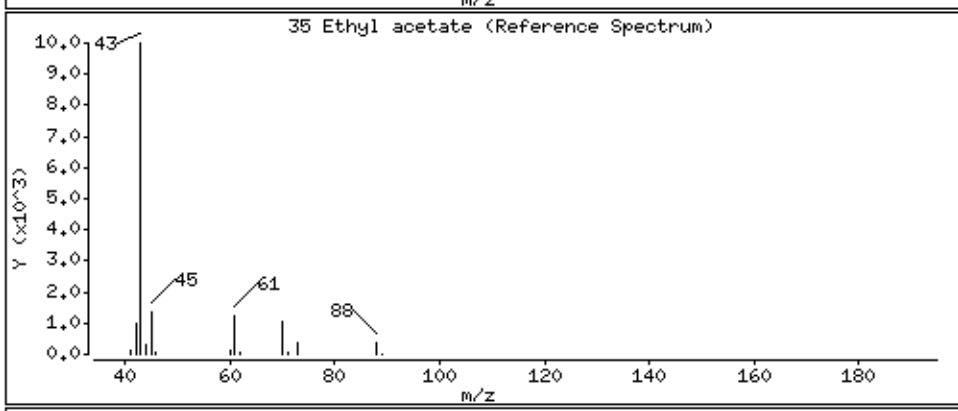
Column diameter: 0.18

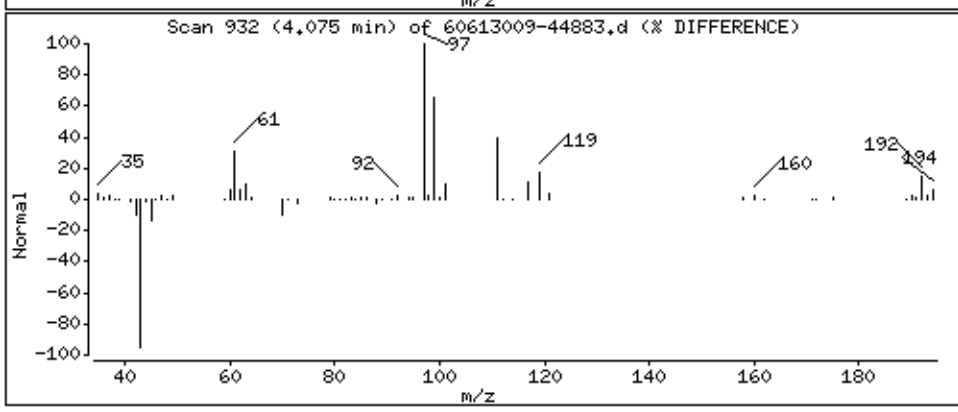
35 Ethyl acetate

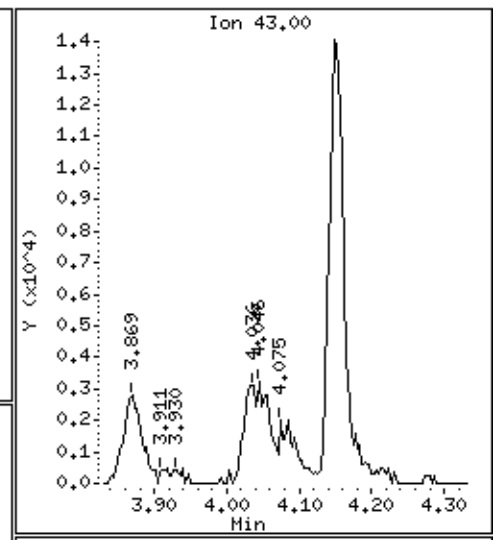
Concentration: 10.2 ug/L

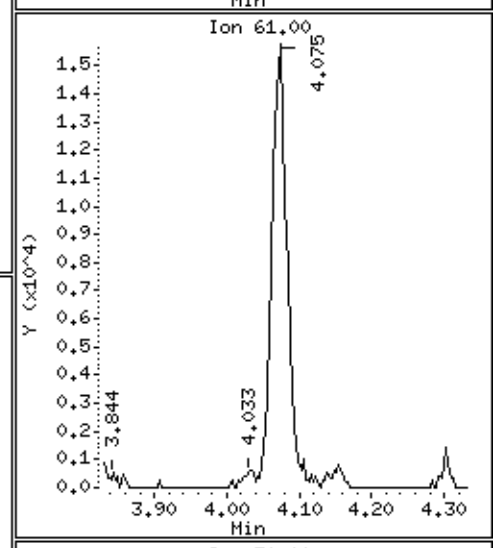


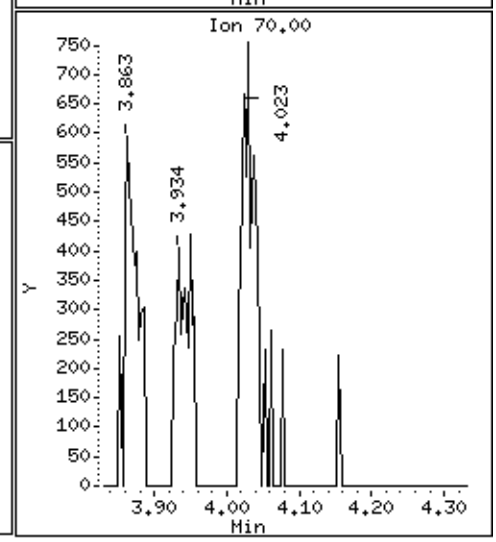












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

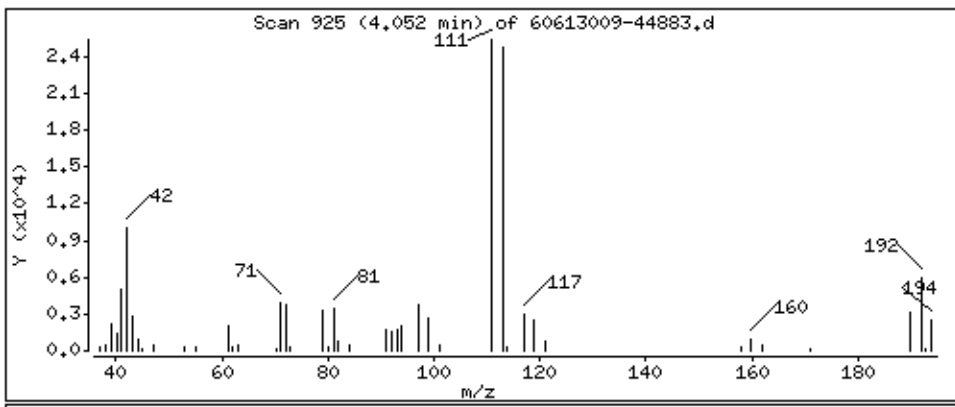
Operator: JEW

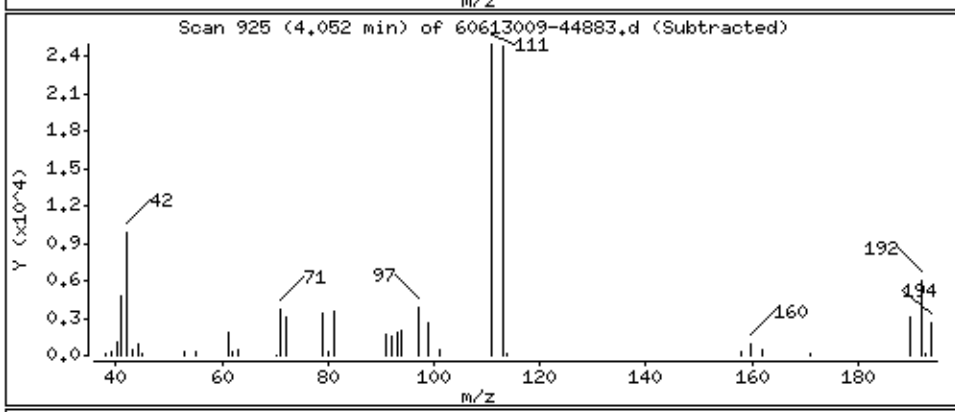
Column phase: RTX-VMS

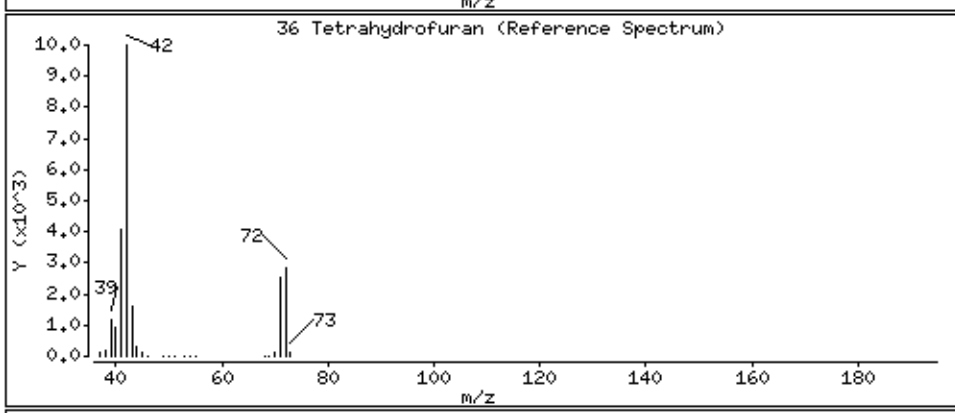
Column diameter: 0.18

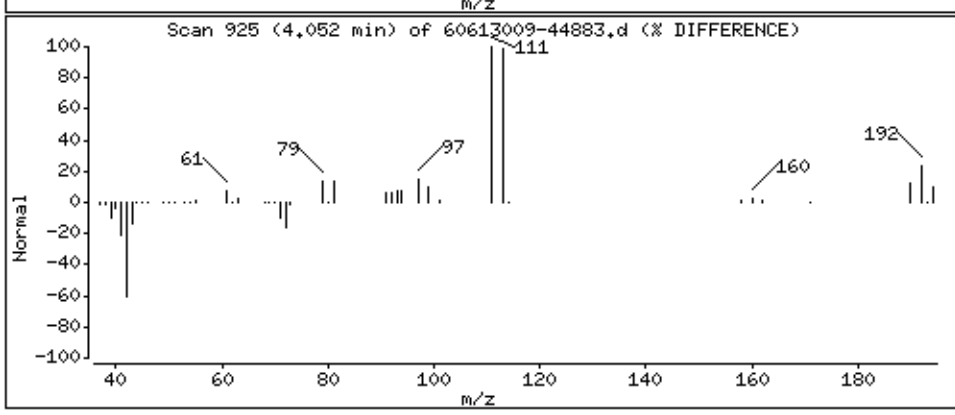
36 Tetrahydrofuran

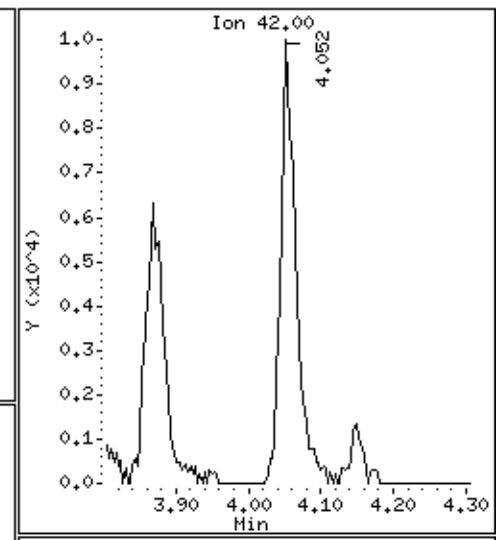
Concentration: 15.0 ug/L

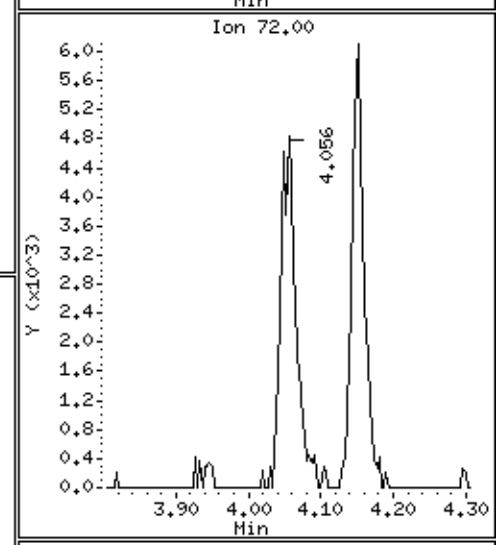


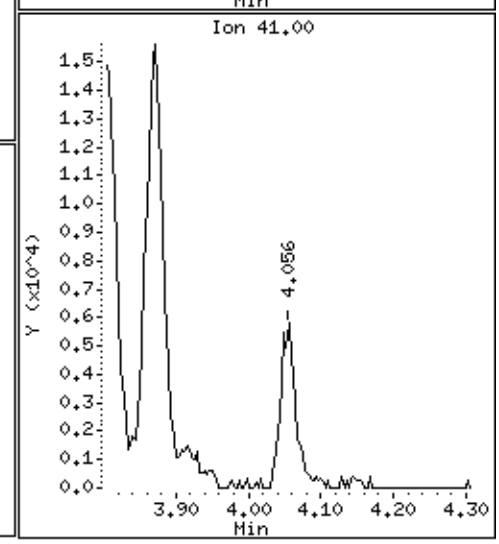












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

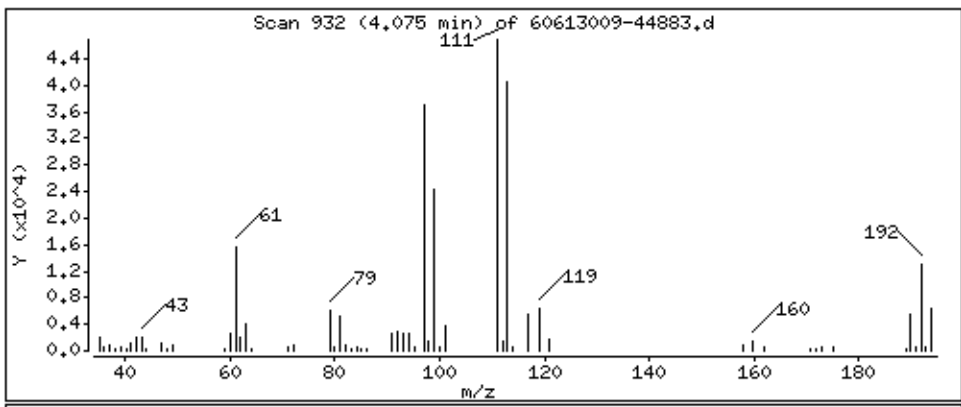
Operator: JEW

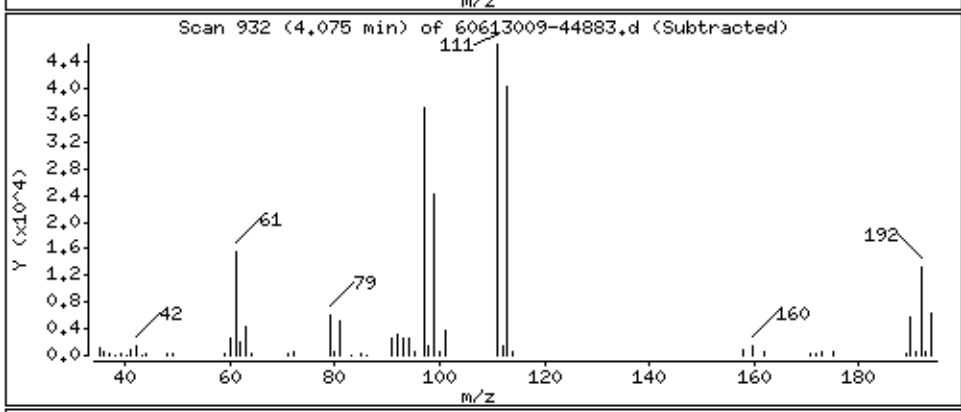
Column phase: RTX-VMS

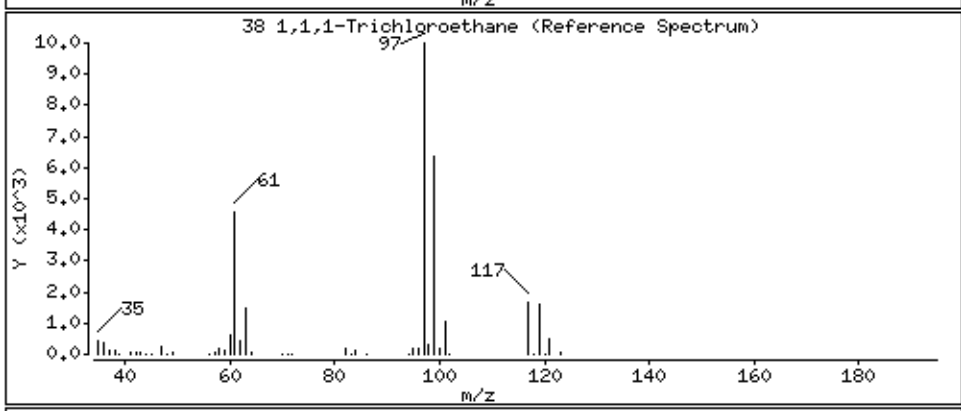
Column diameter: 0.18

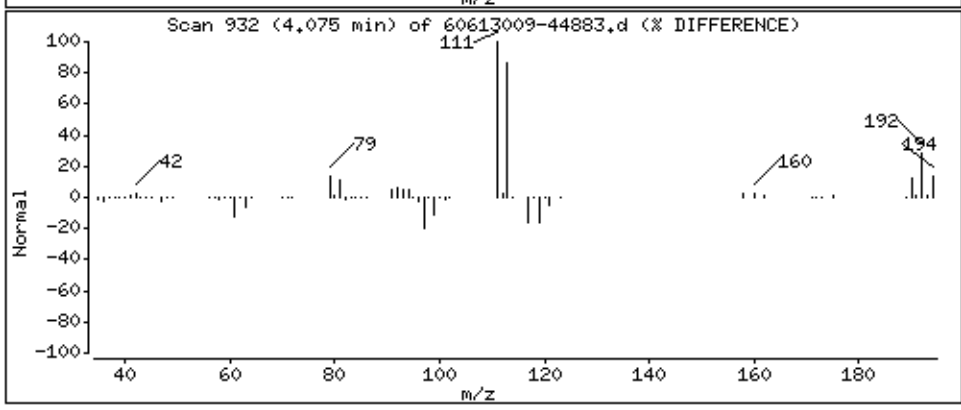
38 1,1,1-Trichloroethane

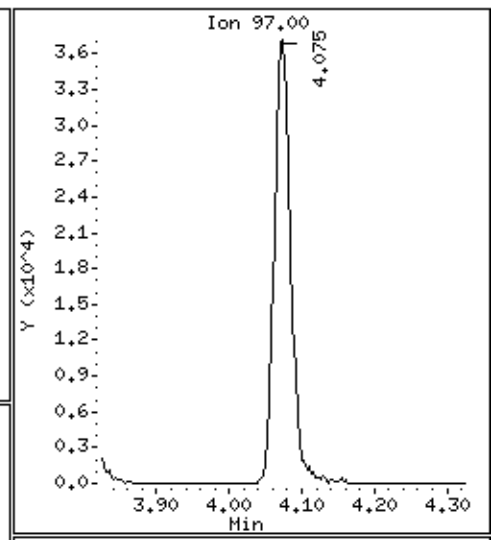
Concentration: 14.4 ug/L

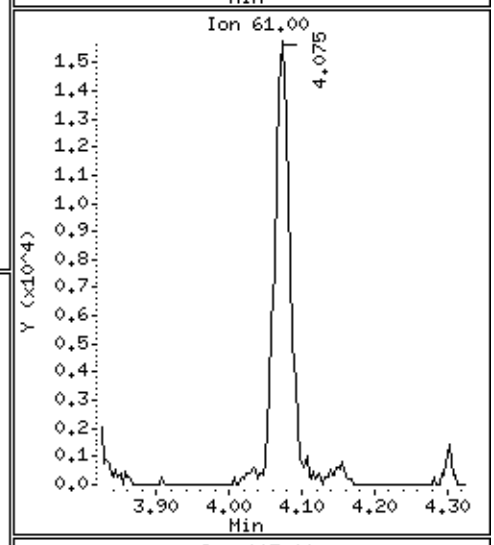


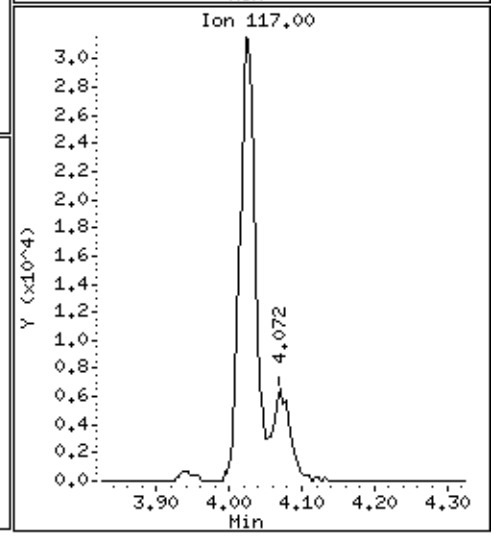












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

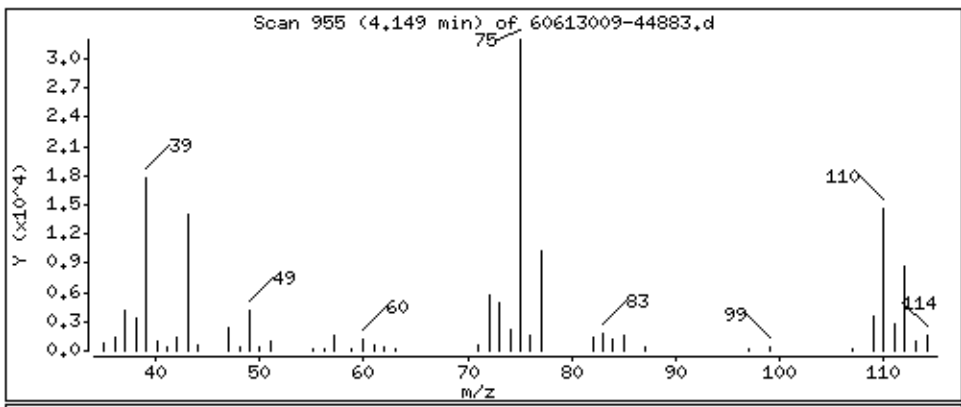
Operator: JEW

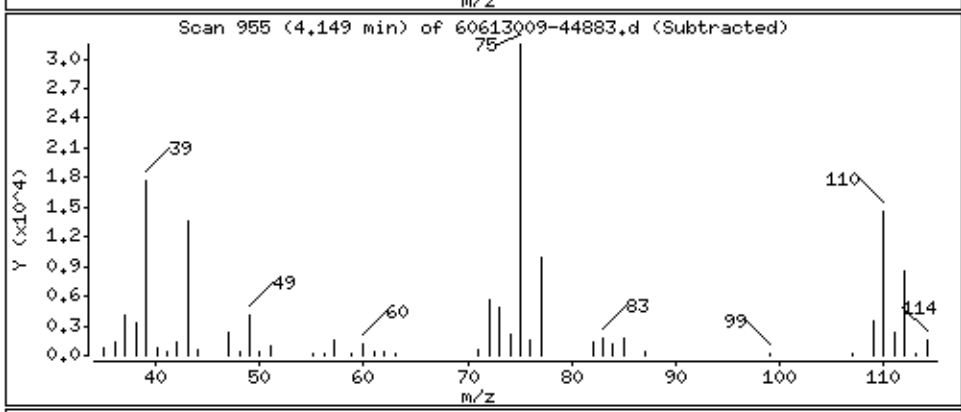
Column phase: RTX-VMS

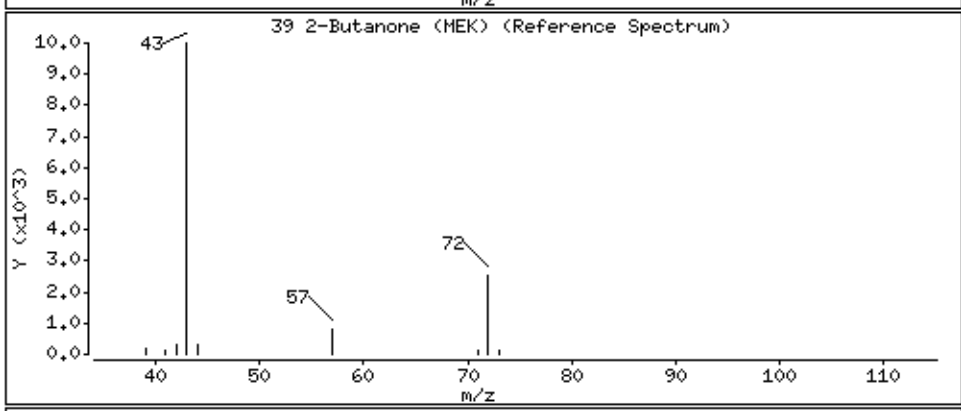
Column diameter: 0.18

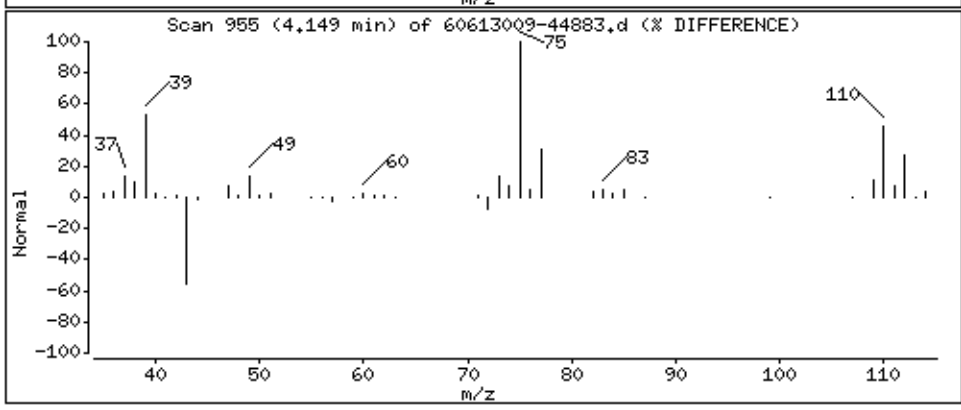
39 2-Butanone (MEK)

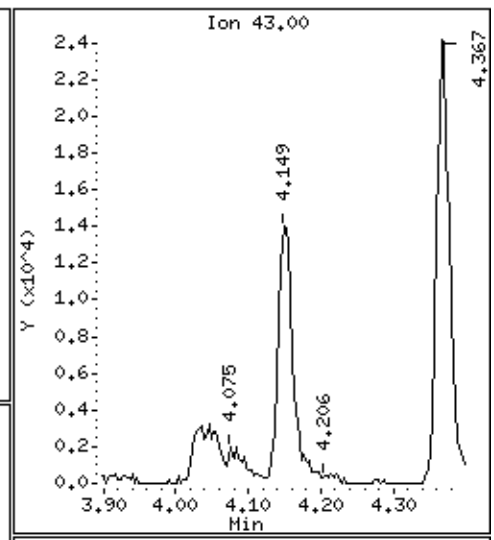
Concentration: 11.9 ug/L

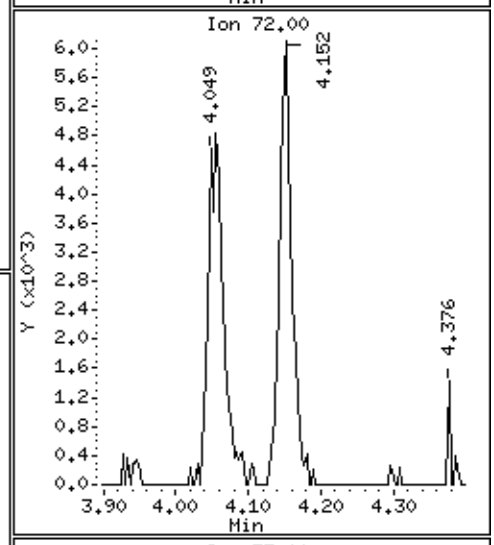


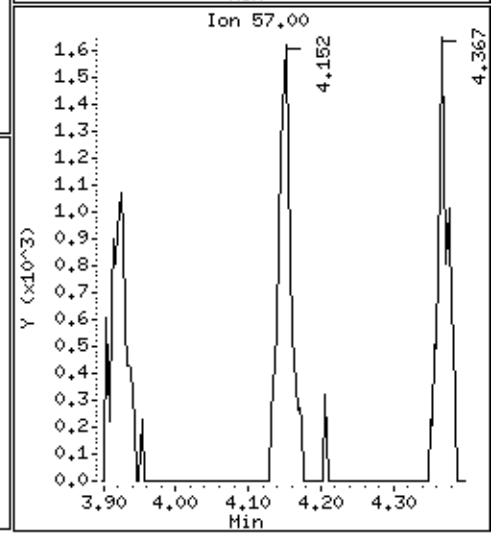












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

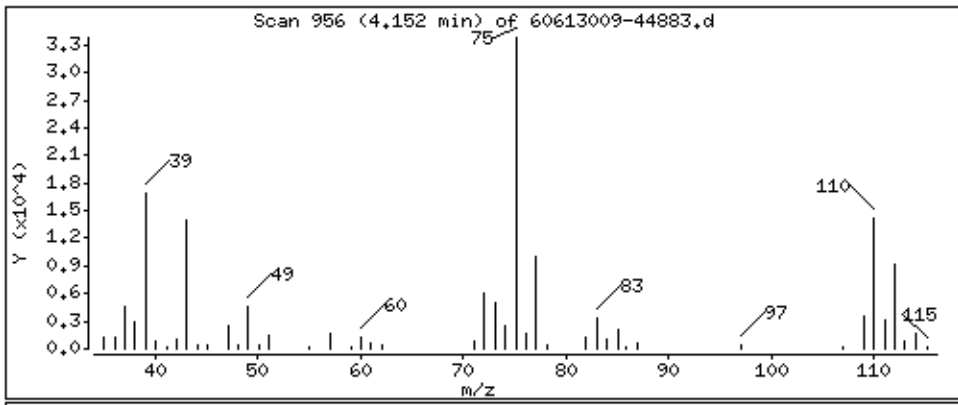
Operator: JEW

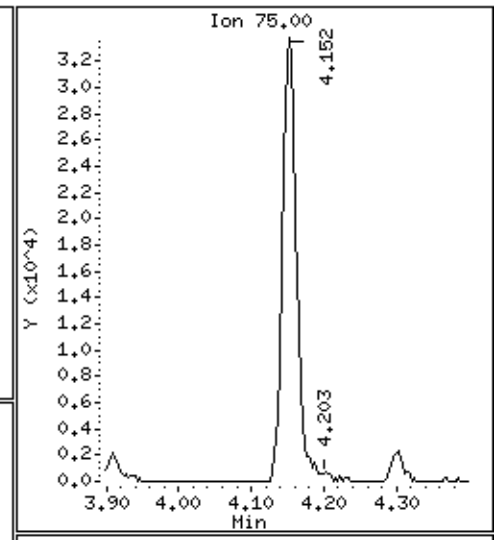
Column phase: RTX-VMS

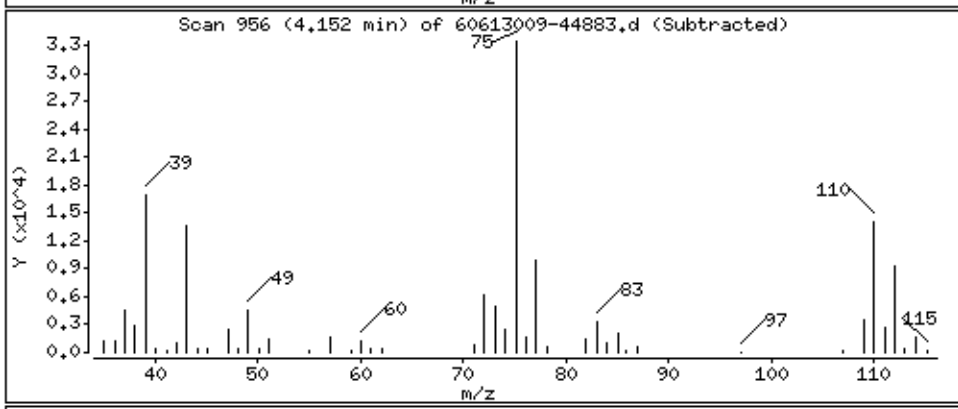
Column diameter: 0.18

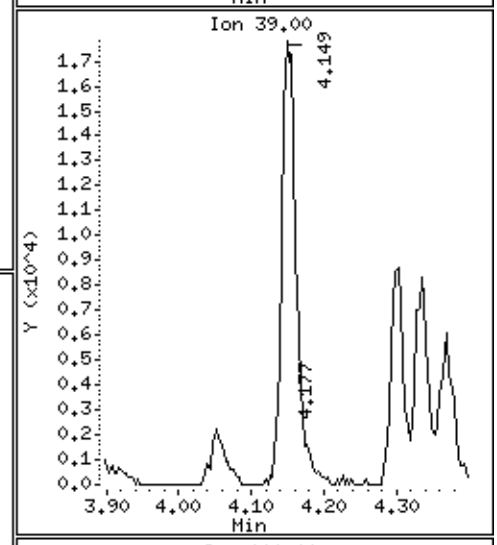
40 1,1-Dichloropropene

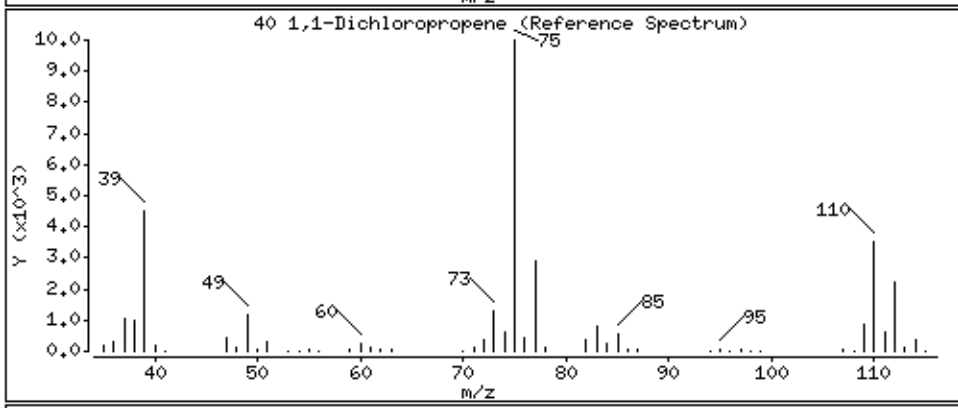
Concentration: 14.0 ug/L

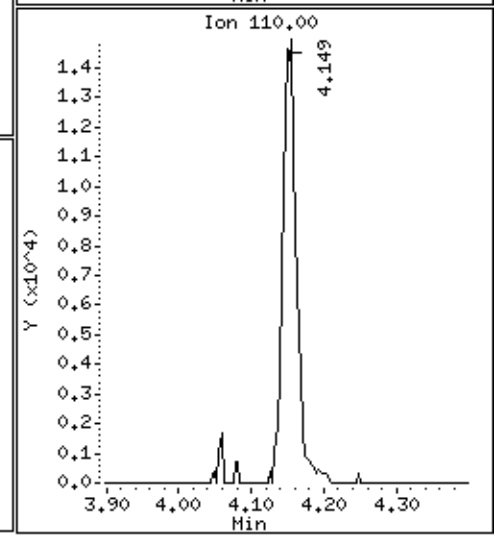


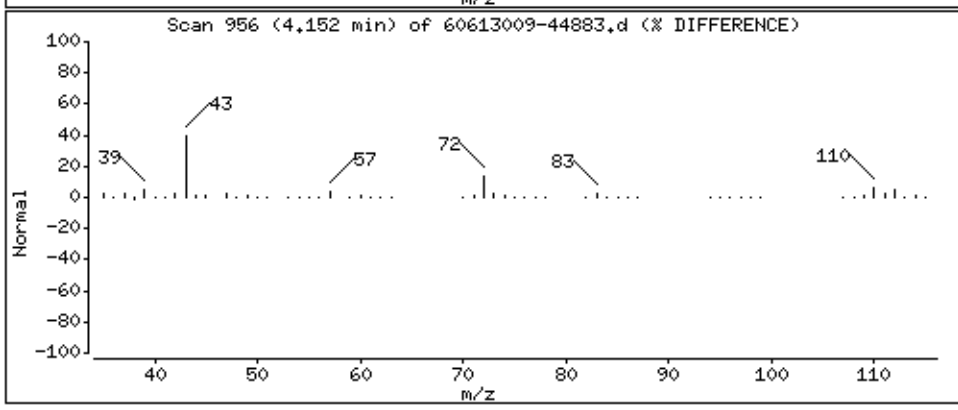












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

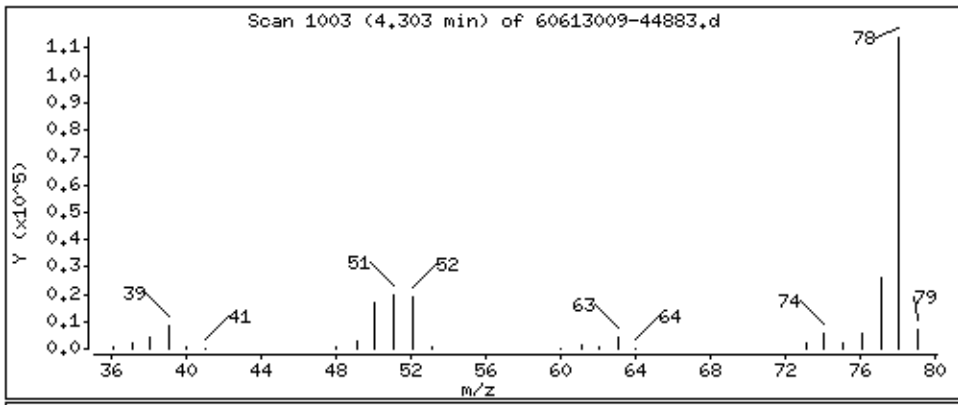
Operator: JEW

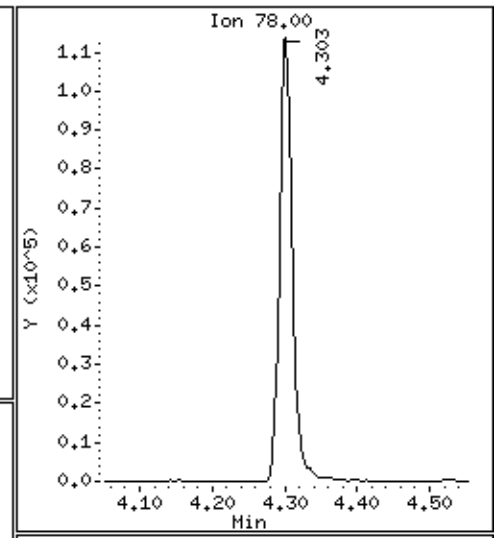
Column phase: RTX-VMS

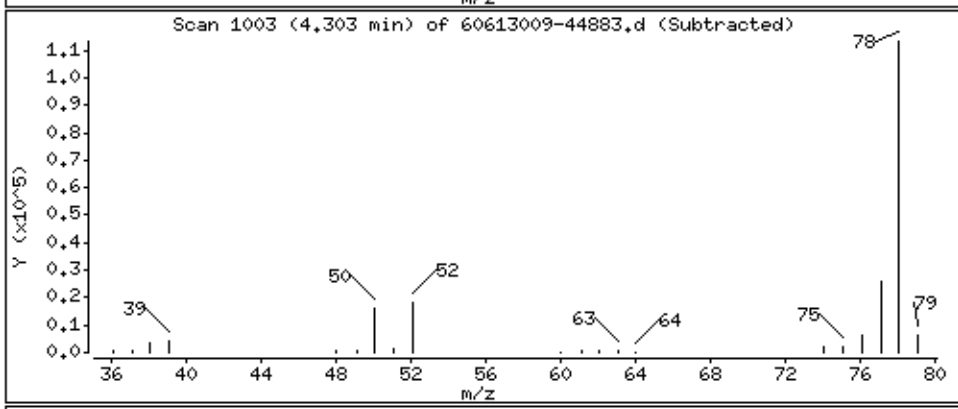
Column diameter: 0.18

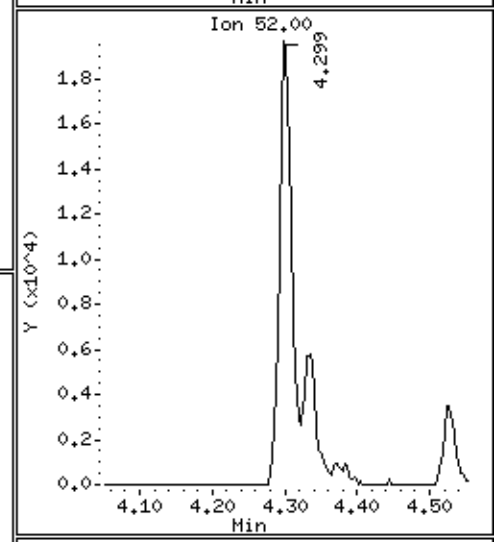
41 Benzene

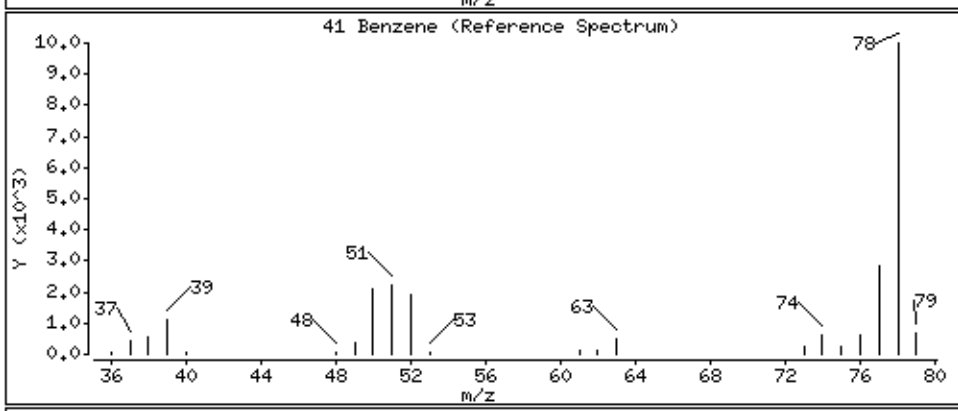
Concentration: 15.3 ug/L

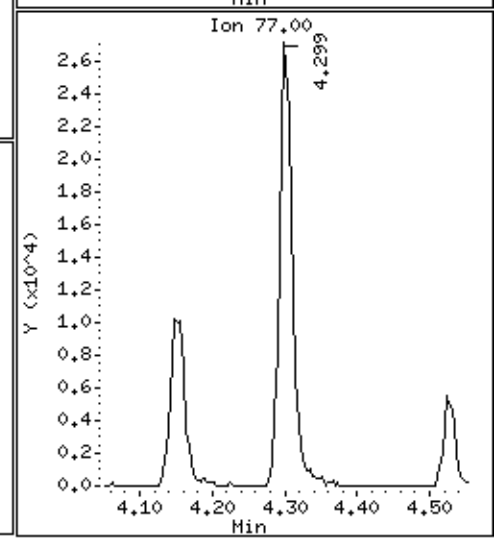


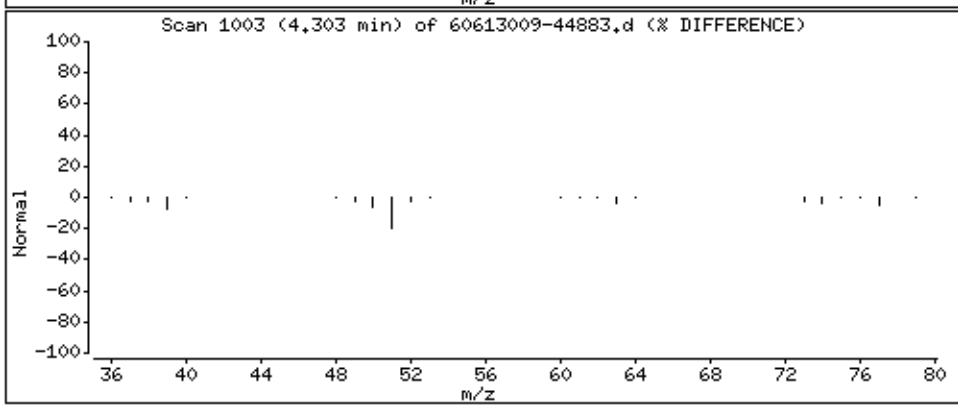












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

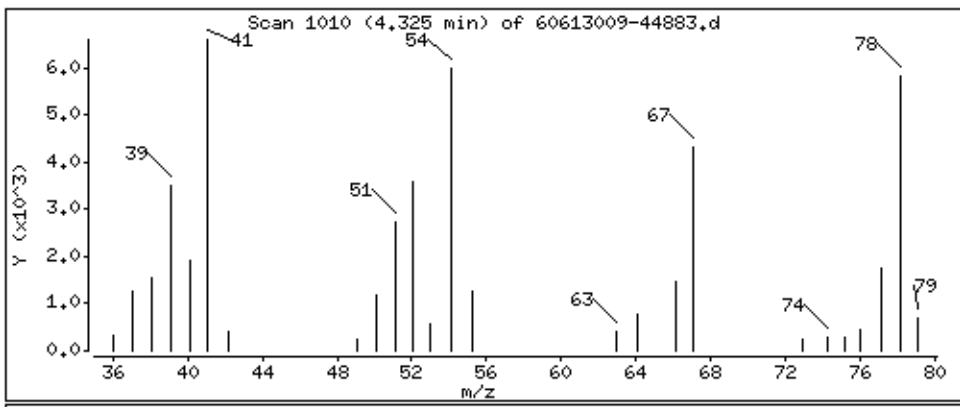
Operator: JEW

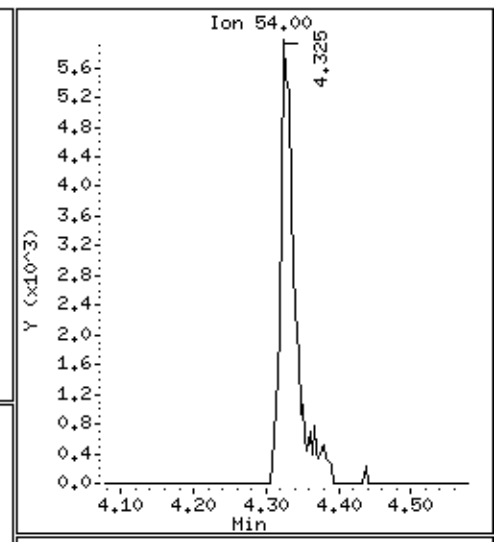
Column phase: RTX-VMS

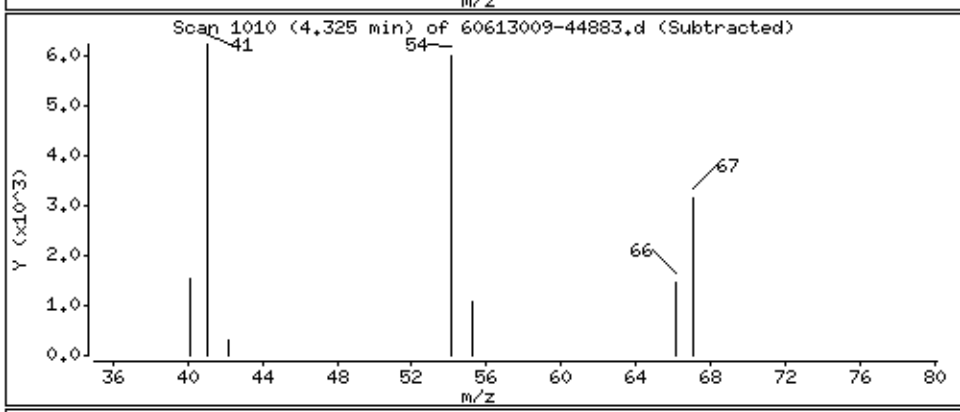
Column diameter: 0.18

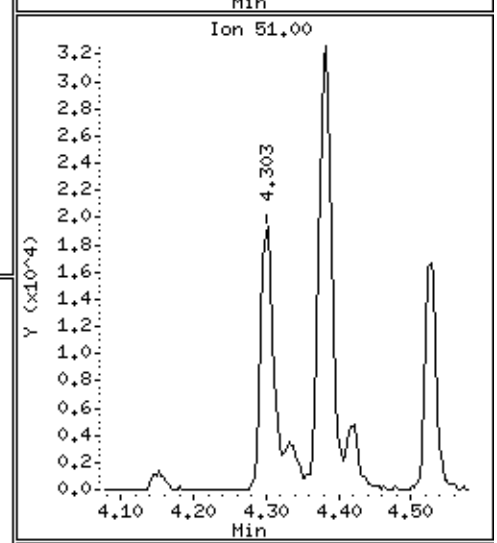
42 Propionitrile

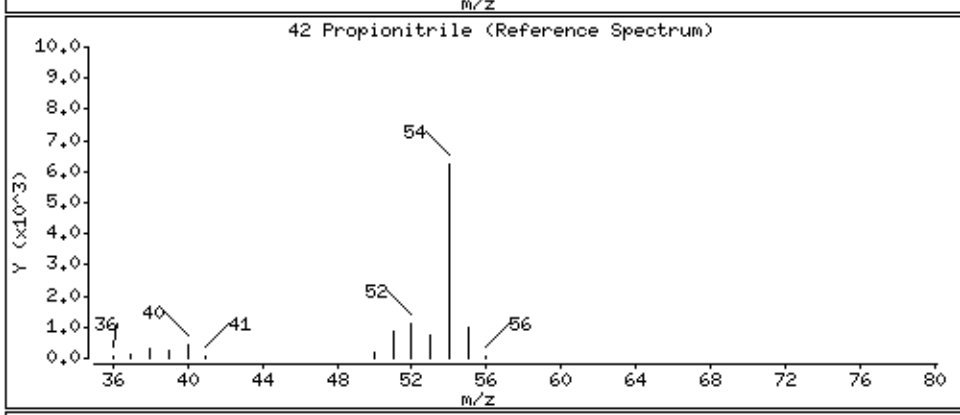
Concentration: 15.0 ug/L

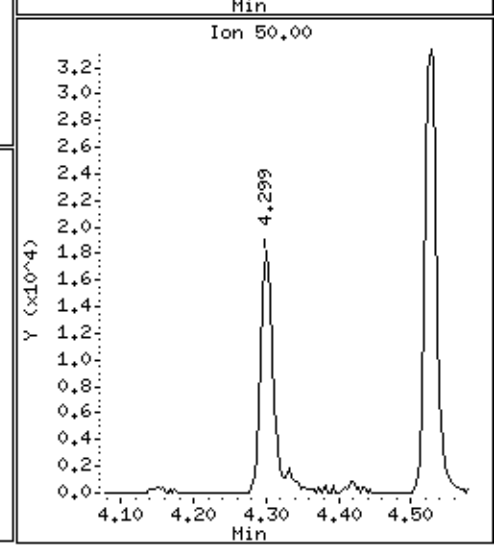


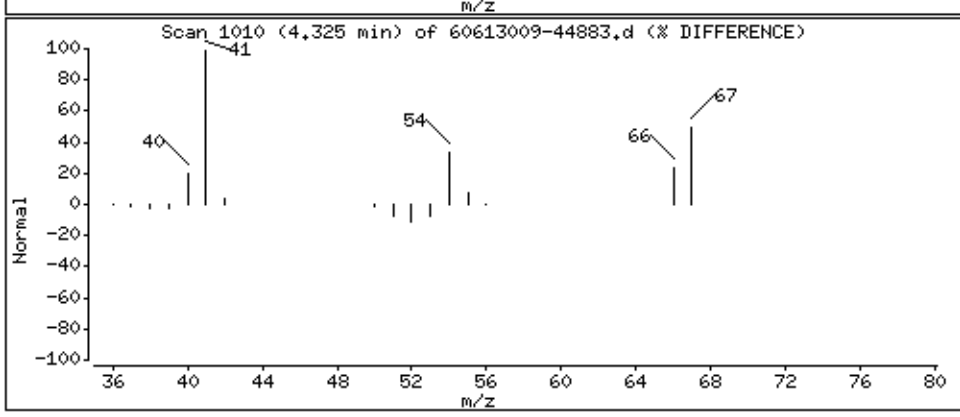












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

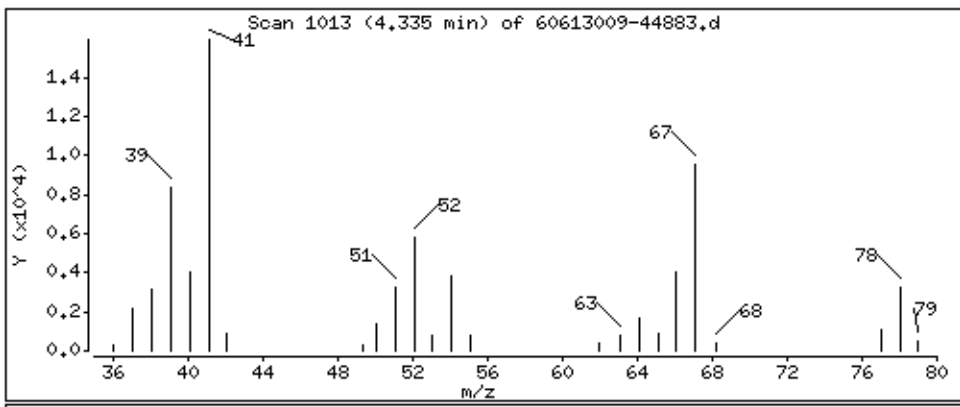
Operator: JEW

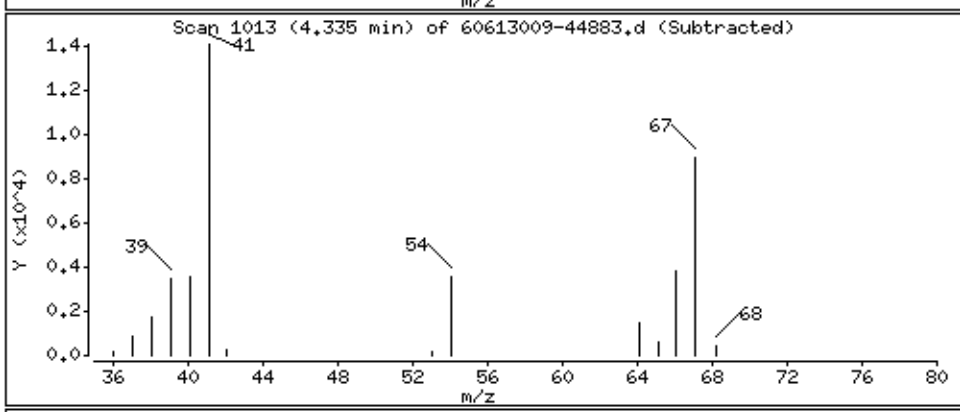
Column phase: RTX-VMS

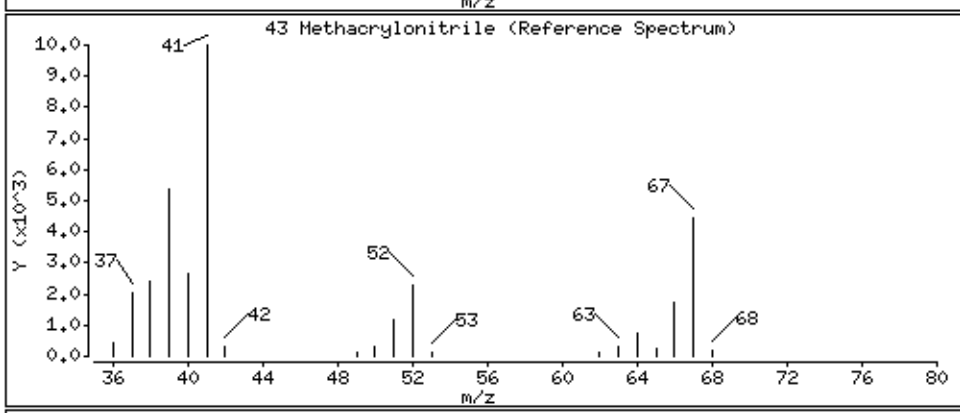
Column diameter: 0.18

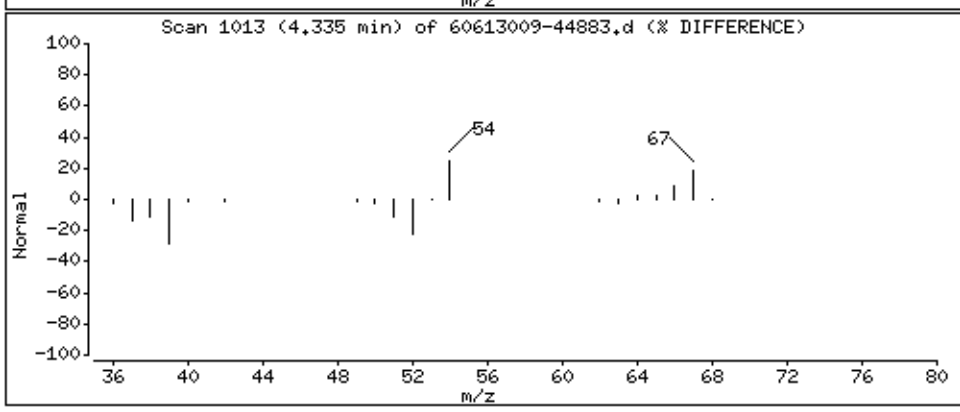
43 Methacrylonitrile

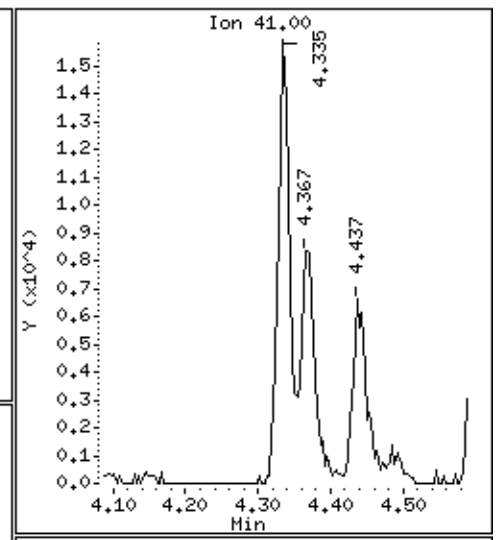
Concentration: 11.0 ug/L

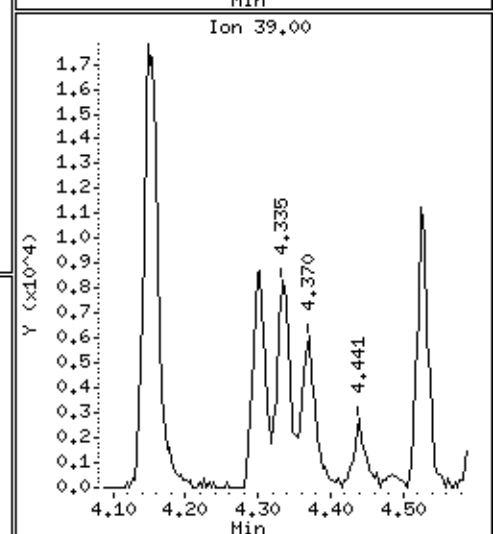


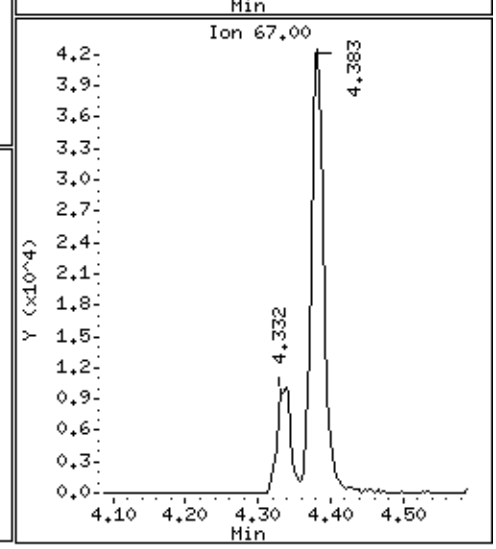












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

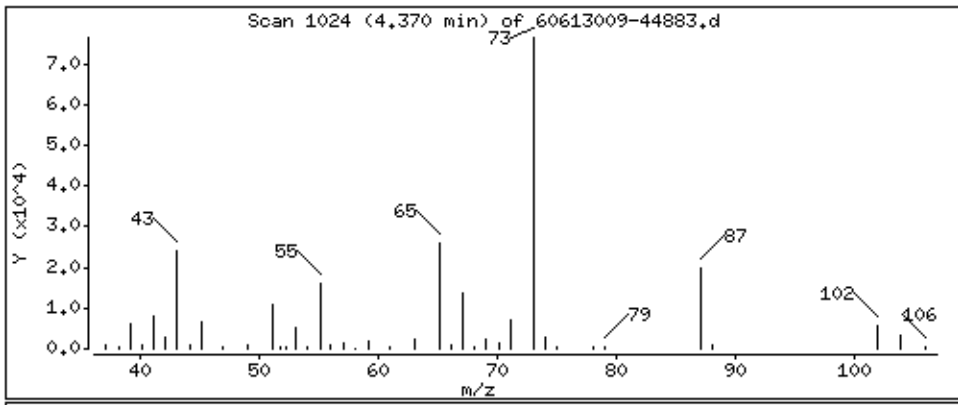
Operator: JEW

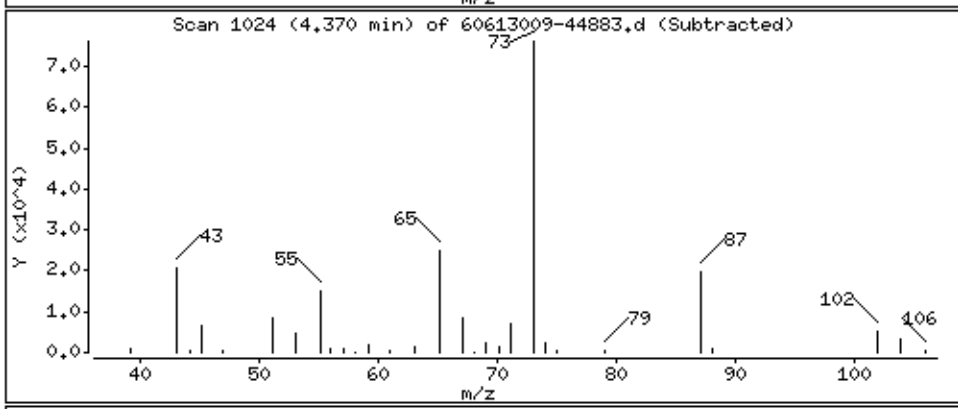
Column phase: RTX-VMS

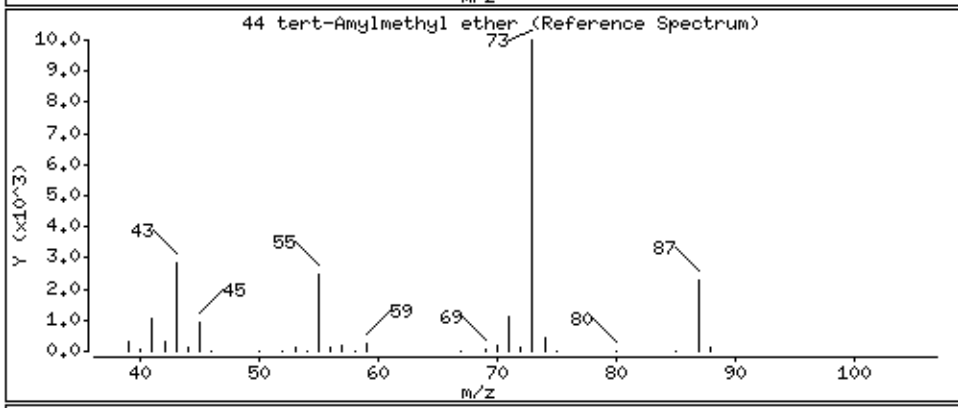
Column diameter: 0.18

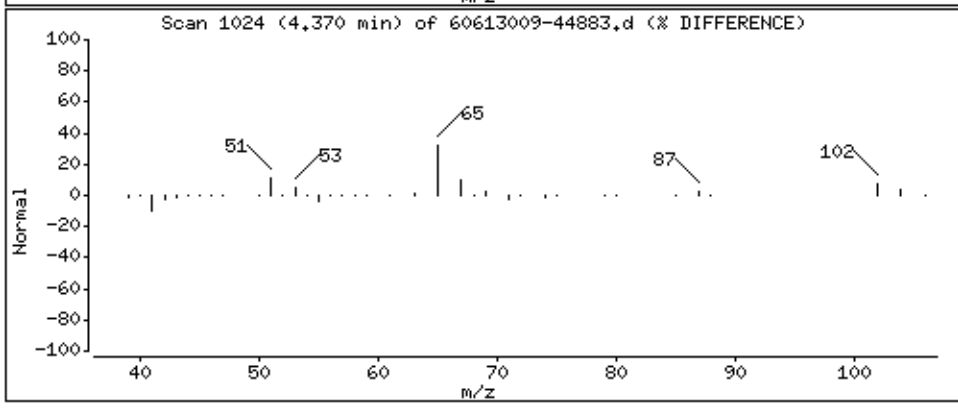
44 tert-Amylmethyl ether

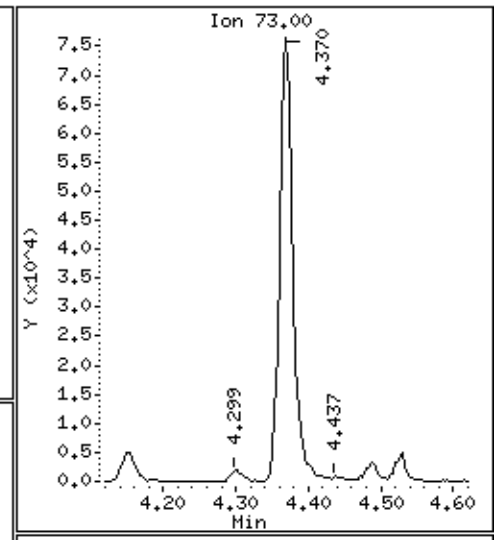
Concentration: 15.0 ug/L

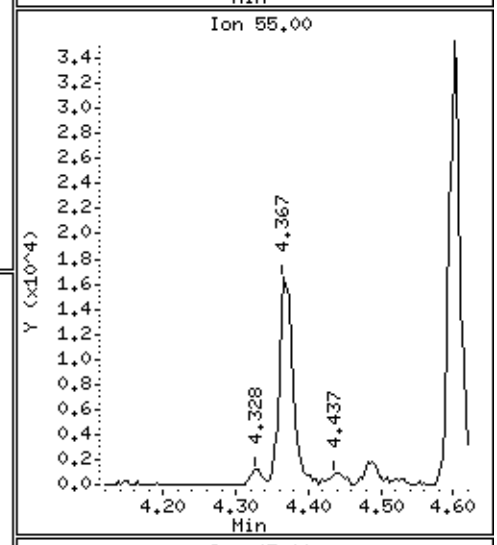


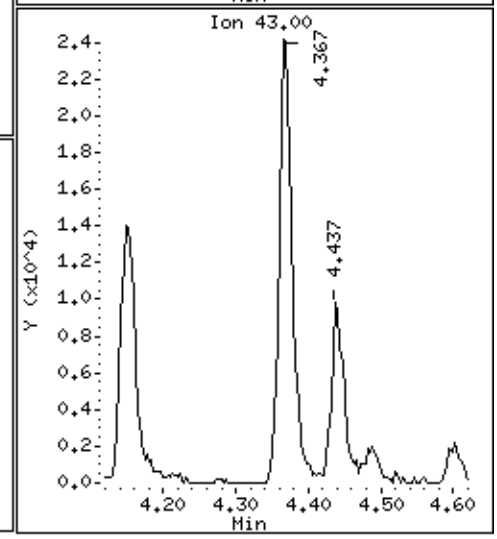












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

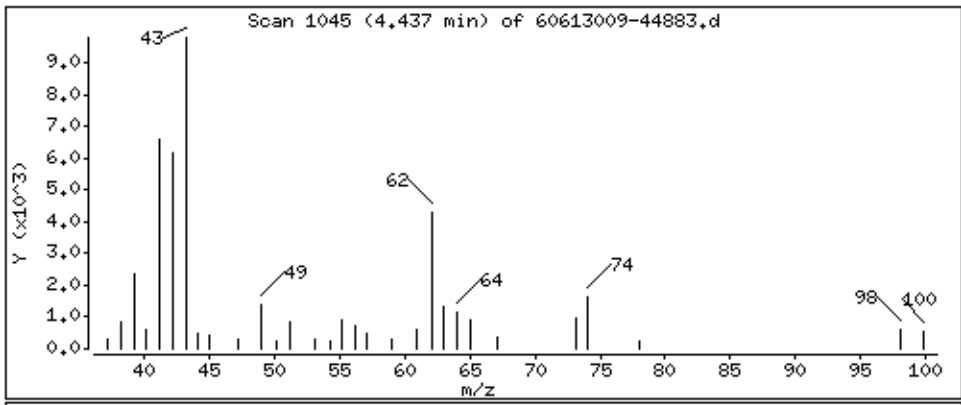
Operator: JEW

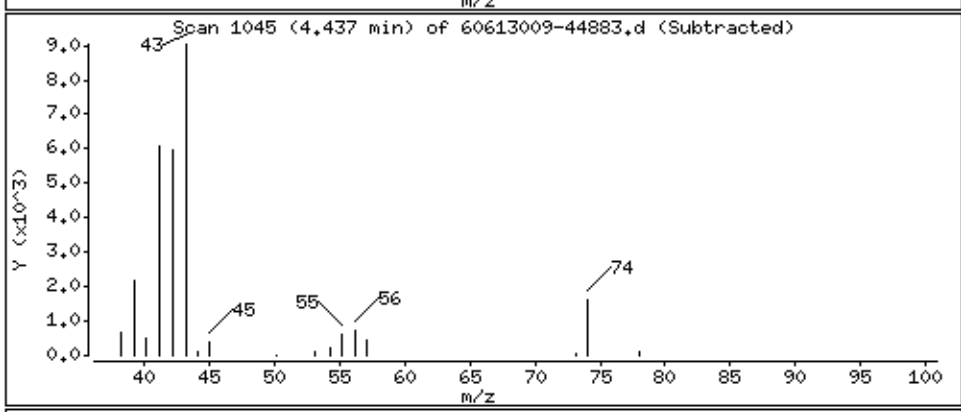
Column phase: RTX-VMS

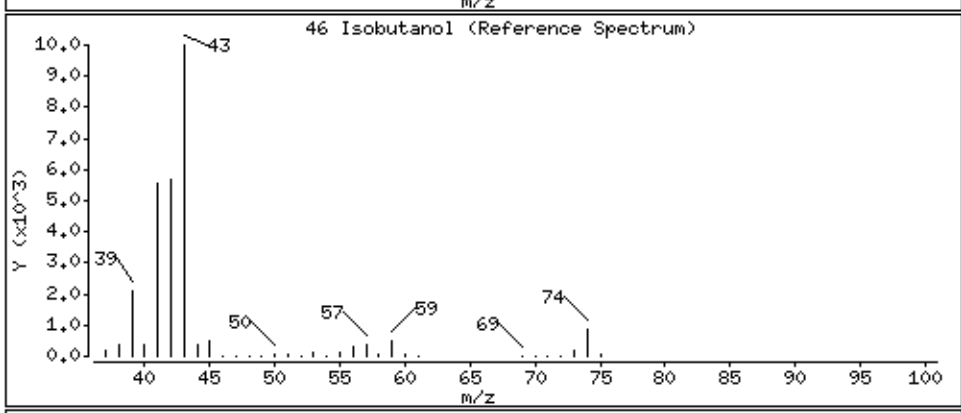
Column diameter: 0.18

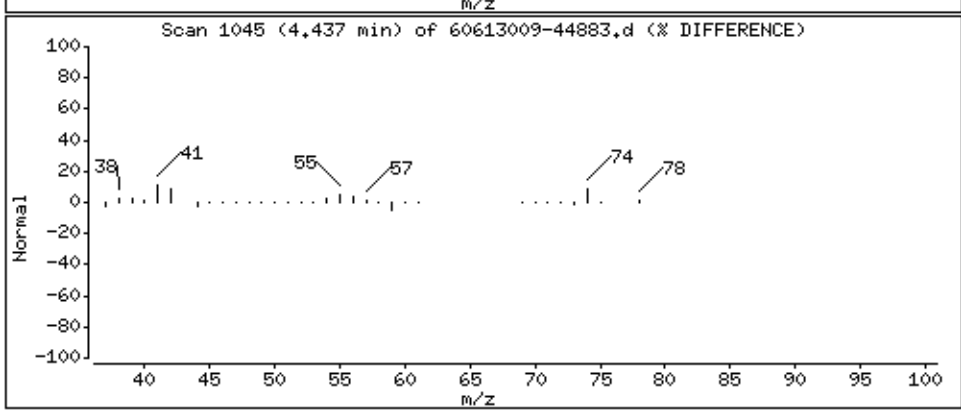
46 Isobutanol

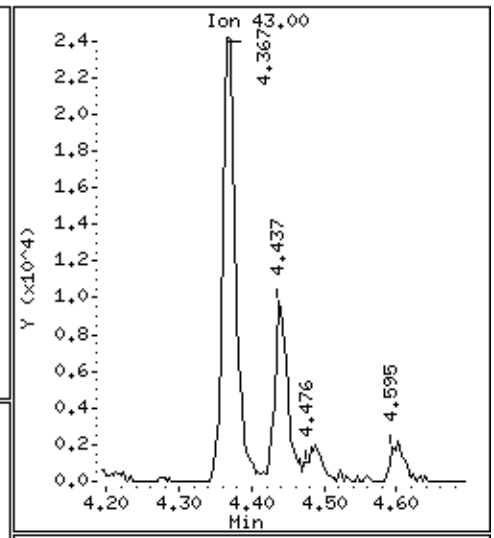
Concentration: 55.5 ug/L

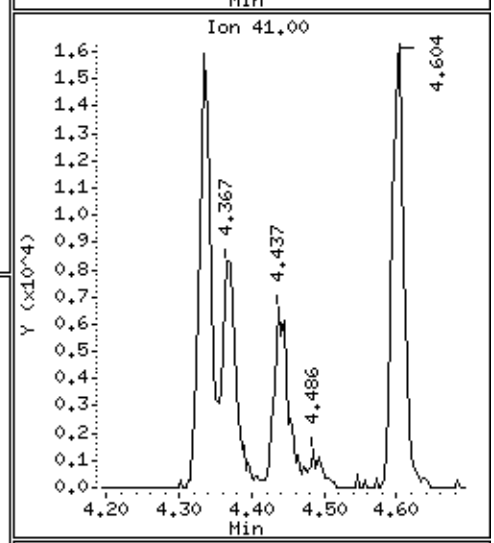


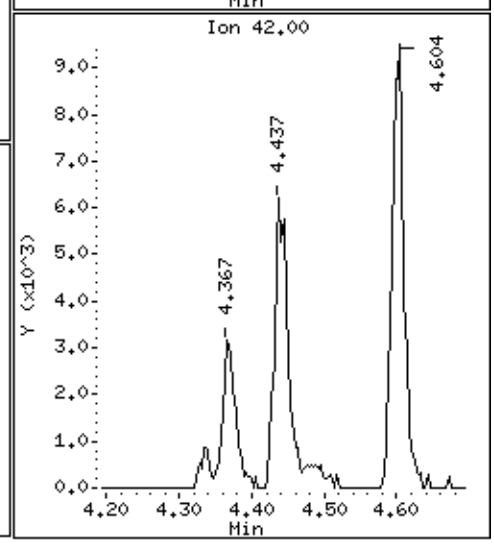












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

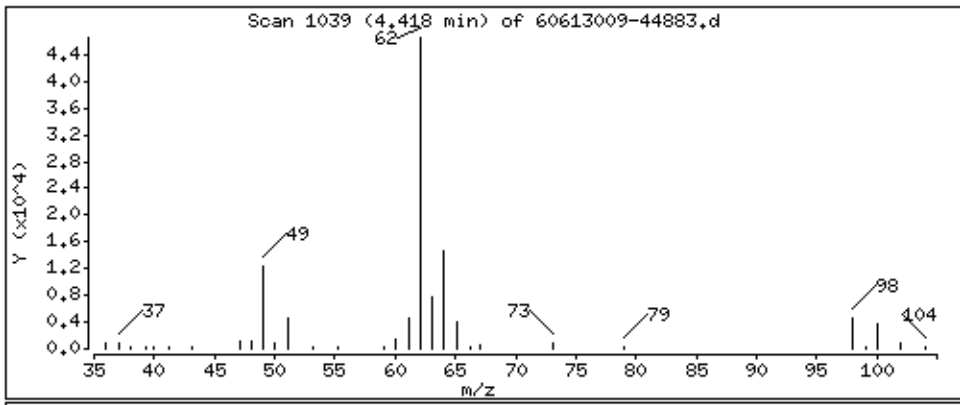
Operator: JEW

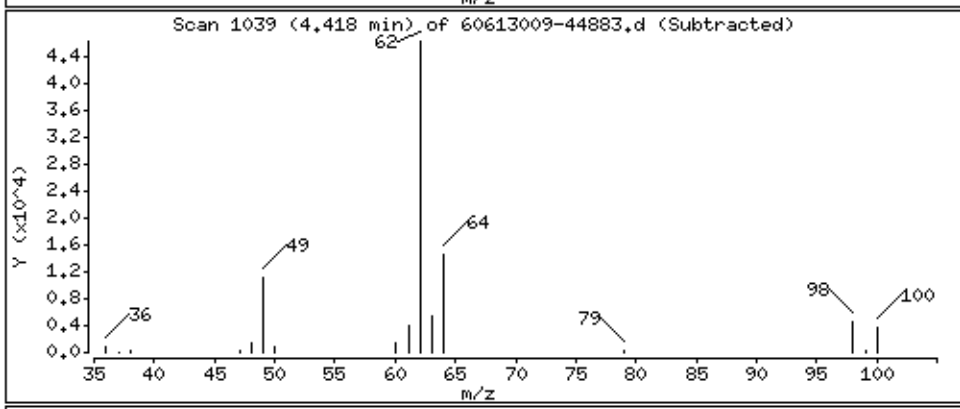
Column phase: RTX-VMS

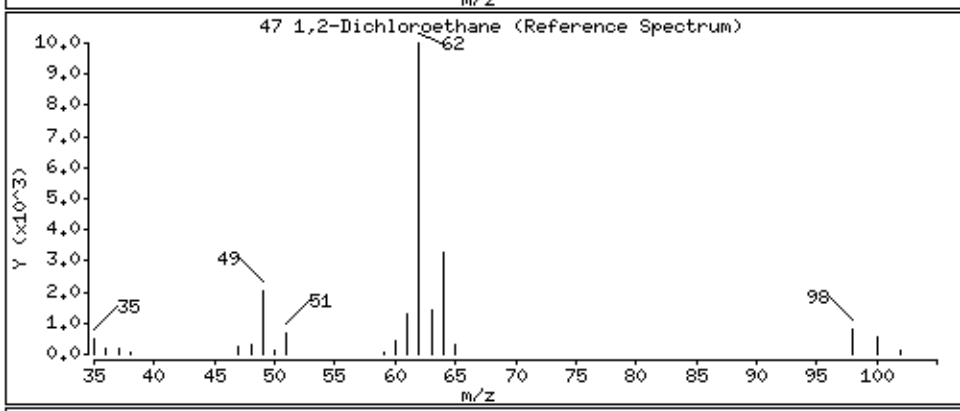
Column diameter: 0.18

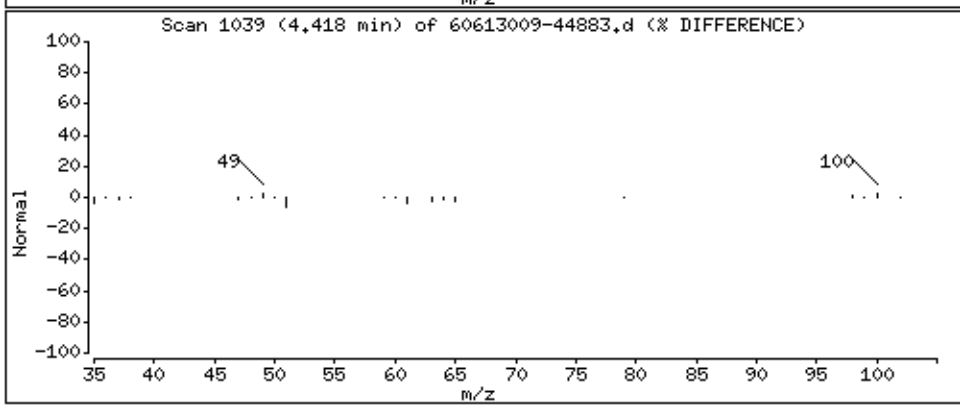
47 1,2-Dichloroethane

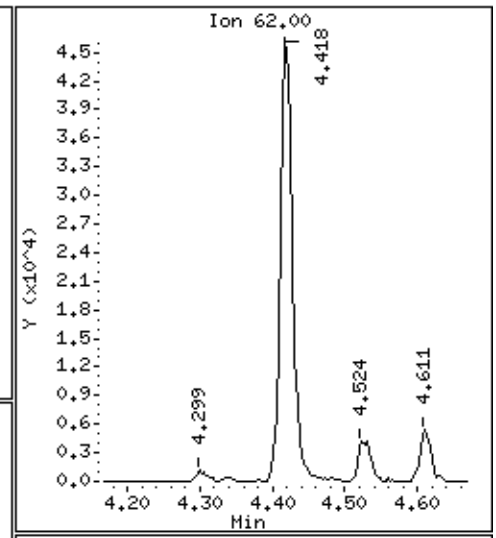
Concentration: 14.4 ug/L

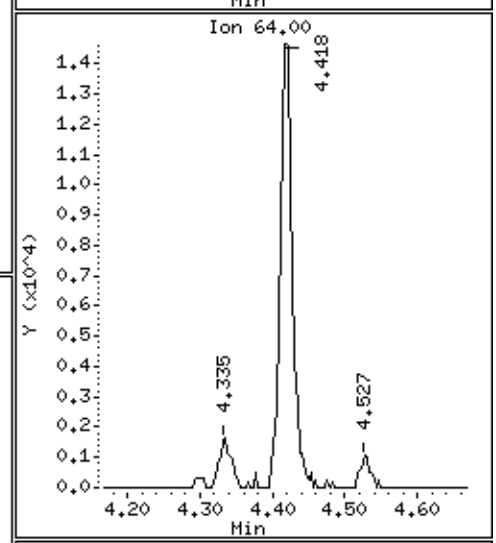


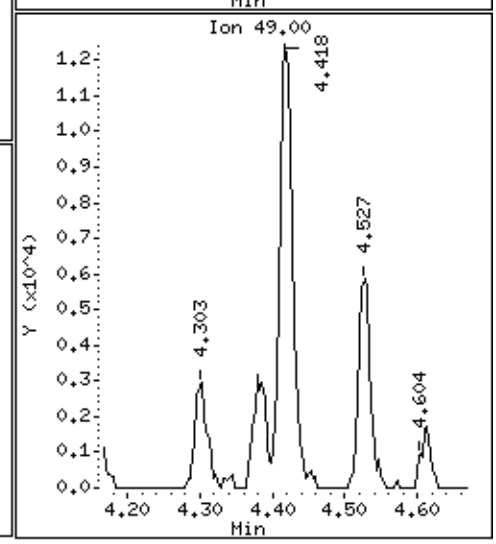












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

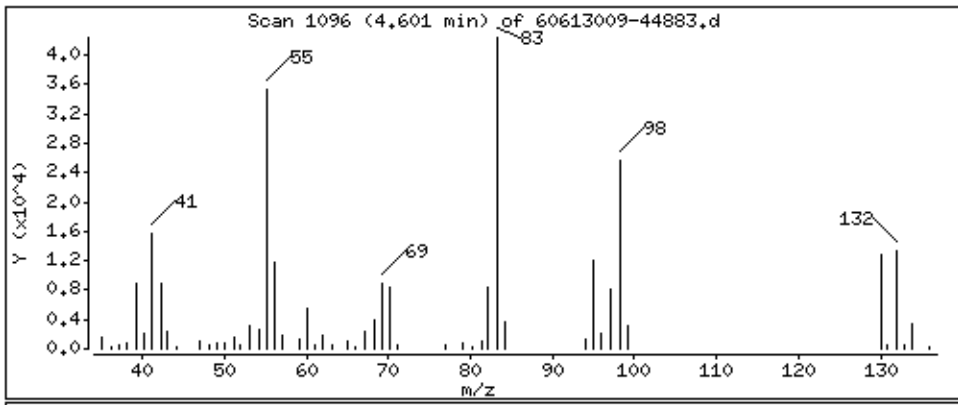
Operator: JEW

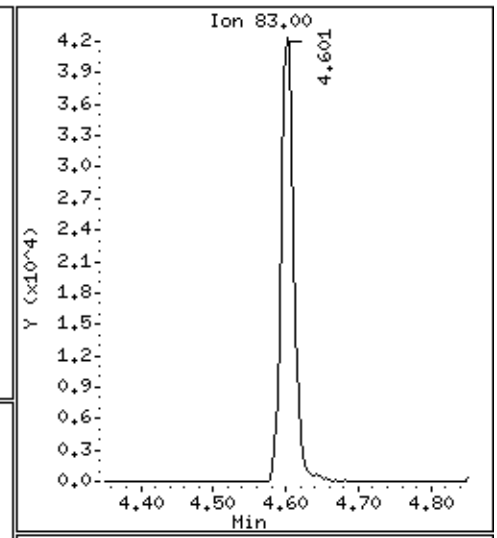
Column phase: RTX-VMS

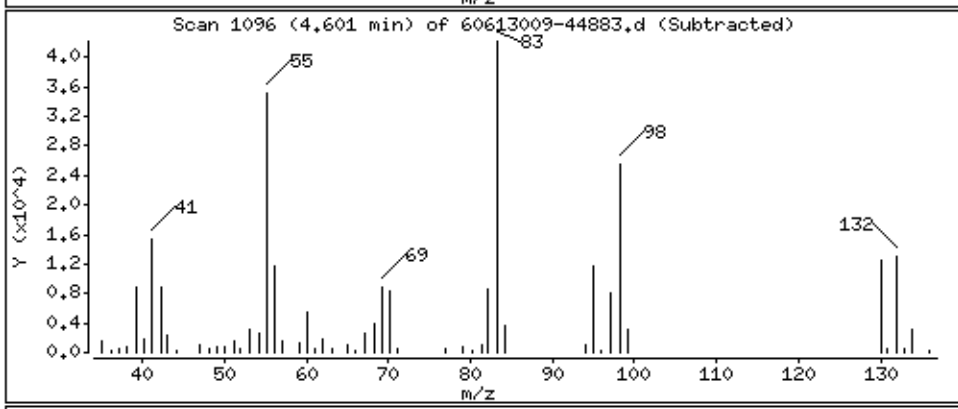
Column diameter: 0.18

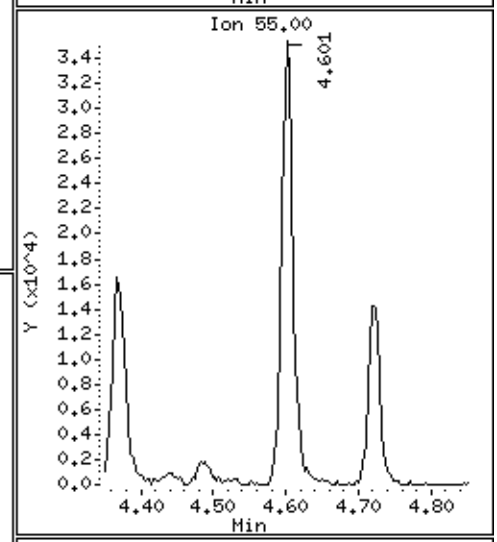
49 Methylcyclohexane

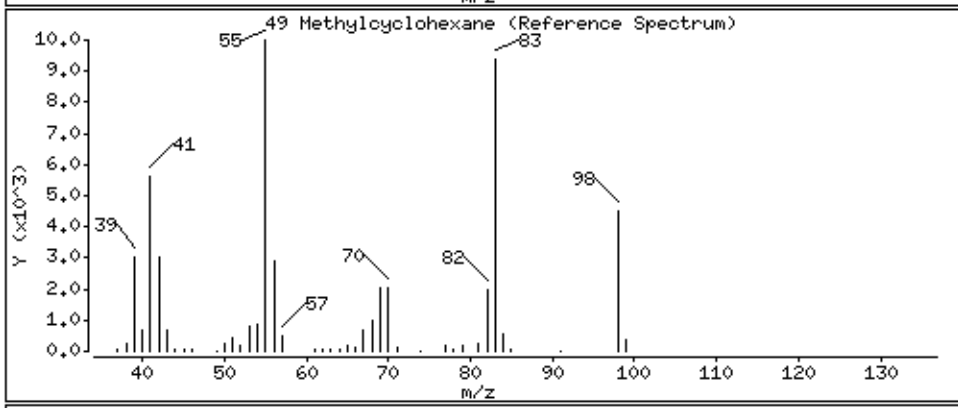
Concentration: 13.0 ug/L

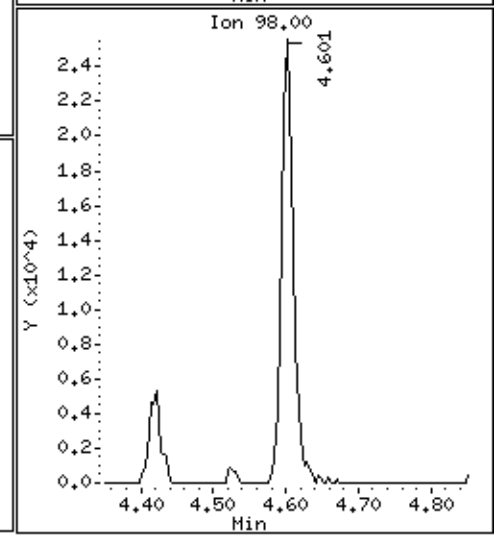


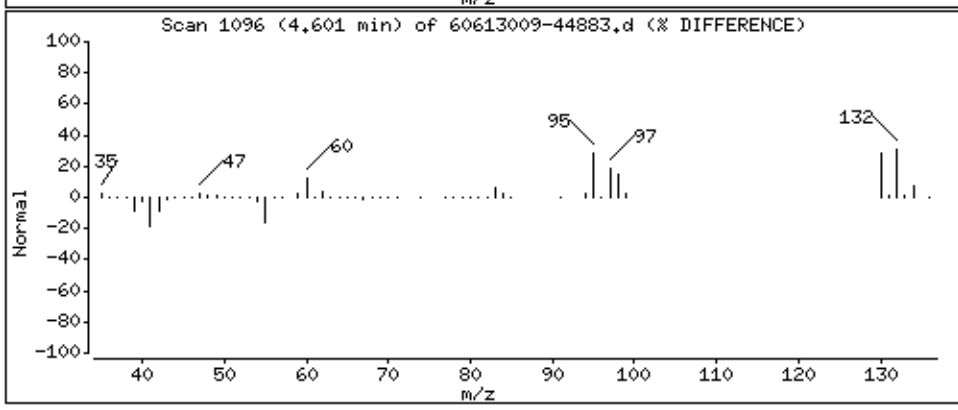












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

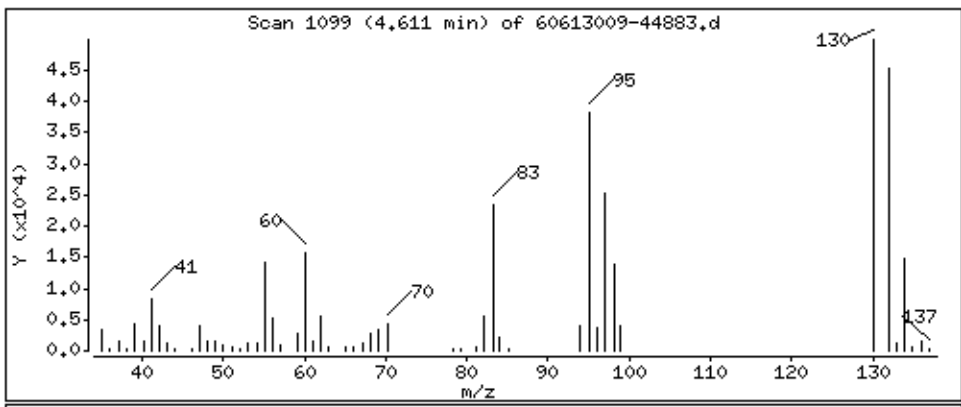
Operator: JEW

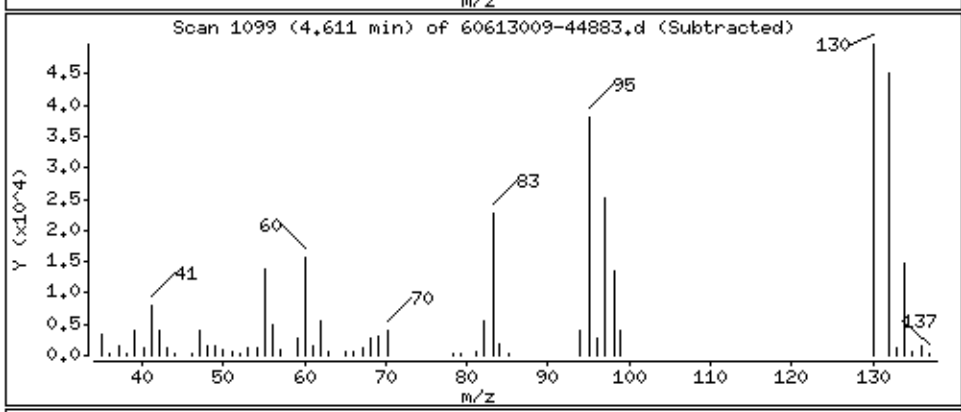
Column phase: RTX-VMS

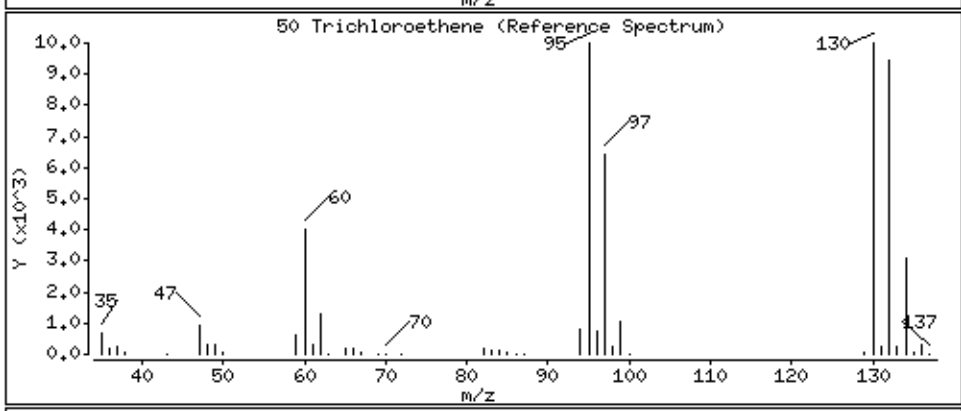
Column diameter: 0.18

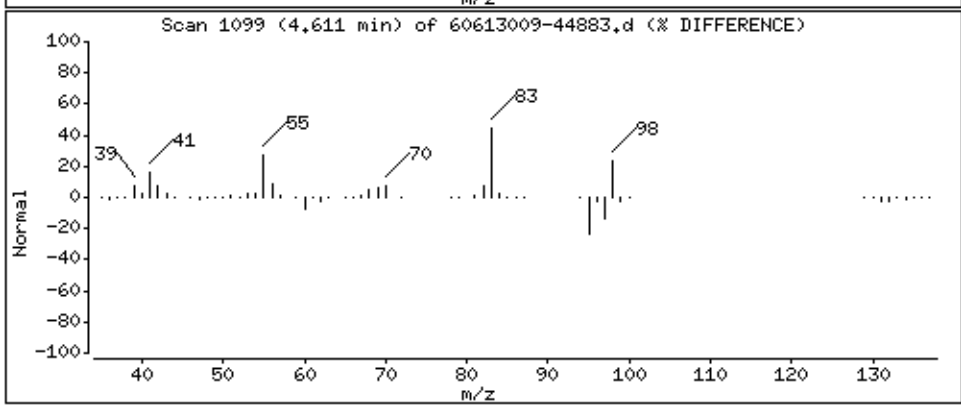
50 Trichloroethene

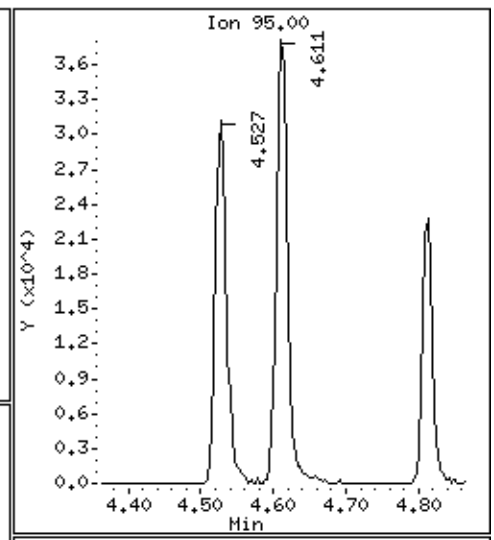
Concentration: 14.4 ug/L

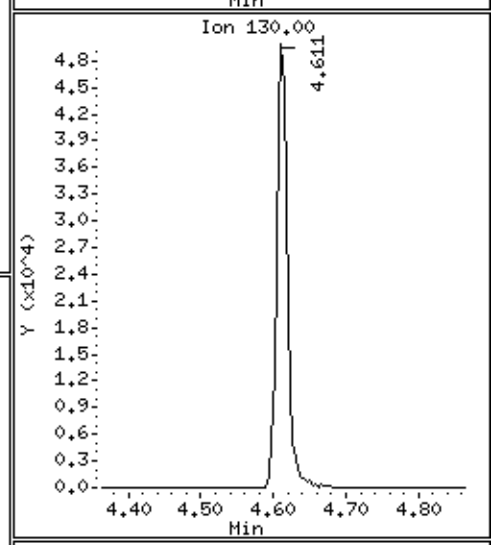


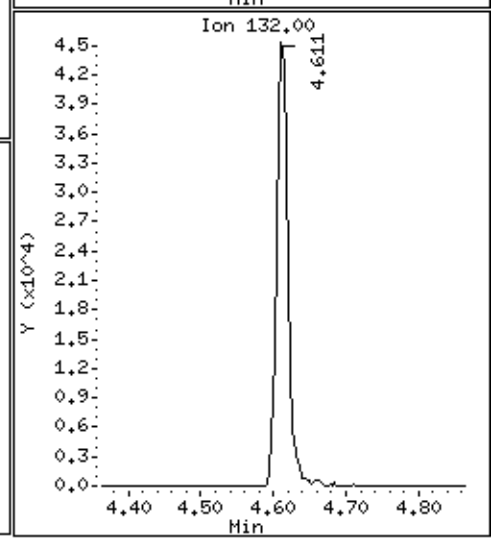












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

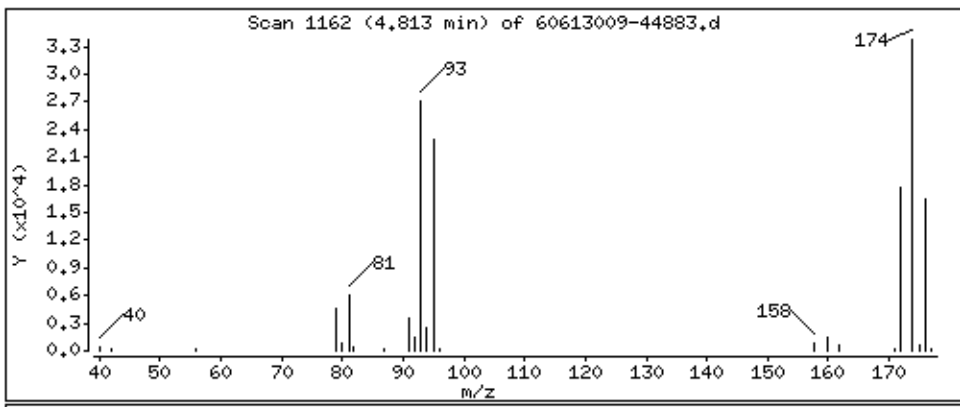
Operator: JEW

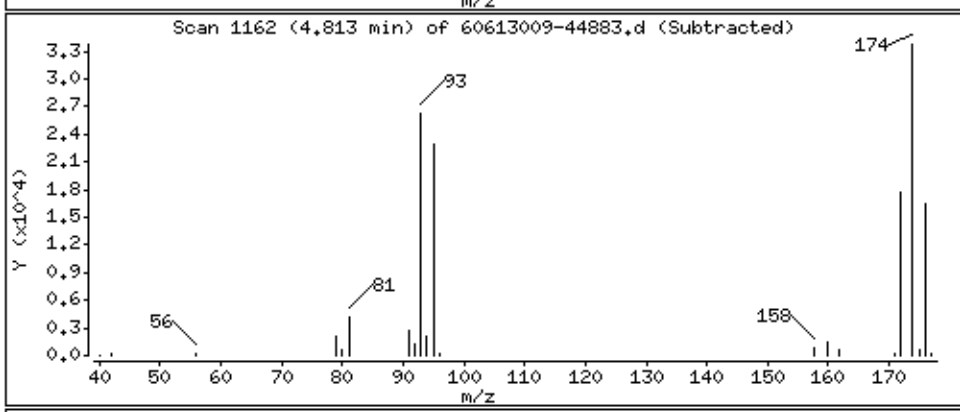
Column phase: RTX-VMS

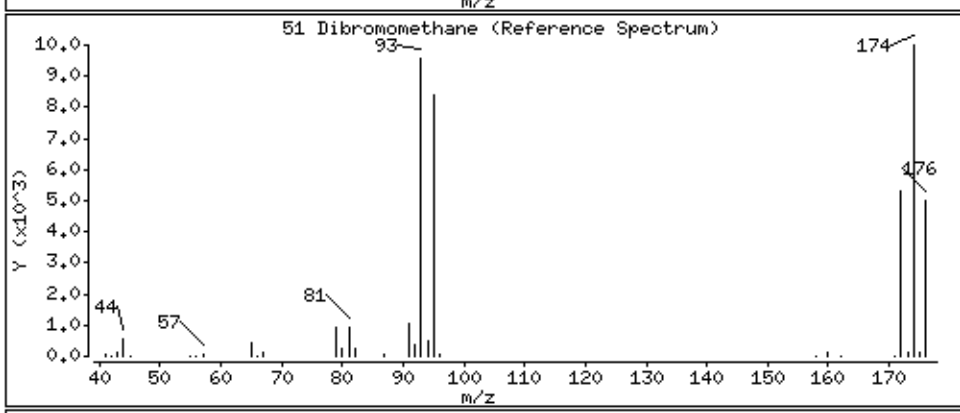
Column diameter: 0.18

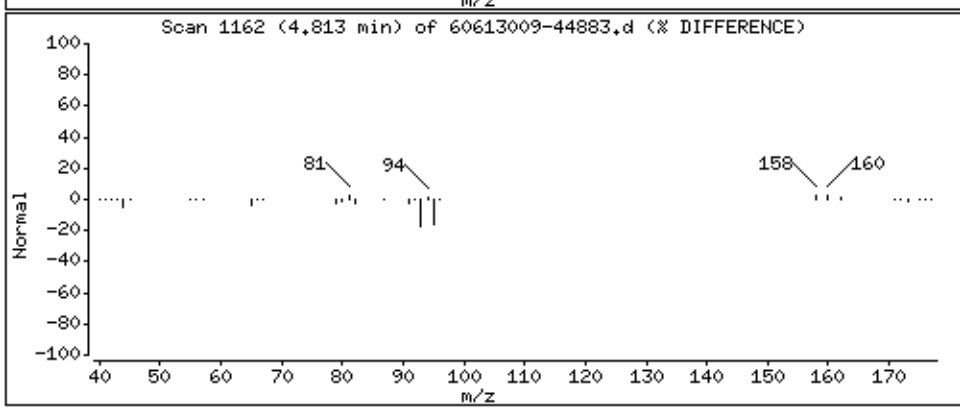
51 Dibromomethane

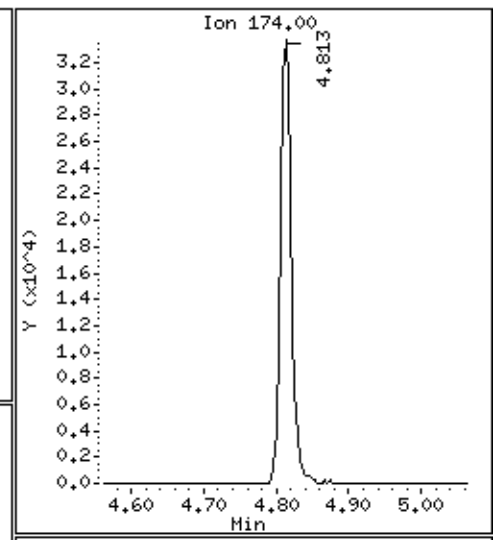
Concentration: 17.0 ug/L

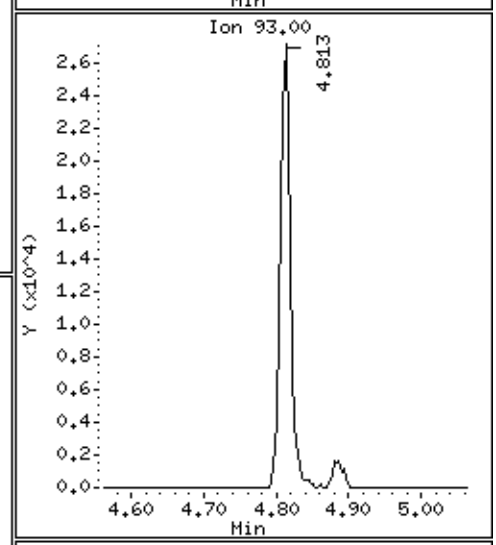


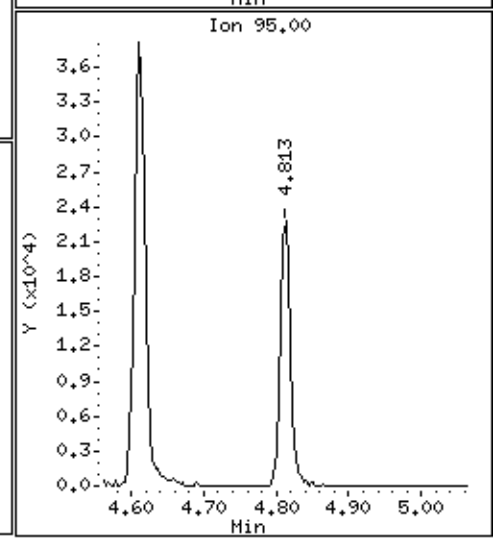












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

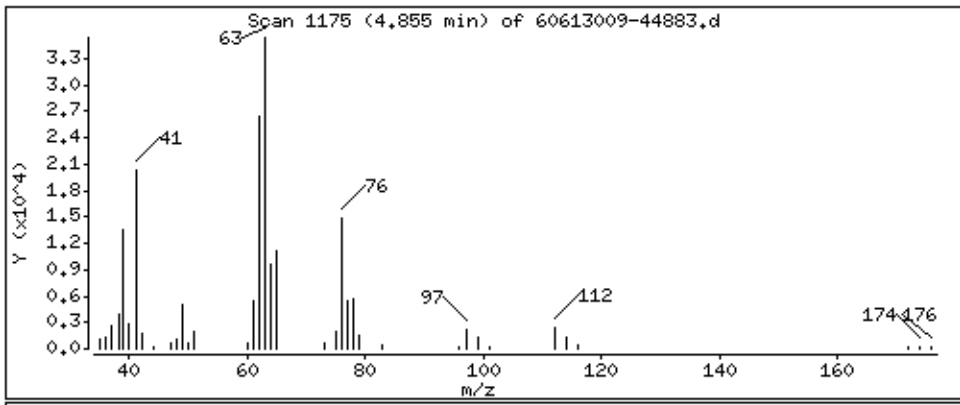
Operator: JEW

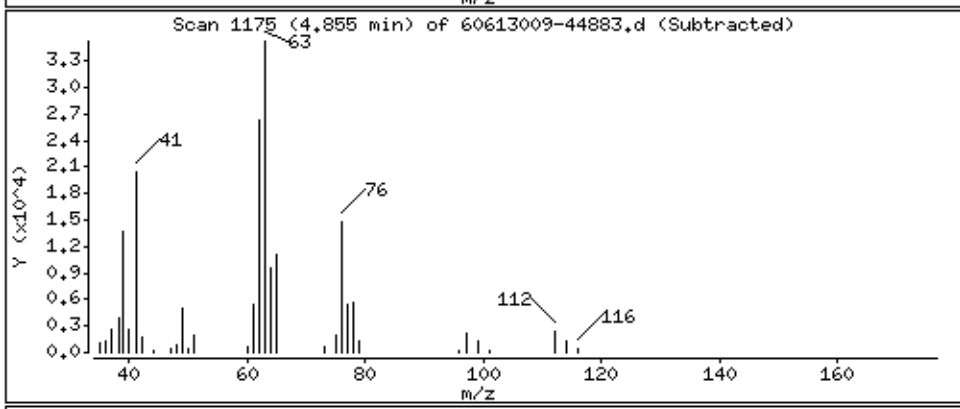
Column phase: RTX-VMS

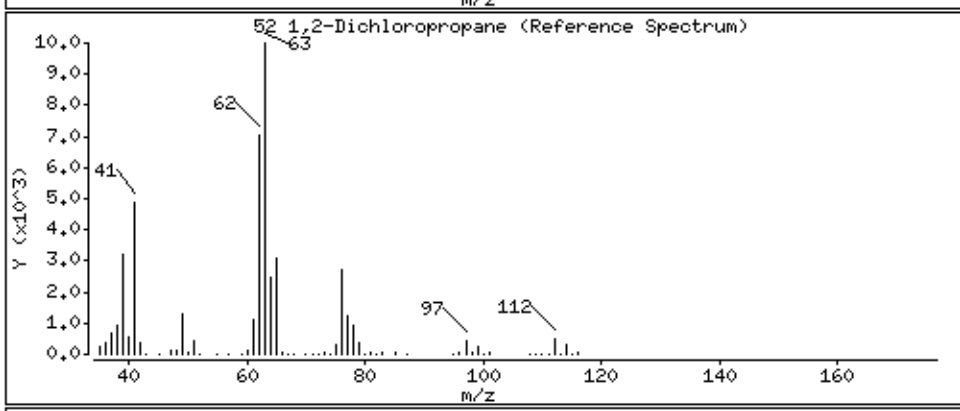
Column diameter: 0.18

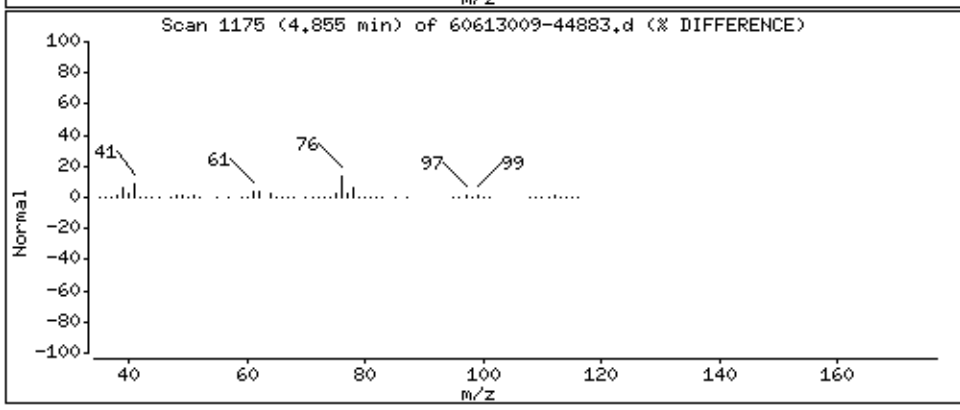
52 1,2-Dichloropropane

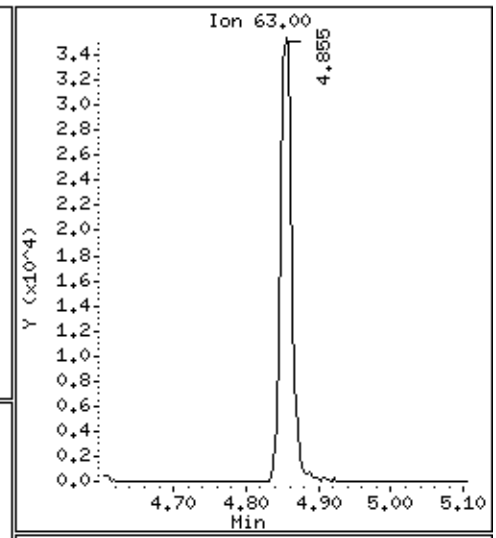
Concentration: 15.0 ug/L

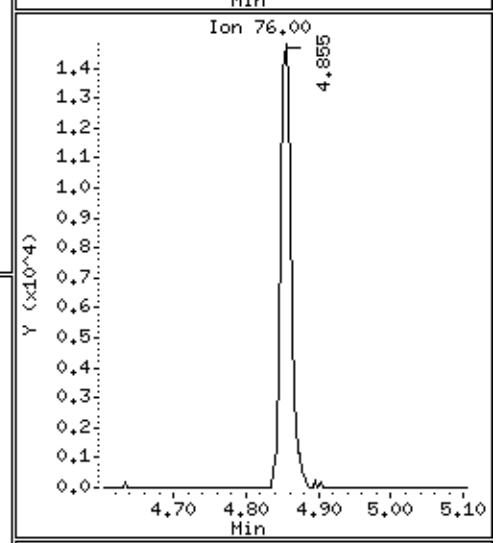


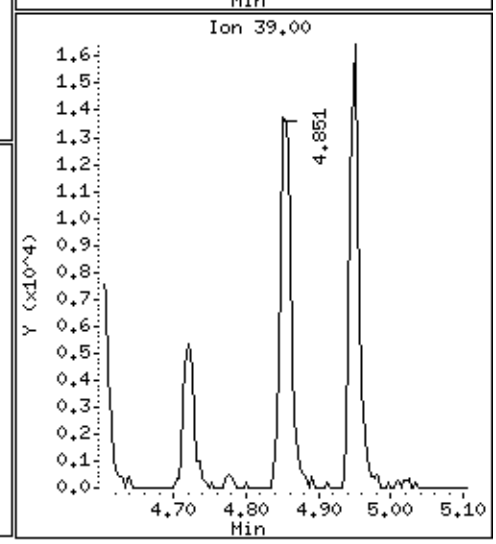












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

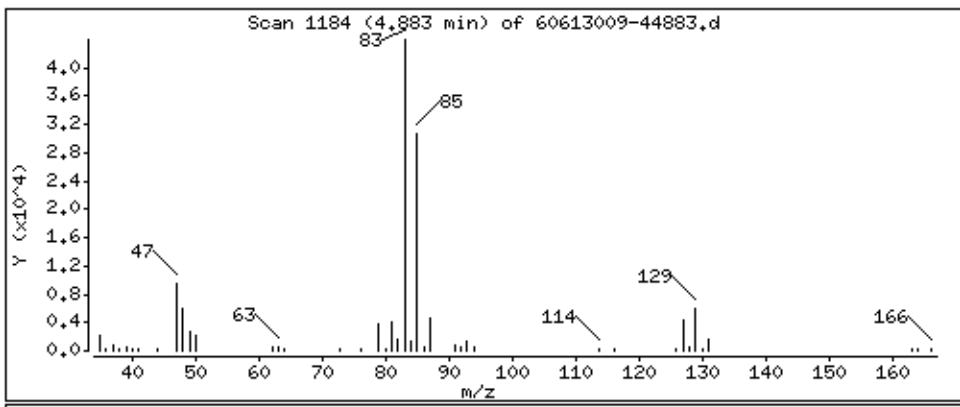
Operator: JEW

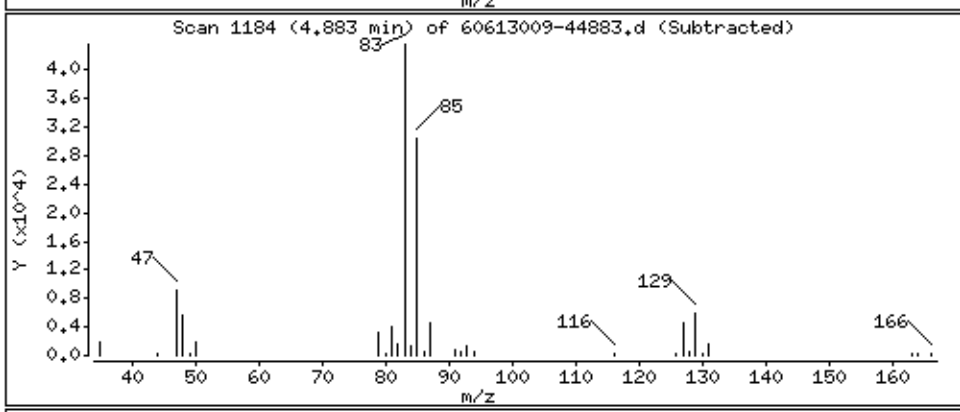
Column phase: RTX-VMS

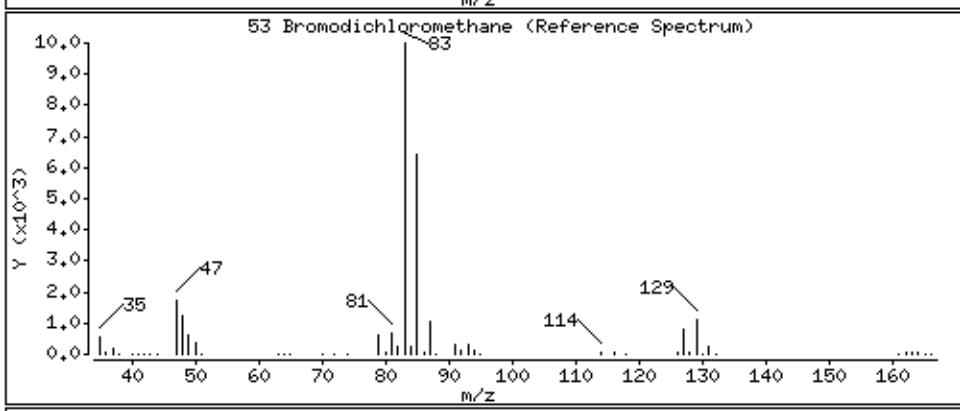
Column diameter: 0.18

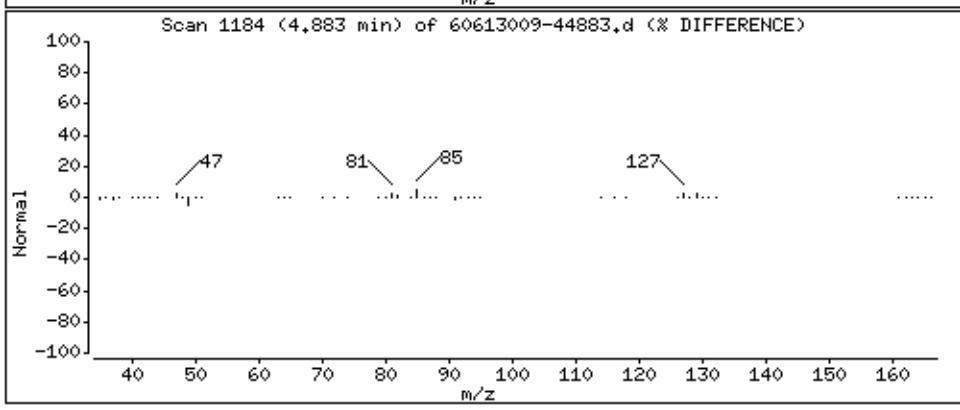
53 Bromodichloromethane

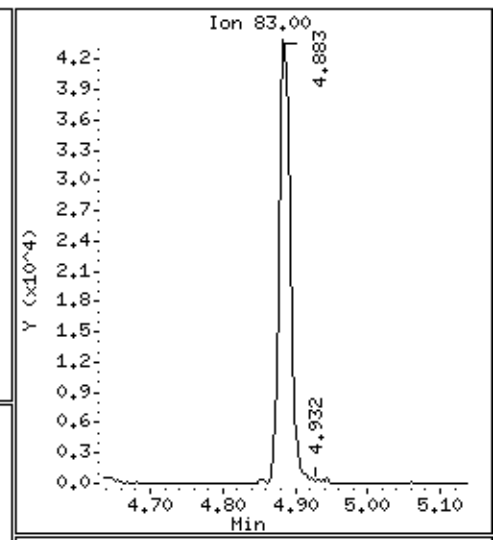
Concentration: 14.5 ug/L

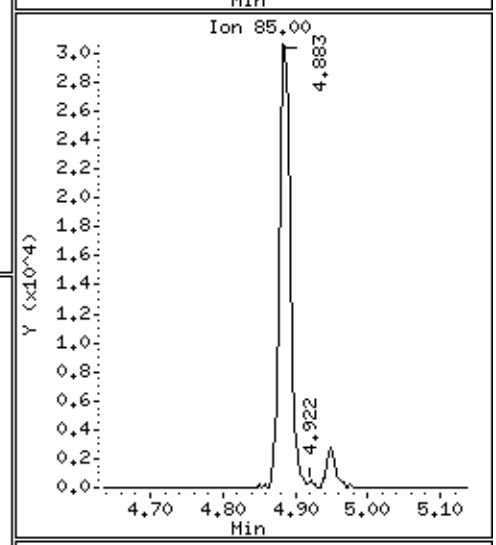


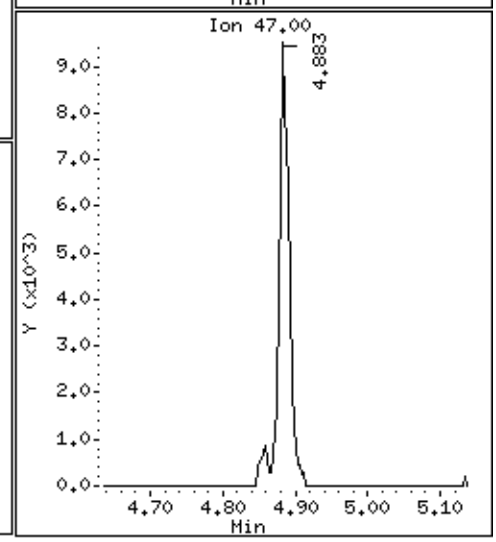












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

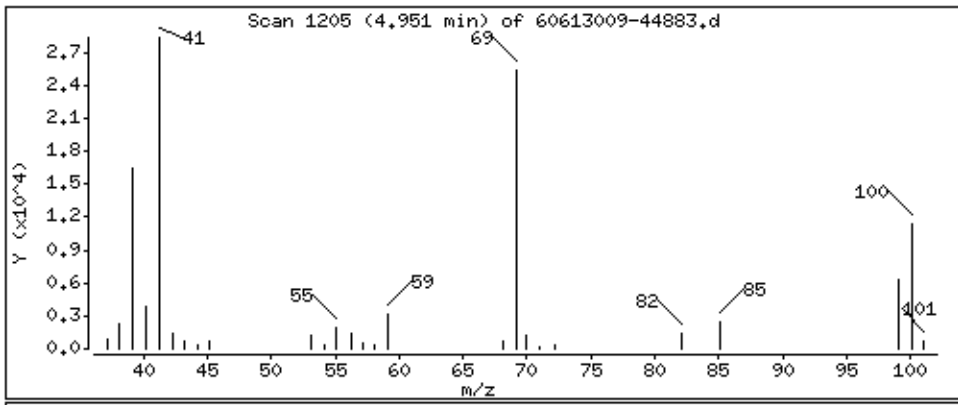
Operator: JEW

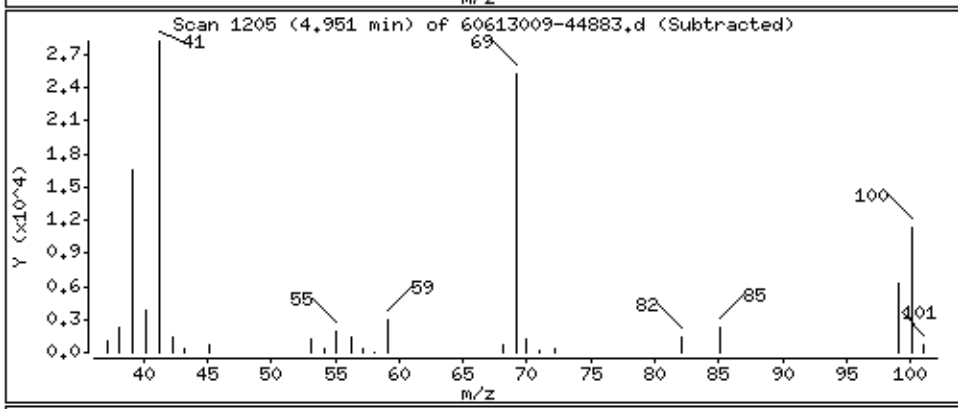
Column phase: RTX-VMS

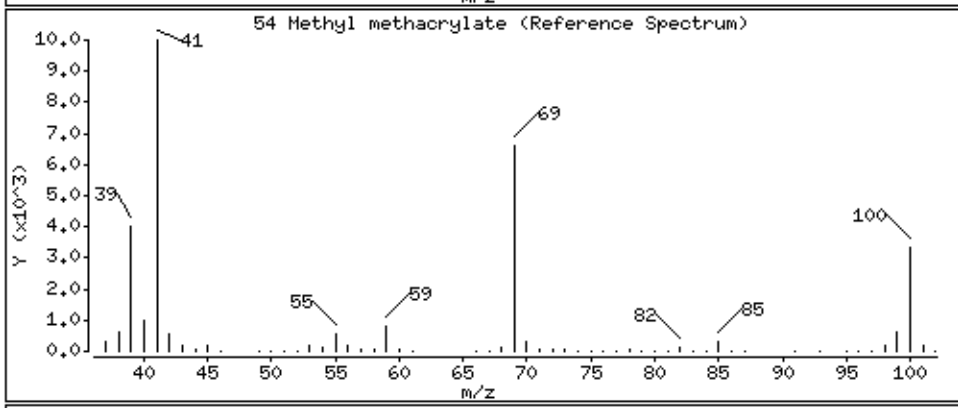
Column diameter: 0.18

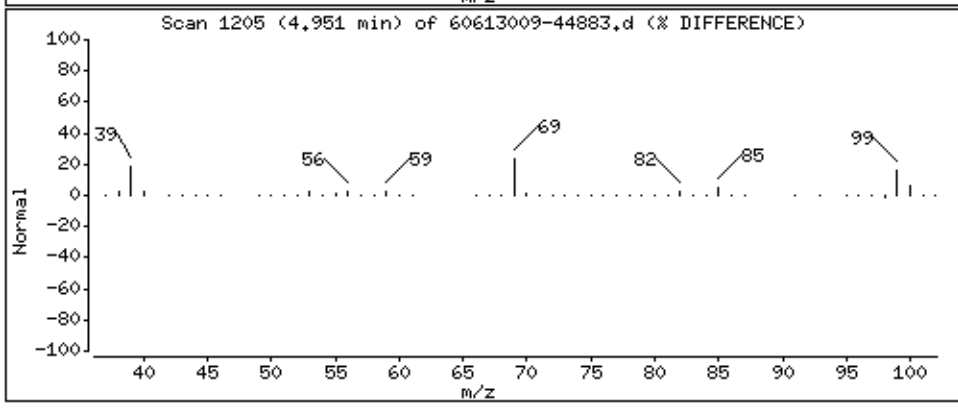
54 Methyl methacrylate

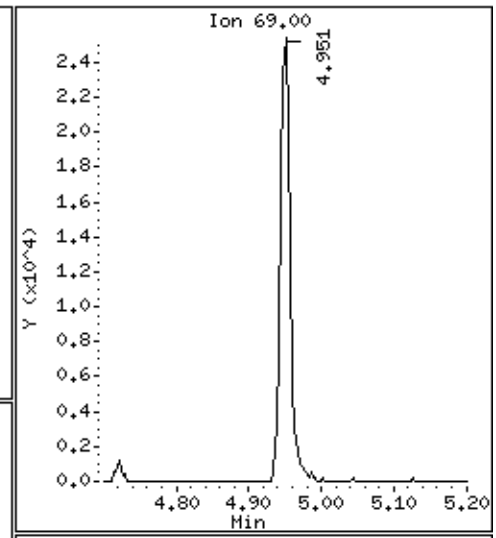
Concentration: 13.9 ug/L

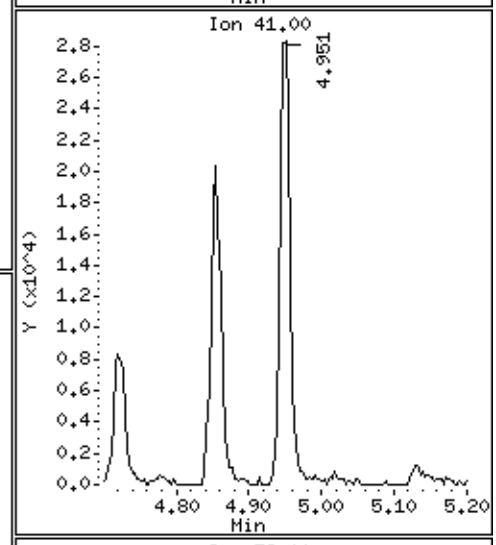


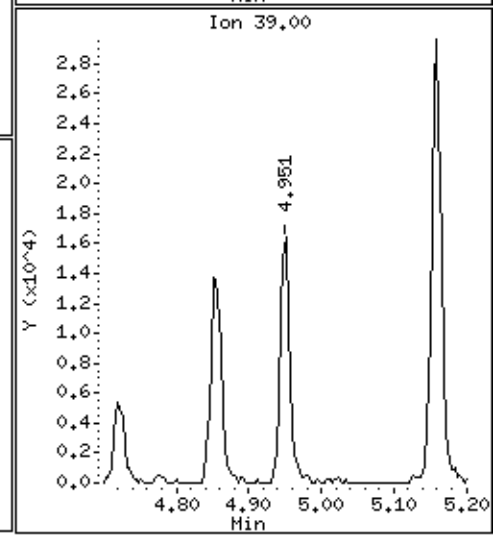












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

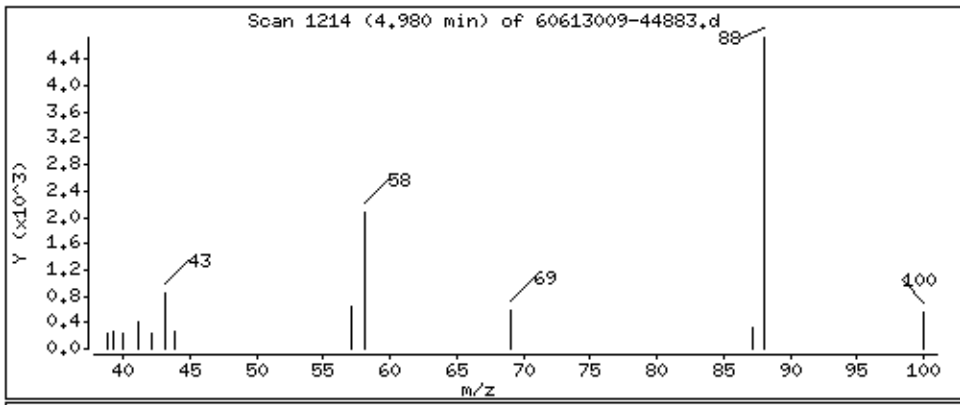
Operator: JEW

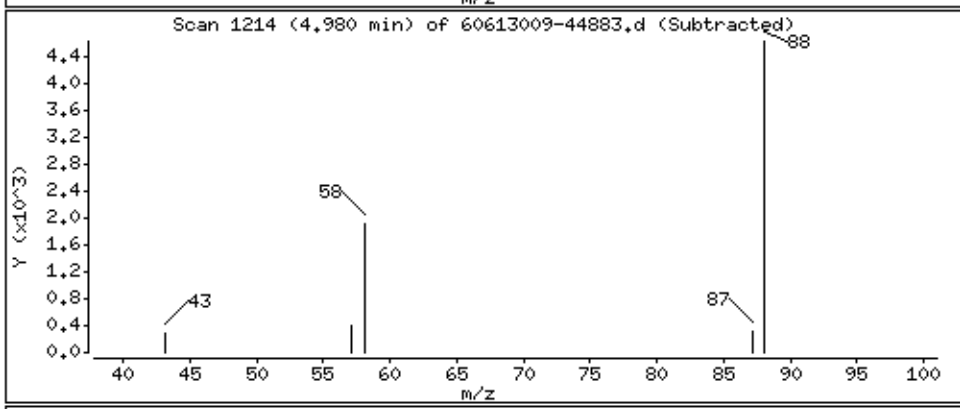
Column phase: RTX-VMS

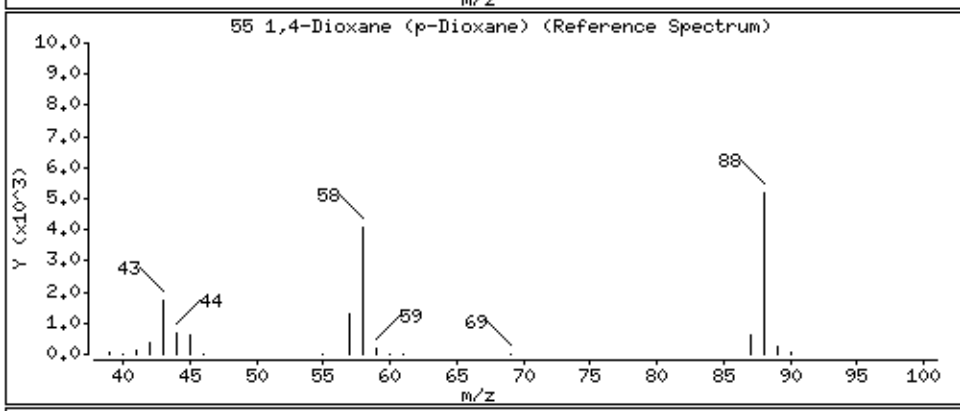
Column diameter: 0.18

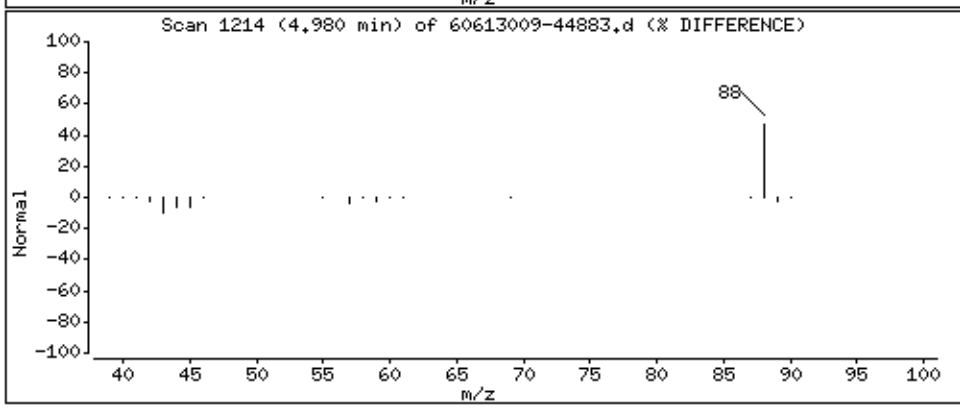
55 1,4-Dioxane (p-Dioxane)

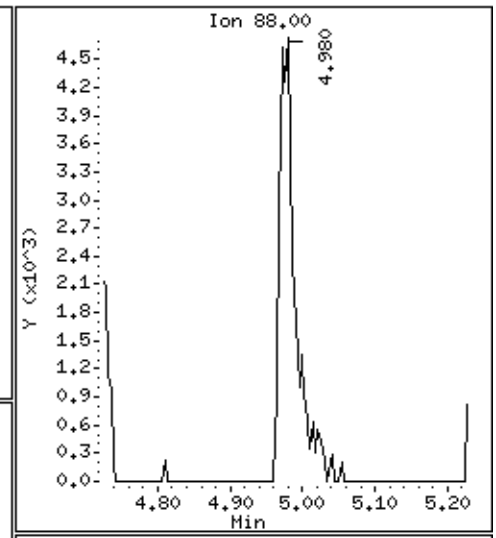
Concentration: 171 ug/L

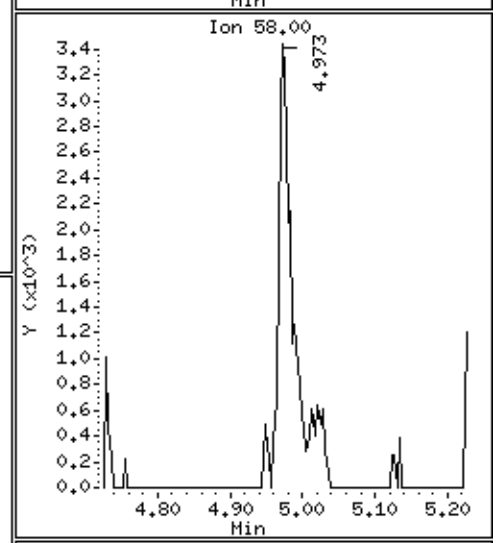


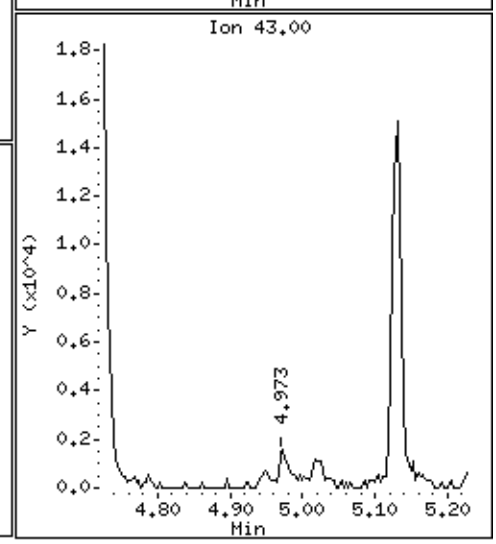












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

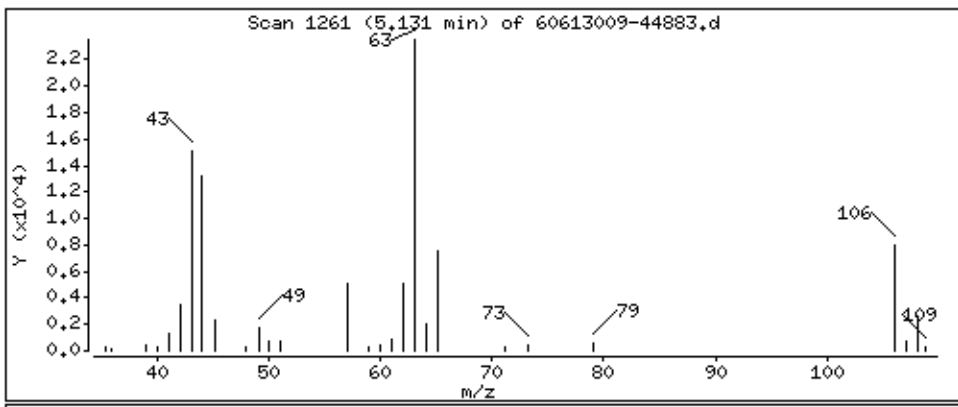
Operator: JEW

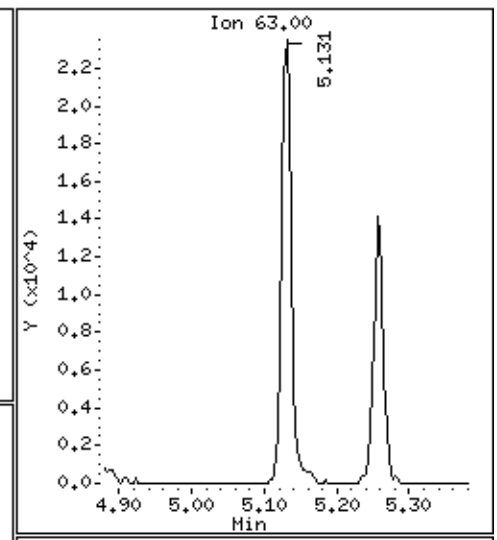
Column phase: RTX-VMS

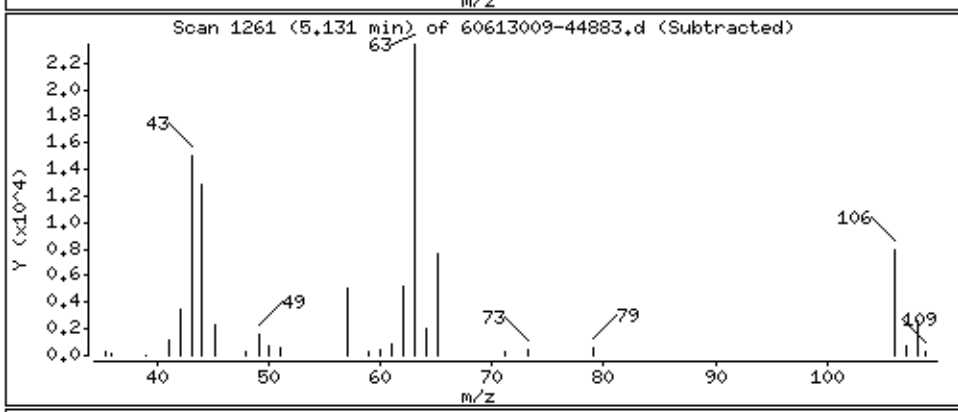
Column diameter: 0.18

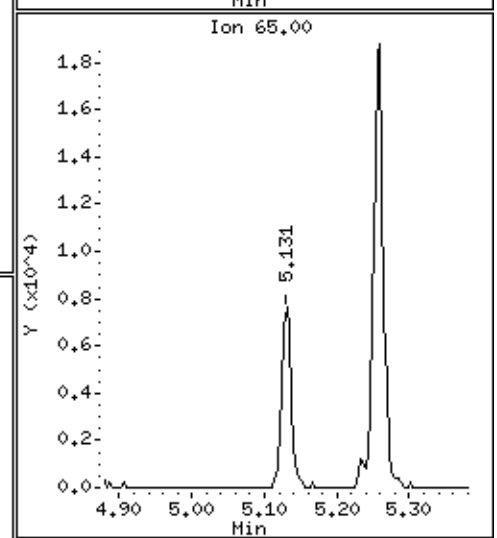
56 2-Chloroethylvinyl ether

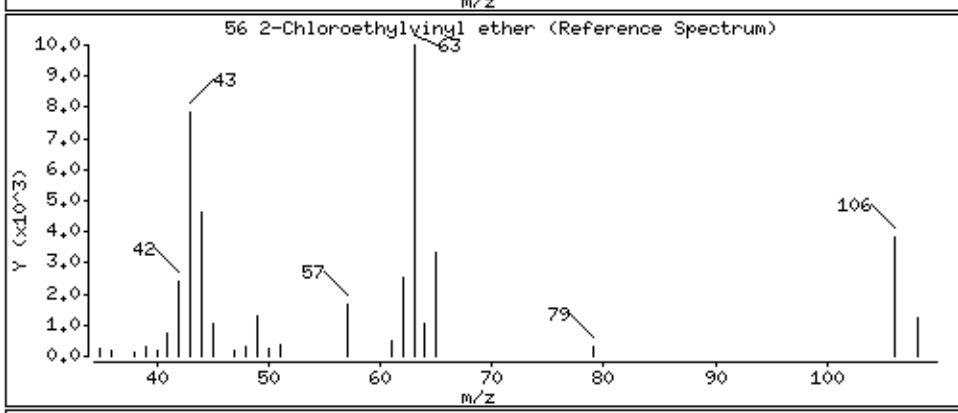
Concentration: 14.8 ug/L

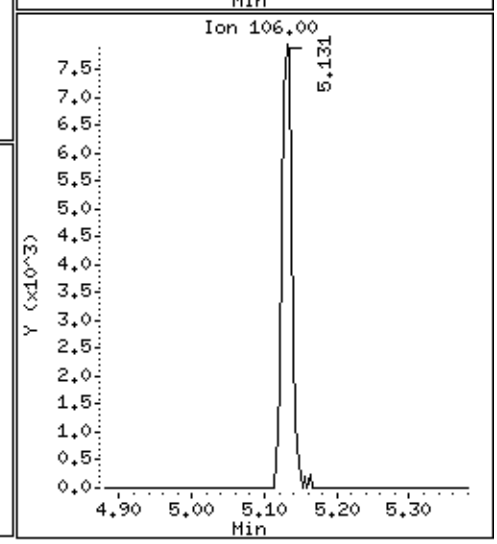


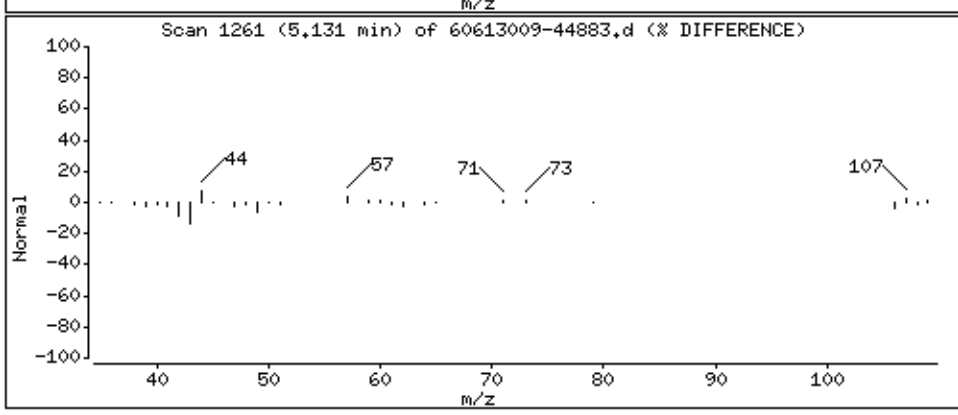












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

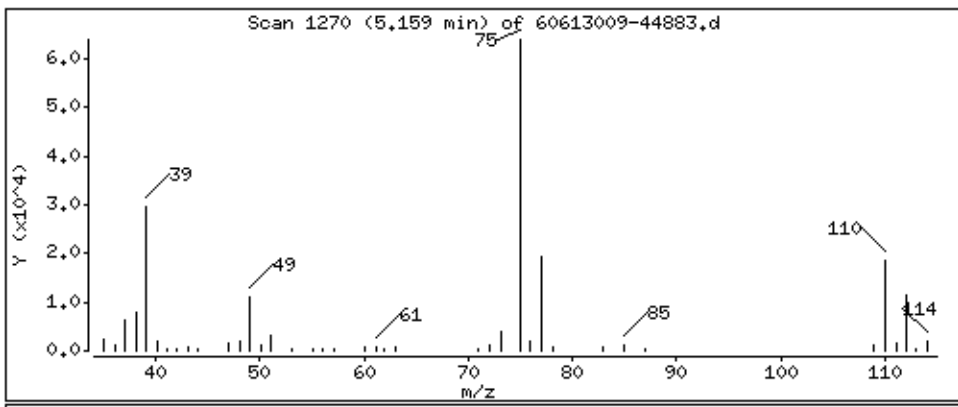
Operator: JEW

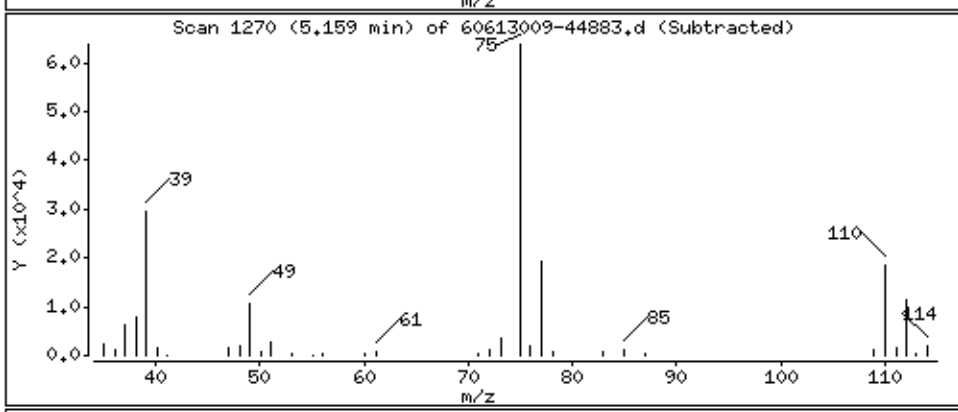
Column phase: RTX-VMS

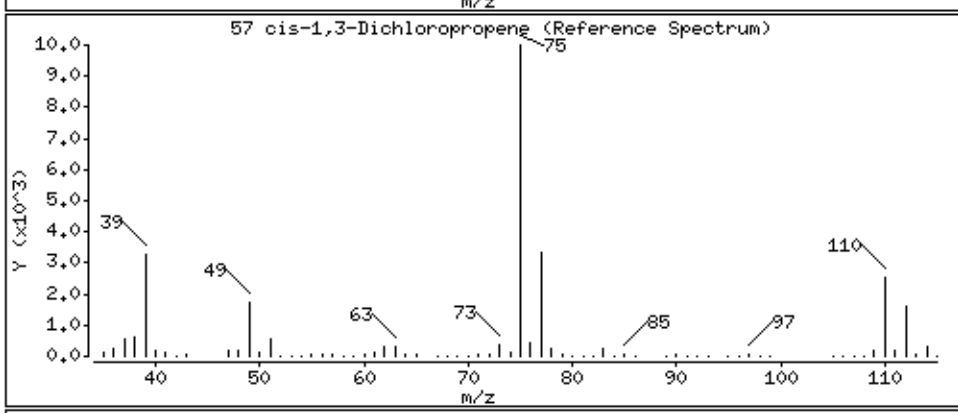
Column diameter: 0.18

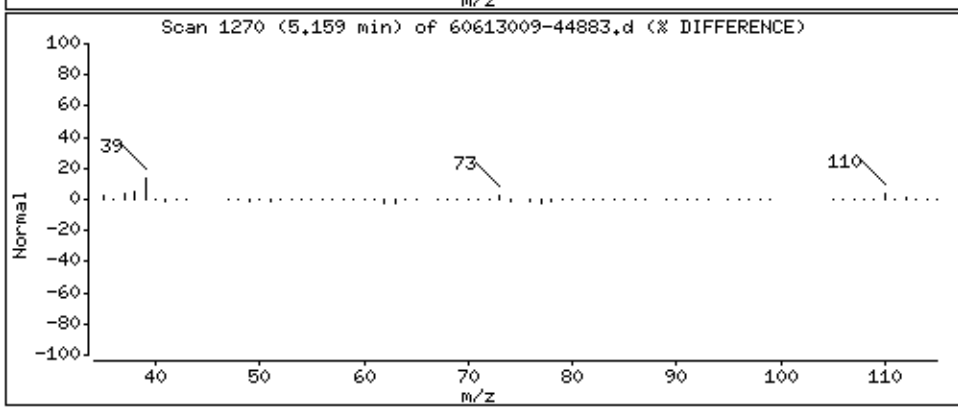
57 cis-1,3-Dichloropropene

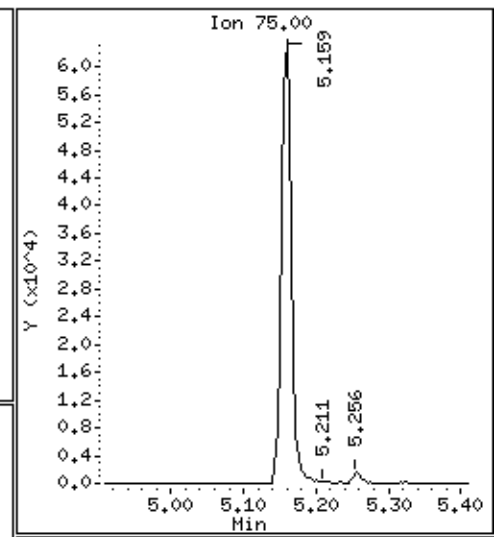
Concentration: 15.2 ug/L

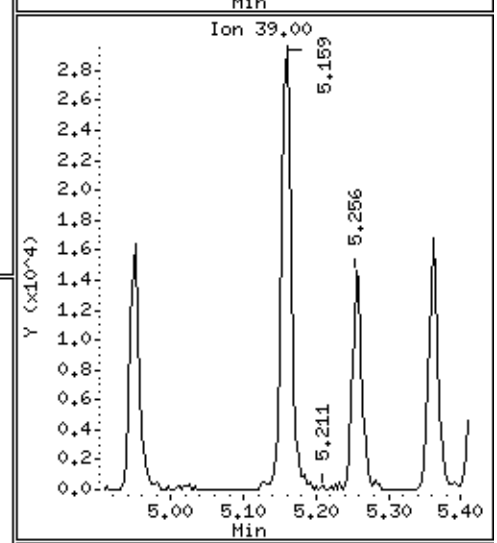


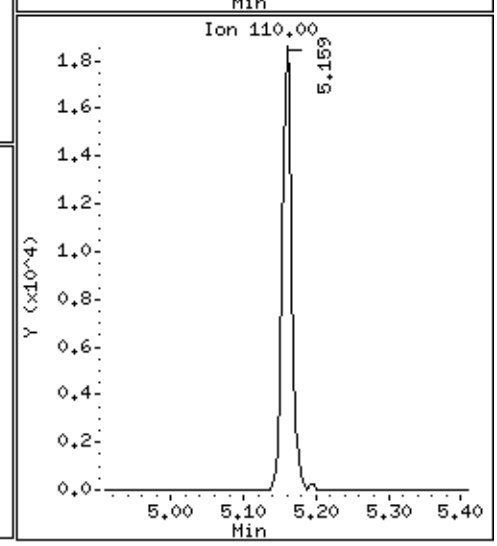












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

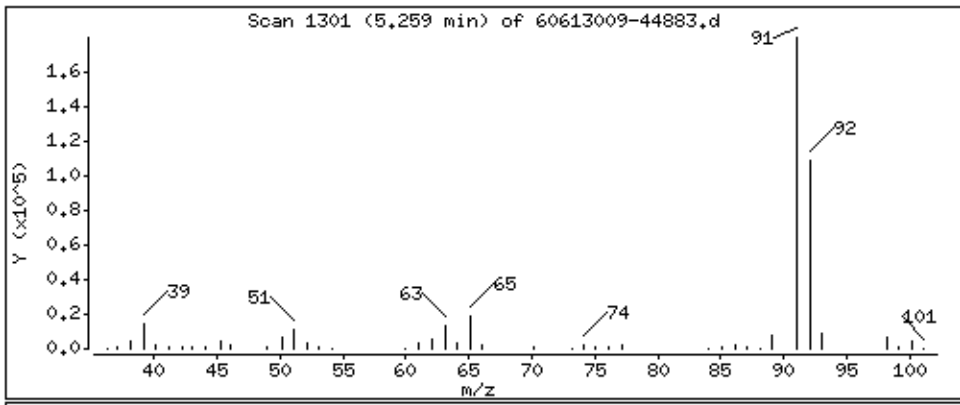
Operator: JEW

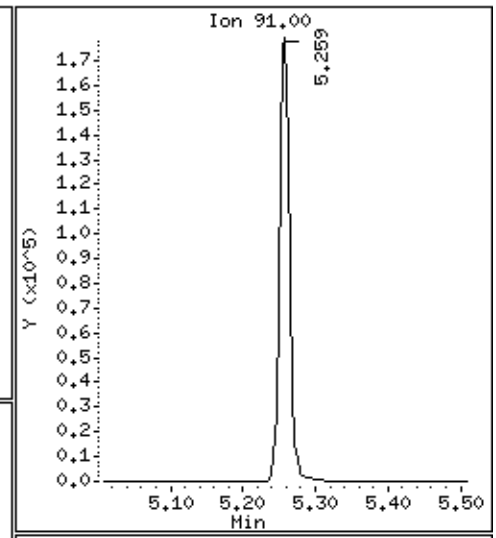
Column phase: RTX-VMS

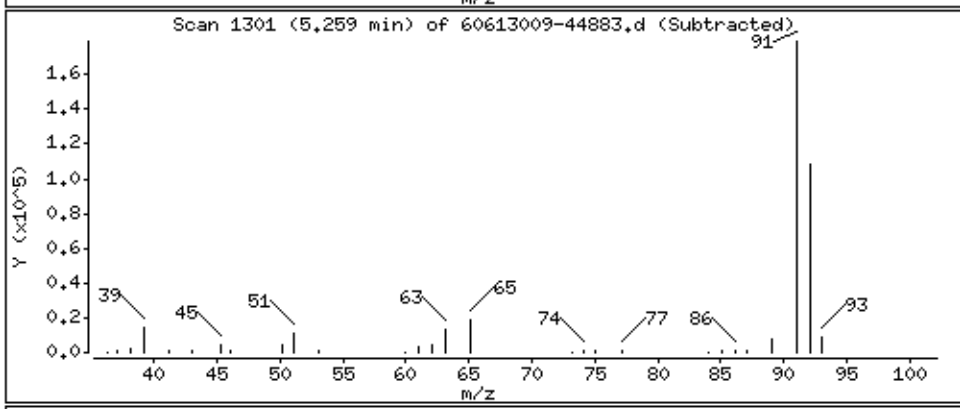
Column diameter: 0.18

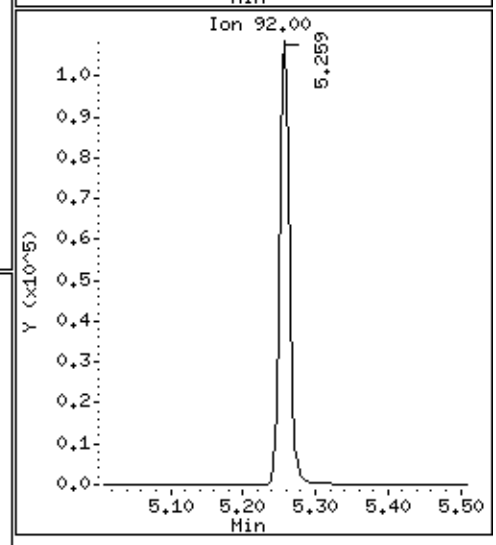
59 Toluene

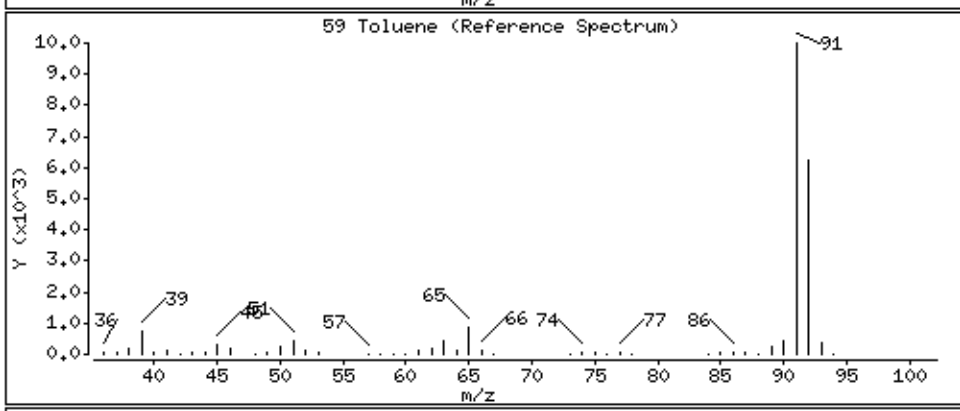
Concentration: 14.8 ug/L

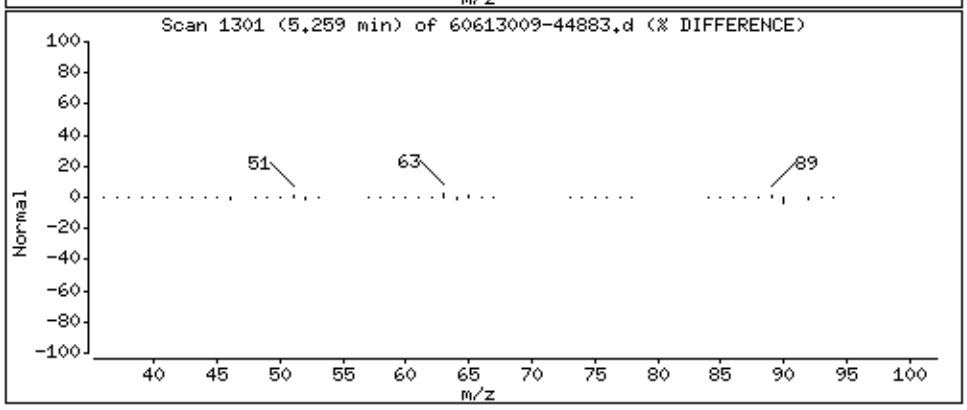












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

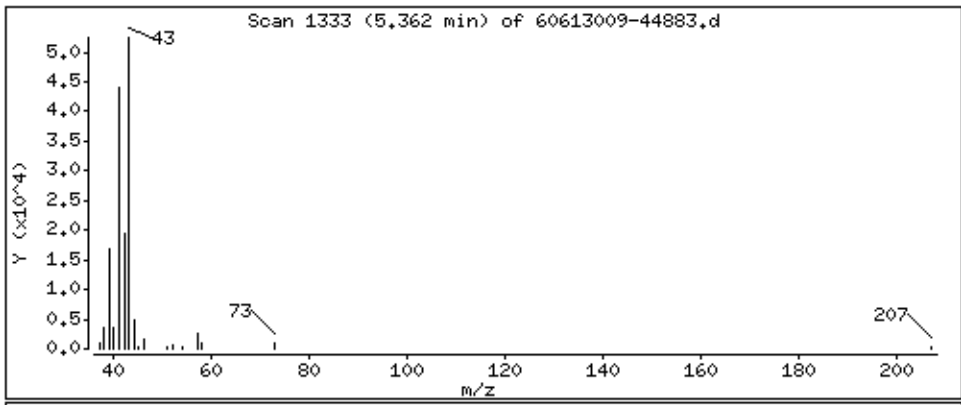
Operator: JEW

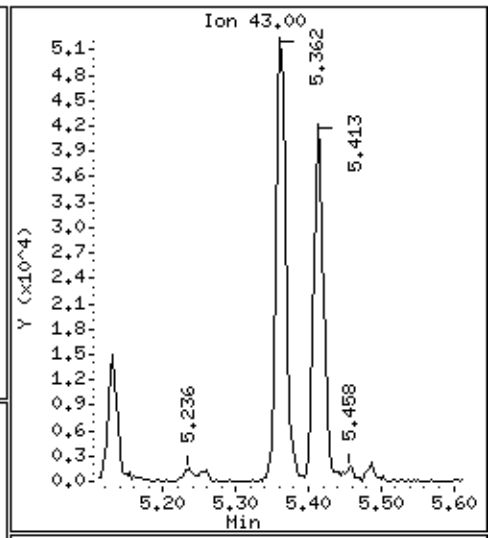
Column phase: RTX-VMS

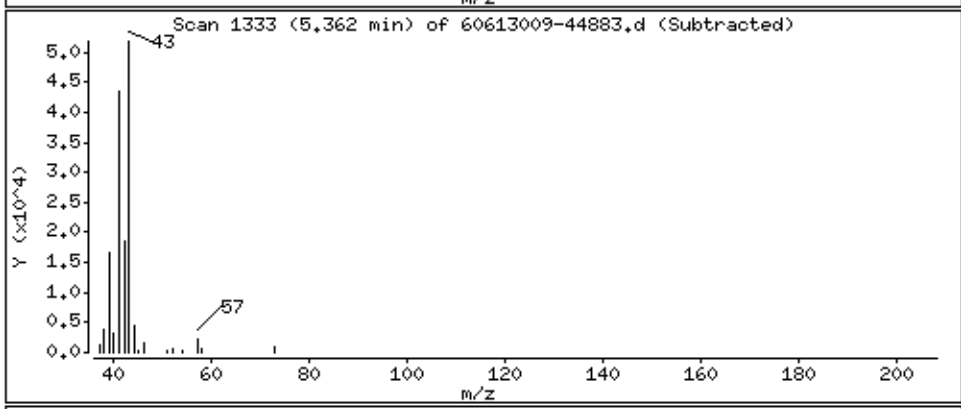
Column diameter: 0.18

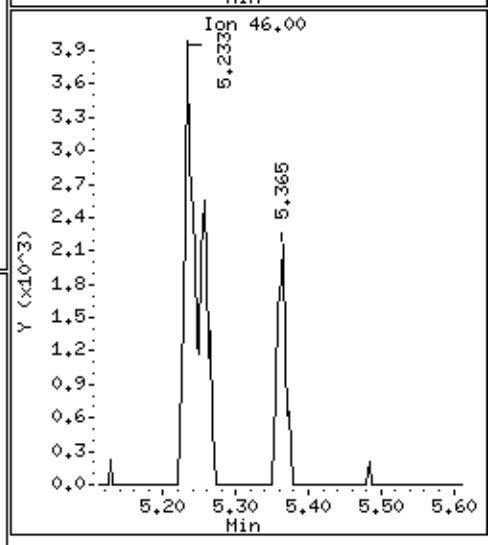
60 2-Nitropropane

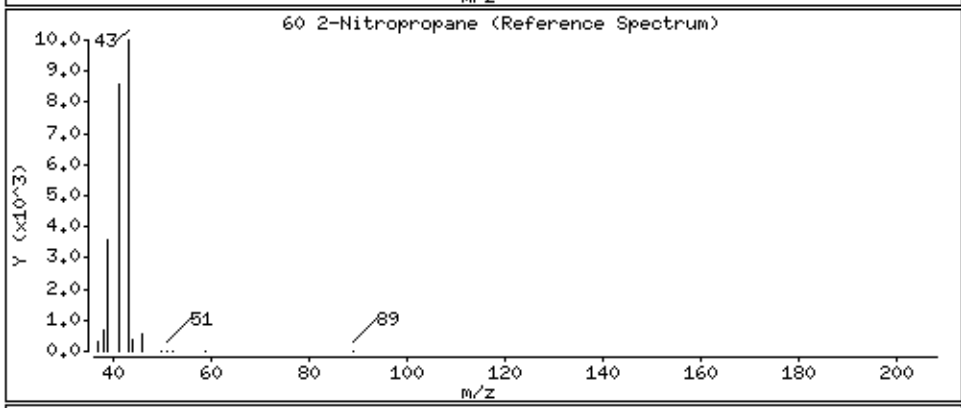
Concentration: 46.6 ug/L

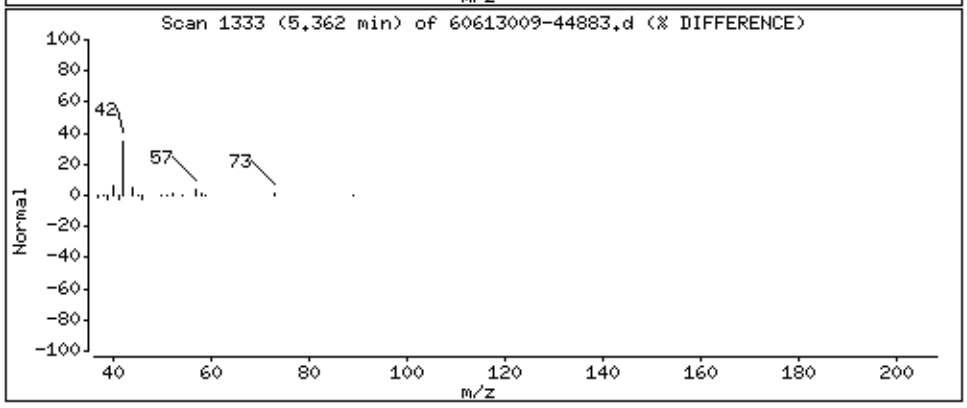












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

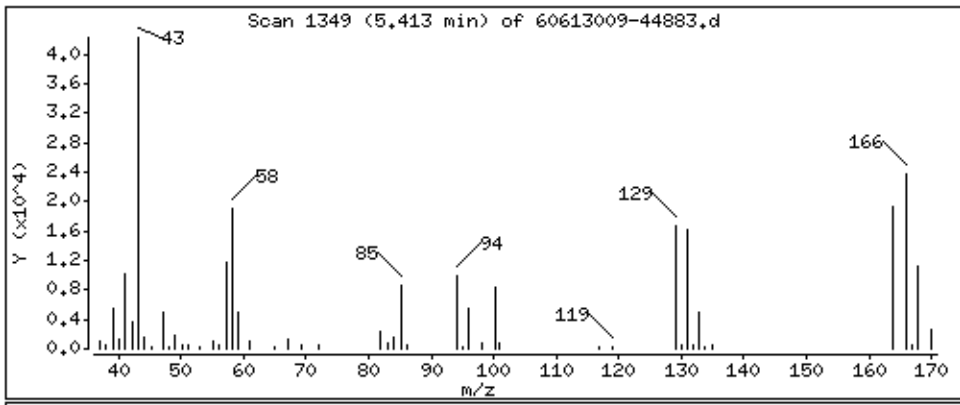
Operator: JEW

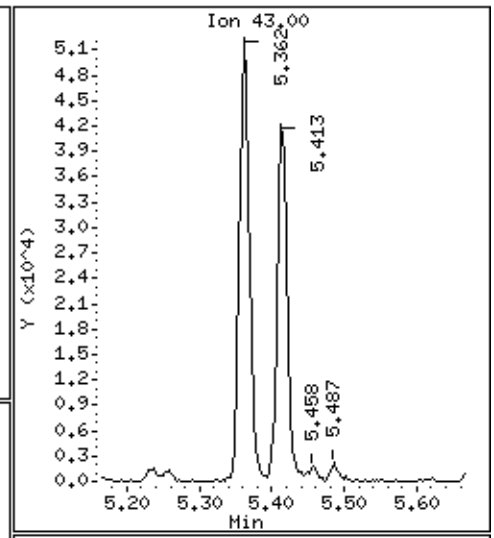
Column phase: RTX-VMS

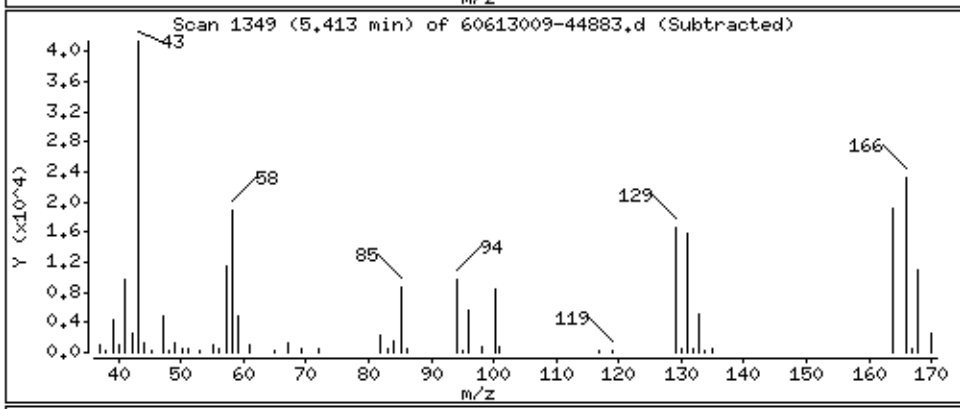
Column diameter: 0.18

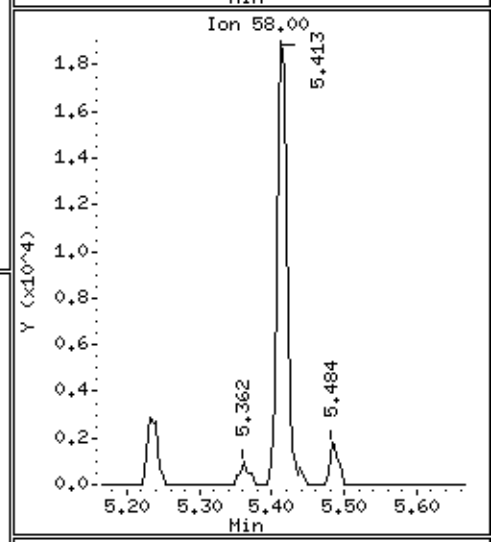
61 4-Methyl-2-pentanone (MIBK)

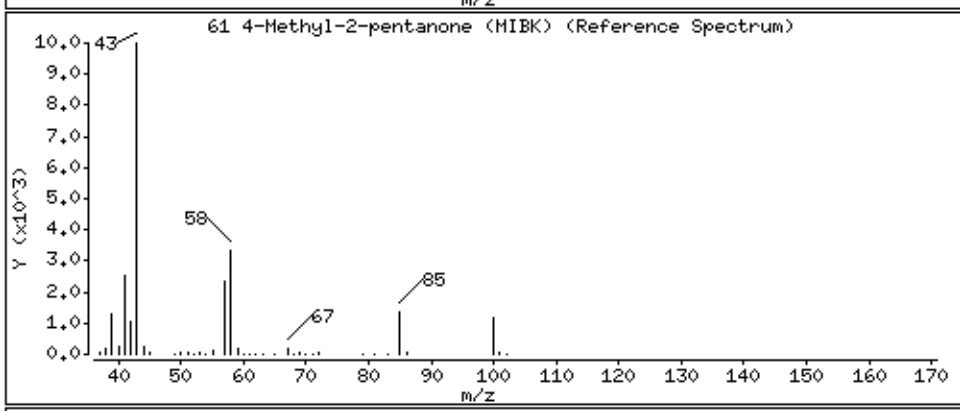
Concentration: 14.0 ug/L

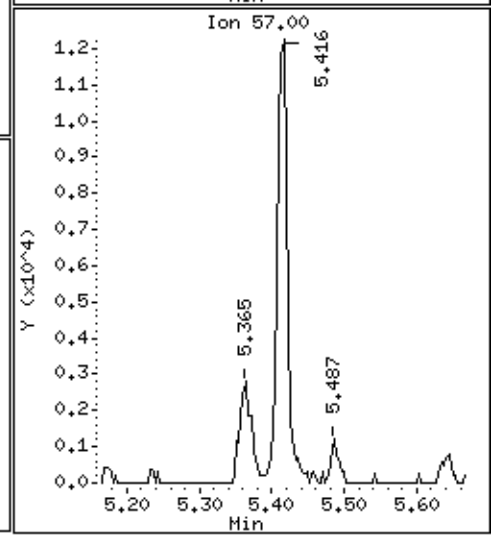


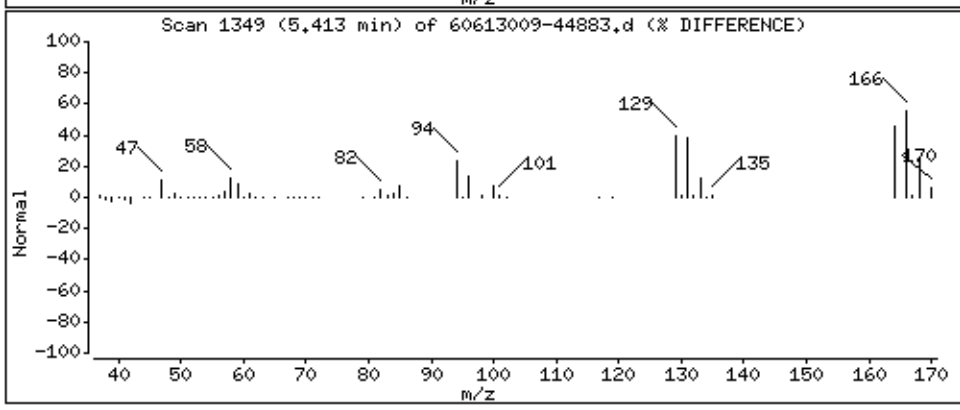












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

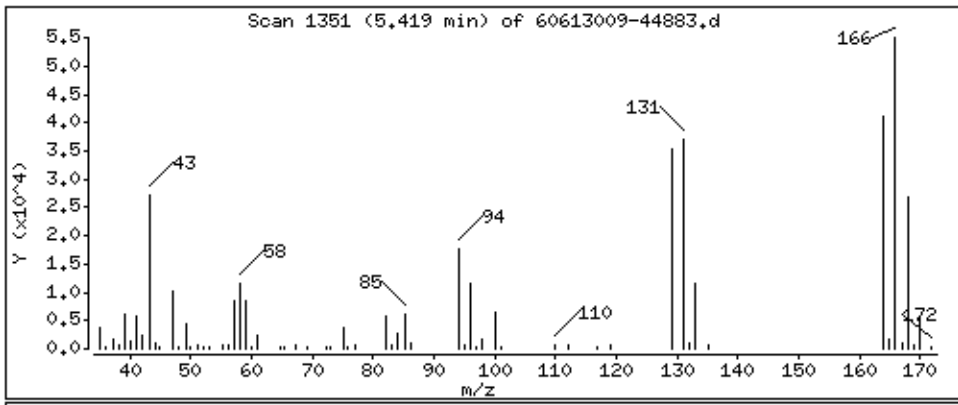
Operator: JEW

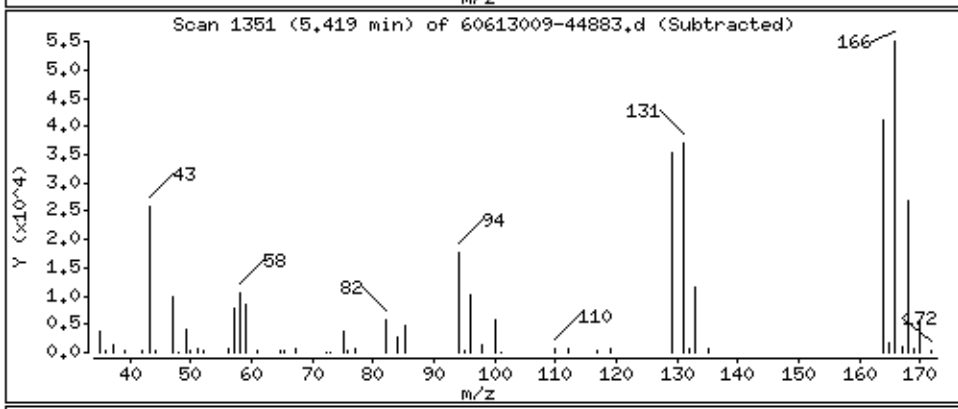
Column phase: RTX-VMS

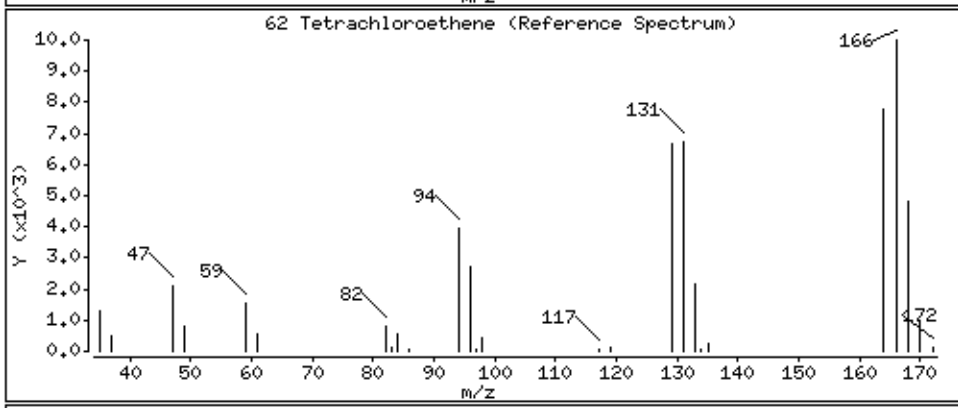
Column diameter: 0.18

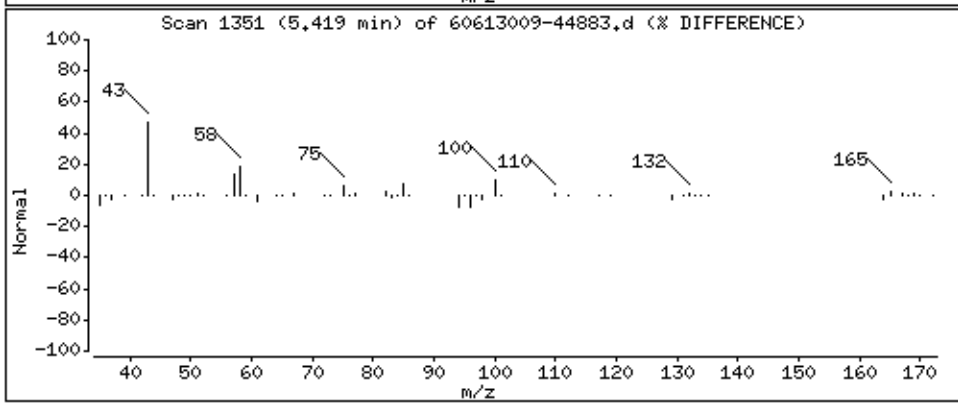
62 Tetrachloroethene

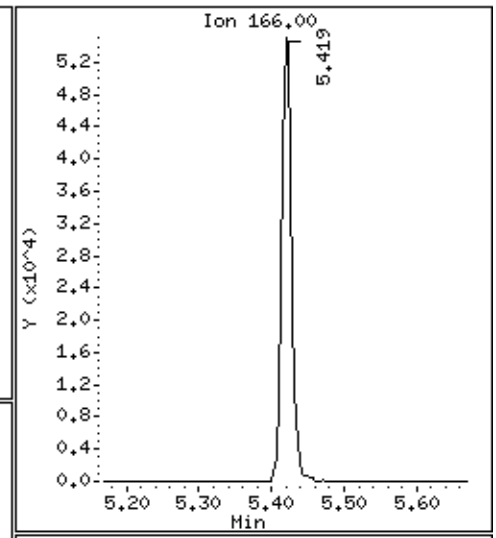
Concentration: 15.7 ug/L

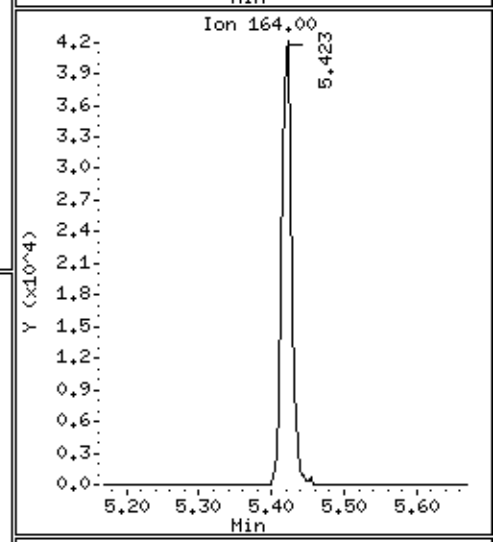


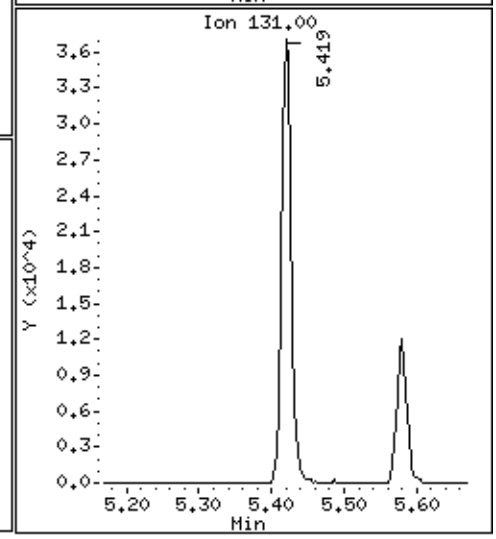












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

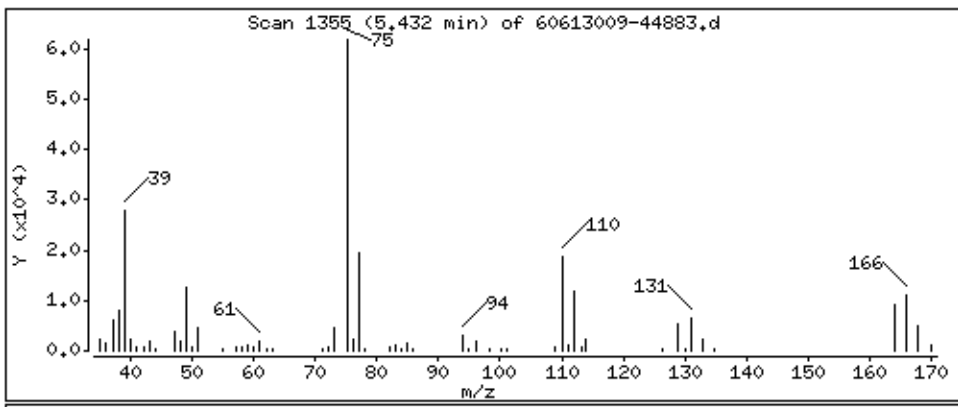
Operator: JEW

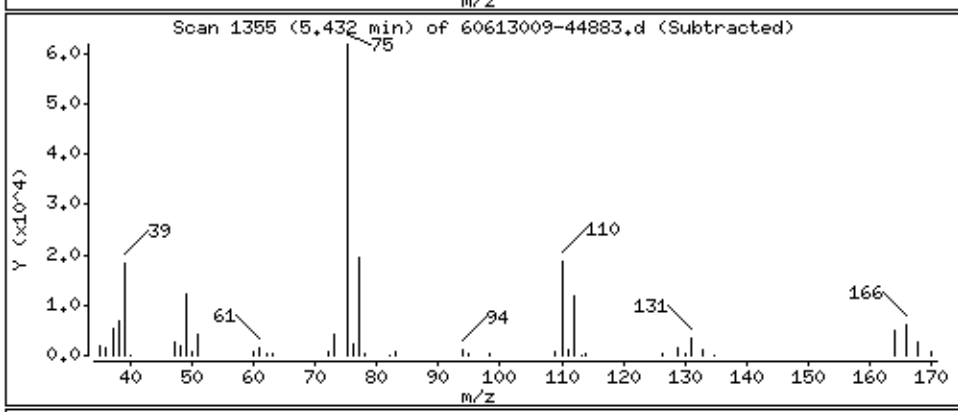
Column phase: RTX-VMS

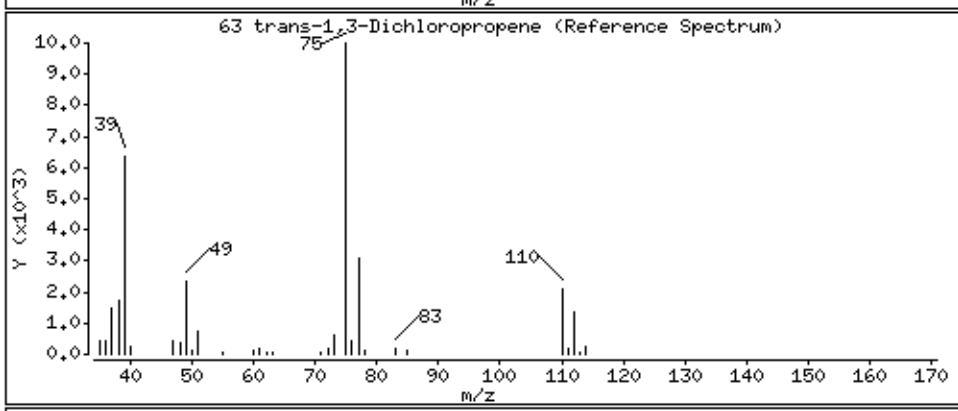
Column diameter: 0.18

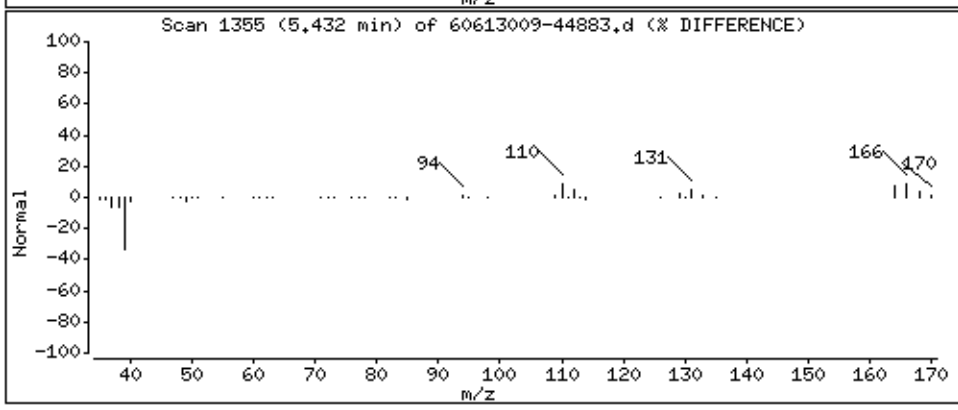
63 trans-1,3-Dichloropropene

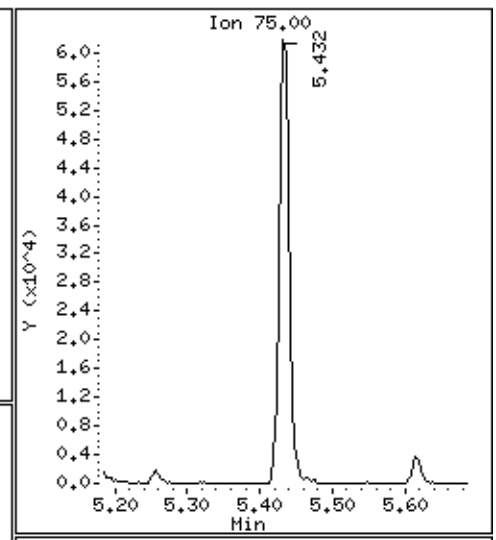
Concentration: 14.0 ug/L

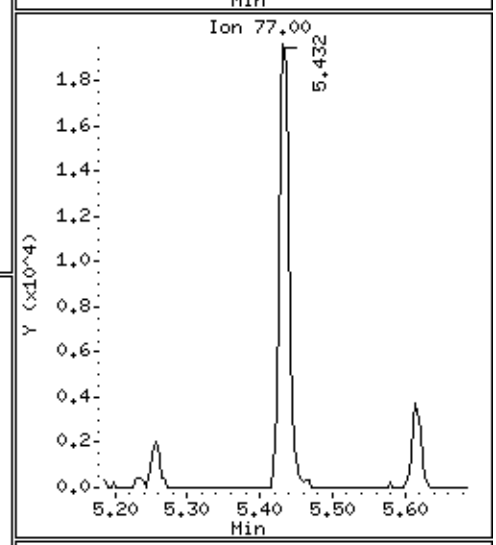


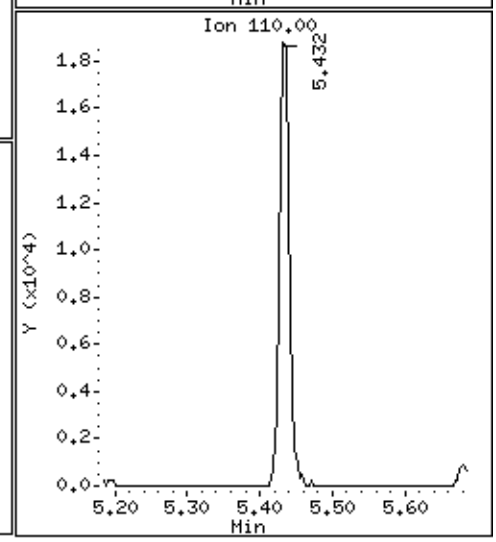












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

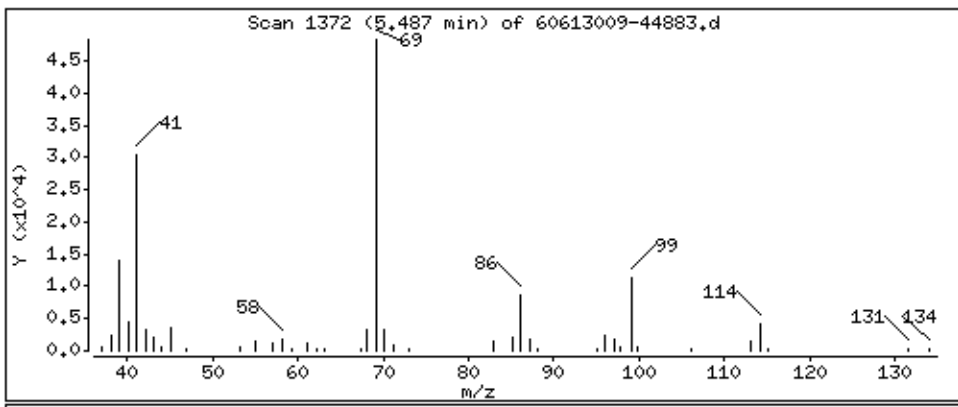
Operator: JEW

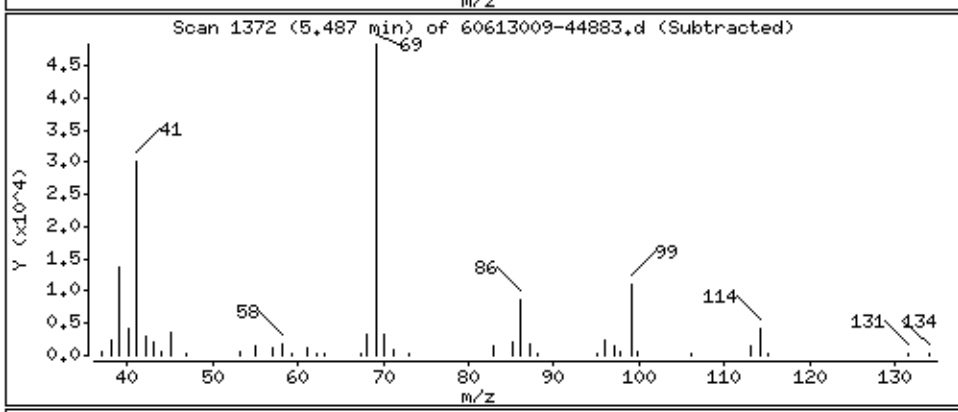
Column phase: RTX-VMS

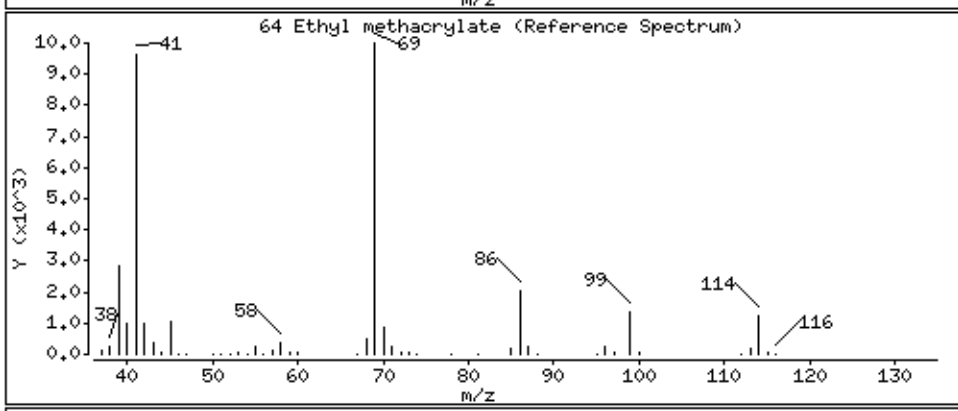
Column diameter: 0.18

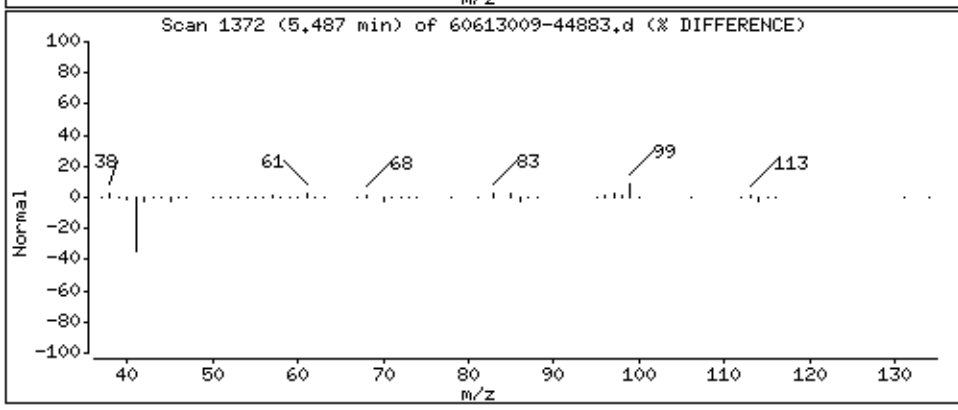
64 Ethyl methacrylate

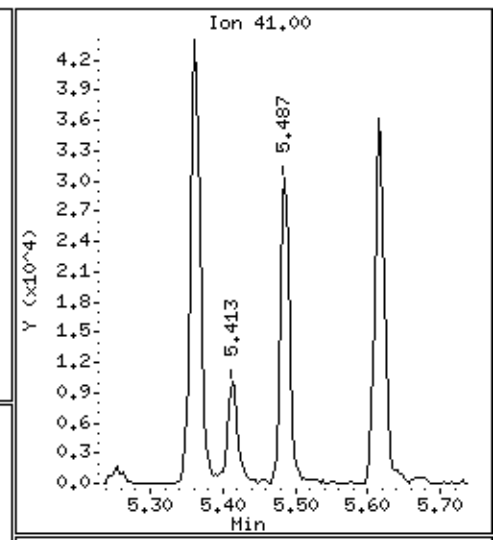
Concentration: 10.9 ug/L

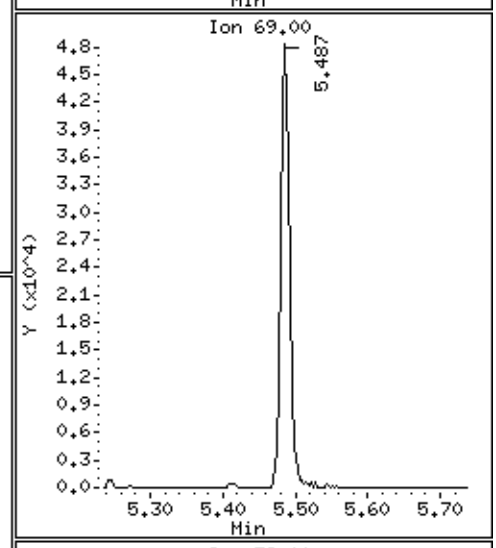


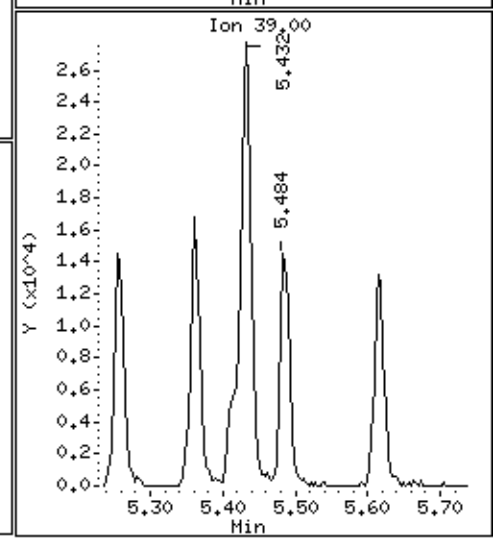












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

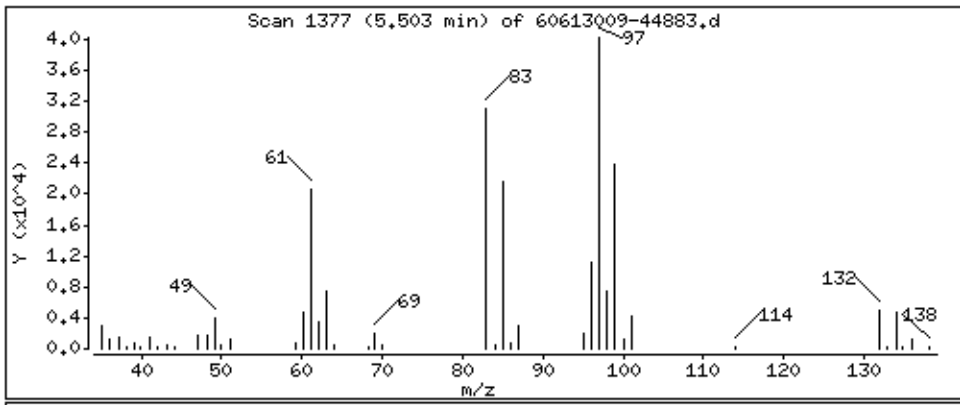
Operator: JEW

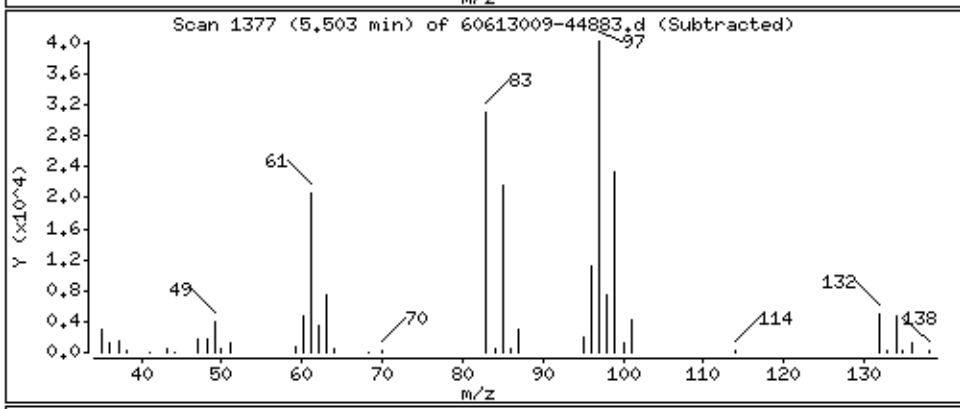
Column phase: RTX-VMS

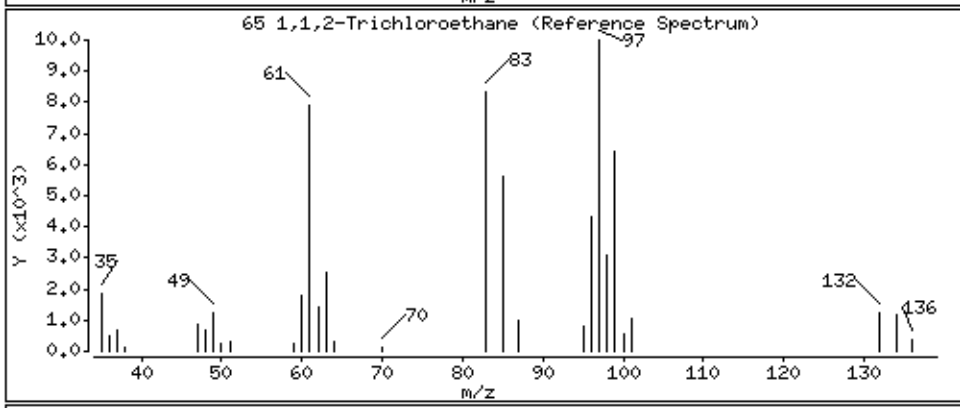
Column diameter: 0.18

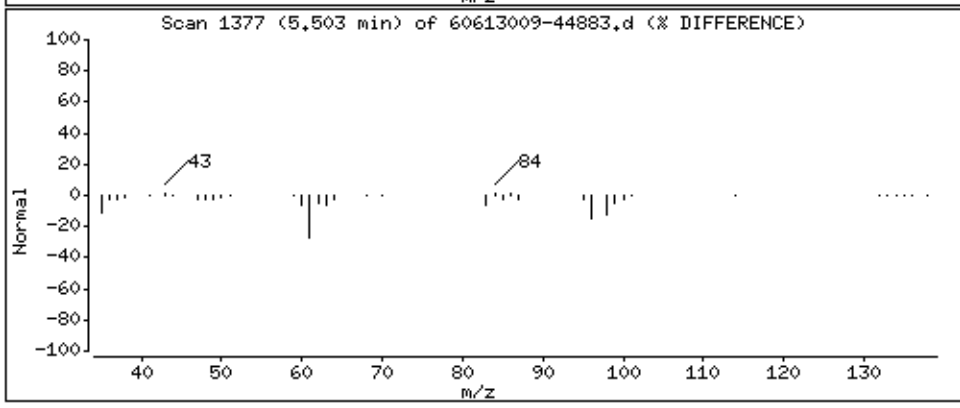
65 1,1,2-Trichloroethane

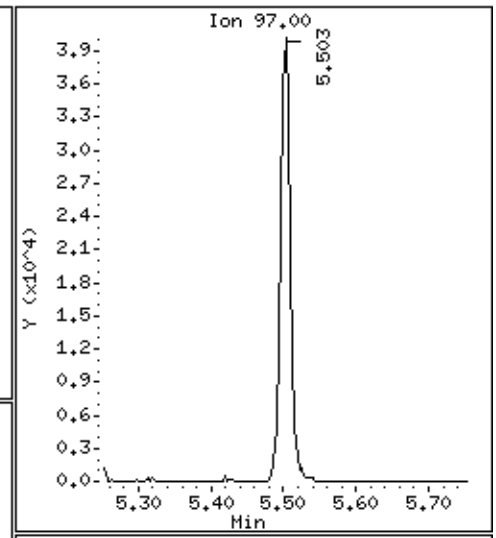
Concentration: 14.7 ug/L

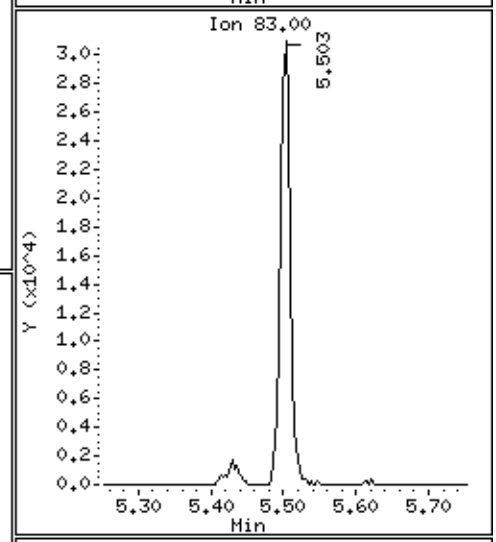


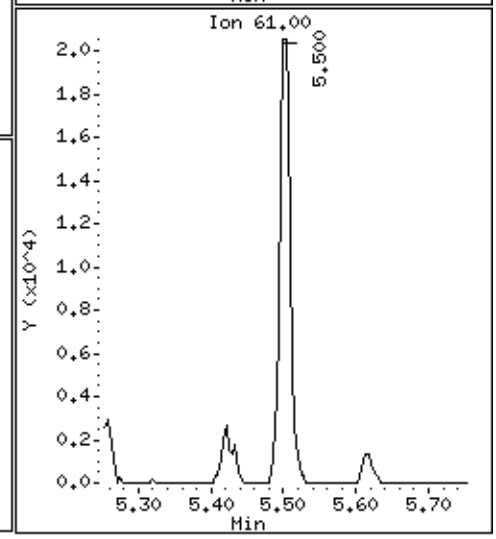












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

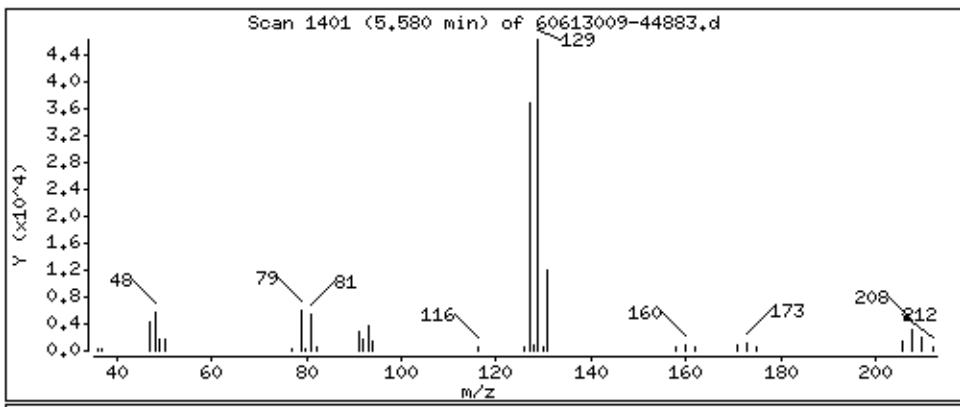
Operator: JEW

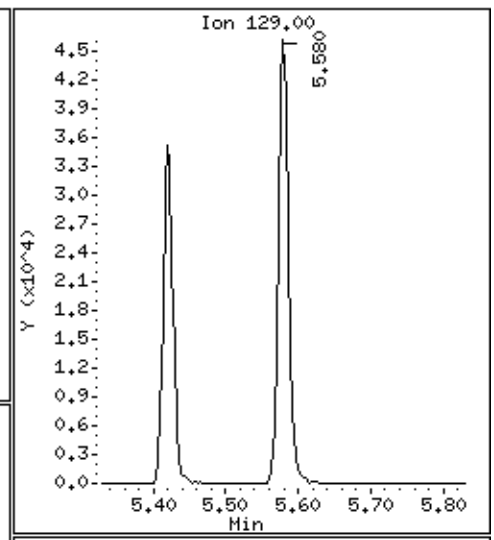
Column phase: RTX-VMS

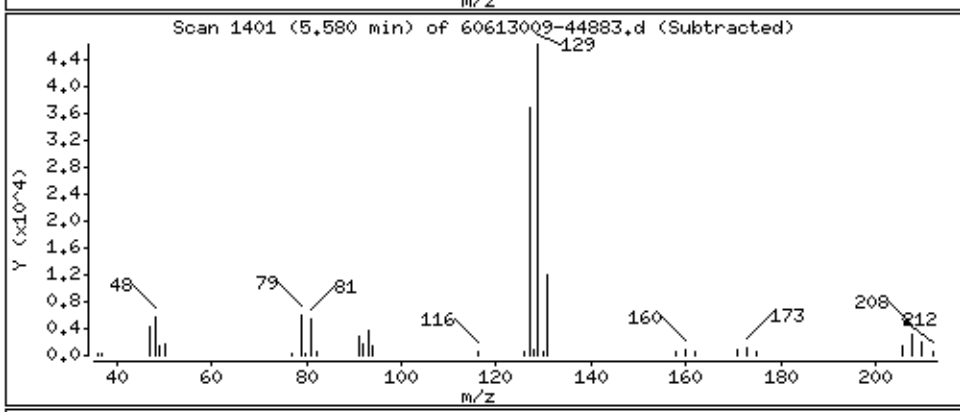
Column diameter: 0.18

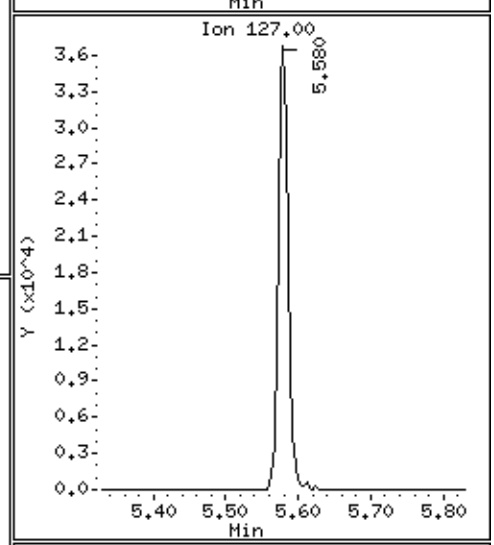
66 Dibromochloromethane

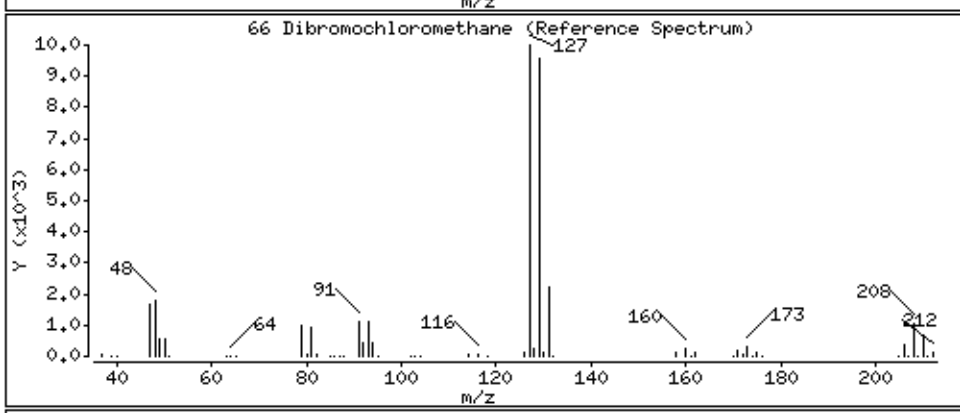
Concentration: 13.5 ug/L

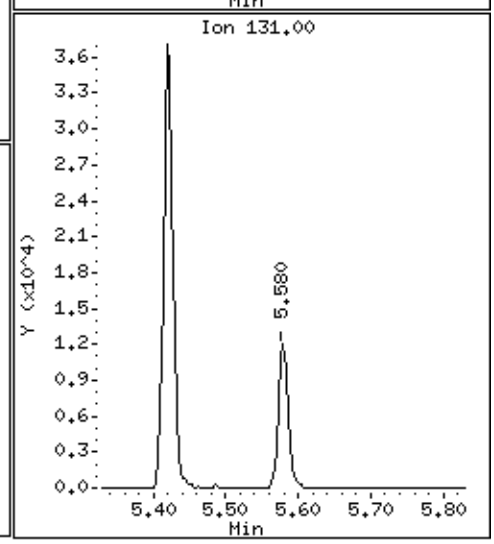


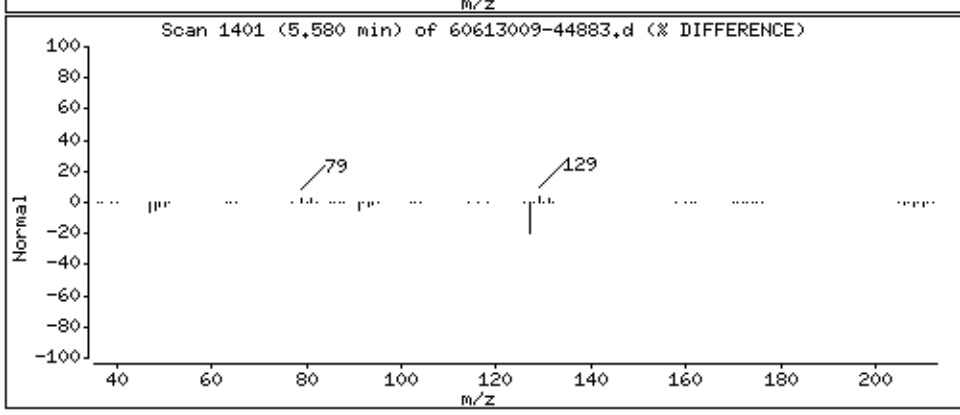












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

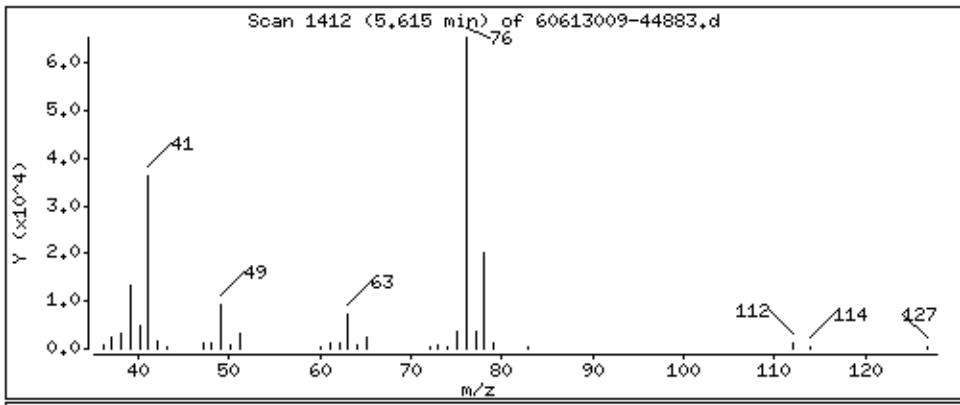
Operator: JEW

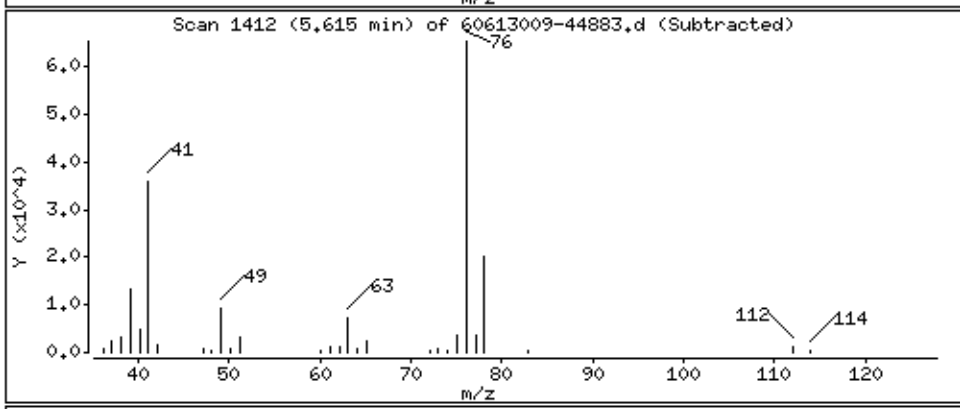
Column phase: RTX-VMS

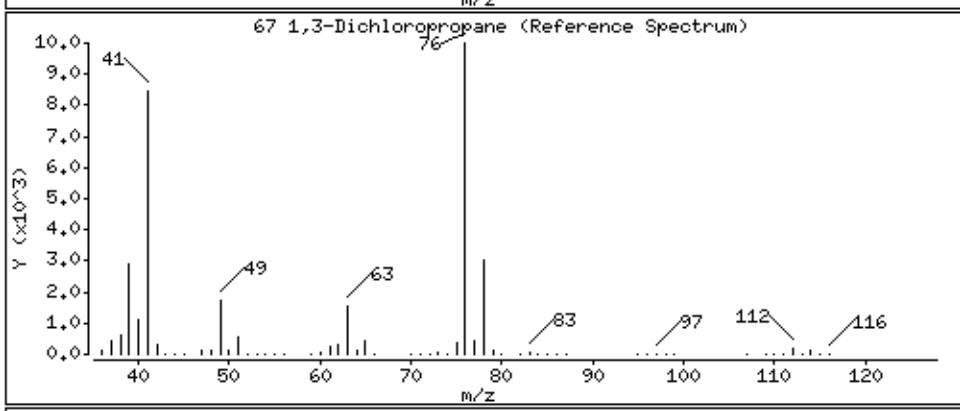
Column diameter: 0.18

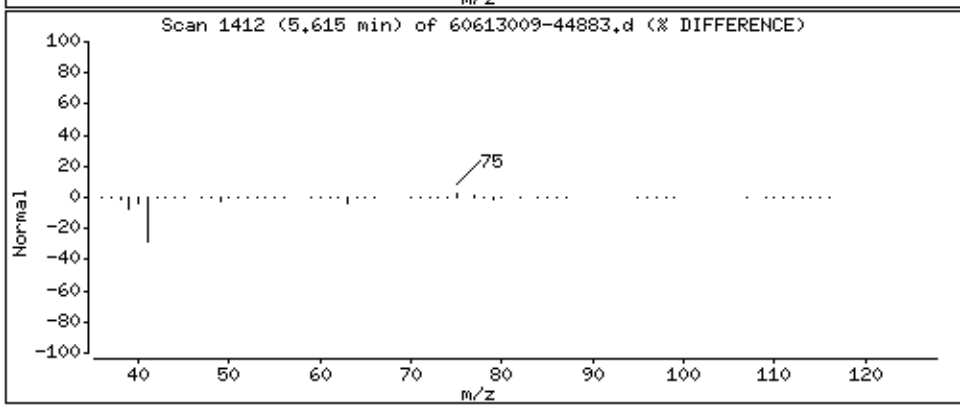
67 1,3-Dichloropropane

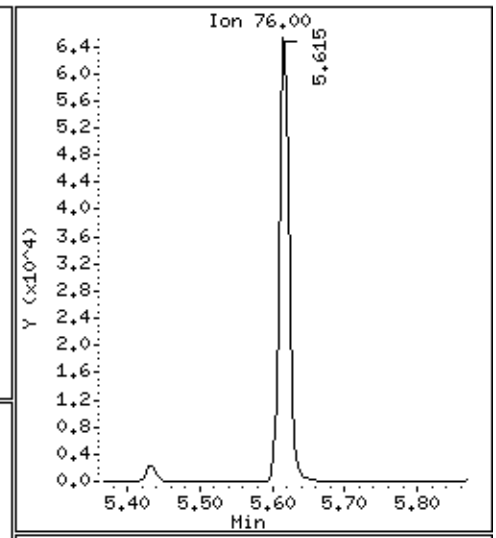
Concentration: 14.8 ug/L

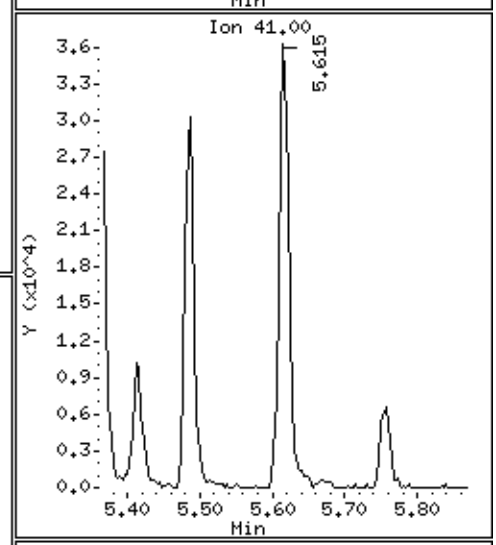


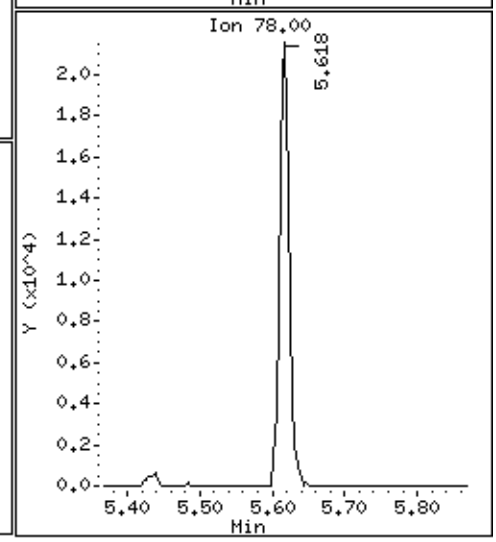












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

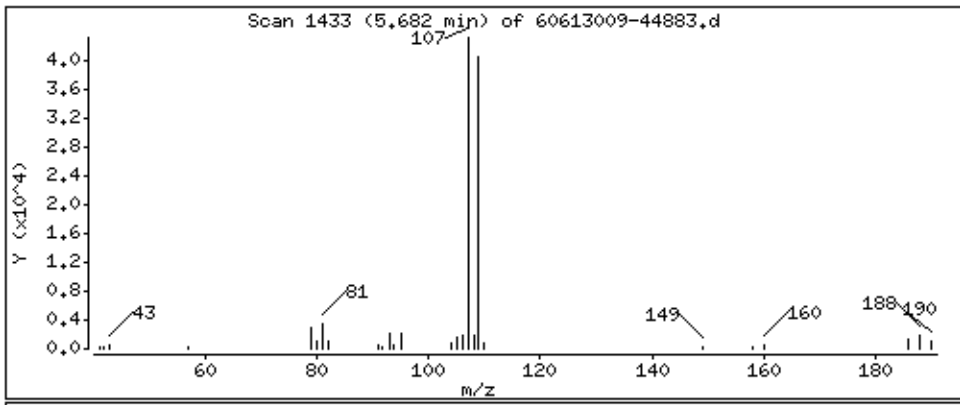
Operator: JEW

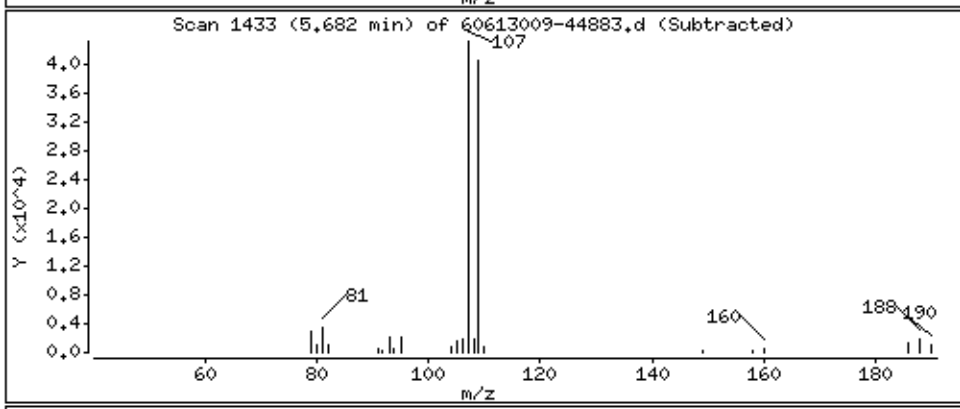
Column phase: RTX-VMS

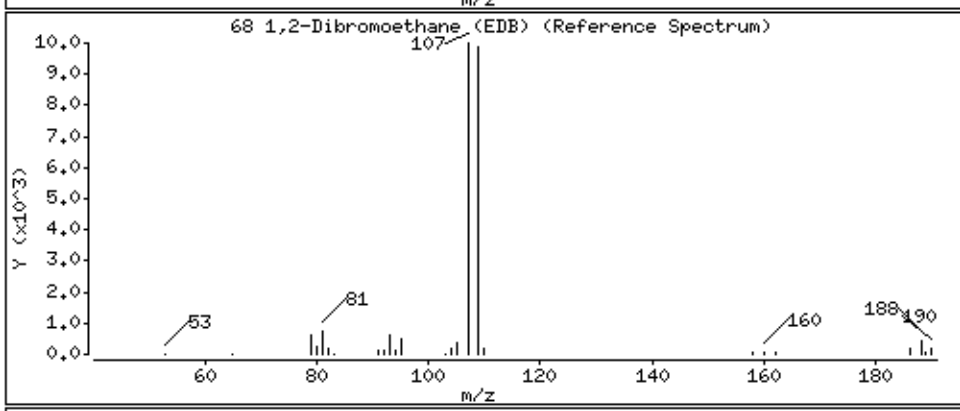
Column diameter: 0.18

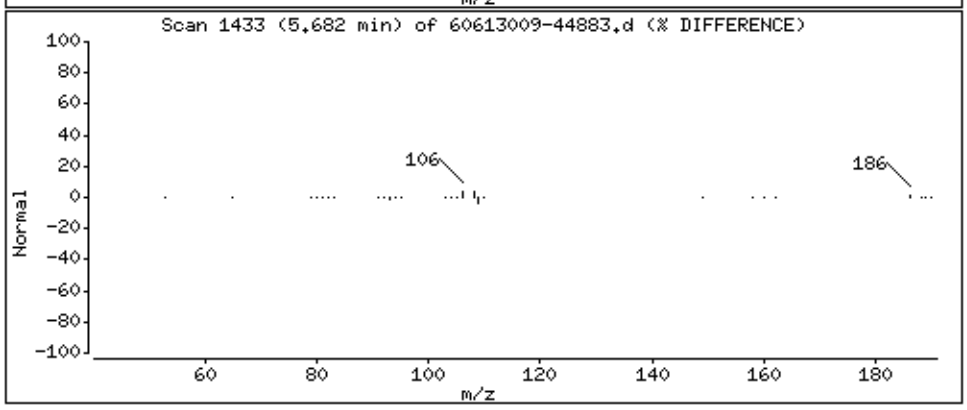
68 1,2-Dibromoethane (EDB)

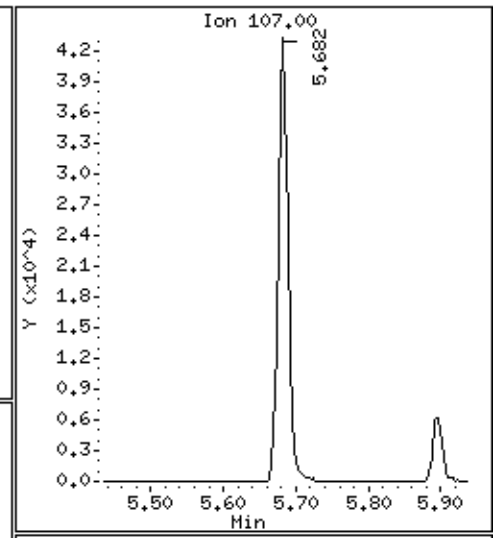
Concentration: 15.4 ug/L

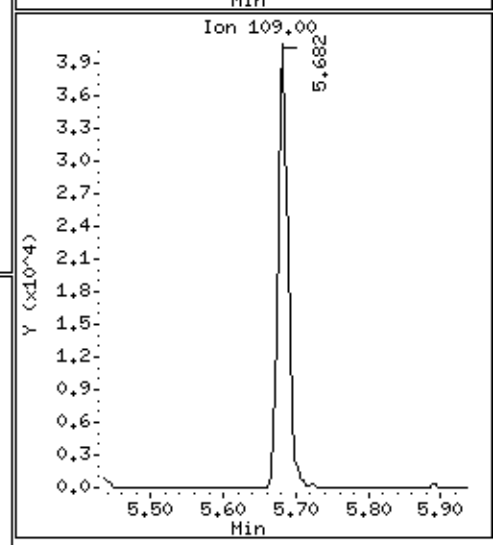












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

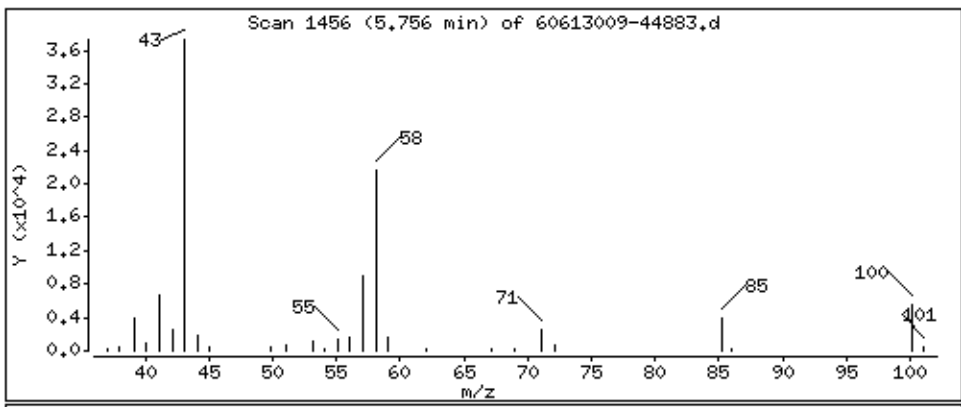
Operator: JEW

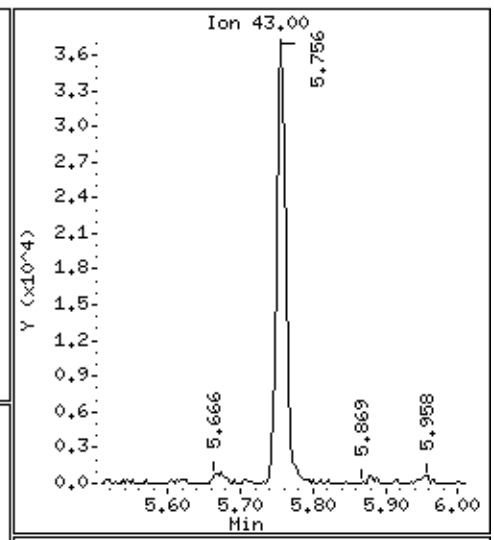
Column phase: RTX-VMS

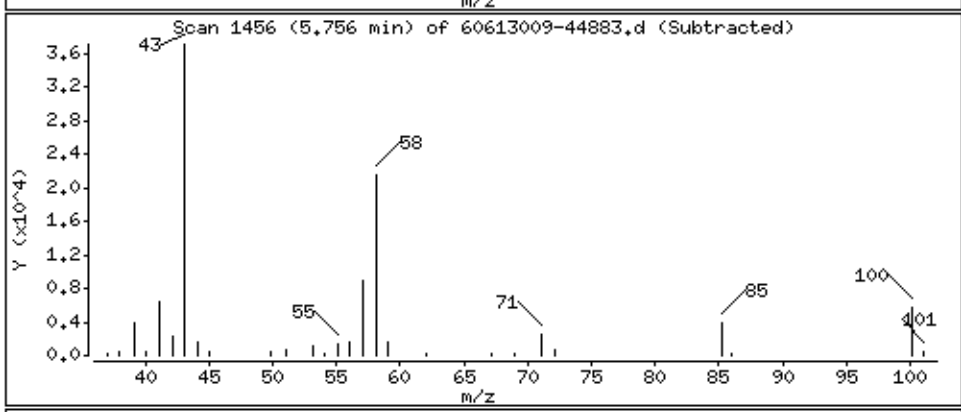
Column diameter: 0.18

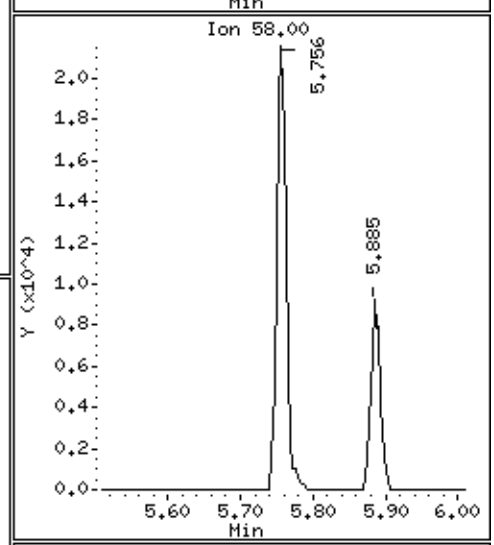
69 2-Hexanone

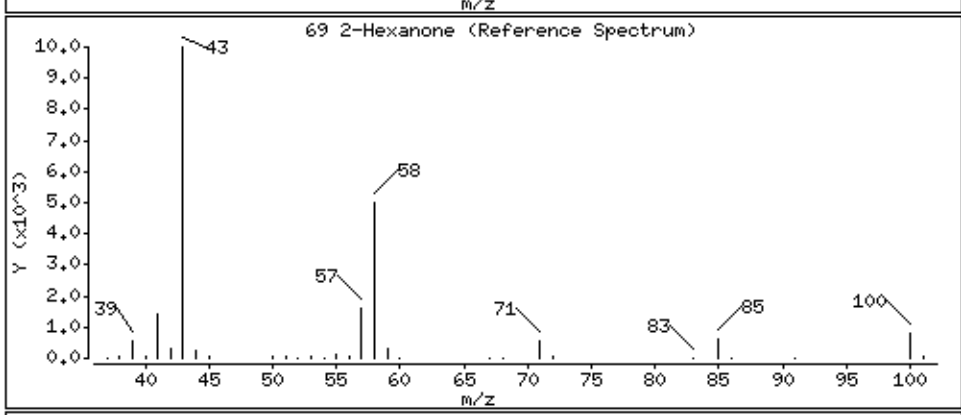
Concentration: 13.1 ug/L

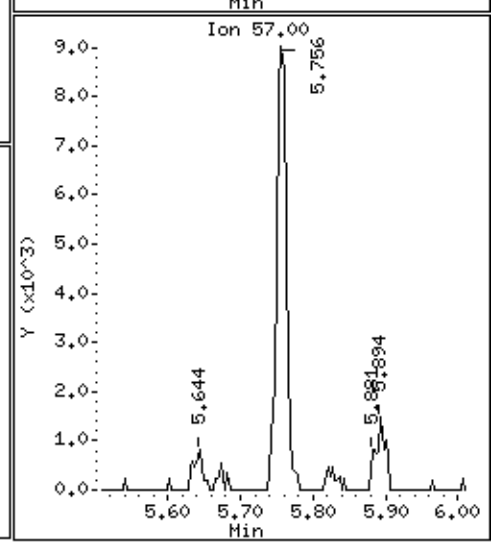


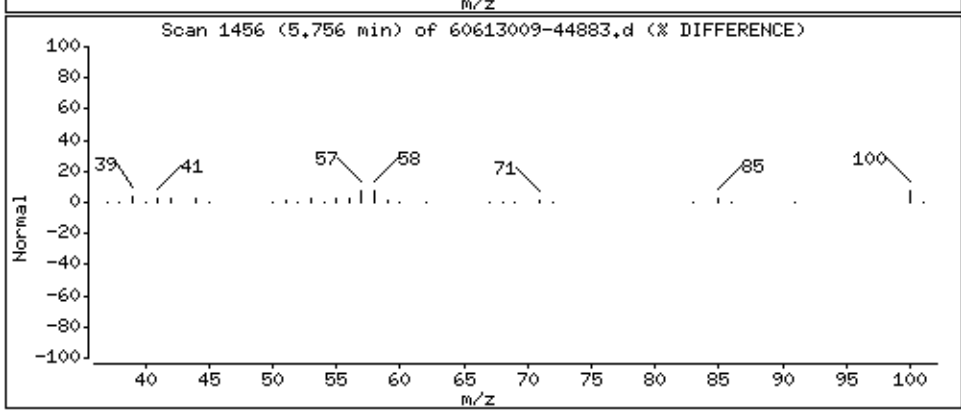












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

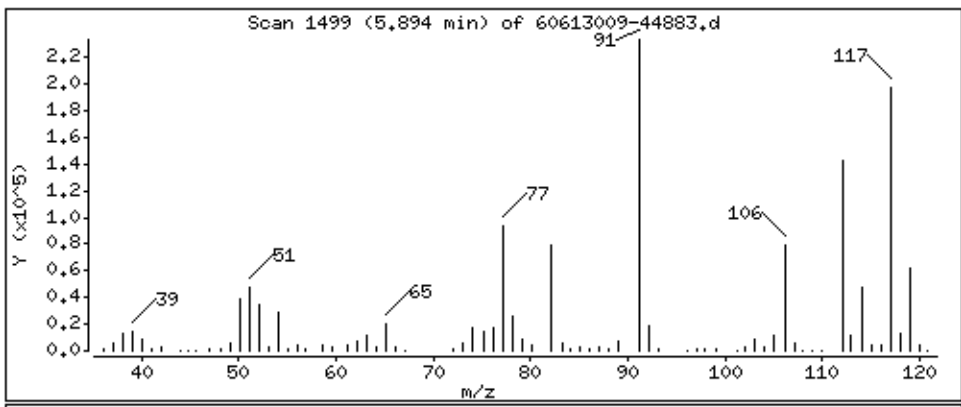
Operator: JEW

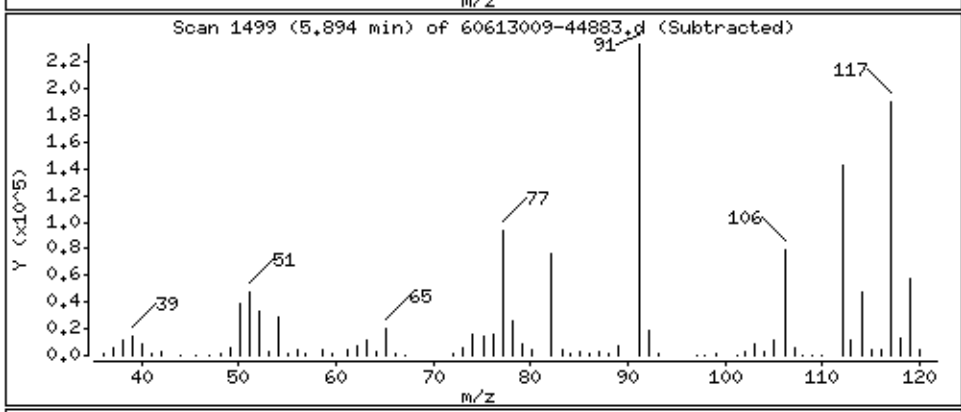
Column phase: RTX-VMS

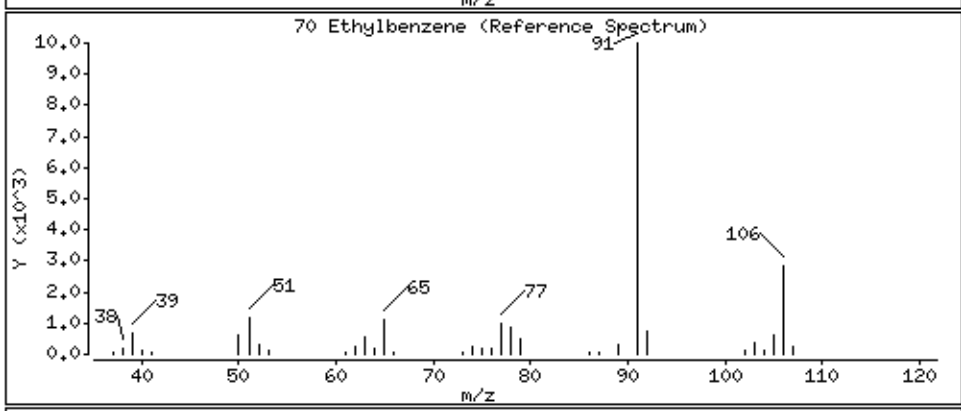
Column diameter: 0.18

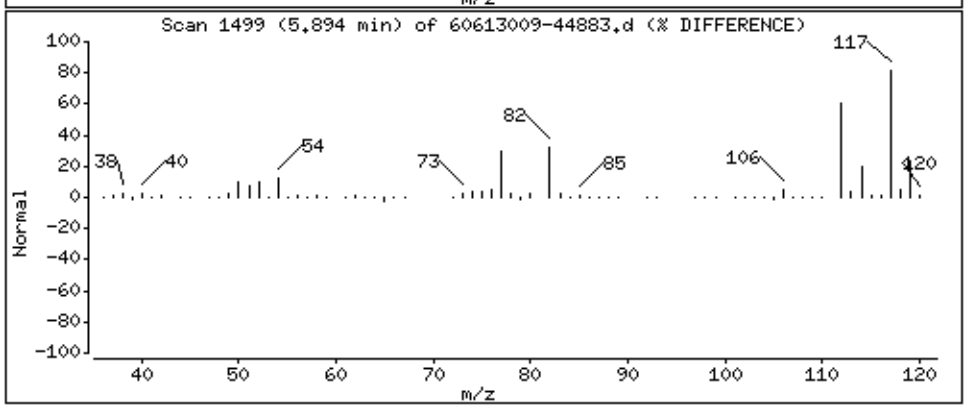
70 Ethylbenzene

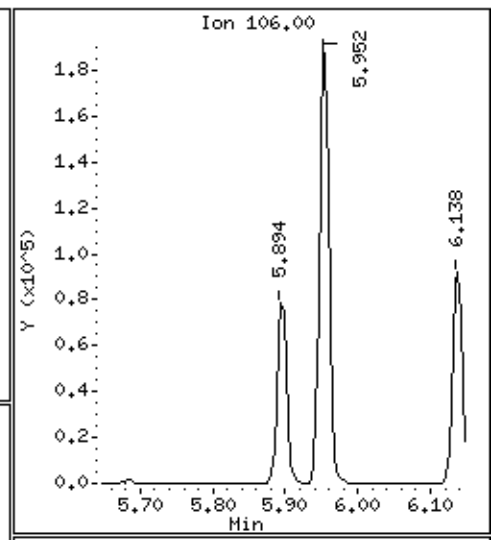
Concentration: 15.6 ug/L

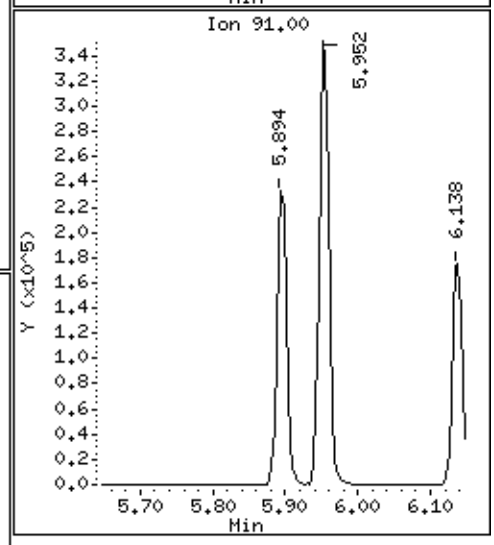












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

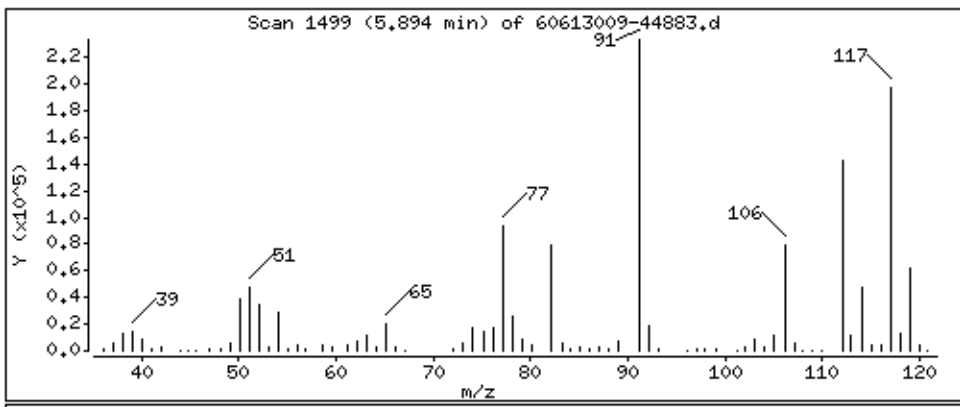
Operator: JEW

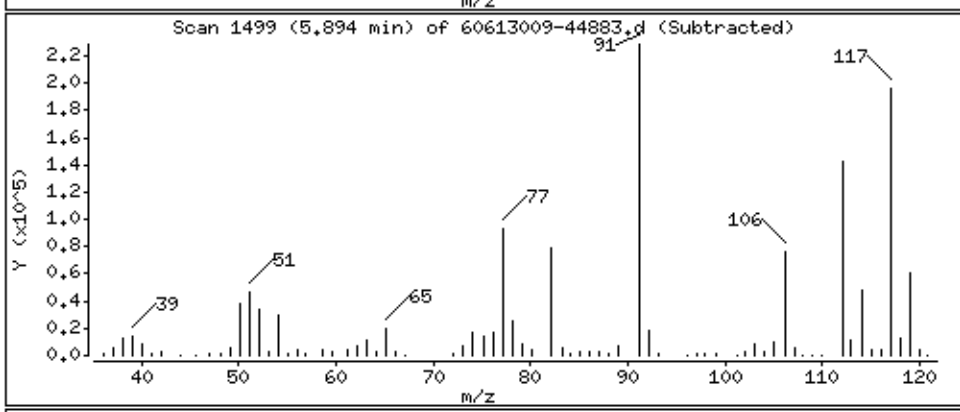
Column phase: RTX-VMS

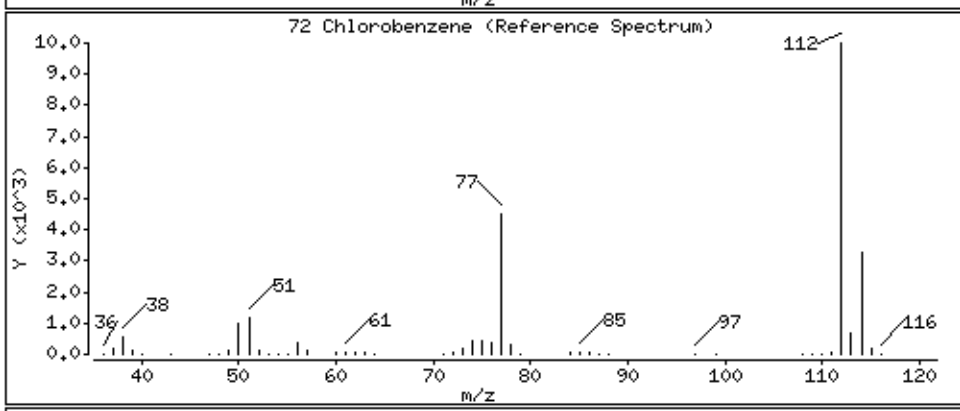
Column diameter: 0.18

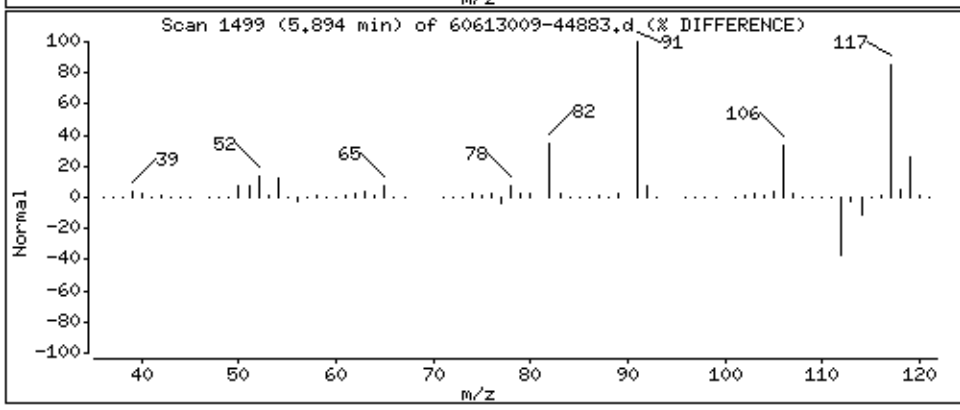
72 Chlorobenzene

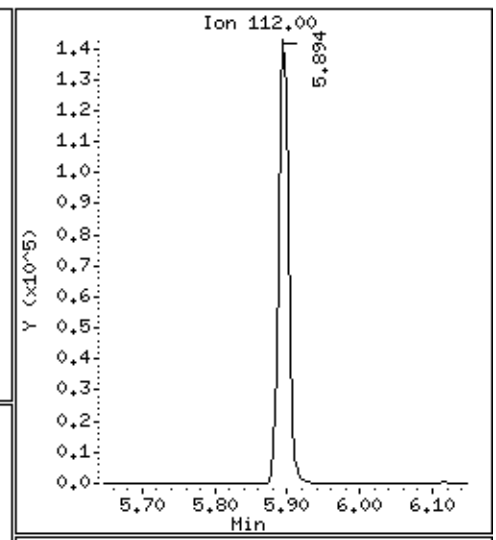
Concentration: 15.9 ug/L

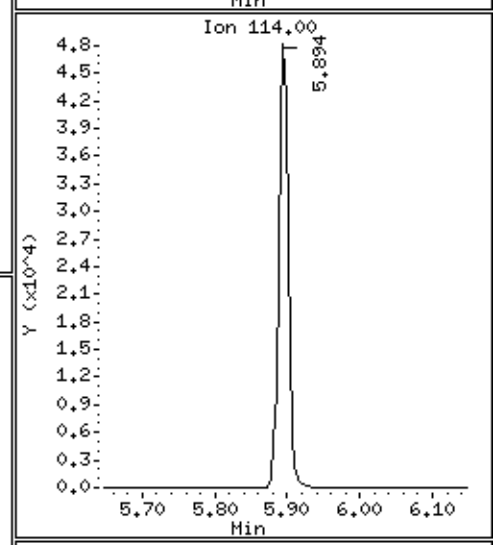


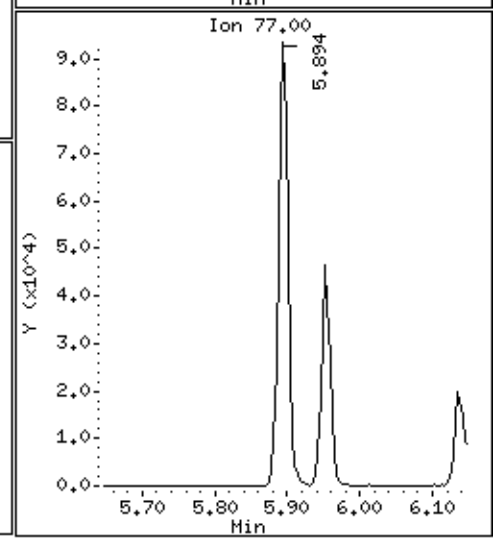












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

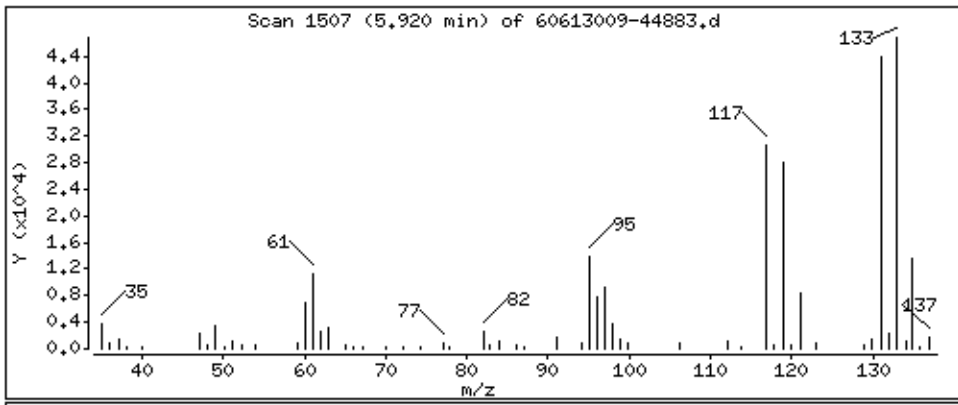
Operator: JEW

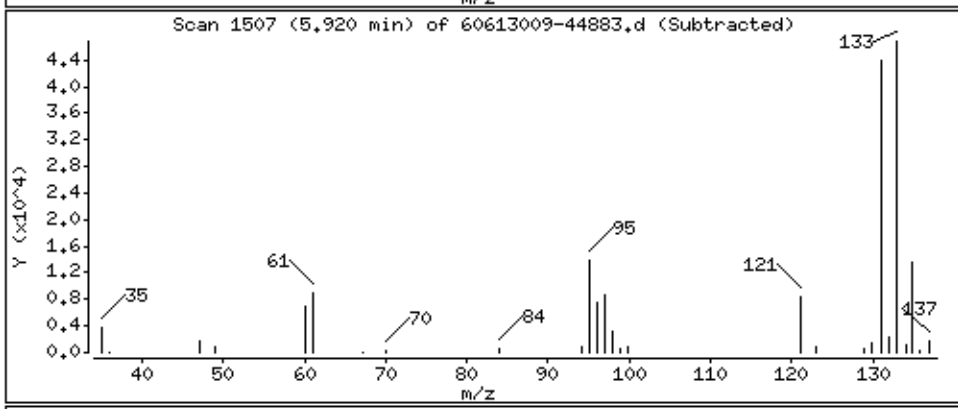
Column phase: RTX-VMS

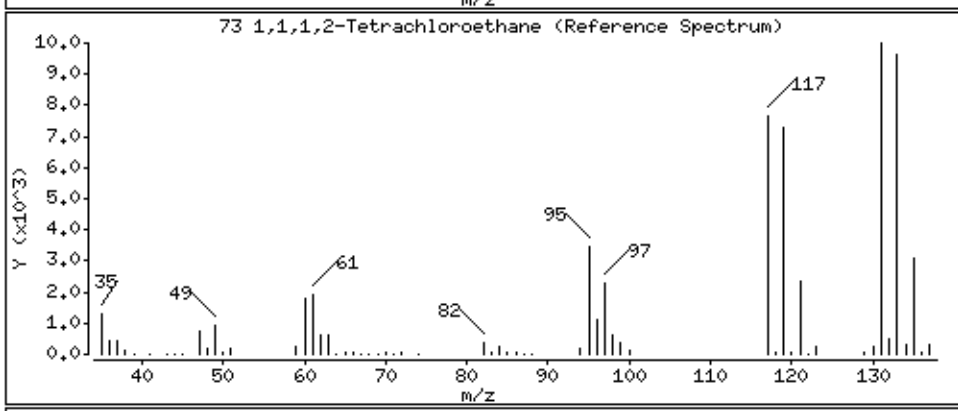
Column diameter: 0.18

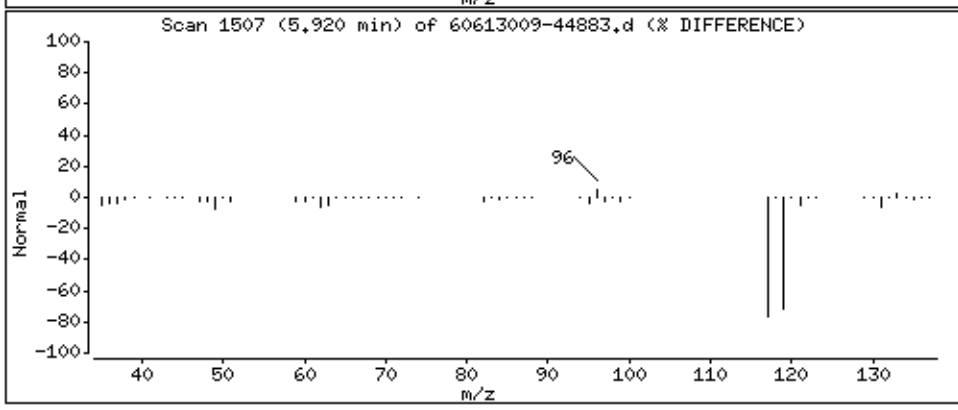
73 1,1,1,2-Tetrachloroethane

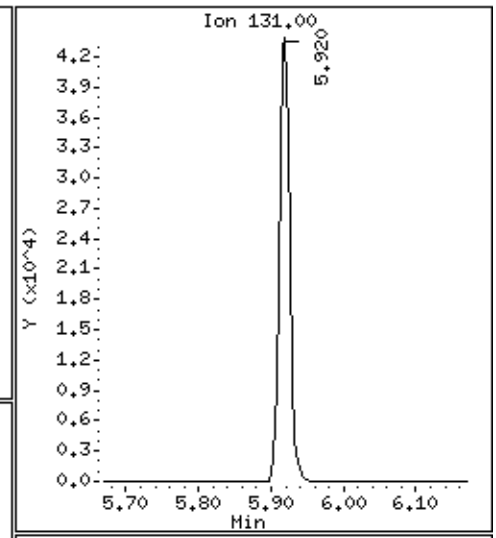
Concentration: 13.5 ug/L

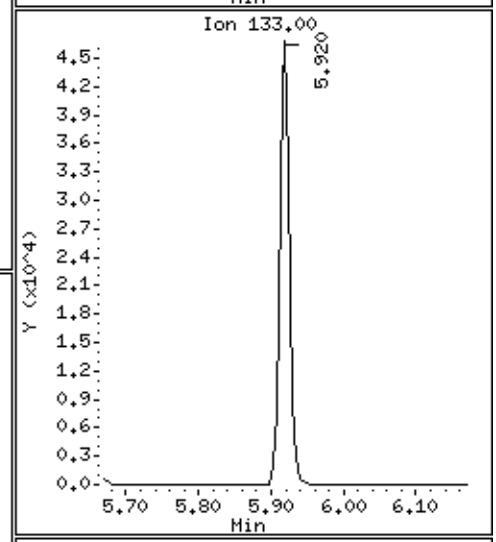


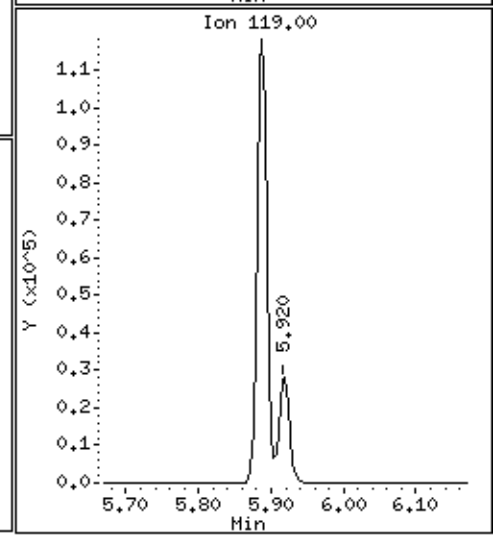












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

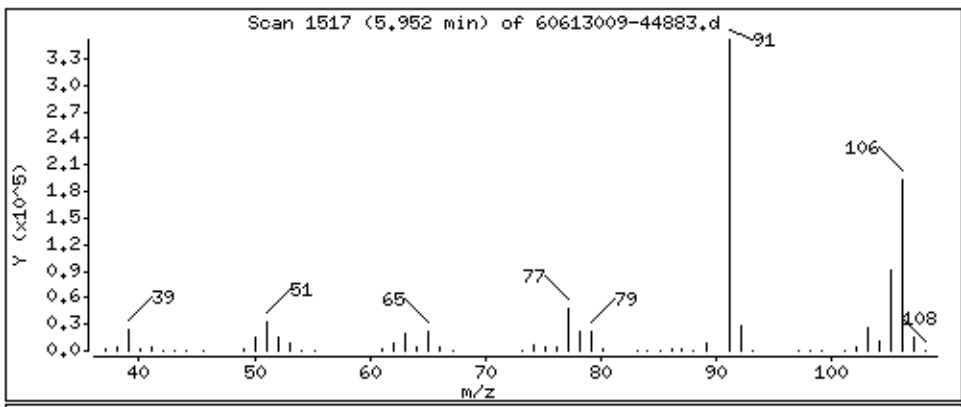
Operator: JEW

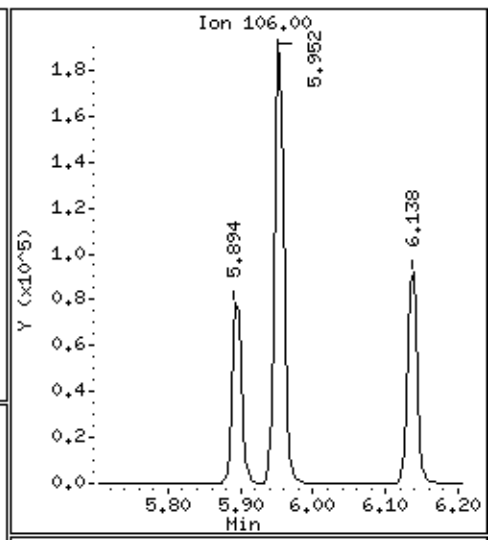
Column phase: RTX-VMS

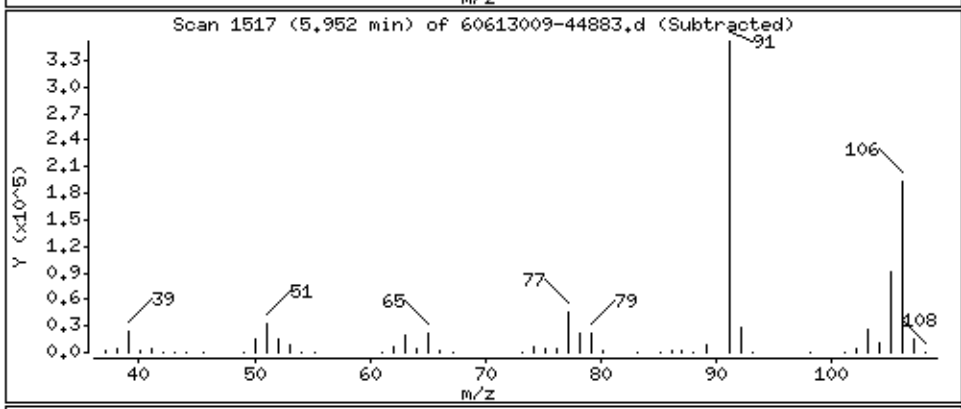
Column diameter: 0.18

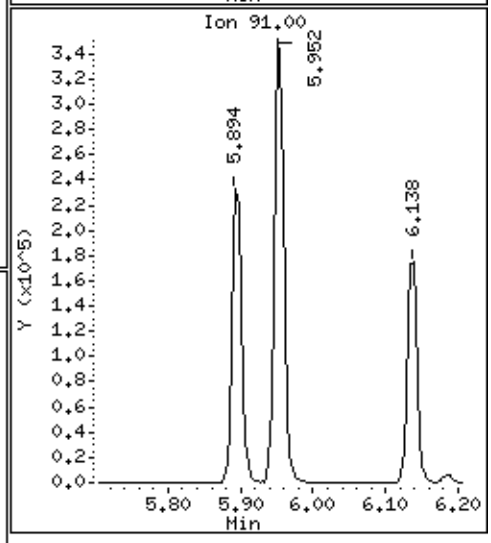
74 m&p-Xylene

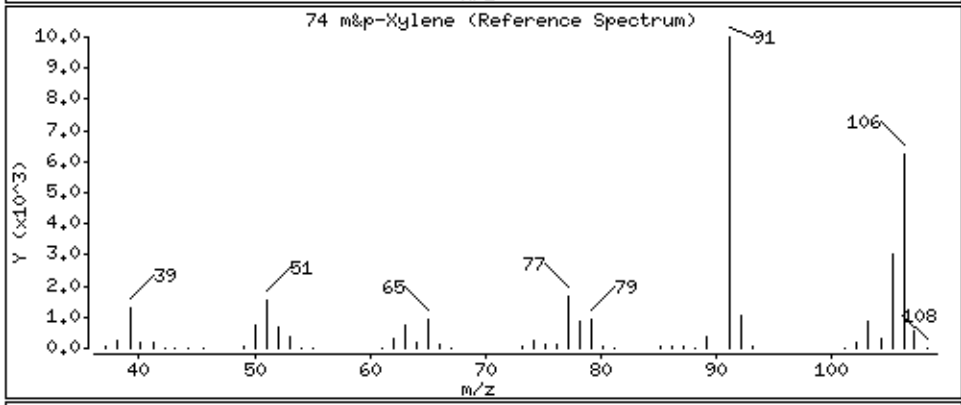
Concentration: 30.8 ug/L

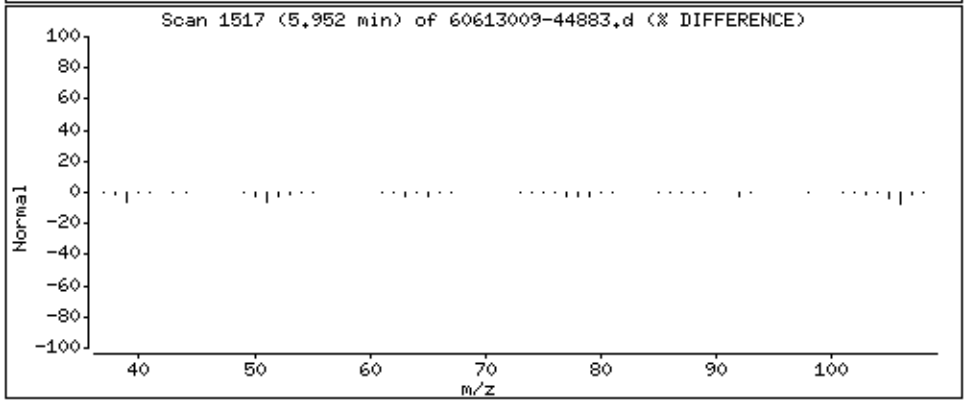












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

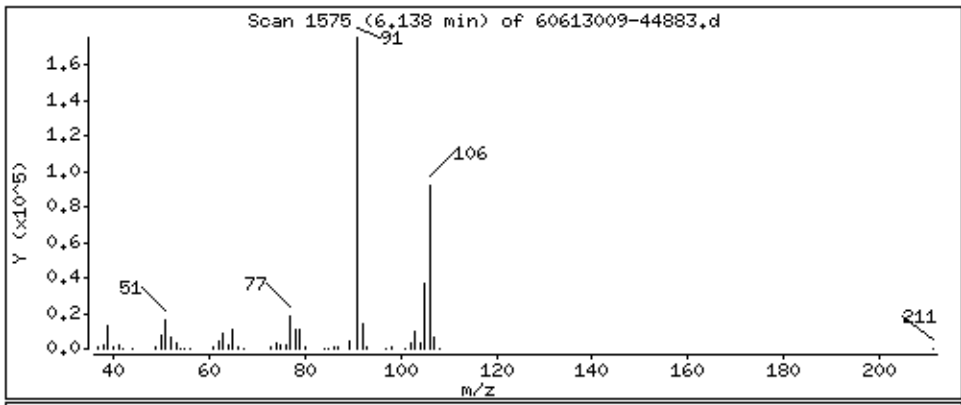
Operator: JEW

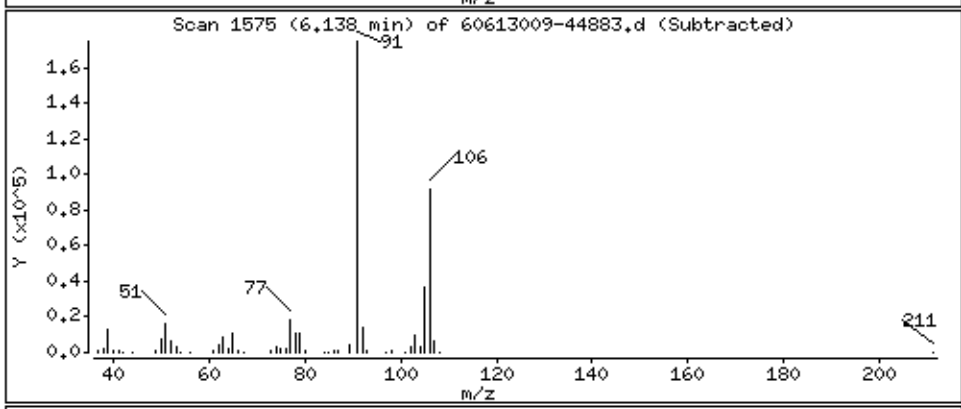
Column phase: RTX-VMS

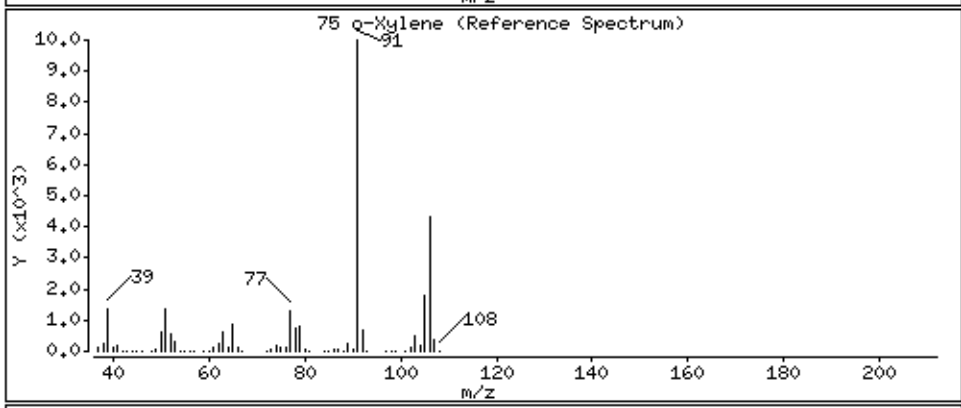
Column diameter: 0.18

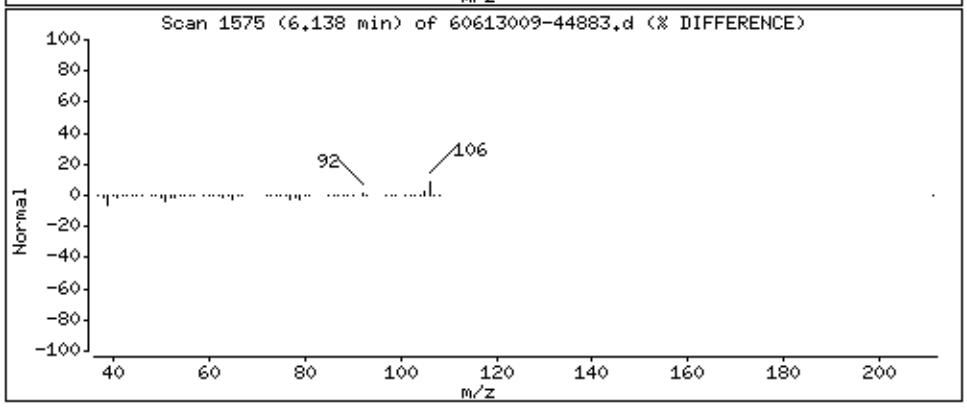
75 o-Xylene

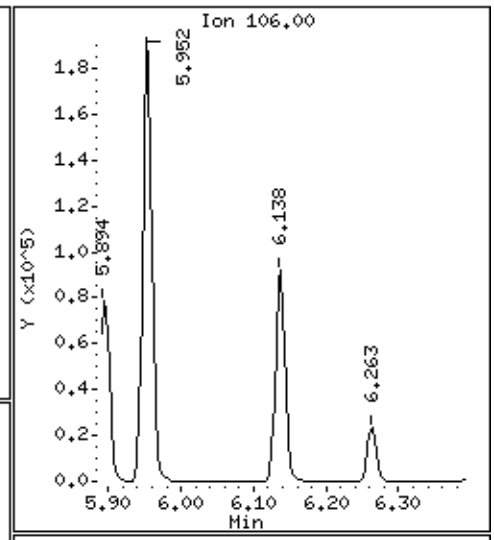
Concentration: 15.3 ug/L

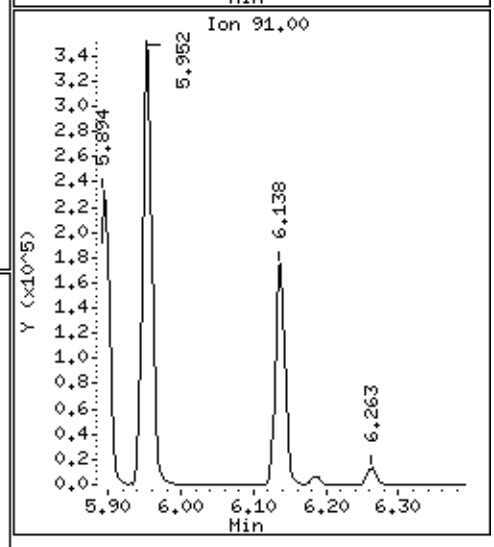












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

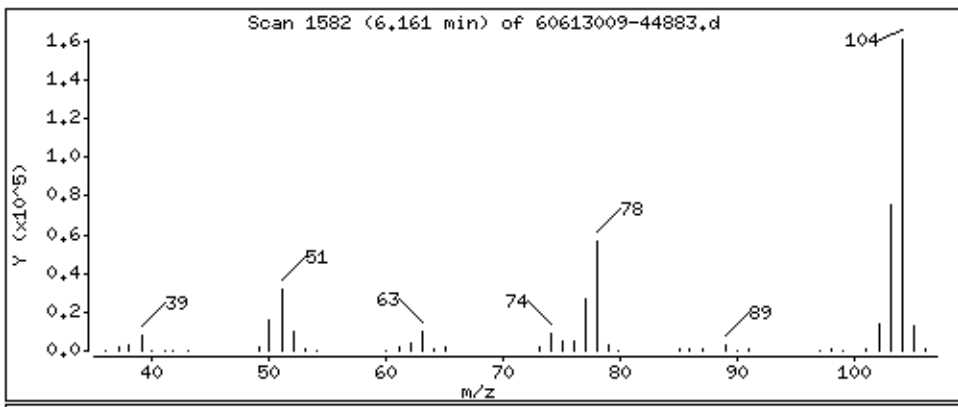
Operator: JEW

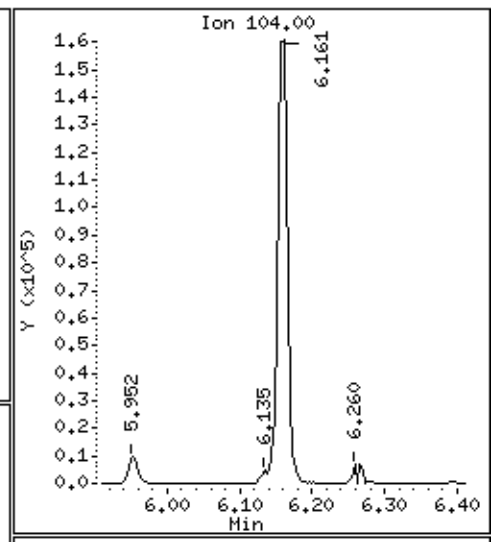
Column phase: RTX-VMS

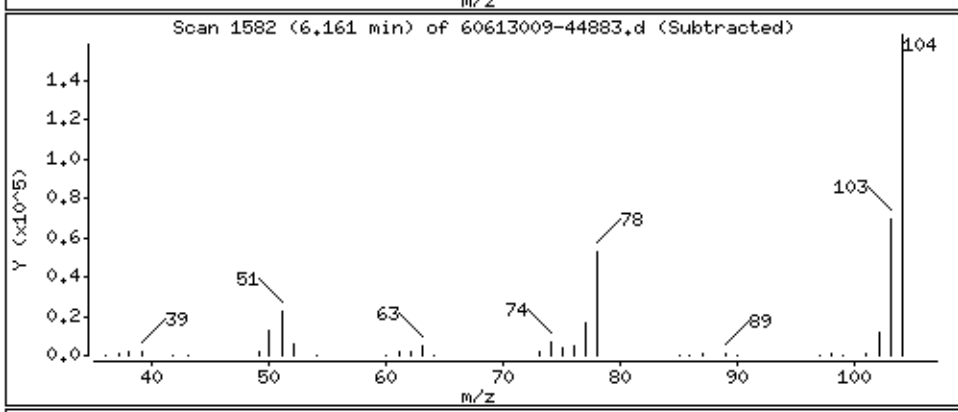
Column diameter: 0.18

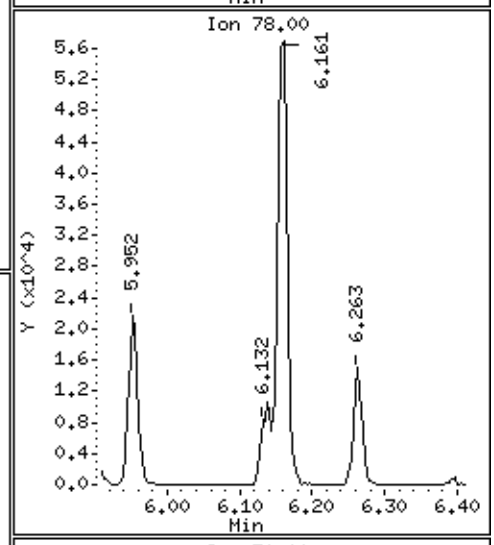
76 Styrene

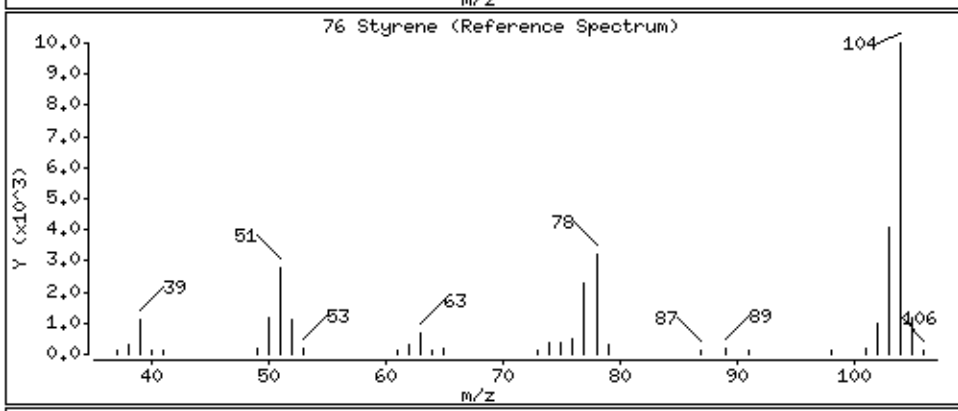
Concentration: 15.3 ug/L

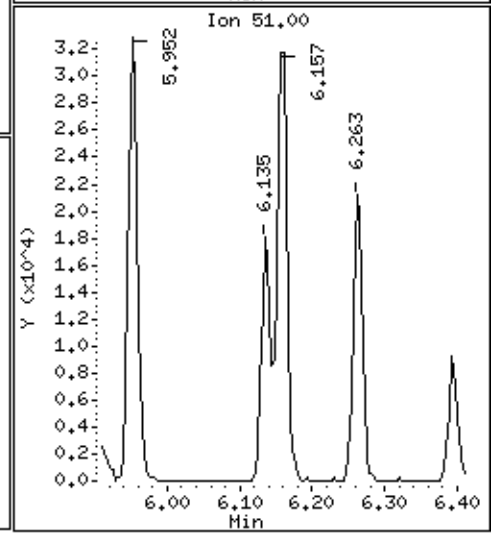


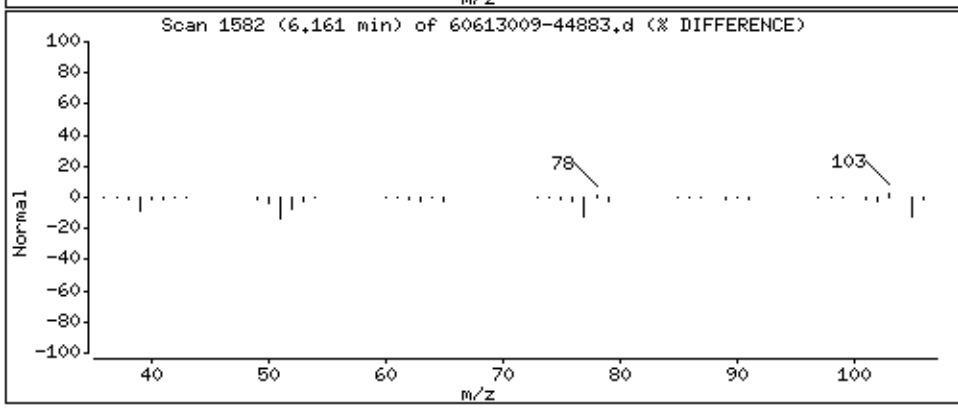












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

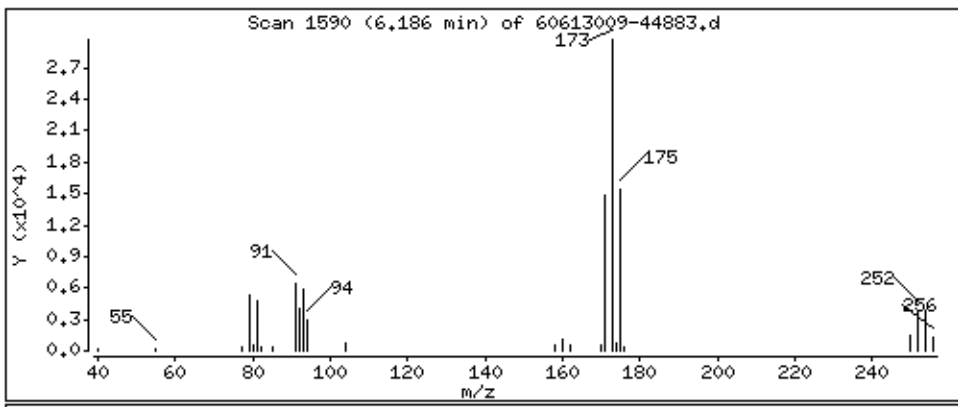
Operator: JEW

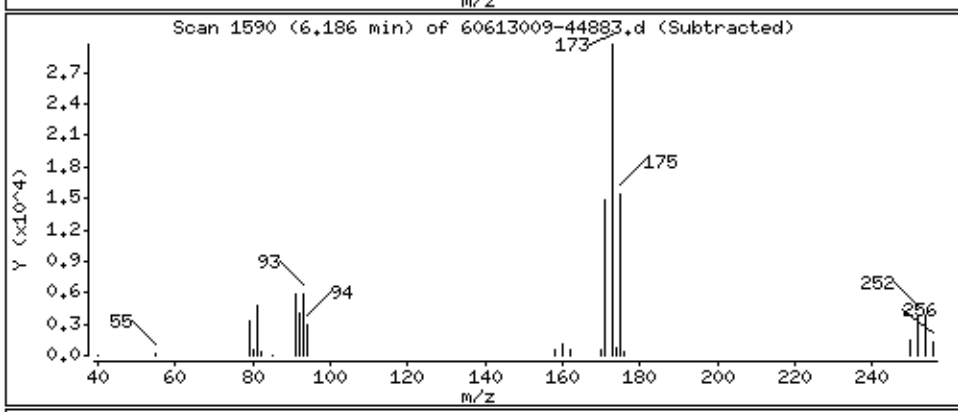
Column phase: RTX-VMS

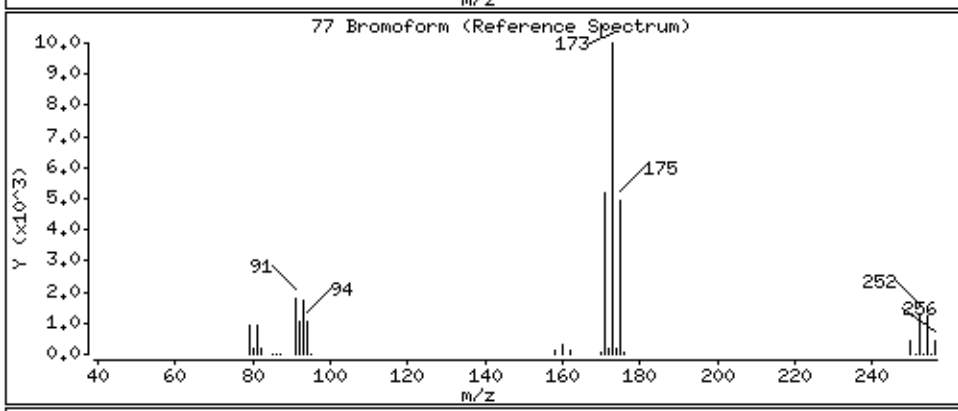
Column diameter: 0.18

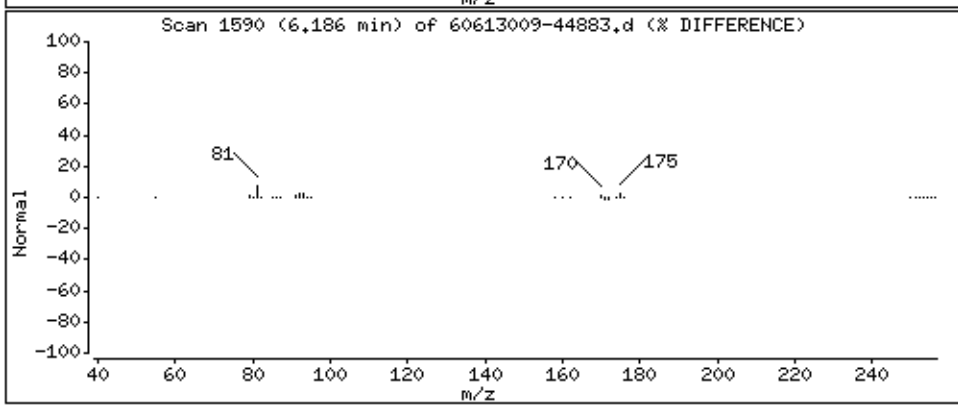
77 Bromoform

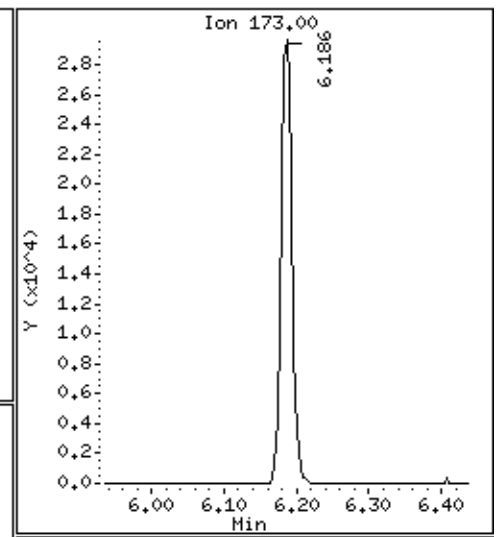
Concentration: 11.6 ug/L

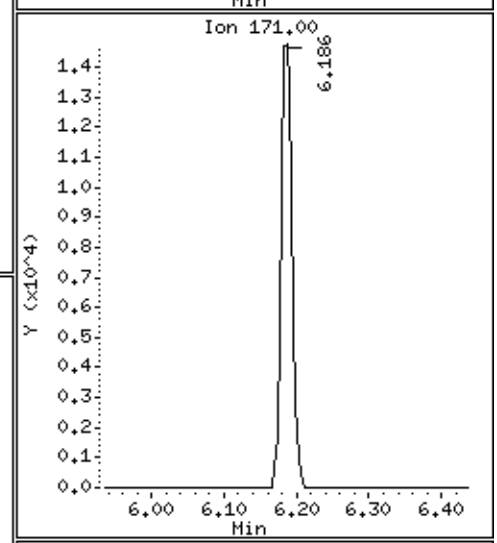


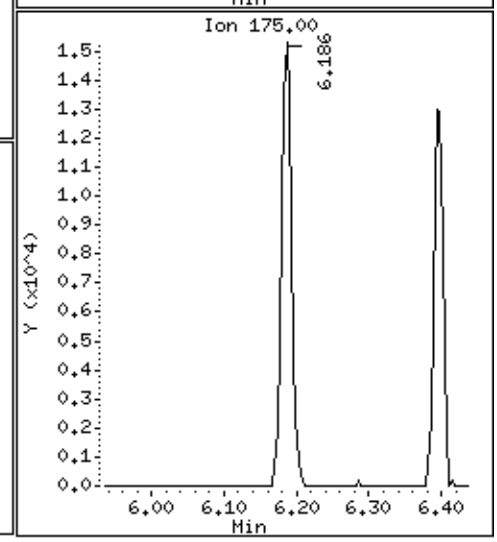












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

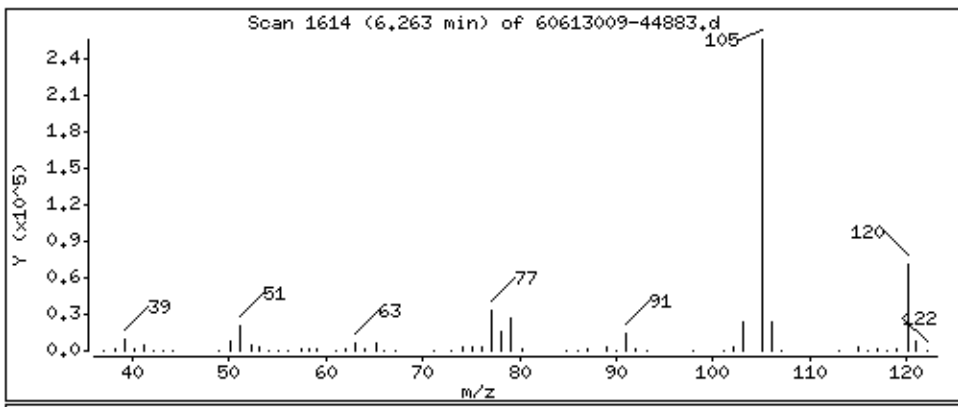
Operator: JEW

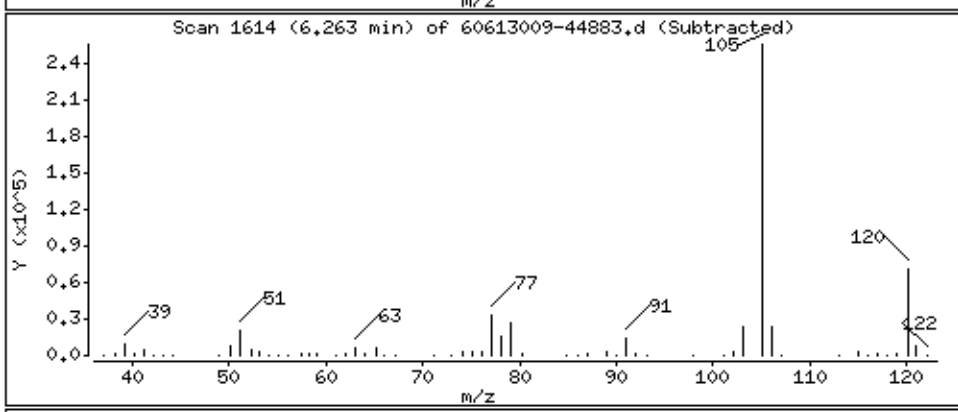
Column phase: RTX-VMS

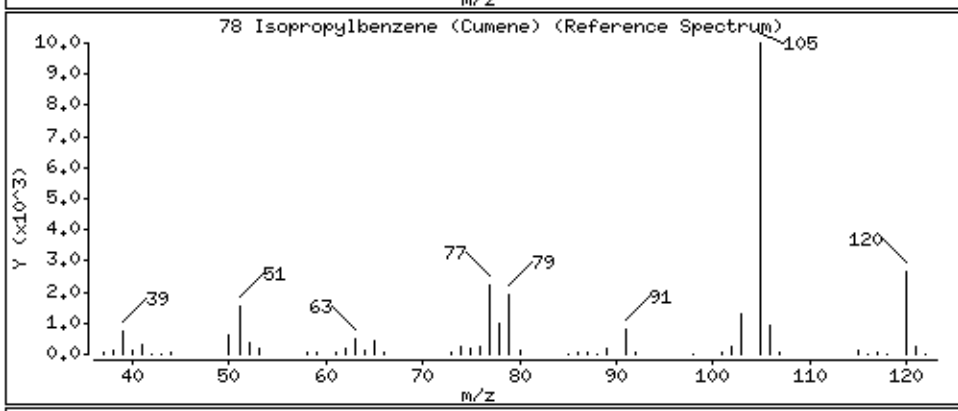
Column diameter: 0.18

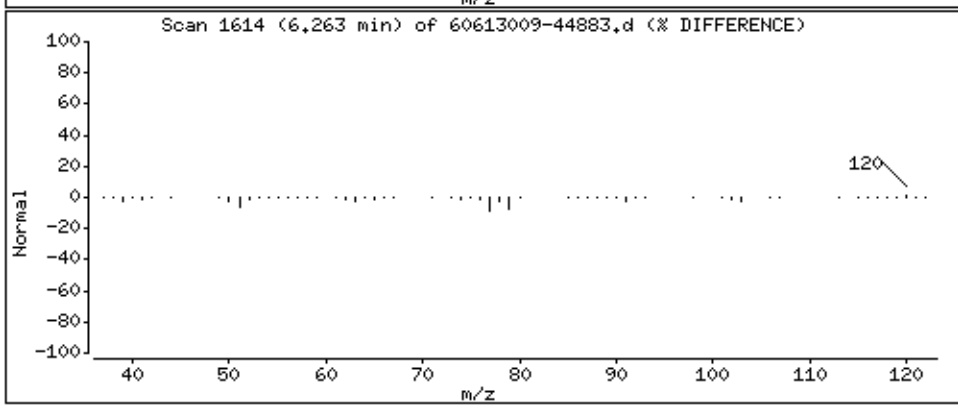
78 Isopropylbenzene (Cumene)

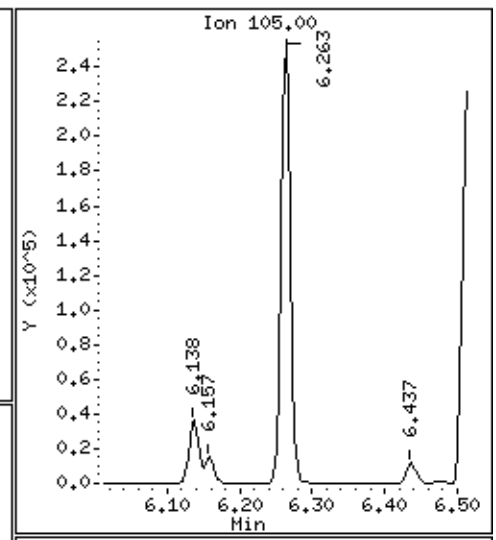
Concentration: 15.2 ug/L

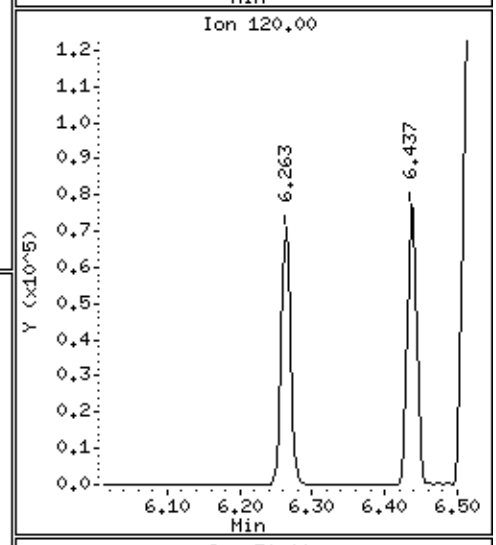


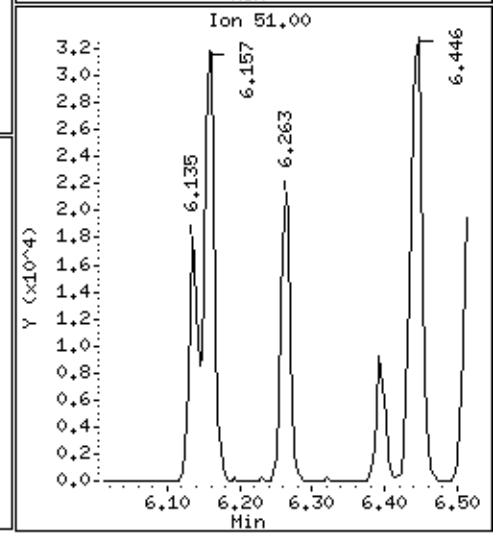












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

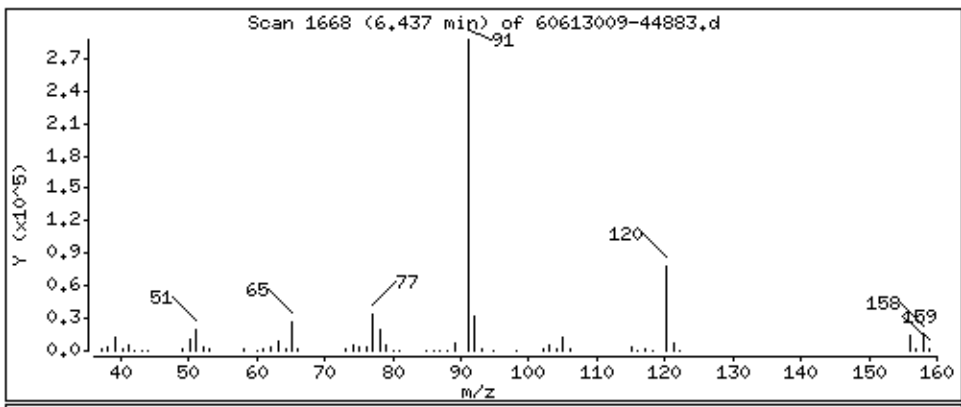
Operator: JEW

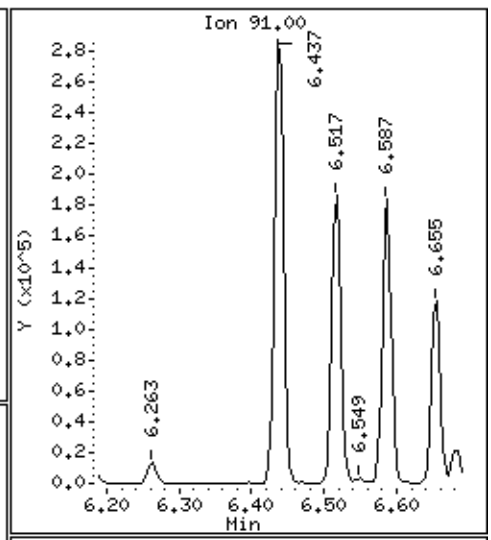
Column phase: RTX-VMS

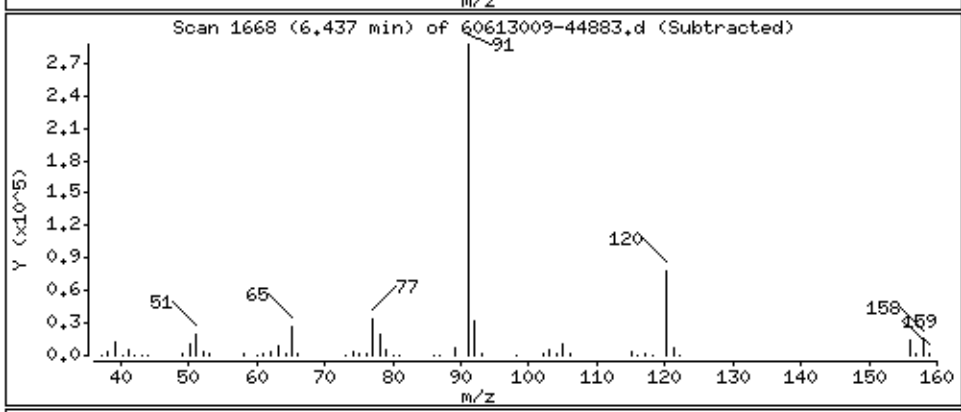
Column diameter: 0.18

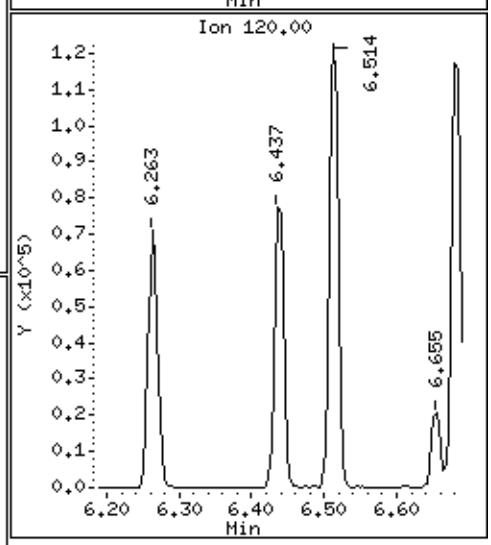
80 n-Propylbenzene

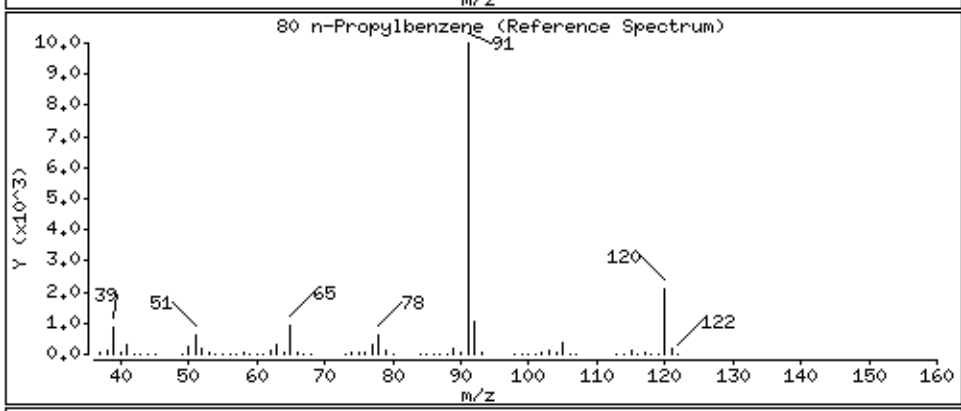
Concentration: 14.8 ug/L

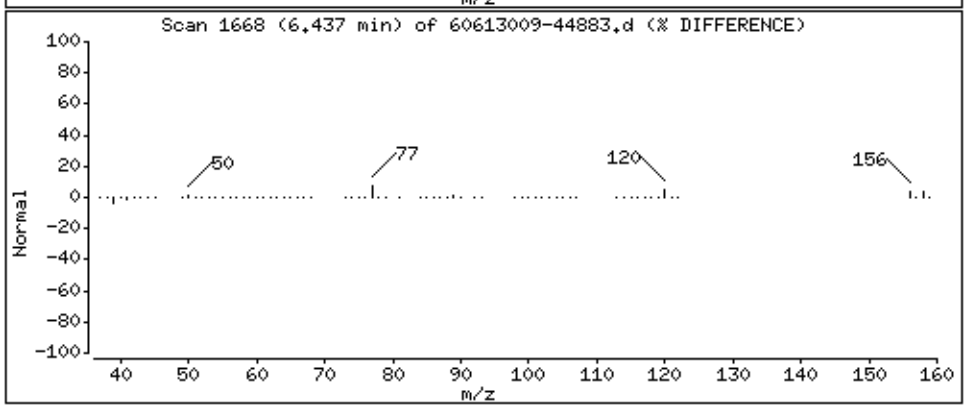












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

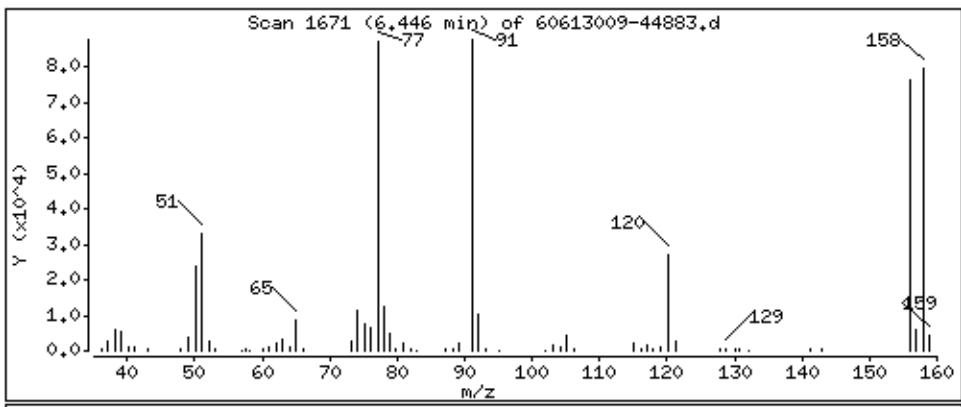
Operator: JEW

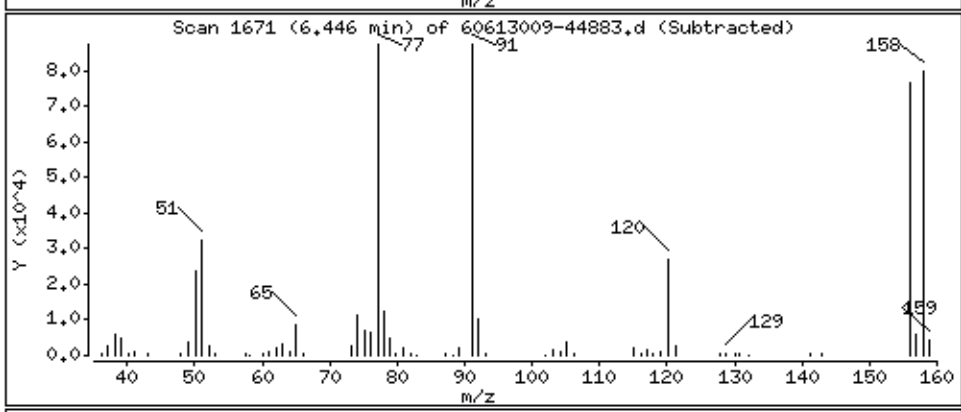
Column phase: RTX-VMS

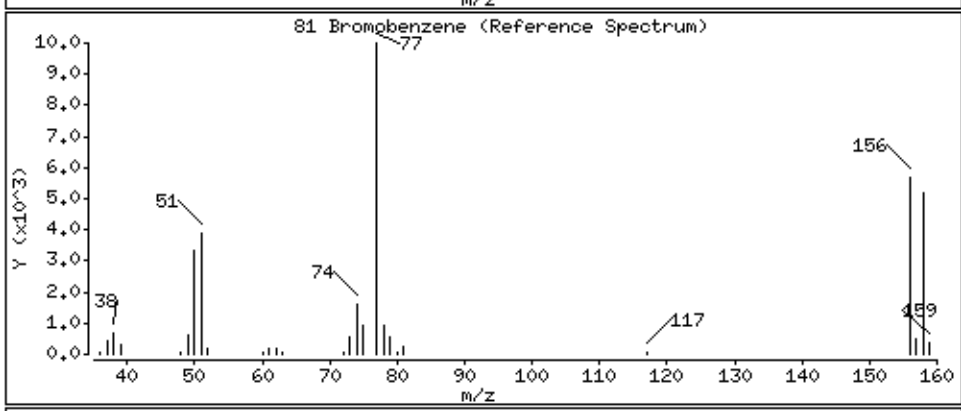
Column diameter: 0.18

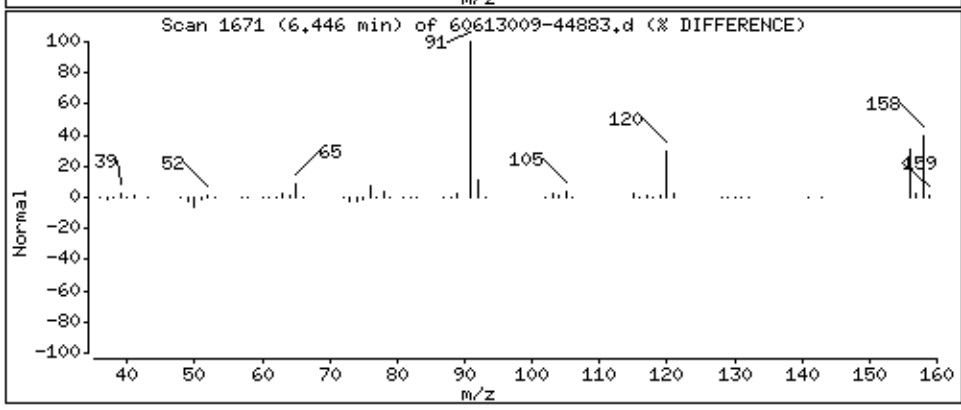
81 Bromobenzene

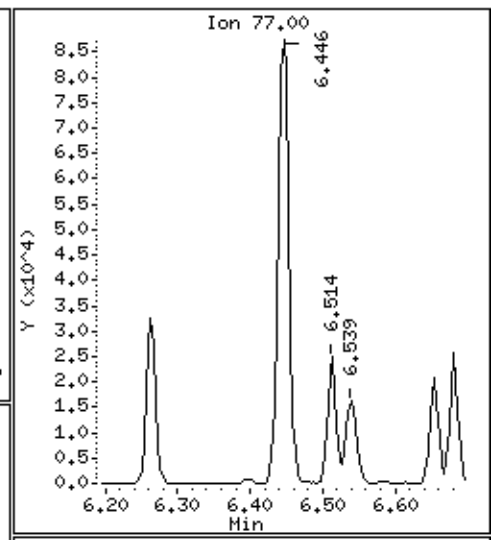
Concentration: 14.6 ug/L

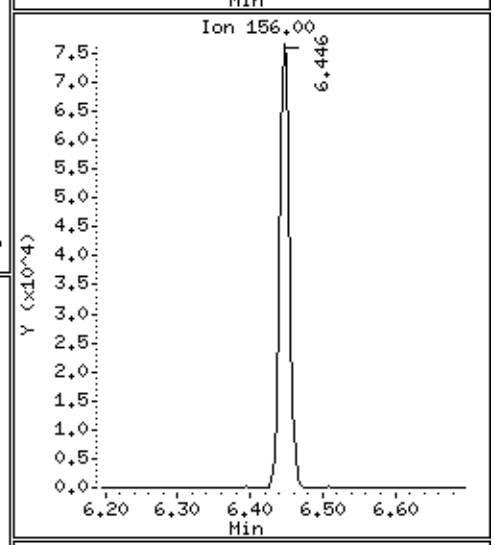


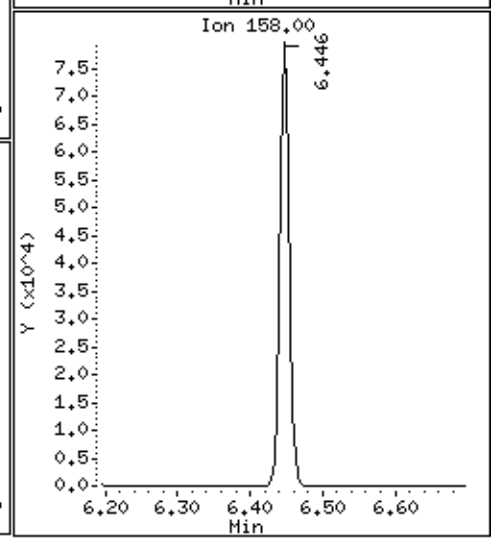












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

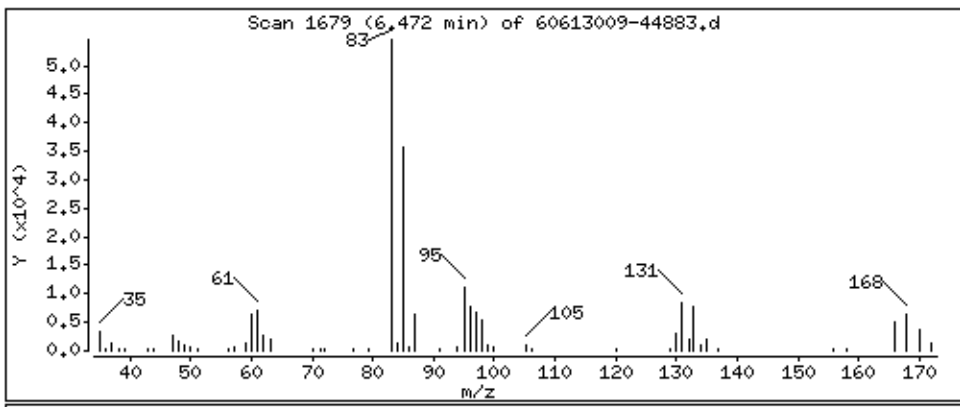
Operator: JEW

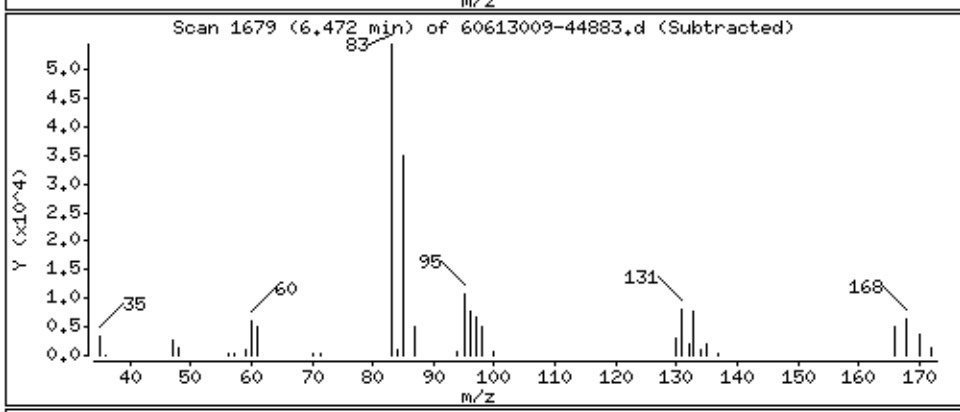
Column phase: RTX-VMS

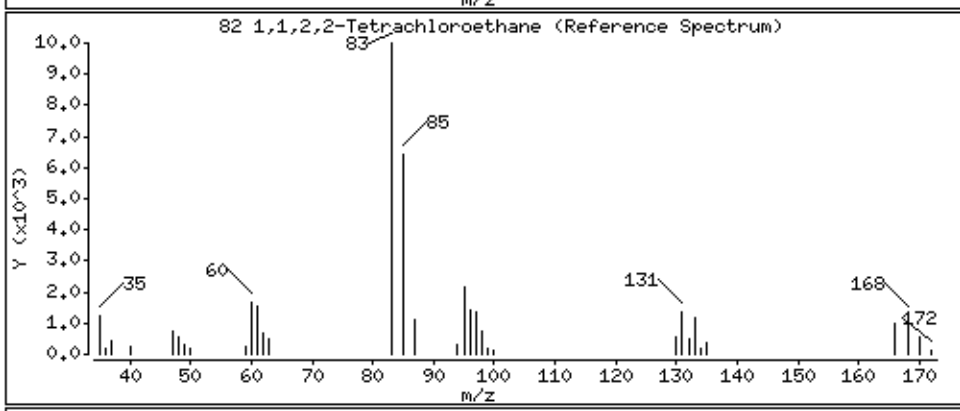
Column diameter: 0.18

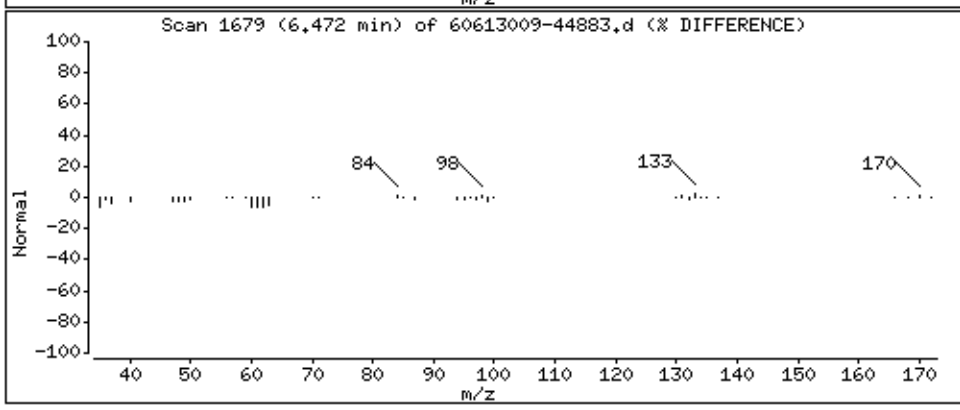
82 1,1,2,2-Tetrachloroethane

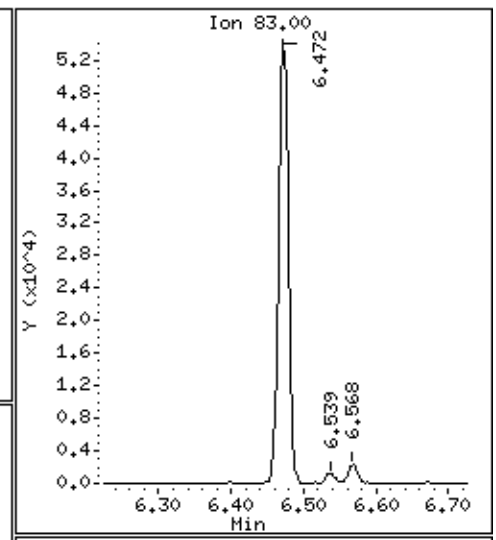
Concentration: 13.8 ug/L

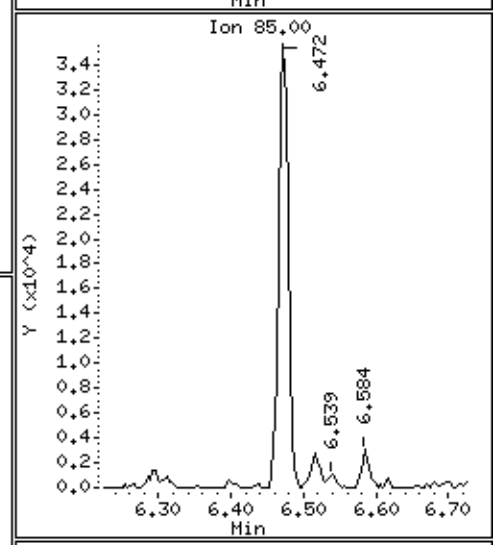


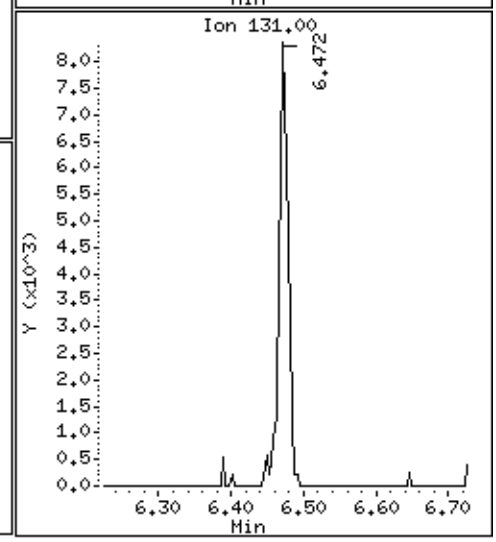












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

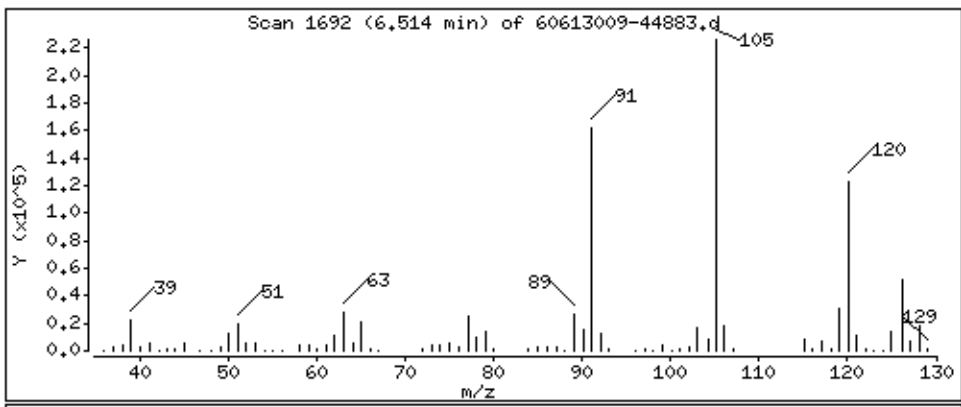
Operator: JEW

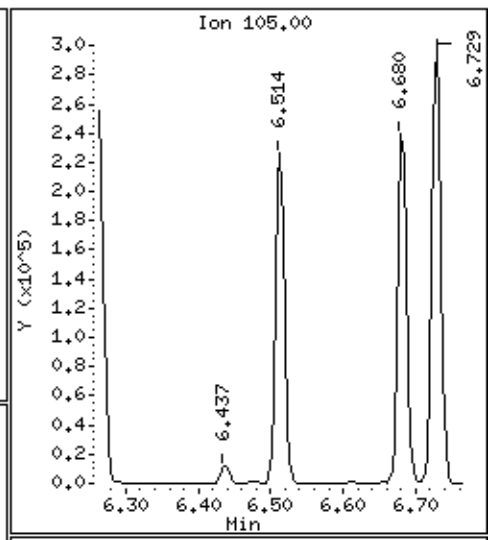
Column phase: RTX-VMS

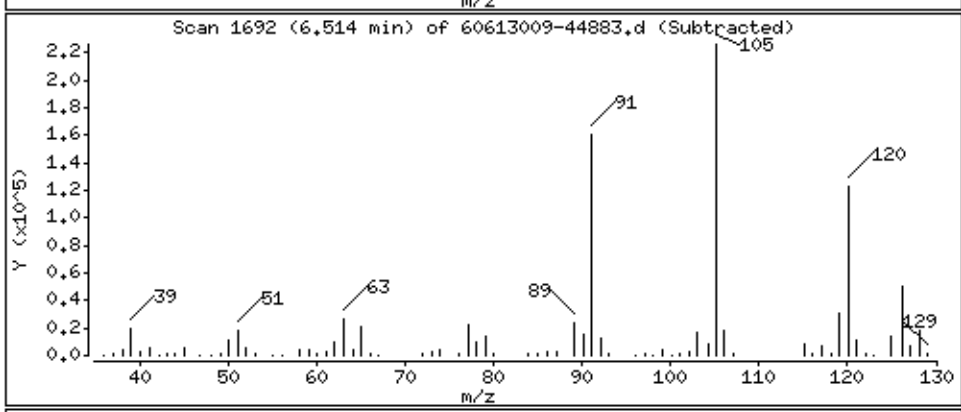
Column diameter: 0.18

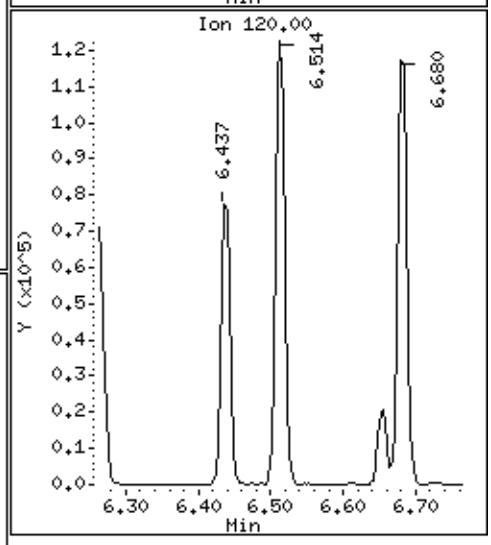
83 1,3,5-Trimethylbenzene

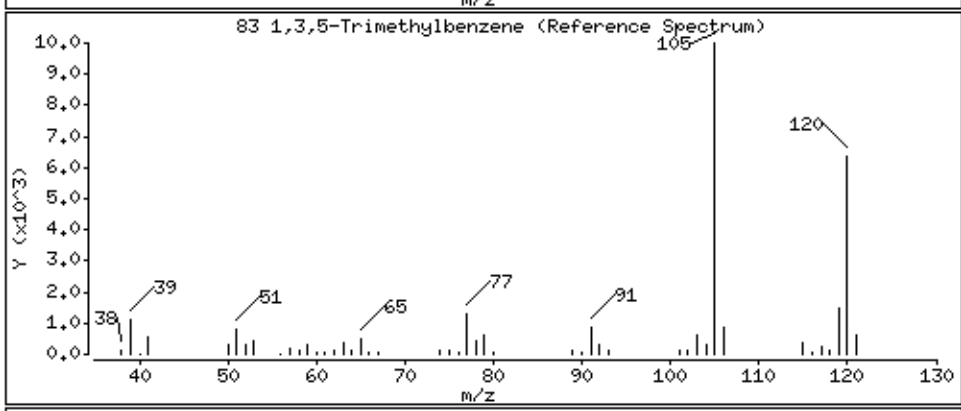
Concentration: 15.1 ug/L

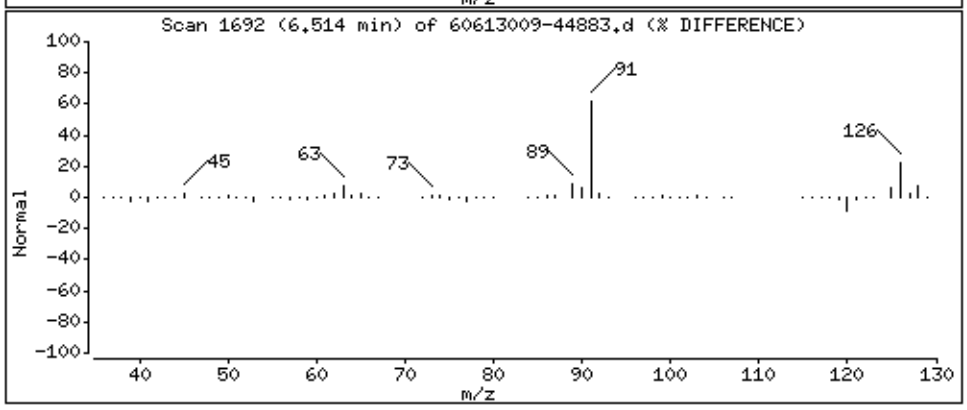












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

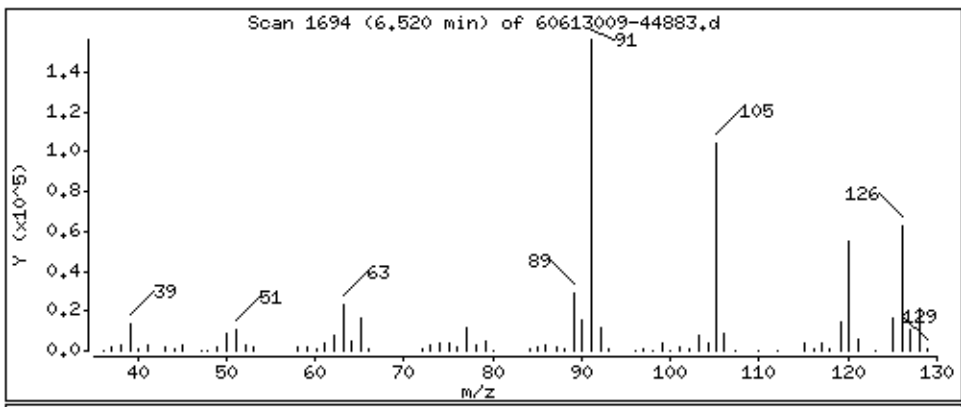
Operator: JEW

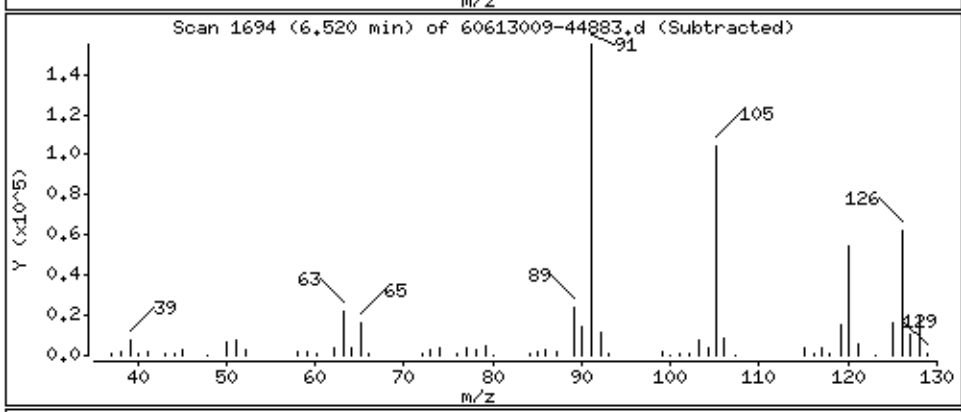
Column phase: RTX-VMS

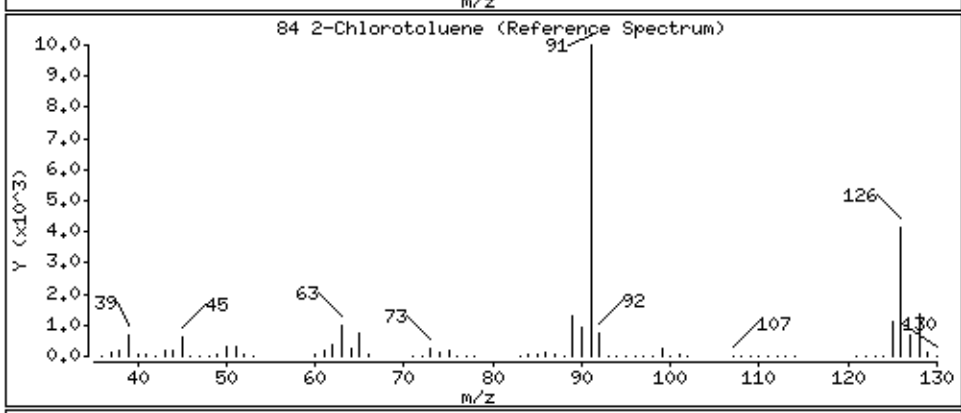
Column diameter: 0.18

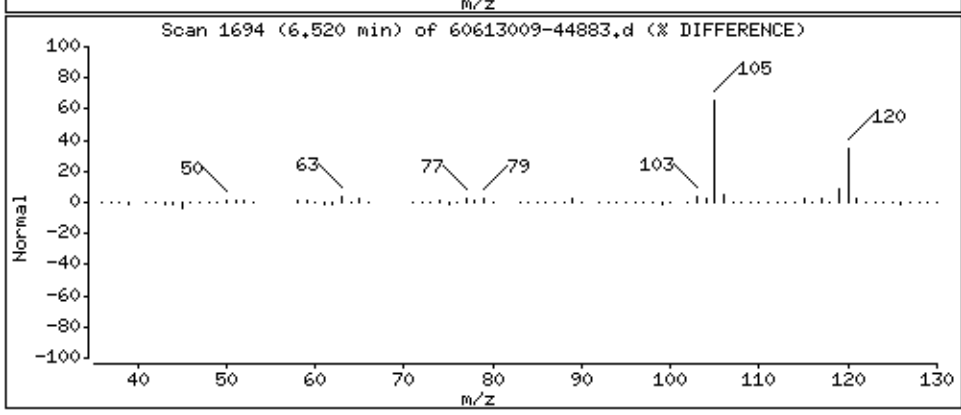
84 2-Chlorotoluene

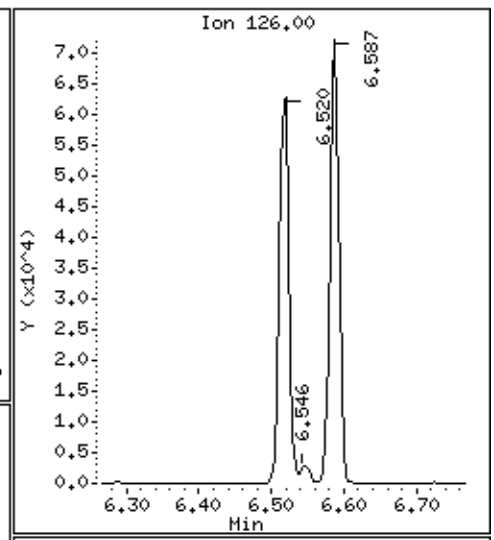
Concentration: 15.1 ug/L

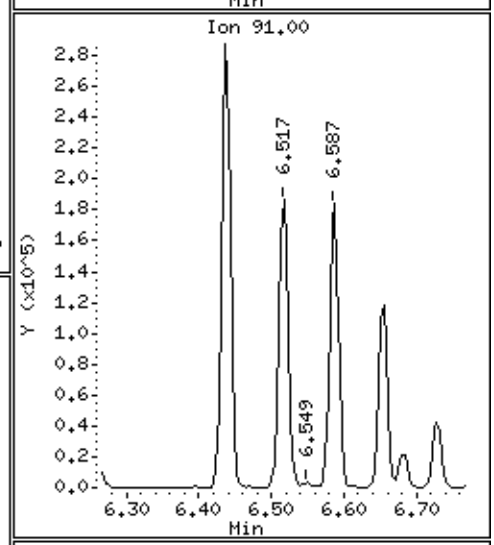


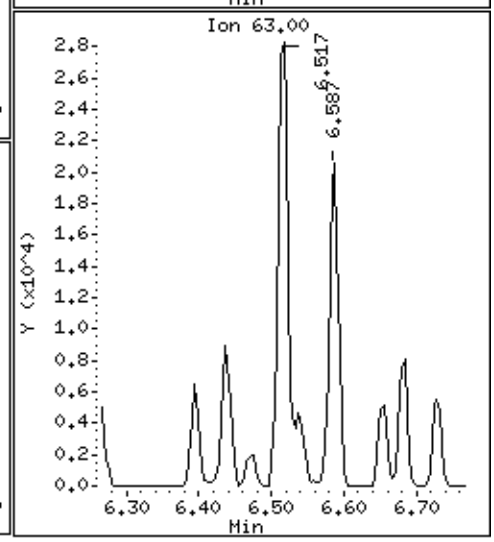












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

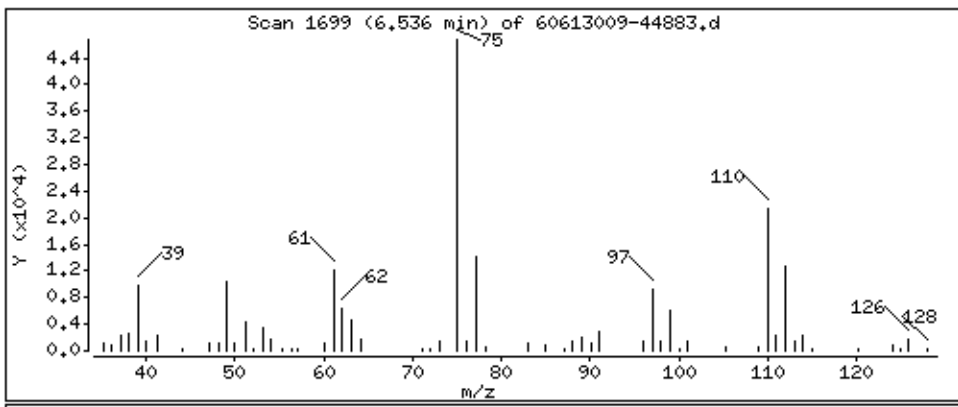
Operator: JEW

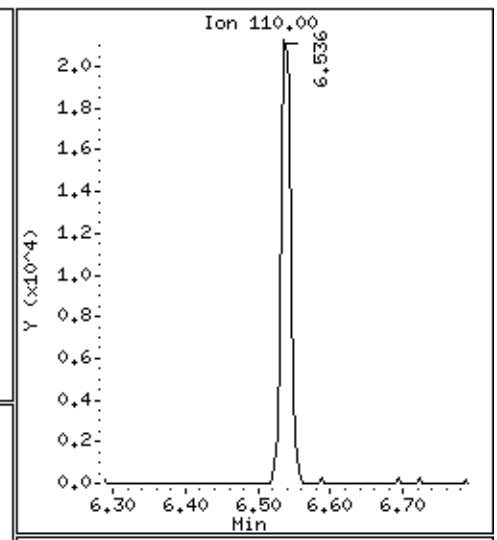
Column phase: RTX-VMS

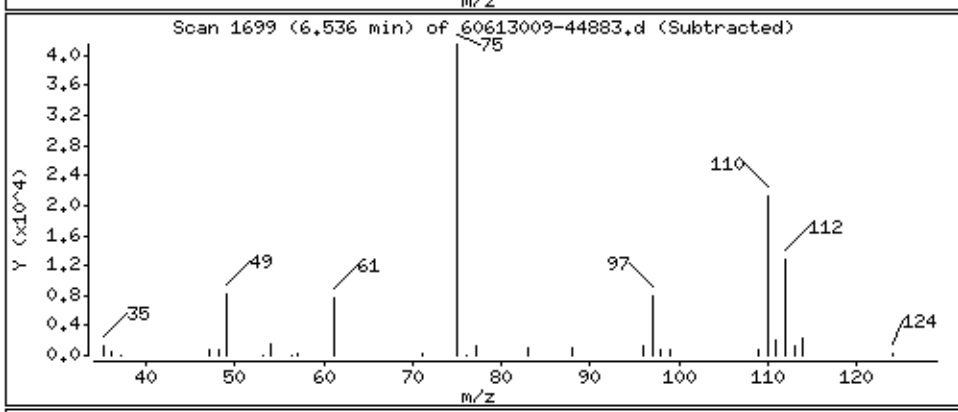
Column diameter: 0.18

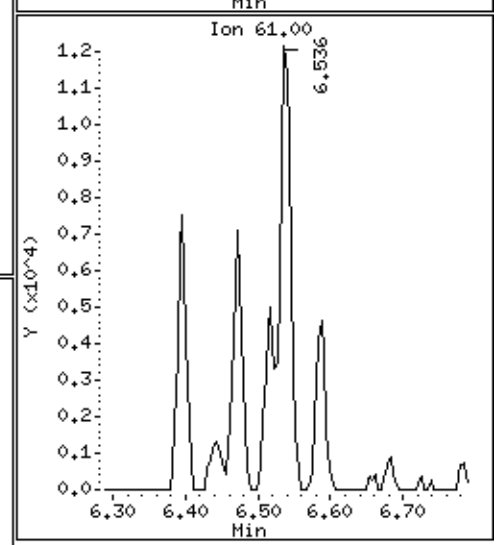
85 1,2,3-Trichloropropane

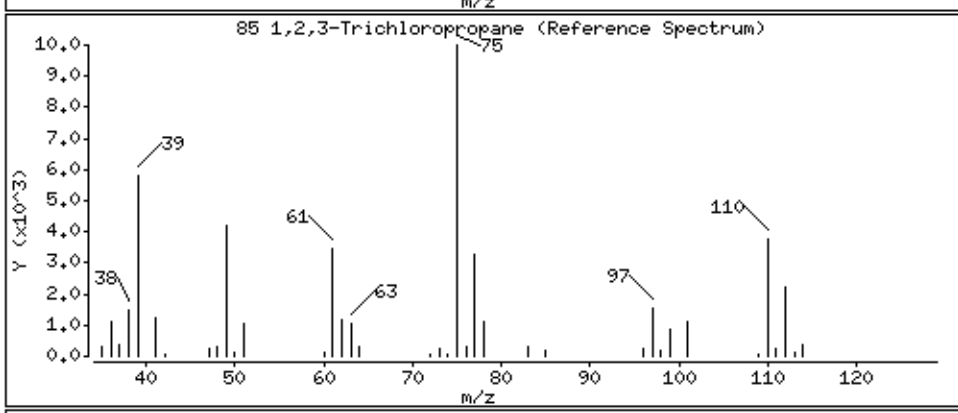
Concentration: 15.1 ug/L

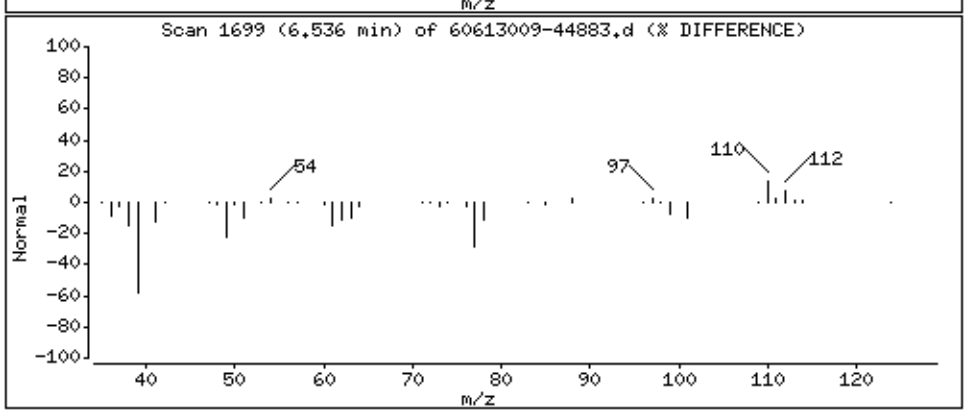












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

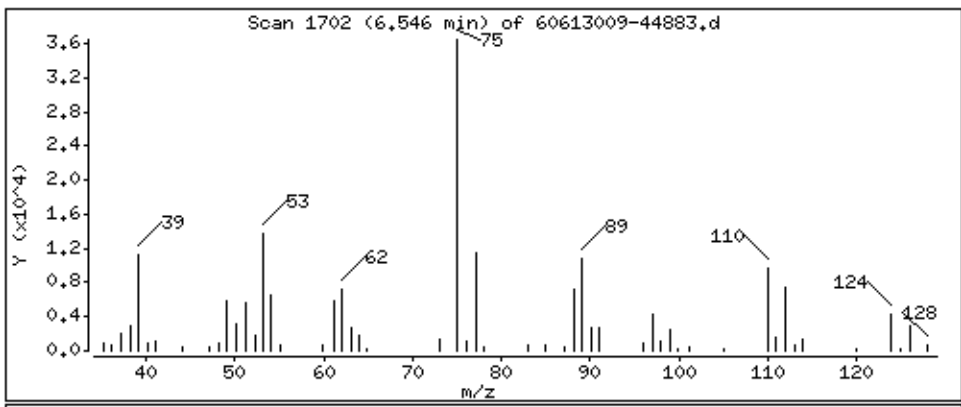
Operator: JEW

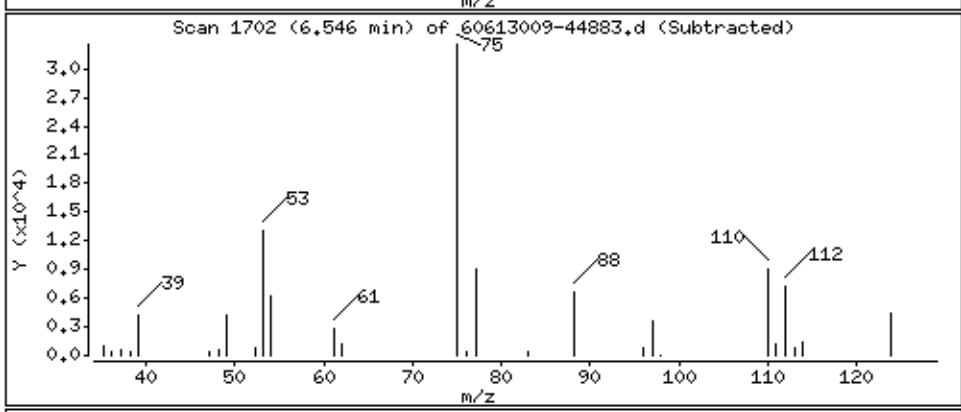
Column phase: RTX-VMS

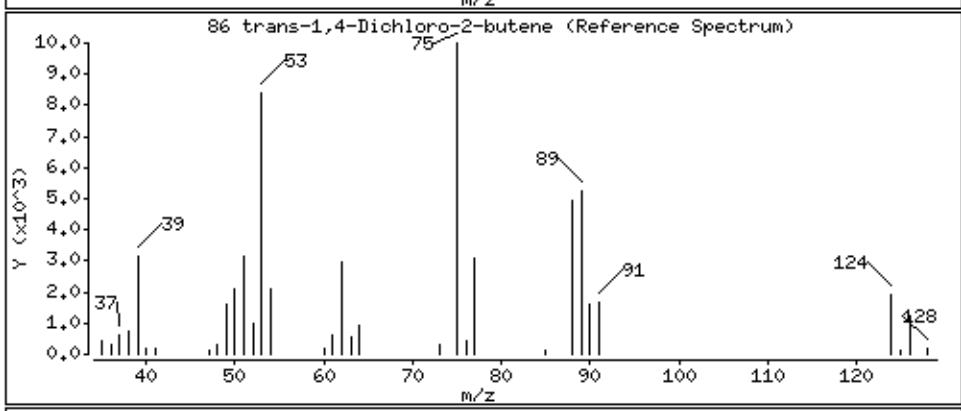
Column diameter: 0.18

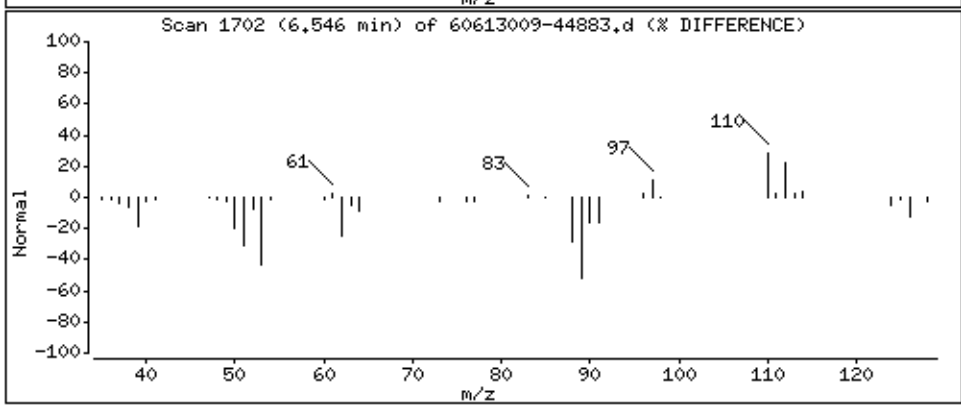
86 trans-1,4-Dichloro-2-butene

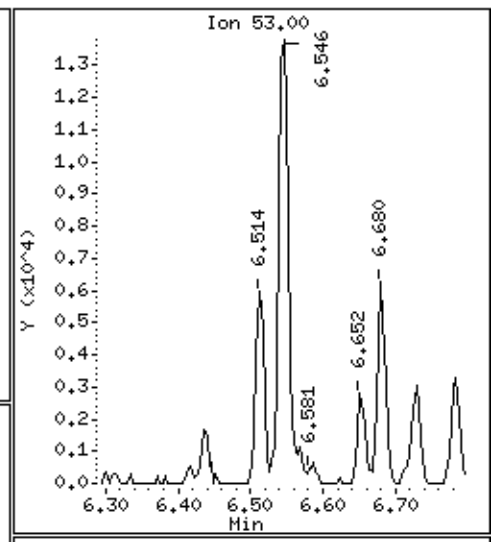
Concentration: 11.9 ug/L

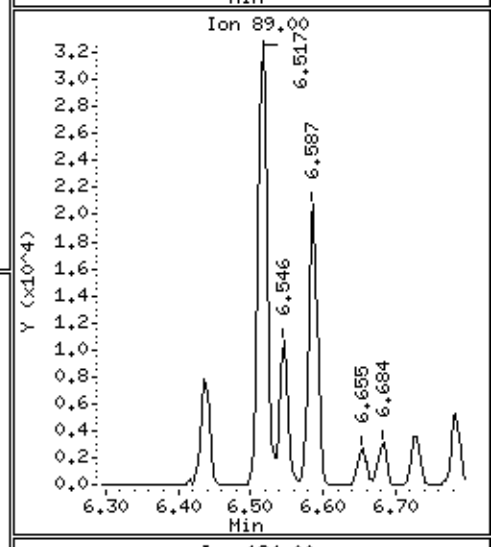


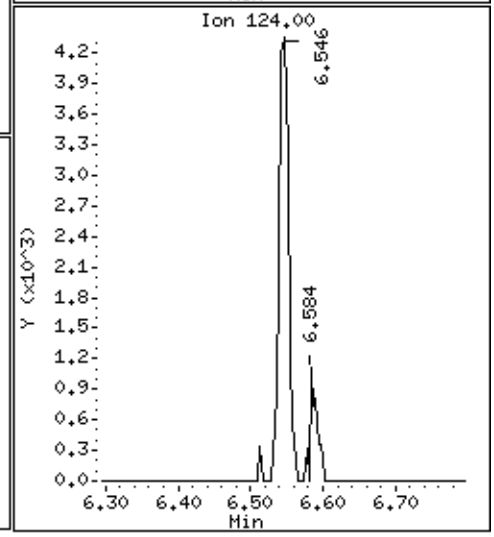












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

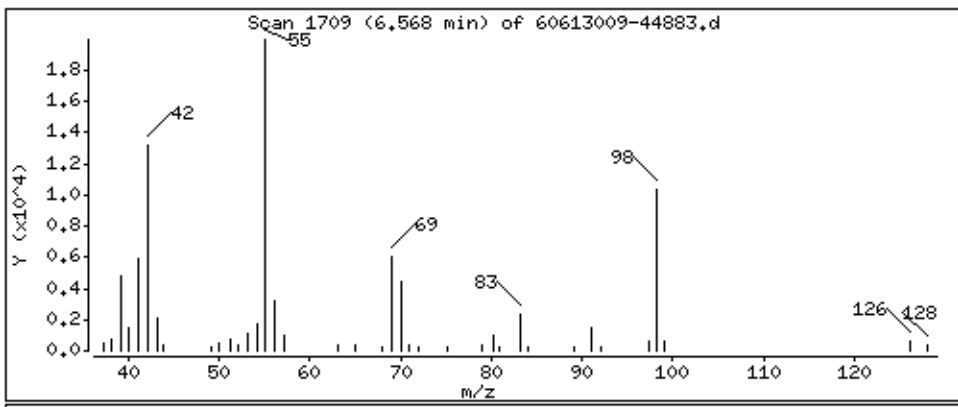
Operator: JEW

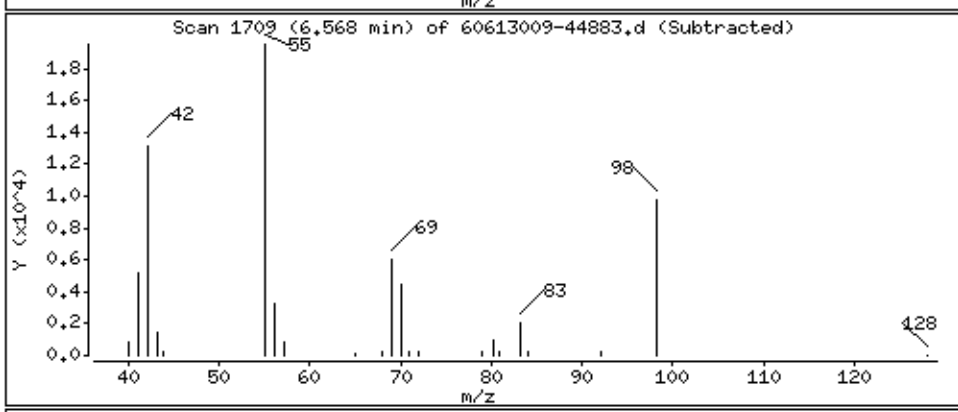
Column phase: RTX-VMS

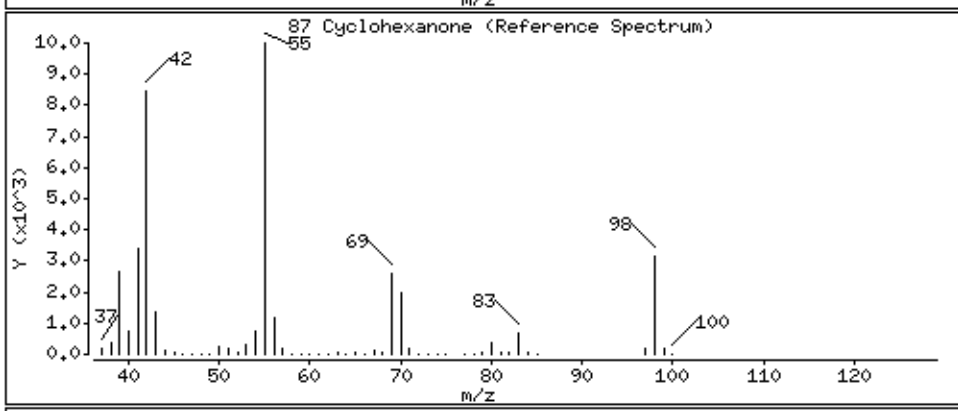
Column diameter: 0.18

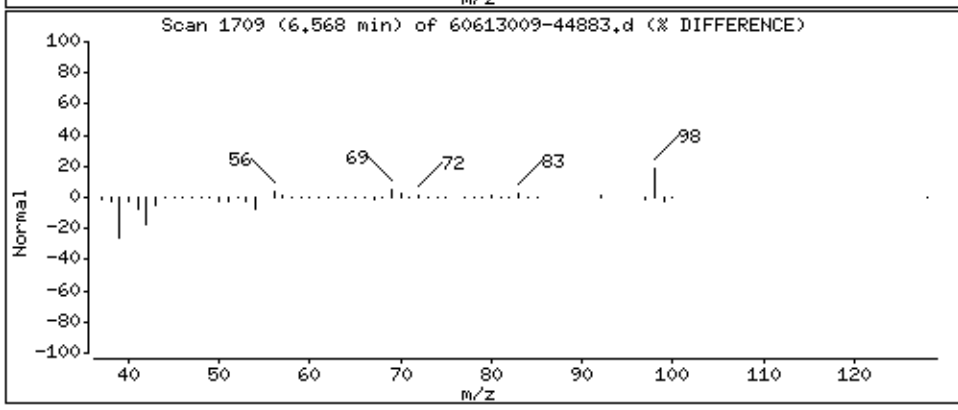
87 Cyclohexanone

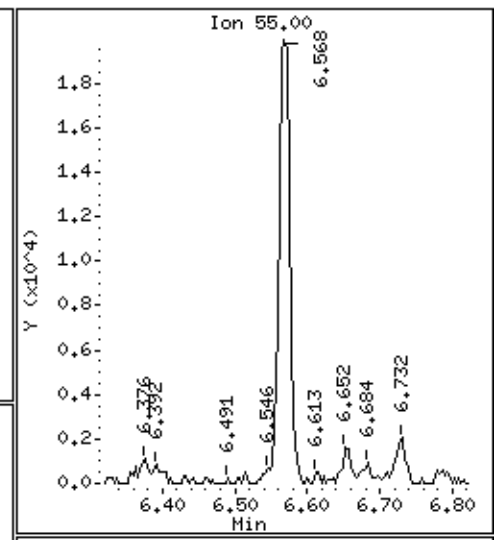
Concentration: 67.5 ug/L

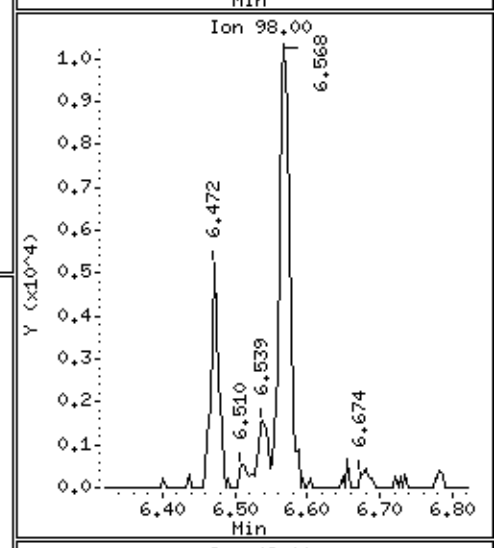


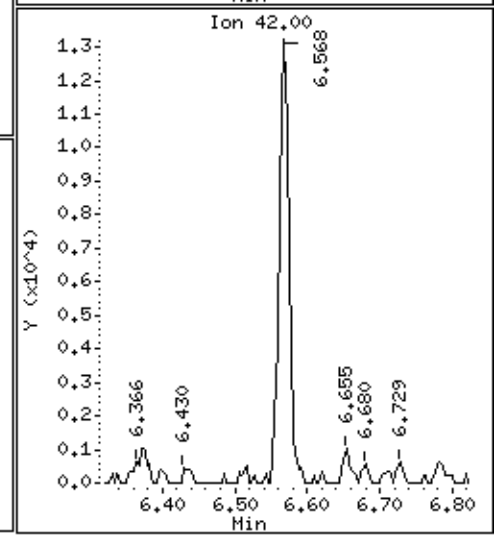












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

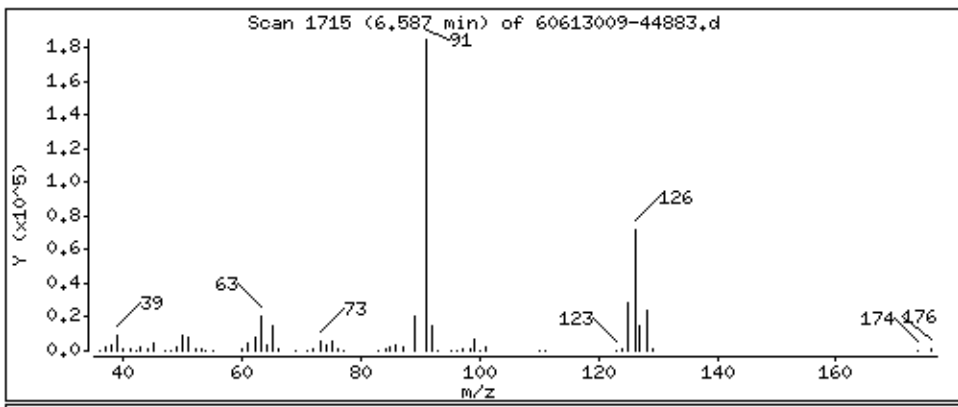
Operator: JEW

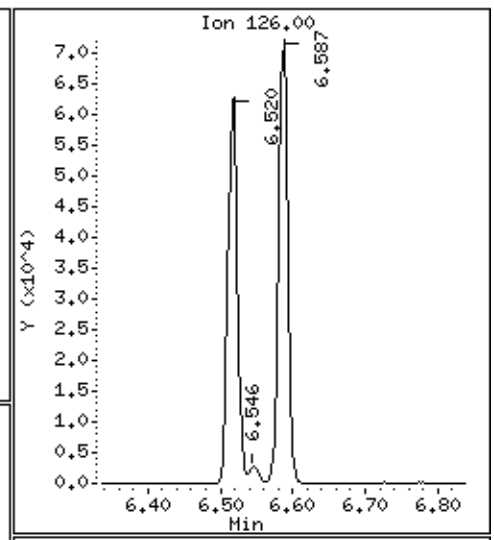
Column phase: RTX-VMS

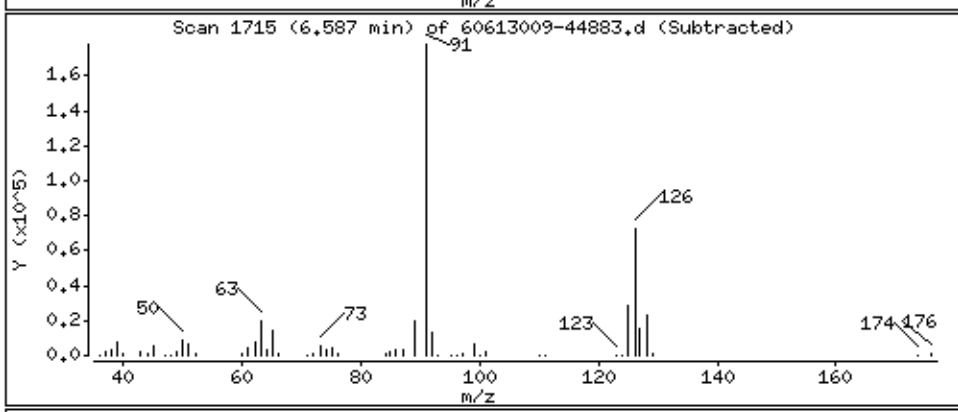
Column diameter: 0.18

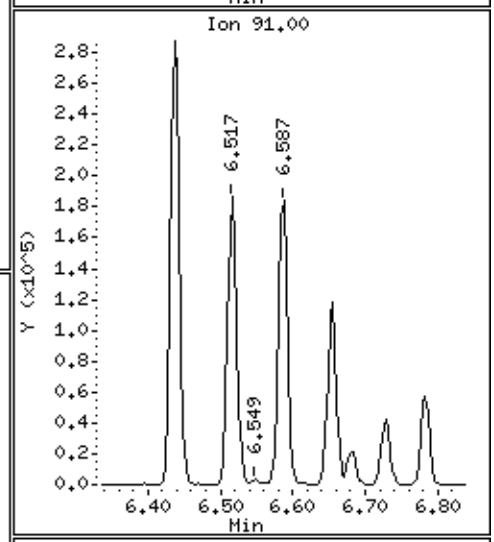
88 4-Chlorotoluene

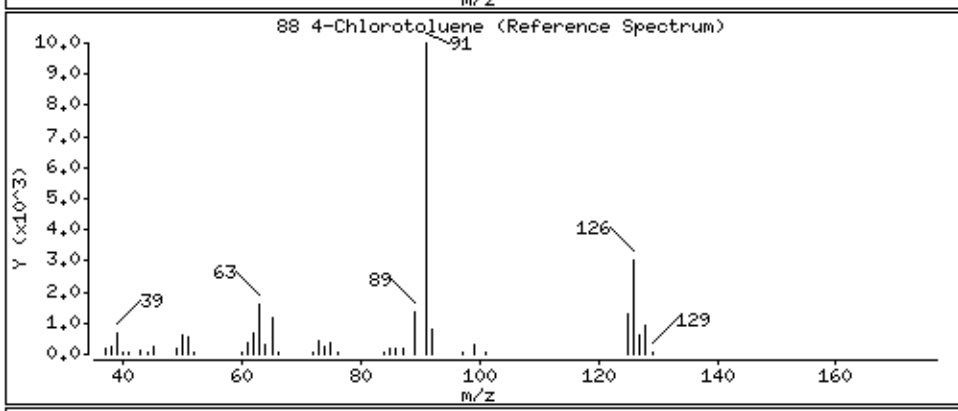
Concentration: 15.2 ug/L

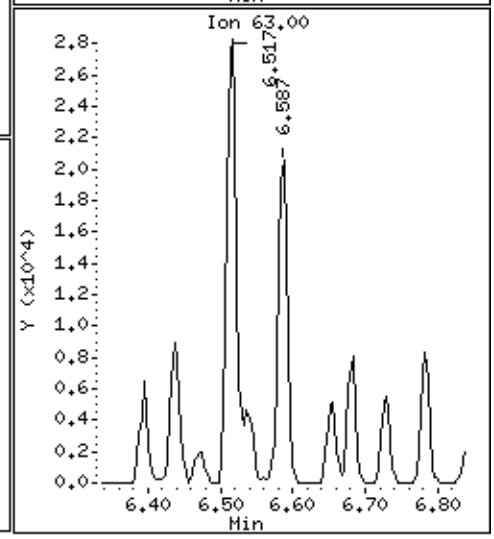


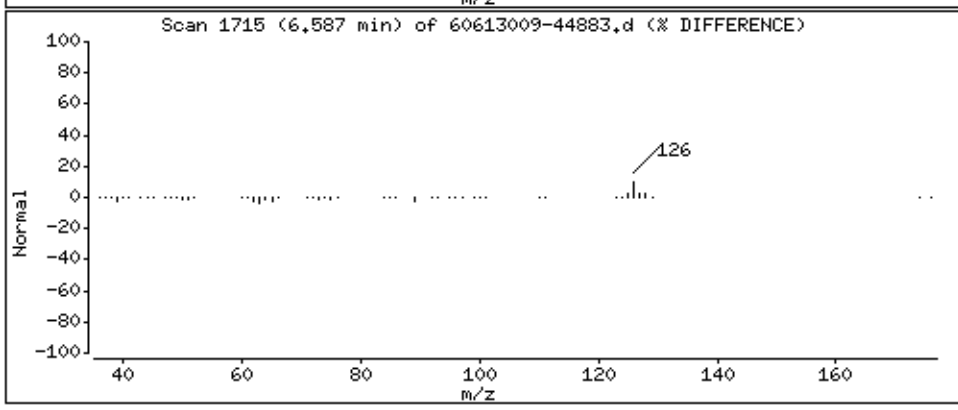












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

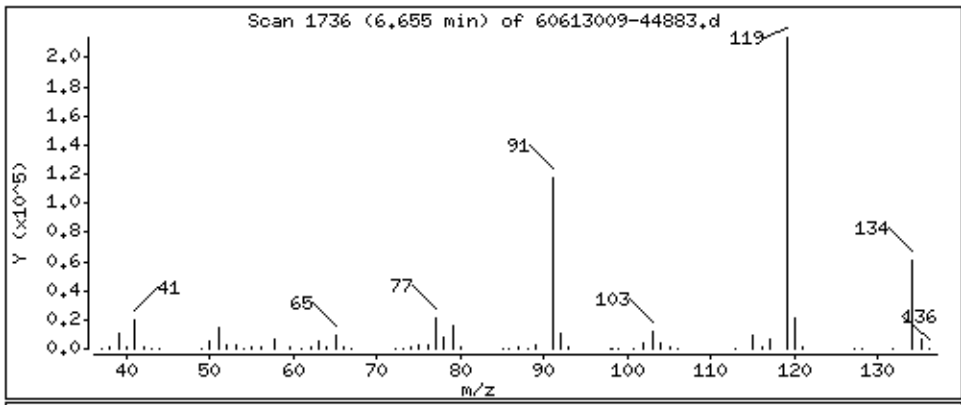
Operator: JEW

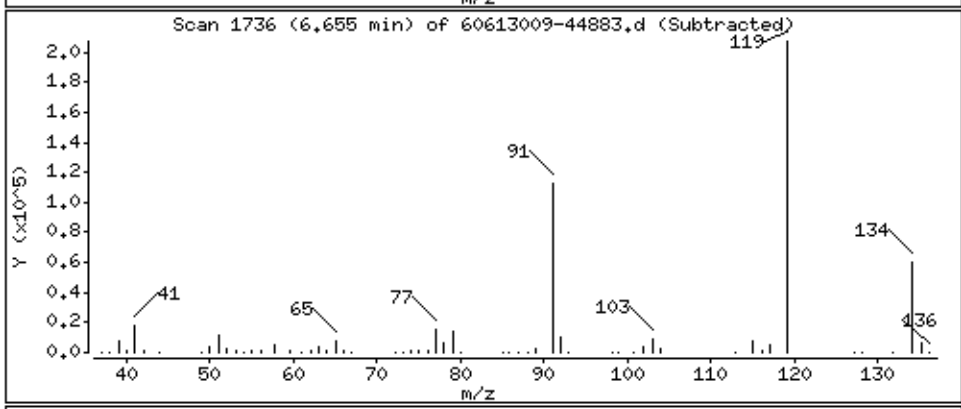
Column phase: RTX-VMS

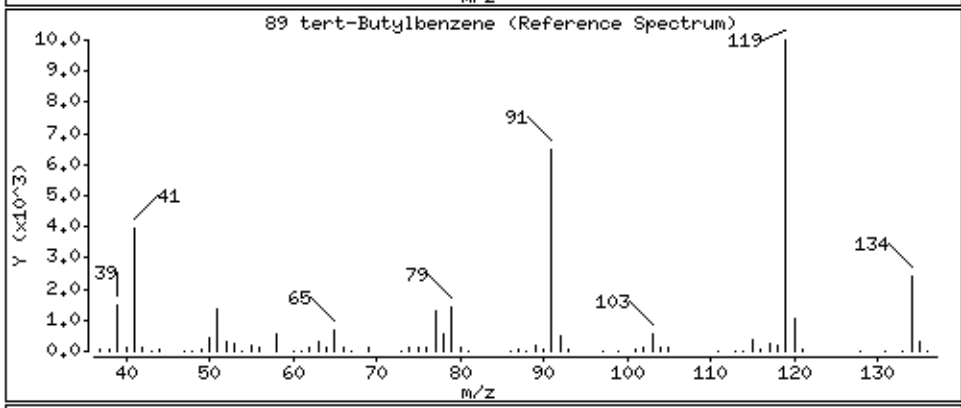
Column diameter: 0.18

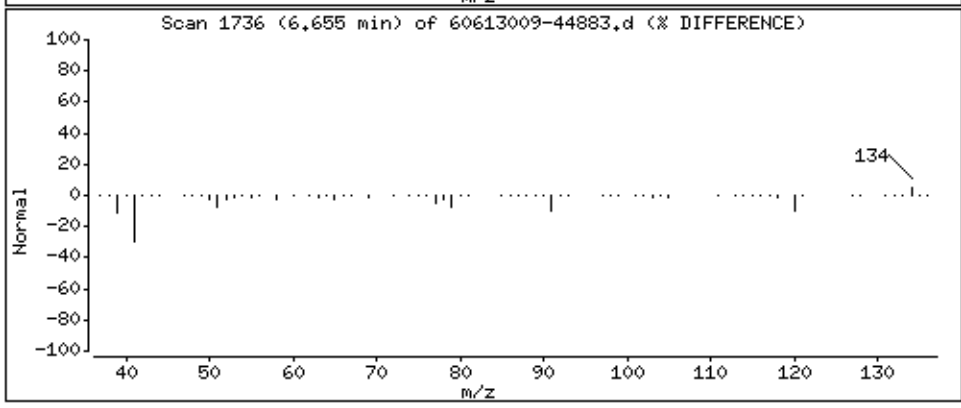
89 tert-Butylbenzene

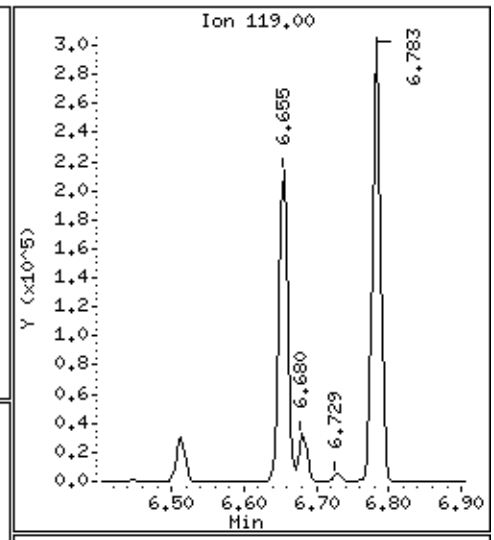
Concentration: 15.5 ug/L

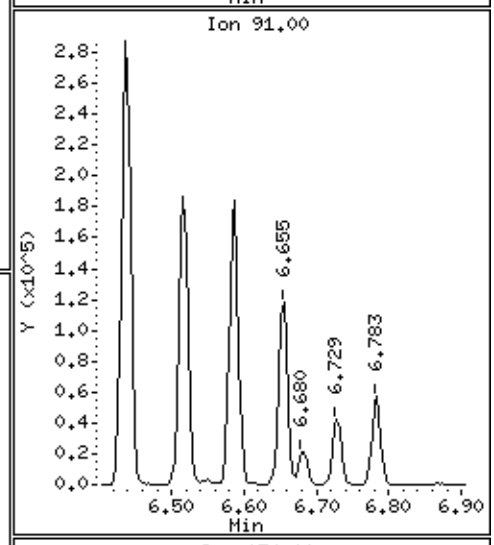


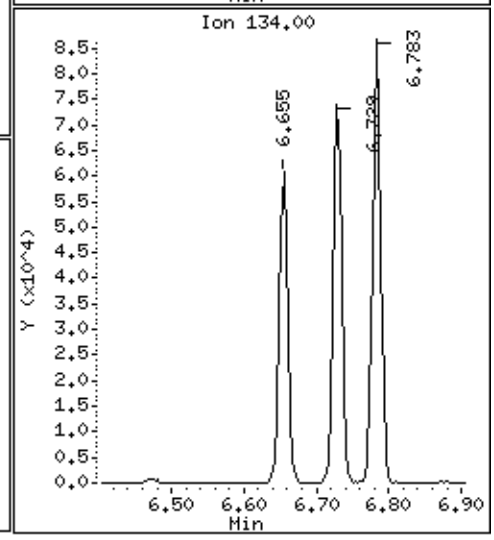












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

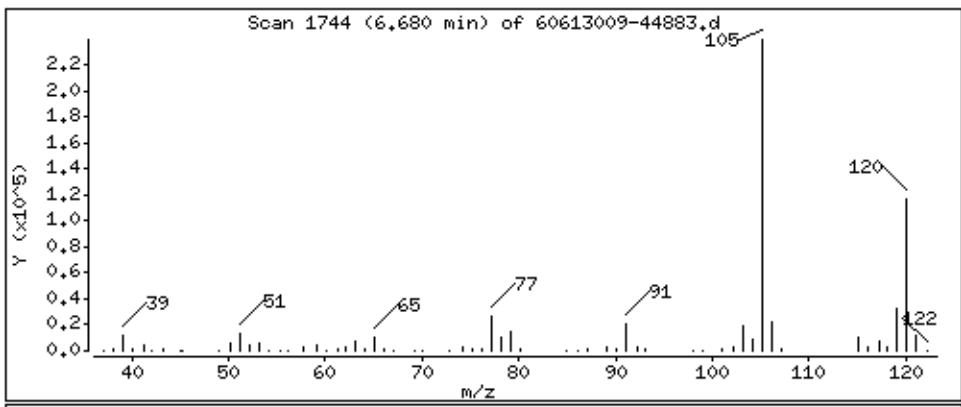
Operator: JEW

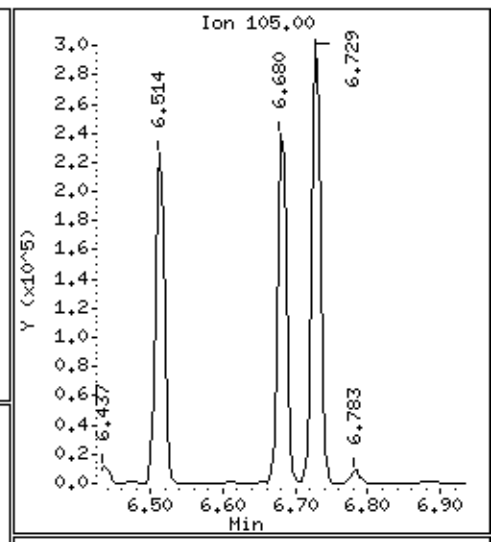
Column phase: RTX-VMS

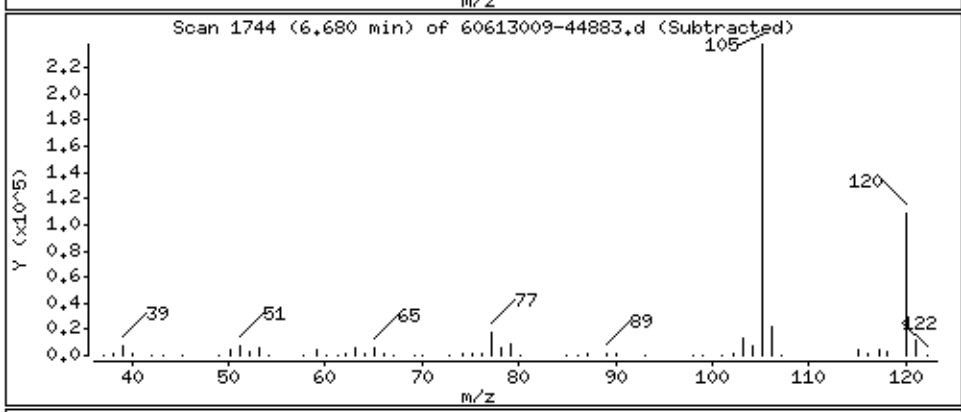
Column diameter: 0.18

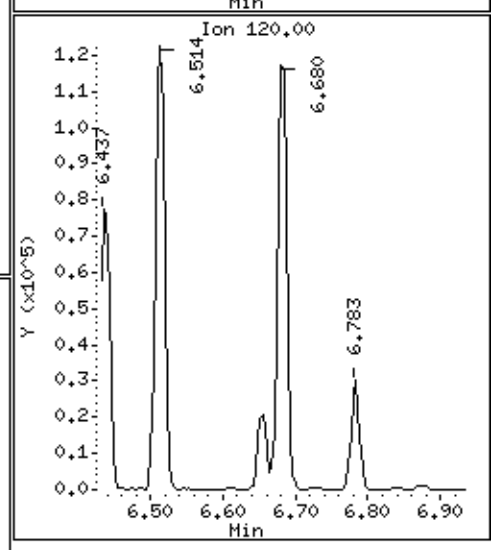
90 1,2,4-Trimethylbenzene

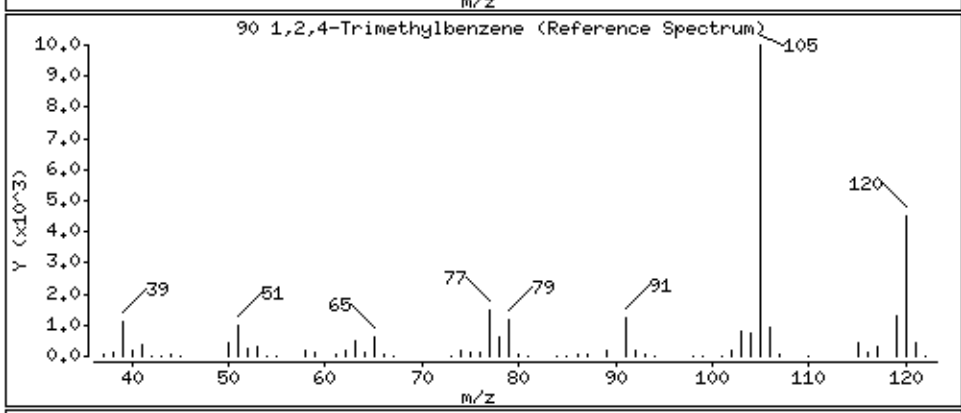
Concentration: 15.0 ug/L

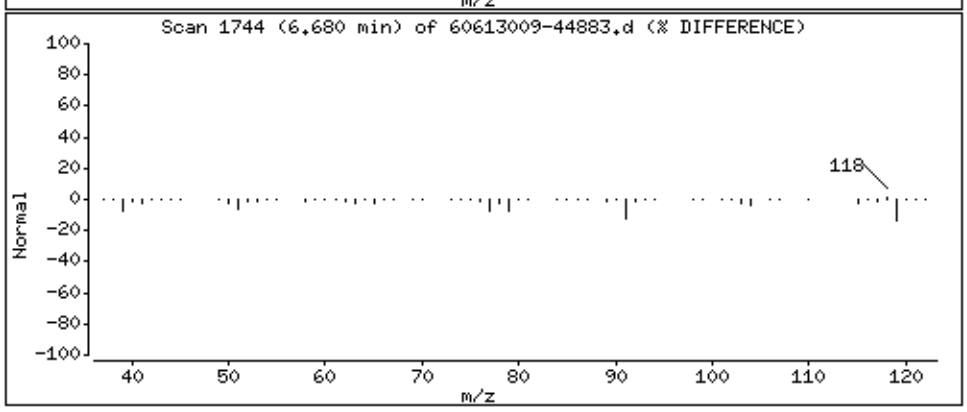












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

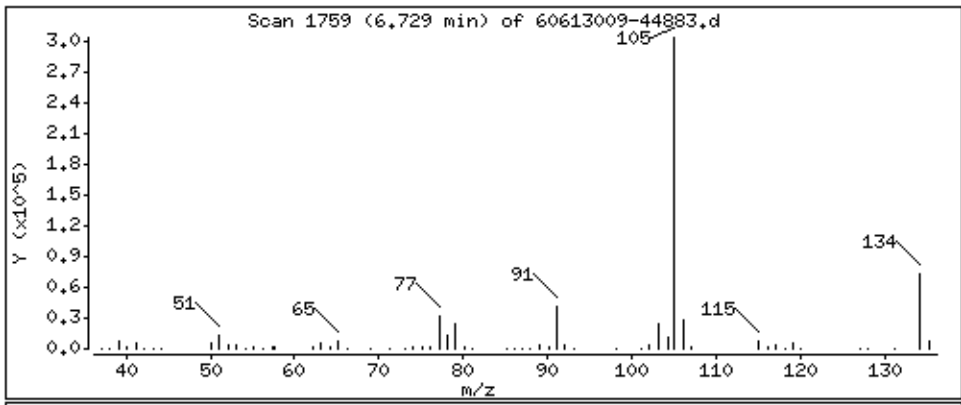
Operator: JEW

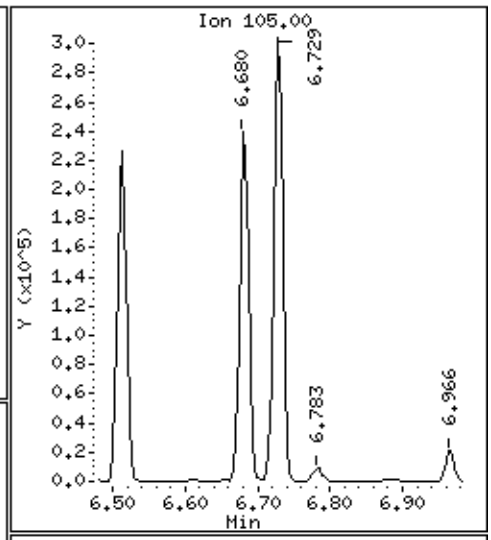
Column phase: RTX-VMS

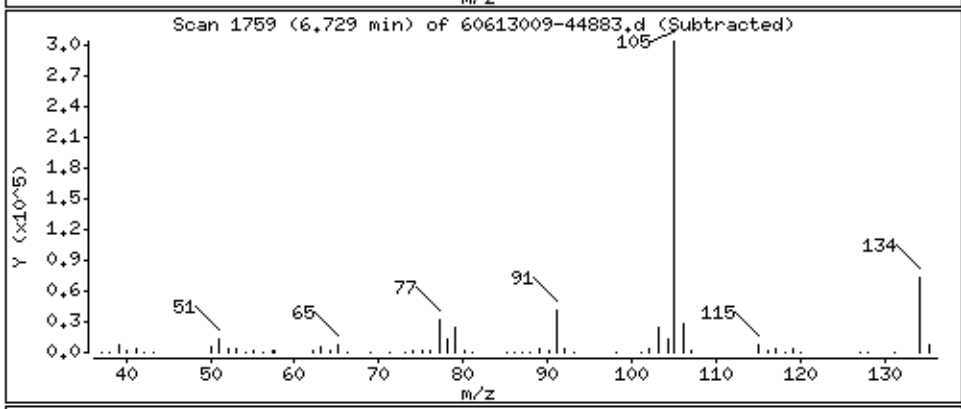
Column diameter: 0.18

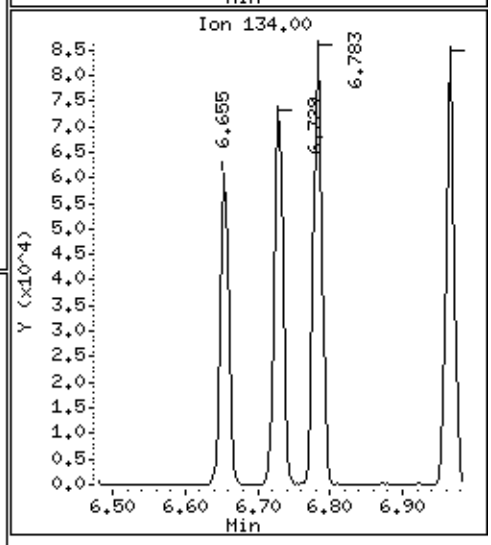
91 sec-Butylbenzene

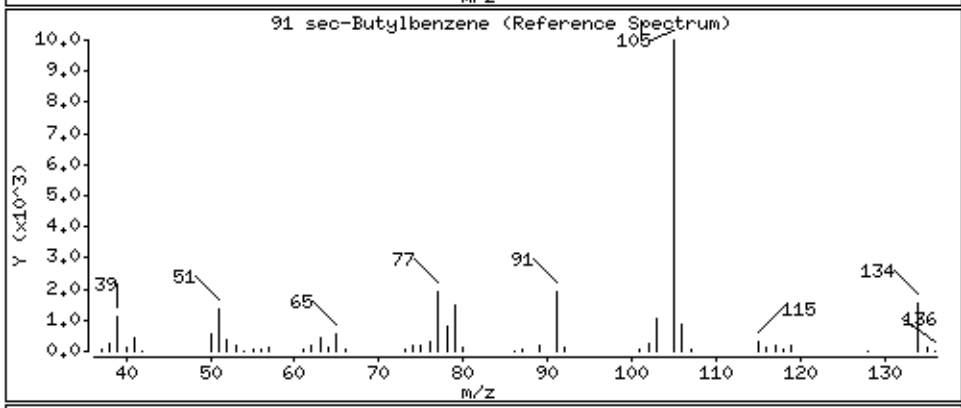
Concentration: 15.3 ug/L

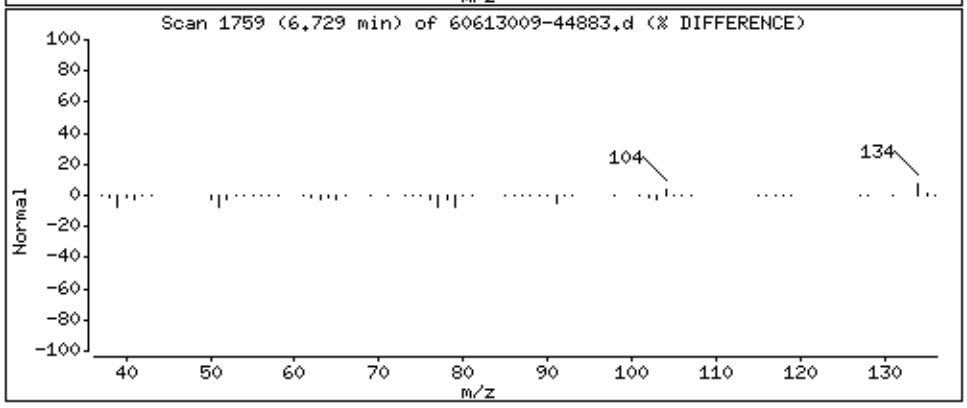












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

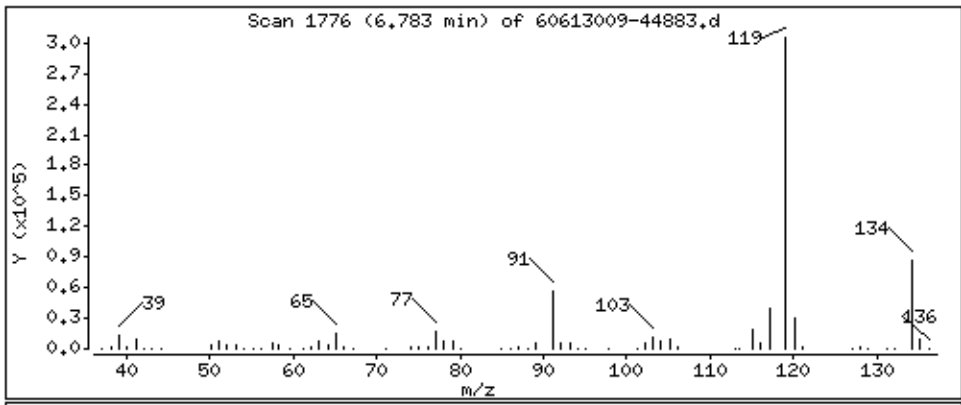
Operator: JEW

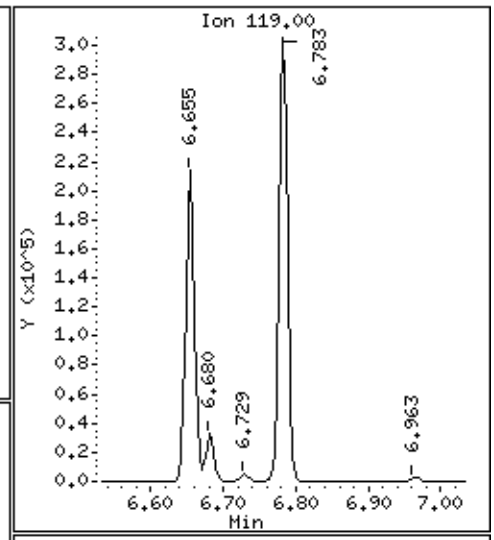
Column phase: RTX-VMS

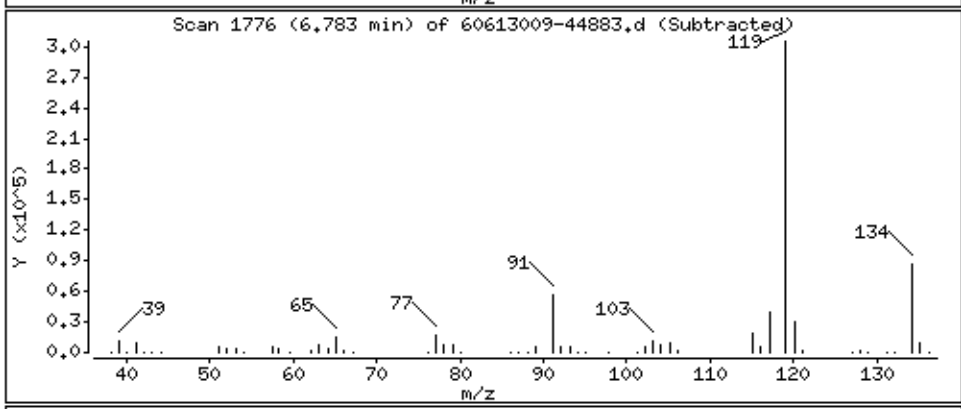
Column diameter: 0.18

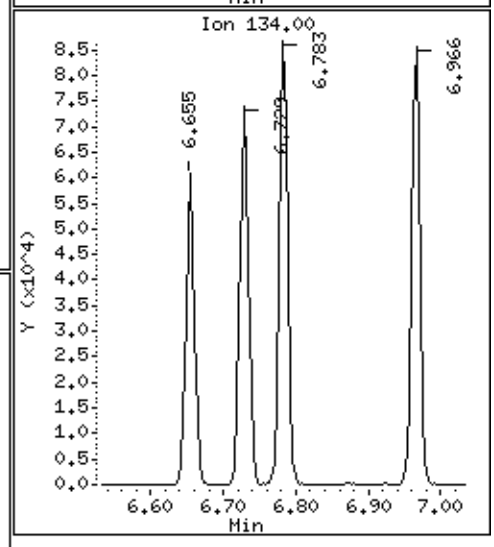
92 p-Isopropyltoluene

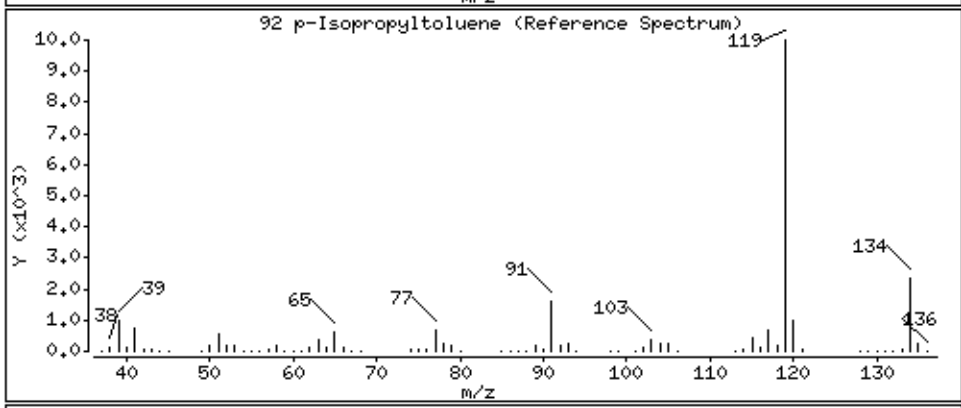
Concentration: 16.1 ug/L

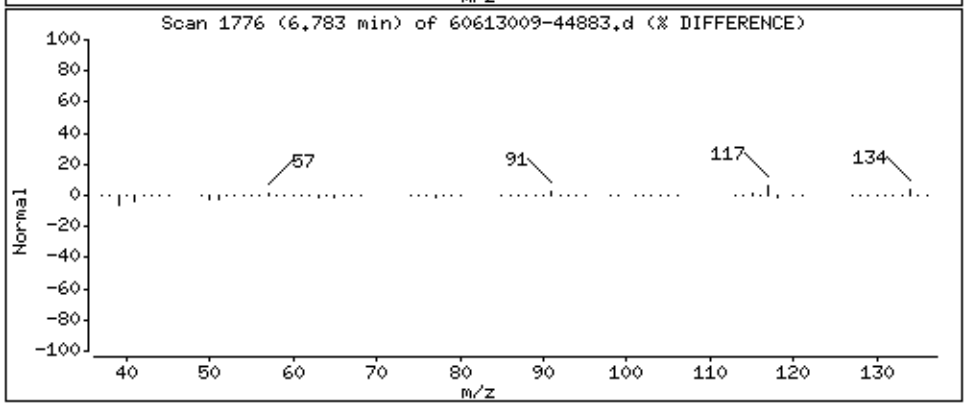












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

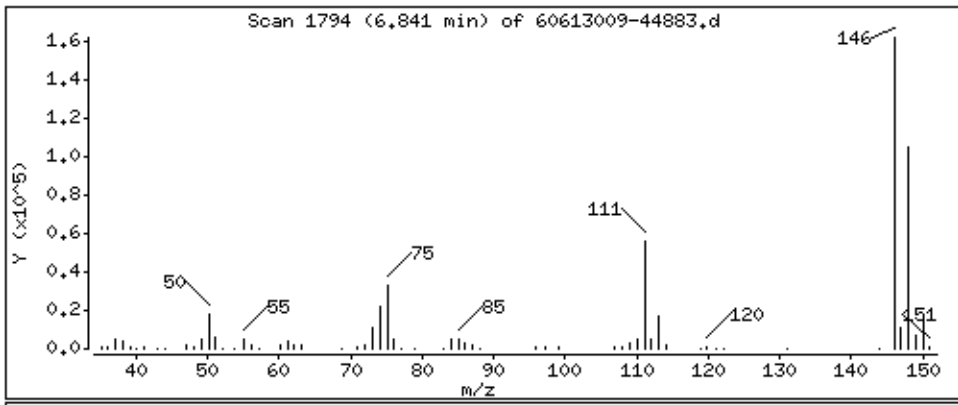
Operator: JEW

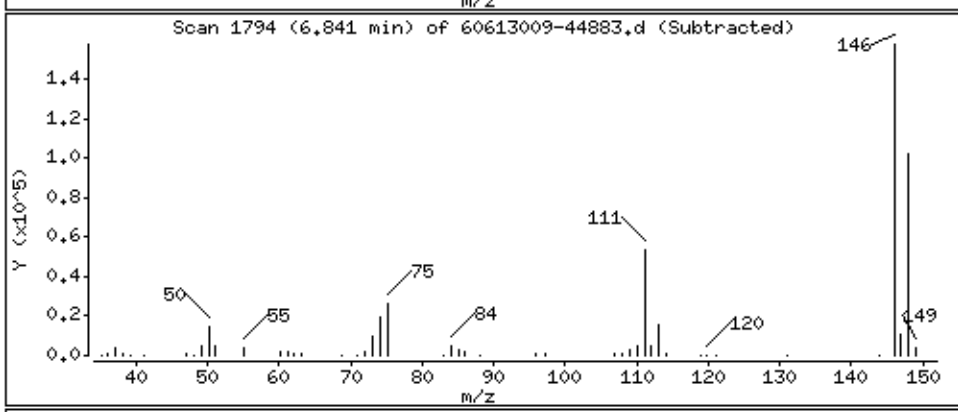
Column phase: RTX-VMS

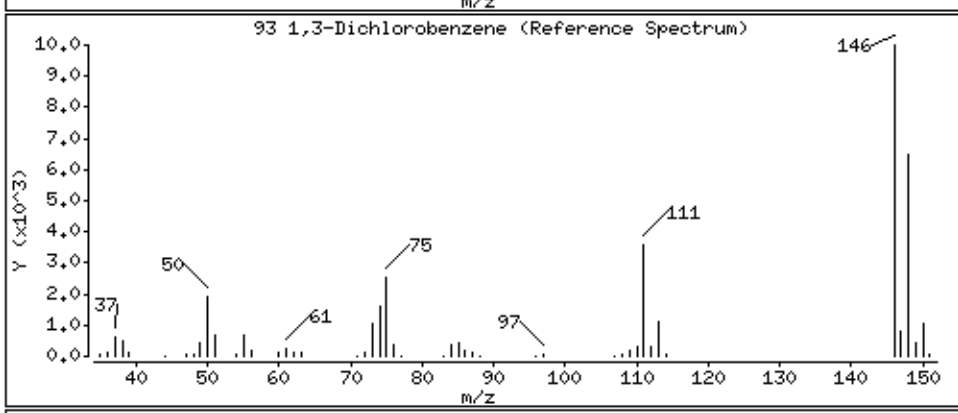
Column diameter: 0.18

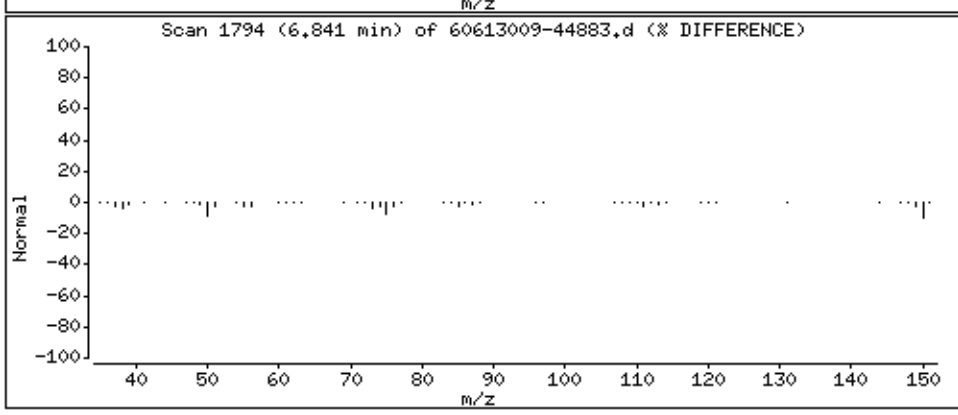
93 1,3-Dichlorobenzene

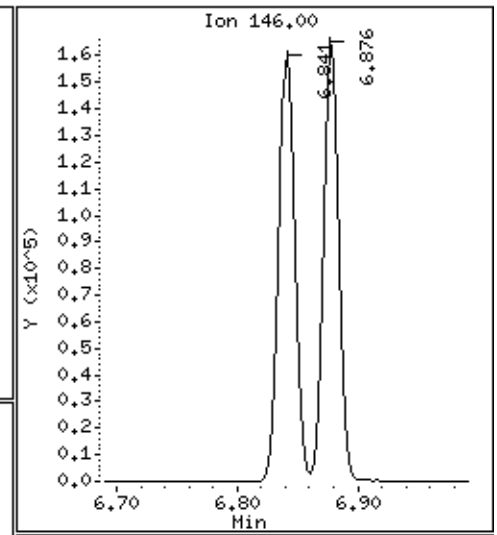
Concentration: 16.0 ug/L

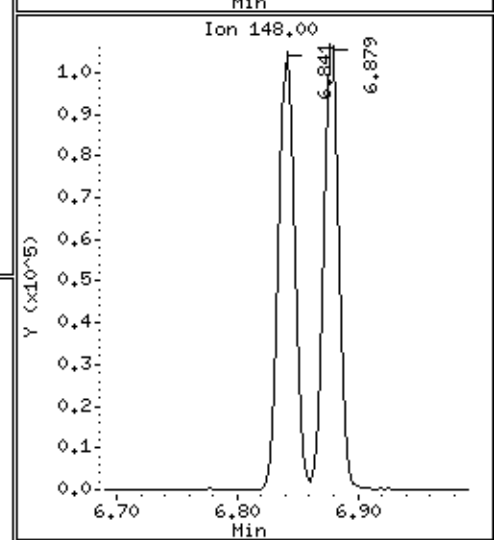


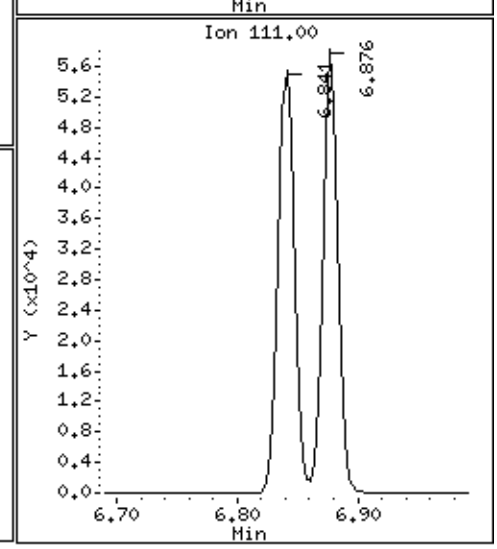












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

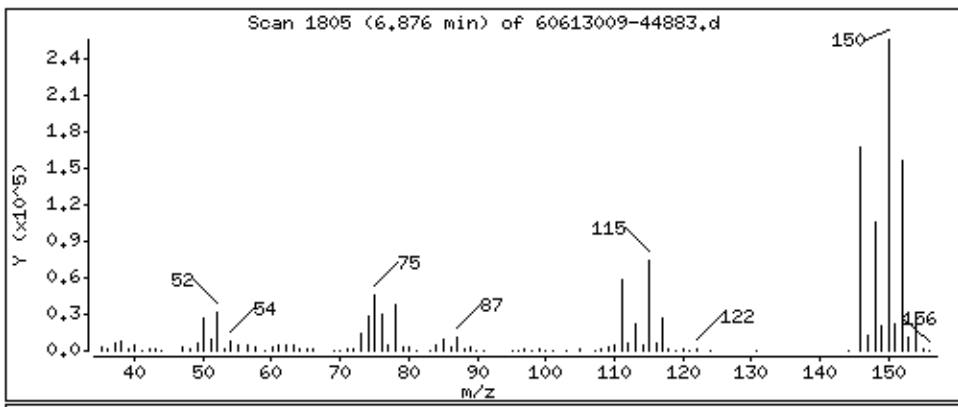
Operator: JEW

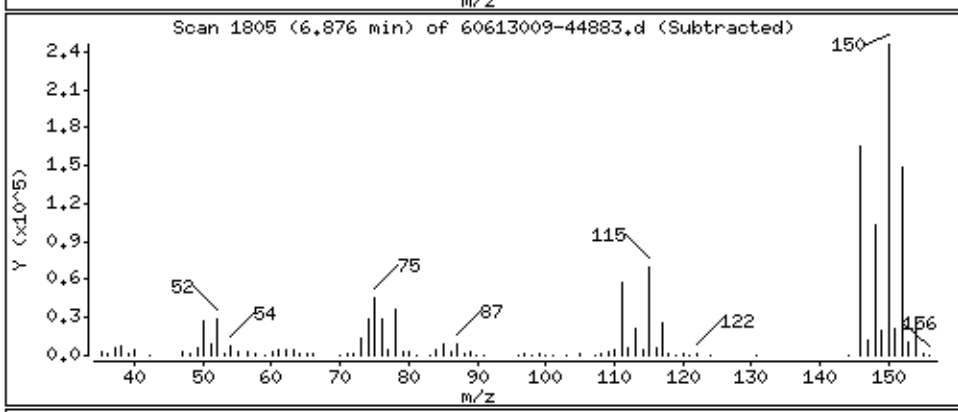
Column phase: RTX-VMS

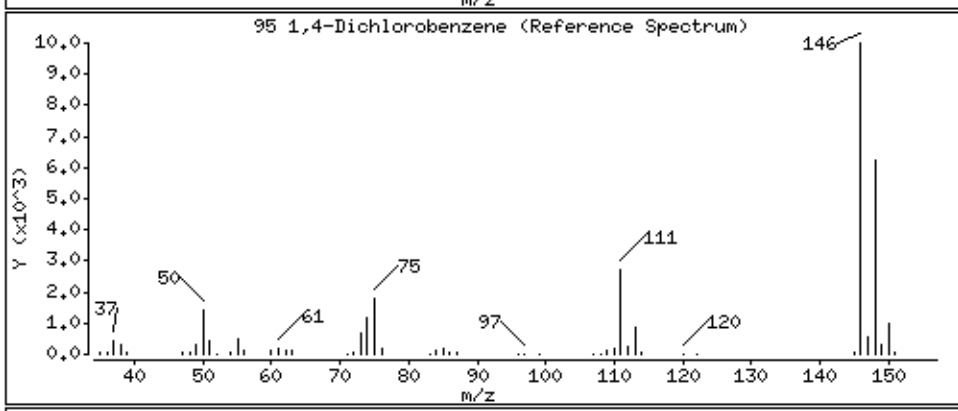
Column diameter: 0.18

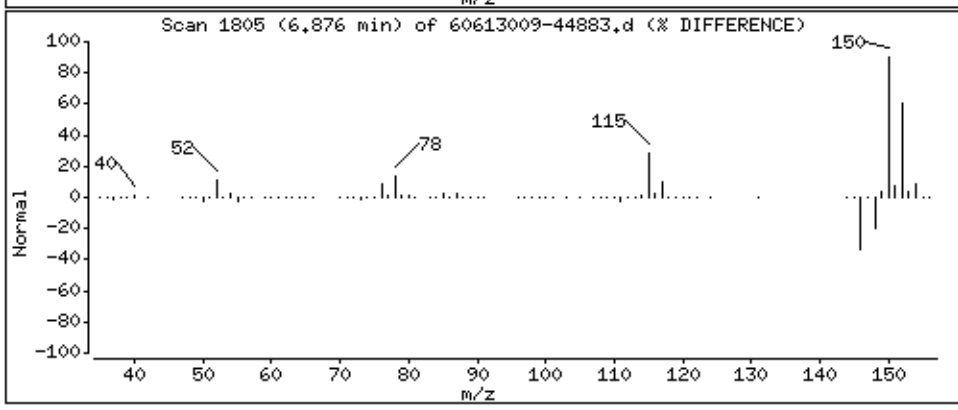
95 1,4-Dichlorobenzene

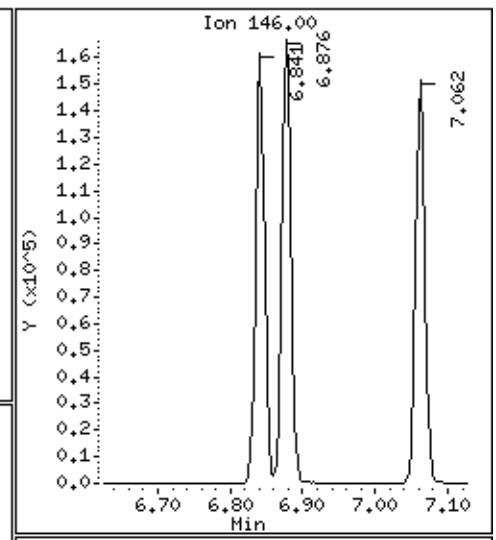
Concentration: 16.4 ug/L

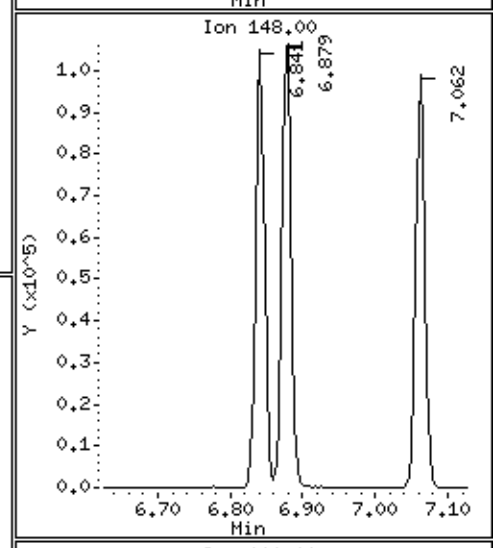


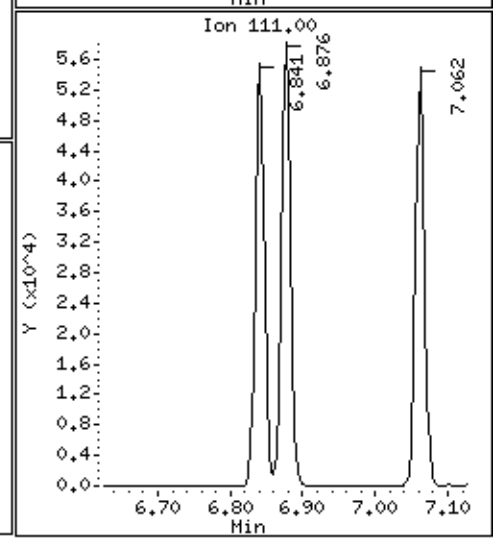












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

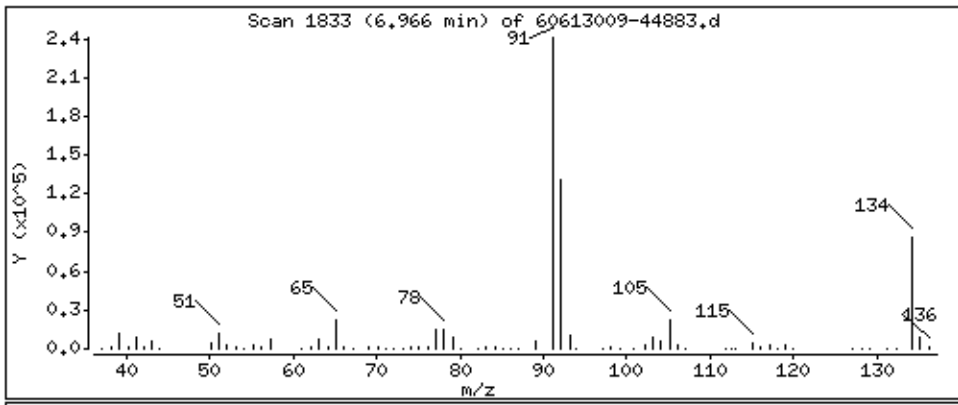
Operator: JEW

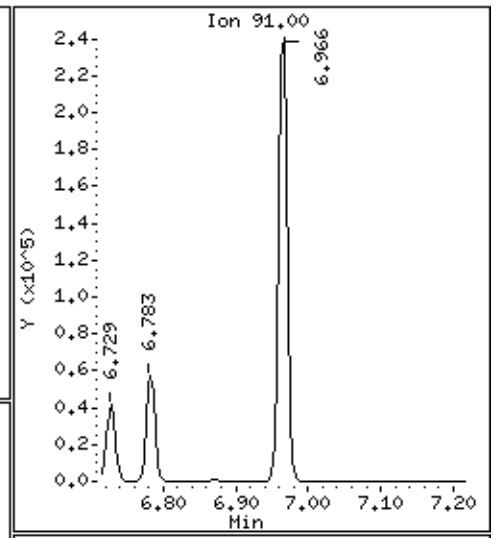
Column phase: RTX-VMS

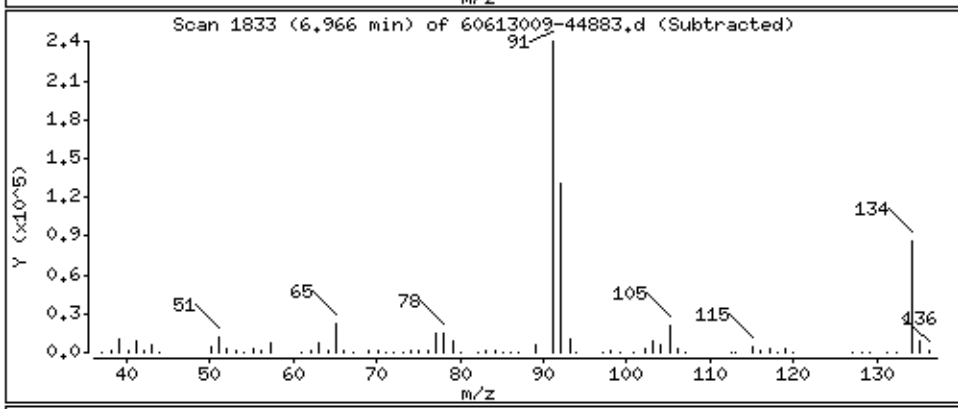
Column diameter: 0.18

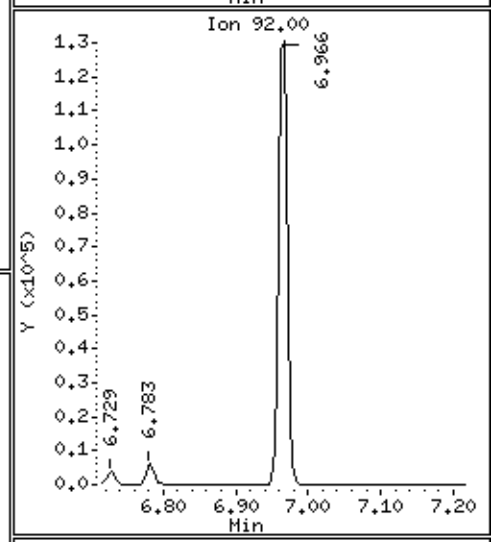
96 n-Butylbenzene

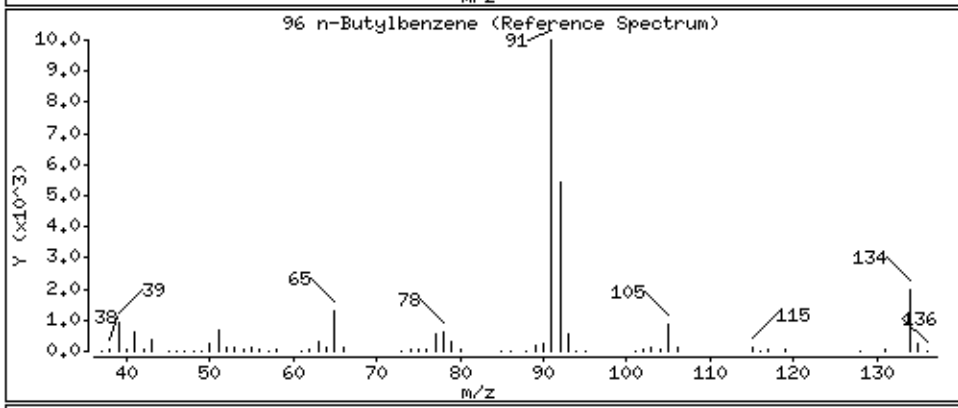
Concentration: 15.3 ug/L

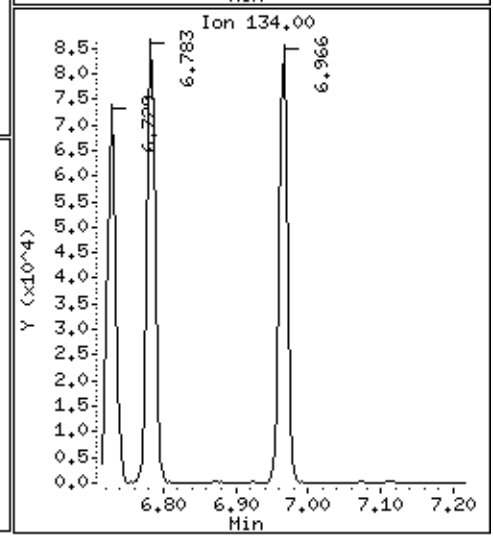


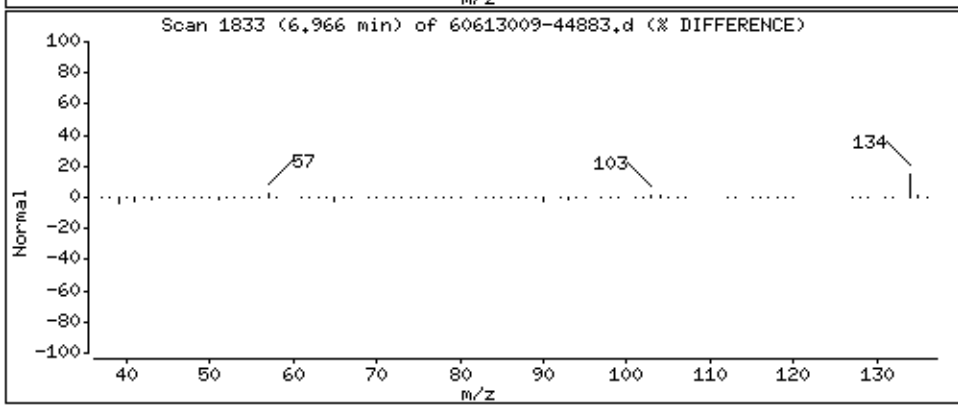












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

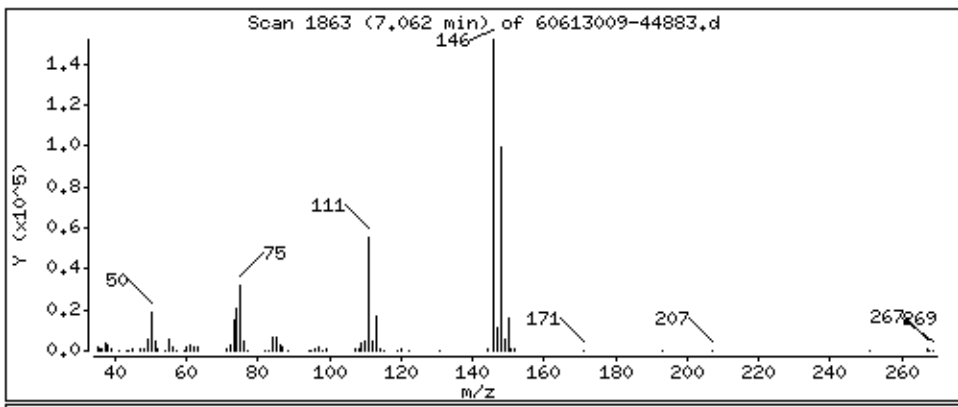
Operator: JEW

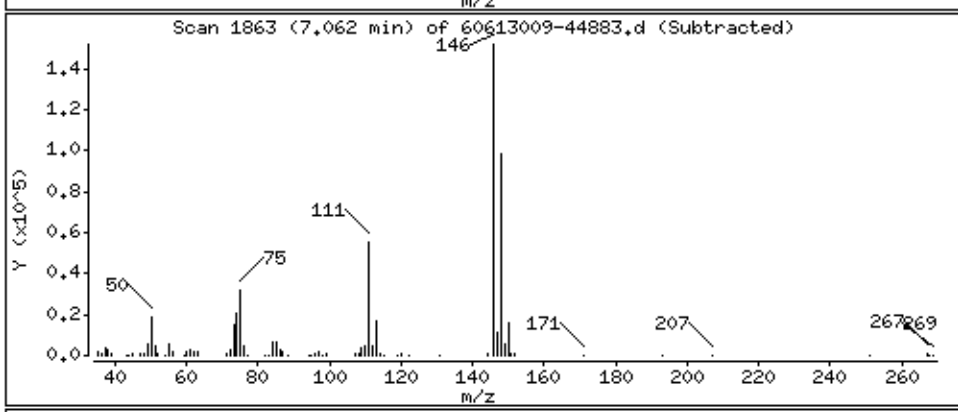
Column phase: RTX-VMS

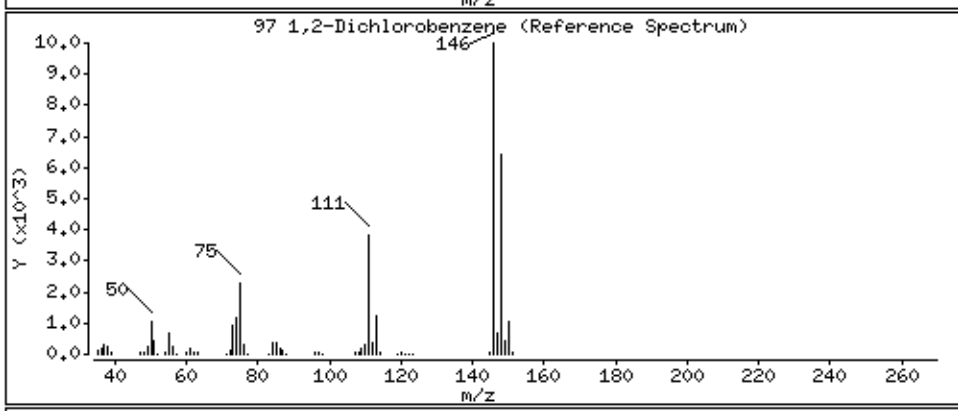
Column diameter: 0.18

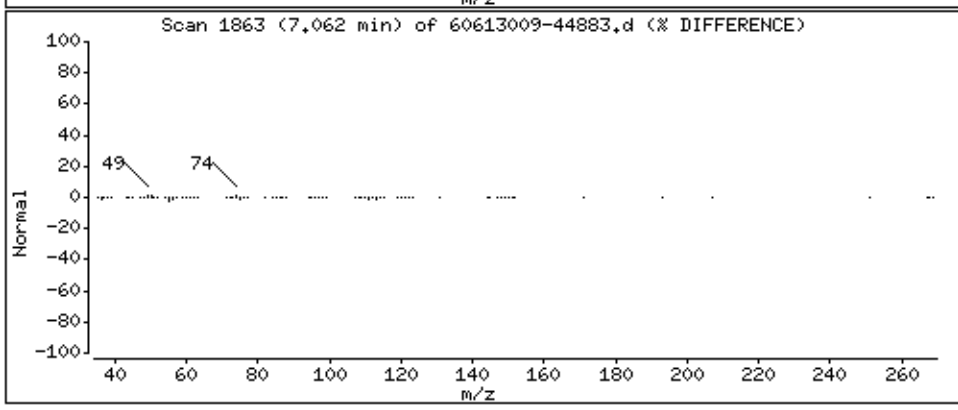
97 1,2-Dichlorobenzene

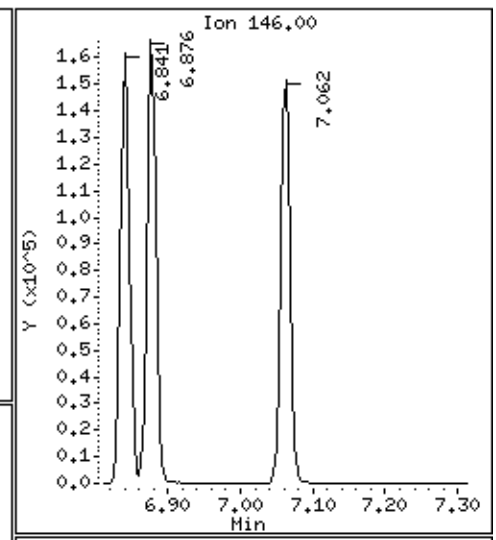
Concentration: 16.5 ug/L

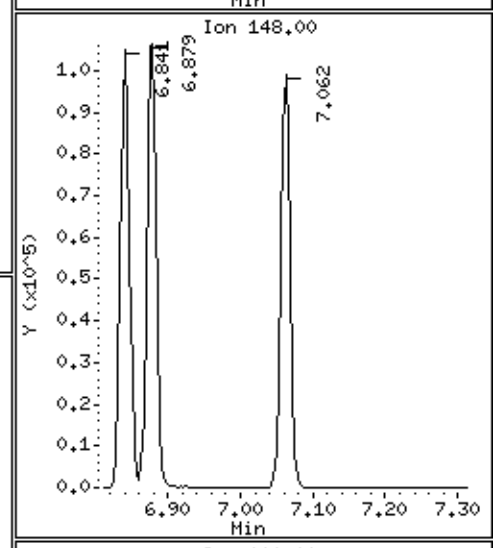


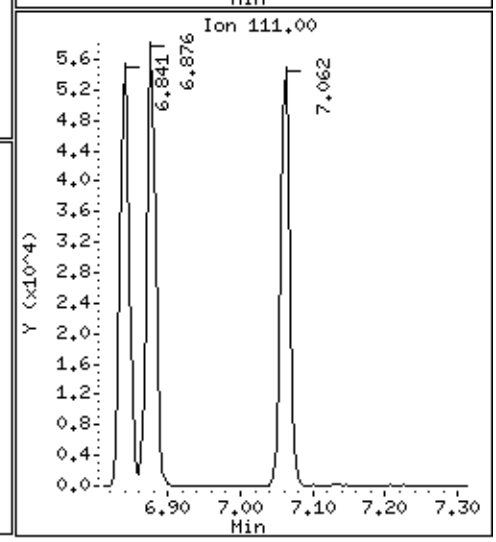












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613009-44883.d

Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

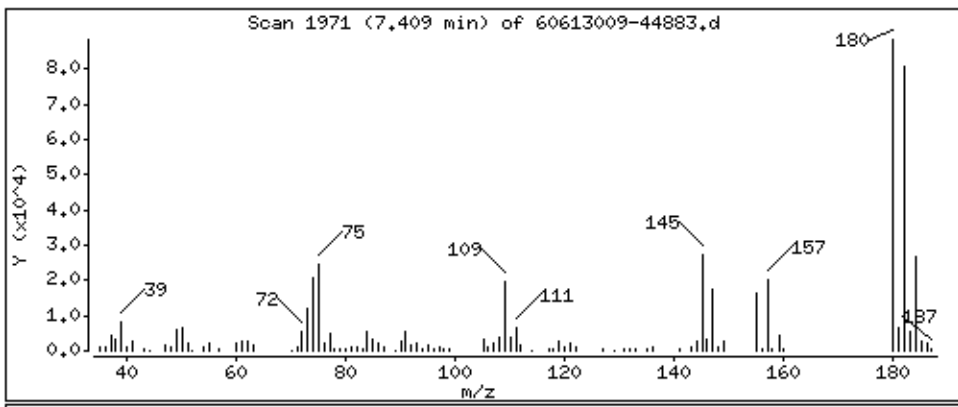
Operator: JEW

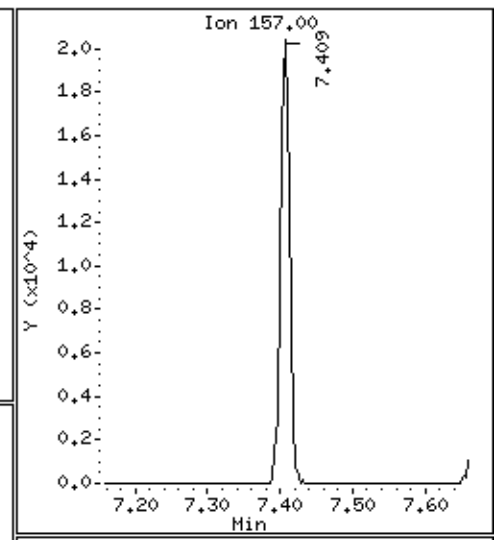
Column phase: RTX-VMS

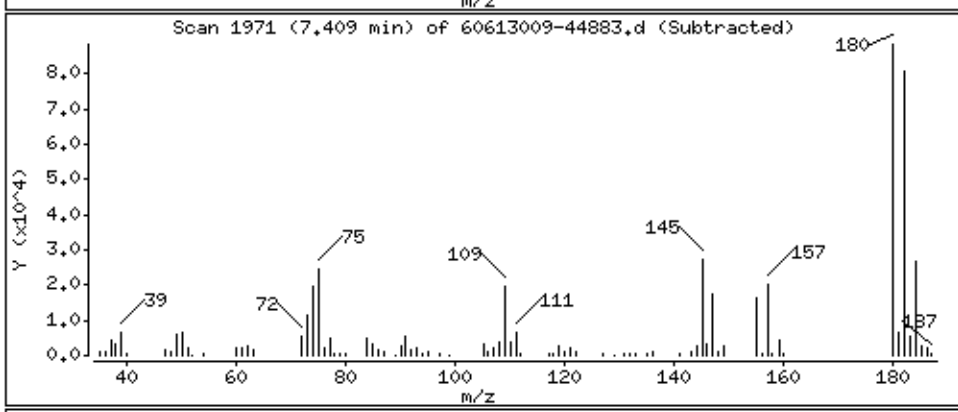
Column diameter: 0.18

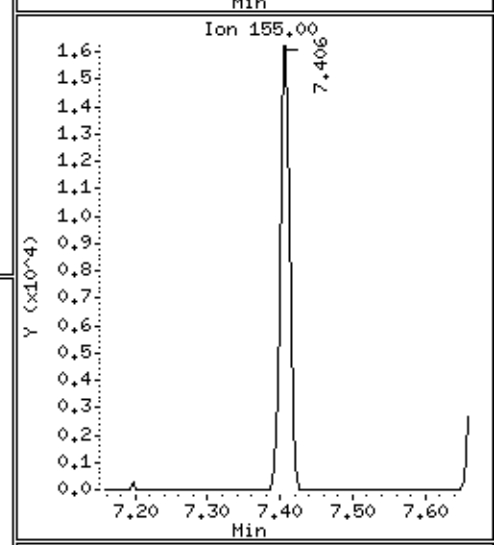
98 1,2-Dibromo-3-chloropropane

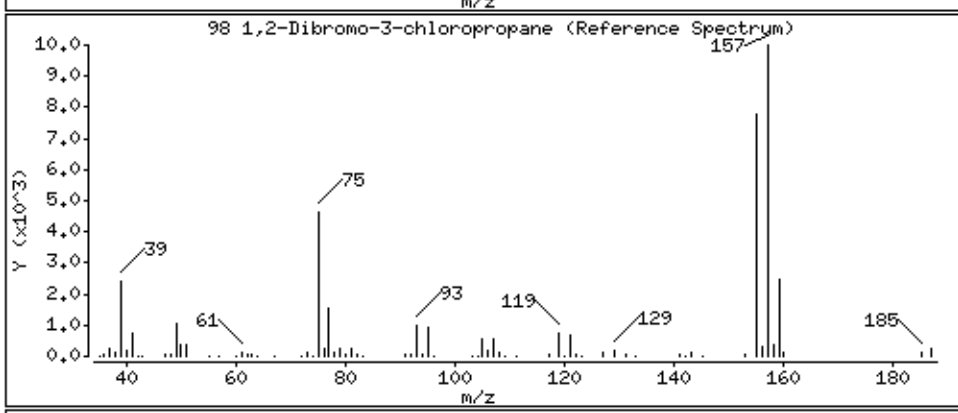
Concentration: 13.9 ug/L

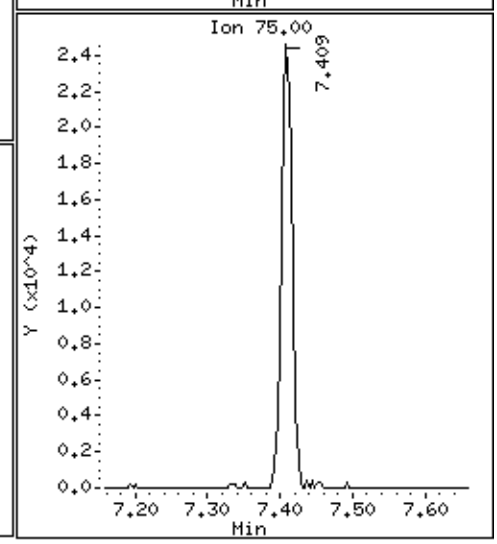


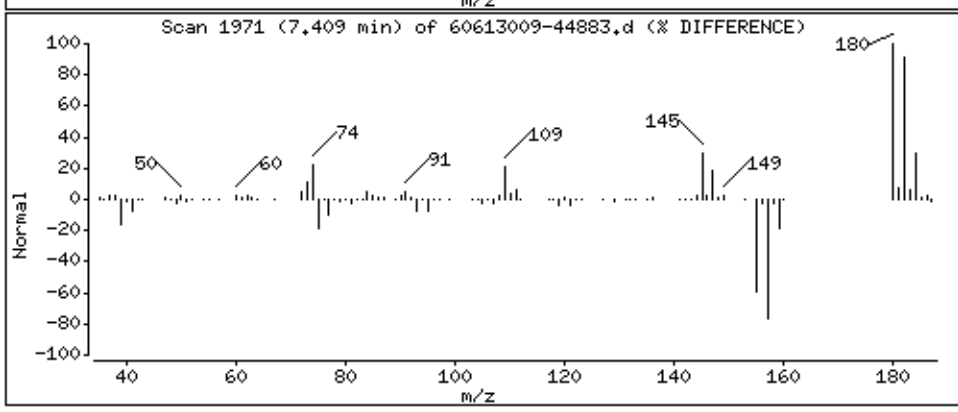












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

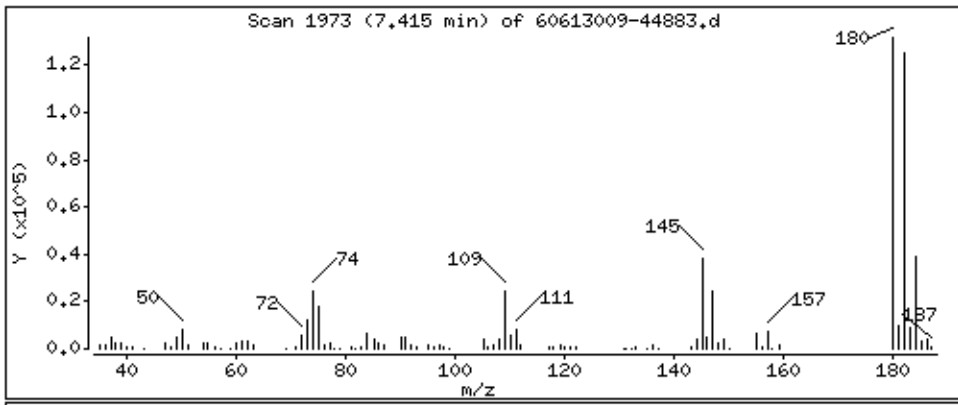
Operator: JEW

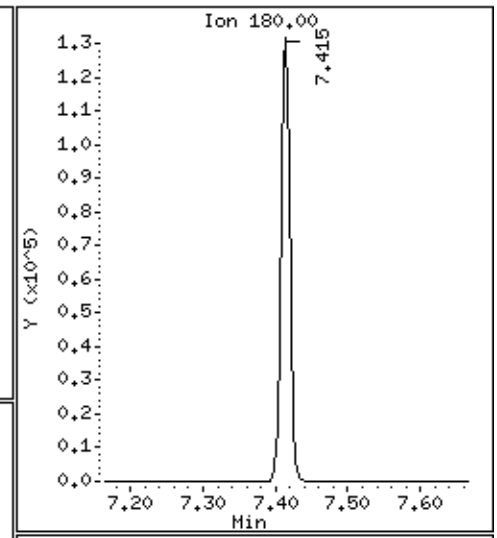
Column phase: RTX-VMS

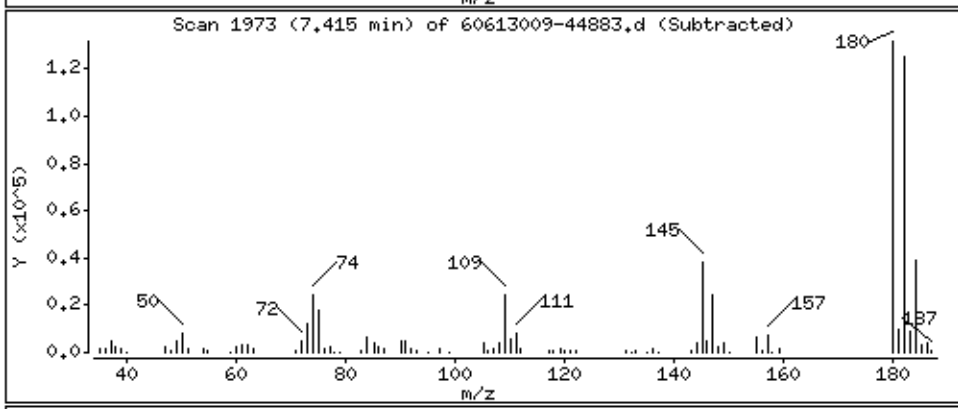
Column diameter: 0.18

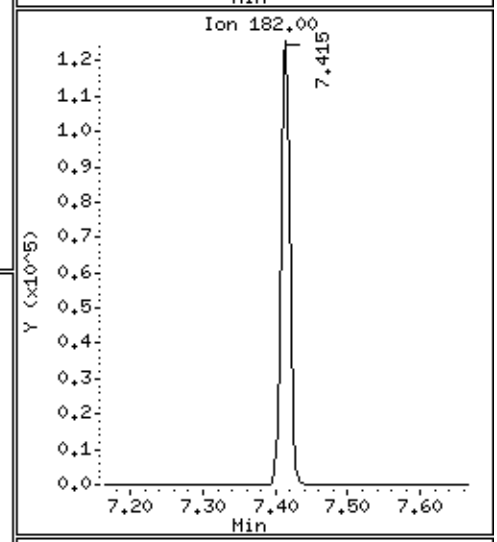
99 1,3,5-Trichlorobenzene

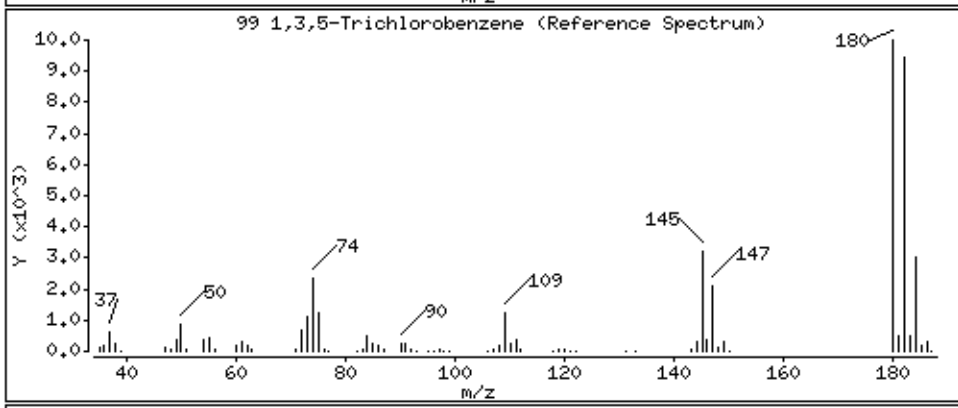
Concentration: 17.8 ug/L

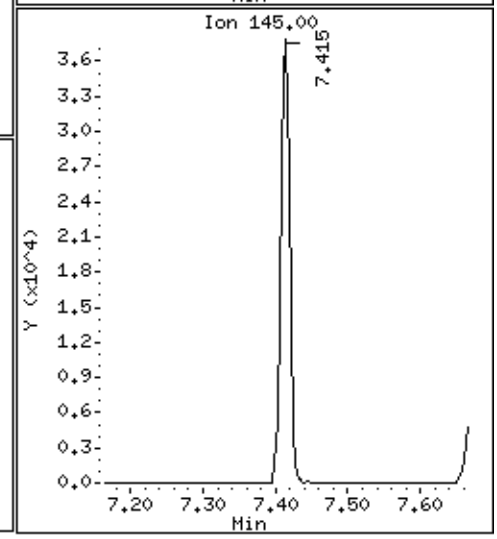


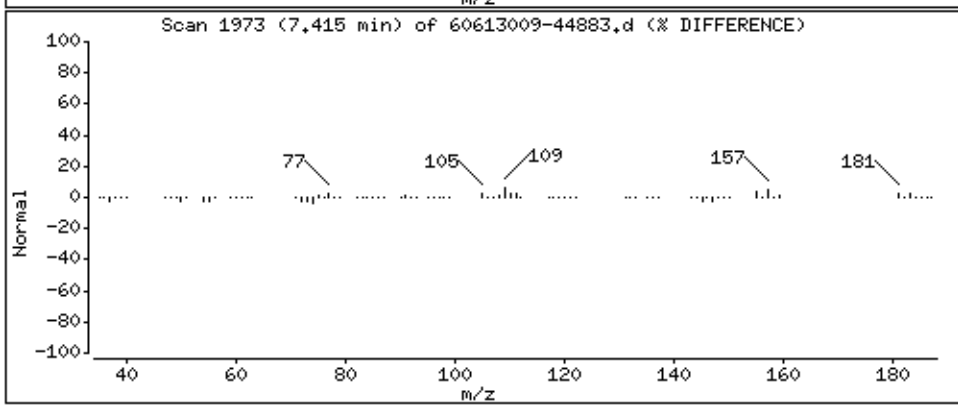












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

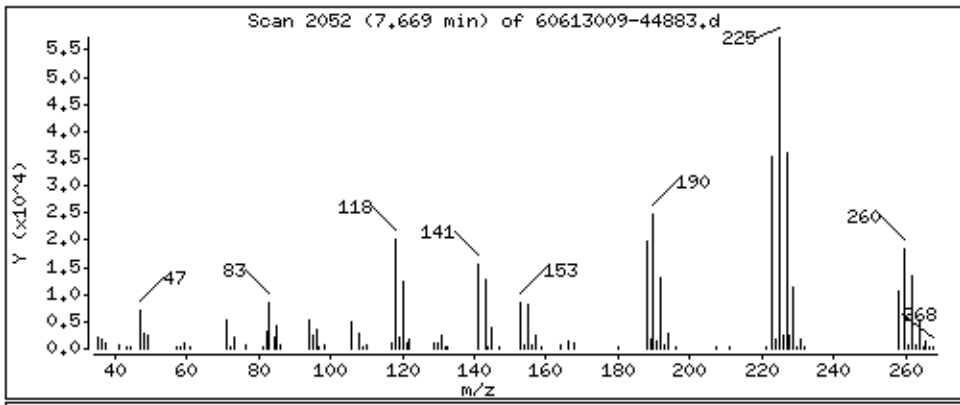
Operator: JEW

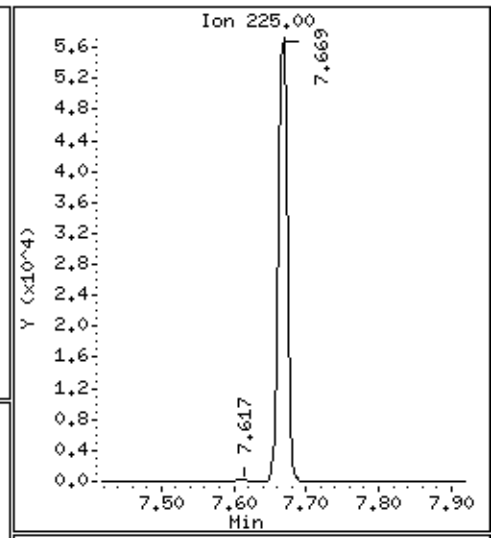
Column phase: RTX-VMS

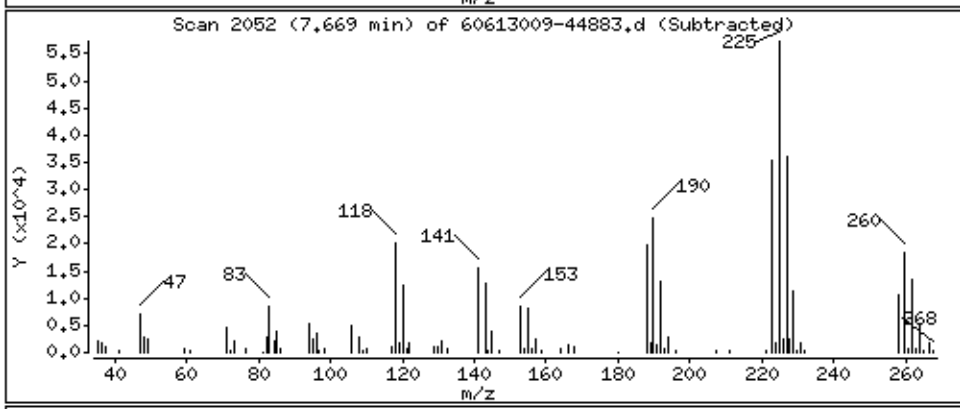
Column diameter: 0.18

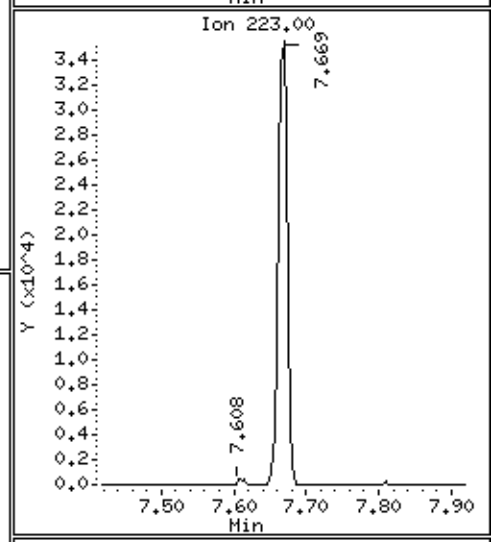
100 Hexachloro-1,3-butadiene

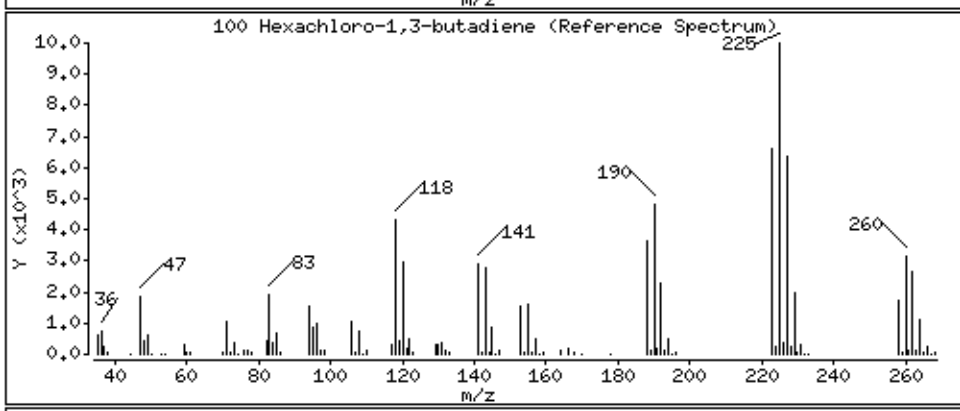
Concentration: 15.4 ug/L

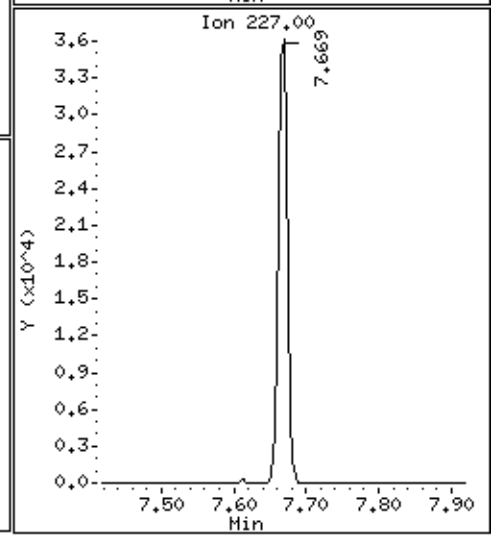


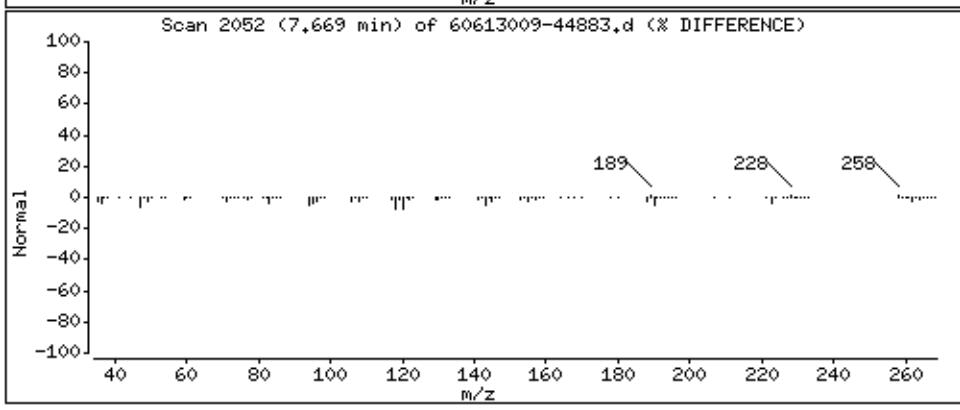












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

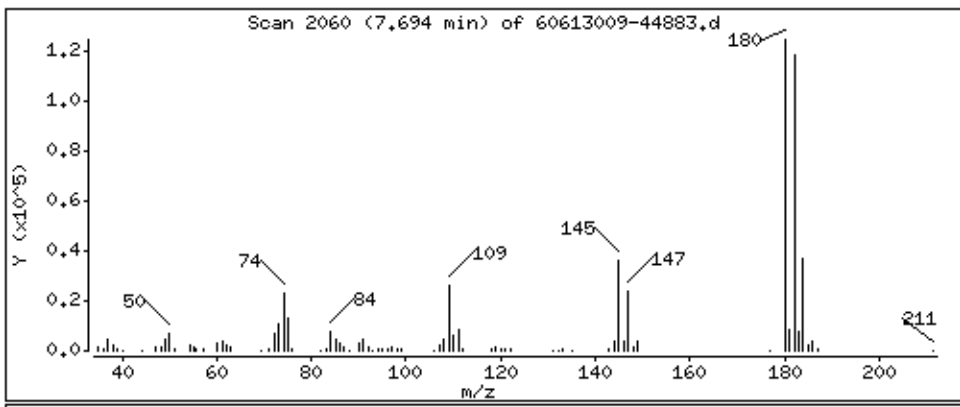
Operator: JEW

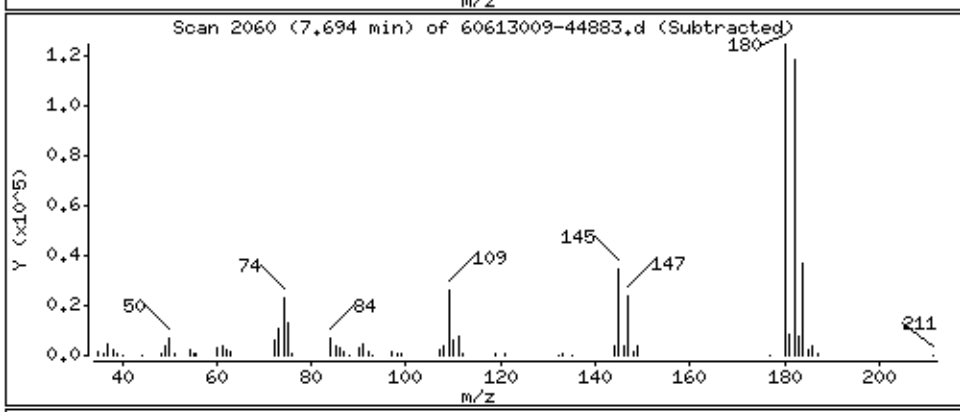
Column phase: RTX-VMS

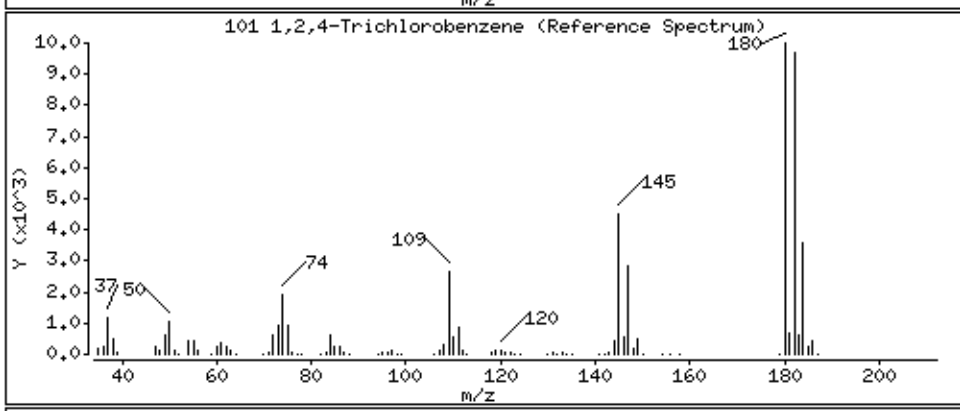
Column diameter: 0.18

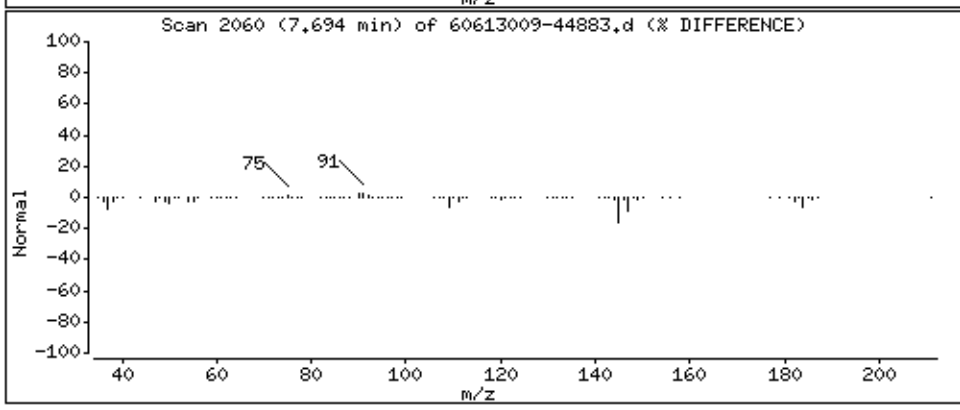
101 1,2,4-Trichlorobenzene

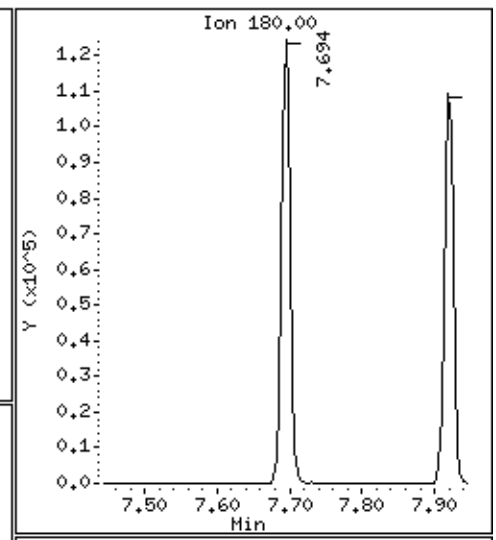
Concentration: 17.6 ug/L

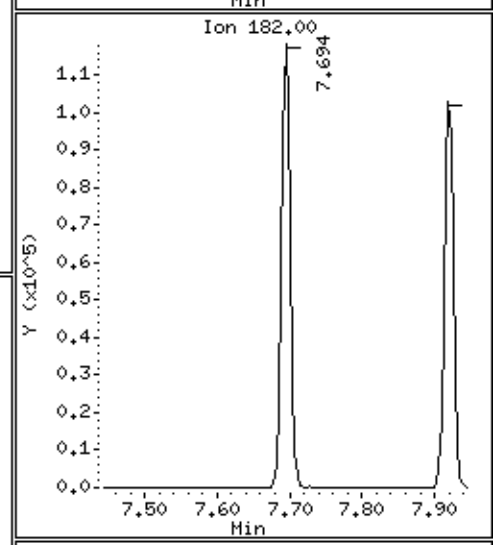


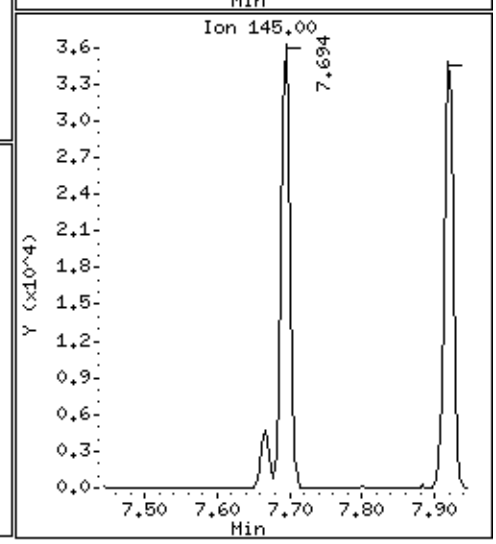












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

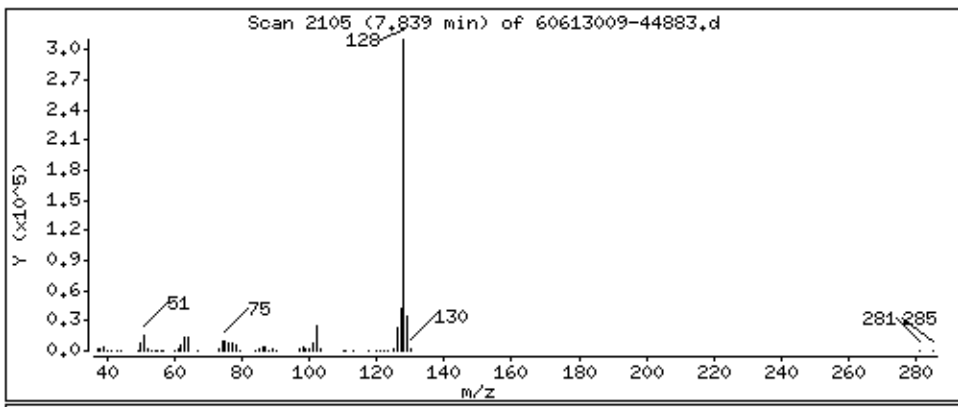
Operator: JEW

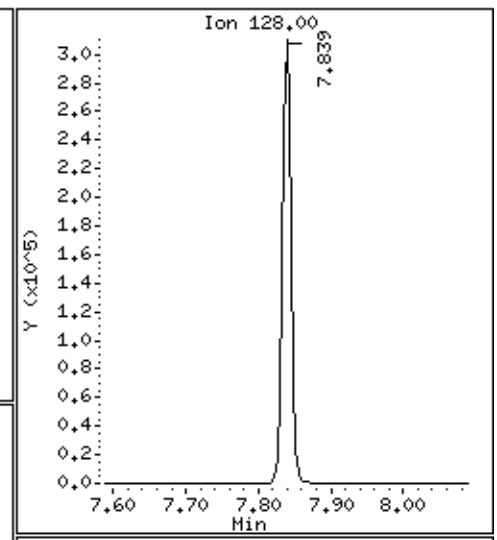
Column phase: RTX-VMS

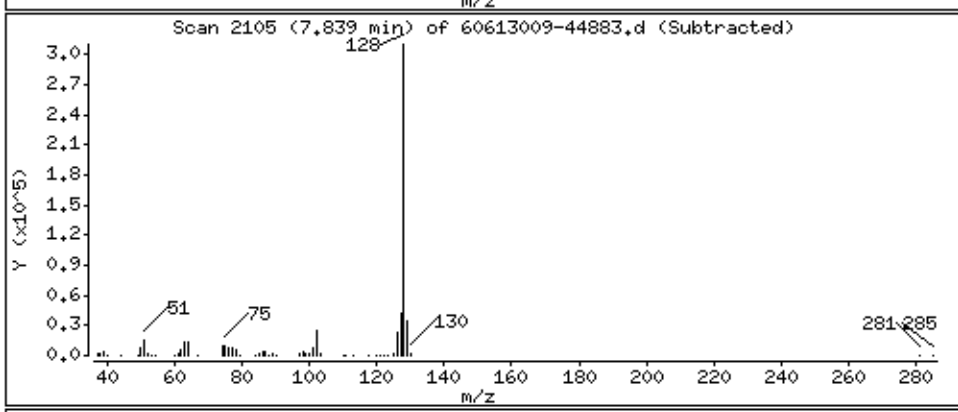
Column diameter: 0.18

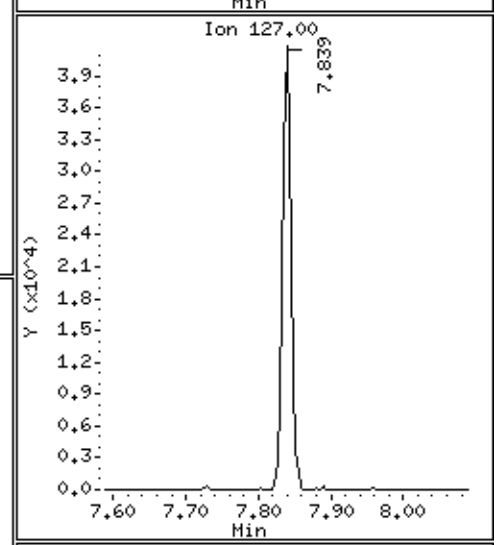
102 Naphthalene

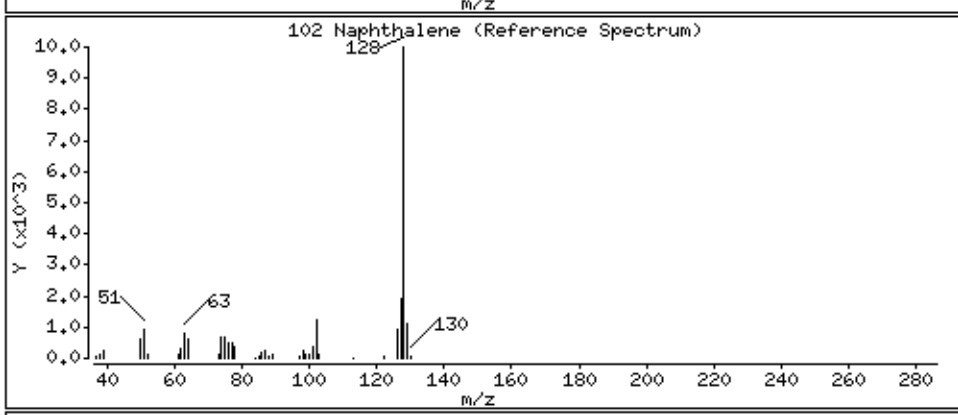
Concentration: 17.3 ug/L

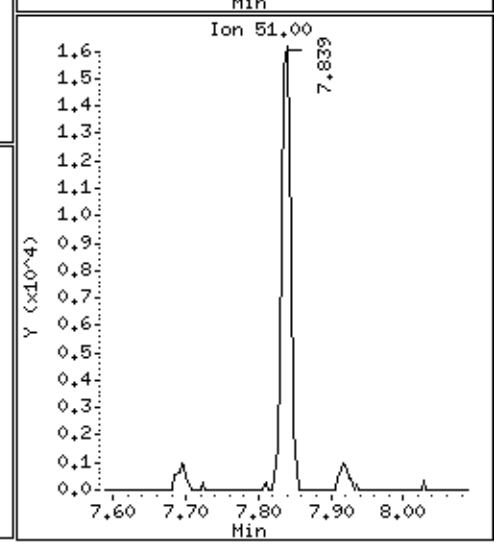


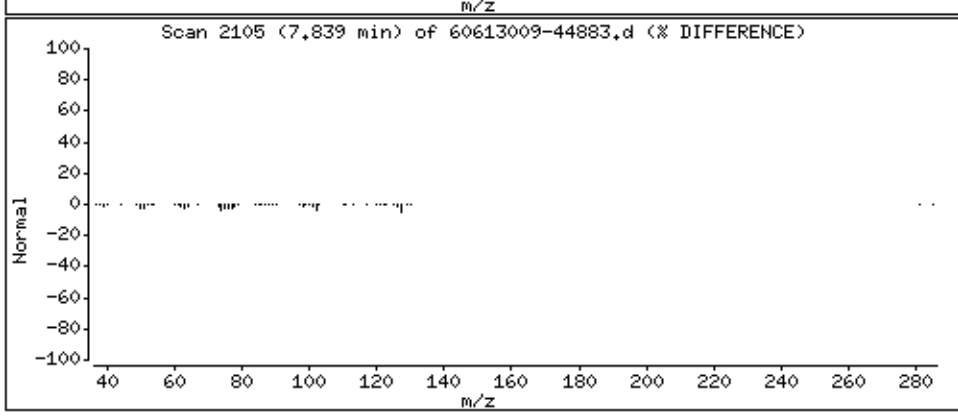












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

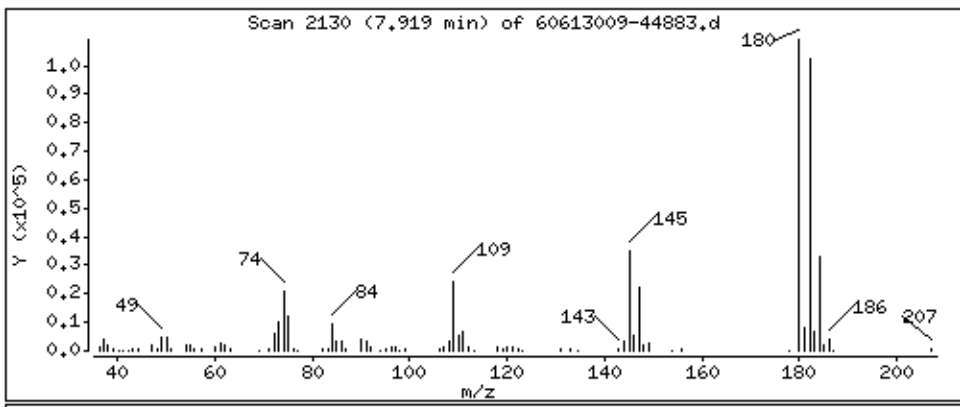
Operator: JEW

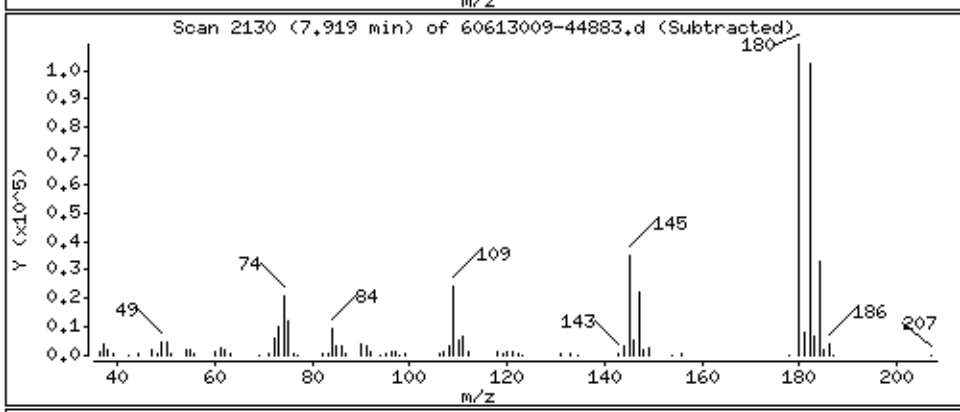
Column phase: RTX-VMS

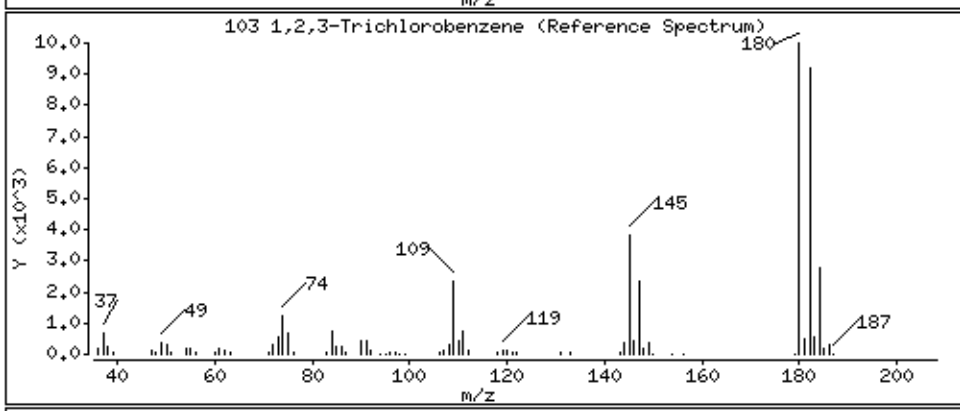
Column diameter: 0.18

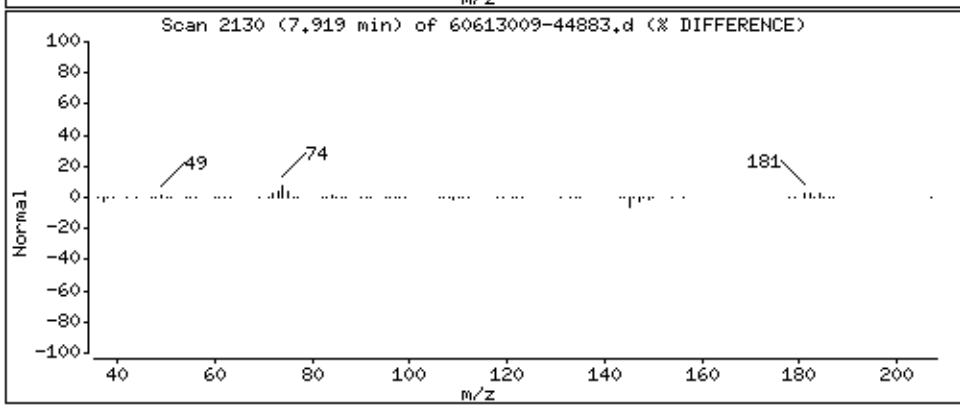
103 1,2,3-Trichlorobenzene

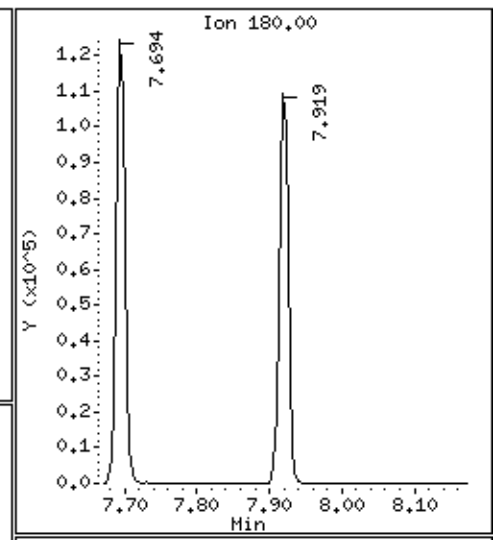
Concentration: 18.2 ug/L

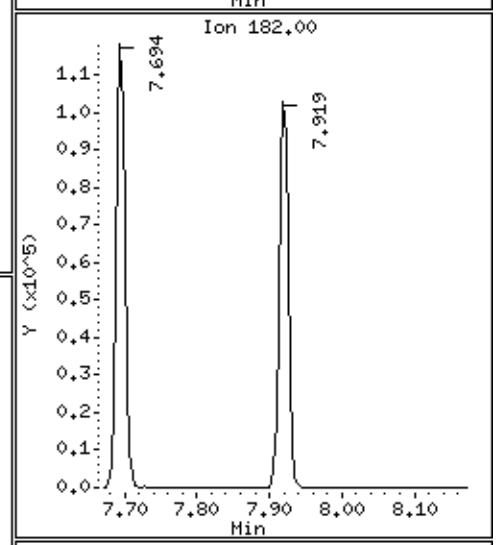


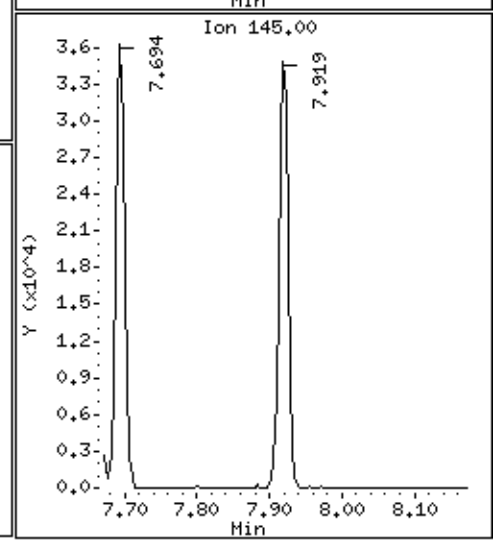












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Date : 13-JUN-2019 10:30

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1687219,90735:5,,

Purge Volume: 5.0

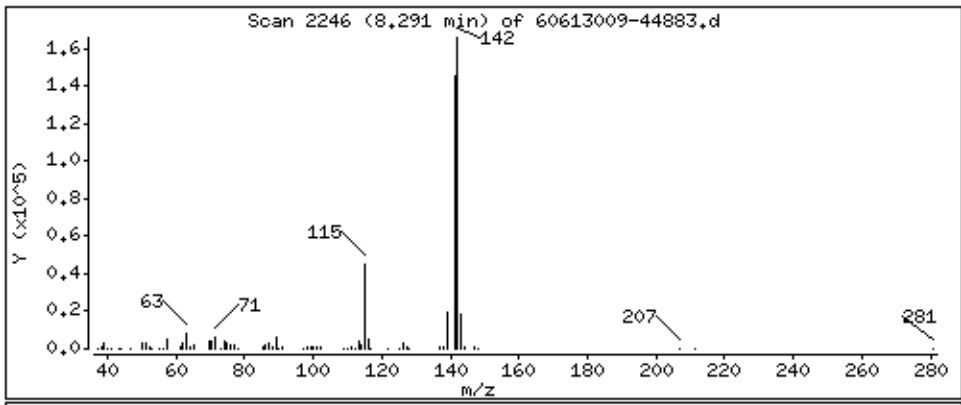
Operator: JEW

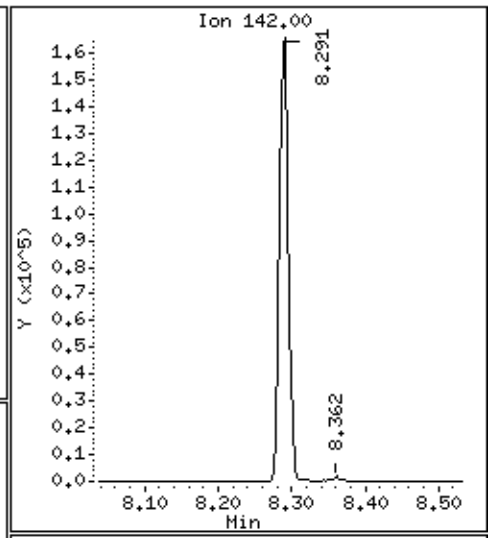
Column phase: RTX-VMS

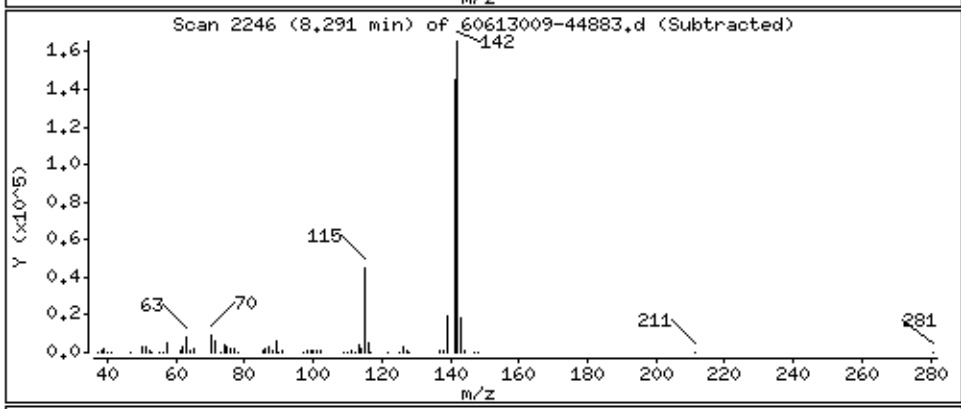
Column diameter: 0.18

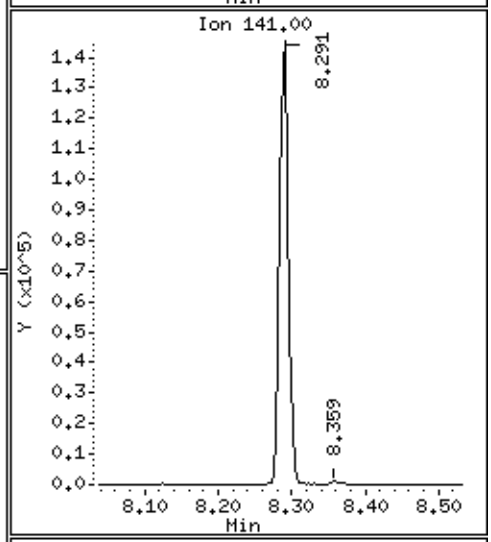
104 2-Methylnaphthalene

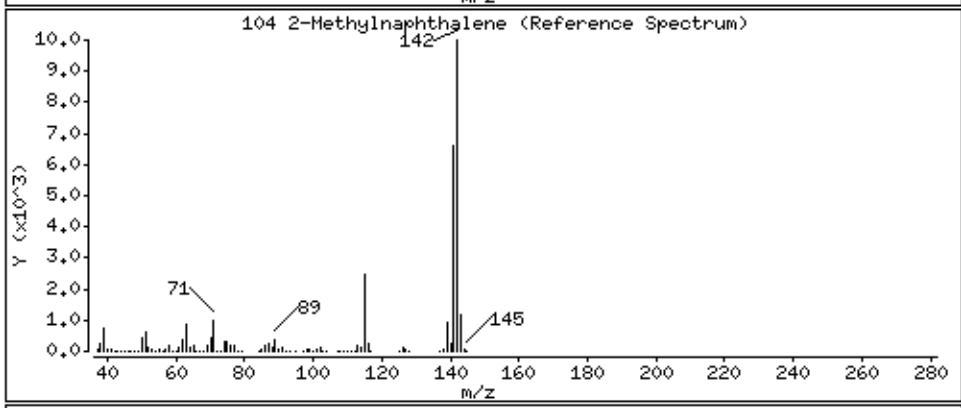
Concentration: 20.1 ug/L

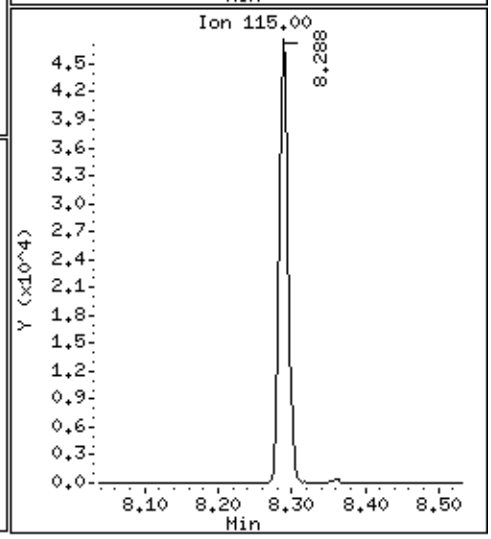


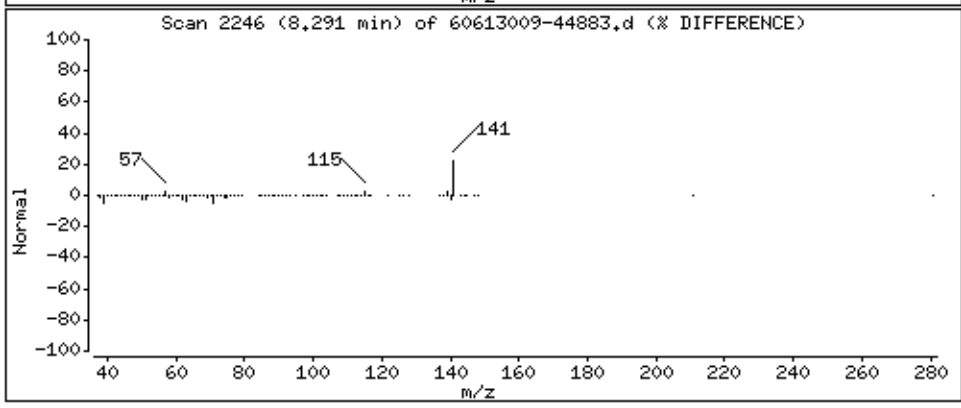












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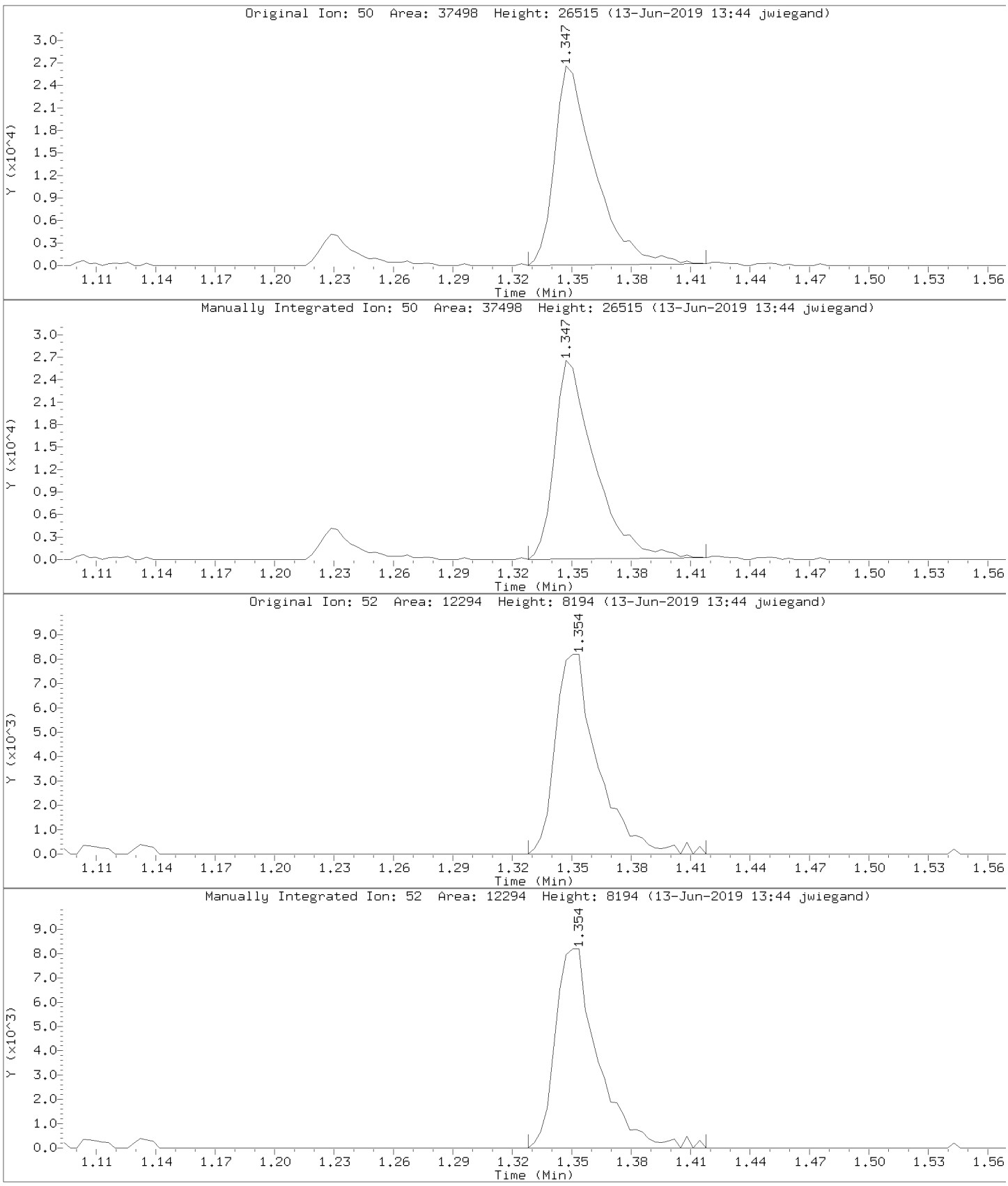
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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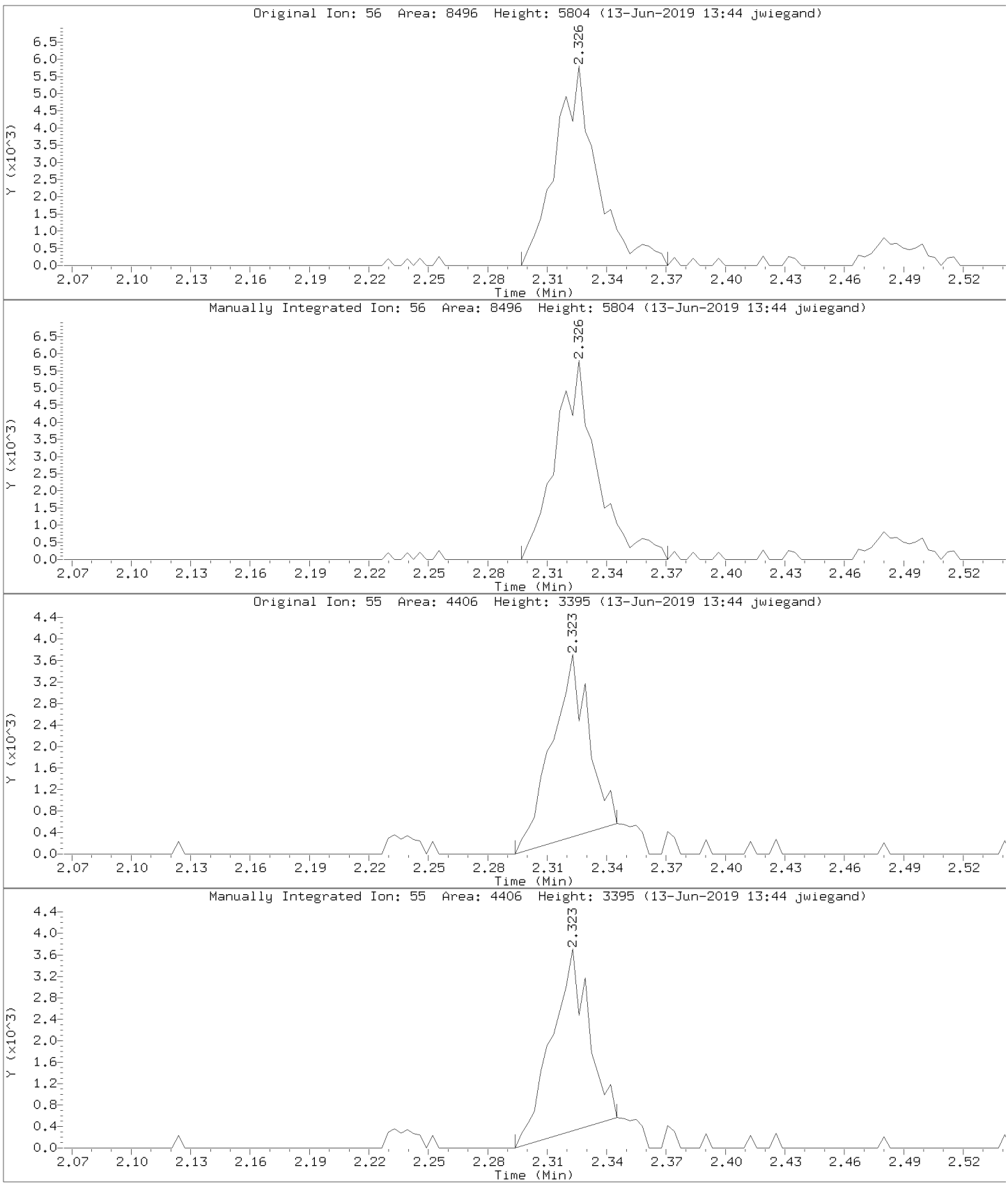
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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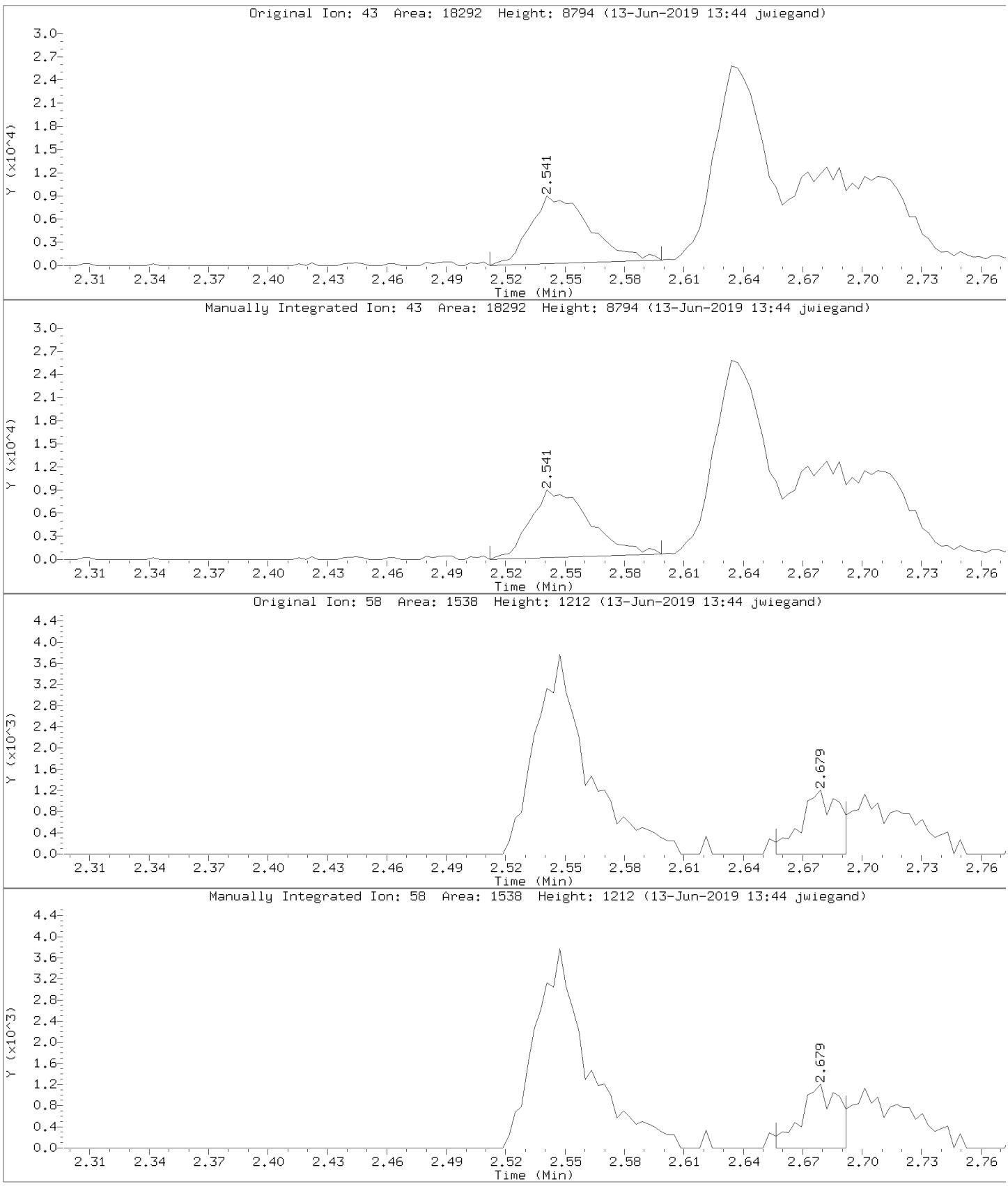
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219

Compound: Acetone Review Code: WP
CAS Number: 67-64-1



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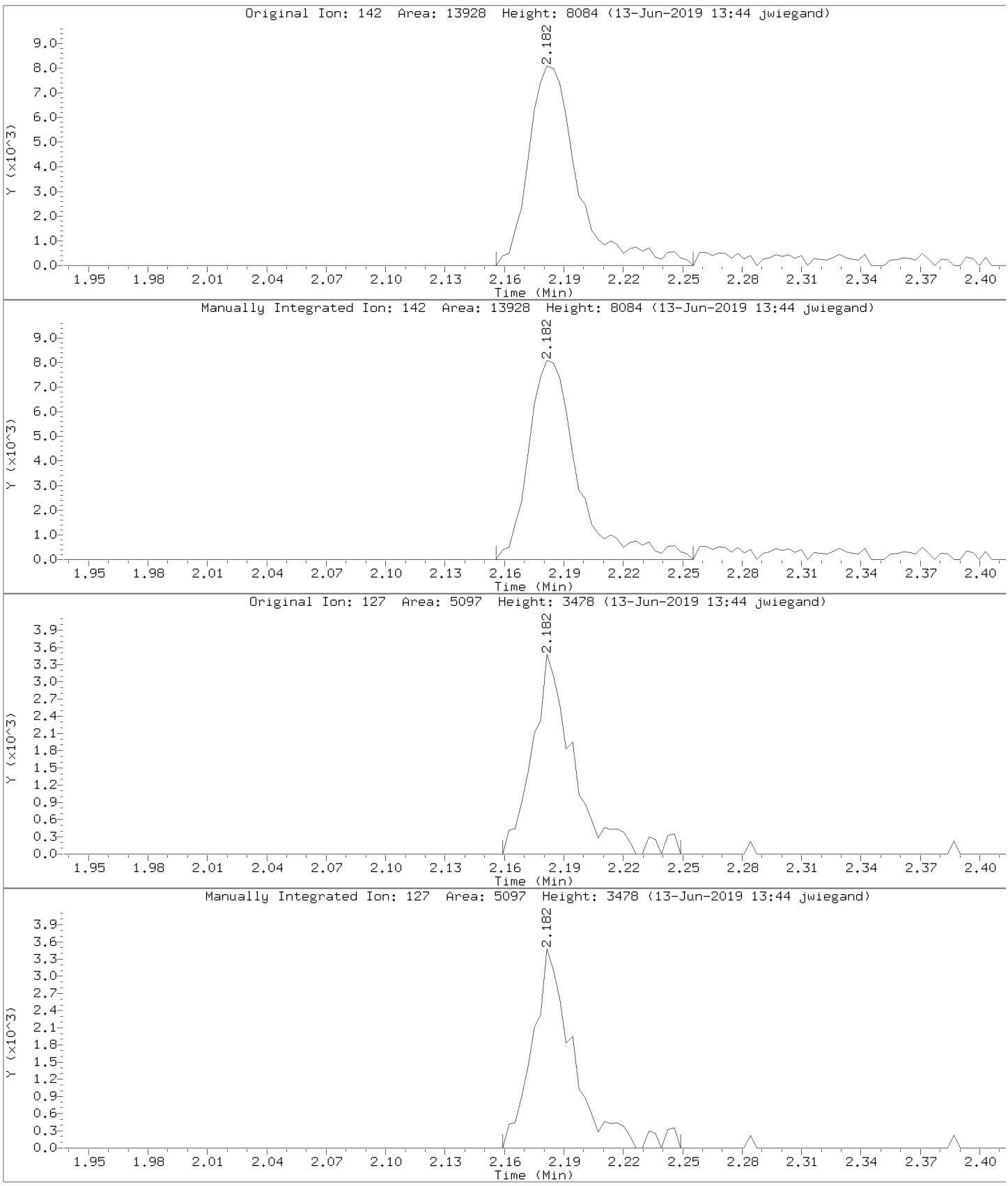
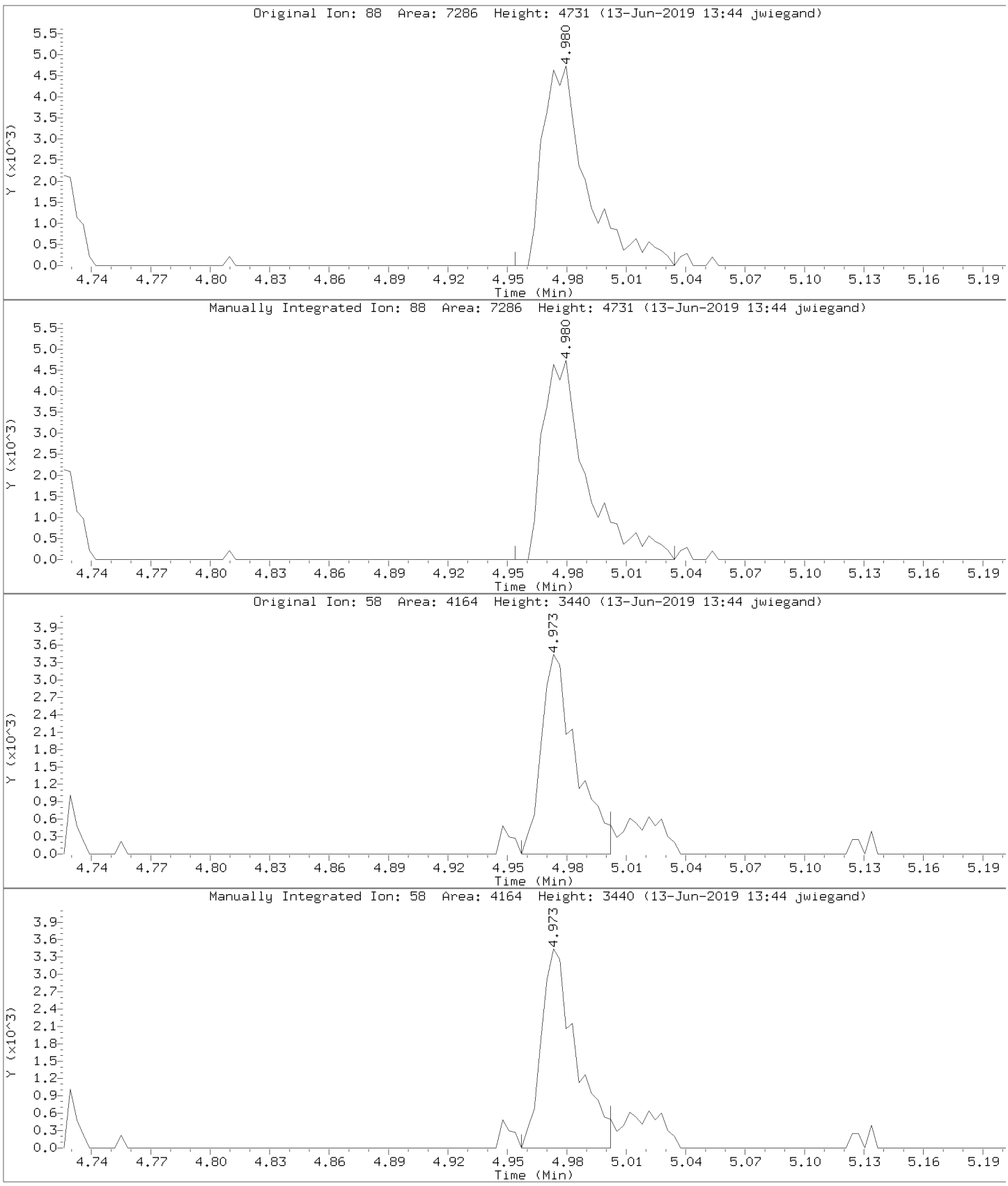
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613009-44883.d
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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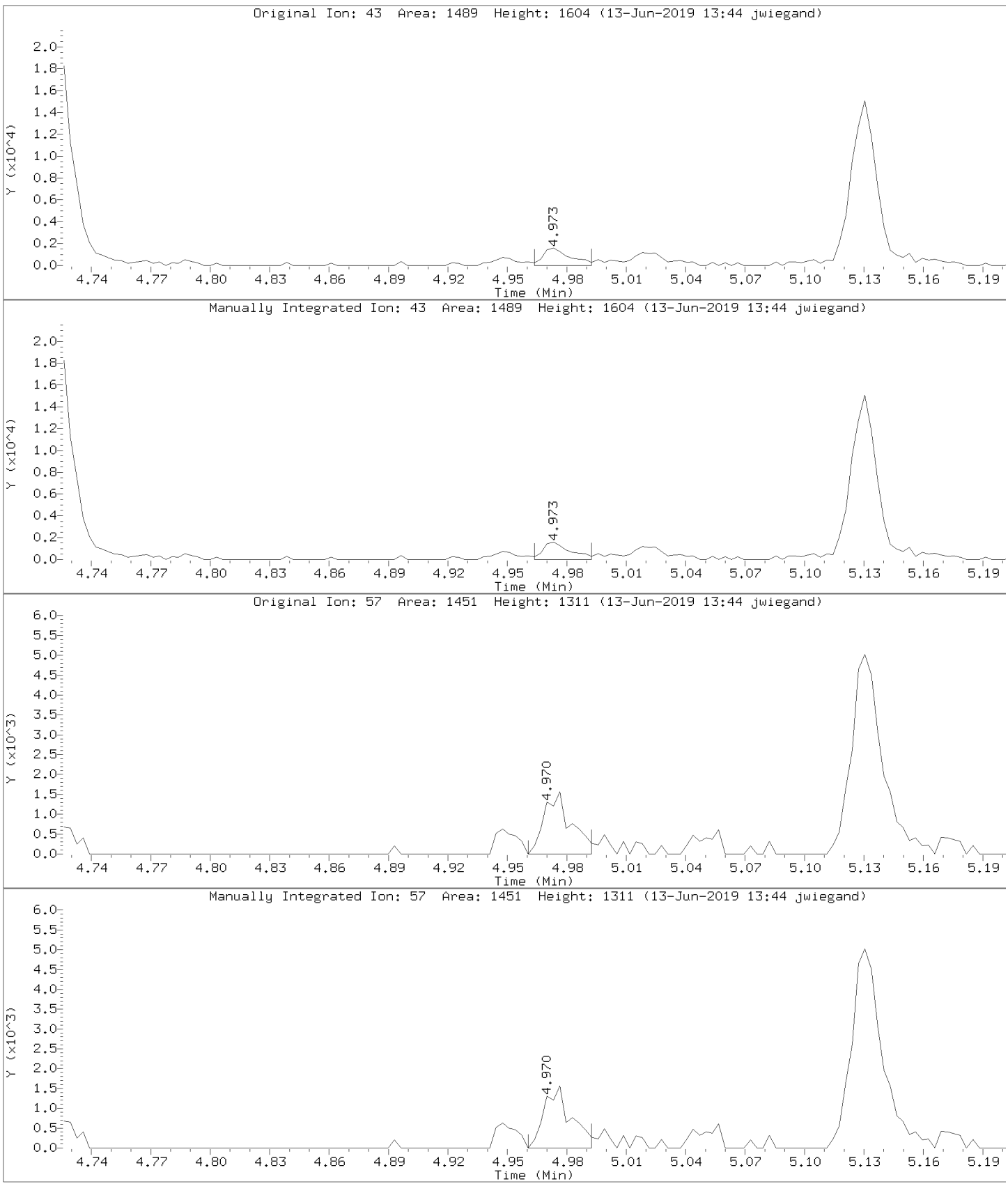
Injection Date: 13-JUN-2019 10:30
Instrument: 30mv6a.i
Lab Sample ID: 1687219



SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/11/2019 09:29 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/13/2019 11:47 Lab Sample ID: 1686168

Date Analyzed: 06/13/2019 11:47 Lab File ID: 6190613.B\1.B\60613015-44883.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Lab Smp Id: 1686168 Client Smp ID: LB for HBN 346600 [
Inj Date : 13-JUN-2019 11:47
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1686168x10
Misc Info : 44883
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Meth Date : 14-Jun-2019 08:22 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.059	(0.898)	107705	36.5926	36.6	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.376	(0.968)	98268	33.6875	33.7	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.524	(1.000)	354145	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.236	5.233	(0.889)	378045	28.4924	28.5	
	59 Toluene	91	5.258	5.256	(0.893)	2282	0.19199	1.92(a)	
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	360116	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	18632	2.11119	21.1(a)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	157596	29.4474	29.4	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	218473	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Report Date: 14-Jun-2019 09:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
D - User disabled compound identification.

Review Codes Legend

    :

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613015-44883.d
Lab Smp Id: 1686168
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

Calibration Date: 13-JUN-2019
Calibration Time: 09:51
Client Smp ID: LB for HBN 346
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	416159	208080	832318	354145	-14.90
71 Chlorobenzene-d5	360779	180390	721558	360116	-0.18
94 1,4-Dichlorobenze	224811	112406	449622	218473	-2.82

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.53	0.14
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1686168 Client Smp ID: LB for HBN 346600 [
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	36.6	121.98	0-130
$ 45 1,2-Dichloroethane	30.0	33.7	112.29	0-138
$ 58 Toluene-d8 (S)	30.0	28.5	94.97	0-124
$ 79 4-Bromofluorobenze	30.0	29.4	98.16	0-124

Data File: ...arget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Report Date: 14-Jun-2019 09:34

Pace Analytical Services, Inc.

TARGET COMPOUNDS

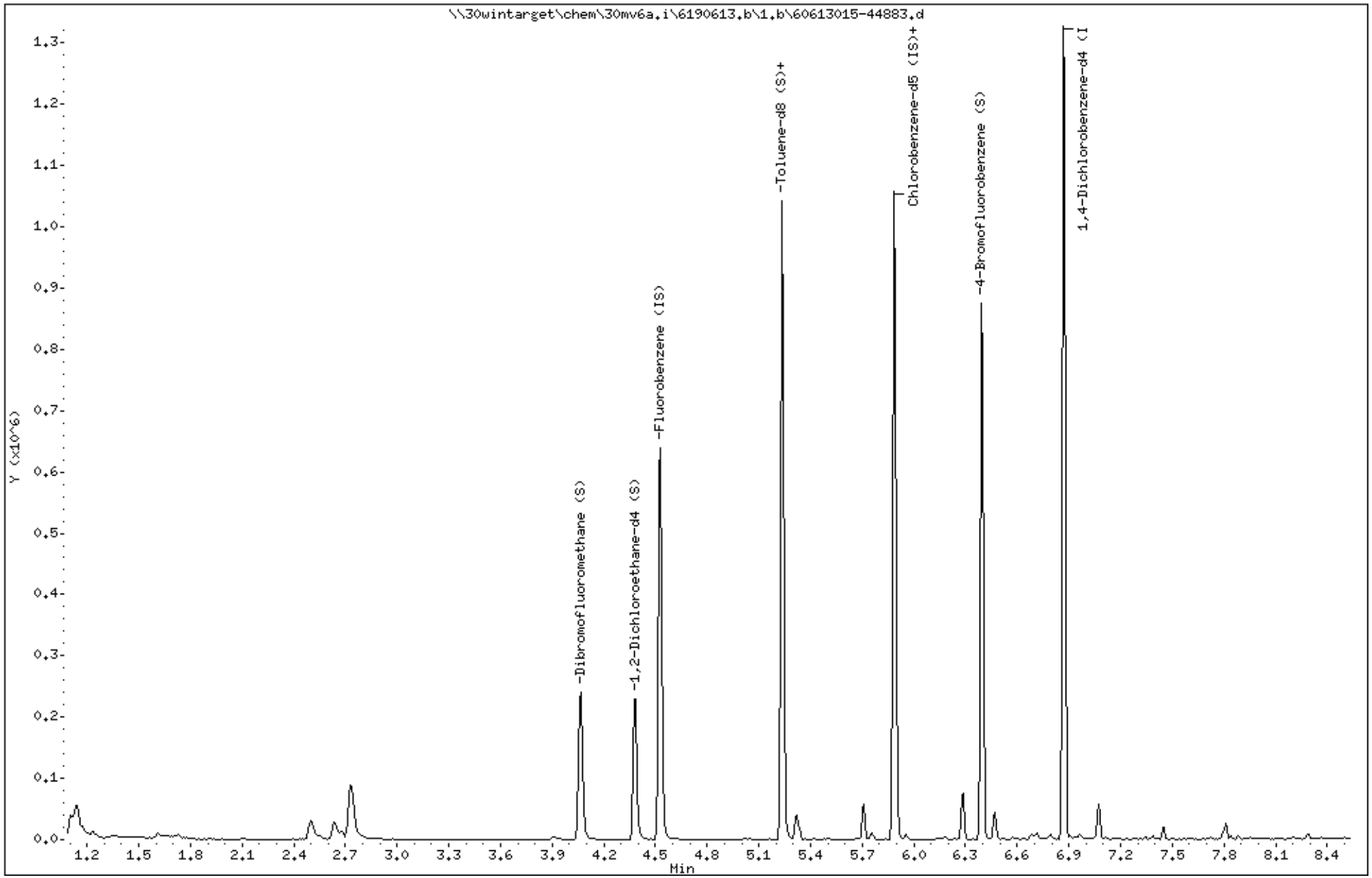
Client Name:
Lab Smp Id: 1686168
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883

Client SDG: 1.b
Client Smp ID: LB for HBN 346600 [
Sample Point:
Date Received: 11-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-88-3	Toluene	1.92	J
108-90-7	Chlorobenzene	21.1	J
1868-53-7	Dibromofluoromethane (S)	36.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.7	
2037-26-5	Toluene-d8 (S)	28.5	
460-00-4	4-Bromofluorobenzene (S)	29.4	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d
Date : 13-JUN-2019 11:47
Client ID: LB for HBN 346600 [
Sample Info: 1686168x10

Instrument: 30mv6a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d

Date : 13-JUN-2019 11:47

Client ID: LB for HBN 346600 [

Instrument: 30mv6a.i

Sample Info: 1686168x10

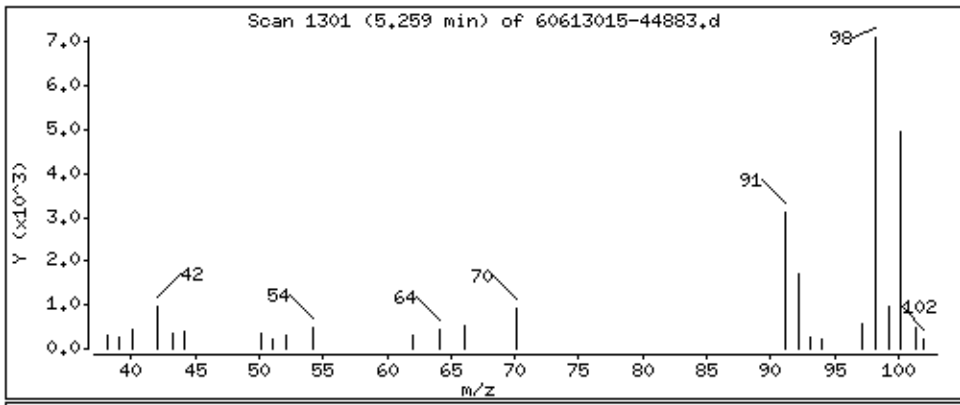
Operator: JEW

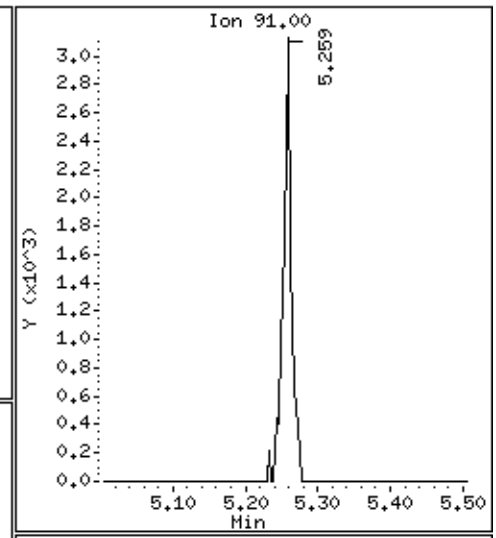
Column phase: RTX-VMS

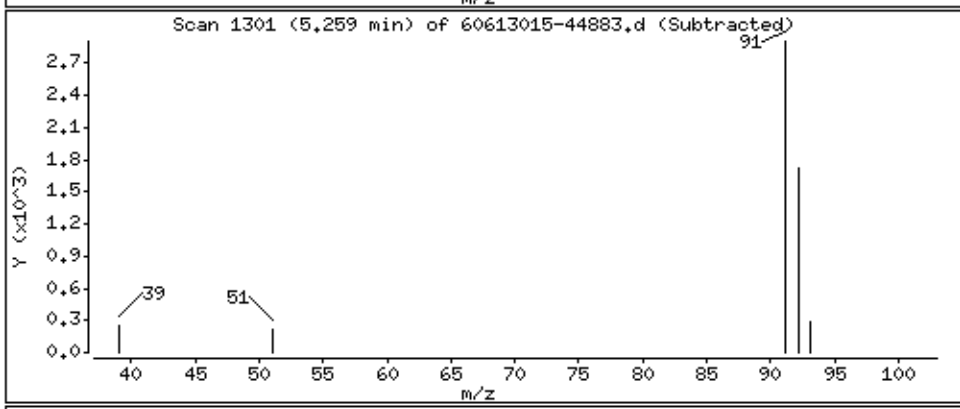
Column diameter: 0.18

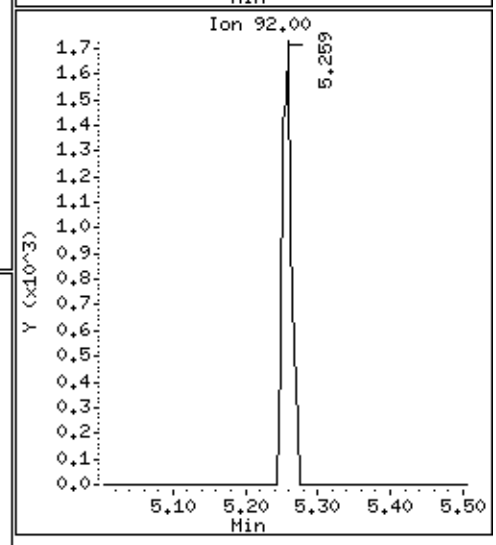
59 Toluene

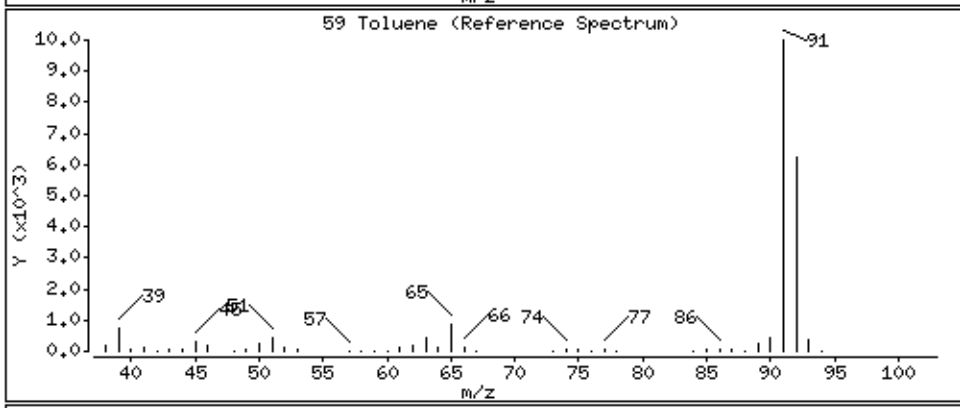
Concentration: 1.92 ug/kg

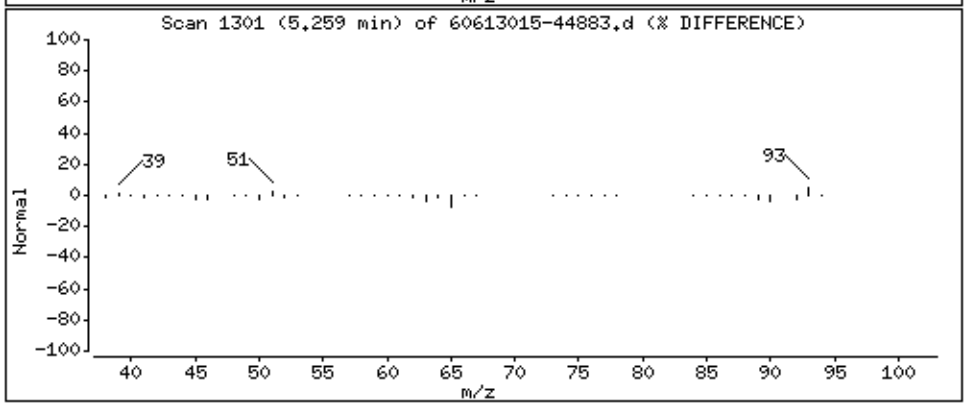












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613015-44883.d

Date : 13-JUN-2019 11:47

Client ID: LB for HBN 346600 [

Instrument: 30mv6a.i

Sample Info: 1686168x10

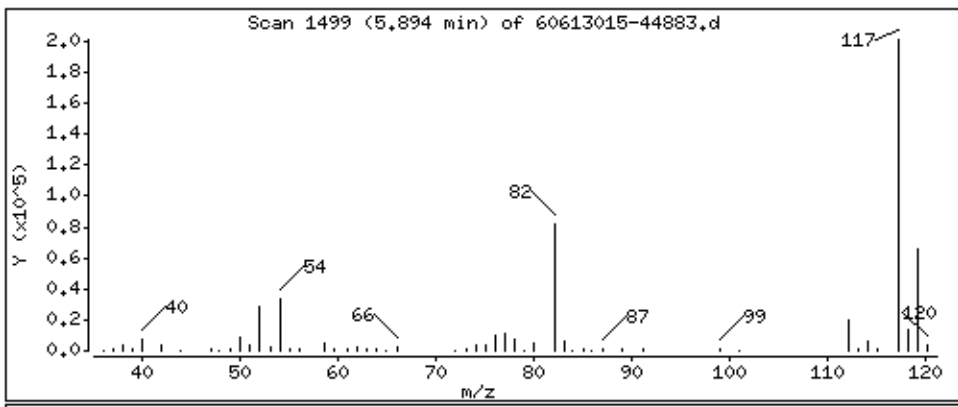
Operator: JEW

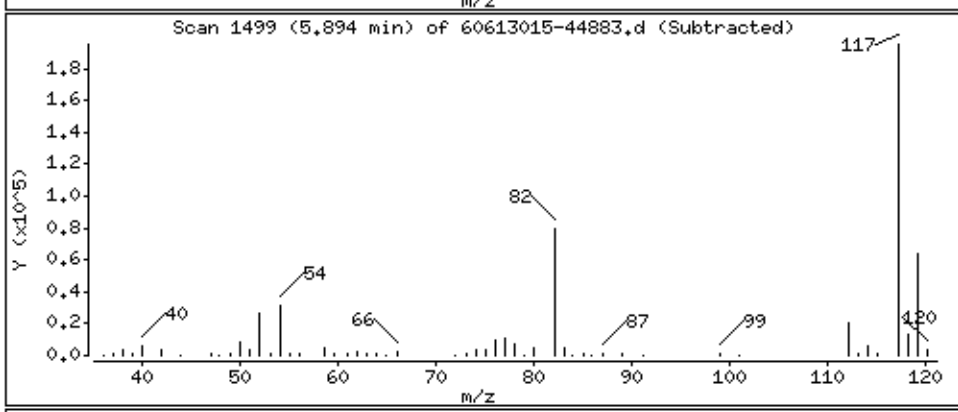
Column phase: RTX-VMS

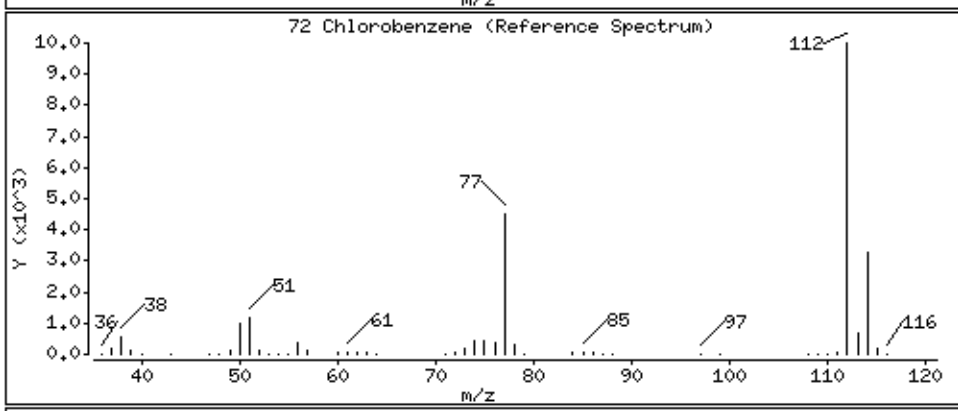
Column diameter: 0.18

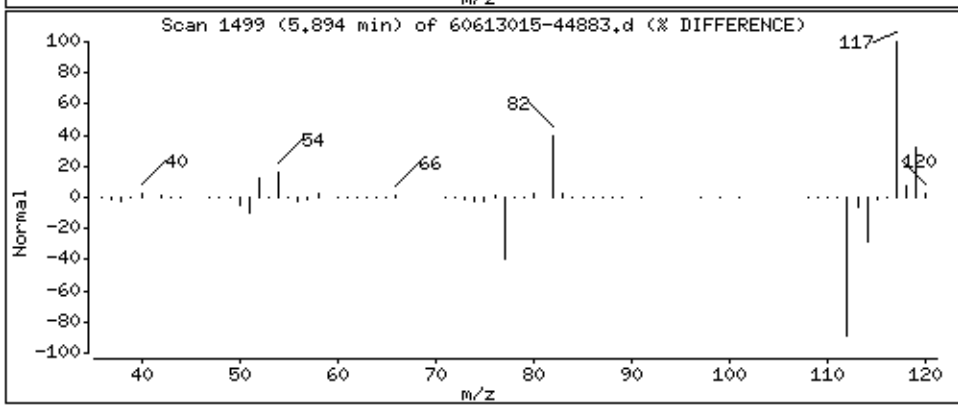
72 Chlorobenzene

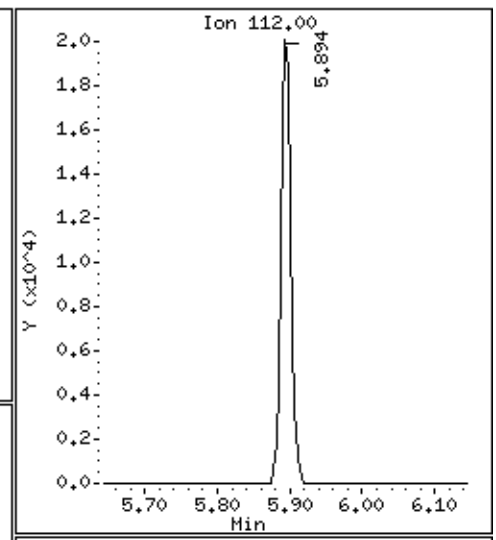
Concentration: 21.1 ug/kg

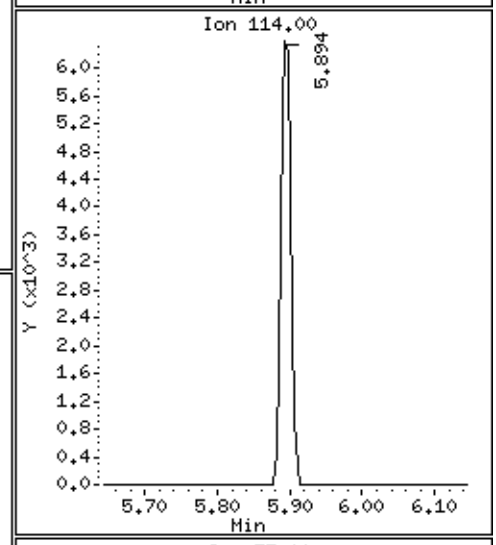


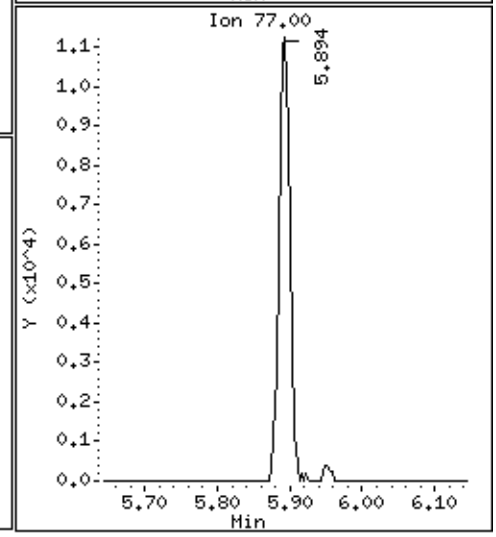












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613015-44883.d
Injection Date: 13-JUN-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: 1686168
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/13/2019 15:40 Lab Sample ID: 1687220

Date Analyzed: 06/13/2019 15:40 Lab File ID: 6190613.B\1.B\60613033.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	175	
78-93-3	2-Butanone (MEK)	160	
56-23-5	Carbon tetrachloride	165	
108-90-7	Chlorobenzene	215	
67-66-3	Chloroform	192	
107-06-2	1,2-Dichloroethane	183	
75-35-4	1,1-Dichloroethene	162	
127-18-4	Tetrachloroethene	221	
79-01-6	Trichloroethene	193	
75-01-4	Vinyl chloride	147	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Lab Smp Id: 1687220 Client Smp ID: AOC34-1MS
Inj Date : 13-JUN-2019 15:40
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1687220x10
Misc Info : 44883
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Meth Date : 14-Jun-2019 08:22 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.395	1.376	(0.308)	47789	14.7287	147(QR)	
	9 1,1-Dichloroethene	61	2.072	2.056	(0.458)	59910	16.1752	162(R)	
	33 Chloroform	83	3.939	3.930	(0.870)	85525	19.2420	192(R)	
	34 Carbon Tetrachloride	117	4.026	4.017	(0.889)	61813	16.5476	165(R)	
$	37 Dibromofluoromethane (S)	111	4.065	4.059	(0.898)	106645	31.6292	31.6	
	39 2-Butanone (MEK)	43	4.151	4.139	(0.917)	25434	16.0023	160(R)	
	41 Benzene	78	4.299	4.296	(0.950)	180661	17.5206	175(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.376	(0.967)	97416	29.1526	29.2	
	47 1,2-Dichloroethane	62	4.418	4.412	(0.976)	66800	18.2599	182(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.524	(1.000)	405686	30.0000		
	50 Trichloroethene	95	4.610	4.607	(0.783)	53380	19.2774	193(R)	
$	58 Toluene-d8 (S)	98	5.236	5.233	(0.889)	372110	28.9674	29.0	
	59 Toluene	91	5.255	5.256	(0.893)	225853	19.6263	196(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	73054	22.0564	220(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	348651	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	183572	21.4845	215(R)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	95397	20.8132	208(R)	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	236061	41.0051	410(R)	
	75 o-Xylene	106	6.138	6.138	(1.043)	114553	19.9170	199(R)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	159815	30.0244	30.0	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	217292	30.0000		
95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	190695	21.1700	212(R)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613033.d
Lab Smp Id: 1687220
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

Calibration Date: 13-JUN-2019
Calibration Time: 09:51
Client Smp ID: AOC34-1MS
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	416159	208080	832318	405686	-2.52
71 Chlorobenzene-d5	360779	180390	721558	348651	-3.36
94 1,4-Dichlorobenze	224811	112406	449622	217292	-3.34

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.53	0.14
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1687220 Client Smp ID: AOC34-1MS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	147	736.44*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	162	808.76*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	192	962.10*	70-130
34 Carbon Tetrachlori	20.0	165	827.38*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	160	800.12*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	175	876.03*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44	tert-Amylmethyl e	20.0	0.000	*	50-150
46	Isobutanol	20.0	0.000	*	70-130
47	1,2-Dichloroethane	20.0	182	912.99*	70-130
49	Methylcyclohexane	20.0	0.000	*	70-130
50	Trichloroethene	20.0	193	963.87*	70-130
51	Dibromomethane	20.0	0.000	*	70-130
52	1,2-Dichloropropa	20.0	0.000	*	70-130
53	Bromodichlorometh	20.0	0.000	*	70-130
54	Methyl methacryla	20.0	0.000	*	70-130
55	1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56	2-Chloroethylviny	20.0	0.000	*	50-150
57	cis-1,3-Dichlorop	20.0	0.000	*	70-130
59	Toluene	20.0	196	981.32*	70-130
60	2-Nitropropane	50.0	0.000	*	70-130
61	4-Methyl-2-pentan	20.0	0.000	*	50-150
62	Tetrachloroethene	20.0	220	1102.82*	70-130
63	trans-1,3-Dichlor	20.0	0.000	*	70-130
64	Ethyl methacrylate	20.0	0.000	*	70-130
65	1,1,2-Trichloroet	20.0	0.000	*	70-130
66	Dibromochlorometh	20.0	0.000	*	70-130
67	1,3-Dichloropropa	20.0	0.000	*	70-130
69	2-Hexanone	20.0	0.000	*	70-130
70	Ethylbenzene	20.0	208	1040.66*	70-130
72	Chlorobenzene	20.0	215	1074.22*	70-130
73	1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74	m&p-Xylene	40.0	410	1025.13*	50-150
75	o-Xylene	20.0	199	995.85*	70-130
76	Styrene	20.0	0.000	*	70-130
77	Bromoform	20.0	0.000	*	70-130
80	n-Propylbenzene	20.0	0.000	*	70-130
81	Bromobenzene	20.0	0.000	*	70-130
82	1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83	1,3,5-Trimethylbe	20.0	0.000	*	70-130
84	2-Chlorotoluene	20.0	0.000	*	70-130
85	1,2,3-Trichloropr	20.0	0.000	*	70-130
86	trans-1,4-Dichlor	20.0	0.000	*	50-150
87	Cyclohexanone	50.0	0.000	*	70-130
88	4-Chlorotoluene	20.0	0.000	*	70-130
90	1,2,4-Trimethylbe	20.0	0.000	*	70-130
92	p-Isopropyltoluene	20.0	0.000	*	50-150
93	1,3-Dichlorobenze	20.0	0.000	*	70-130
95	1,4-Dichlorobenzen	20.0	212	1058.50*	70-130
97	1,2-Dichlorobenze	20.0	0.000	*	70-130
98	1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100	Hexachloro-1,3-bu	20.0	0.000	*	50-150
101	1,2,4-Trichlorobe	20.0	0.000	*	70-130
102	Naphthalene	20.0	0.000	*	70-130
103	1,2,3-Trichlorobe	20.0	0.000	*	70-130

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	31.6	105.43	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	29.2	97.18	0-138
$ 58 Toluene-d8 (S)	30.0	29.0	96.56	0-124
$ 79 4-Bromofluorobenze	30.0	30.0	100.08	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Report Date: 14-Jun-2019 09:35

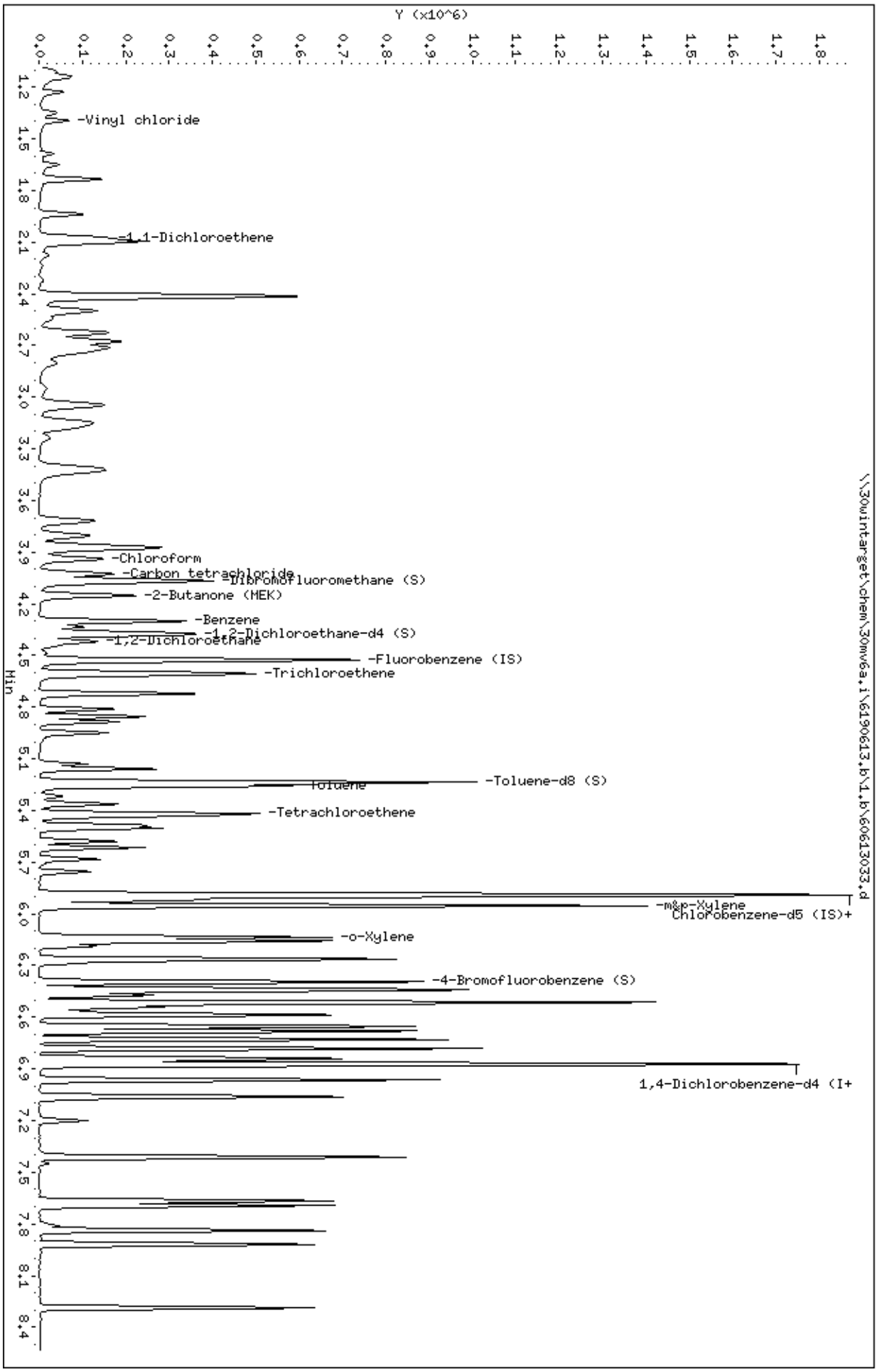
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1687220
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883

Client SDG: 1.b
Client Smp ID: AOC34-1MS
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	147	
75-35-4	1,1-Dichloroethene	162	
67-66-3	Chloroform	192	
56-23-5	Carbon Tetrachloride	165	
78-93-3	2-Butanone (MEK)	160	
71-43-2	Benzene	175	
107-06-2	1,2-Dichloroethane	182	
79-01-6	Trichloroethene	193	
108-88-3	Toluene	196	
127-18-4	Tetrachloroethene	220	
108-90-7	Chlorobenzene	215	
100-41-4	Ethylbenzene	208	
7816-60-0	m&p-Xylene	410	
95-47-6	o-Xylene	199	
106-46-7	1,4-Dichlorobenzene	212	
1868-53-7	Dibromofluoromethane (S)	31.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.2	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	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Date : 13-JUN-2019 15:40
Client ID: 40C34-1MS
Sample Info: 1687220x10
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d
Y (x10^6)
Min
-Vinyl chloride
-1,1-Dichloroethene
-Chloroform
-Carbon tetrachloride
-Dibromofluoromethane (S)
-2-Butanone (MEK)
-Benzene
-1,2-Dichloroethane-d4 (S)
-1,2-Dichloroethane
-Fluorobenzene (IS)
-Trichloroethene
-Toluene-d8 (S)
Toluene
-Tetrachloroethene
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-4-Bromofluorobenzene (S)
1,4-Dichlorobenzene-d4 (I+

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d

Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

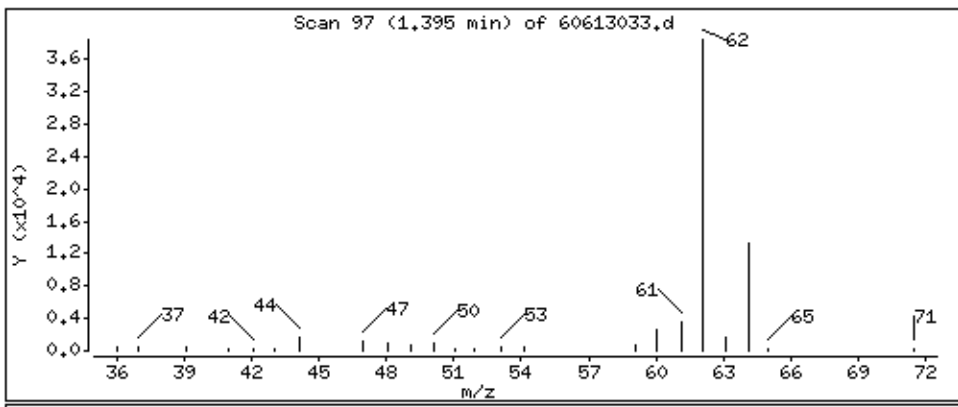
Operator: JEW

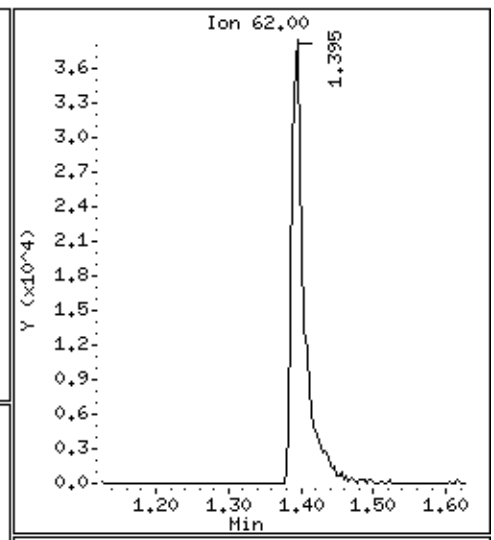
Column phase: RTX-VMS

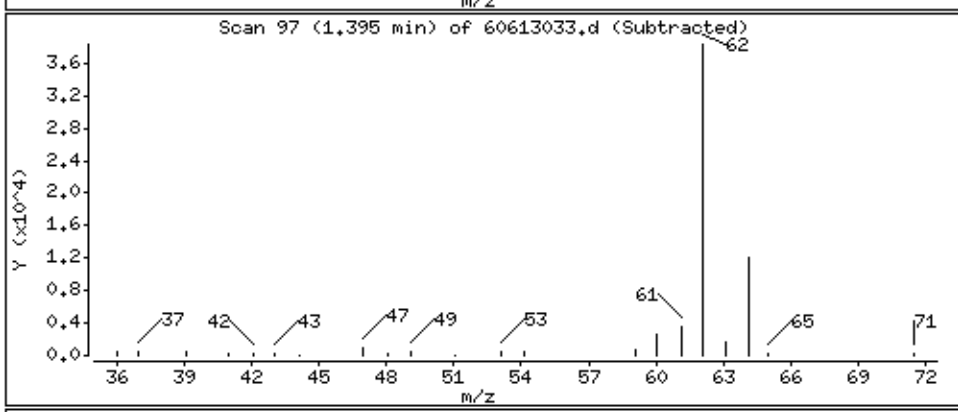
Column diameter: 0.18

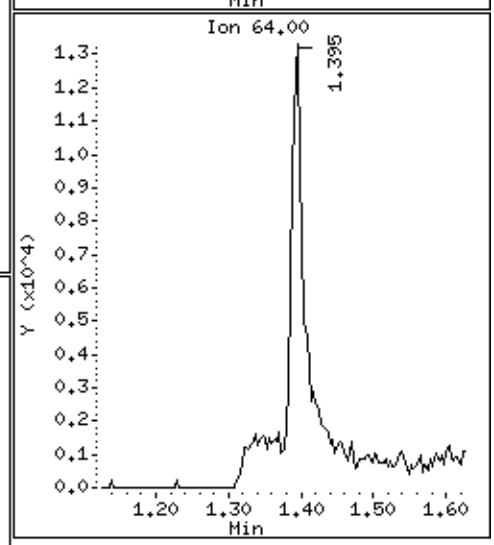
3 Vinyl Chloride

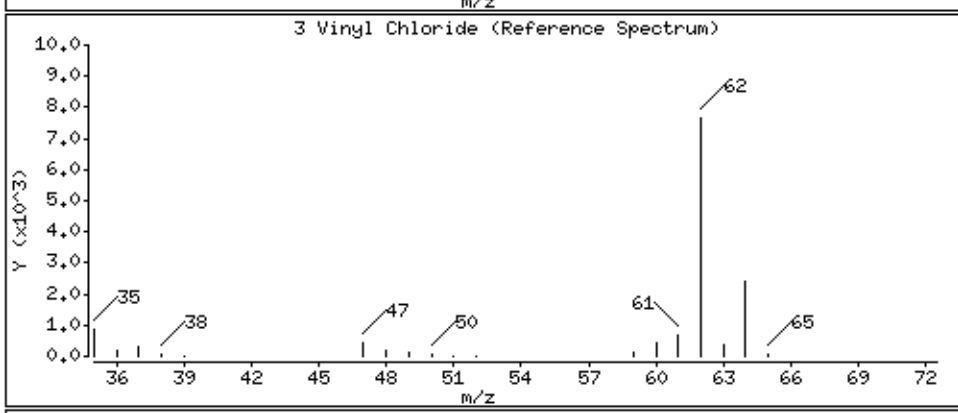
Concentration: 147 ug/kg

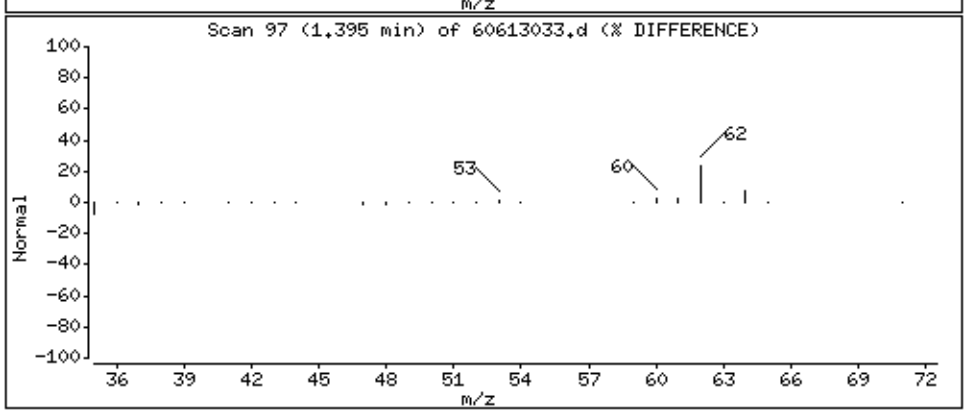












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

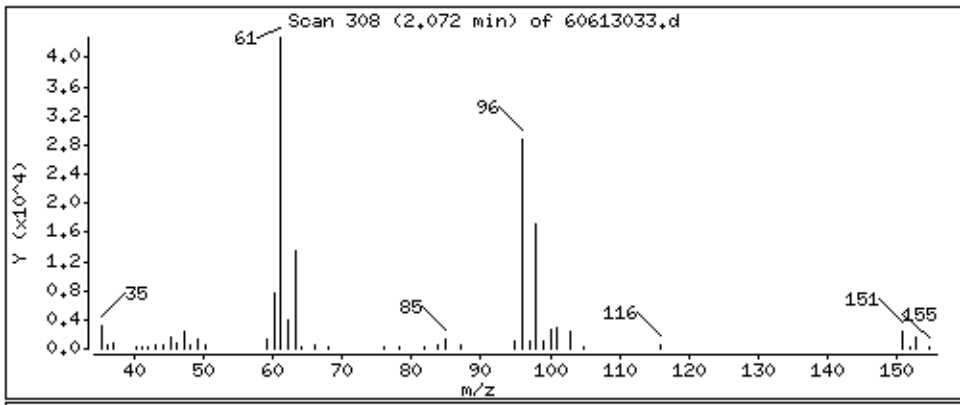
Operator: JEW

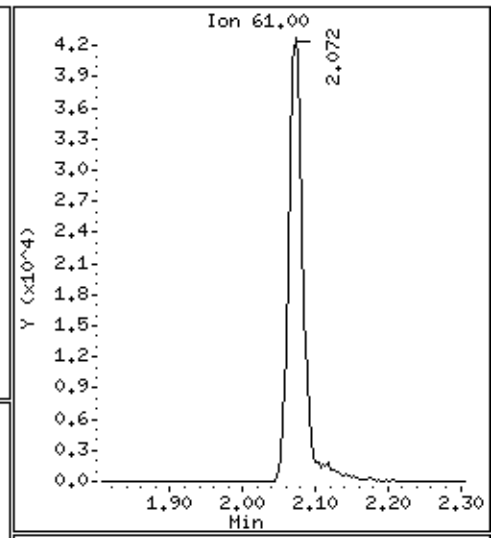
Column phase: RTX-VMS

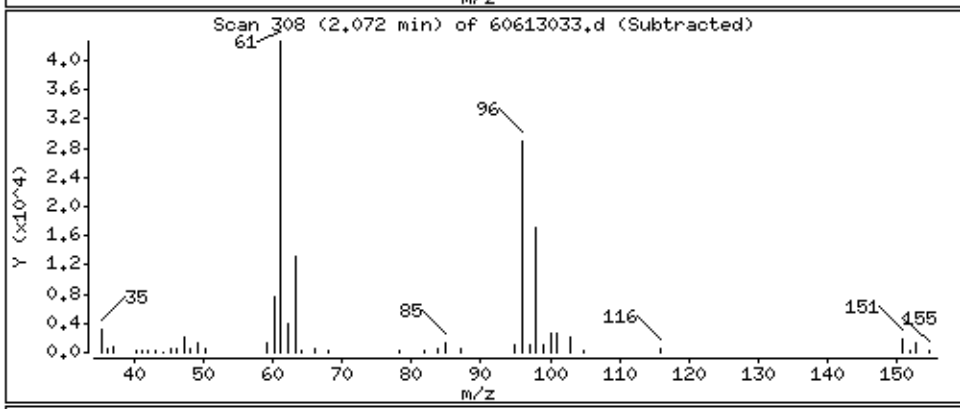
Column diameter: 0.18

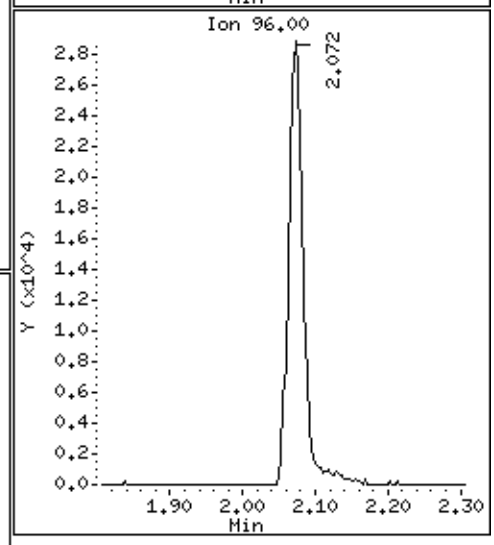
9 1,1-Dichloroethene

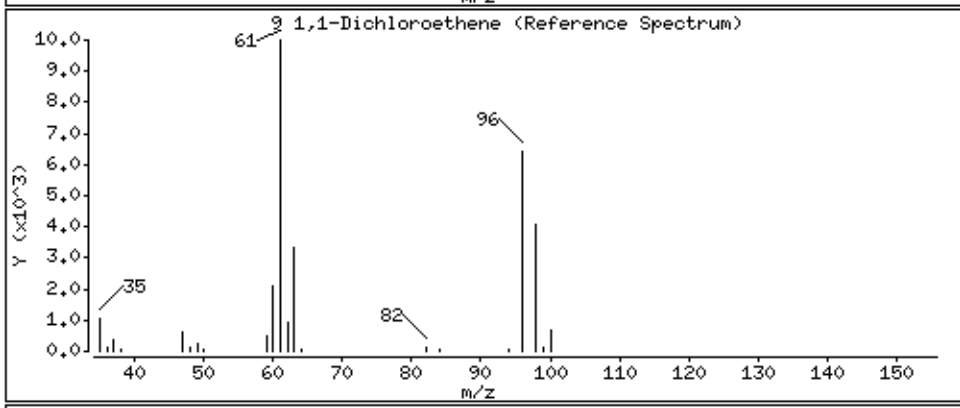
Concentration: 162 ug/kg

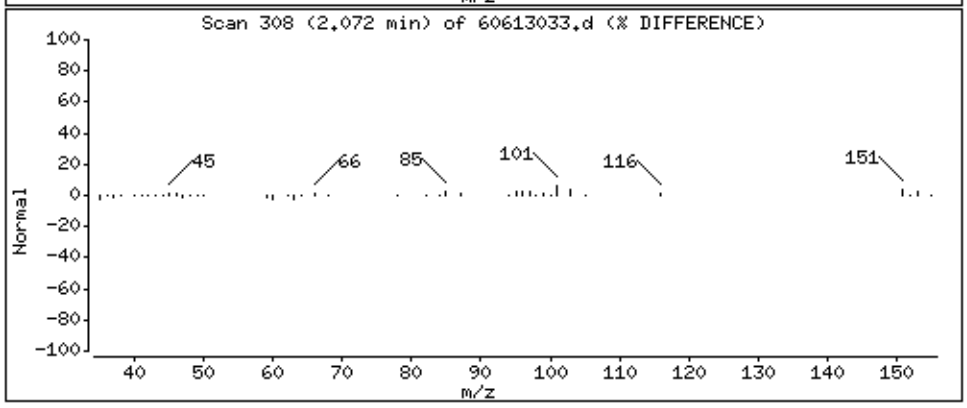












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

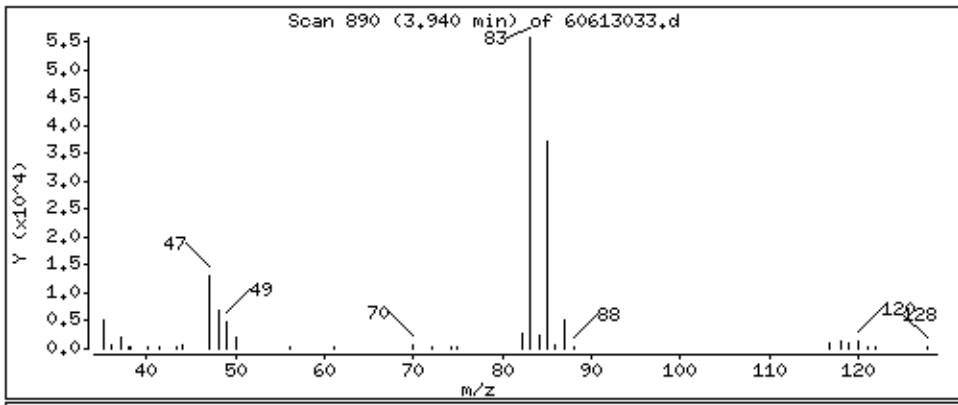
Operator: JEW

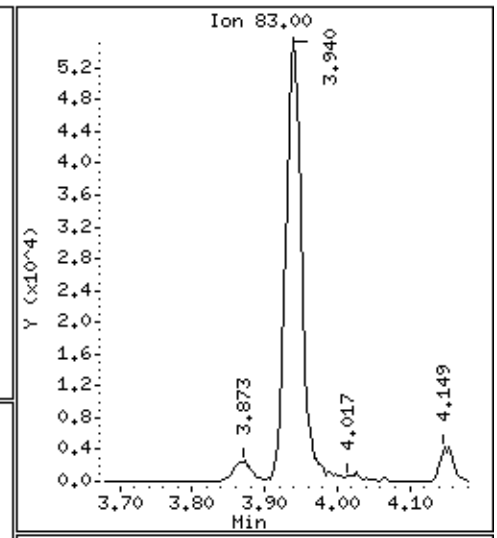
Column phase: RTX-VMS

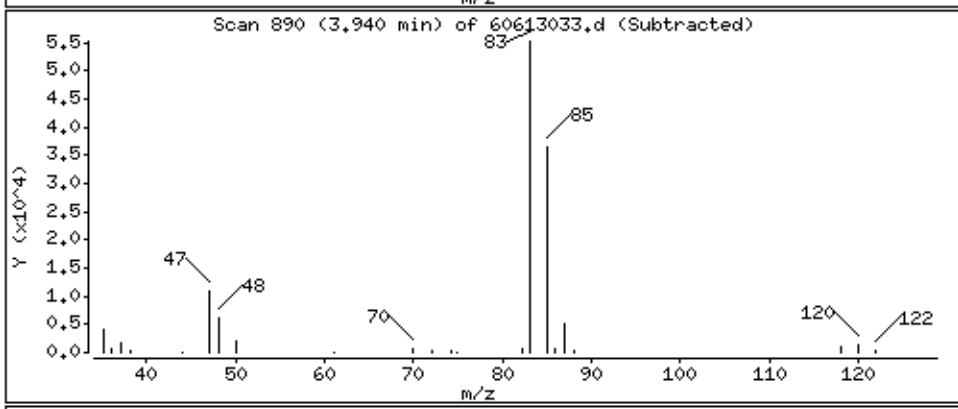
Column diameter: 0.18

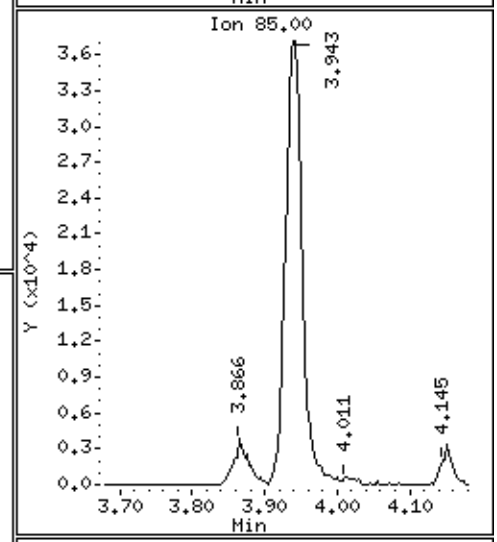
33 Chloroform

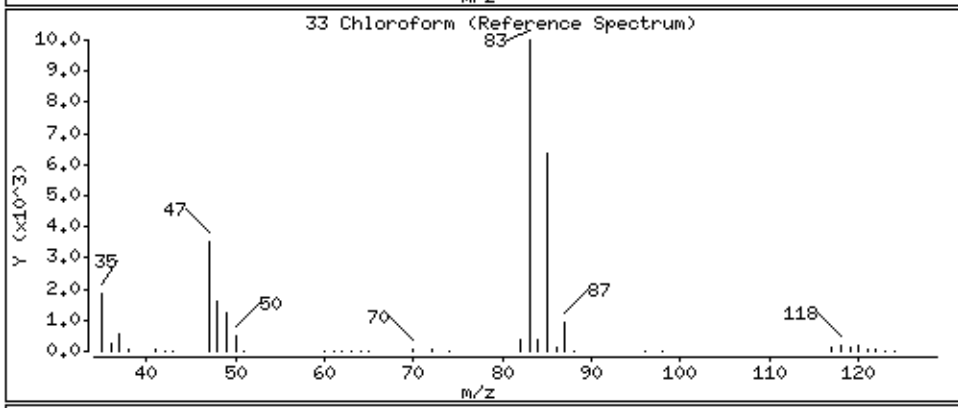
Concentration: 192 ug/kg

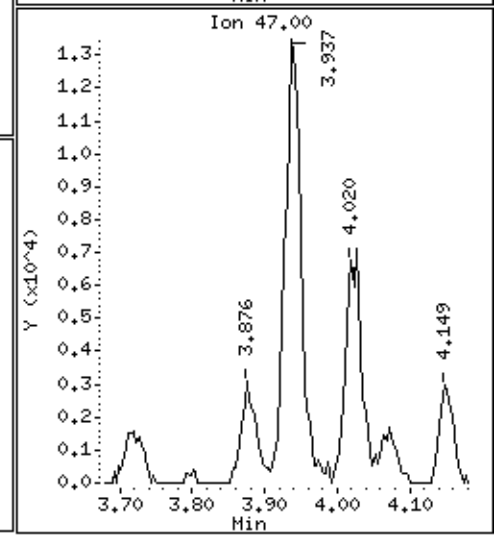


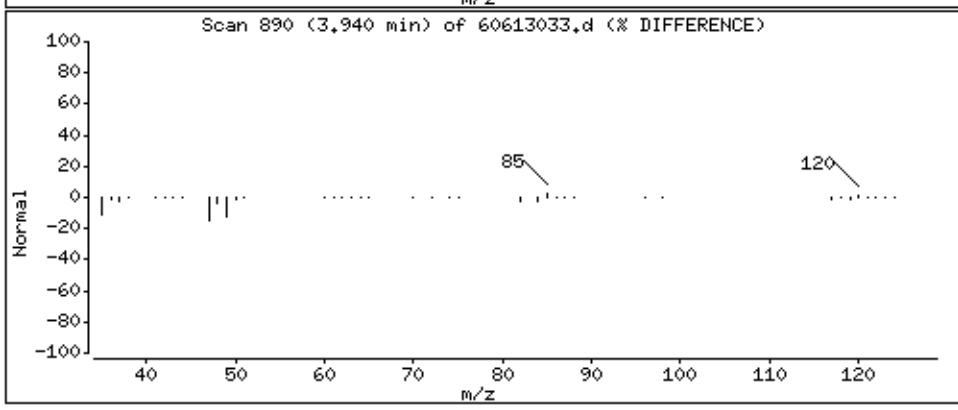












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Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

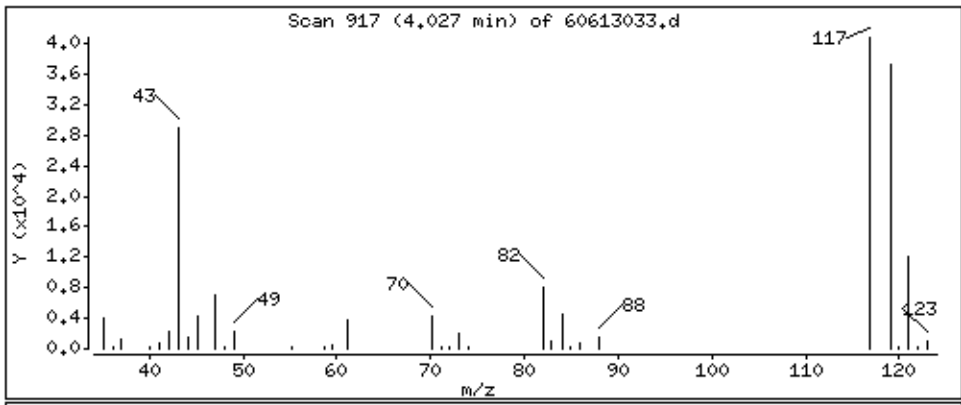
Operator: JEW

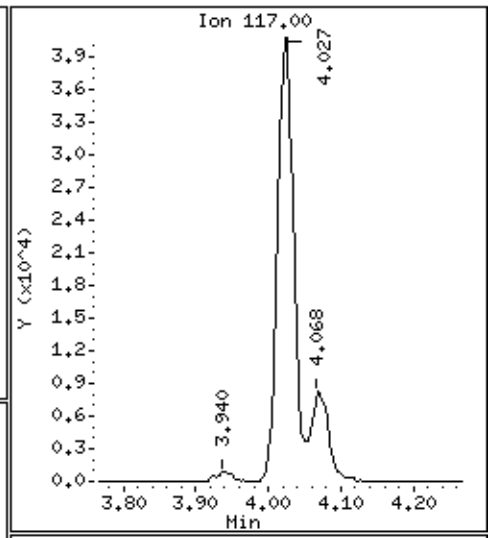
Column phase: RTX-VMS

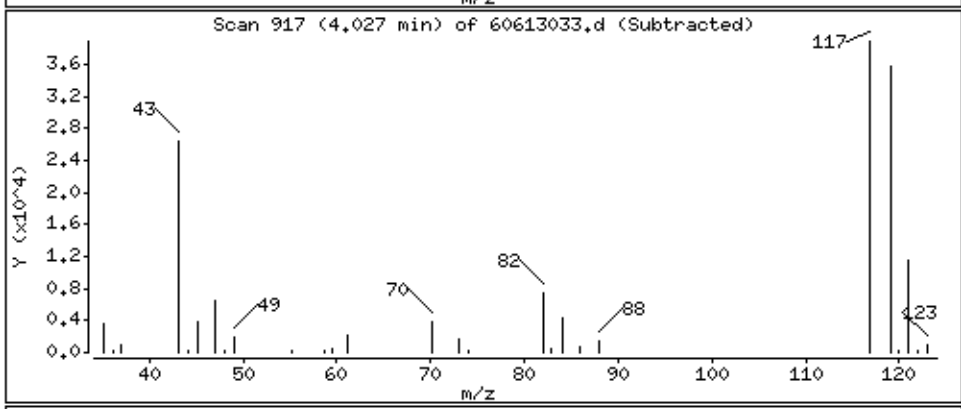
Column diameter: 0.18

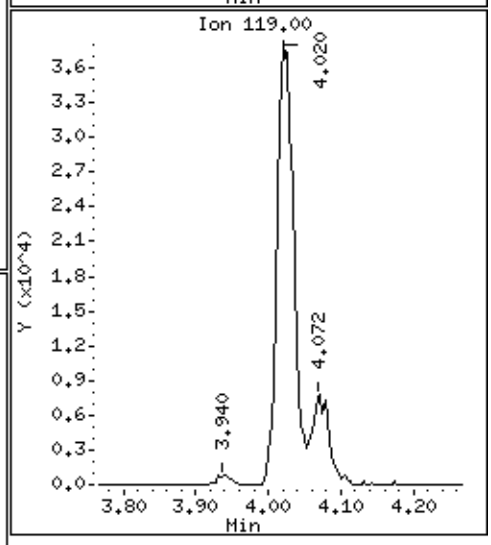
34 Carbon Tetrachloride

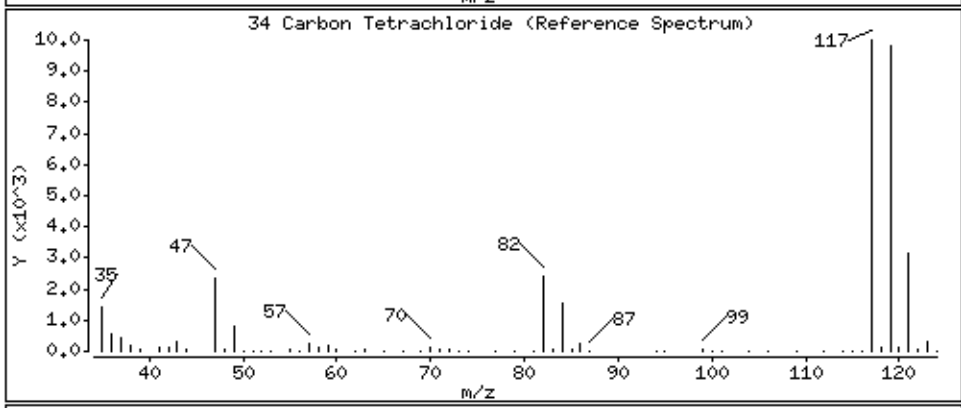
Concentration: 165 ug/kg

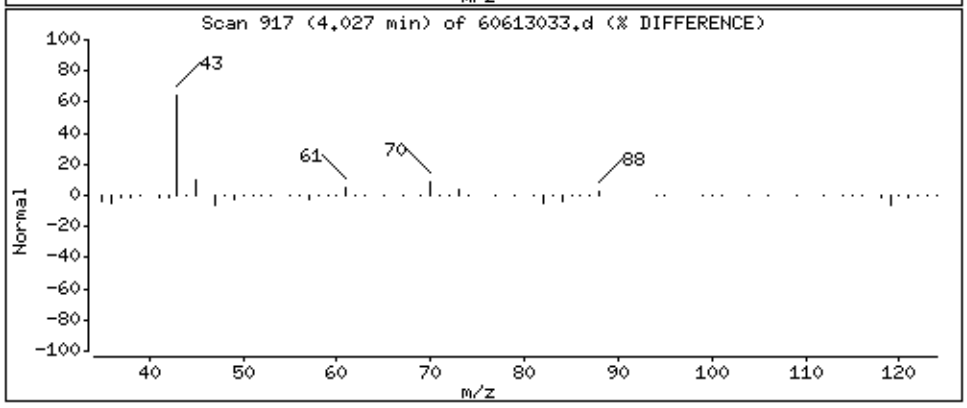












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d

Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

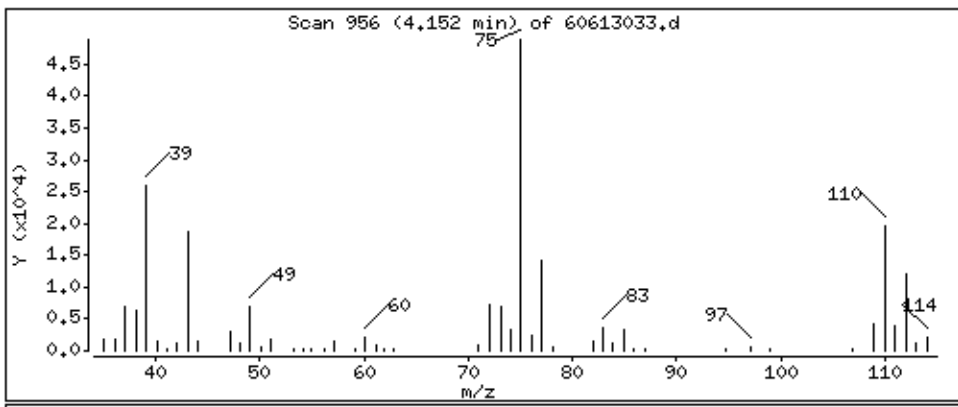
Operator: JEW

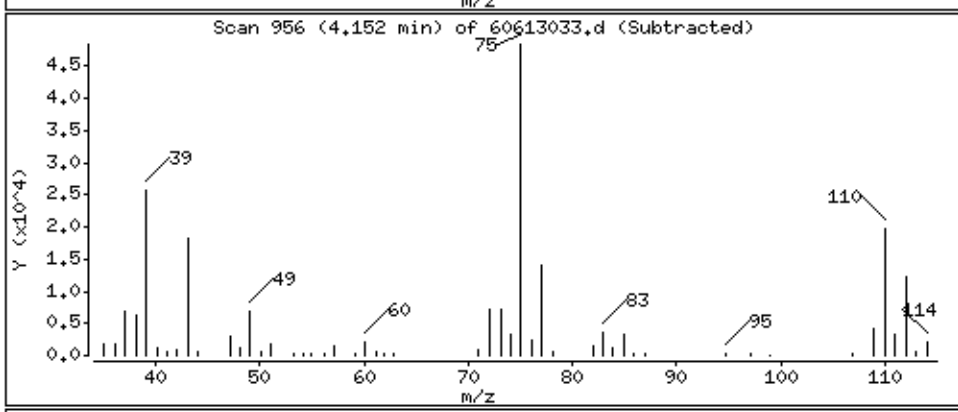
Column phase: RTX-VMS

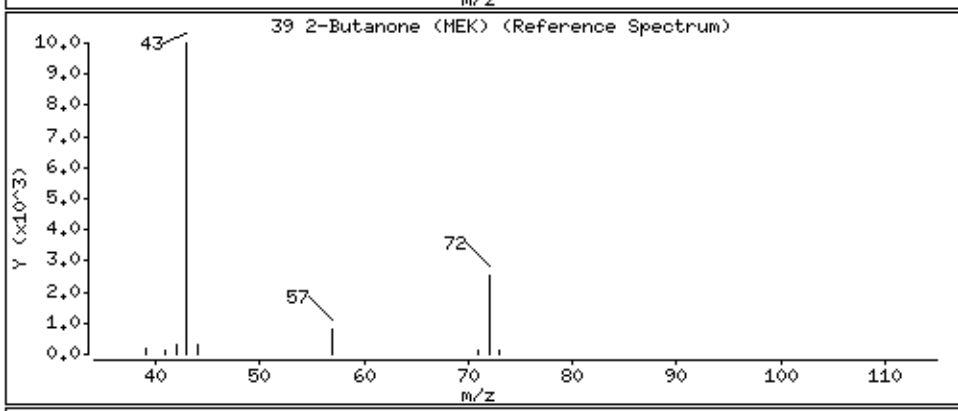
Column diameter: 0.18

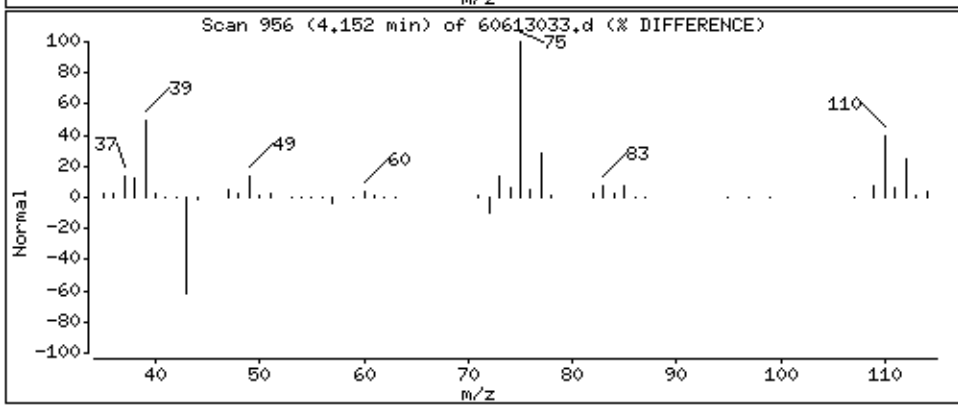
39 2-Butanone (MEK)

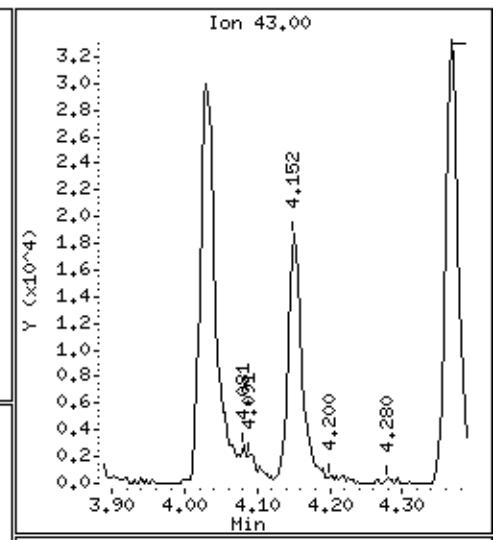
Concentration: 160 ug/kg

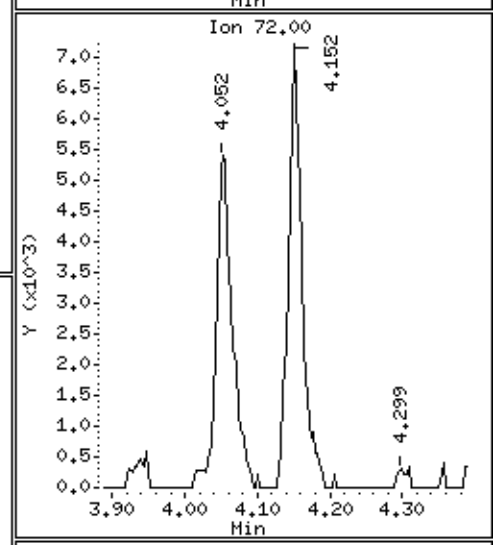


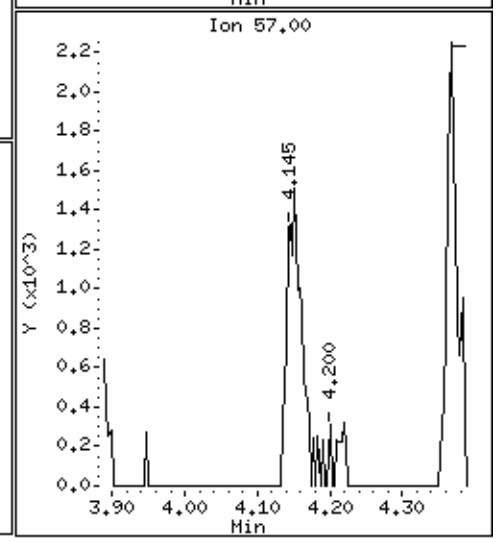












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

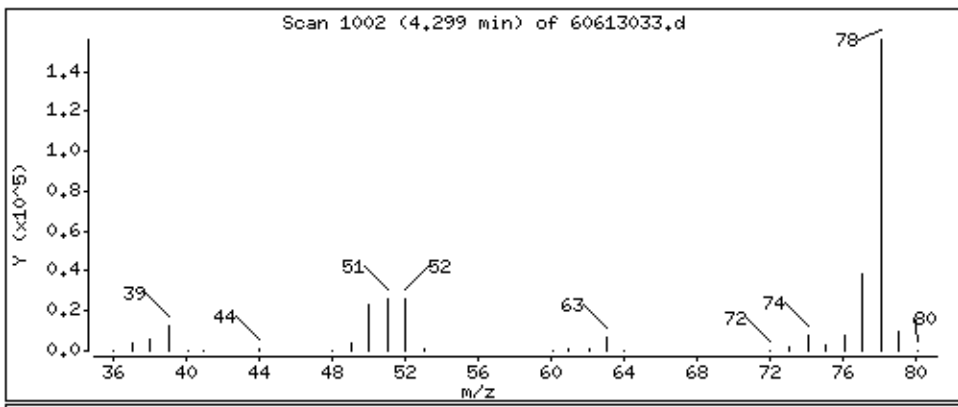
Operator: JEW

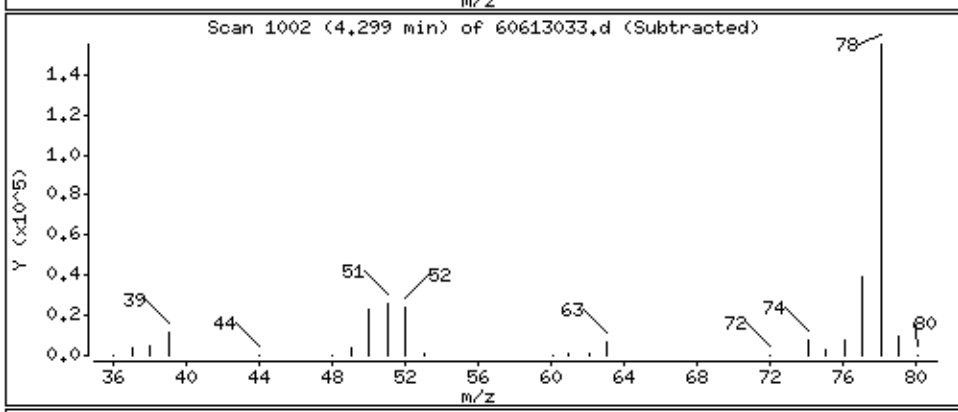
Column phase: RTX-VMS

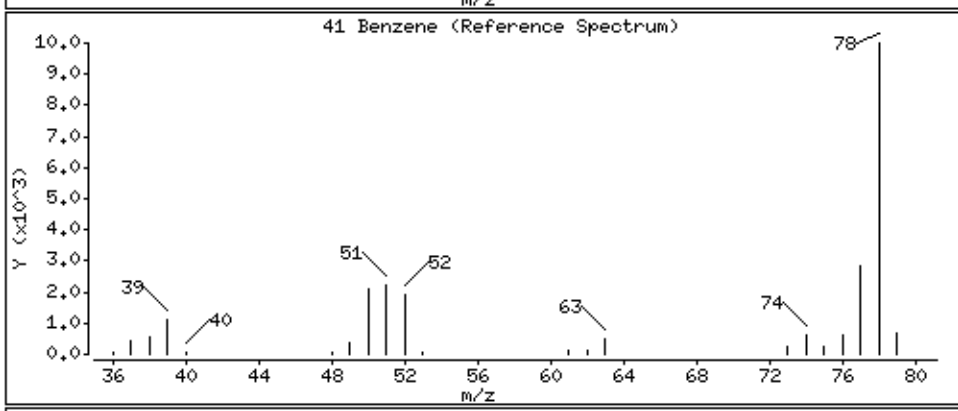
Column diameter: 0.18

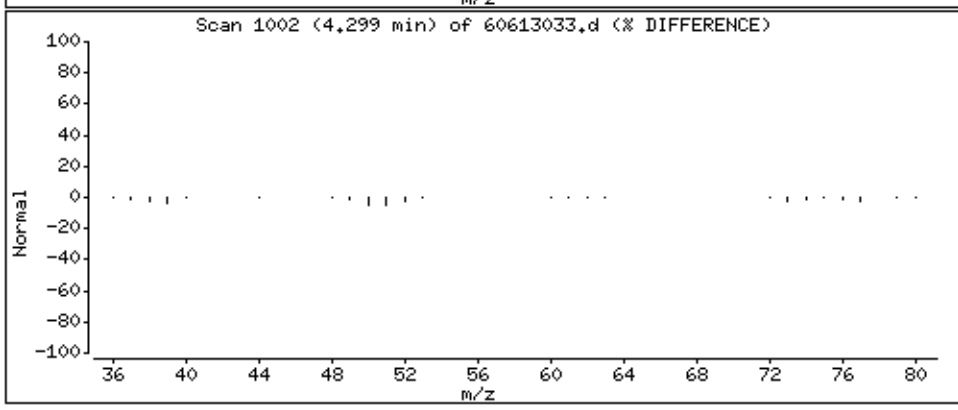
41 Benzene

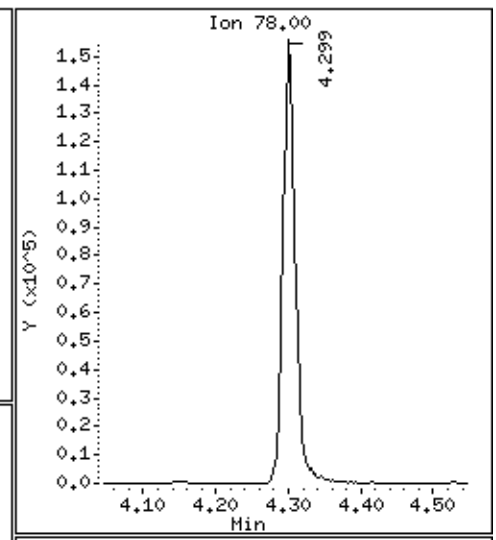
Concentration: 175 ug/kg

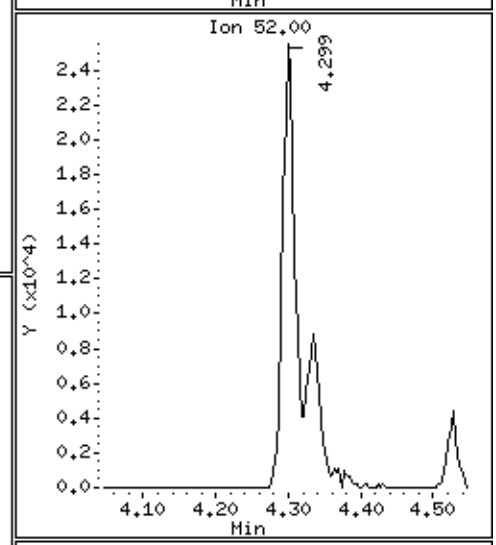


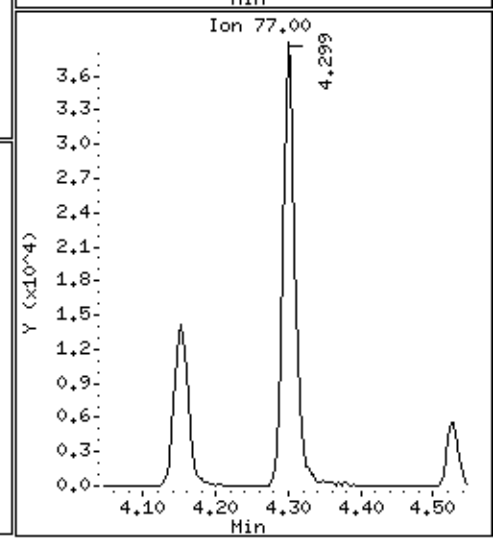












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

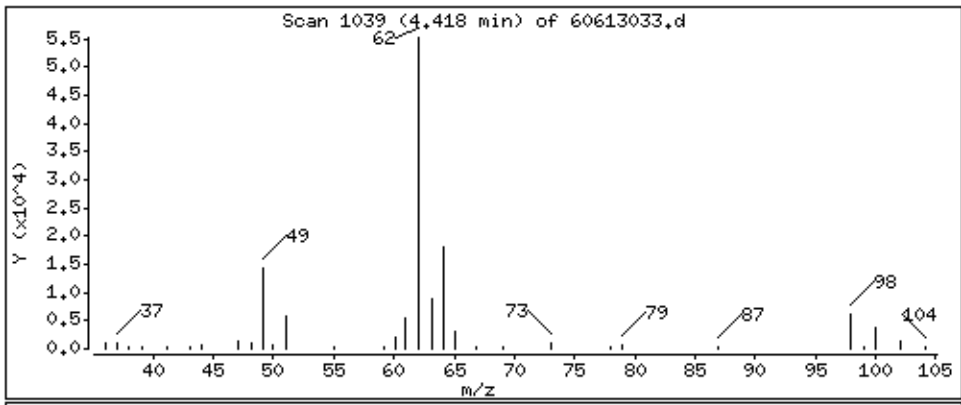
Operator: JEW

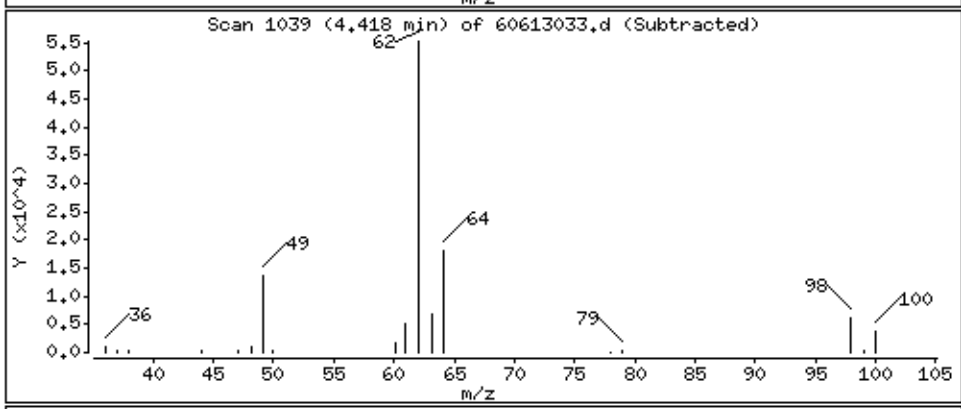
Column phase: RTX-VMS

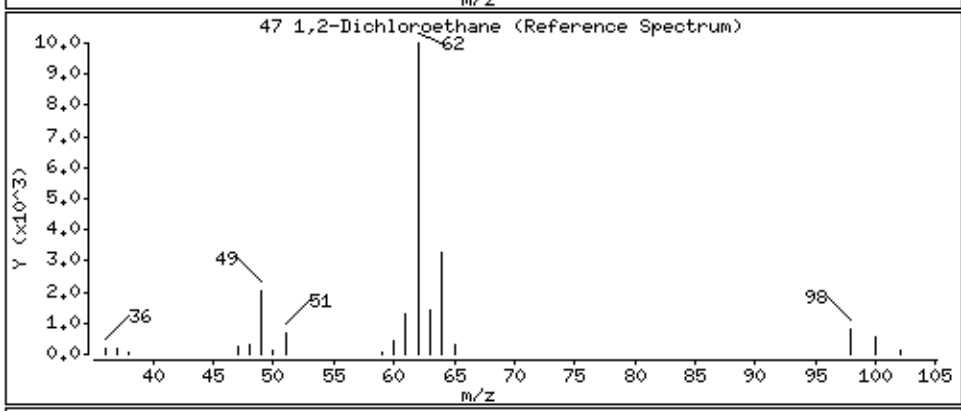
Column diameter: 0.18

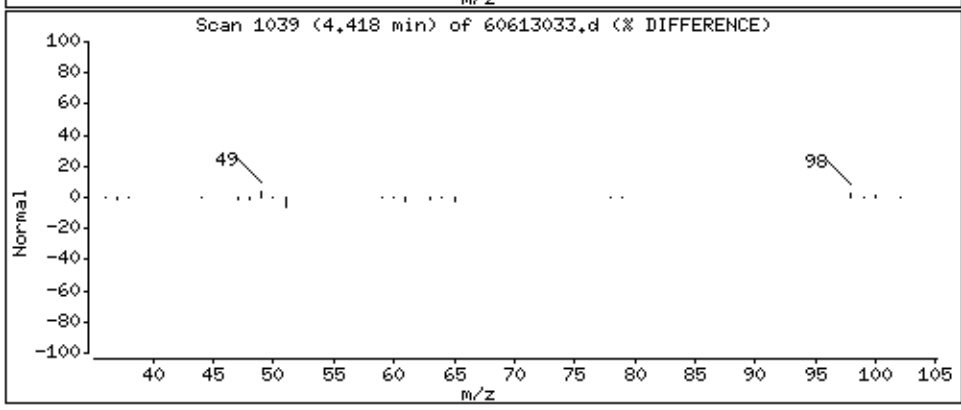
47 1,2-Dichloroethane

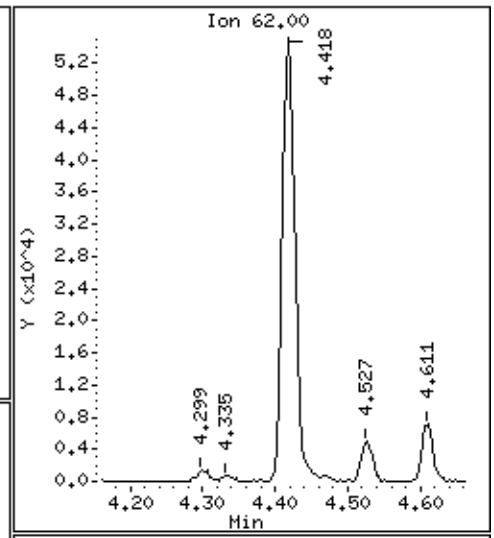
Concentration: 182 ug/kg

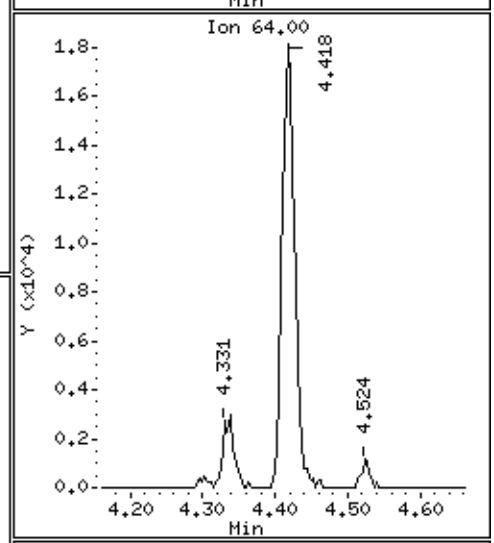


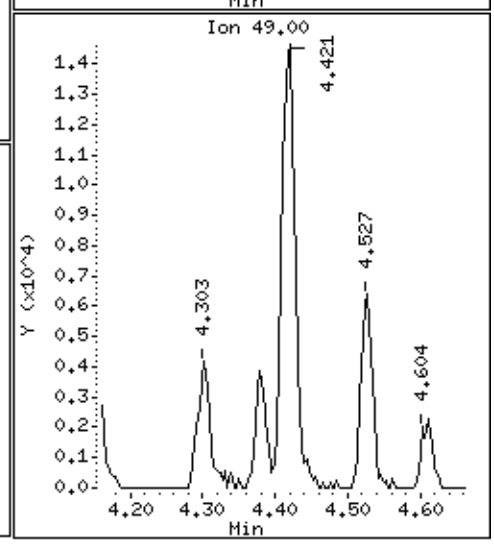












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

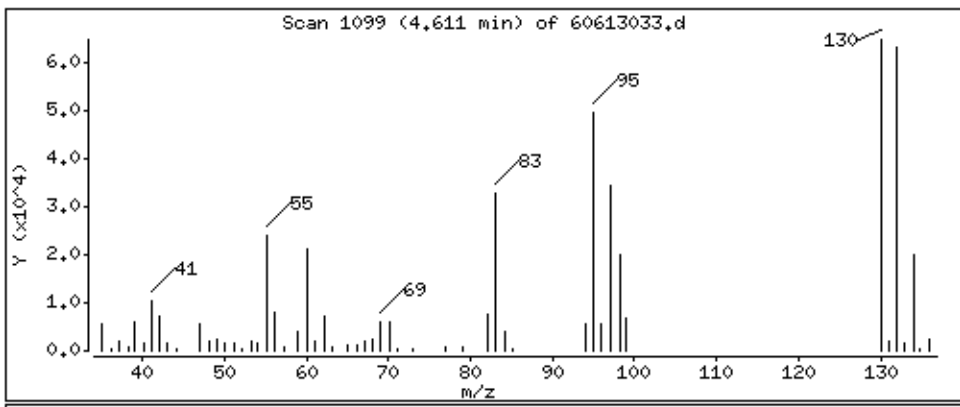
Operator: JEW

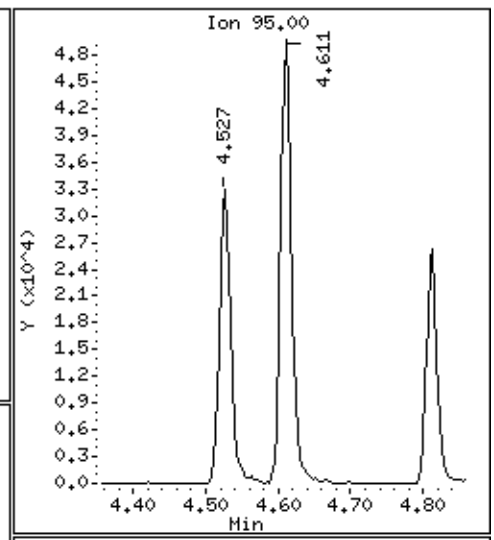
Column phase: RTX-VMS

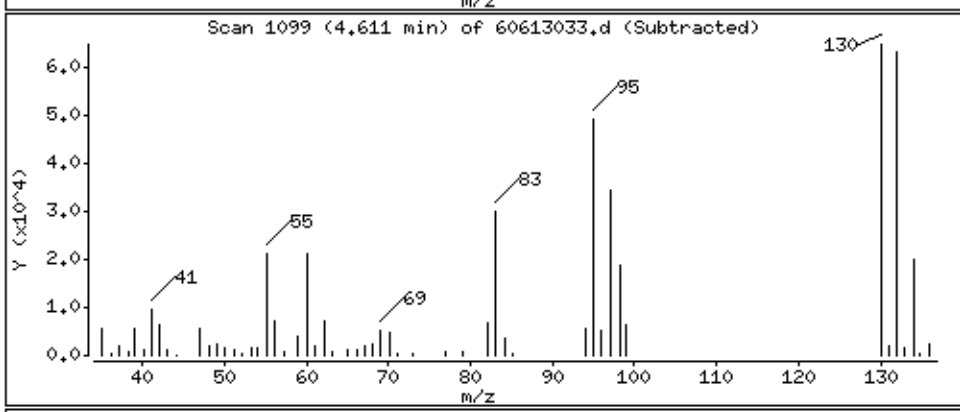
Column diameter: 0.18

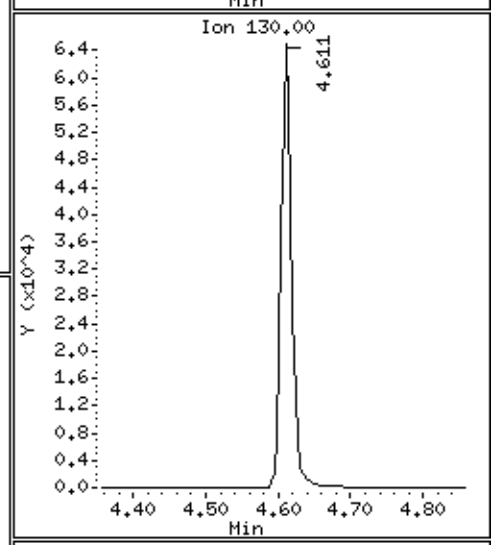
50 Trichloroethene

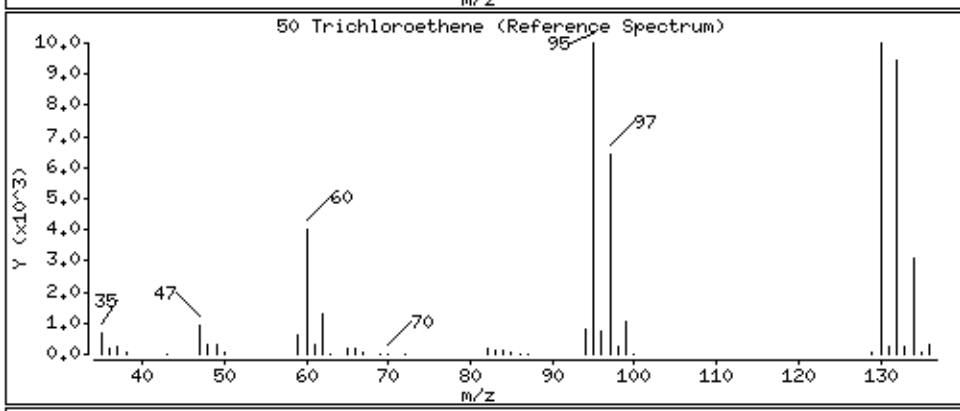
Concentration: 193 ug/kg

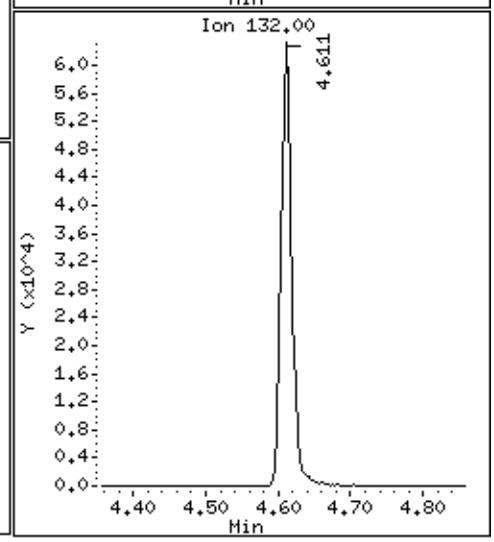


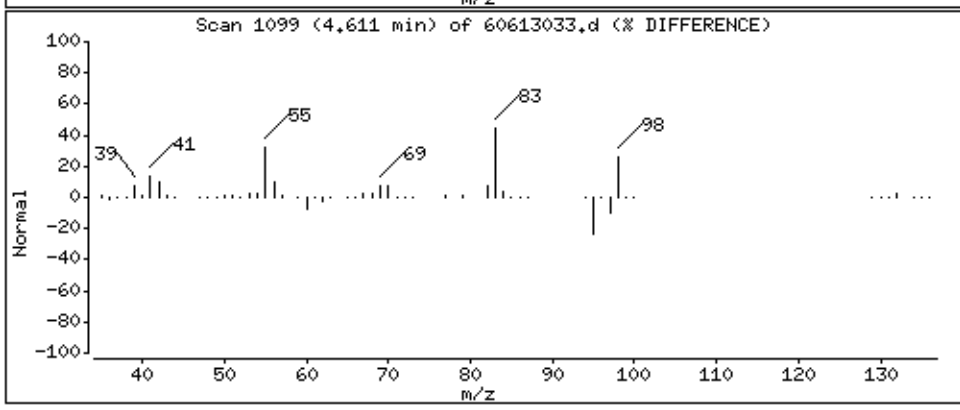












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Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

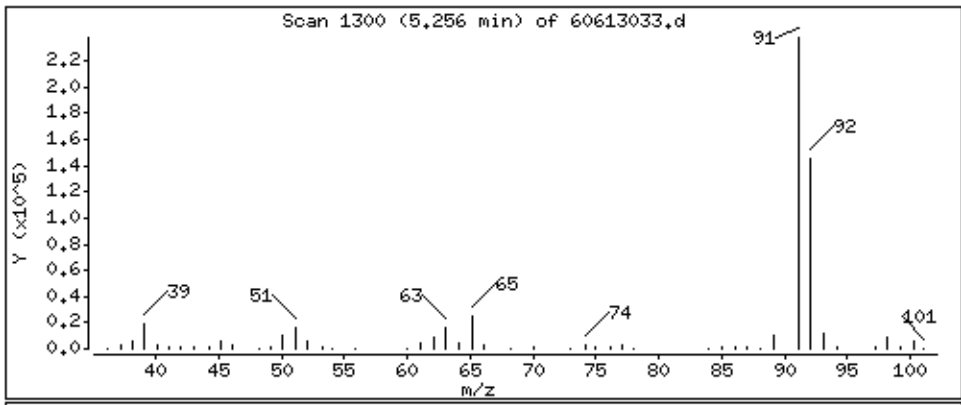
Operator: JEW

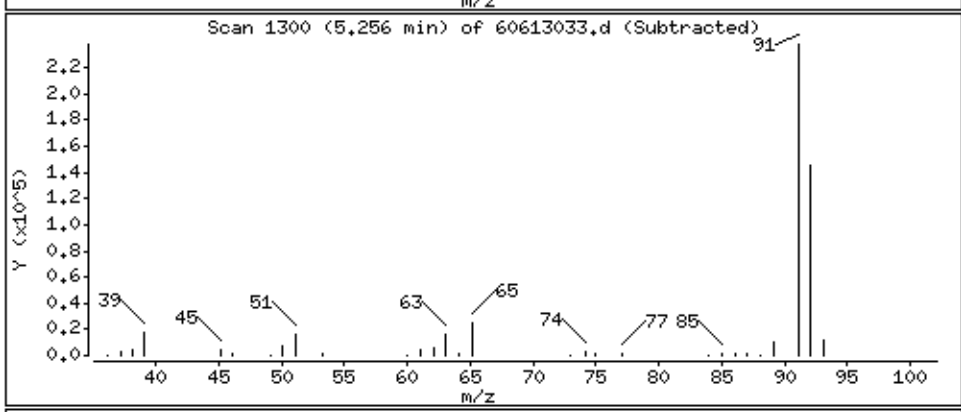
Column phase: RTX-VMS

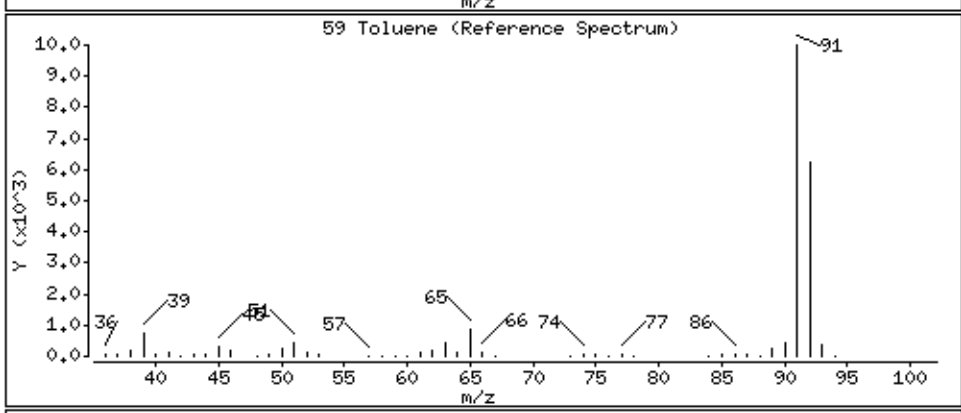
Column diameter: 0.18

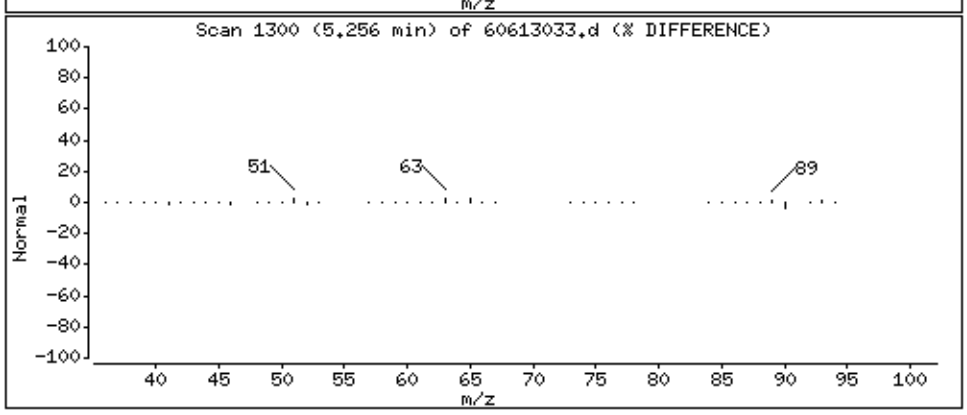
59 Toluene

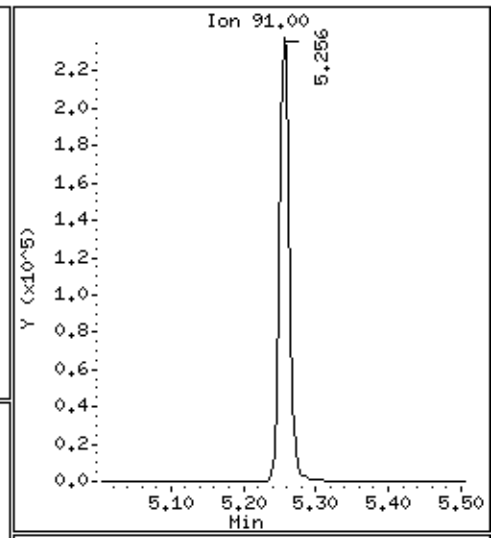
Concentration: 196 ug/kg

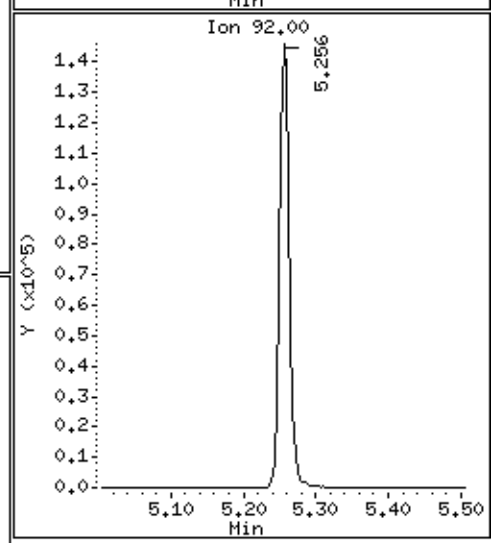












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Date : 13-JUN-2019 15:40

Client ID: AOC34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

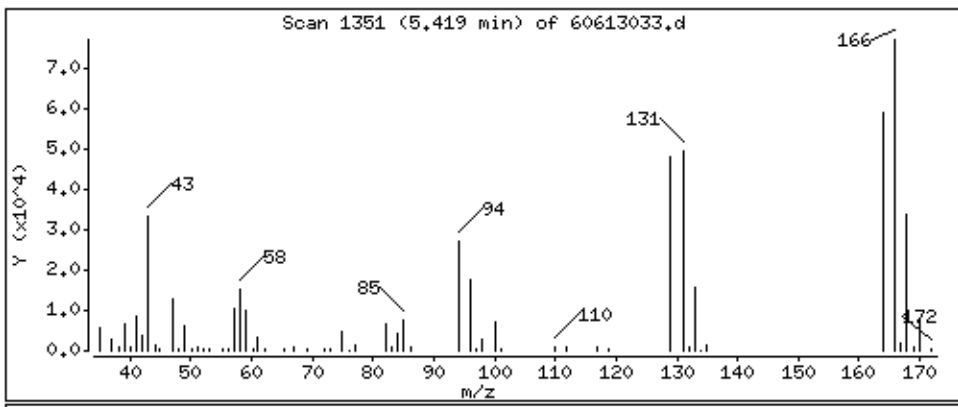
Operator: JEW

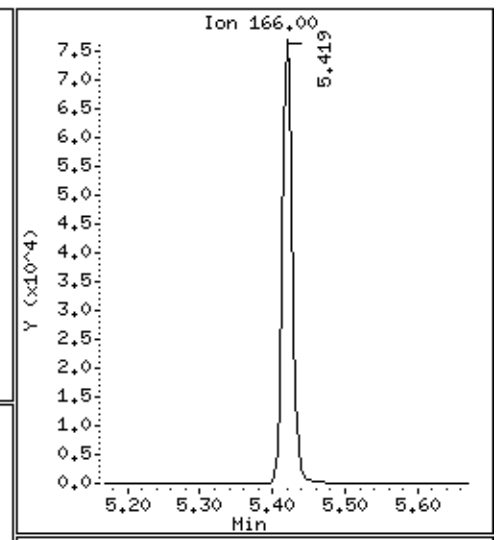
Column phase: RTX-VMS

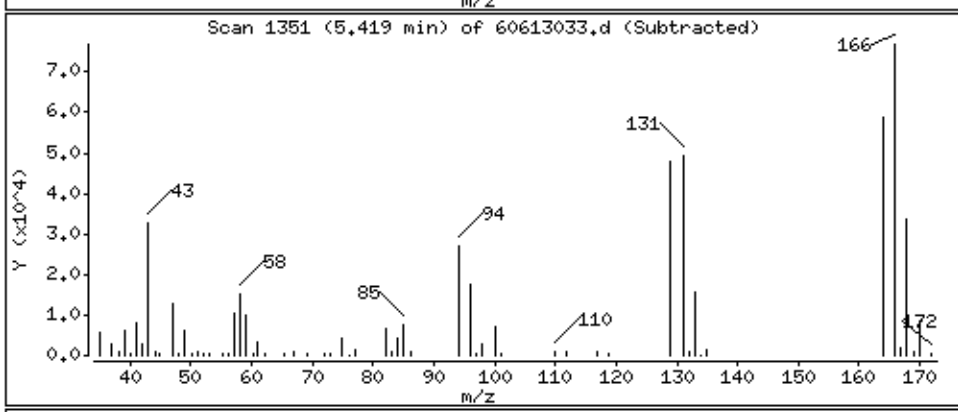
Column diameter: 0.18

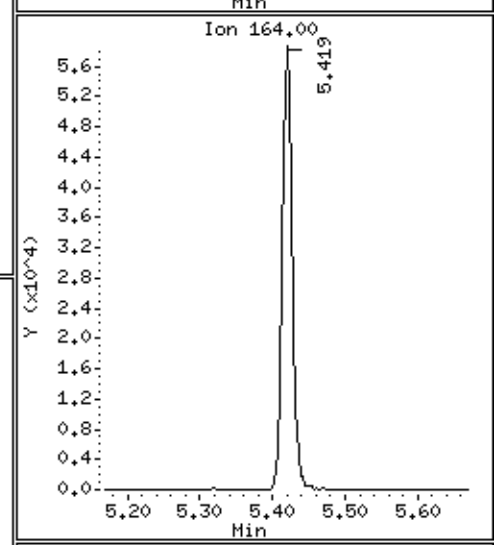
62 Tetrachloroethene

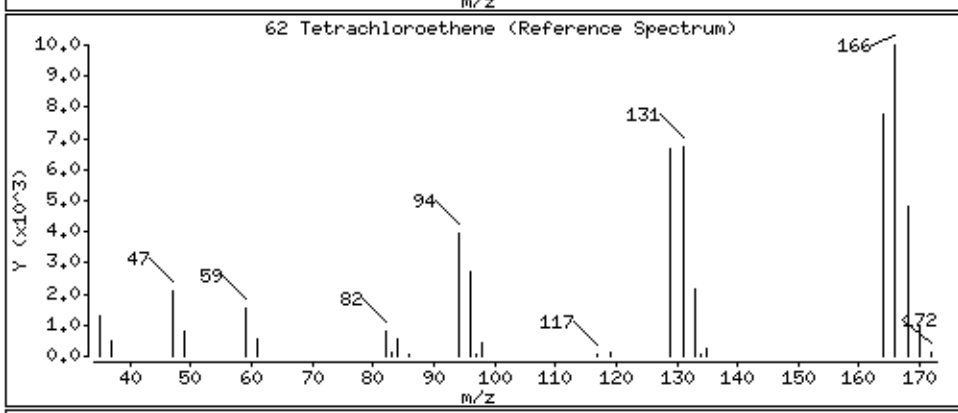
Concentration: 220 ug/kg

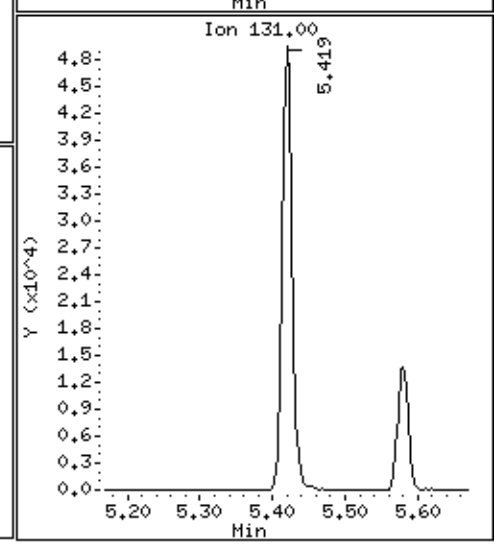


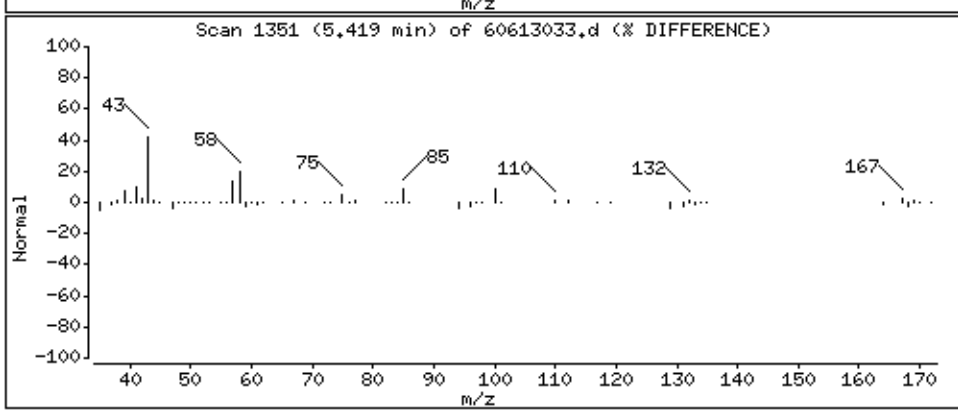












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Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

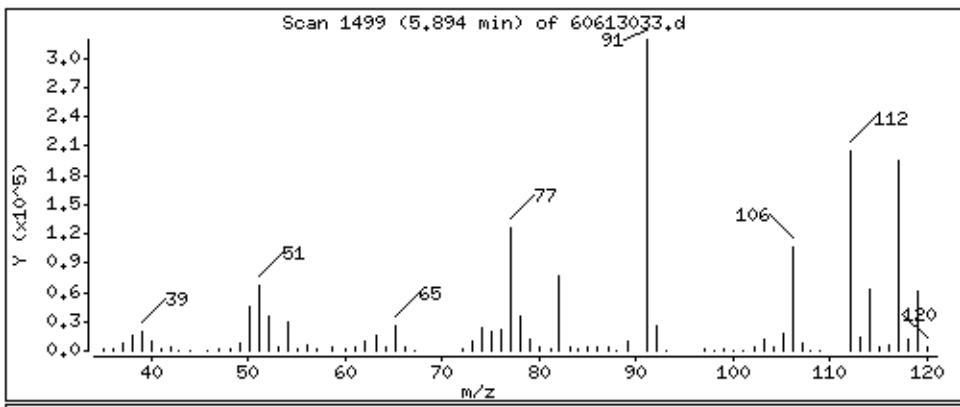
Operator: JEW

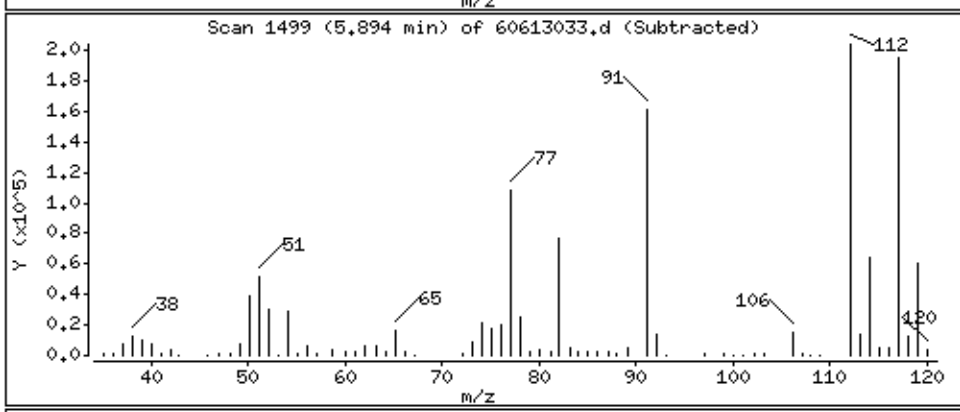
Column phase: RTX-VMS

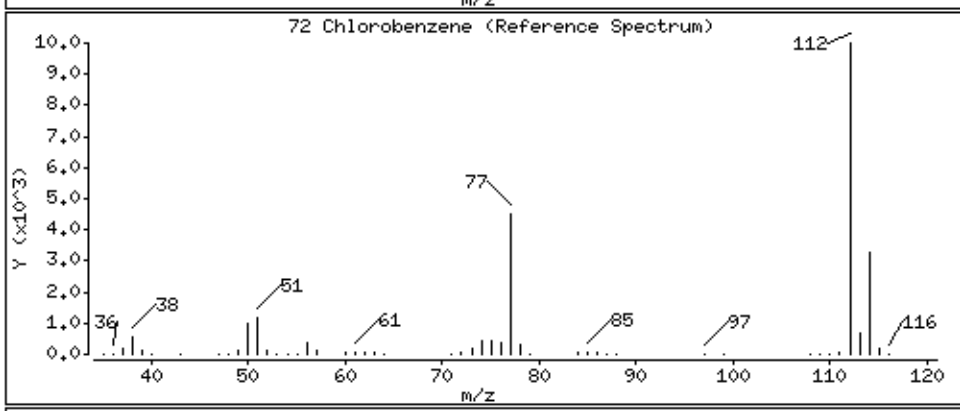
Column diameter: 0.18

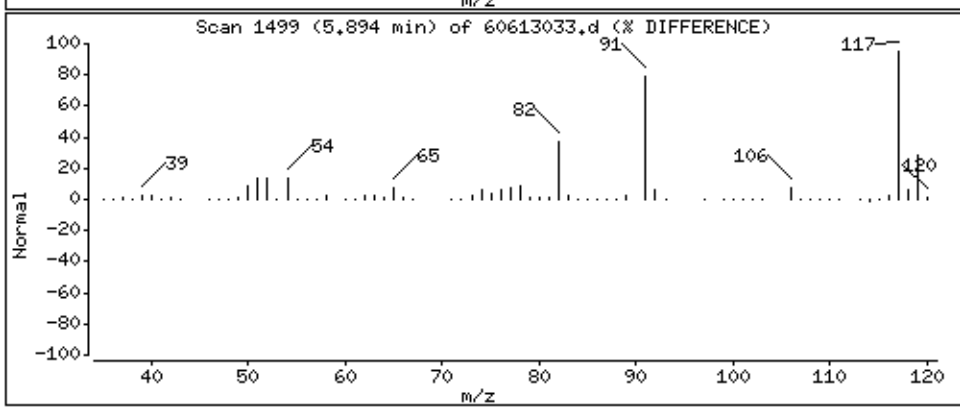
72 Chlorobenzene

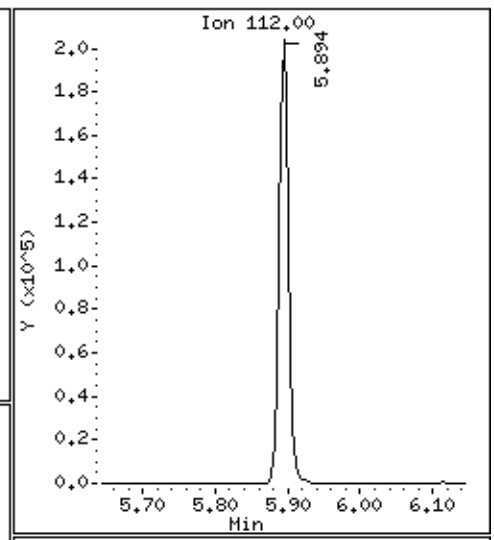
Concentration: 215 ug/kg

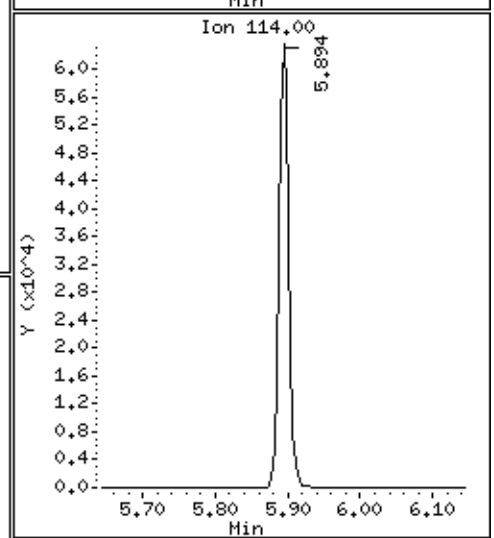


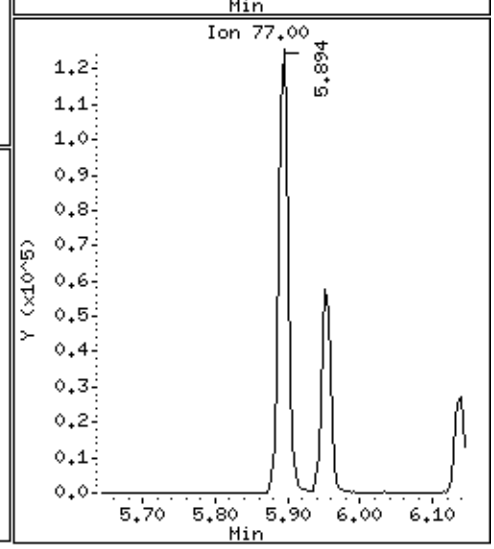












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Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

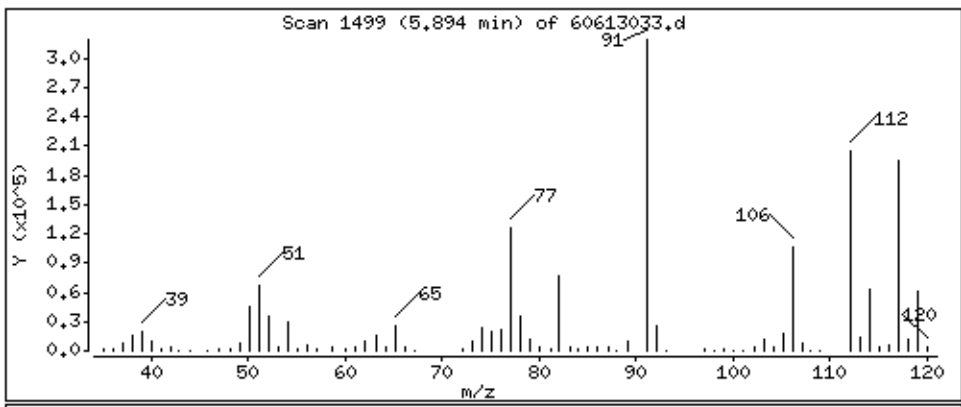
Operator: JEW

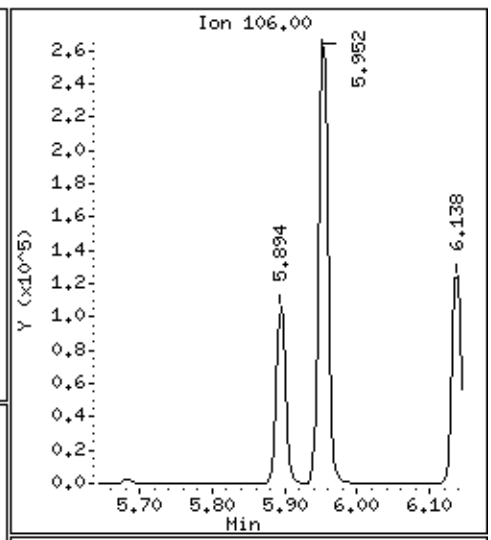
Column phase: RTX-VMS

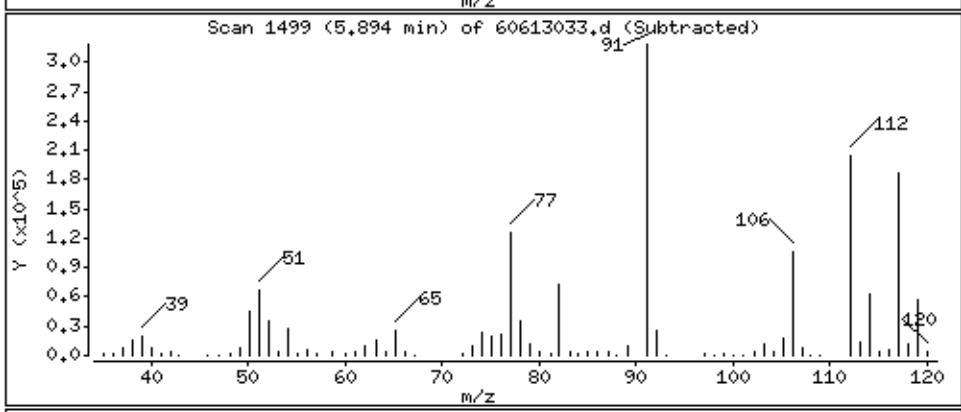
Column diameter: 0.18

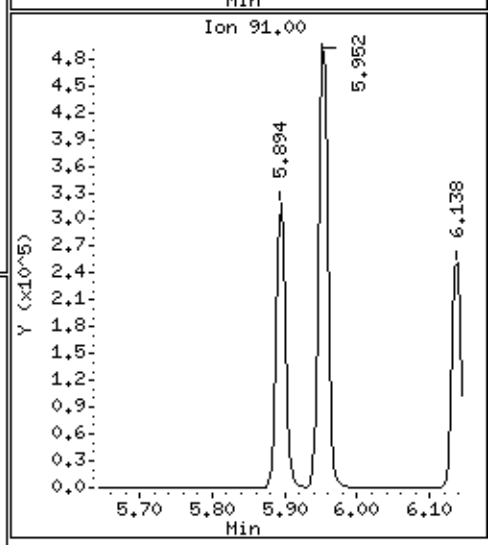
70 Ethylbenzene

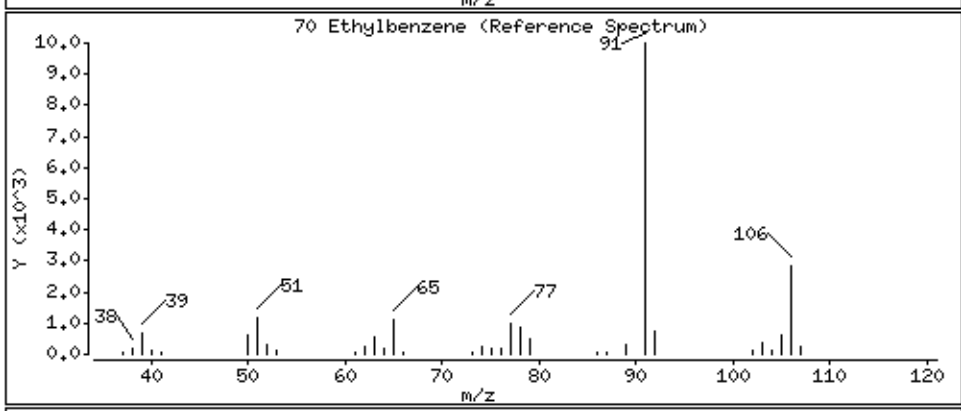
Concentration: 208 ug/kg

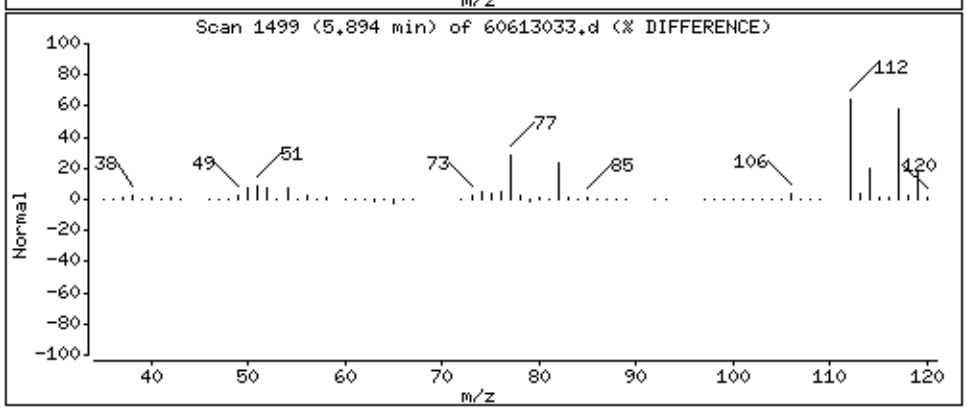












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d

Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

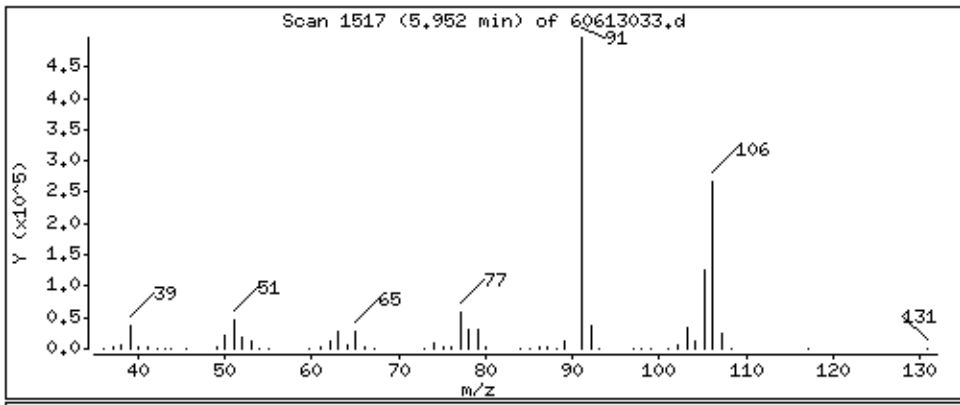
Operator: JEW

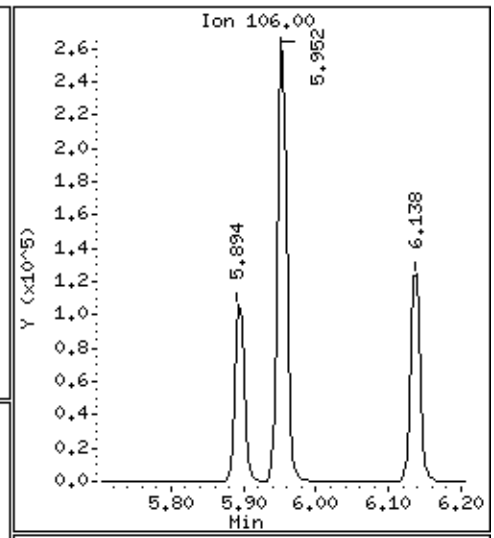
Column phase: RTX-VMS

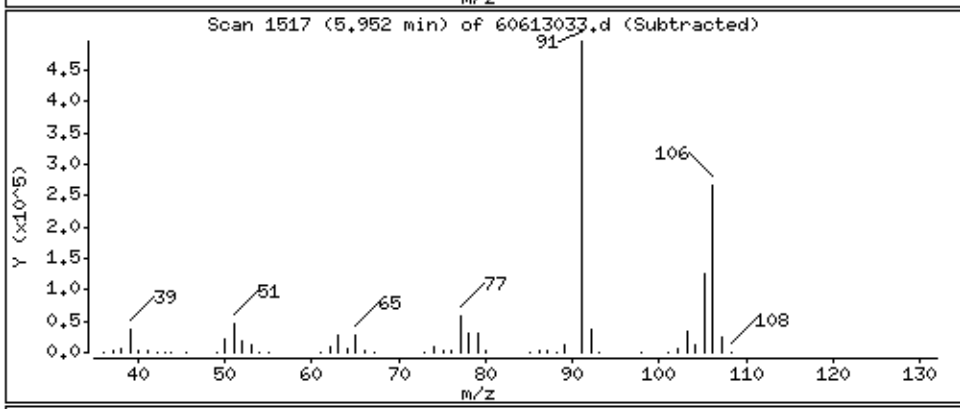
Column diameter: 0.18

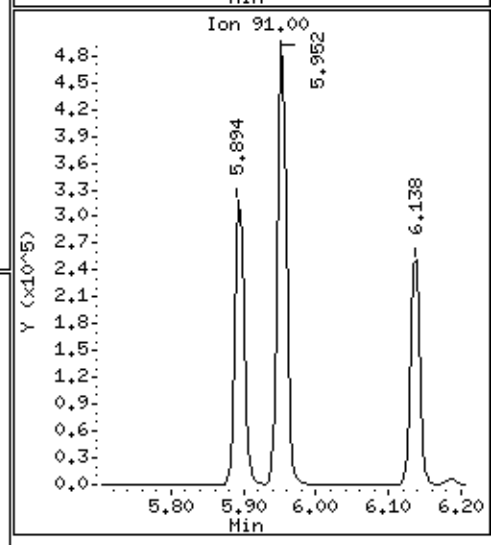
74 m&p-Xylene

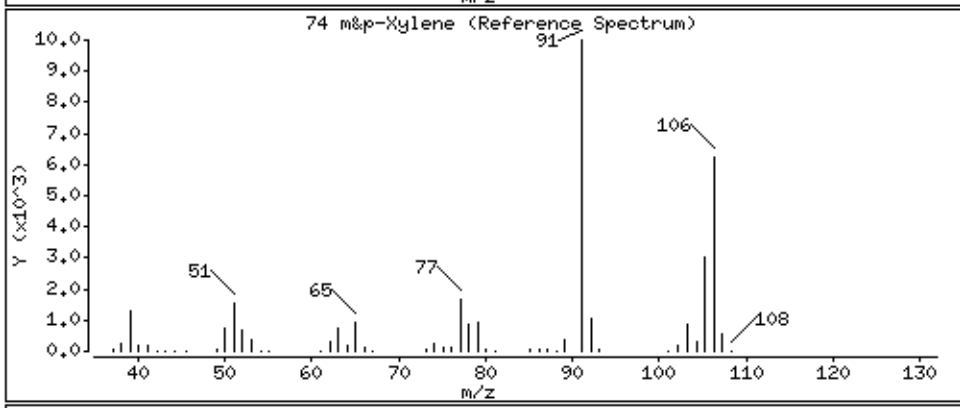
Concentration: 410 ug/kg

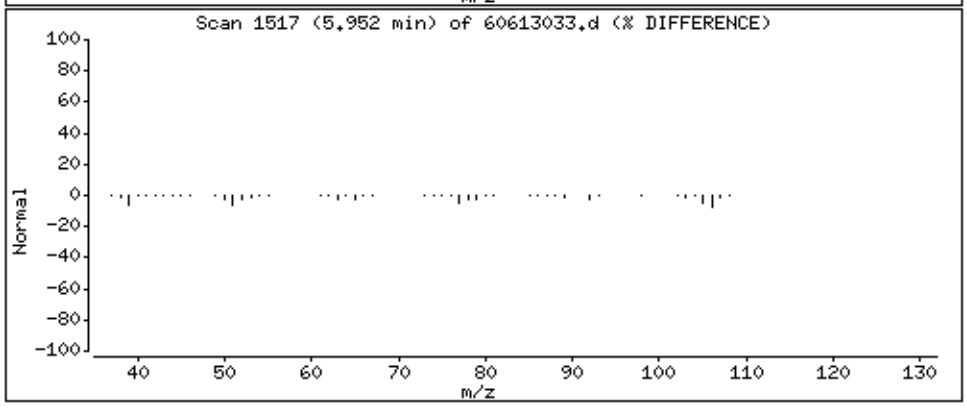












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d

Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

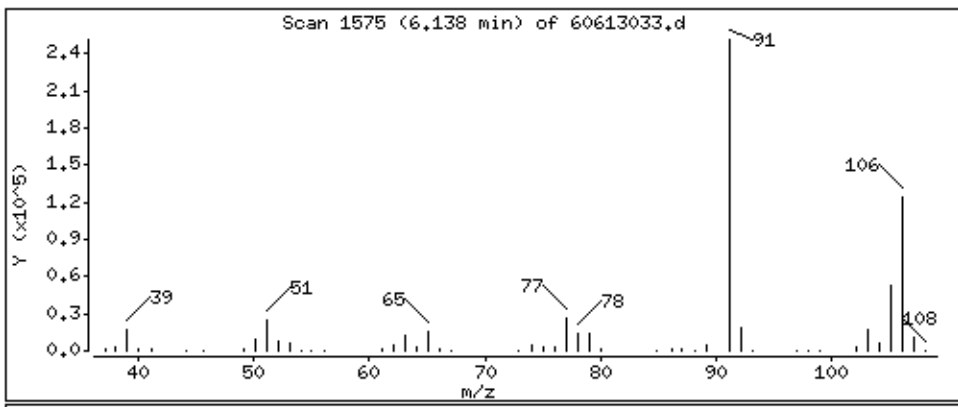
Operator: JEW

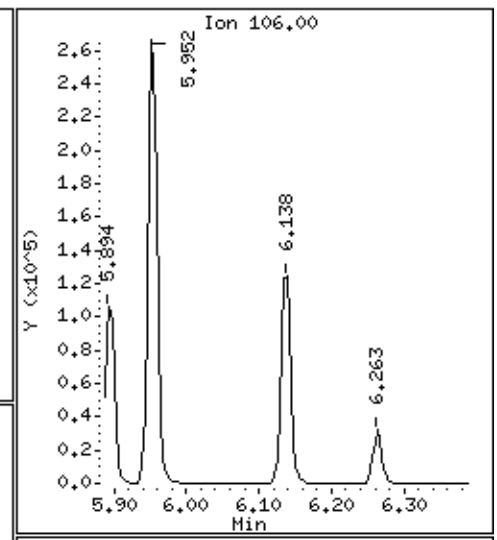
Column phase: RTX-VMS

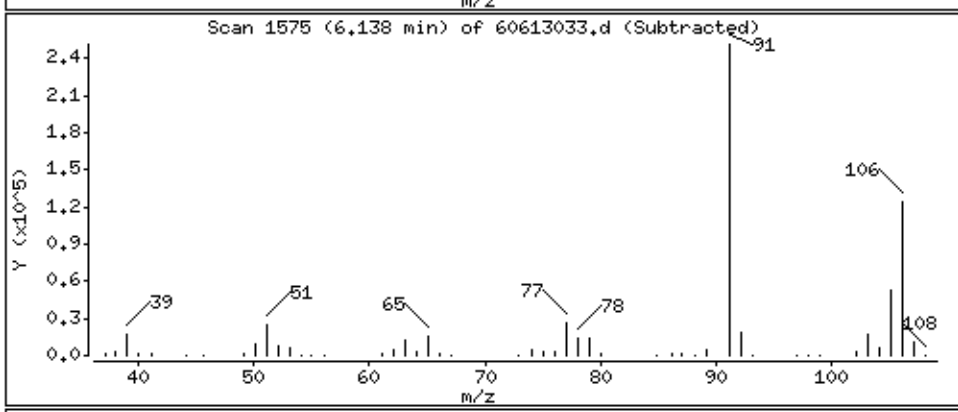
Column diameter: 0.18

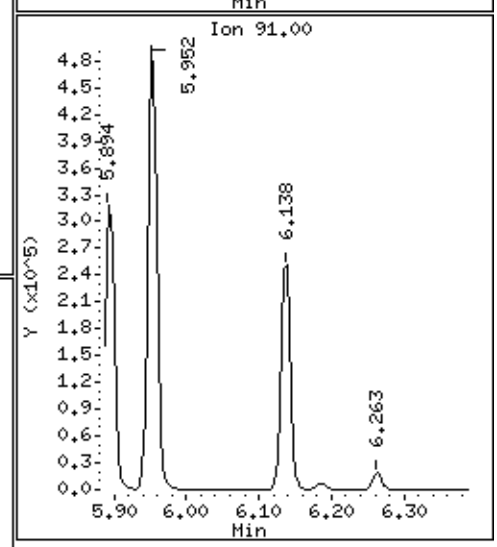
75 o-Xylene

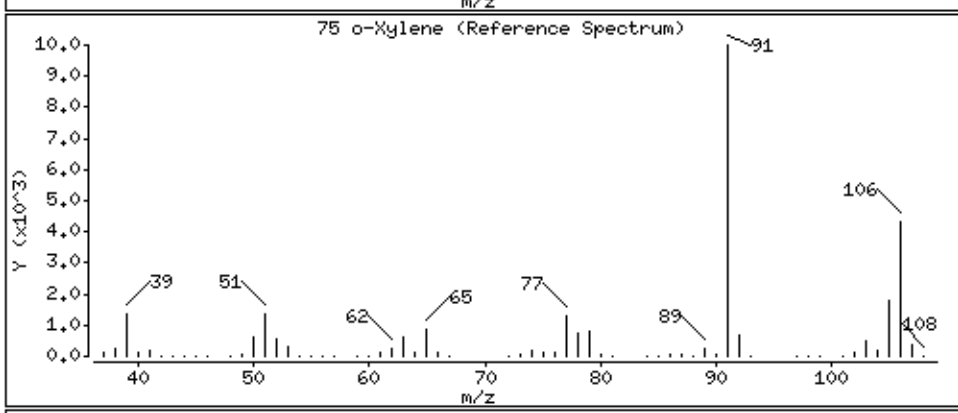
Concentration: 199 ug/kg

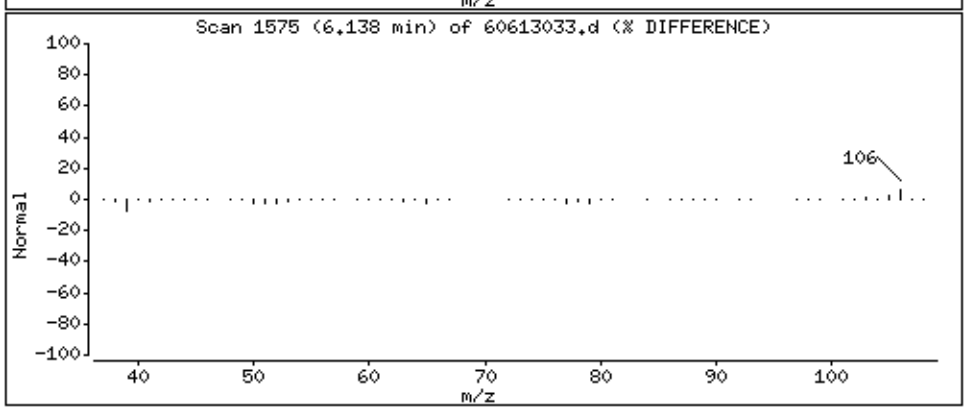












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613033.d

Date : 13-JUN-2019 15:40

Client ID: A0C34-1MS

Instrument: 30mv6a.i

Sample Info: 1687220x10

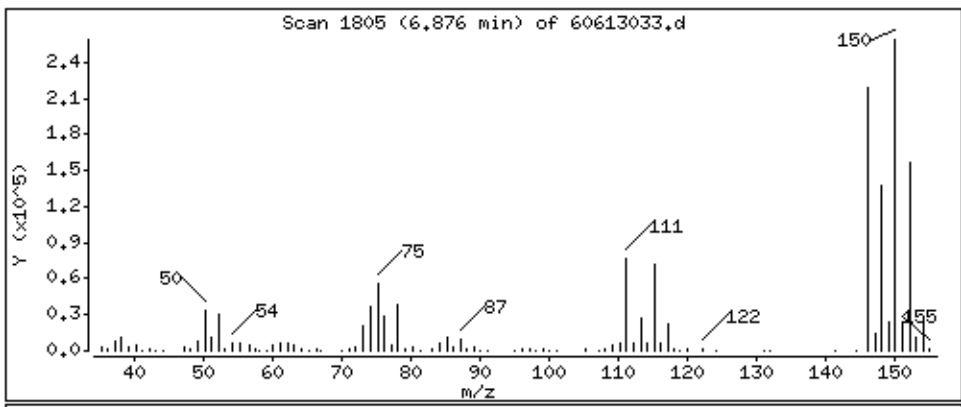
Operator: JEW

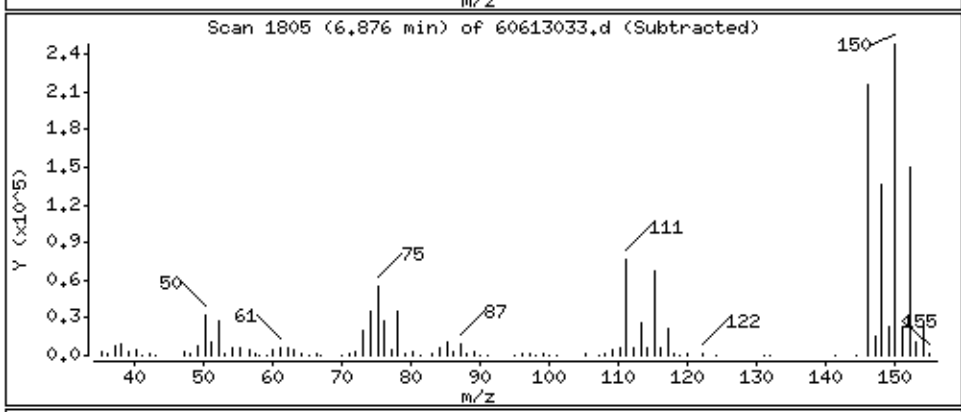
Column phase: RTX-VMS

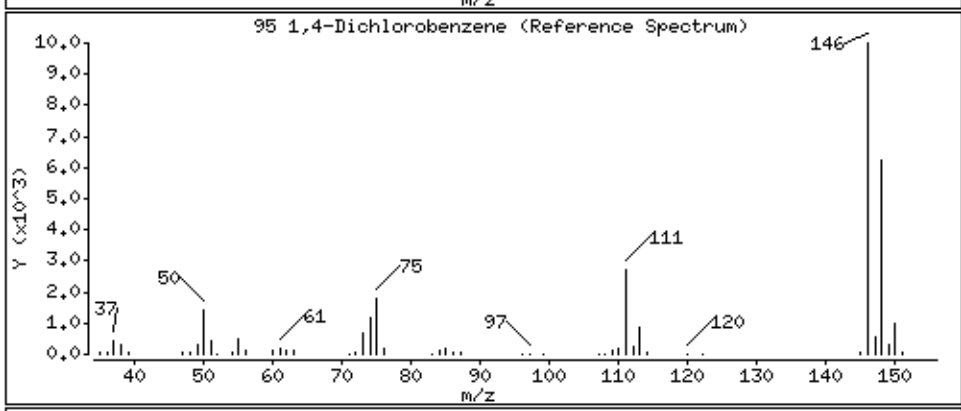
Column diameter: 0.18

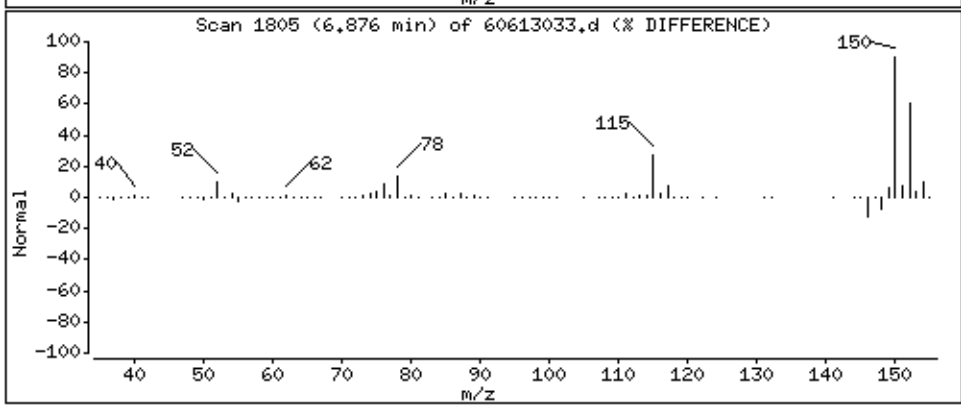
95 1,4-Dichlorobenzene

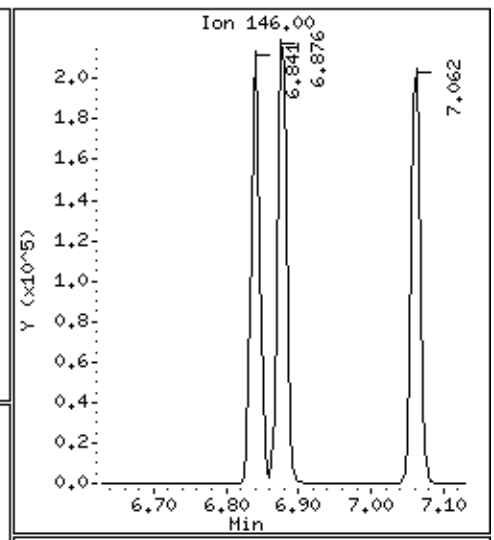
Concentration: 212 ug/kg

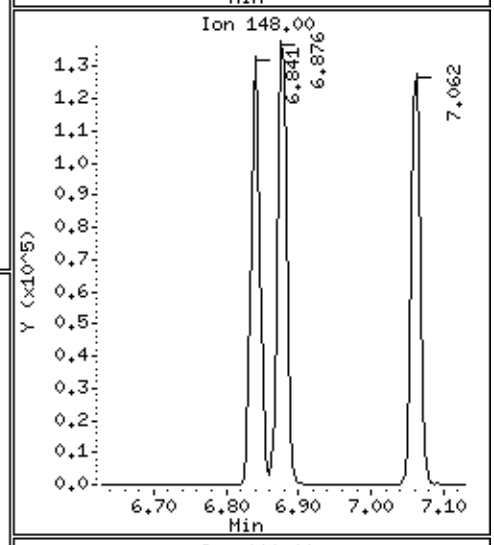


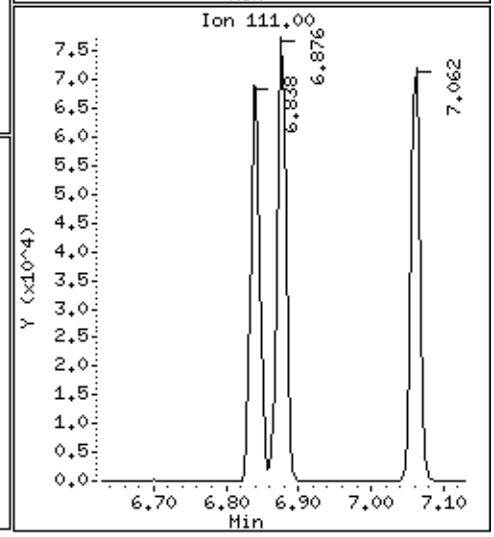












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613033.d
Injection Date: 13-JUN-2019 15:40
Instrument: 30mv6a.i
Lab Sample ID: 1687220
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/13/2019 16:06 Lab Sample ID: 1687221

Date Analyzed: 06/13/2019 16:06 Lab File ID: 6190613.B\1.B\60613035.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	164	
78-93-3	2-Butanone (MEK)	151	
56-23-5	Carbon tetrachloride	153	
108-90-7	Chlorobenzene	198	
67-66-3	Chloroform	180	
107-06-2	1,2-Dichloroethane	169	
75-35-4	1,1-Dichloroethene	146	
127-18-4	Tetrachloroethene	199	
79-01-6	Trichloroethene	179	
75-01-4	Vinyl chloride	136	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Lab Smp Id: 1687221 Client Smp ID: AOC34-1MSD
Inj Date : 13-JUN-2019 16:06
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1687221x10
Misc Info : 44883
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Meth Date : 14-Jun-2019 08:22 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.392	1.376	(0.308)	43702	13.6408	136(R)	
	9 1,1-Dichloroethene	61	2.075	2.056	(0.458)	53552	14.6429	146(R)	
	33 Chloroform	83	3.940	3.930	(0.870)	78826	17.9609	180(R)	
	34 Carbon Tetrachloride	117	4.020	4.017	(0.888)	56495	15.3168	153(R)	
$	37 Dibromofluoromethane (S)	111	4.062	4.059	(0.897)	107421	32.2656	32.3	
	39 2-Butanone (MEK)	43	4.148	4.139	(0.916)	23633	15.0588	150(R)	
	41 Benzene	78	4.299	4.296	(0.950)	167983	16.3552	164(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.376	(0.967)	101962	30.9021	30.9	
	47 1,2-Dichloroethane	62	4.418	4.412	(0.976)	61096	16.9136	169(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.524	(1.000)	400579	30.0000		
	50 Trichloroethene	95	4.610	4.607	(0.783)	48536	17.8570	178(R)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	371288	29.4458	29.4	
	59 Toluene	91	5.255	5.256	(0.893)	205843	18.2232	182(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	64708	19.9032	199(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	342228	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	165968	19.7888	198(R)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	84372	18.7533	188(R)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	212011	37.5187	375(R)	
	75 o-Xylene	106	6.138	6.138	(1.043)	101465	17.9725	180(R)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	158654	29.9906	30.0	

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	215956	30.0000		
95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	169598	18.9444	189(R)	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60613035.d
Lab Smp Id: 1687221
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

Calibration Date: 13-JUN-2019
Calibration Time: 09:51
Client Smp ID: AOC34-1MSD
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	416159	208080	832318	400579	-3.74
71 Chlorobenzene-d5	360779	180390	721558	342228	-5.14
94 1,4-Dichlorobenze	224811	112406	449622	215956	-3.94

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.53	0.15
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1687221 Client Smp ID: AOC34-1MSD
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MSD
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190614.b\2.b\msv6051419b.m
Misc Info: 44883

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	136	682.04*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	146	732.15*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	180	898.05*	70-130
34 Carbon Tetrachlori	20.0	153	765.84*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	150	752.94*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	164	817.76*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44	tert-Amylmethyl e	20.0	0.000	*	50-150
46	Isobutanol	20.0	0.000	*	70-130
47	1,2-Dichloroethane	20.0	169	845.68*	70-130
49	Methylcyclohexane	20.0	0.000	*	70-130
50	Trichloroethene	20.0	178	892.85*	70-130
51	Dibromomethane	20.0	0.000	*	70-130
52	1,2-Dichloropropa	20.0	0.000	*	70-130
53	Bromodichlorometh	20.0	0.000	*	70-130
54	Methyl methacryla	20.0	0.000	*	70-130
55	1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56	2-Chloroethylviny	20.0	0.000	*	50-150
57	cis-1,3-Dichlorop	20.0	0.000	*	70-130
59	Toluene	20.0	182	911.16*	70-130
60	2-Nitropropane	50.0	0.000	*	70-130
61	4-Methyl-2-pentan	20.0	0.000	*	50-150
62	Tetrachloroethene	20.0	199	995.16*	70-130
63	trans-1,3-Dichlor	20.0	0.000	*	70-130
64	Ethyl methacrylate	20.0	0.000	*	70-130
65	1,1,2-Trichloroet	20.0	0.000	*	70-130
66	Dibromochlorometh	20.0	0.000	*	70-130
67	1,3-Dichloropropa	20.0	0.000	*	70-130
69	2-Hexanone	20.0	0.000	*	70-130
70	Ethylbenzene	20.0	188	937.67*	70-130
72	Chlorobenzene	20.0	198	989.44*	70-130
73	1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74	m&p-Xylene	40.0	375	937.97*	50-150
75	o-Xylene	20.0	180	898.63*	70-130
76	Styrene	20.0	0.000	*	70-130
77	Bromoform	20.0	0.000	*	70-130
80	n-Propylbenzene	20.0	0.000	*	70-130
81	Bromobenzene	20.0	0.000	*	70-130
82	1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83	1,3,5-Trimethylbe	20.0	0.000	*	70-130
84	2-Chlorotoluene	20.0	0.000	*	70-130
85	1,2,3-Trichloropr	20.0	0.000	*	70-130
86	trans-1,4-Dichlor	20.0	0.000	*	50-150
87	Cyclohexanone	50.0	0.000	*	70-130
88	4-Chlorotoluene	20.0	0.000	*	70-130
90	1,2,4-Trimethylbe	20.0	0.000	*	70-130
92	p-Isopropyltoluene	20.0	0.000	*	50-150
93	1,3-Dichlorobenze	20.0	0.000	*	70-130
95	1,4-Dichlorobenzen	20.0	189	947.22*	70-130
97	1,2-Dichlorobenze	20.0	0.000	*	70-130
98	1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100	Hexachloro-1,3-bu	20.0	0.000	*	50-150
101	1,2,4-Trichlorobe	20.0	0.000	*	70-130
102	Naphthalene	20.0	0.000	*	70-130
103	1,2,3-Trichlorobe	20.0	0.000	*	70-130

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	32.3	107.55	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	30.9	103.01	0-138
$ 58 Toluene-d8 (S)	30.0	29.4	98.15	0-124
$ 79 4-Bromofluorobenze	30.0	30.0	99.97	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d
Report Date: 14-Jun-2019 09:35

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1687221
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44883

Client SDG: 1.b
Client Smp ID: AOC34-1MSD
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	136	
75-35-4	1,1-Dichloroethene	146	
67-66-3	Chloroform	180	
56-23-5	Carbon Tetrachloride	153	
78-93-3	2-Butanone (MEK)	150	
71-43-2	Benzene	164	
107-06-2	1,2-Dichloroethane	169	
79-01-6	Trichloroethene	178	
108-88-3	Toluene	182	
127-18-4	Tetrachloroethene	199	
108-90-7	Chlorobenzene	198	
100-41-4	Ethylbenzene	188	
7816-60-0	m&p-Xylene	375	
95-47-6	o-Xylene	180	
106-46-7	1,4-Dichlorobenzene	189	
1868-53-7	Dibromofluoromethane (S)	32.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.9	
2037-26-5	Toluene-d8 (S)	29.4	
460-00-4	4-Bromofluorobenzene (S)	30.0	

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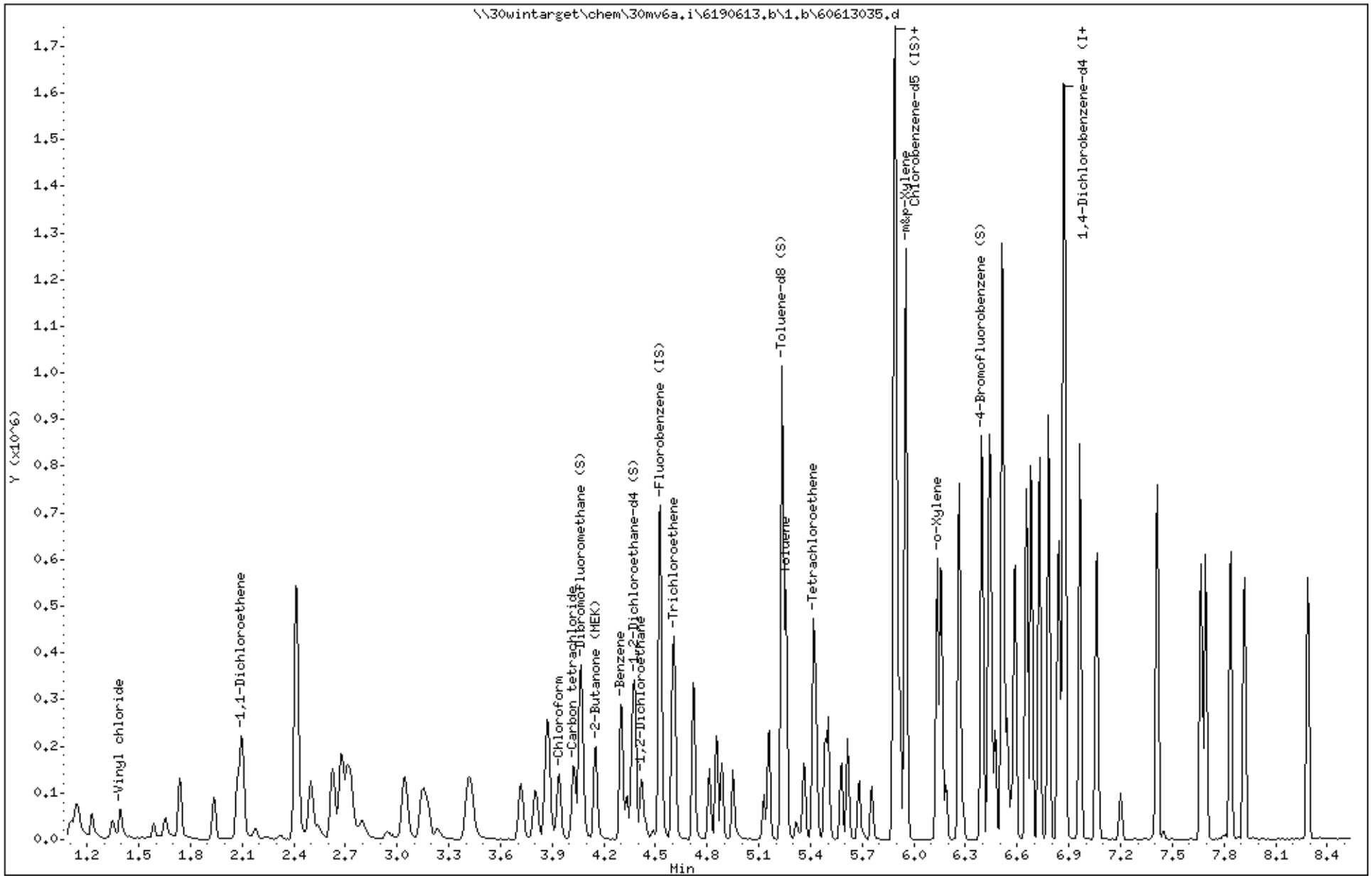
Date : 13-JUN-2019 16:06
Client ID: A0C34-1MSD
Sample Info: 1687221x10

Instrument: 30mv6a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

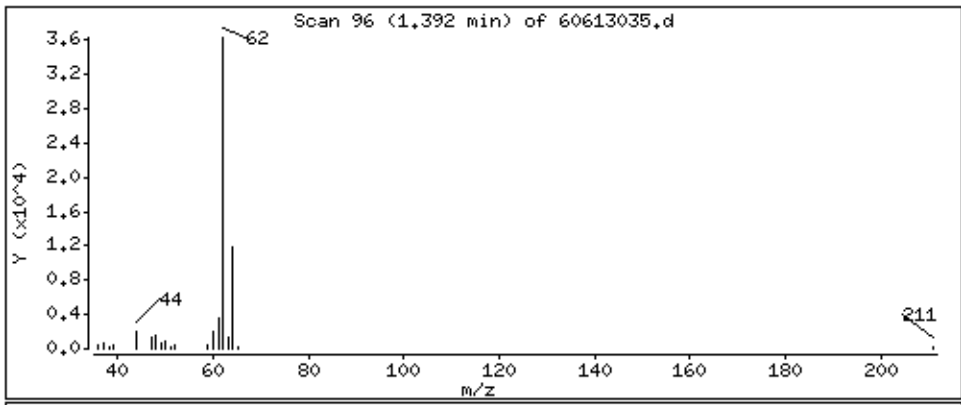
Operator: JEW

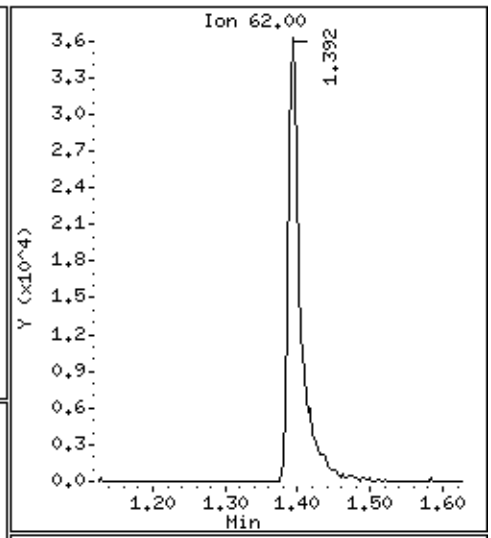
Column phase: RTX-VMS

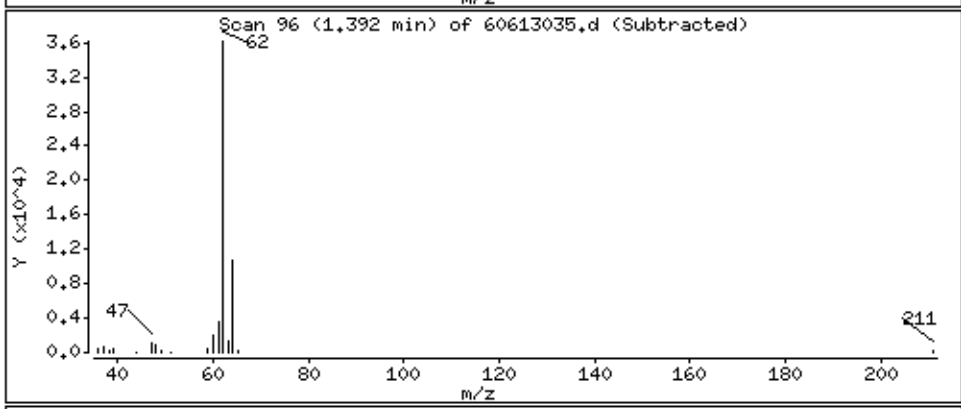
Column diameter: 0.18

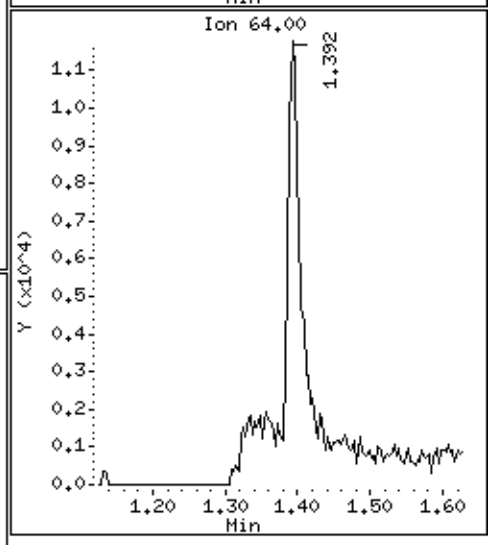
3 Vinyl Chloride

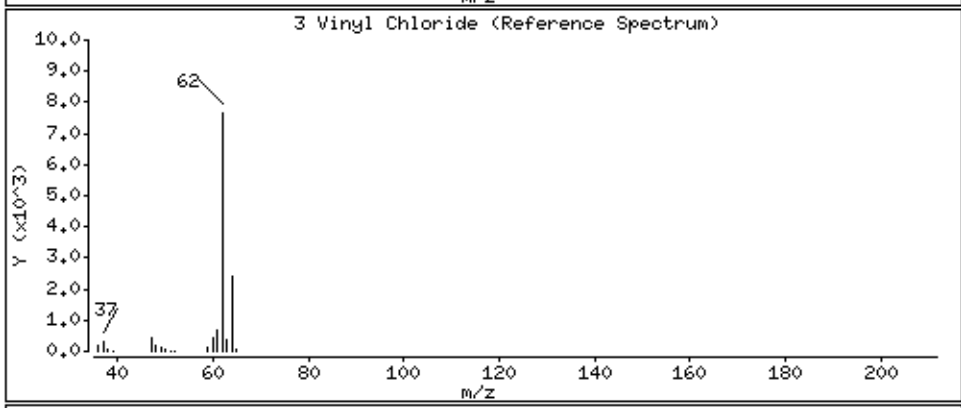
Concentration: 136 ug/kg

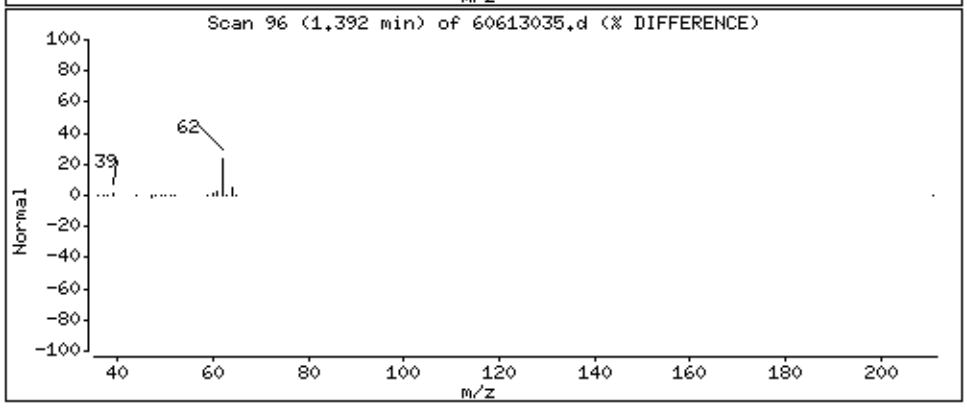












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

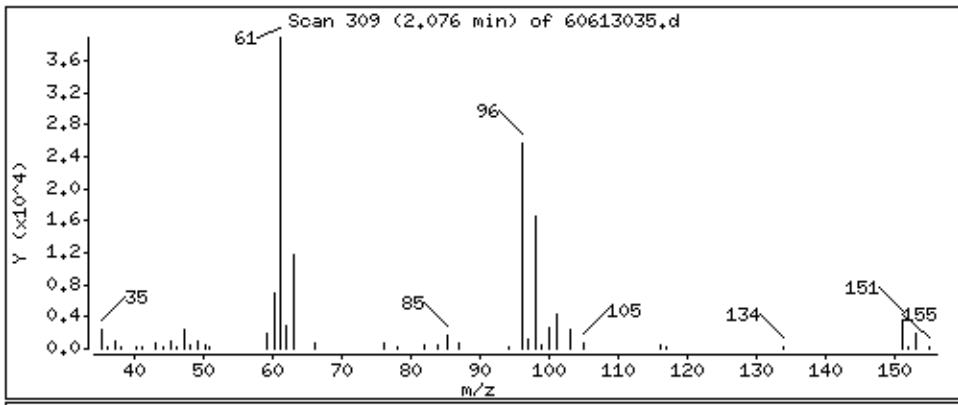
Operator: JEW

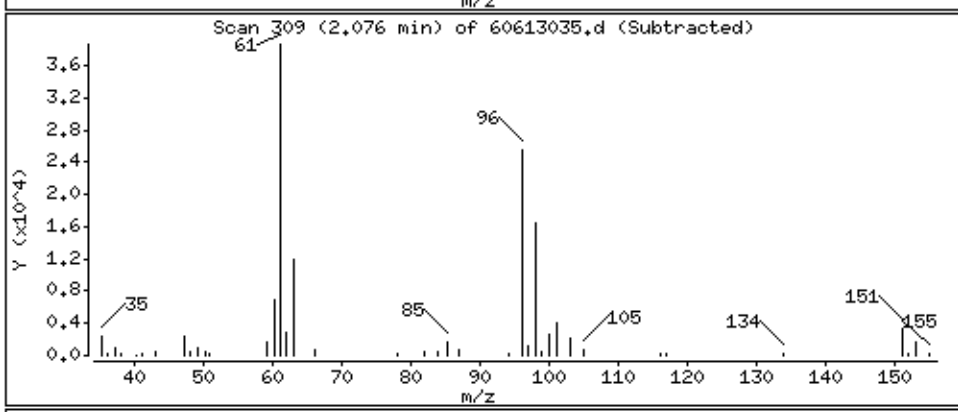
Column phase: RTX-VMS

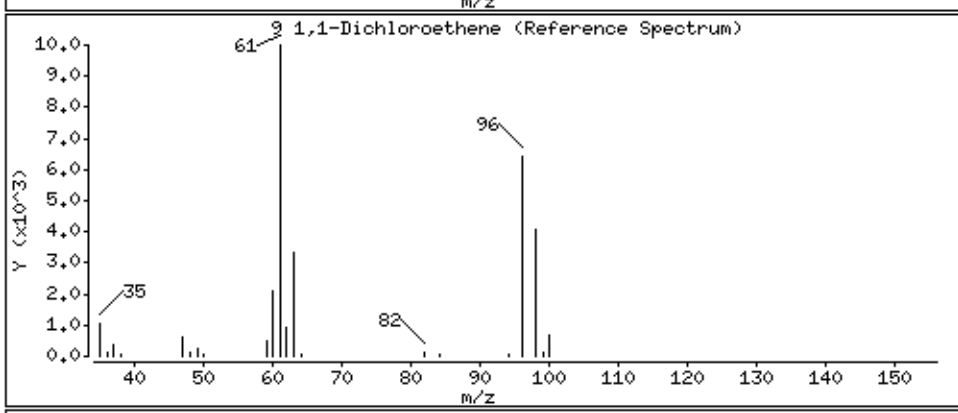
Column diameter: 0.18

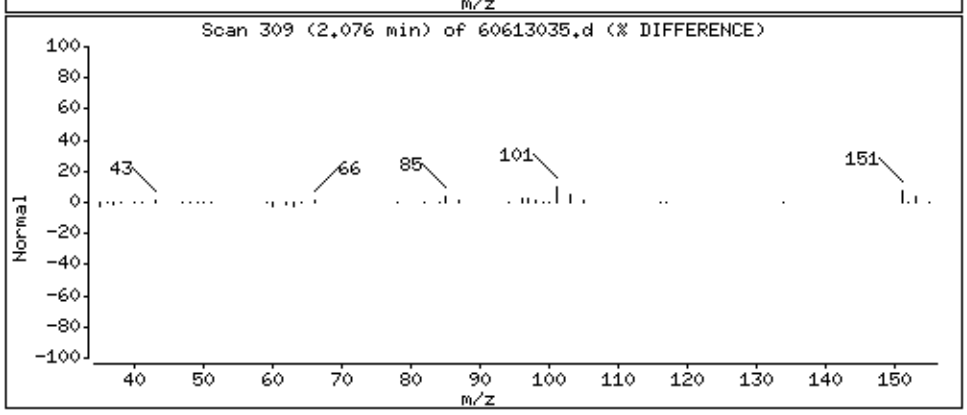
9 1,1-Dichloroethene

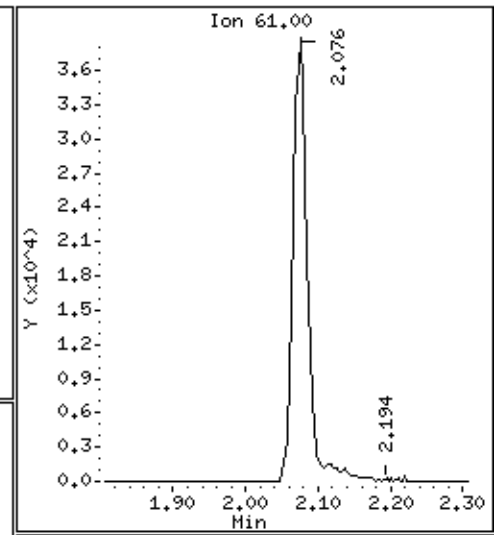
Concentration: 146 ug/kg

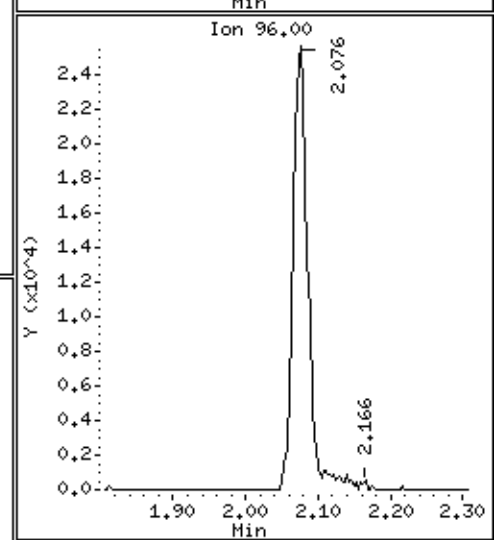












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

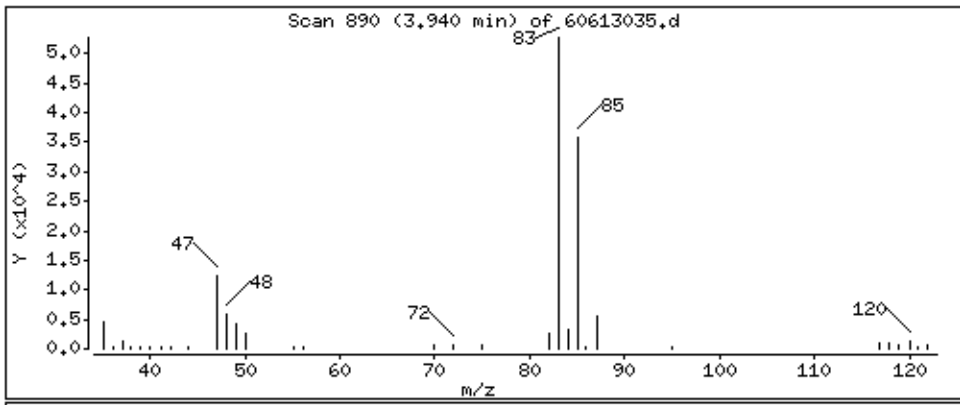
Operator: JEW

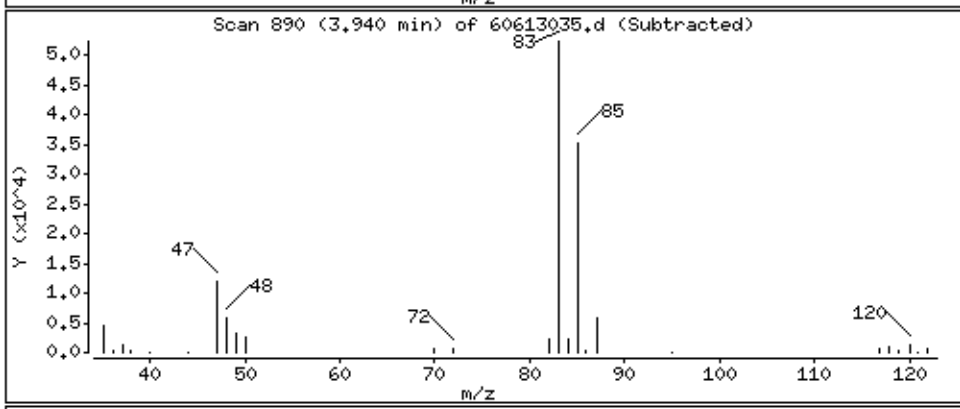
Column phase: RTX-VMS

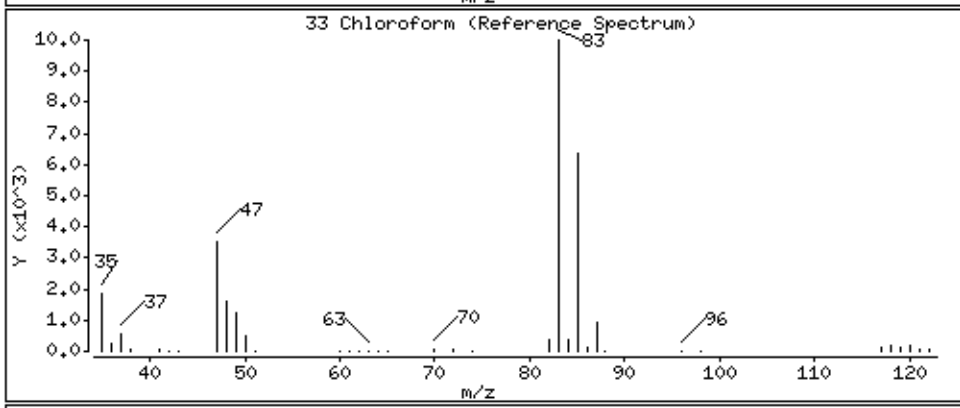
Column diameter: 0.18

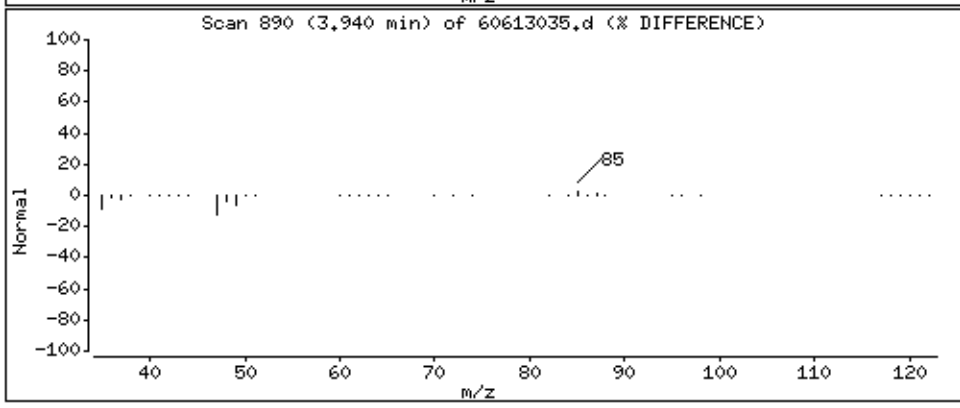
33 Chloroform

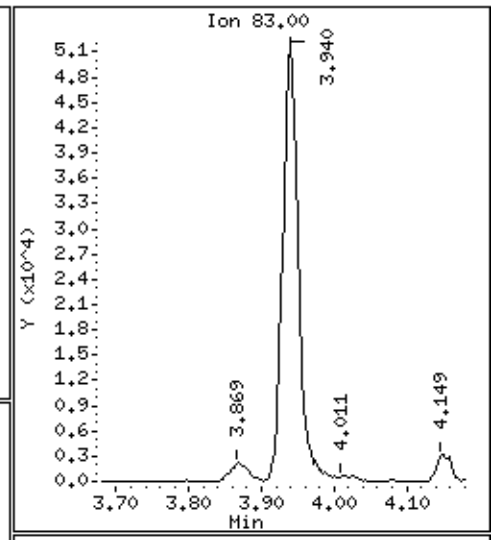
Concentration: 180 ug/kg

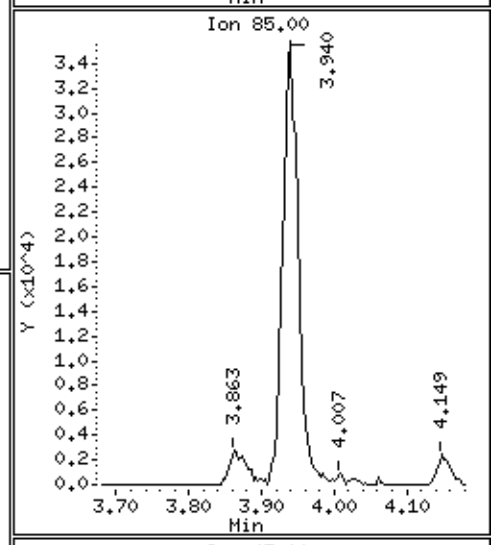


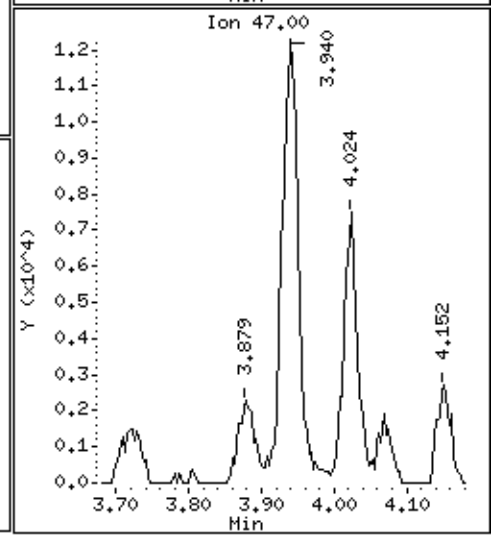












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

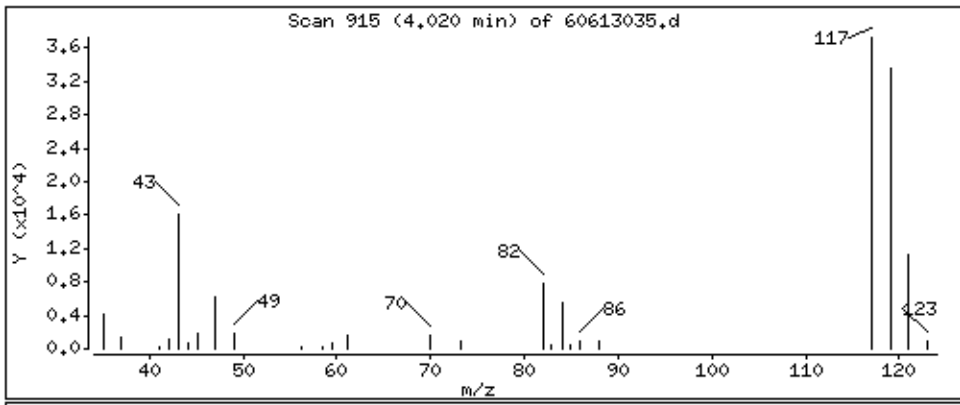
Operator: JEW

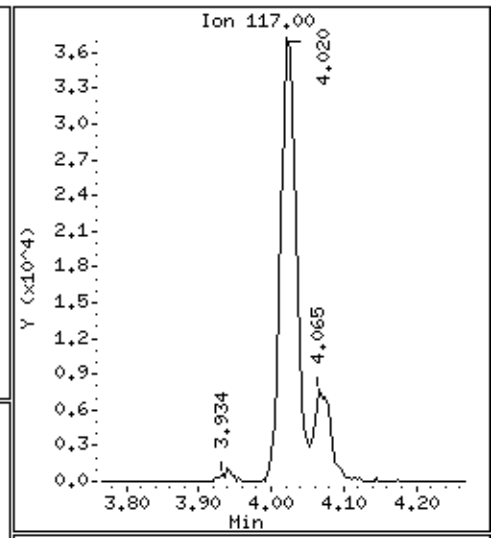
Column phase: RTX-VMS

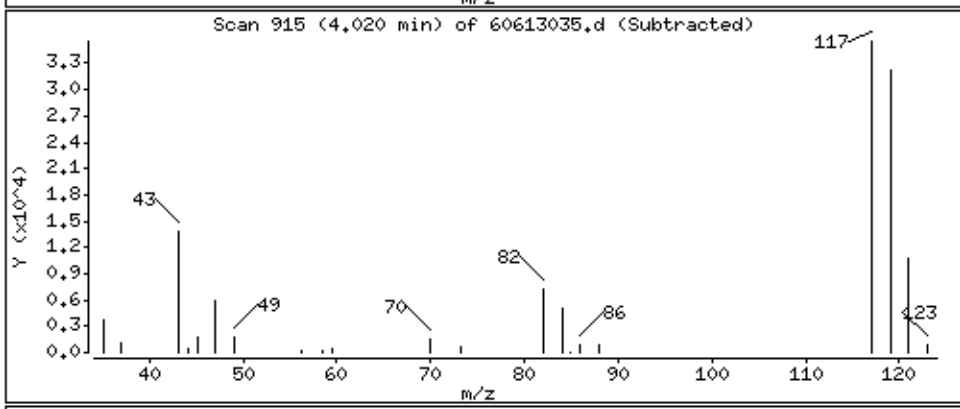
Column diameter: 0.18

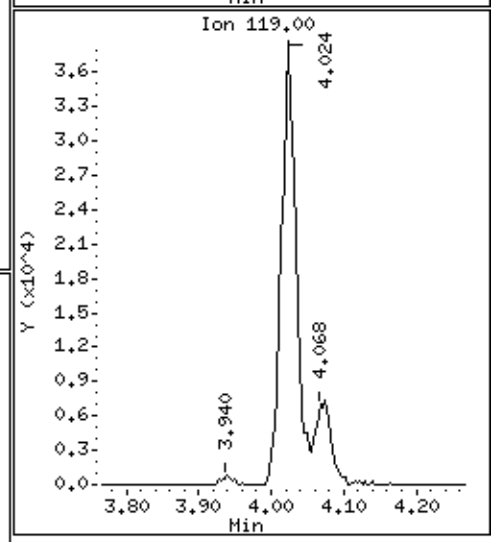
34 Carbon Tetrachloride

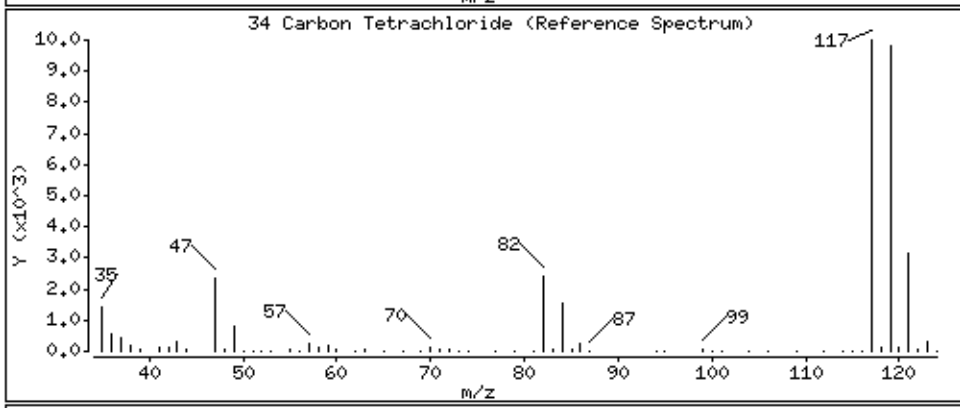
Concentration: 153 ug/kg

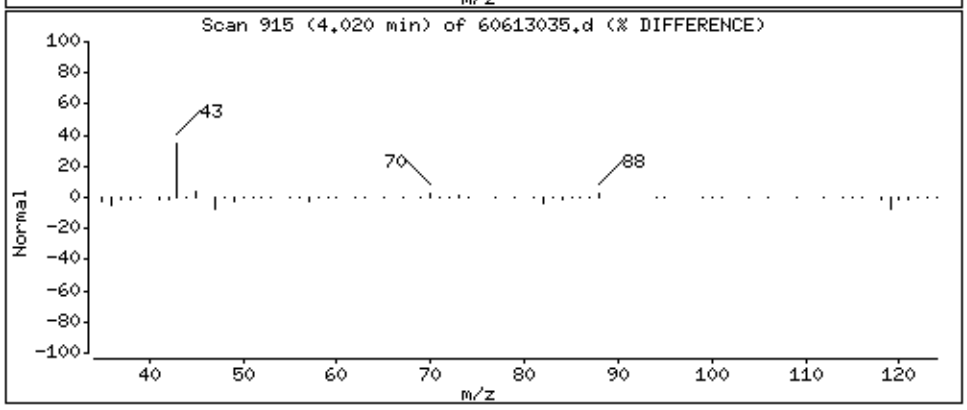












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

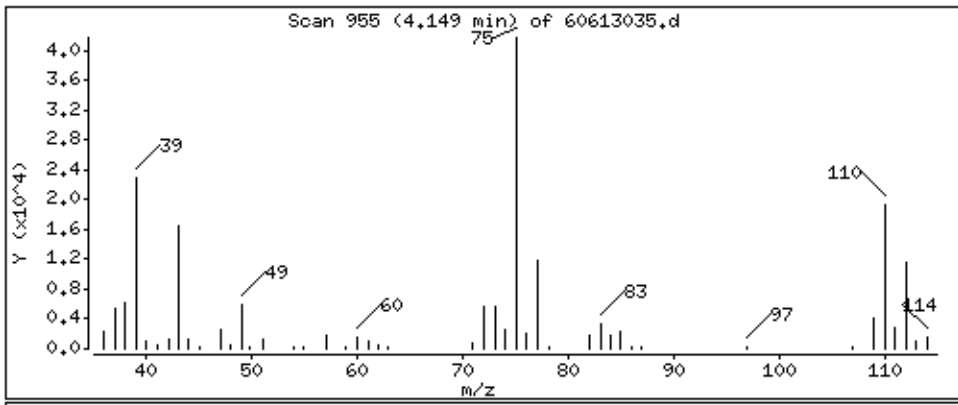
Operator: JEW

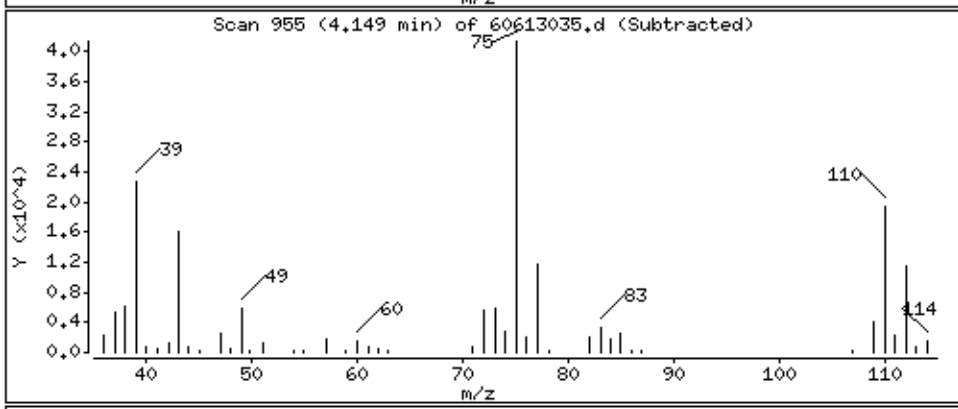
Column phase: RTX-VMS

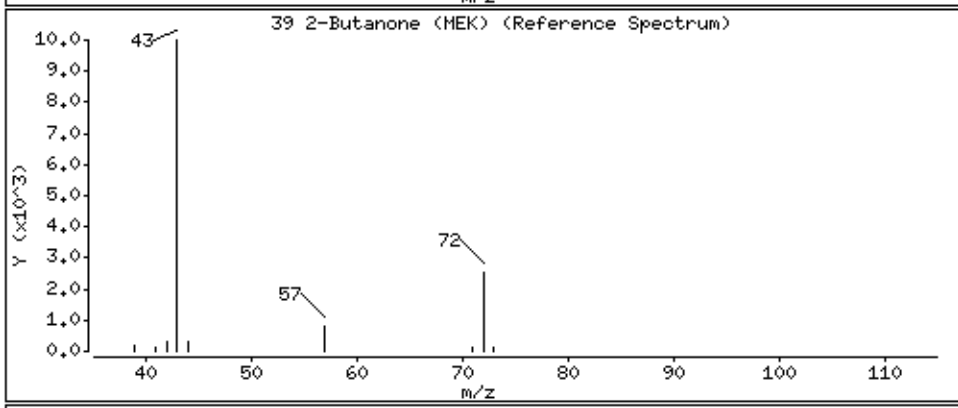
Column diameter: 0.18

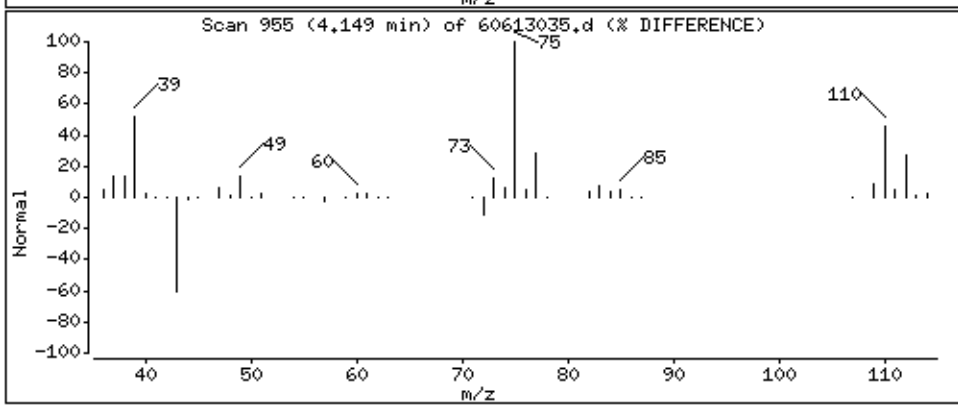
39 2-Butanone (MEK)

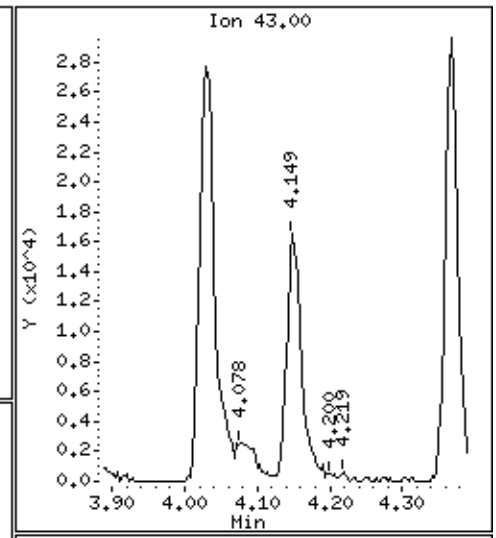
Concentration: 150 ug/kg

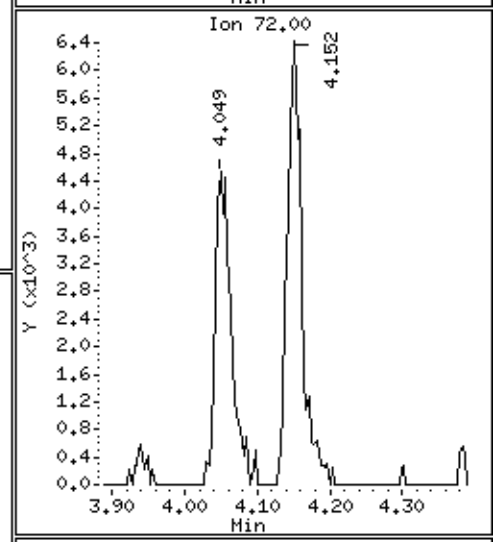


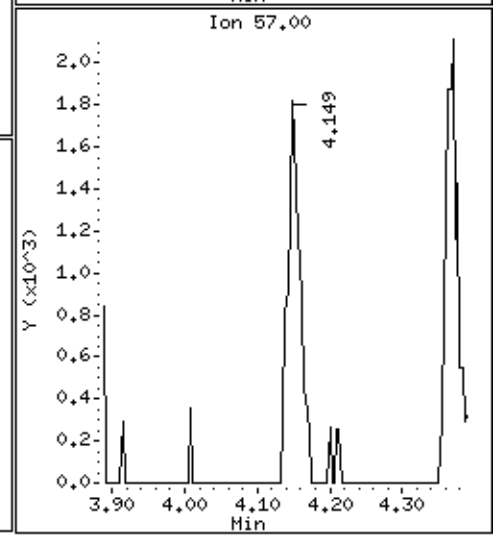












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

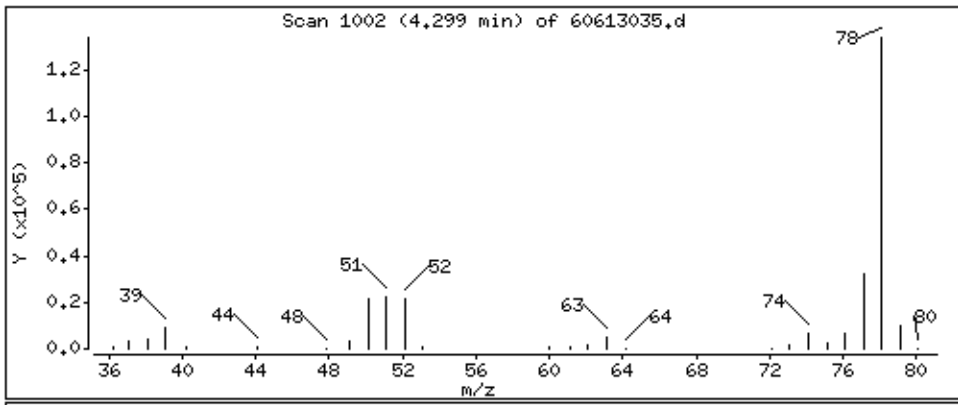
Operator: JEW

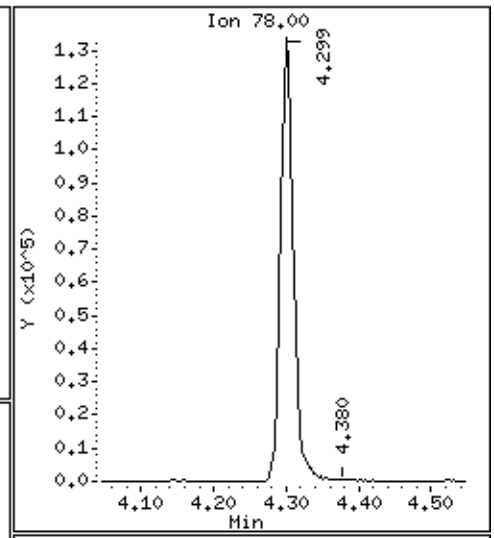
Column phase: RTX-VMS

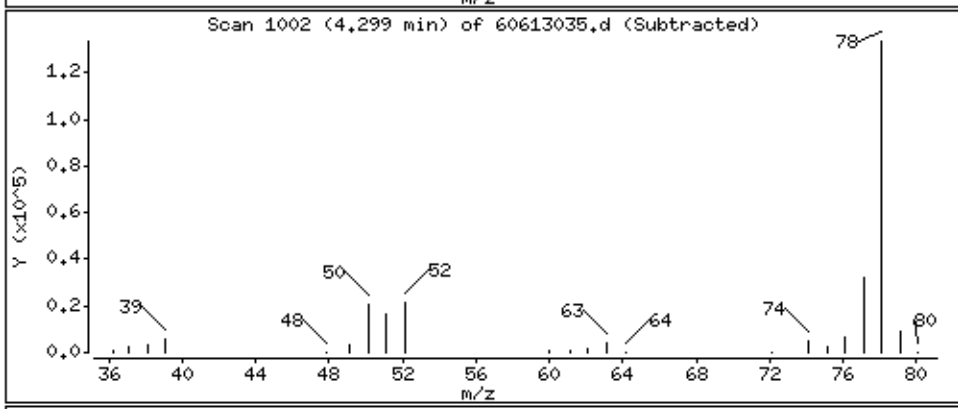
Column diameter: 0.18

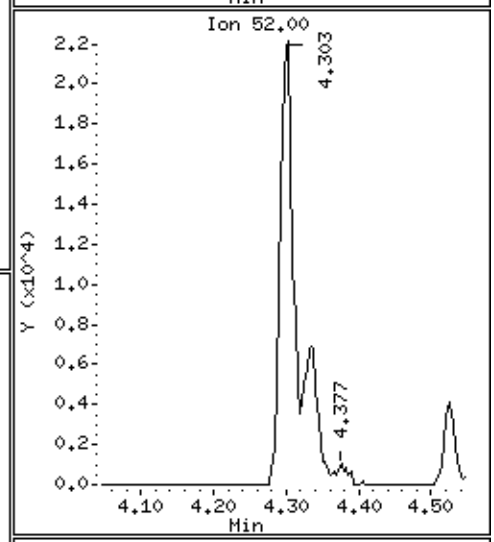
41 Benzene

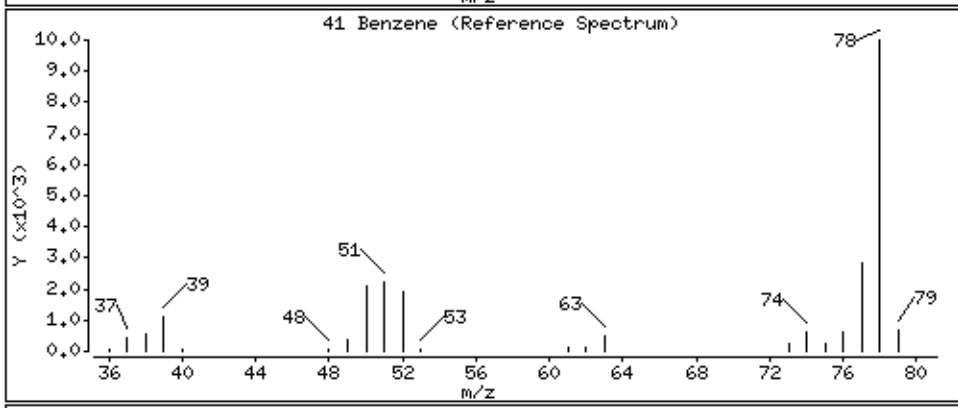
Concentration: 164 ug/kg

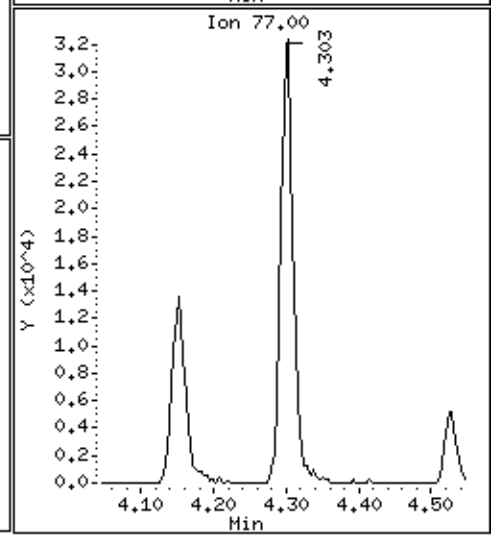


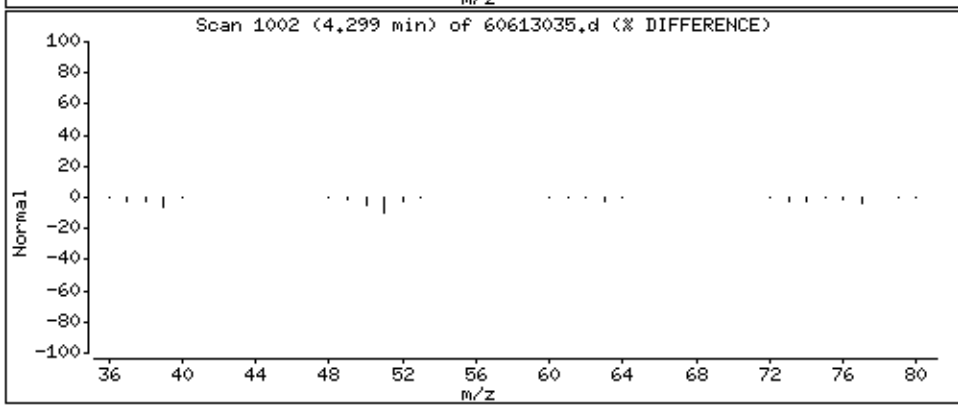












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

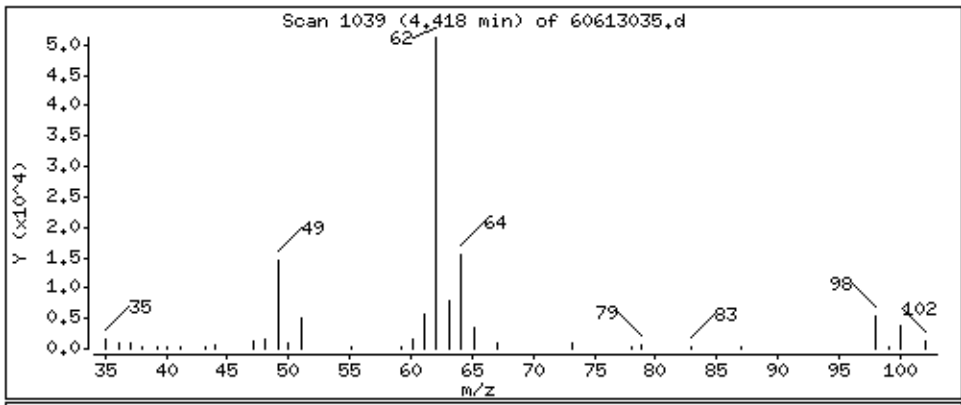
Operator: JEW

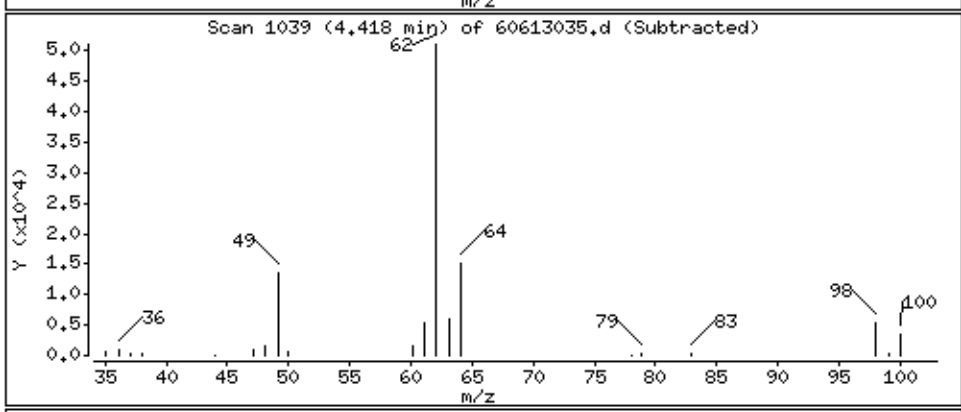
Column phase: RTX-VMS

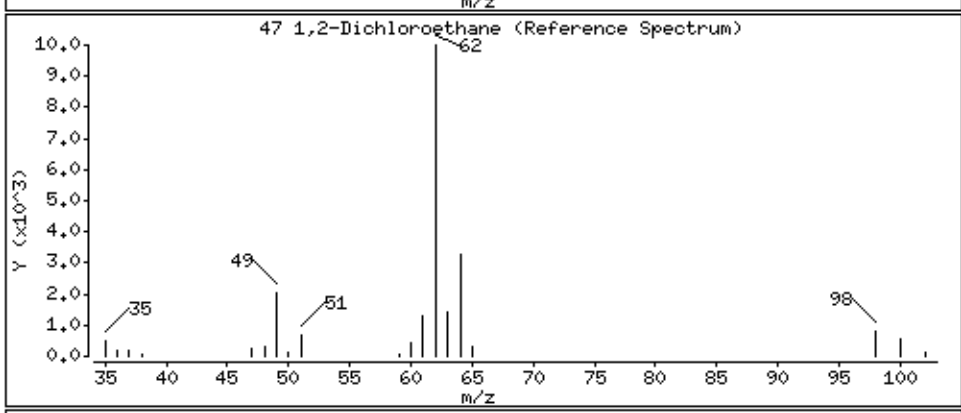
Column diameter: 0.18

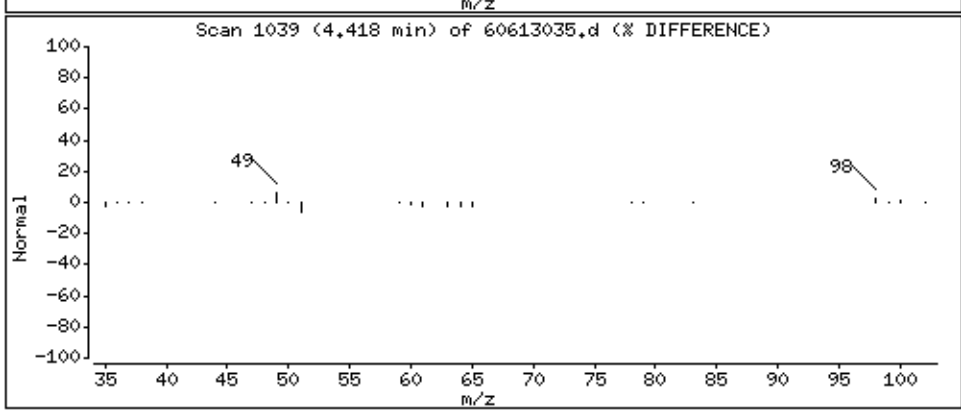
47 1,2-Dichloroethane

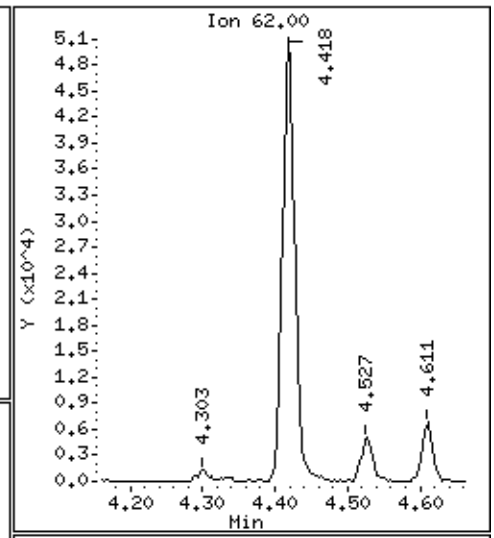
Concentration: 169 ug/kg

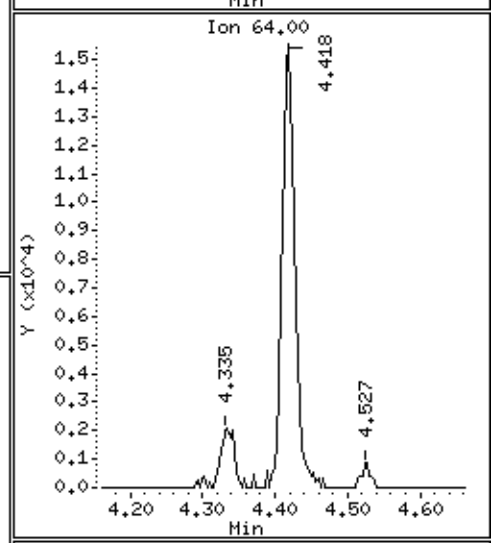


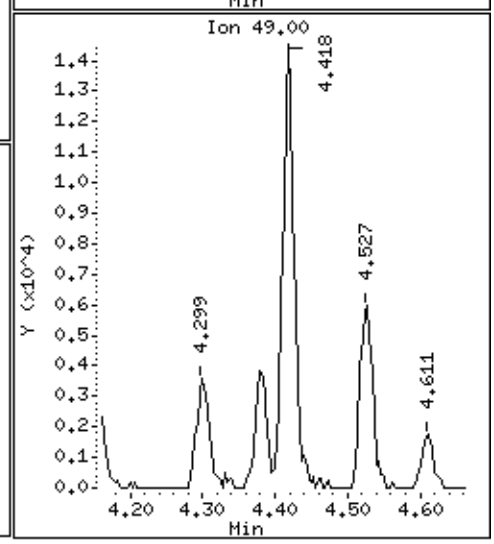












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Date : 13-JUN-2019 16:06

Client ID: A0C34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

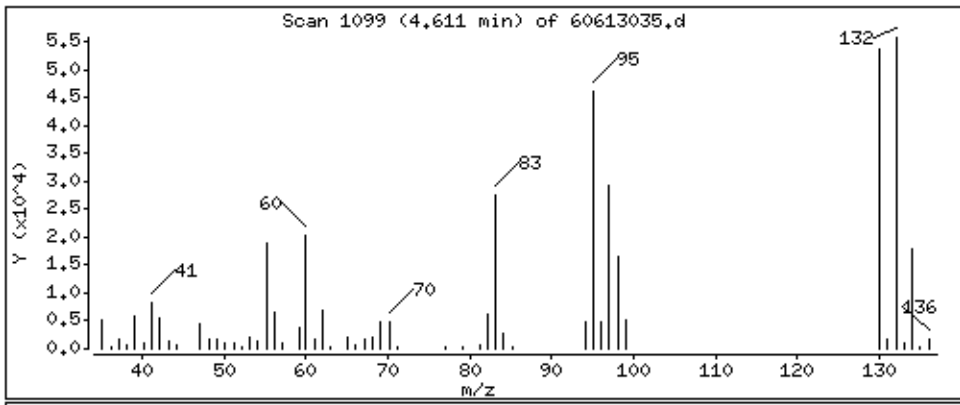
Operator: JEW

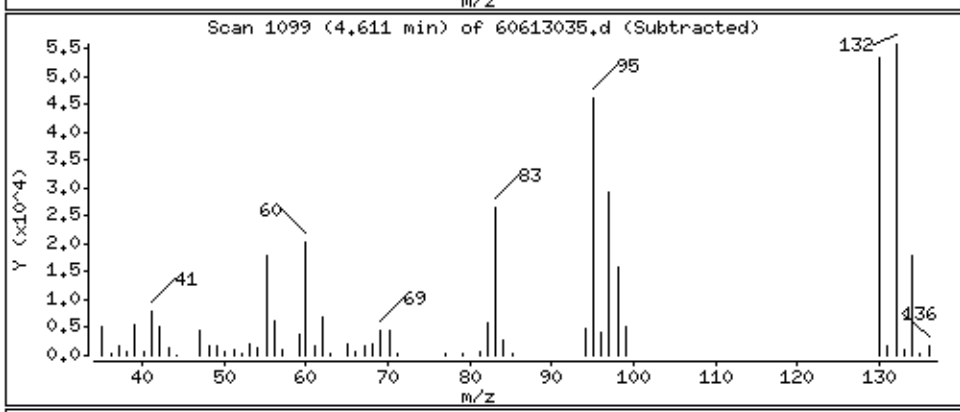
Column phase: RTX-VMS

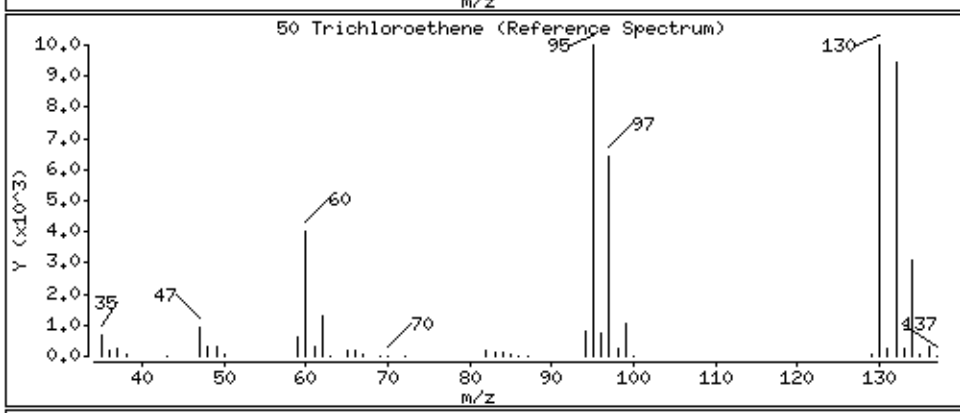
Column diameter: 0.18

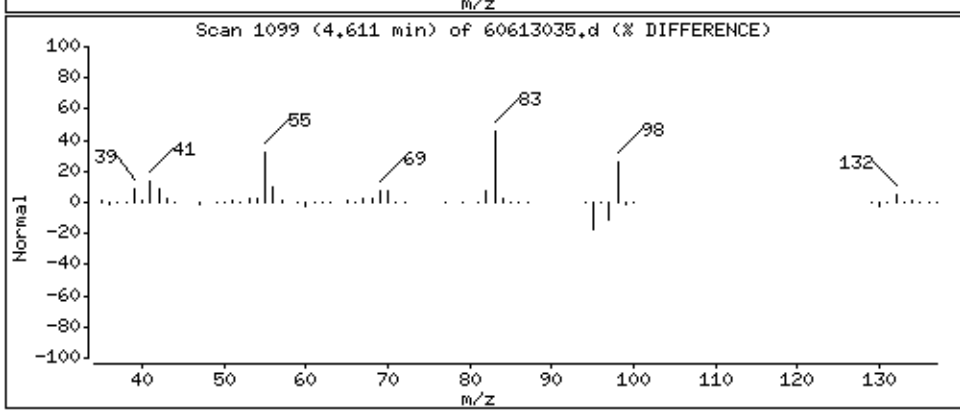
50 Trichloroethene

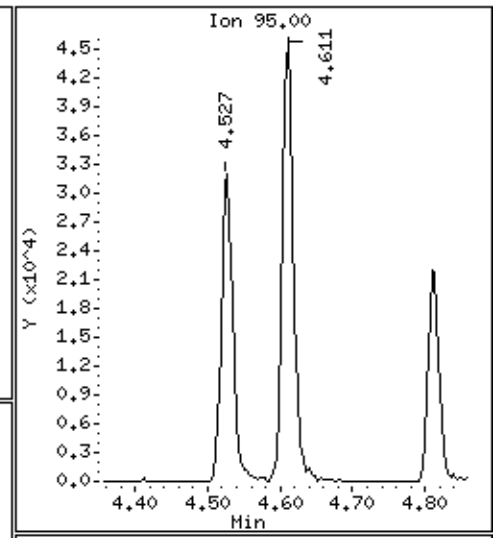
Concentration: 178 ug/kg

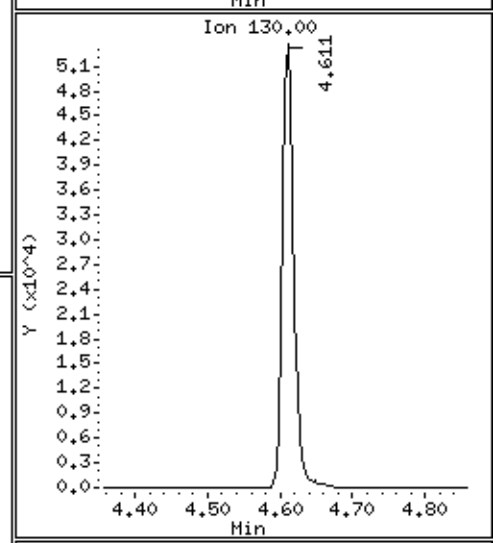


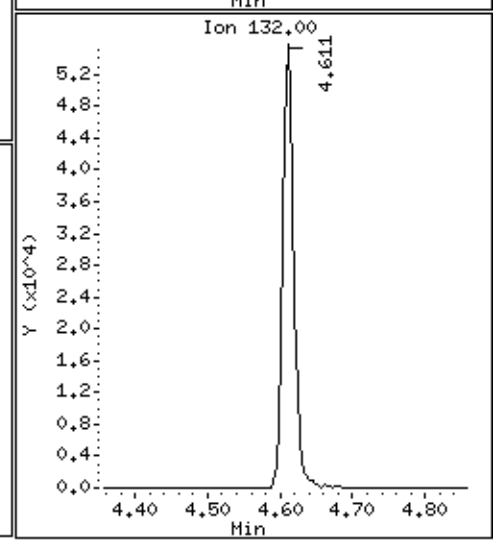












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

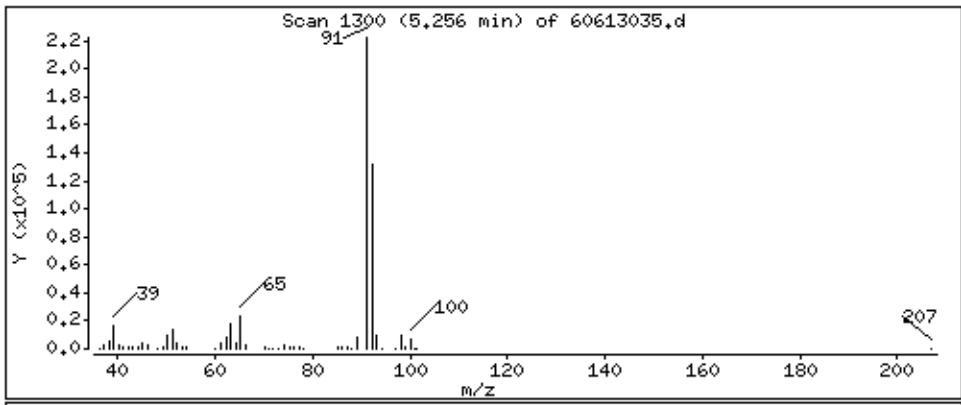
Operator: JEW

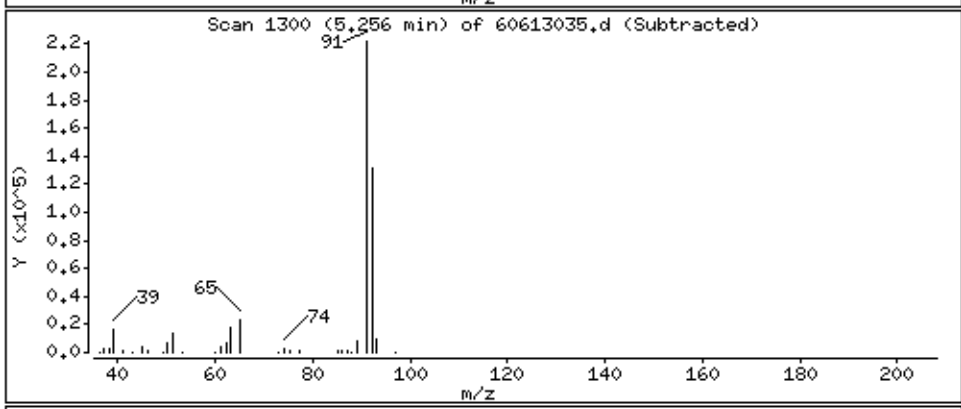
Column phase: RTX-VMS

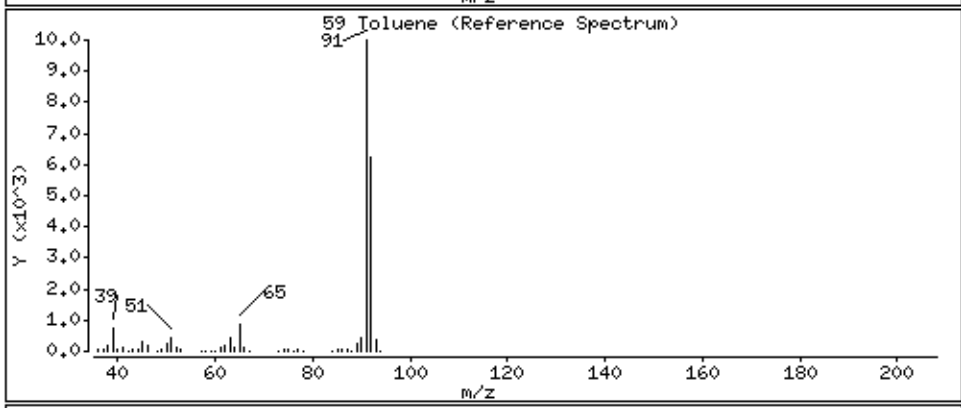
Column diameter: 0.18

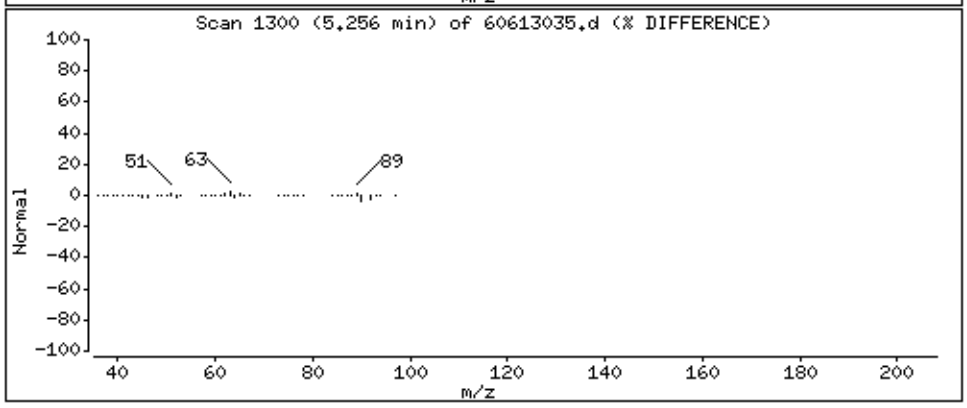
59 Toluene

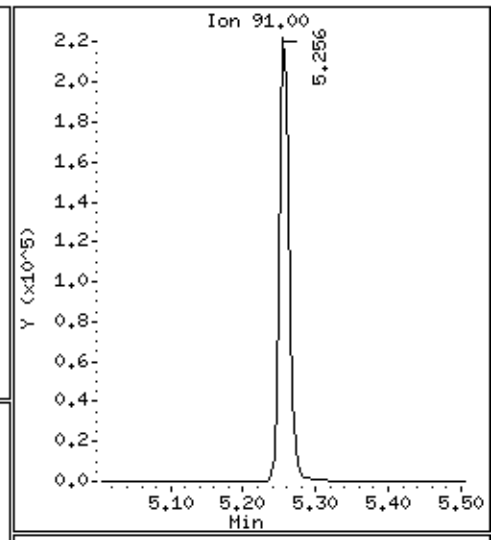
Concentration: 182 ug/kg

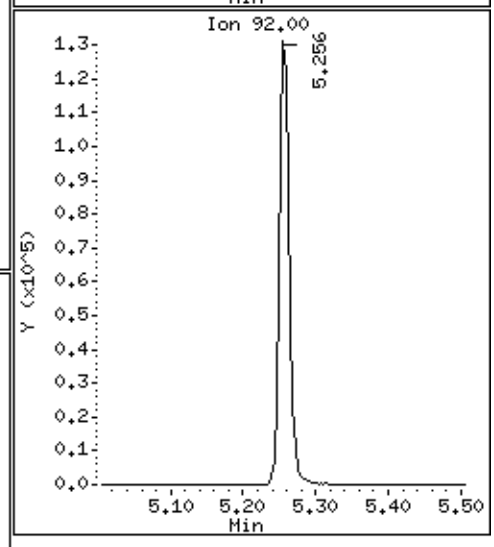












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

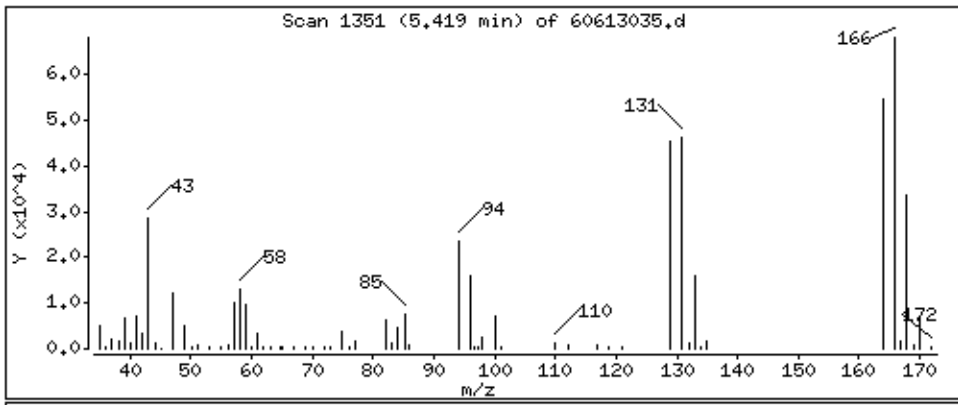
Operator: JEW

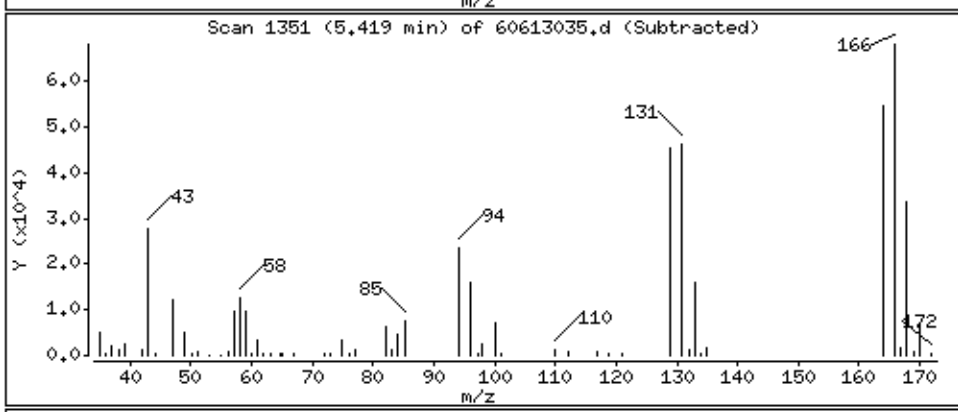
Column phase: RTX-VMS

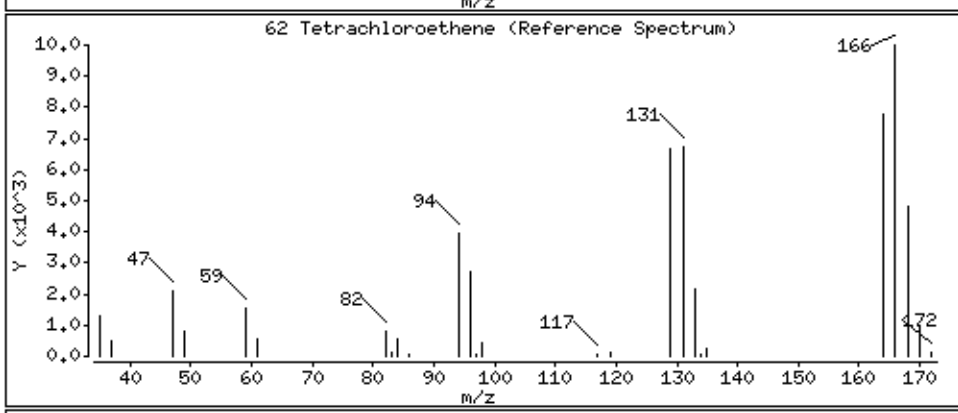
Column diameter: 0.18

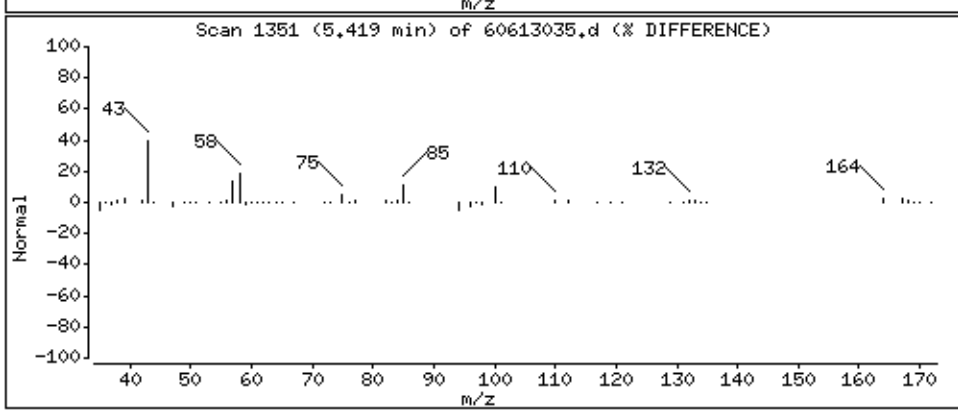
62 Tetrachloroethene

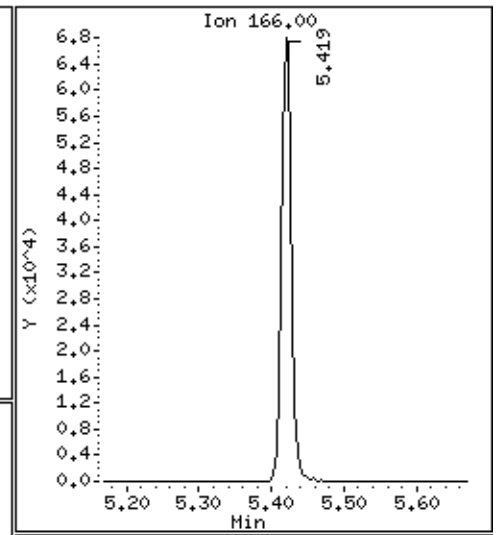
Concentration: 199 ug/kg

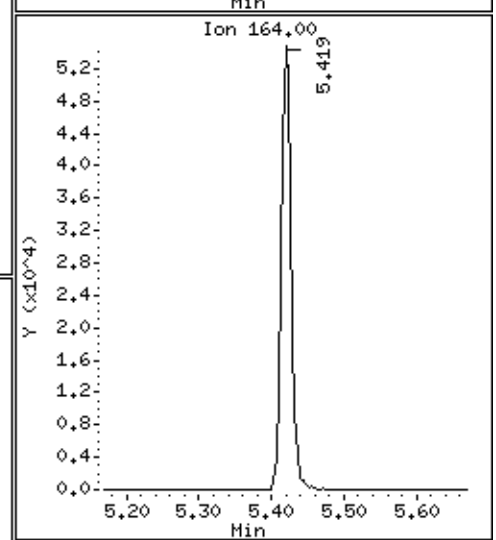


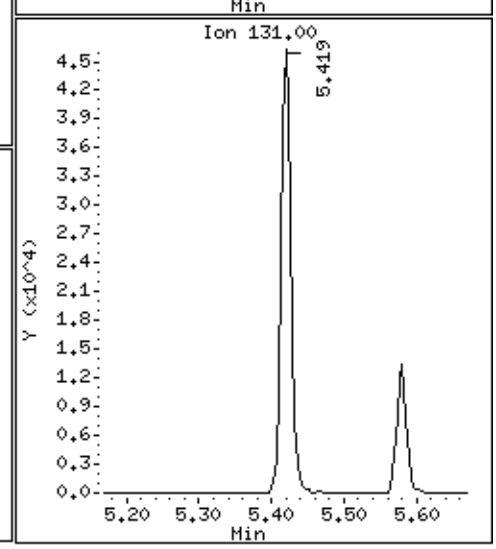












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d

Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

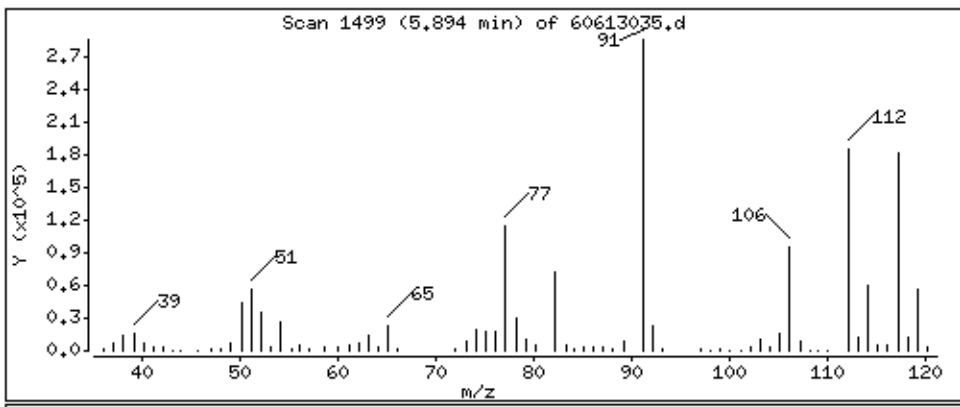
Operator: JEW

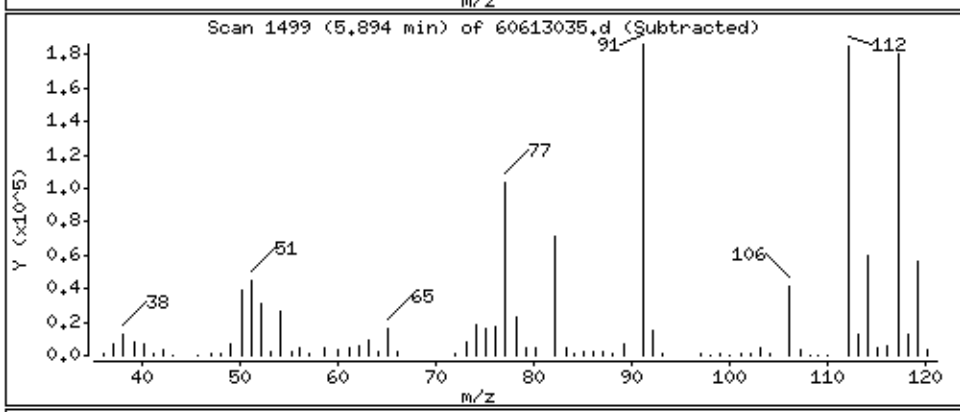
Column phase: RTX-VMS

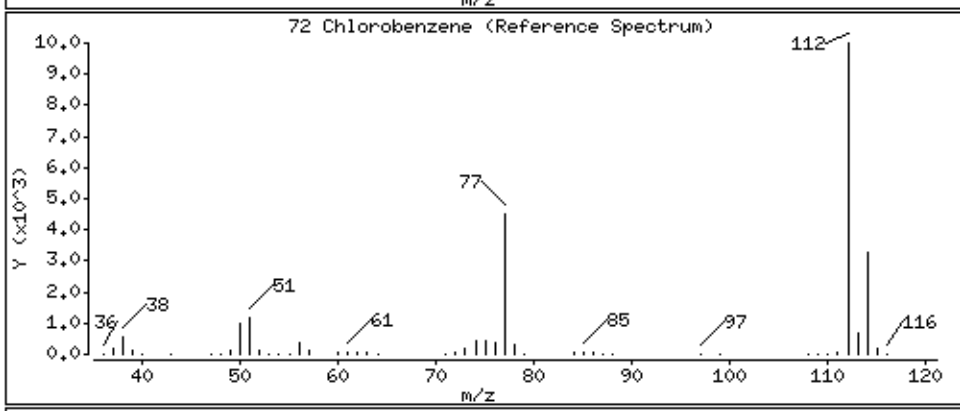
Column diameter: 0.18

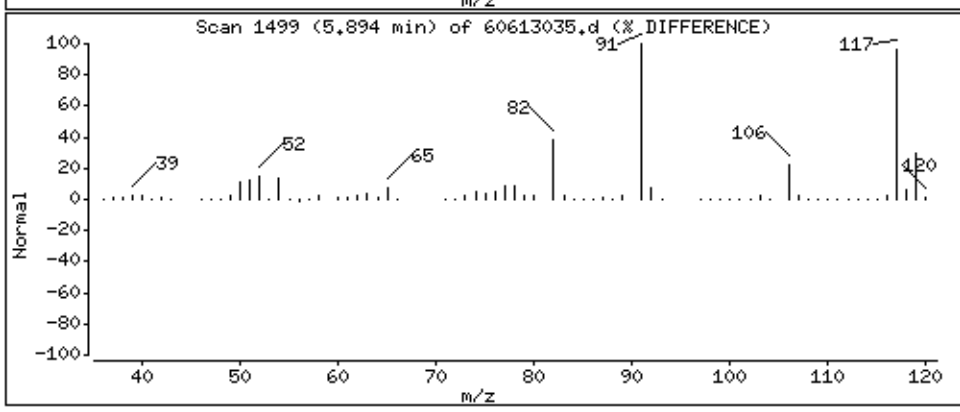
72 Chlorobenzene

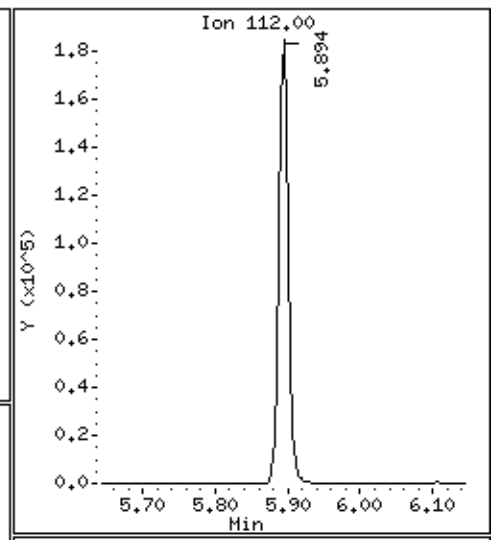
Concentration: 198 ug/kg

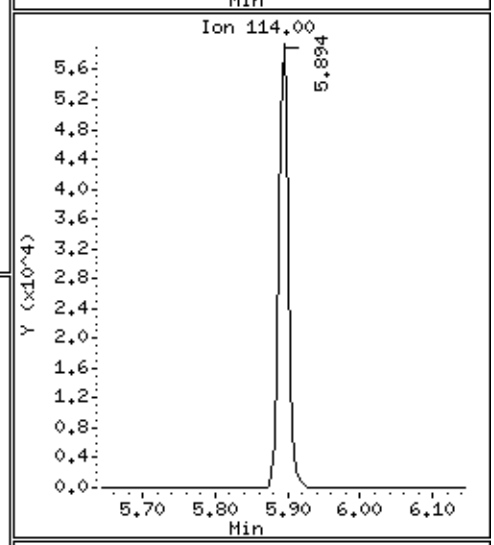


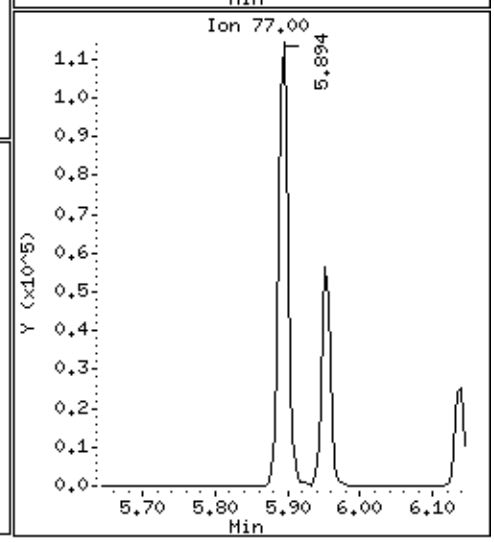












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Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

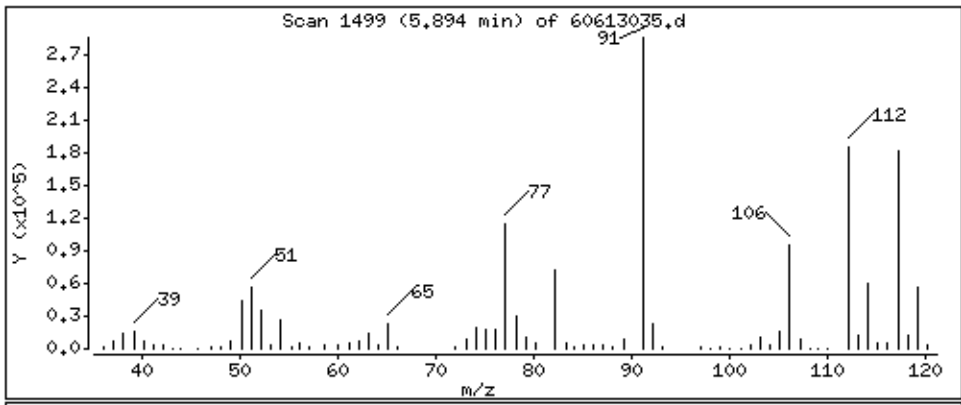
Operator: JEW

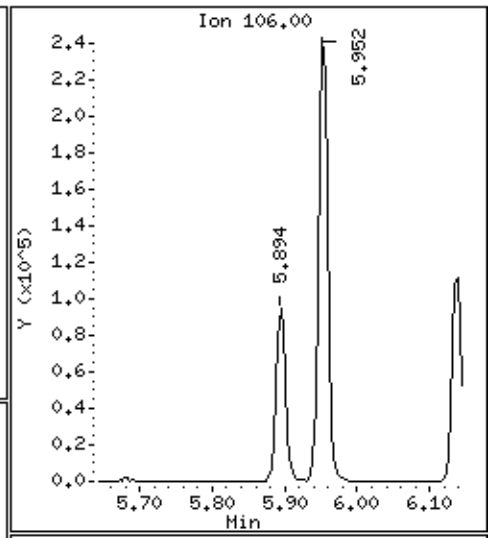
Column phase: RTX-VMS

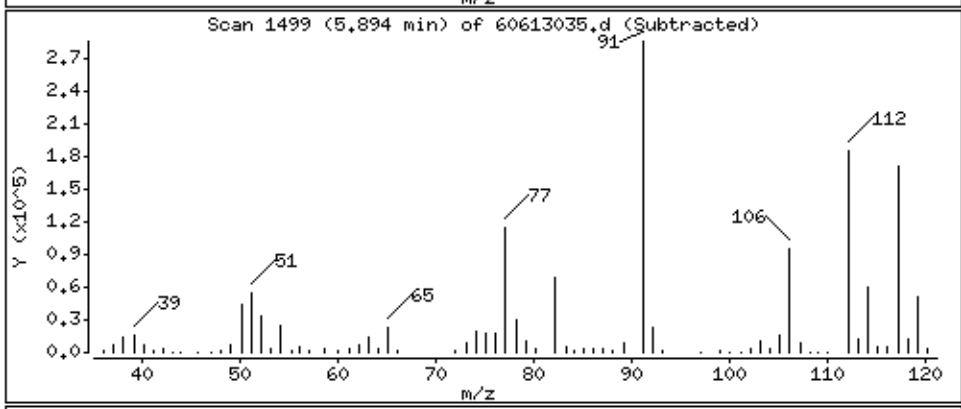
Column diameter: 0.18

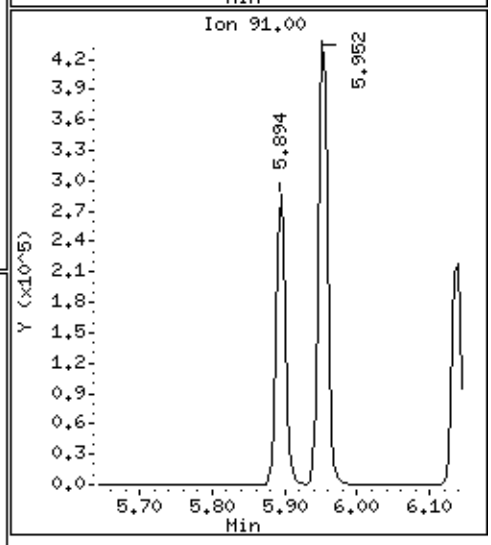
70 Ethylbenzene

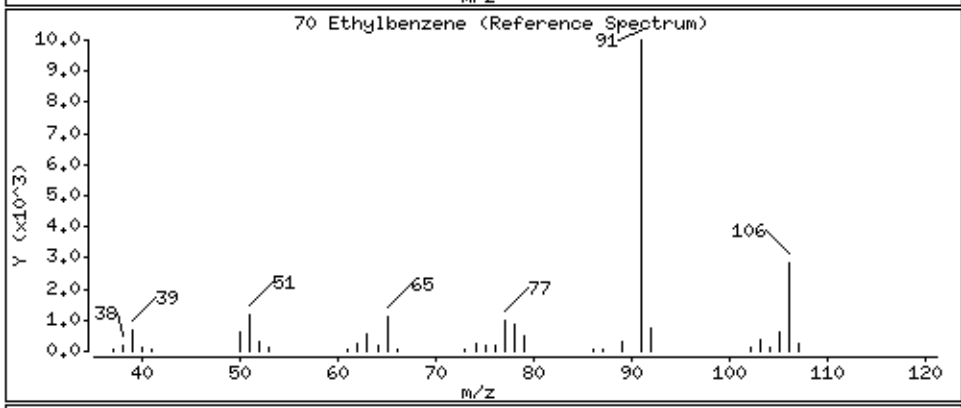
Concentration: 188 ug/kg

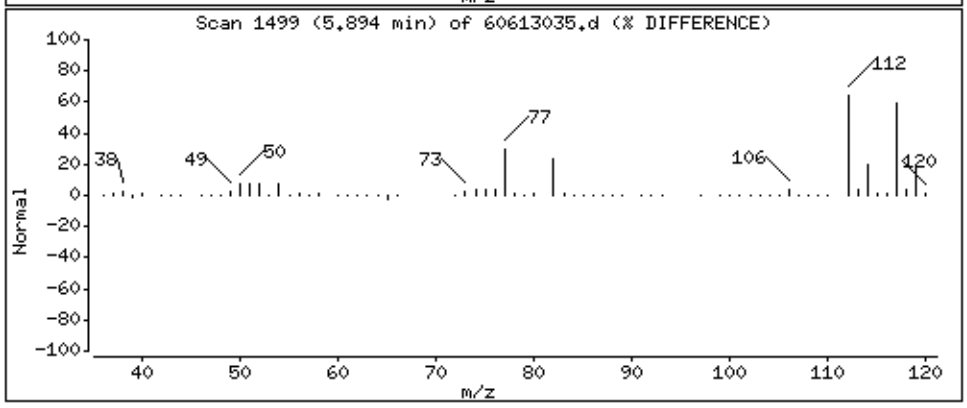












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d

Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

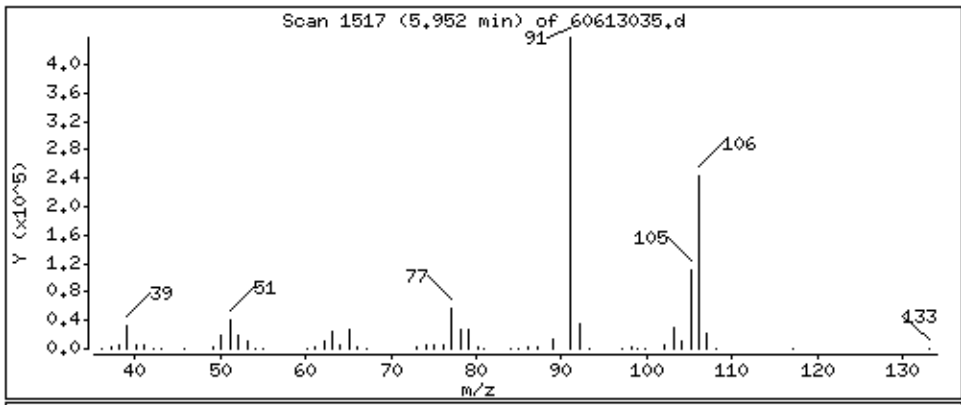
Operator: JEW

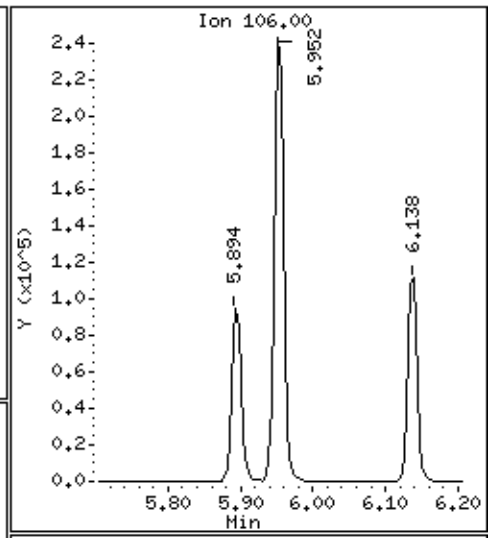
Column phase: RTX-VMS

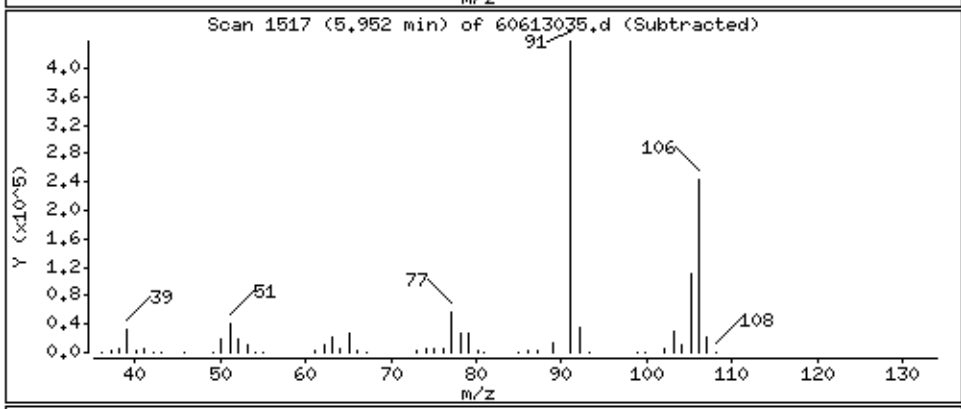
Column diameter: 0.18

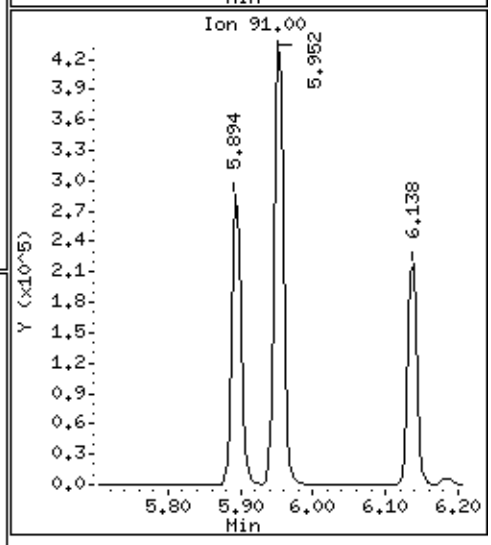
74 m&p-Xylene

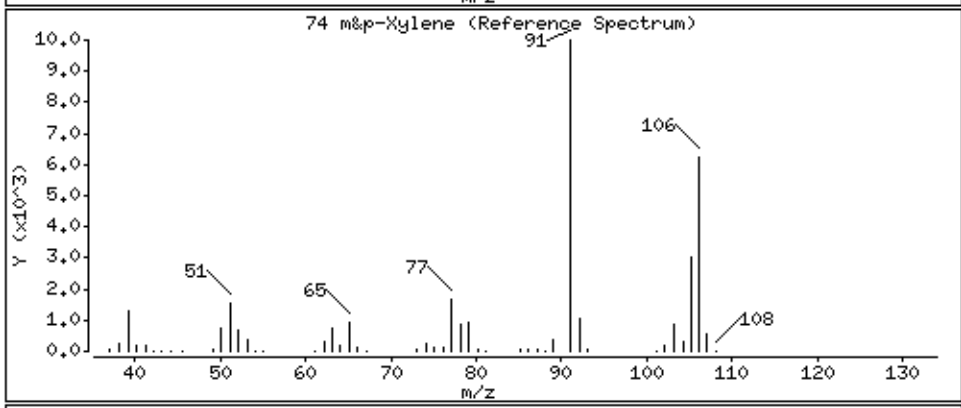
Concentration: 375 ug/kg

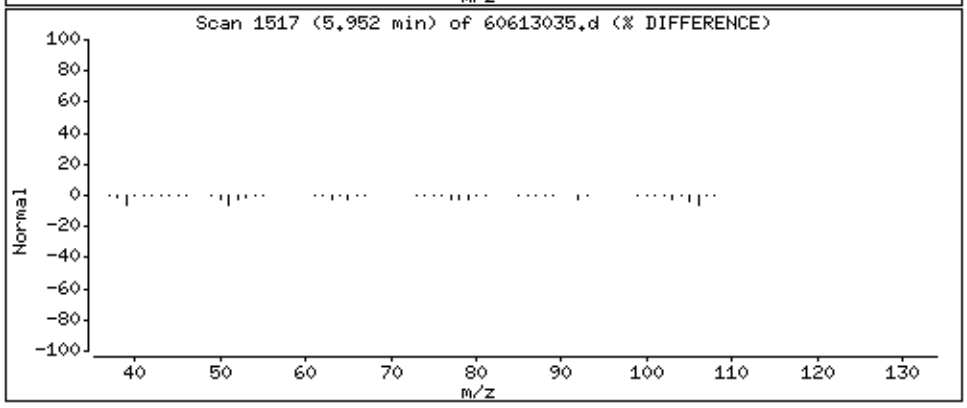












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d

Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

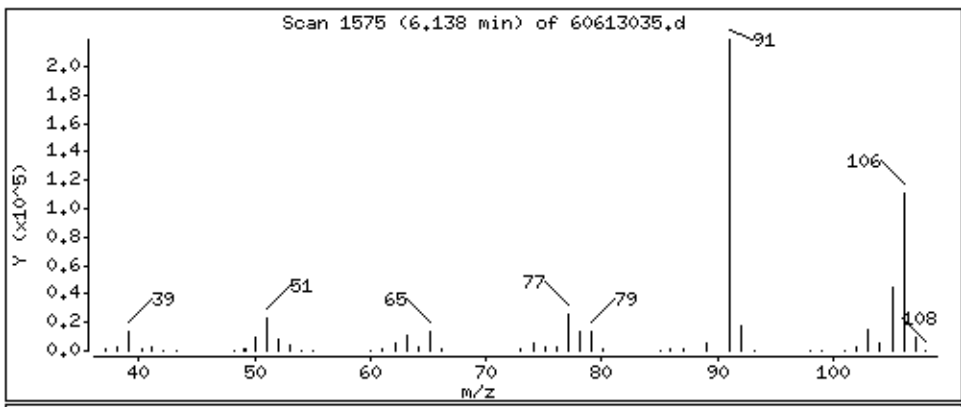
Operator: JEW

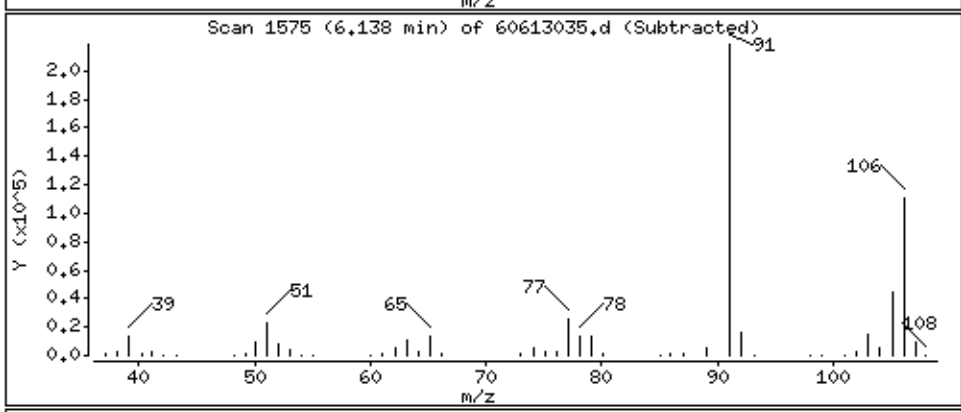
Column phase: RTX-VMS

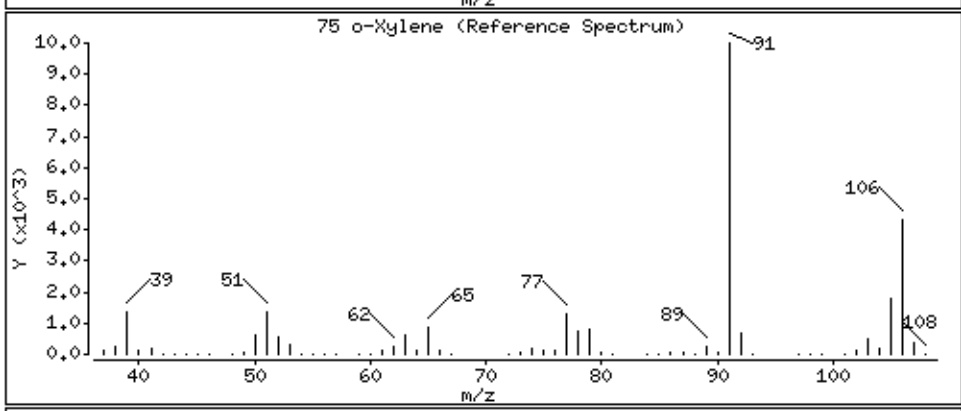
Column diameter: 0.18

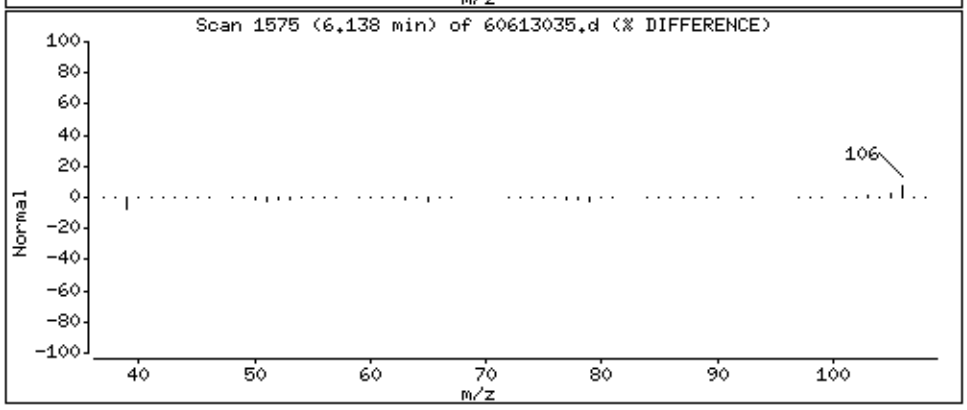
75 o-Xylene

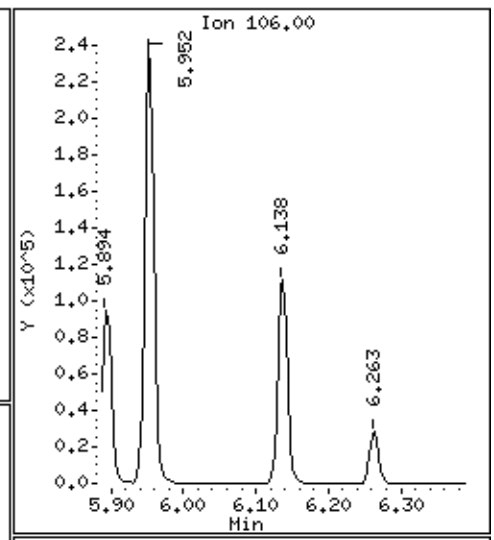
Concentration: 180 ug/kg

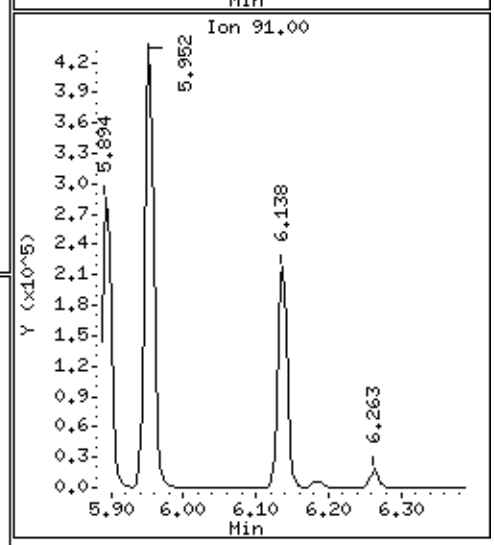












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b\60613035.d

Date : 13-JUN-2019 16:06

Client ID: AOC34-1MSD

Instrument: 30mv6a.i

Sample Info: 1687221x10

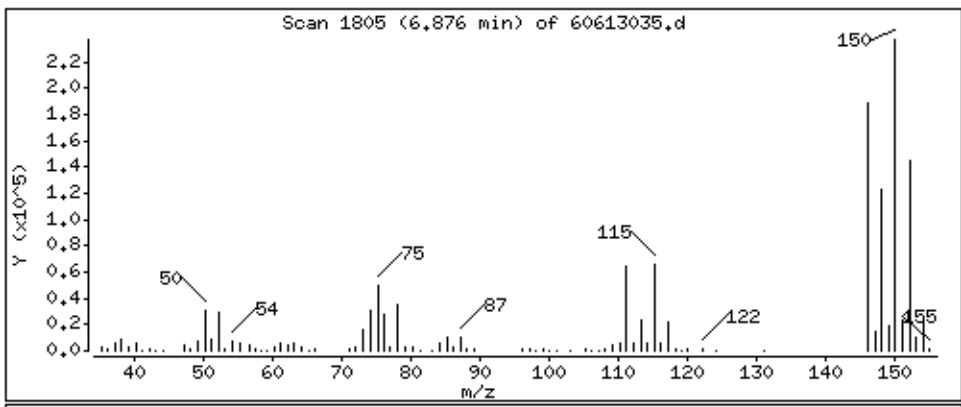
Operator: JEW

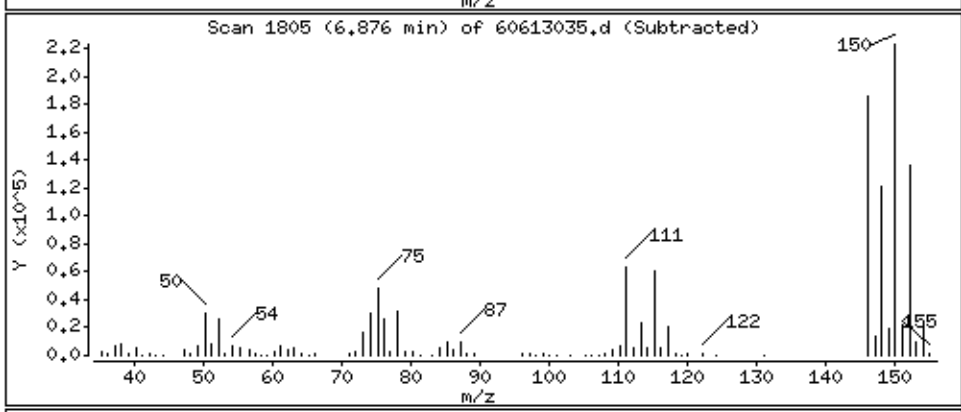
Column phase: RTX-VMS

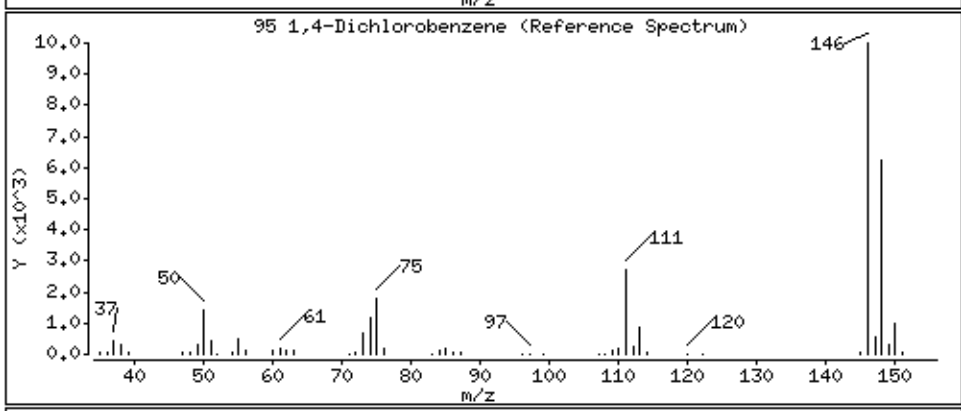
Column diameter: 0.18

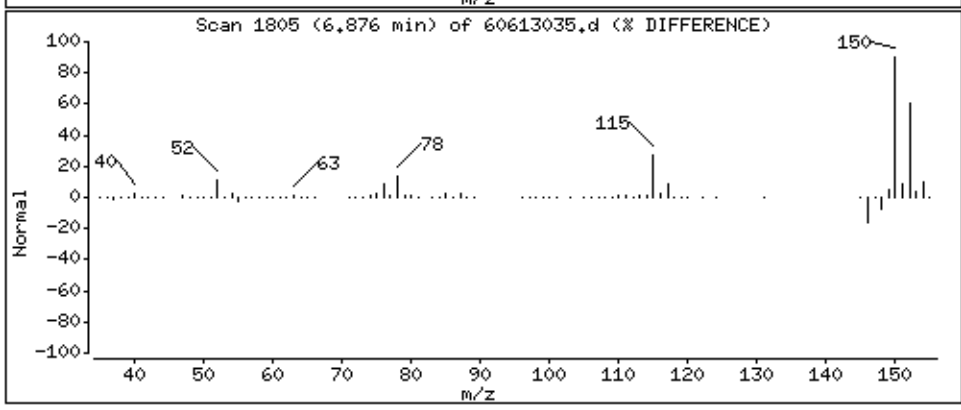
95 1,4-Dichlorobenzene

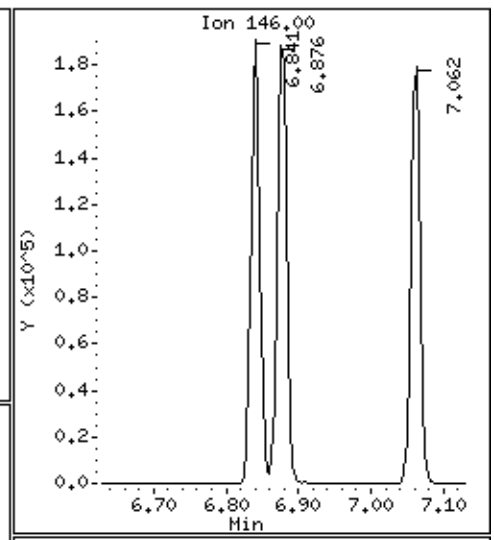
Concentration: 189 ug/kg

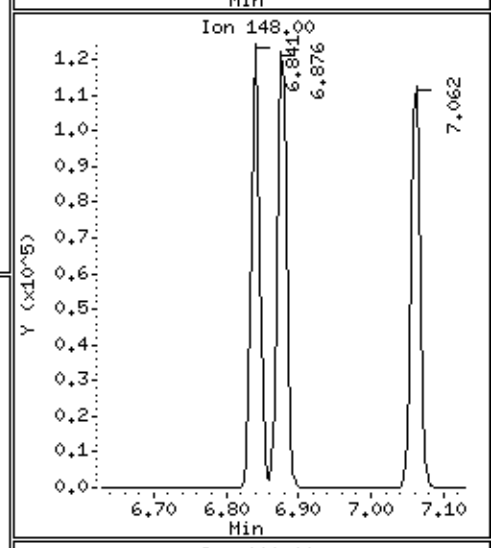


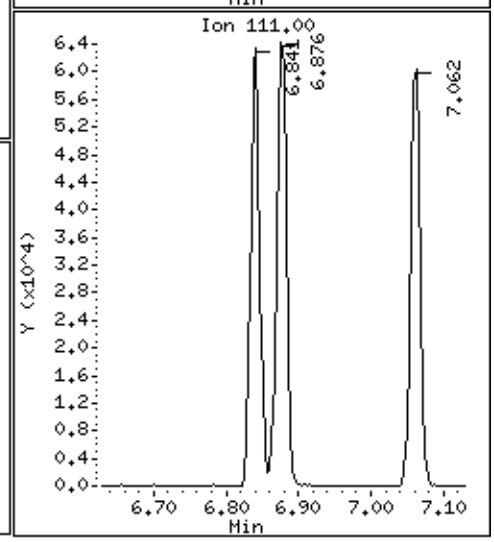












Data File: \\30wintarget\chem\30mv6a.i\6190613.b\1.b/60613035.d
Injection Date: 13-JUN-2019 16:06
Instrument: 30mv6a.i
Lab Sample ID: 1687221
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Water SDG No.: 30298231

Date Extracted: 06/17/2019 11:19 Lab Sample ID: 1690587

Date Analyzed: 06/17/2019 11:19 Lab File ID: 6190617.B\1.B\60617011-44943.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	16.3	
78-93-3	2-Butanone (MEK)	14.8	
56-23-5	Carbon tetrachloride	15.0	
108-90-7	Chlorobenzene	16.5	
67-66-3	Chloroform	15.6	
107-06-2	1,2-Dichloroethane	15.9	
75-35-4	1,1-Dichloroethene	13.6	
127-18-4	Tetrachloroethene	16.7	
79-01-6	Trichloroethene	16.0	
75-01-4	Vinyl chloride	11.5	

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Lab Smp Id: 1690587 Client Smp ID: MBLCS
Inj Date : 17-JUN-2019 11:19
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1690587,90735:5,,
Misc Info : 44943,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
	3 Vinyl Chloride	62	1.392	1.395	(0.307)	42367	11.5207	11.5(R)	
	9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	48261	13.6382	13.6(R)	
	33 Chloroform	83	3.939	3.943	(0.870)	64952	15.6025	15.6	
	34 Carbon Tetrachloride	117	4.026	4.019	(0.889)	52263	15.0126	15.0	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	101303	31.6355	31.6	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	21274	14.8479	14.8(Q)	
	41 Benzene	78	4.299	4.303	(0.950)	137276	16.2889	16.3	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.383	(0.967)	100172	31.5189	31.5	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	54236	15.8814	15.9	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	358807	30.0000		
	50 Trichloroethene	95	4.610	4.614	(0.783)	41073	16.0127	16.0	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	329681	28.1912	28.2	
	59 Toluene	91	5.258	5.259	(0.893)	161174	15.4746	15.5	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	50517	16.7480	16.7	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	314783	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	125780	16.4771	16.5	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	69326	16.8783	16.9	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	170324	33.6079	33.6	
	75 o-Xylene	106	6.138	6.141	(1.043)	84071	16.7690	16.8	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	145730	30.3213	30.3	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	196872	30.0000		

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617011-44943.d
Lab Smp Id: 1690587
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943,

Calibration Date: 17-JUN-2019
Calibration Time: 10:28
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	404562	202281	809124	358807	-11.31
71 Chlorobenzene-d5	336661	168331	673322	314783	-6.50
94 1,4-Dichlorobenze	211973	105987	423946	196872	-7.12

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1690587 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	11.5	57.60*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	13.6	68.19*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	15.6	78.01	70-130
34 Carbon Tetrachlori	20.0	15.0	75.06	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	14.8	74.24	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	16.3	81.44	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	15.9	79.41	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	16.0	80.06	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	15.5	77.37	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	16.7	83.74	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	16.9	84.39	70-130
72 Chlorobenzene	20.0	16.5	82.39	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	33.6	84.02	50-150
75 o-Xylene	20.0	16.8	83.84	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenze	20.0	0.000	*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.6	105.45	0-130

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	31.5	105.06	0-130
$ 58 Toluene-d8 (S)	30.0	28.2	93.97	0-130
$ 79 4-Bromofluorobenze	30.0	30.3	101.07	0-130

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Report Date: 18-Jun-2019 10:29

Pace Analytical Services, Inc.

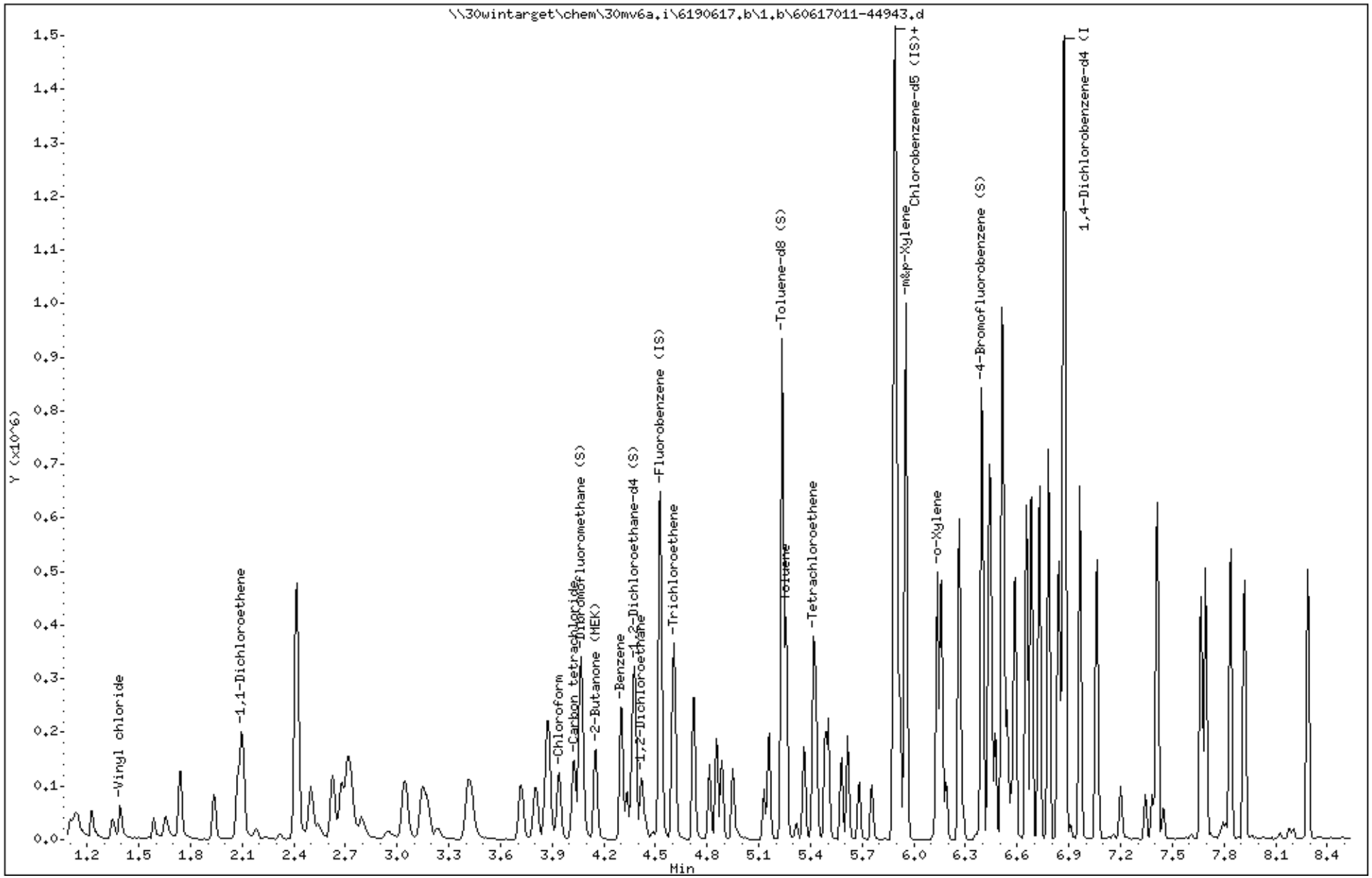
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1690587
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44943,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 17-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Vinyl Chloride	11.5	
75-35-4	1,1-Dichloroethene	13.6	
67-66-3	Chloroform	15.6	
56-23-5	Carbon Tetrachloride	15.0	
78-93-3	2-Butanone (MEK)	14.8	
71-43-2	Benzene	16.3	
107-06-2	1,2-Dichloroethane	15.9	
79-01-6	Trichloroethene	16.0	
108-88-3	Toluene	15.5	
127-18-4	Tetrachloroethene	16.7	
108-90-7	Chlorobenzene	16.5	
100-41-4	Ethylbenzene	16.9	
7816-60-0	m&p-Xylene	33.6	
95-47-6	o-Xylene	16.8	
1868-53-7	Dibromofluoromethane (S)	31.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.5	
2037-26-5	Toluene-d8 (S)	28.2	
460-00-4	4-Bromofluorobenzene (S)	30.3	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d
Date : 17-JUN-2019 11:19
Client ID: MBLCS
Instrument: 30mv6a.i
Sample Info: 1690587,90735:5,,
Purge Volume: 5.0
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

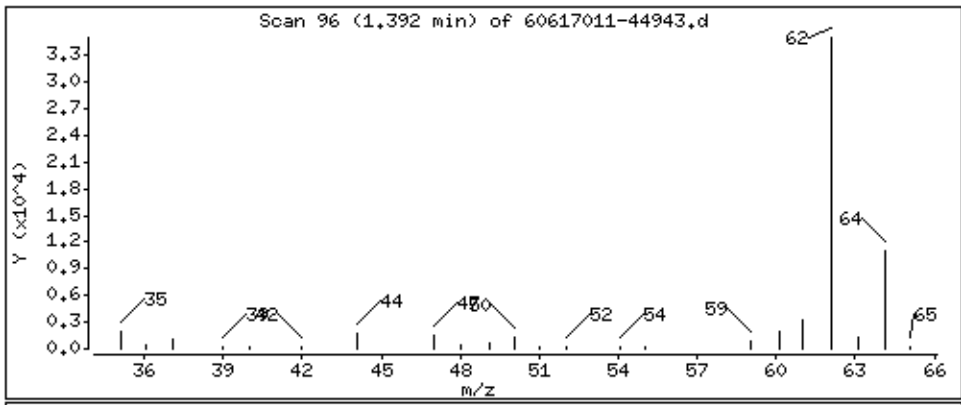
Operator: JEW

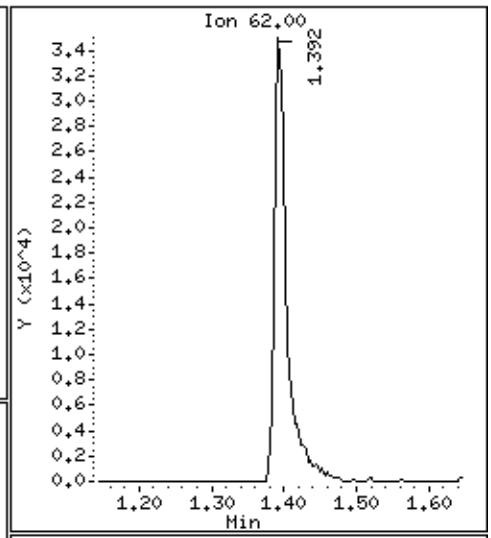
Column phase: RTX-VMS

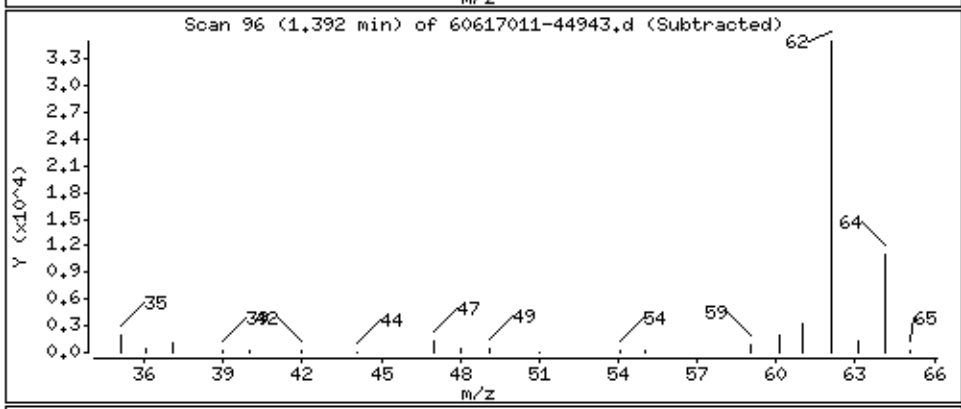
Column diameter: 0.18

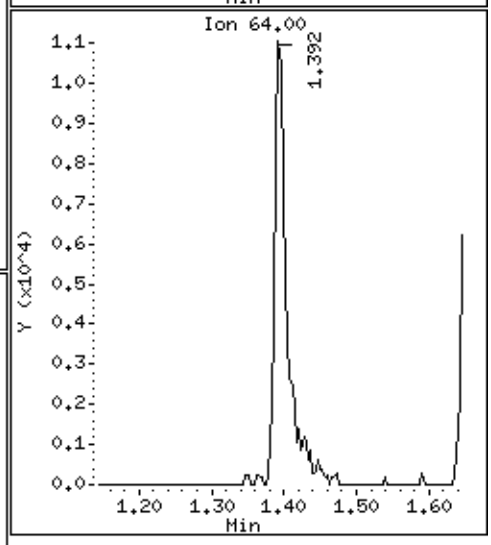
3 Vinyl Chloride

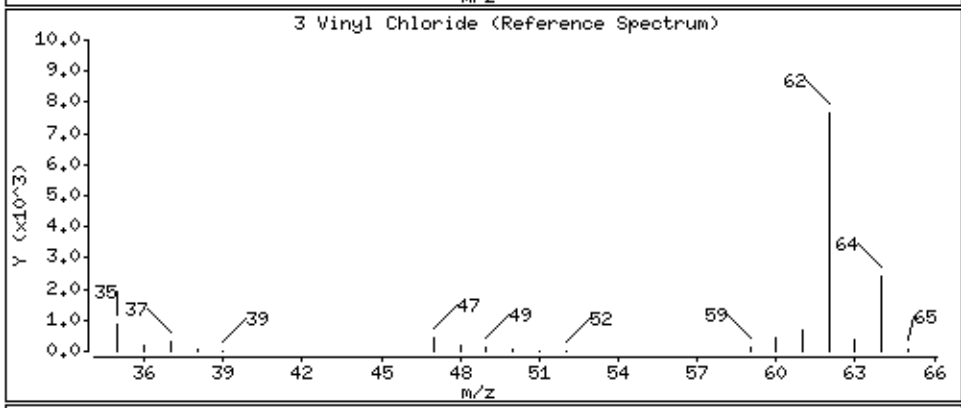
Concentration: 11.5 ug/L

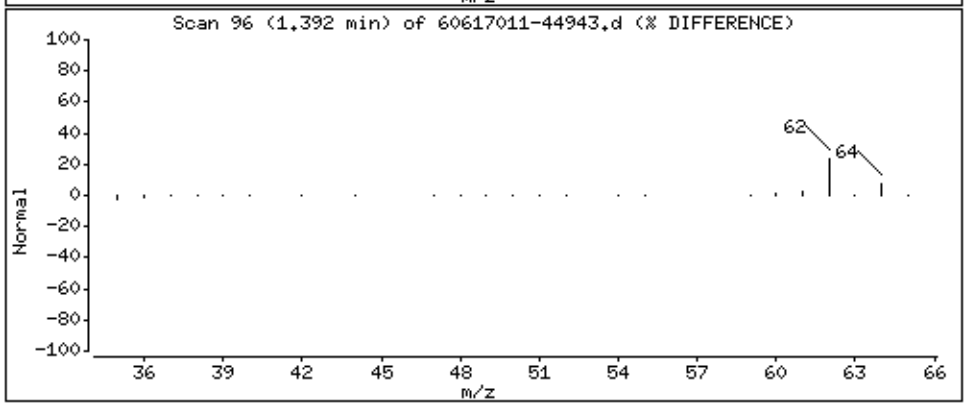












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

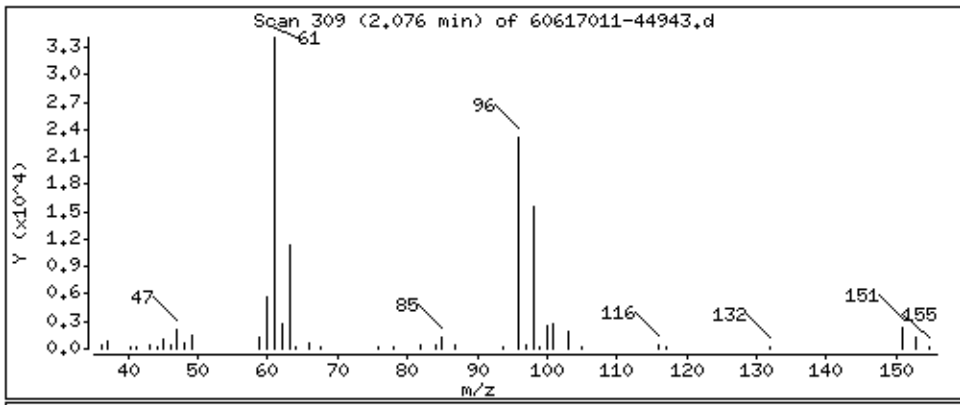
Operator: JEW

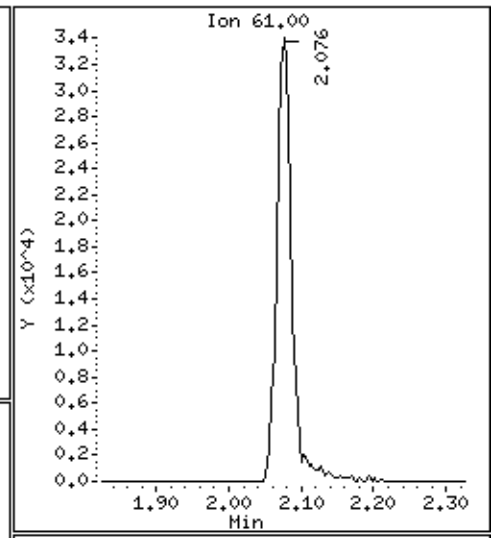
Column phase: RTX-VMS

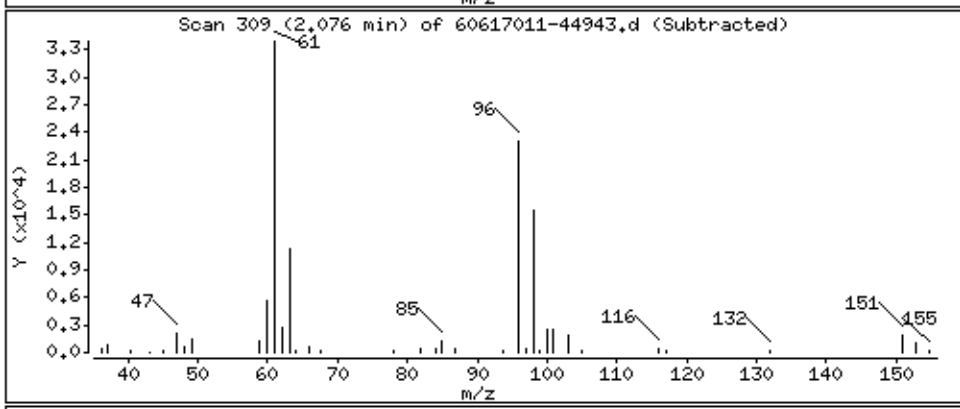
Column diameter: 0.18

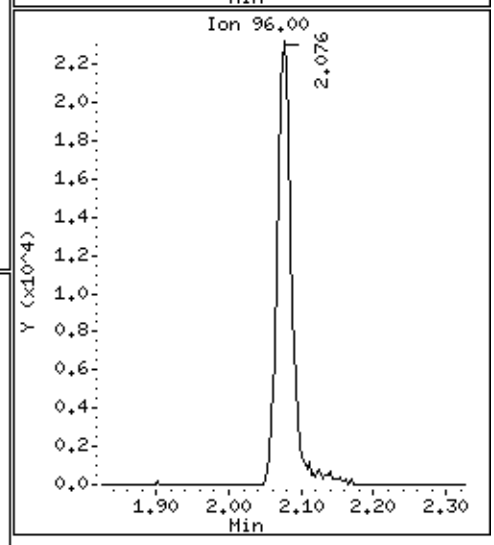
9 1,1-Dichloroethene

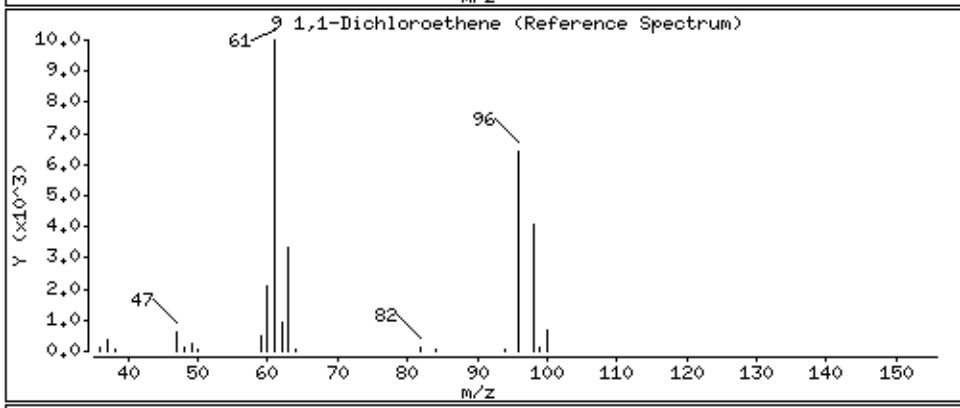
Concentration: 13.6 ug/L

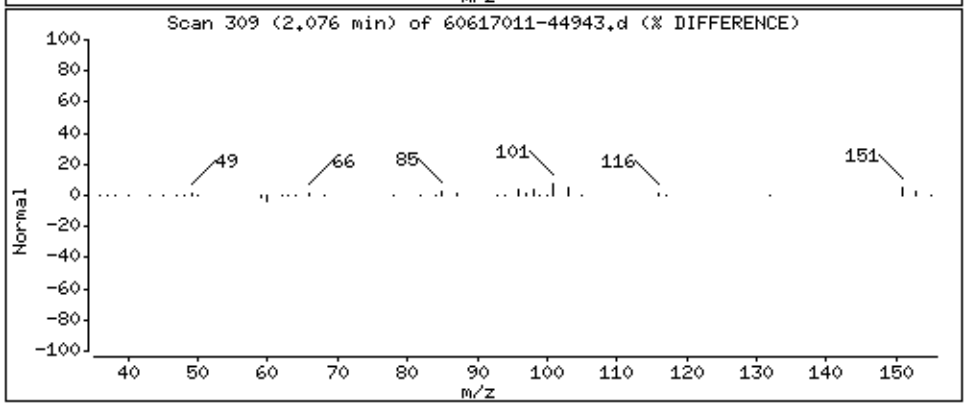












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

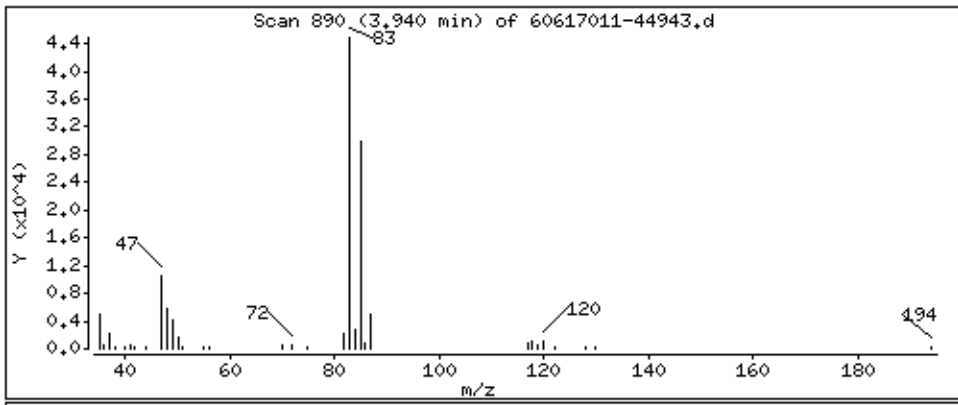
Operator: JEW

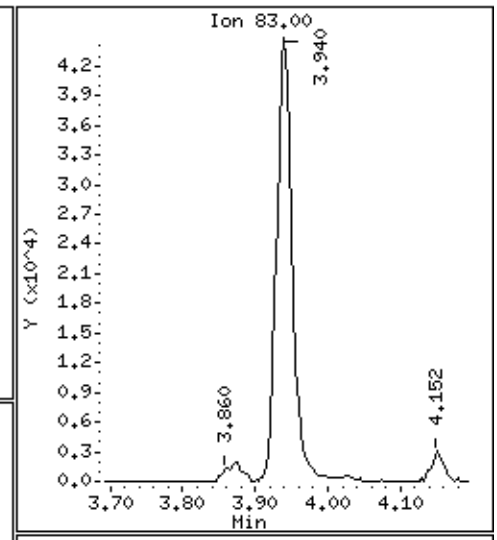
Column phase: RTX-VMS

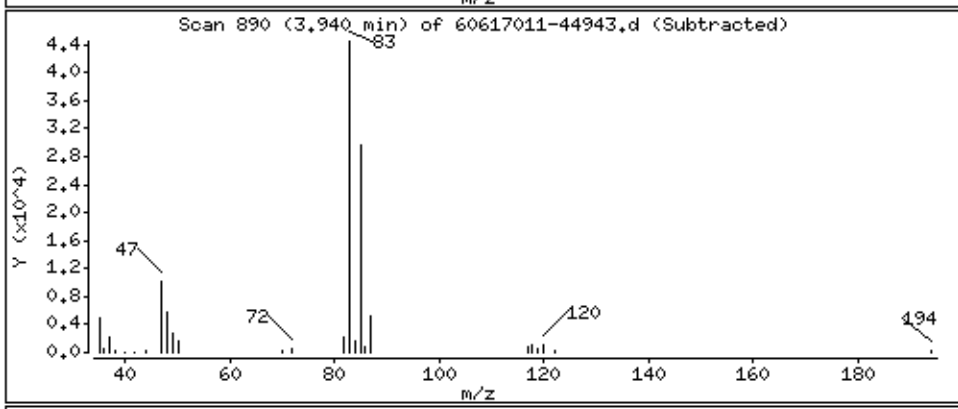
Column diameter: 0.18

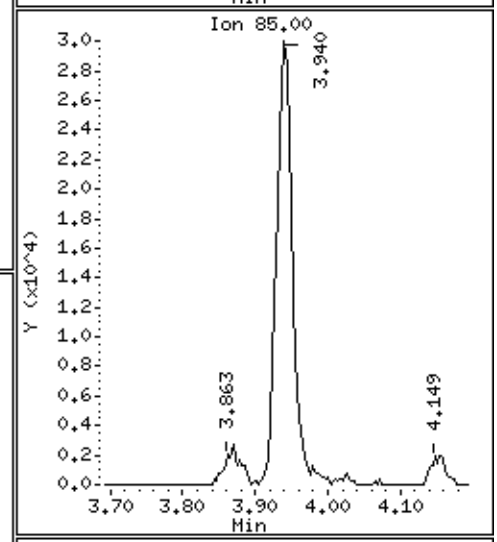
33 Chloroform

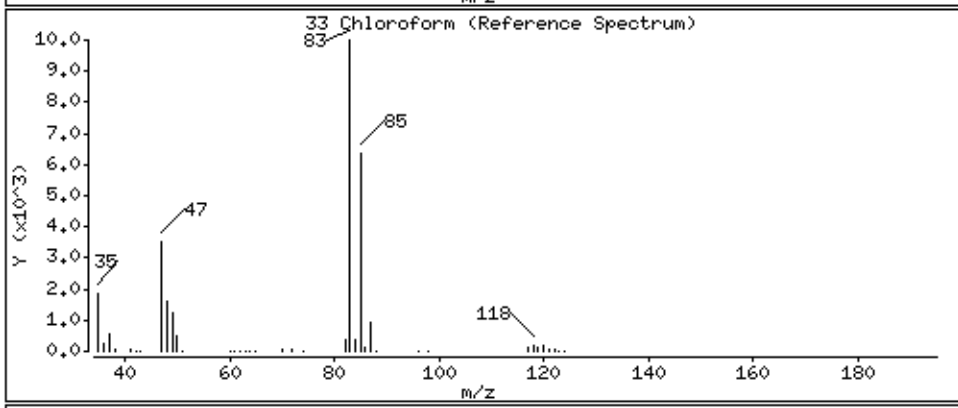
Concentration: 15.6 ug/L

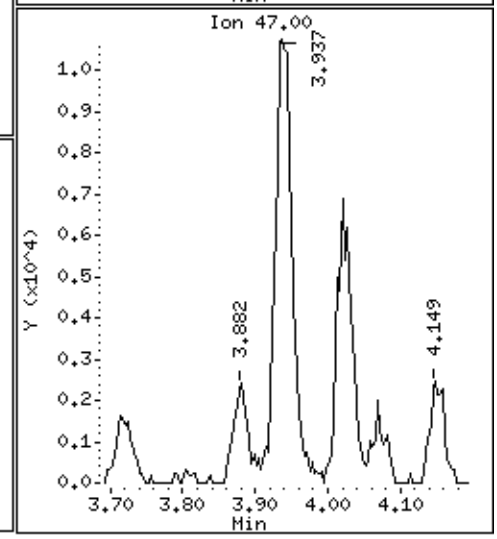


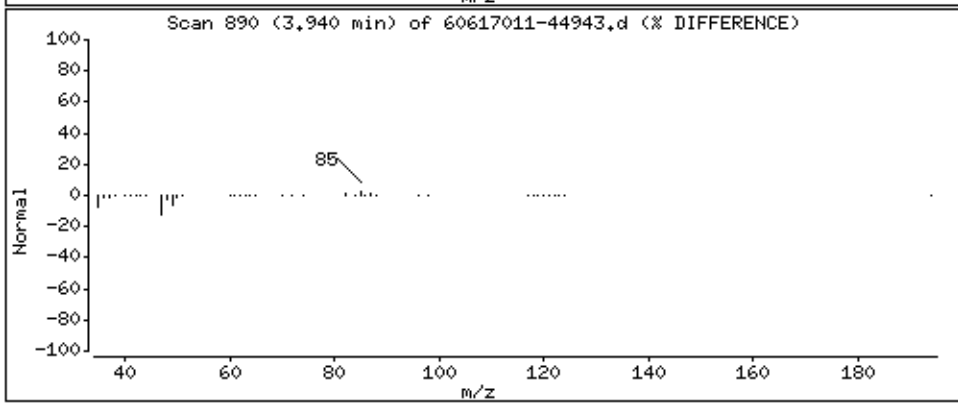












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

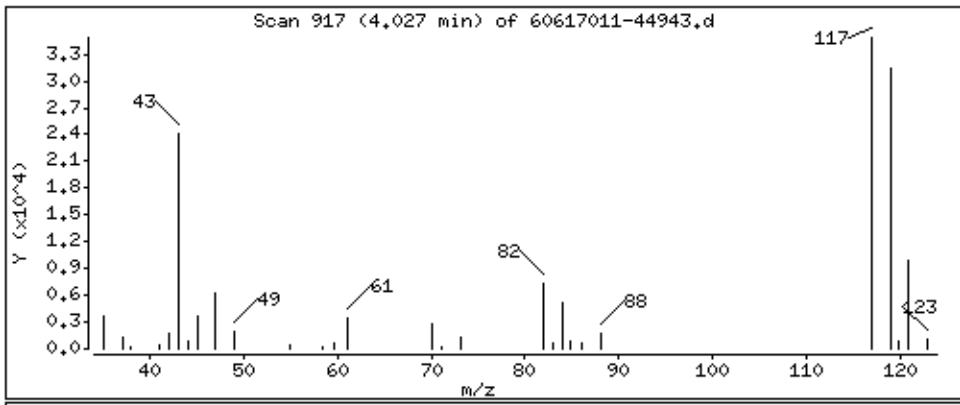
Operator: JEW

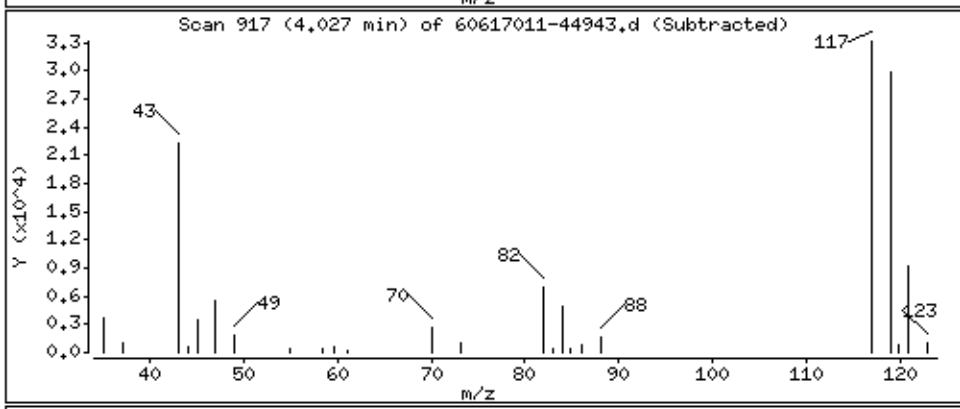
Column phase: RTX-VMS

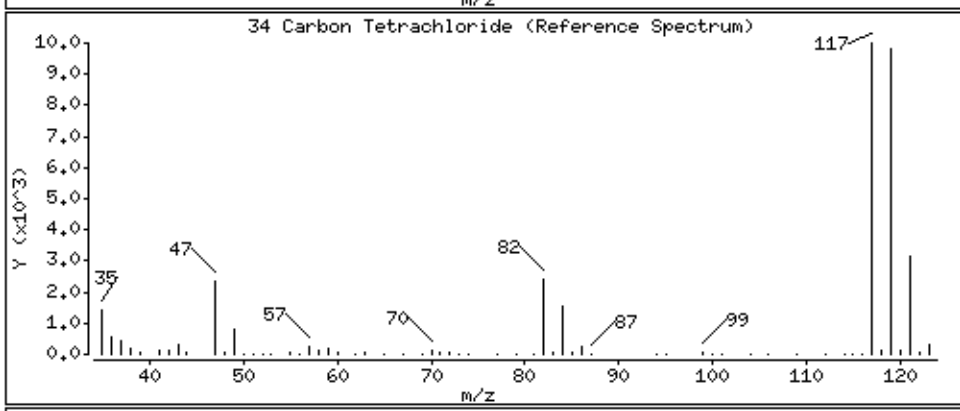
Column diameter: 0.18

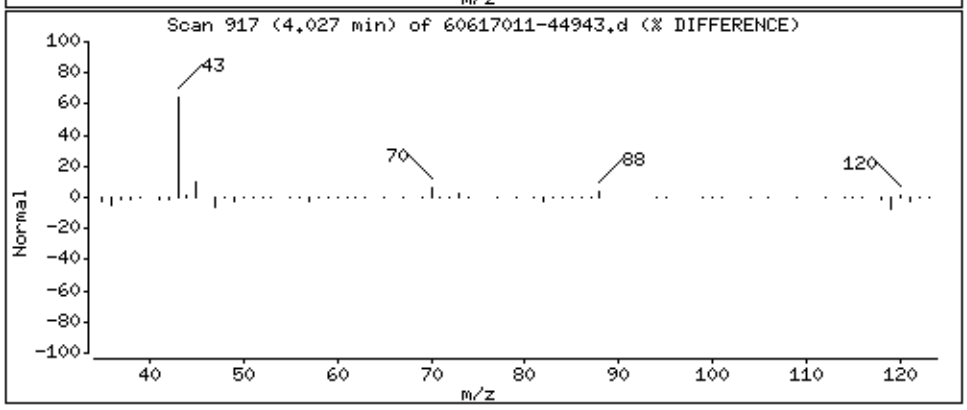
34 Carbon Tetrachloride

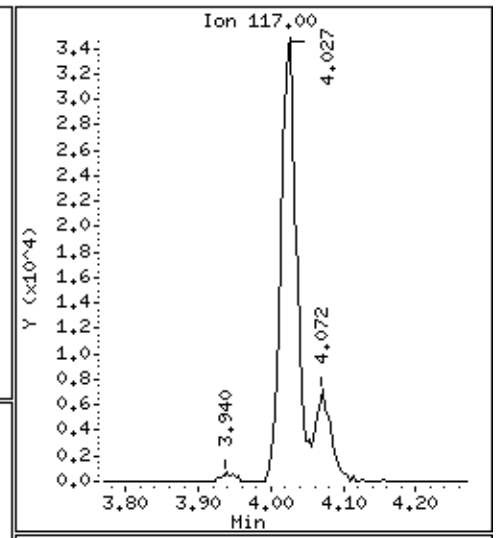
Concentration: 15.0 ug/L

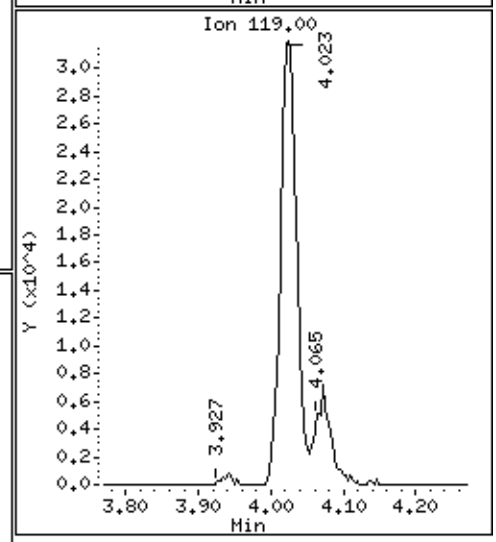












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

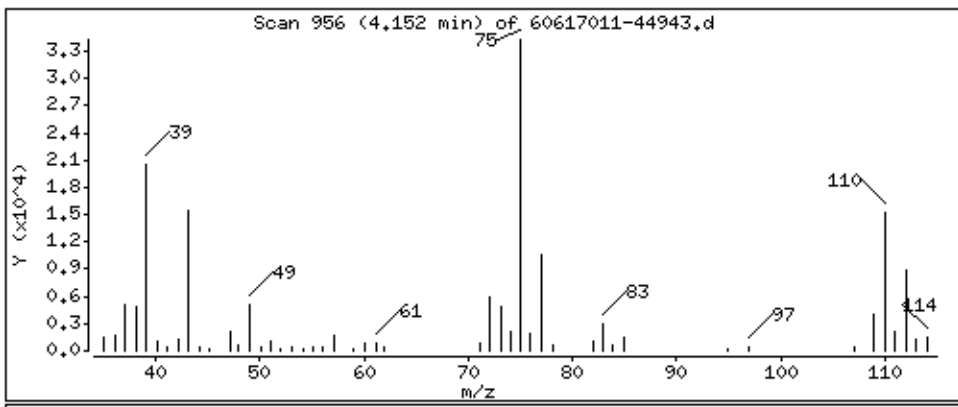
Operator: JEW

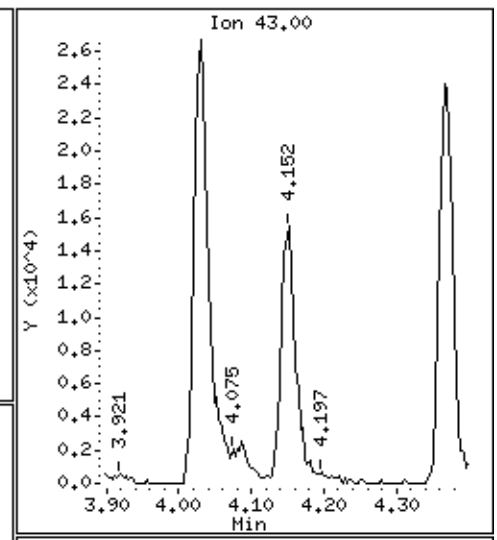
Column phase: RTX-VMS

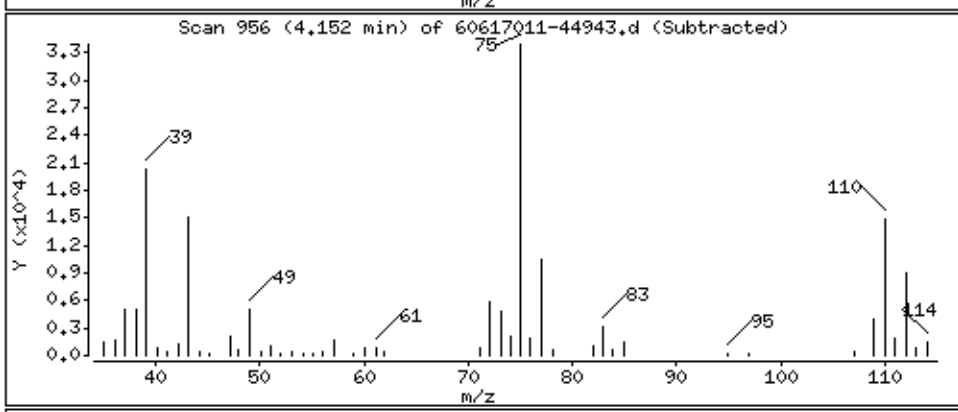
Column diameter: 0.18

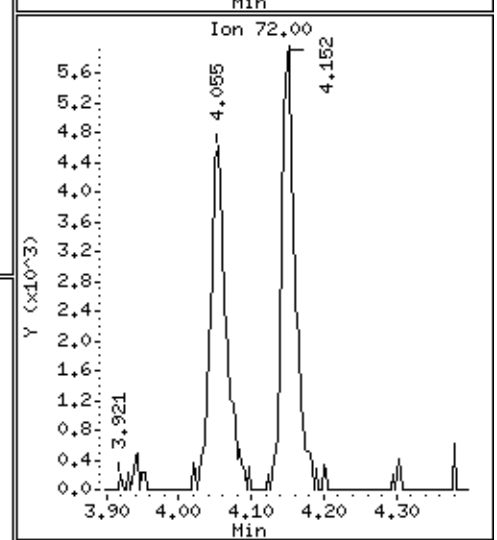
39 2-Butanone (MEK)

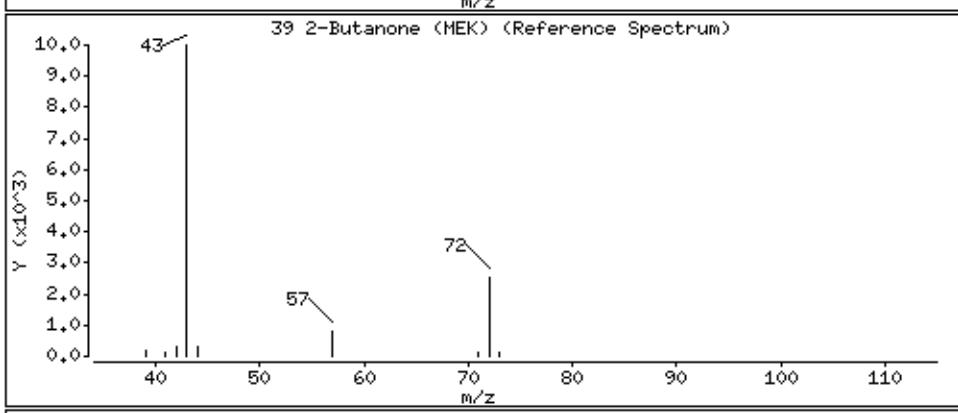
Concentration: 14.8 ug/L

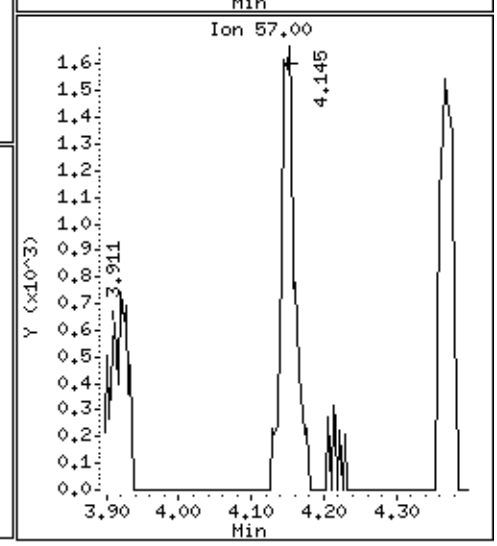


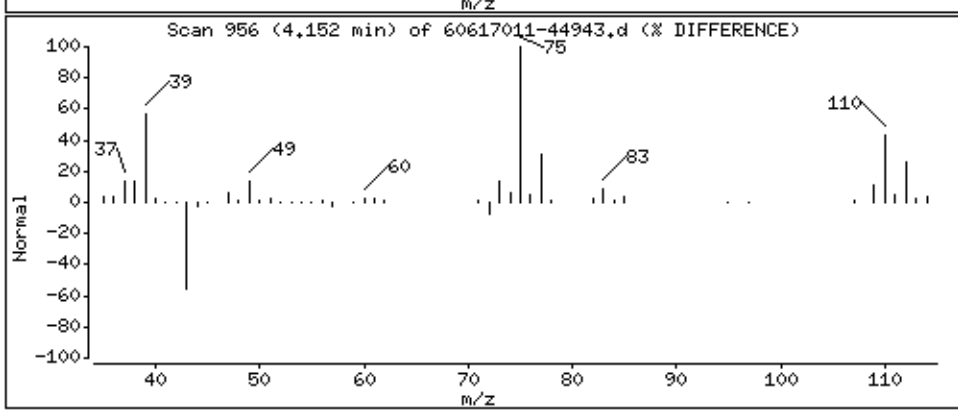












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

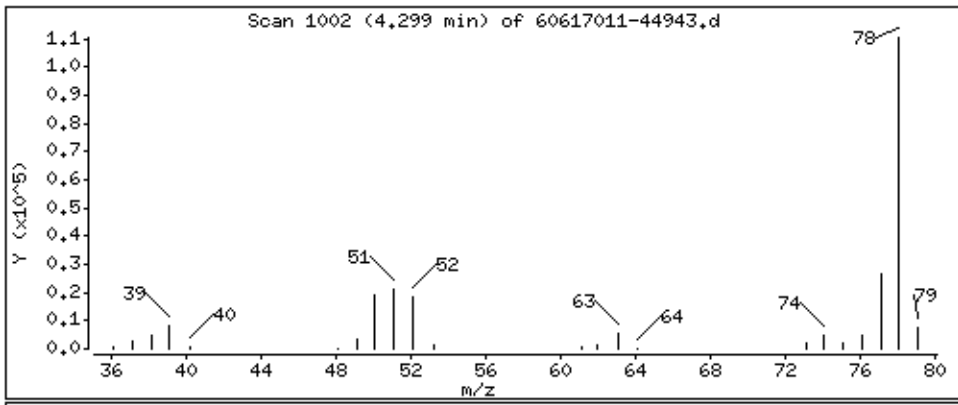
Operator: JEW

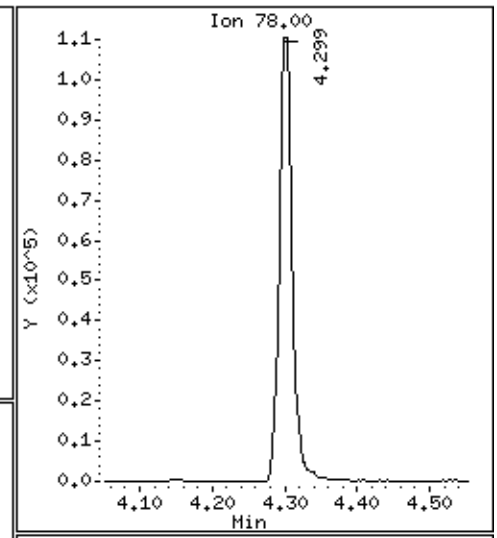
Column phase: RTX-VMS

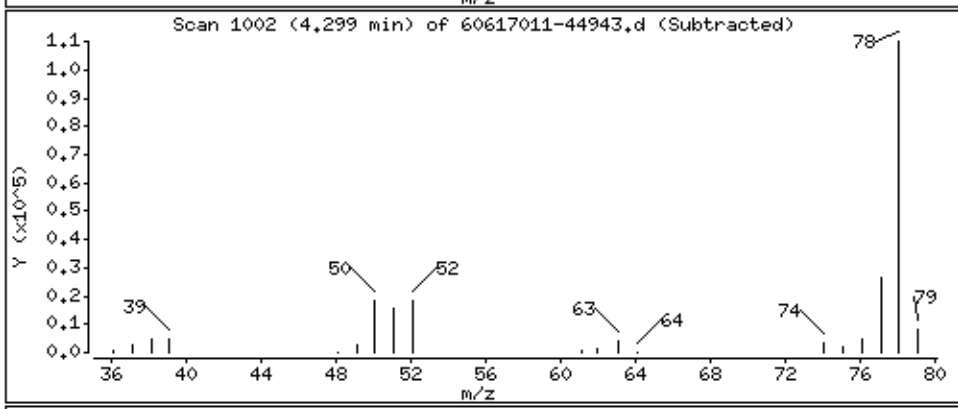
Column diameter: 0.18

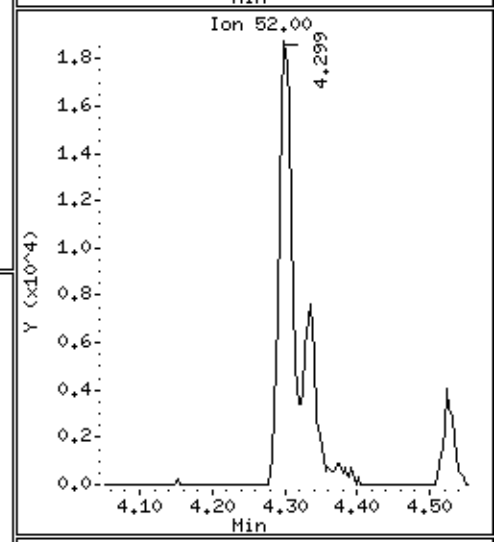
41 Benzene

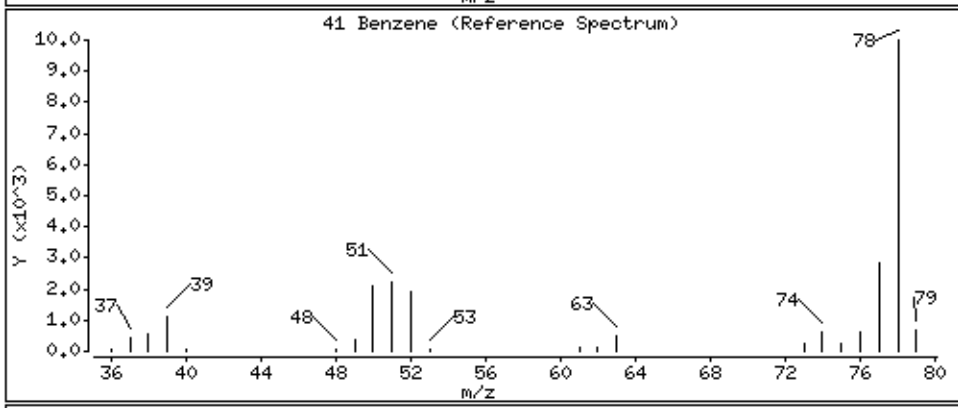
Concentration: 16.3 ug/L

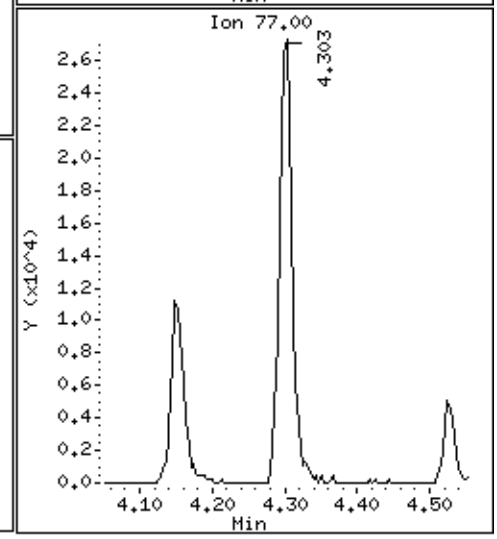


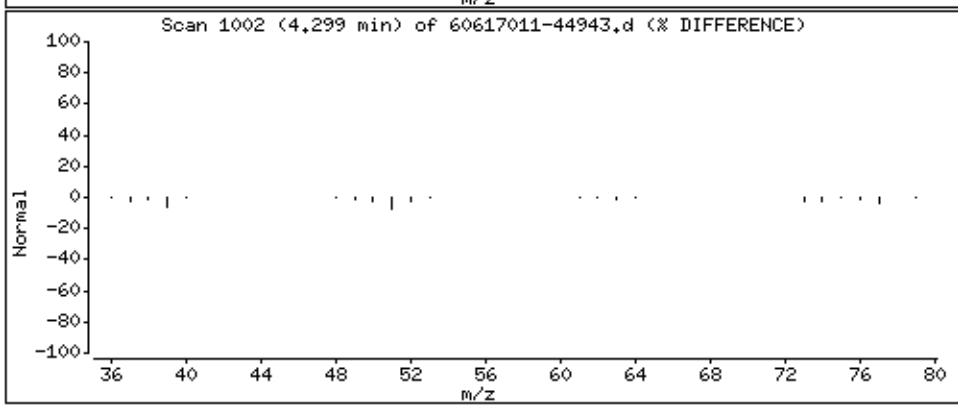












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

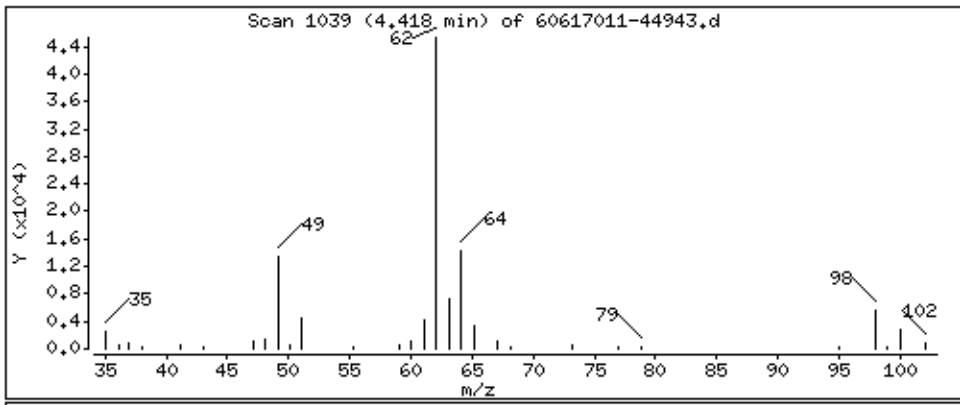
Operator: JEW

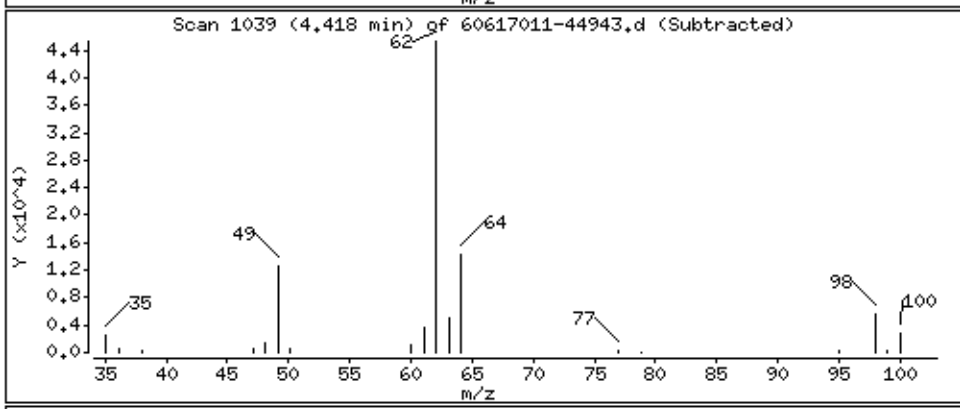
Column phase: RTX-VMS

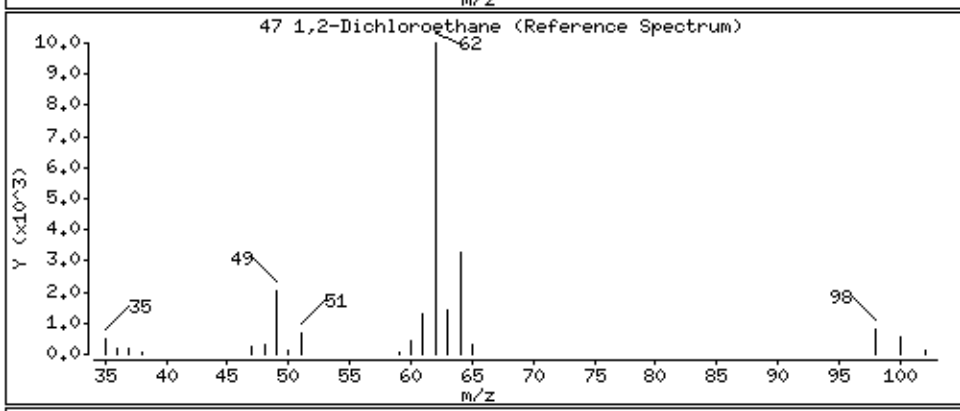
Column diameter: 0.18

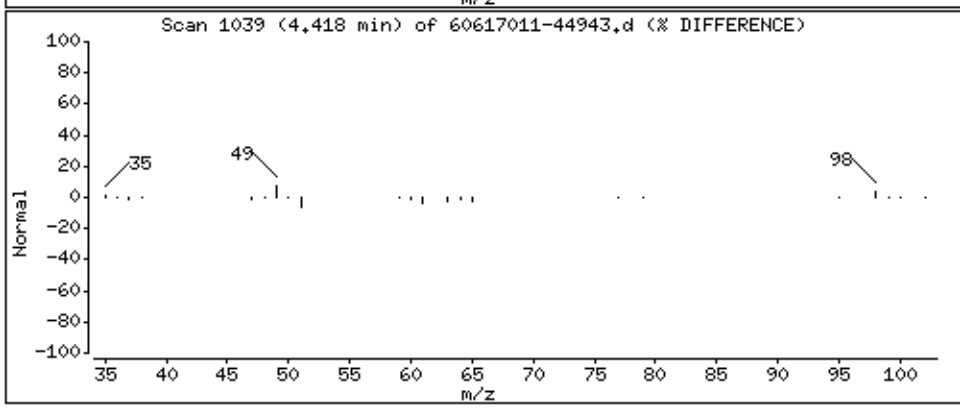
47 1,2-Dichloroethane

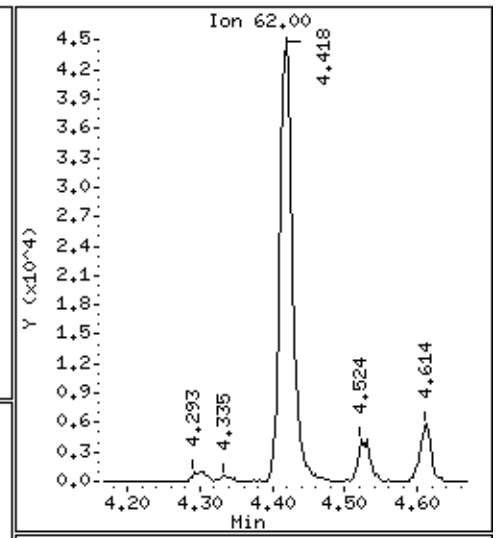
Concentration: 15.9 ug/L

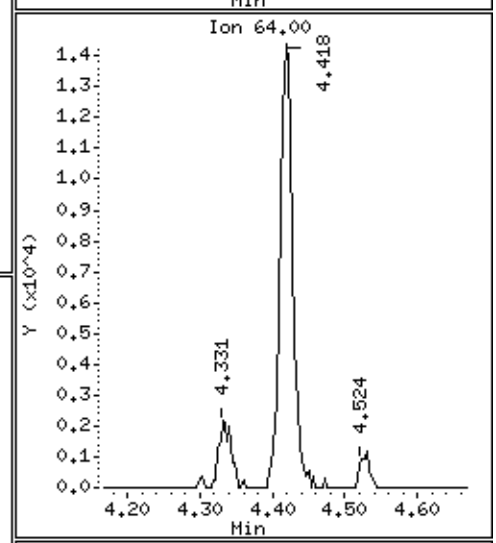


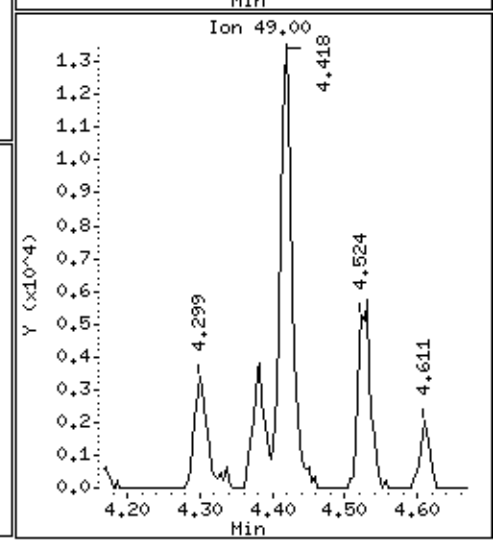












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

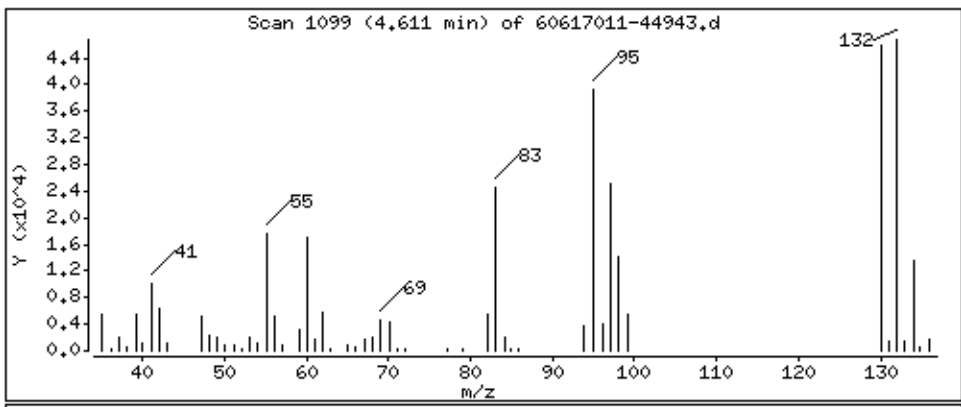
Operator: JEW

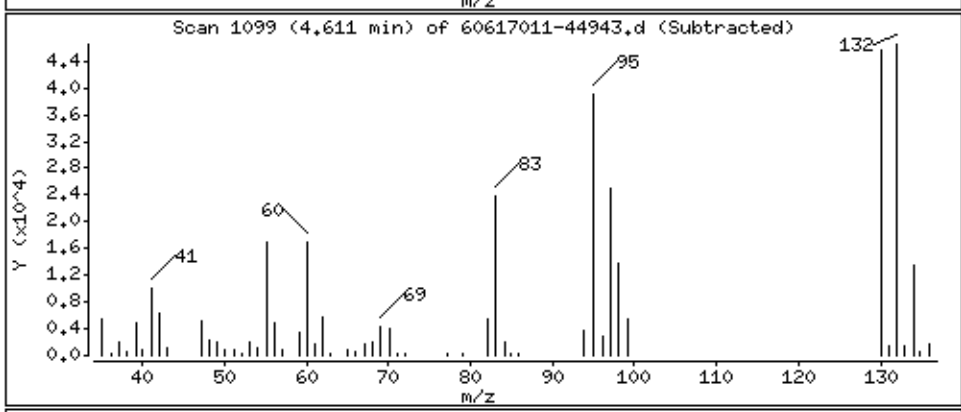
Column phase: RTX-VMS

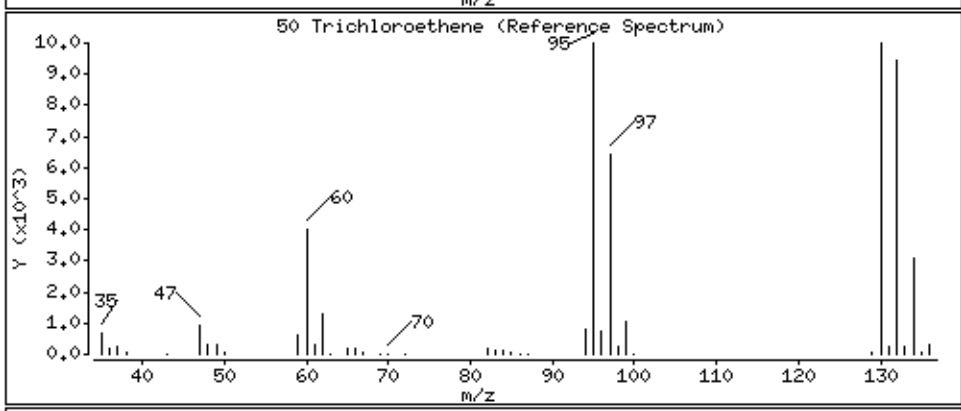
Column diameter: 0.18

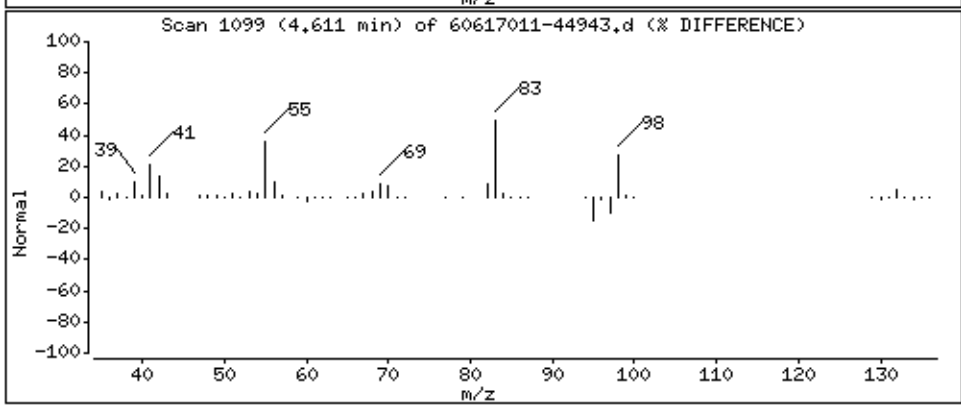
50 Trichloroethene

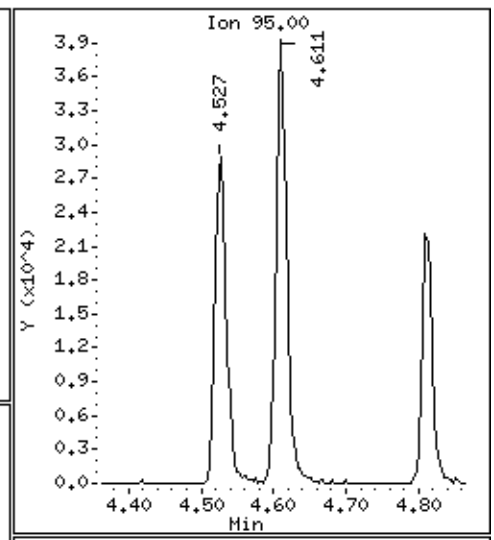
Concentration: 16.0 ug/L

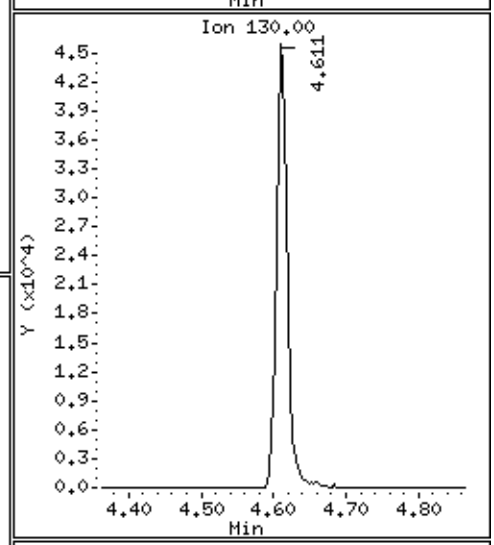


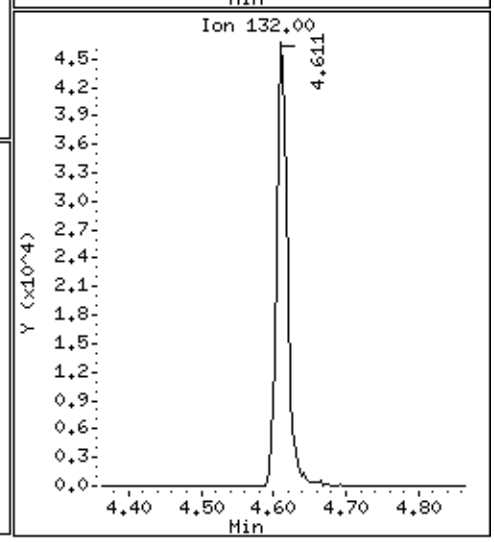












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Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

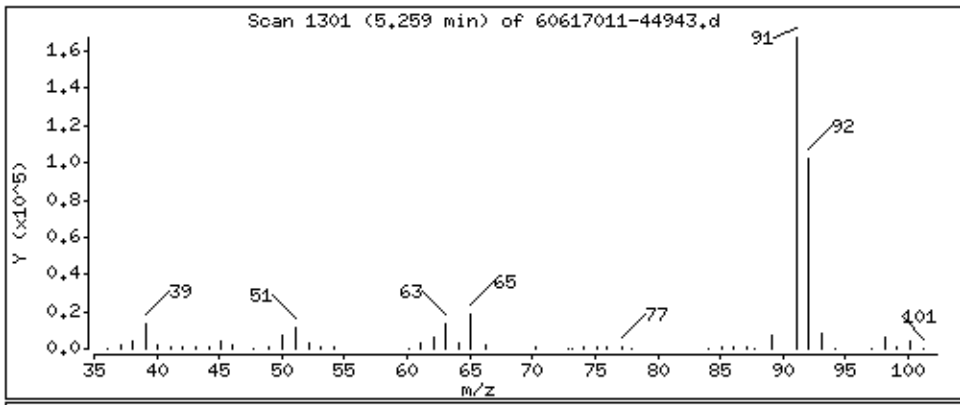
Operator: JEW

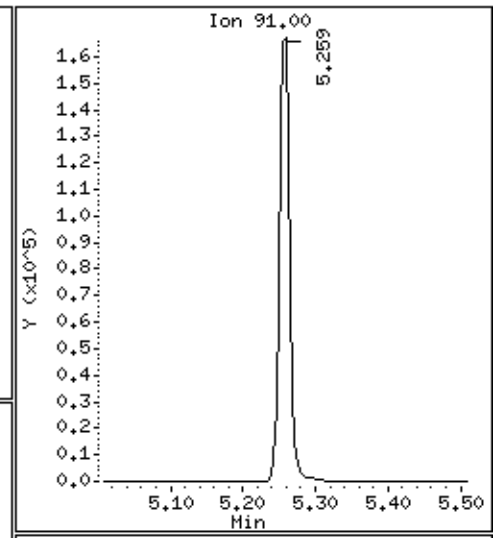
Column phase: RTX-VMS

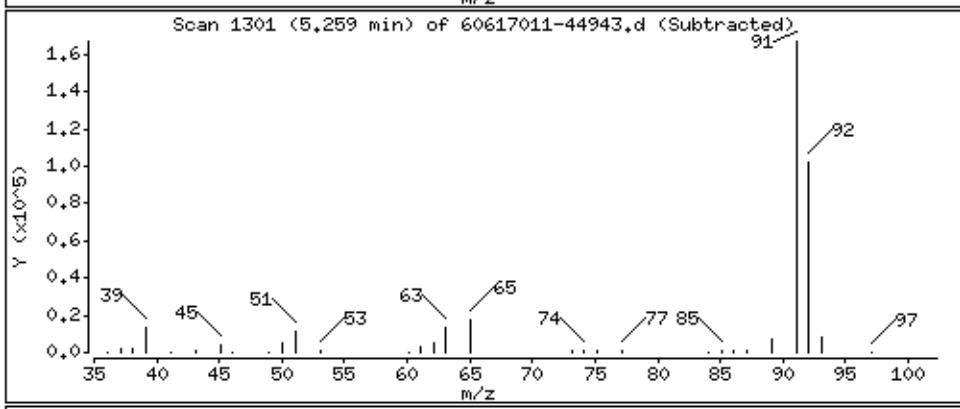
Column diameter: 0.18

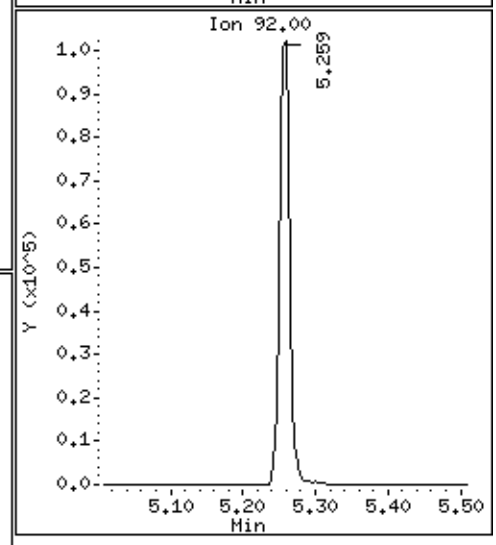
59 Toluene

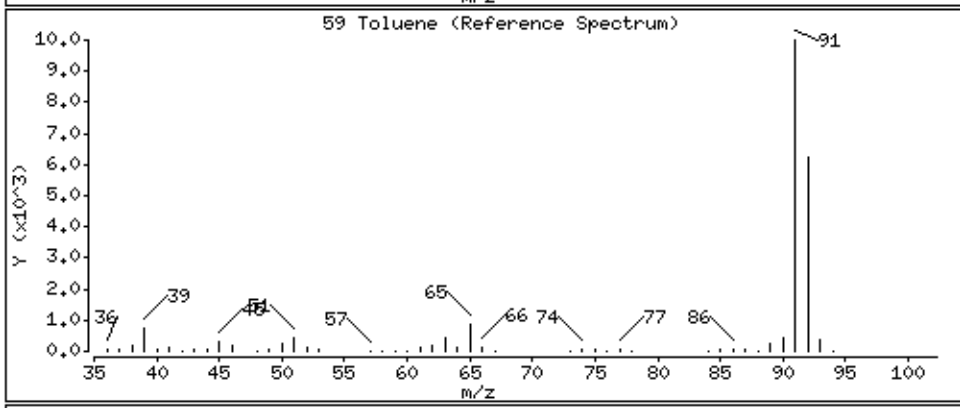
Concentration: 15.5 ug/L

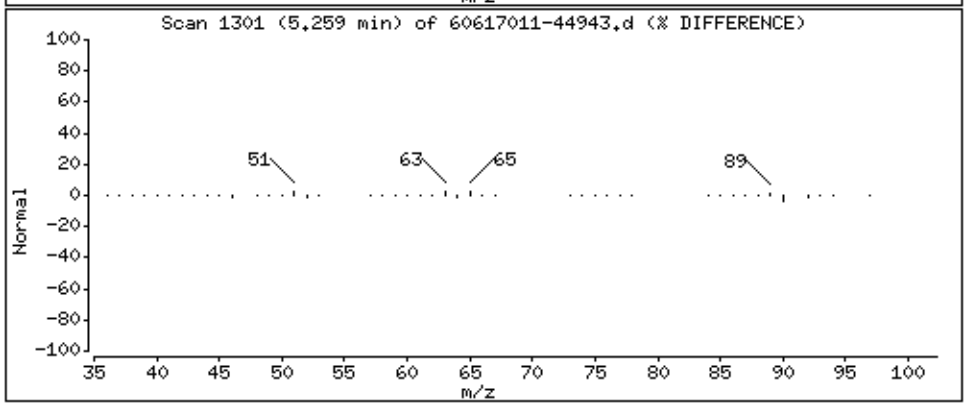












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

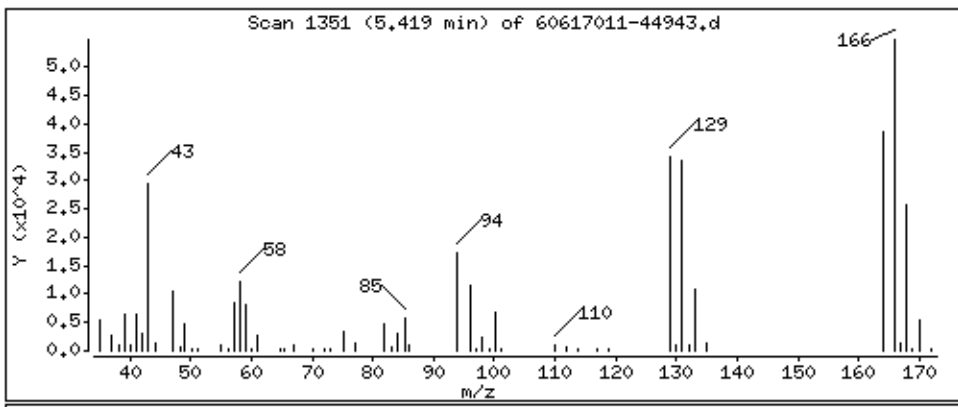
Operator: JEW

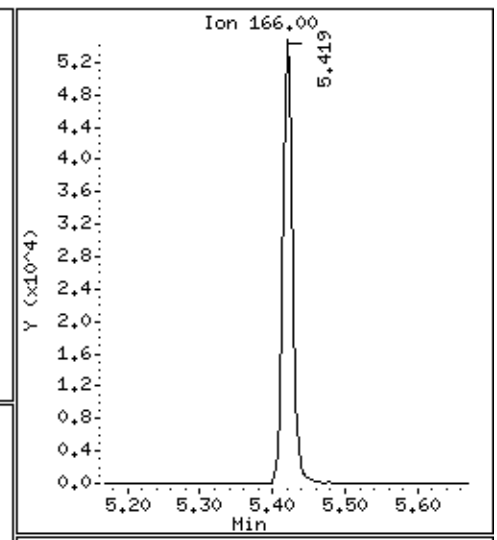
Column phase: RTX-VMS

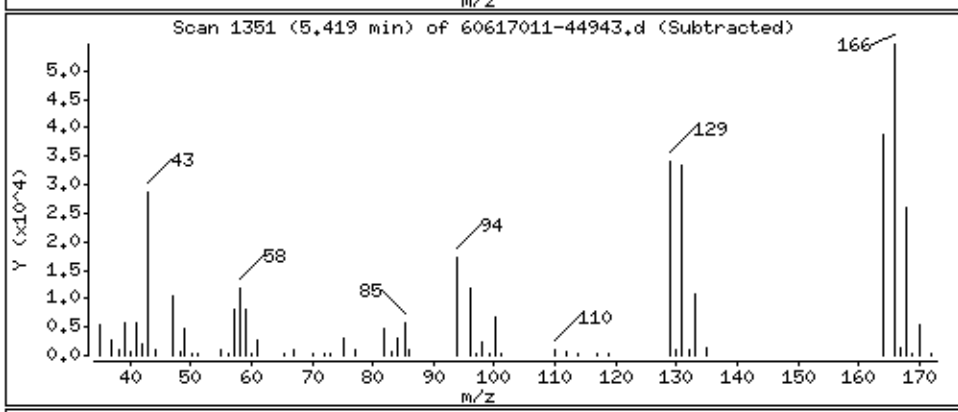
Column diameter: 0.18

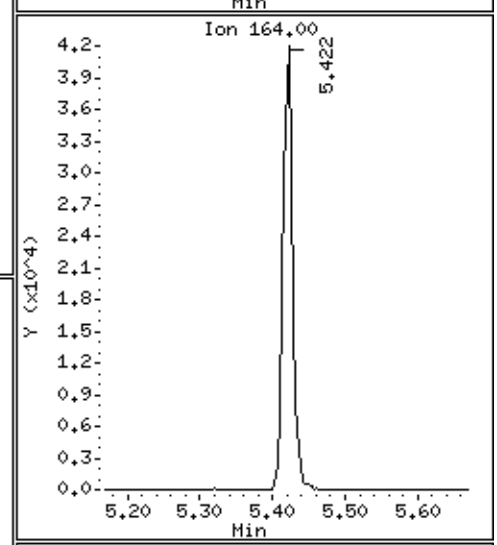
62 Tetrachloroethene

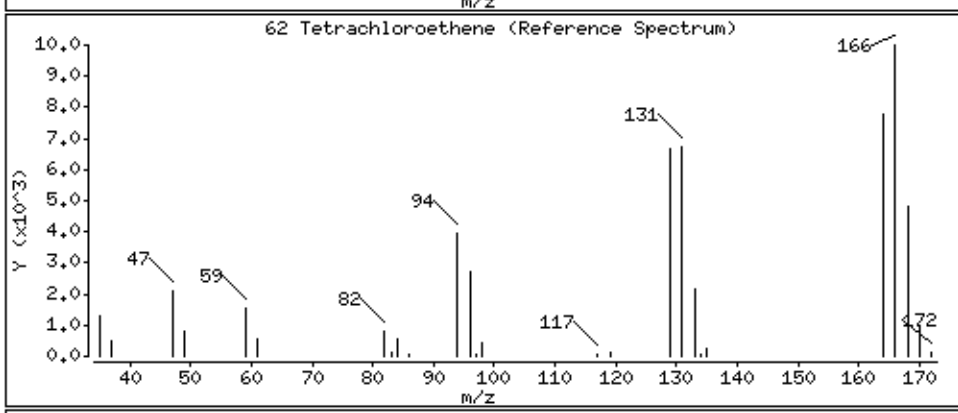
Concentration: 16.7 ug/L

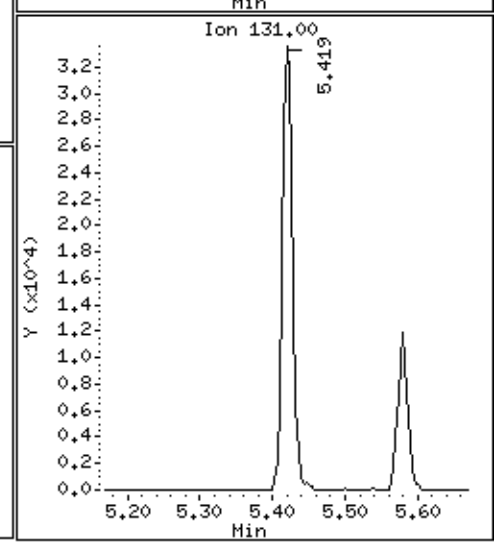


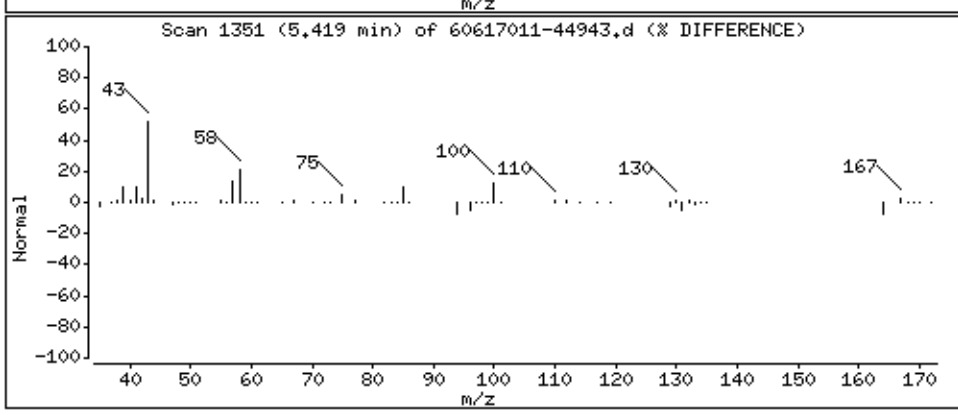












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

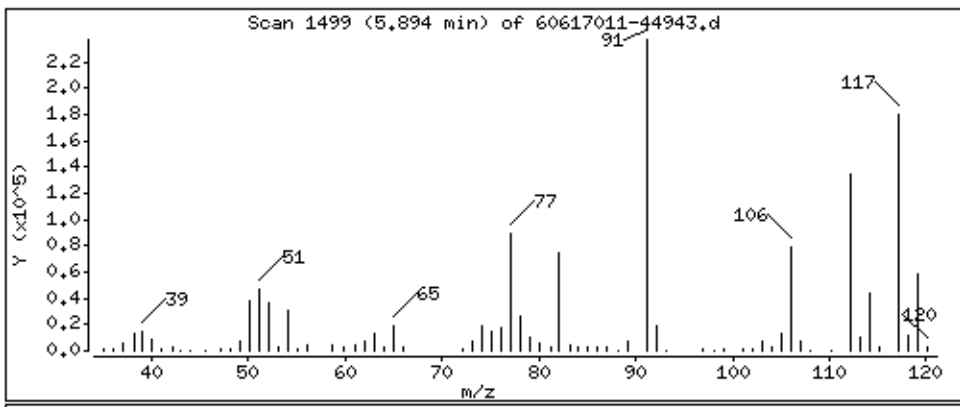
Operator: JEW

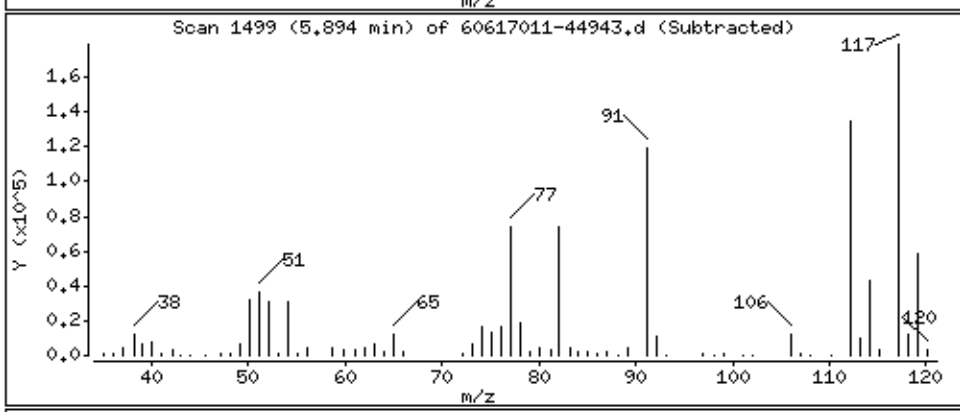
Column phase: RTX-VMS

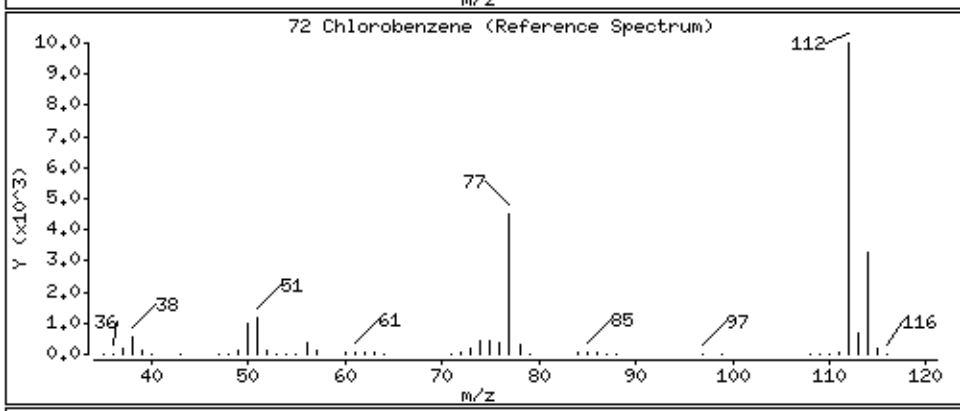
Column diameter: 0.18

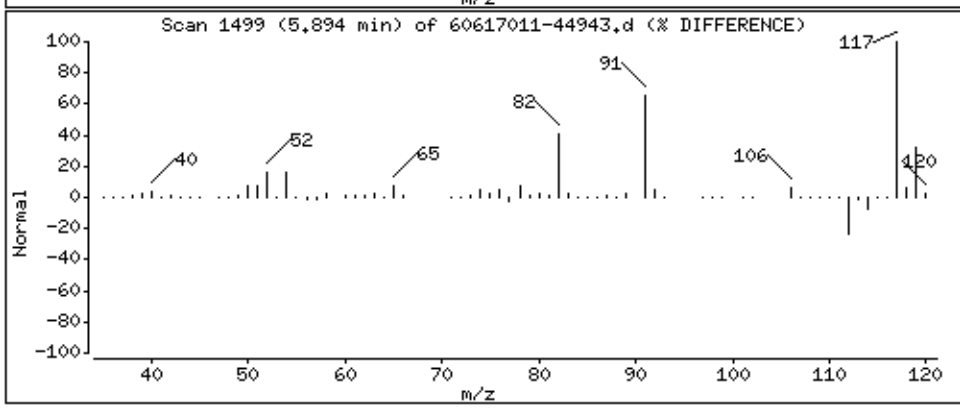
72 Chlorobenzene

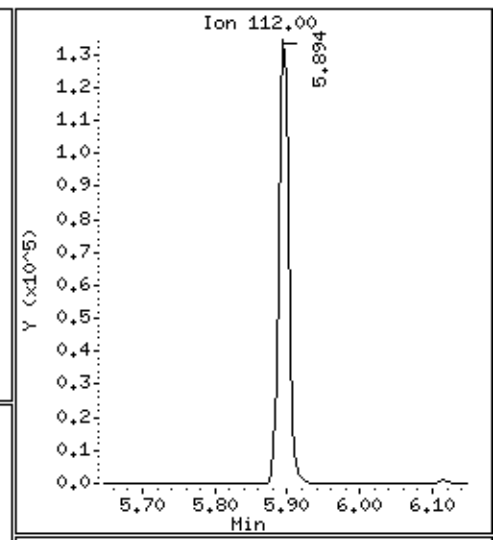
Concentration: 16.5 ug/L

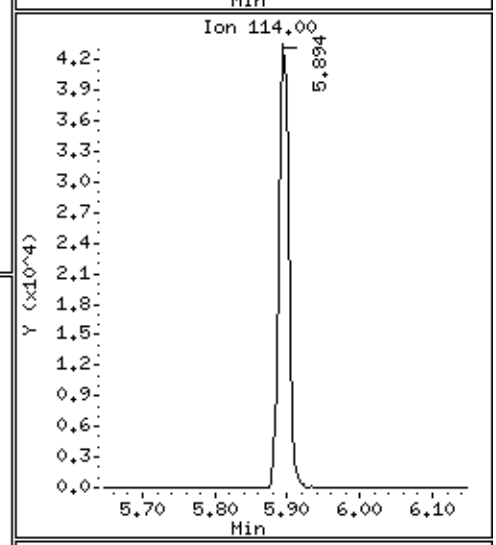


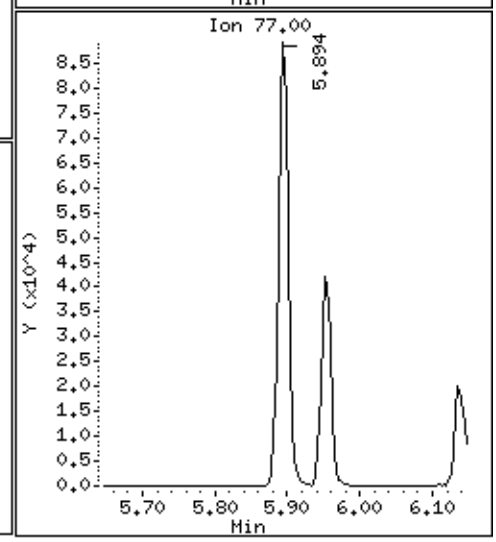












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

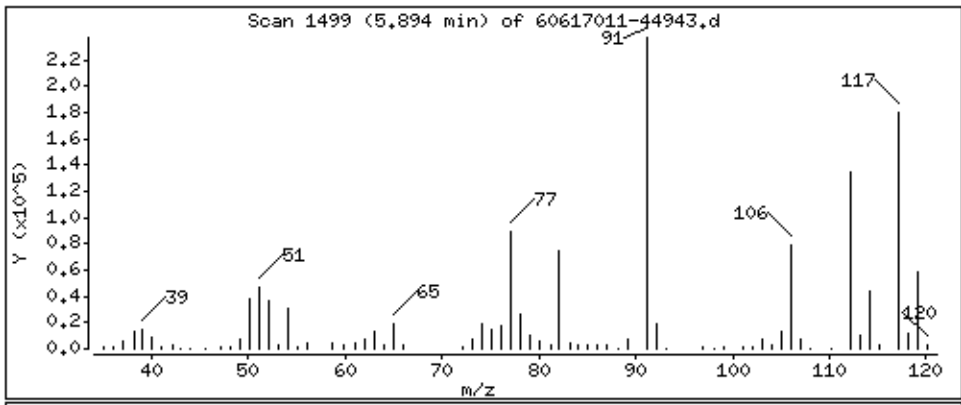
Operator: JEW

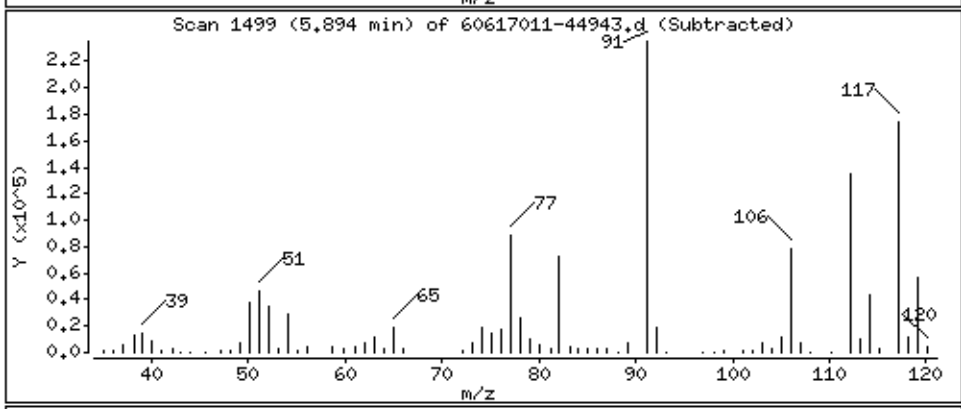
Column phase: RTX-VMS

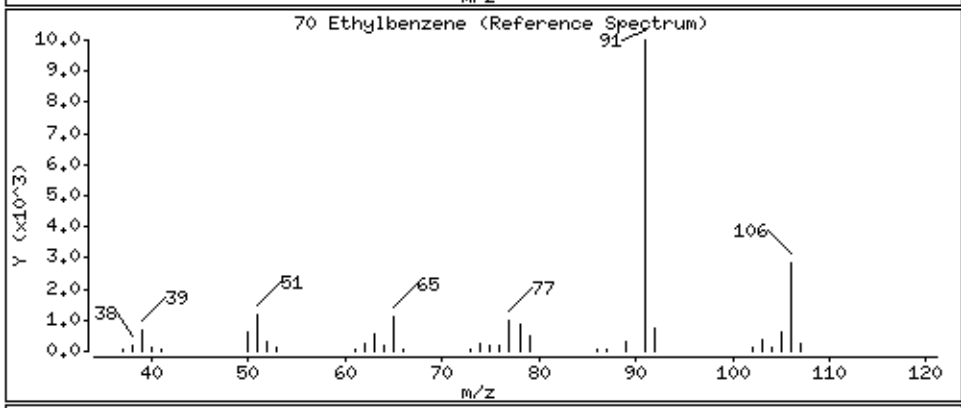
Column diameter: 0.18

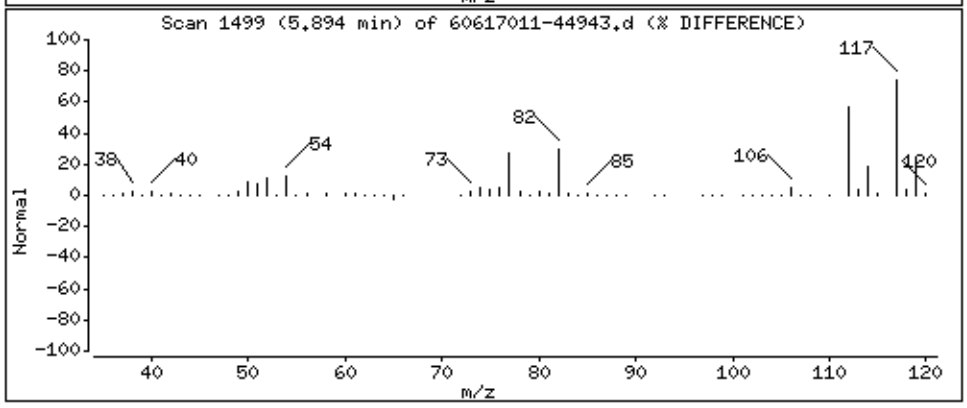
70 Ethylbenzene

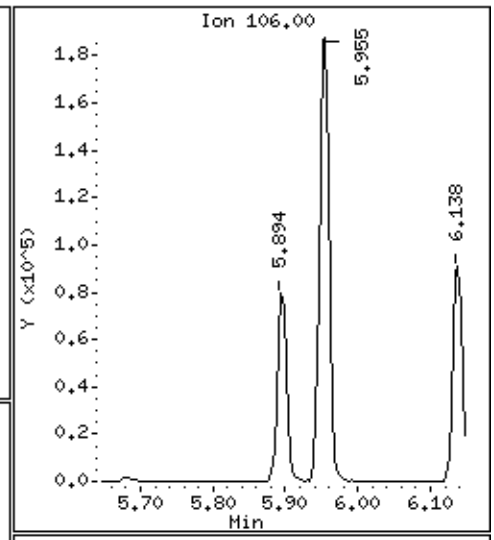
Concentration: 16.9 ug/L

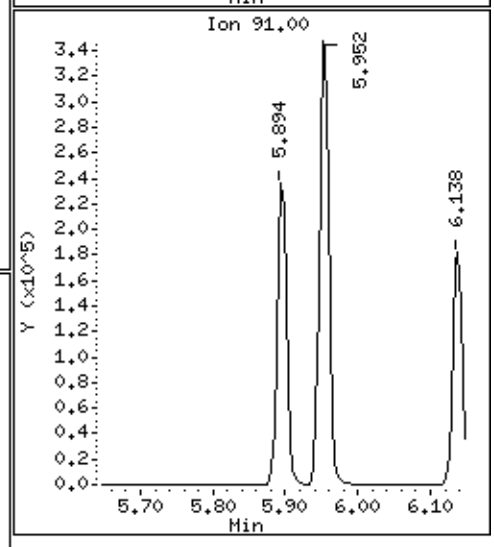












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

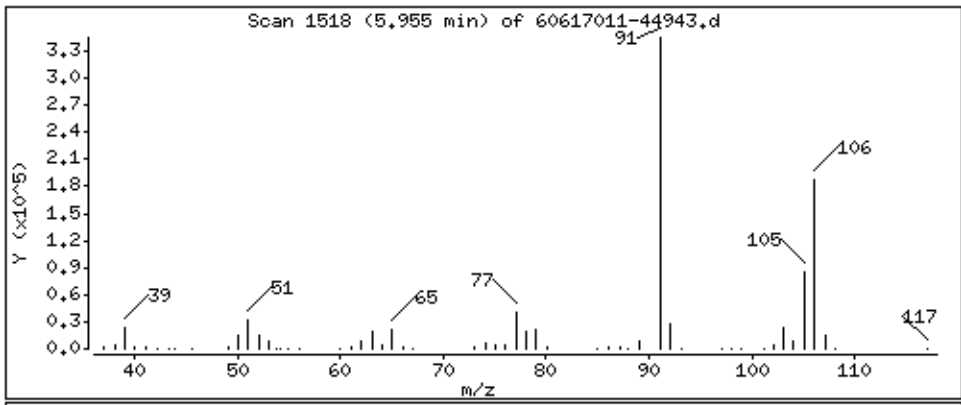
Operator: JEW

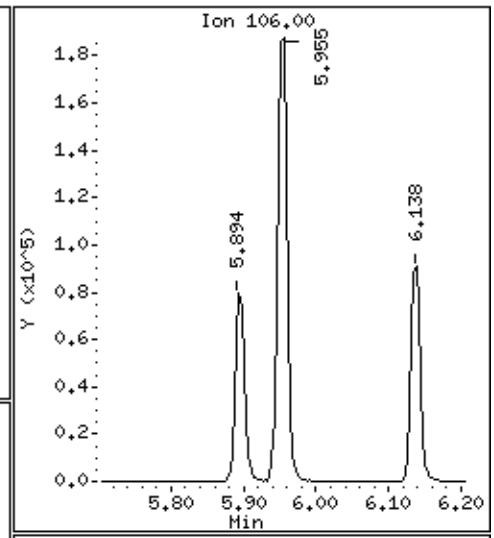
Column phase: RTX-VMS

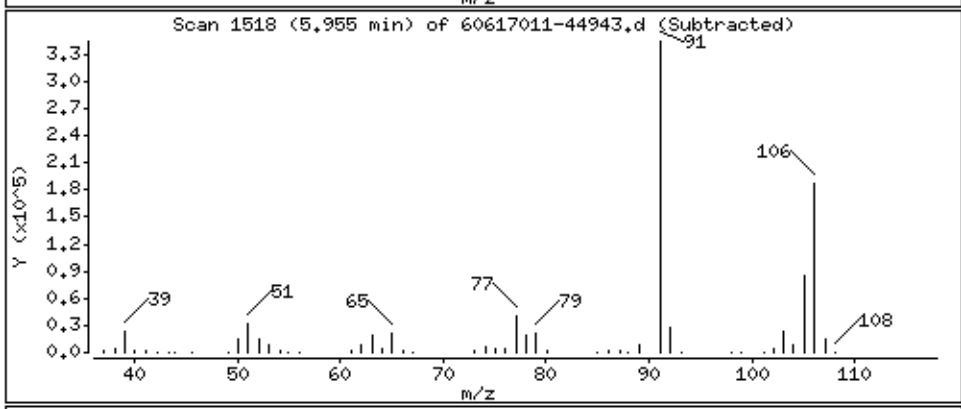
Column diameter: 0.18

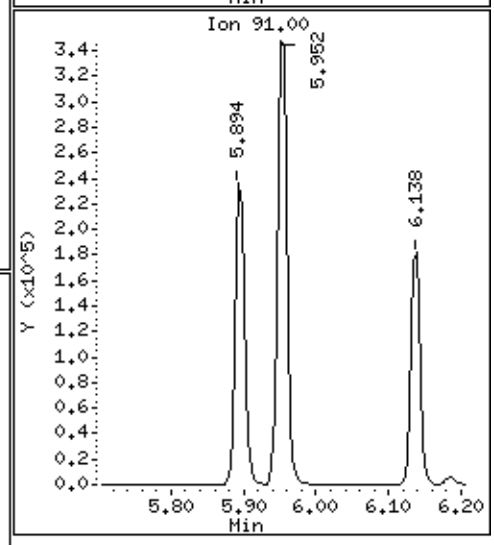
74 m&p-Xylene

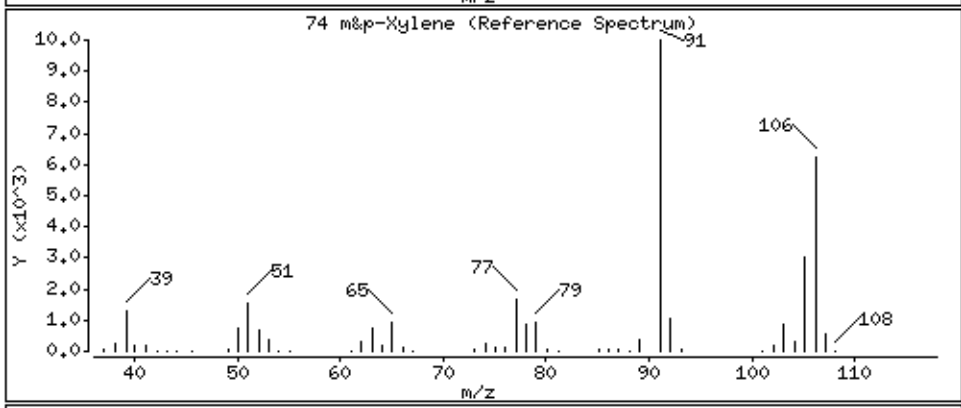
Concentration: 33.6 ug/L

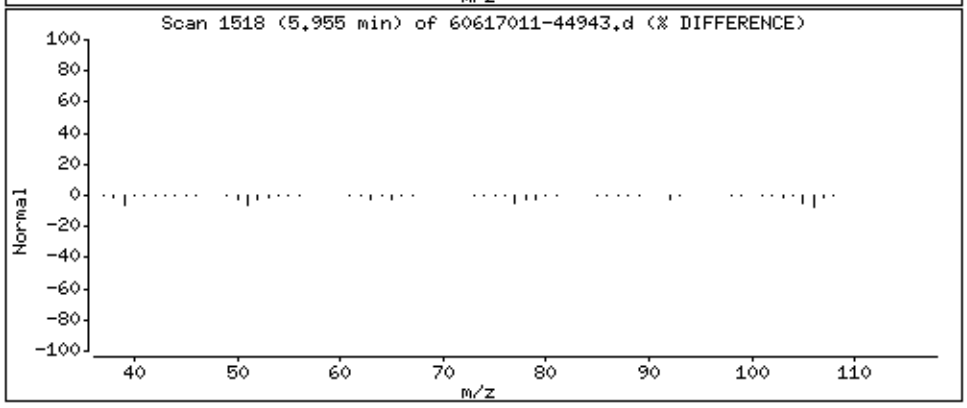












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617011-44943.d

Date : 17-JUN-2019 11:19

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1690587,90735:5,,

Purge Volume: 5.0

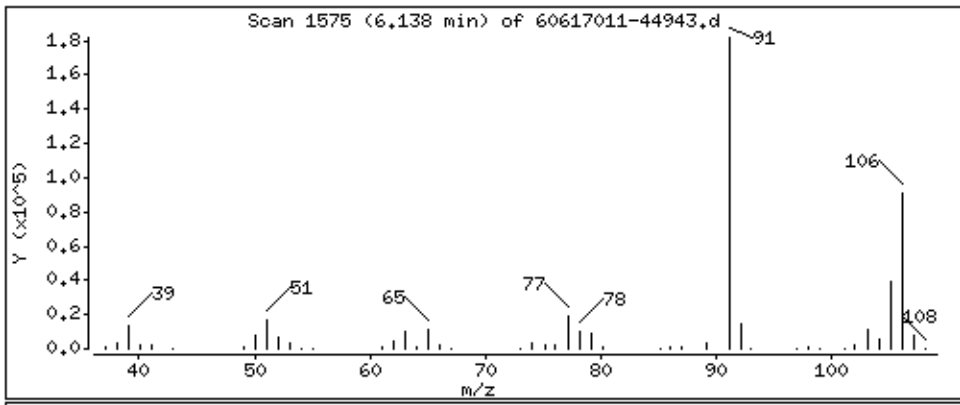
Operator: JEW

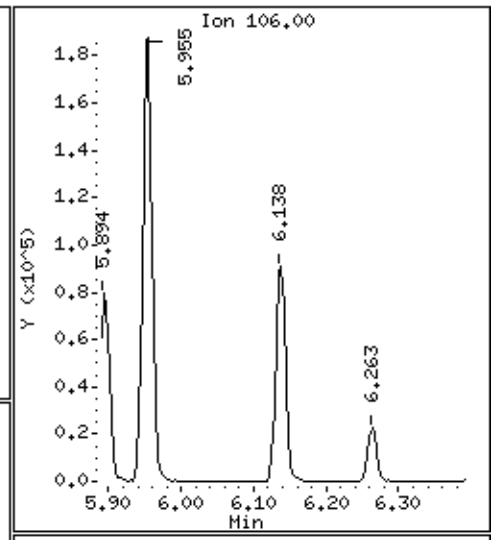
Column phase: RTX-VMS

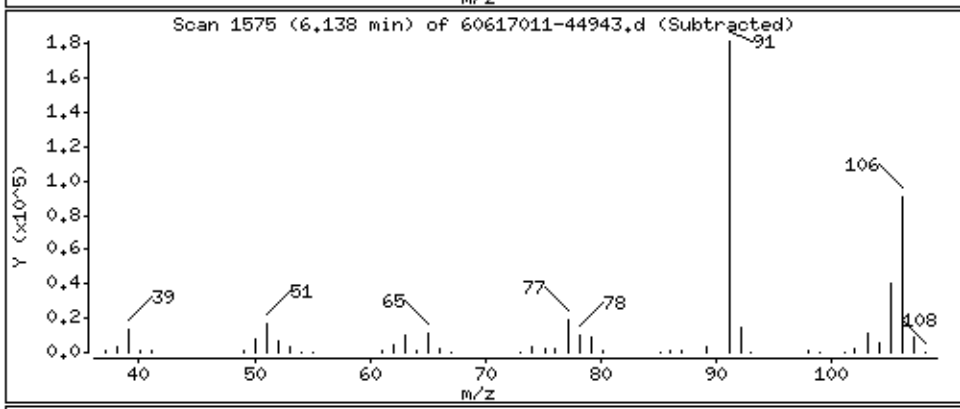
Column diameter: 0.18

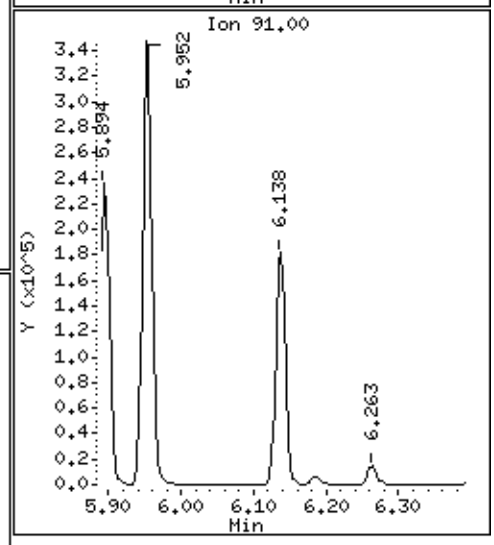
75 o-Xylene

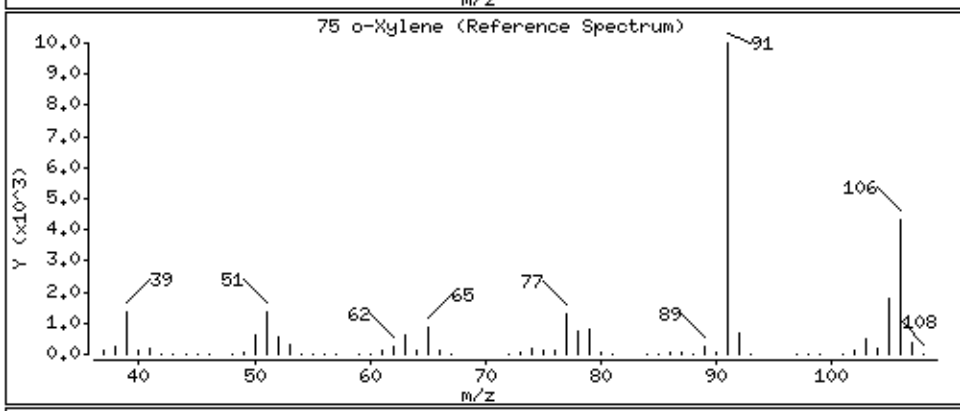
Concentration: 16.8 ug/L

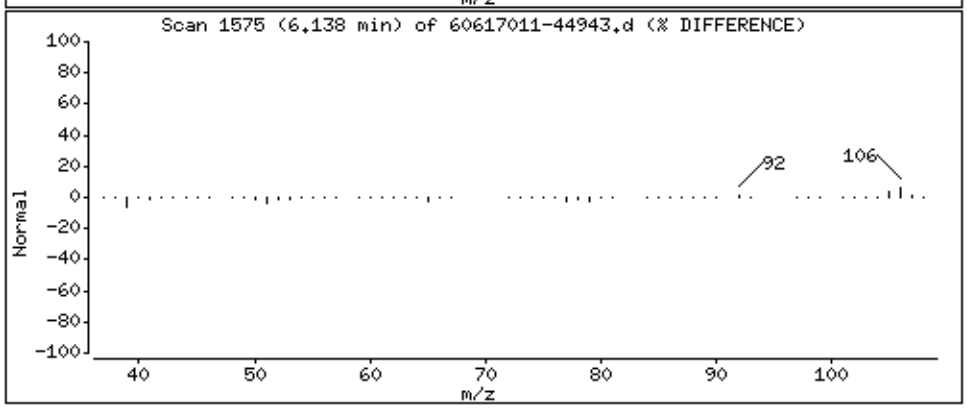












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617011-44943.d
Injection Date: 17-JUN-2019 11:19
Instrument: 30mv6a.i
Lab Sample ID: 1690587
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/13/2019 12:09 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/17/2019 12:37 Lab Sample ID: 1688363

Date Analyzed: 06/17/2019 12:37 Lab File ID: 6190617.B\1.B\60617017-44943.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Lab Smp Id: 1688363 Client Smp ID: LB for HBN 347132 [
Inj Date : 17-JUN-2019 12:37
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1688363x10
Misc Info : 44943
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	76492	27.1577	27.2	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	91254	32.6438	32.6	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	315599	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	334948	28.8382	28.8	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	312636	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	30215	3.98533	39.8(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	135656	29.1333	29.1	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	190736	30.0000		

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Report Date: 18-Jun-2019 10:28

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617017-44943.d
Lab Smp Id: 1688363
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

Calibration Date: 17-JUN-2019
Calibration Time: 10:28
Client Smp ID: LB for HBN 347
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	404562	202281	809124	315599	-21.99
71 Chlorobenzene-d5	336661	168331	673322	312636	-7.14
94 1,4-Dichlorobenze	211973	105987	423946	190736	-10.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1688363 Client Smp ID: LB for HBN 347132 [
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	27.2	90.53	0-130
$ 45 1,2-Dichloroethane	30.0	32.6	108.81	0-138
$ 58 Toluene-d8 (S)	30.0	28.8	96.13	0-124
$ 79 4-Bromofluorobenze	30.0	29.1	97.11	0-124

Data File: ...arget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

TARGET COMPOUNDS

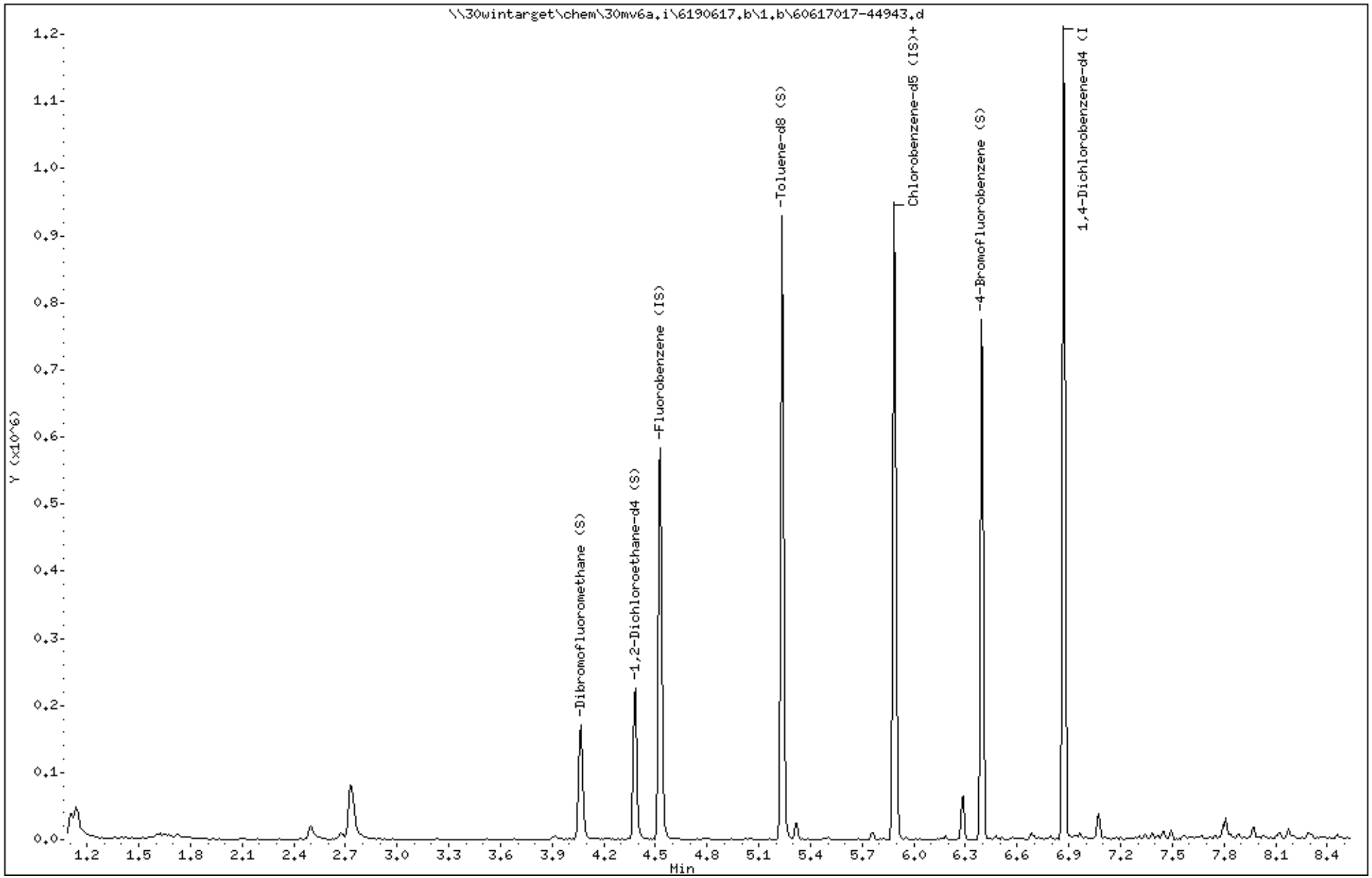
Client Name:
Lab Smp Id: 1688363
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44943

Client SDG: 1.b
Client Smp ID: LB for HBN 347132 [
Sample Point:
Date Received: 13-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	39.8	J
1868-53-7	Dibromofluoromethane (S)	27.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.6	
2037-26-5	Toluene-d8 (S)	28.8	
460-00-4	4-Bromofluorobenzene (S)	29.1	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d
Date : 17-JUN-2019 12:37
Client ID: LB for HBN 347132 [
Sample Info: 1688363x10

Instrument: 30mv6a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617017-44943.d

Date : 17-JUN-2019 12:37

Client ID: LB for HBN 347132 [

Instrument: 30mv6a.i

Sample Info: 1688363x10

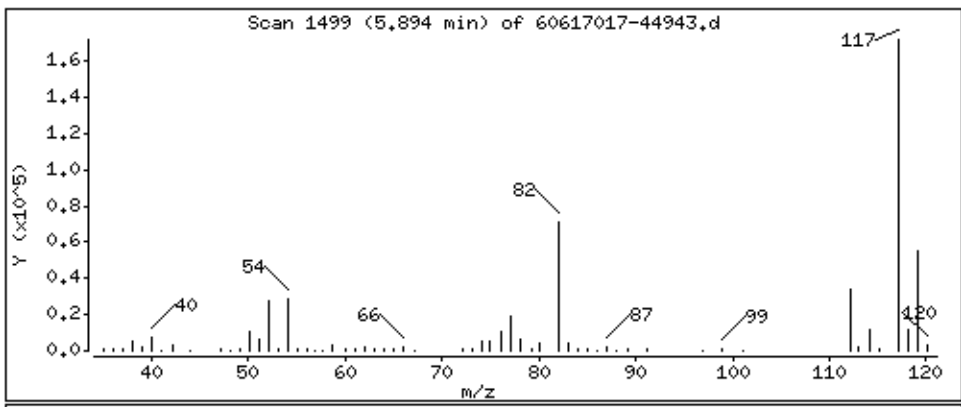
Operator: JEW

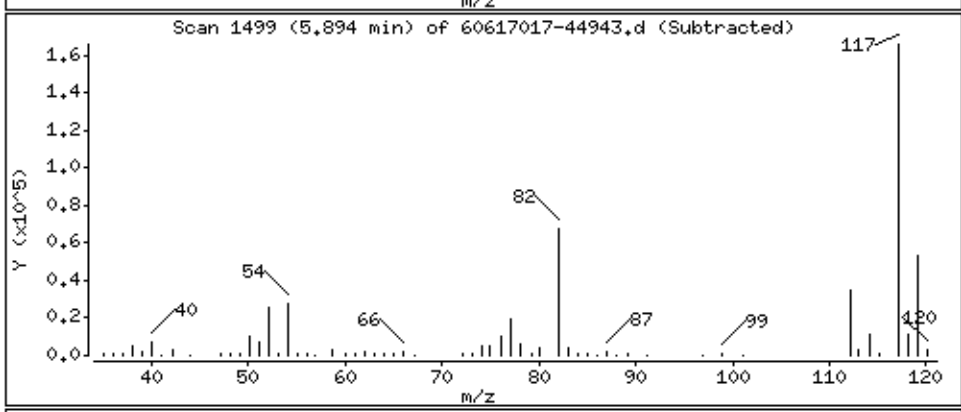
Column phase: RTX-VMS

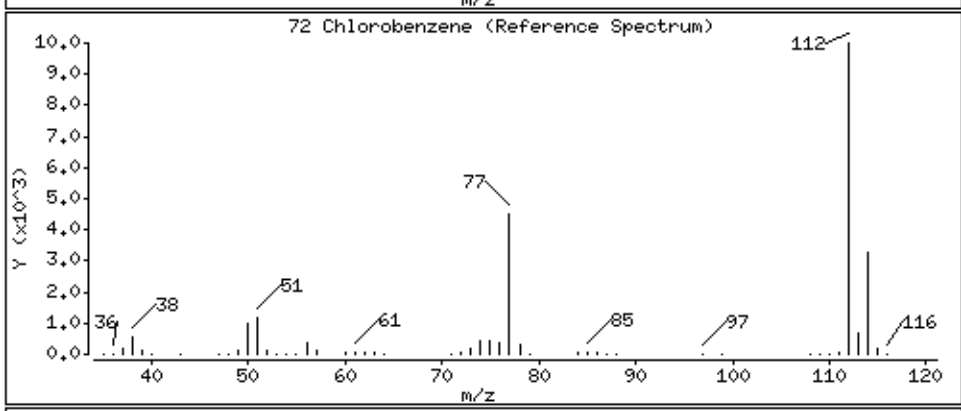
Column diameter: 0.18

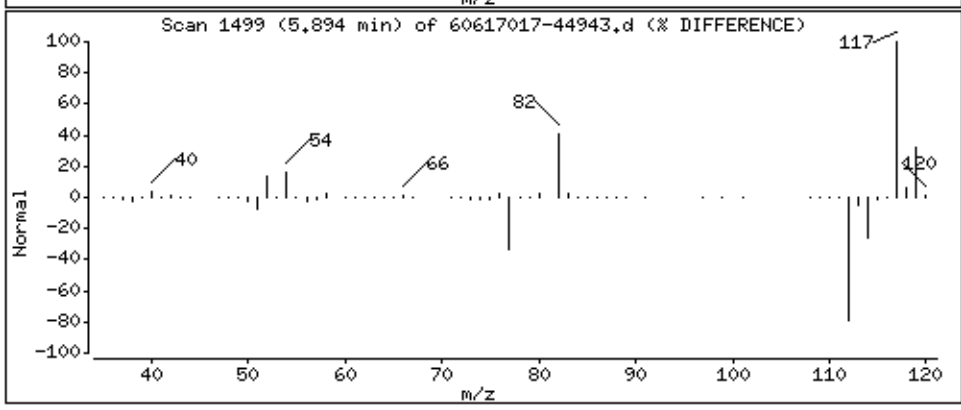
72 Chlorobenzene

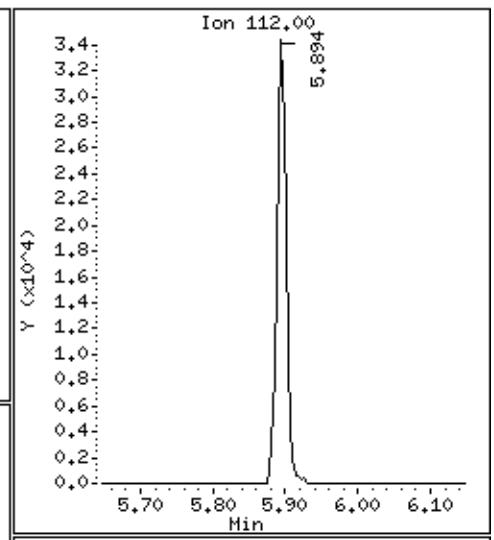
Concentration: 39.8 ug/kg

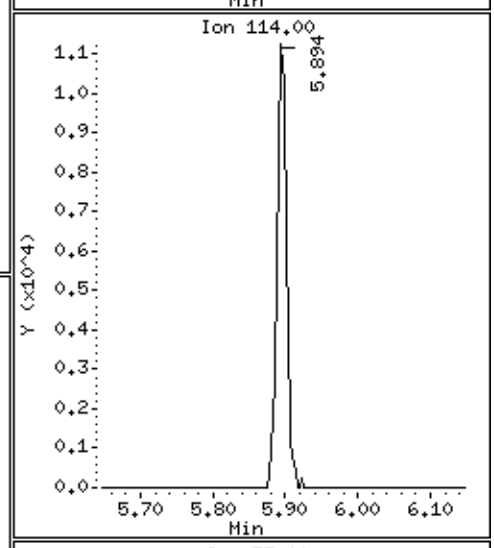


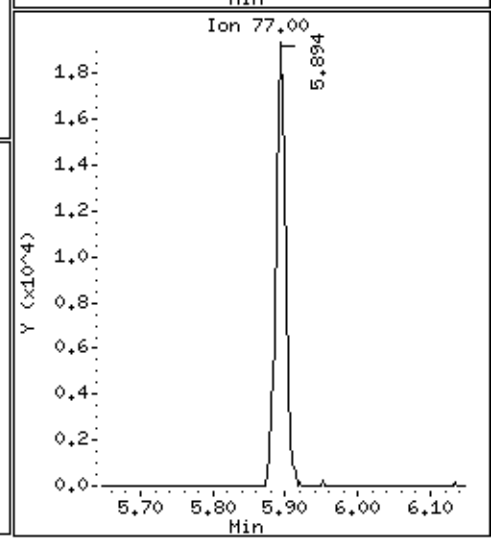












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Injection Date: 17-JUN-2019 12:37
Instrument: 30mv6a.i
Lab Sample ID: 1688363
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/17/2019 19:04 Lab Sample ID: 1690585

Date Analyzed: 06/17/2019 19:04 Lab File ID: 6190617.B\1.B\60617047.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	175	
78-93-3	2-Butanone (MEK)	154	
56-23-5	Carbon tetrachloride	151	
108-90-7	Chlorobenzene	186	
67-66-3	Chloroform	178	
107-06-2	1,2-Dichloroethane	173	
75-35-4	1,1-Dichloroethene	168	
127-18-4	Tetrachloroethene	185	
79-01-6	Trichloroethene	315	
75-01-4	Vinyl chloride	98.7	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Lab Smp Id: 1690585 Client Smp ID: AOC35LMS
Inj Date : 17-JUN-2019 19:04
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1690585x10
Misc Info : 44943
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.395	1.395	(0.308)	34859	9.86721	98.7(R)	
	9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	53729	16.8096	168(R)	
	33 Chloroform	83	3.940	3.943	(0.870)	67042	17.8294	178(R)	
	34 Carbon Tetrachloride	117	4.023	4.019	(0.889)	47565	15.1264	151(R)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	78797	27.2426	27.2	
	39 2-Butanone (MEK)	43	4.151	4.149	(0.917)	19971	15.4313	154(QR)	
	41 Benzene	78	4.299	4.303	(0.950)	133160	17.4928	175(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	89994	31.3491	31.3	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	53344	17.2931	173(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	324096	30.0000		
	50 Trichloroethene	95	4.610	4.614	(0.783)	74769	31.4522	314(R)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	304476	28.0927	28.1	
	59 Toluene	91	5.258	5.259	(0.893)	163514	16.9395	169(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	51593	18.4559	184(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	291736	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	131823	18.6329	186(R)	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	70432	18.5023	185(R)	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	173564	36.9528	370(R)	
	75 o-Xylene	106	6.138	6.141	(1.043)	86693	18.6580	186(R)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	136680	30.1275	30.1	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	185834	30.0000		

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617047.d
Lab Smp Id: 1690585
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

Calibration Date: 17-JUN-2019
Calibration Time: 10:28
Client Smp ID: AOC35LMS
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	404562	202281	809124	324096	-19.89
71 Chlorobenzene-d5	336661	168331	673322	291736	-13.34
94 1,4-Dichlorobenze	211973	105987	423946	185834	-12.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1690585 Client Smp ID: AOC35LMS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	98.7	493.36*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	168	840.48*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	178	891.47*	70-130
34 Carbon Tetrachlori	20.0	151	756.32*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	154	771.57*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	175	874.64*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	173	864.66*	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	314	1572.61*	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	169	846.98*	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	184	922.80*	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	185	925.11*	70-130
72 Chlorobenzene	20.0	186	931.65*	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	370	923.82*	50-150
75 o-Xylene	20.0	186	932.90*	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenze	20.0	0.000	*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	27.2	90.81	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	31.3	104.50	0-138
$ 58 Toluene-d8 (S)	30.0	28.1	93.64	0-124
$ 79 4-Bromofluorobenze	30.0	30.1	100.42	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Report Date: 18-Jun-2019 10:28

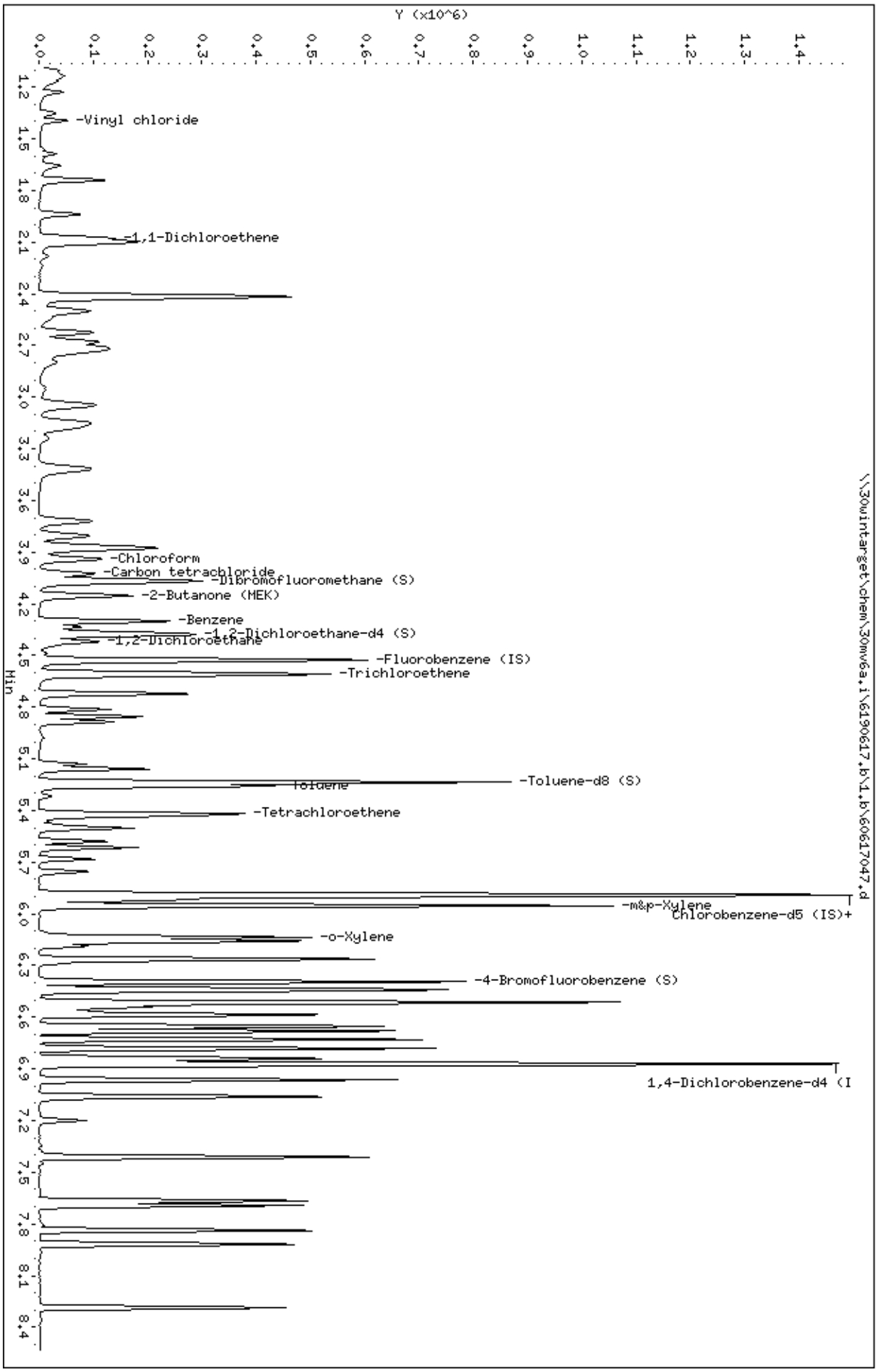
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1690585
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44943

Client SDG: 1.b
Client Smp ID: AOC35LMS
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	98.7	
75-35-4	1,1-Dichloroethene	168	
67-66-3	Chloroform	178	
56-23-5	Carbon Tetrachloride	151	
78-93-3	2-Butanone (MEK)	154	
71-43-2	Benzene	175	
107-06-2	1,2-Dichloroethane	173	
79-01-6	Trichloroethene	314	
108-88-3	Toluene	169	
127-18-4	Tetrachloroethene	184	
108-90-7	Chlorobenzene	186	
100-41-4	Ethylbenzene	185	
7816-60-0	m&p-Xylene	370	
95-47-6	o-Xylene	186	
1868-53-7	Dibromofluoromethane (S)	27.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.3	
2037-26-5	Toluene-d8 (S)	28.1	
460-00-4	4-Bromofluorobenzene (S)	30.1	


Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
Date : 17-JUN-2019 19:04
Client ID: 40C35LHS
Sample Info: 1690585x10
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
Y (x10^6)
Min
\\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d
-Vinyl chloride
-1,1-Dichloroethene
-Chloroform
-Carbon tetrachloride
-Dibromofluoromethane (S)
-2-Butanone (MEK)
-Benzene
-1,2-Dichloroethane-d4 (S)
-1,2-Dichloroethane
-Fluorobenzene (IS)
-Trichloroethene
-Toluene-d8 (S)
Toluene
-Tetrachloroethene
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-4-Bromofluorobenzene (S)
1,4-Dichlorobenzene-d4 (I

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

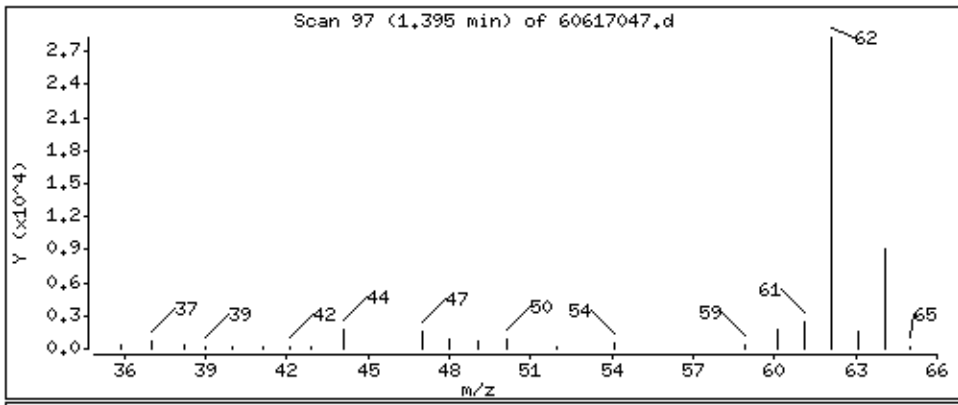
Operator: JEW

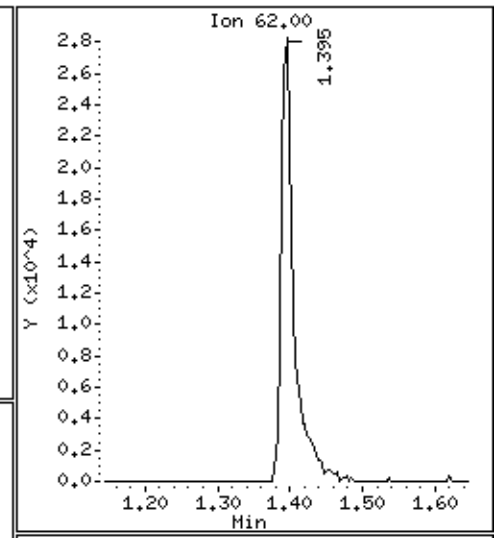
Column phase: RTX-VMS

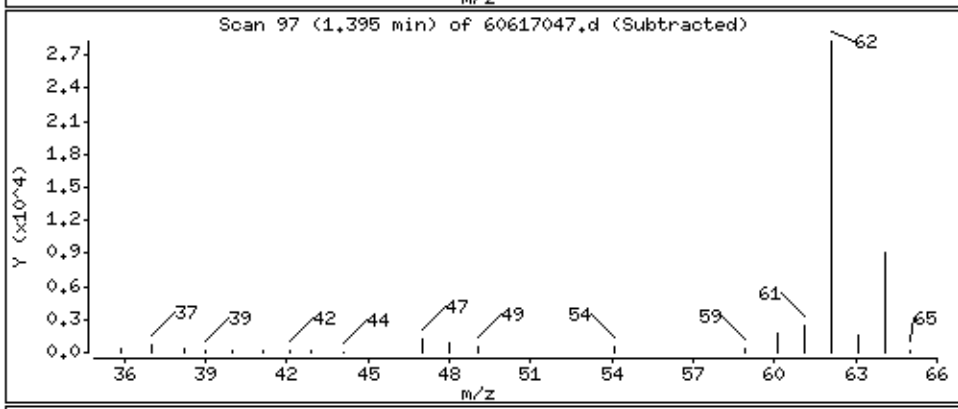
Column diameter: 0.18

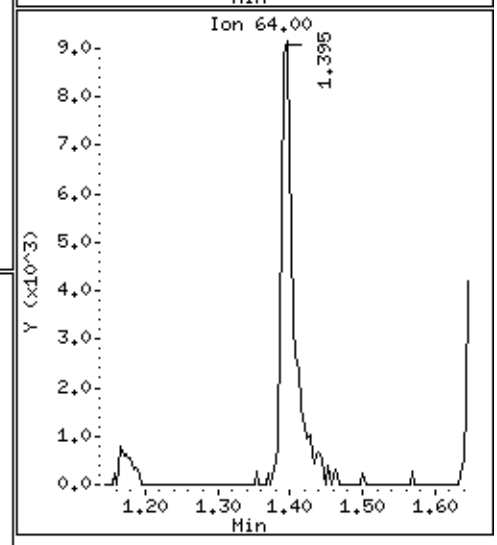
3 Vinyl Chloride

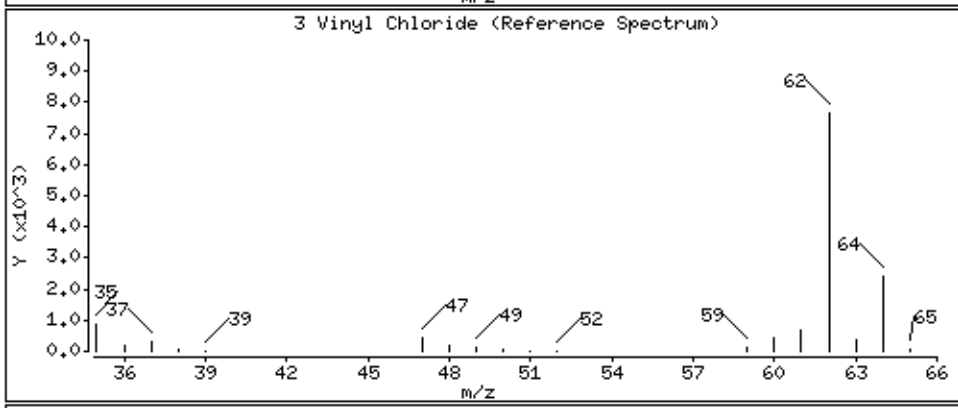
Concentration: 98.7 ug/kg

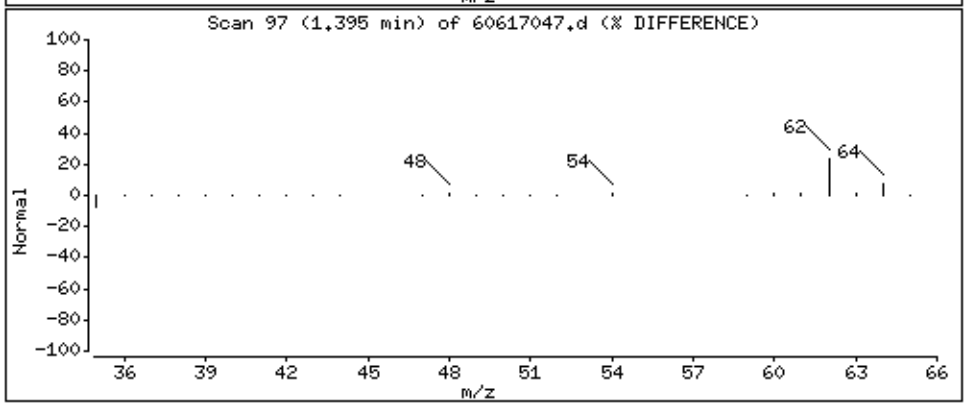












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: AOC35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

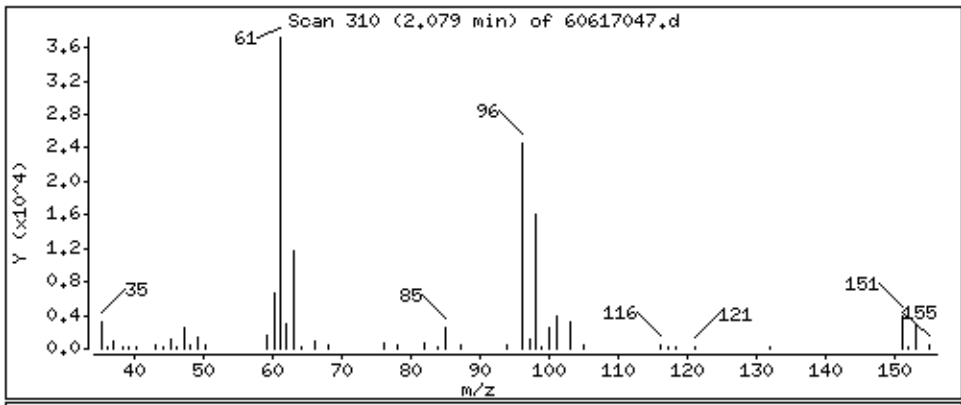
Operator: JEW

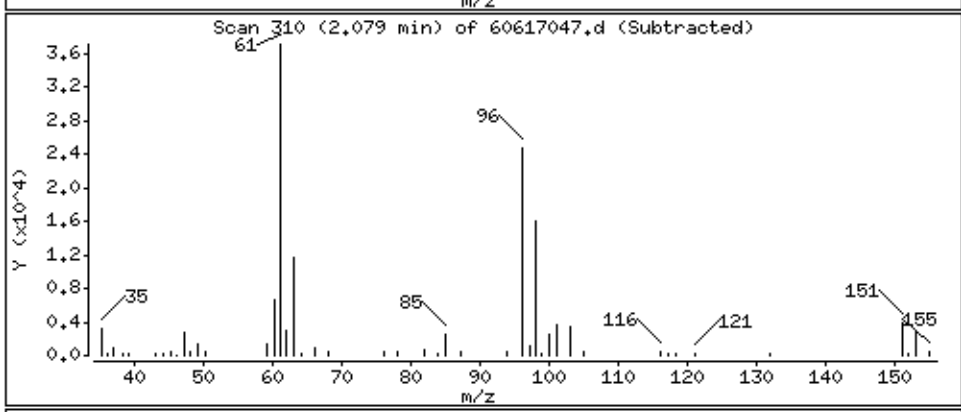
Column phase: RTX-VMS

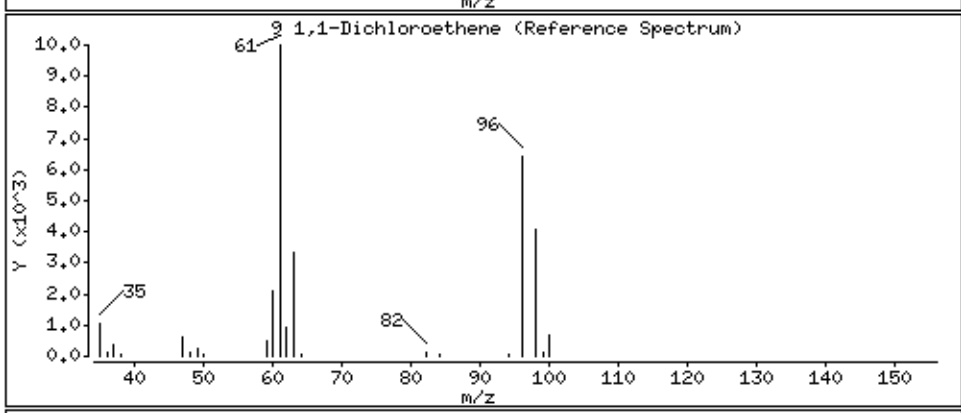
Column diameter: 0.18

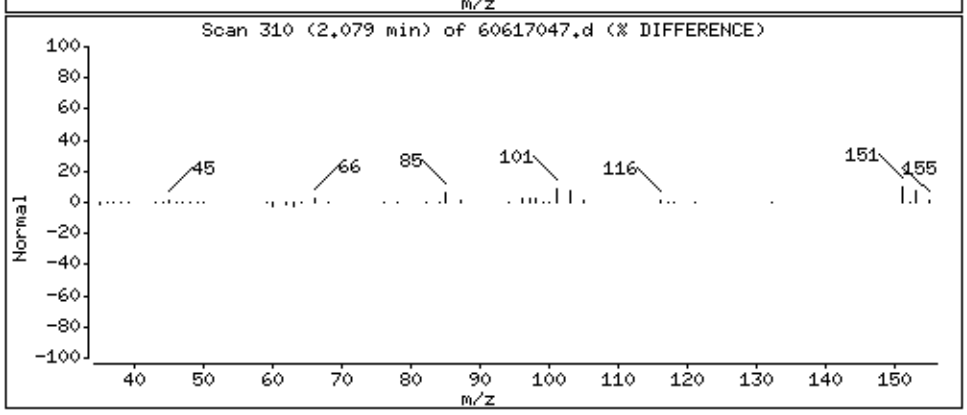
9 1,1-Dichloroethene

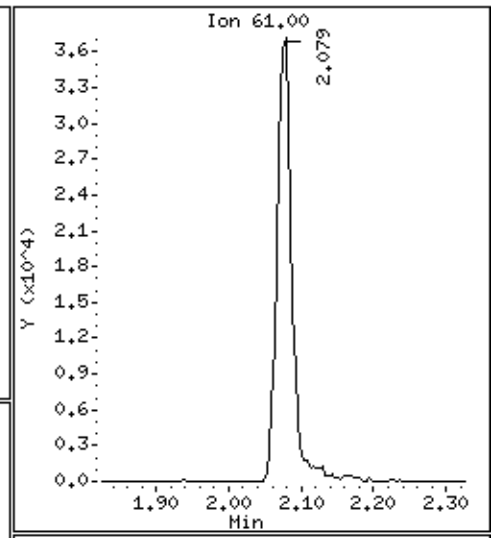
Concentration: 168 ug/kg

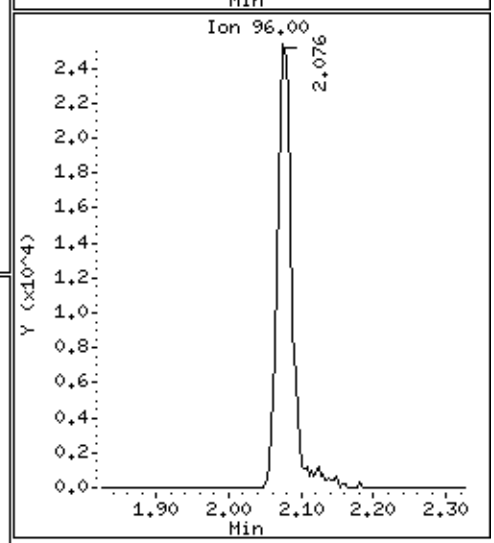












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Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

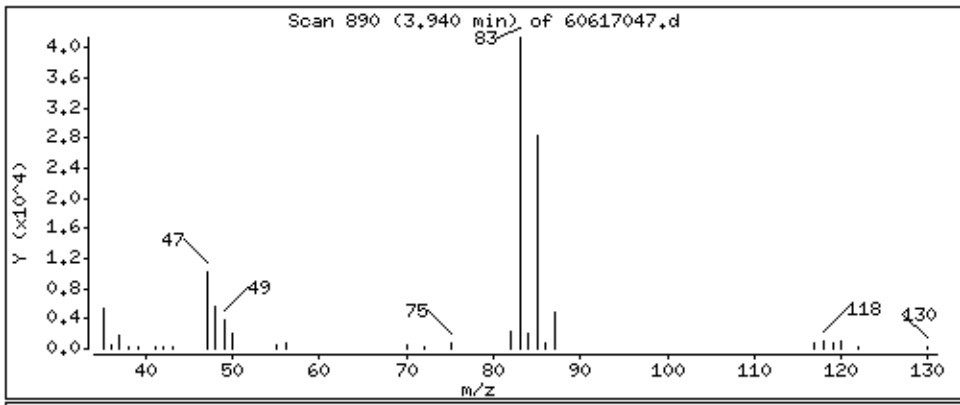
Operator: JEW

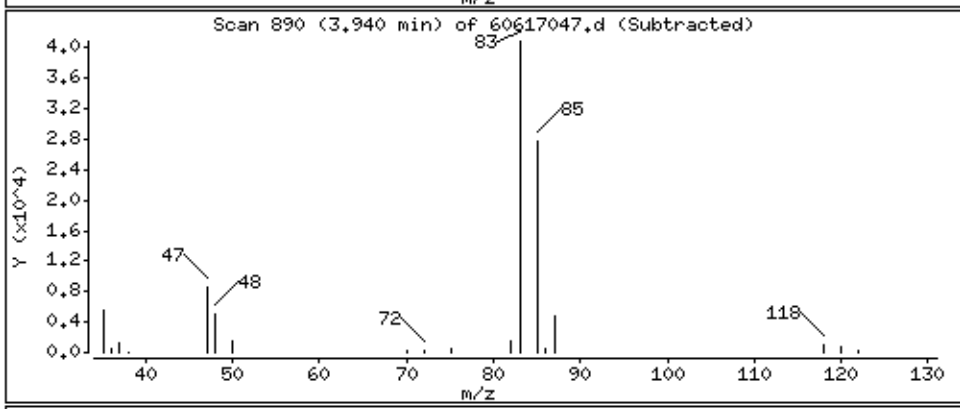
Column phase: RTX-VMS

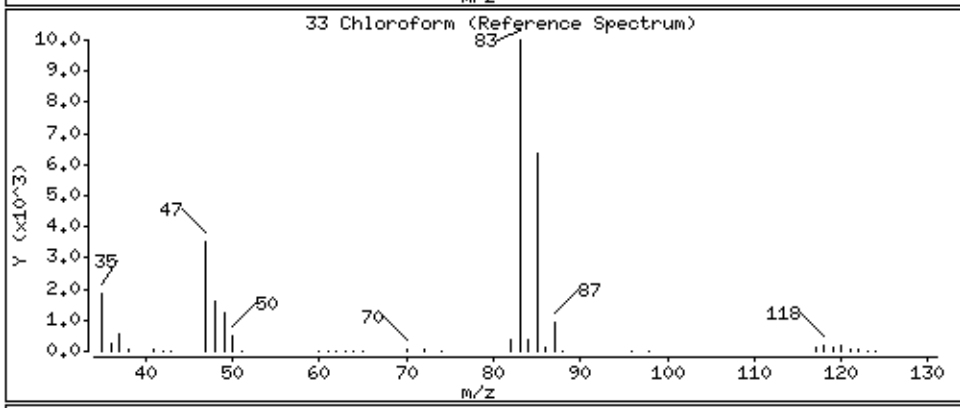
Column diameter: 0.18

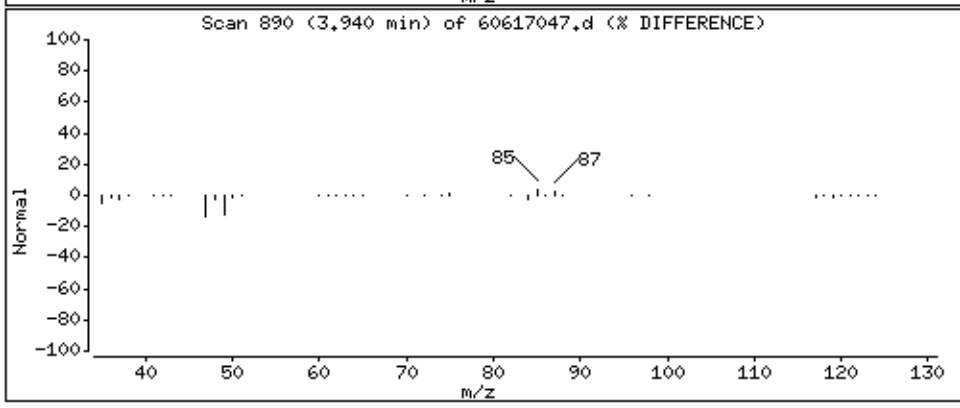
33 Chloroform

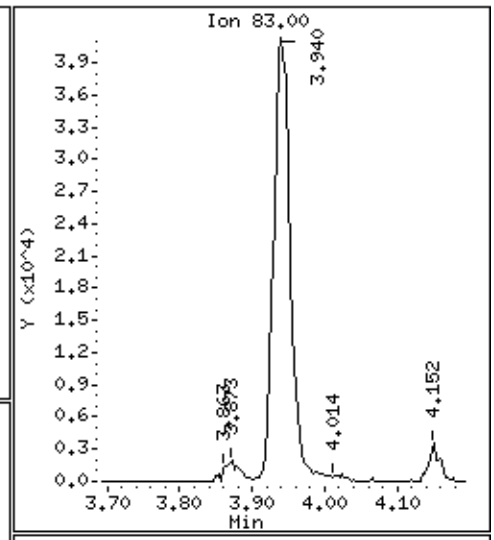
Concentration: 178 ug/kg

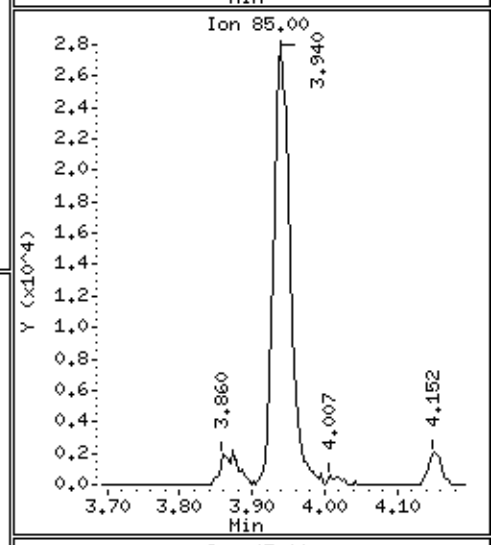


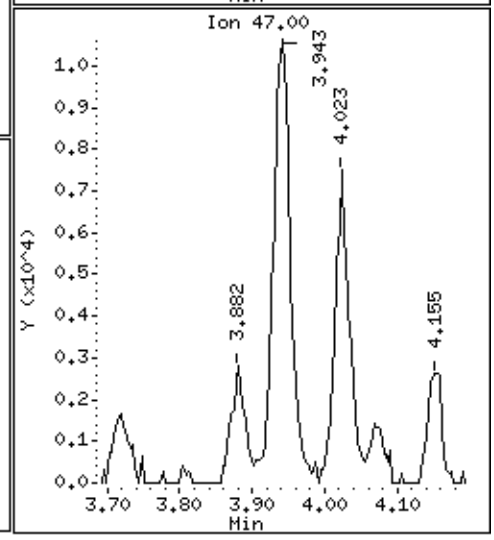












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Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

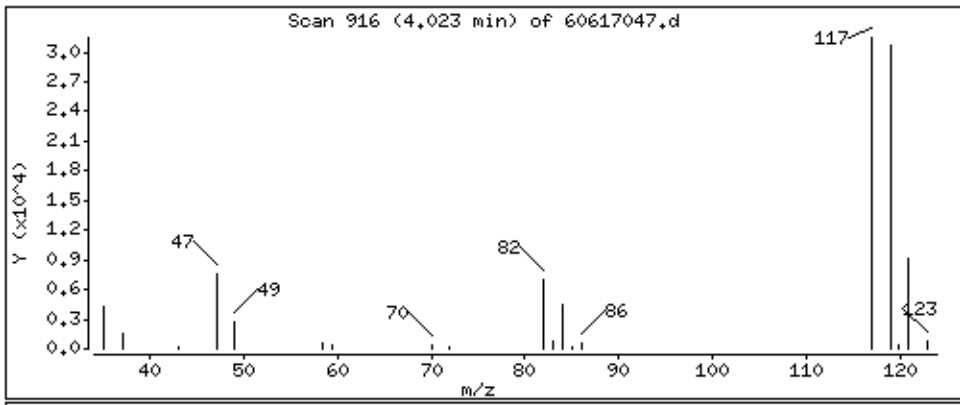
Operator: JEW

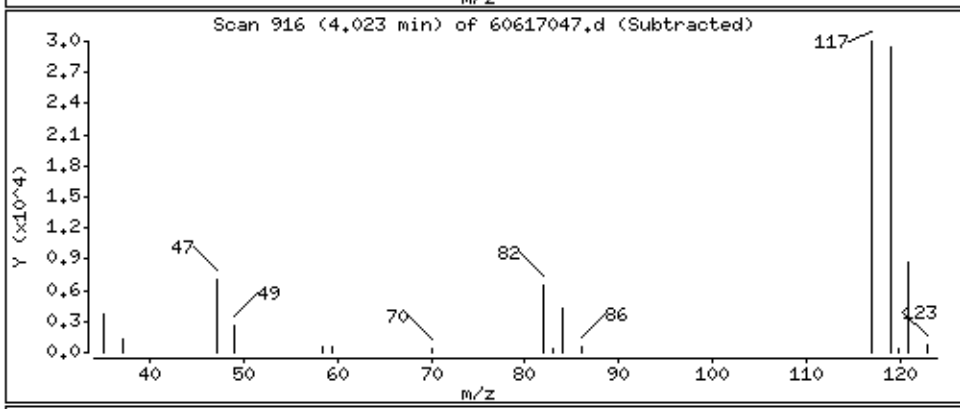
Column phase: RTX-VMS

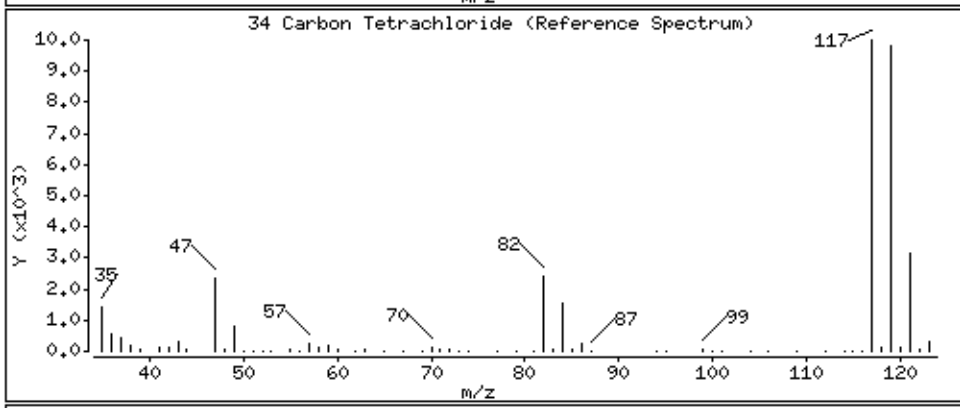
Column diameter: 0.18

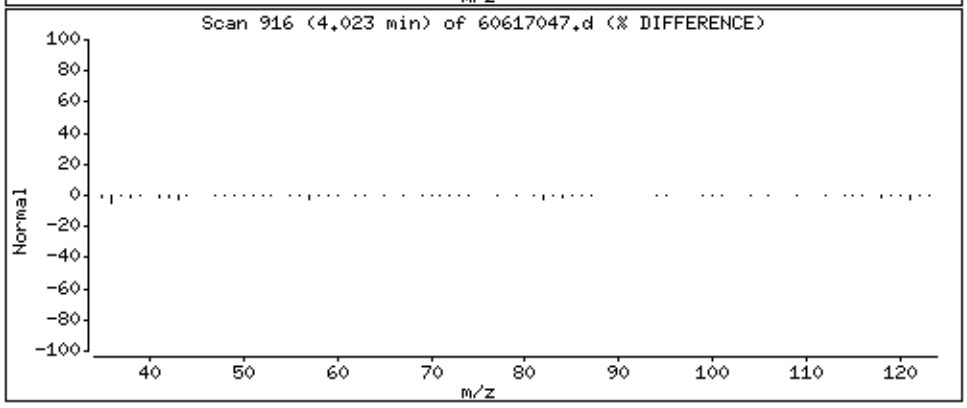
34 Carbon Tetrachloride

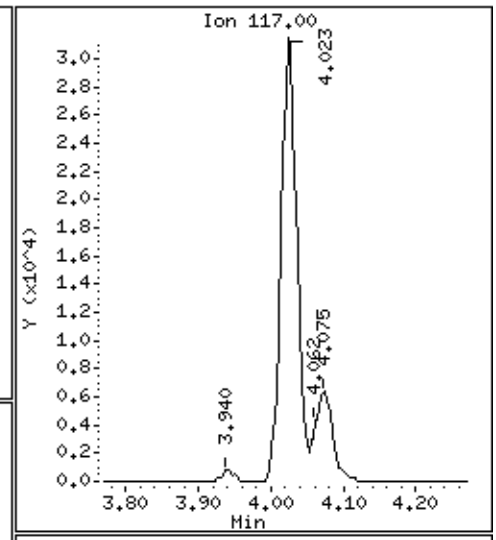
Concentration: 151 ug/kg

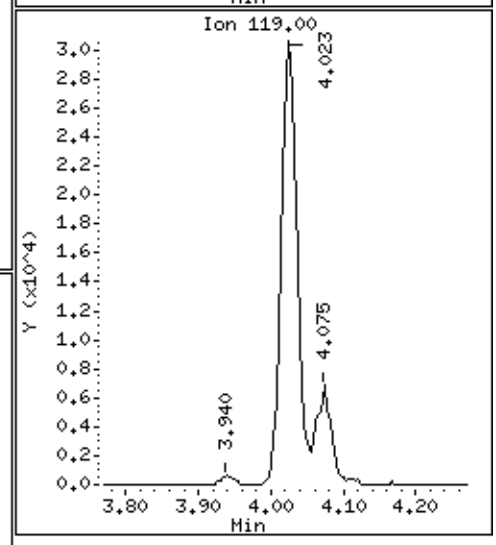












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Date : 17-JUN-2019 19:04

Client ID: AOC35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

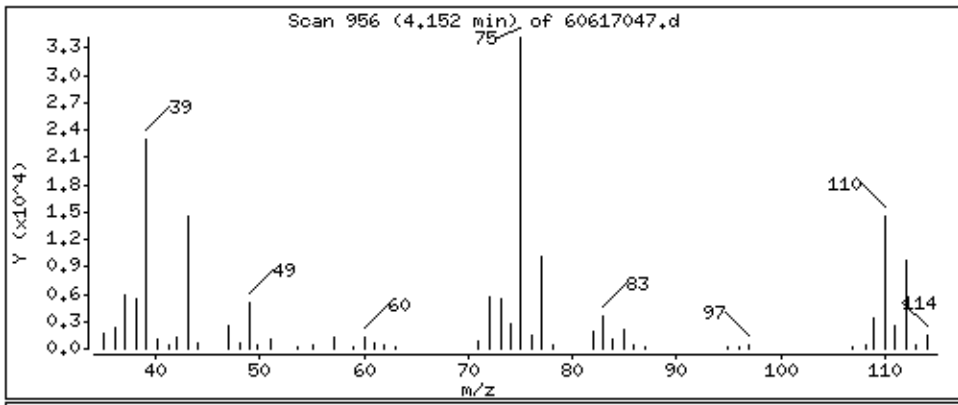
Operator: JEW

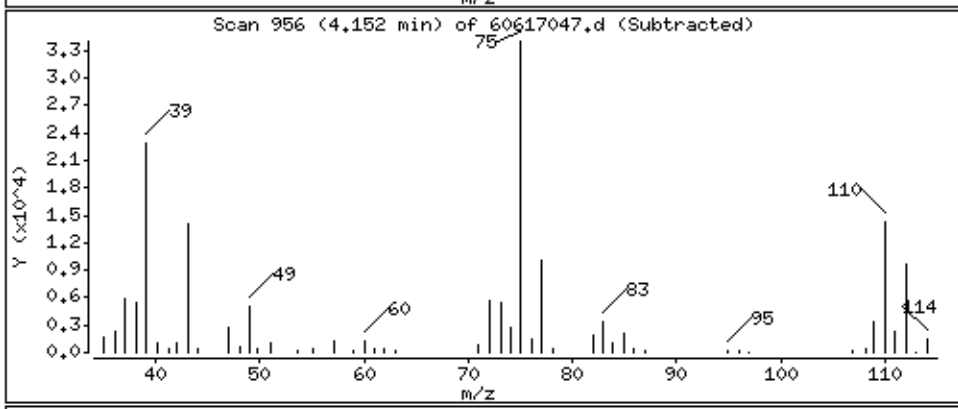
Column phase: RTX-VMS

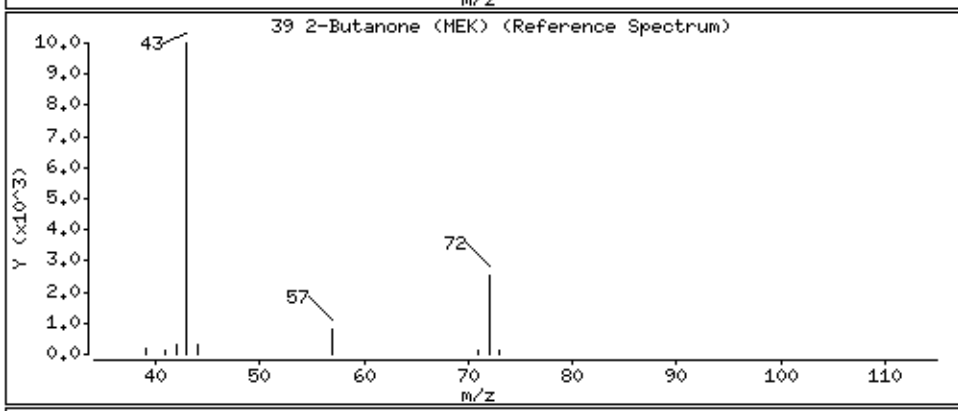
Column diameter: 0.18

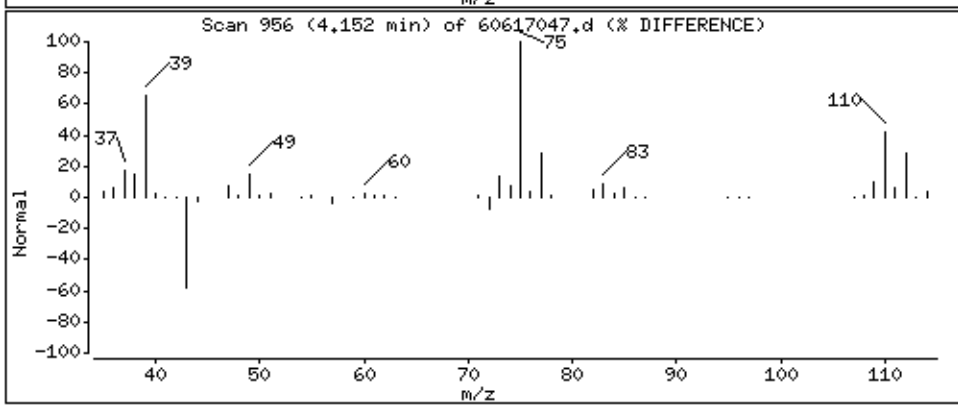
39 2-Butanone (MEK)

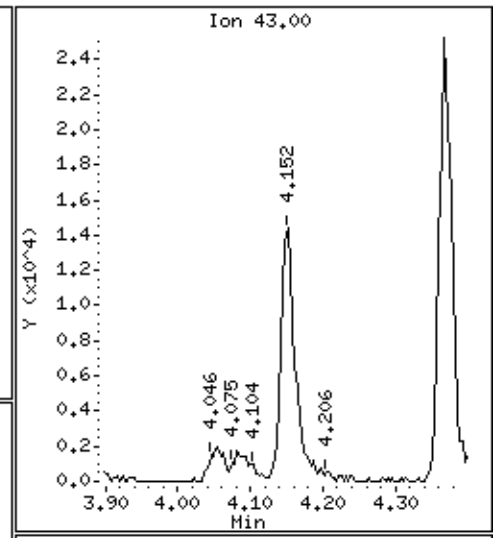
Concentration: 154 ug/kg

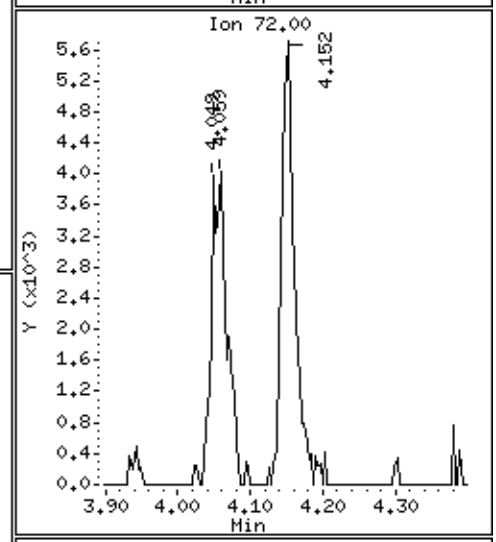


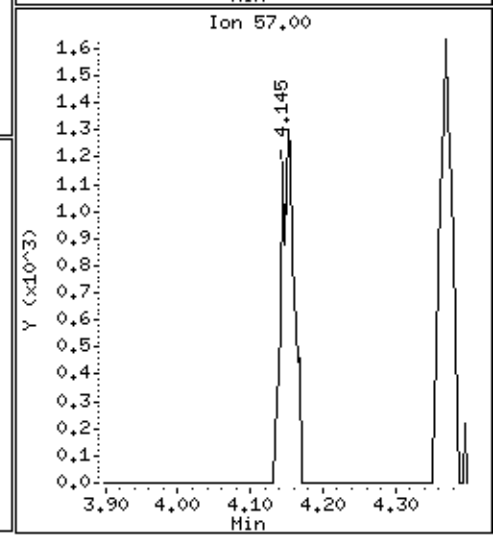












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Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

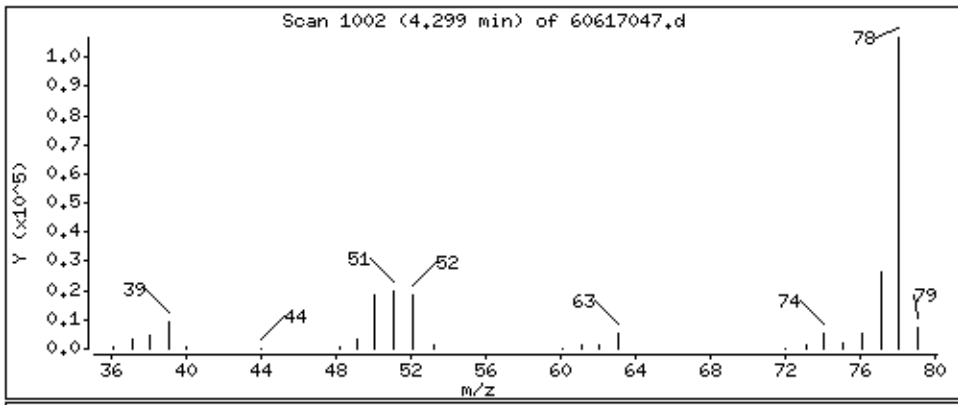
Operator: JEW

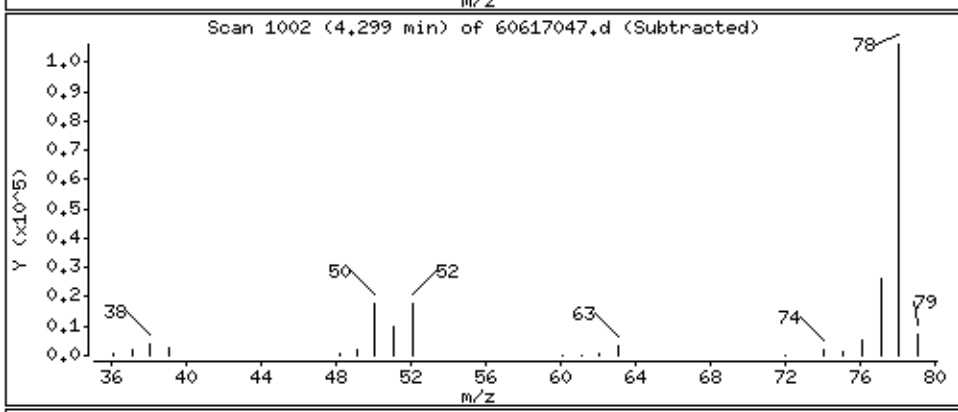
Column phase: RTX-VMS

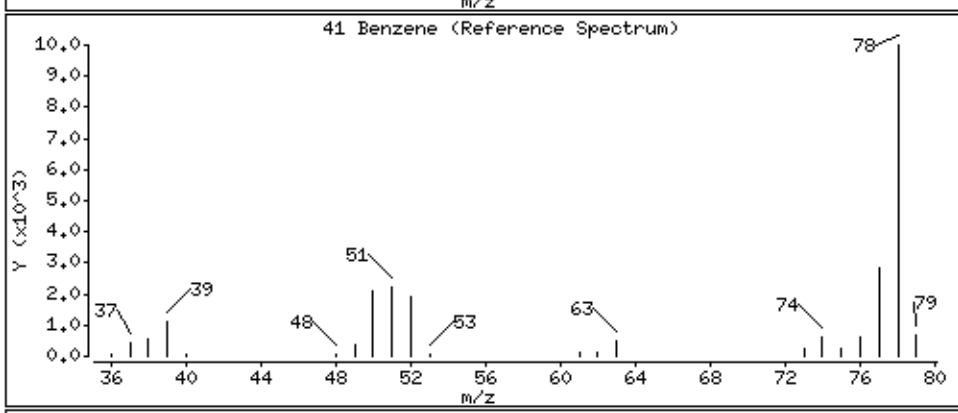
Column diameter: 0.18

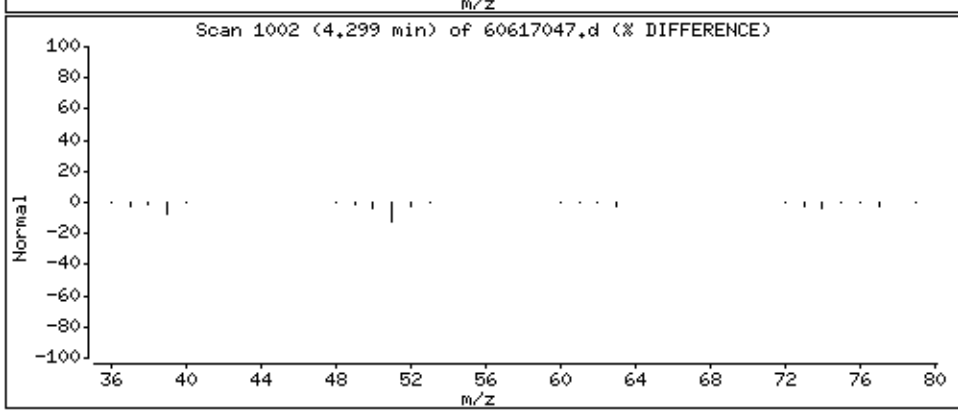
41 Benzene

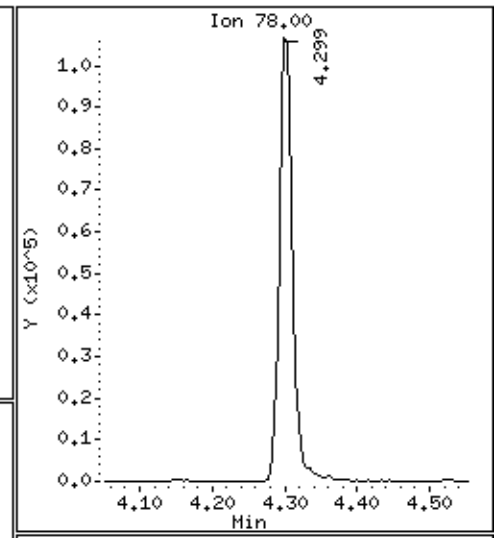
Concentration: 175 ug/kg

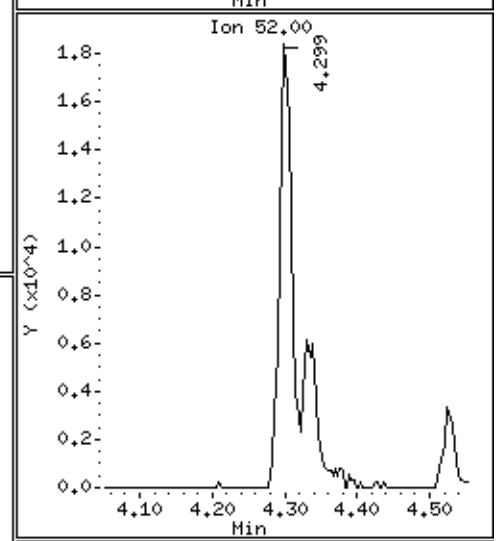


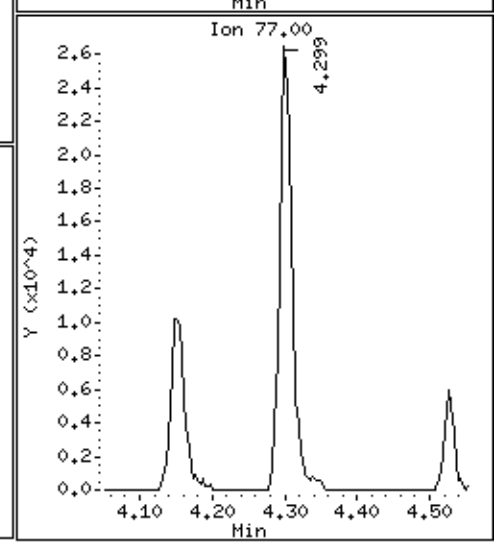












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Date : 17-JUN-2019 19:04

Client ID: AOC35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

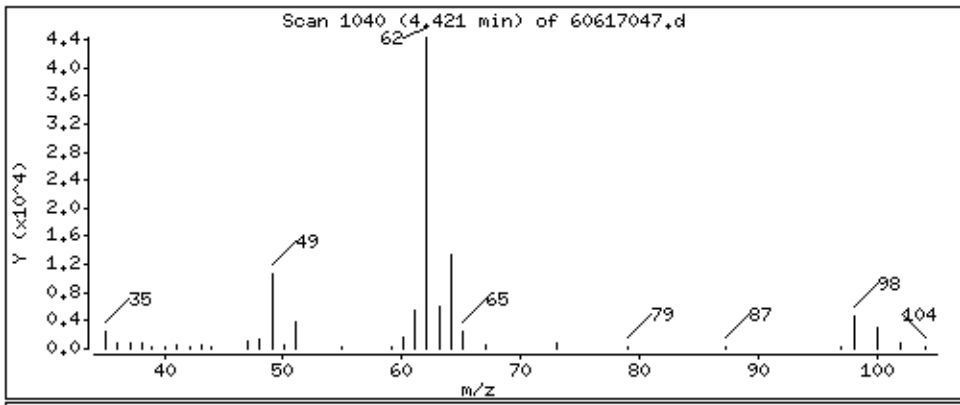
Operator: JEW

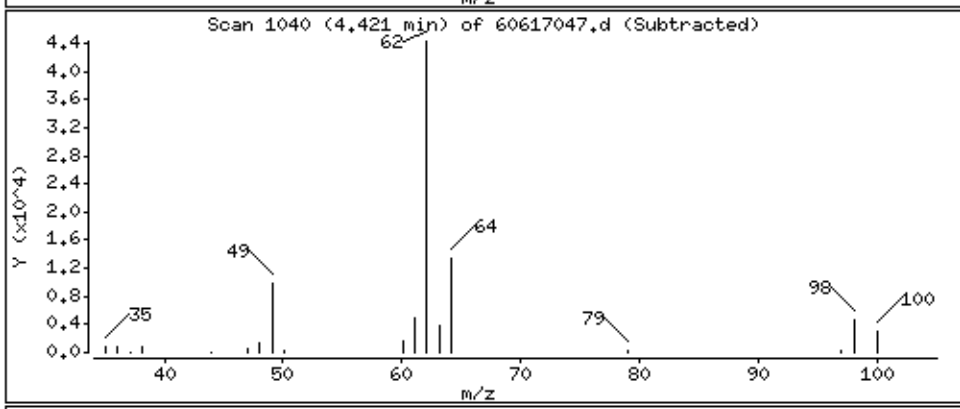
Column phase: RTX-VMS

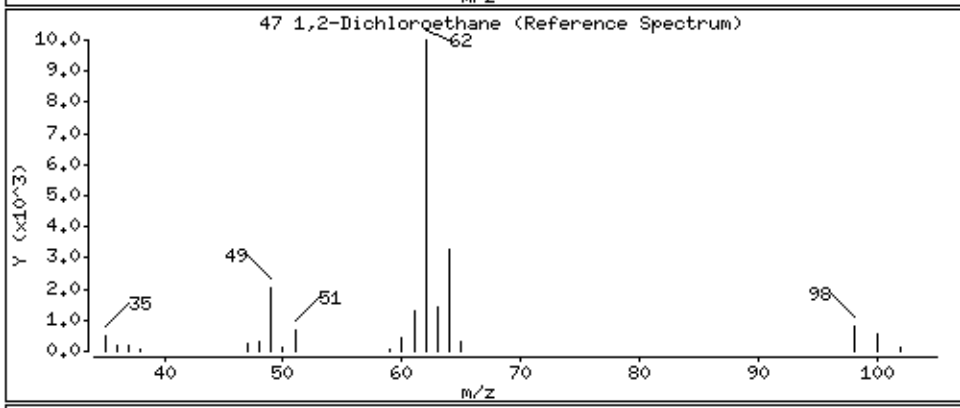
Column diameter: 0.18

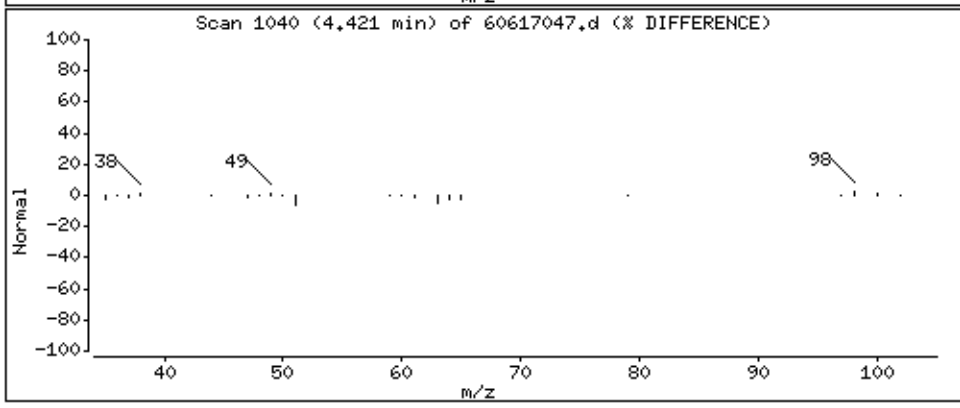
47 1,2-Dichloroethane

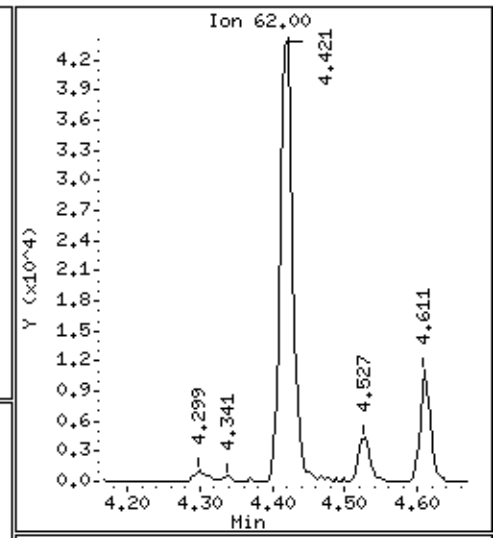
Concentration: 173 ug/kg

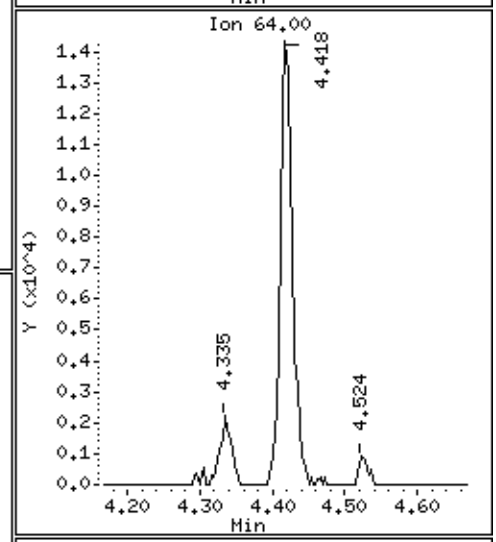


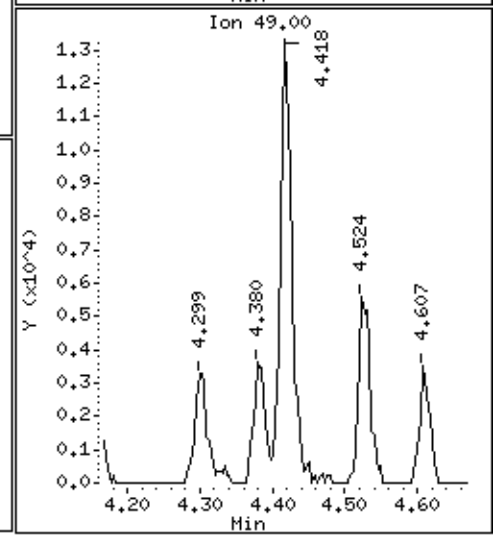












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Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

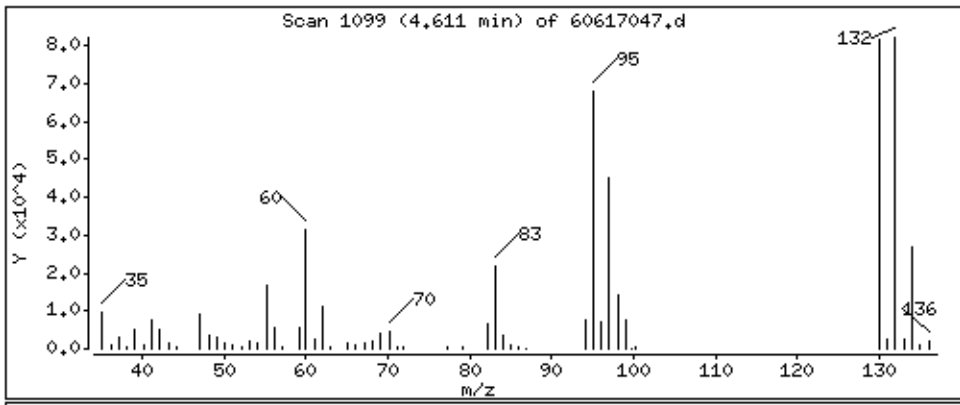
Operator: JEW

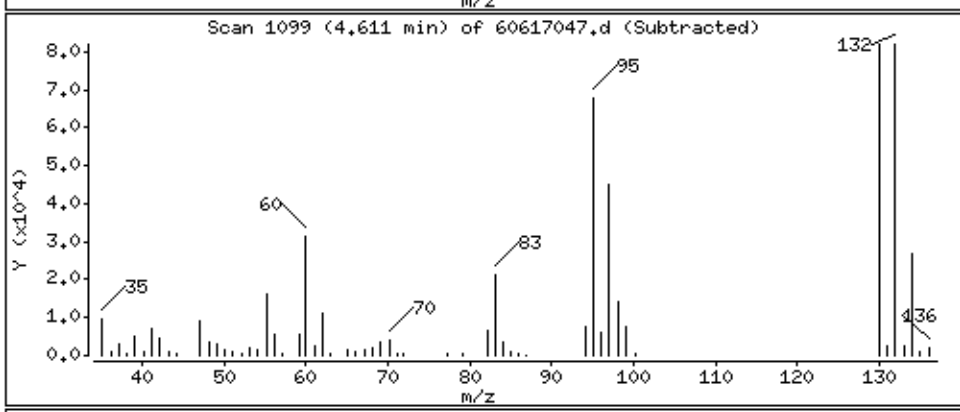
Column phase: RTX-VMS

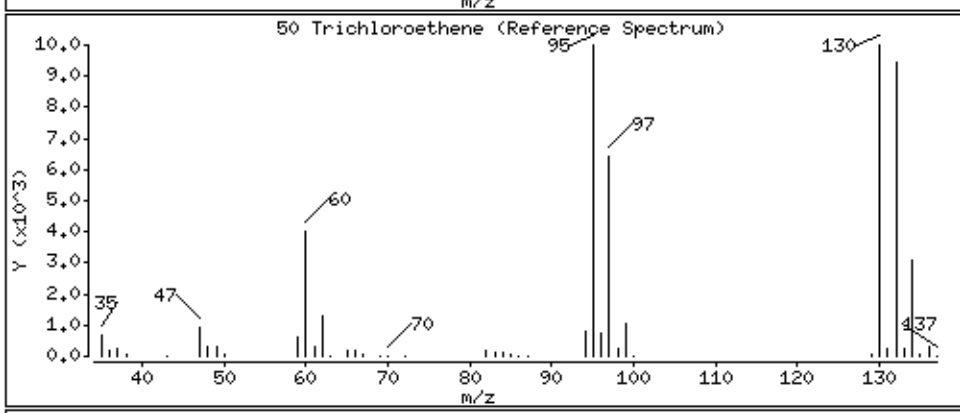
Column diameter: 0.18

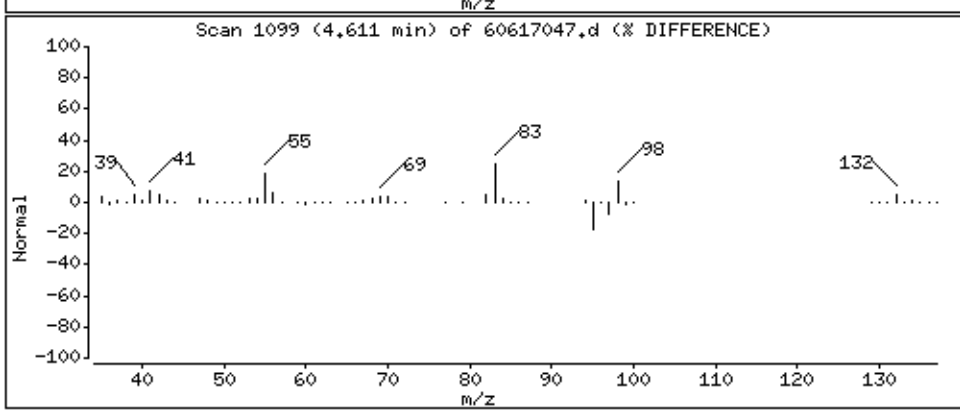
50 Trichloroethene

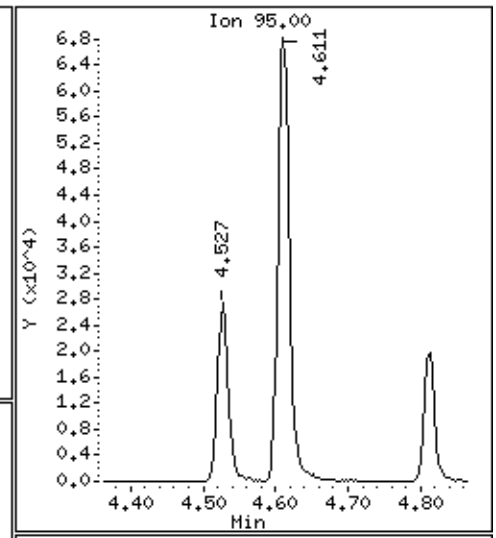
Concentration: 314 ug/kg

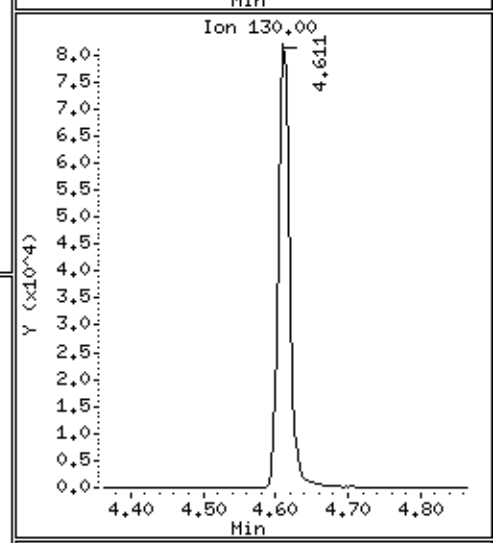


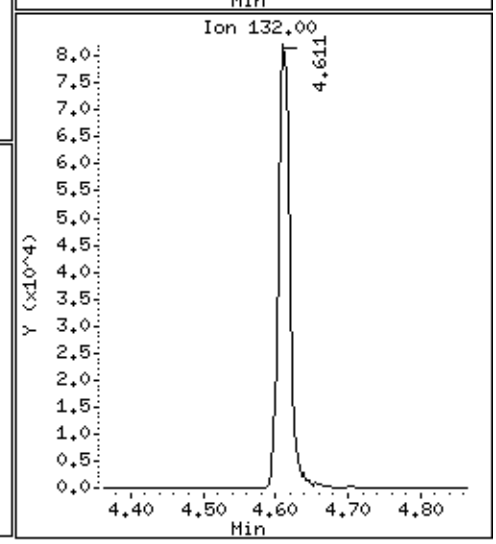












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

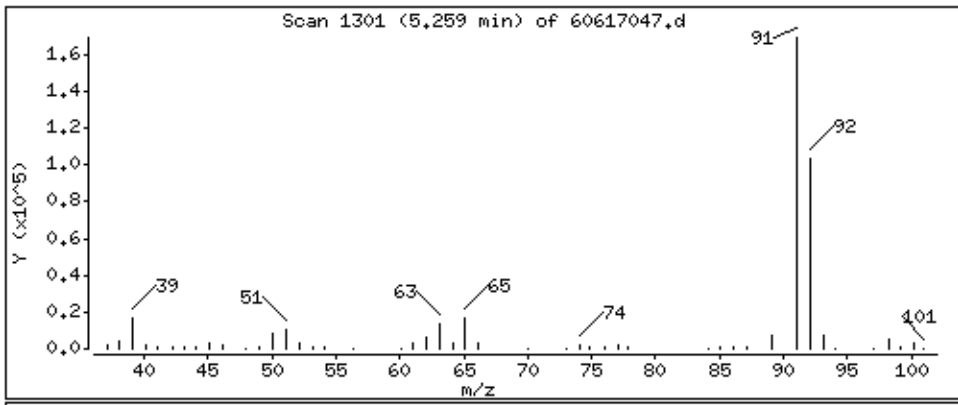
Operator: JEW

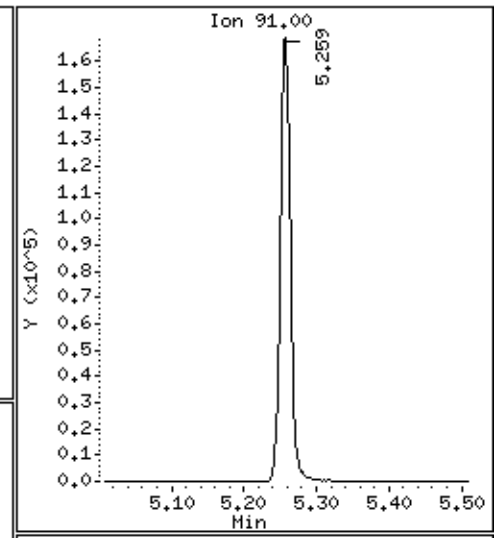
Column phase: RTX-VMS

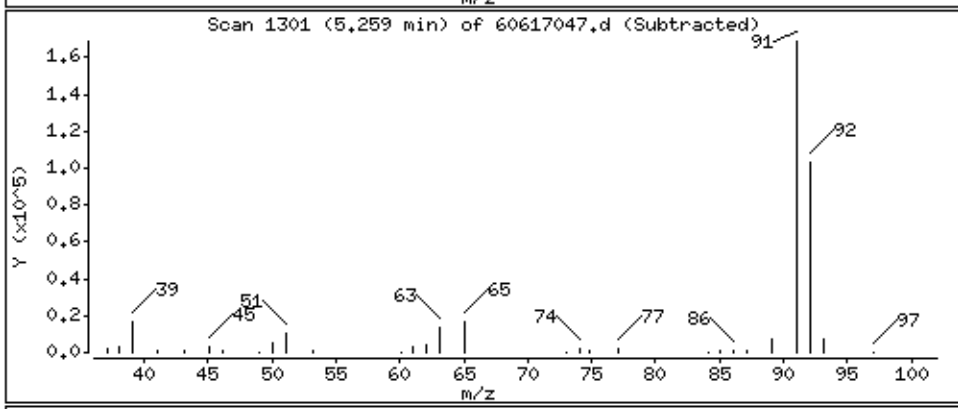
Column diameter: 0.18

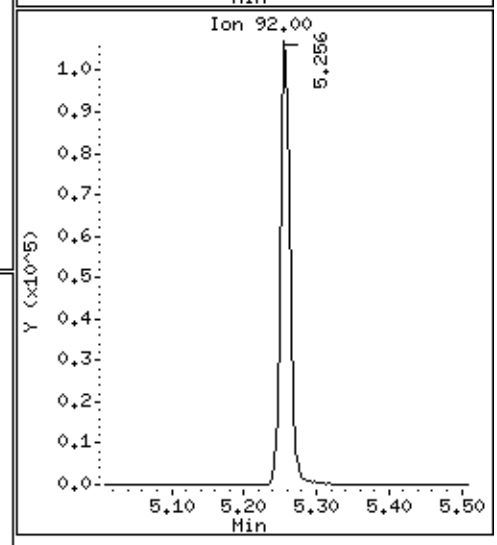
59 Toluene

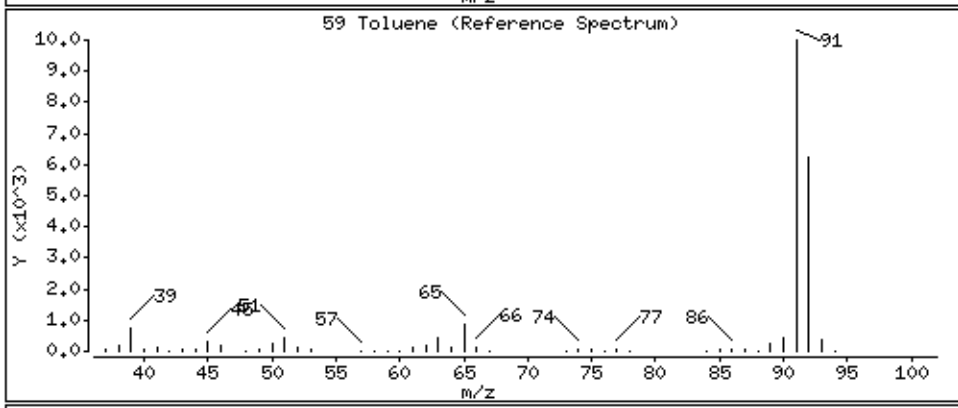
Concentration: 169 ug/kg

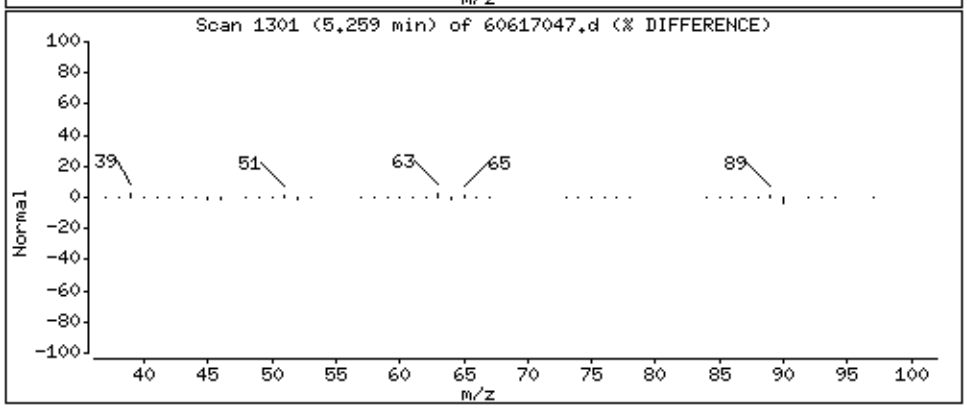












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

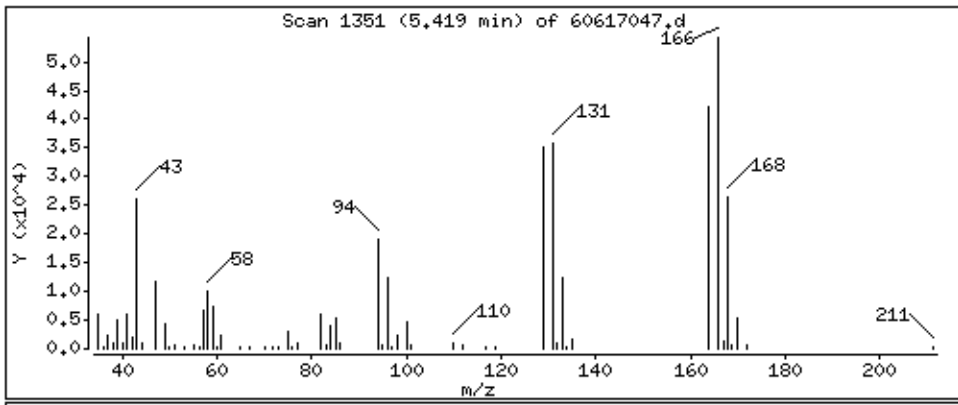
Operator: JEW

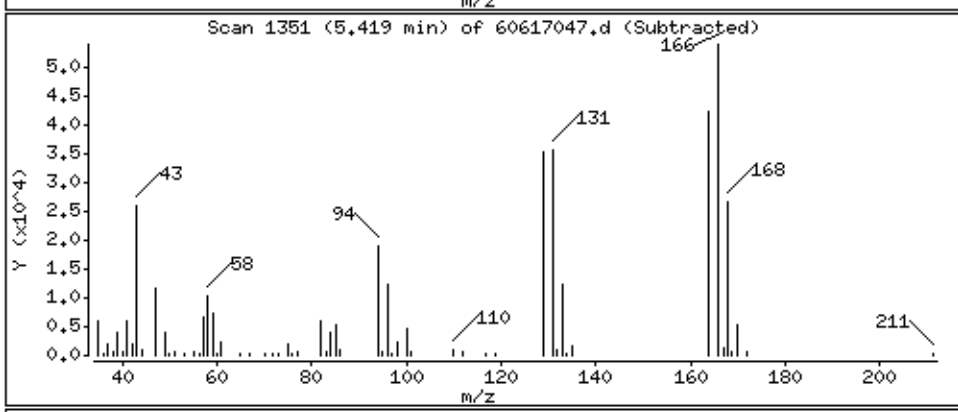
Column phase: RTX-VMS

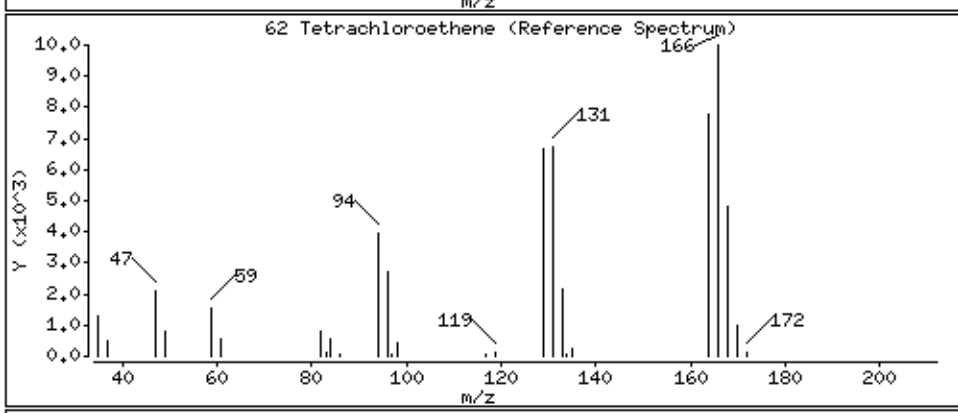
Column diameter: 0.18

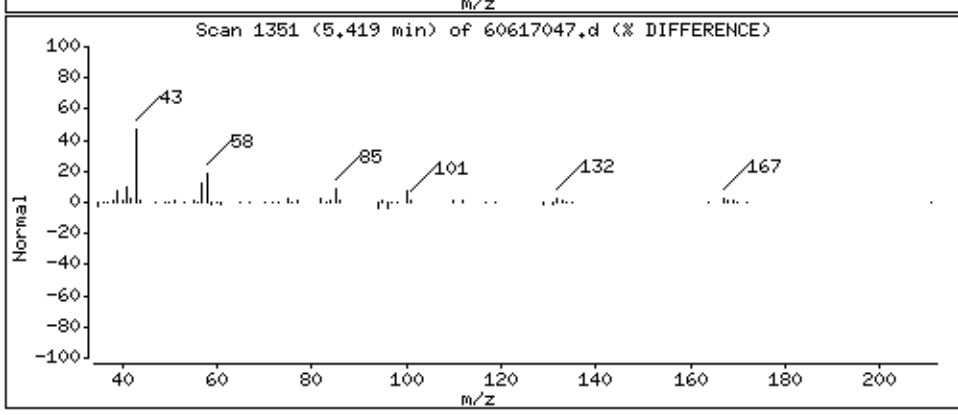
62 Tetrachloroethene

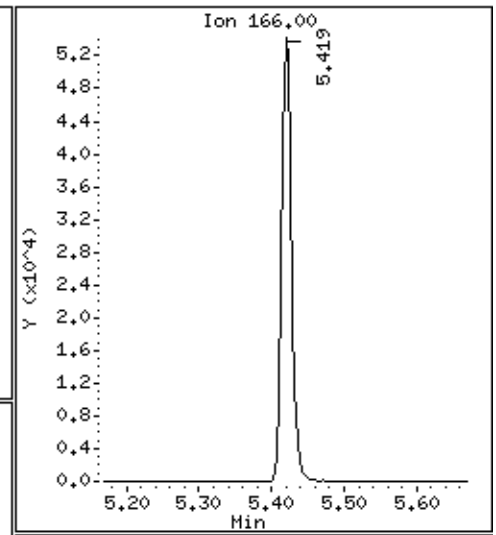
Concentration: 184 ug/kg

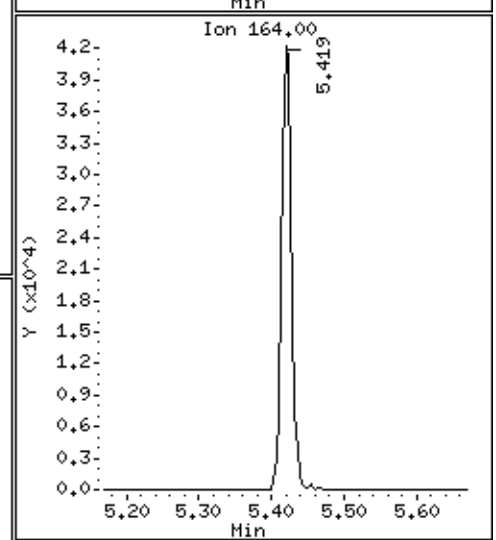


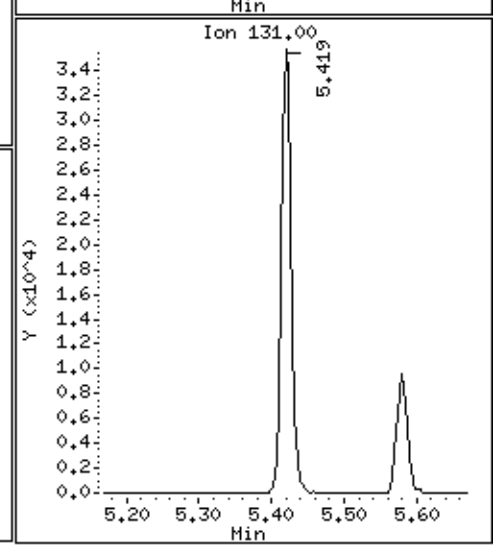












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

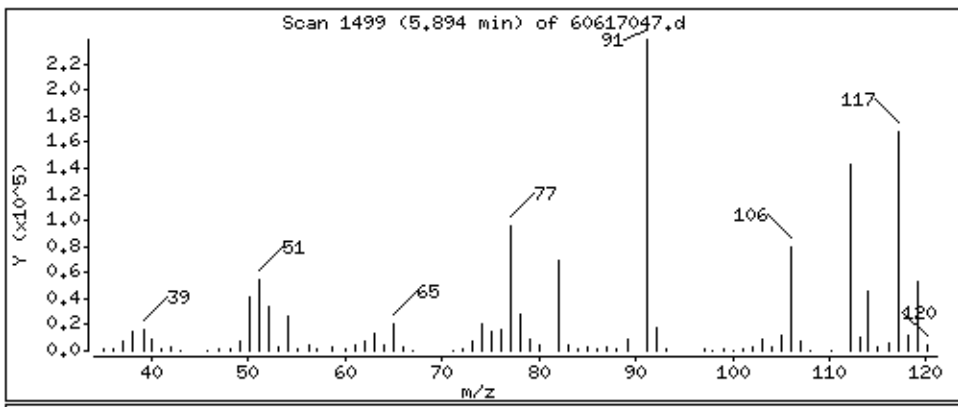
Operator: JEW

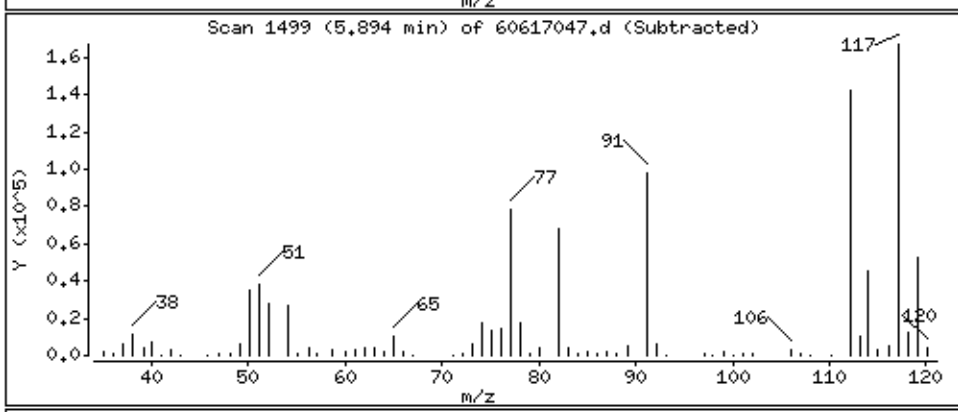
Column phase: RTX-VMS

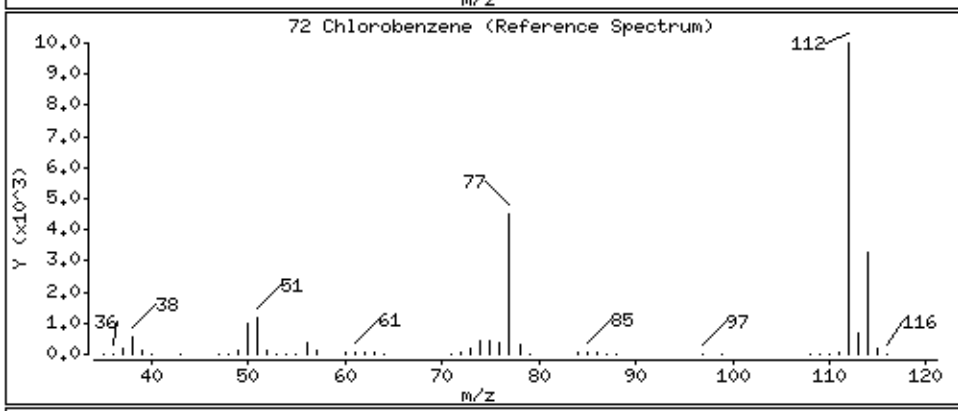
Column diameter: 0.18

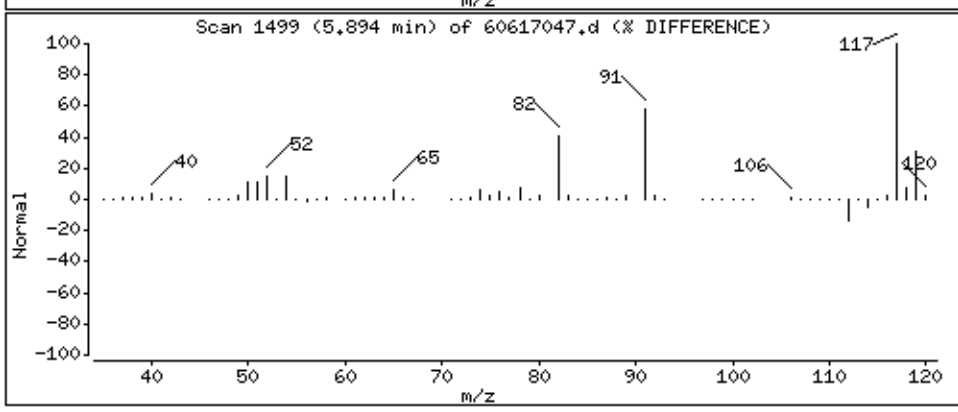
72 Chlorobenzene

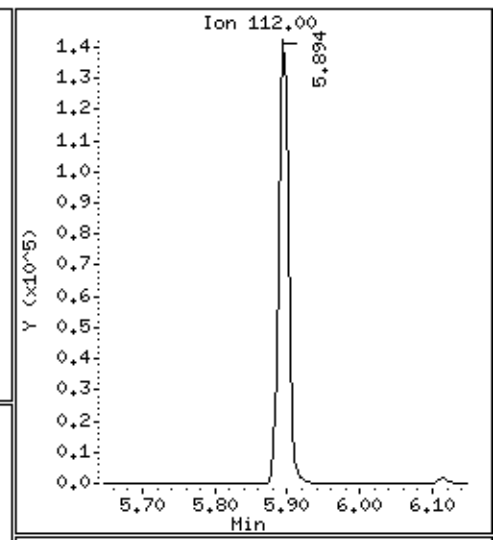
Concentration: 186 ug/kg

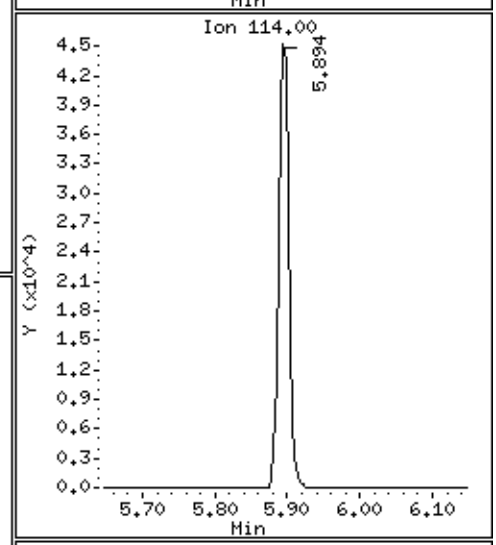


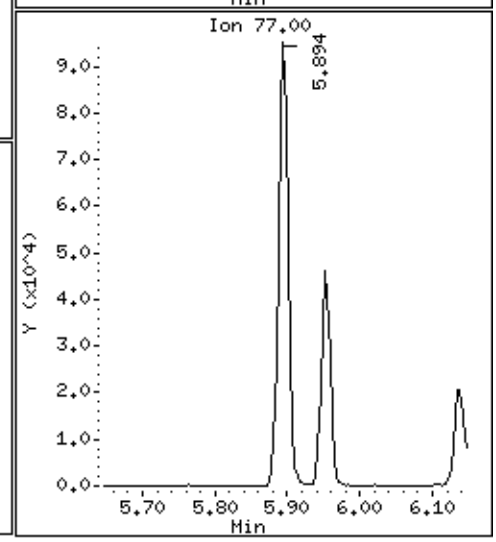












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

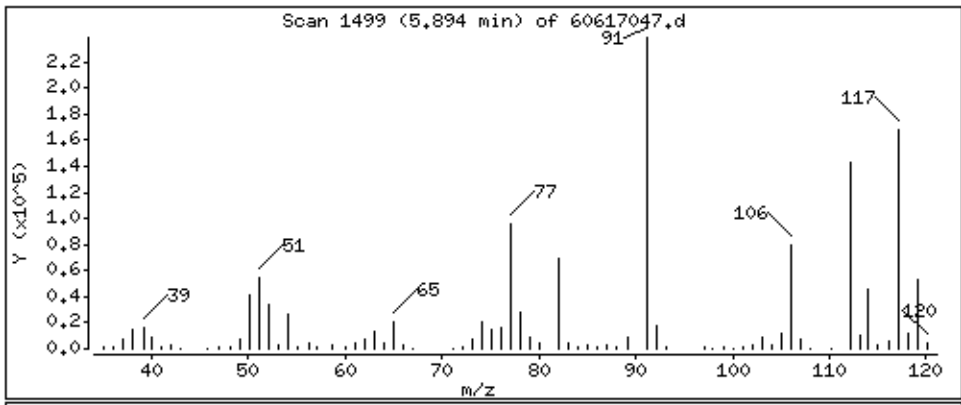
Operator: JEW

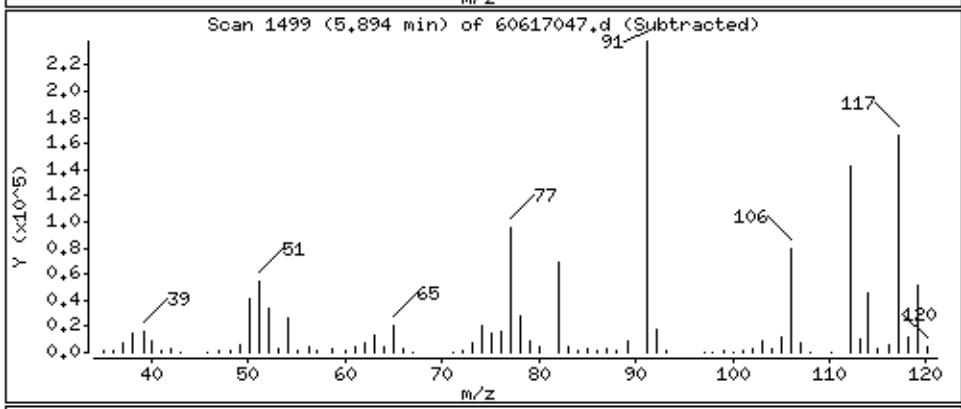
Column phase: RTX-VMS

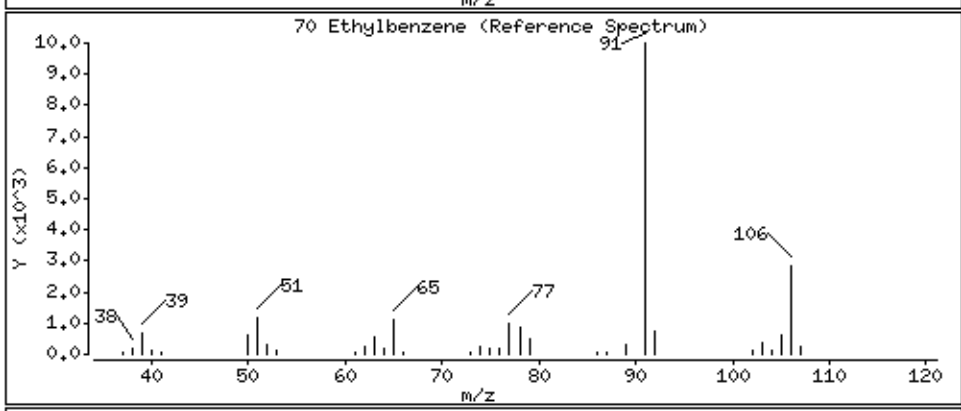
Column diameter: 0.18

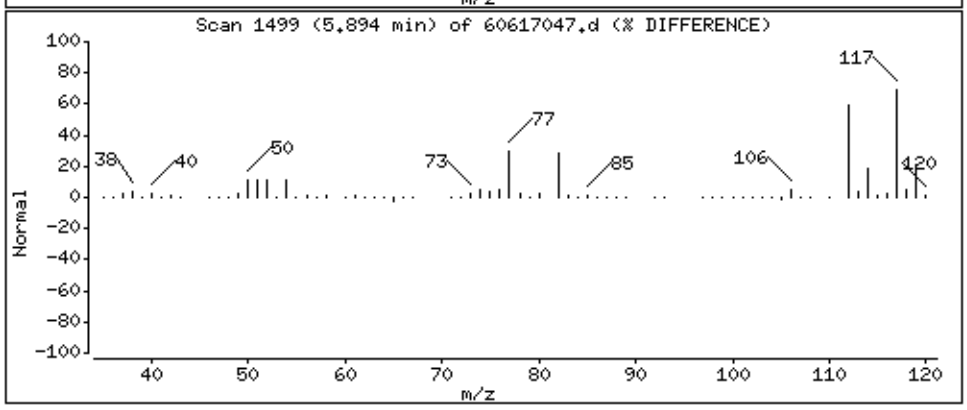
70 Ethylbenzene

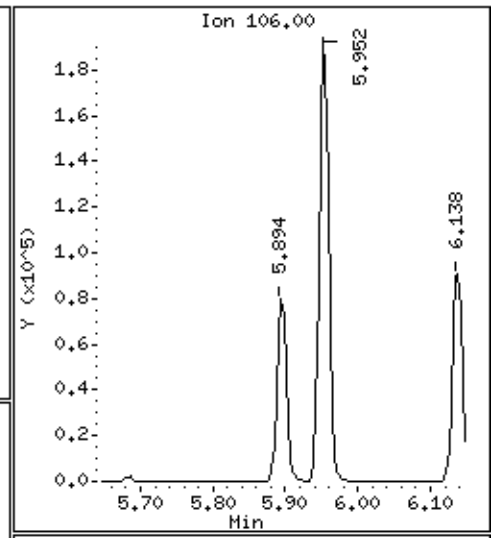
Concentration: 185 ug/kg

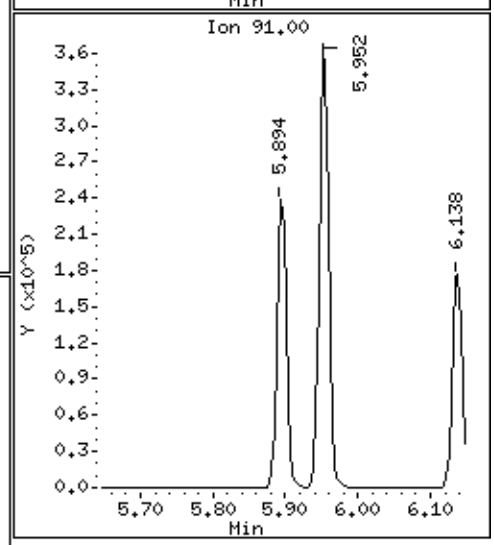












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

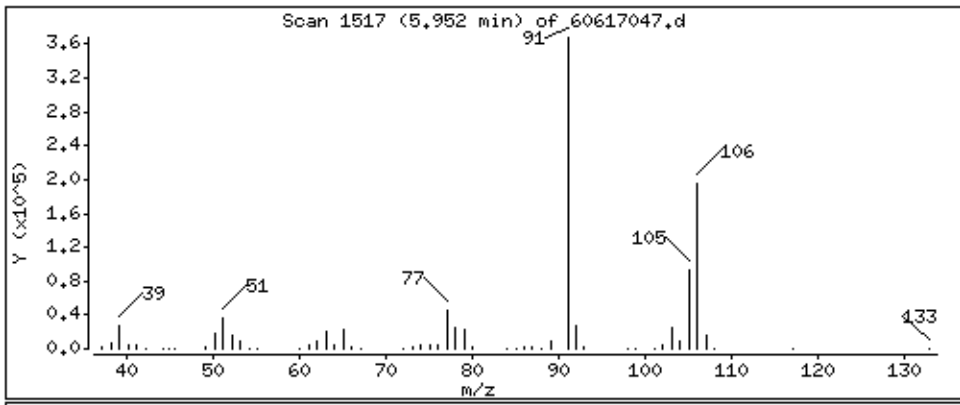
Operator: JEW

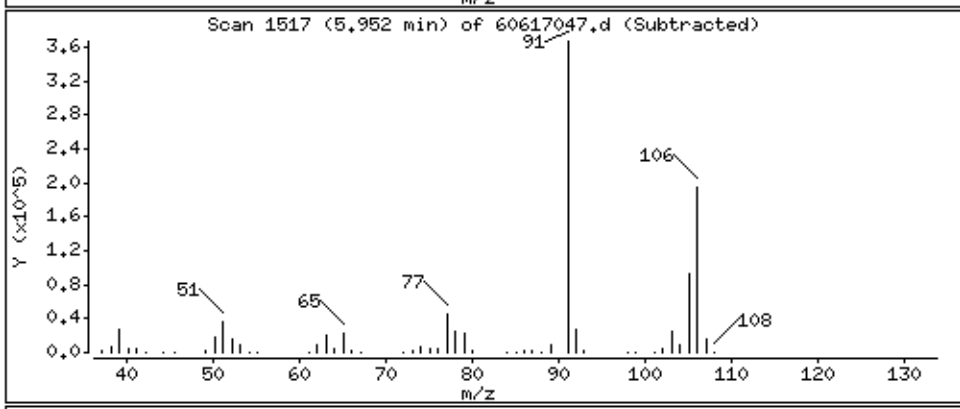
Column phase: RTX-VMS

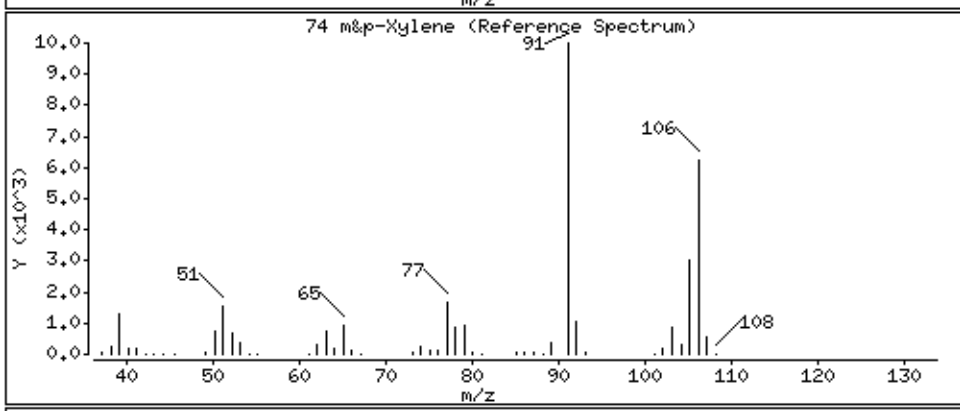
Column diameter: 0.18

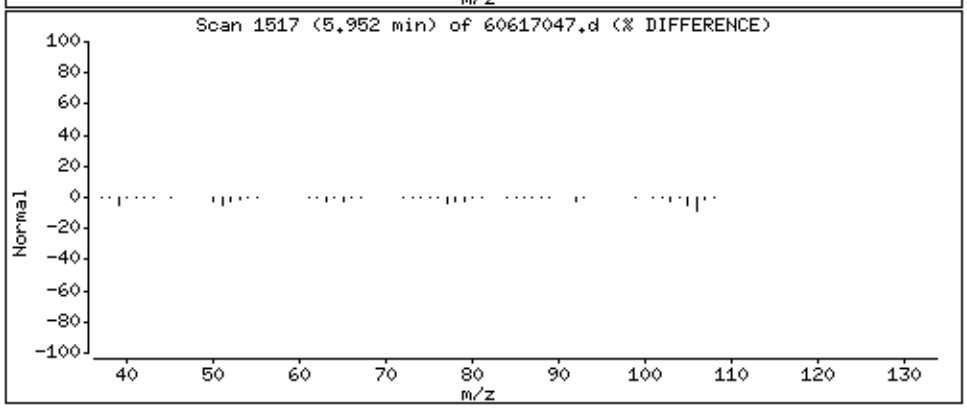
74 m&p-Xylene

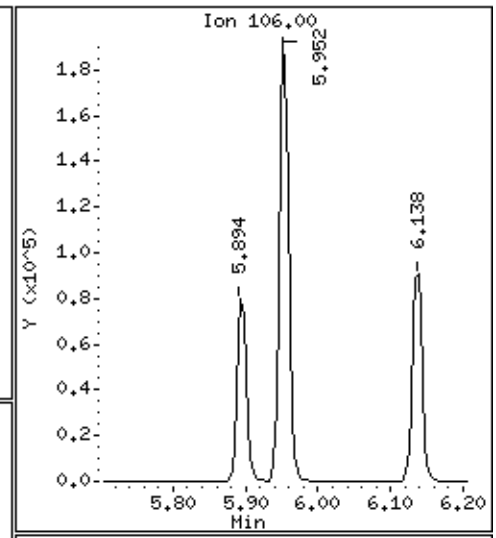
Concentration: 370 ug/kg

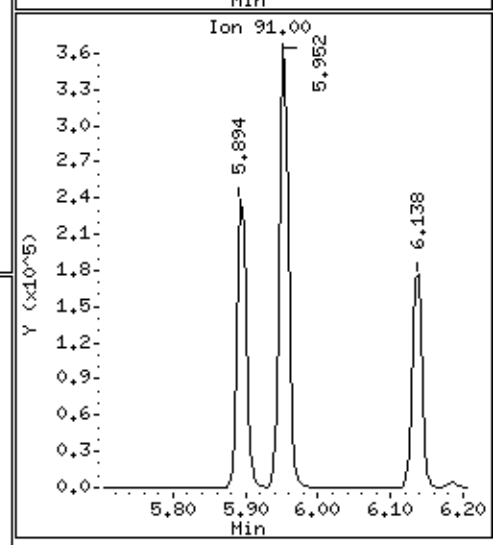












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617047.d

Date : 17-JUN-2019 19:04

Client ID: A0C35LMS

Instrument: 30mv6a.i

Sample Info: 1690585x10

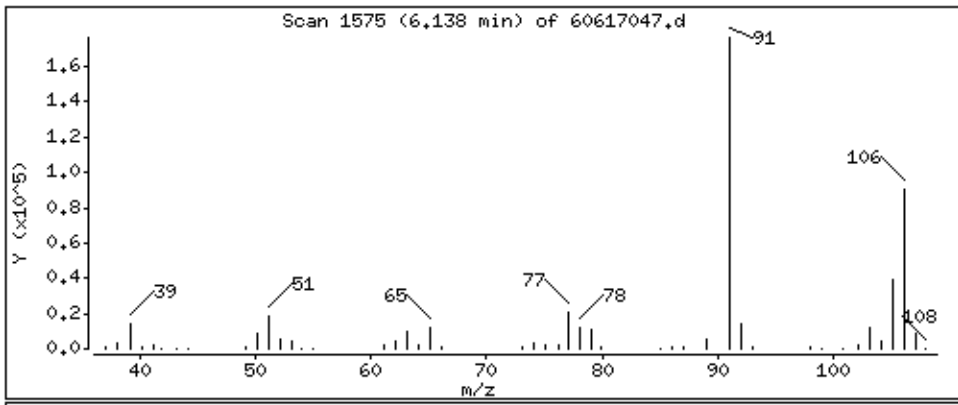
Operator: JEW

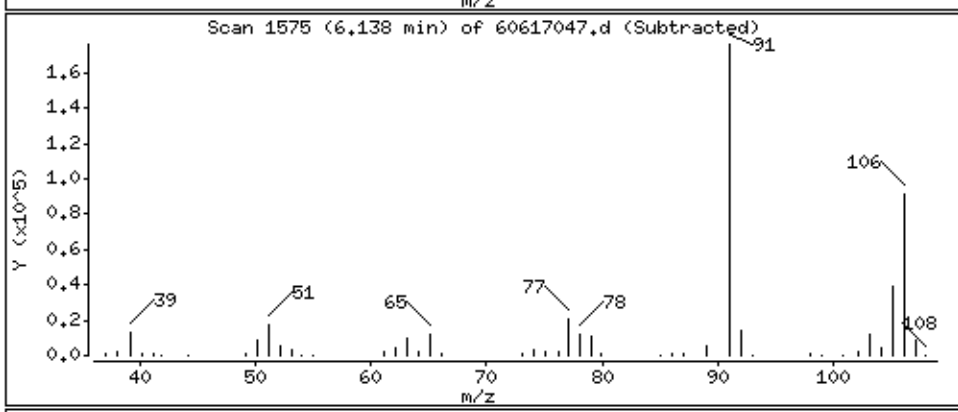
Column phase: RTX-VMS

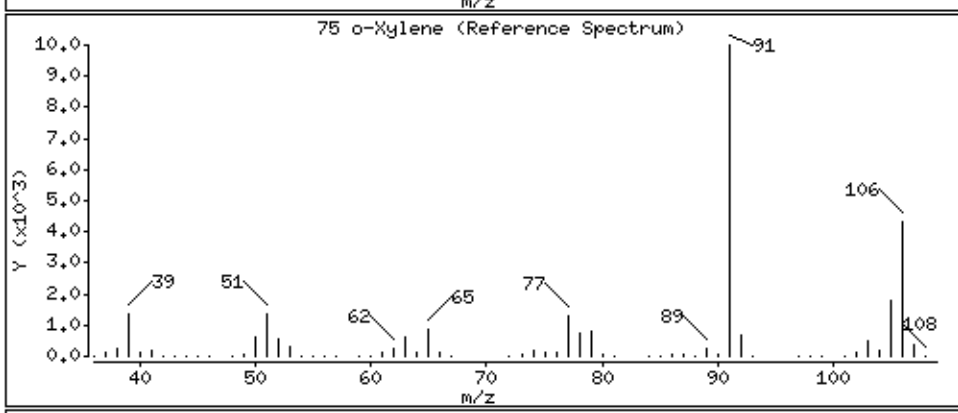
Column diameter: 0.18

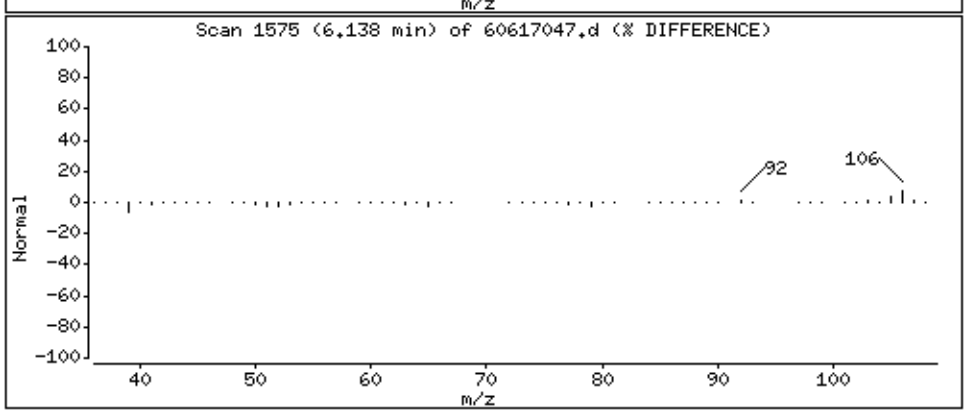
75 o-Xylene

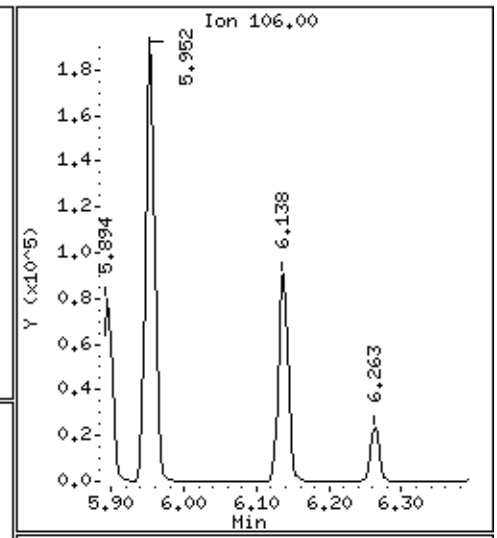
Concentration: 186 ug/kg

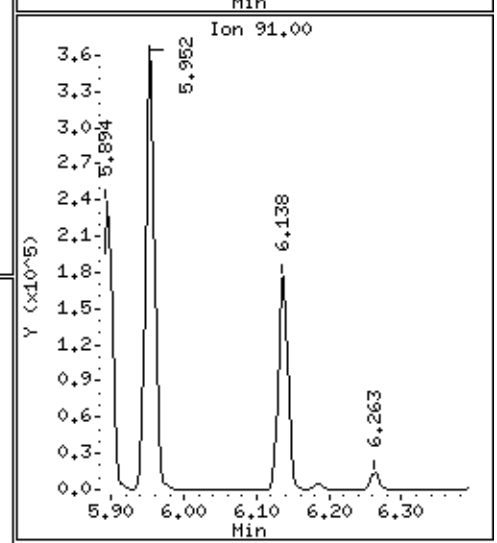












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617047.d
Injection Date: 17-JUN-2019 19:04
Instrument: 30mv6a.i
Lab Sample ID: 1690585
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/06/2019 09:40 Matrix: Solid SDG No.: 30298231

Date Extracted: 06/17/2019 19:30 Lab Sample ID: 1690586

Date Analyzed: 06/17/2019 19:30 Lab File ID: 6190617.B\1.B\60617049.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	160	
78-93-3	2-Butanone (MEK)	167	
56-23-5	Carbon tetrachloride	139	
108-90-7	Chlorobenzene	184	
67-66-3	Chloroform	161	
107-06-2	1,2-Dichloroethane	160	
75-35-4	1,1-Dichloroethene	154	
127-18-4	Tetrachloroethene	186	
79-01-6	Trichloroethene	311	
75-01-4	Vinyl chloride	86.0	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Lab Smp Id: 1690586 Client Smp ID: AOC35LMSD
Inj Date : 17-JUN-2019 19:30
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1690586x10
Misc Info : 44943
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Meth Date : 18-Jun-2019 10:10 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:09 Cal File: 60514009.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.392	1.395	(0.307)	35136	8.59725	86.0(R)	
	9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	53575	15.3805	154(R)	
	33 Chloroform	83	3.939	3.943	(0.870)	65816	16.0612	161(R)	
	34 Carbon Tetrachloride	117	4.020	4.019	(0.888)	47707	13.9216	139(R)	
$	37 Dibromofluoromethane (S)	111	4.065	4.065	(0.898)	75502	23.9528	24.0	
	39 2-Butanone (MEK)	43	4.148	4.149	(0.916)	23512	16.6706	167(QR)	
	41 Benzene	78	4.299	4.303	(0.950)	132896	16.0198	160(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	95742	30.6036	30.6	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	53696	15.9731	160(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	353195	30.0000		
	50 Trichloroethene	95	4.610	4.614	(0.783)	75593	31.0617	311(R)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	322186	29.0377	29.0	
	59 Toluene	91	5.255	5.259	(0.893)	166590	16.8581	168(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	53256	18.6092	186(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	298659	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	133504	18.4331	184(R)	
	70 Ethylbenzene	106	5.894	5.897	(1.001)	68857	17.6692	177(R)	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	170510	35.4611	355(R)	
	75 o-Xylene	106	6.134	6.141	(1.042)	83784	17.6140	176(R)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	138057	29.5089	29.5	

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	191641	30.0000		

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60617049.d
Lab Smp Id: 1690586
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

Calibration Date: 17-JUN-2019
Calibration Time: 10:28
Client Smp ID: AOC35LMSD
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	404562	202281	809124	353195	-12.70
71 Chlorobenzene-d5	336661	168331	673322	298659	-11.29
94 1,4-Dichlorobenze	211973	105987	423946	191641	-9.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1690586 Client Smp ID: AOC35LMSD
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MSD
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\msv6051419a.m
Misc Info: 44943

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	86.0	429.86*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	154	769.03*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	161	803.06*	70-130
34 Carbon Tetrachlori	20.0	139	696.08*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	167	833.53*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	160	800.99*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	160	798.66*	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	311	1553.08*	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	168	842.91*	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	186	930.46*	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	177	883.46*	70-130
72 Chlorobenzene	20.0	184	921.66*	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	355	886.53*	50-150
75 o-Xylene	20.0	176	880.70*	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenze	20.0	0.000	*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	24.0	79.84	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	30.6	102.01	0-138
$ 58 Toluene-d8 (S)	30.0	29.0	96.79	0-124
$ 79 4-Bromofluorobenze	30.0	29.5	98.36	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
Report Date: 18-Jun-2019 10:28

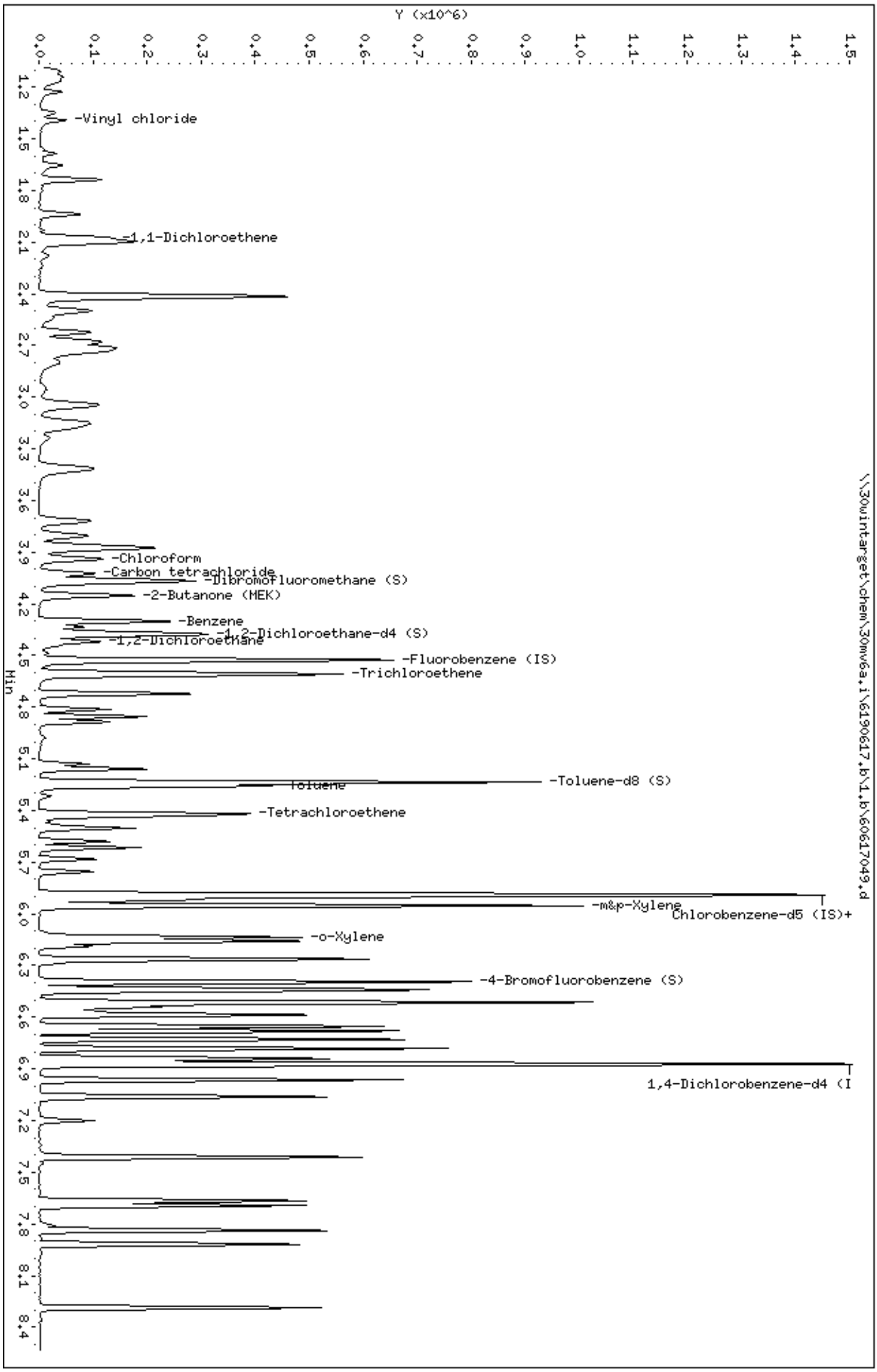
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1690586
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44943

Client SDG: 1.b
Client Smp ID: AOC35LMSD
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	86.0	
75-35-4	1,1-Dichloroethene	154	
67-66-3	Chloroform	161	
56-23-5	Carbon Tetrachloride	139	
78-93-3	2-Butanone (MEK)	167	
71-43-2	Benzene	160	
107-06-2	1,2-Dichloroethane	160	
79-01-6	Trichloroethene	311	
108-88-3	Toluene	168	
127-18-4	Tetrachloroethene	186	
108-90-7	Chlorobenzene	184	
100-41-4	Ethylbenzene	177	
7816-60-0	m&p-Xylene	355	
95-47-6	o-Xylene	176	
1868-53-7	Dibromofluoromethane (S)	24.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.6	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	29.5	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Date : 17-JUN-2019 19:30
Client ID: AOC35LHSD
Sample Info: 1690586x10
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
Y (x10^6)
Min
\\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d
-Vinyl chloride
-1,1-Dichloroethene
-Chloroform
-Carbon tetrachloride
-Dibromofluoromethane (S)
-2-Butanone (MEK)
-Benzene
-1,2-Dichloroethane-d4 (S)
-1,2-Dichloroethane
-Fluorobenzene (IS)
-Trichloroethene
-Toluene-d8 (S)
Toluene
-Tetrachloroethene
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-4-Bromofluorobenzene (S)
1,4-Dichlorobenzene-d4 (I

Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d

Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

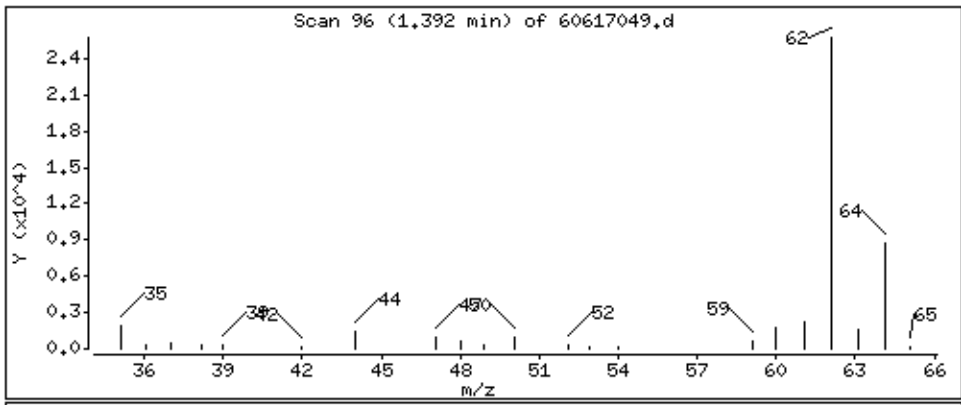
Operator: JEW

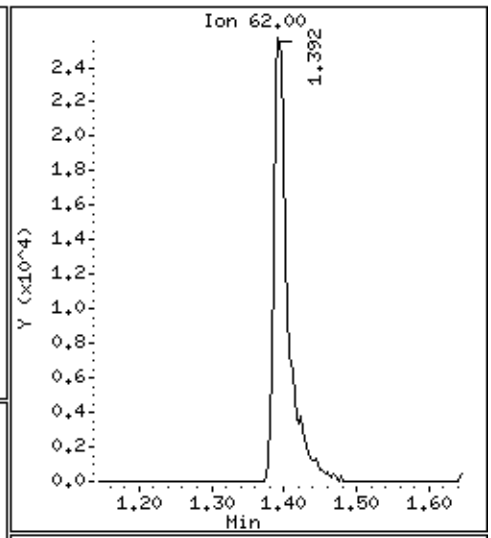
Column phase: RTX-VMS

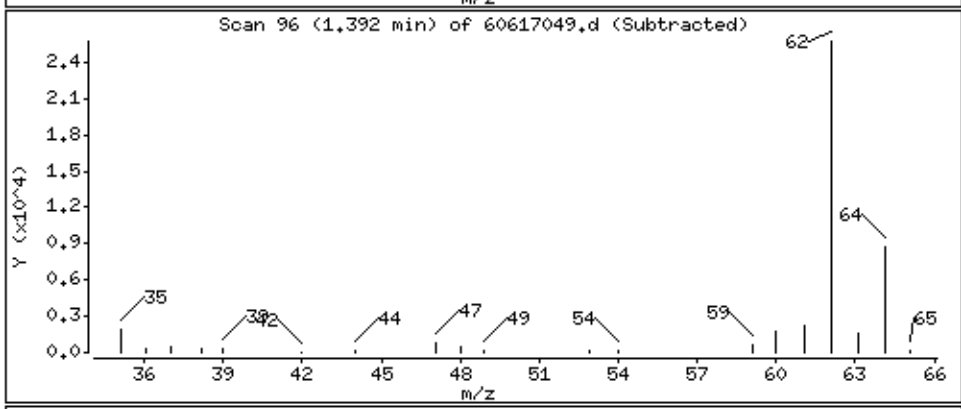
Column diameter: 0.18

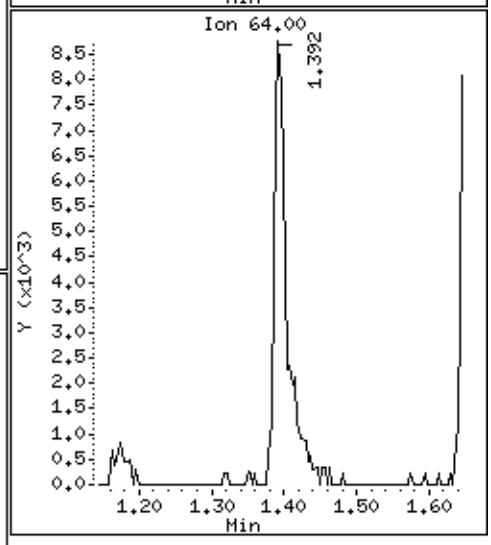
3 Vinyl Chloride

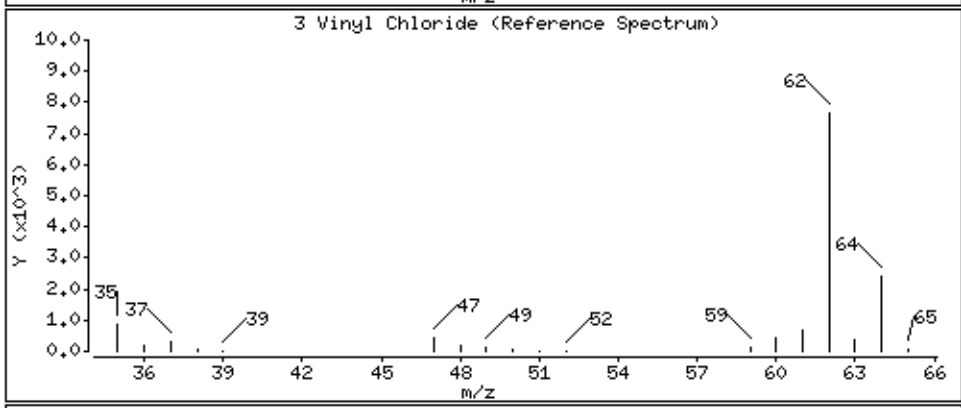
Concentration: 86.0 ug/kg

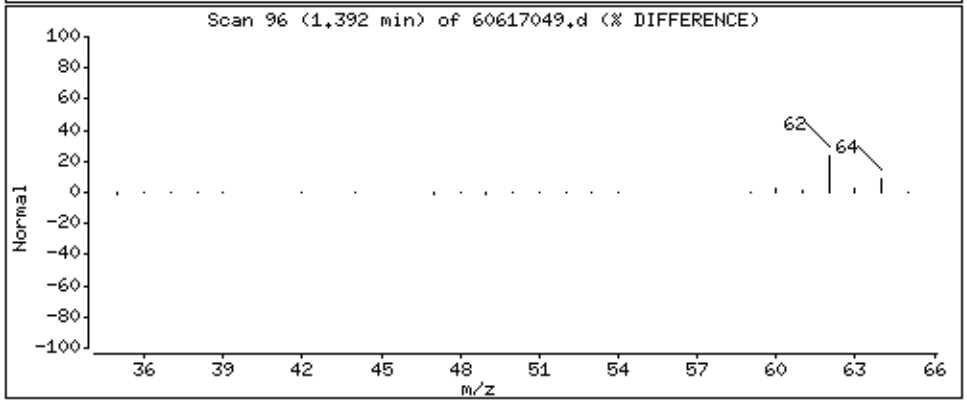












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

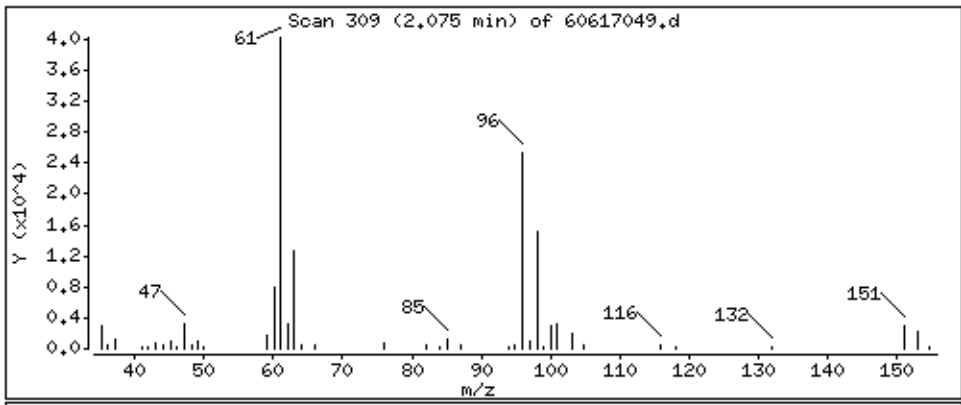
Operator: JEW

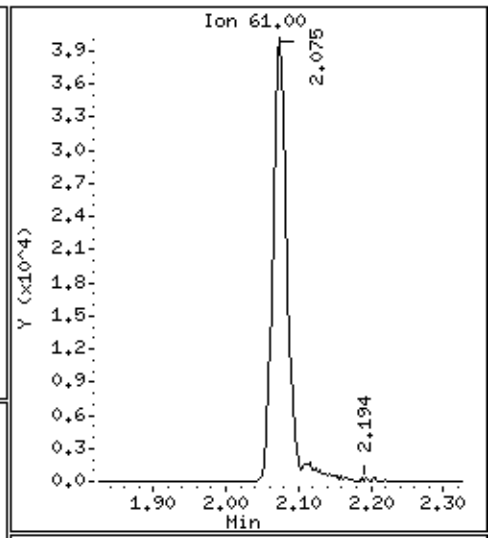
Column phase: RTX-VMS

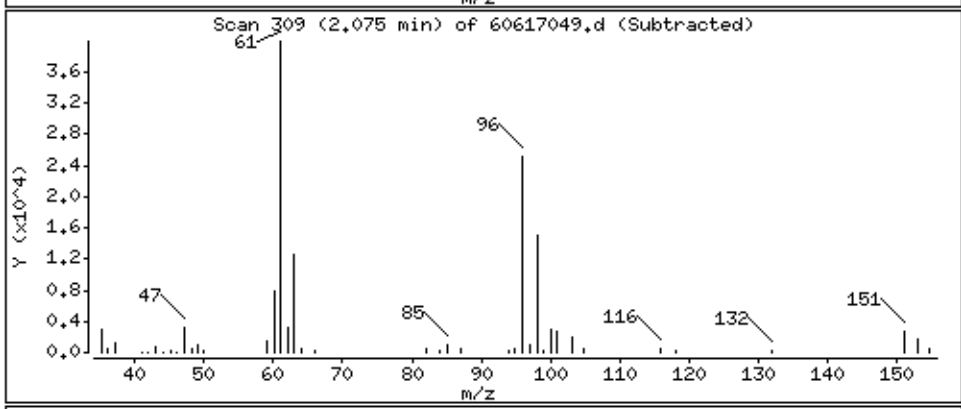
Column diameter: 0.18

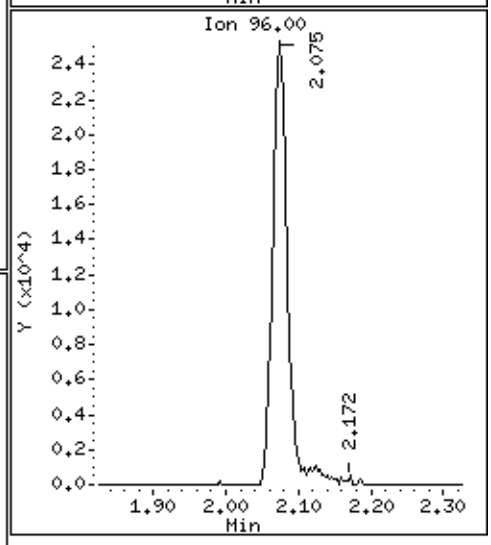
9 1,1-Dichloroethene

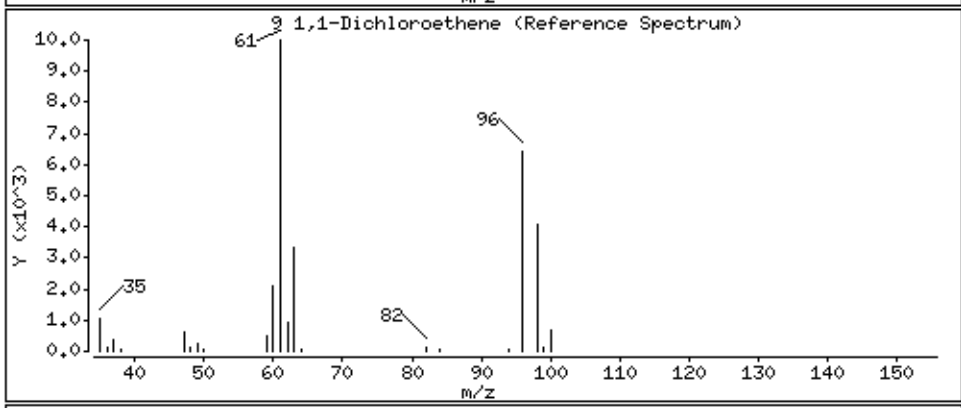
Concentration: 154 ug/kg

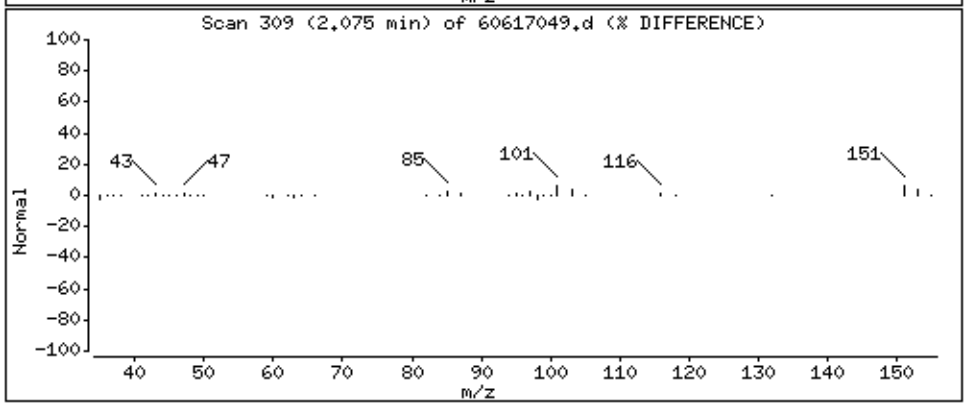












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

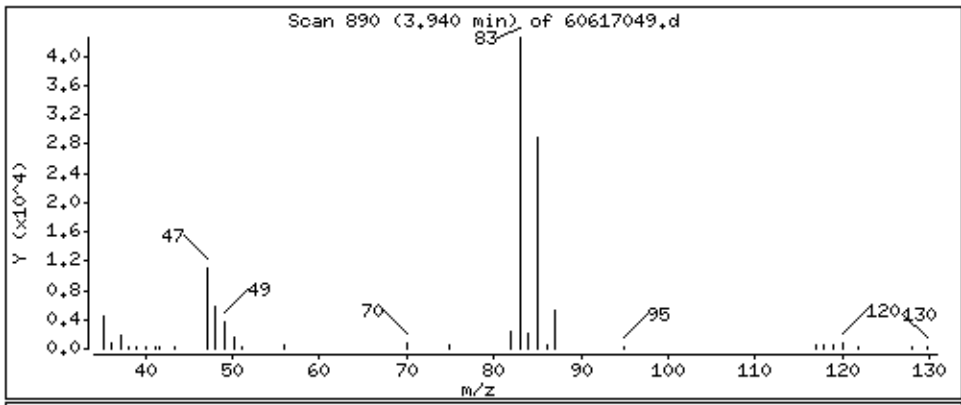
Operator: JEW

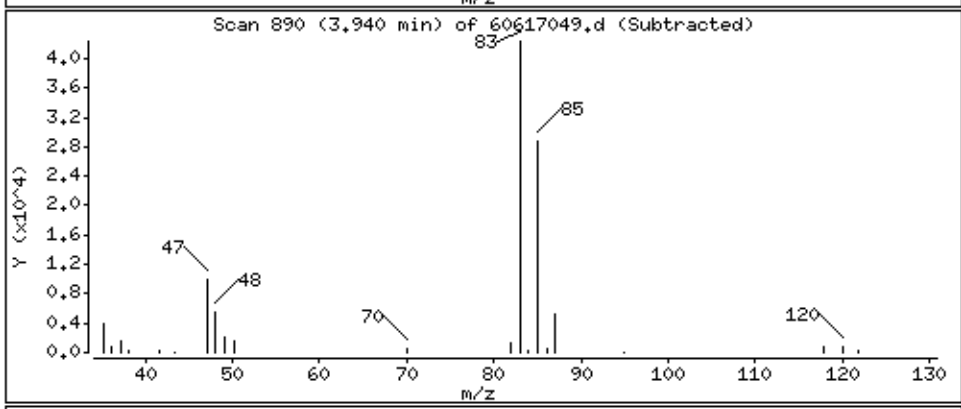
Column phase: RTX-VMS

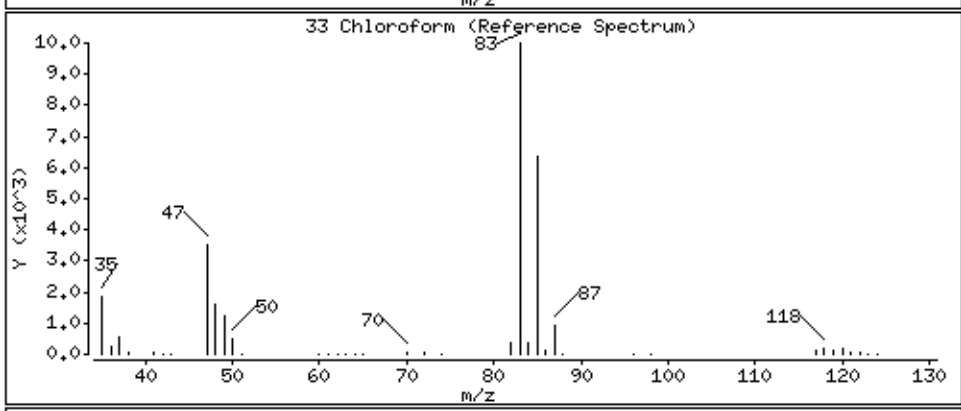
Column diameter: 0.18

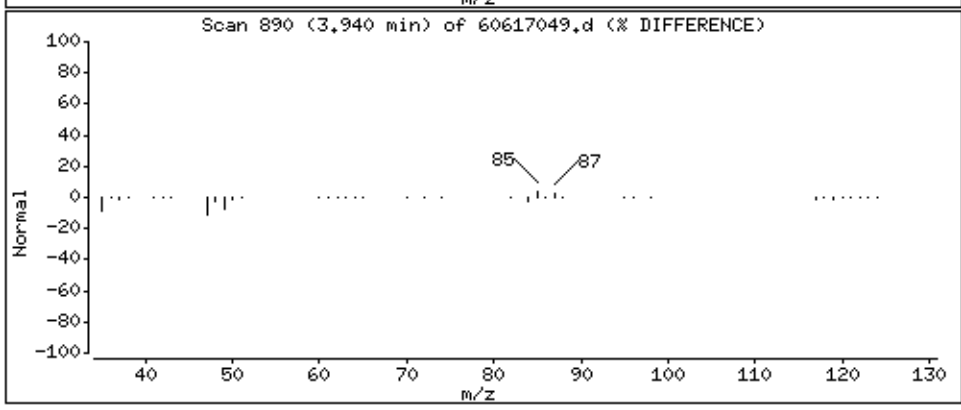
33 Chloroform

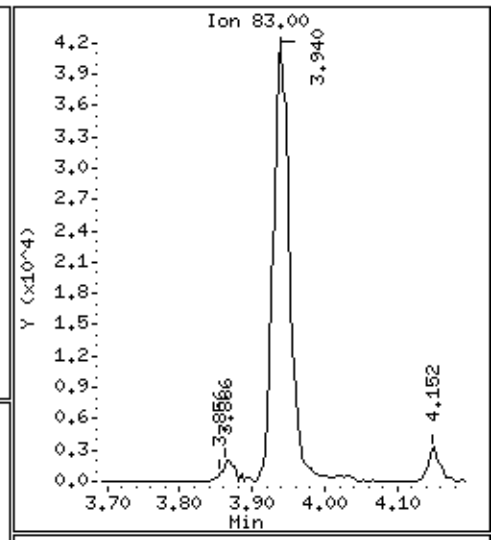
Concentration: 161 ug/kg

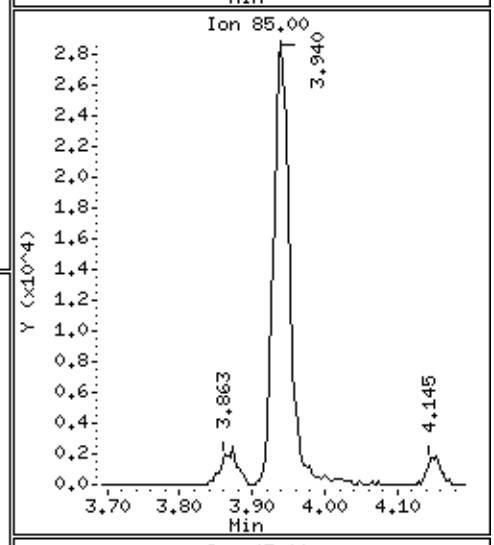


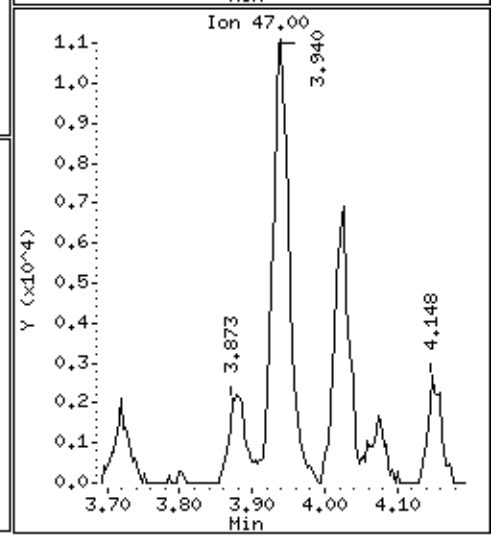












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

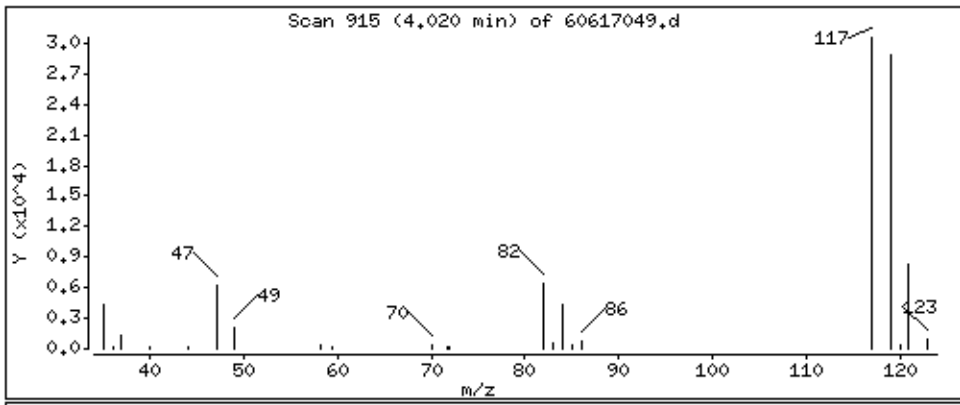
Operator: JEW

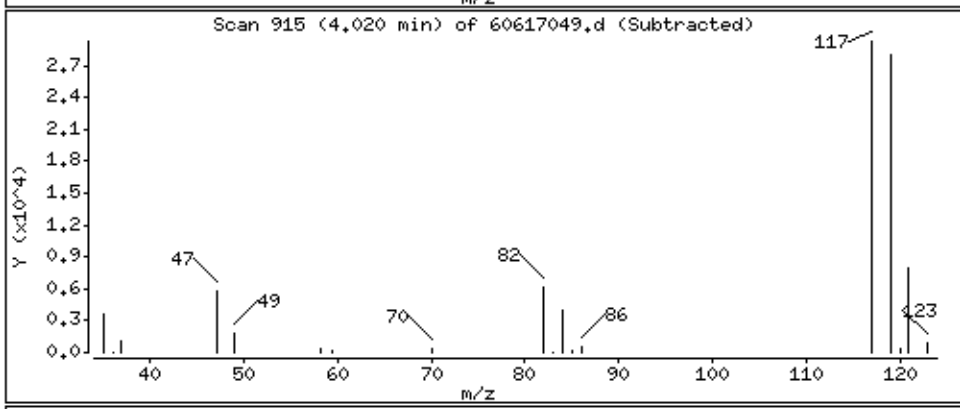
Column phase: RTX-VMS

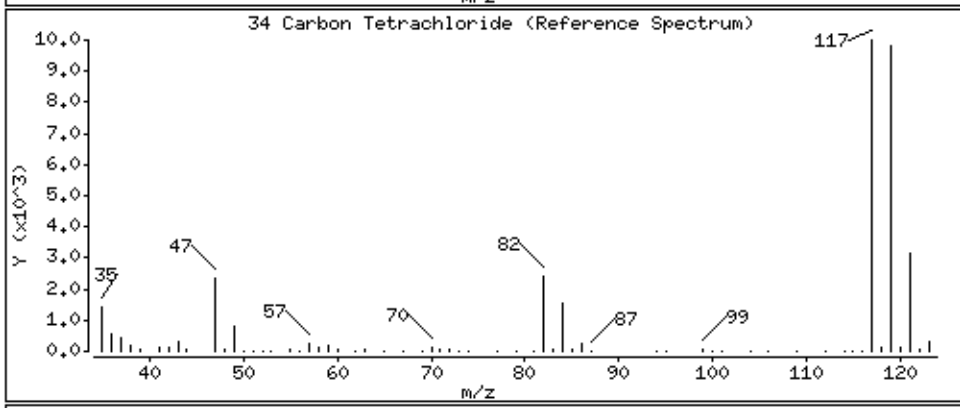
Column diameter: 0.18

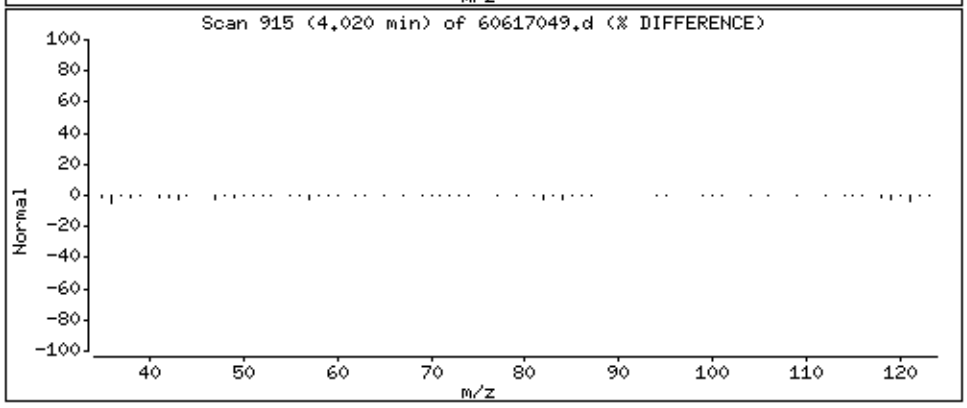
34 Carbon Tetrachloride

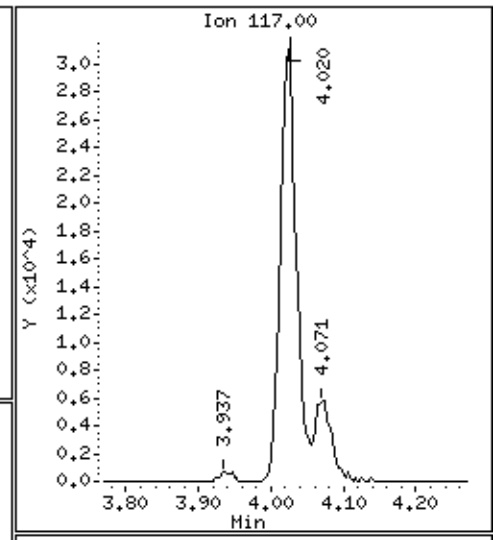
Concentration: 139 ug/kg

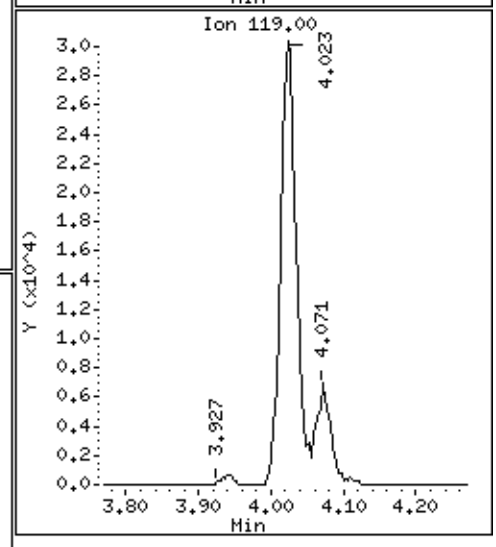












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d

Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

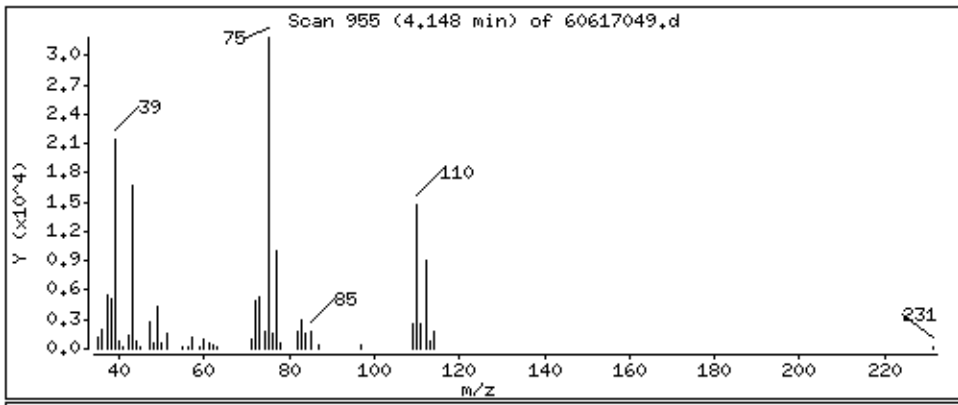
Operator: JEW

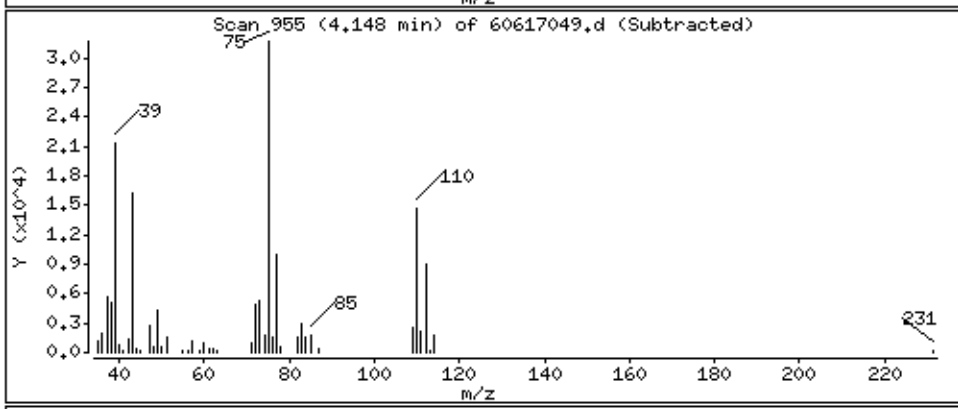
Column phase: RTX-VMS

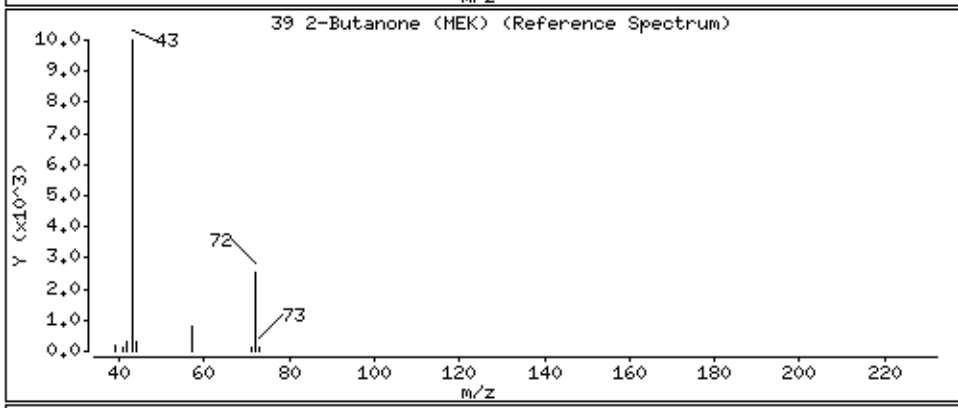
Column diameter: 0.18

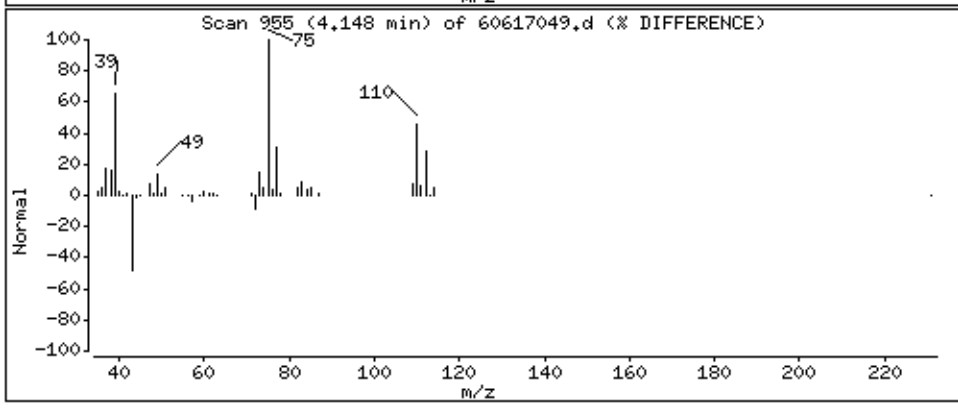
39 2-Butanone (MEK)

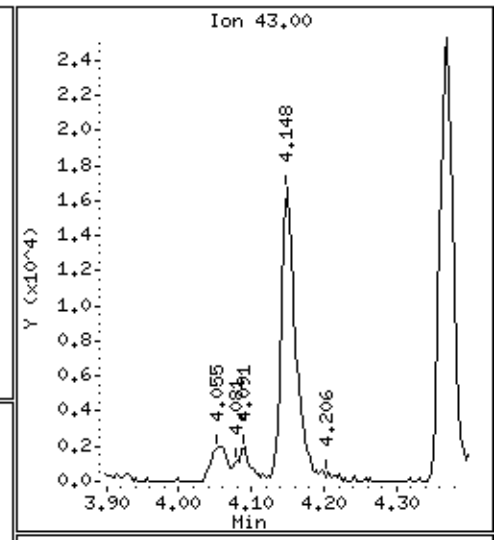
Concentration: 167 ug/kg

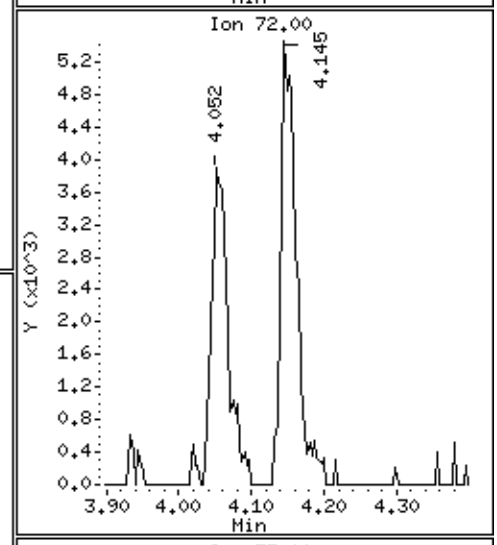


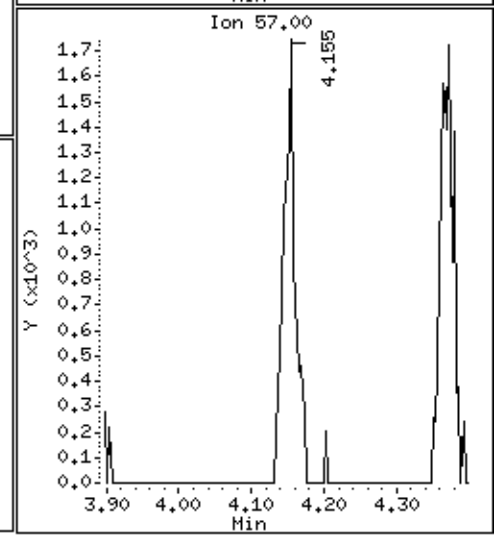












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

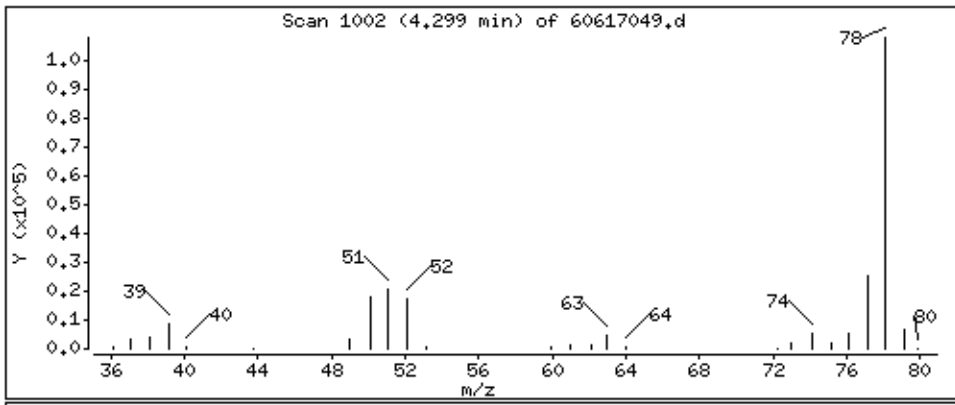
Operator: JEW

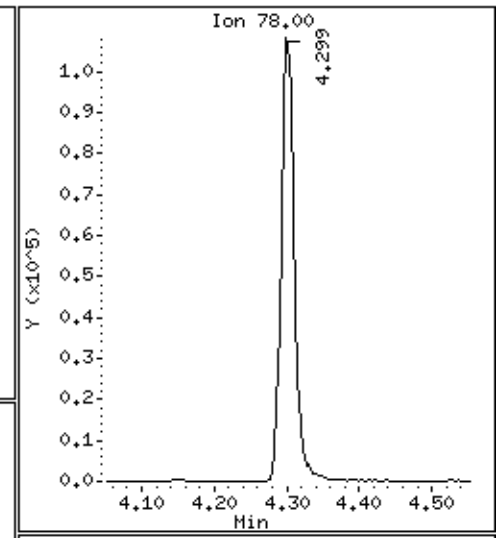
Column phase: RTX-VMS

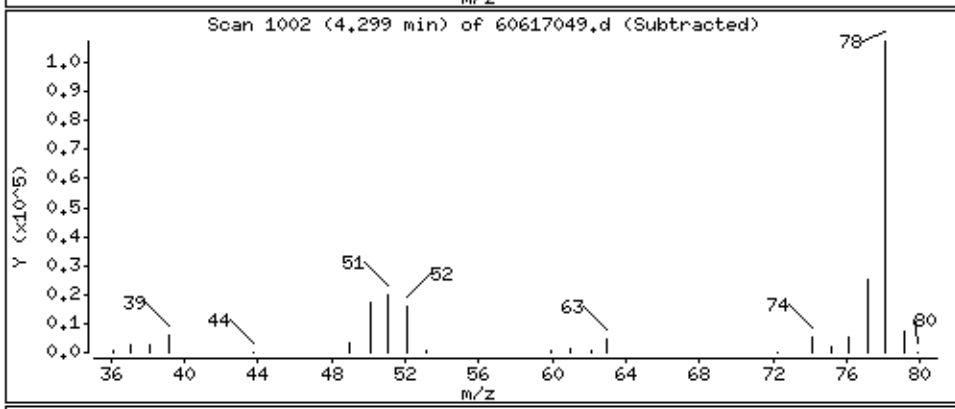
Column diameter: 0.18

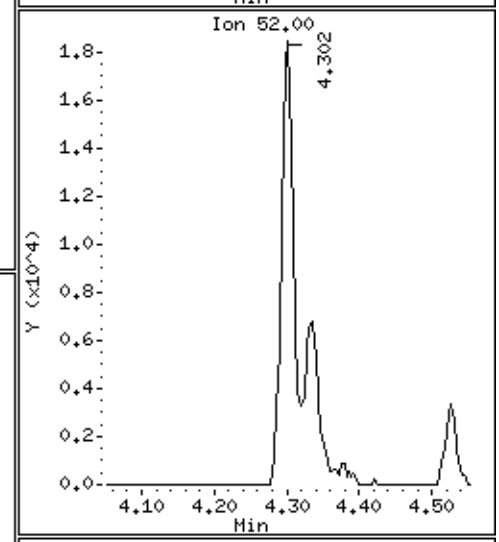
41 Benzene

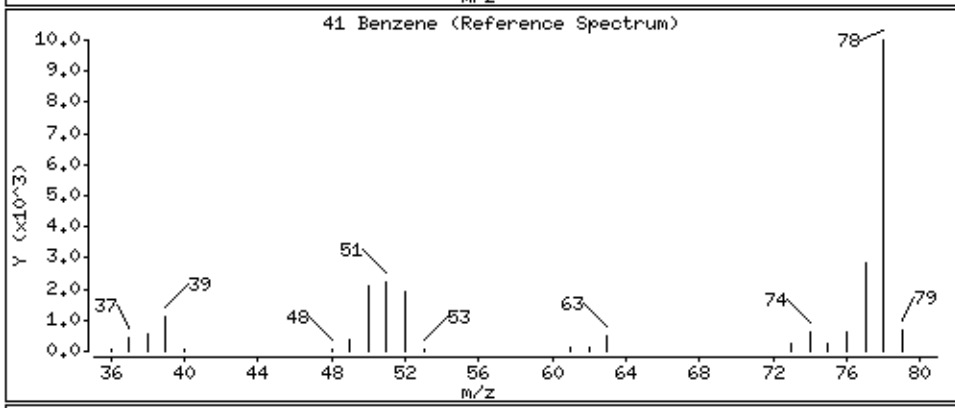
Concentration: 160 ug/kg

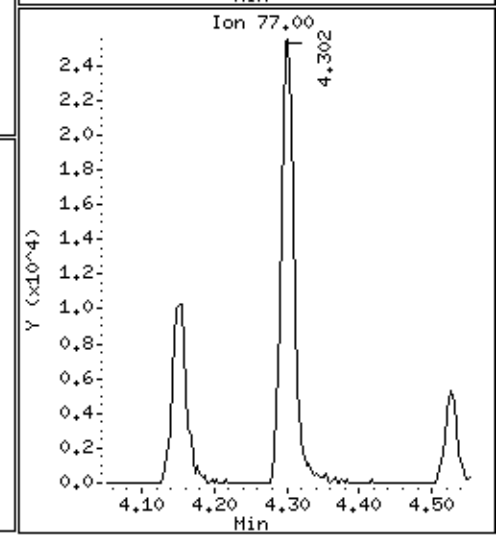


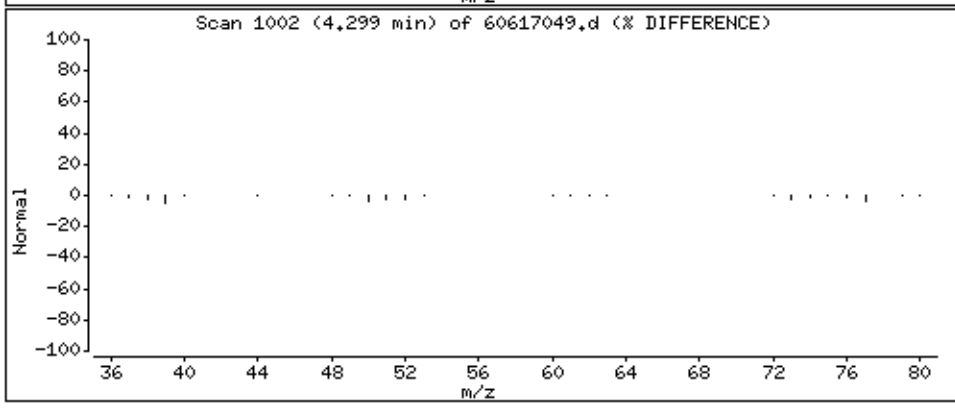












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

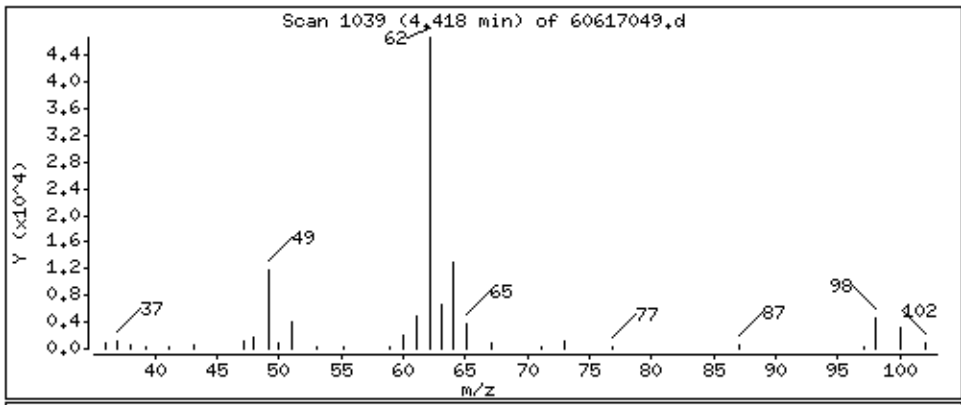
Operator: JEW

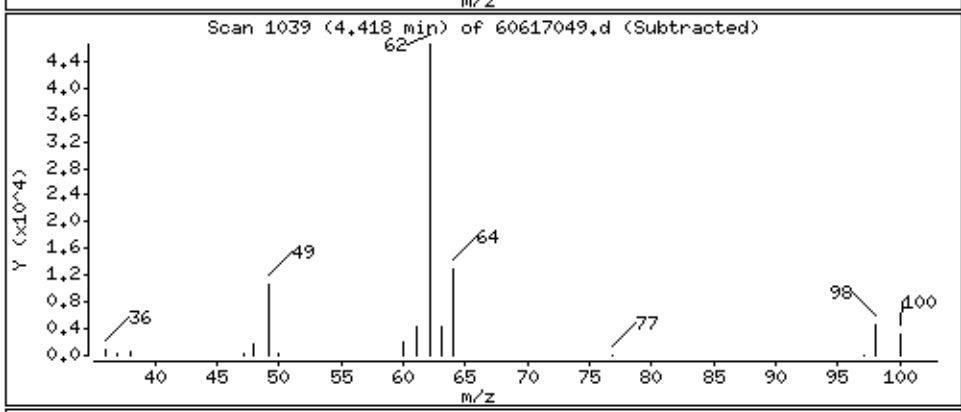
Column phase: RTX-VMS

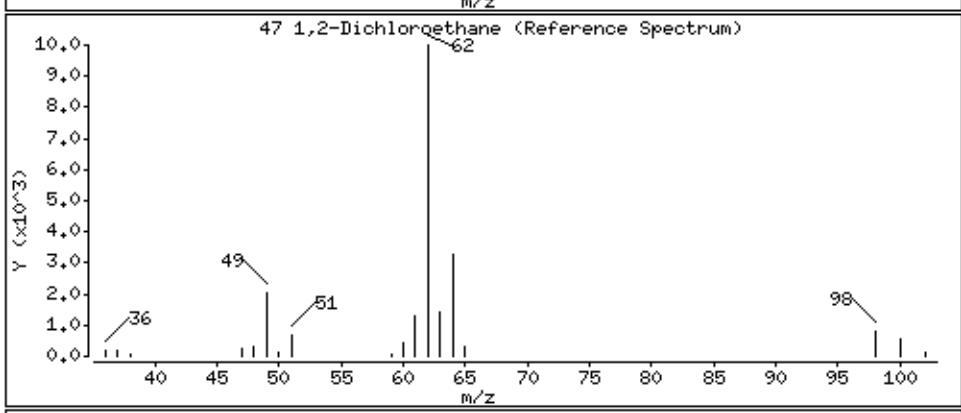
Column diameter: 0.18

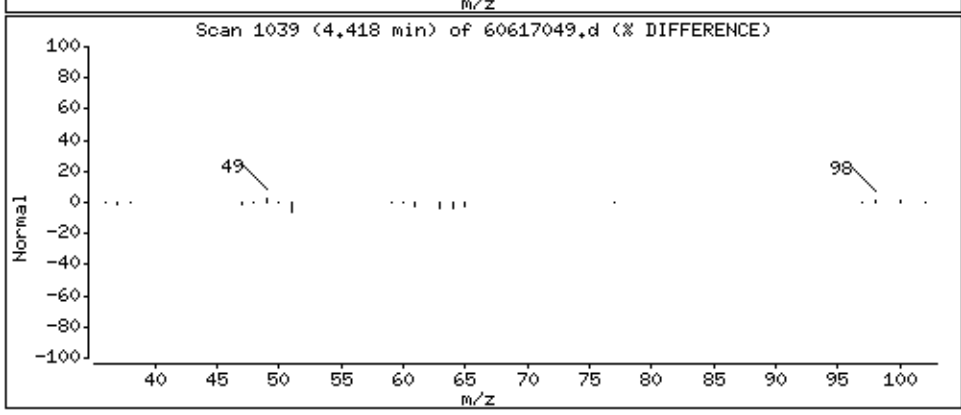
47 1,2-Dichloroethane

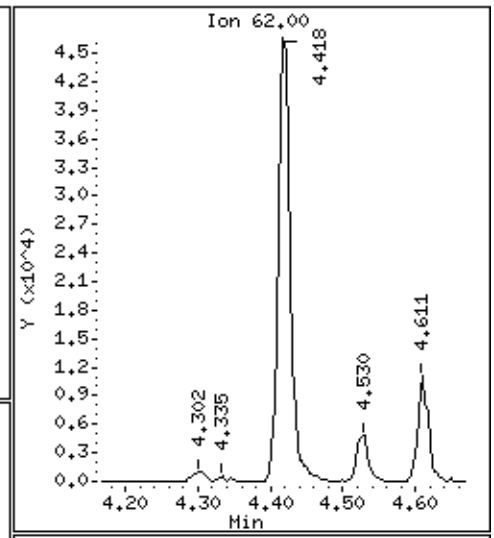
Concentration: 160 ug/kg

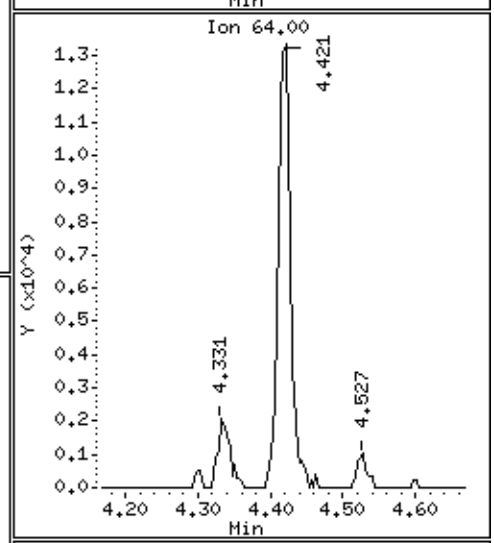


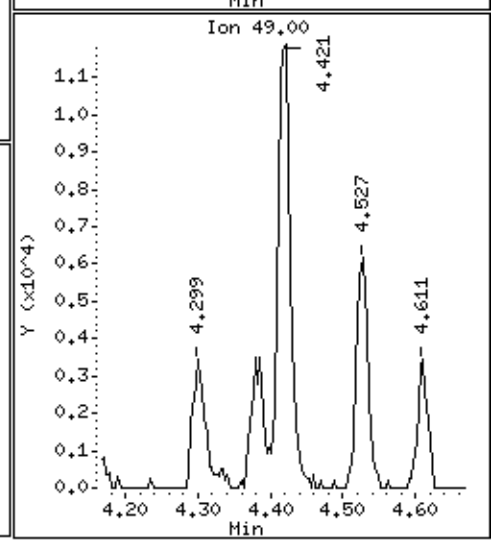












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

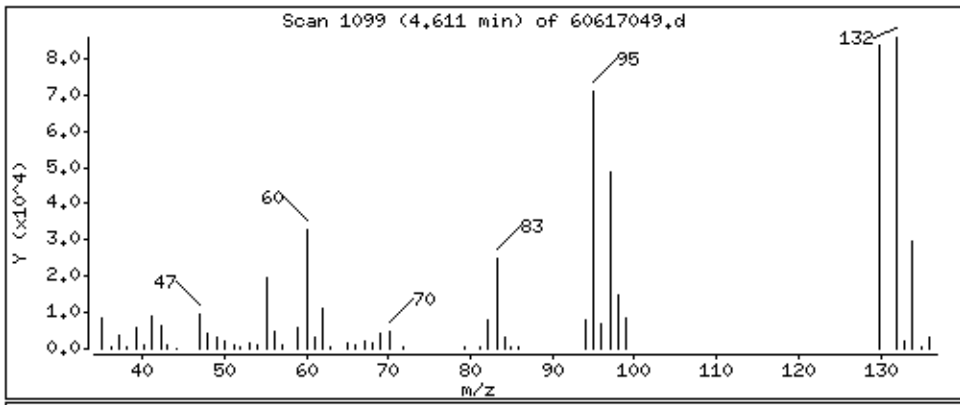
Operator: JEW

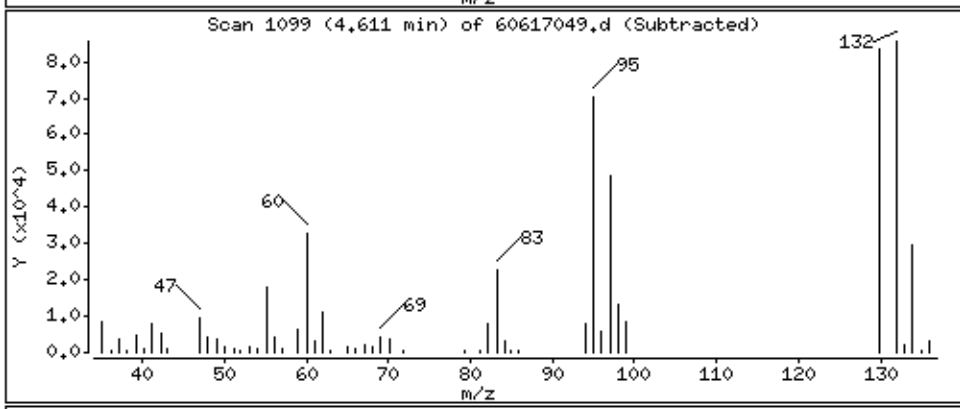
Column phase: RTX-VMS

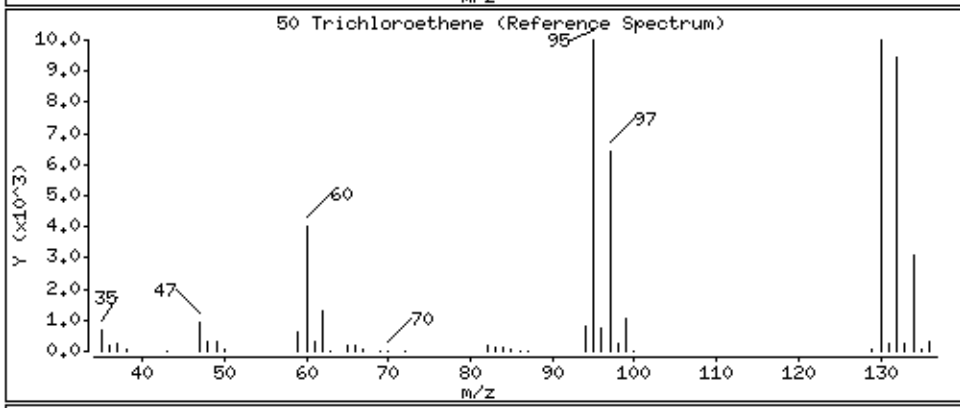
Column diameter: 0.18

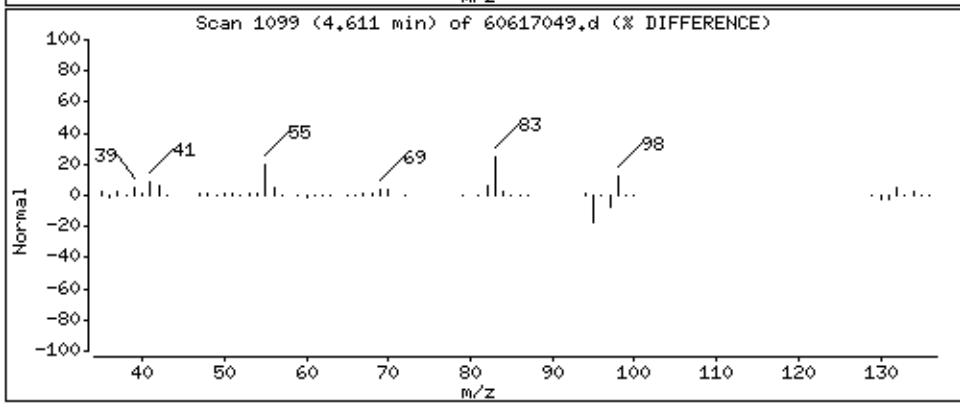
50 Trichloroethene

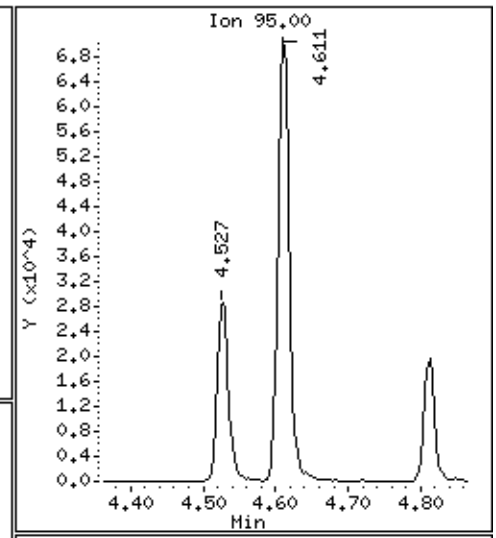
Concentration: 311 ug/kg

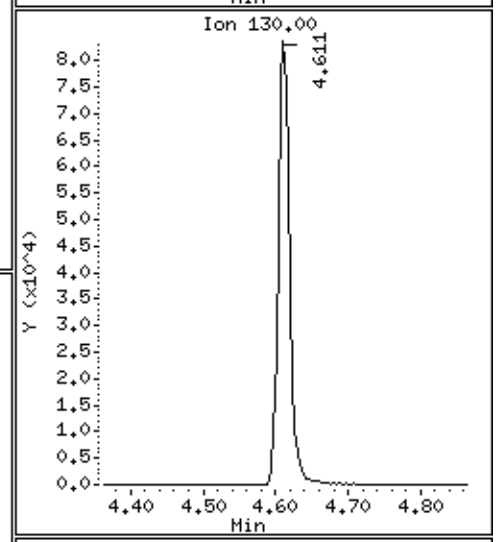


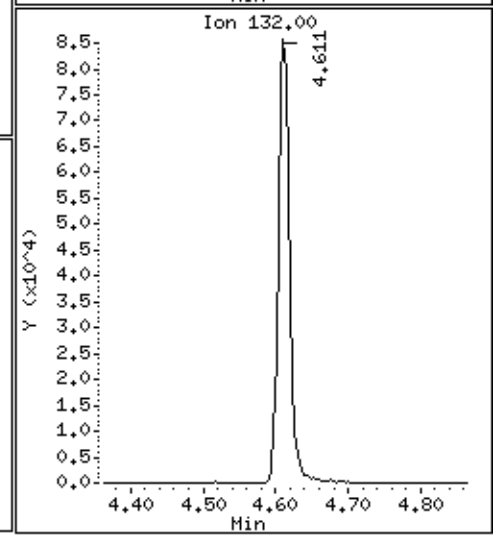












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d

Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

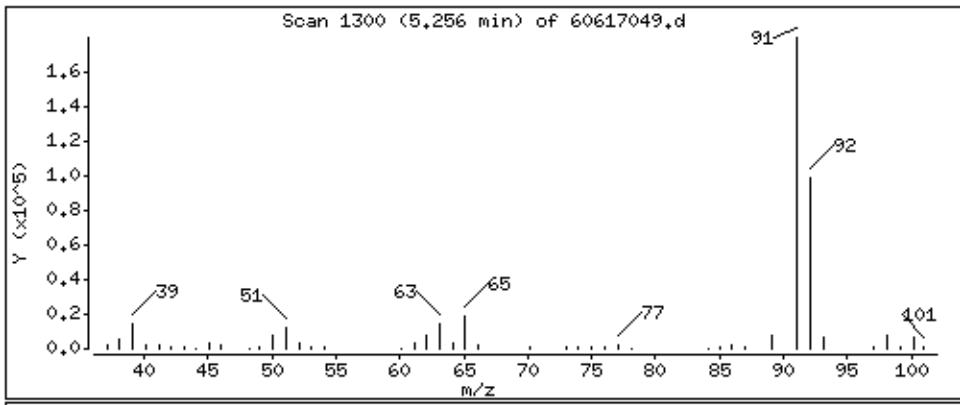
Operator: JEW

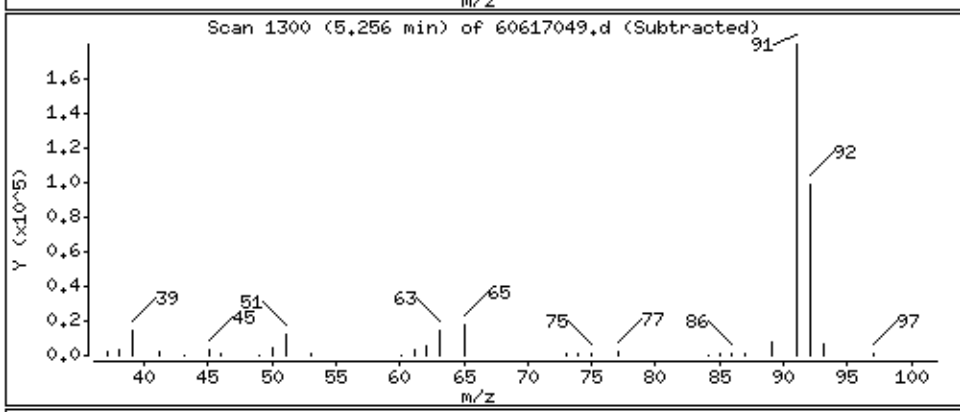
Column phase: RTX-VMS

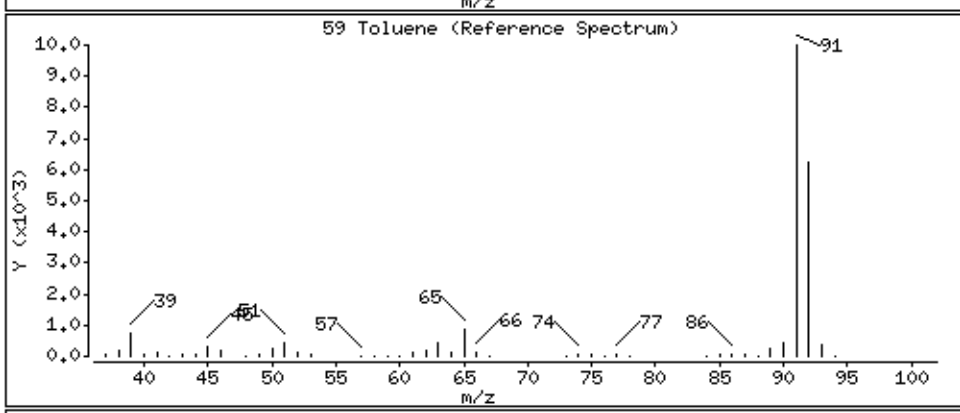
Column diameter: 0.18

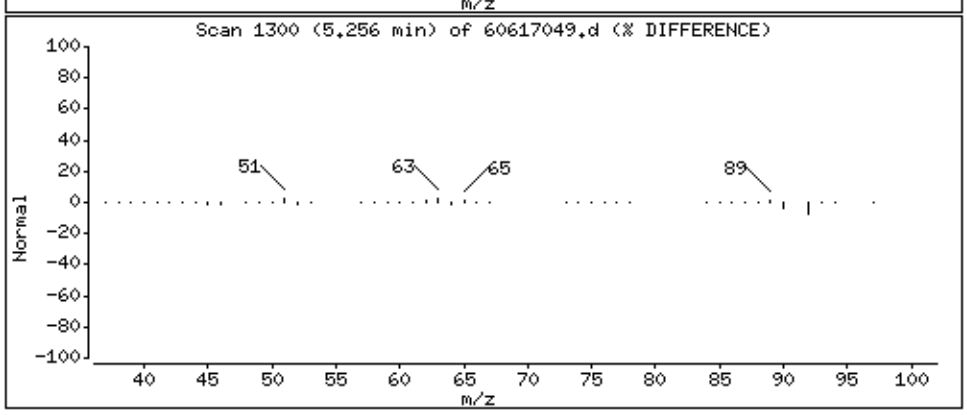
59 Toluene

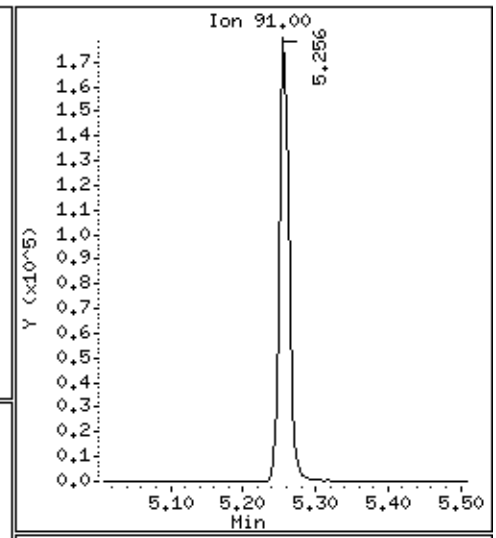
Concentration: 168 ug/kg

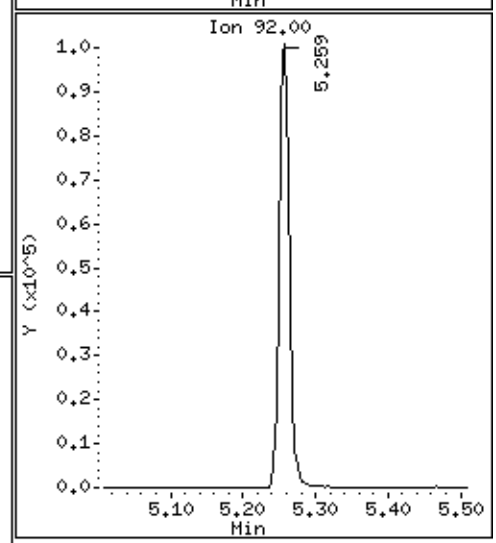












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

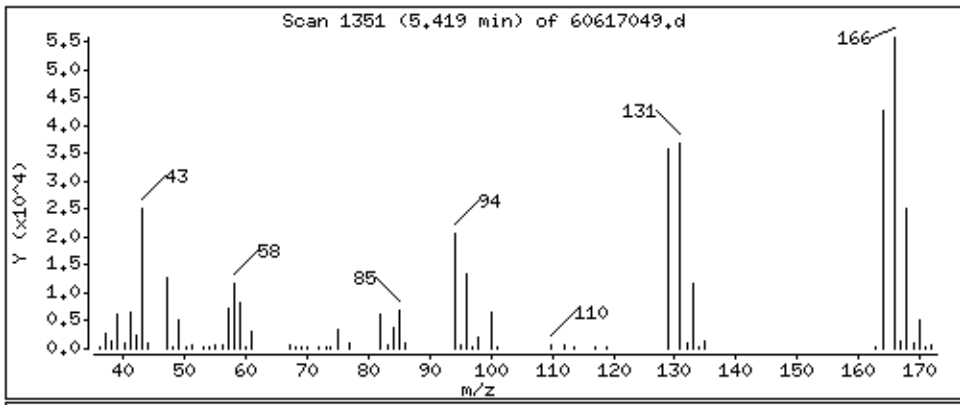
Operator: JEW

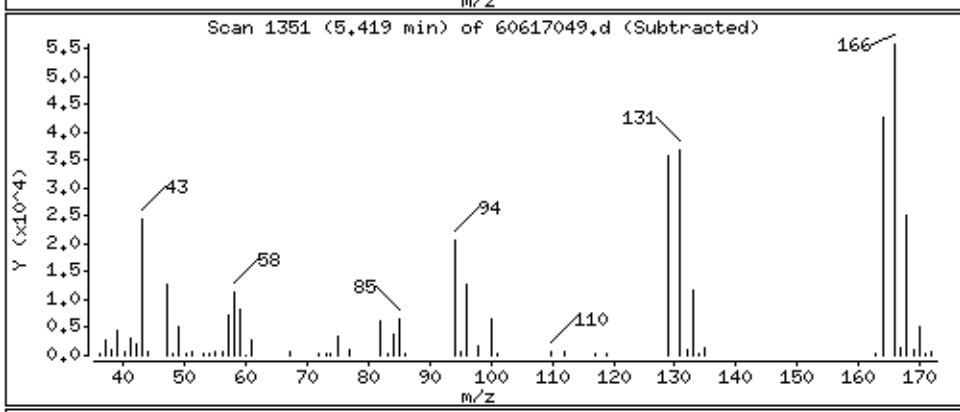
Column phase: RTX-VMS

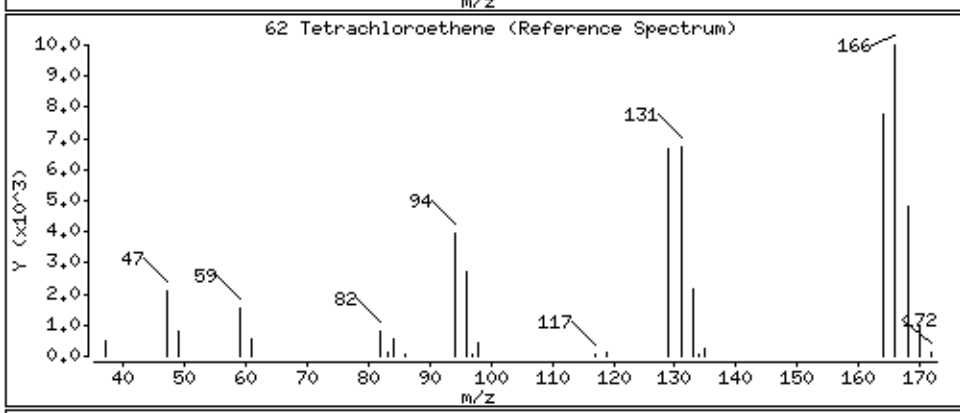
Column diameter: 0.18

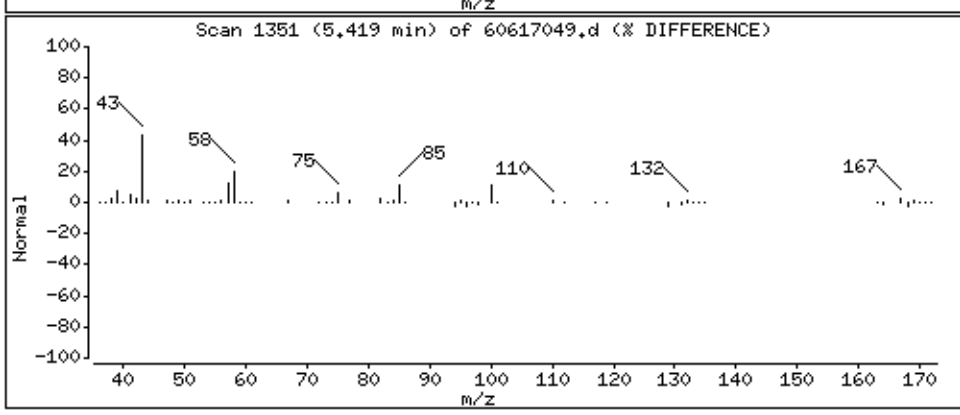
62 Tetrachloroethene

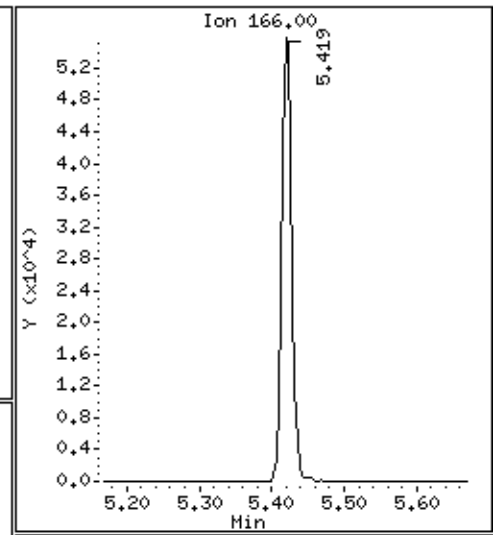
Concentration: 186 ug/kg

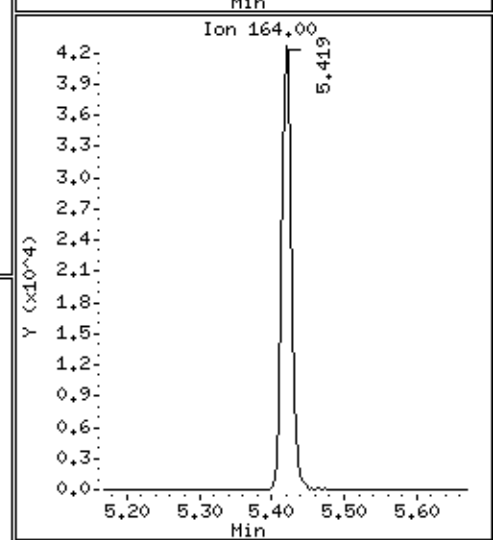


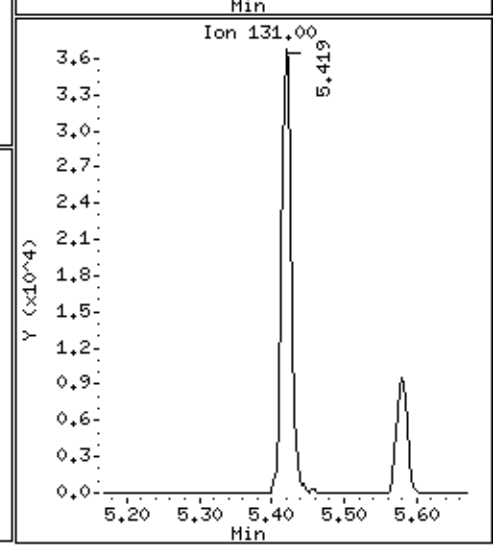












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

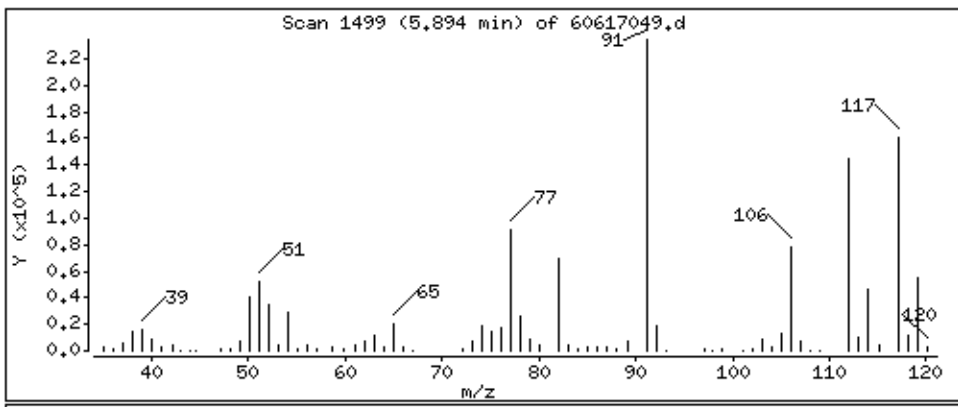
Operator: JEW

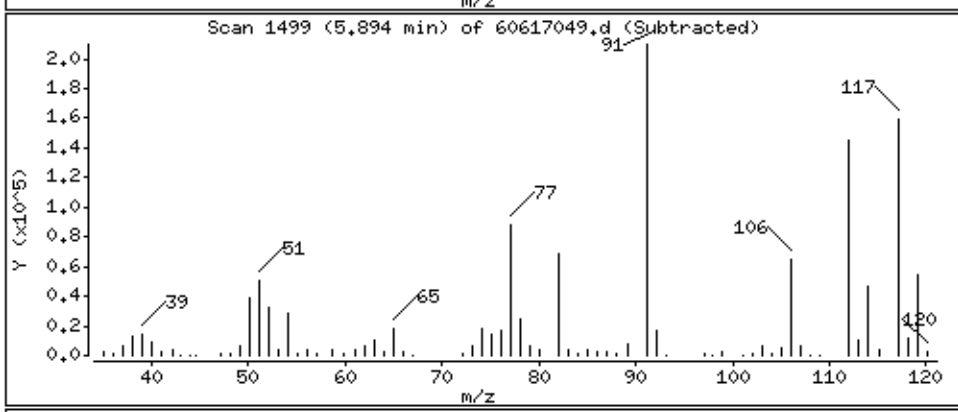
Column phase: RTX-VMS

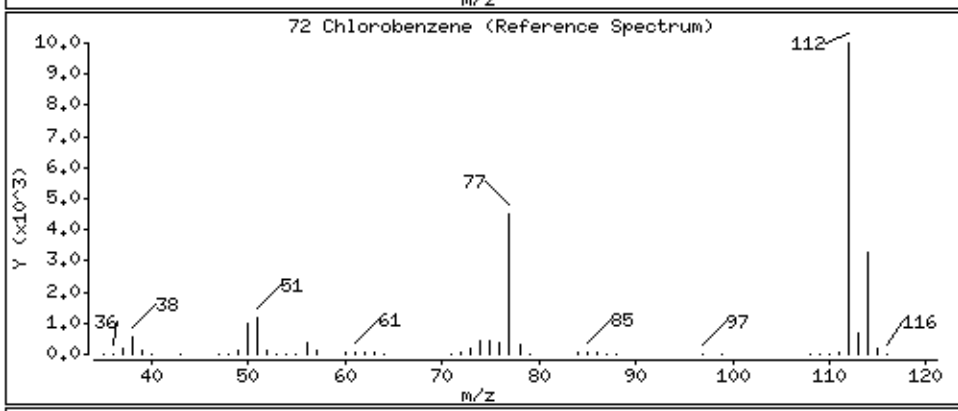
Column diameter: 0.18

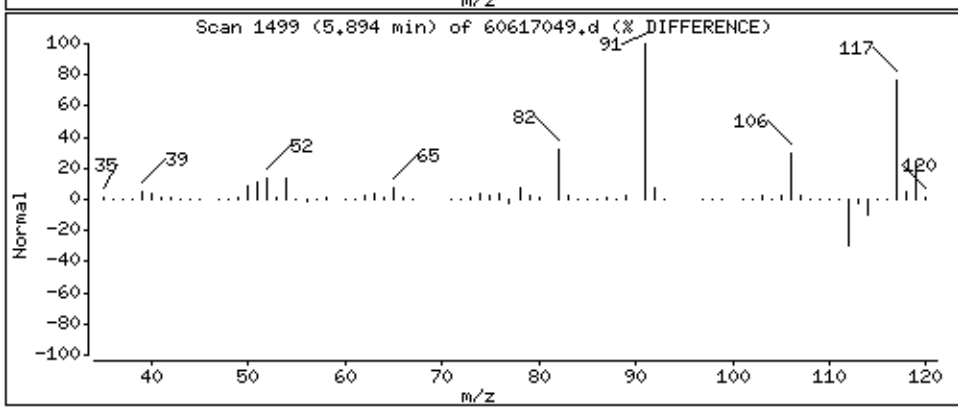
72 Chlorobenzene

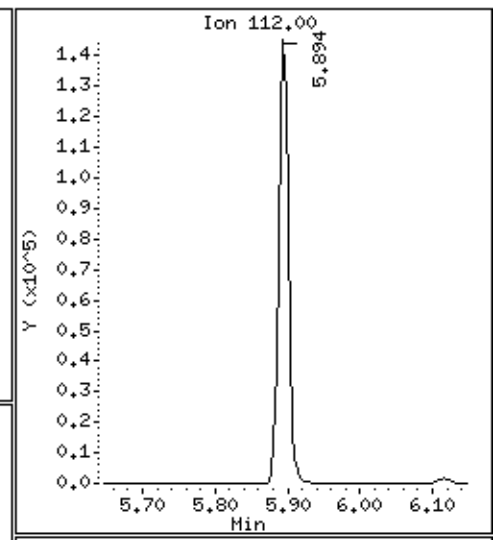
Concentration: 184 ug/kg

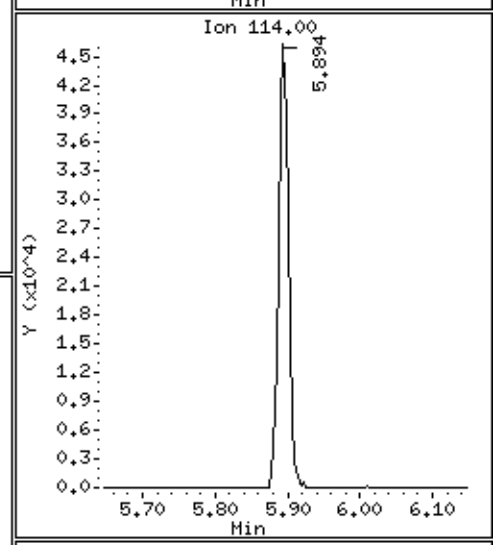


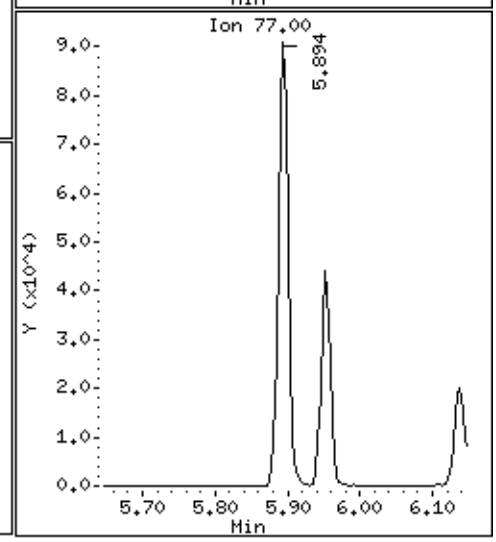












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Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

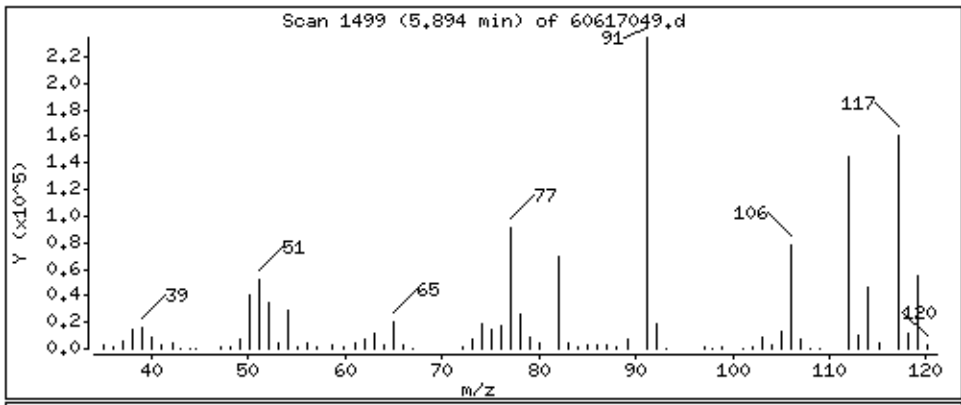
Operator: JEW

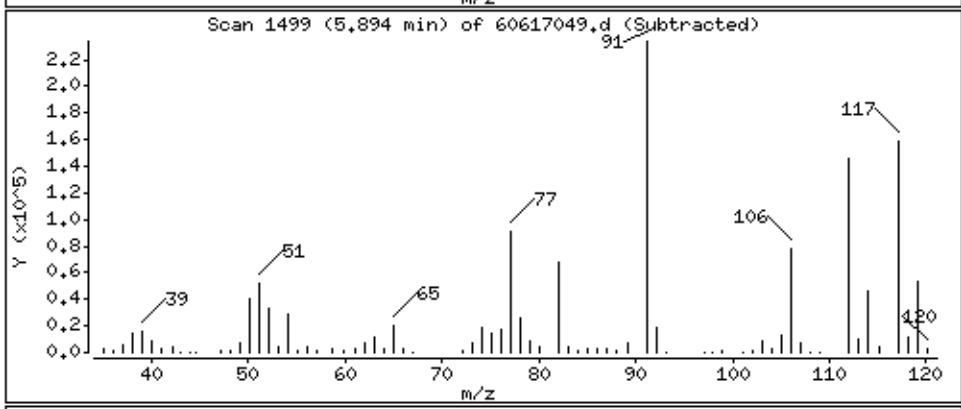
Column phase: RTX-VMS

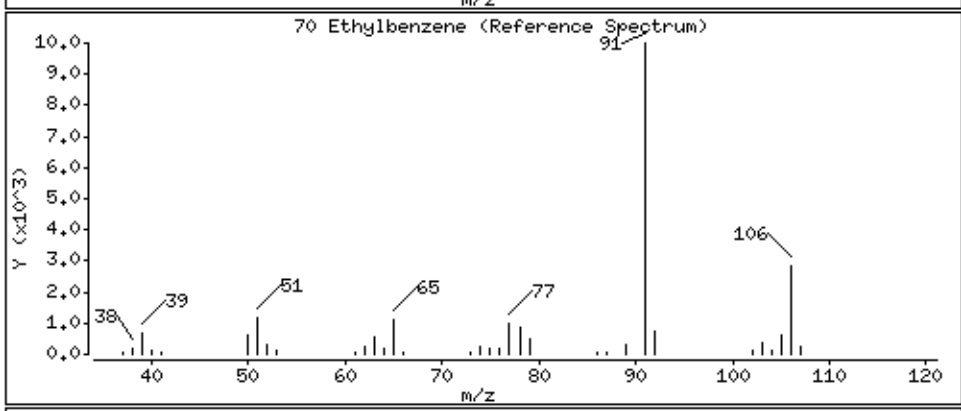
Column diameter: 0.18

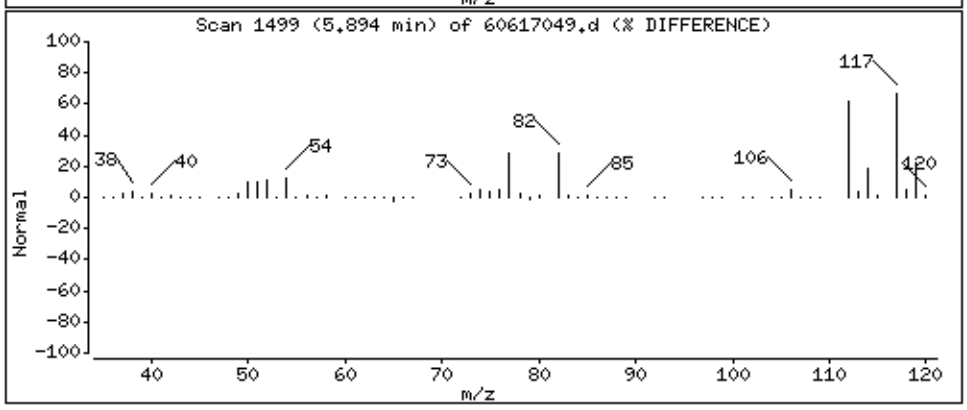
70 Ethylbenzene

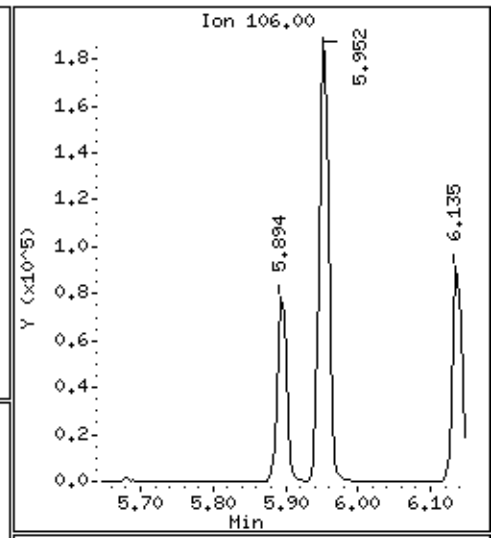
Concentration: 177 ug/kg

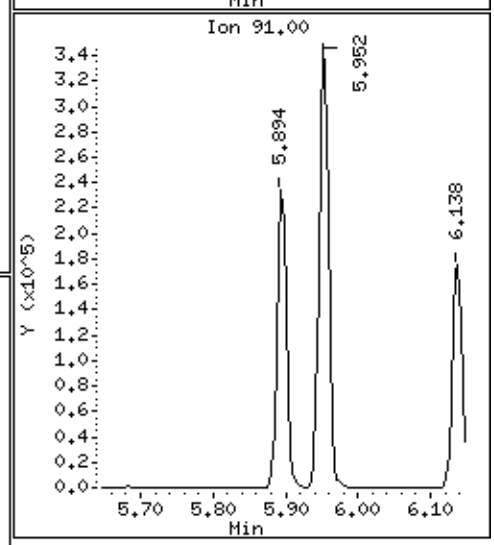












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d

Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

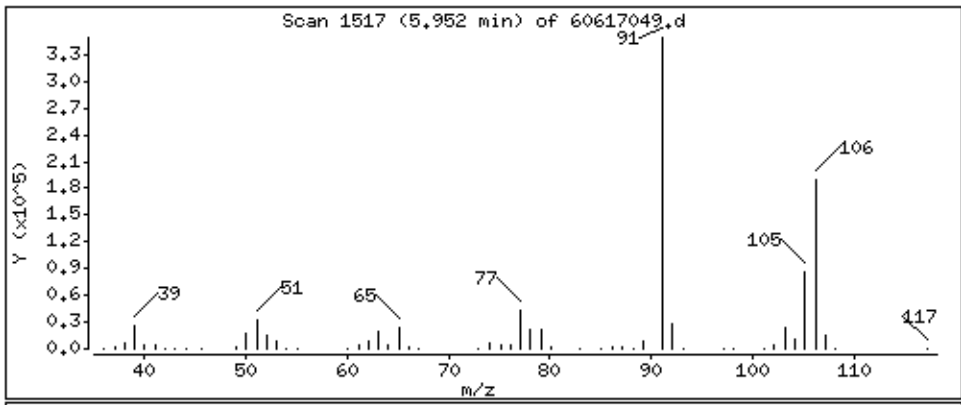
Operator: JEW

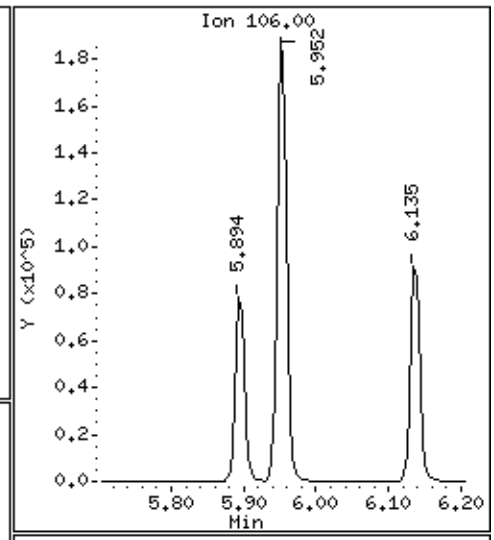
Column phase: RTX-VMS

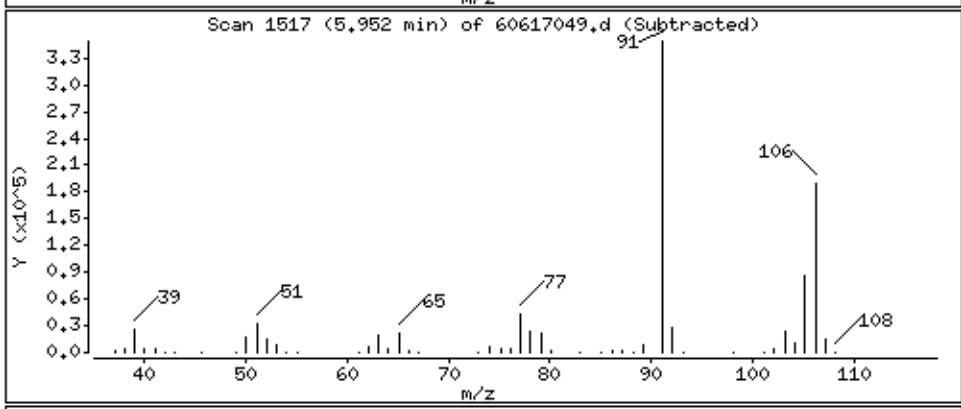
Column diameter: 0.18

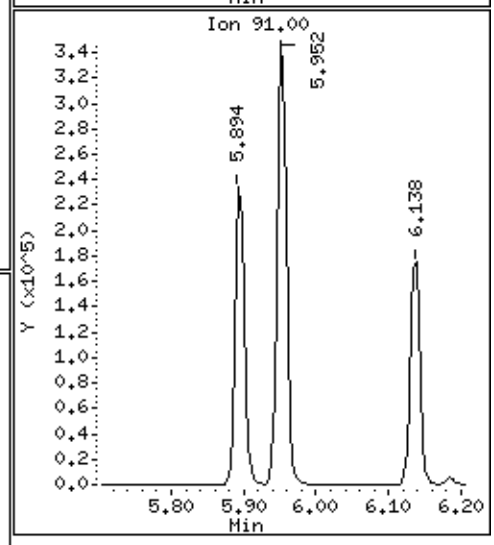
74 m&p-Xylene

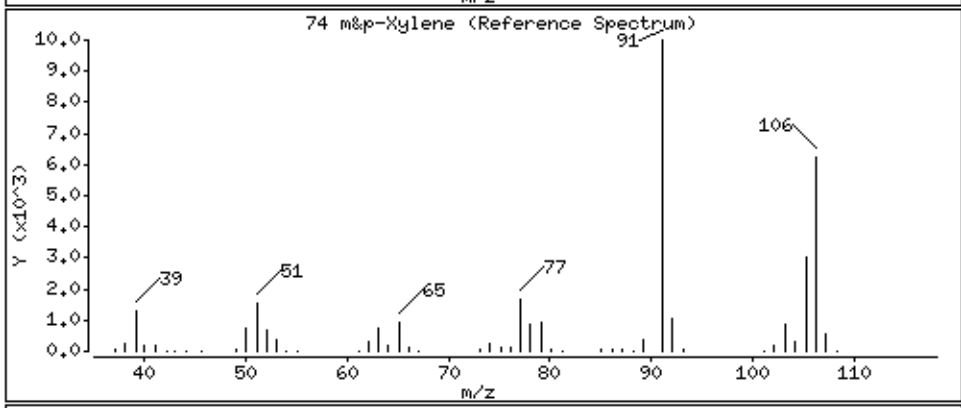
Concentration: 355 ug/kg

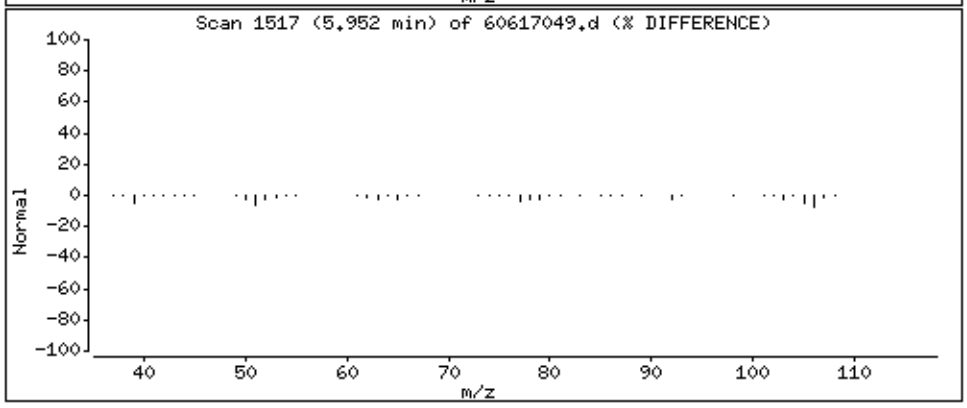












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b\60617049.d

Date : 17-JUN-2019 19:30

Client ID: AOC35LMSD

Instrument: 30mv6a.i

Sample Info: 1690586x10

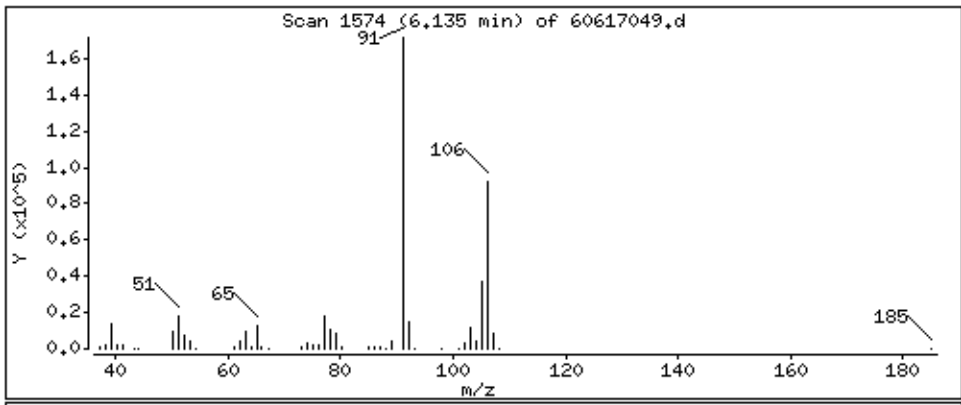
Operator: JEW

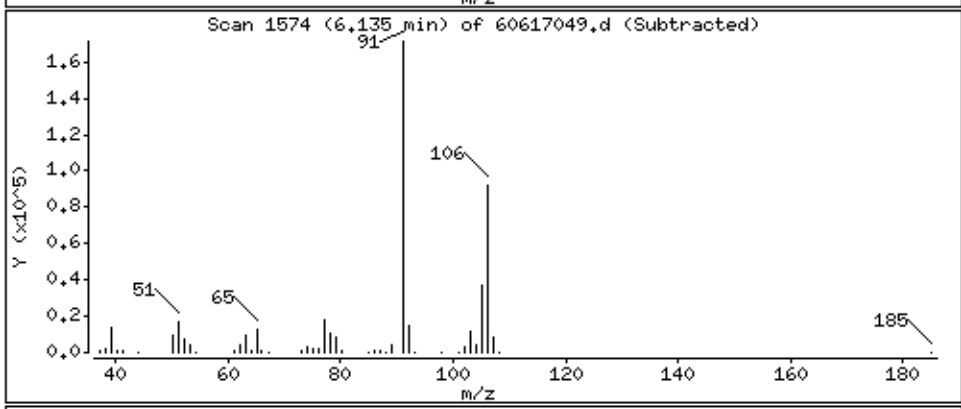
Column phase: RTX-VMS

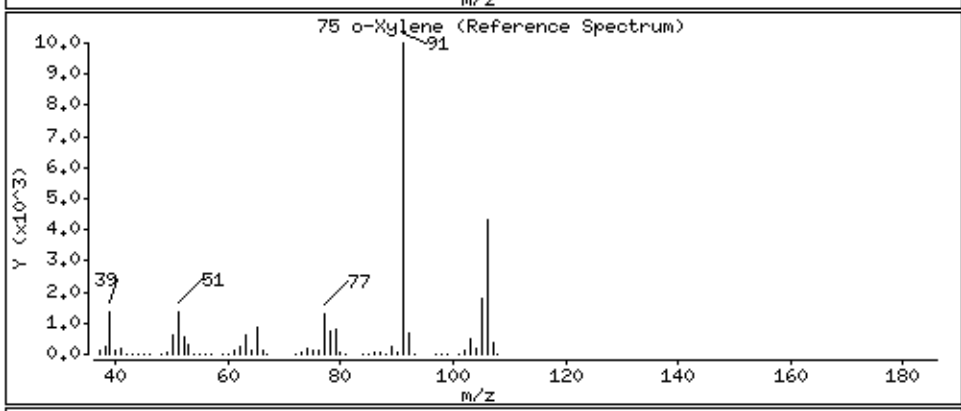
Column diameter: 0.18

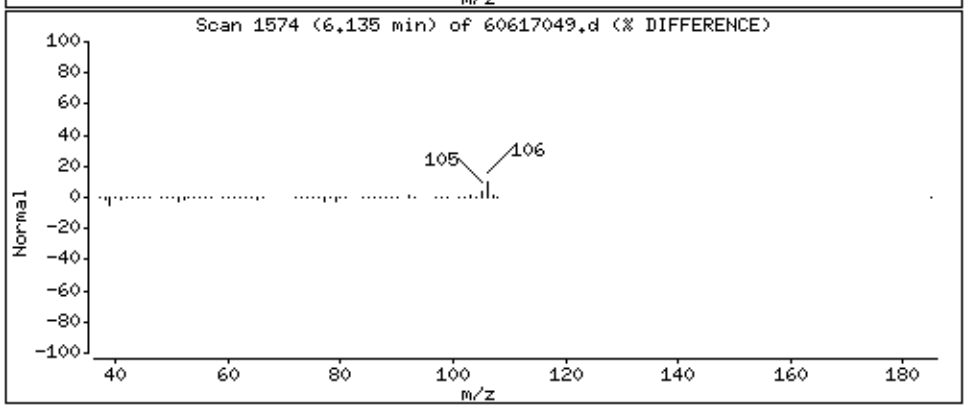
75 o-Xylene

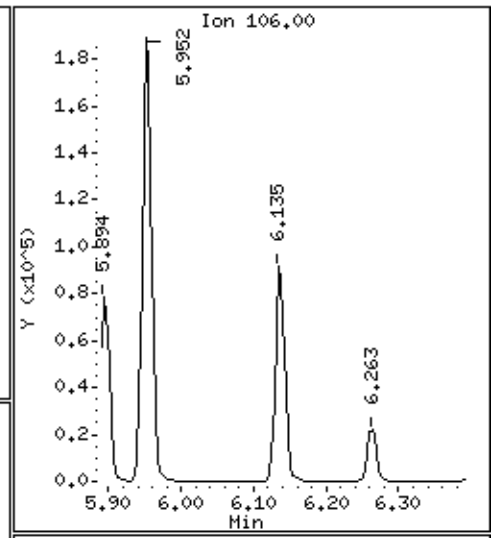
Concentration: 176 ug/kg

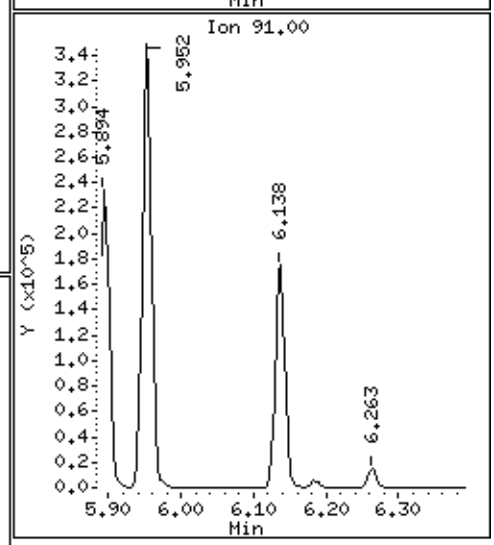












Data File: \\30wintarget\chem\30mv6a.i\6190617.b\1.b/60617049.d
Injection Date: 17-JUN-2019 19:30
Instrument: 30mv6a.i
Lab Sample ID: 1690586
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: ZHE 8663/347132

Template Version: F-PA-O-010-Rev.02 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/13/2019 14:30:47:679	Tedlar Bag	89366
Tumbler Start Temp. (C)	21.5	Tumbler End Temp. (C)	22.7	Tumbler Rotational Rate (rev/min)	30	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Batch Notes	
Reviewed By		Reviewed By Date					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	TCLP Matrix	Actual sample Weight (g) used	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time
ZHETCLP	LB	**1688363**	Y		4	30TBL3		0	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298142001**	Y		5	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298142002**	Y		6	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	RQS	**30298621001**	Y		7	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	RQS	**30298782001**	Y		10	30TBL3	Water	9.34	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298782002**	Y		11	30TBL3	Water	9.54	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298231001**	Y		13	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298324001**	Y		15	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298735001**	Y		16	30TBL3	Water	5.25	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298820001**	Y		17	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298821001**	Y		1	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20
ZHETCLP	PS	**30298822001**	Y		2	30TBL3	Other	10	89048 ()	TCLP 1	90504 ()	72915 ()	06/13/2019 16:30:21	06/14/2019 08:31:20

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	LB	**1688363**	Y	10	10		06/14/2019 10:00:22:656							

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	PS	**30298142001**	Y	10	10		06/14/2019 10:00:23:266							
ZHETCLP	PS	**30298142002**	Y	10	10		06/14/2019 10:00:23:863							
ZHETCLP	RQS	**30298621001**	Y	10	10		06/14/2019 11:00:29:254							
ZHETCLP	RQS	**30298782001**	Y	10	10		06/14/2019 11:00:31:430					77.1	10.3	80.2
ZHETCLP	PS	**30298782002**	Y	10	10		06/14/2019 11:00:32:230					77.4	10.2	83
ZHETCLP	PS	**30298231001**	Y	10	10		06/14/2019 11:22:06:933							
ZHETCLP	PS	**30298324001**	Y	10	10		06/14/2019 11:22:07:747							
ZHETCLP	PS	**30298735001**	Y	10	10		06/14/2019 11:30:56:147					68.6	10.1	75.1
ZHETCLP	PS	**30298820001**	Y	10	10		06/14/2019 11:30:56:933							
ZHETCLP	PS	**30298821001**	Y	10	10		06/14/2019 11:31:57:614							
ZHETCLP	PS	**30298822001**	Y	10	10		06/14/2019 11:32:58:198							

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	LB	**1688363**				400	
ZHETCLP	PS	**30298142001**				200	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	PS	**30298142002**				200	soil
ZHETCLP	RQS	**30298621001**				200	soil
ZHETCLP	RQS	**30298782001**	69.9	7.2	9.34	144.00	water
ZHETCLP	PS	**30298782002**	72.8	4.6	5.94	92.00	water
ZHETCLP	PS	**30298231001**				200	soil
ZHETCLP	PS	**30298324001**				200	soil
ZHETCLP	PS	**30298735001**	65.0	3.6	5.25	72.00	water
ZHETCLP	PS	**30298820001**				200	soil
ZHETCLP	PS	**30298821001**				200	sand
ZHETCLP	PS	**30298822001**				200	rock

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: 1 Cal. std: See curve

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60514001.d	blk	S/	BFB	1	7	bfb390	5/14/19	12:43	JEW	
1/60514003.d	blk	S/	SAMPLE	1	7	msv6050619a	5/14/19	13:08	JEW	
1/60514005.d	blk	S/	SAMPLE	1	< 2	msv6050619a	5/14/19	14:17	JEW	
1/60514007.d	TUNE, 84349:10	S/44459	BFB	1	7	bfb390	5/14/19	14:43	JEW	
1/60514009.d	CAL1, 87714:1	S/44459	CALIB_1	1	< 2	msv6051419a	5/14/19	15:09	JEW	
1/60514011.d	CAL2, 87715:1	S/44459	CALIB_2	1	< 2	msv6051419a	5/14/19	15:35	JEW	
1/60514011ll.d	CAL2, 87715:1	S/44459	SAMPLE	1	< 2	msv6051419a	5/14/19	15:35	JEW	
1/60514013.d	CAL3, 87716:1	S/44459	CALIB_3	1	< 2	msv6051419a	5/14/19	16:01	JEW	
1/60514015.d	CAL4, 87717:1	S/44459	CALIB_4	1	< 2	msv6051419a	5/14/19	16:26	JEW	
1/60514017.d	CAL5, 87718:1	S/44459	CALIB_5	1	< 2	msv6051419a	5/14/19	16:52	JEW	
1/60514019.d	CAL6, 87719:1	S/44459	CALIB_6	1	< 2	msv6051419a	5/14/19	17:18	JEW	
1/60514021.d	CAL7, 87720:1	S/44459	CALIB_7	1	< 2	msv6051419a	5/14/19	17:44	JEW	
1/60514023.d	CAL8, 87721:1	S/44459	CALIB_8	1	< 2	msv6051419a	5/14/19	18:10	JEW	
1/60514025.d	blk	S/	SAMPLE	1	< 2	msv6051419a	5/14/19	18:35	JEW	
1/60514027.d	ICV, 87722:1	S/44459	CCALIB_4	1	< 2	msv6051419a	5/14/19	19:01	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ___ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv6a.i\6190514.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:39 05/17/2019

Reviewed By/Date: JEW 05/17/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: ↓ Cal. std: 90733

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60613001.d	blk	S/	SAMPLE	1	< 2	msv6051419a	6/13/19	08:46	JEW	
1/60613003.d	TUNE, 84349:10	S/44459	BFB	1	7	bfb390	6/13/19	09:13	JEW	
1/60613005.d	CCV, 90733:1	S/44459	CCALIB_5	1	< 2	msv6051419a	6/13/19	09:38	JEW	
1/60613007.d	LLCHECK,90734:1,	S/	SAMPLE	1	< 2	msv6051419a	6/13/19	10:04	JEW	
1/60613009-44882.d	1687215,90735:5,	L/44882	LCS	1	< 2	msv6051419a	6/13/19	10:30	JEW	
1/60613009-44883.d	1687219,90735:5,	L/44883	LCS	1	< 2	msv6051419a	6/13/19	10:30	JEW	
1/60613009-44914.d	1688437,90735:5,	S/44914	LCS	1	< 2	msv6051419a	6/13/19	10:30	JEW	
1/60613009-44915.d	1688442,90735:5,	S/44915	LCS	1	< 2	msv6051419a	6/13/19	10:30	JEW	
1/60613011.d	1688441X50	S/44915	BLANK	50	< 2	msv6051419b	6/13/19	10:56	JEW	
1/60613013.d	1688436	S/44914	BLANK	1	< 2	msv6051419b	6/13/19	11:22	JEW	
1/60613015-44882.d	1686168x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	11:47	JEW	
1/60613015-44883.d	1686168x10	S/44883	SAMPLE	10	< 2	msv6051419b	6/13/19	11:47	JEW	
1/60613017.d	30298178001x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	12:13	JEW	
1/60613019.d	30298276001x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	12:39	JEW	
1/60613021.d	30297196001x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	13:05	JEW	
1/60613023.d	1687216x10	S/44882	MS	10	< 2	msv6051419b	6/13/19	13:31	JEW	
1/60613025.d	1687217x10	S/44882	MSD	10	< 2	msv6051419b	6/13/19	13:57	JEW	
1/60613027.d	30298328001x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	14:22	JEW	
1/60613029.d	30298328002x10	S/44882	SAMPLE	10	< 2	msv6051419b	6/13/19	14:48	JEW	
1/60613031.d	30298231007x10	S/44883	SAMPLE	10	< 2	msv6051419b	6/13/19	15:14	JEW	
1/60613033.d	1687220x10	S/44883	MS	10	< 2	msv6051419b	6/13/19	15:40	JEW	
1/60613035.d	1687221x10	S/44883	MSD	10	< 2	msv6051419b	6/13/19	16:06	JEW	
1/60613037.d	30298231008x10	S/44883	SAMPLE	10	< 2	msv6051419b	6/13/19	16:31	JEW	
1/60613039.d	30297196001	S/44914	SAMPLE	1	< 2	msv6051419b	6/13/19	16:57	JEW	PP
1/60613041.d	30297307005	S/44914	SAMPLE	1	< 2	msv6051419b	6/13/19	17:23	JEW	
1/60613043.d	30297475003	S/44914	SAMPLE	1	< 2	msv6051419b	6/13/19	17:49	JEW	x50
1/60613045.d	30298178001	S/44914	SAMPLE	1	< 2	msv6051419b	6/13/19	18:15	JEW	
1/60613047.d	30297202003x50	S/44915	SAMPLE	50	< 2	msv6051419b	6/13/19	18:41	JEW	
1/60613049.d	30298328001x50	S/44915	SAMPLE	50	< 2	msv6051419b	6/13/19	19:07	JEW	x500
1/60613051.d	30298328002x50	S/44915	SAMPLE	50	< 2	msv6051419b	6/13/19	19:32	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: ARD 6/14/19

File Path 1: \\30wintarget\chem\30mv6a.i\6190613.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:33 06/14/2019

Reviewed By/Date: JEW 6/14/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: ✓ Cal. std: 90733

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60617001.d	blk	S/	SAMPLE	1	< 2	msv6051419a	6/17/19	09:10	JEW	
1/60617003.d	blk	S/	SAMPLE	1	< 2	msv6051419a	6/17/19	09:36	JEW	
1/60617005.d	TUNE, 84349:10	S/44459	BFB	1	7	bfb390	6/17/19	10:02	JEW	
1/60617007-bfb.d	TUNE, 84349:10	S/44459	BFB	1	7	bfb390	6/17/19	10:28	JEW	
1/60617007.d	CCV, 90733:1	S/44459	CCALIB_5	1	< 2	msv6051419a	6/17/19	10:28	JEW	
1/60617009.d	LLCHECK,90734:1,	S/	SAMPLE	1	< 2	msv6051419a	6/17/19	10:53	JEW	
1/60617011-44942.d	1690584,90735:5,	L/44942	LCS	1	< 2	msv6051419a	6/17/19	11:19	JEW	
1/60617011-44943.d	1690587,90735:5,	L/44943	LCS	1	< 2	msv6051419a	6/17/19	11:19	JEW	
1/60617011-44955.d	1690779,90735:5,	S/44955	LCS	1	< 2	msv6051419a	6/17/19	11:19	JEW	
1/60617013.d	MBLKX50	S/	SAMPLE	1	< 2	msv6051419a	6/17/19	11:45	JEW	
1/60617015.d	1690778	S/44955	BLANK	1	< 2	msv6051419a	6/17/19	12:11	JEW	
1/60617017-44942.d	1688363x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	12:37	JEW	
1/60617017-44943.d	1688363x10	S/44943	SAMPLE	10	< 2	msv6051419a	6/17/19	12:37	JEW	
1/60617019.d	30298621001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	13:03	JEW	
1/60617021.d	1690581x10	S/44942	MS	10	< 2	msv6051419a	6/17/19	13:28	JEW	
1/60617023.d	1690582x10	S/44942	MSD	10	< 2	msv6051419a	6/17/19	13:54	JEW	
1/60617025.d	30298782001x10	L/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	14:20	JEW	
1/60617027.d	30298782002x10	L/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	14:46	JEW	
1/60617029.d	1690583x10	L/44942	MS	10	< 2	msv6051419a	6/17/19	15:12	JEW	
1/60617031.d	30298735001x10	L/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	15:38	JEW	
1/60617033.d	30298820001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	16:03	JEW	
1/60617035.d	30298821001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	16:29	JEW	
1/60617037.d	30298822001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	16:55	JEW	
1/60617039.d	30298142001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	17:21	JEW	
1/60617041.d	30298142002x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	17:47	JEW	
1/60617043.d	30298324001x10	S/44942	SAMPLE	10	< 2	msv6051419a	6/17/19	18:13	JEW	
1/60617045.d	30298231001x10	S/44943	SAMPLE	10	< 2	msv6051419a	6/17/19	18:39	JEW	
1/60617047.d	1690585x10	S/44943	MS	10	< 2	msv6051419a	6/17/19	19:04	JEW	
1/60617049.d	1690586x10	S/44943	MSD	10	< 2	msv6051419a	6/17/19	19:30	JEW	
1/60617051.d	30298845001	S/44955	SAMPLE	1	< 2	msv6051419a	6/17/19	19:56	JEW	
1/60617053.d	30298845002	S/44955	SAMPLE	1	< 2	msv6051419a	6/17/19	20:22	JEW	
1/60617055.d	30298845003	S/44955	SAMPLE	1	< 2	msv6051419a	6/17/19	20:48	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: ARD

File Path 1: \\30wintarget\chem\30mv6a.i\6190617.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:31 06/18/2019

Reviewed By/Date: JEW 6/18/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1682992	1682992LB	98	71	82	76	80	72
1685290	1685290LB	105	73	80	75	78	69
1685500	1685500LB	103	78	84	76	80	65
1685751	1685751LCS	104	68	77	74	75	67
30298231001	AOC35L	105	72	79	69	75	67
30298231010	AOC34	107	75	95	72	94	71

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1685751LCS
Date Extracted: 06/11/2019
Date Analyzed (1): 06/11/2019
Instrument: 30MSS1
LCS Lot No: 79174
Lab File ID: MSS1061119.B\M1061106.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	270J	54	38-85
2,4-Dinitrotoluene	500	203	41	51-102
Hexachloro-1,3-butadiene	500	323	65	27-97
Hexachlorobenzene	500	366	73	36-66
Hexachloroethane	500	252	50	37-89
2-Methylphenol(o-Cresol)	500	389J	78	60-106
3&4-Methylphenol(m&p Cresol)	1000	774J	77	64-106
Nitrobenzene	500	352	70	64-108
Pentachlorophenol	500	381J	76	47-107
Pyridine	500	155J	31	20-54
2,4,5-Trichlorophenol	500	494J	99	60-110
2,4,6-Trichlorophenol	500	384	77	62-110

Spike Recovery: 2 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1686274MS

Date Extracted: 06/11/2019
Date Analyzed (1): 06/11/2019

Instrument: 30MSS1
Lab File ID: MSS1061119.B\M1061109.D

Parent Sample ID: 30298519001
SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	500 U	279J	56	51-85
2,4,5-Trichlorophenol	500	5000 U	499J	100	65-108
2,4,6-Trichlorophenol	500	100 U	441	88	61-110
2,4-Dinitrotoluene	500	100 U	207	41	52-106
2-Methylphenol(o-Cresol)	500	2000 U	405J	81	65-105
3&4-Methylphenol(m&p Cresol)	1000	2000 U	808J	81	69-106
Hexachloro-1,3-butadiene	500	100 U	334	67	44-90
Hexachlorobenzene	500	100 U	383	77	36-68
Hexachloroethane	500	200 U	263	53	48-94
Nitrobenzene	500	100 U	354	71	66-106
Pentachlorophenol	500	5000 U	387J	77	49-120
Pyridine	500	250 U	128J	26	10-72

Spike Recovery: 2 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1686275MSD

Lab File ID (2): MSS1061119.B\M1061110.D Date Analyzed (2): 06/11/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,4-Dichlorobenzene	500	280J	56		0-20	51-85
2,4,5-Trichlorophenol	500	472J	94		0-20	65-108
2,4,6-Trichlorophenol	500	443	89	0	0-20	61-110
2,4-Dinitrotoluene	500	217	43	5	0-20	52-106
2-Methylphenol(o-Cresol)	500	408J	82		0-20	65-105
3&4-Methylphenol(m&p Cresol)	1000	812J	81		0-20	69-106
Hexachloro-1,3-butadiene	500	333	67	0	0-20	44-90
Hexachlorobenzene	500	376	75	2	0-20	36-68
Hexachloroethane	500	263	53	0	0-20	48-94
Nitrobenzene	500	354	71	0	0-20	66-106
Pentachlorophenol	500	394J	79		0-20	49-120
Pyridine	500	121J	24		0-20	10-72

RPD: 0 out of 6 outside limits.

Spike Recovery: 2 out of 12 outside limits.

SAMPLE NO.

1682992LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1682992

Lab File ID: MSS1061119.B\M1061103.D Date Analyzed: 06/11/2019 Time: 17:55

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1685751LCS	1685751	MSS1061119.B\M1061106.D	06/11/2019 19:04
AOC35L	30298231001	MSS1061119.B\M1061119.D	06/11/2019 23:57
AOC34	30298231010	MSS1061119.B\M1061120.D	06/12/2019 00:20

SAMPLE NO.

1685290LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1685290

Lab File ID: MSS1061119.B\M1061104.D Date Analyzed: 06/11/2019 Time: 18:18

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1685751LCS	1685751	MSS1061119.B\M1061106.D	06/11/2019 19:04
AOC35L	30298231001	MSS1061119.B\M1061119.D	06/11/2019 23:57
AOC34	30298231010	MSS1061119.B\M1061120.D	06/12/2019 00:20

SAMPLE NO.

1685500LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1685500

Lab File ID: MSS1061119.B\M1061105.D Date Analyzed: 06/11/2019 Time: 18:41

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1685751LCS	1685751	MSS1061119.B\M1061106.D	06/11/2019 19:04
AOC35L	30298231001	MSS1061119.B\M1061119.D	06/11/2019 23:57
AOC34	30298231010	MSS1061119.B\M1061120.D	06/12/2019 00:20

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1061019.B\M10610T1.D DFTPP Injection Date: 06/10/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 17:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	32.27	
68	Less than 2.00% of mass 69	0.61	(1.60)[1]
69	Mass 69 relative abundance	37.99	
70	Less than 2.00% of mass 69	0.27	(0.71)[1]
127	40.00 - 60.00% of mass 198	50.57	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.64	
275	10.00 - 30.00% of mass 198	26.69	
365	Greater than 1.00% of mass 198	3.38	
441	Present, but less than mass 443	11.90	
442	Greater than 40.00% of mass 198	85.46	
443	17.00 - 23.00% of mass 442	16.52	(19.33)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11069363CAL7	11069363CAL7	MSS1061019.B\M10610Y1.D	06/10/2019	19:16
11069360CAL6	11069360CAL6	MSS1061019.B\M10610Y2.D	06/10/2019	19:39
11069356CAL5	11069356CAL5	MSS1061019.B\M10610Y3.D	06/10/2019	20:02
11069362CAL4	11069362CAL4	MSS1061019.B\M10610Y4.D	06/10/2019	20:25
11069357CAL3	11069357CAL3	MSS1061019.B\M10610Y5.D	06/10/2019	20:48
11069358CAL2	11069358CAL2	MSS1061019.B\M10610Y6.D	06/10/2019	21:11
11069364CAL1	11069364CAL1	MSS1061019.B\M10610Y7.D	06/10/2019	21:34
11069361ICV	11069361ICV	MSS1061019.B\M10610Y8.D	06/10/2019	21:57

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1061119.B\M10611T1.D DFTPP Injection Date: 06/11/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 16:02

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	30.02	
68	Less than 2.00% of mass 69	0.17	(0.48)[1]
69	Mass 69 relative abundance	35.57	
70	Less than 2.00% of mass 69	0.26	(0.73)[1]
127	40.00 - 60.00% of mass 198	47.38	
197	Less than 1.00% of mass 198	0.16	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.93	
275	10.00 - 30.00% of mass 198	29.59	
365	Greater than 1.00% of mass 198	3.40	
441	Present, but less than mass 443	16.27	
442	Greater than 40.00% of mass 198	115.93	
443	17.00 - 23.00% of mass 442	22.49	(19.40)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11069476CCV	11069476CCV	MSS1061119.B\M10611S2.D	06/11/2019	16:47
1682992LB	1682992LB	MSS1061119.B\M1061103.D	06/11/2019	17:55
1685290LB	1685290LB	MSS1061119.B\M1061104.D	06/11/2019	18:18
1685500LB	1685500LB	MSS1061119.B\M1061105.D	06/11/2019	18:41
1685751LCS	1685751LCS	MSS1061119.B\M1061106.D	06/11/2019	19:04
AOC35L	30298231001	MSS1061119.B\M1061119.D	06/11/2019	23:57
AOC34	30298231010	MSS1061119.B\M1061120.D	06/12/2019	00:20

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11069476CCV Date Analyzed: 06/11/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 16:47

Lab File ID: MSS1061119.B\M10611S2.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		520523	6.866	909602	11.182	226973	4.361	911184	5.376
UPPER LIMIT		1041046	7.366	1819204	11.682	453946	4.861	1822368	5.876
LOWER LIMIT		260261.5	6.366	454801	10.682	113486.5	3.861	455592	4.876
LAB SAMPLE ID	SAMPLE NO.								
1682992	1682992LB	499119	6.859	825443	11.175	227492	4.364	883540	5.374
1685290	1685290LB	479577	6.862	607661	11.179	224628	4.368	857656	5.377
1685500	1685500LB	488200	6.864	821697	11.175	224402	4.363	870983	5.378
1685751	1685751LCS	483817	6.861	628814	11.178	226489	4.367	853793	5.376
30298231001	AOC35L	455101	6.863	721026	11.174	212965	4.363	806843	5.378
30298231010	AOC34	455333	6.861	727688	11.178	211213	4.361	806584	5.376

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11069476CCV Date Analyzed: 06/11/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 16:47

Lab File ID: MSS1061119.B\M10611S2.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		900965	8.394	958178	12.561
UPPER LIMIT		1801930	8.894	1916356	13.061
LOWER LIMIT		450482.5	7.894	479089	12.061
LAB SAMPLE ID	SAMPLE NO.				
1682992	1682992LB	854097	8.392	892922	12.559
1685290	1685290LB	773199	8.396	745265	12.557
1685500	1685500LB	847596	8.391	862817	12.558
1685751	1685751LCS	767950	8.395	779653	12.556
30298231001	AOC35L	764222	8.397	733771	12.558
30298231010	AOC34	764746	8.394	751896	12.556

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

AOC35L

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 30298231001
Date Analyzed: 06/11/2019 23:57
Lab File ID: MSS1061119.B\M1061119.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061119.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 11-JUN-2019 23:57
Operator : SJG Inst ID: 30mss1.i
Smp Info : 30298231001
Misc Info : 14689
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.455	3.452	(0.792)	379106	5.93755	594	
$	4 Phenol-d6 (S)	99	4.074	4.077	(0.934)	448784	5.63627	564	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.363	4.360	(1.000)	212965	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.811	4.809	(0.895)	114288	3.46759	347	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.378	5.375	(1.000)	806843	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.254	6.257	(0.911)	547271	3.60831	361	
*	50 Acenaphthene-d10 (IS)	164	6.863	6.866	(1.000)	455101	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	7.675	7.678	(0.914)	161523	7.84326	784	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.396	8.393	(1.000)	764222	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.068	10.071	(0.901)	601342	3.34924	335	
* 82 Chrysene-d12 (IS)	240	11.174	11.182	(1.000)	721026	4.00000		
* 88 Perylene-d12 (IS)	264	12.558	12.560	(1.000)	733771	4.00000		

QC Flag Legend

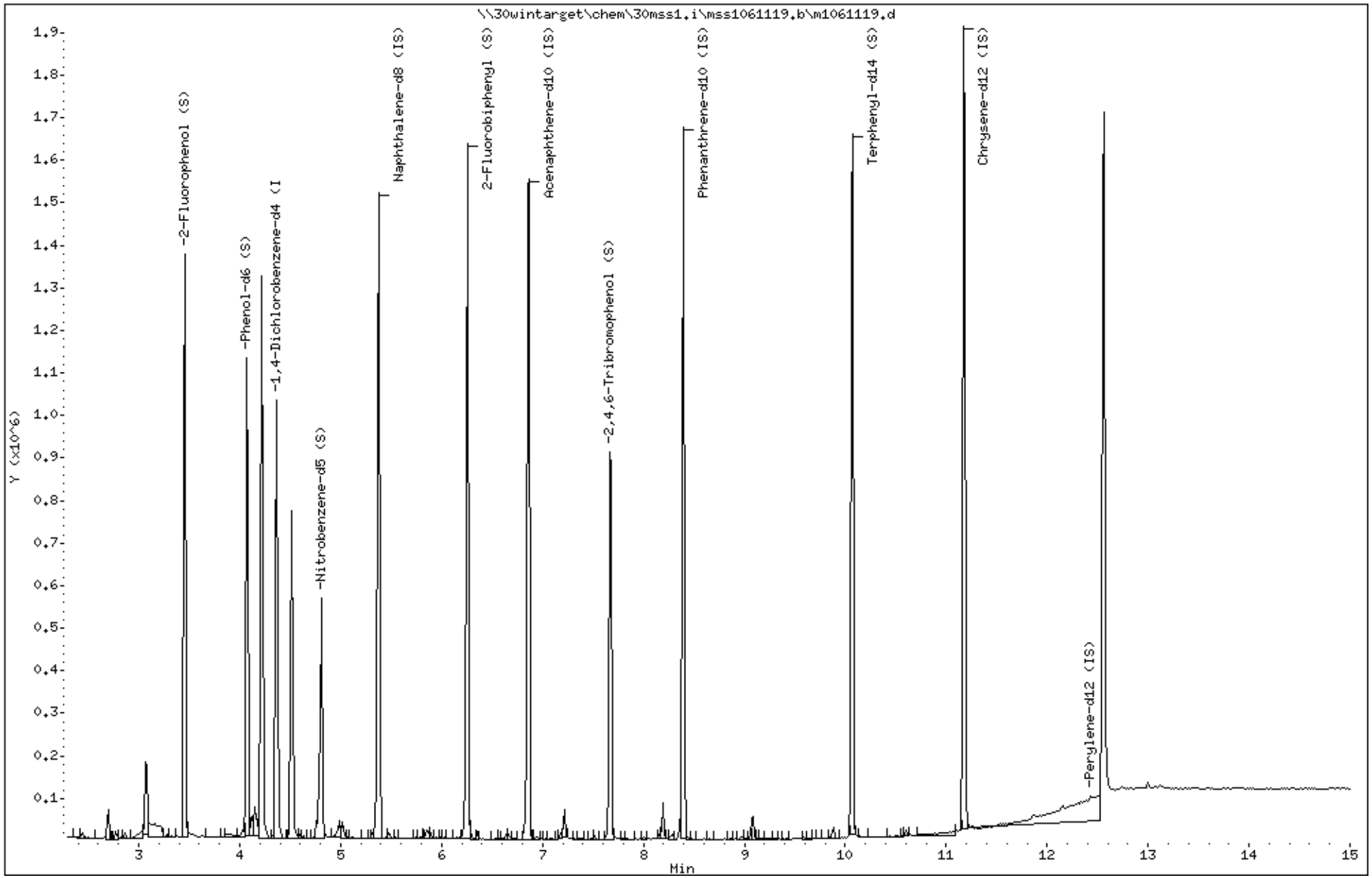
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061119.d
Date : 11-JUN-2019 23:57
Client ID: A0C35L
Sample Info: 30298231001
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m1061119.d
Injection Date: 11-JUN-2019 23:57
Instrument: 30mss1.i
Lab Sample ID: 30298231001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

AOC34

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 30298231010
Date Analyzed: 06/12/2019 00:20
Lab File ID: MSS1061119.B\M1061120.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061120.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 12-JUN-2019 00:20
Operator : SJG Inst ID: 30mss1.i
Smp Info : 30298231010
Misc Info : 14689
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.452	3.452	(0.792)	451049	7.12292	712	
$	4 Phenol-d6 (S)	99	4.072	4.077	(0.934)	555814	7.03836	704	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.361	4.360	(1.000)	211213	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.809	4.809	(0.895)	118361	3.59232	359	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.376	5.375	(1.000)	806584	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.257	6.257	(0.912)	567459	3.73951	374	
*	50 Acenaphthene-d10 (IS)	164	6.861	6.866	(1.000)	455333	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	7.673	7.678	(0.914)	165621	8.03674	804	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.394	8.393	(1.000)	764746	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.066	10.071	(0.901)	644043	3.55423	355	
* 82 Chrysene-d12 (IS)	240	11.177	11.182	(1.000)	727688	4.00000		
* 88 Perylene-d12 (IS)	264	12.555	12.560	(1.000)	751896	4.00000		

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

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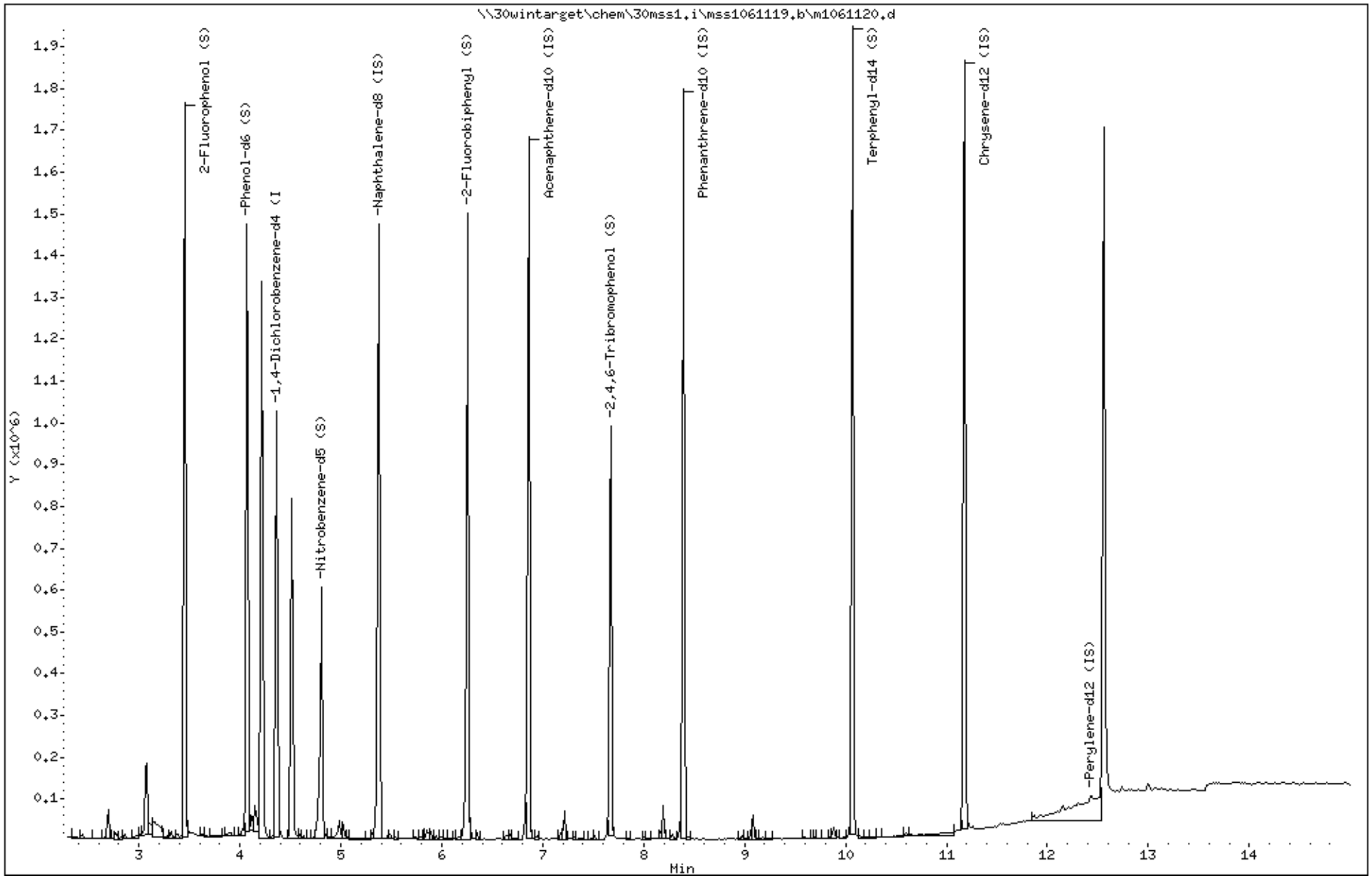
Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061120.d
Date : 12-JUN-2019 00:20
Client ID: A0C34
Sample Info: 30298231010
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m1061120.d
Injection Date: 12-JUN-2019 00:20
Instrument: 30mss1.i
Lab Sample ID: 30298231010
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 06/10/2019 06/10/2019 Calibration Time(s): 19:16 21:34

LAB FILE ID

CAL1 = MSS1061019.B\M10610Y7.D CAL2 = MSS1061019.B\M10610Y6.D CAL3 = MSS1061019.B\M10610Y5.D

CAL4 = MSS1061019.B\M10610Y4.D CAL5 = MSS1061019.B\M10610Y3.D CAL6 = MSS1061019.B\M10610Y2.D

CAL7 = MSS1061019.B\M10610Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.78225	1.63640	1.66224	1.67164	1.62943	1.55286
2,4-Dinitrotoluene	Averaged	0.27787	0.28854	0.32889	0.35433	0.35284	0.36849
Hexachloro-1,3-butadiene	Averaged	0.17465	0.15911	0.15967	0.15864	0.15746	0.15884
Hexachlorobenzene	Averaged	0.26307	0.23673	0.24299	0.24628	0.25332	0.25770
Hexachloroethane	Averaged	0.57517	0.54713	0.54951	0.54851	0.53488	0.54744
2-Methylphenol(o-Cresol)	Averaged	1.33273	1.21473	1.23097	1.21503	1.18655	1.20719
3&4-Methylphenol(m&p Cresol)	Averaged	1.39031	1.24352	1.27663	1.25347	1.21961	1.24950
Nitrobenzene	Averaged	0.31660	0.29631	0.30061	0.29573	0.28899	0.29090
Pentachlorophenol	Averaged		0.09439	0.11066	0.12151	0.12827	0.13869
Pyridine	Averaged	1.34337	1.21383	1.20118	1.15914	1.09127	1.11589
2,4,5-Trichlorophenol	Averaged	0.30195	0.28384	0.29189	0.31015	0.31357	0.28825
2,4,6-Trichlorophenol	Averaged	0.44958	0.40690	0.43031	0.42120	0.40143	0.45400
2-Fluorobiphenyl (S)	Averaged	1.50045	1.35027	1.35738	1.31573	1.27667	1.26960
2-Fluorophenol (S)	Averaged	1.29228	1.20293	1.21356	1.18969	1.19682	1.16469
Nitrobenzene-d5 (S)	Averaged	0.16699	0.15963	0.16469	0.16421	0.16229	0.16404
Phenol-d6 (S)	Averaged	1.64240	1.49970	1.51527	1.48071	1.43931	1.46200
Terphenyl-d14 (S)	Averaged	1.05637	0.96441	0.99009	1.00124	0.98843	0.99686
2,4,6-Tribromophenol (S)	Averaged	0.09348	0.09354	0.10234	0.11001	0.11264	0.11921

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 06/10/2019 06/10/2019 Calibration Time(s): 19:16 21:34

LAB FILE ID

CAL1 = MSS1061019.B\M10610Y7.D CAL2 = MSS1061019.B\M10610Y6.D CAL3 = MSS1061019.B\M10610Y5.D

CAL4 = MSS1061019.B\M10610Y4.D CAL5 = MSS1061019.B\M10610Y3.D CAL6 = MSS1061019.B\M10610Y2.D

CAL7 = MSS1061019.B\M10610Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.56688	4.63024			1.64310	
2,4-Dinitrotoluene	Averaged	0.36914	11.21645			0.33430	
Hexachloro-1,3-butadiene	Averaged	0.16154	3.69543			0.16142	
Hexachlorobenzene	Averaged	0.26194	3.97964			0.25172	
Hexachloroethane	Averaged	0.55333	2.20528			0.55085	
2-Methylphenol(o-Cresol)	Averaged	1.20254	3.95246			1.22711	
3&4-Methylphenol(m&p Cresol)	Averaged	1.25400	4.39815			1.26958	
Nitrobenzene	Averaged	0.28749	3.34379			0.29666	
Pentachlorophenol	Averaged	0.14243	14.68972			0.12266	
Pyridine	Averaged	1.09305	7.61935			1.17396	
2,4,5-Trichlorophenol	Averaged	0.32752	5.17750			0.30245	
2,4,6-Trichlorophenol	Averaged	0.41621	4.74238			0.42566	
2-Fluorobiphenyl (S)	Averaged	1.26133	6.24316			1.33306	
2-Fluorophenol (S)	Averaged	1.13469	4.07554			1.19924	
Nitrobenzene-d5 (S)	Averaged	0.16193	1.44044			0.16340	
Phenol-d6 (S)	Averaged	1.42936	4.79543			1.49554	
Terphenyl-d14 (S)	Averaged	0.97500	2.95684			0.99606	
2,4,6-Tribromophenol (S)	Averaged	0.12331	10.95871			0.10779	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 10-JUN-2019 19:16
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14685,89093:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061019.b\8270061019.m
Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 19:16 Cal File: m10610y1.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.679	2.682	(0.211)	950126	20.0000	17.2	
	2 Pyridine	79	2.679	2.687	(0.603)	1548009	20.0000	18.8	
$	3 2-Fluorophenol (S)	112	3.529	3.531	(0.794)	1606976	20.0000	19.1	
$	4 Phenol-d6 (S)	99	4.154	4.146	(0.935)	2024306	20.0000	19.3	
	5 Benzaldehyde	77	4.127	4.130	(0.929)	1235265	20.0000	18.5	
	6 Phenol	94	4.165	4.156	(0.937)	2066488	20.0000	19.2	
	7 Aniline	66	4.223	4.220	(0.951)	868130	20.0000	20.0	
	8 bis(2-Chloroethyl)ether	63	4.245	4.242	(0.956)	1171198	20.0000	19.3	
	9 2-Chlorophenol	128	4.309	4.306	(0.970)	1903085	20.0000	19.4	
	10 1,3-Dichlorobenzene	146	4.421	4.418	(0.995)	2067160	20.0000	19.9	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.442	4.445	(1.000)	283246	4.00000		
	12 1,4-Dichlorobenzene	146	4.458	4.455	(1.004)	2219066	20.0000	18.7	
	13 Benzyl Alcohol	79	4.544	4.541	(1.023)	1361484	20.0000	20.1(A)	
	14 1,2-Dichlorobenzene	146	4.603	4.605	(1.036)	2000482	20.0000	19.4	
	15 2-Methylphenol(o-Cresol)	108	4.619	4.616	(1.040)	1703079	20.0000	19.8	
	16 bis(2-Chloroisopropyl)ether	45	4.656	4.658	(1.048)	1977597	20.0000	19.4	
	17 3&4-Methylphenol(m&p Cresol)	108	4.731	4.723	(1.065)	1775951	20.0000	20.0(A)	
	18 N-Nitroso-di-n-propylamine	70	4.774	4.765	(1.075)	1187397	20.0000	19.5	
	19 Acetophenone	105	4.768	4.760	(1.073)	2351399	20.0000	19.6	
	20 Hexachloroethane	117	4.848	4.851	(1.091)	783643	20.0000	20.2(A)	
$	21 Nitrobenzene-d5 (S)	128	4.891	4.888	(0.895)	943030	20.0000	19.7	
	22 Nitrobenzene	77	4.907	4.904	(0.898)	1674276	20.0000	19.4	
	23 Isophorone	82	5.094	5.080	(0.933)	3239500	20.0000	19.4	
	24 2,4-Dimethylphenol	107	5.153	5.145	(0.943)	1753336	20.0000	19.3	
	25 2-Nitrophenol	139	5.158	5.155	(0.944)	1029241	20.0000	21.0(A)	
	26 Benzoic acid	105	5.244	5.177	(0.960)	937103	20.0000	28.0(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	5.233	5.230	(0.958)	2027613	20.0000	19.5	
	28 2,4-Dichlorophenol	162	5.340	5.337	(0.978)	1567937	20.0000	20.1(A)	
	29 1,2,4-Trichlorobenzene	180	5.420	5.417	(0.992)	1748184	20.0000	20.0	
*	30 Naphthalene-d8 (IS)	136	5.463	5.460	(1.000)	1164767	4.00000		
	31 Naphthalene	128	5.479	5.476	(1.003)	5533163	20.0000	18.9	
	32 4-Chloroaniline	65	5.516	5.508	(1.010)	481297	20.0000	18.6	
	33 Hexachloro-1,3-butadiene	225	5.607	5.609	(1.026)	940801	20.0000	20.4(A)	
	34 Caprolactam	55	5.799	5.743	(1.062)	605151	20.0000	20.6(AM)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.890	5.871	(1.078)	1489719	20.0000	20.0(A)	
	36 2-Methylnaphthalene	142	6.040	6.037	(1.106)	3834482	20.0000	19.6	
	37 1-Methylnaphthalene	142	6.136	6.128	(1.123)	3636490	20.0000	19.6	
	38 Hexachlorocyclopentadiene	237	6.221	6.218	(0.893)	1186102	20.0000	22.0(A)	
	39 1,2,4,5-Tetrachlorobenzene	216	6.211	6.208	(0.891)	1700775	20.0000	20.2(A)	
	40 2,4,6-Trichlorophenol	196	6.285	6.277	(0.902)	1316637	20.0000	19.8	
	41 2,4,5-Trichlorophenol	196	6.317	6.309	(0.906)	1036073	20.0000	21.1(A)	
$	42 2-Fluorobiphenyl (S)	172	6.344	6.336	(0.910)	3990079	20.0000	19.2	
	43 Biphenyl (Diphenyl)	154	6.424	6.416	(0.922)	4450722	20.0000	19.0	
	44 2-Chloronaphthalene	164	6.451	6.443	(0.926)	1172784	20.0000	19.6	
	45 2-Nitroaniline	138	6.542	6.528	(0.939)	1180181	20.0000	20.3(A)	
	46 Dimethylphthalate	163	6.707	6.688	(0.962)	3781997	20.0000	19.2	
	47 2,6-Dinitrotoluene	165	6.777	6.763	(0.972)	915913	20.0000	20.6(A)	
	48 Acenaphthylene	152	6.830	6.817	(0.980)	5343559	20.0000	18.9	
	49 3-Nitroaniline	65	6.916	6.897	(0.992)	853318	20.0000	18.8	
*	50 Acenaphthene-d10 (IS)	164	6.969	6.961	(1.000)	632676	4.00000		
	51 2,4-Dinitrophenol	184	7.012	6.998	(1.006)	457622	20.0000	0.0763	
	52 Acenaphthene	153	7.007	6.993	(1.005)	3410873	20.0000	19.3	
	53 4-Nitrophenol	109	7.039	7.014	(1.010)	420003	20.0000	20.8(A)	
	54 2,4-Dinitrotoluene	165	7.167	7.148	(1.028)	1167744	20.0000	20.8(A)	
	55 Dibenzofuran	168	7.162	7.148	(1.028)	4787773	20.0000	19.0	
	56 2,3,4,6-Tetrachlorophenol	232	7.316	7.303	(1.050)	943421	20.0000	22.1(A)	
	57 Diethylphthalate	149	7.397	7.378	(1.061)	3656704	20.0000	19.3	
	58 4-Chlorophenylphenyl ether	204	7.487	7.479	(1.074)	1991997	20.0000	20.0	
	59 Fluorene	166	7.519	7.506	(1.079)	3963722	20.0000	19.4	
	60 4-Nitroaniline	108	7.551	7.522	(1.084)	485060	20.0000	19.6	
	61 4,6-Dinitro-2-methylphenol	198	7.600	7.575	(0.893)	553350	20.0000	0.0445	
	62 N-Nitrosodiphenylamine	169	7.616	7.602	(0.895)	3418245	20.0000	19.4	
	63 Azobenzene	77	7.658	7.645	(0.900)	3070537	20.0000	18.9	
	64 1,2-Diphenylhydrazine	77	7.658	7.645	(0.900)	3070537	20.0000	18.9	
$	65 2,4,6-Tribromophenol (S)	330	7.787	7.778	(0.915)	641898	20.0000	22.4(A)	
	66 4-Bromophenylphenyl ether	248	8.000	7.997	(0.940)	1183860	20.0000	20.4(A)	
	67 Hexachlorobenzene	284	8.187	8.174	(0.962)	1363527	20.0000	21.3(A)	
	68 Atrazine	200	8.187	8.168	(0.962)	1132660	20.0000	19.7	
	69 Pentachlorophenol	266	8.358	8.350	(0.982)	741416	20.0000	23.4(A)	
*	70 Phenanthrene-d10 (IS)	188	8.508	8.499	(1.000)	1041098	4.00000		
	71 Phenanthrene	178	8.534	8.521	(1.003)	5824171	20.0000	19.4	
	72 Anthracene	178	8.583	8.569	(1.009)	5171783	20.0000	18.4	
	73 Carbazole	167	8.737	8.724	(1.027)	4661151	20.0000	18.3	
	74 Di-n-butylphthalate	149	9.117	9.103	(1.072)	5670340	20.0000	18.1	
	75 Fluoranthene	202	9.801	9.787	(1.152)	5473474	20.0000	18.6	
	76 Pyrene	202	10.046	10.027	(0.889)	5515769	20.0000	18.9	
$	77 Terphenyl-d14 (S)	244	10.180	10.166	(0.901)	4640287	20.0000	19.5	
	78 Butylbenzylphthalate	149	10.687	10.679	(0.946)	2508674	20.0000	20.0(A)	
	79 3,3'-Dichlorobenzidine	252	11.243	11.224	(0.995)	2135605	20.0000	21.1(A)	
	80 bis(2-Ethylhexyl)phthalate	149	11.270	11.261	(0.998)	3162444	20.0000	18.2	
	81 Benzo(a)anthracene	228	11.280	11.267	(0.999)	5255503	20.0000	19.8	
*	82 Chrysene-d12 (IS)	240	11.296	11.283	(1.000)	951853	4.00000		
	83 Chrysene	228	11.328	11.309	(1.003)	5187296	20.0000	19.5	
	84 Di-n-octylphthalate	149	11.857	11.844	(0.934)	5231817	20.0000	18.8	
	85 Benzo(b)fluoranthene	252	12.327	12.308	(0.971)	5678950	20.0000	20.3(A)	
	86 Benzo(k)fluoranthene	252	12.354	12.324	(0.973)	6289252	20.0000	20.1(A)	
	87 Benzo(a)pyrene	252	12.643	12.624	(0.996)	5386038	20.0000	20.0	
*	88 Perylene-d12 (IS)	264	12.691	12.677	(1.000)	977005	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.882	13.847	(1.094)	5394994	20.0000	17.7	
90 Dibenz(a,h)anthracene	278	13.882	13.842	(1.094)	4633884	20.0000	18.1	
91 Benzo(g,h,i)perylene	276	14.224	14.183	(1.121)	4000097	20.0000	15.9	

QC Flag Legend

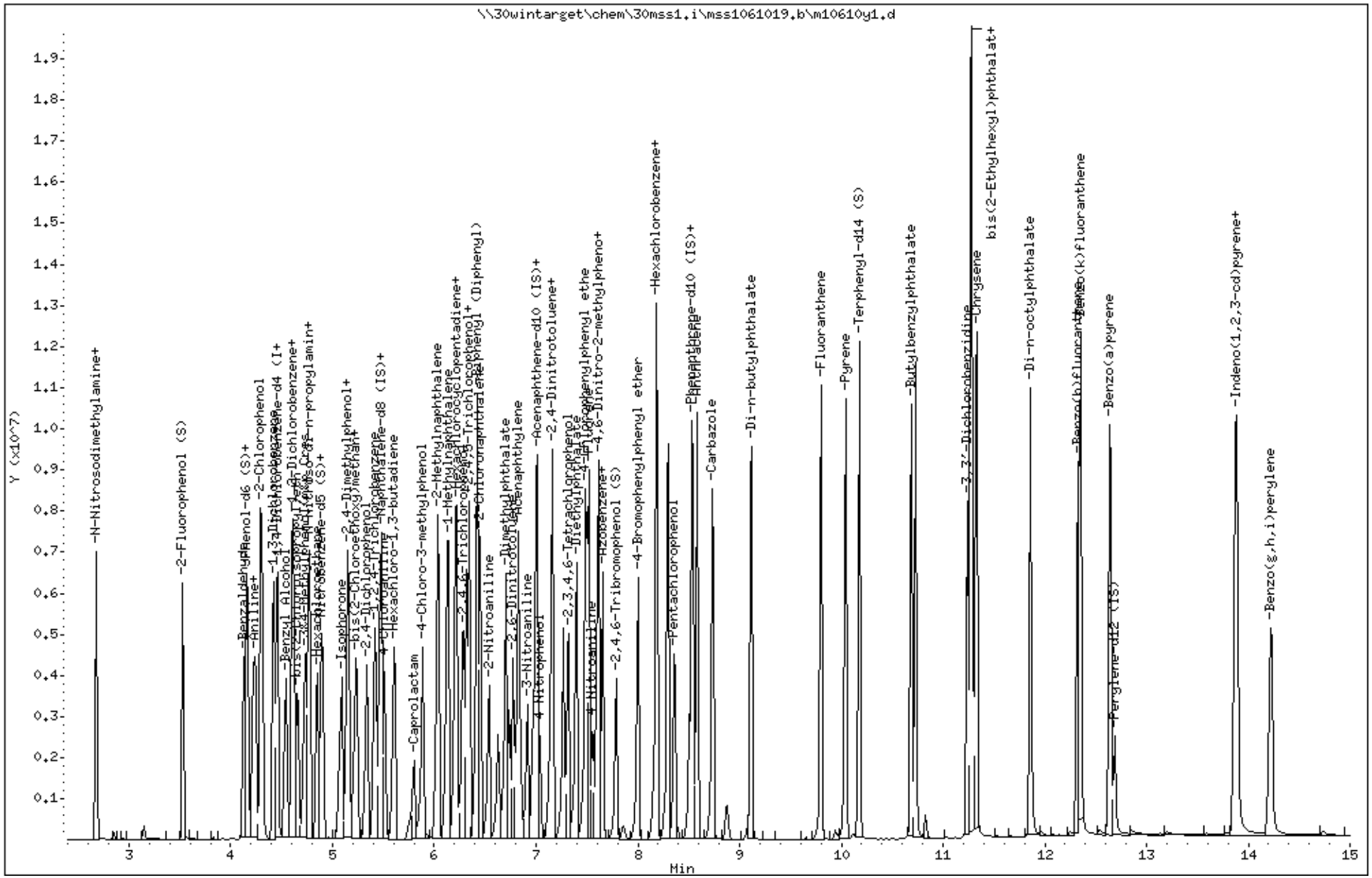
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y1.d
Date : 10-JUN-2019 19:16
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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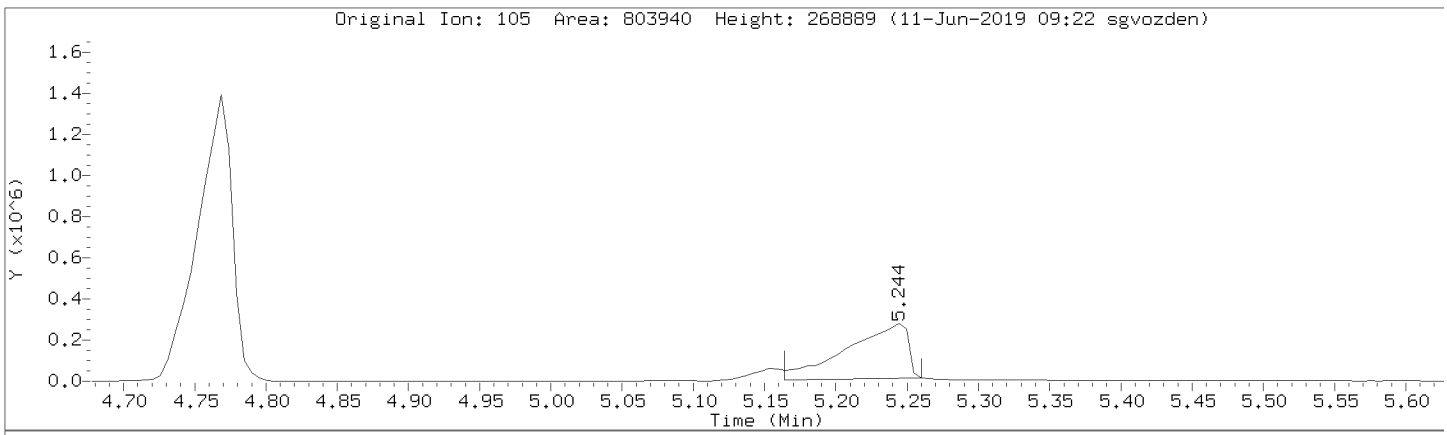
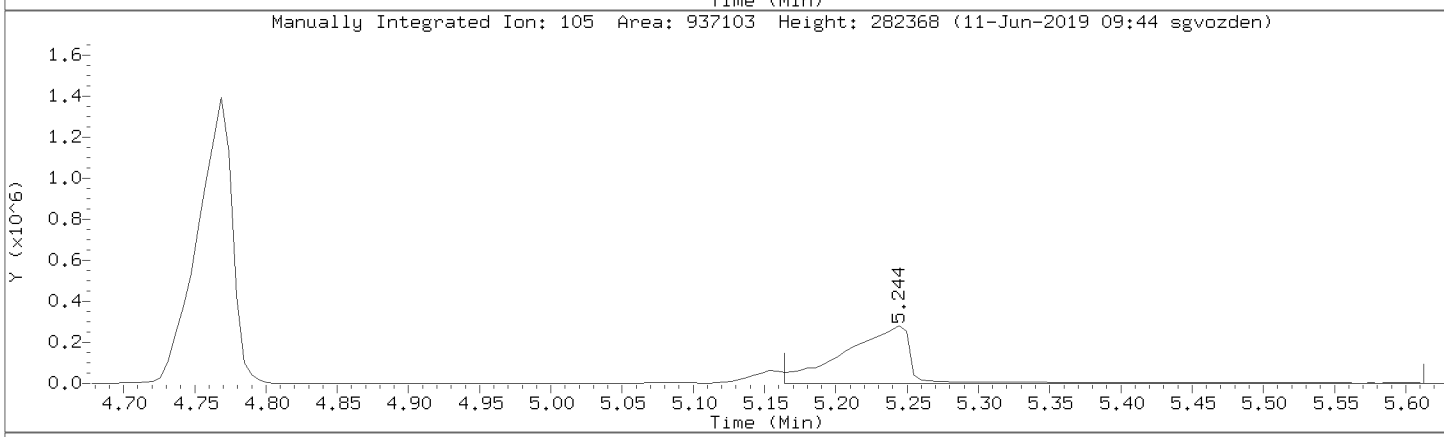
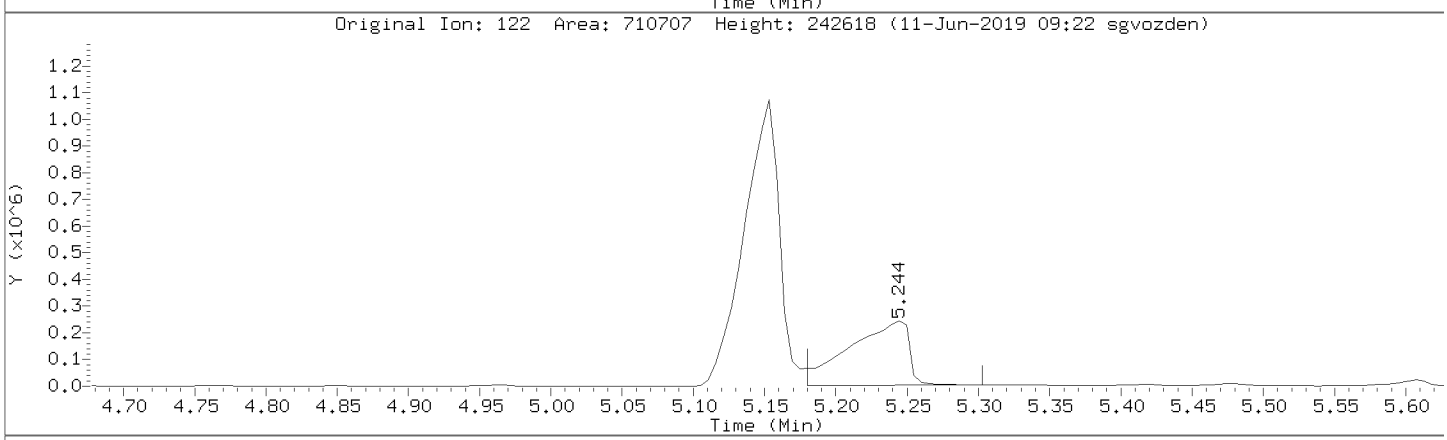
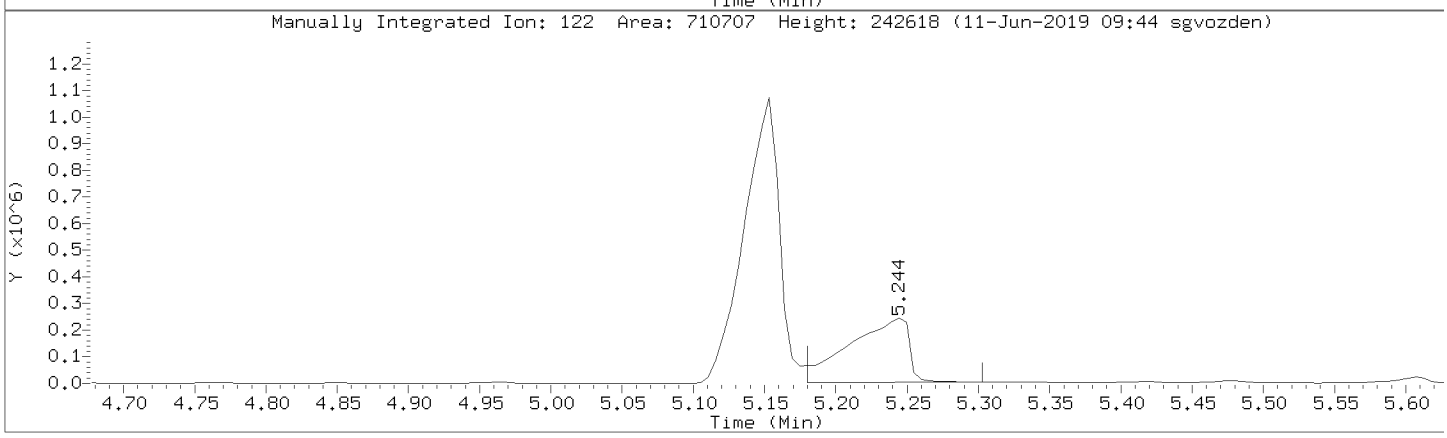
Injection Date: 10-JUN-2019 19:16
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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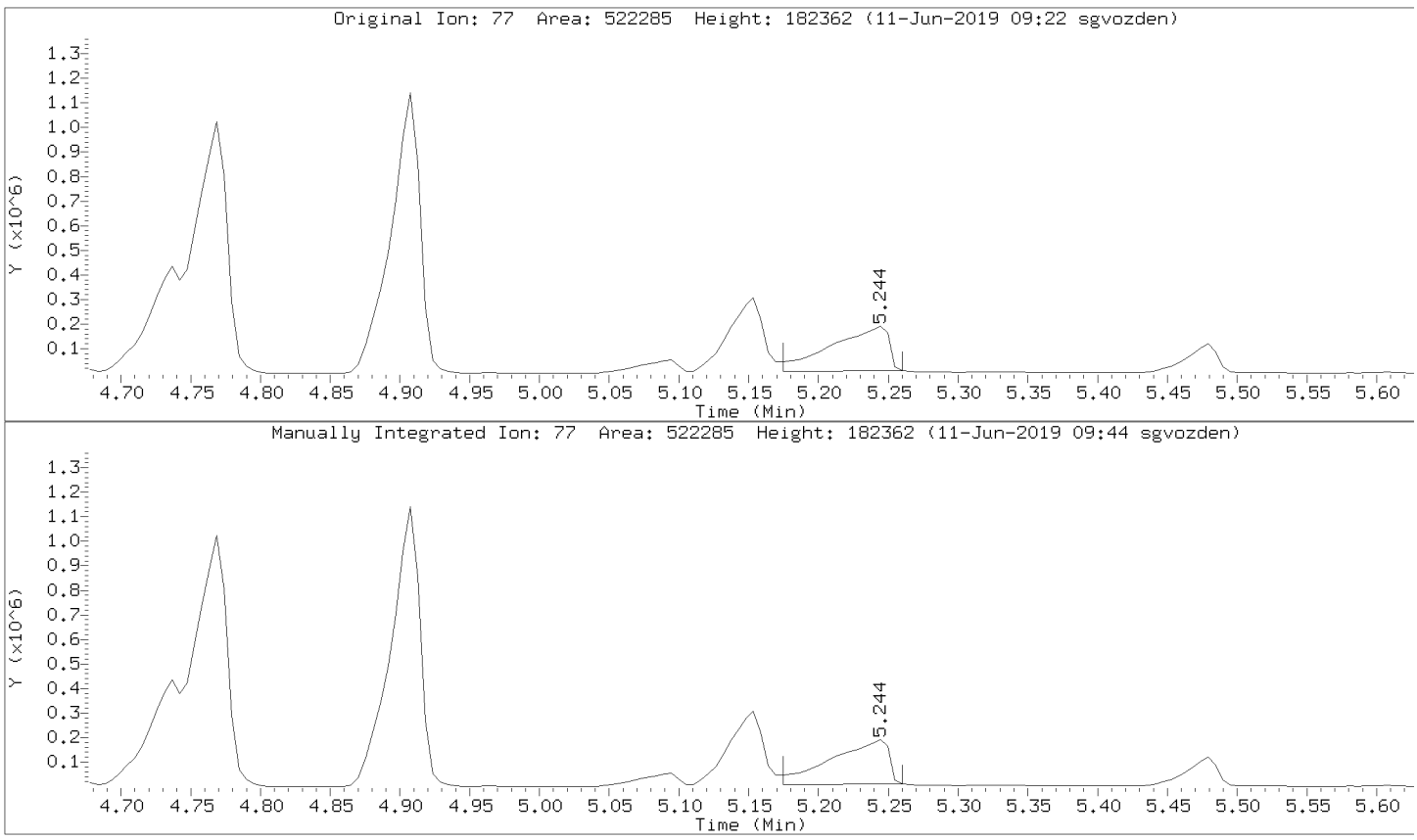
Injection Date: 10-JUN-2019 19:16
Instrument: 30mss1.i
Lab Sample ID: CAL7



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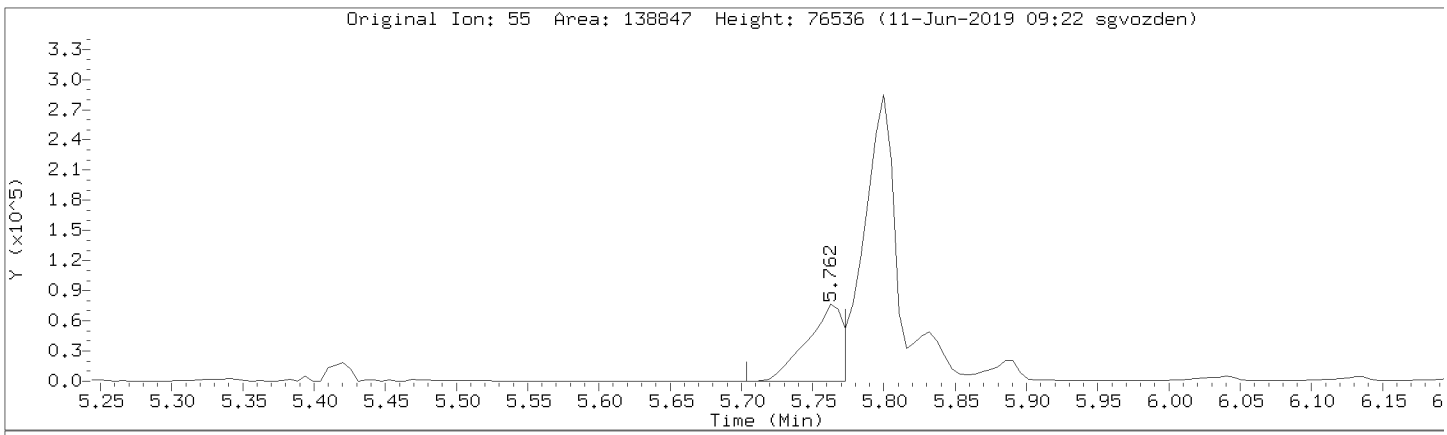
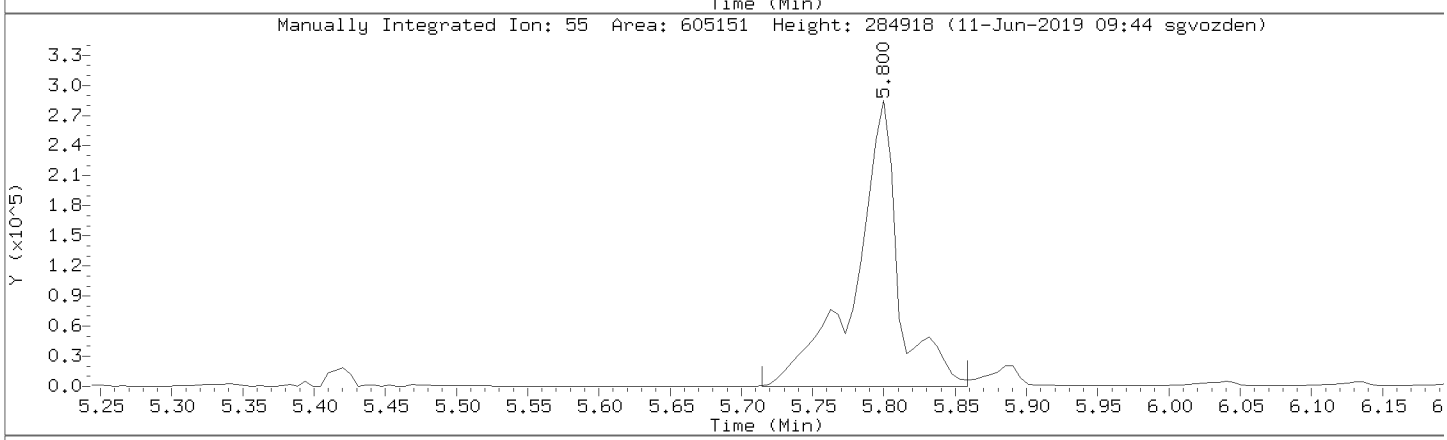
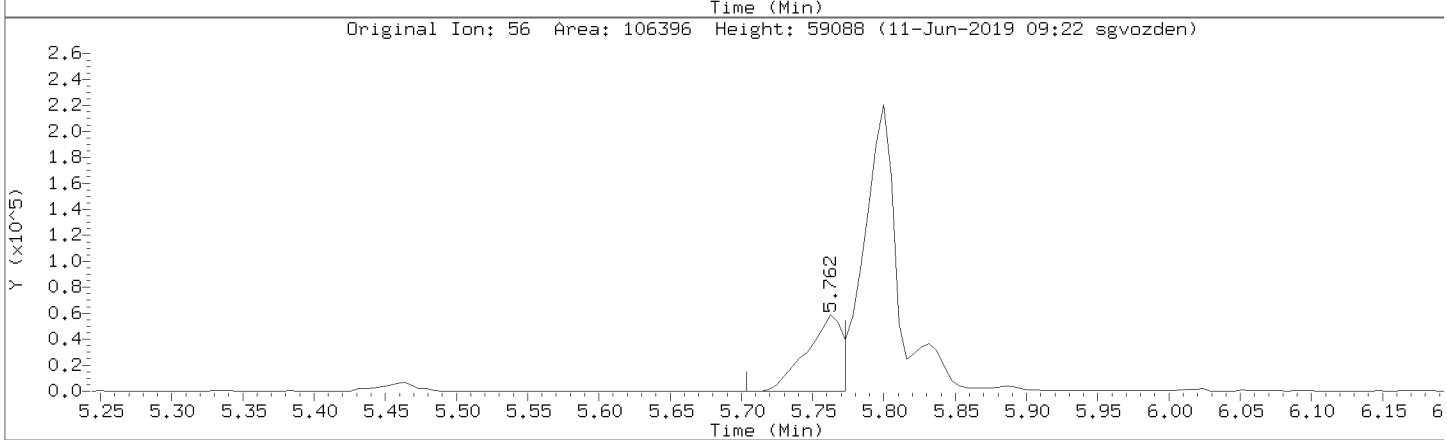
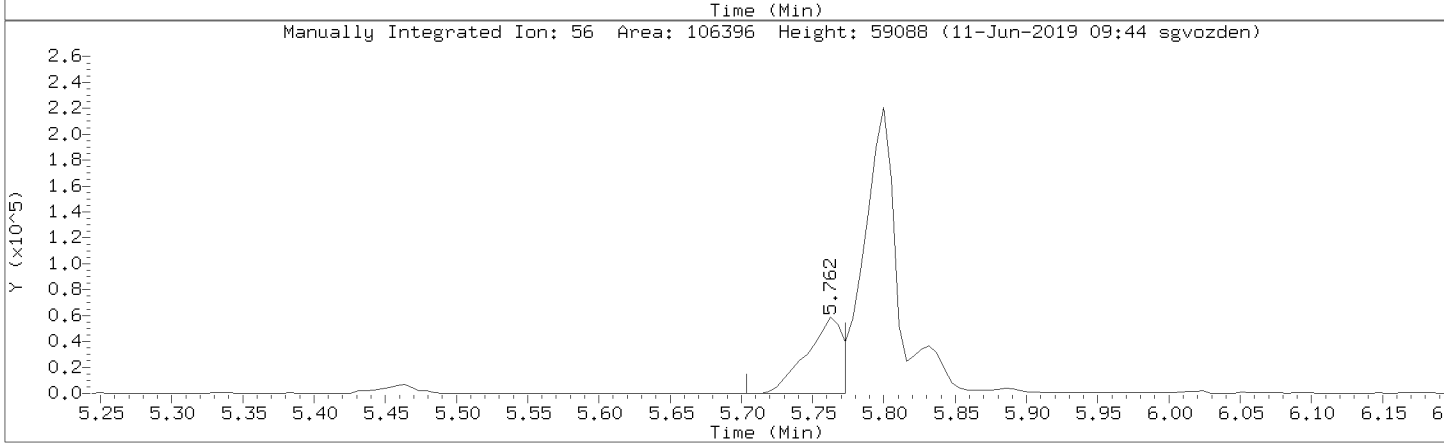
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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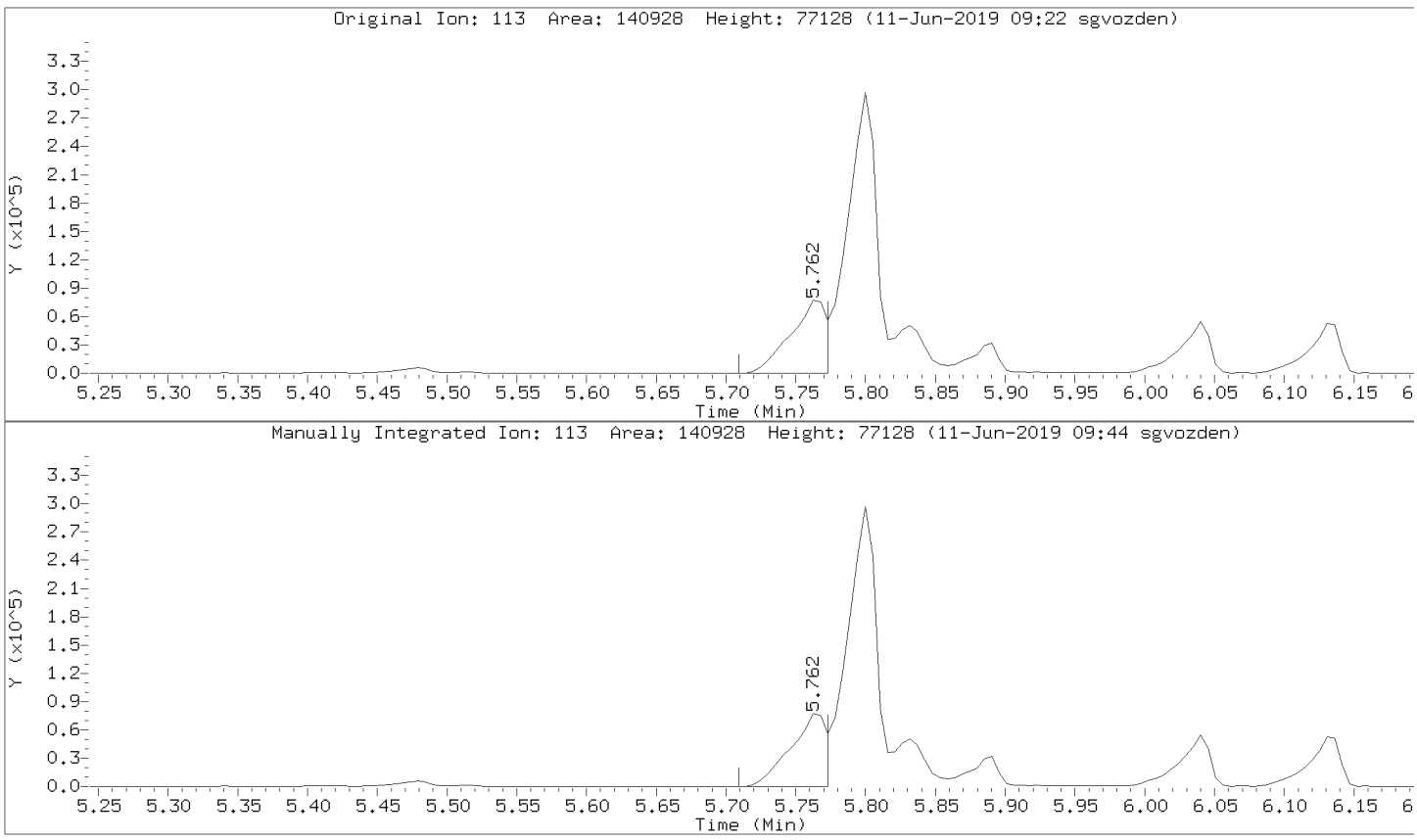
Injection Date: 10-JUN-2019 19:16
Instrument: 30mss1.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y2.d
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Inj Date : 10-JUN-2019 19:39
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14685,89094:1
Comment :
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Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 19:39 Cal File: m10610y2.d
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.687	2.682	(0.212)	808421	16.0000	15.0	
	2 Pyridine	79	2.687	2.687	(0.605)	1305727	16.0000	15.8	
$	3 2-Fluorophenol (S)	112	3.531	3.531	(0.794)	1362831	16.0000	16.0	
$	4 Phenol-d6 (S)	99	4.156	4.146	(0.935)	1710721	16.0000	16.1	
	5 Benzaldehyde	77	4.130	4.130	(0.929)	1036488	16.0000	15.6	
	6 Phenol	94	4.167	4.156	(0.938)	1733143	16.0000	15.9	
	7 Aniline	66	4.226	4.220	(0.951)	718064	16.0000	16.0	
	8 bis(2-Chloroethyl)ether	63	4.247	4.242	(0.956)	979551	16.0000	15.9	
	9 2-Chlorophenol	128	4.311	4.306	(0.970)	1590987	16.0000	16.0	
	10 1,3-Dichlorobenzene	146	4.423	4.418	(0.995)	1760782	16.0000	16.4	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.445	4.445	(1.000)	292530	4.00000		
	12 1,4-Dichlorobenzene	146	4.455	4.455	(1.002)	1817036	16.0000	15.3	
	13 Benzyl Alcohol	79	4.546	4.541	(1.023)	1117257	16.0000	15.9	
	14 1,2-Dichlorobenzene	146	4.605	4.605	(1.036)	1666269	16.0000	15.9	
	15 2-Methylphenol(o-Cresol)	108	4.621	4.616	(1.040)	1412553	16.0000	16.0	
	16 bis(2-Chloroisopropyl)ether	45	4.658	4.658	(1.048)	1633387	16.0000	15.8	
	17 3&4-Methylphenol(m&p Cresol)	108	4.733	4.723	(1.065)	1462065	16.0000	15.9	
	18 N-Nitroso-di-n-propylamine	70	4.776	4.765	(1.075)	979083	16.0000	15.8	
	19 Acetophenone	105	4.771	4.760	(1.073)	1941522	16.0000	15.8	
	20 Hexachloroethane	117	4.851	4.851	(1.091)	640568	16.0000	15.9	
$	21 Nitrobenzene-d5 (S)	128	4.894	4.888	(0.896)	778785	16.0000	16.1	
	22 Nitrobenzene	77	4.910	4.904	(0.899)	1381084	16.0000	16.0	
	23 Isophorone	82	5.091	5.080	(0.932)	2628548	16.0000	15.7	
	24 2,4-Dimethylphenol	107	5.150	5.145	(0.943)	1445668	16.0000	15.9	
	25 2-Nitrophenol	139	5.161	5.155	(0.945)	846936	16.0000	16.5	
	26 Benzoic acid	105	5.235	5.177	(0.959)	732197	16.0000	17.9(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.235	5.230	(0.959)	1651721	16.0000	15.8	
	28 2,4-Dichlorophenol	162	5.342	5.337	(0.978)	1277405	16.0000	16.0	
	29 1,2,4-Trichlorobenzene	180	5.422	5.417	(0.993)	1418530	16.0000	15.9	
*	30 Naphthalene-d8 (IS)	136	5.460	5.460	(1.000)	1186912	4.00000		
	31 Naphthalene	128	5.481	5.476	(1.004)	4593249	16.0000	15.8	
	32 4-Chloroaniline	65	5.513	5.508	(1.010)	398673	16.0000	15.6	
	33 Hexachloro-1,3-butadiene	225	5.609	5.609	(1.027)	754111	16.0000	15.9	
	34 Caprolactam	55	5.791	5.743	(1.061)	482942	16.0000	15.9(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.882	5.871	(1.077)	1203907	16.0000	15.9	
	36 2-Methylnaphthalene	142	6.037	6.037	(1.106)	3131263	16.0000	15.8	
	37 1-Methylnaphthalene	142	6.133	6.128	(1.123)	2949516	16.0000	15.8	
	38 Hexachlorocyclopentadiene	237	6.218	6.218	(0.893)	939067	16.0000	16.5	
	39 1,2,4,5-Tetrachlorobenzene	216	6.208	6.208	(0.891)	1360794	16.0000	16.0	
	40 2,4,6-Trichlorophenol	196	6.282	6.277	(0.902)	1152792	16.0000	17.3	
	41 2,4,5-Trichlorophenol	196	6.315	6.309	(0.906)	731911	16.0000	14.5	
$	42 2-Fluorobiphenyl (S)	172	6.341	6.336	(0.910)	3223760	16.0000	15.8	
	43 Biphenyl (Diphenyl)	154	6.421	6.416	(0.922)	3627986	16.0000	15.8	
	44 2-Chloronaphthalene	164	6.448	6.443	(0.926)	947680	16.0000	16.0	
	45 2-Nitroaniline	138	6.539	6.528	(0.939)	959791	16.0000	16.3	
	46 Dimethylphthalate	163	6.699	6.688	(0.962)	3075532	16.0000	15.9(M)	LT
	47 2,6-Dinitrotoluene	165	6.769	6.763	(0.972)	729732	16.0000	16.1	
	48 Acenaphthylene	152	6.822	6.817	(0.979)	4343895	16.0000	15.8	
	49 3-Nitroaniline	65	6.907	6.897	(0.992)	694757	16.0000	15.7	
*	50 Acenaphthene-d10 (IS)	164	6.966	6.961	(1.000)	634796	4.00000		
	51 2,4-Dinitrophenol	184	7.009	6.998	(1.006)	345028	16.0000	3.95	
	52 Acenaphthene	153	6.998	6.993	(1.005)	2758820	16.0000	15.8	
	53 4-Nitrophenol	109	7.030	7.014	(1.009)	338429	16.0000	16.4	
	54 2,4-Dinitrotoluene	165	7.164	7.148	(1.028)	935652	16.0000	16.3	
	55 Dibenzofuran	168	7.153	7.148	(1.027)	3890684	16.0000	15.8	
	56 2,3,4,6-Tetrachlorophenol	232	7.313	7.303	(1.050)	694710	16.0000	15.4	
	57 Diethylphthalate	149	7.388	7.378	(1.061)	2960791	16.0000	15.8	
	58 4-Chlorophenylphenyl ether	204	7.484	7.479	(1.074)	1592112	16.0000	15.9	
	59 Fluorene	166	7.516	7.506	(1.079)	3204536	16.0000	15.9	
	60 4-Nitroaniline	108	7.543	7.522	(1.083)	394961	16.0000	16.1	
	61 4,6-Dinitro-2-methylphenol	198	7.591	7.575	(0.893)	427134	16.0000	3.99	
	62 N-Nitrosodiphenylamine	169	7.613	7.602	(0.895)	2748182	16.0000	15.8	
	63 Azobenzene	77	7.650	7.645	(0.899)	2418015	16.0000	15.2	
	64 1,2-Diphenylhydrazine	77	7.650	7.645	(0.899)	2418015	16.0000	15.2	
$	65 2,4,6-Tribromophenol (S)	330	7.784	7.778	(0.915)	498093	16.0000	16.3	
	66 4-Bromophenylphenyl ether	248	7.997	7.997	(0.940)	934019	16.0000	15.9	
	67 Hexachlorobenzene	284	8.179	8.174	(0.962)	1076781	16.0000	16.2	
	68 Atrazine	200	8.184	8.168	(0.962)	925893	16.0000	16.2	
	69 Pentachlorophenol	266	8.355	8.350	(0.982)	579485	16.0000	16.8(A)	
*	70 Phenanthrene-d10 (IS)	188	8.505	8.499	(1.000)	1044604	4.00000		
	71 Phenanthrene	178	8.531	8.521	(1.003)	4735930	16.0000	16.0	
	72 Anthracene	178	8.580	8.569	(1.009)	4303671	16.0000	15.9	
	73 Carbazole	167	8.734	8.724	(1.027)	3885373	16.0000	15.9	
	74 Di-n-butylphthalate	149	9.108	9.103	(1.071)	4735673	16.0000	15.8	
	75 Fluoranthene	202	9.798	9.787	(1.152)	4639936	16.0000	16.3	
	76 Pyrene	202	10.038	10.027	(0.889)	4661630	16.0000	15.6	
$	77 Terphenyl-d14 (S)	244	10.172	10.166	(0.901)	3989186	16.0000	16.1	
	78 Butylbenzylphthalate	149	10.684	10.679	(0.946)	2112767	16.0000	16.0	
	79 3,3'-Dichlorobenzidine	252	11.235	11.224	(0.995)	1766816	16.0000	16.2	
	80 bis(2-Ethylhexyl)phthalate	149	11.267	11.261	(0.998)	2658169	16.0000	15.2	
	81 Benzo(a)anthracene	228	11.272	11.267	(0.998)	4382632	16.0000	15.8	
*	82 Chrysene-d12 (IS)	240	11.293	11.283	(1.000)	1000437	4.00000		
	83 Chrysene	228	11.320	11.309	(1.002)	4335651	16.0000	15.7	
	84 Di-n-octylphthalate	149	11.854	11.844	(0.935)	4500958	16.0000	15.9	
	85 Benzo(b)fluoranthene	252	12.319	12.308	(0.971)	4404549	16.0000	14.9	
	86 Benzo(k)fluoranthene	252	12.346	12.324	(0.973)	5344127	16.0000	16.2	
	87 Benzo(a)pyrene	252	12.640	12.624	(0.997)	4415260	16.0000	15.6	
*	88 Perylene-d12 (IS)	264	12.682	12.677	(1.000)	1026132	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
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90 Dibenz(a,h)anthracene	278	13.874	13.842	(1.094)	4176176	16.0000	16.3	
91 Benzo(g,h,i)perylene	276	14.216	14.183	(1.121)	3854055	16.0000	16.2	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
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Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y2.d
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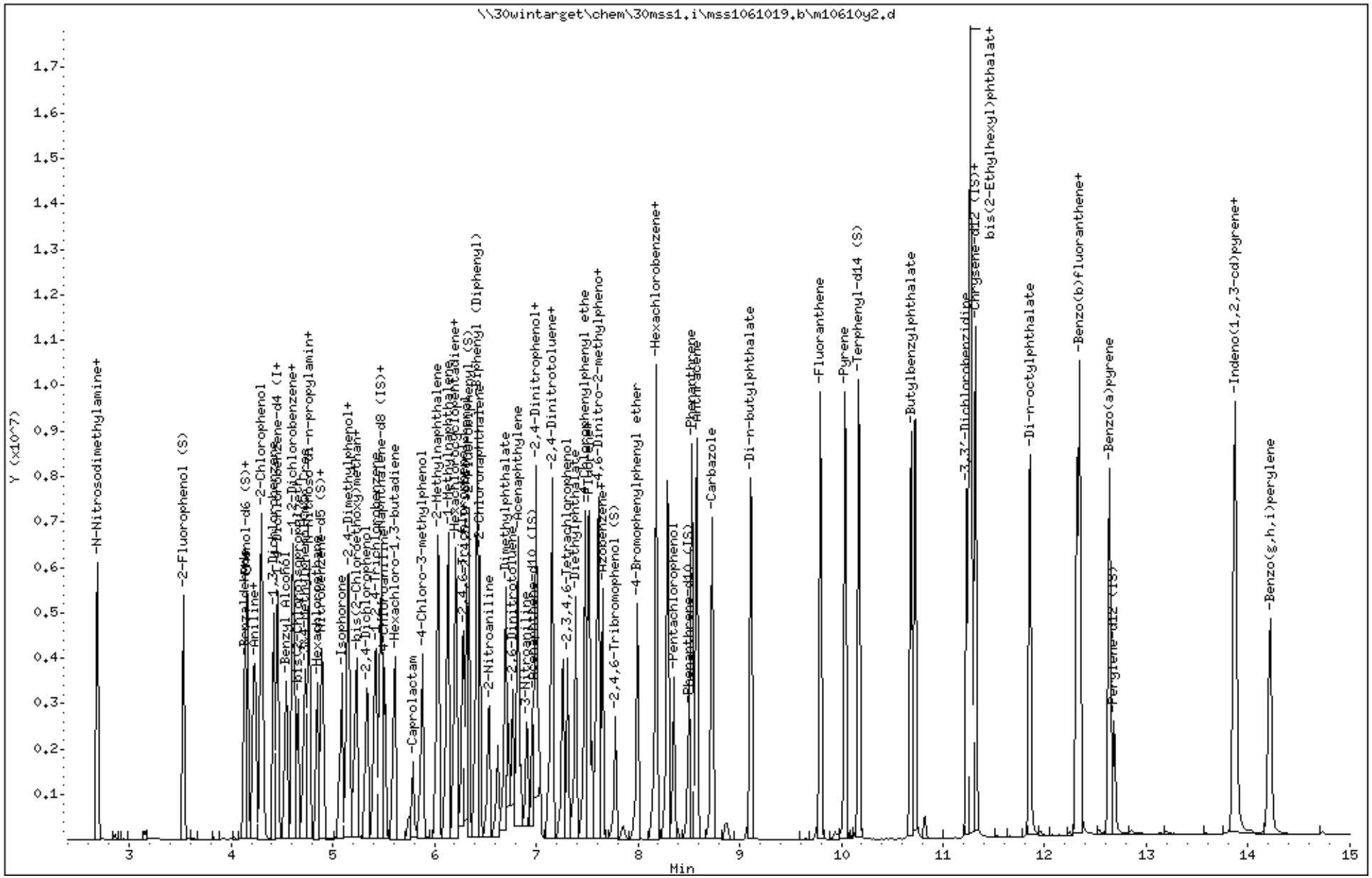
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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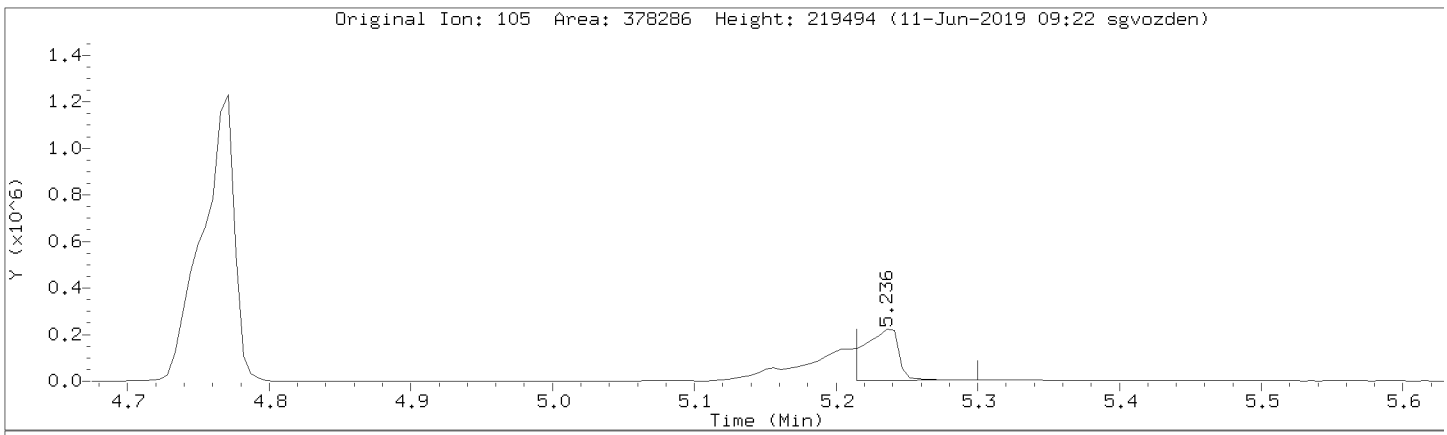
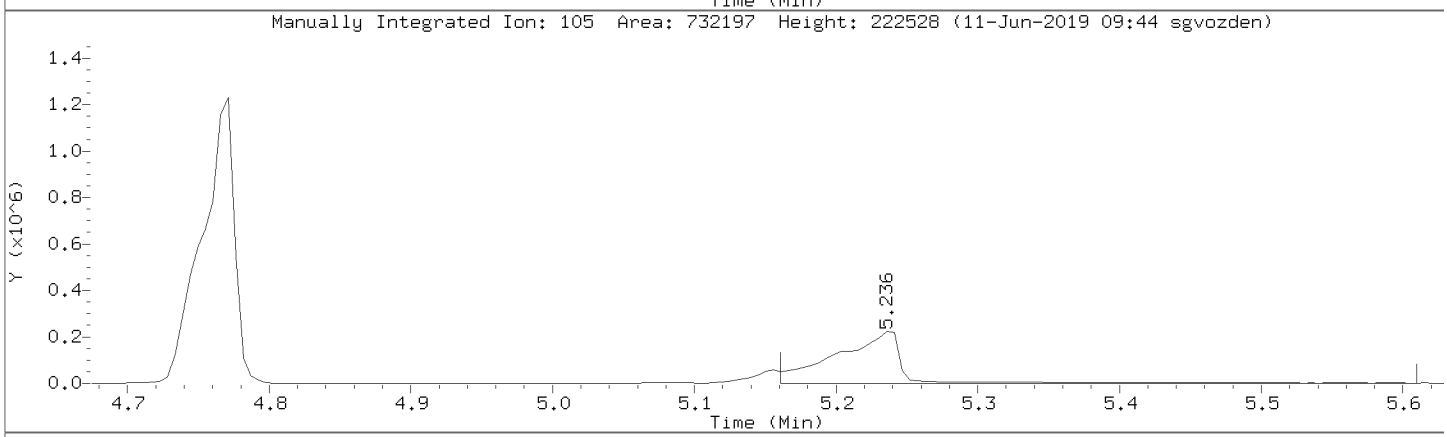
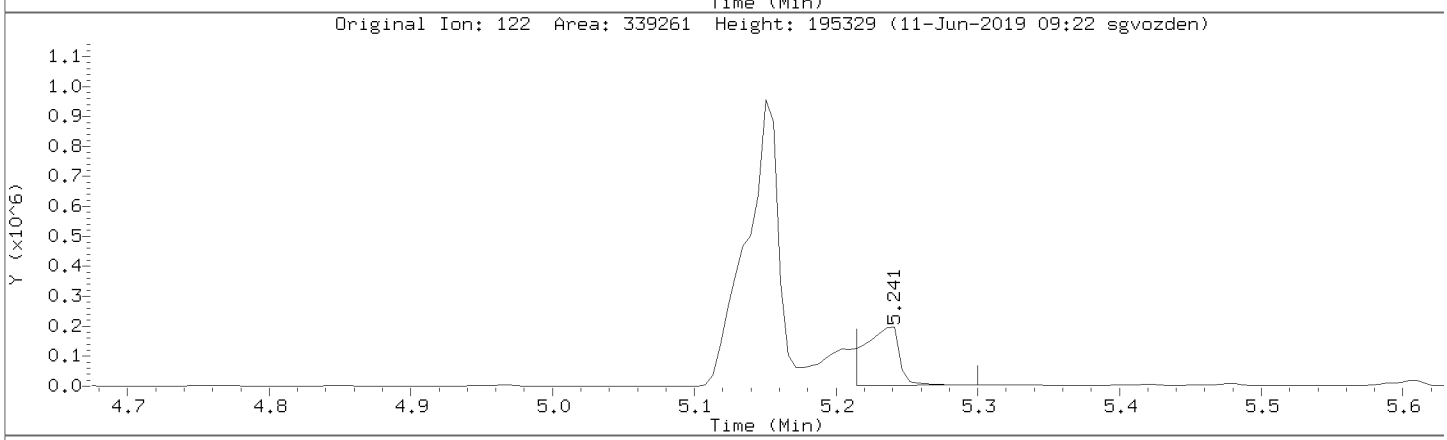
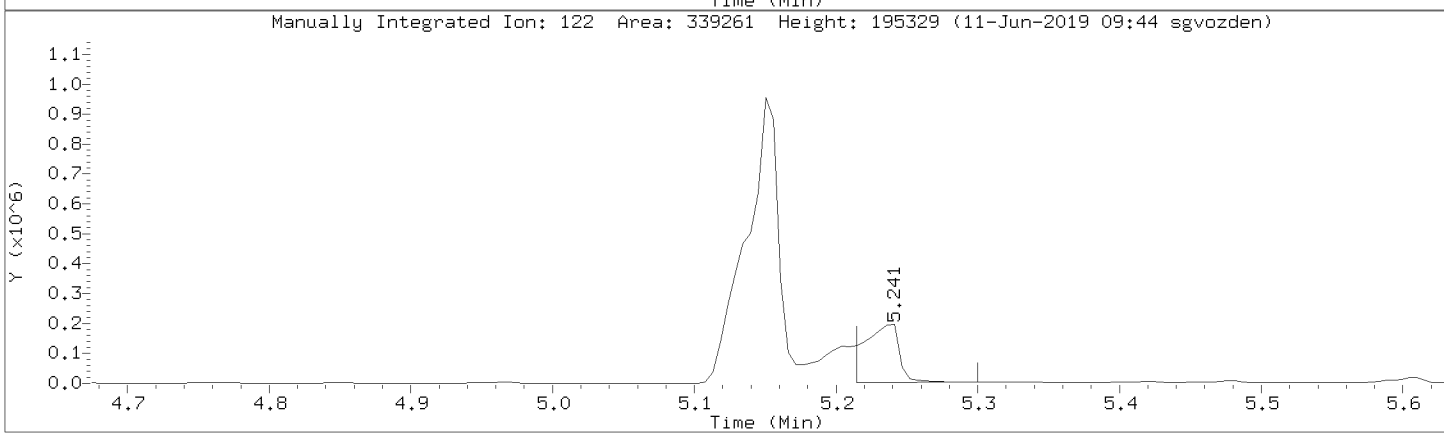
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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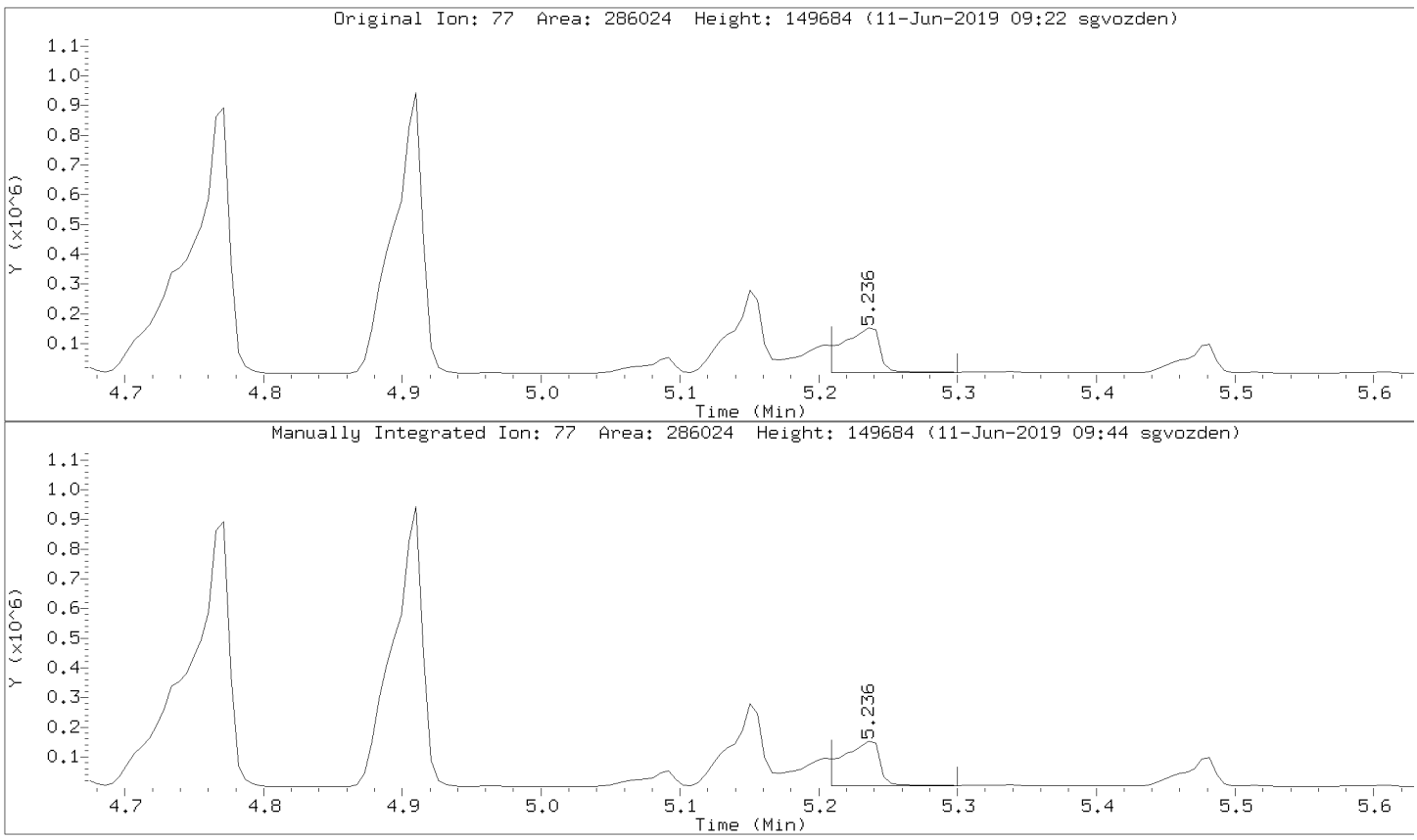
Instrument: 30mss1.i
Lab Sample ID: CAL6



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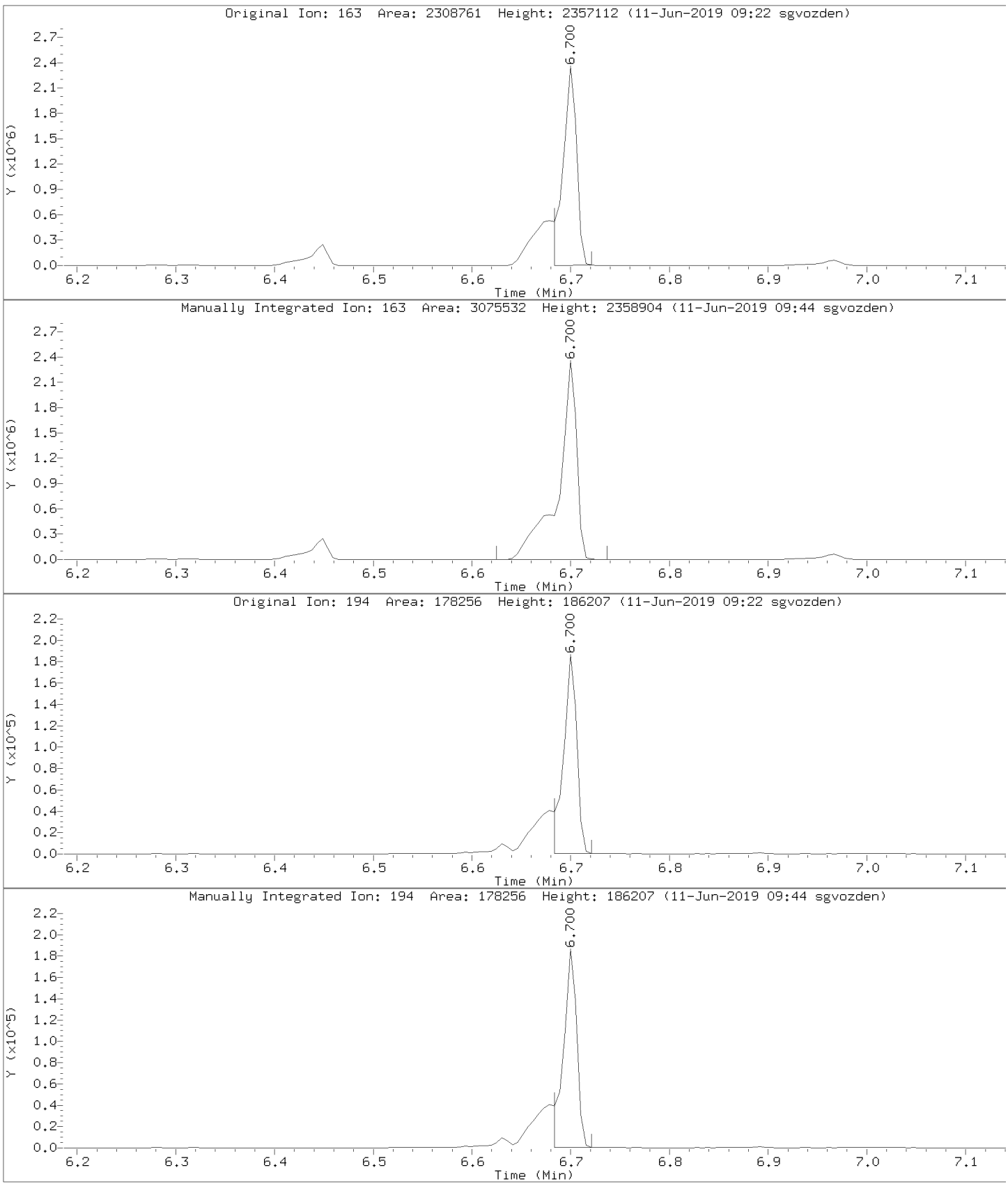
Injection Date: 10-JUN-2019 19:39
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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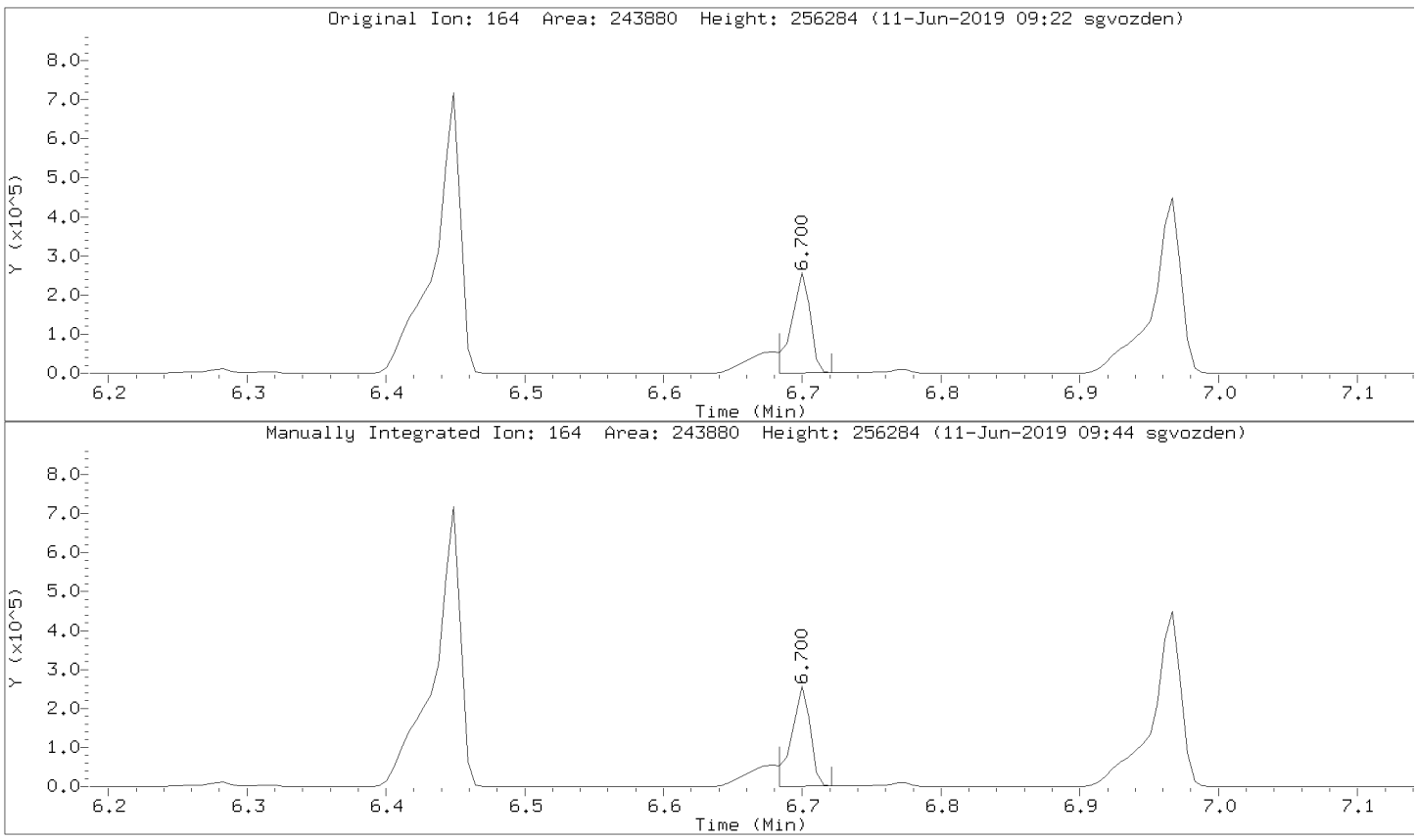
Instrument: 30mss1.i
Lab Sample ID: CAL6



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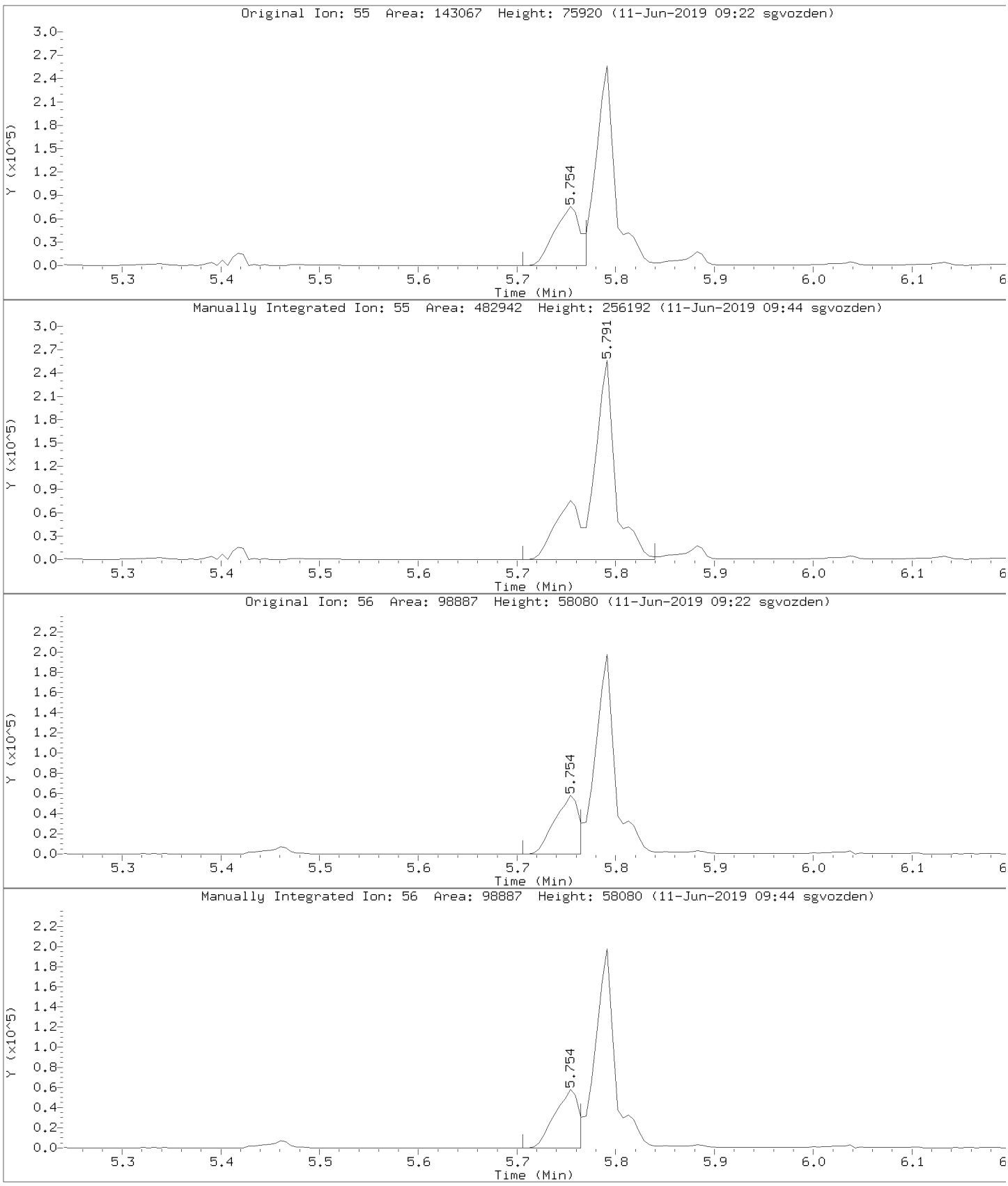
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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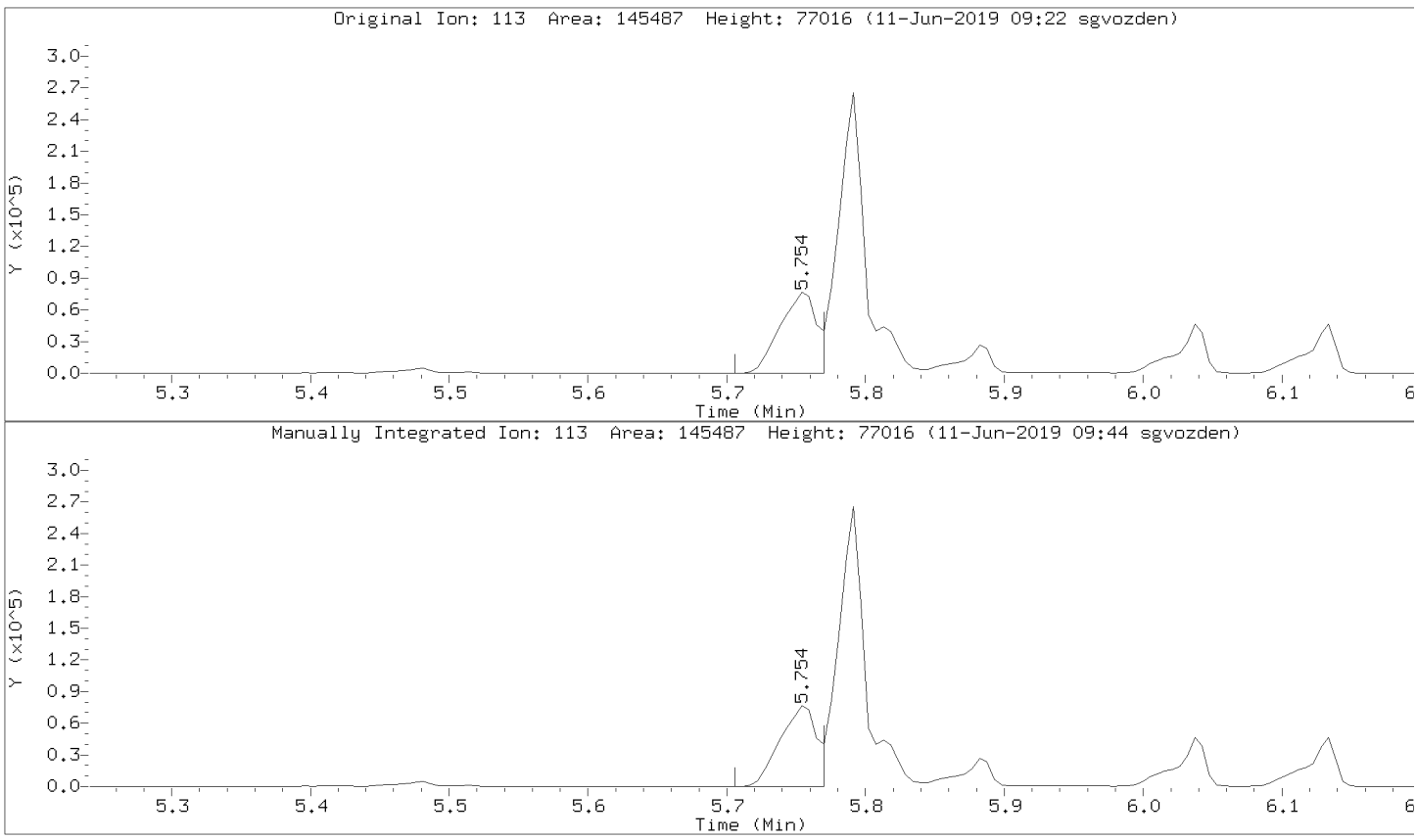
Injection Date: 10-JUN-2019 19:39
Instrument: 30mss1.i
Lab Sample ID: CAL6



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Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y3.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 10-JUN-2019 20:02
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14685,89095:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061019.b\8270061019.m
Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 20:02 Cal File: m10610y3.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.682	2.682	(0.212)	575873	12.0000	12.5	
	2 Pyridine	79	2.682	2.687	(0.603)	934413	12.0000	11.7	
$	3 2-Fluorophenol (S)	112	3.532	3.531	(0.795)	1024791	12.0000	12.3	
$	4 Phenol-d6 (S)	99	4.157	4.146	(0.935)	1232427	12.0000	11.8	
	5 Benzaldehyde	77	4.130	4.130	(0.929)	804959	12.0000	12.5	
	6 Phenol	94	4.162	4.156	(0.936)	1256702	12.0000	11.8	
	7 Aniline	66	4.226	4.220	(0.951)	521102	12.0000	11.9	
	8 bis(2-Chloroethyl)ether	63	4.242	4.242	(0.954)	714486	12.0000	11.9	
	9 2-Chlorophenol	128	4.312	4.306	(0.970)	1159869	12.0000	11.9	
	10 1,3-Dichlorobenzene	146	4.424	4.418	(0.995)	1238253	12.0000	11.7	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.445	4.445	(1.000)	285420	4.00000		
	12 1,4-Dichlorobenzene	146	4.456	4.455	(1.002)	1395213	12.0000	12.2	
	13 Benzyl Alcohol	79	4.547	4.541	(1.023)	801360	12.0000	11.7	
	14 1,2-Dichlorobenzene	146	4.606	4.605	(1.036)	1218724	12.0000	11.9	
	15 2-Methylphenol(o-Cresol)	108	4.622	4.616	(1.040)	1015997	12.0000	11.8	
	16 bis(2-Chloroisopropyl)ether	45	4.659	4.658	(1.048)	1200664	12.0000	11.9	
	17 3&4-Methylphenol(m&p Cresol)	108	4.729	4.723	(1.064)	1044301	12.0000	11.7	
	18 N-Nitroso-di-n-propylamine	70	4.771	4.765	(1.073)	709924	12.0000	11.8	
	19 Acetophenone	105	4.766	4.760	(1.072)	1412352	12.0000	11.8	
	20 Hexachloroethane	117	4.851	4.851	(1.091)	457998	12.0000	11.7	
$	21 Nitrobenzene-d5 (S)	128	4.894	4.888	(0.896)	561068	12.0000	11.9	
	22 Nitrobenzene	77	4.910	4.904	(0.899)	999116	12.0000	11.9	
	23 Isophorone	82	5.086	5.080	(0.932)	1913981	12.0000	11.8	
	24 2,4-Dimethylphenol	107	5.151	5.145	(0.943)	1048581	12.0000	11.9	
	25 2-Nitrophenol	139	5.161	5.155	(0.945)	578258	12.0000	11.5	
	26 Benzoic acid	105	5.220	5.177	(0.956)	437019	12.0000	10.6(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.231	5.230	(0.958)	1197890	12.0000	11.8	
	28 2,4-Dichlorophenol	162	5.338	5.337	(0.978)	913149	12.0000	11.8	
	29 1,2,4-Trichlorobenzene	180	5.423	5.417	(0.993)	1021369	12.0000	11.8	
*	30 Naphthalene-d8 (IS)	136	5.460	5.460	(1.000)	1152423	4.00000		
	31 Naphthalene	128	5.482	5.476	(1.004)	3343662	12.0000	11.9	
	32 4-Chloroaniline	65	5.508	5.508	(1.009)	293247	12.0000	11.9	
	33 Hexachloro-1,3-butadiene	225	5.610	5.609	(1.027)	544379	12.0000	11.8	
	34 Caprolactam	55	5.781	5.743	(1.059)	336888	12.0000	11.4(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.882	5.871	(1.077)	852326	12.0000	11.6	
	36 2-Methylnaphthalene	142	6.037	6.037	(1.106)	2250628	12.0000	11.8	
	37 1-Methylnaphthalene	142	6.133	6.128	(1.123)	2132350	12.0000	11.8	
	38 Hexachlorocyclopentadiene	237	6.219	6.218	(0.893)	619266	12.0000	11.2	
	39 1,2,4,5-Tetrachlorobenzene	216	6.208	6.208	(0.892)	975482	12.0000	12.0	
	40 2,4,6-Trichlorophenol	196	6.278	6.277	(0.902)	733304	12.0000	11.2	
	41 2,4,5-Trichlorophenol	196	6.310	6.309	(0.906)	572805	12.0000	12.2	
$	42 2-Fluorobiphenyl (S)	172	6.342	6.336	(0.911)	2332098	12.0000	11.9	
	43 Biphenyl (Diphenyl)	154	6.422	6.416	(0.922)	2610649	12.0000	11.9	
	44 2-Chloronaphthalene	164	6.443	6.443	(0.926)	678293	12.0000	11.9	
	45 2-Nitroaniline	138	6.534	6.528	(0.939)	667174	12.0000	11.8	
	46 Dimethylphthalate	163	6.694	6.688	(0.962)	2208936	12.0000	11.9	
	47 2,6-Dinitrotoluene	165	6.769	6.763	(0.972)	515344	12.0000	11.8	
	48 Acenaphthylene	152	6.823	6.817	(0.980)	3123661	12.0000	11.9	
	49 3-Nitroaniline	65	6.903	6.897	(0.992)	501600	12.0000	11.9	
*	50 Acenaphthene-d10 (IS)	164	6.962	6.961	(1.000)	608903	4.00000		
	51 2,4-Dinitrophenol	184	7.004	6.998	(1.006)	210572	12.0000	11.3	
	52 Acenaphthene	153	6.999	6.993	(1.005)	1982851	12.0000	11.9	
	53 4-Nitrophenol	109	7.026	7.014	(1.009)	230164	12.0000	11.5	
	54 2,4-Dinitrotoluene	165	7.159	7.148	(1.028)	644529	12.0000	11.6	
	55 Dibenzofuran	168	7.154	7.148	(1.028)	2784726	12.0000	11.8	
	56 2,3,4,6-Tetrachlorophenol	232	7.309	7.303	(1.050)	510844	12.0000	12.0	
	57 Diethylphthalate	149	7.389	7.378	(1.061)	2132039	12.0000	11.9	
	58 4-Chlorophenylphenyl ether	204	7.485	7.479	(1.075)	1129427	12.0000	11.8	
	59 Fluorene	166	7.512	7.506	(1.079)	2276059	12.0000	11.8	
	60 4-Nitroaniline	108	7.538	7.522	(1.083)	268855	12.0000	11.4	
	61 4,6-Dinitro-2-methylphenol	198	7.587	7.575	(0.893)	268767	12.0000	11.5	
	62 N-Nitrosodiphenylamine	169	7.608	7.602	(0.895)	1949721	12.0000	11.9	
	63 Azobenzene	77	7.651	7.645	(0.900)	1854629	12.0000	12.5	
	64 1,2-Diphenylhydrazine	77	7.651	7.645	(0.900)	1854629	12.0000	12.5	
$	65 2,4,6-Tribromophenol (S)	330	7.779	7.778	(0.915)	334451	12.0000	11.5	
	66 4-Bromophenylphenyl ether	248	7.998	7.997	(0.941)	660518	12.0000	11.9	
	67 Hexachlorobenzene	284	8.180	8.174	(0.962)	752159	12.0000	11.9	
	68 Atrazine	200	8.180	8.168	(0.962)	647594	12.0000	11.9	
	69 Pentachlorophenol	266	8.356	8.350	(0.983)	380862	12.0000	11.5	
*	70 Phenanthrene-d10 (IS)	188	8.500	8.499	(1.000)	989754	4.00000		
	71 Phenanthrene	178	8.527	8.521	(1.003)	3296011	12.0000	11.7	
	72 Anthracene	178	8.575	8.569	(1.009)	3092200	12.0000	12.1	
	73 Carbazole	167	8.730	8.724	(1.027)	2756404	12.0000	11.9	
	74 Di-n-butylphthalate	149	9.109	9.103	(1.072)	3442252	12.0000	12.2	
	75 Fluoranthene	202	9.798	9.787	(1.153)	3303721	12.0000	12.2	
	76 Pyrene	202	10.039	10.027	(0.889)	3337355	12.0000	11.9	
$	77 Terphenyl-d14 (S)	244	10.172	10.166	(0.901)	2814201	12.0000	12.0	
	78 Butylbenzylphthalate	149	10.680	10.679	(0.946)	1448059	12.0000	11.6	
	79 3,3'-Dichlorobenzidine	252	11.230	11.224	(0.995)	1222719	12.0000	11.8	
	80 bis(2-Ethylhexyl)phthalate	149	11.267	11.261	(0.998)	1979452	12.0000	12.2	
	81 Benzo(a)anthracene	228	11.267	11.267	(0.998)	3111308	12.0000	11.9	
*	82 Chrysene-d12 (IS)	240	11.289	11.283	(1.000)	949046	4.00000		
	83 Chrysene	228	11.315	11.309	(1.002)	3114244	12.0000	12.0	
	84 Di-n-octylphthalate	149	11.850	11.844	(0.934)	3132966	12.0000	12.7	
	85 Benzo(b)fluoranthene	252	12.314	12.308	(0.971)	2844727	12.0000	11.3	
	86 Benzo(k)fluoranthene	252	12.341	12.324	(0.973)	3683674	12.0000	12.8	
	87 Benzo(a)pyrene	252	12.630	12.624	(0.996)	2908663	12.0000	11.9	
*	88 Perylene-d12 (IS)	264	12.683	12.677	(1.000)	892643	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.864	13.847	(1.093)	3028525	12.0000	11.5	
90 Dibenz(a,h)anthracene	278	13.864	13.842	(1.093)	2568596	12.0000	11.5	
91 Benzo(g,h,i)perylene	276	14.205	14.183	(1.120)	2402246	12.0000	11.6	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y3.d
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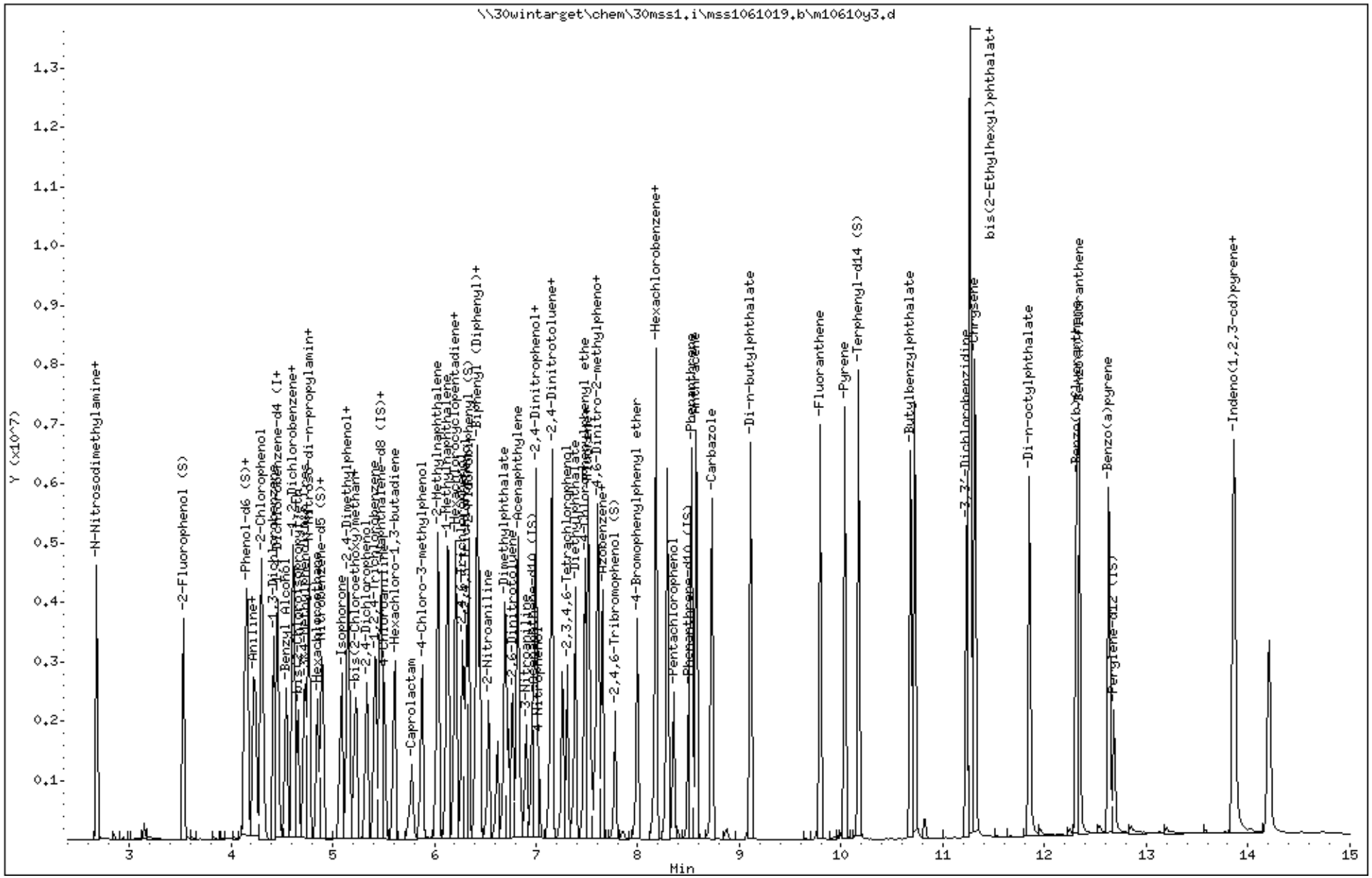
Client ID: CAL5
Sample Info: CAL5

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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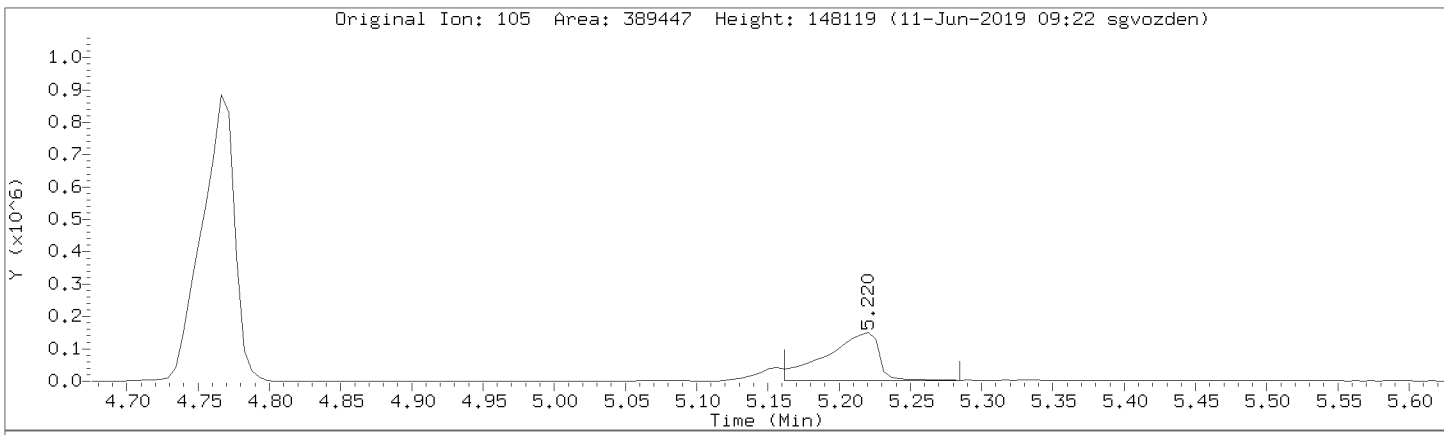
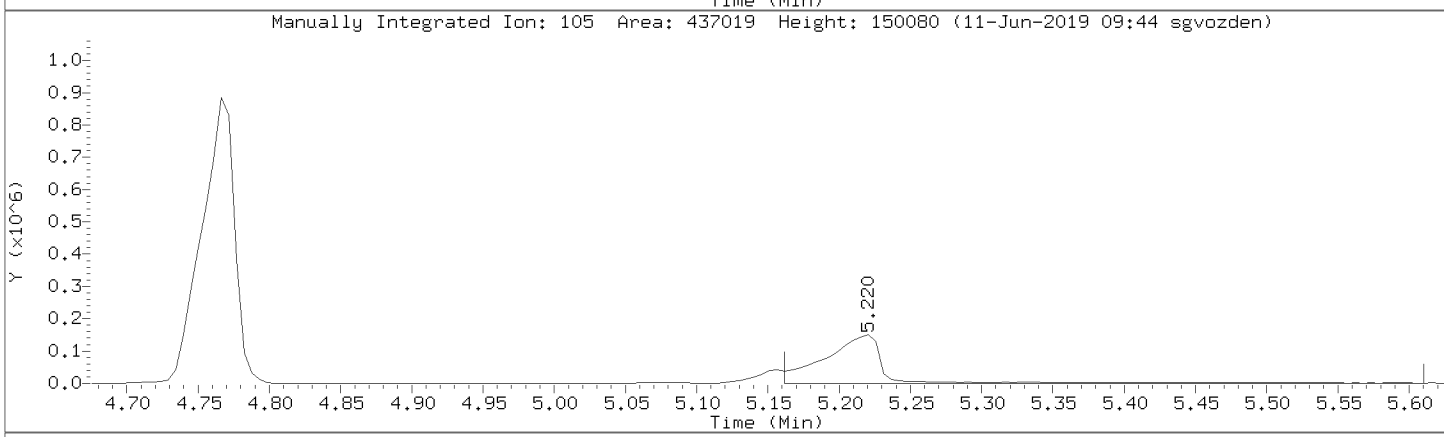
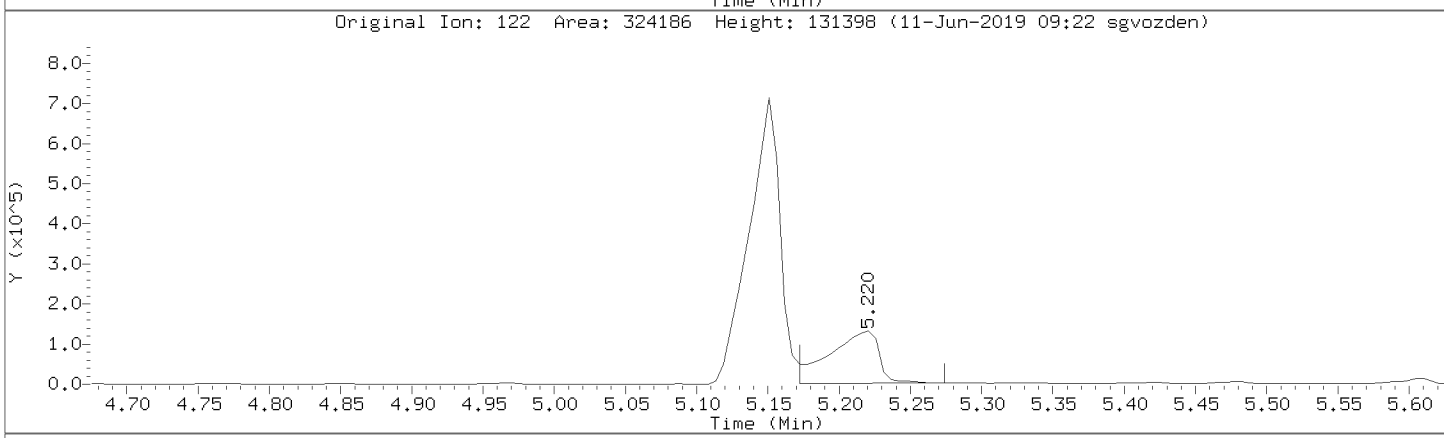
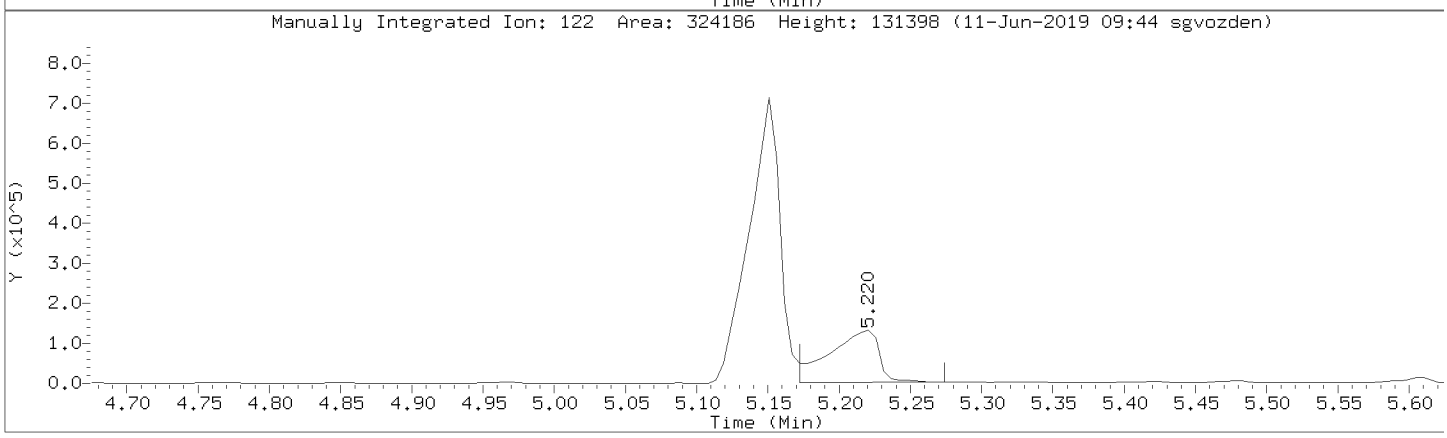
Injection Date: 10-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

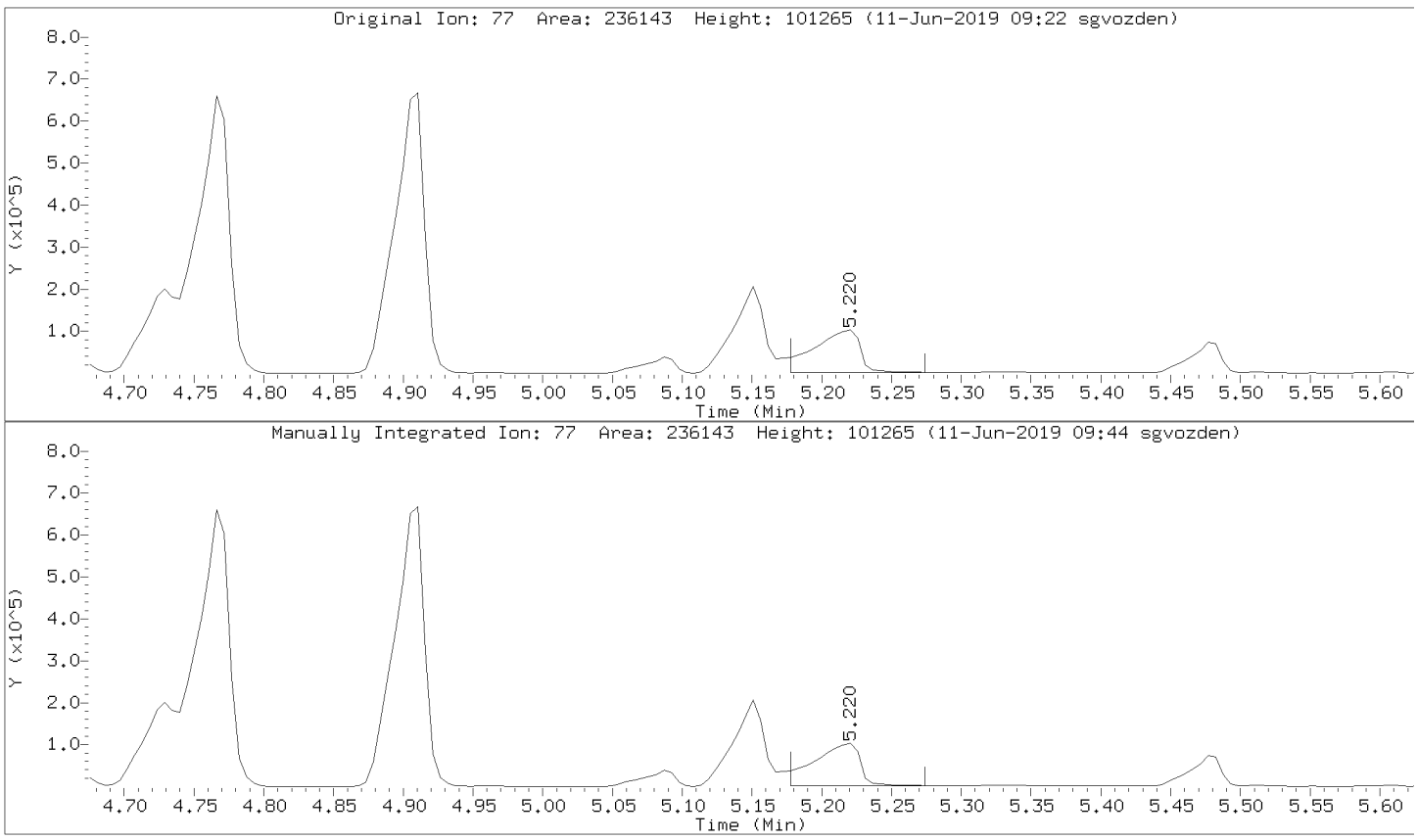








Data File: \\30wintarget\chem\30mss1.i\mss1061019.b/m10610y3.d
Injection Date: 10-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL5



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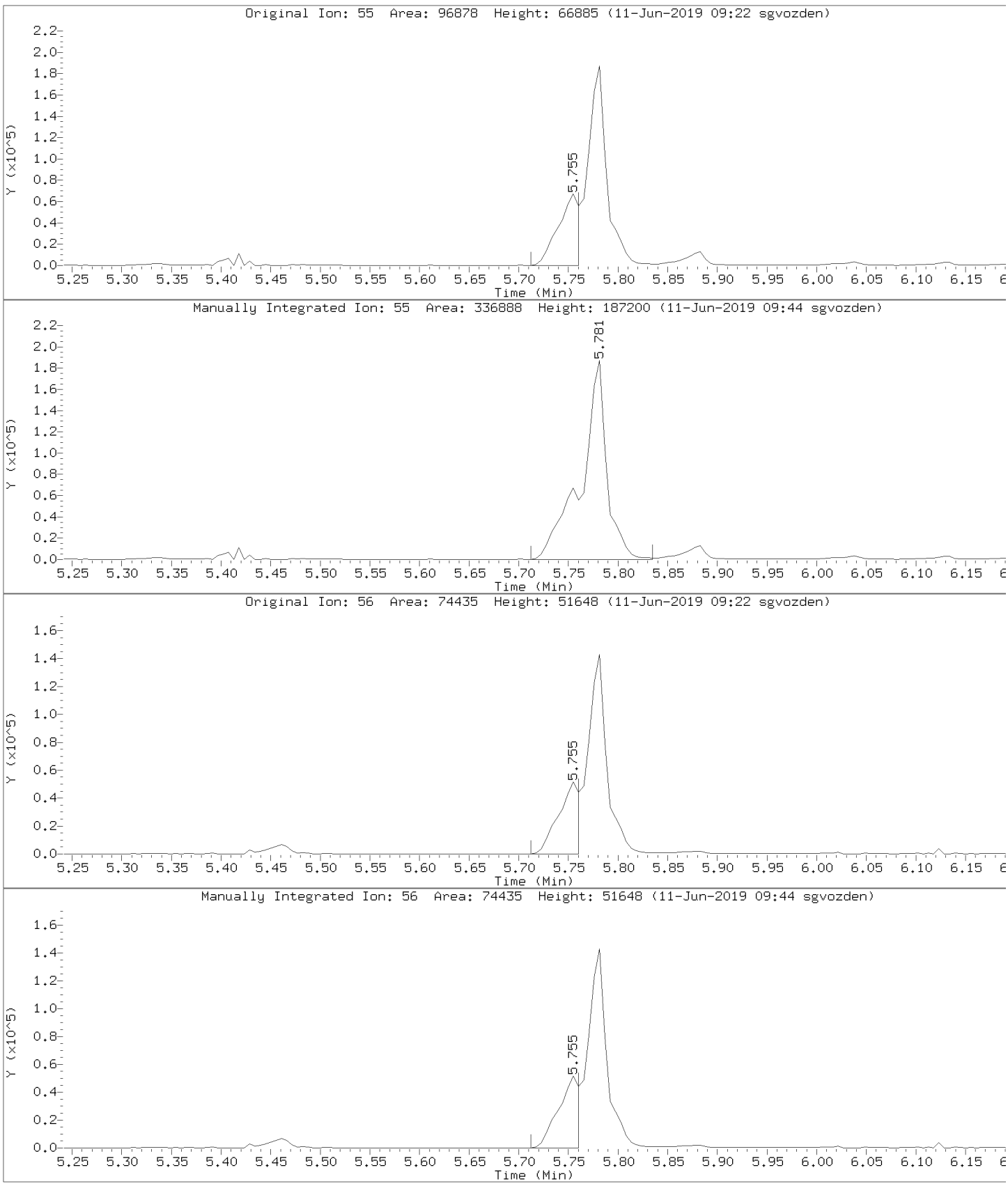
Injection Date: 10-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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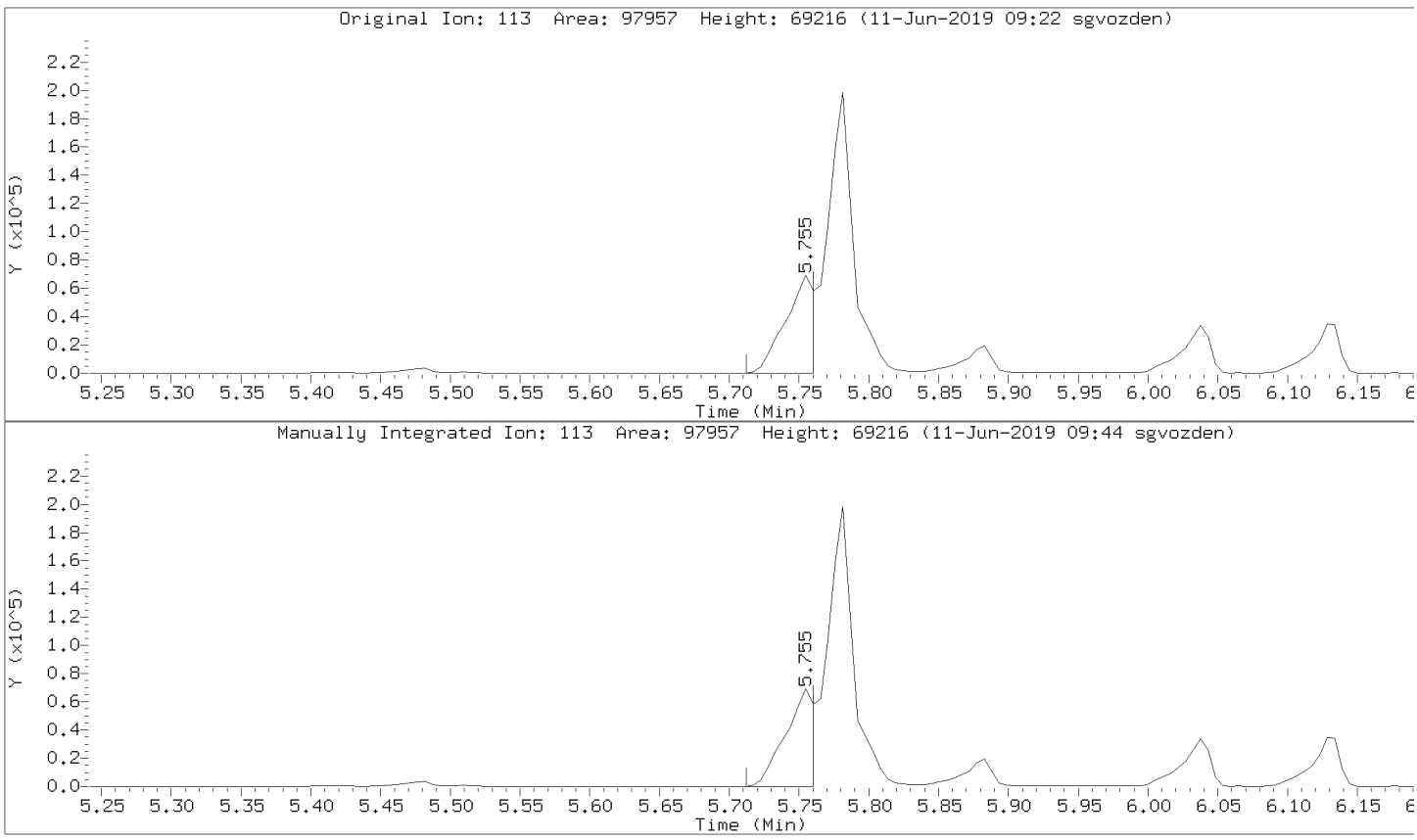
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y4.d
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Inj Date : 10-JUN-2019 20:25
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal4
Misc Info : 14685,89096:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061019.b\8270061019.m
Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 20:25 Cal File: m10610y4.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	1 N-Nitrosodimethylamine	74	2.677	2.682	(0.211)	408359	8.00000			
	2 Pyridine	79	2.682	2.687	(0.603)	662641	8.00000			
$	3 2-Fluorophenol (S)	112	3.532	3.531	(0.794)	680108	8.00000			
$	4 Phenol-d6 (S)	99	4.151	4.146	(0.934)	846471	8.00000			
	5 Benzaldehyde	77	4.130	4.130	(0.929)	538479	8.00000			
	6 Phenol	94	4.162	4.156	(0.936)	867542	8.00000			
	7 Aniline	66	4.221	4.220	(0.950)	350962	8.00000			
	8 bis(2-Chloroethyl)ether	63	4.242	4.242	(0.954)	489529	8.00000			
	9 2-Chlorophenol	128	4.306	4.306	(0.969)	791015	8.00000			
	10 1,3-Dichlorobenzene	146	4.418	4.418	(0.994)	838824	8.00000			
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.445	4.445	(1.000)	285833	4.00000			
	12 1,4-Dichlorobenzene	146	4.456	4.455	(1.002)	955620	8.00000			
	13 Benzyl Alcohol	79	4.541	4.541	(1.022)	547890	8.00000			
	14 1,2-Dichlorobenzene	146	4.605	4.605	(1.036)	831997	8.00000			
	15 2-Methylphenol(o-Cresol)	108	4.616	4.616	(1.038)	694592	8.00000			
	16 bis(2-Chloroisopropyl)ether	45	4.659	4.658	(1.048)	821586	8.00000			
	17 3&4-Methylphenol(m&p Cresol)	108	4.728	4.723	(1.064)	716565	8.00000			
	18 N-Nitroso-di-n-propylamine	70	4.771	4.765	(1.073)	492055	8.00000			
	19 Acetophenone	105	4.766	4.760	(1.072)	968994	8.00000			
	20 Hexachloroethane	117	4.851	4.851	(1.091)	313565	8.00000			
$	21 Nitrobenzene-d5 (S)	128	4.894	4.888	(0.896)	379699	8.00000			
	22 Nitrobenzene	77	4.904	4.904	(0.898)	683801	8.00000			
	23 Isophorone	82	5.086	5.080	(0.932)	1327588	8.00000			
	24 2,4-Dimethylphenol	107	5.150	5.145	(0.943)	720004	8.00000			
	25 2-Nitrophenol	139	5.161	5.155	(0.945)	389430	8.00000			
	26 Benzoic acid	105	5.214	5.177	(0.955)	265628	8.00000		(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.230	5.230	(0.958)	825273	8.00000			
	28 2,4-Dichlorophenol	162	5.337	5.337	(0.977)	620270	8.00000			
	29 1,2,4-Trichlorobenzene	180	5.417	5.417	(0.992)	694686	8.00000			
*	30 Naphthalene-d8 (IS)	136	5.460	5.460	(1.000)	1156134	4.00000			
	31 Naphthalene	128	5.476	5.476	(1.003)	2322535	8.00000			
	32 4-Chloroaniline	65	5.508	5.508	(1.009)	206015	8.00000			
	33 Hexachloro-1,3-butadiene	225	5.610	5.609	(1.027)	366815	8.00000			
	34 Caprolactam	55	5.770	5.743	(1.057)	233676	8.00000			

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.877	5.871	(1.076)	590697	8.00000		
	36 2-Methylnaphthalene	142	6.037	6.037	(1.106)	1556733	8.00000		
	37 1-Methylnaphthalene	142	6.128	6.128	(1.122)	1472362	8.00000		
	38 Hexachlorocyclopentadiene	237	6.219	6.218	(0.893)	422761	8.00000		
	39 1,2,4,5-Tetrachlorobenzene	216	6.208	6.208	(0.892)	657549	8.00000		
	40 2,4,6-Trichlorophenol	196	6.277	6.277	(0.902)	521218	8.00000		
	41 2,4,5-Trichlorophenol	196	6.309	6.309	(0.906)	383796	8.00000		
$	42 2-Fluorobiphenyl (S)	172	6.341	6.336	(0.911)	1628181	8.00000		
	43 Biphenyl (Diphenyl)	154	6.422	6.416	(0.922)	1831318	8.00000		
	44 2-Chloronaphthalene	164	6.443	6.443	(0.926)	467641	8.00000		
	45 2-Nitroaniline	138	6.534	6.528	(0.939)	454679	8.00000		
	46 Dimethylphthalate	163	6.694	6.688	(0.962)	1543918	8.00000		
	47 2,6-Dinitrotoluene	165	6.764	6.763	(0.972)	347205	8.00000		
	48 Acenaphthylene	152	6.822	6.817	(0.980)	2208639	8.00000		
	49 3-Nitroaniline	65	6.902	6.897	(0.992)	356038	8.00000		
*	50 Acenaphthene-d10 (IS)	164	6.961	6.961	(1.000)	618735	4.00000		
	51 2,4-Dinitrophenol	184	6.999	6.998	(1.005)	130585	8.00000		
	52 Acenaphthene	153	6.993	6.993	(1.005)	1382626	8.00000		
	53 4-Nitrophenol	109	7.025	7.014	(1.009)	157796	8.00000		
	54 2,4-Dinitrotoluene	165	7.153	7.148	(1.028)	438477	8.00000		
	55 Dibenzofuran	168	7.153	7.148	(1.028)	1967595	8.00000		
	56 2,3,4,6-Tetrachlorophenol	232	7.308	7.303	(1.050)	334219	8.00000		
	57 Diethylphthalate	149	7.383	7.378	(1.061)	1481850	8.00000		
	58 4-Chlorophenylphenyl ether	204	7.479	7.479	(1.074)	780730	8.00000		
	59 Fluorene	166	7.511	7.506	(1.079)	1595055	8.00000		
	60 4-Nitroaniline	108	7.533	7.522	(1.082)	193516	8.00000		
	61 4,6-Dinitro-2-methylphenol	198	7.581	7.575	(0.892)	168776	8.00000		
	62 N-Nitrosodiphenylamine	169	7.608	7.602	(0.895)	1362802	8.00000		
	63 Azobenzene	77	7.645	7.645	(0.899)	1260965	8.00000		
	64 1,2-Diphenylhydrazine	77	7.645	7.645	(0.899)	1260965	8.00000		
$	65 2,4,6-Tribromophenol (S)	330	7.779	7.778	(0.915)	221918	8.00000		
	66 4-Bromophenylphenyl ether	248	7.998	7.997	(0.941)	450287	8.00000		
	67 Hexachlorobenzene	284	8.179	8.174	(0.962)	496810	8.00000		
	68 Atrazine	200	8.174	8.168	(0.962)	445802	8.00000		
	69 Pentachlorophenol	266	8.350	8.350	(0.982)	245123	8.00000		
*	70 Phenanthrene-d10 (IS)	188	8.500	8.499	(1.000)	1008620	4.00000		
	71 Phenanthrene	178	8.526	8.521	(1.003)	2329445	8.00000		
	72 Anthracene	178	8.575	8.569	(1.009)	2181593	8.00000		
	73 Carbazole	167	8.729	8.724	(1.027)	1968978	8.00000		
	74 Di-n-butylphthalate	149	9.109	9.103	(1.072)	2422018	8.00000		
	75 Fluoranthene	202	9.793	9.787	(1.152)	2283312	8.00000		
	76 Pyrene	202	10.033	10.027	(0.889)	2324770	8.00000		
$	77 Terphenyl-d14 (S)	244	10.172	10.166	(0.901)	1899678	8.00000		
	78 Butylbenzylphthalate	149	10.679	10.679	(0.946)	999145	8.00000		
	79 3,3'-Dichlorobenzidine	252	11.230	11.224	(0.995)	805258	8.00000		
	80 bis(2-Ethylhexyl)phthalate	149	11.267	11.261	(0.998)	1383620	8.00000		
	81 Benzo(a)anthracene	228	11.267	11.267	(0.998)	2115163	8.00000		
*	82 Chrysene-d12 (IS)	240	11.288	11.283	(1.000)	948659	4.00000		
	83 Chrysene	228	11.315	11.309	(1.002)	2118357	8.00000		
	84 Di-n-octylphthalate	149	11.849	11.844	(0.935)	2050935	8.00000		
	85 Benzo(b)fluoranthene	252	12.314	12.308	(0.971)	2057224	8.00000		
	86 Benzo(k)fluoranthene	252	12.335	12.324	(0.973)	2307308	8.00000		
	87 Benzo(a)pyrene	252	12.629	12.624	(0.996)	1989122	8.00000		
*	88 Perylene-d12 (IS)	264	12.677	12.677	(1.000)	900232	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.858	13.847	(1.093)	2249188	8.00000		
90 Dibenz(a,h)anthracene	278	13.858	13.842	(1.093)	1884239	8.00000		
91 Benzo(g,h,i)perylene	276	14.200	14.183	(1.120)	1857064	8.00000		

QC Flag Legend

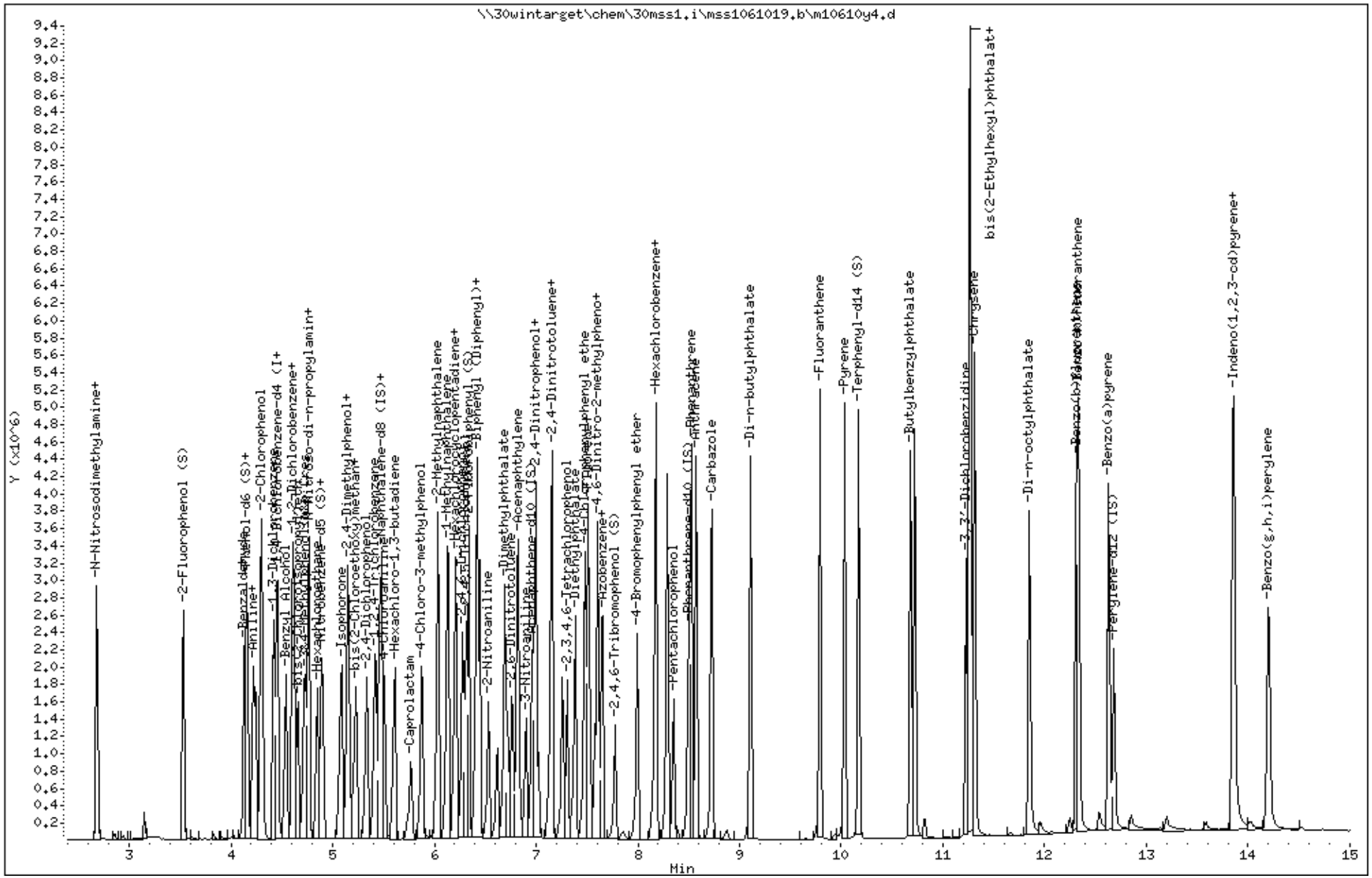
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y4.d
Date : 10-JUN-2019 20:25
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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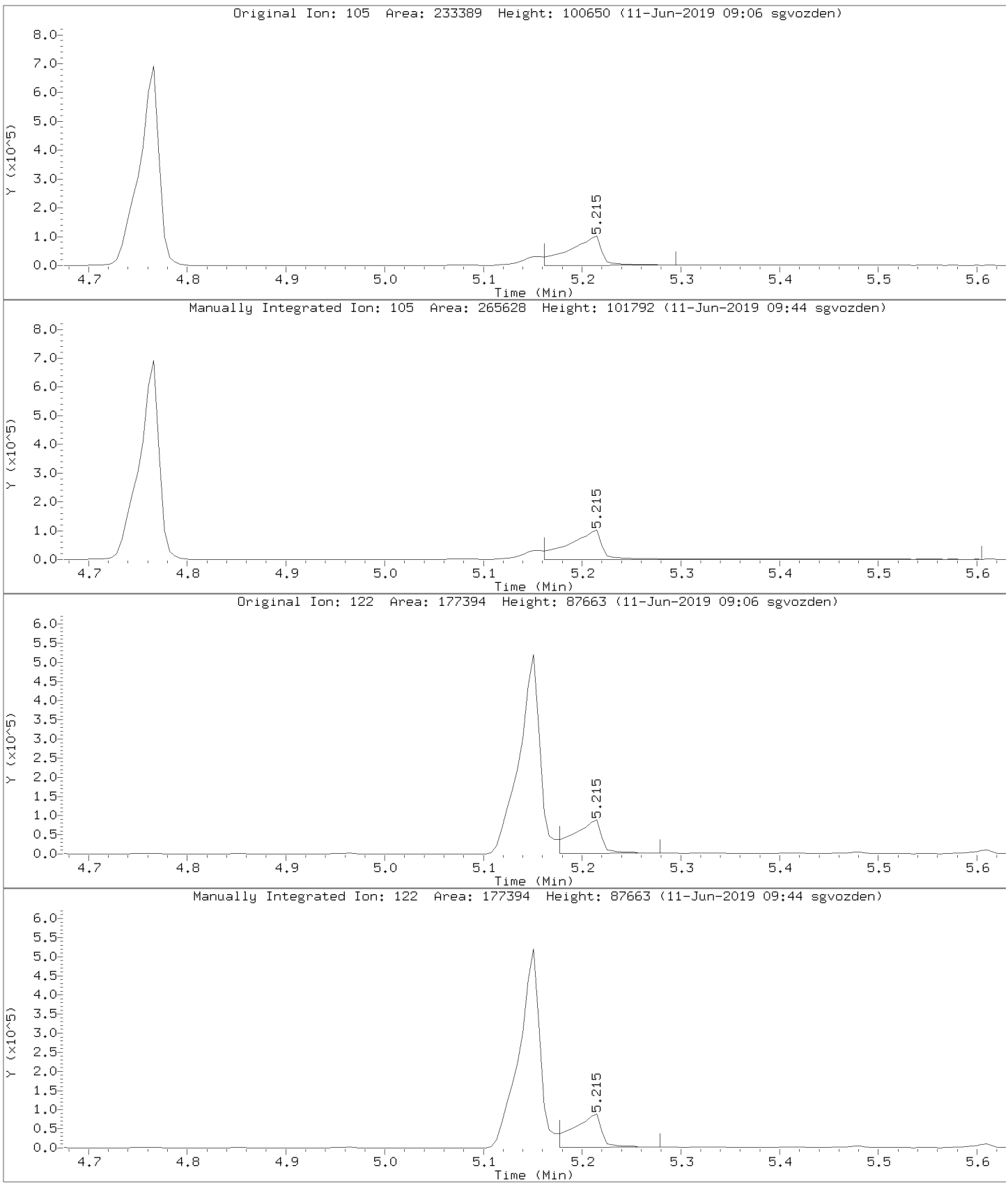
Injection Date: 10-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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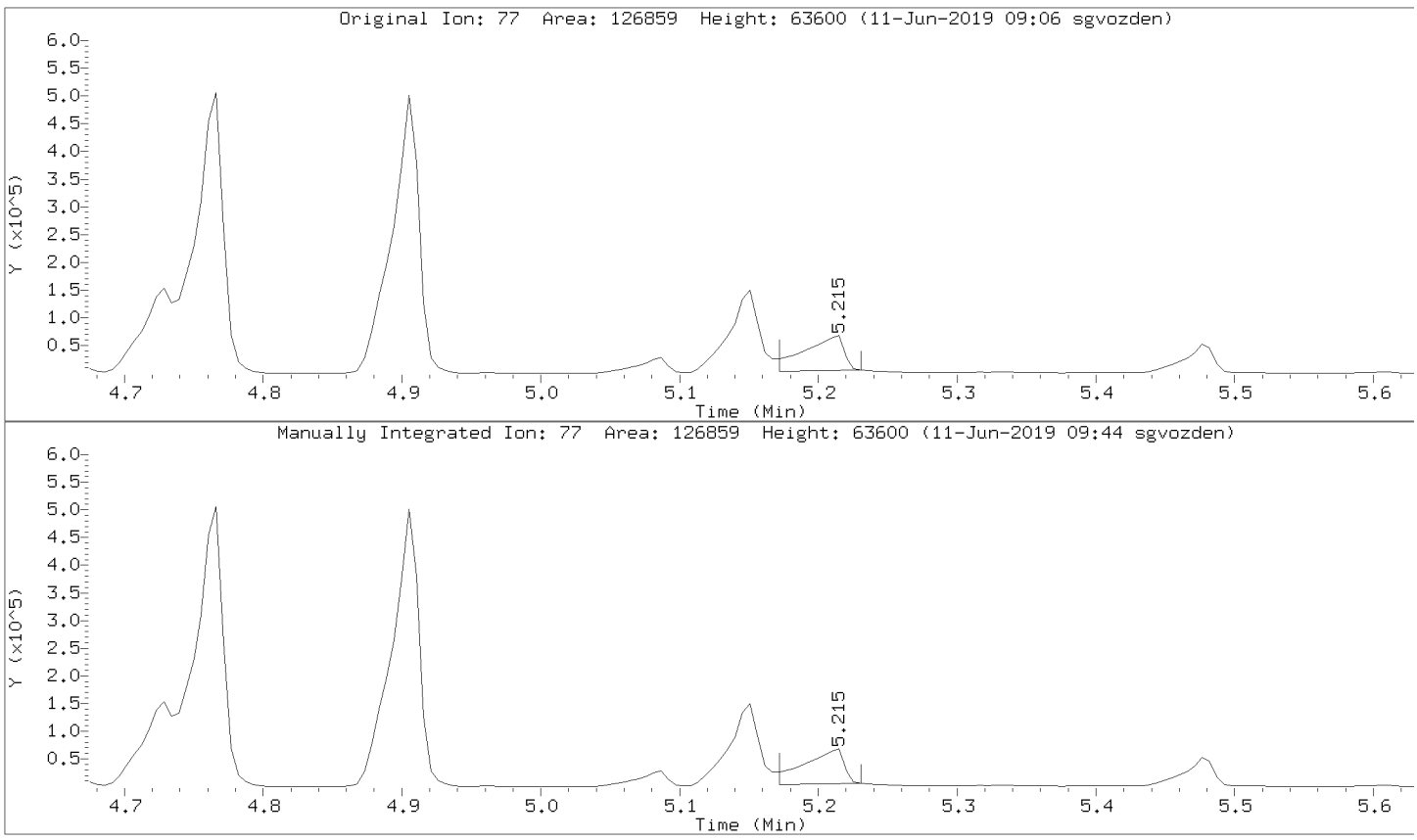
Injection Date: 10-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: CAL4



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Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y5.d
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Inj Date : 10-JUN-2019 20:48
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal3
Misc Info : 14685,89097:1
Comment :
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Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 20:48 Cal File: m10610y5.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.665	2.682	(0.210)	202580	4.00000	4.28	
	2 Pyridine	79	2.676	2.687	(0.602)	337057	4.00000	4.31	
$	3 2-Fluorophenol (S)	112	3.525	3.531	(0.793)	340530	4.00000	4.14	
$	4 Phenol-d6 (S)	99	4.145	4.146	(0.933)	425193	4.00000	4.17	
	5 Benzaldehyde	77	4.124	4.130	(0.928)	277259	4.00000	4.34	
	6 Phenol	94	4.156	4.156	(0.935)	435589	4.00000	4.19	
	7 Aniline	66	4.214	4.220	(0.948)	172396	4.00000	4.01	
	8 bis(2-Chloroethyl)ether	63	4.236	4.242	(0.953)	243676	4.00000	4.14	
	9 2-Chlorophenol	128	4.305	4.306	(0.969)	395189	4.00000	4.14	
	10 1,3-Dichlorobenzene	146	4.417	4.418	(0.994)	427059	4.00000	4.14	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.444	4.445	(1.000)	280605	4.00000		
	12 1,4-Dichlorobenzene	146	4.455	4.455	(1.002)	466434	4.00000	4.14	
	13 Benzyl Alcohol	79	4.540	4.541	(1.022)	271211	4.00000	4.06	
	14 1,2-Dichlorobenzene	146	4.604	4.605	(1.036)	417254	4.00000	4.16	
	15 2-Methylphenol(o-Cresol)	108	4.615	4.616	(1.038)	345417	4.00000	4.09	
	16 bis(2-Chloroisopropyl)ether	45	4.653	4.658	(1.047)	414067	4.00000	4.19	
	17 3&4-Methylphenol(m&p Cresol)	108	4.722	4.723	(1.062)	358230	4.00000	4.10	
	18 N-Nitroso-di-n-propylamine	70	4.765	4.765	(1.072)	245062	4.00000	4.15	
	19 Acetophenone	105	4.759	4.760	(1.071)	489590	4.00000	4.19	
	20 Hexachloroethane	117	4.850	4.851	(1.091)	154196	4.00000	4.02	
$	21 Nitrobenzene-d5 (S)	128	4.888	4.888	(0.895)	185652	4.00000	4.04	
	22 Nitrobenzene	77	4.904	4.904	(0.898)	338868	4.00000	4.14	
	23 Isophorone	82	5.080	5.080	(0.931)	665491	4.00000	4.22	
	24 2,4-Dimethylphenol	107	5.144	5.145	(0.942)	357584	4.00000	4.16	
	25 2-Nitrophenol	139	5.155	5.155	(0.944)	185017	4.00000	3.80	
	26 Benzoic acid	105	5.192	5.177	(0.951)	116101	4.00000	2.96(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.229	5.230	(0.958)	412622	4.00000	4.18	
	28 2,4-Dichlorophenol	162	5.331	5.337	(0.977)	305239	4.00000	4.05	
	29 1,2,4-Trichlorobenzene	180	5.416	5.417	(0.992)	342417	4.00000	4.07	
*	30 Naphthalene-d8 (IS)	136	5.459	5.460	(1.000)	1127272	4.00000		
	31 Naphthalene	128	5.475	5.476	(1.003)	1168005	4.00000	4.26	
	32 4-Chloroaniline	65	5.507	5.508	(1.009)	105950	4.00000	4.42	
	33 Hexachloro-1,3-butadiene	225	5.609	5.609	(1.027)	179989	4.00000	4.01	
	34 Caprolactam	55	5.758	5.743	(1.055)	114943	4.00000	4.04	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.876	5.871	(1.076)	292748	4.00000	4.11	
	36 2-Methylnaphthalene	142	6.036	6.037	(1.106)	780136	4.00000	4.19	
	37 1-Methylnaphthalene	142	6.127	6.128	(1.122)	728990	4.00000	4.14	
	38 Hexachlorocyclopentadiene	237	6.218	6.218	(0.893)	201707	4.00000	3.79	
	39 1,2,4,5-Tetrachlorobenzene	216	6.207	6.208	(0.892)	324681	4.00000	4.06	
	40 2,4,6-Trichlorophenol	196	6.277	6.277	(0.902)	257109	4.00000	4.07	
	41 2,4,5-Trichlorophenol	196	6.309	6.309	(0.906)	174403	4.00000	3.77	
$	42 2-Fluorobiphenyl (S)	172	6.335	6.336	(0.910)	811034	4.00000	4.24	
	43 Biphenyl (Diphenyl)	154	6.415	6.416	(0.922)	915108	4.00000	4.26	
	44 2-Chloronaphthalene	164	6.442	6.443	(0.926)	231799	4.00000	4.16	
	45 2-Nitroaniline	138	6.533	6.528	(0.939)	209111	4.00000	3.77	
	46 Dimethylphthalate	163	6.688	6.688	(0.961)	761513	4.00000	4.19	
	47 2,6-Dinitrotoluene	165	6.763	6.763	(0.972)	164401	4.00000	3.86	
	48 Acenaphthylene	152	6.816	6.817	(0.979)	1094111	4.00000	4.25	
	49 3-Nitroaniline	65	6.896	6.897	(0.991)	175849	4.00000	4.26	
*	50 Acenaphthene-d10 (IS)	164	6.960	6.961	(1.000)	597500	4.00000		
	51 2,4-Dinitrophenol	184	6.998	6.998	(1.005)	53124	4.00000	4.35(M)	NI
	52 Acenaphthene	153	6.992	6.993	(1.005)	685789	4.00000	4.20	
	53 4-Nitrophenol	109	7.014	7.014	(1.008)	76715	4.00000	3.95	
	54 2,4-Dinitrotoluene	165	7.147	7.148	(1.027)	196513	4.00000	3.64	
	55 Dibenzofuran	168	7.147	7.148	(1.027)	974350	4.00000	4.24	
	56 2,3,4,6-Tetrachlorophenol	232	7.302	7.303	(1.049)	160344	4.00000	3.83	
	57 Diethylphthalate	149	7.382	7.378	(1.061)	731044	4.00000	4.18	
	58 4-Chlorophenylphenyl ether	204	7.479	7.479	(1.074)	382352	4.00000	4.08	
	59 Fluorene	166	7.505	7.506	(1.078)	789510	4.00000	4.19	
	60 4-Nitroaniline	108	7.527	7.522	(1.081)	99523	4.00000	4.35	
	61 4,6-Dinitro-2-methylphenol	198	7.575	7.575	(0.891)	68239	4.00000	4.36	
	62 N-Nitrosodiphenylamine	169	7.601	7.602	(0.894)	675910	4.00000	4.16	
	63 Azobenzene	77	7.644	7.645	(0.899)	643439	4.00000	4.34	
	64 1,2-Diphenylhydrazine	77	7.644	7.645	(0.899)	643439	4.00000	4.34	
$	65 2,4,6-Tribromophenol (S)	330	7.778	7.778	(0.915)	100449	4.00000	3.52	
	66 4-Bromophenylphenyl ether	248	7.997	7.997	(0.941)	218827	4.00000	3.98	
	67 Hexachlorobenzene	284	8.178	8.174	(0.962)	238493	4.00000	3.81	
	68 Atrazine	200	8.168	8.168	(0.961)	212882	4.00000	3.95	
	69 Pentachlorophenol	266	8.349	8.350	(0.982)	108616	4.00000	3.34	
*	70 Phenanthrene-d10 (IS)	188	8.499	8.499	(1.000)	981485	4.00000		
	71 Phenanthrene	178	8.526	8.521	(1.003)	1181501	4.00000	4.26	
	72 Anthracene	178	8.568	8.569	(1.008)	1107413	4.00000	4.35	
	73 Carbazole	167	8.723	8.724	(1.026)	1018485	4.00000	4.45	
	74 Di-n-butylphthalate	149	9.108	9.103	(1.072)	1200833	4.00000	4.27	
	75 Fluoranthene	202	9.792	9.787	(1.152)	1151404	4.00000	4.26	
	76 Pyrene	202	10.032	10.027	(0.889)	1168860	4.00000	4.20	
$	77 Terphenyl-d14 (S)	244	10.166	10.166	(0.901)	934340	4.00000	4.00	
	78 Butylbenzylphthalate	149	10.678	10.679	(0.946)	481385	4.00000	3.90	
	79 3,3'-Dichlorobenzidine	252	11.223	11.224	(0.994)	365358	4.00000	3.55	
	80 bis(2-Ethylhexyl)phthalate	149	11.266	11.261	(0.998)	681519	4.00000	4.20	
	81 Benzo(a)anthracene	228	11.266	11.267	(0.998)	1081703	4.00000	4.16	
*	82 Chrysene-d12 (IS)	240	11.287	11.283	(1.000)	943695	4.00000		
	83 Chrysene	228	11.309	11.309	(1.002)	1082623	4.00000	4.19	
	84 Di-n-octylphthalate	149	11.848	11.844	(0.935)	946907	4.00000	3.72	
	85 Benzo(b)fluoranthene	252	12.308	12.308	(0.971)	893399	4.00000	3.54	
	86 Benzo(k)fluoranthene	252	12.329	12.324	(0.973)	1304776	4.00000	4.38	
	87 Benzo(a)pyrene	252	12.623	12.624	(0.996)	917719	4.00000	3.70	
*	88 Perylene-d12 (IS)	264	12.676	12.677	(1.000)	908528	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.852	13.847	(1.093)	1028557	4.00000	3.87	
90 Dibenz(a,h)anthracene	278	13.846	13.842	(1.092)	879515	4.00000	3.90	
91 Benzo(g,h,i)perylene	276	14.194	14.183	(1.120)	865330	4.00000	4.13	

QC Flag Legend

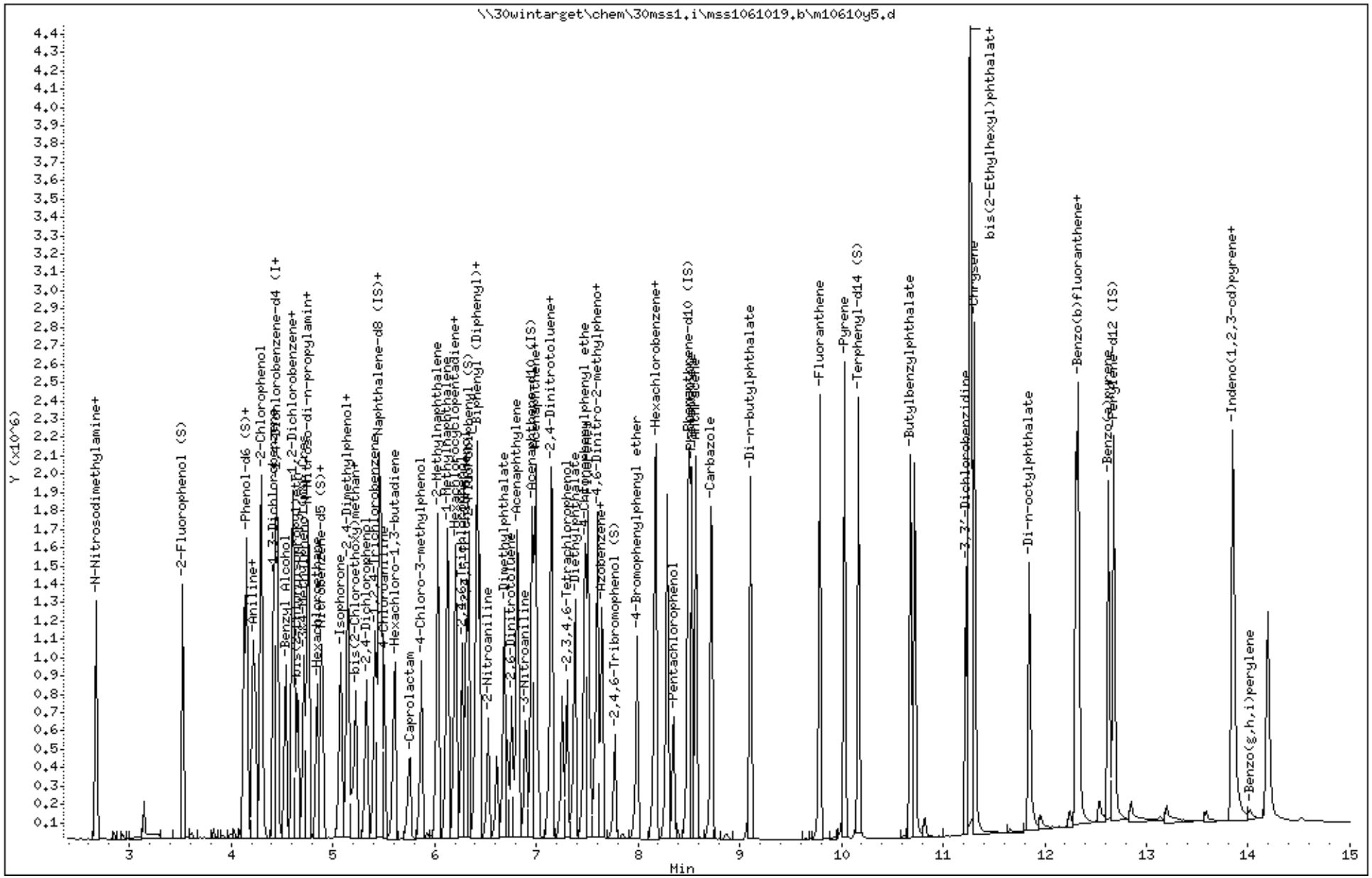
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y5.d
Date : 10-JUN-2019 20:48
Client ID: CAL3
Sample Info: CAL3

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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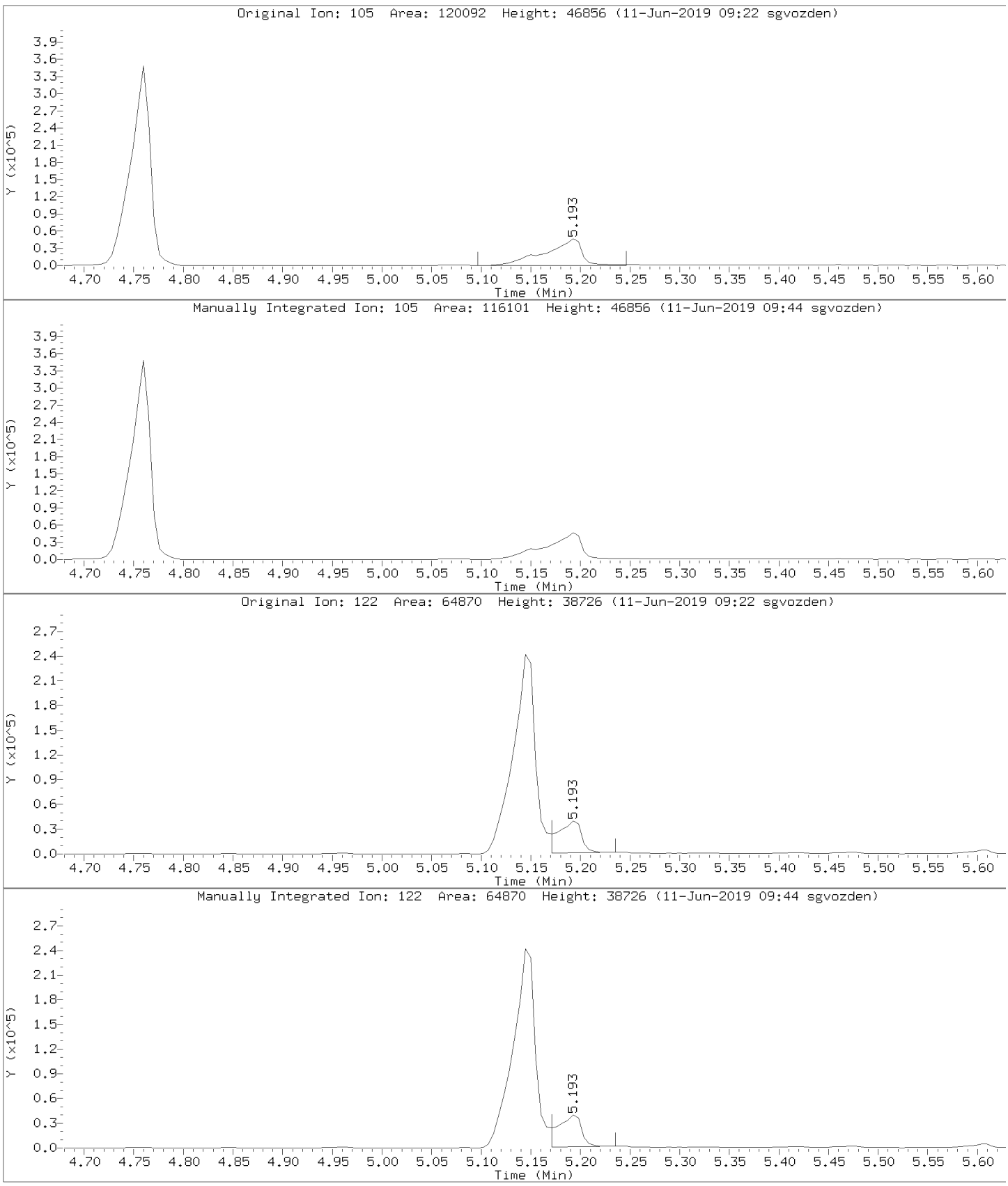
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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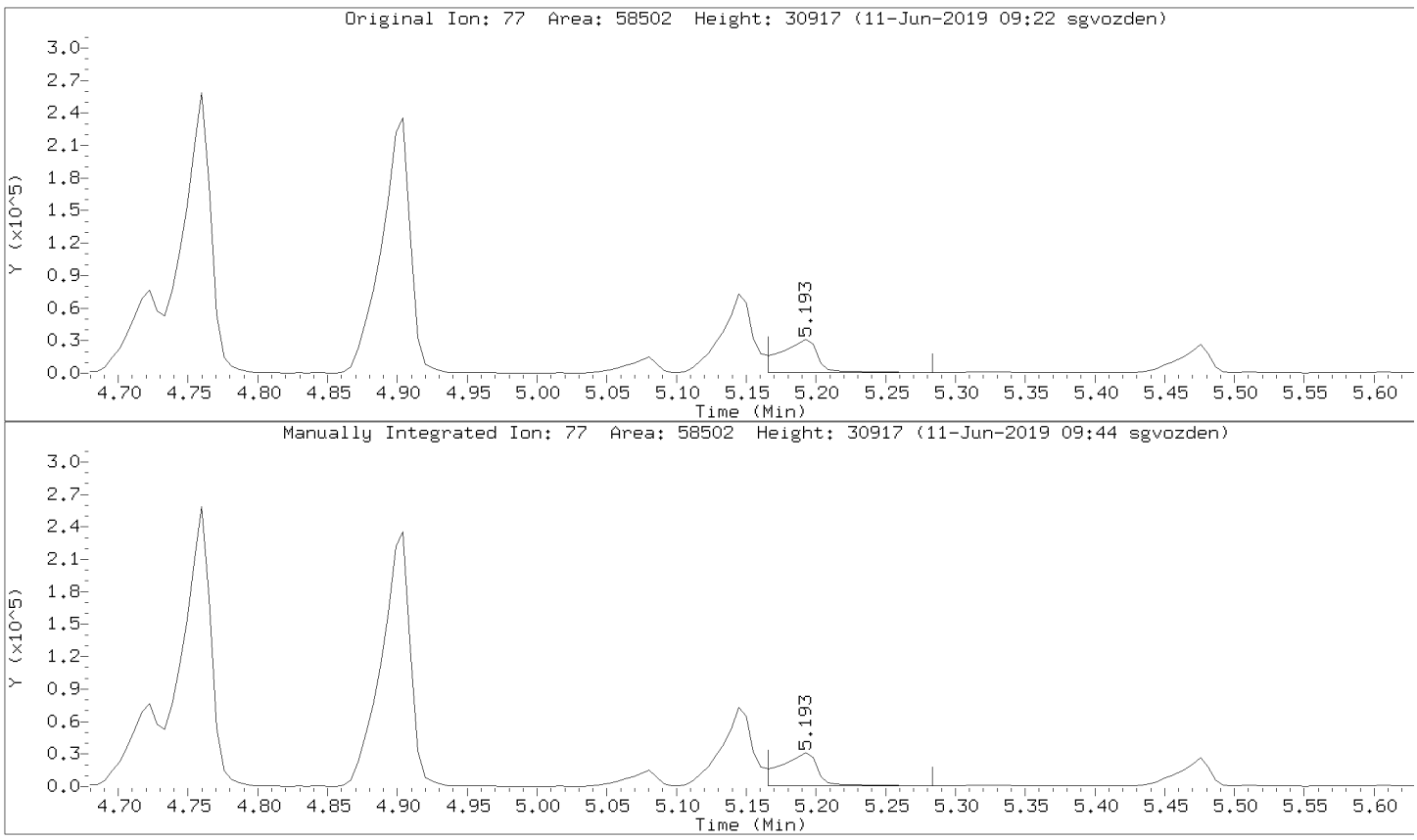

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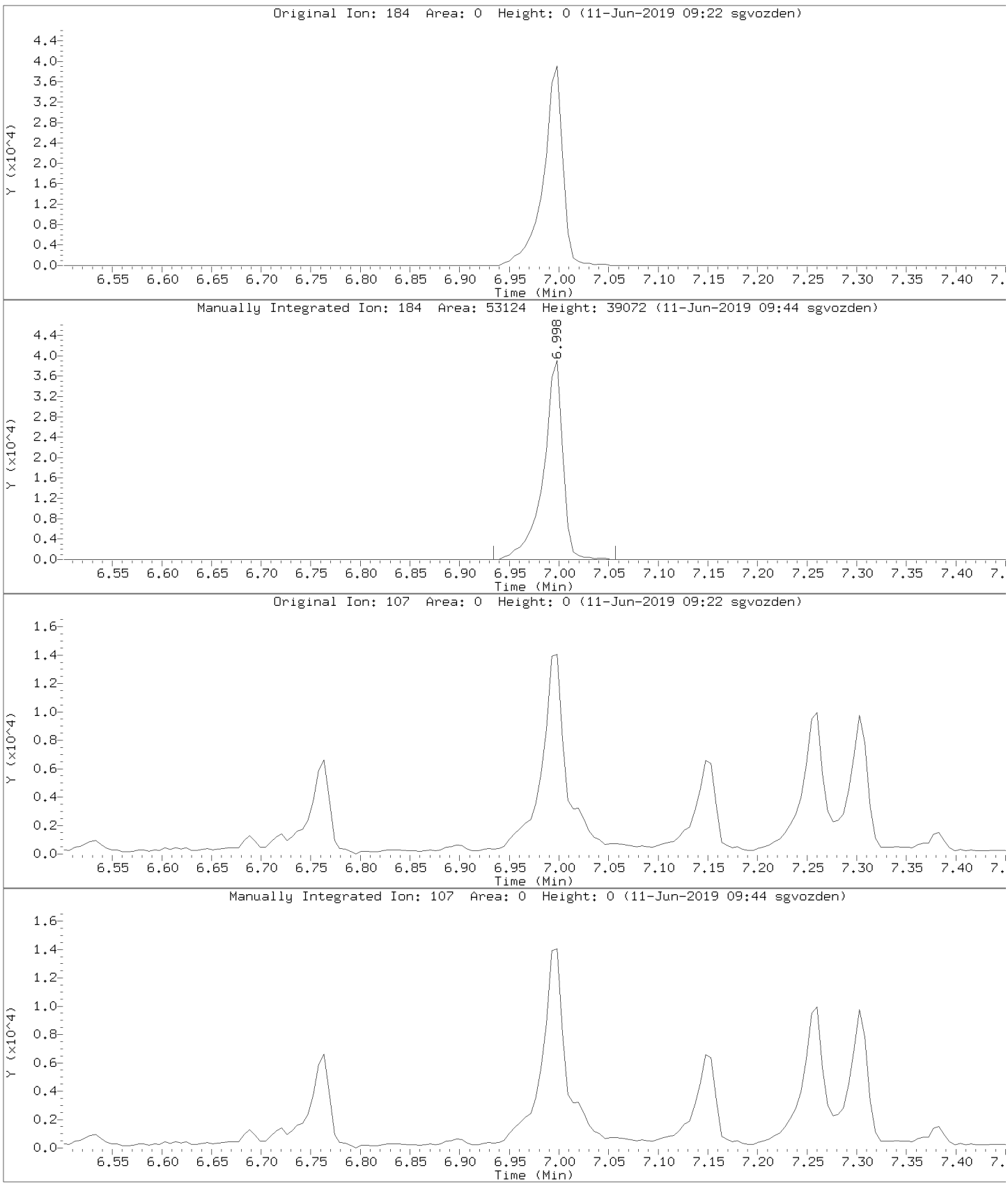
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5



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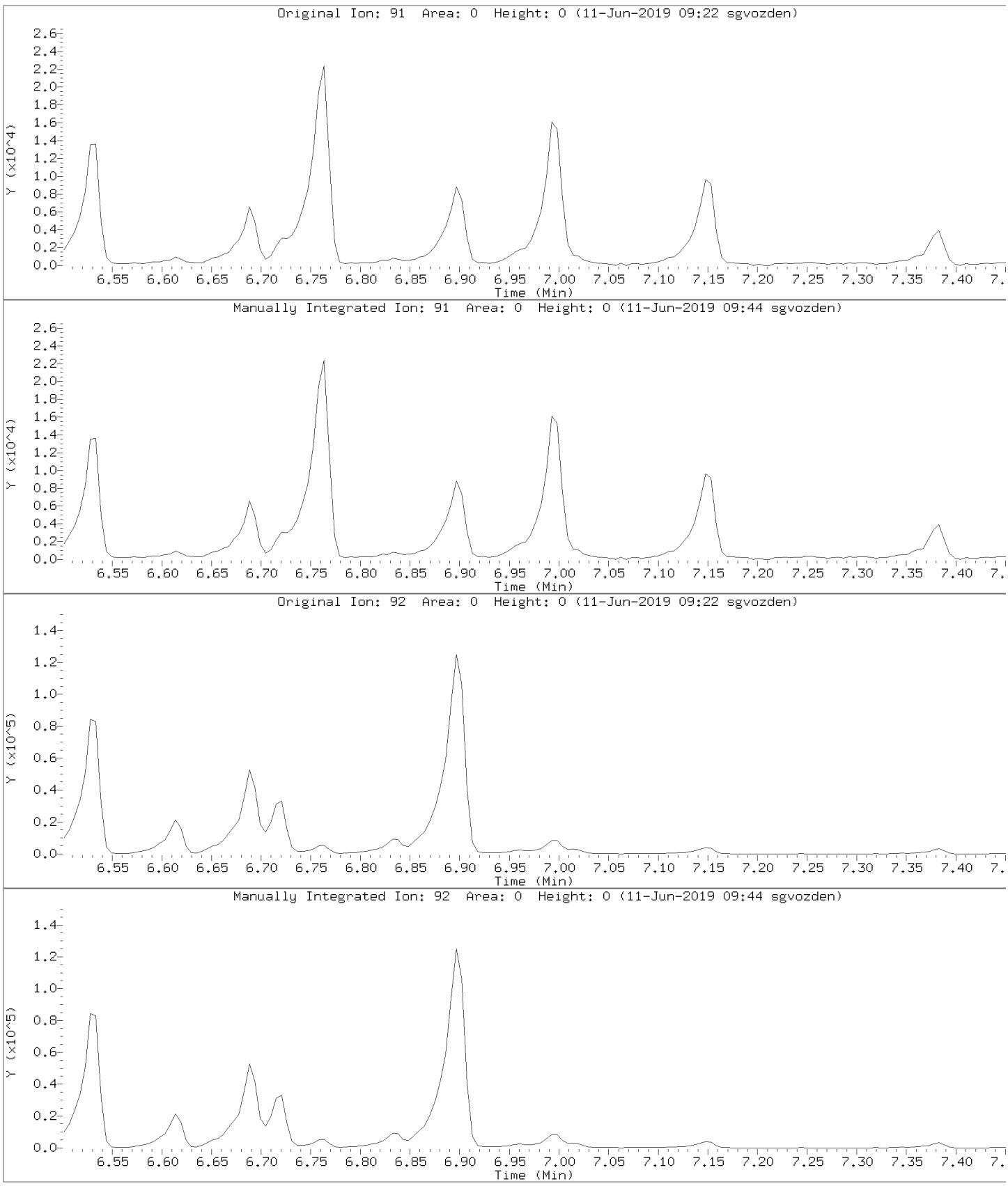
Instrument: 30mss1.i
Lab Sample ID: CAL3



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Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y6.d
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Inj Date : 10-JUN-2019 21:11
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14685,89098:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061019.b\8270061019.m
Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:11 Cal File: m10610y6.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.681	2.682	(0.212)	107095	2.00000	2.12	
	2 Pyridine	79	2.692	2.687	(0.606)	176255	2.00000	2.14	
$	3 2-Fluorophenol (S)	112	3.531	3.531	(0.794)	174672	2.00000	2.04	
$	4 Phenol-d6 (S)	99	4.145	4.146	(0.933)	217766	2.00000	2.05	
	5 Benzaldehyde	77	4.129	4.130	(0.929)	145837	2.00000	2.17	
	6 Phenol	94	4.156	4.156	(0.935)	225367	2.00000	2.08	
	7 Aniline	66	4.220	4.220	(0.950)	86565	2.00000	1.94	
	8 bis(2-Chloroethyl)ether	63	4.241	4.242	(0.954)	126988	2.00000	2.07	
	9 2-Chlorophenol	128	4.305	4.306	(0.969)	203190	2.00000	2.04	
	10 1,3-Dichlorobenzene	146	4.423	4.418	(0.995)	224745	2.00000	2.09	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.444	4.445	(1.000)	290412	4.00000		
	12 1,4-Dichlorobenzene	146	4.455	4.455	(1.002)	237615	2.00000	2.02	
	13 Benzyl Alcohol	79	4.540	4.541	(1.022)	138463	2.00000	2.00	
	14 1,2-Dichlorobenzene	146	4.604	4.605	(1.036)	214647	2.00000	2.05	
	15 2-Methylphenol(o-Cresol)	108	4.615	4.616	(1.038)	176386	2.00000	2.01	
	16 bis(2-Chloroisopropyl)ether	45	4.658	4.658	(1.048)	216192	2.00000	2.09	
	17 3&4-Methylphenol(m&p Cresol)	108	4.722	4.723	(1.063)	180567	2.00000	1.99	
	18 N-Nitroso-di-n-propylamine	70	4.765	4.765	(1.072)	126882	2.00000	2.06	
	19 Acetophenone	105	4.759	4.760	(1.071)	252678	2.00000	2.07	
	20 Hexachloroethane	117	4.850	4.851	(1.091)	79447	2.00000	2.00	
$	21 Nitrobenzene-d5 (S)	128	4.887	4.888	(0.895)	92955	2.00000	1.95	
	22 Nitrobenzene	77	4.903	4.904	(0.898)	172543	2.00000	2.02	
	23 Isophorone	82	5.080	5.080	(0.931)	341561	2.00000	2.07	
	24 2,4-Dimethylphenol	107	5.149	5.145	(0.943)	182906	2.00000	2.04	
	25 2-Nitrophenol	139	5.160	5.155	(0.945)	87780	2.00000	1.76	
	26 Benzoic acid	105	5.181	5.177	(0.949)	40590	2.00000	1.06(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.229	5.230	(0.958)	214532	2.00000	2.09	
	28 2,4-Dichlorophenol	162	5.336	5.337	(0.977)	154148	2.00000	1.97	
	29 1,2,4-Trichlorobenzene	180	5.416	5.417	(0.992)	175739	2.00000	2.01	
*	30 Naphthalene-d8 (IS)	136	5.459	5.460	(1.000)	1164596	4.00000		
	31 Naphthalene	128	5.475	5.476	(1.003)	608413	2.00000	2.12	
	32 4-Chloroaniline	65	5.507	5.508	(1.009)	53961	2.00000	2.13	
	33 Hexachloro-1,3-butadiene	225	5.609	5.609	(1.027)	92652	2.00000	2.00	
	34 Caprolactam	55	5.748	5.743	(1.053)	55667	2.00000	1.89	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.876	5.871	(1.076)	146346	2.00000	1.98	
	36	2-Methylnaphthalene	142	6.036	6.037	(1.106)	397153	2.00000	2.04	
	37	1-Methylnaphthalene	142	6.127	6.128	(1.122)	378442	2.00000	2.06	
	38	Hexachlorocyclopentadiene	237	6.223	6.218	(0.894)	94568	2.00000	1.73	
	39	1,2,4,5-Tetrachlorobenzene	216	6.207	6.208	(0.892)	166759	2.00000	2.00	
	40	2,4,6-Trichlorophenol	196	6.276	6.277	(0.902)	126181	2.00000	1.92	
	41	2,4,5-Trichlorophenol	196	6.308	6.309	(0.906)	88020	2.00000	1.85	
$	42	2-Fluorobiphenyl (S)	172	6.340	6.336	(0.911)	418723	2.00000	2.08	
	43	Biphenyl (Diphenyl)	154	6.421	6.416	(0.922)	471433	2.00000	2.09	
	44	2-Chloronaphthalene	164	6.442	6.443	(0.926)	117563	2.00000	2.02	
	45	2-Nitroaniline	138	6.533	6.528	(0.939)	97107	2.00000	1.71	
	46	Dimethylphthalate	163	6.688	6.688	(0.961)	389744	2.00000	2.05(M)	LT
	47	2,6-Dinitrotoluene	165	6.763	6.763	(0.972)	77917	2.00000	1.78	
	48	Acenaphthylene	152	6.816	6.817	(0.979)	562000	2.00000	2.08	
	49	3-Nitroaniline	65	6.896	6.897	(0.991)	86286	2.00000	1.99	
*	50	Acenaphthene-d10 (IS)	164	6.960	6.961	(1.000)	620206	4.00000		
	51	2,4-Dinitrophenol	184	6.998	6.998	(1.005)	20818	2.00000	1.88(M)	NI
	52	Acenaphthene	153	6.992	6.993	(1.005)	354347	2.00000	2.07	
	53	4-Nitrophenol	109	7.014	7.014	(1.008)	36244	2.00000	1.80	
	54	2,4-Dinitrotoluene	165	7.147	7.148	(1.027)	89476	2.00000	1.63	
	55	Dibenzofuran	168	7.147	7.148	(1.027)	503903	2.00000	2.08	
	56	2,3,4,6-Tetrachlorophenol	232	7.302	7.303	(1.049)	82374	2.00000	1.91(M)	LT
	57	Diethylphthalate	149	7.382	7.378	(1.061)	372790	2.00000	2.03	
	58	4-Chlorophenylphenyl ether	204	7.478	7.479	(1.074)	194801	2.00000	2.00	
	59	Fluorene	166	7.505	7.506	(1.078)	405434	2.00000	2.05	
	60	4-Nitroaniline	108	7.526	7.522	(1.081)	51924	2.00000	2.15	
	61	4,6-Dinitro-2-methylphenol	198	7.575	7.575	(0.891)	27374	2.00000	2.17	
	62	N-Nitrosodiphenylamine	169	7.601	7.602	(0.894)	343358	2.00000	2.05	
	63	Azobenzene	77	7.644	7.645	(0.899)	326135	2.00000	2.11	
	64	1,2-Diphenylhydrazine	77	7.644	7.645	(0.899)	326135	2.00000	2.11	
$	65	2,4,6-Tribromophenol (S)	330	7.778	7.778	(0.915)	47027	2.00000	1.65	
	66	4-Bromophenylphenyl ether	248	7.997	7.997	(0.941)	110267	2.00000	1.96	
	67	Hexachlorobenzene	284	8.178	8.174	(0.962)	119013	2.00000	1.88	
	68	Atrazine	200	8.167	8.168	(0.961)	106013	2.00000	1.92	
	69	Pentachlorophenol	266	8.349	8.350	(0.982)	47456	2.00000	1.47	
*	70	Phenanthrene-d10 (IS)	188	8.499	8.499	(1.000)	1005494	4.00000		
	71	Phenanthrene	178	8.520	8.521	(1.002)	608876	2.00000	2.12	
	72	Anthracene	178	8.568	8.569	(1.008)	555456	2.00000	2.09	
	73	Carbazole	167	8.723	8.724	(1.026)	526093	2.00000	2.19	
	74	Di-n-butylphthalate	149	9.108	9.103	(1.072)	604538	2.00000	2.07	
	75	Fluoranthene	202	9.791	9.787	(1.152)	581470	2.00000	2.07	
	76	Pyrene	202	10.032	10.027	(0.889)	591876	2.00000	2.04	
$	77	Terphenyl-d14 (S)	244	10.165	10.166	(0.901)	468563	2.00000	1.95	
	78	Butylbenzylphthalate	149	10.678	10.679	(0.946)	223415	2.00000	1.77	
	79	3,3'-Dichlorobenzidine	252	11.223	11.224	(0.995)	178669	2.00000	1.72	
	80	bis(2-Ethylhexyl)phthalate	149	11.266	11.261	(0.999)	314858	2.00000	1.86	
	81	Benzo(a)anthracene	228	11.266	11.267	(0.999)	545562	2.00000	2.02	
*	82	Chrysene-d12 (IS)	240	11.282	11.283	(1.000)	971714	4.00000		
	83	Chrysene	228	11.309	11.309	(1.002)	565721	2.00000	2.10	
	84	Di-n-octylphthalate	149	11.848	11.844	(0.935)	423995	2.00000	1.60	
	85	Benzo(b)fluoranthene	252	12.308	12.308	(0.971)	456656	2.00000	1.76	
	86	Benzo(k)fluoranthene	252	12.329	12.324	(0.973)	667150	2.00000	2.08	
	87	Benzo(a)pyrene	252	12.623	12.624	(0.996)	452351	2.00000	1.75	
*	88	Perylene-d12 (IS)	264	12.676	12.677	(1.000)	958624	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.852	13.847	(1.093)	495902	2.00000	1.78	
90 Dibenz(a,h)anthracene	278	13.846	13.842	(1.092)	392525	2.00000	1.66	
91 Benzo(g,h,i)perylene	276	14.188	14.183	(1.119)	431621	2.00000	1.94	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y6.d
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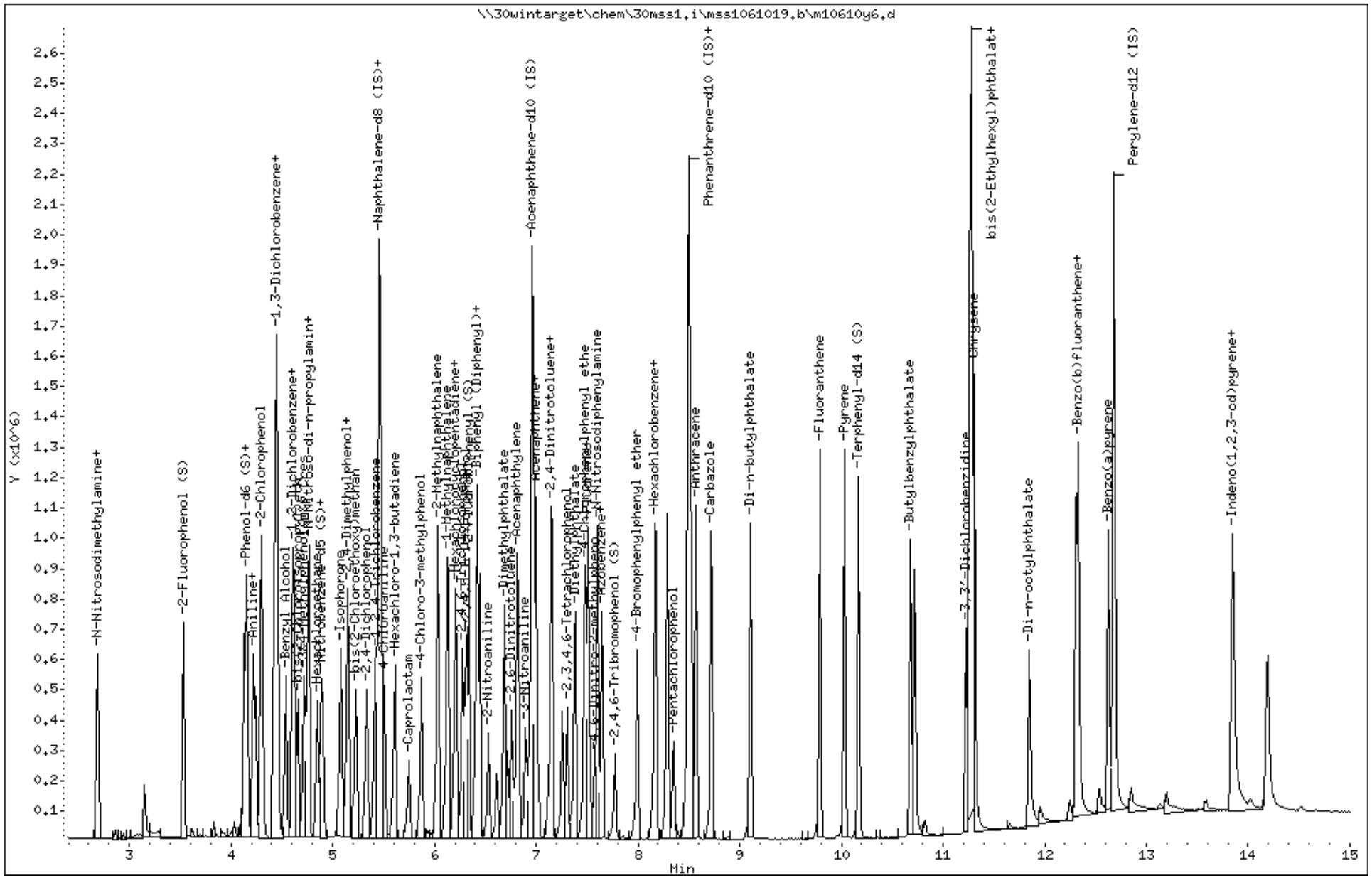
Client ID: CAL2
Sample Info: CAL2

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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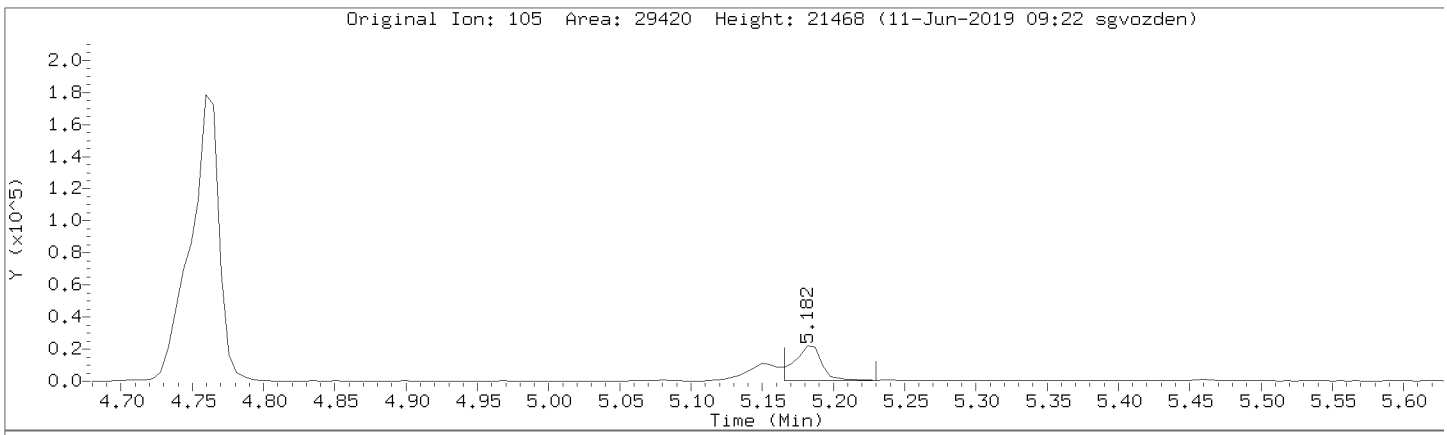
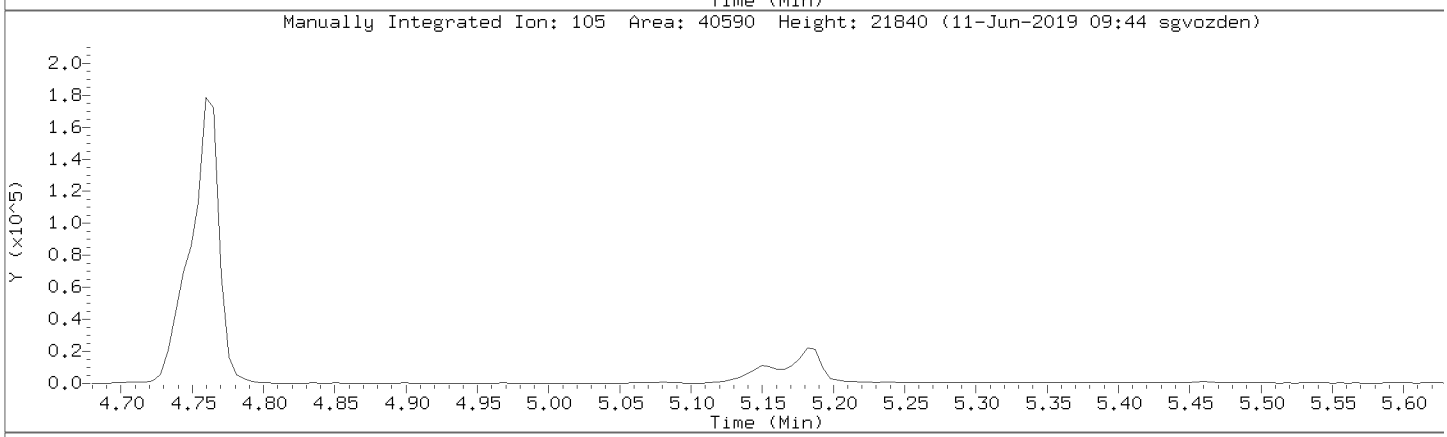
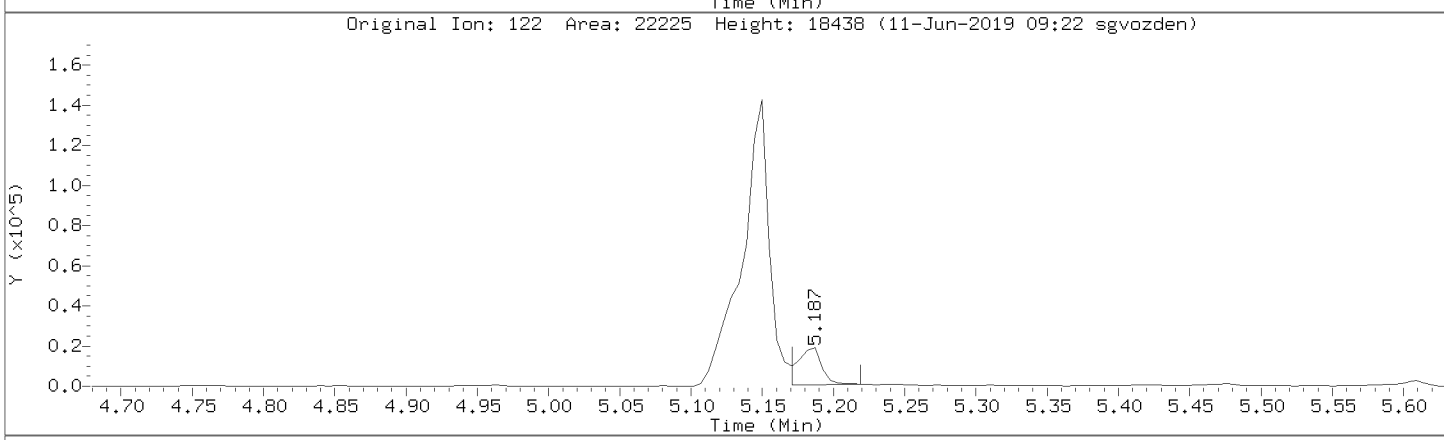
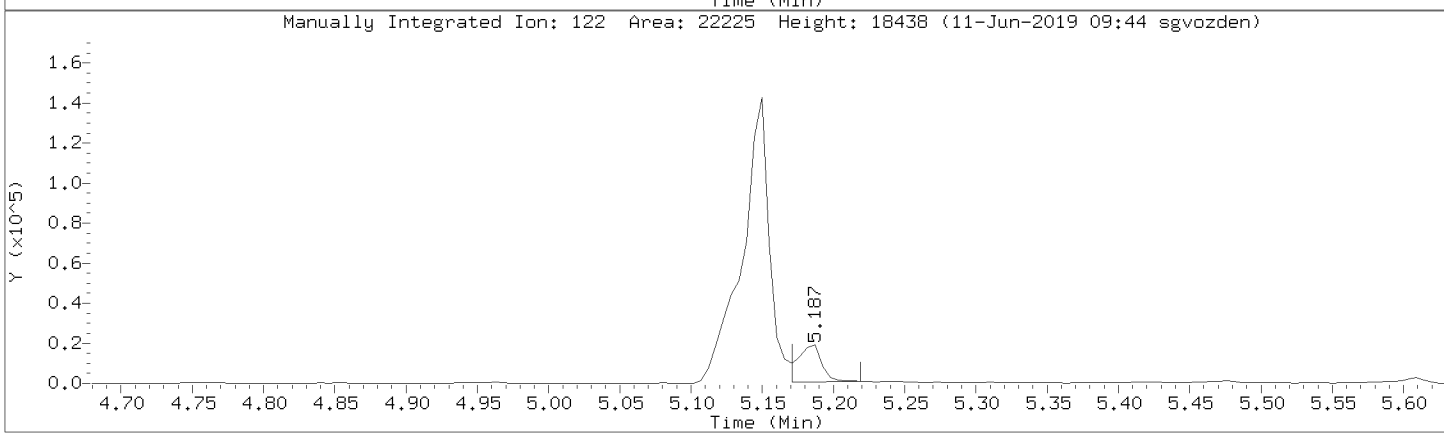
Injection Date: 10-JUN-2019 21:11
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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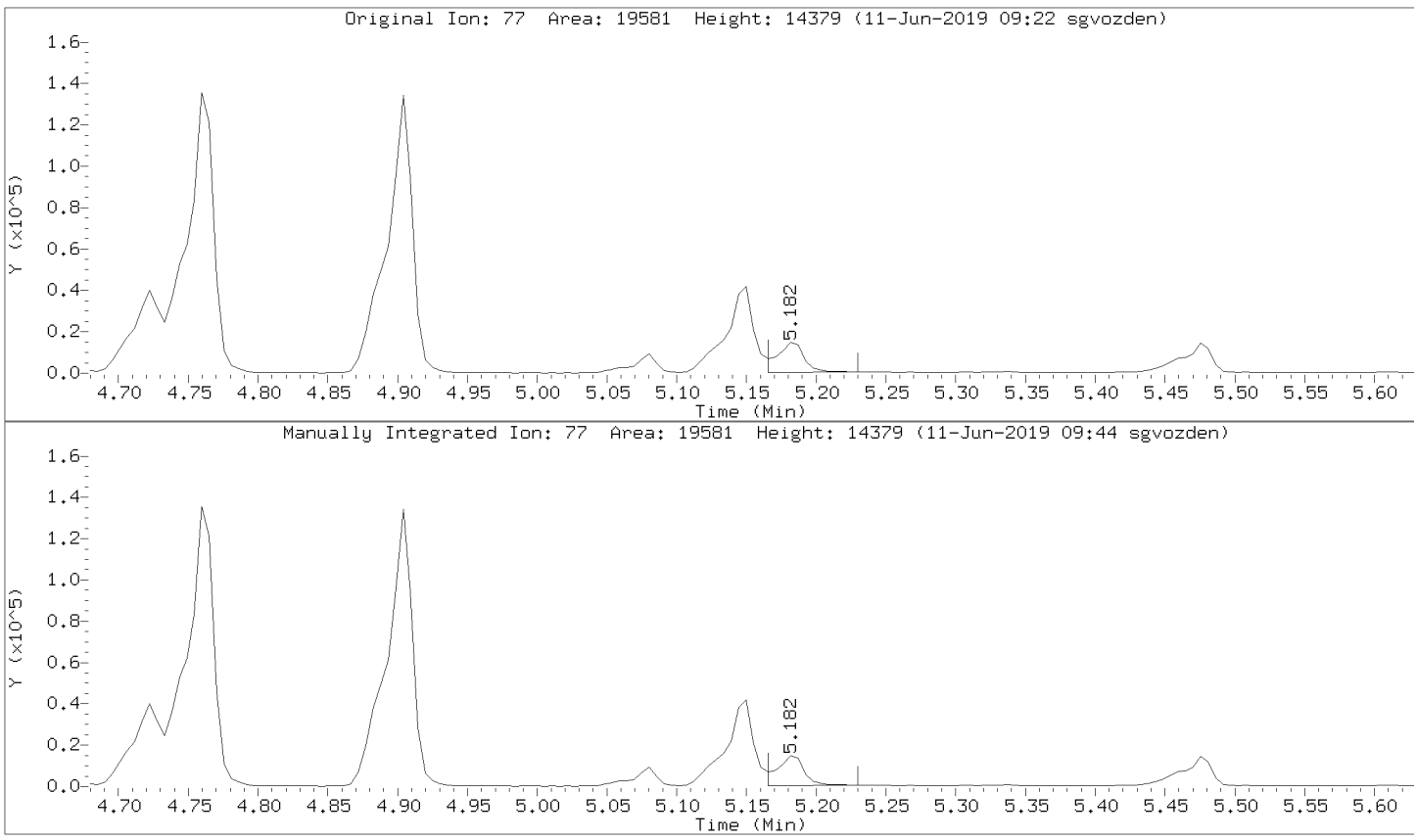
Lab Sample ID: CAL2



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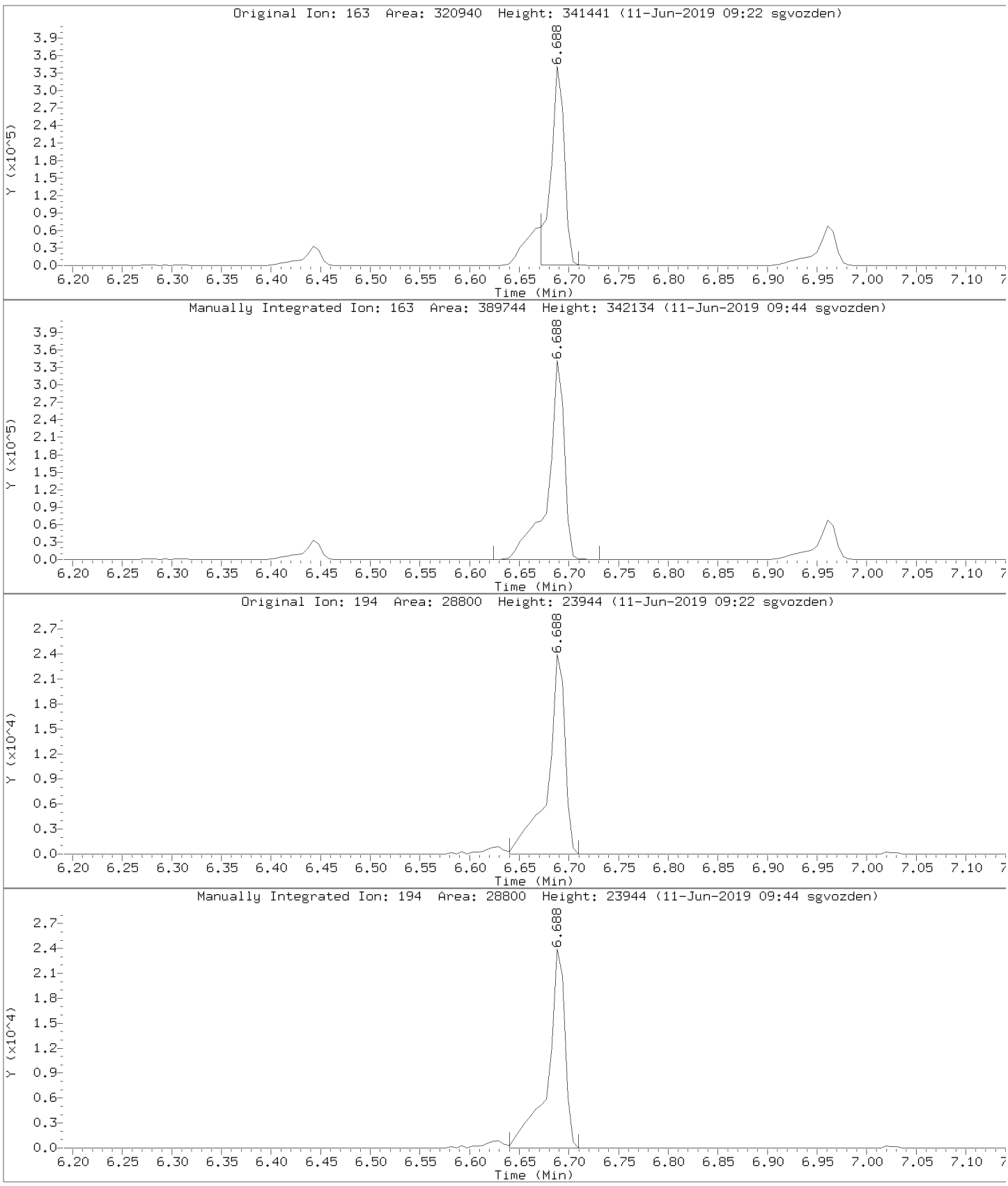
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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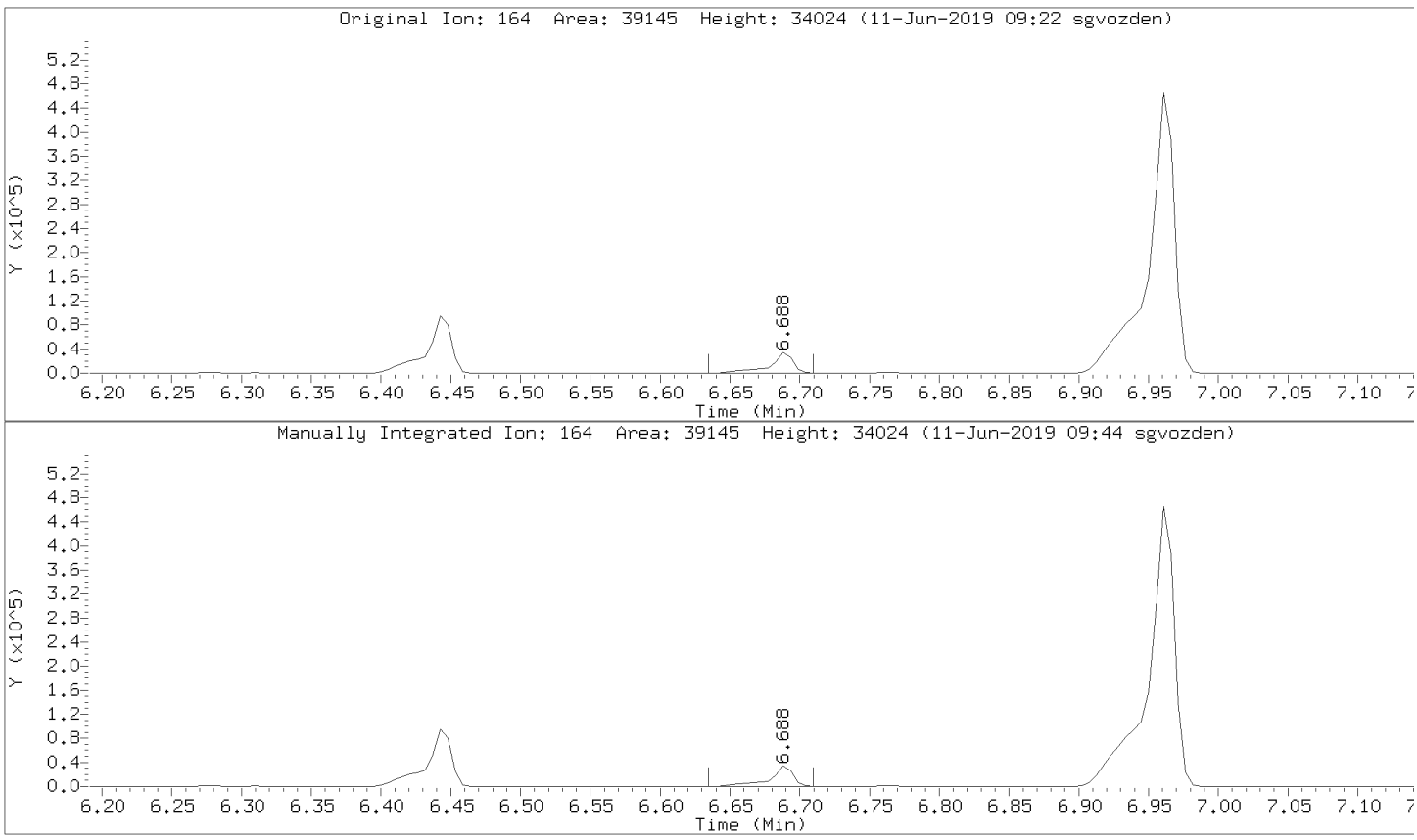

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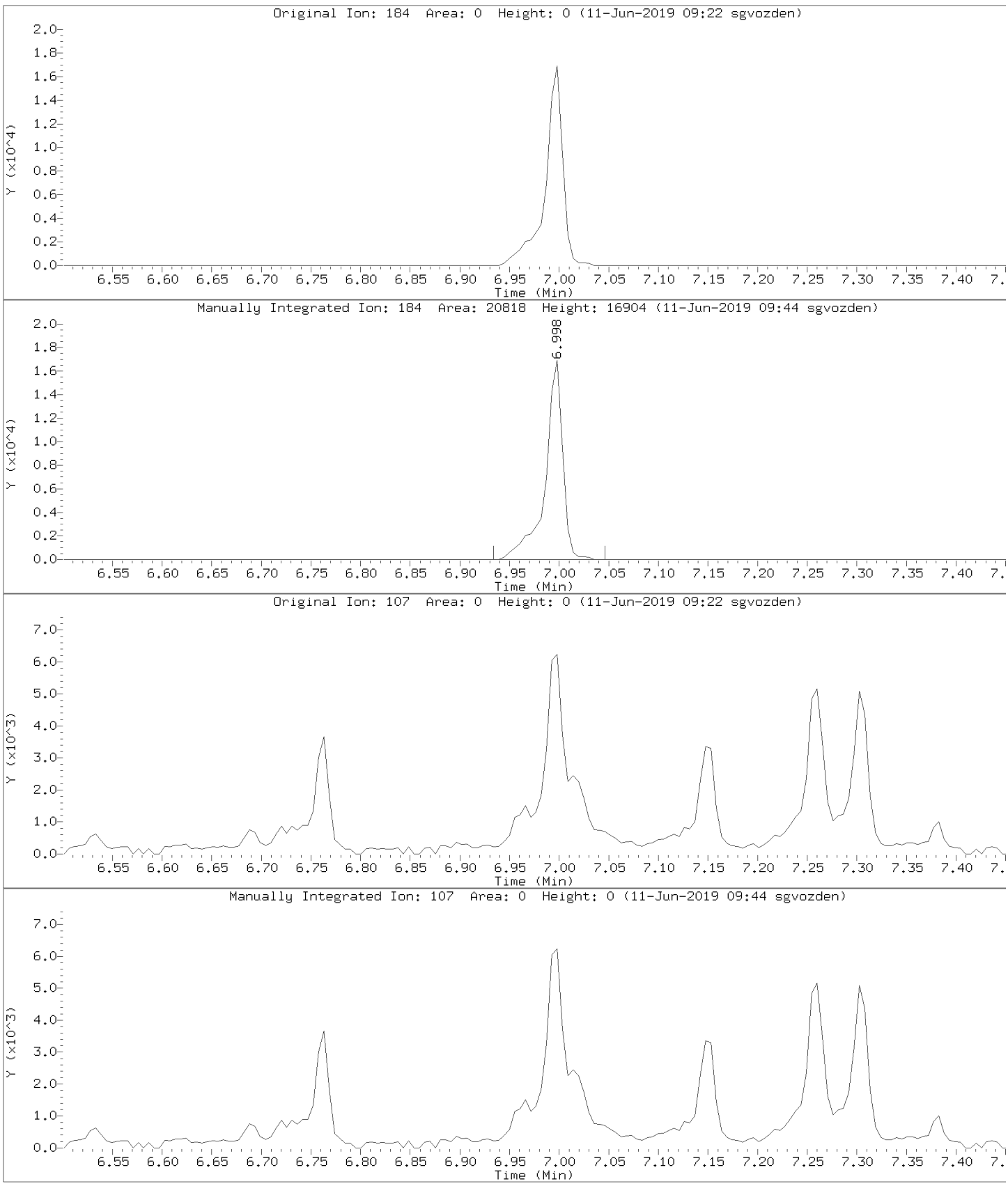
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5



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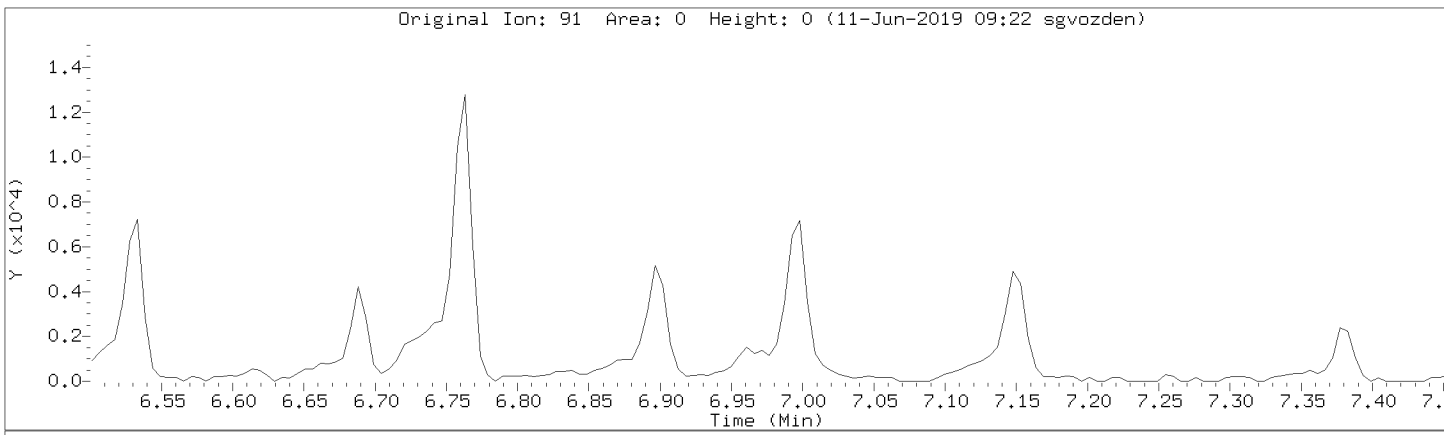
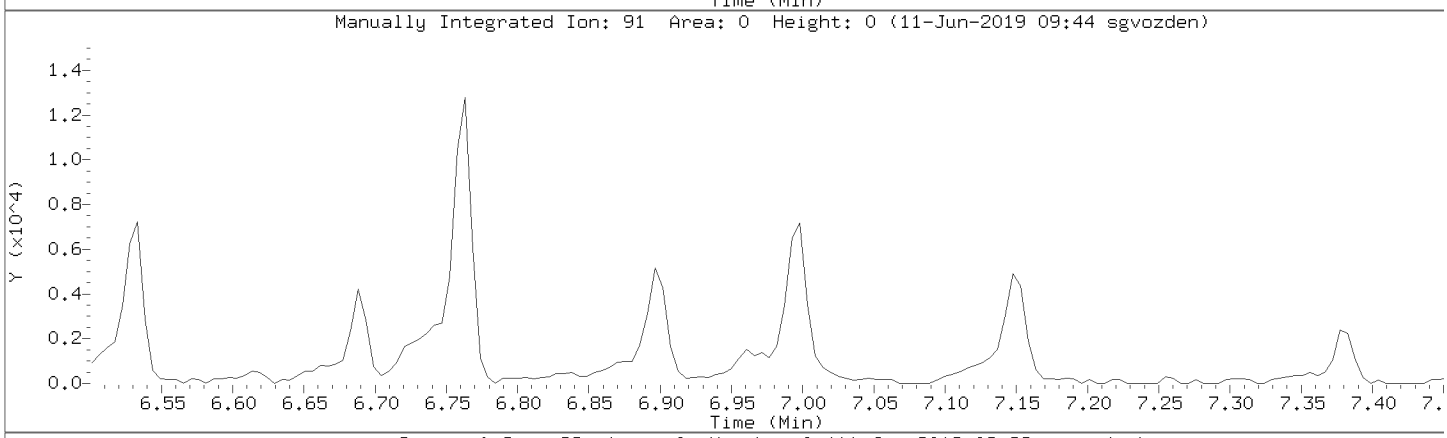
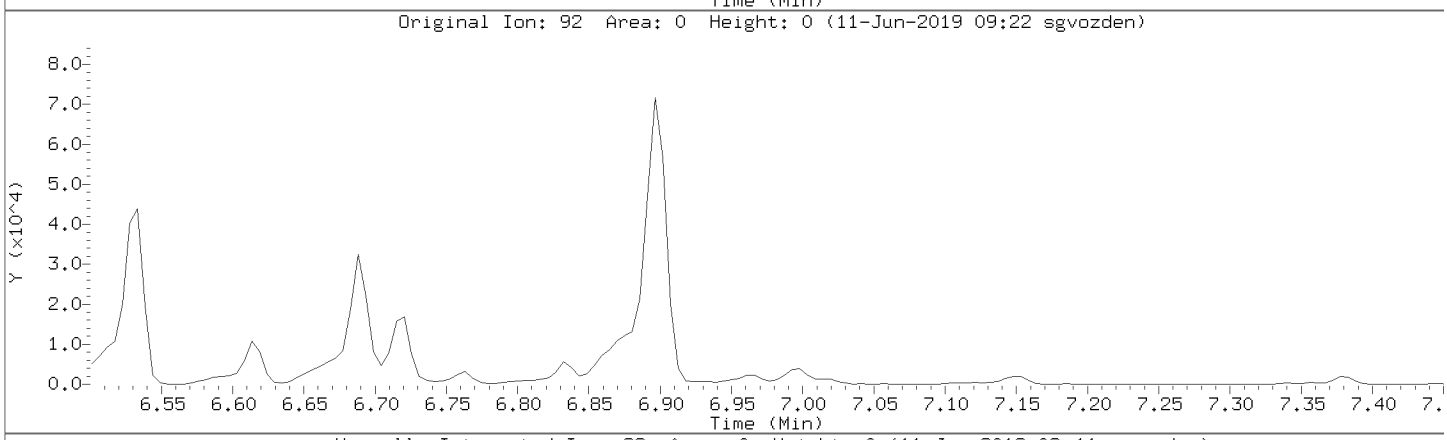
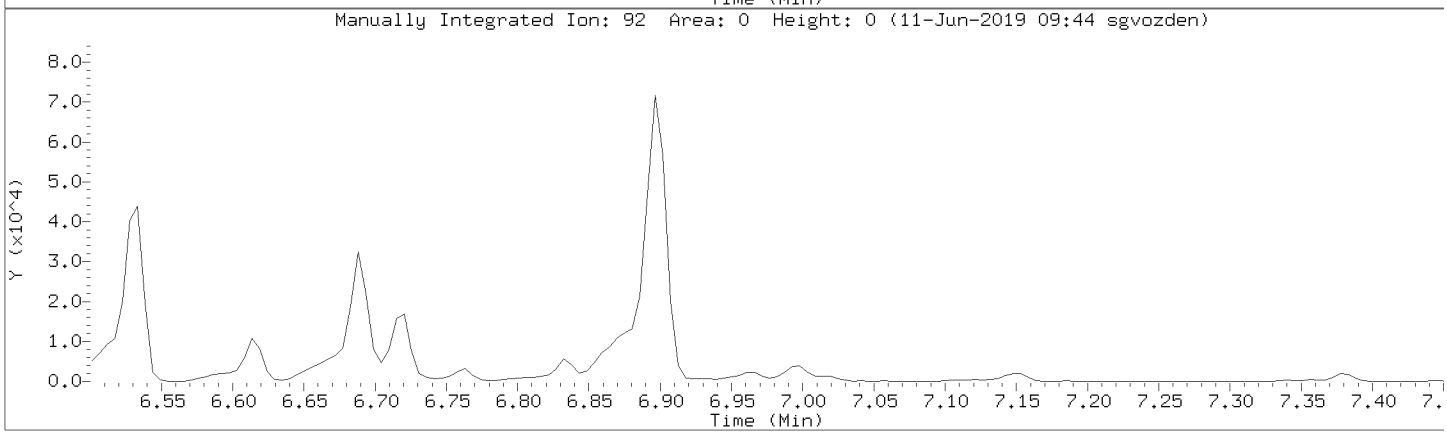
Lab Sample ID: CAL2









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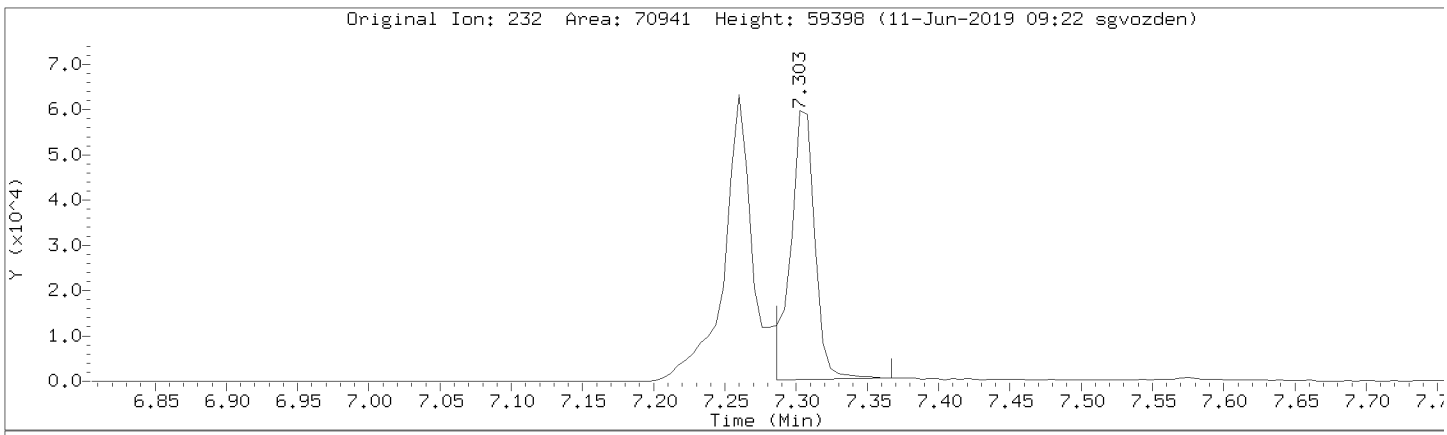
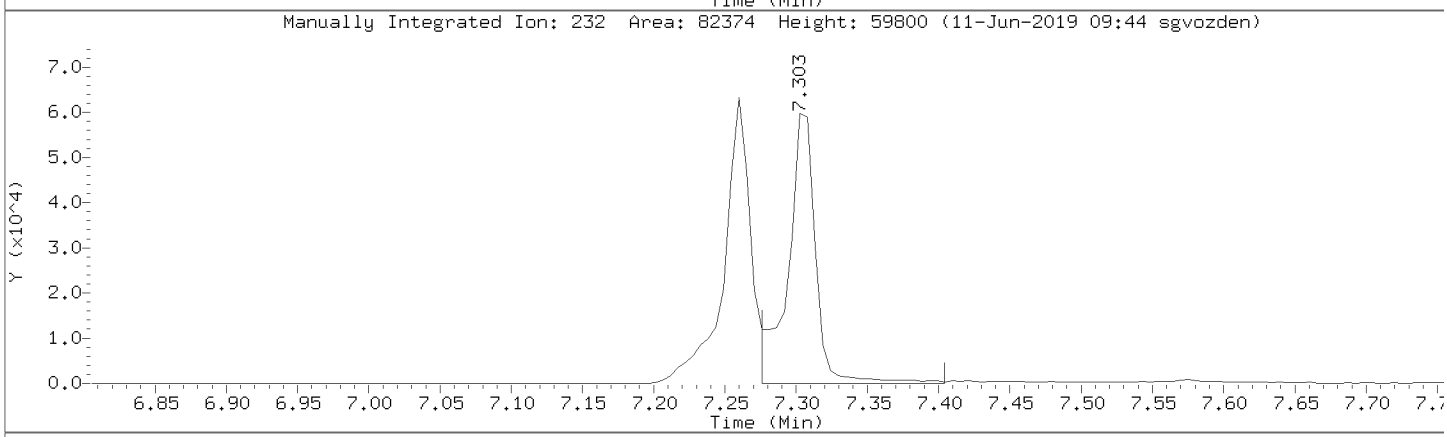
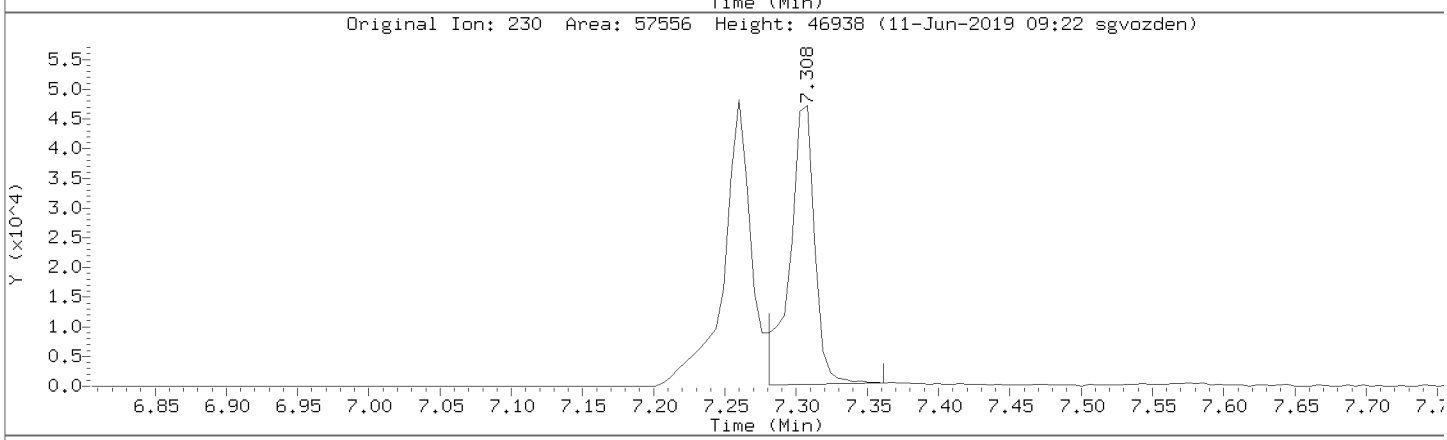
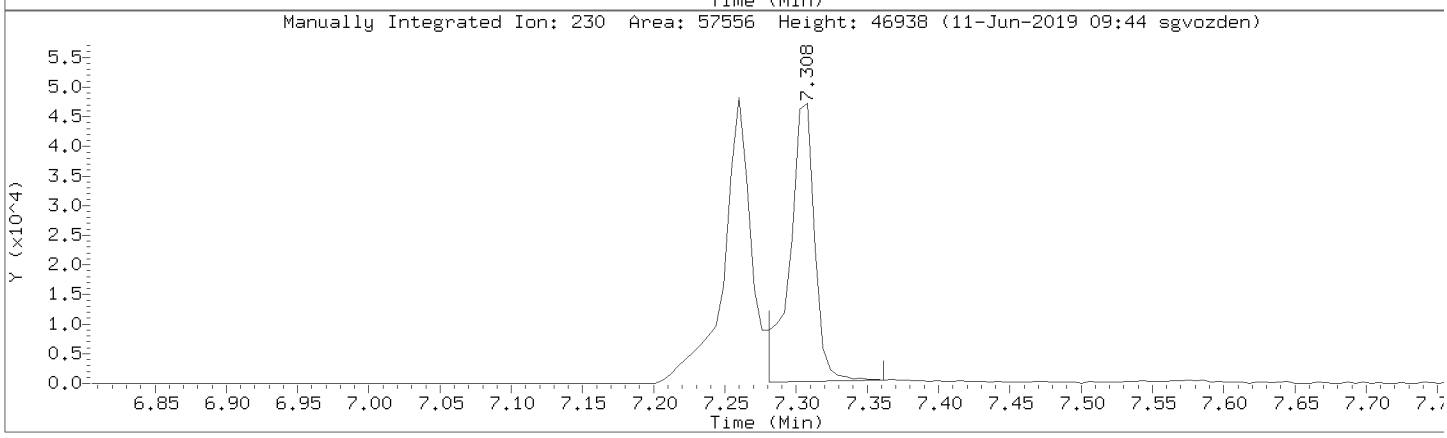
Injection Date: 10-JUN-2019 21:11
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2,3,4,6-Tetrachlorophenol Review Code: LT
CAS Number: 58-90-2









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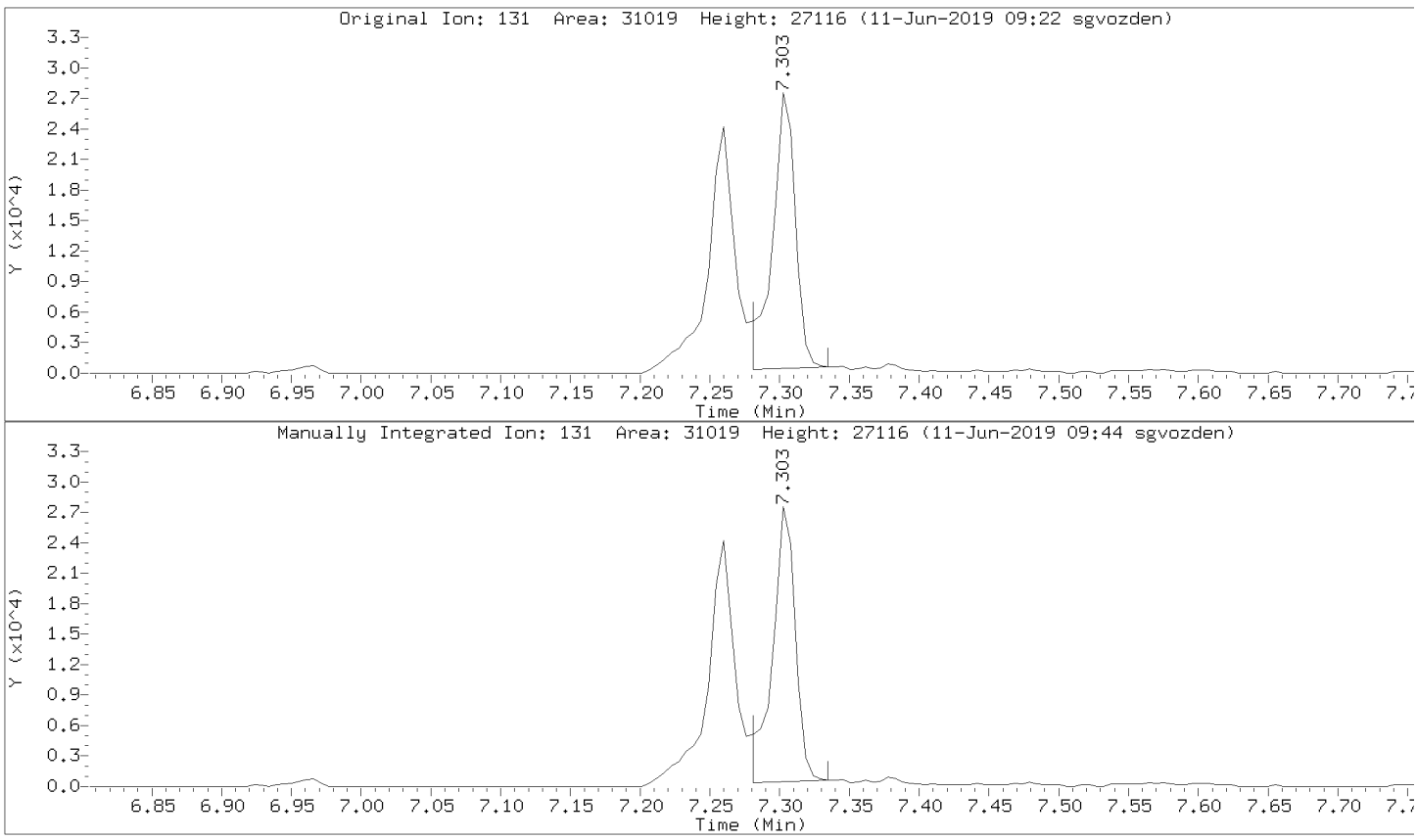
Injection Date: 10-JUN-2019 21:11
Instrument: 30mss1.i
Lab Sample ID: CAL2



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y7.d
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Inj Date : 10-JUN-2019 21:34
Operator : SJG Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14685,89099:1
Comment :
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Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.682	2.682	(0.212)	55710	1.00000	1.17	
	2 Pyridine	79	2.687	2.687	(0.605)	93501	1.00000	1.17	
$	3 2-Fluorophenol (S)	112	3.531	3.531	(0.794)	89945	1.00000	1.09	
$	4 Phenol-d6 (S)	99	4.146	4.146	(0.933)	114314	1.00000	1.12	
	5 Benzaldehyde	77	4.130	4.130	(0.929)	75895	1.00000	1.16	
	6 Phenol	94	4.156	4.156	(0.935)	118597	1.00000	1.13	
	7 Aniline	66	4.220	4.220	(0.950)	42224	1.00000	0.994	
	8 bis(2-Chloroethyl)ether	63	4.242	4.242	(0.954)	67071	1.00000	1.13	
	9 2-Chlorophenol	128	4.306	4.306	(0.969)	104501	1.00000	1.09	
	10 1,3-Dichlorobenzene	146	4.418	4.418	(0.994)	116002	1.00000	1.12	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.445	4.445	(1.000)	278407	4.00000		
	12 1,4-Dichlorobenzene	146	4.455	4.455	(1.002)	124048	1.00000	1.10	
	13 Benzyl Alcohol	79	4.541	4.541	(1.022)	72004	1.00000	1.08	
	14 1,2-Dichlorobenzene	146	4.605	4.605	(1.036)	111937	1.00000	1.11	
	15 2-Methylphenol(o-Cresol)	108	4.616	4.616	(1.038)	92760	1.00000	1.10	
	16 bis(2-Chloroisopropyl)ether	45	4.658	4.658	(1.048)	114965	1.00000	1.15	
	17 3&4-Methylphenol(m&p Cresol)	108	4.723	4.723	(1.062)	96768	1.00000	1.11	
	18 N-Nitroso-di-n-propylamine	70	4.765	4.765	(1.072)	67776	1.00000	1.14	
	19 Acetophenone	105	4.760	4.760	(1.071)	132484	1.00000	1.12	
	20 Hexachloroethane	117	4.851	4.851	(1.091)	40033	1.00000	1.05	
$	21 Nitrobenzene-d5 (S)	128	4.888	4.888	(0.895)	46687	1.00000	1.02	
	22 Nitrobenzene	77	4.904	4.904	(0.898)	88513	1.00000	1.08	
	23 Isophorone	82	5.080	5.080	(0.931)	180864	1.00000	1.14	
	24 2,4-Dimethylphenol	107	5.145	5.145	(0.942)	96760	1.00000	1.12	
	25 2-Nitrophenol	139	5.155	5.155	(0.944)	43287	1.00000	0.924	
	26 Benzoic acid	105	5.177	5.177	(0.948)	19288	1.00000	0.568(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.230	5.230	(0.958)	114665	1.00000	1.15	
	28 2,4-Dichlorophenol	162	5.337	5.337	(0.977)	79464	1.00000	1.06	
	29 1,2,4-Trichlorobenzene	180	5.417	5.417	(0.992)	92284	1.00000	1.10	
*	30 Naphthalene-d8 (IS)	136	5.460	5.460	(1.000)	1118290	4.00000		
	31 Naphthalene	128	5.476	5.476	(1.003)	318743	1.00000	1.14	
	32 4-Chloroaniline	65	5.508	5.508	(1.009)	28048	1.00000	1.14	
	33 Hexachloro-1,3-butadiene	225	5.609	5.609	(1.027)	48827	1.00000	1.10	
	34 Caprolactam	55	5.743	5.743	(1.052)	27523	1.00000	0.982	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.871	5.871	(1.075)	77532	1.00000	1.09	
	36 2-Methylnaphthalene	142	6.037	6.037	(1.106)	210883	1.00000	1.13	
	37 1-Methylnaphthalene	142	6.128	6.128	(1.122)	199227	1.00000	1.13	
	38 Hexachlorocyclopentadiene	237	6.218	6.218	(0.893)	45546	1.00000	0.895	
	39 1,2,4,5-Tetrachlorobenzene	216	6.208	6.208	(0.892)	87343	1.00000	1.10	
	40 2,4,6-Trichlorophenol	196	6.277	6.277	(0.902)	66348	1.00000	1.07	
	41 2,4,5-Trichlorophenol	196	6.309	6.309	(0.906)	44561	1.00000	0.998	
$	42 2-Fluorobiphenyl (S)	172	6.336	6.336	(0.910)	221433	1.00000	1.15	
	43 Biphenyl (Diphenyl)	154	6.416	6.416	(0.922)	250177	1.00000	1.16	
	44 2-Chloronaphthalene	164	6.443	6.443	(0.926)	62452	1.00000	1.12	
	45 2-Nitroaniline	138	6.528	6.528	(0.938)	45651	1.00000	0.864	
	46 Dimethylphthalate	163	6.688	6.688	(0.961)	208601	1.00000	1.15	
	47 2,6-Dinitrotoluene	165	6.763	6.763	(0.972)	37470	1.00000	0.914	
	48 Acenaphthylene	152	6.817	6.817	(0.979)	295073	1.00000	1.14	
	49 3-Nitroaniline	65	6.897	6.897	(0.991)	43094	1.00000	1.04	
*	50 Acenaphthene-d10 (IS)	164	6.961	6.961	(1.000)	590311	4.00000		
	51 2,4-Dinitrophenol	184	6.998	6.998	(1.005)	9271	1.00000	1.22(M)	NI
	52 Acenaphthene	153	6.993	6.993	(1.005)	189370	1.00000	1.16	
	53 4-Nitrophenol	109	7.014	7.014	(1.008)	17398	1.00000	0.925	
	54 2,4-Dinitrotoluene	165	7.148	7.148	(1.027)	41007	1.00000	0.808	
	55 Dibenzofuran	168	7.148	7.148	(1.027)	268469	1.00000	1.16	
	56 2,3,4,6-Tetrachlorophenol	232	7.303	7.303	(1.049)	39074	1.00000	0.960	
	57 Diethylphthalate	149	7.378	7.378	(1.060)	196436	1.00000	1.12	
	58 4-Chlorophenylphenyl ether	204	7.479	7.479	(1.074)	103172	1.00000	1.11	
	59 Fluorene	166	7.506	7.506	(1.078)	215154	1.00000	1.14	
	60 4-Nitroaniline	108	7.522	7.522	(1.081)	27946	1.00000	1.20	
	61 4,6-Dinitro-2-methylphenol	198	7.575	7.575	(0.891)	11428	1.00000	1.32	
	62 N-Nitrosodiphenylamine	169	7.602	7.602	(0.894)	182334	1.00000	1.13	
	63 Azobenzene	77	7.645	7.645	(0.899)	173413	1.00000	1.16	
	64 1,2-Diphenylhydrazine	77	7.645	7.645	(0.899)	173413	1.00000	1.16	
$	65 2,4,6-Tribromophenol (S)	330	7.778	7.778	(0.915)	22552	1.00000	0.848	
	66 4-Bromophenylphenyl ether	248	7.997	7.997	(0.941)	58514	1.00000	1.09	
	67 Hexachlorobenzene	284	8.174	8.174	(0.962)	63465	1.00000	1.05	
	68 Atrazine	200	8.168	8.168	(0.961)	53342	1.00000	1.02	
	69 Pentachlorophenol	266	8.350	8.350	(0.982)	22056	1.00000	0.745	
*	70 Phenanthrene-d10 (IS)	188	8.499	8.499	(1.000)	965003	4.00000		
	71 Phenanthrene	178	8.521	8.521	(1.002)	329975	1.00000	1.18	
	72 Anthracene	178	8.569	8.569	(1.008)	295836	1.00000	1.15	
	73 Carbazole	167	8.724	8.724	(1.026)	277273	1.00000	1.19	
	74 Di-n-butylphthalate	149	9.103	9.103	(1.071)	308675	1.00000	1.10	
	75 Fluoranthene	202	9.787	9.787	(1.151)	302185	1.00000	1.12	
	76 Pyrene	202	10.027	10.027	(0.889)	312006	1.00000	1.13	
$	77 Terphenyl-d14 (S)	244	10.166	10.166	(0.901)	243006	1.00000	1.07	
	78 Butylbenzylphthalate	149	10.679	10.679	(0.946)	102147	1.00000	0.871	
	79 3,3'-Dichlorobenzidine	252	11.224	11.224	(0.995)	86600	1.00000	0.904	
	80 bis(2-Ethylhexyl)phthalate	149	11.261	11.261	(0.998)	148442	1.00000	0.939	
	81 Benzo(a)anthracene	228	11.267	11.267	(0.999)	274658	1.00000	1.07	
*	82 Chrysene-d12 (IS)	240	11.283	11.283	(1.000)	920153	4.00000		
	83 Chrysene	228	11.309	11.309	(1.002)	300110	1.00000	1.17	
	84 Di-n-octylphthalate	149	11.844	11.844	(0.934)	175570	1.00000	0.739	
	85 Benzo(b)fluoranthene	252	12.308	12.308	(0.971)	186576	1.00000	0.789	
	86 Benzo(k)fluoranthene	252	12.324	12.324	(0.972)	366986	1.00000	1.22	
	87 Benzo(a)pyrene	252	12.624	12.624	(0.996)	212269	1.00000	0.905	
*	88 Perylene-d12 (IS)	264	12.677	12.677	(1.000)	890209	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.847	13.847	(1.092)	236217	1.00000	0.930	
90 Dibenz(a,h)anthracene	278	13.842	13.842	(1.092)	179403	1.00000	0.840	
91 Benzo(g,h,i)perylene	276	14.183	14.183	(1.119)	208977	1.00000	1.02	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y7.d
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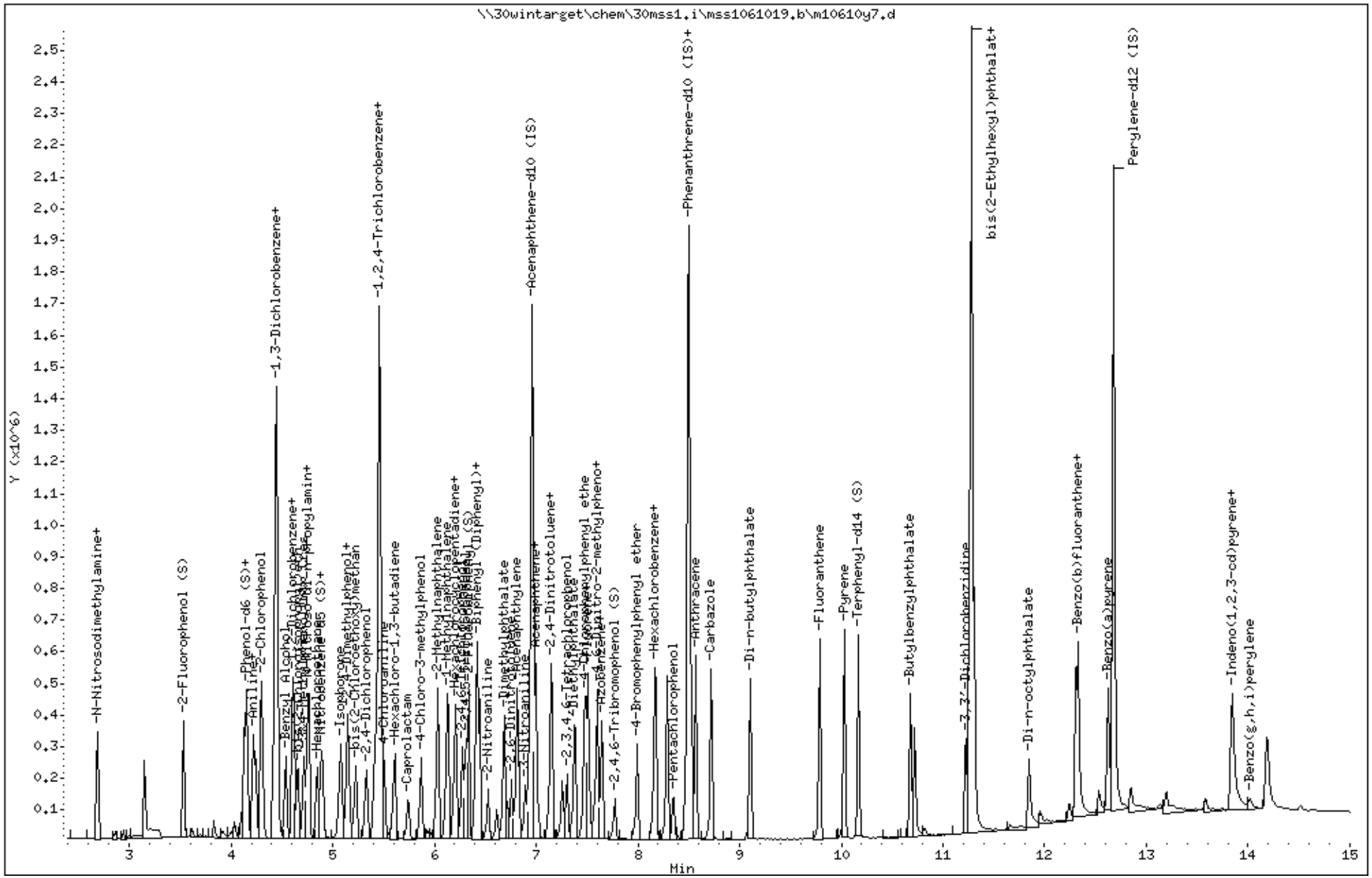
Client ID: CAL1
Sample Info: CAL1

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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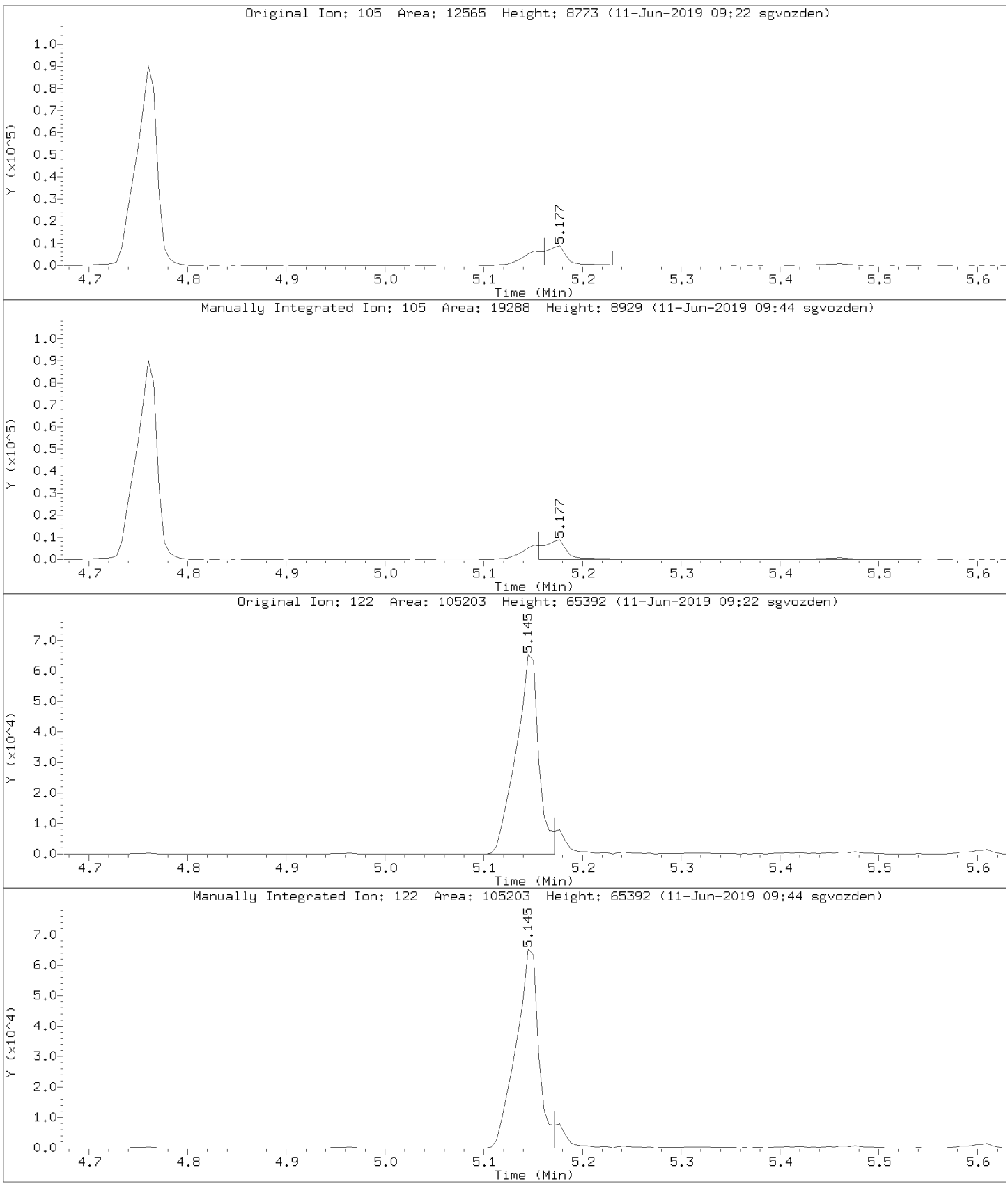
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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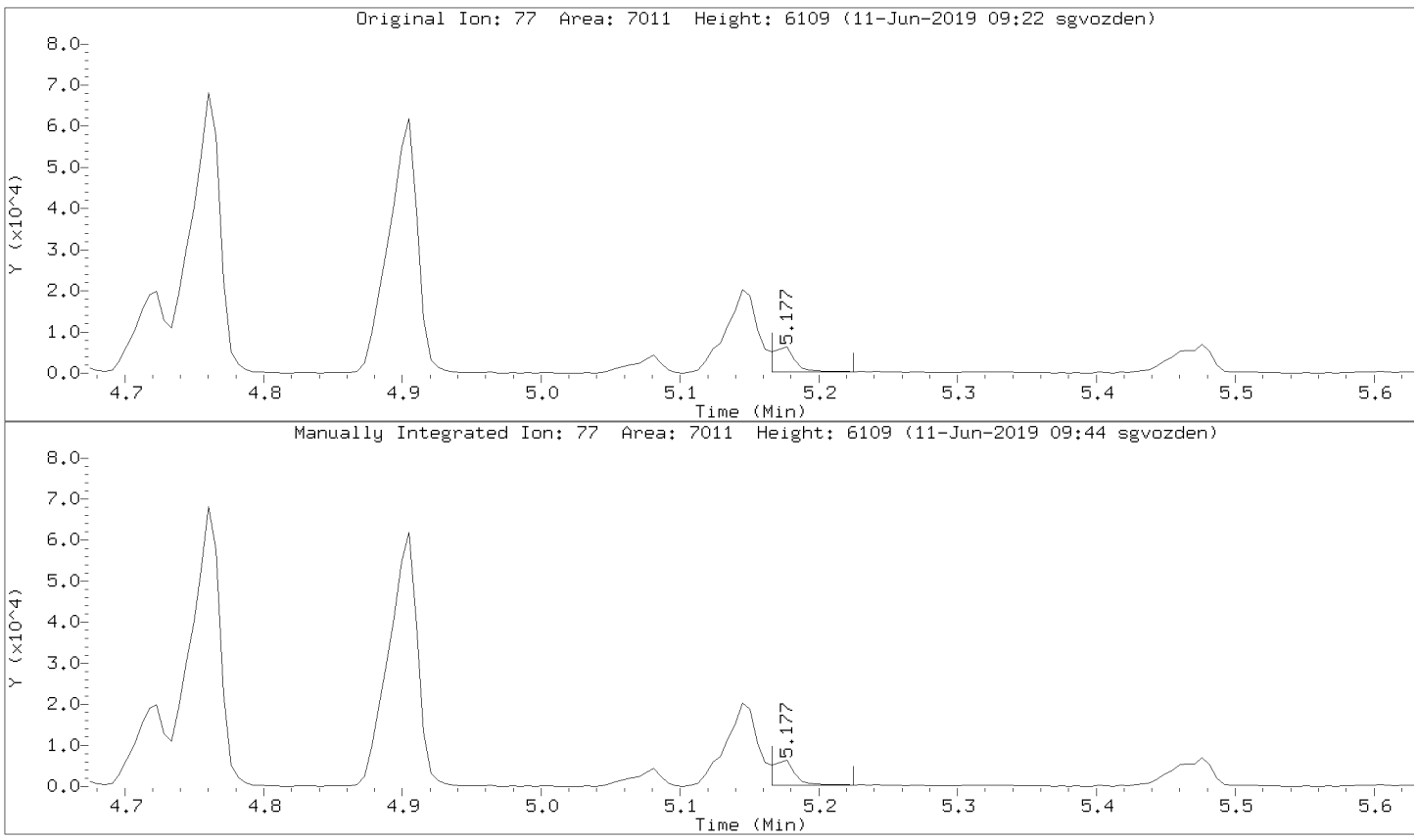

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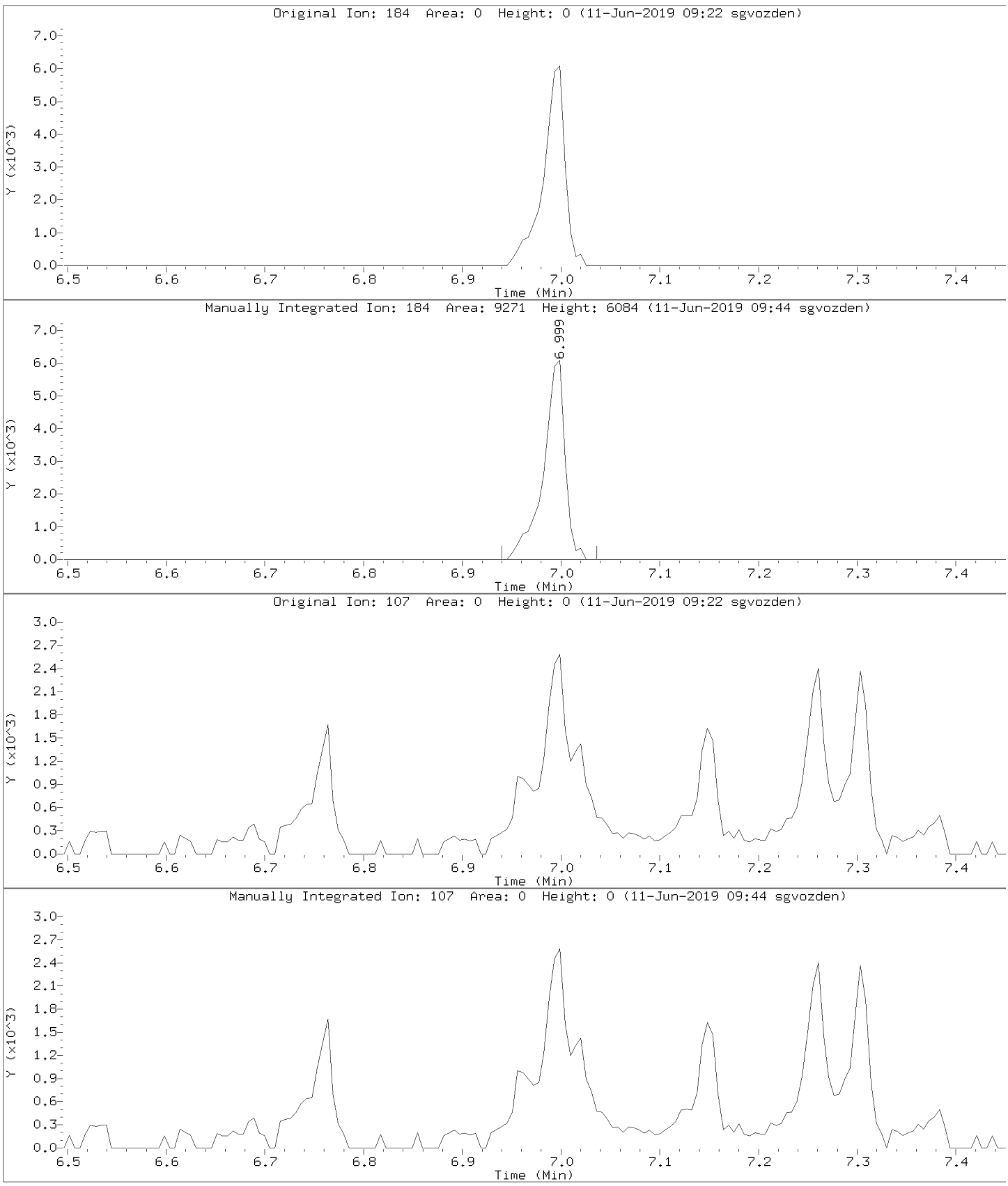
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5



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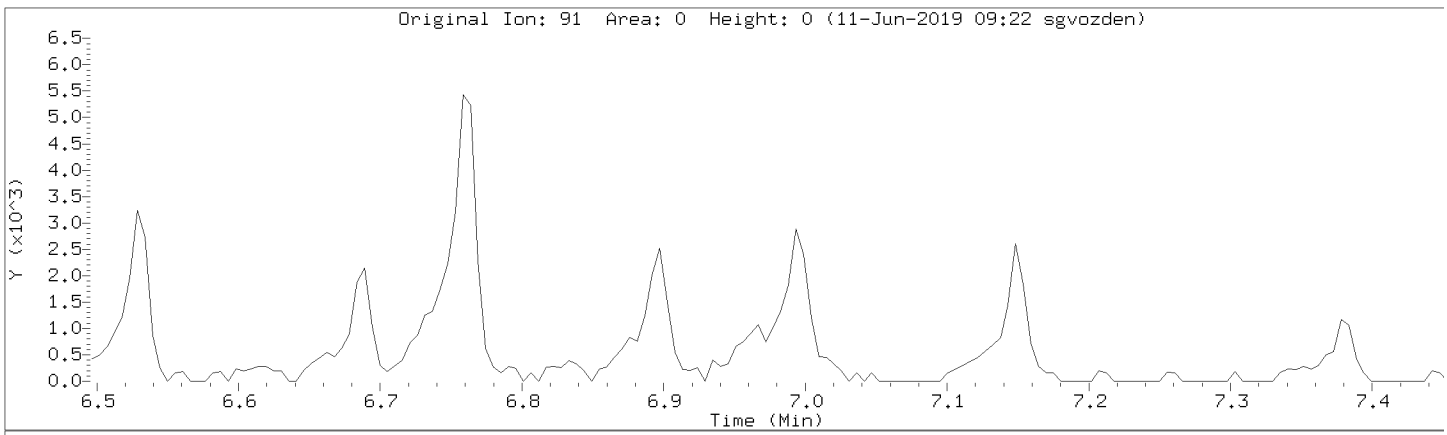
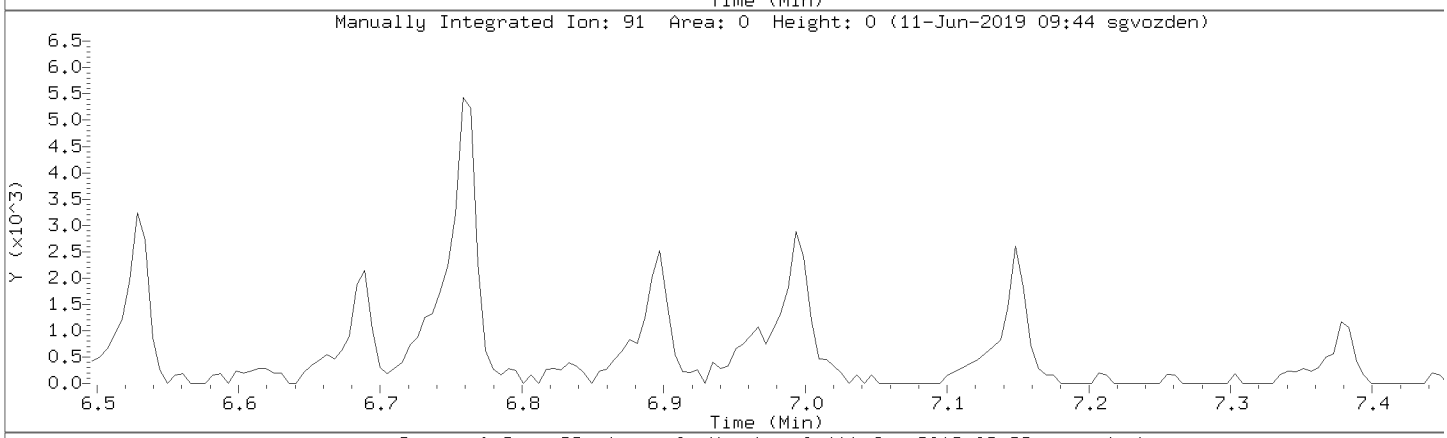
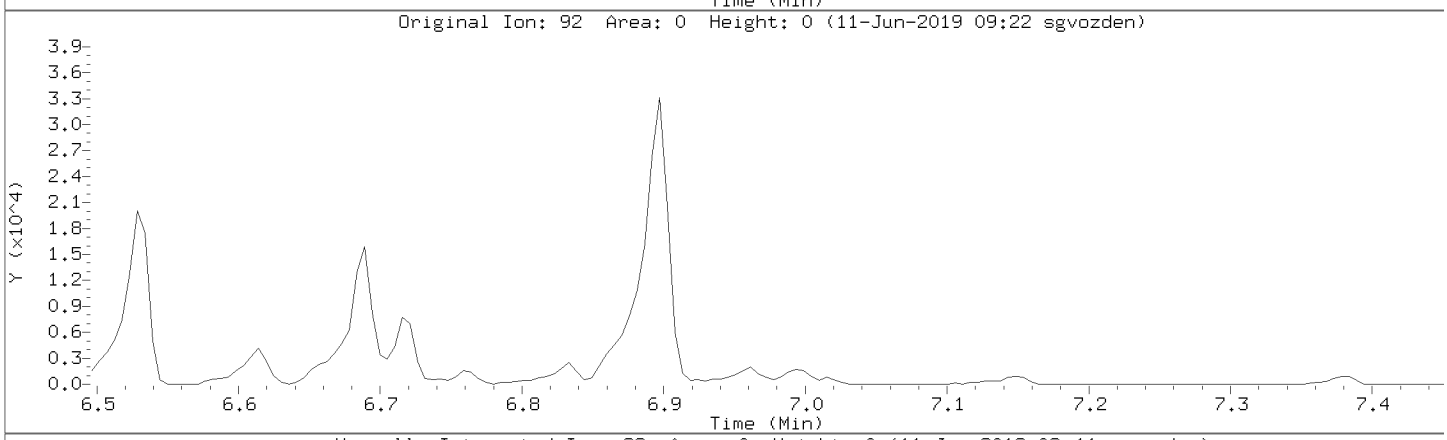
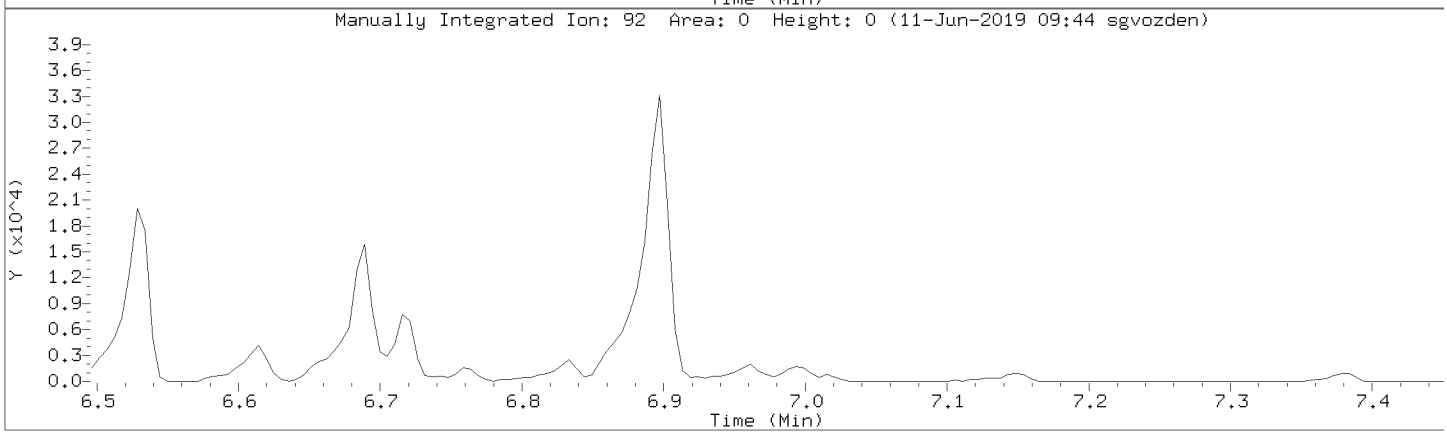
Injection Date: 10-JUN-2019 21:34
Instrument: 30mss1.i
Lab Sample ID: CAL1









SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11069361ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/10/2019 Time: 21:57

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 06/10/2019 06/10/2019

Lab File ID: MSS1061019.B\M10610Y8.D Init. Calib. Time(s): 19:16 21:34

SDG No.: 30298231

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.64310	1.61034	0.0500	-1.9940	20.0000
2,4-Dinitrotoluene	Averaged	0.33430	0.34979	0.0500	4.6330	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16142	0.15981	0.0500	-0.9919	20.0000
Hexachlorobenzene	Averaged	0.25172	0.25521	0.0500	1.3883	20.0000
Hexachloroethane	Averaged	0.55085	0.54903	0.0500	-0.3312	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.22711	1.24547	0.0500	1.4966	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.26958	2.63073	0.0500	3.6064	20.0000
Nitrobenzene	Averaged	0.29666	0.30601	0.0500	3.1509	20.0000
Pentachlorophenol	Averaged	0.12266	0.12578	0.0500	2.5425	20.0000
Pyridine	Averaged	1.17396	1.19022	0.0500	1.3852	20.0000
2,4,5-Trichlorophenol	Averaged	0.30245	0.29778	0.0500	-1.5438	20.0000
2,4,6-Trichlorophenol	Averaged	0.42566	0.45226	0.0500	6.2496	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33306	1.34335	0.0500	0.7715	20.0000
2-Fluorophenol (S)	Averaged	1.19924	1.26964	0.0500	5.8709	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16340	0.16479	0.0500	0.8541	20.0000
Phenol-d6 (S)	Averaged	1.49554	1.51103	0.0500	1.0356	20.0000
Terphenyl-d14 (S)	Averaged	0.99606	0.93840	0.0500	-5.7884	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10779	0.10551	0.0500	-2.1126	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11069476CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/11/2019 Time: 16:47

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 06/10/2019 06/10/2019

Lab File ID: MSS1061119.B\M10611S2.D Init. Calib. Time(s): 19:16 21:34

SDG No.: 30298231

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.64310	1.62435	0.0500	-1.1414	20.0000
2,4-Dinitrotoluene	Averaged	0.33430	0.33464	0.0500	0.1006	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16142	0.17281	0.0500	7.0608	20.0000
Hexachlorobenzene	Averaged	0.25172	0.27298	0.0500	8.4470	20.0000
Hexachloroethane	Averaged	0.55085	0.51096	0.0500	-7.2419	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.22711	1.15281	0.0500	-6.0545	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.26958	1.20060	0.0500	-5.4330	20.0000
Nitrobenzene	Averaged	0.29666	0.26036	0.0500	-12.2355	20.0000
Pentachlorophenol	Averaged	0.12266	0.12201	0.0500	-0.5295	20.0000
Pyridine	Averaged	1.17396	1.02034	0.0500	-13.0856	20.0000
2,4,5-Trichlorophenol	Averaged	0.30245	0.32311	0.0500	6.8317	20.0000
2,4,6-Trichlorophenol	Averaged	0.42566	0.44143	0.0500	3.7051	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33306	1.31938	0.0500	-1.0262	20.0000
2-Fluorophenol (S)	Averaged	1.19924	1.11585	0.0500	-6.9533	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16340	0.15660	0.0500	-4.1591	20.0000
Phenol-d6 (S)	Averaged	1.49554	1.38863	0.0500	-7.1482	20.0000
Terphenyl-d14 (S)	Averaged	0.99606	1.01540	0.0500	1.9422	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10779	0.12936	0.0500	20.0154	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 10-JUN-2019 21:57
Operator : SJG Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14685,89100:1
Comment   :
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Meth Date : 11-Jun-2019 14:22 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.681	2.682	(0.211)	403227	8.00000	8.24	
	2 Pyridine	79	2.686	2.687	(0.605)	663352	8.00000	8.11	
$	3 2-Fluorophenol (S)	112	3.535	3.531	(0.796)	707615	8.00000	8.47	
$	4 Phenol-d6 (S)	99	4.155	4.146	(0.935)	842146	8.00000	8.08	
	5 Benzaldehyde	77	4.128	4.130	(0.929)	488941	8.00000	7.31	
	6 Phenol	94	4.160	4.156	(0.936)	867570	8.00000	8.12	
	7 Aniline	66	4.225	4.220	(0.951)	367652	8.00000	8.66	
	8 bis(2-Chloroethyl)ether	63	4.246	4.242	(0.956)	498516	8.00000	8.26	
	9 2-Chlorophenol	128	4.310	4.306	(0.970)	788847	8.00000	8.13	
	10 1,3-Dichlorobenzene	146	4.422	4.418	(0.995)	777305	8.00000	7.36	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.444	4.445	(1.000)	278667	4.00000		
	12 1,4-Dichlorobenzene	146	4.460	4.455	(1.004)	897496	8.00000	7.84	
	13 Benzyl Alcohol	79	4.545	4.541	(1.023)	558815	8.00000	8.30	
	14 1,2-Dichlorobenzene	146	4.609	4.605	(1.037)	816579	8.00000	7.97	
	15 2-Methylphenol(o-Cresol)	108	4.620	4.616	(1.040)	694143	8.00000	8.12	
	16 bis(2-Chloroisopropyl)ether	45	4.657	4.658	(1.048)	818433	8.00000	8.02	
	17 3&4-Methylphenol(m&p Cresol)	108	4.727	4.723	(1.064)	1466193	16.0000	16.6	
	18 N-Nitroso-di-n-propylamine	70	4.775	4.765	(1.075)	497409	8.00000	8.21	
	19 Acetophenone	105	4.769	4.760	(1.073)	994276	8.00000	8.29	
	20 Hexachloroethane	117	4.850	4.851	(1.091)	305993	8.00000	7.97	
$	21 Nitrobenzene-d5 (S)	128	4.892	4.888	(0.895)	372336	8.00000	8.07	
	22 Nitrobenzene	77	4.908	4.904	(0.898)	691402	8.00000	8.25	
	23 Isophorone	82	5.085	5.080	(0.931)	1345685	8.00000	8.21	
	24 2,4-Dimethylphenol	107	5.149	5.145	(0.942)	729039	8.00000	8.22	
	25 2-Nitrophenol	139	5.159	5.155	(0.944)	389895	8.00000	8.33	
	26 Benzoic acid	105	5.213	5.177	(0.954)	253918	8.00000	6.82(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.234	5.230	(0.958)	841105	8.00000	8.19	
	28 2,4-Dichlorophenol	162	5.341	5.337	(0.978)	619462	8.00000	8.12	
	29 1,2,4-Trichlorobenzene	180	5.421	5.417	(0.992)	685410	8.00000	7.97	
*	30 Naphthalene-d8 (IS)	136	5.464	5.460	(1.000)	1129711	4.00000		
	31 Naphthalene	128	5.480	5.476	(1.003)	2335613	8.00000	8.14	
	32 4-Chloroaniline	65	5.512	5.508	(1.009)	210988	8.00000	8.33	
	33 Hexachloro-1,3-butadiene	225	5.608	5.609	(1.026)	361089	8.00000	7.92	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	34 Caprolactam	55	5.774	5.743	(1.057)	236845	8.00000	8.38(M)	LT
	35 4-Chloro-3-methylphenol	107	5.881	5.871	(1.076)	591065	8.00000	8.14	
	36 2-Methylnaphthalene	142	6.041	6.037	(1.106)	1573714	8.00000	8.18	
	37 1-Methylnaphthalene	142	6.132	6.128	(1.122)	1447477	8.00000	7.96	
	38 Hexachlorocyclopentadiene	237	6.222	6.218	(0.893)	427175	8.00000	8.34	
	39 1,2,4,5-Tetrachlorobenzene	216	6.212	6.208	(0.892)	665391	8.00000	8.10	
	40 2,4,6-Trichlorophenol	196	6.281	6.277	(0.902)	546103	8.00000	8.50	
	41 2,4,5-Trichlorophenol	196	6.313	6.309	(0.906)	359569	8.00000	7.88	
$	42 2-Fluorobiphenyl (S)	172	6.340	6.336	(0.910)	1622076	8.00000	8.06	
	43 Biphenyl (Diphenyl)	154	6.420	6.416	(0.922)	1820746	8.00000	8.05	
	44 2-Chloronaphthalene	164	6.447	6.443	(0.926)	465400	8.00000	8.04	
	45 2-Nitroaniline	138	6.538	6.528	(0.939)	435593	8.00000	8.22	
	46 Dimethylphthalate	163	6.693	6.688	(0.961)	1547803	8.00000	8.15	
	47 2,6-Dinitrotoluene	165	6.767	6.763	(0.972)	339889	8.00000	8.21	
	48 Acenaphthylene	152	6.821	6.817	(0.979)	2211265	8.00000	8.18	
	49 3-Nitroaniline	65	6.901	6.897	(0.991)	342668	8.00000	8.07	
*	50 Acenaphthene-d10 (IS)	164	6.965	6.961	(1.000)	603744	4.00000		
	51 2,4-Dinitrophenol	184	7.002	6.998	(1.005)	121524	8.00000	7.75	
	52 Acenaphthene	153	6.997	6.993	(1.005)	1383980	8.00000	8.08	
	53 4-Nitrophenol	109	7.024	7.014	(1.008)	159133	8.00000	8.36	
	54 2,4-Dinitrotoluene	165	7.157	7.148	(1.028)	422364	8.00000	8.37	
	55 Dibenzofuran	168	7.152	7.148	(1.027)	1967064	8.00000	8.12	
	56 2,3,4,6-Tetrachlorophenol	232	7.307	7.303	(1.049)	328024	8.00000	7.92	
	57 Diethylphthalate	149	7.387	7.378	(1.061)	1487150	8.00000	8.17	
	58 4-Chlorophenylphenyl ether	204	7.483	7.479	(1.074)	763911	8.00000	7.92	
	59 Fluorene	166	7.510	7.506	(1.078)	1590154	8.00000	8.07	
	60 4-Nitroaniline	108	7.537	7.522	(1.082)	198956	8.00000	8.12(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.585	7.575	(0.892)	172964	8.00000	8.30	
	62 N-Nitrosodiphenylamine	169	7.606	7.602	(0.894)	1362371	8.00000	8.10	
	63 Azobenzene	77	7.649	7.645	(0.899)	1349460	8.00000	8.63	
	64 1,2-Diphenylhydrazine	77	7.649	7.645	(0.899)	1349460	8.00000	8.63	
$	65 2,4,6-Tribromophenol (S)	330	7.782	7.778	(0.915)	208115	8.00000	7.83	
	66 4-Bromophenylphenyl ether	248	7.996	7.997	(0.940)	451500	8.00000	8.10	
	67 Hexachlorobenzene	284	8.178	8.174	(0.962)	503384	8.00000	8.11	
	68 Atrazine	200	8.178	8.168	(0.962)	440884	8.00000	8.20	
	69 Pentachlorophenol	266	8.354	8.350	(0.982)	248086	8.00000	8.20	
*	70 Phenanthrene-d10 (IS)	188	8.504	8.499	(1.000)	986207	4.00000		
	71 Phenanthrene	178	8.530	8.521	(1.003)	2343513	8.00000	8.02	
	72 Anthracene	178	8.578	8.569	(1.009)	2178516	8.00000	8.13	
	73 Carbazole	167	8.728	8.724	(1.026)	1931967	8.00000	7.88	
	74 Di-n-butylphthalate	149	9.113	9.103	(1.072)	2445447	8.00000	8.38	
	75 Fluoranthene	202	9.796	9.787	(1.152)	2326253	8.00000	8.27	
	76 Pyrene	202	10.037	10.027	(0.889)	2390645	8.00000	8.17	
$	77 Terphenyl-d14 (S)	244	10.170	10.166	(0.901)	1801607	8.00000	7.54	
	78 Butylbenzylphthalate	149	10.683	10.679	(0.947)	1040516	8.00000	8.66	
	79 3,3'-Dichlorobenzidine	252	11.228	11.224	(0.995)	735250	8.00000	7.46	
	80 bis(2-Ethylhexyl)phthalate	149	11.265	11.261	(0.998)	1342583	8.00000	8.21	
	81 Benzo(a)anthracene	228	11.265	11.267	(0.998)	2291552	8.00000	8.49	
*	82 Chrysene-d12 (IS)	240	11.287	11.283	(1.000)	959934	4.00000		
	83 Chrysene	228	11.314	11.309	(1.002)	2221225	8.00000	8.10	
	84 Di-n-octylphthalate	149	11.848	11.844	(0.934)	2028357	8.00000	8.81	
	85 Benzo(b)fluoranthene	252	12.313	12.308	(0.971)	1903259	8.00000	8.24	
	86 Benzo(k)fluoranthene	252	12.334	12.324	(0.973)	2642101	8.00000	8.49	
	87 Benzo(a)pyrene	252	12.628	12.624	(0.996)	1868233	8.00000	8.02	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	12.681	12.677	(1.000)	895927	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	13.862	13.847	(1.093)	2131651	8.00000	8.43	
90 Dibenz(a,h)anthracene	278	13.856	13.842	(1.093)	1761272	8.00000	8.38	
91 Benzo(g,h,i)perylene	276	14.204	14.183	(1.120)	1747038	8.00000	8.43	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610y8.d
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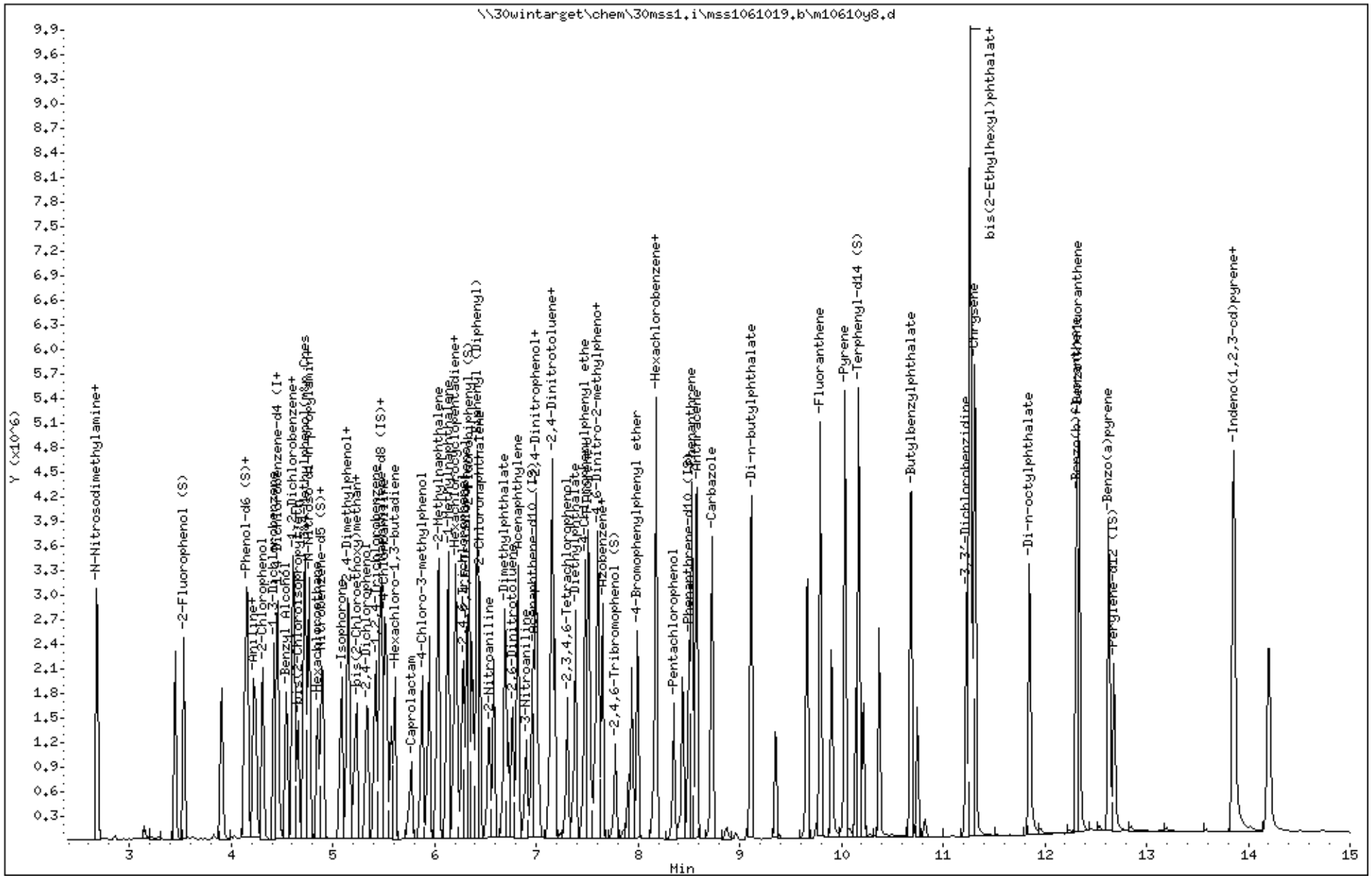
Sample Info: ICV

Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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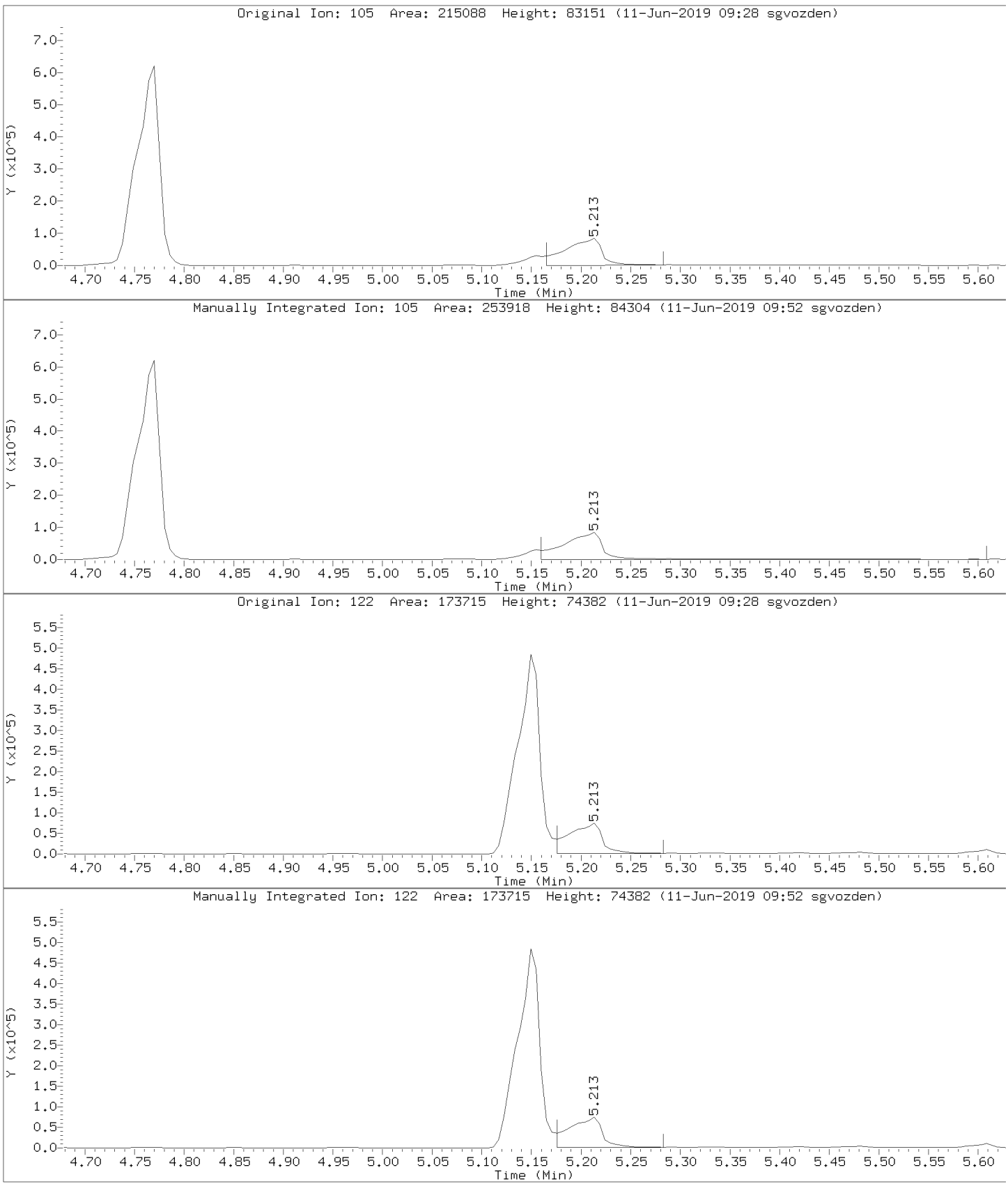
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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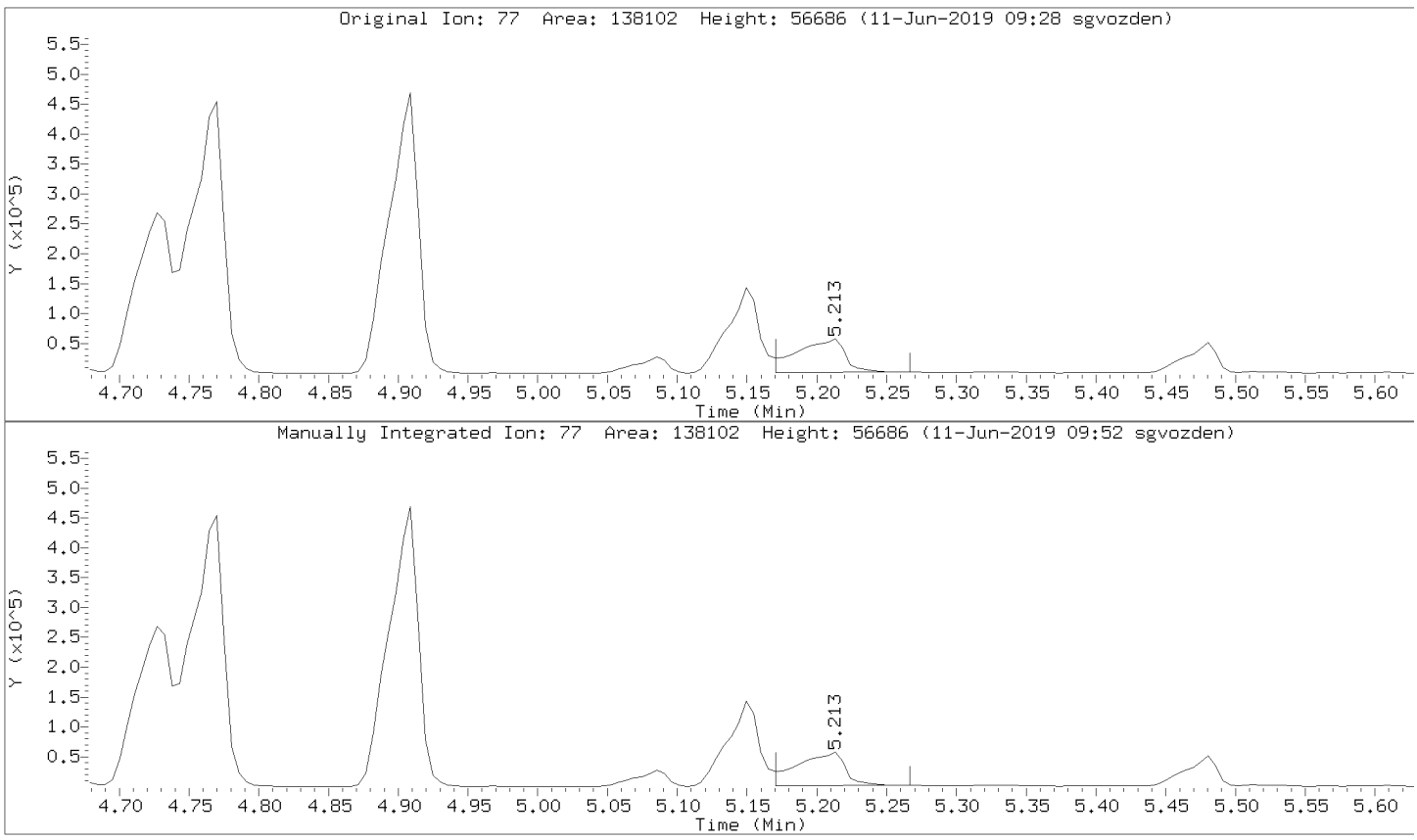

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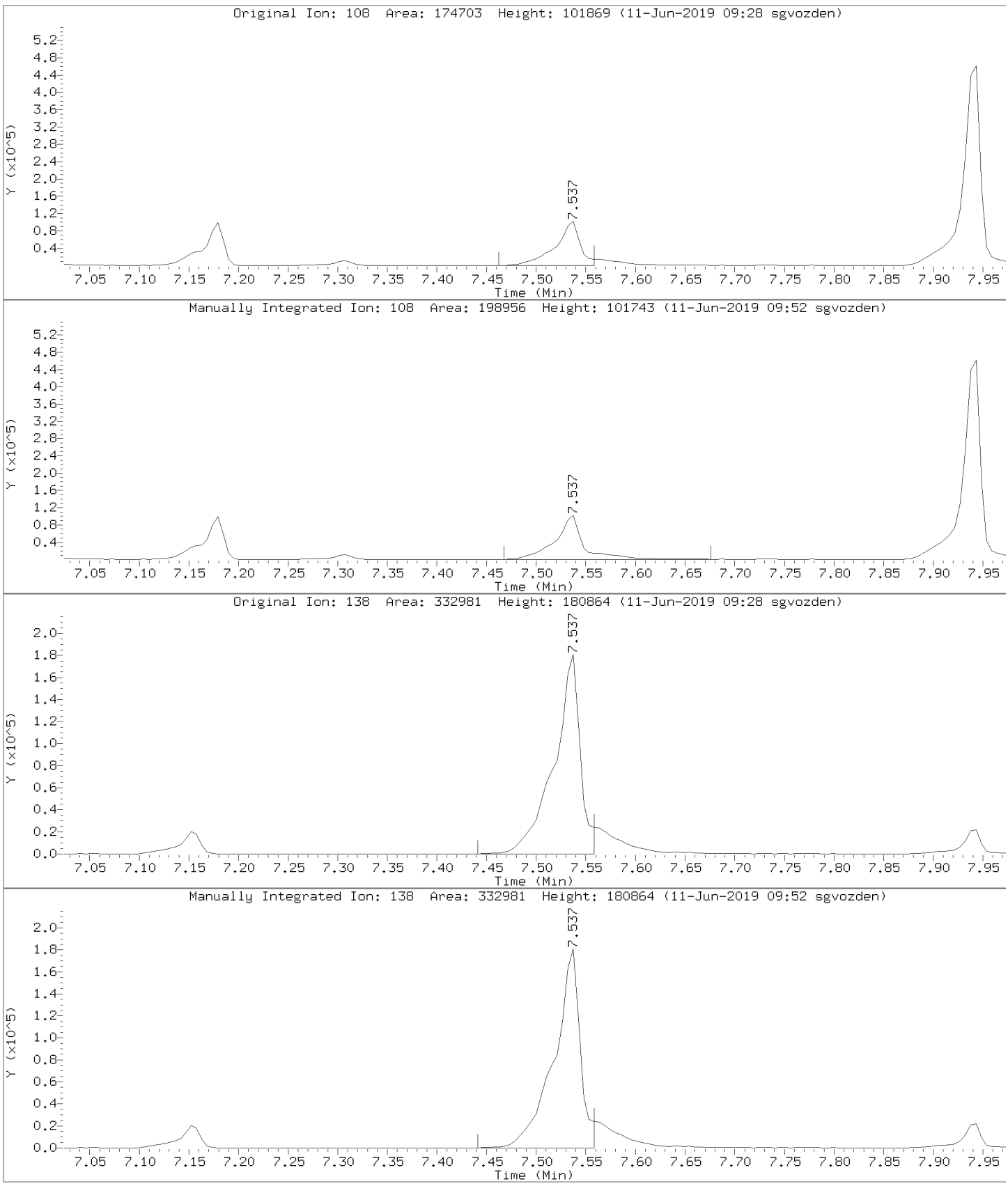
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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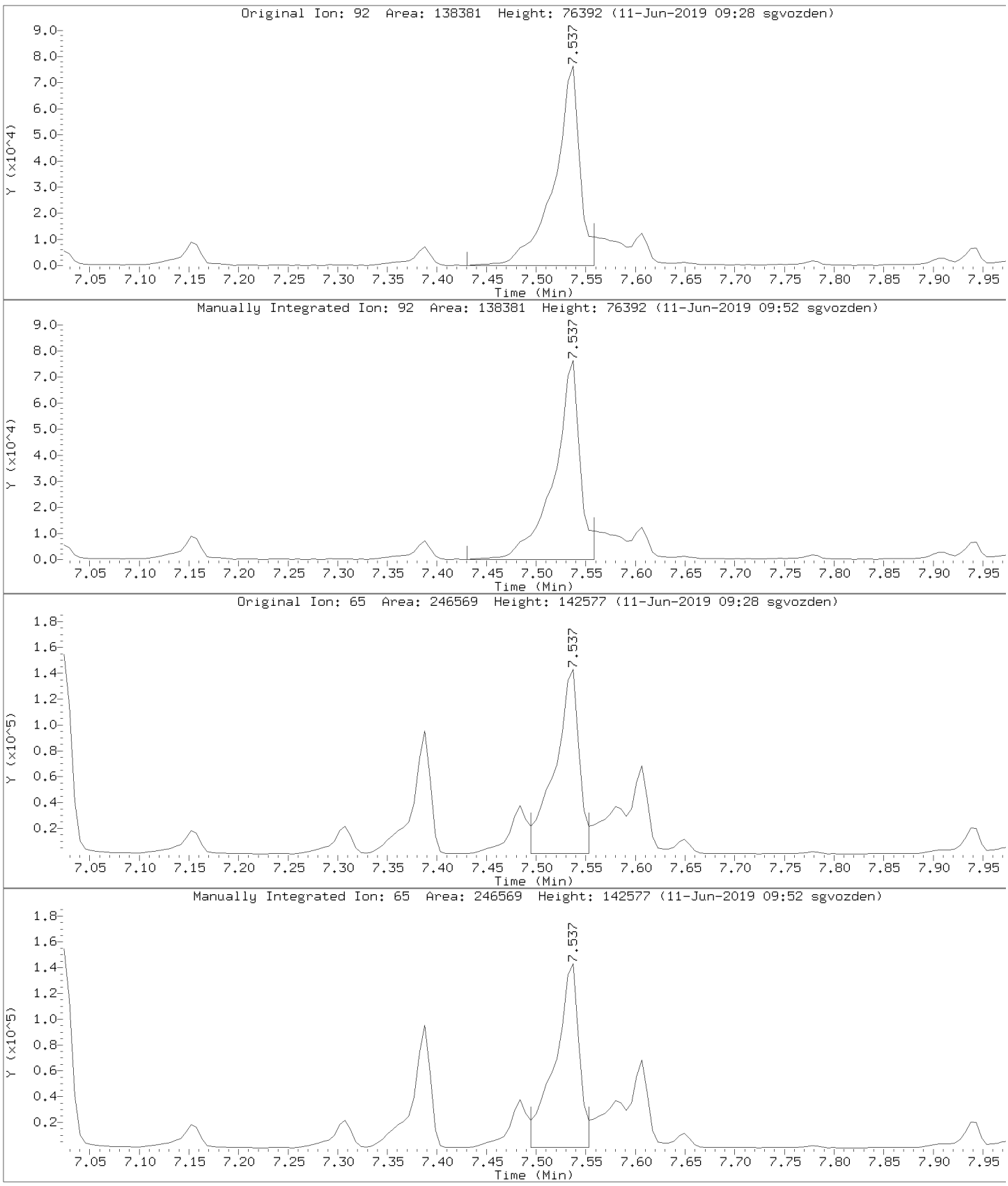

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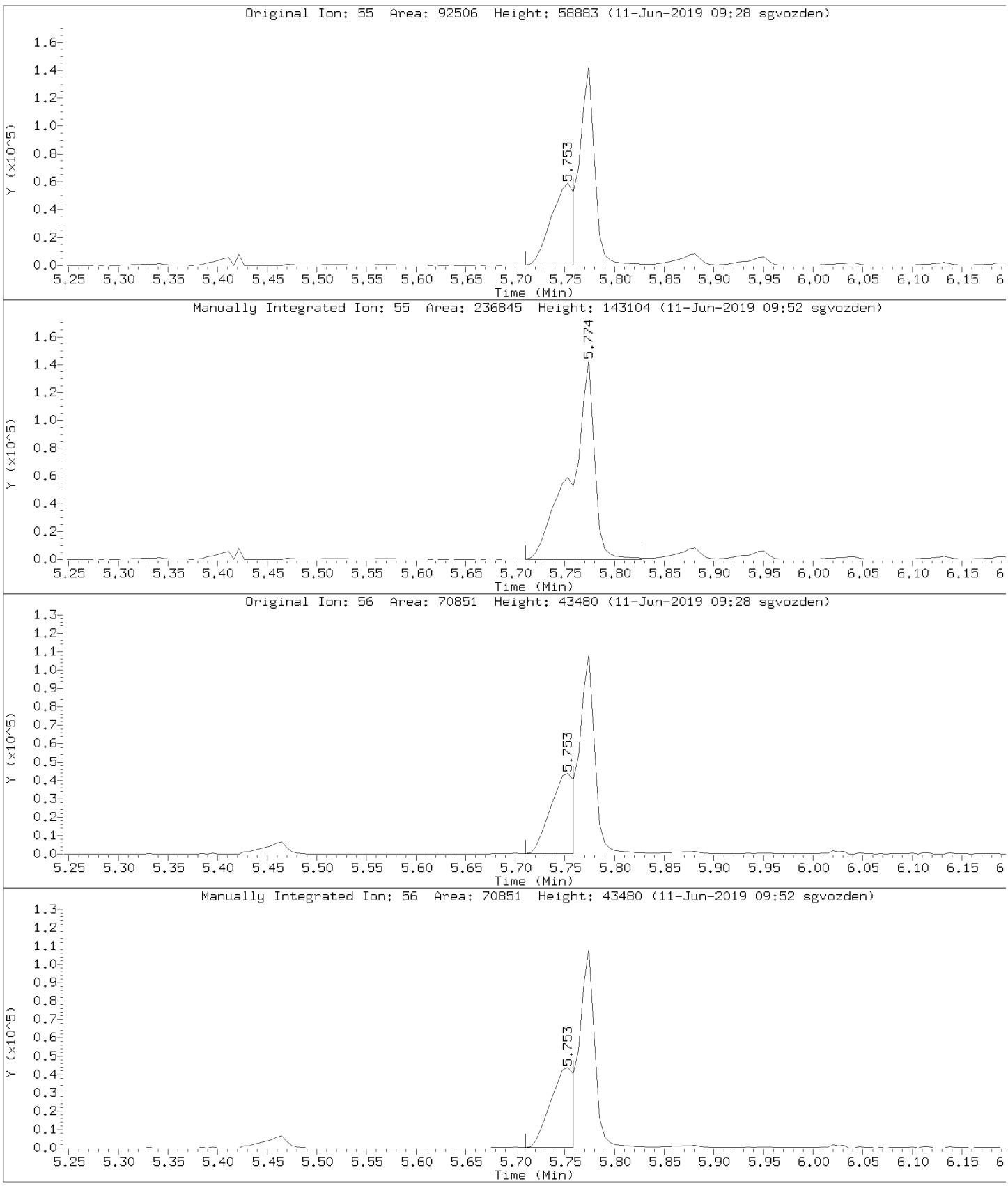
Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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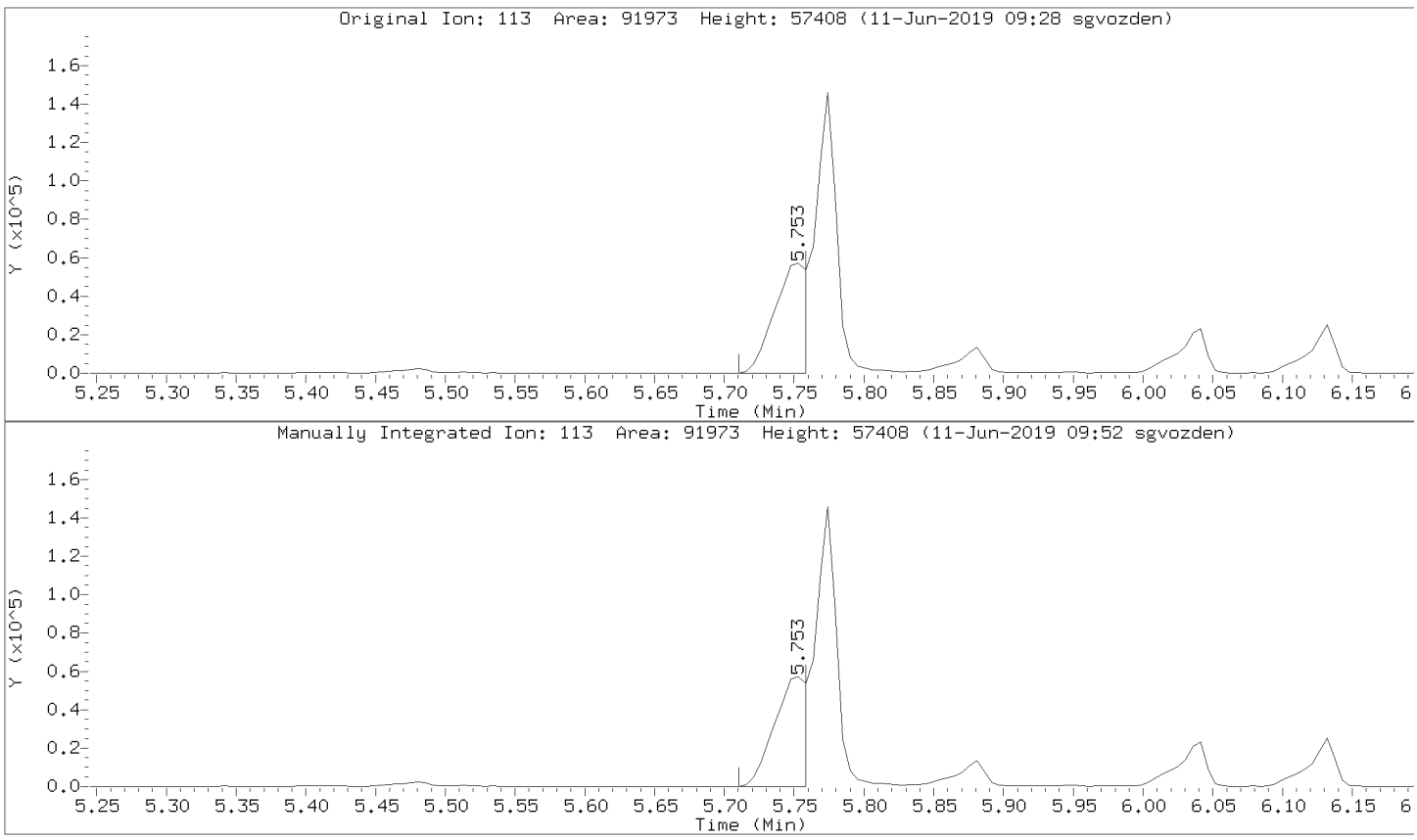
Lab Sample ID: ICV



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m10611s2.d
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Inj Date : 11-JUN-2019 16:47
Operator : SJG Inst ID: 30mss1.i
Smp Info : ccv
Misc Info : 14685,89096:1
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Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.592	2.592	(0.206)	277244	8.00000	5.30	
	2 Pyridine	79	2.592	2.592	(0.594)	463180	8.00000	6.95	
$	3 2-Fluorophenol (S)	112	3.452	3.452	(0.792)	506536	8.00000	7.44	
$	4 Phenol-d6 (S)	99	4.077	4.077	(0.935)	630365	8.00000	7.43	
	5 Benzaldehyde	77	4.050	4.050	(0.929)	379393	8.00000	6.96	
	6 Phenol	94	4.082	4.082	(0.936)	629295	8.00000	7.23	
	7 Aniline	66	4.141	4.141	(0.950)	243239	8.00000	7.03	
	8 bis(2-Chloroethyl)ether	63	4.162	4.162	(0.955)	327265	8.00000	6.66	
	9 2-Chlorophenol	128	4.227	4.227	(0.969)	613344	8.00000	7.76	
	10 1,3-Dichlorobenzene	146	4.339	4.339	(0.995)	668624	8.00000	7.77	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.360	4.360	(1.000)	226973	4.00000		
	12 1,4-Dichlorobenzene	146	4.376	4.376	(1.004)	737366	8.00000	7.91	
	13 Benzyl Alcohol	79	4.462	4.462	(1.023)	396347	8.00000	7.23	
	14 1,2-Dichlorobenzene	146	4.526	4.526	(1.038)	652812	8.00000	7.83	
	15 2-Methylphenol(o-Cresol)	108	4.542	4.542	(1.042)	523314	8.00000	7.52	
	16 bis(2-Chloroisopropyl)ether	45	4.579	4.579	(1.050)	513233	8.00000	6.18	
	17 3&4-Methylphenol(m&p Cresol)	108	4.649	4.649	(1.066)	545008	8.00000	7.56	
	18 N-Nitroso-di-n-propylamine	70	4.691	4.691	(1.076)	341904	8.00000	6.93	
	19 Acetophenone	105	4.686	4.686	(1.075)	720960	8.00000	7.38	
	20 Hexachloroethane	117	4.766	4.766	(1.093)	231949	8.00000	7.42	
$	21 Nitrobenzene-d5 (S)	128	4.809	4.809	(0.895)	285385	8.00000	7.67	
	22 Nitrobenzene	77	4.825	4.825	(0.898)	474477	8.00000	7.02	
	23 Isophorone	82	5.001	5.001	(0.930)	946840	8.00000	7.16	
	24 2,4-Dimethylphenol	107	5.071	5.071	(0.943)	537791	8.00000	7.52	
	25 2-Nitrophenol	139	5.076	5.076	(0.944)	290860	8.00000	7.70	
	26 Benzoic acid	105	5.135	5.135	(0.955)	207257	8.00000	6.90(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.151	5.151	(0.958)	601904	8.00000	7.27	
	28 2,4-Dichlorophenol	162	5.258	5.258	(0.978)	505557	8.00000	8.22	
	29 1,2,4-Trichlorobenzene	180	5.338	5.338	(0.993)	578563	8.00000	8.34	
*	30 Naphthalene-d8 (IS)	136	5.375	5.375	(1.000)	911184	4.00000		
	31 Naphthalene	128	5.396	5.396	(1.004)	1812984	8.00000	7.84	
	32 4-Chloroaniline	65	5.428	5.428	(1.010)	144197	8.00000	7.06	
	33 Hexachloro-1,3-butadiene	225	5.525	5.525	(1.028)	314929	8.00000	8.56	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	34 Caprolactam	55	5.690	5.690	(1.059)	165102	8.00000	7.25(M)	LT
	35 4-Chloro-3-methylphenol	107	5.797	5.797	(1.079)	449992	8.00000	7.68	
	36 2-Methylnaphthalene	142	5.952	5.952	(1.107)	1258497	8.00000	8.11	
	37 1-Methylnaphthalene	142	6.043	6.043	(1.124)	1195048	8.00000	8.14	
	38 Hexachlorocyclopentadiene	237	6.134	6.134	(0.893)	350829	8.00000	7.94	
	39 1,2,4,5-Tetrachlorobenzene	216	6.123	6.123	(0.892)	584242	8.00000	8.24	
	40 2,4,6-Trichlorophenol	196	6.198	6.198	(0.903)	459552	8.00000	8.30	
	41 2,4,5-Trichlorophenol	196	6.230	6.230	(0.907)	336377	8.00000	8.55	
$	42 2-Fluorobiphenyl (S)	172	6.257	6.257	(0.911)	1373538	8.00000	7.92	
	43 Biphenyl (Diphenyl)	154	6.337	6.337	(0.923)	1512367	8.00000	7.75	
	44 2-Chloronaphthalene	164	6.358	6.358	(0.926)	387995	8.00000	7.78	
	45 2-Nitroaniline	138	6.449	6.449	(0.939)	357802	8.00000	7.84	
	46 Dimethylphthalate	163	6.609	6.609	(0.963)	1290892	8.00000	7.88(M)	LT
	47 2,6-Dinitrotoluene	165	6.673	6.673	(0.972)	284706	8.00000	7.98	
	48 Acenaphthylene	152	6.727	6.727	(0.980)	1815192	8.00000	7.79	
	49 3-Nitroaniline	65	6.807	6.807	(0.991)	252283	8.00000	6.89	
*	50 Acenaphthene-d10 (IS)	164	6.866	6.866	(1.000)	520523	4.00000		
	51 2,4-Dinitrophenol	184	6.903	6.903	(1.005)	94653	8.00000	7.16(M)	NI
	52 Acenaphthene	153	6.892	6.892	(1.004)	1137920	8.00000	7.71	
	53 4-Nitrophenol	109	6.930	6.930	(1.009)	114183	8.00000	6.96	
	54 2,4-Dinitrotoluene	165	7.053	7.053	(1.027)	348371	8.00000	8.01	
	55 Dibenzofuran	168	7.047	7.047	(1.026)	1665422	8.00000	7.97	
	56 2,3,4,6-Tetrachlorophenol	232	7.207	7.207	(1.050)	294337	8.00000	8.24	
	57 Diethylphthalate	149	7.288	7.288	(1.061)	1223455	8.00000	7.79	
	58 4-Chlorophenylphenyl ether	204	7.378	7.378	(1.075)	703838	8.00000	8.46	
	59 Fluorene	166	7.405	7.405	(1.079)	1359381	8.00000	8.00	
	60 4-Nitroaniline	108	7.432	7.432	(1.082)	145629	8.00000	6.90	
	61 4,6-Dinitro-2-methylphenol	198	7.480	7.480	(0.891)	137415	8.00000	7.42	
	62 N-Nitrosodiphenylamine	169	7.507	7.507	(0.894)	1191041	8.00000	7.75	
	63 Azobenzene	77	7.544	7.544	(0.899)	897050	8.00000	6.28	
	64 1,2-Diphenylhydrazine	77	7.544	7.544	(0.899)	897050	8.00000	6.28	
$	65 2,4,6-Tribromophenol (S)	330	7.678	7.678	(0.915)	233106	8.00000	9.60	
	66 4-Bromophenylphenyl ether	248	7.897	7.897	(0.941)	430624	8.00000	8.46	
	67 Hexachlorobenzene	284	8.073	8.073	(0.962)	491891	8.00000	8.68	
	68 Atrazine	200	8.078	8.078	(0.962)	400864	8.00000	8.16	
	69 Pentachlorophenol	266	8.249	8.249	(0.983)	219853	8.00000	7.96	
*	70 Phenanthrene-d10 (IS)	188	8.393	8.393	(1.000)	900965	4.00000		
	71 Phenanthrene	178	8.420	8.420	(1.003)	2136267	8.00000	8.00	
	72 Anthracene	178	8.468	8.468	(1.009)	1872007	8.00000	7.65	
	73 Carbazole	167	8.623	8.623	(1.027)	1744478	8.00000	7.78	
	74 Di-n-butylphthalate	149	9.013	9.013	(1.074)	2048911	8.00000	7.68	
	75 Fluoranthene	202	9.692	9.692	(1.155)	2111523	8.00000	8.21	
	76 Pyrene	202	9.932	9.932	(0.888)	2137791	8.00000	7.71	
$	77 Terphenyl-d14 (S)	244	10.071	10.071	(0.901)	1847225	8.00000	8.16	
	78 Butylbenzylphthalate	149	10.584	10.584	(0.946)	880011	8.00000	7.73	
	79 3,3'-Dichlorobenzidine	252	11.129	11.129	(0.995)	816693	8.00000	8.74	
	80 bis(2-Ethylhexyl)phthalate	149	11.171	11.171	(0.999)	1183291	8.00000	7.64	
	81 Benzo(a)anthracene	228	11.166	11.166	(0.999)	1987778	8.00000	7.77	
*	82 Chrysene-d12 (IS)	240	11.182	11.182	(1.000)	909602	4.00000		
	83 Chrysene	228	11.209	11.209	(1.002)	1995549	8.00000	7.68	
	84 Di-n-octylphthalate	149	11.754	11.754	(0.936)	1911385	8.00000	7.76	
	85 Benzo(b)fluoranthene	252	12.208	12.208	(0.972)	2166719	8.00000	8.78	
	86 Benzo(k)fluoranthene	252	12.229	12.229	(0.974)	2343524	8.00000	7.04(H)	
	87 Benzo(a)pyrene	252	12.512	12.512	(0.996)	2055903	8.00000	8.26	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	12.560	12.560	(1.000)	958178	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	13.698	13.698	(1.091)	2526646	8.00000	9.34	
90 Dibenz(a,h)anthracene	278	13.693	13.693	(1.090)	2156070	8.00000	9.60	
91 Benzo(g,h,i)perylene	276	14.024	14.024	(1.117)	2088717	8.00000	9.42	

QC Flag Legend

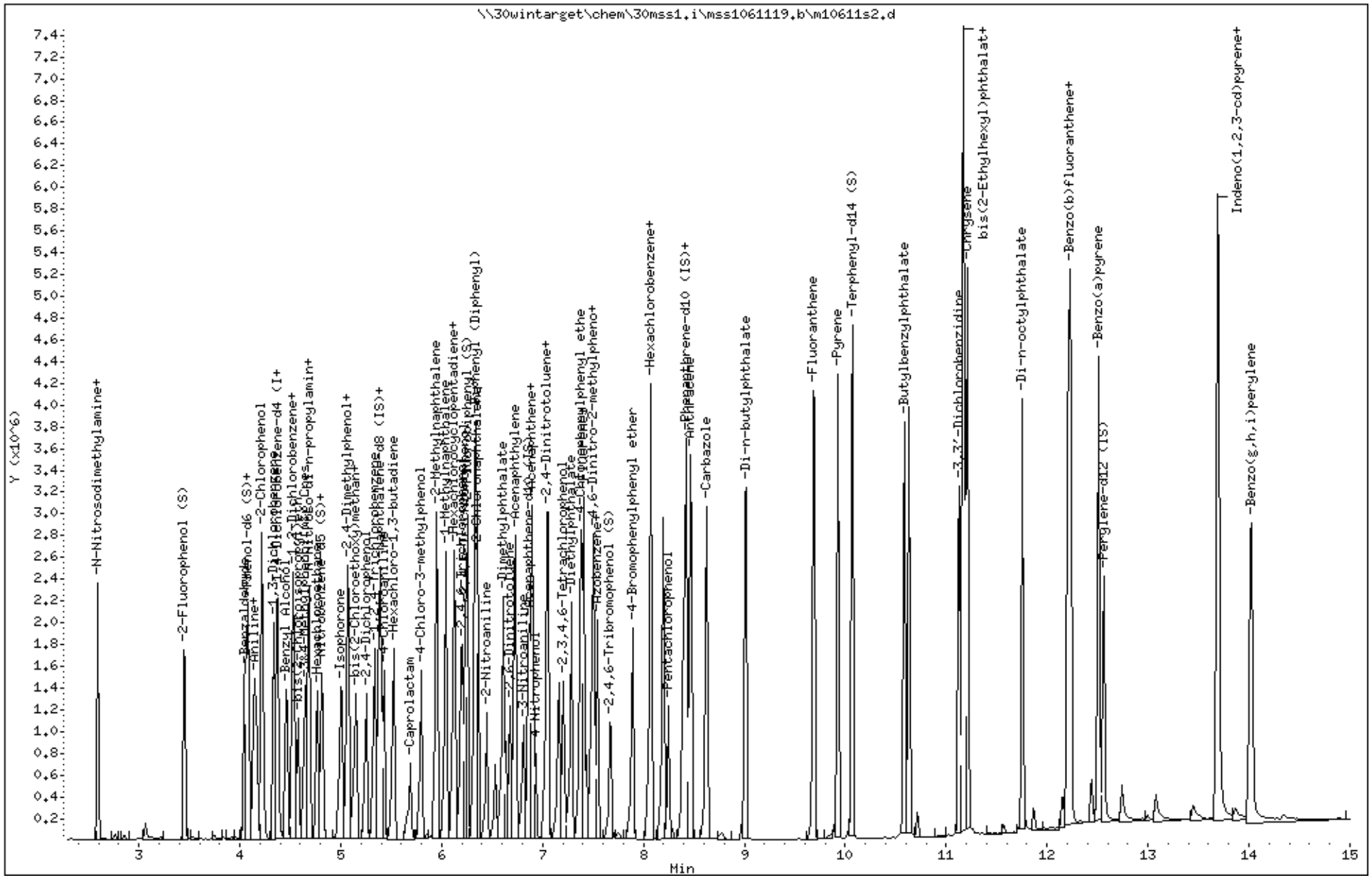
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

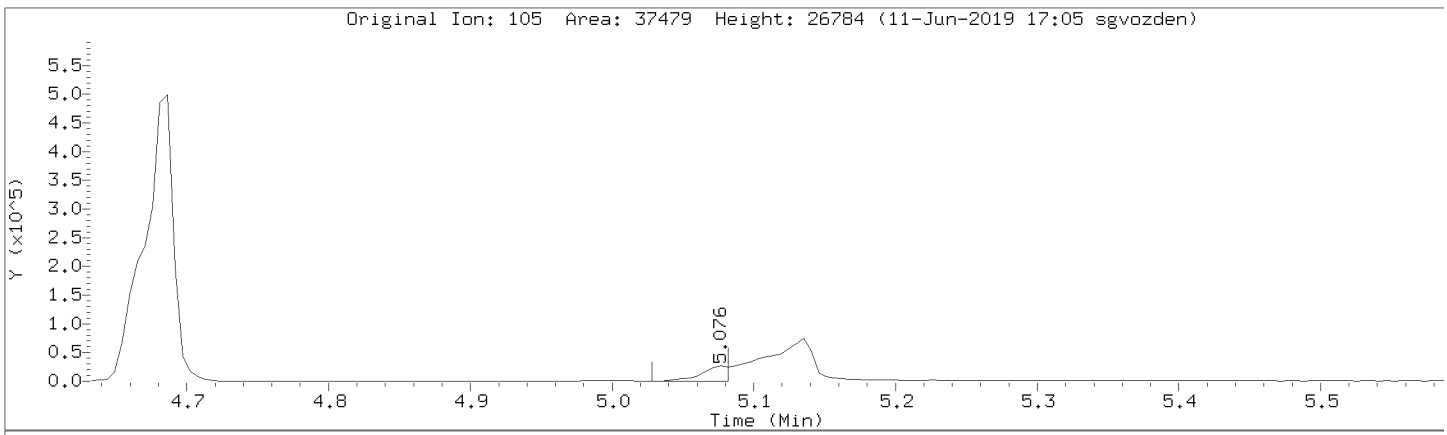
Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m10611s2.d
Date : 11-JUN-2019 16:47
Client ID: CCV
Sample Info: CCV

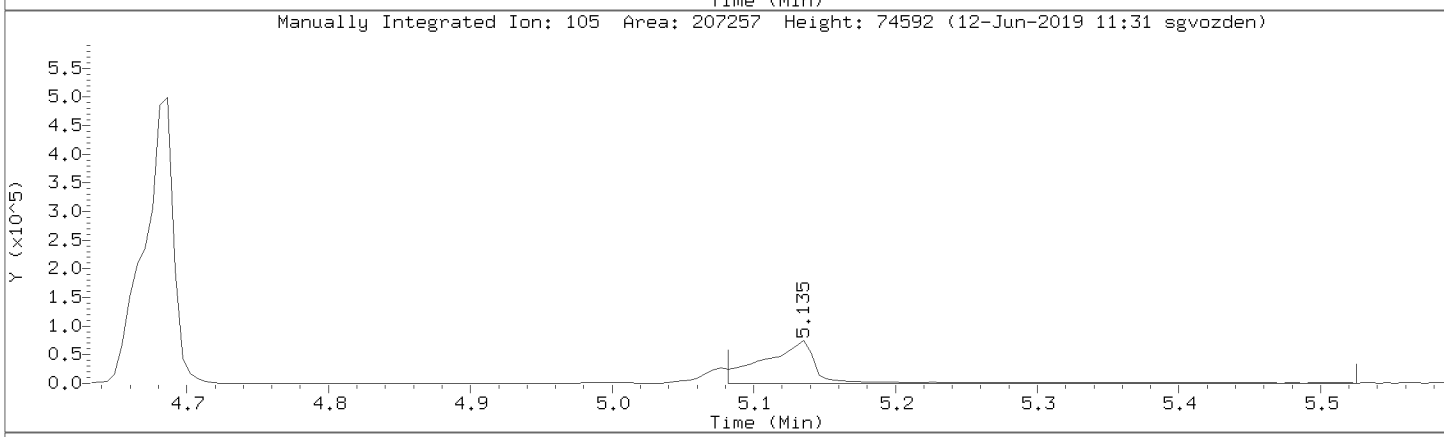
Instrument: 30mss1.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18

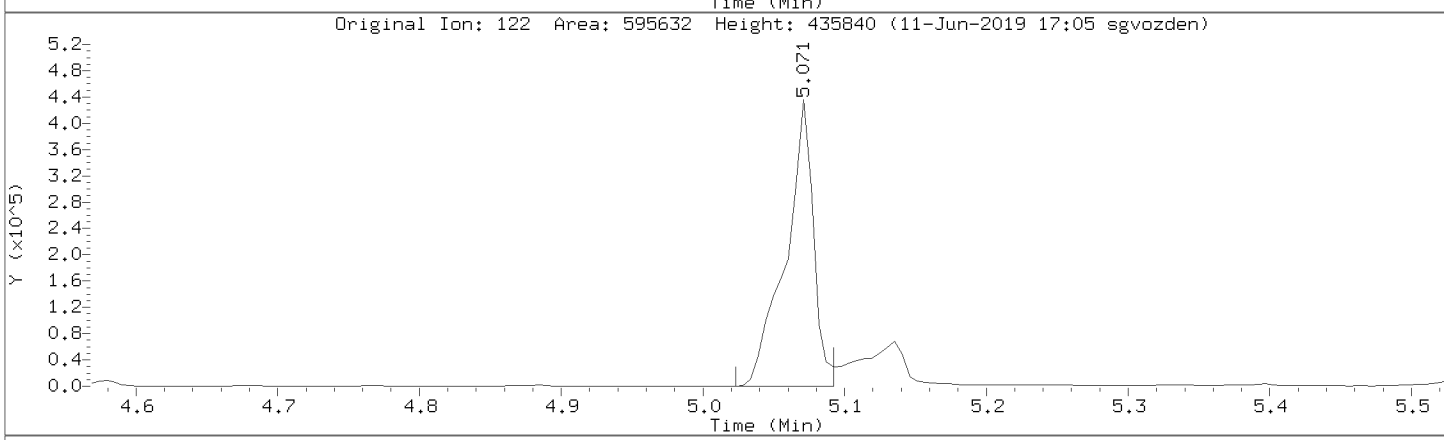


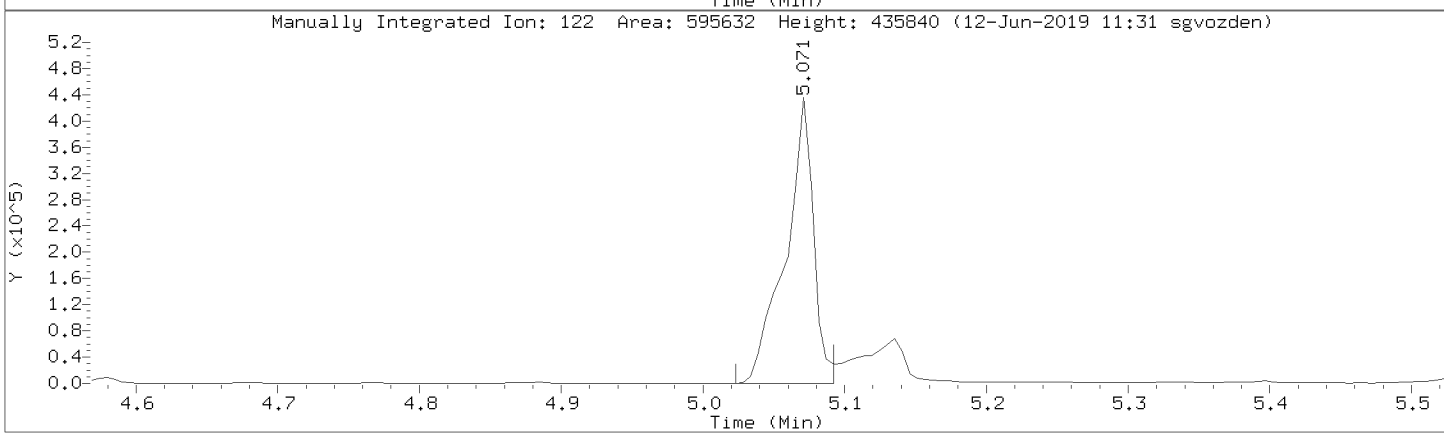
Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

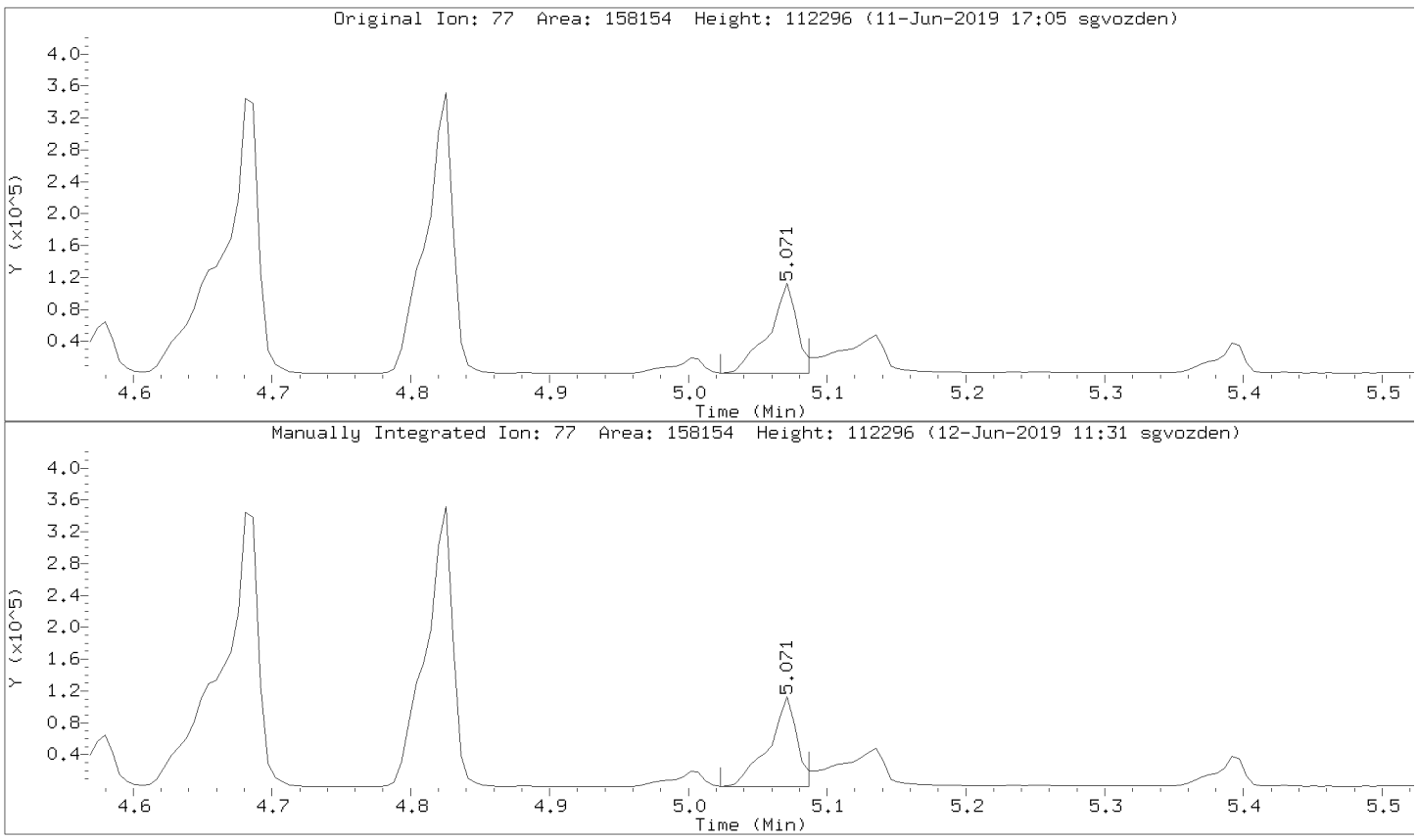






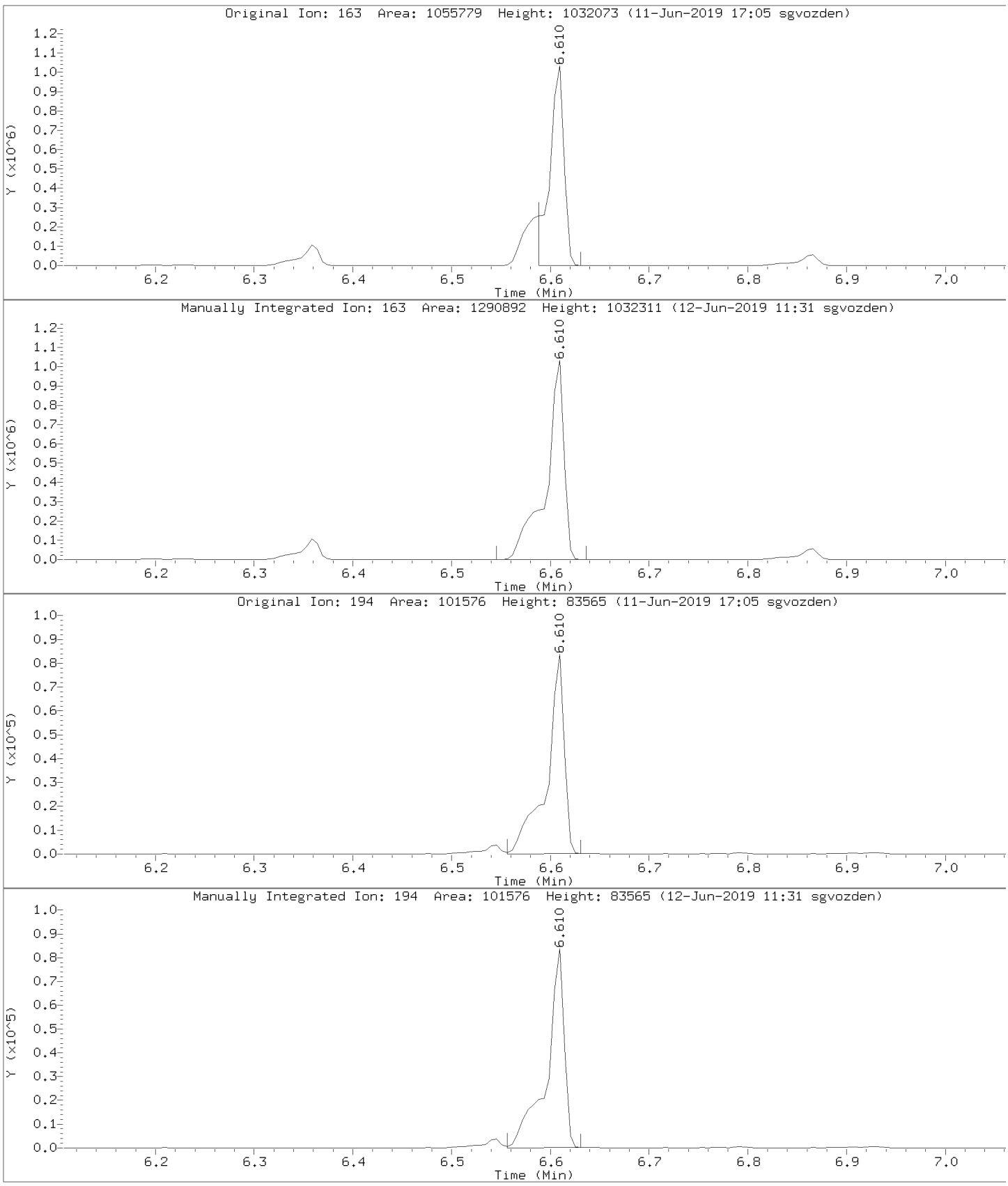


Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

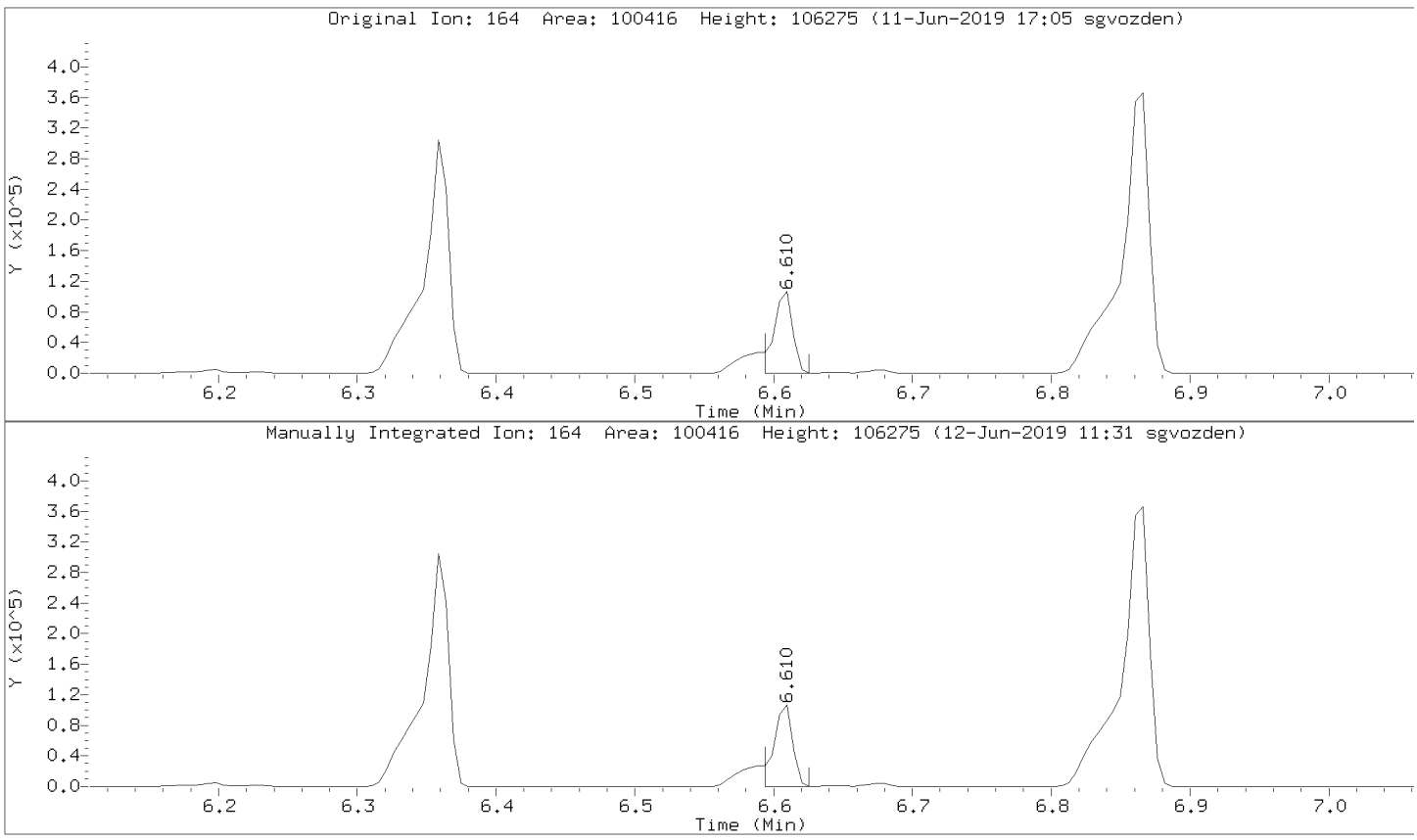


Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3

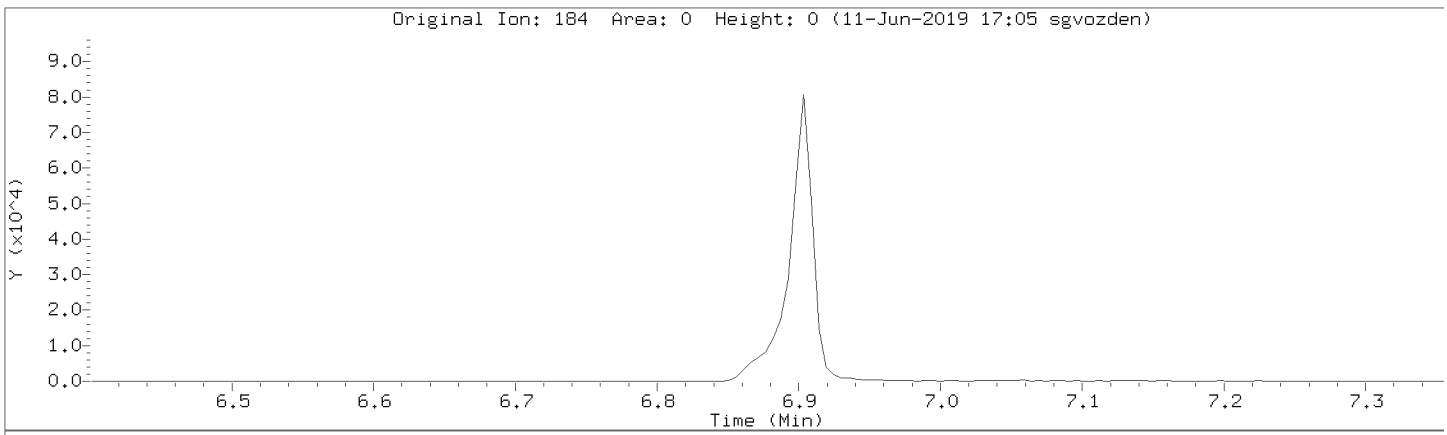


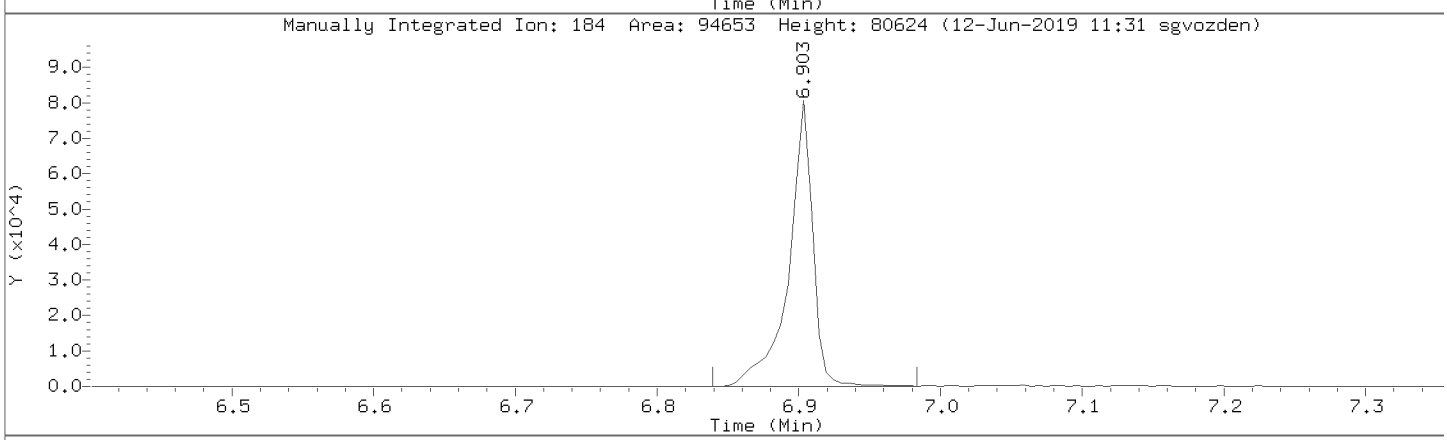
Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

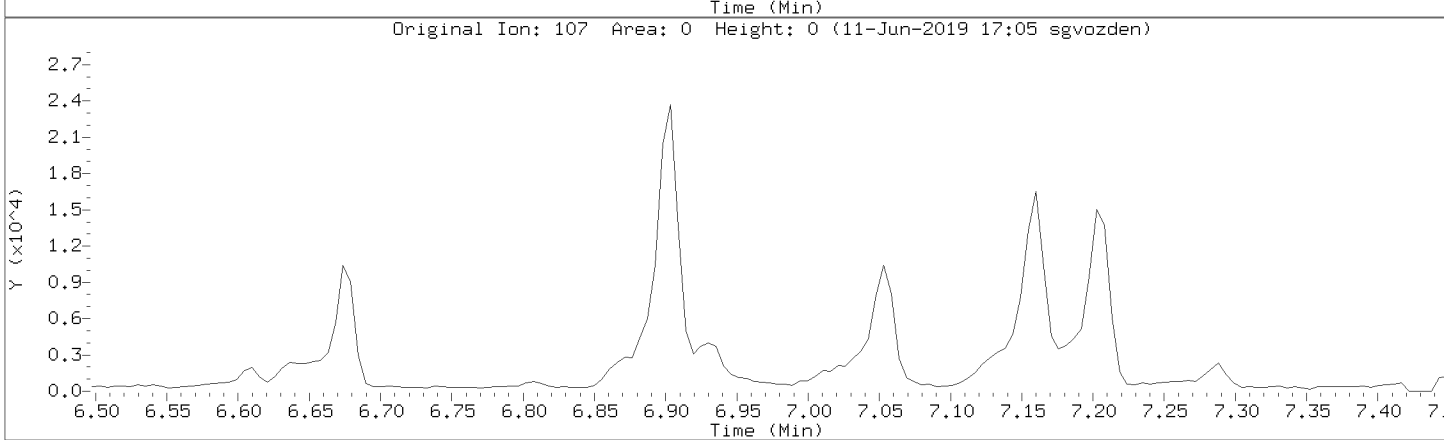


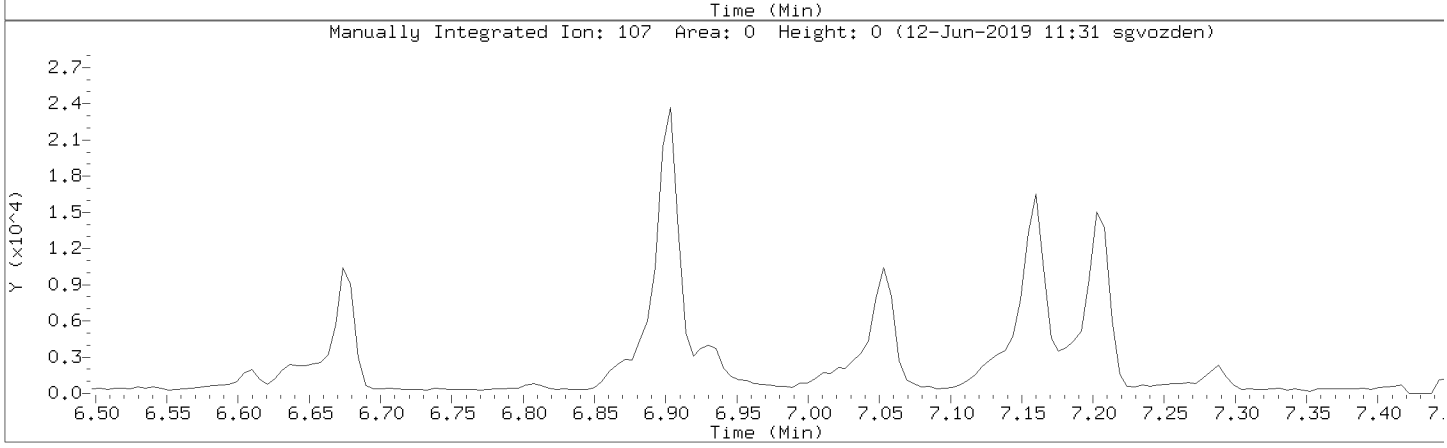
Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5

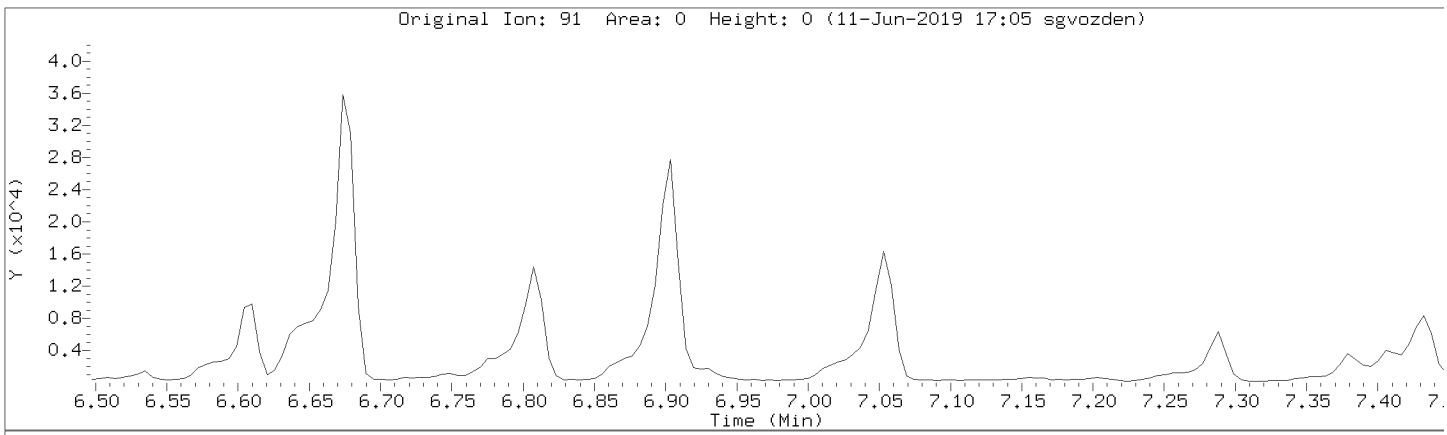


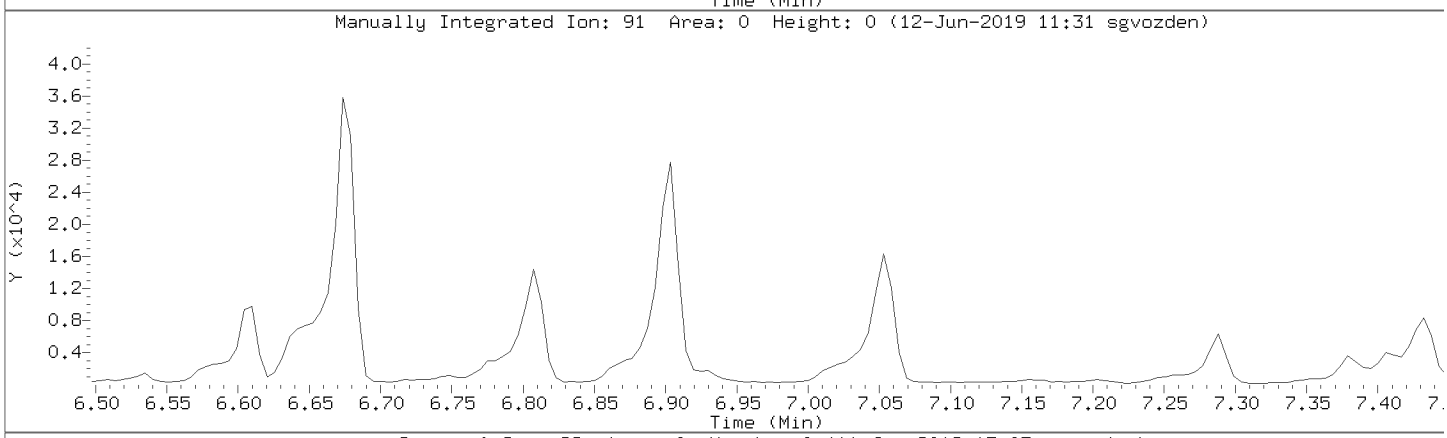


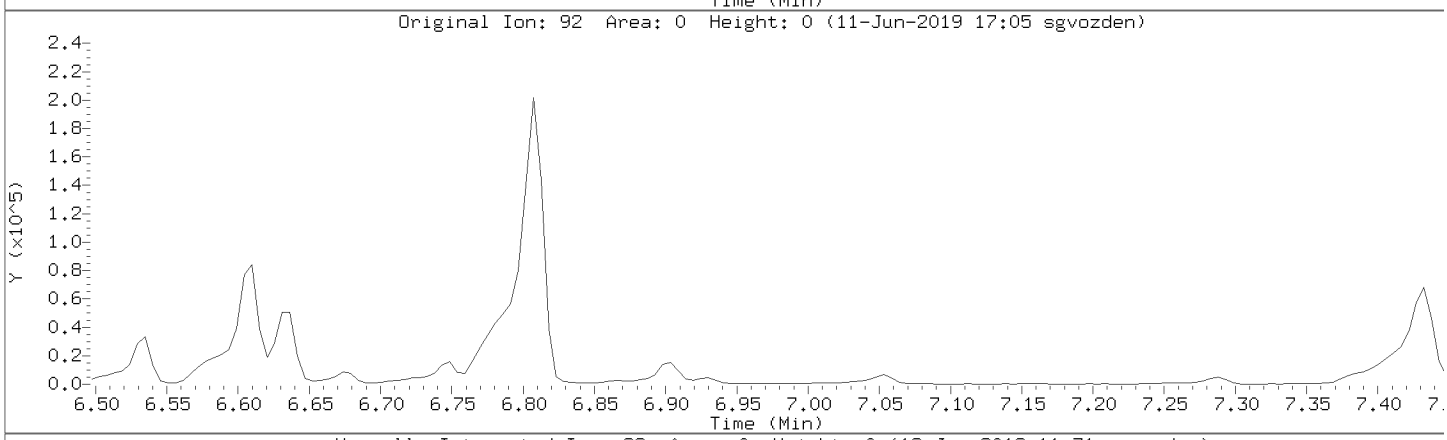


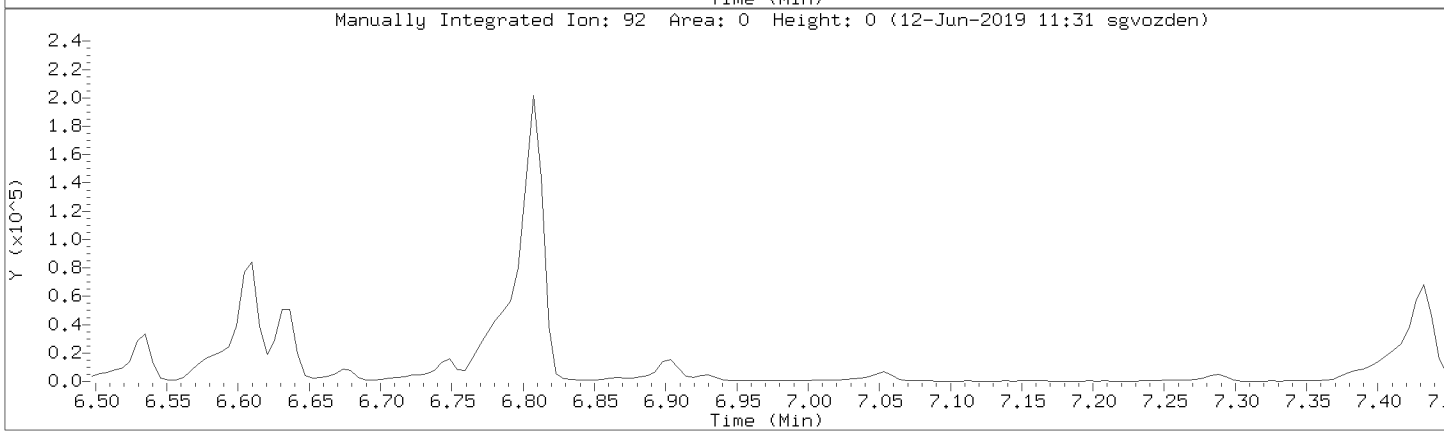


Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV



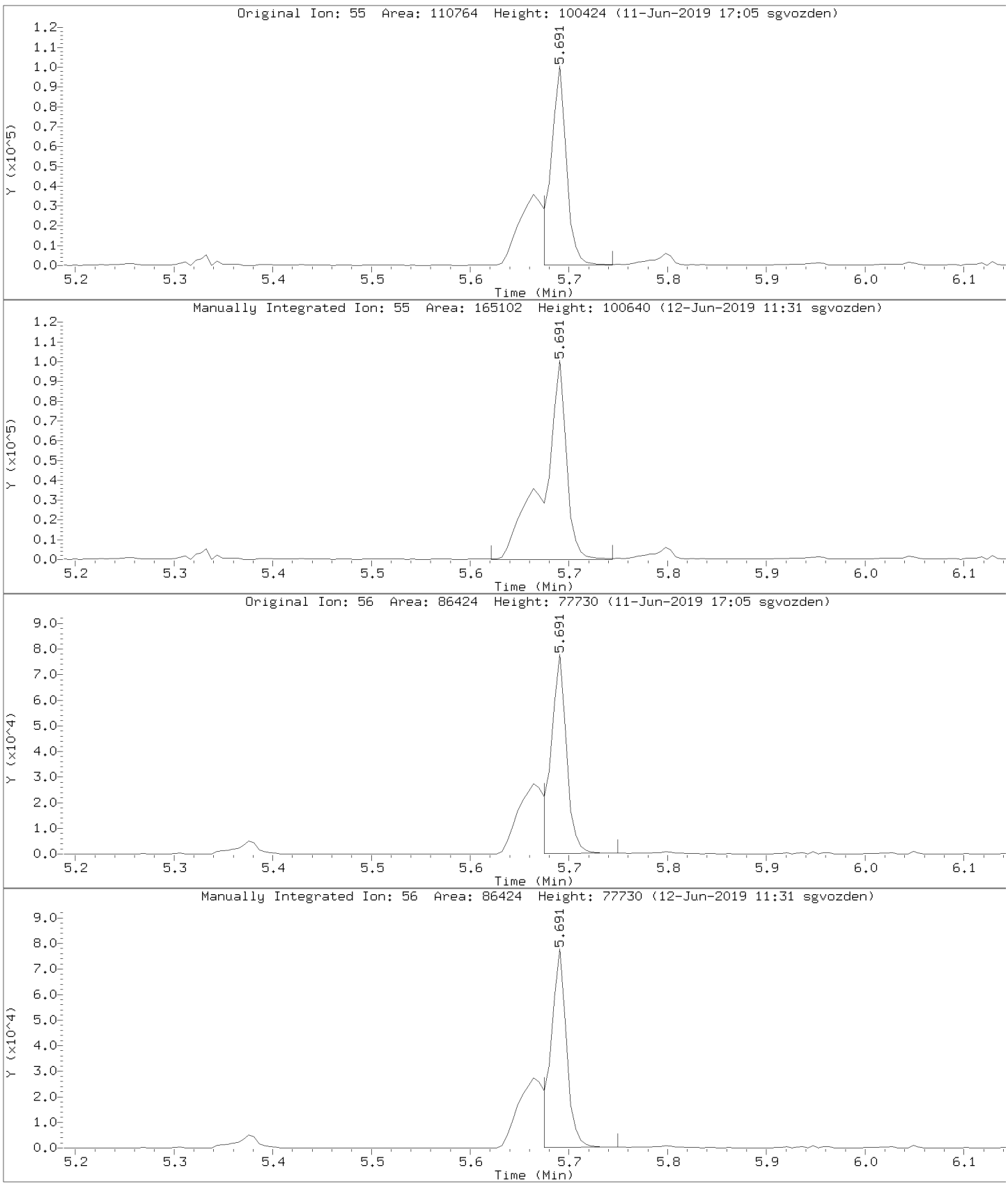




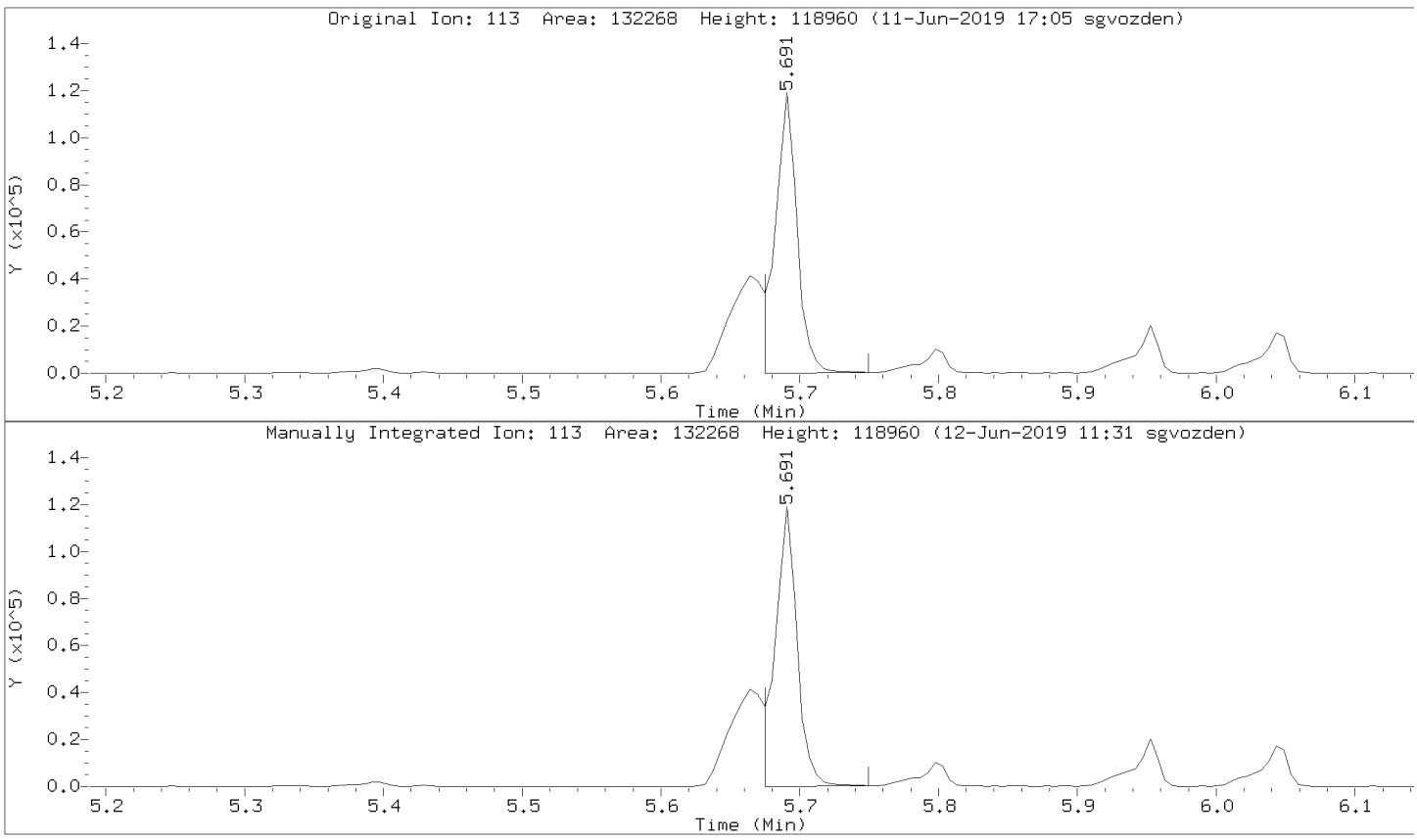


Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m10611s2.d
Injection Date: 11-JUN-2019 16:47
Instrument: 30mss1.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610t1.d

Date : 10-JUN-2019 17:44

Client ID: DFTPP

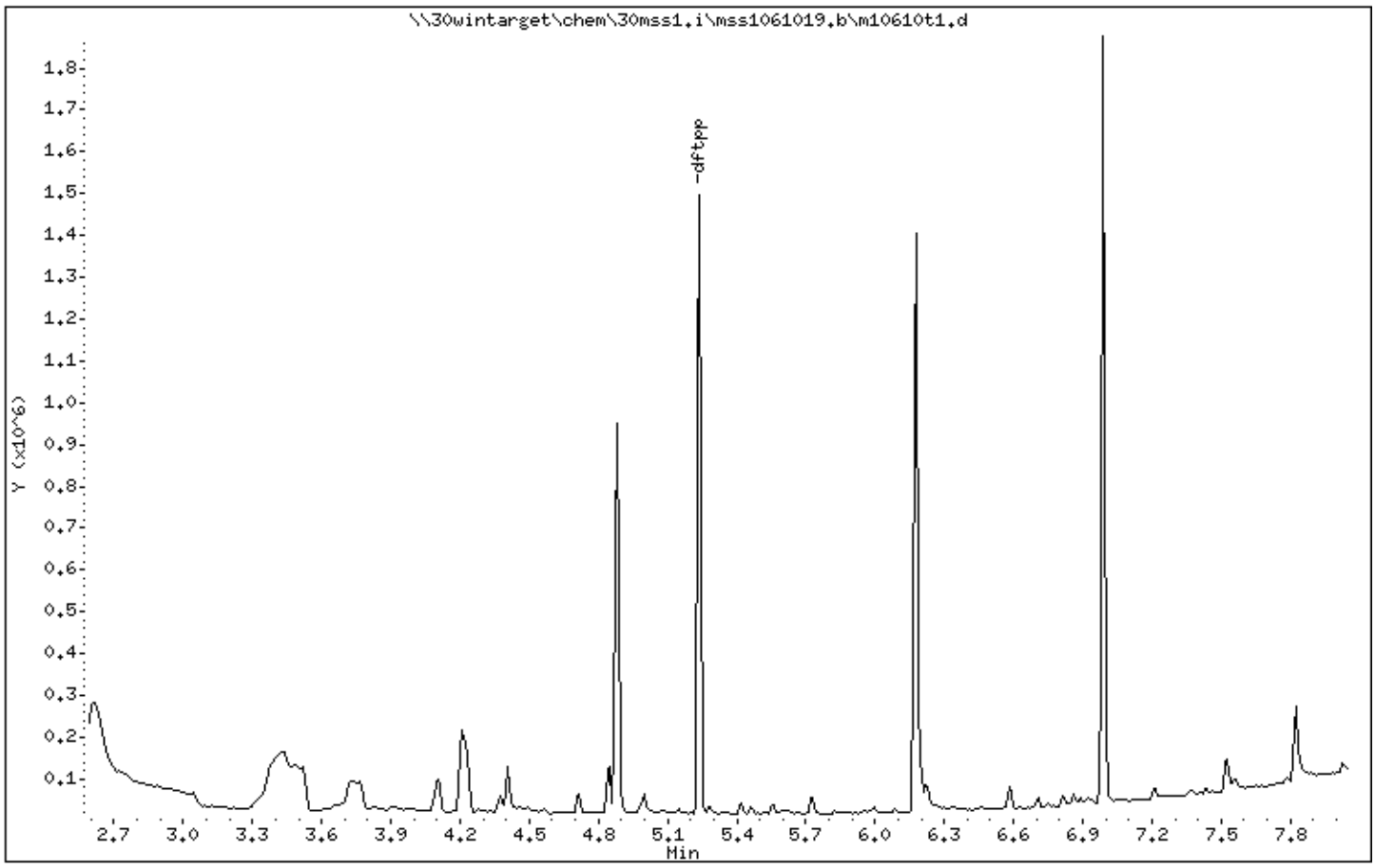
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061019.b\m10610t1.d

Date : 10-JUN-2019 17:44

Client ID: DFTPP

Instrument: 30mss1.i

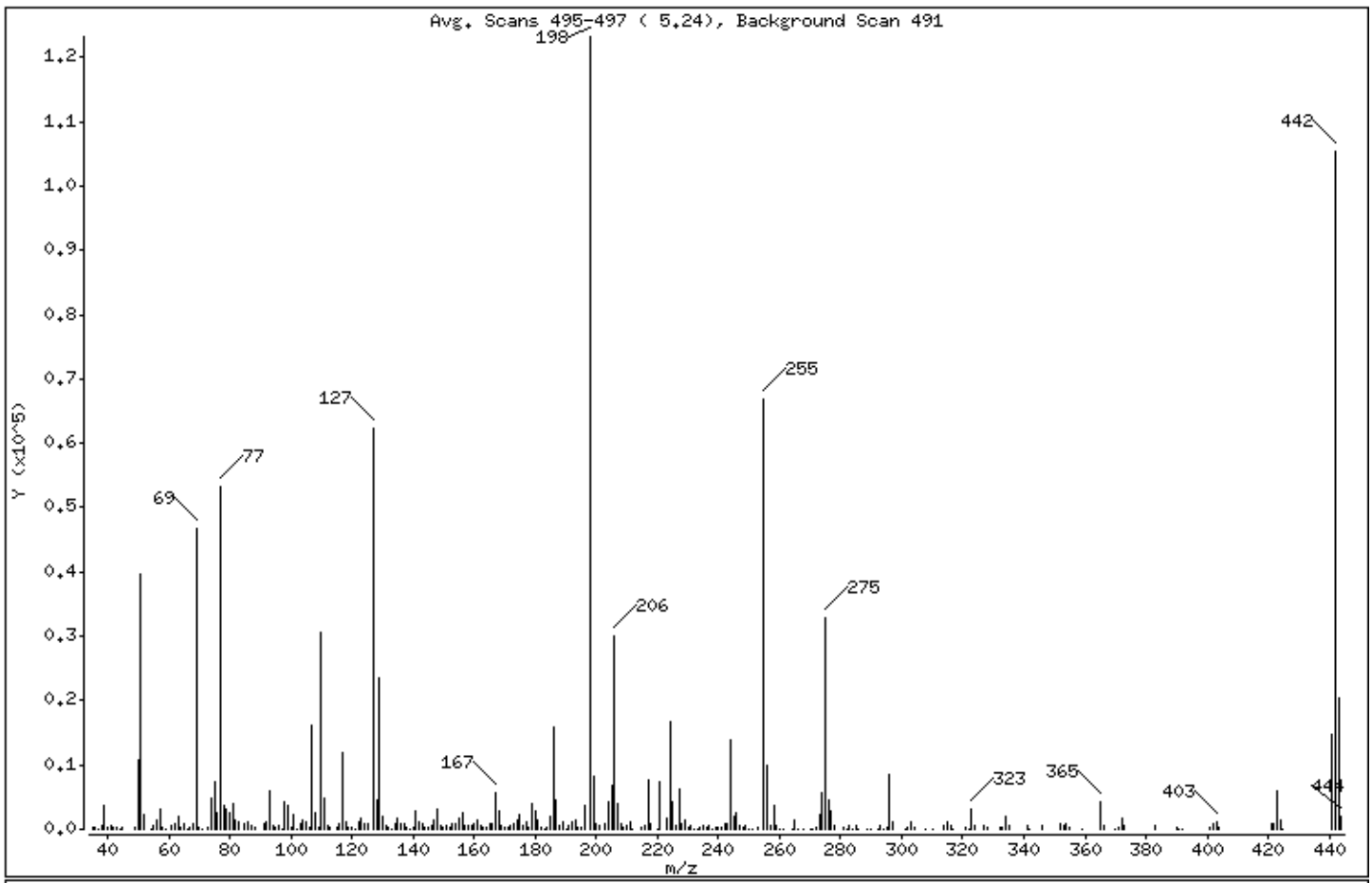
Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.27
68	Less than 2.00% of mass 69	0.61 (1.60)
69	Mass 69 relative abundance	37.99
70	Less than 2.00% of mass 69	0.27 (0.71)
127	40.00 - 60.00% of mass 198	50.57
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	26.69
365	Greater than 1.00% of mass 198	3.38
441	Present, but less than mass 443	11.90
442	Greater than 40.00% of mass 198	85.46
443	17.00 - 23.00% of mass 442	16.52 (19.33)

Date : 10-JUN-2019 17:44

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10610t1.d
Spectrum: Avg. Scans 495-497 (5.24), Background Scan 491
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	167	117.00	11881	190.00	139	274.00	5654
36.00	184	118.00	995	191.00	500	275.00	32888
37.00	138	119.00	284	192.00	1250	276.00	4462
38.00	528	120.00	255	193.00	1452	277.00	2697
39.00	3581	121.00	130	194.00	385	278.00	449
40.00	159	122.00	1023	195.00	173	281.00	184
41.00	455	123.00	1772	196.00	3716	282.00	81
42.00	167	124.00	771	198.00	123208	283.00	427
43.00	404	125.00	838	199.00	8184	284.00	105
44.00	126	127.00	62304	200.00	711	285.00	478
45.00	194	128.00	4669	201.00	597	286.00	53
49.00	255	129.00	23504	203.00	796	289.00	74
50.00	10704	130.00	2090	204.00	4181	290.00	63
51.00	39760	131.00	491	205.00	6903	292.00	61
52.00	2141	132.00	255	206.00	29944	293.00	607
54.00	51	133.00	75	207.00	4100	294.00	74
55.00	427	134.00	773	208.00	982	295.00	175
56.00	1460	135.00	1834	209.00	331	296.00	8582
57.00	3062	136.00	827	210.00	543	297.00	1210
58.00	265	137.00	977	211.00	1188	301.00	90
59.00	125	138.00	301	212.00	65	302.00	206
61.00	537	139.00	116	215.00	345	303.00	1046
62.00	709	140.00	307	216.00	648	304.00	293
63.00	1856	141.00	2890	217.00	7631	308.00	123
64.00	242	142.00	1010	218.00	933	310.00	70
65.00	984	143.00	732	220.00	51	314.00	481
66.00	89	144.00	161	221.00	7265	315.00	1007
67.00	404	145.00	262	223.00	1827	316.00	617
68.00	750	146.00	561	224.00	16840	317.00	53
69.00	46808	147.00	1376	225.00	4161	321.00	288
70.00	332	148.00	3143	226.00	429	322.00	89
71.00	75	149.00	699	227.00	6302	323.00	3063
73.00	233	150.00	231	228.00	971	324.00	526
74.00	4719	151.00	468	229.00	1383	327.00	596
75.00	7306	152.00	145	230.00	144	328.00	347

Date : 10-JUN-2019 17:44

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10610t1.d
Spectrum: Avg. Scans 495-497 (5.24), Background Scan 491
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	2528	153.00	930	231.00	586	332.00	233
77.00	53168	154.00	753	232.00	57	333.00	322
78.00	3609	155.00	1582	233.00	52	334.00	1913
79.00	3162	156.00	2418	234.00	392	335.00	560
80.00	2561	157.00	534	235.00	543	341.00	649
81.00	3830	158.00	477	236.00	366	342.00	97
82.00	1431	159.00	437	237.00	653	346.00	690
83.00	1063	160.00	871	238.00	53	352.00	975
85.00	730	161.00	1284	239.00	355	353.00	668
86.00	1091	162.00	479	240.00	274	354.00	969
87.00	639	163.00	274	241.00	414	355.00	286
88.00	286	164.00	204	242.00	918	359.00	50
91.00	861	165.00	886	243.00	978	365.00	4169
92.00	1022	166.00	808	244.00	13982	366.00	594
93.00	5981	167.00	5721	245.00	1981	370.00	50
94.00	510	168.00	2782	246.00	2477	371.00	245
95.00	162	169.00	526	247.00	495	372.00	1597
96.00	482	170.00	158	248.00	155	373.00	443
97.00	47	171.00	178	249.00	547	383.00	483
98.00	4143	172.00	560	250.00	61	390.00	246
99.00	3607	173.00	759	251.00	132	391.00	74
100.00	321	174.00	1275	253.00	388	392.00	58
101.00	2167	175.00	2213	255.00	66824	401.00	150
102.00	119	176.00	664	256.00	9947	402.00	774
103.00	872	177.00	1105	257.00	632	403.00	1065
104.00	1335	178.00	371	258.00	3766	404.00	361
105.00	1159	179.00	4102	259.00	616	421.00	795
106.00	368	180.00	2913	260.00	63	422.00	831
107.00	16241	181.00	1369	261.00	56	423.00	6051
108.00	2536	182.00	216	264.00	127	424.00	1438
109.00	423	183.00	79	265.00	1504	425.00	118
110.00	30448	184.00	359	266.00	130	441.00	14665
111.00	4854	185.00	2028	268.00	53	442.00	105296
112.00	676	186.00	15846	270.00	54	443.00	20352
113.00	244	187.00	4653	271.00	72	444.00	1958

Date : 10-JUN-2019 17:44

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10610t1.d
Spectrum: Avg. Scans 495-497 (5.24), Background Scan 491
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	198	188.00	489	272.00	212		
116.00	917	189.00	1045	273.00	2228		

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m10611t1.d

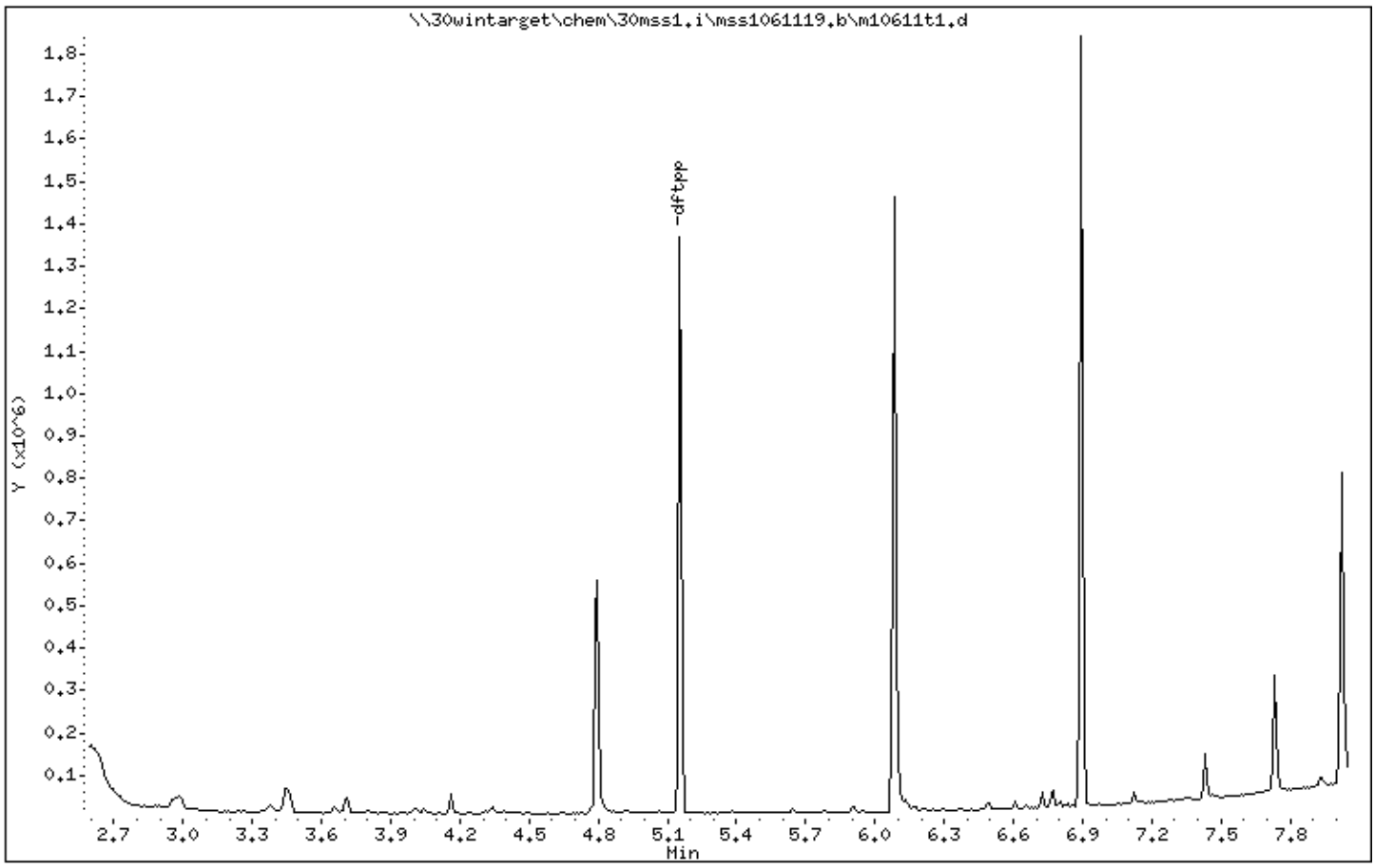
Date : 11-JUN-2019 16:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m10611t1.d

Date : 11-JUN-2019 16:02

Client ID: DFTPP

Instrument: 30mss1.i

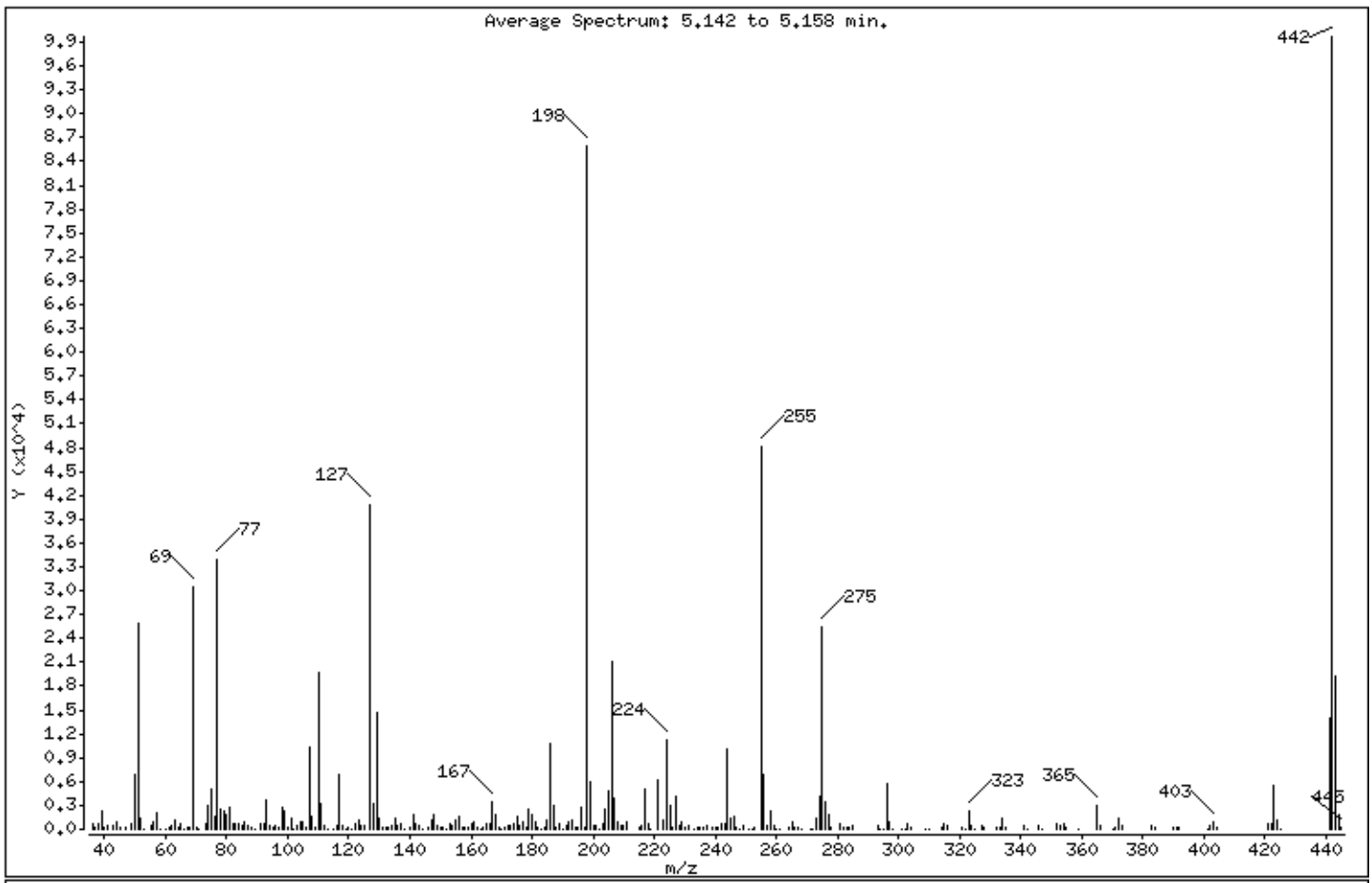
Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	30.02
68	Less than 2.00% of mass 69	0.17 (0.48)
69	Mass 69 relative abundance	35.57
70	Less than 2.00% of mass 69	0.26 (0.73)
127	40.00 - 60.00% of mass 198	47.38
197	Less than 1.00% of mass 198	0.16
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	29.59
365	Greater than 1.00% of mass 198	3.40
441	Present, but less than mass 443	16.27
442	Greater than 40.00% of mass 198	115.93
443	17.00 - 23.00% of mass 442	22.49 (19.40)

Date : 11-JUN-2019 16:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10611t1.d
Spectrum: Average Spectrum: 5.142 to 5.158 min.
Location of Maximum: 442.00
Number of points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	796	116.00	562	191.00	499	276.00	3418
37.00	156	117.00	6896	192.00	865	277.00	1781
38.00	653	118.00	511	193.00	1075	278.00	298
39.00	2262	119.00	103	194.00	218	281.00	630
40.00	286	120.00	140	195.00	161	282.00	221
41.00	432	121.00	42	196.00	2830	283.00	332
43.00	416	122.00	730	197.00	140	284.00	169
44.00	832	123.00	1253	198.00	85984	285.00	380
45.00	253	124.00	463	199.00	5959	293.00	458
47.00	123	125.00	471	200.00	430	294.00	108
49.00	734	127.00	40736	201.00	517	295.00	101
50.00	6806	128.00	3129	202.00	64	296.00	5719
51.00	25816	129.00	14624	203.00	612	297.00	838
52.00	1377	130.00	1338	204.00	2631	298.00	38
53.00	87	131.00	293	205.00	4789	301.00	93
55.00	376	132.00	215	206.00	21000	302.00	109
56.00	933	133.00	319	207.00	4000	303.00	739
57.00	2047	134.00	496	208.00	836	304.00	173
58.00	58	135.00	1450	209.00	397	309.00	50
60.00	41	136.00	510	210.00	394	310.00	44
61.00	341	137.00	698	211.00	854	314.00	305
62.00	385	138.00	113	215.00	196	315.00	638
63.00	1200	140.00	178	216.00	433	316.00	471
64.00	167	141.00	1828	217.00	4958	321.00	187
65.00	658	142.00	592	218.00	629	322.00	114
66.00	52	143.00	490	219.00	42	323.00	2252
67.00	151	144.00	54	221.00	6193	324.00	362
68.00	148	146.00	322	223.00	1258	325.00	39
69.00	30576	147.00	1168	224.00	11130	327.00	466
70.00	223	148.00	1865	225.00	2985	328.00	203
71.00	45	149.00	520	226.00	316	332.00	164
73.00	776	150.00	169	227.00	4135	333.00	190
74.00	3046	151.00	288	228.00	538	334.00	1398
75.00	5109	152.00	112	229.00	893	335.00	292
76.00	1689	153.00	651	230.00	166	341.00	410

Date : 11-JUN-2019 16:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10611t1.d
Spectrum: Average Spectrum: 5.142 to 5.158 min.
Location of Maximum: 442.00
Number of points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	33912	154.00	437	231.00	409	342.00	91
78.00	2424	155.00	1124	233.00	53	346.00	436
79.00	2259	156.00	1549	234.00	280	347.00	110
80.00	1829	157.00	307	235.00	335	352.00	689
81.00	2783	158.00	329	236.00	228	353.00	536
82.00	775	159.00	320	237.00	396	354.00	775
83.00	748	160.00	620	239.00	205	355.00	209
84.00	608	161.00	918	240.00	150	359.00	43
85.00	549	162.00	285	241.00	259	365.00	2926
86.00	1002	163.00	96	242.00	600	366.00	402
87.00	404	164.00	126	243.00	669	370.00	91
88.00	209	165.00	726	244.00	10020	371.00	209
89.00	52	166.00	574	245.00	1346	372.00	1338
91.00	717	167.00	3466	246.00	1705	373.00	391
92.00	715	168.00	1885	247.00	308	383.00	395
93.00	3602	169.00	339	248.00	47	384.00	134
94.00	358	170.00	95	249.00	360	390.00	140
95.00	342	171.00	138	251.00	59	391.00	124
96.00	368	172.00	397	252.00	65	392.00	122
97.00	145	173.00	459	253.00	255	401.00	53
98.00	2662	174.00	762	255.00	48208	402.00	569
99.00	2360	175.00	1508	256.00	6918	403.00	866
100.00	205	176.00	540	257.00	564	404.00	262
101.00	1357	177.00	884	258.00	2390	421.00	720
102.00	40	178.00	254	259.00	423	422.00	663
103.00	522	179.00	2619	260.00	41	423.00	5496
104.00	910	180.00	1870	261.00	41	424.00	1192
105.00	930	181.00	995	264.00	192	425.00	98
106.00	162	182.00	148	265.00	950	441.00	13990
107.00	10272	183.00	88	266.00	235	442.00	99688
108.00	1716	184.00	224	267.00	246	443.00	19336
109.00	244	185.00	1247	268.00	79	444.00	1752
110.00	19760	186.00	10723	271.00	53	445.00	122
111.00	3141	187.00	3010	272.00	102		
112.00	393	188.00	325	273.00	1450		

Date : 11-JUN-2019 16:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10611t1.d
Spectrum: Average Spectrum: 5.142 to 5.158 min.
Location of Maximum: 442.00
Number of points: 284

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	100	189.00	607	274.00	4065		
115.00	43	190.00	44	275.00	25440		

SAMPLE NO.

LCS

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Water SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 1685751
Date Analyzed: 06/11/2019 19:04
Lab File ID: MSS1061119.B\M1061106.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	270	J
121-14-2	2,4-Dinitrotoluene	203	
87-68-3	Hexachloro-1,3-butadiene	323	
118-74-1	Hexachlorobenzene	366	
67-72-1	Hexachloroethane	252	
95-48-7	2-Methylphenol(o-Cresol)	389	J
	3&4-Methylphenol(m&p Cresol)	774	J
98-95-3	Nitrobenzene	352	
87-86-5	Pentachlorophenol	381	J
110-86-1	Pyridine	155	J
95-95-4	2,4,5-Trichlorophenol	494	J
88-06-2	2,4,6-Trichlorophenol	384	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d
Lab Smp Id: 1685751 Client Smp ID: MBLCS
Inj Date : 11-JUN-2019 19:04
Operator : SJG Inst ID: 30mss1.i
Smp Info : 1685751
Misc Info : 14689
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	2.609	2.592	(0.597)	102776	1.54615	155	
$	3 2-Fluorophenol (S)	112	3.453	3.452	(0.791)	390436	5.74987	575	
$	4 Phenol-d6 (S)	99	4.078	4.077	(0.934)	473309	5.58933	559	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.366	4.360	(1.000)	226489	4.00000		
	12 1,4-Dichlorobenzene	146	4.377	4.376	(1.002)	251470	2.70293	270	
	15 2-Methylphenol(o-Cresol)	108	4.542	4.542	(1.040)	270103	3.88741	389	
	17 3&4-Methylphenol(m&p Cresol)	108	4.649	4.649	(1.065)	556590	7.74264	774	
	20 Hexachloroethane	117	4.772	4.766	(1.093)	78536	2.51794	252	
$	21 Nitrobenzene-d5 (S)	128	4.809	4.809	(0.895)	128415	3.68196	368	
	22 Nitrobenzene	77	4.825	4.825	(0.898)	222966	3.52116	352	
*	30 Naphthalene-d8 (IS)	136	5.376	5.375	(1.000)	853793	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	5.525	5.525	(1.028)	111217	3.22799	323	
	40 2,4,6-Trichlorophenol	196	6.193	6.198	(0.903)	197470	3.83544	384	
	41 2,4,5-Trichlorophenol	196	6.225	6.230	(0.907)	180800	4.94221	494	
$	42 2-Fluorobiphenyl (S)	172	6.257	6.257	(0.912)	548688	3.40294	340	
*	50 Acenaphthene-d10 (IS)	164	6.861	6.866	(1.000)	483817	4.00000		
	54 2,4-Dinitrotoluene	165	7.053	7.053	(1.028)	81935	2.02634	203	
$	65 2,4,6-Tribromophenol (S)	330	7.673	7.678	(0.914)	161747	7.81601	782	
	67 Hexachlorobenzene	284	8.074	8.073	(0.962)	177006	3.66270	366	

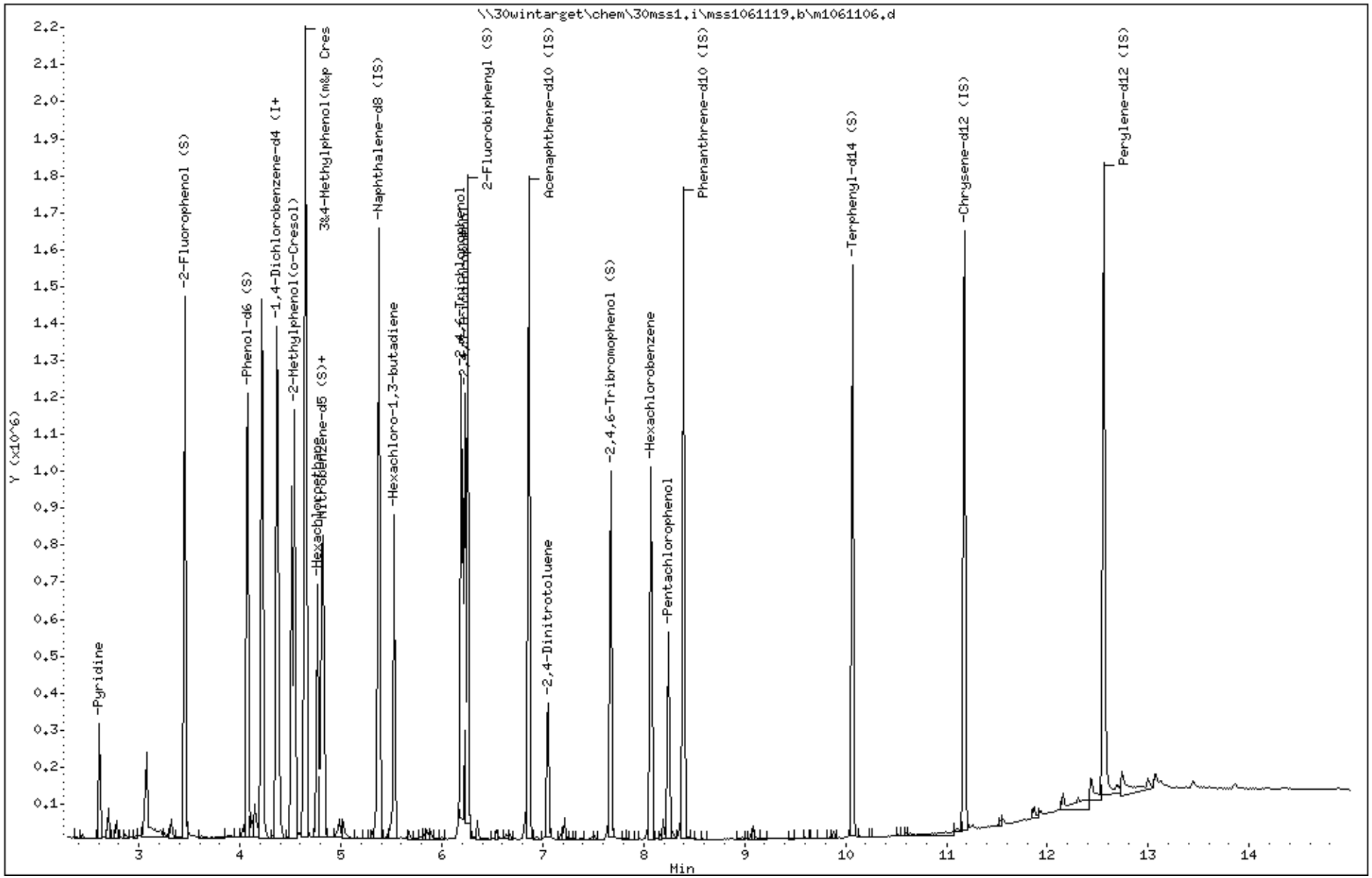
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	8.250	8.249	(0.983)	89767	3.81192	381	
* 70 Phenanthrene-d10 (IS)	188	8.394	8.393	(1.000)	767950	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.066	10.071	(0.901)	520703	3.32540	332	
* 82 Chrysene-d12 (IS)	240	11.177	11.182	(1.000)	628814	4.00000		
* 88 Perylene-d12 (IS)	264	12.556	12.560	(1.000)	779653	4.00000		

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d
Date : 11-JUN-2019 19:04
Client ID: MBLCS
Sample Info: 1685751
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d

Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

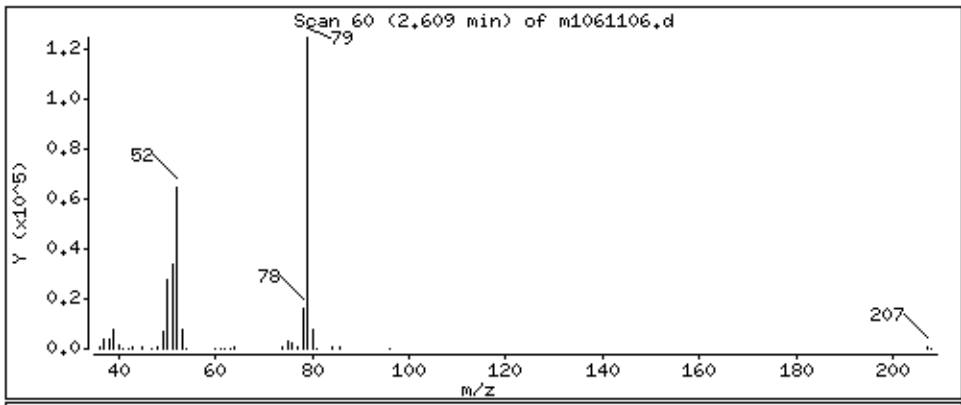
Operator: SJG

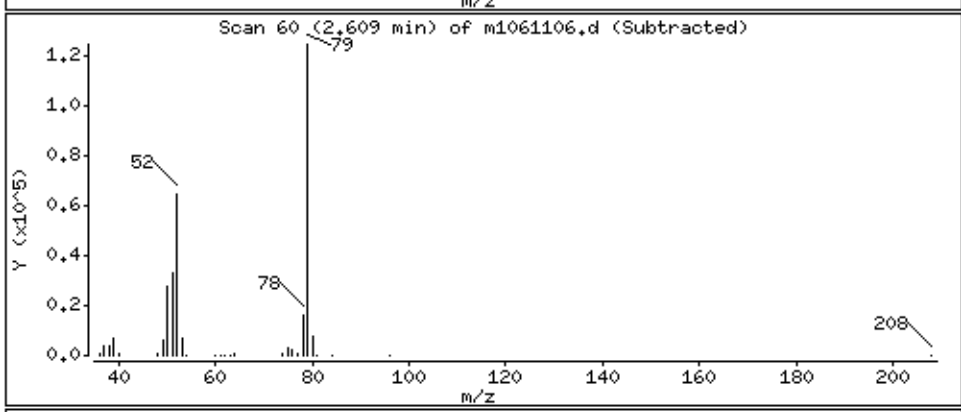
Column phase: RTX-5MS

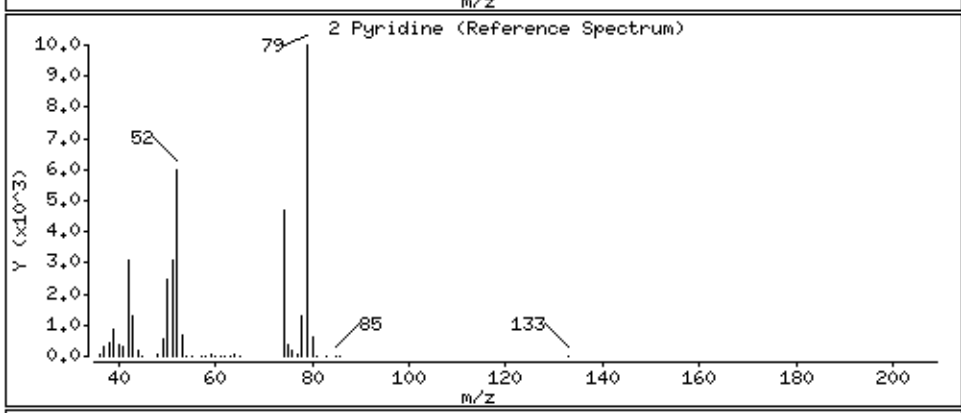
Column diameter: 0.18

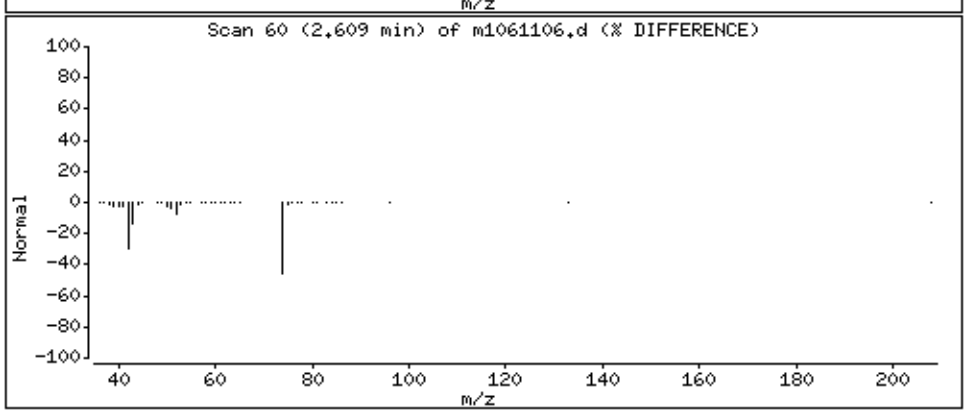
2 Pyridine

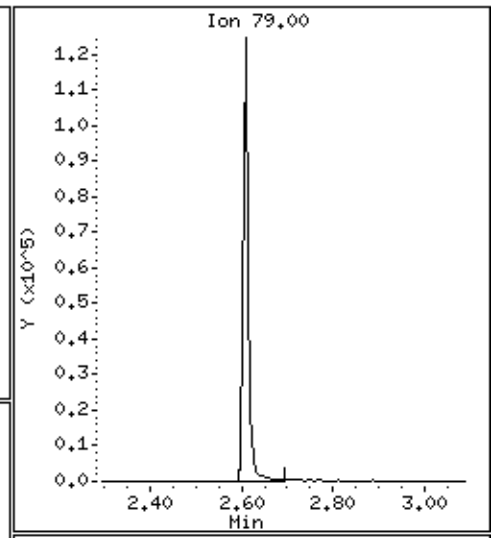
Concentration: 155 ug/L

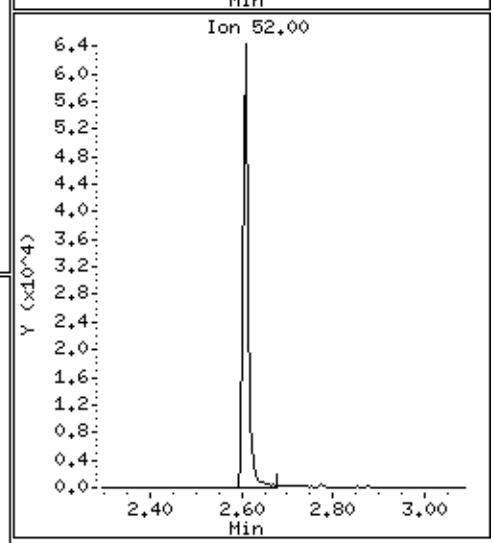












Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d

Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

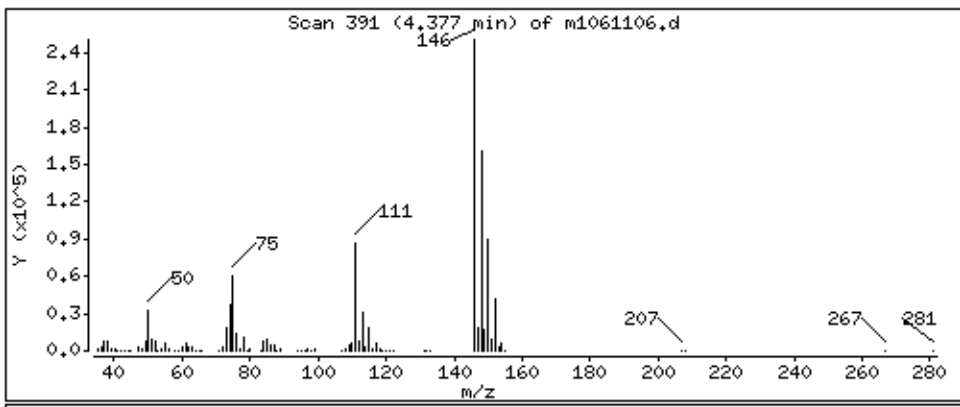
Operator: SJG

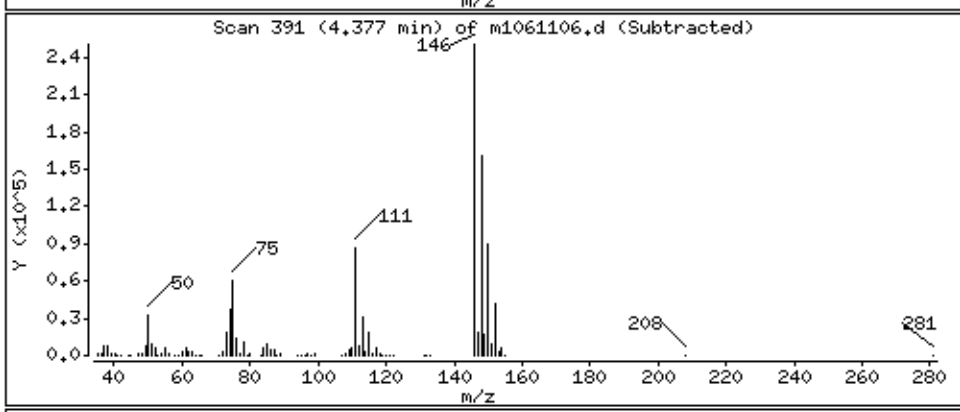
Column phase: RTX-5MS

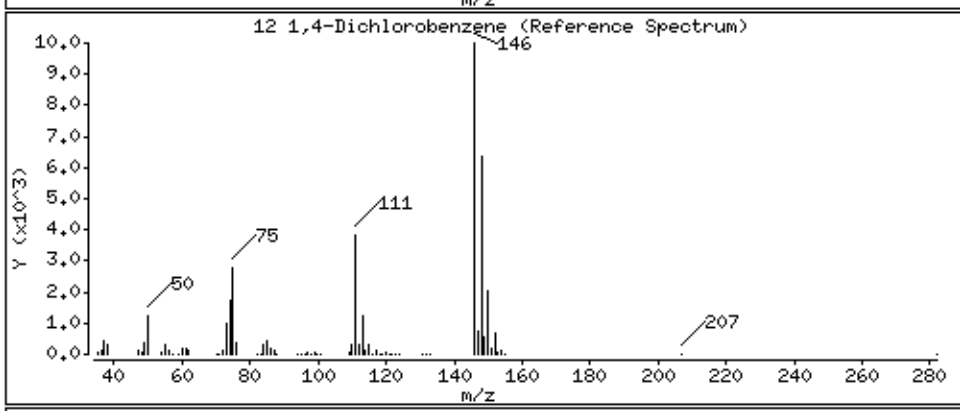
Column diameter: 0.18

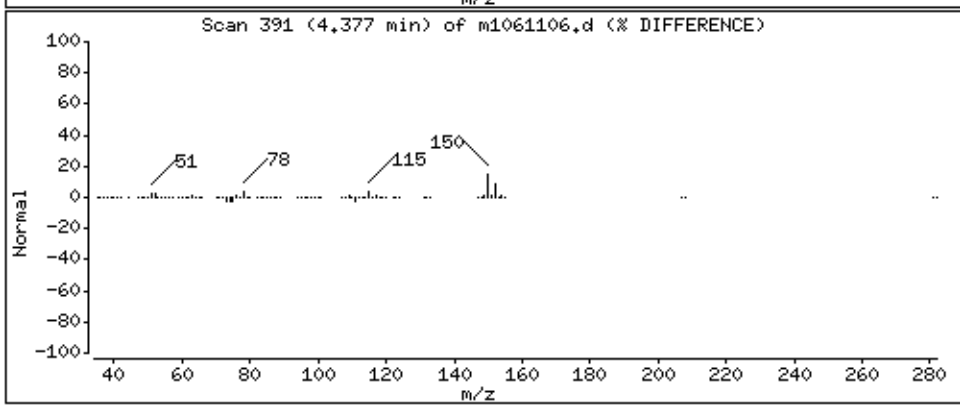
12 1,4-Dichlorobenzene

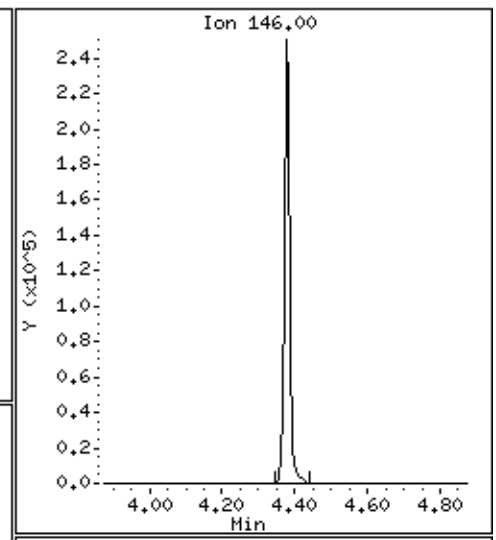
Concentration: 270 ug/L

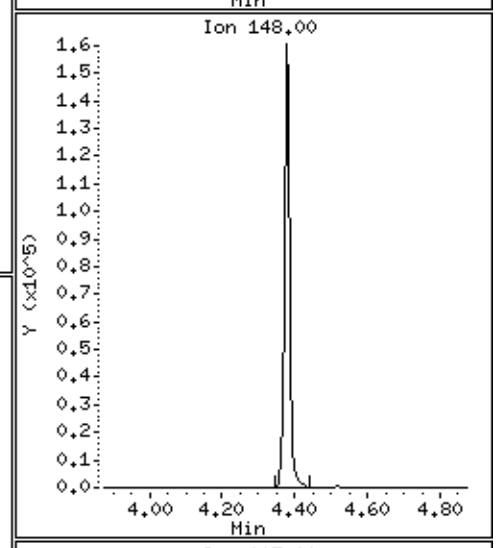


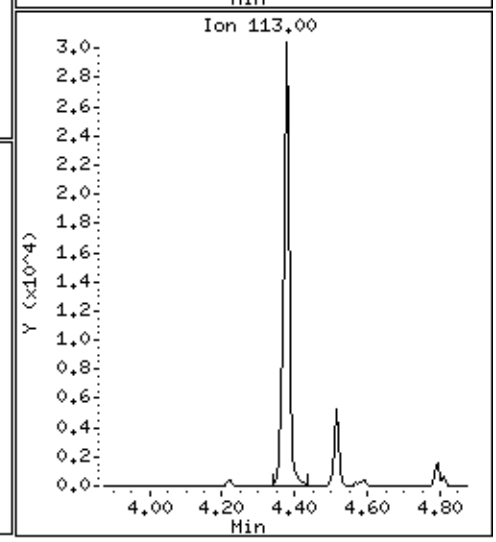












Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d

Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

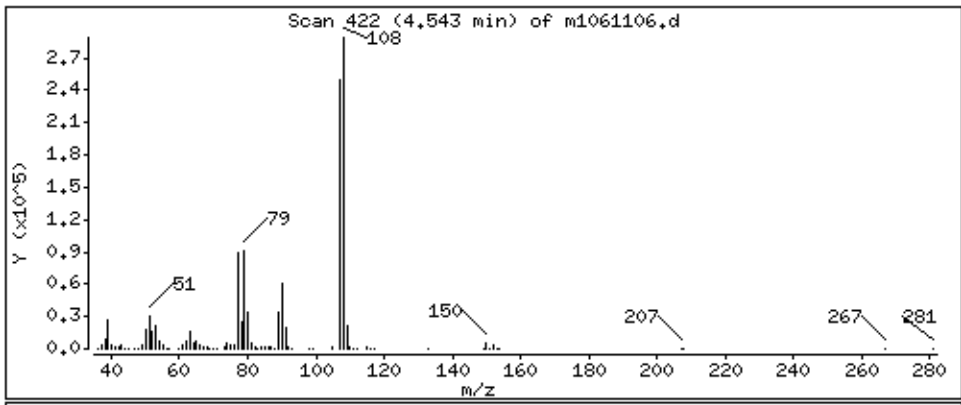
Operator: SJG

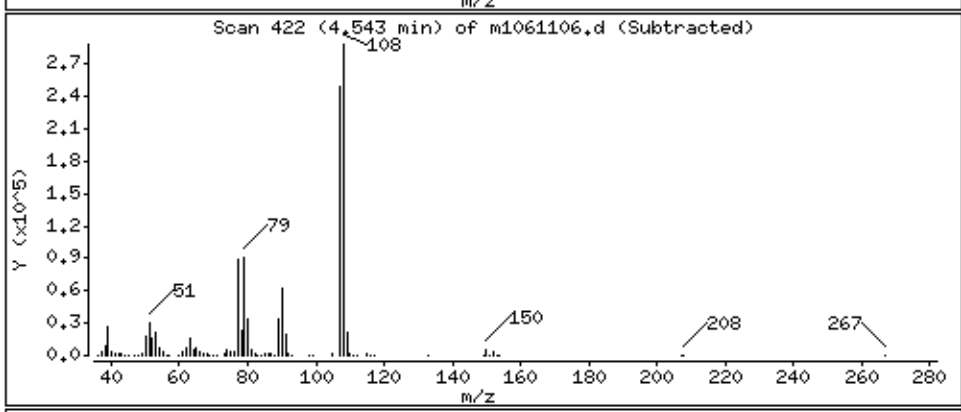
Column phase: RTX-5MS

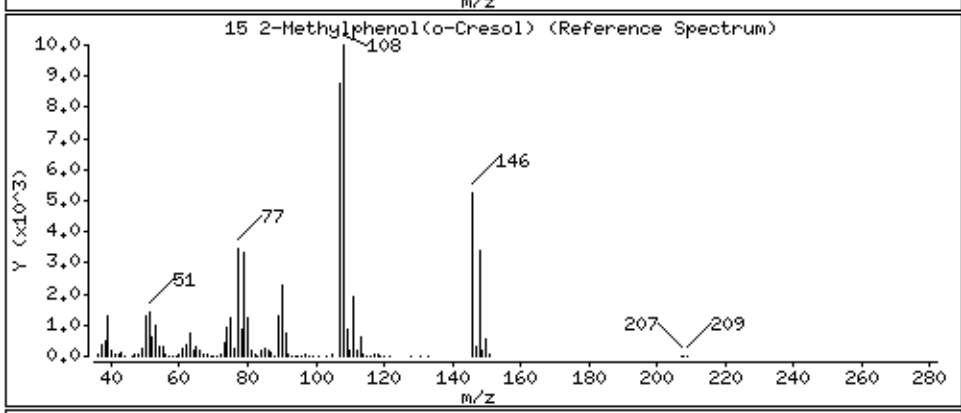
Column diameter: 0.18

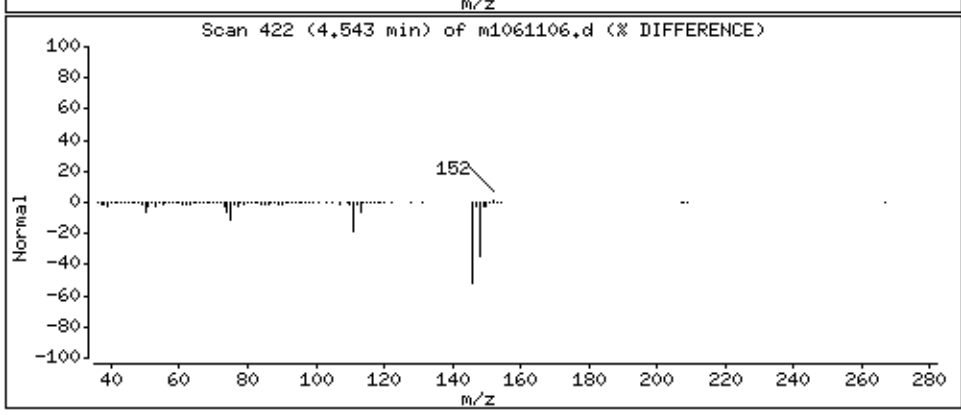
15 2-Methylphenol(o-Cresol)

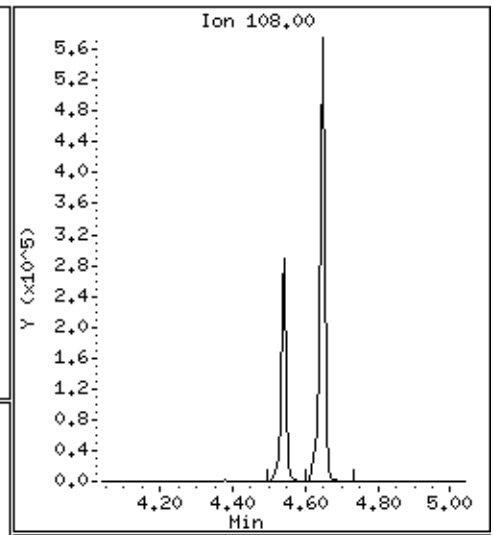
Concentration: 389 ug/L

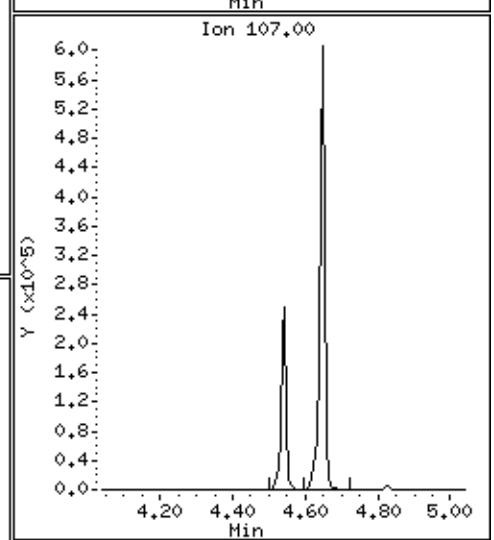


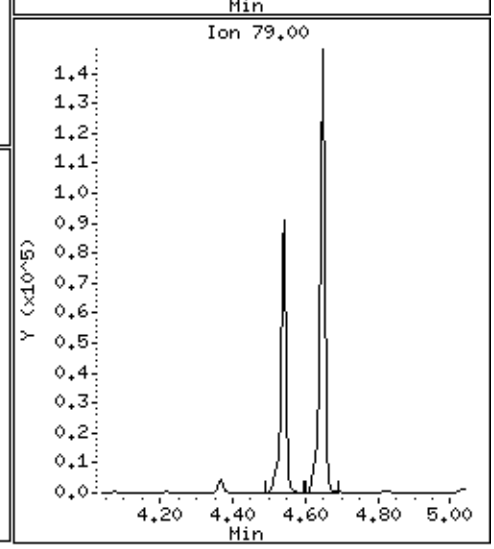












Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061106.d

Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

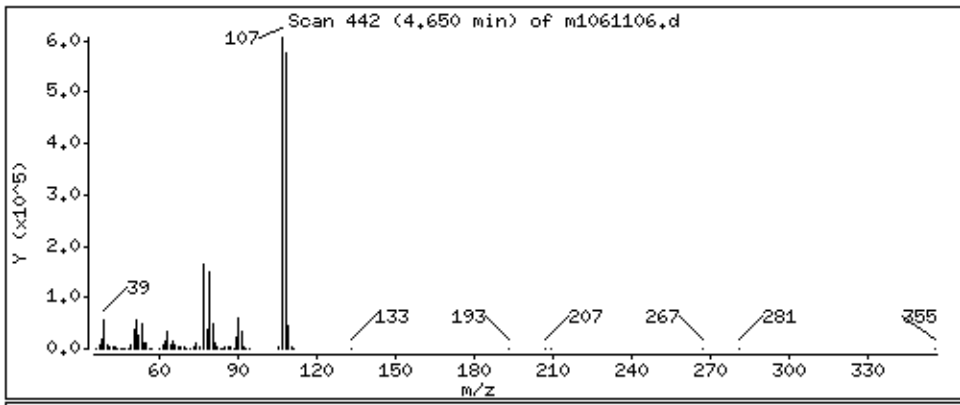
Operator: SJG

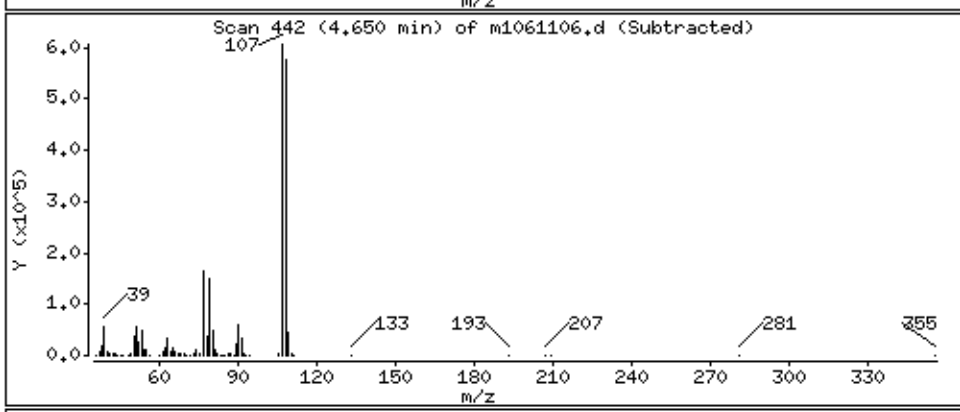
Column phase: RTX-5MS

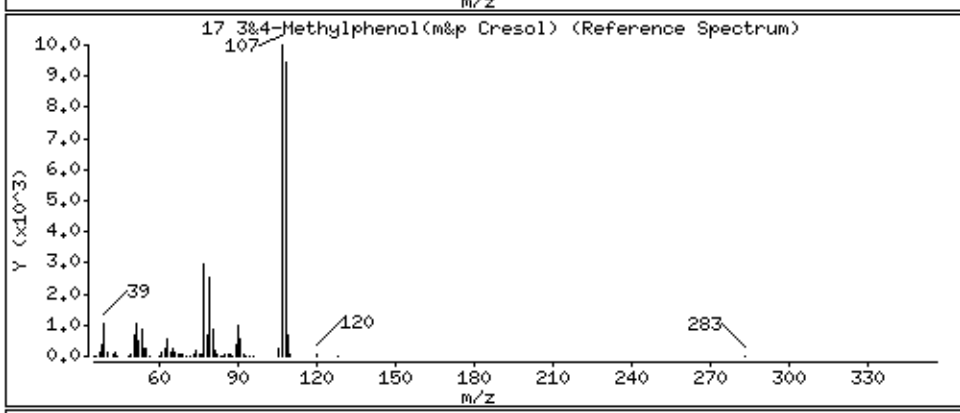
Column diameter: 0.18

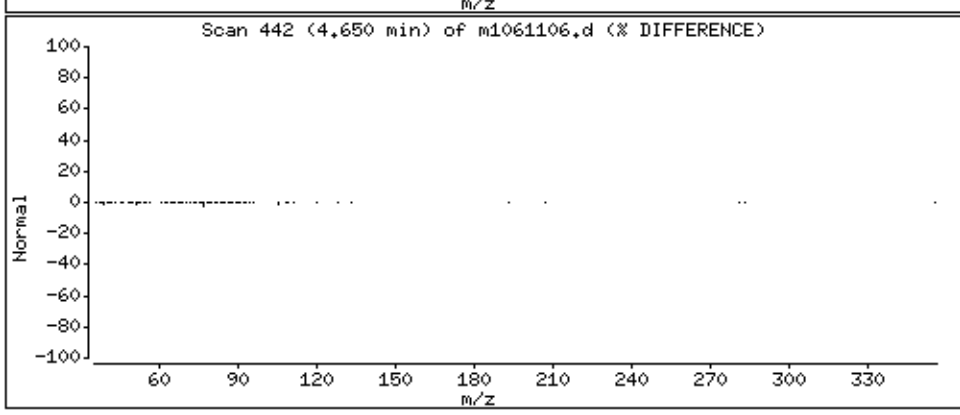
17 3&4-Methylphenol(m&p Cresol)

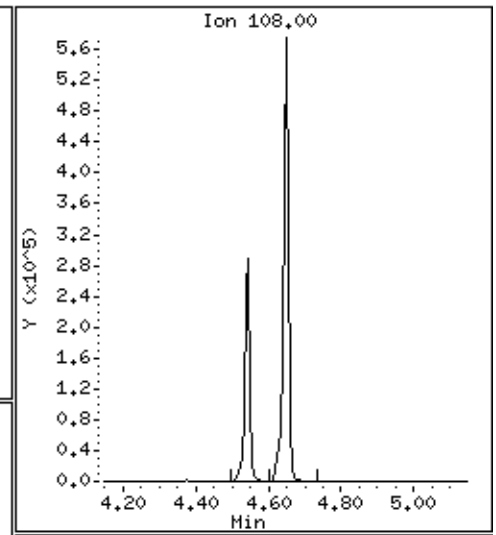
Concentration: 774 ug/L

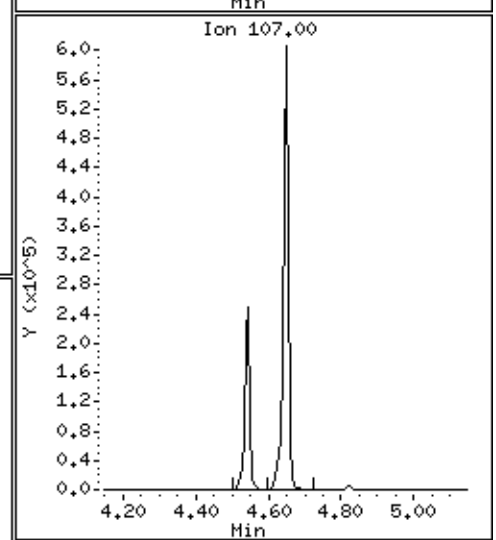


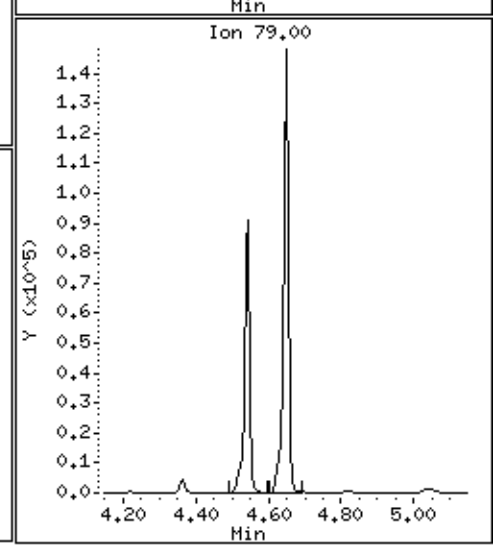












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

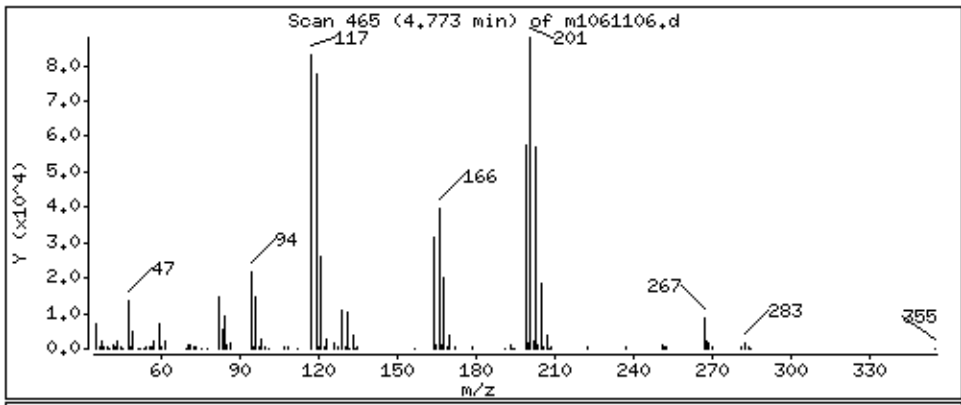
Operator: SJG

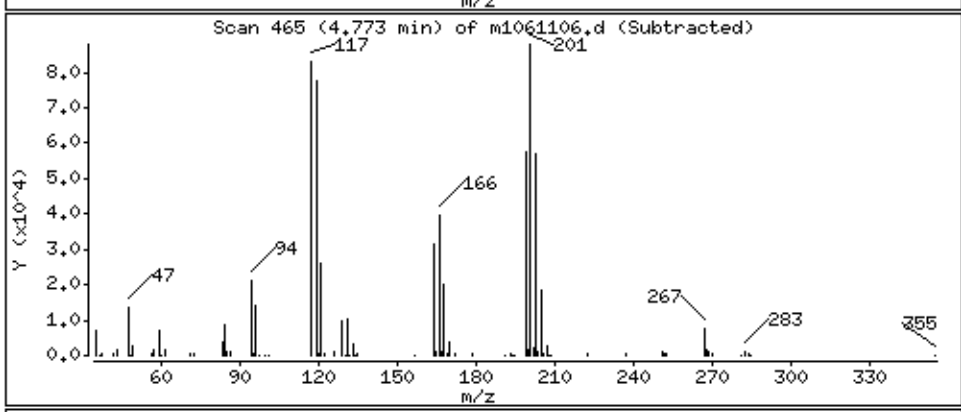
Column phase: RTX-5MS

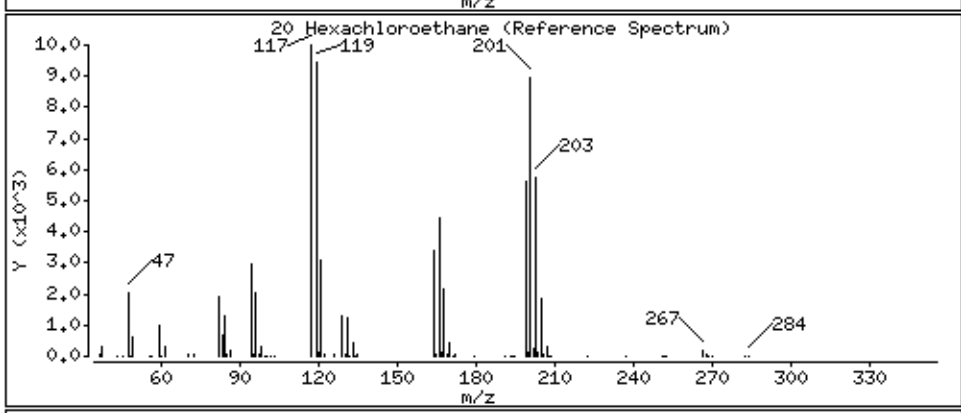
Column diameter: 0.18

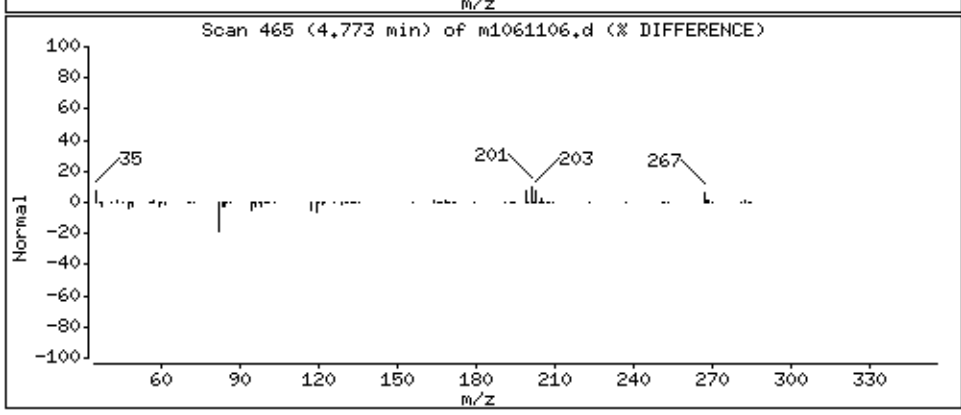
20 Hexachloroethane

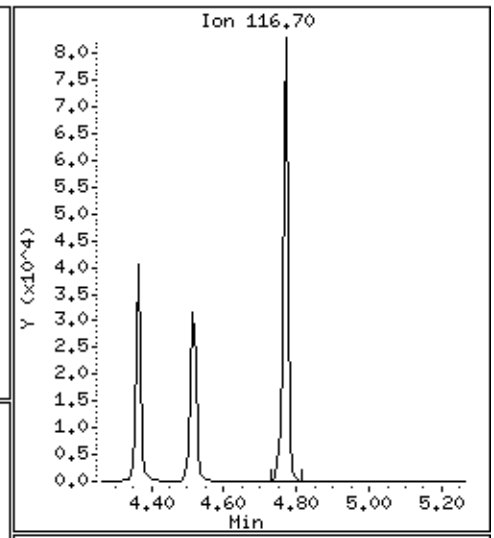
Concentration: 252 ug/L

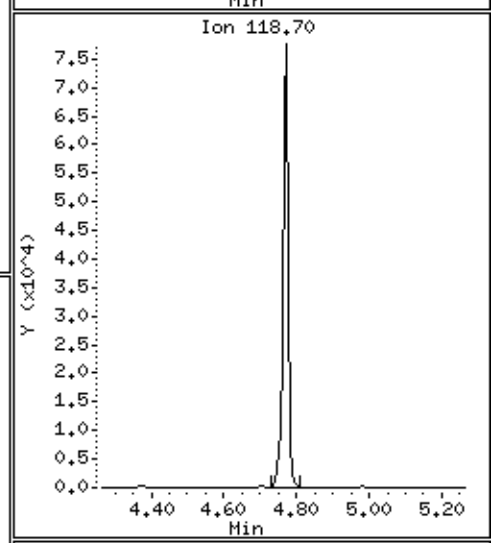


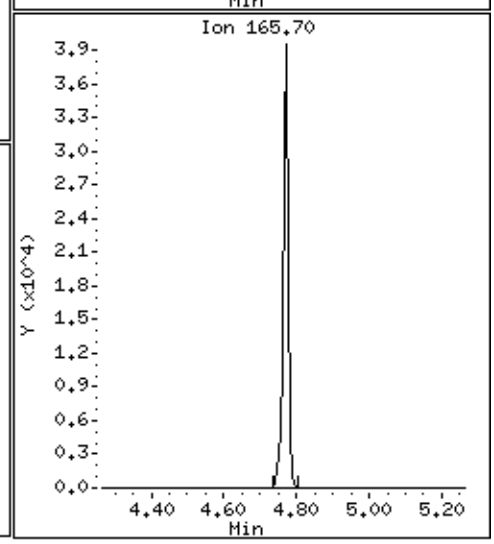












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

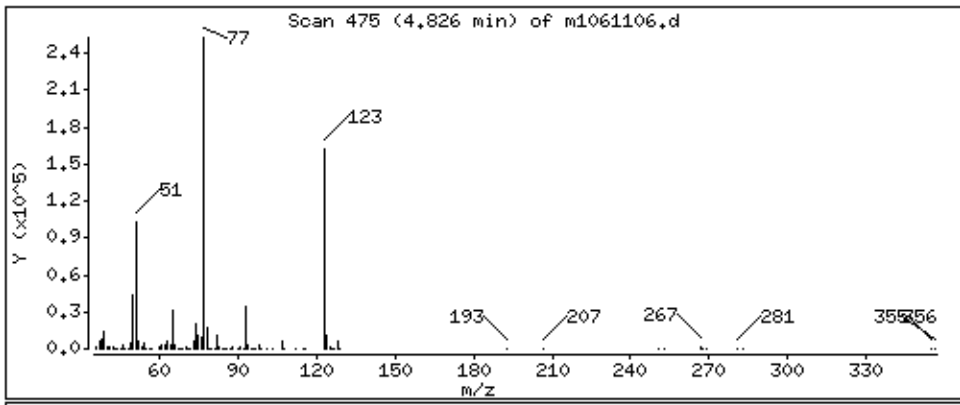
Operator: SJG

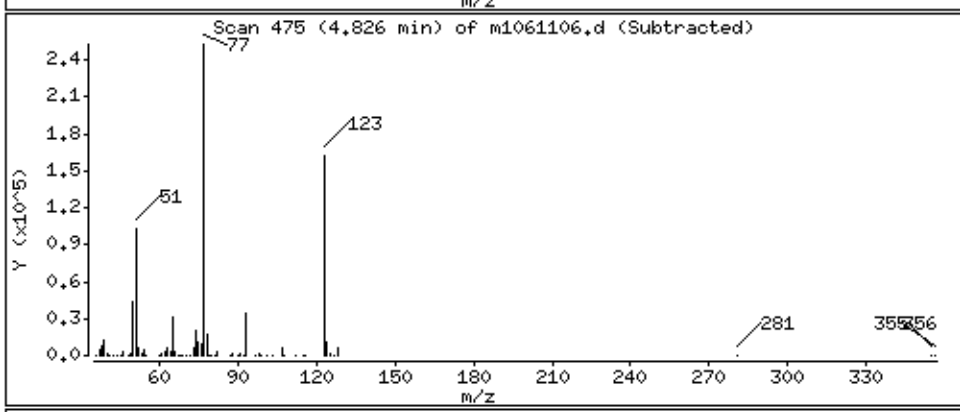
Column phase: RTX-5MS

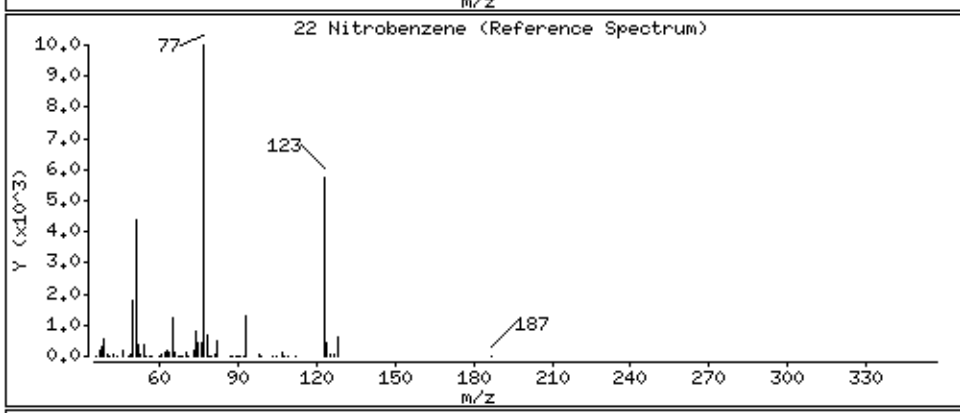
Column diameter: 0.18

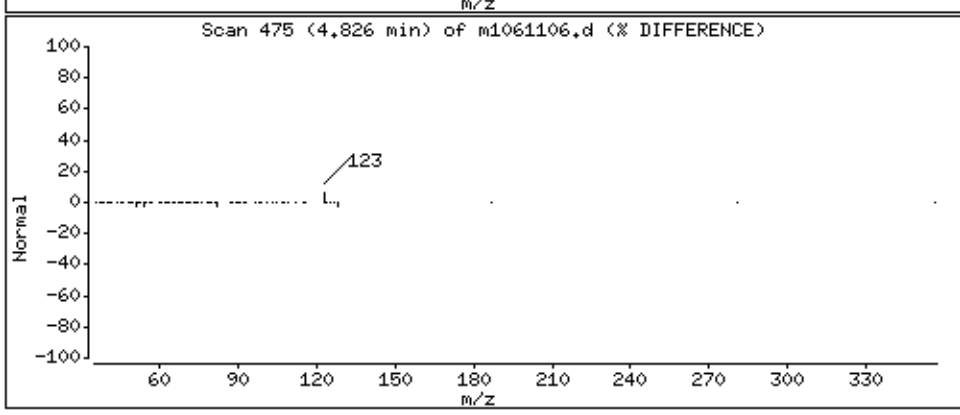
22 Nitrobenzene

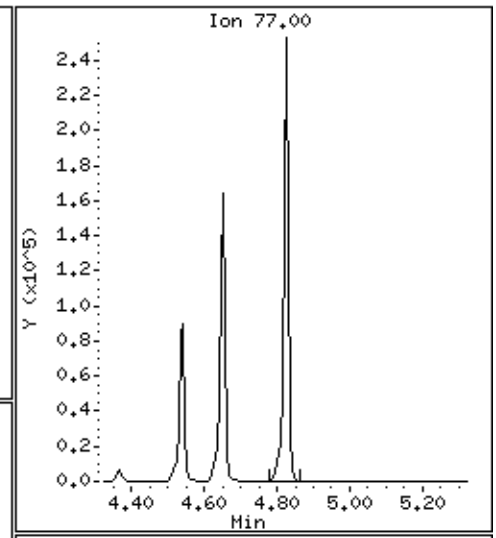
Concentration: 352 ug/L

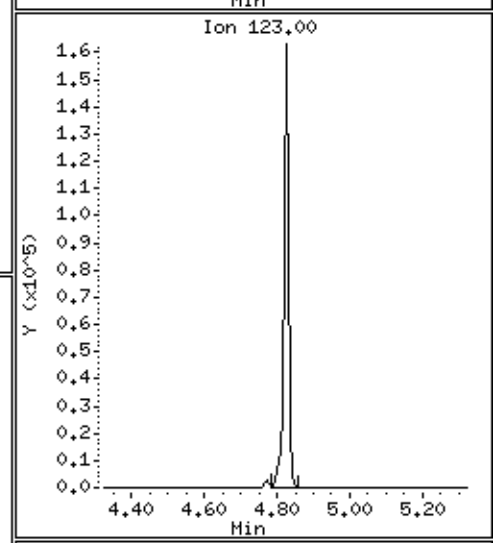


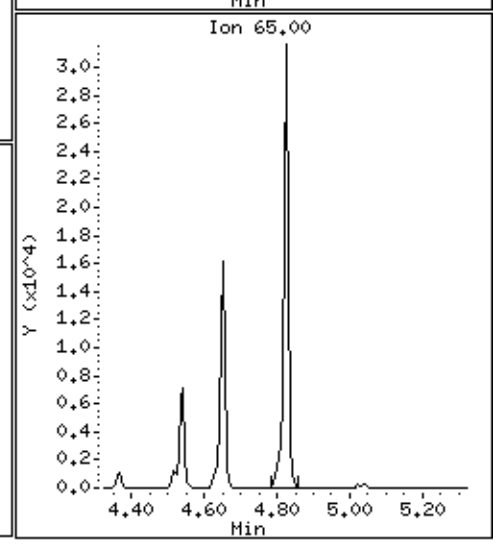












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

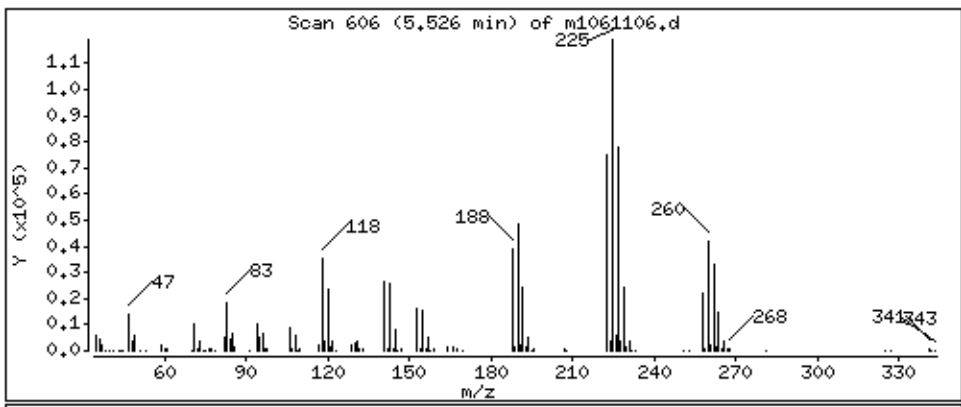
Operator: SJG

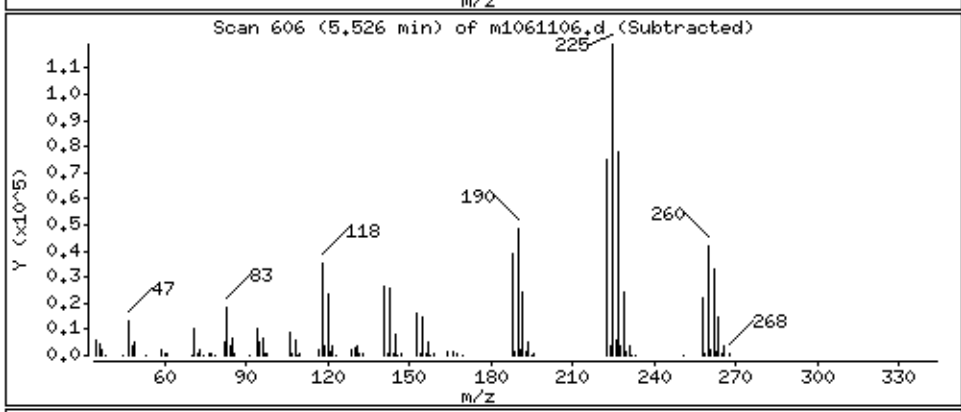
Column phase: RTX-5MS

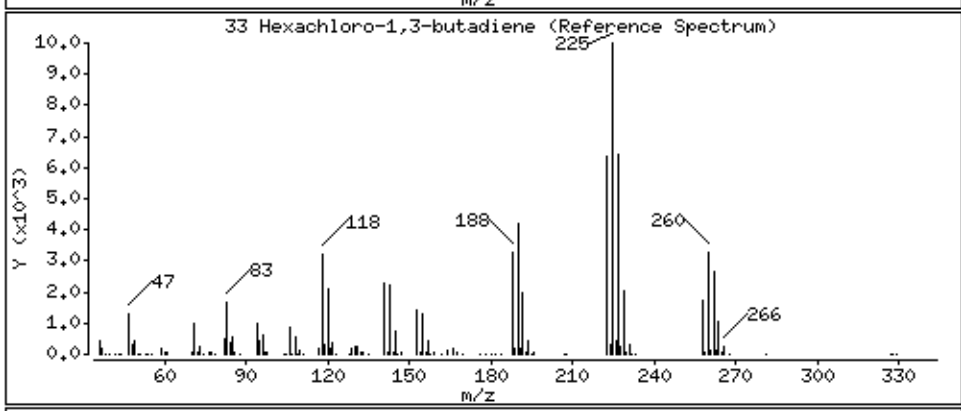
Column diameter: 0.18

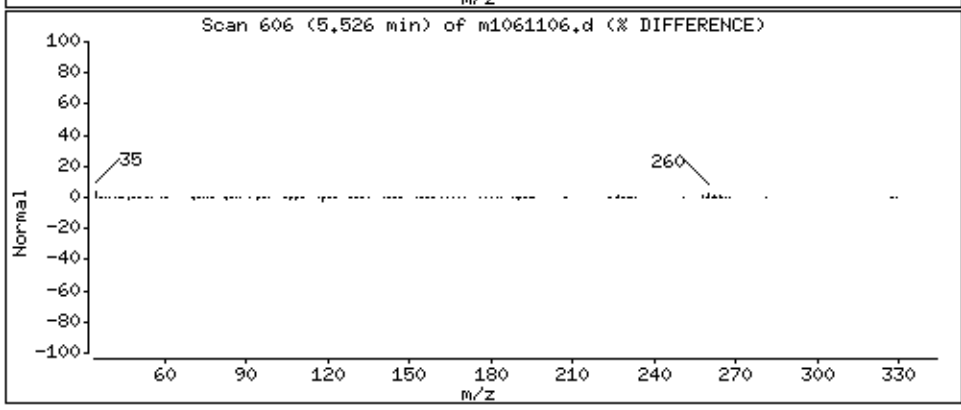
33 Hexachloro-1,3-butadiene

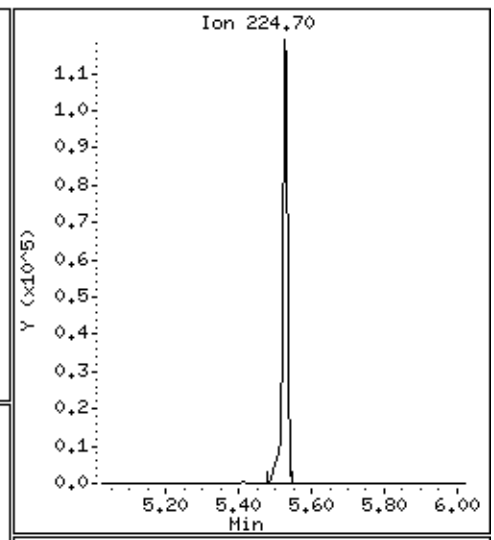
Concentration: 323 ug/L

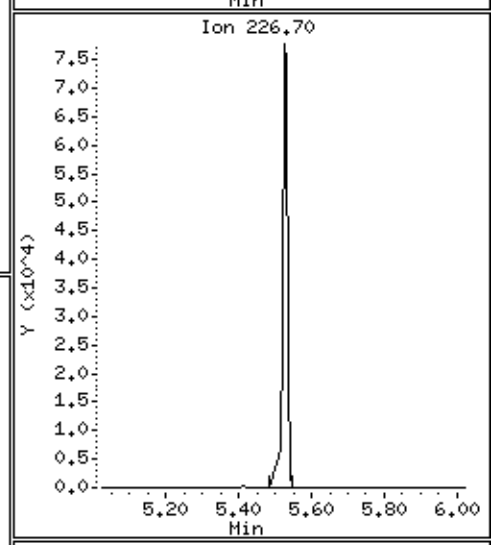


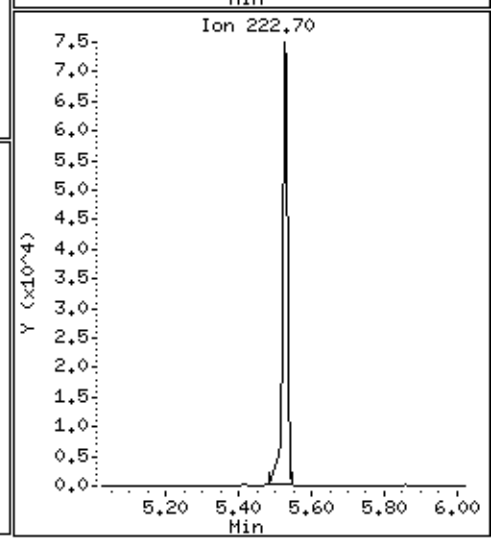












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

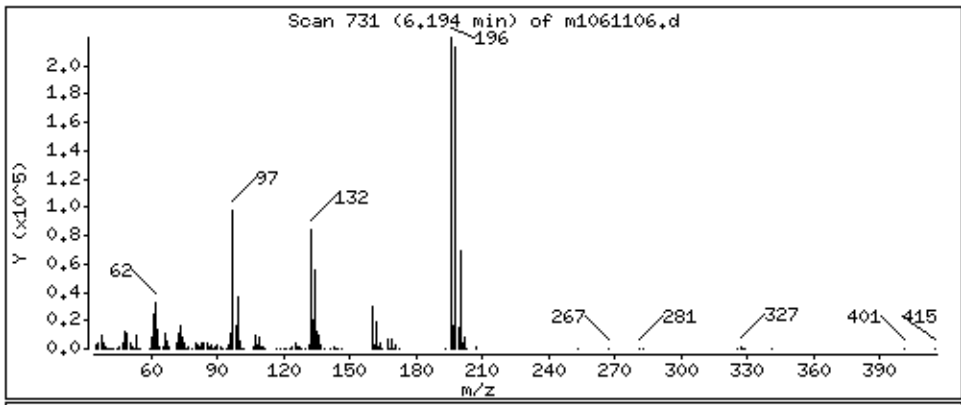
Operator: SJG

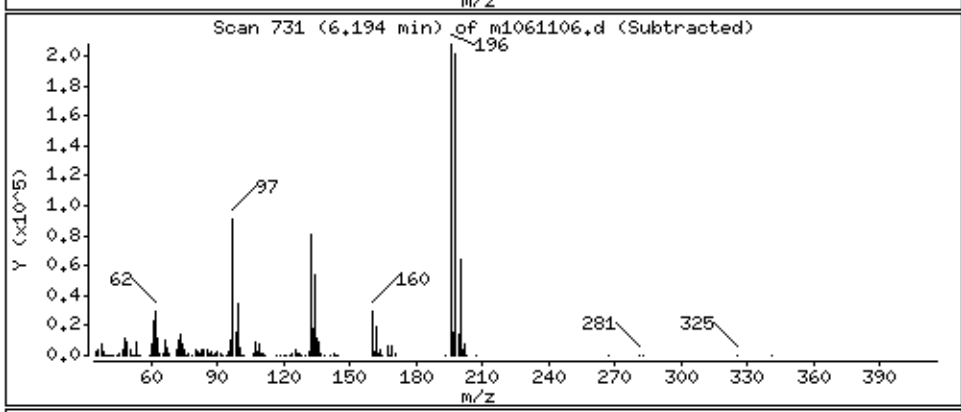
Column phase: RTX-5MS

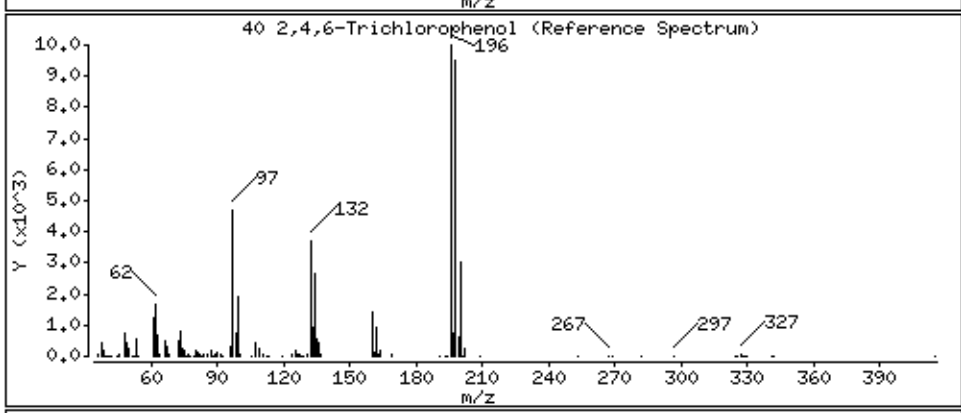
Column diameter: 0.18

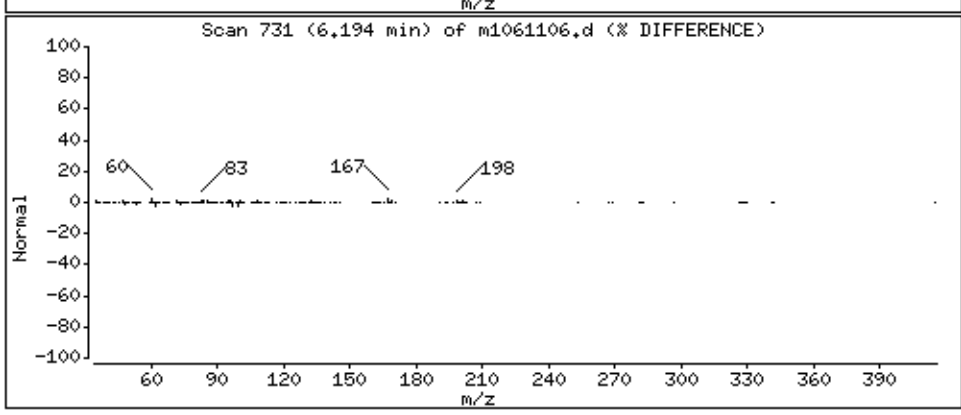
40 2,4,6-Trichlorophenol

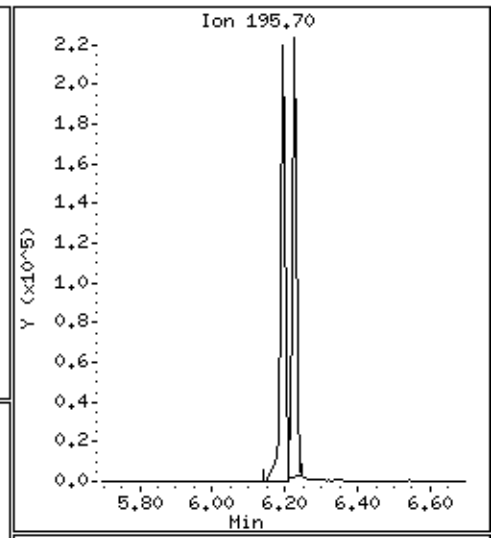
Concentration: 384 ug/L

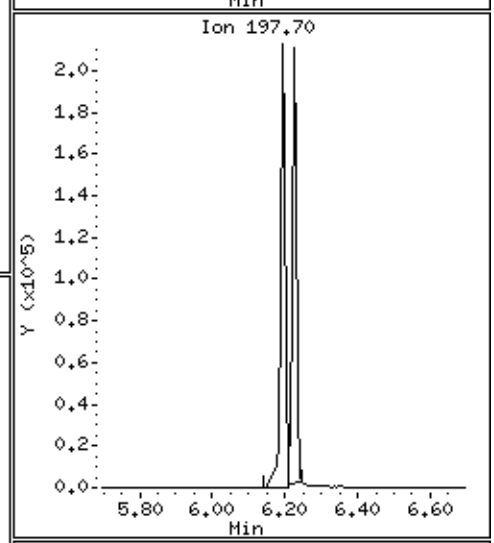


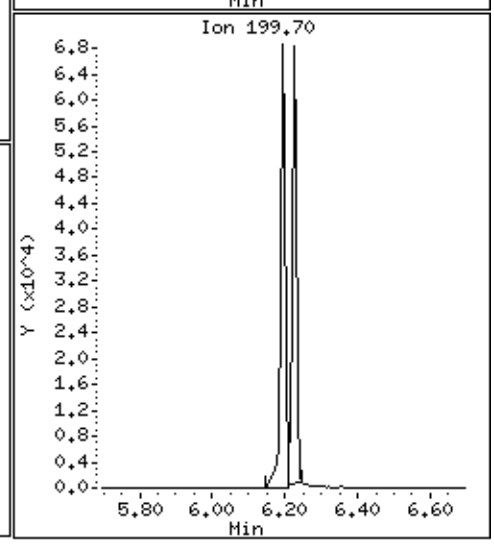












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

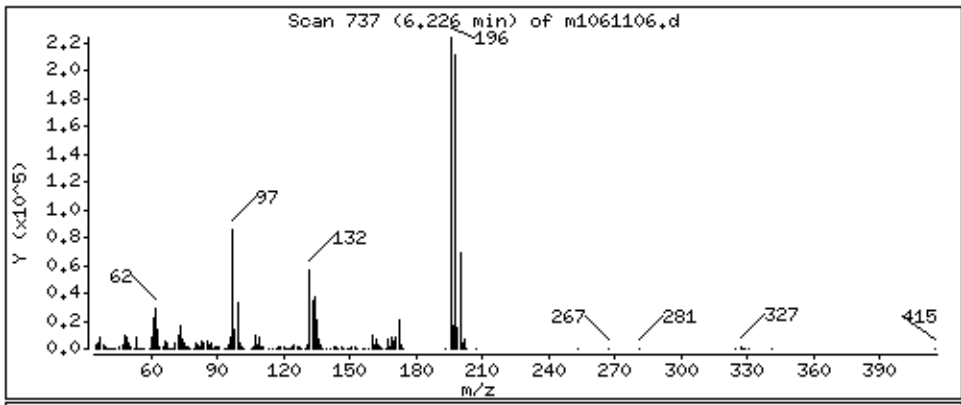
Operator: SJG

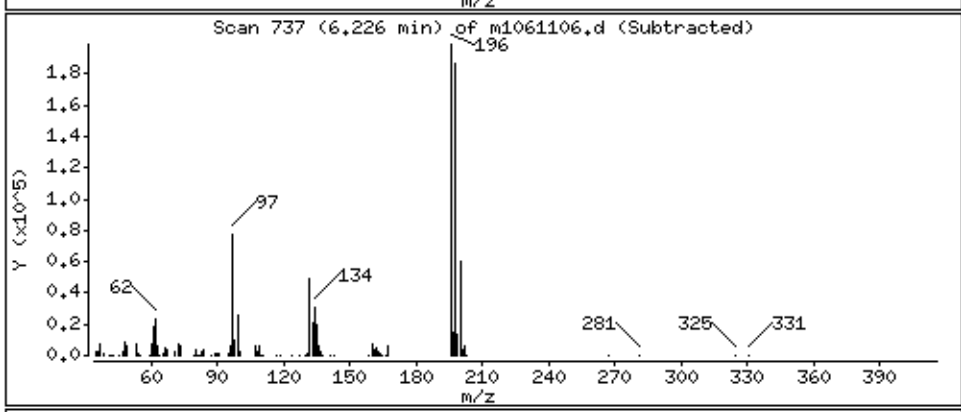
Column phase: RTX-5MS

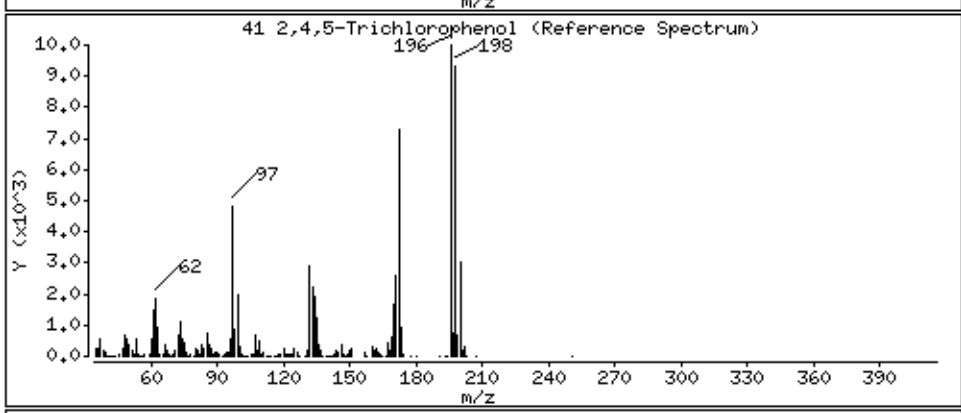
Column diameter: 0.18

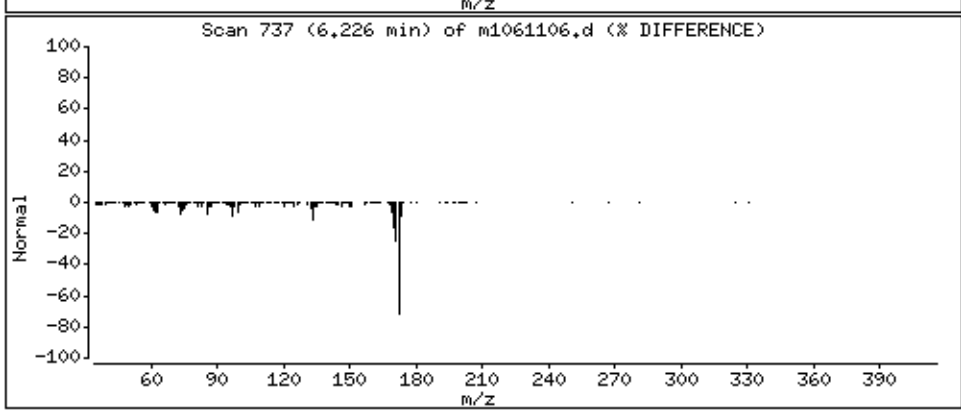
41 2,4,5-Trichlorophenol

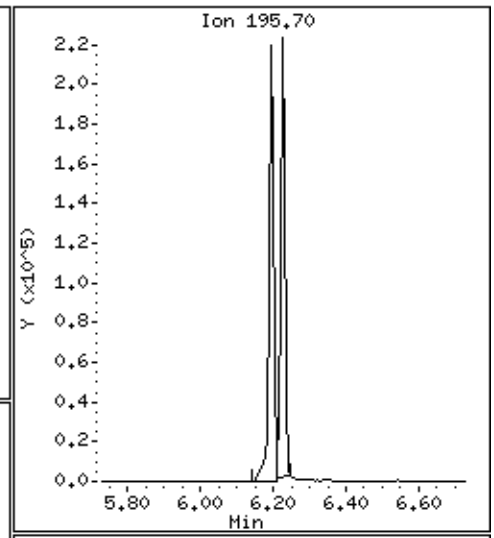
Concentration: 494 ug/L

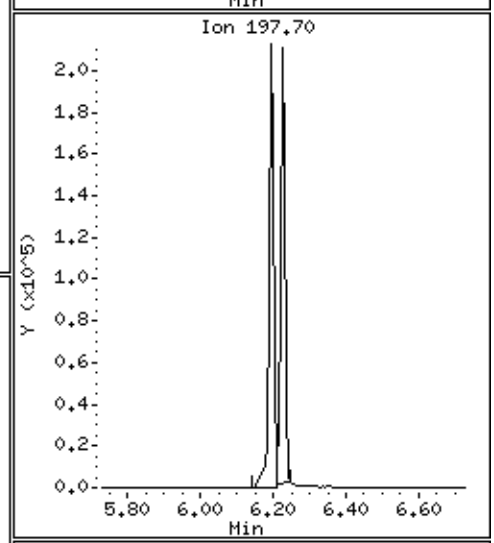


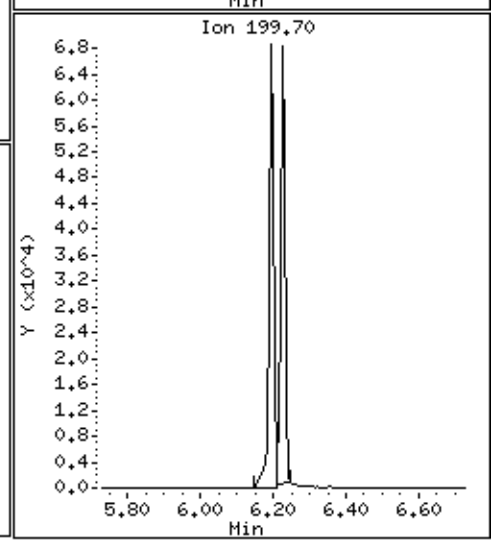












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

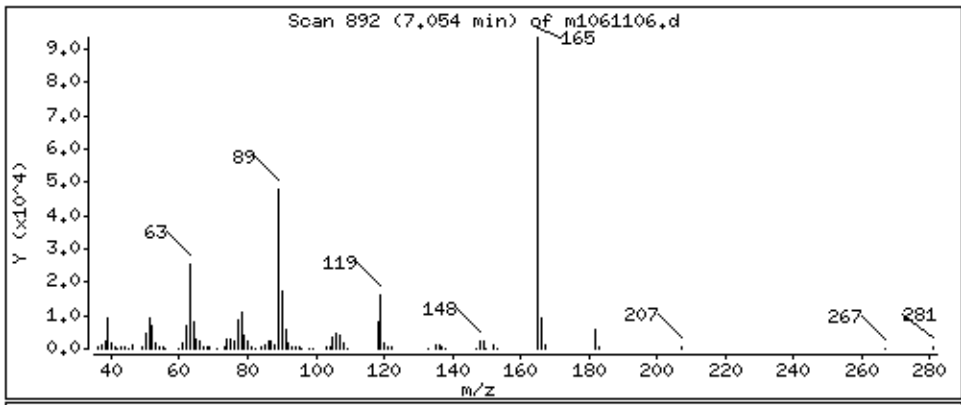
Operator: SJG

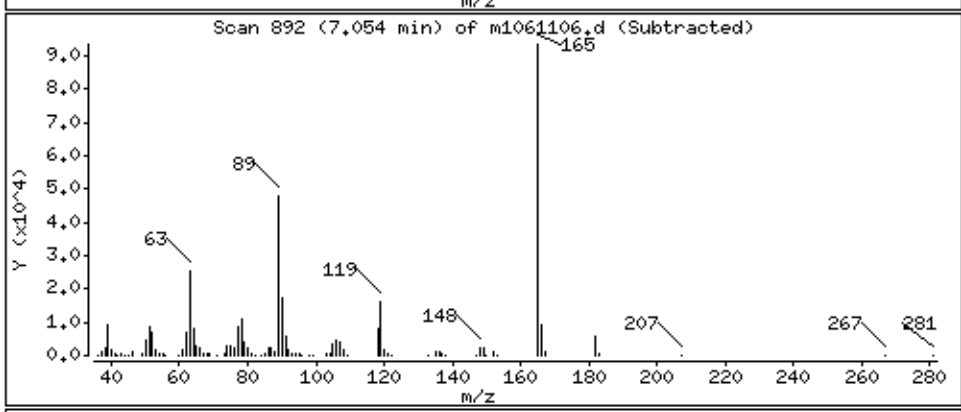
Column phase: RTX-5MS

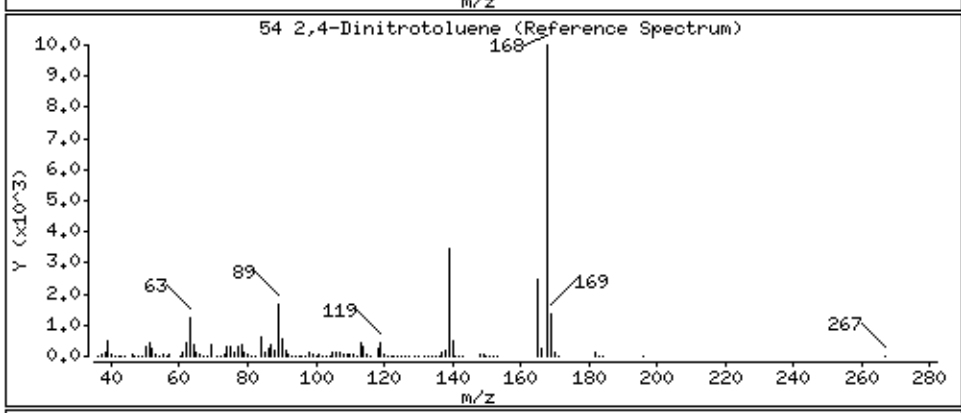
Column diameter: 0.18

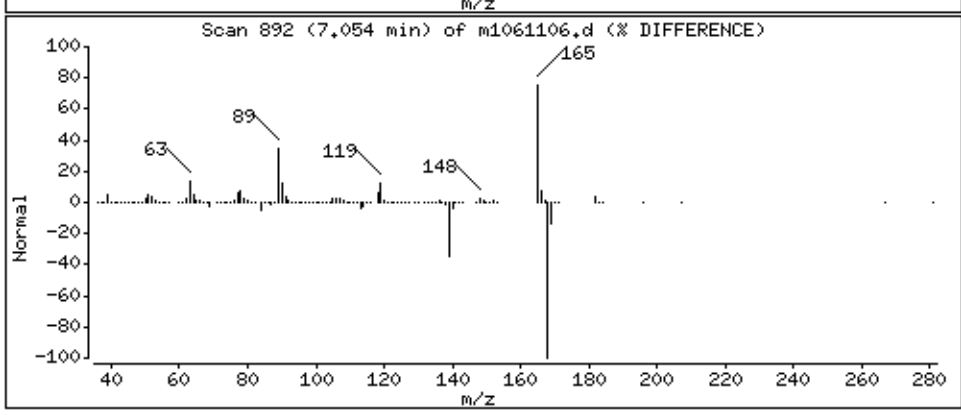
54 2,4-Dinitrotoluene

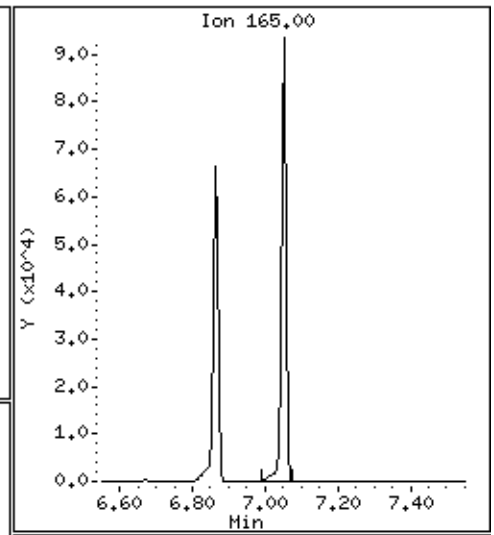
Concentration: 203 ug/L

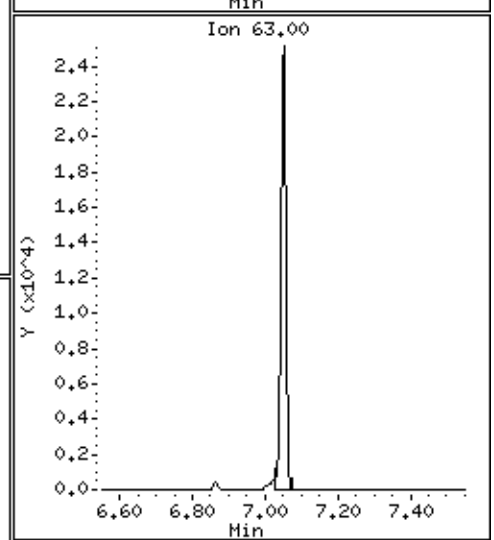


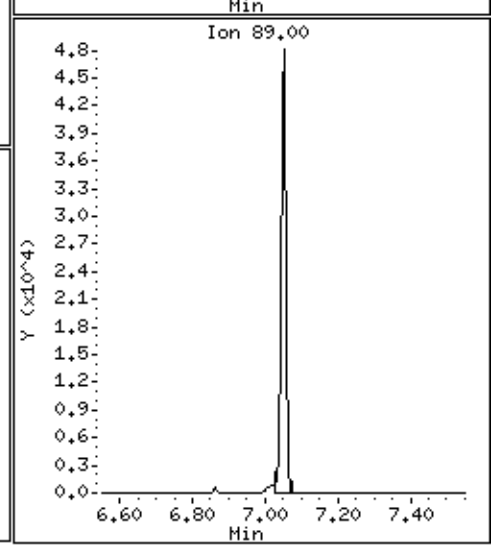












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

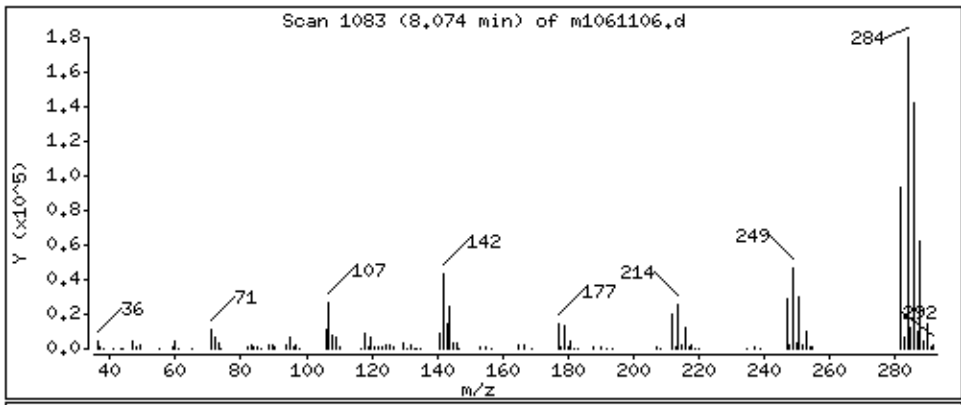
Operator: SJG

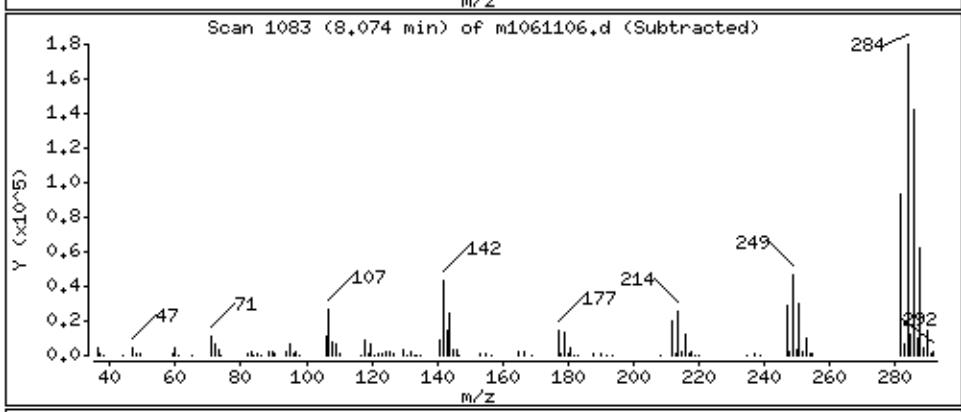
Column phase: RTX-5MS

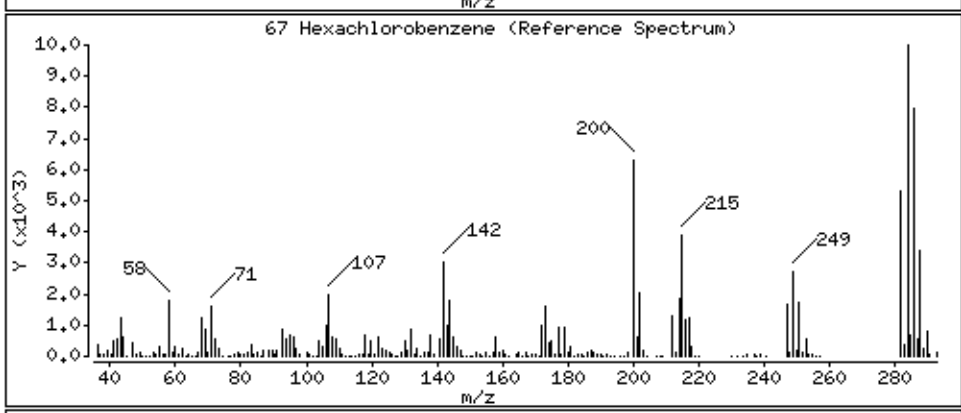
Column diameter: 0.18

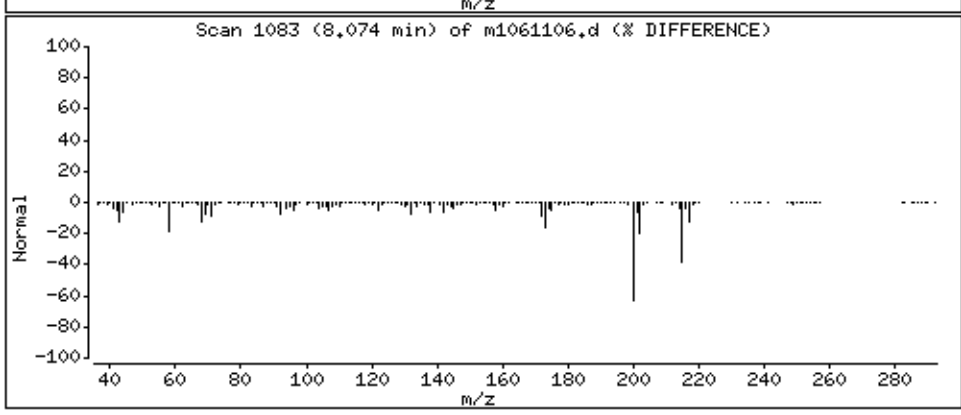
67 Hexachlorobenzene

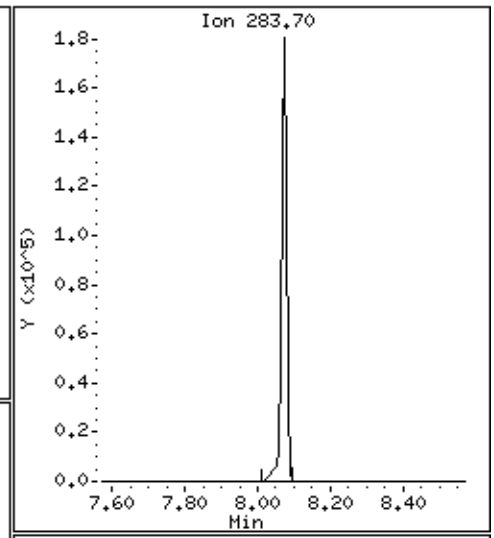
Concentration: 366 ug/L

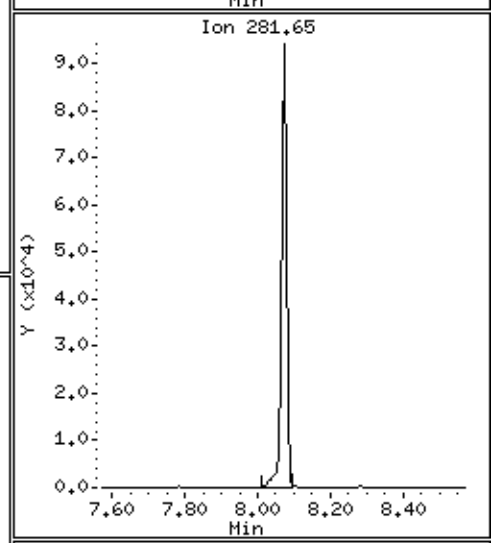


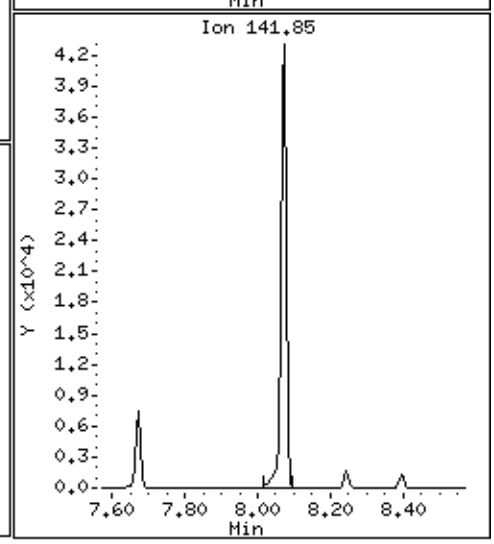












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Date : 11-JUN-2019 19:04

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1685751

Volume Injected (uL): 1.0

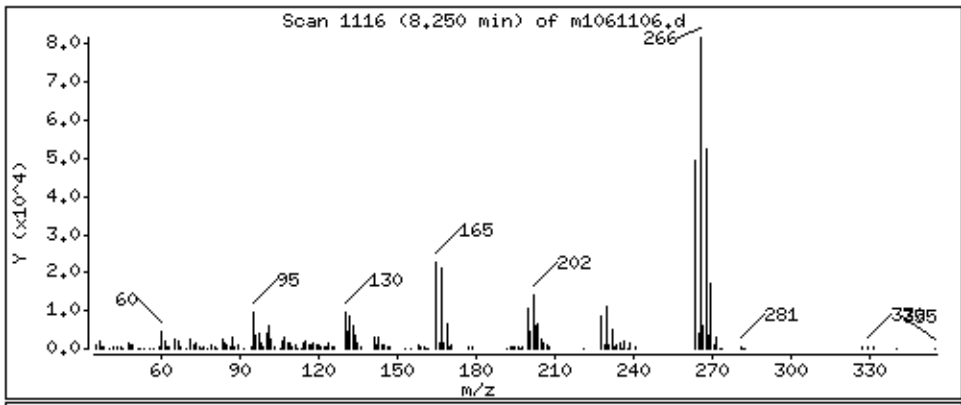
Operator: SJG

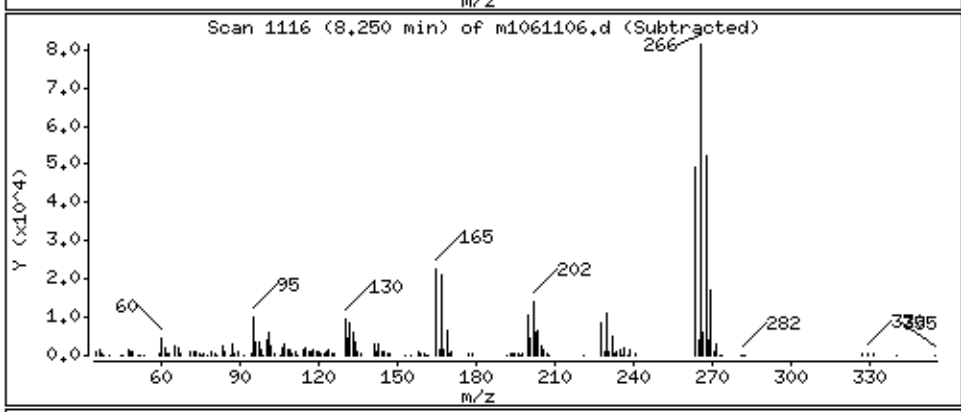
Column phase: RTX-5MS

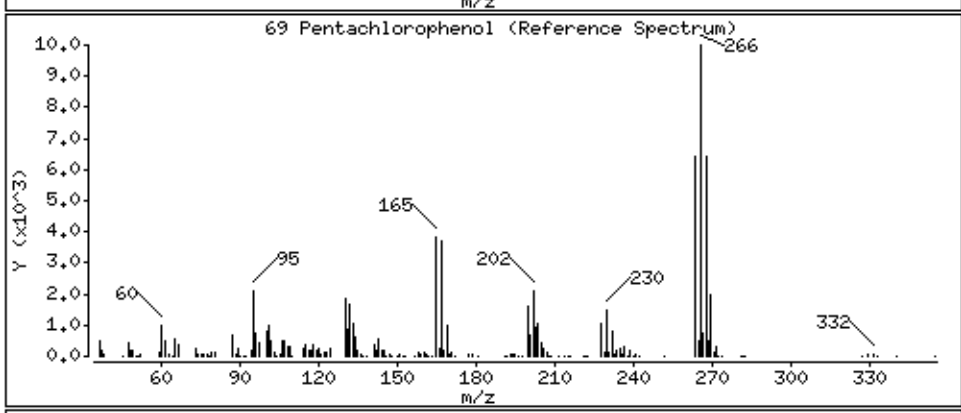
Column diameter: 0.18

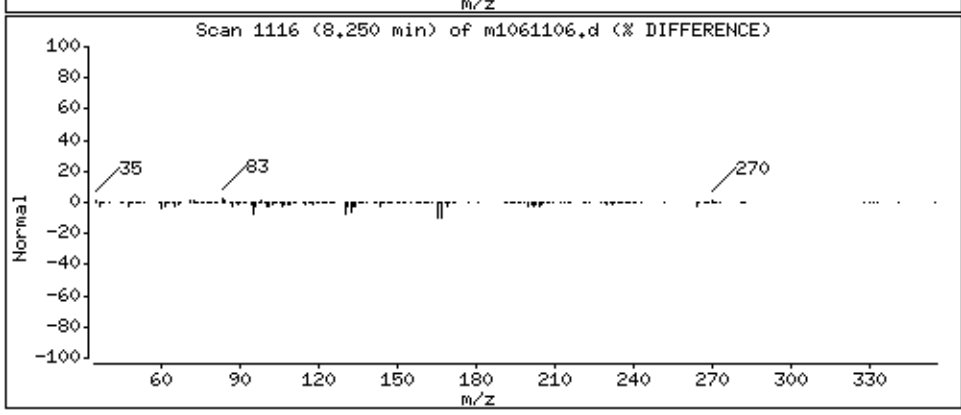
69 Pentachlorophenol

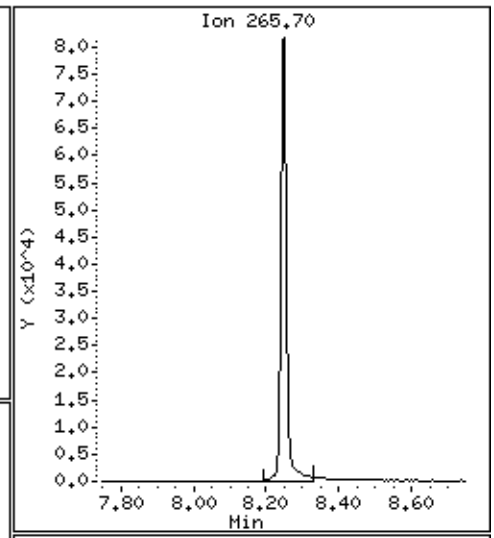
Concentration: 381 ug/L

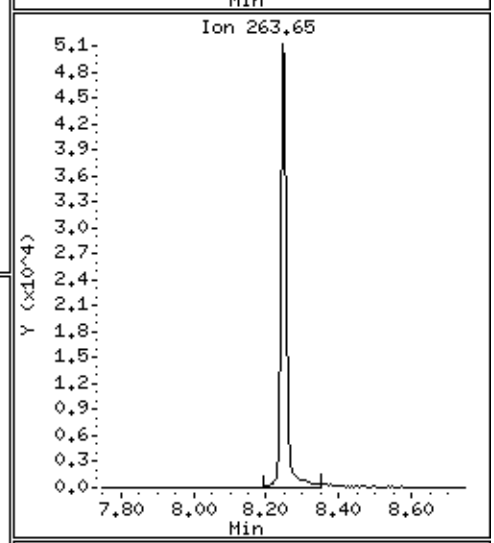


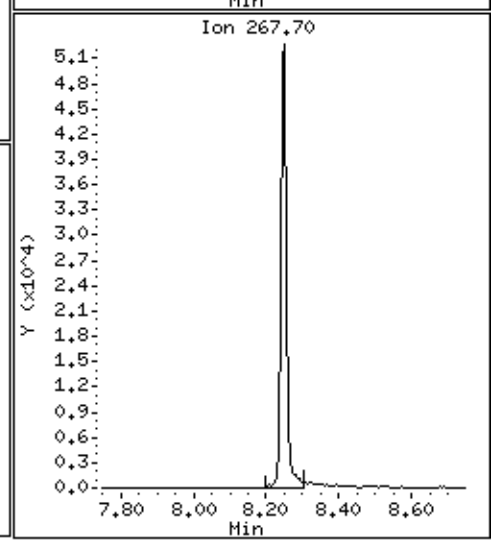












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Injection Date: 11-JUN-2019 19:04
Instrument: 30mss1.i
Lab Sample ID: 1685751
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 11:21
Matrix: Water SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 1682992
Date Analyzed: 06/11/2019 17:55
Lab File ID: MSS1061119.B\M1061103.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061103.d
Lab Smp Id: 1682992 Client Smp ID: LB for HBN 345948 [
Inj Date : 11-JUN-2019 17:55
Operator : SJG Inst ID: 30mss1.i
Smp Info : 1682992
Misc Info : 14689
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.450	3.452	(0.791)	418500	6.13599	614	
$	4 Phenol-d6 (S)	99	4.070	4.077	(0.933)	509639	5.99182	599	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.364	4.360	(1.000)	227492	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.807	4.809	(0.895)	136480	3.78145	378	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.373	5.375	(1.000)	883540	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.255	6.257	(0.912)	589525	3.54411	354	
*	50 Acenaphthene-d10 (IS)	164	6.858	6.866	(1.000)	499119	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)
$	65 2,4,6-Tribromophenol (S)	330	7.670	7.678	(0.914)	168431	7.31807	732	
	67 Hexachlorobenzene	284	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.392	8.393	(1.000)	854097	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.069	10.071	(0.901)	743439	3.61688	362	
* 82 Chrysene-d12 (IS)	240	11.175	11.182	(1.000)	825443	4.00000		
* 88 Perylene-d12 (IS)	264	12.559	12.560	(1.000)	892922	4.00000		

QC Flag Legend

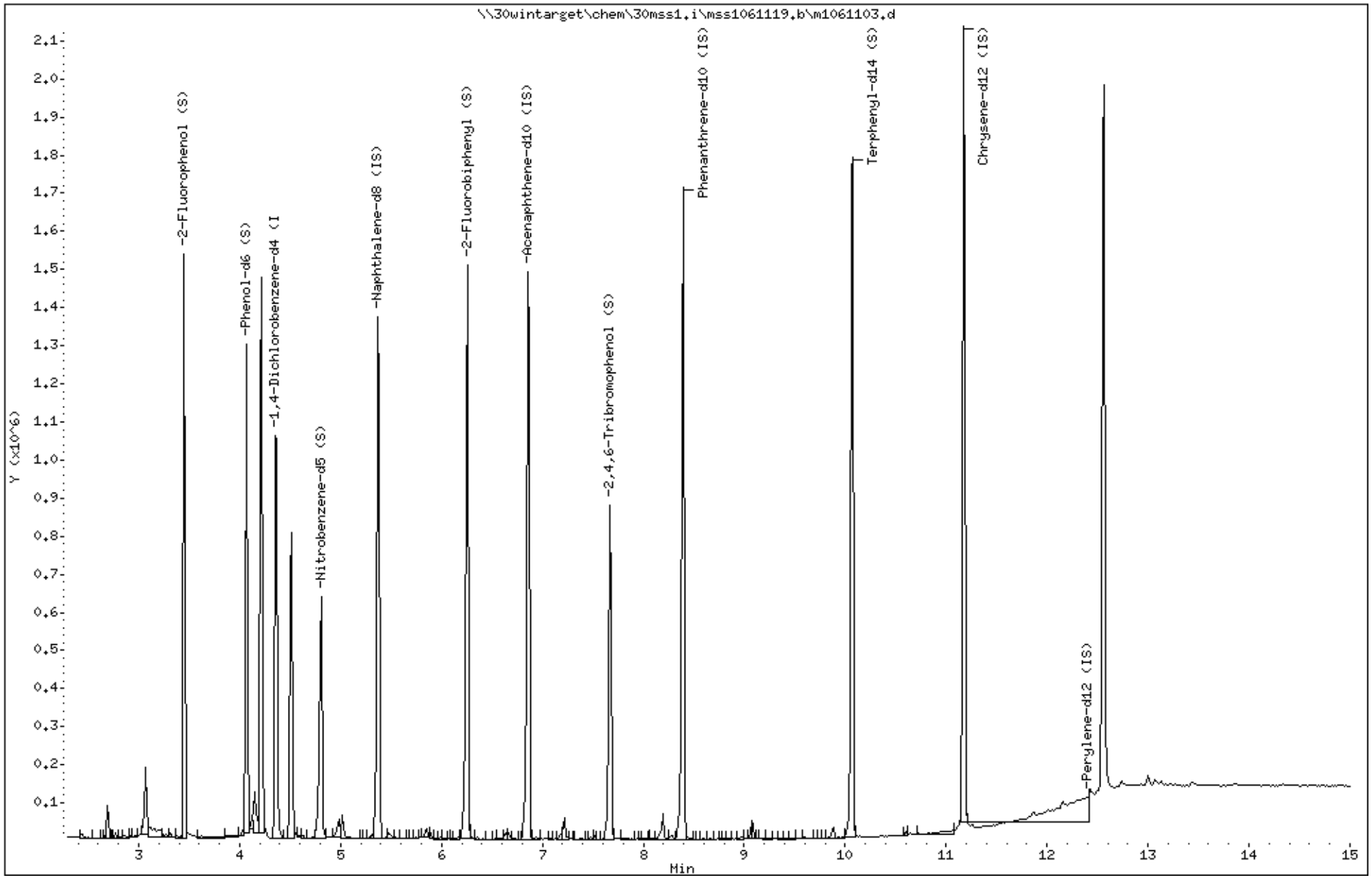
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061103.d
Date : 11-JUN-2019 17:55
Client ID: LB for HBN 345948 [
Sample Info: 1682992
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m1061103.d
Injection Date: 11-JUN-2019 17:55
Instrument: 30mss1.i
Lab Sample ID: 1682992
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/10/2019 07:38
Matrix: Water SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 1685290
Date Analyzed: 06/11/2019 18:18
Lab File ID: MSS1061119.B\M1061104.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061104.d
Lab Smp Id: 1685290 Client Smp ID: LB for HBN 346367 [
Inj Date : 11-JUN-2019 18:18
Operator : SJG Inst ID: 30mss1.i
Smp Info : 1685290
Misc Info : 14689
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.454	3.452	(0.791)	405654	6.02347	602	
$	4 Phenol-d6 (S)	99	4.079	4.077	(0.934)	488883	5.82108	582	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.367	4.360	(1.000)	224628	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.810	4.809	(0.895)	131886	3.76445	376	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.377	5.375	(1.000)	857656	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.258	6.257	(0.912)	582295	3.64329	364	
*	50 Acenaphthene-d10 (IS)	164	6.862	6.866	(1.000)	479577	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)
$	65 2,4,6-Tribromophenol (S)	330	7.674	7.678	(0.914)	164825	7.91067	791	
	67 Hexachlorobenzene	284	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.395	8.393	(1.000)	773199	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.067	10.071	(0.901)	521565	3.44685	345	
* 82 Chrysene-d12 (IS)	240	11.178	11.182	(1.000)	607661	4.00000		
* 88 Perylene-d12 (IS)	264	12.557	12.560	(1.000)	745265	4.00000		

QC Flag Legend

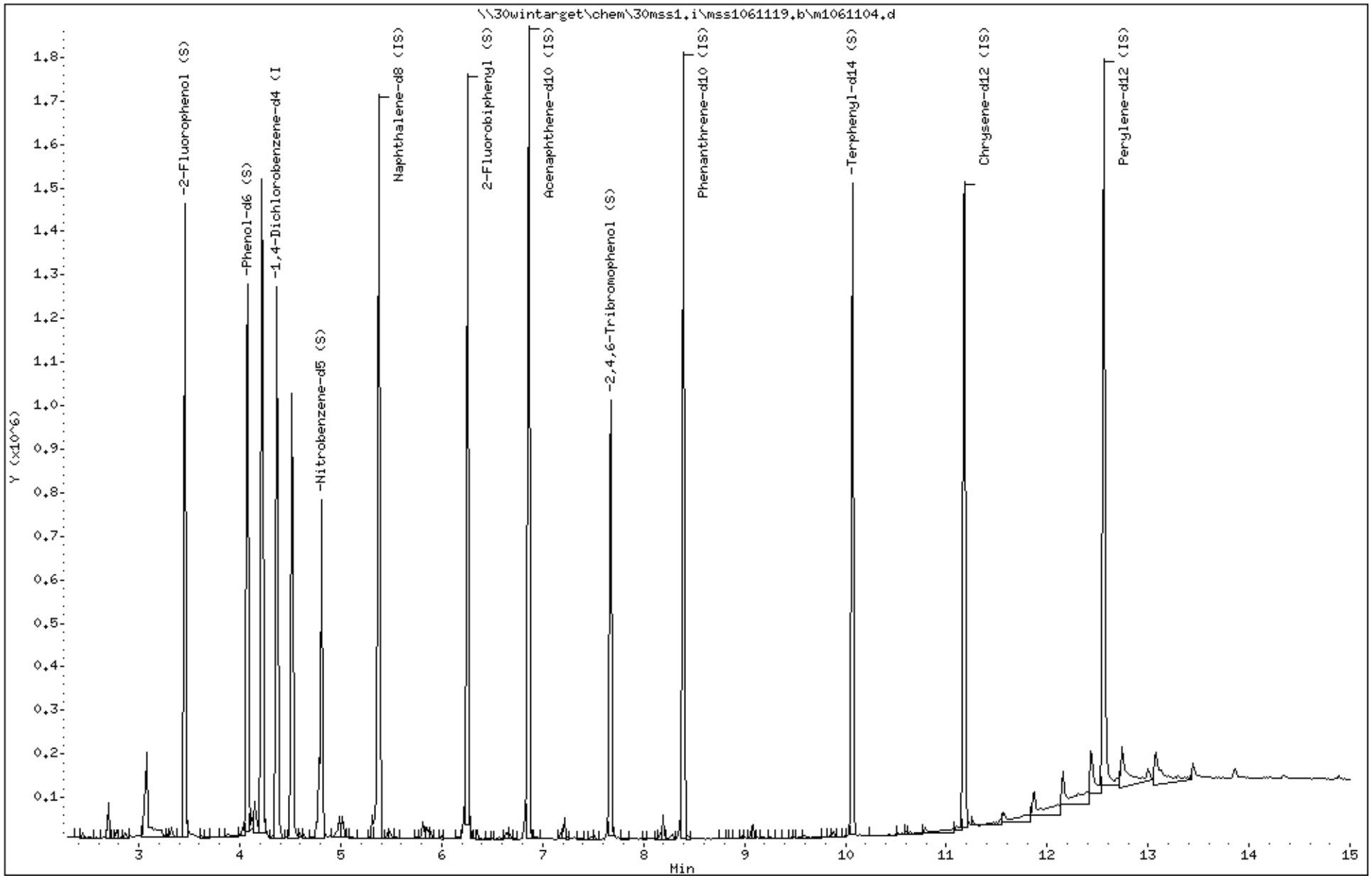
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061104.d
Date : 11-JUN-2019 18:18
Client ID: LB for HBN 346367 [
Sample Info: 1685290
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m1061104.d
Injection Date: 11-JUN-2019 18:18
Instrument: 30mss1.i
Lab Sample ID: 1685290
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/10/2019 11:54
Matrix: Water SDG No.: 30298231
Date Extracted: 06/11/2019 13:11
Lab Sample ID: 1685500
Date Analyzed: 06/11/2019 18:41
Lab File ID: MSS1061119.B\M1061105.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1061119.b\m1061105.d
Lab Smp Id: 1685500 Client Smp ID: LB for HBN 346367 [
Inj Date : 11-JUN-2019 18:41
Operator : SJG Inst ID: 30mss1.i
Smp Info : 1685500
Misc Info : 14689
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1061119.b\8270061019.m
Meth Date : 12-Jun-2019 11:02 sgvozden Quant Type: ISTD
Cal Date : 10-JUN-2019 21:34 Cal File: m10610y7.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.449	3.452	(0.791)	424802	6.31415	631	
$	4 Phenol-d6 (S)	99	4.074	4.077	(0.934)	503343	5.99929	600	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.363	4.360	(1.000)	224402	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.806	4.809	(0.894)	135023	3.79502	380	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.378	5.375	(1.000)	870983	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.254	6.257	(0.911)	636061	3.90940	391	
*	50 Acenaphthene-d10 (IS)	164	6.863	6.866	(1.000)	488200	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)
$	65 2,4,6-Tribromophenol (S)	330	7.675	7.678	(0.915)	176419	7.72393	772	
	67 Hexachlorobenzene	284	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.391	8.393	(1.000)	847596	4.00000		
$ 77 Terphenyl-d14 (S)	244	10.068	10.071	(0.901)	665612	3.25301	325	
* 82 Chrysene-d12 (IS)	240	11.174	11.182	(1.000)	821697	4.00000		
* 88 Perylene-d12 (IS)	264	12.558	12.560	(1.000)	862817	4.00000		

QC Flag Legend

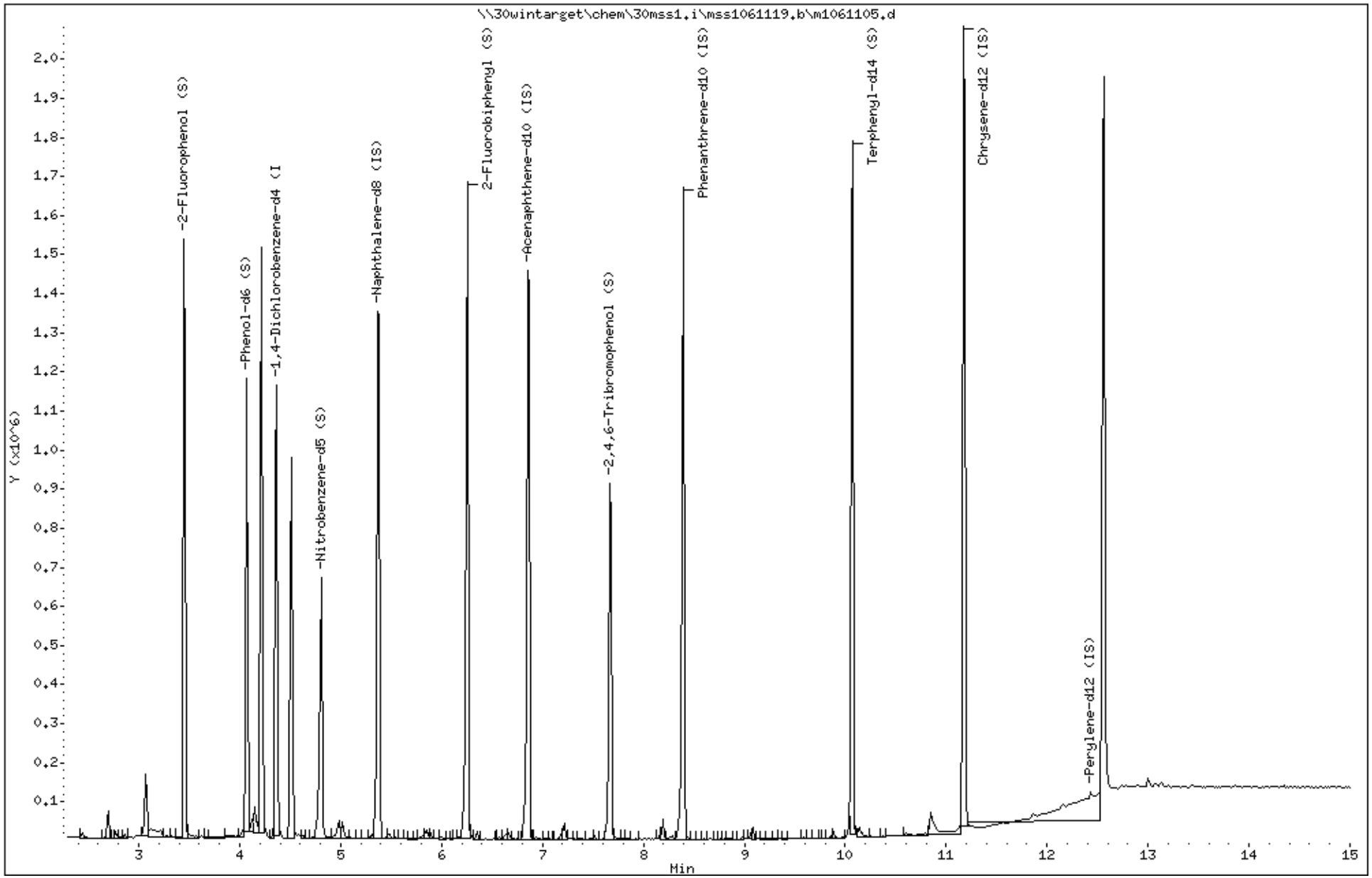
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1061119.b\m1061105.d
Date : 11-JUN-2019 18:41
Client ID: LB for HBN 346367 [
Sample Info: 1685500
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1061119.b/m1061105.d
Injection Date: 11-JUN-2019 18:41
Instrument: 30mss1.i
Lab Sample ID: 1685500
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: TCLP 8649/346367; 8650/346368; 8651/346370

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/10/2019 09:55:38:876	Tumbler Start Temp. (C)	21.3
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 88823	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1685290**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	LB	**1685500**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
TCLP	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
TCLP	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
TCLP	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
TCLP	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100
TCLP	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
TCLP	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
TCLP	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
TCLP	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
TCLP	PS	**30298295002**	Y		J	30TBL5	HP001	Other	Y	Y	7.73	1.71	5	100
TCLP	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
TCLP	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
TCLP	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
TCLP	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685291**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1685749**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
1311MET_L	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
1311MET_L	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
1311MET_L	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
1311MET_L	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
1311MET_L	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
1311MET_L	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
1311MET_L	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
1311MET_L	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
1311MET_L	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
1311MET_L	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
1311MET_L	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685298**	Y		1	30TBL5	HP001		Y	Y	4.88		5	0
1311MET_L	PS	**30297106001**	Y		2	30TBL5	HP001	Other	Y	Y	9.84	1.72	5	100
1311MET_L	PS	**30297106002**	Y		3	30TBL5	HP001	Other	Y	Y	9.78	1.74	5	100
1311MET_L	PS	**30297106003**	Y		4	30TBL5	HP001	Other	Y	Y	9.73	1.87	5	100
1311MET_L	PS	**30297106004**	Y		5	30TBL5	HP001	Other	Y	Y	9.8	1.67	5	100
1311MET_L	PS	**30297106005**	Y		6	30TBL5	HP001	Other	Y	Y	9.72	1.7	5	100
1311MET_L	PS	**30297106006**	Y		7	30TBL5	HP001	Other	Y	Y	9.72	1.83	5	100
1311MET_L	PS	**30296663001**	Y		8	30TBL5	HP001	Other	Y	Y	5.89	1.83	5	95
1311MET_L	PS	**30296842001**	Y		9	30TBL5	HP001	Other	Y	Y	8.58	1.64	5	100
1311MET_L	PS	**30296842004**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100
1311MET_L	PS	**30296842005**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1685290**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324				
TCLP	LB	**1685500**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570				
TCLP	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171				
TCLP	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108				
TCLP	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320				
TCLP	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065				
TCLP	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199				
TCLP	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351				
TCLP	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670				
TCLP	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950				
TCLP	PS	**30298295002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 11:02:37:439				
TCLP	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389				
TCLP	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643				
TCLP	PS	**30298519001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314				
TCLP	PS	**30298297001**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1685291**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324	Y			
1311MET_L	LB	**1685749**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570	Y			
1311MET_L	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171	Y			
1311MET_L	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108	Y			
1311MET_L	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320	Y			
1311MET_L	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065	Y			
1311MET_L	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199	Y			
1311MET_L	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351	Y			
1311MET_L	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670	Y			
1311MET_L	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950	Y			
1311MET_L	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389	Y			
1311MET_L	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643	Y			
1311MET_L	PS	**30298519001**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314	Y			
1311MET_L	PS	**30298297001**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282	Y			
1311MET_L	LB	**1685298**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.89	06/11/2019 11:36:59:553	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30297106001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.38	06/11/2019 11:37:00:433	Y			
1311MET_L	PS	**30297106002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.28	06/11/2019 11:37:01:257	Y			
1311MET_L	PS	**30297106003**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.27	06/11/2019 11:59:31:063	Y			
1311MET_L	PS	**30297106004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.32	06/11/2019 11:59:31:918	Y			
1311MET_L	PS	**30297106005**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.24	06/11/2019 11:59:32:845	Y			
1311MET_L	PS	**30297106006**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.19	06/11/2019 11:59:33:797	Y			
1311MET_L	PS	**30296663001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.04	06/11/2019 11:59:35:141	Y			
1311MET_L	PS	**30296842001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.56	06/11/2019 11:59:36:021	Y			
1311MET_L	PS	**30296842004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:19:146	Y	475.7	476.9	1.2
1311MET_L	PS	**30296842005**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:21:353	Y	475.7	476.9	1.2

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1685290**								2000	
TCLP	LB	**1685500**								2000	
TCLP	PS	**40188615001**								2000	1*
TCLP	PS	**30296741001**								2000	clay/rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**30297196001**								2000	stone
TCLP	PS	**30297929001**								2000	rock
TCLP	PS	**30298178001**								2000	mulch
TCLP	PS	**30298276001**								2000	soil/sand
TCLP	PS	**30298142001**								2000	clay
TCLP	PS	**30298142002**								2000	fabric
TCLP	PS	**30298295002**								2000	clay
TCLP	PS	**30298231001**								2000	clay
TCLP	PS	**30298231010**								2000	dirt/rock
TCLP	PS	**30298519001**								2000	2*
TCLP	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685291**								2000	
1311MET_L	LB	**1685749**								2000	
1311MET_L	PS	**40188615001**								2000	1*
1311MET_L	PS	**30296741001**								2000	clay/rock
1311MET_L	PS	**30297196001**								2000	stone
1311MET_L	PS	**30297929001**								2000	rock
1311MET_L	PS	**30298178001**								2000	mulch
1311MET_L	PS	**30298276001**								2000	soil/sand
1311MET_L	PS	**30298142001**								2000	clay
1311MET_L	PS	**30298142002**								2000	fabric
1311MET_L	PS	**30298231001**								2000	clay
1311MET_L	PS	**30298231010**								2000	dirt/rock
1311MET_L	PS	**30298519001**								2000	2*
1311MET_L	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685298**								2000	
1311MET_L	PS	**30297106001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30297106002**								2000	rock
1311MET_L	PS	**30297106003**								2000	rock
1311MET_L	PS	**30297106004**								2000	rock
1311MET_L	PS	**30297106005**								2000	rock
1311MET_L	PS	**30297106006**								2000	rock
1311MET_L	PS	**30296663001**								1900	paper
1311MET_L	PS	**30296842001**								2000	shavings
1311MET_L	PS	**30296842004**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	oil
1311MET_L	PS	**30296842005**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	3*

Sample Notes:

1*: carbon pellets

2*: sand/sludge

3*: solid portion

Prep Log Report

Batch Information: OEXT 38370/346511 TCLP BNA-SPE

Template Version: F-PA-O-007-Rev.00 (5May2016)

Prep Method	EPA 3535A	Analysis Method	EPA 8270D	Extracted By	JPD	Extracted Date/Time	06/11/2019 13:11:46:213
Extraction End Date/Time	06/11/2019 15:45:22:631	Acceptance Range:	pH: 4-5	Witnessed By		Concentrated By	JPD
Concentrated By Date	06/11/2019 15:15:47:555	Conc. Method	SPE	Methylene Chloride	89661	Methanol	89049
1:1 H2SO4	85991	10N Sodium Hydroxide	90173	SPE Cartridge	87233	Sodium Sulfate	88419
Gravity Filters	89368	Syringe ID 1	SYR029	Reviewed By	BBR	Reviewed By Date	06/13/2019 01:47
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	LB	**1682992**		100	No	10		87991 (1)	
8270DSPE_P	LCS	**1685751**		100	No	10		87991 (1)	79174 (.5)
8270DSPE_P	LB	**1685290**		100	No	10		87991 (1)	
8270DSPE_P	LB	**1685500**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**40188615001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30298519001**		100	Yes	10		87991 (1)	
8270DSPE_P	MS	**1686274**		100	Yes	10		87991 (1)	79174 (.5)
8270DSPE_P	MSD	**1686275**		100	Yes	10		87991 (1)	79174 (.5)
8270DSPE_P	PS	**30296741001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30297929001**		100	No	10		87991 (1)	
8270DSPE_P	PS	**30298178001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30298276001**		100	No	10		87991 (1)	
8270DSPE_P	PS	**30298297001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30297746001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30297746002**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30297746003**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30298231001**		100	Yes	10		87991 (1)	
8270DSPE_P	PS	**30298231010**		100	Yes	10		87991 (1)	

Prep Log Report

Standard Notes:

79174: OEXT TCLP BNA spike 100 ppm in

87991: OEXT 8270 BNA surrogate 50/75

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium — Method: 625 & 8270D
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614:10 — Surr. lot: See Extraction Sheets
Tune std: 79378 — Cal. std: 89096

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10610t1.d	DFTPP	N/14675	DFTPP	1	625tune	6/10/19	17:44	SJG	
1/m10610s1.d	CCV	N/14675		1	8270060719	6/10/19	18:00	SJG	
1/m10610s2.d	CCV	N/14675		1	8270060719	6/10/19	18:28	SJG	
1/m10610y1.d	CAL7	N/14685	CALIB_7	1	8270061019	6/10/19	19:16	SJG	
1/m10610y2.d	CAL6	N/14685	CALIB_6	1	8270061019	6/10/19	19:39	SJG	
1/m10610y3.d	CAL5	N/14685	CALIB_5	1	8270061019	6/10/19	20:02	SJG	
1/m10610y4.d	CAL4	N/14685	CALIB_4	1	8270061019	6/10/19	20:25	SJG	
1/m10610y5.d	CAL3	N/14685	CALIB_3	1	8270061019	6/10/19	20:48	SJG	
1/m10610y511.d	CAL3	N/14685	CCALIB_3	1	8270061019	6/10/19	20:48	SJG	
1/m10610y6.d	CAL2	N/14685	CALIB_2	1	8270061019	6/10/19	21:11	SJG	
1/m10610y611.d	CAL2	N/14685	CCALIB_2	1	8270061019	6/10/19	21:11	SJG	
1/m10610y7.d	CAL1	N/14685	CALIB_1	1	8270061019	6/10/19	21:34	SJG	
1/m10610y711.d	CAL1	N/14685	CCALIB_1	1	8270061019	6/10/19	21:34	SJG	
1/m10610y8.d	ICV	N/14685	CCALIB_8	1	8270061019	6/10/19	21:57	SJG	
1/m1061001.d	1684469	S/14680	BLANK	1	8270061019	6/10/19	22:19	SJG	
1/m1061002.d	1684470	S/14680	LCS	1	8270061019	6/10/19	22:42	SJG	
1/m1061003.d	1685244	L/14684	BLANK	1	8270061019	6/10/19	23:05	SJG	
1/m1061004.d	1685245	L/14684	LCS	1	8270061019	6/10/19	23:28	SJG	
1/m1061005.d	30296447001	S/14631	SAMPLE	1	8270061019	6/10/19	23:50	SJG	
1/m1061006.d	30296447002	S/14631	SAMPLE	1	8270061019	6/11/19	00:13	SJG	
1/m1061007.d	30298343013	L/14684	SAMPLE	1	8270061019	6/11/19	00:35	SJG	
1/m1061008.d	30298343014	L/14684	SAMPLE	1	8270061019	6/11/19	00:58	SJG	
1/m1061009.d	30298343015	L/14684	SAMPLE	1	8270061019	6/11/19	01:21	SJG	
1/m1061010.d	30298343018	L/14684	SAMPLE	1	8270061019	6/11/19	01:43	SJG	
1/m1061011.d	30298087001	S/14680	SAMPLE	1	8270061019	6/11/19	02:06	SJG	Rerun - Interference ?
1/m1061012.d	1684471	S/14680	MS	1	8270061019	6/11/19	02:29	SJG	
1/m1061013.d	1684472	S/14680	MSD	1	8270061019	6/11/19	02:52	SJG	
1/m1061014.d	30298343001X10	S/14680	SAMPLE	10	8270061019	6/11/19	03:14	SJG	
1/m1061015.d	30298343002	S/14680	SAMPLE	1	8270061019	6/11/19	03:37	SJG	
1/m1061016.d	30298343003X10	S/14680	SAMPLE	10	8270061019	6/11/19	04:00	SJG	P12↓
1/m1061017.d	30298343004	S/14680	SAMPLE	1	8270061019	6/11/19	04:22	SJG	↓
1/m1061018.d	30298343005	S/14680	SAMPLE	1	8270061019	6/11/19	04:45	SJG	
1/m1061019.d	30296323001X10	L/14629	SAMPLE	10	8270061019	6/11/19	05:07	SJG	625 RESE

Check Maintenance Items Performed:
- X Changed septum
- X Cleaned liner
- X Replaced/Cleaned gold seal
- X Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: SJG / 6-11-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1061019.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 13:45 06/11/2019

Reviewed By/Date: 6/11/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RTX-5MS 20m X 0.18mm Helium Method:

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 89614:10 Surr. lot:

Tune std: _____ Cal. std: _____

See 1st Pg.

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1061020.d	30296325001X10	L/14629	SAMPLE	10	8270061019	6/11/19	05:30	SJG	625 Run @ 200X
1/m1061021.d	30296326001X10	L/14629	SAMPLE	10	8270061019	6/11/19	05:53	SJG	
1/m1061022.d	30296478002X10	L/14641	SAMPLE	10	8270061019	6/11/19	06:15	SJG	RR SE
1/m1061023.d	30296787001X10	L/14641	SAMPLE	10	8270061019	6/11/19	06:38	SJG	
1/m1061024.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	07:01	SJG	
1/m1061025.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	07:23	SJG	
1/m1061026.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	07:46	SJG	
1/m1061027.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	08:08	SJG	
1/m1061028.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	08:30	SJG	
1/m1061029.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	08:53	SJG	
1/m1061030.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	09:15	SJG	
1/m1061031.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	09:38	SJG	
1/m1061032.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	10:01	SJG	
1/m1061033.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	10:23	SJG	
1/m1061034.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	10:46	SJG	
1/m1061035.d	RINSE	N/	SAMPLE	1	8270061019	6/11/19	11:08	SJG	
1/m1061036.d	30296323001	L/14629	SAMPLE	1	8270061019	6/11/19	11:31	SJG	625 PI2 NOI
1/m1061037.d	30296478002	L/14641	SAMPLE	1	8270061019	6/11/19	11:54	SJG	RR - No Internals
1/m1061038.d	30296787001	L/14641	SAMPLE	1	8270061019	6/11/19	12:17	SJG	PI2 NOI
1/m1061039.d	30296478002	L/14641	SAMPLE	1	8270061019	6/11/19	12:39	SJG	
1/m1061040.d	30296325001X200	L/14629	SAMPLE	200	8270061019	6/11/19	13:02	SJG	
1/m1061041.d	30296326001X200	L/14629	SAMPLE	200	8270061019	6/11/19	13:25	SJG	

SJG 6-11-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1061019.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 13:45 06/11/2019

Reviewed By/Date: _____ Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: ~~EPA 625~~ 8270D SJG 6-12-19
Surr. lot: See Extraction Logs
Cal. std: 89096

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1061lt1.d	DFTPP	N/14685	DFTPP	1	625tune	6/11/19	16:02	SJG	
1/m1061ls1.d	CCV	N/14685	CCALIB_4	1	8270061019	6/11/19	16:22	SJG	
1/m1061ls2.d	CCV	N/14685	CCALIB_4	1	8270061019	6/11/19	16:47	SJG	
1/m1061101.d	30296447005	S/14635	SAMPLE	1	8270061019	6/11/19	17:10	SJG	
1/m1061102.d	30296447006	S/14635	SAMPLE	1	8270061019	6/11/19	17:32	SJG	
1/m1061103.d	1682992	L/14689	BLANK	1	8270061019	6/11/19	17:55	SJG	
1/m1061104.d	1685290	L/14689	BLANK	1	8270061019	6/11/19	18:18	SJG	
1/m1061105.d	1685500	L/14689	BLANK	1	8270061019	6/11/19	18:41	SJG	
1/m1061106.d	1685751	L/14689	LCS	1	8270061019	6/11/19	19:04	SJG	
1/m1061107.d	40188615001	S/14689	SAMPLE	1	8270061019	6/11/19	19:26	SJG	
1/m1061108.d	30298519001	S/14689	SAMPLE	1	8270061019	6/11/19	19:49	SJG	
1/m1061109.d	1686274	S/14689	MS	1	8270061019	6/11/19	20:11	SJG	
1/m1061110.d	1686275	S/14689	MSD	1	8270061019	6/11/19	20:34	SJG	
1/m1061111.d	30296741001	S/14689	SAMPLE	1	8270061019	6/11/19	20:57	SJG	
1/m1061112.d	30297929001	S/14689	SAMPLE	1	8270061019	6/11/19	21:19	SJG	
1/m1061113.d	30298178001	S/14689	SAMPLE	1	8270061019	6/11/19	21:42	SJG	
1/m1061114.d	30298276001	S/14689	SAMPLE	1	8270061019	6/11/19	22:04	SJG	
1/m1061115.d	30298297001	S/14689	SAMPLE	1	8270061019	6/11/19	22:27	SJG	
1/m1061116.d	30297746001	S/14689	SAMPLE	1	8270061019	6/11/19	22:49	SJG	
1/m1061117.d	30297746002	S/14689	SAMPLE	1	8270061019	6/11/19	23:12	SJG	
1/m1061118.d	30297746003	S/14689	SAMPLE	1	8270061019	6/11/19	23:35	SJG	
1/m1061119.d	30298231001	S/14689	SAMPLE	1	8270061019	6/11/19	23:57	SJG	
1/m1061120.d	30298231010	S/14689	SAMPLE	1	8270061019	6/12/19	00:20	SJG	
1/m1061121.d	30297750002X5	L/14677	SAMPLE	5	8270061019	6/12/19	00:42	SJG	
1/m1061122.d	30297750008X5	L/14677	SAMPLE	5	8270061019	6/12/19	01:05	SJG	
1/m1061123.d	30297318001X50	L/14677	SAMPLE	50	8270061019	6/12/19	01:28	SJG	Run @ 250X
1/m1061124.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	01:50	SJG	
1/m1061125.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	02:13	SJG	
1/m1061126.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	02:36	SJG	
1/m1061127.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	02:58	SJG	
1/m1061128.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	03:21	SJG	
1/m1061129.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	03:43	SJG	
1/m1061130.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	04:06	SJG	

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [X] Replaced/Cleaned gold seal
- [X] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [ ] Other minor parts replaced _____
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: SJG | 6-12-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1061119.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:27 06/12/2019

Reviewed By/Date: 6/12/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RXI-5MS 20m X 0.18mm He Method: EPA 625

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 89614:10 Surr. lot:

Tune std: _____ Cal. std: _____

See 1ST Pg.

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1061131.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	04:29	SJG	
1/m1061132.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	04:51	SJG	
1/m1061133.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	05:14	SJG	
1/m1061134.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	05:37	SJG	
1/m1061135.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	05:59	SJG	
1/m1061136.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	06:21	SJG	
1/m1061137.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	06:44	SJG	
1/m1061138.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	07:06	SJG	
1/m1061139.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	07:29	SJG	
1/m1061140.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	07:51	SJG	
1/m1061141.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	08:14	SJG	
1/m1061142.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	08:36	SJG	
1/m1061143.d	RINSE	N/	SAMPLE	1	8270061019	6/12/19	08:59	SJG	

SJG 6-12-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1061119.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:27 06/12/2019 Reviewed By/Date: SJG 6/12/19 Page: 2 of 2

MSSV SIM - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2

LAB SAMPLE ID	SAMPLE NAME	2FBP	TD14
1685236	1685236BLANK	80	85
1685237	1685237LCS	84	83
30298231001	AOC35L	81	65
30298231010	AOC34	82	50*

	QC LIMITS
(2FBP) = 2-Fluorobiphenyl (S)	(43-97)
(TD14) = Terphenyl-d14 (S)	(56-106)

* Values outside of QC Limits

MSSV SIM - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1685237LCS
Date Extracted: 06/10/2019
Date Analyzed (1): 06/10/2019
Instrument: 30MSS2
LCS Lot No: 85224
Lab File ID: MSS2061019.B\M206101902.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acenaphthylene	132	123	93	42-109
Anthracene	132	126	95	54-110
Benzo(a)anthracene	132	142	108	59-119
Benzo(a)pyrene	132	133	101	55-125
Benzo(b)fluoranthene	132	147	111	54-131
Benzo(g,h,i)perylene	132	144	109	54-122
Benzo(k)fluoranthene	132	129	98	57-123
Chrysene	132	132	100	62-111
Dibenz(a,h)anthracene	132	145	110	60-124
Fluoranthene	132	133	101	60-116
Fluorene	132	122	92	49-110
Indeno(1,2,3-cd)pyrene	132	144	109	59-122
Naphthalene	132	109	82	42-97
Phenanthrene	132	119	90	52-107
Pyrene	132	132	100	60-117

Spike Recovery: 0 out of 15 outside limits.

MSSV SIM - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1685238MS

Date Extracted: 06/10/2019

Date Analyzed (1): 06/10/2019

Instrument: 30MSS2

Lab File ID: MSS2061019.B\M206101922.D

Parent Sample ID: 30298235001

SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Acenaphthylene	145	0.33	494	112	26-144
Anthracene	145	0.72	985	183	10-166
Benzo(a)anthracene	145	3.0	3540	406	10-175
Benzo(a)pyrene	145	3.0	3600	418	10-175
Benzo(b)fluoranthene	145	4.3	5070	525	10-175
Benzo(g,h,i)perylene	145	0.81	1250	302	10-171
Benzo(k)fluoranthene	145	1.7	2170	352	10-160
Chrysene	145	2.5	3080	413	10-175
Dibenz(a,h)anthracene	145	0.33	656	227	10-149
Fluoranthene	145	5.6	6250	480	10-175
Fluorene	145	0.39	716	227	31-136
Indeno(1,2,3-cd)pyrene	145	0.87	1400	366	10-151
Naphthalene	145	0.18	437	180	10-149
Phenanthrene	145	1.1	1210	78	10-175
Pyrene	145	4.6	5050	291	10-175

Spike Recovery: 13 out of 15 outside limits.

MSSV SIM - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS2 Matrix Spike Duplicate - Sample No: 1685239MSD

Lab File ID (2): MSS2061019.B\M206101925.D Date Analyzed (2): 06/10/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Acenaphthylene	144	651	222	27	0-20	26-144
Anthracene	144	1070	242	8	0-20	10-166
Benzo(a)anthracene	144	4080	784	14	0-20	10-175
Benzo(a)pyrene	144	4430	993	21	0-20	10-175
Benzo(b)fluoranthene	144	6410	1450	23	0-20	10-175
Benzo(g,h,i)perylene	144	1400	405	11	0-20	10-171
Benzo(k)fluoranthene	144	2460	557	13	0-20	10-160
Chrysene	144	3450	671	11	0-20	10-175
Dibenz(a,h)anthracene	144	808	333	21	0-20	10-149
Fluoranthene	144	6250	480	0	0-20	10-175
Fluorene	144	640	176	11	0-20	31-136
Indeno(1,2,3-cd)pyrene	144	1810	647	25	0-20	10-151
Naphthalene	144	410	162	7	0-20	10-149
Phenanthrene	144	1260	108	3	0-20	10-175
Pyrene	144	5050	295	0	0-20	10-175

RPD: 5 out of 15 outside limits.

Spike Recovery: 14 out of 15 outside limits.

SAMPLE NO.

1685236BLANK

MSSV SIM - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2 Matrix: Solid Lab Sample ID: 1685236

Lab File ID: MSS2061019.B\M206101901.D Date Analyzed: 06/10/2019 Time: 15:05

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1685237LCS	1685237	MSS2061019.B\M206101902.	06/10/2019 15:23
AOC35L	30298231001	MSS2061019.B\M206101931.	06/11/2019 00:00
AOC35L	30298231001	MSS2061019.B\M206101932.	06/11/2019 00:18
AOC34	30298231010	MSS2061019.B\M206101933.	06/11/2019 00:36
AOC34	30298231010	MSS2061019.B\M206101934.	06/11/2019 00:54

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2053119.B\M2053119T1.D DFTPP Injection Date: 05/31/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 13:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	30.84	
68	Less than 2.00% of mass 69	0.25	(0.60)[1]
69	Mass 69 relative abundance	41.95	
70	Less than 2.00% of mass 69	0.05	(0.11)[1]
127	10.00 - 80.00% of mass 198	46.04	
197	Less than 2.00% of mass 198	0.13	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	7.08	
275	10.00 - 60.00% of mass 198	27.22	
365	Greater than 1.00% of mass 198	5.28	
441	Present, but less than mass 443	19.44	
442	50.00 - 110.00% of mass 198	119.76	
443	15.00 - 24.00% of mass 442	23.79	(19.86)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11014783CAL1	11014783CAL1	MSS2053119.B\M2053119Z1.D	05/31/2019	14:47
11014779CAL2	11014779CAL2	MSS2053119.B\M2053119Z2.D	05/31/2019	15:05
11014786CAL3	11014786CAL3	MSS2053119.B\M2053119Z3.D	05/31/2019	15:23
11014781CAL4	11014781CAL4	MSS2053119.B\M2053119Z4.D	05/31/2019	15:41
11014784CAL5	11014784CAL5	MSS2053119.B\M2053119Z5.D	05/31/2019	15:59
11014780CAL6	11014780CAL6	MSS2053119.B\M2053119Z6.D	05/31/2019	16:17
11014782ICV	11014782ICV	MSS2053119.B\M2053119Z7.D	05/31/2019	16:35

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2061019.B\M2061019T1.D DFTPP Injection Date: 06/10/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 14:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.21	
68	Less than 2.00% of mass 69	0.30	(0.73)[1]
69	Mass 69 relative abundance	40.58	
70	Less than 2.00% of mass 69	0.35	(0.85)[1]
127	10.00 - 80.00% of mass 198	48.21	
197	Less than 2.00% of mass 198	0.41	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.76	
275	10.00 - 60.00% of mass 198	28.01	
365	Greater than 1.00% of mass 198	5.42	
441	Present, but less than mass 443	18.94	
442	50.00 - 110.00% of mass 198	112.73	
443	15.00 - 24.00% of mass 442	21.57	(19.14)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11058721CCV	11058721CCV	MSS2061019.B\M2061019S1.D	06/10/2019	14:45
1685236BLANK	1685236BLANK	MSS2061019.B\M206101901.D	06/10/2019	15:05
1685237LCS	1685237LCS	MSS2061019.B\M206101902.D	06/10/2019	15:23
AOC35L	30298231001	MSS2061019.B\M206101931.D	06/11/2019	00:00
AOC35L	30298231001	MSS2061019.B\M206101932.D	06/11/2019	00:18
AOC34	30298231010	MSS2061019.B\M206101933.D	06/11/2019	00:36
AOC34	30298231010	MSS2061019.B\M206101934.D	06/11/2019	00:54

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11058721CCV Date Analyzed: 06/10/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 14:45

Lab File ID: MSS2061019.B\M2061019S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		539475	4.907	930735	8.33	982855	3.777	961886	5.978
UPPER LIMIT		1078950	5.407	1861470	8.83	1965710	4.277	1923772	6.478
LOWER LIMIT		269737.5	4.407	465367.5	7.83	491427.5	3.277	480943	5.478
LAB SAMPLE ID	SAMPLE NO.								
1685236	1685236BLANK	501302	4.907	880362	8.33	892860	3.777	894426	5.978
1685237	1685237LCS	460591	4.907	757759	8.328	851790	3.777	811958	5.977
30298231001	AOC35L	800821	4.913	621302	8.367	1367423	3.777	1335915	5.992
30298231001 DL 10	AOC35L	725961	4.91	550495	8.343	1195356	3.783	1199466	5.986
30298231010	AOC34	782289	4.913	603258	8.362	1263481	3.777	1401643	6.001
30298231010 DL 10	AOC34	740459	4.913	503652	8.341	1241445	3.783	1238479	5.987

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Sample ID : 11058721CCV Date Analyzed: 06/10/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 14:45

Lab File ID: MSS2061019.B\M2061019S1.D

		AREA PYL	RT
12 HOUR STD		1026947	9.628
UPPER LIMIT		2053894	10.128
LOWER LIMIT		513473.5	9.128
LAB SAMPLE ID	SAMPLE NO.		
1685236	1685236BLANK	947645	9.623
1685237	1685237LCS	839223	9.627
30298231001	AOC35L	396107*	9.667
30298231001 DL 10	AOC35L	393752*	9.642
30298231010	AOC34	363190*	9.658
30298231010 DL 10	AOC34	356932*	9.643

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC35L

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 30298231001
Date Analyzed: 06/11/2019 00:00
Lab File ID: MSS2061019.B\M206101931.D
Initial wt/vol: 15.41 g Final wt/vol: 1 mL Dilution: 1
Instrument: 30MSS2 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	803	
191-24-2	Benzo(g,h,i)perylene	610	
53-70-3	Dibenz(a,h)anthracene	343	
86-73-7	Fluorene	241	
193-39-5	Indeno(1,2,3-cd)pyrene	687	
91-20-3	Naphthalene	419	
85-01-8	Phenanthrene	1110	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 11-JUN-2019 00:00
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30298231001,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.776	3.777	(1.000)	1367423	4.00000	(Q)	
	8 Naphthalene	128	3.794	3.788	(1.005)	1673497	5.32965	346	
	9 2-Methylnaphthalene	142	4.228	4.228	(1.119)	678716	2.96254	192	
	10 1-Methylnaphthalene	142	4.296	4.291	(1.138)	599066	2.77136	180	
$	6 2-Fluorobiphenyl (S)	172	4.456	4.451	(0.907)	1136275	4.07038	264	
	11 Acenaphthylene	152	4.823	4.817	(0.982)	3280621	10.2227	663(Q)	
*	2 Acenaphthene-d10 (IS)	164	4.913	4.906	(1.000)	800821	4.00000		
	12 Acenaphthene	153	4.933	4.929	(1.004)	441721	2.08415	135	
	13 Fluorene	166	5.286	5.280	(1.076)	760559	3.06736	199	
*	3 Phenanthrene-d10 (IS)	188	5.991	5.978	(1.000)	1335915	4.00000		
	14 Phenanthrene	178	6.014	5.996	(1.004)	4844445	14.1011	915(Q)	
	15 Anthracene	178	6.054	6.041	(1.011)	6937166	21.5525	1400(AQM)	BA
	16 Fluoranthene	202	7.033	7.002	(1.174)	13114006	35.0069	2270(AQ)	
	17 Pyrene	202	7.245	7.210	(1.209)	14822572	38.1210	2470(AQ)	
$	7 Terphenyl-d14 (S)	244	7.340	7.322	(1.225)	979465	3.24610	211(Q)	
	18 Benzo(a)anthracene	228	8.355	8.321	(0.999)	5557999	32.9175	2140(AQ)	
*	4 Chrysene-d12 (IS)	240	8.367	8.329	(1.000)	621302	4.00000		
	19 Chrysene	228	8.396	8.353	(1.003)	6537141	36.8336	2390(AQ)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.343	9.299	(0.966)	7635770	71.2158	4620(AQ)	
21 Benzo(k)fluoranthene	252	9.343	9.318	(0.966)	7635770	64.2379	4170(AQ)	
22 Benzo(a)pyrene	252	9.628	9.584	(0.996)	2657447	26.3607	1710(AQ)	
* 5 Perylene-d12 (IS)	264	9.667	9.628	(1.000)	396107	4.00000	(Q)	
23 Dibenz(a,h)anthracene	278	10.576	10.527	(1.094)	441268	4.37175	284(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.581	10.527	(1.095)	1060166	8.75296	568	
25 Benzo[g,h,i]perylene	276	10.841	10.777	(1.121)	818982	7.76789	504(Q)	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

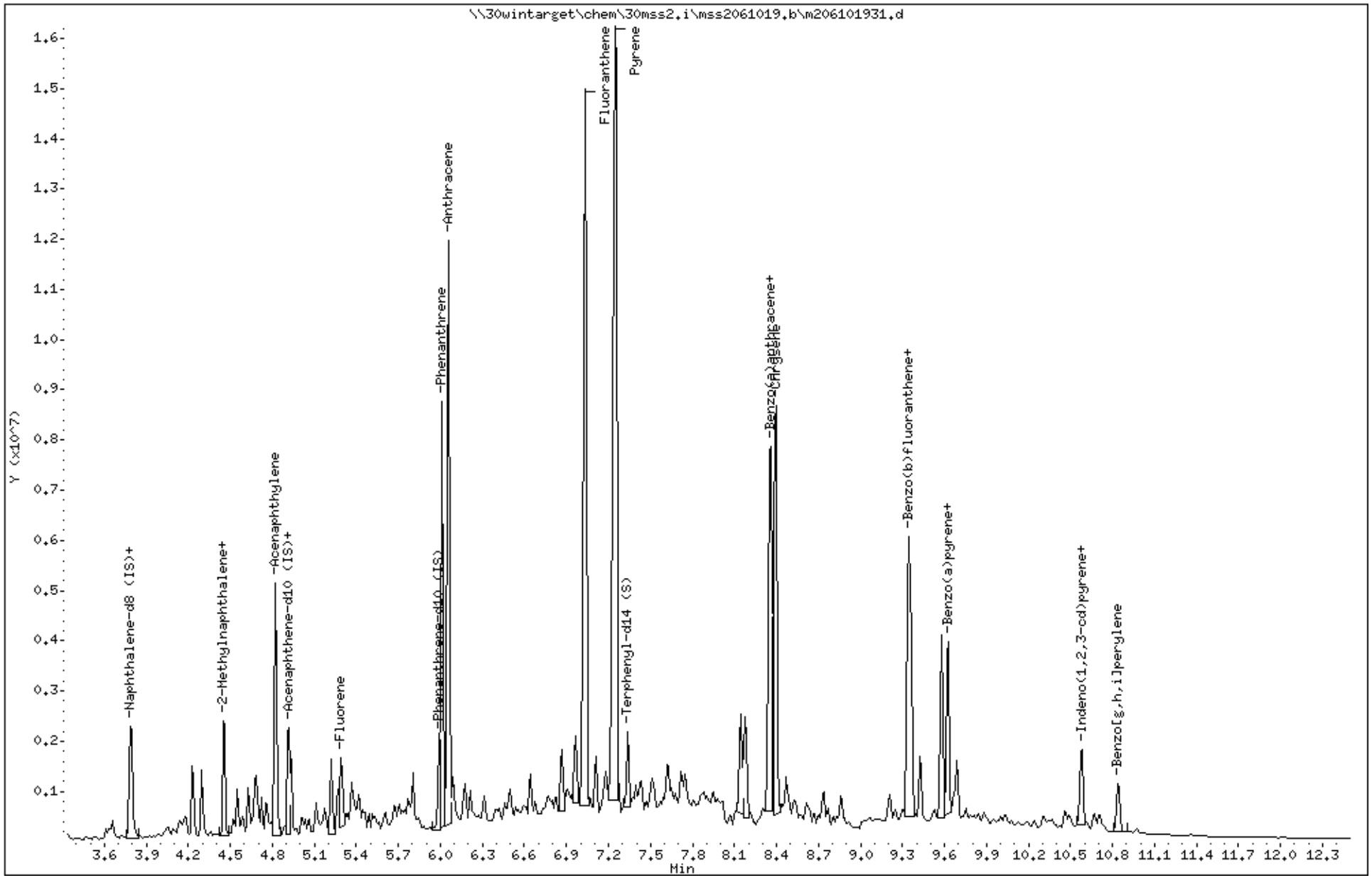
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231001
Client Smp ID: AOC35L
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14682,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00973	U
91-20-3	Naphthalene	346	
91-57-6	2-Methylnaphthalene	192	
90-12-0	1-Methylnaphthalene	180	
208-96-8	Acenaphthylene	663	
83-32-9	Acenaphthene	135	
86-73-7	Fluorene	199	
85-01-8	Phenanthrene	915	
120-12-7	Anthracene	1400	E
206-44-0	Fluoranthene	2270	E
129-00-0	Pyrene	2470	E
56-55-3	Benzo(a)anthracene	2140	E
218-01-9	Chrysene	2390	E
205-99-2	Benzo(b)fluoranthene	4620	E
207-08-9	Benzo(k)fluoranthene	4170	E
50-32-8	Benzo(a)pyrene	1710	E
53-70-3	Dibenz(a,h)anthracene	284	
193-39-5	Indeno(1,2,3-cd)pyrene	568	
191-24-2	Benzo[g,h,i]perylene	504	
321-60-8	2-Fluorobiphenyl (S)	264	
1718-51-0	Terphenyl-d14 (S)	211	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d
Date : 11-JUN-2019 00:00
Client ID: A0C35L
Sample Info: 30298231001,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

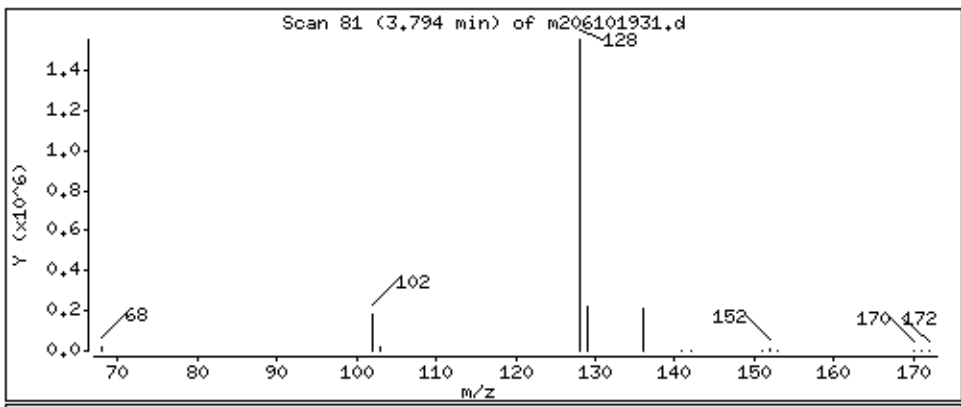
Operator: AJC

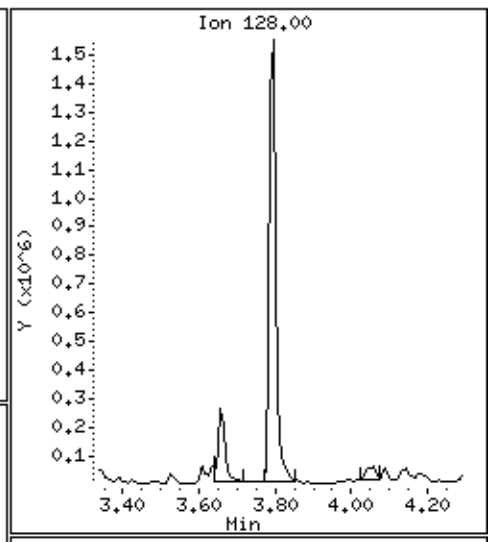
Column phase: RTX-5MS

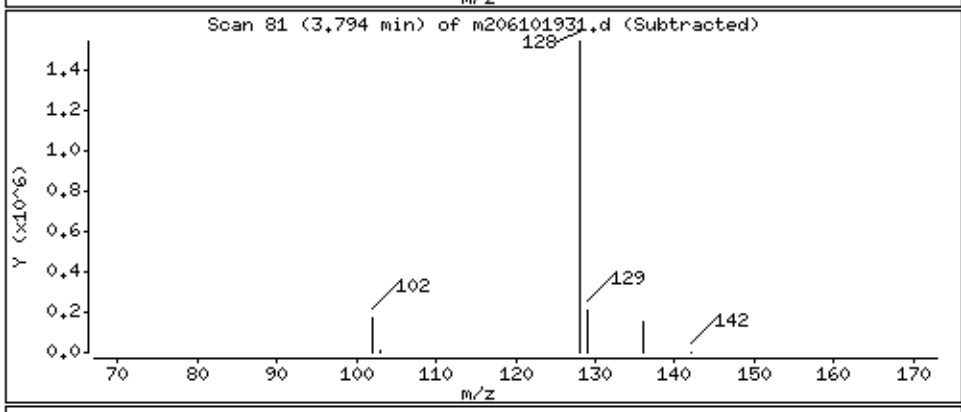
Column diameter: 0.25

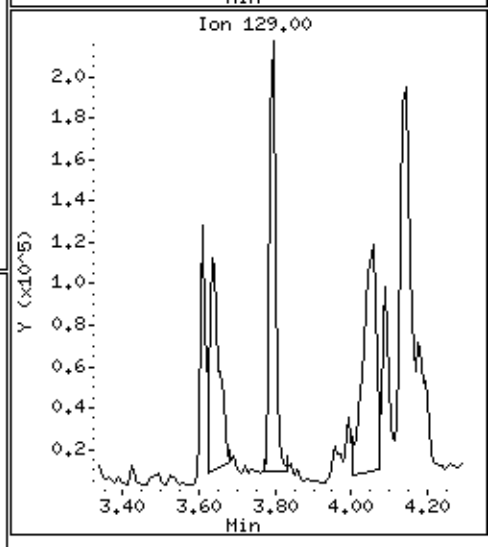
8 Naphthalene

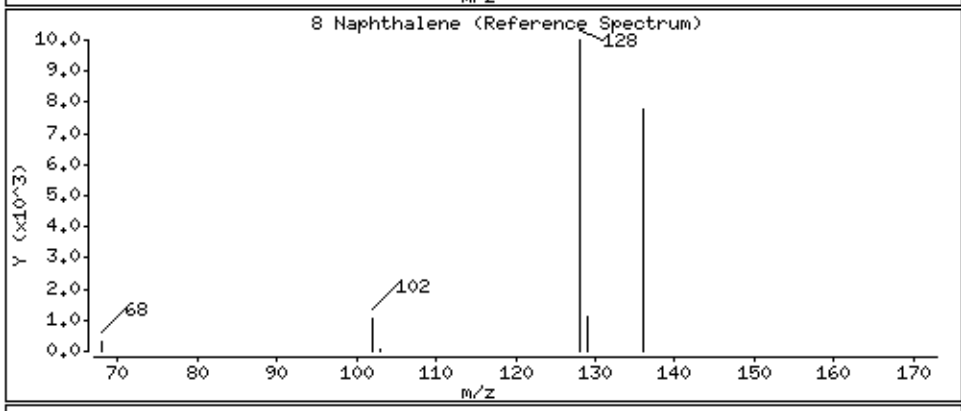
Concentration: 346 ug/Kg

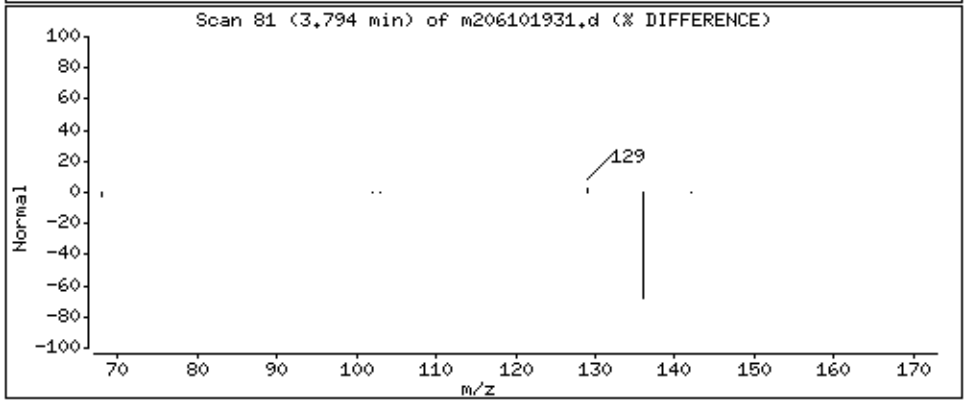












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

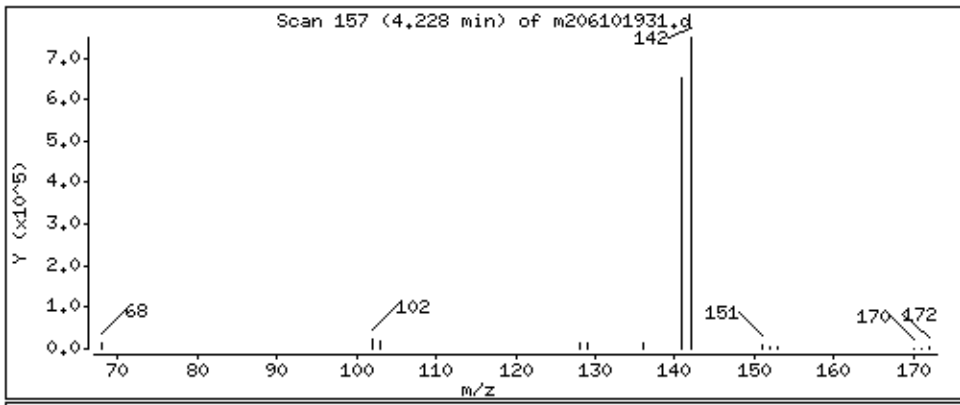
Operator: AJC

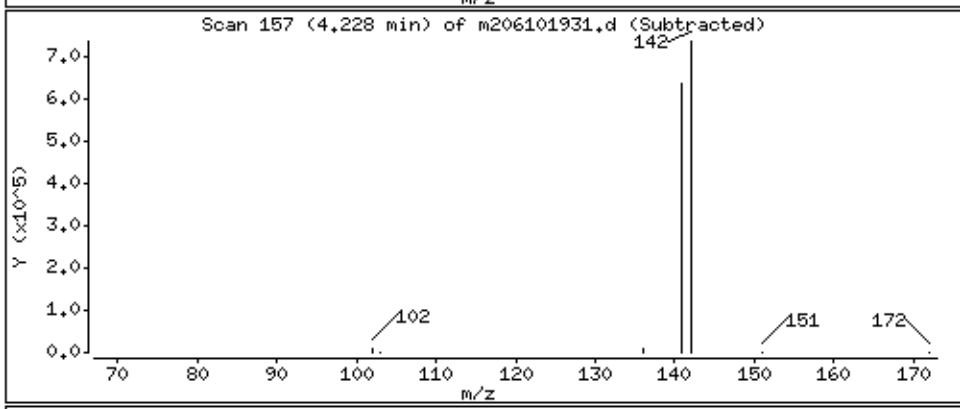
Column phase: RTX-5MS

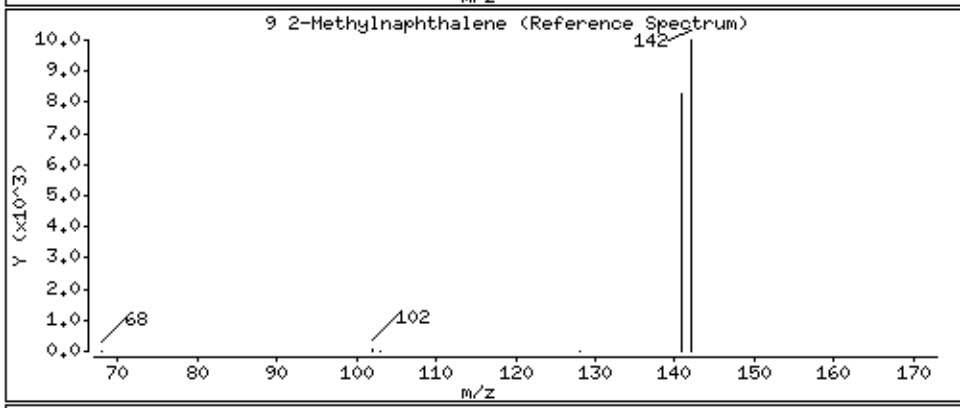
Column diameter: 0.25

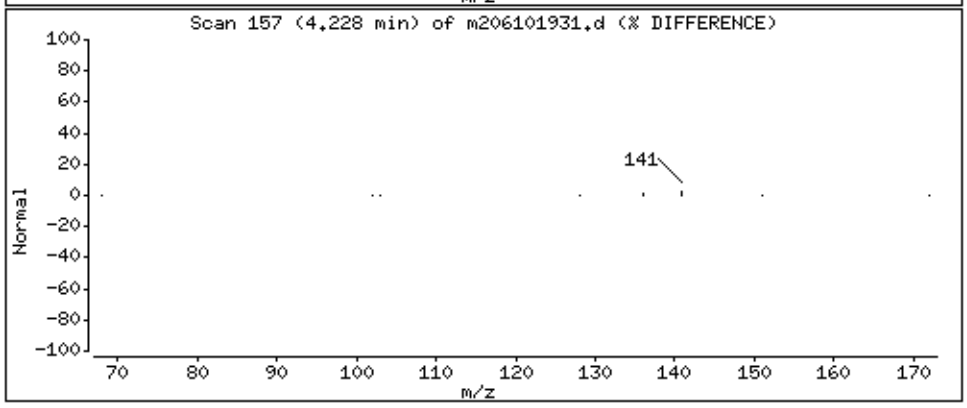
9 2-Methylnaphthalene

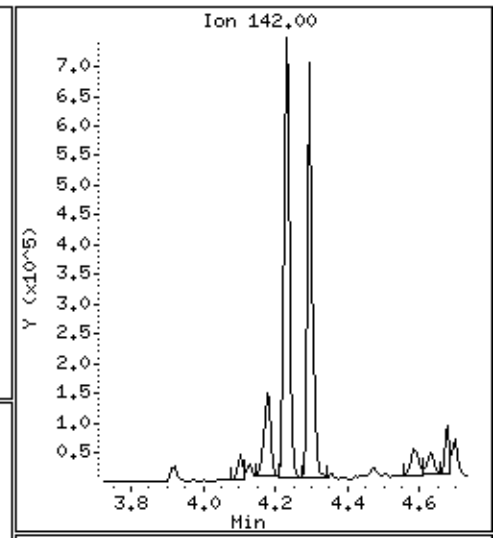
Concentration: 192 ug/Kg

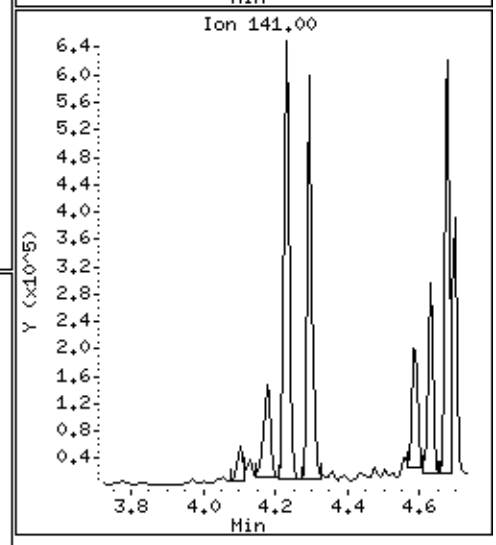












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

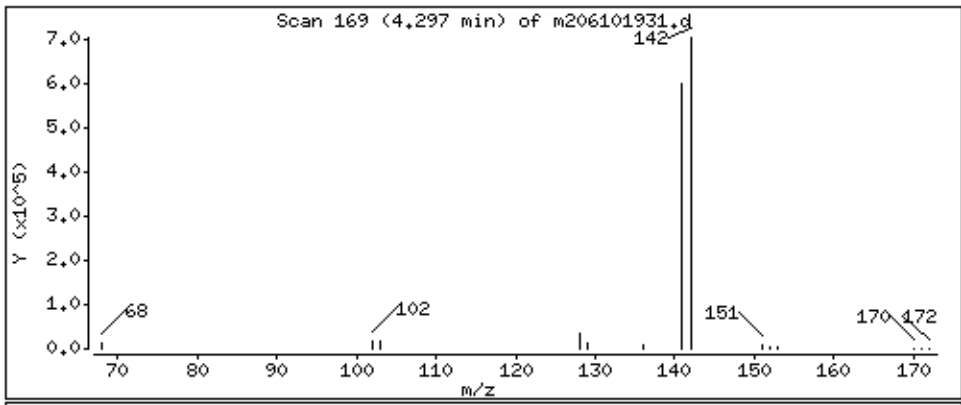
Operator: AJC

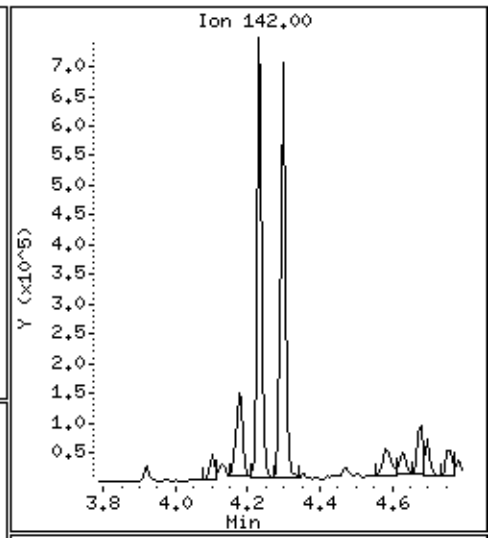
Column phase: RTX-5MS

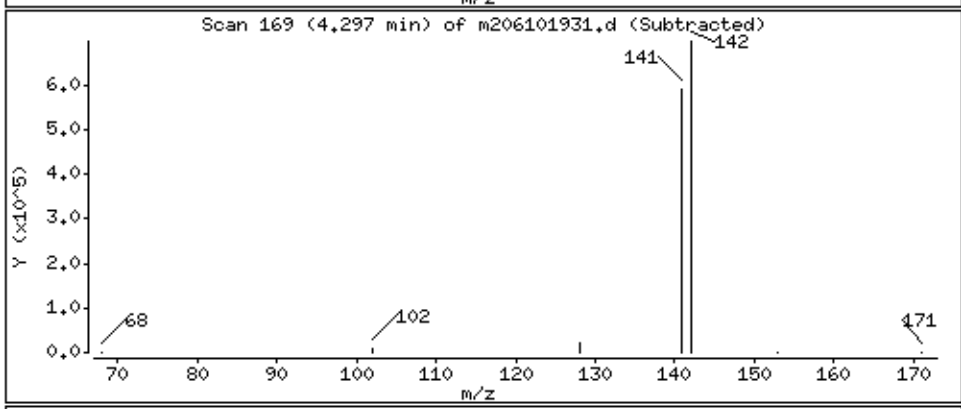
Column diameter: 0.25

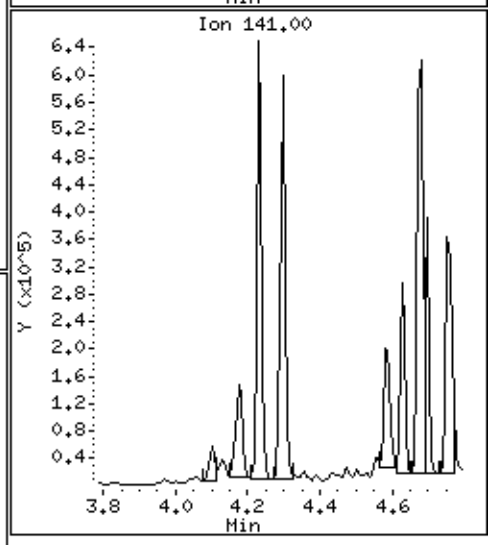
10 1-Methylnaphthalene

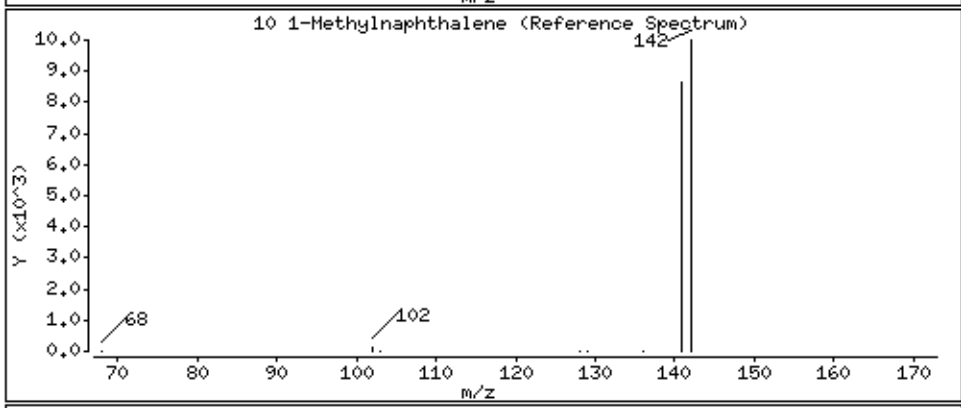
Concentration: 180 ug/Kg

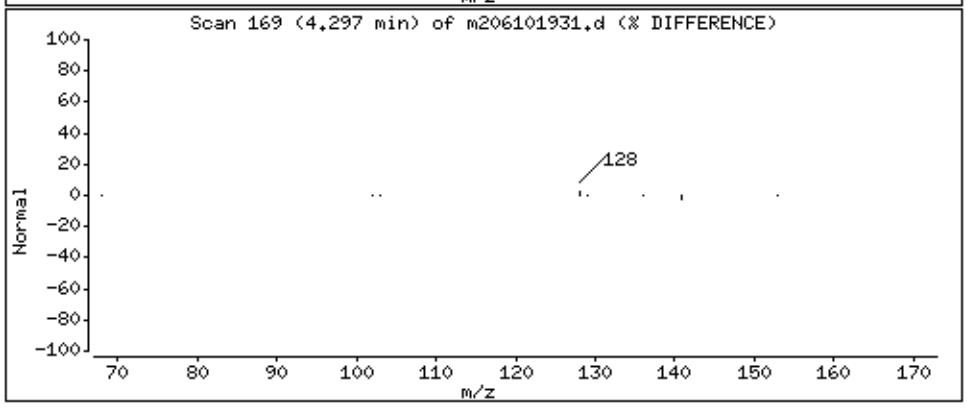












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

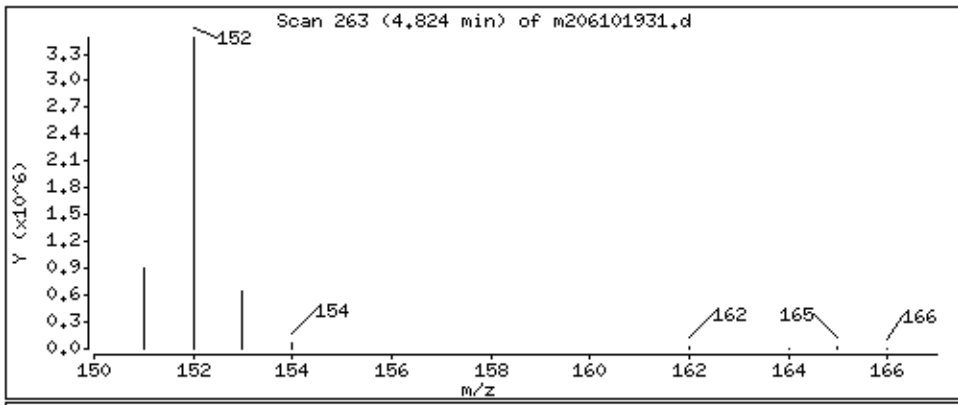
Operator: AJC

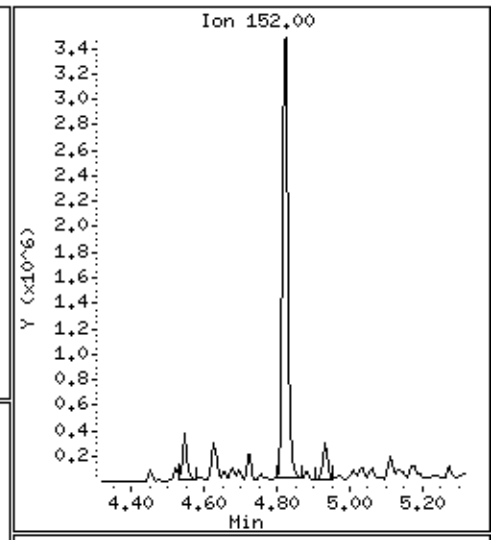
Column phase: RTX-5MS

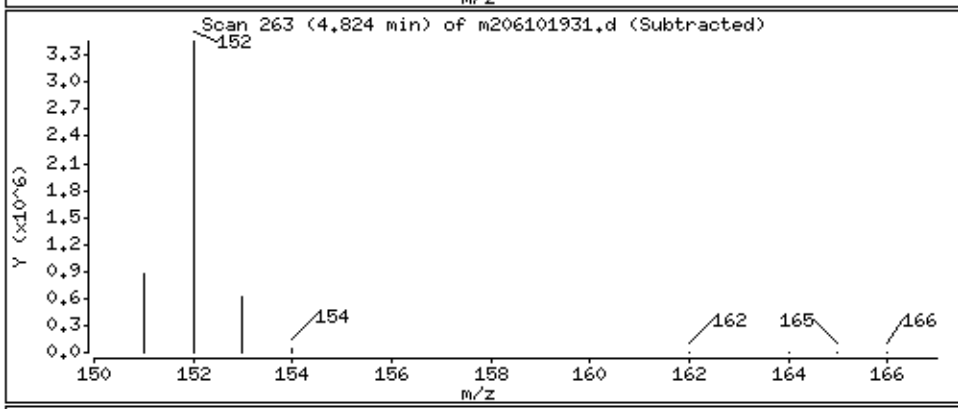
Column diameter: 0.25

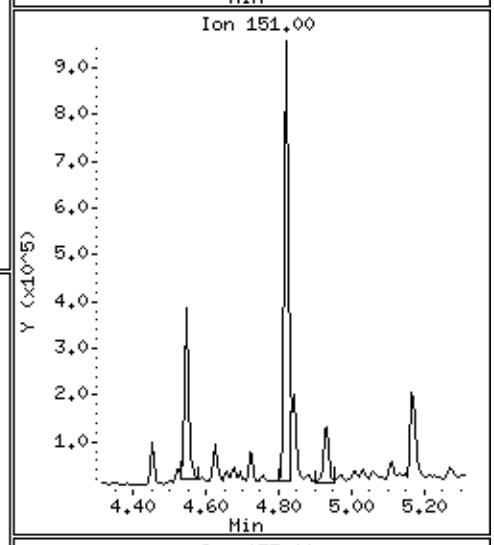
11 Acenaphthylene

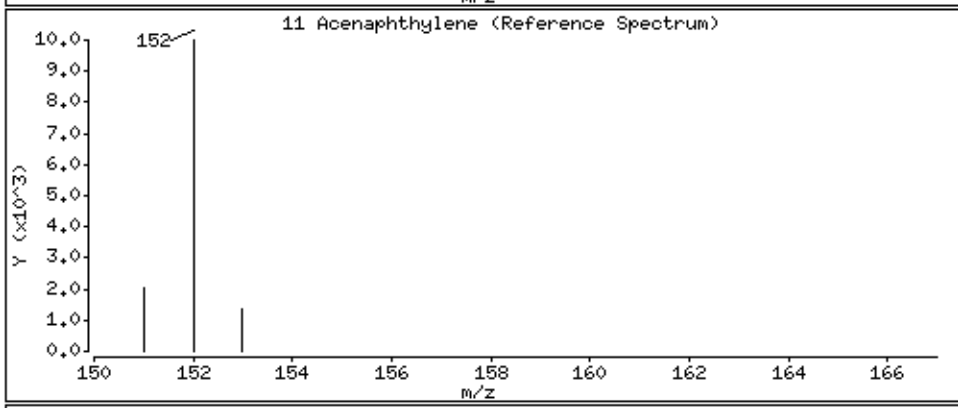
Concentration: 663 ug/Kg

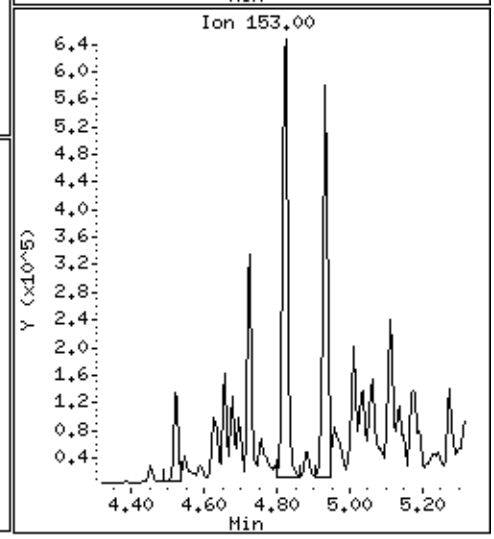


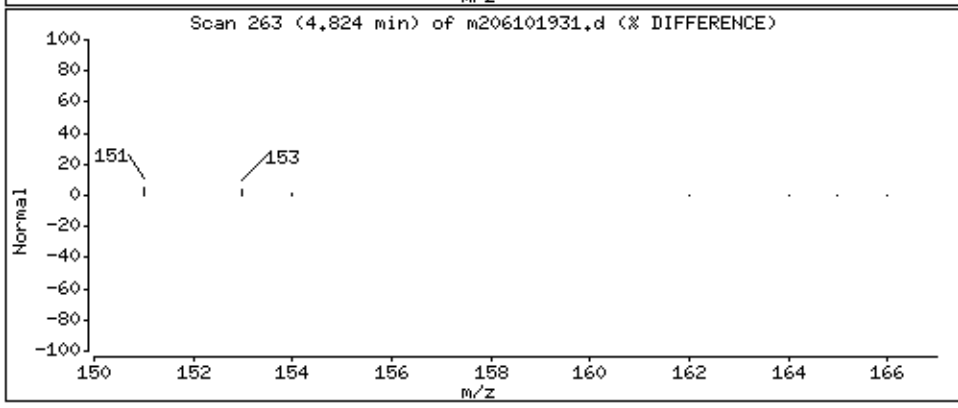












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

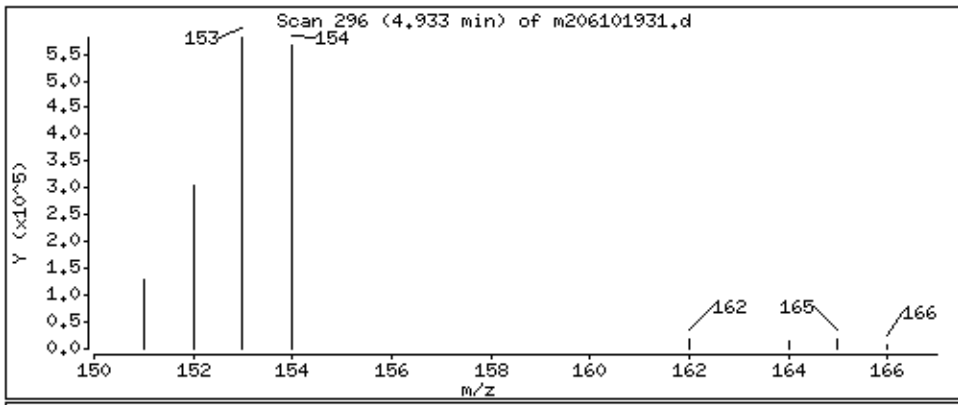
Operator: AJC

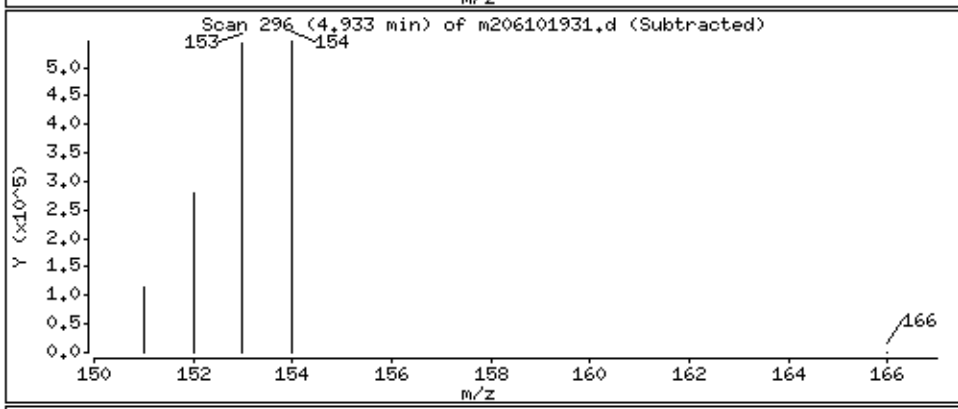
Column phase: RTX-5MS

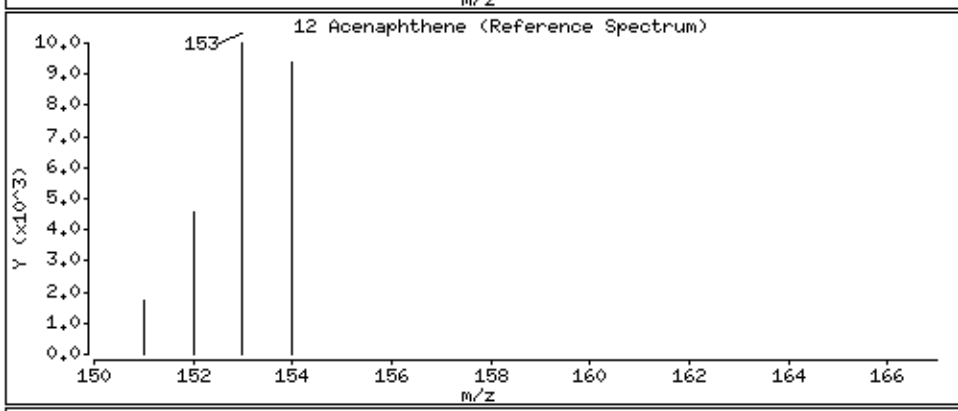
Column diameter: 0.25

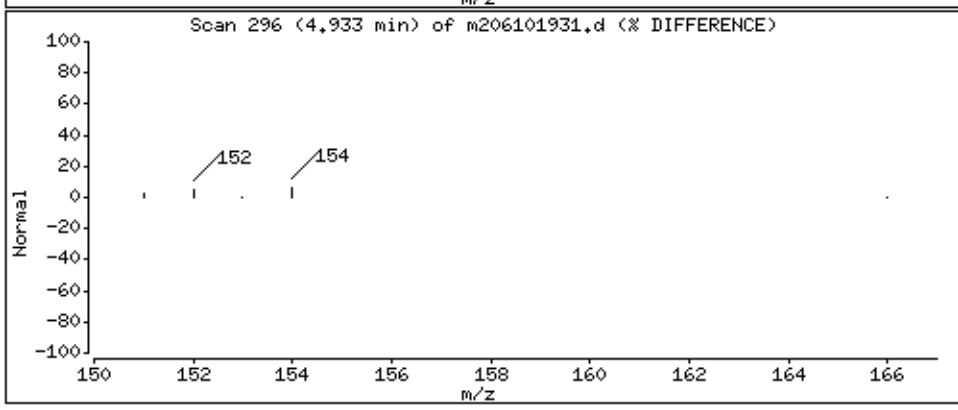
12 Acenaphthene

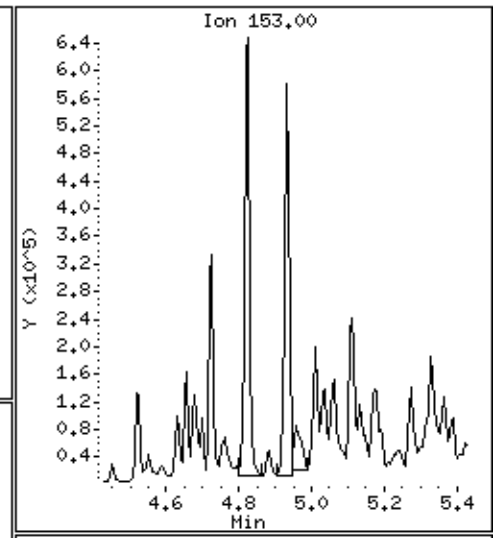
Concentration: 135 ug/Kg

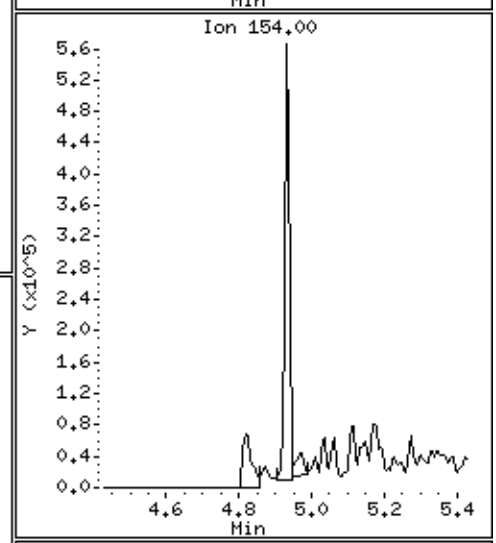


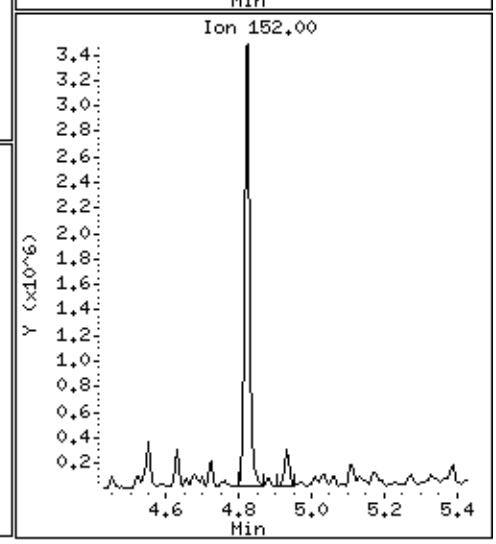












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

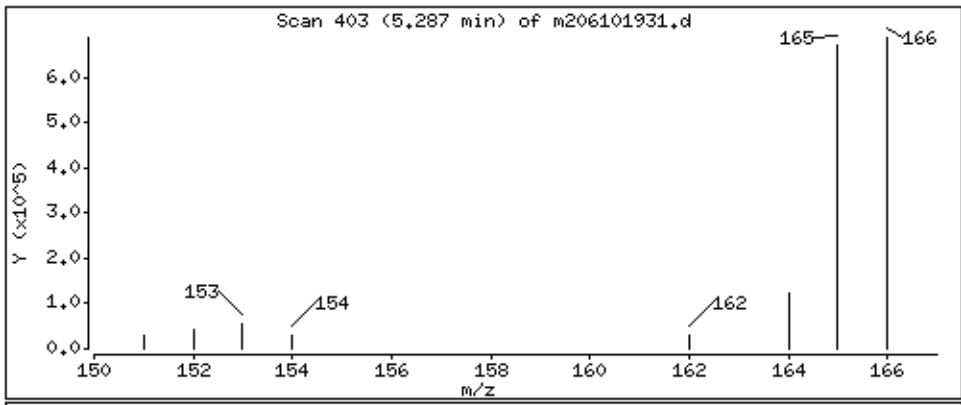
Operator: AJC

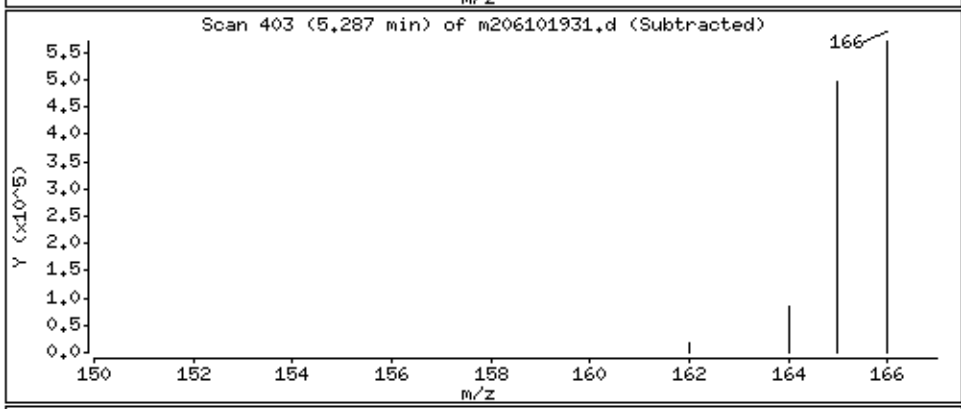
Column phase: RTX-5MS

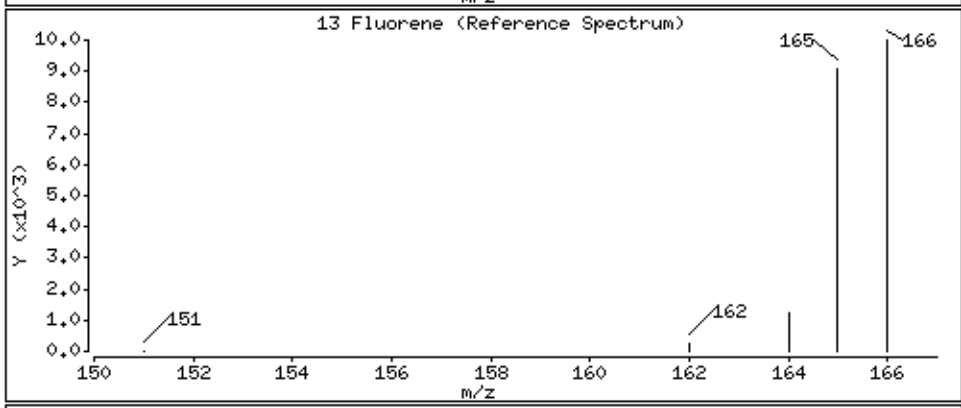
Column diameter: 0.25

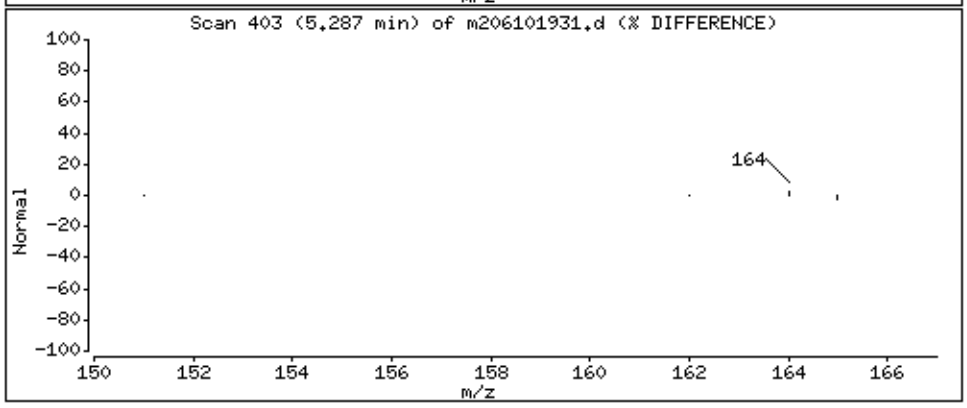
13 Fluorene

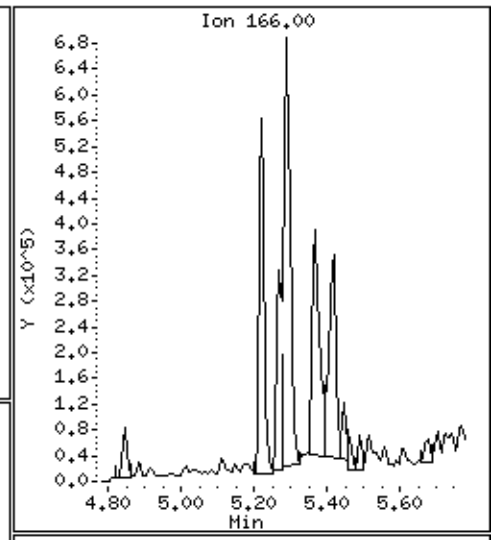
Concentration: 199 ug/Kg

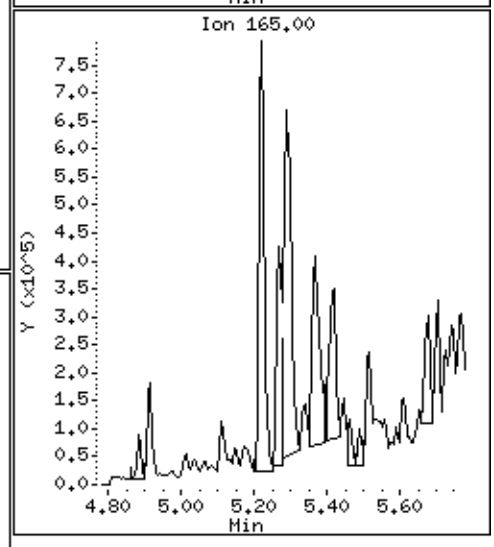












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Date : 11-JUN-2019 00:00

Client ID: AOC35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

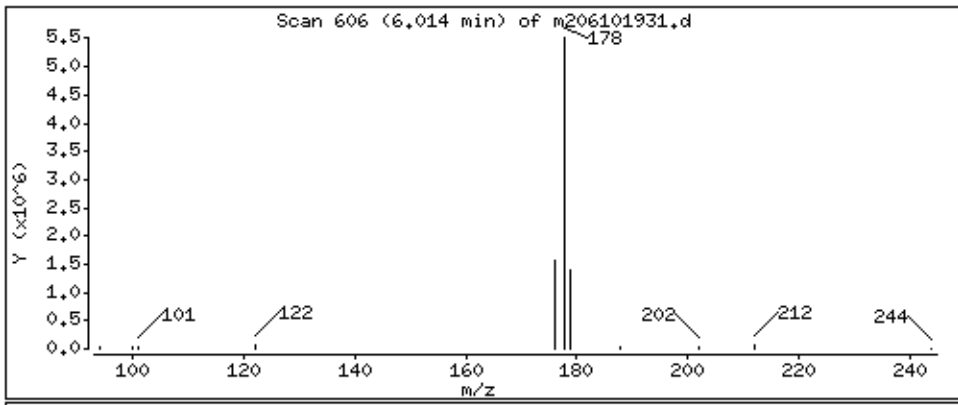
Operator: AJC

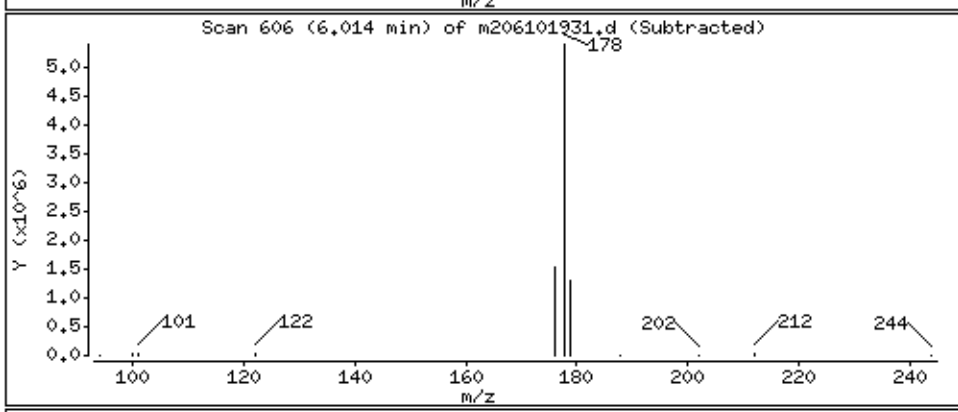
Column phase: RTX-5MS

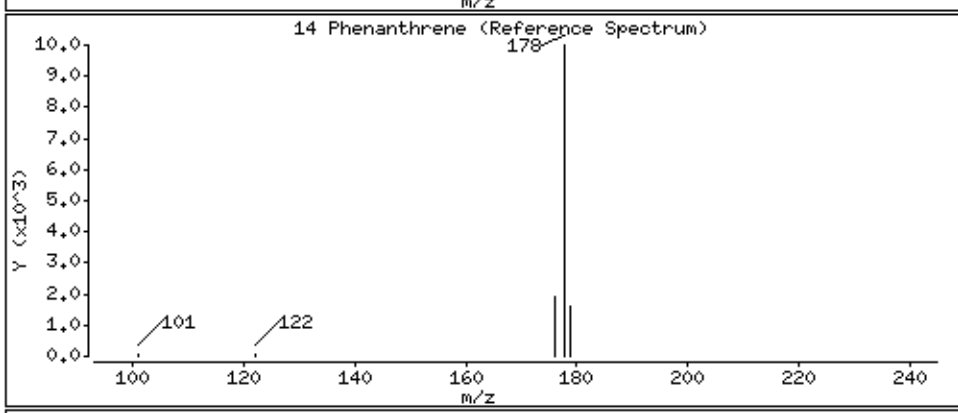
Column diameter: 0.25

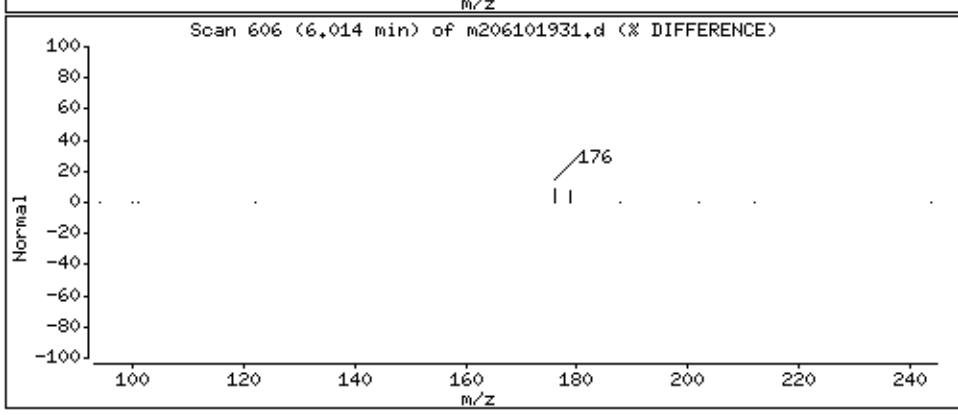
14 Phenanthrene

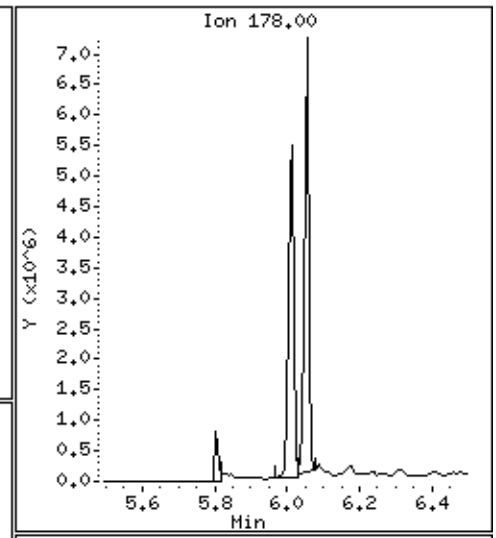
Concentration: 915 ug/Kg

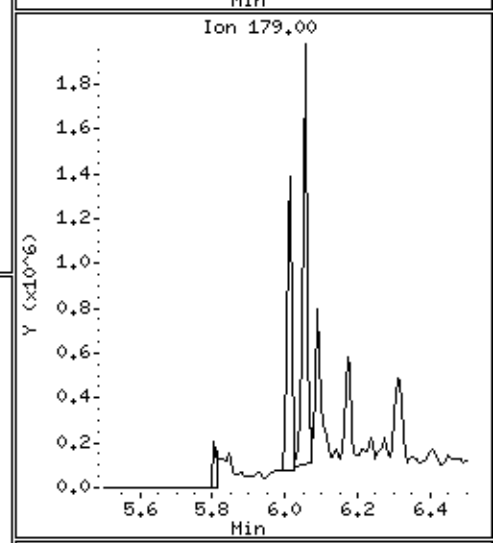


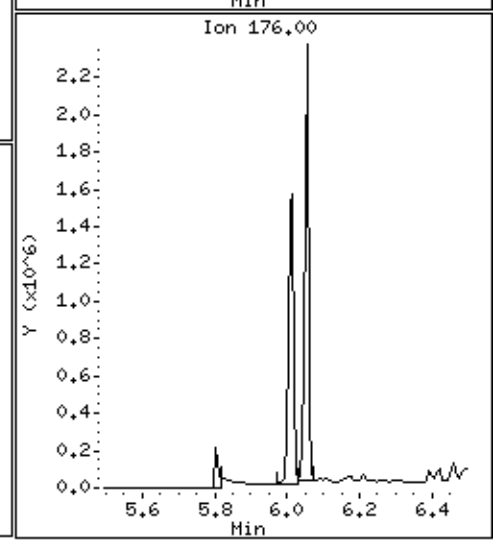












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

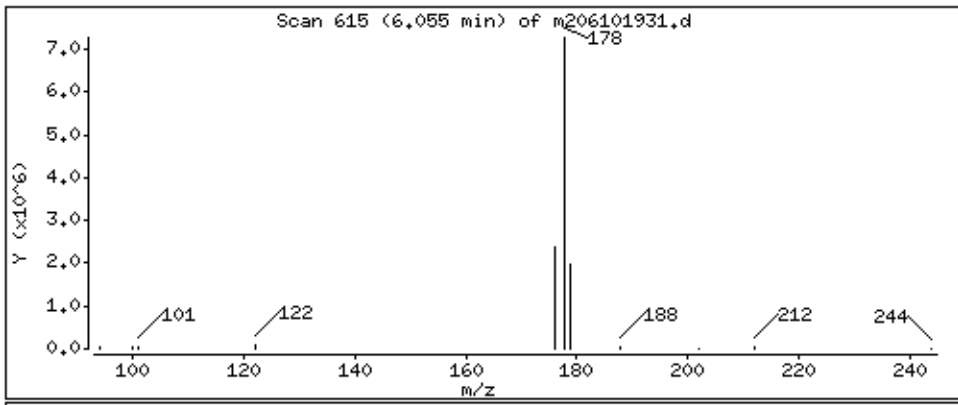
Operator: AJC

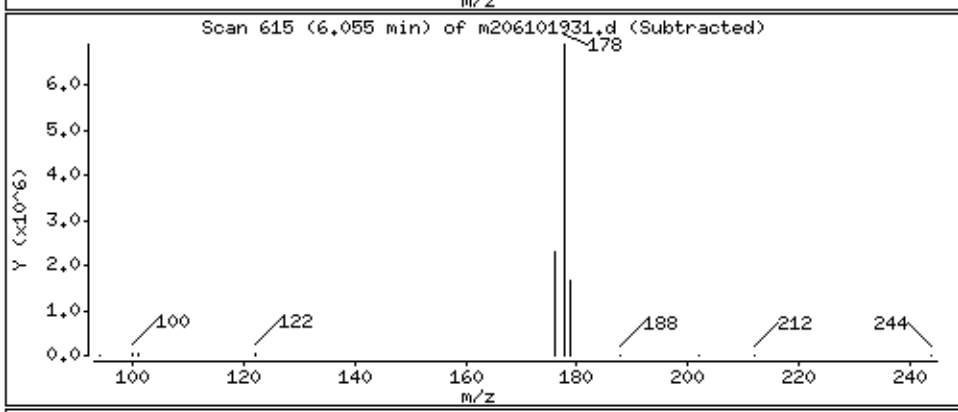
Column phase: RTX-5MS

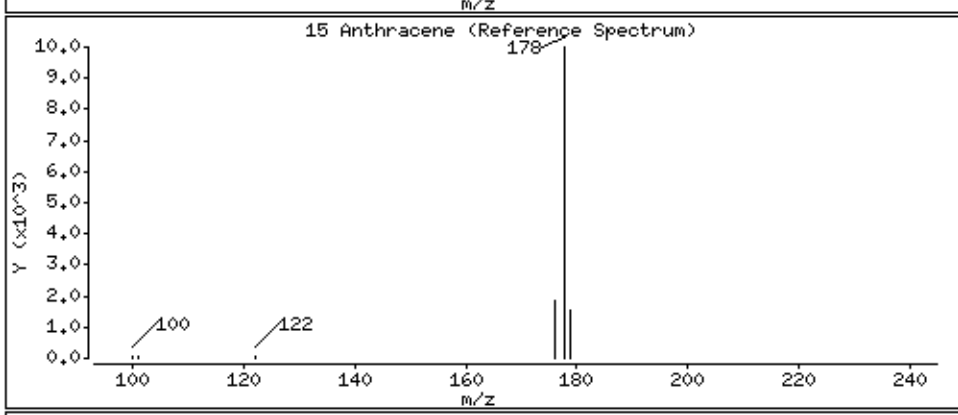
Column diameter: 0.25

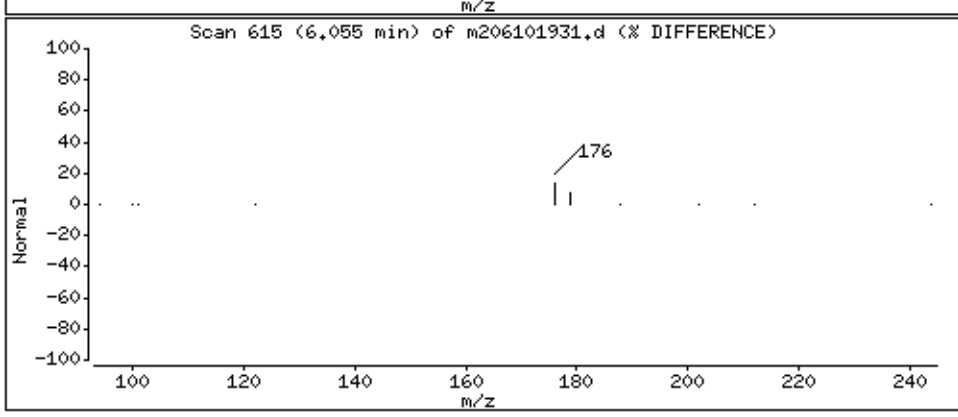
15 Anthracene

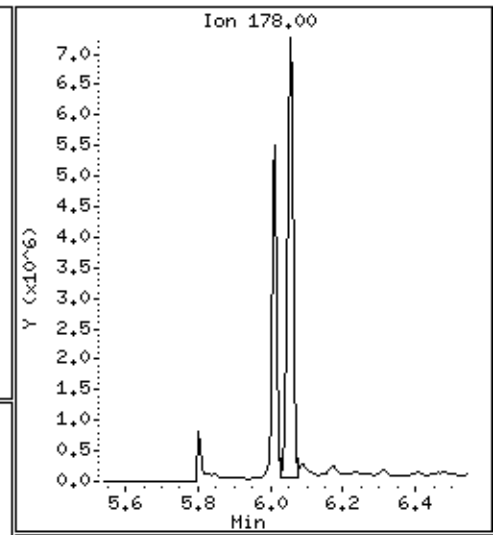
Concentration: 1400 ug/Kg

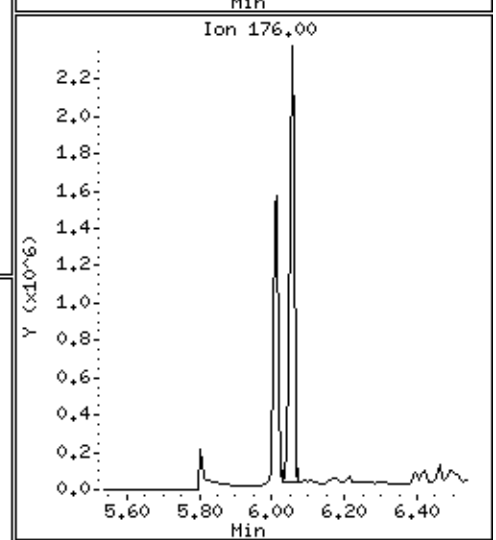


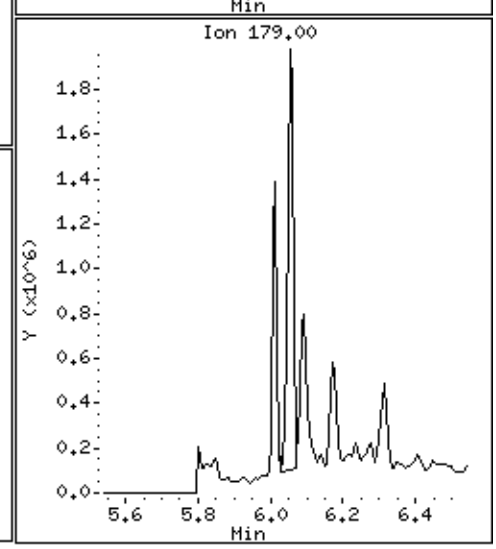












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

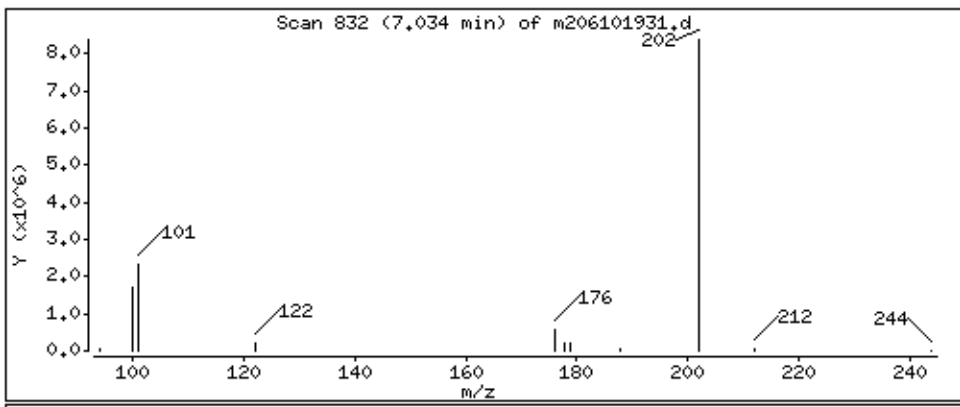
Operator: AJC

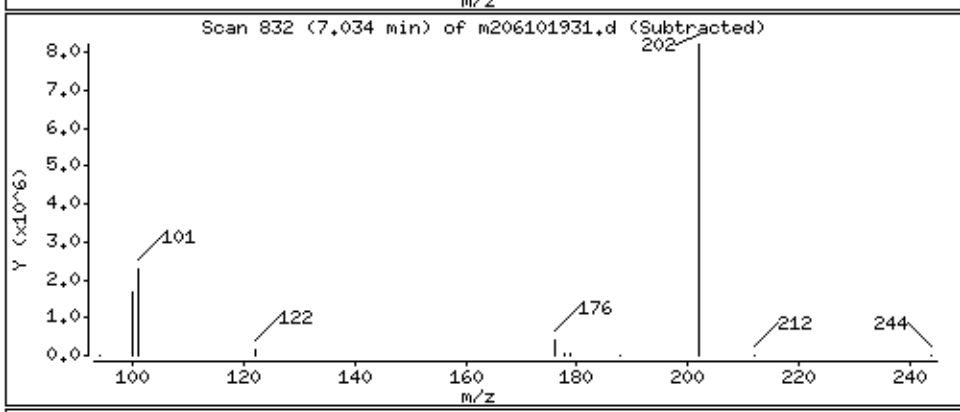
Column phase: RTX-5MS

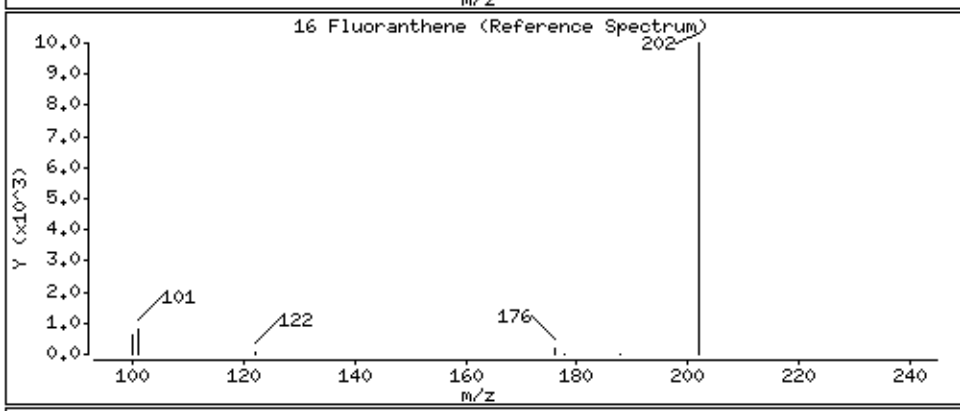
Column diameter: 0.25

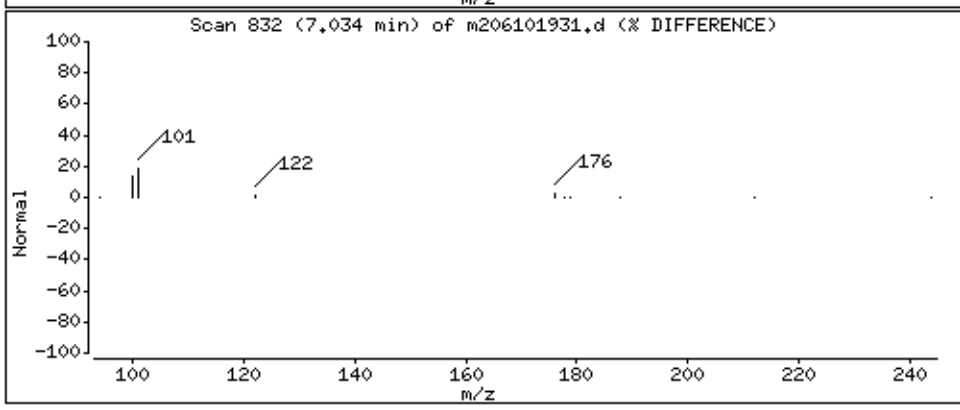
16 Fluoranthene

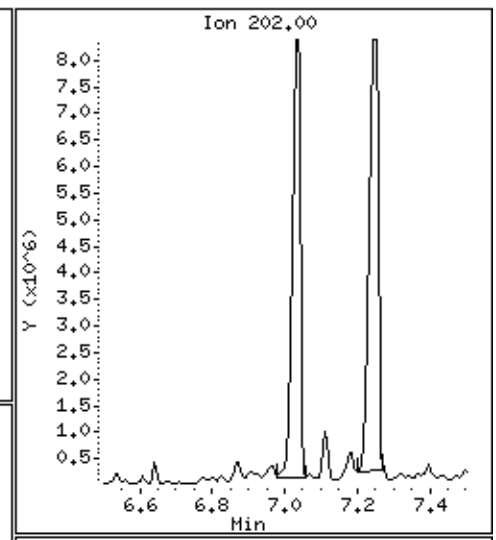
Concentration: 2270 ug/Kg

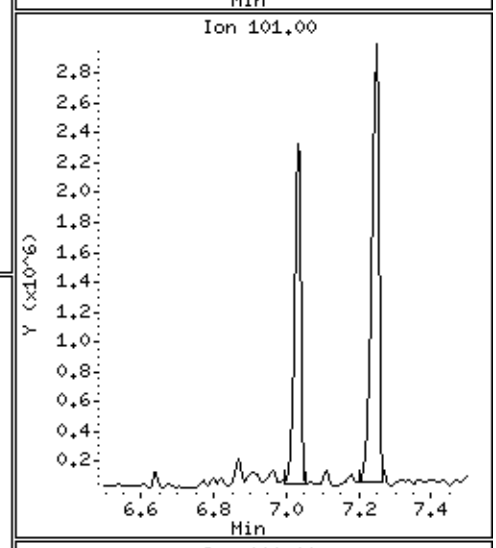


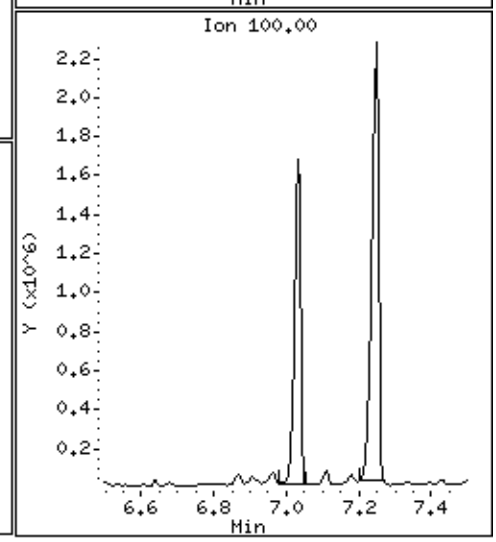












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

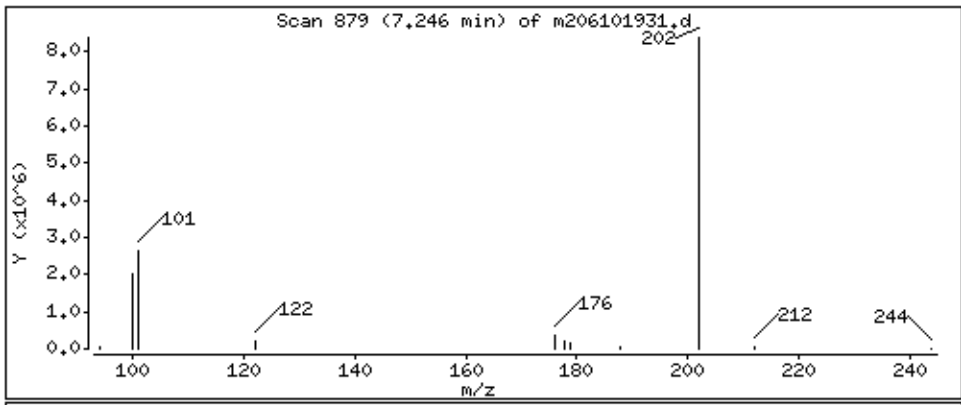
Operator: AJC

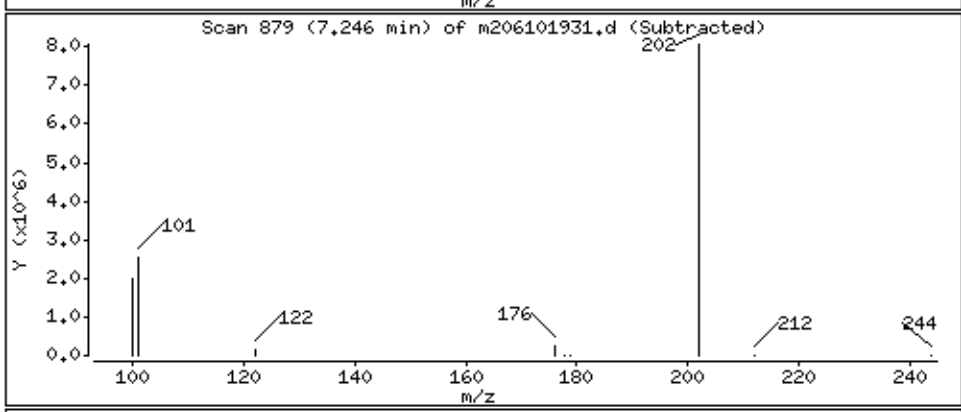
Column phase: RTX-5MS

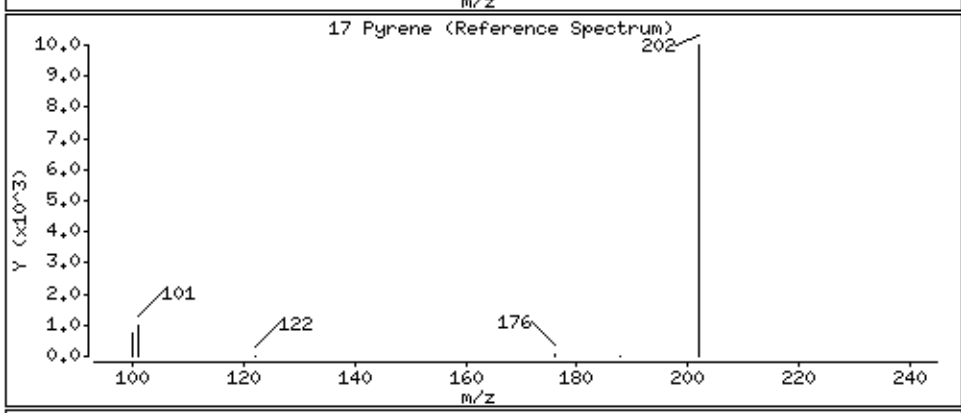
Column diameter: 0.25

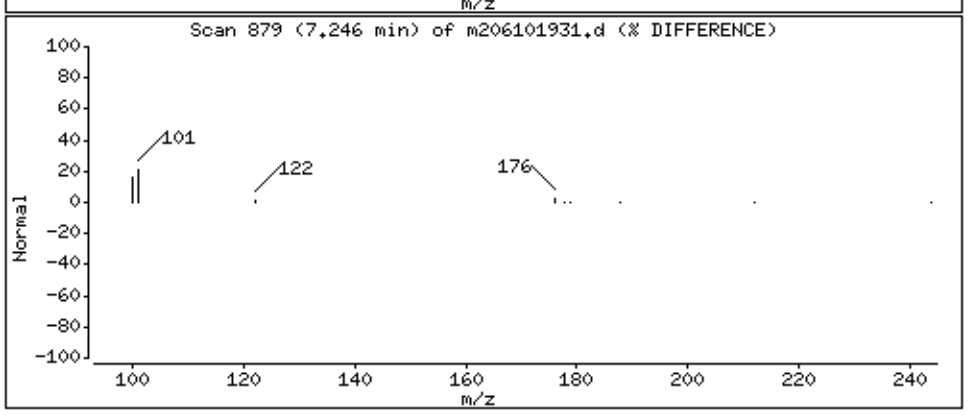
17 Pyrene

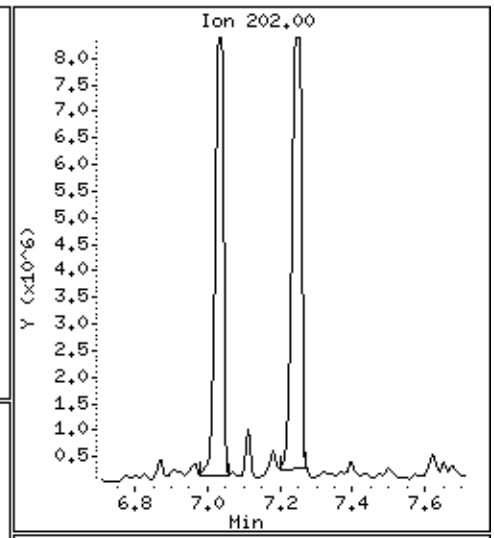
Concentration: 2470 ug/Kg

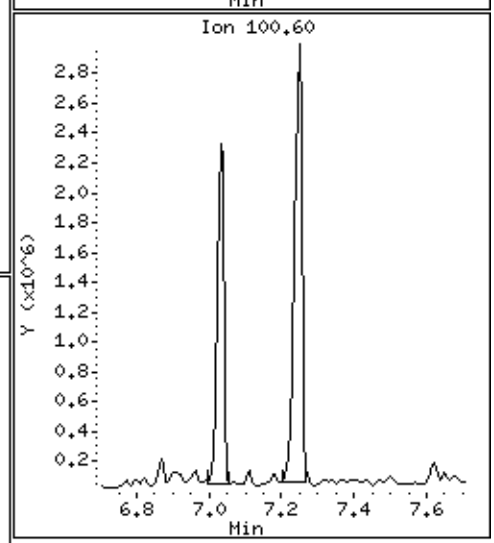












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

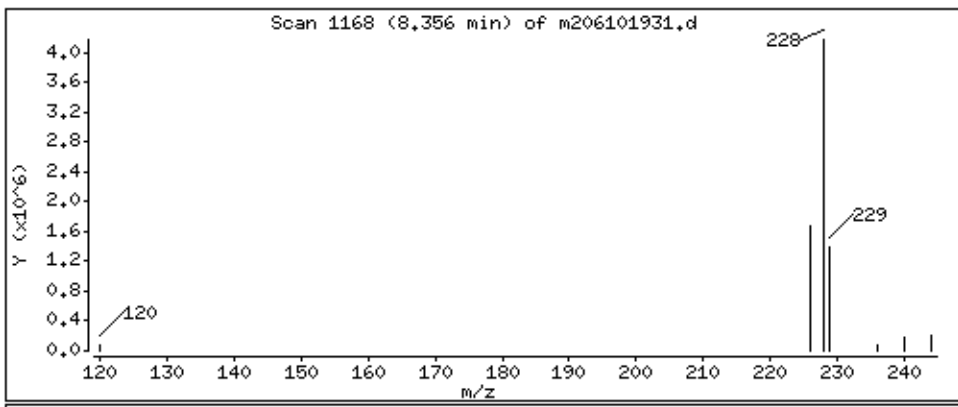
Operator: AJC

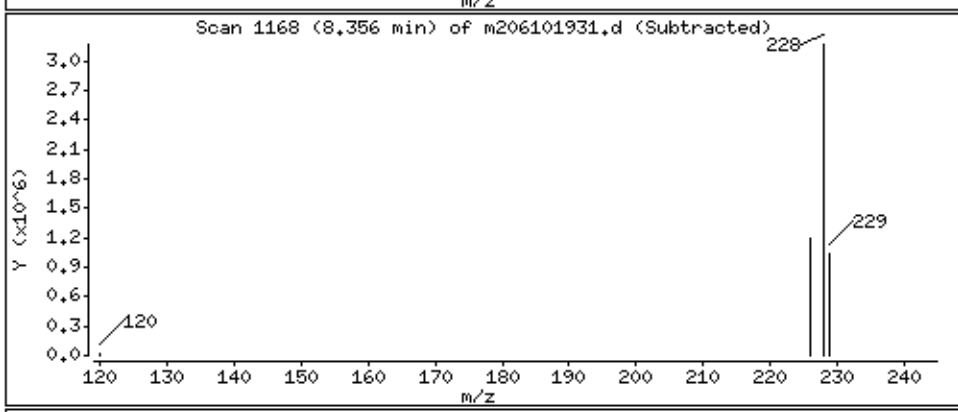
Column phase: RTX-5MS

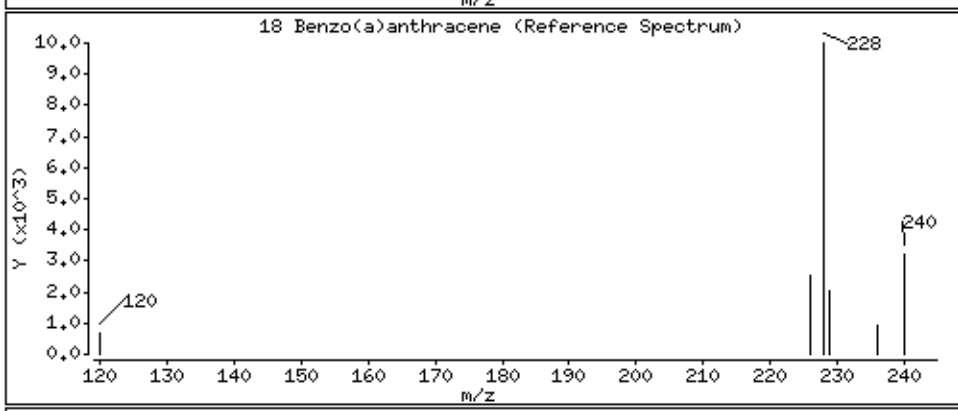
Column diameter: 0.25

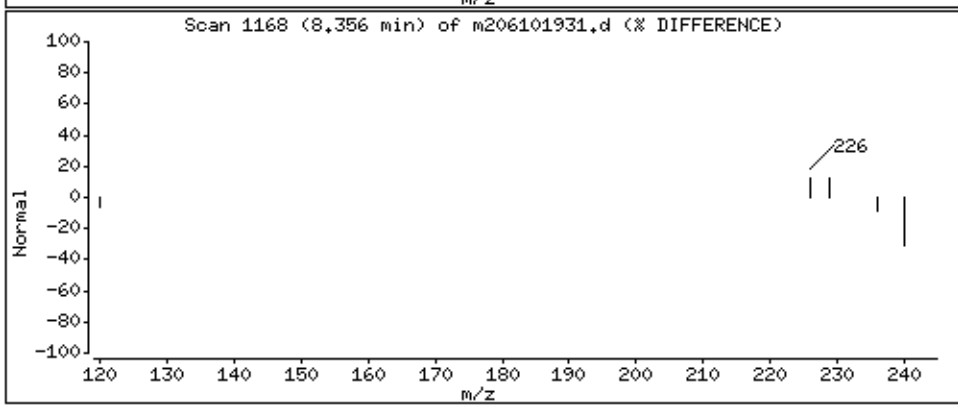
18 Benzo(a)anthracene

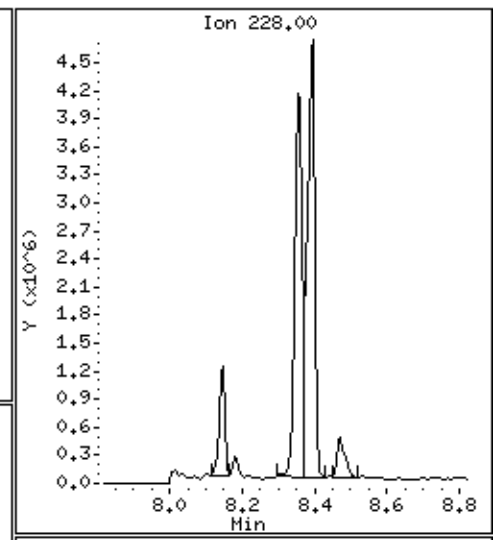
Concentration: 2140 ug/Kg

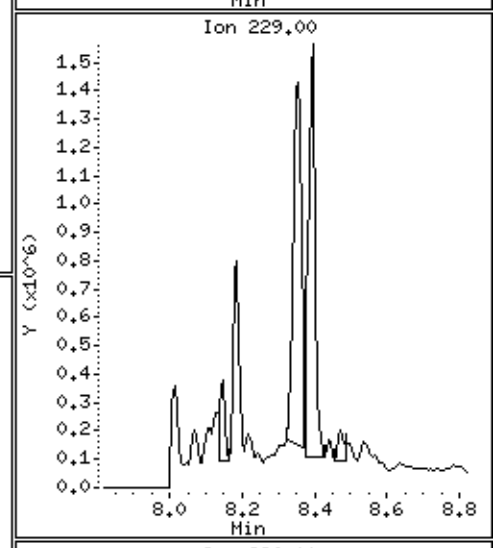


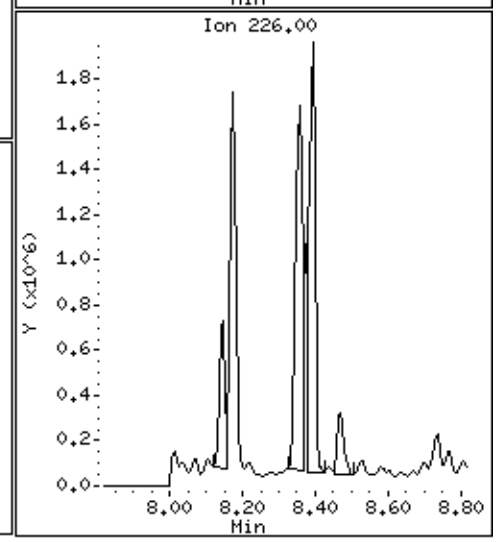












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

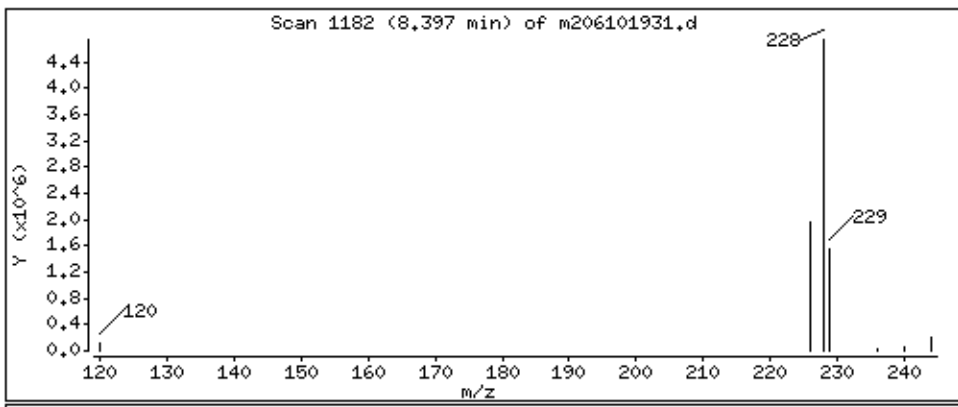
Operator: AJC

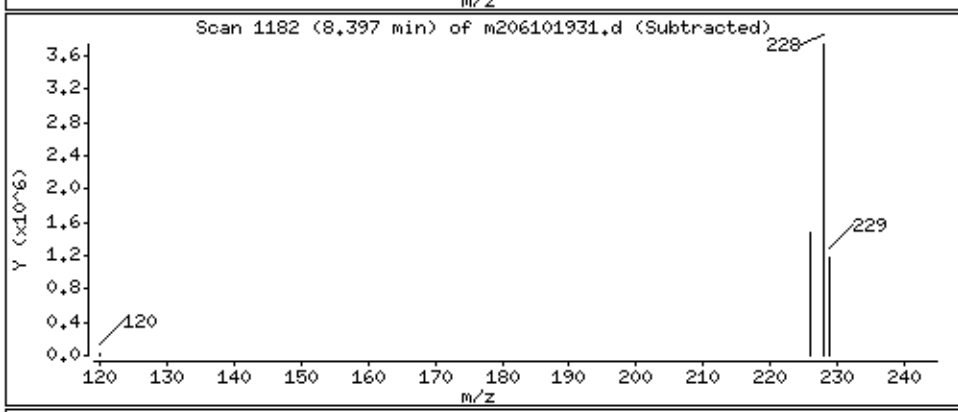
Column phase: RTX-5MS

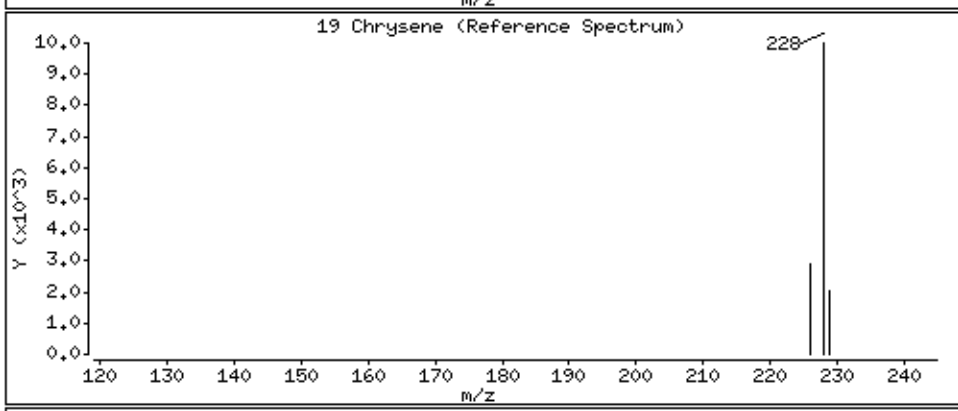
Column diameter: 0.25

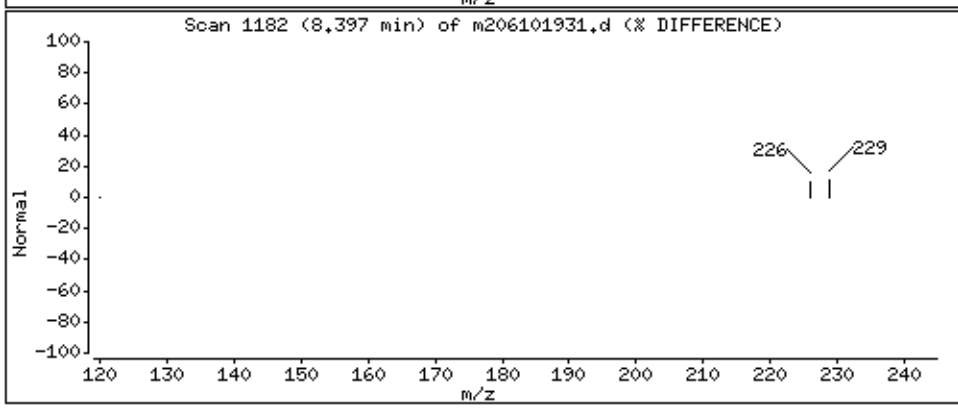
19 Chrysene

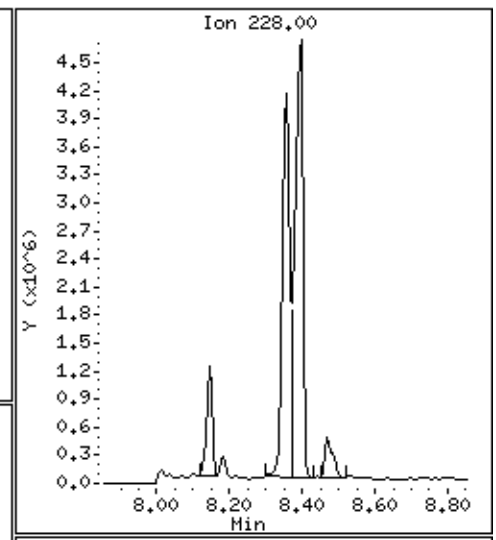
Concentration: 2390 ug/Kg

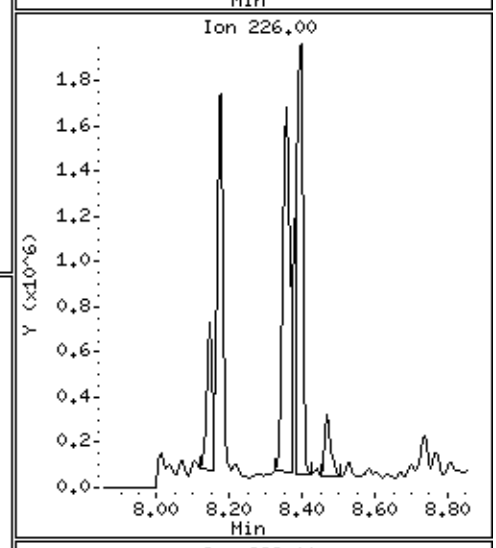


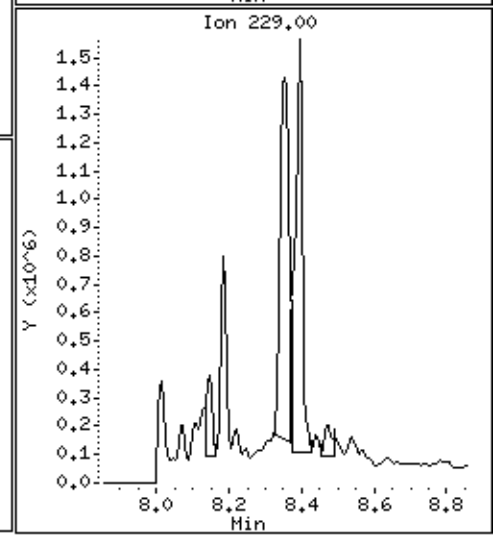












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

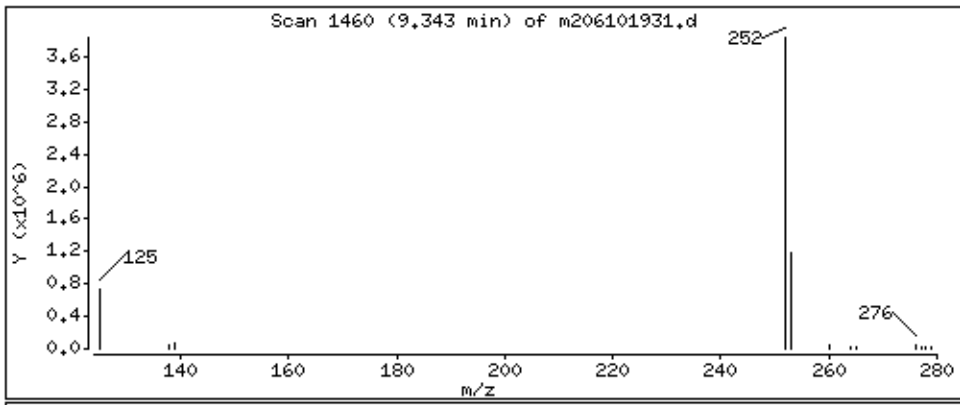
Operator: AJC

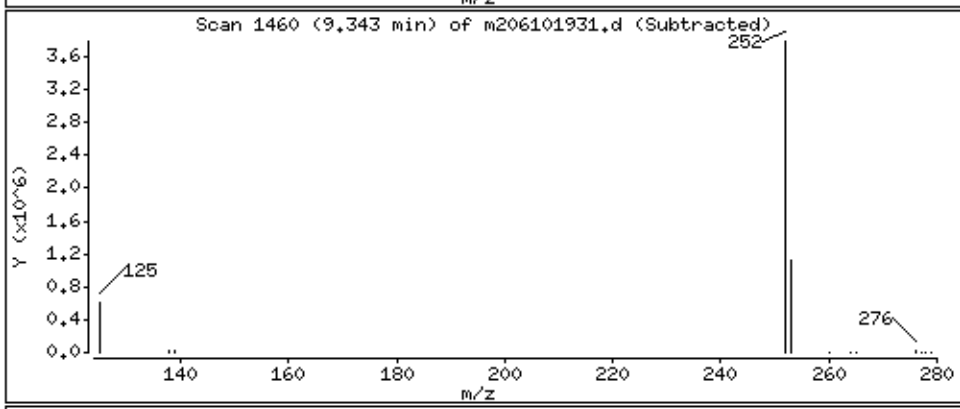
Column phase: RTX-5MS

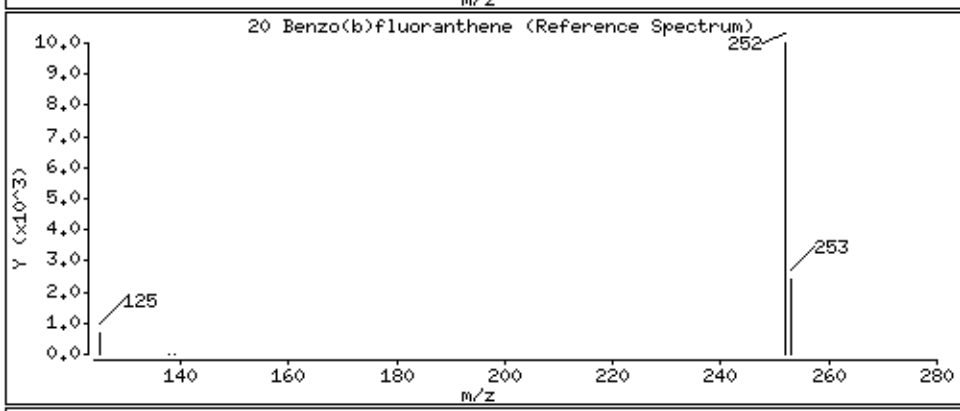
Column diameter: 0.25

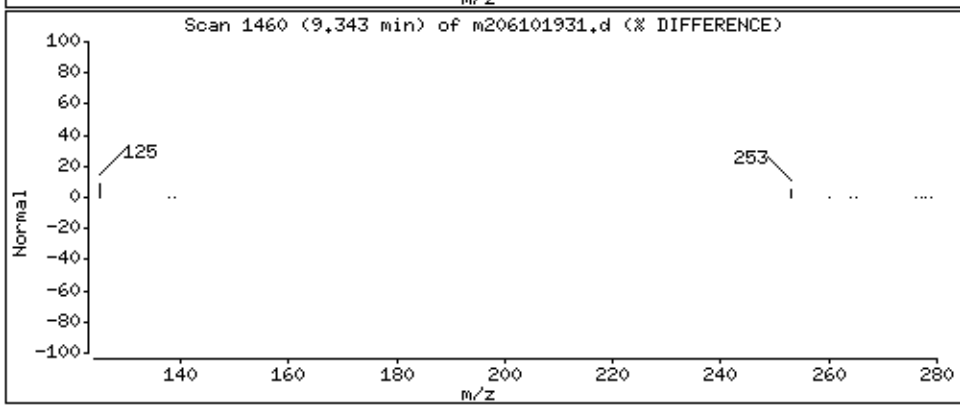
20 Benzo(b)fluoranthene

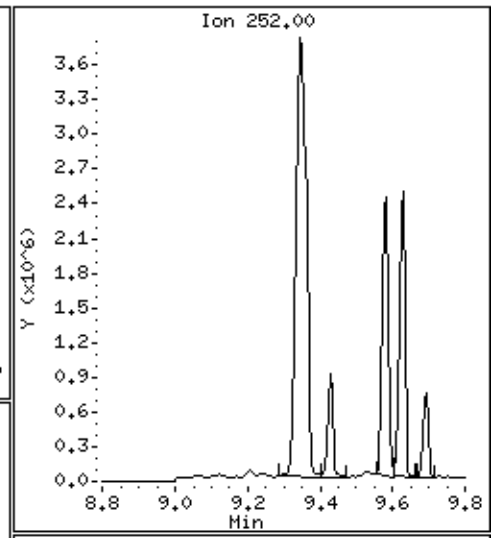
Concentration: 4620 ug/Kg

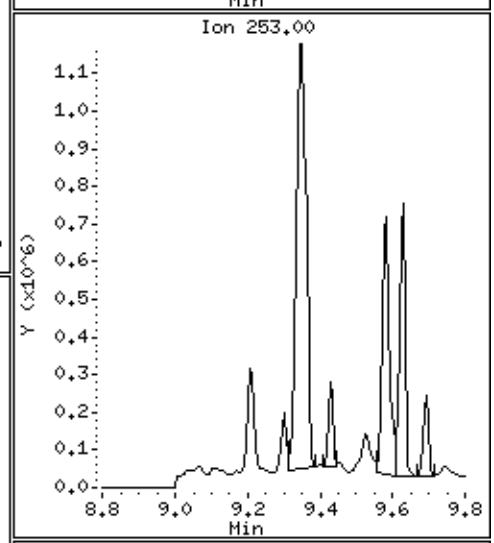


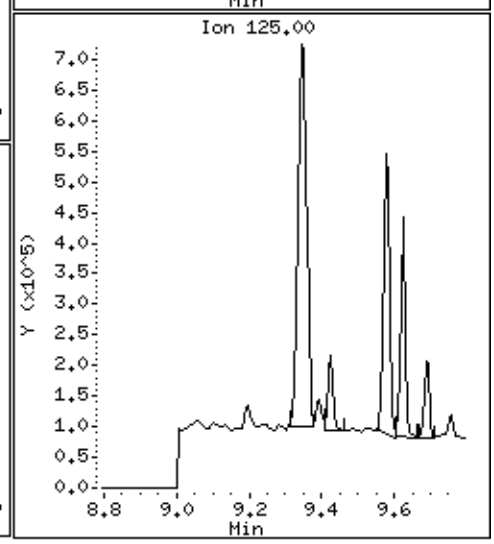












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

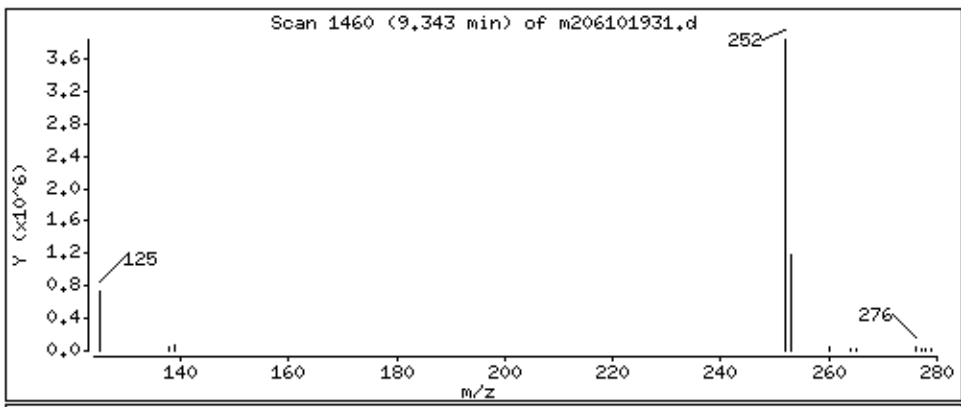
Operator: AJC

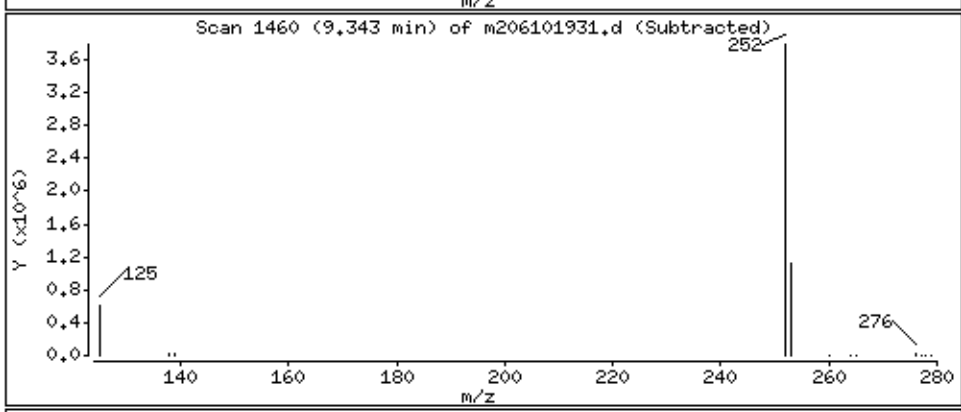
Column phase: RTX-5MS

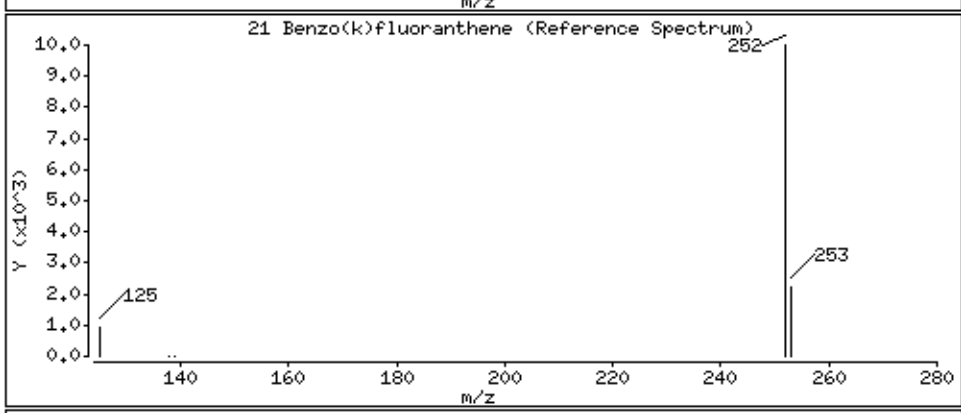
Column diameter: 0.25

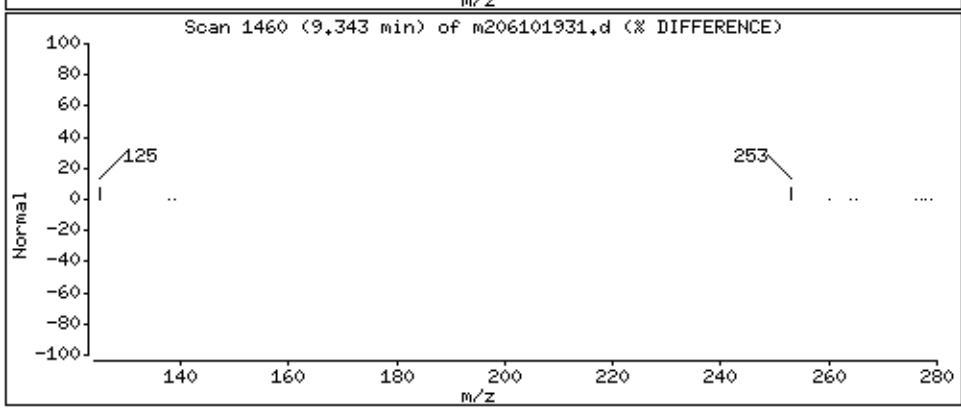
21 Benzo(k)fluoranthene

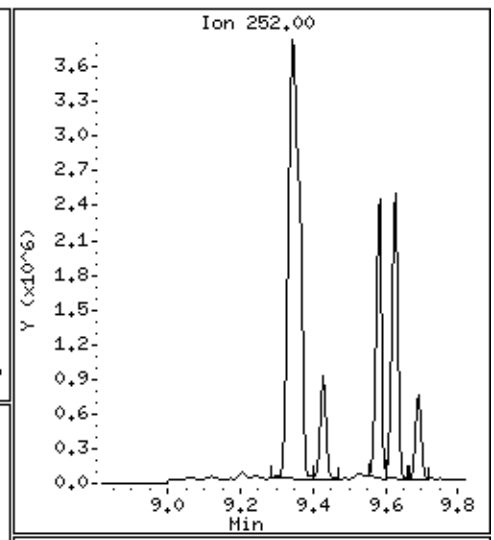
Concentration: 4170 ug/Kg

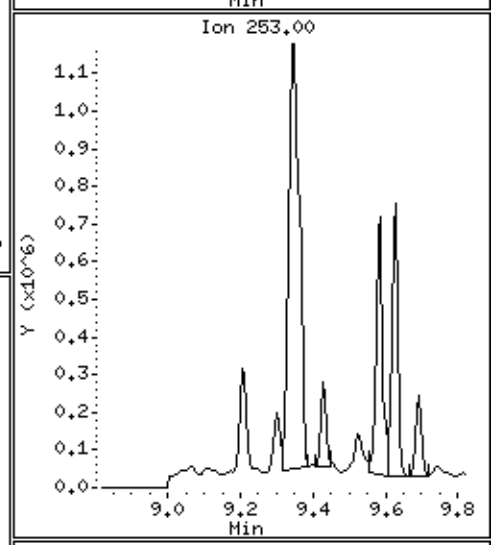


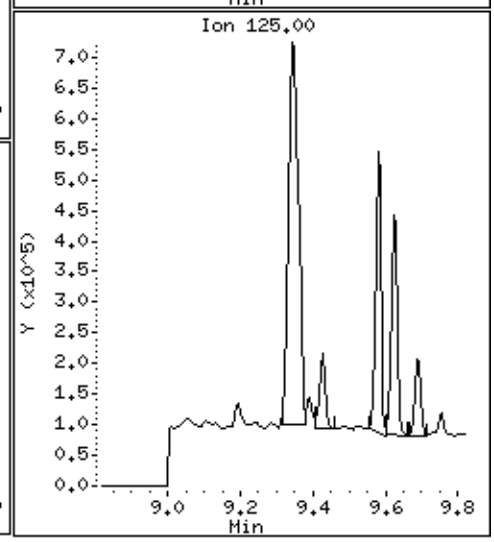












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Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

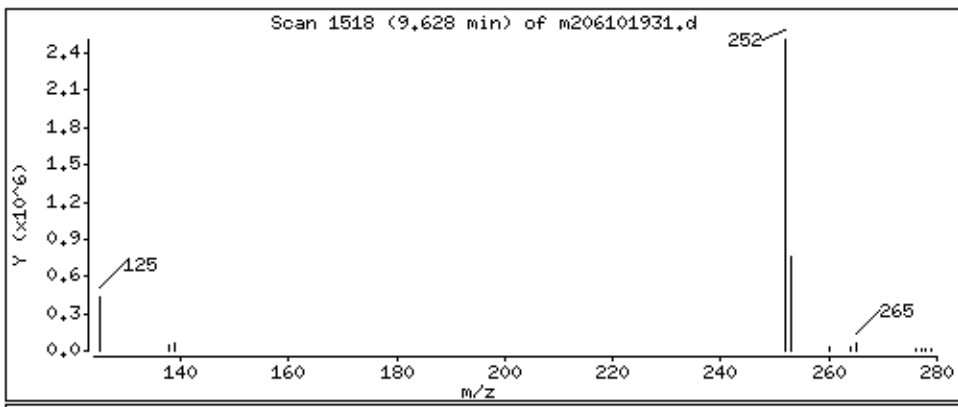
Operator: AJC

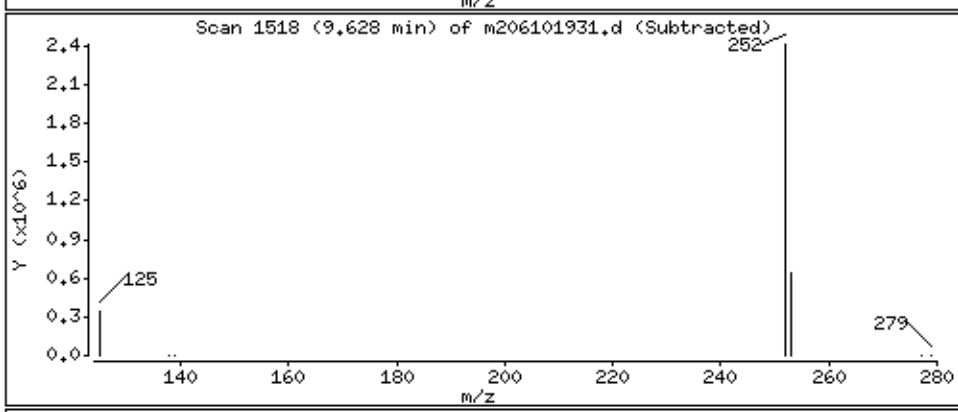
Column phase: RTX-5MS

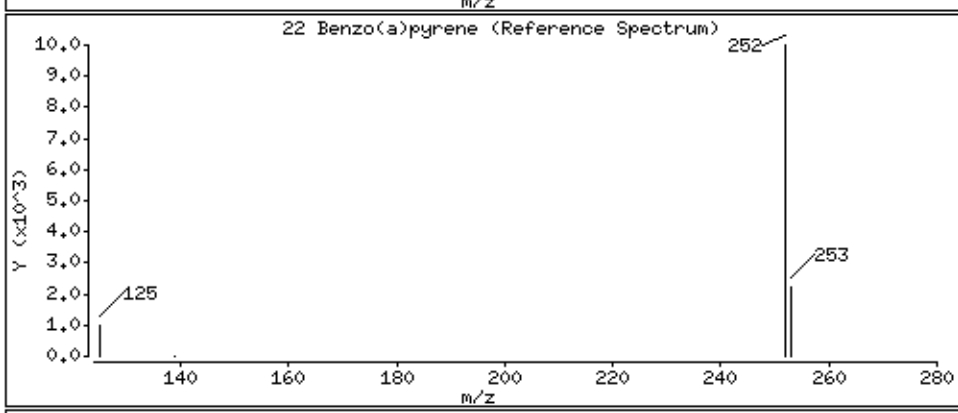
Column diameter: 0.25

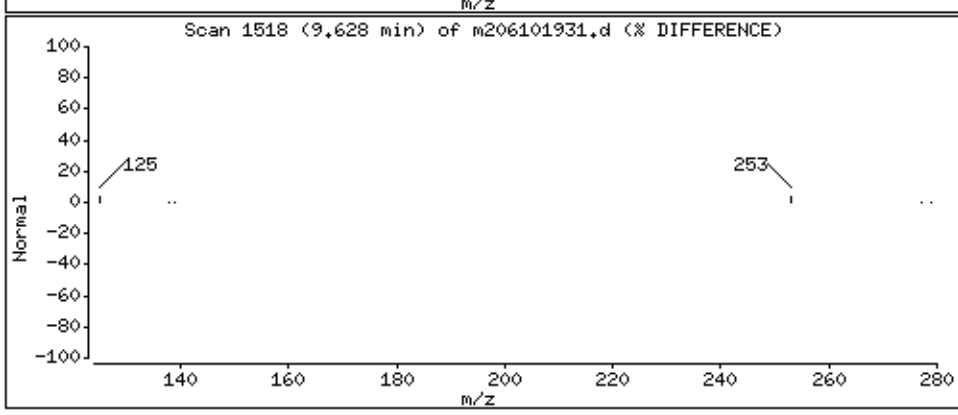
22 Benzo(a)pyrene

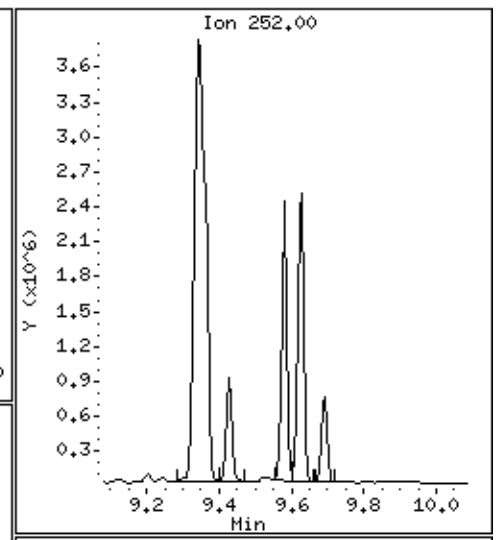
Concentration: 1710 ug/Kg

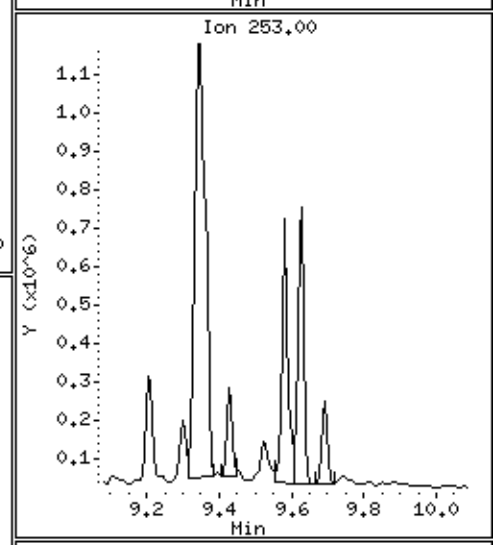


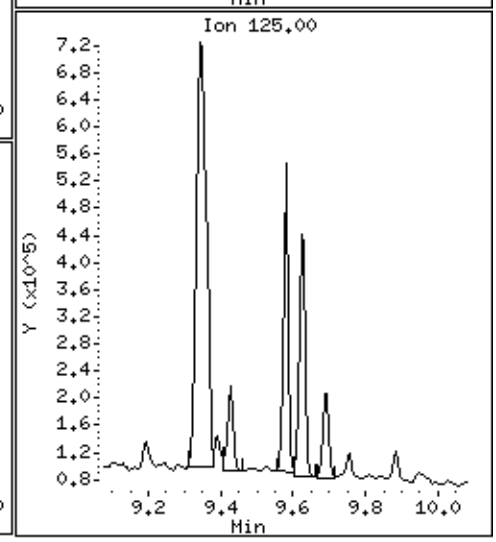












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

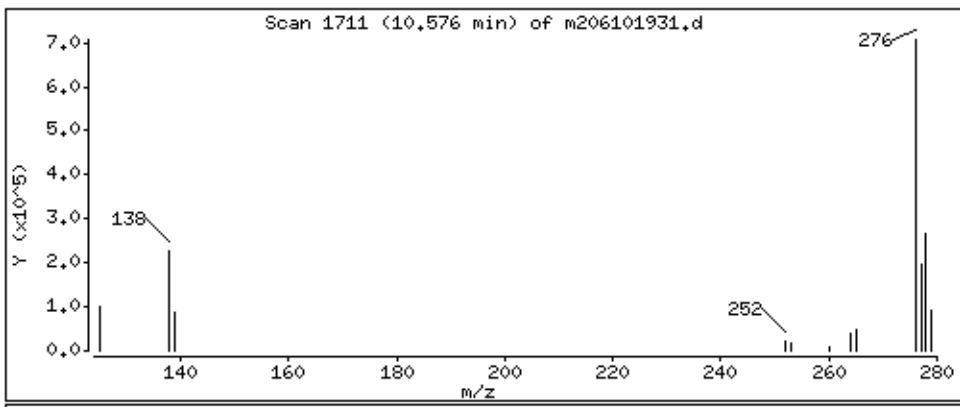
Operator: AJC

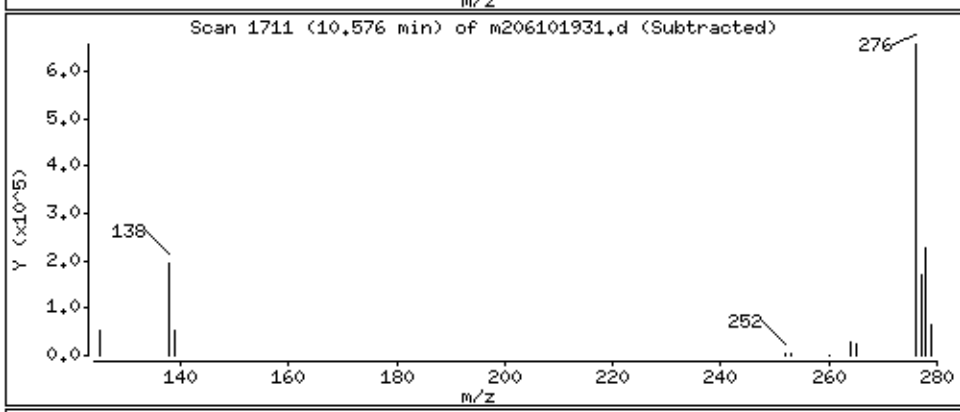
Column phase: RTX-5MS

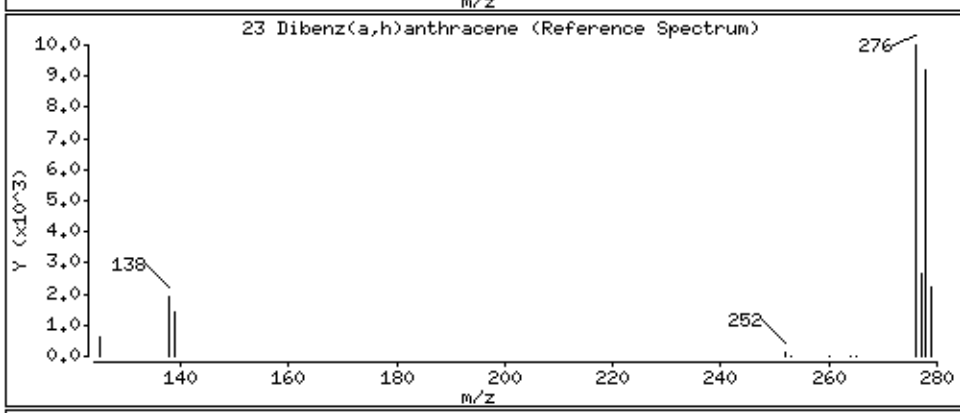
Column diameter: 0.25

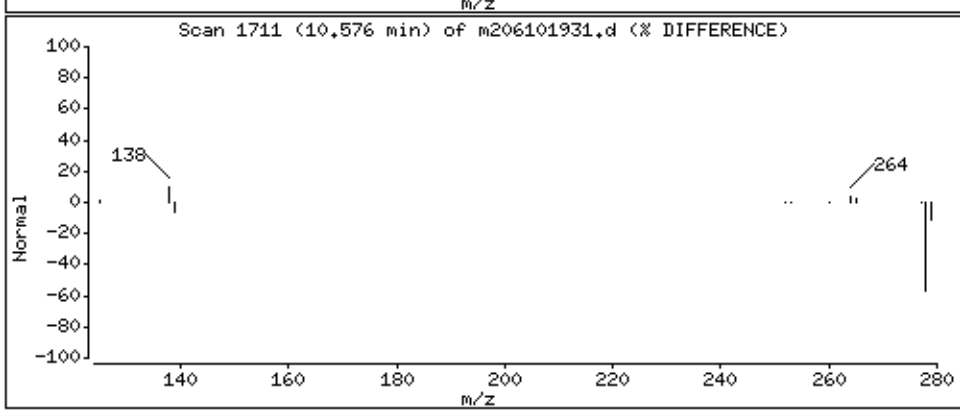
23 Dibenz(a,h)anthracene

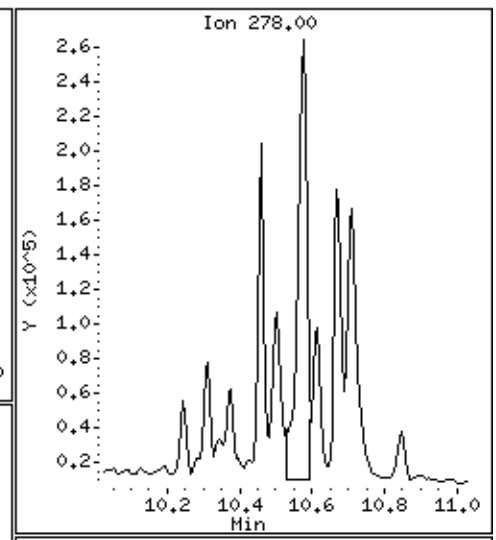
Concentration: 284 ug/Kg

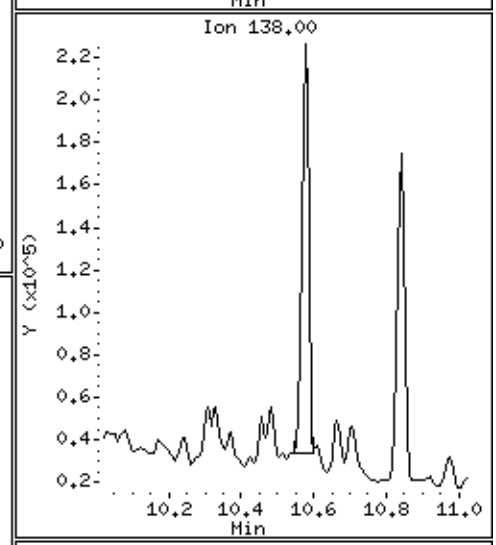


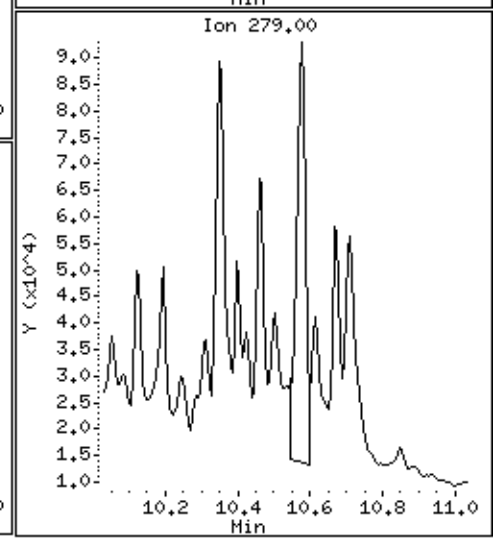












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

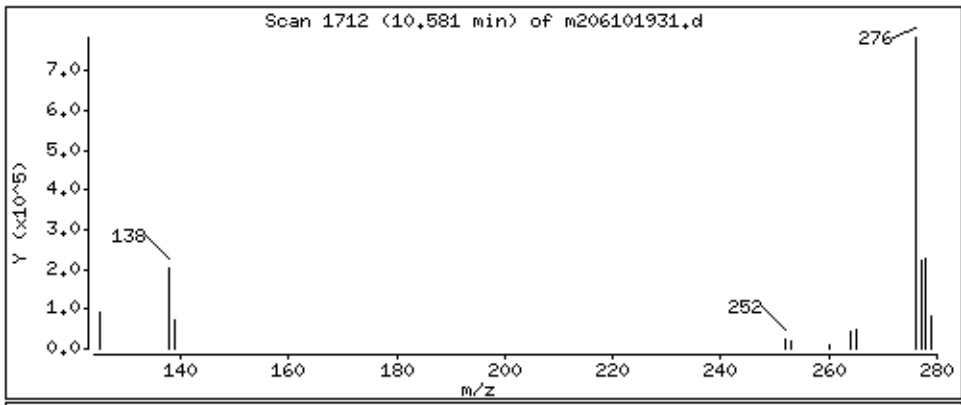
Operator: AJC

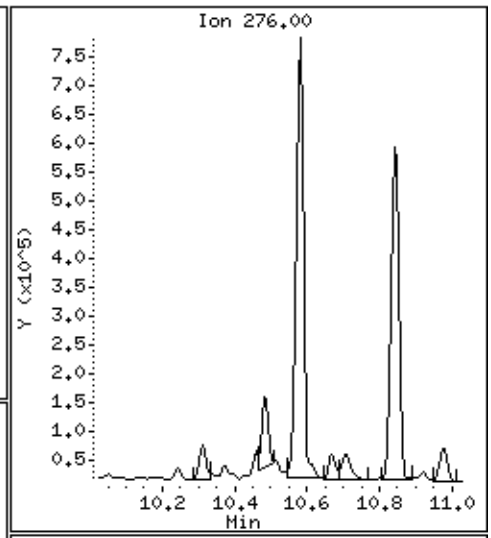
Column phase: RTX-5MS

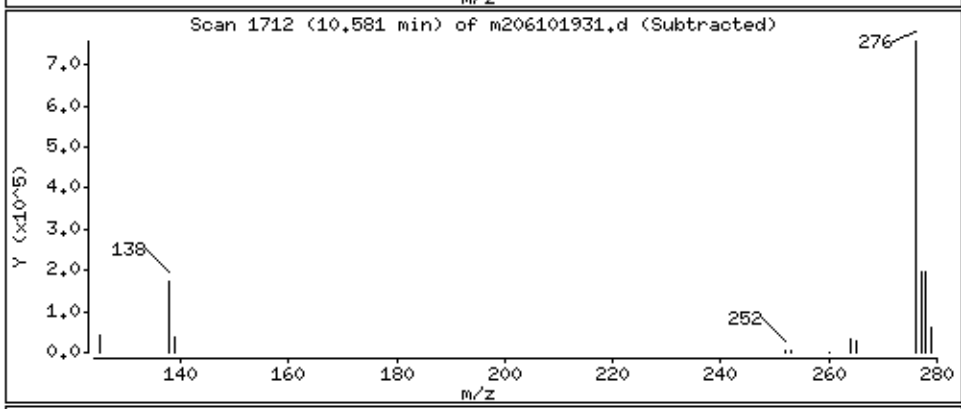
Column diameter: 0.25

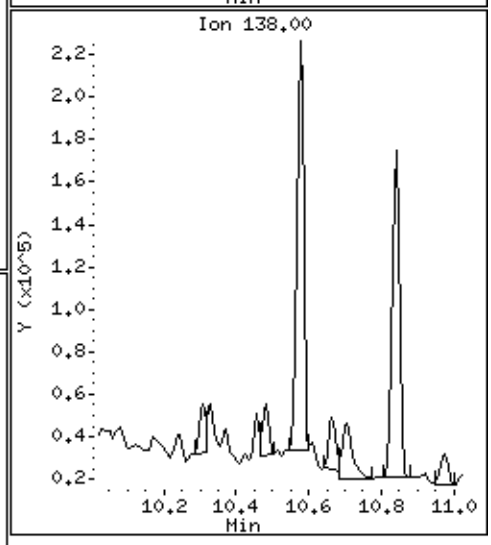
24 Indeno(1,2,3-cd)pyrene

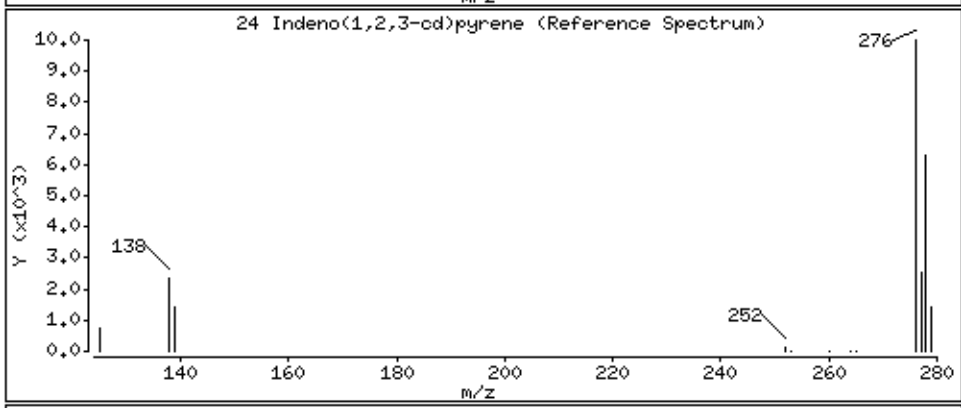
Concentration: 568 ug/Kg

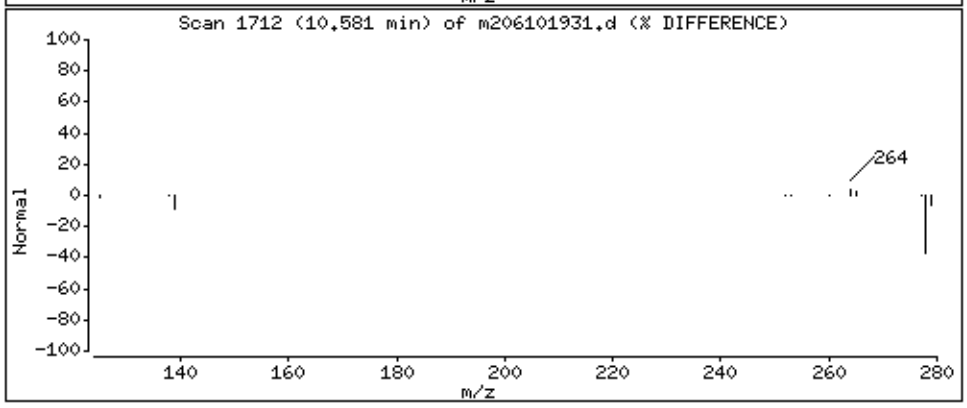












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101931.d

Date : 11-JUN-2019 00:00

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001,

Volume Injected (uL): 1.0

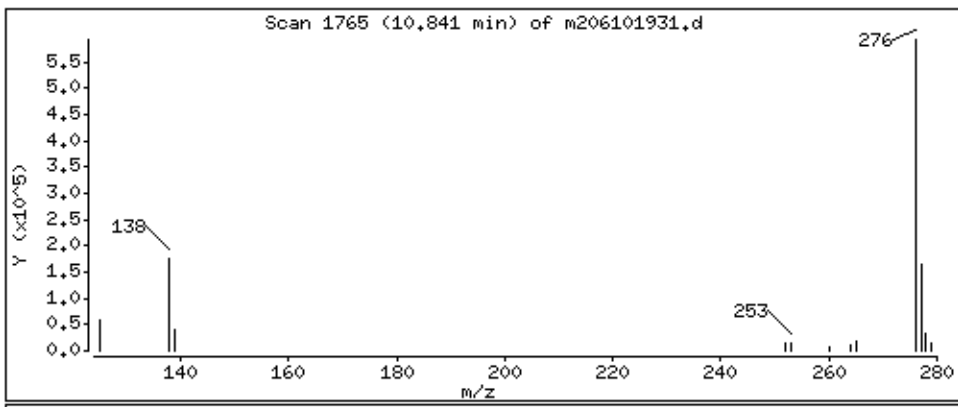
Operator: AJC

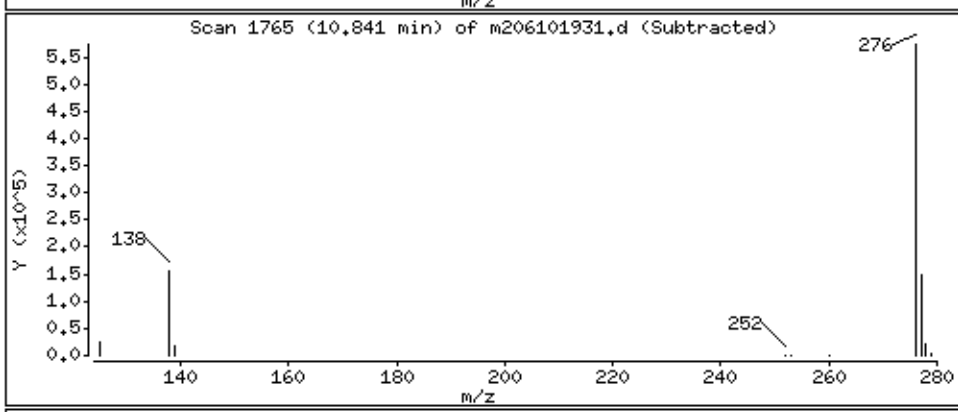
Column phase: RTX-5MS

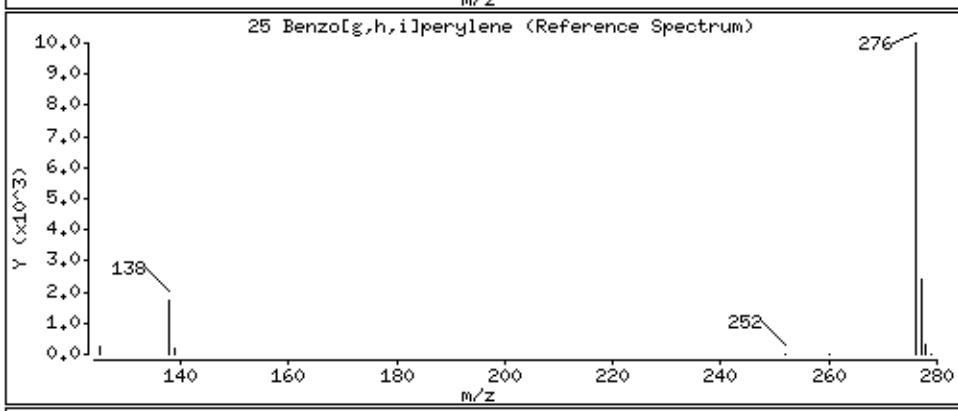
Column diameter: 0.25

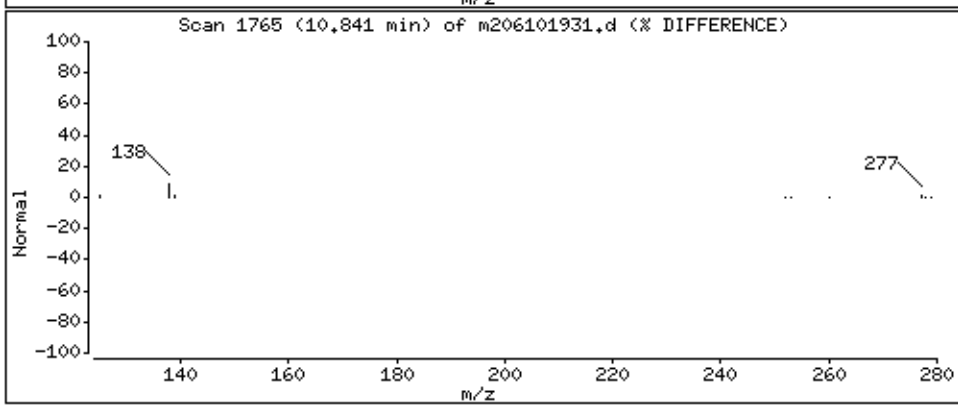
25 Benzo[g,h,i]perylene

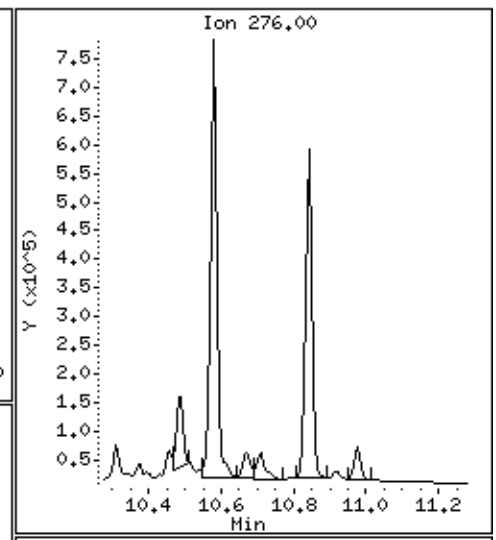
Concentration: 504 ug/Kg

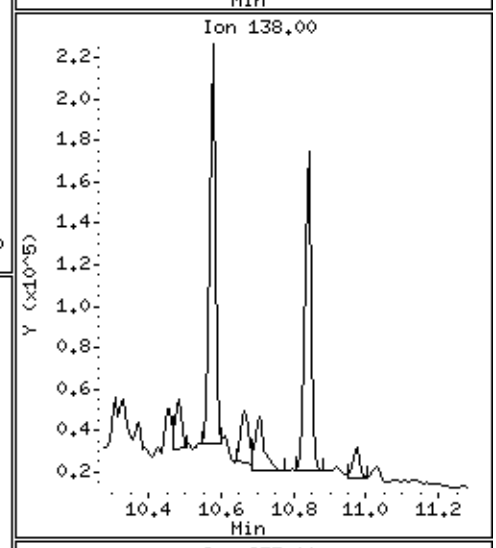


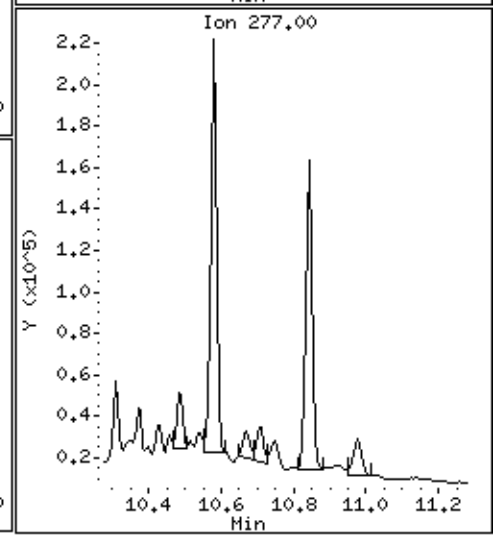






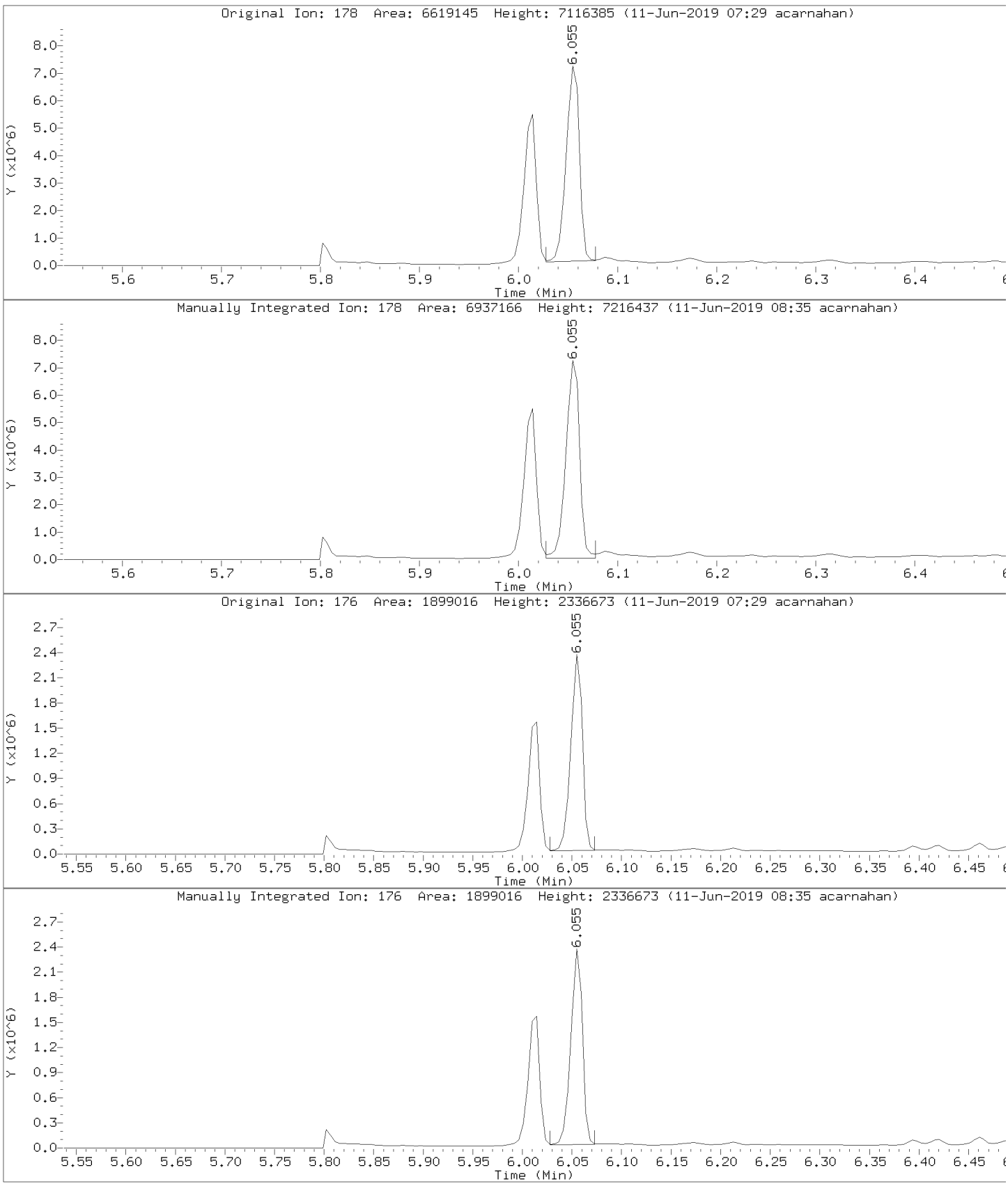






Data File: \\30wintarget\chem\30mss2.i\mss2061019.b/m206101931.d
Injection Date: 11-JUN-2019 00:00
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



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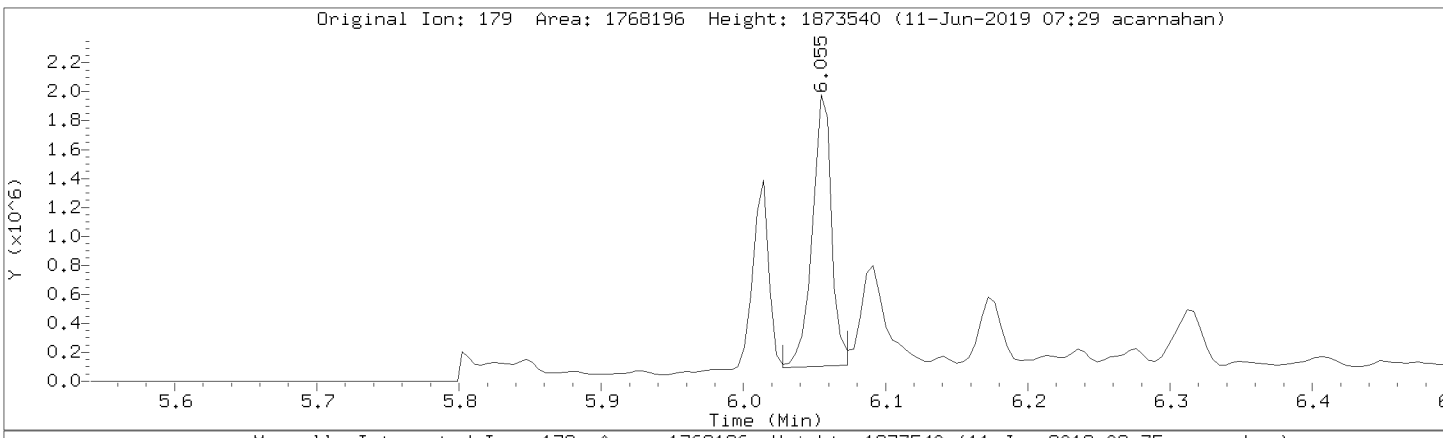
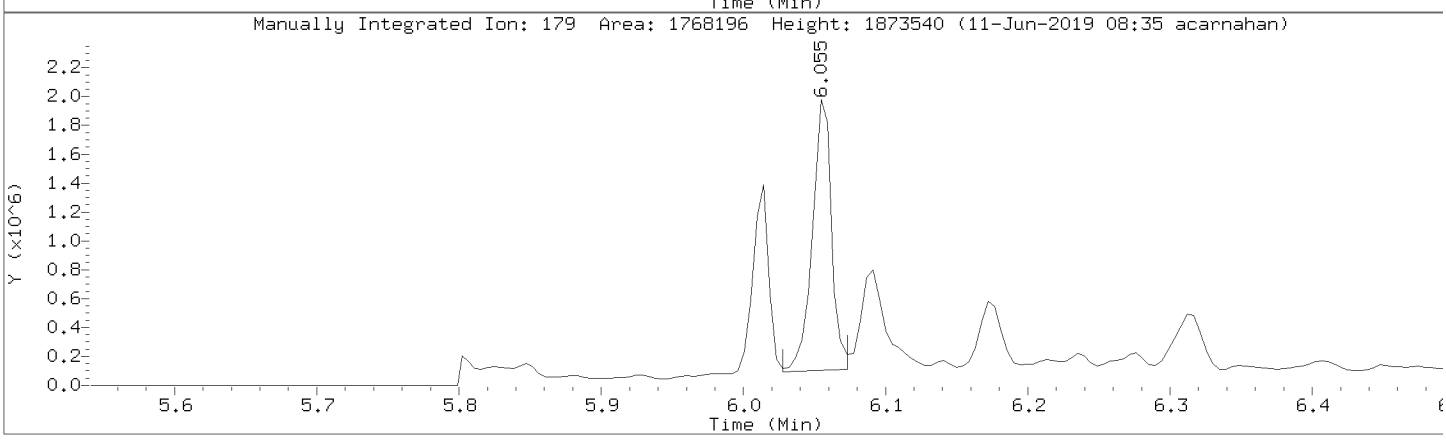
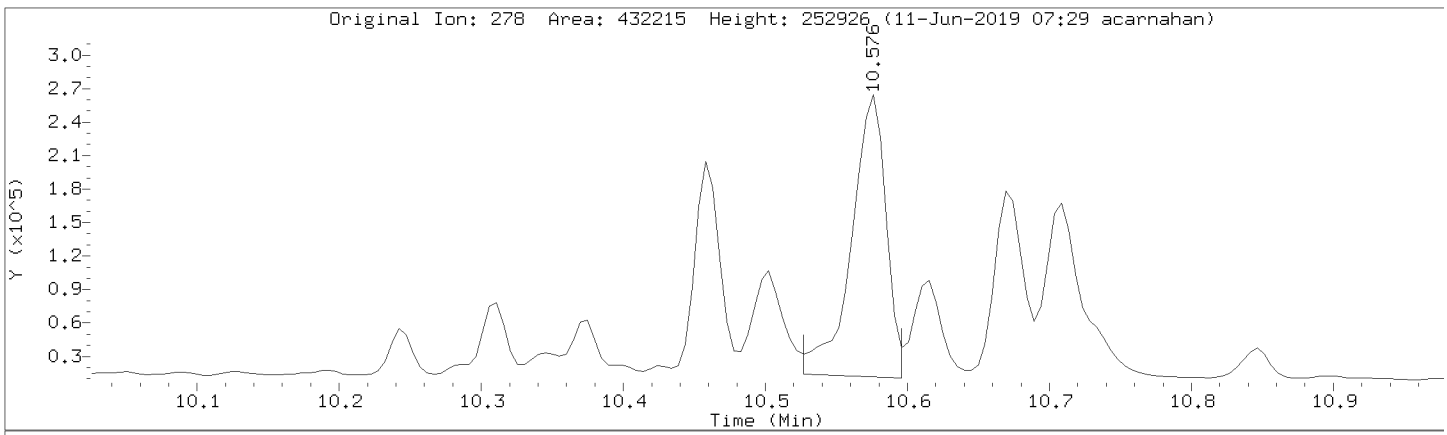
Injection Date: 11-JUN-2019 00:00
Instrument: 30mss2.i
Lab Sample ID: 30298231001

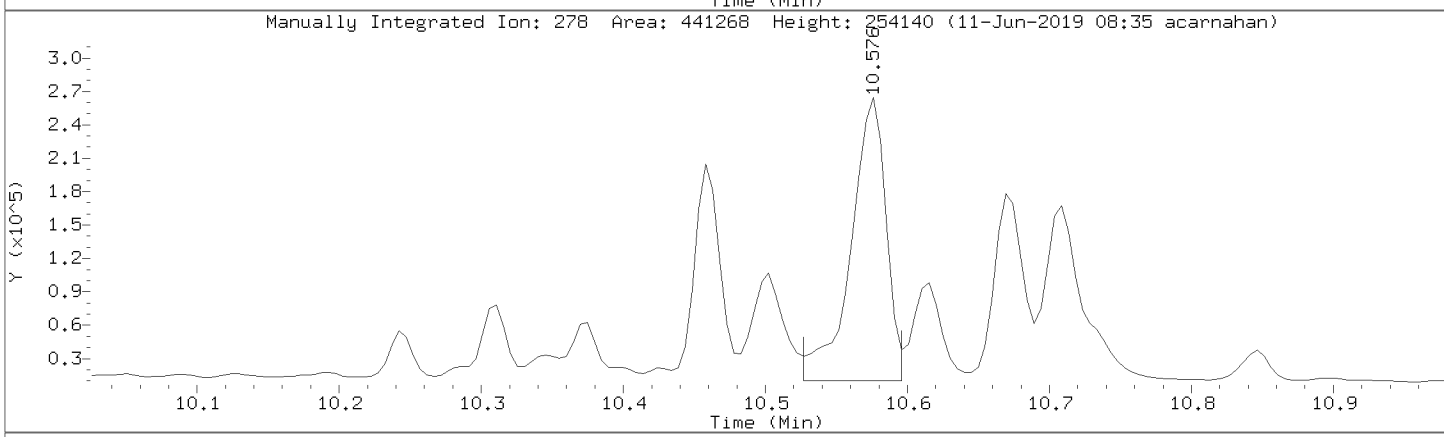


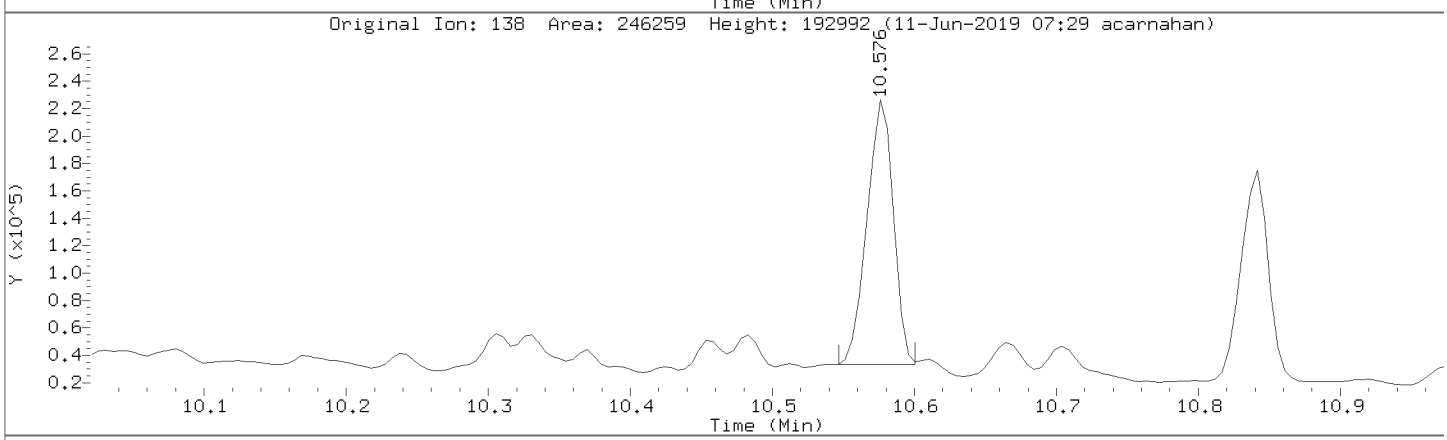


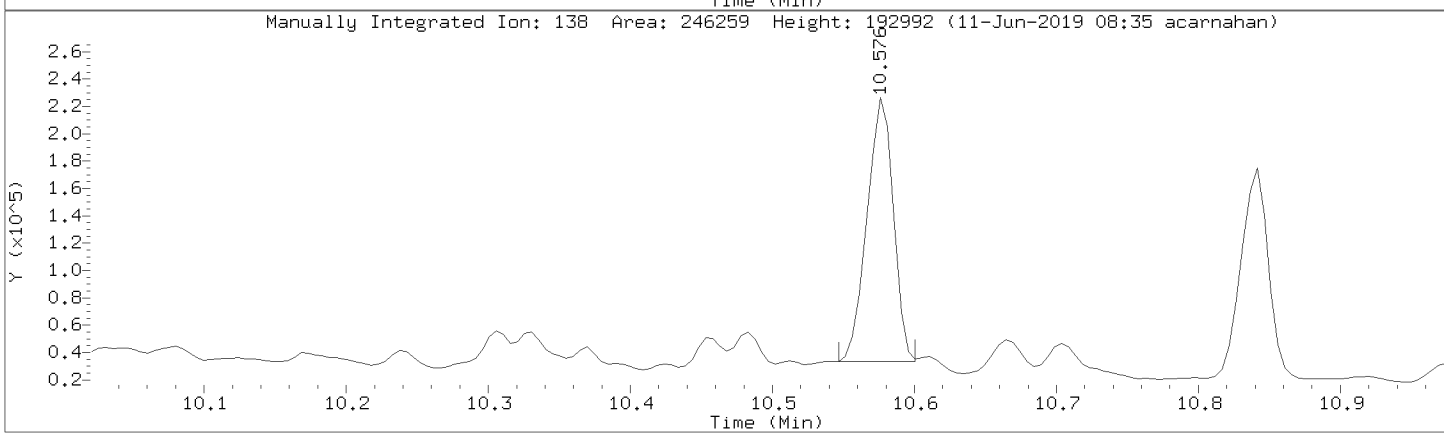
Data File: \\30wintarget\chem\30mss2.i\mss2061019.b/m206101931.d
Injection Date: 11-JUN-2019 00:00
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3









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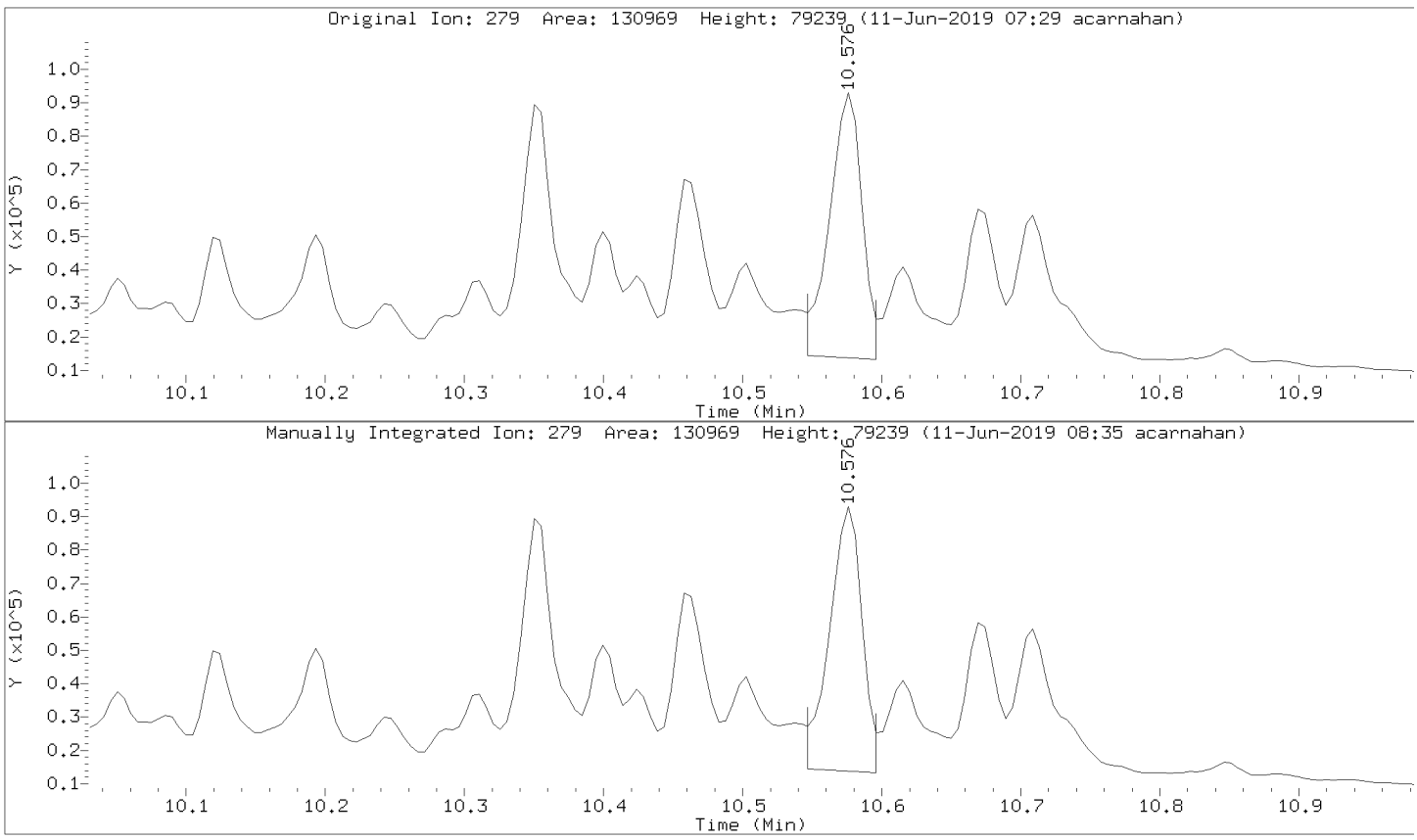
Injection Date: 11-JUN-2019 00:00
Instrument: 30mss2.i
Lab Sample ID: 30298231001



SAMPLE NO.

AOC35L

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 30298231001
Date Analyzed: 06/11/2019 00:18
Lab File ID: MSS2061019.B\M206101932.D
Initial wt/vol: 15.41 g Final wt/vol: 1 mL Dilution: 10
Instrument: 30MSS2 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
120-12-7	Anthracene	2390	
56-55-3	Benzo(a)anthracene	3550	
50-32-8	Benzo(a)pyrene	2580	
205-99-2	Benzo(b)fluoranthene	5360	
207-08-9	Benzo(k)fluoranthene	2130	
218-01-9	Chrysene	4190	
206-44-0	Fluoranthene	4780	
129-00-0	Pyrene	5700	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 11-JUN-2019 00:18
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30298231001x10,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 34
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.782	3.777	(1.000)	1195356	4.00000		
	8 Naphthalene	128	3.794	3.788	(1.003)	187872	0.68445	444	
	9 2-Methylnaphthalene	142	4.233	4.228	(1.119)	68495	0.34201	222	
	10 1-Methylnaphthalene	142	4.296	4.291	(1.136)	58535	0.30977	201	
$	6 2-Fluorobiphenyl (S)	172	4.456	4.451	(0.908)	121657	0.48074	31.2(R)	
	11 Acenaphthylene	152	4.820	4.817	(0.982)	400757	1.37757	894	
*	2 Acenaphthene-d10 (IS)	164	4.909	4.906	(1.000)	725961	4.00000		
	12 Acenaphthene	153	4.932	4.929	(1.005)	46577	0.24242	157	
	13 Fluorene	166	5.286	5.280	(1.077)	94431	0.42012	273	
*	3 Phenanthrene-d10 (IS)	188	5.985	5.978	(1.000)	1199466	4.00000		
	14 Phenanthrene	178	6.004	5.996	(1.003)	565659	1.83381	1190	
	15 Anthracene	178	6.044	6.041	(1.010)	879837	3.04445	1980(M)	BA
	16 Fluoranthene	202	7.010	7.002	(1.171)	2045175	6.08051	3940(Q)	
	17 Pyrene	202	7.222	7.210	(1.206)	2531683	7.25172	4700(Q)	
$	7 Terphenyl-d14 (S)	244	7.325	7.322	(1.224)	113634	0.41944	27.2(R)	
	18 Benzo(a)anthracene	228	8.331	8.321	(0.999)	676021	4.51874	2930	
*	4 Chrysene-d12 (IS)	240	8.342	8.329	(1.000)	550495	4.00000		
	19 Chrysene	228	8.366	8.353	(1.003)	839684	5.33976	3460	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.312	9.299	(0.966)	726988	6.82088	4430(QM)	GT
21 Benzo(k)fluoranthene	252	9.332	9.318	(0.968)	320309	2.71080	1760(QM)	GT
22 Benzo(a)pyrene	252	9.597	9.584	(0.995)	329282	3.28586	2130	
* 5 Perylene-d12 (IS)	264	9.641	9.628	(1.000)	393752	4.00000		
23 Dibenz(a,h)anthracene	278	10.545	10.527	(1.094)	56104	0.55916	363(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.550	10.527	(1.094)	134840	1.11993	727	
25 Benzo[g,h,i]perylene	276	10.810	10.777	(1.121)	114154	1.08920	707	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Pace Analytical Services, Inc.

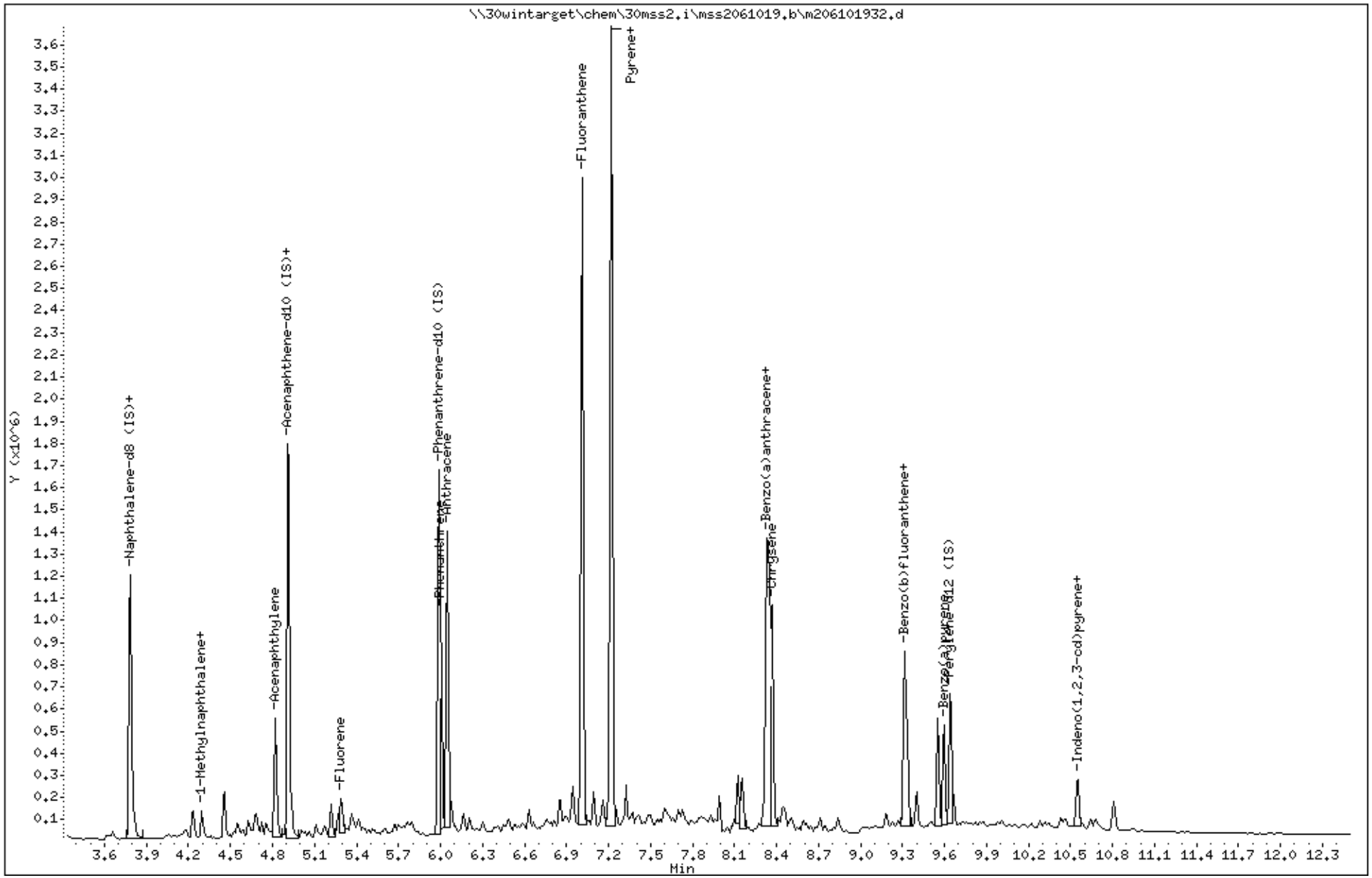
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231001
Client Smp ID: AOC35L
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14682,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0973	U
91-20-3	Naphthalene	444	
91-57-6	2-Methylnaphthalene	222	
90-12-0	1-Methylnaphthalene	201	
208-96-8	Acenaphthylene	894	
83-32-9	Acenaphthene	157	
86-73-7	Fluorene	273	
85-01-8	Phenanthrene	1190	
120-12-7	Anthracene	1980	
206-44-0	Fluoranthene	3940	
129-00-0	Pyrene	4700	
56-55-3	Benzo(a)anthracene	2930	
218-01-9	Chrysene	3460	
205-99-2	Benzo(b)fluoranthene	4430	
207-08-9	Benzo(k)fluoranthene	1760	
50-32-8	Benzo(a)pyrene	2130	
53-70-3	Dibenz(a,h)anthracene	363	
193-39-5	Indeno(1,2,3-cd)pyrene	727	
191-24-2	Benzo[g,h,i]perylene	707	
321-60-8	2-Fluorobiphenyl (S)	31.2	
1718-51-0	Terphenyl-d14 (S)	27.2	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d
Date : 11-JUN-2019 00:18
Client ID: A0C35L
Sample Info: 30298231001x10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d

Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

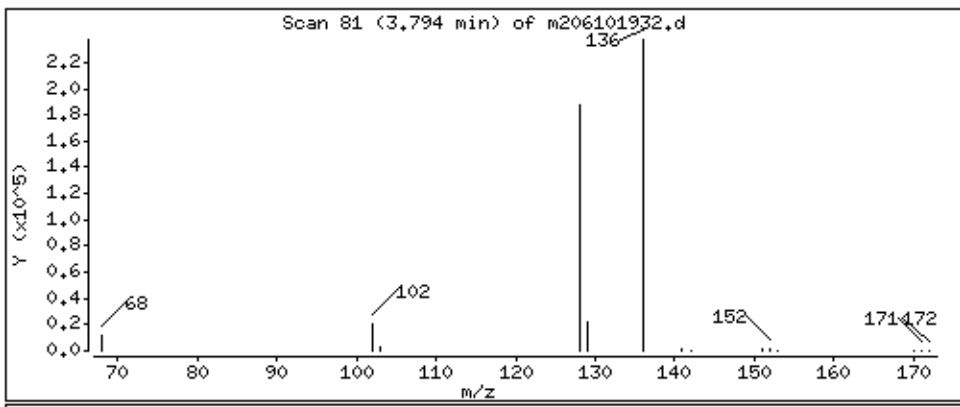
Operator: AJC

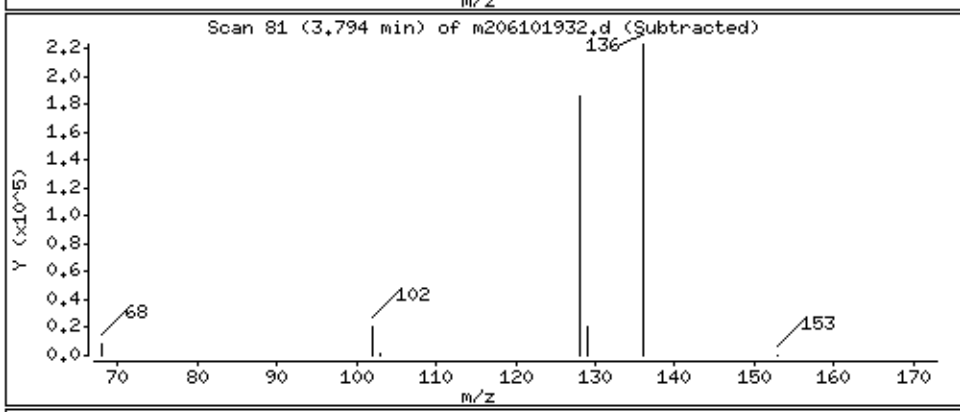
Column phase: RTX-5MS

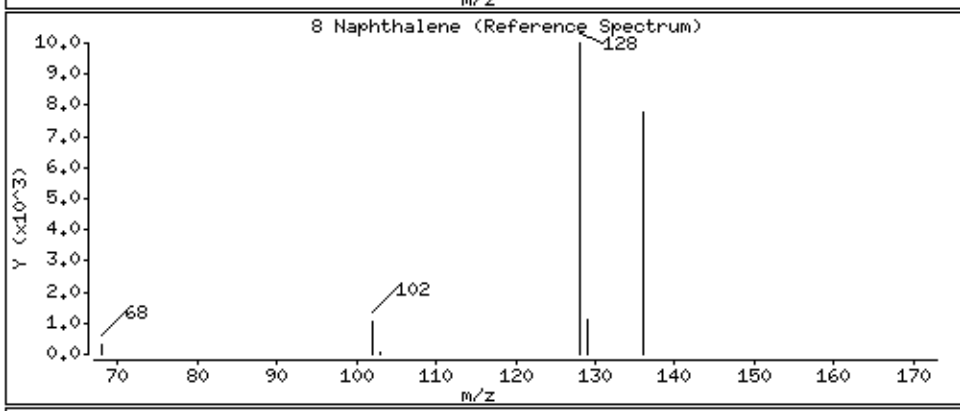
Column diameter: 0.25

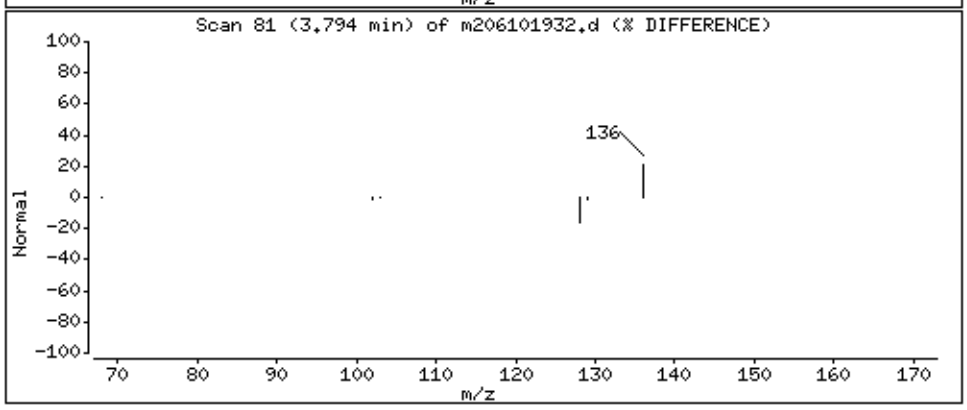
8 Naphthalene

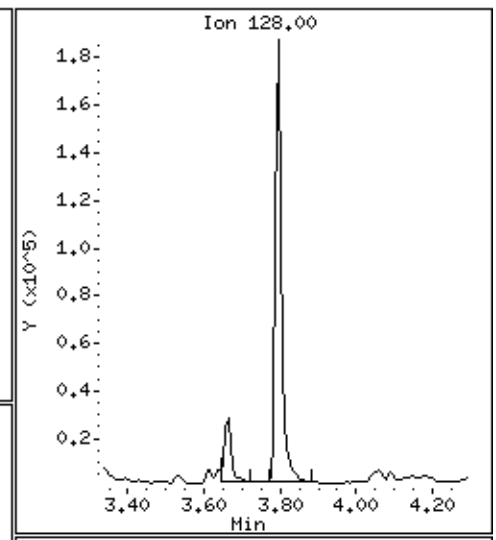
Concentration: 444 ug/Kg

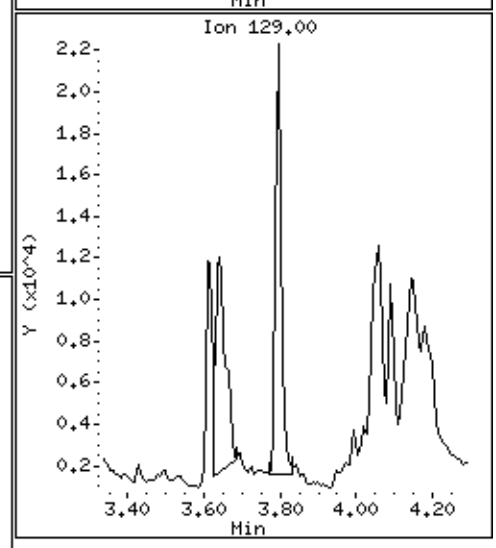












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

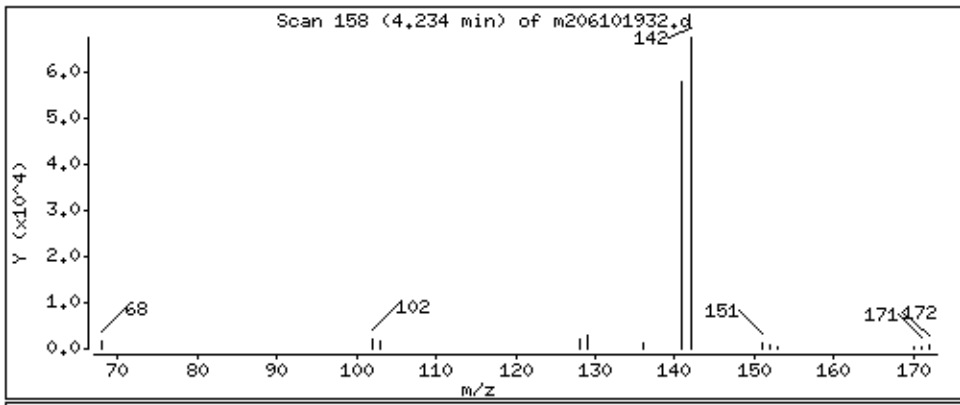
Operator: AJC

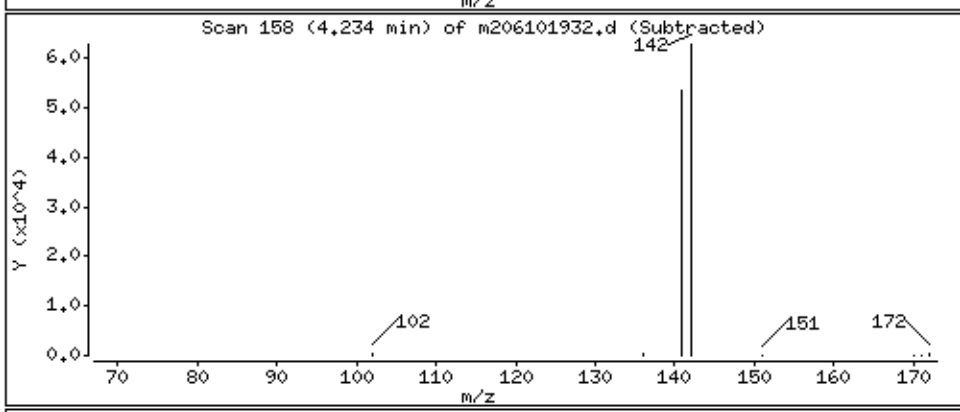
Column phase: RTX-5MS

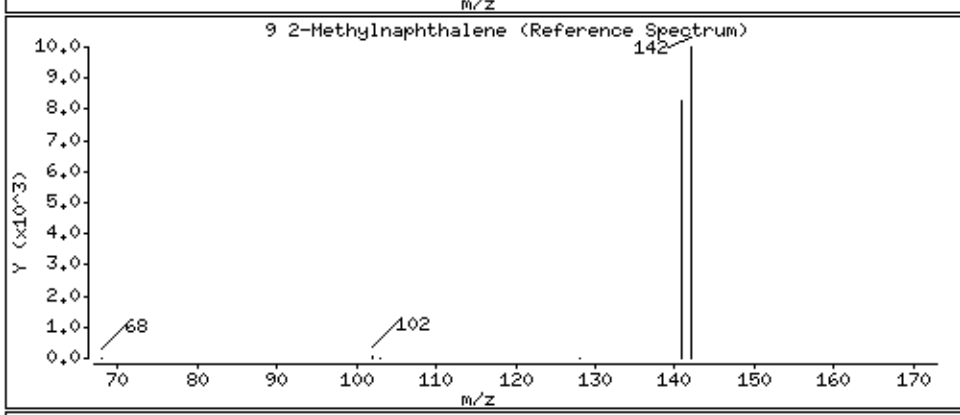
Column diameter: 0.25

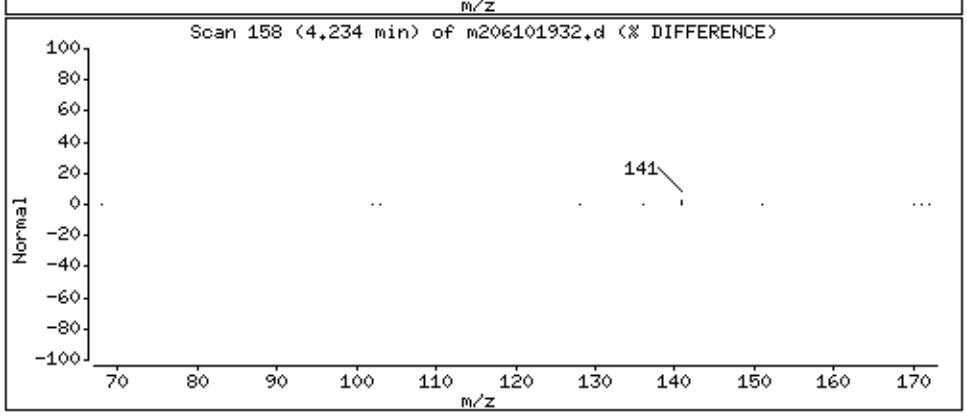
9 2-Methylnaphthalene

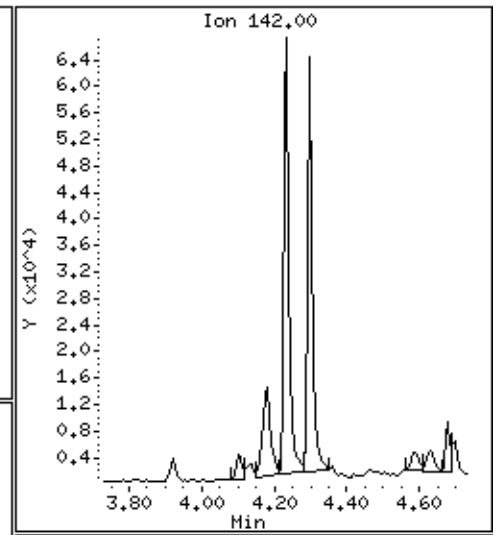
Concentration: 222 ug/Kg

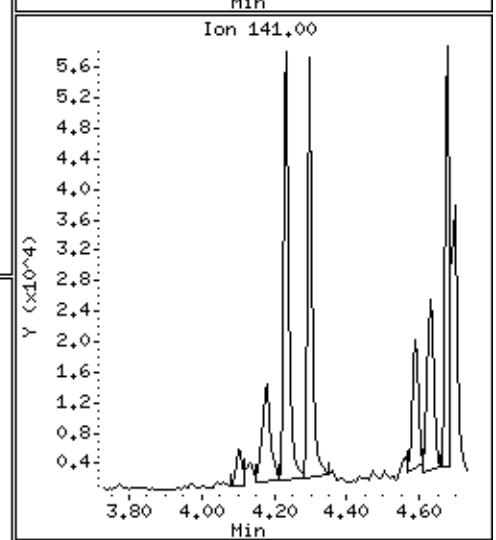












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

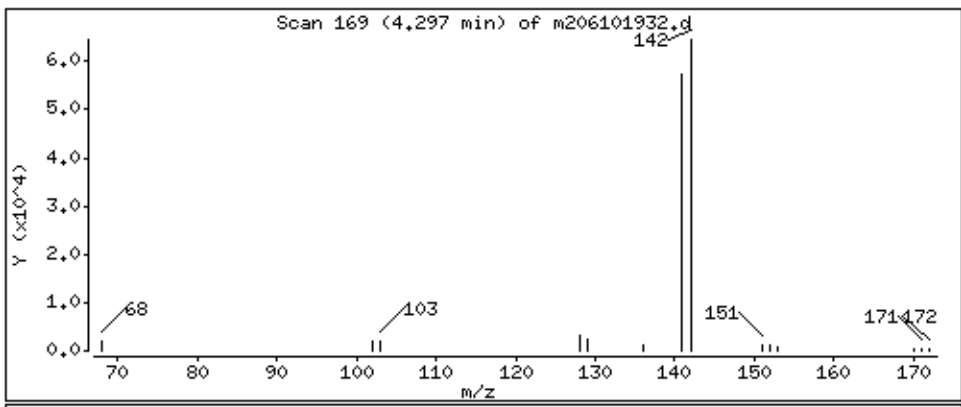
Operator: AJC

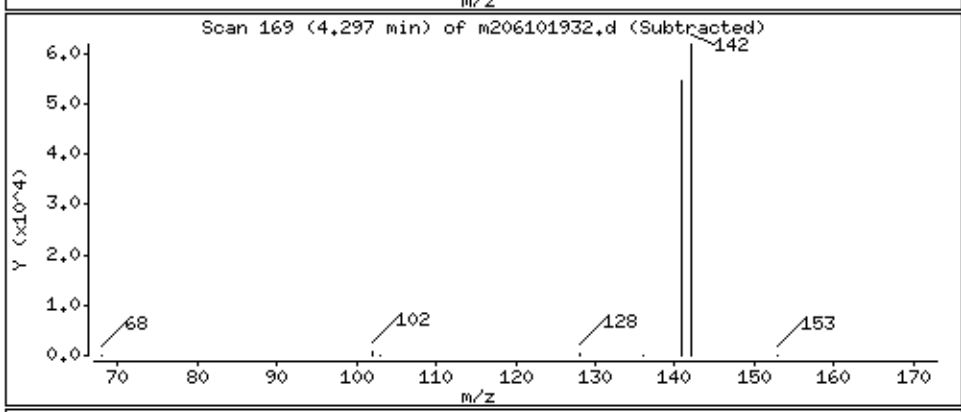
Column phase: RTX-5MS

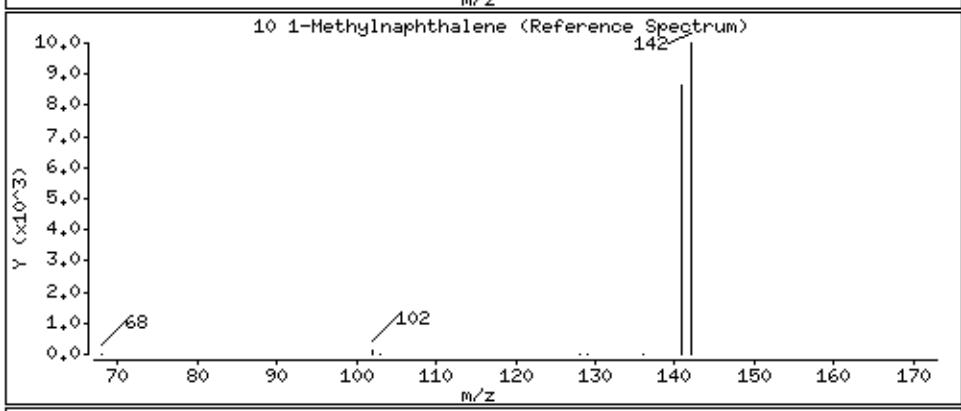
Column diameter: 0.25

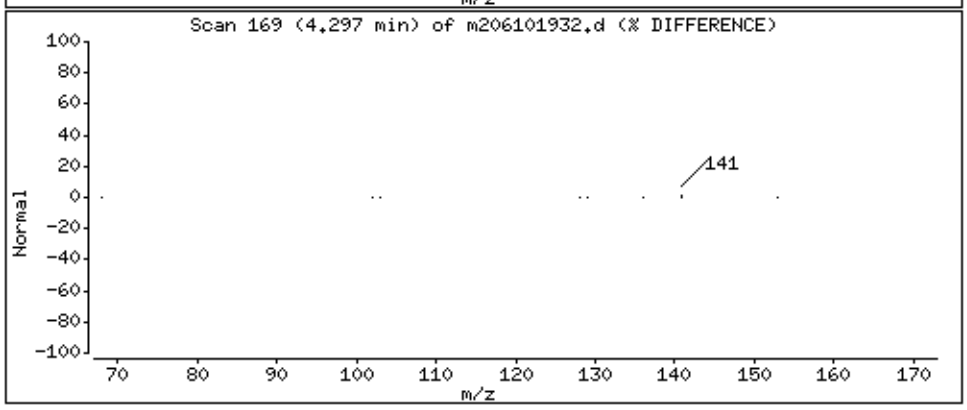
10 1-Methylnaphthalene

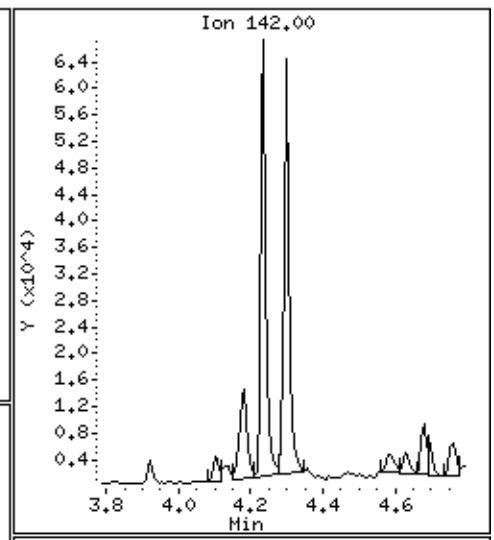
Concentration: 201 ug/Kg

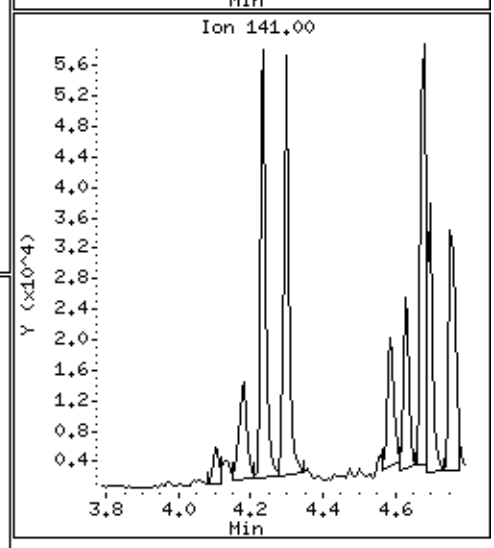












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Date : 11-JUN-2019 00:18

Client ID: AOC35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

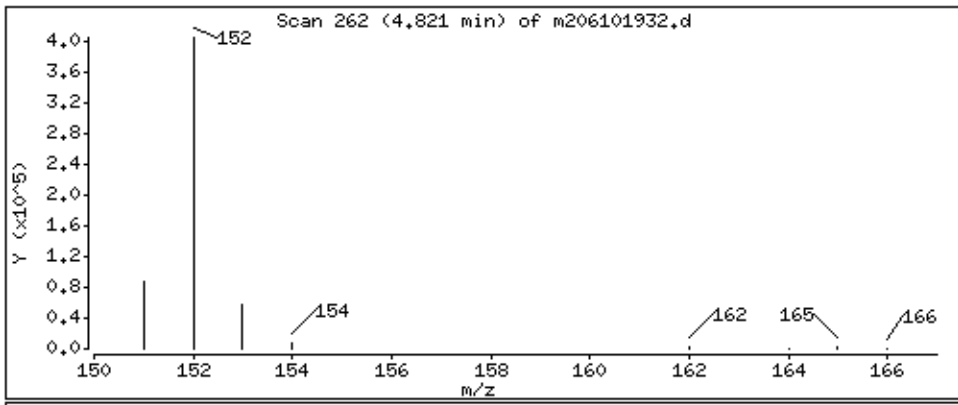
Operator: AJC

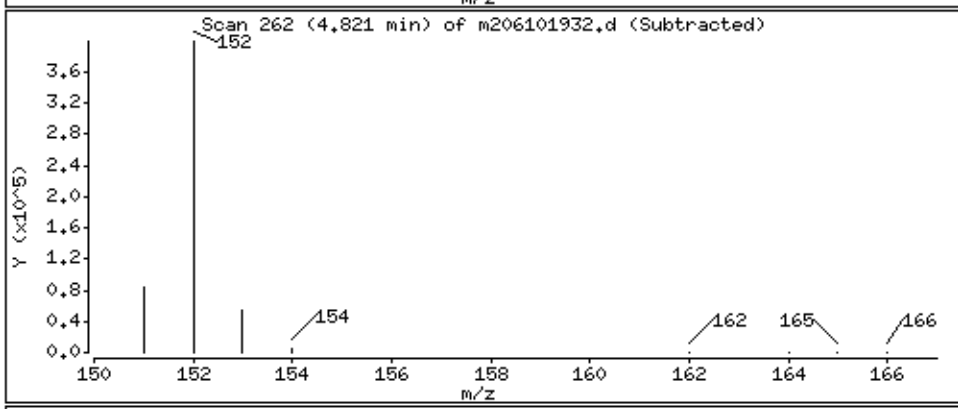
Column phase: RTX-5MS

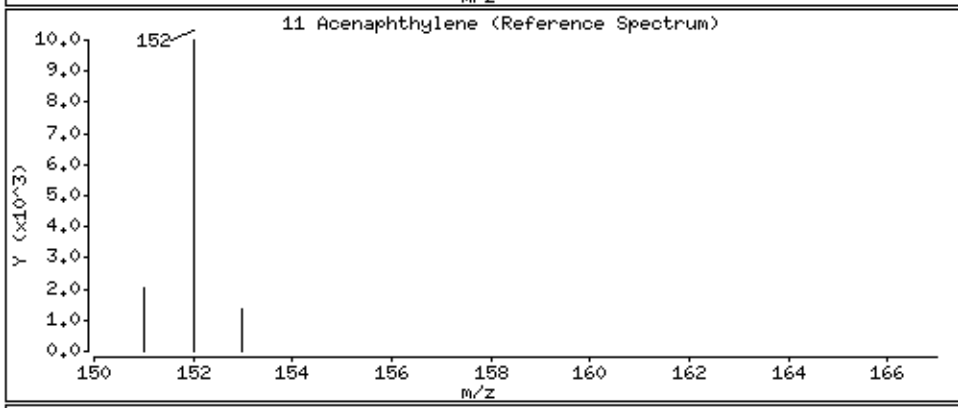
Column diameter: 0.25

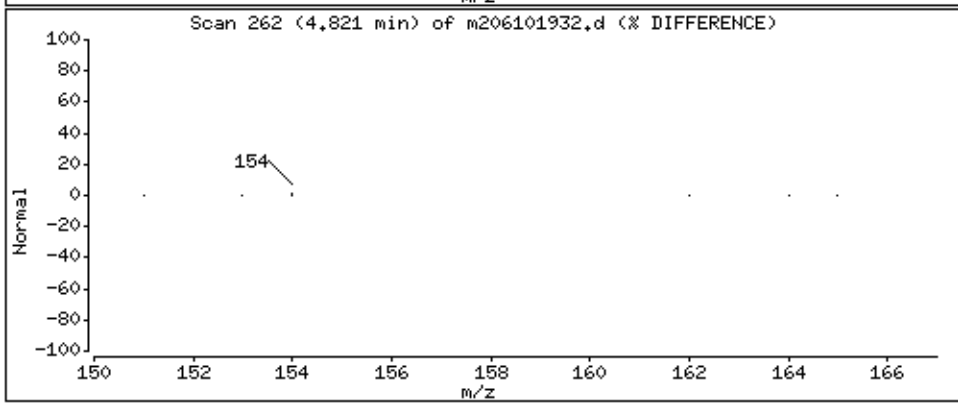
11 Acenaphthylene

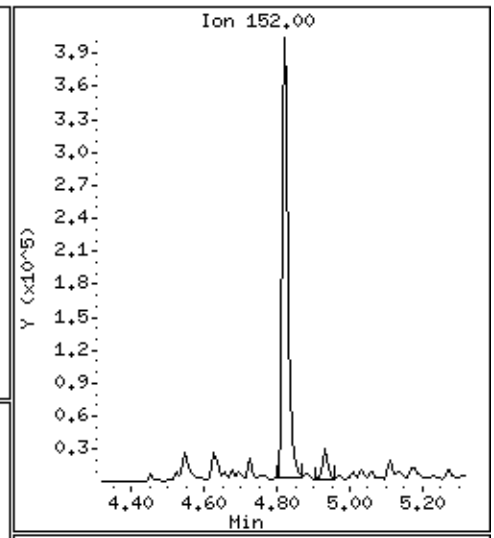
Concentration: 894 ug/Kg

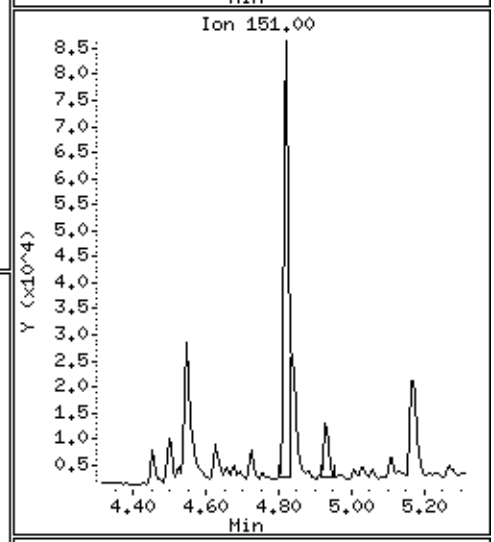


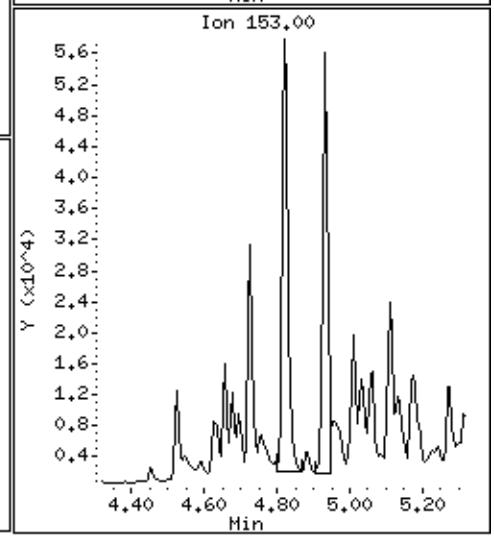












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d

Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

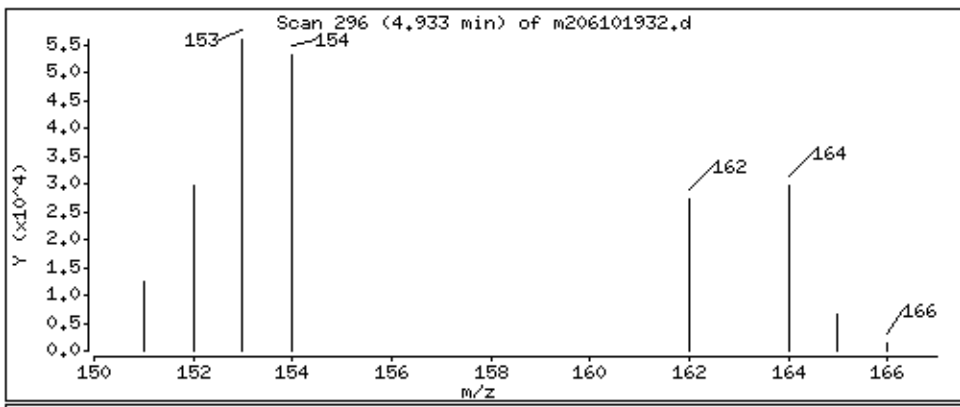
Operator: AJC

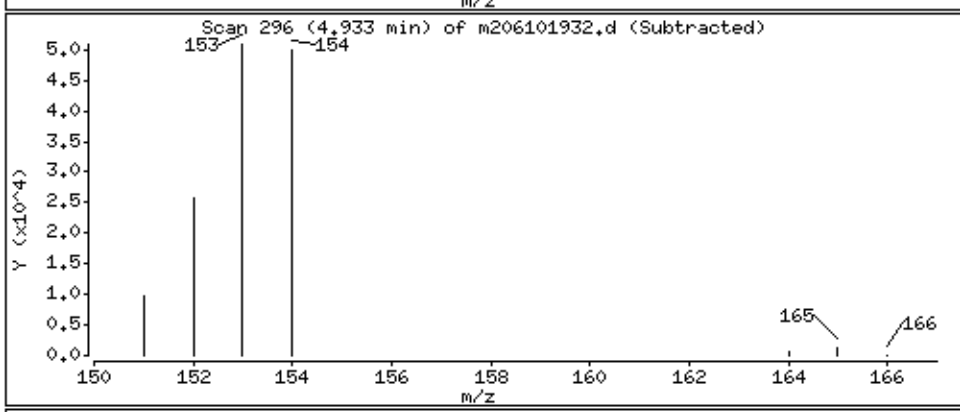
Column phase: RTX-5MS

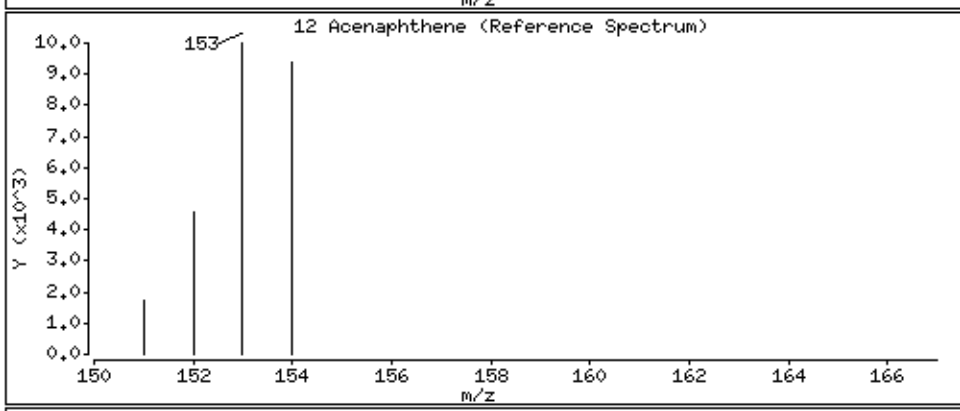
Column diameter: 0.25

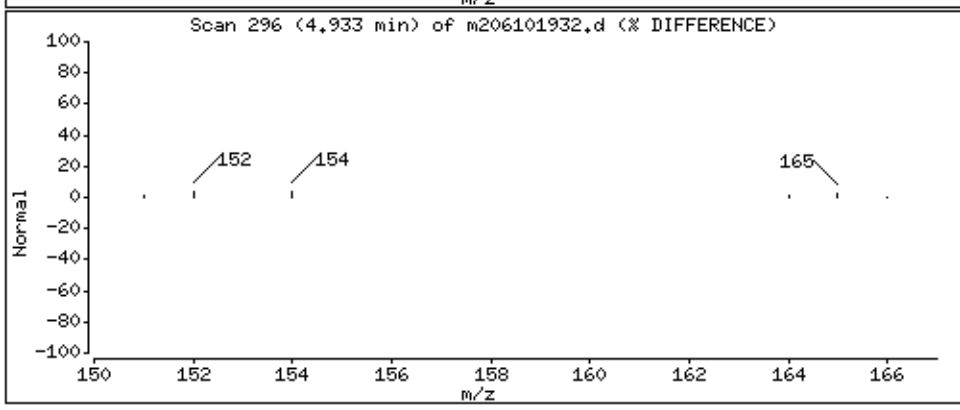
12 Acenaphthene

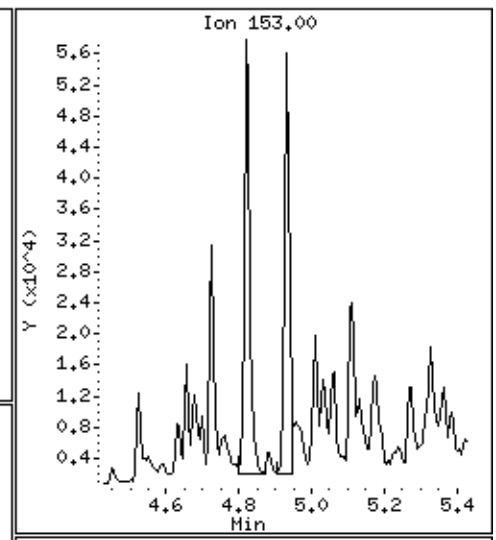
Concentration: 157 ug/Kg

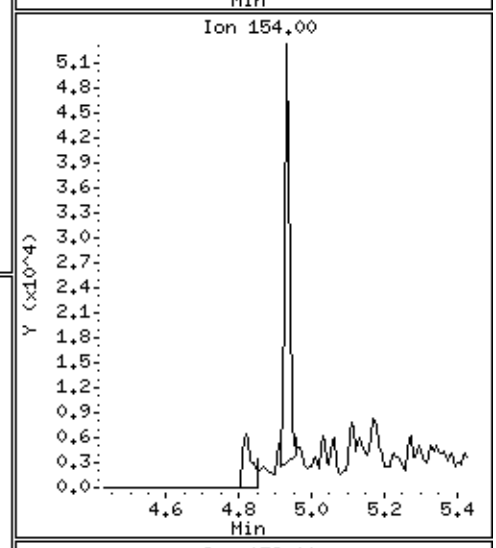


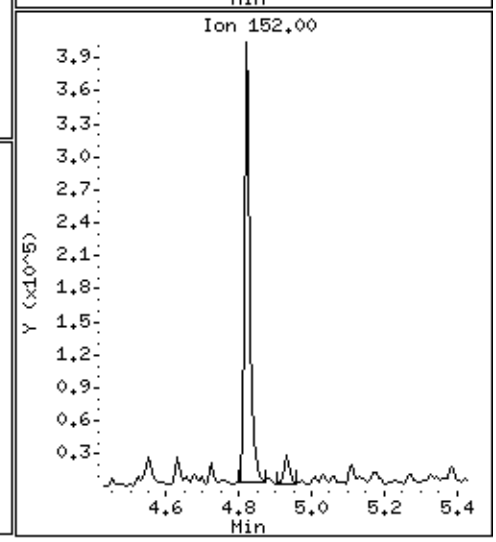












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d

Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

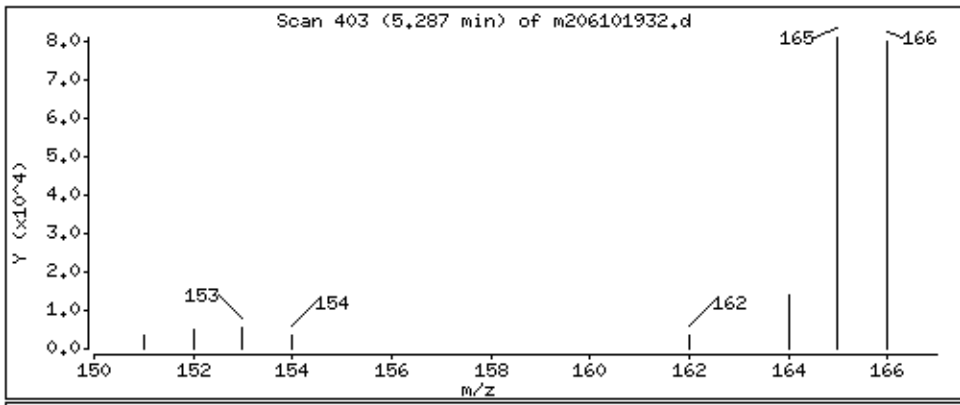
Operator: AJC

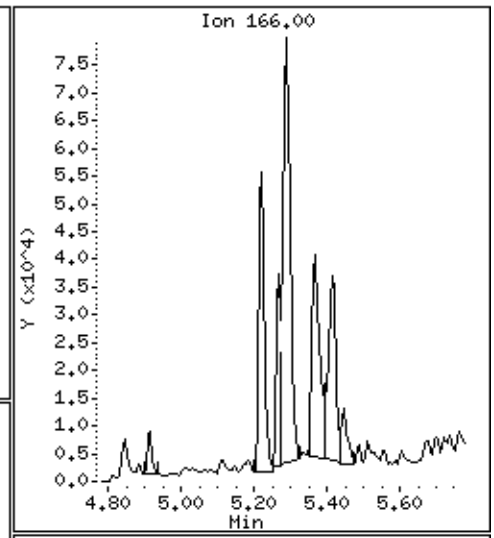
Column phase: RTX-5MS

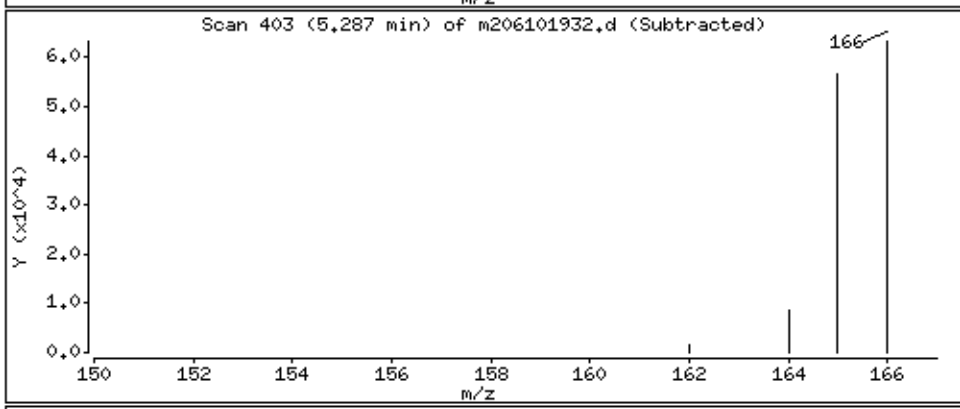
Column diameter: 0.25

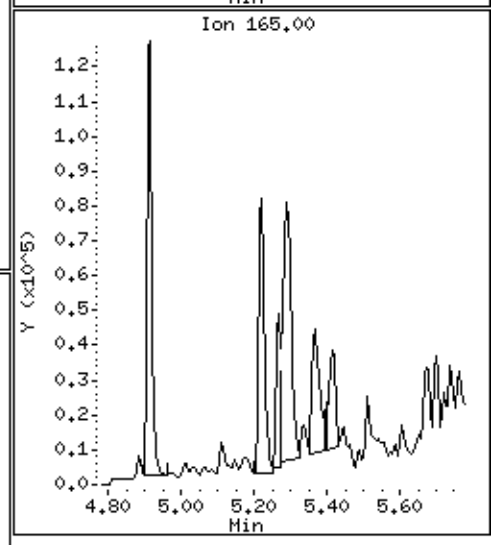
13 Fluorene

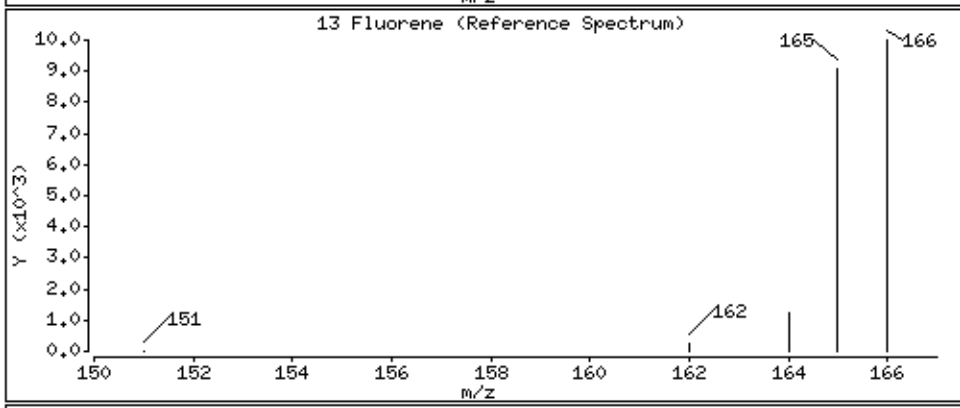
Concentration: 273 ug/Kg

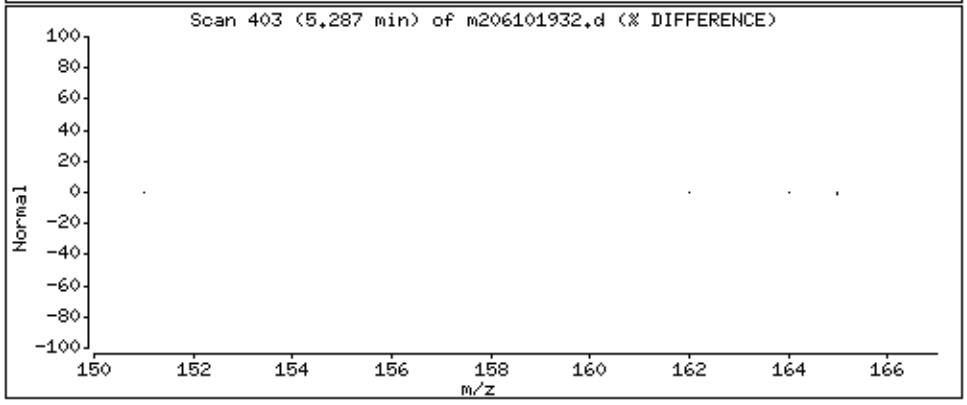












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

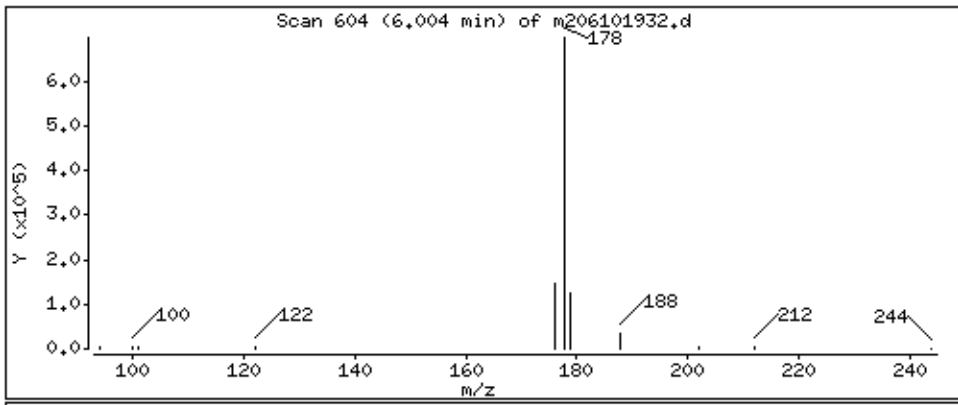
Operator: AJC

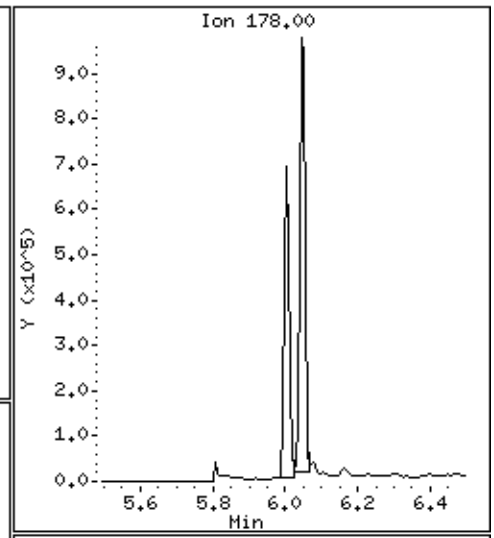
Column phase: RTX-5MS

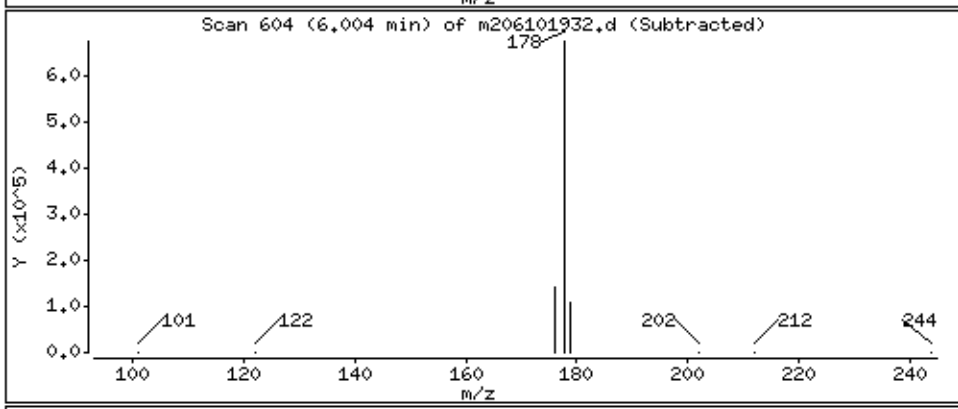
Column diameter: 0.25

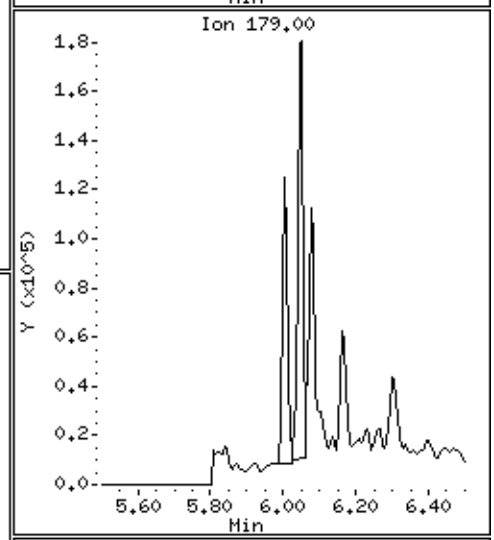
14 Phenanthrene

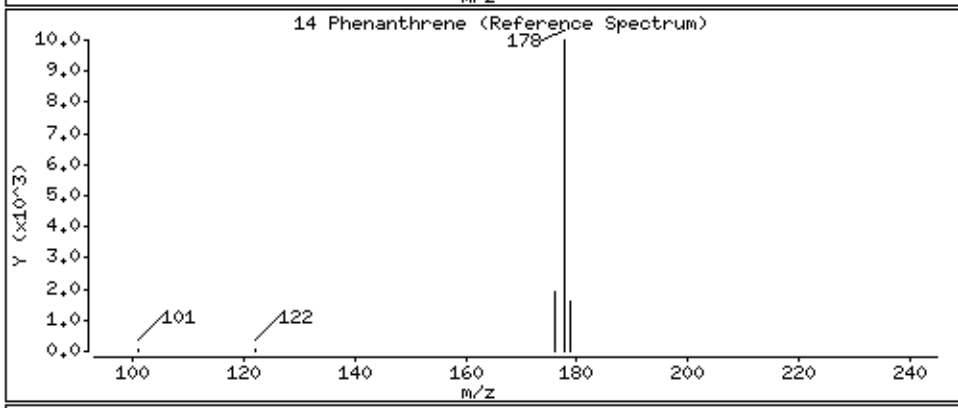
Concentration: 1190 ug/Kg

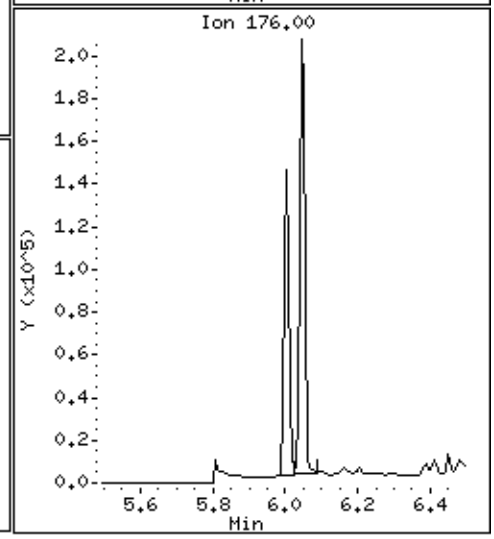


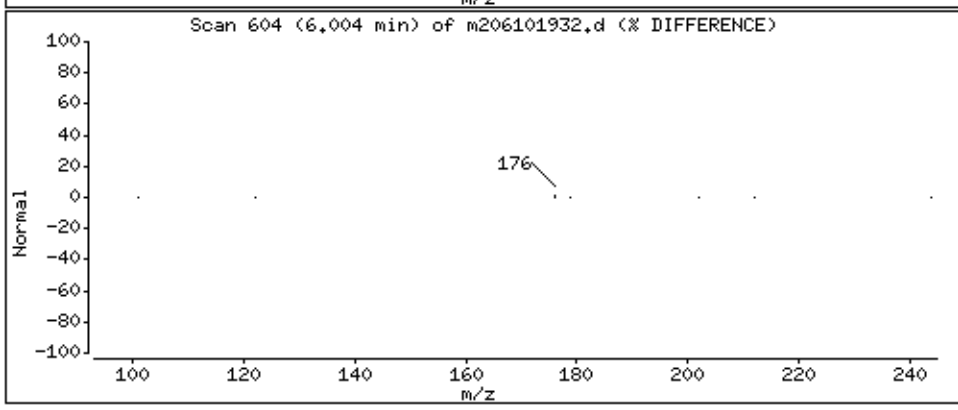












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

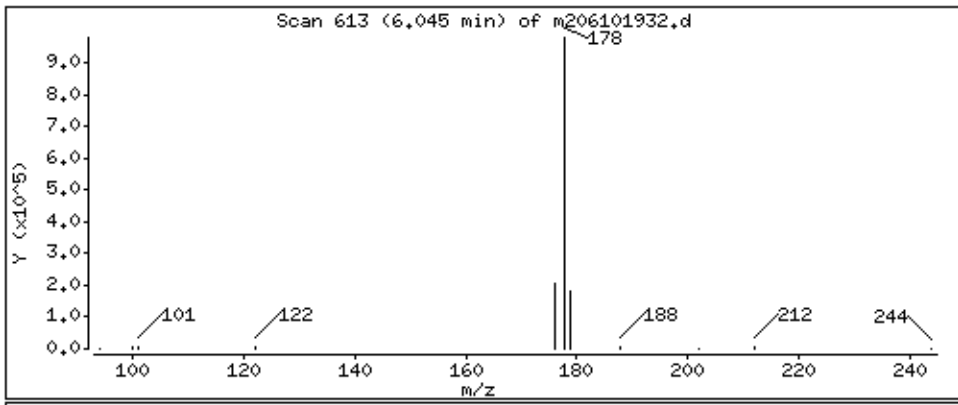
Operator: AJC

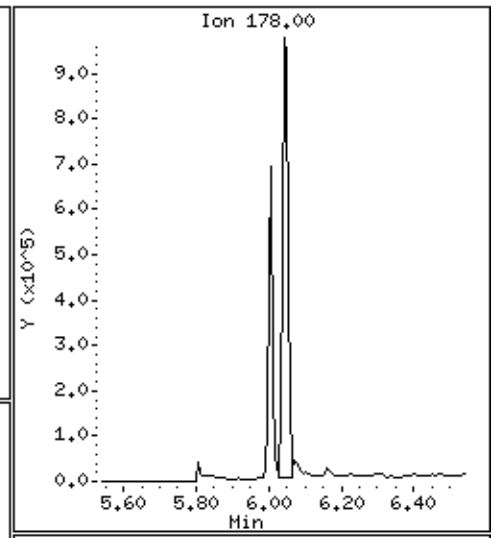
Column phase: RTX-5MS

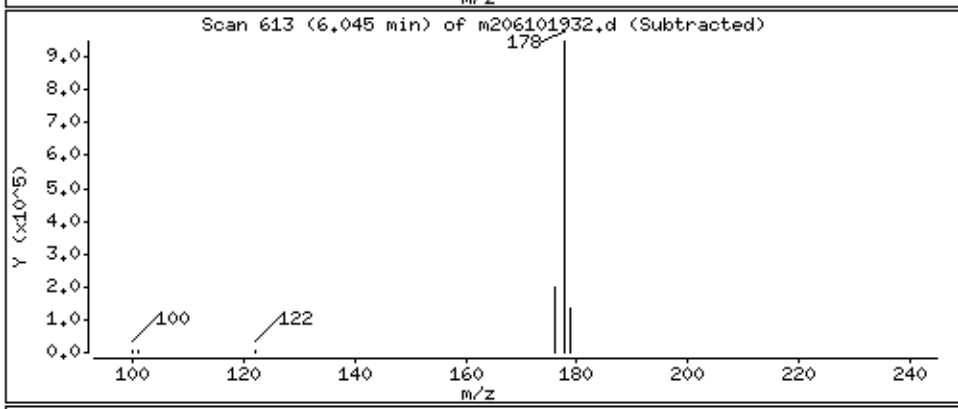
Column diameter: 0.25

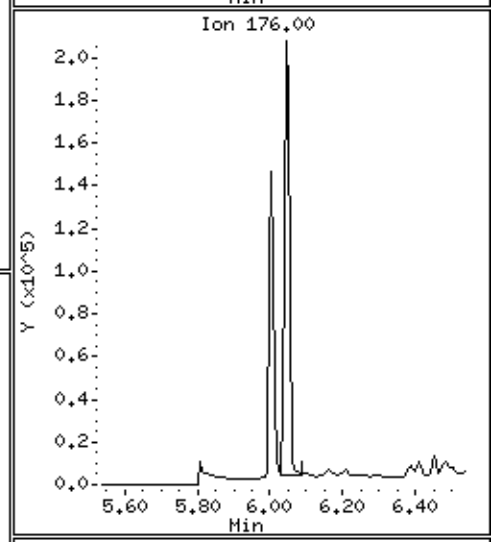
15 Anthracene

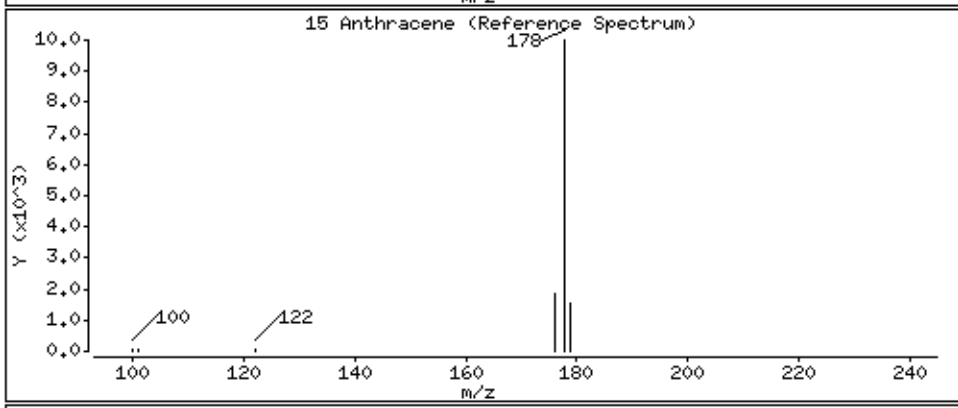
Concentration: 1980 ug/Kg

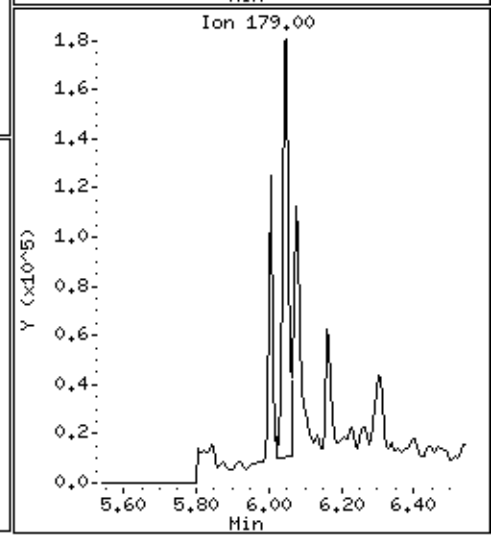


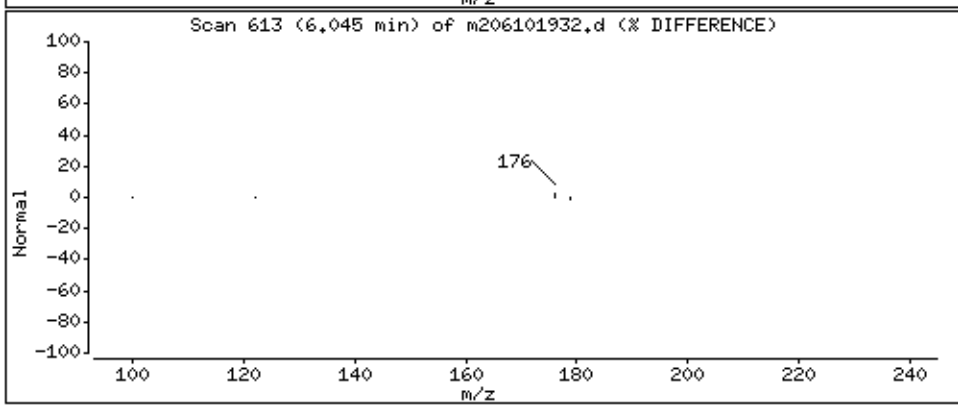












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

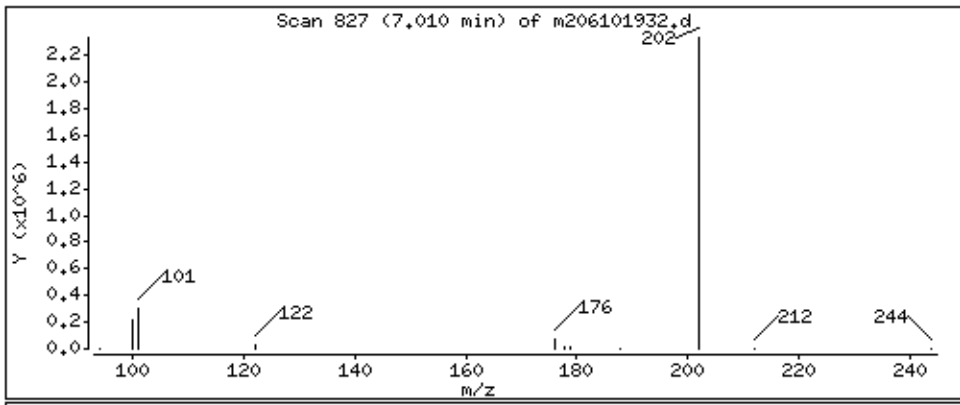
Operator: AJC

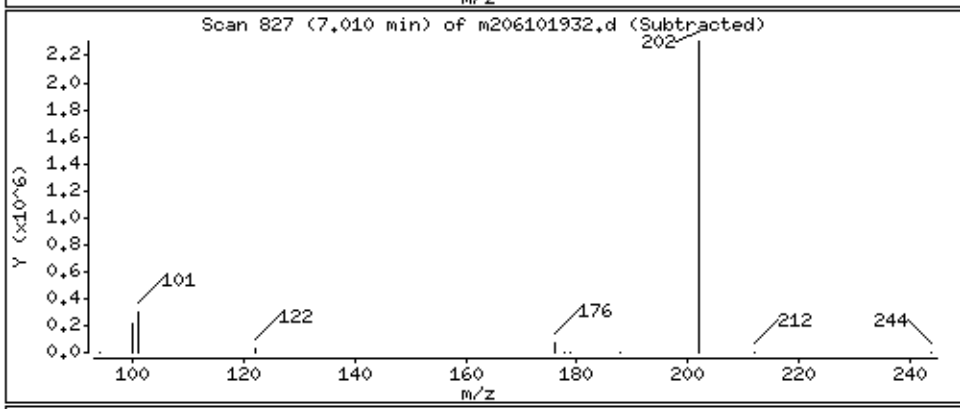
Column phase: RTX-5MS

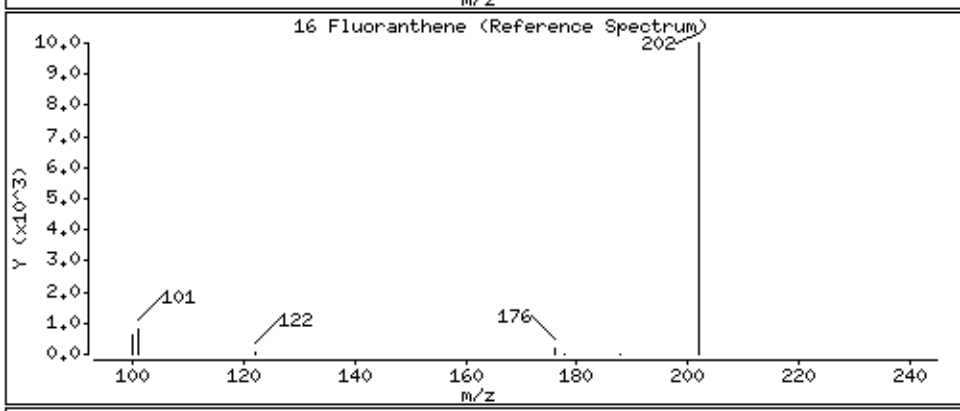
Column diameter: 0.25

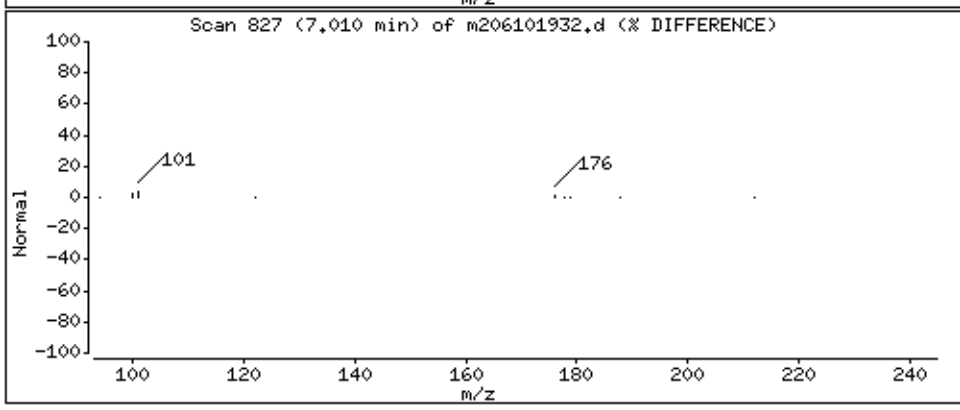
16 Fluoranthene

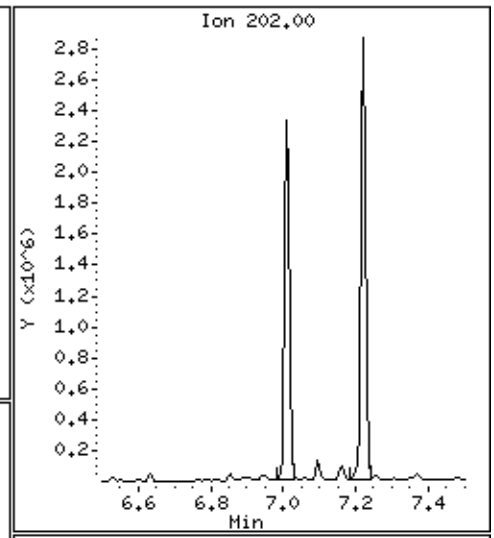
Concentration: 3940 ug/Kg

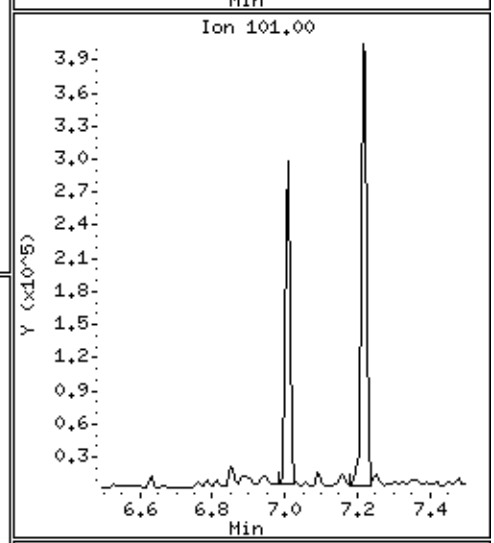


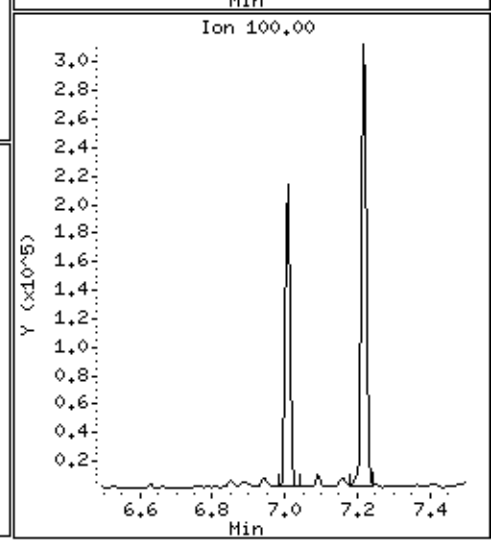












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

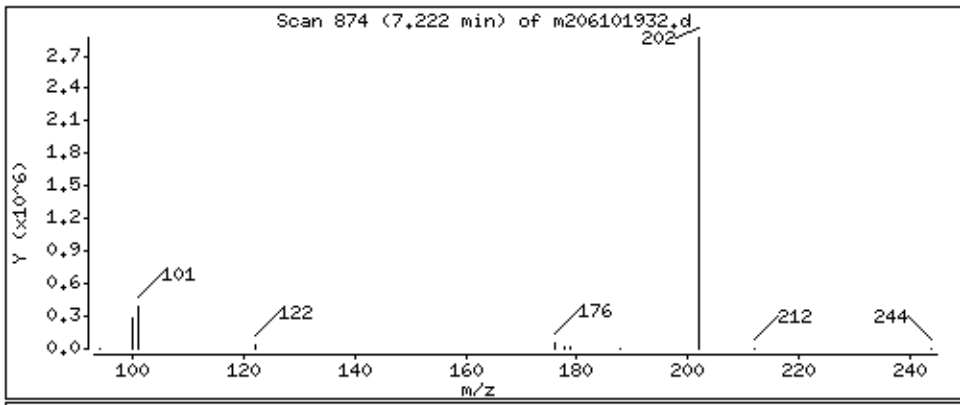
Operator: AJC

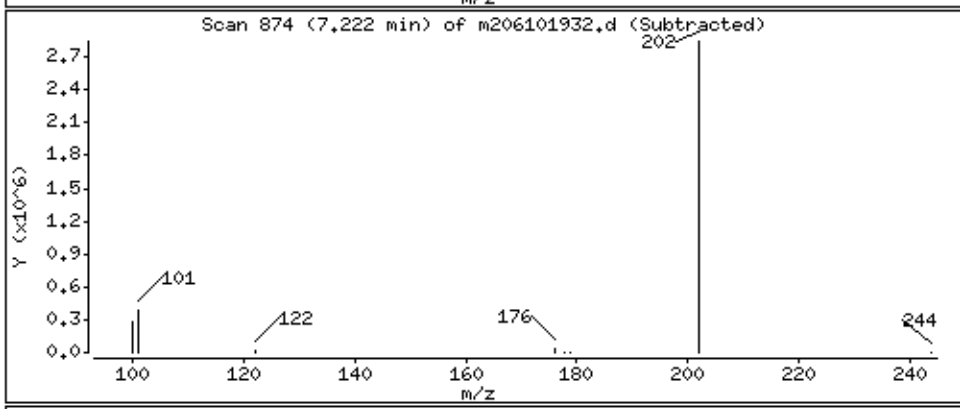
Column phase: RTX-5MS

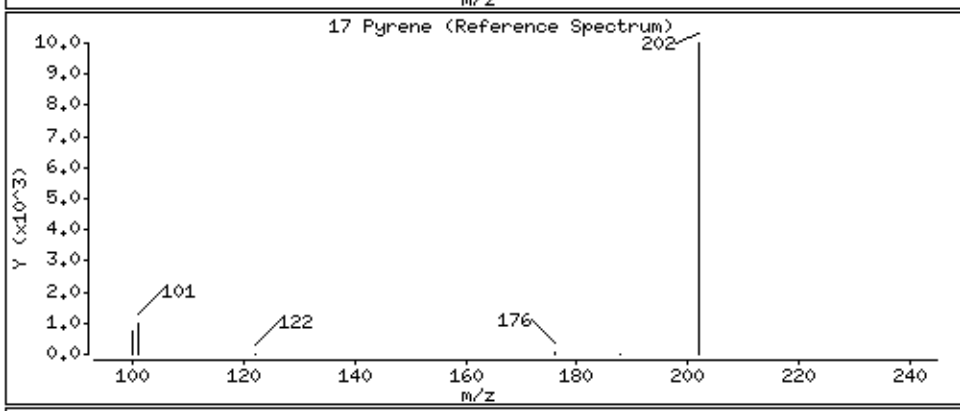
Column diameter: 0.25

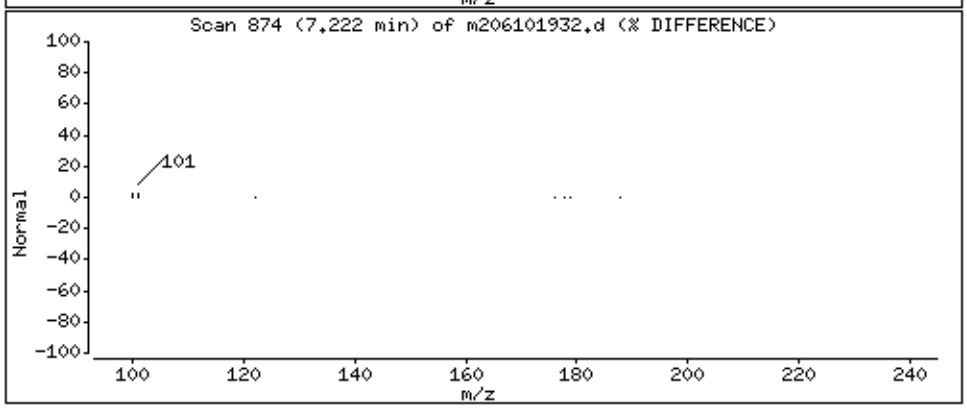
17 Pyrene

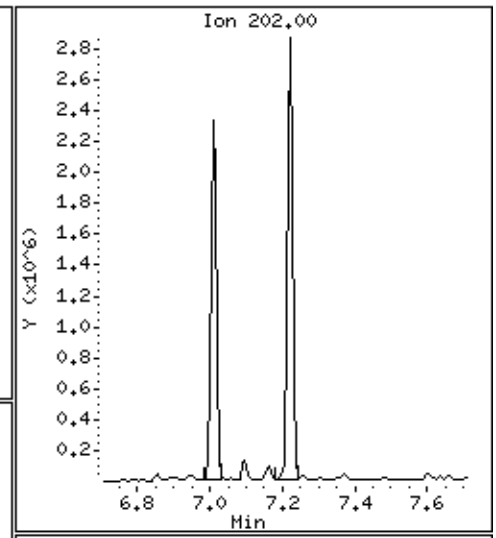
Concentration: 4700 ug/Kg

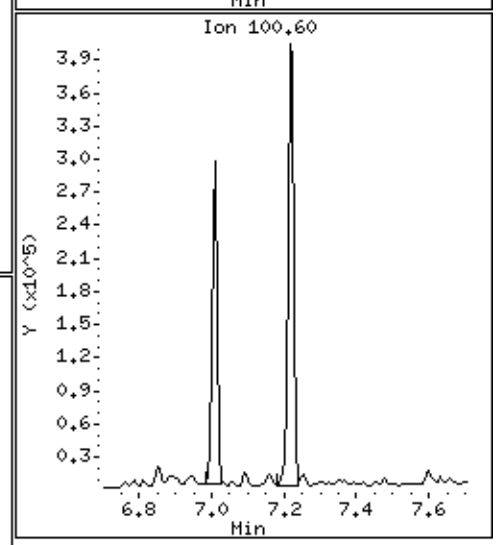












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

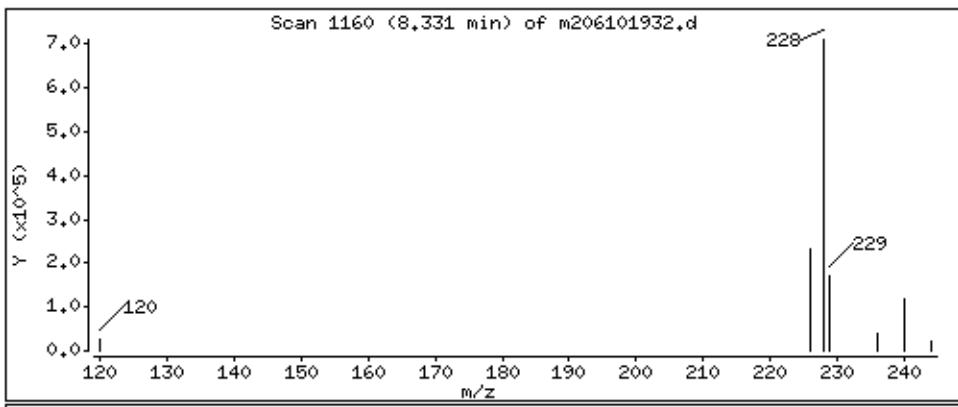
Operator: AJC

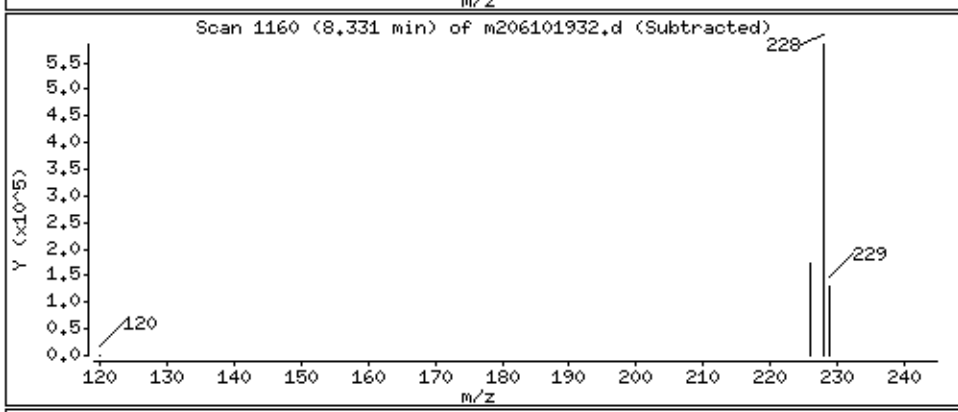
Column phase: RTX-5MS

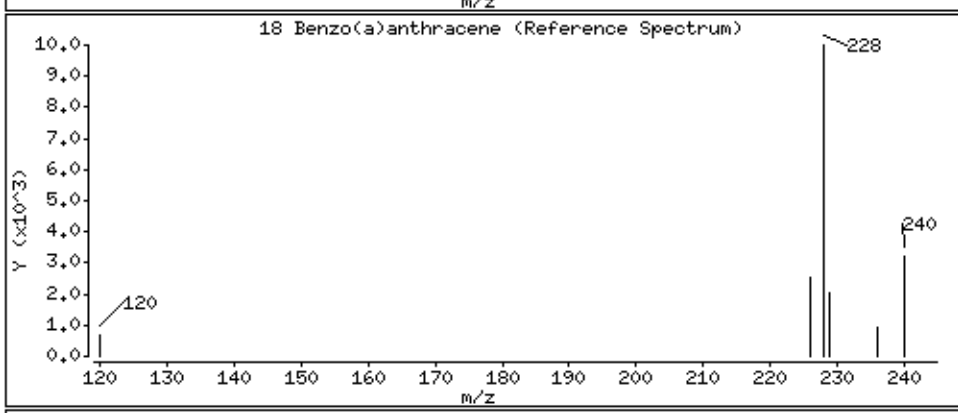
Column diameter: 0.25

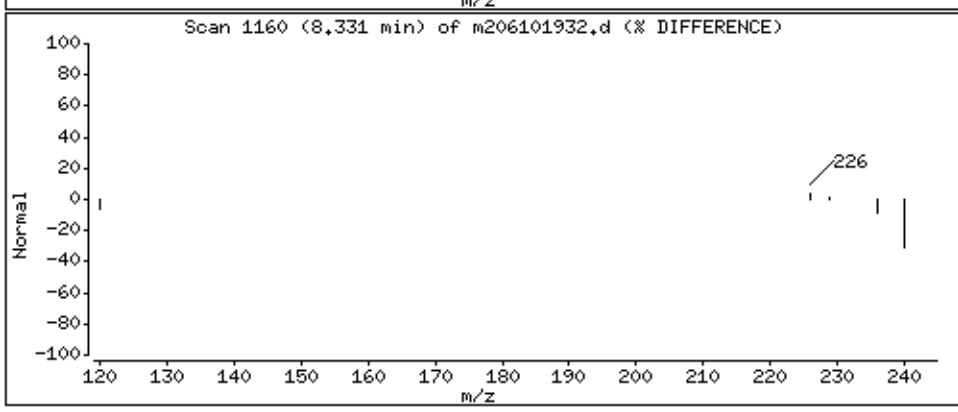
18 Benzo(a)anthracene

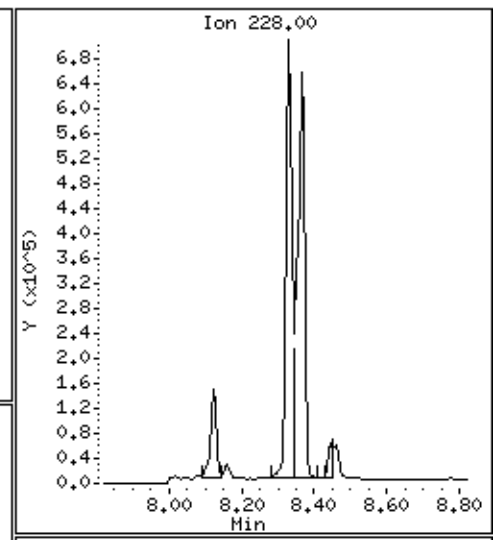
Concentration: 2930 ug/Kg

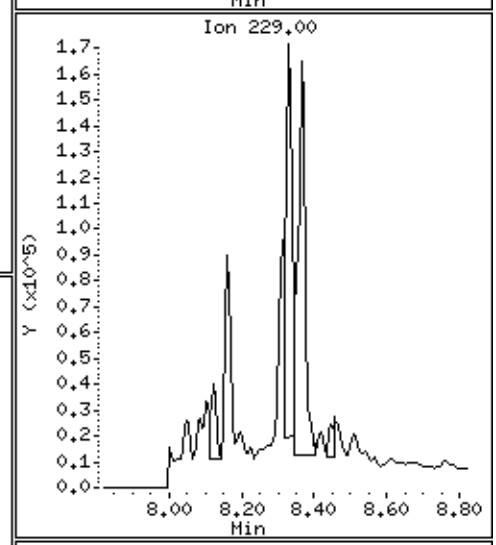


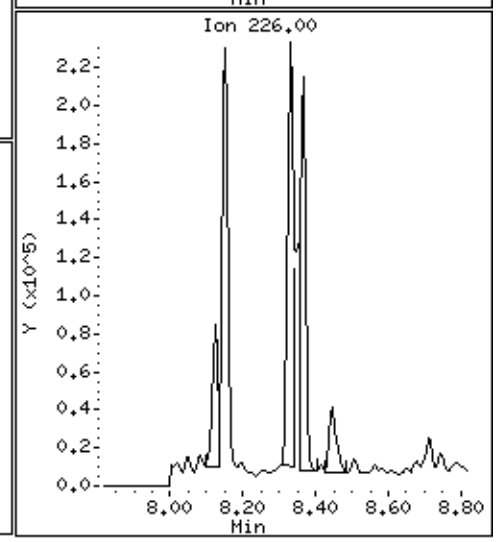












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

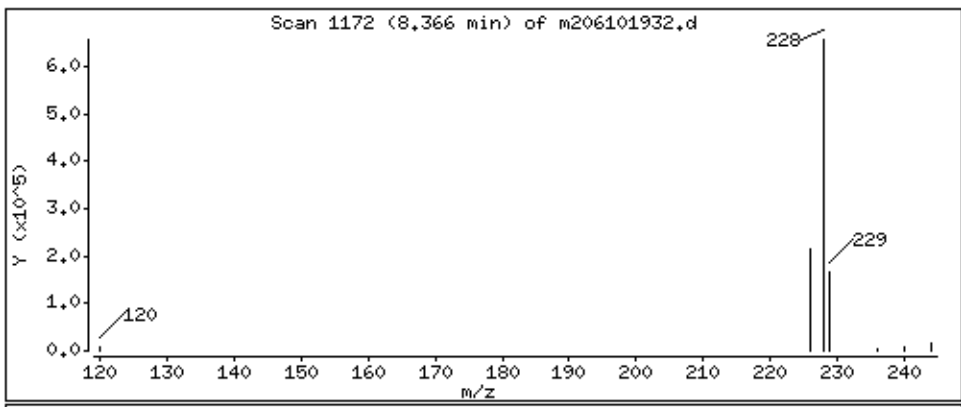
Operator: AJC

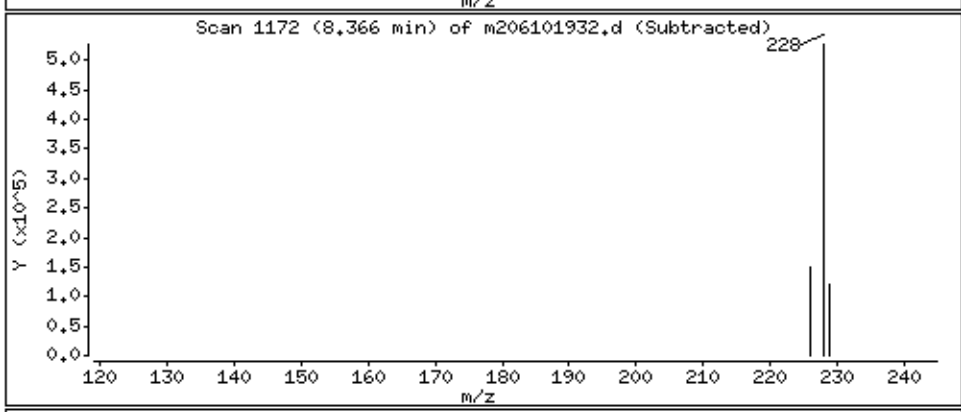
Column phase: RTX-5MS

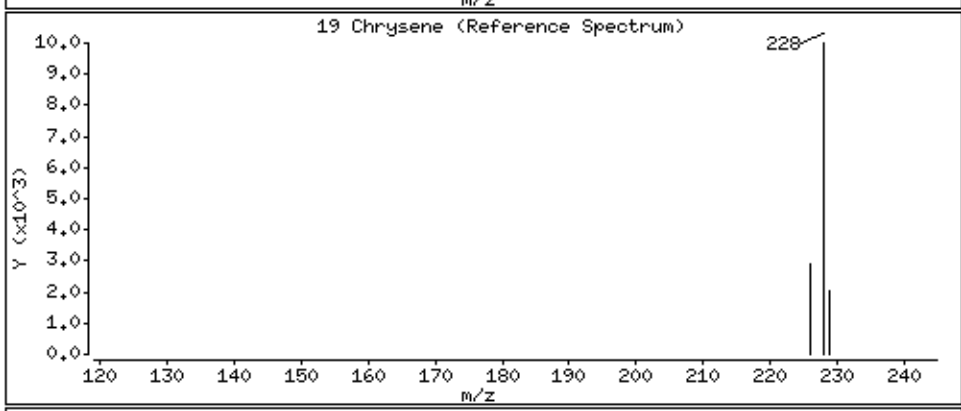
Column diameter: 0.25

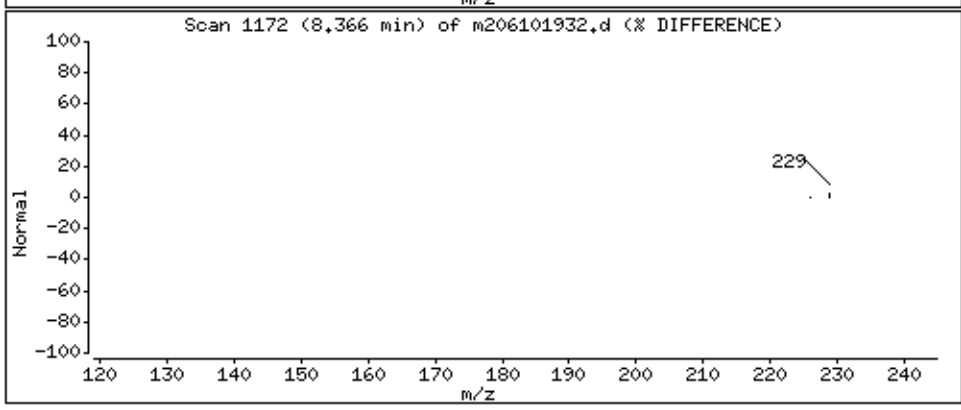
19 Chrysene

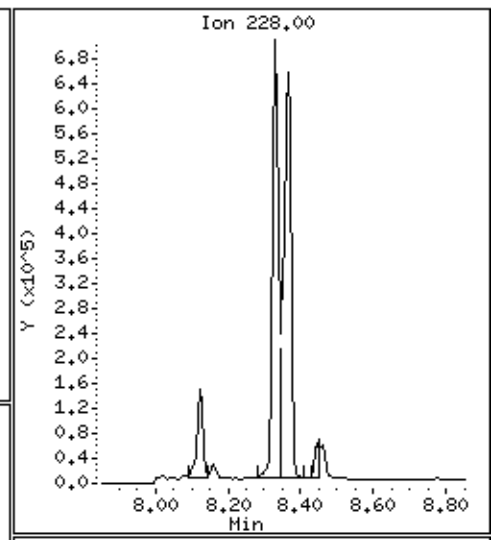
Concentration: 3460 ug/Kg

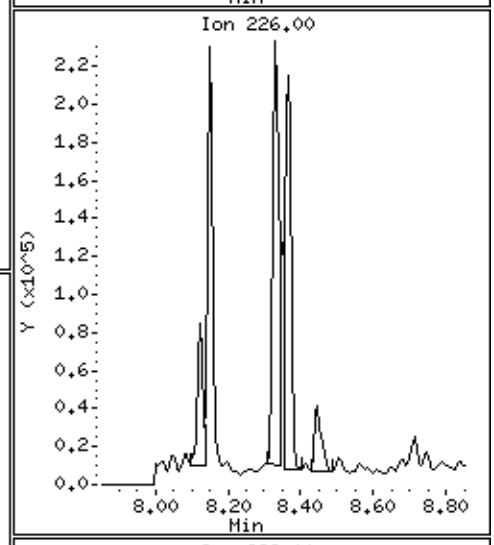


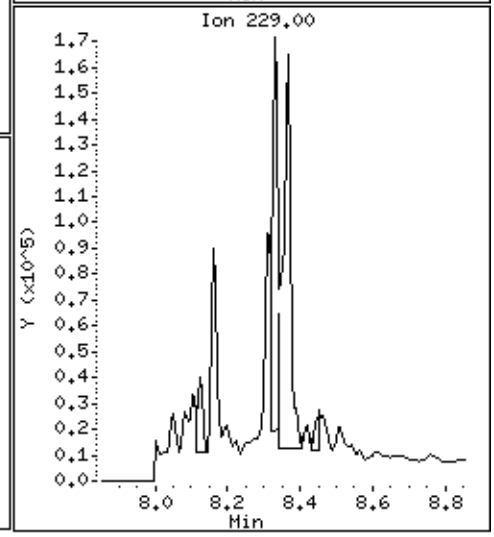












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101932.d

Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

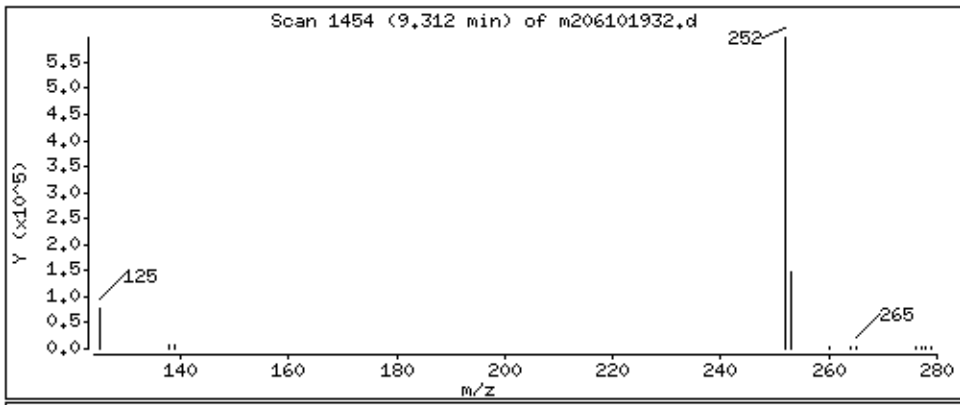
Operator: AJC

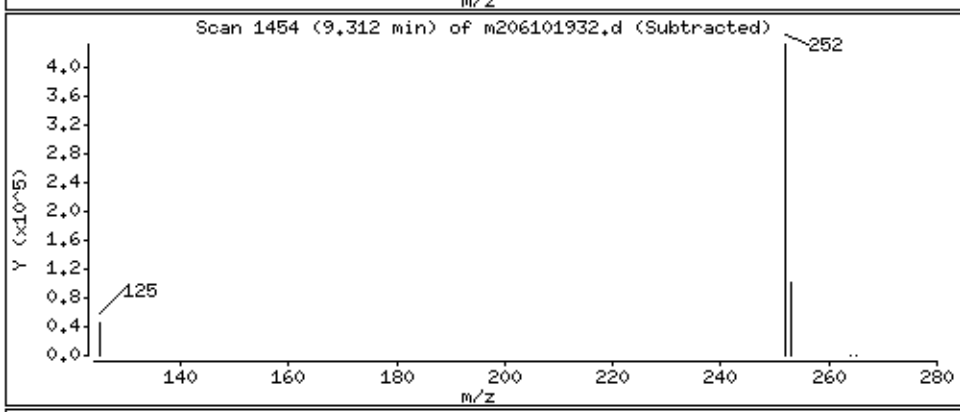
Column phase: RTX-5MS

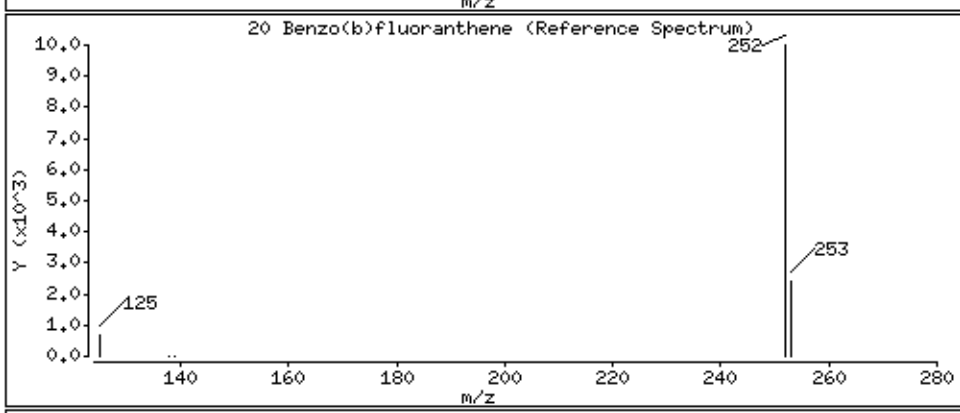
Column diameter: 0.25

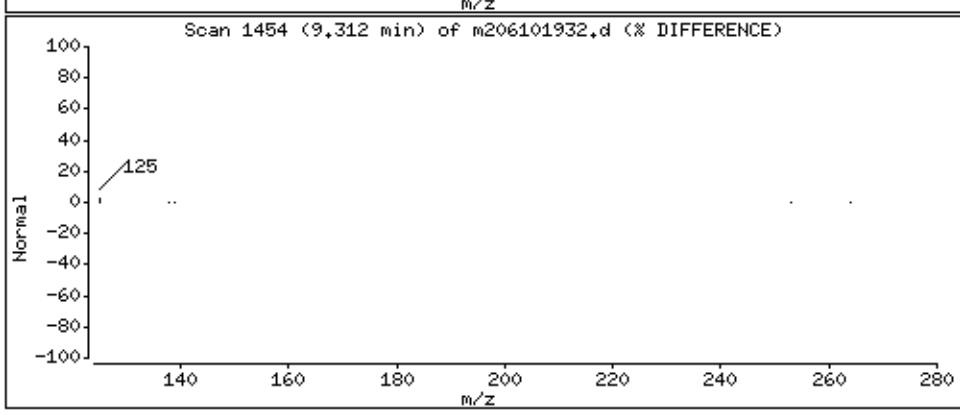
20 Benzo(b)fluoranthene

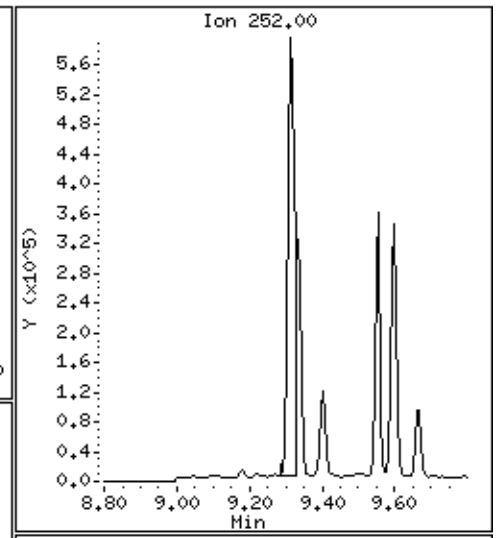
Concentration: 4430 ug/Kg

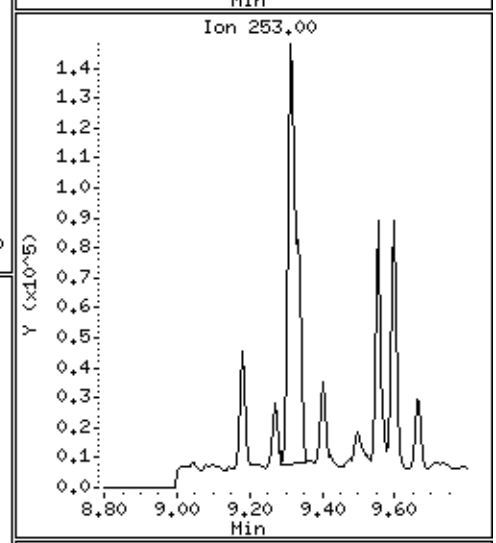


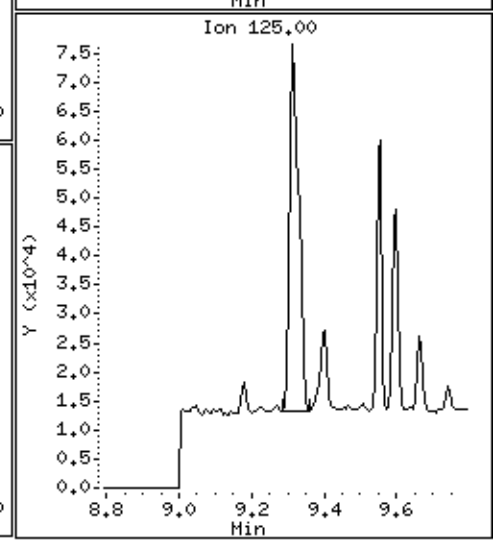












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

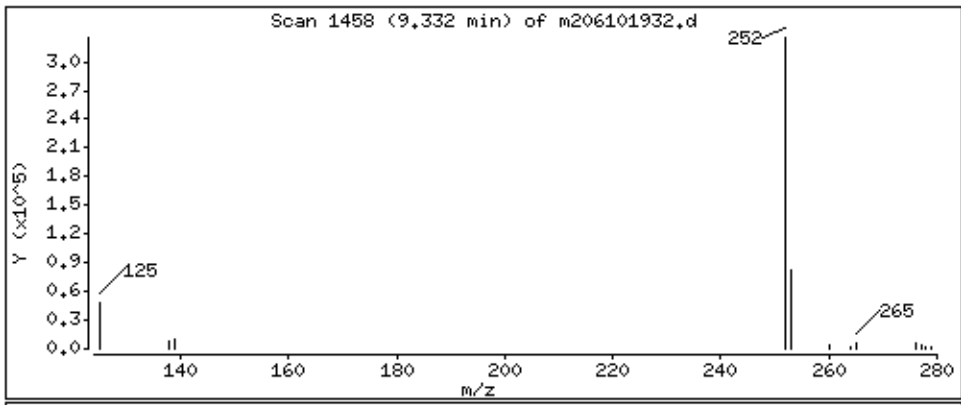
Operator: AJC

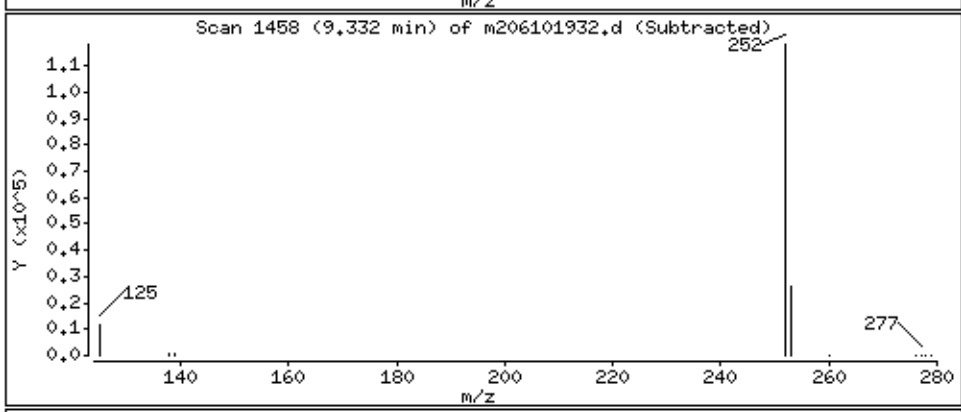
Column phase: RTX-5MS

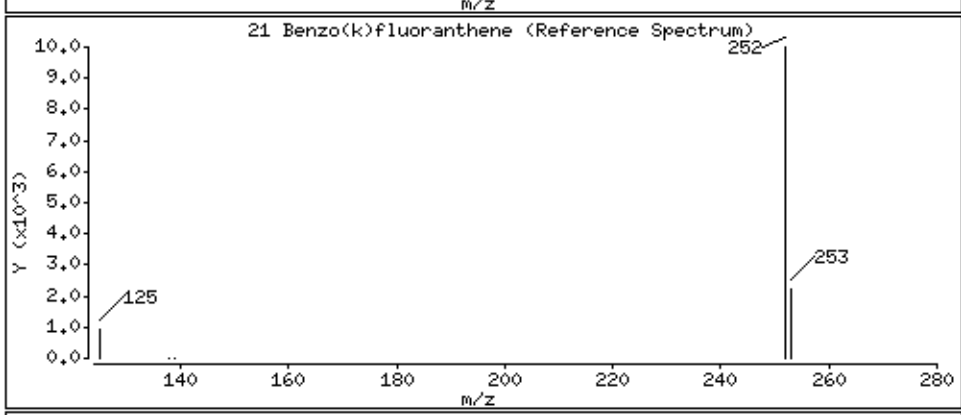
Column diameter: 0.25

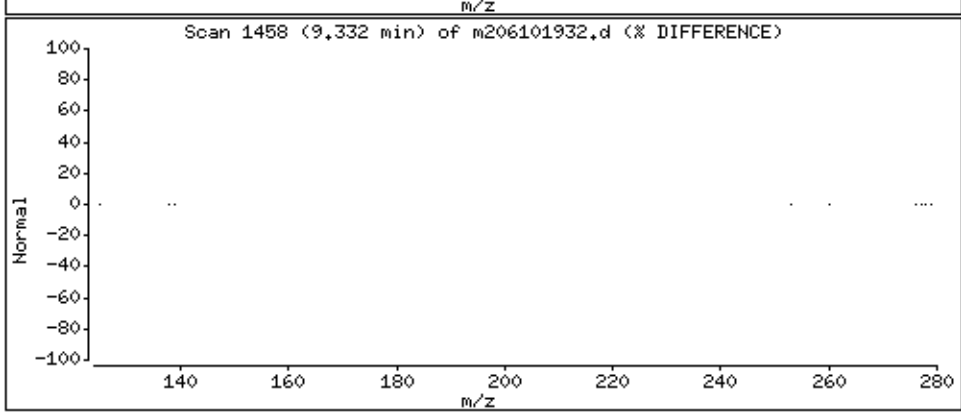
21 Benzo(k)fluoranthene

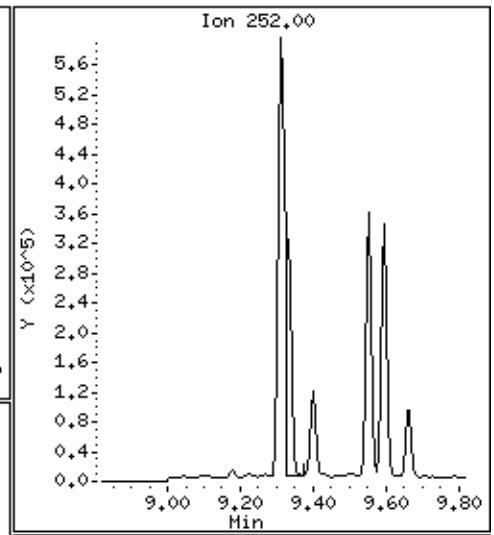
Concentration: 1760 ug/Kg

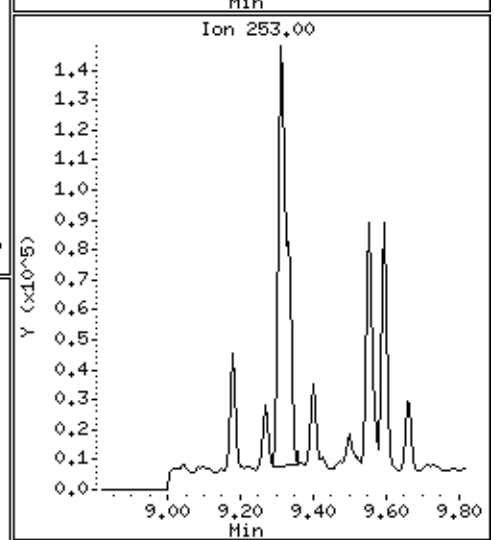


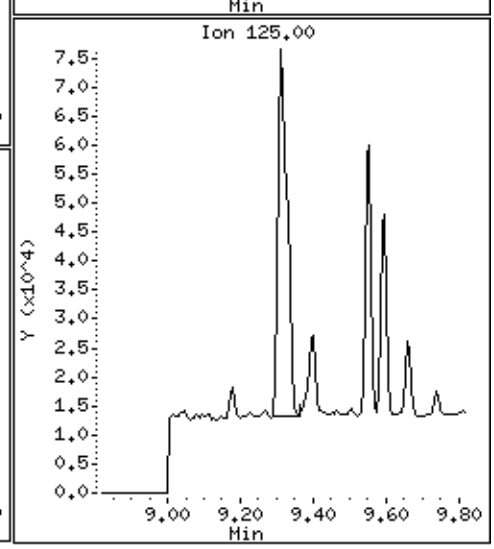












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

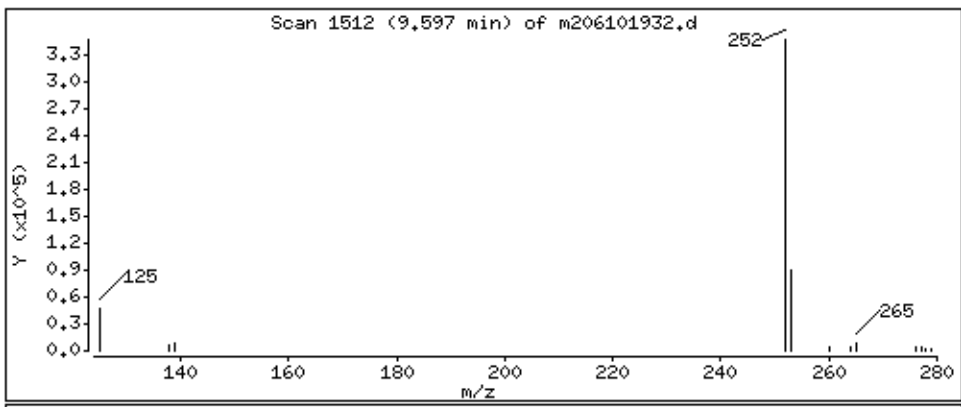
Operator: AJC

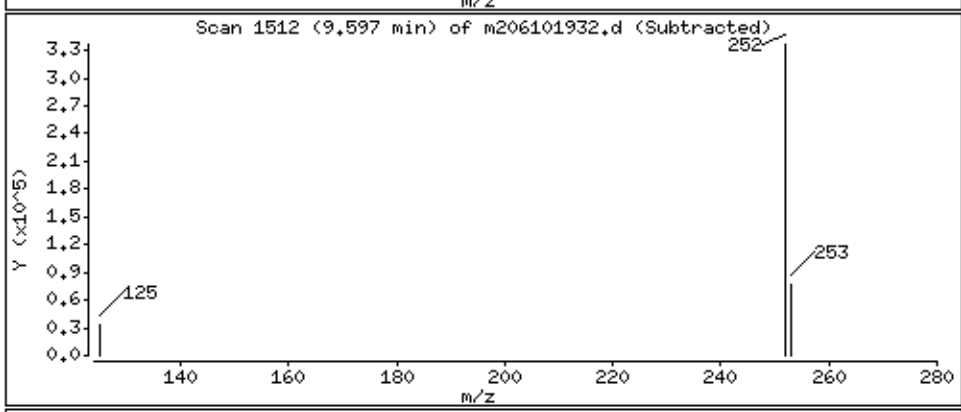
Column phase: RTX-5MS

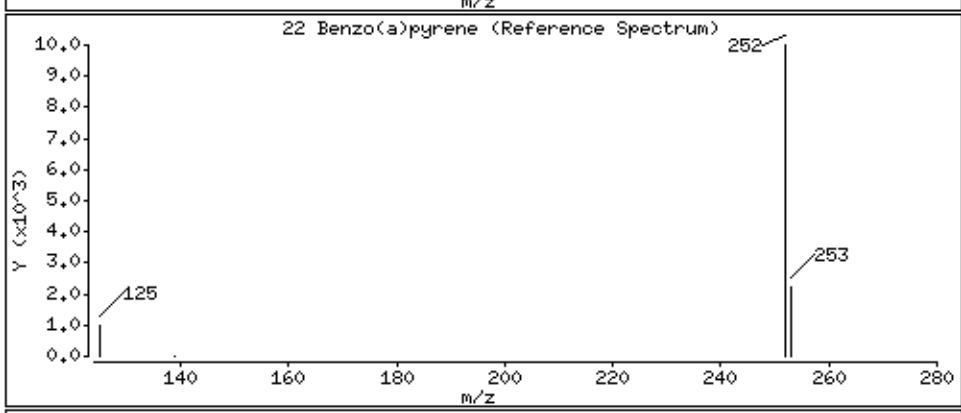
Column diameter: 0.25

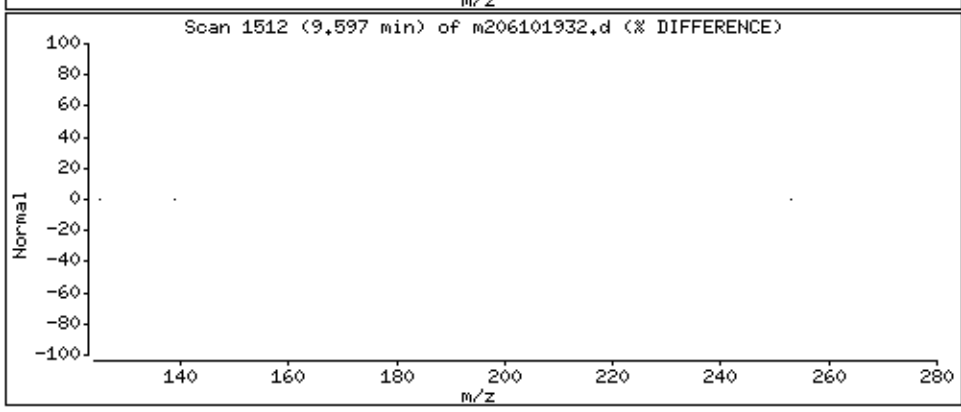
22 Benzo(a)pyrene

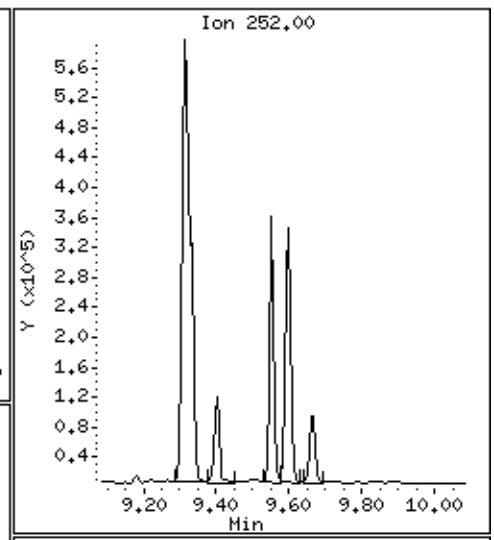
Concentration: 2130 ug/Kg

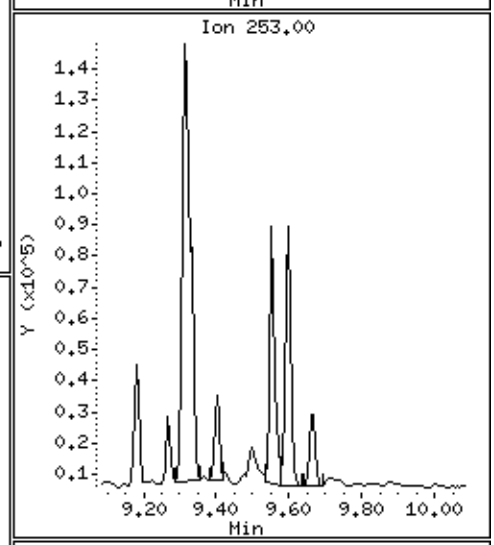


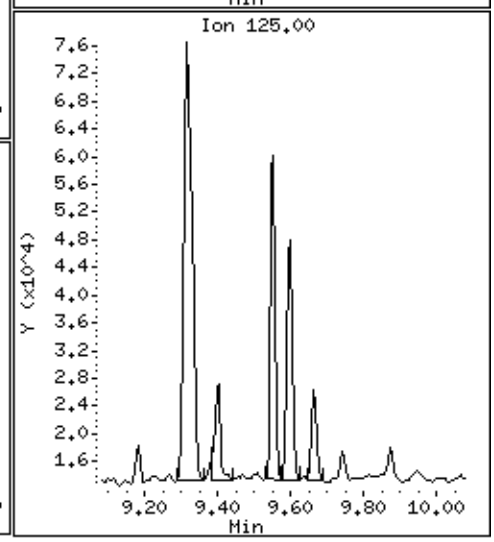












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

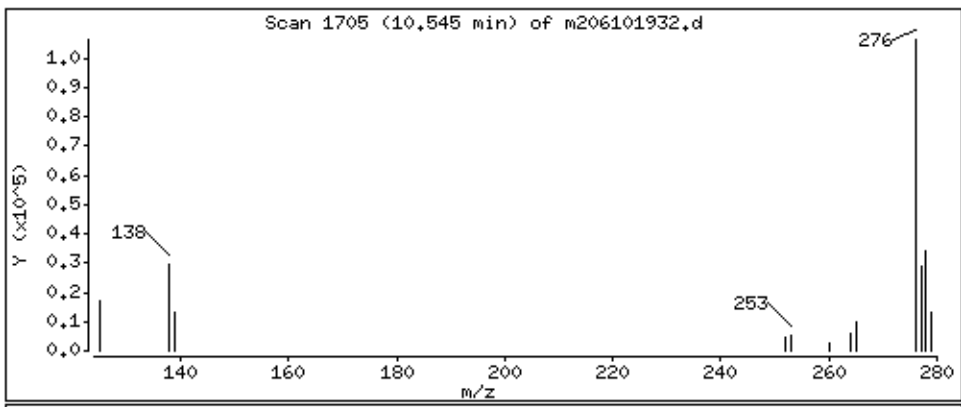
Operator: AJC

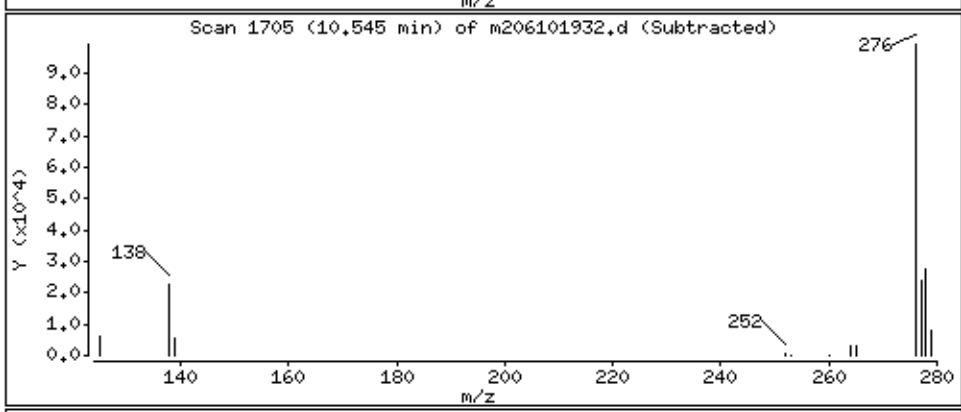
Column phase: RTX-5MS

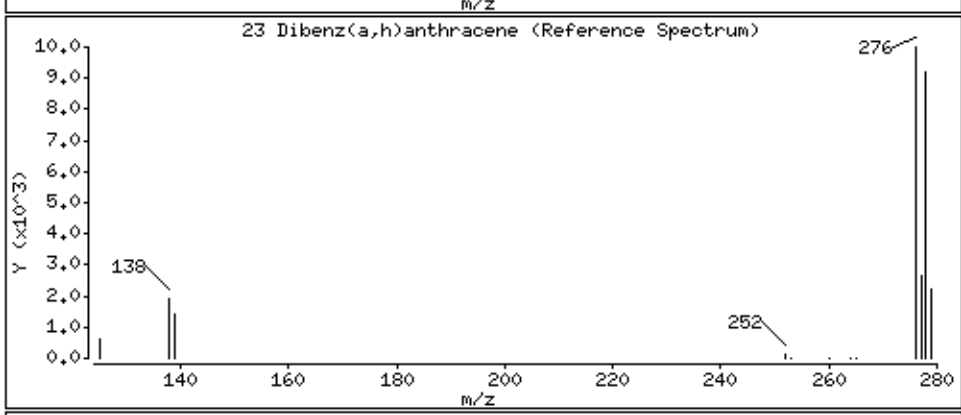
Column diameter: 0.25

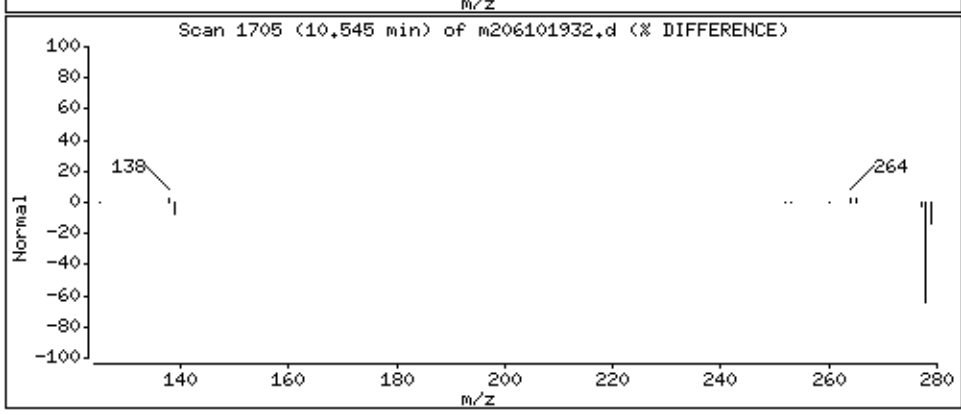
23 Dibenz(a,h)anthracene

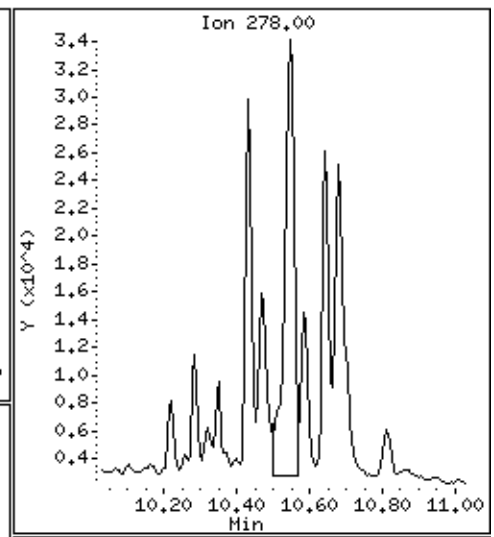
Concentration: 363 ug/Kg

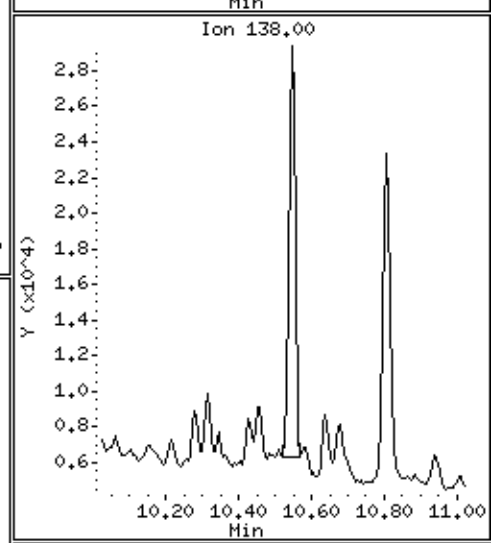


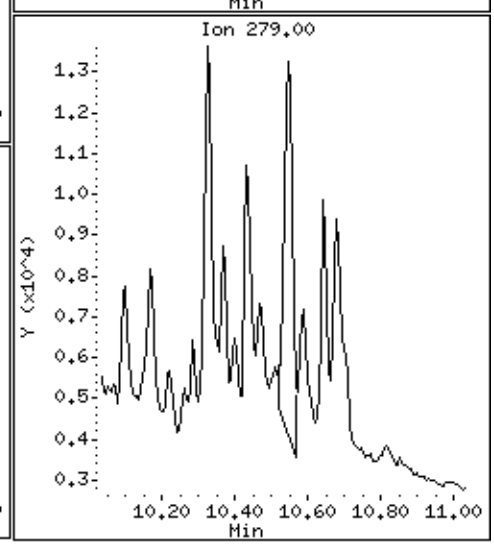












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

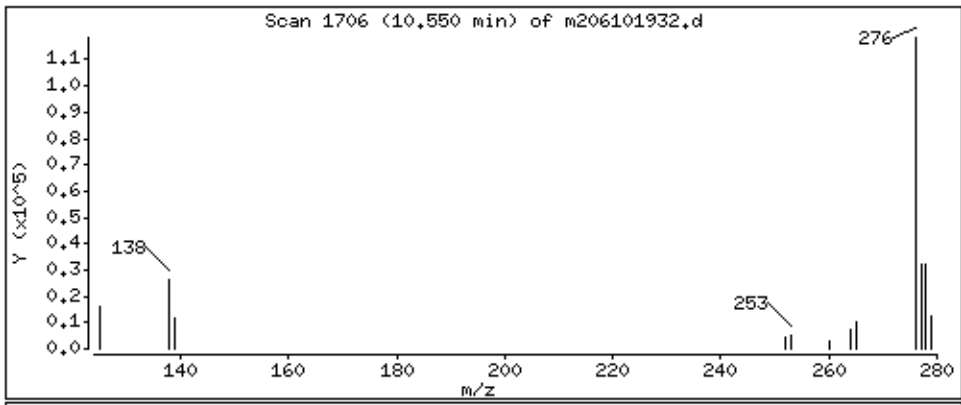
Operator: AJC

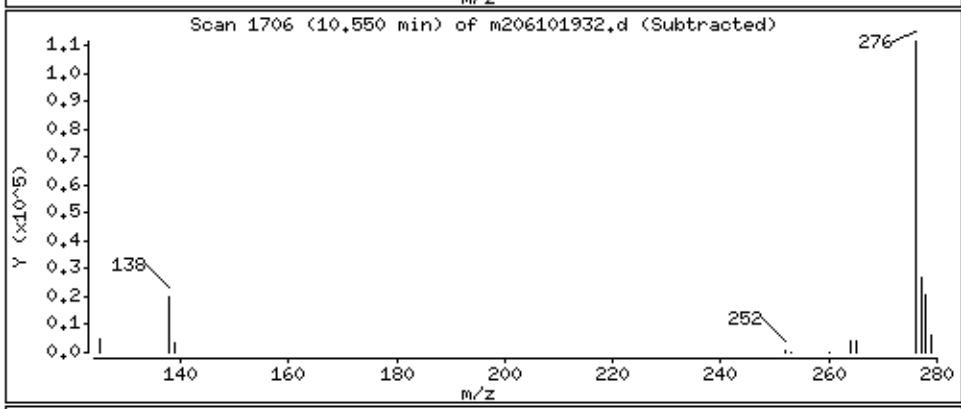
Column phase: RTX-5MS

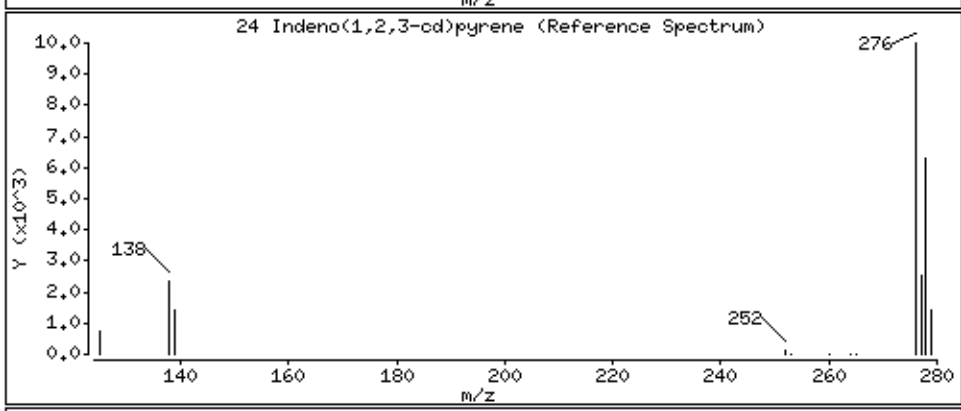
Column diameter: 0.25

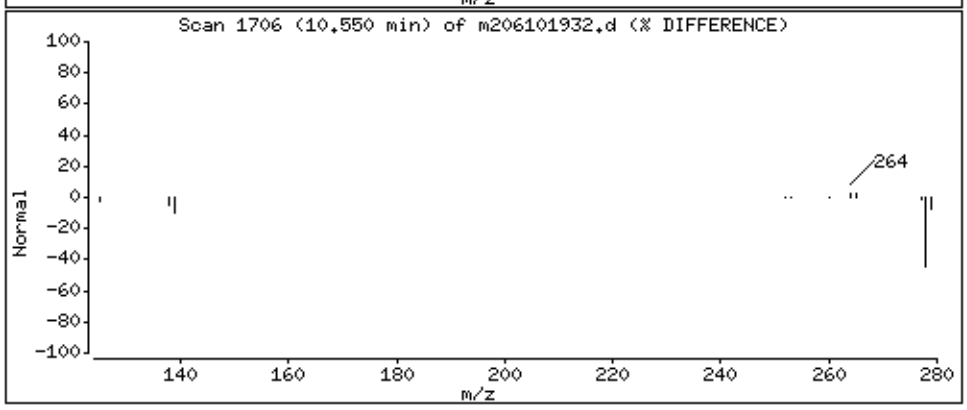
24 Indeno(1,2,3-cd)pyrene

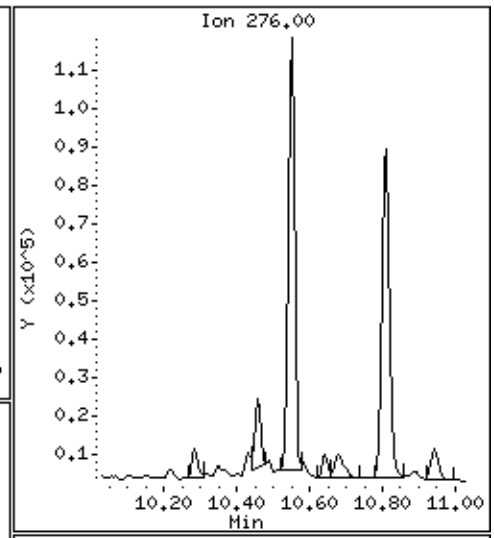
Concentration: 727 ug/Kg

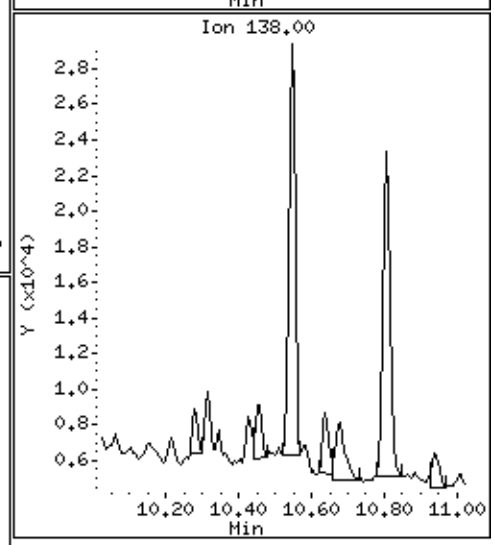












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Date : 11-JUN-2019 00:18

Client ID: A0C35L

Instrument: 30mss2.i

Sample Info: 30298231001x10,

Volume Injected (uL): 1.0

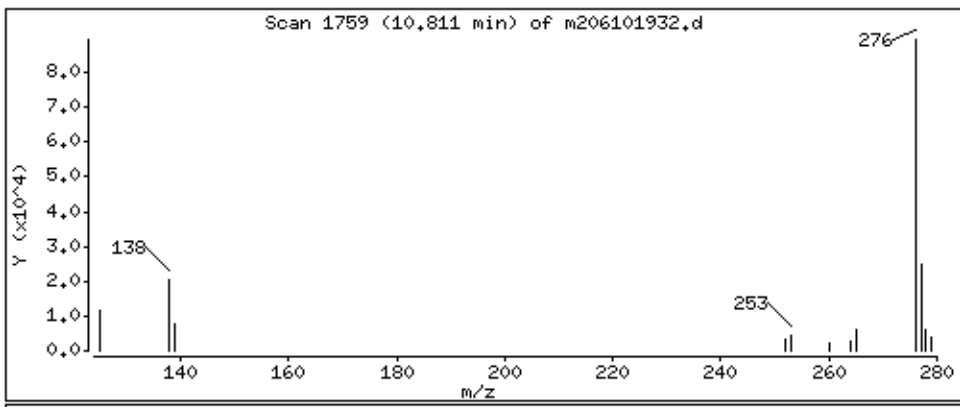
Operator: AJC

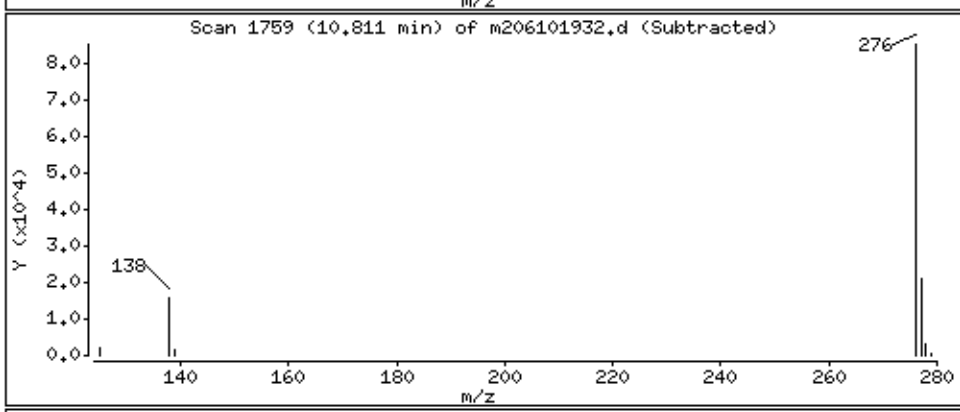
Column phase: RTX-5MS

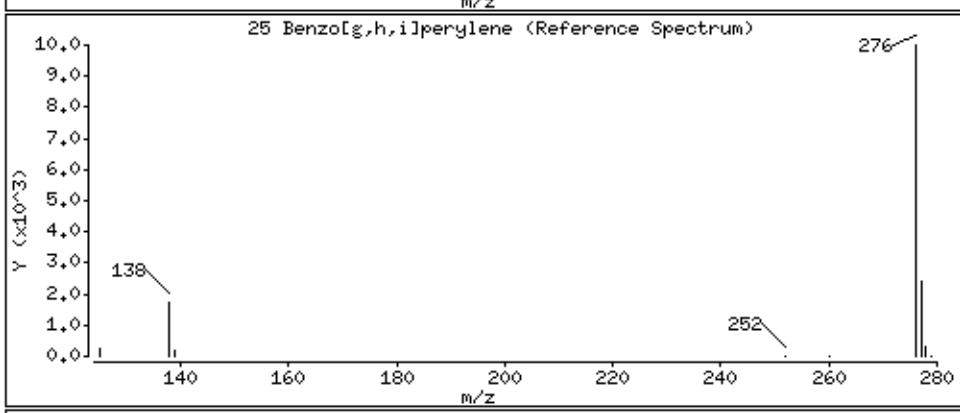
Column diameter: 0.25

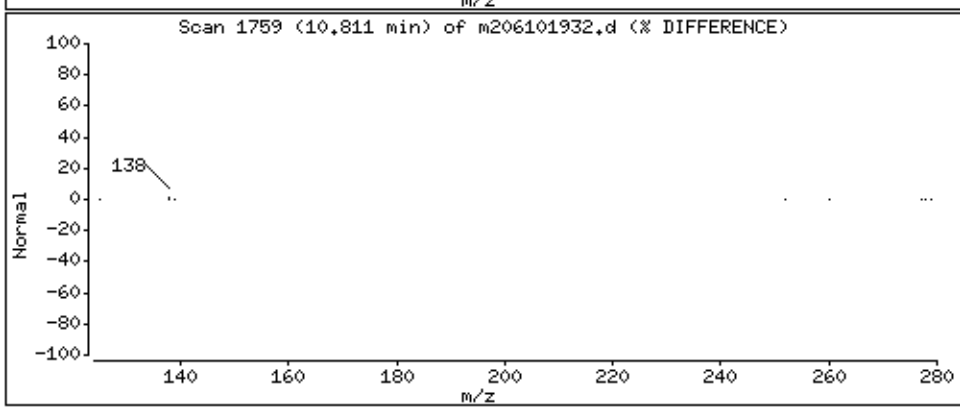
25 Benzo[g,h,i]perylene

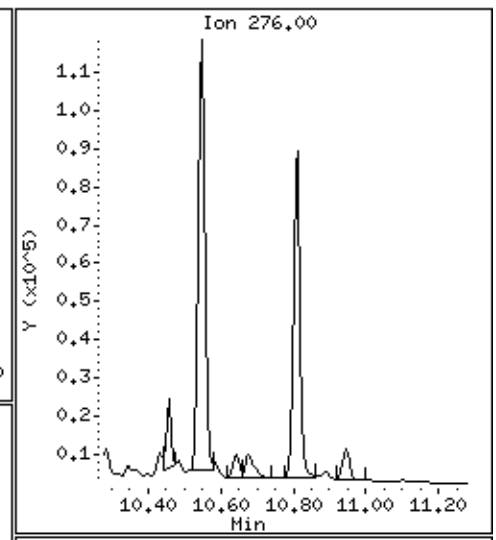
Concentration: 707 ug/Kg

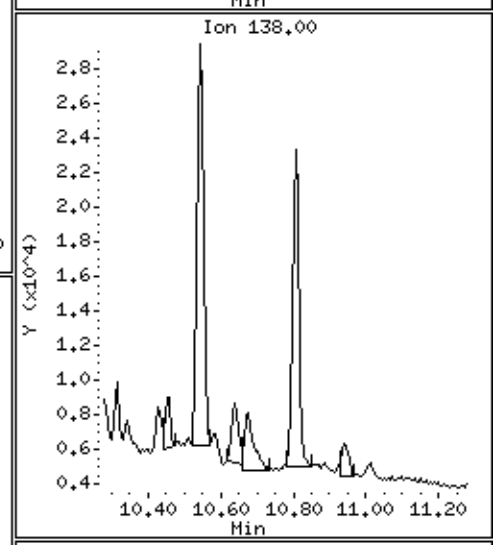


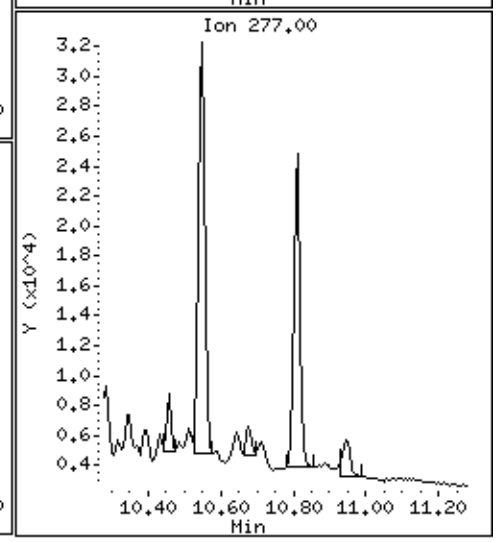












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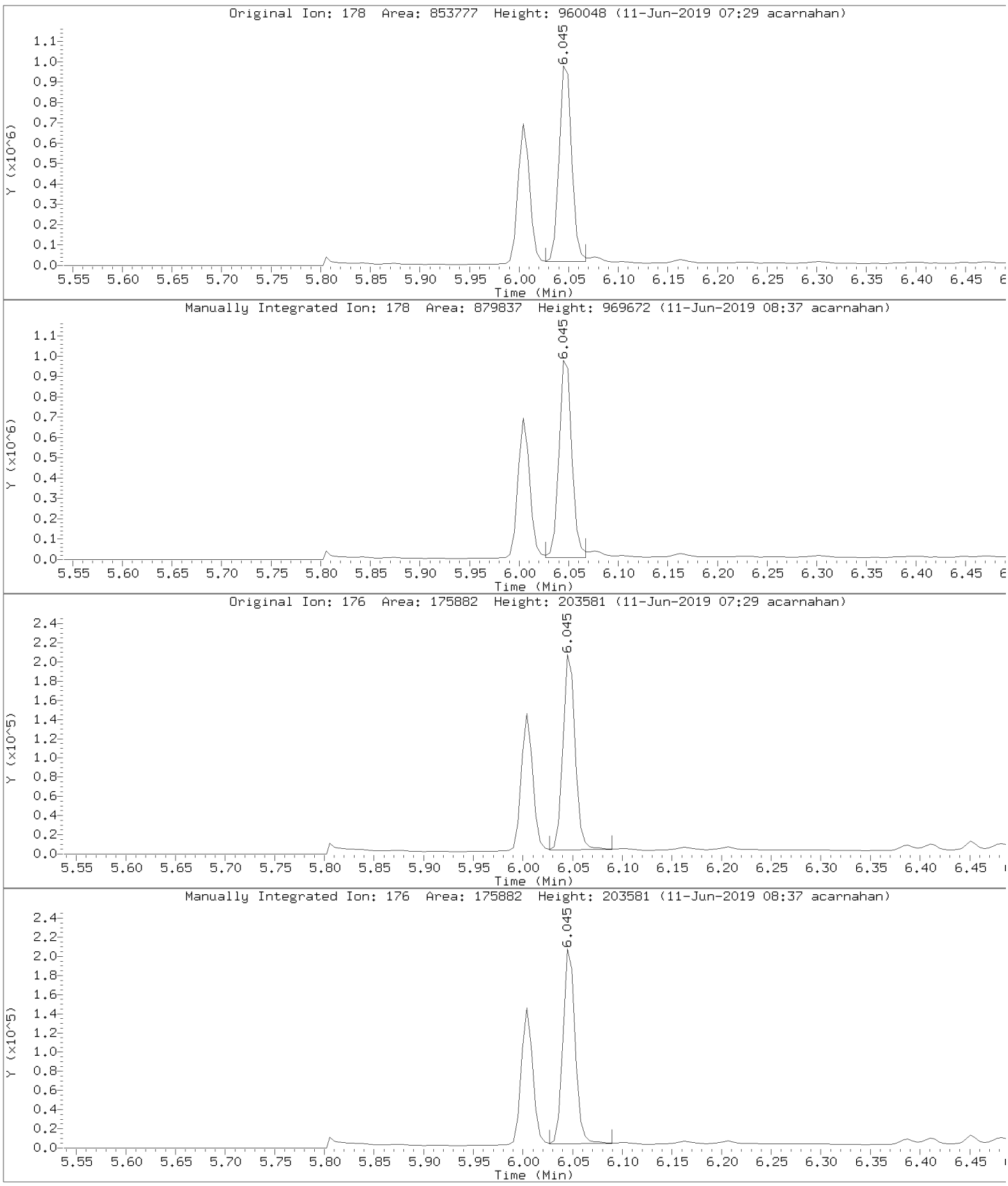
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



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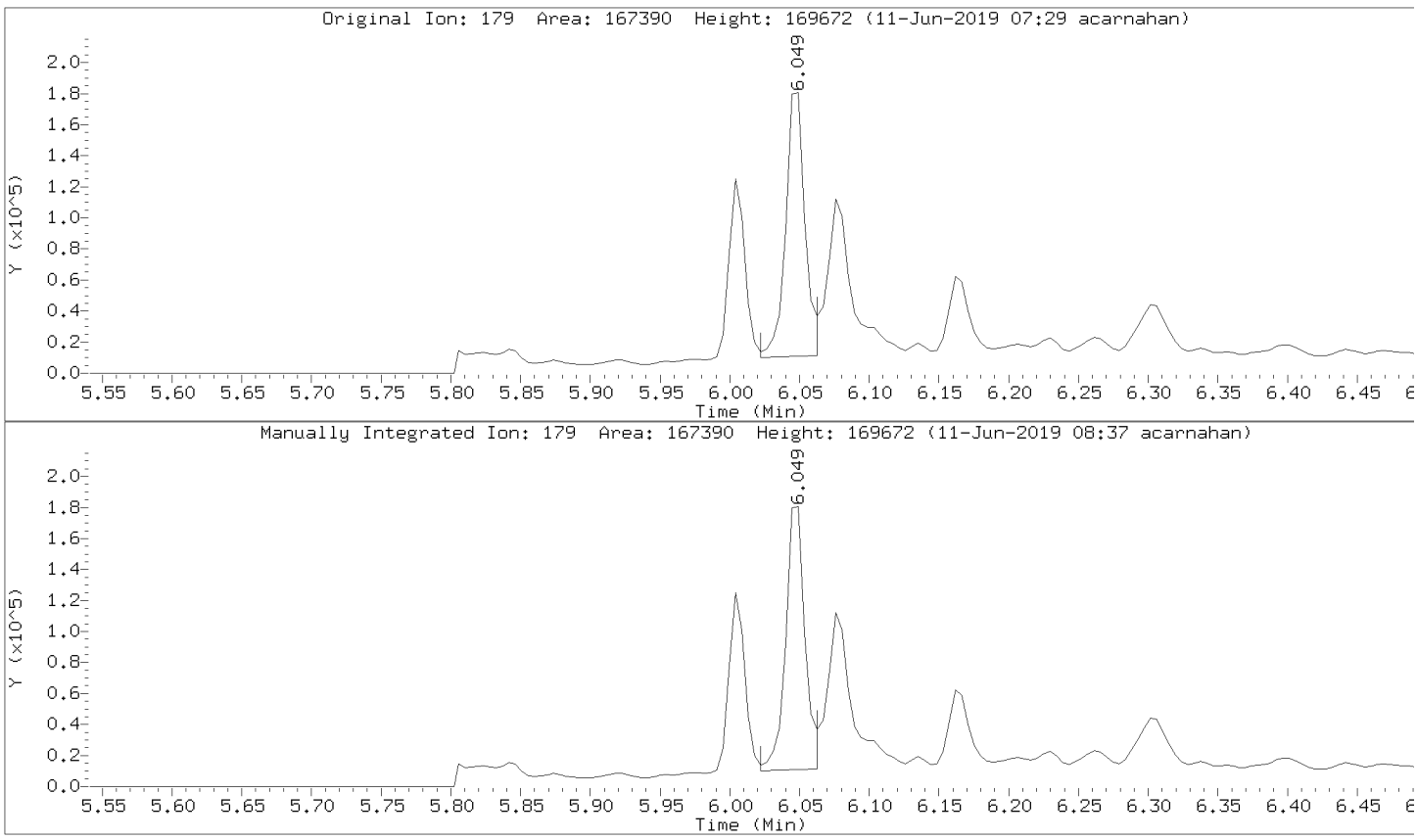
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001



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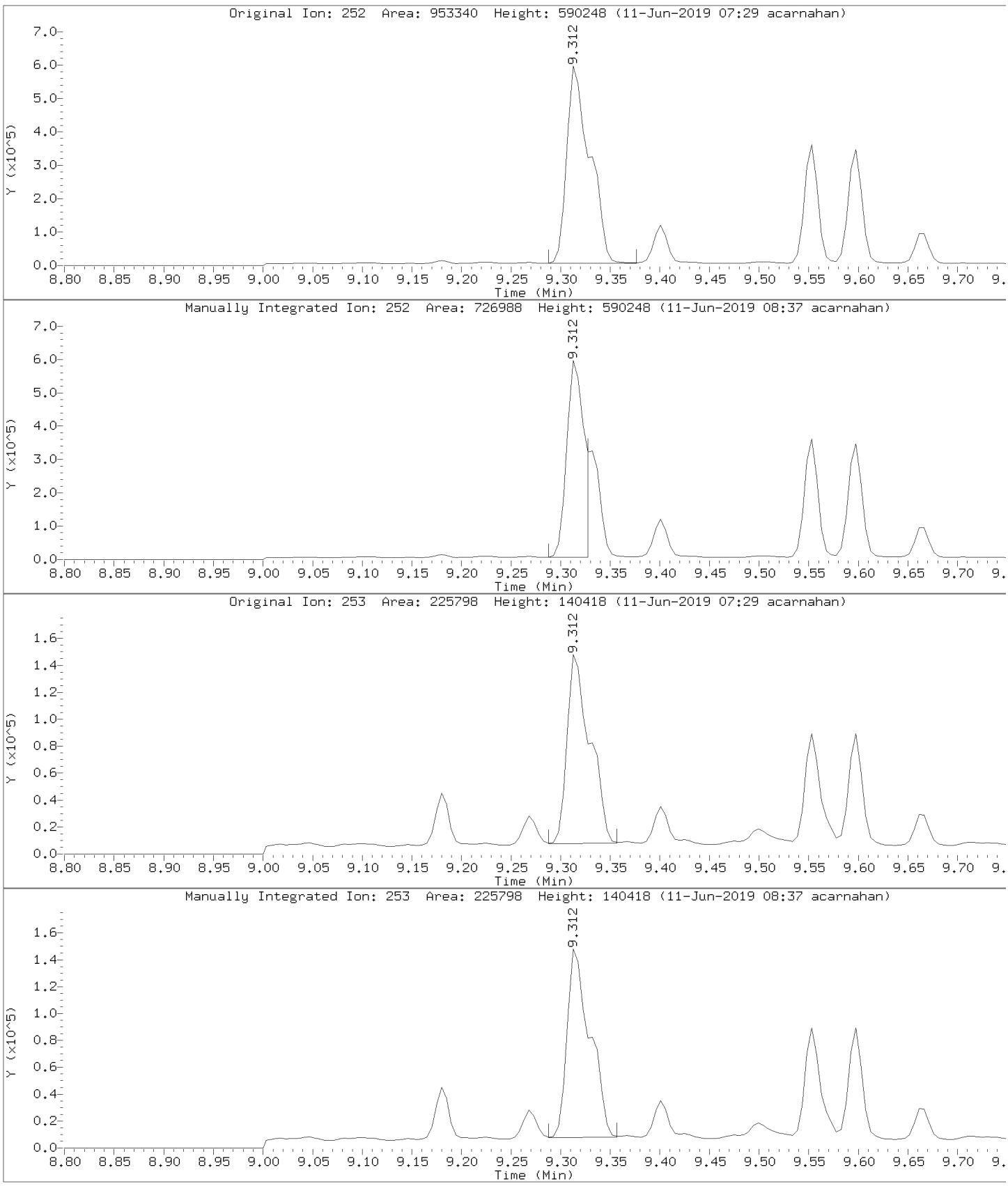
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Benzo(b)fluoranthene Review Code: GT
CAS Number: 205-99-2



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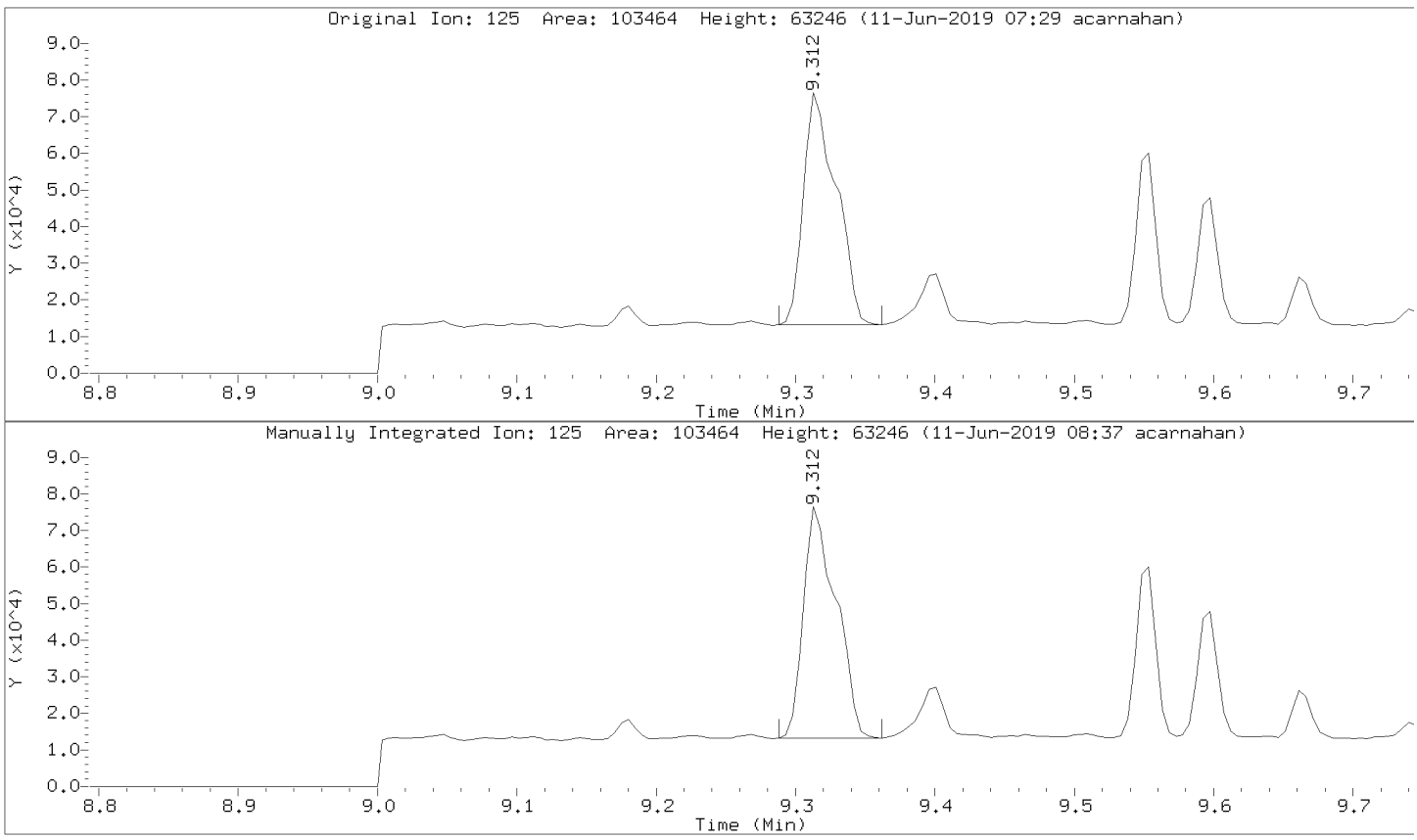
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001



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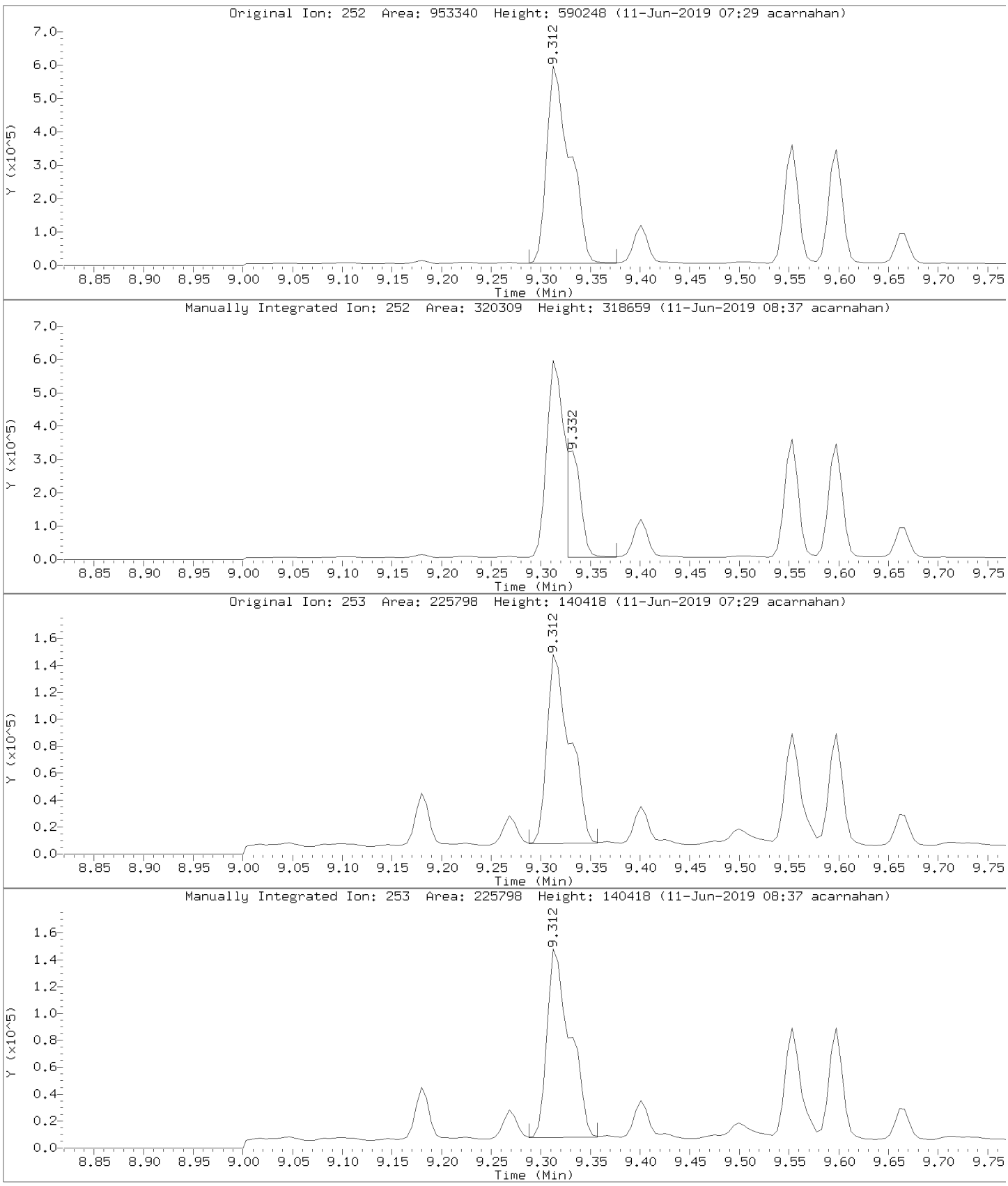
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Benzo(k)fluoranthene Review Code: GT
CAS Number: 207-08-9



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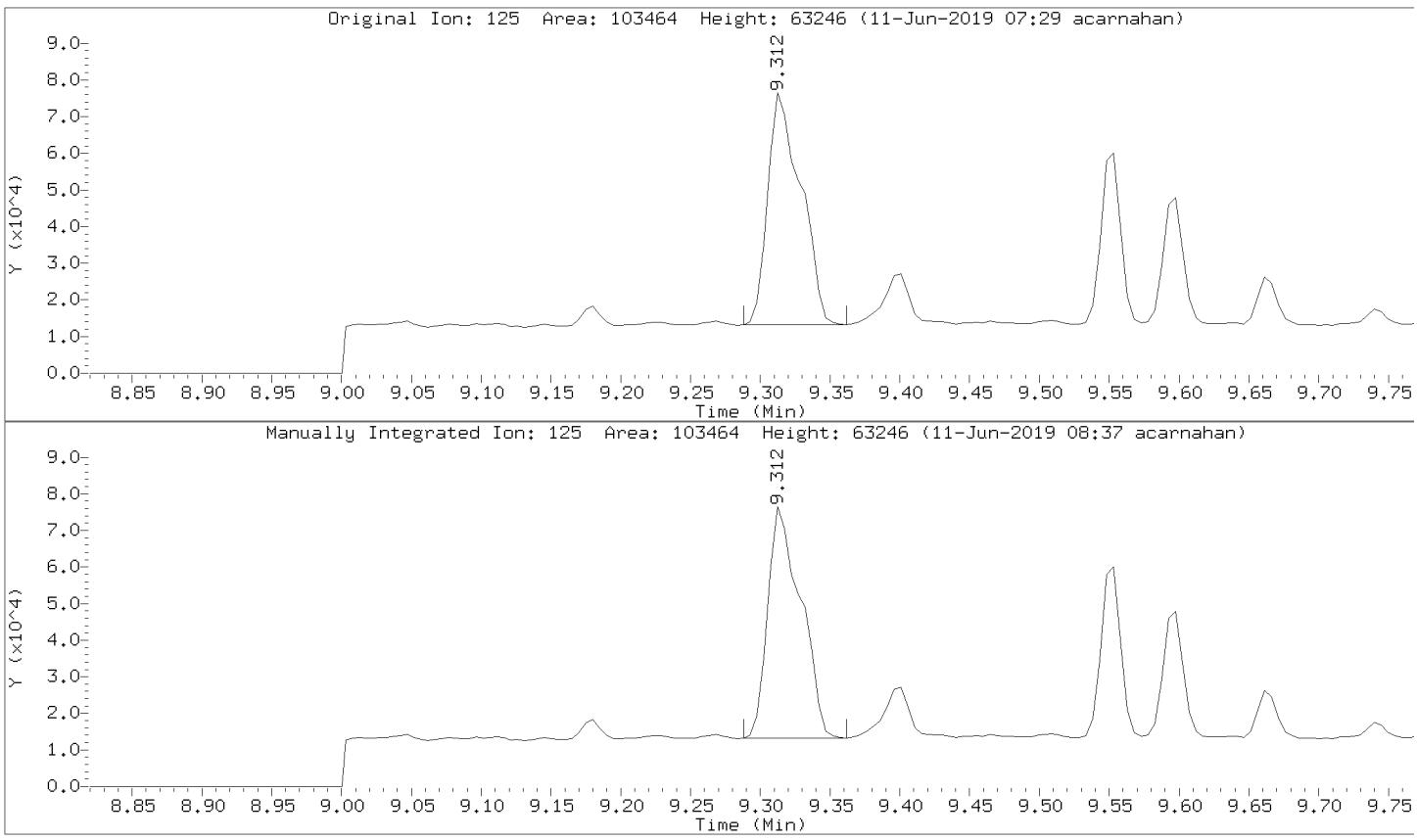
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001



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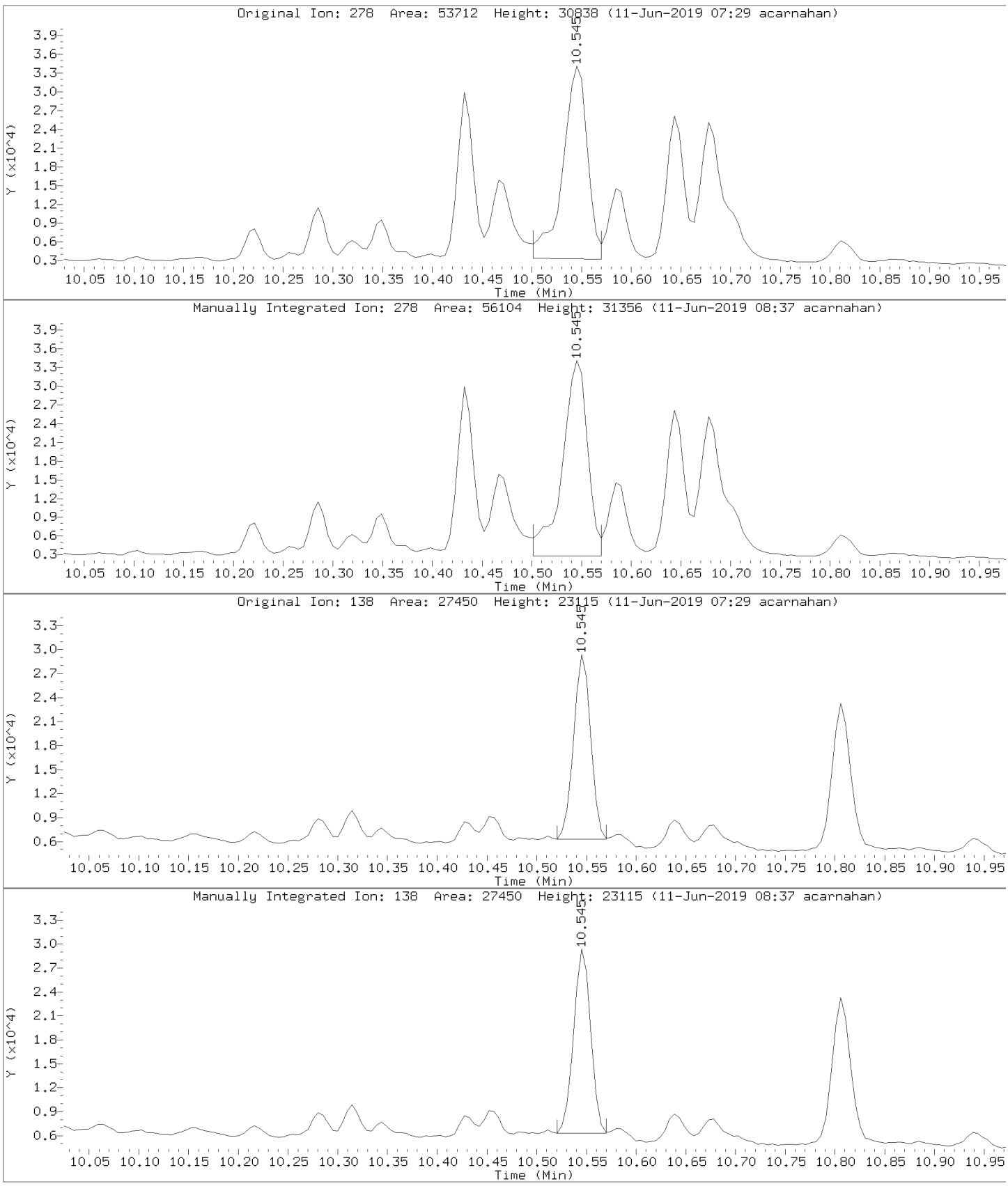
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3



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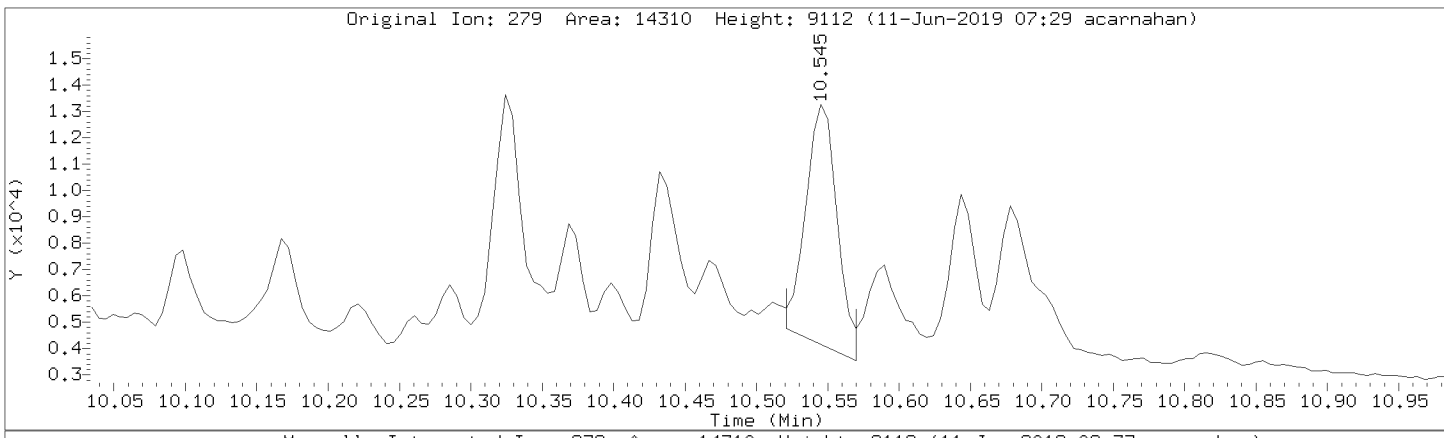
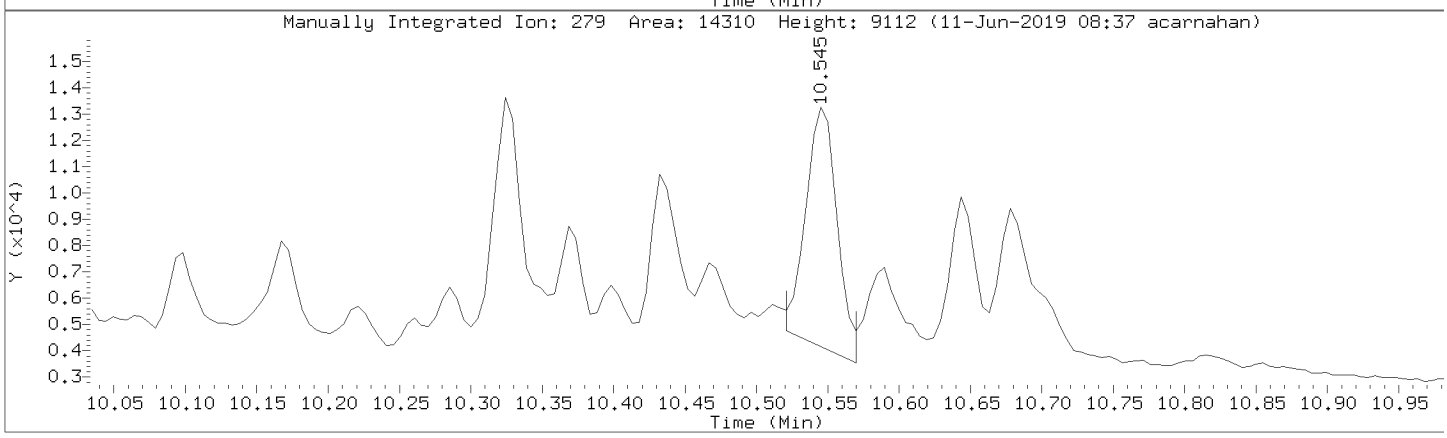
Injection Date: 11-JUN-2019 00:18
Instrument: 30mss2.i
Lab Sample ID: 30298231001





SAMPLE NO.

AOC34

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 30298231010
Date Analyzed: 06/11/2019 00:36
Lab File ID: MSS2061019.B\M206101933.D
Initial wt/vol: 15.4 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture: 8.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	296	
191-24-2	Benzo(g,h,i)perylene	1350	
53-70-3	Dibenz(a,h)anthracene	755	
86-73-7	Fluorene	952	
91-20-3	Naphthalene	296	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 11-JUN-2019 00:36
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30298231010,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.777	3.777	(1.000)	1263481	4.00000	(Q)	
	8 Naphthalene	128	3.794	3.788	(1.005)	1212648	4.17968	271	
	9 2-Methylnaphthalene	142	4.228	4.228	(1.119)	774358	3.65806	238	
	10 1-Methylnaphthalene	142	4.296	4.291	(1.138)	682185	3.41551	222	
$	6 2-Fluorobiphenyl (S)	172	4.456	4.451	(0.907)	1114903	4.08843	265	
	11 Acenaphthylene	152	4.820	4.817	(0.981)	1308406	4.17371	271	
*	2 Acenaphthene-d10 (IS)	164	4.913	4.906	(1.000)	782289	4.00000		
	12 Acenaphthene	153	4.936	4.929	(1.005)	2828465	13.6616	887	
	13 Fluorene	166	5.290	5.280	(1.077)	3255451	13.4404	873	
*	3 Phenanthrene-d10 (IS)	188	6.000	5.978	(1.000)	1401643	4.00000		
	14 Phenanthrene	178	6.014	5.996	(1.002)	18149989	50.3532	3270(AQM)	WP
	15 Anthracene	178	6.064	6.041	(1.011)	7496058	22.1968	1440(AQ)	
	16 Fluoranthene	202	7.025	7.002	(1.171)	20769153	52.8419	3430(AQM)	NI
	17 Pyrene	202	7.241	7.210	(1.207)	18563909	45.5042	2950(AQM)	NI
$	7 Terphenyl-d14 (S)	244	7.336	7.322	(1.223)	794579	2.50987	163(QR)	
	18 Benzo(a)anthracene	228	8.352	8.321	(0.999)	10643809	64.9240	4220(AQ)	
*	4 Chrysene-d12 (IS)	240	8.361	8.329	(1.000)	603258	4.00000		
	19 Chrysene	228	8.390	8.353	(1.003)	8525902	49.4762	3210(AQ)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.338	9.299	(0.970)	9624840	97.9029	6360(AQ)	
21 Benzo(k)fluoranthene	252	9.358	9.318	(0.972)	3568446	32.7413	2130(AQM)	WP
22 Benzo(a)pyrene	252	9.623	9.584	(1.000)	5733711	62.0306	4030(AQH)	WP
* 5 Perylene-d12 (IS)	264	9.657	9.628	(1.000)	363190	4.00000	(QH)	WP
23 Dibenz(a,h)anthracene	278	10.571	10.527	(1.099)	986513	10.6594	692(QH)	WP
24 Indeno(1,2,3-cd)pyrene	276	10.576	10.527	(1.099)	2516509	22.6599	1470(AH)	WP
25 Benzo[g,h,i]perylene	276	10.836	10.777	(1.126)	1844892	19.0844	1240(Q)	

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  NI: Indicates that the peak was not integrated at all by the
      computer software.

Pace Analytical Services, Inc.

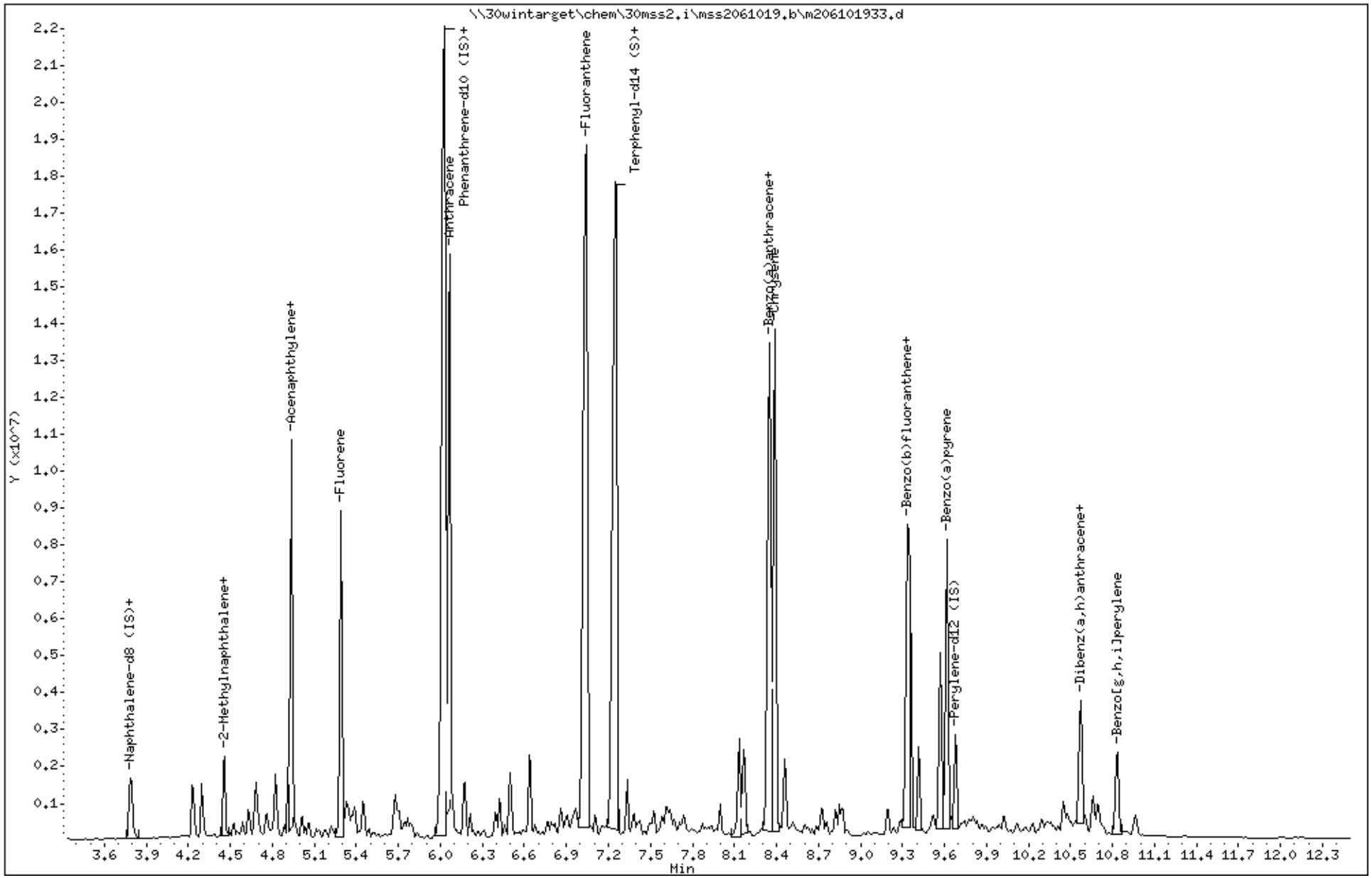
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231010
Client Smp ID: AOC34
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14682,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00974	U
91-20-3	Naphthalene	271	
91-57-6	2-Methylnaphthalene	238	
90-12-0	1-Methylnaphthalene	222	
208-96-8	Acenaphthylene	271	
83-32-9	Acenaphthene	887	
86-73-7	Fluorene	873	
85-01-8	Phenanthrene	3270	E
120-12-7	Anthracene	1440	E
206-44-0	Fluoranthene	3430	E
129-00-0	Pyrene	2950	E
56-55-3	Benzo(a)anthracene	4220	E
218-01-9	Chrysene	3210	E
205-99-2	Benzo(b)fluoranthene	6360	E
207-08-9	Benzo(k)fluoranthene	2130	E
50-32-8	Benzo(a)pyrene	4030	E
53-70-3	Dibenz(a,h)anthracene	692	
193-39-5	Indeno(1,2,3-cd)pyrene	1470	E
191-24-2	Benzo[g,h,i]perylene	1240	
321-60-8	2-Fluorobiphenyl (S)	265	
1718-51-0	Terphenyl-d14 (S)	163	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d
Date : 11-JUN-2019 00:36
Client ID: A0C34
Sample Info: 30298231010,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d

Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

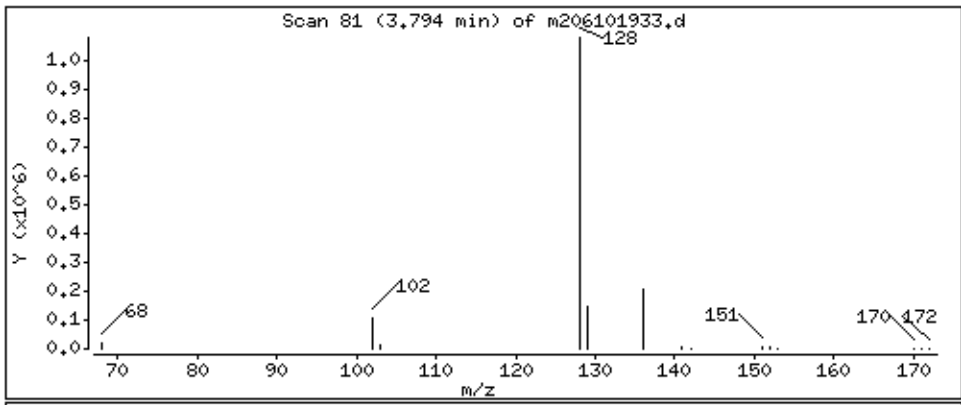
Operator: AJC

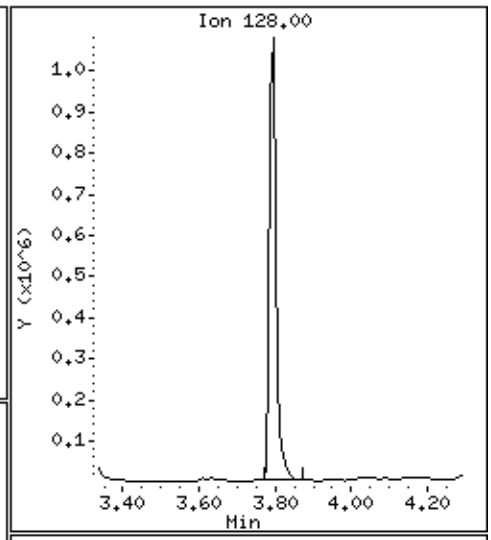
Column phase: RTX-5MS

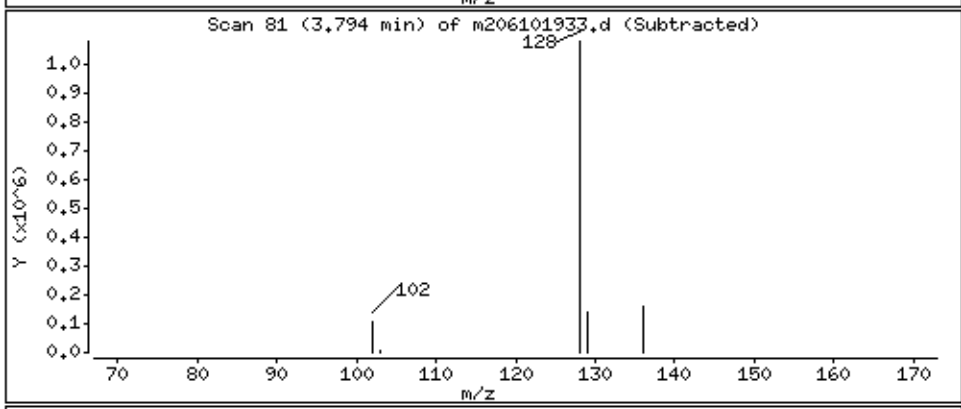
Column diameter: 0.25

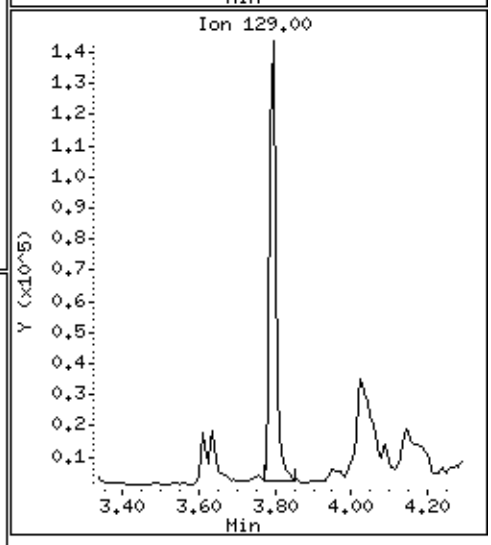
8 Naphthalene

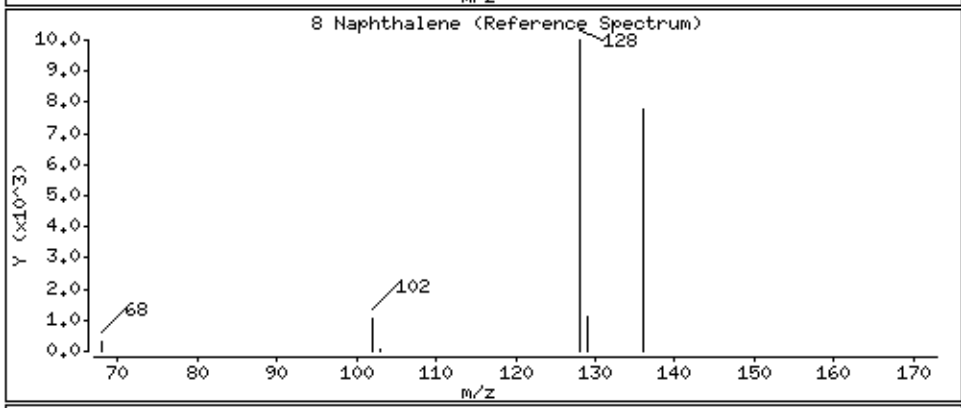
Concentration: 271 ug/Kg

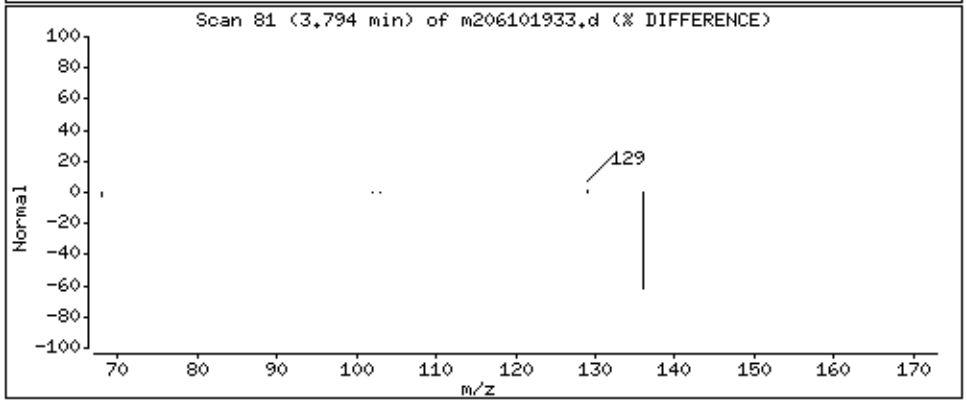












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

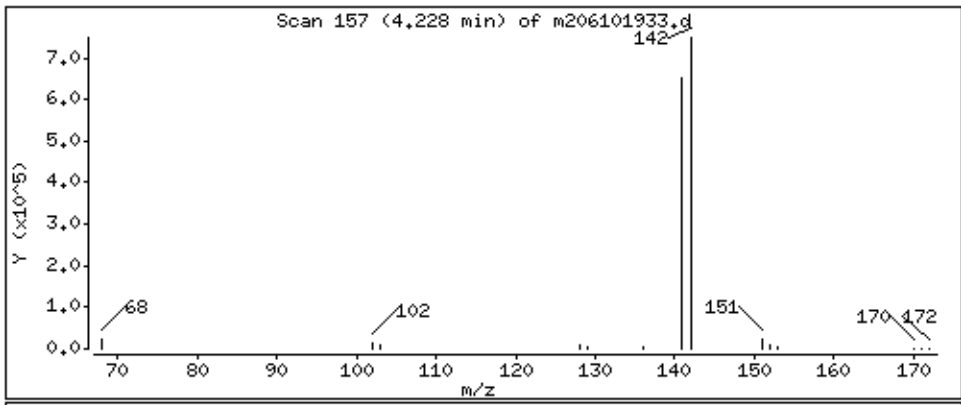
Operator: AJC

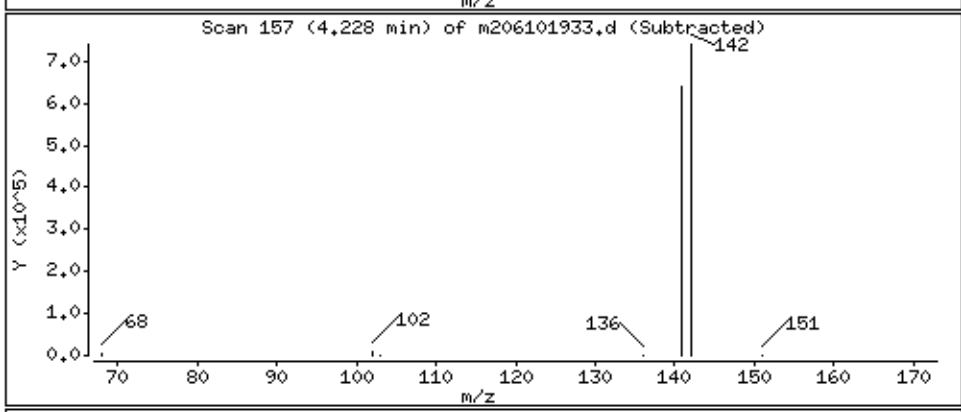
Column phase: RTX-5MS

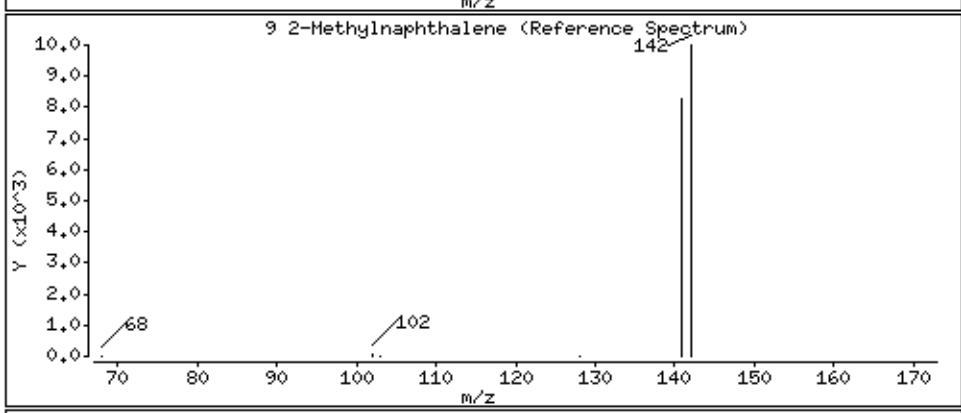
Column diameter: 0.25

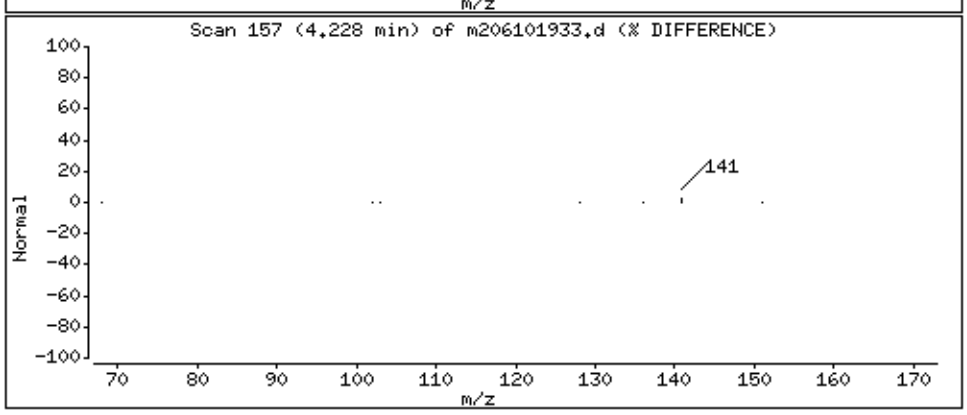
9 2-Methylnaphthalene

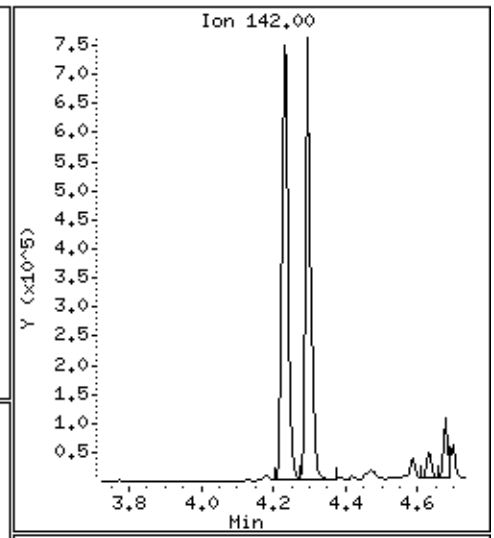
Concentration: 238 ug/Kg

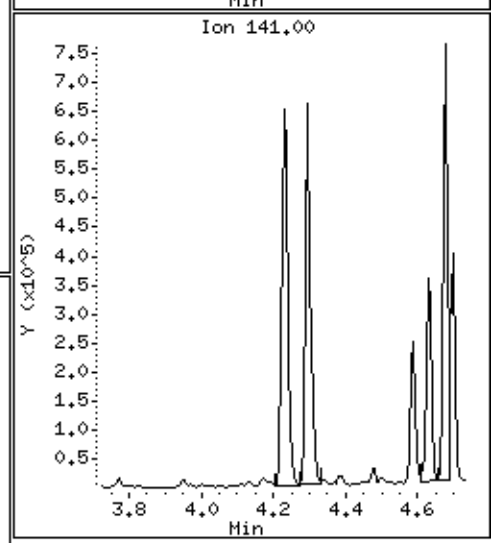












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

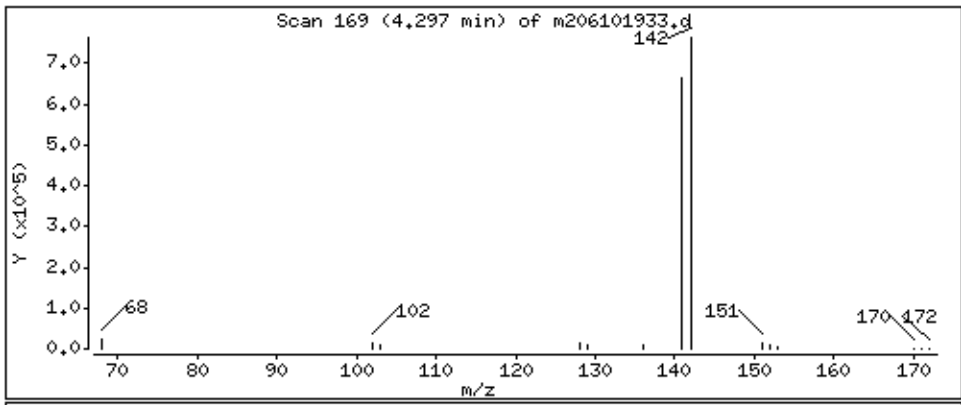
Operator: AJC

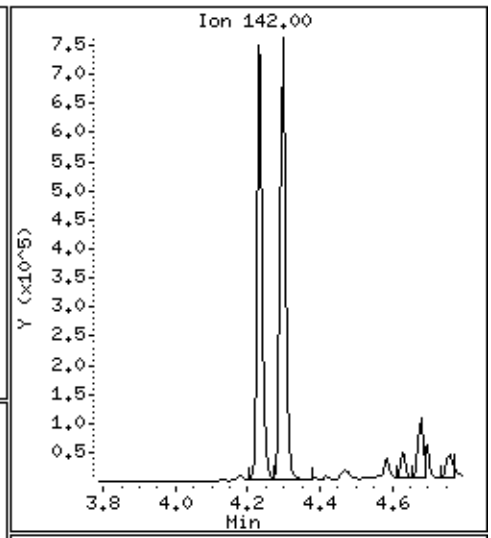
Column phase: RTX-5MS

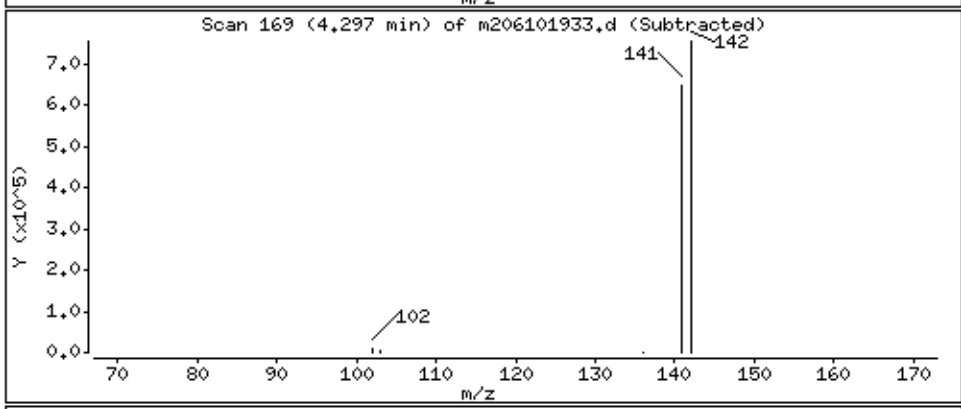
Column diameter: 0.25

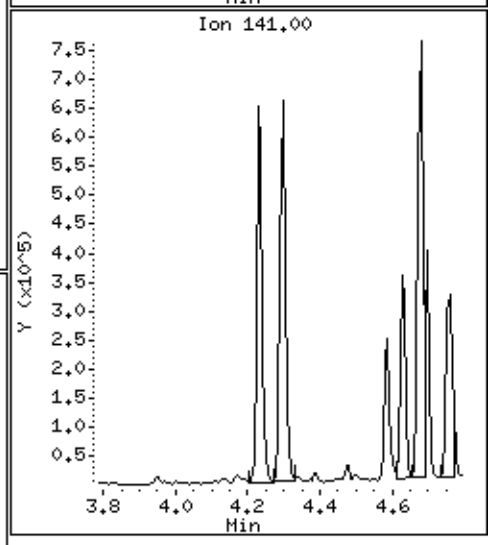
10 1-Methylnaphthalene

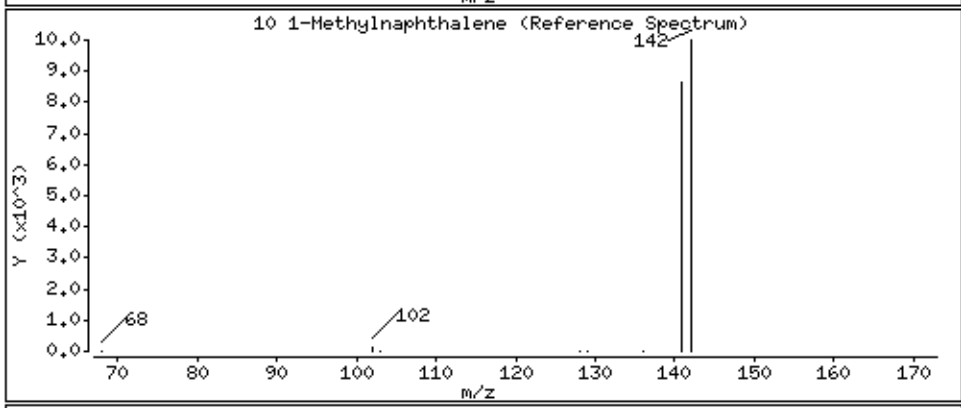
Concentration: 222 ug/Kg

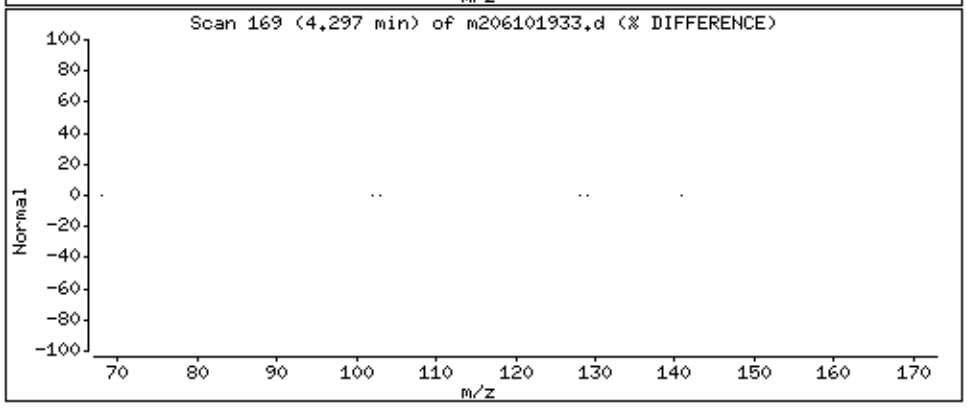












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

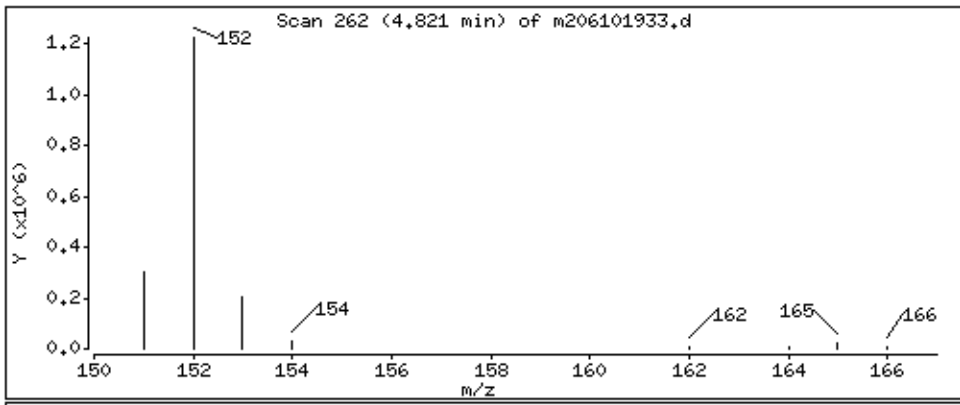
Operator: AJC

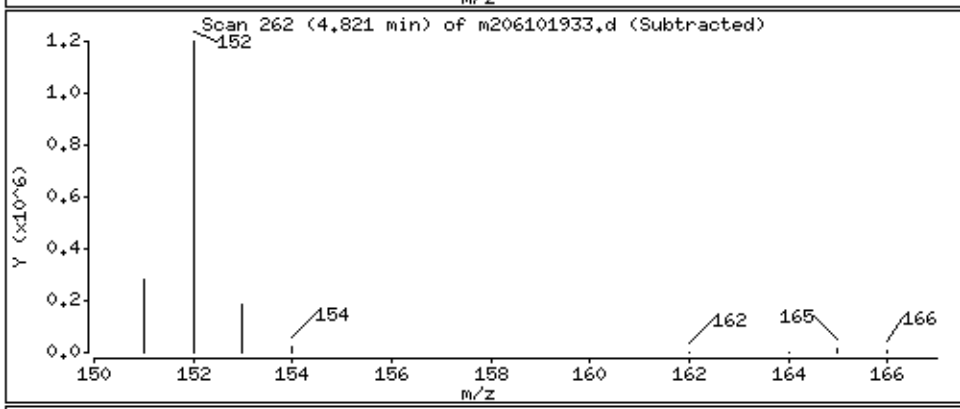
Column phase: RTX-5MS

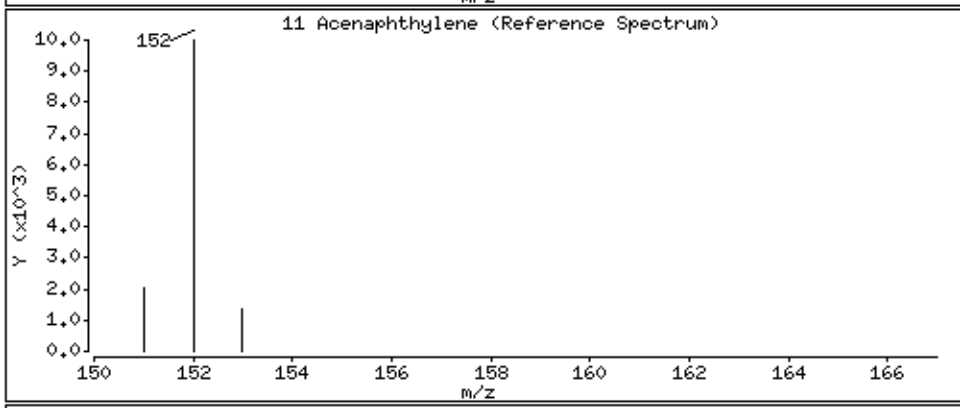
Column diameter: 0.25

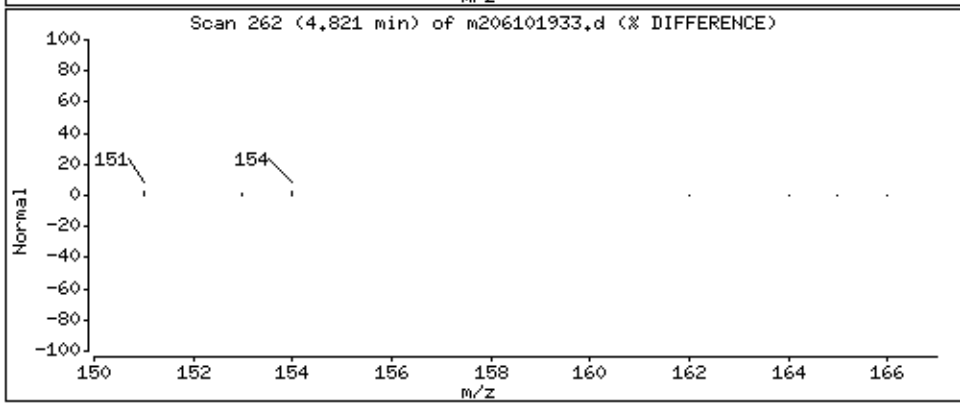
11 Acenaphthylene

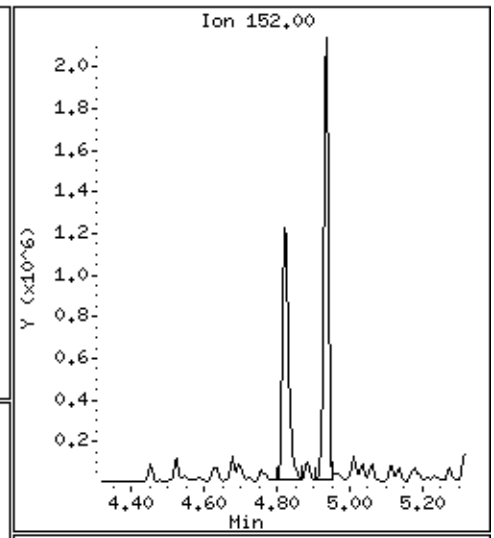
Concentration: 271 ug/Kg

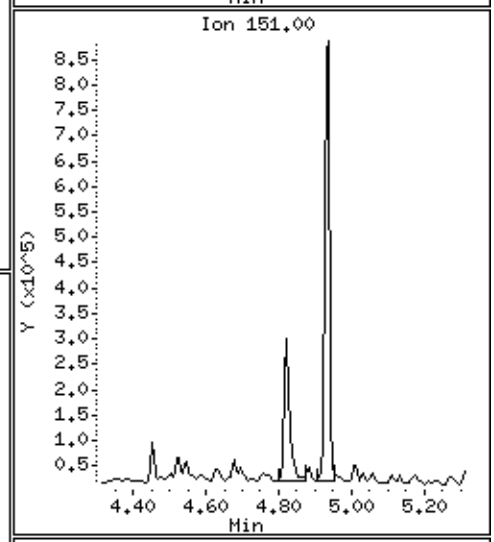


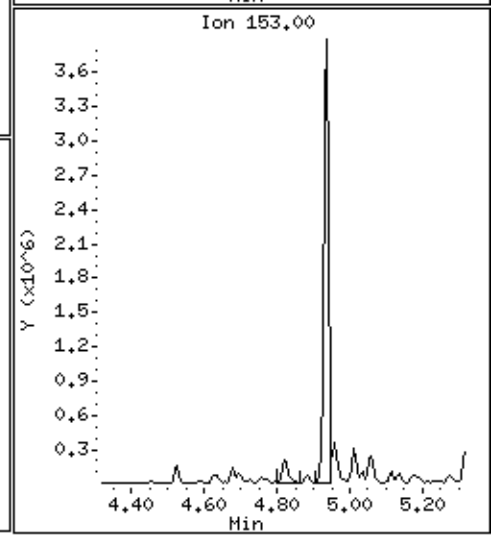












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d

Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

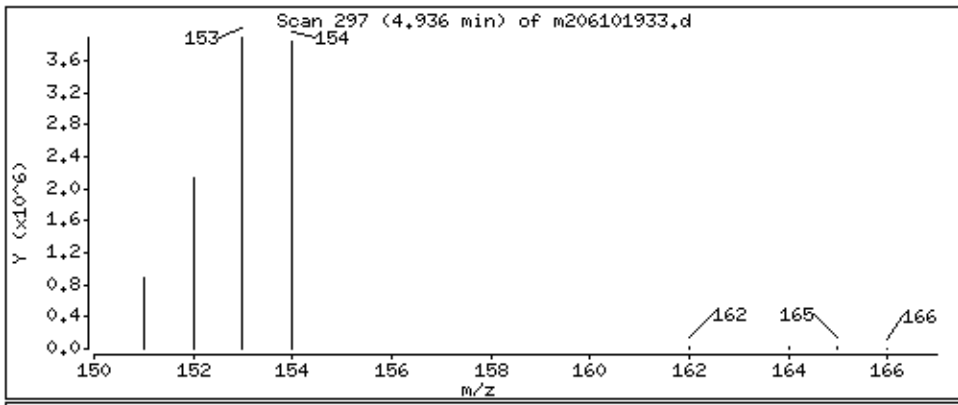
Operator: AJC

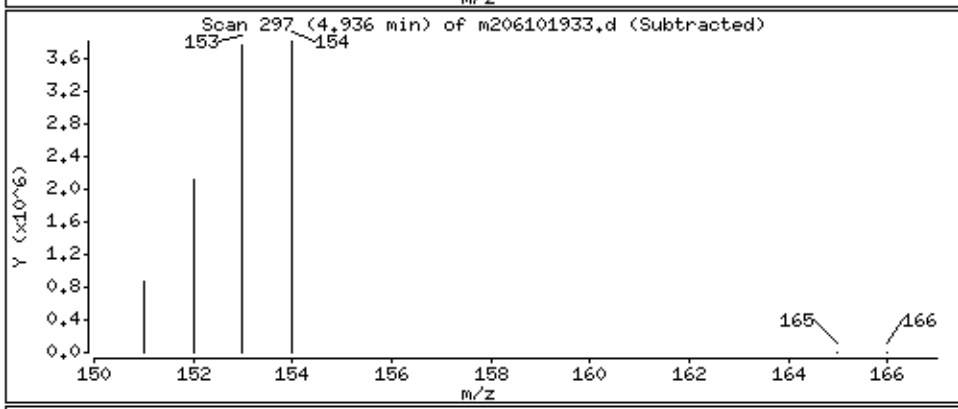
Column phase: RTX-5MS

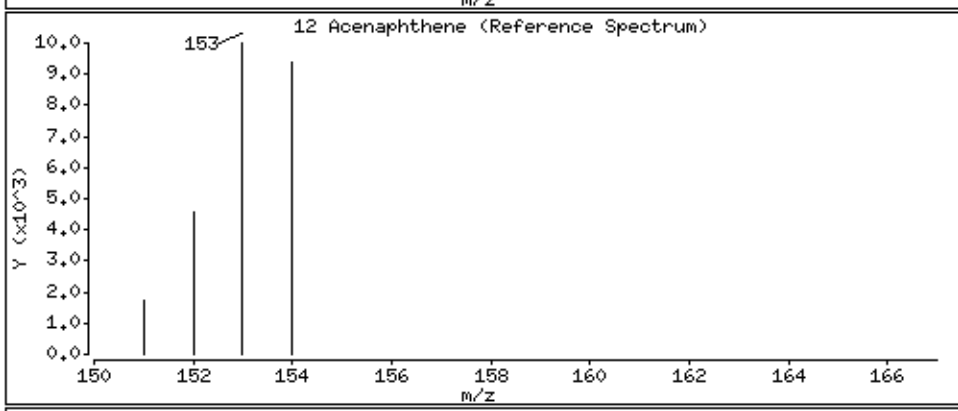
Column diameter: 0.25

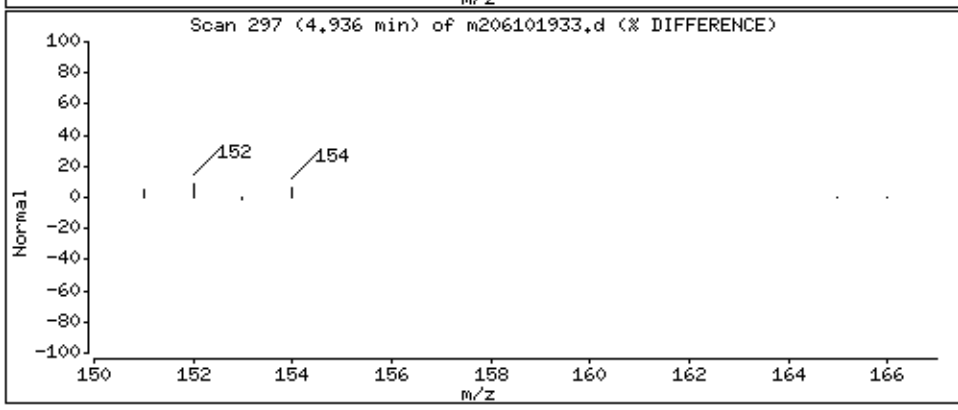
12 Acenaphthene

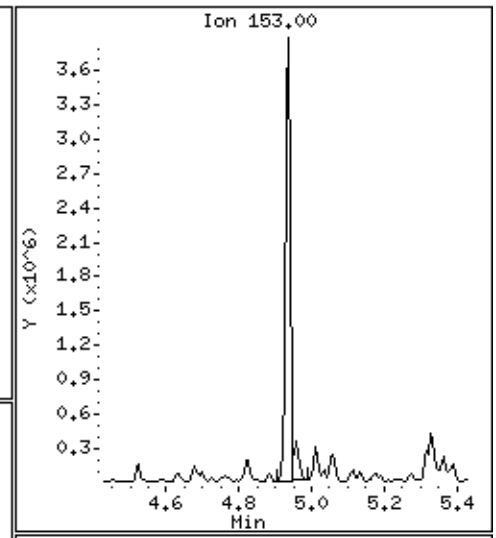
Concentration: 887 ug/Kg

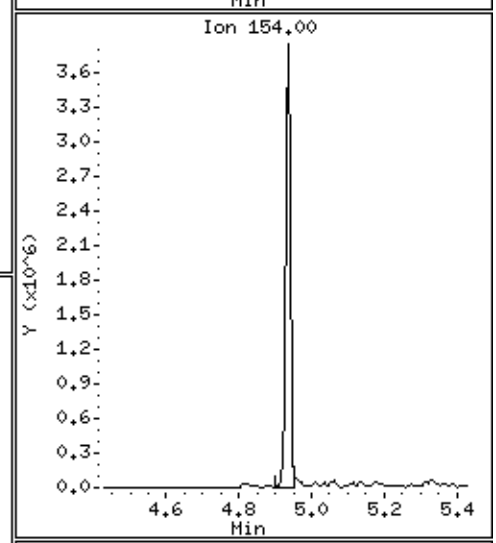


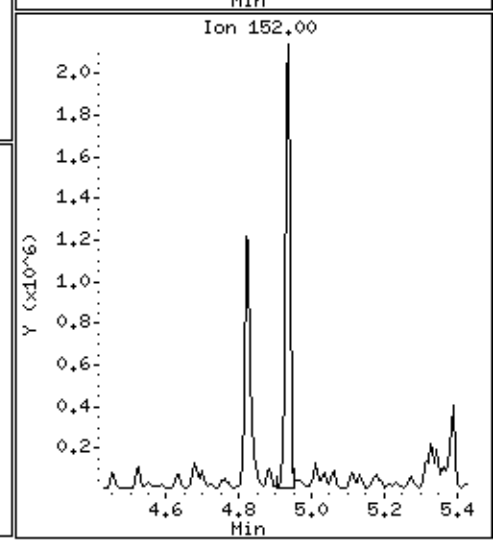












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d

Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

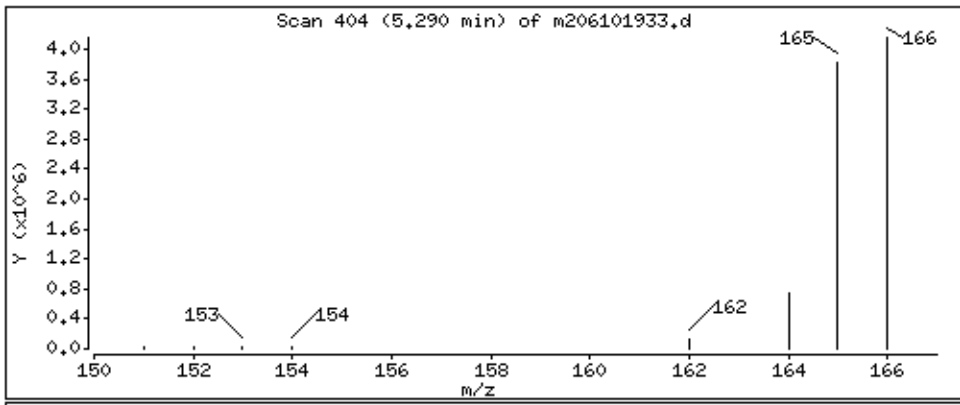
Operator: AJC

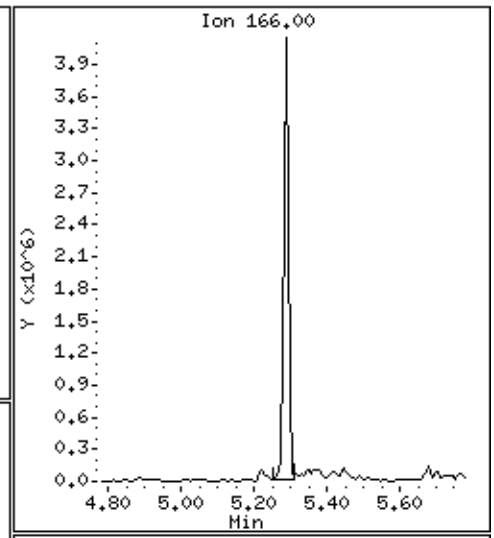
Column phase: RTX-5MS

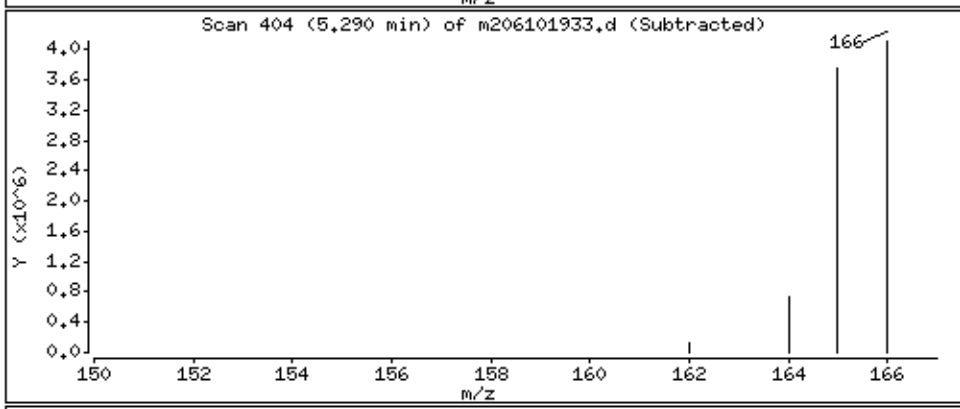
Column diameter: 0.25

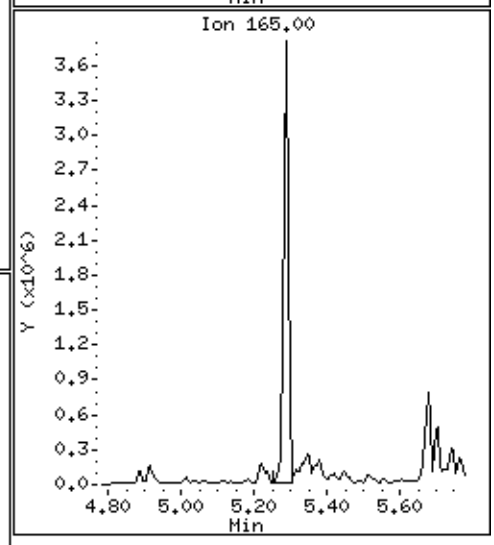
13 Fluorene

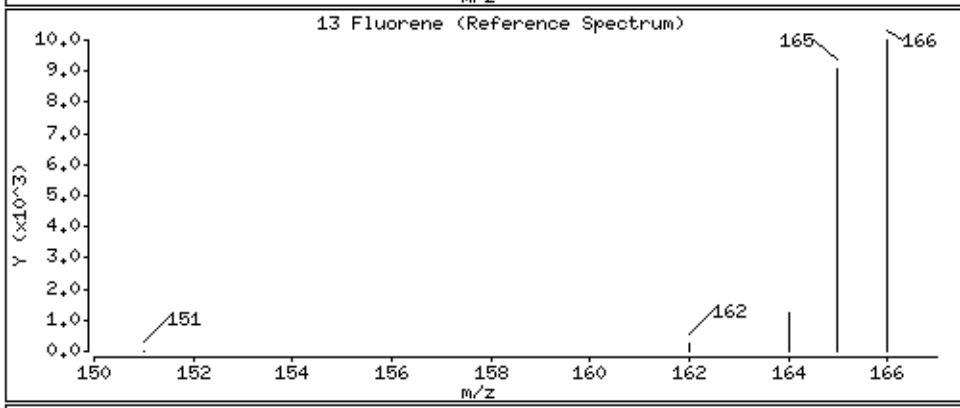
Concentration: 873 ug/Kg

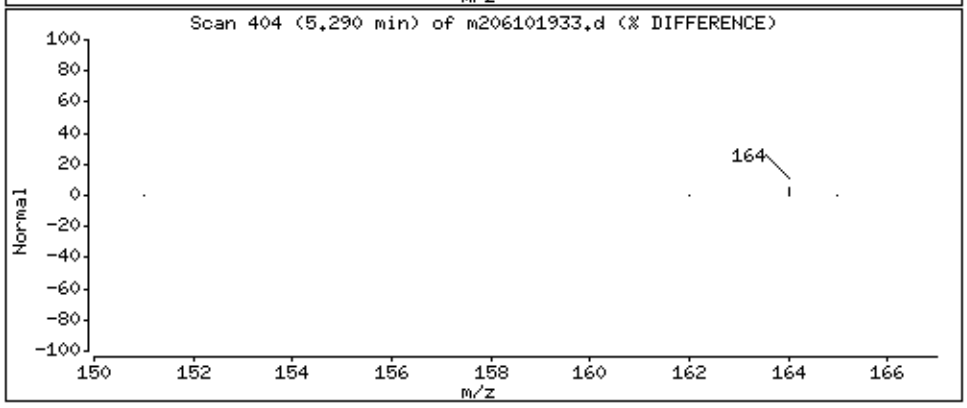












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

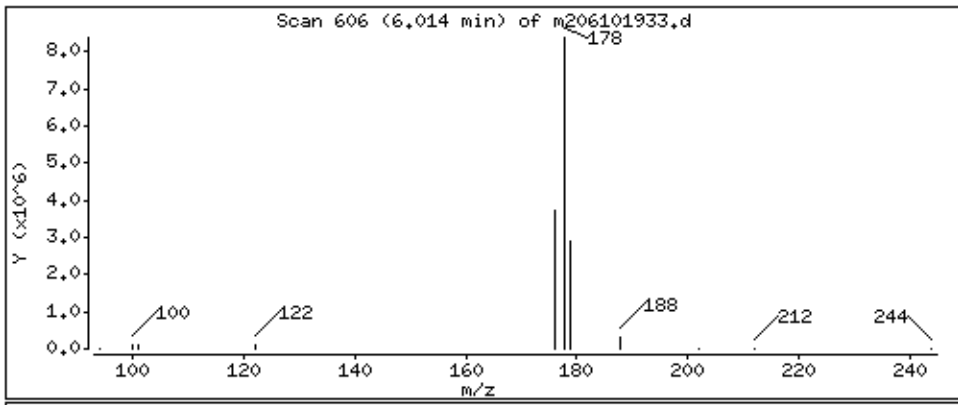
Operator: AJC

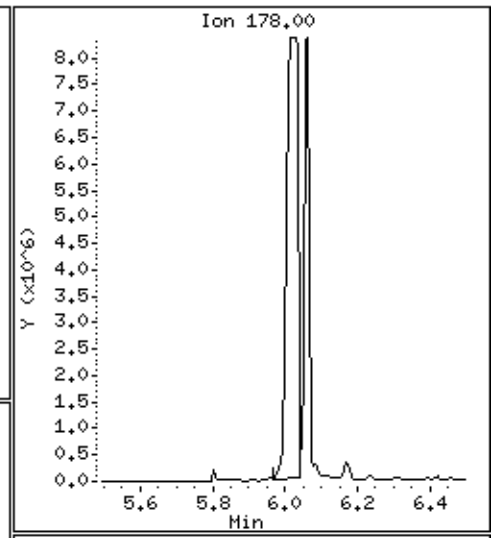
Column phase: RTX-5MS

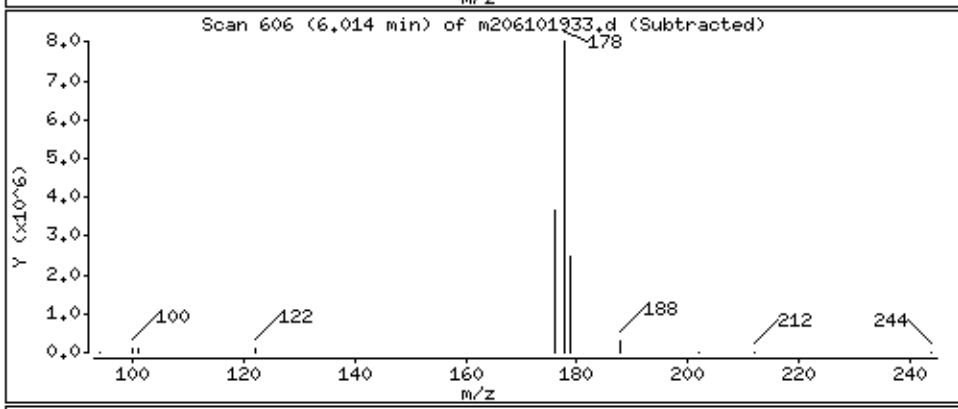
Column diameter: 0.25

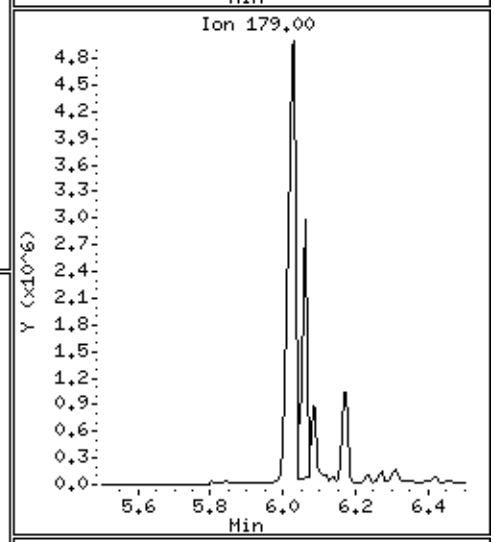
14 Phenanthrene

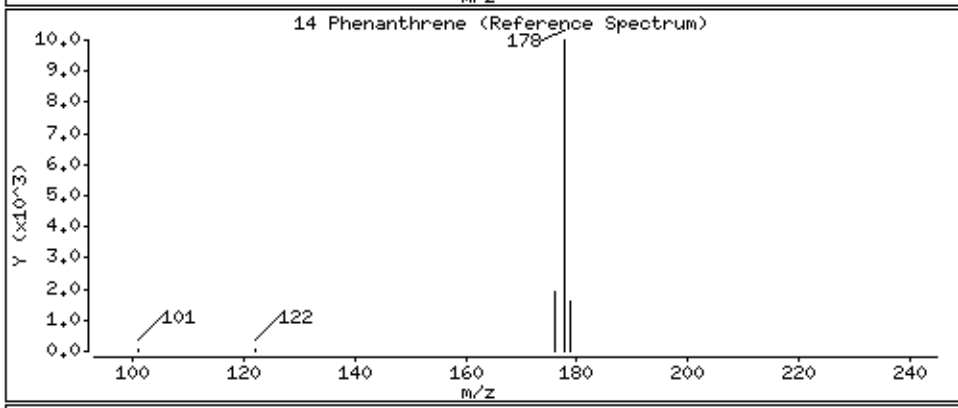
Concentration: 3270 ug/Kg

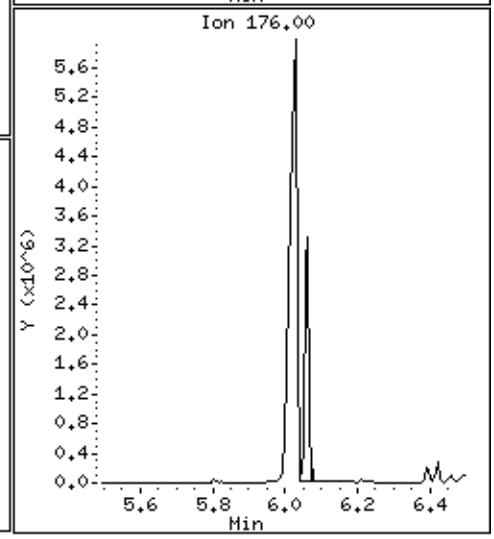


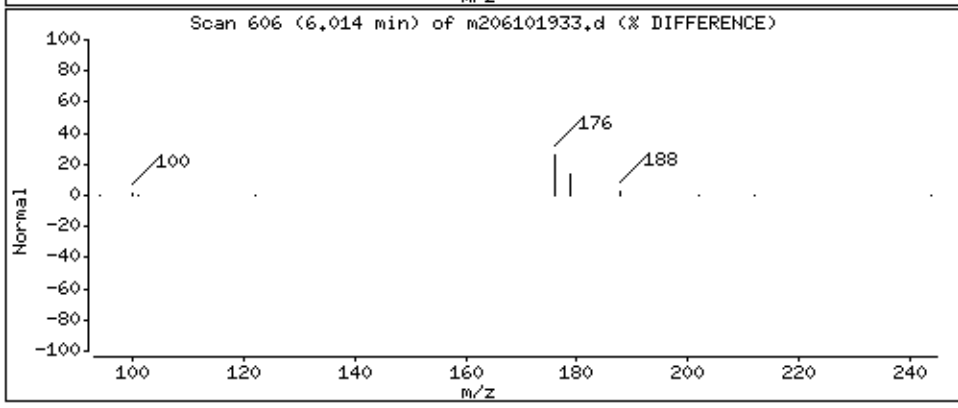












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

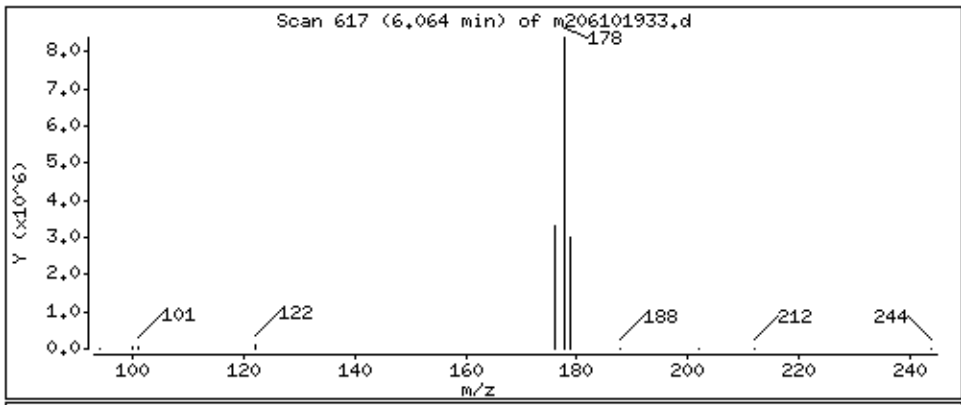
Operator: AJC

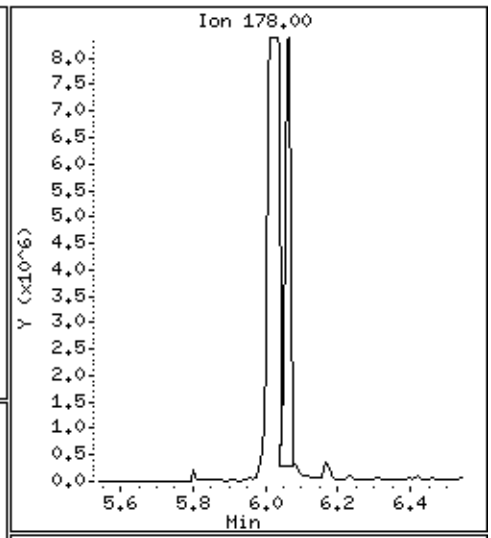
Column phase: RTX-5MS

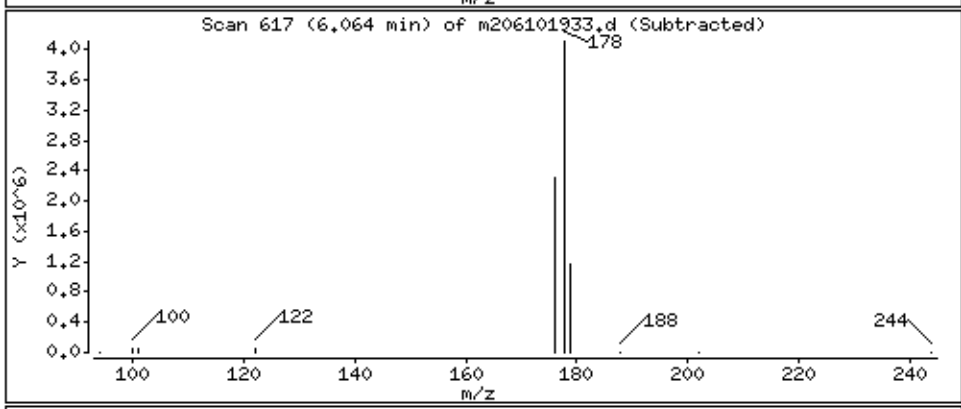
Column diameter: 0.25

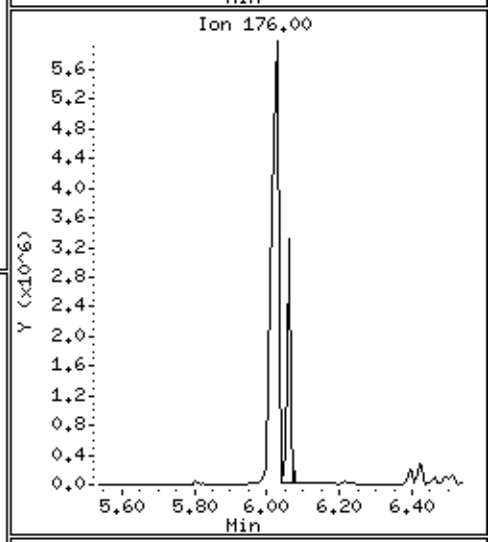
15 Anthracene

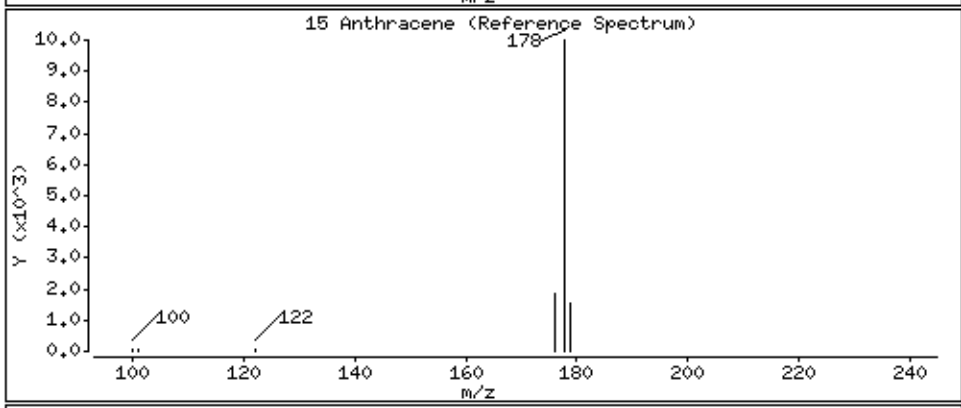
Concentration: 1440 ug/Kg

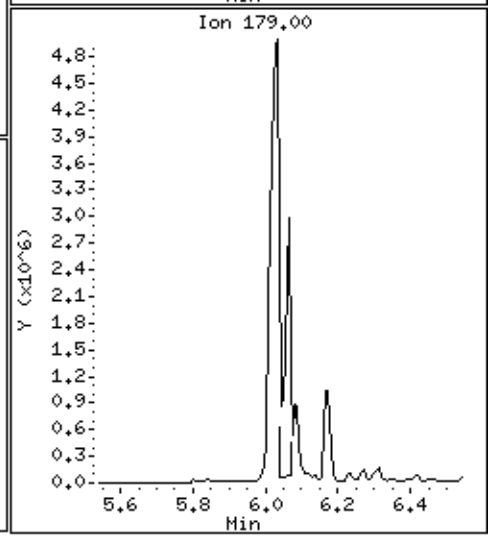


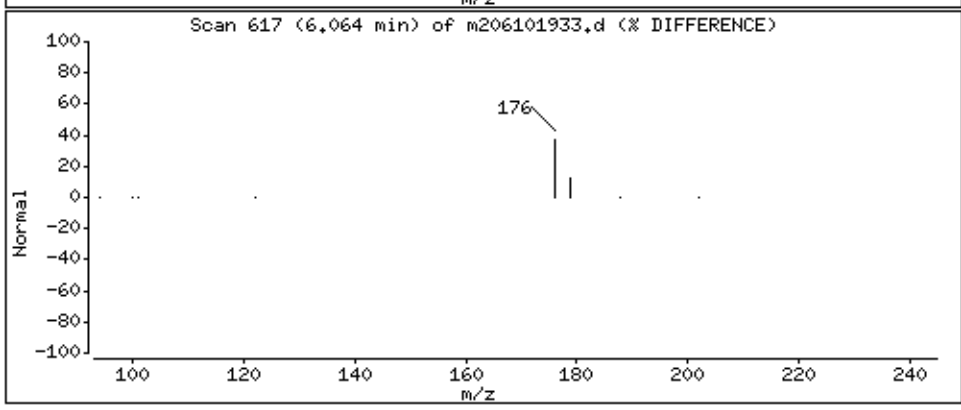












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

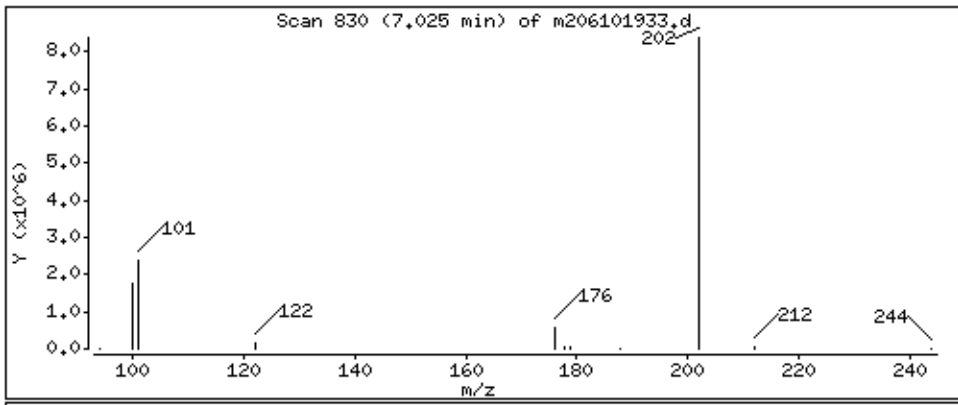
Operator: AJC

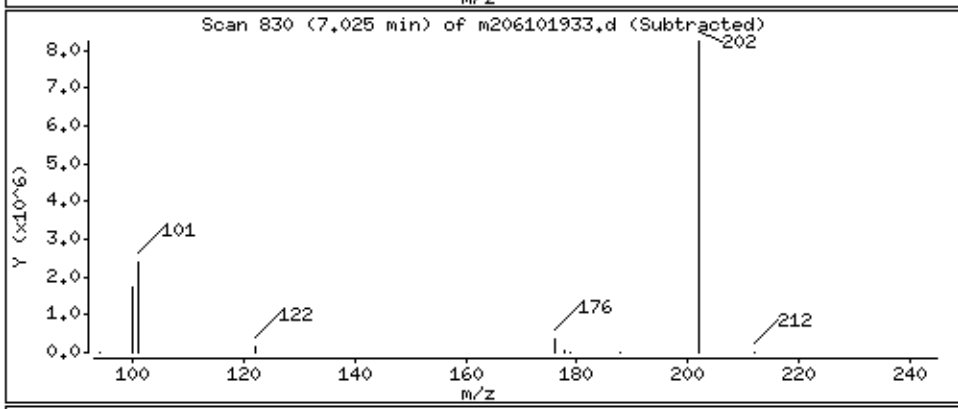
Column phase: RTX-5MS

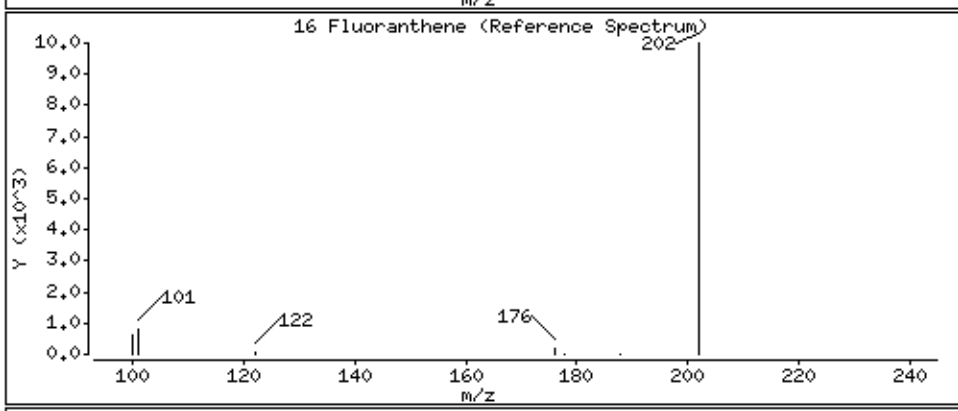
Column diameter: 0.25

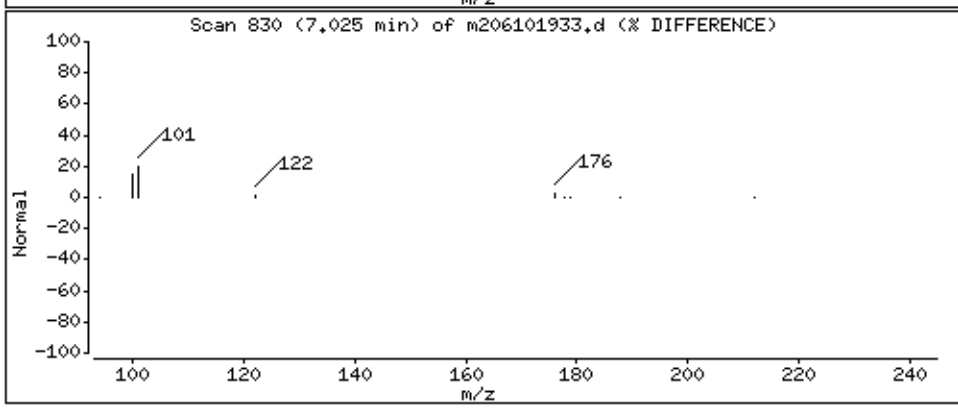
16 Fluoranthene

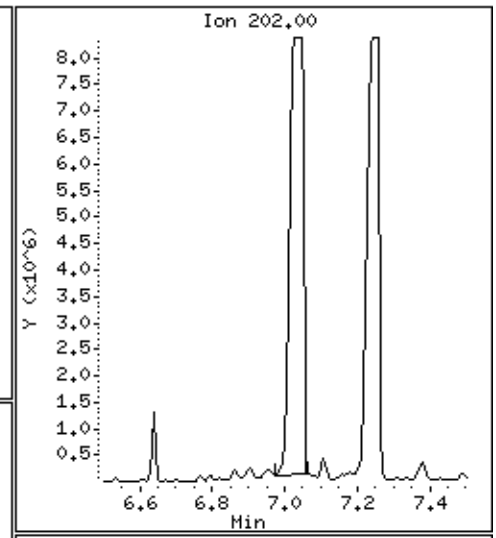
Concentration: 3430 ug/Kg

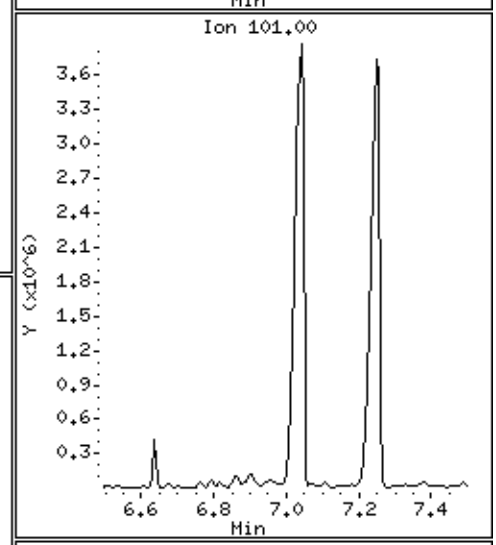


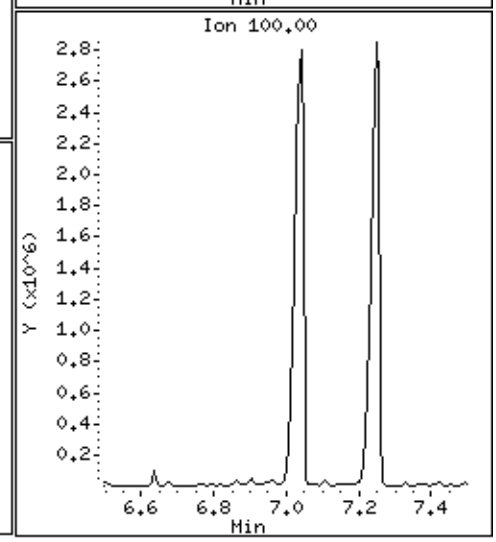












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

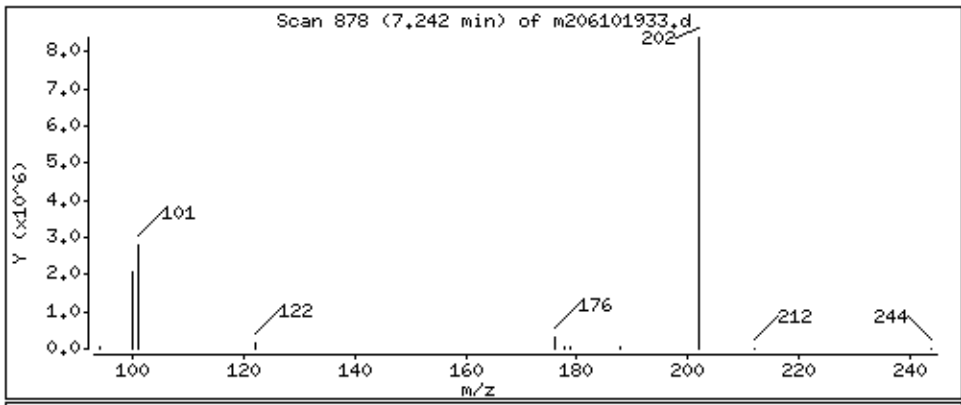
Operator: AJC

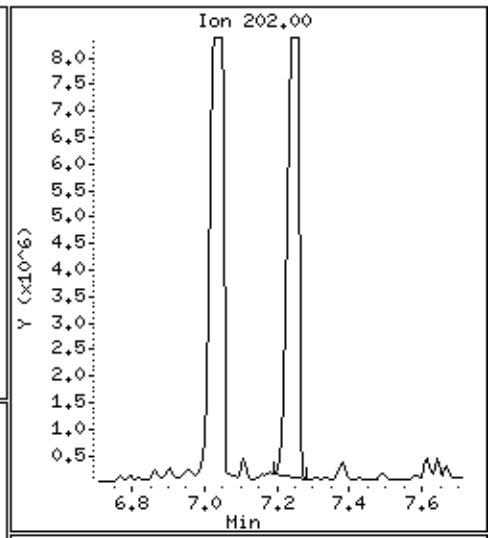
Column phase: RTX-5MS

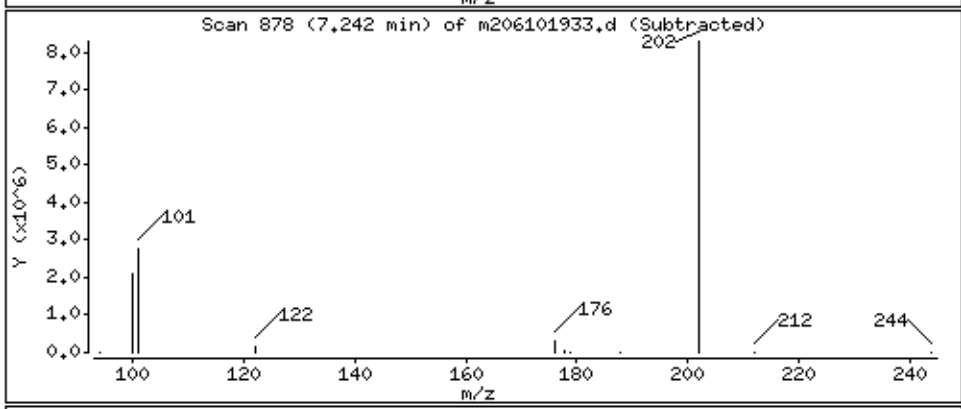
Column diameter: 0.25

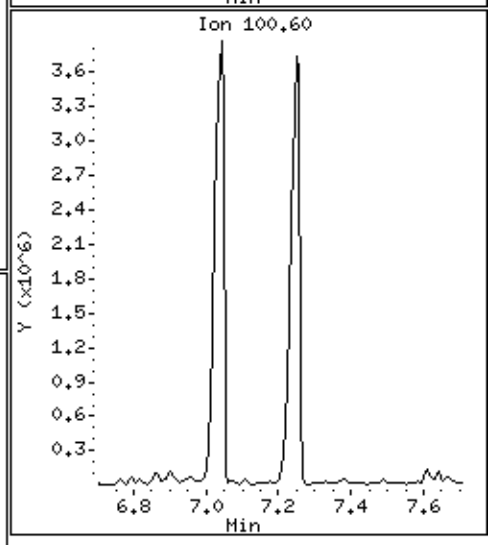
17 Pyrene

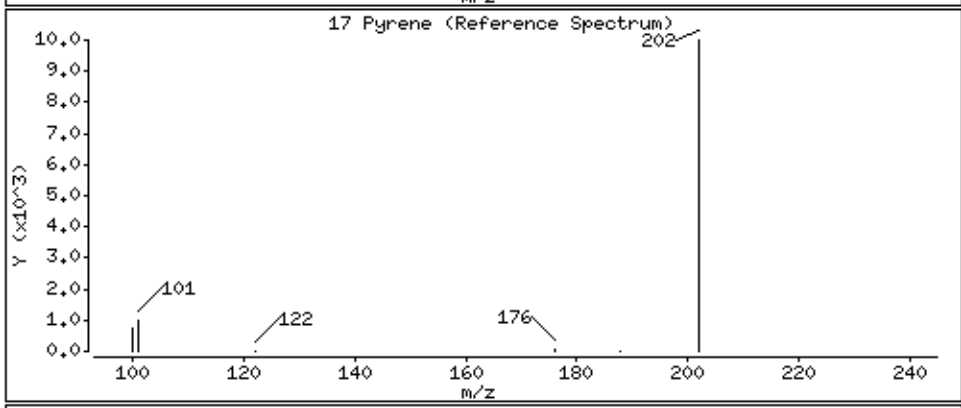
Concentration: 2950 ug/Kg

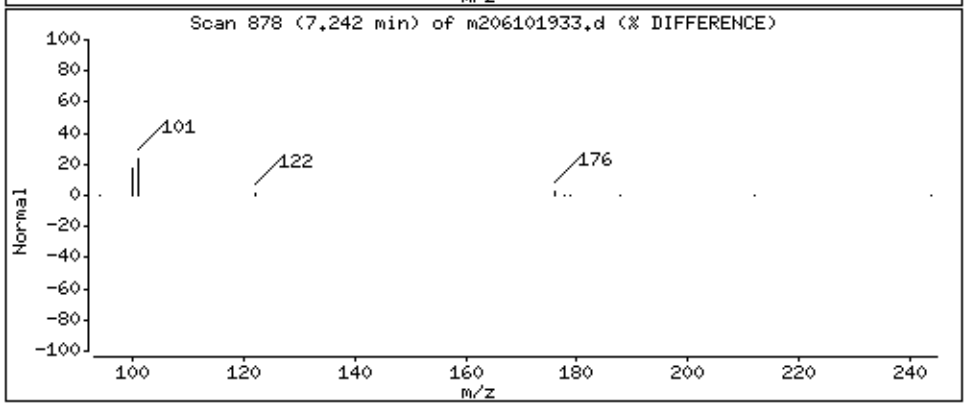












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

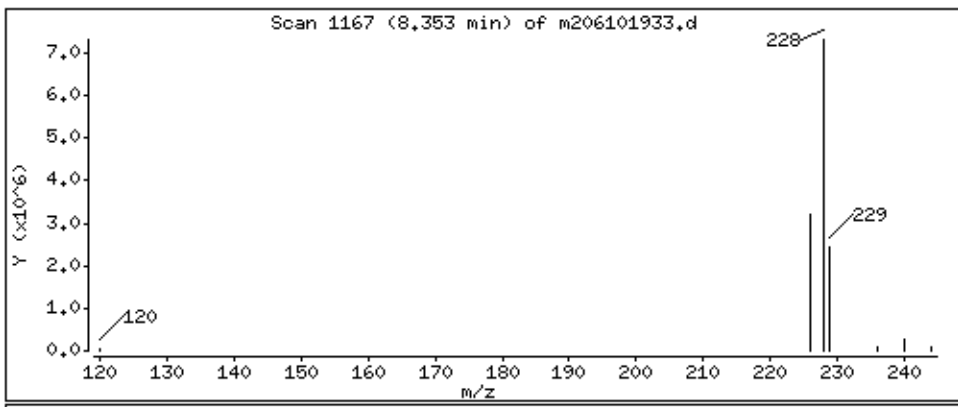
Operator: AJC

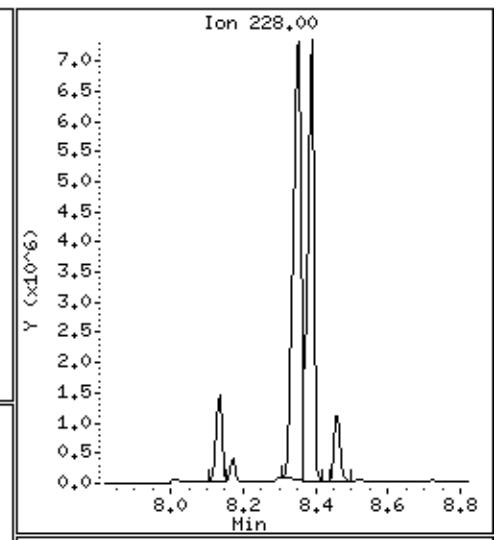
Column phase: RTX-5MS

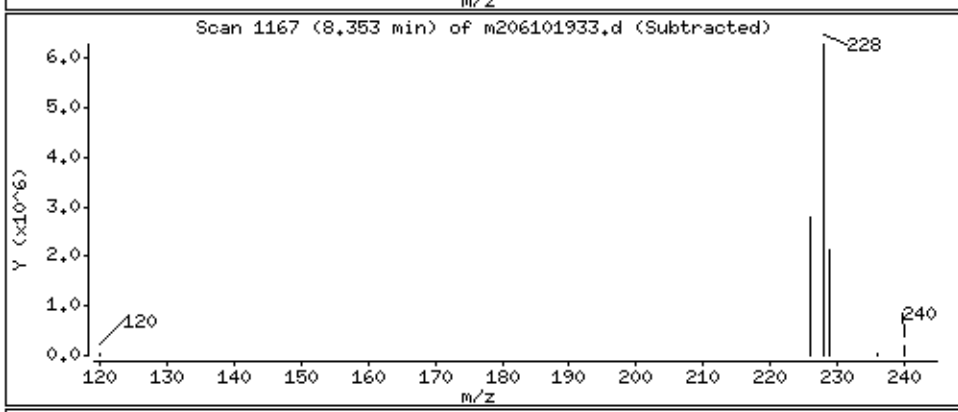
Column diameter: 0.25

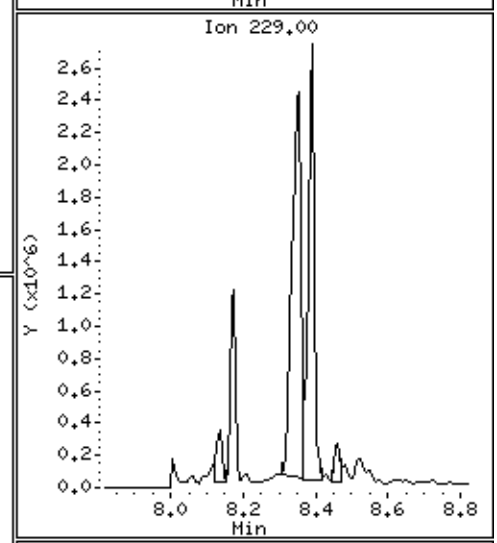
18 Benzo(a)anthracene

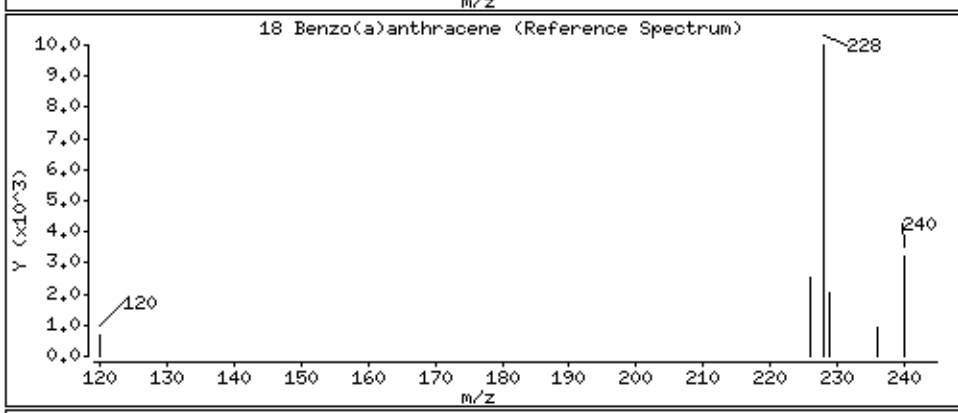
Concentration: 4220 ug/Kg

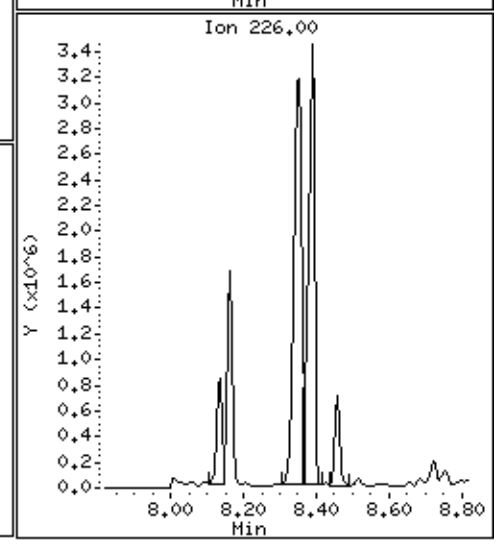


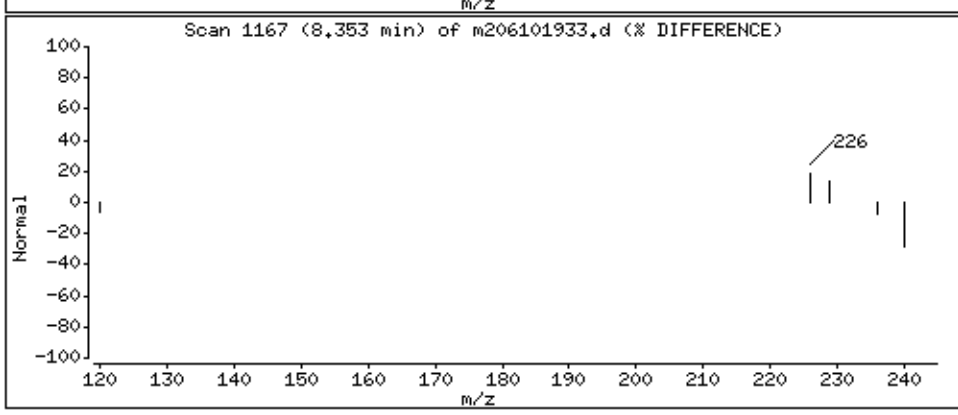












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

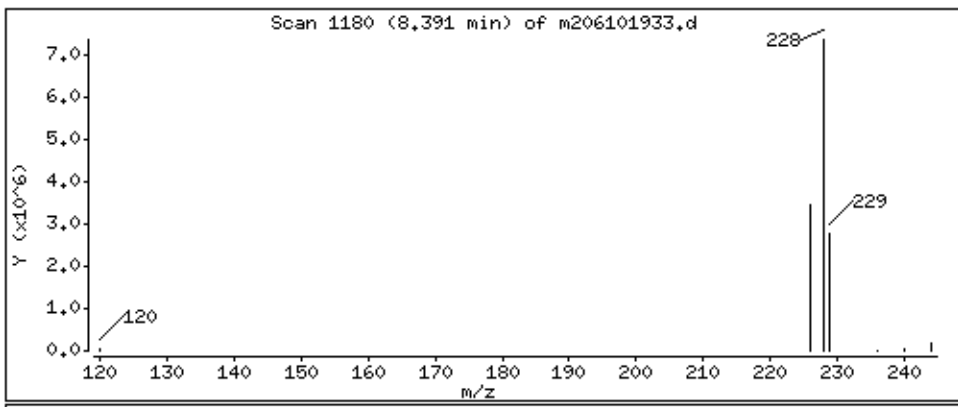
Operator: AJC

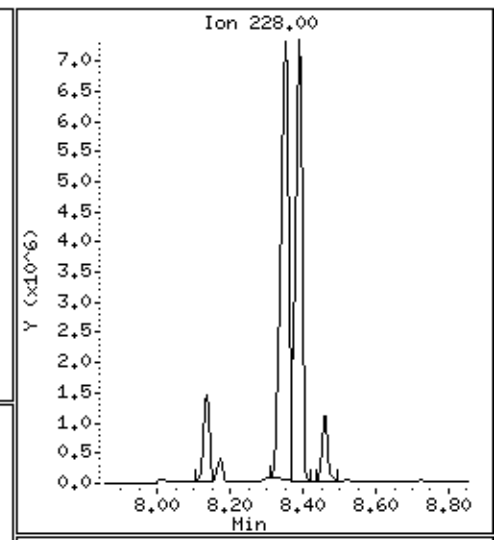
Column phase: RTX-5MS

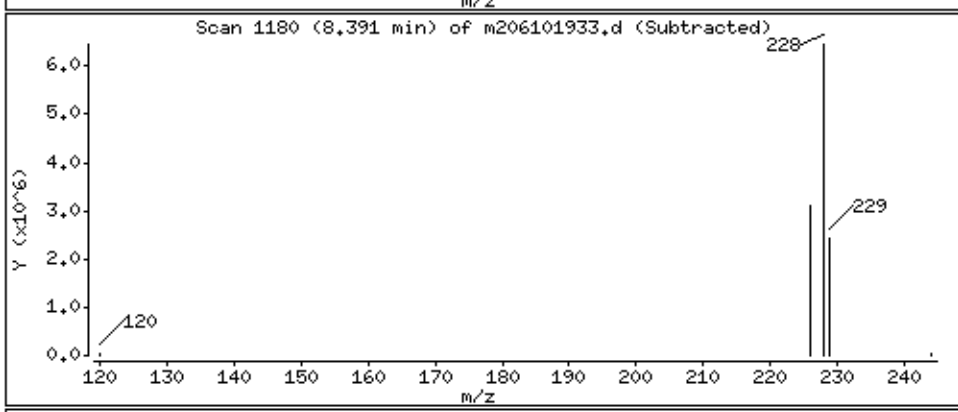
Column diameter: 0.25

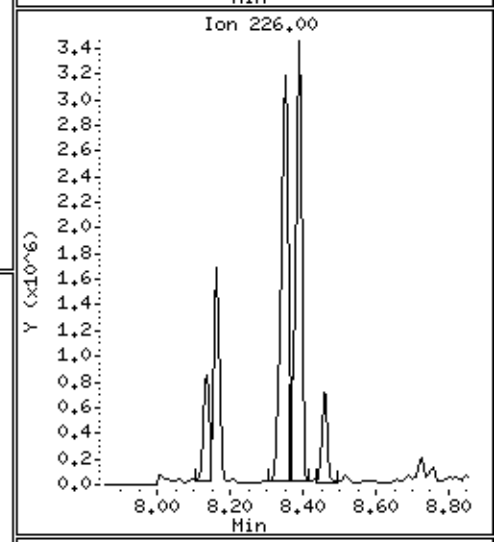
19 Chrysene

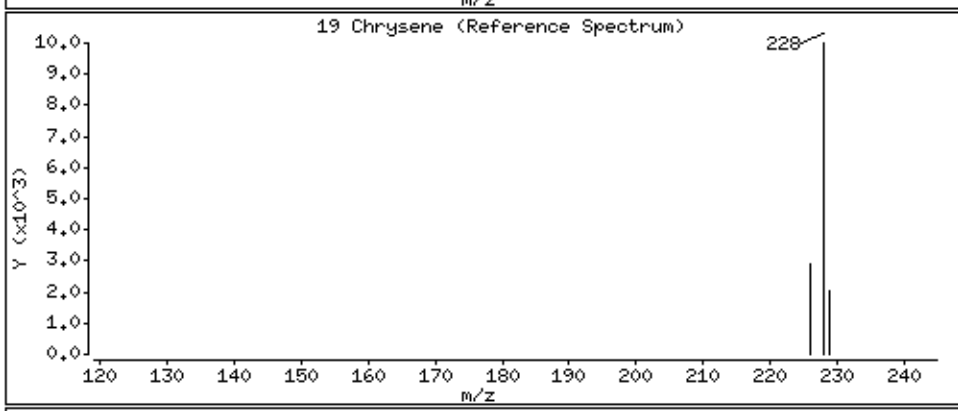
Concentration: 3210 ug/Kg

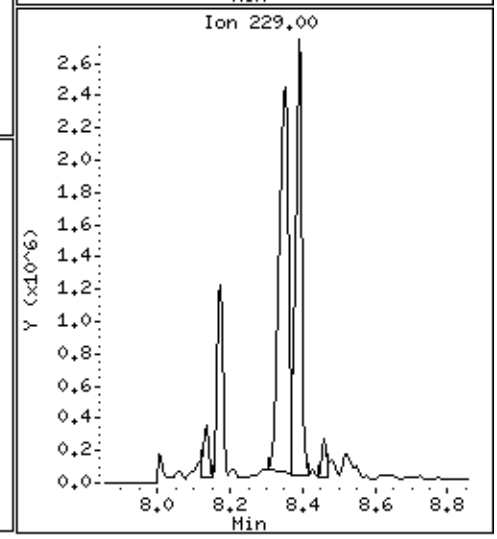


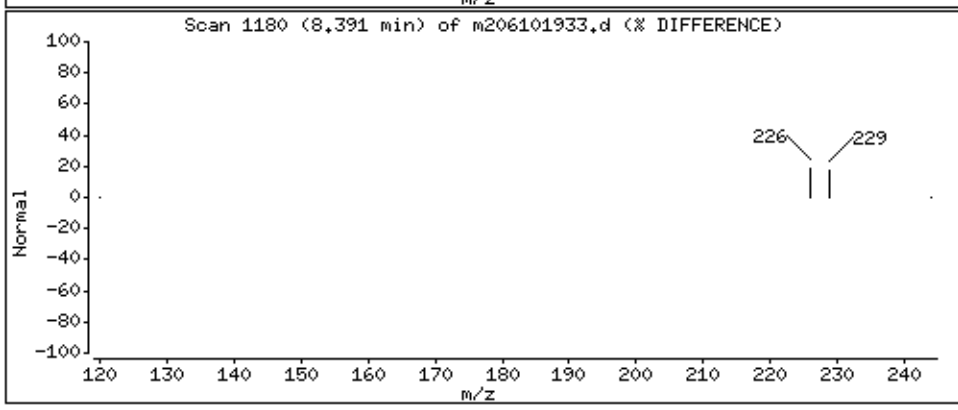












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d

Date : 11-JUN-2019 00:36

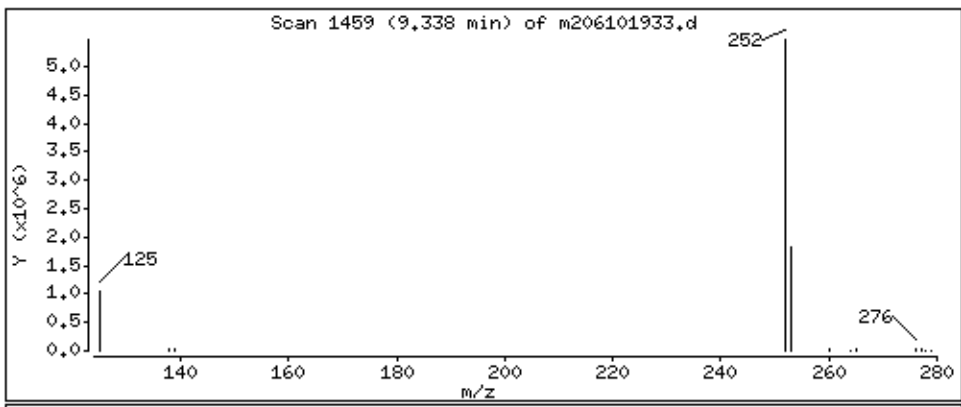
Client ID: AOC34 Instrument: 30mss2.i

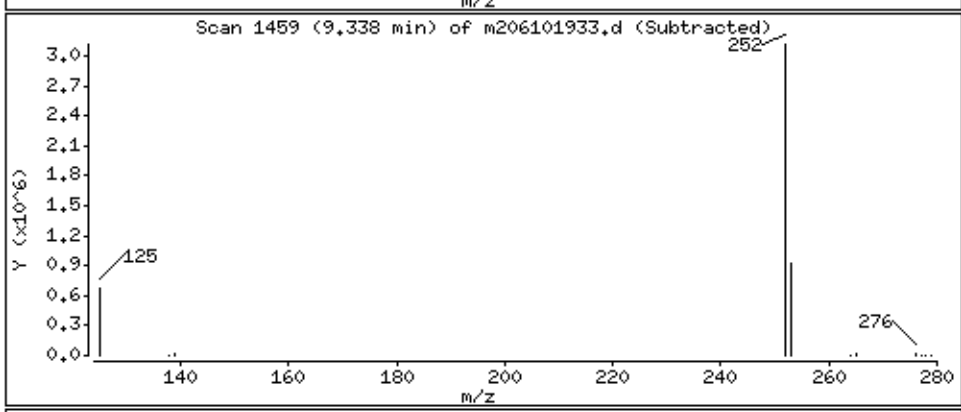
Sample Info: 30298231010,

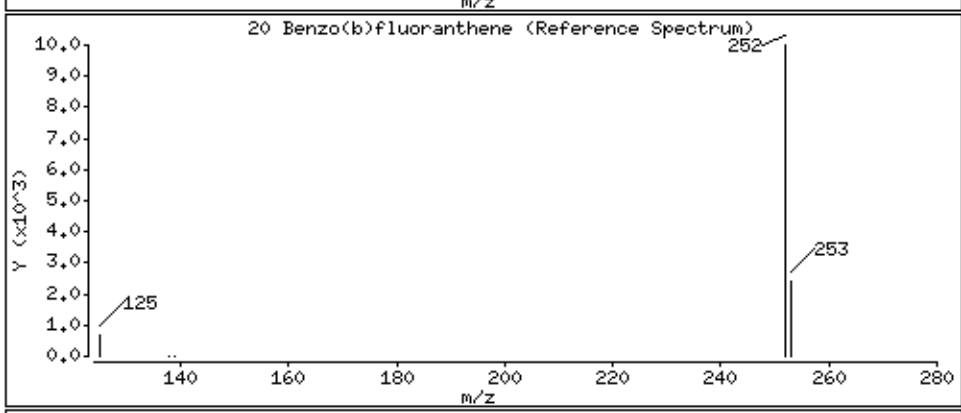
Volume Injected (uL): 1.0 Operator: AJC

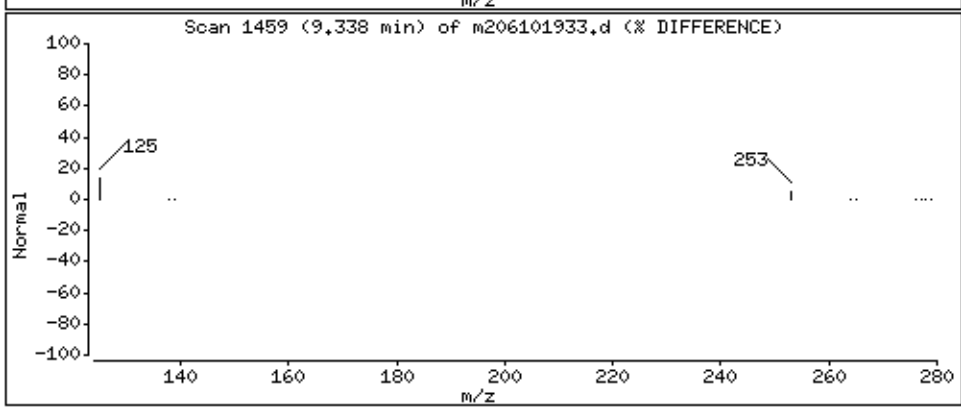
Column phase: RTX-5MS Column diameter: 0.25

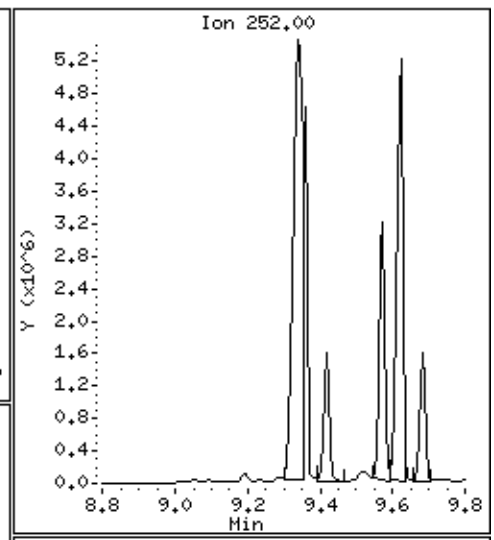
20 Benzo(b)fluoranthene Concentration: 6360 ug/Kg

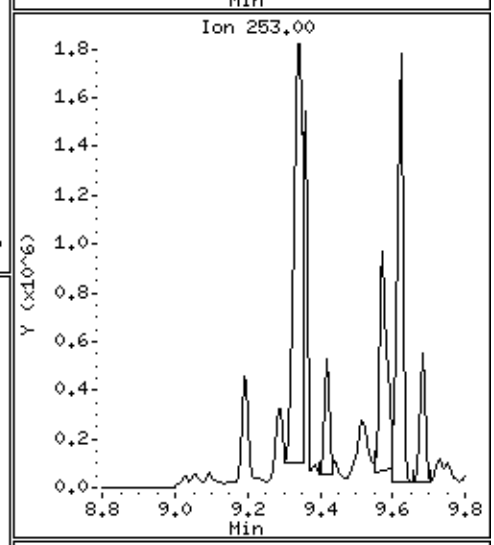


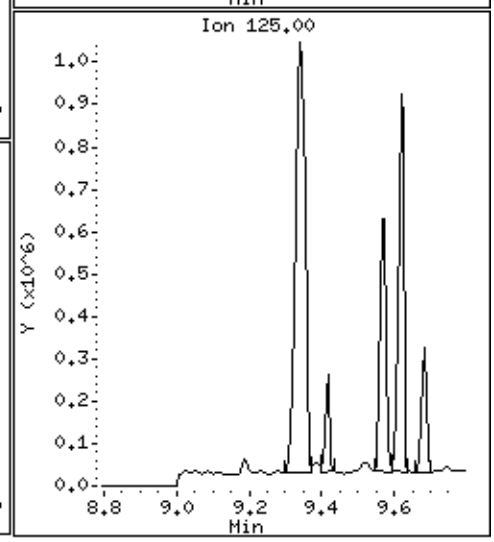












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101933.d

Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

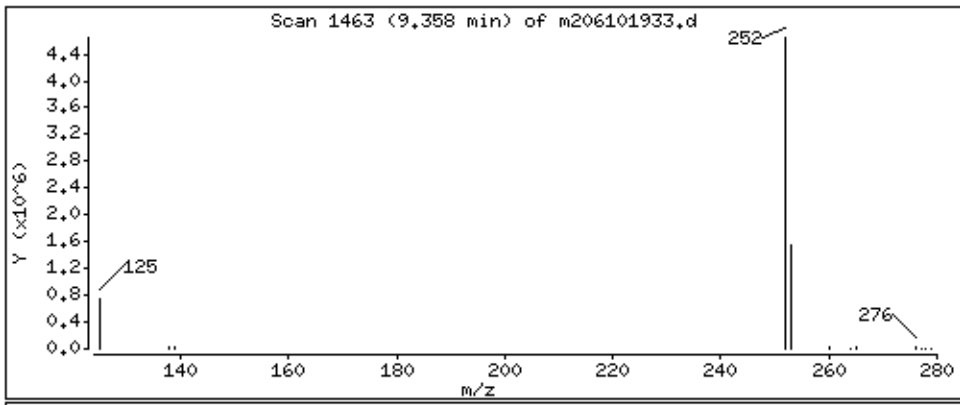
Operator: AJC

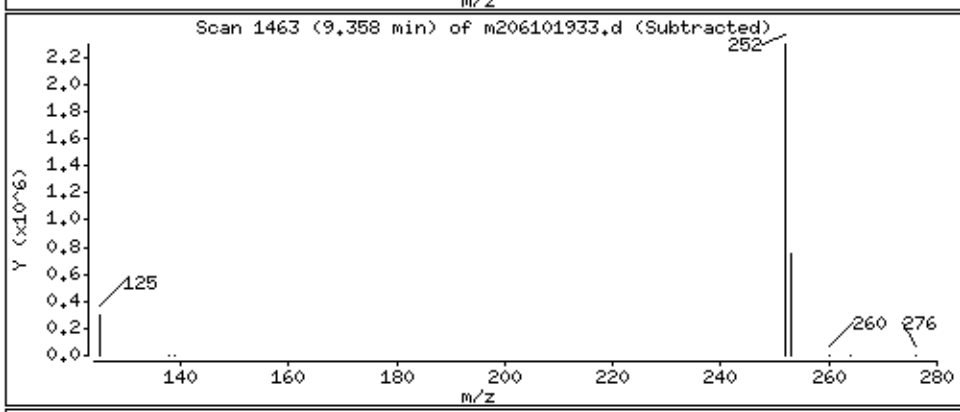
Column phase: RTX-5MS

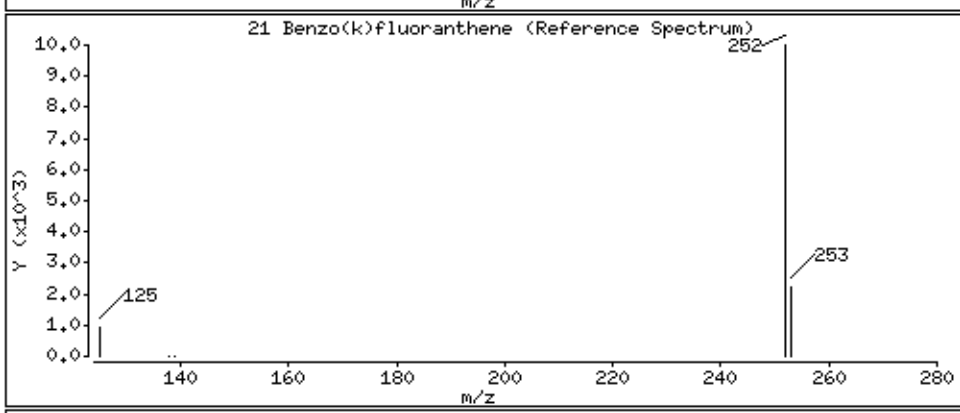
Column diameter: 0.25

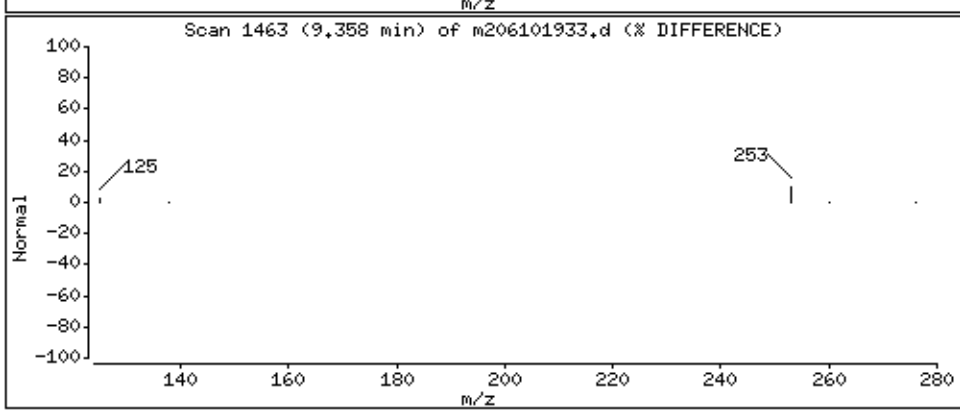
21 Benzo(k)fluoranthene

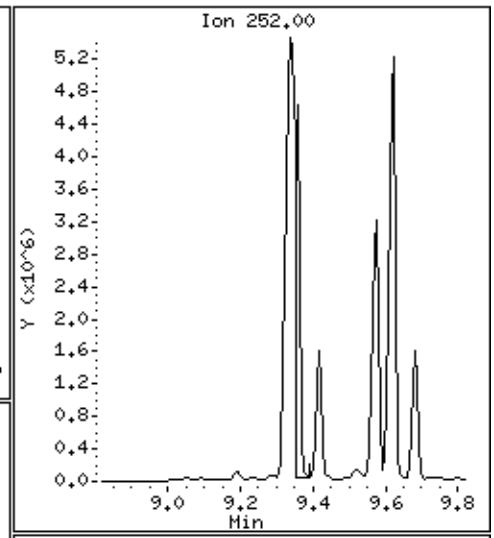
Concentration: 2130 ug/Kg

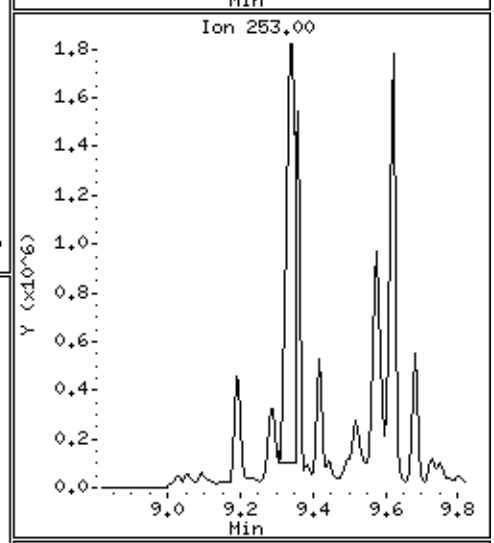


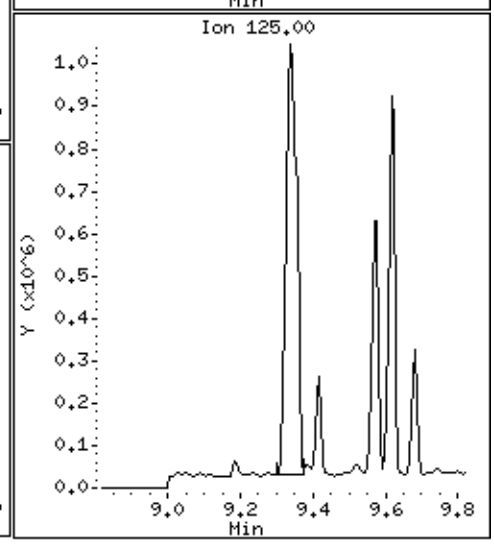












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Date : 11-JUN-2019 00:36

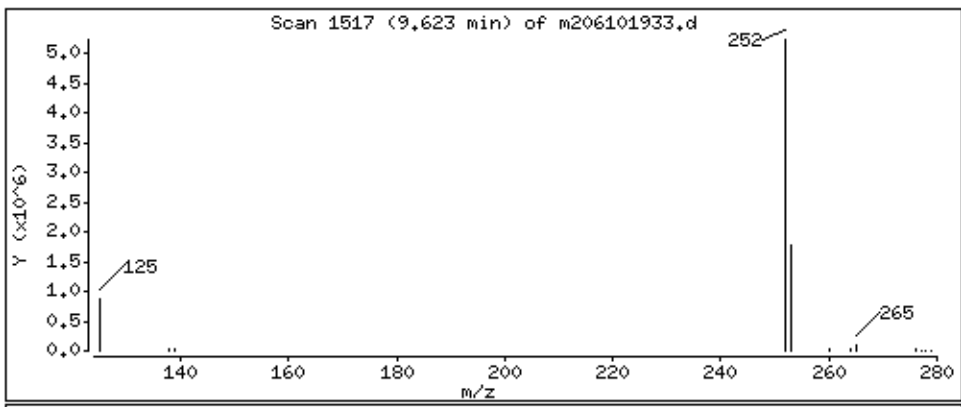
Client ID: AOC34 Instrument: 30mss2.i

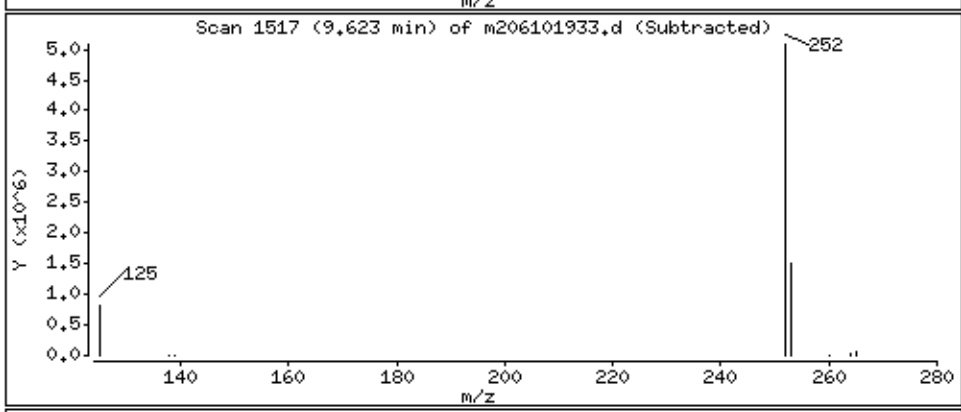
Sample Info: 30298231010,

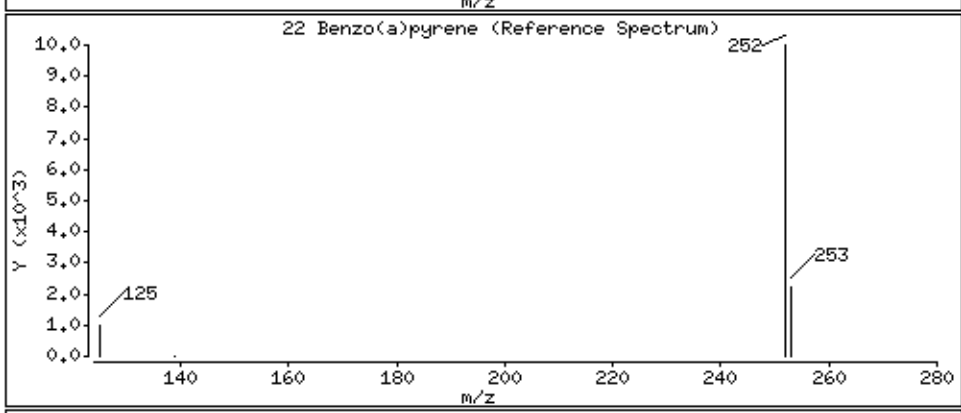
Volume Injected (uL): 1.0 Operator: AJC

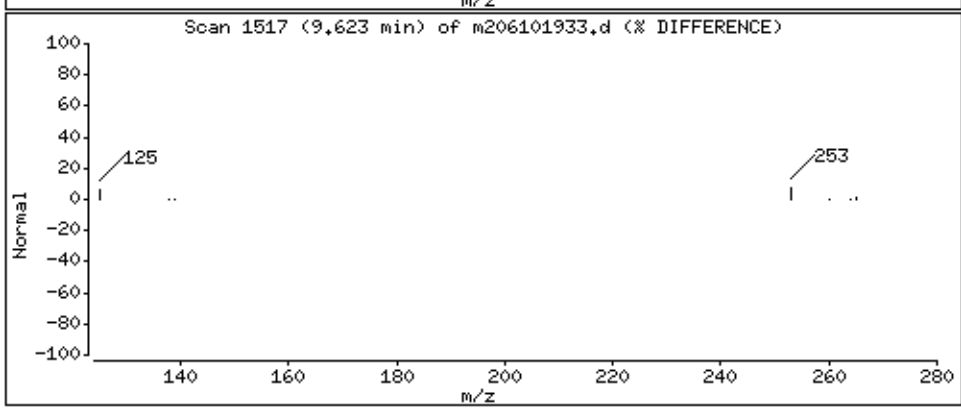
Column phase: RTX-5MS Column diameter: 0.25

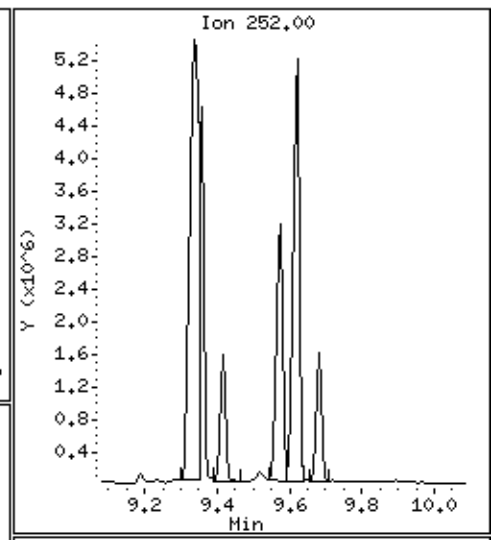
22 Benzo(a)pyrene Concentration: 4030 ug/Kg

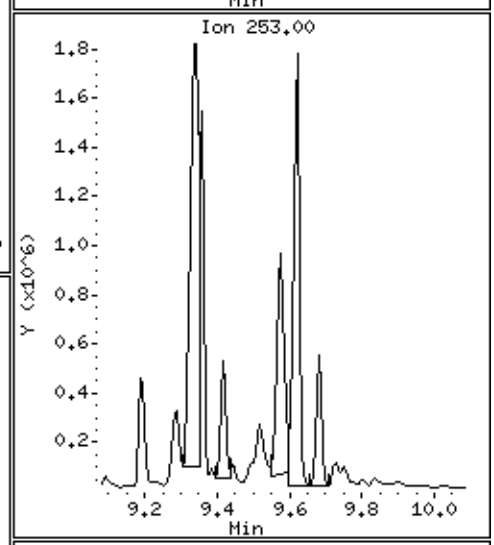


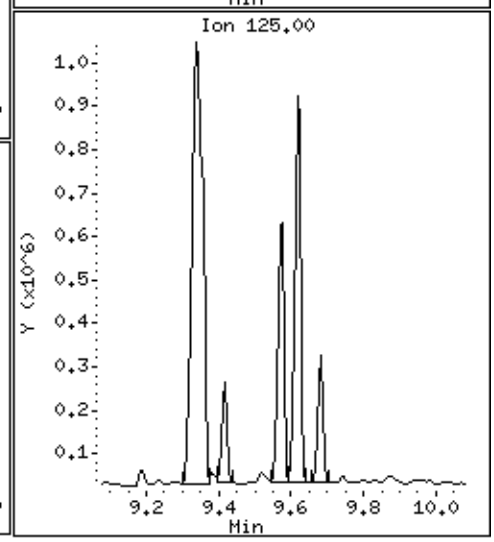












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

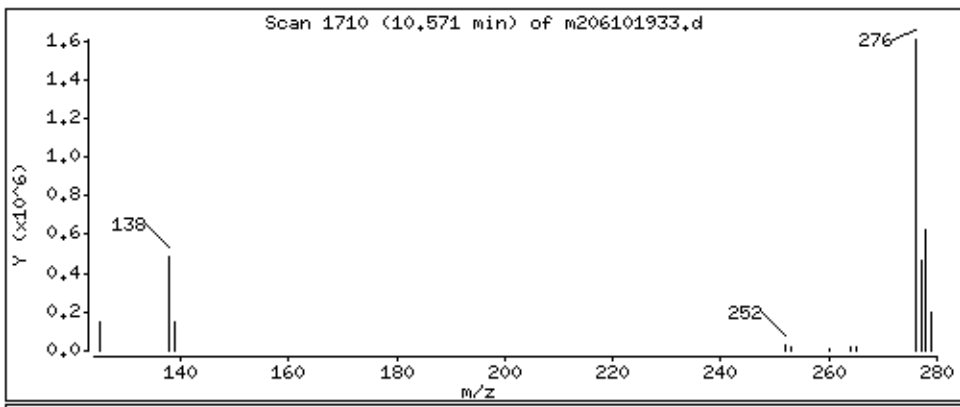
Operator: AJC

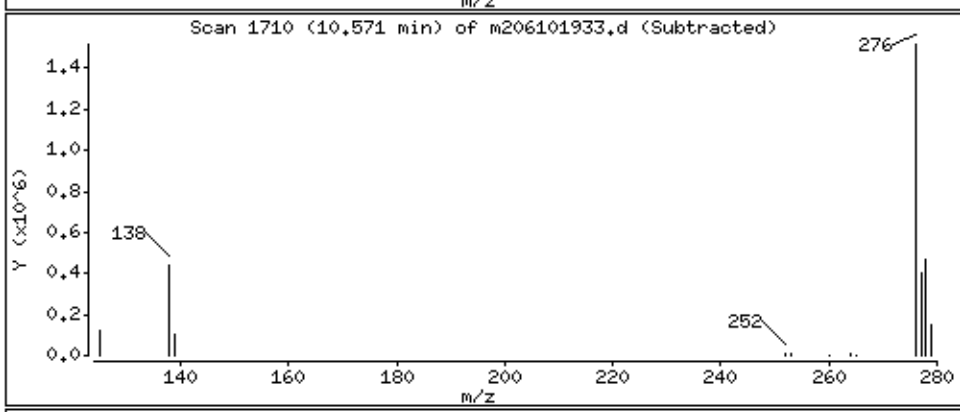
Column phase: RTX-5MS

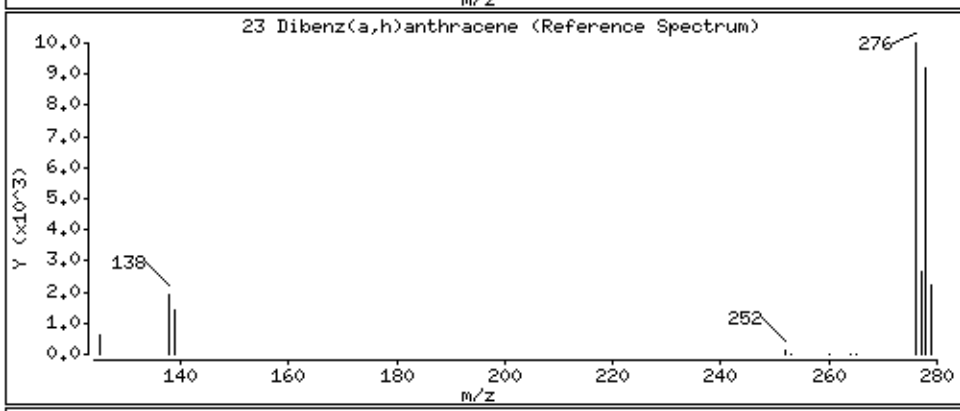
Column diameter: 0.25

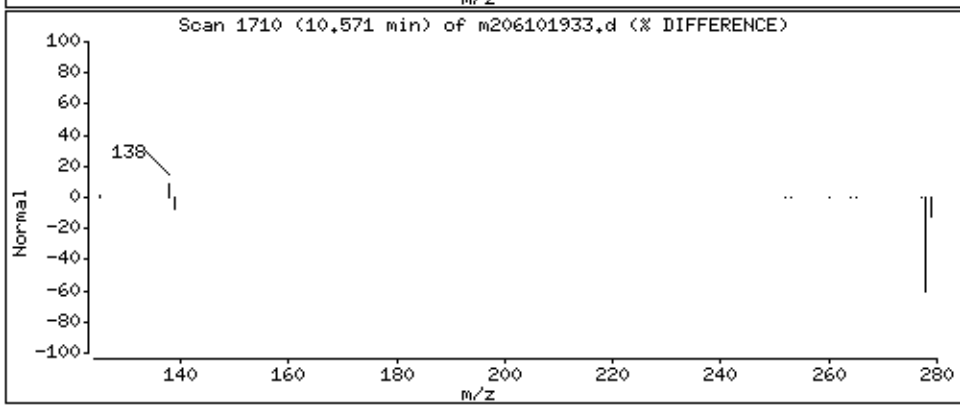
23 Dibenz(a,h)anthracene

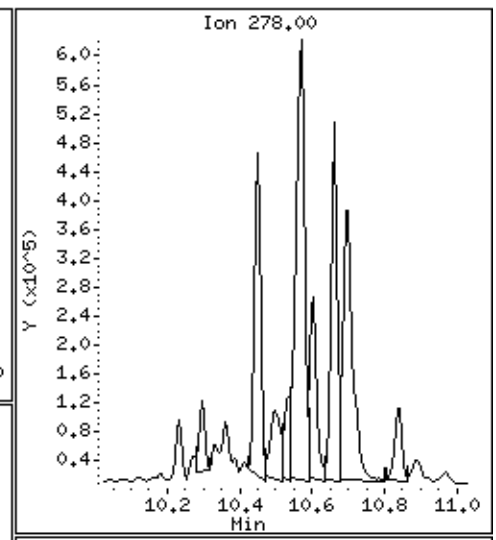
Concentration: 692 ug/Kg

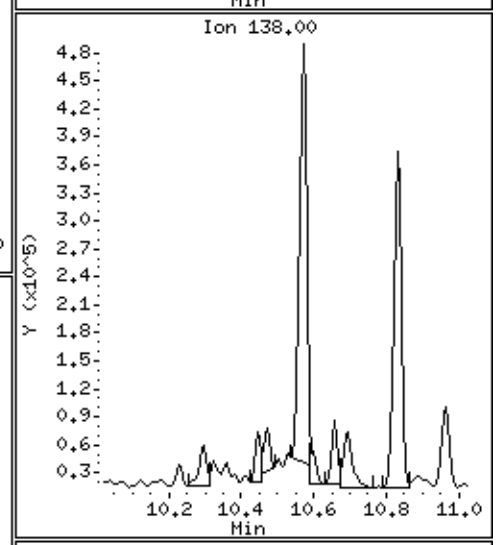


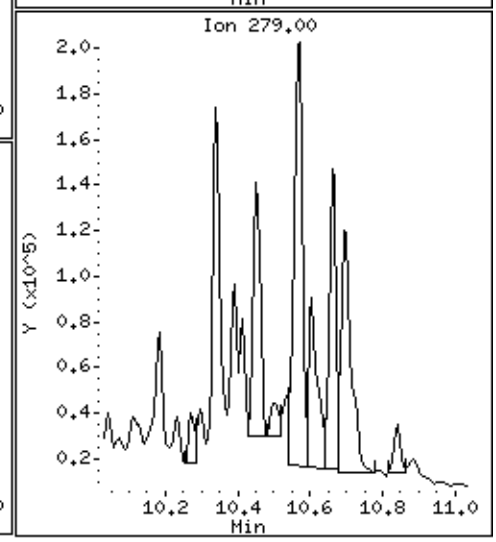












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

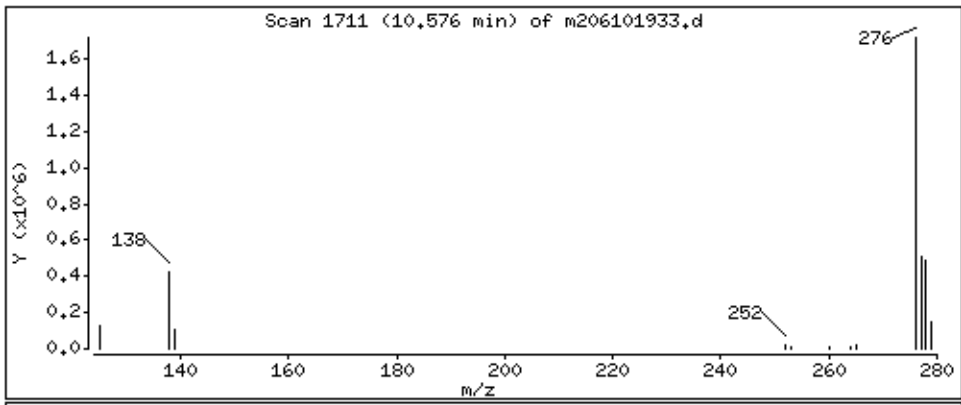
Operator: AJC

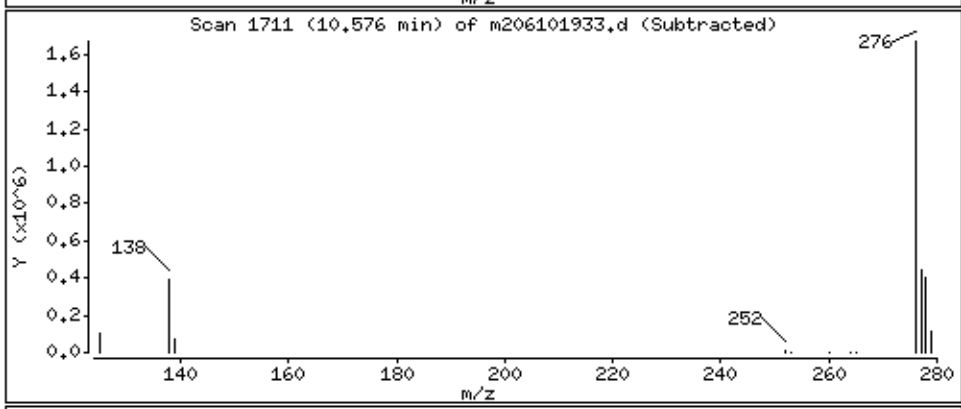
Column phase: RTX-5MS

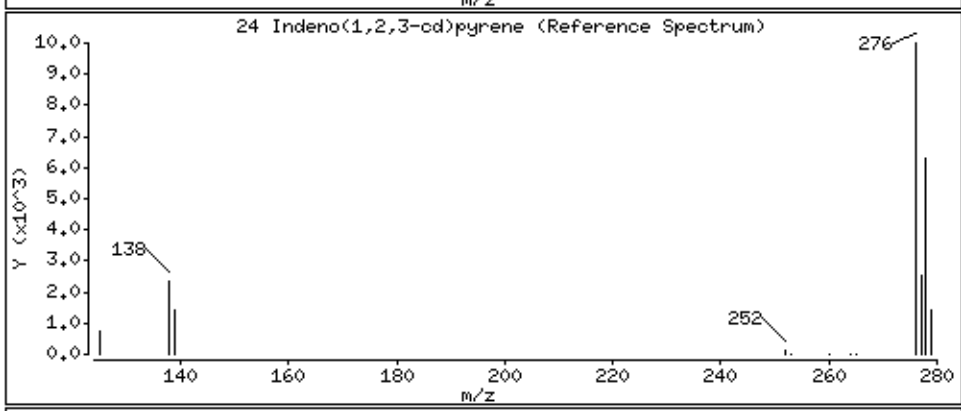
Column diameter: 0.25

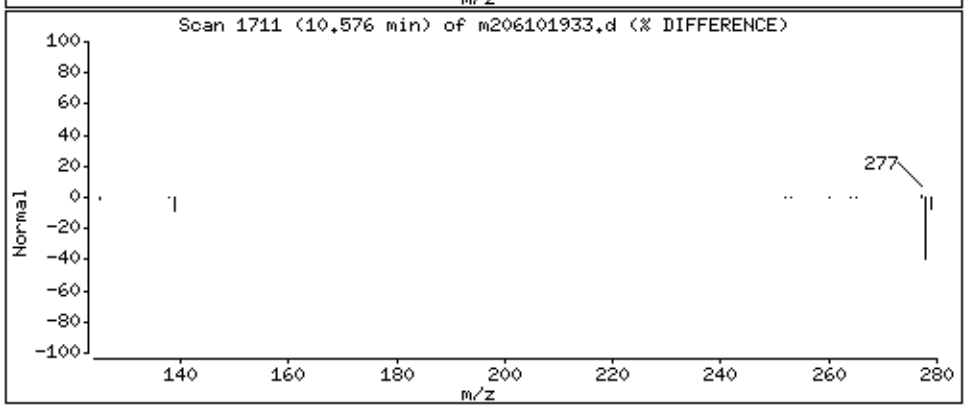
24 Indeno(1,2,3-cd)pyrene

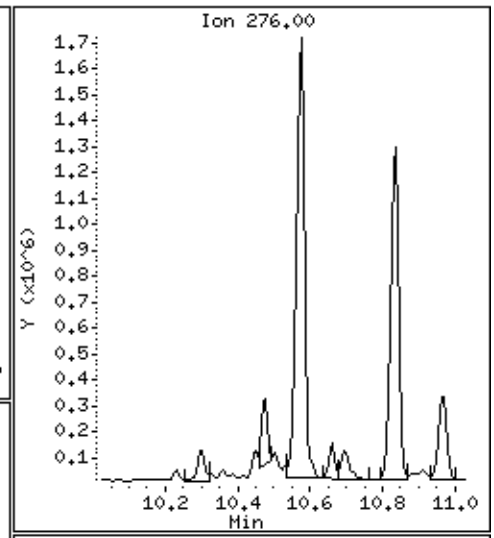
Concentration: 1470 ug/Kg

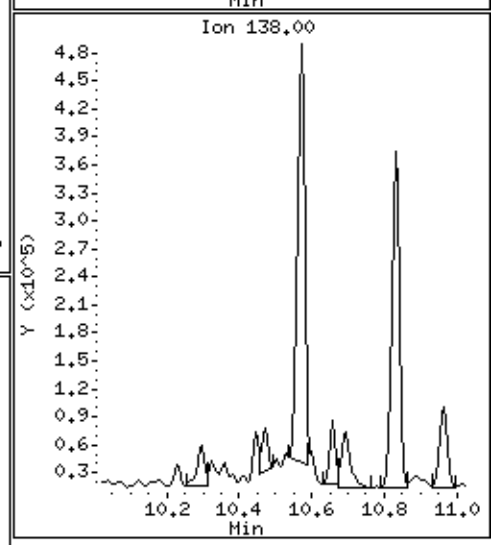












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Date : 11-JUN-2019 00:36

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010,

Volume Injected (uL): 1.0

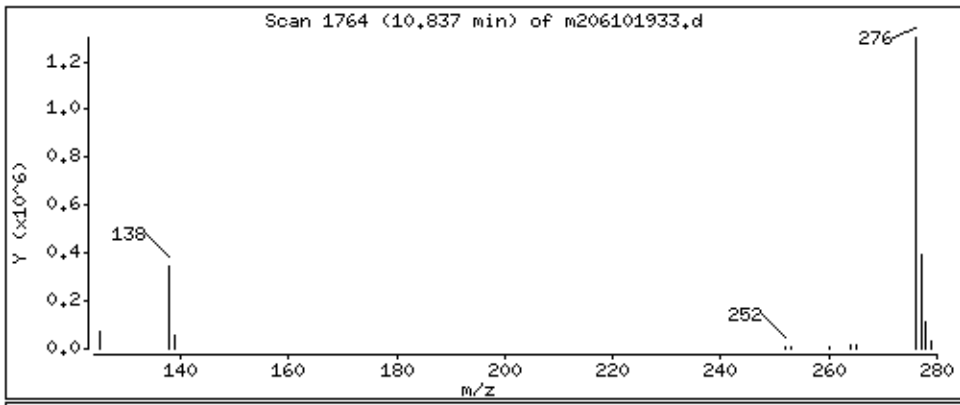
Operator: AJC

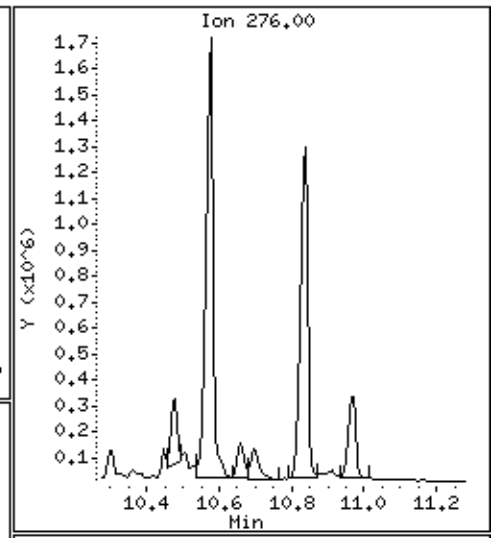
Column phase: RTX-5MS

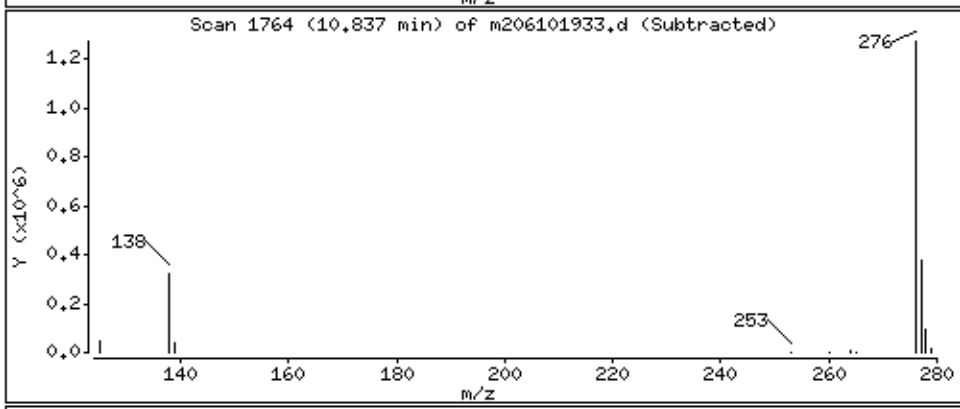
Column diameter: 0.25

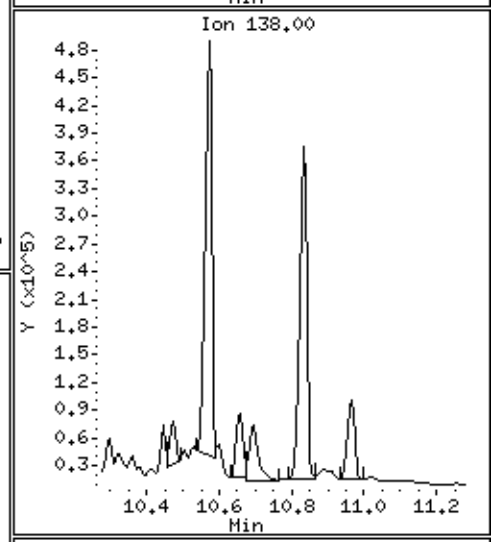
25 Benzo[g,h,i]perylene

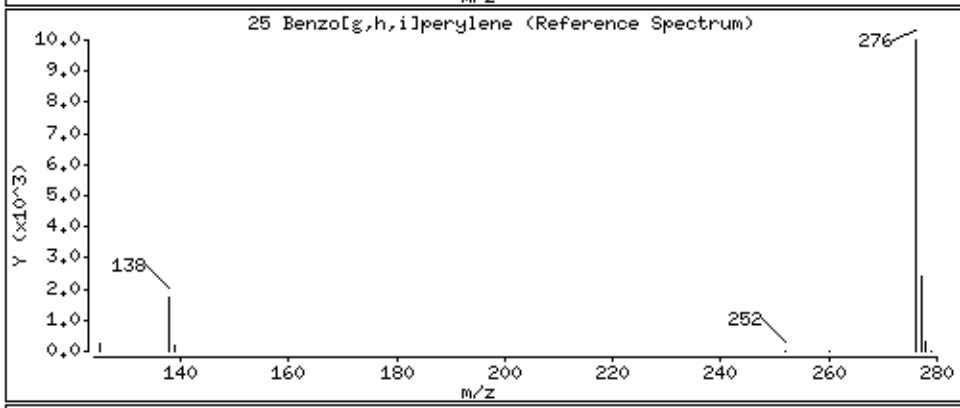
Concentration: 1240 ug/Kg

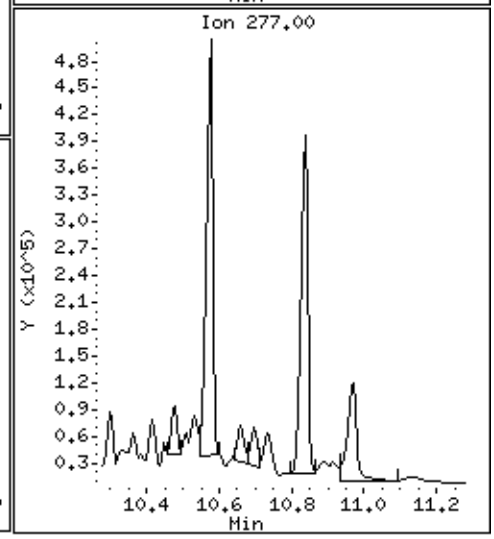


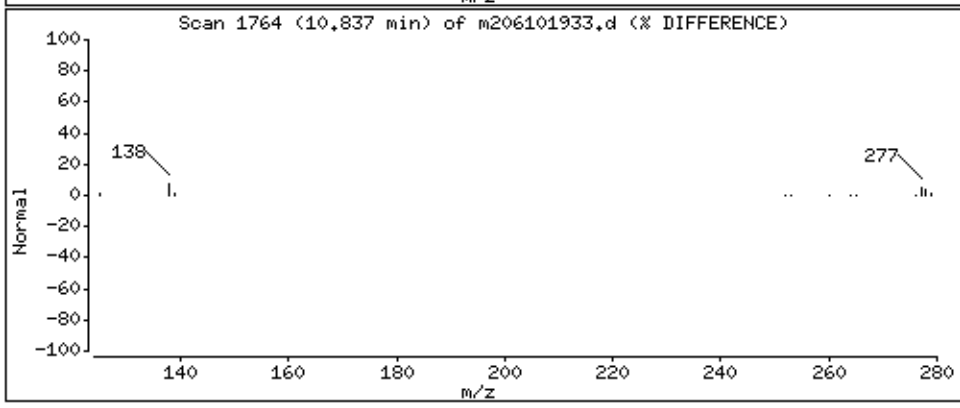












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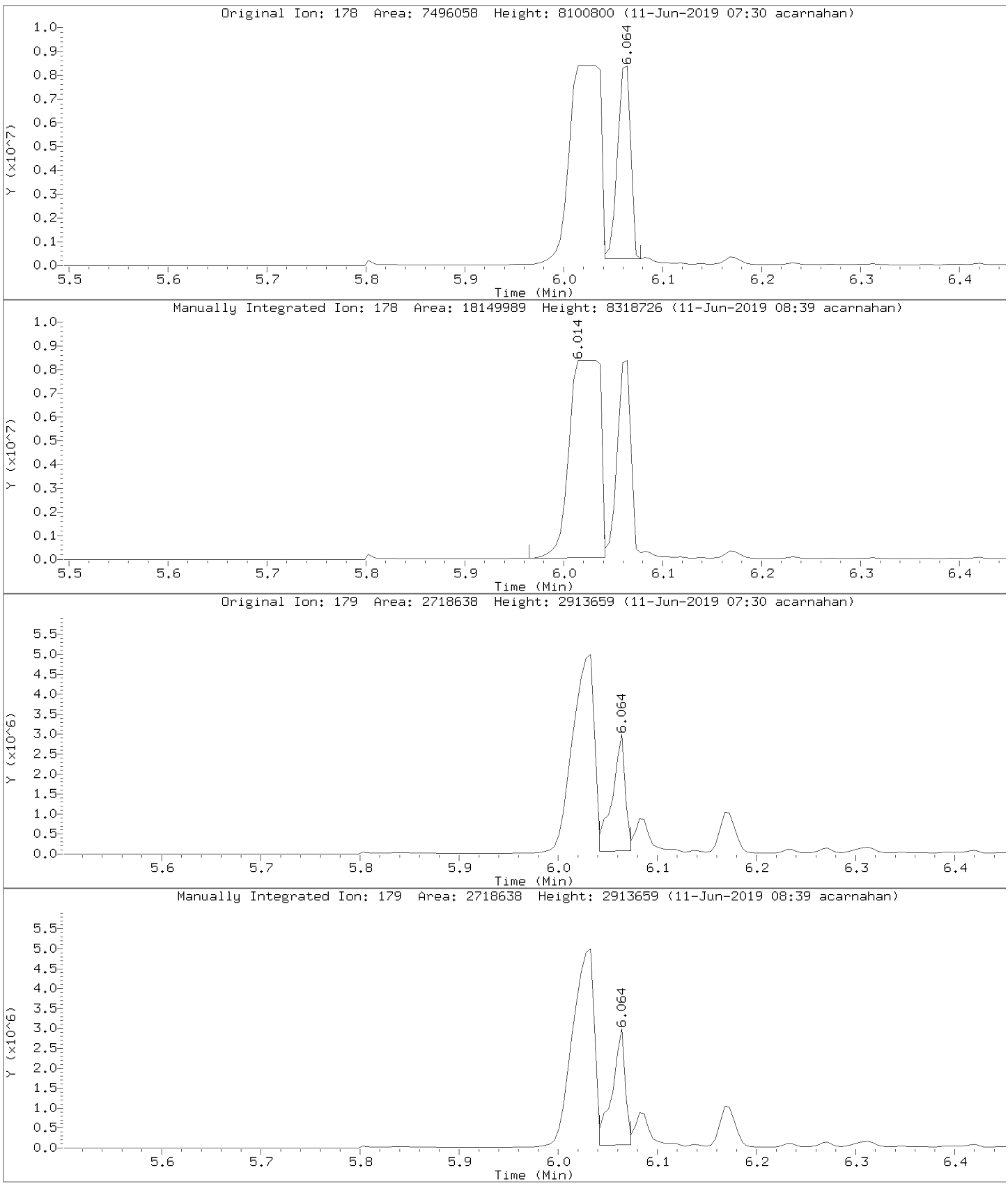
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Phenanthrene Review Code: WP
CAS Number: 85-01-8



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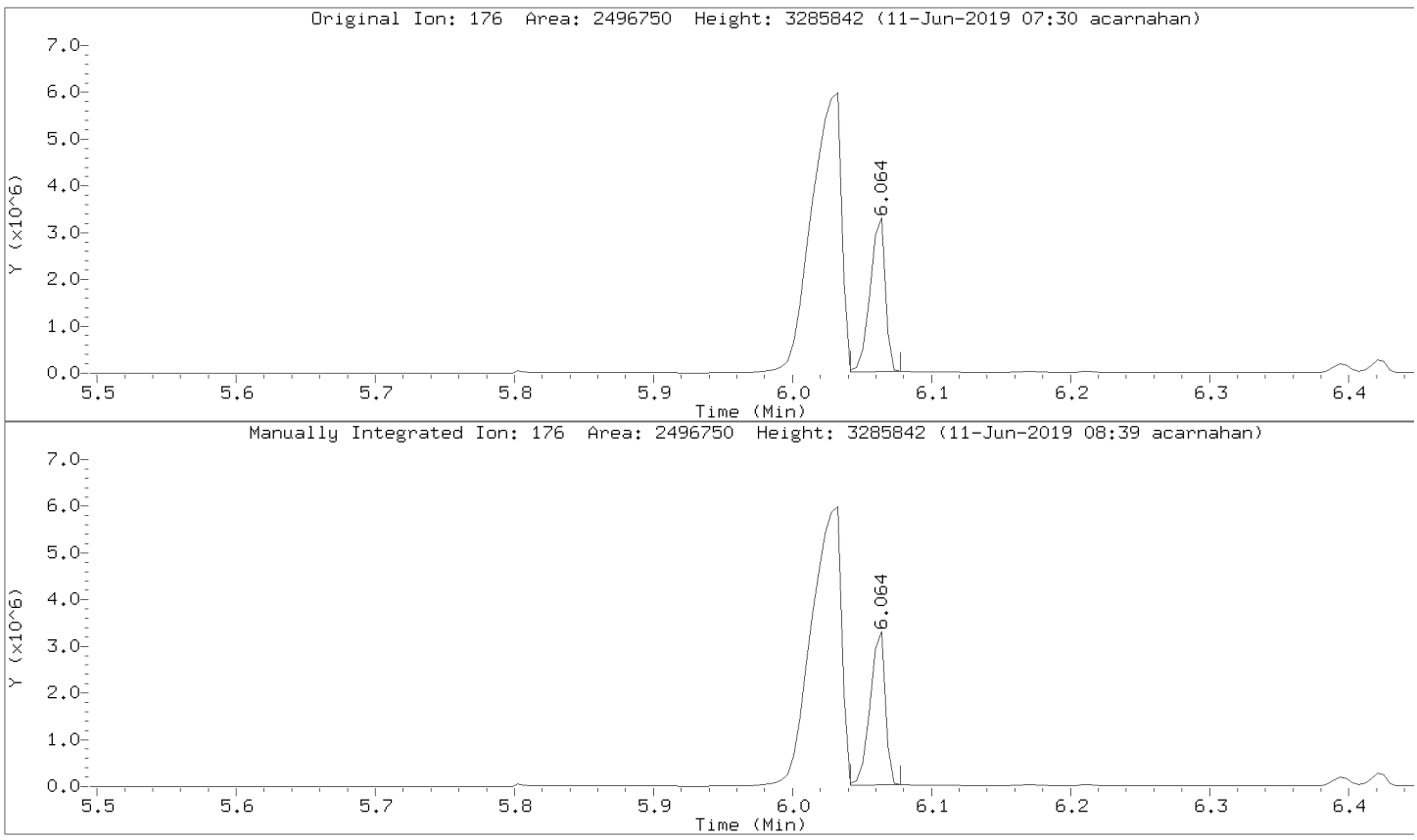
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010



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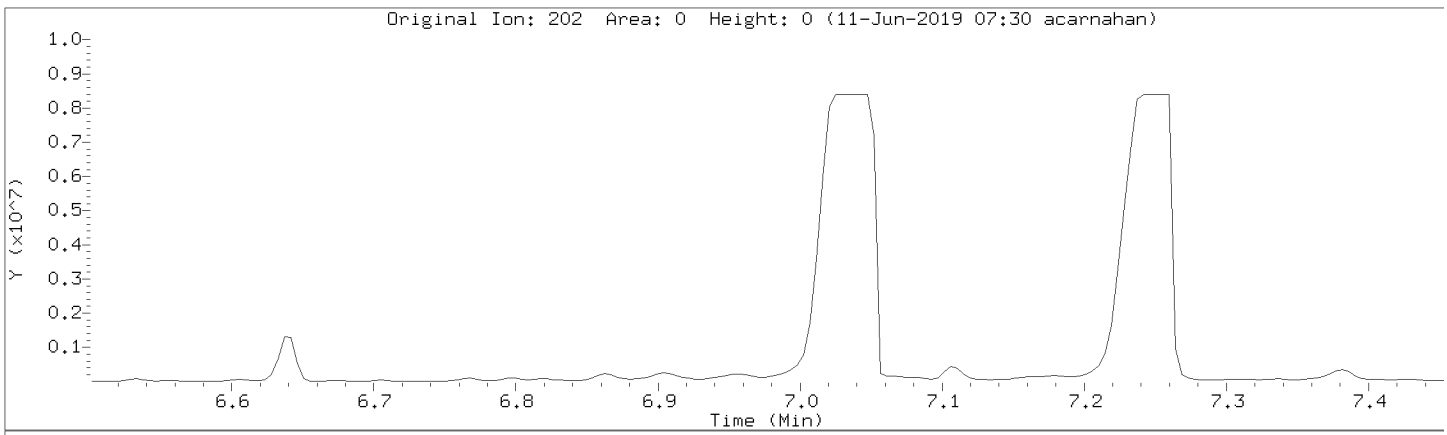
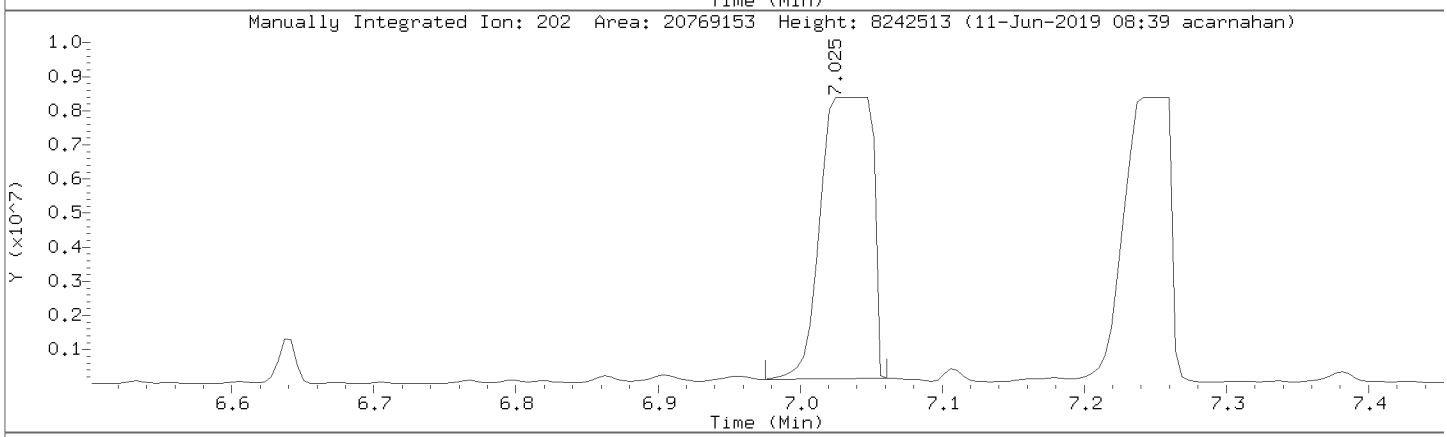
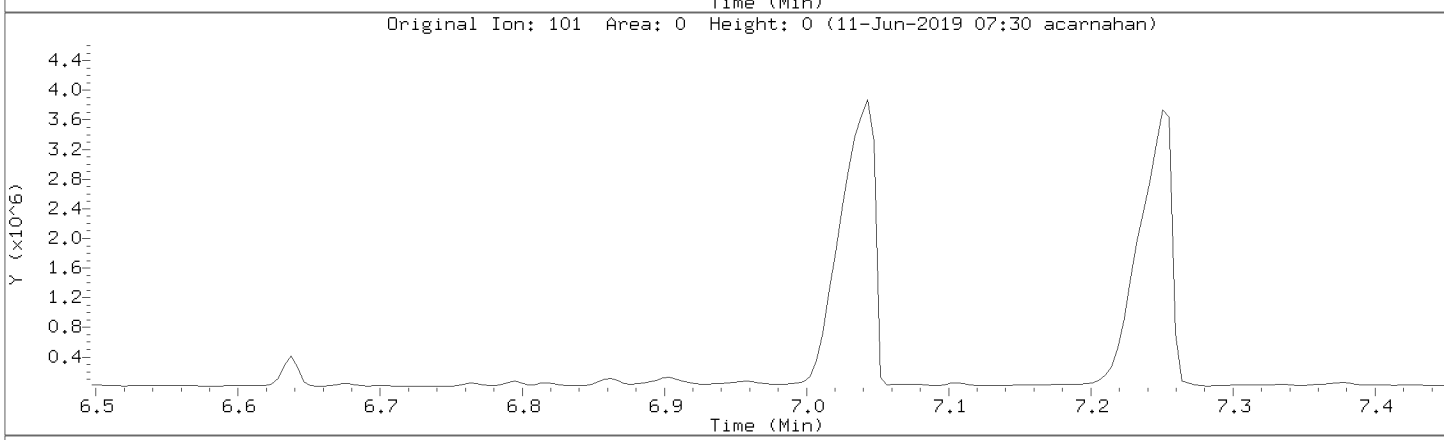
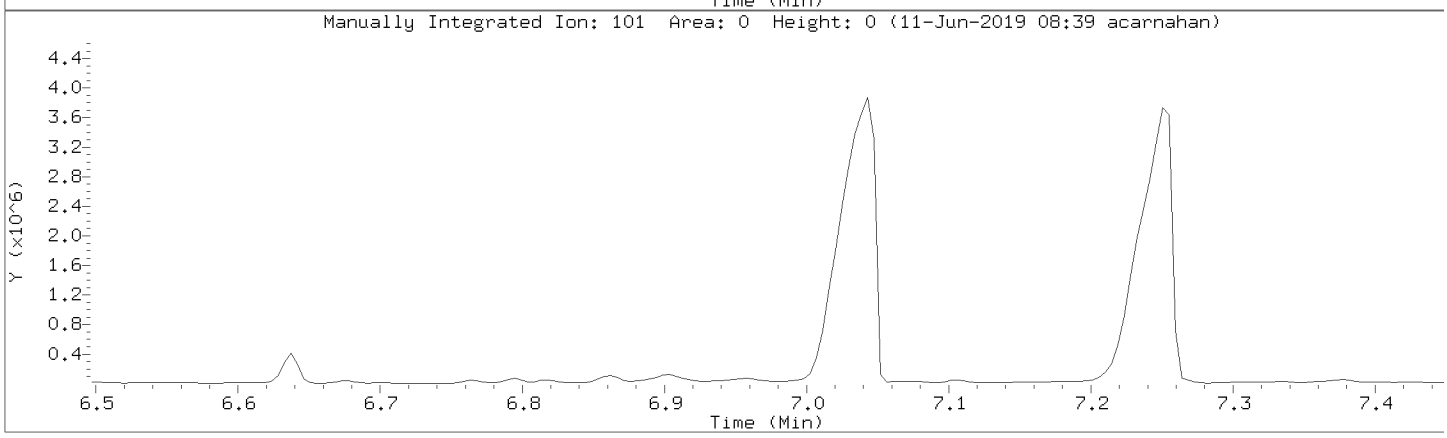
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Fluoranthene Review Code: NI
CAS Number: 206-44-0









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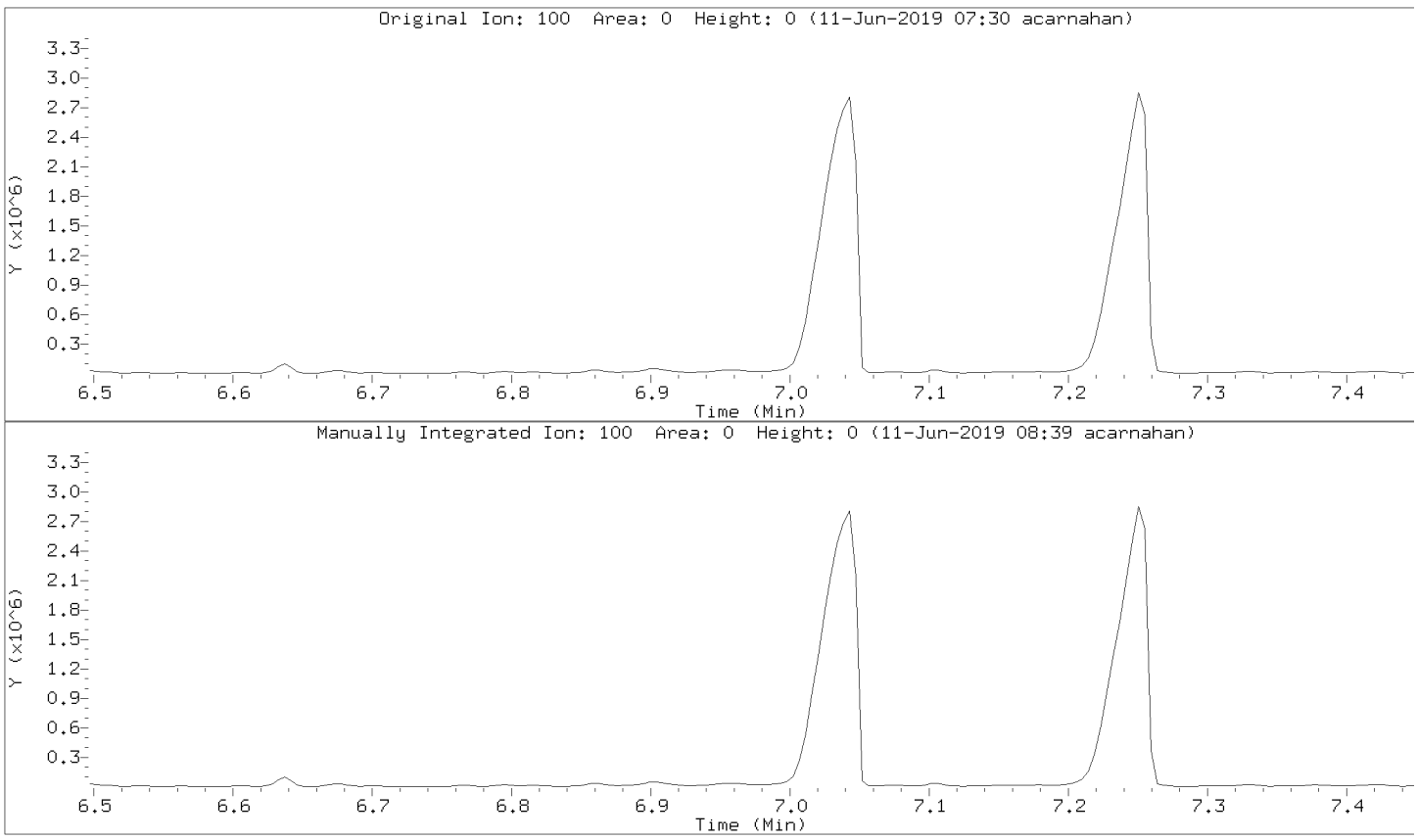
Instrument: 30mss2.i
Lab Sample ID: 30298231010



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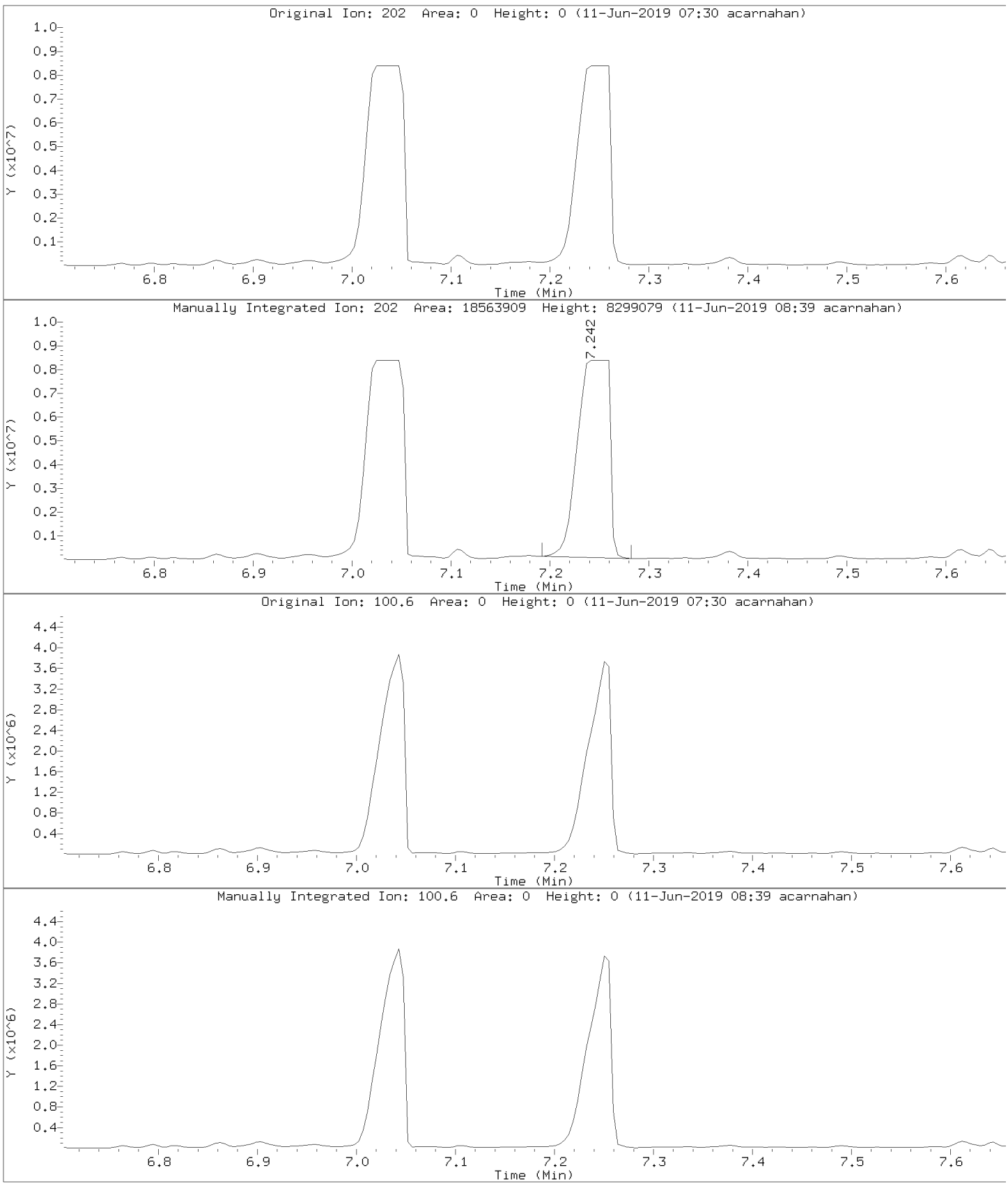
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Pyrene Review Code: NI
CAS Number: 129-00-0



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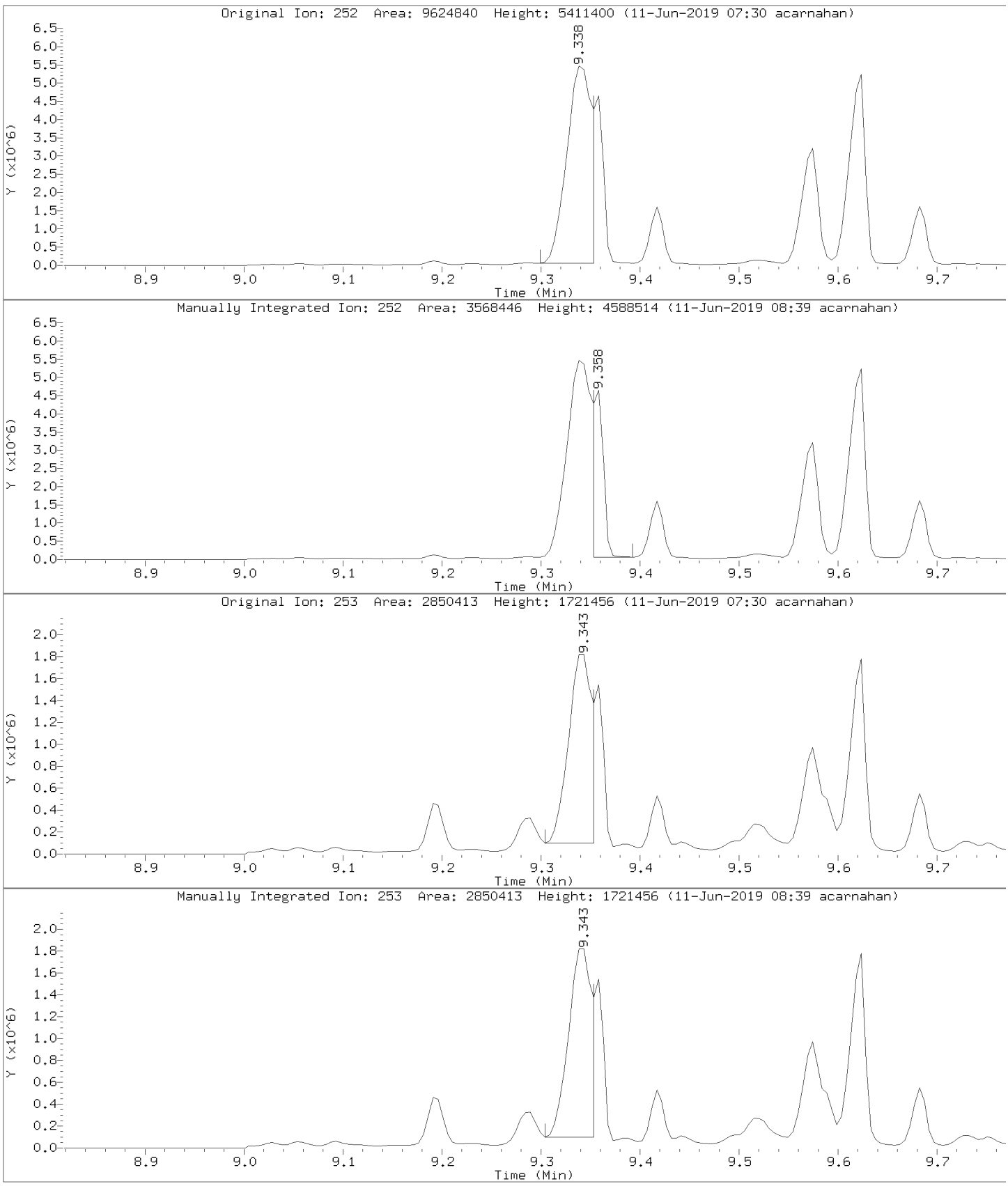
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



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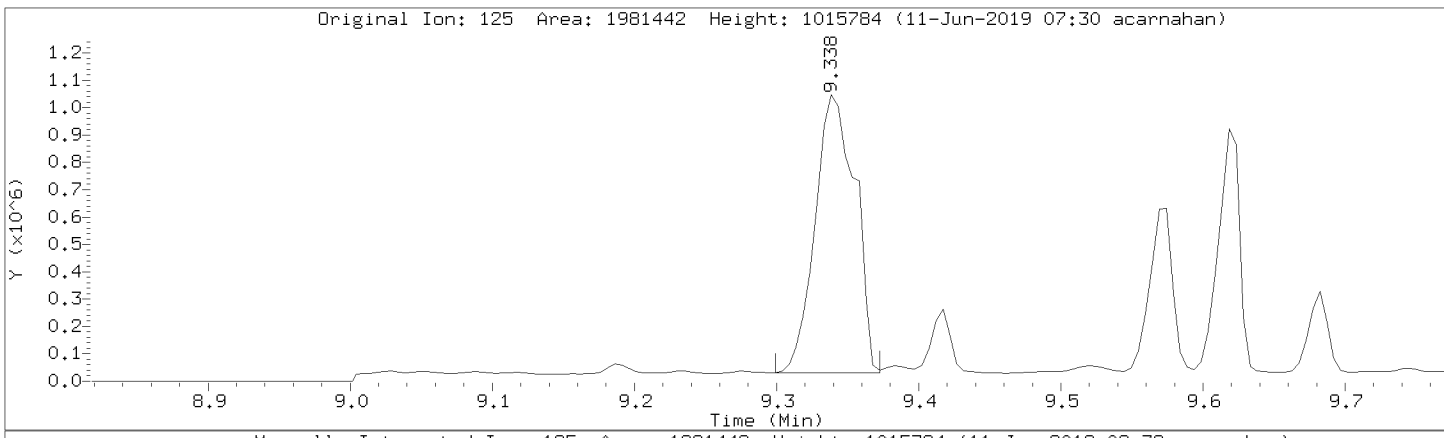
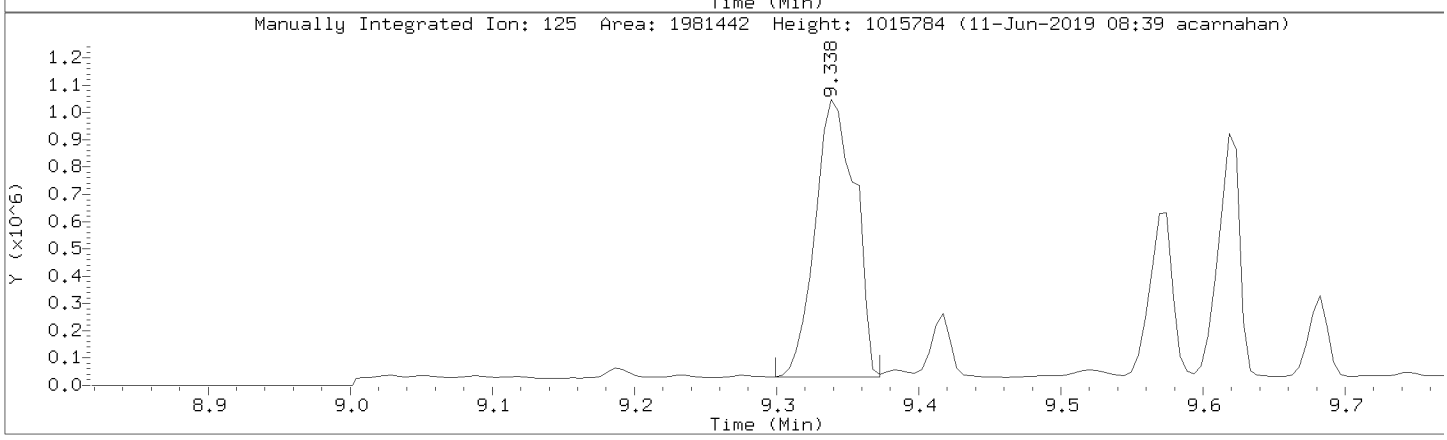
Injection Date: 11-JUN-2019 00:36
Instrument: 30mss2.i
Lab Sample ID: 30298231010





SAMPLE NO.

AOC34

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 30298231010
Date Analyzed: 06/11/2019 00:54
Lab File ID: MSS2061019.B\M206101934.D
Initial wt/vol: 15.4 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 8.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
120-12-7	Anthracene	2820	
56-55-3	Benzo(a)anthracene	7980	
50-32-8	Benzo(a)pyrene	6260	
205-99-2	Benzo(b)fluoranthene	9160	
207-08-9	Benzo(k)fluoranthene	4020	
218-01-9	Chrysene	6090	
206-44-0	Fluoranthene	10500	
193-39-5	Indeno(1,2,3-cd)pyrene	2250	
85-01-8	Phenanthrene	10000	
129-00-0	Pyrene	7450	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 11-JUN-2019 00:54
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30298231010x10,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.782	3.777	(1.000)	1241445	4.00000		
	8 Naphthalene	128	3.794	3.788	(1.003)	146193	0.51283	333	
	9 2-Methylnaphthalene	142	4.234	4.228	(1.119)	86995	0.41826	272	
	10 1-Methylnaphthalene	142	4.296	4.291	(1.136)	77879	0.39684	258	
$	6 2-Fluorobiphenyl (S)	172	4.456	4.451	(0.907)	135413	0.52462	34.1(R)	
	11 Acenaphthylene	152	4.824	4.817	(0.982)	172872	0.58260	378	
*	2 Acenaphthene-d10 (IS)	164	4.913	4.906	(1.000)	740459	4.00000		
	12 Acenaphthene	153	4.933	4.929	(1.004)	330553	1.68677	1100	
	13 Fluorene	166	5.286	5.280	(1.076)	421963	1.84052	1200	
*	3 Phenanthrene-d10 (IS)	188	5.987	5.978	(1.000)	1238479	4.00000		
	14 Phenanthrene	178	6.009	5.996	(1.004)	4495613	14.1152	9160(Q)	
	15 Anthracene	178	6.046	6.041	(1.010)	1188834	3.98407	2590(Q)	
	16 Fluoranthene	202	7.016	7.002	(1.172)	5140860	14.8028	9610(Q)	
	17 Pyrene	202	7.223	7.210	(1.206)	3791204	10.5174	6830(Q)	
$	7 Terphenyl-d14 (S)	244	7.327	7.322	(1.224)	111980	0.40032	26.0(R)	
	18 Benzo(a)anthracene	228	8.329	8.321	(0.999)	1541999	11.2659	7320	
*	4 Chrysene-d12 (IS)	240	8.341	8.329	(1.000)	503652	4.00000		
	19 Chrysene	228	8.367	8.353	(1.003)	1236278	8.59300	5580	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.313	9.299	(0.966)	1249857	12.9363	8400(QM)	GT
21 Benzo(k)fluoranthene	252	9.333	9.318	(0.968)	608163	5.67787	3690(QM)	GT
22 Benzo(a)pyrene	252	9.598	9.584	(0.995)	802822	8.83767	5740	
* 5 Perylene-d12 (IS)	264	9.643	9.628	(1.000)	356932	4.00000		
23 Dibenz(a,h)anthracene	278	10.546	10.527	(1.094)	124550	1.36938	889(Q)	
24 Indeno(1,2,3-cd)pyrene	276	10.551	10.527	(1.094)	347114	3.18039	2060(M)	BA
25 Benzo[g,h,i]perylene	276	10.807	10.777	(1.121)	263780	2.77650	1800	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

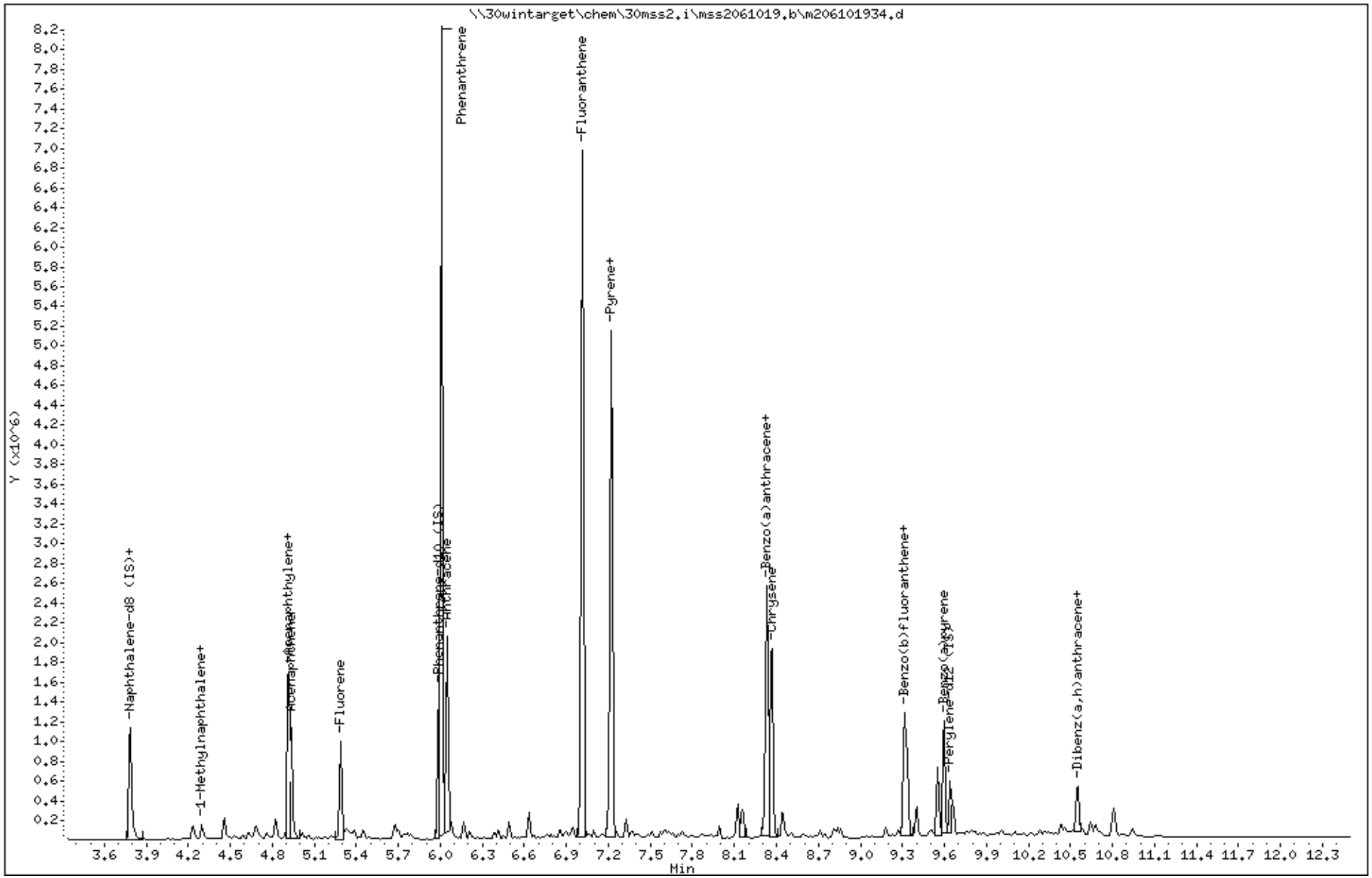
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30298231
Lab Smp Id: 30298231010
Client Smp ID: AOC34
Sample Location:
Sample Point:
Sample Date: 05-JUN-2019
Date Received: 06-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14682,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0974	U
91-20-3	Naphthalene	333	
91-57-6	2-Methylnaphthalene	272	
90-12-0	1-Methylnaphthalene	258	
208-96-8	Acenaphthylene	378	
83-32-9	Acenaphthene	1100	
86-73-7	Fluorene	1200	
85-01-8	Phenanthrene	9160	
120-12-7	Anthracene	2590	
206-44-0	Fluoranthene	9610	
129-00-0	Pyrene	6830	
56-55-3	Benzo(a)anthracene	7320	
218-01-9	Chrysene	5580	
205-99-2	Benzo(b)fluoranthene	8400	
207-08-9	Benzo(k)fluoranthene	3690	
50-32-8	Benzo(a)pyrene	5740	
53-70-3	Dibenz(a,h)anthracene	889	
193-39-5	Indeno(1,2,3-cd)pyrene	2060	
191-24-2	Benzo[g,h,i]perylene	1800	
321-60-8	2-Fluorobiphenyl (S)	34.1	
1718-51-0	Terphenyl-d14 (S)	26.0	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d
Date : 11-JUN-2019 00:54
Client ID: A0C34
Instrument: 30mss2.i
Sample Info: 30298231010x10,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d

Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

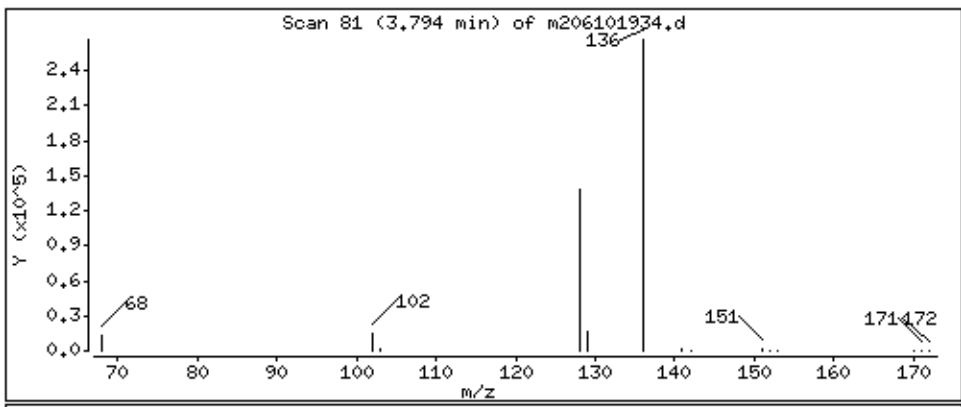
Operator: AJC

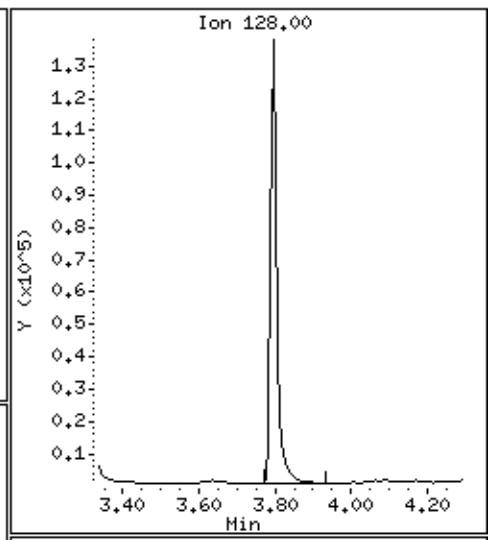
Column phase: RTX-5MS

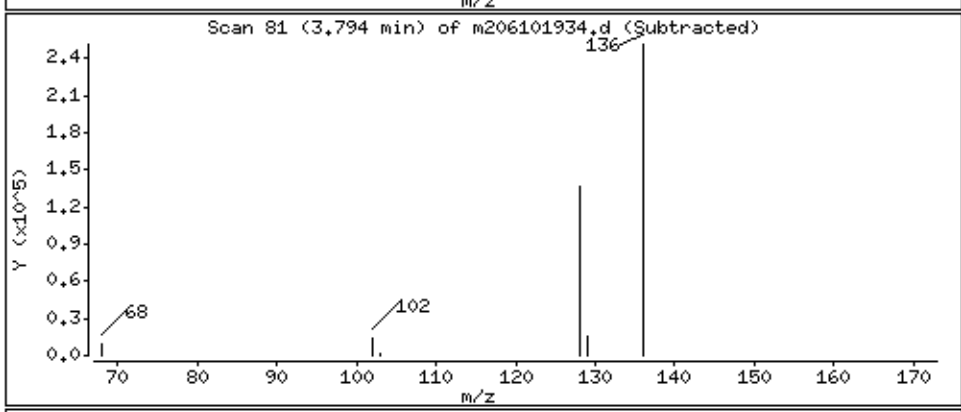
Column diameter: 0.25

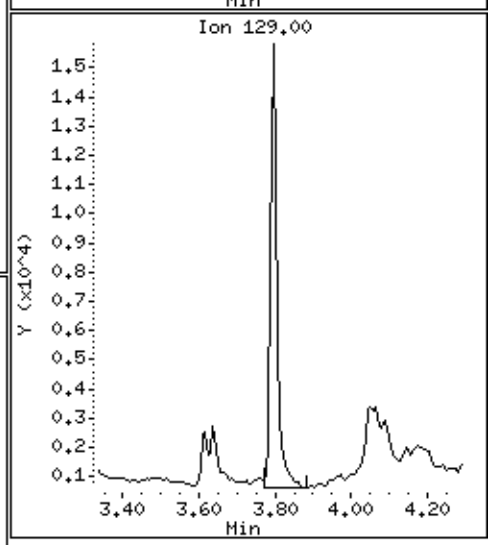
8 Naphthalene

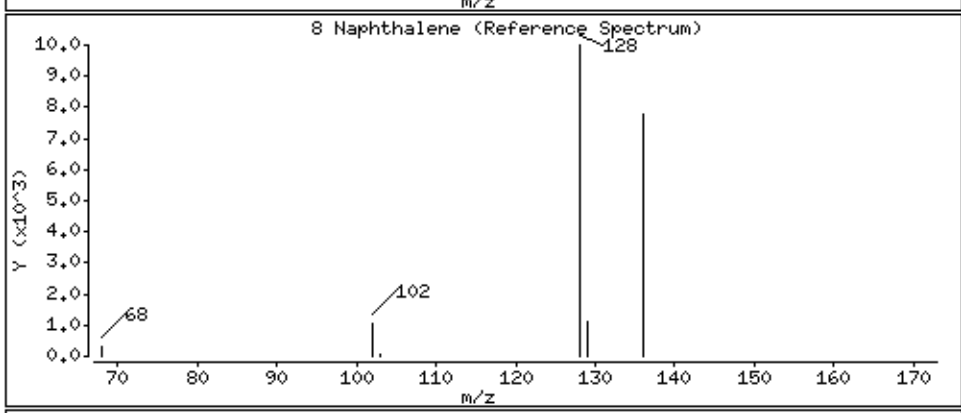
Concentration: 333 ug/Kg

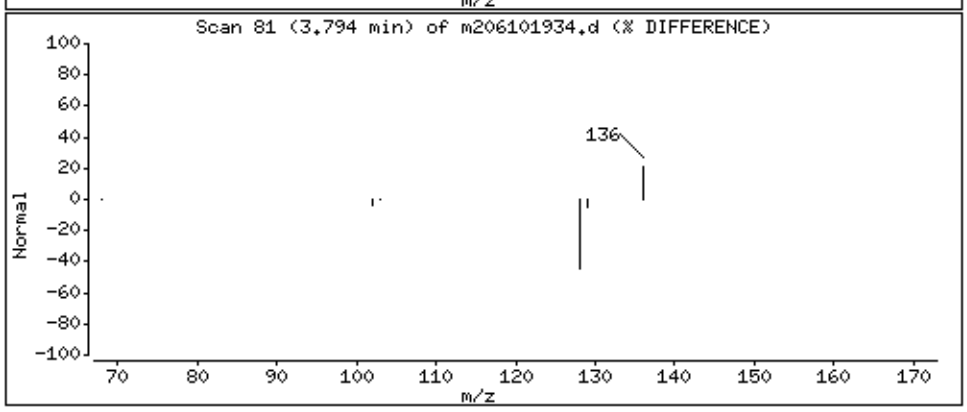












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

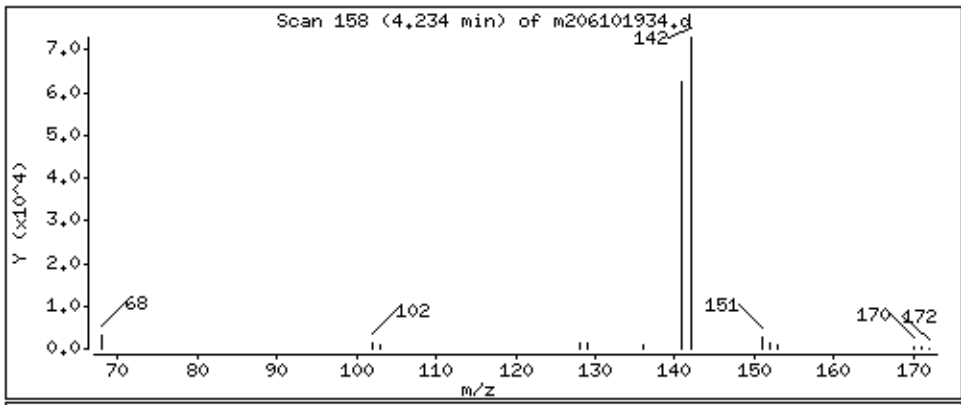
Operator: AJC

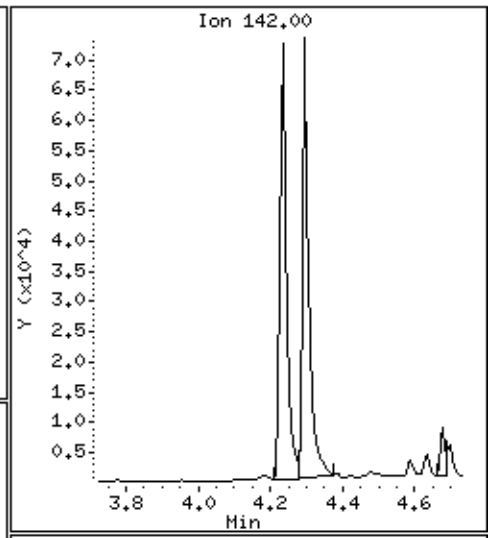
Column phase: RTX-5MS

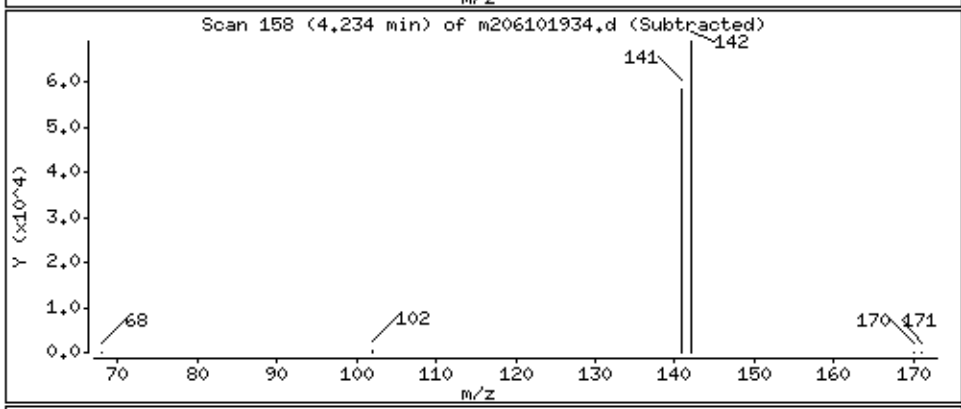
Column diameter: 0.25

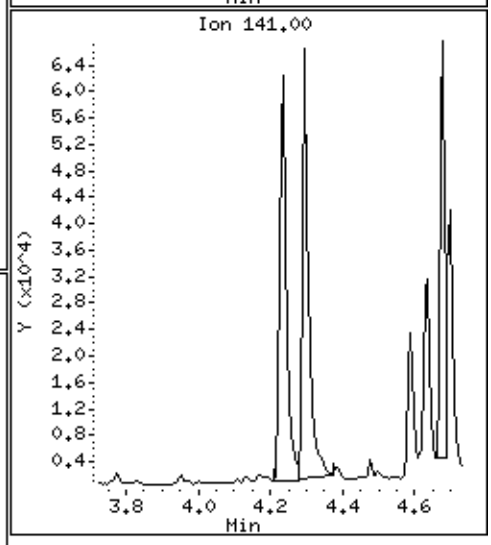
9 2-Methylnaphthalene

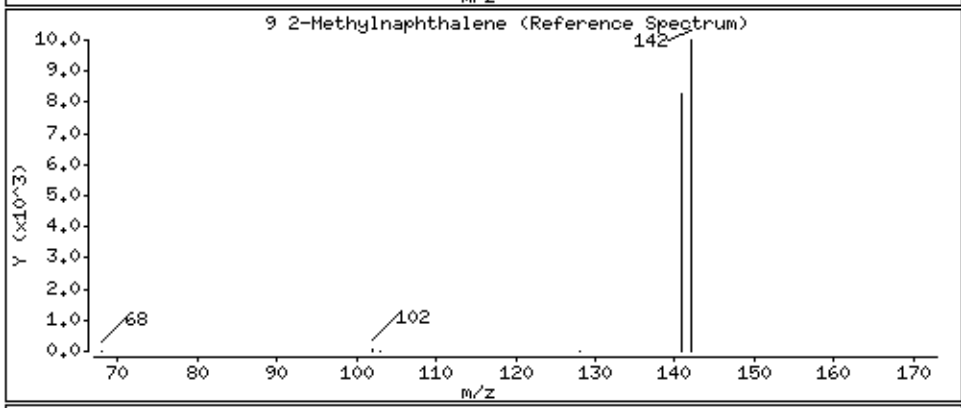
Concentration: 272 ug/Kg

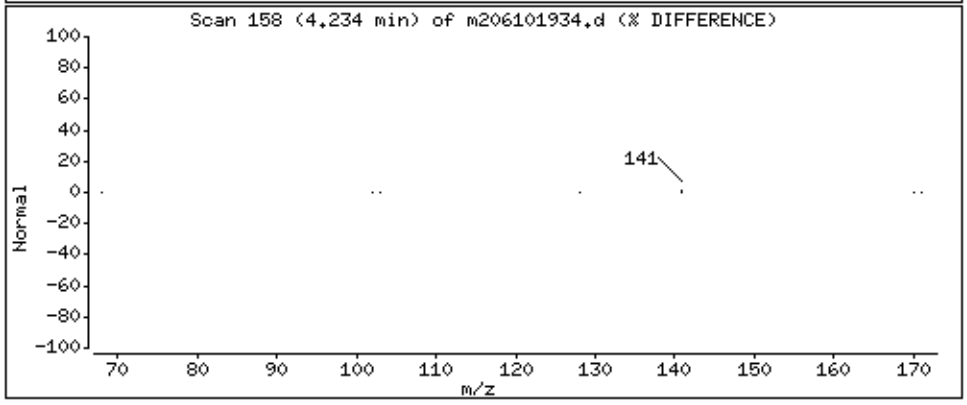












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

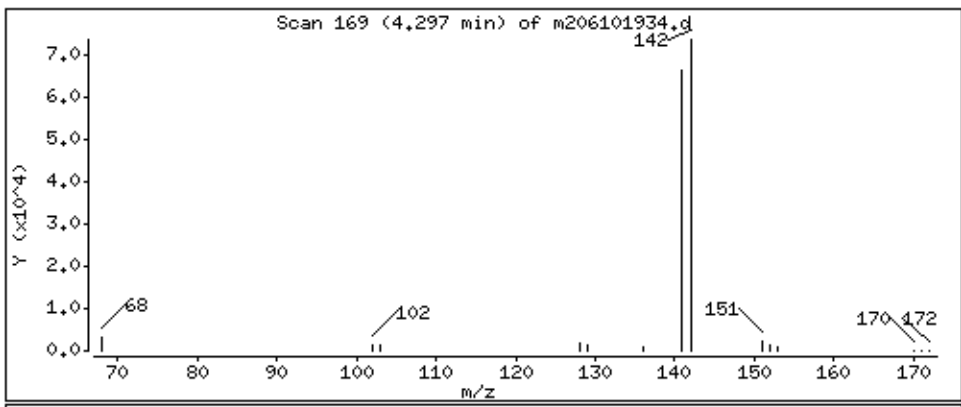
Operator: AJC

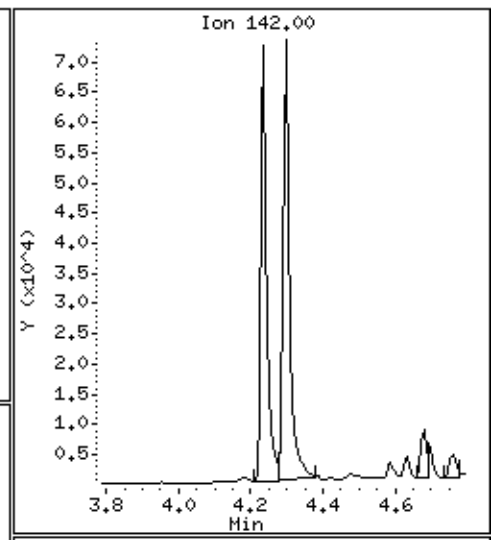
Column phase: RTX-5MS

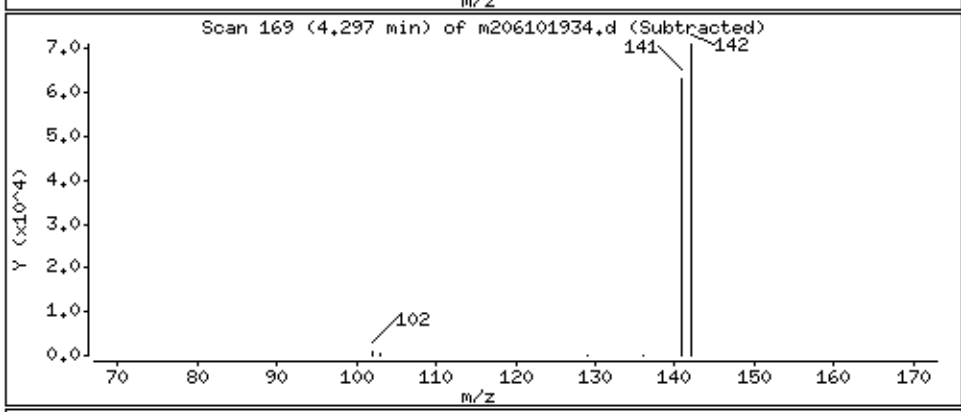
Column diameter: 0.25

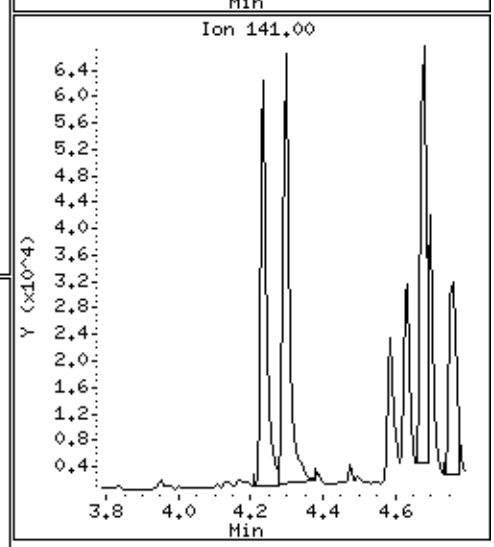
10 1-Methylnaphthalene

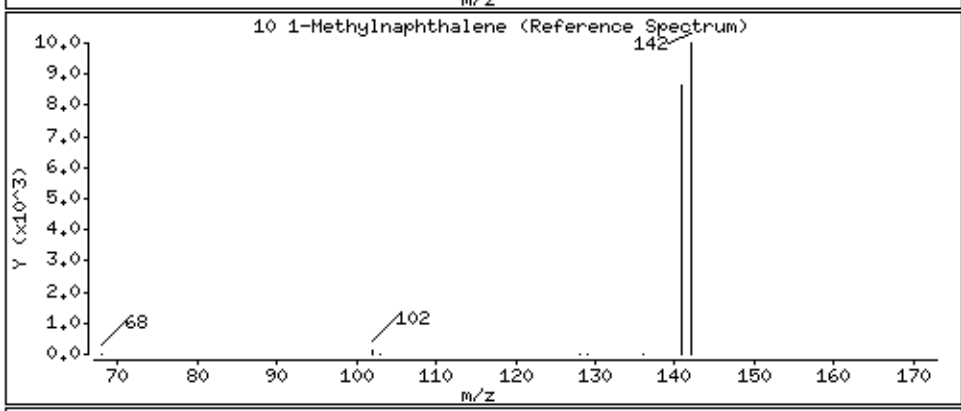
Concentration: 258 ug/Kg

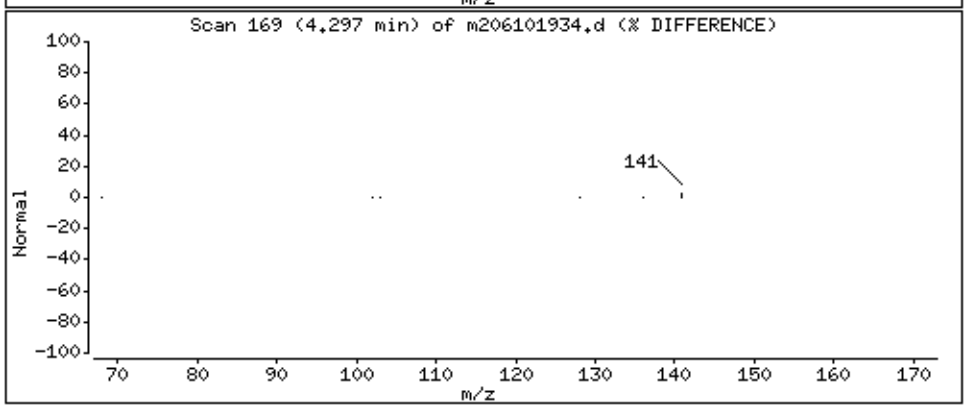












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

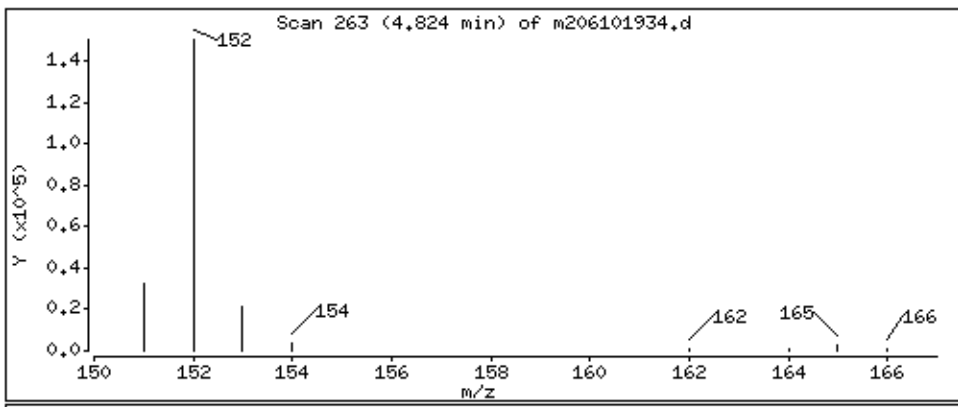
Operator: AJC

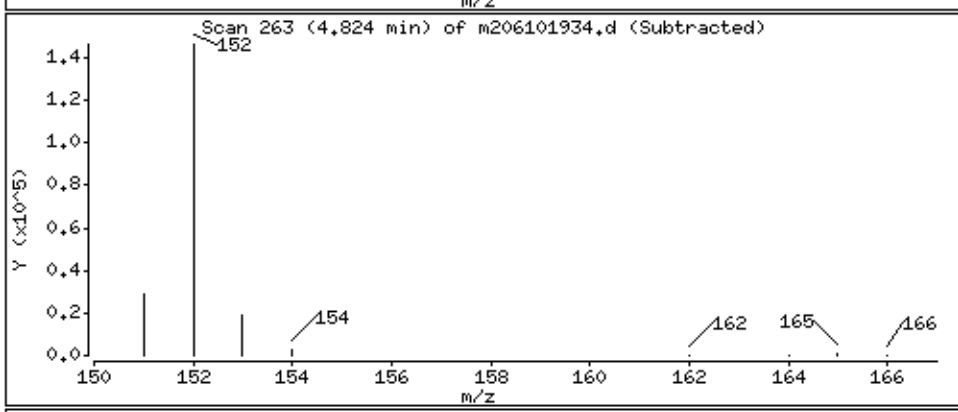
Column phase: RTX-5MS

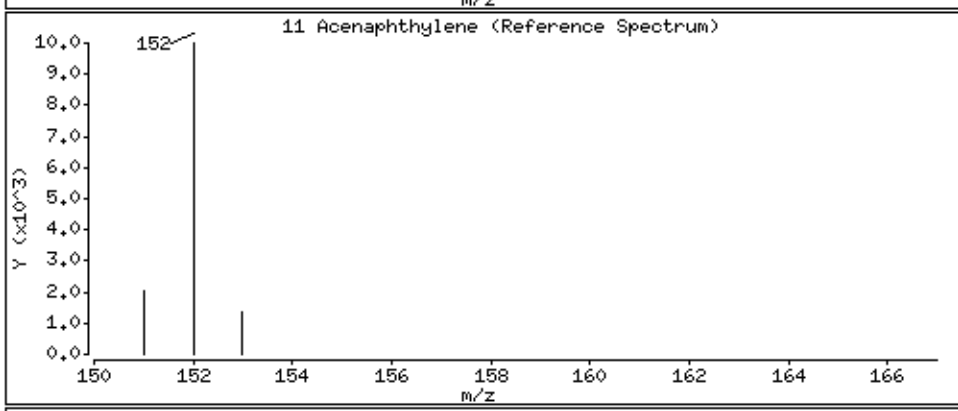
Column diameter: 0.25

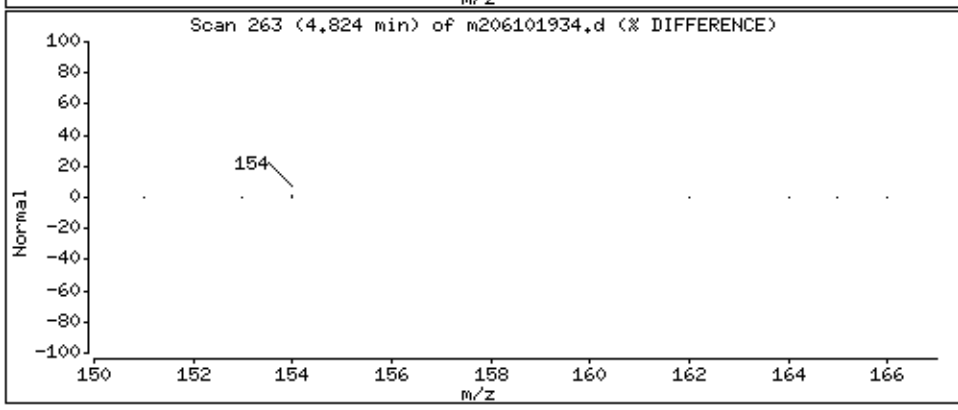
11 Acenaphthylene

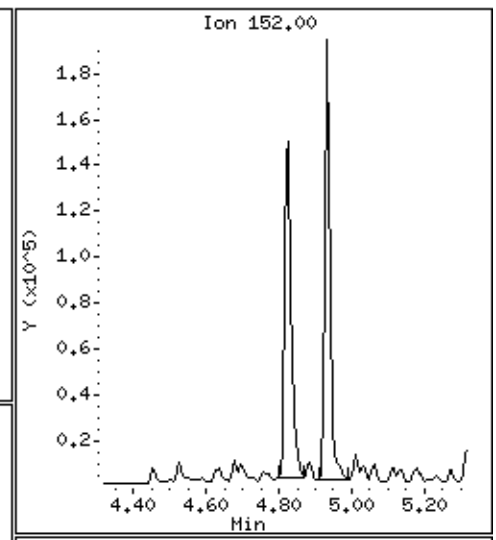
Concentration: 378 ug/Kg

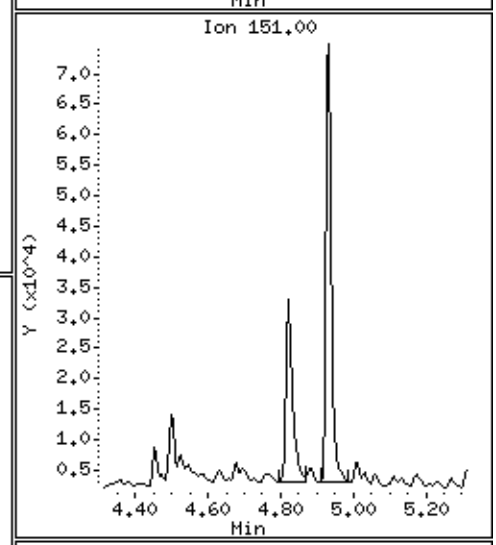


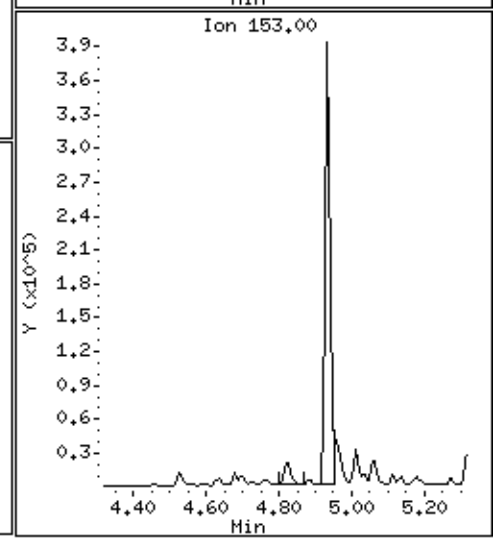












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d

Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

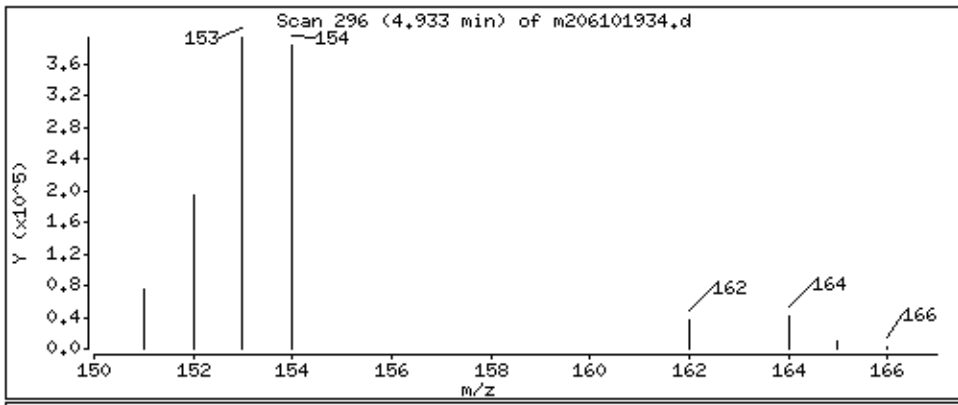
Operator: AJC

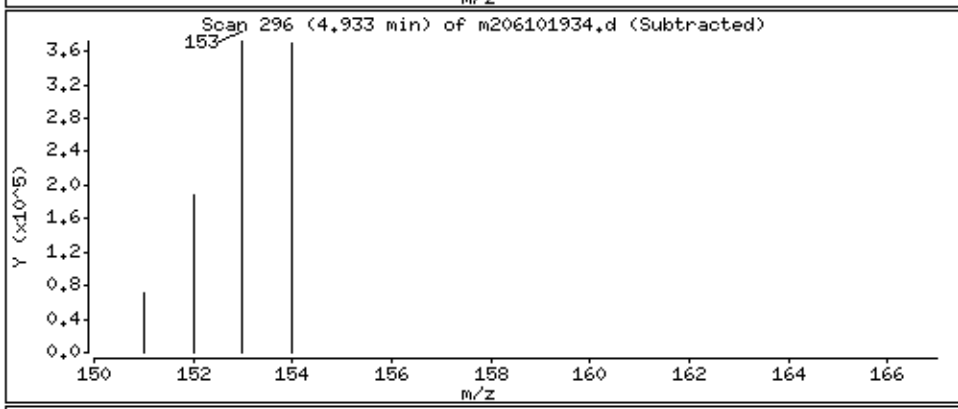
Column phase: RTX-5MS

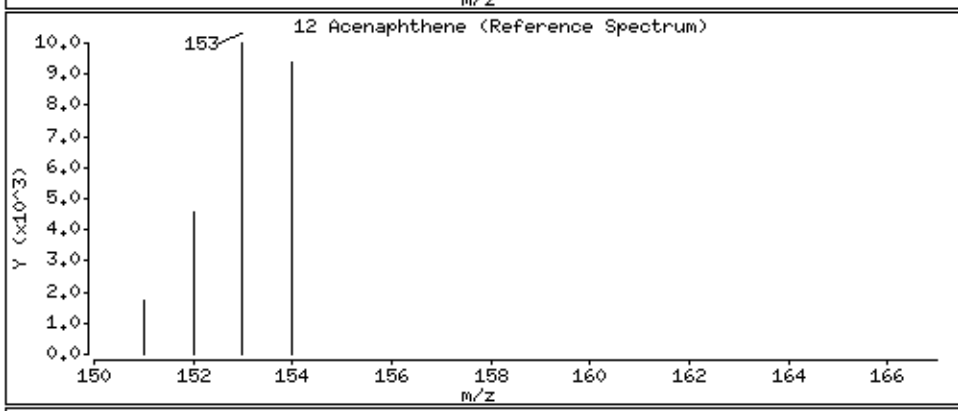
Column diameter: 0.25

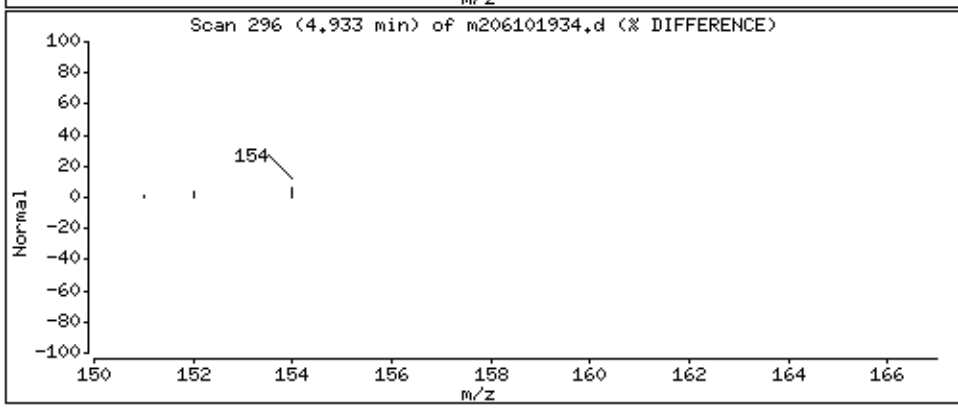
12 Acenaphthene

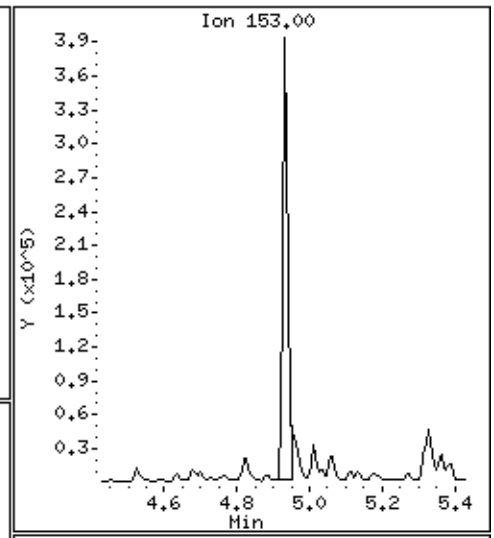
Concentration: 1100 ug/Kg

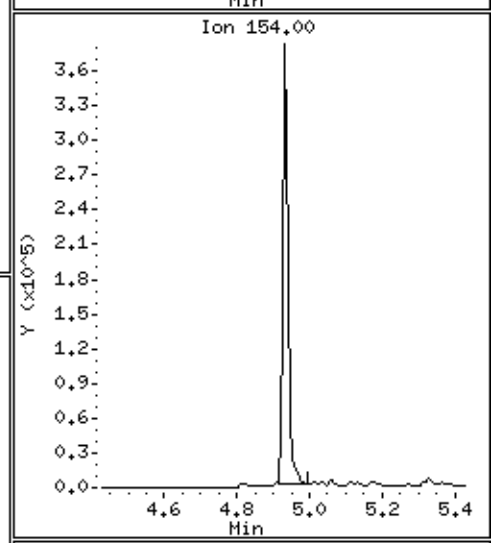


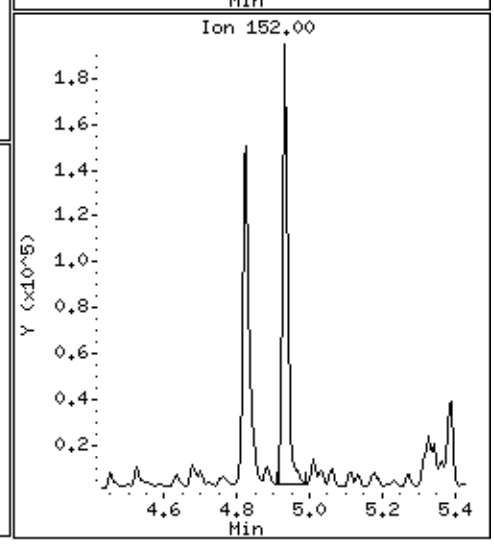












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d

Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

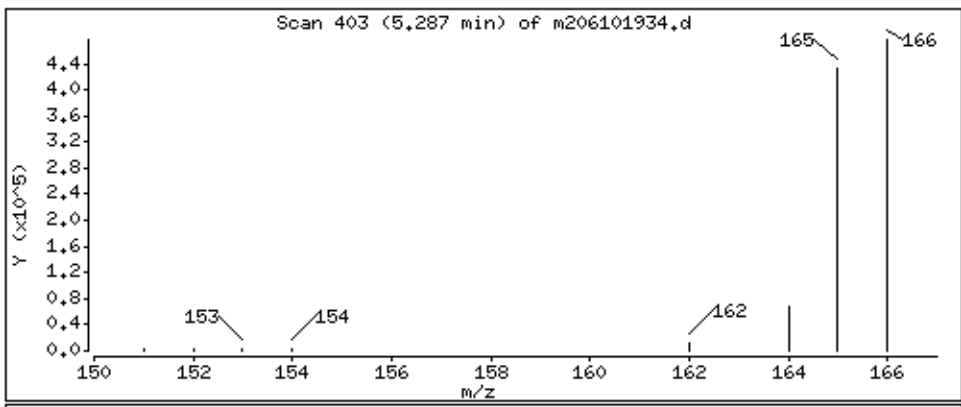
Operator: AJC

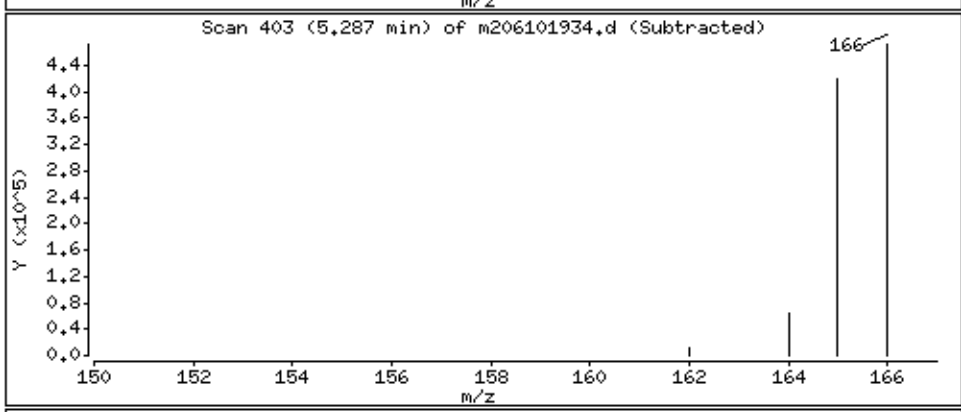
Column phase: RTX-5MS

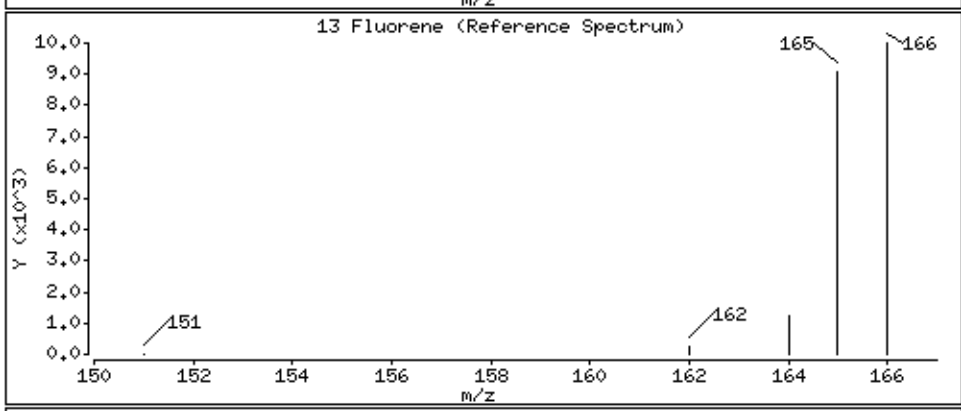
Column diameter: 0.25

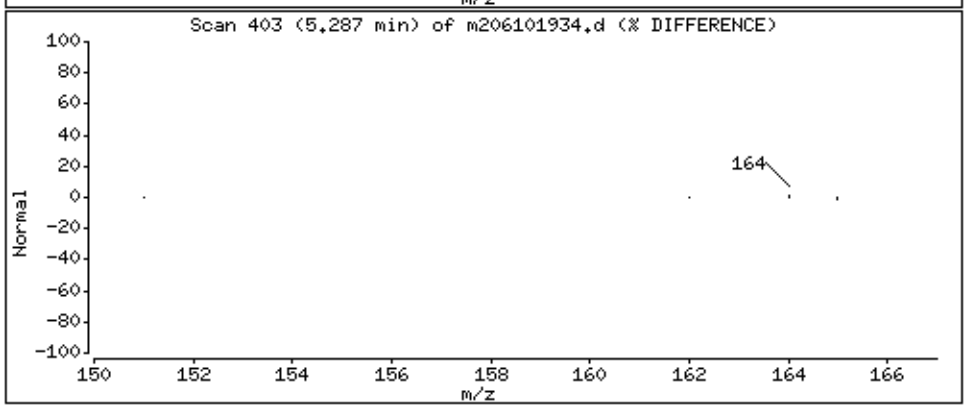
13 Fluorene

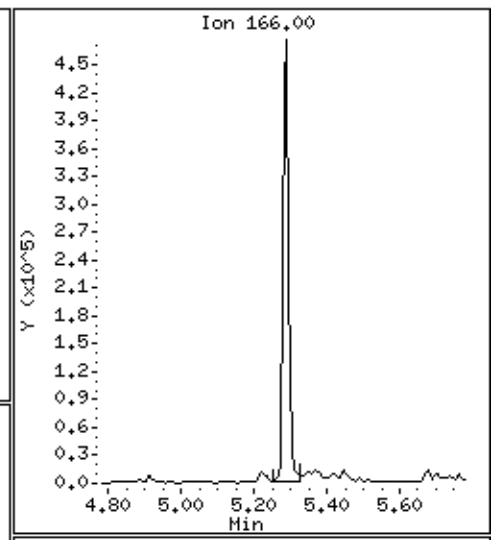
Concentration: 1200 ug/Kg

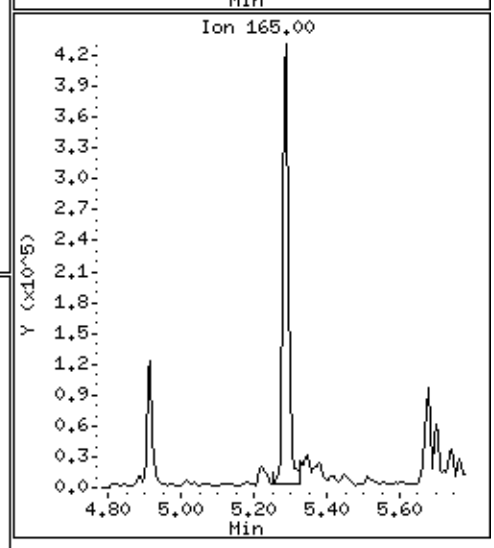












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

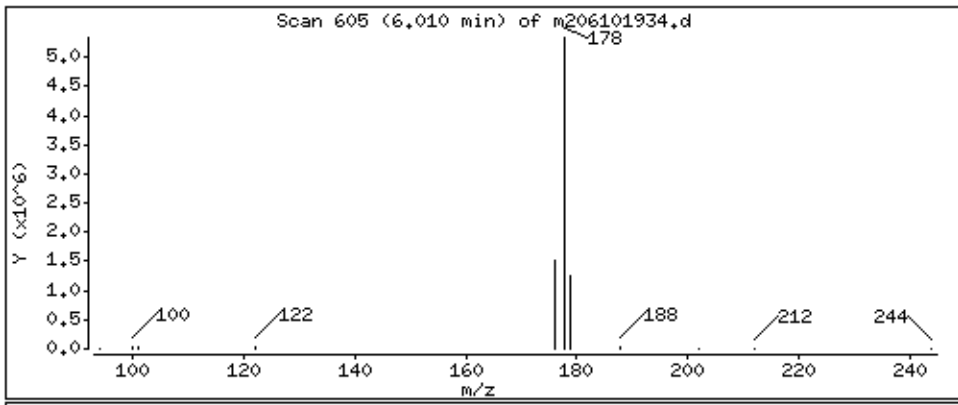
Operator: AJC

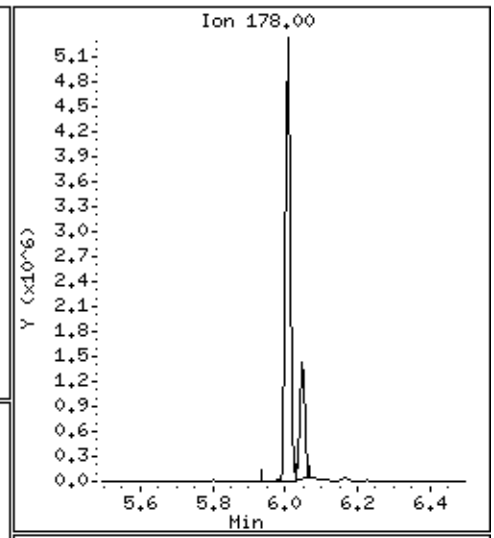
Column phase: RTX-5MS

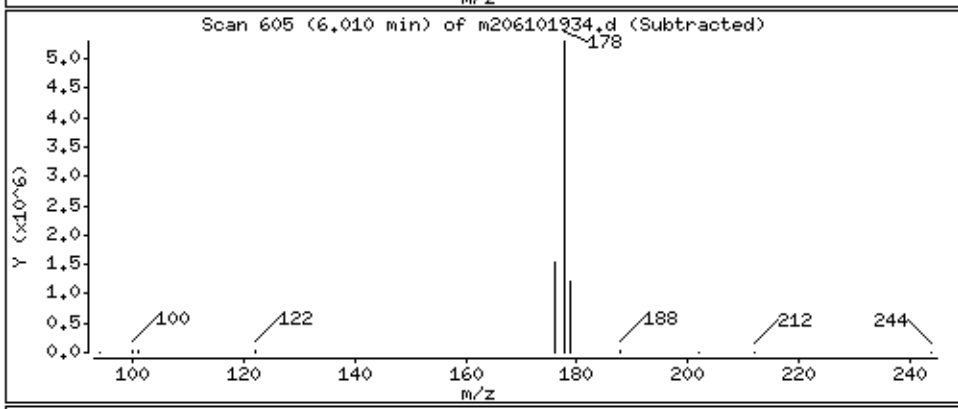
Column diameter: 0.25

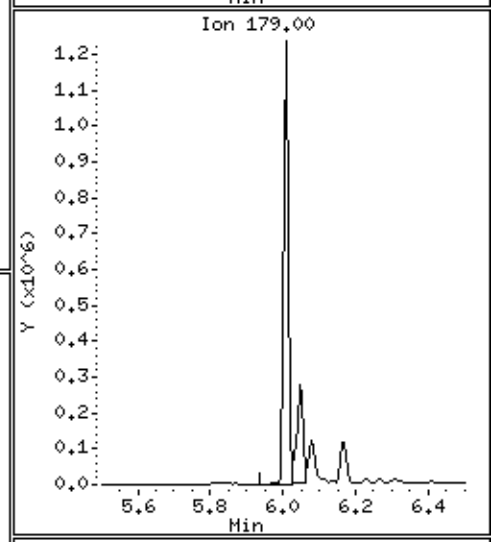
14 Phenanthrene

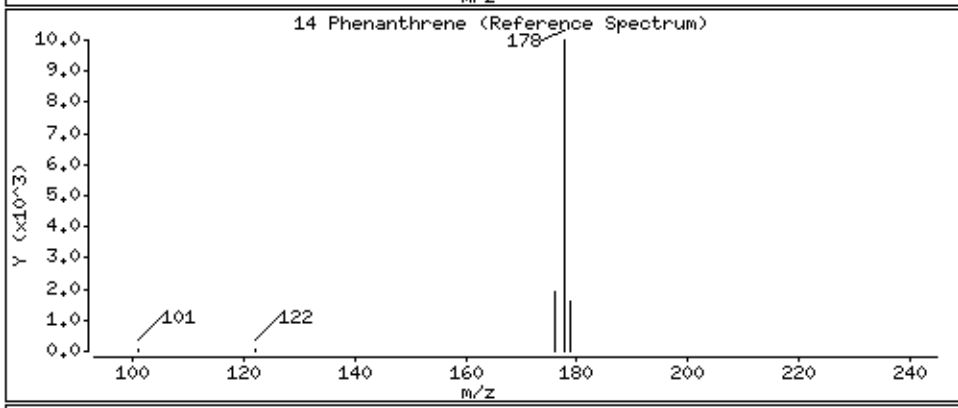
Concentration: 9160 ug/Kg

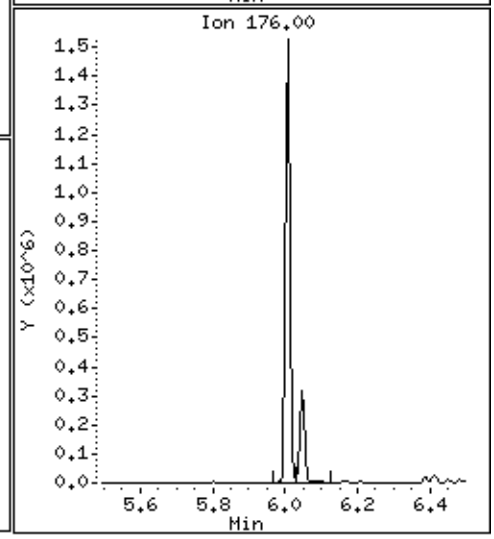


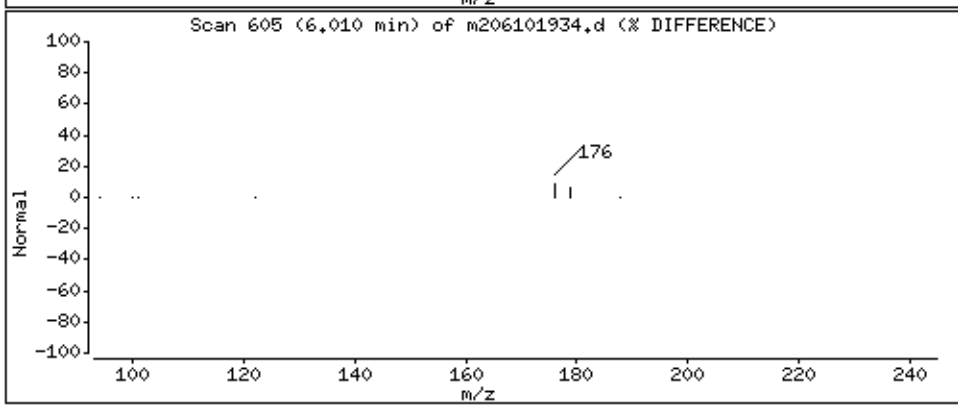












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

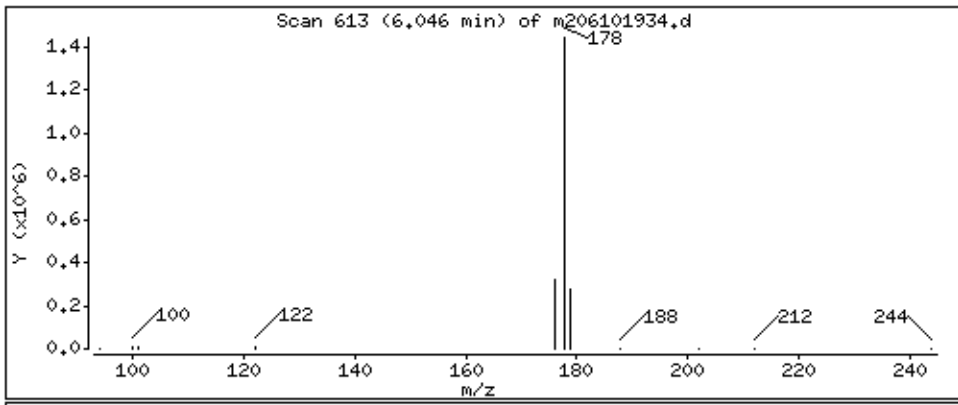
Operator: AJC

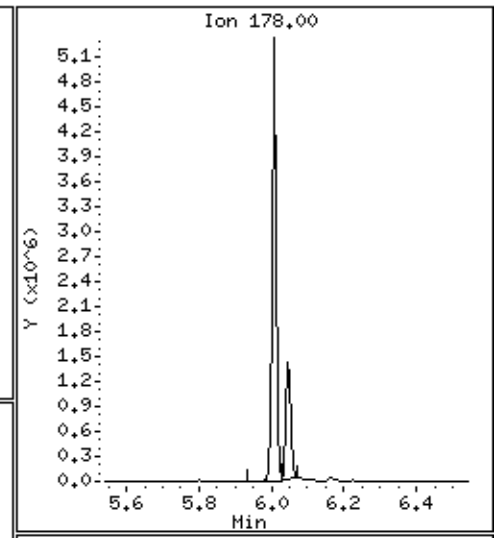
Column phase: RTX-5MS

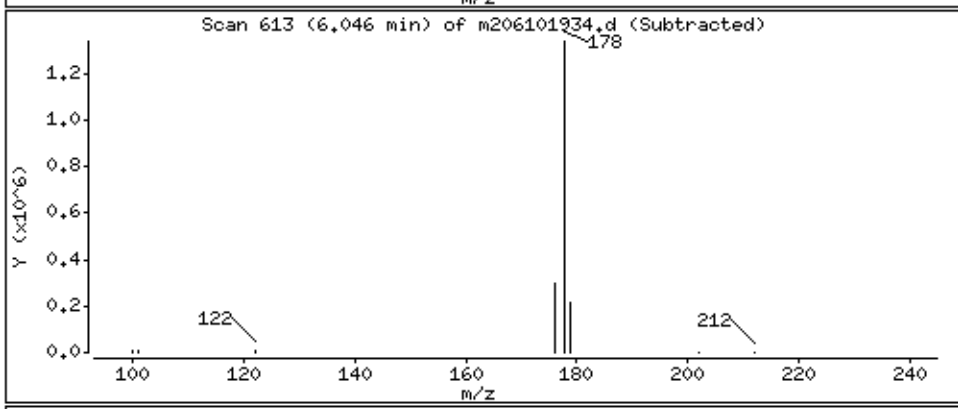
Column diameter: 0.25

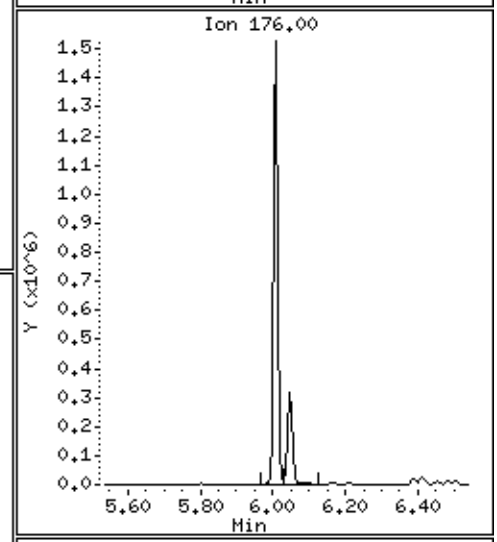
15 Anthracene

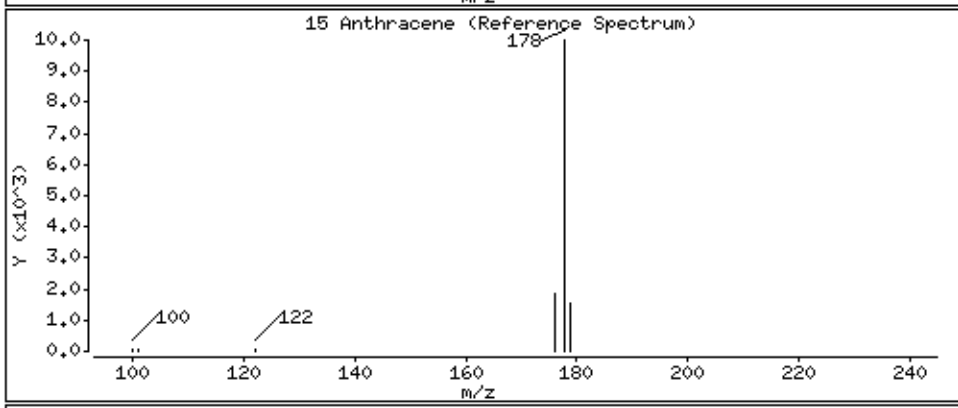
Concentration: 2590 ug/Kg

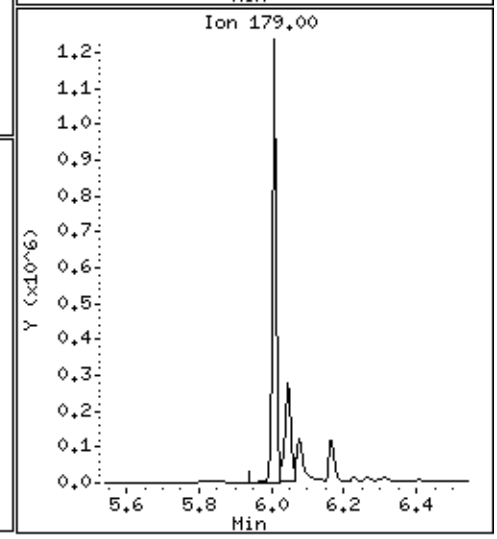


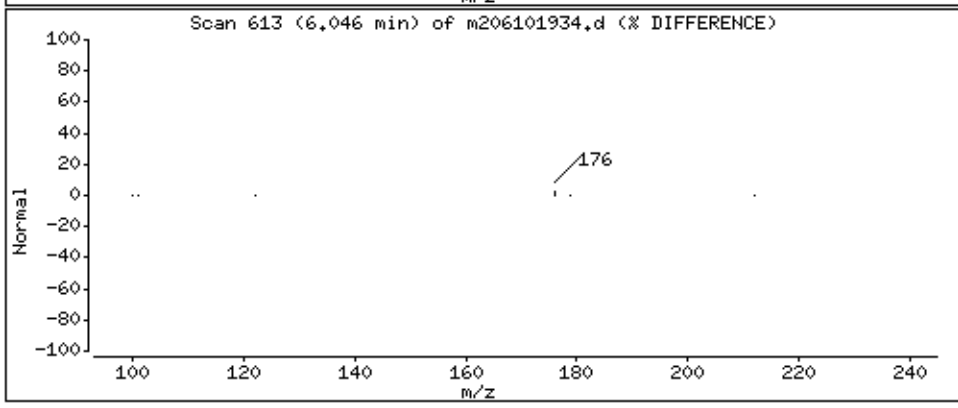












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

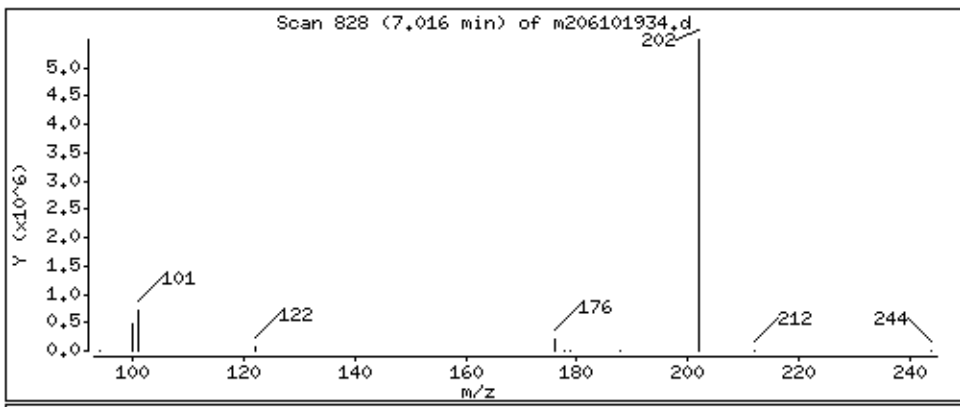
Operator: AJC

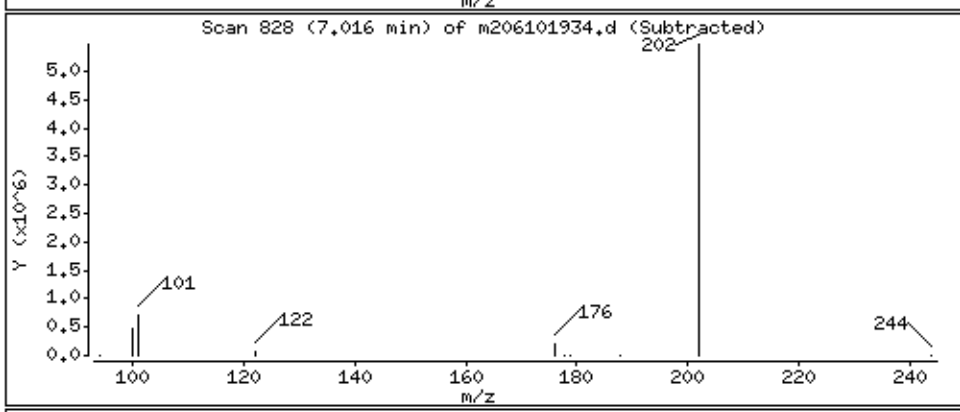
Column phase: RTX-5MS

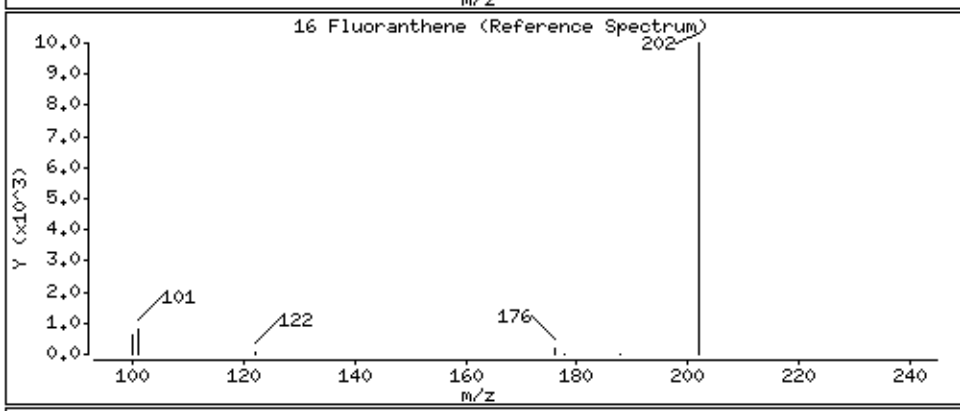
Column diameter: 0.25

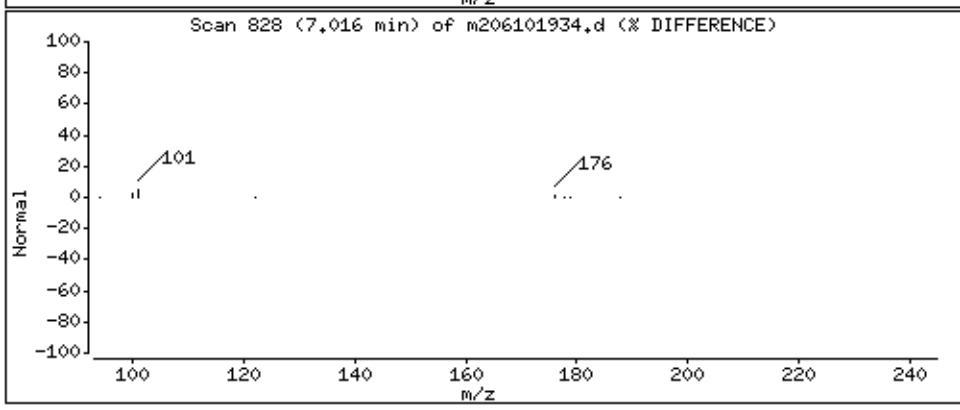
16 Fluoranthene

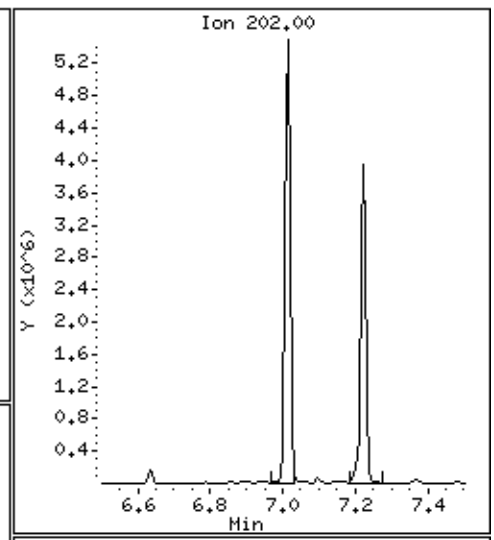
Concentration: 9610 ug/Kg

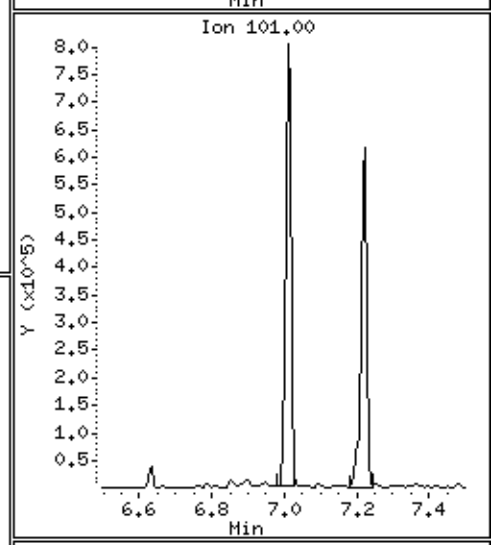


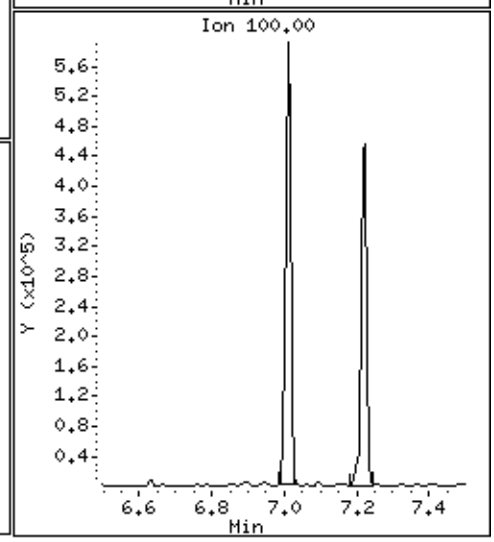












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

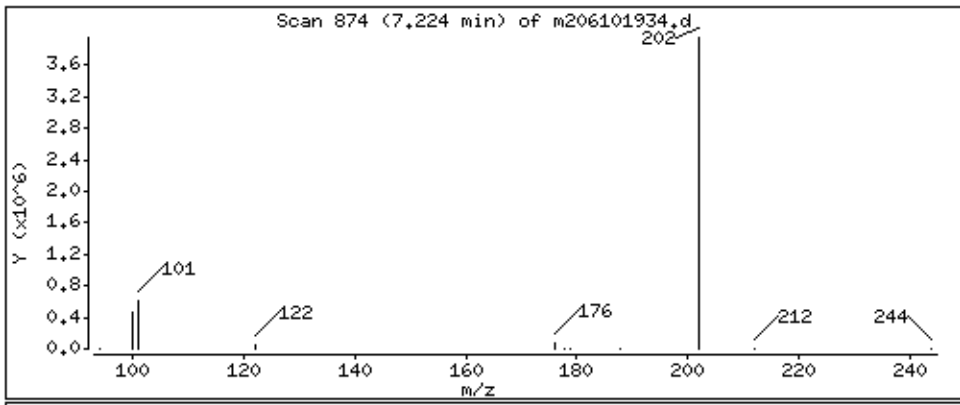
Operator: AJC

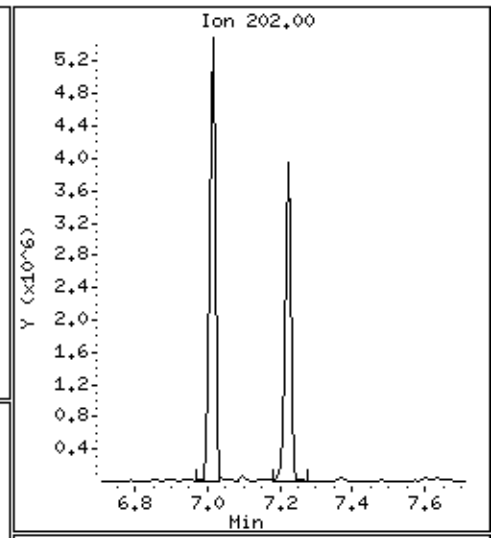
Column phase: RTX-5MS

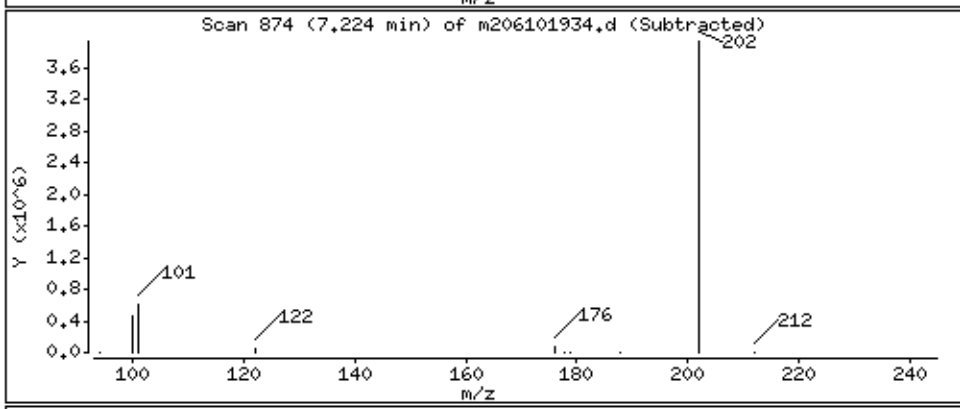
Column diameter: 0.25

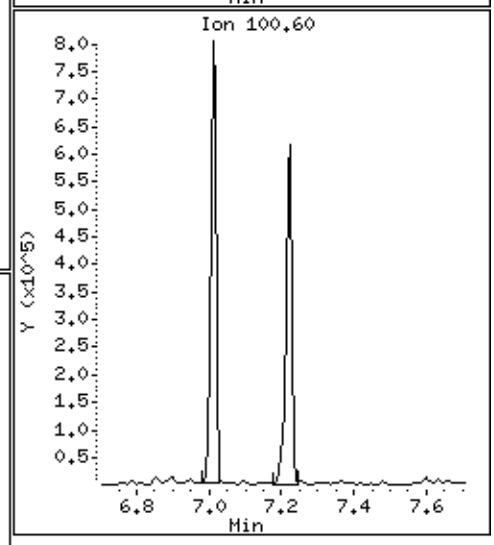
17 Pyrene

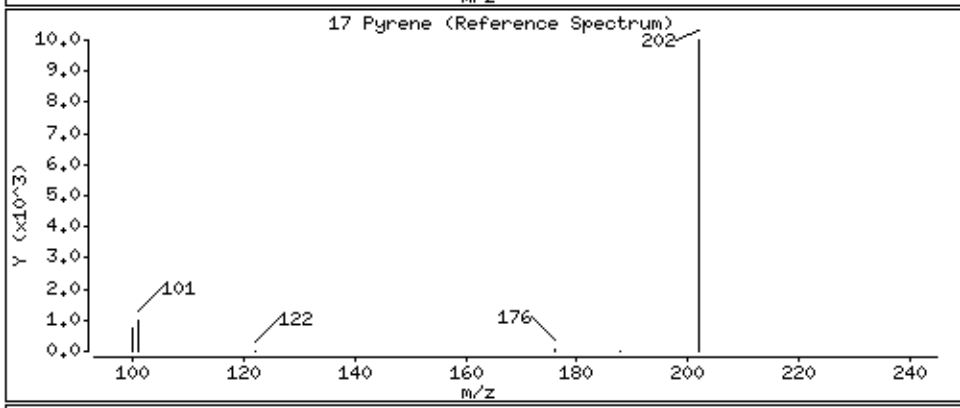
Concentration: 6830 ug/Kg

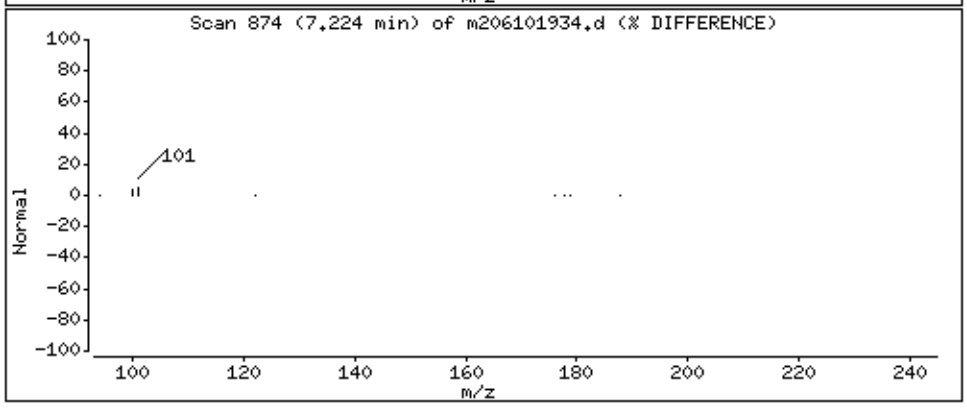












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

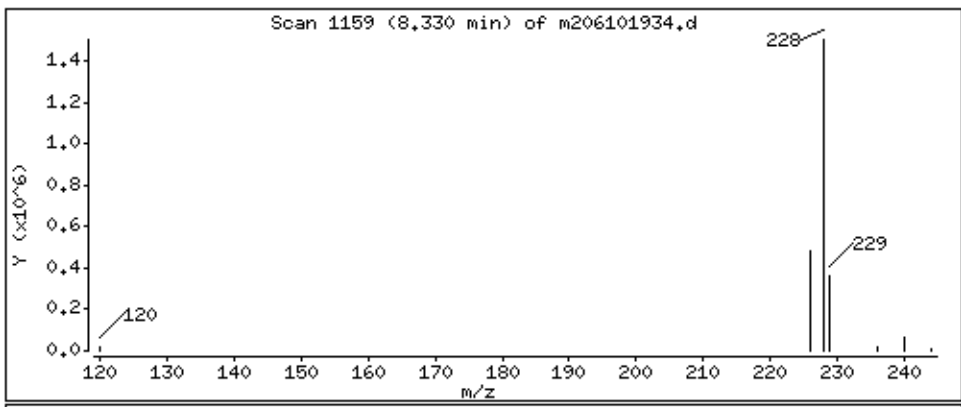
Operator: AJC

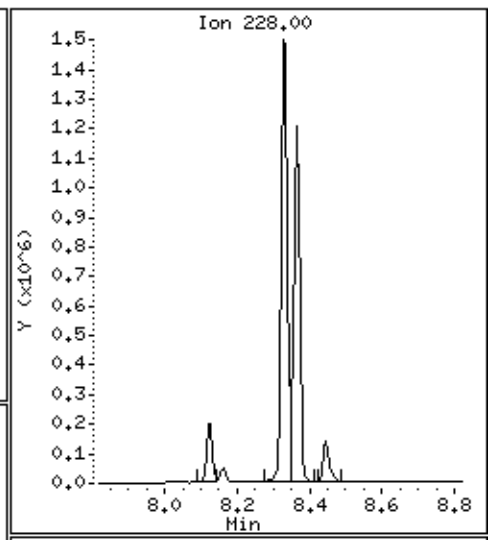
Column phase: RTX-5MS

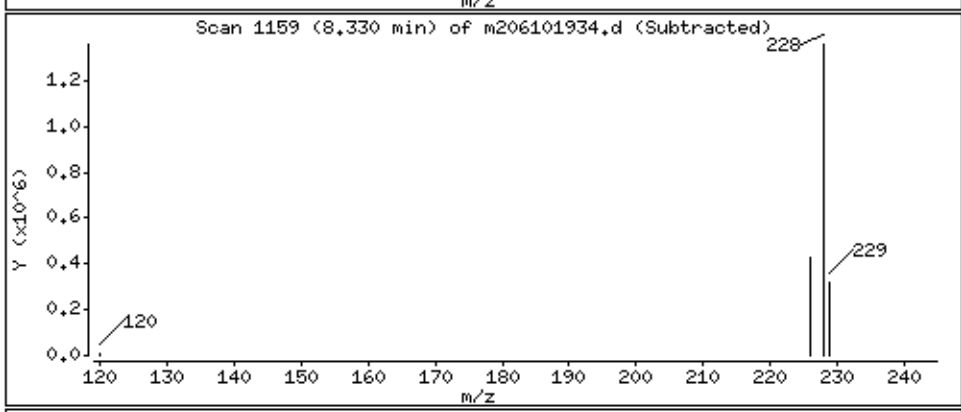
Column diameter: 0.25

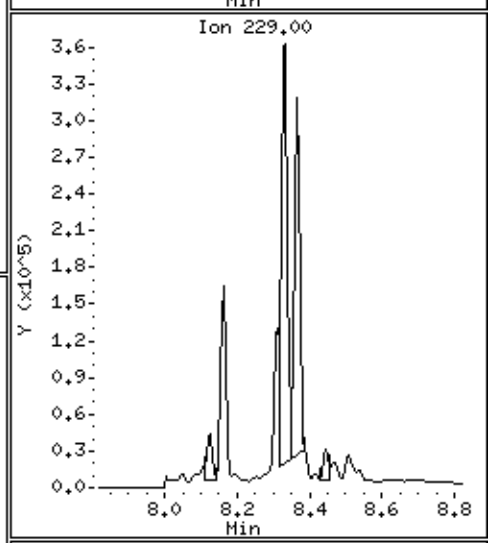
18 Benzo(a)anthracene

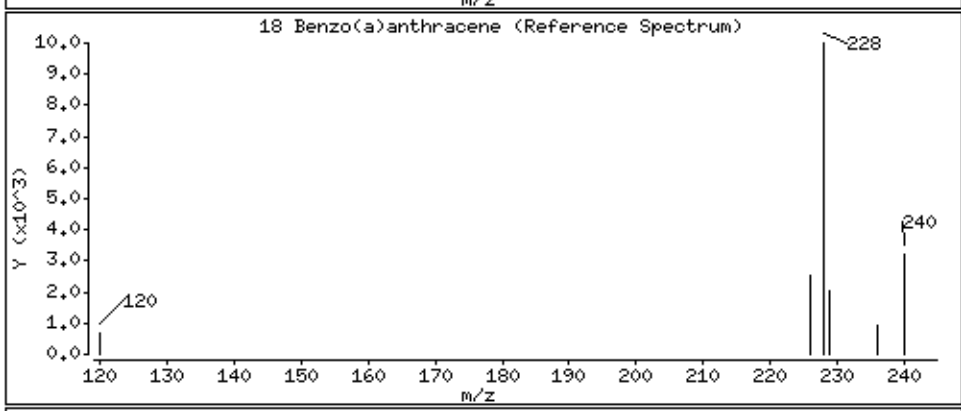
Concentration: 7320 ug/Kg

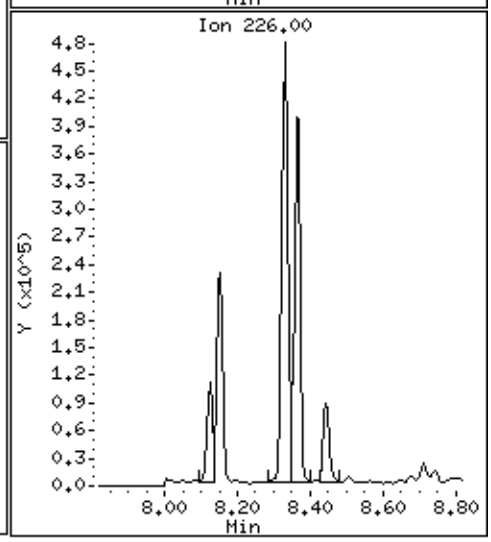


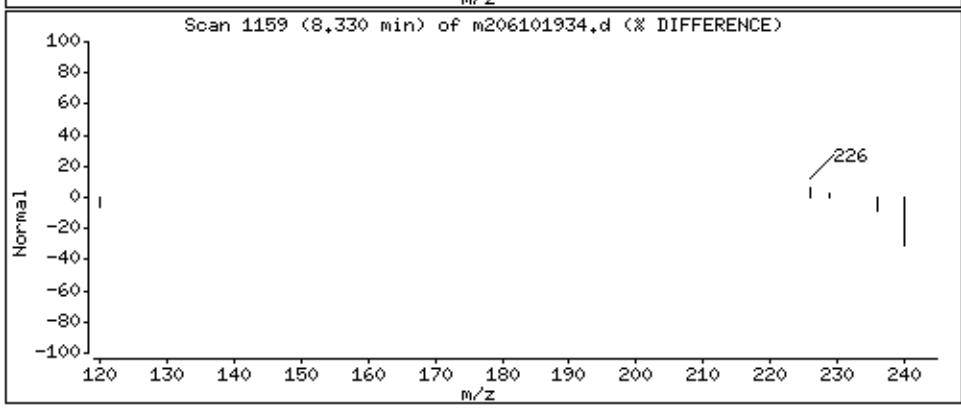












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

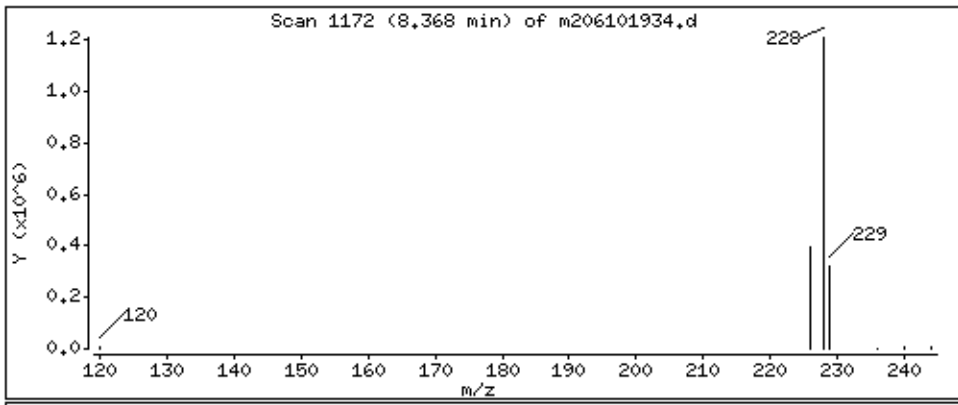
Operator: AJC

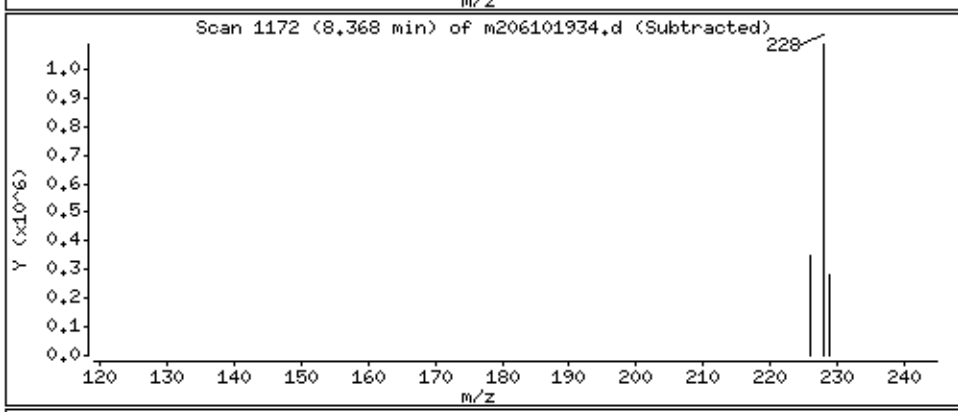
Column phase: RTX-5MS

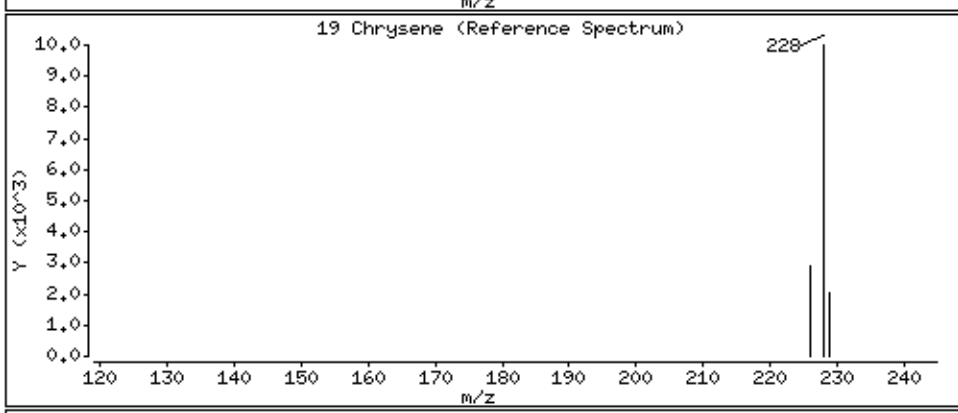
Column diameter: 0.25

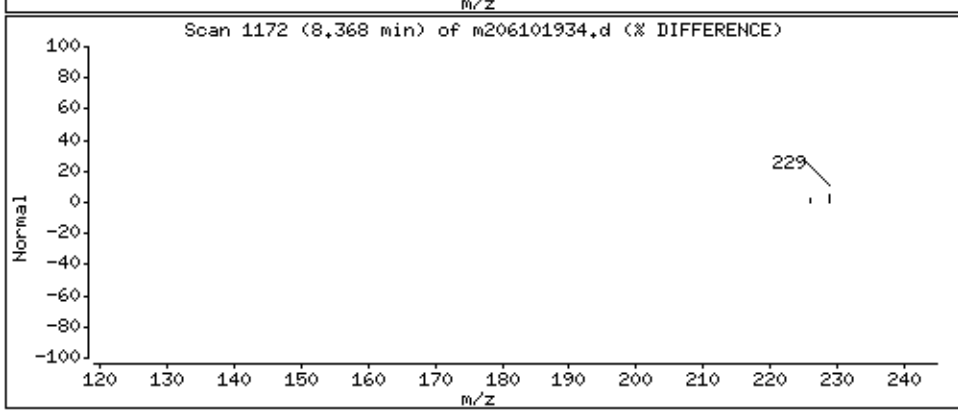
19 Chrysene

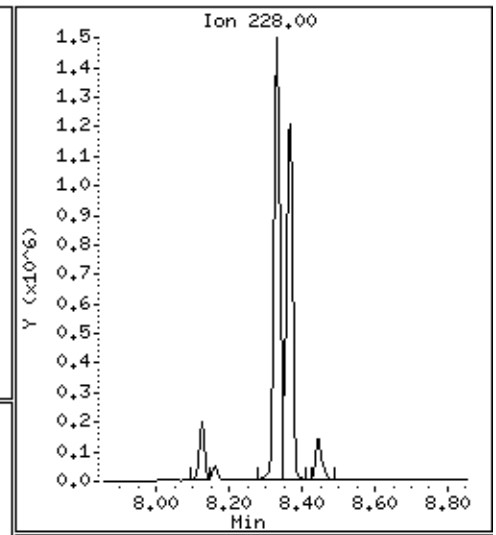
Concentration: 5580 ug/Kg

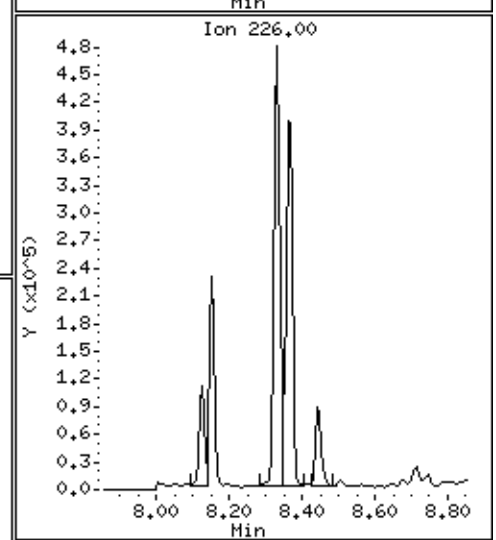


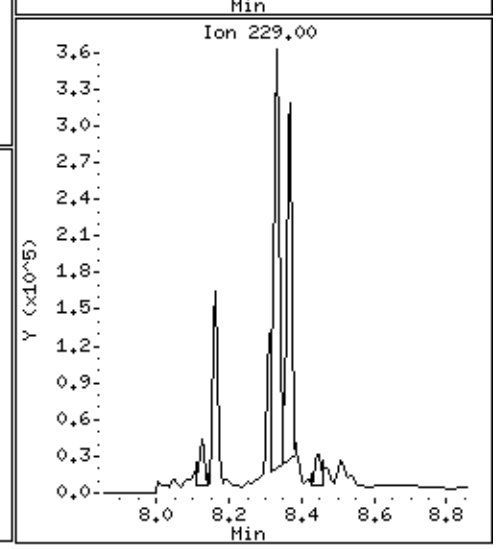












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101934.d

Date : 11-JUN-2019 00:54

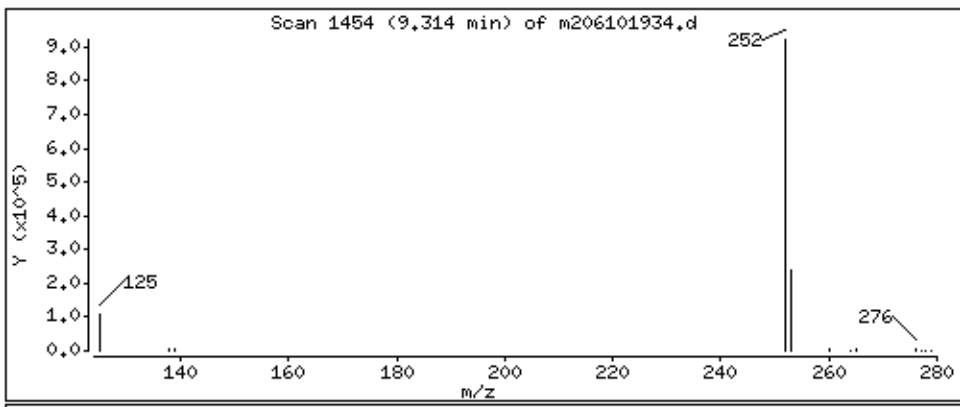
Client ID: AOC34 Instrument: 30mss2.i

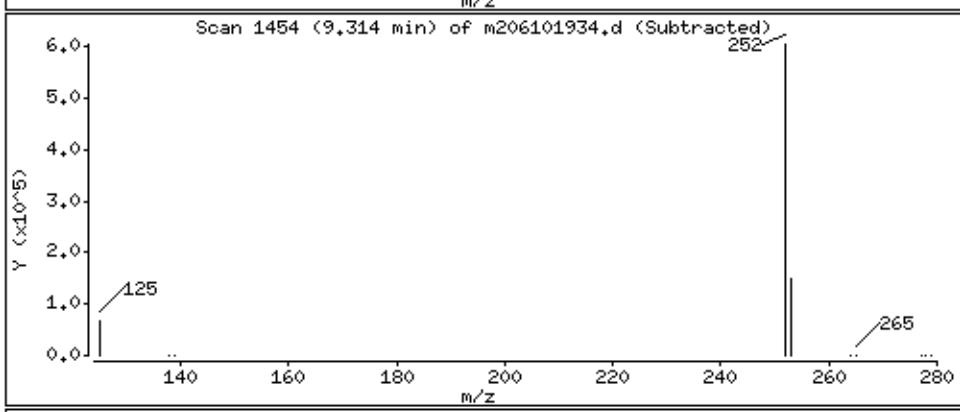
Sample Info: 30298231010x10,

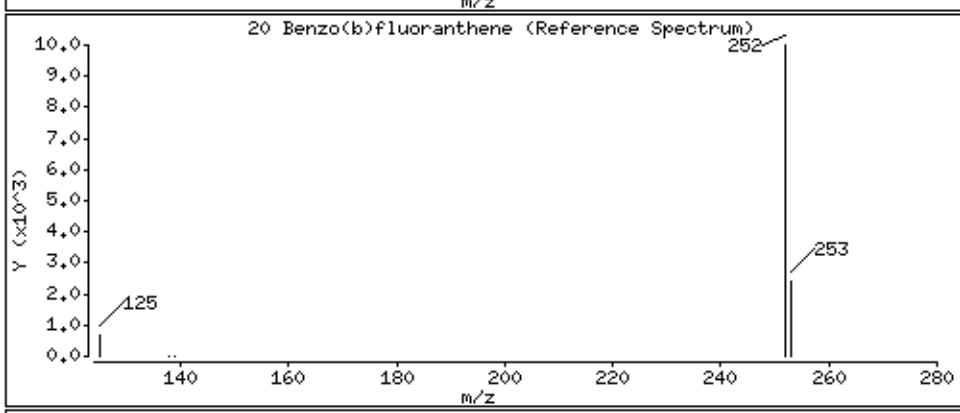
Volume Injected (uL): 1.0 Operator: AJC

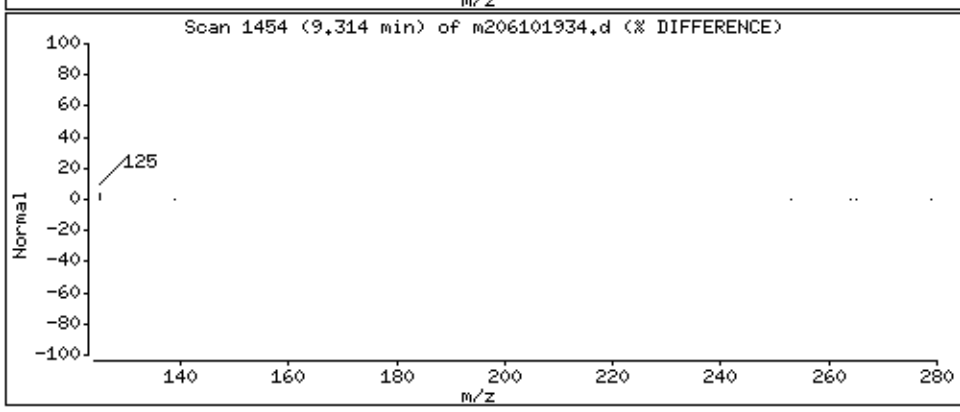
Column phase: RTX-5MS Column diameter: 0.25

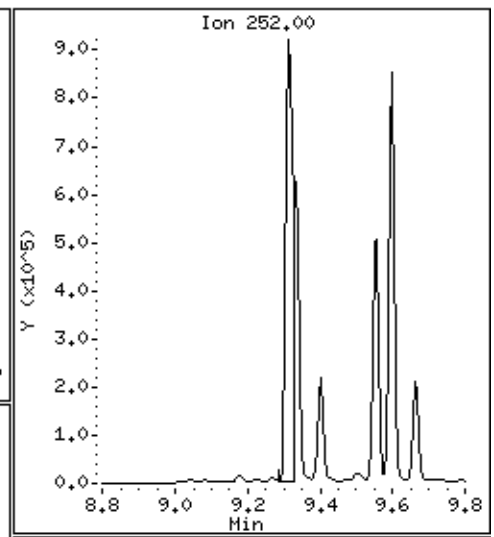
20 Benzo(b)fluoranthene Concentration: 8400 ug/Kg

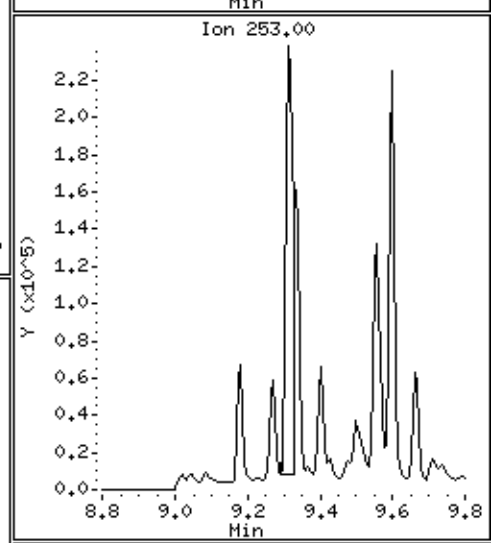


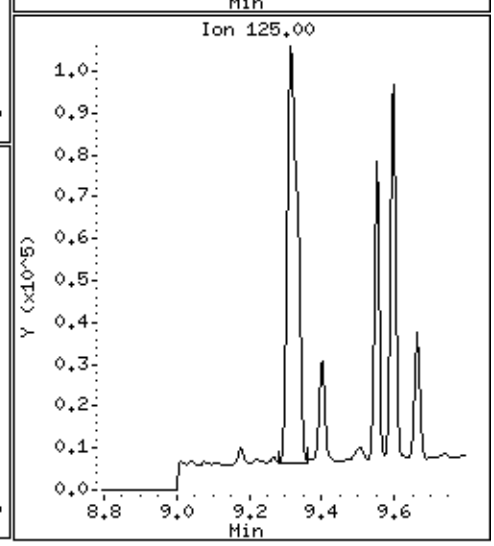












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

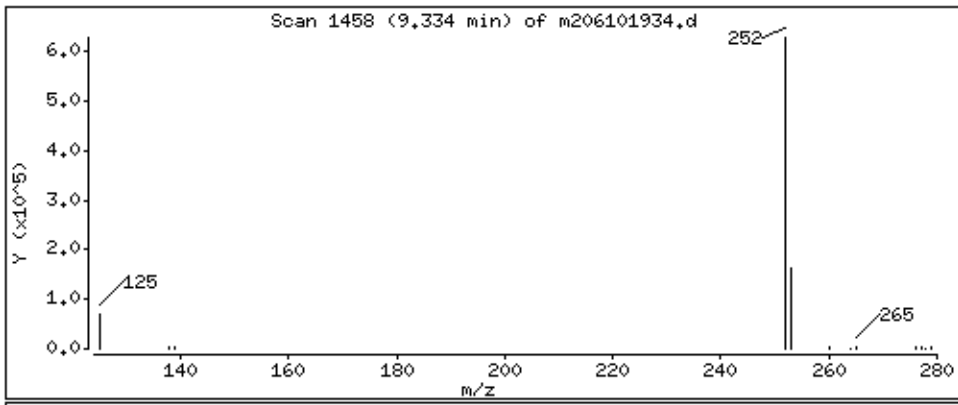
Operator: AJC

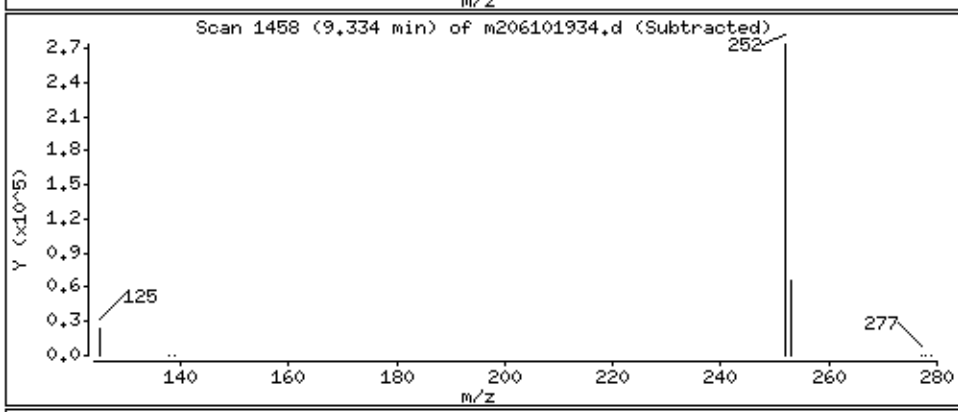
Column phase: RTX-5MS

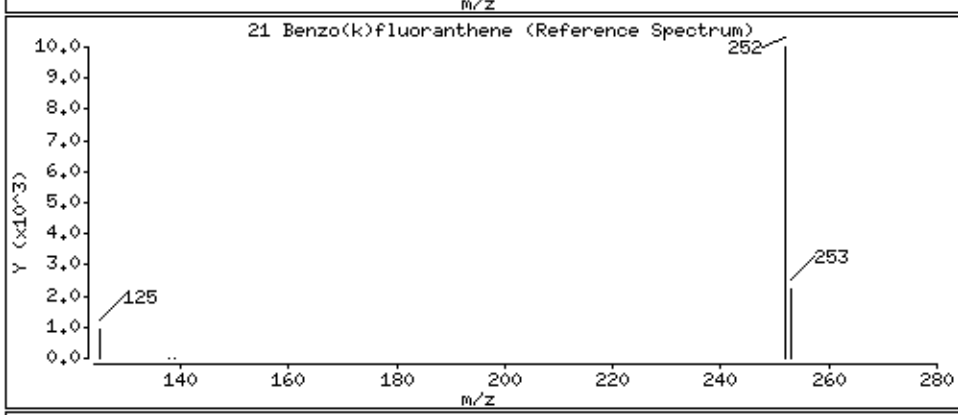
Column diameter: 0.25

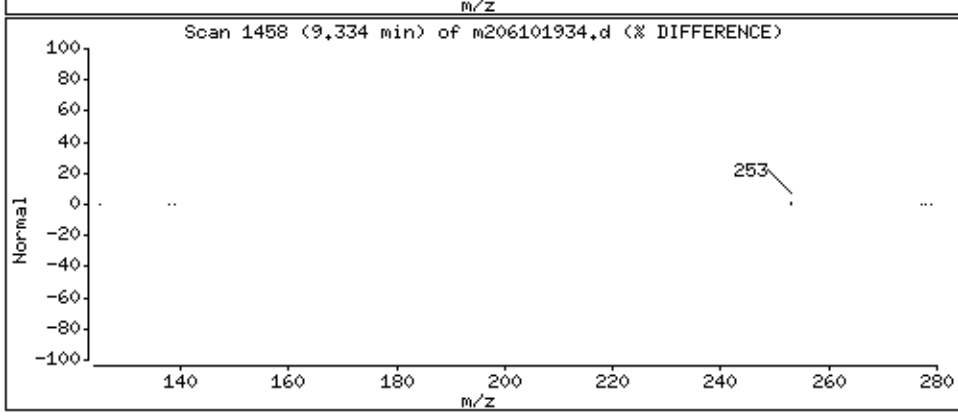
21 Benzo(k)fluoranthene

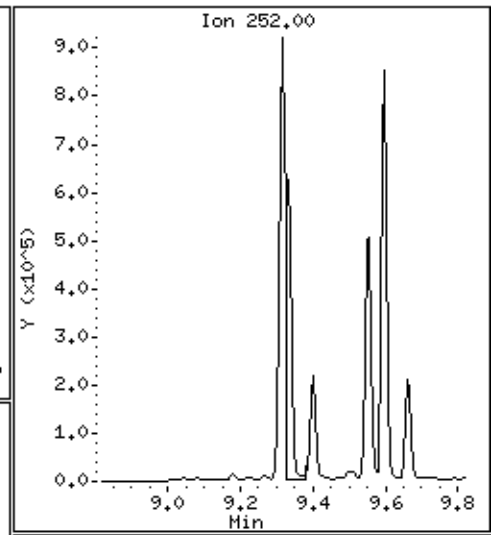
Concentration: 3690 ug/Kg

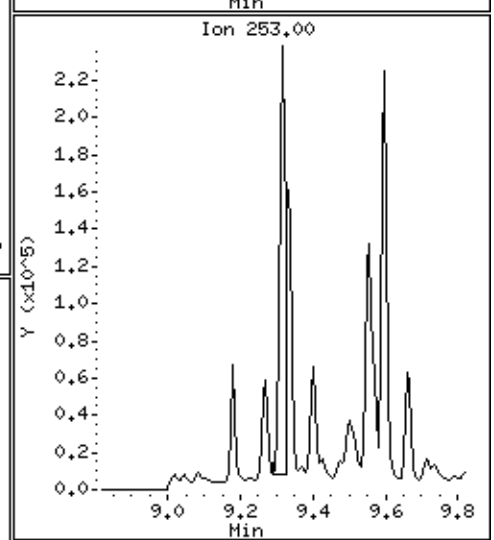


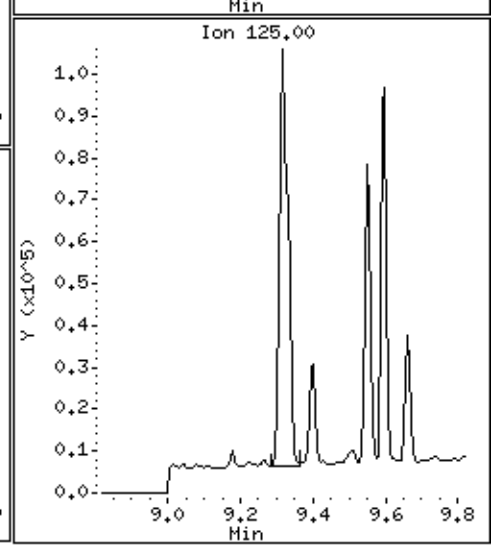












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Date : 11-JUN-2019 00:54

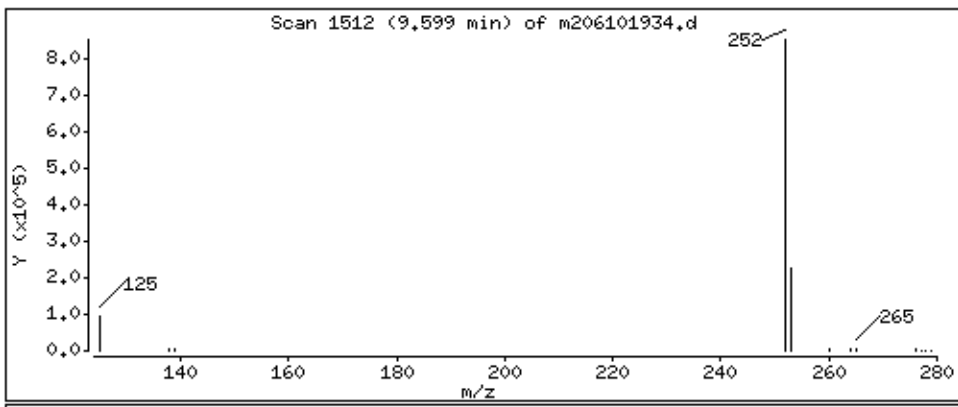
Client ID: AOC34 Instrument: 30mss2.i

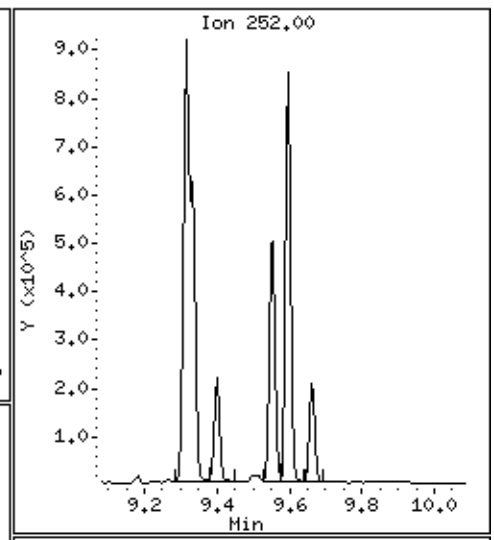
Sample Info: 30298231010x10,

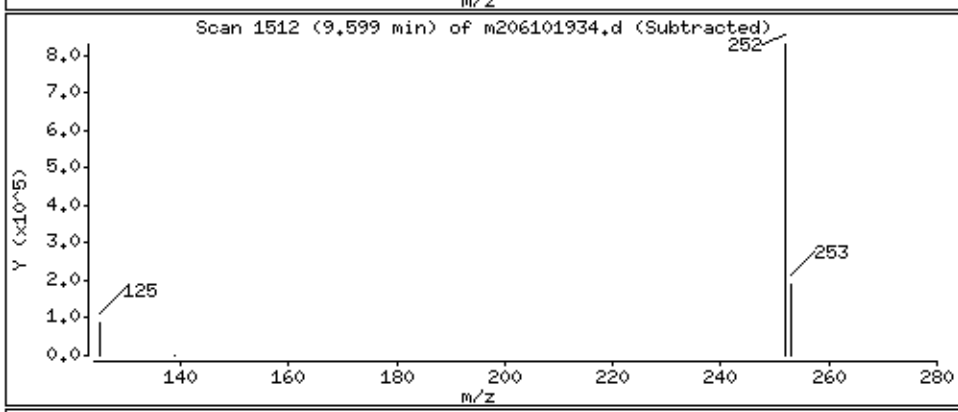
Volume Injected (uL): 1.0 Operator: AJC

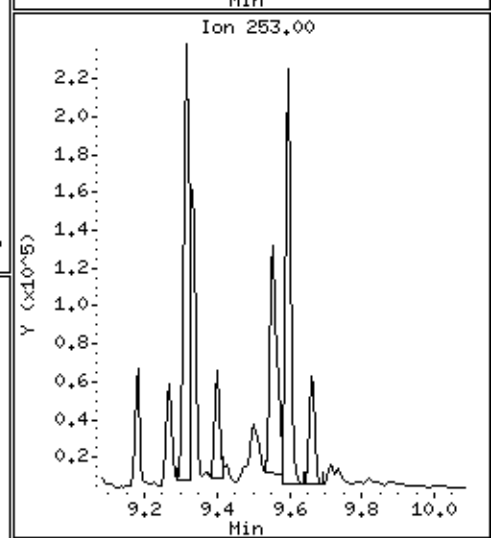
Column phase: RTX-5MS Column diameter: 0.25

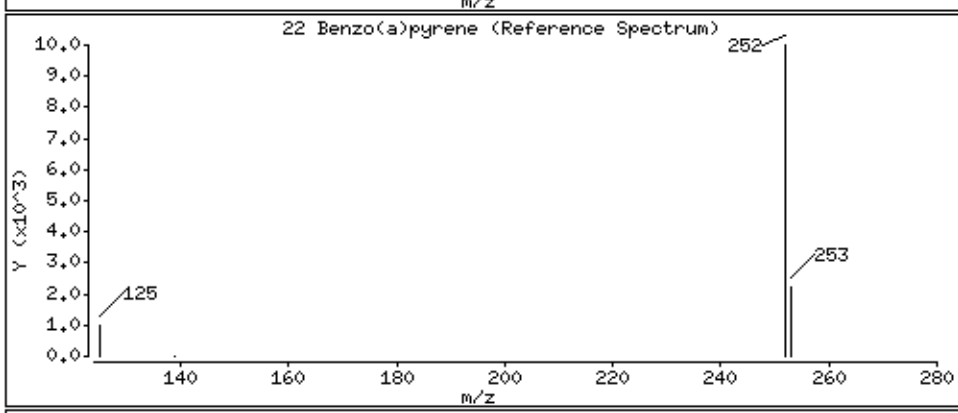
22 Benzo(a)pyrene Concentration: 5740 ug/Kg

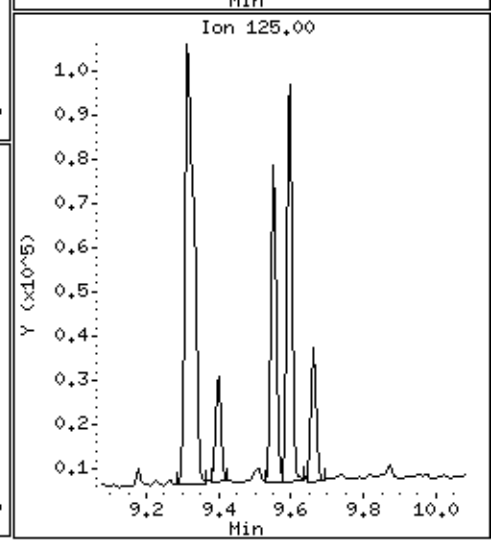


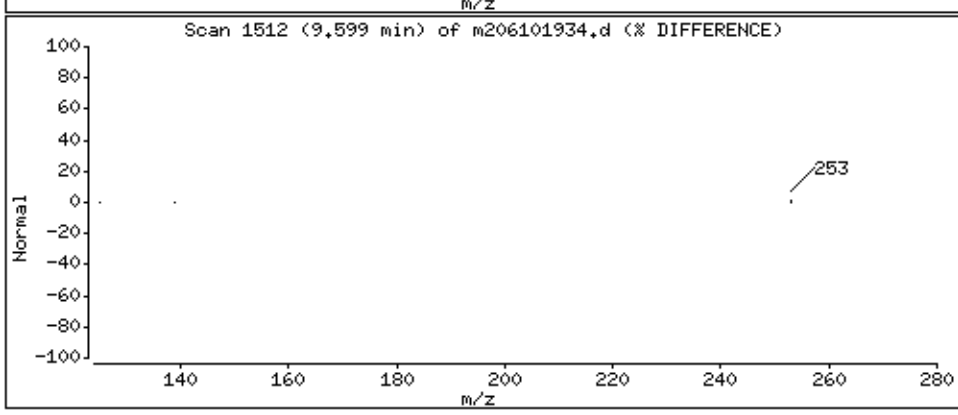












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Date : 11-JUN-2019 00:54

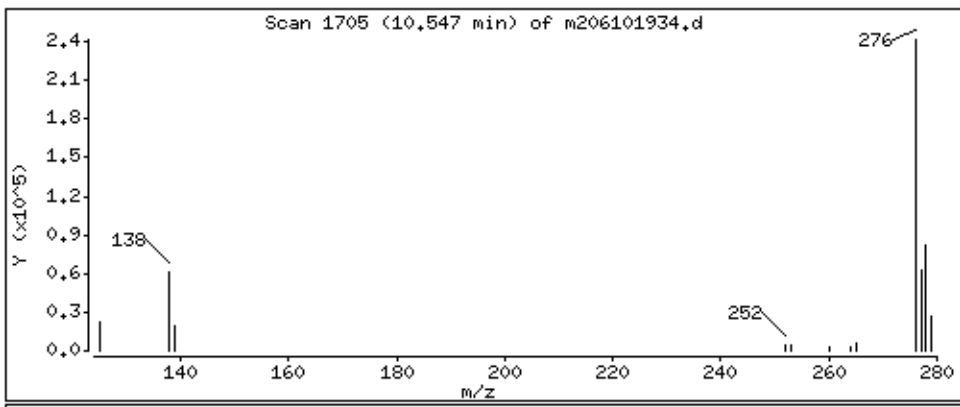
Client ID: AOC34 Instrument: 30mss2.i

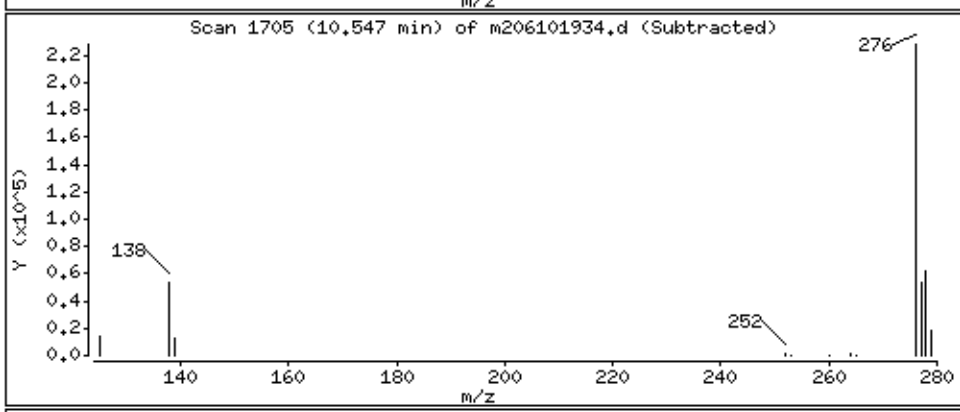
Sample Info: 30298231010x10,

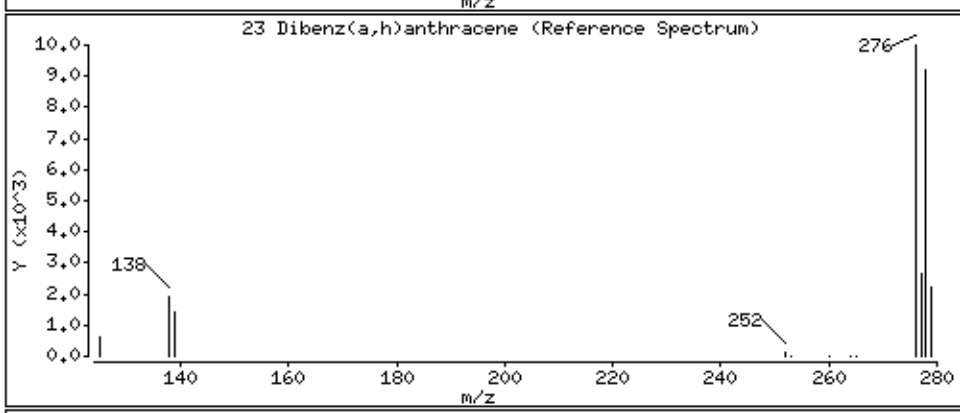
Volume Injected (uL): 1.0 Operator: AJC

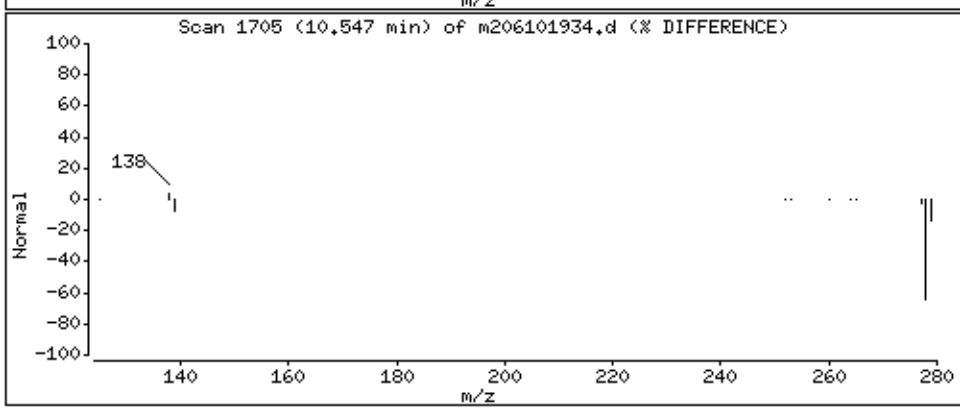
Column phase: RTX-5MS Column diameter: 0.25

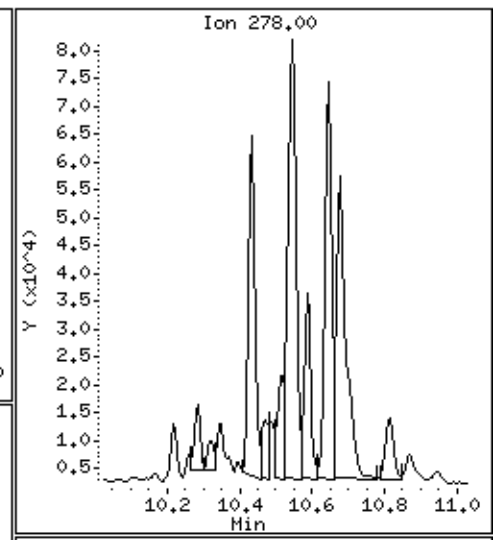
23 Dibenz(a,h)anthracene Concentration: 889 ug/Kg

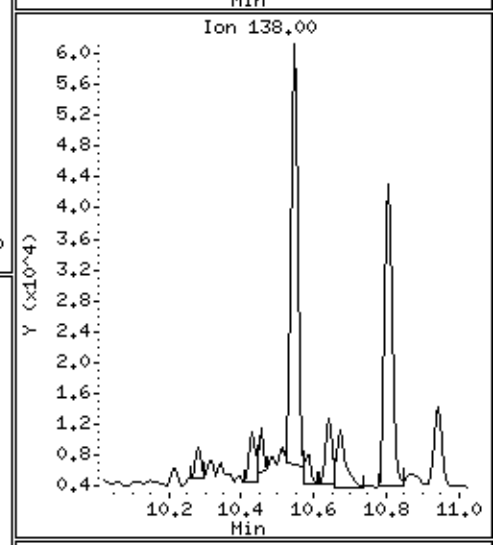


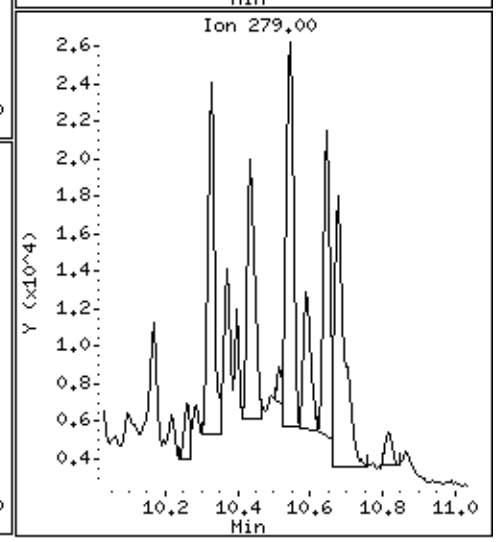












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Date : 11-JUN-2019 00:54

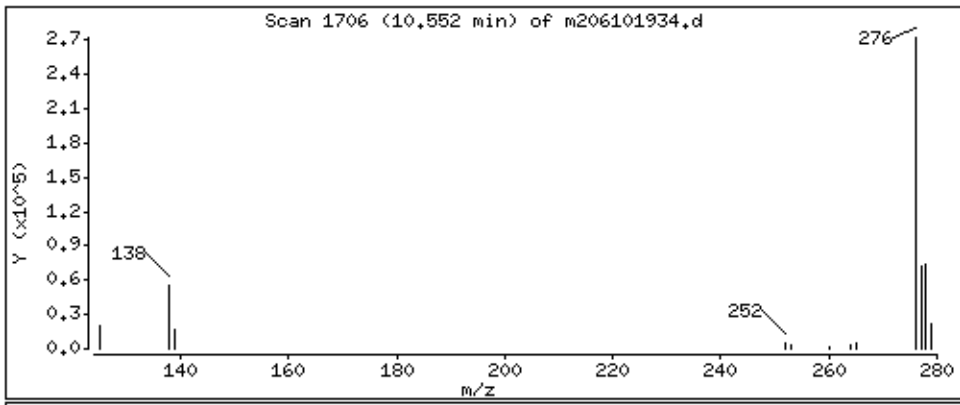
Client ID: AOC34 Instrument: 30mss2.i

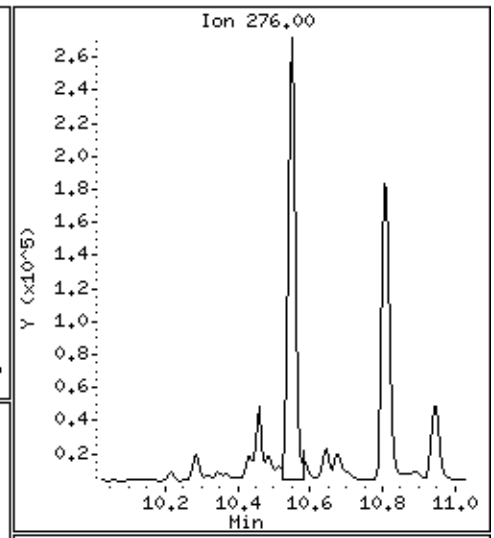
Sample Info: 30298231010x10,

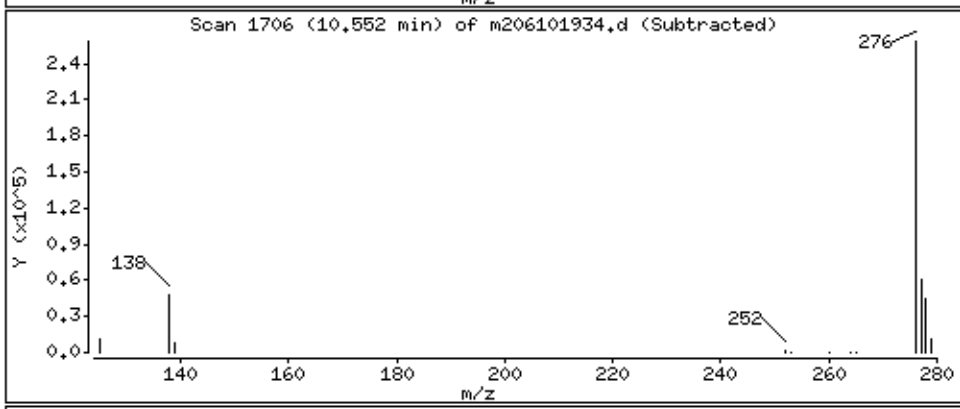
Volume Injected (uL): 1.0 Operator: AJC

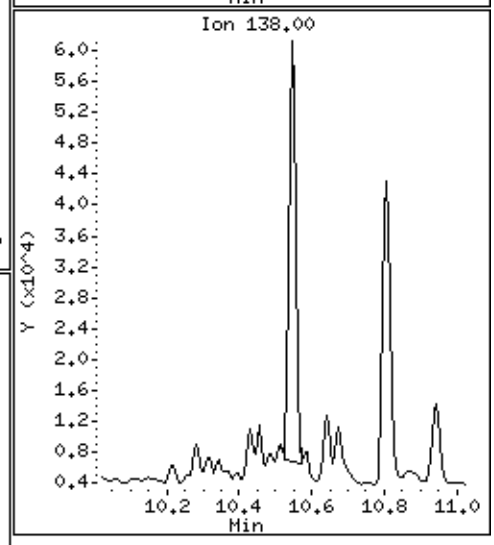
Column phase: RTX-5MS Column diameter: 0.25

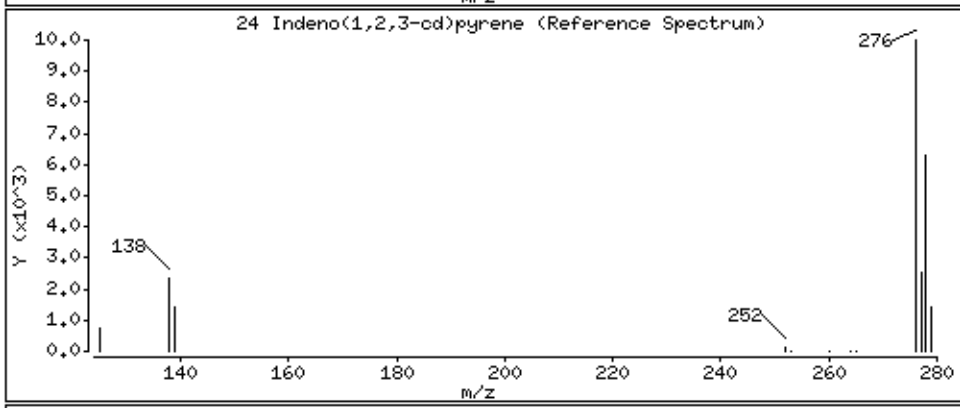
24 Indeno(1,2,3-cd)pyrene Concentration: 2060 ug/Kg

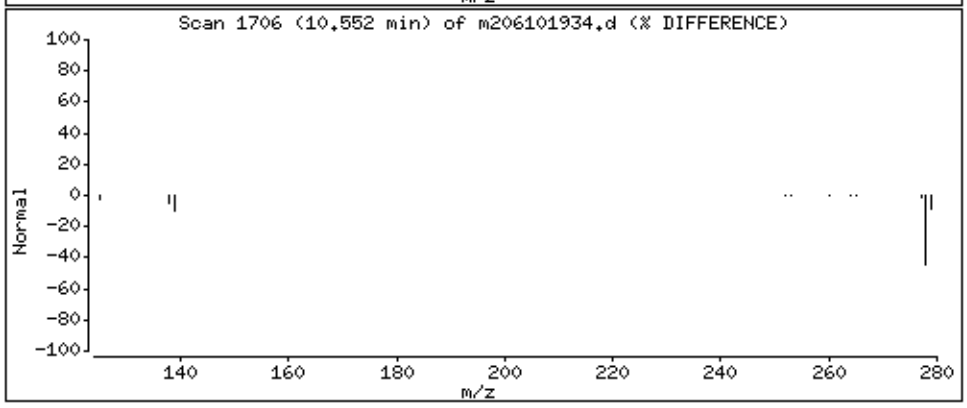












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Date : 11-JUN-2019 00:54

Client ID: AOC34

Instrument: 30mss2.i

Sample Info: 30298231010x10,

Volume Injected (uL): 1.0

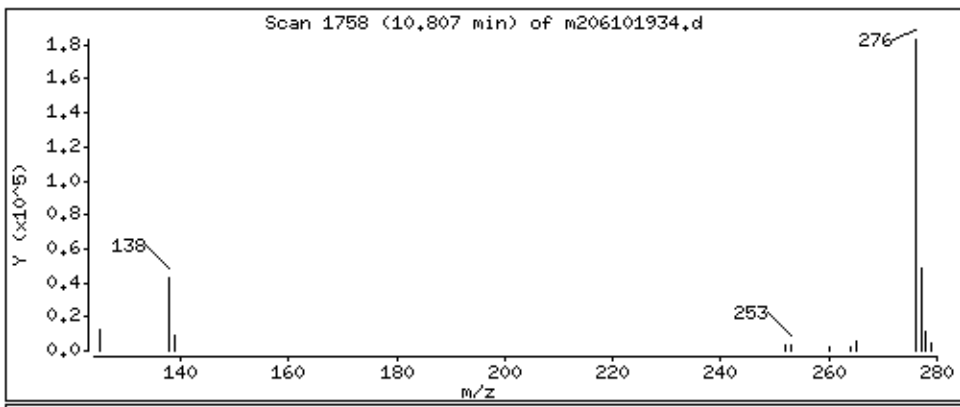
Operator: AJC

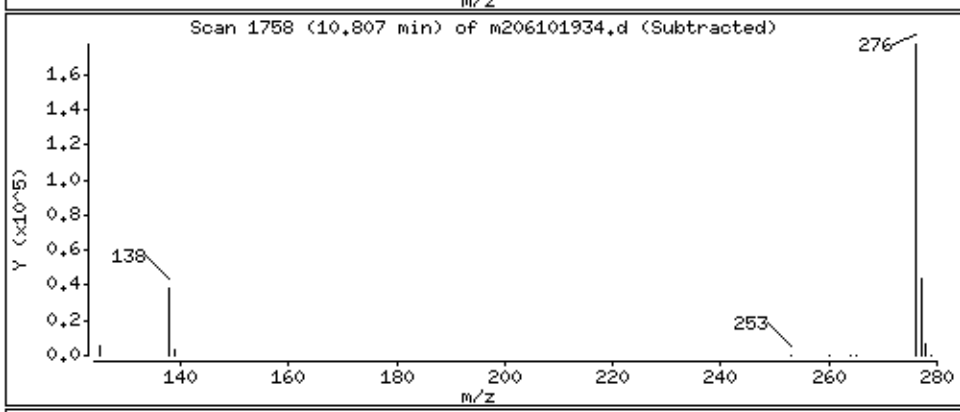
Column phase: RTX-5MS

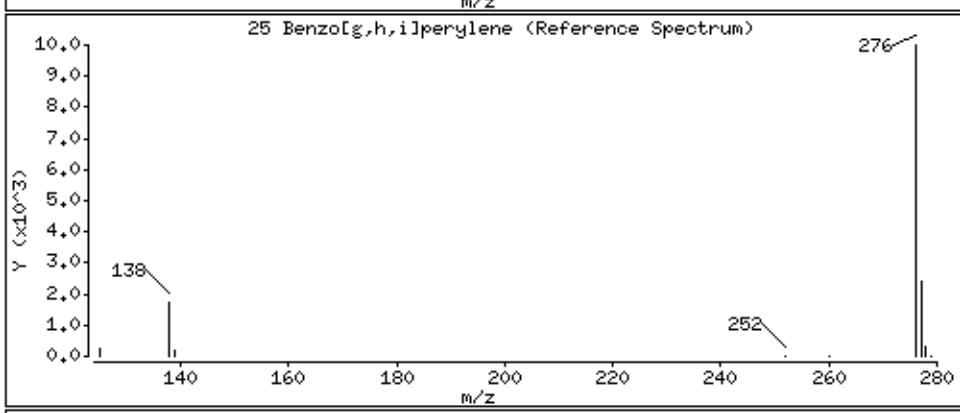
Column diameter: 0.25

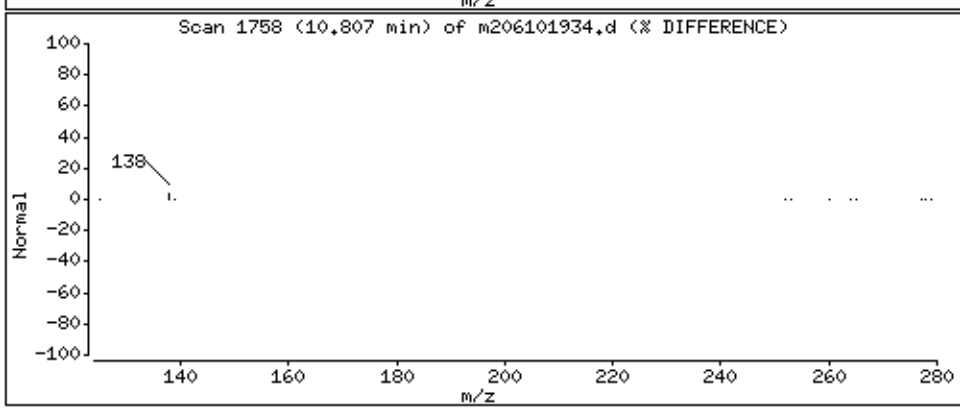
25 Benzo[g,h,i]perylene

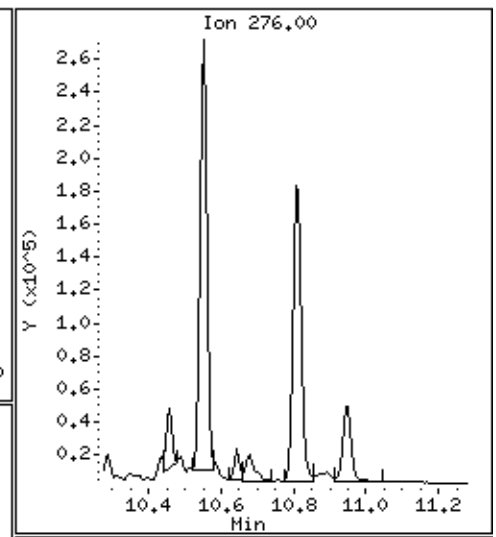
Concentration: 1800 ug/Kg

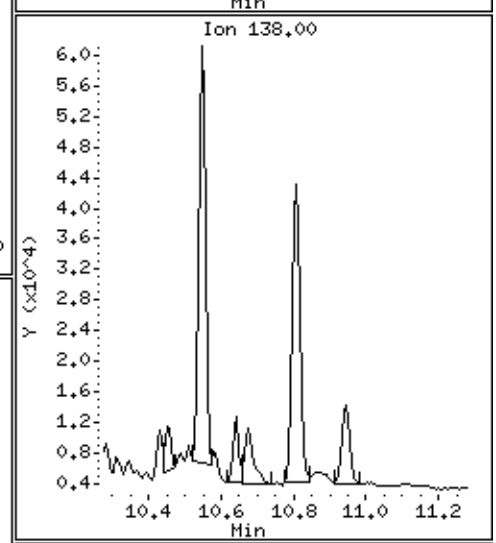


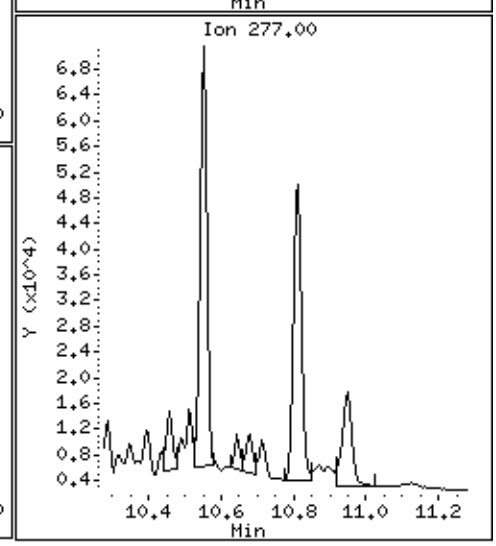












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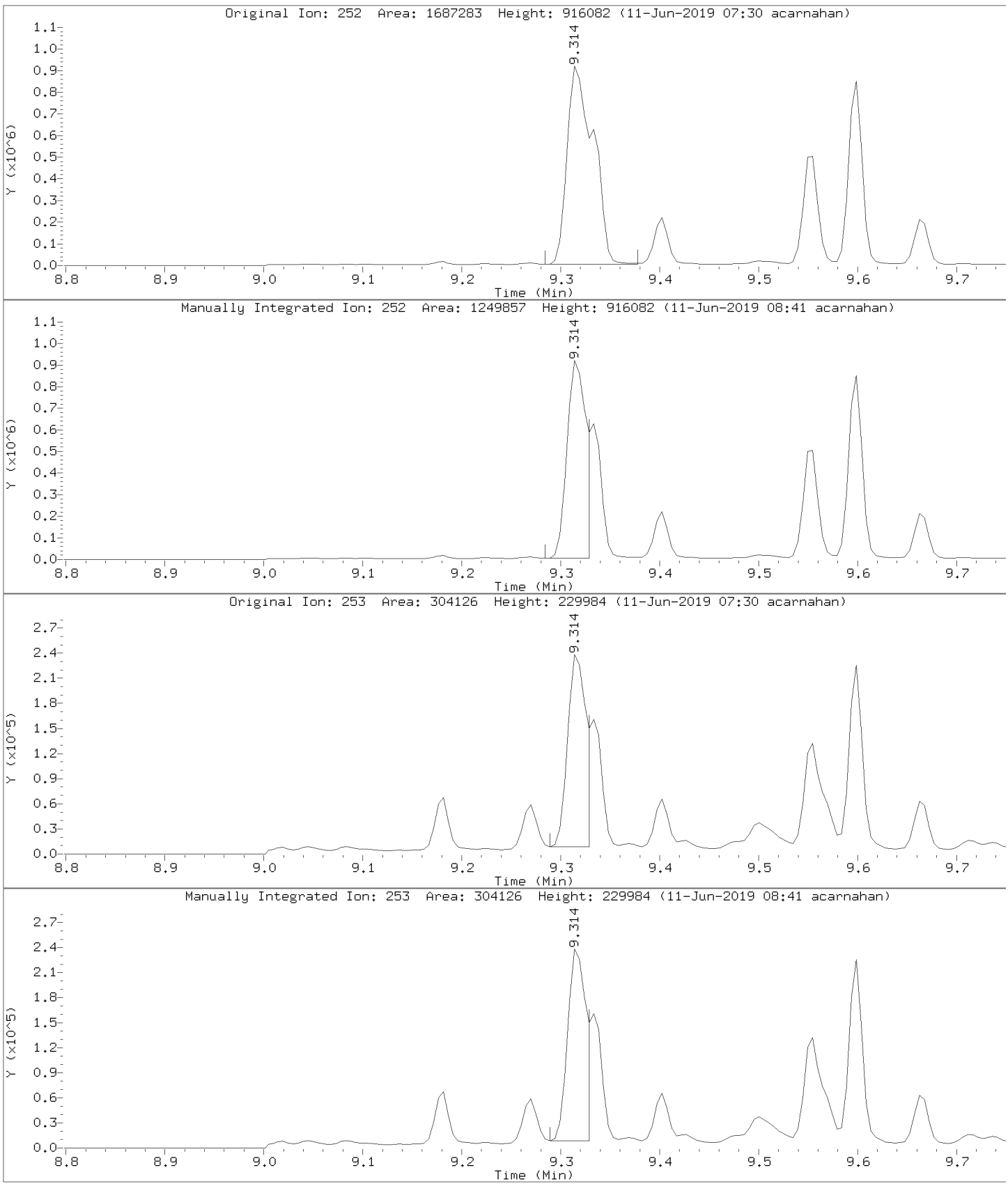
Injection Date: 11-JUN-2019 00:54
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Benzo(b)fluoranthene Review Code: GT
CAS Number: 205-99-2



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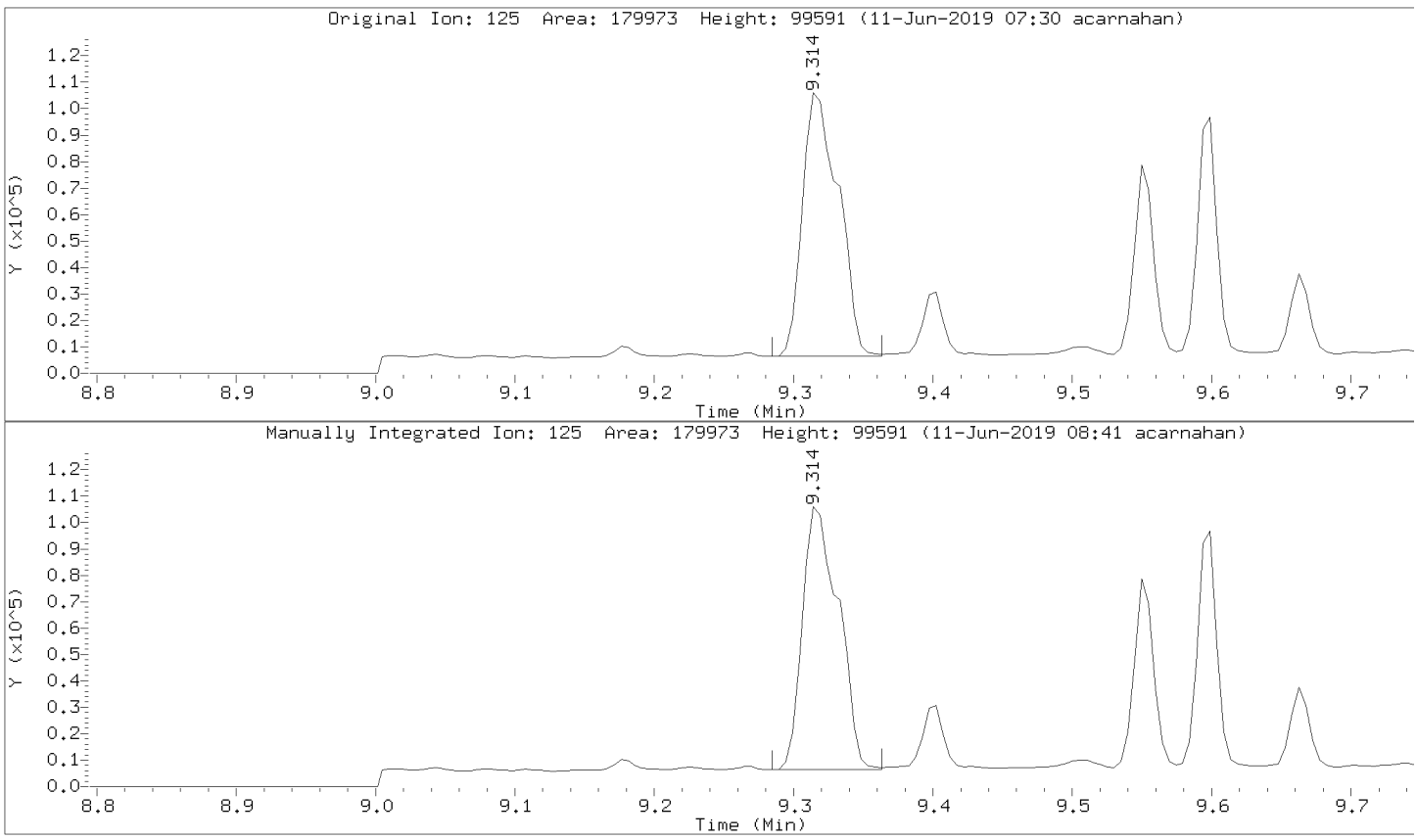
Injection Date: 11-JUN-2019 00:54
Instrument: 30mss2.i
Lab Sample ID: 30298231010



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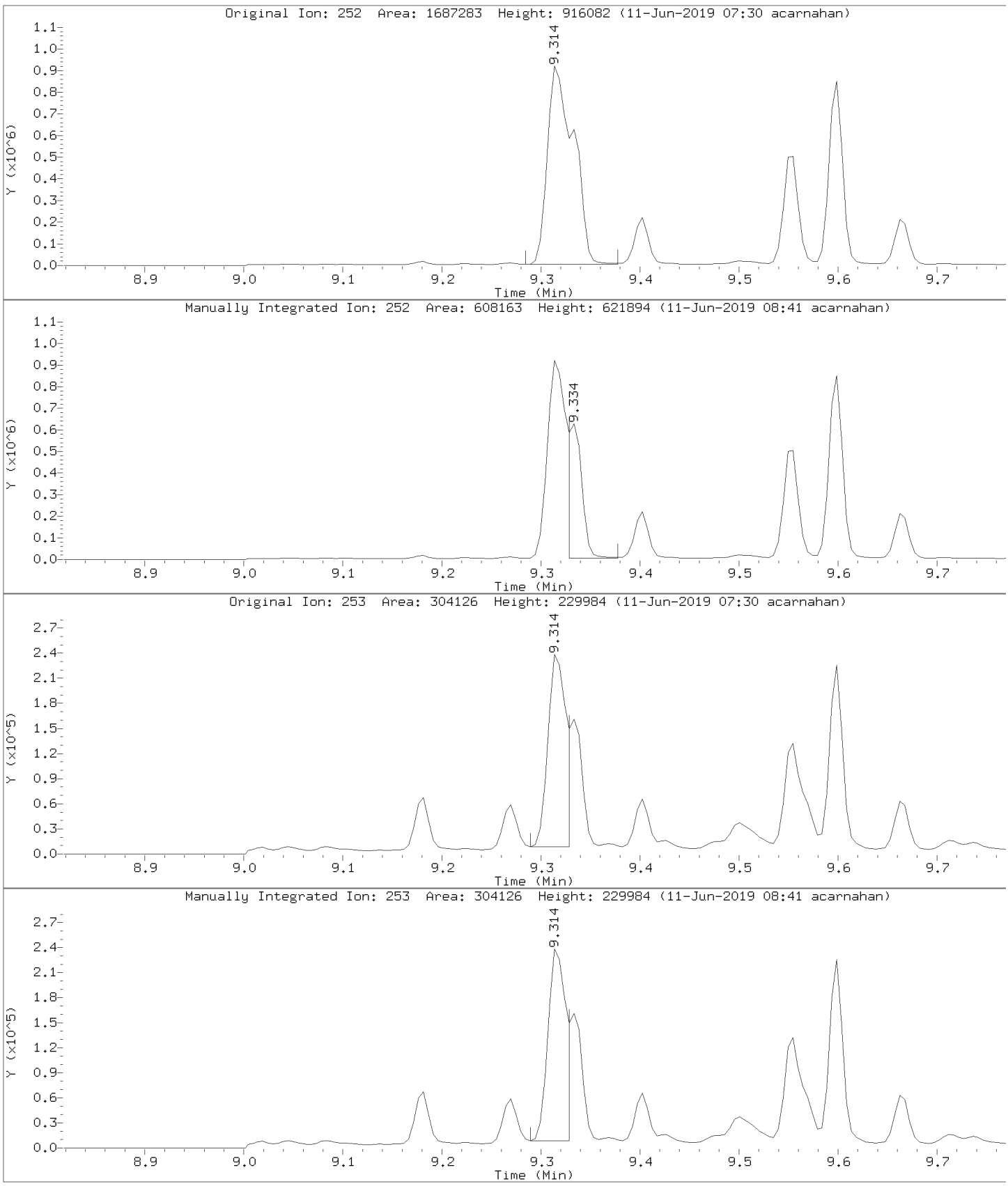
Injection Date: 11-JUN-2019 00:54
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Benzo(k)fluoranthene Review Code: GT
CAS Number: 207-08-9



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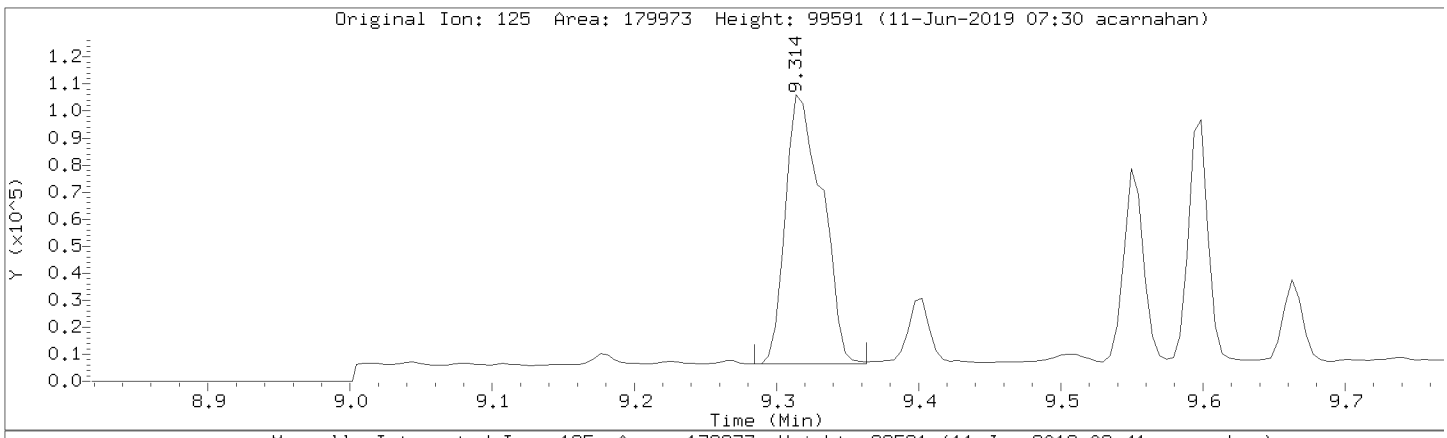
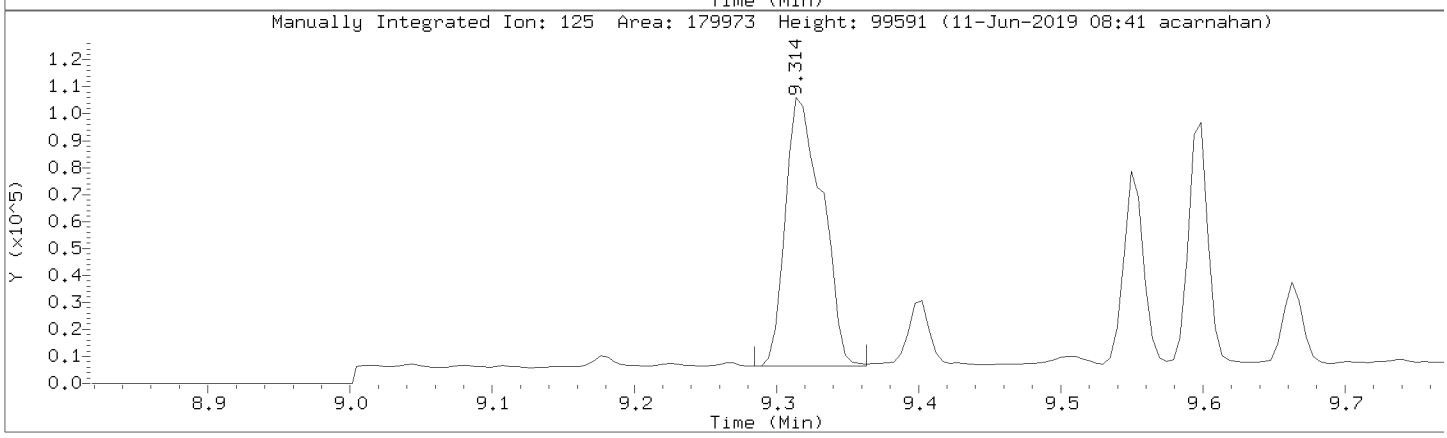
Injection Date: 11-JUN-2019 00:54
Instrument: 30mss2.i
Lab Sample ID: 30298231010





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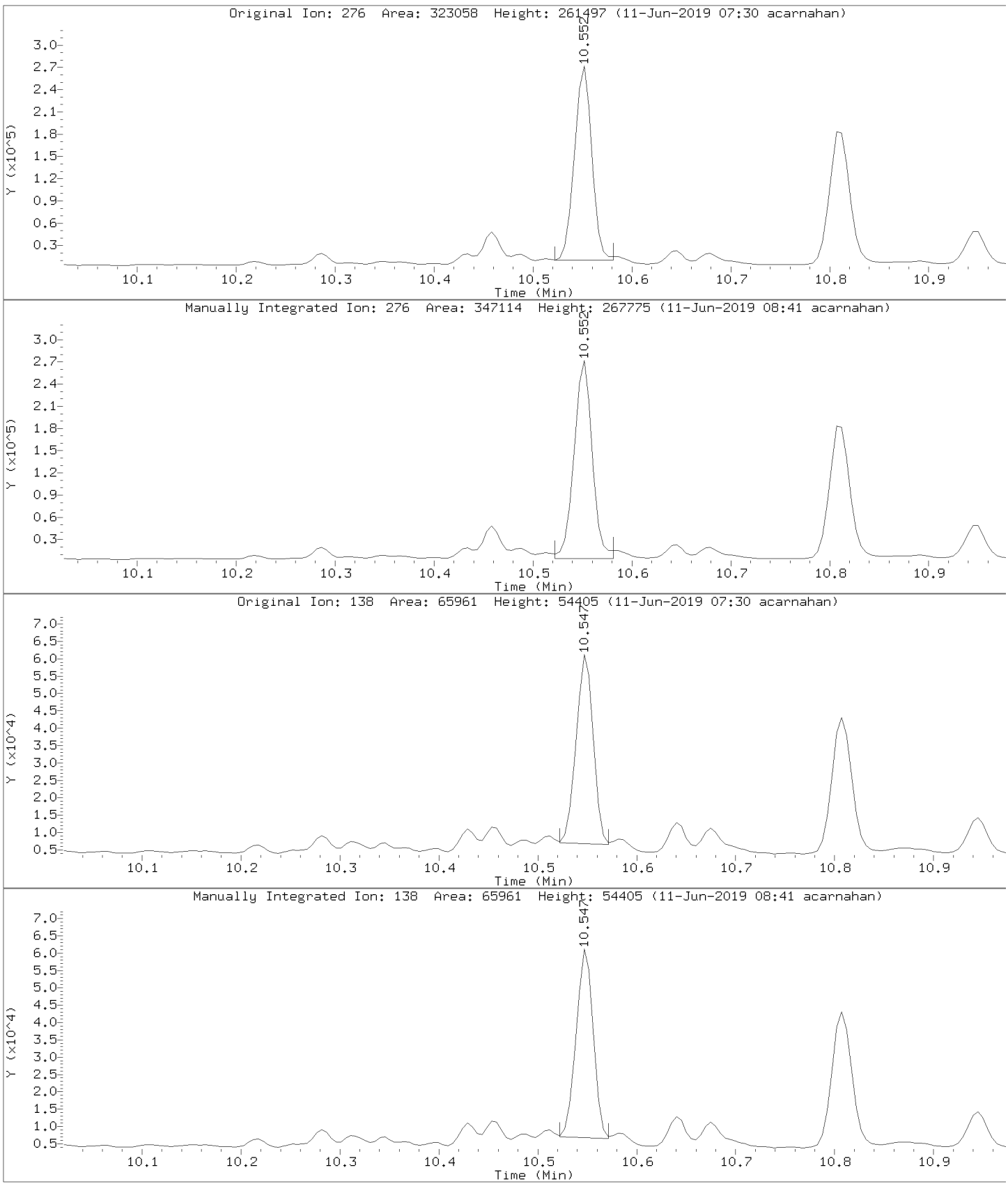
Injection Date: 11-JUN-2019 00:54
Instrument: 30mss2.i
Lab Sample ID: 30298231010

Compound: Indeno(1,2,3-cd)pyrene Review Code: BA
CAS Number: 193-39-5



MSSV SIM - FORM VI SVOA-1

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/31/2019 05/31/2019 Calibration Time(s): 14:47 16:17

LAB FILE ID

CAL1 = MSS2053119.B\M2053119Z1.D CAL2 = MSS2053119.B\M2053119Z2.D CAL3 = MSS2053119.B\M2053119Z3.D

CAL4 = MSS2053119.B\M2053119Z4.D CAL5 = MSS2053119.B\M2053119Z5.D CAL6 = MSS2053119.B\M2053119Z6.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthylene	Averaged	1.49149	1.74294	1.77656	1.76359	1.63317	1.20980
Anthracene	Averaged	0.88903	1.03476	1.09548	1.05805	0.99468	0.71050
Benzo(a)anthracene	Averaged	1.11155	1.17175	1.16517	1.12967	1.09735	0.84680
Benzo(a)pyrene	Averaged	0.94956	1.08733	1.13608	1.09413	1.05593	0.78507
Benzo(b)fluoranthene	Averaged	0.99643	1.17355	1.20451	1.15899	1.13263	0.83032
Benzo(g,h,i)perylene	Averaged	1.01518	1.15774	1.18171	1.12934	1.08303	0.82108
Benzo(k)fluoranthene	Averaged	1.20452	1.35636	1.37307	1.28586	1.15758	0.82474
Chrysene	Averaged	1.14806	1.30093	1.28719	1.20958	1.11029	0.79965
Dibenz(a,h)anthracene	Averaged	0.94047	1.09079	1.14004	1.09432	1.05345	0.79663
Fluoranthene	Averaged	1.05406	1.21023	1.25876	1.23401	1.15925	0.81368
Fluorene	Averaged	1.15603	1.36079	1.39827	1.33222	1.23263	0.95099
Indeno(1,2,3-cd)pyrene	Averaged	1.13982	1.32133	1.36184	1.29226	1.24718	0.97624
Naphthalene	Averaged	0.90575	1.03446	1.02054	0.96658	0.90431	0.67942
Phenanthrene	Averaged	1.04676	1.18910	1.16898	1.07428	0.98253	0.71031
Pyrene	Averaged	1.10374	1.26709	1.31697	1.27283	1.18599	0.83879
2-Fluorobiphenyl (S)	Averaged	1.35750	1.59682	1.60293	1.47693	1.33827	0.99367
Terphenyl-d14 (S)	Averaged	0.85590	1.00240	1.02135	0.97567	0.91174	0.65369

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV SIM - FORM VI SVOA-2

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/31/2019 05/31/2019 Calibration Time(s): 14:47 16:17

LAB FILE ID

CAL1 = MSS2053119.B\M2053119Z1.D CAL2 = MSS2053119.B\M2053119Z2.D CAL3 = MSS2053119.B\M2053119Z3.D

CAL4 = MSS2053119.B\M2053119Z4.D CAL5 = MSS2053119.B\M2053119Z5.D CAL6 = MSS2053119.B\M2053119Z6.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acenaphthylene	Averaged	13.76584		0.00000000	1.60292	
Anthracene	Averaged	14.81739		0.00000000	0.96375	
Benzo(a)anthracene	Averaged	11.15491		0.00000000	1.08705	
Benzo(a)pyrene	Averaged	12.80197		0.00000000	1.01802	
Benzo(b)fluoranthene	Averaged	13.22650			1.08274	
Benzo(g,h,i)perylene	Averaged	12.50782		0.00000000	1.06468	
Benzo(k)fluoranthene	Averaged	16.84440		0.00000000	1.20035	
Chrysene	Averaged	16.09736		0.00000000	1.14262	
Dibenz(a,h)anthracene	Averaged	12.58530		0.00000000	1.01928	
Fluoranthene	Averaged	14.92328		0.00000000	1.12166	
Fluorene	Averaged	13.45128		0.00000000	1.23849	
Indeno(1,2,3-cd)pyrene	Averaged	11.68536		0.00000000	1.22311	
Naphthalene	Averaged	14.08572		0.00000000	0.91851	
Phenanthrene	Averaged	16.91146		0.00000000	1.02866	
Pyrene	Averaged	15.15960		0.00000000	1.16423	
2-Fluorobiphenyl (S)	Averaged	16.23953		0.00000000	1.39435	
Terphenyl-d14 (S)	Averaged	15.14536			0.90346	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z1.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 31-MAY-2019 14:47
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal1, 89118:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 14:47 Cal File: m2053119z1.d
Als bottle: 94 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	1028280	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	23284	0.10000	0.0922	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	16091	0.10000	0.0886	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	15537	0.10000	0.0902(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.632	4.632	(0.908)	20618	0.10000	0.0900	
	11 Acenaphthylene	152	5.010	5.010	(0.982)	22653	0.10000	0.0881	
*	2 Acenaphthene-d10 (IS)	164	5.102	5.102	(1.000)	607527	4.00000		
	12 Acenaphthene	153	5.126	5.125	(1.005)	15825	0.10000	0.0920	
	13 Fluorene	166	5.486	5.486	(1.075)	17558	0.10000	0.0881	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	1085403	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	28404	0.10000	0.0937(M)	BA
	15 Anthracene	178	6.266	6.266	(1.009)	24124	0.10000	0.0872	
	16 Fluoranthene	202	7.250	7.250	(1.168)	28602	0.10000	0.0886	
	17 Pyrene	202	7.462	7.462	(1.202)	29950	0.10000	0.0890	
$	7 Terphenyl-d14 (S)	244	7.570	7.570	(1.219)	23225	0.10000	0.0888	
	18 Benzo(a)anthracene	228	8.582	8.582	(0.999)	30627	0.10000	0.0971	
*	4 Chrysene-d12 (IS)	240	8.594	8.594	(1.000)	1102136	4.00000		
	19 Chrysene	228	8.617	8.617	(1.003)	31633	0.10000	0.0934(M)	BA
	20 Benzo(b)fluoranthene	252	9.569	9.568	(0.966)	30250	0.10000	0.0879	
	21 Benzo(k)fluoranthene	252	9.593	9.593	(0.969)	36567	0.10000	0.0928(M)	BA
	22 Benzo(a)pyrene	252	9.854	9.853	(0.995)	28827	0.10000	0.0890(Q)	
*	5 Perylene-d12 (IS)	264	9.903	9.903	(1.000)	1214331	4.00000		
	23 Dibenz(a,h)anthracene	278	10.890	10.890	(1.100)	28551	0.10000	0.0882	
	24 Indeno(1,2,3-cd)pyrene	276	10.885	10.885	(1.099)	34603	0.10000	0.0891	
	25 Benzo[g,h,i]perylene	276	11.170	11.170	(1.128)	30819	0.10000	0.0906	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

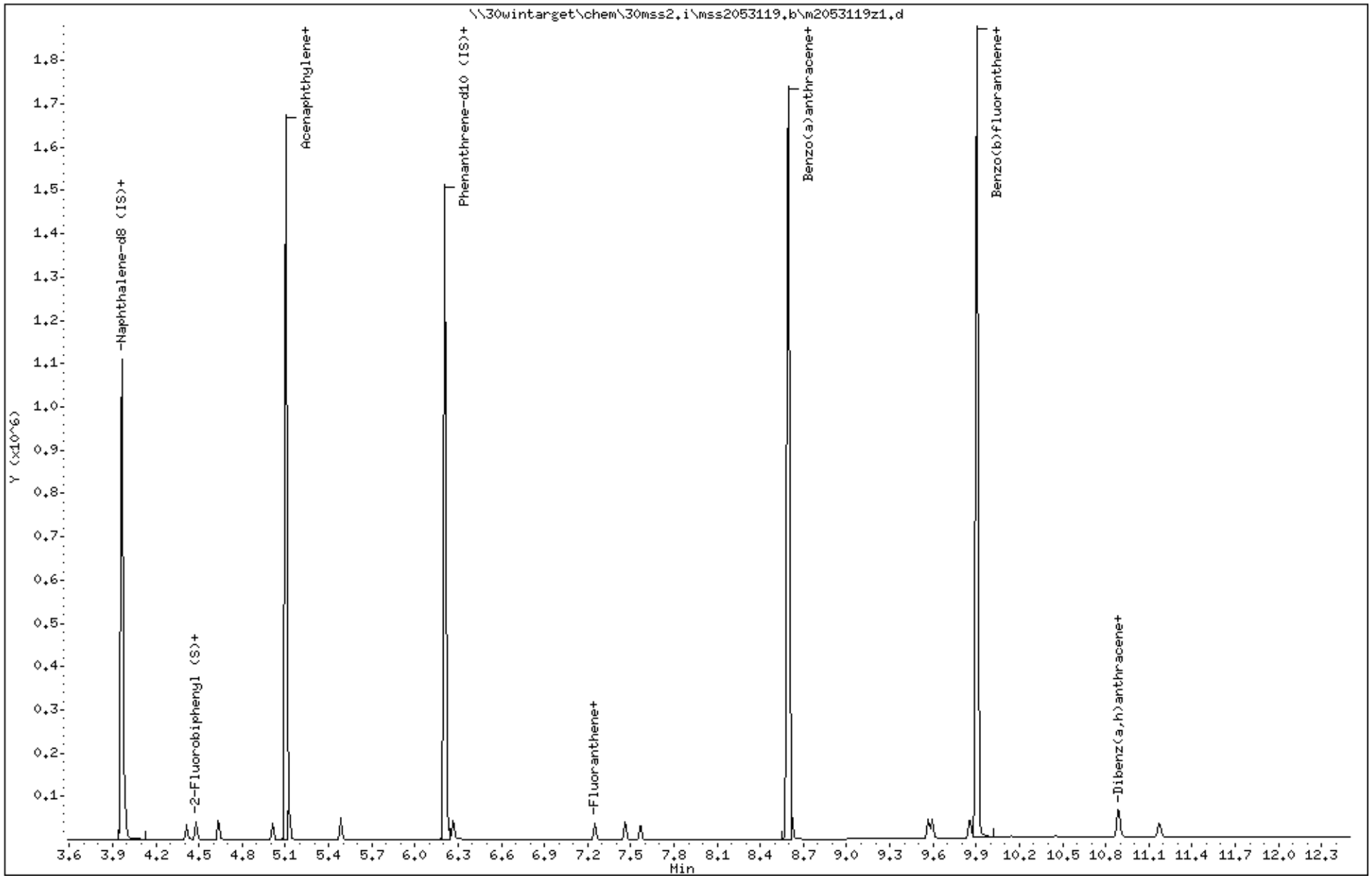
Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.0922	
91-57-6	2-Methylnaphthalene	0.0886	
90-12-0	1-Methylnaphthalene	0.0902	
208-96-8	Acenaphthylene	0.0881	
83-32-9	Acenaphthene	0.0920	
86-73-7	Fluorene	0.0881	
85-01-8	Phenanthrene	0.0937	
120-12-7	Anthracene	0.0872	
206-44-0	Fluoranthene	0.0886	
129-00-0	Pyrene	0.0890	
56-55-3	Benzo(a)anthracene	0.0971	
218-01-9	Chrysene	0.0934	
205-99-2	Benzo(b)fluoranthene	0.0879	
207-08-9	Benzo(k)fluoranthene	0.0928	
50-32-8	Benzo(a)pyrene	0.0890	
53-70-3	Dibenz(a,h)anthracene	0.0882	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0891	
191-24-2	Benzo[g,h,i]perylene	0.0906	
321-60-8	2-Fluorobiphenyl (S)	0.0900	
1718-51-0	Terphenyl-d14 (S)	0.0888	

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z1.d
Date : 31-MAY-2019 14:47
Client ID: CAL1
Sample Info: CAL1, 89118:1

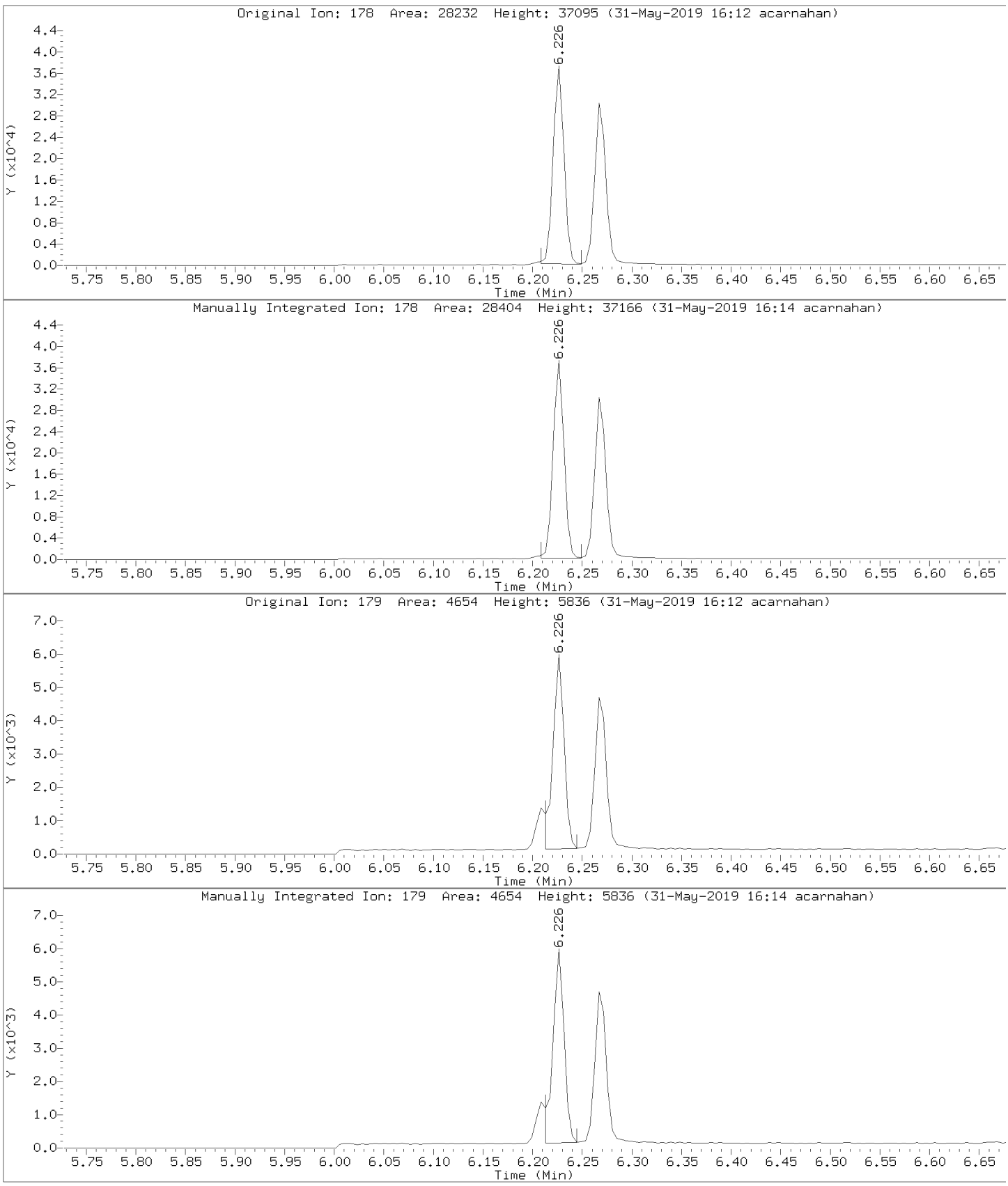
Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

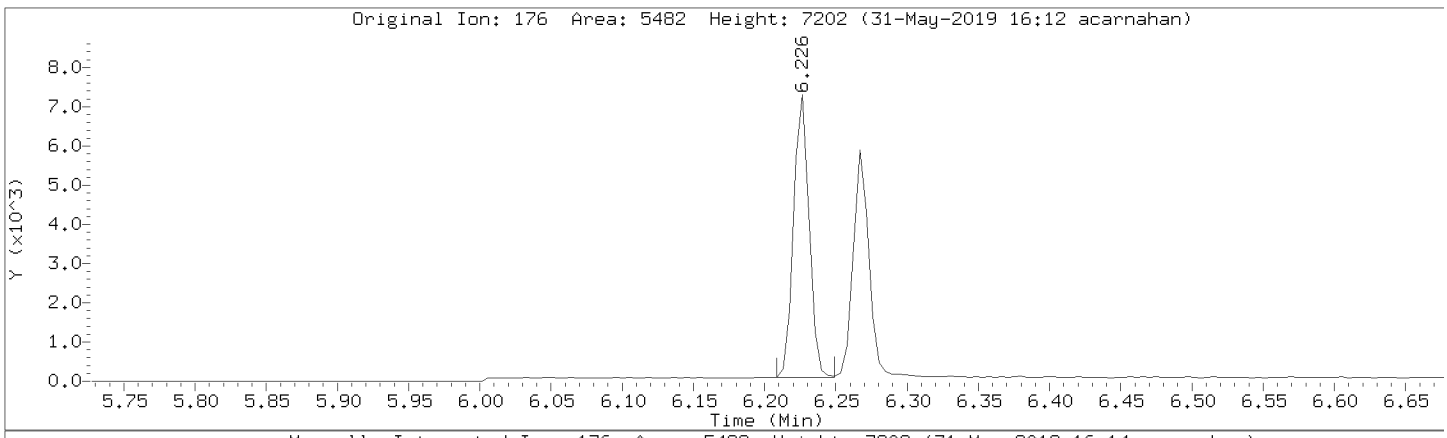


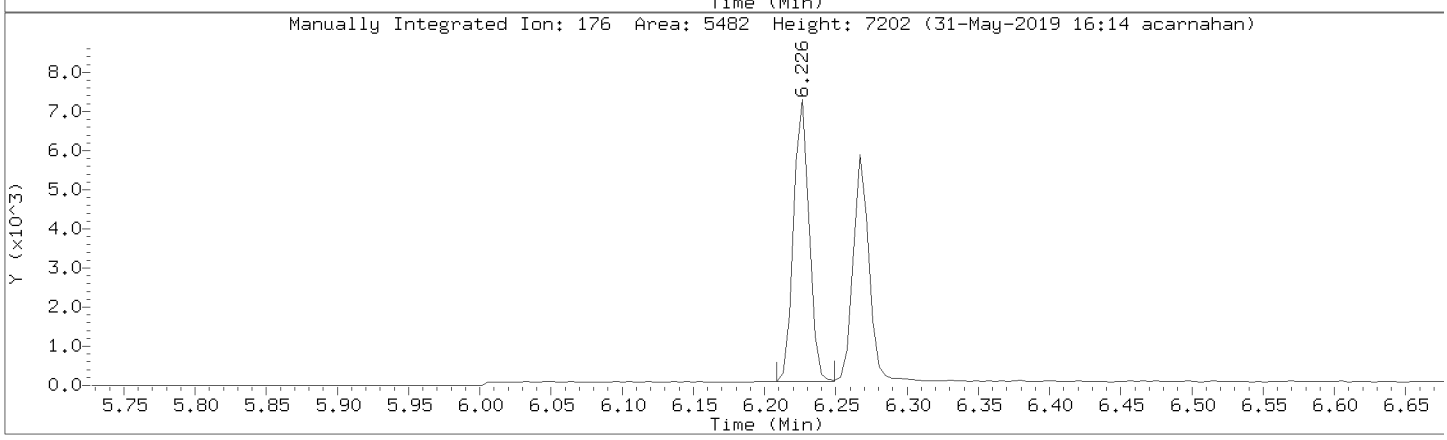
Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z1.d
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z1.d
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1





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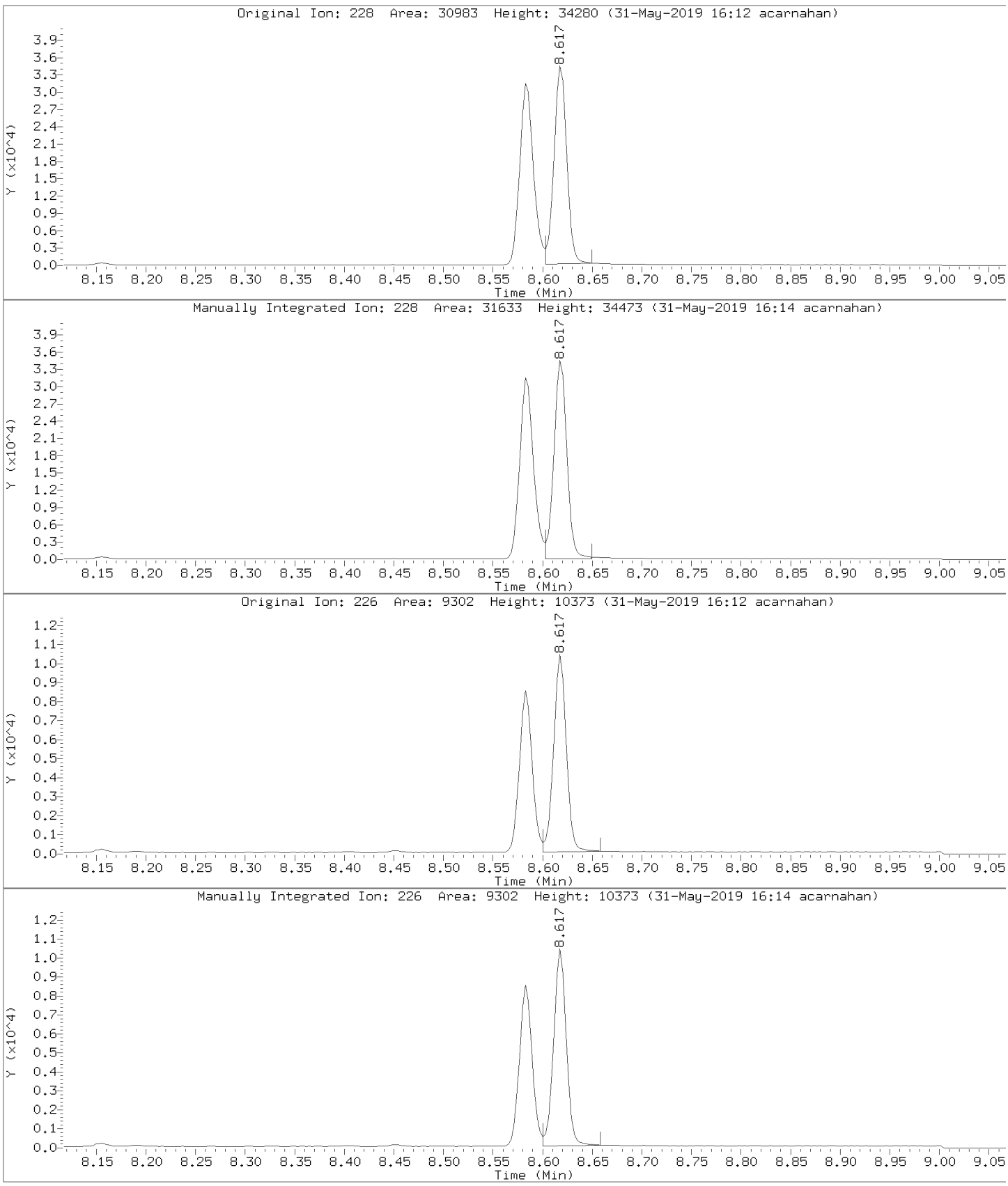
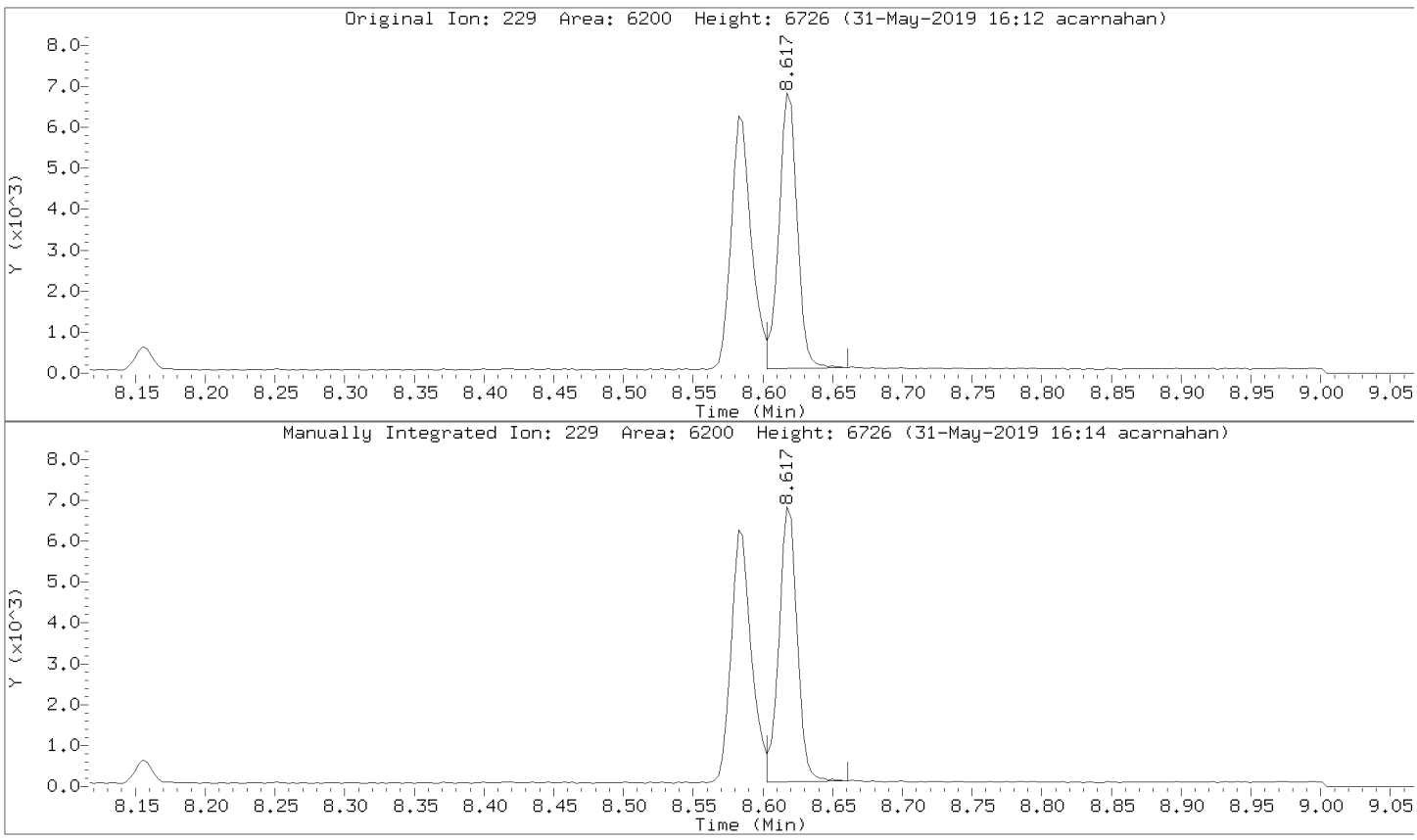
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

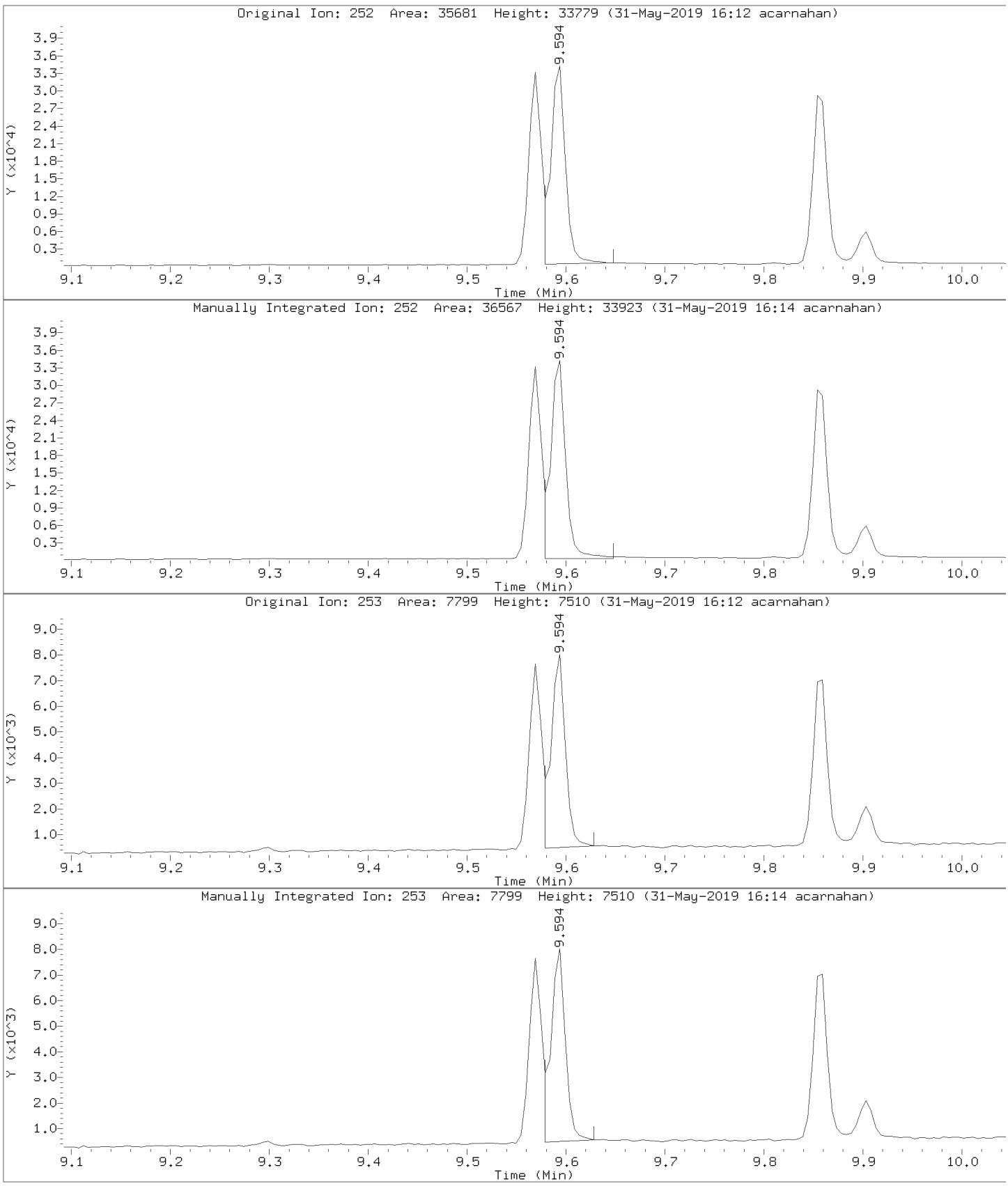


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z1.d
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z1.d
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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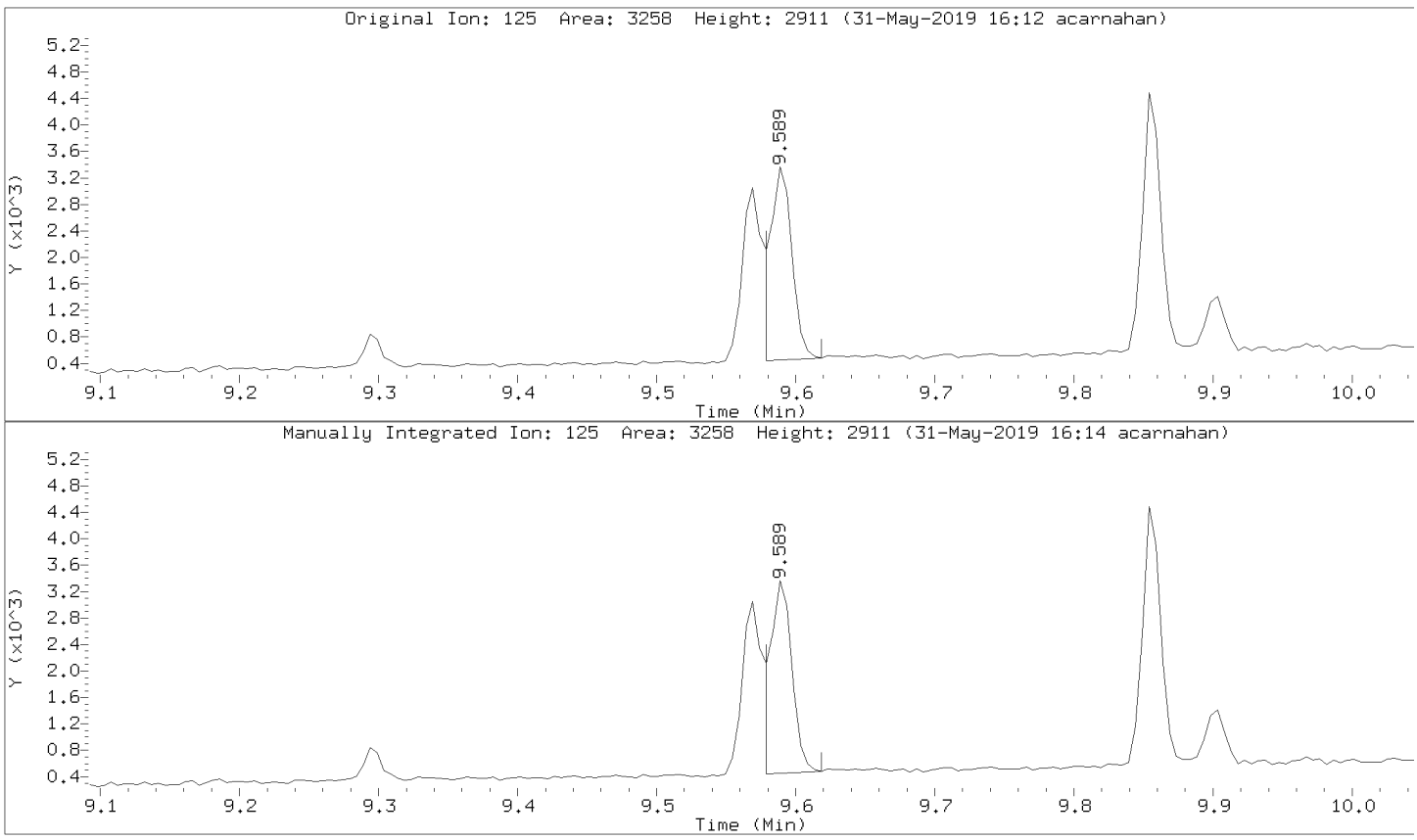
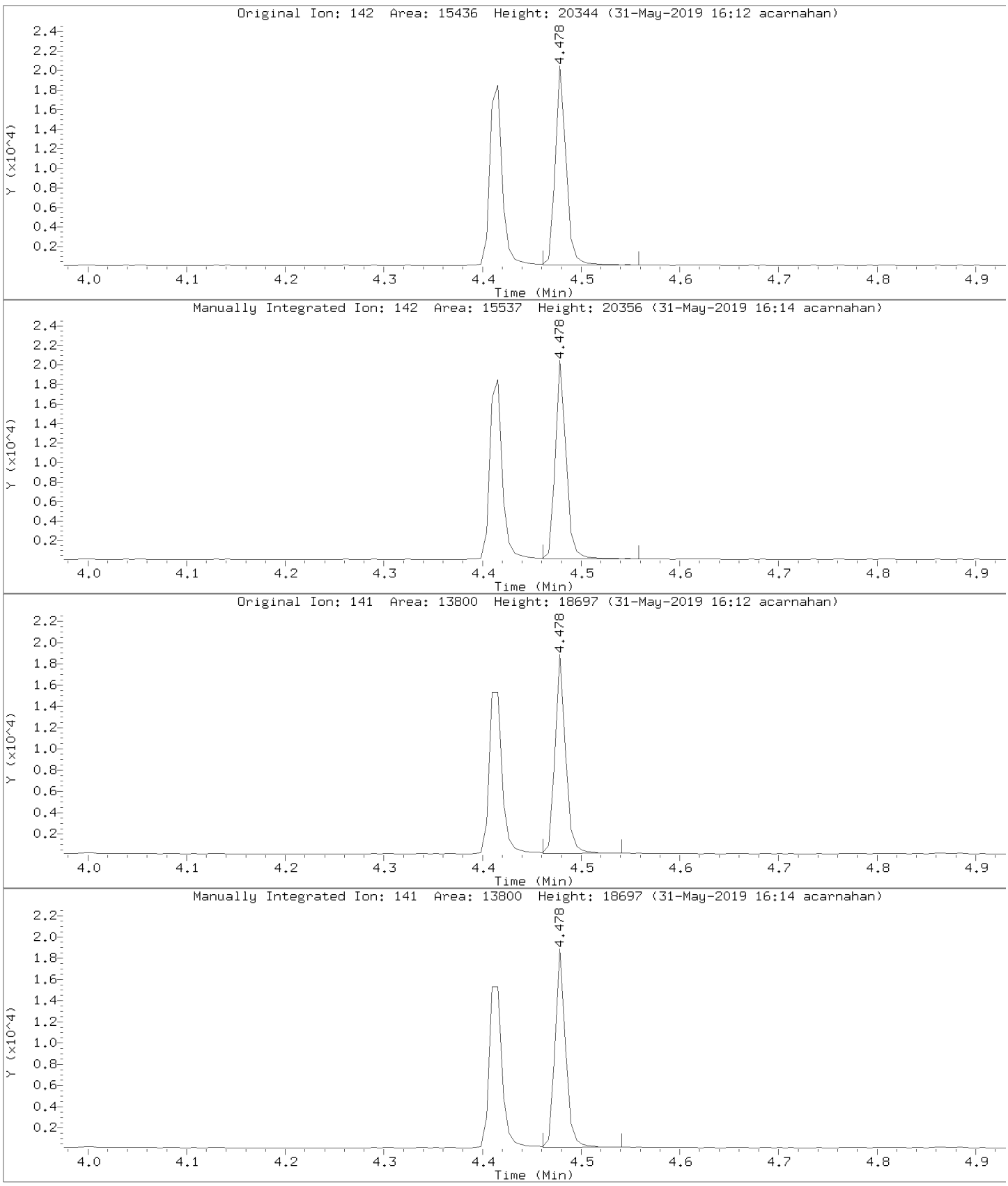
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z1.d
Injection Date: 31-MAY-2019 14:47
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z2.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 31-MAY-2019 15:05
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal2, 89119:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 15:05 Cal File: m2053119z2.d
Als bottle: 95 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.963	3.964	(1.000)	1021670	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	52844	0.20000	0.211	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	37500	0.20000	0.208	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	36043	0.20000	0.210(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.632	4.632	(0.907)	48008	0.20000	0.212	
	11 Acenaphthylene	152	5.013	5.010	(0.982)	52401	0.20000	0.206	
*	2 Acenaphthene-d10 (IS)	164	5.105	5.102	(1.000)	601296	4.00000		
	12 Acenaphthene	153	5.125	5.125	(1.004)	36146	0.20000	0.212	
	13 Fluorene	166	5.486	5.486	(1.074)	40912	0.20000	0.207	
*	3 Phenanthrene-d10 (IS)	188	6.207	6.208	(1.000)	1080903	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	64265	0.20000	0.213(M)	BA
	15 Anthracene	178	6.266	6.266	(1.009)	55924	0.20000	0.203	
	16 Fluoranthene	202	7.250	7.250	(1.168)	65407	0.20000	0.204	
	17 Pyrene	202	7.462	7.462	(1.202)	68480	0.20000	0.204	
$	7 Terphenyl-d14 (S)	244	7.570	7.570	(1.219)	54175	0.20000	0.208	
	18 Benzo(a)anthracene	228	8.582	8.582	(0.999)	64581	0.20000	0.205	
*	4 Chrysene-d12 (IS)	240	8.593	8.594	(1.000)	1102302	4.00000		
	19 Chrysene	228	8.617	8.617	(1.003)	71701	0.20000	0.211(M)	BA
	20 Benzo(b)fluoranthene	252	9.568	9.568	(0.966)	70604	0.20000	0.207	
	21 Benzo(k)fluoranthene	252	9.593	9.593	(0.969)	81602	0.20000	0.208(M)	BA
	22 Benzo(a)pyrene	252	9.853	9.853	(0.995)	65417	0.20000	0.204	
*	5 Perylene-d12 (IS)	264	9.902	9.903	(1.000)	1203254	4.00000		
	23 Dibenz(a,h)anthracene	278	10.885	10.890	(1.099)	65625	0.20000	0.204	
	24 Indeno(1,2,3-cd)pyrene	276	10.885	10.885	(1.099)	79495	0.20000	0.207	
	25 Benzo[g,h,i]perylene	276	11.170	11.170	(1.128)	69653	0.20000	0.206	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

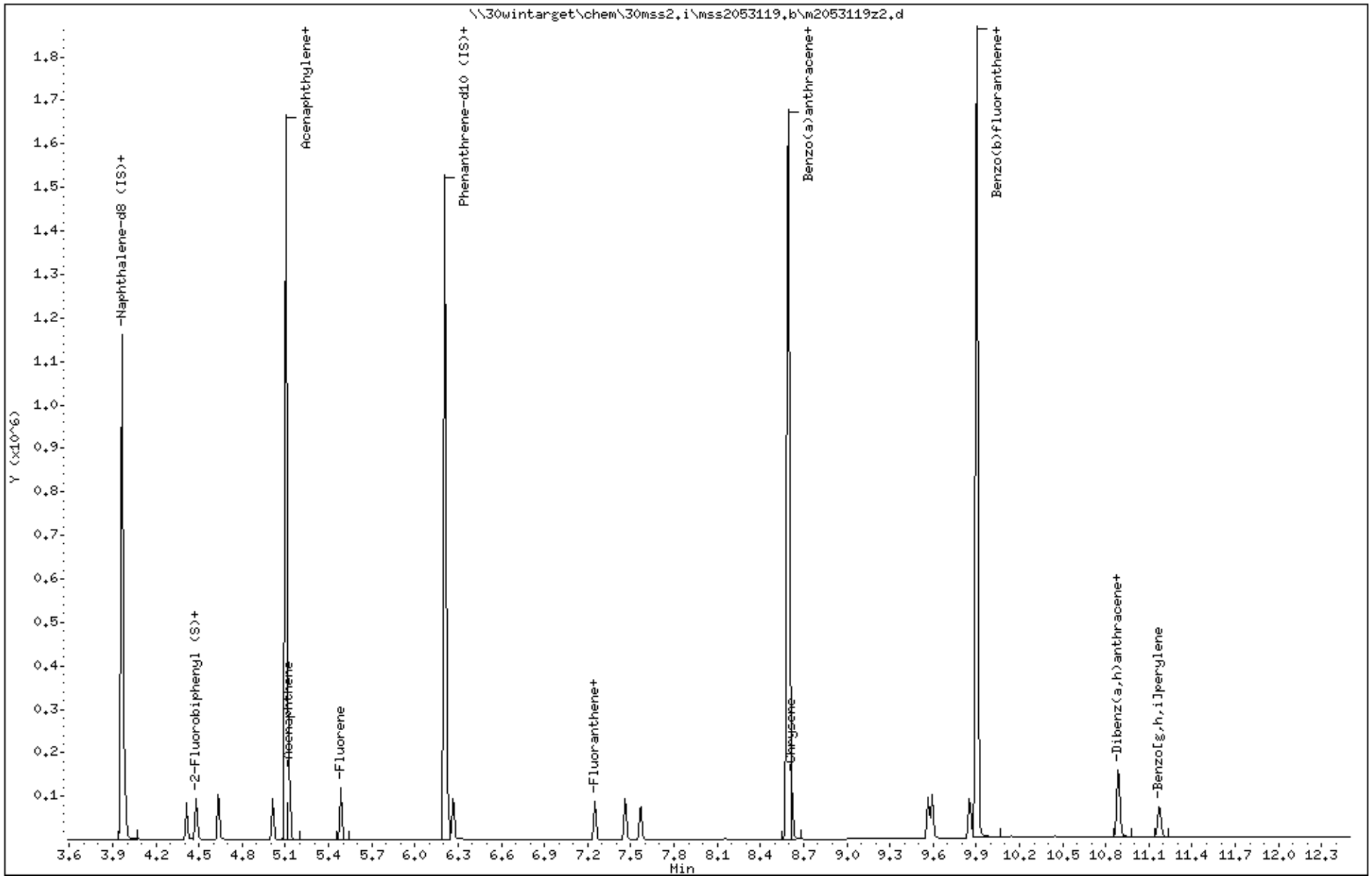
Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.211	
91-57-6	2-Methylnaphthalene	0.208	
90-12-0	1-Methylnaphthalene	0.210	
208-96-8	Acenaphthylene	0.206	
83-32-9	Acenaphthene	0.212	
86-73-7	Fluorene	0.207	
85-01-8	Phenanthrene	0.213	
120-12-7	Anthracene	0.203	
206-44-0	Fluoranthene	0.204	
129-00-0	Pyrene	0.204	
56-55-3	Benzo(a)anthracene	0.205	
218-01-9	Chrysene	0.211	
205-99-2	Benzo(b)fluoranthene	0.207	
207-08-9	Benzo(k)fluoranthene	0.208	
50-32-8	Benzo(a)pyrene	0.204	
53-70-3	Dibenz(a,h)anthracene	0.204	
193-39-5	Indeno(1,2,3-cd)pyrene	0.207	
191-24-2	Benzo[g,h,i]perylene	0.206	
321-60-8	2-Fluorobiphenyl (S)	0.212	
1718-51-0	Terphenyl-d14 (S)	0.208	

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z2.d
Date : 31-MAY-2019 15:05
Client ID: CAL2
Sample Info: CAL2, 89119:1

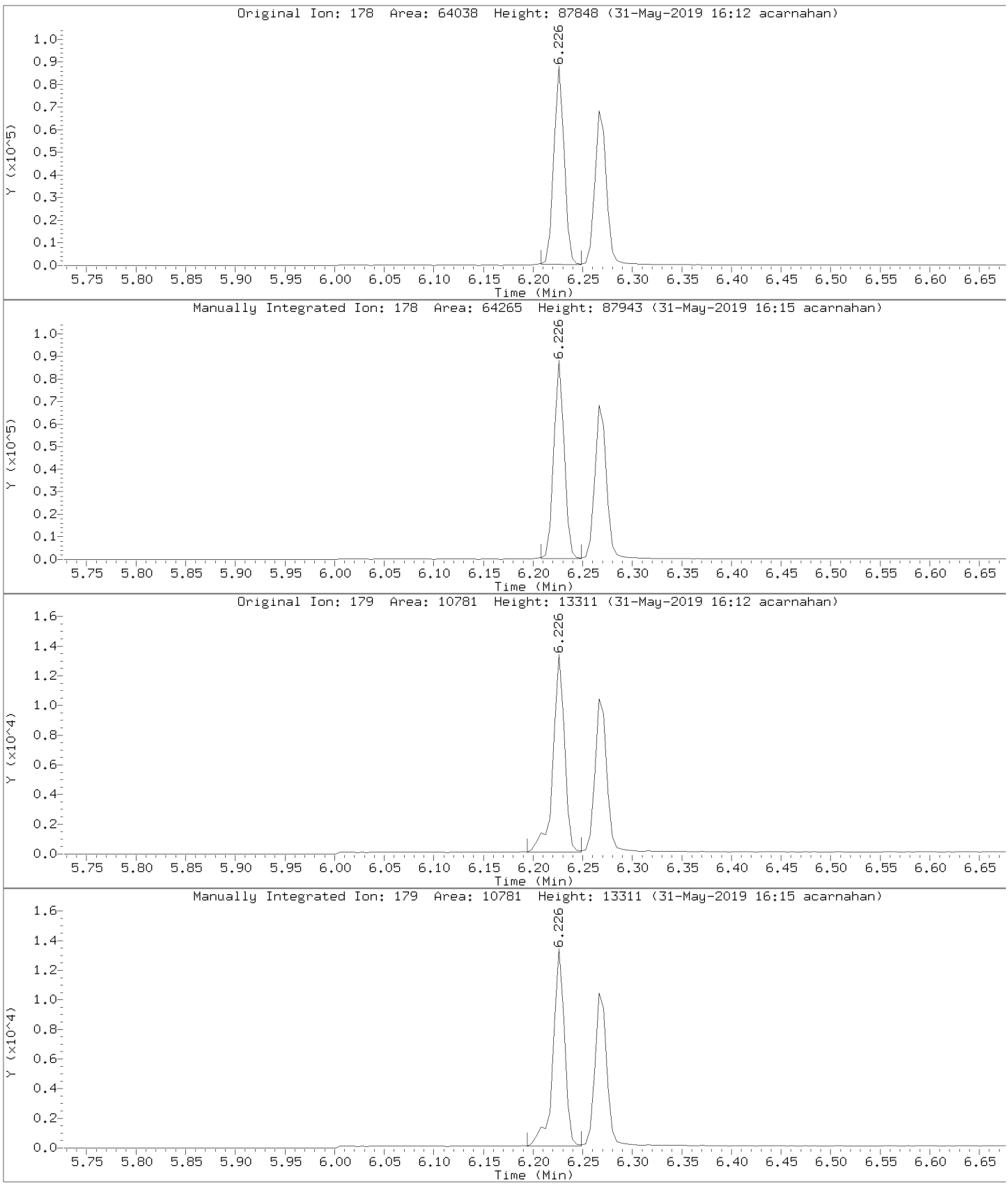
Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

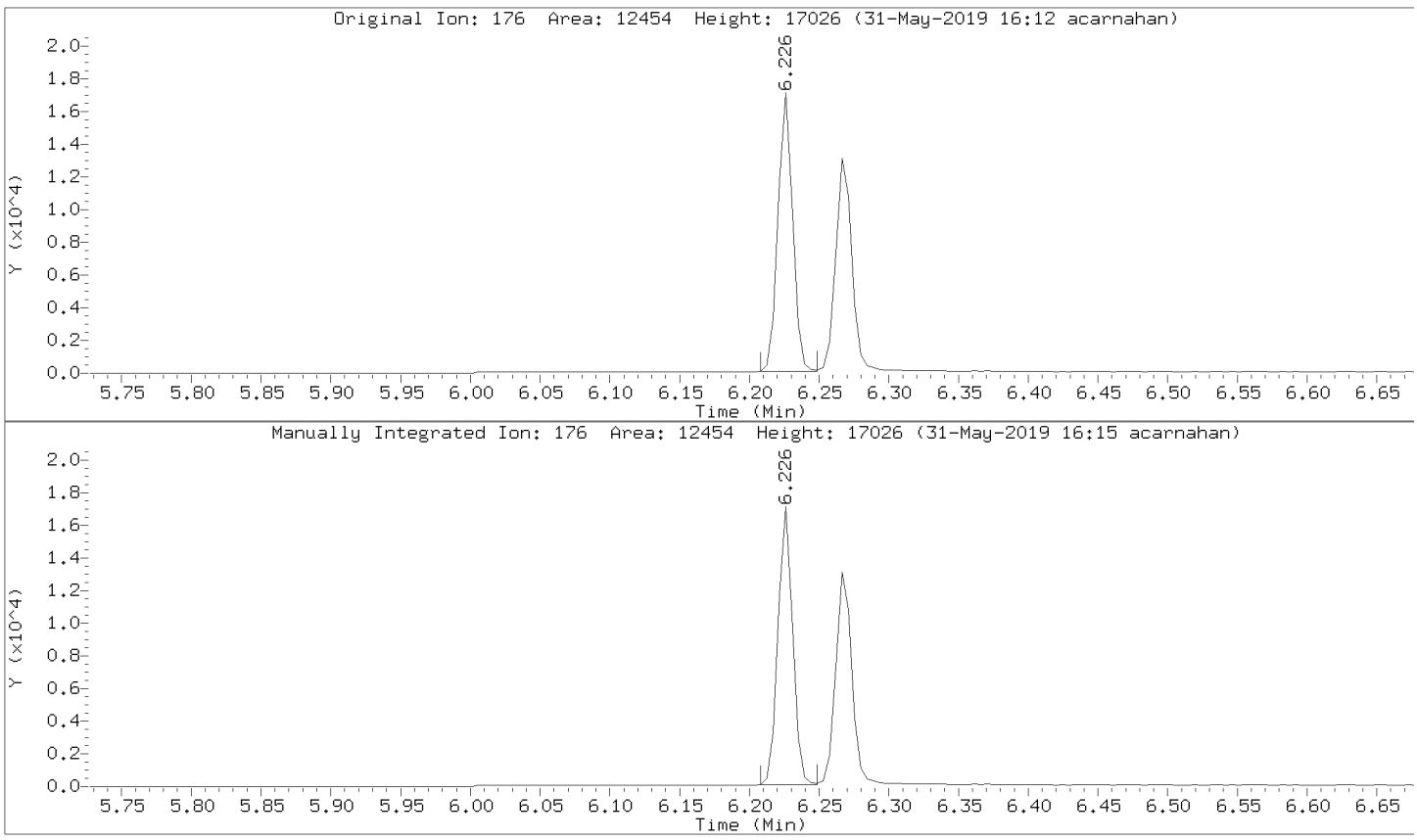


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z2.d
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z2.d
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2



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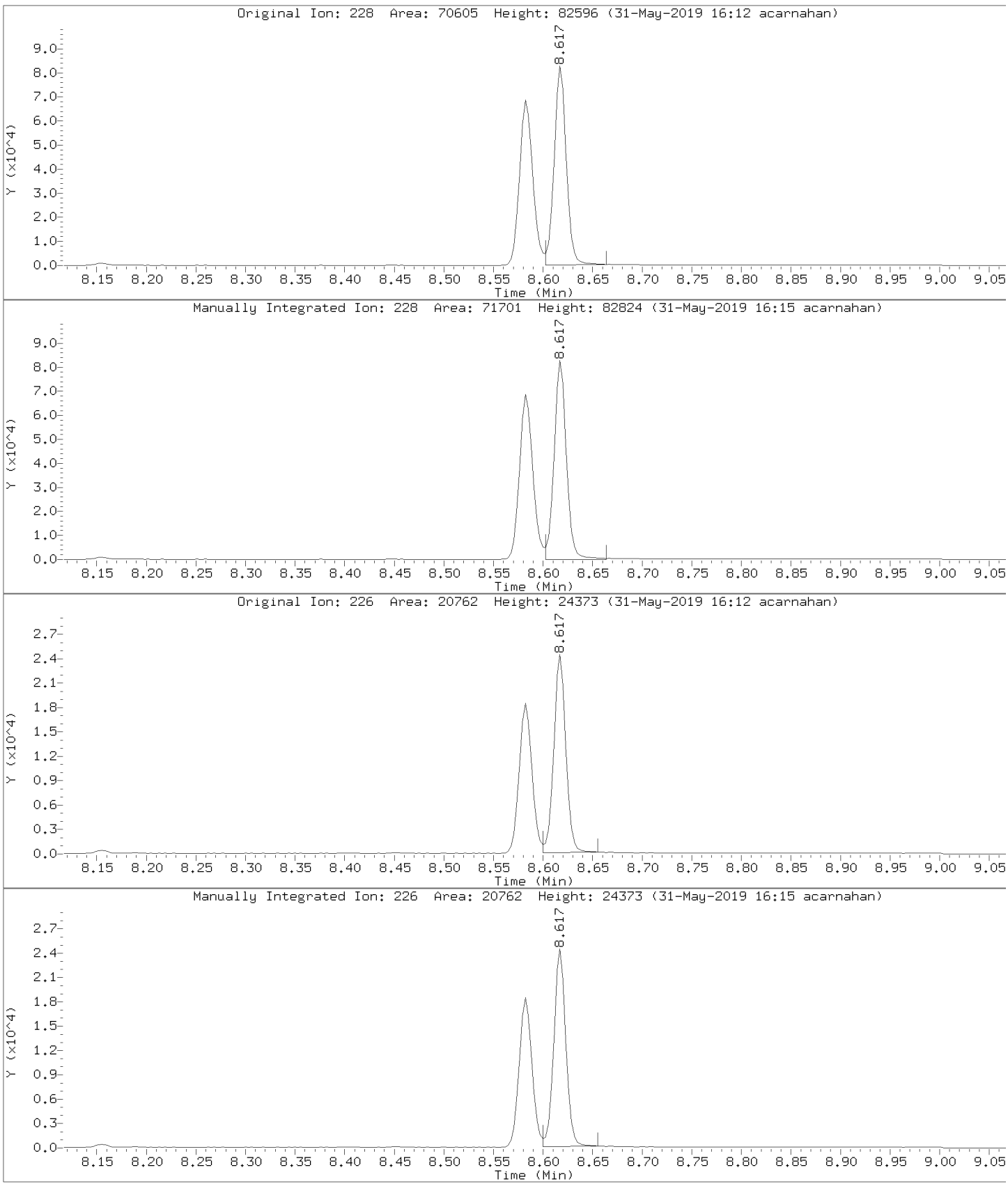
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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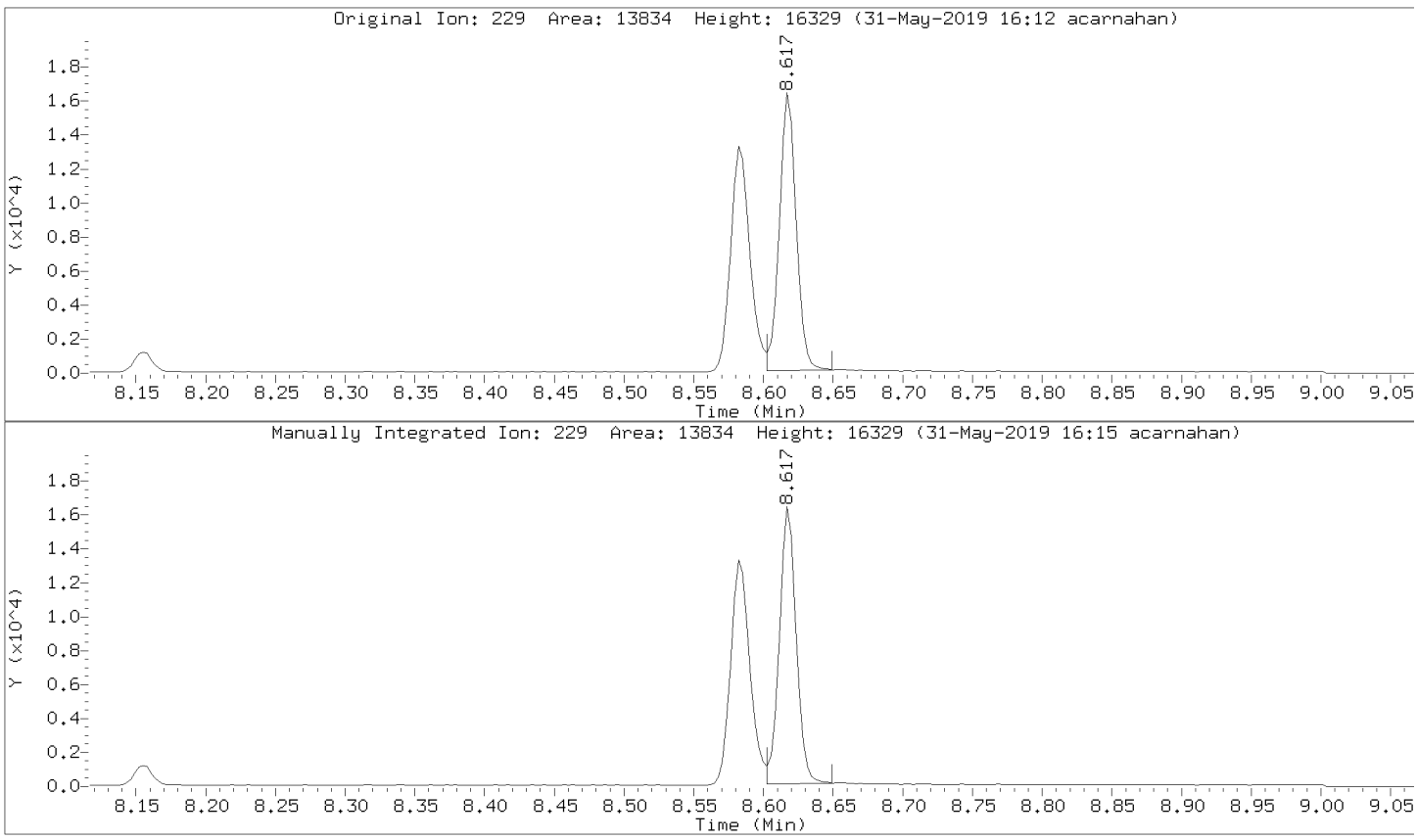
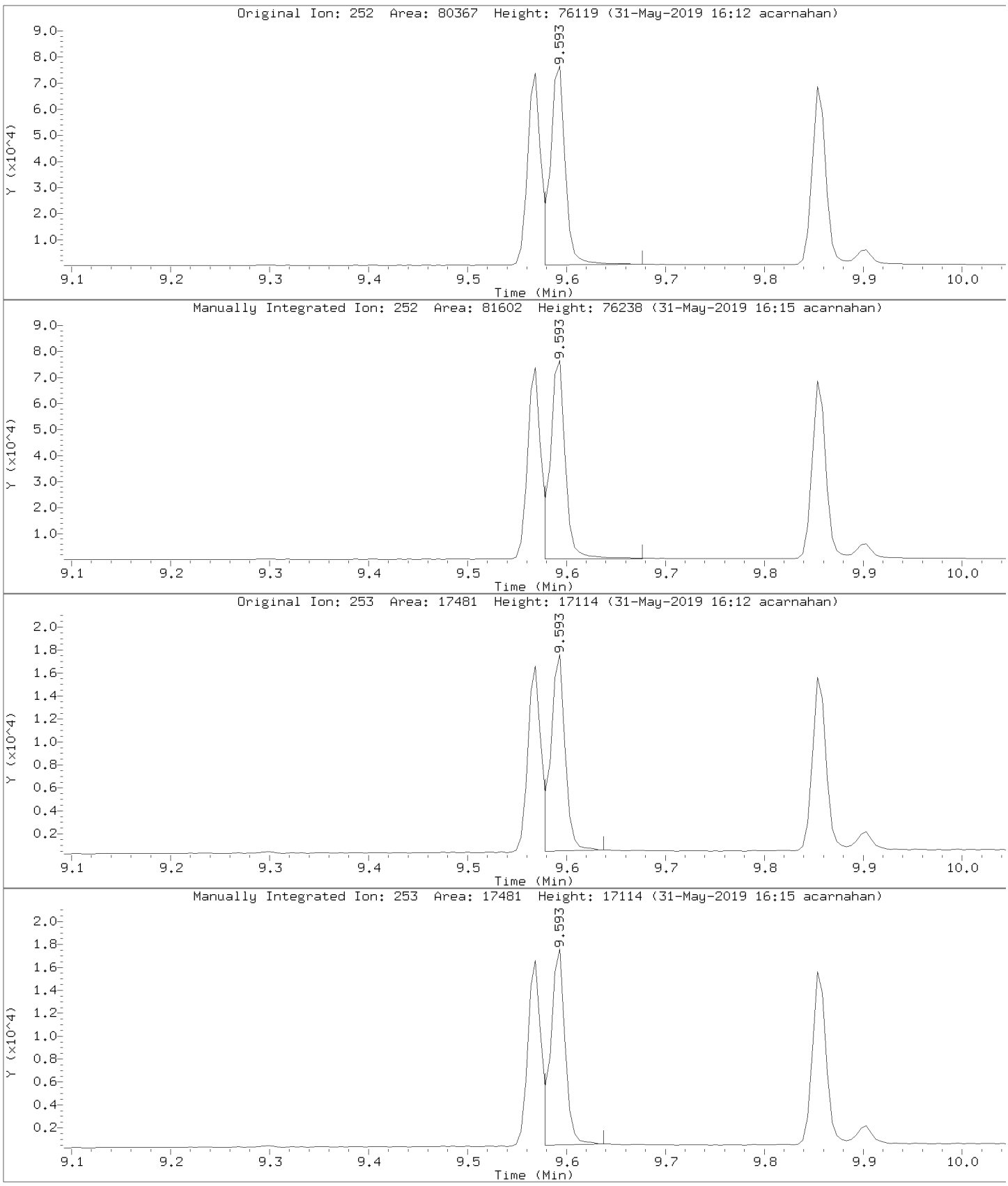
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2

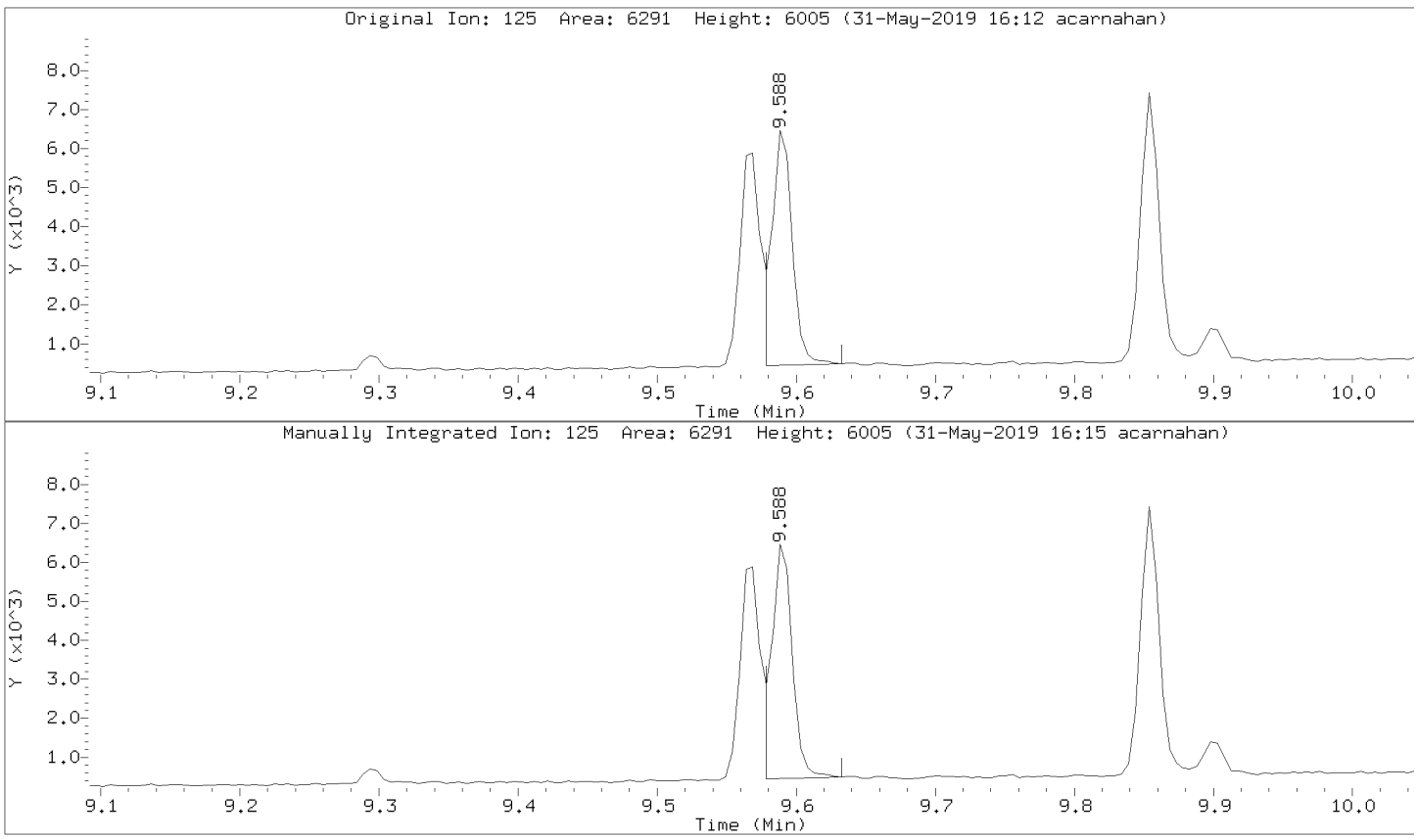


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z2.d
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

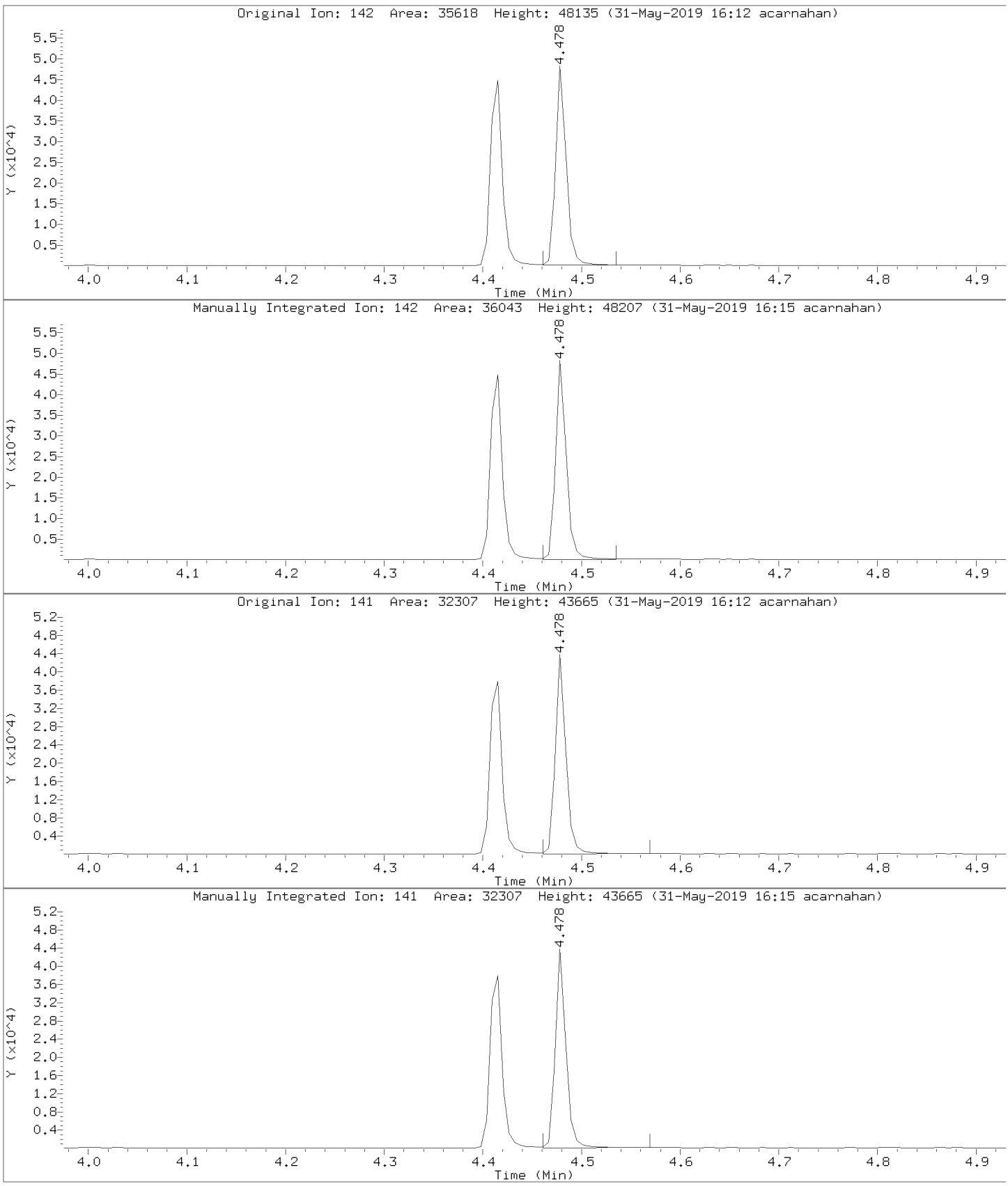


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z2.d
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z2.d
Injection Date: 31-MAY-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 31-MAY-2019 15:23
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal3, 89120:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 15:23 Cal File: m2053119z3.d
Als bottle: 96 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	1162964	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	148356	0.50000	0.520	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	107889	0.50000	0.526	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	103200	0.50000	0.528(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.638	4.632	(0.908)	136094	0.50000	0.531	
	11 Acenaphthylene	152	5.013	5.010	(0.982)	150836	0.50000	0.524	
*	2 Acenaphthene-d10 (IS)	164	5.106	5.102	(1.000)	679226	4.00000		
	12 Acenaphthene	153	5.125	5.125	(1.004)	100421	0.50000	0.522	
	13 Fluorene	166	5.486	5.486	(1.074)	118718	0.50000	0.533	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	1226890	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	179277	0.50000	0.522(M)	BA
	15 Anthracene	178	6.266	6.266	(1.009)	168004	0.50000	0.537	
	16 Fluoranthene	202	7.250	7.250	(1.168)	193045	0.50000	0.529	
	17 Pyrene	202	7.462	7.462	(1.202)	201972	0.50000	0.531	
$	7 Terphenyl-d14 (S)	244	7.570	7.570	(1.219)	156635	0.50000	0.530	
	18 Benzo(a)anthracene	228	8.582	8.582	(0.999)	182892	0.50000	0.509	
*	4 Chrysene-d12 (IS)	240	8.594	8.594	(1.000)	1255723	4.00000		
	19 Chrysene	228	8.617	8.617	(1.003)	202045	0.50000	0.520(M)	BA
	20 Benzo(b)fluoranthene	252	9.568	9.568	(0.966)	207925	0.50000	0.531	
	21 Benzo(k)fluoranthene	252	9.588	9.593	(0.968)	237022	0.50000	0.526(M)	BA
	22 Benzo(a)pyrene	252	9.853	9.853	(0.995)	196113	0.50000	0.532	
*	5 Perylene-d12 (IS)	264	9.902	9.903	(1.000)	1380978	4.00000		
	23 Dibenz(a,h)anthracene	278	10.890	10.890	(1.100)	196796	0.50000	0.534	
	24 Indeno(1,2,3-cd)pyrene	276	10.885	10.885	(1.099)	235084	0.50000	0.532	
	25 Benzo[g,h,i]perylene	276	11.170	11.170	(1.128)	203990	0.50000	0.527	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

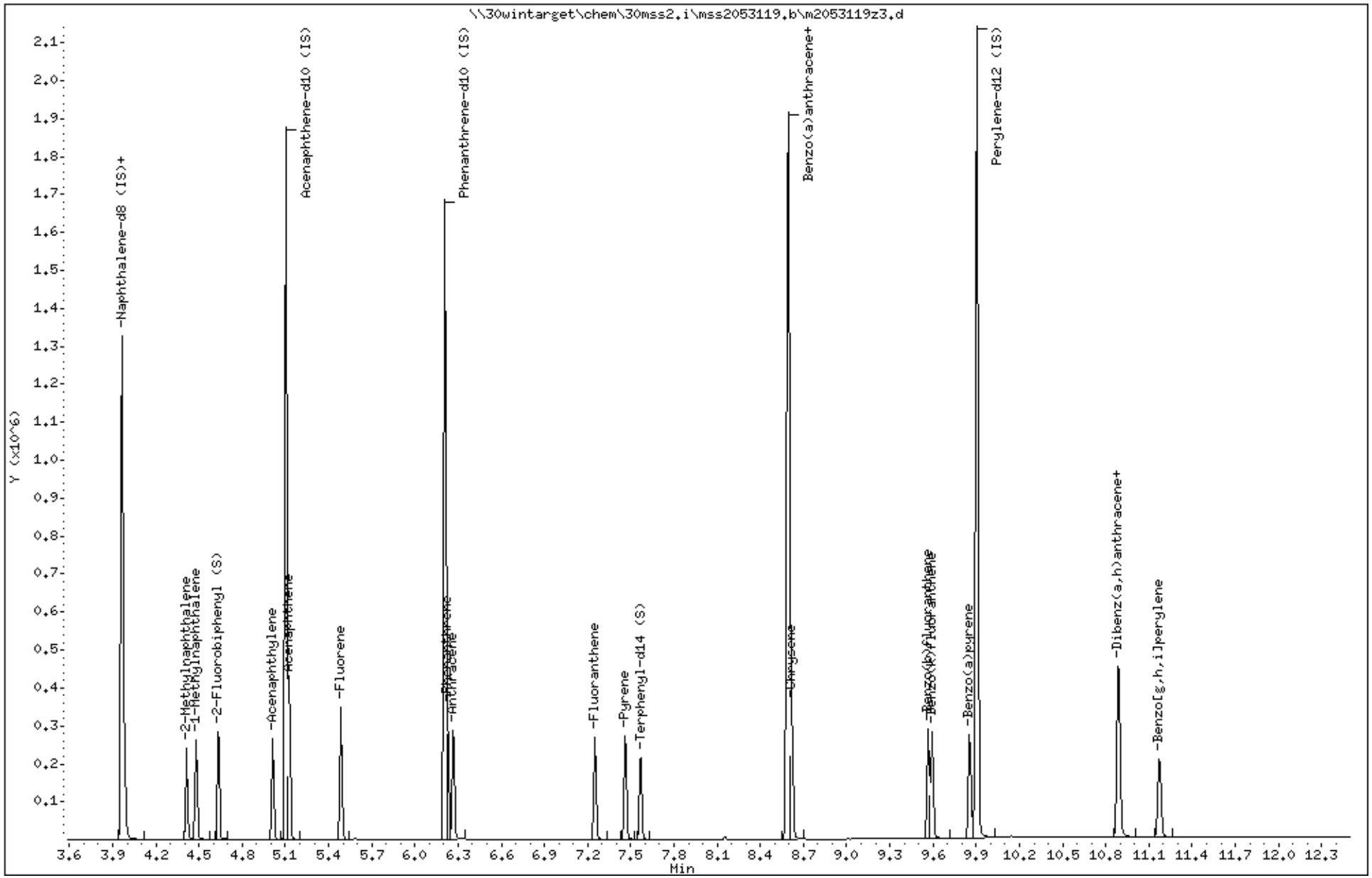
Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.520	
91-57-6	2-Methylnaphthalene	0.526	
90-12-0	1-Methylnaphthalene	0.528	
208-96-8	Acenaphthylene	0.524	
83-32-9	Acenaphthene	0.522	
86-73-7	Fluorene	0.533	
85-01-8	Phenanthrene	0.522	
120-12-7	Anthracene	0.537	
206-44-0	Fluoranthene	0.529	
129-00-0	Pyrene	0.531	
56-55-3	Benzo(a)anthracene	0.509	
218-01-9	Chrysene	0.520	
205-99-2	Benzo(b)fluoranthene	0.531	
207-08-9	Benzo(k)fluoranthene	0.526	
50-32-8	Benzo(a)pyrene	0.532	
53-70-3	Dibenz(a,h)anthracene	0.534	
193-39-5	Indeno(1,2,3-cd)pyrene	0.532	
191-24-2	Benzo[g,h,i]perylene	0.527	
321-60-8	2-Fluorobiphenyl (S)	0.531	
1718-51-0	Terphenyl-d14 (S)	0.530	

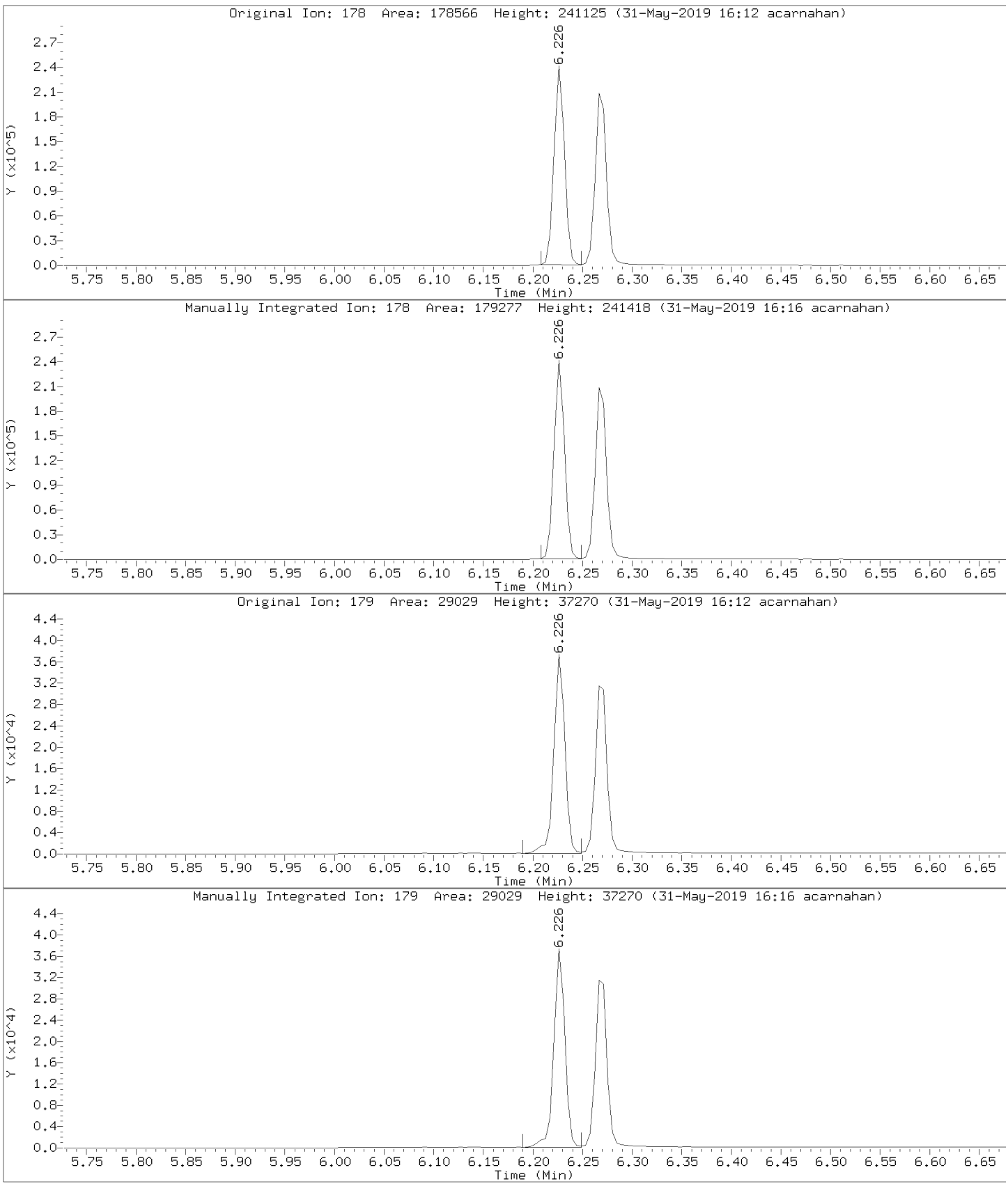
Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z3.d
Date : 31-MAY-2019 15:23
Client ID: CAL3
Sample Info: CAL3, 89120:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

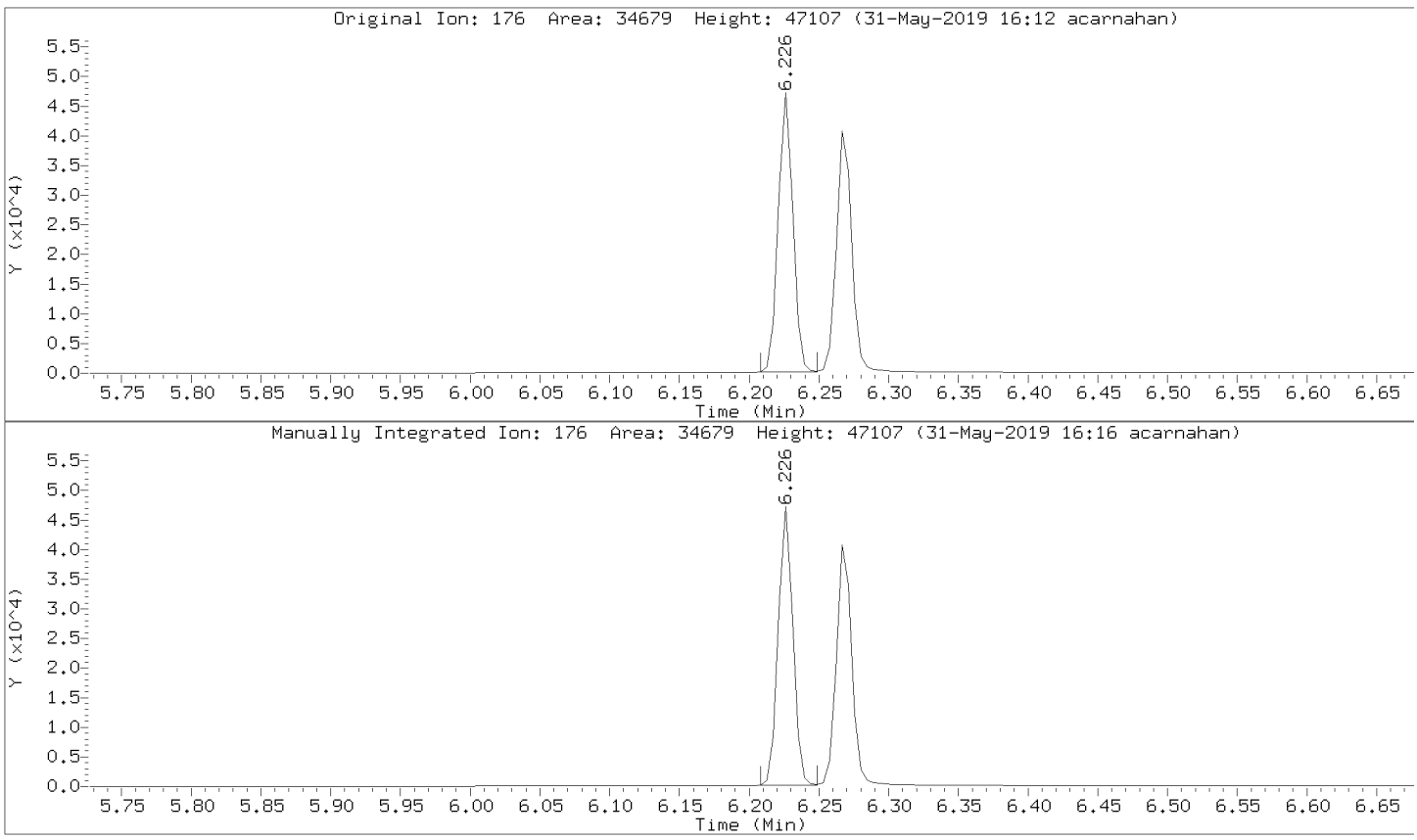


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

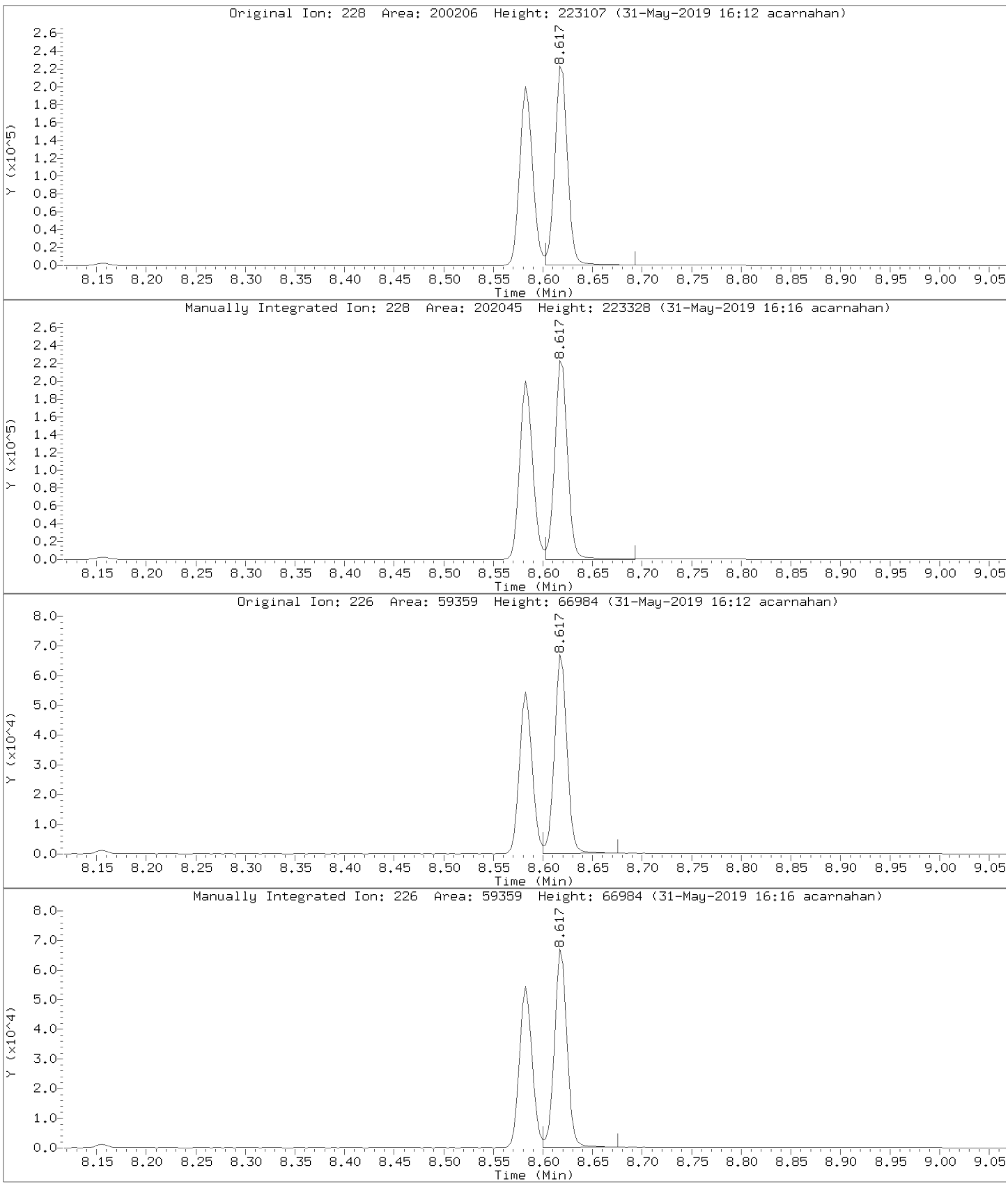


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

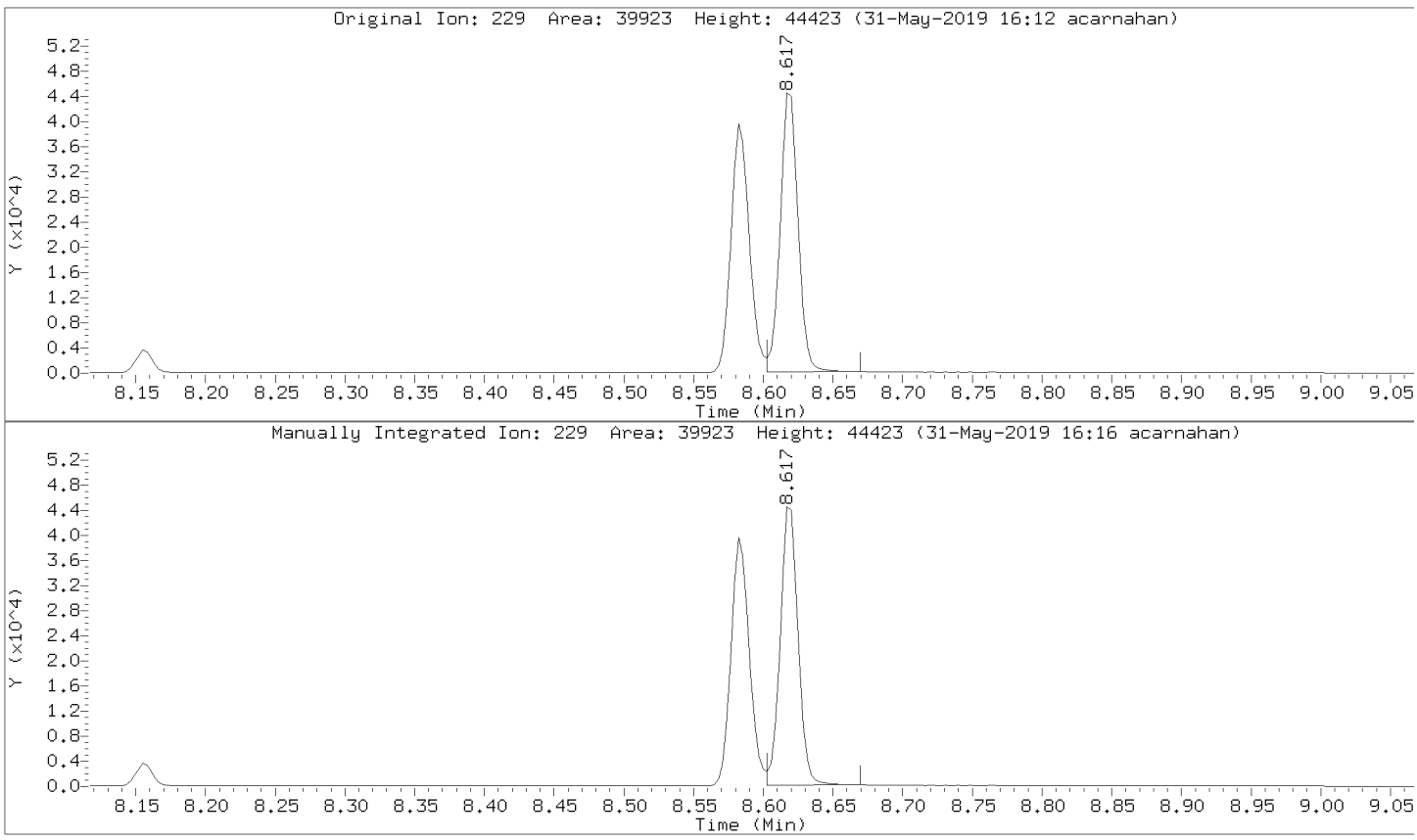


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

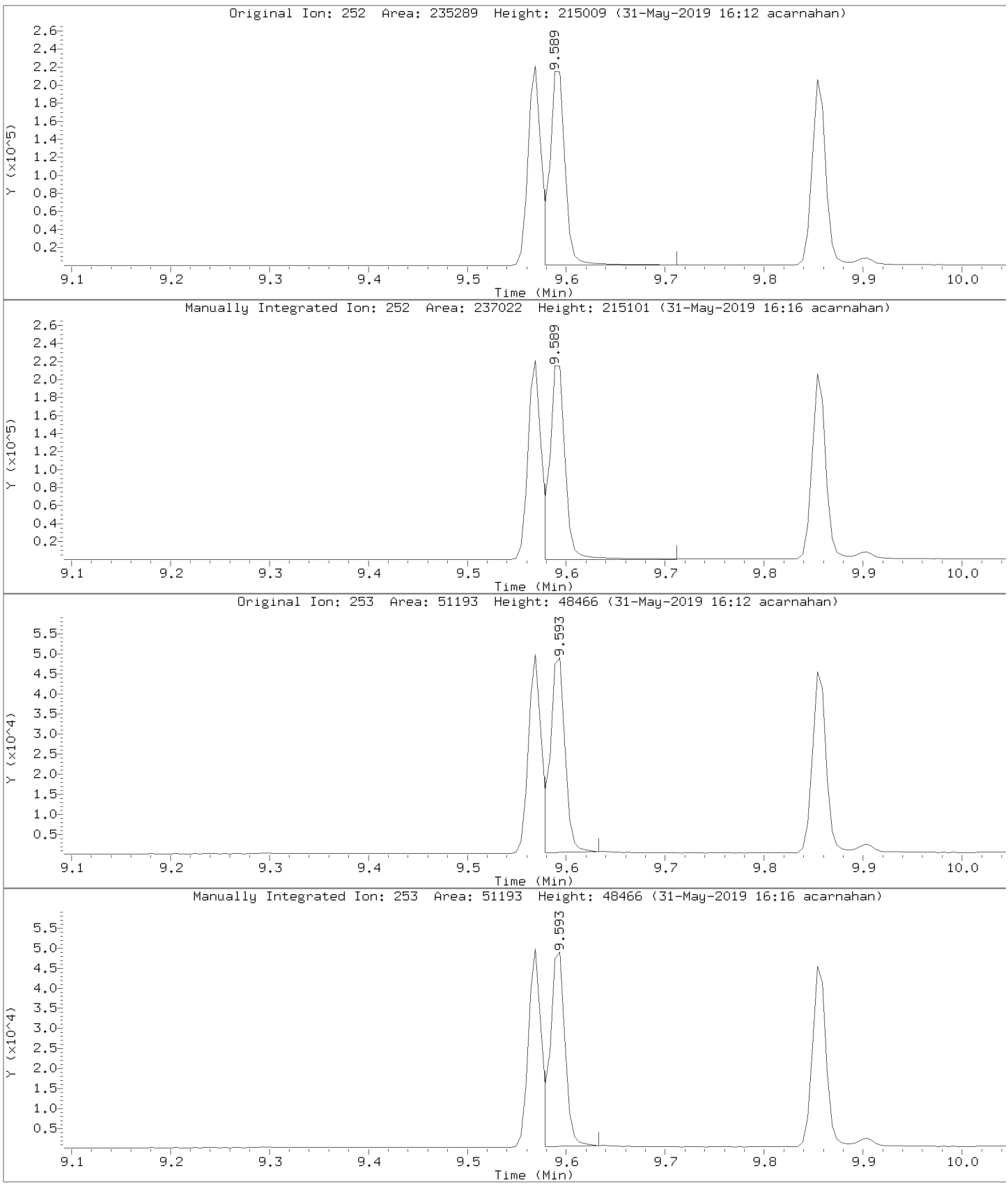


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

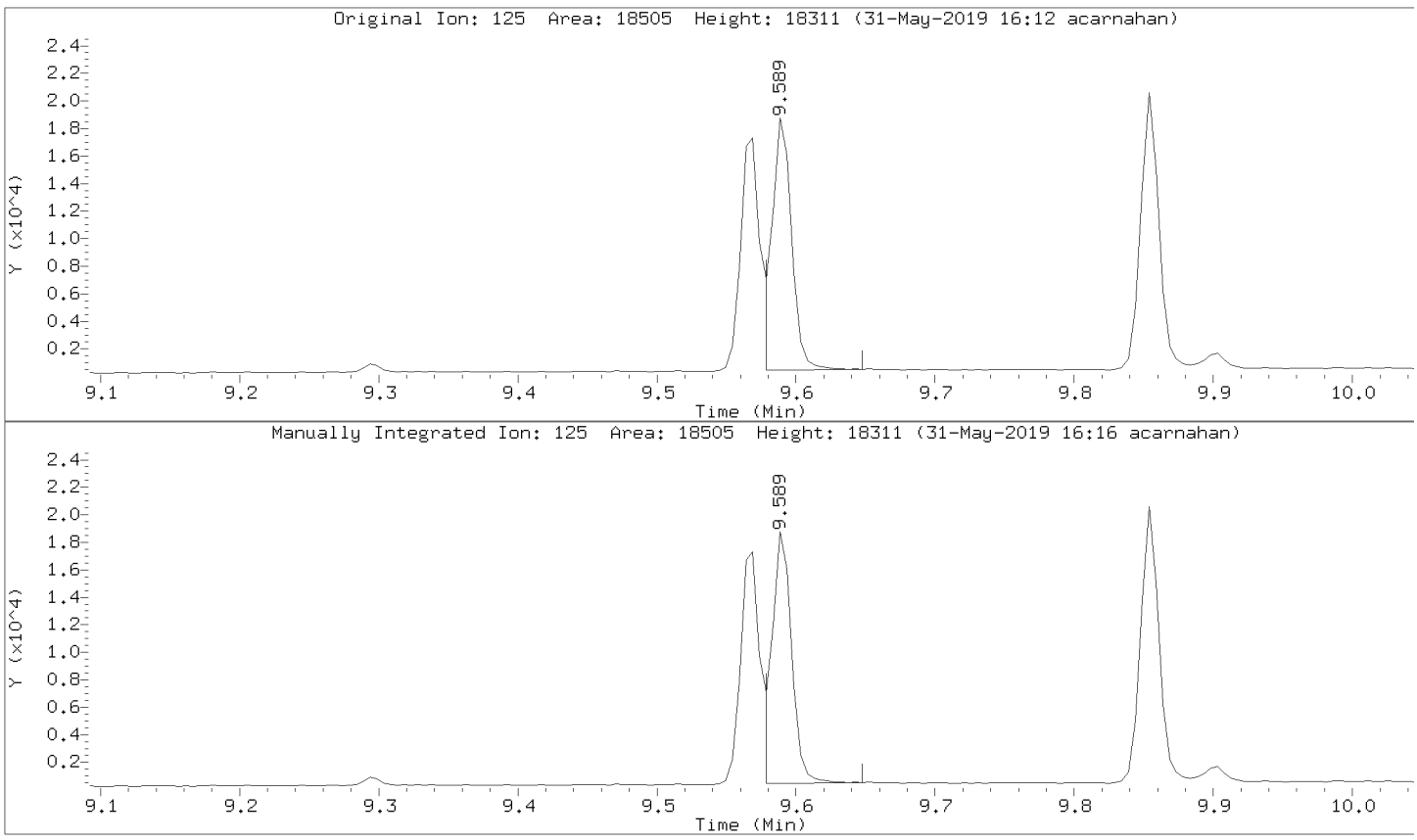


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

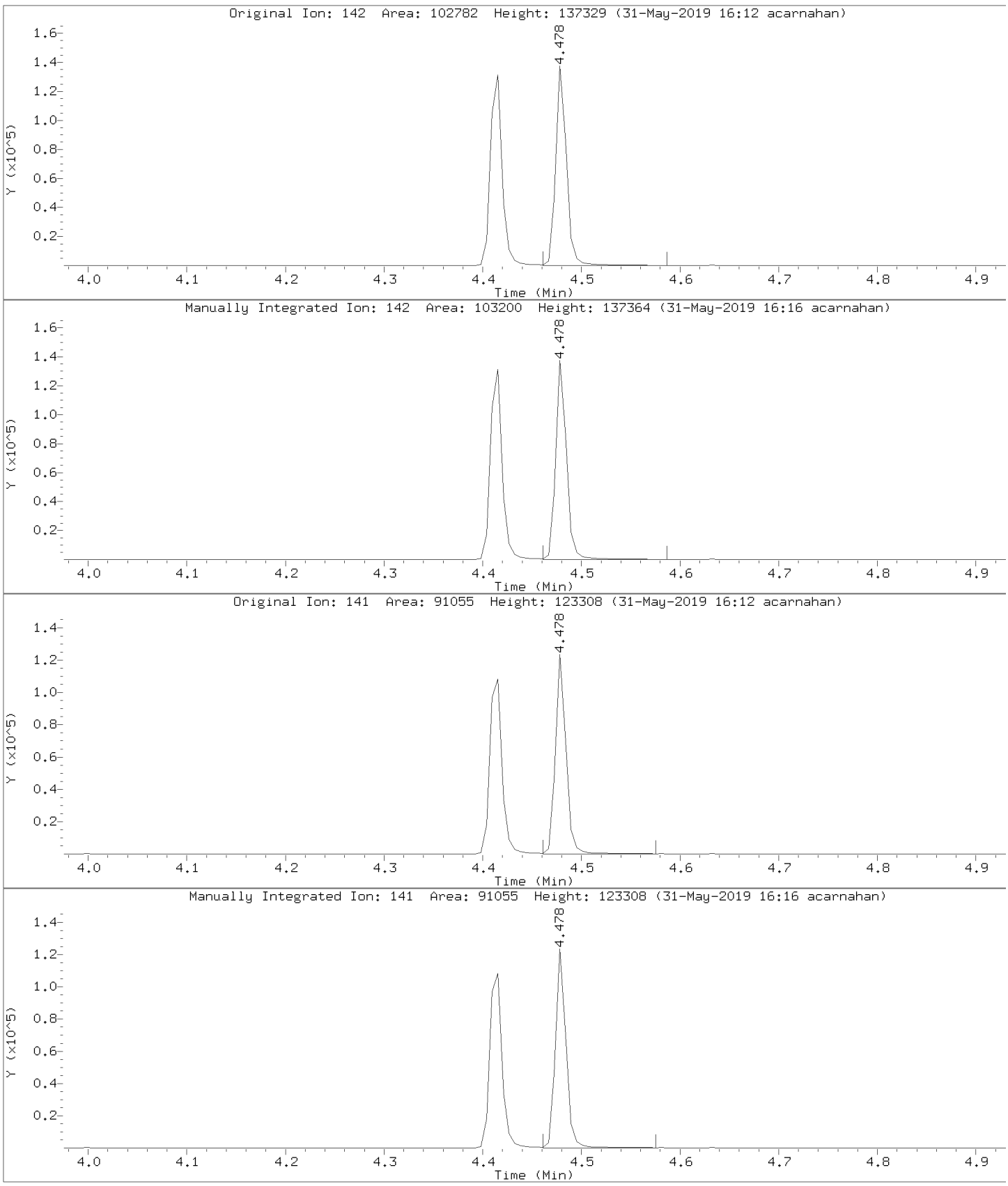


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z3.d
Injection Date: 31-MAY-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 31-MAY-2019 15:41
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal4, 89121:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 15:41 Cal File: m2053119z4.d
Als bottle: 97 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	935338	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	452038	2.00000	2.00	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	337674	2.00000	2.00	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	313851	2.00000	2.00(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.632	4.632	(0.907)	403786	2.00000	2.00	
	11 Acenaphthylene	152	5.010	5.010	(0.981)	482156	2.00000	2.00	
*	2 Acenaphthene-d10 (IS)	164	5.106	5.102	(1.000)	546790	4.00000		
	12 Acenaphthene	153	5.126	5.125	(1.004)	301236	2.00000	2.00	
	13 Fluorene	166	5.486	5.486	(1.074)	364223	2.00000	2.00	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	999315	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	536770	2.00000	2.00(M)	BA
	15 Anthracene	178	6.266	6.266	(1.009)	528665	2.00000	2.00	
	16 Fluoranthene	202	7.250	7.250	(1.168)	616580	2.00000	2.00	
	17 Pyrene	202	7.462	7.462	(1.202)	635978	2.00000	2.00	
$	7 Terphenyl-d14 (S)	244	7.566	7.570	(1.219)	487502	2.00000	2.00	
	18 Benzo(a)anthracene	228	8.582	8.582	(0.999)	567653	2.00000	2.00	
*	4 Chrysene-d12 (IS)	240	8.594	8.594	(1.000)	1004989	4.00000		
	19 Chrysene	228	8.617	8.617	(1.003)	607807	2.00000	2.00(M)	BA
	20 Benzo(b)fluoranthene	252	9.569	9.568	(0.966)	641142	2.00000	2.00	
	21 Benzo(k)fluoranthene	252	9.593	9.593	(0.969)	711322	2.00000	2.00(M)	BA
	22 Benzo(a)pyrene	252	9.853	9.853	(0.995)	605262	2.00000	2.00	
*	5 Perylene-d12 (IS)	264	9.903	9.903	(1.000)	1106377	4.00000		
	23 Dibenz(a,h)anthracene	278	10.890	10.890	(1.100)	605363	2.00000	2.00	
	24 Indeno(1,2,3-cd)pyrene	276	10.890	10.885	(1.100)	714861	2.00000	2.00	
	25 Benzo[g,h,i]perylene	276	11.175	11.170	(1.128)	624736	2.00000	2.00	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

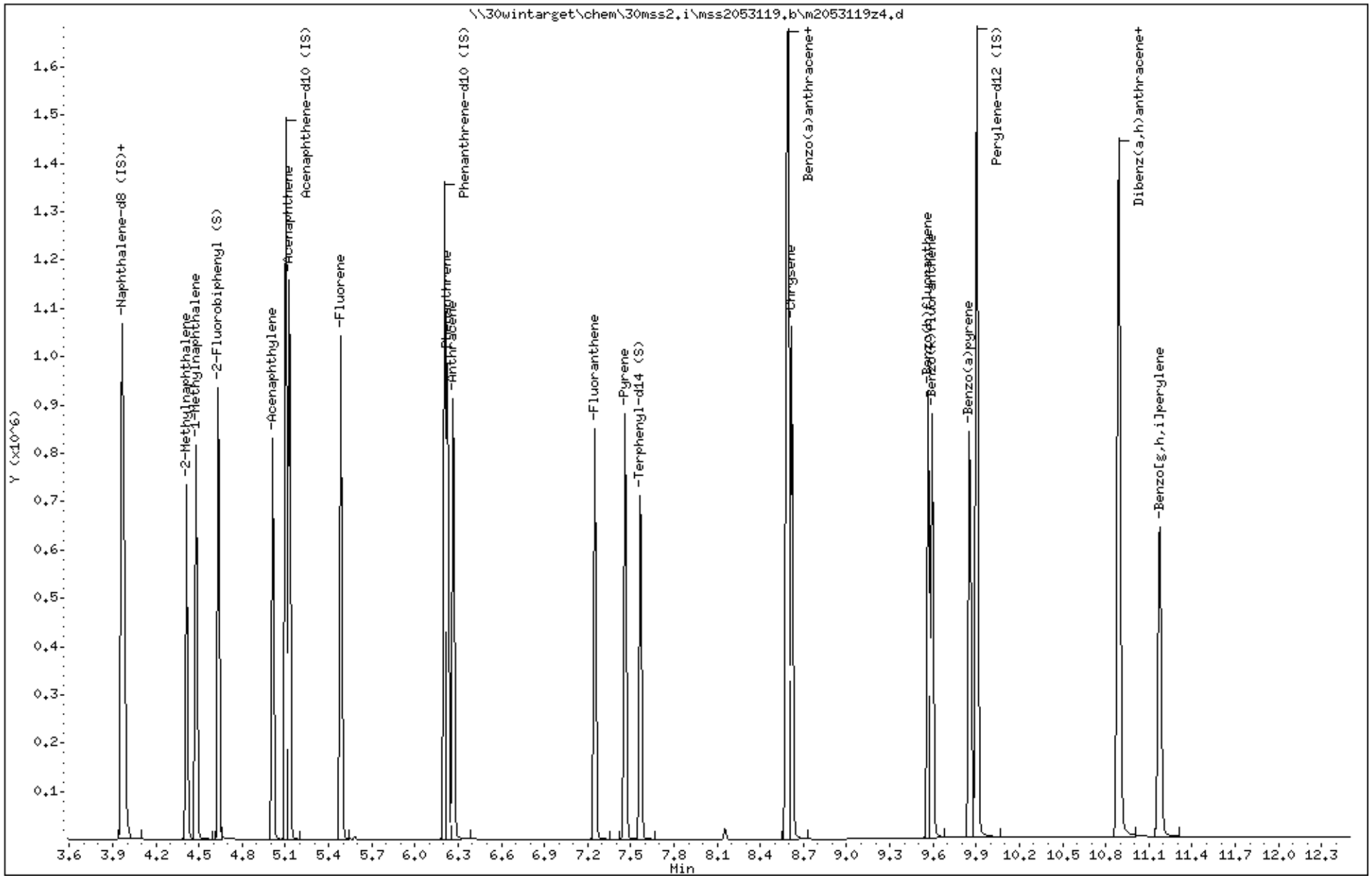
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	2.00	
91-57-6	2-Methylnaphthalene	2.00	
90-12-0	1-Methylnaphthalene	2.00	
208-96-8	Acenaphthylene	2.00	
83-32-9	Acenaphthene	2.00	
86-73-7	Fluorene	2.00	
85-01-8	Phenanthrene	2.00	
120-12-7	Anthracene	2.00	
206-44-0	Fluoranthene	2.00	
129-00-0	Pyrene	2.00	
56-55-3	Benzo(a)anthracene	2.00	
218-01-9	Chrysene	2.00	
205-99-2	Benzo(b)fluoranthene	2.00	
207-08-9	Benzo(k)fluoranthene	2.00	
50-32-8	Benzo(a)pyrene	2.00	
53-70-3	Dibenz(a,h)anthracene	2.00	
193-39-5	Indeno(1,2,3-cd)pyrene	2.00	
191-24-2	Benzo[g,h,i]perylene	2.00	
321-60-8	2-Fluorobiphenyl (S)	2.00	
1718-51-0	Terphenyl-d14 (S)	2.00	

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z4.d
Date : 31-MAY-2019 15:41
Client ID: CAL4
Sample Info: CAL4, 89121:1

Instrument: 30mss2.i

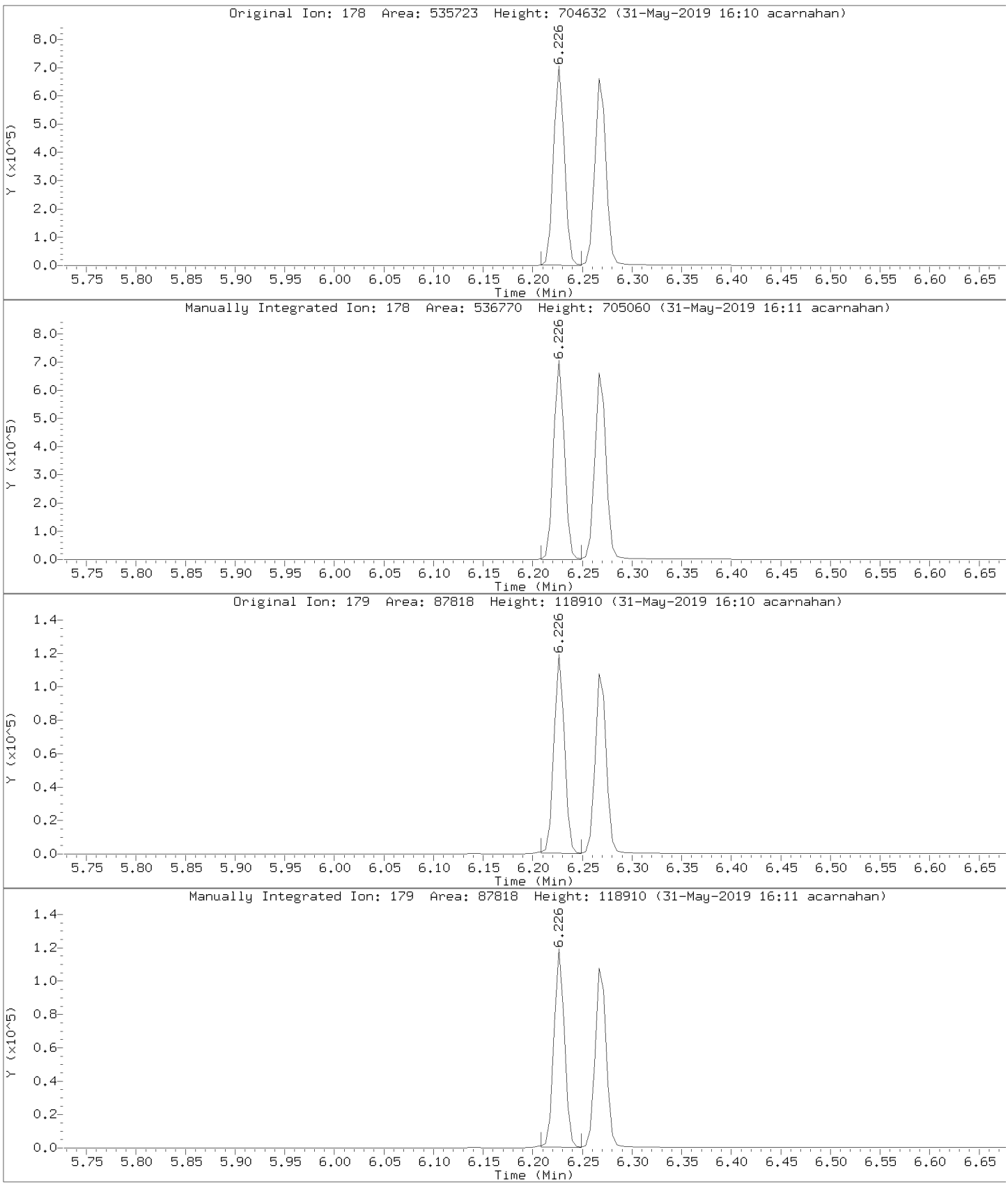
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

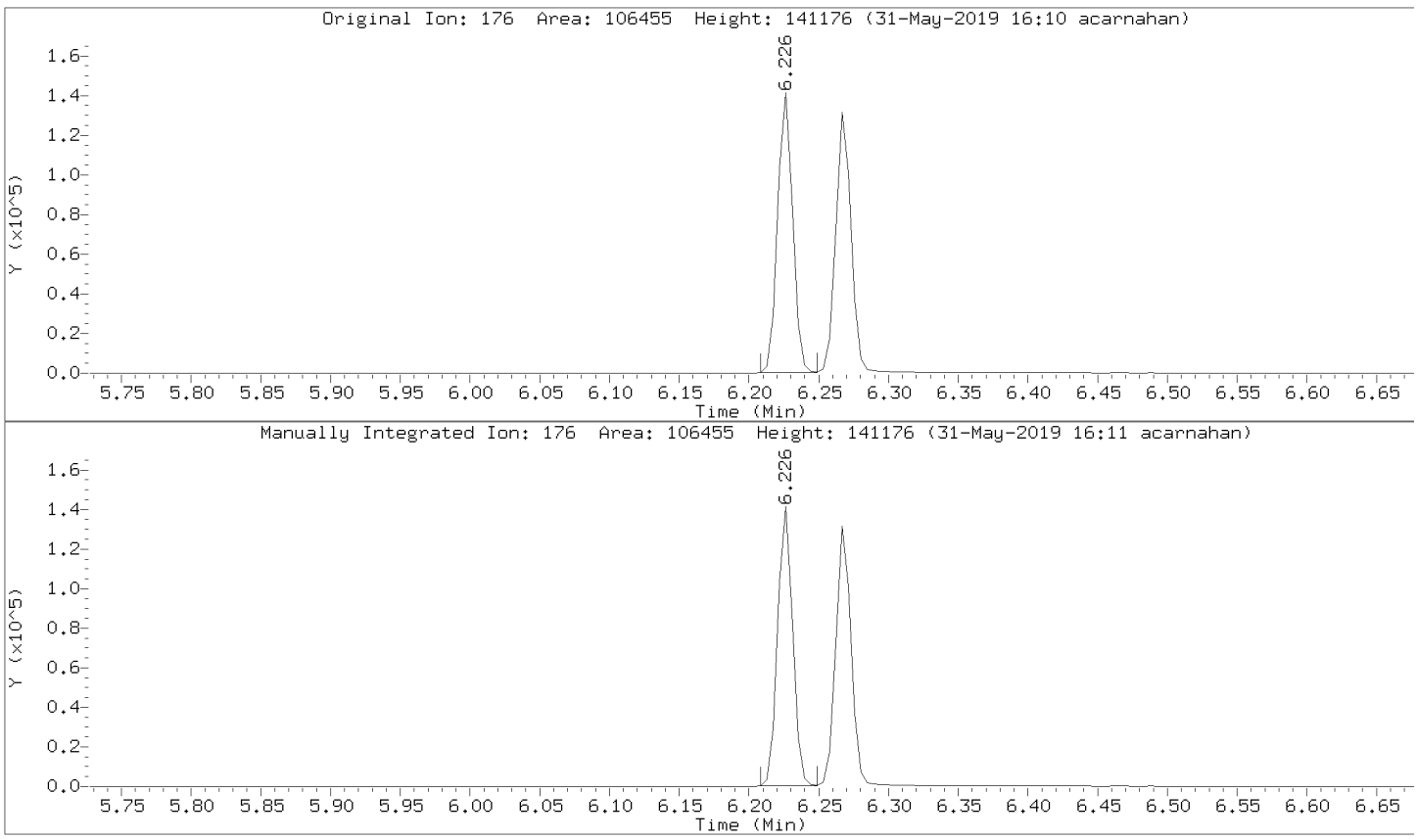


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

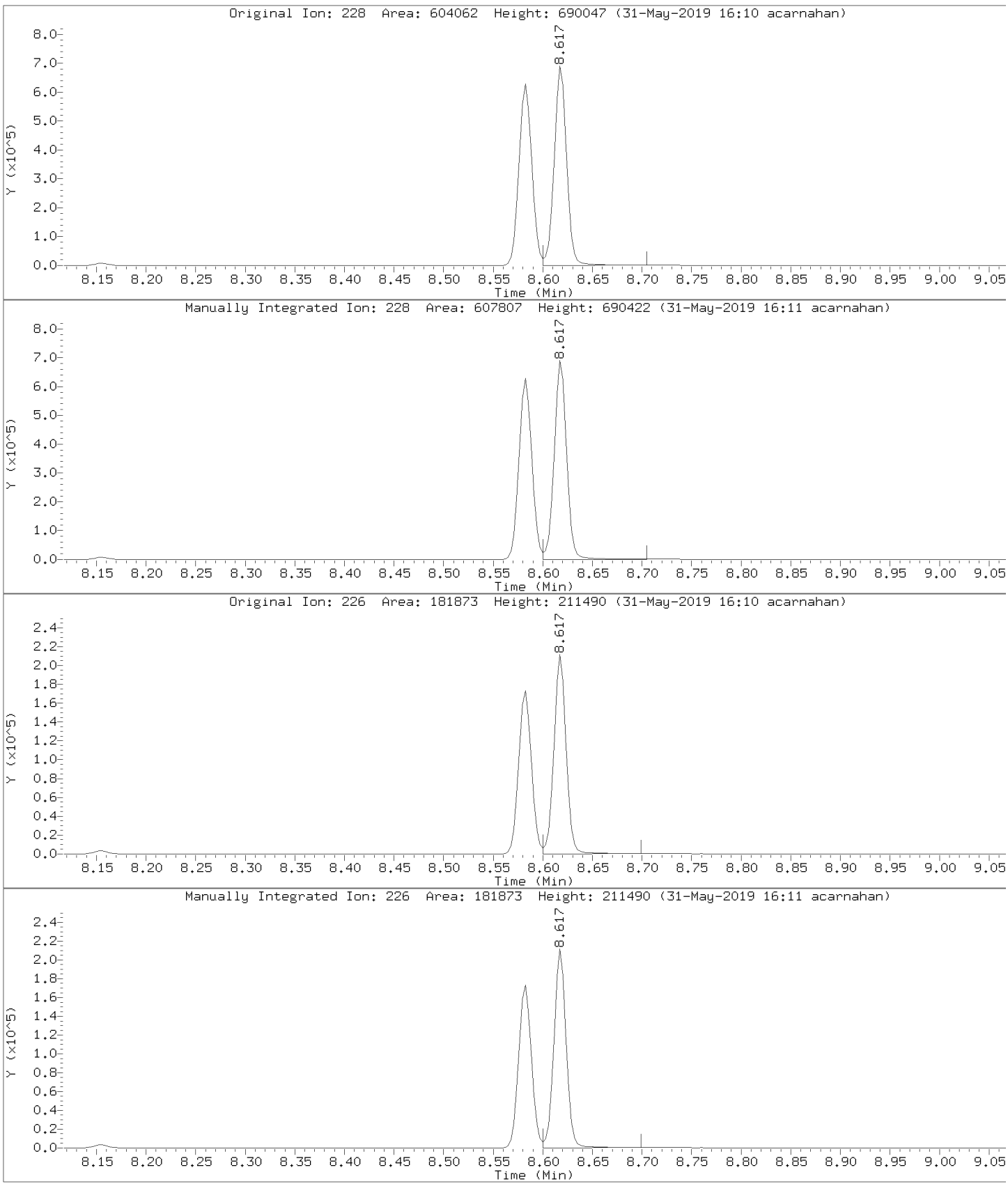


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

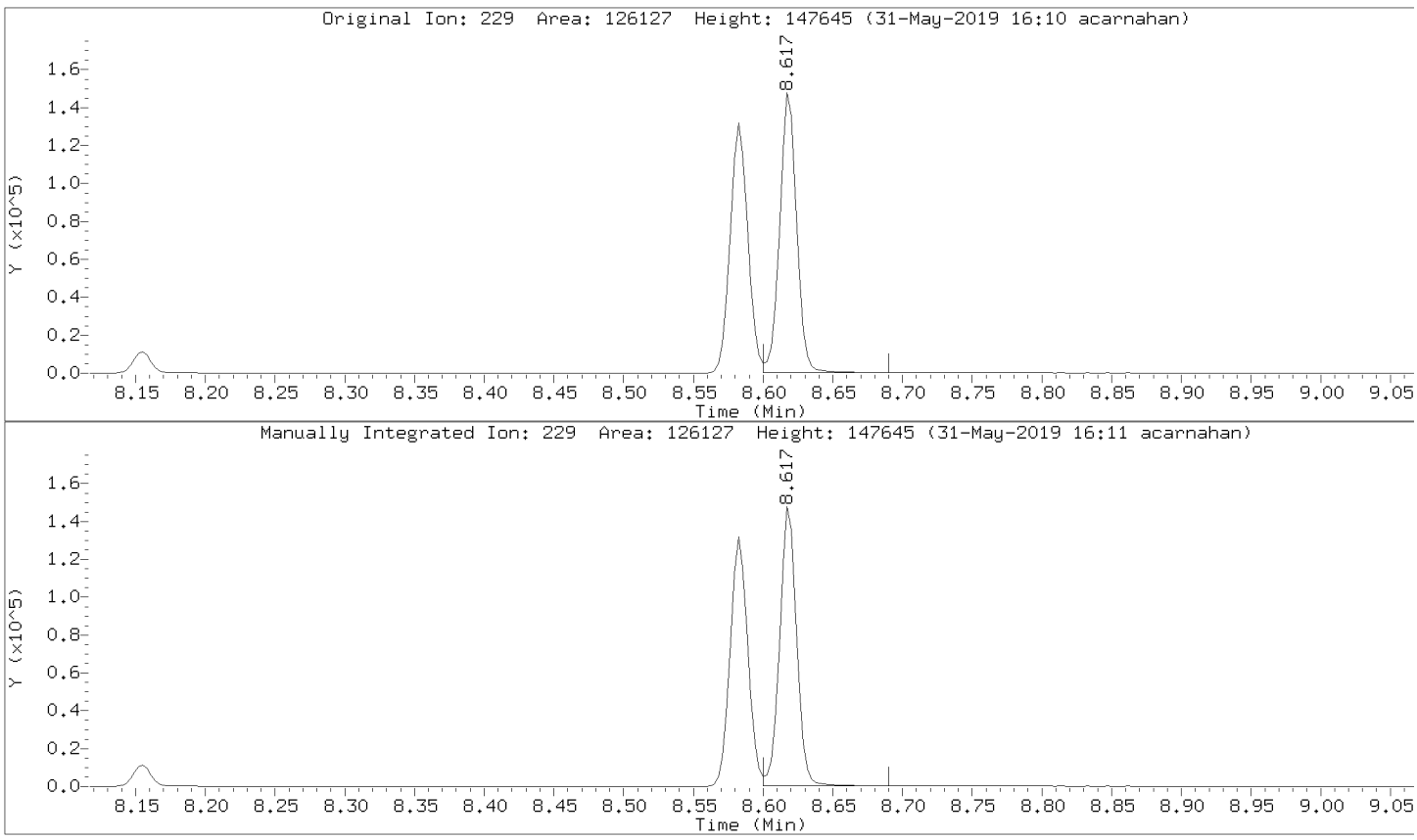


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

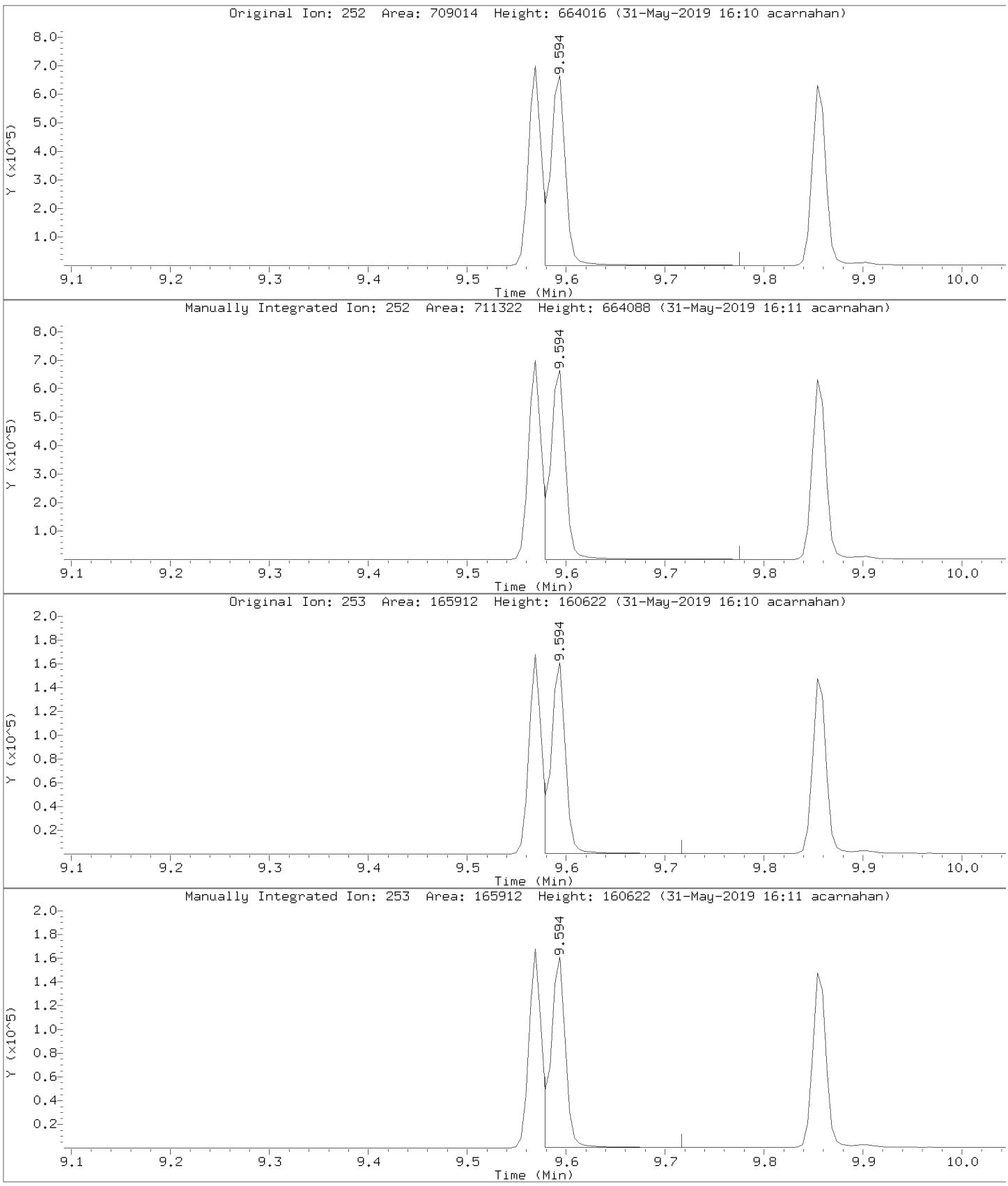


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

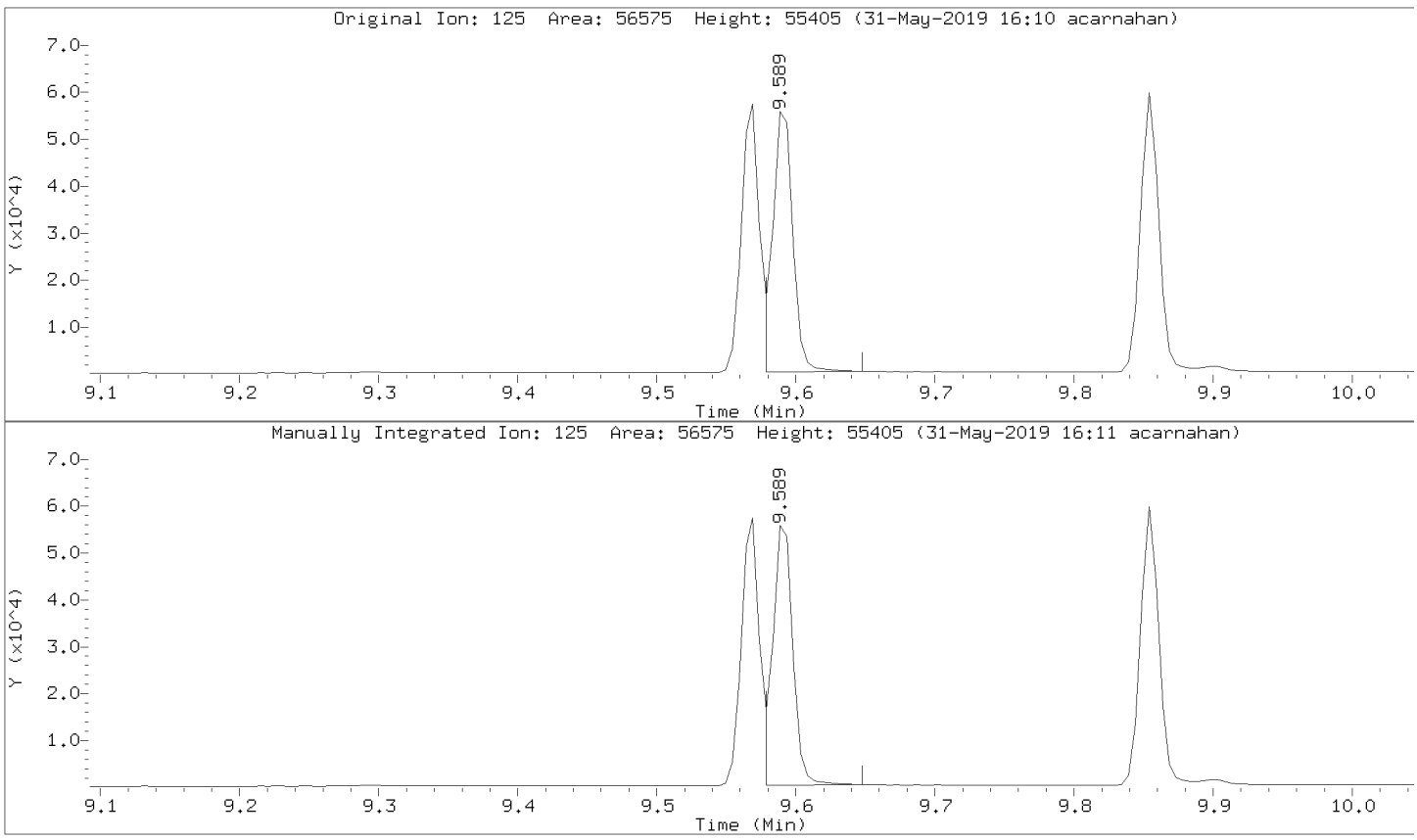


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

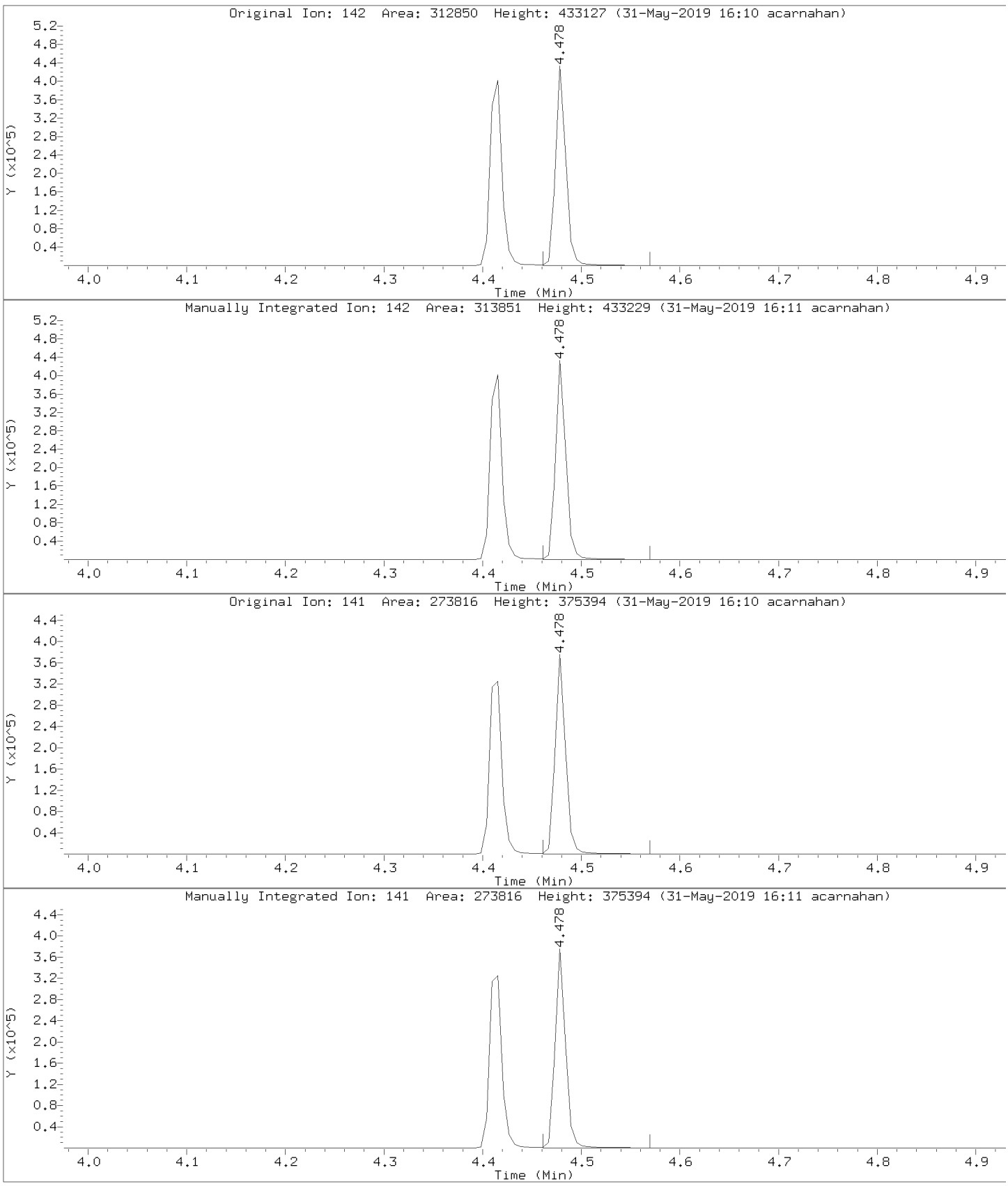


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z4.d
Injection Date: 31-MAY-2019 15:41
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z5.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 31-MAY-2019 15:59
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal5, 89122:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 15:59 Cal File: m2053119z5.d
Als bottle: 98 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	1136532	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	1284721	5.00000	4.92	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	970397	5.00000	5.10	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	891577	5.00000	4.96(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.638	4.632	(0.908)	1119107	5.00000	4.80	
	11 Acenaphthylene	152	5.013	5.010	(0.982)	1365713	5.00000	5.09	
*	2 Acenaphthene-d10 (IS)	164	5.106	5.102	(1.000)	668988	4.00000		
	12 Acenaphthene	153	5.125	5.125	(1.004)	855335	5.00000	4.83	
	13 Fluorene	166	5.486	5.486	(1.074)	1030770	5.00000	4.98	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	1199364	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	1473007	5.00000	4.78(M)	BA
	15 Anthracene	178	6.271	6.266	(1.010)	1491235	5.00000	5.17	
	16 Fluoranthene	202	7.250	7.250	(1.168)	1737951	5.00000	5.17	
	17 Pyrene	202	7.466	7.462	(1.203)	1778044	5.00000	5.09	
$	7 Terphenyl-d14 (S)	244	7.570	7.570	(1.219)	1366885	5.00000	5.04	
	18 Benzo(a)anthracene	228	8.585	8.582	(0.999)	1670484	5.00000	5.05	
*	4 Chrysene-d12 (IS)	240	8.596	8.594	(1.000)	1217834	4.00000		
	19 Chrysene	228	8.623	8.617	(1.003)	1690183	5.00000	4.86(M)	BA
	20 Benzo(b)fluoranthene	252	9.573	9.568	(0.966)	1893816	5.00000	5.23	
	21 Benzo(k)fluoranthene	252	9.593	9.593	(0.968)	1935541	5.00000	4.82(M)	BA
	22 Benzo(a)pyrene	252	9.858	9.853	(0.995)	1765570	5.00000	5.17	
*	5 Perylene-d12 (IS)	264	9.907	9.903	(1.000)	1337641	4.00000		
	23 Dibenz(a,h)anthracene	278	10.895	10.890	(1.100)	1761421	5.00000	5.17	
	24 Indeno(1,2,3-cd)pyrene	276	10.895	10.885	(1.100)	2085354	5.00000	5.10	
	25 Benzo[g,h,i]perylene	276	11.180	11.170	(1.128)	1810881	5.00000	5.09	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

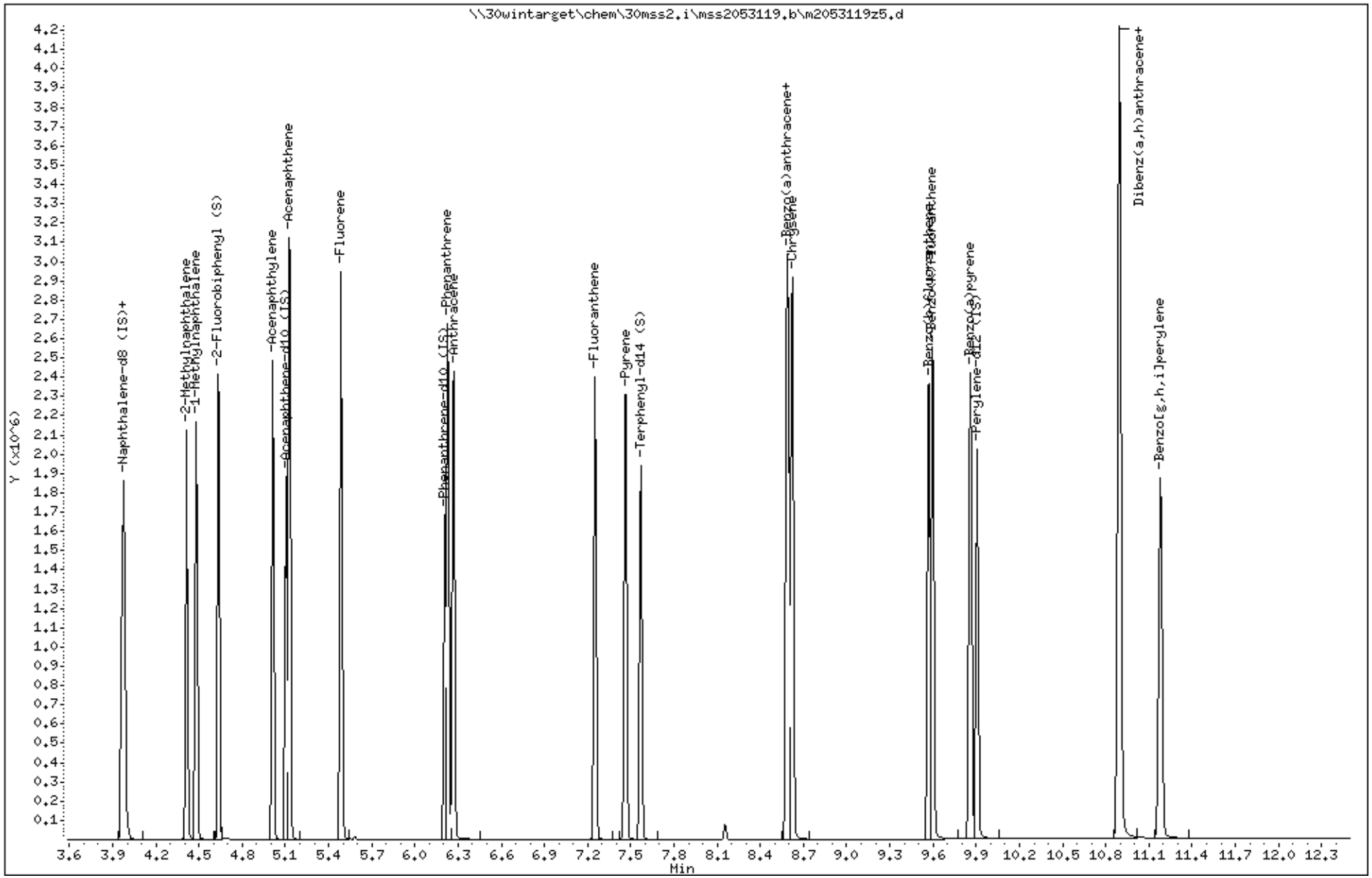
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	4.92	
91-57-6	2-Methylnaphthalene	5.10	
90-12-0	1-Methylnaphthalene	4.96	
208-96-8	Acenaphthylene	5.09	
83-32-9	Acenaphthene	4.83	
86-73-7	Fluorene	4.98	
85-01-8	Phenanthrene	4.78	
120-12-7	Anthracene	5.17	
206-44-0	Fluoranthene	5.17	
129-00-0	Pyrene	5.09	
56-55-3	Benzo(a)anthracene	5.05	
218-01-9	Chrysene	4.86	
205-99-2	Benzo(b)fluoranthene	5.23	
207-08-9	Benzo(k)fluoranthene	4.82	
50-32-8	Benzo(a)pyrene	5.17	
53-70-3	Dibenz(a,h)anthracene	5.17	
193-39-5	Indeno(1,2,3-cd)pyrene	5.10	
191-24-2	Benzo[g,h,i]perylene	5.09	
321-60-8	2-Fluorobiphenyl (S)	4.80	
1718-51-0	Terphenyl-d14 (S)	5.04	

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z5.d
Date : 31-MAY-2019 15:59
Client ID: CAL5
Sample Info: CAL5, 89122:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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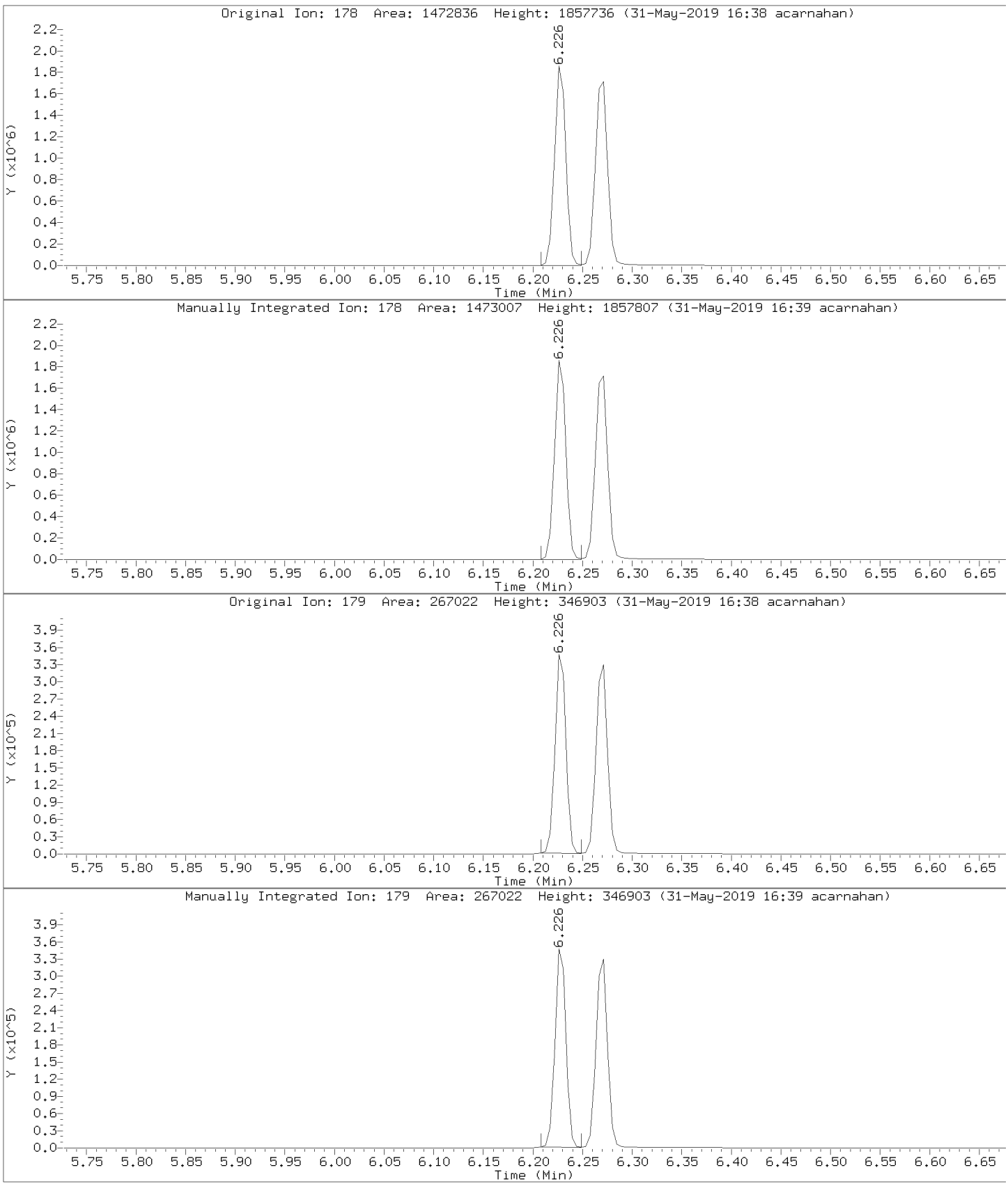
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



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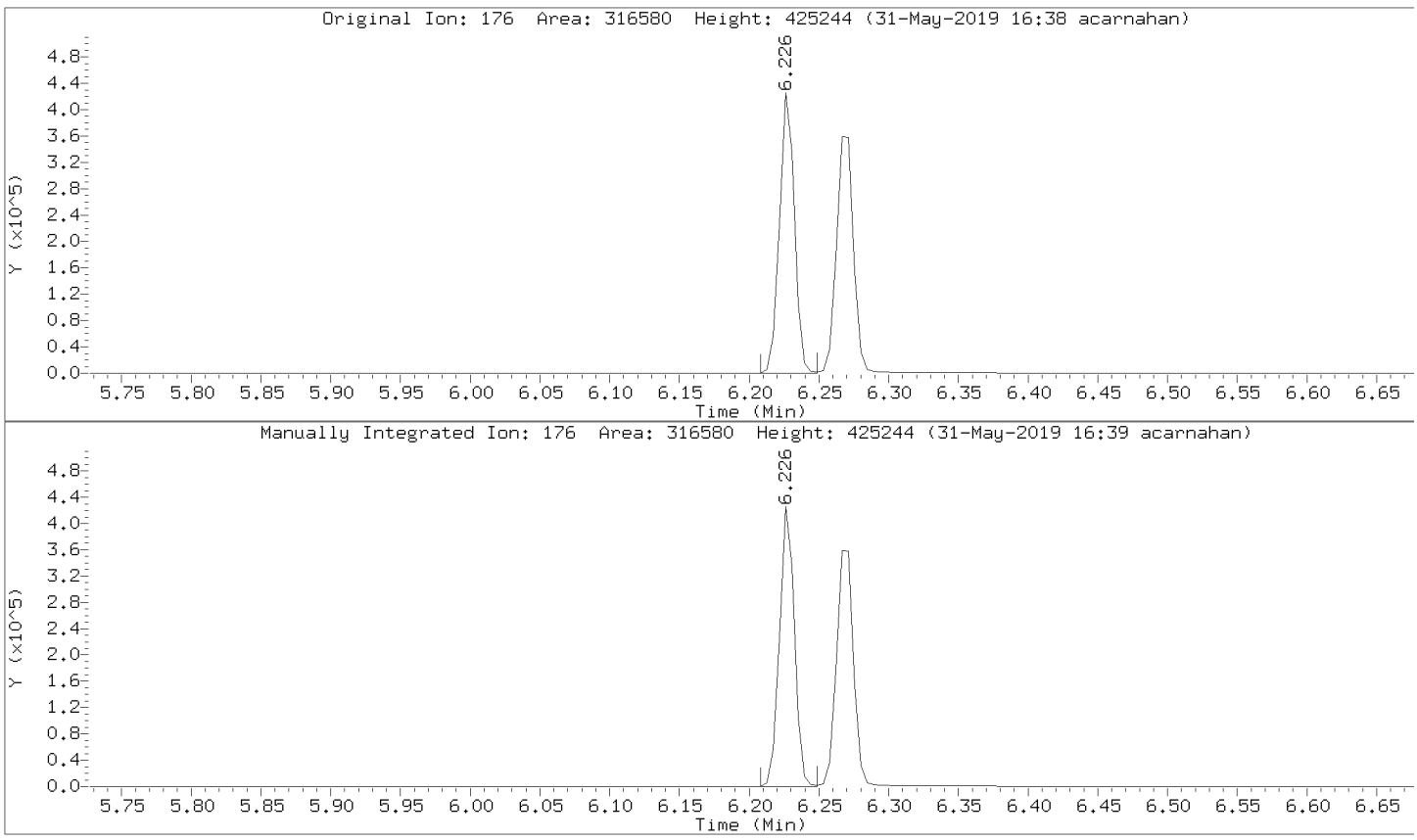
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5



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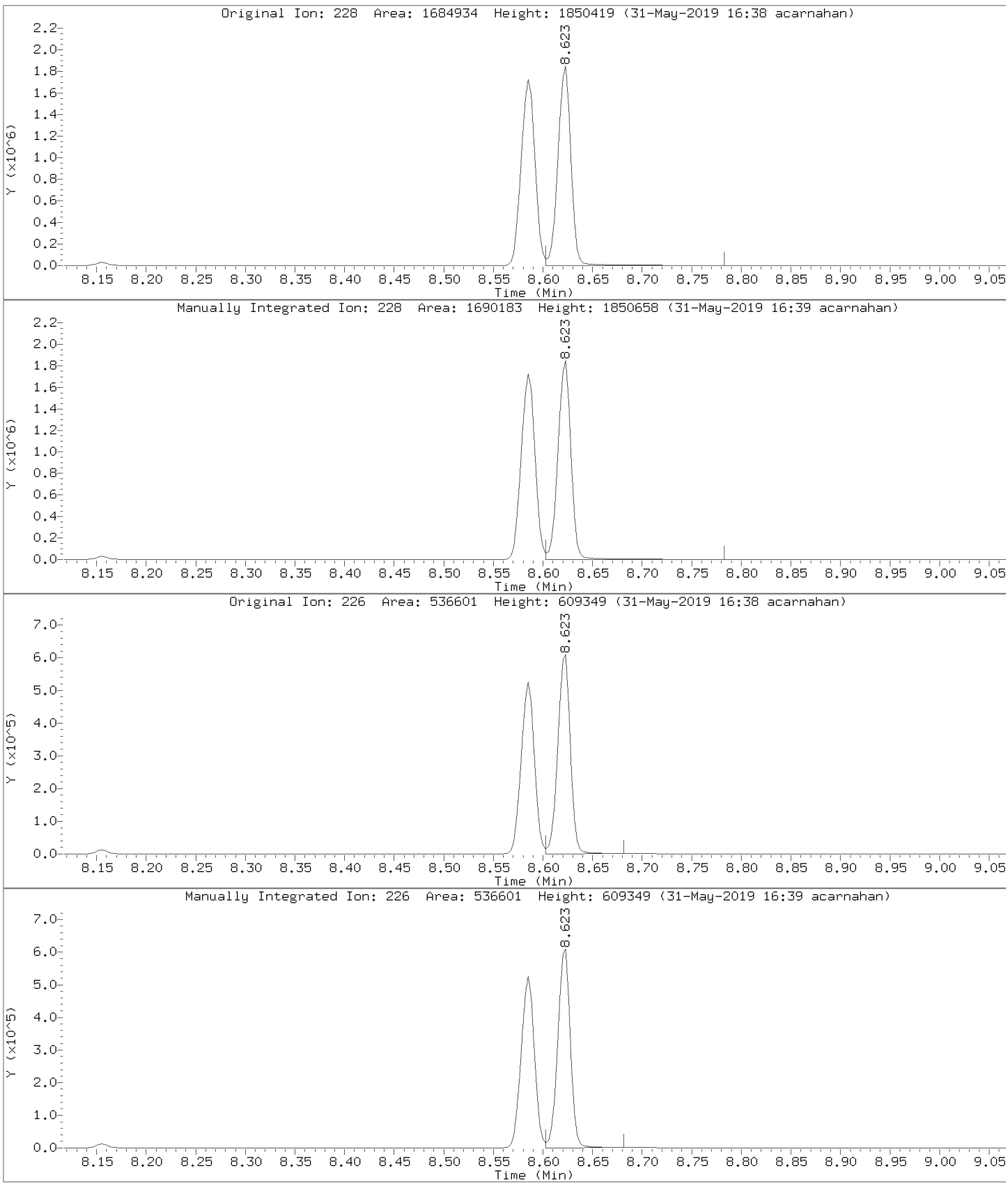
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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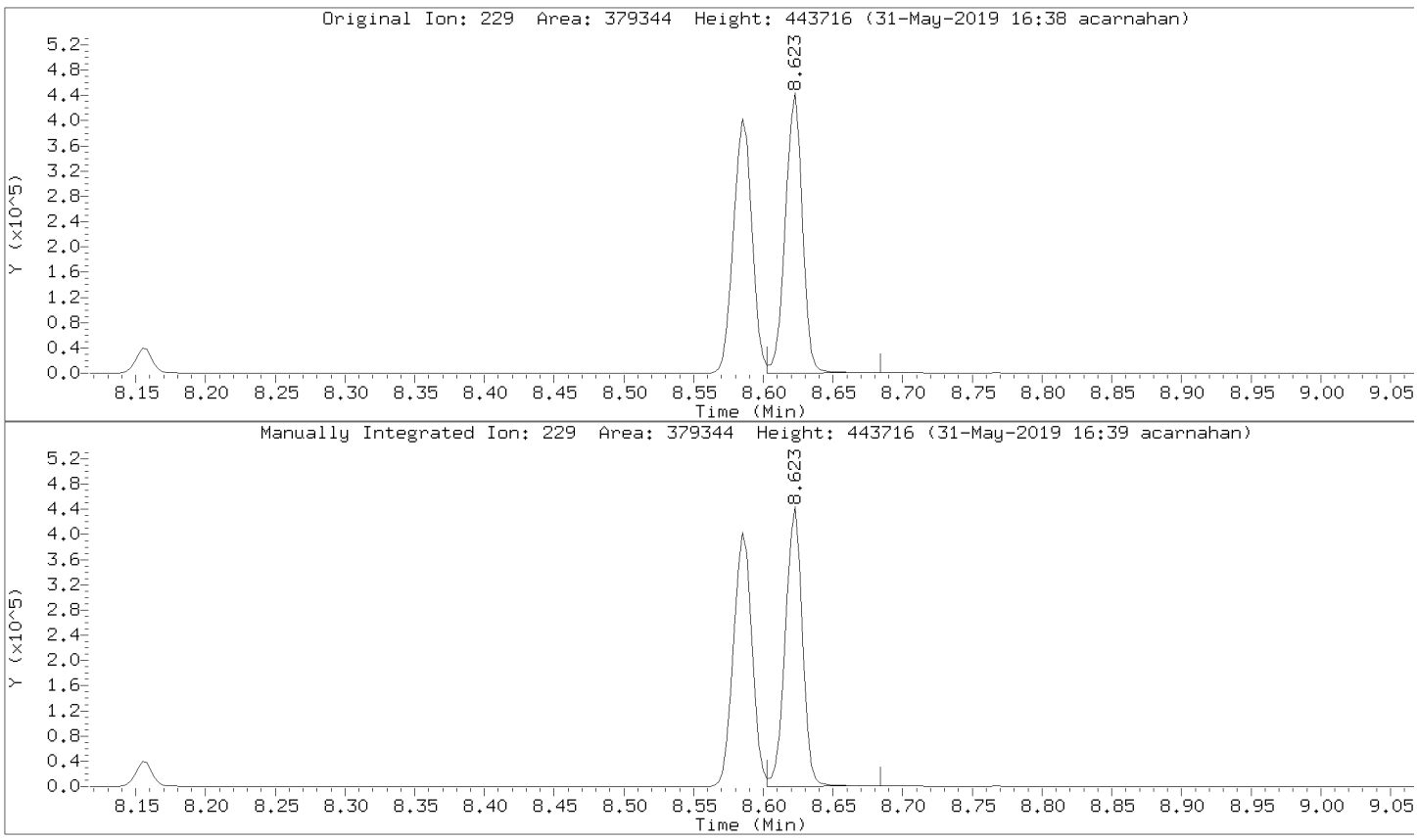
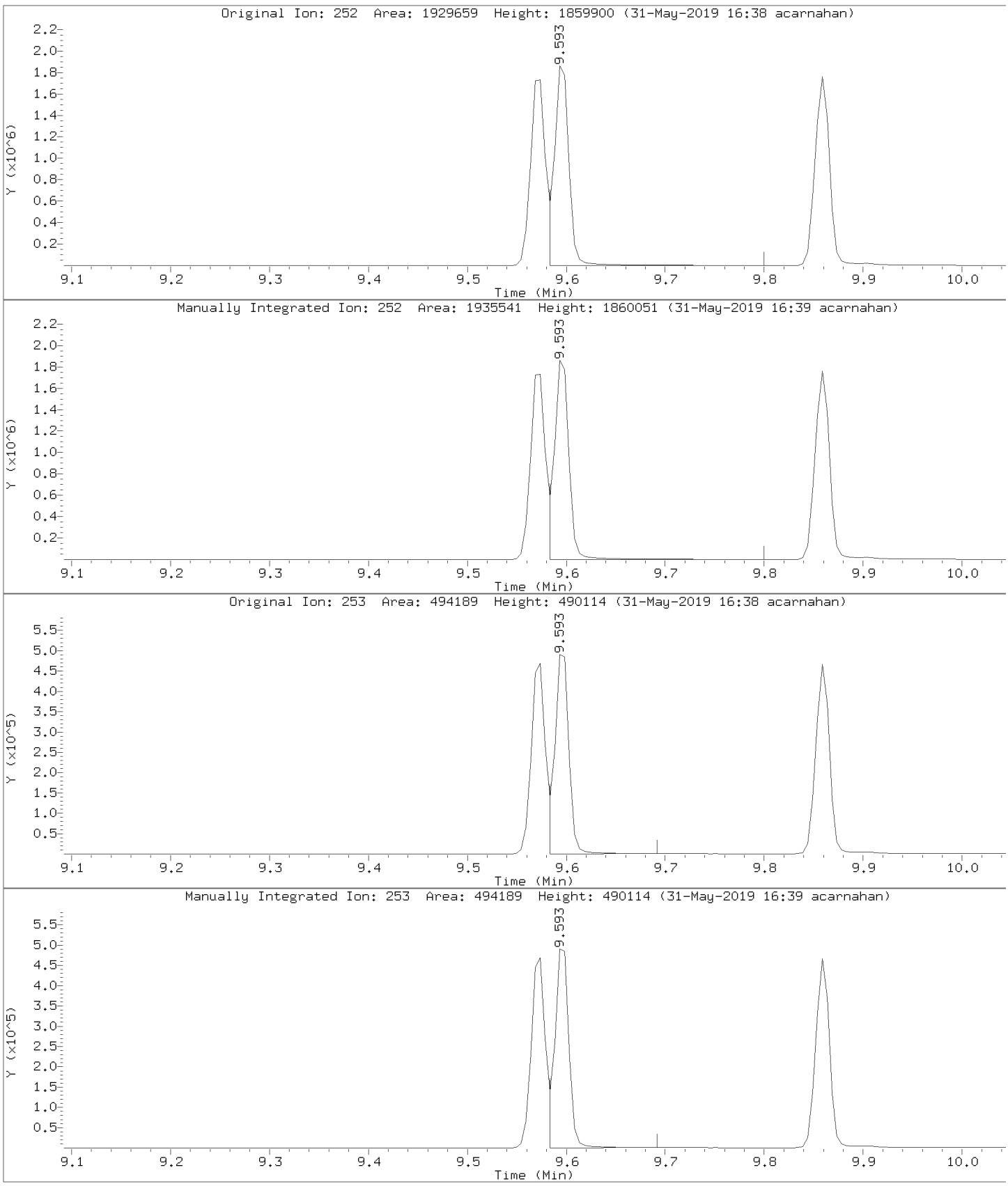
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5

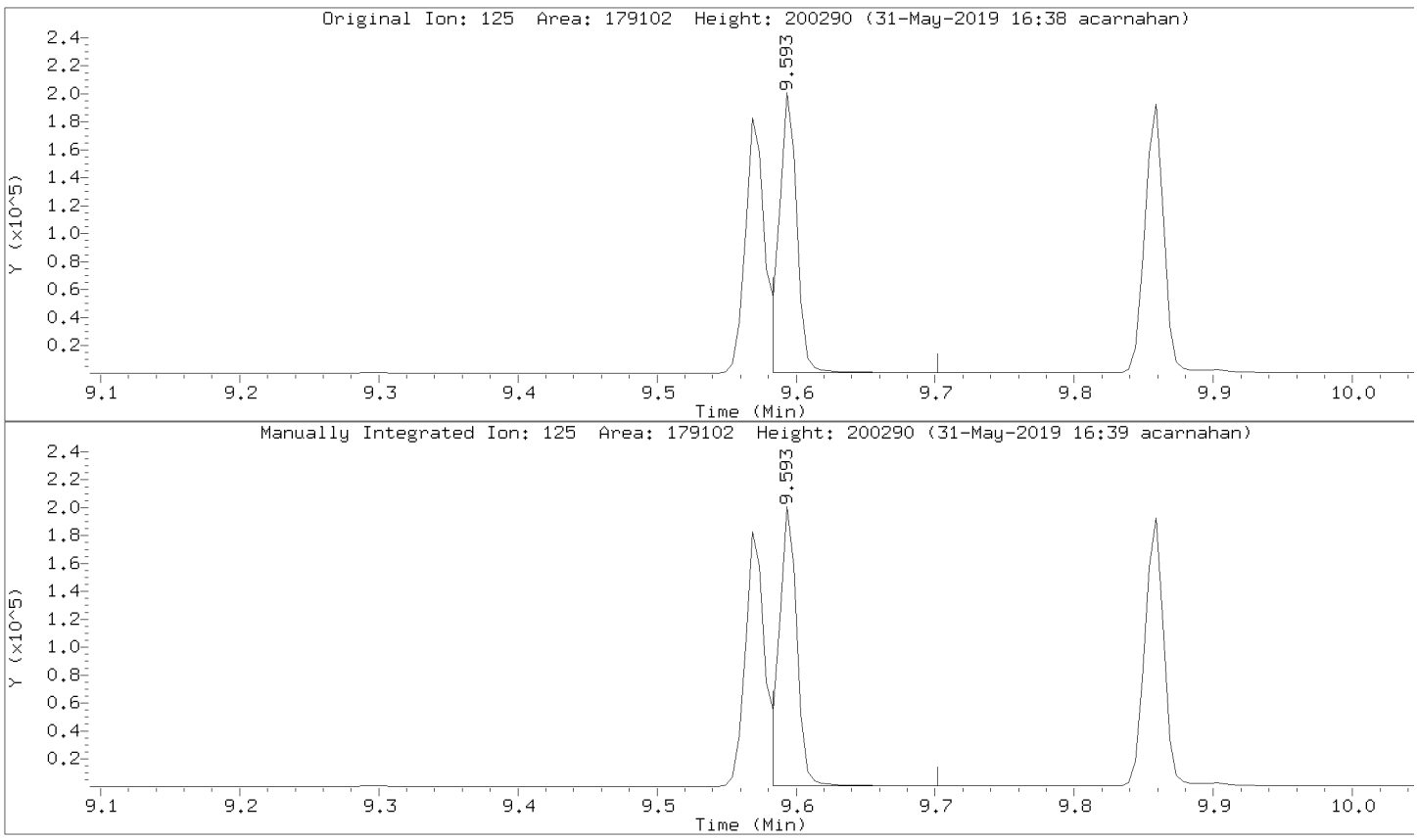


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z5.d
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

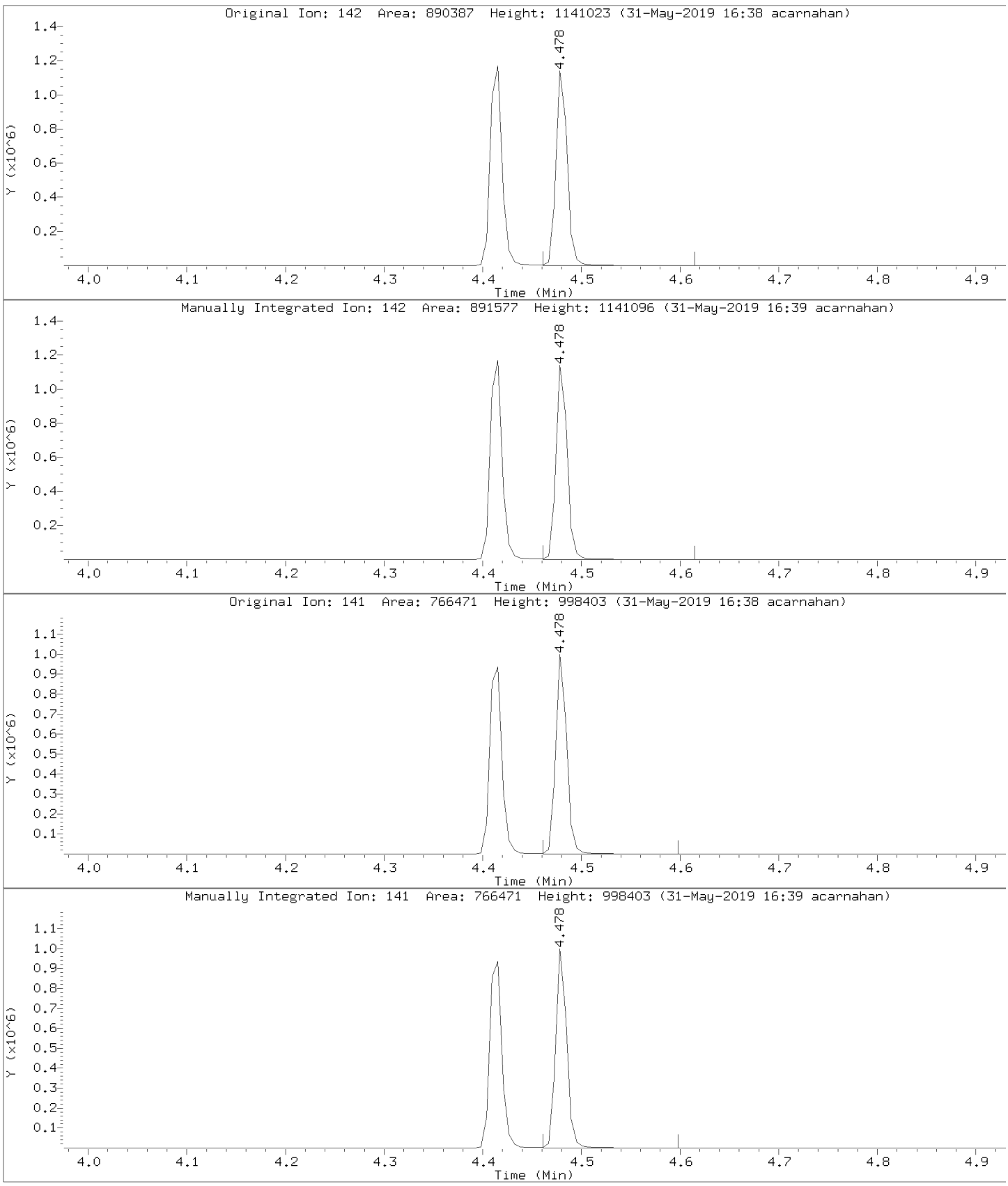


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z5.d
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z5.d
Injection Date: 31-MAY-2019 15:59
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z6.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 31-MAY-2019 16:17
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal6, 89123:1
Misc Info : 14644
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 99 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	1091148	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	3706735	20.0000	14.8	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	2802605	20.0000	15.3	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	2593605	20.0000	15.0(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.638	4.632	(0.908)	3170378	20.0000	14.2	
	11 Acenaphthylene	152	5.013	5.010	(0.982)	3859965	20.0000	15.1(Q)	
*	2 Acenaphthene-d10 (IS)	164	5.106	5.102	(1.000)	638116	4.00000		
	12 Acenaphthene	153	5.129	5.125	(1.005)	2552854	20.0000	15.1	
	13 Fluorene	166	5.489	5.486	(1.075)	3034205	20.0000	15.4	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	1162592	4.00000		
	14 Phenanthrene	178	6.230	6.226	(1.004)	4129024	20.0000	13.8(Q)	
	15 Anthracene	178	6.271	6.266	(1.010)	4130112	20.0000	14.7(QM)	BA
	16 Fluoranthene	202	7.254	7.250	(1.169)	4729900	20.0000	14.5(Q)	
	17 Pyrene	202	7.467	7.462	(1.203)	4875831	20.0000	14.4(Q)	
$	7 Terphenyl-d14 (S)	244	7.575	7.570	(1.220)	3799891	20.0000	14.5(Q)	
	18 Benzo(a)anthracene	228	8.591	8.582	(0.999)	4782351	20.0000	15.6	
*	4 Chrysene-d12 (IS)	240	8.600	8.594	(1.000)	1129509	4.00000		
	19 Chrysene	228	8.629	8.617	(1.003)	4516044	20.0000	14.0(M)	BA
	20 Benzo(b)fluoranthene	252	9.578	9.568	(0.967)	5170725	20.0000	15.3(Q)	
	21 Benzo(k)fluoranthene	252	9.603	9.593	(0.969)	5135993	20.0000	13.7(QM)	BA
	22 Benzo(a)pyrene	252	9.868	9.853	(0.996)	4888961	20.0000	15.4(QM)	GT
*	5 Perylene-d12 (IS)	264	9.908	9.903	(1.000)	1245480	4.00000		
	23 Dibenz(a,h)anthracene	278	10.910	10.890	(1.101)	4960938	20.0000	15.6(Q)	
	24 Indeno(1,2,3-cd)pyrene	276	10.910	10.885	(1.101)	6079421	20.0000	16.0(Q)	
	25 Benzo[g,h,i]perylene	276	11.199	11.170	(1.130)	5113163	20.0000	15.4(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14644

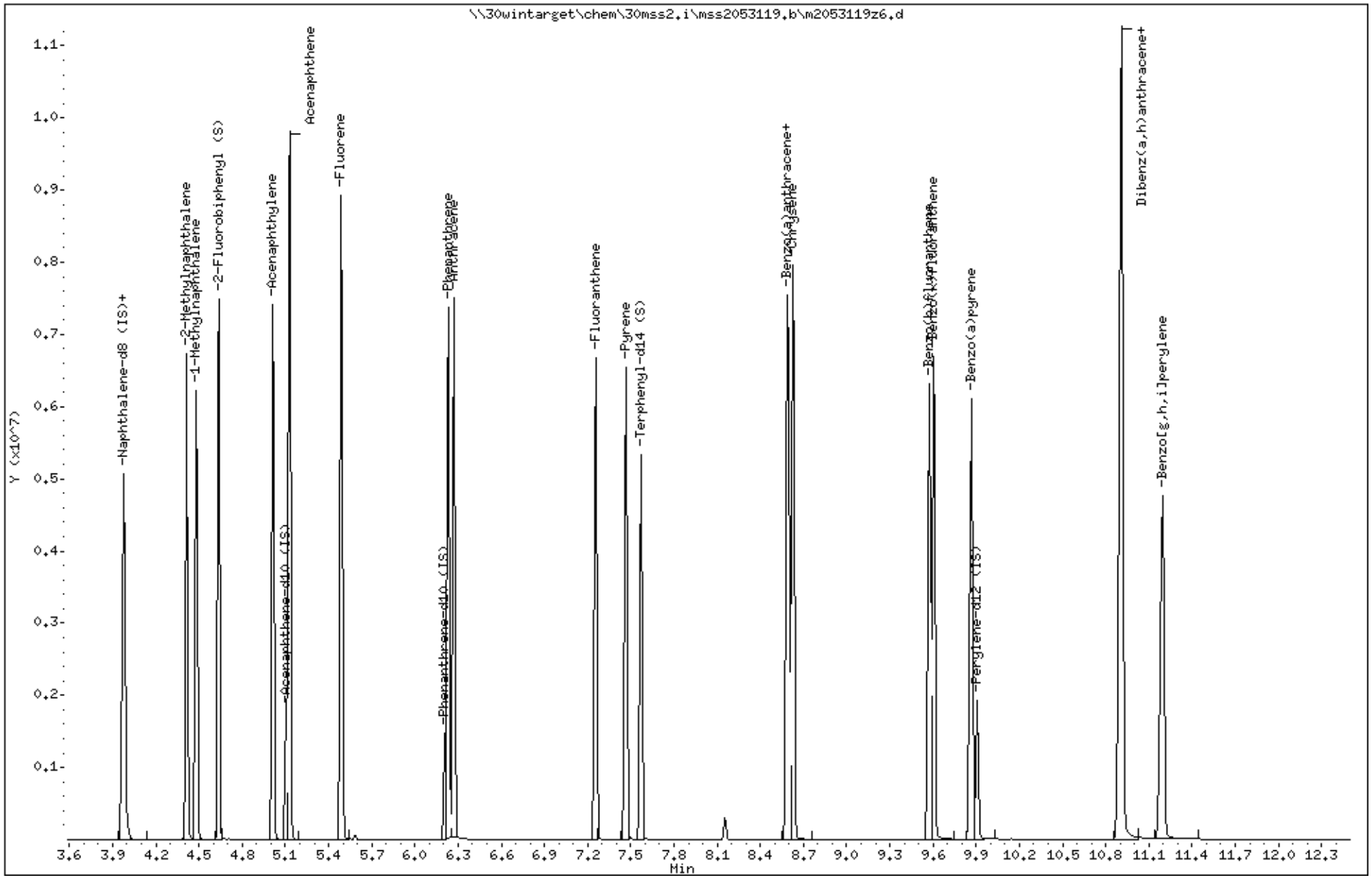
Client SDG: 30MSS2-mss2053119
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	14.8	
91-57-6	2-Methylnaphthalene	15.3	
90-12-0	1-Methylnaphthalene	15.0	
208-96-8	Acenaphthylene	15.1	
83-32-9	Acenaphthene	15.1	
86-73-7	Fluorene	15.4	
85-01-8	Phenanthrene	13.8	
120-12-7	Anthracene	14.7	
206-44-0	Fluoranthene	14.5	
129-00-0	Pyrene	14.4	
56-55-3	Benzo(a)anthracene	15.6	
218-01-9	Chrysene	14.0	
205-99-2	Benzo(b)fluoranthene	15.3	
207-08-9	Benzo(k)fluoranthene	13.7	
50-32-8	Benzo(a)pyrene	15.4	
53-70-3	Dibenz(a,h)anthracene	15.6	
193-39-5	Indeno(1,2,3-cd)pyrene	16.0	
191-24-2	Benzo[g,h,i]perylene	15.4	
321-60-8	2-Fluorobiphenyl (S)	14.2	
1718-51-0	Terphenyl-d14 (S)	14.5	

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z6.d
Date : 31-MAY-2019 16:17
Client ID: CAL6
Sample Info: CAL6, 89123:1

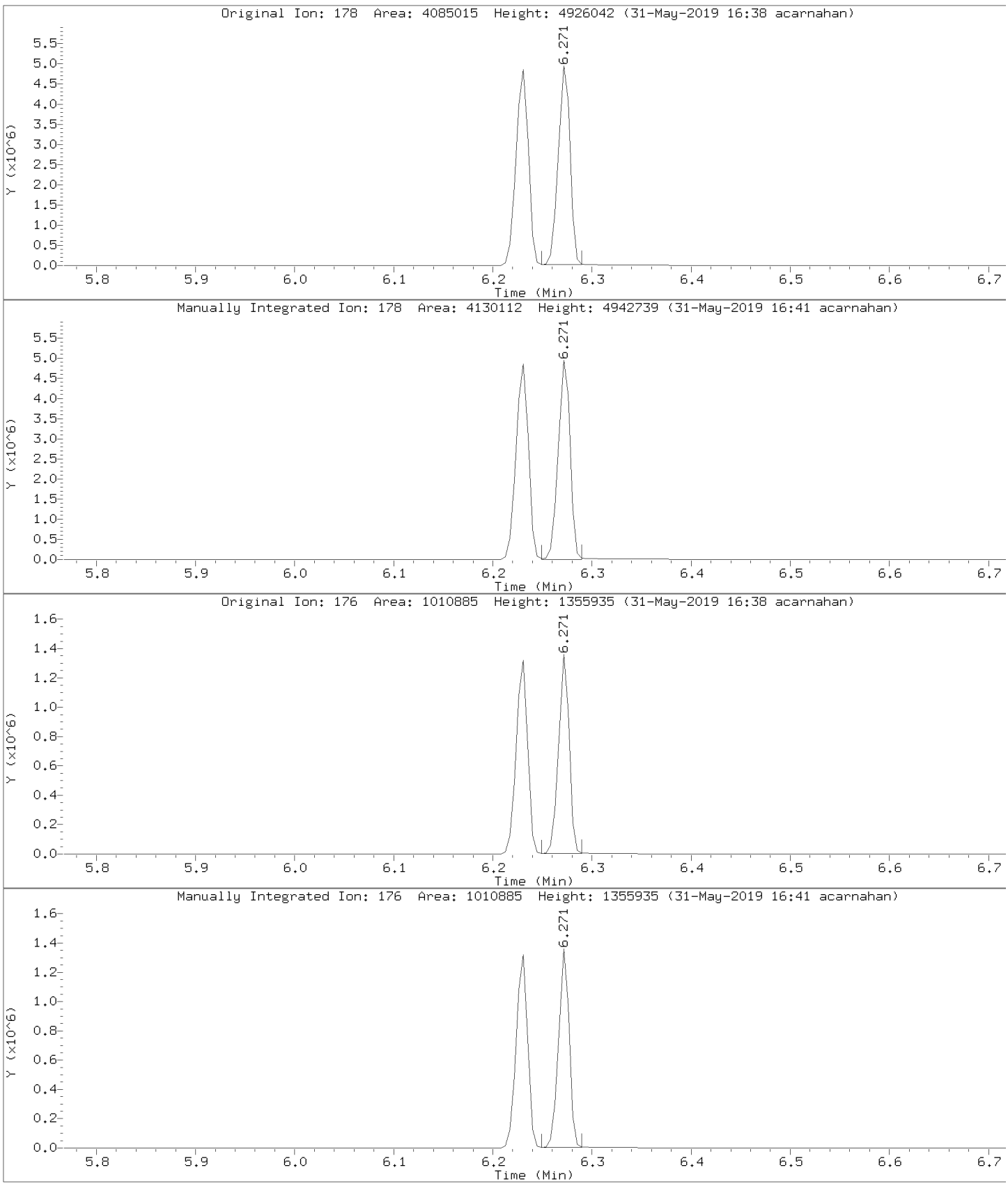
Instrument: 30mss2.i

Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



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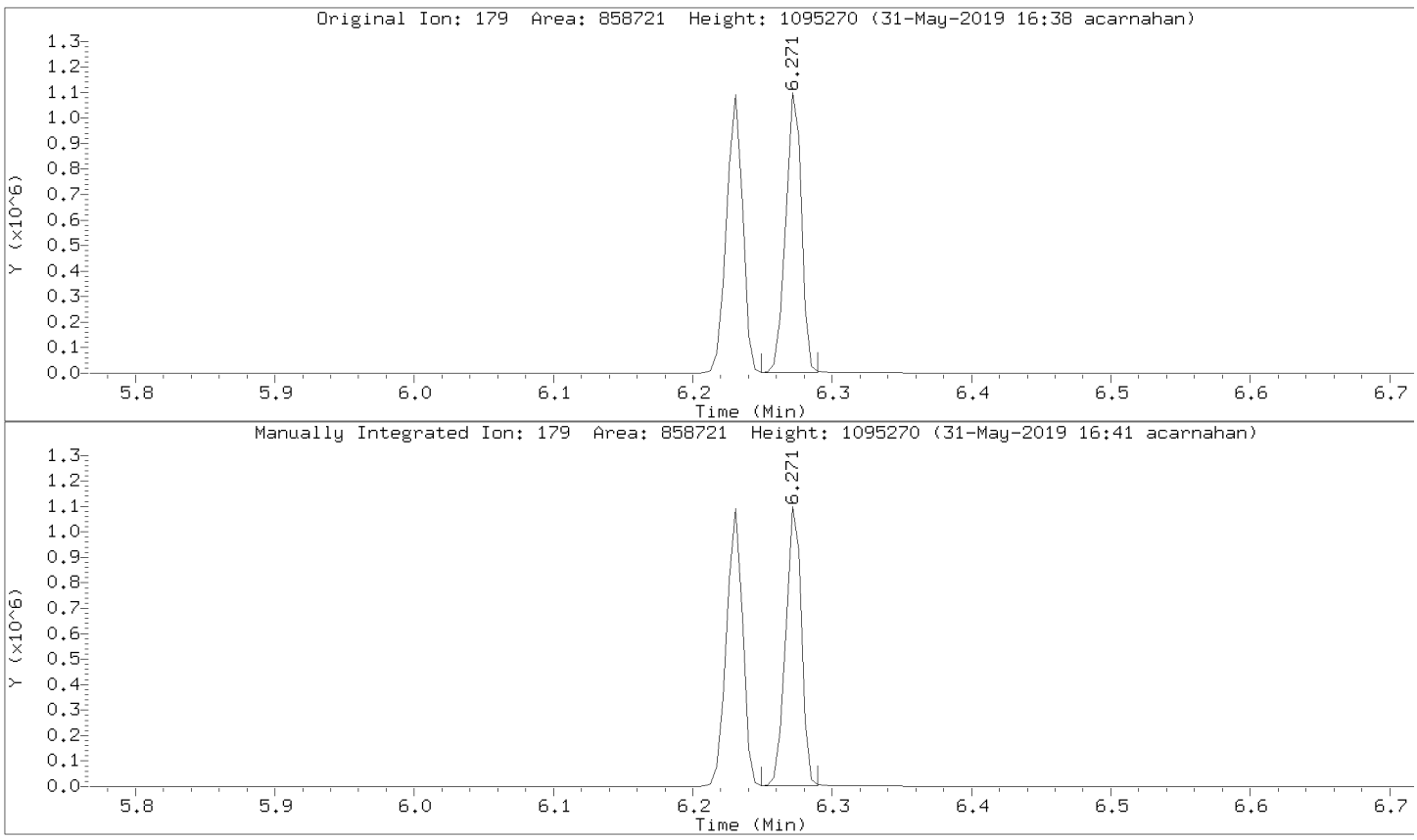
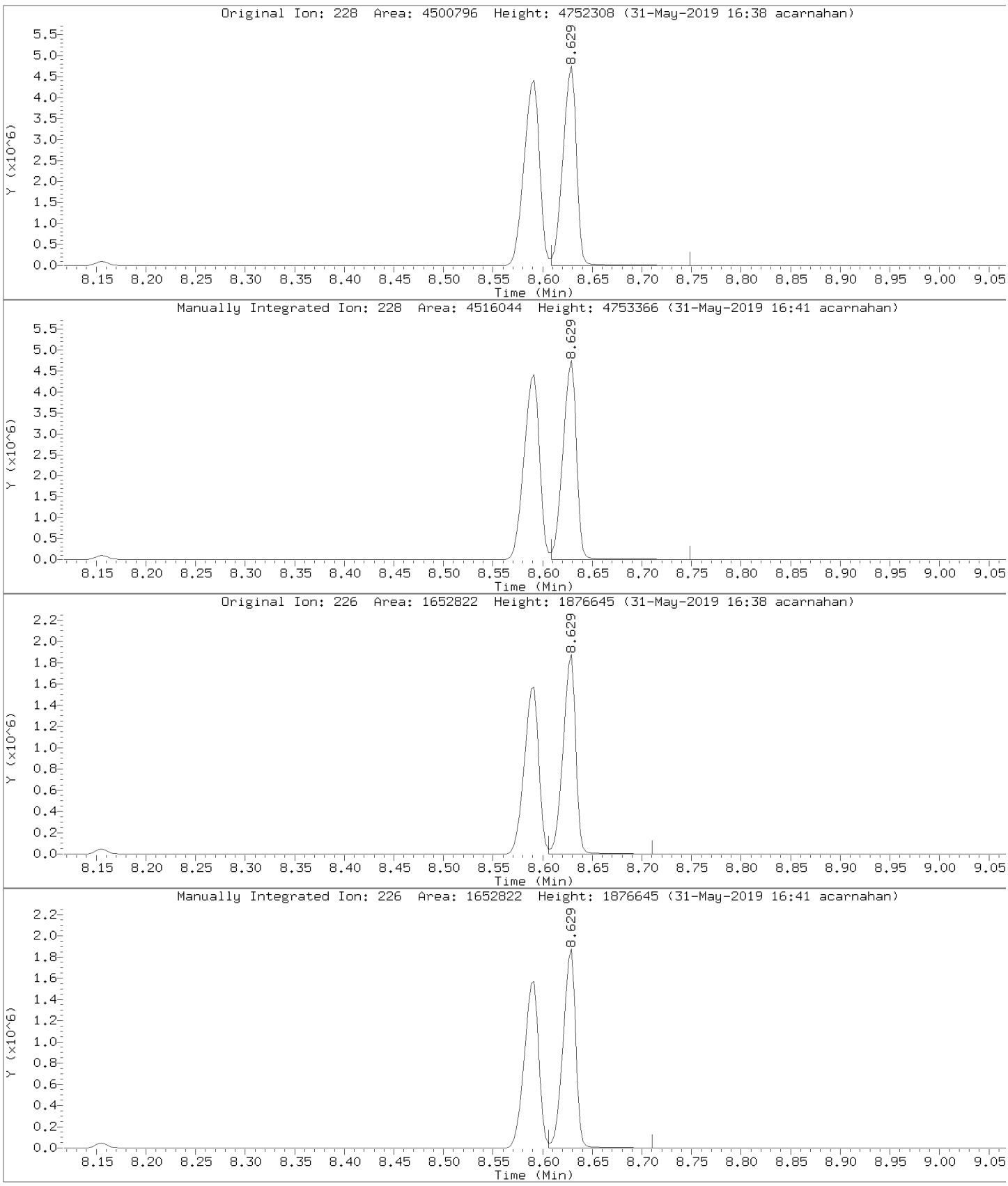
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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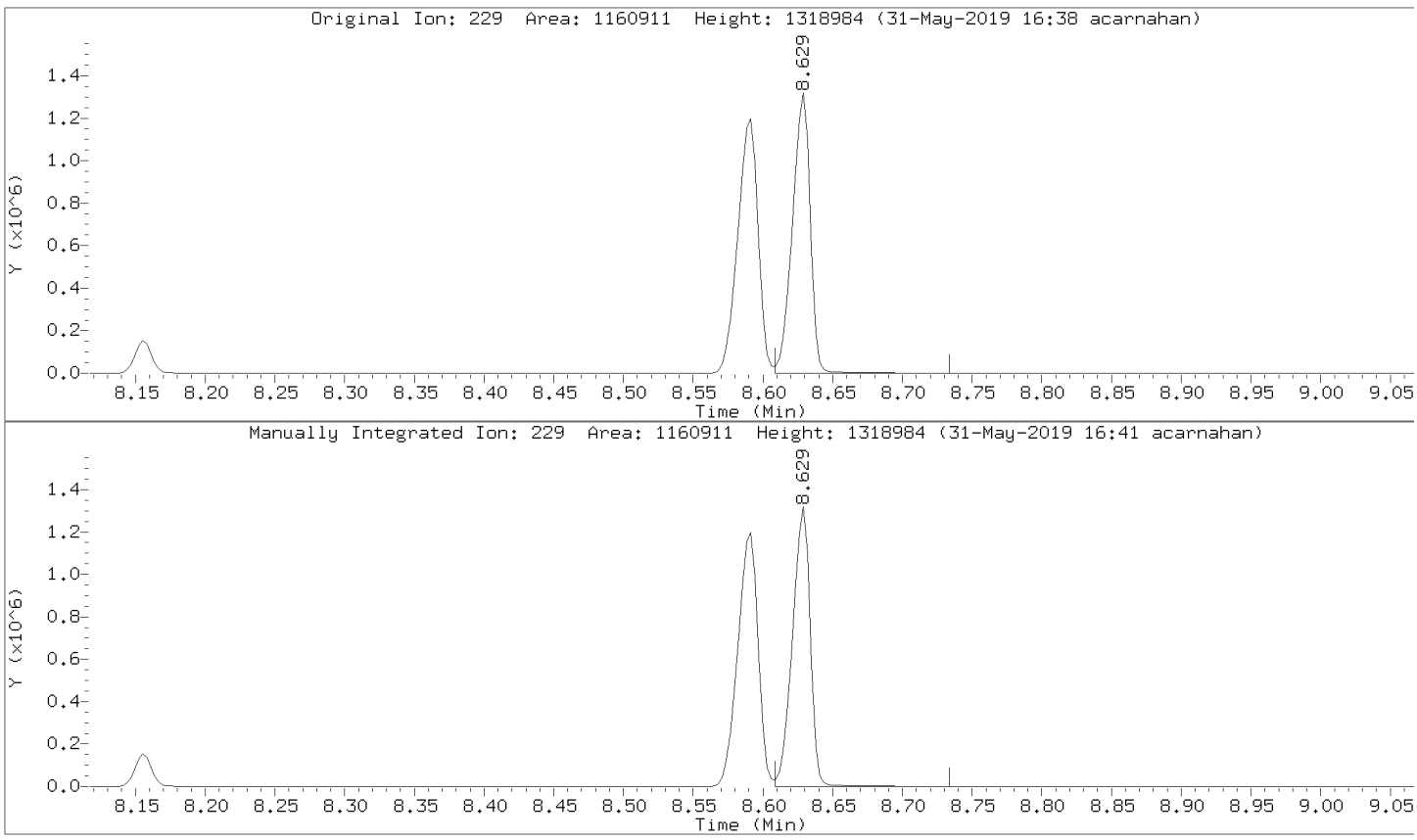
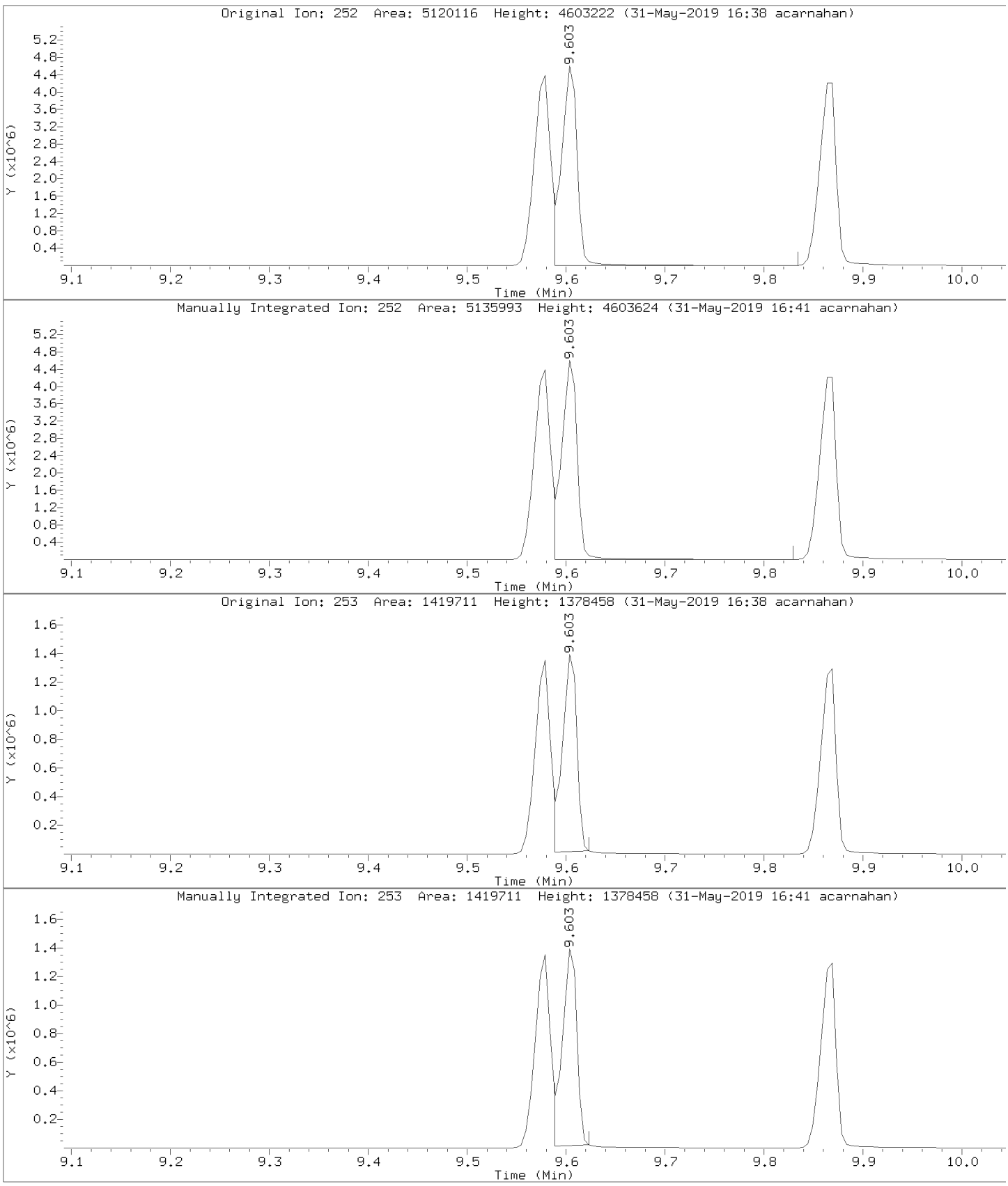
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

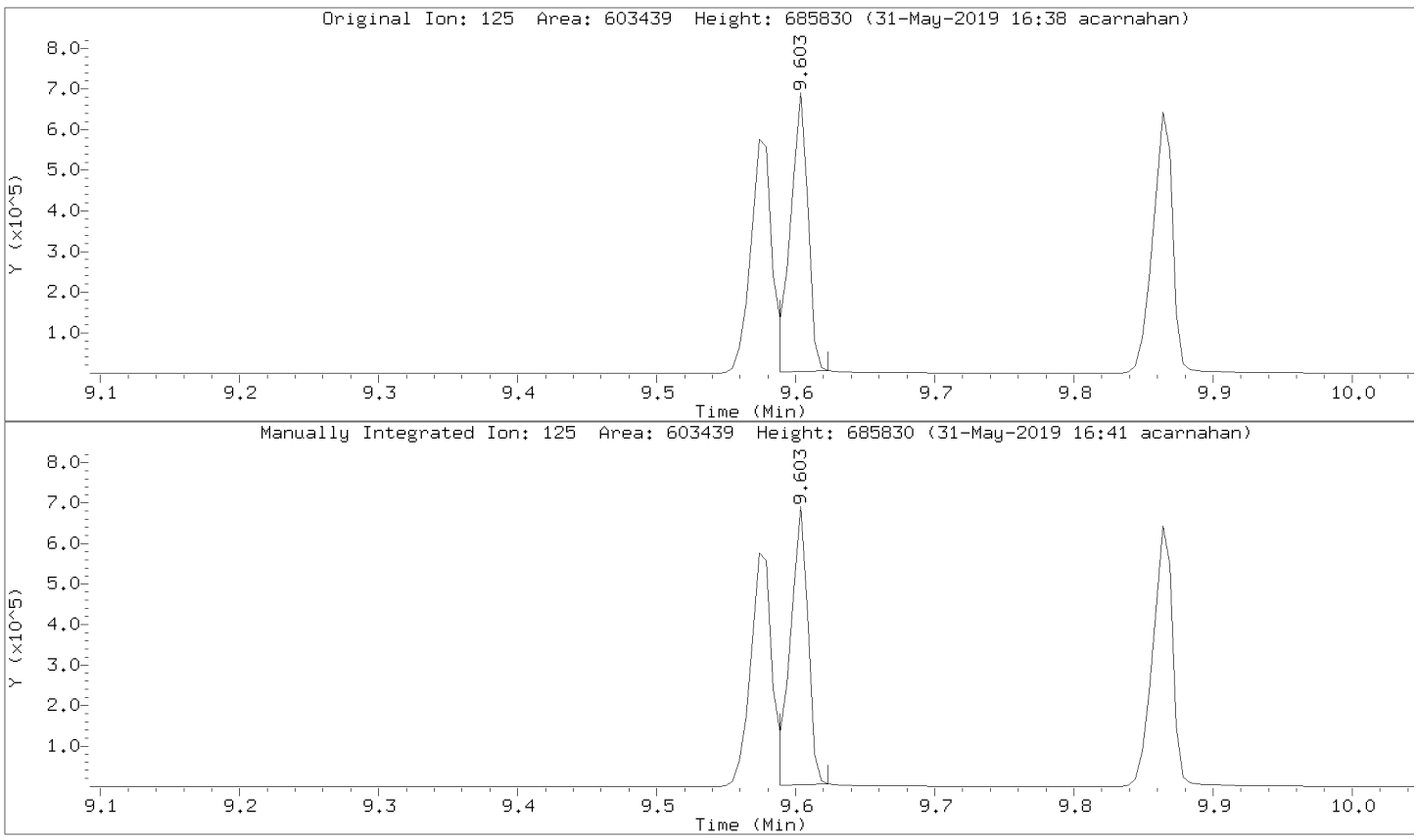


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6



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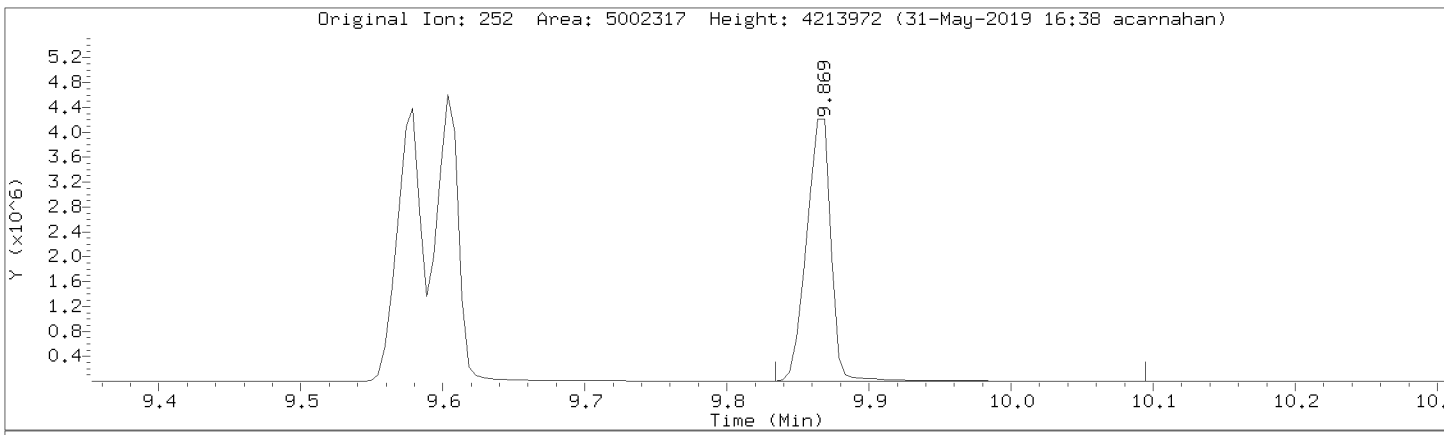
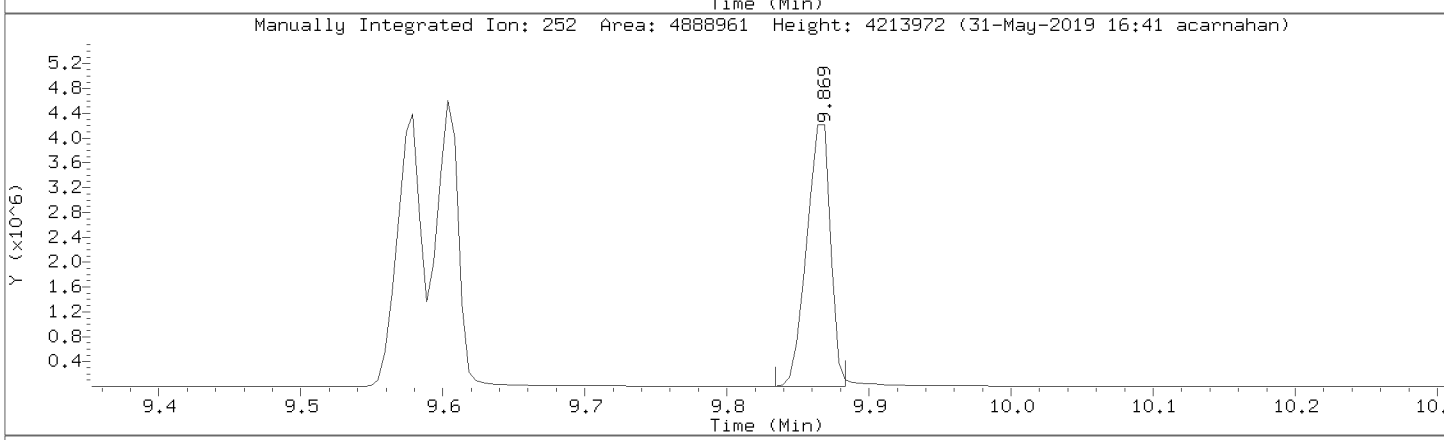
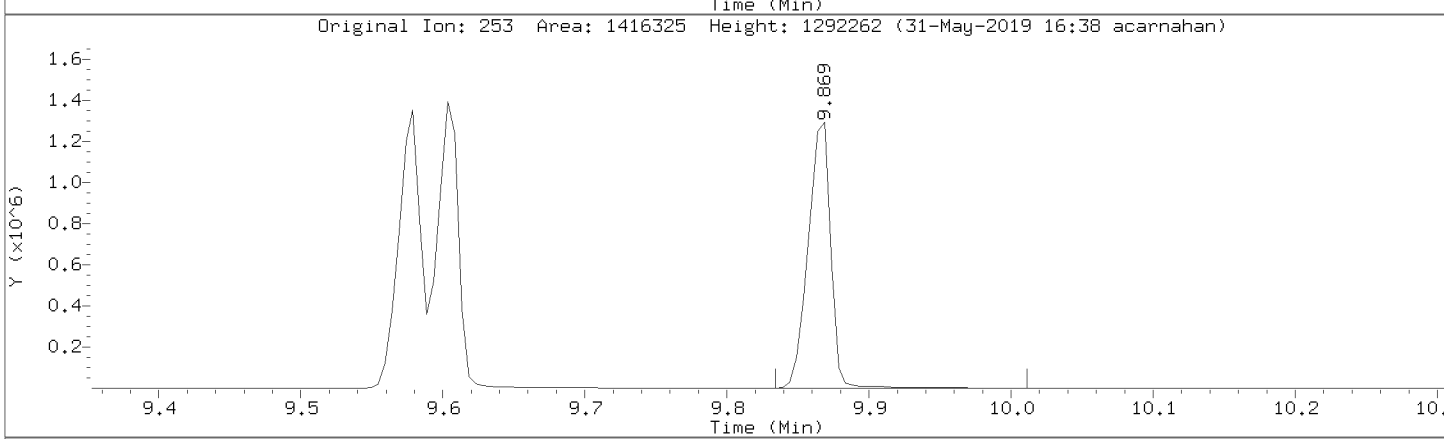
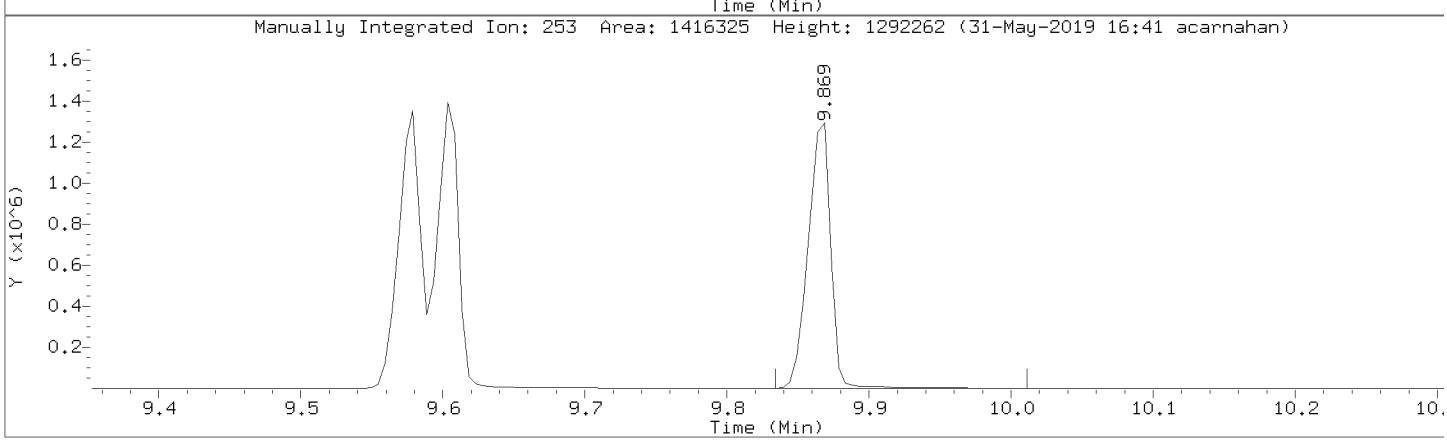
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

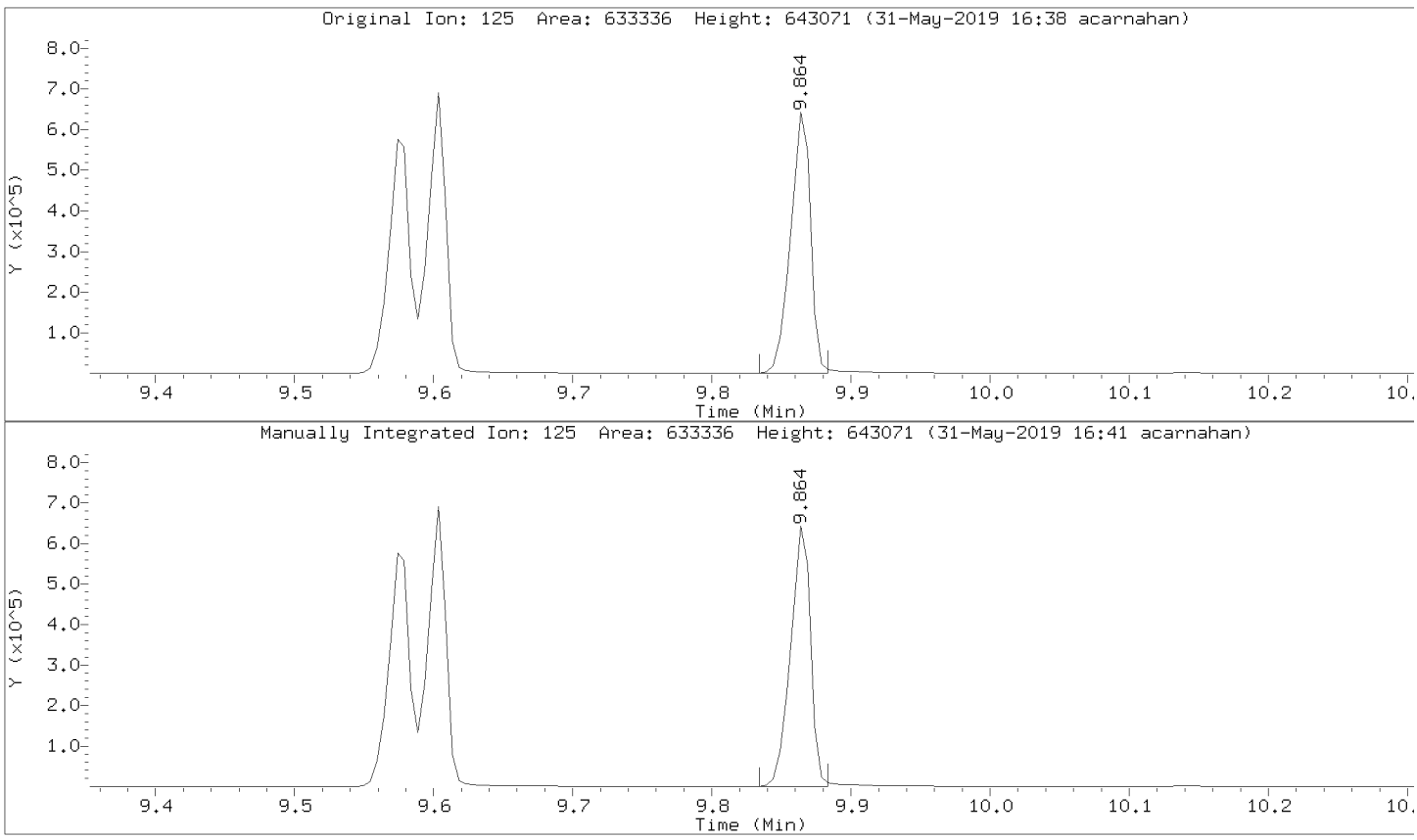






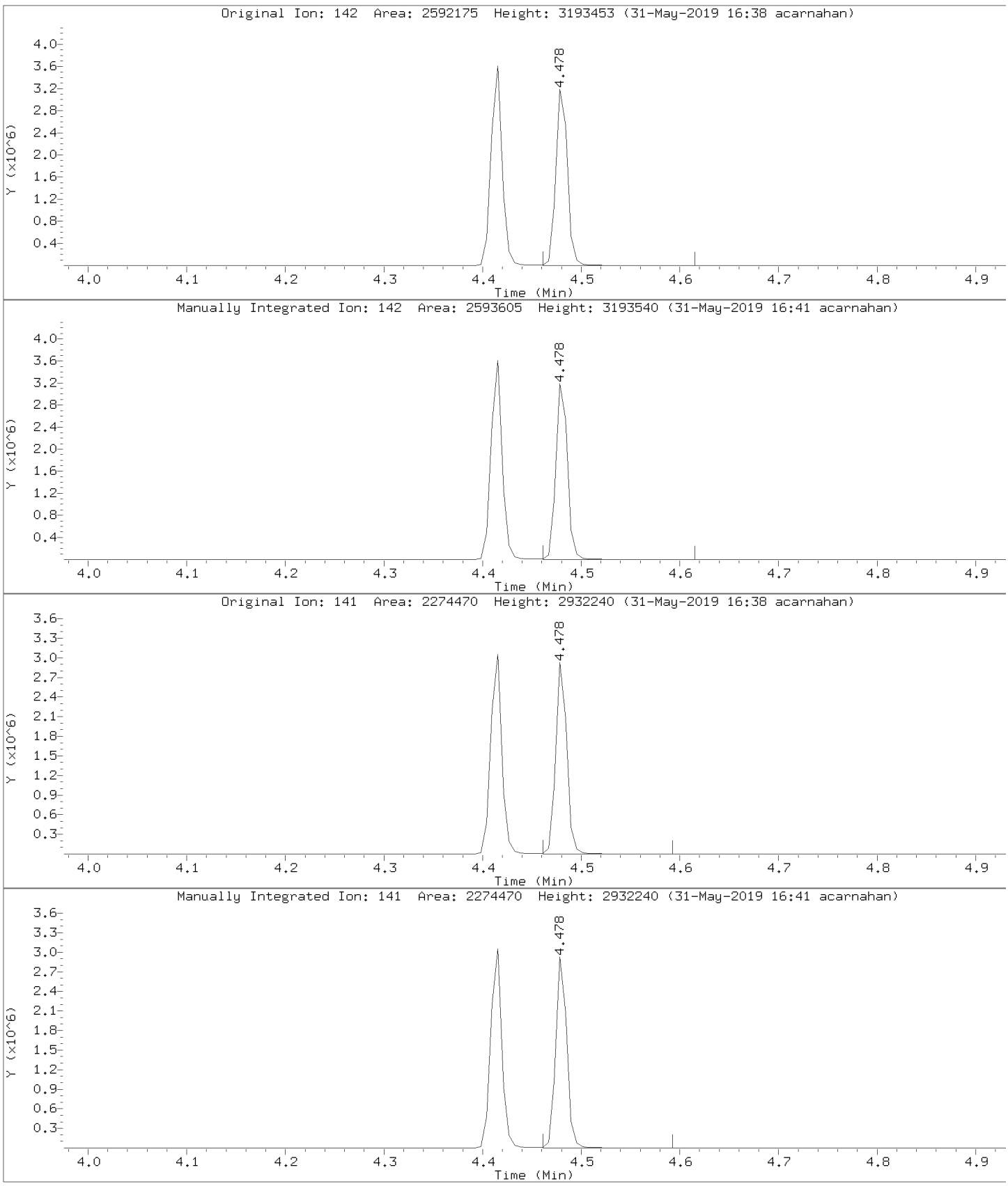


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z6.d
Injection Date: 31-MAY-2019 16:17
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM INITIAL CALIBRATION DATA

11014782ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 05/31/2019 Time: 16:35

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 05/31/2019 05/31/2019

Lab File ID: MSS2053119.B\M2053119Z7.D Init. Calib. Time(s): 14:47 16:17

SDG No.: 30298231

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.60292	1.88116	0.0500	17.3577	30.0000
Anthracene	Averaged	0.96375	1.11462	0.0500	15.6539	30.0000
Benzo(a)anthracene	Averaged	1.08705	1.19336	0.0500	9.7797	30.0000
Benzo(a)pyrene	Averaged	1.01802	1.13944	0.0500	11.9273	30.0000
Benzo(b)fluoranthene	Averaged	1.08274	1.23464	0.0500	14.0294	30.0000
Benzo(g,h,i)perylene	Averaged	1.06468	1.12735	0.0500	5.8861	30.0000
Benzo(k)fluoranthene	Averaged	1.20035	1.37460	0.0500	14.5159	30.0000
Chrysene	Averaged	1.14262	1.27688	0.0500	11.7503	30.0000
Dibenz(a,h)anthracene	Averaged	1.01928	1.13516	0.0500	11.3683	30.0000
Fluoranthene	Averaged	1.12166	1.25312	0.0500	11.7193	30.0000
Fluorene	Averaged	1.23849	1.41058	0.0500	13.8955	30.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.22311	1.35118	0.0500	10.4710	30.0000
Naphthalene	Averaged	0.91851	0.99449	0.0500	8.2720	30.0000
Phenanthrene	Averaged	1.02866	1.11270	0.0500	8.1700	30.0000
Pyrene	Averaged	1.16423	1.30668	0.0500	12.2357	30.0000
2-Fluorobiphenyl (S)	Averaged	1.39435	1.53815	0.0500	10.3131	30.0000
Terphenyl-d14 (S)	Averaged	0.90346	1.02415	0.0500	13.3587	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

11058721CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/10/2019 Time: 14:45

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 05/31/2019 05/31/2019

Lab File ID: MSS2061019.B\M2061019S1.D Init. Calib. Time(s): 14:47 16:17

SDG No.: 30298231

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.60292	1.70033	0.9000	6.0768	20.0000
Anthracene	Averaged	0.96375	1.04171	0.7000	8.0893	20.0000
Benzo(a)anthracene	Averaged	1.08705	1.19761	0.8000	10.1712	20.0000
Benzo(a)pyrene	Averaged	1.01802	1.13449	0.7000	11.4407	20.0000
Benzo(b)fluoranthene	Averaged	1.08274	1.22886	0.7000	13.4956	20.0000
Benzo(g,h,i)perylene	Averaged	1.06468	1.17246	0.5000	10.1229	20.0000
Benzo(k)fluoranthene	Averaged	1.20035	1.27092	0.7000	5.8788	20.0000
Chrysene	Averaged	1.14262	1.17644	0.7000	2.9598	20.0000
Dibenz(a,h)anthracene	Averaged	1.01928	1.12391	0.4000	10.2650	20.0000
Fluoranthene	Averaged	1.12166	1.21735	0.6000	8.5307	20.0000
Fluorene	Averaged	1.23849	1.31207	0.9000	5.9412	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.22311	1.33948	0.5000	9.5145	20.0000
Naphthalene	Averaged	0.91851	0.94684	0.7000	3.0845	20.0000
Phenanthrene	Averaged	1.02866	1.04997	0.7000	2.0721	20.0000
Pyrene	Averaged	1.16423	1.26325	0.6000	8.5048	20.0000
2-Fluorobiphenyl (S)	Averaged	1.39435	1.48106	0.7000	6.2186	20.0000
Terphenyl-d14 (S)	Averaged	0.90346	0.92225	0.7000	2.0804	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z7.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 31-MAY-2019 16:35
Operator : AJC Inst ID: 30mss2.i
Smp Info : icv, 89124:1
Misc Info : 14644
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m
Meth Date : 05-Jun-2019 16:12 dcavalier Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.964	3.964	(1.000)	935161	4.00000		
	8 Naphthalene	128	3.975	3.975	(1.003)	465003	2.00000	2.16	
	9 2-Methylnaphthalene	142	4.415	4.415	(1.114)	340816	2.00000	2.18	
	10 1-Methylnaphthalene	142	4.478	4.478	(1.130)	314541	2.00000	2.13(M)	GT
$	6 2-Fluorobiphenyl (S)	172	4.632	4.632	(0.908)	417606	2.00000	2.21	
	11 Acenaphthylene	152	5.010	5.010	(0.982)	510730	2.00000	2.35	
*	2 Acenaphthene-d10 (IS)	164	5.102	5.102	(1.000)	542996	4.00000		
	12 Acenaphthene	153	5.125	5.125	(1.005)	316631	2.00000	2.20	
	13 Fluorene	166	5.486	5.486	(1.075)	382971	2.00000	2.28	
*	3 Phenanthrene-d10 (IS)	188	6.208	6.208	(1.000)	995559	4.00000		
	14 Phenanthrene	178	6.226	6.226	(1.003)	553880	2.00000	2.16(M)	BA
	15 Anthracene	178	6.266	6.266	(1.009)	554834	2.00000	2.31	
	16 Fluoranthene	202	7.250	7.250	(1.168)	623775	2.00000	2.23	
	17 Pyrene	202	7.462	7.462	(1.202)	650441	2.00000	2.24	
$	7 Terphenyl-d14 (S)	244	7.570	7.570	(1.219)	509801	2.00000	2.27	
	18 Benzo(a)anthracene	228	8.582	8.582	(0.999)	594993	2.00000	2.20	
*	4 Chrysene-d12 (IS)	240	8.594	8.594	(1.000)	997174	4.00000		
	19 Chrysene	228	8.617	8.617	(1.003)	636635	2.00000	2.24(M)	BA
	20 Benzo(b)fluoranthene	252	9.568	9.568	(0.966)	669487	2.00000	2.28	
	21 Benzo(k)fluoranthene	252	9.593	9.593	(0.969)	745378	2.00000	2.29(M)	BA
	22 Benzo(a)pyrene	252	9.853	9.853	(0.995)	617865	2.00000	2.24	
*	5 Perylene-d12 (IS)	264	9.903	9.903	(1.000)	1084505	4.00000		
	23 Dibenz(a,h)anthracene	278	10.890	10.890	(1.100)	615542	2.00000	2.23	
	24 Indeno(1,2,3-cd)pyrene	276	10.885	10.885	(1.099)	732683	2.00000	2.21	
	25 Benzo[g,h,i]perylene	276	11.170	11.170	(1.128)	611307	2.00000	2.12	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 31-MAY-2019 16:35
Lab File ID: m2053119z7.d Init. Cal. Date(s): 31-MAY-2019 31-MAY-2019
Analysis Type: Init. Cal. Times: 14:47 16:17
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged		<-
8 Naphthalene	0.91851	0.99449	0.050	8.27200	20.00000	Aver		
9 2-Methylnaphthalene	0.67016	0.72889	0.050	8.76318	20.00000	Aver		
10 1-Methylnaphthalene	0.63232	0.67270	0.050	6.38553	20.00000	Aver	(M)	
$ 6 2-Fluorobiphenyl (S)	1.39435	1.53815	0.050	10.31313	20.00000	Aver		
11 Acenaphthylene	1.60292	1.88116	0.050	17.35775	20.00000	Aver		
12 Acenaphthene	1.05863	1.16624	0.050	10.16499	20.00000	Aver		
13 Fluorene	1.23849	1.41058	0.050	13.89552	20.00000	Aver		
14 Phenanthrene	1.02866	1.11270	0.050	8.16997	20.00000	Aver	(M)	
15 Anthracene	0.96375	1.11462	0.050	15.65394	20.00000	Aver		
16 Fluoranthene	1.12166	1.25312	0.050	11.71928	20.00000	Aver		
17 Pyrene	1.16423	1.30668	0.050	12.23565	20.00000	Aver		
$ 7 Terphenyl-d14 (S)	0.90346	1.02415	0.050	13.35872	20.00000	Aver		
18 Benzo(a)anthracene	1.08705	1.19336	0.050	9.77967	20.00000	Aver		
19 Chrysene	1.14262	1.27688	0.050	11.75033	20.00000	Aver	(M)	
20 Benzo(b)fluoranthene	1.08274	1.23464	0.050	14.02936	20.00000	Aver		
21 Benzo(k)fluoranthene	1.20035	1.37460	0.050	14.51590	20.00000	Aver	(M)	
22 Benzo(a)pyrene	1.01802	1.13944	0.050	11.92735	20.00000	Aver		
23 Dibenz(a,h)anthracene	1.01928	1.13516	0.050	11.36830	20.00000	Aver		
24 Indeno(1,2,3-cd)pyrene	1.22311	1.35118	0.050	10.47102	20.00000	Aver		
25 Benzo[g,h,i]perylene	1.06468	1.12735	0.050	5.88613	20.00000	Aver		

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.30089
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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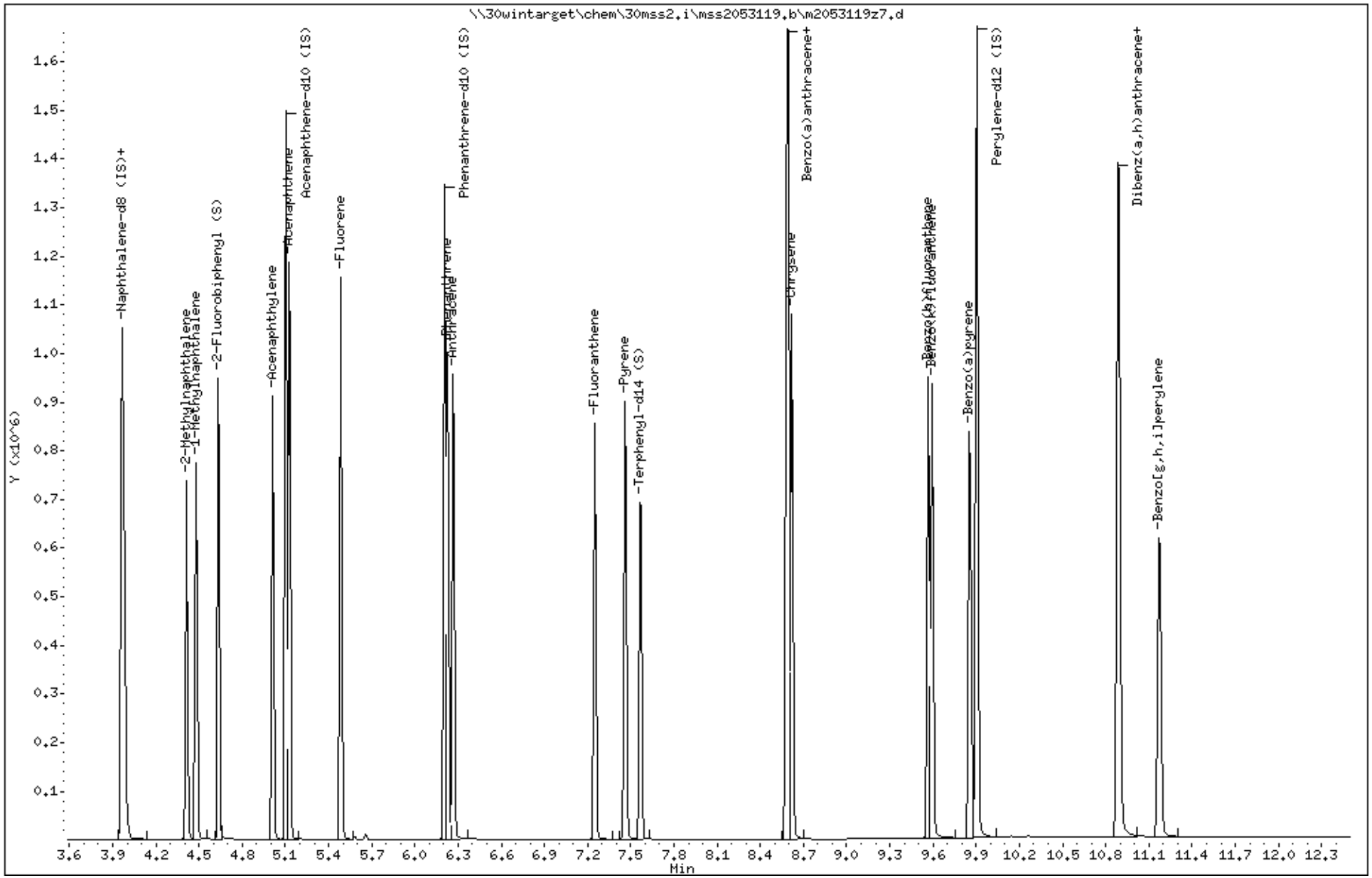
Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119z7.d
Date : 31-MAY-2019 16:35
Client ID: ICV
Sample Info: ICV, 89124:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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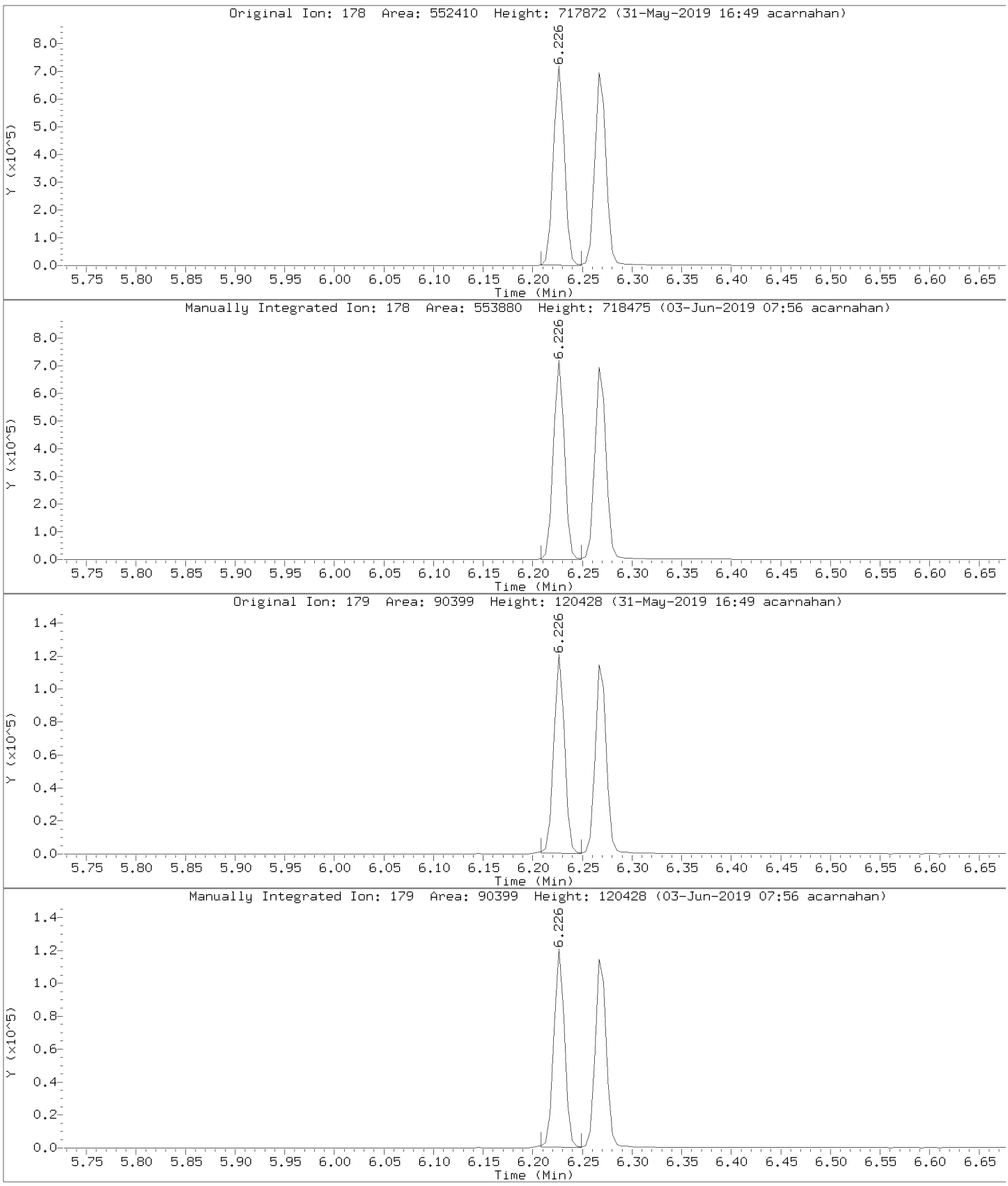
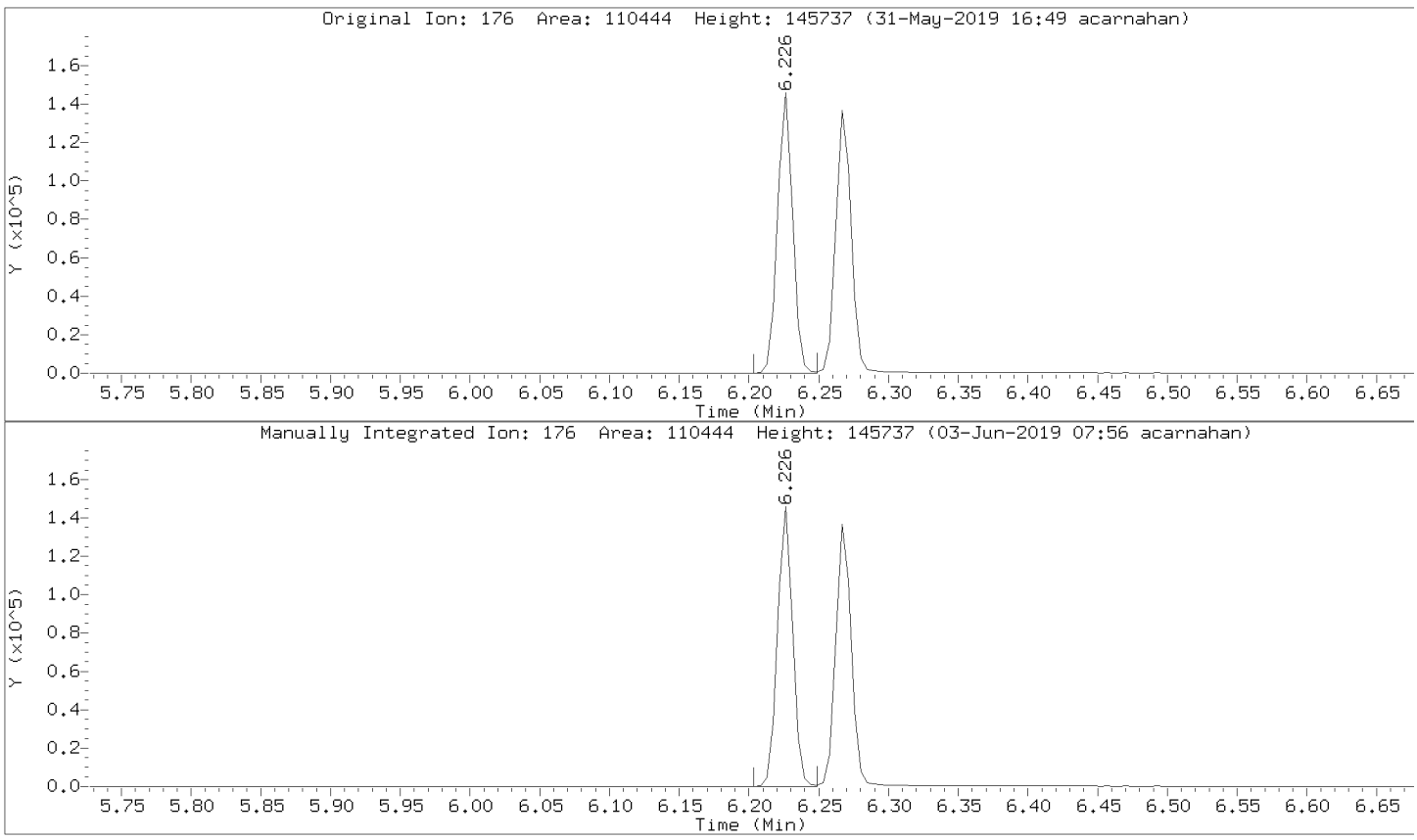
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z7.d
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV



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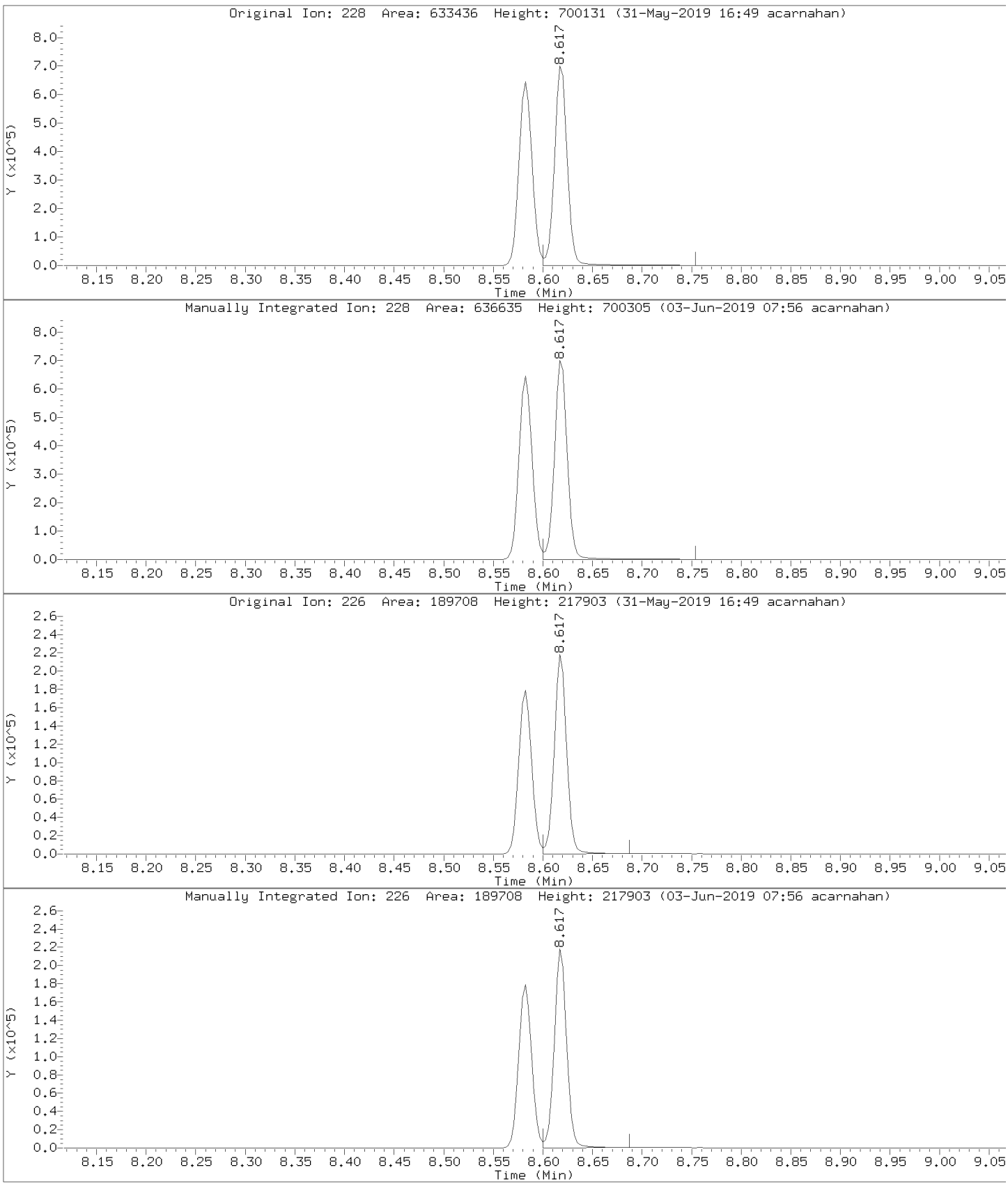
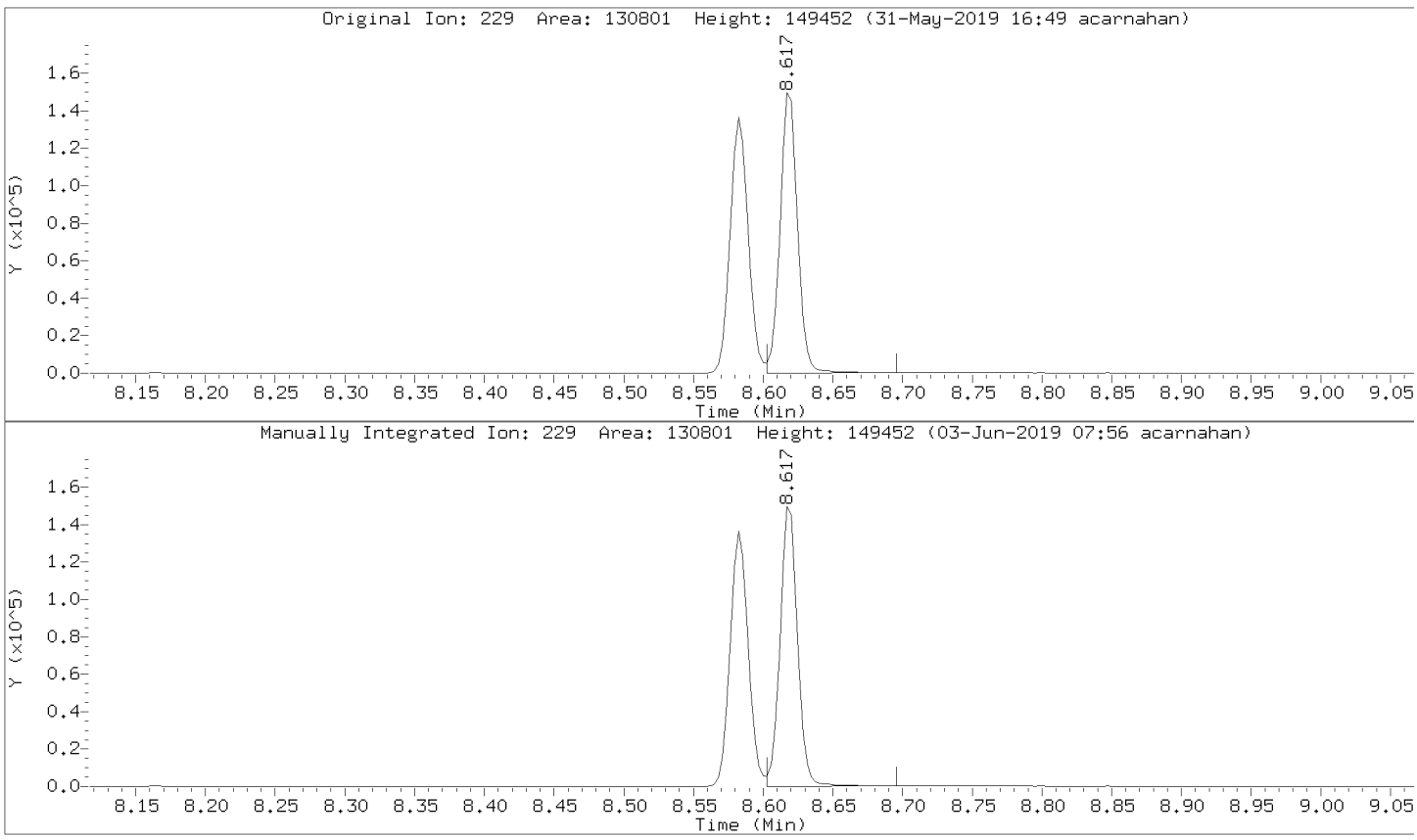
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

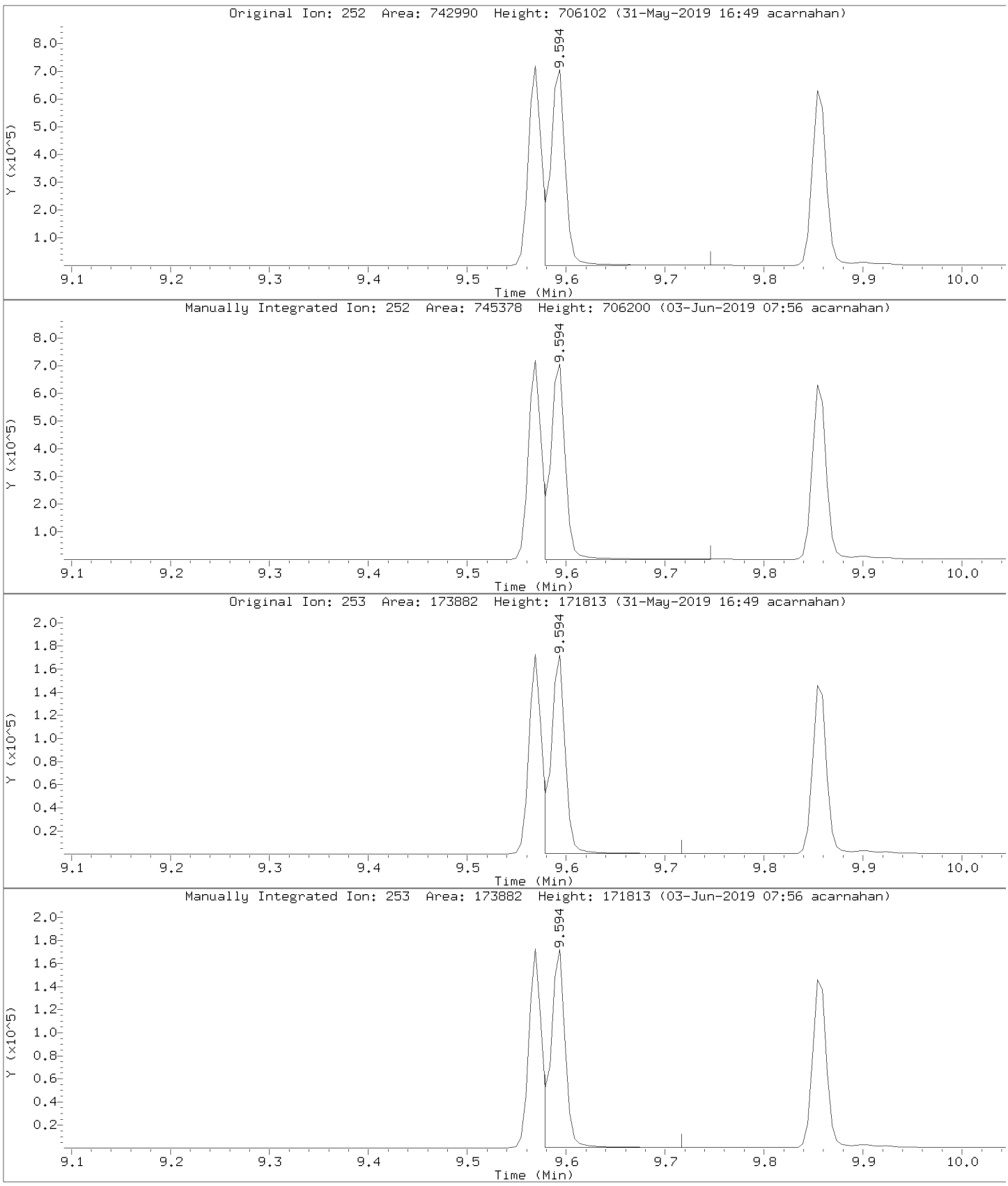


Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z7.d
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z7.d
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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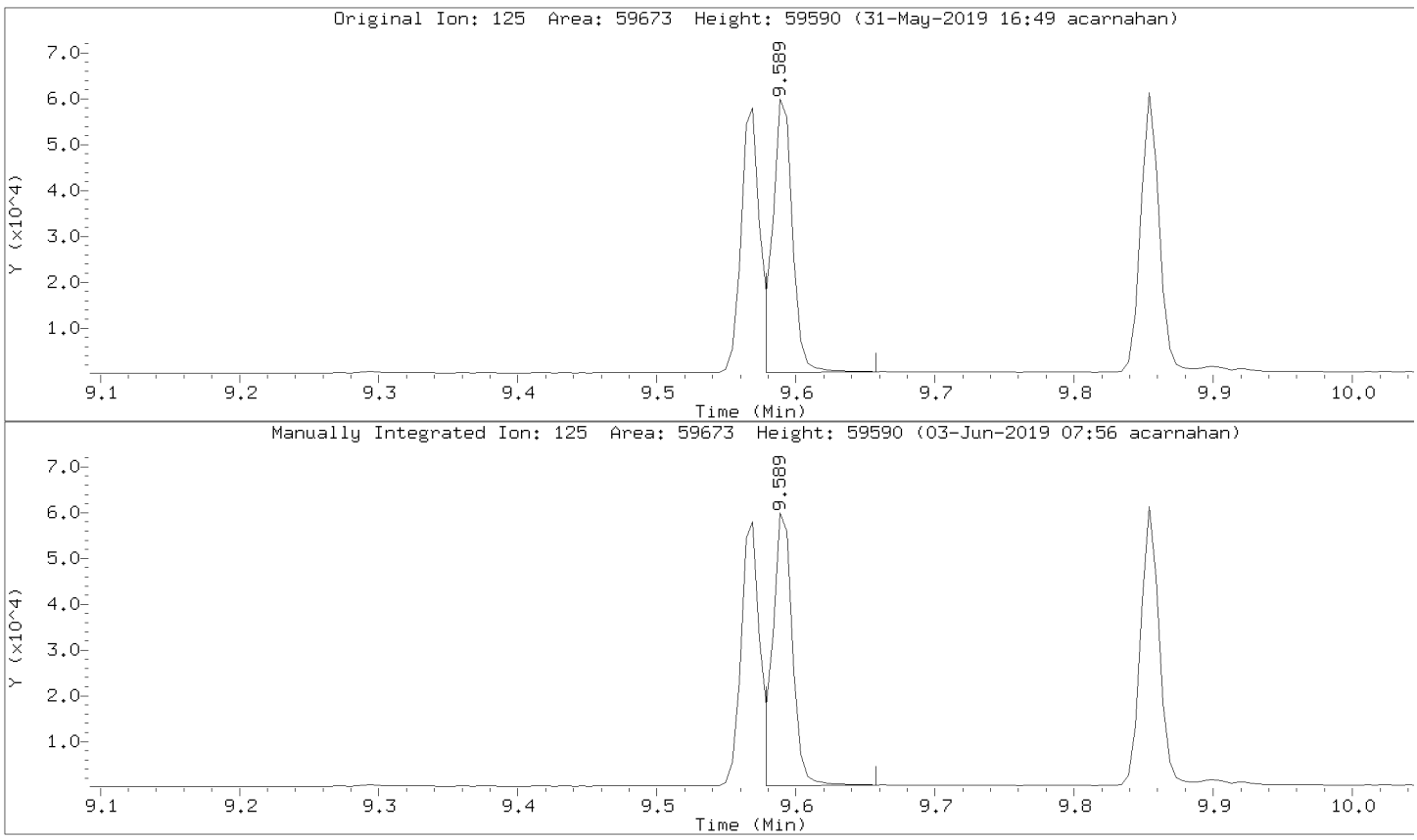
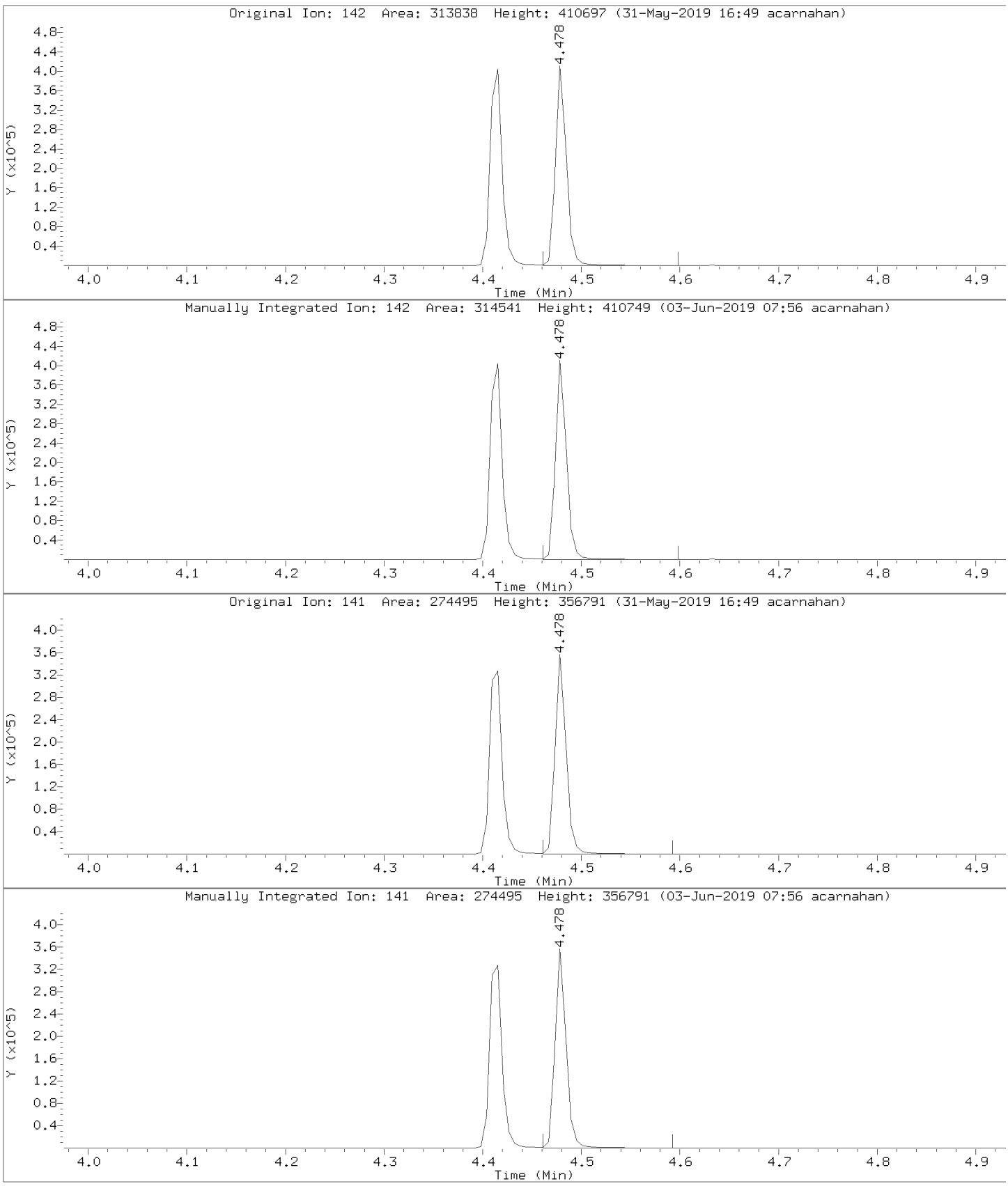
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b/m2053119z7.d
Injection Date: 31-MAY-2019 16:35
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: 1-Methylnaphthalene Review Code: GT
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m2061019s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 10-JUN-2019 14:45
Operator : AJC Inst ID: 30mss2.i
Smp Info : ccv, 89121:1
Misc Info : 14644
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.777	3.777	(1.000)	982855	4.00000		
	8 Naphthalene	128	3.788	3.788	(1.003)	465303	2.00000	2.06	
	9 2-Methylnaphthalene	142	4.228	4.228	(1.119)	336330	2.00000	2.04	
	10 1-Methylnaphthalene	142	4.291	4.291	(1.136)	313201	2.00000	2.02	
$	6 2-Fluorobiphenyl (S)	172	4.451	4.451	(0.907)	399498	2.00000	2.12	
	11 Acenaphthylene	152	4.817	4.817	(0.982)	458643	2.00000	2.12	
*	2 Acenaphthene-d10 (IS)	164	4.906	4.906	(1.000)	539475	4.00000		
	12 Acenaphthene	153	4.929	4.929	(1.005)	290810	2.00000	2.04	
	13 Fluorene	166	5.280	5.280	(1.076)	353915	2.00000	2.12	
*	3 Phenanthrene-d10 (IS)	188	5.978	5.978	(1.000)	961886	4.00000		
	14 Phenanthrene	178	5.996	5.996	(1.003)	504978	2.00000	2.04	
	15 Anthracene	178	6.041	6.041	(1.011)	501005	2.00000	2.16	
	16 Fluoranthene	202	7.002	7.002	(1.171)	585476	2.00000	2.17	
	17 Pyrene	202	7.210	7.210	(1.206)	607551	2.00000	2.17	
$	7 Terphenyl-d14 (S)	244	7.322	7.322	(1.225)	443552	2.00000	2.04	
	18 Benzo(a)anthracene	228	8.321	8.321	(0.999)	557331	2.00000	2.20	
*	4 Chrysene-d12 (IS)	240	8.329	8.329	(1.000)	930735	4.00000		
	19 Chrysene	228	8.353	8.353	(1.003)	547475	2.00000	2.06	
	20 Benzo(b)fluoranthene	252	9.299	9.299	(0.966)	630988	2.00000	2.27	
	21 Benzo(k)fluoranthene	252	9.318	9.318	(0.968)	652584	2.00000	2.12	
	22 Benzo(a)pyrene	252	9.584	9.584	(0.995)	582529	2.00000	2.23	
*	5 Perylene-d12 (IS)	264	9.628	9.628	(1.000)	1026947	4.00000		
	23 Dibenz(a,h)anthracene	278	10.527	10.527	(1.093)	577099	2.00000	2.20	
	24 Indeno(1,2,3-cd)pyrene	276	10.527	10.527	(1.093)	687790	2.00000	2.19	
	25 Benzo[g,h,i]perylene	276	10.777	10.777	(1.119)	602025	2.00000	2.20	

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 10-JUN-2019 14:45
Lab File ID: m2061019s1.d Init. Cal. Date(s): 31-MAY-2019 31-MAY-2019
Analysis Type: Init. Cal. Times: 14:47 16:17
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged	<-
8 Naphthalene	0.91851	0.94684	0.050	3.08445	20.00000	Aver	
9 2-Methylnaphthalene	0.67016	0.68439	0.050	2.12321	20.00000	Aver	
10 1-Methylnaphthalene	0.63232	0.63733	0.050	0.79184	20.00000	Aver	
$ 6 2-Fluorobiphenyl (S)	1.39435	1.48106	0.050	6.21856	20.00000	Aver	
11 Acenaphthylene	1.60292	1.70033	0.050	6.07682	20.00000	Aver	
12 Acenaphthene	1.05863	1.07812	0.050	1.84150	20.00000	Aver	
13 Fluorene	1.23849	1.31207	0.050	5.94123	20.00000	Aver	
14 Phenanthrene	1.02866	1.04997	0.050	2.07206	20.00000	Aver	
15 Anthracene	0.96375	1.04171	0.050	8.08933	20.00000	Aver	
16 Fluoranthene	1.12166	1.21735	0.050	8.53072	20.00000	Aver	
17 Pyrene	1.16423	1.26325	0.050	8.50483	20.00000	Aver	
$ 7 Terphenyl-d14 (S)	0.90346	0.92225	0.050	2.08036	20.00000	Aver	
18 Benzo(a)anthracene	1.08705	1.19761	0.050	10.17122	20.00000	Aver	
19 Chrysene	1.14262	1.17644	0.050	2.95975	20.00000	Aver	
20 Benzo(b)fluoranthene	1.08274	1.22886	0.050	13.49564	20.00000	Aver	
21 Benzo(k)fluoranthene	1.20035	1.27092	0.050	5.87884	20.00000	Aver	
22 Benzo(a)pyrene	1.01802	1.13449	0.050	11.44067	20.00000	Aver	
23 Dibenz(a,h)anthracene	1.01928	1.12391	0.050	10.26501	20.00000	Aver	
24 Indeno(1,2,3-cd)pyrene	1.22311	1.33948	0.050	9.51450	20.00000	Aver	
25 Benzo[g,h,i]perylene	1.06468	1.17246	0.050	10.12293	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 6.46017
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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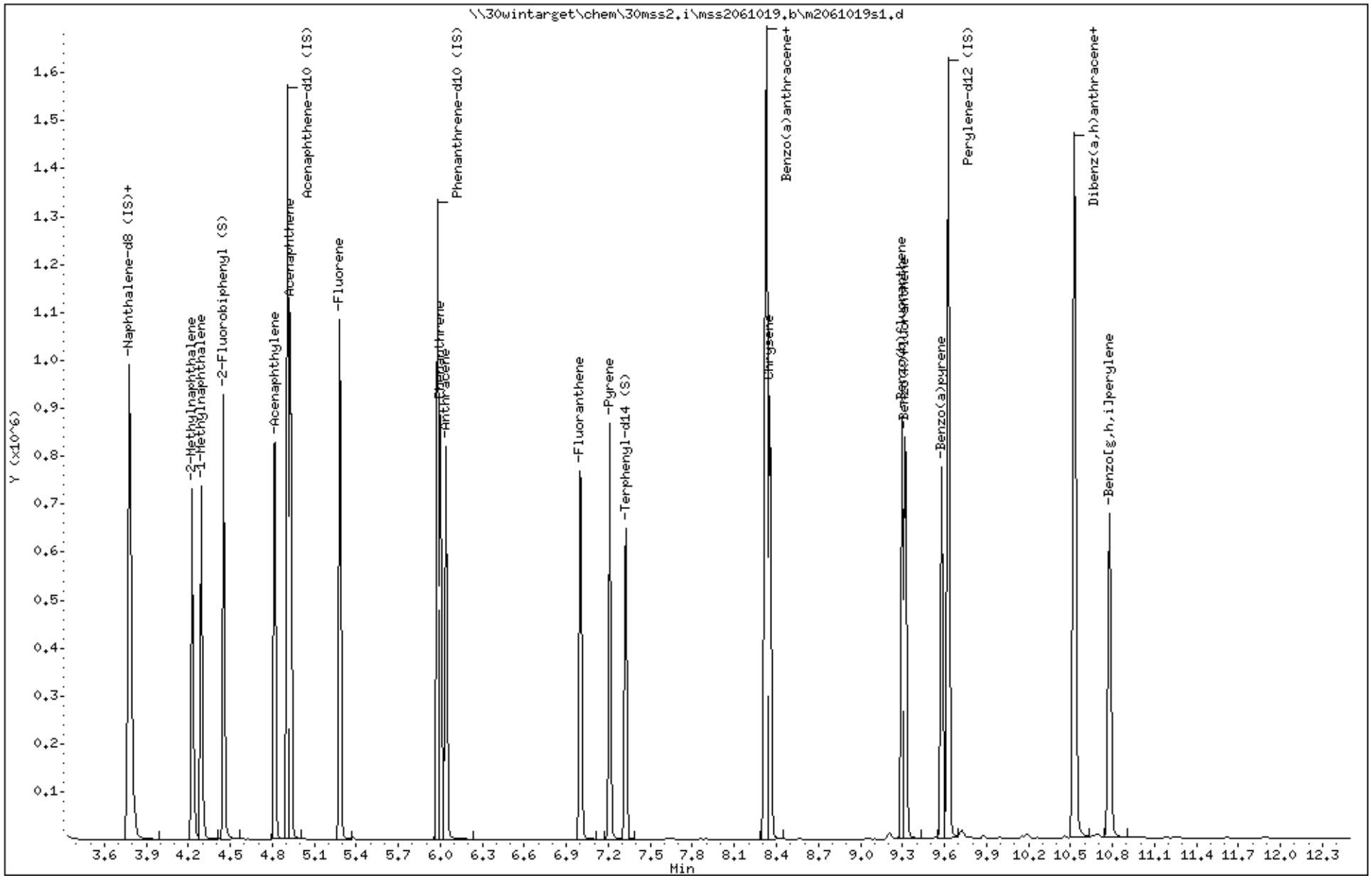
Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m2061019s1.d
Date : 10-JUN-2019 14:45
Client ID: CCV
Sample Info: CCV, 89121:1

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS



Data File: \\30wintarget\chem\30mss2.i\mss2061019.b/m2061019s1.d
Injection Date: 10-JUN-2019 14:45
Instrument: 30mss2.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119t1.d

Date : 31-MAY-2019 13:59

Client ID: TUNE

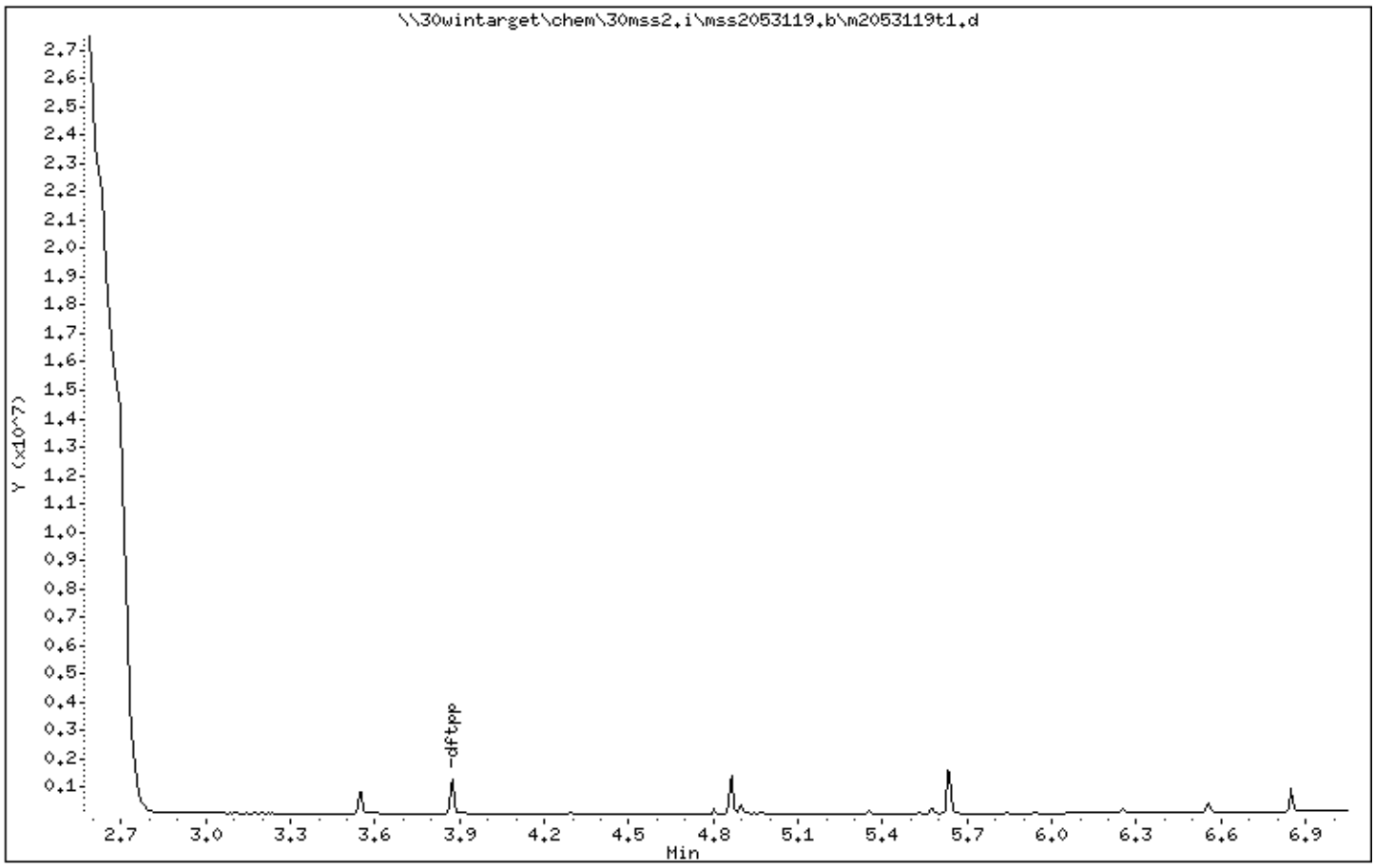
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2053119.b\m2053119t1.d

Date : 31-MAY-2019 13:59

Client ID: TUNE

Instrument: 30mss2.i

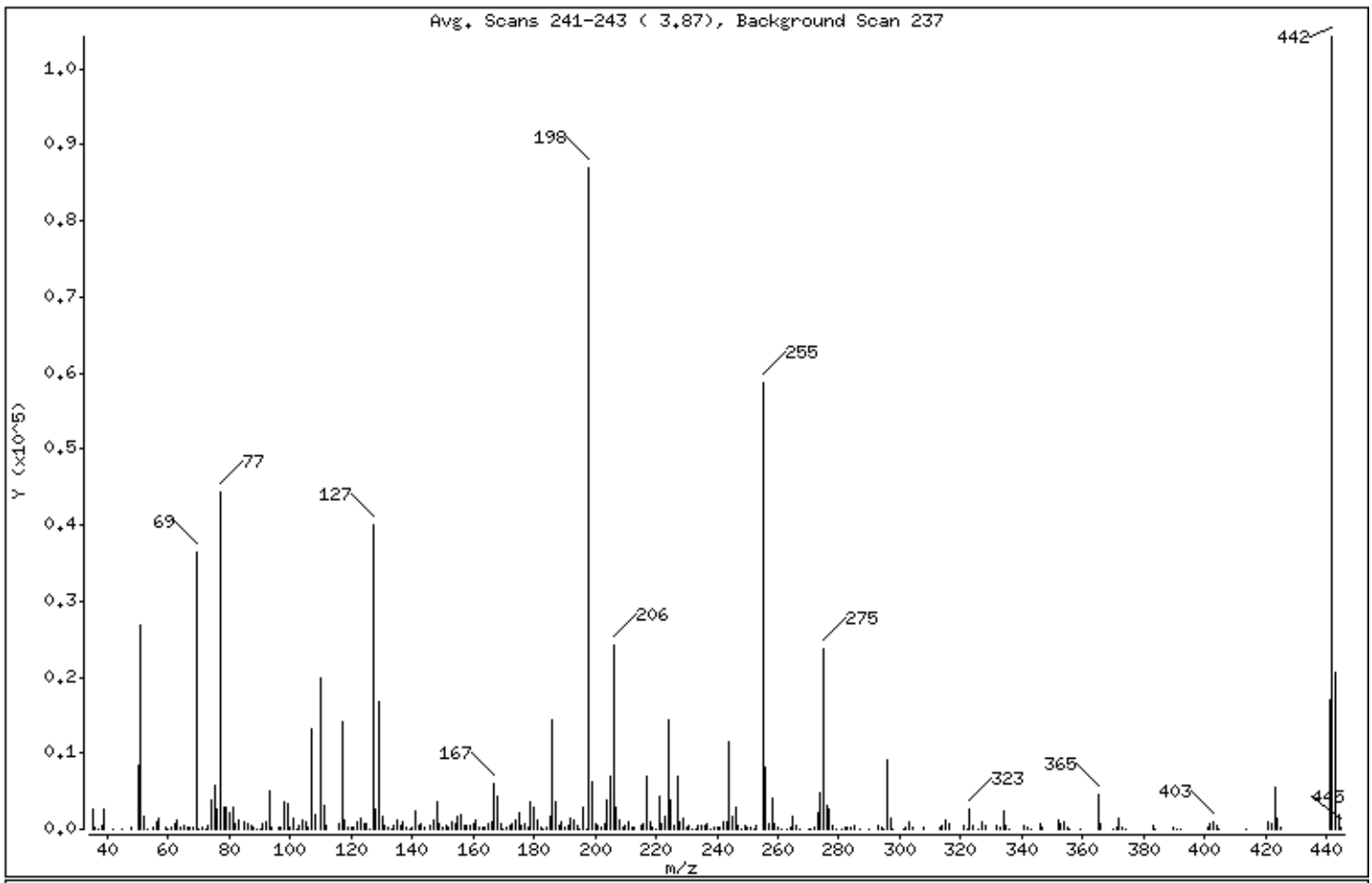
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	30.84
68	Less than 2.00% of mass 69	0.25 (0.60)
69	Mass 69 relative abundance	41.95
70	Less than 2.00% of mass 69	0.05 (0.11)
127	10.00 - 80.00% of mass 198	46.04
197	Less than 2.00% of mass 198	0.13
199	5.00 - 9.00% of mass 198	7.08
275	10.00 - 60.00% of mass 198	27.22
365	Greater than 1.00% of mass 198	5.28
441	Present, but less than mass 443	19.44
442	50.00 - 110.00% of mass 198	119.76 *
443	15.00 - 24.00% of mass 442	23.79 (19.86)

Date : 31-MAY-2019 13:59

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2053119t1.d
Spectrum: Avg. Scans 241-243 (3.87), Background Scan 237
Location of Maximum: 442.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	2530	125.00	639	201.00	590	282.00	247
36.00	134	126.00	112	202.00	159	283.00	252
37.00	102	127.00	40056	203.00	836	284.00	350
38.00	504	128.00	2670	204.00	3789	285.00	521
39.00	2577	129.00	16664	205.00	6827	287.00	66
42.00	104	130.00	1788	206.00	24208	290.00	63
45.00	31	131.00	478	207.00	2929	293.00	593
48.00	271	132.00	130	208.00	1169	294.00	320
50.00	8435	133.00	11	209.00	175	295.00	65
51.00	26832	134.00	369	210.00	397	296.00	9131
52.00	1710	135.00	1207	211.00	1051	297.00	1415
53.00	81	136.00	598	212.00	202	298.00	66
55.00	249	137.00	904	213.00	151	301.00	71
56.00	898	138.00	124	215.00	437	302.00	146
57.00	1462	139.00	84	216.00	806	303.00	887
59.00	237	140.00	275	217.00	6982	304.00	347
60.00	77	141.00	2440	218.00	1012	308.00	171
61.00	181	142.00	531	219.00	227	313.00	142
62.00	751	143.00	777	220.00	66	314.00	501
63.00	1243	144.00	196	221.00	4361	315.00	1099
64.00	326	146.00	492	222.00	618	316.00	600
65.00	594	147.00	1282	223.00	1776	321.00	387
66.00	168	148.00	3491	224.00	14326	322.00	57
67.00	140	149.00	793	225.00	3888	323.00	2639
68.00	219	150.00	210	226.00	548	324.00	554
69.00	36504	151.00	403	227.00	6887	326.00	66
70.00	41	152.00	182	228.00	1061	327.00	858
71.00	127	153.00	858	229.00	1368	328.00	387
72.00	112	154.00	608	230.00	333	332.00	379
73.00	375	155.00	1585	231.00	433	333.00	313
74.00	3829	156.00	1974	232.00	77	334.00	2416
75.00	5703	157.00	555	233.00	68	335.00	497
76.00	2658	158.00	575	234.00	501	336.00	52
77.00	44296	159.00	439	235.00	519	341.00	414
78.00	2808	160.00	768	236.00	386	342.00	208

Date : 31-MAY-2019 13:59

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2053119t1.d
Spectrum: Avg. Scans 241-243 (3.87), Background Scan 237
Location of Maximum: 442.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	2760	161.00	1170	237.00	736	343.00	57
80.00	2148	162.00	250	238.00	50	346.00	788
81.00	2971	163.00	179	239.00	324	347.00	163
82.00	641	164.00	283	240.00	305	352.00	1094
83.00	1133	165.00	731	241.00	354	353.00	720
85.00	1010	166.00	884	242.00	939	354.00	846
86.00	767	167.00	5903	243.00	1000	355.00	355
87.00	411	168.00	4370	244.00	11611	356.00	59
88.00	145	169.00	658	245.00	1622	359.00	107
89.00	108	170.00	53	246.00	2783	365.00	4595
90.00	53	171.00	261	247.00	533	366.00	606
91.00	692	172.00	415	248.00	66	370.00	104
92.00	849	173.00	698	249.00	456	371.00	214
93.00	5002	174.00	1141	250.00	157	372.00	1496
94.00	319	175.00	2207	251.00	200	373.00	347
96.00	226	176.00	539	252.00	108	374.00	57
97.00	150	177.00	717	253.00	495	383.00	512
98.00	3702	178.00	351	255.00	58776	384.00	77
99.00	3311	179.00	3625	256.00	8210	390.00	245
100.00	296	180.00	2775	257.00	814	391.00	52
101.00	1523	181.00	1169	258.00	4036	392.00	55
102.00	116	182.00	271	259.00	627	401.00	223
103.00	583	183.00	71	260.00	217	402.00	791
104.00	1130	184.00	352	261.00	54	403.00	890
105.00	1032	185.00	1574	263.00	76	404.00	485
106.00	281	186.00	14375	264.00	196	405.00	58
107.00	13109	187.00	3546	265.00	1785	414.00	60
108.00	1852	188.00	430	266.00	482	421.00	967
110.00	19792	189.00	966	267.00	112	422.00	791
111.00	3144	190.00	217	270.00	73	423.00	5438
112.00	517	191.00	386	271.00	84	424.00	1477
116.00	639	192.00	1355	272.00	181	425.00	211
117.00	14161	193.00	1171	273.00	2135	441.00	16912
118.00	1249	194.00	382	274.00	4874	442.00	104200
119.00	167	195.00	99	275.00	23680	443.00	20696

Date : 31-MAY-2019 13:59

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2053119t1.d
Spectrum: Avg. Scans 241-243 (3.87), Background Scan 237
Location of Maximum: 442.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	179	196.00	2952	276.00	3215	444.00	1926
121.00	270	197.00	117	277.00	2646	445.00	151
122.00	854	198.00	87008	278.00	569		
123.00	1463	199.00	6160	279.00	62		
124.00	639	200.00	669	281.00	59		

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m2061019t1.d

Date : 10-JUN-2019 14:31

Client ID: TUNE

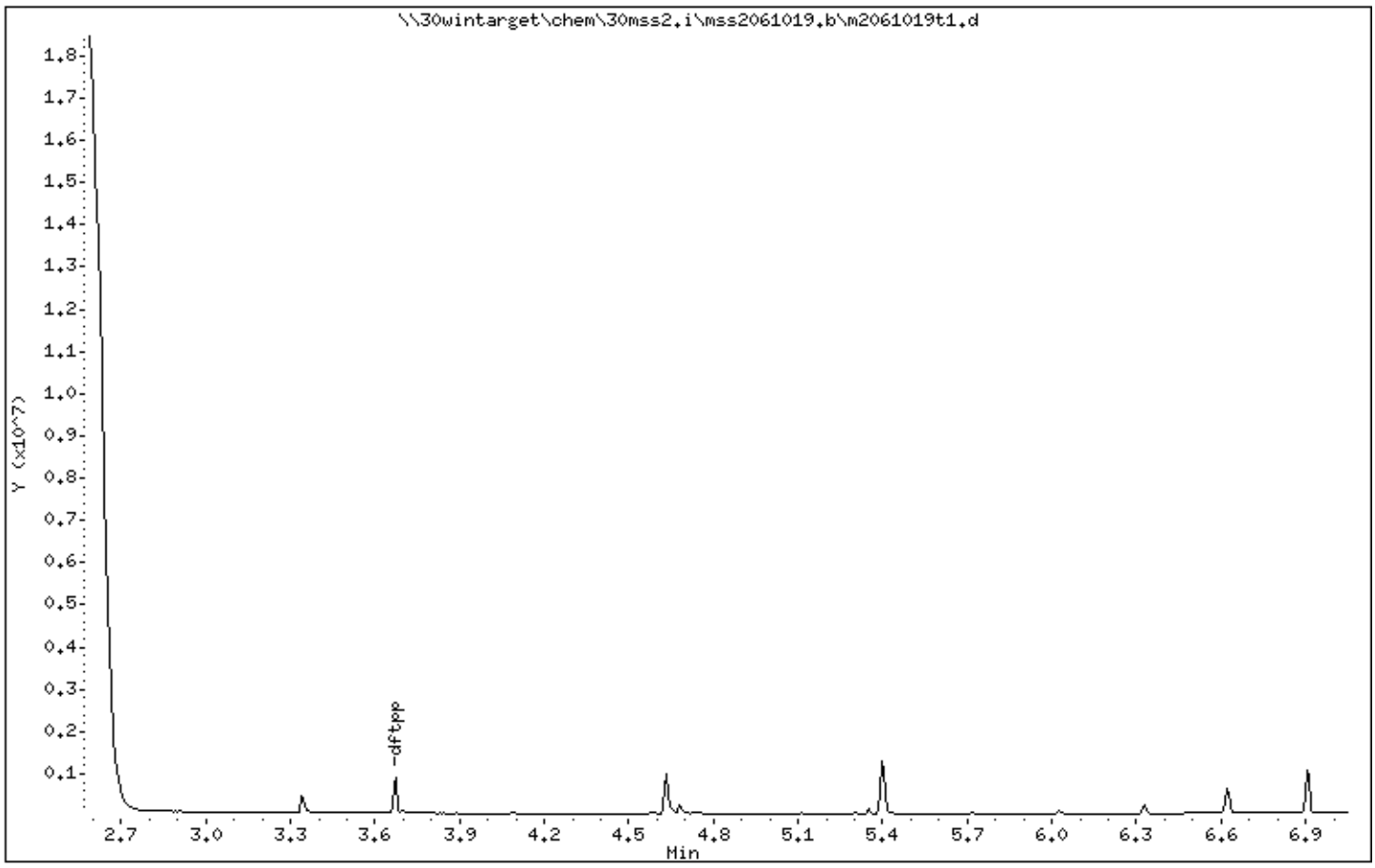
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m2061019t1.d

Date : 10-JUN-2019 14:31

Client ID: TUNE

Instrument: 30mss2.i

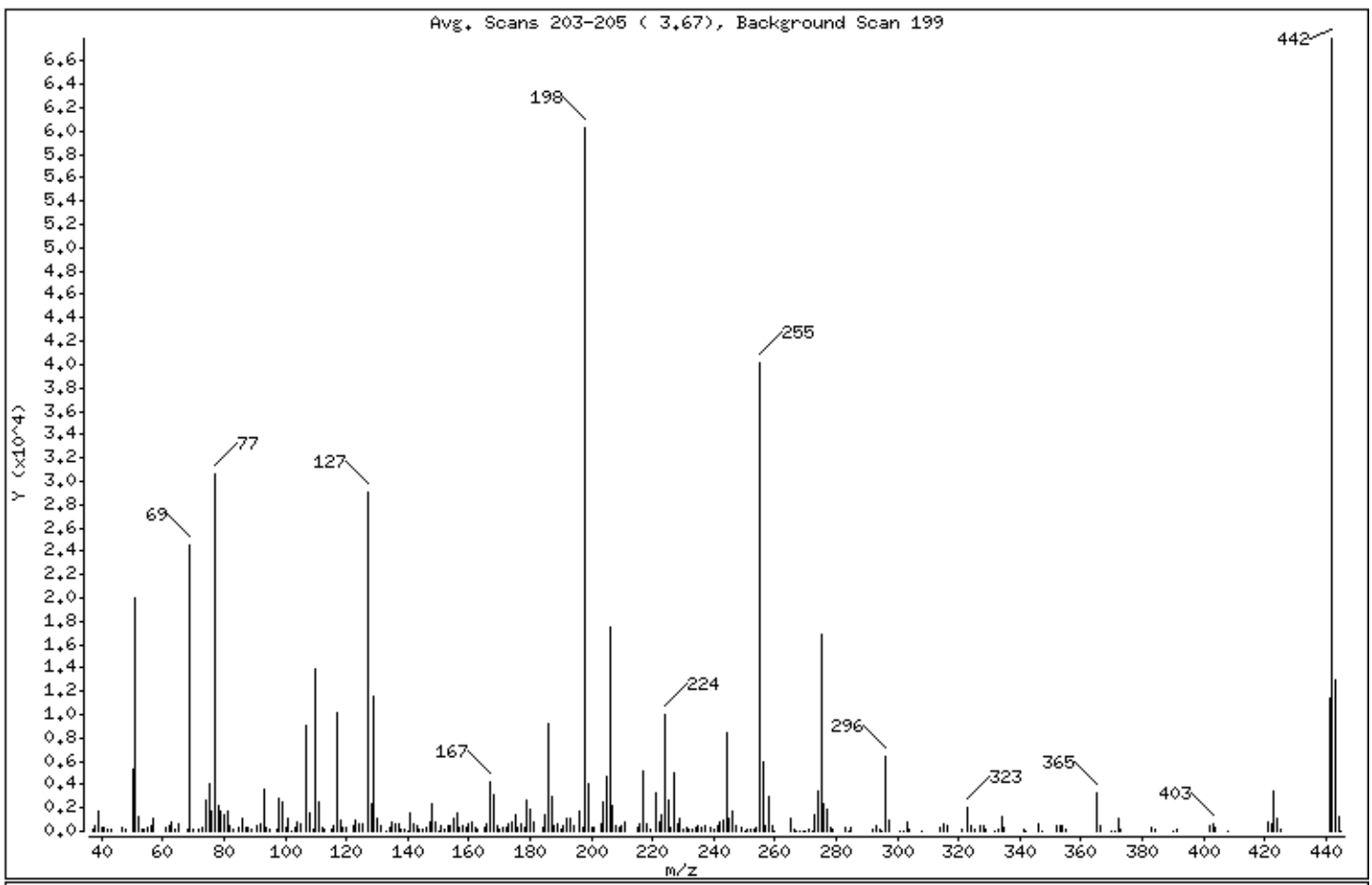
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.21
68	Less than 2.00% of mass 69	0.30 (0.73)
69	Mass 69 relative abundance	40.58
70	Less than 2.00% of mass 69	0.35 (0.85)
127	10.00 - 80.00% of mass 198	48.21
197	Less than 2.00% of mass 198	0.41
199	5.00 - 9.00% of mass 198	6.76
275	10.00 - 60.00% of mass 198	28.01
365	Greater than 1.00% of mass 198	5.42
441	Present, but less than mass 443	18.94
442	50.00 - 110.00% of mass 198	112.73 *
443	15.00 - 24.00% of mass 442	21.57 (19.14)

Date : 10-JUN-2019 14:31

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061019t1.d
Spectrum: Avg. Scans 203-205 (3.67), Background Scan 199
Location of Maximum: 442.00
Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	81	120.00	239	194.00	471	274.00	3458
38.00	424	122.00	526	196.00	1754	275.00	16880
39.00	1680	123.00	959	197.00	250	276.00	2316
40.00	237	124.00	681	198.00	60272	277.00	1831
41.00	285	125.00	565	199.00	4077	278.00	311
42.00	93	127.00	29056	200.00	372	279.00	126
43.00	79	128.00	2406	201.00	259	283.00	290
47.00	235	129.00	11609	203.00	604	284.00	50
48.00	151	130.00	1079	204.00	2462	285.00	372
50.00	5387	131.00	416	205.00	4719	292.00	96
51.00	20016	133.00	68	206.00	17488	293.00	463
52.00	1198	134.00	285	207.00	2264	294.00	85
53.00	150	135.00	744	208.00	536	295.00	66
54.00	123	136.00	578	209.00	274	296.00	6451
55.00	282	137.00	689	210.00	431	297.00	932
56.00	503	138.00	140	211.00	731	301.00	51
57.00	1081	139.00	135	215.00	278	302.00	72
61.00	260	140.00	54	216.00	556	303.00	792
62.00	465	141.00	1538	217.00	5081	304.00	141
63.00	855	142.00	650	218.00	625	308.00	51
64.00	222	143.00	426	219.00	112	314.00	347
65.00	565	144.00	183	221.00	3248	315.00	686
68.00	179	145.00	97	222.00	736	316.00	405
69.00	24456	146.00	381	223.00	1328	321.00	162
70.00	209	147.00	721	224.00	9972	323.00	1969
72.00	104	148.00	2358	225.00	2683	324.00	466
73.00	268	149.00	816	226.00	376	325.00	128
74.00	2733	150.00	68	227.00	5035	327.00	407
75.00	4064	151.00	413	228.00	699	328.00	472
76.00	1710	152.00	214	229.00	1121	329.00	87
77.00	30584	153.00	536	230.00	154	332.00	77
78.00	2158	154.00	457	231.00	361	333.00	175
79.00	1782	155.00	1071	232.00	117	334.00	1194
80.00	1426	156.00	1544	233.00	79	335.00	383
81.00	1787	157.00	348	234.00	238	341.00	227

Date : 10-JUN-2019 14:31

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061019t1.d
Spectrum: Avg. Scans 203-205 (3.67), Background Scan 199
Location of Maximum: 442.00
Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	530	158.00	451	235.00	403	342.00	77
83.00	119	159.00	390	236.00	284	346.00	625
85.00	322	160.00	598	237.00	533	347.00	50
86.00	1070	161.00	765	239.00	289	352.00	527
87.00	242	162.00	350	240.00	134	353.00	472
88.00	307	163.00	125	241.00	398	354.00	543
89.00	171	165.00	297	242.00	807	355.00	173
91.00	431	166.00	602	243.00	872	365.00	3264
92.00	586	167.00	4295	244.00	8423	366.00	461
93.00	3526	168.00	3086	245.00	1047	370.00	66
94.00	324	169.00	398	246.00	1701	371.00	75
95.00	85	170.00	171	247.00	400	372.00	1036
97.00	87	171.00	236	249.00	280	373.00	181
98.00	2880	172.00	342	250.00	76	383.00	344
99.00	2482	173.00	595	251.00	123	384.00	105
100.00	237	174.00	809	252.00	102	390.00	65
101.00	1140	175.00	1479	253.00	189	391.00	154
102.00	72	176.00	343	254.00	242	402.00	544
103.00	347	177.00	607	255.00	40160	403.00	647
104.00	741	178.00	291	256.00	5904	404.00	258
105.00	589	179.00	2658	257.00	512	408.00	57
107.00	9122	180.00	1859	258.00	2928	421.00	704
108.00	1491	181.00	763	259.00	529	422.00	659
109.00	220	184.00	269	260.00	75	423.00	3415
110.00	13957	185.00	1472	265.00	1035	424.00	1144
111.00	2432	186.00	9157	266.00	189	425.00	110
112.00	251	187.00	2897	267.00	59	441.00	11415
113.00	165	188.00	450	268.00	65	442.00	67944
115.00	105	189.00	672	269.00	58	443.00	13002
116.00	512	190.00	98	270.00	51	444.00	1298
117.00	10139	191.00	437	271.00	124	445.00	53
118.00	922	192.00	1127	272.00	67		
119.00	271	193.00	1153	273.00	1381		

SAMPLE NO.

BLANK

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 1685236
Date Analyzed: 06/10/2019 15:05
Lab File ID: MSS2061019.B\M206101901.D
Initial wt/vol: 15.3 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	ND	U
129-00-0	Pyrene	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d
Lab Smp Id: 1685236 Client Smp ID: MB
Inj Date : 10-JUN-2019 15:05
Operator : AJC Inst ID: 30mss2.i
Smp Info : 1685236,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
27	Quinoline	100	Compound Not Detected.						
* 1	Naphthalene-d8 (IS)	136	3.777	3.777	(1.000)	892860	4.00000		
8	Naphthalene	128	Compound Not Detected.						
9	2-Methylnaphthalene	142	4.228	4.228	(1.119)	427	0.00285	0.186	
10	1-Methylnaphthalene	142	4.291	4.291	(1.136)	520	0.00368	0.241(Q)	
$ 6	2-Fluorobiphenyl (S)	172	4.451	4.451	(0.907)	695630	3.98076	260	
11	Acenaphthylene	152	Compound Not Detected.						(D)
* 2	Acenaphthene-d10 (IS)	164	4.906	4.906	(1.000)	501302	4.00000		
12	Acenaphthene	153	Compound Not Detected.						
13	Fluorene	166	Compound Not Detected.						(D)
* 3	Phenanthrene-d10 (IS)	188	5.978	5.978	(1.000)	894426	4.00000		
14	Phenanthrene	178	5.996	5.996	(1.003)	1398	0.00608	0.397	
15	Anthracene	178	6.041	6.041	(1.011)	366	0.00170	0.111(Q)	
16	Fluoranthene	202	Compound Not Detected.						(D)
17	Pyrene	202	7.210	7.210	(1.206)	1204	0.00462	0.302(Q)	
$ 7	Terphenyl-d14 (S)	244	7.322	7.322	(1.225)	857318	4.24374	277	
18	Benzo(a)anthracene	228	Compound Not Detected.						(D)
* 4	Chrysene-d12 (IS)	240	8.329	8.329	(1.000)	880362	4.00000		
19	Chrysene	228	8.350	8.353	(1.002)	778	0.00309	0.202	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.299	9.299	(0.966)	1093	0.00426	0.278(Q)	
21 Benzo(k)fluoranthene	252	9.318	9.318	(0.968)	991	0.00348	0.228(Q)	
22 Benzo(a)pyrene	252	9.579	9.584	(0.995)	899	0.00373	0.244(Q)	
* 5 Perylene-d12 (IS)	264	9.623	9.628	(1.000)	947645	4.00000		
23 Dibenz(a,h)anthracene	278	10.527	10.527	(1.094)	381	0.00158	0.103	
24 Indeno(1,2,3-cd)pyrene	276	10.522	10.527	(1.093)	646	0.00223	0.146(Q)	
25 Benzo[g,h,i]perylene	276	10.777	10.777	(1.120)	717	0.00284	0.186(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Pace Analytical Services, Inc.

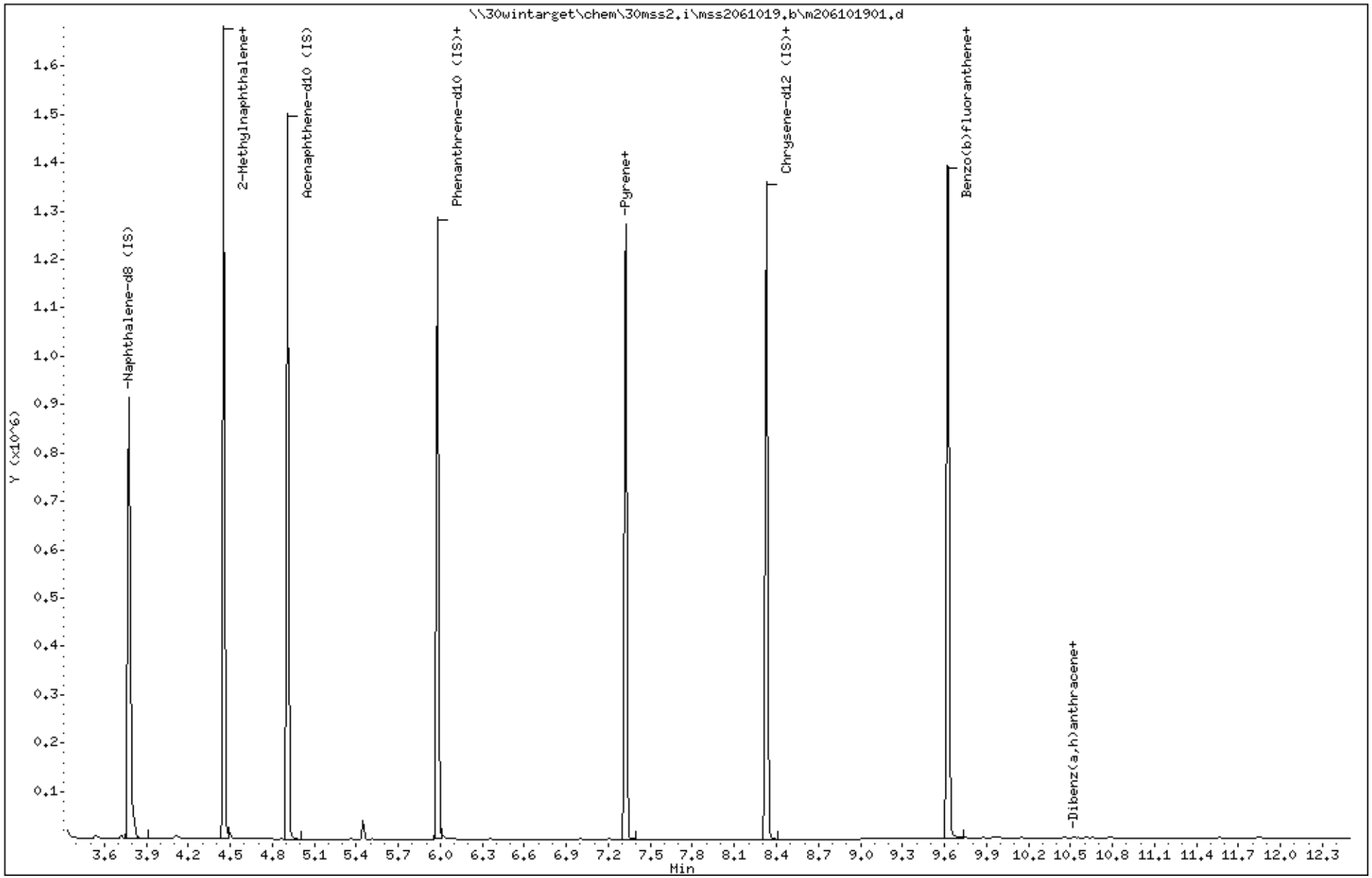
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1685236
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14682,

Client SDG: mss2061019.b
Client Smp ID: MB
Sample Point:
Date Received: 10-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00980	U
91-20-3	Naphthalene	0.00980	U
91-57-6	2-Methylnaphthalene	0.186	
90-12-0	1-Methylnaphthalene	0.241	
208-96-8	Acenaphthylene	0.00980	U
83-32-9	Acenaphthene	0.00980	U
86-73-7	Fluorene	0.00980	U
85-01-8	Phenanthrene	0.397	
120-12-7	Anthracene	0.111	
206-44-0	Fluoranthene	0.00980	U
129-00-0	Pyrene	0.302	
56-55-3	Benzo(a)anthracene	0.00980	U
218-01-9	Chrysene	0.202	
205-99-2	Benzo(b)fluoranthene	0.278	
207-08-9	Benzo(k)fluoranthene	0.228	
50-32-8	Benzo(a)pyrene	0.244	
53-70-3	Dibenz(a,h)anthracene	0.103	
193-39-5	Indeno(1,2,3-cd)pyrene	0.146	
191-24-2	Benzo[g,h,i]perylene	0.186	
321-60-8	2-Fluorobiphenyl (S)	260	
1718-51-0	Terphenyl-d14 (S)	277	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d
Date : 10-JUN-2019 15:05
Client ID: MB
Instrument: 30mss2.i
Sample Info: 1685236,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

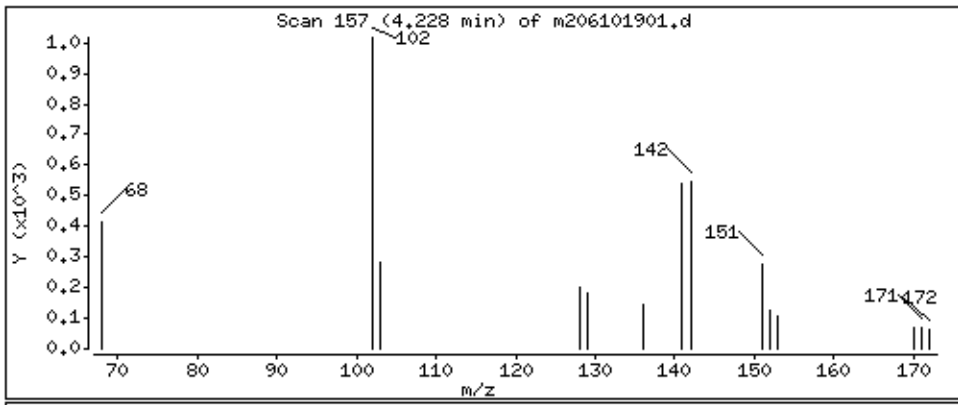
Operator: AJC

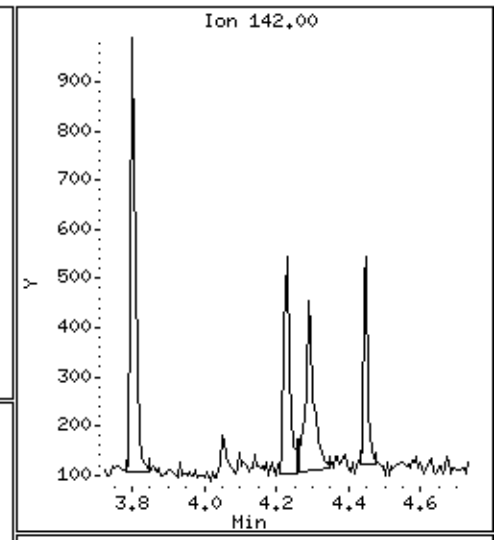
Column phase: RTX-5MS

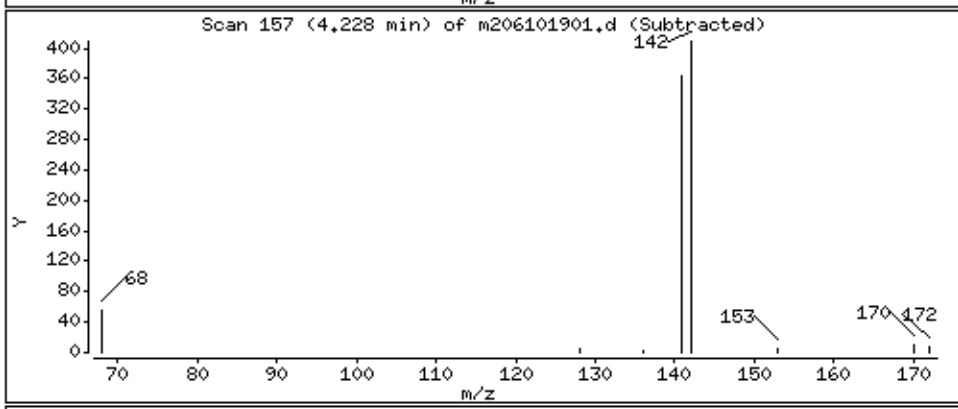
Column diameter: 0.25

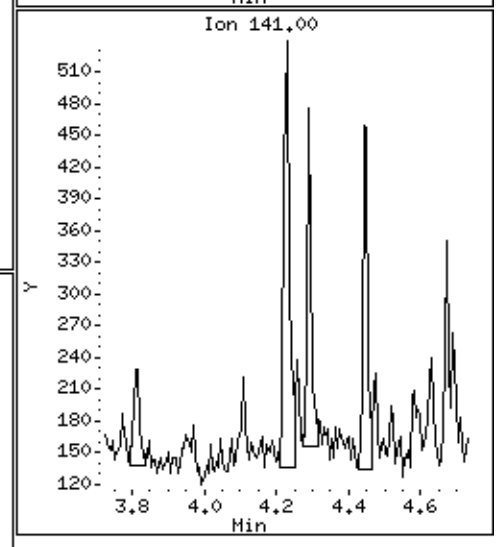
9 2-Methylnaphthalene

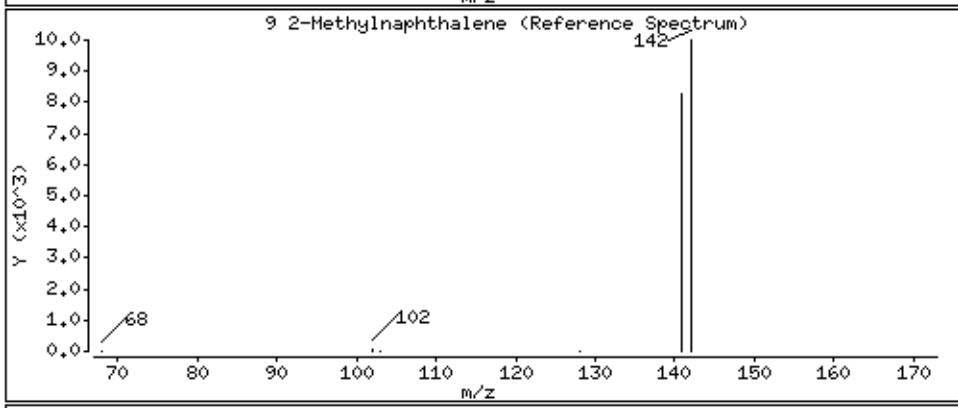
Concentration: 0.186 ug/Kg

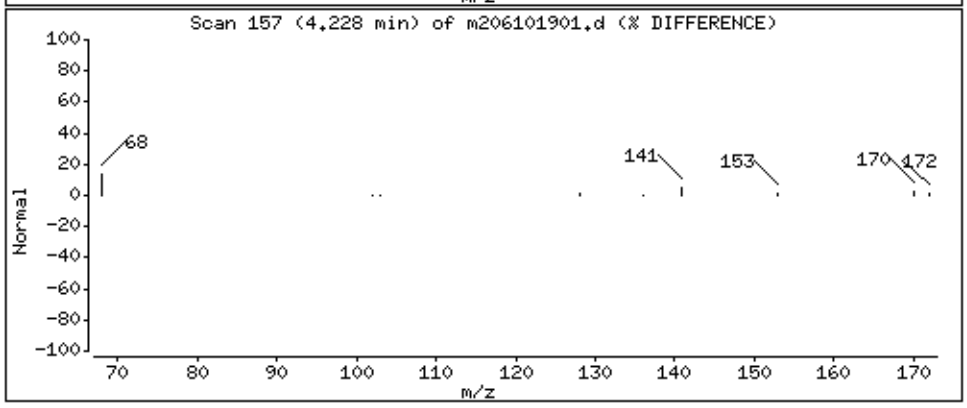












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

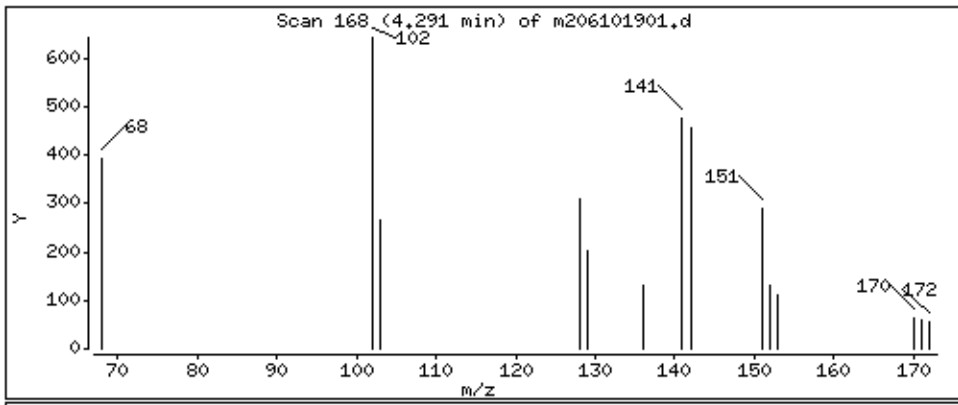
Operator: AJC

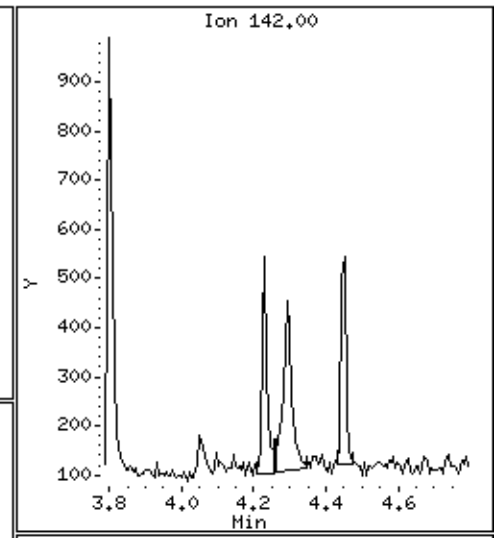
Column phase: RTX-5MS

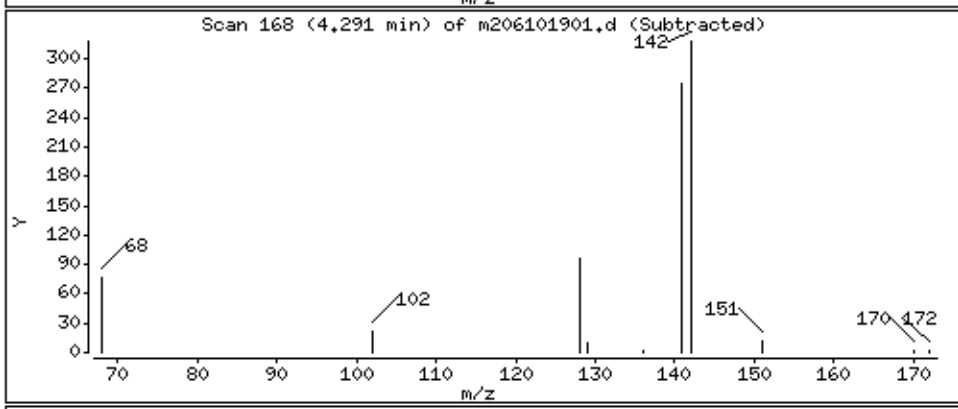
Column diameter: 0.25

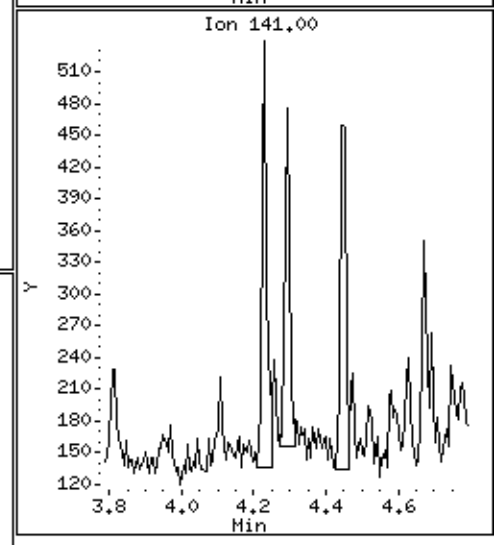
10 1-Methylnaphthalene

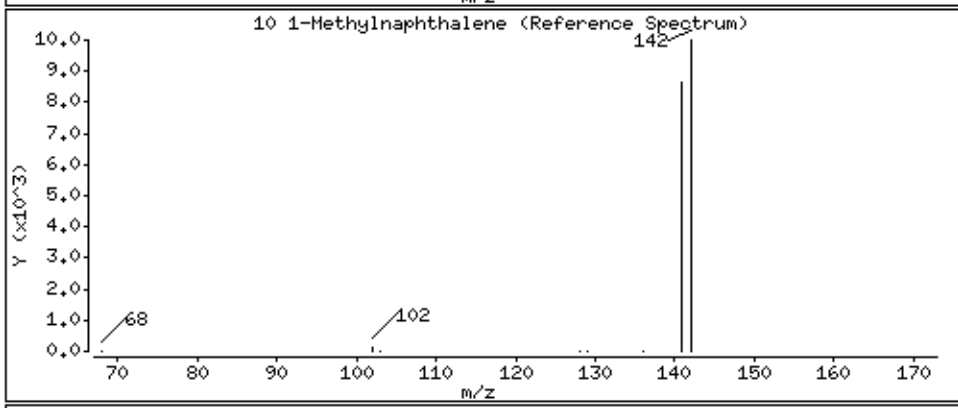
Concentration: 0.241 ug/Kg

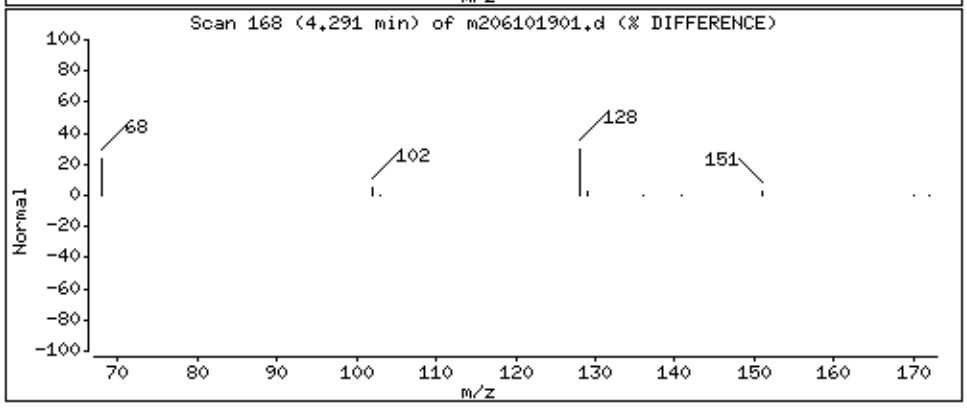












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

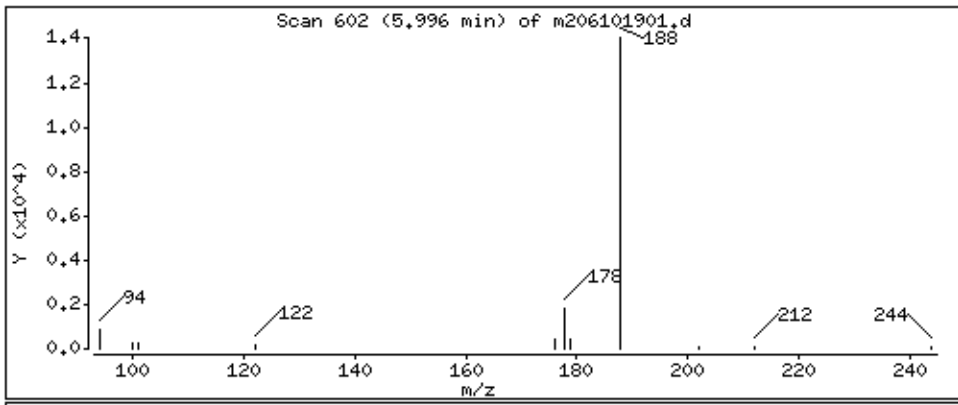
Operator: AJC

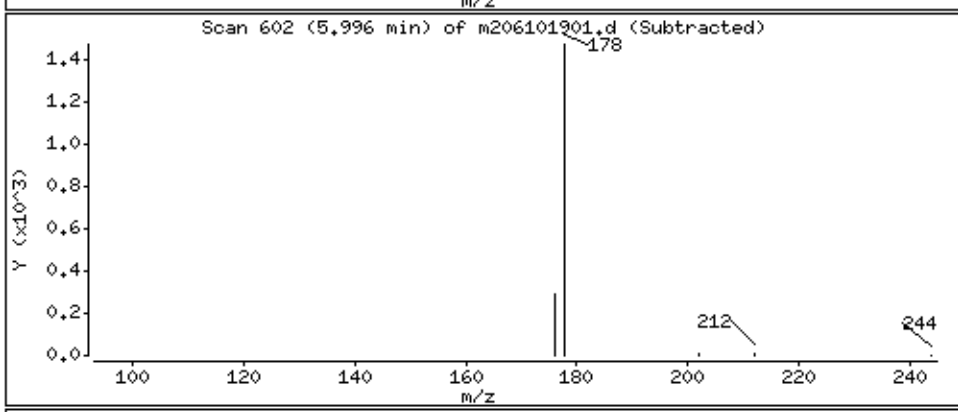
Column phase: RTX-5MS

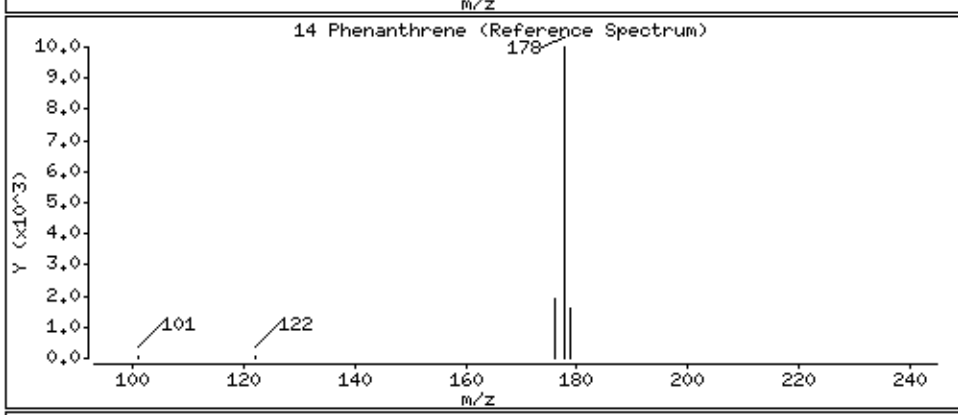
Column diameter: 0.25

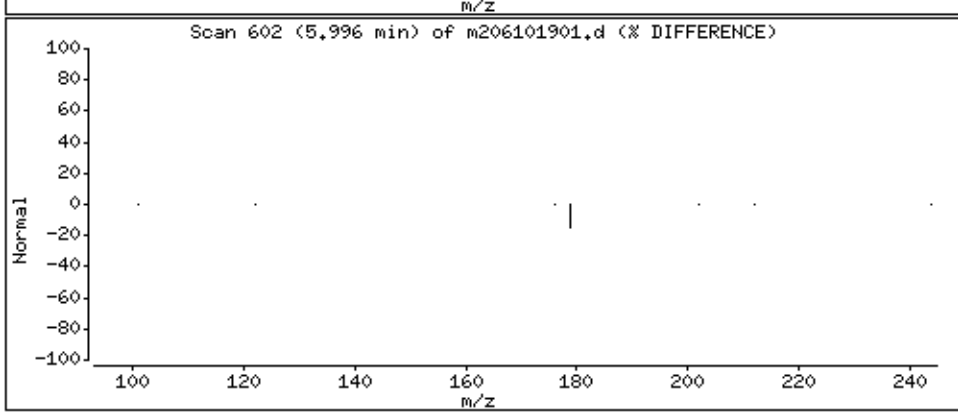
14 Phenanthrene

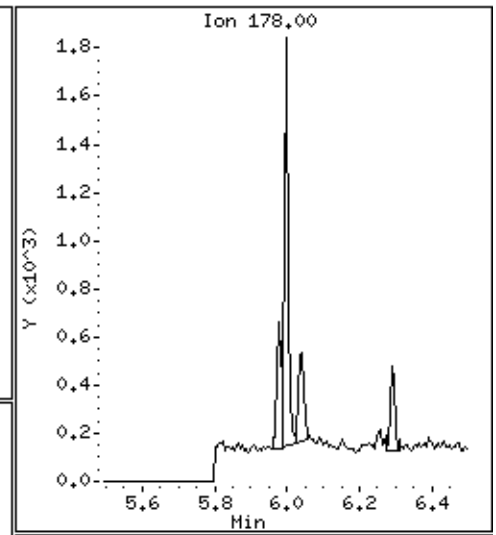
Concentration: 0.397 ug/Kg

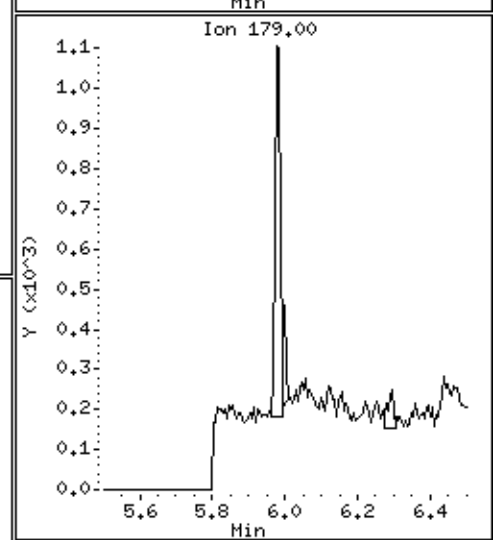


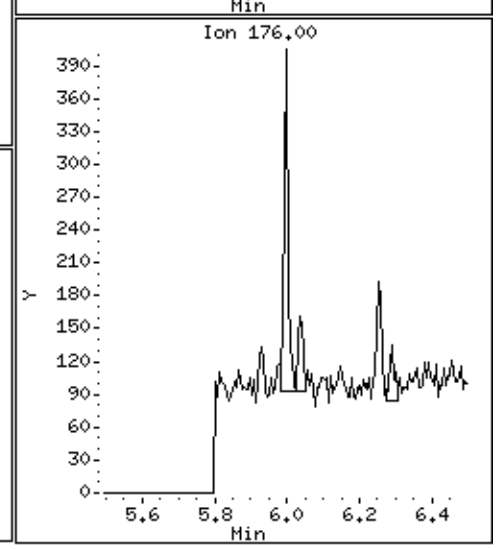












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d

Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

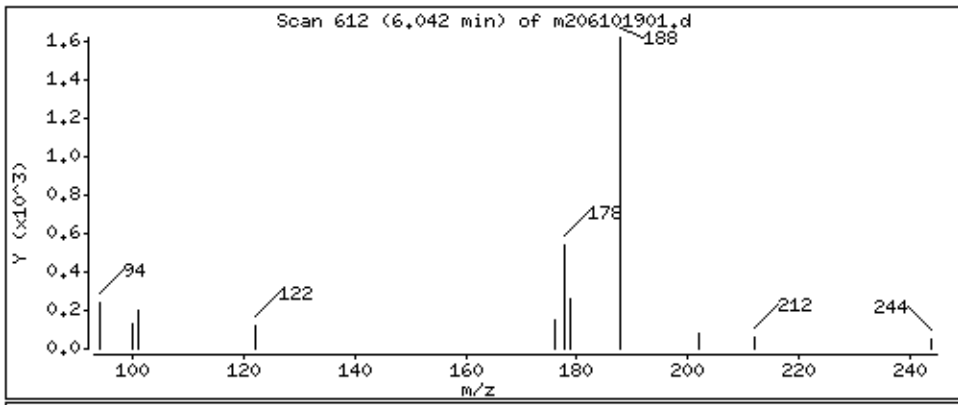
Operator: AJC

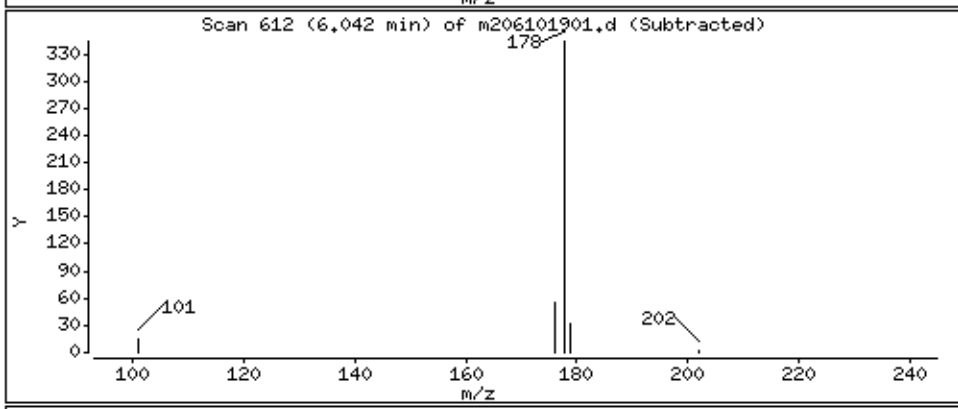
Column phase: RTX-5MS

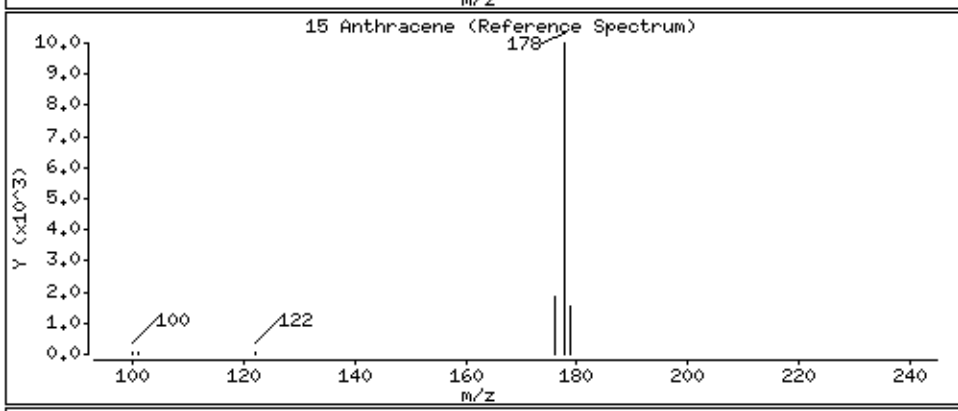
Column diameter: 0.25

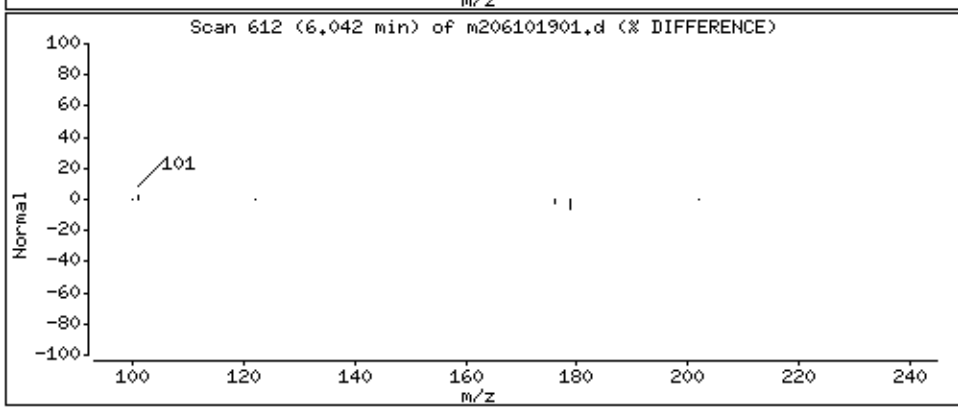
15 Anthracene

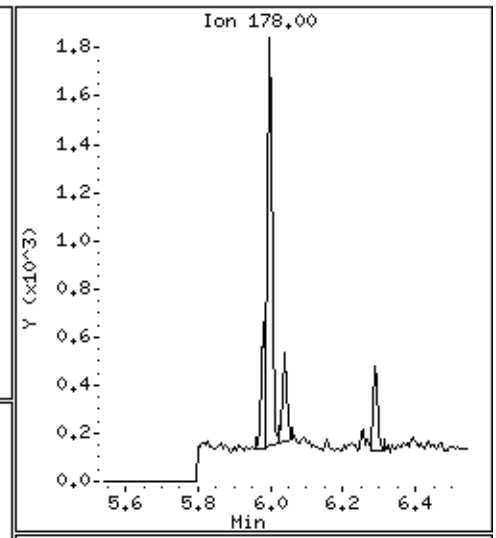
Concentration: 0.111 ug/Kg

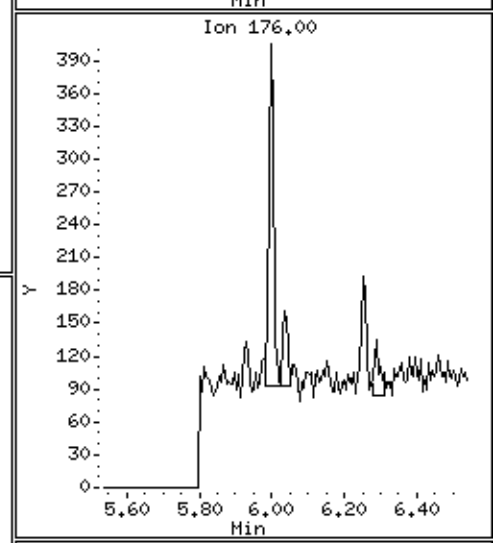


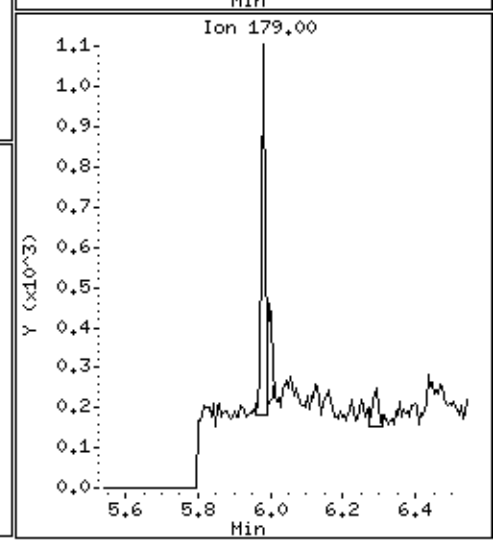












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d

Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

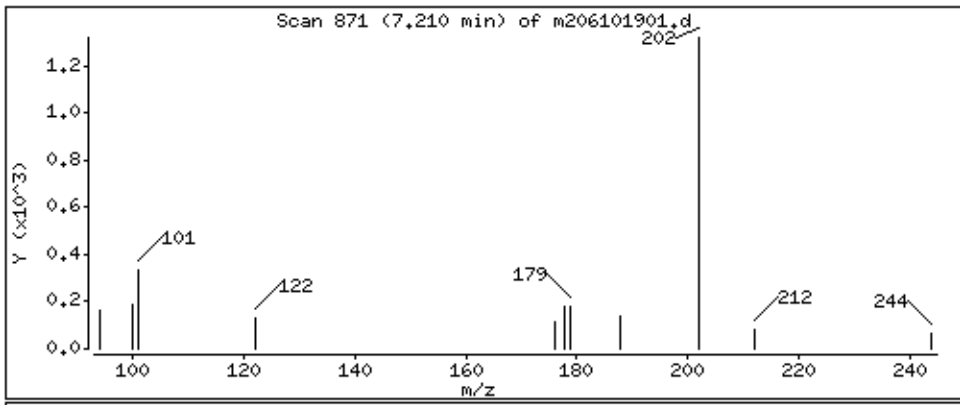
Operator: AJC

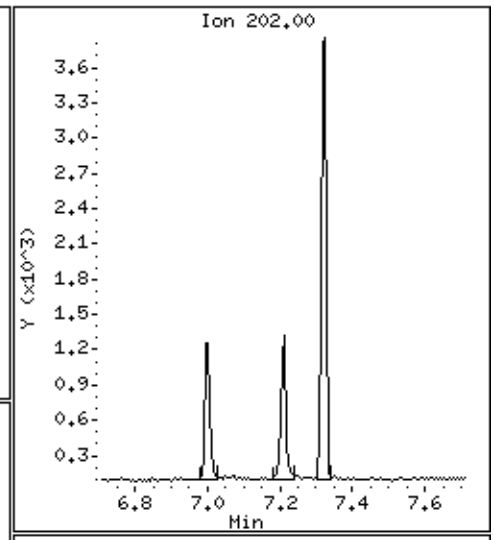
Column phase: RTX-5MS

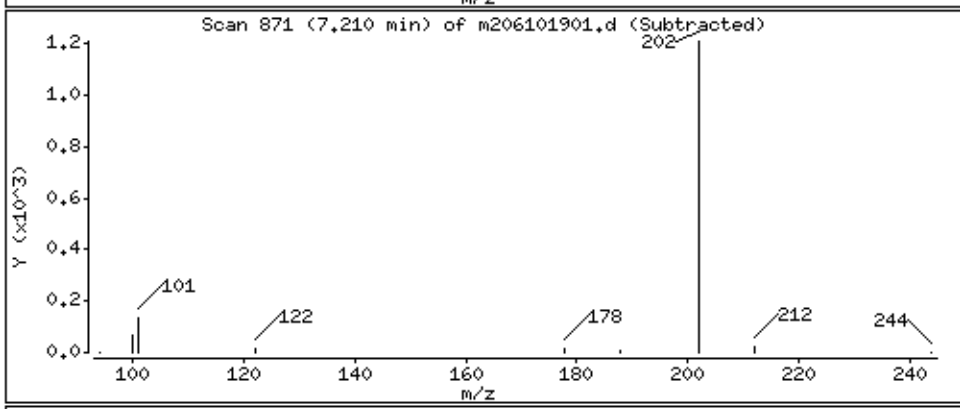
Column diameter: 0.25

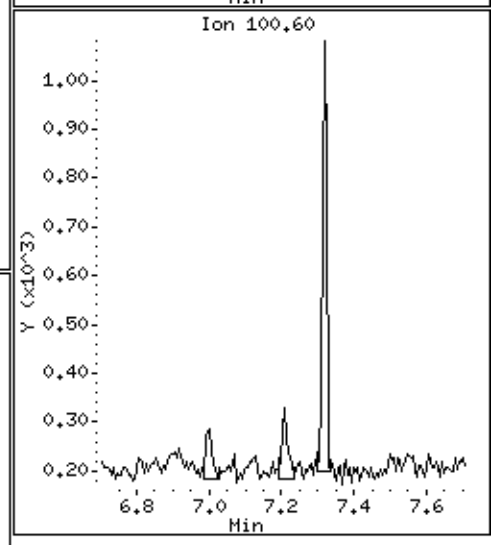
17 Pyrene

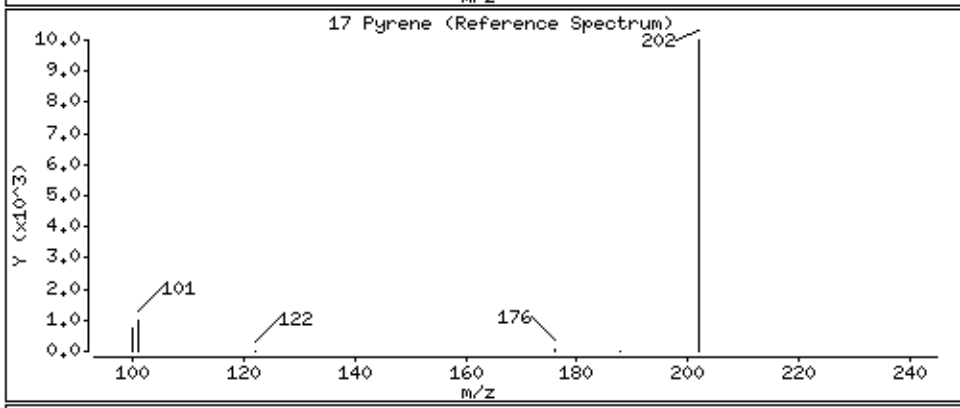
Concentration: 0.302 ug/Kg

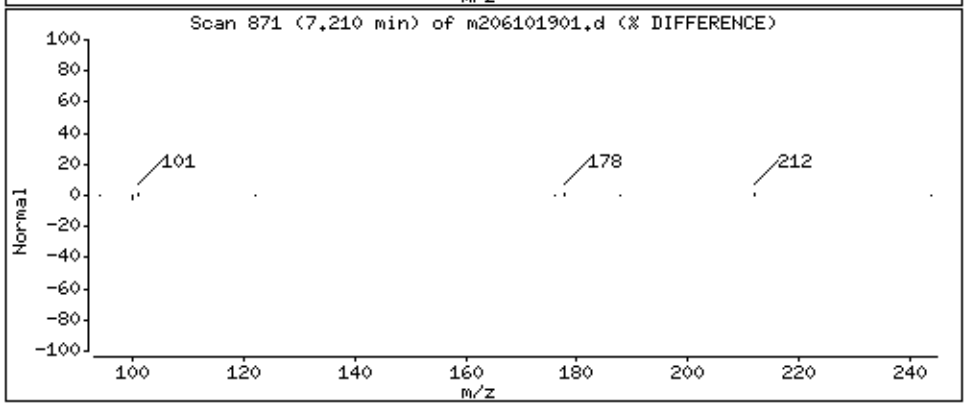












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d

Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

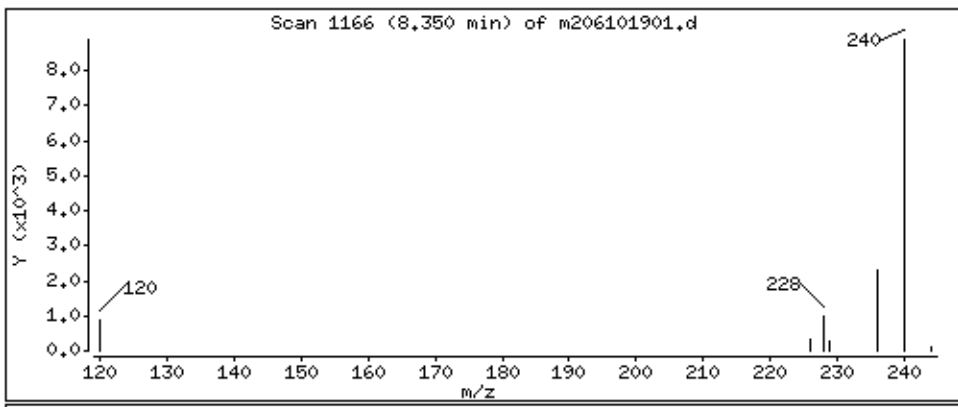
Operator: AJC

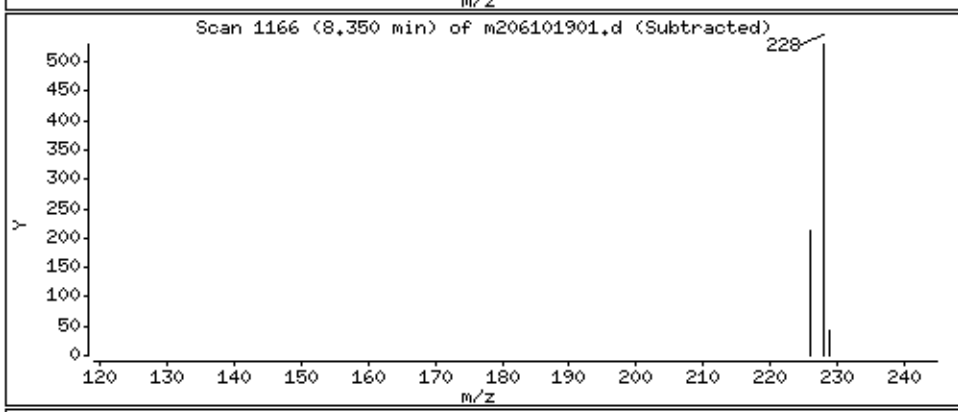
Column phase: RTX-5MS

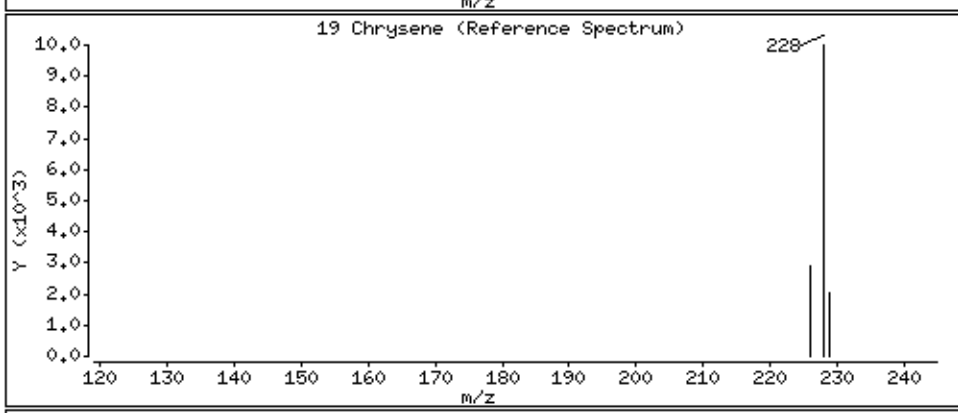
Column diameter: 0.25

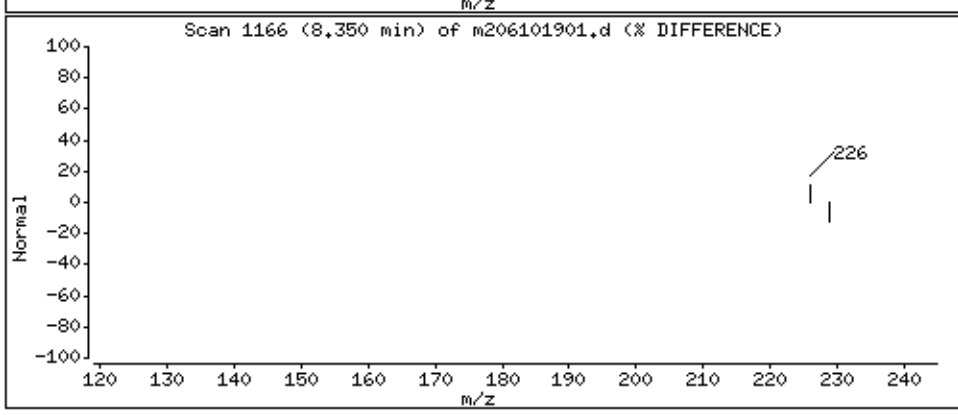
19 Chrysene

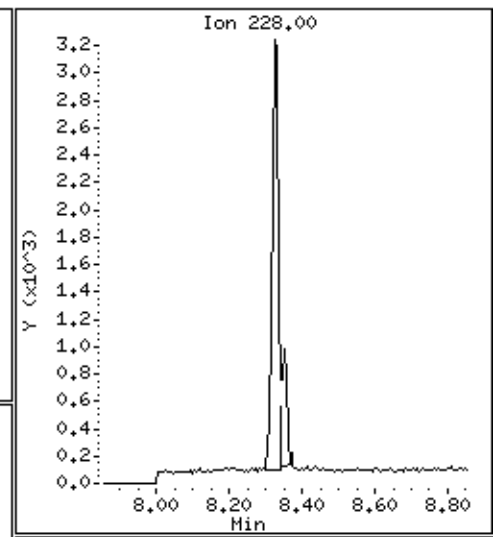
Concentration: 0.202 ug/Kg

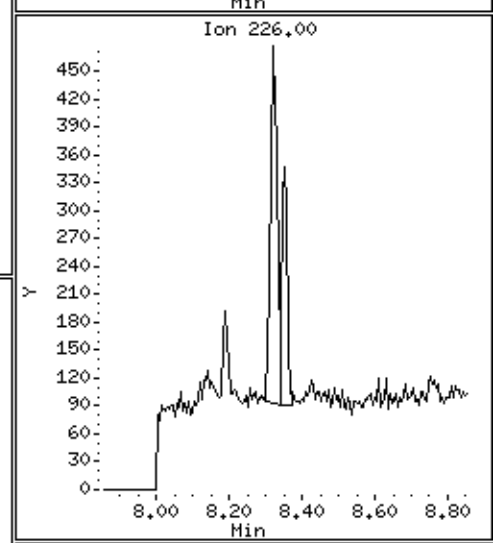


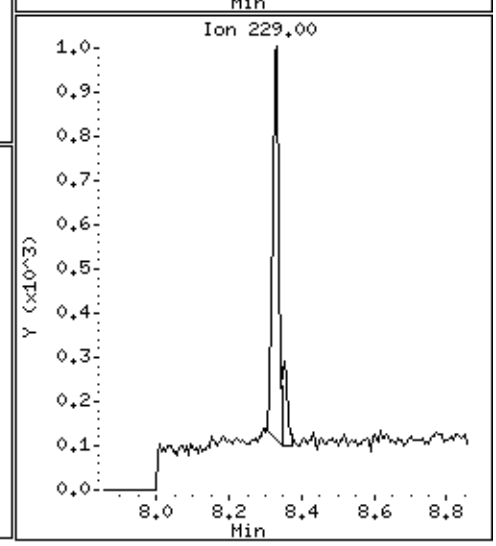












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

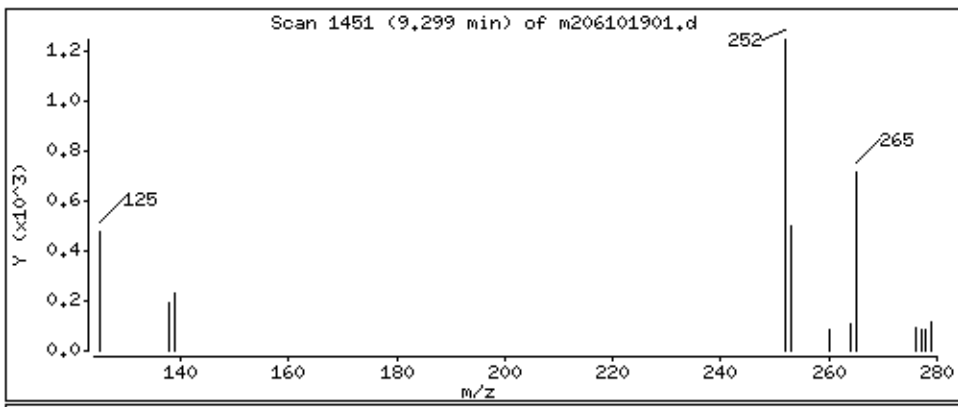
Operator: AJC

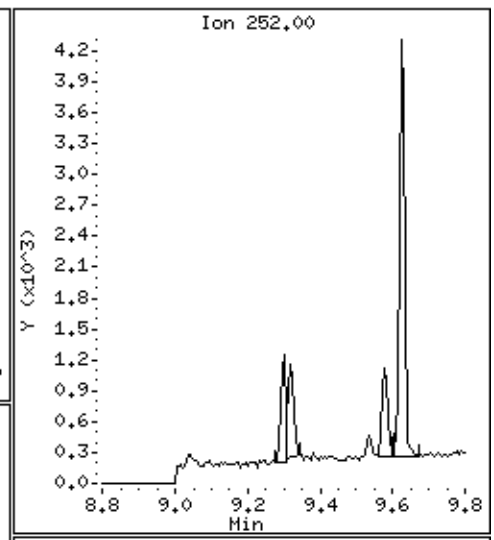
Column phase: RTX-5MS

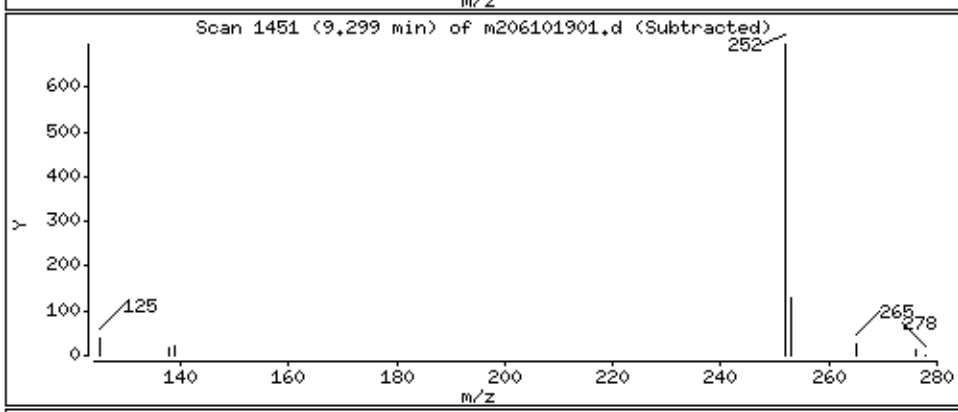
Column diameter: 0.25

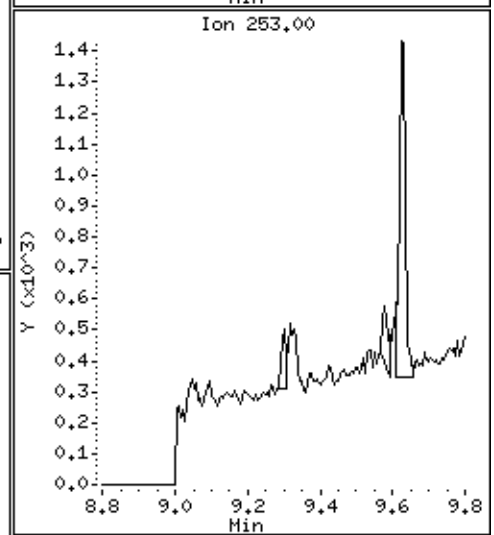
20 Benzo(b)fluoranthene

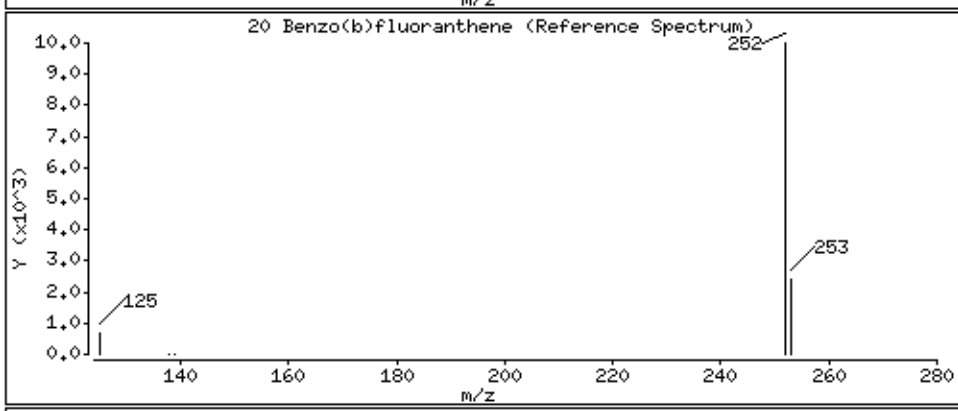
Concentration: 0.278 ug/Kg

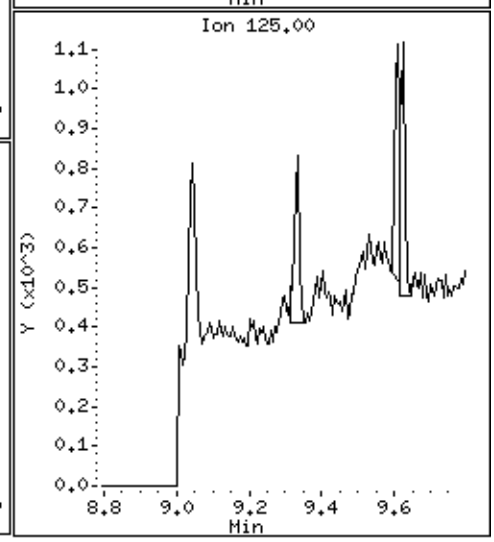


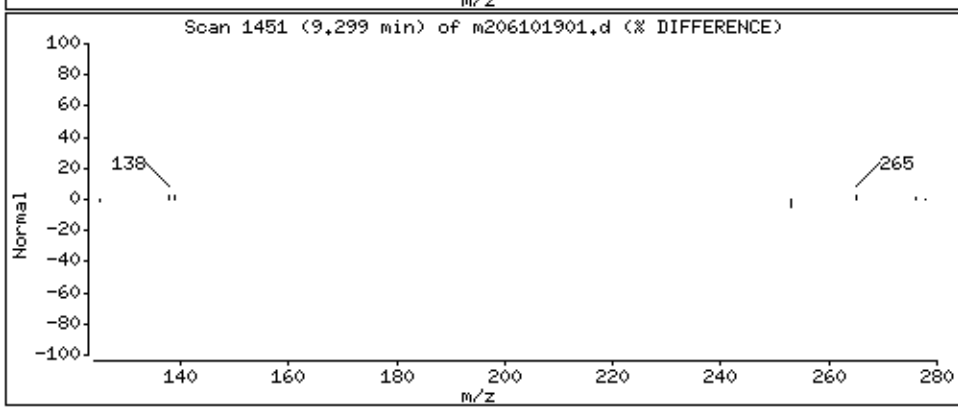












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d

Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

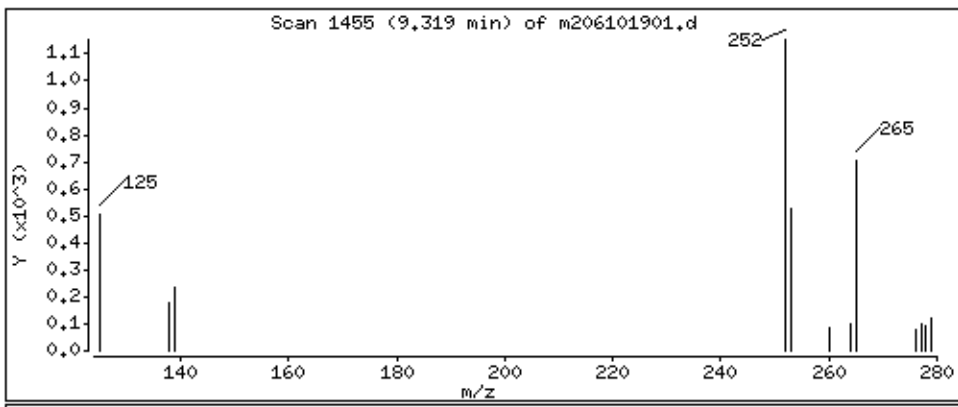
Operator: AJC

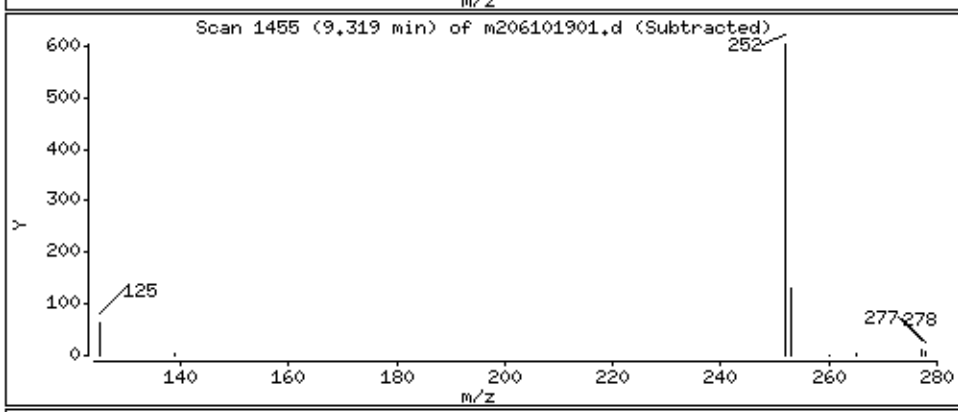
Column phase: RTX-5MS

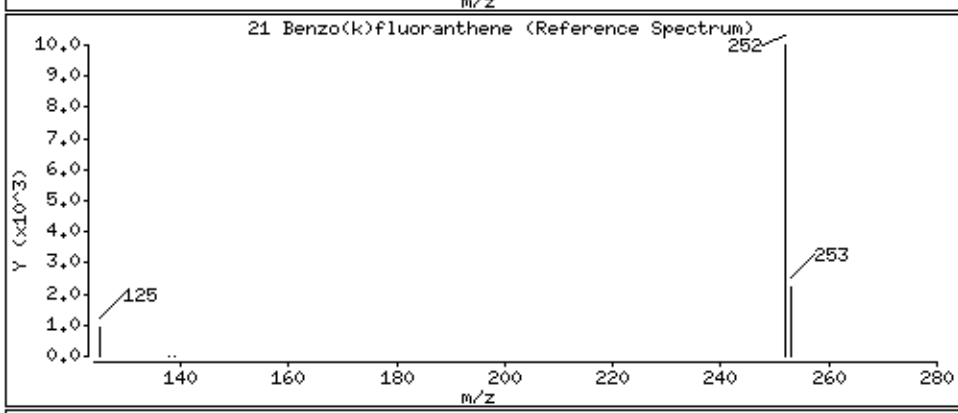
Column diameter: 0.25

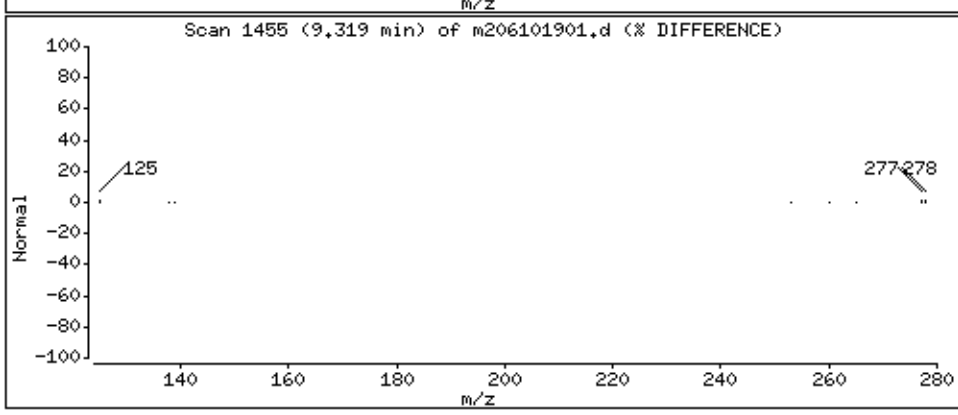
21 Benzo(k)fluoranthene

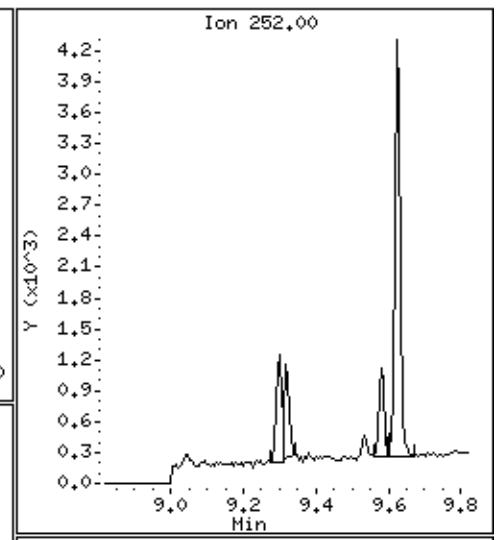
Concentration: 0.228 ug/Kg

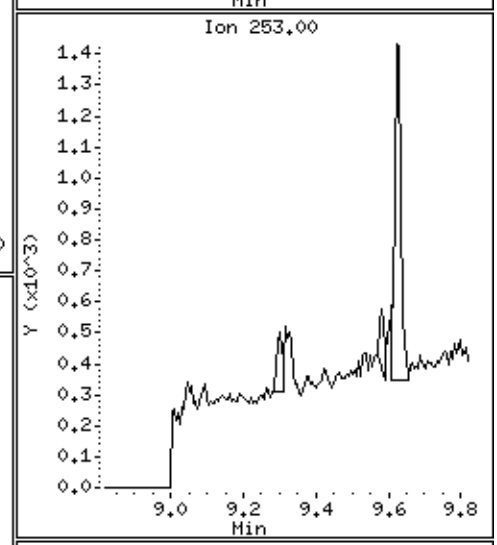


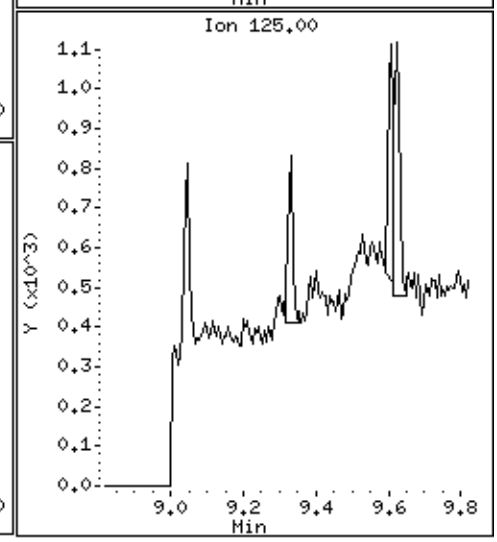












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

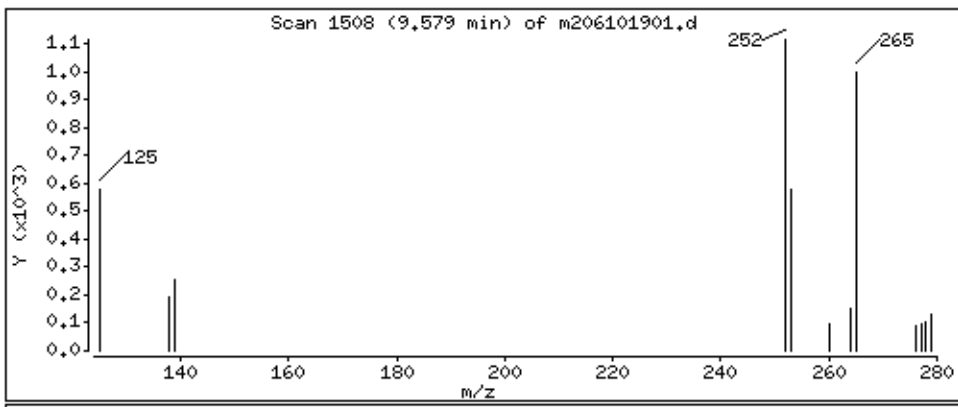
Operator: AJC

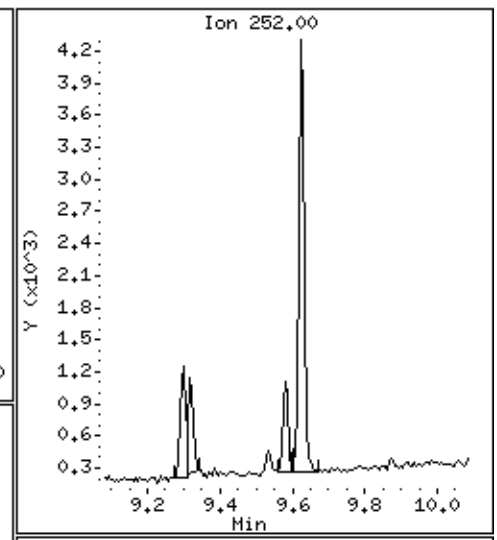
Column phase: RTX-5MS

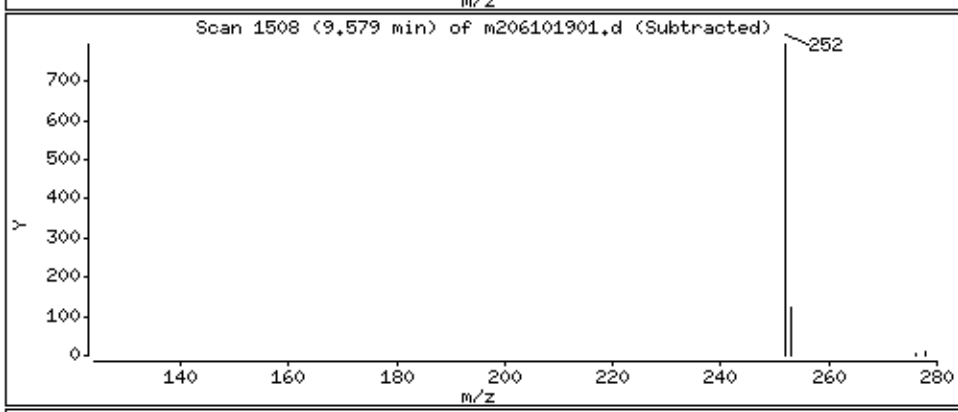
Column diameter: 0.25

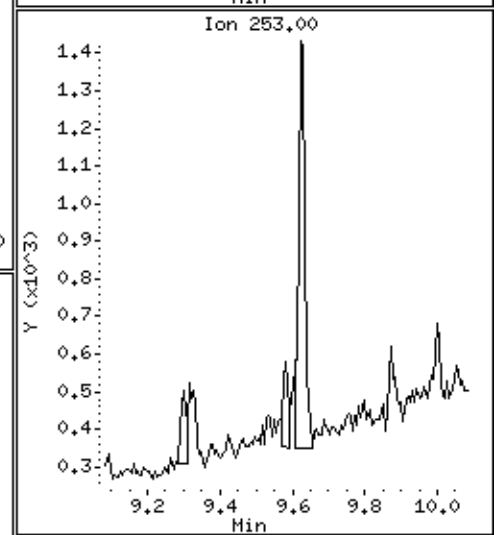
22 Benzo(a)pyrene

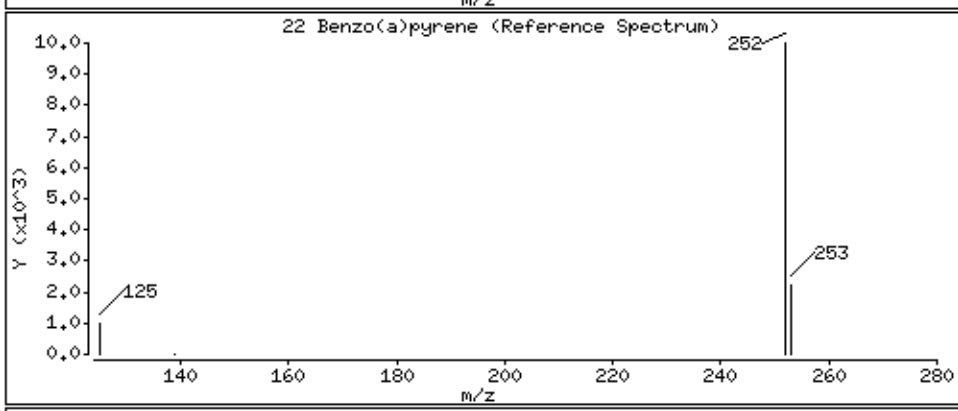
Concentration: 0.244 ug/Kg

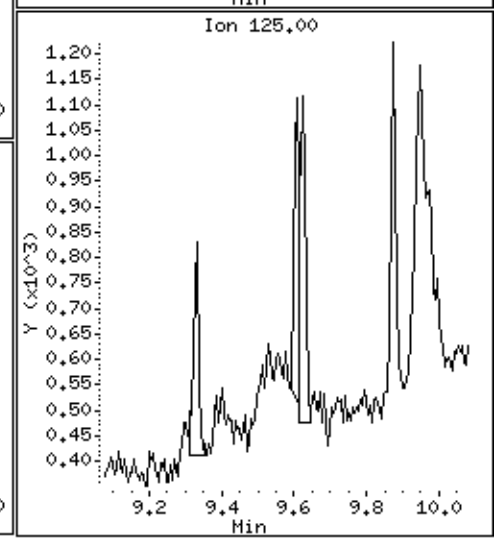


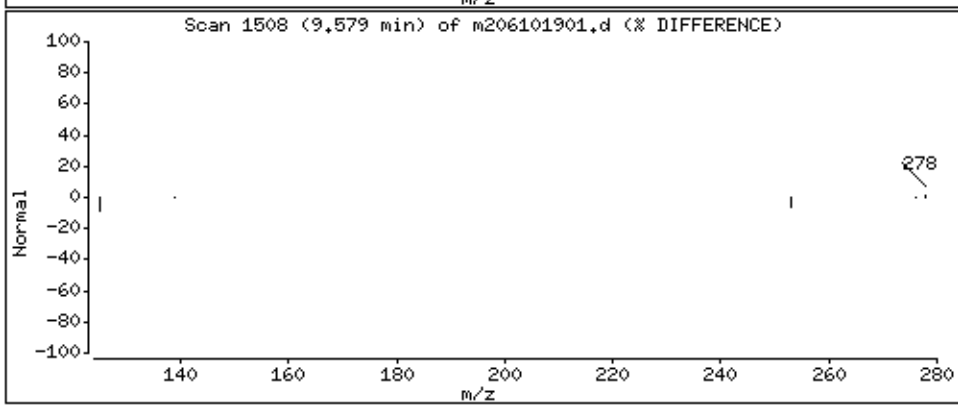












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101901.d

Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

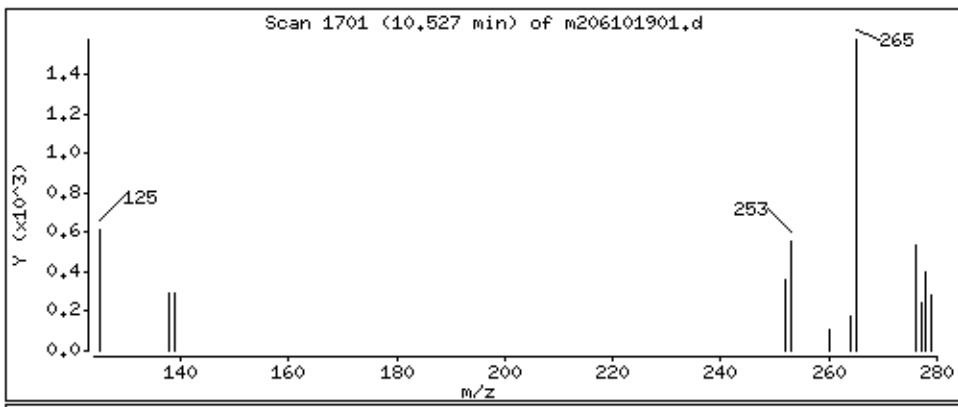
Operator: AJC

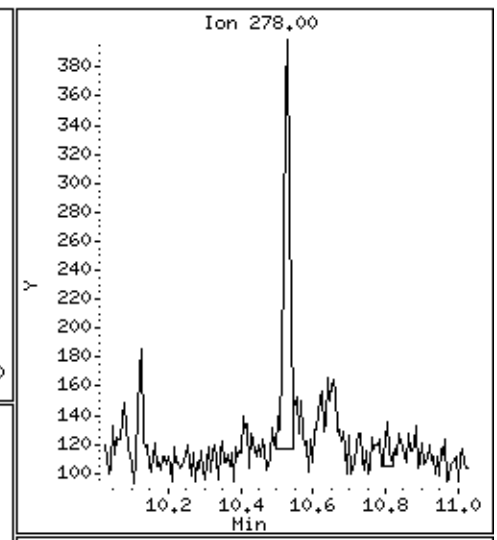
Column phase: RTX-5MS

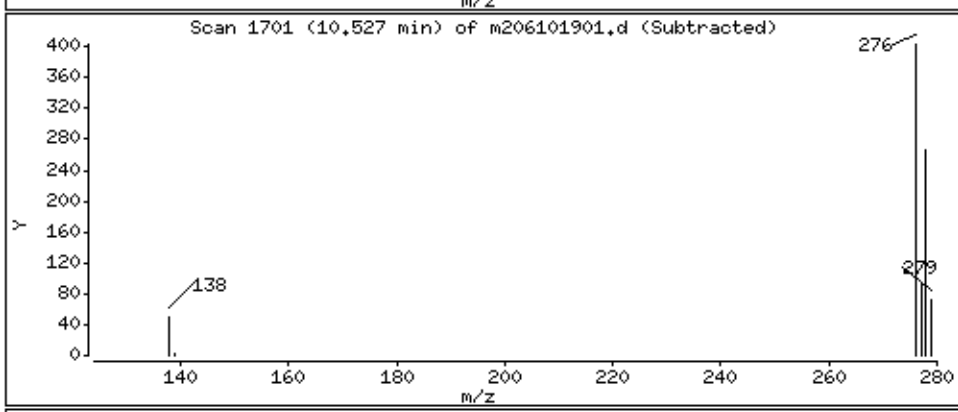
Column diameter: 0.25

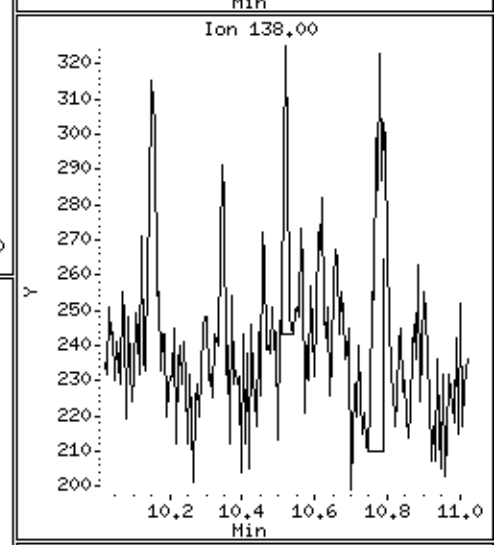
23 Dibenz(a,h)anthracene

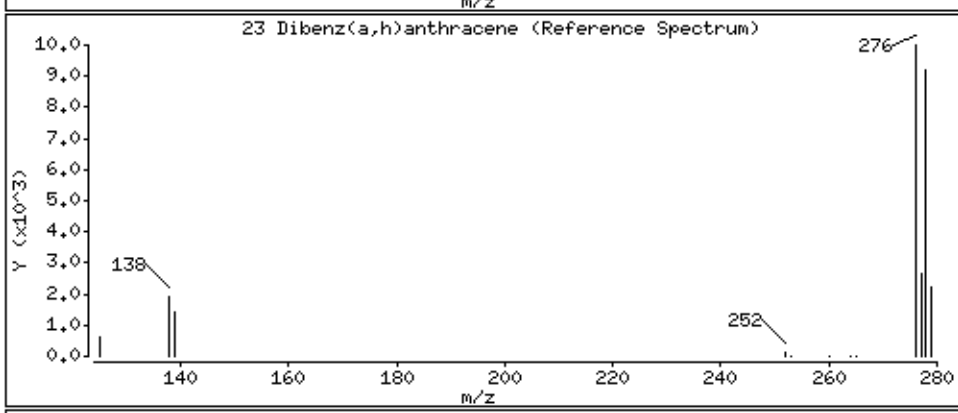
Concentration: 0.103 ug/Kg

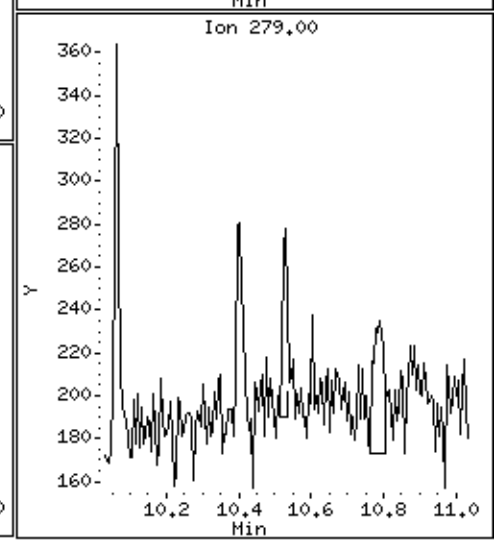


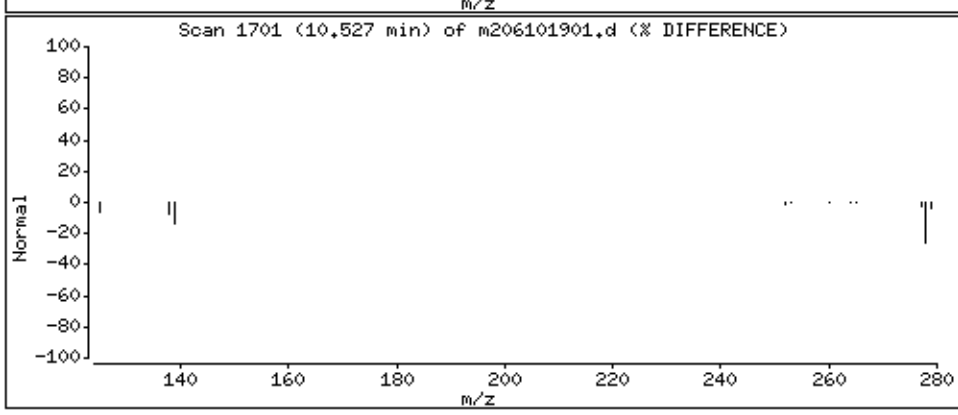












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

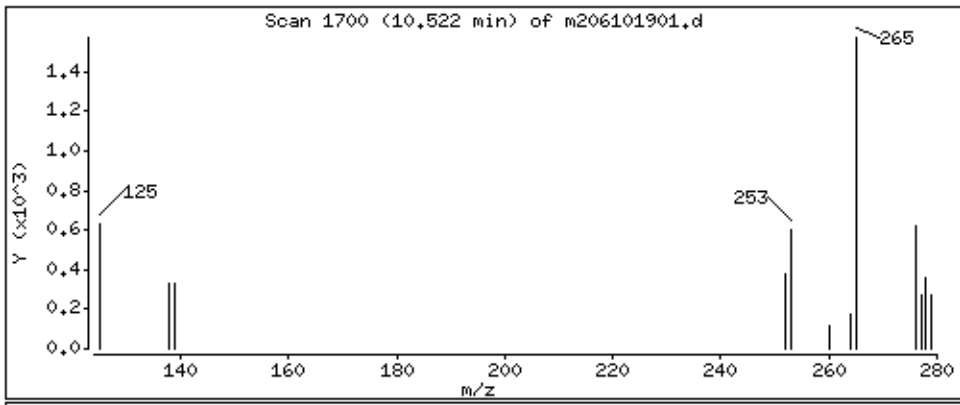
Operator: AJC

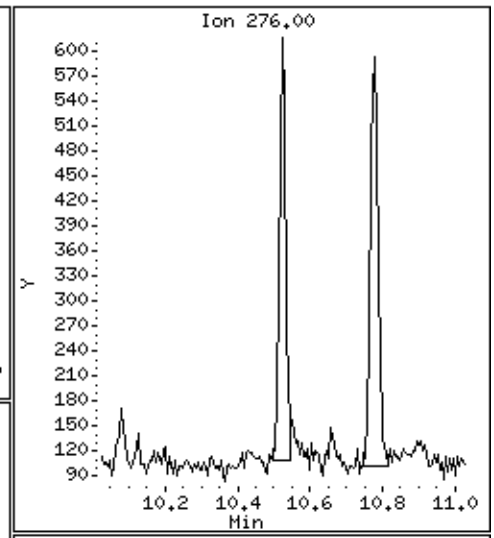
Column phase: RTX-5MS

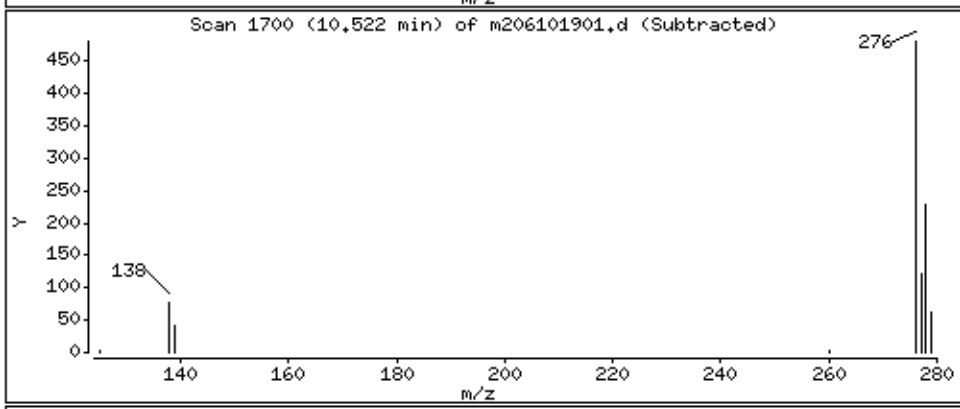
Column diameter: 0.25

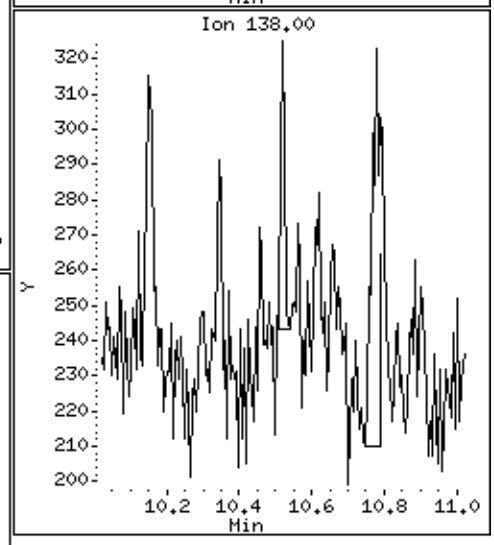
24 Indeno(1,2,3-cd)pyrene

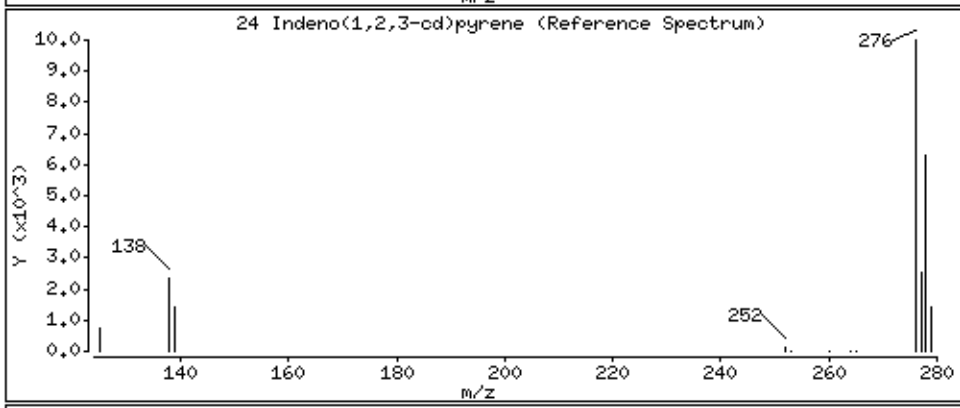
Concentration: 0.146 ug/Kg

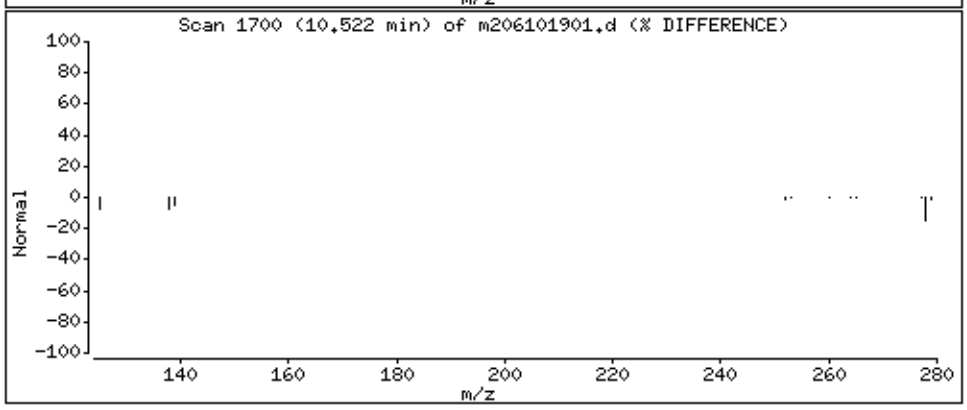












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Date : 10-JUN-2019 15:05

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1685236,

Volume Injected (uL): 1.0

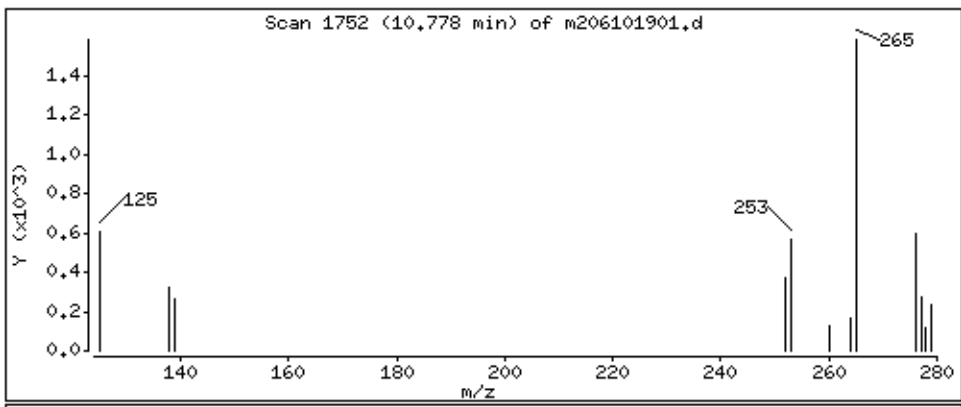
Operator: AJC

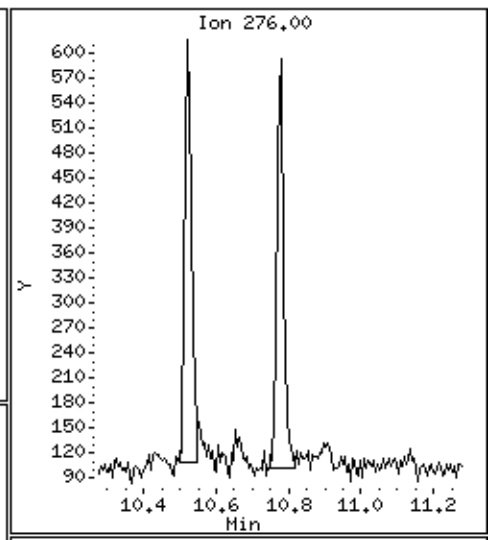
Column phase: RTX-5MS

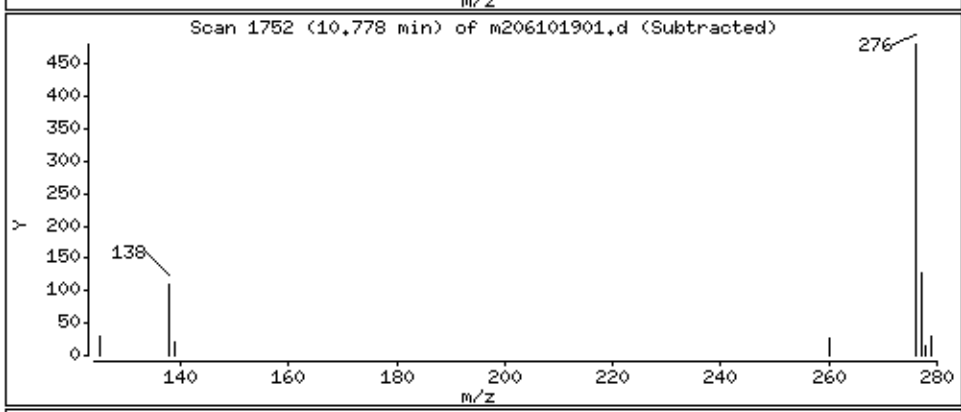
Column diameter: 0.25

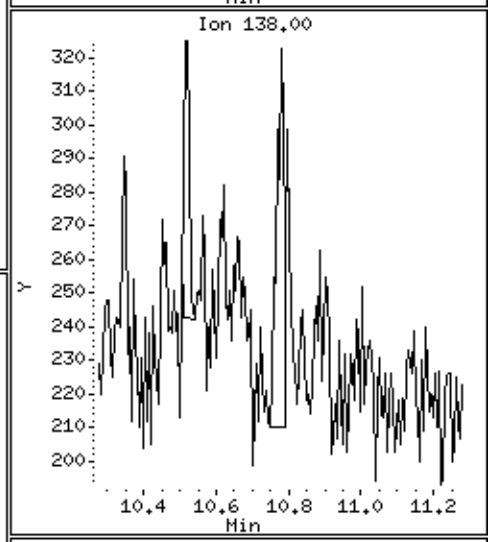
25 Benzo[g,h,i]perylene

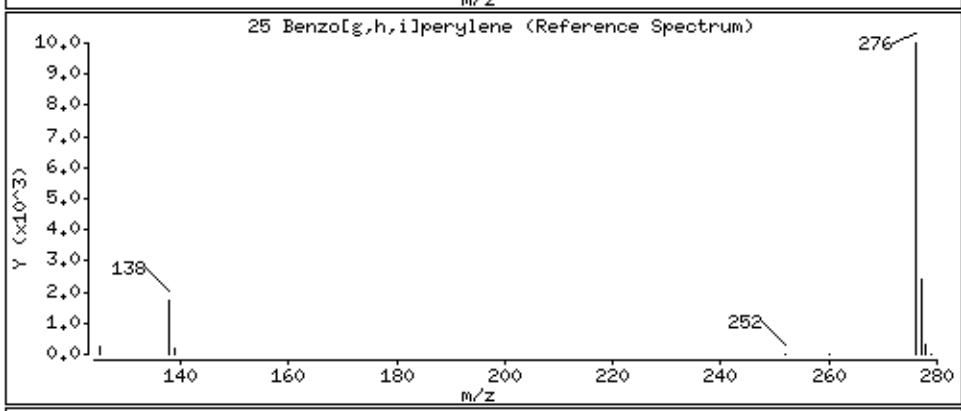
Concentration: 0.186 ug/Kg

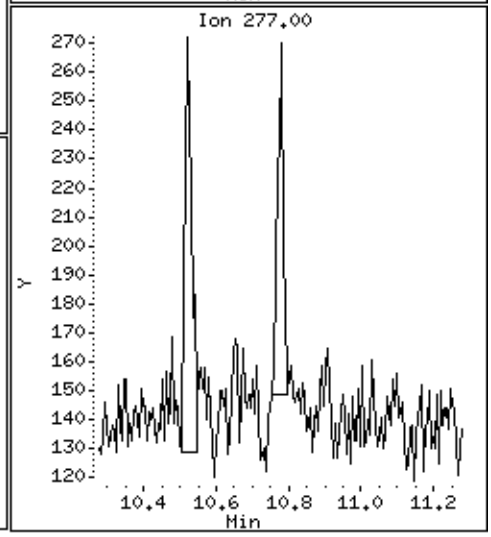


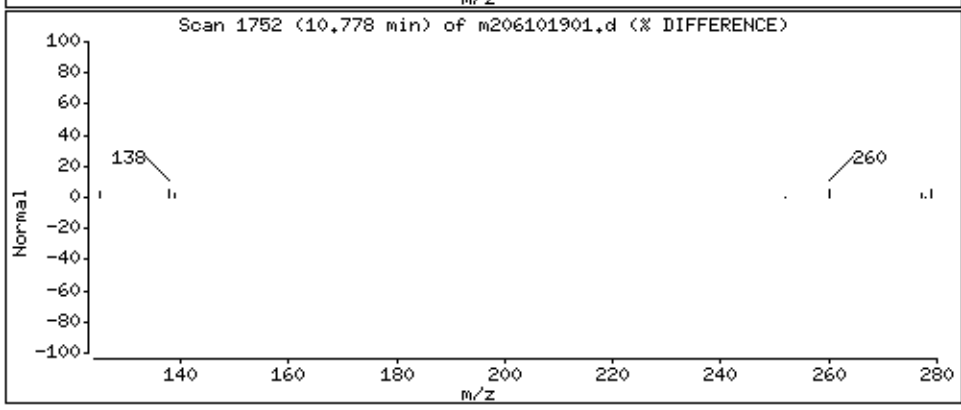












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b/m206101901.d
Injection Date: 10-JUN-2019 15:05
Instrument: 30mss2.i
Lab Sample ID: 1685236
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/10/2019 07:58
Lab Sample ID: 1685237
Date Analyzed: 06/10/2019 15:23
Lab File ID: MSS2061019.B\M206101902.D
Initial wt/vol: 15.16 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	123	
120-12-7	Anthracene	126	
56-55-3	Benzo(a)anthracene	142	
50-32-8	Benzo(a)pyrene	133	
205-99-2	Benzo(b)fluoranthene	147	
191-24-2	Benzo(g,h,i)perylene	144	
207-08-9	Benzo(k)fluoranthene	129	
218-01-9	Chrysene	132	
53-70-3	Dibenz(a,h)anthracene	145	
206-44-0	Fluoranthene	133	
86-73-7	Fluorene	122	
193-39-5	Indeno(1,2,3-cd)pyrene	144	
91-20-3	Naphthalene	109	
85-01-8	Phenanthrene	119	
129-00-0	Pyrene	132	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d
Lab Smp Id: 1685237 Client Smp ID: MBLCS
Inj Date : 10-JUN-2019 15:23
Operator : AJC Inst ID: 30mss2.i
Smp Info : 1685237,
Misc Info : 14682,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061019.b\m2053119pahcd.m
Meth Date : 10-Jun-2019 15:00 acarnahan Quant Type: ISTD
Cal Date : 31-MAY-2019 16:17 Cal File: m2053119z6.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.160	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.776	3.777	(1.000)	851790	4.00000		
	8 Naphthalene	128	3.788	3.788	(1.003)	322040	1.64647	109	
	9 2-Methylnaphthalene	142	4.228	4.228	(1.119)	238915	1.67413	110	
	10 1-Methylnaphthalene	142	4.290	4.291	(1.136)	220714	1.63915	108	
$	6 2-Fluorobiphenyl (S)	172	4.450	4.451	(0.907)	671645	4.18323	276	
	11 Acenaphthylene	152	4.817	4.817	(0.982)	345027	1.86932	123	
*	2 Acenaphthene-d10 (IS)	164	4.906	4.906	(1.000)	460591	4.00000		
	12 Acenaphthene	153	4.929	4.929	(1.005)	210408	1.72609	114	
	13 Fluorene	166	5.279	5.280	(1.076)	262926	1.84368	122	
*	3 Phenanthrene-d10 (IS)	188	5.976	5.978	(1.000)	811958	4.00000		
	14 Phenanthrene	178	5.994	5.996	(1.003)	375484	1.79823	119	
	15 Anthracene	178	6.040	6.041	(1.011)	373372	1.90855	126	
	16 Fluoranthene	202	7.001	7.002	(1.171)	459014	2.01600	133	
	17 Pyrene	202	7.208	7.210	(1.206)	471450	1.99490	132	
$	7 Terphenyl-d14 (S)	244	7.321	7.322	(1.225)	760603	4.14740	274	
	18 Benzo(a)anthracene	228	8.316	8.321	(0.999)	444077	2.15644	142	
*	4 Chrysene-d12 (IS)	240	8.328	8.329	(1.000)	757759	4.00000		
	19 Chrysene	228	8.351	8.353	(1.003)	434417	2.00694	132	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	9.292	9.299	(0.965)	505527	2.22537	147	
21 Benzo(k)fluoranthene	252	9.317	9.318	(0.968)	492158	1.95424	129	
22 Benzo(a)pyrene	252	9.577	9.584	(0.995)	431888	2.02208	133	
* 5 Perylene-d12 (IS)	264	9.626	9.628	(1.000)	839223	4.00000		
23 Dibenz(a,h)anthracene	278	10.525	10.527	(1.093)	469971	2.19765	145	
24 Indeno(1,2,3-cd)pyrene	276	10.520	10.527	(1.093)	558855	2.17779	144	
25 Benzo[g,h,i]perylene	276	10.776	10.777	(1.119)	486233	2.17675	144	

Review Codes Legend

:

Pace Analytical Services, Inc.

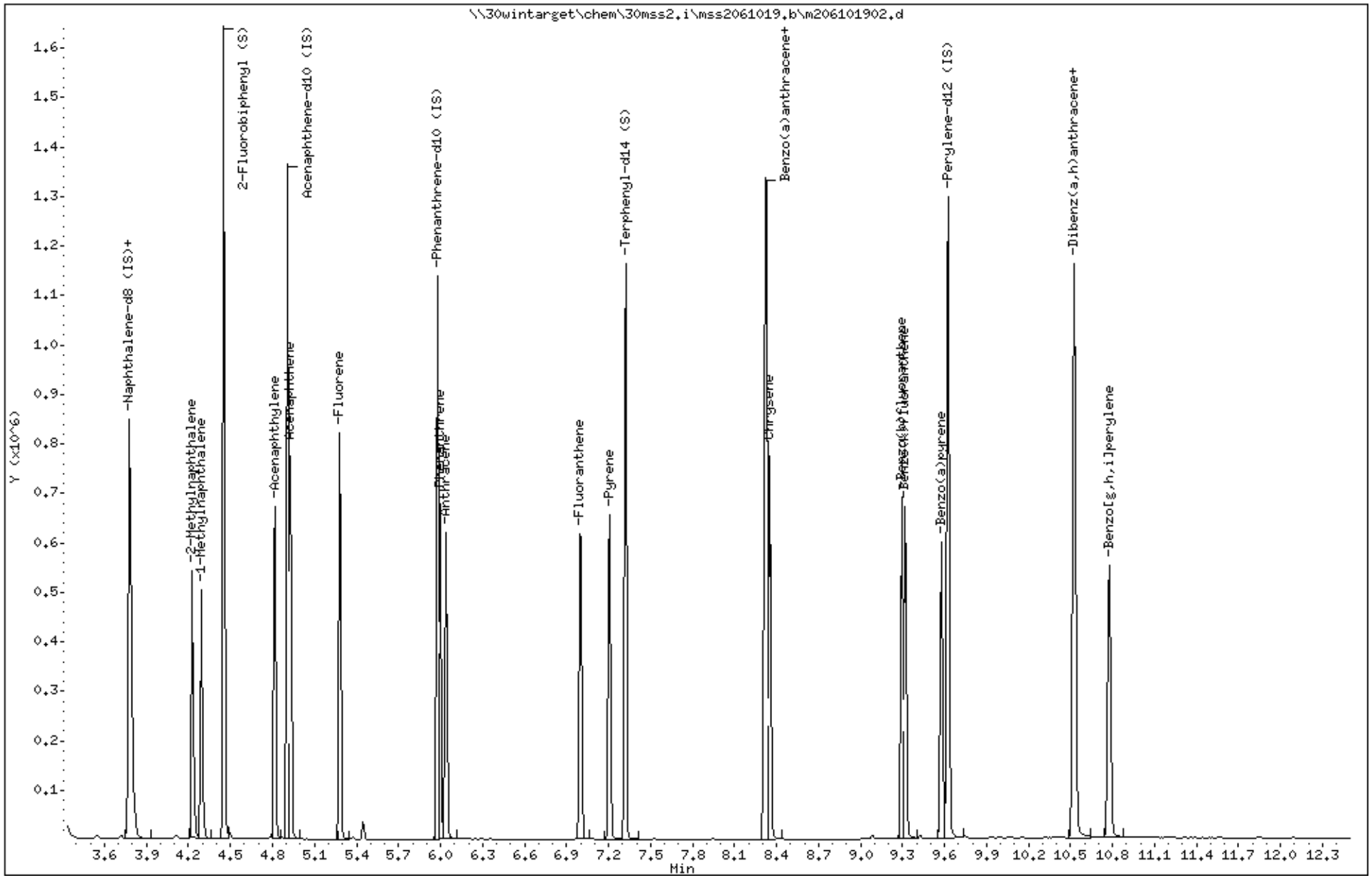
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1685237
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14682,

Client SDG: mss2061019.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 10-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00989	U
91-20-3	Naphthalene	109	
91-57-6	2-Methylnaphthalene	110	
90-12-0	1-Methylnaphthalene	108	
208-96-8	Acenaphthylene	123	
83-32-9	Acenaphthene	114	
86-73-7	Fluorene	122	
85-01-8	Phenanthrene	119	
120-12-7	Anthracene	126	
206-44-0	Fluoranthene	133	
129-00-0	Pyrene	132	
56-55-3	Benzo(a)anthracene	142	
218-01-9	Chrysene	132	
205-99-2	Benzo(b)fluoranthene	147	
207-08-9	Benzo(k)fluoranthene	129	
50-32-8	Benzo(a)pyrene	133	
53-70-3	Dibenz(a,h)anthracene	145	
193-39-5	Indeno(1,2,3-cd)pyrene	144	
191-24-2	Benzo[g,h,i]perylene	144	
321-60-8	2-Fluorobiphenyl (S)	276	
1718-51-0	Terphenyl-d14 (S)	274	

Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d
Date : 10-JUN-2019 15:23
Client ID: MBLCS
Instrument: 30mss2.i
Sample Info: 1685237,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

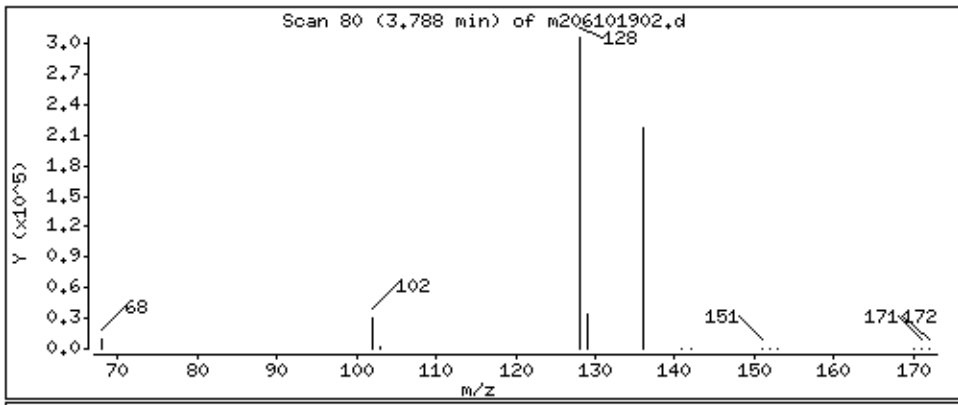
Operator: AJC

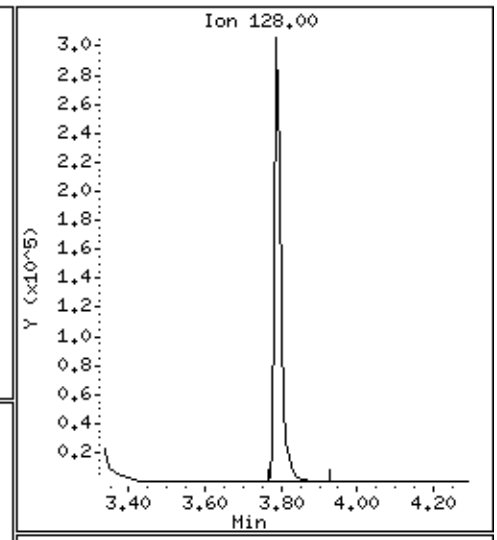
Column phase: RTX-5MS

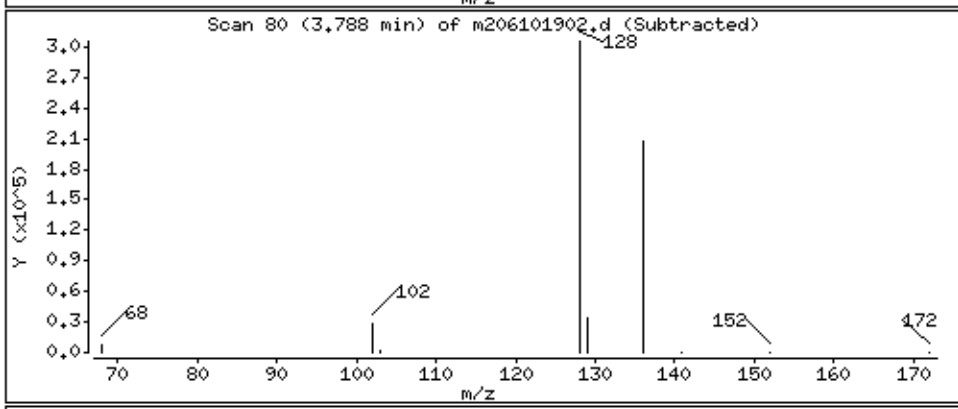
Column diameter: 0.25

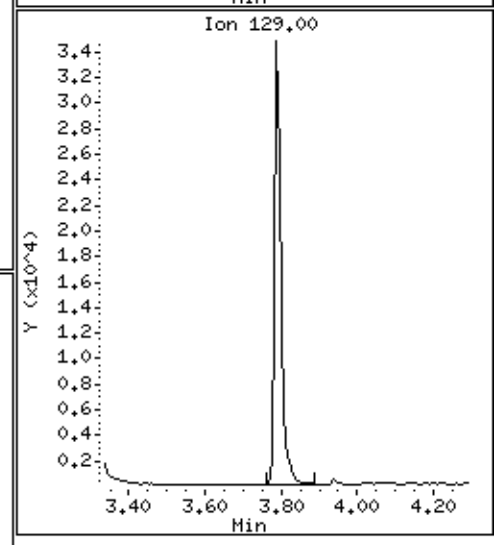
8 Naphthalene

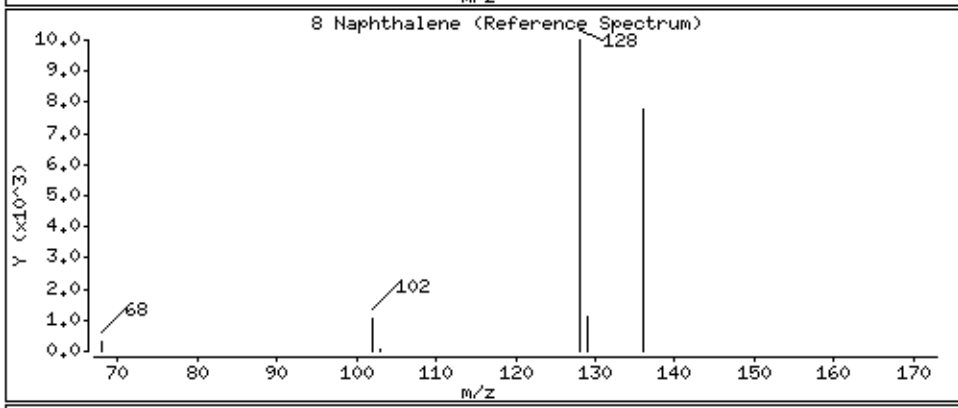
Concentration: 109 ug/Kg

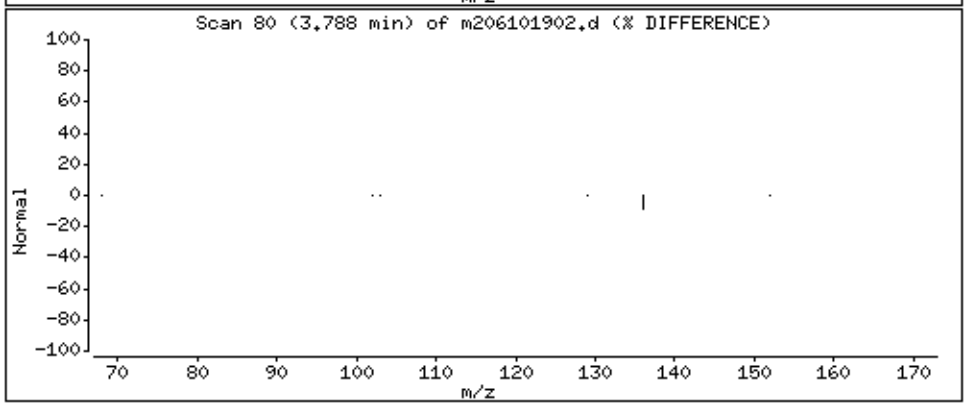












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

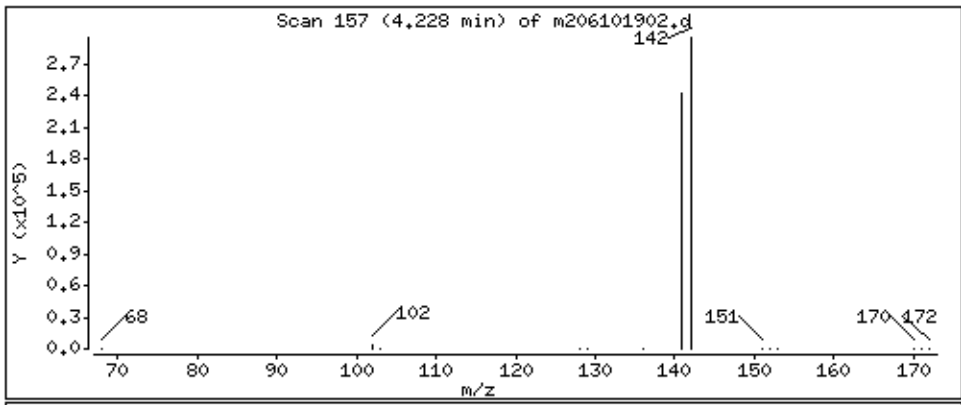
Operator: AJC

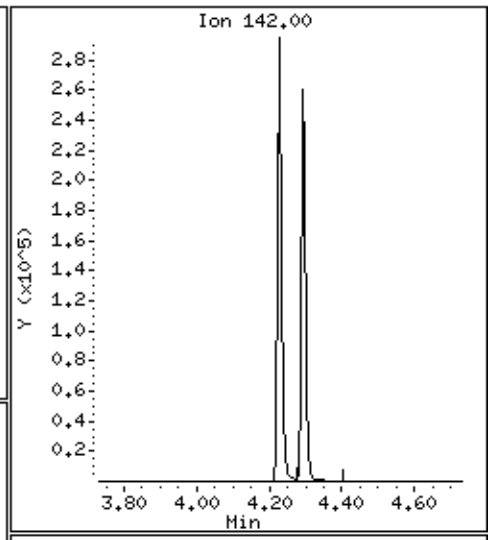
Column phase: RTX-5MS

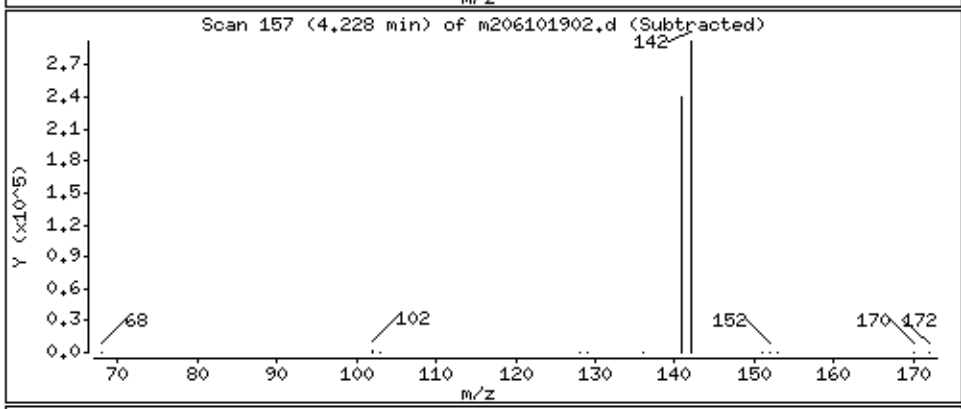
Column diameter: 0.25

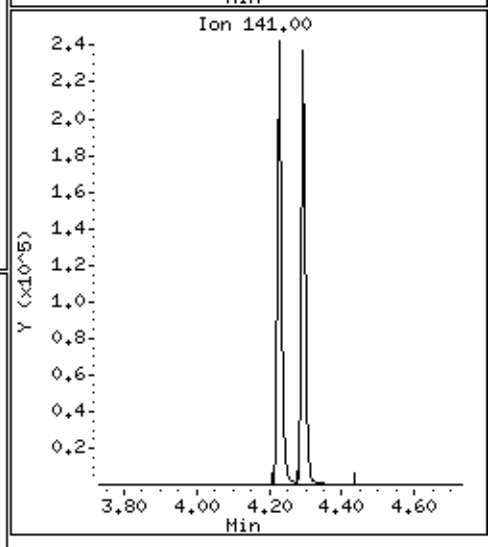
9 2-Methylnaphthalene

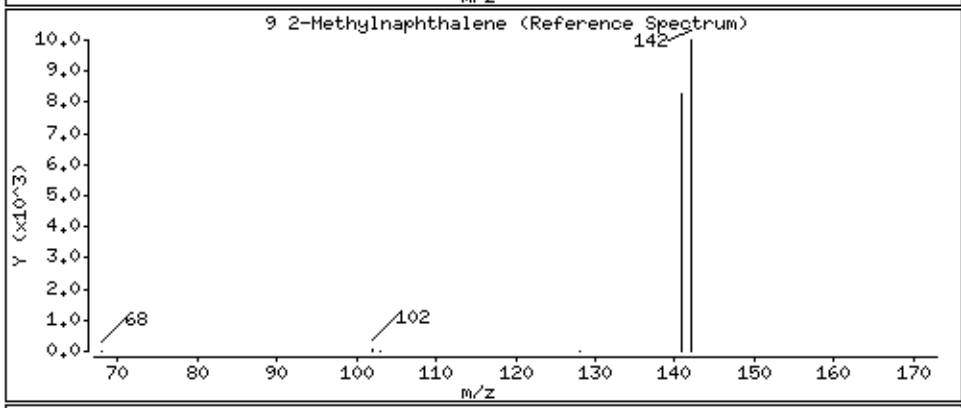
Concentration: 110 ug/Kg

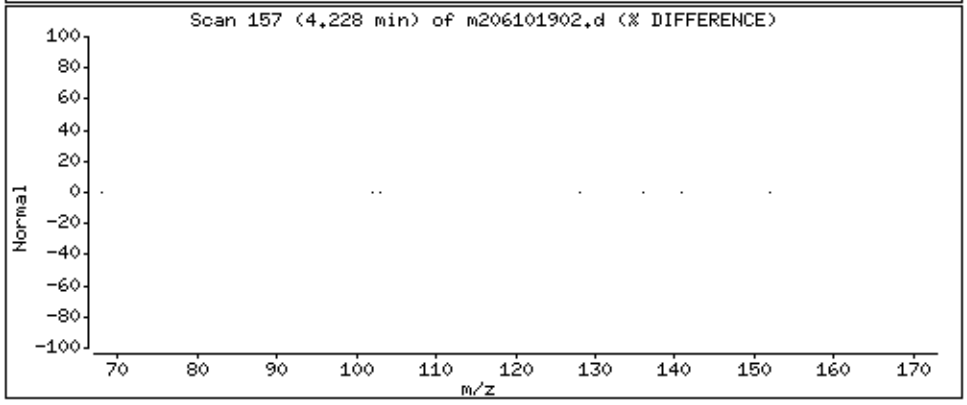












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

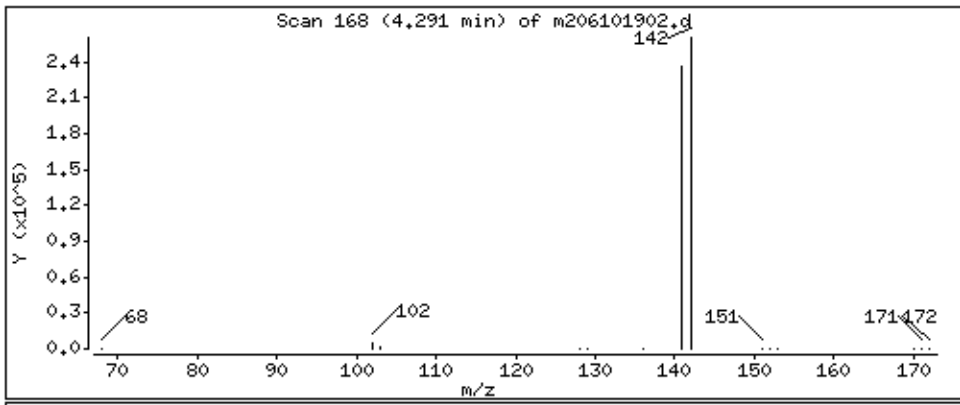
Operator: AJC

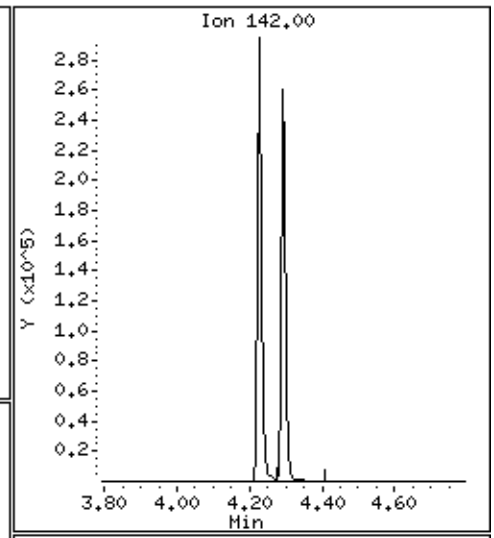
Column phase: RTX-5MS

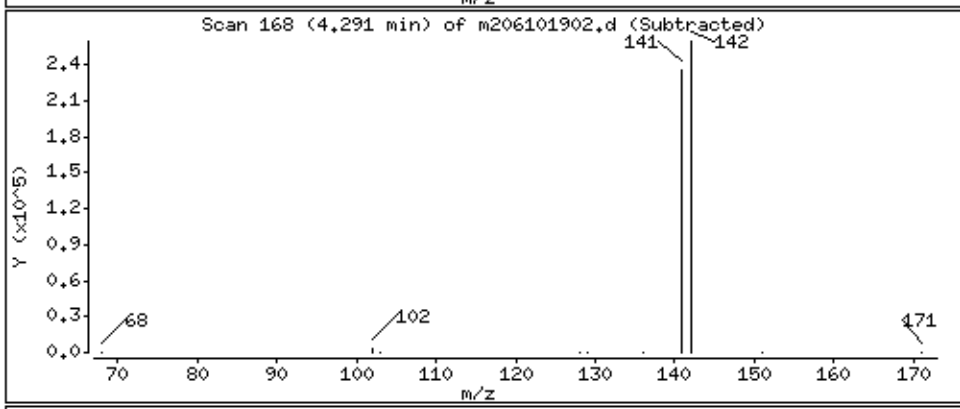
Column diameter: 0.25

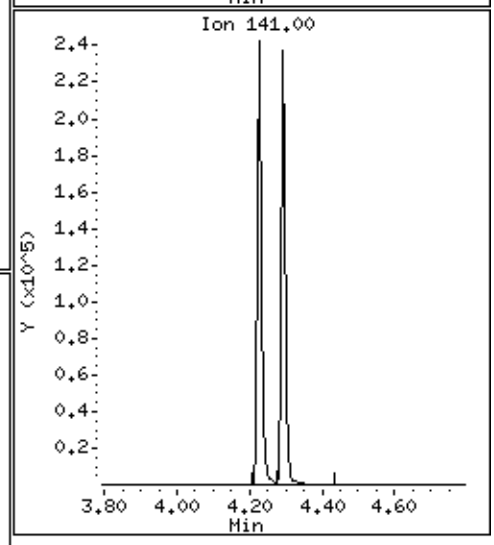
10 1-Methylnaphthalene

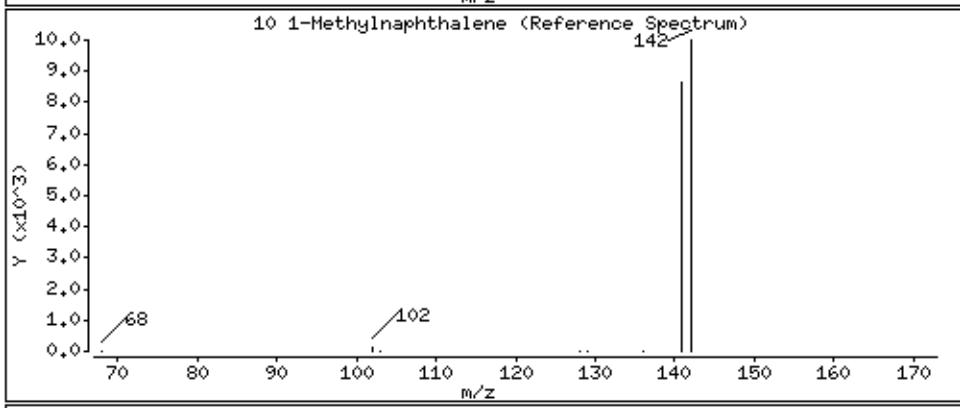
Concentration: 108 ug/Kg

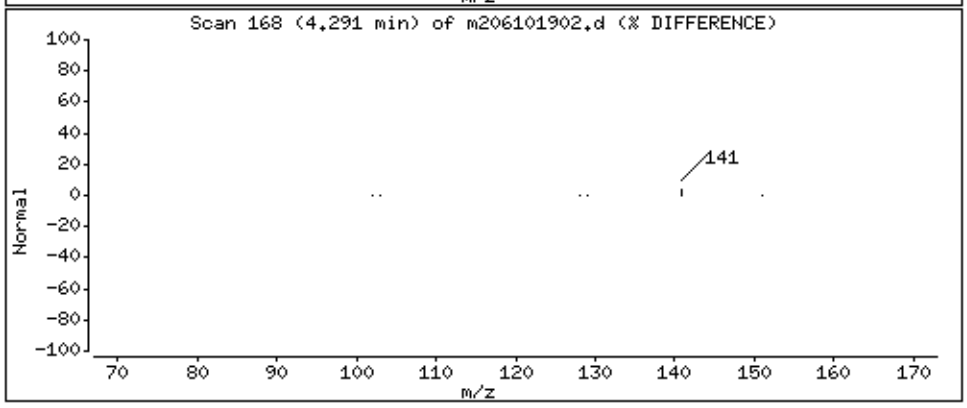












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

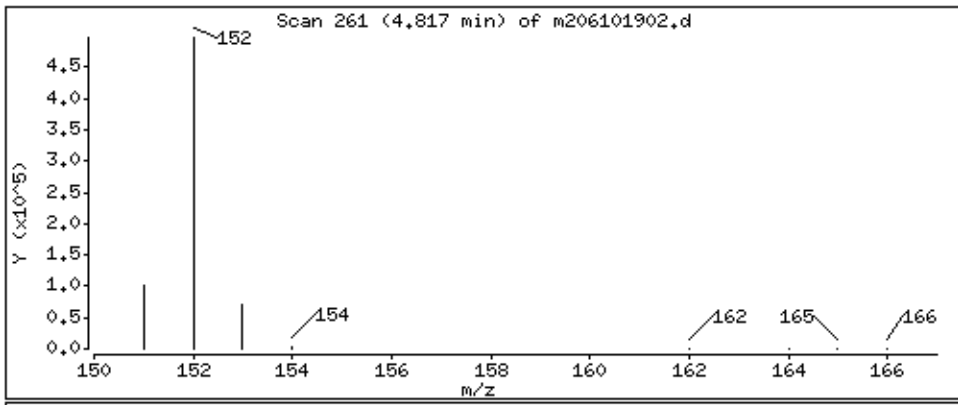
Operator: AJC

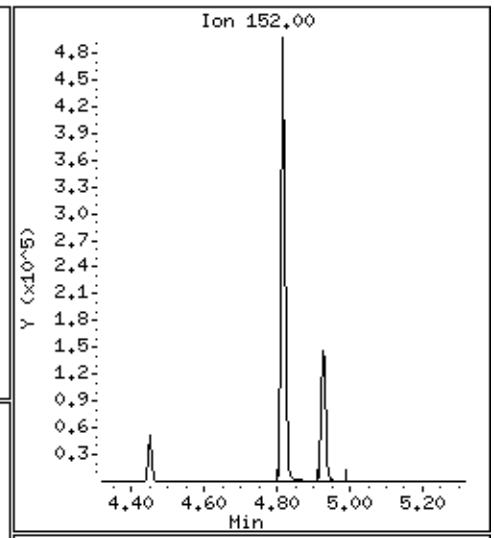
Column phase: RTX-5MS

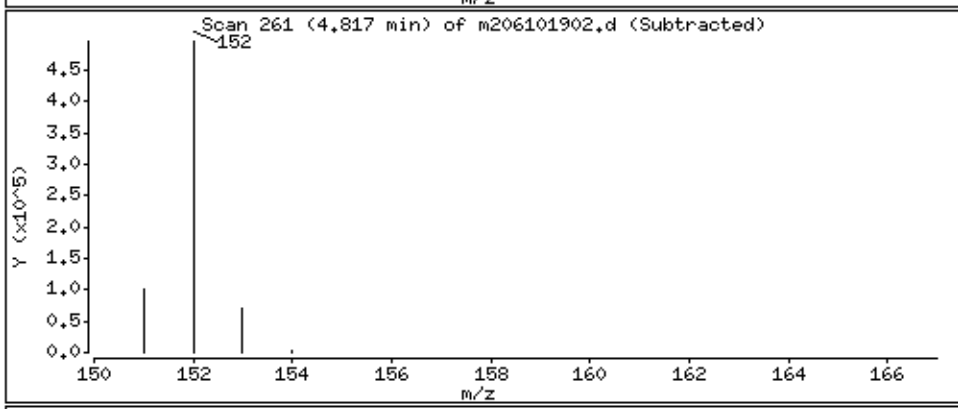
Column diameter: 0.25

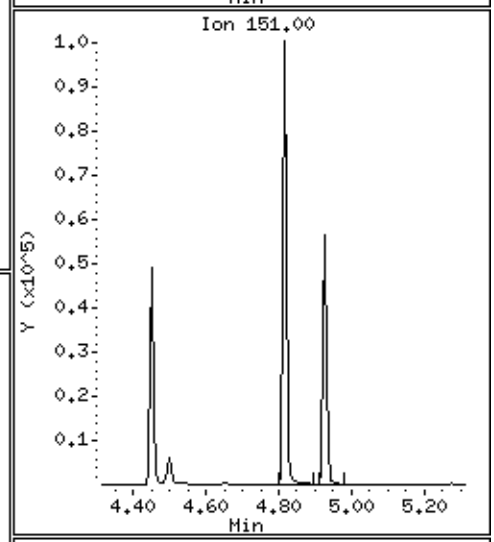
11 Acenaphthylene

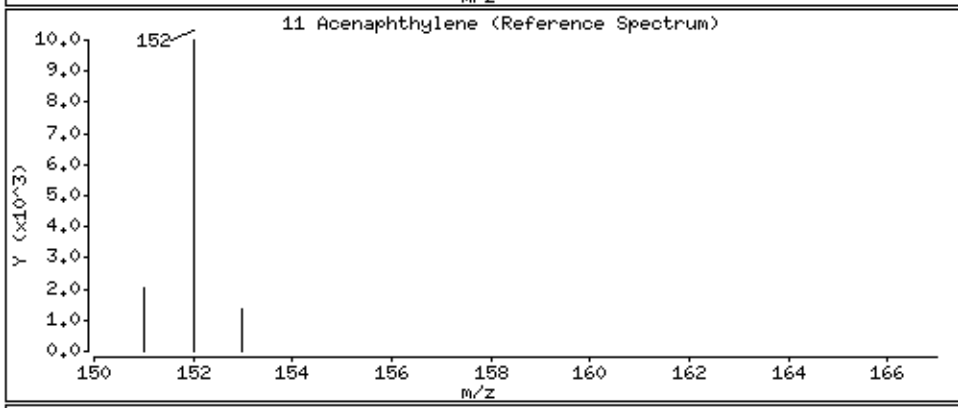
Concentration: 123 ug/Kg

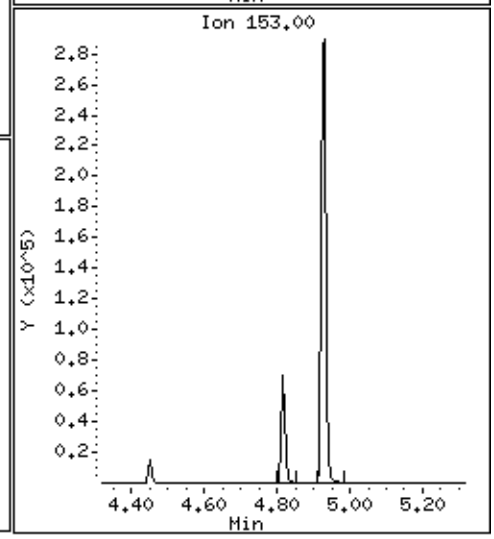


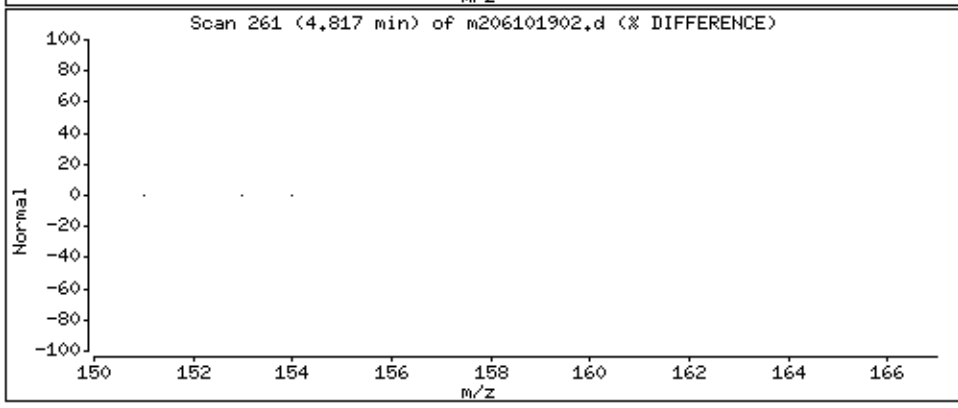












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

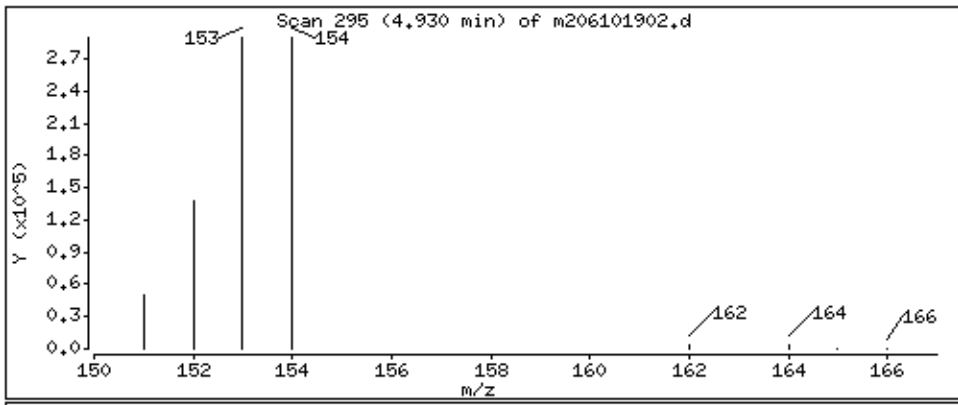
Operator: AJC

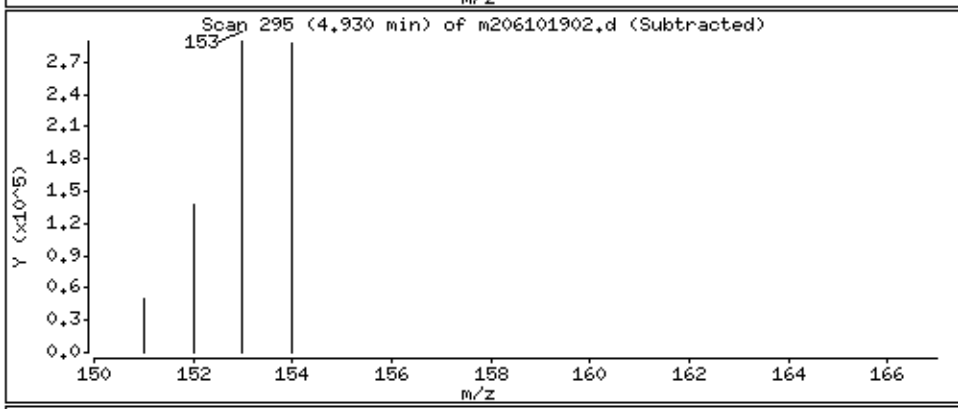
Column phase: RTX-5MS

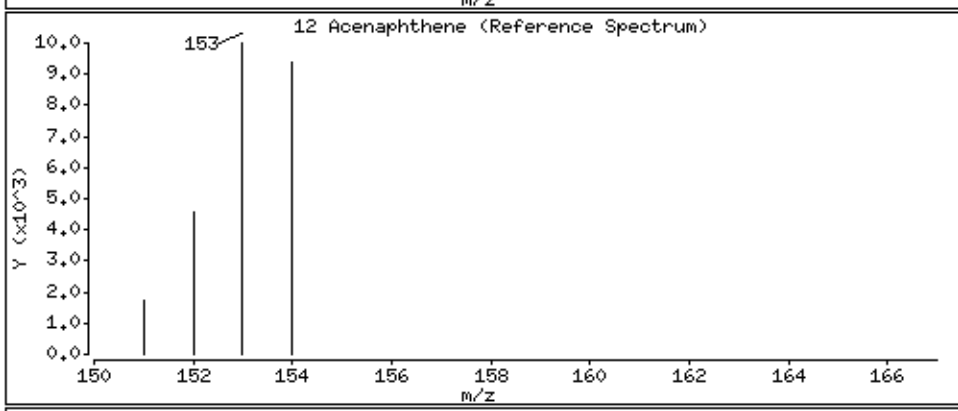
Column diameter: 0.25

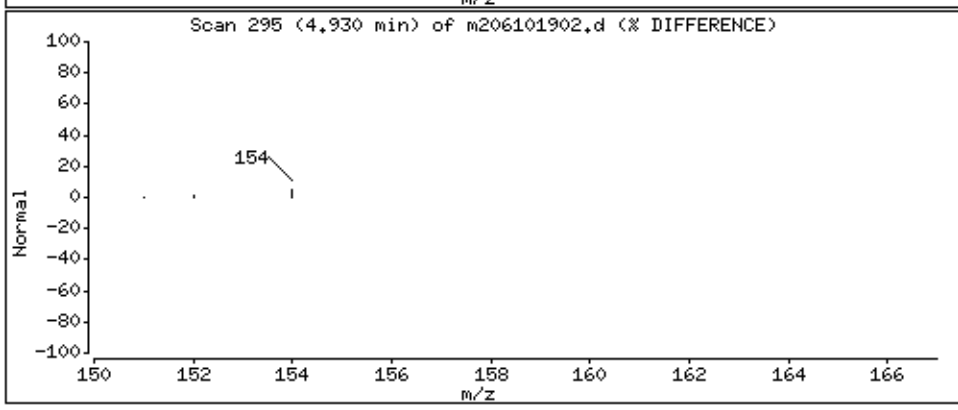
12 Acenaphthene

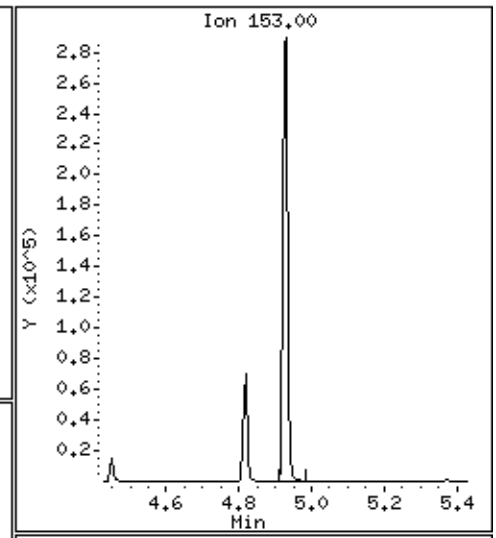
Concentration: 114 ug/Kg

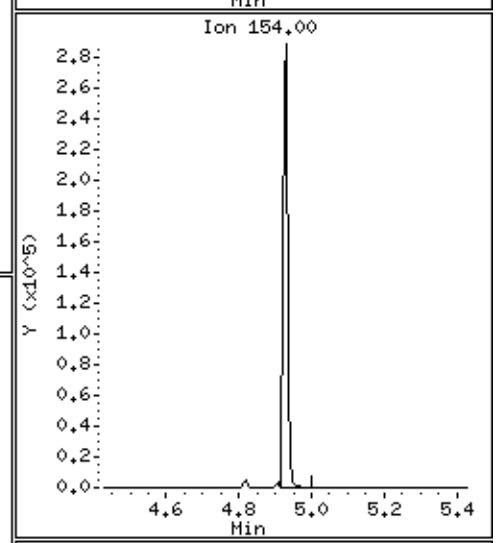


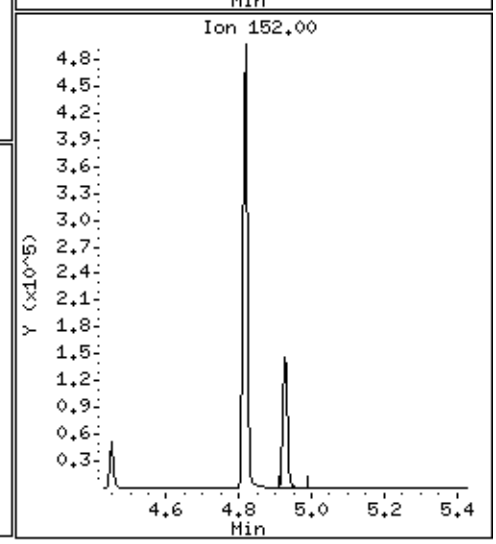












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

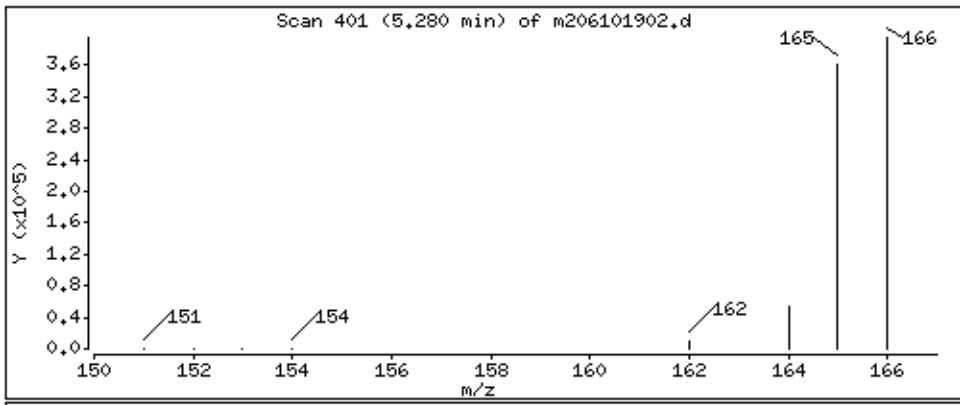
Operator: AJC

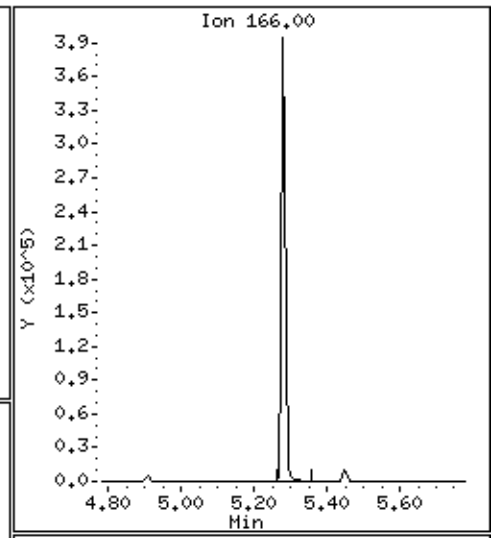
Column phase: RTX-5MS

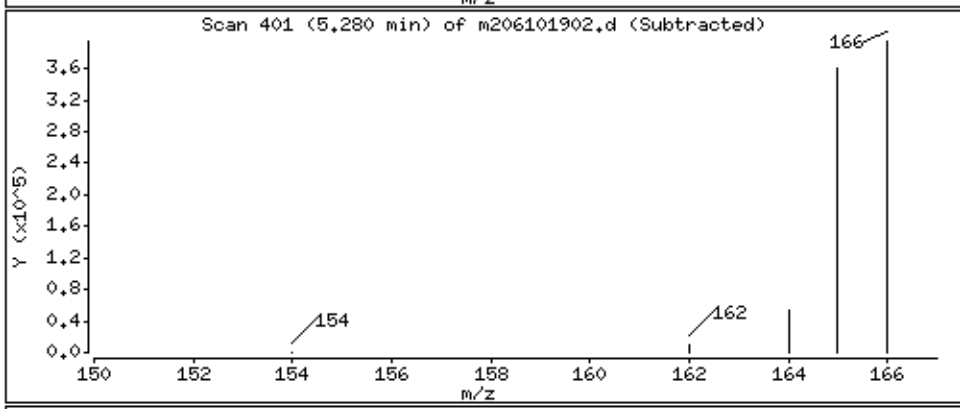
Column diameter: 0.25

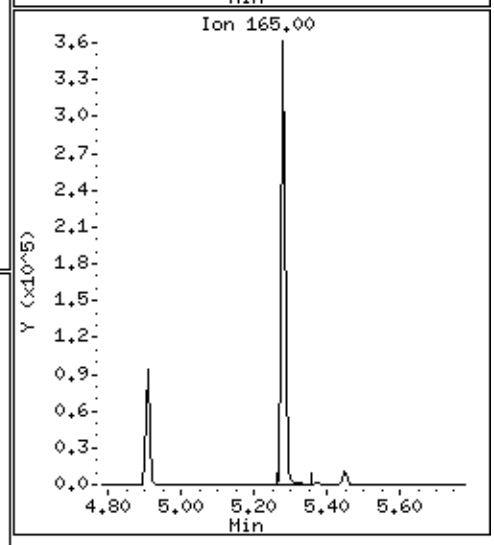
13 Fluorene

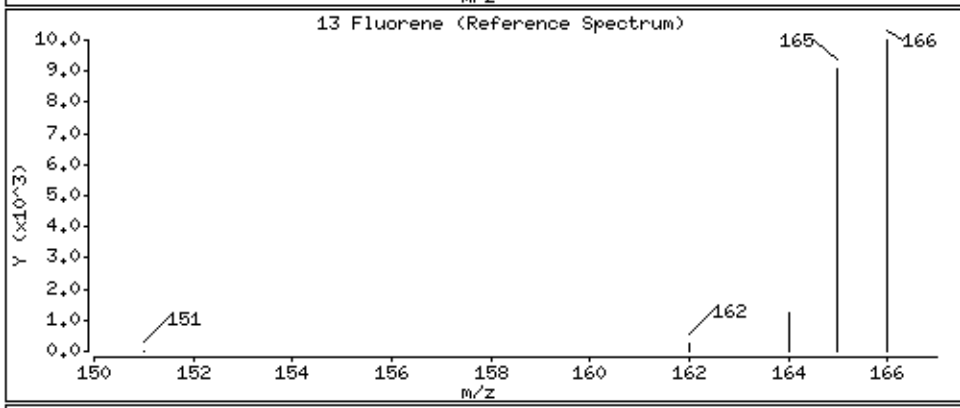
Concentration: 122 ug/Kg

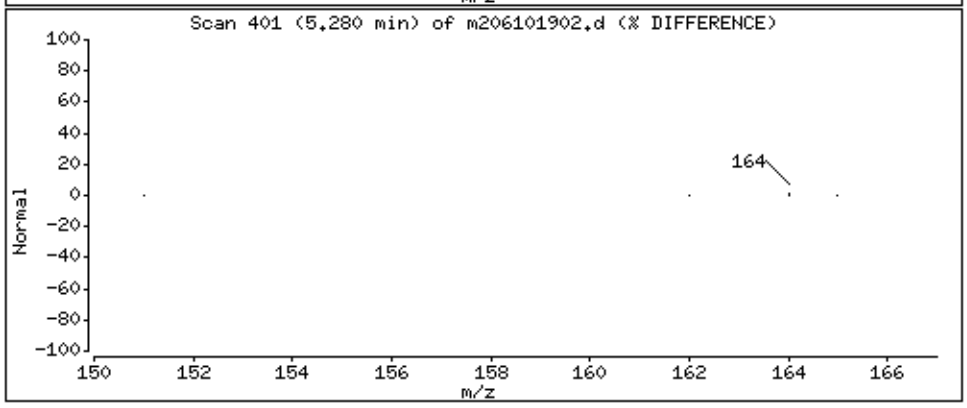












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d

Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

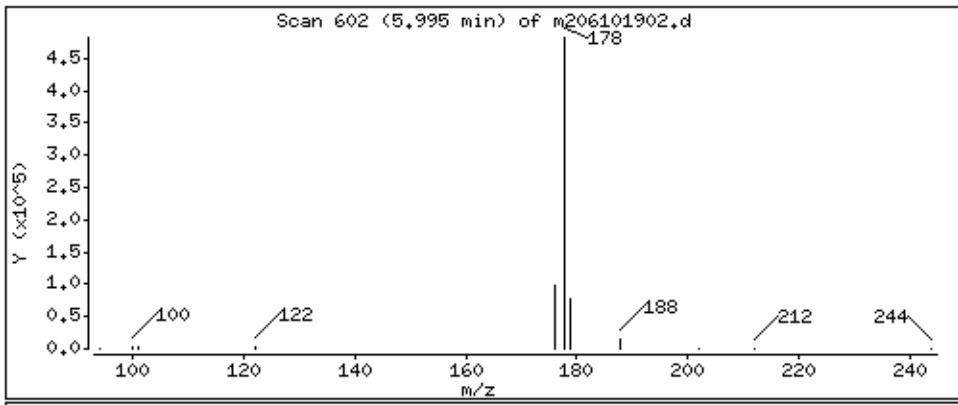
Operator: AJC

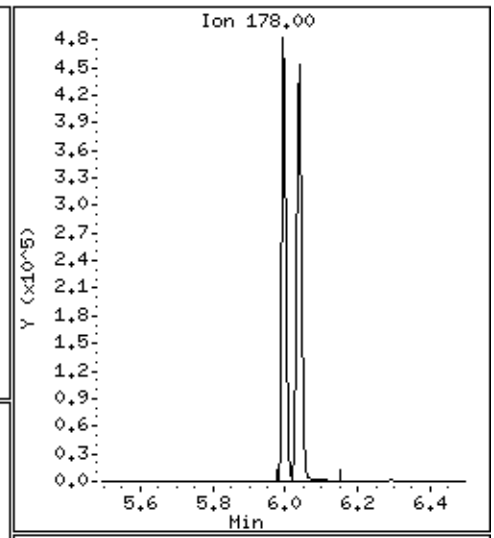
Column phase: RTX-5MS

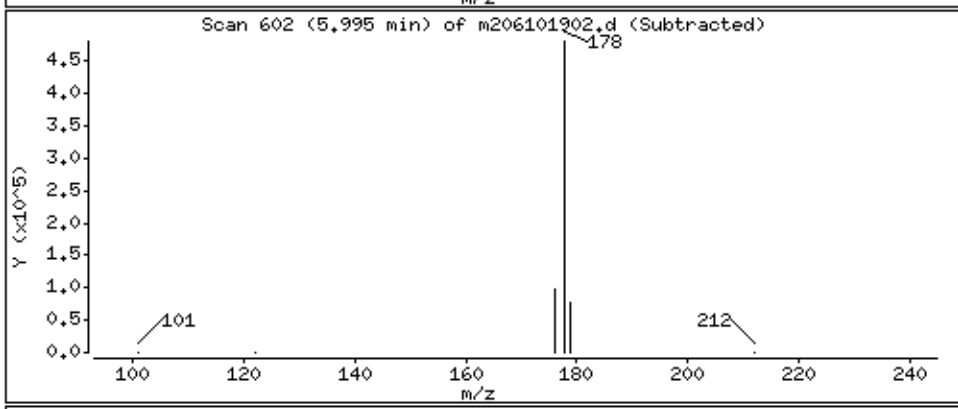
Column diameter: 0.25

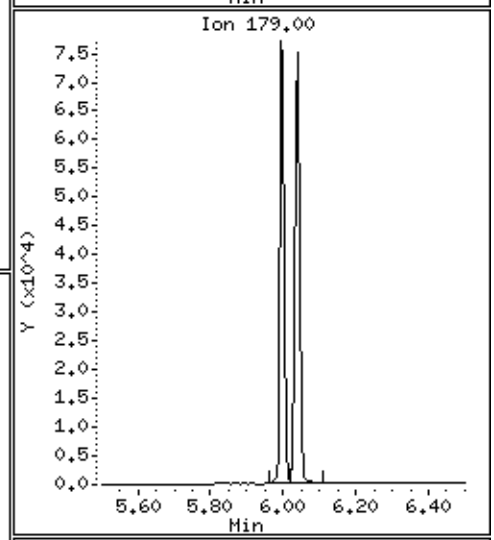
14 Phenanthrene

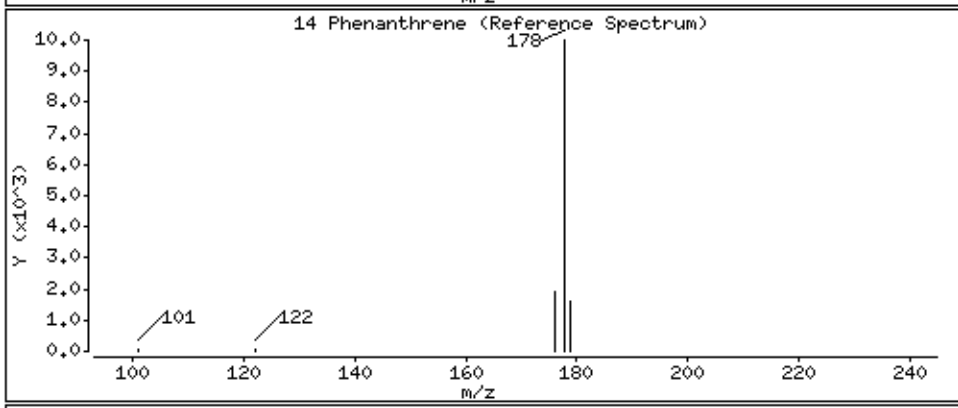
Concentration: 119 ug/Kg

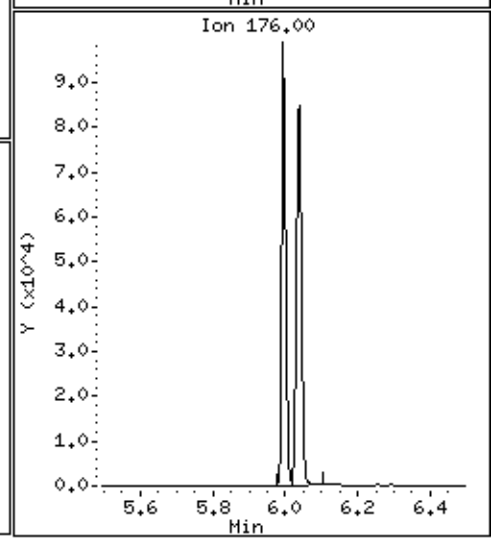


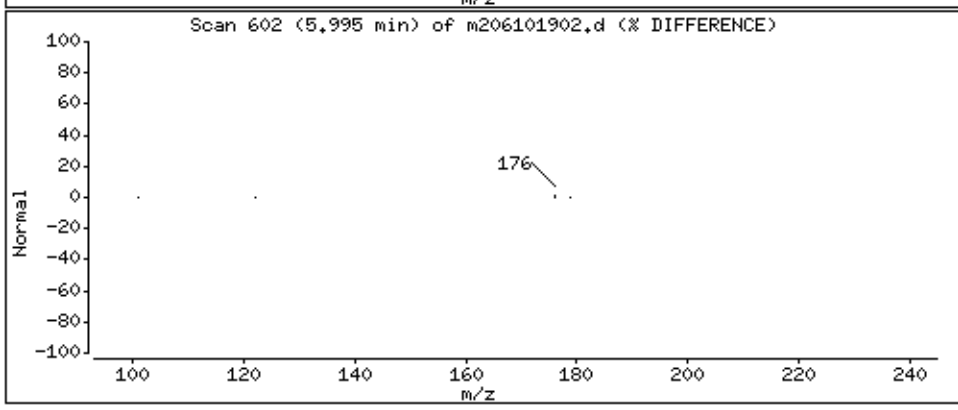












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

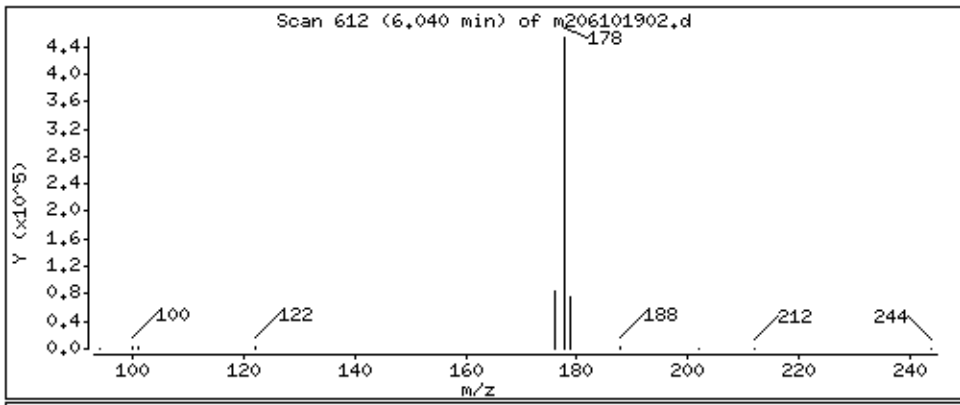
Operator: AJC

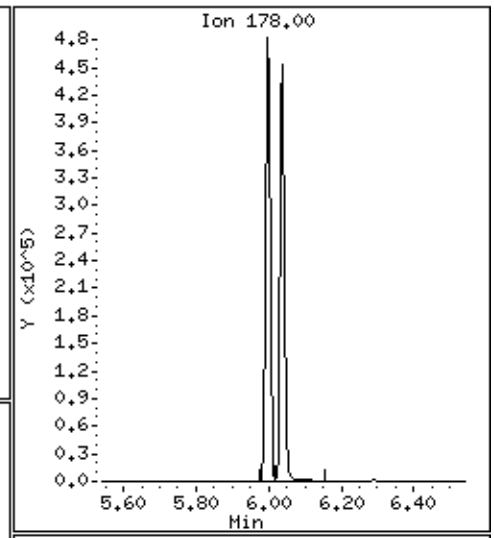
Column phase: RTX-5MS

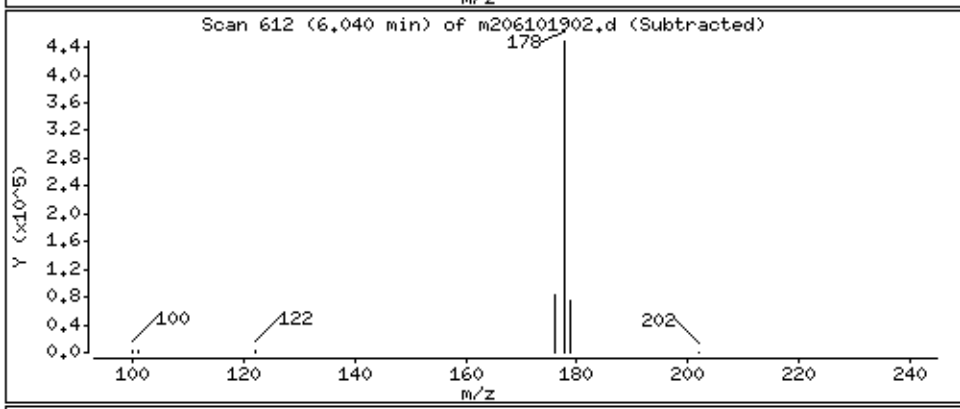
Column diameter: 0.25

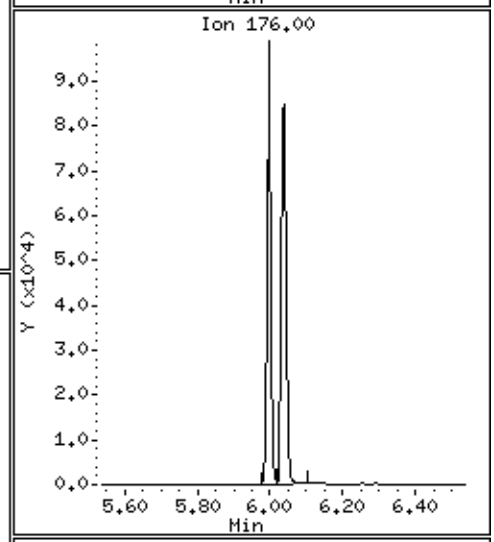
15 Anthracene

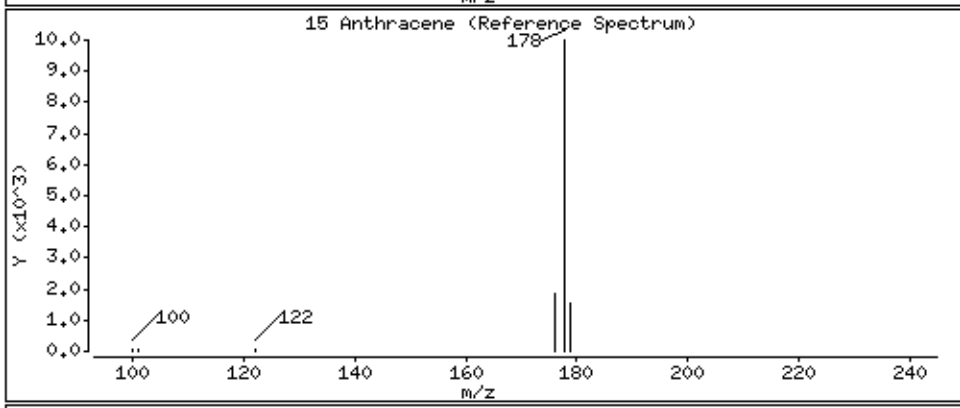
Concentration: 126 ug/Kg

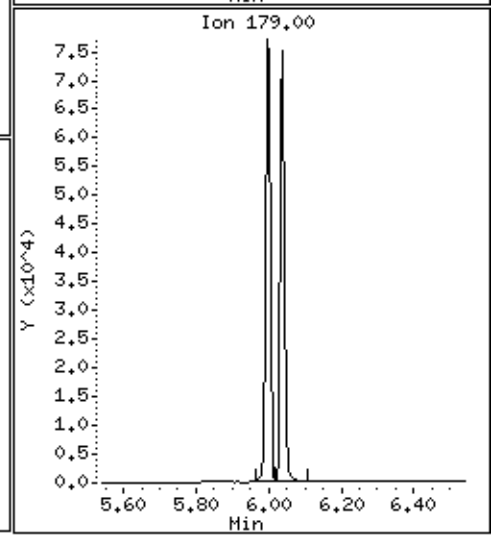


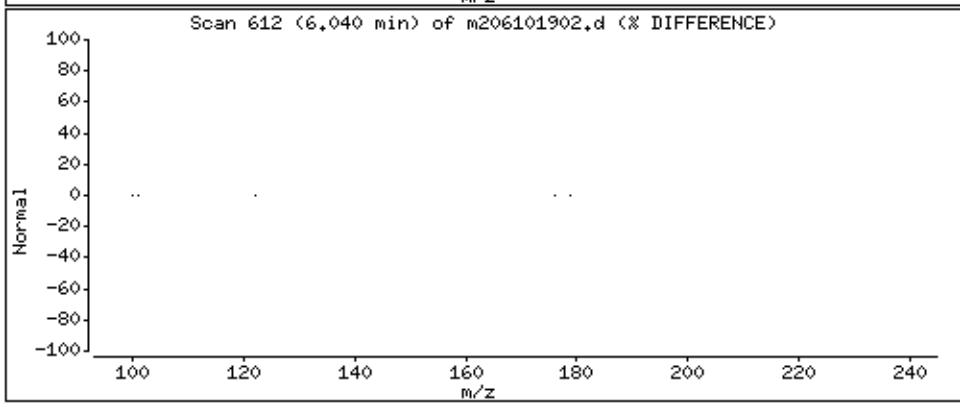












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

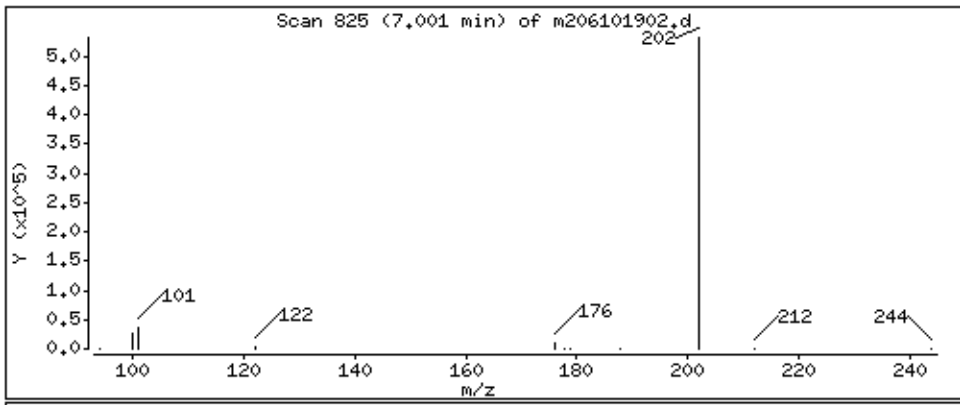
Operator: AJC

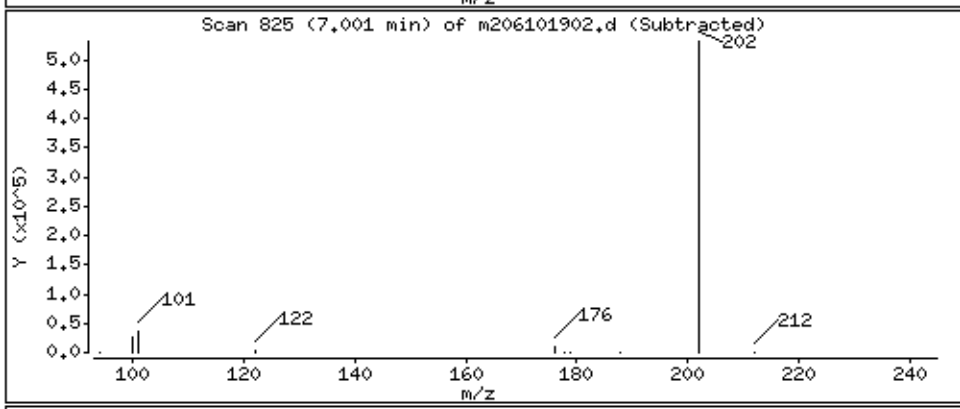
Column phase: RTX-5MS

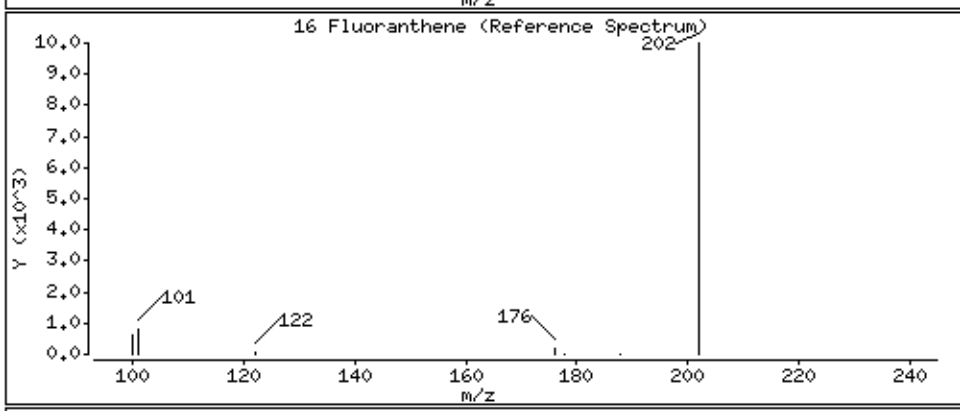
Column diameter: 0.25

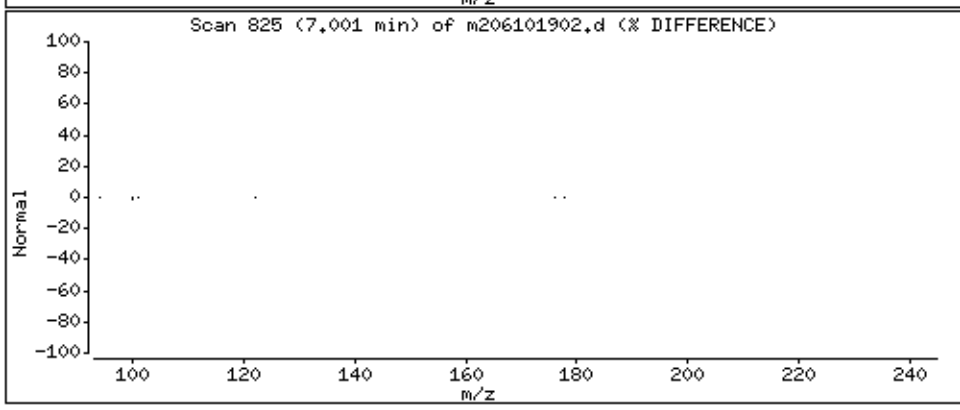
16 Fluoranthene

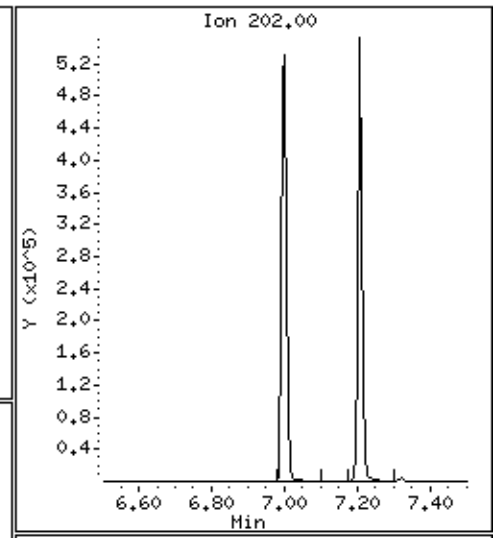
Concentration: 133 ug/Kg

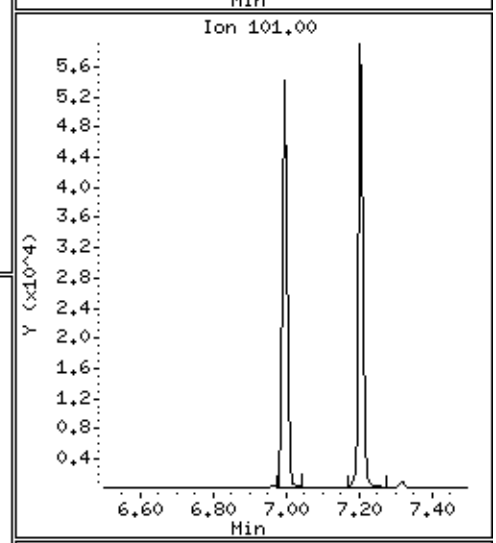


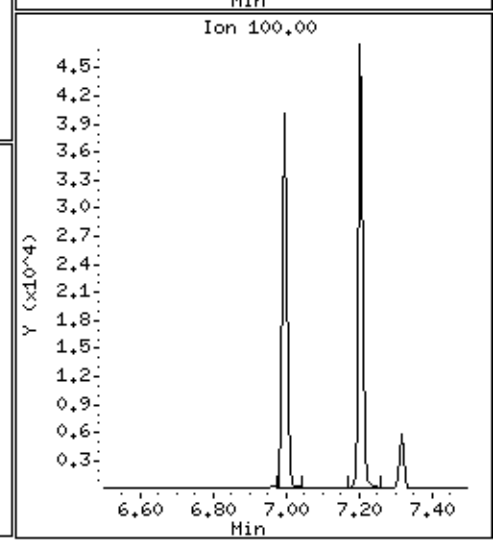












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

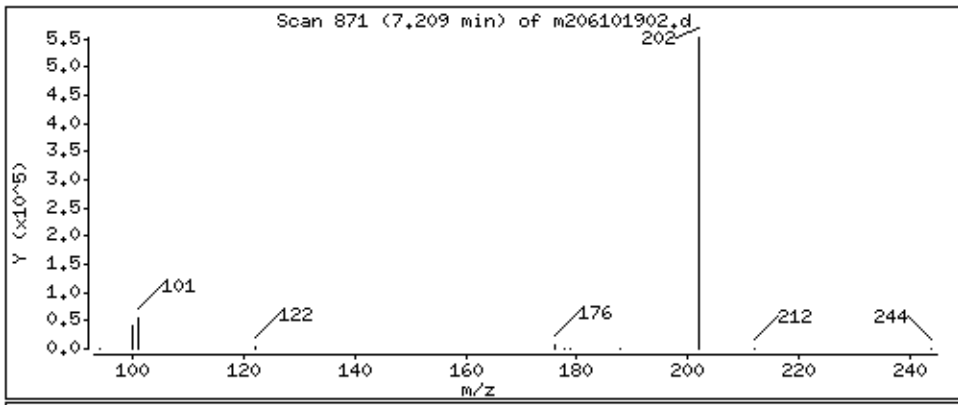
Operator: AJC

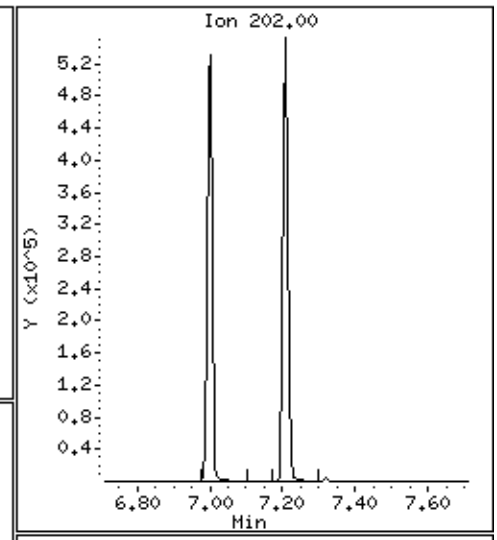
Column phase: RTX-5MS

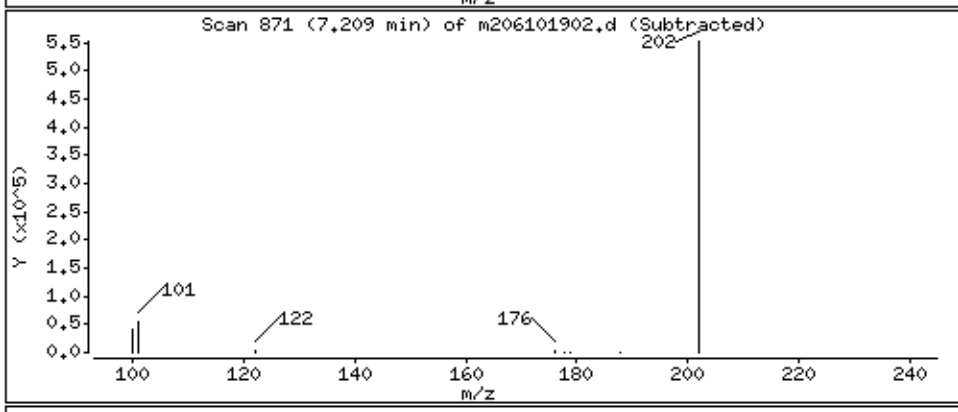
Column diameter: 0.25

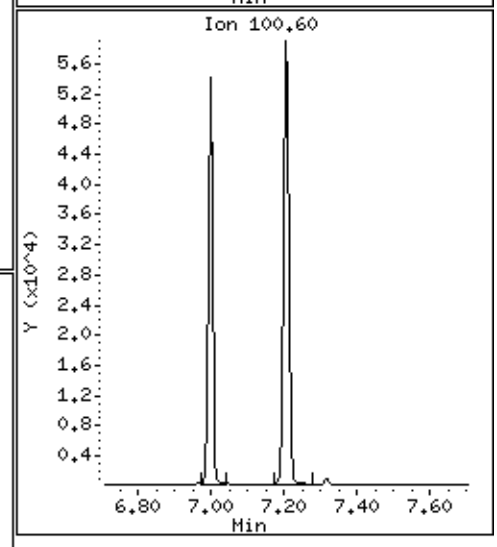
17 Pyrene

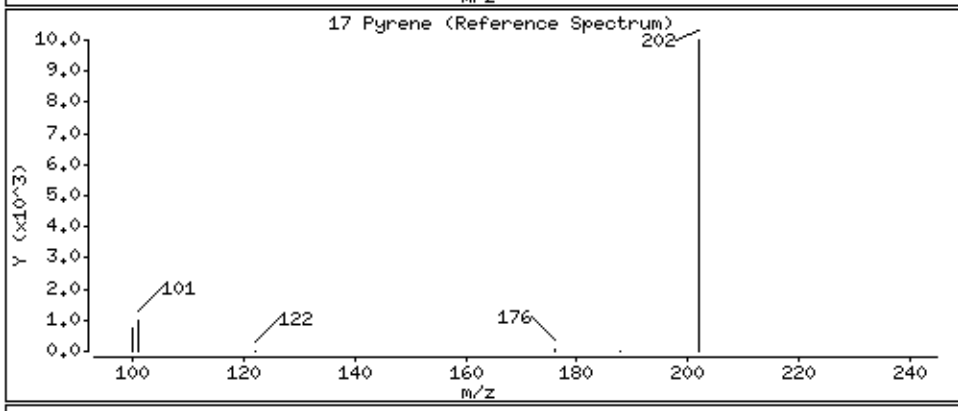
Concentration: 132 ug/Kg

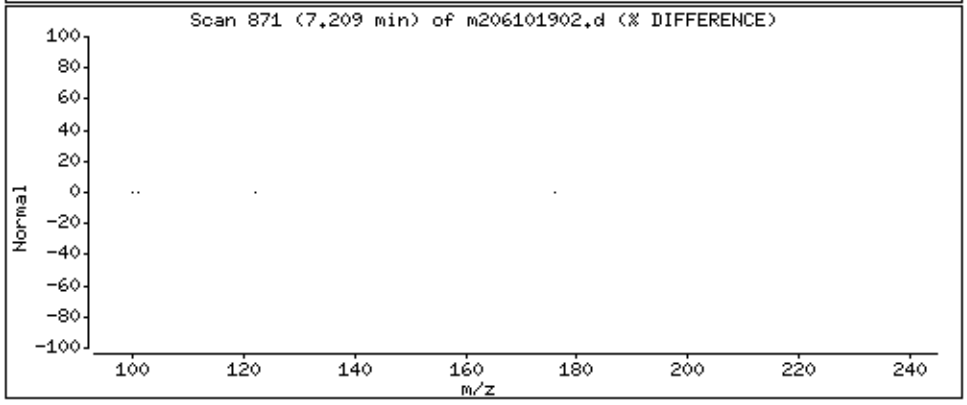












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

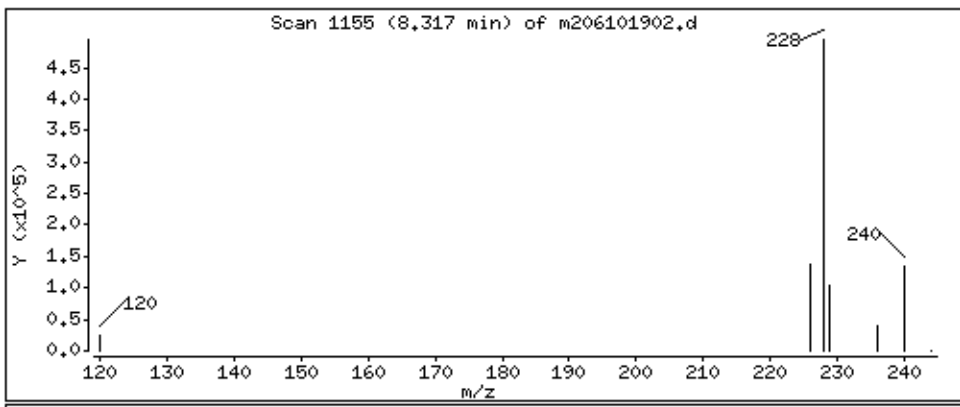
Operator: AJC

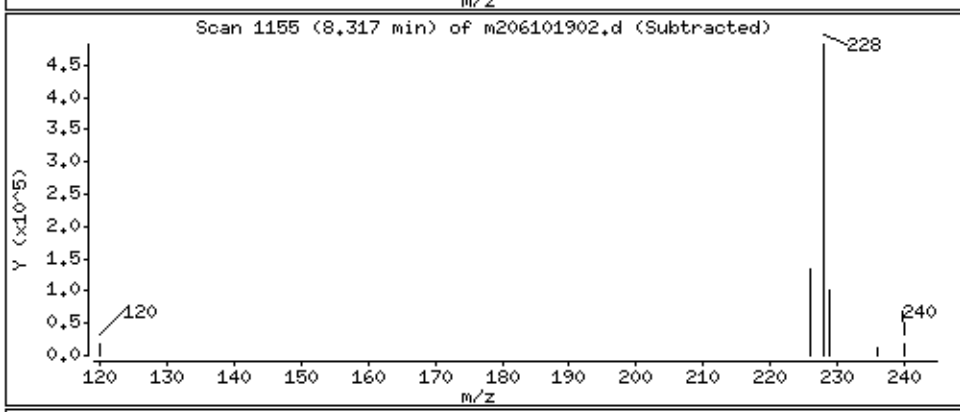
Column phase: RTX-5MS

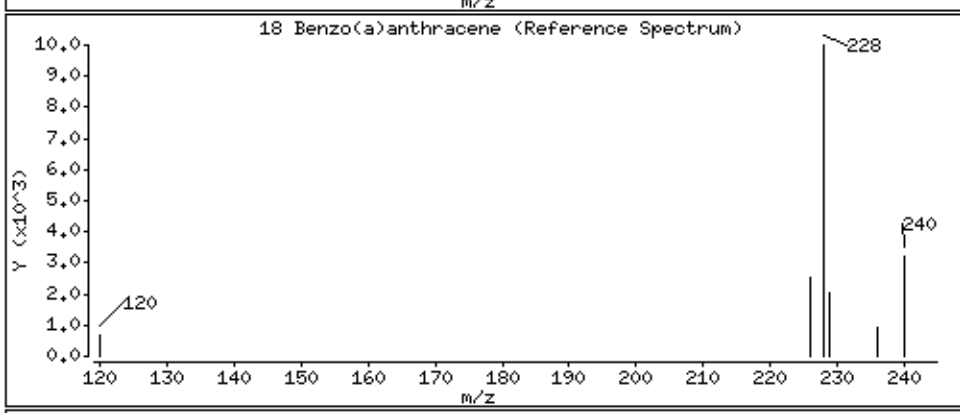
Column diameter: 0.25

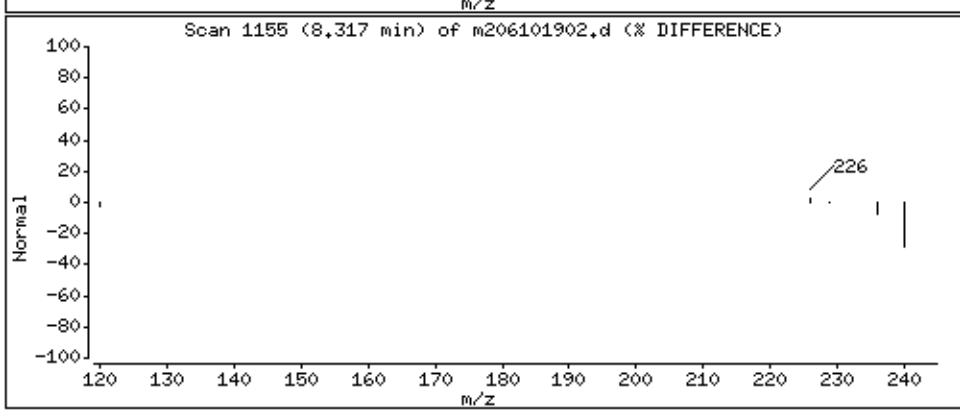
18 Benzo(a)anthracene

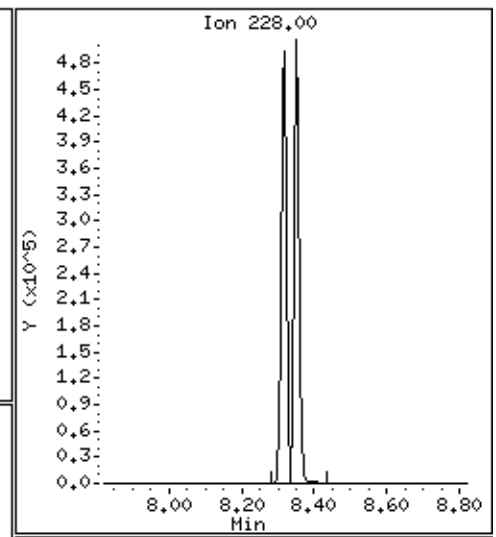
Concentration: 142 ug/Kg

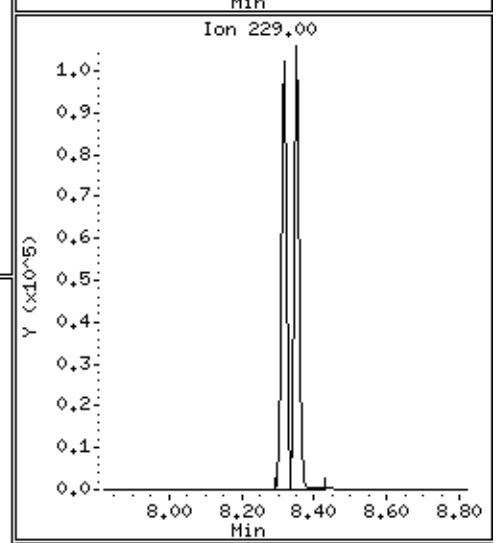


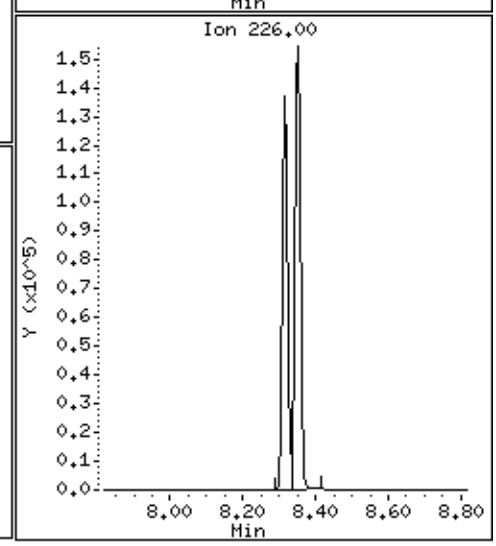












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

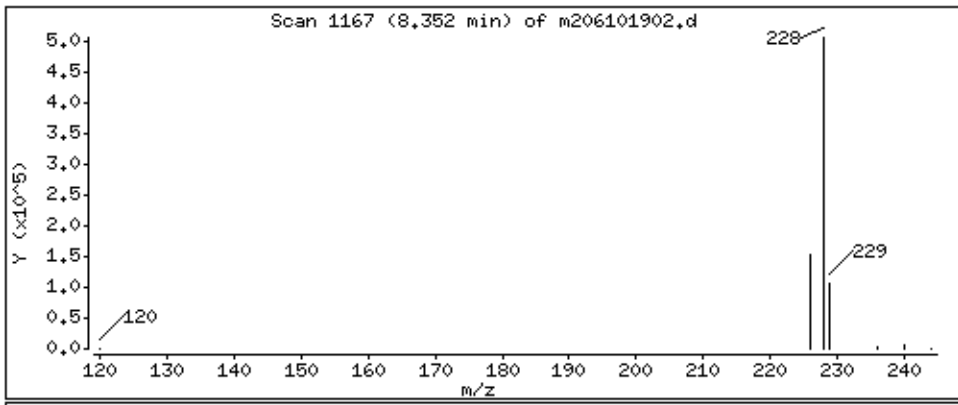
Operator: AJC

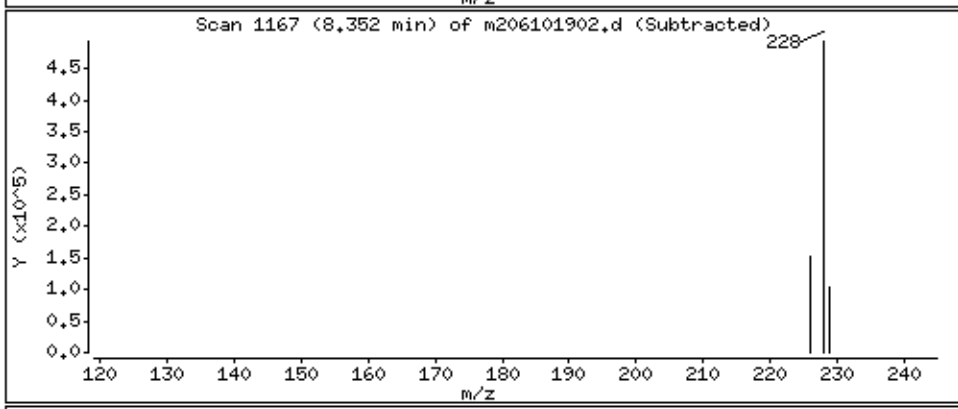
Column phase: RTX-5MS

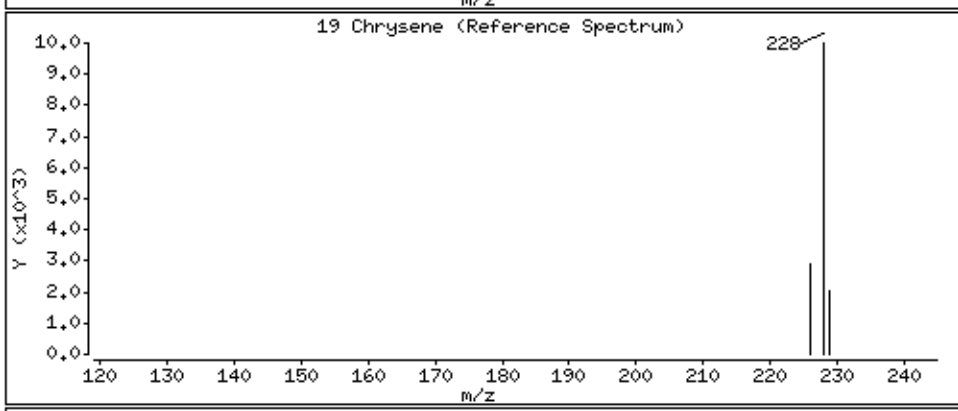
Column diameter: 0.25

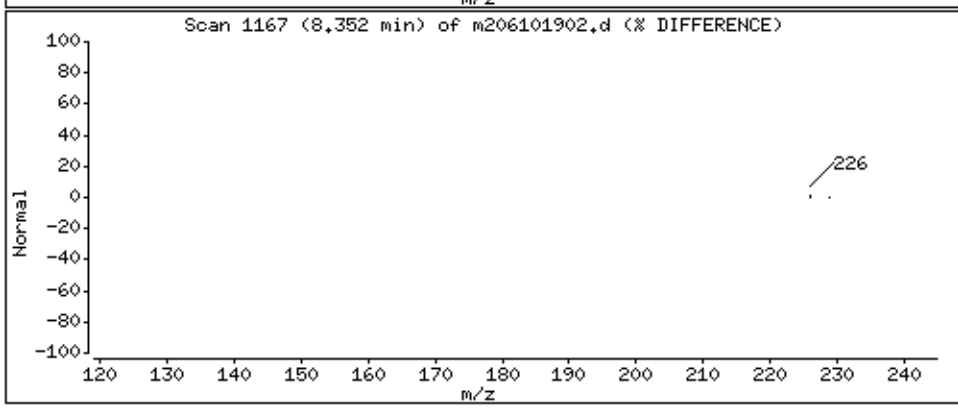
19 Chrysene

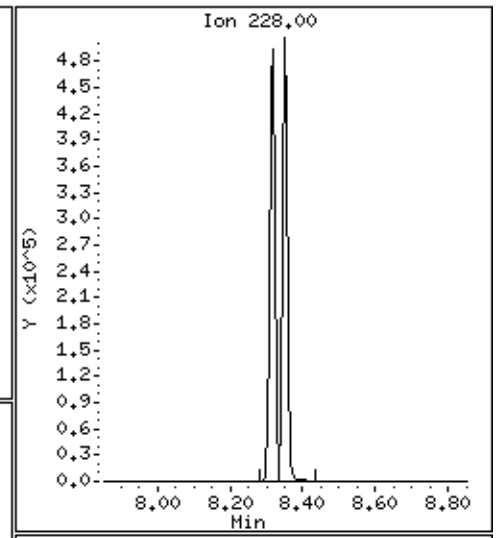
Concentration: 132 ug/Kg

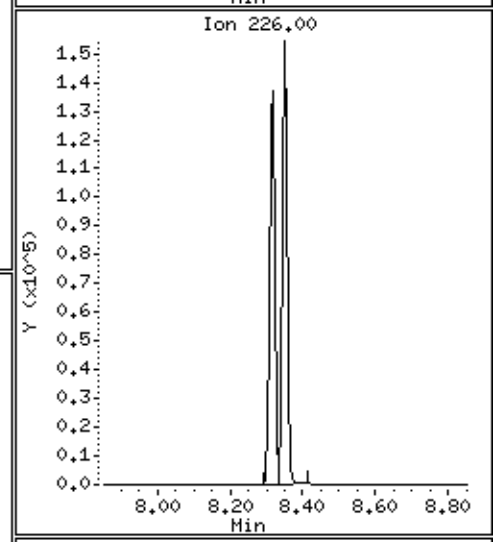


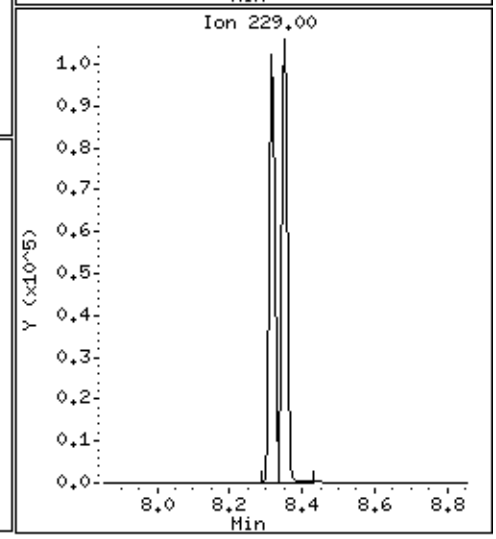












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

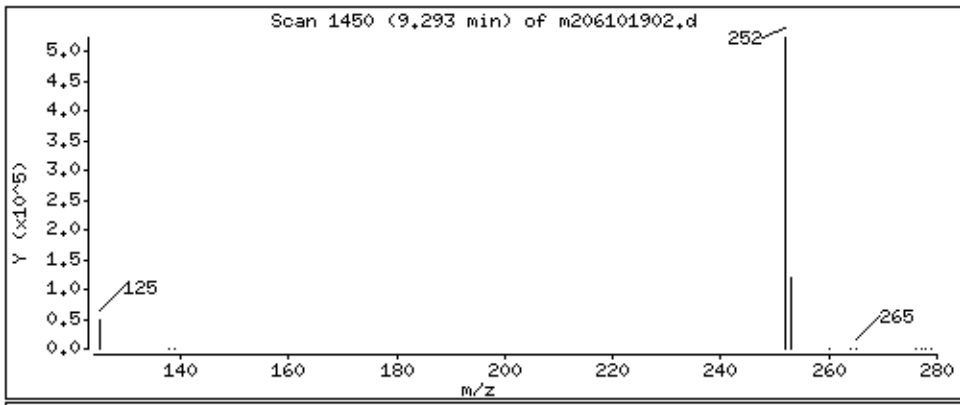
Operator: AJC

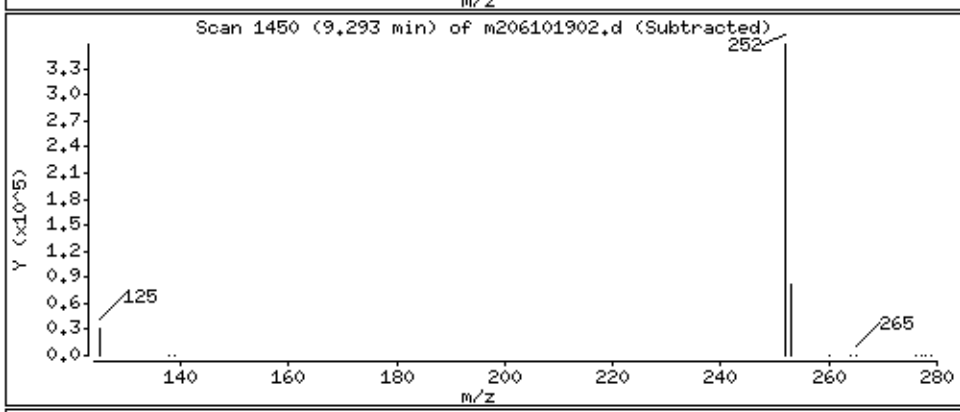
Column phase: RTX-5MS

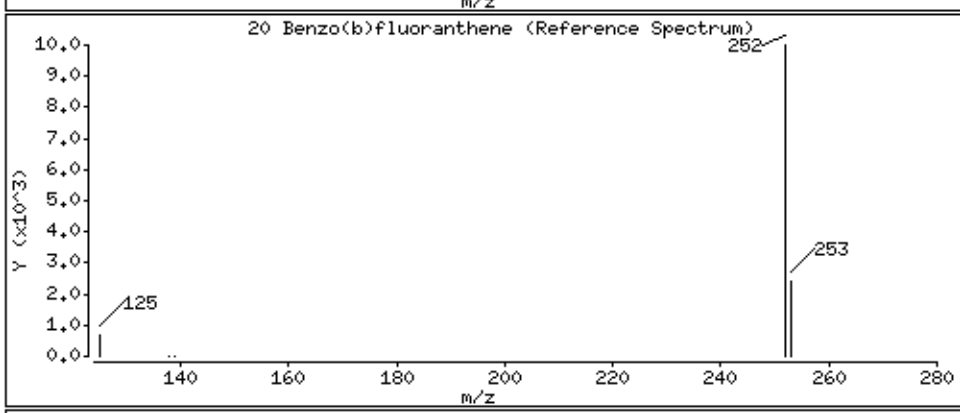
Column diameter: 0.25

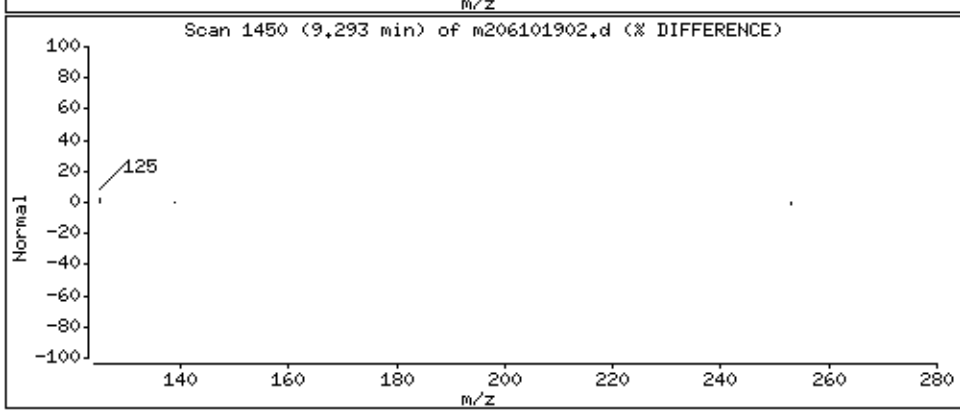
20 Benzo(b)fluoranthene

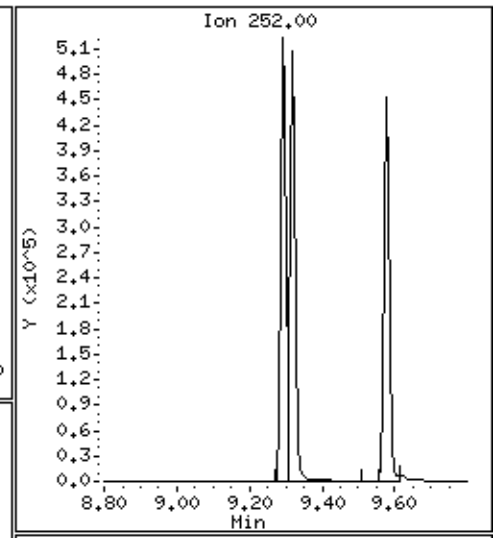
Concentration: 147 ug/Kg

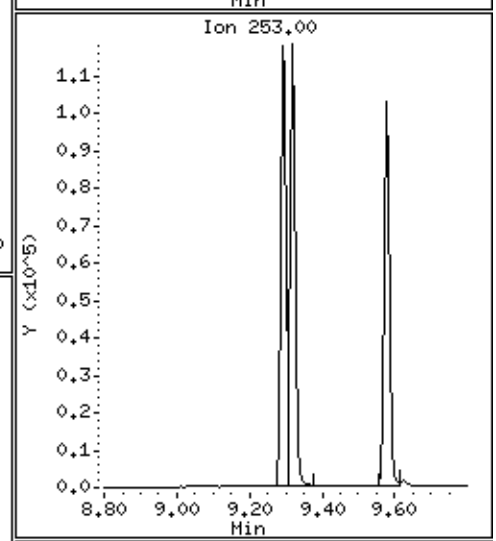


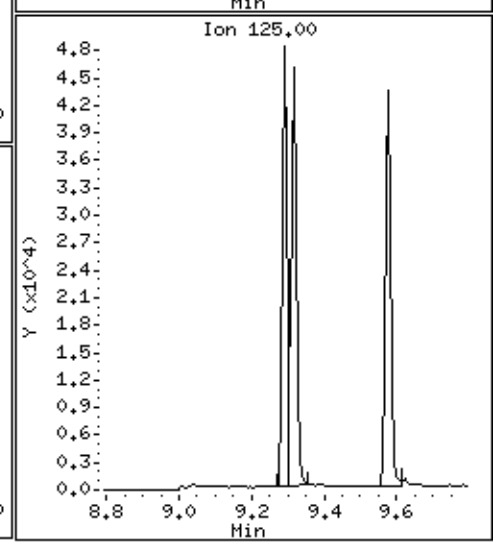












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

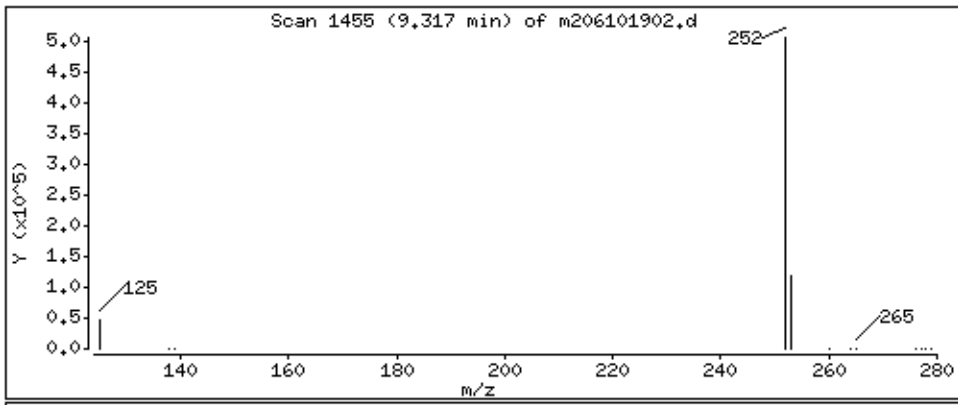
Operator: AJC

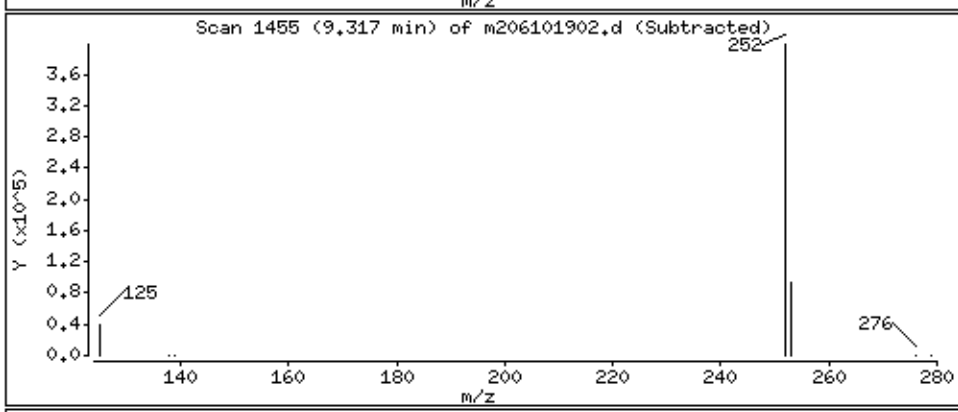
Column phase: RTX-5MS

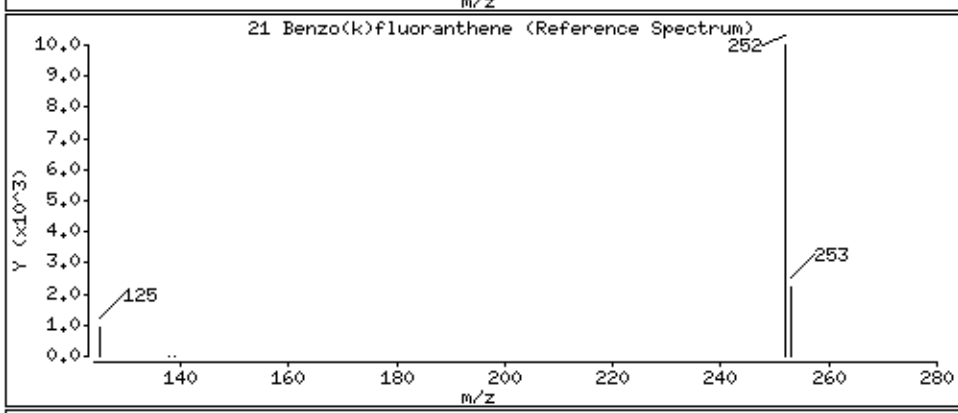
Column diameter: 0.25

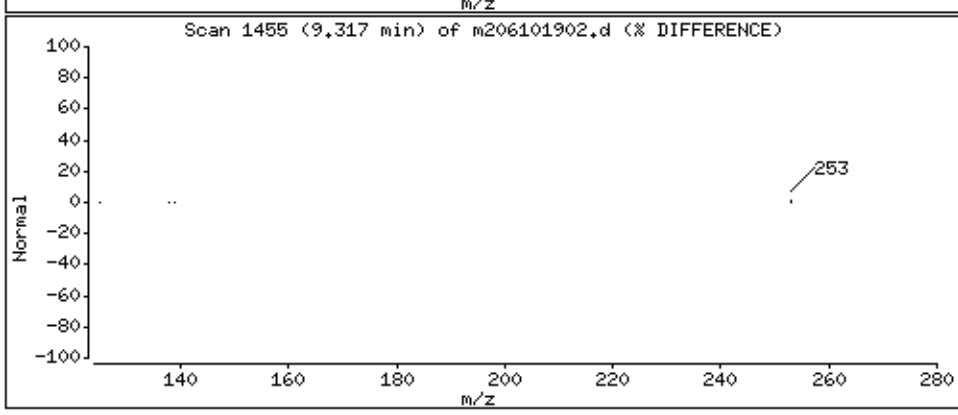
21 Benzo(k)fluoranthene

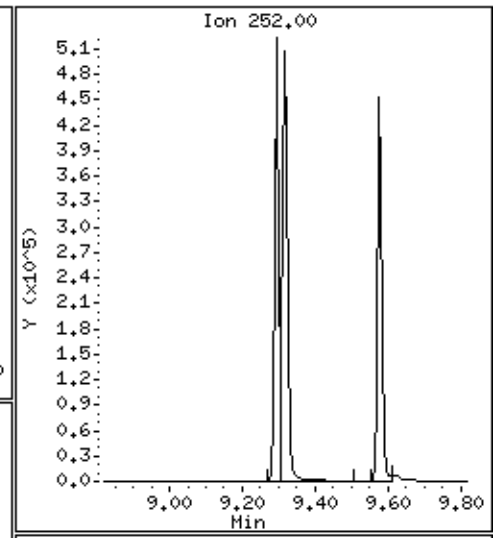
Concentration: 129 ug/Kg

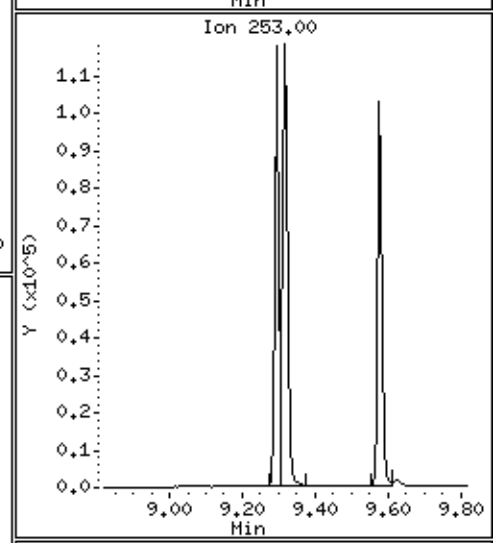


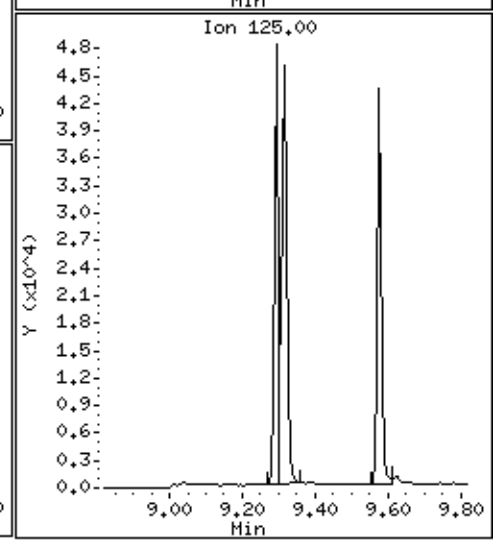












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Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

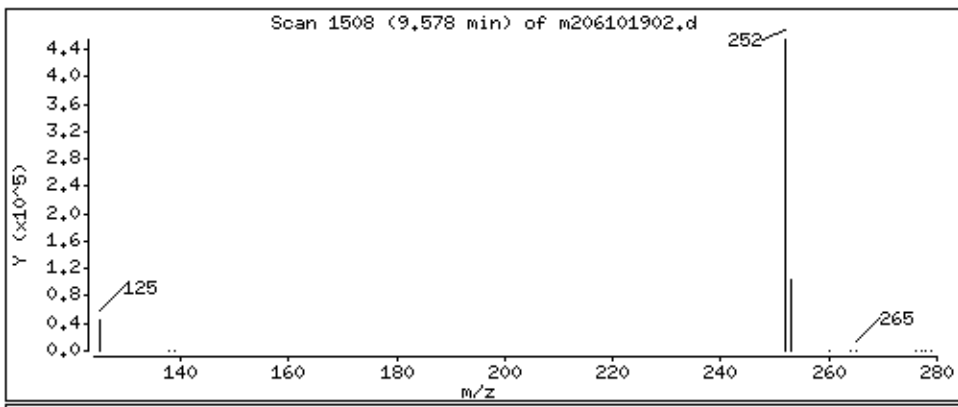
Operator: AJC

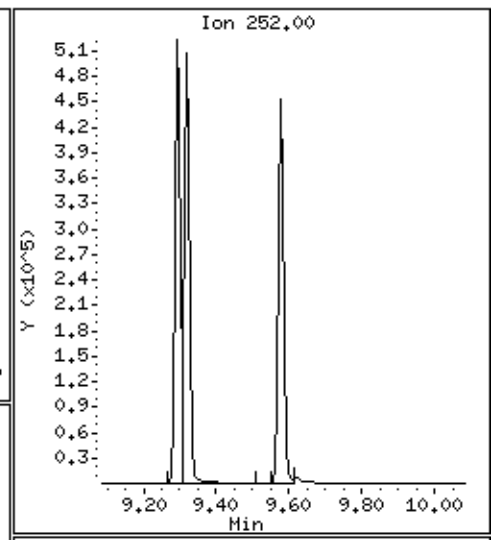
Column phase: RTX-5MS

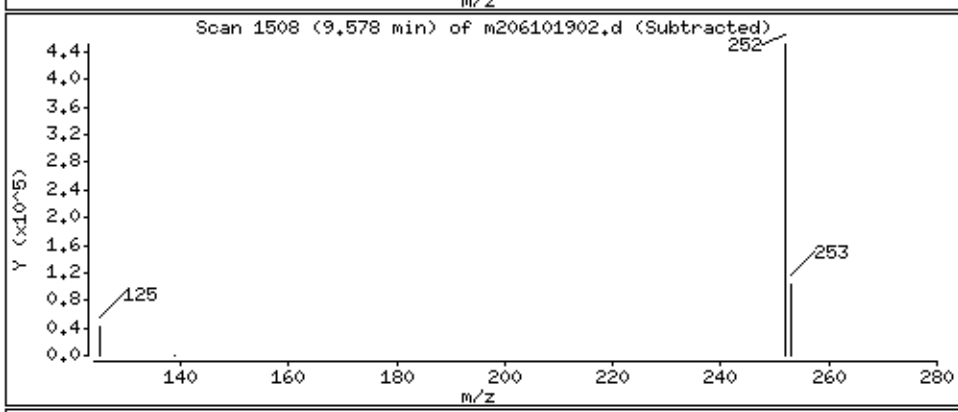
Column diameter: 0.25

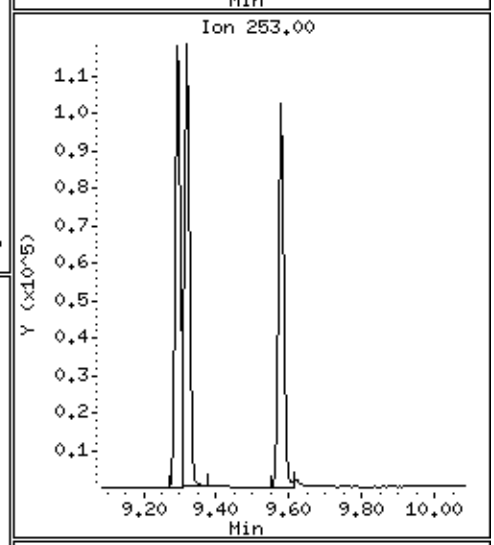
22 Benzo(a)pyrene

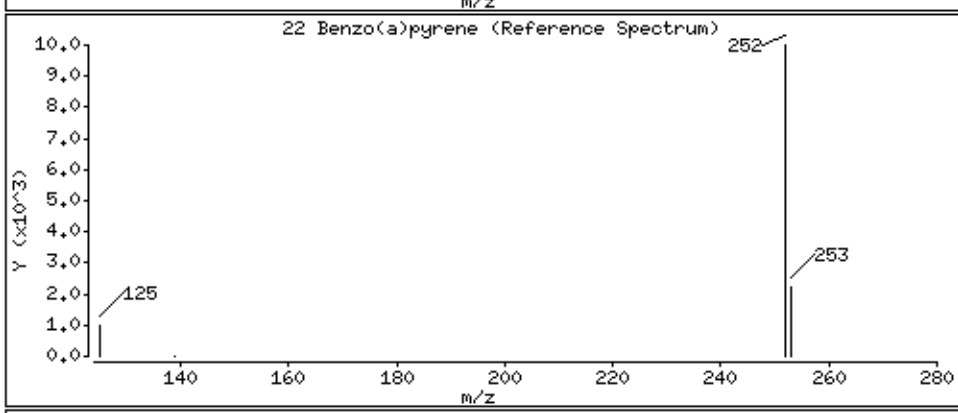
Concentration: 133 ug/Kg

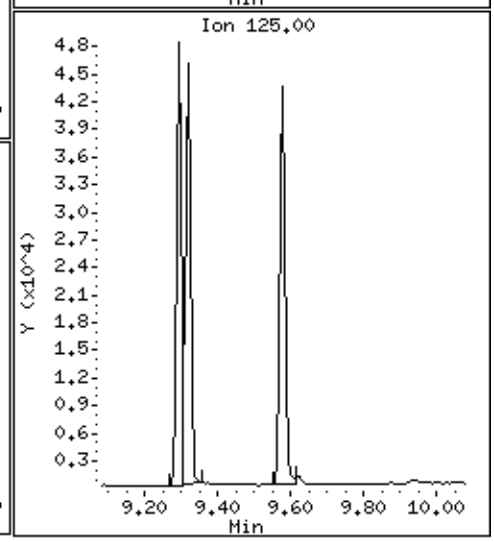


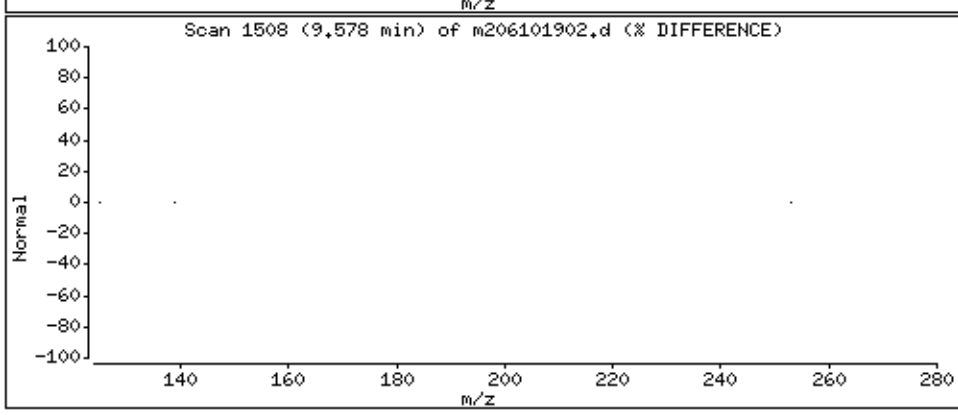












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d

Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

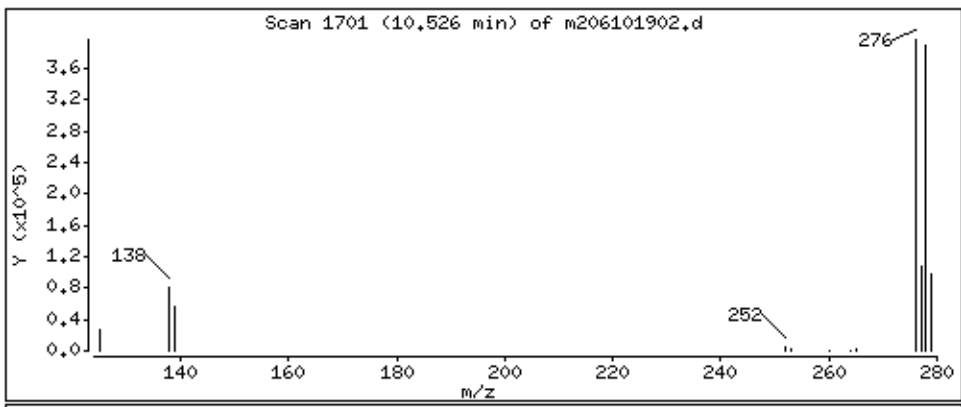
Operator: AJC

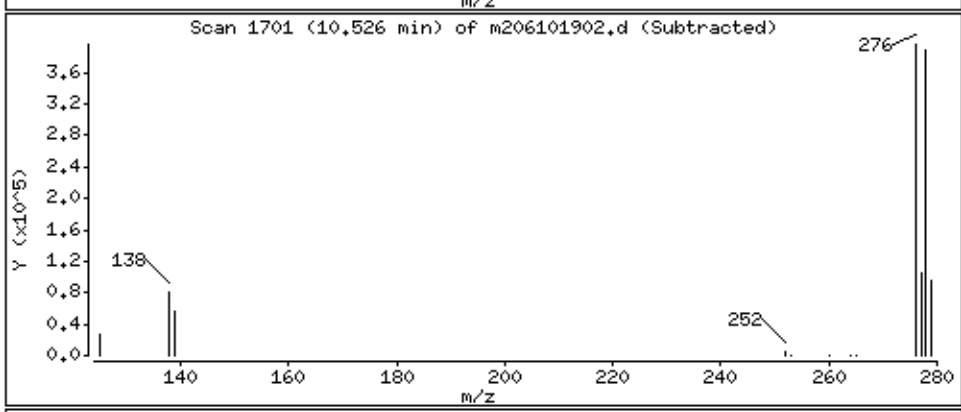
Column phase: RTX-5MS

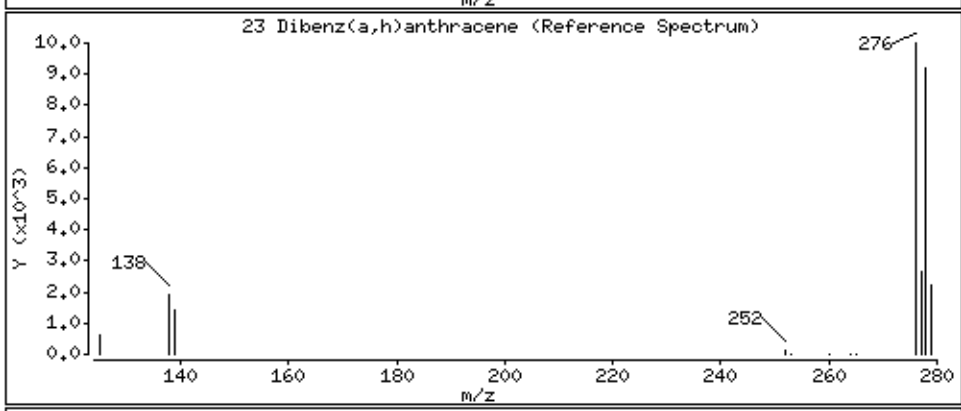
Column diameter: 0.25

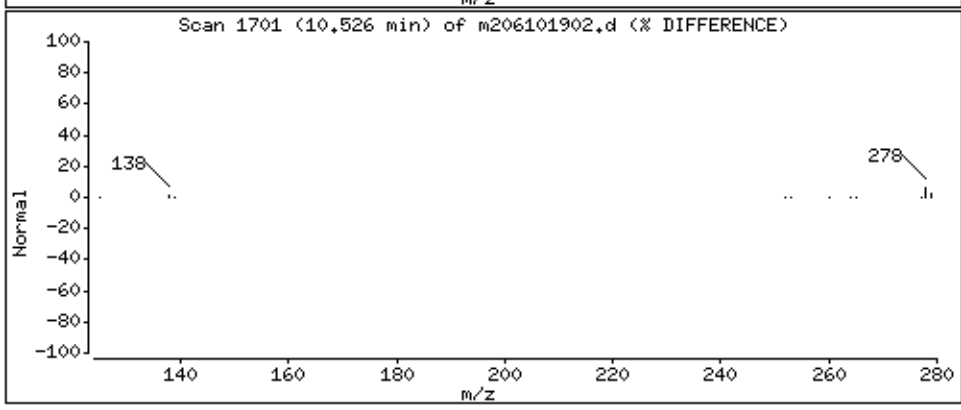
23 Dibenz(a,h)anthracene

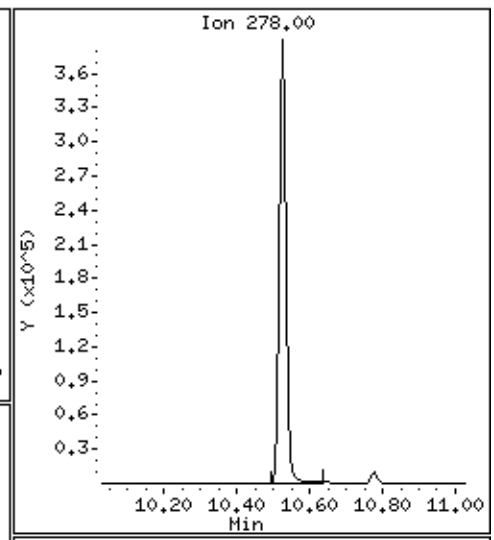
Concentration: 145 ug/Kg

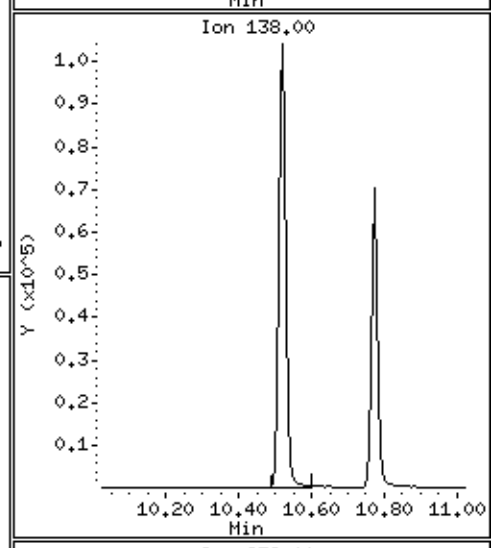


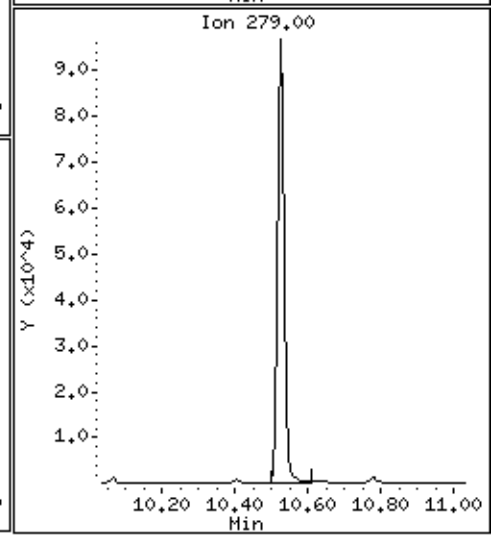












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d

Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

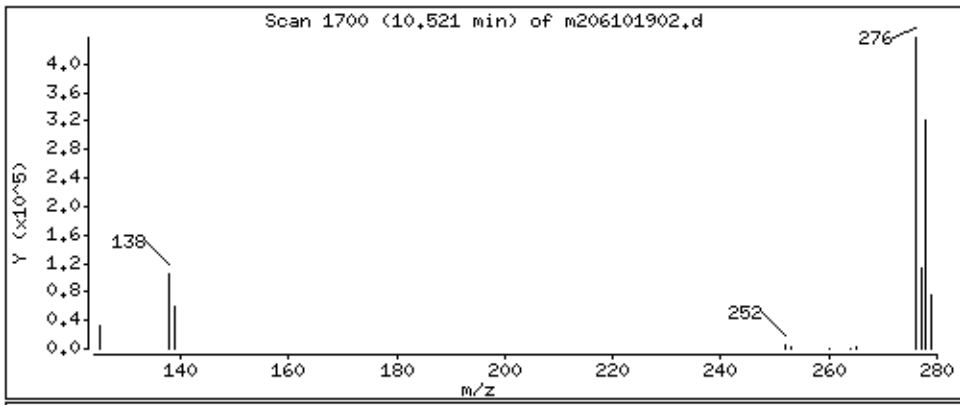
Operator: AJC

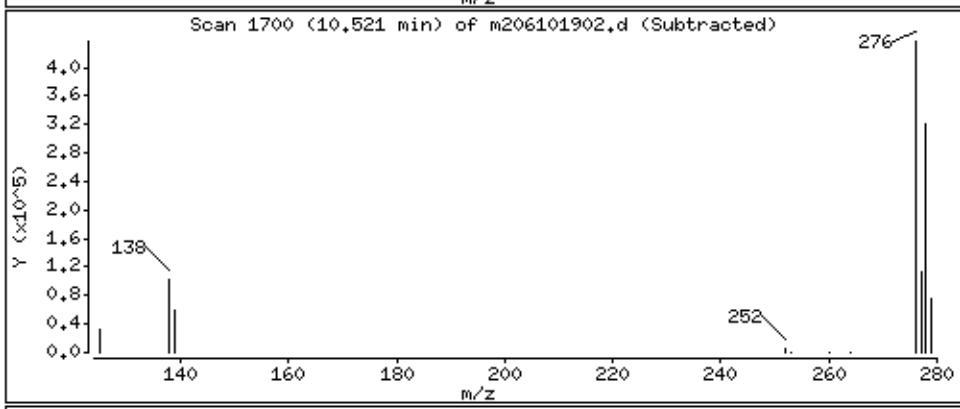
Column phase: RTX-5MS

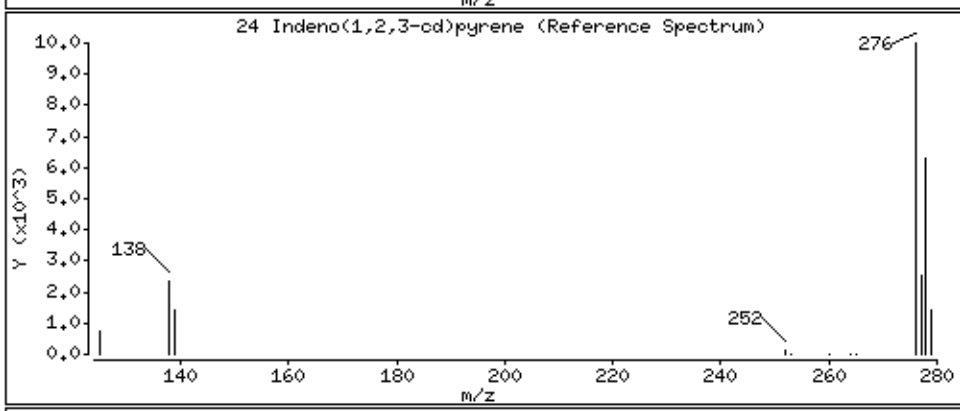
Column diameter: 0.25

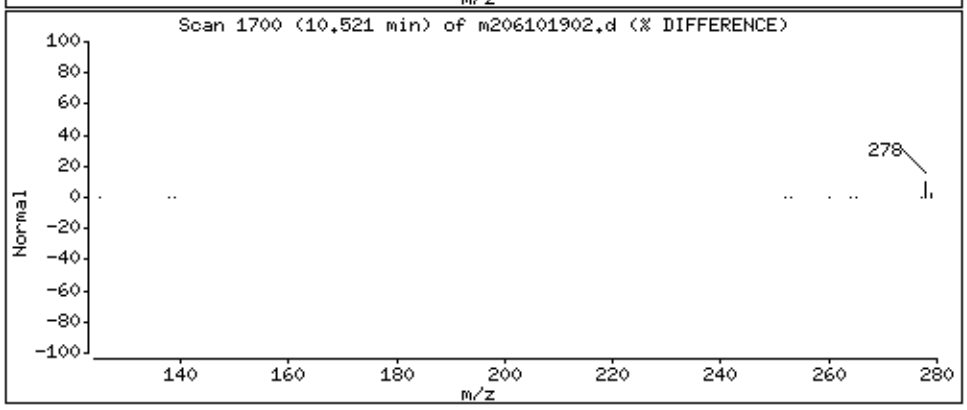
24 Indeno(1,2,3-cd)pyrene

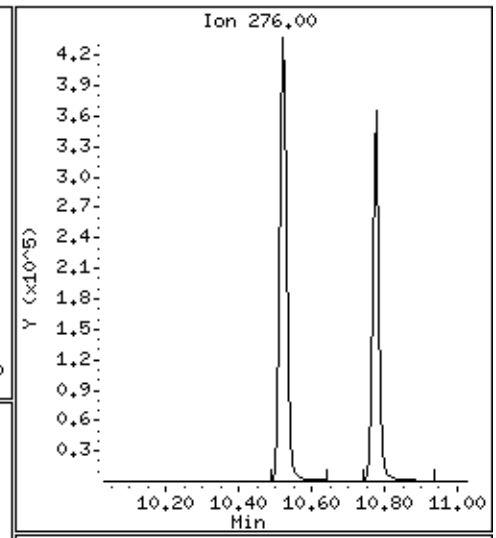
Concentration: 144 ug/Kg

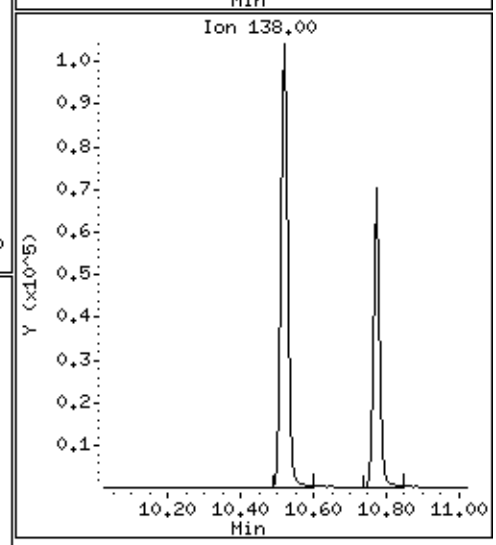












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b\m206101902.d

Date : 10-JUN-2019 15:23

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1685237,

Volume Injected (uL): 1.0

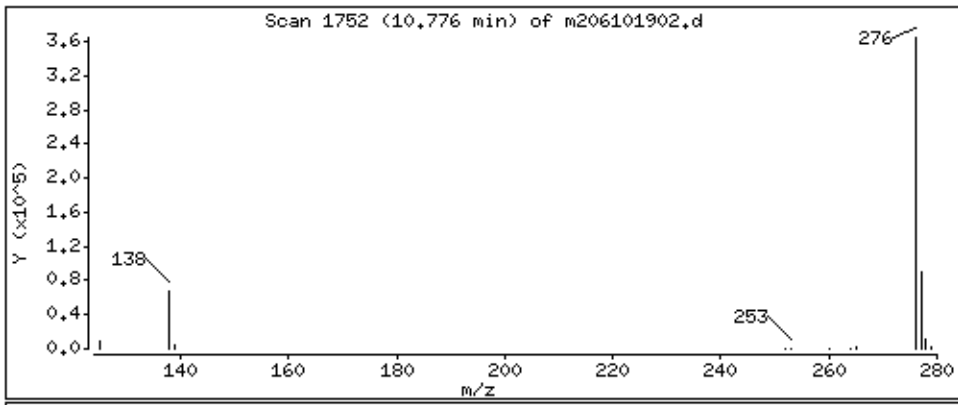
Operator: AJC

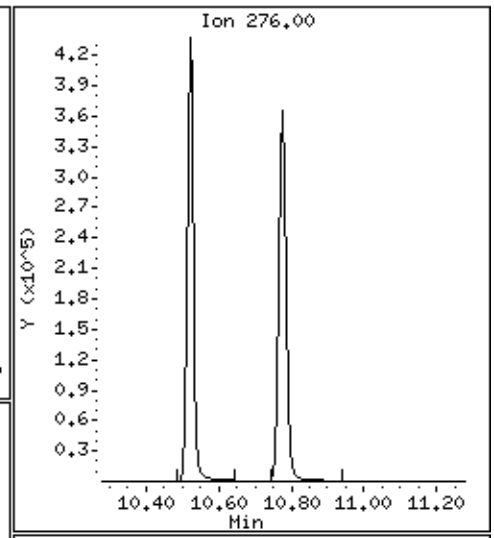
Column phase: RTX-5MS

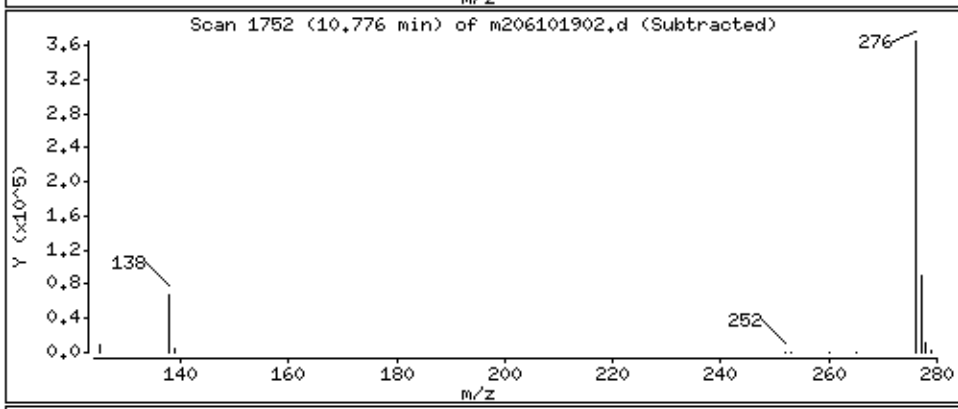
Column diameter: 0.25

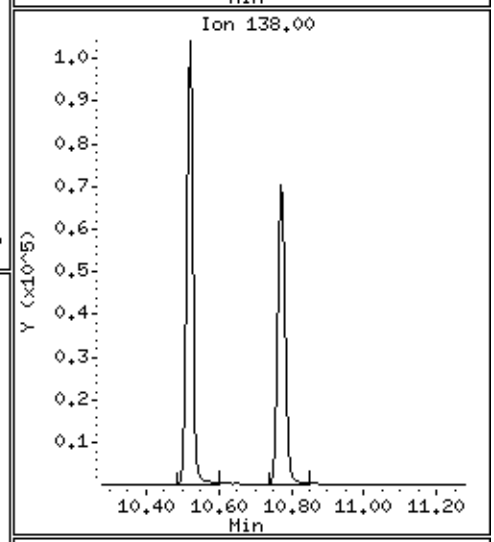
25 Benzo[g,h,i]perylene

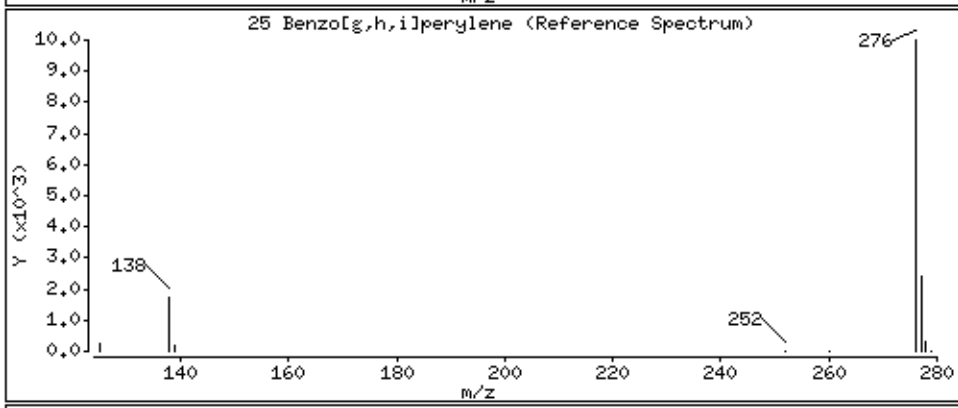
Concentration: 144 ug/Kg

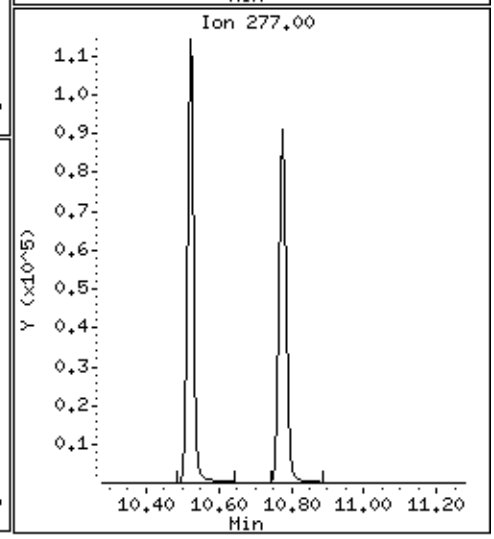


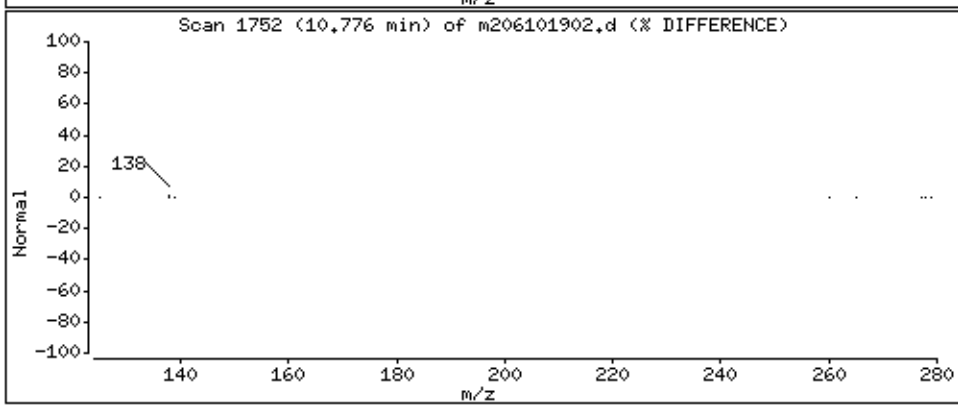












Data File: \\30wintarget\chem\30mss2.i\mss2061019.b/m206101902.d
Injection Date: 10-JUN-2019 15:23
Instrument: 30mss2.i
Lab Sample ID: 1685237
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: OEXT 38352/346350 PAH-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D by SIM
Instrument	30BA13	Extracted By	JPD	Extracted Date/Time	06/10/2019 07:58:38:828	Extraction End Date/Time	06/10/2019 13:03:07:733
Witnessed By		Spiked By	JPD	Spiked By Date	06/10/2019 08:40:22:920	Concentrated By	JPD
Concentrated By Date	06/10/2019 11:44:47:944	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR029
Syringe ID 2	NA	Methylene Chloride	89661	1:1 MeCl/Acetone	89354	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	88419	Gravity Filters	90158	Reviewed By	BBR
Reviewed By Date	06/13/2019 01:47	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	SIM-SPK (mL)	SIM-SS (mL)
8270DSJ_P	BLANK	**1685236**		TVAP006	15.3	1			86555 (.5)
8270DSJ_P	LCS	**1685237**		TVAP006	15.16	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30298235001**		TVAP006	15.23	1			86555 (.5)
8270DSJ_P	MS	**1685238**		TVAP006	15.26	1		85224 (1)	86555 (.5)
8270DSJ_P	MSD	**1685239**		TVAP006	15.35	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30298423001**		TVAP006	15.17	1			86555 (.5)
8270DSJ_P	PS	**30297558001**		TVAP005	15.49	1			86555 (.5)
8270DSJ_P	PS	**30297558002**		TVAP005	15.5	1			86555 (.5)
8270DSJ_P	PS	**30297558003**		TVAP005	15.45	1			86555 (.5)
8270DSJ_P	PS	**30297747001**		TVAP005	15.42	1			86555 (.5)
8270DSJ_P	PS	**30297747002**		TVAP005	15.26	1			86555 (.5)
8270DSJ_P	PS	**30297747003**		TVAP005	15.18	1			86555 (.5)
8270DSJ_P	PS	**30297747004**		TVAP003	15.37	1			86555 (.5)
8270DSJ_P	PS	**30297747005**		TVAP003	15.41	1			86555 (.5)
8270DSJ_P	PS	**30298231001**		TVAP003	15.41	1			86555 (.5)
8270DSJ_P	PS	**30298231010**		TVAP003	15.4	1			86555 (.5)
8270DSJ_P	OQS	**30297304001**		TVAP003	15.12	1			86555 (.5)
8270DSJ_P	PS	**30297304002**		TVAP003	15.31	1			86555 (.5)

Prep Log Report

Standard Notes:

85224: OEXT PAH SIM spike 2 ppm

86555: BNA LL Surrogate 10/15ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 88573
Tune std: 79378

Method: 8270D sim DCM 80877
Surr. lot:
Cal. std: 89118-89124

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2053119r1.d	RT TEST	N/		1	m2053019pahcd	5/31/19	13:42	AJC	
1/m2053119t1.d	TUNE, 79378:1	N/14627	DFTPP	1	8270dsw846tun	5/31/19	13:59	AJC	
1/m2053119s1.d	CCV, 89121:1	N/14627		1	m2053019pahcd	5/31/19	14:11	AJC	
1/m2053119s2.d	CCV, 89121:1	N/14627		1	m2053019pahcd	5/31/19	14:29	AJC	
1/m2053119z1.d	CAL1, 89118:1	N/14644	CALIB_1	1	m2053119pahcd	5/31/19	14:47	AJC	
1/m2053119z111.d	CAL1, 89118:1	N/14644	CCALIB_1	1	m2053119pahcd	5/31/19	14:47	AJC	
1/m2053119z2.d	CAL2, 89119:1	N/14644	CALIB_2	1	m2053119pahcd	5/31/19	15:05	AJC	
1/m2053119z3.d	CAL3, 89120:1	N/14644	CALIB_3	1	m2053119pahcd	5/31/19	15:23	AJC	
1/m2053119z4.d	CAL4, 89121:1	N/14644	CALIB_4	1	m2053119pahcd	5/31/19	15:41	AJC	
1/m2053119z5.d	CAL5, 89122:1	N/14644	CALIB_5	1	m2053119pahcd	5/31/19	15:59	AJC	
1/m2053119z6.d	CAL6, 89123:1	N/14644	CALIB_6	1	m2053119pahcd	5/31/19	16:17	AJC	
1/m2053119z7.d	ICV, 89124:1	N/14644	CCALIB_4	1	m2053119pahcd	5/31/19	16:35	AJC	
1/m205311901.d	1677918,	S/14640	BLANK	1	m2053119pahcd	5/31/19	16:52	AJC	
1/m205311902.d	1677919,	S/14640	LCS	1	m2053119pahcd	5/31/19	17:10	AJC	
1/m205311903.d	30295971001,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	17:28	AJC	Btk
1/m205311904.d	1677920,	S/14640	MS	1	m2053119pahcd	5/31/19	17:46	AJC	
1/m205311905.d	1677921,	S/14640	MSD	1	m2053119pahcd	5/31/19	18:04	AJC	
1/m205311906.d	30295971002,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	18:22	AJC	Btk
1/m205311907.d	30295971003,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	18:39	AJC	Btk
1/m205311908.d	30295971004,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	18:57	AJC	Btk
1/m205311909.d	30295971005,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	19:15	AJC	Btk
1/m205311910.d	30296116001,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	19:33	AJC	not used
1/m205311911.d	30296116001x10,	S/14640	SAMPLE	10	m2053119pahcd	5/31/19	19:51	AJC	
1/m205311912.d	30296116002,	S/14640	SAMPLE	1	m2053119pahcd	5/31/19	20:08	AJC	not used
1/m205311913.d	30296116002x10,	S/14640	SAMPLE	10	m2053119pahcd	5/31/19	20:26	AJC	
1/m205311914.d	30296137006x100,	L/14634	SAMPLE	100	m2053119pahcd	5/31/19	20:44	AJC	

AJC 6-3-19

Check Maintenance Items Performed:

- X Changed septum
- X Cleaned liner
- ___ Replaced/Cleaned gold seal
- X Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6-3-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2053119.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:53 06/03/2019

Reviewed By/Date: [signature] 6/6/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 88513
Tune std: 79378

Method: 8270D_m
Dcm 80877
Surr. lot:
Cal. std: 89121

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2061019r1.d	RT TEST	N/	CCALIB_4	1	m2053119pahcd	6/10/19	12:41	AJC	
1/m2061019t1.d	TUNE, 79378:1	N/14644	DFTPP	1	8270dsw846tun	6/10/19	14:31	AJC	
1/m2061019s1.d	CCV, 89121:1	N/14644	CCALIB_4	1	m2053119pahcd	6/10/19	14:45	AJC	
1/m206101901.d	1685236,	S/14682	BLANK	1	m2053119pahcd	6/10/19	15:05	AJC	
1/m206101902.d	1685237,	S/14682	LCS	1	m2053119pahcd	6/10/19	15:23	AJC	
1/m206101903.d	30297822007,	S/14679	SAMPLE	1	m2053119pahcd	6/10/19	15:41	AJC	
1/m206101904.d	30297822008,	S/14679	SAMPLE	1	m2053119pahcd	6/10/19	15:59	AJC	
1/m206101905.d	30297558001,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	16:17	AJC	
1/m206101906.d	30297558002,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	16:34	AJC	
1/m206101907.d	30297558003,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	16:52	AJC	
1/m206101908.d	30297747001,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	17:10	AJC	BHK
1/m206101909.d	30297747002,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	17:28	AJC	BHK
1/m206101910.d	30297747004,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	17:46	AJC	
1/m206101911.d	30297747005,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	18:04	AJC	BHK
1/m206101912.d	30297747003,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	18:22	AJC	
1/m206101913.d	30297747003x10,	S/14682	SAMPLE	10	m2053119pahcd	6/10/19	18:40	AJC	not needed
1/m206101914.d	30297304001,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	18:58	AJC	
1/m206101915.d	30297304001x10,	S/14682	SAMPLE	10	m2053119pahcd	6/10/19	19:16	AJC	not needed
1/m206101916.d	30297304002,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	19:34	AJC	
1/m206101917.d	30297304002x10,	S/14682	SAMPLE	10	m2053119pahcd	6/10/19	19:52	AJC	not needed
1/m206101918.d	30298043001x10,	L/14678	SAMPLE	10	m2053119pahcd	6/10/19	20:09	AJC	
1/m206101919.d	30298235001,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	20:27	AJC	
1/m206101920.d	30298235001x10,	S/14682	SAMPLE	10	m2053119pahcd	6/10/19	20:45	AJC	
1/m206101921.d	30298235001x100,	S/14682	SAMPLE	100	m2053119pahcd	6/10/19	21:03	AJC	not needed
1/m206101922.d	1685238,	S/14682	MS	1	m2053119pahcd	6/10/19	21:21	AJC	1 surr 5%
1/m206101923.d	1685238x10,	S/14682	MS	10	m2053119pahcd	6/10/19	21:38	AJC	1 surr 5%
1/m206101924.d	1685238x100,	S/14682	MS	100	m2053119pahcd	6/10/19	21:56	AJC	not needed
1/m206101925.d	1685239,	S/14682	MSD	1	m2053119pahcd	6/10/19	22:14	AJC	1 surr 5%
1/m206101926.d	1685239x10,	S/14682	MSD	10	m2053119pahcd	6/10/19	22:32	AJC	1 surr 5%
1/m206101927.d	1685239x100,	S/14682	MSD	100	m2053119pahcd	6/10/19	22:50	AJC	not needed
1/m206101928.d	30298423001,	S/14682	SAMPLE	1	m2053119pahcd	6/10/19	23:07	AJC	BHK
1/m206101929.d	30298423001x10,	S/14682	SAMPLE	10	m2053119pahcd	6/10/19	23:25	AJC	not needed
1/m206101930.d	30298423001x100,	S/14682	SAMPLE	100	m2053119pahcd	6/10/19	23:43	AJC	not needed

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [ ] Replaced/Cleaned gold seal
- [X] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [ ] Other minor parts replaced _____
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6-11-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061019.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:30 06/11/2019

Reviewed By/Date: TAW 6-11-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 88573
Tune std: 79378

Method: 8270Dsim Dcm 80877
Surr. lot:
Cal. std: 89121

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m206101931.d	30298231001,	S/14682	SAMPLE	1	m2053119pahcd	6/11/19	00:00	AJC	BrL Is out 5↓
1/m206101932.d	30298231001x10,	S/14682	SAMPLE	10	m2053119pahcd	6/11/19	00:18	AJC	Is out 5↓
1/m206101933.d	30298231010,	S/14682	SAMPLE	1	m2053119pahcd	6/11/19	00:36	AJC	Is out 5↓
1/m206101934.d	30298231010x10,	S/14682	SAMPLE	10	m2053119pahcd	6/11/19	00:54	AJC	Is out 5↓

6-11-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061019.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:30 06/11/2019

Reviewed By/Date: DAW 6-11-19

PESTICIDES - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSC

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1685290	1685290LB	88	81
1688044	1688044LCS	87	79
30298231001	AOC35L	86	84
30298231010	AOC34	88	82

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(24-108)
(TCMX) = Tetrachloro-m-xylene (S)	(44-93)

* Values outside of QC Limits

PESTICIDES - FORM III SVOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1688044LCS
Date Extracted: 06/13/2019
Date Analyzed (1): 06/17/2019
Instrument: 30GCSC
LCS Lot No: 90623
Lab File ID: 061719-2.B\2019-06-17-012.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
gamma-BHC (Lindane)	0.80	0.67	84	58-99
Endrin	1.6	1.4	85	60-103
Heptachlor	0.80	0.62	77	51-104
Heptachlor epoxide	0.80	0.65	82	59-98
Methoxychlor	8.0	6.9	86	58-108

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1688045MS

Date Extracted: 06/13/2019

Date Analyzed (1): 06/17/2019

Instrument: 30GCSC

Lab File ID: 061719-1.B\2019-06-17-016.D

Parent Sample ID: 30298295002

SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
Endrin	1.6	ND	1.5	94	33-142
Heptachlor	0.80	ND	0.68	80	10-138
Heptachlor epoxide	0.80	ND	0.73	87	39-115
Methoxychlor	8.0	ND	7.5	94	10-158
gamma-BHC (Lindane)	0.80	ND	0.76	92	10-146

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSC Matrix Spike Duplicate - Sample No: 1688046MSD

Lab File ID (2): 061719-2.B\2019-06-17-017.D Date Analyzed (2): 06/17/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Endrin	1.6	1.5	94	0	0-25	33-142
Heptachlor	0.80	0.70	82	2	0-25	10-138
Heptachlor epoxide	0.80	0.73	87	1	0-25	39-115
Methoxychlor	8.0	7.5	94	0	0-25	10-158
gamma-BHC (Lindane)	0.80	0.76	92	0	0-25	10-146

RPD: 0 out of 5 outside limits.

Spike Recovery: 0 out of 5 outside limits.

SAMPLE NO.

1685290LB

PESTICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSC Matrix: Water Lab Sample ID: 1685290

Lab File ID (1): 061719-1.B\2019-06-17-011.D Date Analyzed (1): 06/17/2019 Time (1):19:46

Lab File ID (2): 061719-2.B\2019-06-17-011.D Date Analyzed (2): 06/17/2019 Time (2):19:46

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1688044LCS	1688044	061719-1.B\2019-06-17-012.D	06/17/2019 19:56
1688044LCS	1688044	061719-2.B\2019-06-17-012.D	06/17/2019 19:56
AOC35L	30298231001	061719-1.B\2019-06-17-018.D	06/17/2019 20:54
AOC34	30298231010	061719-1.B\2019-06-17-019.D	06/17/2019 21:04

SAMPLE NO.

AOC35L

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 30298231001
Date Analyzed: 06/17/2019 20:54
Lab File ID: 061719-1.B\2019-06-17-018.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-018.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 17-JUN-2019 20:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30298231001,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	10032	14297	1.425	41.7879		
0.943	2886	3167	1.097	9.2548		
0.964	3289	3068	0.933	8.9655		
0.997	432	333	0.771	0.9731		
1.036	55	66	1.207	0.1928		
1.044	59	64	1.089	0.1870		
1.064	6	24	3.896	0.0701		
1.083	526	857	1.630	2.5043		
1.110	63	88	1.393	0.2571		
1.130	5	13	2.634	0.0379		
1.147	4	9	2.296	0.0263		
1.160	6	15	2.362	0.0438		
1.175	6	13	2.273	0.0379		
1.221	53	52	0.988	0.1519		
1.240	22	37	1.695	0.1081		
1.302	5	10	1.965	0.0292		
1.311	3	7	2.545	0.0204		
1.339	50	68	1.353	0.1987		
1.359	22	43	1.952	0.1256		
1.363	11	40	3.591	0.1168		
1.372	38	46	1.202	0.1344		
1.387	3	20	6.689	0.0584		
1.389	3	22	7.692	0.0642		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.391	4	23	6.085	0.0672		
1.395	3	22	6.567	0.0642		
1.398	5	25	4.902	0.0730		
1.418	83	65	0.782	0.1899		
1.437	5	27	5.253	0.0789		
1.449	50	54	1.078	0.1578		
1.462	9	26	2.826	0.0759		
1.469	8	21	2.692	0.0613		
1.475	3	15	5.435	0.0438		
1.484	9	17	1.862	0.0496		
1.495	2	8	3.390	0.0233		
1.538	25	33	1.337	0.0964		
1.588	3	7	2.208	0.0204		
1.702	2	7	2.834	0.0204		
1.731	15	19	1.242	0.0555		
1.790	5	14	2.601	0.0409		
1.886	3731	5372	1.440	15.6984	$ 1 Tetrachloro-m-xylene (S)	
2.047	2	7	3.167	0.0204		
2.101	45	64	1.431	0.1870		
2.193	48	76	1.570	0.2220		
2.210	5	13	2.790	0.0379		
2.319	8	16	2.046	0.0467		
2.407	9	12	1.294	0.0350		
2.493	7	12	1.762	0.0350	3 gamma-BHC (Lindane)	BA
2.569	43	43	0.994	0.1256		
2.605	24	33	1.388	0.0964		
2.628	82	99	1.204	0.2893		
2.657	2	6	2.703	0.0175		
2.667	4	7	1.989	0.0204		
2.692	6	9	1.435	0.0263		
2.699	2	7	3.139	0.0204	5 Heptachlor	
2.733	4	10	2.857	0.0292		
2.739	2	8	3.828	0.0233		
2.789	41	53	1.278	0.1548		
2.856	55	69	1.247	0.2016		
3.111	19	25	1.289	0.0730		
3.125	21	30	1.395	0.0876		
3.186	11	18	1.647	0.0526		
3.669	2	6	2.899	0.0175		
3.843	2	8	3.419	0.0233		
3.876	2	12	4.839	0.0350		
3.878	5	15	2.773	0.0438		
3.886	3	12	4.348	0.0350		
3.955	5	11	2.099	0.0321	14 Endrin	BA
4.032	5	14	3.043	0.0409		
4.044	10	17	1.695	0.0496		
4.051	5	18	3.429	0.0526		
4.056	7	21	2.921	0.0613		
4.063	9	21	2.395	0.0613		
4.067	4	24	6.218	0.0701		
4.071	4	23	5.779	0.0672		
4.072	3	23	6.706	0.0672		
4.076	6	25	4.417	0.0730		
4.081	7	25	3.671	0.0730		
4.090	12	28	2.367	0.0818		
4.105	66	62	0.938	0.1811		
4.232	6	20	3.215	0.0584		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.235	9	21	2.260	0.0613		
4.336	2	8	3.493	0.0233		
4.342	2	7	2.941	0.0204		
4.502	4	12	2.691	0.0350		
4.507	4	13	3.148	0.0379		
4.729	4	6	1.571	0.0175		
4.853	3	9	3.462	0.0263		
4.859	4	12	2.970	0.0350		
4.865	4	17	4.106	0.0496		
4.870	5	17	3.704	0.0496		
4.877	11	26	2.267	0.0759		
4.893	28	34	1.208	0.0993		
4.897	15	33	2.213	0.0964		
4.906	7	32	4.834	0.0935		
4.909	8	33	3.901	0.0964		
4.918	19	29	1.511	0.0847		
4.927	8	24	3.015	0.0701		
4.931	4	23	5.349	0.0672		
4.935	11	23	2.097	0.0672		
4.943	5	21	3.896	0.0613		
4.949	3	17	6.227	0.0496		
4.958	10	17	1.728	0.0496		
4.964	4	16	3.678	0.0467		
4.971	10	19	1.868	0.0555		
4.977	3	17	5.414	0.0496		
4.983	6	18	3.203	0.0526		
4.987	6	17	2.881	0.0496		
5.022	6	7	1.166	0.0204		
5.036	3	7	2.703	0.0204		
5.086	5	13	2.500	0.0379		
5.101	2	9	4.225	0.0263		
5.105	2	11	4.889	0.0321		
5.113	4	12	2.778	0.0350		
5.122	3	12	4.615	0.0350		
5.131	2	7	2.917	0.0204		
5.132	3	11	4.120	0.0321		
5.172	3	8	3.030	0.0233		
5.198	3	13	5.000	0.0379		
5.435	15	35	2.363	0.1022		
5.439	12	33	2.679	0.0964		
5.446	2	15	6.944	0.0438		
5.449	3	13	3.927	0.0379		
5.458	3	8	2.807	0.0233		
5.478	3	11	3.514	0.0321		
5.486	2	10	4.049	0.0292		
5.499	4	8	2.083	0.0233		
5.524	3	12	4.615	0.0350		
5.533	4	13	3.234	0.0379		
5.544	5	16	3.213	0.0467		
5.549	4	12	3.235	0.0350		
5.555	4	12	3.409	0.0350		
5.560	4	12	3.191	0.0350		
5.564	4	16	4.222	0.0467		
5.570	3	11	3.642	0.0321		
5.577	3	10	3.623	0.0292		
5.584	2	8	3.556	0.0233		
5.601	3	14	4.531	0.0409		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.604	2	13	5.856	0.0379		
5.612	3	14	5.109	0.0409		
5.615	3	14	5.303	0.0409		
5.642	4058	3771	0.929	11.0198	$ 24 Decachlorobiphenyl (S)	
5.677	2	16	7.512	0.0467		
5.679	2	15	7.246	0.0438		
5.683	2	12	5.195	0.0350		
5.688	2	10	4.184	0.0292		
6.002	2	10	4.902	0.0292		
6.023	2	6	2.479	0.0175		
6.046	2	11	5.263	0.0321		
6.089	2	12	5.455	0.0350		
6.101	2	11	5.288	0.0321		
6.112	3	9	3.529	0.0263		
6.117	2	9	3.879	0.0263		
6.146	2	10	4.926	0.0292		
6.270	5	14	2.905	0.0409		
6.276	4	15	3.989	0.0438		
6.282	3	15	4.717	0.0438		
6.287	3	12	3.499	0.0350		
6.290	4	14	3.465	0.0409		
6.298	4	13	3.163	0.0379		
6.311	4	12	3.000	0.0350		
6.322	3	12	4.138	0.0350		
6.330	2	9	3.863	0.0263		
6.341	2	9	3.704	0.0263		
6.362	3	9	3.169	0.0263		
6.385	3	11	4.314	0.0321		
6.388	2	10	4.902	0.0292		
6.397	2	9	3.947	0.0263		
6.403	2	8	3.478	0.0233		
6.410	2	9	3.814	0.0263		
6.421	2	10	4.484	0.0292		
6.493	2	13	5.532	0.0379		
6.505	2	8	3.587	0.0233		
6.567	2	9	4.369	0.0263		
6.708	2	14	5.809	0.0409		
6.872	2	9	4.325	0.0263		
6.929	2	9	3.863	0.0263		
6.963	2	8	3.922	0.0233		
	26626	34220		100.000		

Total unknown % height = 73.2

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-018.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 17-JUN-2019 20:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30298231001,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.886	1.885	0.001	3731	0.08399	1.68			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.492	2.474	0.018	6	1e-004	0.00214		(M)	BA
5 Heptachlor					CAS #: 319-86-8			
2.699	2.712	-0.013	2	3e-005	0.000683			
8 Heptachlor epoxide					CAS #: 1024-57-3			

Compound Not Detected.

14 Endrin					CAS #: 72-20-8			
3.954	3.957	-0.003	5	1e-004	0.00217		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

20 Methoxychlor CAS #: 72-43-5

Compound Not Detected.

---

22 Chlordane (Technical) CAS #:

Operator disabled compound identification. BA

---

23 Toxaphene CAS #: 8001-35-2

Peaks not detected for Quant. or Qual. signal(s).

$ 24 Decachlorobiphenyl (S) CAS #:

5.641	5.643	-0.002	4057	0.08593	1.72			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30298231001
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 30298231
Client Smp ID: AOC35L
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.00214	
319-86-8	Heptachlor	0.000683	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.00217	
72-43-5	Methoxychlor	0.100	U
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.68	
----------	Decachlorobiphenyl (S)	1.72	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-018.d

Date : 17-JUN-2019 20:54

Client ID: A0C35L

Instrument: 30gcsc.i

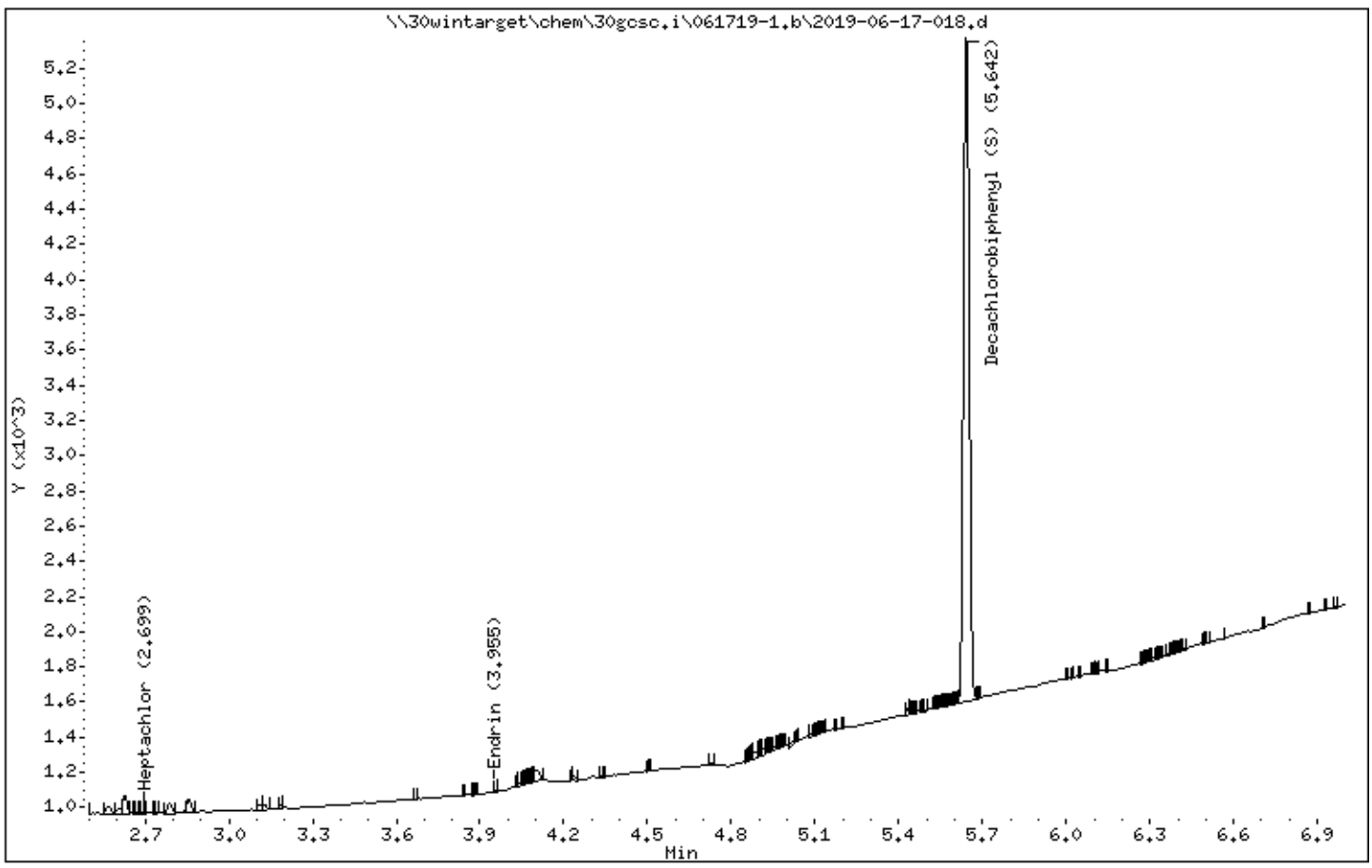
Sample Info: 30298231001,

Volume Injected (uL): 1.0

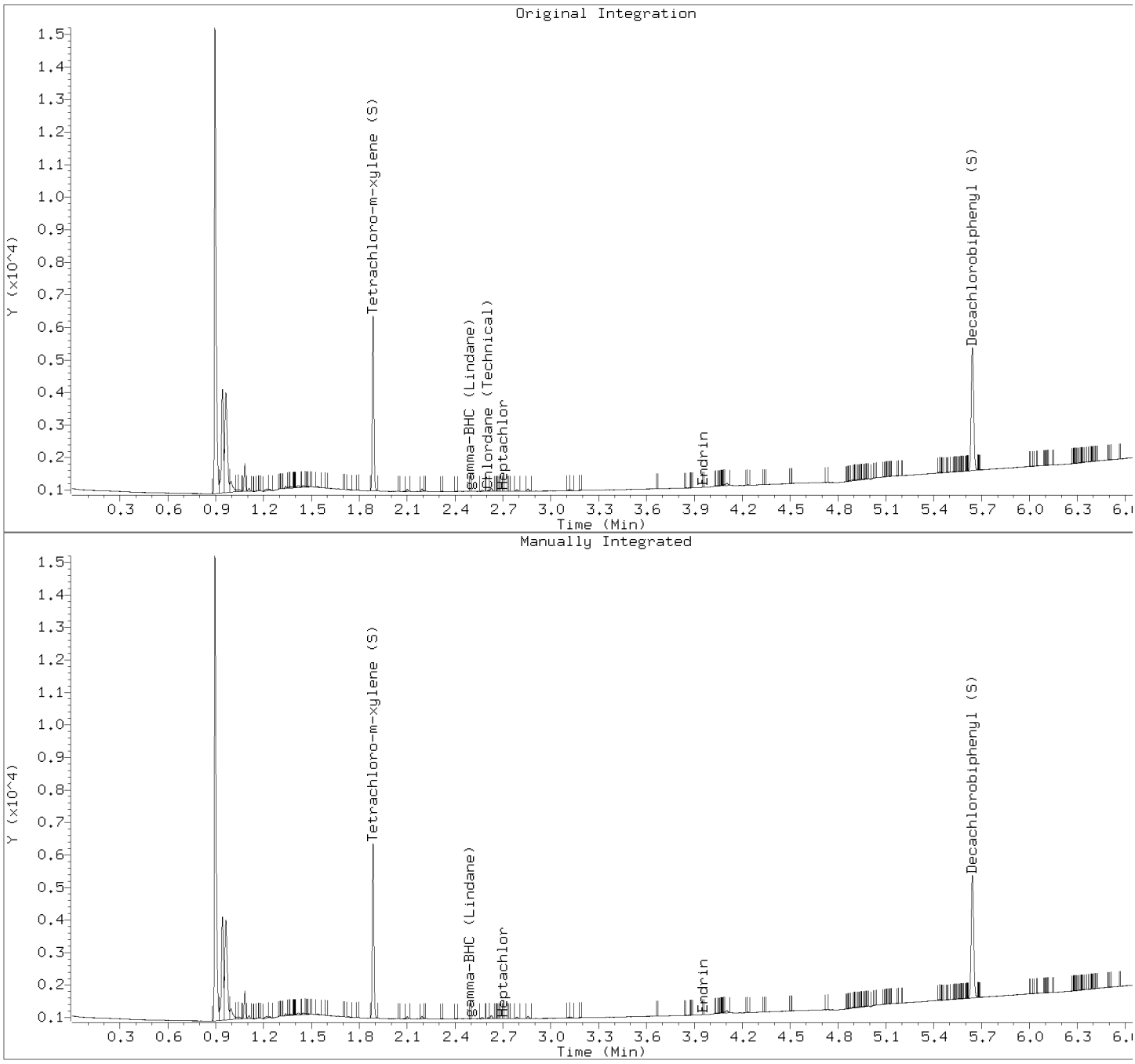
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-018.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUN-2019 20:54 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 30298231001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	3	6
Heptachlor	2	2
Heptachlor epoxide	0	0
Endrin	4	5
Methoxychlor	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	24	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	3731	3731
Decachlorobiphenyl (S)	4057	4057

SAMPLE NO.

AOC34

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid
SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 30298231010
Date Analyzed: 06/17/2019 21:04
Lab File ID: 061719-1.B\2019-06-17-019.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-019.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 17-JUN-2019 21:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30298231010,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	10168	13372	1.315	38.0649		
0.941	2637	2895	1.098	8.2384		
0.962	2684	2738	1.020	7.7916		
0.995	26	57	2.197	0.1622		
1.035	16	25	1.599	0.0711		
1.045	12	21	1.724	0.0597		
1.081	391	656	1.680	1.8668		
1.109	121	172	1.421	0.4894		
1.128	3	8	2.342	0.0227		
1.162	18	26	1.423	0.0739		
1.174	3	11	3.194	0.0313		
1.212	24	32	1.334	0.0910		
1.239	52	80	1.534	0.2276		
1.270	74	118	1.596	0.3357		
1.299	14	23	1.606	0.0654		
1.310	3	8	2.332	0.0227		
1.337	32	51	1.606	0.1451		
1.359	41	63	1.548	0.1792		
1.368	4	14	3.373	0.0398		
1.404	5	14	2.740	0.0398		
1.417	39	45	1.165	0.1280		
1.427	4	24	6.593	0.0682		
1.431	7	20	2.994	0.0569		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.448	48	57	1.199	0.1622		
1.459	2	26	10.484	0.0739		
1.468	65	81	1.249	0.2305		
1.537	21	31	1.492	0.0882		
1.671	2	7	3.153	0.0199		
1.701	6	12	1.859	0.0341		
1.730	4	9	2.381	0.0256		
1.792	15	22	1.455	0.0626		
1.804	2	8	3.960	0.0227		
1.858	5	11	2.439	0.0313		
1.886	3649	5219	1.430	14.8520	$ 1 Tetrachloro-m-xylene (S)	
1.931	2	7	3.286	0.0199		
2.023	2	6	2.913	0.0170		
2.033	2	7	3.349	0.0199		
2.048	7	11	1.493	0.0313		
2.073	3	6	2.000	0.0170		
2.100	59	68	1.147	0.1935		
2.159	2	7	2.846	0.0199		
2.193	58	85	1.459	0.2418		
2.211	15	23	1.570	0.0654		
2.319	25	33	1.341	0.0939		
2.385	11	19	1.667	0.0540		
2.404	10	15	1.473	0.0426		
2.426	7	12	1.717	0.0341		
2.463	11	14	1.316	0.0398	3 gamma-BHC (Lindane)	BA
2.494	8	16	2.094	0.0455		
2.514	10	15	1.493	0.0426		
2.527	6	11	1.719	0.0313		
2.569	55	50	0.913	0.1422		
2.606	23	34	1.494	0.0967		
2.627	114	135	1.183	0.3841		
2.663	5	9	1.679	0.0256		
2.692	4	9	2.250	0.0256	5 Heptachlor	BA
2.740	7	10	1.429	0.0284		
2.788	46	56	1.224	0.1593		
2.856	71	80	1.128	0.2276		
2.905	5	11	2.273	0.0313		
2.910	3	10	2.882	0.0284		
3.051	2	5	2.370	0.0142		
3.109	4	10	2.584	0.0284		
3.112	2	12	4.938	0.0341		
3.128	22	27	1.245	0.0768		
3.187	22	27	1.220	0.0768		
3.207	3	7	2.011	0.0199		
3.259	2	6	2.927	0.0170	8 Heptachlor epoxide	
3.380	6	10	1.739	0.0284		
3.579	2	5	2.336	0.0142		
3.955	9	17	1.797	0.0483	14 Endrin	BA
4.083	2	10	4.444	0.0284		
4.104	97	84	0.867	0.2390		
4.126	7	17	2.294	0.0483		
4.136	2	9	4.110	0.0256		
4.185	2	6	2.691	0.0170		
4.234	27	37	1.349	0.1052		
4.307	4	14	3.684	0.0398		
4.311	5	14	2.574	0.0398		
4.338	2	6	2.521	0.0170		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.505	15	19	1.309	0.0540		
4.686	2	6	2.857	0.0170	20 Methoxychlor	
4.719	3	9	3.261	0.0256		
4.733	4	10	2.817	0.0284		
4.742	3	9	3.333	0.0256		
4.756	2	10	4.950	0.0284		
4.760	3	12	4.688	0.0341		
4.766	6	16	2.536	0.0455		
4.770	4	14	3.733	0.0398		
4.776	3	10	2.924	0.0284		
4.786	3	9	3.516	0.0256		
4.847	3	11	3.374	0.0313		
4.852	4	13	3.403	0.0369		
4.855	3	15	5.792	0.0426		
4.858	6	17	2.824	0.0483		
4.867	4	16	3.819	0.0455		
4.874	6	18	2.951	0.0512		
4.877	2	17	8.333	0.0483		
4.882	4	18	4.265	0.0512		
4.886	8	19	2.490	0.0540		
4.892	4	17	3.935	0.0483		
4.898	7	17	2.467	0.0483		
4.904	2	15	7.009	0.0426		
4.907	7	15	2.308	0.0426		
4.919	8	15	1.794	0.0426		
4.926	3	15	5.208	0.0426		
4.935	7	15	2.134	0.0426		
4.940	3	14	5.054	0.0398		
4.944	5	14	3.097	0.0398		
4.970	2	11	4.622	0.0313		
5.022	34	51	1.498	0.1451		
5.027	13	49	3.704	0.1394		
5.031	14	49	3.508	0.1394		
5.038	20	50	2.532	0.1422		
5.042	20	52	2.646	0.1479		
5.050	23	51	2.205	0.1451		
5.057	9	50	5.734	0.1422		
5.059	6	50	8.562	0.1422		
5.061	16	49	3.036	0.1394		
5.068	10	50	4.785	0.1422		
5.071	10	49	5.046	0.1394		
5.076	14	56	3.865	0.1593		
5.084	25	59	2.404	0.1678		
5.086	21	61	2.848	0.1735		
5.093	11	56	5.219	0.1593		
5.096	15	57	3.730	0.1622		
5.105	33	56	1.709	0.1593		
5.113	21	57	2.739	0.1622		
5.118	21	55	2.593	0.1565		
5.124	9	53	5.638	0.1508		
5.126	15	56	3.830	0.1593		
5.135	24	53	2.251	0.1508		
5.142	19	53	2.834	0.1508		
5.145	21	56	2.681	0.1593		
5.152	9	52	5.689	0.1479		
5.156	15	53	3.422	0.1508		
5.159	9	53	5.742	0.1508		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.163	11	54	5.128	0.1536		
5.168	17	55	3.228	0.1565		
5.172	11	55	5.116	0.1565		
5.176	12	58	4.801	0.1650		
5.188	41	55	1.358	0.1565		
5.190	6	56	8.682	0.1593		
5.192	14	55	3.801	0.1565		
5.198	16	51	3.154	0.1451		
5.202	7	51	7.370	0.1451		
5.207	19	53	2.788	0.1508		
5.212	11	48	4.214	0.1365		
5.215	8	49	5.771	0.1394		
5.218	6	49	8.612	0.1394		
5.219	6	50	8.726	0.1422		
5.224	13	47	3.652	0.1337		
5.227	13	49	3.640	0.1394		
5.232	12	48	4.078	0.1365		
5.238	14	46	3.283	0.1309		
5.241	7	45	6.667	0.1280		
5.244	14	44	3.090	0.1252		
5.251	16	39	2.451	0.1109		
5.258	8	38	4.744	0.1081		
5.261	7	37	5.271	0.1052		
5.264	5	37	7.536	0.1052		
5.269	16	35	2.248	0.0996		
5.275	19	39	2.083	0.1109		
5.283	10	34	3.575	0.0967		
5.295	25	31	1.223	0.0882		
5.305	7	26	3.886	0.0739		
5.306	10	30	3.135	0.0853		
5.312	6	26	4.643	0.0739		
5.322	11	24	2.111	0.0682		
5.326	7	24	3.509	0.0682		
5.333	7	24	3.478	0.0682		
5.337	5	24	4.520	0.0682		
5.341	6	25	4.065	0.0711		
5.344	3	23	7.797	0.0654		
5.347	3	21	7.636	0.0597		
5.351	4	20	4.695	0.0569		
5.353	8	24	3.081	0.0682		
5.359	4	20	5.602	0.0569		
5.363	4	19	5.026	0.0540		
5.368	5	18	3.822	0.0512		
5.371	5	20	4.090	0.0569		
5.377	4	17	4.830	0.0483		
5.381	3	15	5.882	0.0426		
5.386	4	15	3.456	0.0426		
5.388	2	17	7.658	0.0483		
5.392	3	15	5.357	0.0426		
5.395	2	17	8.173	0.0483		
5.397	3	18	6.164	0.0512		
5.402	4	18	4.500	0.0512		
5.405	3	19	7.037	0.0540		
5.409	4	14	3.544	0.0398		
5.413	3	13	3.881	0.0369		
5.418	2	13	5.603	0.0369		
5.435	30	34	1.130	0.0967		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.442	11	29	2.710	0.0825		
5.458	3	9	3.557	0.0256		
5.532	2	7	3.226	0.0199		
5.552	2	8	3.774	0.0227		
5.642	4174	3969	0.951	11.2948	$ 24 Decachlorobiphenyl (S)	
5.678	2	10	4.255	0.0284		
5.718	2	8	3.320	0.0227		
5.777	2	9	4.167	0.0256		
6.267	2	9	3.734	0.0256		
6.275	2	12	4.938	0.0341		
6.283	3	11	3.170	0.0313		
6.291	7	13	1.871	0.0369		
6.300	3	9	2.571	0.0256		
6.317	2	8	3.865	0.0227		
6.370	2	8	3.883	0.0227		
6.620	3	9	3.125	0.0256		
6.643	2	11	5.189	0.0313		
6.704	3	11	4.331	0.0313		
6.708	3	13	4.545	0.0369		
6.717	2	12	5.714	0.0341		
6.721	3	15	4.934	0.0426		
6.723	4	18	4.839	0.0512		
6.731	5	18	3.285	0.0512		
6.735	9	21	2.386	0.0597		
6.744	5	19	3.926	0.0540		
6.749	6	19	3.381	0.0540		
6.760	2	16	7.442	0.0455		
6.765	3	9	2.719	0.0256		
6.771	2	17	6.827	0.0483		
6.774	2	13	6.132	0.0369		
6.780	2	9	4.327	0.0256		
	26386	35140		100.000		

Total unknown % height = 73.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-019.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 17-JUN-2019 21:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30298231010,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	3649	0.08214	1.64			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.462	2.474	-0.012	10	2e-004	0.00356		(M)	BA
5 Heptachlor					CAS #: 319-86-8			
2.691	2.712	-0.021	4	7e-005	0.00137		(M)	BA
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.258	3.281	-0.023	2	4e-005	0.000775			
14 Endrin					CAS #: 72-20-8			
3.955	3.957	-0.002	9	2.e-004	0.00390		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.686	4.663	0.023	2	9e-005	0.00178			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								BA
23 Toxaphene					CAS #: 8001-35-2			
Operator disabled compound identification.								
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.641	5.643	-0.002	4174	0.08841	1.77			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30298231010
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 30298231
Client Smp ID: AOC34
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.00356	
319-86-8	Heptachlor	0.00137	
1024-57-3	Heptachlor epoxide	0.000775	
72-20-8	Endrin	0.00390	
72-43-5	Methoxychlor	0.00178	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.64	
----------	Decachlorobiphenyl (S)	1.77	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-019.d

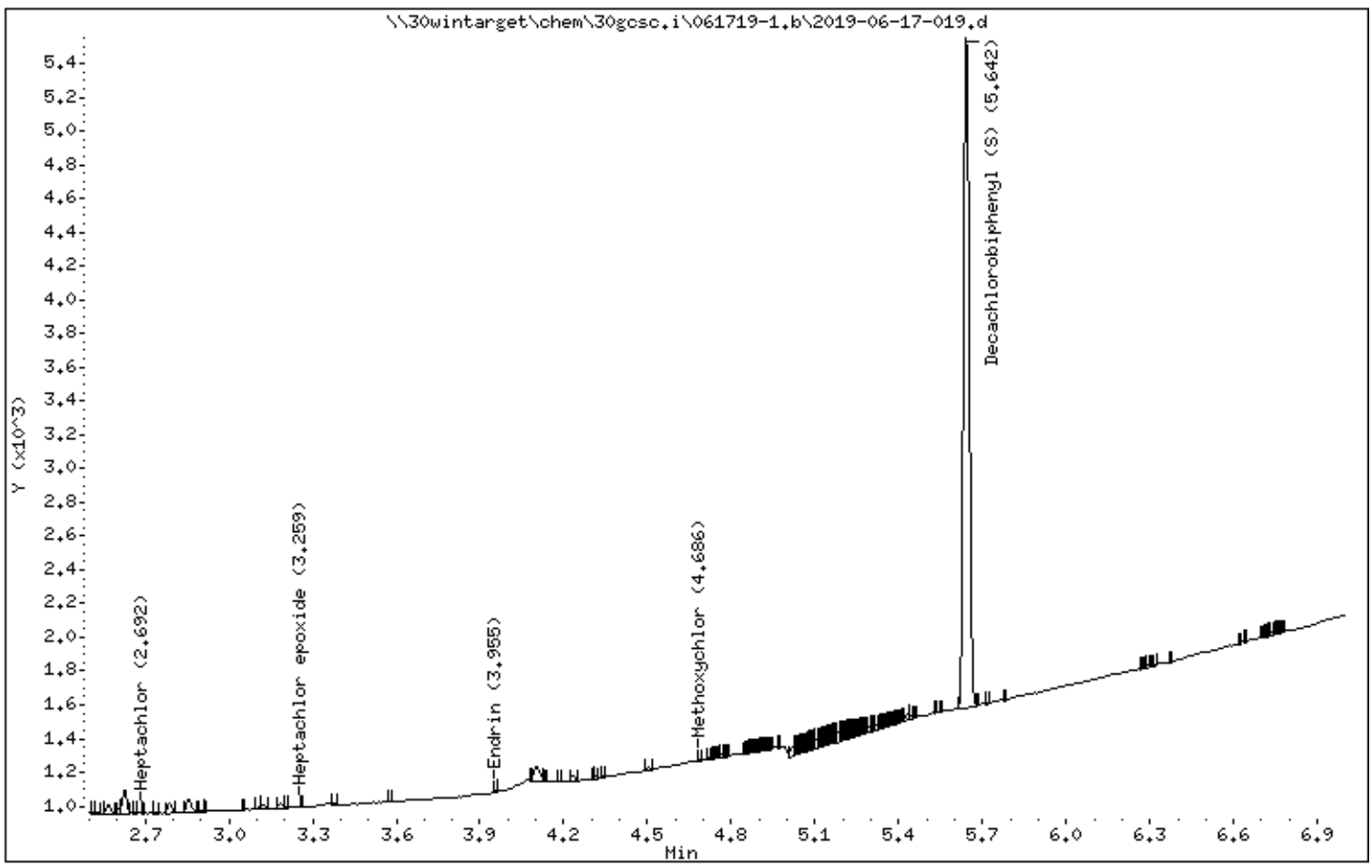
Date : 17-JUN-2019 21:04

Client ID: AOC34 Instrument: 30gcsc.i

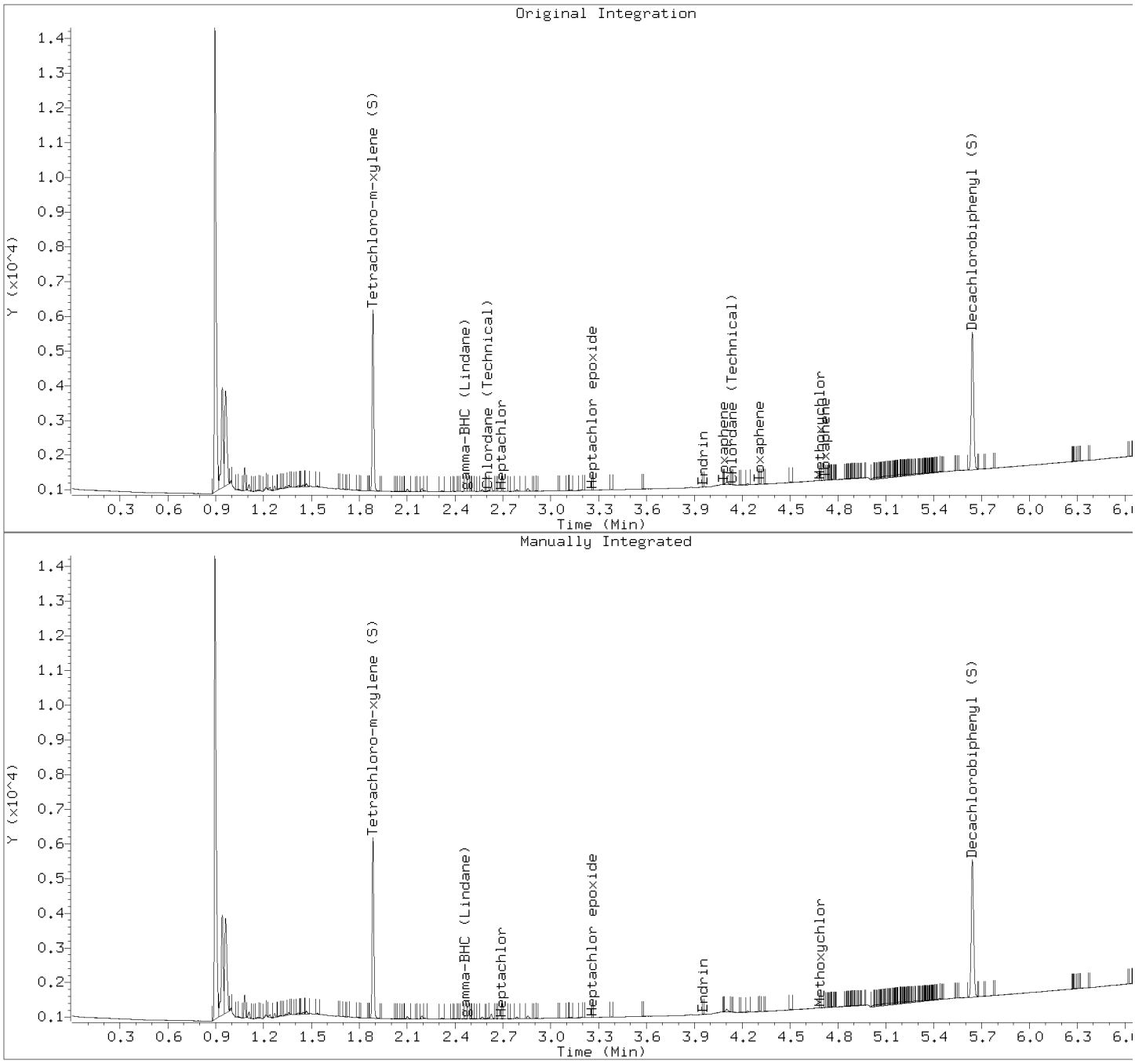
Sample Info: 30298231010,

Volume Injected (uL): 1.0 Operator: TAW

Column phase: Rtx-CLPesticides-1 Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-019.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUN-2019 21:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 30298231010



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	5	10
Heptachlor	2	4
Heptachlor epoxide	2	2
Endrin	4	9
Methoxychlor	2	2
Toxaphene	2	0
Toxaphene	2	0
Toxaphene	3	0
Toxaphene	0	0
Toxaphene	2	0
Chlordane (Technical)	20	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	3649	3649
Decachlorobiphenyl (S)	4174	4174

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-1.B\2019-05-16-010.D CAL2 = 051619-1.B\2019-05-16-011.D CAL3 = 051619-1.B\2019-05-16-012.D

CAL4 = 051619-1.B\2019-05-16-013.D CAL5 = 051619-1.B\2019-05-16-014.D CAL6 = 051619-1.B\2019-05-16-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	56200.0000	55142.8571	57400.0000	56550.0000	54840.0000	56520.0000
Endrin		Averaged	45500.0000	44928.5714	47300.0000	47000.0000	46110.0000	46010.0000
Heptachlor		Averaged	59800.0000	58000.0000	60500.0000	59450.0000	56600.0000	56880.0000
Heptachlor epoxide		Averaged	51800.0000	51142.8571	53900.0000	52550.0000	50060.0000	50100.0000
Methoxychlor		Averaged	22560.0000	22400.0000	23160.0000	22905.0000	22030.0000	21613.0000
Decachlorobiphenyl		Averaged	47800.0000	49000.0000	50750.0000	47500.0000	45000.0000	43225.0000
Tetrachloro-m-xylene		Averaged	45500.0000	44714.2857	46150.0000	44900.0000	42200.0000	43080.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-1.B\2019-05-16-010.D CAL2 = 051619-1.B\2019-05-16-011.D CAL3 = 051619-1.B\2019-05-16-012.D

CAL4 = 051619-1.B\2019-05-16-013.D CAL5 = 051619-1.B\2019-05-16-014.D CAL6 = 051619-1.B\2019-05-16-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	1.70			56108.80	
Endrin		Averaged	1.93			46141.42	
Heptachlor		Averaged	2.76		0.00	58538.33	
Heptachlor epoxide		Averaged	2.88		0.00	51592.14	
Methoxychlor		Averaged	2.52			22444.66	
Decachlorobiphenyl		Averaged	5.75			47212.50	
Tetrachloro-m-xylene		Averaged	3.36			44424.04	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-2.B\2019-05-16-010.D CAL2 = 051619-2.B\2019-05-16-011.D CAL3 = 051619-2.B\2019-05-16-012.D

CAL4 = 051619-2.B\2019-05-16-013.D CAL5 = 051619-2.B\2019-05-16-014.D CAL6 = 051619-2.B\2019-05-16-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	20000.0000	19857.1428	20500.0000	20200.0000	19400.0000	20020.0000
Endrin		Averaged	14900.0000	14642.8571	14950.0000	14825.0000	14240.0000	14230.0000
Heptachlor		Averaged	20000.0000	19571.4285	20800.0000	19900.0000	18760.0000	18820.0000
Heptachlor epoxide		Averaged	18600.0000	18285.7142	19000.0000	18300.0000	17160.0000	17140.0000
Methoxychlor		Averaged	6840.00000	6857.14286	7030.00000	6760.00000	6594.00000	6504.00000
Decachlorobiphenyl		Averaged	16500.0000	16071.4285	16450.0000	15300.0000	13830.0000	13025.0000
Tetrachloro-m-xylene		Averaged	17400.0000	17071.4285	17550.0000	16875.0000	15710.0000	15990.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-2.B\2019-05-16-010.D CAL2 = 051619-2.B\2019-05-16-011.D CAL3 = 051619-2.B\2019-05-16-012.D

CAL4 = 051619-2.B\2019-05-16-013.D CAL5 = 051619-2.B\2019-05-16-014.D CAL6 = 051619-2.B\2019-05-16-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	1.83			19996.19	
Endrin		Averaged	2.21			14631.30	
Heptachlor		Averaged	3.93			19641.90	
Heptachlor epoxide		Averaged	4.23			18080.95	
Methoxychlor		Averaged	2.81			6764.19	
Decachlorobiphenyl		Averaged	9.59			15196.07	
Tetrachloro-m-xylene		Averaged	4.49			16766.07	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-1.B\2019-05-16-010.D CAL2 = 051619-1.B\2019-05-16-011.D CAL3 = 051619-1.B\2019-05-16-012.D

CAL4 = 051619-1.B\2019-05-16-013.D CAL5 = 051619-1.B\2019-05-16-014.D CAL6 = 051619-1.B\2019-05-16-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.475	2.475	2.475	2.475	2.475	2.475
Endrin		3.958	3.959	3.959	3.958	3.959	3.958
Heptachlor		2.713	2.713	2.713	2.714	2.714	2.713
Heptachlor epoxide		3.282	3.282	3.282	3.282	3.282	3.282
Methoxychlor		4.665	4.664	4.665	4.664	4.664	4.664
Decachlorobiphenyl		5.647	5.647	5.647	5.645	5.646	5.646
Tetrachloro-m-xylene		1.886	1.886	1.887	1.887	1.887	1.886

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-1.B\2019-05-16-010.D CAL2 = 051619-1.B\2019-05-16-011.D CAL3 = 051619-1.B\2019-05-16-012.D

CAL4 = 051619-1.B\2019-05-16-013.D CAL5 = 051619-1.B\2019-05-16-014.D CAL6 = 051619-1.B\2019-05-16-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.475	2.445	2.505
Endrin		3.958	3.928	3.988
Heptachlor		2.713	2.683	2.743
Heptachlor epoxide		3.282	3.252	3.312
Methoxychlor		4.664	4.634	4.694
Decachlorobiphenyl		5.645	5.615	5.675
Tetrachloro-m-xylene		1.887	1.857	1.917

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-2.B\2019-05-16-010.D CAL2 = 051619-2.B\2019-05-16-011.D CAL3 = 051619-2.B\2019-05-16-012.D

CAL4 = 051619-2.B\2019-05-16-013.D CAL5 = 051619-2.B\2019-05-16-014.D CAL6 = 051619-2.B\2019-05-16-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.843	2.842	2.843	2.843	2.843	2.843
Endrin		4.393	4.392	4.392	4.392	4.392	4.392
Heptachlor		3.253	3.253	3.253	3.253	3.253	3.253
Heptachlor epoxide		3.774	3.774	3.774	3.774	3.774	3.774
Methoxychlor		4.949	4.949	4.95	4.949	4.949	4.949
Decachlorobiphenyl		6.341	6.34	6.34	6.341	6.339	6.34
Tetrachloro-m-xylene		2.362	2.362	2.362	2.362	2.362	2.362

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 05/16/2019 Calibration Time(s): 13:40 14:29

LAB FILE ID

CAL1 = 051619-2.B\2019-05-16-010.D CAL2 = 051619-2.B\2019-05-16-011.D CAL3 = 051619-2.B\2019-05-16-012.D

CAL4 = 051619-2.B\2019-05-16-013.D CAL5 = 051619-2.B\2019-05-16-014.D CAL6 = 051619-2.B\2019-05-16-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.843	2.813	2.873
Endrin		4.392	4.362	4.422
Heptachlor		3.253	3.223	3.283
Heptachlor epoxide		3.774	3.744	3.804
Methoxychlor		4.949	4.919	4.979
Decachlorobiphenyl		6.341	6.311	6.371
Tetrachloro-m-xylene		2.362	2.332	2.392

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 Calibration Time(s): 13:21

LAB FILE ID

CAL2S = 051619-1.B\2019-05-16-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.059	4.028	4.088	1000.00000
		2	4.155	4.127	4.187	1030.00000
		3	4.289	4.259	4.319	480.00000
		4	4.397	4.367	4.427	370.00000
		5	4.712	4.681	4.741	1070.00000
Decachlorobiphenyl (S)	.014		5.645	5.615	5.675	49000.0000
Tetrachloro-m-xylene	.014		1.887	1.857	1.917	44714.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/16/2019 Calibration Time(s): 13:31

LAB FILE ID

CAL2S = 051619-1.B\2019-05-16-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	2.595	2.567	2.627	1970.00000
		2	2.713	2.681	2.741	2890.00000
		3	3.008	2.979	3.039	2050.00000
		4	3.501	3.47	3.53	4820.00000
		5	4.16	4.13	4.19	1750.00000
Decachlorobiphenyl (S)	.014		5.645	5.615	5.675	49000.0000
Tetrachloro-m-xylene	.014		1.886	1.857	1.917	44714.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 Calibration Time(s): 13:21

LAB FILE ID

CAL2S = 051619-2.B\2019-05-16-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.409	4.379	4.439	720.00000
		2	4.566	4.536	4.596	560.00000
		3	4.61	4.58	4.64	430.00000
		4	4.77	4.74	4.8	540.00000
		5	5.147	5.117	5.177	310.00000
Decachlorobiphenyl (S)	.014		6.341	6.311	6.371	16071.4285
Tetrachloro-m-xylene	.014		2.362	2.332	2.392	17071.4285

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/16/2019 Calibration Time(s): 13:31

LAB FILE ID

CAL2S = 051619-2.B\2019-05-16-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	3.109	3.078	3.138	790.00000
		2	3.253	3.222	3.282	990.00000
		3	3.479	3.447	3.507	720.00000
		4	3.985	3.955	4.015	2430.00000
		5	4.022	3.992	4.052	1790.00000
Decachlorobiphenyl (S)	.014		6.339	6.311	6.371	16071.4285
Tetrachloro-m-xylene	.014		2.362	2.332	2.392	17071.4285

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:21
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83734:10
Misc Info : 15520,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	820	1107	1.350	12.2131		
0.942	1509	1726	1.144	19.0524		
0.963	1512	1554	1.028	17.1447		
0.994	5	54	10.112	0.5957		
0.999	70	59	0.842	0.6509		
1.026	3	14	4.531	0.1544		
1.030	4	12	2.885	0.1323		
1.044	7	16	2.183	0.1765		
1.047	6	15	2.582	0.1654		
1.133	36	34	0.953	0.3751		
1.149	3	11	3.170	0.1213		
1.188	7	11	1.647	0.1213		
1.339	8	14	1.668	0.1544		
1.388	2	9	3.814	0.0992		
1.402	6	12	2.139	0.1323		
1.409	5	11	2.326	0.1213		
1.417	2	11	4.564	0.1213		
1.421	3	11	4.280	0.1213		
1.425	5	13	2.416	0.1434		
1.434	3	11	4.314	0.1213		
1.439	2	10	4.673	0.1103		
1.443	2	9	3.659	0.0992		
1.447	2	8	3.306	0.0882		
1.887	446	634	1.423	6.9947	$ 1 Tetrachloro-m-xylene (S)	
2.101	3	7	2.632	0.0772		
2.531	2	4	1.786	0.0441		
2.630	57	75	1.323	0.8274		
2.911	3	7	2.011	0.0772		
2.939	3	10	3.155	0.1103		
2.943	4	9	2.195	0.0992		
3.129	5	10	1.832	0.1103		
3.355	2	6	2.479	0.0661		
3.463	21	31	1.461	0.3420		
3.538	5	11	2.321	0.1213		
3.587	6	11	1.727	0.1213		
3.621	14	24	1.657	0.2647		
3.672	18	21	1.153	0.2316		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.686	25	32	1.274	0.3530		
3.704	37	35	0.934	0.3861		
3.730	12	28	2.254	0.3089		
3.732	7	30	4.208	0.3309		
3.744	35	39	1.113	0.4302		
3.828	32	46	1.448	0.5075		
3.851	32	38	1.186	0.4192		
3.869	26	32	1.239	0.3530		
3.897	14	24	1.773	0.2647		
3.947	40	40	0.996	0.4413		
4.060	101	75	0.743	0.8274	23 Toxaphene	
4.079	12	30	2.451	0.3309		
4.100	113	92	0.817	1.0150		
4.118	31	45	1.465	0.4964		
4.156	104	92	0.887	1.0150	23 Toxaphene	
4.188	58	67	1.163	0.7391		
4.224	32	34	1.051	0.3751		
4.289	49	68	1.399	0.7502	23 Toxaphene	
4.330	15	27	1.774	0.2978		
4.353	94	75	0.797	0.8274		
4.370	31	42	1.352	0.4633		
4.397	37	54	1.448	0.5957	23 Toxaphene	
4.424	20	27	1.366	0.2978		
4.430	17	29	1.678	0.3199		
4.458	49	56	1.135	0.6178		
4.510	5	15	3.219	0.1654		
4.513	9	23	2.541	0.2537		
4.540	18	26	1.411	0.2868		
4.546	9	23	2.547	0.2537		
4.569	11	21	1.836	0.2316		
4.591	32	41	1.278	0.4523		
4.611	25	47	1.894	0.5185		
4.614	19	49	2.548	0.5406		
4.620	19	41	2.195	0.4523		
4.712	108	106	0.983	1.1694	23 Toxaphene	
4.734	35	45	1.303	0.4964		
4.745	17	39	2.305	0.4302		
4.851	13	23	1.729	0.2537		
4.893	16	22	1.395	0.2427		
4.901	3	12	3.488	0.1323		
4.933	2	12	5.505	0.1323		
4.940	2	11	4.622	0.1213		
4.950	15	23	1.555	0.2537		
4.975	3	8	2.847	0.0882		
4.997	3	11	4.015	0.1213		
5.002	3	8	3.089	0.0882		
5.116	3	10	3.745	0.1103		
5.130	2	11	4.762	0.1213		
5.136	4	11	2.880	0.1213		
5.138	4	15	3.529	0.1654		
5.147	4	14	3.599	0.1544		
5.152	3	13	4.815	0.1434		
5.159	5	14	2.972	0.1544		
5.166	3	15	5.976	0.1654		
5.169	4	13	3.125	0.1434		
5.177	3	10	3.717	0.1103		
5.181	3	12	3.922	0.1323		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.189	5	12	2.335	0.1323		
5.196	3	12	4.651	0.1323		
5.203	4	10	2.770	0.1103		
5.208	4	16	4.444	0.1765		
5.214	7	15	2.193	0.1654		
5.225	3	10	3.322	0.1103		
5.233	2	11	4.803	0.1213		
5.237	3	14	4.746	0.1544		
5.243	3	12	4.054	0.1323		
5.263	3	10	3.802	0.1103		
5.290	2	9	3.719	0.0992		
5.298	2	14	6.140	0.1544		
5.301	3	12	4.082	0.1323		
5.304	3	16	4.624	0.1765		
5.310	2	11	4.641	0.1213		
5.316	3	10	3.984	0.1103		
5.330	2	10	4.405	0.1103		
5.338	4	12	2.934	0.1323		
5.341	2	12	5.333	0.1323		
5.413	2	8	3.653	0.0882		
5.420	2	9	3.982	0.0992		
5.439	12	18	1.515	0.1985		
5.646	496	479	0.965	5.2846	$ 24 Decachlorobiphenyl (S)	
5.702	2	6	2.703	0.0661		
5.833	3	8	3.175	0.0882		
5.924	2	10	4.717	0.1103		
5.973	2	5	2.232	0.0551		
6.071	3	9	2.857	0.0992		
6.093	4	13	3.514	0.1434		
6.106	4	15	3.778	0.1654		
6.116	3	11	3.254	0.1213		
6.123	3	9	3.502	0.0992		
6.251	3	10	3.012	0.1103		
6.292	3	9	2.632	0.0992		
6.296	2	12	5.769	0.1323		
6.300	4	15	4.155	0.1654		
6.307	6	16	2.802	0.1765		
6.315	5	17	3.407	0.1875		
6.322	7	14	2.023	0.1544		
6.331	2	13	5.306	0.1434		
6.335	4	13	3.163	0.1434		
6.345	3	13	5.118	0.1434		
6.361	10	20	1.982	0.2206		
6.365	5	22	4.803	0.2427		
6.367	2	21	8.400	0.2316		
6.372	8	18	2.233	0.1985		
6.379	3	19	6.149	0.2096		
6.384	7	18	2.723	0.1985		
6.390	2	14	5.957	0.1544		
6.395	3	18	5.279	0.1985		
6.398	3	18	5.643	0.1985		
6.402	3	18	6.338	0.1985		
6.404	5	21	4.046	0.2316		
6.410	5	18	3.586	0.1985		
6.417	5	18	3.871	0.1985		
6.426	4	17	4.474	0.1875		
6.432	4	13	3.652	0.1434		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.440	2	12	5.530	0.1323		
6.447	2	12	5.263	0.1323		
6.456	3	9	3.010	0.0992		
6.464	3	13	4.851	0.1434		
6.543	2	12	5.150	0.1323		
6.548	4	17	4.304	0.1875		
6.559	6	18	2.965	0.1985		
6.568	3	14	5.263	0.1544		
6.574	4	14	3.804	0.1544		
6.578	2	14	6.140	0.1544		
6.583	4	14	3.684	0.1544		
6.587	5	16	3.412	0.1765		
6.594	4	14	3.675	0.1544		
6.604	5	16	3.137	0.1765		
6.616	3	13	5.200	0.1434		
6.618	2	18	8.411	0.1985		
6.625	3	12	3.785	0.1323		
6.630	3	14	4.575	0.1544		
6.635	4	13	3.095	0.1434		
6.658	2	12	5.581	0.1323		
6.664	2	9	4.478	0.0992		
6.741	2	8	3.980	0.0882		
6.940	3	14	5.128	0.1544		
6.954	2	10	4.902	0.1103		
6.963	3	10	3.817	0.1103		
6.979	3	10	3.106	0.1103		
	6828	9064		100.000		

Total unknown % height = 83.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:21
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83734:10
Misc Info : 15520,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
23 Toxaphene						CAS #: 8001-35-2		
4.059	4.058	0.001	100	0.10000	0.100	80.00- 120.00	100.00	
4.155	4.157	-0.002	103	0.10000	0.100	88730.00-88770.00	102.86	
4.289	4.289	0.000	48	0.10000	0.100	61130.00-61170.00	48.18	
4.397	4.397	0.000	37	0.10000	0.100	0.00- 20.00	36.95	
4.712	4.711	0.001	107	0.10000	0.100	80.00- 120.00	106.93	
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.887	1.887	0.000	445	0.01400	0.0105			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.645	0.000	496	0.01400	0.0110			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,TOX

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
8001-35-2	Toxaphene		
	Peak found at 4.060	0.100	
	Peak found at 4.156	0.100	
	Peak found at 4.289	0.100	
	Peak found at 4.397	0.100	
	Peak found at 4.712	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0105	
	Decachlorobiphenyl (S)	0.0110	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-008.d

Date : 16-MAY-2019 13:21

Client ID: CAL2S

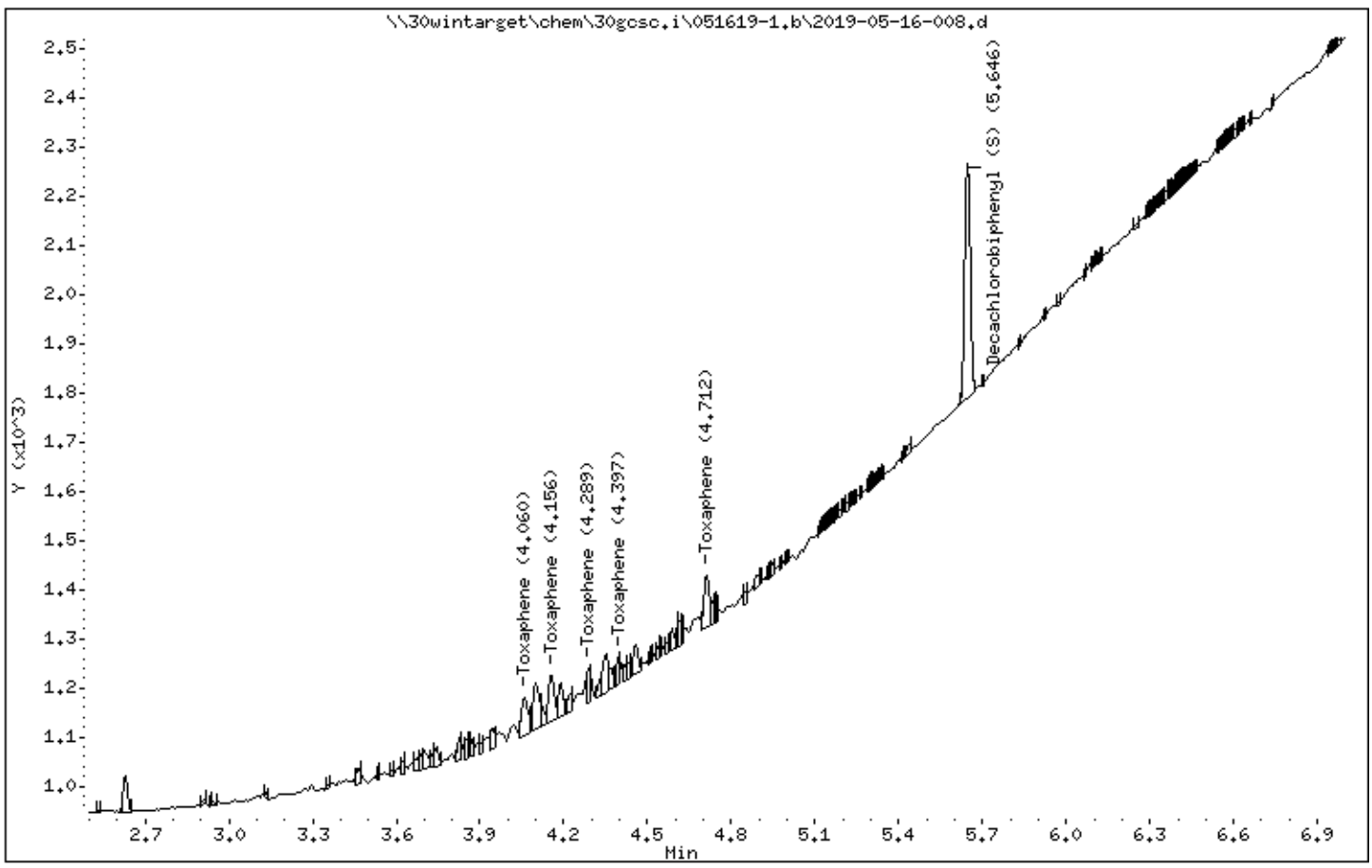
Instrument: 30gcsc.i

Sample Info: CAL2S, 83734:10

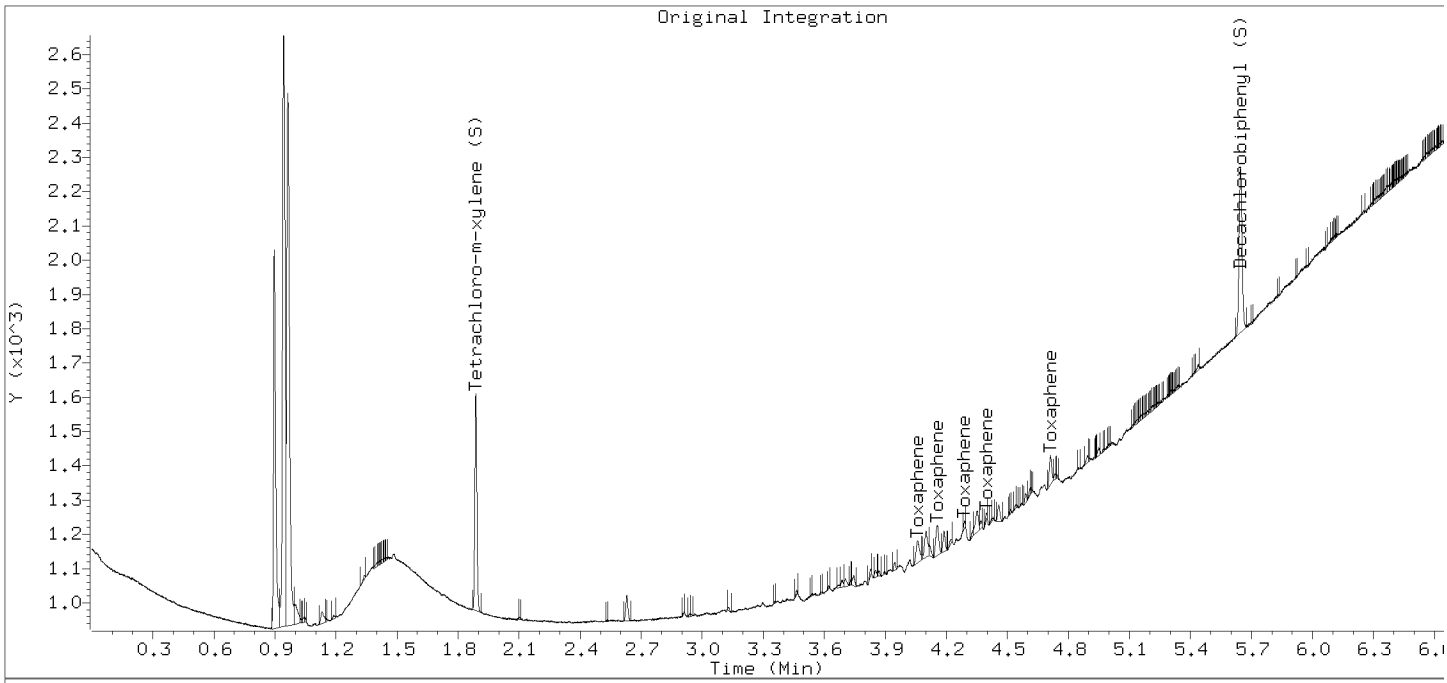
Operator: CWB

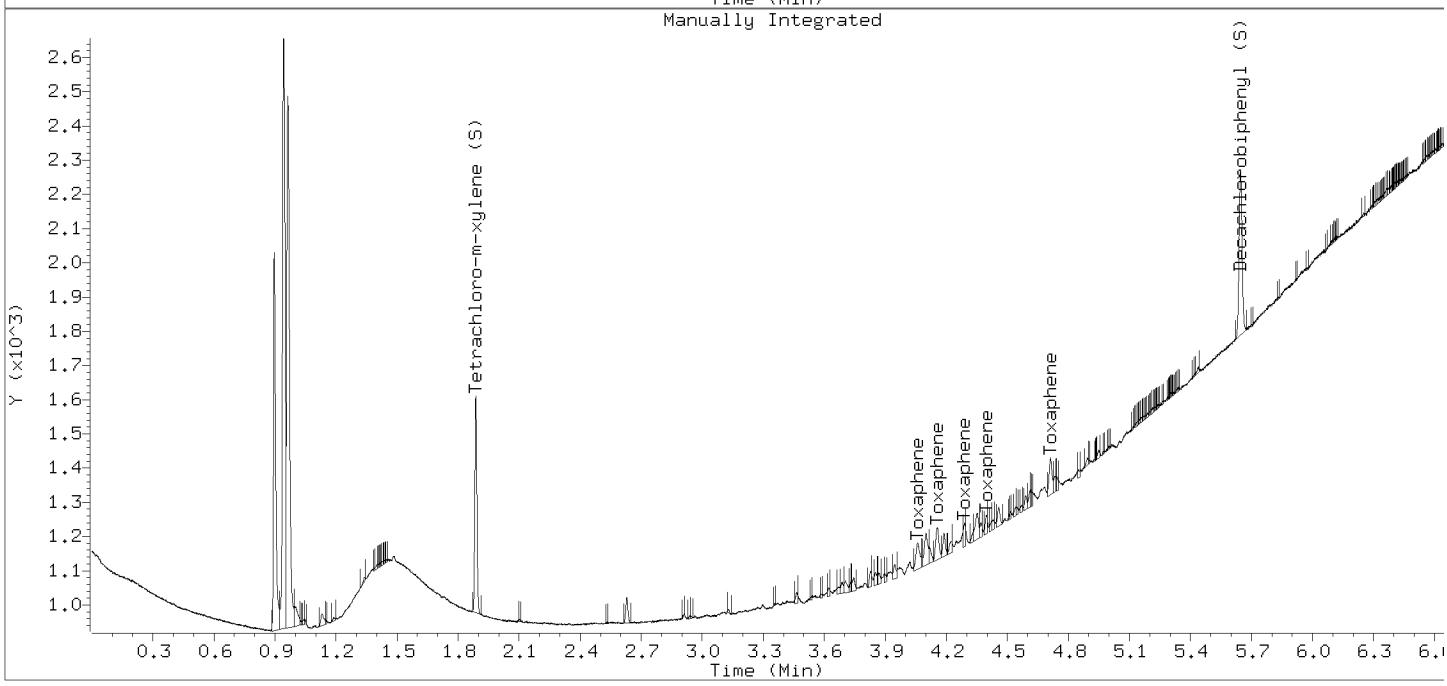
Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 16-MAY-2019 13:21 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2S





Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	73	100
Toxaphene	91	103
Toxaphene	9	48
Toxaphene	10	37
Toxaphene	69	107
Tetrachloro-m-xylene (S)	445	445
Decachlorobiphenyl (S)	496	496

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:21
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83734:10
Misc Info : 15520,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.208	2	2	1.026	0.0790		
0.314	2	2	1.111	0.0790		
0.429	2	2	1.290	0.0790		
0.455	1	2	1.754	0.0790		
0.811	2	2	1.143	0.0790		
0.868	3	6	1.829	0.2371		
0.881	296	711	2.404	28.1057		
0.982	503	554	1.101	21.8972		
1.011	418	445	1.065	17.5889		
1.061	2	4	2.339	0.1581		
1.078	1	3	2.206	0.1185		
1.110	2	2	1.250	0.0790		
1.129	1	2	1.664	0.0790		
1.194	3	6	2.161	0.2371		
1.331	1	3	2.885	0.1185		
1.524	1	3	2.778	0.1185		
1.916	2	4	2.666	0.1581		
2.363	171	228	1.334	9.0118	$ 1 Tetrachloro-m-xylene (S)	
2.573	1	3	2.564	0.1185		
2.717	1	2	1.864	0.0790		
3.095	15	17	1.102	0.6719		
3.444	1	3	2.998	0.1185		
3.470	1	2	1.961	0.0790		
3.528	1	3	2.128	0.1185		
3.640	1	2	1.835	0.0790		
3.708	2	4	2.235	0.1581		
3.746	2	3	1.245	0.1185		
3.884	2	3	1.613	0.1185		
3.924	1	2	1.961	0.0790		
4.149	10	8	0.819	0.3162		
4.177	14	11	0.769	0.4347		
4.205	25	16	0.634	0.6324		
4.250	11	8	0.735	0.3162		
4.284	8	9	1.114	0.3557		
4.332	44	20	0.455	0.7905		
4.410	72	27	0.375	1.0671	23 Toxaphene	BA
4.498	29	19	0.657	0.7509		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.567	57	22	0.388	0.8695	23 Toxaphene	BA
4.610	43	26	0.602	1.0276	23 Toxaphene	BA
4.644	24	17	0.721	0.6719		
4.720	23	19	0.840	0.7509		
4.770	54	31	0.569	1.2252	23 Toxaphene	BA
4.827	38	24	0.637	0.9486		
4.860	14	12	0.837	0.4743		
4.901	20	15	0.740	0.5928		
4.938	20	11	0.547	0.4347		
4.968	13	11	0.855	0.4347		
5.030	31	14	0.449	0.5533		
5.054	28	17	0.601	0.6719		
5.103	14	10	0.726	0.3952		
5.148	31	26	0.829	1.0276	23 Toxaphene	BA
5.250	1	3	2.752	0.1185		
5.552	1	2	1.961	0.0790		
6.083	1	3	2.400	0.1185		
6.342	166	124	0.746	4.9011	$ 24 Decachlorobiphenyl (S)	
	2234	2530		100.000		

Total unknown % height = 80.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:21
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83734:10
Misc Info : 15520,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
23 Toxaphene					CAS #: 8001-35-2			
4.409	4.409	0.000	72	0.10000	0.100	0.00- 20.00	100.00(M)	BA
4.566	4.566	0.000	56	0.10000	0.100	0.00- 20.00	78.65	BA
4.610	4.610	0.000	43	0.10000	0.100	0.00- 20.00	59.93	BA
4.770	4.770	0.000	54	0.10000	0.100	0.00- 20.00	75.57	BA
5.147	5.147	0.000	31	0.10000	0.100	0.00- 20.00	43.49	BA
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.362	2.362	0.000	170	0.01400	0.0107			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.341	6.341	0.000	166	0.01400	0.0114			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,TOX

Client SDG: 30GCSC-051619-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

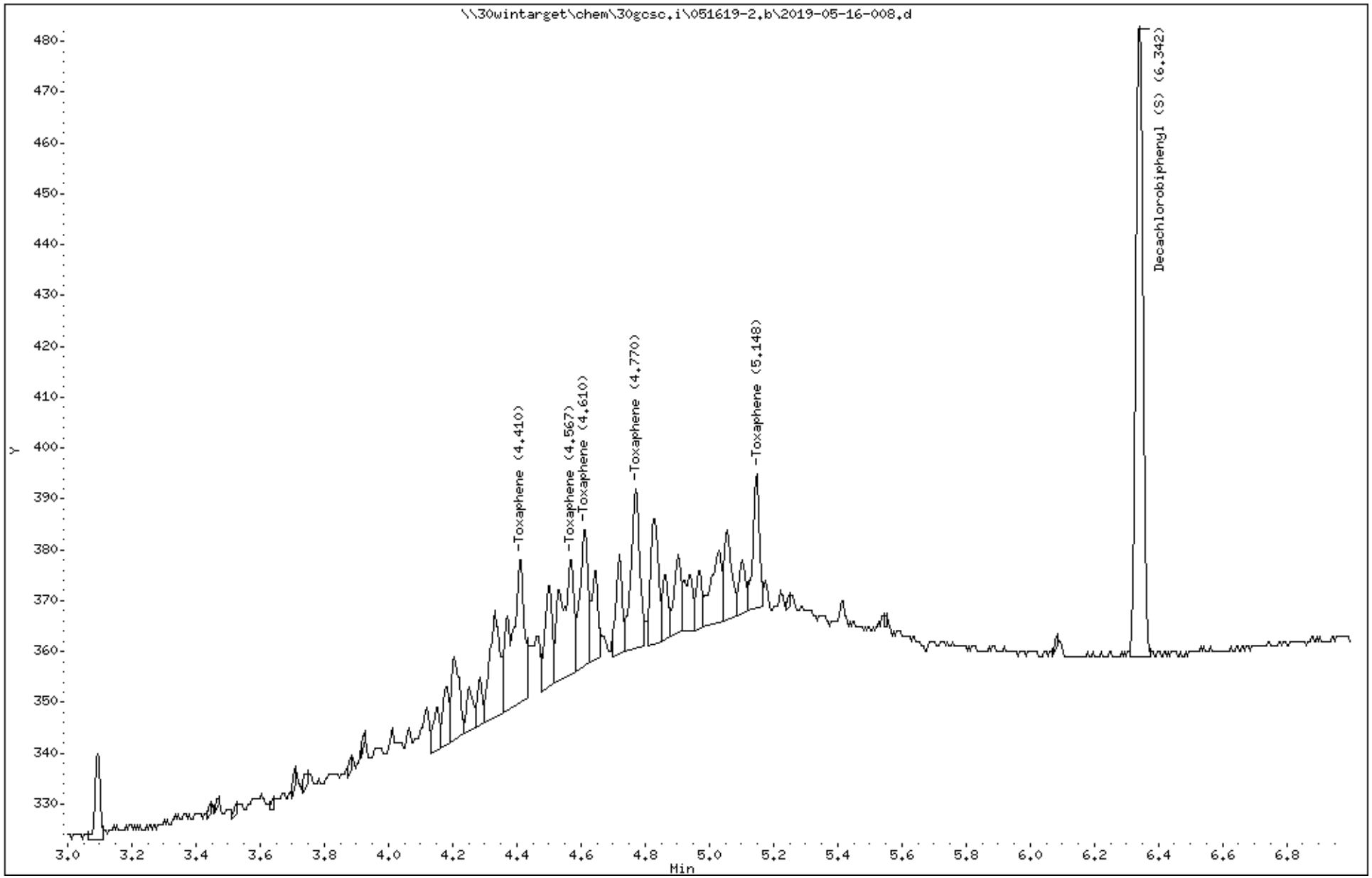
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
8001-35-2	Toxaphene		
	Peak found at 4.410	0.100	
	Peak found at 4.567	0.100	
	Peak found at 4.610	0.100	
	Peak found at 4.770	0.100	
	Peak found at 5.148	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0107	
	Decachlorobiphenyl (S)	0.0114	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-008.d
Date : 16-MAY-2019 13:21
Client ID: CAL2S
Sample Info: CAL2S, 83734:10

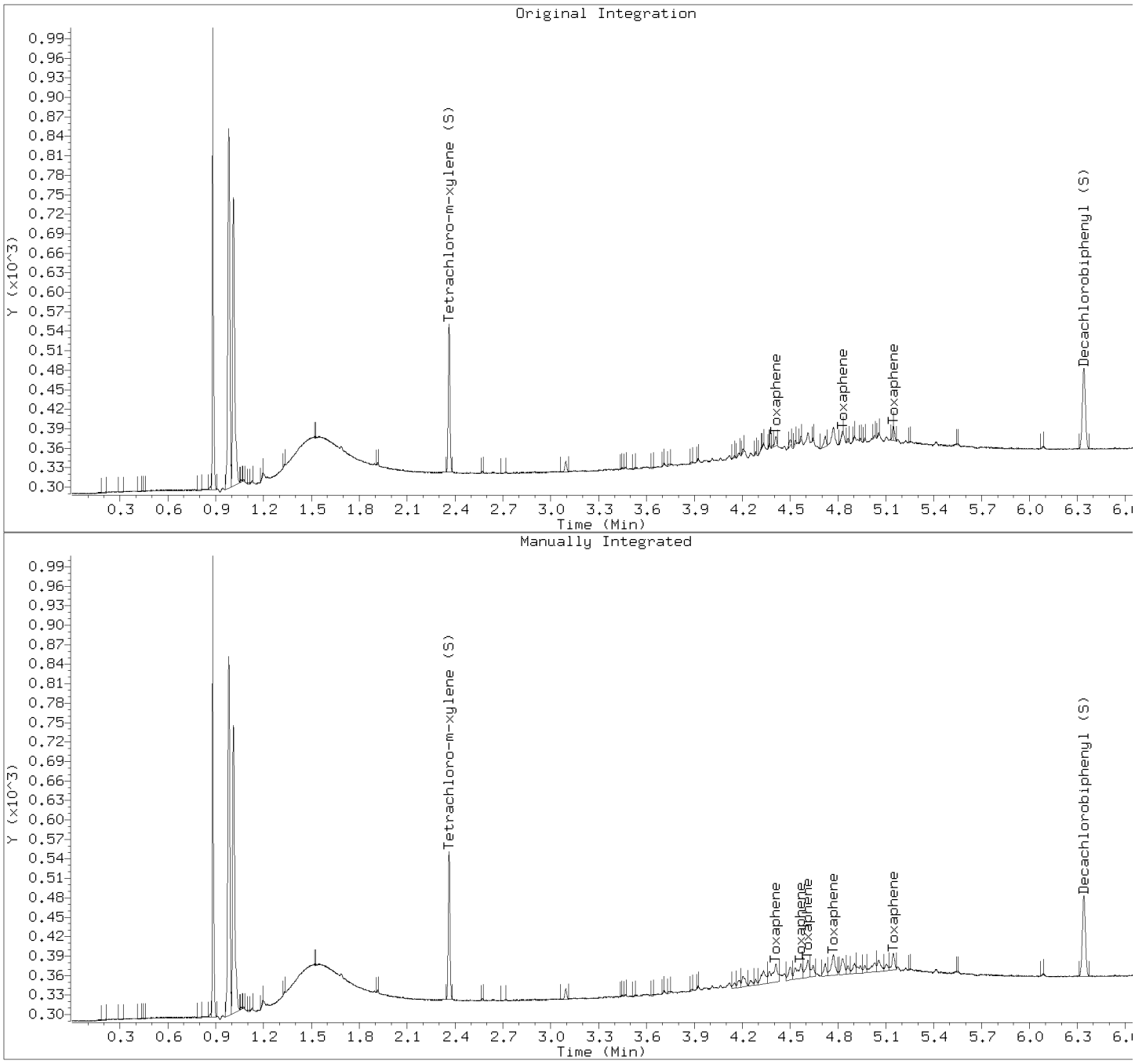
Instrument: 30gcsc.i

Operator: CWB
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 16-MAY-2019 13:21 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	11	72
Toxaphene	0	56
Toxaphene	0	43
Toxaphene	1	54
Toxaphene	9	31
Tetrachloro-m-xylene (S)	170	170
Decachlorobiphenyl (S)	166	166

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:31
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83742:10
Misc Info : 15520,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.889	13	46	3.423	0.4392		
0.896	80	138	1.715	1.3177		
0.914	56	97	1.736	0.9262		
0.917	48	97	2.010	0.9262		
0.943	1525	1716	1.125	16.3963		
0.963	1460	1479	1.013	14.1233		
0.999	64	74	1.152	0.7066		
1.018	73	79	1.088	0.7543		
1.093	4	7	1.867	0.0668		
1.130	4	11	2.709	0.1050		
1.216	2	4	1.818	0.0381		
1.241	7	14	2.116	0.1336		
1.339	8	15	1.963	0.1432		
1.398	2	9	4.455	0.0859		
1.410	3	13	3.881	0.1241		
1.426	18	21	1.155	0.2005		
1.433	3	18	5.279	0.1718		
1.436	5	18	3.340	0.1718		
1.442	5	15	3.165	0.1432		
1.447	2	14	6.763	0.1336		
1.452	5	16	2.952	0.1527		
1.458	6	14	2.273	0.1336		
1.468	5	11	2.128	0.1050		
1.484	17	26	1.487	0.2482		
1.887	454	634	1.398	6.0542	$ 1 Tetrachloro-m-xylene (S)	
1.922	62	85	1.378	0.8116		
2.053	3	6	1.993	0.0572		
2.099	3	8	3.065	0.0763		
2.154	16	27	1.657	0.2578		
2.195	11	17	1.497	0.1623		
2.416	30	32	1.072	0.3055		
2.433	6	12	2.147	0.1145		
2.502	23	29	1.236	0.2769		
2.559	7	17	2.358	0.1623		
2.595	198	261	1.320	2.4923	22 Chlordane (Technical)	
2.627	67	75	1.123	0.7161		
2.714	289	360	1.245	3.4377	22 Chlordane (Technical)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.773	34	39	1.148	0.3724		
2.793	15	23	1.573	0.2196		
2.851	22	24	1.069	0.2291		
2.928	26	32	1.212	0.3055		
2.949	9	24	2.597	0.2291		
2.951	10	25	2.601	0.2387		
3.009	206	179	0.869	1.7093	22 Chlordane (Technical)	
3.049	21	23	1.121	0.2196		
3.088	63	64	1.009	0.6111		
3.109	21	26	1.244	0.2482		
3.134	6	18	3.025	0.1718		
3.151	28	29	1.021	0.2769		
3.169	14	19	1.351	0.1814		
3.239	35	41	1.188	0.3915		
3.296	139	144	1.037	1.3750		
3.312	6	49	8.478	0.4679		
3.314	18	50	2.758	0.4774		
3.332	140	141	1.005	1.3464		
3.353	26	44	1.688	0.4201		
3.376	68	74	1.094	0.7066		
3.409	24	31	1.308	0.2960		
3.437	763	714	0.936	6.8181		
3.469	166	197	1.186	1.8812		
3.502	483	599	1.241	5.7200	22 Chlordane (Technical)	
3.530	20	37	1.817	0.3533		
3.582	18	19	1.058	0.1814		
3.605	9	16	1.784	0.1527		
3.608	8	18	2.344	0.1718		
3.641	10	19	1.876	0.1814		
3.644	7	21	2.857	0.2005		
3.685	40	51	1.269	0.4870		
3.731	72	78	1.087	0.7448		
3.779	32	30	0.946	0.2864		
3.834	9	15	1.599	0.1432		
3.882	18	21	1.138	0.2005		
3.910	10	15	1.471	0.1432		
3.932	22	26	1.188	0.2482		
3.947	7	15	2.030	0.1432		
3.980	104	120	1.154	1.1459		
4.000	20	26	1.270	0.2482		
4.084	7	19	2.888	0.1814		
4.101	200	196	0.978	1.8716		
4.142	8	19	2.520	0.1814		
4.161	176	202	1.148	1.9289	22 Chlordane (Technical)	
4.186	9	22	2.494	0.2100		
4.189	12	22	1.874	0.2100		
4.271	5	14	2.729	0.1336		
4.274	6	16	2.694	0.1527		
4.300	3	8	2.360	0.0763		
4.331	3	7	2.756	0.0668		
4.391	26	33	1.258	0.3151		
4.888	2	12	4.938	0.1145		
4.895	2	9	3.719	0.0859		
4.953	2	6	2.727	0.0572		
5.145	2	10	4.348	0.0954		
5.157	3	11	3.245	0.1050		
5.166	3	11	3.560	0.1050		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.176	5	14	2.662	0.1336		
5.182	2	12	5.128	0.1145		
5.187	2	12	5.660	0.1145		
5.190	2	10	4.525	0.0954		
5.195	4	13	3.542	0.1241		
5.201	4	12	2.899	0.1145		
5.208	3	12	4.332	0.1145		
5.212	3	12	4.348	0.1145		
5.217	2	12	4.918	0.1145		
5.226	3	11	4.000	0.1050		
5.230	4	12	3.141	0.1145		
5.236	2	13	6.161	0.1241		
5.238	4	12	2.985	0.1145		
5.249	3	10	3.195	0.0954		
5.255	3	15	4.438	0.1432		
5.267	3	10	3.311	0.0954		
5.285	2	12	5.479	0.1145		
5.290	2	11	4.977	0.1050		
5.296	3	10	3.367	0.0954		
5.362	3	7	2.789	0.0668		
5.434	4	15	4.076	0.1432		
5.441	10	21	2.147	0.2005		
5.449	3	11	3.943	0.1050		
5.619	3	8	2.564	0.0763		
5.646	492	477	0.970	4.5550	$ 24 Decachlorobiphenyl (S)	
5.671	4	15	3.846	0.1432		
5.931	2	7	3.333	0.0668		
5.948	2	9	4.167	0.0859		
6.343	2	8	3.883	0.0763		
6.389	4	14	3.933	0.1336		
6.394	4	18	4.245	0.1718		
6.401	3	13	4.348	0.1241		
6.407	3	9	3.147	0.0859		
6.418	2	12	5.634	0.1145		
6.422	3	12	4.598	0.1145		
6.480	2	15	6.466	0.1432		
6.485	2	13	6.161	0.1241		
6.488	3	17	6.007	0.1623		
6.493	3	12	3.647	0.1145		
6.499	3	15	4.717	0.1432		
6.503	4	17	4.359	0.1623		
6.509	3	13	4.290	0.1241		
6.512	3	14	4.459	0.1336		
6.522	2	10	4.808	0.0954		
6.532	2	9	3.673	0.0859		
6.558	3	11	4.331	0.1050		
6.582	2	6	2.632	0.0572		
6.585	2	12	5.000	0.1145		
6.600	2	12	5.430	0.1145		
6.610	2	12	5.333	0.1145		
6.660	2	12	5.581	0.1145		
6.667	4	9	2.244	0.0859		
6.745	2	9	3.982	0.0859		
6.789	2	10	4.630	0.0954		
6.834	2	9	4.433	0.0859		
6.847	3	12	4.270	0.1145		
6.860	3	11	4.044	0.1050		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.886	3	9	3.285	0.0859		
6.917	2	8	3.670	0.0763		
6.958	3	14	4.308	0.1336		
6.965	3	10	3.717	0.0954		
6.971	3	12	3.681	0.1145		
6.979	2	10	4.049	0.0954		
	8480	10472		100.000		

Total unknown % height = 74.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:31
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83742:10
Misc Info : 15520,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)						CAS #:		
2.595	2.597	-0.002	197	0.10000	0.100	80.00- 120.00	100.00	
2.713	2.711	0.002	289	0.10000	0.100	180.53- 220.53	146.32	
3.008	3.009	-0.001	205	0.10000	0.100	0.00- 20.00	104.19	
3.501	3.500	0.001	482	0.10000	0.100	153.84- 193.84	244.19	
4.160	4.160	0.000	175	0.10000	0.100	295.84- 335.84	88.98	
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.887	-0.001	453	0.01400	0.0107			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.645	0.000	491	0.01400	0.0109			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,CHLOR

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
	Chlordane (Technical)		
	Peak found at 2.595	0.100	
	Peak found at 2.714	0.100	
	Peak found at 3.009	0.100	
	Peak found at 3.502	0.100	
	Peak found at 4.161	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0107	
	Decachlorobiphenyl (S)	0.0109	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-009.d

Date : 16-MAY-2019 13:31

Client ID: CAL2S

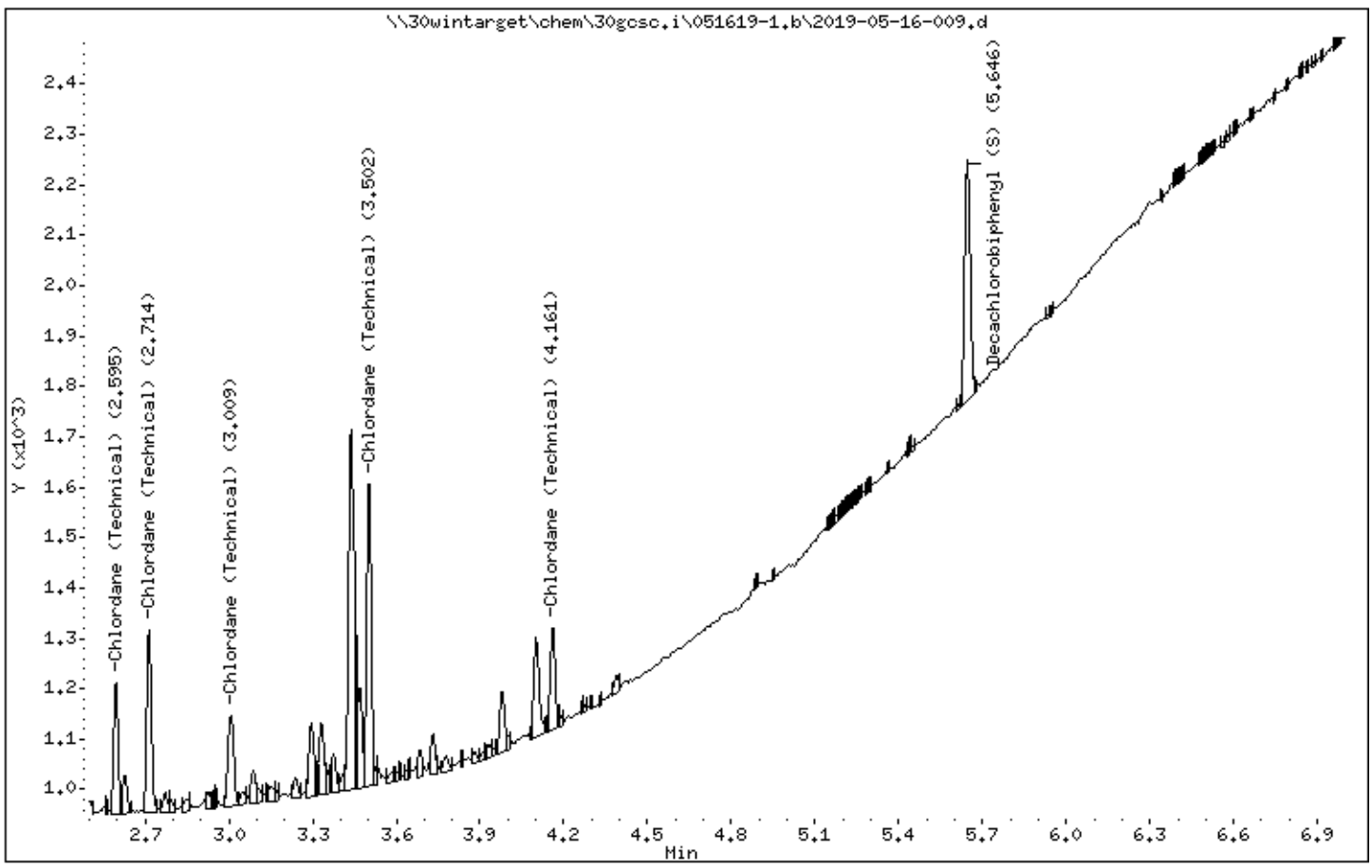
Instrument: 30gcsc.i

Sample Info: CAL2S, 83742:10

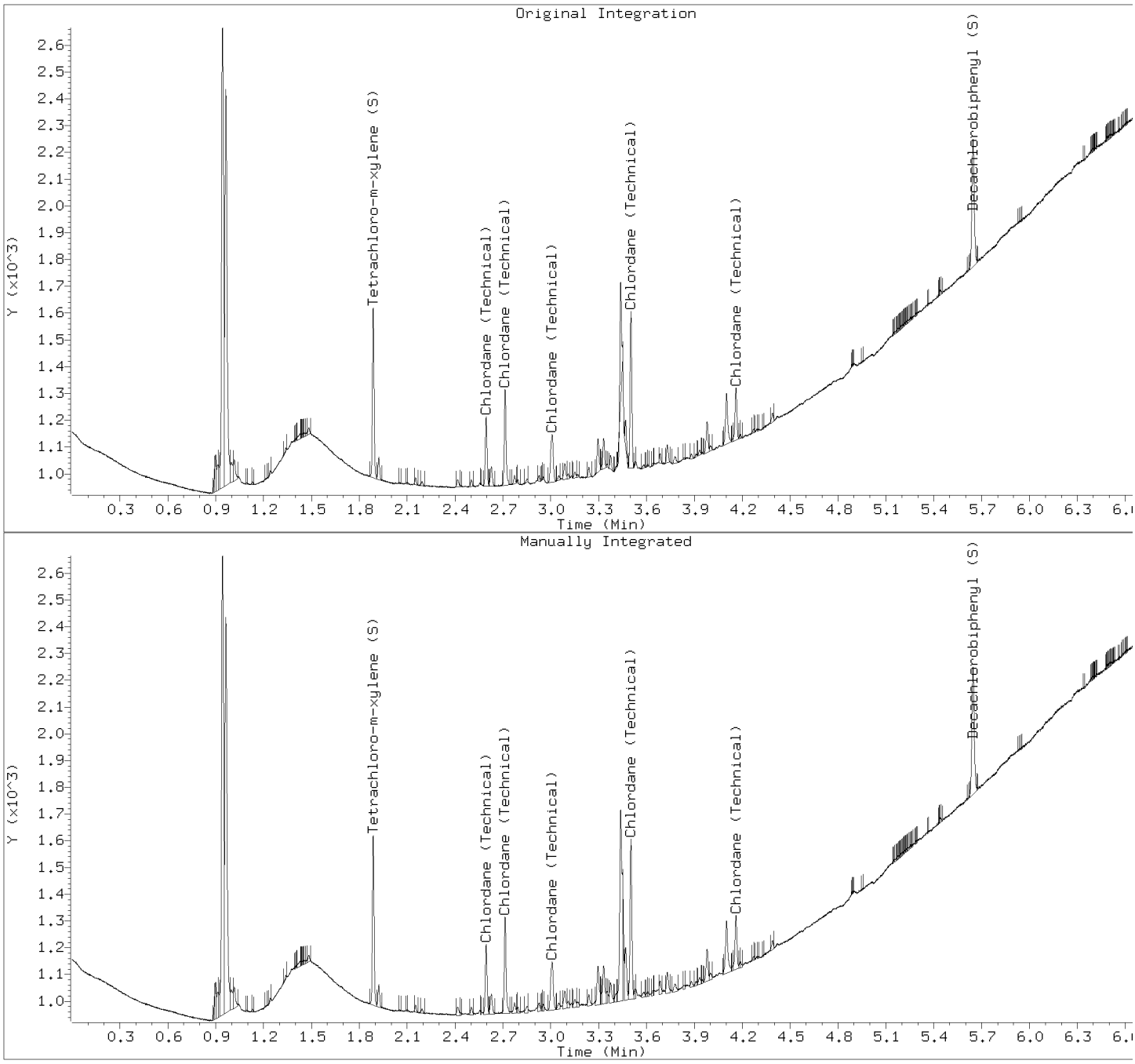
Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-009.d (ManInt: CHLOR.sub Orig: CHLOR.sub)
Injection Date: 16-MAY-2019 13:31 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	190	197
Chlordane (Technical)	278	289
Chlordane (Technical)	199	205
Chlordane (Technical)	452	482
Chlordane (Technical)	161	175
Tetrachloro-m-xylene (S)	453	453
Decachlorobiphenyl (S)	491	491

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:31
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83742:10
Misc Info : 15520,CHLOR
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.105	1	1	0.794	0.0345		
0.418	2	2	0.866	0.0690		
0.664	1	1	0.820	0.0345		
0.814	1	1	0.877	0.0345		
0.868	2	5	2.222	0.1725		
0.880	61	160	2.627	5.5229		
0.913	3	3	0.893	0.1035		
0.944	1	3	2.400	0.1035		
0.982	476	513	1.078	17.7112		
1.011	388	421	1.086	14.5322		
1.062	2	5	2.467	0.1725		
1.073	2	5	3.198	0.1725		
1.385	2	3	1.676	0.1035		
1.506	1	4	3.704	0.1380		
1.686	3	6	2.353	0.2071		
1.915	2	3	1.840	0.1035		
2.332	4	5	1.238	0.1725		
2.363	183	234	1.280	8.0773	$ 1 Tetrachloro-m-xylene (S)	
2.647	7	10	1.366	0.3451		
2.661	3	7	2.555	0.2416		
2.925	5	9	1.737	0.3106		
3.004	8	10	1.316	0.3451		
3.094	9	15	1.634	0.5177		
3.110	80	96	1.201	3.3137	22 Chlordane (Technical)	
3.253	100	121	1.215	4.1767	22 Chlordane (Technical)	
3.286	11	13	1.207	0.4487		
3.325	1	4	2.857	0.1380		
3.328	2	5	3.012	0.1725		
3.440	7	10	1.408	0.3451		
3.479	73	83	1.138	2.8650	22 Chlordane (Technical)	
3.504	5	8	1.717	0.2761		
3.533	5	7	1.394	0.2416		
3.599	4	7	1.651	0.2416		
3.625	6	9	1.579	0.3106		
3.659	17	19	1.146	0.6558		
3.670	10	20	2.083	0.6903		
3.794	57	57	0.999	1.9675		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.835	25	26	1.039	0.8974		
3.880	5	6	1.333	0.2071		
3.939	32	32	0.987	1.1045		
3.986	244	254	1.041	8.7676	22 Chlordane (Technical)	
4.023	179	211	1.177	7.2833	22 Chlordane (Technical)	
4.048	119	140	1.179	4.8325		
4.093	4	6	1.449	0.2071		
4.147	3	3	1.158	0.1035		
4.200	17	19	1.118	0.6558		
4.256	6	7	1.089	0.2416		
4.381	14	17	1.174	0.5868		
4.489	90	86	0.957	2.9685		
4.525	5	10	1.992	0.3451		
4.587	3	5	1.437	0.1725		
4.619	51	58	1.139	2.0020		
4.867	2	3	1.676	0.1035		
4.897	2	3	1.911	0.1035		
6.081	1	4	2.758	0.1380		
6.278	1	1	0.909	0.0345		
6.340	163	121	0.743	4.1767	$ 24 Decachlorobiphenyl (S)	
	2510	2897		100.000		

Total unknown % height = 61.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 16-MAY-2019 13:31
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2s, 83742:10
Misc Info : 15520,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)						CAS #:		
3.109	3.108	0.001	79	0.10000	0.100	0.00- 20.00	100.00	
3.253	3.252	0.001	99	0.10000	0.100	0.00- 20.00	124.59	
3.479	3.477	0.002	72	0.10000	0.100	0.00- 20.00	91.24	
3.985	3.985	0.000	243	0.10000	0.100	0.00- 20.00	305.10	
4.022	4.022	0.000	179	0.10000	0.100	0.00- 20.00	224.19	
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.362	2.362	0.000	182	0.01400	0.0113			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.339	6.341	-0.002	162	0.01400	0.0112			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,CHLOR

Client SDG: 30GCSC-051619-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

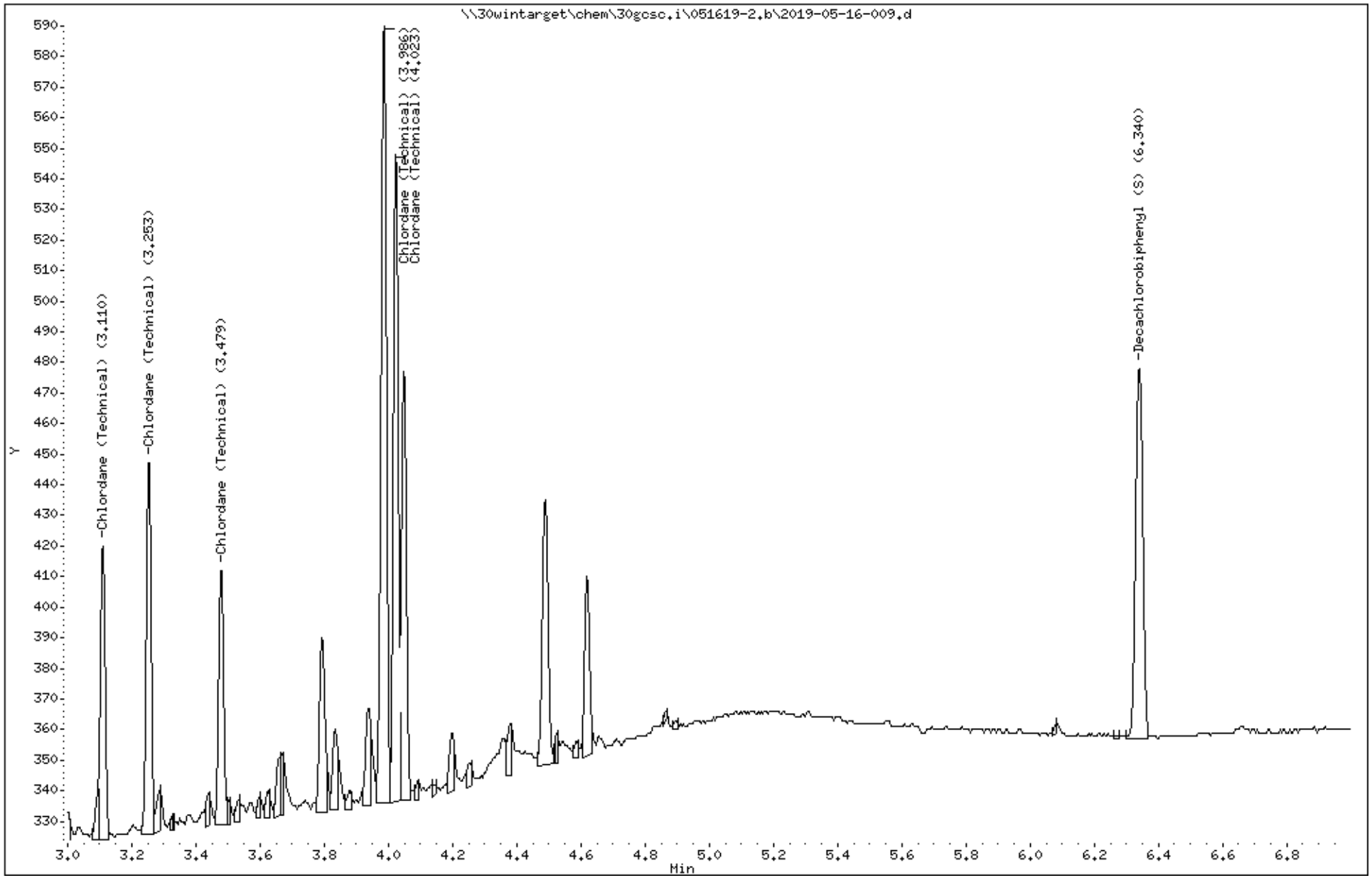
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
	Chlordane (Technical)		
	Peak found at 3.110	0.100	
	Peak found at 3.253	0.100	
	Peak found at 3.479	0.100	
	Peak found at 3.986	0.100	
	Peak found at 4.023	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0113	
	Decachlorobiphenyl (S)	0.0112	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-009.d
Date : 16-MAY-2019 13:31
Client ID: CAL2S
Sample Info: CAL2S, 83742:10

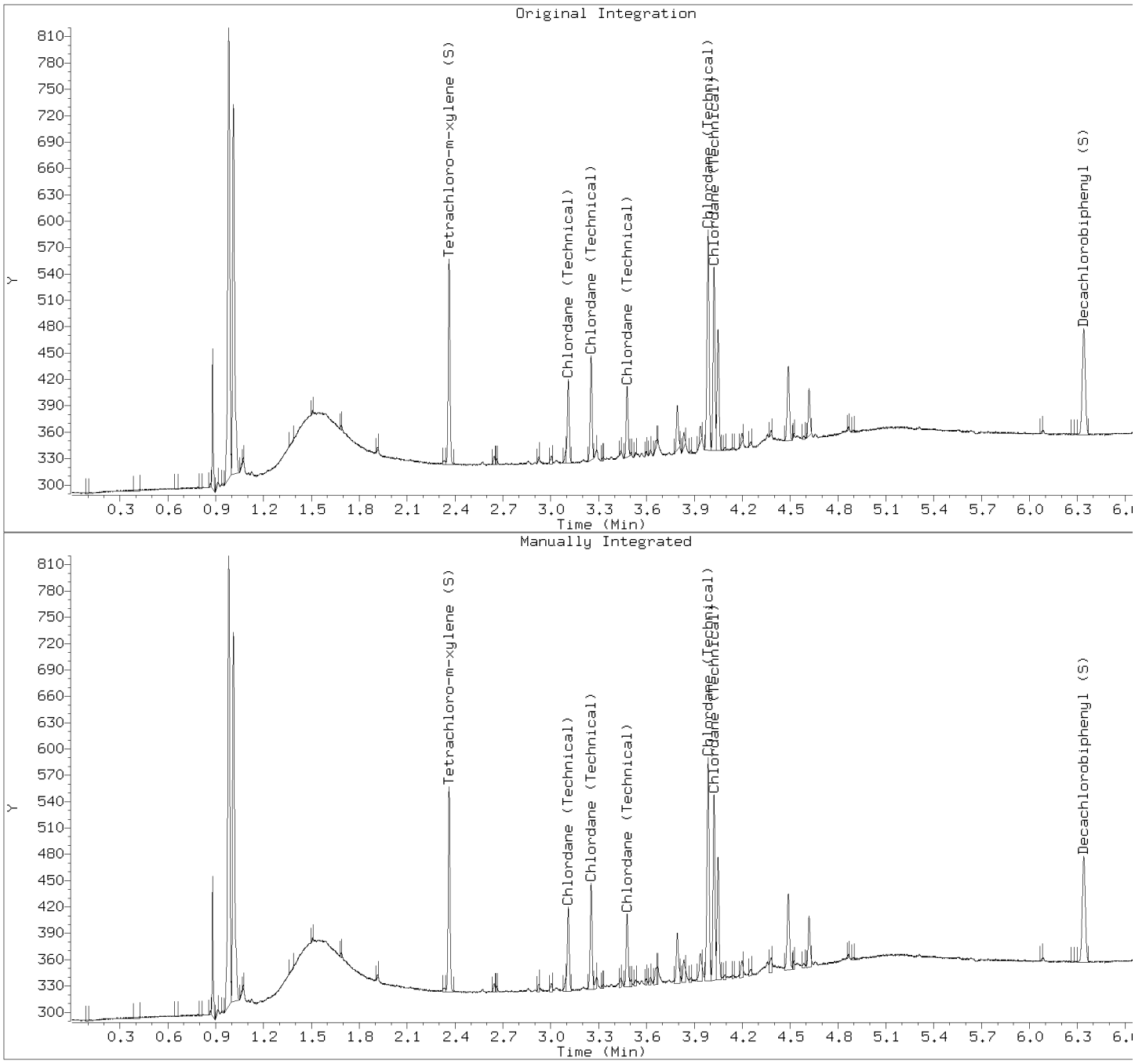
Instrument: 30gcsc.i

Operator: CWB

Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-009.d (ManInt: CHLOR.sub Orig: CHLOR.sub)
Injection Date: 16-MAY-2019 13:31 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	77	79
Chlordane (Technical)	94	99
Chlordane (Technical)	67	72
Chlordane (Technical)	234	243
Chlordane (Technical)	174	179
Tetrachloro-m-xylene (S)	182	182
Decachlorobiphenyl (S)	162	162

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 16-MAY-2019 13:40
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal1, 87950:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.895	1086	1455	1.339	9.9045			
0.941	510	669	1.311	4.5516			
0.962	566	669	1.182	4.5516			
0.999	19	26	1.338	0.1768			
1.017	31	32	1.037	0.2177			
1.039	6	9	1.576	0.0612			
1.053	3	7	2.642	0.0476			
1.313	3	6	1.875	0.0408			
1.323	3	8	2.305	0.0544			
1.343	9	11	1.190	0.0748			
1.348	3	13	3.988	0.0884			
1.352	3	12	3.859	0.0816			
1.362	6	12	1.858	0.0816			
1.371	9	19	2.181	0.1292			
1.378	7	17	2.394	0.1156			
1.382	5	17	3.720	0.1156			
1.387	4	15	4.076	0.1020			
1.391	3	13	4.348	0.0884			
1.397	5	13	2.605	0.0884			
1.403	3	14	4.459	0.0952			
1.408	4	12	2.817	0.0816			
1.423	5	6	1.237	0.0408			
1.886	455	655	1.438	4.4563	$	1 Tetrachloro-m-xylene (S)	
2.097	4	10	2.625	0.0680			
2.240	291	418	1.439	2.8439		2 alpha-BHC	
2.475	282	389	1.381	2.6466		3 gamma-BHC (Lindane)	
2.619	138	181	1.313	1.2314		4 beta-BHC	
2.656	2	5	2.315	0.0340			
2.713	299	394	1.317	2.6806		5 Heptachlor	
2.814	266	361	1.355	2.4561		6 delta-BHC	
2.925	260	340	1.308	2.3132		7 Aldrin	
3.201	3	11	3.179	0.0748			
3.204	5	13	2.476	0.0884			
3.282	260	334	1.286	2.2724		8 Heptachlor epoxide	
3.438	263	334	1.268	2.2724		9 gamma-Chlordane	
3.502	258	326	1.262	2.2179		10 alpha-Chlordane	
3.547	240	308	1.281	2.0955		11 Endosulfan I	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.624	485	599	1.234	4.0753	12 4,4'-DDE	
3.650	3	10	3.650	0.0680		
3.665	3	5	1.852	0.0340		
3.740	504	637	1.264	4.3339	13 Dieldrin	
3.765	2	8	3.883	0.0544		
3.959	455	561	1.232	3.8168	14 Endrin	
4.019	379	446	1.177	3.0344	15 4,4'-DDD	
4.103	6	12	2.166	0.0816		
4.138	422	532	1.259	3.6195	16 Endosulfan II	
4.209	415	509	1.226	3.4630	17 4,4'-DDT	
4.291	387	469	1.213	3.1909	18 Endrin aldehyde	
4.429	464	567	1.223	3.8576	19 Endosulfan sulfate	
4.665	1128	1363	1.208	9.2733	20 Methoxychlor	
4.852	481	570	1.185	3.8780	21 Endrin ketone	
4.874	2	8	3.960	0.0544		
4.889	3	7	2.465	0.0476		
5.022	2	8	3.524	0.0544		
5.131	2	8	3.433	0.0544		
5.142	2	9	3.947	0.0612		
5.150	4	9	2.413	0.0612		
5.157	2	10	4.184	0.0680		
5.164	2	7	3.070	0.0476		
5.173	3	13	4.290	0.0884		
5.183	7	13	1.997	0.0884		
5.194	4	12	3.409	0.0816		
5.200	2	14	6.140	0.0952		
5.207	4	12	3.093	0.0816		
5.216	3	11	4.120	0.0748		
5.223	2	13	6.468	0.0884		
5.227	3	14	4.698	0.0952		
5.233	2	12	5.217	0.0816		
5.238	2	11	5.046	0.0748		
5.242	2	11	5.340	0.0748		
5.249	4	10	2.755	0.0680		
5.435	3	14	4.321	0.0952		
5.439	5	17	3.579	0.1156		
5.647	479	464	0.969	3.1568	$ 24 Decachlorobiphenyl (S)	
5.682	2	10	4.505	0.0680		
5.956	2	9	3.689	0.0612		
6.105	3	10	3.788	0.0680		
6.126	2	8	3.941	0.0544		
6.231	3	10	3.311	0.0680		
6.413	2	9	4.306	0.0612		
6.424	2	9	3.704	0.0612		
6.537	3	10	2.933	0.0680		
6.541	2	15	6.098	0.1020		
6.549	2	12	5.634	0.0816		
6.554	2	10	4.673	0.0680		
6.585	3	12	4.054	0.0816		
6.648	2	12	5.911	0.0816		
6.653	2	10	4.274	0.0680		
6.659	5	15	2.773	0.1020		
6.670	3	12	4.027	0.0816		
6.688	2	14	6.635	0.0952		
6.694	3	9	3.203	0.0612		
6.698	2	10	4.367	0.0680		
6.709	3	11	3.901	0.0748		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.724	2	11	4.418	0.0748		
6.730	2	9	4.186	0.0612		
6.842	2	12	5.381	0.0816		
6.847	2	9	4.478	0.0612		
6.854	3	15	5.051	0.1020		
6.860	4	15	3.488	0.1020		
6.863	4	16	4.520	0.1088		
6.872	2	10	4.695	0.0680		
6.873	2	20	8.547	0.1360		
6.877	3	16	5.316	0.1088		
6.879	2	19	8.636	0.1292		
6.883	4	17	4.116	0.1156		
6.886	2	15	7.426	0.1020		
6.891	4	15	3.333	0.1020		
6.902	2	18	8.219	0.1224		
6.904	2	19	7.661	0.1292		
6.907	3	16	5.298	0.1088		
6.911	3	19	7.011	0.1292		
6.916	2	12	5.556	0.0816		
6.919	5	15	3.024	0.1020		
6.932	3	13	4.514	0.0884		
6.941	3	16	5.839	0.1088		
6.955	4	14	3.900	0.0952		
6.965	5	11	2.301	0.0748		
	11124	14698		100.000		

Total unknown % height = 26.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 16-MAY-2019 13:40
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal1, 87950:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.887	-0.001	455	0.01000	0.0102			
2 alpha-BHC						CAS #: 319-84-6		
2.239	2.240	-0.001	290	0.00500	0.00488			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	281	0.00500	0.00501			
4 beta-BHC						CAS #: 319-85-7		
2.619	2.619	0.000	137	0.00500	0.00510			
6 delta-BHC						CAS #: 76-44-8		
2.814	2.815	-0.001	266	0.00500	0.00490			
5 Heptachlor						CAS #: 319-86-8		
2.713	2.713	0.000	299	0.00500	0.00511			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	259	0.00500	0.00492			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	259	0.00500	0.00502			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.437	3.437	0.000	263	0.00500	0.00501			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	258	0.00500	0.00510			
11 Endosulfan I						CAS #: 959-98-8		
3.547	3.547	0.000	240	0.00500	0.00504			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.624	3.623	0.001	485	0.01000	0.00992			
13 Dieldrin						CAS #: 60-57-1		
3.740	3.740	0.000	503	0.01000	0.00984			
14 Endrin						CAS #: 72-20-8		
3.958	3.958	0.000	455	0.01000	0.00986			
15 4,4'-DDD						CAS #: 72-54-8		
4.019	4.017	0.002	378	0.01000	0.00960			
16 Endosulfan II						CAS #: 33213-65-9		
4.138	4.138	0.000	422	0.01000	0.00992			
17 4,4'-DDT						CAS #: 50-29-3		
4.209	4.208	0.001	415	0.01000	0.00966			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	386	0.01000	0.0101			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.429	4.429	0.000	463	0.01000	0.00987			
20 Methoxychlor						CAS #: 72-43-5		
4.665	4.664	0.001	1128	0.05000	0.0502			
21 Endrin ketone						CAS #: 53494-70-5		
4.852	4.851	0.001	480	0.01000	0.00991			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.647	5.645	0.002	478	0.01000	0.0101			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00488	
58-89-9	gamma-BHC (Lindane)	0.00501	
319-85-7	beta-BHC	0.00510	
76-44-8	delta-BHC	0.00490	
319-86-8	Heptachlor	0.00511	
309-00-2	Aldrin	0.00492	
1024-57-3	Heptachlor epoxide	0.00502	
5103-74-2	gamma-Chlordane	0.00501	
5103-71-9	alpha-Chlordane	0.00510	
959-98-8	Endosulfan I	0.00504	
72-55-9	4,4'-DDE	0.00992	
60-57-1	Dieldrin	0.00984	
72-20-8	Endrin	0.00986	
72-54-8	4,4'-DDD	0.00960	
33213-65-9	Endosulfan II	0.00992	
50-29-3	4,4'-DDT	0.00966	
7421-36-3	Endrin aldehyde	0.0101	
1031-07-8	Endosulfan sulfate	0.00987	
72-43-5	Methoxychlor	0.0502	
53494-70-5	Endrin ketone	0.00991	
	Tetrachloro-m-xylene (S)	0.0102	
	Decachlorobiphenyl (S)	0.0101	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-010.d

Date : 16-MAY-2019 13:40

Client ID: CAL1

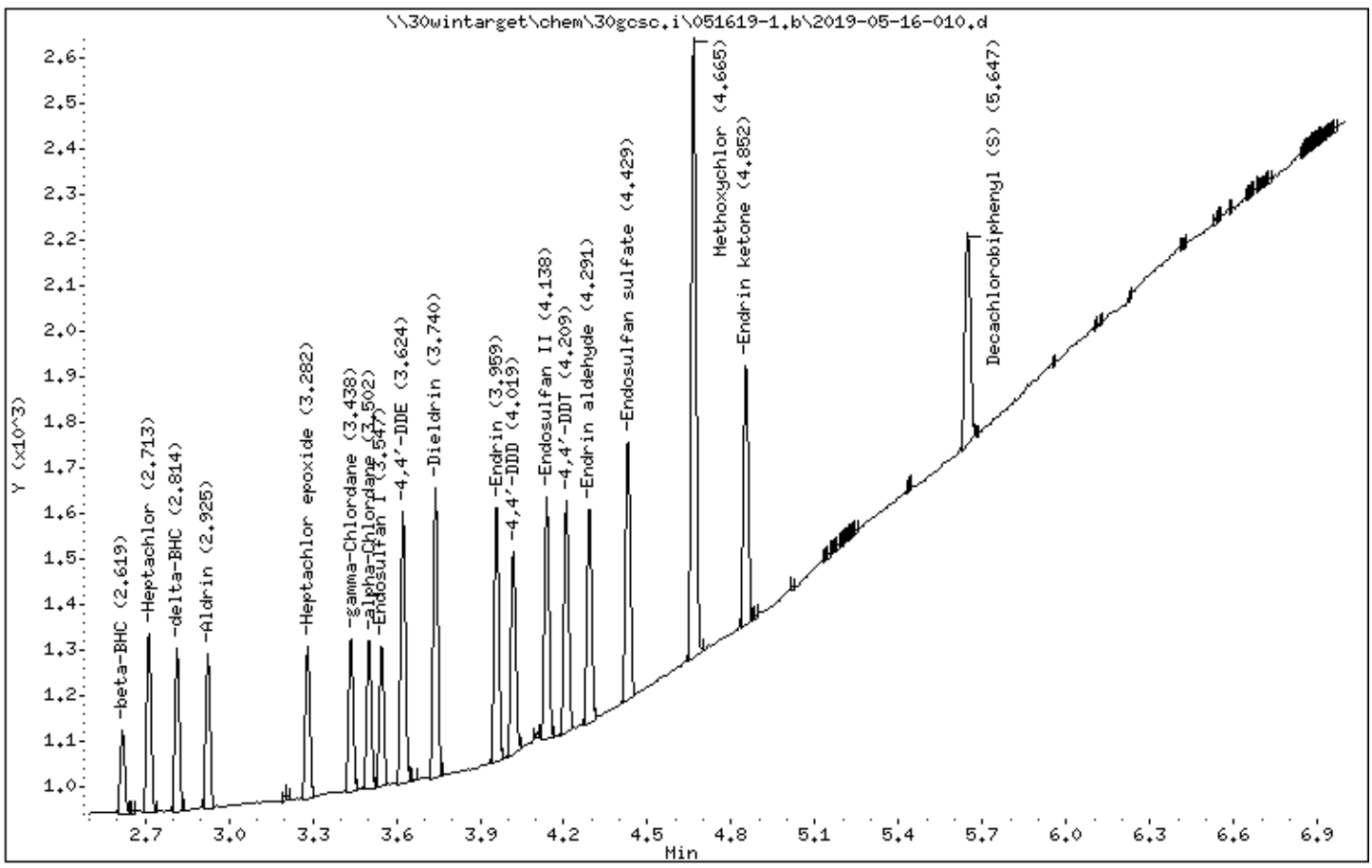
Instrument: 30gcsc.i

Sample Info: CAL1, 87950:1

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 13:40 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	290	290
beta-BHC	137	137
delta-BHC	266	266
gamma-BHC (Lindane)	281	281
Heptachlor	299	299
Aldrin	259	259
Heptachlor epoxide	259	259
Endosulfan I	240	240
Dieldrin	503	503
4,4'-DDE	485	485
Endrin	455	455
Endosulfan II	422	422
4,4'-DDD	378	378
Endosulfan sulfate	463	463
4,4'-DDT	415	415
Methoxychlor	1128	1128
Endrin ketone	480	480
Endrin aldehyde	386	386
alpha-Chlordane	258	258
gamma-Chlordane	263	263
Tetrachloro-m-xylene (S)	455	455
Decachlorobiphenyl (S)	478	478

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 16-MAY-2019 13:40
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal1, 87950:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.441	2	1	0.633	0.0203			
0.639	1	2	1.980	0.0406			
0.790	1	2	1.408	0.0406			
0.867	1	4	3.200	0.0813			
0.873	4	17	4.126	0.3458			
0.879	379	947	2.495	19.2665			
0.981	155	184	1.186	3.7428			
1.010	146	186	1.274	3.7835			
1.073	1	3	2.459	0.0610			
1.107	1	2	1.550	0.0406			
1.331	1	2	1.672	0.0406			
1.388	1	2	1.911	0.0406			
1.416	1	2	1.612	0.0406			
1.441	1	2	1.504	0.0406			
1.461	2	2	1.314	0.0406			
1.494	3	4	1.515	0.0813			
1.519	1	4	2.740	0.0813			
2.362	175	232	1.329	4.7192	$	1 Tetrachloro-m-xylene (S)	
2.571	1	3	2.970	0.0610			
2.627	104	143	1.373	2.9088		2 alpha-BHC	
2.843	100	133	1.326	2.7054		3 gamma-BHC (Lindane)	
3.004	53	67	1.262	1.3628		4 beta-BHC	
3.190	96	131	1.370	2.6647		5 delta-BHC	
3.253	101	127	1.263	2.5834		6 Heptachlor	
3.481	92	114	1.244	2.3189		7 Aldrin	
3.712	2	5	2.127	0.1017			
3.757	2	2	1.242	0.0406			
3.775	93	118	1.267	2.4003		8 Heptachlor epoxide	
3.911	1	2	1.905	0.0406			
3.987	93	113	1.209	2.2986		9 gamma-Chlordane	
4.024	92	109	1.189	2.2172		10 alpha-Chlordane	
4.057	84	103	1.224	2.0951		11 Endosulfan I	
4.102	163	203	1.247	4.1293		12 4,4'-DDE	
4.231	177	213	1.202	4.3327		13 Dieldrin	
4.321	2	3	1.911	0.0610			
4.331	1	4	3.604	0.0813			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT			COMPOUNDS	REVIEW CODE
4.337	1	4	3.125	0.0813				
4.347	1	3	2.326	0.0610				
4.393	150	171	1.143	3.4784		14	Endrin	
4.455	136	166	1.223	3.3767		15	4,4'-DDD	
4.494	2	3	1.999	0.0610				
4.565	152	182	1.196	3.7021		16	Endosulfan II	
4.639	140	167	1.193	3.3970		17	Endrin aldehyde	
4.666	104	126	1.212	2.5630		18	4,4'-DDT	
4.829	166	192	1.154	3.9056		19	Endosulfan sulfate	
4.950	342	399	1.165	8.1163		20	Methoxychlor	
5.129	170	183	1.074	3.7225		21	Endrin ketone	
5.548	1	3	2.655	0.0610				
6.090	2	4	1.724	0.0813				
6.342	166	121	0.730	2.4613	$	24	Decachlorobiphenyl (S)	
6.683	1	1	0.862	0.0203				
	3669	4916		100.000				

Total unknown % height = 28.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 16-MAY-2019 13:40
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal1, 87950:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.362	2.362	0.000	174	0.01000	0.0104			
2 alpha-BHC						CAS #: 319-84-6		
2.626	2.626	0.000	104	0.00500	0.00489			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.843	2.843	0.000	100	0.00500	0.00500			
4 beta-BHC						CAS #: 319-85-7		
3.004	3.004	0.000	53	0.00500	0.00521			
5 delta-BHC						CAS #: 319-86-8		
3.190	3.191	-0.001	95	0.00500	0.00477			
6 Heptachlor						CAS #: 76-44-8		
3.253	3.253	0.000	100	0.00500	0.00509			
7 Aldrin						CAS #: 309-00-2		
3.481	3.481	0.000	91	0.00500	0.00497			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.774	3.774	0.000	93	0.00500	0.00514			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.987	3.987	0.000	93	0.00500	0.00512			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.023	4.023	0.000	91	0.00500	0.00512			
11 Endosulfan I						CAS #: 959-98-8		
4.056	4.056	0.000	84	0.00500	0.00506			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.102	4.102	0.000	162	0.01000	0.00980			
13 Dieldrin						CAS #: 60-57-1		
4.230	4.230	0.000	177	0.01000	0.0101			
14 Endrin						CAS #: 72-20-8		
4.393	4.392	0.001	149	0.01000	0.0102			
15 4,4'-DDD						CAS #: 72-54-8		
4.455	4.455	0.000	135	0.01000	0.00982			
16 Endosulfan II						CAS #: 33213-65-9		
4.565	4.566	-0.001	152	0.01000	0.0102			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.639	4.639	0.000	140	0.01000	0.0103			
18 4,4'-DDT						CAS #: 50-29-3		
4.666	4.665	0.001	103	0.01000	0.00908			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.829	4.829	0.000	166	0.01000	0.0103			
20 Methoxychlor						CAS #: 72-43-5		
4.949	4.949	0.000	342	0.05000	0.0506			
21 Endrin ketone						CAS #: 53494-70-5		
5.129	5.129	0.000	170	0.01000	0.0102			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.341	6.341	0.000	165	0.01000	0.0108			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

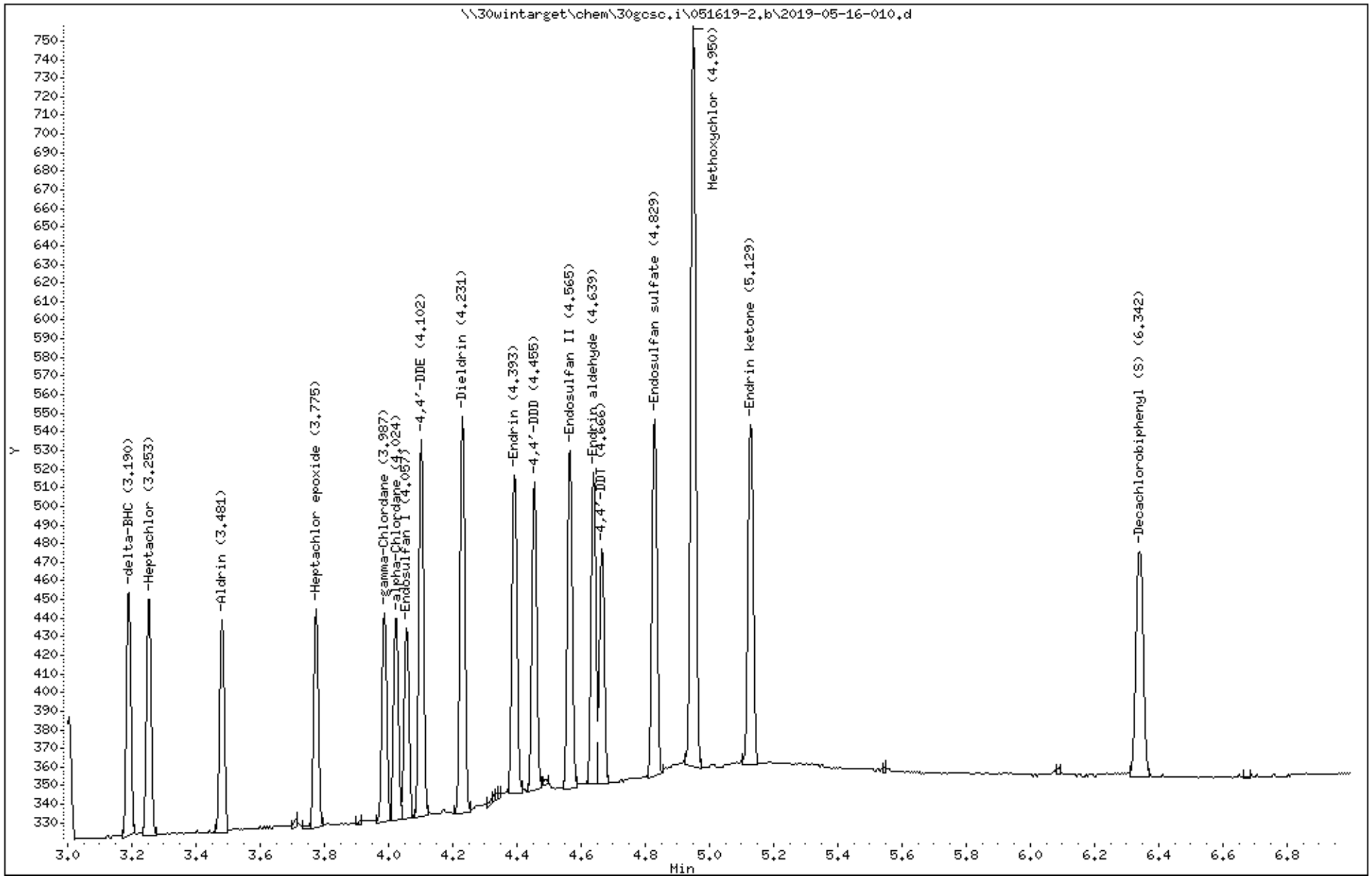
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00489	
58-89-9	gamma-BHC (Lindane)	0.00500	
319-85-7	beta-BHC	0.00521	
319-86-8	delta-BHC	0.00477	
76-44-8	Heptachlor	0.00509	
309-00-2	Aldrin	0.00497	
1024-57-3	Heptachlor epoxide	0.00514	
5103-74-2	gamma-Chlordane	0.00512	
5103-71-9	alpha-Chlordane	0.00512	
959-98-8	Endosulfan I	0.00506	
72-55-9	4,4'-DDE	0.00980	
60-57-1	Dieldrin	0.0101	
72-20-8	Endrin	0.0102	
72-54-8	4,4'-DDD	0.00982	
33213-65-9	Endosulfan II	0.0102	
7421-36-3	Endrin aldehyde	0.0103	
50-29-3	4,4'-DDT	0.00908	
1031-07-8	Endosulfan sulfate	0.0103	
72-43-5	Methoxychlor	0.0506	
53494-70-5	Endrin ketone	0.0102	
----------	Tetrachloro-m-xylene (S)	0.0104	
----------	Decachlorobiphenyl (S)	0.0108	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-010.d
Date : 16-MAY-2019 13:40
Client ID: CAL1
Sample Info: CAL1, 87950:1

Instrument: 30gcsc.i

Operator: CWB

Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 13:40 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	104	104
beta-BHC	53	53
delta-BHC	95	95
gamma-BHC (Lindane)	100	100
Heptachlor	100	100
Aldrin	91	91
Heptachlor epoxide	93	93
Endosulfan I	84	84
Dieldrin	177	177
4,4'-DDE	162	162
Endrin	149	149
Endosulfan II	152	152
4,4'-DDD	135	135
Endosulfan sulfate	166	166
4,4'-DDT	103	103
Methoxychlor	342	342
Endrin ketone	170	170
Endrin aldehyde	140	140
alpha-Chlordane	91	91
gamma-Chlordane	93	93
Tetrachloro-m-xylene (S)	174	174
Decachlorobiphenyl (S)	165	165

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 16-MAY-2019 13:50
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2, 87951:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.895	1191	1600	1.344	8.4237			
0.942	539	664	1.231	3.4958			
0.962	587	665	1.133	3.5011			
0.995	28	47	1.678	0.2474			
1.010	75	67	0.893	0.3527			
1.036	3	8	2.685	0.0421			
1.048	4	9	2.158	0.0473			
1.130	2	6	2.830	0.0315			
1.372	3	9	2.667	0.0473			
1.398	3	10	2.933	0.0526			
1.404	2	9	4.390	0.0473			
1.408	3	11	3.364	0.0579			
1.413	2	13	5.652	0.0684			
1.422	6	14	2.310	0.0737			
1.431	5	12	2.239	0.0631			
1.437	3	12	3.670	0.0631			
1.452	8	11	1.377	0.0579			
1.512	3	8	2.878	0.0421			
1.886	627	888	1.417	4.6751	$	1 Tetrachloro-m-xylene (S)	
2.052	3	7	2.181	0.0368			
2.101	4	10	2.762	0.0526			
2.240	405	582	1.437	3.0641		2 alpha-BHC	
2.476	386	533	1.380	2.8061		3 gamma-BHC (Lindane)	
2.619	188	247	1.312	1.3004		4 beta-BHC	
2.714	406	548	1.350	2.8851		5 Heptachlor	
2.815	369	498	1.350	2.6218		6 delta-BHC	
2.926	360	479	1.329	2.5218		7 Aldrin	
3.203	5	16	3.463	0.0842			
3.205	8	20	2.601	0.1052			
3.283	358	457	1.276	2.4060		8 Heptachlor epoxide	
3.438	368	463	1.258	2.4376		9 gamma-Chlordane	
3.503	352	443	1.258	2.3323		10 alpha-Chlordane	
3.548	332	423	1.272	2.2270		11 Endosulfan I	
3.625	660	797	1.207	4.1960		12 4,4'-DDE	
3.741	688	876	1.273	4.6119		13 Dieldrin	
3.764	2	6	2.778	0.0315			
3.960	630	801	1.272	4.2171		14 Endrin	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.019	527	633	1.200	3.3326	15 4,4'-DDD	
4.103	18	25	1.370	0.1316		
4.111	5	16	3.002	0.0842		
4.118	2	10	4.348	0.0526		
4.139	593	752	1.268	3.9591	16 Endosulfan II	
4.210	583	710	1.218	3.7380	17 4,4'-DDT	
4.292	537	653	1.216	3.4379	18 Endrin aldehyde	
4.430	663	811	1.224	4.2697	19 Endosulfan sulfate	
4.665	1568	1840	1.173	9.6921	20 Methoxychlor	
4.852	663	799	1.205	4.2065	21 Endrin ketone	
5.087	2	6	2.740	0.0315		
5.172	3	9	3.093	0.0473		
5.183	3	8	2.606	0.0421		
5.192	3	10	3.125	0.0526		
5.209	2	10	4.329	0.0526		
5.216	3	9	2.679	0.0473		
5.223	3	10	3.984	0.0526		
5.230	3	12	4.494	0.0631		
5.235	3	14	5.128	0.0737		
5.241	4	11	2.887	0.0579		
5.252	3	11	3.374	0.0579		
5.268	4	8	2.254	0.0421		
5.380	2	7	3.211	0.0368		
5.434	5	17	3.549	0.0895		
5.439	5	21	4.440	0.1105		
5.441	9	25	2.703	0.1316		
5.450	2	10	4.739	0.0526		
5.648	686	664	0.967	3.4958	$ 24 Decachlorobiphenyl (S)	
5.673	2	12	5.455	0.0631		
5.699	2	7	3.365	0.0368		
5.751	2	8	3.390	0.0421		
6.079	3	11	3.595	0.0579		
6.124	3	9	2.687	0.0473		
6.163	4	10	2.457	0.0526		
6.170	2	11	4.564	0.0579		
6.186	3	11	4.167	0.0579		
6.194	3	10	3.436	0.0526		
6.202	2	11	4.564	0.0579		
6.217	2	11	4.545	0.0579		
6.294	3	12	4.124	0.0631		
6.336	2	7	2.941	0.0368		
6.404	2	8	3.333	0.0421		
6.416	3	8	2.694	0.0421		
6.510	3	12	4.240	0.0631		
6.515	2	13	6.373	0.0684		
6.518	3	13	4.037	0.0684		
6.523	2	17	7.589	0.0895		
6.528	5	21	4.260	0.1105		
6.531	2	20	8.299	0.1052		
6.535	4	19	5.413	0.1000		
6.538	5	20	3.690	0.1052		
6.547	7	22	3.147	0.1158		
6.552	5	19	3.696	0.1000		
6.562	8	21	2.756	0.1105		
6.574	5	15	2.885	0.0789		
6.579	2	11	5.238	0.0579		
6.589	3	12	4.082	0.0631		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.598	2	12	5.660	0.0631		
6.610	3	11	4.400	0.0579		
6.612	2	12	6.000	0.0631		
6.618	3	17	6.719	0.0895		
6.626	6	17	2.876	0.0895		
6.630	3	15	5.682	0.0789		
6.636	3	15	5.837	0.0789		
6.640	6	17	2.703	0.0895		
6.650	4	14	3.448	0.0737		
6.658	3	15	5.556	0.0789		
6.662	3	12	4.478	0.0631		
6.668	3	11	4.348	0.0579		
6.678	3	8	2.730	0.0421		
6.847	2	9	4.072	0.0473		
6.852	2	11	5.023	0.0579		
6.868	2	11	4.701	0.0579		
6.934	2	14	6.034	0.0737		
6.979	2	12	5.240	0.0631		
	14676	18994		100.000		

Total unknown % height = 21.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 16-MAY-2019 13:50
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2, 87951:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.887	-0.001	626	0.01400	0.0141			
2 alpha-BHC						CAS #: 319-84-6		
2.240	2.240	0.000	404	0.00700	0.00679			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	386	0.00700	0.00688			
4 beta-BHC						CAS #: 319-85-7		
2.618	2.619	-0.001	188	0.00700	0.00699			
6 delta-BHC						CAS #: 76-44-8		
2.815	2.815	0.000	368	0.00700	0.00678			
5 Heptachlor						CAS #: 319-86-8		
2.713	2.713	0.000	406	0.00700	0.00694			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	360	0.00700	0.00684			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	358	0.00700	0.00694			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.438	3.437	0.001	368	0.00700	0.00701			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	352	0.00700	0.00695			
11 Endosulfan I						CAS #: 959-98-8		
3.548	3.547	0.001	332	0.00700	0.00696			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.624	3.623	0.001	660	0.01400	0.0135			
13 Dieldrin						CAS #: 60-57-1		
3.740	3.740	0.000	688	0.01400	0.0135			
14 Endrin						CAS #: 72-20-8		
3.959	3.958	0.001	629	0.01400	0.0136			
15 4,4'-DDD						CAS #: 72-54-8		
4.018	4.017	0.001	527	0.01400	0.0134			
16 Endosulfan II						CAS #: 33213-65-9		
4.138	4.138	0.000	592	0.01400	0.0139			
17 4,4'-DDT						CAS #: 50-29-3		
4.209	4.208	0.001	582	0.01400	0.0135			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	537	0.01400	0.0140			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.430	4.429	0.001	662	0.01400	0.0141			
20 Methoxychlor						CAS #: 72-43-5		
4.664	4.664	0.000	1568	0.07000	0.0699			
21 Endrin ketone						CAS #: 53494-70-5		
4.852	4.851	0.001	662	0.01400	0.0137			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.647	5.645	0.002	686	0.01400	0.0145			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00679	
58-89-9	gamma-BHC (Lindane)	0.00688	
319-85-7	beta-BHC	0.00699	
76-44-8	delta-BHC	0.00678	
319-86-8	Heptachlor	0.00694	
309-00-2	Aldrin	0.00684	
1024-57-3	Heptachlor epoxide	0.00694	
5103-74-2	gamma-Chlordane	0.00701	
5103-71-9	alpha-Chlordane	0.00695	
959-98-8	Endosulfan I	0.00696	
72-55-9	4,4'-DDE	0.0135	
60-57-1	Dieldrin	0.0135	
72-20-8	Endrin	0.0136	
72-54-8	4,4'-DDD	0.0134	
33213-65-9	Endosulfan II	0.0139	
50-29-3	4,4'-DDT	0.0135	
7421-36-3	Endrin aldehyde	0.0140	
1031-07-8	Endosulfan sulfate	0.0141	
72-43-5	Methoxychlor	0.0699	
53494-70-5	Endrin ketone	0.0137	
	Tetrachloro-m-xylene (S)	0.0141	
	Decachlorobiphenyl (S)	0.0145	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-011.d

Date : 16-MAY-2019 13:50

Client ID: CAL2

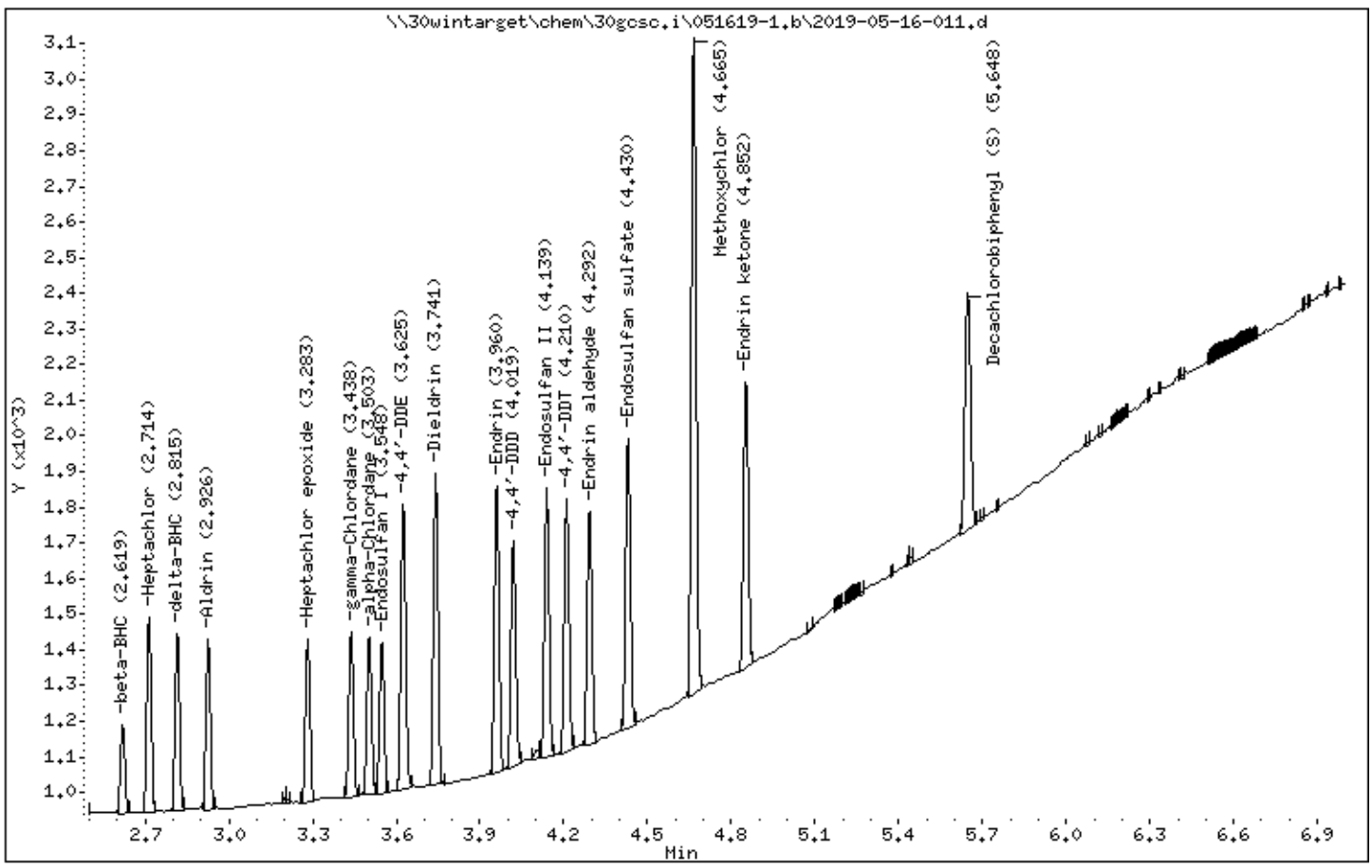
Instrument: 30gcsc.i

Sample Info: CAL2, 87951:1

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 13:50 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	404	404
beta-BHC	188	188
delta-BHC	368	368
gamma-BHC (Lindane)	386	386
Heptachlor	406	406
Aldrin	360	360
Heptachlor epoxide	358	358
Endosulfan I	332	332
Dieldrin	688	688
4,4'-DDE	660	660
Endrin	629	629
Endosulfan II	592	592
4,4'-DDD	527	527
Endosulfan sulfate	662	662
4,4'-DDT	582	582
Methoxychlor	1568	1568
Endrin ketone	662	662
Endrin aldehyde	537	537
alpha-Chlordane	352	352
gamma-Chlordane	368	368
Tetrachloro-m-xylene (S)	626	626
Decachlorobiphenyl (S)	686	686

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 16-MAY-2019 13:50
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2, 87951:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.158	1	2	1.653	0.0316			
0.240	1	2	1.770	0.0316			
0.741	1	1	0.909	0.0158			
0.813	1	1	0.877	0.0158			
0.873	3	16	4.848	0.2531			
0.879	403	1004	2.492	15.8887			
0.981	151	177	1.175	2.8006			
1.010	118	169	1.437	2.6740			
1.067	1	3	2.166	0.0474			
1.333	1	3	2.941	0.0474			
1.431	8	6	0.713	0.0949			
1.438	2	7	3.070	0.1107			
1.444	2	7	4.487	0.1107			
1.460	7	8	1.116	0.1265			
1.467	2	8	3.524	0.1265			
1.477	5	8	1.762	0.1265			
1.494	7	8	1.190	0.1265			
1.531	10	4	0.385	0.0632			
1.589	1	2	1.724	0.0316			
2.332	3	3	1.060	0.0474			
2.362	240	316	1.319	5.0000	$	1 Tetrachloro-m-xylene (S)	
2.573	4	5	1.429	0.0791			
2.603	1	1	1.000	0.0158			
2.626	147	197	1.341	3.1170		2 alpha-BHC	
2.843	139	184	1.320	2.9113		3 gamma-BHC (Lindane)	
3.004	73	94	1.283	1.4873		4 beta-BHC	
3.190	138	179	1.298	2.8322		5 delta-BHC	
3.253	138	172	1.247	2.7215		6 Heptachlor	
3.373	1	2	1.802	0.0316			
3.481	126	161	1.276	2.5474		7 Aldrin	
3.712	1	3	2.239	0.0474			
3.775	129	156	1.210	2.4683		8 Heptachlor epoxide	
3.987	129	156	1.209	2.4683		9 gamma-Chlordane	
4.023	126	154	1.218	2.4367		10 alpha-Chlordane	
4.057	115	142	1.229	2.2468		11 Endosulfan I	
4.102	227	281	1.238	4.4462		12 4,4'-DDE	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.174	2	4	1.619	0.0632			
4.230	243	290	1.192	4.5886		13 Dieldrin	
4.393	206	240	1.166	3.7974		14 Endrin	
4.455	190	228	1.201	3.6075		15 4,4'-DDD	
4.565	212	252	1.190	3.9873		16 Endosulfan II	
4.639	194	226	1.163	3.5759		17 Endrin aldehyde	
4.665	151	183	1.210	2.8955		18 4,4'-DDT	
4.829	231	267	1.156	4.2246		19 Endosulfan sulfate	
4.950	481	554	1.152	8.7658		20 Methoxychlor	
5.082	1	2	1.980	0.0316			
5.129	232	257	1.110	4.0664		21 Endrin ketone	
5.260	1	2	1.370	0.0316			
5.419	1	1	0.787	0.0158			
6.089	2	3	1.345	0.0474			
6.341	225	169	0.751	2.6740	$	24 Decachlorobiphenyl (S)	
	4837	6320		100.000			

Total unknown % height = 23.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 16-MAY-2019 13:50
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal2, 87951:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.362	2.362	0.000	239	0.01400	0.0142			
2 alpha-BHC						CAS #: 319-84-6		
2.626	2.626	0.000	146	0.00700	0.00686			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.842	2.843	-0.001	139	0.00700	0.00695			
4 beta-BHC						CAS #: 319-85-7		
3.003	3.004	-0.001	73	0.00700	0.00717			
5 delta-BHC						CAS #: 319-86-8		
3.189	3.191	-0.002	137	0.00700	0.00687			
6 Heptachlor						CAS #: 76-44-8		
3.253	3.253	0.000	137	0.00700	0.00697			
7 Aldrin						CAS #: 309-00-2		
3.481	3.481	0.000	126	0.00700	0.00688			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.774	3.774	0.000	128	0.00700	0.00708			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.986	3.987	-0.001	128	0.00700	0.00705			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.023	4.023	0.000	126	0.00700	0.00709			
11 Endosulfan I						CAS #: 959-98-8		
4.056	4.056	0.000	115	0.00700	0.00693			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.102	4.102	0.000	227	0.01400	0.0137			
13 Dieldrin						CAS #: 60-57-1		
4.230	4.230	0.000	243	0.01400	0.0138			
14 Endrin						CAS #: 72-20-8		
4.392	4.392	0.000	205	0.01400	0.0140			
15 4,4'-DDD						CAS #: 72-54-8		
4.454	4.455	-0.001	189	0.01400	0.0137			
16 Endosulfan II						CAS #: 33213-65-9		
4.565	4.566	-0.001	211	0.01400	0.0142			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.639	4.639	0.000	194	0.01400	0.0143			
18 4,4'-DDT						CAS #: 50-29-3		
4.664	4.665	-0.001	151	0.01400	0.0133			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.829	4.829	0.000	230	0.01400	0.0142			
20 Methoxychlor						CAS #: 72-43-5		
4.949	4.949	0.000	480	0.07000	0.0710			
21 Endrin ketone						CAS #: 53494-70-5		
5.129	5.129	0.000	231	0.01400	0.0139			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.340	6.341	-0.001	225	0.01400	0.0148			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

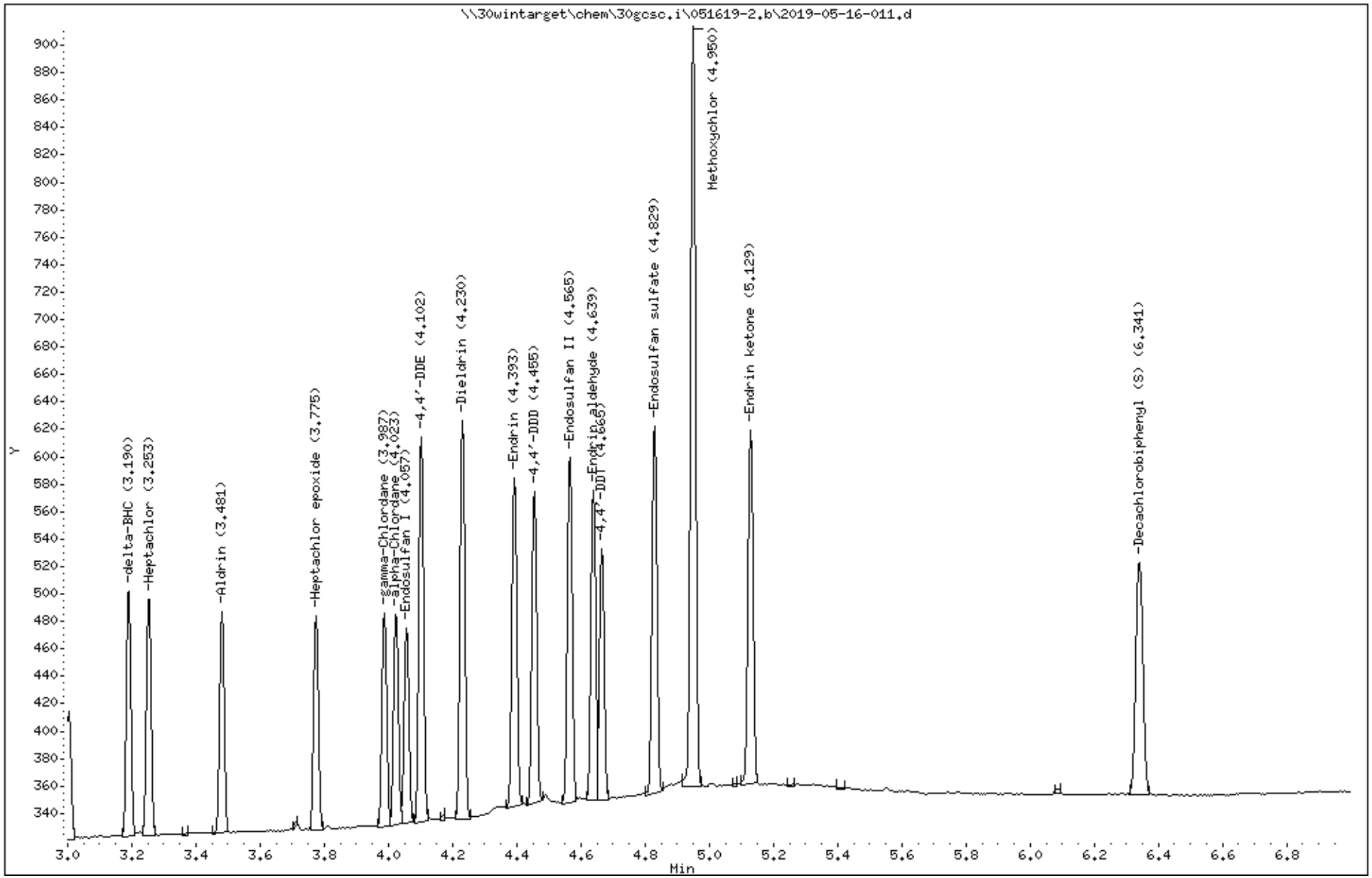
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00686	
58-89-9	gamma-BHC (Lindane)	0.00695	
319-85-7	beta-BHC	0.00717	
319-86-8	delta-BHC	0.00687	
76-44-8	Heptachlor	0.00697	
309-00-2	Aldrin	0.00688	
1024-57-3	Heptachlor epoxide	0.00708	
5103-74-2	gamma-Chlordane	0.00705	
5103-71-9	alpha-Chlordane	0.00709	
959-98-8	Endosulfan I	0.00693	
72-55-9	4,4'-DDE	0.0137	
60-57-1	Dieldrin	0.0138	
72-20-8	Endrin	0.0140	
72-54-8	4,4'-DDD	0.0137	
33213-65-9	Endosulfan II	0.0142	
7421-36-3	Endrin aldehyde	0.0143	
50-29-3	4,4'-DDT	0.0133	
1031-07-8	Endosulfan sulfate	0.0142	
72-43-5	Methoxychlor	0.0710	
53494-70-5	Endrin ketone	0.0139	
----------	Tetrachloro-m-xylene (S)	0.0142	
----------	Decachlorobiphenyl (S)	0.0148	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-011.d
Date : 16-MAY-2019 13:50
Client ID: CAL2
Sample Info: CAL2, 87951:1

Instrument: 30gcsc.i

Operator: CWB
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 13:50 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	146	146
beta-BHC	73	73
delta-BHC	137	137
gamma-BHC (Lindane)	139	139
Heptachlor	137	137
Aldrin	126	126
Heptachlor epoxide	128	128
Endosulfan I	115	115
Dieldrin	243	243
4,4'-DDE	227	227
Endrin	205	205
Endosulfan II	211	211
4,4'-DDD	189	189
Endosulfan sulfate	230	230
4,4'-DDT	151	151
Methoxychlor	480	480
Endrin ketone	231	231
Endrin aldehyde	194	194
alpha-Chlordane	126	126
gamma-Chlordane	128	128
Tetrachloro-m-xylene (S)	239	239
Decachlorobiphenyl (S)	225	225

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 16-MAY-2019 14:00
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal3, 87952:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.106	2	6	2.821	0.0211		
0.200	2	6	2.956	0.0211		
0.896	2312	3261	1.411	11.5169		
0.943	520	614	1.180	2.1672		
0.964	544	609	1.119	2.1495		
1.000	7	20	3.008	0.0705		
1.009	8	20	2.460	0.0705		
1.017	16	22	1.361	0.0776		
1.045	2	7	3.349	0.0247		
1.297	3	8	3.101	0.0282		
1.307	2	9	4.186	0.0317		
1.313	3	10	3.279	0.0352		
1.324	4	13	3.125	0.0458		
1.327	3	14	5.426	0.0494		
1.330	3	15	5.415	0.0529		
1.335	7	19	2.794	0.0670		
1.342	8	23	2.926	0.0811		
1.346	3	21	7.554	0.0741		
1.348	2	21	8.714	0.0741		
1.351	5	23	4.501	0.0811		
1.357	7	24	3.424	0.0847		
1.370	19	34	1.755	0.1200		
1.373	11	38	3.339	0.1341		
1.377	14	37	2.697	0.1305		
1.389	15	34	2.316	0.1200		
1.392	8	35	4.294	0.1235		
1.395	6	36	5.797	0.1270		
1.400	11	41	3.568	0.1447		
1.407	17	43	2.543	0.1517		
1.413	19	44	2.318	0.1553		
1.421	17	45	2.721	0.1588		
1.425	9	44	5.122	0.1553		
1.427	5	44	8.594	0.1553		
1.429	8	47	5.860	0.1658		
1.435	18	46	2.609	0.1623		
1.440	10	45	4.625	0.1588		
1.443	16	47	2.927	0.1658		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
1.450	12	46	4.000	0.1623			
1.453	21	48	2.260	0.1694			
1.461	5	43	8.652	0.1517			
1.467	25	42	1.690	0.1482			
1.474	18	41	2.240	0.1447			
1.484	11	37	3.231	0.1305			
1.487	14	37	2.735	0.1305			
1.493	9	34	3.825	0.1200			
1.499	15	31	2.006	0.1094			
1.509	11	24	2.137	0.0847			
1.516	9	20	2.183	0.0705			
1.525	5	15	3.119	0.0529			
1.531	3	10	3.436	0.0352			
1.887	923	1284	1.391	4.5321	$	1 Tetrachloro-m-xylene (S)	
2.101	6	11	1.910	0.0388			
2.240	601	846	1.407	2.9861		2 alpha-BHC	
2.476	575	792	1.378	2.7955		3 gamma-BHC (Lindane)	
2.619	276	365	1.323	1.2883		4 beta-BHC	
2.714	606	804	1.328	2.8378		5 Heptachlor	
2.815	548	728	1.328	2.5696		6 delta-BHC	
2.899	3	10	3.155	0.0352			
2.903	3	9	2.695	0.0317			
2.926	538	714	1.328	2.5202		7 Aldrin	
3.205	22	29	1.333	0.1023			
3.283	540	688	1.274	2.4284		8 Heptachlor epoxide	
3.438	544	684	1.258	2.4143		9 gamma-Chlordane	
3.502	529	666	1.260	2.3507		10 alpha-Chlordane	
3.548	494	625	1.265	2.2060		11 Endosulfan I	
3.624	991	1199	1.210	4.2321		12 4,4'-DDE	
3.656	3	8	3.175	0.0282			
3.741	1060	1316	1.241	4.6450		13 Dieldrin	
3.770	3	11	3.170	0.0388			
3.960	946	1197	1.265	4.2250		14 Endrin	
4.020	793	872	1.099	3.0779		15 4,4'-DDD	
4.057	3	10	3.559	0.0352			
4.101	4	18	4.215	0.0635			
4.106	12	20	1.692	0.0705			
4.139	882	1096	1.243	3.8685		16 Endosulfan II	
4.210	870	1048	1.205	3.6991		17 4,4'-DDT	
4.292	792	958	1.209	3.3814		18 Endrin aldehyde	
4.430	967	1166	1.206	4.1156		19 Endosulfan sulfate	
4.665	2317	2645	1.142	9.3360		20 Methoxychlor	
4.716	2	8	3.524	0.0282			
4.720	4	11	2.792	0.0388			
4.853	998	1220	1.222	4.3062		21 Endrin ketone	
5.147	3	7	2.734	0.0247			
5.225	3	7	2.389	0.0247			
5.342	3	9	3.191	0.0317			
5.438	10	29	2.980	0.1023			
5.440	9	30	3.226	0.1058			
5.445	6	25	3.888	0.0882			
5.452	3	11	3.741	0.0388			
5.552	4	9	2.356	0.0317			
5.576	2	5	2.488	0.0176			
5.619	2	7	3.286	0.0247			
5.648	1016	956	0.941	3.3743	$	24 Decachlorobiphenyl (S)	
5.679	5	16	3.131	0.0564			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.686	3	10	3.155	0.0352		
5.693	2	12	5.063	0.0423		
5.696	3	10	3.891	0.0352		
5.707	3	14	4.204	0.0494		
5.713	2	11	5.164	0.0388		
5.716	2	11	4.545	0.0388		
5.725	3	8	3.077	0.0282		
5.740	2	9	3.782	0.0317		
5.845	2	9	4.206	0.0317		
5.848	2	10	4.202	0.0352		
5.869	3	10	3.311	0.0352		
5.923	2	9	3.863	0.0317		
6.089	2	6	2.941	0.0211		
6.112	2	10	4.386	0.0352		
6.121	2	9	4.455	0.0317		
6.133	2	7	3.333	0.0247		
6.156	2	8	3.493	0.0282		
6.186	2	10	4.950	0.0352		
6.230	3	7	2.555	0.0247		
6.282	2	8	3.828	0.0282		
6.594	2	10	4.587	0.0352		
6.634	2	9	3.913	0.0317		
6.642	2	10	4.785	0.0352		
6.646	2	15	6.757	0.0529		
6.650	2	12	5.797	0.0423		
6.662	2	12	4.839	0.0423		
6.668	3	11	3.704	0.0388		
6.689	2	6	2.609	0.0211		
6.729	2	8	3.721	0.0282		
6.872	2	7	3.333	0.0247		
6.936	3	11	3.667	0.0388		
6.947	4	10	2.841	0.0352		
	21823	28331		100.000		

Total unknown % height = 22.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 16-MAY-2019 14:00
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal3, 87952:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.887	1.887	0.000	923	0.02000	0.0208			
2 alpha-BHC						CAS #: 319-84-6		
2.240	2.240	0.000	601	0.01000	0.0101			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	574	0.01000	0.0102			
4 beta-BHC						CAS #: 319-85-7		
2.619	2.619	0.000	275	0.01000	0.0102			
6 delta-BHC						CAS #: 76-44-8		
2.814	2.815	-0.001	548	0.01000	0.0101			
5 Heptachlor						CAS #: 319-86-8		
2.713	2.713	0.000	605	0.01000	0.0103			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	537	0.01000	0.0102			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	539	0.01000	0.0104			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.437	3.437	0.000	543	0.01000	0.0103			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	528	0.01000	0.0104			
11 Endosulfan I						CAS #: 959-98-8		
3.547	3.547	0.000	494	0.01000	0.0104			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.624	3.623	0.001	991	0.02000	0.0203			
13 Dieldrin						CAS #: 60-57-1		
3.740	3.740	0.000	1060	0.02000	0.0207			
14 Endrin						CAS #: 72-20-8		
3.959	3.958	0.001	946	0.02000	0.0205			
15 4,4'-DDD						CAS #: 72-54-8		
4.019	4.017	0.002	793	0.02000	0.0201			
16 Endosulfan II						CAS #: 33213-65-9		
4.138	4.138	0.000	881	0.02000	0.0207			
17 4,4'-DDT						CAS #: 50-29-3		
4.209	4.208	0.001	869	0.02000	0.0202			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	792	0.02000	0.0207			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.430	4.429	0.001	966	0.02000	0.0206			
20 Methoxychlor						CAS #: 72-43-5		
4.665	4.664	0.001	2316	0.10000	0.103			
21 Endrin ketone						CAS #: 53494-70-5		
4.852	4.851	0.001	998	0.02000	0.0206			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.647	5.645	0.002	1015	0.02000	0.0215			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0101	
58-89-9	gamma-BHC (Lindane)	0.0102	
319-85-7	beta-BHC	0.0102	
76-44-8	delta-BHC	0.0101	
319-86-8	Heptachlor	0.0103	
309-00-2	Aldrin	0.0102	
1024-57-3	Heptachlor epoxide	0.0104	
5103-74-2	gamma-Chlordane	0.0103	
5103-71-9	alpha-Chlordane	0.0104	
959-98-8	Endosulfan I	0.0104	
72-55-9	4,4'-DDE	0.0203	
60-57-1	Dieldrin	0.0207	
72-20-8	Endrin	0.0205	
72-54-8	4,4'-DDD	0.0201	
33213-65-9	Endosulfan II	0.0207	
50-29-3	4,4'-DDT	0.0202	
7421-36-3	Endrin aldehyde	0.0207	
1031-07-8	Endosulfan sulfate	0.0206	
72-43-5	Methoxychlor	0.103	
53494-70-5	Endrin ketone	0.0206	
----------	Tetrachloro-m-xylene (S)	0.0208	
----------	Decachlorobiphenyl (S)	0.0215	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-012.d

Date : 16-MAY-2019 14:00

Client ID: CAL3

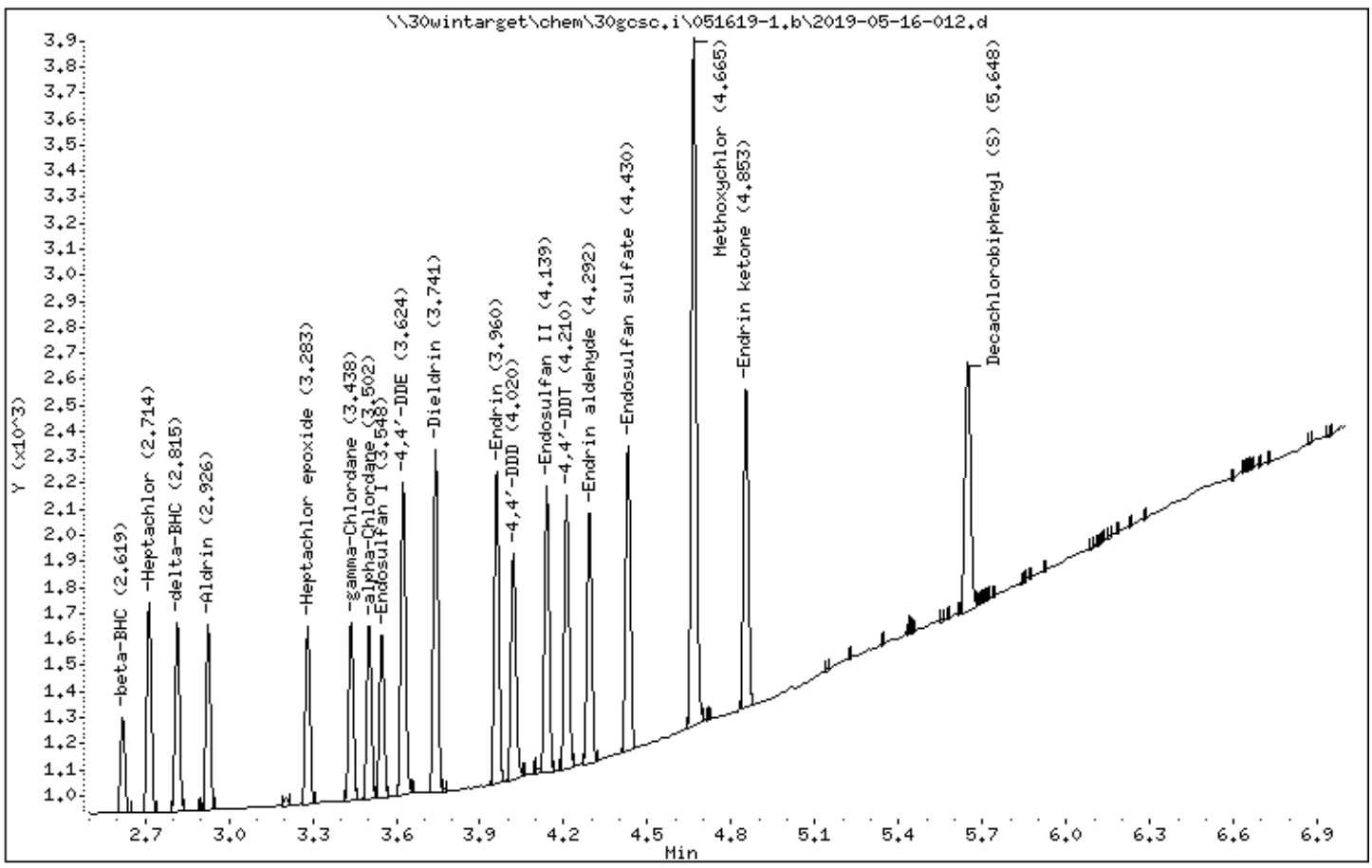
Instrument: 30gcsc.i

Sample Info: CAL3, 87952:1

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:00 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	601	601
beta-BHC	275	275
delta-BHC	548	548
gamma-BHC (Lindane)	574	574
Heptachlor	605	605
Aldrin	537	537
Heptachlor epoxide	539	539
Endosulfan I	494	494
Dieldrin	1060	1060
4,4'-DDE	991	991
Endrin	946	946
Endosulfan II	881	881
4,4'-DDD	793	793
Endosulfan sulfate	966	966
4,4'-DDT	869	869
Methoxychlor	2316	2316
Endrin ketone	998	998
Endrin aldehyde	792	792
alpha-Chlordane	528	528
gamma-Chlordane	543	543
Tetrachloro-m-xylene (S)	923	923
Decachlorobiphenyl (S)	1015	1015

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 16-MAY-2019 14:00
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal3, 87952:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.216	1	2	1.626	0.0211			
0.668	2	1	0.410	0.0105			
0.791	1	1	0.877	0.0105			
0.866	1	4	3.417	0.0422			
0.881	809	1929	2.386	20.3541			
0.983	140	165	1.178	1.7408			
1.012	120	160	1.336	1.6881			
1.063	2	3	1.322	0.0316			
1.075	2	4	2.073	0.0422			
1.105	1	2	1.835	0.0211			
1.365	1	2	1.563	0.0211			
1.491	3	3	1.111	0.0316			
2.363	352	457	1.300	4.8216	$	1 Tetrachloro-m-xylene (S)	
2.574	2	3	1.867	0.0316			
2.627	217	289	1.334	3.0491		2 alpha-BHC	
2.769	1	1	1.000	0.0105			
2.844	206	268	1.303	2.8276		3 gamma-BHC (Lindane)	
3.004	108	139	1.282	1.4665		4 beta-BHC	
3.191	205	263	1.280	2.7748		5 delta-BHC	
3.222	2	5	2.232	0.0527			
3.228	3	5	1.901	0.0527			
3.253	208	256	1.229	2.7009		6 Heptachlor	
3.291	1	2	1.980	0.0211			
3.481	193	234	1.214	2.4688		7 Aldrin	
3.775	191	235	1.233	2.4794		8 Heptachlor epoxide	
3.987	191	234	1.223	2.4688		9 gamma-Chlordane	
4.023	189	227	1.203	2.3950		10 alpha-Chlordane	
4.057	177	209	1.181	2.2051		11 Endosulfan I	
4.102	341	424	1.242	4.4735		12 4,4'-DDE	
4.230	363	438	1.205	4.6212		13 Dieldrin	
4.393	300	355	1.183	3.7455		14 Endrin	
4.455	284	343	1.206	3.6189		15 4,4'-DDD	
4.492	3	5	1.441	0.0527			
4.565	311	360	1.158	3.7982		16 Endosulfan II	
4.639	288	330	1.147	3.4817		17 Endrin aldehyde	
4.666	228	277	1.215	2.9225		18 4,4'-DDT	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.829	339	394	1.161	4.1569		19 Endosulfan sulfate	
4.911	4	6	1.644	0.0633			
4.914	1	6	4.317	0.0633			
4.950	704	799	1.136	8.4300		20 Methoxychlor	
5.107	1	4	3.306	0.0422			
5.129	347	387	1.117	4.0831		21 Endrin ketone	
6.079	1	5	4.132	0.0527			
6.090	2	3	1.299	0.0316			
6.341	329	239	0.726	2.5216	$	24 Decachlorobiphenyl (S)	
	7177	9478		100.000			

Total unknown % height = 24.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 16-MAY-2019 14:00
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal3, 87952:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.362	2.362	0.000	351	0.02000	0.0209			
2 alpha-BHC							CAS #: 319-84-6	
2.626	2.626	0.000	216	0.01000	0.0102			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.843	2.843	0.000	205	0.01000	0.0102			
4 beta-BHC							CAS #: 319-85-7	
3.004	3.004	0.000	108	0.01000	0.0106			
5 delta-BHC							CAS #: 319-86-8	
3.190	3.191	-0.001	205	0.01000	0.0103			
6 Heptachlor							CAS #: 76-44-8	
3.253	3.253	0.000	208	0.01000	0.0106			
7 Aldrin							CAS #: 309-00-2	
3.481	3.481	0.000	192	0.01000	0.0105			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.774	3.774	0.000	190	0.01000	0.0105			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.987	3.987	0.000	191	0.01000	0.0105			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.023	4.023	0.000	188	0.01000	0.0106			
11 Endosulfan I							CAS #: 959-98-8	
4.056	4.056	0.000	176	0.01000	0.0106			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.102	4.102	0.000	341	0.02000	0.0206			
13 Dieldrin						CAS #: 60-57-1		
4.230	4.230	0.000	363	0.02000	0.0207			
14 Endrin						CAS #: 72-20-8		
4.392	4.392	0.000	299	0.02000	0.0204			
15 4,4'-DDD						CAS #: 72-54-8		
4.454	4.455	-0.001	284	0.02000	0.0206			
16 Endosulfan II						CAS #: 33213-65-9		
4.565	4.566	-0.001	310	0.02000	0.0209			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.638	4.639	-0.001	287	0.02000	0.0212			
18 4,4'-DDT						CAS #: 50-29-3		
4.665	4.665	0.000	227	0.02000	0.0200			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.829	4.829	0.000	339	0.02000	0.0210			
20 Methoxychlor						CAS #: 72-43-5		
4.950	4.949	0.001	703	0.10000	0.104			
21 Endrin ketone						CAS #: 53494-70-5		
5.128	5.129	-0.001	346	0.02000	0.0208			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.340	6.341	-0.001	329	0.02000	0.0216			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

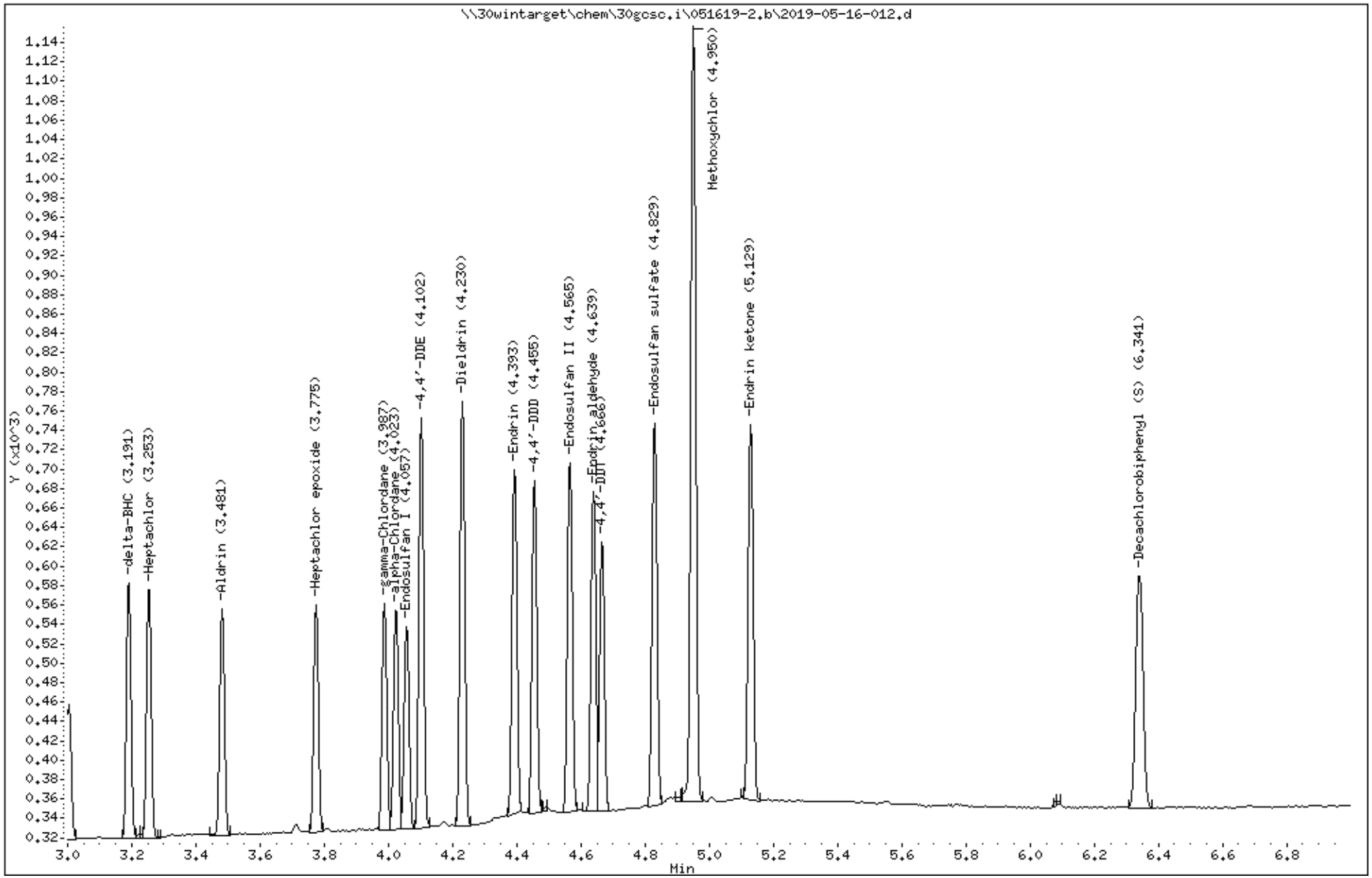
Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0102	
58-89-9	gamma-BHC (Lindane)	0.0102	
319-85-7	beta-BHC	0.0106	
319-86-8	delta-BHC	0.0103	
76-44-8	Heptachlor	0.0106	
309-00-2	Aldrin	0.0105	
1024-57-3	Heptachlor epoxide	0.0105	
5103-74-2	gamma-Chlordane	0.0105	
5103-71-9	alpha-Chlordane	0.0106	
959-98-8	Endosulfan I	0.0106	
72-55-9	4,4'-DDE	0.0206	
60-57-1	Dieldrin	0.0207	
72-20-8	Endrin	0.0204	
72-54-8	4,4'-DDD	0.0206	
33213-65-9	Endosulfan II	0.0209	
7421-36-3	Endrin aldehyde	0.0212	
50-29-3	4,4'-DDT	0.0200	
1031-07-8	Endosulfan sulfate	0.0210	
72-43-5	Methoxychlor	0.104	
53494-70-5	Endrin ketone	0.0208	
	Tetrachloro-m-xylene (S)	0.0209	
	Decachlorobiphenyl (S)	0.0216	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-012.d
Date : 16-MAY-2019 14:00
Client ID: CAL3
Sample Info: CAL3, 87952:1

Instrument: 30gcsc.i
Operator: CWB
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:00 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	216	216
beta-BHC	108	108
delta-BHC	205	205
gamma-BHC (Lindane)	205	205
Heptachlor	208	208
Aldrin	192	192
Heptachlor epoxide	190	190
Endosulfan I	176	176
Dieldrin	363	363
4,4'-DDE	341	341
Endrin	299	299
Endosulfan II	310	310
4,4'-DDD	284	284
Endosulfan sulfate	339	339
4,4'-DDT	227	227
Methoxychlor	703	703
Endrin ketone	346	346
Endrin aldehyde	287	287
alpha-Chlordane	188	188
gamma-Chlordane	191	191
Tetrachloro-m-xylene (S)	351	351
Decachlorobiphenyl (S)	329	329

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 16-MAY-2019 14:09
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal4, 87953:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.896	3424	4836	1.412	9.3626			
0.943	568	664	1.169	1.2855			
0.963	547	619	1.131	1.1984			
0.999	3	11	4.280	0.0212			
1.007	10	20	1.914	0.0387			
1.214	3	6	2.288	0.0116			
1.374	9	16	1.751	0.0309			
1.391	2	10	4.049	0.0193			
1.397	3	11	3.514	0.0212			
1.409	10	15	1.523	0.0290			
1.417	5	16	3.232	0.0309			
1.422	4	18	4.675	0.0348			
1.431	10	21	2.041	0.0406			
1.436	7	20	3.053	0.0387			
1.439	4	21	5.949	0.0406			
1.445	6	23	3.628	0.0445			
1.452	11	26	2.271	0.0503			
1.456	10	26	2.502	0.0503			
1.466	10	24	2.346	0.0464			
1.472	9	22	2.520	0.0425			
1.479	3	19	5.828	0.0367			
1.482	8	19	2.503	0.0367			
1.490	9	18	2.098	0.0348			
1.504	4	10	2.653	0.0193			
1.510	3	8	2.417	0.0154			
1.887	1796	2516	1.401	4.8710	$	1 Tetrachloro-m-xylene (S)	RT
2.100	8	26	3.368	0.0503			
2.102	14	30	2.219	0.0580			
2.223	3	9	2.624	0.0174			
2.240	1208	1730	1.432	3.3493		2 alpha-BHC	RT
2.417	2	6	2.691	0.0116			
2.476	1132	1572	1.389	3.0434		3 gamma-BHC (Lindane)	RT
2.619	575	707	1.230	1.3687		4 beta-BHC	RT
2.654	2	5	2.392	0.0096			
2.659	2	6	2.510	0.0116			
2.714	1189	1559	1.311	3.0182		5 Heptachlor	RT
2.815	1105	1459	1.320	2.8246		6 delta-BHC	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.847	2	7	3.125	0.0135		
2.903	12	20	1.654	0.0387		
2.925	1077	1414	1.313	2.7375	7 Aldrin	RT
3.089	3	6	2.400	0.0116		
3.205	41	52	1.256	0.1006		
3.283	1052	1376	1.308	2.6639	8 Heptachlor epoxide	RT
3.336	10	16	1.621	0.0309		
3.352	2	6	2.765	0.0116		
3.438	1065	1353	1.270	2.6194	9 gamma-Chlordane	RT
3.502	1026	1290	1.257	2.4974	10 alpha-Chlordane	RT
3.547	969	1204	1.243	2.3309	11 Endosulfan I	RT
3.624	1997	2426	1.215	4.6968	12 4,4'-DDE	RT
3.660	4	14	4.000	0.0271		
3.666	4	12	2.993	0.0232		
3.672	3	11	4.104	0.0212		
3.741	2066	2626	1.271	5.0840	13 Dieldrin	RT
3.765	11	22	2.074	0.0425		
3.959	1880	2351	1.250	4.5516	14 Endrin	RT
4.018	1606	1902	1.185	3.6823	15 4,4'-DDD	RT
4.054	5	15	3.158	0.0290		
4.057	4	15	3.686	0.0290		
4.063	6	16	2.469	0.0309		
4.069	4	15	3.417	0.0290		
4.096	3	12	4.332	0.0232		
4.102	19	28	1.474	0.0542		
4.112	5	16	3.213	0.0309		
4.138	1731	2109	1.218	4.0830	16 Endosulfan II	RT
4.209	1754	2168	1.236	4.1973	17 4,4'-DDT	RT
4.291	1553	1900	1.223	3.6784	18 Endrin aldehyde	RT
4.330	6	9	1.490	0.0174		
4.429	1905	2309	1.212	4.4703	19 Endosulfan sulfate	RT
4.558	4	7	1.570	0.0135		
4.664	4581	5376	1.173	10.4158	20 Methoxychlor	RT
4.715	3	15	5.190	0.0290		
4.719	8	20	2.439	0.0387		
4.756	3	9	3.203	0.0174		
4.760	3	9	3.191	0.0174		
4.852	1974	2351	1.191	4.5516	21 Endrin ketone	RT
4.890	4	11	3.064	0.0212		
4.900	2	9	4.110	0.0174		
5.013	4	10	2.331	0.0193		
5.087	3	7	2.326	0.0135		
5.099	4	12	2.771	0.0232		
5.105	3	11	4.120	0.0212		
5.107	4	13	3.485	0.0251		
5.123	7	14	1.972	0.0271		
5.128	5	16	3.354	0.0309		
5.138	5	16	3.265	0.0309		
5.140	3	17	6.439	0.0329		
5.143	4	18	4.663	0.0348		
5.150	4	16	3.620	0.0309		
5.155	8	16	2.041	0.0309		
5.162	3	15	5.034	0.0290		
5.169	6	16	2.797	0.0309		
5.176	5	16	3.206	0.0309		
5.183	6	15	2.488	0.0290		
5.190	5	17	3.520	0.0329		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.198	6	16	2.516	0.0309		
5.203	3	15	4.373	0.0290		
5.206	5	18	3.509	0.0348		
5.213	3	13	4.498	0.0251		
5.220	5	15	2.896	0.0290		
5.222	2	14	5.600	0.0271		
5.228	4	19	4.251	0.0367		
5.232	6	16	2.867	0.0309		
5.238	6	15	2.362	0.0290		
5.246	6	14	2.306	0.0271		
5.438	16	27	1.725	0.0522		
5.645	1900	1841	0.969	3.5642	$ 24 Decachlorobiphenyl (S)	RT
5.682	3	8	3.125	0.0154		
5.886	2	7	3.398	0.0135		
5.945	2	7	3.302	0.0135		
6.114	2	8	3.448	0.0154		
6.298	2	9	3.846	0.0174		
6.345	2	9	3.879	0.0174		
6.409	3	9	3.422	0.0174		
6.447	3	9	2.830	0.0174		
6.497	2	8	3.636	0.0154		
6.506	2	15	6.881	0.0290		
6.510	2	16	7.111	0.0309		
6.513	2	18	7.229	0.0348		
6.516	3	14	5.109	0.0271		
6.519	3	14	4.334	0.0271		
6.525	3	14	5.405	0.0271		
6.531	4	16	3.922	0.0309		
6.537	5	17	3.520	0.0329		
6.544	2	14	6.763	0.0271		
6.547	2	15	7.282	0.0290		
6.552	5	11	2.423	0.0212		
6.561	2	9	3.947	0.0174		
6.566	2	13	5.856	0.0251		
6.572	3	7	2.745	0.0135		
6.617	2	13	5.306	0.0251		
6.623	7	20	2.706	0.0387		
6.631	5	17	3.534	0.0329		
6.637	5	19	4.008	0.0367		
6.643	5	18	3.409	0.0348		
6.650	4	14	3.325	0.0271		
6.654	3	17	6.296	0.0329		
6.660	4	17	4.116	0.0329		
6.667	3	14	4.682	0.0271		
6.671	3	12	3.750	0.0232		
6.785	2	8	3.756	0.0154		
6.823	2	7	3.302	0.0135		
6.838	2	14	6.699	0.0271		
6.842	4	14	3.382	0.0271		
6.846	4	11	2.965	0.0212		
6.854	4	16	4.134	0.0309		
6.858	4	15	3.916	0.0290		
6.867	7	17	2.446	0.0329		
6.875	5	18	3.797	0.0348		
6.885	4	20	4.556	0.0387		
6.890	5	17	3.744	0.0329		
6.897	5	17	3.617	0.0329		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.901	5	15	3.333	0.0290		
6.907	3	13	4.025	0.0251		
6.912	2	16	6.639	0.0309		
6.917	4	16	3.628	0.0309		
6.923	4	13	2.975	0.0251		
6.930	4	16	4.324	0.0309		
6.941	4	15	3.623	0.0290		
6.959	5	11	2.287	0.0212		
6.973	2	16	7.442	0.0309		
	40353	51652		100.000		

Total unknown % height = 15.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 16-MAY-2019 14:09
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal4, 87953:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.887	1.887	0.000	1796	0.04000	0.0404		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.240	2.240	0.000	1208	0.02000	0.0203		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.475	2.475	0.000	1131	0.02000	0.0202		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
2.619	2.619	0.000	574	0.02000	0.0214		(M)	RT
6 delta-BHC					CAS #: 76-44-8			
2.815	2.815	0.000	1105	0.02000	0.0204		(M)	RT
5 Heptachlor					CAS #: 319-86-8			
2.714	2.713	0.001	1189	0.02000	0.0203		(M)	RT
7 Aldrin					CAS #: 309-00-2			
2.925	2.925	0.000	1076	0.02000	0.0205		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.282	3.282	0.000	1051	0.02000	0.0204		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.437	3.437	0.000	1065	0.02000	0.0203		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
3.502	3.501	0.001	1026	0.02000	0.0203		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
3.547	3.547	0.000	968	0.02000	0.0203		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.624	3.623	0.001	1996	0.04000	0.0408		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
3.740	3.740	0.000	2065	0.04000	0.0404		(M)	RT
14 Endrin					CAS #: 72-20-8			
3.958	3.958	0.000	1880	0.04000	0.0407		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.017	4.017	0.000	1605	0.04000	0.0408		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.138	4.138	0.000	1730	0.04000	0.0406		(M)	RT
17 4,4'-DDT					CAS #: 50-29-3			
4.208	4.208	0.000	1753	0.04000	0.0408		(M)	RT
18 Endrin aldehyde					CAS #: 7421-36-3			
4.291	4.290	0.001	1553	0.04000	0.0406		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.429	4.429	0.000	1905	0.04000	0.0406		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.664	0.000	4581	0.20000	0.204		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
4.851	4.851	0.000	1973	0.04000	0.0407		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.645	5.645	0.000	1900	0.04000	0.0402		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0203	
58-89-9	gamma-BHC (Lindane)	0.0202	
319-85-7	beta-BHC	0.0214	
76-44-8	delta-BHC	0.0204	
319-86-8	Heptachlor	0.0203	
309-00-2	Aldrin	0.0205	
1024-57-3	Heptachlor epoxide	0.0204	
5103-74-2	gamma-Chlordane	0.0203	
5103-71-9	alpha-Chlordane	0.0203	
959-98-8	Endosulfan I	0.0203	
72-55-9	4,4'-DDE	0.0408	
60-57-1	Dieldrin	0.0404	
72-20-8	Endrin	0.0407	
72-54-8	4,4'-DDD	0.0408	
33213-65-9	Endosulfan II	0.0406	
50-29-3	4,4'-DDT	0.0408	
7421-36-3	Endrin aldehyde	0.0406	
1031-07-8	Endosulfan sulfate	0.0406	
72-43-5	Methoxychlor	0.204	
53494-70-5	Endrin ketone	0.0407	
----------	Tetrachloro-m-xylene (S)	0.0404	
----------	Decachlorobiphenyl (S)	0.0402	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-013.d

Date : 16-MAY-2019 14:09

Client ID: CAL4

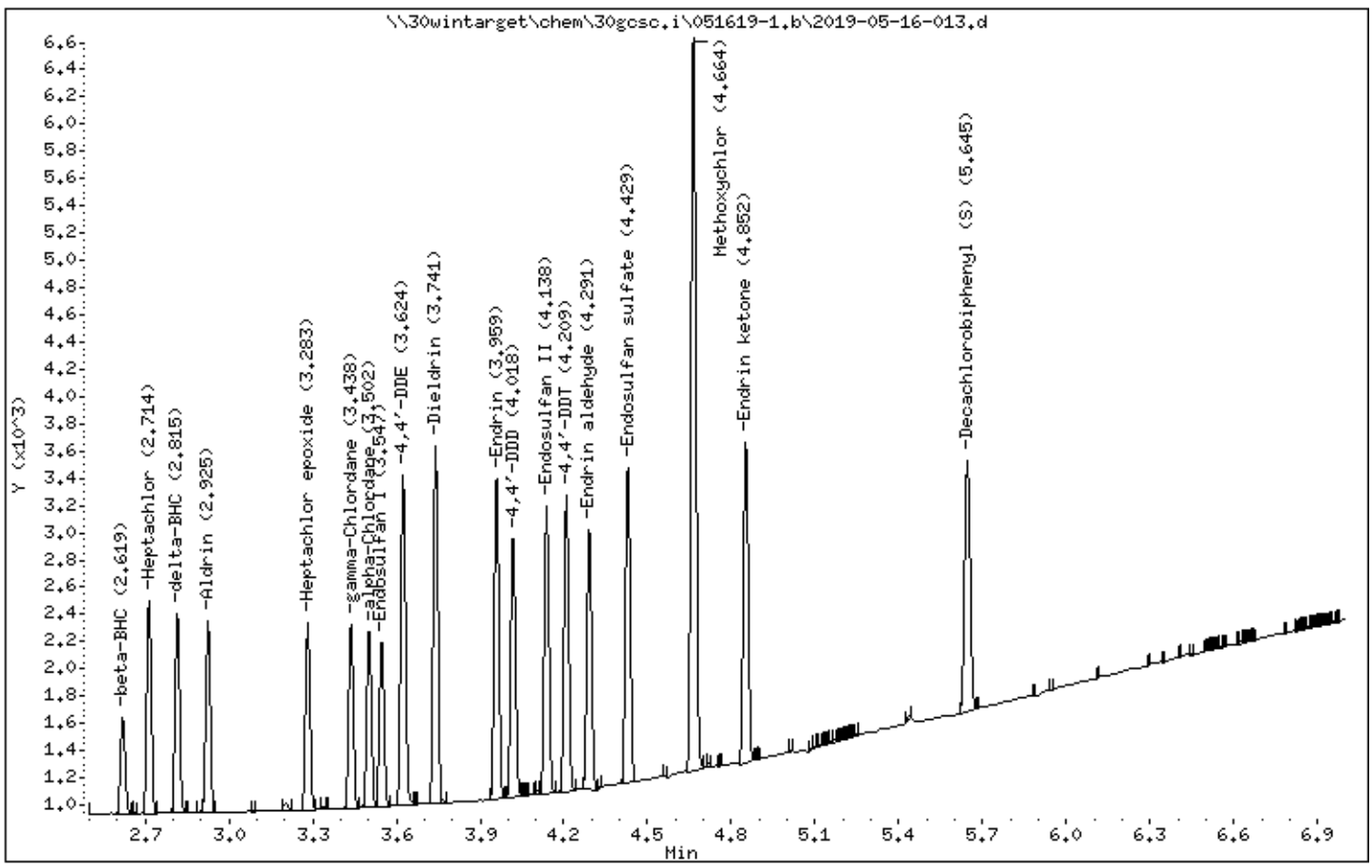
Instrument: 30gcsc.i

Sample Info: CAL4, 87953:1

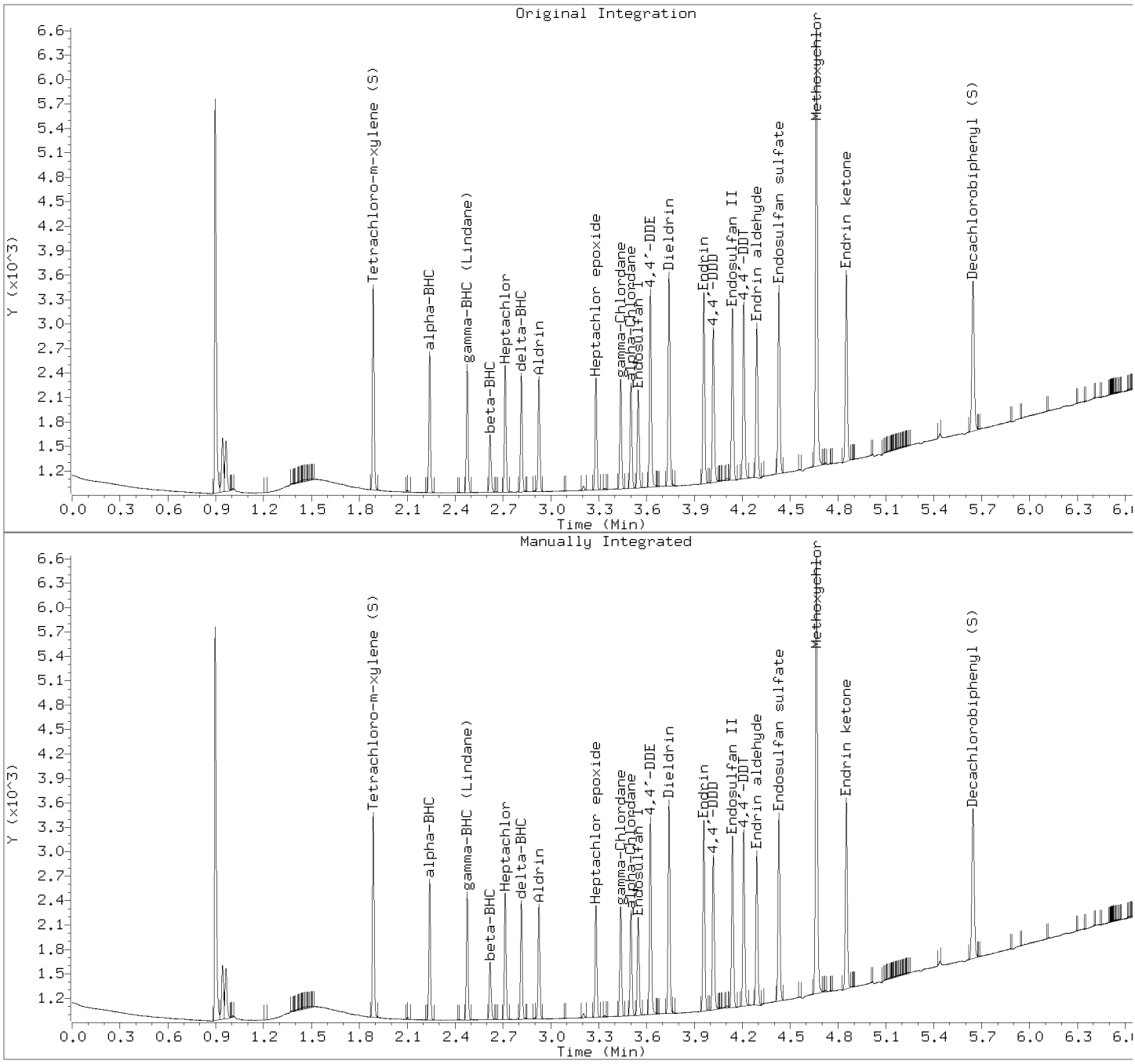
Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:09 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1208	1208
beta-BHC	574	574
delta-BHC	1105	1105
gamma-BHC (Lindane)	1131	1131
Heptachlor	1189	1189
Aldrin	1076	1076
Heptachlor epoxide	1051	1051
Endosulfan I	968	968
Dieldrin	2065	2065
4,4'-DDE	1996	1996
Endrin	1880	1880
Endosulfan II	1730	1730
4,4'-DDD	1605	1605
Endosulfan sulfate	1905	1905

4,4'-DDT	1753	1753
Methoxychlor	4581	4581
Endrin ketone	1973	1973
Endrin aldehyde	1553	1553
alpha-Chlordane	1026	1026
gamma-Chlordane	1065	1065
Tetrachloro-m-xylene (S)	1796	1796
Decachlorobiphenyl (S)	1900	1900

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 16-MAY-2019 14:09
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal4, 87953:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.865	1	4	2.857	0.0232			
0.881	1238	2844	2.297	16.5520			
0.982	150	176	1.173	1.0241			
1.012	120	162	1.348	0.9426			
1.076	1	3	2.308	0.0174			
1.319	1	2	1.786	0.0116			
1.402	1	2	1.961	0.0116			
1.438	2	2	1.018	0.0116			
1.482	1	3	2.679	0.0174			
1.796	1	3	2.419	0.0174			
2.363	676	881	1.304	5.1265	$	1 Tetrachloro-m-xylene (S)	RT
2.574	5	8	1.747	0.0465			
2.627	431	576	1.336	3.3517		2 alpha-BHC	RT
2.844	404	532	1.316	3.0957		3 gamma-BHC (Lindane)	RT
3.004	207	268	1.294	1.5594		4 beta-BHC	RT
3.093	2	5	2.381	0.0290			
3.191	407	522	1.283	3.0375		5 delta-BHC	RT
3.213	1	5	4.310	0.0290			
3.228	7	8	1.097	0.0465			
3.254	399	492	1.234	2.8629		6 Heptachlor	RT
3.404	1	2	1.961	0.0116			
3.482	370	455	1.228	2.6476		7 Aldrin	RT
3.715	16	18	1.152	0.1047			
3.775	366	439	1.198	2.5545		8 Heptachlor epoxide	RT
3.810	1	3	2.110	0.0174			
3.912	2	2	1.170	0.0116			
3.987	368	440	1.196	2.5603		9 gamma-Chlordane	RT
4.024	361	427	1.182	2.4847		10 alpha-Chlordane	RT
4.056	338	401	1.186	2.3334		11 Endosulfan I	RT
4.102	672	845	1.258	4.9170		12 4,4'-DDE	RT
4.174	2	4	1.835	0.0232			
4.231	707	848	1.199	4.9345		13 Dieldrin	RT
4.315	1	3	2.564	0.0174			
4.356	2	4	2.381	0.0232			
4.393	594	688	1.159	4.0034		14 Endrin	RT
4.455	556	685	1.232	3.9860		15 4,4'-DDD	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.566	596	695	1.167	4.0442		16 Endosulfan II	RT
4.639	546	644	1.179	3.7474		17 Endrin aldehyde	RT
4.665	467	565	1.209	3.2877		18 4,4'-DDT	RT
4.829	648	747	1.152	4.3468		19 Endosulfan sulfate	RT
4.950	1353	1577	1.166	9.1766		20 Methoxychlor	RT
5.102	3	7	2.713	0.0407			
5.129	674	733	1.087	4.2653		21 Endrin ketone	RT
5.549	1	5	3.876	0.0290			
5.553	1	5	3.906	0.0290			
5.706	1	2	1.439	0.0116			
6.086	3	4	1.465	0.0232			
6.341	613	435	0.710	2.5312	$	24 Decachlorobiphenyl (S)	RT
6.826	2	2	1.081	0.0116			
6.876	1	2	1.802	0.0116			
	13323	17185		100.000			

Total unknown % height = 19.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 16-MAY-2019 14:09
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal4, 87953:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.362	2.362	0.000	675	0.04000	0.0402		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.626	2.626	0.000	431	0.02000	0.0202		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.843	2.843	0.000	404	0.02000	0.0202		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
3.004	3.004	0.000	207	0.02000	0.0203		(M)	RT
5 delta-BHC					CAS #: 319-86-8			
3.191	3.191	0.000	406	0.02000	0.0204		(M)	RT
6 Heptachlor					CAS #: 76-44-8			
3.253	3.253	0.000	398	0.02000	0.0203		(M)	RT
7 Aldrin					CAS #: 309-00-2			
3.481	3.481	0.000	370	0.02000	0.0202		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.774	3.774	0.000	366	0.02000	0.0202		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.987	3.987	0.000	367	0.02000	0.0202		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
4.023	4.023	0.000	361	0.02000	0.0203		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
4.056	4.056	0.000	338	0.02000	0.0204		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.102	4.102	0.000	671	0.04000	0.0406		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
4.230	4.230	0.000	707	0.04000	0.0403		(M)	RT
14 Endrin					CAS #: 72-20-8			
4.392	4.392	0.000	593	0.04000	0.0405		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.455	4.455	0.000	556	0.04000	0.0404		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.566	4.566	0.000	595	0.04000	0.0401		(M)	RT
17 Endrin aldehyde					CAS #: 7421-36-3			
4.639	4.639	0.000	546	0.04000	0.0402		(M)	RT
18 4,4'-DDT					CAS #: 50-29-3			
4.665	4.665	0.000	467	0.04000	0.0412		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.829	4.829	0.000	648	0.04000	0.0402		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.949	4.949	0.000	1352	0.20000	0.200		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
5.129	5.129	0.000	674	0.04000	0.0405		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.341	6.341	0.000	612	0.04000	0.0403		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

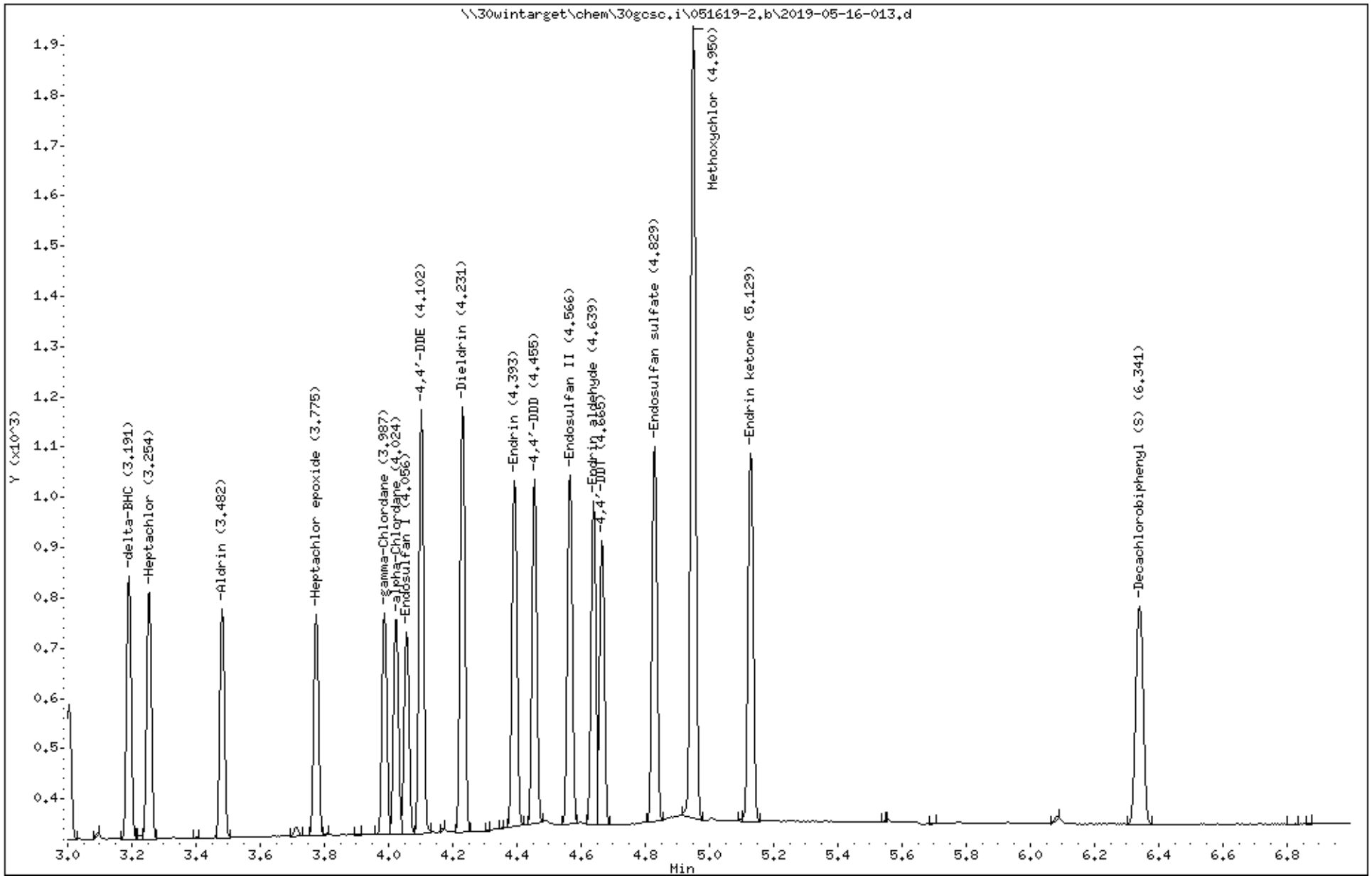
Client SDG: 30GCSC-051619-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0202	
58-89-9	gamma-BHC (Lindane)	0.0202	
319-85-7	beta-BHC	0.0203	
319-86-8	delta-BHC	0.0204	
76-44-8	Heptachlor	0.0203	
309-00-2	Aldrin	0.0202	
1024-57-3	Heptachlor epoxide	0.0202	
5103-74-2	gamma-Chlordane	0.0202	
5103-71-9	alpha-Chlordane	0.0203	
959-98-8	Endosulfan I	0.0204	
72-55-9	4,4'-DDE	0.0406	
60-57-1	Dieldrin	0.0403	
72-20-8	Endrin	0.0405	
72-54-8	4,4'-DDD	0.0404	
33213-65-9	Endosulfan II	0.0401	
7421-36-3	Endrin aldehyde	0.0402	
50-29-3	4,4'-DDT	0.0412	
1031-07-8	Endosulfan sulfate	0.0402	
72-43-5	Methoxychlor	0.200	
53494-70-5	Endrin ketone	0.0405	
	Tetrachloro-m-xylene (S)	0.0402	
	Decachlorobiphenyl (S)	0.0403	

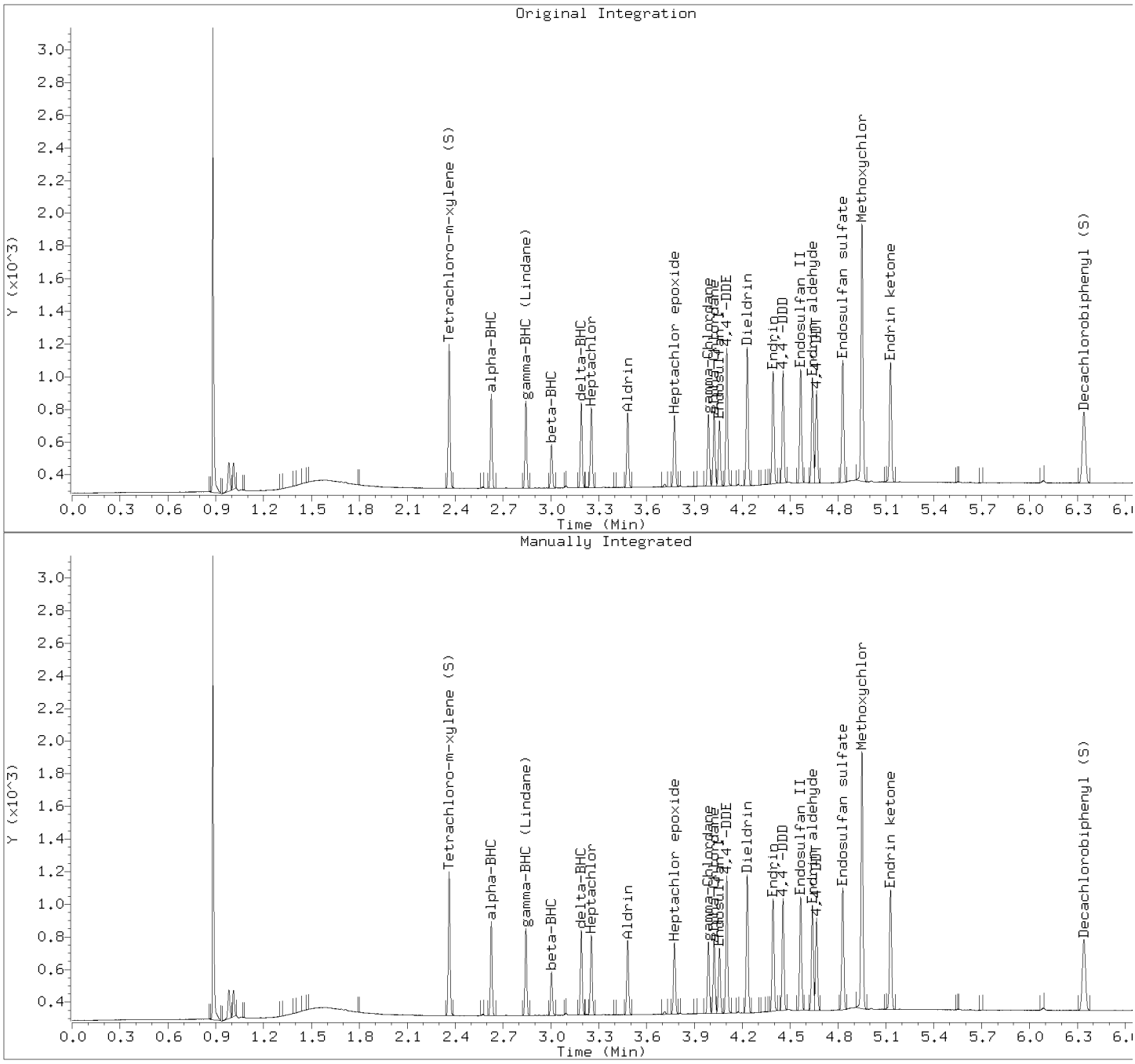
Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-013.d
Date : 16-MAY-2019 14:09
Client ID: CAL4
Sample Info: CAL4, 87953:1

Instrument: 30gcsc.i

Operator: CWB
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:09 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	431	431
beta-BHC	207	207
delta-BHC	406	406
gamma-BHC (Lindane)	404	404
Heptachlor	398	398
Aldrin	370	370
Heptachlor epoxide	366	366
Endosulfan I	338	338
Dieldrin	707	707
4,4'-DDE	671	671
Endrin	593	593
Endosulfan II	595	595
4,4'-DDD	556	556
Endosulfan sulfate	648	648

4,4'-DDT	467	467
Methoxychlor	1352	1352
Endrin ketone	674	674
Endrin aldehyde	546	546
alpha-Chlordane	361	361
gamma-Chlordane	367	367
Tetrachloro-m-xylene (S)	675	675
Decachlorobiphenyl (S)	612	612

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 16-MAY-2019 14:19
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal5, 87954:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.031	3	7	2.527	0.0058		
0.897	6818	9343	1.370	7.7492		
0.943	775	782	1.009	0.6486		
0.963	711	705	0.991	0.5847		
1.004	65	90	1.384	0.0746		
1.007	18	93	5.099	0.0771		
1.010	38	95	2.502	0.0787		
1.017	69	89	1.295	0.0738		
1.040	8	26	3.118	0.0215		
1.047	19	27	1.411	0.0223		
1.064	2	7	3.286	0.0058		
1.093	2	6	2.562	0.0049		
1.175	5	11	2.196	0.0091		
1.180	4	11	3.116	0.0091		
1.302	2	4	1.794	0.0033		
1.326	4	13	3.037	0.0107		
1.332	6	17	2.862	0.0141		
1.336	4	19	4.634	0.0157		
1.340	3	18	5.960	0.0149		
1.344	6	22	3.607	0.0182		
1.349	5	22	4.082	0.0182		
1.375	87	68	0.782	0.0564		
1.386	9	47	5.188	0.0389		
1.391	13	46	3.464	0.0381		
1.394	6	49	7.573	0.0406		
1.398	12	49	3.981	0.0406		
1.406	26	56	2.164	0.0464		
1.409	9	55	6.463	0.0456		
1.412	18	60	3.339	0.0497		
1.420	20	61	3.127	0.0505		
1.422	8	61	7.297	0.0505		
1.427	16	64	3.968	0.0530		
1.429	9	65	7.336	0.0539		
1.433	15	66	4.311	0.0547		
1.440	30	68	2.253	0.0564		
1.443	8	68	8.468	0.0564		
1.454	66	77	1.160	0.0638		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.461	30	71	2.335	0.0588		
1.468	11	68	6.385	0.0564		
1.474	38	68	1.796	0.0564		
1.480	9	64	7.248	0.0530		
1.486	20	64	3.148	0.0530		
1.488	8	62	7.329	0.0514		
1.492	34	61	1.781	0.0505		
1.499	12	59	4.856	0.0489		
1.504	21	55	2.629	0.0456		
1.510	23	53	2.323	0.0439		
1.517	18	47	2.543	0.0389		
1.526	14	42	2.979	0.0348		
1.531	19	37	1.916	0.0306		
1.540	11	30	2.712	0.0248		
1.546	13	28	2.139	0.0232		
1.556	7	20	2.963	0.0165		
1.563	3	12	4.167	0.0099		
1.794	12	19	1.541	0.0157		
1.888	4221	5880	1.393	4.8769	$ 1 Tetrachloro-m-xylene (S)	
2.048	2	4	1.860	0.0033		
2.102	48	69	1.423	0.0572		
2.241	2950	4140	1.403	3.4337	2 alpha-BHC	
2.420	4	8	1.810	0.0066		
2.476	2743	3750	1.367	3.1103	3 gamma-BHC (Lindane)	
2.620	1259	1626	1.291	1.3486	4 beta-BHC	
2.653	4	10	2.571	0.0082		
2.660	4	9	2.138	0.0074		
2.714	2830	3774	1.333	3.1302	5 Heptachlor	
2.794	4	10	2.326	0.0082		
2.816	2704	3525	1.303	2.9236	6 delta-BHC	
2.852	2	7	2.917	0.0058		
2.901	21	32	1.502	0.0265		
2.926	2589	3389	1.309	2.8108	7 Aldrin	
3.119	4	6	1.405	0.0049		
3.205	96	124	1.286	0.1028		
3.283	2503	3236	1.293	2.6839	8 Heptachlor epoxide	
3.336	22	32	1.483	0.0265		
3.438	2553	3252	1.274	2.6972	9 gamma-Chlordane	
3.503	2451	3069	1.252	2.5454	10 alpha-Chlordane	
3.548	2315	2885	1.246	2.3928	11 Endosulfan I	
3.624	4891	5948	1.216	4.9333	12 4,4'-DDE	
3.674	7	12	1.734	0.0099		
3.741	5126	6427	1.254	5.3306	13 Dieldrin	
3.897	8	16	1.882	0.0132		
3.904	2	9	4.348	0.0074		
3.959	4612	5762	1.249	4.7790	14 Endrin	
4.019	4018	4821	1.200	3.9986	15 4,4'-DDD	
4.054	31	43	1.388	0.0356		
4.069	11	28	2.588	0.0232		
4.081	6	16	2.867	0.0132		
4.087	4	15	4.249	0.0124		
4.090	3	15	4.983	0.0124		
4.095	4	17	4.057	0.0141		
4.104	24	30	1.231	0.0248		
4.139	4182	5149	1.231	4.2706	16 Endosulfan II	
4.183	2	5	2.222	0.0041		
4.186	2	11	5.069	0.0091		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.209	4357	5237	1.202	4.3436	17 4,4'-DDT	
4.292	3711	4523	1.219	3.7514	18 Endrin aldehyde	
4.325	2	8	3.868	0.0066		
4.430	4598	5666	1.232	4.6994	19 Endosulfan sulfate	
4.564	3	11	3.170	0.0091		
4.569	2	9	4.072	0.0074		
4.594	2	7	3.286	0.0058		
4.612	3	8	2.730	0.0066		
4.618	3	12	3.478	0.0099		
4.622	4	14	3.175	0.0116		
4.635	7	16	2.235	0.0132		
4.641	5	17	3.244	0.0141		
4.665	11015	12785	1.161	10.6143	20 Methoxychlor	
4.709	6	41	6.721	0.0340		
4.719	64	74	1.152	0.0613		
4.738	3	11	3.548	0.0091		
4.756	9	21	2.360	0.0174		
4.759	8	20	2.528	0.0165		
4.852	4817	5726	1.189	4.7492	21 Endrin ketone	
5.014	14	38	2.638	0.0315		
5.017	17	42	2.468	0.0348		
5.225	3	11	3.170	0.0091		
5.234	7	18	2.671	0.0149		
5.236	6	19	3.146	0.0157		
5.335	6	13	2.047	0.0107		
5.421	2	11	4.783	0.0091		
5.440	138	139	1.005	0.1152		
5.647	4501	4273	0.949	3.5440	$ 24 Decachlorobiphenyl (S)	
5.688	3	9	2.752	0.0074		
5.746	2	8	3.960	0.0066		
5.772	3	10	3.175	0.0082		
5.873	2	10	4.049	0.0082		
5.876	2	7	3.318	0.0058		
5.893	2	8	3.376	0.0066		
5.949	2	8	3.828	0.0066		
5.973	3	10	3.891	0.0082		
5.987	2	12	5.430	0.0099		
6.010	2	6	2.968	0.0049		
6.044	2	9	4.206	0.0074		
6.058	3	8	2.712	0.0066		
6.102	2	9	3.947	0.0074		
6.110	3	13	4.643	0.0107		
6.112	3	17	5.944	0.0141		
6.116	5	22	4.564	0.0182		
6.120	4	15	3.386	0.0124		
6.129	2	12	5.970	0.0099		
6.196	4	8	2.139	0.0066		
6.226	2	11	5.116	0.0091		
6.232	3	11	3.716	0.0091		
6.239	2	13	6.404	0.0107		
6.270	3	9	3.600	0.0074		
6.277	2	7	3.070	0.0058		
6.290	9	15	1.703	0.0124		
6.298	5	20	4.008	0.0165		
6.300	4	19	5.413	0.0157		
6.306	4	16	4.348	0.0132		
6.308	3	19	7.037	0.0157		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.311	5	21	4.384	0.0174		
6.318	8	19	2.493	0.0157		
6.324	4	19	4.703	0.0157		
6.328	3	16	4.692	0.0132		
6.333	4	15	3.968	0.0124		
6.339	4	11	2.689	0.0091		
6.343	2	13	5.263	0.0107		
6.350	2	12	4.938	0.0099		
6.355	4	12	3.324	0.0099		
6.362	6	20	3.442	0.0165		
6.367	4	20	5.618	0.0165		
6.371	6	19	3.177	0.0157		
6.378	3	15	4.688	0.0124		
6.383	6	21	3.409	0.0174		
6.392	9	21	2.439	0.0174		
6.398	6	21	3.460	0.0174		
6.401	4	23	6.443	0.0190		
6.406	10	22	2.198	0.0182		
6.413	5	25	5.353	0.0207		
6.415	3	25	9.579	0.0207		
6.417	3	24	7.143	0.0199		
6.420	6	20	3.378	0.0165		
6.429	10	21	2.145	0.0174		
6.434	4	22	5.314	0.0182		
6.439	4	20	4.630	0.0165		
6.443	5	20	4.310	0.0165		
6.446	4	19	4.308	0.0157		
6.453	5	17	3.761	0.0141		
6.457	4	17	4.439	0.0141		
6.463	4	18	4.147	0.0149		
6.466	5	19	3.950	0.0157		
6.470	2	17	7.556	0.0141		
6.473	2	17	8.333	0.0141		
6.478	5	16	3.175	0.0132		
6.481	2	18	7.860	0.0149		
6.484	2	15	6.494	0.0124		
6.489	2	13	5.394	0.0107		
6.491	4	14	3.944	0.0116		
6.497	5	17	3.594	0.0141		
6.501	2	14	6.140	0.0116		
6.509	4	15	3.836	0.0124		
6.514	2	15	6.944	0.0124		
6.520	4	14	3.911	0.0116		
6.524	3	18	6.545	0.0149		
6.527	3	19	5.476	0.0157		
6.532	3	15	5.017	0.0124		
6.535	4	18	4.306	0.0149		
6.540	2	14	6.167	0.0116		
6.543	4	13	3.125	0.0107		
6.549	3	12	3.727	0.0099		
6.555	2	9	3.863	0.0074		
6.590	4	14	3.226	0.0116		
6.596	5	13	2.802	0.0107		
6.601	2	13	5.804	0.0107		
6.614	6	13	2.289	0.0107		
6.620	3	13	3.916	0.0107		
6.628	4	12	3.117	0.0099		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.636	3	11	3.235	0.0091		
6.688	3	9	2.804	0.0074		
6.701	2	8	3.604	0.0066		
6.710	2	7	3.358	0.0058		
6.735	3	8	3.089	0.0066		
6.740	2	8	3.738	0.0066		
6.744	3	13	4.140	0.0107		
6.769	3	11	4.104	0.0091		
6.805	2	7	3.465	0.0058		
6.861	2	9	4.327	0.0074		
6.972	3	9	3.237	0.0074		
	95163	120567		100.000		

Total unknown % height = 13.0

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 16-MAY-2019 14:19
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal5, 87954:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.887	1.887	0.000	4220	0.10000	0.0950			
2 alpha-BHC						CAS #: 319-84-6		
2.240	2.240	0.000	2949	0.05000	0.0496			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	2742	0.05000	0.0489			
4 beta-BHC						CAS #: 319-85-7		
2.619	2.619	0.000	1259	0.05000	0.0468			
6 delta-BHC						CAS #: 76-44-8		
2.815	2.815	0.000	2704	0.05000	0.0498			
5 Heptachlor						CAS #: 319-86-8		
2.714	2.713	0.001	2830	0.05000	0.0483			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	2589	0.05000	0.0492			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	2503	0.05000	0.0485			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.438	3.437	0.001	2553	0.05000	0.0486			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	2450	0.05000	0.0484			
11 Endosulfan I						CAS #: 959-98-8		
3.547	3.547	0.000	2315	0.05000	0.0486			

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.624	3.623	0.001	4891	0.10000	0.100			
13 Dieldrin						CAS #: 60-57-1		
3.741	3.740	0.001	5125	0.10000	0.100			
14 Endrin						CAS #: 72-20-8		
3.959	3.958	0.001	4611	0.10000	0.0999			
15 4,4'-DDD						CAS #: 72-54-8		
4.018	4.017	0.001	4018	0.10000	0.102			
16 Endosulfan II						CAS #: 33213-65-9		
4.138	4.138	0.000	4182	0.10000	0.0983			
17 4,4'-DDT						CAS #: 50-29-3		
4.209	4.208	0.001	4357	0.10000	0.101			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	3710	0.10000	0.0971			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.429	4.429	0.000	4597	0.10000	0.0980			
20 Methoxychlor						CAS #: 72-43-5		
4.664	4.664	0.000	11015	0.50000	0.491			
21 Endrin ketone						CAS #: 53494-70-5		
4.852	4.851	0.001	4817	0.10000	0.0995			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.645	0.001	4500	0.10000	0.0953			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0496	
58-89-9	gamma-BHC (Lindane)	0.0489	
319-85-7	beta-BHC	0.0468	
76-44-8	delta-BHC	0.0498	
319-86-8	Heptachlor	0.0483	
309-00-2	Aldrin	0.0492	
1024-57-3	Heptachlor epoxide	0.0485	
5103-74-2	gamma-Chlordane	0.0486	
5103-71-9	alpha-Chlordane	0.0484	
959-98-8	Endosulfan I	0.0486	
72-55-9	4,4'-DDE	0.100	
60-57-1	Dieldrin	0.100	
72-20-8	Endrin	0.0999	
72-54-8	4,4'-DDD	0.102	
33213-65-9	Endosulfan II	0.0983	
50-29-3	4,4'-DDT	0.101	
7421-36-3	Endrin aldehyde	0.0971	
1031-07-8	Endosulfan sulfate	0.0980	
72-43-5	Methoxychlor	0.491	
53494-70-5	Endrin ketone	0.0995	
	Tetrachloro-m-xylene (S)	0.0950	
	Decachlorobiphenyl (S)	0.0953	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-014.d

Date : 16-MAY-2019 14:19

Client ID: CAL5

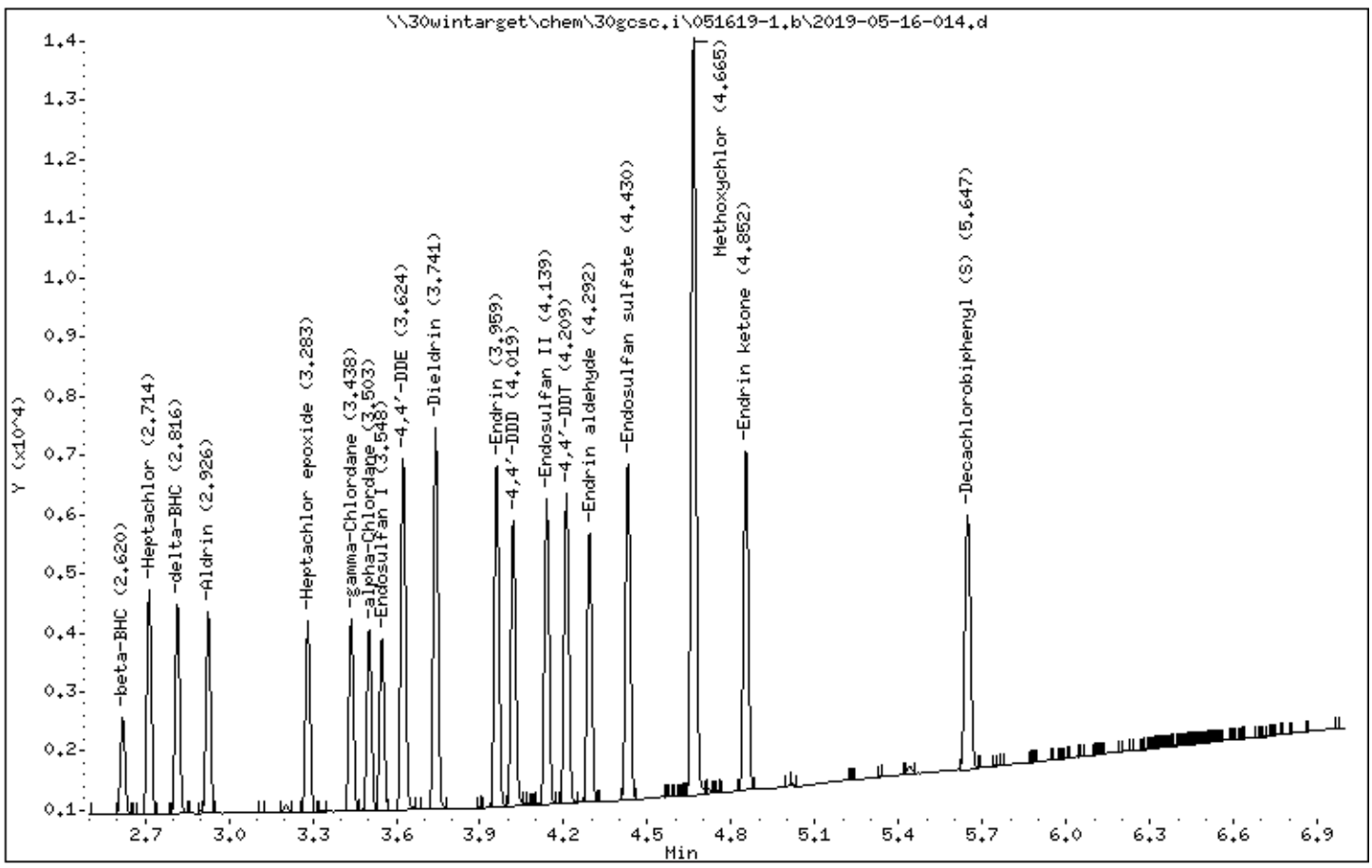
Instrument: 30gcsc.i

Sample Info: CAL5, 87954:1

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:19 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	2949	2949
beta-BHC	1259	1259
delta-BHC	2704	2704
gamma-BHC (Lindane)	2742	2742
Heptachlor	2830	2830
Aldrin	2589	2589
Heptachlor epoxide	2503	2503
Endosulfan I	2315	2315
Dieldrin	5125	5125
4,4'-DDE	4891	4891
Endrin	4611	4611
Endosulfan II	4182	4182
4,4'-DDD	4018	4018
Endosulfan sulfate	4597	4597
4,4'-DDT	4357	4357
Methoxychlor	11015	11015
Endrin ketone	4817	4817
Endrin aldehyde	3710	3710
alpha-Chlordane	2450	2450
gamma-Chlordane	2553	2553
Tetrachloro-m-xylene (S)	4220	4220
Decachlorobiphenyl (S)	4500	4500

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 16-MAY-2019 14:19
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal5, 87954:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.190	2	3	1.852	0.0076			
0.862	1	4	3.053	0.0101			
0.881	2464	5456	2.215	13.8878			
0.955	3	5	1.607	0.0127			
0.983	166	192	1.159	0.4886			
1.012	151	173	1.147	0.4402			
1.060	8	12	1.491	0.0305			
1.289	4	4	1.034	0.0101			
1.377	2	2	1.327	0.0050			
1.458	1	3	2.865	0.0076			
1.531	2	2	1.173	0.0050			
1.713	2	5	2.427	0.0127			
2.133	1	3	2.500	0.0076			
2.363	1571	2061	1.312	5.2450	$	1 Tetrachloro-m-xylene (S)	
2.574	19	26	1.340	0.0661			
2.627	1048	1405	1.340	3.5756		2 alpha-BHC	
2.721	1	2	1.961	0.0050			
2.794	1	2	1.802	0.0050			
2.844	971	1280	1.318	3.2574		3 gamma-BHC (Lindane)	
3.004	475	599	1.260	1.5244		4 beta-BHC	
3.191	990	1260	1.273	3.2065		5 delta-BHC	
3.227	15	18	1.172	0.0458			
3.253	938	1147	1.222	2.9190		6 Heptachlor	
3.481	891	1111	1.247	2.8274		7 Aldrin	
3.714	32	40	1.245	0.1017			
3.775	858	1030	1.200	2.6212		8 Heptachlor epoxide	
3.810	4	7	1.892	0.0178			
3.913	1	3	2.970	0.0076			
3.987	868	1032	1.189	2.6263		9 gamma-Chlordane	
4.023	847	1020	1.205	2.5958		10 alpha-Chlordane	
4.057	801	956	1.193	2.4329		11 Endosulfan I	
4.102	1640	2038	1.243	5.1865		12 4,4'-DDE	
4.130	1	5	4.717	0.0127			
4.173	17	22	1.303	0.0559			
4.231	1713	2039	1.190	5.1890		13 Dieldrin	
4.315	2	4	2.198	0.0101			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.334	1	4	3.148	0.0101			
4.393	1425	1641	1.152	4.1762		14 Endrin	
4.455	1364	1633	1.197	4.1558		15 4,4'-DDD	
4.565	1429	1675	1.173	4.2627		16 Endosulfan II	
4.598	4	6	1.644	0.0152			
4.639	1291	1462	1.133	3.7206		17 Endrin aldehyde	
4.665	1192	1488	1.248	3.7868		18 4,4'-DDT	
4.829	1541	1809	1.174	4.6037		19 Endosulfan sulfate	
4.867	3	5	1.812	0.0127			
4.950	3298	3788	1.149	9.6401		20 Methoxychlor	
5.129	1624	1791	1.103	4.5579		21 Endrin ketone	
5.191	1	2	1.439	0.0050			
5.556	5	6	1.139	0.0152			
6.086	41	34	0.839	0.0865			
6.293	1	2	1.786	0.0050			
6.340	1384	976	0.705	2.4838	$	24 Decachlorobiphenyl (S)	
6.540	1	1	0.980	0.0025			
	31115	39294		100.000			

Total unknown % height = 15.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 16-MAY-2019 14:19
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal5, 87954:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.362	2.362	0.000	1571	0.10000	0.0937			
2 alpha-BHC							CAS #: 319-84-6	
2.626	2.626	0.000	1048	0.05000	0.0492			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.843	2.843	0.000	970	0.05000	0.0485			
4 beta-BHC							CAS #: 319-85-7	
3.004	3.004	0.000	475	0.05000	0.0467			
5 delta-BHC							CAS #: 319-86-8	
3.190	3.191	-0.001	989	0.05000	0.0496			
6 Heptachlor							CAS #: 76-44-8	
3.253	3.253	0.000	938	0.05000	0.0478			
7 Aldrin							CAS #: 309-00-2	
3.481	3.481	0.000	891	0.05000	0.0487			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.774	3.774	0.000	858	0.05000	0.0474			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.987	3.987	0.000	867	0.05000	0.0478			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.022	4.023	-0.001	846	0.05000	0.0476			
11 Endosulfan I							CAS #: 959-98-8	
4.056	4.056	0.000	801	0.05000	0.0483			

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.101	4.102	-0.001	1640	0.10000	0.0992			
13 Dieldrin						CAS #: 60-57-1		
4.230	4.230	0.000	1713	0.10000	0.0976			
14 Endrin						CAS #: 72-20-8		
4.392	4.392	0.000	1424	0.10000	0.0973			
15 4,4'-DDD						CAS #: 72-54-8		
4.454	4.455	-0.001	1364	0.10000	0.0992			
16 Endosulfan II						CAS #: 33213-65-9		
4.564	4.566	-0.002	1428	0.10000	0.0963			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.638	4.639	-0.001	1290	0.10000	0.0951			
18 4,4'-DDT						CAS #: 50-29-3		
4.665	4.665	0.000	1192	0.10000	0.105			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.828	4.829	-0.001	1540	0.10000	0.0955			
20 Methoxychlor						CAS #: 72-43-5		
4.949	4.949	0.000	3297	0.50000	0.487			
21 Endrin ketone						CAS #: 53494-70-5		
5.128	5.129	-0.001	1624	0.10000	0.0976			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.339	6.341	-0.002	1383	0.10000	0.0910			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

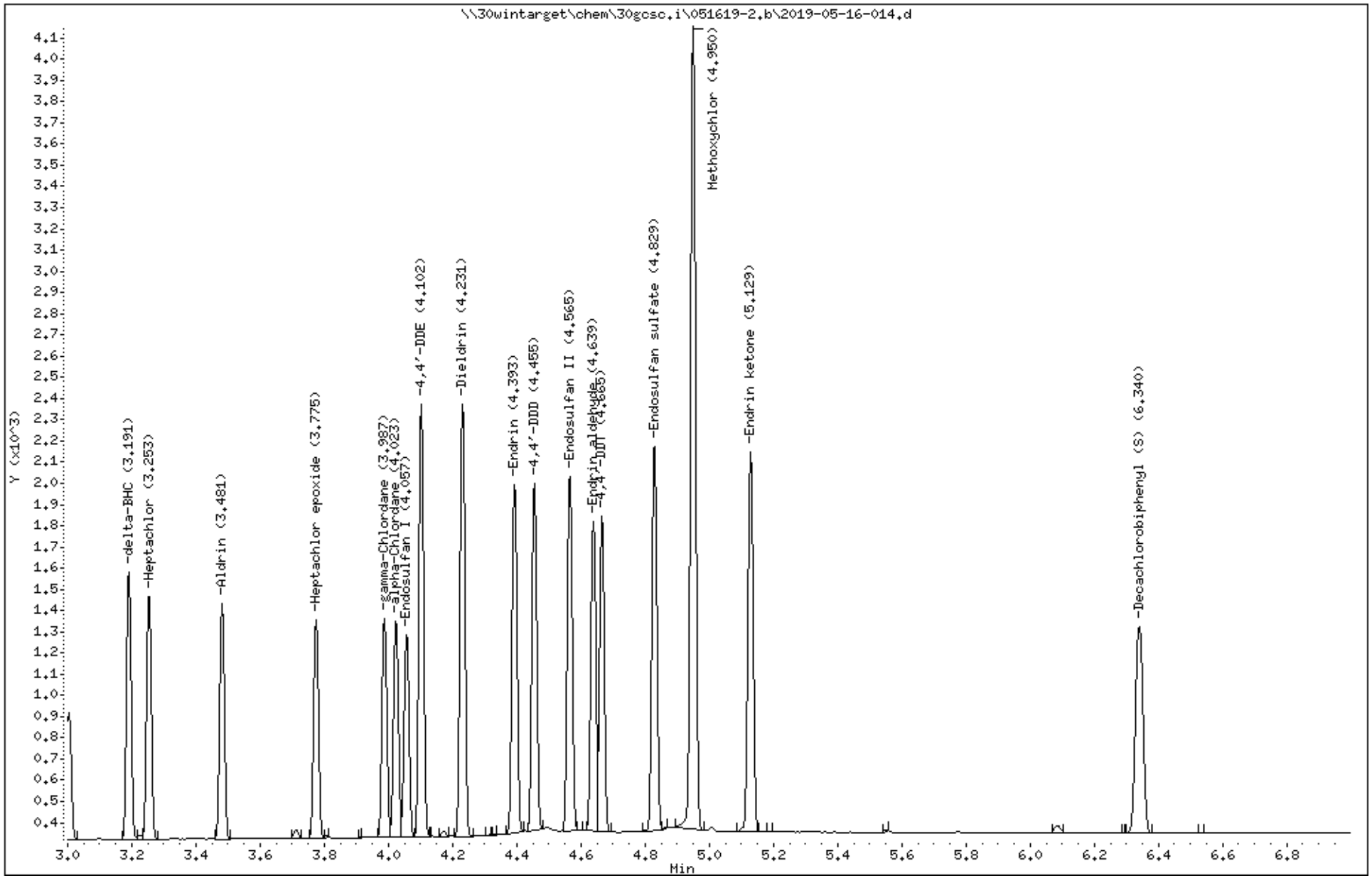
Client SDG: 30GCSC-051619-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0492	
58-89-9	gamma-BHC (Lindane)	0.0485	
319-85-7	beta-BHC	0.0467	
319-86-8	delta-BHC	0.0496	
76-44-8	Heptachlor	0.0478	
309-00-2	Aldrin	0.0487	
1024-57-3	Heptachlor epoxide	0.0474	
5103-74-2	gamma-Chlordane	0.0478	
5103-71-9	alpha-Chlordane	0.0476	
959-98-8	Endosulfan I	0.0483	
72-55-9	4,4'-DDE	0.0992	
60-57-1	Dieldrin	0.0976	
72-20-8	Endrin	0.0973	
72-54-8	4,4'-DDD	0.0992	
33213-65-9	Endosulfan II	0.0963	
7421-36-3	Endrin aldehyde	0.0951	
50-29-3	4,4'-DDT	0.105	
1031-07-8	Endosulfan sulfate	0.0955	
72-43-5	Methoxychlor	0.487	
53494-70-5	Endrin ketone	0.0976	
----------	Tetrachloro-m-xylene (S)	0.0937	
----------	Decachlorobiphenyl (S)	0.0910	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-014.d
Date : 16-MAY-2019 14:19
Client ID: CAL5
Sample Info: CAL5, 87954:1

Instrument: 30gcsc.i

Operator: CWB
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:19 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1048	1048
beta-BHC	475	475
delta-BHC	989	989
gamma-BHC (Lindane)	970	970
Heptachlor	938	938
Aldrin	891	891
Heptachlor epoxide	858	858
Endosulfan I	801	801
Dieldrin	1713	1713
4,4'-DDE	1640	1640
Endrin	1424	1424
Endosulfan II	1428	1428
4,4'-DDD	1364	1364
Endosulfan sulfate	1540	1540
4,4'-DDT	1192	1192
Methoxychlor	3297	3297
Endrin ketone	1624	1624
Endrin aldehyde	1290	1290
alpha-Chlordane	846	846
gamma-Chlordane	867	867
Tetrachloro-m-xylene (S)	1571	1571
Decachlorobiphenyl (S)	1383	1383

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 16-MAY-2019 14:29
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal6, 87955:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.896	11356	15772	1.389	6.7284			
0.941	994	1002	1.008	0.4274			
0.963	795	792	0.996	0.3378			
1.006	189	127	0.671	0.0541			
1.036	10	30	2.904	0.0127			
1.042	9	34	3.625	0.0145			
1.044	12	35	2.804	0.0149			
1.051	5	18	3.377	0.0076			
1.090	3	12	4.762	0.0051			
1.092	6	15	2.339	0.0063			
1.131	4	10	2.571	0.0042			
1.169	2	9	4.091	0.0038			
1.174	5	15	3.254	0.0063			
1.178	9	18	2.108	0.0076			
1.185	4	13	3.562	0.0055			
1.191	2	9	4.072	0.0038			
1.373	48	67	1.387	0.0285			
1.452	6	16	2.685	0.0068			
1.484	9	14	1.628	0.0059			
1.512	2	8	3.670	0.0034			
1.794	26	37	1.435	0.0157			
1.887	8617	12180	1.414	5.1960	$	1 Tetrachloro-m-xylene (S)	
1.926	4	12	3.243	0.0051			
1.985	3	9	3.584	0.0038			
2.101	100	139	1.394	0.0592			
2.240	6161	8592	1.395	3.6654		2 alpha-BHC	
2.270	2	8	3.239	0.0034			
2.417	2	6	2.491	0.0025			
2.476	5653	7813	1.382	3.3330		3 gamma-BHC (Lindane)	
2.619	2565	3344	1.304	1.4265		4 beta-BHC	
2.655	8	17	2.138	0.0072			
2.662	3	11	3.618	0.0046			
2.714	5689	7496	1.318	3.1978		5 Heptachlor	
2.795	5	9	1.724	0.0038			
2.815	5581	7408	1.327	3.1603		6 delta-BHC	
2.851	5	12	2.661	0.0051			
2.901	46	69	1.491	0.0294			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.925	5302	6873	1.296	2.9320	7 Aldrin	
2.955	11	20	1.792	0.0085		
3.117	3	7	2.583	0.0029		
3.205	190	245	1.287	0.1045		
3.283	5011	6394	1.276	2.7277	8 Heptachlor epoxide	
3.335	50	65	1.302	0.0277		
3.438	5126	6496	1.267	2.7712	9 gamma-Chlordane	
3.502	4885	6186	1.266	2.6389	10 alpha-Chlordane	
3.548	4645	5705	1.228	2.4337	11 Endosulfan I	
3.598	6	9	1.413	0.0038		
3.624	9841	11980	1.217	5.1107	12 4,4'-DDE	
3.671	8	23	2.861	0.0098		
3.681	4	11	3.090	0.0046		
3.741	10274	12785	1.244	5.4541	13 Dieldrin	
3.837	3	7	2.115	0.0029		
3.893	3	15	4.348	0.0063		
3.898	12	24	2.005	0.0102		
3.905	3	13	4.481	0.0055		
3.959	9202	11225	1.220	4.7886	14 Endrin	
4.018	8180	9763	1.194	4.1649	15 4,4'-DDD	
4.056	30	71	2.374	0.0302		
4.065	42	65	1.566	0.0277		
4.078	7	31	4.385	0.0132		
4.083	19	32	1.649	0.0136		
4.102	23	35	1.533	0.0149		
4.108	15	31	2.109	0.0132		
4.138	8346	10215	1.224	4.3577	16 Endosulfan II	
4.175	5	14	2.998	0.0059		
4.180	3	15	4.335	0.0063		
4.181	5	17	3.462	0.0072		
4.210	8791	10809	1.229	4.6111	17 4,4'-DDT	
4.292	7342	9020	1.229	3.8479	18 Endrin aldehyde	
4.328	19	32	1.686	0.0136		
4.430	9179	10996	1.198	4.6909	19 Endosulfan sulfate	
4.560	3	10	3.257	0.0042		
4.593	4	12	3.109	0.0051		
4.602	4	14	3.553	0.0059		
4.607	4	17	4.293	0.0072		
4.612	7	19	2.896	0.0081		
4.618	4	22	4.933	0.0093		
4.622	6	24	3.877	0.0102		
4.631	15	31	2.105	0.0132		
4.664	21613	25988	1.202	11.0994	20 Methoxychlor	
4.719	141	144	1.023	0.0614		
4.739	7	23	3.407	0.0098		
4.744	4	21	5.949	0.0089		
4.755	21	51	2.423	0.0217		
4.758	27	54	1.971	0.0230		
4.852	9582	11637	1.214	4.9644	21 Endrin ketone	
4.887	3	23	7.325	0.0098		
4.893	15	25	1.701	0.0106		
4.907	2	10	4.348	0.0042		
4.910	2	7	2.929	0.0029		
4.999	15	25	1.696	0.0106		
5.002	4	25	5.981	0.0106		
5.015	105	119	1.129	0.0507		
5.181	3	11	3.254	0.0046		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.188	2	8	3.653	0.0034		
5.193	2	8	3.320	0.0034		
5.235	20	28	1.434	0.0119		
5.242	4	17	4.582	0.0072		
5.336	30	39	1.282	0.0166		
5.439	257	264	1.026	0.1126		
5.521	3	6	2.362	0.0025		
5.569	3	9	2.727	0.0038		
5.647	8645	8285	0.958	3.5344	$ 24 Decachlorobiphenyl (S)	
5.704	3	9	3.571	0.0038		
5.920	3	9	3.346	0.0038		
5.926	2	10	4.082	0.0042		
5.933	3	8	2.632	0.0034		
5.937	2	12	4.959	0.0051		
5.944	2	9	4.306	0.0038		
6.111	2	12	5.286	0.0051		
6.244	4	17	4.156	0.0072		
6.249	3	15	5.474	0.0063		
6.254	2	11	4.661	0.0046		
6.258	2	10	4.878	0.0042		
6.287	3	11	4.400	0.0046		
6.296	2	12	5.825	0.0051		
6.306	6	19	3.231	0.0081		
6.308	6	22	3.624	0.0093		
6.315	3	20	5.764	0.0085		
6.318	3	19	5.523	0.0081		
6.321	4	22	5.459	0.0093		
6.325	6	19	2.973	0.0081		
6.333	4	20	5.587	0.0085		
6.335	4	18	5.056	0.0076		
6.339	3	21	7.836	0.0089		
6.342	3	20	7.874	0.0085		
6.345	3	17	6.719	0.0072		
6.348	3	15	5.535	0.0063		
6.352	4	18	5.128	0.0076		
6.356	4	18	4.455	0.0076		
6.364	5	15	3.240	0.0063		
6.368	5	16	3.478	0.0068		
6.372	4	17	4.038	0.0072		
6.378	6	18	2.990	0.0076		
6.384	3	16	6.130	0.0068		
6.388	4	17	4.607	0.0072		
6.397	4	13	3.562	0.0055		
6.402	3	15	5.576	0.0063		
6.413	3	16	6.202	0.0068		
6.424	3	14	4.795	0.0059		
6.425	5	20	4.376	0.0085		
6.432	7	19	2.603	0.0081		
6.442	10	24	2.495	0.0102		
6.445	3	21	6.105	0.0089		
6.449	4	20	4.515	0.0085		
6.453	8	24	3.019	0.0102		
6.460	7	20	2.981	0.0085		
6.469	5	18	3.495	0.0076		
6.478	2	12	5.263	0.0051		
6.481	4	18	4.800	0.0076		
6.484	4	18	5.128	0.0076		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.488	5	20	3.738	0.0085		
6.495	6	27	4.830	0.0115		
6.499	6	25	4.216	0.0106		
6.506	7	27	3.824	0.0115		
6.508	6	29	4.949	0.0123		
6.512	7	27	3.678	0.0115		
6.517	3	25	7.987	0.0106		
6.521	8	24	2.878	0.0102		
6.525	2	22	10.784	0.0093		
6.529	6	26	4.221	0.0110		
6.533	7	27	4.091	0.0115		
6.537	5	28	5.578	0.0119		
6.540	4	30	7.042	0.0127		
6.544	6	27	4.712	0.0115		
6.548	6	28	4.746	0.0119		
6.552	6	27	4.813	0.0115		
6.560	18	29	1.587	0.0123		
6.567	3	26	7.927	0.0110		
6.569	3	26	7.927	0.0110		
6.573	8	27	3.567	0.0115		
6.579	11	24	2.096	0.0102		
6.587	4	23	5.450	0.0098		
6.590	6	24	3.865	0.0102		
6.595	3	19	5.539	0.0081		
6.601	6	22	3.880	0.0093		
6.607	4	21	5.526	0.0089		
6.613	6	22	3.543	0.0093		
6.616	6	21	3.276	0.0089		
6.622	3	19	5.444	0.0081		
6.628	9	18	2.076	0.0076		
6.635	8	19	2.442	0.0081		
6.646	4	18	4.592	0.0076		
6.650	3	19	6.129	0.0081		
6.654	8	20	2.581	0.0085		
6.662	8	24	3.154	0.0102		
6.667	7	26	3.481	0.0110		
6.674	4	23	5.665	0.0098		
6.676	5	25	4.902	0.0106		
6.681	7	22	3.043	0.0093		
6.686	5	21	4.339	0.0089		
6.691	3	20	7.905	0.0085		
6.693	4	21	5.722	0.0089		
6.697	4	19	4.348	0.0081		
6.705	7	25	3.415	0.0106		
6.709	5	26	4.824	0.0110		
6.712	4	26	6.103	0.0110		
6.715	6	28	4.778	0.0119		
6.720	7	25	3.687	0.0106		
6.725	6	26	4.088	0.0110		
6.729	6	27	4.455	0.0115		
6.731	12	33	2.714	0.0140		
6.739	11	29	2.592	0.0123		
6.751	11	32	2.824	0.0136		
6.753	4	32	8.421	0.0136		
6.757	11	34	3.172	0.0145		
6.763	11	30	2.698	0.0127		
6.768	4	31	7.990	0.0132		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.771	6	31	4.791	0.0132		
6.775	5	28	6.222	0.0119		
6.779	10	28	2.713	0.0119		
6.784	3	26	7.808	0.0110		
6.787	6	26	4.031	0.0110		
6.792	4	23	5.637	0.0098		
6.795	6	28	4.651	0.0119		
6.799	4	30	6.993	0.0127		
6.803	5	29	6.131	0.0123		
6.807	6	26	4.075	0.0110		
6.811	8	30	3.953	0.0127		
6.817	5	25	4.690	0.0106		
6.821	5	24	4.938	0.0102		
6.825	6	22	3.793	0.0093		
6.830	8	23	2.999	0.0098		
6.834	3	21	6.422	0.0089		
6.838	6	22	3.612	0.0093		
6.844	3	19	6.209	0.0081		
6.847	5	21	4.000	0.0089		
6.851	3	23	7.616	0.0098		
6.854	4	22	5.327	0.0093		
6.858	4	20	4.577	0.0085		
6.861	5	20	4.310	0.0085		
6.870	7	16	2.319	0.0068		
6.875	3	18	5.607	0.0076		
6.880	5	18	3.636	0.0076		
6.885	7	17	2.345	0.0072		
6.891	3	16	5.351	0.0068		
6.896	4	16	4.396	0.0068		
6.899	4	17	4.381	0.0072		
6.906	3	16	5.263	0.0068		
6.909	4	19	4.634	0.0081		
6.916	4	13	3.562	0.0055		
6.924	2	12	5.128	0.0051		
6.928	2	12	5.405	0.0051		
6.932	3	13	4.887	0.0055		
6.938	2	13	5.909	0.0055		
6.941	5	13	2.720	0.0055		
6.950	2	13	5.752	0.0055		
6.971	3	11	4.348	0.0046		
	185808	234408		100.000		

Total unknown % height = 9.89

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 16-MAY-2019 14:29
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal6, 87955:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.887	-0.001	8616	0.20000	0.194			
2 alpha-BHC						CAS #: 319-84-6		
2.240	2.240	0.000	6160	0.10000	0.104			(A)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	5652	0.10000	0.101			(A)
4 beta-BHC						CAS #: 319-85-7		
2.618	2.619	-0.001	2564	0.10000	0.0954			
6 delta-BHC						CAS #: 76-44-8		
2.814	2.815	-0.001	5580	0.10000	0.103			(A)
5 Heptachlor						CAS #: 319-86-8		
2.713	2.713	0.000	5688	0.10000	0.0972			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	5302	0.10000	0.101			(A)
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	5010	0.10000	0.0971			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.437	3.437	0.000	5125	0.10000	0.0976			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	4884	0.10000	0.0964			
11 Endosulfan I						CAS #: 959-98-8		
3.547	3.547	0.000	4644	0.10000	0.0974			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.623	3.623	0.000	9841	0.20000	0.201			(A)
13 Dieldrin					CAS #: 60-57-1			
3.740	3.740	0.000	10273	0.20000	0.201			(A)
14 Endrin					CAS #: 72-20-8			
3.958	3.958	0.000	9202	0.20000	0.199			
15 4,4'-DDD					CAS #: 72-54-8			
4.017	4.017	0.000	8179	0.20000	0.208			(A)
16 Endosulfan II					CAS #: 33213-65-9			
4.138	4.138	0.000	8346	0.20000	0.196			
17 4,4'-DDT					CAS #: 50-29-3			
4.209	4.208	0.001	8791	0.20000	0.204			(A)
18 Endrin aldehyde					CAS #: 7421-36-3			
4.291	4.290	0.001	7341	0.20000	0.192			
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.429	4.429	0.000	9179	0.20000	0.196			
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.664	0.000	21613	1.00000	0.963			
21 Endrin ketone					CAS #: 53494-70-5			
4.852	4.851	0.001	9581	0.20000	0.198			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.646	5.645	0.001	8645	0.20000	0.183			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.104	E
58-89-9	gamma-BHC (Lindane)	0.101	E
319-85-7	beta-BHC	0.0954	
76-44-8	delta-BHC	0.103	E
319-86-8	Heptachlor	0.0972	
309-00-2	Aldrin	0.101	E
1024-57-3	Heptachlor epoxide	0.0971	
5103-74-2	gamma-Chlordane	0.0976	
5103-71-9	alpha-Chlordane	0.0964	
959-98-8	Endosulfan I	0.0974	
72-55-9	4,4'-DDE	0.201	E
60-57-1	Dieldrin	0.201	E
72-20-8	Endrin	0.199	
72-54-8	4,4'-DDD	0.208	E
33213-65-9	Endosulfan II	0.196	
50-29-3	4,4'-DDT	0.204	E
7421-36-3	Endrin aldehyde	0.192	
1031-07-8	Endosulfan sulfate	0.196	
72-43-5	Methoxychlor	0.963	
53494-70-5	Endrin ketone	0.198	
	Tetrachloro-m-xylene (S)	0.194	
	Decachlorobiphenyl (S)	0.183	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-015.d

Date : 16-MAY-2019 14:29

Client ID: CAL6

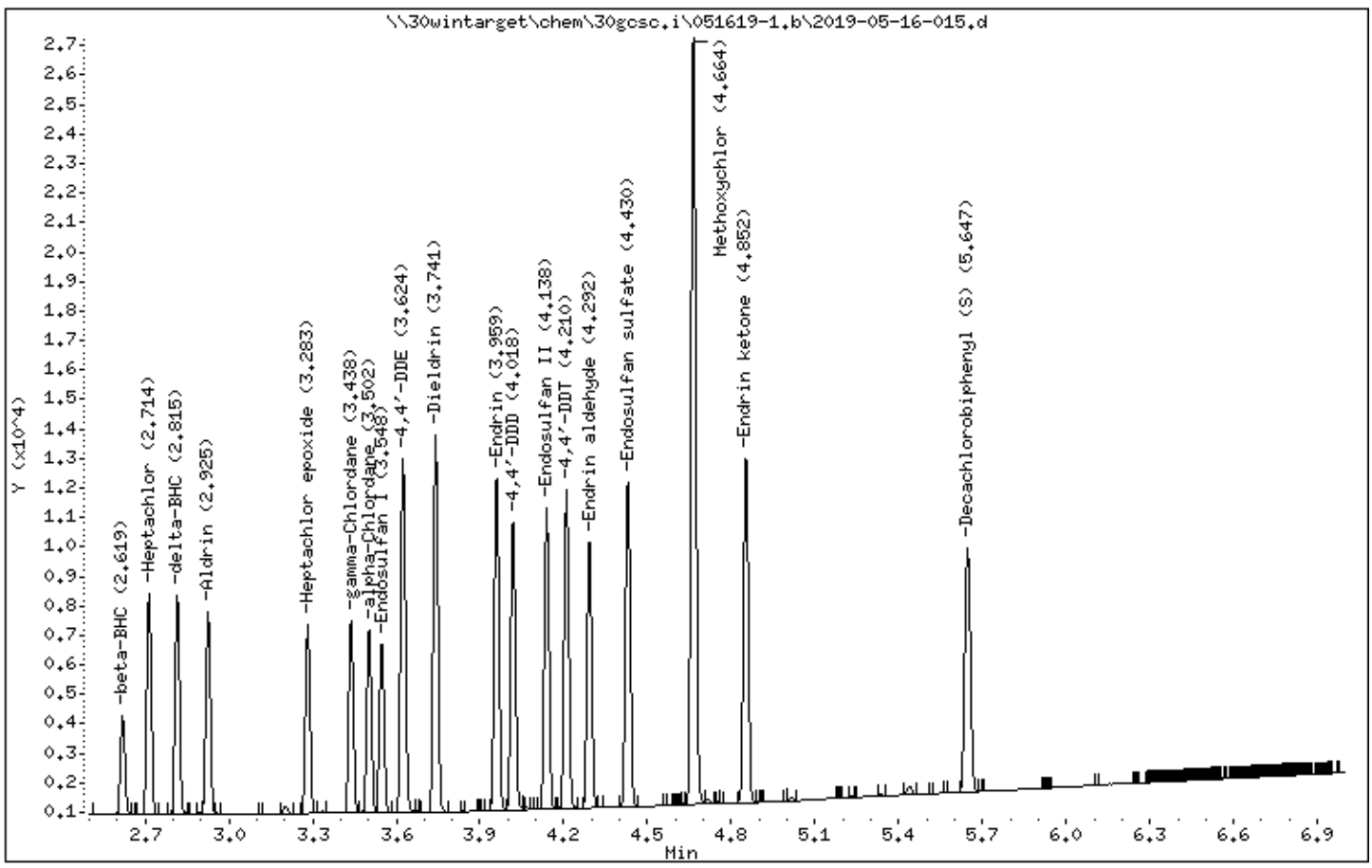
Instrument: 30gcsc.i

Sample Info: CAL6, 87955:1

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:29 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	6160	6160
beta-BHC	2564	2564
delta-BHC	5580	5580
gamma-BHC (Lindane)	5652	5652
Heptachlor	5688	5688
Aldrin	5302	5302
Heptachlor epoxide	5010	5010
Endosulfan I	4644	4644
Dieldrin	10273	10273
4,4'-DDE	9841	9841
Endrin	9202	9202
Endosulfan II	8346	8346
4,4'-DDD	8179	8179
Endosulfan sulfate	9179	9179
4,4'-DDT	8791	8791
Methoxychlor	21613	21613
Endrin ketone	9581	9581
Endrin aldehyde	7341	7341
alpha-Chlordane	4884	4884
gamma-Chlordane	5125	5125
Tetrachloro-m-xylene (S)	8616	8616
Decachlorobiphenyl (S)	8645	8645

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 16-MAY-2019 14:29
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal6, 87955:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.113	1	2	2.000	0.0025			
0.178	2	2	1.183	0.0025			
0.265	1	1	0.926	0.0012			
0.337	2	1	0.526	0.0012			
0.880	4187	9612	2.295	12.4421			
0.954	13	18	1.377	0.0232			
0.982	177	226	1.277	0.2924			
1.011	129	181	1.399	0.2342			
1.058	15	19	1.262	0.0245			
1.176	2	3	1.724	0.0038			
1.286	3	6	1.729	0.0077			
1.320	1	3	2.778	0.0038			
1.342	2	3	1.657	0.0038			
1.365	1	2	1.739	0.0025			
1.433	1	3	2.632	0.0038			
1.464	2	3	1.245	0.0038			
1.491	4	4	1.055	0.0051			
1.566	6	5	0.832	0.0064			
1.688	3	6	2.091	0.0077			
1.713	16	24	1.527	0.0310			
1.798	2	5	2.146	0.0064			
1.917	2	4	1.626	0.0051			
2.132	2	5	2.515	0.0064			
2.363	3198	4225	1.321	5.4669	$	1 Tetrachloro-m-xylene (S)	
2.573	40	52	1.303	0.0672			
2.627	2190	2908	1.328	3.7627		2 alpha-BHC	
2.720	3	6	2.247	0.0077			
2.843	2002	2596	1.296	3.3590		3 gamma-BHC (Lindane)	
2.903	1	2	1.869	0.0025			
2.927	2	3	1.754	0.0038			
3.004	939	1200	1.278	1.5527		4 beta-BHC	
3.095	3	6	1.754	0.0077			
3.141	1	3	2.239	0.0038			
3.190	2043	2645	1.295	3.4224		5 delta-BHC	
3.227	30	34	1.139	0.0439			
3.253	1882	2267	1.204	2.9333		6 Heptachlor	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.401	2	4	1.786	0.0051			
3.481	1810	2209	1.220	2.8583		7 Aldrin	
3.677	1	3	2.479	0.0038			
3.713	66	80	1.207	0.1035			
3.743	1	4	2.703	0.0051			
3.774	1715	2046	1.193	2.6474		8 Heptachlor epoxide	
3.810	18	23	1.313	0.0297			
3.847	1	3	2.941	0.0038			
3.916	2	2	1.149	0.0025			
3.987	1725	2085	1.209	2.6978		9 gamma-Chlordane	
4.023	1668	1970	1.181	2.5490		10 alpha-Chlordane	
4.057	1581	1885	1.192	2.4390		11 Endosulfan I	
4.102	3301	4056	1.229	5.2482		12 4,4'-DDE	
4.173	34	43	1.259	0.0556			
4.194	2	3	1.818	0.0038			
4.231	3448	4120	1.195	5.3310		13 Dieldrin	
4.393	2846	3340	1.173	4.3217		14 Endrin	
4.421	6	14	2.191	0.0181			
4.455	2753	3346	1.215	4.3295		15 4,4'-DDD	
4.565	2817	3343	1.187	4.3256		16 Endosulfan II	
4.599	4	7	1.818	0.0090			
4.639	2533	2931	1.157	3.7925		17 Endrin aldehyde	
4.666	2401	2904	1.209	3.7576		18 4,4'-DDT	
4.799	1	3	2.079	0.0038			
4.829	3041	3620	1.190	4.6840		19 Endosulfan sulfate	
4.871	22	24	1.093	0.0310			
4.886	20	29	1.447	0.0375			
4.888	9	30	3.261	0.0388			
4.949	6504	7469	1.148	9.6644		20 Methoxychlor	
5.009	27	34	1.259	0.0439			
5.129	3190	3562	1.117	4.6090		21 Endrin ketone	
5.188	1	3	2.381	0.0038			
5.555	25	26	1.053	0.0336			
5.779	4	6	1.348	0.0077			
6.086	84	70	0.829	0.0905			
6.305	1	3	2.804	0.0038			
6.341	2605	1898	0.729	2.4559	$	24 Decachlorobiphenyl (S)	
	61182	77283		100.000			

Total unknown % height = 13.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 16-MAY-2019 14:29
Operator : CWB Inst ID: 30gcsc.i
Smp Info : cal6, 87955:1
Misc Info : 15520,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.362	2.362	0.000	3198	0.20000	0.191			
2 alpha-BHC						CAS #: 319-84-6		
2.626	2.626	0.000	2189	0.10000	0.103			(A)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.843	2.843	0.000	2002	0.10000	0.100			(A)
4 beta-BHC						CAS #: 319-85-7		
3.003	3.004	-0.001	938	0.10000	0.0922			
5 delta-BHC						CAS #: 319-86-8		
3.190	3.191	-0.001	2042	0.10000	0.102			(A)
6 Heptachlor						CAS #: 76-44-8		
3.253	3.253	0.000	1882	0.10000	0.0958			
7 Aldrin						CAS #: 309-00-2		
3.481	3.481	0.000	1810	0.10000	0.0989			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.774	3.774	0.000	1714	0.10000	0.0948			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.987	3.987	0.000	1725	0.10000	0.0950			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.023	4.023	0.000	1668	0.10000	0.0938			
11 Endosulfan I						CAS #: 959-98-8		
4.056	4.056	0.000	1581	0.10000	0.0953			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.101	4.102	-0.001	3301	0.20000	0.200			
13 Dieldrin					CAS #: 60-57-1			
4.230	4.230	0.000	3448	0.20000	0.196			
14 Endrin					CAS #: 72-20-8			
4.392	4.392	0.000	2846	0.20000	0.194			
15 4,4'-DDD					CAS #: 72-54-8			
4.454	4.455	-0.001	2752	0.20000	0.200			(A)
16 Endosulfan II					CAS #: 33213-65-9			
4.565	4.566	-0.001	2816	0.20000	0.190			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.638	4.639	-0.001	2532	0.20000	0.186			
18 4,4'-DDT					CAS #: 50-29-3			
4.665	4.665	0.000	2401	0.20000	0.212			(A)
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.829	4.829	0.000	3040	0.20000	0.188			
20 Methoxychlor					CAS #: 72-43-5			
4.949	4.949	0.000	6504	1.00000	0.962			
21 Endrin ketone					CAS #: 53494-70-5			
5.128	5.129	-0.001	3190	0.20000	0.192			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.340	6.341	-0.001	2605	0.20000	0.171			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,INDA

Client SDG: 30GCSC-051619-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

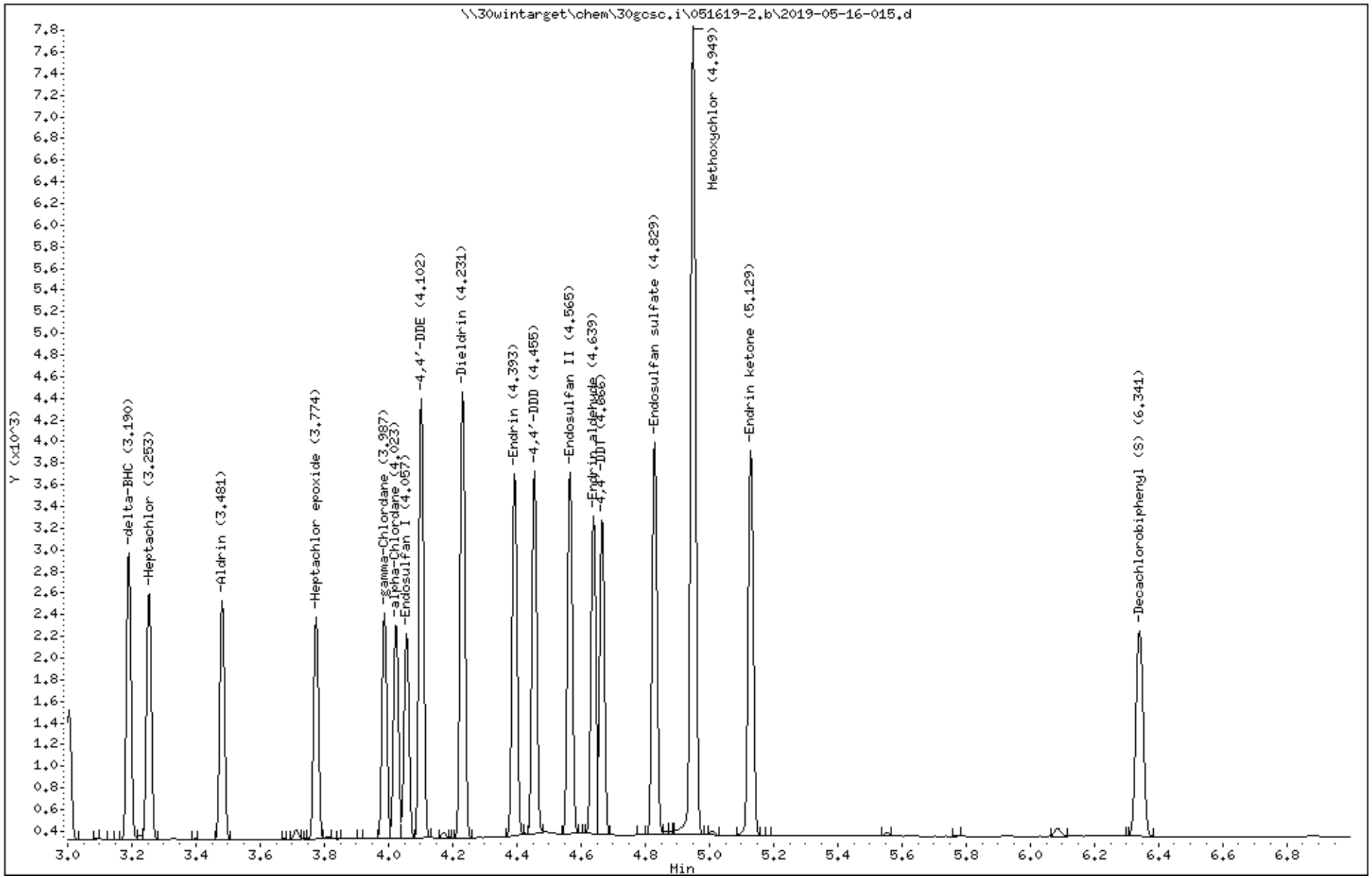
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.103	E
58-89-9	gamma-BHC (Lindane)	0.100	E
319-85-7	beta-BHC	0.0922	
319-86-8	delta-BHC	0.102	E
76-44-8	Heptachlor	0.0958	
309-00-2	Aldrin	0.0989	
1024-57-3	Heptachlor epoxide	0.0948	
5103-74-2	gamma-Chlordane	0.0950	
5103-71-9	alpha-Chlordane	0.0938	
959-98-8	Endosulfan I	0.0953	
72-55-9	4,4'-DDE	0.200	
60-57-1	Dieldrin	0.196	
72-20-8	Endrin	0.194	
72-54-8	4,4'-DDD	0.200	E
33213-65-9	Endosulfan II	0.190	
7421-36-3	Endrin aldehyde	0.186	
50-29-3	4,4'-DDT	0.212	E
1031-07-8	Endosulfan sulfate	0.188	
72-43-5	Methoxychlor	0.962	
53494-70-5	Endrin ketone	0.192	
----------	Tetrachloro-m-xylene (S)	0.191	
----------	Decachlorobiphenyl (S)	0.171	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-015.d
Date : 16-MAY-2019 14:29
Client ID: CAL6
Sample Info: CAL6, 87955:1

Instrument: 30gcsc.i

Operator: CWB

Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 16-MAY-2019 14:29 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	2189	2189
beta-BHC	938	938
delta-BHC	2042	2042
gamma-BHC (Lindane)	2002	2002
Heptachlor	1882	1882
Aldrin	1810	1810
Heptachlor epoxide	1714	1714
Endosulfan I	1581	1581
Dieldrin	3448	3448
4,4'-DDE	3301	3301
Endrin	2846	2846
Endosulfan II	2816	2816
4,4'-DDD	2752	2752
Endosulfan sulfate	3040	3040
4,4'-DDT	2401	2401
Methoxychlor	6504	6504
Endrin ketone	3190	3190
Endrin aldehyde	2532	2532
alpha-Chlordane	1668	1668
gamma-Chlordane	1725	1725
Tetrachloro-m-xylene (S)	3198	3198
Decachlorobiphenyl (S)	2605	2605

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

10937452PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 05/16/2019 Time: 13:11
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 051619-1.B\2019-05-16-007.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT % 1.18
Endrin %Breakdown: 0.67

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

10937439PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 05/16/2019 Time: 13:11
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 051619-2.B\2019-05-16-007.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT %	0.53	Endrin %Breakdown:	2.56

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11101616PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/17/2019 Time: 19:08
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 061719-1.B\2019-06-17-007.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT %	0.40	Endrin %Breakdown:	0.40

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11101620PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/17/2019 Time: 19:08
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 061719-2.B\2019-06-17-007.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT %	0.21	Endrin %Breakdown:	0.93

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11101618PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/17/2019 Time: 21:14
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 061719-1.B\2019-06-17-020.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT %	0.79	Endrin %Breakdown:	0.20

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11101624PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/17/2019 Time: 21:14
Contract: Former EPT Site-Soil IRM
SDG: 30298231
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 05/16/2019 05/16/2019
Lab File ID: 061719-2.B\2019-06-17-020.D
Init. Calib. Time(s): 13:21 14:29

4,4'-DDT %	0.37	Endrin %Breakdown:	0.37

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

10937449ICV

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/16/2019 Time: 14:39

Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 051619-1.B\2019-05-16-016.D
Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.475	2.445	2.505	56108.8095	53500.0000	-4.6496
Endrin		Averaged	3.959	3.928	3.988	46141.4285	43525.0000	-5.6705
Heptachlor		Averaged	2.714	2.683	2.743	58538.3333	56350.0000	-3.7383
Heptachlor epoxide		Averaged	3.282	3.252	3.312	51592.1428	49400.0000	-4.2490
Methoxychlor		Averaged	4.665	4.634	4.694	22444.6666	21645.0000	-3.5628
Decachlorobiphenyl		Averaged	5.646	5.615	5.675	47212.5000	46875.0000	-0.7149
Tetrachloro-m-xylene		Averaged	1.887	1.857	1.917	44424.0476	42850.0000	-3.5432

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

10937441ICV

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/16/2019 Time: 14:39

Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 051619-2.B\2019-05-16-016.D
Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.843	2.813	2.873	19996.1904	19100.0000	-4.4818
Endrin		Averaged	4.392	4.362	4.422	14631.3095	14350.0000	-6.8778
Heptachlor		Averaged	3.253	3.223	3.283	19641.9047	19000.0000	-3.5226
Heptachlor epoxide		Averaged	3.774	3.744	3.804	18080.9523	17350.0000	-5.4253
Methoxychlor		Averaged	4.949	4.919	4.979	6764.19048	6555.00000	-5.5319
Decachlorobiphenyl		Averaged	6.34	6.311	6.371	15196.0714	15175.0000	-1.1258
Tetrachloro-m-xylene		Averaged	2.362	2.332	2.392	16766.0714	16225.0000	-4.5692

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11101635CCV

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/17/2019 Time: 19:37

Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 061719-1.B\2019-06-17-010.D
Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.474	2.444	2.504	56108.8095	63900.0000	13.8859
Endrin		Averaged	3.957	3.927	3.987	46141.4285	51600.0000	11.8301
Heptachlor		Averaged	2.712	2.682	2.742	58538.3333	66950.0000	14.3695
Heptachlor epoxide		Averaged	3.281	3.251	3.311	51592.1428	57450.0000	11.3542
Methoxychlor		Averaged	4.663	4.633	4.693	22444.6666	23990.0000	6.8851
Decachlorobiphenyl		Averaged	5.643	5.613	5.673	47212.5000	49225.0000	4.2626
Tetrachloro-m-xylene		Averaged	1.885	1.855	1.915	44424.0476	50925.0000	14.6339

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11101626CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 19:37

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 061719-2.B\2019-06-17-010.D Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.84	2.81	2.87	19996.1904	22750.0000	13.7717
Endrin		Averaged	4.389	4.359	4.419	14631.3095	16350.0000	11.7467
Heptachlor		Averaged	3.25	3.22	3.28	19641.9047	21650.0000	10.2235
Heptachlor epoxide		Averaged	3.771	3.741	3.801	18080.9523	20100.0000	11.1667
Methoxychlor		Averaged	4.946	4.916	4.976	6764.19048	7000.00000	3.4861
Decachlorobiphenyl		Averaged	6.335	6.305	6.365	15196.0714	16050.0000	5.6194
Tetrachloro-m-xylene		Averaged	2.359	2.329	2.389	16766.0714	18950.0000	13.0259

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11101617CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 21:24

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 061719-1.B\2019-06-17-021.D Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.474	2.444	2.504	56108.8095	64600.0000	15.1334
Endrin		Averaged	3.956	3.927	3.987	46141.4285	51950.0000	12.5886
Heptachlor		Averaged	2.712	2.682	2.742	58538.3333	66650.0000	13.8570
Heptachlor epoxide		Averaged	3.28	3.251	3.311	51592.1428	58250.0000	12.9048
Methoxychlor		Averaged	4.662	4.633	4.693	22444.6666	25200.0000	12.2761
Decachlorobiphenyl		Averaged	5.642	5.613	5.673	47212.5000	51475.0000	9.0283
Tetrachloro-m-xylene		Averaged	1.885	1.855	1.915	44424.0476	51650.0000	16.2659

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11101615CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 21:24

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 05/16/2019 05/16/2019

Lab File ID: 061719-2.B\2019-06-17-021.D Init. Calib. Time(s): 13:21 14:29

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.84	2.81	2.87	19996.1904	23100.0000	15.5220
Endrin		Averaged	4.389	4.359	4.419	14631.3095	16625.0000	13.6262
Heptachlor		Averaged	3.249	3.22	3.28	19641.9047	21750.0000	10.7326
Heptachlor epoxide		Averaged	3.77	3.741	3.801	18080.9523	20250.0000	11.9963
Methoxychlor		Averaged	4.945	4.916	4.976	6764.19048	7260.00000	7.3299
Decachlorobiphenyl		Averaged	6.333	6.305	6.365	15196.0714	16925.0000	11.3775
Tetrachloro-m-xylene		Averaged	2.359	2.329	2.389	16766.0714	19100.0000	13.9205

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 16-MAY-2019 13:11
Operator : CWB Inst ID: 30gcsc.i
Smp Info : pem, 86125:10
Misc Info : 15520,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.889	26	86	3.312	0.3366		
0.896	45	92	2.060	0.3601		
0.913	24	33	1.404	0.1291		
0.923	8	32	3.951	0.1252		
0.943	706	867	1.227	3.3936		
0.963	659	768	1.165	3.0061		
0.994	7	13	1.895	0.0508		
0.999	4	12	3.125	0.0469		
1.035	3	9	2.679	0.0352		
1.041	8	21	2.675	0.0821		
1.049	22	37	1.708	0.1448		
1.080	34	30	0.871	0.1174		
1.089	4	19	4.680	0.0743		
1.093	4	13	3.218	0.0508		
1.180	6	9	1.447	0.0352		
1.209	6	3	0.538	0.0117		
1.339	10	15	1.441	0.0587		
1.361	3	9	2.913	0.0352		
1.364	2	8	3.265	0.0313		
1.397	26	30	1.165	0.1174		
1.404	11	24	2.162	0.0939		
1.407	4	20	4.535	0.0782		
1.412	4	14	3.989	0.0547		
1.451	3	11	3.667	0.0430		
1.456	6	11	1.937	0.0430		
1.466	5	11	2.111	0.0430		
1.479	4	14	3.398	0.0547		
1.485	11	19	1.806	0.0743		
1.537	2	5	2.086	0.0195		
1.547	2	6	2.899	0.0234		
1.555	2	6	2.913	0.0234		
1.700	2	6	2.899	0.0234		
1.887	907	1309	1.443	5.1236	$ 1 Tetrachloro-m-xylene (S)	
2.097	3	13	4.050	0.0508		
2.102	10	18	1.751	0.0704		
2.185	2	8	3.390	0.0313		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.211	13	23	1.830	0.0900		
2.215	4	23	5.263	0.0900		
2.218	4	23	5.287	0.0900		
2.223	8	25	3.109	0.0978		
2.241	674	937	1.390	3.6676	2 alpha-BHC	
2.264	3	9	3.191	0.0352		
2.476	627	863	1.376	3.3779	3 gamma-BHC (Lindane)	
2.562	2	5	2.451	0.0195		
2.565	2	6	2.553	0.0234		
2.620	338	388	1.149	1.5187	4 beta-BHC	
2.724	2	6	2.727	0.0234		
2.815	5	9	1.748	0.0352		
3.159	5	16	2.920	0.0626		
3.162	2	16	6.557	0.0626		
3.165	3	19	6.376	0.0743		
3.170	8	16	1.954	0.0626		
3.176	4	13	3.325	0.0508		
3.206	2	7	3.286	0.0273		
3.492	3	7	2.642	0.0273		
3.561	4	10	2.545	0.0391		
3.625	22	26	1.157	0.1017	12 4,4'-DDE	
3.767	3	12	3.736	0.0469		
3.772	4	13	3.316	0.0508		
3.777	3	9	3.010	0.0352		
3.959	2682	3322	1.238	13.0029	14 Endrin	
4.020	38	40	1.049	0.1565	15 4,4'-DDD	
4.061	6	6	0.990	0.0234		
4.102	372	455	1.224	1.7809		
4.210	5005	6124	1.224	23.9705	17 4,4'-DDT	
4.274	7	12	1.773	0.0469	18 Endrin aldehyde	
4.332	10	13	1.257	0.0508		
4.542	2	6	2.970	0.0234		
4.553	6	13	2.330	0.0508		
4.559	5	14	3.084	0.0547		
4.564	3	11	4.382	0.0430		
4.597	18	25	1.409	0.0978		
4.604	9	24	2.781	0.0939		
4.609	6	26	4.422	0.1017		
4.612	4	25	5.967	0.0978		
4.614	5	25	4.836	0.0978		
4.618	4	24	5.701	0.0939		
4.623	8	27	3.439	0.1056		
4.626	6	28	5.009	0.1095		
4.630	4	28	7.671	0.1095		
4.640	16	31	1.941	0.1213		
4.665	6354	7313	1.151	28.6329	20 Methoxychlor	
4.707	9	32	3.657	0.1252		
4.720	53	54	1.022	0.2113		
4.734	5	17	3.220	0.0665		
4.743	3	12	3.438	0.0469		
4.749	4	11	2.902	0.0430		
4.758	3	10	3.195	0.0391		
4.761	2	9	4.225	0.0352		
4.809	3	6	2.353	0.0234		
4.818	3	7	2.365	0.0273		
4.851	13	33	2.548	0.1291	21 Endrin ketone	
4.854	15	34	2.271	0.1330		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.997	3	11	3.887	0.0430		
5.002	6	14	2.435	0.0547		
5.010	3	11	3.481	0.0430		
5.043	3	4	1.569	0.0156		
5.053	2	8	3.571	0.0313		
5.058	3	10	3.546	0.0391		
5.099	2	7	3.167	0.0273		
5.104	3	9	3.502	0.0352		
5.120	2	9	3.750	0.0352		
5.127	4	10	2.801	0.0391		
5.138	2	9	3.896	0.0352		
5.218	3	10	3.922	0.0391		
5.233	3	10	3.236	0.0391		
5.265	2	7	3.256	0.0273		
5.374	3	10	3.676	0.0391		
5.407	2	7	2.966	0.0273		
5.579	3	10	3.676	0.0391		
5.647	1107	1057	0.955	4.1373	$ 24 Decachlorobiphenyl (S)	
5.996	3	9	3.600	0.0352		
6.044	3	12	3.922	0.0469		
6.059	2	10	4.785	0.0391		
6.108	2	7	3.500	0.0273		
6.244	3	11	4.314	0.0430		
6.303	3	12	4.724	0.0469		
6.314	6	17	2.998	0.0665		
6.317	2	17	8.333	0.0665		
6.319	4	16	4.372	0.0626		
6.331	2	14	5.809	0.0547		
6.336	2	10	4.310	0.0391		
6.345	3	11	3.667	0.0430		
6.350	3	16	4.692	0.0626		
6.356	6	17	2.733	0.0665		
6.364	8	18	2.400	0.0704		
6.373	5	15	3.049	0.0587		
6.381	4	14	3.966	0.0547		
6.388	2	13	5.936	0.0508		
6.393	3	15	5.357	0.0587		
6.406	3	11	3.170	0.0430		
6.420	2	11	4.803	0.0430		
6.430	2	11	4.641	0.0430		
6.448	2	11	5.314	0.0430		
6.461	3	12	4.762	0.0469		
6.470	5	11	2.218	0.0430		
6.509	5	10	2.008	0.0391		
6.564	2	7	3.483	0.0273		
6.604	2	11	4.619	0.0430		
6.662	3	9	3.285	0.0352		
6.701	2	7	2.991	0.0273		
6.843	2	12	5.455	0.0469		
6.853	2	7	3.415	0.0273		
6.865	2	10	4.167	0.0391		
6.936	2	12	5.769	0.0469		
6.954	3	11	4.104	0.0430		
6.962	2	9	4.348	0.0352		
6.970	3	10	3.745	0.0391		
	20282	25548		100.000		

Total unknown % height = 16.1

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Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 16-MAY-2019 13:11
Operator : CWB Inst ID: 30gcsc.i
Smp Info : pem, 86125:10
Misc Info : 15520,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.887	1.887	0.000	907	0.02042	0.0204			(R)
2 alpha-BHC					CAS #: 319-84-6			
2.240	2.240	0.000	673	0.01132	0.0113			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.476	2.475	0.001	627	0.01117	0.0112			
4 beta-BHC					CAS #: 319-85-7			
2.619	2.619	0.000	337	0.01254	0.0125			(R)
12 4,4'-DDE					CAS #: 72-55-9			
3.625	3.623	0.002	22	0.00045	0.000450			
14 Endrin					CAS #: 72-20-8			
3.959	3.958	0.001	2682	0.05813	0.0581			
15 4,4'-DDD					CAS #: 72-54-8			
4.019	4.017	0.002	38	1e-003	0.000965			
17 4,4'-DDT					CAS #: 50-29-3			
4.209	4.208	0.001	5004	0.11643	0.116			
18 Endrin aldehyde					CAS #: 7421-36-3			
4.274	4.290	-0.016	6	2e-004	0.000157			
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.664	0.000	6353	0.28305	0.283			
21 Endrin ketone					CAS #: 53494-70-5			
4.851	4.851	0.000	12	2e-004	0.000248			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.647	5.645	0.002	1107	0.02345	0.0234			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,PEM

Client SDG: 30GCSC-051619-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0113	
58-89-9	gamma-BHC (Lindane)	0.0112	
319-85-7	beta-BHC	0.0125	
72-55-9	4,4'-DDE	0.000450	
72-20-8	Endrin	0.0581	
72-54-8	4,4'-DDD	0.000965	
50-29-3	4,4'-DDT	0.116	
7421-36-3	Endrin aldehyde	0.000157	
72-43-5	Methoxychlor	0.283	
53494-70-5	Endrin ketone	0.000248	
----------	Tetrachloro-m-xylene (S)	0.0204	
----------	Decachlorobiphenyl (S)	0.0234	

Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-007.d

Date : 16-MAY-2019 13:11

Client ID: PEM

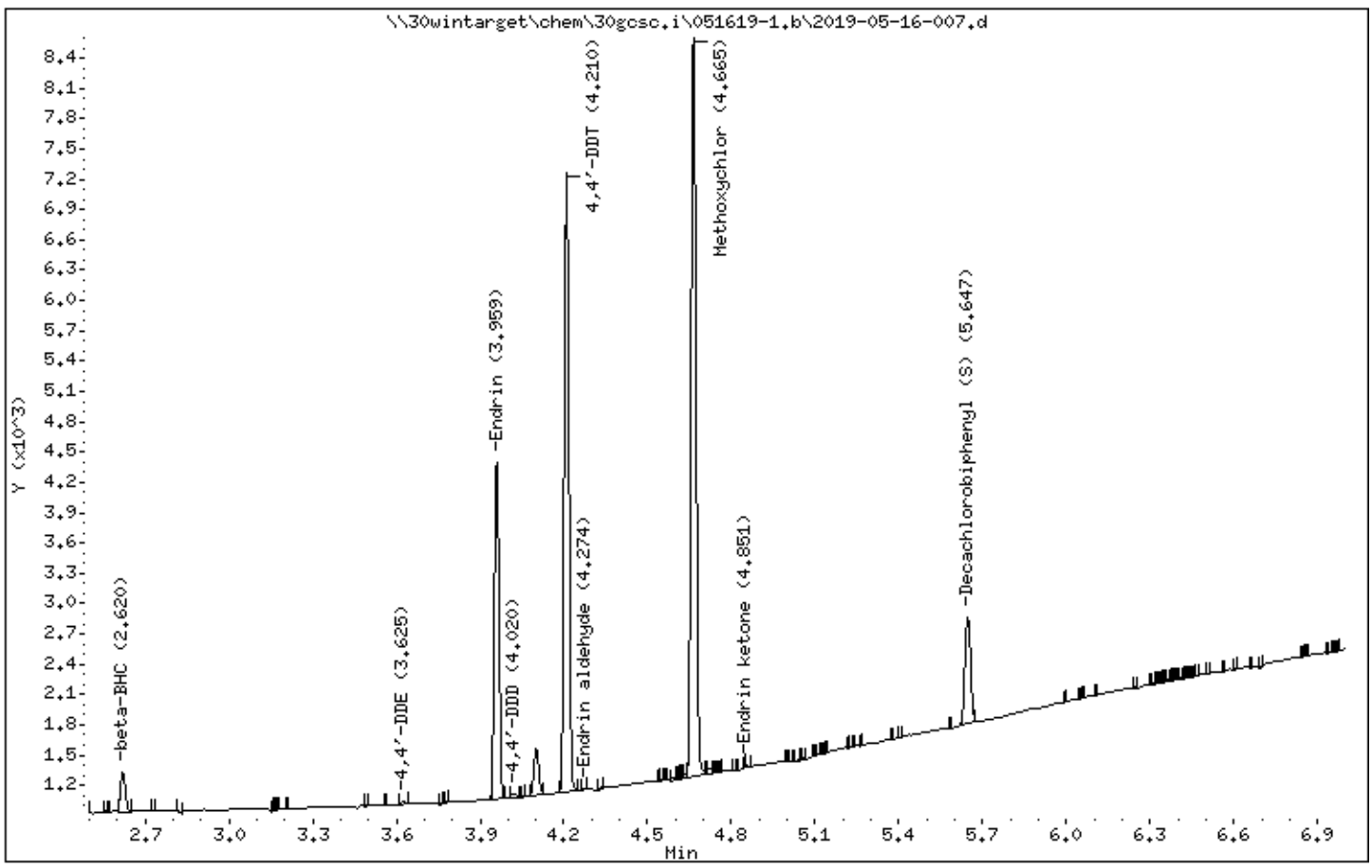
Instrument: 30gcsc.i

Sample Info: PEM, 86125:10

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 16-MAY-2019 13:11 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	38	38
Methoxychlor	6353	6353
gamma-BHC (Lindane)	627	627
beta-BHC	337	337
4,4'-DDE	22	22
Endrin	2682	2682
Endrin aldehyde	6	6
4,4'-DDT	5004	5004
Endrin ketone	12	12
alpha-BHC	673	673
Tetrachloro-m-xylene (S)	907	907
Decachlorobiphenyl (S)	1107	1107

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 16-MAY-2019 13:11
Operator : CWB Inst ID: 30gcsc.i
Smp Info : pem, 86125:10
Misc Info : 15520,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.177	1	2	1.527	0.0278			
0.847	1	3	2.459	0.0418			
0.859	2	6	2.469	0.0836			
0.880	67	150	2.255	2.0911			
0.950	5	9	1.639	0.1254			
0.982	219	245	1.117	3.4155			
1.011	194	223	1.147	3.1088			
1.346	1	2	1.515	0.0278			
1.393	2	3	1.205	0.0418			
1.433	3	4	1.177	0.0557			
1.445	1	3	2.190	0.0418			
1.505	2	4	1.732	0.0557			
1.916	2	5	2.083	0.0697			
2.362	363	480	1.323	6.6917	$	1 Tetrachloro-m-xylene (S)	
2.573	1	3	2.380	0.0418			
2.627	232	316	1.362	4.4054		2 alpha-BHC	
2.844	223	291	1.307	4.0568		3 gamma-BHC (Lindane)	
3.004	112	143	1.280	1.9935		4 beta-BHC	
3.093	2	5	2.604	0.0697			
3.331	1	2	1.550	0.0278			
3.364	1	2	1.835	0.0278			
3.776	1	1	0.962	0.0139			
4.103	4	6	1.635	0.0836		12 4,4'-DDE	
4.131	1	2	1.739	0.0278			
4.345	2	3	1.508	0.0418			
4.393	838	973	1.160	13.5647		14 Endrin	
4.457	4	7	1.713	0.0975		15 4,4'-DDD	
4.491	120	143	1.195	1.9935			
4.621	2	5	2.778	0.0697			
4.637	20	20	1.019	0.2788		17 Endrin aldehyde	
4.665	1324	1618	1.222	22.5568		18 4,4'-DDT	
4.737	1	2	1.923	0.0278			
4.801	1	2	1.869	0.0278			
4.874	4	5	1.160	0.0697			
4.887	2	3	1.622	0.0418			
4.918	2	9	4.206	0.1254			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.949	1820	2187	1.201	30.4914		20 Methoxychlor	
5.009	3	5	1.894	0.0697			
5.130	4	6	1.546	0.0836		21 Endrin ketone	
5.683	1	3	2.027	0.0418			
6.340	370	271	0.732	3.7780	$	24 Decachlorobiphenyl (S)	
6.520	1	1	0.862	0.0139			
	5964	7173		100.000			

Total unknown % height = 11.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 16-MAY-2019 13:11
Operator : CWB Inst ID: 30gcsc.i
Smp Info : pem, 86125:10
Misc Info : 15520,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.362	2.362	0.000	362	0.02159	0.0216			(R)
2 alpha-BHC					CAS #: 319-84-6			
2.626	2.626	0.000	231	0.01086	0.0108			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.843	2.843	0.000	222	0.01110	0.0111			
4 beta-BHC					CAS #: 319-85-7			
3.004	3.004	0.000	111	0.01091	0.0109			
12 4,4'-DDE					CAS #: 72-55-9			
4.103	4.102	0.001	3	2e-004	0.000182			
14 Endrin					CAS #: 72-20-8			
4.392	4.392	0.000	838	0.05727	0.0573			
15 4,4'-DDD					CAS #: 72-54-8			
4.457	4.455	0.002	4	3e-004	0.000291			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.637	4.639	-0.002	19	0.00140	0.00140			
18 4,4'-DDT					CAS #: 50-29-3			
4.664	4.665	-0.001	1324	0.11676	0.117			
20 Methoxychlor					CAS #: 72-43-5			
4.949	4.949	0.000	1820	0.26906	0.269			
21 Endrin ketone					CAS #: 53494-70-5			
5.130	5.129	0.001	3	0.00018	0.000180			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.339	6.341	-0.002	369	0.02428	0.0243			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15520,PEM

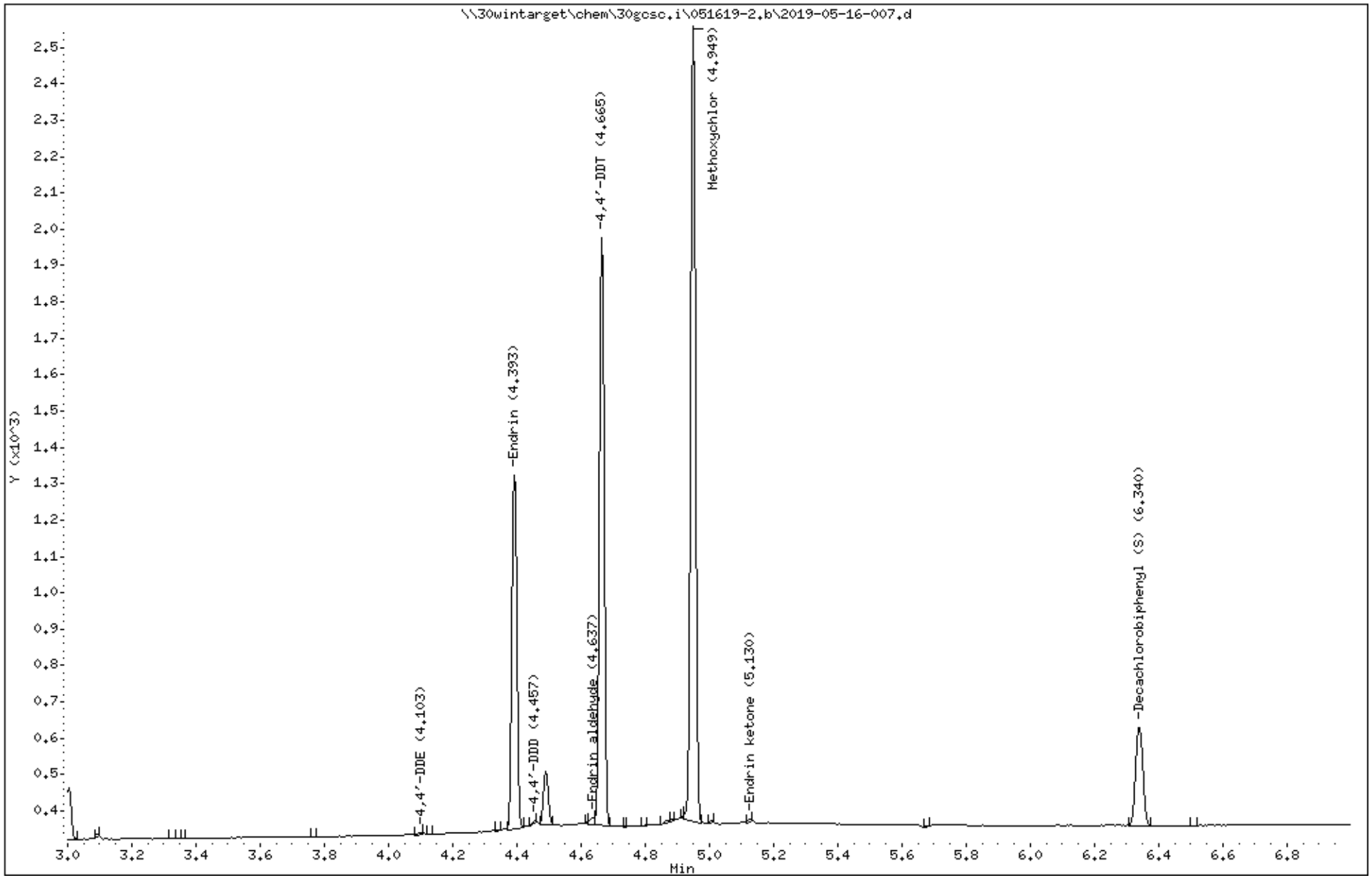
Client SDG: 30GCSC-051619-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0108	
58-89-9	gamma-BHC (Lindane)	0.0111	
319-85-7	beta-BHC	0.0109	
72-55-9	4,4'-DDE	0.000182	
72-20-8	Endrin	0.0573	
72-54-8	4,4'-DDD	0.000291	
7421-36-3	Endrin aldehyde	0.00140	
50-29-3	4,4'-DDT	0.117	
72-43-5	Methoxychlor	0.269	
53494-70-5	Endrin ketone	0.000180	
----------	Tetrachloro-m-xylene (S)	0.0216	
----------	Decachlorobiphenyl (S)	0.0243	

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-007.d
Date : 16-MAY-2019 13:11
Client ID: PEM
Sample Info: PEM, 86125:10

Instrument: 30gcsc.i

Operator: CWB
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 16-MAY-2019 13:11 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	231	231
beta-BHC	111	111
gamma-BHC (Lindane)	222	222
4,4'-DDE	3	3
Endrin	838	838
4,4'-DDD	4	4
4,4'-DDT	1324	1324
Methoxychlor	1820	1820
Endrin ketone	3	3
Endrin aldehyde	19	19
Tetrachloro-m-xylene (S)	362	362
Decachlorobiphenyl (S)	369	369

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-MAY-2019 14:39
Operator : CWB Inst ID: 30gcsc.i
Smp Info : icv, 77696:10
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: AREA%
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.888	13	47	3.610	0.0900			
0.897	100	160	1.594	0.3067			
0.921	156	174	1.113	0.3335			
0.941	4288	4391	1.024	8.4170			
0.964	4917	4550	0.925	8.7218			
0.997	463	313	0.676	0.5999			
1.046	119	112	0.940	0.2146			
1.110	3	10	2.890	0.0191			
1.130	12	24	2.007	0.0460			
1.149	14	29	2.008	0.0555			
1.156	20	33	1.643	0.0632			
1.179	5	15	3.074	0.0287			
1.183	7	16	2.225	0.0306			
1.246	11	15	1.351	0.0287			
1.374	8	13	1.731	0.0249			
1.432	3	7	2.682	0.0134			
1.444	2	5	2.058	0.0095			
1.453	3	6	2.198	0.0115			
1.458	2	8	3.252	0.0153			
1.484	3	9	3.125	0.0172			
1.678	2	6	2.857	0.0115			
1.792	12	19	1.536	0.0364			
1.887	1715	2390	1.394	4.5813	$	1 Tetrachloro-m-xylene (S)	
2.101	21	29	1.366	0.0555			
2.240	1149	1633	1.421	3.1302		2 alpha-BHC	
2.427	2	4	1.980	0.0076			
2.475	1071	1462	1.366	2.8024		3 gamma-BHC (Lindane)	
2.619	562	656	1.167	1.2574		4 beta-BHC	
2.657	3	7	2.251	0.0134			
2.714	1127	1495	1.326	2.8657		5 Heptachlor	
2.815	1042	1393	1.337	2.6702		6 delta-BHC	
2.902	7	16	2.443	0.0306			
2.907	4	15	3.448	0.0287			
2.926	999	1310	1.312	2.5111		7 Aldrin	
3.205	7	11	1.567	0.0210			
3.283	988	1268	1.283	2.4306		8 Heptachlor epoxide	
3.335	8	15	1.816	0.0287			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.438	1006	1243	1.236	2.3826	9 gamma-Chlordane	
3.502	977	1226	1.255	2.3500	10 alpha-Chlordane	
3.548	927	1148	1.239	2.2005	11 Endosulfan I	
3.594	10	14	1.381	0.0268		
3.624	1889	2271	1.202	4.3532	12 4,4'-DDE	
3.662	12	19	1.649	0.0364		
3.679	4	10	2.786	0.0191		
3.686	3	9	2.778	0.0172		
3.692	3	10	3.279	0.0191		
3.740	1986	2545	1.281	4.8784	13 Dieldrin	
3.764	8	16	2.081	0.0306		
3.842	4	7	1.882	0.0134		
3.896	3	7	2.756	0.0134		
3.959	1742	2169	1.245	4.1577	14 Endrin	
4.019	1498	1833	1.223	3.5136	15 4,4'-DDD	
4.059	3	12	4.706	0.0230		
4.068	9	15	1.636	0.0287		
4.107	13	15	1.145	0.0287		
4.138	1775	2183	1.230	4.1845	16 Endosulfan II	
4.209	1676	2066	1.233	3.9602	17 4,4'-DDT	
4.291	1223	1484	1.213	2.8446	18 Endrin aldehyde	
4.331	3	7	2.241	0.0134		
4.430	1732	2047	1.182	3.9238	19 Endosulfan sulfate	
4.563	3	8	3.162	0.0153		
4.592	4	12	3.093	0.0230		
4.596	4	15	4.121	0.0287		
4.600	4	16	4.432	0.0306		
4.609	7	18	2.740	0.0345		
4.614	9	17	1.797	0.0325		
4.623	2	14	6.306	0.0268		
4.628	4	12	3.217	0.0230		
4.631	2	13	6.341	0.0249		
4.637	3	11	3.860	0.0210		
4.665	4329	5042	1.165	9.6715	20 Methoxychlor	
4.717	3	11	3.819	0.0210		
4.719	3	13	4.981	0.0249		
4.852	1863	2263	1.215	4.3379	21 Endrin ketone	
4.889	3	10	3.497	0.0191		
4.900	2	8	3.902	0.0153		
4.969	3	6	2.206	0.0115		
5.118	2	9	4.018	0.0172		
5.142	3	13	4.452	0.0249		
5.148	2	12	5.479	0.0230		
5.155	3	13	4.981	0.0249		
5.164	5	9	1.974	0.0172		
5.170	4	14	3.406	0.0268		
5.174	2	13	5.328	0.0249		
5.176	3	14	4.930	0.0268		
5.183	5	16	3.368	0.0306		
5.190	5	16	3.036	0.0306		
5.193	3	18	6.360	0.0345		
5.197	5	16	2.941	0.0306		
5.206	5	13	2.857	0.0249		
5.214	3	14	4.531	0.0268		
5.221	2	14	6.306	0.0268		
5.224	3	14	4.142	0.0268		
5.230	4	15	4.032	0.0287		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.235	5	14	3.017	0.0268		
5.241	2	10	4.149	0.0191		
5.248	2	12	5.430	0.0230		
5.253	2	12	5.430	0.0230		
5.259	2	13	6.280	0.0249		
5.264	3	14	5.385	0.0268		
5.269	7	13	1.973	0.0249		
5.276	2	9	4.147	0.0172		
5.285	5	12	2.586	0.0230		
5.296	2	11	4.622	0.0210		
5.306	2	8	3.828	0.0153		
5.364	3	8	3.053	0.0153		
5.404	3	7	2.491	0.0134		
5.436	3	14	4.575	0.0268		
5.439	2	15	6.329	0.0287		
5.444	6	13	2.057	0.0249		
5.647	1875	1785	0.952	3.4216	$ 24 Decachlorobiphenyl (S)	
6.305	4	11	2.450	0.0210		
6.319	2	11	4.803	0.0210		
6.342	2	10	4.115	0.0191		
6.346	2	11	5.069	0.0210		
6.541	3	12	4.528	0.0230		
6.582	2	11	5.069	0.0210		
6.591	3	11	4.247	0.0210		
6.600	2	11	4.641	0.0210		
6.605	2	11	5.500	0.0210		
6.609	4	13	3.439	0.0249		
6.619	4	12	2.906	0.0230		
6.639	2	8	3.636	0.0153		
6.665	2	10	4.149	0.0191		
6.769	2	12	5.172	0.0230		
6.775	3	13	4.025	0.0249		
6.781	3	14	5.018	0.0268		
6.786	2	14	5.833	0.0268		
6.789	3	13	4.037	0.0249		
6.801	4	11	2.835	0.0210		
6.804	2	13	5.909	0.0249		
6.808	3	14	4.142	0.0268		
6.824	4	13	2.961	0.0249		
6.829	4	14	3.571	0.0268		
6.834	4	14	4.000	0.0268		
6.838	3	17	5.090	0.0325		
6.843	2	15	6.048	0.0287		
6.850	3	14	4.667	0.0268		
6.854	6	14	2.318	0.0268		
6.864	2	12	5.742	0.0230		
6.871	2	14	6.009	0.0268		
6.875	2	11	5.473	0.0210		
6.882	3	15	5.000	0.0287		
6.889	3	17	6.159	0.0325		
6.897	2	11	4.955	0.0210		
6.907	3	14	4.403	0.0268		
6.920	3	13	4.467	0.0249		
	43713	52168		100.000		

Total unknown % height = 21.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-MAY-2019 14:39
Operator : CWB Inst ID: 30gcsc.i
Smp Info : icv, 77696:10
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m
Meth Date : 17-May-2019 10:45 30gcsc.i Quant Type: ESTD
Cal Date : 16-MAY-2019 14:29 Cal File: 2019-05-16-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.887	1.887	0.000	1714	0.04000	0.0386			
2 alpha-BHC						CAS #: 319-84-6		
2.240	2.240	0.000	1148	0.02000	0.0193			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.475	2.475	0.000	1070	0.02000	0.0191			
4 beta-BHC						CAS #: 319-85-7		
2.619	2.619	0.000	562	0.02000	0.0209			
6 delta-BHC						CAS #: 76-44-8		
2.815	2.815	0.000	1041	0.02000	0.0192			
5 Heptachlor						CAS #: 319-86-8		
2.714	2.713	0.001	1127	0.02000	0.0192			
7 Aldrin						CAS #: 309-00-2		
2.925	2.925	0.000	998	0.02000	0.0190			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.282	3.282	0.000	988	0.02000	0.0192			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.438	3.437	0.001	1005	0.02000	0.0191			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.502	3.501	0.001	977	0.02000	0.0193			
11 Endosulfan I						CAS #: 959-98-8		
3.547	3.547	0.000	926	0.02000	0.0194			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.624	3.623	0.001	1889	0.04000	0.0386			
13 Dieldrin						CAS #: 60-57-1		
3.740	3.740	0.000	1986	0.04000	0.0388			
14 Endrin						CAS #: 72-20-8		
3.959	3.958	0.001	1741	0.04000	0.0377			
15 4,4'-DDD						CAS #: 72-54-8		
4.018	4.017	0.001	1498	0.04000	0.0380			
16 Endosulfan II						CAS #: 33213-65-9		
4.138	4.138	0.000	1775	0.04000	0.0417			
17 4,4'-DDT						CAS #: 50-29-3		
4.209	4.208	0.001	1676	0.04000	0.0390			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	1223	0.04000	0.0320			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.430	4.429	0.001	1732	0.04000	0.0369			
20 Methoxychlor						CAS #: 72-43-5		
4.665	4.664	0.001	4329	0.20000	0.193			
21 Endrin ketone						CAS #: 53494-70-5		
4.852	4.851	0.001	1863	0.04000	0.0385			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.645	0.001	1875	0.04000	0.0397			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 16-MAY-2019 14:39
Lab File ID: 2019-05-16-016. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\051619-1.b\cf8081051619abm.m

	COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
$	1 Tetrachloro-m-xylene (S)	44424	42850	0.000	-3.54323	20.00000	Aver	
	2 alpha-BHC	59466	57400	0.000	-3.47379	20.00000	Aver	
	3 gamma-BHC (Lindane)	56109	53500	0.000	-4.64955	20.00000	Aver	
	4 beta-BHC	26880	28100	0.000	4.54054	20.00000	Aver	
	6 delta-BHC	54284	52050	0.000	-4.11464	20.00000	Aver	
	5 Heptachlor	58538	56350	0.000	-3.73829	20.00000	Aver	
	7 Aldrin	52588	49900	0.000	-5.11160	20.00000	Aver	
	8 Heptachlor epoxide	51592	49400	0.000	-4.24899	20.00000	Aver	
	9 gamma-Chlordane	52505	50250	0.000	-4.29526	20.00000	Aver	
	10 alpha-Chlordane	50638	48850	0.000	-3.53022	20.00000	Aver	
	11 Endosulfan I	47661	46300	0.000	-2.85646	20.00000	Aver	
	12 4,4'-DDE	48868	47225	0.000	-3.36207	20.00000	Aver	
	13 Dieldrin	51114	49650	0.000	-2.86382	20.00000	Aver	
	14 Endrin	46141	43525	0.000	-5.67045	20.00000	Aver	
	15 4,4'-DDD	39382	37450	0.000	-4.90614	20.00000	Aver	
	16 Endosulfan II	42556	44375	0.000	4.27448	20.00000	Aver	
	17 4,4'-DDT	42979	41900	0.000	-2.50956	20.00000	Aver	
	18 Endrin aldehyde	38198	30575	0.000	-19.95624	20.00000	Aver	
	19 Endosulfan sulfate	46896	43300	0.000	-7.66794	20.00000	Aver	
	20 Methoxychlor	22445	21645	0.000	-3.56284	20.00000	Aver	
	21 Endrin ketone	48431	46575	0.000	-3.83216	20.00000	Aver	
$	24 Decachlorobiphenyl (S)	47213	46875	0.000	-0.71485	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 4.70105
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\051619-1.b\2019-05-16-016.d

Date : 16-MAY-2019 14:39

Client ID: ICV

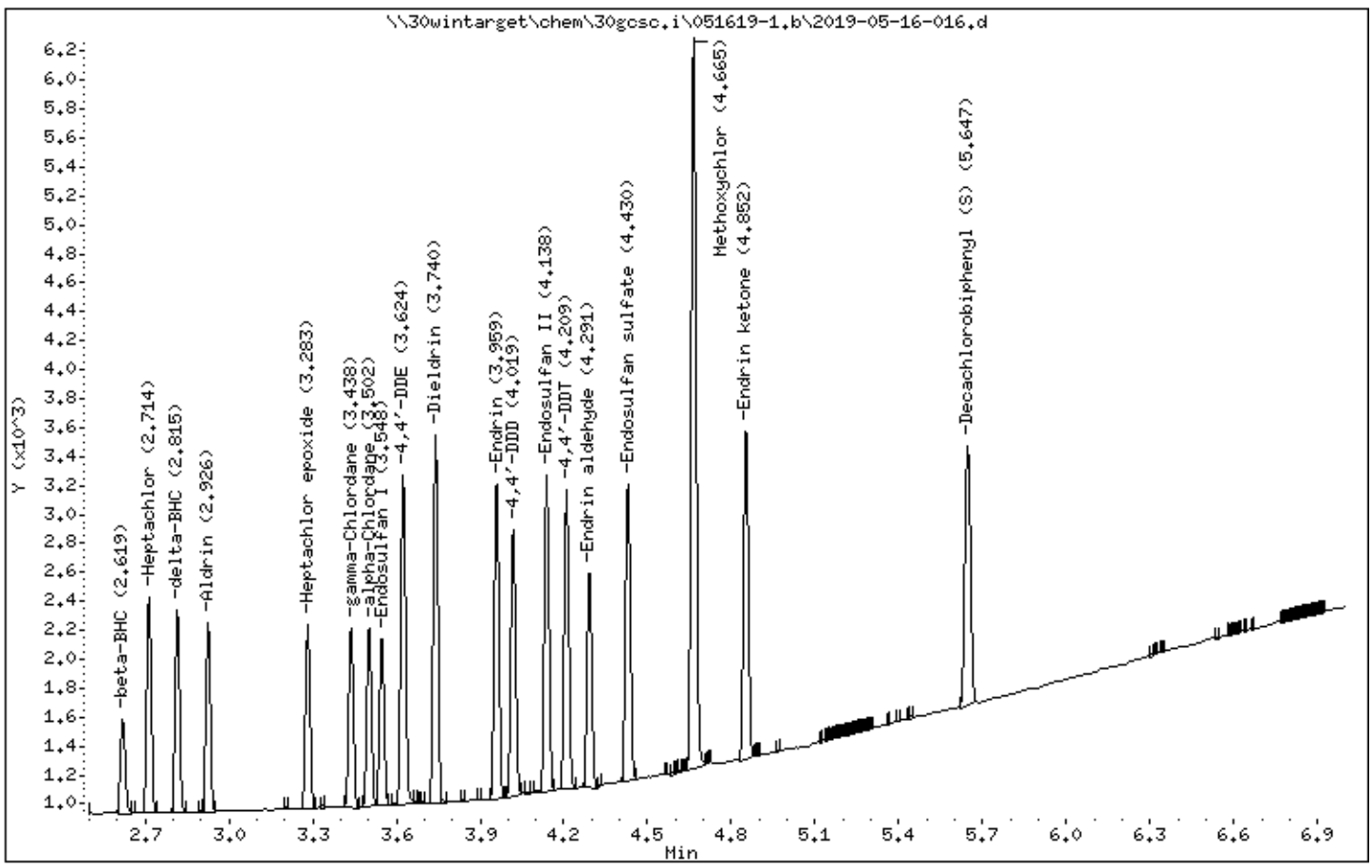
Instrument: 30gcsc.i

Sample Info: ICV, 77696:10

Operator: CWB

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\051619-1.b/2019-05-16-016.d (ManInt: inda.sub Orig: all.sub)
Injection Date: 16-MAY-2019 14:39 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: ICV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1148	1148
beta-BHC	562	562
delta-BHC	1127	1041
gamma-BHC (Lindane)	1070	1070
Heptachlor	1041	1127
Aldrin	998	998
Heptachlor epoxide	988	988
Endosulfan I	926	926
Dieldrin	1986	1986
4,4'-DDE	1889	1889
Endrin	1741	1741
Endosulfan II	1775	1775
4,4'-DDD	1498	1498
Endosulfan sulfate	1732	1732
4,4'-DDT	1676	1676
Methoxychlor	4329	4329
Endrin ketone	1863	1863
Endrin aldehyde	1223	1223
alpha-Chlordane	977	977
gamma-Chlordane	1005	1005
Tetrachloro-m-xylene (S)	2	1714
Decachlorobiphenyl (S)	562	1875

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-MAY-2019 14:39
Operator : CWB Inst ID: 30gcsc.i
Smp Info : icv, 77696:10
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.123	1	1	0.862	0.0058			
0.871	4	7	1.966	0.0412			
0.880	59	160	2.710	0.9436			
0.918	5	4	0.806	0.0235			
0.936	6	11	1.774	0.0648			
0.981	1680	1657	0.986	9.7764			
1.011	1624	1604	0.988	9.4597			
1.060	15	21	1.434	0.1238			
1.075	2	6	2.765	0.0353			
1.106	5	10	2.026	0.0589			
1.127	17	22	1.316	0.1297			
1.228	2	5	2.041	0.0294			
1.290	2	5	2.183	0.0294			
1.305	2	5	2.959	0.0294			
1.327	1	4	3.333	0.0235			
1.364	2	2	1.212	0.0117			
1.458	2	3	1.245	0.0176			
1.484	2	3	1.402	0.0176			
1.688	1	3	2.500	0.0176			
1.715	2	4	1.843	0.0235			
2.133	1	3	2.026	0.0176			
2.363	649	857	1.320	5.0542	$	1 Tetrachloro-m-xylene (S)	BA
2.574	7	11	1.549	0.0648			
2.627	412	549	1.333	3.2377		2 alpha-BHC	BA
2.724	2	2	1.163	0.0117			
2.844	382	496	1.297	2.9252		3 gamma-BHC (Lindane)	BA
3.004	198	251	1.266	1.4803		4 beta-BHC	BA
3.070	3	7	2.011	0.0412			
3.095	16	19	1.167	0.1120			
3.190	397	504	1.271	2.9723		5 delta-BHC	BA
3.227	8	10	1.282	0.0589			
3.253	381	461	1.211	2.7188		6 Heptachlor	BA
3.481	351	429	1.222	2.5300		7 Aldrin	BA
3.604	3	3	0.915	0.0176			
3.715	4	4	1.053	0.0235			
3.774	347	411	1.183	2.4239		8 Heptachlor epoxide	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.809	5	8	1.550	0.0471			
3.987	347	413	1.190	2.4357	9	gamma-Chlordane	BA
4.023	349	408	1.170	2.4062	10	alpha-Chlordane	BA
4.056	328	392	1.194	2.3118	11	Endosulfan I	BA
4.102	640	799	1.249	4.7121	12	4,4'-DDE	BA
4.175	10	11	1.111	0.0648			
4.231	684	818	1.195	4.8242	13	Dieldrin	BA
4.313	3	5	1.603	0.0294			
4.392	575	642	1.117	3.7862	14	Endrin	BA
4.455	565	671	1.187	3.9573	15	4,4'-DDD	BA
4.500	15	18	1.187	0.1061			
4.565	646	733	1.135	4.3229	16	Endosulfan II	BA
4.639	448	507	1.131	2.9900	17	Endrin aldehyde	BA
4.665	471	559	1.188	3.2967	18	4,4'-DDT	BA
4.736	3	3	0.926	0.0176			
4.829	607	688	1.134	4.0575	19	Endosulfan sulfate	BA
4.904	15	17	1.158	0.1002			
4.922	21	25	1.185	0.1474			
4.950	1311	1525	1.163	8.9938	20	Methoxychlor	BA
5.106	7	11	1.519	0.0648			
5.129	642	715	1.114	4.2167	21	Endrin ketone	BA
6.340	607	432	0.711	2.5477	$ 24	Decachlorobiphenyl (S)	BA
6.651	1	2	1.418	0.0117			
	14897	16956		100.000			

Total unknown % height = 21.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 16-MAY-2019 14:39
Operator : CWB Inst ID: 30gcsc.i
Smp Info : icv, 77696:10
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m
Meth Date : 17-May-2019 09:49 cbyerly Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: inda.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.362	2.362	0.000	649	0.04000	0.0387		(M)	BA
2 alpha-BHC						CAS #: 319-84-6		
2.626	2.626	0.000	411	0.02000	0.0193		(M)	BA
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.843	2.843	0.000	382	0.02000	0.0191		(M)	BA
4 beta-BHC						CAS #: 319-85-7		
3.003	3.004	-0.001	198	0.02000	0.0194		(M)	BA
5 delta-BHC						CAS #: 319-86-8		
3.190	3.191	-0.001	396	0.02000	0.0199		(M)	BA
6 Heptachlor						CAS #: 76-44-8		
3.253	3.253	0.000	380	0.02000	0.0193		(M)	BA
7 Aldrin						CAS #: 309-00-2		
3.480	3.481	-0.001	351	0.02000	0.0192		(M)	BA
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.774	3.774	0.000	347	0.02000	0.0192		(M)	BA
9 gamma-Chlordane						CAS #: 5103-74-2		
3.987	3.987	0.000	346	0.02000	0.0190		(M)	BA
10 alpha-Chlordane						CAS #: 5103-71-9		
4.023	4.023	0.000	348	0.02000	0.0196		(M)	BA
11 Endosulfan I						CAS #: 959-98-8		
4.056	4.056	0.000	328	0.02000	0.0198		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.102	4.102	0.000	639	0.04000	0.0387		(M)	BA
13 Dieldrin					CAS #: 60-57-1			
4.230	4.230	0.000	684	0.04000	0.0390		(M)	BA
14 Endrin					CAS #: 72-20-8			
4.392	4.392	0.000	574	0.04000	0.0392		(M)	BA
15 4,4'-DDD					CAS #: 72-54-8			
4.454	4.455	-0.001	565	0.04000	0.0411		(M)	BA
16 Endosulfan II					CAS #: 33213-65-9			
4.565	4.566	-0.001	645	0.04000	0.0435		(M)	BA
17 Endrin aldehyde					CAS #: 7421-36-3			
4.639	4.639	0.000	448	0.04000	0.0330		(M)	BA
18 4,4'-DDT					CAS #: 50-29-3			
4.665	4.665	0.000	470	0.04000	0.0414		(M)	BA
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.829	4.829	0.000	606	0.04000	0.0376		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.949	4.949	0.000	1311	0.20000	0.194		(M)	BA
21 Endrin ketone					CAS #: 53494-70-5			
5.129	5.129	0.000	641	0.04000	0.0385		(M)	BA
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.340	6.341	-0.001	607	0.04000	0.0399		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 16-MAY-2019 14:39
Lab File ID: 2019-05-16-016. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\051619-2.b\cr8081051619abm.m

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$ 1 Tetrachloro-m-xylene (S)	16766	16000	0.000	-4.56918	20.00000	Aver	(M)	
2 alpha-BHC	21276	20550	0.000	-3.41316	20.00000	Aver	(M)	
3 gamma-BHC (Lindane)	19996	19100	0.000	-4.48181	20.00000	Aver	(M)	
4 beta-BHC	10176	9550	0.000	-6.15568	20.00000	Aver	(M)	
5 delta-BHC	19929	19650	0.000	-1.39785	20.00000	Aver	(M)	
6 Heptachlor	19642	18950	0.000	-3.52260	20.00000	Aver	(M)	
7 Aldrin	18303	17250	0.000	-5.75487	20.00000	Aver	(M)	
8 Heptachlor epoxide	18081	17100	0.000	-5.42534	20.00000	Aver	(M)	
9 gamma-Chlordane	18154	17000	0.000	-6.35820	20.00000	Aver	(M)	
10 alpha-Chlordane	17775	17000	0.000	-4.36006	20.00000	Aver	(M)	
11 Endosulfan I	16593	16000	0.000	-3.57435	20.00000	Aver	(M)	
12 4,4'-DDE	16524	15625	0.000	-5.44084	20.00000	Aver	(M)	
13 Dieldrin	17542	16950	0.000	-3.37489	20.00000	Aver	(M)	
14 Endrin	14631	13625	0.000	-6.87778	20.00000	Aver	(M)	
15 4,4'-DDD	13750	13300	0.000	-3.27273	20.00000	Aver	(M)	
16 Endosulfan II	14834	15400	0.000	3.81273	20.00000	Aver	(M)	
17 Endrin aldehyde	13570	10825	0.000	-20.22565	20.00000	Aver	(M)	<-
18 4,4'-DDT	11339	11450	0.000	0.97638	20.00000	Aver	(M)	
19 Endosulfan sulfate	16130	14675	0.000	-9.01912	20.00000	Aver	(M)	
20 Methoxychlor	6764	6390	0.000	-5.53193	20.00000	Aver	(M)	
21 Endrin ketone	16640	15925	0.000	-4.29688	20.00000	Aver	(M)	
$ 24 Decachlorobiphenyl (S)	15196	15025	0.000	-1.12576	20.00000	Aver	(M)	

QC Flag Legend

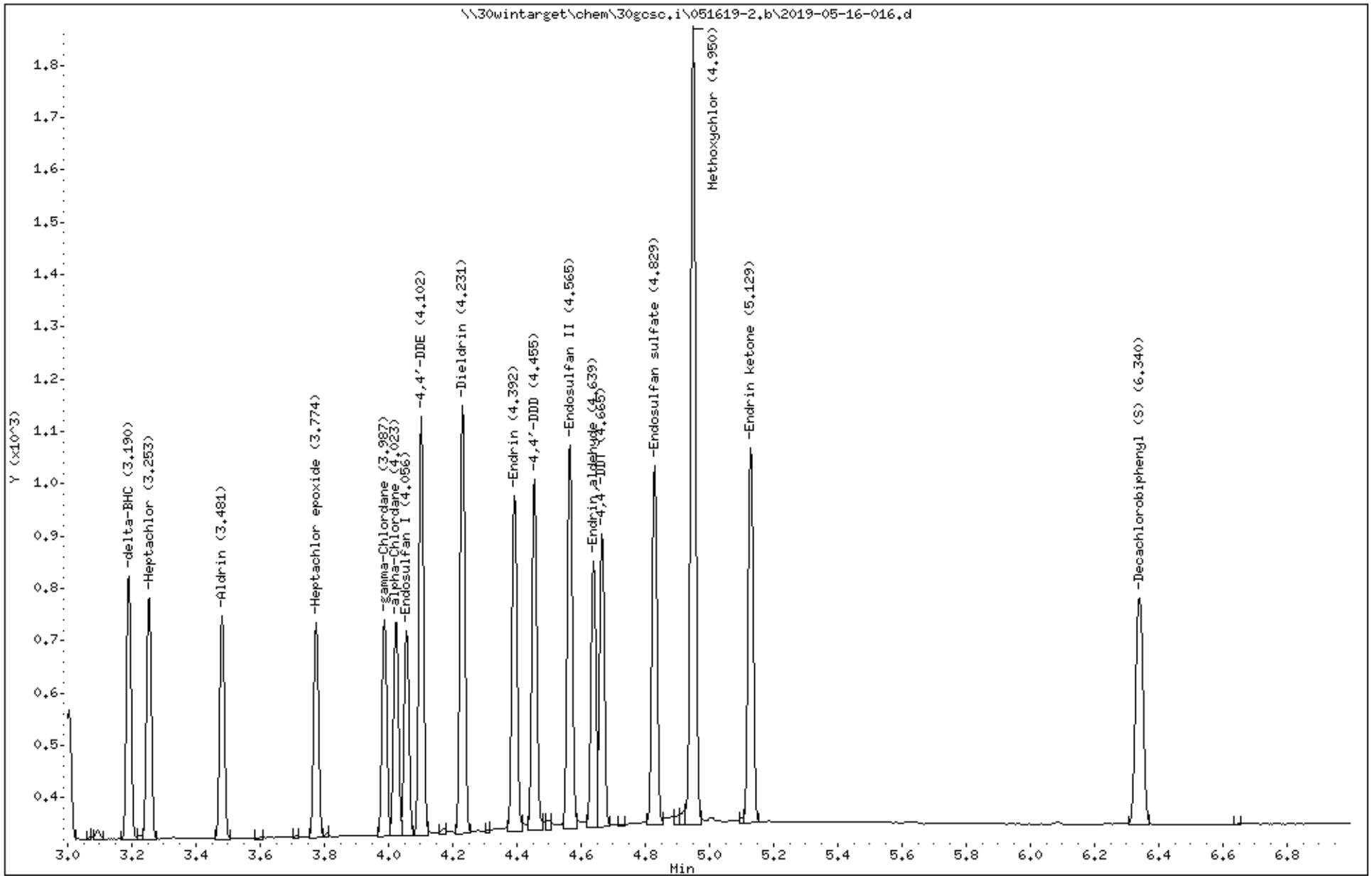
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30gcsc.i\051619-2.b\2019-05-16-016.d
Date : 16-MAY-2019 14:39
Client ID: ICV
Sample Info: ICV, 77696:10

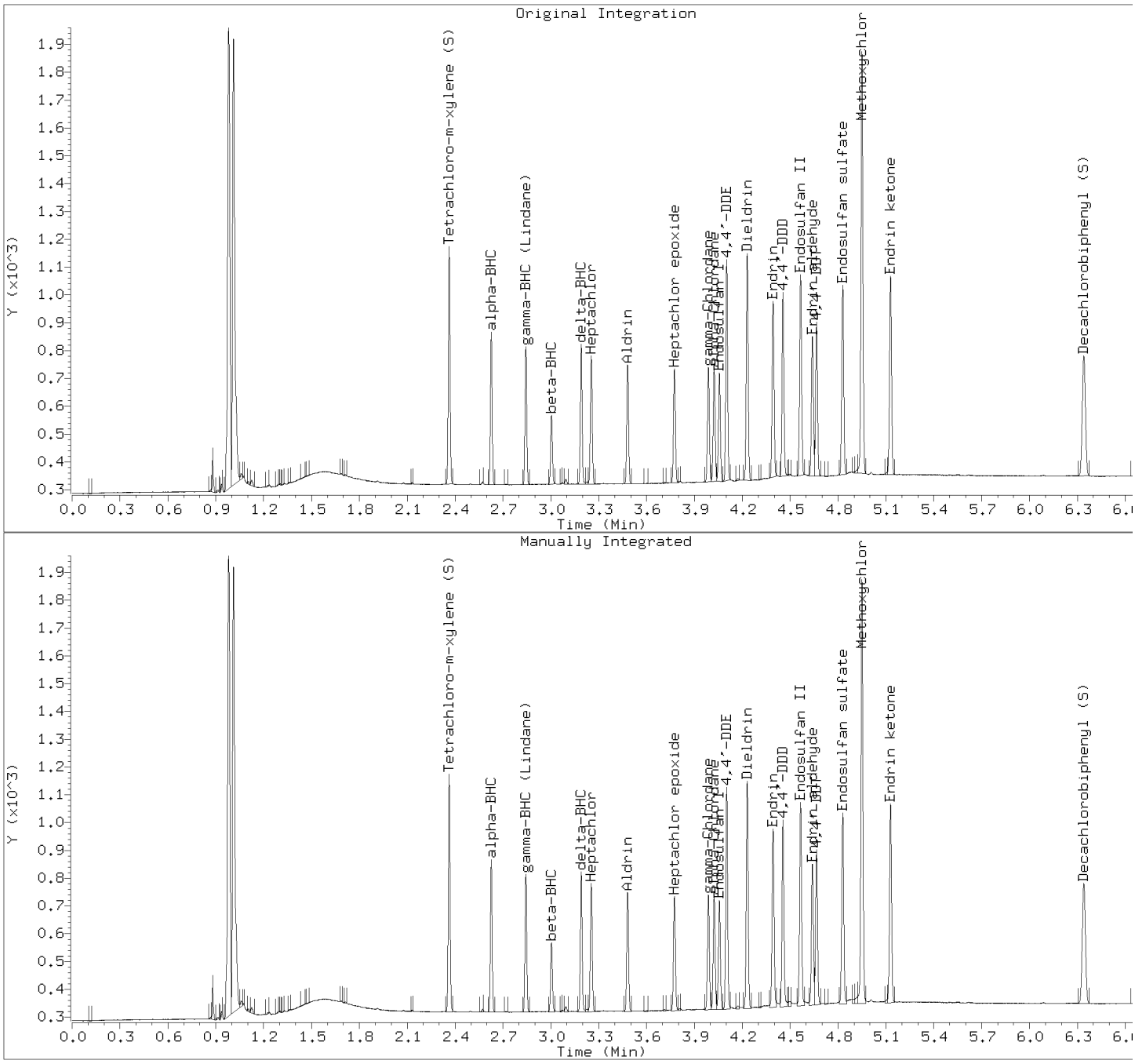
Instrument: 30gcsc.i

Operator: CWB
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\051619-2.b/2019-05-16-016.d (ManInt: inda.sub Orig: inda.sub)
Injection Date: 16-MAY-2019 14:39 Operator: CWB
Instrument: 30gcsc.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	411	411
beta-BHC	191	198
delta-BHC	393	396
gamma-BHC (Lindane)	382	382
Heptachlor	379	380
Aldrin	345	351
Heptachlor epoxide	342	347
Endosulfan I	320	328
Dieldrin	678	684
4,4'-DDE	625	639
Endrin	545	574
Endosulfan II	616	645
4,4'-DDD	532	565
Endosulfan sulfate	587	606

4,4'-DDT	458	470
Methoxychlor	1278	1311
Endrin ketone	637	641
Endrin aldehyde	433	448
alpha-Chlordane	340	348
gamma-Chlordane	340	346
Tetrachloro-m-xylene (S)	640	649
Decachlorobiphenyl (S)	601	607

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 19:08
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.888	26	100	3.811	0.3261		
0.895	60	117	1.960	0.3815		
0.911	23	35	1.491	0.1141		
0.927	4	15	3.650	0.0489		
0.943	562	812	1.444	2.6481		
0.963	596	786	1.318	2.5633		
0.999	3	6	2.362	0.0195		
1.016	18	33	1.814	0.1076		
1.132	2	6	2.521	0.0195		
1.223	3	7	2.431	0.0228		
1.292	4	12	2.913	0.0391		
1.301	7	14	2.128	0.0456		
1.305	3	14	5.405	0.0456		
1.313	10	19	1.900	0.0619		
1.318	3	20	6.920	0.0652		
1.323	6	22	3.589	0.0717		
1.327	9	24	2.556	0.0782		
1.332	3	28	8.917	0.0913		
1.335	6	31	5.429	0.1010		
1.339	19	33	1.708	0.1076		
1.349	5	21	3.860	0.0684		
1.354	10	23	2.371	0.0750		
1.363	5	18	3.854	0.0587		
1.367	5	20	3.676	0.0652		
1.373	13	23	1.788	0.0750		
1.428	3	6	2.048	0.0195		
1.887	1184	1686	1.424	5.4984	$ 1 Tetrachloro-m-xylene (S)	
1.923	3	7	2.622	0.0228		
2.101	15	22	1.453	0.0717		
2.240	795	1141	1.434	3.7210	2 alpha-BHC	
2.475	750	1036	1.380	3.3786	3 gamma-BHC (Lindane)	
2.498	3	9	3.462	0.0293		
2.503	2	7	3.431	0.0228		
2.550	3	7	2.527	0.0228		
2.620	460	471	1.024	1.5360	4 beta-BHC	
2.911	31	33	1.053	0.1076		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.052	2	7	3.111	0.0228		
3.562	3	9	3.358	0.0293		
3.623	10	29	2.897	0.0945	12 4,4'-DDE	
3.625	14	30	2.144	0.0978		
3.959	3017	3775	1.251	12.3112	14 Endrin	
4.021	12	20	1.647	0.0652	15 4,4'-DDD	
4.041	3	9	2.990	0.0293		
4.044	2	9	3.896	0.0293		
4.084	2	8	3.865	0.0260		
4.089	3	10	2.941	0.0326		
4.107	44	47	1.076	0.1532		
4.120	4	12	3.150	0.0391		
4.209	5486	6596	1.202	21.5112	17 4,4'-DDT	
4.249	4	12	2.963	0.0391		
4.546	3	10	3.534	0.0326		
4.554	4	12	2.850	0.0391		
4.561	5	14	3.097	0.0456		
4.597	3	9	2.913	0.0293		
4.612	2	11	4.825	0.0358		
4.616	2	13	6.019	0.0423		
4.618	4	13	3.163	0.0423		
4.627	5	15	2.994	0.0489		
4.630	2	17	8.213	0.0554		
4.635	9	20	2.345	0.0652		
4.663	6852	8059	1.176	26.2949	20 Methoxychlor	
4.716	25	54	2.127	0.1761		
4.718	27	54	2.015	0.1761		
4.734	3	13	4.745	0.0423		
4.737	4	13	3.662	0.0423		
4.743	4	13	3.234	0.0423		
4.749	2	15	6.977	0.0489		
4.758	7	17	2.504	0.0554		
4.761	3	21	6.306	0.0684		
4.765	5	24	4.743	0.0782		
4.769	6	25	4.545	0.0815		
4.775	10	29	2.871	0.0945		
4.778	4	29	6.713	0.0945		
4.782	13	29	2.212	0.0945		
4.789	9	27	2.980	0.0880		
4.795	9	22	2.494	0.0717		
4.848	7	24	3.571	0.0782		
4.852	12	23	1.912	0.0750	21 Endrin ketone	
4.888	4	11	2.703	0.0358		
4.895	3	16	4.651	0.0521		
4.899	6	24	3.960	0.0782		
4.903	5	32	6.400	0.1043		
4.906	8	34	4.410	0.1108		
4.909	7	37	4.960	0.1206		
4.914	11	40	3.626	0.1304		
4.919	10	39	3.842	0.1271		
4.924	11	38	3.408	0.1239		
4.927	6	36	5.616	0.1174		
4.930	12	32	2.651	0.1043		
4.938	4	24	5.854	0.0782		
4.942	6	22	3.908	0.0717		
4.949	4	15	3.378	0.0489		
4.954	3	14	4.389	0.0456		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.959	2	9	3.846	0.0293		
4.986	6	13	2.107	0.0423		
5.000	3	7	2.174	0.0228		
5.012	3	8	2.974	0.0260		
5.057	15	32	2.201	0.1043		
5.069	44	47	1.066	0.1532		
5.076	13	44	3.303	0.1434		
5.082	11	39	3.507	0.1271		
5.087	13	30	2.338	0.0978		
5.097	5	21	4.118	0.0684		
5.110	2	13	5.285	0.0423		
5.124	5	16	3.019	0.0521		
5.128	7	21	3.075	0.0684		
5.134	6	16	2.735	0.0521		
5.142	5	13	2.549	0.0423		
5.291	3	8	2.556	0.0260		
5.305	2	8	3.670	0.0260		
5.475	3	7	2.767	0.0228		
5.485	2	14	5.907	0.0456		
5.490	4	13	3.571	0.0423		
5.495	4	13	3.316	0.0423		
5.500	3	13	4.012	0.0423		
5.505	3	12	4.598	0.0391		
5.512	3	12	4.054	0.0391		
5.516	3	17	5.136	0.0554		
5.523	4	15	3.713	0.0489		
5.527	6	16	2.572	0.0521		
5.645	1181	1131	0.957	3.6884	$ 24 Decachlorobiphenyl (S)	
5.936	4	16	3.990	0.0521		
5.939	3	16	5.755	0.0521		
5.942	3	17	6.182	0.0554		
5.947	4	18	4.380	0.0587		
5.950	3	17	6.093	0.0554		
5.954	4	18	4.478	0.0587		
5.957	4	20	4.454	0.0652		
5.963	6	21	3.633	0.0684		
5.969	6	23	3.583	0.0750		
5.975	7	28	3.738	0.0913		
5.980	9	29	3.299	0.0945		
5.984	4	29	7.775	0.0945		
5.986	4	33	8.919	0.1076		
5.988	7	34	4.795	0.1108		
5.992	7	39	5.306	0.1271		
5.996	13	44	3.276	0.1434		
6.001	6	44	6.780	0.1434		
6.008	19	50	2.653	0.1630		
6.011	11	52	4.784	0.1695		
6.016	9	49	5.587	0.1598		
6.017	15	54	3.704	0.1761		
6.028	25	52	2.114	0.1695		
6.030	12	54	4.511	0.1761		
6.037	15	52	3.549	0.1695		
6.040	10	51	5.115	0.1663		
6.044	25	52	2.093	0.1695		
6.052	20	54	2.639	0.1761		
6.061	32	55	1.706	0.1793		
6.069	11	51	4.458	0.1663		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.073	16	51	3.218	0.1663		
6.077	7	51	7.578	0.1663		
6.080	21	48	2.248	0.1565		
6.089	23	43	1.900	0.1402		
6.099	10	35	3.579	0.1141		
6.104	10	28	2.860	0.0913		
6.111	6	30	5.190	0.0978		
6.115	3	22	6.790	0.0717		
6.118	6	25	3.852	0.0815		
6.123	4	25	6.510	0.0815		
6.126	9	24	2.755	0.0782		
6.133	9	22	2.466	0.0717		
6.142	5	19	3.823	0.0619		
6.147	3	20	5.764	0.0652		
6.154	3	13	4.962	0.0423		
6.158	2	11	4.741	0.0358		
6.165	2	11	5.069	0.0358		
6.224	2	7	3.431	0.0228		
6.232	3	10	3.413	0.0326		
6.396	2	8	3.774	0.0260		
6.502	2	12	5.240	0.0391		
6.508	3	16	5.195	0.0521		
6.510	4	18	4.627	0.0587		
6.517	3	18	5.806	0.0587		
6.521	5	21	4.375	0.0684		
6.526	7	19	2.599	0.0619		
6.532	4	21	4.698	0.0684		
6.537	6	21	3.640	0.0684		
6.545	5	19	3.675	0.0619		
6.549	4	18	4.045	0.0587		
6.557	3	15	5.396	0.0489		
6.560	3	11	4.151	0.0358		
6.567	3	12	3.871	0.0391		
6.577	3	12	3.519	0.0391		
6.635	3	12	3.692	0.0391		
6.644	6	12	2.102	0.0391		
6.656	2	13	6.311	0.0423		
6.658	2	14	6.278	0.0456		
6.679	4	11	2.973	0.0358		
6.692	3	11	3.887	0.0358		
6.709	3	12	3.896	0.0391		
6.711	3	14	4.070	0.0456		
6.718	7	20	2.915	0.0652		
6.723	5	18	3.659	0.0587		
6.729	3	23	8.127	0.0750		
6.732	4	24	5.839	0.0782		
6.737	4	18	4.712	0.0587		
6.742	4	18	4.401	0.0587		
6.745	4	21	5.483	0.0684		
6.747	3	19	6.090	0.0619		
6.752	9	22	2.363	0.0717		
6.759	3	18	7.115	0.0587		
6.761	6	21	3.578	0.0684		
6.768	4	21	5.198	0.0684		
6.776	7	18	2.553	0.0587		
6.779	3	21	7.955	0.0684		
6.781	3	21	8.300	0.0684		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.786	7	17	2.411	0.0554		
6.792	3	14	4.416	0.0456		
6.800	9	24	2.685	0.0782		
6.806	8	26	3.198	0.0847		
6.809	7	29	4.149	0.0945		
6.814	6	25	4.252	0.0815		
6.817	5	25	5.556	0.0815		
6.823	4	24	6.400	0.0782		
6.826	5	24	4.528	0.0782		
6.831	5	27	5.806	0.0880		
6.835	12	26	2.234	0.0847		
6.846	8	22	2.872	0.0717		
6.850	3	20	6.536	0.0652		
6.853	2	25	10.373	0.0815		
6.855	5	23	4.373	0.0750		
6.861	10	26	2.648	0.0847		
6.868	3	21	6.422	0.0684		
6.871	3	19	6.762	0.0619		
6.874	3	19	6.376	0.0619		
6.879	8	24	2.867	0.0782		
6.885	3	17	5.280	0.0554		
6.889	2	15	6.726	0.0489		
6.892	3	16	4.954	0.0521		
6.896	6	18	3.025	0.0587		
6.903	3	14	5.364	0.0456		
6.912	3	11	4.029	0.0358		
6.958	2	9	4.500	0.0293		
6.969	3	9	3.309	0.0293		
	22501	30663		100.000		

Total unknown % height = 21.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 19:08
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.886	1.885	0.001	1184	0.02665	0.0266			(R)
2 alpha-BHC					CAS #: 319-84-6			
2.239	2.238	0.001	795	0.01337	0.0134			(R)
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.475	2.474	0.001	750	0.01337	0.0134			(R)
4 beta-BHC					CAS #: 319-85-7			
2.619	2.618	0.001	459	0.01708	0.0171			(R)
12 4,4'-DDE					CAS #: 72-55-9			
3.622	3.623	-0.001	10	2.e-004	0.000205			
14 Endrin					CAS #: 72-20-8			
3.958	3.957	0.001	3016	0.06536	0.0654			(R)
15 4,4'-DDD					CAS #: 72-54-8			
4.021	4.017	0.004	12	3.e-004	0.000305			
17 4,4'-DDT					CAS #: 50-29-3			
4.208	4.208	0.000	5485	0.12762	0.128			(R)
18 Endrin aldehyde					CAS #: 7421-36-3			
Compound Not Detected.								
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	6852	0.30528	0.305			(R)
21 Endrin ketone					CAS #: 53494-70-5			
4.852	4.850	0.002	12	2e-004	0.000248			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.643	0.001	1181	0.02501	0.0250			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15455,PEM

Client SDG: 30GCSC-061719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0134	
58-89-9	gamma-BHC (Lindane)	0.0134	
319-85-7	beta-BHC	0.0171	
72-55-9	4,4'-DDE	0.000205	
72-20-8	Endrin	0.0654	
72-54-8	4,4'-DDD	0.000305	
50-29-3	4,4'-DDT	0.128	
7421-36-3	Endrin aldehyde	0.000	U
72-43-5	Methoxychlor	0.305	
53494-70-5	Endrin ketone	0.000248	
----------	Tetrachloro-m-xylene (S)	0.0266	
----------	Decachlorobiphenyl (S)	0.0250	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-007.d

Date : 17-JUN-2019 19:08

Client ID: PEM

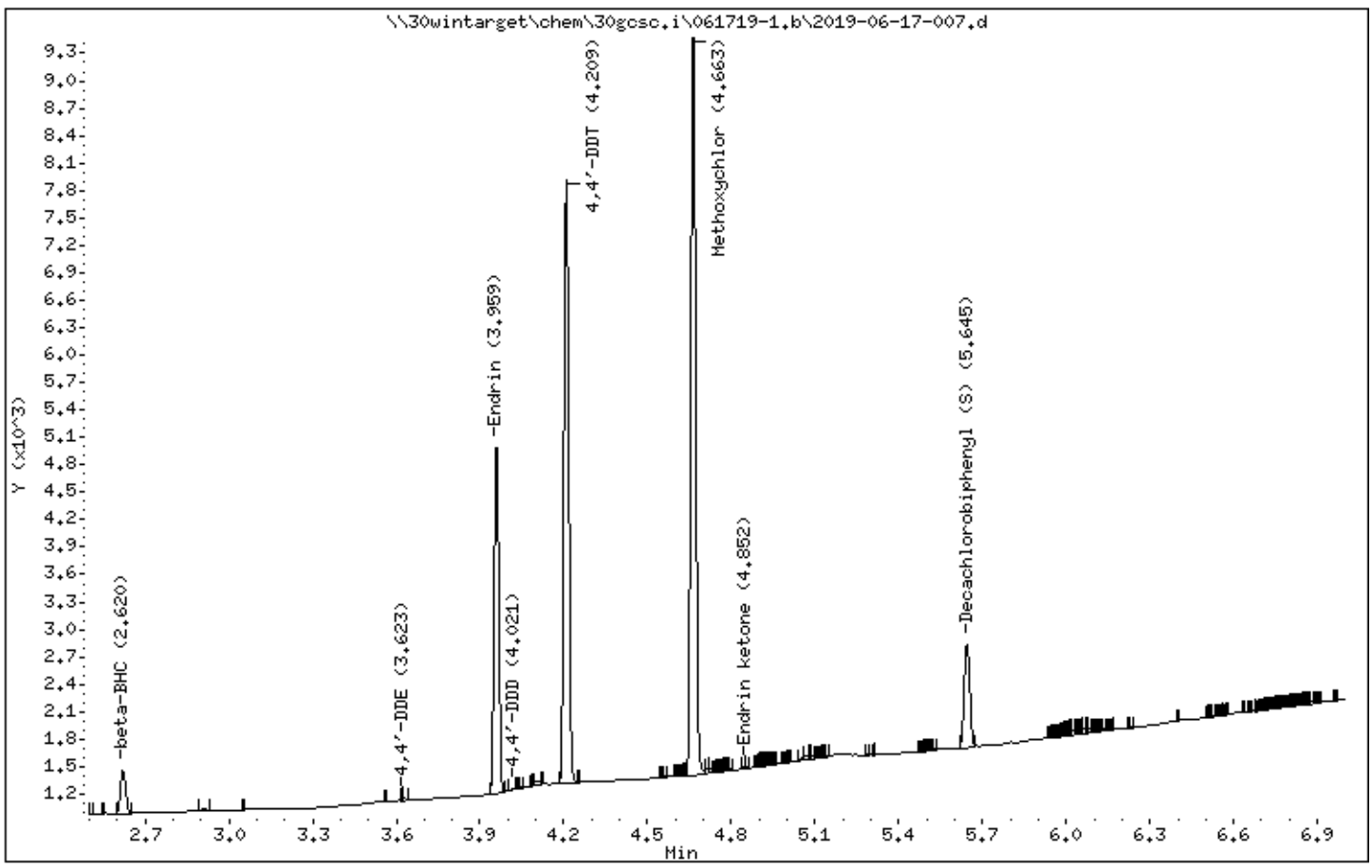
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUN-2019 19:08 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	12	12
Methoxychlor	6852	6852
gamma-BHC (Lindane)	750	750
beta-BHC	459	459
4,4'-DDE	10	10
Endrin	3016	3016
Endrin aldehyde	0	0
4,4'-DDT	5485	5485
Endrin ketone	12	12
alpha-BHC	795	795
Tetrachloro-m-xylene (S)	1184	1184
Decachlorobiphenyl (S)	1181	1181

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 19:08
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.141	1	2	1.439	0.0251			
0.597	1	2	1.739	0.0251			
0.866	4	12	3.077	0.1506			
0.874	12	37	2.998	0.4643			
0.879	54	183	3.371	2.2966			
0.914	4	3	0.721	0.0376			
0.982	182	240	1.320	3.0120			
1.011	157	243	1.549	3.0496			
1.071	2	5	2.703	0.0627			
1.188	1	2	1.493	0.0251			
1.294	1	2	1.822	0.0251			
1.712	1	4	3.200	0.0502			
2.361	433	576	1.331	7.2289	$	1 Tetrachloro-m-xylene (S)	
2.573	3	4	1.587	0.0502			
2.624	283	385	1.360	4.8318		2 alpha-BHC	
2.763	1	1	0.893	0.0125			
2.842	268	351	1.308	4.4051		3 gamma-BHC (Lindane)	
3.003	130	167	1.287	2.0958		4 beta-BHC	
3.091	28	37	1.338	0.4643			
3.807	1	3	2.941	0.0376			
3.849	1	3	2.913	0.0376			
4.049	1	2	1.667	0.0251			
4.069	1	3	2.098	0.0376			
4.332	7	11	1.580	0.1380			
4.339	5	13	2.648	0.1631			
4.345	6	12	1.964	0.1506			
4.352	3	11	3.915	0.1380			
4.359	5	10	2.028	0.1255			
4.365	2	9	4.000	0.1129			
4.390	956	1091	1.142	13.6922		14 Endrin	
4.460	3	7	2.023	0.0878		15 4,4'-DDD	
4.637	4	9	2.045	0.1129		17 Endrin aldehyde	
4.662	1424	1719	1.207	21.5737		18 4,4'-DDT	
4.830	2	3	1.863	0.0376			
4.861	4	11	2.572	0.1380			
4.866	4	12	2.864	0.1506			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.873	3	9	3.488	0.1129			
4.876	1	7	5.833	0.0878			
4.883	1	4	3.125	0.0502			
4.909	1	7	5.344	0.0878			
4.913	2	10	4.505	0.1255			
4.947	2004	2346	1.170	29.4447		20 Methoxychlor	
4.976	1	6	4.762	0.0753			
5.005	2	5	2.488	0.0627			
5.126	5	10	1.821	0.1255		21 Endrin ketone	
5.347	1	3	2.586	0.0376			
5.771	14	15	1.044	0.1882			
5.776	5	16	3.002	0.2008			
5.785	8	14	1.716	0.1757			
5.789	1	12	8.511	0.1506			
5.792	3	10	3.937	0.1255			
6.336	395	294	0.745	3.6897	$	24 Decachlorobiphenyl (S)	
6.578	2	3	1.205	0.0376			
6.681	1	4	3.200	0.0502			
6.695	1	3	2.941	0.0376			
6.949	2	5	2.008	0.0627			
	6454	7968		100.000			

Total unknown % height = 12.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 19:08
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.360	2.359	0.001	432	0.02577	0.0258			(R)
2 alpha-BHC					CAS #: 319-84-6			
2.624	2.623	0.001	283	0.01330	0.0133			(R)
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.841	2.840	0.001	268	0.01340	0.0134			(R)
4 beta-BHC					CAS #: 319-85-7			
3.002	3.001	0.001	129	0.01268	0.0127			(R)
12 4,4'-DDE					CAS #: 72-55-9			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	955	0.06527	0.0653			(R)
15 4,4'-DDD					CAS #: 72-54-8			
4.459	4.451	0.008	3	2e-004	0.000218			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.637	4.635	0.002	4	3e-004	0.000295			
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	1424	0.12558	0.126			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.946	4.946	0.000	2004	0.29627	0.296			
21 Endrin ketone					CAS #: 53494-70-5			
5.125	5.125	0.000	5	0.00030	0.000300			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.335	0.000	394	0.02593	0.0259			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

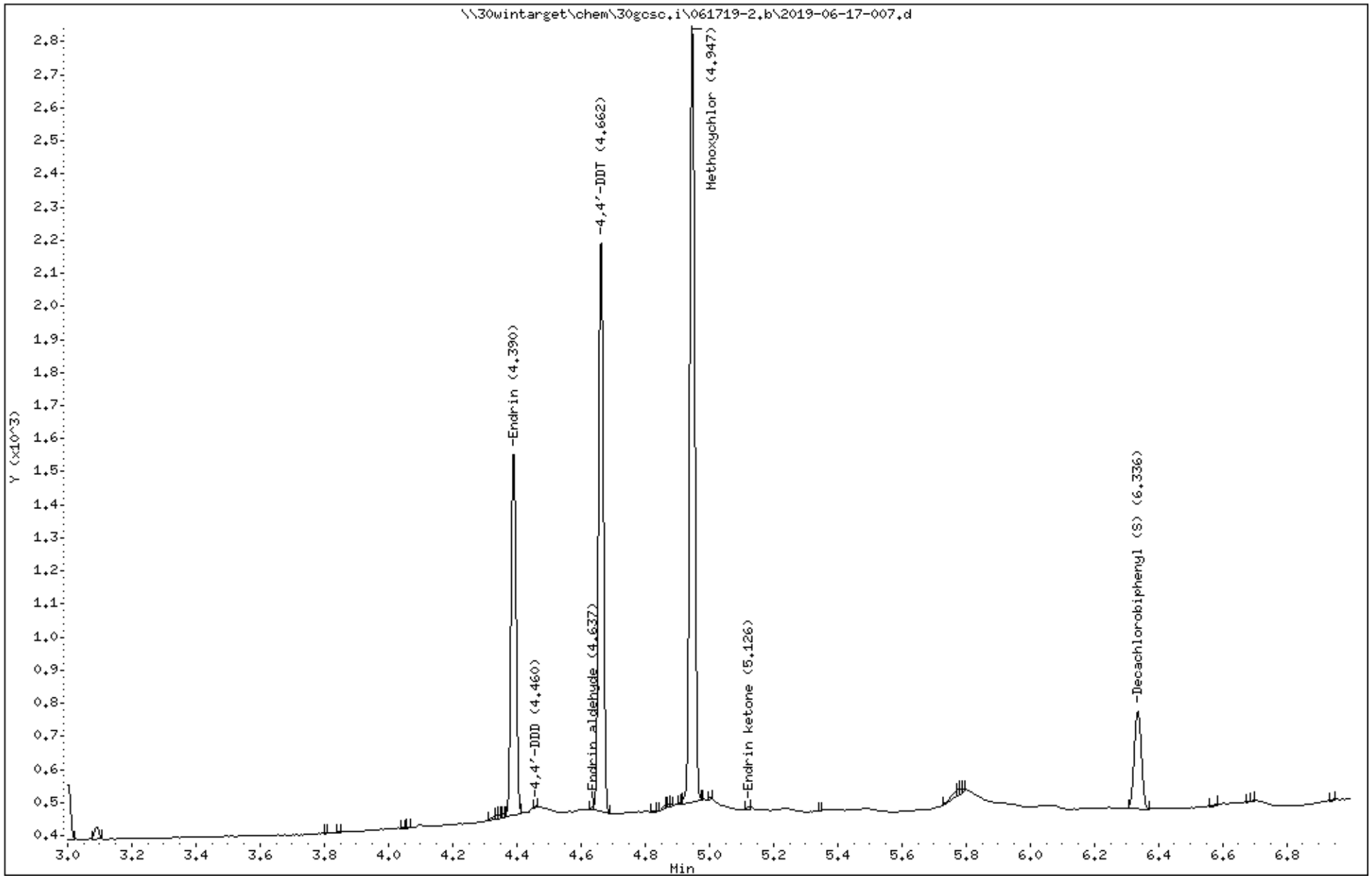
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15455,PEM

Client SDG: 30GCSC-061719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0133	
58-89-9	gamma-BHC (Lindane)	0.0134	
319-85-7	beta-BHC	0.0127	
72-55-9	4,4'-DDE	0.000	U
72-20-8	Endrin	0.0653	
72-54-8	4,4'-DDD	0.000218	
7421-36-3	Endrin aldehyde	0.000295	
50-29-3	4,4'-DDT	0.126	
72-43-5	Methoxychlor	0.296	
53494-70-5	Endrin ketone	0.000300	
----------	Tetrachloro-m-xylene (S)	0.0258	
----------	Decachlorobiphenyl (S)	0.0259	

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-007.d
Date : 17-JUN-2019 19:08
Client ID: PEM
Sample Info: PEM, 89577:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-2.b/2019-06-17-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUN-2019 19:08 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	283	283
beta-BHC	129	129
gamma-BHC (Lindane)	268	268
4,4'-DDE	0	0
Endrin	955	955
4,4'-DDD	3	3
4,4'-DDT	1424	1424
Methoxychlor	2004	2004
Endrin ketone	5	5
Endrin aldehyde	4	4
Tetrachloro-m-xylene (S)	432	432
Decachlorobiphenyl (S)	394	394

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 19:37
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.894	1210	1567	1.295	3.0081			
0.941	685	960	1.402	1.8429			
0.962	690	910	1.319	1.7469			
0.998	4	13	2.902	0.0249			
1.003	6	15	2.513	0.0287			
1.011	4	11	2.455	0.0211			
1.043	5	9	1.991	0.0172			
1.048	3	8	3.077	0.0153			
1.130	3	7	2.243	0.0134			
1.223	2	3	1.224	0.0057			
1.240	4	12	2.941	0.0230			
1.247	4	13	3.009	0.0249			
1.251	2	12	4.938	0.0230			
1.257	4	13	3.672	0.0249			
1.269	9	15	1.616	0.0287			
1.279	8	15	1.997	0.0287			
1.295	12	13	1.070	0.0249			
1.297	2	16	7.273	0.0307			
1.304	5	14	2.682	0.0268			
1.310	5	12	2.626	0.0230			
1.315	2	10	4.854	0.0191			
1.320	3	10	3.067	0.0191			
1.326	2	7	3.043	0.0134			
1.335	4	9	2.169	0.0172			
1.371	6	13	2.249	0.0249			
1.405	3	8	2.623	0.0153			
1.417	3	7	2.509	0.0134			
1.426	2	7	2.917	0.0134			
1.448	3	8	2.649	0.0153			
1.789	2	10	4.902	0.0191			
1.792	7	14	1.938	0.0268			
1.886	2038	2942	1.444	5.6478	$	1 Tetrachloro-m-xylene (S)	RT
2.102	27	36	1.336	0.0691			
2.239	1390	1986	1.429	3.8125		2 alpha-BHC	RT
2.414	3	8	2.540	0.0153			
2.475	1278	1773	1.387	3.4036		3 gamma-BHC (Lindane)	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.500	4	10	2.833	0.0191		
2.618	620	754	1.216	1.4474	4 beta-BHC	RT
2.647	2	8	3.941	0.0153		
2.655	3	9	2.639	0.0172		
2.662	2	7	3.483	0.0134		
2.713	1340	1770	1.321	3.3978	5 Heptachlor	RT
2.814	1200	1566	1.305	3.0062	6 delta-BHC	RT
2.897	4	12	3.217	0.0230		
2.905	7	17	2.478	0.0326		
2.924	1181	1530	1.295	2.9371	7 Aldrin	RT
3.158	2	6	2.857	0.0115		
3.206	2	7	3.465	0.0134		
3.281	1150	1466	1.275	2.8143	8 Heptachlor epoxide	RT
3.352	2	7	3.431	0.0134		
3.359	3	7	2.789	0.0134		
3.437	1144	1453	1.270	2.7893	9 gamma-Chlordane	RT
3.502	1108	1411	1.273	2.7087	10 alpha-Chlordane	RT
3.547	1065	1364	1.281	2.6184	11 Endosulfan I	RT
3.623	2081	2517	1.209	4.8319	12 4,4'-DDE	RT
3.739	2248	2879	1.281	5.5268	13 Dieldrin	RT
3.763	2	10	4.058	0.0191		
3.958	2065	2588	1.254	4.9682	14 Endrin	RT
4.018	1727	1967	1.139	3.7760	15 4,4'-DDD	RT
4.052	9	32	3.505	0.0614		
4.057	9	27	3.082	0.0518		
4.063	8	24	2.844	0.0460		
4.069	2	21	8.861	0.0403		
4.071	4	21	5.237	0.0403		
4.077	7	22	3.328	0.0422		
4.080	3	23	7.372	0.0441		
4.083	4	25	6.068	0.0479		
4.089	11	30	2.745	0.0575		
4.107	96	80	0.830	0.1535		
4.137	1976	2376	1.202	4.5612	16 Endosulfan II	RT
4.170	3	11	3.618	0.0211		
4.178	2	11	4.508	0.0211		
4.182	3	8	2.878	0.0153		
4.208	1848	2328	1.260	4.4691	17 4,4'-DDT	RT
4.290	1588	1901	1.197	3.6493	18 Endrin aldehyde	RT
4.377	3	8	2.759	0.0153		
4.429	1850	2286	1.236	4.3884	19 Endosulfan sulfate	RT
4.571	7	14	1.955	0.0268		
4.664	4799	5665	1.180	10.8857	20 Methoxychlor	RT
4.711	2	16	7.175	0.0307		
4.717	5	16	2.963	0.0307		
4.721	6	16	2.763	0.0307		
4.728	2	8	3.509	0.0153		
4.851	1609	1941	1.207	3.7261	21 Endrin ketone	RT
4.888	2	9	3.673	0.0172		
4.896	4	8	2.067	0.0153		
5.014	17	26	1.562	0.0499		
5.080	3	10	3.534	0.0191		
5.088	4	15	4.098	0.0287		
5.094	4	15	3.650	0.0287		
5.102	5	16	3.516	0.0307		
5.104	3	16	6.375	0.0307		
5.107	3	17	5.629	0.0326		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.111	3	17	6.159	0.0326		
5.116	7	20	2.805	0.0383		
5.120	3	21	7.292	0.0403		
5.127	8	22	2.810	0.0422		
5.131	9	25	2.772	0.0479		
5.137	4	24	5.701	0.0460		
5.140	6	24	3.960	0.0460		
5.144	6	23	3.704	0.0441		
5.149	3	20	6.873	0.0383		
5.155	7	22	3.184	0.0422		
5.160	10	24	2.314	0.0460		
5.166	6	20	3.236	0.0383		
5.174	8	23	2.774	0.0441		
5.179	3	22	7.166	0.0422		
5.183	6	20	3.401	0.0383		
5.188	4	15	3.750	0.0287		
5.193	5	19	4.017	0.0364		
5.199	5	16	3.509	0.0307		
5.204	4	15	3.927	0.0287		
5.208	3	15	5.976	0.0287		
5.212	4	16	4.469	0.0307		
5.218	4	16	3.783	0.0307		
5.221	6	18	2.889	0.0345		
5.227	4	13	3.081	0.0249		
5.240	4	8	2.260	0.0153		
5.286	2	11	4.846	0.0211		
5.290	2	12	5.941	0.0230		
5.298	6	13	2.257	0.0249		
5.305	5	18	3.711	0.0345		
5.311	4	19	4.348	0.0364		
5.316	5	20	4.073	0.0383		
5.321	6	19	3.282	0.0364		
5.324	4	23	5.192	0.0441		
5.329	5	24	5.172	0.0460		
5.331	6	23	4.122	0.0441		
5.338	10	20	1.914	0.0383		
5.346	4	17	4.096	0.0326		
5.351	3	15	4.732	0.0287		
5.355	4	12	3.333	0.0230		
5.437	16	31	1.934	0.0595		
5.487	3	8	2.768	0.0153		
5.491	2	10	4.608	0.0191		
5.496	3	10	3.195	0.0191		
5.506	2	8	3.791	0.0153		
5.643	1969	1900	0.965	3.6474	$ 24 Decachlorobiphenyl (S)	RT
5.792	2	11	4.472	0.0211		
5.886	3	8	2.878	0.0153		
5.957	2	9	3.982	0.0172		
6.027	2	9	4.091	0.0172		
6.277	2	8	3.721	0.0153		
6.292	3	12	4.270	0.0230		
6.298	2	11	5.473	0.0211		
6.300	3	12	3.896	0.0230		
6.309	3	10	3.759	0.0191		
6.314	3	11	4.151	0.0211		
6.321	3	12	4.444	0.0230		
6.325	3	10	3.058	0.0191		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.331	4	14	3.182	0.0268		
6.342	2	7	2.941	0.0134		
6.370	4	11	2.511	0.0211		
6.378	2	8	3.463	0.0153		
6.385	2	9	3.797	0.0172		
6.393	2	8	3.320	0.0153		
6.404	2	10	4.082	0.0191		
6.484	3	10	3.322	0.0191		
6.496	3	11	4.074	0.0211		
6.500	2	13	5.462	0.0249		
6.505	4	14	3.153	0.0268		
6.512	2	13	6.468	0.0249		
6.519	3	14	5.303	0.0268		
6.527	3	11	3.642	0.0211		
6.540	2	10	4.329	0.0191		
6.545	2	9	4.478	0.0172		
6.620	2	8	3.493	0.0153		
6.683	2	9	4.206	0.0172		
6.691	3	13	4.498	0.0249		
6.693	3	14	4.011	0.0268		
6.702	3	18	6.897	0.0345		
6.708	3	14	4.682	0.0268		
6.712	3	14	4.762	0.0268		
6.718	3	15	4.777	0.0287		
6.733	2	12	5.430	0.0230		
6.741	2	9	3.782	0.0172		
6.790	4	10	2.463	0.0191		
6.803	4	13	3.163	0.0249		
6.809	4	15	3.378	0.0287		
6.813	4	13	3.377	0.0249		
6.825	3	13	4.180	0.0249		
6.828	3	12	3.659	0.0230		
6.900	2	10	4.098	0.0191		
	40624	52091		100.000		

Total unknown % height = 11.0

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 19:37
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	2037	0.04000	0.0458		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.238	2.238	0.000	1389	0.02000	0.0234		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.474	2.474	0.000	1278	0.02000	0.0228		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
2.618	2.618	0.000	619	0.02000	0.0230		(M)	RT
6 delta-BHC					CAS #: 76-44-8			
2.814	2.814	0.000	1199	0.02000	0.0221		(M)	RT
5 Heptachlor					CAS #: 319-86-8			
2.712	2.712	0.000	1339	0.02000	0.0229		(M)	RT
7 Aldrin					CAS #: 309-00-2			
2.924	2.924	0.000	1181	0.02000	0.0224		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.281	3.281	0.000	1149	0.02000	0.0223		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.436	3.436	0.000	1143	0.02000	0.0218		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
3.501	3.501	0.000	1108	0.02000	0.0219		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
3.546	3.546	0.000	1064	0.02000	0.0223		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.623	3.623	0.000	2081	0.04000	0.0426		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
3.739	3.739	0.000	2247	0.04000	0.0440		(M)	RT
14 Endrin					CAS #: 72-20-8			
3.957	3.957	0.000	2064	0.04000	0.0447		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.017	4.017	0.000	1727	0.04000	0.0438		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.137	4.137	0.000	1975	0.04000	0.0464		(M)	RT
17 4,4'-DDT					CAS #: 50-29-3			
4.208	4.208	0.000	1848	0.04000	0.0430		(M)	RT
18 Endrin aldehyde					CAS #: 7421-36-3			
4.290	4.290	0.000	1587	0.04000	0.0415		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.428	4.428	0.000	1849	0.04000	0.0394		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	4798	0.20000	0.214		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
4.850	4.850	0.000	1608	0.04000	0.0332		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.643	5.643	0.000	1969	0.04000	0.0417		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUN-2019 19:37
Lab File ID: 2019-06-17-010. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m

COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
$ 1 Tetrachloro-m-xylene (S)	44424	50925	0.000	14.63386	20.00000	Aver	(M)
2 alpha-BHC	59466	69450	0.000	16.78999	20.00000	Aver	(M)
3 gamma-BHC (Lindane)	56109	63900	0.000	13.88586	20.00000	Aver	(M)
4 beta-BHC	26880	30950	0.000	15.14341	20.00000	Aver	(M)
6 delta-BHC	54284	59950	0.000	10.43857	20.00000	Aver	(M)
5 Heptachlor	58538	66950	0.000	14.36950	20.00000	Aver	(M)
7 Aldrin	52588	59050	0.000	12.28777	20.00000	Aver	(M)
8 Heptachlor epoxide	51592	57450	0.000	11.35417	20.00000	Aver	(M)
9 gamma-Chlordane	52505	57150	0.000	8.84628	20.00000	Aver	(M)
10 alpha-Chlordane	50638	55400	0.000	9.40483	20.00000	Aver	(M)
11 Endosulfan I	47661	53200	0.000	11.62066	20.00000	Aver	(M)
12 4,4'-DDE	48868	52025	0.000	6.46031	20.00000	Aver	(M)
13 Dieldrin	51114	56175	0.000	9.90181	20.00000	Aver	(M)
14 Endrin	46141	51600	0.000	11.83009	20.00000	Aver	(M)
15 4,4'-DDD	39382	43175	0.000	9.63091	20.00000	Aver	(M)
16 Endosulfan II	42556	49375	0.000	16.02372	20.00000	Aver	(M)
17 4,4'-DDT	42979	46200	0.000	7.49543	20.00000	Aver	(M)
18 Endrin aldehyde	38198	39675	0.000	3.86708	20.00000	Aver	(M)
19 Endosulfan sulfate	46896	46225	0.000	-1.43073	20.00000	Aver	(M)
20 Methoxychlor	22445	23990	0.000	6.88508	20.00000	Aver	(M)
21 Endrin ketone	48431	40200	0.000	-16.99523	20.00000	Aver	(M)
$ 24 Decachlorobiphenyl (S)	47213	49225	0.000	4.26264	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 18.49122
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-010.d

Date : 17-JUN-2019 19:37

Client ID: CCV

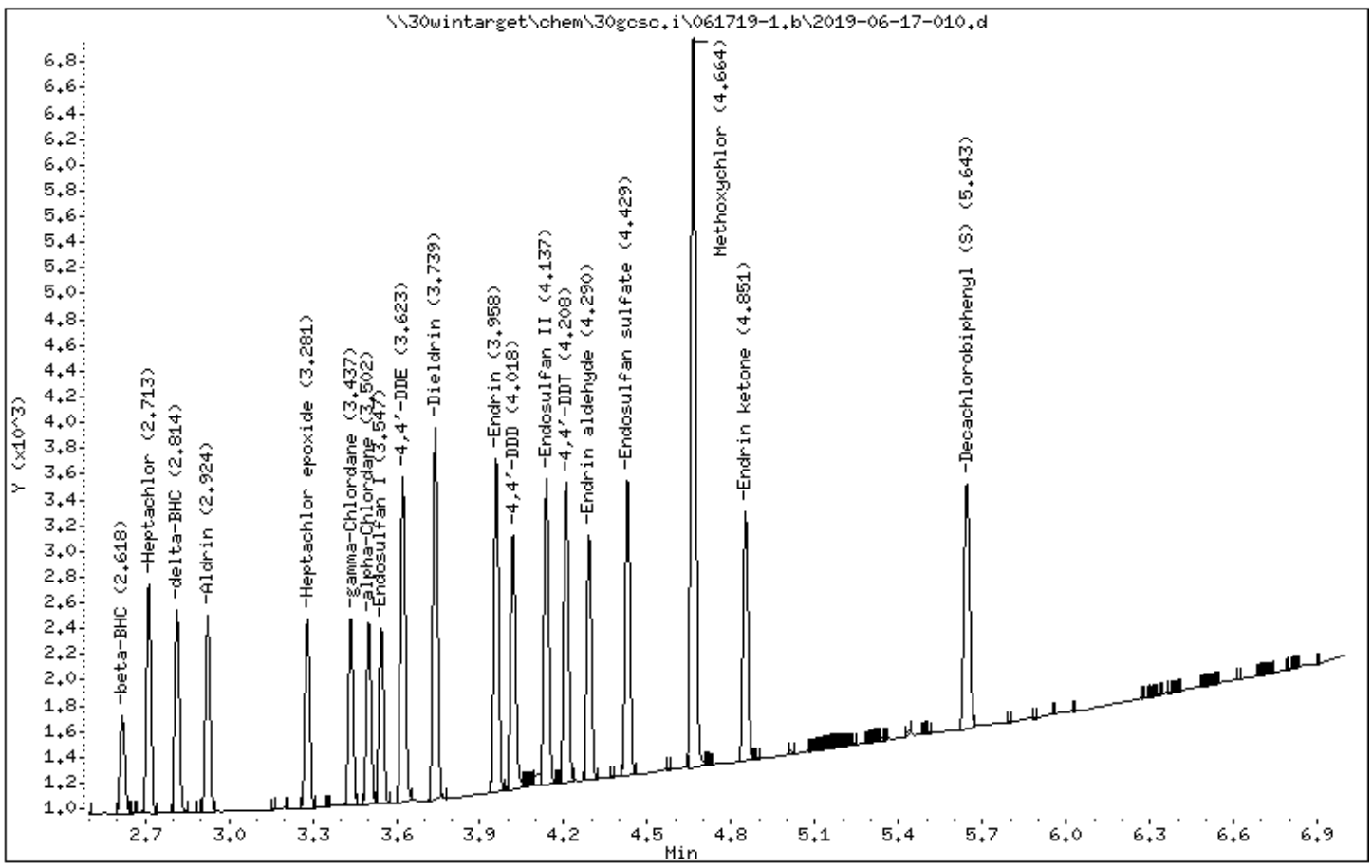
Instrument: 30gcsc.i

Sample Info: CCV, 91110:1

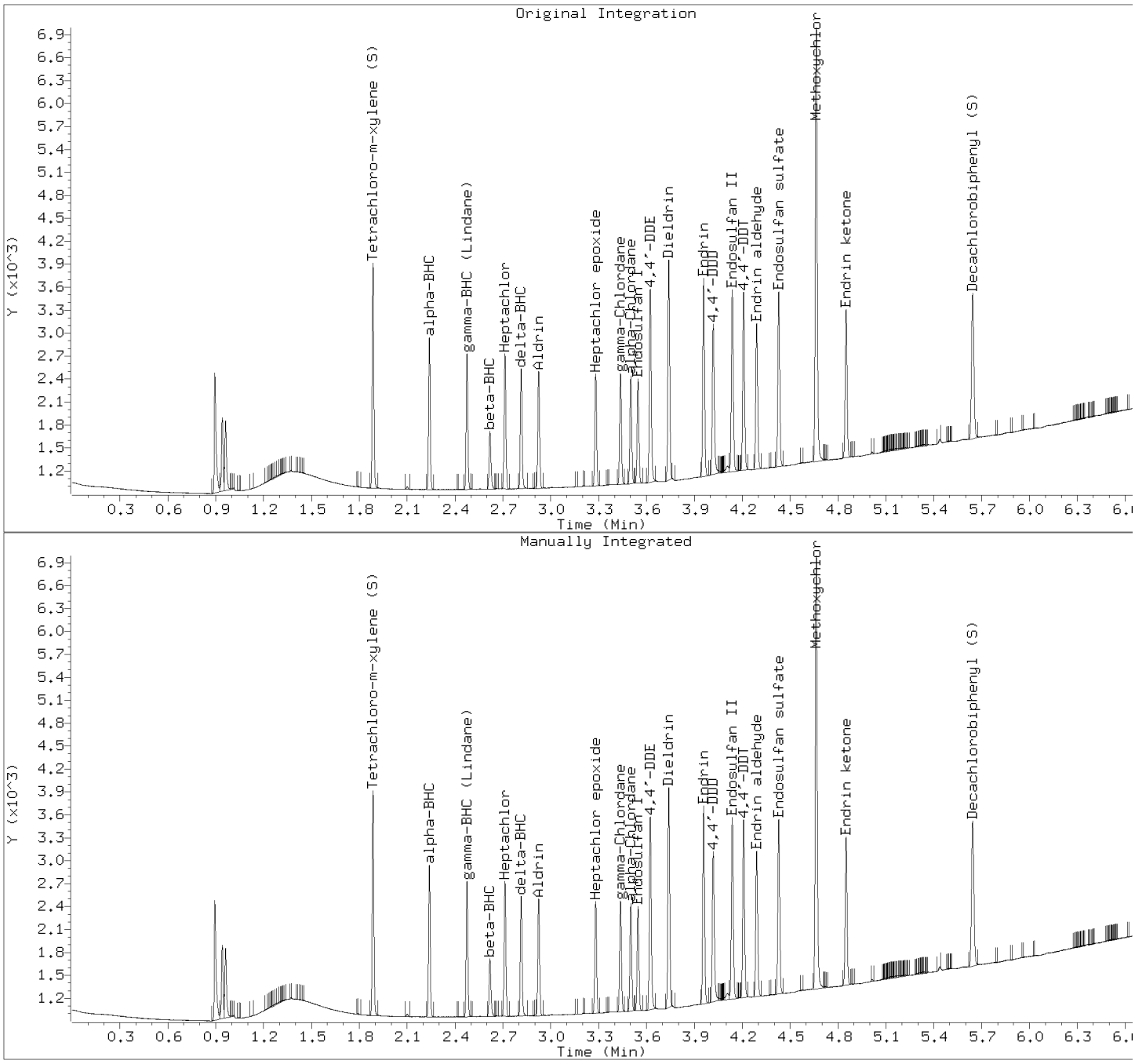
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUN-2019 19:37 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1389	1389
beta-BHC	619	619
delta-BHC	1199	1199
gamma-BHC (Lindane)	1278	1278
Heptachlor	1339	1339
Aldrin	1181	1181
Heptachlor epoxide	1149	1149
Endosulfan I	1064	1064
Dieldrin	2247	2247
4,4'-DDE	2081	2081
Endrin	2064	2064
Endosulfan II	1975	1975
4,4'-DDD	1727	1727
Endosulfan sulfate	1849	1849

4,4'-DDT	1848	1848
Methoxychlor	4798	4798
Endrin ketone	1608	1608
Endrin aldehyde	1587	1587
alpha-Chlordane	1108	1108
gamma-Chlordane	1143	1143
Tetrachloro-m-xylene (S)	2037	2037
Decachlorobiphenyl (S)	1969	1969

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 19:37
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT			COMPOUNDS	REVIEW CODE
0.865	1	3	2.419	0.0181				
0.878	418	1162	2.781	7.0394				
0.906	4	8	2.174	0.0484				
0.948	1	4	3.279	0.0242				
0.980	200	276	1.383	1.6720				
1.009	166	273	1.640	1.6538				
1.056	2	3	1.546	0.0181				
1.071	3	6	2.238	0.0363				
1.369	1	2	1.695	0.0121				
2.360	758	991	1.307	6.0035	$	1	Tetrachloro-m-xylene (S)	RT
2.570	1	4	3.008	0.0242				
2.624	494	664	1.344	4.0225		2	alpha-BHC	RT
2.841	456	592	1.299	3.5863		3	gamma-BHC (Lindane)	RT
3.001	220	277	1.260	1.6780		4	beta-BHC	RT
3.090	1	5	4.158	0.0302				
3.188	441	573	1.298	3.4712		5	delta-BHC	RT
3.250	434	550	1.268	3.3319		6	Heptachlor	RT
3.478	405	496	1.225	3.0047		7	Aldrin	RT
3.586	2	3	1.422	0.0181				
3.710	2	5	3.030	0.0302				
3.771	402	482	1.199	2.9199		8	Heptachlor epoxide	RT
3.984	393	472	1.202	2.8593		9	gamma-Chlordane	RT
4.020	386	461	1.196	2.7927		10	alpha-Chlordane	RT
4.053	371	434	1.171	2.6291		11	Endosulfan I	RT
4.099	722	876	1.213	5.3068		12	4,4'-DDE	RT
4.227	776	938	1.208	5.6824		13	Dieldrin	RT
4.341	4	3	0.796	0.0181				
4.389	654	744	1.138	4.5071		14	Endrin	RT
4.452	590	731	1.238	4.4284		15	4,4'-DDD	RT
4.562	662	786	1.187	4.7616		16	Endosulfan II	RT
4.636	567	657	1.158	3.9801		17	Endrin aldehyde	RT
4.663	460	554	1.204	3.3561		18	4,4'-DDT	RT
4.826	636	737	1.159	4.4647		19	Endosulfan sulfate	RT
4.868	5	6	1.272	0.0363				
4.878	1	2	1.550	0.0121				
4.947	1400	1600	1.143	9.6950		20	Methoxychlor	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
5.099	2	6	2.510	0.0363			
5.102	1	7	5.036	0.0424			
5.125	561	638	1.137	3.8650		21 Endrin ketone	RT
5.552	1	3	2.419	0.0181			
6.080	2	5	2.277	0.0302			
6.336	643	468	0.728	2.8351	$	24 Decachlorobiphenyl (S)	RT
	13250	16507		100.000			

Total unknown % height = 10.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 19:37
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	758	0.04000	0.0452		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.623	2.623	0.000	493	0.02000	0.0232		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.840	2.840	0.000	455	0.02000	0.0228		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
3.001	3.001	0.000	219	0.02000	0.0215		(M)	RT
5 delta-BHC					CAS #: 319-86-8			
3.187	3.187	0.000	441	0.02000	0.0221		(M)	RT
6 Heptachlor					CAS #: 76-44-8			
3.250	3.250	0.000	433	0.02000	0.0220		(M)	RT
7 Aldrin					CAS #: 309-00-2			
3.478	3.478	0.000	404	0.02000	0.0221		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.771	3.771	0.000	402	0.02000	0.0222		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.983	3.983	0.000	392	0.02000	0.0216		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
4.020	4.020	0.000	385	0.02000	0.0216		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
4.053	4.053	0.000	370	0.02000	0.0223		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO		REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9				
4.098	4.098	0.000	722	0.04000	0.0437			(M)	RT
13 Dieldrin					CAS #: 60-57-1				
4.227	4.227	0.000	776	0.04000	0.0442			(M)	RT
14 Endrin					CAS #: 72-20-8				
4.389	4.389	0.000	654	0.04000	0.0447			(M)	RT
15 4,4'-DDD					CAS #: 72-54-8				
4.451	4.451	0.000	590	0.04000	0.0429			(M)	RT
16 Endosulfan II					CAS #: 33213-65-9				
4.561	4.561	0.000	661	0.04000	0.0446			(M)	RT
17 Endrin aldehyde					CAS #: 7421-36-3				
4.635	4.635	0.000	567	0.04000	0.0418			(M)	RT
18 4,4'-DDT					CAS #: 50-29-3				
4.662	4.662	0.000	460	0.04000	0.0406			(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8				
4.825	4.825	0.000	635	0.04000	0.0394			(M)	RT
20 Methoxychlor					CAS #: 72-43-5				
4.946	4.946	0.000	1400	0.20000	0.207			(M)	RT
21 Endrin ketone					CAS #: 53494-70-5				
5.125	5.125	0.000	561	0.04000	0.0337			(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:				
6.335	6.335	0.000	642	0.04000	0.0422			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUN-2019 19:37
Lab File ID: 2019-06-17-010. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m

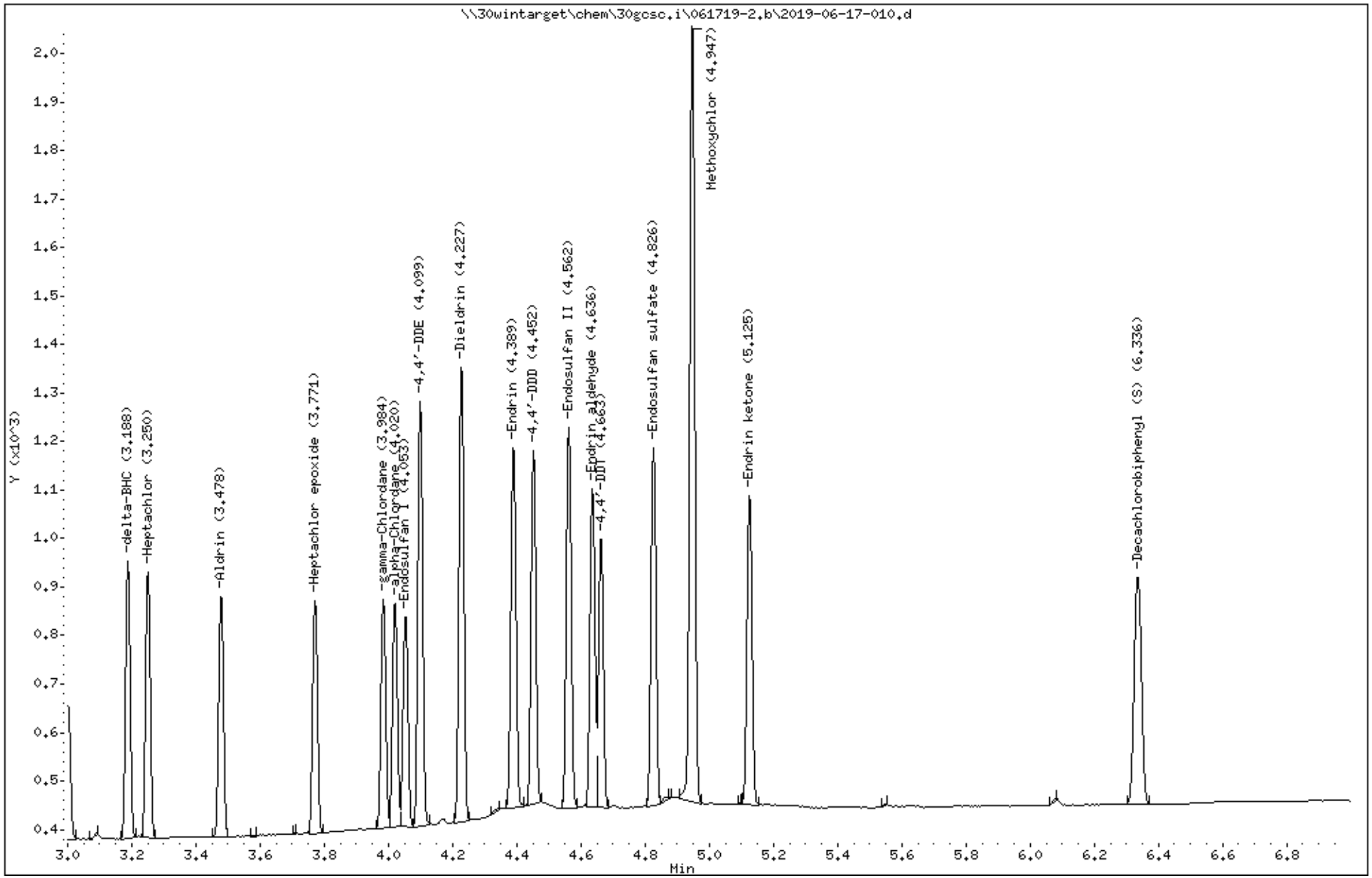
COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
$ 1 Tetrachloro-m-xylene (S)	16766	18950	0.000	13.02588	20.00000	Aver	(M)
2 alpha-BHC	21276	24650	0.000	15.85721	20.00000	Aver	(M)
3 gamma-BHC (Lindane)	19996	22750	0.000	13.77167	20.00000	Aver	(M)
4 beta-BHC	10176	10950	0.000	7.60160	20.00000	Aver	(M)
5 delta-BHC	19929	22050	0.000	10.64516	20.00000	Aver	(M)
6 Heptachlor	19642	21650	0.000	10.22353	20.00000	Aver	(M)
7 Aldrin	18303	20200	0.000	10.36241	20.00000	Aver	(M)
8 Heptachlor epoxide	18081	20100	0.000	11.16671	20.00000	Aver	(M)
9 gamma-Chlordane	18154	19600	0.000	7.96349	20.00000	Aver	(M)
10 alpha-Chlordane	17775	19250	0.000	8.29817	20.00000	Aver	(M)
11 Endosulfan I	16593	18500	0.000	11.49216	20.00000	Aver	(M)
12 4,4'-DDE	16524	18050	0.000	9.23474	20.00000	Aver	(M)
13 Dieldrin	17542	19400	0.000	10.59157	20.00000	Aver	(M)
14 Endrin	14631	16350	0.000	11.74666	20.00000	Aver	(M)
15 4,4'-DDD	13750	14750	0.000	7.27273	20.00000	Aver	(M)
16 Endosulfan II	14834	16525	0.000	11.39645	20.00000	Aver	(M)
17 Endrin aldehyde	13570	14175	0.000	4.46203	20.00000	Aver	(M)
18 4,4'-DDT	11339	11500	0.000	1.41732	20.00000	Aver	(M)
19 Endosulfan sulfate	16130	15875	0.000	-1.57945	20.00000	Aver	(M)
20 Methoxychlor	6764	7000	0.000	3.48615	20.00000	Aver	(M)
21 Endrin ketone	16640	14025	0.000	-15.71514	20.00000	Aver	(M)
$ 24 Decachlorobiphenyl (S)	15196	16050	0.000	5.61940	20.00000	Aver	(M)

QC Flag Legend

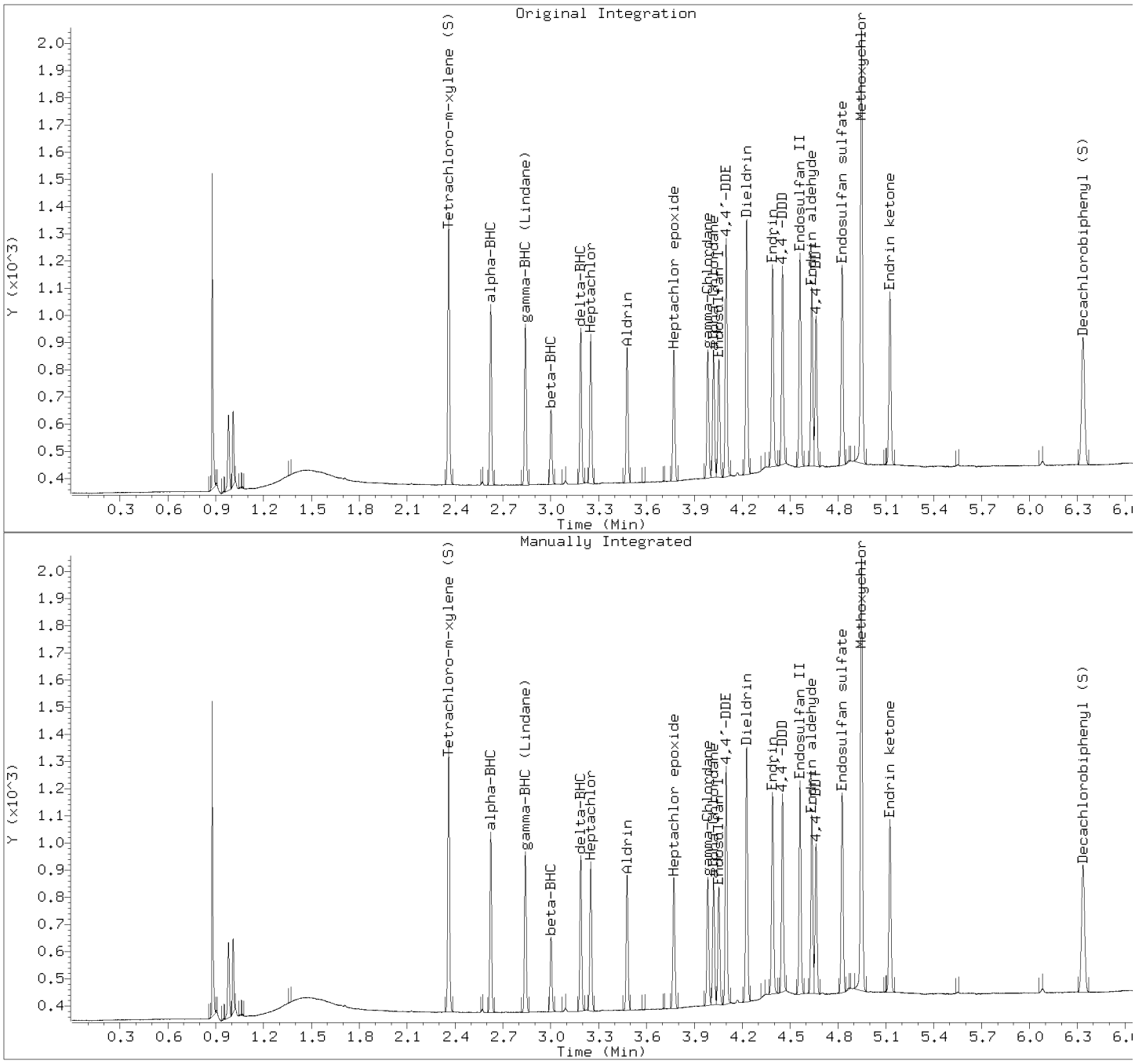
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-010.d
Date : 17-JUN-2019 19:37
Client ID: CCV
Sample Info: CCV, 91110:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-2.b/2019-06-17-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUN-2019 19:37 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	493	493
beta-BHC	219	219
delta-BHC	441	441
gamma-BHC (Lindane)	455	455
Heptachlor	433	433
Aldrin	404	404
Heptachlor epoxide	402	402
Endosulfan I	370	370
Dieldrin	776	776
4,4'-DDE	722	722
Endrin	654	654
Endosulfan II	661	661
4,4'-DDD	590	590
Endosulfan sulfate	635	635

4,4'-DDT	460	460
Methoxychlor	1400	1400
Endrin ketone	561	561
Endrin aldehyde	567	567
alpha-Chlordane	385	385
gamma-Chlordane	392	392
Tetrachloro-m-xylene (S)	758	758
Decachlorobiphenyl (S)	642	642

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-020.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 21:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 20 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.888	20	85	4.224	0.2785		
0.896	70	133	1.888	0.4359		
0.943	556	782	1.405	2.5630		
0.963	584	757	1.296	2.4810		
1.015	8	19	2.247	0.0622		
1.222	5	9	1.927	0.0294		
1.340	15	22	1.454	0.0721		
1.374	7	12	1.688	0.0393		
1.452	4	11	2.494	0.0360		
1.463	3	9	3.321	0.0294		
1.469	2	8	3.653	0.0262		
1.474	2	11	4.846	0.0360		
1.485	19	24	1.233	0.0786		
1.498	2	10	4.237	0.0327		
1.504	3	8	2.694	0.0262		
1.536	2	6	2.459	0.0196		
1.886	1245	1774	1.425	5.8142	$ 1 Tetrachloro-m-xylene (S)	
2.101	17	23	1.377	0.0753		
2.182	2	5	2.336	0.0163		
2.239	852	1234	1.449	4.0444	2 alpha-BHC	
2.475	814	1118	1.373	3.6642	3 gamma-BHC (Lindane)	
2.620	599	544	0.908	1.7829	4 beta-BHC	
2.908	4	9	2.381	0.0294		
3.351	3	7	2.201	0.0229		
3.358	2	7	3.365	0.0229		
3.623	31	33	1.081	0.1081	12 4,4'-DDE	
3.958	3427	4288	1.251	14.0539	14 Endrin	
4.018	21	29	1.383	0.0950	15 4,4'-DDD	
4.083	2	7	3.465	0.0229		
4.104	9	23	2.495	0.0753		
4.207	6274	7654	1.220	25.0860	17 4,4'-DDT	
4.291	3	7	2.713	0.0229	18 Endrin aldehyde	
4.540	2	8	3.941	0.0262		
4.551	3	10	2.882	0.0327		
4.558	3	11	3.571	0.0360		
4.564	2	10	4.149	0.0327		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.589	2	9	3.659	0.0294		
4.596	4	12	3.077	0.0393		
4.606	3	11	4.348	0.0360		
4.612	4	12	3.008	0.0393		
4.618	3	12	3.947	0.0393		
4.624	5	14	2.947	0.0458		
4.631	4	15	3.464	0.0491		
4.636	4	17	4.607	0.0557		
4.662	7830	9252	1.182	30.3303	20 Methoxychlor	
4.708	6	28	4.409	0.0917		
4.718	46	53	1.164	0.1737		
4.849	6	12	2.131	0.0393	21 Endrin ketone	
4.885	4	10	2.342	0.0327		
4.894	2	8	3.333	0.0262		
4.898	2	10	4.032	0.0327		
5.089	3	5	1.866	0.0163		
5.432	5	18	3.340	0.0589		
5.435	3	17	6.227	0.0557		
5.439	7	19	2.564	0.0622		
5.447	3	14	5.204	0.0458		
5.450	3	15	5.556	0.0491		
5.455	3	15	4.702	0.0491		
5.457	3	13	3.846	0.0426		
5.467	5	12	2.649	0.0393		
5.476	3	12	4.781	0.0393		
5.480	5	13	2.766	0.0426		
5.487	2	12	4.979	0.0393		
5.493	8	17	2.255	0.0557		
5.499	3	15	5.172	0.0491		
5.505	6	16	2.540	0.0524		
5.511	4	14	3.483	0.0458		
5.516	3	12	4.152	0.0393		
5.523	2	11	4.472	0.0360		
5.528	7	14	1.975	0.0458		
5.539	5	15	2.737	0.0491		
5.542	2	14	6.222	0.0458		
5.546	5	16	3.376	0.0524		
5.551	2	11	5.288	0.0360		
5.556	6	13	2.293	0.0426		
5.569	6	13	2.181	0.0426		
5.574	3	15	5.639	0.0491		
5.577	2	16	6.478	0.0524		
5.582	7	16	2.241	0.0524		
5.592	3	13	4.377	0.0426		
5.596	3	11	3.514	0.0360		
5.600	2	14	6.393	0.0458		
5.604	4	17	4.645	0.0557		
5.610	4	16	3.587	0.0524		
5.613	3	16	6.107	0.0524		
5.617	3	19	6.090	0.0622		
5.642	1424	1329	0.933	4.3558	$ 24 Decachlorobiphenyl (S)	
5.675	2	17	7.763	0.0557		
5.679	4	18	4.176	0.0589		
5.684	3	19	6.149	0.0622		
5.689	2	15	6.550	0.0491		
5.697	4	15	3.614	0.0491		
5.700	2	14	6.278	0.0458		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.703	5	14	2.899	0.0458		
5.714	3	14	4.000	0.0458		
5.724	2	14	6.364	0.0458		
5.731	4	13	3.275	0.0426		
5.733	4	15	4.121	0.0491		
5.738	5	14	2.998	0.0458		
5.751	5	16	3.059	0.0524		
5.762	4	12	3.217	0.0393		
5.766	3	12	3.909	0.0393		
5.773	3	13	4.659	0.0426		
5.797	3	8	2.572	0.0262		
5.819	3	9	2.875	0.0294		
5.991	2	10	4.425	0.0327		
5.999	3	12	3.478	0.0393		
6.005	3	10	3.788	0.0327		
6.012	4	12	3.200	0.0393		
6.023	3	10	3.205	0.0327		
6.038	3	10	3.289	0.0327		
6.049	4	10	2.525	0.0327		
6.055	2	9	4.245	0.0294		
6.059	5	12	2.564	0.0393		
6.084	2	12	5.769	0.0393		
6.098	3	11	3.971	0.0360		
6.108	4	15	3.521	0.0491		
6.122	2	10	4.587	0.0327		
6.127	3	11	3.583	0.0360		
6.137	3	11	3.571	0.0360		
6.146	3	12	4.511	0.0393		
6.157	3	10	3.185	0.0327		
6.234	3	9	3.261	0.0294		
6.468	3	8	3.150	0.0262		
6.707	2	9	4.455	0.0294		
6.762	2	7	3.398	0.0229		
6.786	2	8	3.941	0.0262		
6.865	3	10	3.584	0.0327		
6.882	2	11	5.392	0.0360		
	24239	30511		100.000		

Total unknown % height = 10.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-020.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 21:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 20 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.885	0.001	1245	0.02803	0.0280			(R)
2 alpha-BHC						CAS #: 319-84-6		
2.239	2.238	0.001	851	0.01431	0.0143			(R)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.474	2.474	0.000	814	0.01451	0.0145			(R)
4 beta-BHC						CAS #: 319-85-7		
2.620	2.618	0.002	598	0.02225	0.0222			(R)
12 4,4'-DDE						CAS #: 72-55-9		
3.623	3.623	0.000	30	6e-004	0.000614			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	3427	0.07427	0.0743			(R)
15 4,4'-DDD						CAS #: 72-54-8		
4.017	4.017	0.000	20	5e-004	0.000508			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	6273	0.14596	0.146			(R)
18 Endrin aldehyde						CAS #: 7421-36-3		
4.291	4.290	0.001	2	5e-005	0.0000524			
20 Methoxychlor						CAS #: 72-43-5		
4.662	4.663	-0.001	7830	0.34886	0.349			(R)
21 Endrin ketone						CAS #: 53494-70-5		
4.848	4.850	-0.002	5	1.e-004	0.000103			

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.642	5.643	-0.001	1424	0.03016	0.0302			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15455,PEM

Client SDG: 30GCSC-061719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0143	
58-89-9	gamma-BHC (Lindane)	0.0145	
319-85-7	beta-BHC	0.0222	
72-55-9	4,4'-DDE	0.000614	
72-20-8	Endrin	0.0743	
72-54-8	4,4'-DDD	0.000508	
50-29-3	4,4'-DDT	0.146	
7421-36-3	Endrin aldehyde	0.0000524	
72-43-5	Methoxychlor	0.349	
53494-70-5	Endrin ketone	0.000103	
----------	Tetrachloro-m-xylene (S)	0.0280	
----------	Decachlorobiphenyl (S)	0.0302	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-020.d

Date : 17-JUN-2019 21:14

Client ID: PEM

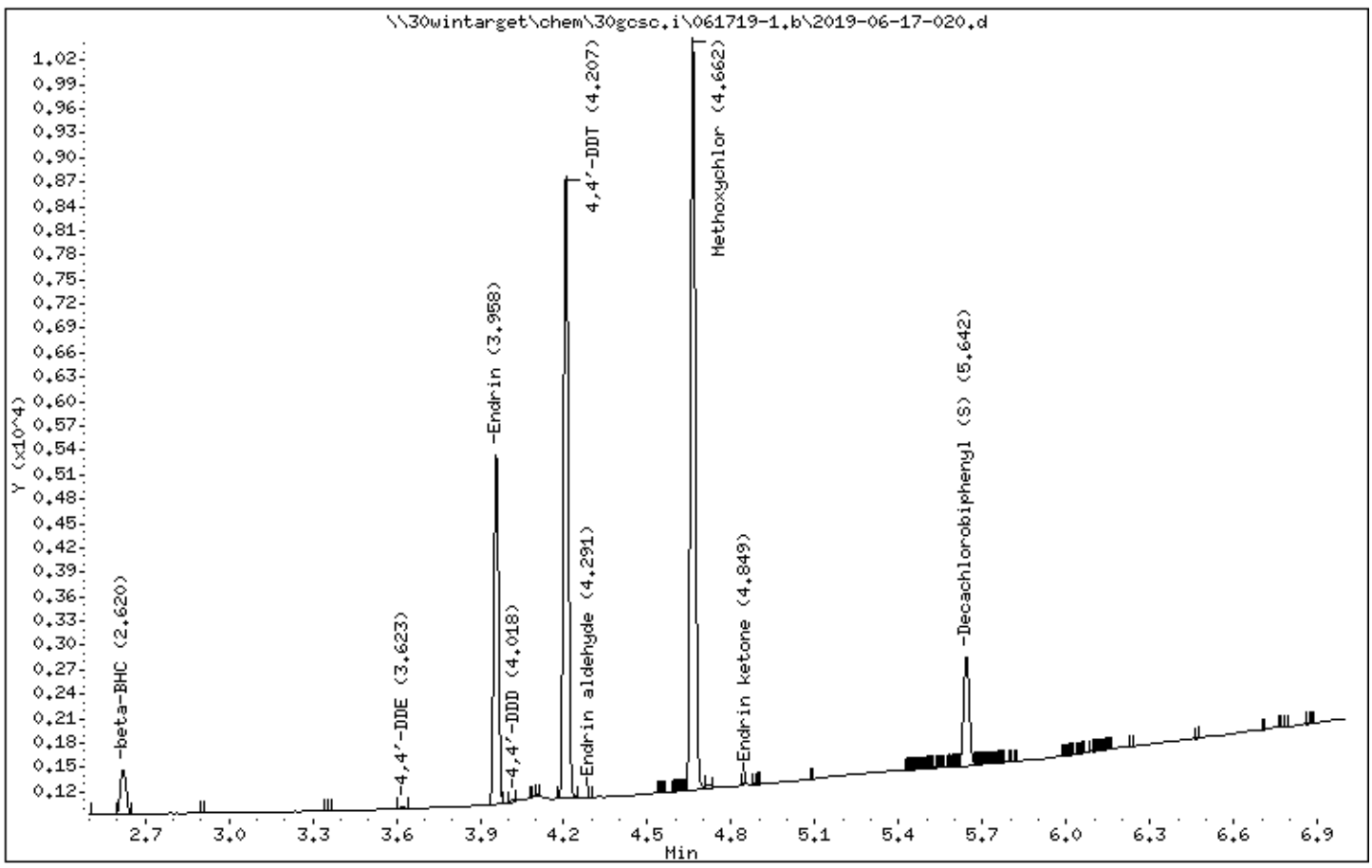
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-020.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUN-2019 21:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	20	20
Methoxychlor	7830	7830
gamma-BHC (Lindane)	814	814
beta-BHC	598	598
4,4'-DDE	30	30
Endrin	3427	3427
Endrin aldehyde	2	2
4,4'-DDT	6273	6273
Endrin ketone	5	5
alpha-BHC	851	851
Tetrachloro-m-xylene (S)	1245	1245
Decachlorobiphenyl (S)	1424	1424

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-020.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 21:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 20 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.853	1	3	2.857	0.0345			
0.879	80	200	2.486	2.3060			
0.908	1	2	1.695	0.0230			
0.954	3	2	0.633	0.0230			
0.982	190	242	1.276	2.7902			
1.011	158	234	1.485	2.6980			
1.072	2	4	2.094	0.0461			
1.332	2	3	1.775	0.0345			
1.471	1	2	1.600	0.0230			
1.512	1	2	1.754	0.0230			
1.686	1	4	3.125	0.0461			
2.360	469	616	1.313	7.1025	$	1 Tetrachloro-m-xylene (S)	
2.570	1	4	3.279	0.0461			
2.624	307	411	1.337	4.7388		2 alpha-BHC	
2.772	1	2	2.000	0.0230			
2.841	289	381	1.318	4.3929		3 gamma-BHC (Lindane)	
3.002	146	188	1.286	2.1676		4 beta-BHC	
3.091	55	69	1.260	0.7955			
3.583	1	2	1.905	0.0230			
4.101	4	7	1.790	0.0807		12 4,4'-DDE	
4.342	7	4	0.537	0.0461			
4.390	1078	1231	1.142	14.1934		14 Endrin	
4.455	3	6	1.780	0.0691		15 4,4'-DDD	
4.495	4	8	1.818	0.0922			
4.498	1	7	5.600	0.0807			
4.662	1635	1947	1.191	22.4489		18 4,4'-DDT	
4.865	5	8	1.754	0.0922			
4.867	2	8	3.980	0.0922			
4.873	2	6	3.797	0.0691			
4.905	6	13	2.156	0.1498			
4.946	2294	2665	1.162	30.7293		20 Methoxychlor	
5.003	5	12	2.348	0.1383			
5.006	2	11	4.867	0.1268			
5.123	6	14	2.164	0.1614			
5.127	5	14	2.811	0.1614		21 Endrin ketone	
5.365	1	1	0.926	0.0115			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.334	456	338	0.741	3.8971	$ 24 Decachlorobiphenyl (S)	
6.744	1	2	1.869	0.0230		
	7228	8673		100.000		

Total unknown % height = 10.0

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-020.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUN-2019 21:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15455,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 20 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.360	2.359	0.001	469	0.02797	0.0280			(R)
2 alpha-BHC						CAS #: 319-84-6		
2.624	2.623	0.001	307	0.01443	0.0144			(R)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.841	2.840	0.001	289	0.01445	0.0144			(R)
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	146	0.01435	0.0143			(R)
12 4,4'-DDE						CAS #: 72-55-9		
4.100	4.098	0.002	3	2e-004	0.000182			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	1077	0.07361	0.0736			(R)
15 4,4'-DDD						CAS #: 72-54-8		
4.455	4.451	0.004	3	2e-004	0.000218			
17 Endrin aldehyde						CAS #: 7421-36-3		
Compound Not Detected.								
18 4,4'-DDT						CAS #: 50-29-3		
4.661	4.662	-0.001	1635	0.14419	0.144			(R)
20 Methoxychlor						CAS #: 72-43-5		
4.946	4.946	0.000	2293	0.33899	0.339			(R)
21 Endrin ketone						CAS #: 53494-70-5		
5.127	5.125	0.002	4	0.00024	0.000240			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.334	6.335	-0.001	455	0.02994	0.0299			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

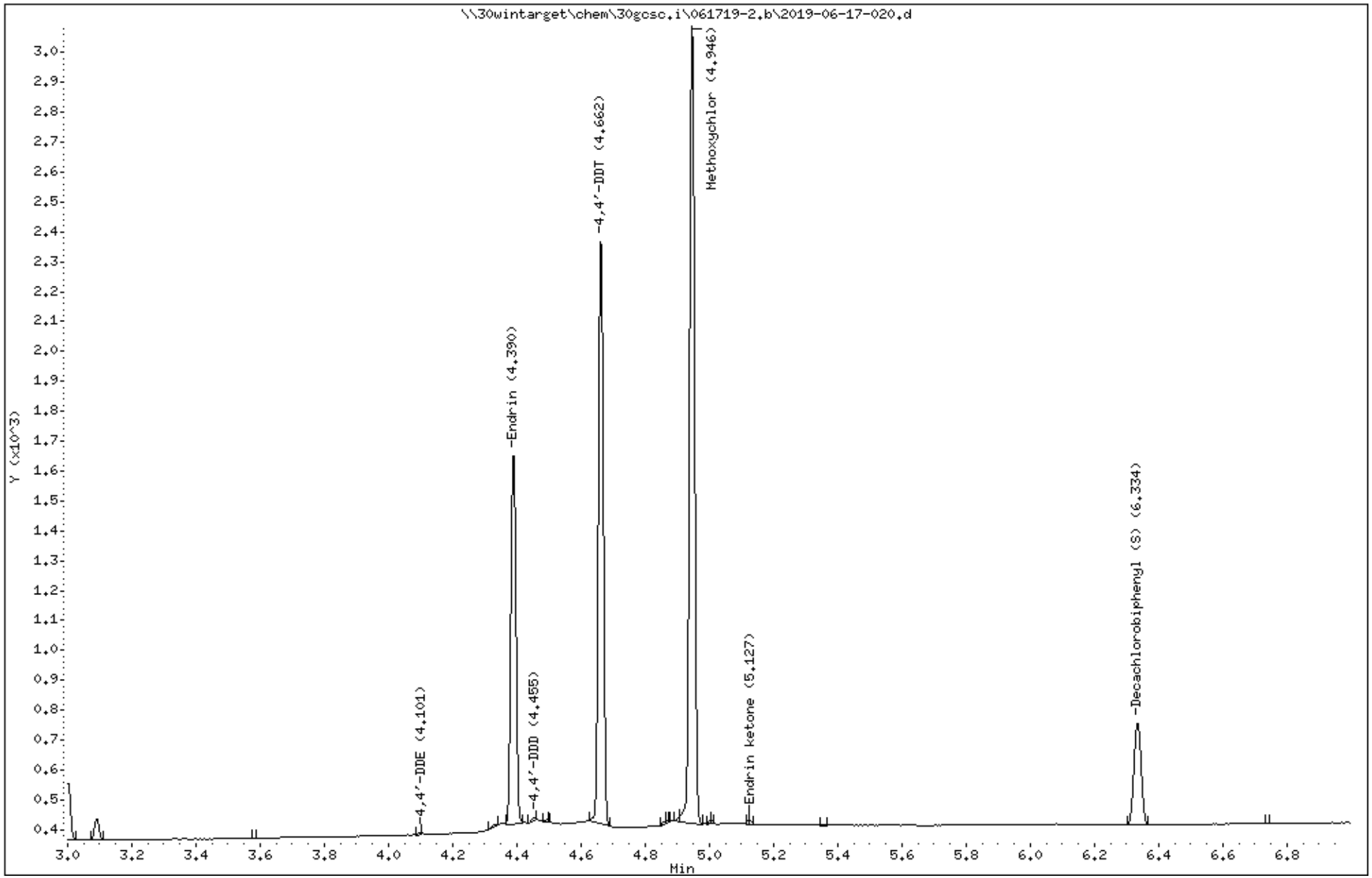
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15455,PEM

Client SDG: 30GCSC-061719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0144	
58-89-9	gamma-BHC (Lindane)	0.0144	
319-85-7	beta-BHC	0.0143	
72-55-9	4,4'-DDE	0.000182	
72-20-8	Endrin	0.0736	
72-54-8	4,4'-DDD	0.000218	
7421-36-3	Endrin aldehyde	0.000	U
50-29-3	4,4'-DDT	0.144	
72-43-5	Methoxychlor	0.339	
53494-70-5	Endrin ketone	0.000240	
----------	Tetrachloro-m-xylene (S)	0.0280	
----------	Decachlorobiphenyl (S)	0.0299	

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-020.d
Date : 17-JUN-2019 21:14
Client ID: PEM
Sample Info: PEM, 89577:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-2.b/2019-06-17-020.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUN-2019 21:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	307	307
beta-BHC	146	146
gamma-BHC (Lindane)	289	289
4,4'-DDE	3	3
Endrin	1077	1077
4,4'-DDD	3	3
4,4'-DDT	1635	1635
Methoxychlor	2293	2293
Endrin ketone	4	4
Endrin aldehyde	0	0
Tetrachloro-m-xylene (S)	469	469
Decachlorobiphenyl (S)	455	455

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-021.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 21:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	1996	2496	1.250	4.5182		
0.941	746	972	1.303	1.7594		
0.961	768	914	1.190	1.6545		
0.999	46	69	1.503	0.1249		
1.011	85	86	1.010	0.1556		
1.038	4	10	2.674	0.0181		
1.044	3	10	3.436	0.0181		
1.185	3	8	2.974	0.0144		
1.279	2	7	3.196	0.0126		
1.299	8	11	1.444	0.0199		
1.302	3	12	4.762	0.0217		
1.307	2	15	6.787	0.0271		
1.318	13	22	1.654	0.0398		
1.334	23	30	1.310	0.0543		
1.338	8	32	4.156	0.0579		
1.344	12	29	2.327	0.0524		
1.356	16	31	1.970	0.0561		
1.371	54	52	0.968	0.0941		
1.381	7	40	5.814	0.0724		
1.389	19	38	1.978	0.0687		
1.393	8	41	5.409	0.0742		
1.395	6	42	7.554	0.0760		
1.405	22	42	1.876	0.0760		
1.409	11	43	4.034	0.0778		
1.413	9	42	4.693	0.0760		
1.415	7	42	6.422	0.0760		
1.422	23	42	1.790	0.0760		
1.433	25	39	1.533	0.0705		
1.444	18	39	2.139	0.0705		
1.448	7	40	5.908	0.0724		
1.450	6	40	6.462	0.0724		
1.454	9	39	4.358	0.0705		
1.460	18	34	1.929	0.0615		
1.466	12	29	2.431	0.0524		
1.480	18	25	1.362	0.0452		
1.491	11	20	1.885	0.0362		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.500	5	12	2.609	0.0217		
1.791	7	12	1.762	0.0217		
1.885	2067	2948	1.426	5.3364	$ 1 Tetrachloro-m-xylene (S)	
1.917	2	15	6.198	0.0271		
1.923	12	17	1.468	0.0307		
2.101	30	43	1.422	0.0778		
2.239	1417	2005	1.415	3.6294	2 alpha-BHC	
2.474	1292	1781	1.378	3.2239	3 gamma-BHC (Lindane)	
2.618	630	786	1.248	1.4228	4 beta-BHC	
2.653	2	6	2.575	0.0108		
2.713	1334	1762	1.321	3.1895	5 Heptachlor	
2.790	3	6	2.206	0.0108		
2.814	1256	1646	1.310	2.9795	6 delta-BHC	
2.897	8	14	1.711	0.0253		
2.906	3	14	4.762	0.0253		
2.924	1182	1568	1.327	2.8383	7 Aldrin	
2.957	4	7	1.928	0.0126		
3.005	4	9	2.200	0.0162		
3.202	3	6	2.013	0.0108		
3.281	1165	1477	1.268	2.6736	8 Heptachlor epoxide	
3.437	1158	1464	1.264	2.6501	9 gamma-Chlordane	
3.501	1126	1439	1.279	2.6048	10 alpha-Chlordane	
3.546	1082	1376	1.272	2.4908	11 Endosulfan I	
3.623	2174	2628	1.209	4.7571	12 4,4'-DDE	
3.738	2281	2885	1.265	5.2223	13 Dieldrin	
3.957	2078	2557	1.230	4.6286	14 Endrin	
3.996	2	9	3.719	0.0162		
4.016	1857	2133	1.148	3.8611	15 4,4'-DDD	
4.050	17	60	3.456	0.1086		
4.054	6	57	10.124	0.1031		
4.058	32	58	1.821	0.1049		
4.065	22	59	2.726	0.1068		
4.074	17	58	3.426	0.1049		
4.078	11	59	5.148	0.1068		
4.080	21	60	2.894	0.1086		
4.088	13	59	4.705	0.1068		
4.104	148	107	0.723	0.1936		
4.137	2094	2499	1.194	4.5236	16 Endosulfan II	
4.167	4	30	7.426	0.0543		
4.173	10	32	3.092	0.0579		
4.175	8	32	4.172	0.0579		
4.182	6	27	4.538	0.0488		
4.207	1983	2334	1.177	4.2249	17 4,4'-DDT	
4.237	6	25	4.209	0.0452		
4.242	5	22	4.651	0.0398		
4.247	6	21	3.717	0.0380		
4.253	9	20	2.220	0.0362		
4.262	5	19	3.918	0.0343		
4.266	7	17	2.572	0.0307		
4.289	1700	2040	1.200	3.6927	18 Endrin aldehyde	
4.319	3	11	3.630	0.0199		
4.326	2	11	4.681	0.0199		
4.331	2	10	4.184	0.0181		
4.342	3	10	2.933	0.0181		
4.348	3	10	2.924	0.0181		
4.363	2	11	5.189	0.0199		
4.373	7	16	2.367	0.0289		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.377	10	20	2.006	0.0362		
4.428	1962	2366	1.206	4.2828	19 Endosulfan sulfate	
4.566	2	10	4.587	0.0181		
4.571	5	12	2.317	0.0217		
4.605	3	10	3.717	0.0181		
4.632	3	9	2.980	0.0162		
4.662	5041	6114	1.213	11.0746	20 Methoxychlor	
4.700	5	23	4.291	0.0416		
4.705	4	17	4.857	0.0307		
4.711	4	17	3.812	0.0307		
4.714	3	19	6.835	0.0343		
4.717	7	20	2.786	0.0362		
4.724	2	11	5.164	0.0199		
4.850	1698	2005	1.181	3.6294	21 Endrin ketone	
4.896	3	7	2.527	0.0126		
4.971	3	7	2.381	0.0126		
4.984	2	8	3.620	0.0144		
4.995	2	9	3.846	0.0162		
5.010	11	18	1.623	0.0325		
5.083	2	10	4.082	0.0181		
5.091	3	10	3.436	0.0181		
5.099	2	7	3.256	0.0126		
5.107	2	7	3.111	0.0126		
5.239	2	8	3.571	0.0144		
5.262	3	8	2.477	0.0144		
5.305	2	6	2.715	0.0108		
5.332	5	12	2.449	0.0217		
5.437	60	63	1.046	0.1140		
5.642	2060	1964	0.953	3.5552	$ 24 Decachlorobiphenyl (S)	
5.849	2	6	2.691	0.0108		
5.884	2	8	3.941	0.0144		
6.106	2	9	4.167	0.0162		
6.148	2	10	4.717	0.0181		
6.302	2	9	3.846	0.0162		
6.361	3	9	3.557	0.0162		
6.373	2	9	3.896	0.0162		
6.389	2	8	3.922	0.0144		
6.622	3	12	3.750	0.0217		
6.632	4	9	2.356	0.0162		
6.638	2	10	4.310	0.0181		
6.701	3	7	2.500	0.0126		
6.712	4	14	3.357	0.0253		
6.715	2	17	8.416	0.0307		
6.719	5	19	3.585	0.0343		
6.724	5	19	3.704	0.0343		
6.728	3	22	8.302	0.0398		
6.731	3	25	8.446	0.0452		
6.733	4	23	6.371	0.0416		
6.736	4	23	6.301	0.0416		
6.743	8	25	3.222	0.0452		
6.745	4	25	5.760	0.0452		
6.749	3	22	6.790	0.0398		
6.751	6	25	4.085	0.0452		
6.757	5	23	4.792	0.0416		
6.761	7	21	2.897	0.0380		
6.769	6	21	3.777	0.0380		
6.777	5	19	3.647	0.0343		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.782	6	17	2.862	0.0307		
6.792	3	19	5.588	0.0343		
6.796	5	15	3.268	0.0271		
6.804	3	12	4.152	0.0217		
6.815	3	11	4.264	0.0199		
6.819	3	11	3.207	0.0199		
6.827	3	11	3.607	0.0199		
6.847	2	8	3.404	0.0144		
6.955	2	11	4.701	0.0199		
	43409	55243		100.000		

Total unknown % height = 13.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-021.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 21:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.885	1.885	0.000	2066	0.04000	0.0465			
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	1416	0.02000	0.0238			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.474	2.474	0.000	1292	0.02000	0.0230			
4 beta-BHC						CAS #: 319-85-7		
2.618	2.618	0.000	629	0.02000	0.0234			
6 delta-BHC						CAS #: 76-44-8		
2.813	2.814	-0.001	1256	0.02000	0.0231			
5 Heptachlor						CAS #: 319-86-8		
2.712	2.712	0.000	1333	0.02000	0.0228			
7 Aldrin						CAS #: 309-00-2		
2.923	2.924	-0.001	1181	0.02000	0.0224			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.281	-0.001	1165	0.02000	0.0226			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.436	3.436	0.000	1158	0.02000	0.0220			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.501	-0.001	1125	0.02000	0.0222			
11 Endosulfan I						CAS #: 959-98-8		
3.546	3.546	0.000	1081	0.02000	0.0227			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.622	3.623	-0.001	2173	0.04000	0.0445			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.739	-0.001	2281	0.04000	0.0446			
14 Endrin						CAS #: 72-20-8		
3.956	3.957	-0.001	2078	0.04000	0.0450			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.017	-0.001	1857	0.04000	0.0472			
16 Endosulfan II						CAS #: 33213-65-9		
4.136	4.137	-0.001	2093	0.04000	0.0492			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	1983	0.04000	0.0461			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.290	-0.001	1699	0.04000	0.0445			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.427	4.428	-0.001	1962	0.04000	0.0418			
20 Methoxychlor						CAS #: 72-43-5		
4.662	4.663	-0.001	5040	0.20000	0.224			
21 Endrin ketone						CAS #: 53494-70-5		
4.849	4.850	-0.001	1698	0.04000	0.0351			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.642	5.643	-0.001	2059	0.04000	0.0436			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUN-2019 21:24
Lab File ID: 2019-06-17-021. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m

	COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$	1 Tetrachloro-m-xylene (S)	44424	51650	0.000	16.26586	20.00000	Aver		
	2 alpha-BHC	59466	70800	0.000	19.06020	20.00000	Aver		
	3 gamma-BHC (Lindane)	56109	64600	0.000	15.13344	20.00000	Aver		
	4 beta-BHC	26880	31450	0.000	17.00356	20.00000	Aver		
	6 delta-BHC	54284	62800	0.000	15.68878	20.00000	Aver		
	5 Heptachlor	58538	66650	0.000	13.85702	20.00000	Aver		
	7 Aldrin	52588	59050	0.000	12.28777	20.00000	Aver		
	8 Heptachlor epoxide	51592	58250	0.000	12.90479	20.00000	Aver		
	9 gamma-Chlordane	52505	57900	0.000	10.27471	20.00000	Aver		
	10 alpha-Chlordane	50638	56250	0.000	11.08342	20.00000	Aver		
	11 Endosulfan I	47661	54050	0.000	13.40407	20.00000	Aver		
	12 4,4'-DDE	48868	54325	0.000	11.16687	20.00000	Aver		
	13 Dieldrin	51114	57025	0.000	11.56476	20.00000	Aver		
	14 Endrin	46141	51950	0.000	12.58863	20.00000	Aver		
	15 4,4'-DDD	39382	46425	0.000	17.88338	20.00000	Aver		
	16 Endosulfan II	42556	52325	0.000	22.95577	20.00000	Aver		<-
	17 4,4'-DDT	42979	49575	0.000	15.34818	20.00000	Aver		
	18 Endrin aldehyde	38198	42475	0.000	11.19734	20.00000	Aver		
	19 Endosulfan sulfate	46896	49050	0.000	4.59325	20.00000	Aver		
	20 Methoxychlor	22445	25200	0.000	12.27612	20.00000	Aver		
	21 Endrin ketone	48431	42450	0.000	-12.34944	20.00000	Aver		
$	24 Decachlorobiphenyl (S)	47213	51475	0.000	9.02833	20.00000	Aver		

Average %D / Drift Results.

Calculated Average %D/Drift = 18.49122
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-021.d

Date : 17-JUN-2019 21:24

Client ID: CCV

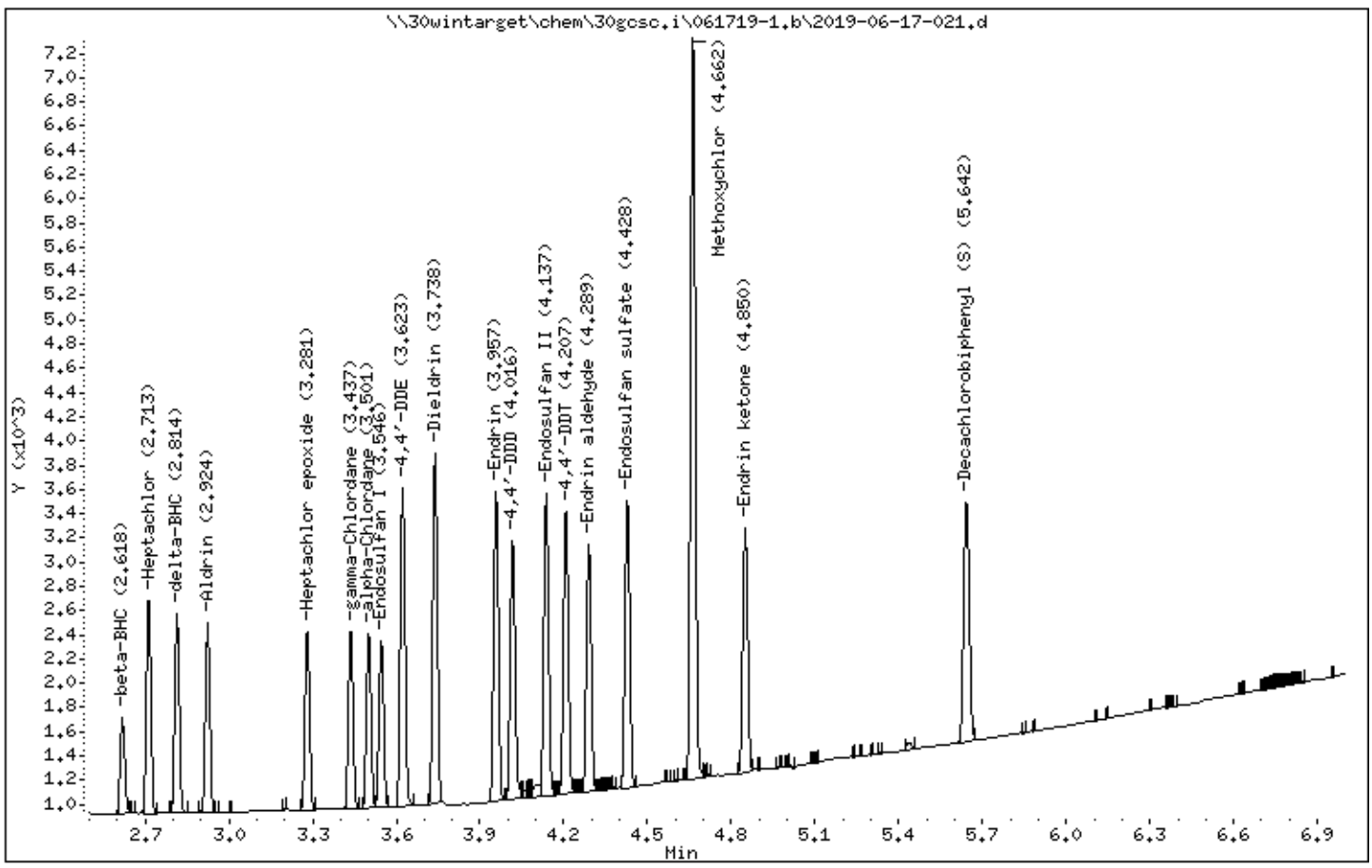
Instrument: 30gcsc.i

Sample Info: CCV, 91110:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-021.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUN-2019 21:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1416	1416
beta-BHC	629	629
delta-BHC	1256	1256
gamma-BHC (Lindane)	1292	1292
Heptachlor	1333	1333
Aldrin	1181	1181
Heptachlor epoxide	1165	1165
Endosulfan I	1081	1081
Dieldrin	2281	2281
4,4'-DDE	2173	2173
Endrin	2078	2078
Endosulfan II	2093	2093
4,4'-DDD	1857	1857
Endosulfan sulfate	1962	1962
4,4'-DDT	1983	1983
Methoxychlor	5040	5040
Endrin ketone	1698	1698
Endrin aldehyde	1699	1699
alpha-Chlordane	1125	1125
gamma-Chlordane	1158	1158
Tetrachloro-m-xylene (S)	2066	2066
Decachlorobiphenyl (S)	2059	2059

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-021.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 21:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.363	2	2	1.274	0.0113			
0.877	679	1790	2.636	10.1734			
0.955	6	8	1.292	0.0454			
0.980	229	283	1.237	1.6080			
1.009	215	281	1.305	1.5966			
1.057	9	13	1.379	0.0738			
1.068	8	13	1.599	0.0738			
1.329	1	4	3.030	0.0227			
2.167	1	1	1.000	0.0056			
2.360	765	1023	1.337	5.8128	$	1 Tetrachloro-m-xylene (S)	
2.420	1	2	1.887	0.0113			
2.570	2	5	2.326	0.0284			
2.624	502	676	1.345	3.8411		2 alpha-BHC	
2.841	463	606	1.310	3.4433		3 gamma-BHC (Lindane)	
3.002	229	287	1.252	1.6307		4 beta-BHC	
3.091	2	6	2.642	0.0340			
3.188	461	591	1.282	3.3581		5 delta-BHC	
3.222	4	6	1.446	0.0340			
3.250	436	535	1.228	3.0399		6 Heptachlor	
3.478	409	510	1.246	2.8978		7 Aldrin	
3.710	3	4	1.375	0.0227			
3.771	406	486	1.197	2.7615		8 Heptachlor epoxide	
3.984	398	476	1.195	2.7046		9 gamma-Chlordane	
4.020	392	463	1.181	2.6308		10 alpha-Chlordane	
4.053	375	446	1.190	2.5342		11 Endosulfan I	
4.099	731	918	1.256	5.2162		12 4,4'-DDE	
4.171	5	7	1.346	0.0397			
4.227	792	937	1.183	5.3241		13 Dieldrin	
4.275	1	3	2.344	0.0170			
4.341	7	5	0.756	0.0284			
4.389	666	760	1.142	4.3184		14 Endrin	
4.451	621	753	1.212	4.2786		15 4,4'-DDD	
4.562	691	802	1.161	4.5570		16 Endosulfan II	
4.636	593	698	1.177	3.9661		17 Endrin aldehyde	
4.662	489	601	1.230	3.4149		18 4,4'-DDT	
4.826	658	753	1.144	4.2786		19 Endosulfan sulfate	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.867	3	5	1.493	0.0284		
4.915	5	13	2.510	0.0738		
4.946	1452	1665	1.147	9.4607	20 Methoxychlor	
5.073	1	3	2.679	0.0170		
5.100	4	9	2.027	0.0511		
5.125	586	650	1.110	3.6933	21 Endrin ketone	
5.552	4	4	1.084	0.0227		
5.685	2	3	1.974	0.0170		
6.075	1	5	4.116	0.0284		
6.082	2	5	2.463	0.0284		
6.334	677	481	0.710	2.7331	$ 24 Decachlorobiphenyl (S)	
6.742	1	2	1.905	0.0113		
	13992	17599		100.000		

Total unknown % height = 14.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-021.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUN-2019 21:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 91110:1
Misc Info : 15520,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	764	0.04000	0.0456			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	502	0.02000	0.0236			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.840	2.840	0.000	462	0.02000	0.0231			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	229	0.02000	0.0225			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	460	0.02000	0.0231			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.250	-0.001	435	0.02000	0.0221			
7 Aldrin						CAS #: 309-00-2		
3.477	3.478	-0.001	409	0.02000	0.0223			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.771	-0.001	405	0.02000	0.0224			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.983	3.983	0.000	398	0.02000	0.0219			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.019	4.020	-0.001	392	0.02000	0.0220			
11 Endosulfan I						CAS #: 959-98-8		
4.053	4.053	0.000	374	0.02000	0.0225			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	731	0.04000	0.0442			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	791	0.04000	0.0451			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	665	0.04000	0.0454			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	621	0.04000	0.0452			
16 Endosulfan II						CAS #: 33213-65-9		
4.561	4.561	0.000	690	0.04000	0.0465			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	593	0.04000	0.0437			
18 4,4'-DDT						CAS #: 50-29-3		
4.661	4.662	-0.001	488	0.04000	0.0430			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.825	4.825	0.000	658	0.04000	0.0408			
20 Methoxychlor						CAS #: 72-43-5		
4.945	4.946	-0.001	1452	0.20000	0.215			
21 Endrin ketone						CAS #: 53494-70-5		
5.125	5.125	0.000	585	0.04000	0.0352			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.333	6.335	-0.002	677	0.04000	0.0446			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUN-2019 21:24
Lab File ID: 2019-06-17-021. Init. Cal. Date(s): 16-MAY-2019 16-MAY-2019
Analysis Type: Init. Cal. Times: 13:21 14:29
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m

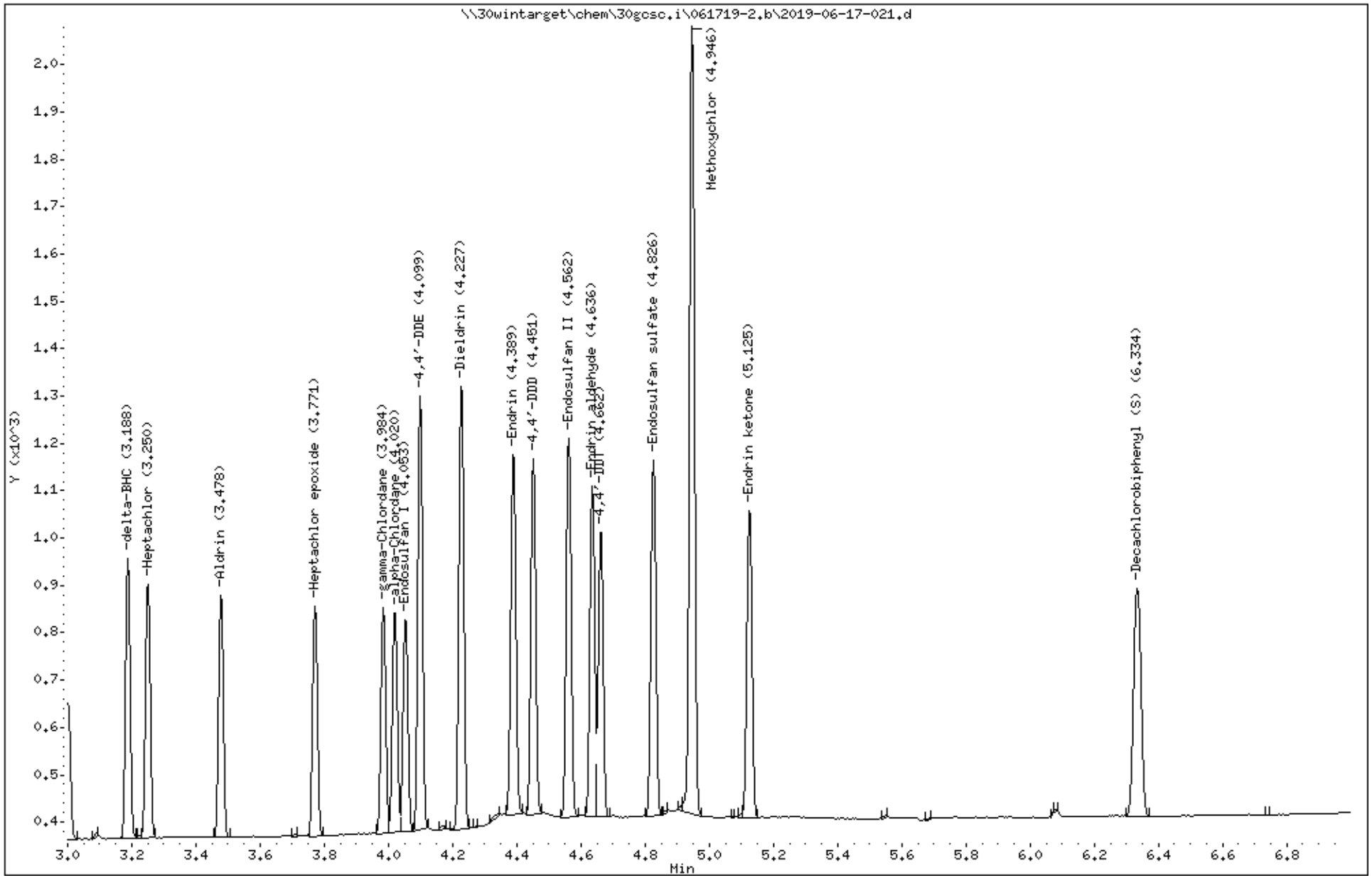
COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
$ 1 Tetrachloro-m-xylene (S)	16766	19100	0.000	13.92055	20.00000	Aver	
2 alpha-BHC	21276	25100	0.000	17.97225	20.00000	Aver	
3 gamma-BHC (Lindane)	19996	23100	0.000	15.52200	20.00000	Aver	
4 beta-BHC	10176	11450	0.000	12.51492	20.00000	Aver	
5 delta-BHC	19929	23000	0.000	15.41219	20.00000	Aver	
6 Heptachlor	19642	21750	0.000	10.73264	20.00000	Aver	
7 Aldrin	18303	20450	0.000	11.72828	20.00000	Aver	
8 Heptachlor epoxide	18081	20250	0.000	11.99631	20.00000	Aver	
9 gamma-Chlordane	18154	19900	0.000	9.61599	20.00000	Aver	
10 alpha-Chlordane	17775	19600	0.000	10.26723	20.00000	Aver	
11 Endosulfan I	16593	18700	0.000	12.69748	20.00000	Aver	
12 4,4'-DDE	16524	18275	0.000	10.59639	20.00000	Aver	
13 Dieldrin	17542	19775	0.000	12.72930	20.00000	Aver	
14 Endrin	14631	16625	0.000	13.62619	20.00000	Aver	
15 4,4'-DDD	13750	15525	0.000	12.90909	20.00000	Aver	
16 Endosulfan II	14834	17250	0.000	16.28374	20.00000	Aver	
17 Endrin aldehyde	13570	14825	0.000	9.25218	20.00000	Aver	
18 4,4'-DDT	11339	12200	0.000	7.59055	20.00000	Aver	
19 Endosulfan sulfate	16130	16450	0.000	1.98539	20.00000	Aver	
20 Methoxychlor	6764	7260	0.000	7.32992	20.00000	Aver	
21 Endrin ketone	16640	14625	0.000	-12.10938	20.00000	Aver	
$ 24 Decachlorobiphenyl (S)	15196	16925	0.000	11.37747	20.00000	Aver	

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-021.d
Date : 17-JUN-2019 21:24
Client ID: CCV
Sample Info: CCV, 91110:1

Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\061719-2.b/2019-06-17-021.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUN-2019 21:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	502	502
beta-BHC	229	229
delta-BHC	460	460
gamma-BHC (Lindane)	462	462
Heptachlor	435	435
Aldrin	409	409
Heptachlor epoxide	405	405
Endosulfan I	374	374
Dieldrin	791	791
4,4'-DDE	731	731
Endrin	665	665
Endosulfan II	690	690
4,4'-DDD	621	621
Endosulfan sulfate	658	658
4,4'-DDT	488	488
Methoxychlor	1452	1452
Endrin ketone	585	585
Endrin aldehyde	593	593
alpha-Chlordane	392	392
gamma-Chlordane	398	398
Tetrachloro-m-xylene (S)	764	764
Decachlorobiphenyl (S)	677	677

SAMPLE NO.

LCS

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Water SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 1688044
Date Analyzed: 06/17/2019 19:56
Lab File ID: 061719-1.B\2019-06-17-012.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
72-43-5	Methoxychlor	6.9	

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-012.d
Lab Smp Id: 1688044 Client Smp ID: MBLCS
Inj Date : 17-JUN-2019 19:56
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1688044,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	24697	31472	1.274	26.9419		
0.926	143	387	2.699	0.3311		
0.941	2365	2935	1.241	2.5116		
0.961	3010	2876	0.956	2.4611		
0.987	583	555	0.952	0.4749		
1.010	117	165	1.411	0.1412		
1.032	161	113	0.701	0.0967		
1.062	10	28	2.687	0.0239		
1.081	754	1322	1.753	1.1313		
1.107	63	89	1.415	0.0761		
1.130	3	11	3.197	0.0094		
1.165	11	15	1.357	0.0128		
1.219	17	31	1.873	0.0265		
1.221	9	32	3.456	0.0273		
1.227	3	17	6.343	0.0145		
1.238	30	40	1.333	0.0342		
1.299	20	19	0.946	0.0162		
1.307	10	16	1.595	0.0136		
1.312	2	12	5.021	0.0102		
1.339	72	92	1.275	0.0787		
1.353	3	13	5.098	0.0111		
1.355	3	17	6.115	0.0145		
1.361	5	14	2.778	0.0119		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.370	9	17	1.968	0.0145		
1.416	29	40	1.400	0.0342		
1.447	16	22	1.340	0.0188		
1.466	2	7	3.167	0.0059		
1.481	10	19	1.876	0.0162		
1.676	8	24	2.989	0.0205		
1.679	10	25	2.510	0.0213		
1.703	3	7	2.397	0.0059		
1.731	2	6	2.871	0.0051		
1.790	19	31	1.591	0.0265		
1.885	3566	5145	1.443	4.4029	$ 1 Tetrachloro-m-xylene (S)	
1.924	5	14	2.667	0.0119		
2.046	3	8	2.353	0.0068		
2.100	43	58	1.363	0.0496		
2.239	2003	2878	1.437	2.4629		
2.474	1906	2668	1.400	2.2831	3 gamma-BHC (Lindane)	
2.528	4	6	1.622	0.0051		
2.568	19	25	1.337	0.0213		
2.618	990	1227	1.239	1.0500		
2.661	20	21	1.036	0.0179		
2.687	3	9	3.273	0.0077		
2.713	1855	2420	1.304	2.0709	5 Heptachlor	
2.788	29	38	1.326	0.0325		
2.814	1909	2570	1.346	2.1993		
2.855	40	49	1.233	0.0419		
2.901	18	27	1.510	0.0231		
2.924	1602	2130	1.330	1.8227		
3.183	4	14	3.204	0.0119		
3.186	5	15	2.970	0.0128		
3.204	69	80	1.151	0.0684		
3.281	1722	2251	1.307	1.9263	8 Heptachlor epoxide	
3.335	19	25	1.303	0.0213		
3.353	2	8	3.774	0.0068		
3.385	8	15	1.940	0.0128		
3.392	2	11	5.340	0.0094		
3.436	1740	2184	1.255	1.8689		
3.501	1684	2122	1.260	1.8159		
3.546	1504	1886	1.254	1.6139		
3.594	20	28	1.397	0.0239		
3.622	3302	4169	1.262	3.5676		
3.739	3401	4326	1.272	3.7020		
3.913	5	11	2.132	0.0094		
3.957	3183	3975	1.249	3.4016	14 Endrin	
3.991	3	7	2.583	0.0059		
4.017	2840	3328	1.172	2.8479		
4.047	23	52	2.306	0.0444		
4.056	17	51	3.048	0.0436		
4.059	13	48	3.791	0.0410		
4.064	21	47	2.290	0.0402		
4.074	11	43	3.985	0.0367		
4.079	14	47	3.315	0.0402		
4.082	8	49	5.806	0.0419		
4.086	9	47	5.070	0.0402		
4.105	185	152	0.822	0.1300		
4.137	2916	3528	1.210	3.0191		
4.172	9	28	3.091	0.0239		
4.176	3	27	7.759	0.0231		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.179	3	26	9.028	0.0222		
4.181	4	25	6.812	0.0213		
4.184	4	26	5.882	0.0222		
4.190	7	28	4.106	0.0239		
4.207	3069	3739	1.218	3.1997		
4.244	4	13	3.103	0.0111		
4.255	2	11	4.955	0.0094		
4.267	39	53	1.349	0.0453		
4.289	1862	2222	1.193	1.9015		
4.326	2	8	3.791	0.0068		
4.428	3204	3867	1.207	3.3092		
4.505	3	9	3.203	0.0077		
4.512	4	9	2.381	0.0077		
4.551	9	11	1.290	0.0094		
4.582	155	106	0.686	0.0907		
4.602	5	14	2.794	0.0119		
4.615	5	12	2.490	0.0102		
4.620	3	12	3.692	0.0102		
4.623	2	12	5.911	0.0102		
4.635	9	15	1.736	0.0128		
4.641	5	19	4.167	0.0162		
4.663	7758	9301	1.199	7.9595	20 Methoxychlor	
4.718	33	43	1.314	0.0367		
4.753	5	11	2.292	0.0094		
4.851	3211	3800	1.183	3.2519		
4.884	3	14	4.636	0.0119		
4.887	4	16	4.507	0.0136		
4.891	4	14	3.279	0.0119		
4.912	3	8	3.162	0.0068		
4.923	2	9	4.091	0.0077		
4.939	4	11	2.880	0.0094		
4.955	4	8	2.222	0.0068		
4.971	2	10	4.566	0.0085		
4.976	3	8	2.623	0.0068		
4.984	2	11	4.545	0.0094		
4.993	2	11	4.846	0.0094		
4.997	3	11	3.395	0.0094		
5.030	5	15	2.947	0.0128		
5.033	3	15	5.597	0.0128		
5.039	7	15	2.219	0.0128		
5.044	4	16	3.712	0.0136		
5.051	4	17	4.709	0.0145		
5.055	3	17	6.182	0.0145		
5.058	5	18	3.607	0.0154		
5.066	6	21	3.241	0.0179		
5.072	4	17	4.229	0.0145		
5.077	4	15	3.417	0.0128		
5.081	3	18	5.158	0.0154		
5.084	5	21	4.150	0.0179		
5.090	5	17	3.498	0.0145		
5.093	3	17	6.250	0.0145		
5.098	4	15	3.555	0.0128		
5.102	4	12	2.892	0.0102		
5.113	3	12	4.181	0.0102		
5.118	3	12	3.636	0.0102		
5.124	3	13	4.498	0.0111		
5.127	3	15	5.319	0.0128		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.134	4	15	3.497	0.0128		
5.139	4	12	2.733	0.0102		
5.145	4	14	3.590	0.0119		
5.148	2	15	6.048	0.0128		
5.154	3	13	4.101	0.0111		
5.158	5	17	3.688	0.0145		
5.164	4	11	2.657	0.0094		
5.175	2	13	5.532	0.0111		
5.179	2	11	5.366	0.0094		
5.183	5	12	2.637	0.0102		
5.189	2	10	4.255	0.0085		
5.227	2	12	5.286	0.0102		
5.234	5	11	2.111	0.0094		
5.434	7	22	2.961	0.0188		
5.438	7	22	3.094	0.0188		
5.522	2	10	4.525	0.0085		
5.530	3	14	4.982	0.0119		
5.534	3	13	3.801	0.0111		
5.542	3	13	4.693	0.0111		
5.549	4	14	3.599	0.0119		
5.559	3	12	3.550	0.0102		
5.566	5	14	2.998	0.0119		
5.573	2	9	4.433	0.0077		
5.579	5	13	2.486	0.0111		
5.589	3	8	3.089	0.0068		
5.617	2	10	4.292	0.0085		
5.644	4151	4004	0.965	3.4264	$ 24 Decachlorobiphenyl (S)	
6.049	3	8	2.797	0.0068		
6.058	2	9	4.147	0.0077		
6.072	2	10	4.310	0.0085		
6.077	2	11	5.213	0.0094		
6.103	3	11	3.354	0.0094		
6.109	3	13	4.037	0.0111		
6.119	2	10	4.717	0.0085		
6.259	2	8	3.702	0.0068		
6.267	3	11	3.901	0.0094		
6.420	2	8	3.828	0.0068		
6.707	2	9	3.644	0.0077		
6.742	3	12	4.013	0.0102		
6.765	3	12	3.571	0.0102		
6.783	2	11	5.069	0.0094		
6.791	3	8	2.524	0.0068		
6.848	4	12	3.380	0.0102		
6.856	3	14	4.947	0.0119		
6.859	3	16	5.298	0.0136		
6.866	4	12	3.069	0.0102		
6.874	4	16	4.545	0.0136		
6.879	2	15	6.494	0.0128		
6.884	3	11	3.873	0.0094		
6.888	3	13	4.779	0.0111		
6.897	2	10	4.950	0.0085		
6.903	3	14	4.106	0.0119		
6.913	2	12	5.000	0.0102		
6.919	3	13	5.200	0.0111		
6.935	2	13	6.436	0.0111		
6.941	4	11	2.973	0.0094		
	92808	116854		100.000		

Total unknown % height = 74.5

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Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-012.d
Lab Smp Id: 1688044 Client Smp ID: MBLCS
Inj Date : 17-JUN-2019 19:56
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1688044,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	3566	0.08027	1.60			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.474	2.474	0.000	1905	0.03395	0.679			(R)
5 Heptachlor					CAS #: 319-86-8			
2.712	2.712	0.000	1855	0.03169	0.634			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.281	3.281	0.000	1721	0.03336	0.667			
14 Endrin					CAS #: 72-20-8			
3.957	3.957	0.000	3182	0.06896	1.38			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	7757	0.34561	6.91			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.643 5.643 0.000 4151 0.08792 1.76

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1688044
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 061719-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 13-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.679	
319-86-8	Heptachlor	0.634	
1024-57-3	Heptachlor epoxide	0.667	
72-20-8	Endrin	1.38	
72-43-5	Methoxychlor	6.91	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.60	
----------	Decachlorobiphenyl (S)	1.76	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-012.d

Date : 17-JUN-2019 19:56

Client ID: MBLCS

Instrument: 30gcsc.i

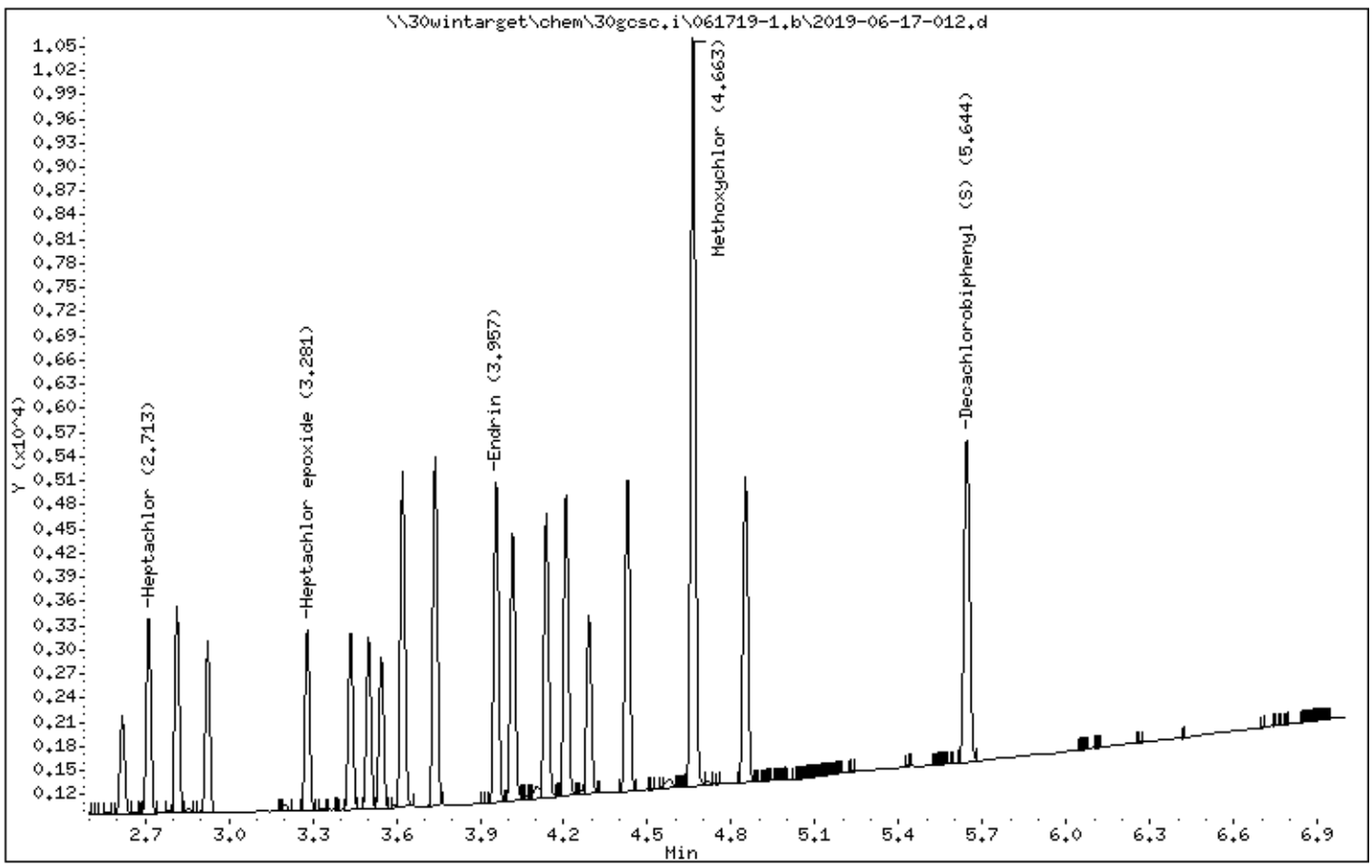
Sample Info: 1688044,

Volume Injected (uL): 1.0

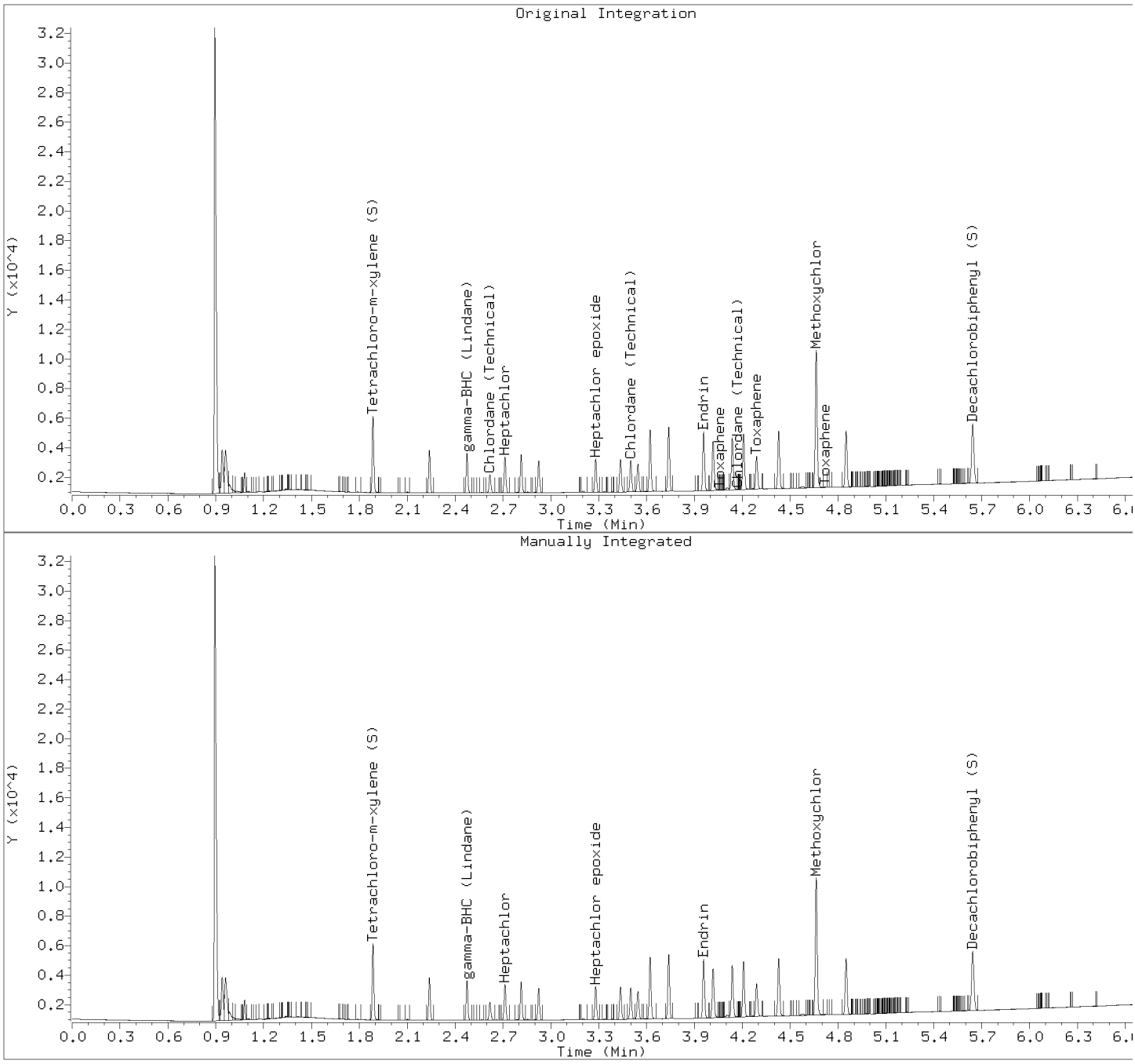
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-012.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUN-2019 19:56 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1688044



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	1905	1905
Heptachlor	1855	1855
Heptachlor epoxide	1721	1721
Endrin	3182	3182
Methoxychlor	7757	7757
Toxaphene	12	0
Toxaphene	9	0
Toxaphene	1862	0
Toxaphene	0	0
Toxaphene	32	0
Chlordane (Technical)	990	0
Chlordane (Technical)	1855	0
Chlordane (Technical)	0	0
Chlordane (Technical)	1683	0

Chlordane (Technical)	9	0
Tetrachloro-m-xylene (S)	3566	3566
Decachlorobiphenyl (S)	4151	4151

SAMPLE NO.

LCS

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Water SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 1688044
Date Analyzed: 06/17/2019 19:56
Lab File ID: 061719-2.B\2019-06-17-012.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.67	
72-20-8	Endrin	1.4	
76-44-8	Heptachlor	0.62	
1024-57-3	Heptachlor epoxide	0.65	

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-012.d
Lab Smp Id: 1688044 Client Smp ID: MBLCS
Inj Date : 17-JUN-2019 19:56
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1688044,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.678	1	2	1.538	0.0040		
0.877	8778	23289	2.653	46.9310		
0.933	3	8	2.402	0.0161		
0.948	49	78	1.584	0.1571		
0.979	892	1063	1.192	2.1419		
1.009	1078	1198	1.111	2.4139		
1.053	30	37	1.236	0.0745		
1.072	110	148	1.346	0.2982		
1.127	20	23	1.125	0.0463		
1.140	23	32	1.381	0.0644		
1.175	213	339	1.591	0.6830		
1.214	2	7	2.881	0.0141		
1.279	13	16	1.199	0.0322		
1.293	1	5	4.762	0.0100		
1.312	1	4	3.571	0.0080		
1.324	3	6	1.765	0.0120		
1.353	1	3	2.166	0.0060		
1.400	4	2	0.510	0.0040		
1.428	2	3	1.529	0.0060		
1.453	2	6	2.648	0.0120		
1.584	4	5	1.399	0.0100		
1.684	2	6	2.844	0.0120		
1.710	2	5	3.247	0.0100		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.913	2	4	2.532	0.0080		
2.075	2	4	2.198	0.0080		
2.131	2	3	1.961	0.0060		
2.326	2	3	1.508	0.0060		
2.360	1322	1748	1.322	3.5222	$ 1 Tetrachloro-m-xylene (S)	
2.570	15	22	1.447	0.0443		
2.624	716	961	1.342	1.9364		
2.841	673	880	1.307	1.7731	3 gamma-BHC (Lindane)	
2.957	1	2	1.493	0.0040		
3.002	343	437	1.274	0.8805		
3.070	3	6	2.020	0.0120		
3.094	7	10	1.425	0.0201		
3.188	705	905	1.283	1.8235		
3.224	8	11	1.432	0.0221		
3.251	604	744	1.232	1.4991	6 Heptachlor	
3.328	1	3	2.778	0.0060		
3.368	1	3	2.913	0.0060		
3.478	550	672	1.222	1.3540		
3.533	2	3	1.630	0.0060		
3.711	21	26	1.214	0.0523		
3.771	592	717	1.212	1.4447	8 Heptachlor epoxide	
3.807	3	5	1.458	0.0100		
3.984	601	722	1.202	1.4548		
4.020	593	692	1.166	1.3943		
4.053	523	622	1.188	1.2533		
4.099	1117	1404	1.257	2.8290		
4.171	4	7	1.839	0.0141		
4.228	1168	1412	1.209	2.8451		
4.319	1	5	4.587	0.0100		
4.328	3	5	1.618	0.0100		
4.390	997	1134	1.138	2.2850	14 Endrin	
4.452	945	1165	1.233	2.3474		
4.562	934	1110	1.188	2.2366		
4.588	1	4	3.846	0.0080		
4.636	662	767	1.159	1.5454		
4.663	772	929	1.204	1.8719		
4.791	1	5	3.817	0.0100		
4.800	3	6	2.299	0.0120		
4.804	1	5	4.808	0.0100		
4.826	1089	1243	1.141	2.5046		
4.875	27	23	0.862	0.0463		
4.879	5	22	4.435	0.0443		
4.883	3	21	6.481	0.0423		
4.900	24	28	1.149	0.0564		
4.903	5	29	5.777	0.0584		
4.947	2338	2631	1.125	5.3014	20 Methoxychlor	
5.007	3	5	1.786	0.0100		
5.101	1	5	4.808	0.0100		
5.126	1083	1209	1.116	2.4361		
5.550	1	2	1.802	0.0040		
6.079	1	5	4.202	0.0100		
6.336	1329	957	0.720	1.9283	$ 24 Decachlorobiphenyl (S)	
	31047	49628		100.000		

Total unknown % height = 82.2

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-012.d
Lab Smp Id: 1688044 Client Smp ID: MBLCS
Inj Date : 17-JUN-2019 19:56
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1688044,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.360	2.359	0.001	1322	0.07885	1.58			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.840	2.840	0.000	673	0.03366	0.673			(R)
6 Heptachlor					CAS #: 76-44-8			
3.250	3.250	0.000	604	0.03075	0.615			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.771	3.771	0.000	591	0.03269	0.654			
14 Endrin					CAS #: 72-20-8			
4.390	4.389	0.001	996	0.06807	1.36			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.947	4.946	0.001	2338	0.34564	6.91			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								
23 Toxaphene					CAS #: 8001-35-2			
Operator disabled compound identification.								
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.336	6.335	0.001	1328	0.08739	1.75			

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

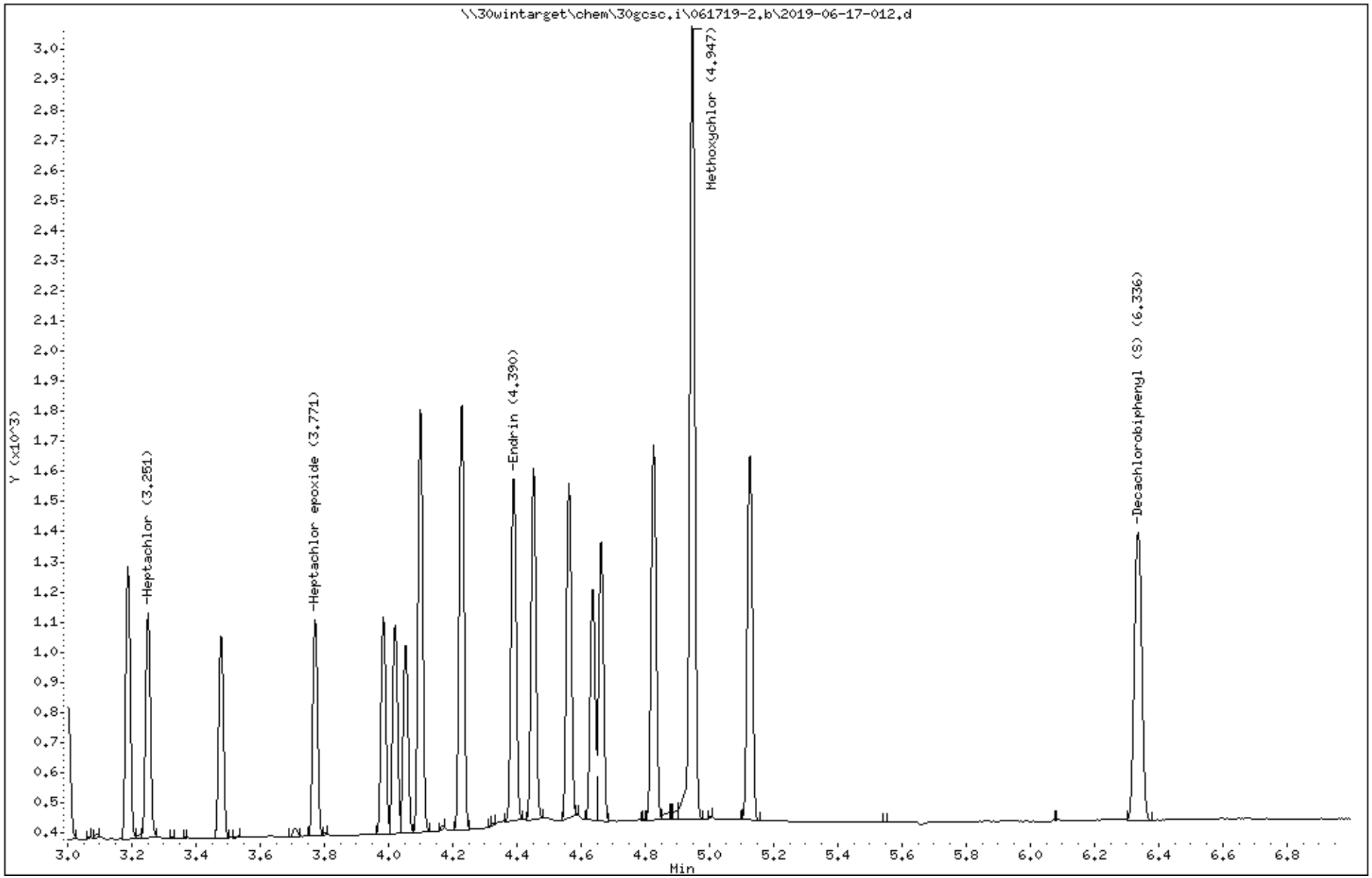
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1688044
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 061719-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 13-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.673	
76-44-8	Heptachlor	0.615	
1024-57-3	Heptachlor epoxide	0.654	
72-20-8	Endrin	1.36	
72-43-5	Methoxychlor	6.91	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.58	
----------	Decachlorobiphenyl (S)	1.75	

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-012.d
Date : 17-JUN-2019 19:56
Client ID: MBLCS
Instrument: 30gcsc.i
Sample Info: 1688044,
Volume Injected (uL): 1.0
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



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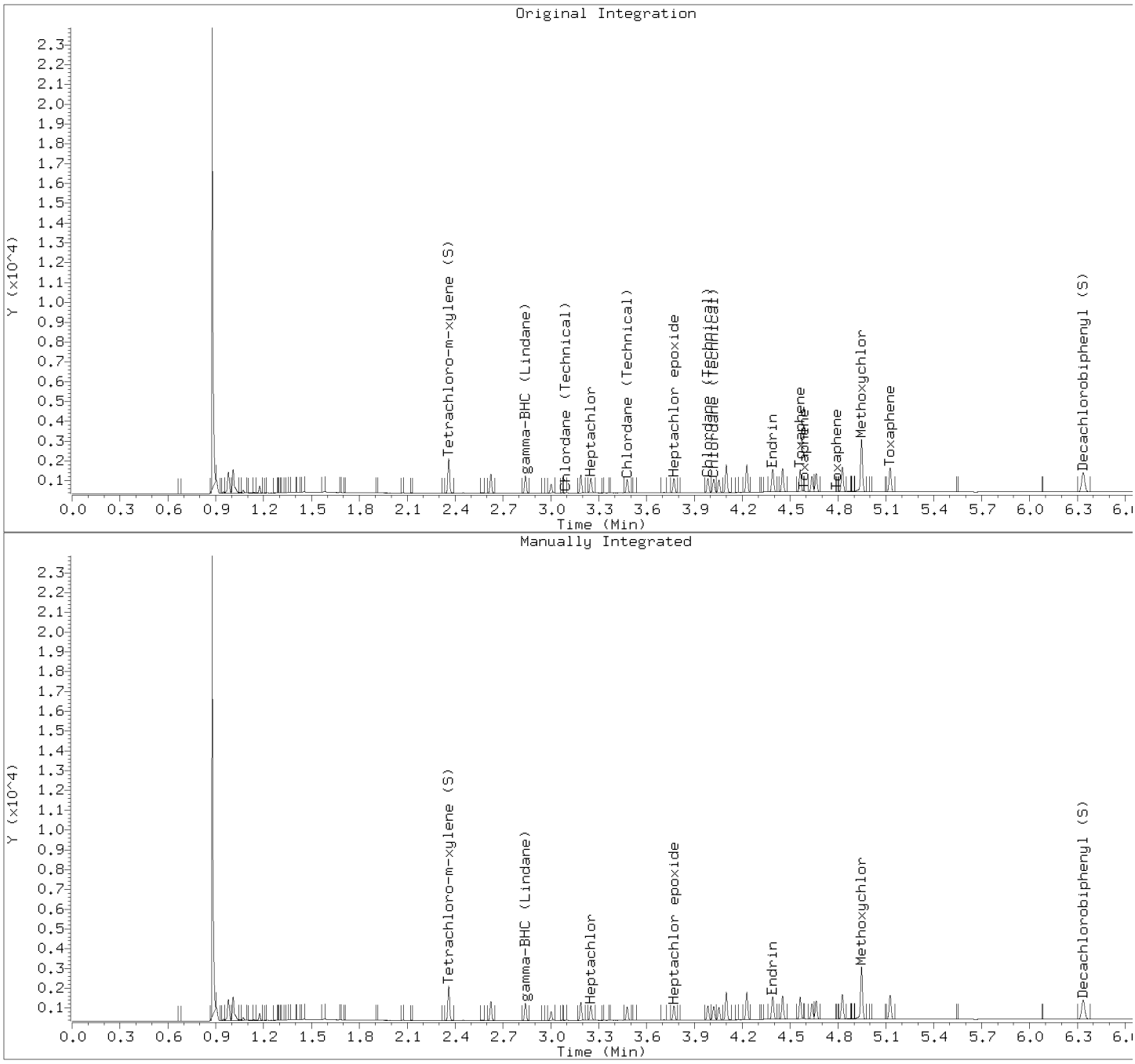
Injection Date: 17-JUN-2019 19:56 Operator: TAW

Instrument: 30gcsc.i

Lab Sample ID: 1688044



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	673	673
Heptachlor	604	604
Heptachlor epoxide	591	591
Endrin	996	996
Methoxychlor	2338	2338
Toxaphene	996	0
Toxaphene	934	0
Toxaphene	1	0
Toxaphene	1	0
Toxaphene	1083	0
Chlordane (Technical)	7	0
Chlordane (Technical)	604	0
Chlordane (Technical)	549	0
Chlordane (Technical)	600	0

Chlordane (Technical)	593	0
Tetrachloro-m-xylene (S)	1322	1322
Decachlorobiphenyl (S)	1328	1328

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/10/2019 07:38
Matrix: Water SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 1685290
Date Analyzed: 06/17/2019 19:46
Lab File ID: 061719-1.B\2019-06-17-011.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-011.d
Lab Smp Id: 1685290 Client Smp ID: LB for HBN 346367 [
Inj Date : 17-JUN-2019 19:46
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1685290,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	10239	12897	1.260	38.3558		
0.940	2555	2986	1.169	8.8776		
0.961	2951	2882	0.977	8.5684		
0.994	163	173	1.063	0.5143		
1.035	2	10	4.082	0.0297		
1.041	5	10	2.066	0.0297		
1.081	578	997	1.724	2.9641		
1.108	14	38	2.704	0.1129		
1.130	10	22	2.209	0.0654		
1.161	23	34	1.457	0.1010		
1.182	5	9	1.654	0.0267		
1.220	21	28	1.325	0.0832		
1.238	6	14	2.277	0.0416		
1.295	2	8	3.252	0.0237		
1.299	2	11	4.911	0.0327		
1.311	9	16	1.697	0.0475		
1.336	51	81	1.579	0.2408		
1.367	3	10	3.788	0.0297		
1.416	26	40	1.562	0.1189		
1.481	12	21	1.759	0.0624		
1.494	2	8	3.587	0.0237		
1.533	5	11	2.099	0.0327		
1.540	7	12	1.676	0.0356		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.553	4	10	2.778	0.0297		
1.594	3	11	3.793	0.0327		
1.789	6	12	2.094	0.0356		
1.809	4	9	2.399	0.0267		
1.863	2	8	3.252	0.0237		
1.868	2	11	5.000	0.0327		
1.885	3686	5289	1.435	15.7246	$ 1 Tetrachloro-m-xylene (S)	
1.921	11	18	1.578	0.0535		
1.930	2	9	3.830	0.0267		
1.936	2	7	3.302	0.0208		
2.049	6	11	1.900	0.0327		
2.100	67	75	1.115	0.2229		
2.210	8	15	1.790	0.0445		
2.222	6	14	2.303	0.0416		
2.319	4	11	2.523	0.0327		
2.430	2	6	2.703	0.0178		
2.462	5	10	1.934	0.0297	3 gamma-BHC (Lindane)	
2.529	4	8	2.025	0.0237		
2.570	17	23	1.351	0.0683		
2.607	18	28	1.528	0.0832		
2.628	105	139	1.321	0.4132		
2.693	3	7	2.023	0.0208	5 Heptachlor	
2.788	25	32	1.300	0.0951		
2.857	26	39	1.499	0.1159		
2.964	5	9	1.793	0.0267		
3.109	5	18	3.614	0.0535		
3.113	10	19	1.947	0.0564		
3.126	8	16	1.961	0.0475		
3.184	3	7	2.134	0.0208		
3.264	2	6	2.791	0.0178	8 Heptachlor epoxide	
3.352	11	13	1.225	0.0386		
3.380	2	7	3.448	0.0208		
3.616	2	5	2.451	0.0148		
3.644	3	10	3.922	0.0297		
3.650	3	7	2.181	0.0208		
3.884	2	6	2.857	0.0178		
3.955	3	8	3.030	0.0237	14 Endrin	
4.034	6	12	1.990	0.0356		
4.039	3	11	4.331	0.0327		
4.067	3	9	3.158	0.0267		
4.072	5	12	2.510	0.0356		
4.080	4	15	3.759	0.0445		
4.082	2	16	7.619	0.0475		
4.105	177	135	0.762	0.4013		
4.130	8	23	2.972	0.0683		
4.137	3	14	5.185	0.0416		
4.141	3	13	4.514	0.0386		
4.152	3	9	3.571	0.0267		
4.158	3	9	3.010	0.0267		
4.235	10	17	1.784	0.0505		
4.310	11	22	1.986	0.0654		
4.316	2	12	4.938	0.0356		
4.341	2	7	3.318	0.0208		
4.409	2	10	4.098	0.0297		
4.416	4	12	3.306	0.0356		
4.420	2	14	5.622	0.0416		
4.424	5	14	2.966	0.0416		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.432	3	17	5.060	0.0505		
4.435	4	19	4.471	0.0564		
4.440	4	16	3.800	0.0475		
4.443	5	17	3.414	0.0505		
4.476	44	51	1.170	0.1516		
4.482	11	46	4.244	0.1367		
4.489	17	45	2.597	0.1337		
4.495	13	38	3.002	0.1129		
4.498	6	37	6.401	0.1100		
4.504	23	37	1.629	0.1100		
4.512	3	22	6.548	0.0654		
4.514	7	21	3.107	0.0624		
4.664	2	8	3.306	0.0237	20 Methoxychlor	
4.677	2	7	2.846	0.0208		
4.845	2	6	2.679	0.0178		
4.890	2	8	3.509	0.0237		
4.905	3	9	2.941	0.0267		
4.971	2	12	5.430	0.0356		
4.979	3	12	3.692	0.0356		
4.985	5	11	2.335	0.0327		
5.020	4	13	3.333	0.0386		
5.027	4	11	3.056	0.0327		
5.030	2	13	5.417	0.0386		
5.039	4	10	2.421	0.0297		
5.044	2	11	5.213	0.0327		
5.084	8	13	1.546	0.0386		
5.093	4	14	3.448	0.0416		
5.097	3	14	4.895	0.0416		
5.102	4	15	3.886	0.0445		
5.107	8	17	2.196	0.0505		
5.117	5	17	3.656	0.0505		
5.121	5	20	4.264	0.0594		
5.124	4	18	4.878	0.0535		
5.128	2	17	8.134	0.0505		
5.132	4	17	3.864	0.0505		
5.136	4	20	4.474	0.0594		
5.139	5	22	4.029	0.0654		
5.146	4	21	4.965	0.0624		
5.148	8	21	2.738	0.0624		
5.156	5	19	3.893	0.0564		
5.160	3	19	6.597	0.0564		
5.162	4	20	5.348	0.0594		
5.165	4	22	5.152	0.0654		
5.169	6	22	3.589	0.0654		
5.175	5	21	3.962	0.0624		
5.179	3	20	6.601	0.0594		
5.181	3	21	7.985	0.0624		
5.184	3	21	6.122	0.0624		
5.188	4	21	4.784	0.0624		
5.191	7	23	3.276	0.0683		
5.201	10	24	2.405	0.0713		
5.206	5	24	4.810	0.0713		
5.211	12	26	2.178	0.0773		
5.218	6	24	3.865	0.0713		
5.222	6	25	4.348	0.0743		
5.227	8	24	2.985	0.0713		
5.233	5	26	4.842	0.0773		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.237	10	27	2.584	0.0802		
5.244	8	25	3.090	0.0743		
5.250	6	22	3.566	0.0654		
5.255	5	22	4.731	0.0654		
5.258	7	20	2.710	0.0594		
5.266	3	13	4.610	0.0386		
5.291	9	26	2.892	0.0773		
5.296	7	28	3.883	0.0832		
5.298	7	32	4.545	0.0951		
5.304	8	32	4.051	0.0951		
5.309	14	34	2.410	0.1010		
5.315	5	32	5.861	0.0951		
5.317	4	34	7.745	0.1010		
5.321	14	34	2.345	0.1010		
5.328	10	30	3.058	0.0891		
5.334	9	28	2.950	0.0832		
5.341	5	25	5.051	0.0743		
5.345	5	22	4.052	0.0654		
5.348	8	22	2.673	0.0654		
5.355	5	18	3.403	0.0535		
5.362	3	14	4.828	0.0416		
5.367	3	12	3.438	0.0356		
5.374	4	13	3.186	0.0386		
5.380	5	14	2.941	0.0416		
5.390	3	12	3.974	0.0356		
5.398	5	13	2.632	0.0386		
5.403	3	16	6.107	0.0475		
5.407	3	15	5.639	0.0445		
5.411	7	16	2.385	0.0475		
5.424	7	21	2.958	0.0624		
5.435	21	45	2.147	0.1337		
5.438	32	45	1.386	0.1337		
5.453	3	21	8.015	0.0624		
5.456	4	18	4.128	0.0535		
5.461	7	20	2.985	0.0594		
5.467	4	18	4.534	0.0535		
5.472	3	16	6.130	0.0475		
5.476	5	16	3.131	0.0475		
5.481	3	12	4.428	0.0356		
5.491	2	10	4.717	0.0297		
5.493	3	9	3.502	0.0267		
5.504	4	10	2.653	0.0297		
5.513	2	8	3.810	0.0237		
5.520	2	7	3.084	0.0208		
5.605	4	11	2.743	0.0327		
5.644	4211	4002	0.950	11.8983	$ 24 Decachlorobiphenyl (S)	
5.869	2	6	2.643	0.0178		
5.944	2	8	3.980	0.0237		
5.998	3	9	2.778	0.0267		
6.013	2	10	4.505	0.0297		
6.015	2	11	4.825	0.0327		
6.024	4	9	2.426	0.0267		
6.035	2	8	3.791	0.0237		
6.039	3	11	3.971	0.0327		
6.046	3	10	3.984	0.0297		
6.053	4	13	3.002	0.0386		
6.068	3	9	2.679	0.0267		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.087	3	11	4.365	0.0327		
6.091	2	11	5.263	0.0327		
6.095	2	11	4.741	0.0327		
6.100	3	13	4.319	0.0386		
6.103	3	13	4.797	0.0386		
6.109	4	16	4.267	0.0475		
6.115	4	15	3.968	0.0445		
6.124	3	12	3.785	0.0356		
6.130	2	11	4.622	0.0327		
6.137	2	14	5.691	0.0416		
6.142	4	11	2.489	0.0327		
6.152	3	11	4.264	0.0327		
6.260	3	11	3.470	0.0327		
6.308	2	9	4.054	0.0267		
6.318	2	11	4.701	0.0327		
6.326	4	16	3.636	0.0475		
6.332	3	16	4.624	0.0475		
6.337	3	17	6.182	0.0505		
6.339	2	19	8.051	0.0564		
6.342	2	18	7.692	0.0535		
6.347	5	19	3.792	0.0564		
6.351	8	20	2.601	0.0594		
6.359	3	19	5.793	0.0564		
6.364	4	15	3.440	0.0445		
6.367	2	15	7.426	0.0445		
6.371	3	14	4.444	0.0416		
6.375	5	15	3.119	0.0445		
6.383	4	13	3.163	0.0386		
6.393	2	12	4.858	0.0356		
6.404	4	13	3.250	0.0386		
6.410	3	11	4.183	0.0327		
6.414	4	12	2.948	0.0356		
6.422	2	10	4.237	0.0297		
6.429	2	12	5.505	0.0356		
6.453	2	10	4.608	0.0297		
6.464	2	13	5.556	0.0386		
6.480	2	9	4.433	0.0267		
6.602	2	9	4.167	0.0267		
6.614	3	11	3.416	0.0327		
6.631	5	14	2.756	0.0416		
6.642	2	12	5.607	0.0356		
6.651	4	14	3.553	0.0416		
6.665	2	13	6.341	0.0386		
6.669	3	10	2.915	0.0297		
6.679	3	14	4.651	0.0416		
6.686	2	14	5.691	0.0416		
6.691	2	10	4.444	0.0297		
6.695	2	13	6.075	0.0386		
6.699	2	11	4.977	0.0327		
6.704	3	12	4.380	0.0356		
6.708	3	13	4.088	0.0386		
6.713	4	15	3.348	0.0445		
6.721	2	14	5.738	0.0416		
6.726	5	18	3.711	0.0535		
6.732	4	16	4.469	0.0475		
6.736	3	16	4.984	0.0475		
6.739	4	19	5.191	0.0564		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.744	3	15	4.967	0.0445		
6.749	2	11	5.046	0.0327		
6.761	3	9	3.435	0.0267		
6.784	3	8	2.614	0.0237		
	26101	33635		100.000		

Total unknown % height = 72.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-011.d
Lab Smp Id: 1685290 Client Smp ID: LB for HBN 346367 [
Inj Date : 17-JUN-2019 19:46
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1685290,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-1.b\cf8081051619abm.m
Meth Date : 18-Jun-2019 14:26 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	3686	0.08297	1.66			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.462	2.474	-0.012	5	9e-005	0.00178			
5 Heptachlor					CAS #: 319-86-8			
2.692	2.712	-0.020	3	5e-005	0.00102			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.263	3.281	-0.018	2	4e-005	0.000775			
14 Endrin					CAS #: 72-20-8			
3.954	3.957	-0.003	2	4e-005	0.000867			
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.663	0.001	2	9e-005	0.00178			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

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23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.644	5.643	0.001	4210	0.08917	1.78		

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1685290
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 061719-1.b
Client Smp ID: LB for HBN 346367 [
Sample Point:
Date Received: 10-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.00178	
319-86-8	Heptachlor	0.00102	
1024-57-3	Heptachlor epoxide	0.000775	
72-20-8	Endrin	0.000867	
72-43-5	Methoxychlor	0.00178	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.66	
----------	Decachlorobiphenyl (S)	1.78	

Data File: \\30wintarget\chem\30gcsc.i\061719-1.b\2019-06-17-011.d

Date : 17-JUN-2019 19:46

Client ID: LB for HBN 346367 [

Instrument: 30gcsc.i

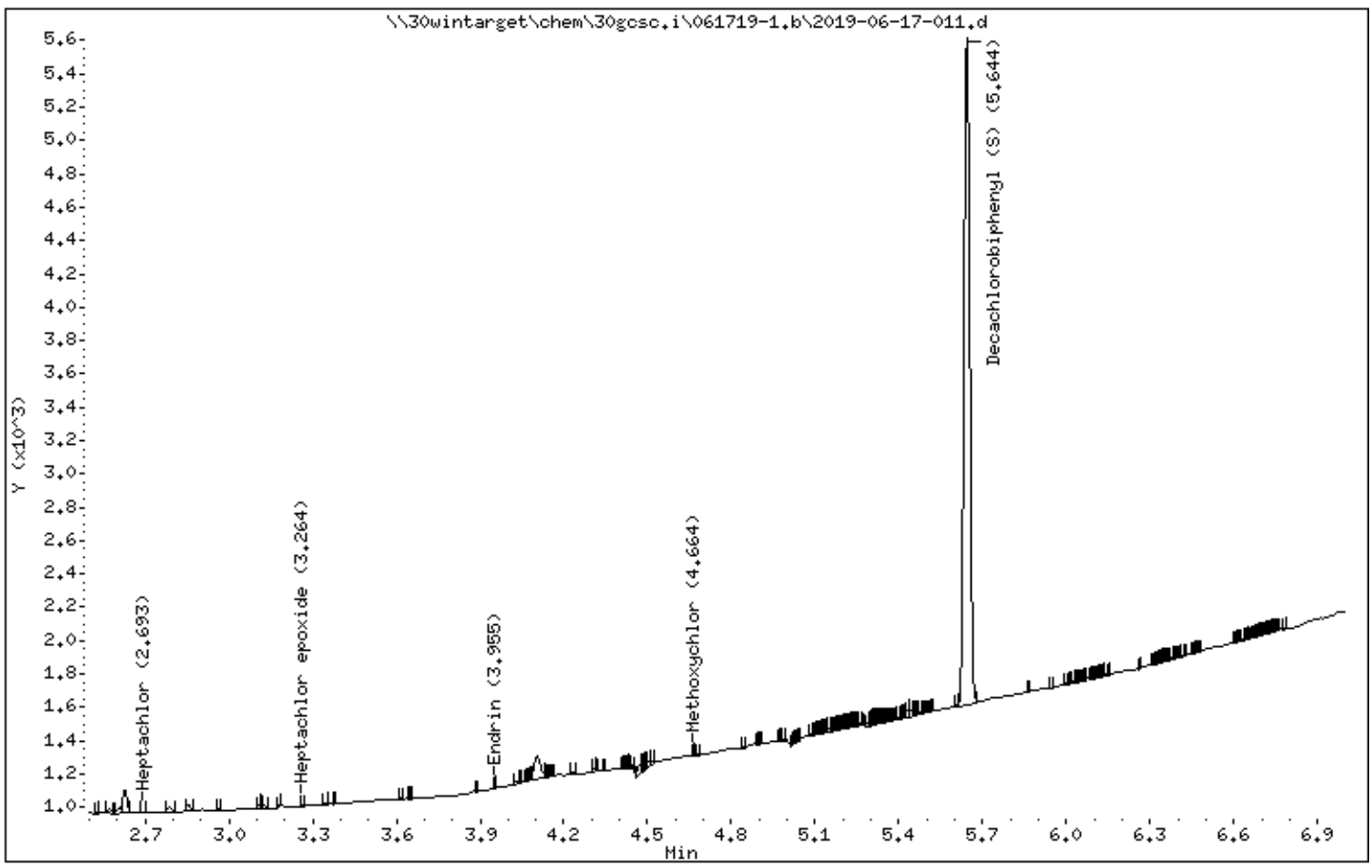
Sample Info: 1685290,

Volume Injected (uL): 1.0

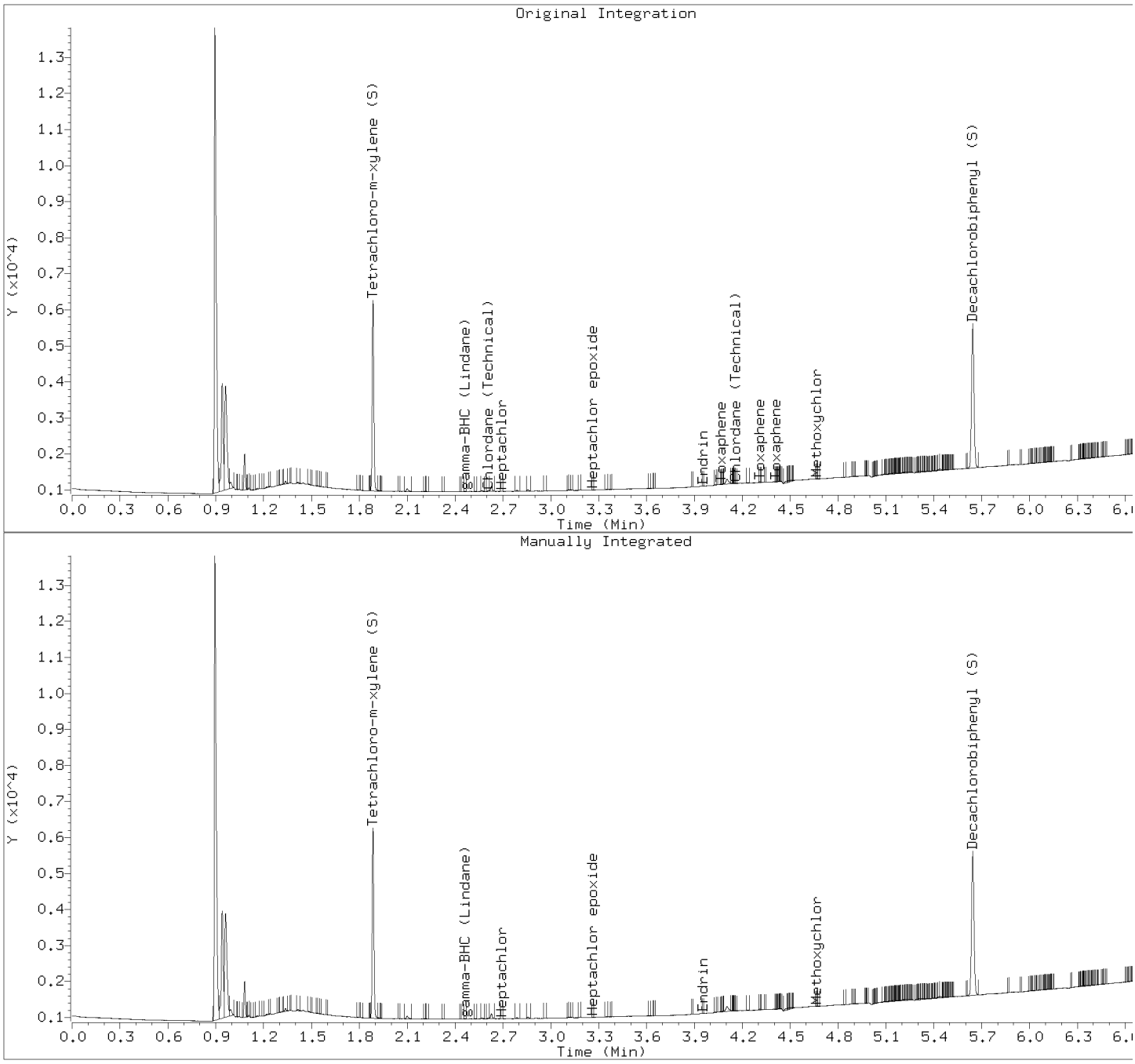
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-1.b/2019-06-17-011.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUN-2019 19:46 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1685290



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	5	5
Heptachlor	3	3
Heptachlor epoxide	2	2
Endrin	2	2
Methoxychlor	2	2
Toxaphene	2	0
Toxaphene	2	0
Toxaphene	11	0
Toxaphene	2	0
Toxaphene	0	0
Chlordane (Technical)	18	0
Chlordane (Technical)	3	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	3686	3686
Decachlorobiphenyl (S)	4210	4210

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/10/2019 07:38
Matrix: Water SDG No.: 30298231
Date Extracted: 06/13/2019 12:47
Lab Sample ID: 1685290
Date Analyzed: 06/17/2019 19:46
Lab File ID: 061719-2.B\2019-06-17-011.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

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Operator : TAW Inst ID: 30gcsc.i
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Meth Date : 18-Jun-2019 14:56 twilson Quant Type: AREA%
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.878	3533	9112	2.579	59.4074		
0.905	470	528	1.123	3.4422		
0.935	3	6	2.020	0.0391		
0.948	53	79	1.498	0.5150		
0.979	952	1101	1.156	7.1777		
1.009	1078	1199	1.112	7.8166		
1.057	26	33	1.267	0.2151		
1.071	11	19	1.774	0.1238		
1.143	1	3	2.459	0.0195		
1.175	157	253	1.607	1.6493		
1.285	3	3	0.882	0.0195		
1.314	3	5	1.779	0.0325		
1.355	4	5	1.238	0.0325		
1.383	2	3	1.754	0.0195		
1.404	1	2	1.852	0.0130		
1.454	2	4	2.131	0.0260		
1.492	1	3	2.128	0.0195		
1.578	5	10	2.203	0.0651		
1.685	14	23	1.596	0.1499		
1.709	1	4	2.911	0.0260		
1.816	1	3	2.804	0.0195		
1.837	1	3	2.113	0.0195		
1.870	1	3	2.564	0.0195		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
1.913	2	5	2.439	0.0325			
2.325	1	4	2.667	0.0260			
2.359	1357	1779	1.311	11.5978	$	1 Tetrachloro-m-xylene (S)	
2.570	4	9	2.237	0.0586			
2.716	1	5	3.650	0.0325			
2.721	1	4	2.817	0.0260			
2.844	1	2	1.695	0.0130		3 gamma-BHC (Lindane)	
3.020	2	3	1.974	0.0195			
3.071	8	10	1.258	0.0651			
3.091	26	32	1.246	0.2086			
3.269	9	14	1.477	0.0912		6 Heptachlor	BA
3.362	3	5	1.582	0.0325			
3.484	2	3	1.554	0.0195			
3.533	1	3	2.174	0.0195			
3.634	1	3	2.703	0.0195			
4.345	8	6	0.750	0.0391			
4.396	21	17	0.800	0.1108		14 Endrin	BA
4.693	9	11	1.243	0.0717			
4.696	2	10	4.926	0.0651			
4.704	3	8	2.685	0.0521			
4.710	2	6	3.000	0.0391			
4.939	1	3	3.000	0.0195		20 Methoxychlor	
5.537	1	3	2.128	0.0195			
5.546	2	5	2.688	0.0325			
5.550	1	5	4.902	0.0325			
5.556	1	4	2.837	0.0260			
5.692	10	6	0.621	0.0391			
5.702	3	5	1.916	0.0325			
6.081	4	5	1.336	0.0325			
6.335	1333	960	0.720	6.2585	$	24 Decachlorobiphenyl (S)	
	9147	15339		100.000			

Total unknown % height = 81.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-011.d
Lab Smp Id: 1685290 Client Smp ID: LB for HBN 346367 [
Inj Date : 17-JUN-2019 19:46
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1685290,
Misc Info : 15677,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\061719-2.b\cr8081051619abm.m
Meth Date : 18-Jun-2019 14:56 twilson Quant Type: ESTD
Cal Date : 16-MAY-2019 14:09 Cal File: 2019-05-16-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	1357	0.08094	1.62			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.844	2.840	0.004	1	5.e-005	0.00100			
6 Heptachlor					CAS #: 76-44-8			
3.265	3.250	0.015	9	5e-004	0.00916		(M)	BA
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
4.395	4.389	0.006	21	0.00144	0.0287		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.938	4.946	-0.008	1	1e-004	0.00296			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								BA
23 Toxaphene					CAS #: 8001-35-2			
Peaks not detected for Quant. or Qual. signal(s).								
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.335	0.000	1332	0.08765	1.75			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

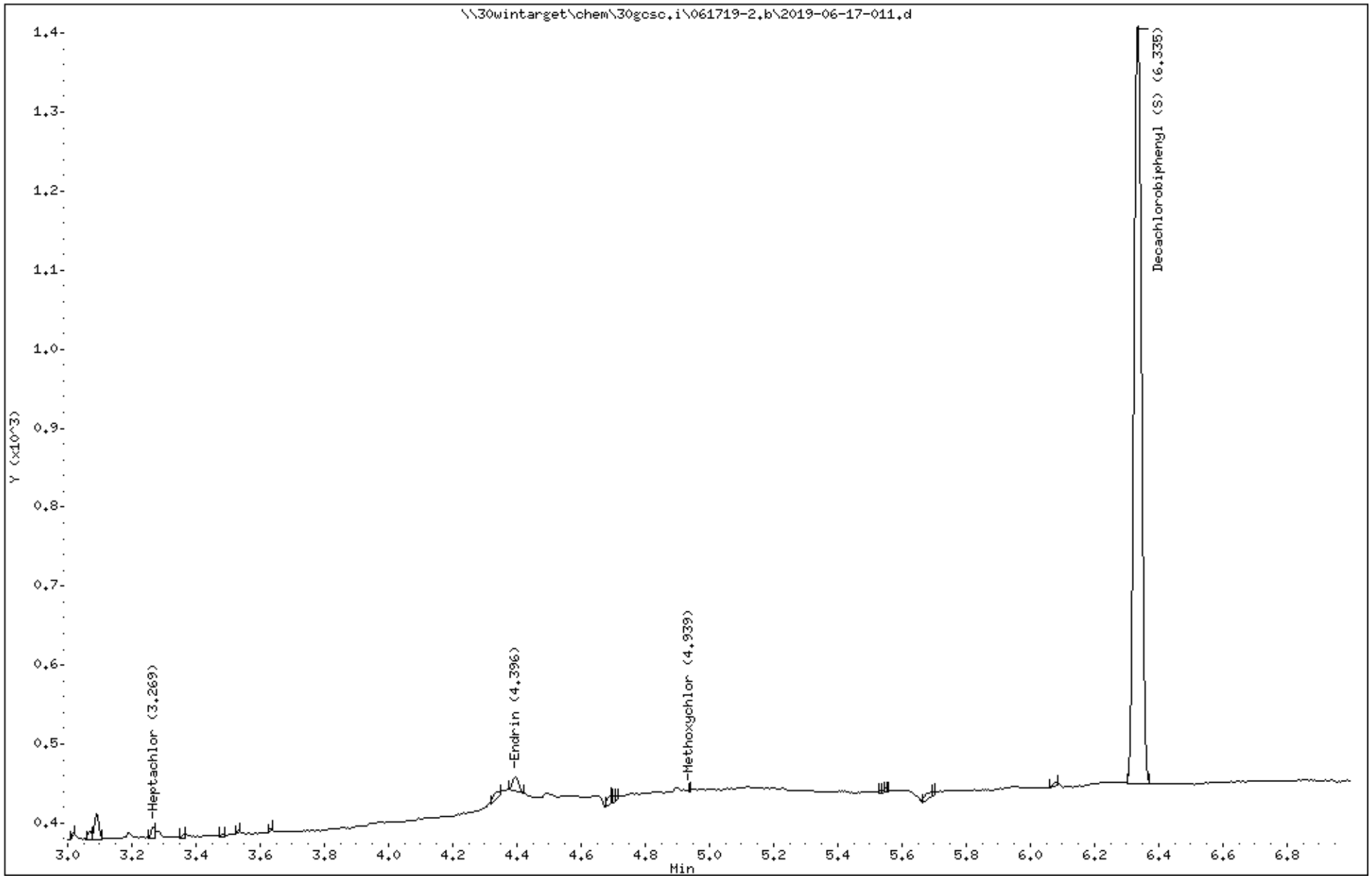
Client Name:
Lab Smp Id: 1685290
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15677,TCLP

Client SDG: 061719-2.b
Client Smp ID: LB for HBN 346367 [
Sample Point:
Date Received: 10-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

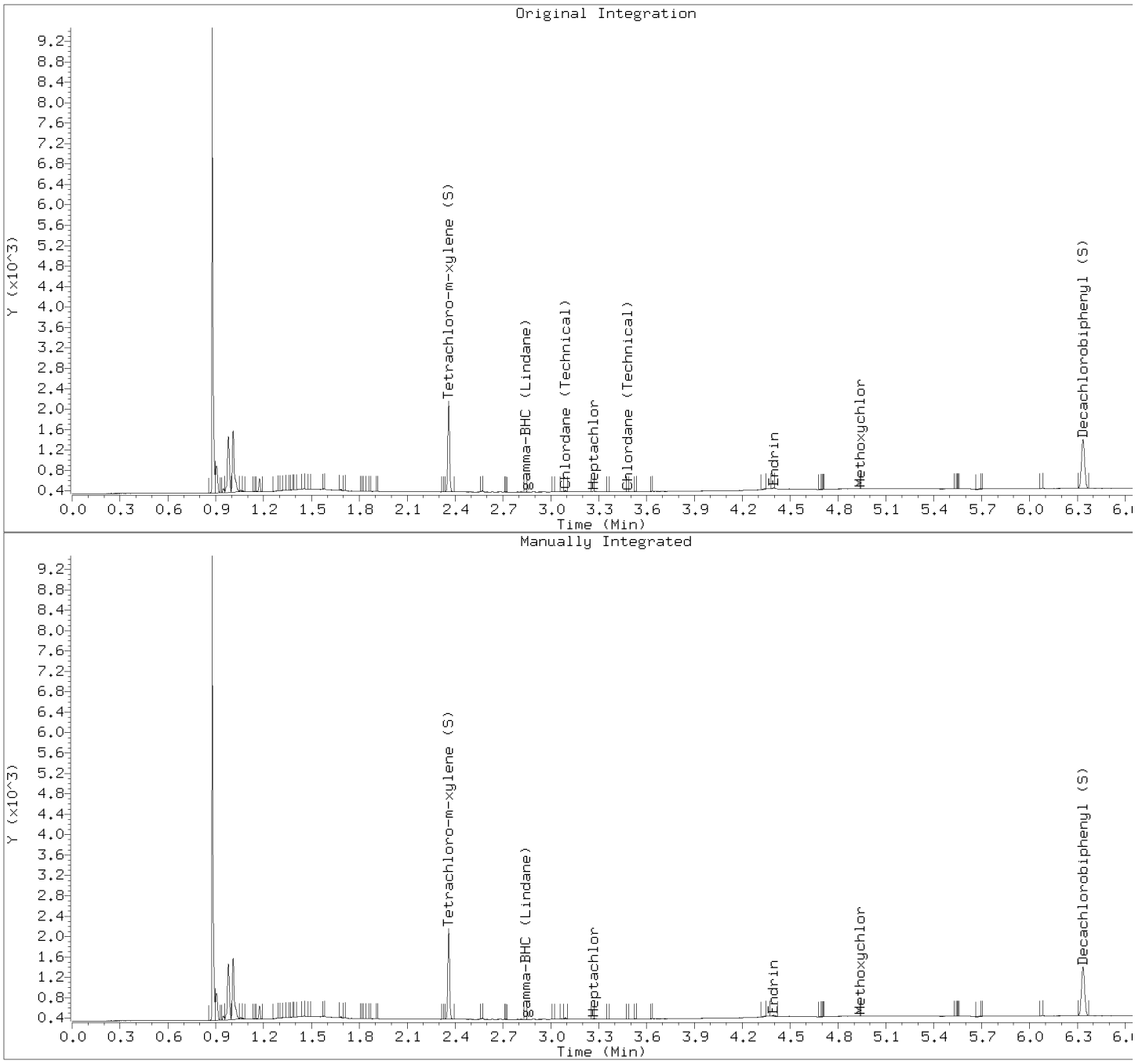
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.00100	
76-44-8	Heptachlor	0.00916	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.0287	
72-43-5	Methoxychlor	0.00296	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.62	
----------	Decachlorobiphenyl (S)	1.75	

Data File: \\30wintarget\chem\30gcsc.i\061719-2.b\2019-06-17-011.d
Date : 17-JUN-2019 19:46
Client ID: LB for HBN 346367 [
Sample Info: 1685290,
Volume Injected (uL): 1.0
Column phase: ZB-CLPesticides-2

Instrument: 30gcsc.i
Operator: TAW
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\061719-2.b/2019-06-17-011.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUN-2019 19:46 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1685290



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	1	1
Heptachlor	3	9
Heptachlor epoxide	0	0
Endrin	3	21
Methoxychlor	1	1
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	25	0
Chlordane (Technical)	3	0
Chlordane (Technical)	1	0
Chlordane (Technical)	0	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1357	1357
Decachlorobiphenyl (S)	1332	1332

SAMPLE NO.

LCS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1688044 SDG No.: 30298231 Date(s) Analyzed: 06/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47433	0.68	0.88
	2	2.84067	0.67	
Endrin	1	3.95733	1.4	1.3
	2	4.39	1.4	
Heptachlor	1	2.71267	0.63	3.0
	2	3.25067	0.62	
Heptachlor epoxide	1	3.281	0.67	2.0
	2	3.77133	0.65	
Methoxychlor	1	4.663	6.9	0.011
	2	4.947	6.9	

SAMPLE NO.

MS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1688045 SDG No.: 30298231 Date(s) Analyzed: 06/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47465	0.76	0.61
	2	2.84098	0.76	
Endrin	1	3.95765	1.5	0.68
	2	4.38965	1.5	
Heptachlor	1	2.71265	0.71	4.5
	2	3.25032	0.68	
Heptachlor epoxide	1	3.28132	0.75	2.4
	2	3.77098	0.73	
Methoxychlor	1	4.66165	7.5	1.0
	2	4.94665	7.6	

SAMPLE NO.

MSD

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1688046 SDG No.: 30298231 Date(s) Analyzed: 06/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47433	0.76	0.77
	2	2.84067	0.77	
Endrin	1	3.95733	1.5	0.76
	2	4.38933	1.5	
Heptachlor	1	2.71267	0.72	3.4
	2	3.25	0.70	
Heptachlor epoxide	1	3.281	0.77	4.6
	2	3.77133	0.73	
Methoxychlor	1	4.66167	7.8	3.4
	2	4.94633	7.5	

Prep Log Report

Batch Information: TCLP 8649/346367; 8650/346368; 8651/346370

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/10/2019 09:55:38:876	Tumbler Start Temp. (C)	21.3
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 88823	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1685290**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	LB	**1685500**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
TCLP	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
TCLP	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
TCLP	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
TCLP	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100
TCLP	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
TCLP	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
TCLP	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
TCLP	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
TCLP	PS	**30298295002**	Y		J	30TBL5	HP001	Other	Y	Y	7.73	1.71	5	100
TCLP	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
TCLP	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
TCLP	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
TCLP	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685291**	Y		Q	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1685749**	Y		N	30TBL5	HP001		Y	Y	2.89		0	0
1311MET_L	PS	**40188615001**	Y		S	30TBL5	HP001	Other	Y	Y	7.25	1.74	5	100
1311MET_L	PS	**30296741001**	Y		T	30TBL5	HP001	Other	Y	Y	10.74	1.78	5	100
1311MET_L	PS	**30297196001**	Y		V	30TBL5	HP001	Other	Y	Y	3.19		5	100
1311MET_L	PS	**30297929001**	Y		C	30TBL5	HP001	Other	Y	Y	6.24	1.6	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30298178001**	Y		D	30TBL5	HP001	Other	Y	Y	11.13	2.43	5	100
1311MET_L	PS	**30298276001**	Y		F	30TBL5	HP001	Other	Y	Y	8.14	1.61	5	100
1311MET_L	PS	**30298142001**	Y		G	30TBL5	HP001	Other	Y	Y	7.36	1.72	5	100
1311MET_L	PS	**30298142002**	Y		I	30TBL5	HP001	Other	Y	Y	8.04	1.96	5	100
1311MET_L	PS	**30298231001**	Y		K	30TBL5	HP001	Other	Y	Y	8.64	1.64	5	100
1311MET_L	PS	**30298231010**	Y		L	30TBL5	HP001	Other	Y	Y	9	1.66	5	100
1311MET_L	PS	**30298519001**	Y		O	30TBL5	HP001	Other	Y	Y	9.18	1.72	5	100
1311MET_L	PS	**30298297001**	Y		P	30TBL5	HP001	Other	Y	Y	12.11	6.4	5	100
1311MET_L	LB	**1685298**	Y		1	30TBL5	HP001		Y	Y	4.88		5	0
1311MET_L	PS	**30297106001**	Y		2	30TBL5	HP001	Other	Y	Y	9.84	1.72	5	100
1311MET_L	PS	**30297106002**	Y		3	30TBL5	HP001	Other	Y	Y	9.78	1.74	5	100
1311MET_L	PS	**30297106003**	Y		4	30TBL5	HP001	Other	Y	Y	9.73	1.87	5	100
1311MET_L	PS	**30297106004**	Y		5	30TBL5	HP001	Other	Y	Y	9.8	1.67	5	100
1311MET_L	PS	**30297106005**	Y		6	30TBL5	HP001	Other	Y	Y	9.72	1.7	5	100
1311MET_L	PS	**30297106006**	Y		7	30TBL5	HP001	Other	Y	Y	9.72	1.83	5	100
1311MET_L	PS	**30296663001**	Y		8	30TBL5	HP001	Other	Y	Y	5.89	1.83	5	95
1311MET_L	PS	**30296842001**	Y		9	30TBL5	HP001	Other	Y	Y	8.58	1.64	5	100
1311MET_L	PS	**30296842004**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100
1311MET_L	PS	**30296842005**	Y		10	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	8.31	1.69	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1685290**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324				
TCLP	LB	**1685500**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570				
TCLP	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171				
TCLP	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108				
TCLP	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320				
TCLP	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065				
TCLP	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199				
TCLP	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351				
TCLP	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670				
TCLP	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950				
TCLP	PS	**30298295002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 11:02:37:439				
TCLP	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389				
TCLP	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643				
TCLP	PS	**30298519001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314				
TCLP	PS	**30298297001**	89048 ()	TCLP 2	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1685291**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.73	06/11/2019 08:43:42:324	Y			
1311MET_L	LB	**1685749**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	3.22	06/11/2019 11:32:25:570	Y			
1311MET_L	PS	**40188615001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.37	06/11/2019 08:43:34:171	Y			
1311MET_L	PS	**30296741001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.33	06/11/2019 08:43:35:108	Y			
1311MET_L	PS	**30297196001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.04	06/11/2019 09:00:59:320	Y			
1311MET_L	PS	**30297929001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.85	06/11/2019 09:01:00:065	Y			
1311MET_L	PS	**30298178001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	8.38	06/11/2019 09:17:26:199	Y			
1311MET_L	PS	**30298276001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.84	06/11/2019 09:17:24:351	Y			
1311MET_L	PS	**30298142001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.17	06/11/2019 10:03:49:670	Y			
1311MET_L	PS	**30298142002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.93	06/11/2019 10:03:50:950	Y			
1311MET_L	PS	**30298231001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:03:51:389	Y			
1311MET_L	PS	**30298231010**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.90	06/11/2019 11:32:16:643	Y			
1311MET_L	PS	**30298519001**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	6.40	06/11/2019 11:32:22:314	Y			
1311MET_L	PS	**30298297001**	89048 ()	TCLP 2	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	11.79	06/11/2019 11:32:23:282	Y			
1311MET_L	LB	**1685298**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.89	06/11/2019 11:36:59:553	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30297106001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.38	06/11/2019 11:37:00:433	Y			
1311MET_L	PS	**30297106002**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.28	06/11/2019 11:37:01:257	Y			
1311MET_L	PS	**30297106003**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.27	06/11/2019 11:59:31:063	Y			
1311MET_L	PS	**30297106004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.32	06/11/2019 11:59:31:918	Y			
1311MET_L	PS	**30297106005**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.24	06/11/2019 11:59:32:845	Y			
1311MET_L	PS	**30297106006**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	7.19	06/11/2019 11:59:33:797	Y			
1311MET_L	PS	**30296663001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.04	06/11/2019 11:59:35:141	Y			
1311MET_L	PS	**30296842001**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	5.56	06/11/2019 11:59:36:021	Y			
1311MET_L	PS	**30296842004**	89048 ()	TCLP 1	90172 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:19:146	Y	475.7	476.9	1.2
1311MET_L	PS	**30296842005**	89048 ()	TCLP 1	90349 ()	72915 ()	06/10/2019 14:47:21	06/11/2019 07:57:07	4.91	06/11/2019 12:05:21:353	Y	475.7	476.9	1.2

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1685290**								2000	
TCLP	LB	**1685500**								2000	
TCLP	PS	**40188615001**								2000	1*
TCLP	PS	**30296741001**								2000	clay/rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**30297196001**								2000	stone
TCLP	PS	**30297929001**								2000	rock
TCLP	PS	**30298178001**								2000	mulch
TCLP	PS	**30298276001**								2000	soil/sand
TCLP	PS	**30298142001**								2000	clay
TCLP	PS	**30298142002**								2000	fabric
TCLP	PS	**30298295002**								2000	clay
TCLP	PS	**30298231001**								2000	clay
TCLP	PS	**30298231010**								2000	dirt/rock
TCLP	PS	**30298519001**								2000	2*
TCLP	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685291**								2000	
1311MET_L	LB	**1685749**								2000	
1311MET_L	PS	**40188615001**								2000	1*
1311MET_L	PS	**30296741001**								2000	clay/rock
1311MET_L	PS	**30297196001**								2000	stone
1311MET_L	PS	**30297929001**								2000	rock
1311MET_L	PS	**30298178001**								2000	mulch
1311MET_L	PS	**30298276001**								2000	soil/sand
1311MET_L	PS	**30298142001**								2000	clay
1311MET_L	PS	**30298142002**								2000	fabric
1311MET_L	PS	**30298231001**								2000	clay
1311MET_L	PS	**30298231010**								2000	dirt/rock
1311MET_L	PS	**30298519001**								2000	2*
1311MET_L	PS	**30298297001**								2000	clay
1311MET_L	LB	**1685298**								2000	
1311MET_L	PS	**30297106001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30297106002**								2000	rock
1311MET_L	PS	**30297106003**								2000	rock
1311MET_L	PS	**30297106004**								2000	rock
1311MET_L	PS	**30297106005**								2000	rock
1311MET_L	PS	**30297106006**								2000	rock
1311MET_L	PS	**30296663001**								1900	paper
1311MET_L	PS	**30296842001**								2000	shavings
1311MET_L	PS	**30296842004**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	oil
1311MET_L	PS	**30296842005**	174.1	172.9	180	346.7	166.7	6.2	3.59	124.00	3*

Sample Notes:

1*: carbon pellets

2*: sand/sludge

3*: solid portion

Prep Log Report

Batch Information: OEXT 38389/38396/38394/38395 TCLP/Pest/PCB **Template Version: F-PA-O-004-Rev.00 (5May2016)**

Prep Method	EPA 3510C	Analysis Method	EPA 8081B	Extracted By	JPH	Extracted Date/Time	06/13/2019 12:47:26:230
Extraction End Date/Time	06/13/2019 15:57:48:144	Dispenser ID 1	BTD011	Syringe ID 1	SYR033	Spiked By	ZEM
Spiked By Date	06/13/2019 13:02:50:122	Concentrated By	ZEM	Concentrated By Date	06/13/2019 14:14:27:874	Conc. Method	Turbovap
Methylene Chloride	90645	Hexane	None Added	Sodium Sulfate	90590	1:1 H2SO4	85991
10N Sodium Hydroxide	None Added	Gravity Filters	90158	Reviewed By	ZEM	Reviewed By Date	06/18/2019 15:57
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
8081BST_P	LB	**1685290**		TVAP006	250	5-9	5			87605 (.5)	
8081BST_P	LCS	**1688044**		TVAP006	250	5-9	5		90623 (1)	87605 (.5)	
8081BST_P	PS	**30298142001**		TVAP006	250	5-9	5			87605 (.5)	
8081BST_P	PS	**30298142002**		TVAP006	250	5-9	5			87605 (.5)	
8081BST_P	PS	**30298295002**		TVAP006	250	5-9	5			87605 (.5)	
8081BST_P	MS	**1688045**		TVAP006	250	5-9	5		90623 (1)	87605 (.5)	
8081BST_P	MSD	**1688046**		TVAP005	250	5-9	5		90623 (1)	87605 (.5)	
8081BST_P	PS	**30298231001**		TVAP005	250	5-9	5			87605 (.5)	
8081BST_P	PS	**30298231010**		TVAP005	250	5-9	5			87605 (.5)	
8082AW_P	BLANK	**1688228**		TVAP005	1000	5-9	5			87605 (.5)	
8082AW_P	LCS	**1688229**		TVAP005	1000	5-9	5			87605 (.5)	88418 (1)
8082AW_P	RQS	**30298782001**		TVAP005	840	5-9	5			87605 (.5)	
8082AW_P	PS	**30298782002**		TVAP003	850	5-9	5			87605 (.5)	
608 WP_P	BLANK	**1688224**		TVAP003	1000	5-9	5			87605 (.5)	
608 WP_P	LCS	**1688225**		TVAP003	1000	5-9	5		90623 (1)	87605 (.5)	
608 WP_P	PS	**30299164001**		TVAP003	1015	5-9	5			87605 (.5)	
608 WP_P	PS	**30299323001**		TVAP003	990	5-9	5			87605 (.5)	
608 WC_P	BLANK	**1688226**		TVAP003	1000	5-9	5			87605 (.5)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
608 WC_P	LCS	**1688227**		TVAP007	1000	5-9	5			87605 (.5)	88418 (1)
608 WC_P	PS	**30299164001**		TVAP007	1015	5-9	5			87605 (.5)	
608 WC_P	PS	**30299323001**		TVAP007	990	5-9	5			87605 (.5)	

Standard Notes:

87605: OEXT Pesticide Surrogate 1 ppm **88418: oext AROCLOR 2.5 ppm spike methanol** **90623: OEXT Pesticide Spike 0.2/0.4/2 ppm**

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA
Surr. lot:
Cal. std: NA hexane B4246

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-05-16-001.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	5/16/19	11:43	CWB	
1/2019-05-16-002.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	5/16/19	11:52	CWB	
1/2019-05-16-003.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	5/16/19	12:32	CWB	
1/2019-05-16-004.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	5/16/19	12:42	CWB	
1/2019-05-16-005.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	5/16/19	12:52	CWB	
1/2019-05-16-006.d	hexane	N/	SAMPLE	1	cf8081051619abm	5/16/19	13:02	CWB	
1/2019-05-16-007.d	PEM, 86125:10	N/15520	blank	1	cf8081051619abm	5/16/19	13:11	CWB	
1/2019-05-16-008.d	CAL2S, 83734:10	N/15520	CALIB_2	1	cf8081051619abm	5/16/19	13:21	CWB	
1/2019-05-16-009.d	CAL2S, 83742:10	N/15520	CALIB_2	1	cf8081051619abm	5/16/19	13:31	CWB	
1/2019-05-16-010.d	CAL1, 87950:1	N/15520	CALIB_1	1	cf8081051619abm	5/16/19	13:40	CWB	
1/2019-05-16-010llc.d	CAL1, 87950:1	N/15520	CCALIB_4	1	cf8081051619abm	5/16/19	13:40	CWB	
1/2019-05-16-011.d	CAL2, 87951:1	N/15520	CALIB_2	1	cf8081051619abm	5/16/19	13:50	CWB	
1/2019-05-16-012.d	CAL3, 87952:1	N/15520	CALIB_3	1	cf8081051619abm	5/16/19	14:00	CWB	
1/2019-05-16-013.d	CAL4, 87953:1	N/15520	CALIB_4	1	cf8081051619abm	5/16/19	14:09	CWB	
1/2019-05-16-014.d	CAL5, 87954:1	N/15520	CALIB_5	1	cf8081051619abm	5/16/19	14:19	CWB	
1/2019-05-16-015.d	CAL6, 87955:1	N/15520	CALIB_6	1	cf8081051619abm	5/16/19	14:29	CWB	
1/2019-05-16-016.d	ICV, 77696:10	N/15520	CCALIB_4	1	cf8081051619abm	5/16/19	14:39	CWB	
1/2019-05-16-017.d	30292496001,	L/15505	SAMPLE	1	cf8081051619abm	5/16/19	14:48	CWB	
1/2019-05-16-018.d	30292626001,	S/15483	SAMPLE	1	cf8081051619abm	5/16/19	14:58	CWB	
1/2019-05-16-019.d	30293865001,	L/15513	SAMPLE	1	cf8081051619abm	5/16/19	15:08	CWB	
1/2019-05-16-020.d	30293869001,	L/15513	SAMPLE	1	cf8081051619abm	5/16/19	15:17	CWB	
1/2019-05-16-021.d	1666327,	L/15513	LCS	1	cf8081051619abm	5/16/19	15:27	CWB	
1/2019-05-16-022.d	1666326,	L/15513	BLANK	1	cf8081051619abm	5/16/19	15:37	CWB	
1/2019-05-16-023.d	PEM, 86125:10	N/15520	blank	1	cf8081051619abm	5/16/19	15:47	CWB	
1/2019-05-16-024.d	CCV, 87953	N/1	CCALIB_4	1	cf8081051619abm	5/16/19	15:56	CWB	
1/2019-05-16-025.d	1665694,	S/15503	BLANK	1	cf8081051619abm	5/16/19	16:06	CWB	
1/2019-05-16-026.d	1665695,	S/15503	LCS	1	cf8081051619abm	5/16/19	16:16	CWB	
1/2019-05-16-027.d	30293215001,	S/15503	SAMPLE	1	cf8081051619abm	5/16/19	16:25	CWB	
1/2019-05-16-028.d	1665696,	S/15503	MS	1	cf8081051619abm	5/16/19	16:35	CWB	
1/2019-05-16-029.d	1665697,	S/15503	MSD	1	cf8081051619abm	5/16/19	16:45	CWB	
1/2019-05-16-030.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	16:54	CWB	
1/2019-05-16-031.d	30293660001x5,	S/15503	SAMPLE	5	cf8081051619abm	5/16/19	17:04	CWB	
1/2019-05-16-032.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	17:14	CWB	

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [ ] Replaced/Cleaned gold seal
- [ ] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [ ] Other minor parts replaced
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: CWB 5-17-19

File Path 1: \\30wintarget\chem\30gcsc.i\051619-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:46 05/17/2019

Reviewed By/Date: [illegible] 5-17-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot:

Surr. lot:

Tune std: NA

Cal. std: NA hexanes 84246

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-05-16-033.d	30293660003x5,	S/15503	SAMPLE	5	cf8081051619abm	5/16/19	17:24	CWB	
1/2019-05-16-034.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	17:33	CWB	
1/2019-05-16-035.d	30293660005x100,	S/15503	SAMPLE	100	cf8081051619abm	5/16/19	17:43	CWB	
1/2019-05-16-036.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	17:53	CWB	
1/2019-05-16-037.d	30293660007x5,	S/15503	SAMPLE	5	cf8081051619abm	5/16/19	18:02	CWB	
1/2019-05-16-038.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	18:12	CWB	
1/2019-05-16-039.d	30293861001x20,	S/15503	SAMPLE	20	cf8081051619abm	5/16/19	18:22	CWB	
1/2019-05-16-040.d	30293861001,	S/15503	SAMPLE	1	cf8081051619abm	5/16/19	18:32	CWB	
1/2019-05-16-041.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	18:41	CWB	
1/2019-05-16-042.d	30293862001,	S/15503	SAMPLE	1	cf8081051619abm	5/16/19	18:51	CWB	
1/2019-05-16-043.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	19:01	CWB	
1/2019-05-16-044.d	CCV, 87953	N/1	CCALIB_4	1	cf8081051619abm	5/16/19	19:10	CWB	
1/2019-05-16-045.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	5/16/19	19:20	CWB	

CwB 5-17-19

File Path 1: \\30wintarget\chem\30gcsc.i\051619-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:46 05/17/2019

Reviewed By/Date: 5-17-19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B
Misc. Prep Info [L]:
ISTD lot:
Surr. lot:
Tune std: NA
Cal. std: NA Hexanes #9/16/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-17-001.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:09	TAW	
1/2019-06-17-002.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:19	TAW	
1/2019-06-17-003.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:29	TAW	
1/2019-06-17-004.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:39	TAW	
1/2019-06-17-005.d	PRIMER	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:48	TAW	
1/2019-06-17-006.d	hexane	N/	SAMPLE	1	cf8081051619abm	6/17/19	18:58	TAW	
1/2019-06-17-007.d	PEM, 89577:10	N/15455	blank	1	cf8081051619abm	6/17/19	19:08	TAW	
1/2019-06-17-008.d	CAL2S, 90773:10	N/15520	CALIB_2	1	cf8081051619abm	6/17/19	19:17	TAW	
1/2019-06-17-009.d	CAL2S, 90771:10	N/15520	CALIB_2	1	cf8081051619abm	6/17/19	19:27	TAW	
1/2019-06-17-010.d	CCV, 91110:1	N/15520	CCALIB_4	1	cf8081051619abm	6/17/19	19:37	TAW	
1/2019-06-17-011.d	1685290,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	19:46	TAW	
1/2019-06-17-012.d	1688044,	L/15677	LCS	1	cf8081051619abm	6/17/19	19:56	TAW	
1/2019-06-17-013.d	30298142001,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	20:06	TAW	
1/2019-06-17-014.d	30298142002,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	20:16	TAW	
1/2019-06-17-015.d	30298295002,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	20:25	TAW	
1/2019-06-17-016.d	1688045,	L/15677	MS	1	cf8081051619abm	6/17/19	20:35	TAW	
1/2019-06-17-017.d	1688046,	L/15677	MSD	1	cf8081051619abm	6/17/19	20:45	TAW	
1/2019-06-17-018.d	30298231001,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	20:54	TAW	
1/2019-06-17-019.d	30298231010,	L/15677	SAMPLE	1	cf8081051619abm	6/17/19	21:04	TAW	
1/2019-06-17-020.d	PEM, 89577:10	N/15455	blank	1	cf8081051619abm	6/17/19	21:14	TAW	
1/2019-06-17-021.d	CCV, 91110:1	N/15520	CCALIB_4	1	cf8081051619abm	6/17/19	21:24	TAW	
1/2019-06-17-022.d	1685710,	L/15663	BLANK	1	cf8081051619abm	6/17/19	21:33	TAW	
1/2019-06-17-023.d	1685711,	L/15663	LCS	1	cf8081051619abm	6/17/19	21:43	TAW	
1/2019-06-17-024.d	30297697001x1000	L/15663	SAMPLE	1000	cf8081051619abm	6/17/19	21:53	TAW	
1/2019-06-17-025.d	30297697001x100,	L/15663	SAMPLE	100	cf8081051619abm	6/17/19	22:02	TAW	
1/2019-06-17-026.d	30297697001x10,	L/15663	SAMPLE	10	cf8081051619abm	6/17/19	22:12	TAW	
1/2019-06-17-027.d	30297697001,	L/15663	SAMPLE	1	cf8081051619abm	6/17/19	22:22	TAW	
1/2019-06-17-028.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/17/19	22:32	TAW	
1/2019-06-17-029.d	30297697002x100,	N/	SAMPLE	1	cf8081051619abm	6/17/19	22:41	TAW	
1/2019-06-17-030.d	30297697002x10,	L/15663	SAMPLE	10	cf8081051619abm	6/17/19	22:51	TAW	
1/2019-06-17-031.d	30297697002,	L/15663	SAMPLE	1	cf8081051619abm	6/17/19	23:01	TAW	
1/2019-06-17-032.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/17/19	23:10	TAW	
1/2019-06-17-033.d	30297698001x25,	L/15663	SAMPLE	25	cf8081051619abm	6/17/19	23:20	TAW	
1/2019-06-17-034.d	30297698001x20,	L/15663	SAMPLE	20	cf8081051619abm	6/17/19	23:30	TAW	

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [ ] Replaced/Cleaned gold seal
- [ ] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [X] Other minor parts replaced glass wool
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: TAW 7-3-19

File Path 1: \\30wintarget\chem\30gcsc.i\061719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:29 07/03/2019

Reviewed By/Date: SLG 7-3-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

ISTD lot:

Surr. lot:

Tune std: NA

Cal. std: NA Hexane #9/6/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-17-035.d	30297698001,	L/15663	SAMPLE	1	cf8081051619abm	6/17/19	23:40	TAW	
1/2019-06-17-036.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/17/19	23:49	TAW	
1/2019-06-17-037.d	30297698002x25,	L/15663	SAMPLE	25	cf8081051619abm	6/17/19	23:59	TAW	
1/2019-06-18-038.d	30297698002x20,	L/15663	SAMPLE	20	cf8081051619abm	6/18/19	00:09	TAW	
1/2019-06-18-039.d	30297698002,	L/15663	SAMPLE	1	cf8081051619abm	6/18/19	00:18	TAW	
1/2019-06-18-040.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/18/19	00:28	TAW	
1/2019-06-18-041.d	30297698003,	L/15663	SAMPLE	1	cf8081051619abm	6/18/19	00:38	TAW	
1/2019-06-18-042.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/18/19	00:48	TAW	
1/2019-06-18-043.d	CCV, 91110:1	N/15520	CCALIB_4	1	cf8081051619abm	6/18/19	00:57	TAW	
1/2019-06-18-044.d	HEXANE	N/	SAMPLE	1	cf8081051619abm	6/18/19	01:07	TAW	

TAW 7-3-19

File Path 1: \\30wintarget\chem\30gcsc.i\061719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:29 07/03/2019

Reviewed By/Date: SJG 7-3-19

PCB - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1684396	1684396BLANK	88	79
1684397	1684397LCS	88	79
30298231001	AOC35L	101	78
30298231010	AOC34	102	77

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(38-139)
(TCMX) = Tetrachloro-m-xylene (S)	(34-114)

* Values outside of QC Limits

PCB - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1684397LCS
Date Extracted: 06/07/2019
Date Analyzed (1): 06/11/2019
Instrument: 30GCSD
LCS Lot No: 88418
Lab File ID: D061119-2.B\D061119000040.D
SDG No.: 30298231

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	166	131	79	61-105
PCB-1260 (Aroclor 1260)	166	139	84	70-100

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1684398MS
Date Extracted: 06/07/2019
Date Analyzed (1): 06/11/2019
Instrument: 30GCSD
Lab File ID: D061119-1.B\D061119000057.D
Parent Sample ID: 30298236001
SDG No.: 30298231

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	543	ND	497J	91	24-137
PCB-1260 (Aroclor 1260)	543	ND	1200	220	19-156

Spike Recovery: 1 out of 2 outside limits.

PCB - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSD Matrix Spike Duplicate - Sample No: 1684399MSD

Lab File ID (2): D061119-1.B\D061119000058.D Date Analyzed (2): 06/12/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
PCB-1016 (Aroclor 1016)	540	560	104		0-25	24-137
PCB-1260 (Aroclor 1260)	540	1550	288	26	0-25	19-156

RPD: 1 out of 1 outside limits.

Spike Recovery: 1 out of 2 outside limits.

06/26/2019 9:15

SAMPLE NO.

1684396BLANK

PCB - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30298231 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD Matrix: Solid Lab Sample ID: 1684396

Lab File ID (1): D061119-1.B\D061119000039.D Date Analyzed (1): 06/11/2019 Time (1): 21:19

Lab File ID (2): D061119-2.B\D061119000039.D Date Analyzed (2): 06/11/2019 Time (2): 21:19

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1684397LCS	1684397	D061119-1.B\D061119000040.D	06/11/2019 21:28
1684397LCS	1684397	D061119-2.B\D061119000040.D	06/11/2019 21:28
AOC35L	30298231001	D061119-1.B\D061119000065.D	06/12/2019 00:59
AOC34	30298231010	D061119-1.B\D061119000066.D	06/12/2019 01:08

SAMPLE NO.

AOC35L

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/07/2019 19:25
Lab Sample ID: 30298231001
Date Analyzed: 06/12/2019 00:59
Lab File ID: D061119-1.B\D061119000065.D
Initial wt/vol: 15.47 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U
1336-36-3	PCB, Total	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000065.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 12-JUN-2019 00:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30298231001x10,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 65
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.470	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.514	440734	186522	0.423	45.424		
0.819	392	399	1.019	0.096		
0.871	533	548	1.028	0.133		
0.979	188	220	1.168	0.053		
1.053	374	247	0.661	0.059		
1.145	127	155	1.219	0.037		
1.167	157	239	1.522	0.058		
1.212	7952	7216	0.908	1.752	$ 10 Tetrachloro-m-xylene (S)	BA
1.306	182	186	1.022	0.045		
1.379	117	192	1.637	0.046		
1.409	168	253	1.505	0.061		
1.455	1200	1084	0.904	0.263		
1.610	2210	1733	0.784	0.420		
1.696	1642	1426	0.869	0.346		
1.806	60	101	1.672	0.024		
1.877	398	397	0.996	0.096		
1.933	68	93	1.377	0.022		
1.991	346	344	0.994	0.083		
2.028	154	199	1.294	0.048		
2.062	195	182	0.933	0.044		
2.102	423	393	0.929	0.095		
2.187	122	165	1.356	0.040		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.209	75	151	2.011	0.036		
2.250	248	264	1.065	0.064		
2.283	323	357	1.105	0.086		
2.313	331	411	1.241	0.099		
2.375	84	113	1.338	0.027		
2.405	221	230	1.041	0.055		
2.429	2779	2543	0.915	0.617		
2.516	53	89	1.667	0.021		
2.579	180	206	1.142	0.050		
2.615	169	175	1.037	0.042		
2.643	7789	6177	0.793	1.500		
2.722	252	231	0.918	0.056		
2.788	3276	2412	0.736	0.585		
2.851	1414	1015	0.718	0.246		
2.887	305	289	0.948	0.070		
2.927	255	226	0.886	0.054		
2.958	1195	1088	0.910	0.264		
2.982	860	825	0.960	0.200		
3.010	1034	1391	1.345	0.337		
3.024	2497	1983	0.794	0.481		
3.049	163	361	2.218	0.087		
3.089	295	327	1.107	0.079		
3.125	472	363	0.769	0.088		
3.153	2805	2444	0.871	0.593		
3.188	165	295	1.784	0.071		
3.225	935	708	0.757	0.171		
3.238	90	458	5.070	0.111		
3.241	403	467	1.160	0.113		
3.269	56	108	1.946	0.026		
3.289	966	793	0.821	0.192		
3.337	1080	971	0.899	0.235		
3.365	243	219	0.903	0.053		
3.391	731	571	0.781	0.138		
3.428	10	51	5.274	0.012		
3.439	91	148	1.629	0.035		
3.471	323	448	1.386	0.108		
3.482	491	540	1.099	0.131		
3.532	16200	14972	0.924	3.636		
3.589	780	579	0.743	0.140		
3.636	4470	3574	0.800	0.867		
3.669	109	272	2.489	0.066		
3.686	328	323	0.986	0.078		
3.723	4061	3169	0.780	0.769		
3.802	4583	4276	0.933	1.038		
3.835	4142	3763	0.909	0.913		
3.852	3749	3453	0.921	0.838		
3.877	1251	1261	1.008	0.306		
3.905	172	228	1.326	0.055		
3.948	2539	2149	0.846	0.521		
3.959	1752	2069	1.181	0.502		
3.982	166	699	4.223	0.169		
4.005	395	446	1.128	0.108		
4.036	3788	2751	0.726	0.668		
4.075	840	927	1.104	0.225		
4.095	2493	1379	0.553	0.334		
4.121	545	695	1.275	0.168		
4.143	1289	961	0.746	0.233		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.176	846	762	0.901	0.185		
4.195	43	245	5.742	0.059		
4.200	82	250	3.054	0.060		
4.220	437	490	1.122	0.119		
4.244	13164	10384	0.789	2.521		
4.303	628	616	0.982	0.149		
4.325	852	879	1.032	0.213		
4.340	300	491	1.636	0.119		
4.353	95	347	3.652	0.084		
4.377	352	586	1.665	0.142		
4.381	384	594	1.547	0.144		
4.391	138	508	3.680	0.123		
4.398	345	531	1.541	0.128		
4.415	130	331	2.555	0.080		
4.427	29	168	5.852	0.040		
4.430	30	184	6.109	0.044		
4.435	56	196	3.510	0.047		
4.438	66	215	3.251	0.052		
4.449	72	125	1.738	0.030		
4.483	924	1228	1.330	0.298		
4.499	6754	6056	0.897	1.470	$ 11 Decachlorobiphenyl (S)	BA
4.522	483	840	1.739	0.204		
4.548	400	722	1.807	0.175		
4.569	2140	2190	1.024	0.531		
4.584	3617	3049	0.843	0.740		
4.613	477	576	1.208	0.139		
4.635	451	449	0.996	0.109		
4.679	4612	4359	0.945	1.058		
4.706	1332	1290	0.968	0.313		
4.743	5496	5009	0.911	1.216		
4.773	1616	1881	1.164	0.456		
4.802	34	285	8.507	0.069		
4.805	79	304	3.859	0.073		
4.808	53	283	5.296	0.068		
4.813	132	276	2.083	0.067		
4.825	22	118	5.415	0.028		
4.849	1050	1027	0.978	0.249		
4.858	477	879	1.843	0.213		
4.881	164	568	3.474	0.137		
4.888	214	602	2.813	0.146		
4.894	181	581	3.209	0.141		
4.899	157	580	3.691	0.140		
4.902	153	567	3.712	0.137		
4.907	113	522	4.600	0.126		
4.921	796	816	1.025	0.198		
4.943	25	145	5.772	0.035		
4.958	868	843	0.971	0.204		
4.987	25	108	4.310	0.026		
5.016	1207	1381	1.144	0.335		
5.018	196	1413	7.227	0.343		
5.028	2025	1618	0.799	0.392		
5.048	193	833	4.319	0.202		
5.063	1033	1388	1.344	0.337		
5.066	282	1428	5.068	0.346		
5.069	2202	1503	0.683	0.365		
5.106	274	615	2.241	0.149		
5.113	443	660	1.488	0.160		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.127	94	530	5.641	0.128		
5.131	152	558	3.661	0.135		
5.144	568	892	1.571	0.216		
5.149	444	965	2.173	0.234		
5.154	247	965	3.901	0.234		
5.193	75	207	2.758	0.050		
5.208	34	105	3.088	0.025		
5.212	25	127	5.142	0.030		
5.217	38	156	4.056	0.037		
5.236	449	623	1.386	0.151		
5.249	565	862	1.527	0.209		
5.265	2947	1414	0.480	0.343		
5.297	215	799	3.723	0.194		
5.321	274	471	1.718	0.114		
5.333	77	404	5.254	0.098		
5.338	225	425	1.889	0.103		
5.345	240	428	1.785	0.103		
5.354	215	445	2.074	0.108		
5.364	200	455	2.276	0.110		
5.370	115	508	4.424	0.123		
5.375	189	551	2.916	0.133		
5.381	189	577	3.055	0.140		
5.385	159	650	4.077	0.157		
5.399	959	1114	1.162	0.270		
5.428	76	340	4.455	0.082		
5.433	100	387	3.884	0.093		
5.436	83	449	5.398	0.109		
5.440	108	529	4.900	0.128		
5.442	111	574	5.173	0.139		
5.448	218	661	3.027	0.160		
5.450	148	695	4.687	0.168		
5.454	124	707	5.703	0.171		
5.458	323	751	2.326	0.182		
5.486	1108	1230	1.110	0.298		
5.524	169	402	2.377	0.097		
5.535	47	273	5.768	0.066		
5.541	92	314	3.418	0.076		
5.545	93	381	4.114	0.092		
5.547	65	425	6.551	0.103		
5.551	145	485	3.339	0.117		
5.556	207	515	2.485	0.125		
5.578	1288	1150	0.893	0.279		
5.617	64	179	2.804	0.043		
5.647	3487	2020	0.579	0.490		
5.685	71	342	4.807	0.083		
5.714	2100	1530	0.729	0.371		
5.736	205	800	3.900	0.194		
5.741	206	808	3.920	0.196		
5.746	605	848	1.402	0.205		
5.763	166	656	3.944	0.159		
5.767	323	700	2.169	0.170		
5.773	518	671	1.296	0.162		
5.789	169	549	3.245	0.133		
5.793	141	549	3.897	0.133		
5.799	375	617	1.647	0.149		
5.820	113	450	3.991	0.109		
5.824	67	433	6.482	0.105		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.852	8660	3490	0.403	0.847		
5.920	37	207	5.526	0.050		
5.930	85	244	2.869	0.059		
5.937	99	287	2.888	0.069		
5.942	85	324	3.805	0.078		
5.953	283	556	1.965	0.135		
5.961	478	705	1.476	0.171		
5.967	248	708	2.851	0.171		
5.972	124	698	5.626	0.169		
5.975	410	728	1.777	0.176		
5.993	115	584	5.096	0.141		
5.998	219	686	3.135	0.166		
6.005	437	708	1.622	0.171		
6.029	166	567	3.425	0.137		
6.034	264	571	2.165	0.138		
6.042	211	569	2.696	0.138		
6.047	249	568	2.277	0.137		
6.055	228	537	2.352	0.130		
6.061	356	486	1.366	0.118		
6.077	111	305	2.757	0.074		
6.082	75	274	3.647	0.066		
6.087	88	249	2.825	0.060		
6.094	75	219	2.907	0.053		
6.099	28	216	7.619	0.052		
6.103	64	238	3.741	0.057		
6.109	89	294	3.303	0.071		
6.114	116	348	2.993	0.084		
6.118	111	388	3.489	0.094		
6.124	118	456	3.853	0.110		
6.128	134	542	4.047	0.131		
6.136	353	790	2.239	0.191		
6.140	196	831	4.248	0.201		
6.143	1047	876	0.836	0.212		
6.171	98	556	5.680	0.135		
6.175	263	583	2.220	0.141		
6.181	158	637	4.030	0.154		
6.198	268	568	2.119	0.137		
6.212	84	533	6.363	0.129		
6.216	184	557	3.029	0.135		
6.220	184	566	3.077	0.137		
6.225	205	529	2.574	0.128		
6.232	115	531	4.637	0.128		
6.238	199	599	3.005	0.145		
6.247	592	705	1.190	0.171		
6.260	622	639	1.027	0.155		
6.302	36	175	4.896	0.042		
6.308	53	176	3.301	0.042		
6.315	108	235	2.178	0.057		
6.325	127	287	2.264	0.069		
6.334	228	352	1.547	0.085		
6.340	55	356	6.454	0.086		
6.354	131	289	2.205	0.070		
6.367	86	260	3.037	0.063		
6.374	191	301	1.578	0.073		
6.382	111	303	2.733	0.073		
6.402	117	247	2.106	0.059		
6.410	96	223	2.314	0.054		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.422	42	197	4.708	0.047		
6.425	52	232	4.494	0.056		
6.432	79	266	3.351	0.064		
6.437	57	269	4.683	0.065		
6.442	120	239	1.984	0.058		
6.464	52	144	2.783	0.034		
6.474	22	87	3.874	0.021		
6.479	22	74	3.407	0.017		
6.485	14	88	6.077	0.021		
6.490	31	114	3.668	0.027		
6.493	38	168	4.389	0.040		
6.497	49	194	3.935	0.047		
	644858	411761		100.000		

Total unknown % height = 96.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000065.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 12-JUN-2019 00:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30298231001x10,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 65
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.470	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.212	-0.001	7951	0.01563	0.00505		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.498	4.502	-0.004	6754	0.02012	0.00650		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

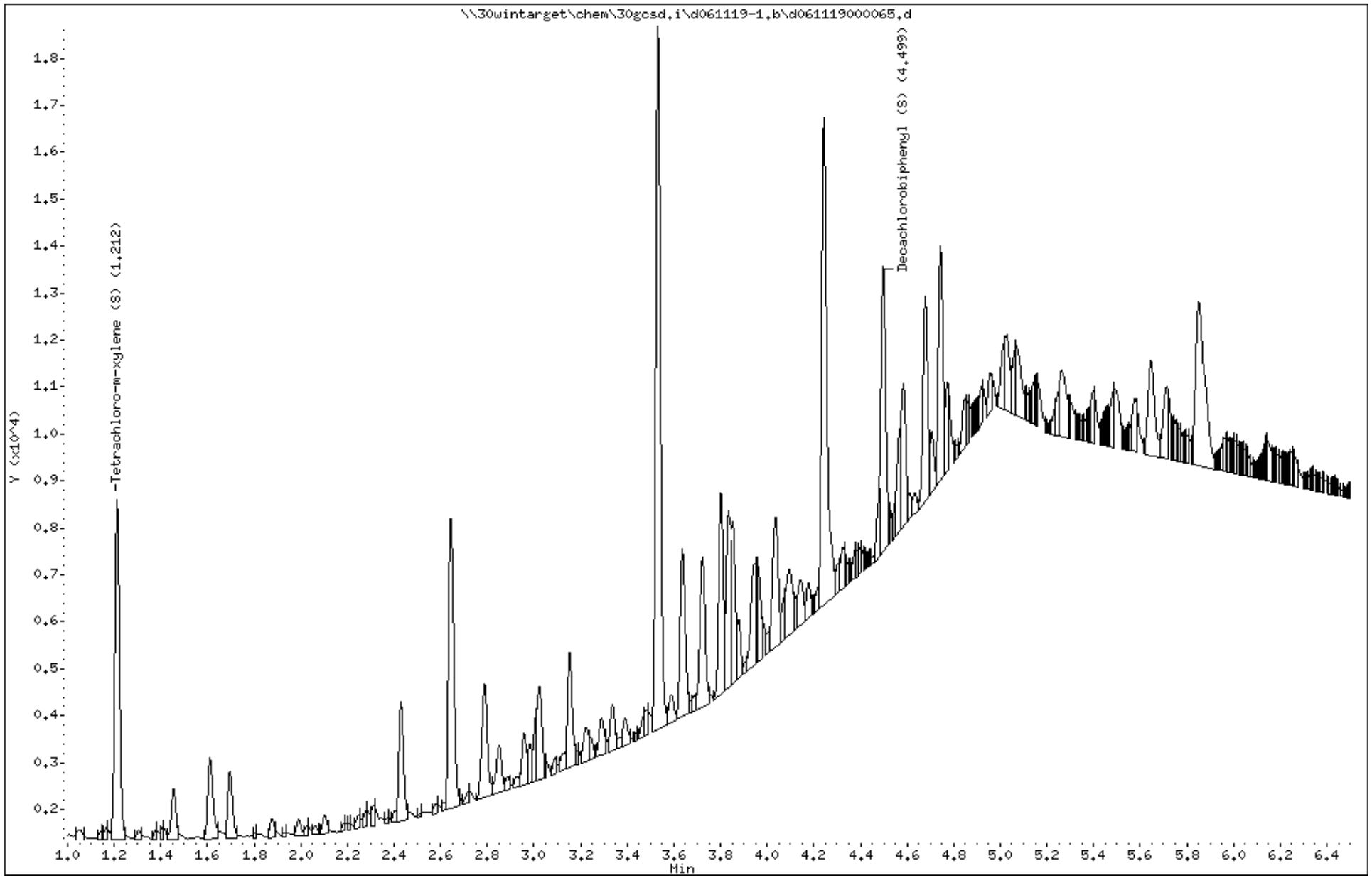
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30298231001
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

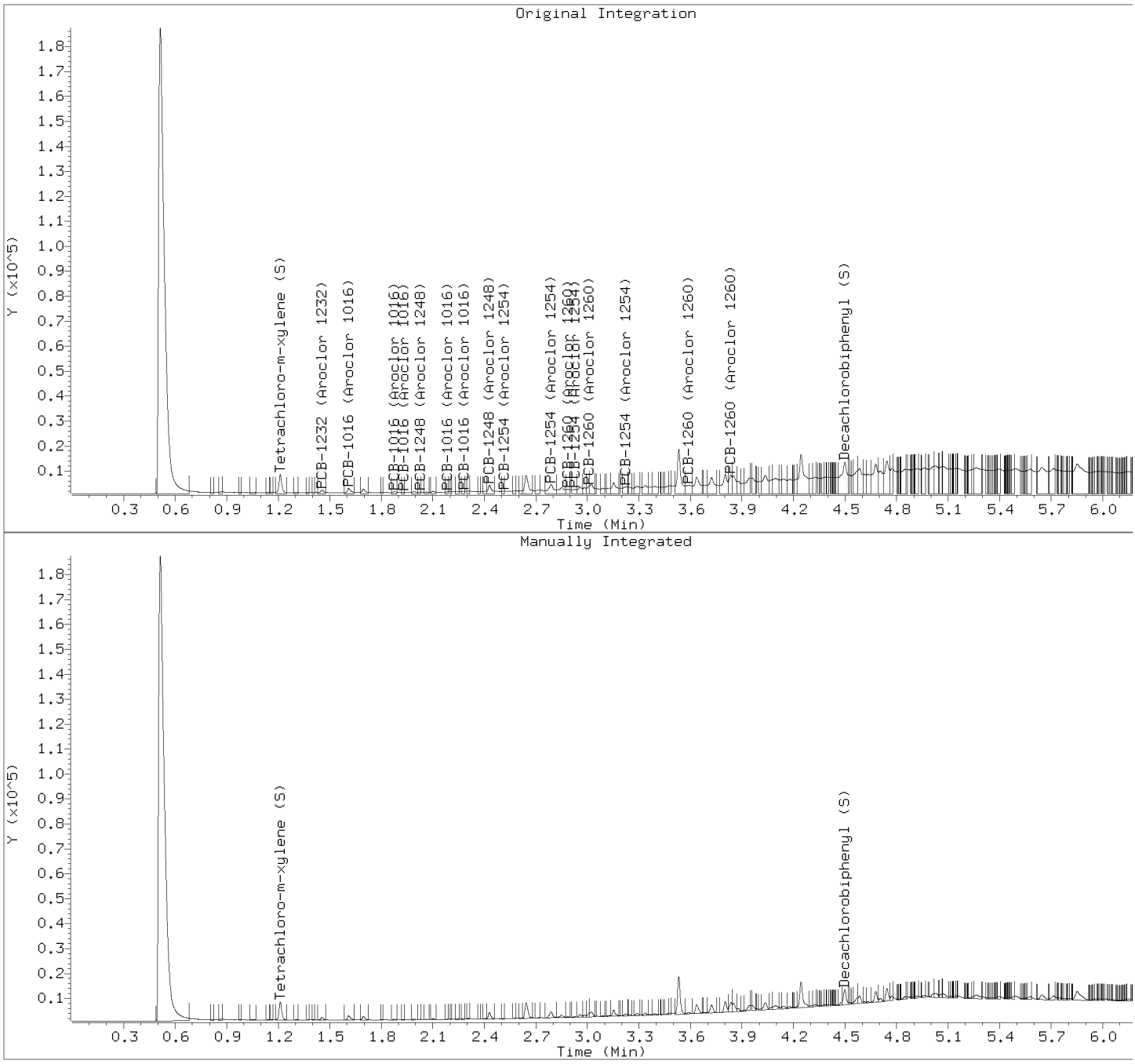
Client SDG: 30298231
Client Smp ID: AOC35L
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	330	U
11104-28-2	PCB-1221 (Aroclor 1221)	670	U
11141-16-5	PCB-1232 (Aroclor 1232)	330	U
53469-21-9	PCB-1242 (Aroclor 1242)	330	U
12672-29-6	PCB-1248 (Aroclor 1248)	330	U
11097-69-1	PCB-1254 (Aroclor 1254)	330	U
11096-82-5	PCB-1260 (Aroclor 1260)	330	U
877-09-8	Tetrachloro-m-xylene (S)	0.00505	J
2051-24-3	Decachlorobiphenyl (S)	0.00650	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000065.d
Date : 12-JUN-2019 00:59
Client ID: A0C35L
Instrument: 30gcsd.i
Sample Info: 30298231001X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000065.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 12-JUN-2019 00:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30298231001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3621	0
PCB-1016 (Aroclor 1016)	1198	0
PCB-1016 (Aroclor 1016)	515	0
PCB-1016 (Aroclor 1016)	756	0
PCB-1016 (Aroclor 1016)	1113	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	2308	0
PCB-1232 (Aroclor 1232)	3621	0
PCB-1232 (Aroclor 1232)	1198	0
PCB-1232 (Aroclor 1232)	515	0
PCB-1232 (Aroclor 1232)	756	0
PCB-1242 (Aroclor 1242)	2308	0

PCB-1242 (Aroclor 1242)	3621	0
PCB-1242 (Aroclor 1242)	1198	0
PCB-1242 (Aroclor 1242)	515	0
PCB-1242 (Aroclor 1242)	756	0
PCB-1248 (Aroclor 1248)	1198	0
PCB-1248 (Aroclor 1248)	731	0
PCB-1248 (Aroclor 1248)	756	0
PCB-1248 (Aroclor 1248)	1113	0
PCB-1248 (Aroclor 1248)	4938	0
PCB-1254 (Aroclor 1254)	4938	0
PCB-1254 (Aroclor 1254)	942	0
PCB-1254 (Aroclor 1254)	8354	0
PCB-1254 (Aroclor 1254)	2881	0
PCB-1254 (Aroclor 1254)	5093	0
PCB-1260 (Aroclor 1260)	8354	0
PCB-1260 (Aroclor 1260)	2593	0
PCB-1260 (Aroclor 1260)	2751	0
PCB-1260 (Aroclor 1260)	7841	0
PCB-1260 (Aroclor 1260)	9542	0
Tetrachloro-m-xylene (S)	9492	7951
Decachlorobiphenyl (S)	30856	6754

SAMPLE NO.

AOC34

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/06/2019 09:40
Matrix: Solid SDG No.: 30298231
Date Extracted: 06/07/2019 19:25
Lab Sample ID: 30298231010
Date Analyzed: 06/12/2019 01:08
Lab File ID: D061119-1.B\D061119000066.D
Initial wt/vol: 15.36 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 8.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U
1336-36-3	PCB, Total	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000066.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 12-JUN-2019 01:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30298231010x10,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 66
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.360	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	58844	19454	0.331	6.893		
0.675	5133	2327	0.453	0.824		
0.916	445	303	0.681	0.107		
1.211	7878	7289	0.925	2.582	$ 10 Tetrachloro-m-xylene (S)	BA
1.379	146	159	1.086	0.056		
1.695	3704	3142	0.848	1.113		
1.808	4583	4629	1.010	1.640		
1.876	388	356	0.917	0.126		
1.964	204	211	1.035	0.074		
1.991	609	587	0.964	0.208		
2.025	170	256	1.507	0.090		
2.101	659	619	0.939	0.219		
2.187	44	72	1.619	0.025		
2.247	113	136	1.204	0.048		
2.283	107	120	1.124	0.042		
2.314	151	157	1.043	0.055		
2.406	149	177	1.186	0.062		
2.429	8576	8304	0.968	2.942		
2.581	138	177	1.287	0.062		
2.617	361	366	1.014	0.129		
2.643	6535	4911	0.751	1.740		
2.787	4901	3875	0.791	1.373		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.847	377	404	1.072	0.143		
2.885	272	241	0.886	0.085		
2.928	88	108	1.233	0.038		
2.957	478	410	0.858	0.145		
2.982	297	352	1.187	0.124		
3.006	935	776	0.830	0.274		
3.023	829	698	0.842	0.247		
3.047	122	211	1.733	0.074		
3.088	119	135	1.138	0.047		
3.103	37	112	3.058	0.039		
3.124	243	220	0.906	0.077		
3.152	1227	1045	0.852	0.370		
3.183	59	159	2.694	0.056		
3.226	697	459	0.658	0.162		
3.289	556	427	0.768	0.151		
3.318	24	83	3.521	0.029		
3.337	279	252	0.902	0.089		
3.363	244	214	0.878	0.075		
3.392	69	90	1.313	0.031		
3.423	144	234	1.620	0.082		
3.463	120	174	1.455	0.061		
3.472	164	204	1.243	0.072		
3.531	29785	28681	0.963	10.257		
3.588	907	724	0.798	0.256		
3.610	59	194	3.267	0.068		
3.636	8458	7938	0.939	2.812		
3.721	9310	7660	0.823	2.714		
3.801	3429	3158	0.921	1.119		
3.834	3550	3228	0.909	1.143		
3.852	2320	2118	0.913	0.750		
3.874	846	913	1.079	0.323		
3.903	57	78	1.379	0.027		
3.942	1925	1533	0.796	0.543		
3.961	2176	1611	0.740	0.570		
4.003	24	68	2.831	0.024		
4.035	6231	5249	0.842	1.860		
4.064	358	603	1.686	0.213		
4.093	1175	801	0.682	0.283		
4.118	110	236	2.141	0.083		
4.145	363	474	1.307	0.167		
4.165	9	64	6.838	0.022		
4.177	244	327	1.341	0.115		
4.205	45	89	1.972	0.031		
4.220	167	212	1.267	0.075		
4.243	9297	7947	0.855	2.816		
4.303	564	524	0.929	0.185		
4.316	69	323	4.653	0.114		
4.332	700	600	0.857	0.212		
4.370	55	181	3.262	0.064		
4.382	245	284	1.161	0.100		
4.397	71	240	3.386	0.085		
4.416	72	196	2.733	0.069		
4.422	94	201	2.138	0.071		
4.443	62	102	1.641	0.036		
4.457	3	12	4.688	0.004		
4.499	6865	5967	0.869	2.114	$ 11 Decachlorobiphenyl (S)	BA
4.524	523	726	1.389	0.257		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.566	1785	1685	0.944	0.597		
4.586	7954	5488	0.690	1.944		
4.633	150	360	2.393	0.127		
4.635	155	380	2.446	0.134		
4.644	109	378	3.459	0.133		
4.679	7449	6080	0.816	2.154		
4.708	1674	1444	0.863	0.511		
4.743	9220	8451	0.917	2.994		
4.775	1263	1028	0.814	0.364		
4.808	281	408	1.450	0.144		
4.846	528	949	1.798	0.336		
4.849	814	948	1.164	0.335		
4.868	166	617	3.713	0.218		
4.887	1405	862	0.614	0.305		
4.907	109	508	4.669	0.180		
4.910	89	514	5.768	0.182		
4.918	291	714	2.450	0.253		
4.931	871	910	1.045	0.322		
4.968	2160	1319	0.611	0.467		
4.986	165	833	5.052	0.295		
5.013	2745	2749	1.002	0.974		
5.029	6435	3954	0.614	1.401		
5.053	628	1763	2.807	0.624		
5.063	842	1787	2.123	0.633		
5.095	430	1138	2.649	0.403		
5.105	481	1169	2.430	0.414		
5.112	1241	1171	0.944	0.414		
5.131	397	973	2.453	0.344		
5.136	371	1001	2.702	0.354		
5.140	553	982	1.777	0.347		
5.164	690	755	1.095	0.267		
5.204	17	56	3.283	0.019		
5.212	17	78	4.553	0.027		
5.216	21	94	4.485	0.033		
5.222	63	231	3.657	0.081		
5.229	121	310	2.573	0.109		
5.231	53	348	6.571	0.123		
5.235	86	424	4.924	0.150		
5.254	773	824	1.066	0.291		
5.261	354	945	2.668	0.334		
5.265	577	1005	1.741	0.356		
5.294	271	751	2.774	0.266		
5.297	203	814	4.005	0.288		
5.301	427	824	1.928	0.291		
5.326	133	452	3.395	0.160		
5.333	178	549	3.078	0.194		
5.340	466	673	1.444	0.238		
5.360	151	364	2.406	0.128		
5.369	135	323	2.399	0.114		
5.377	55	316	5.786	0.111		
5.400	1392	1359	0.976	0.481		
5.426	121	681	5.638	0.241		
5.436	506	891	1.762	0.315		
5.440	383	928	2.422	0.328		
5.445	326	925	2.842	0.327		
5.488	1243	1365	1.098	0.483		
5.490	278	1399	5.040	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.496	857	1456	1.699	0.515		
5.526	88	338	3.824	0.119		
5.532	71	340	4.800	0.120		
5.557	2507	1884	0.752	0.667		
5.577	3194	1894	0.593	0.671		
5.648	7890	4581	0.581	1.623		
5.687	159	670	4.226	0.237		
5.714	6530	3185	0.488	1.128		
5.745	1793	1811	1.010	0.641		
5.759	217	1560	7.197	0.552		
5.773	4231	2105	0.498	0.745		
5.809	244	770	3.155	0.272		
5.852	26610	12522	0.471	4.437		
5.919	196	565	2.886	0.200		
5.925	132	562	4.249	0.199		
5.930	177	611	3.445	0.216		
5.936	260	745	2.869	0.263		
5.955	1508	1452	0.963	0.514		
5.992	130	730	5.629	0.258		
6.001	447	839	1.876	0.297		
6.006	221	868	3.933	0.307		
6.009	387	903	2.334	0.319		
6.015	673	892	1.326	0.316		
6.028	181	767	4.246	0.271		
6.035	249	808	3.248	0.286		
6.040	476	883	1.857	0.312		
6.048	243	852	3.511	0.301		
6.059	253	677	2.673	0.239		
6.069	335	743	2.221	0.263		
6.095	109	556	5.095	0.197		
6.105	194	585	3.017	0.207		
6.108	261	617	2.363	0.218		
6.116	163	593	3.642	0.210		
6.144	2792	2550	0.913	0.903		
6.189	337	793	2.350	0.281		
6.197	177	750	4.231	0.265		
6.216	1037	1111	1.071	0.393		
6.220	457	1166	2.550	0.413		
6.225	412	1160	2.816	0.411		
6.230	291	1142	3.930	0.404		
6.238	402	1144	2.844	0.405		
6.245	549	1242	2.264	0.440		
6.251	1214	1282	1.056	0.454		
6.306	64	407	6.367	0.144		
6.341	4730	1939	0.410	0.687		
6.383	492	525	1.067	0.186		
6.401	91	391	4.316	0.138		
6.409	68	393	5.802	0.139		
6.417	229	494	2.153	0.175		
6.422	193	560	2.903	0.198		
6.425	184	588	3.193	0.208		
6.497	14	57	3.953	0.020		
	335899	282202		100.000		

Total unknown % height = 95.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000066.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 12-JUN-2019 01:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30298231010x10,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 66
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.360	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.212	-0.002	7878	0.01549	0.00504		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.498	4.502	-0.004	6865	0.02045	0.00666		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

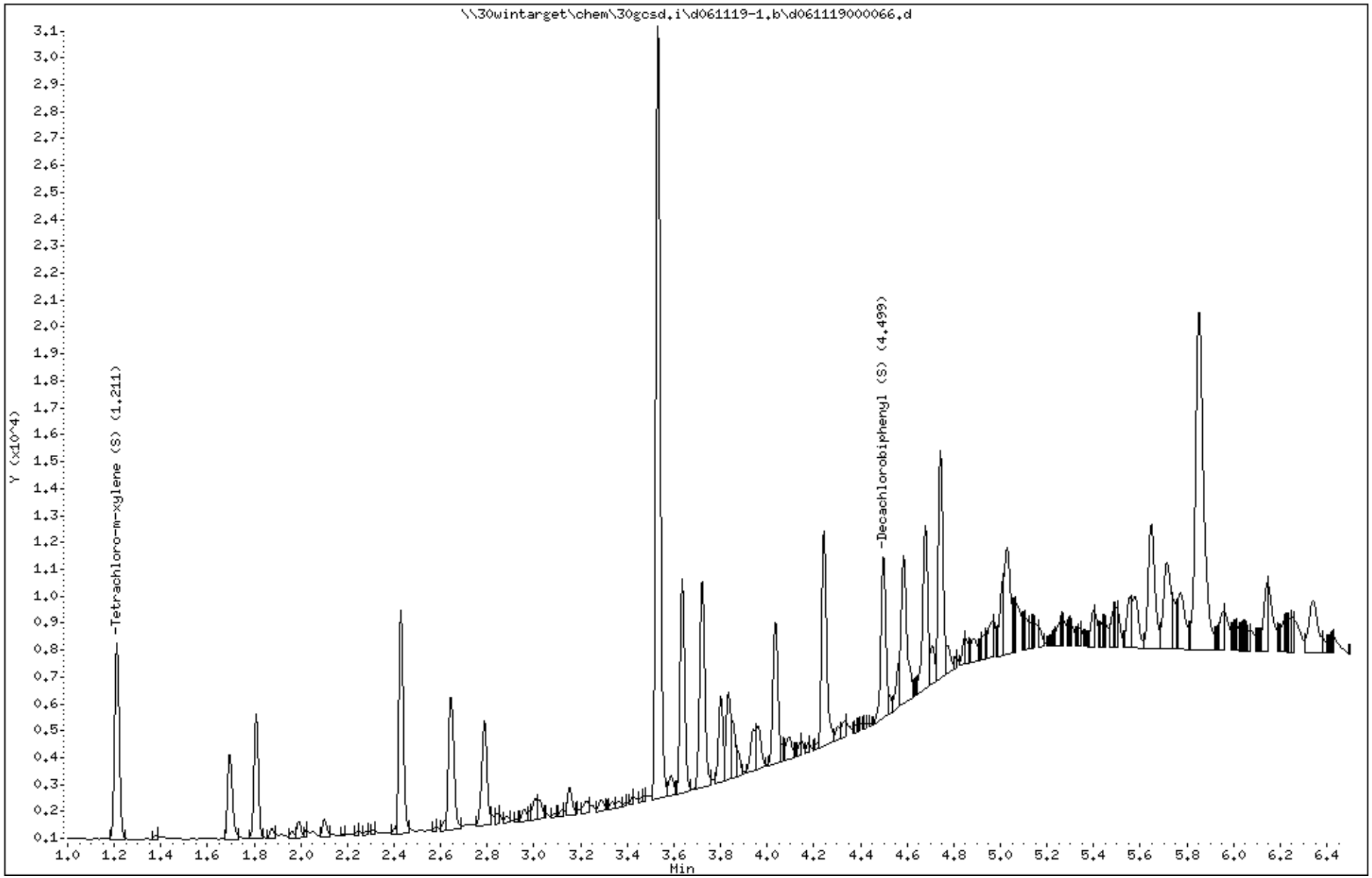
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30298231010
Sample Location:
Sample Date: 05-JUN-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

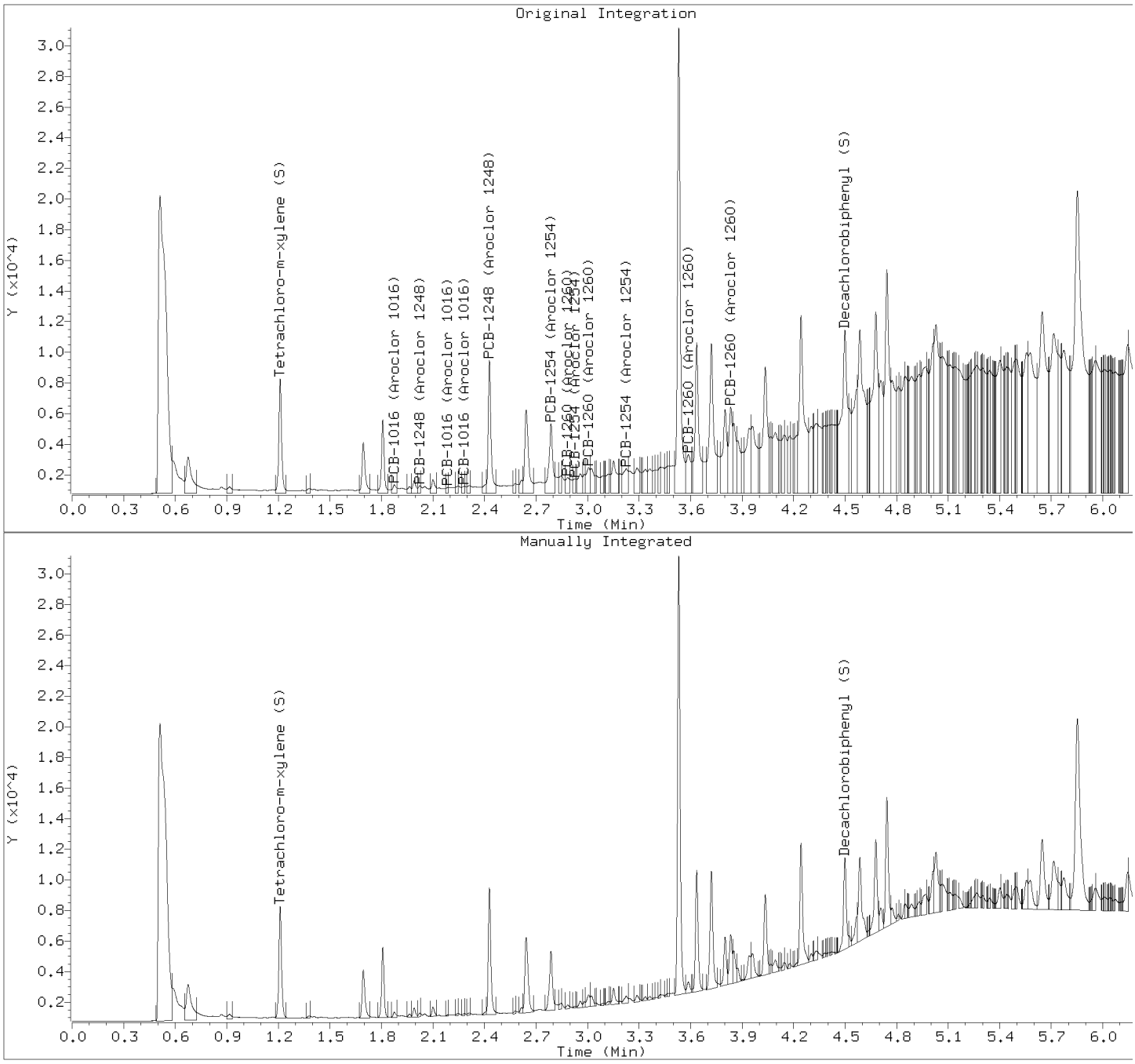
Client SDG: 30298231
Client Smp ID: AOC34
Sample Point:
Date Received: 06-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	330	U
11104-28-2	PCB-1221 (Aroclor 1221)	670	U
11141-16-5	PCB-1232 (Aroclor 1232)	330	U
53469-21-9	PCB-1242 (Aroclor 1242)	330	U
12672-29-6	PCB-1248 (Aroclor 1248)	330	U
11097-69-1	PCB-1254 (Aroclor 1254)	330	U
11096-82-5	PCB-1260 (Aroclor 1260)	330	U
877-09-8	Tetrachloro-m-xylene (S)	0.00504	J
2051-24-3	Decachlorobiphenyl (S)	0.00666	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000066.d
Date : 12-JUN-2019 01:08
Client ID: A0C34
Instrument: 30gcsd.i
Sample Info: 3029823101OX10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000066.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 12-JUN-2019 01:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30298231010



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	782	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	353	0
PCB-1016 (Aroclor 1016)	489	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	782	0
PCB-1248 (Aroclor 1248)	420	0
PCB-1248 (Aroclor 1248)	353	0
PCB-1248 (Aroclor 1248)	489	0
PCB-1248 (Aroclor 1248)	9941	0
PCB-1254 (Aroclor 1254)	9941	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	7350	0
PCB-1254 (Aroclor 1254)	901	0
PCB-1254 (Aroclor 1254)	3283	0
PCB-1260 (Aroclor 1260)	7350	0
PCB-1260 (Aroclor 1260)	1551	0
PCB-1260 (Aroclor 1260)	2409	0
PCB-1260 (Aroclor 1260)	4693	0
PCB-1260 (Aroclor 1260)	7525	0
Tetrachloro-m-xylene (S)	8550	7878
Decachlorobiphenyl (S)	24089	6865

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	22540.0000	22230.0000	21392.0000	19192.0000	18984.0000	18890.0000
Aroclor 1016	2	Averaged	43500.0000	43750.0000	43260.0000	39226.0000	39092.0000	39181.0000
Aroclor 1016	3	Averaged	17140.0000	17250.0000	17860.0000	15984.0000	15840.0000	15863.0000
Aroclor 1016	4	Averaged	13880.0000	13740.0000	13392.0000	11948.0000	11832.0000	11847.0000
Aroclor 1016	5	Averaged	11480.0000	11670.0000	11500.0000	10462.0000	10352.0000	10413.0000
Aroclor 1260	1	Averaged	20240.0000	19880.0000	19216.0000	17454.0000	17265.3333	17209.0000
Aroclor 1260	2	Averaged	25840.0000	25620.0000	24580.0000	22258.0000	21990.6666	22006.0000
Aroclor 1260	3	Averaged	32320.0000	31990.0000	30820.0000	27894.0000	27562.6666	27470.0000
Aroclor 1260	4	Averaged	52780.0000	52700.0000	52052.0000	47812.0000	47833.3333	48049.0000
Aroclor 1260	5	Averaged	37860.0000	38060.0000	37704.0000	34632.0000	34656.0000	34551.0000
Decachlorobiphenyl		Averaged	349700.000	346600.000	343440.000	321030.000	325840.000	327295.000
Tetrachloro-m-xylene		Averaged	527100.000	528550.000	527200.000	484540.000	489013.333	495225.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	8.30			20538.00	
Aroclor 1016	2	Averaged	5.76			41334.83	
Aroclor 1016	3	Averaged	5.22			16656.16	
Aroclor 1016	4	Averaged	7.80			12773.16	
Aroclor 1016	5	Averaged	5.73			10979.50	
Aroclor 1260	1	Averaged	7.51			18544.05	
Aroclor 1260	2	Averaged	7.75			23715.77	
Aroclor 1260	3	Averaged	7.70			29676.11	
Aroclor 1260	4	Averaged	5.06			50204.38	
Aroclor 1260	5	Averaged	4.93			36243.83	
Decachlorobiphenyl		Averaged	3.66			335650.83	
Tetrachloro-m-xylene		Averaged	4.15			508604.72	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	12380.0000	12280.0000	11732.0000	10726.0000	10609.3333	10632.0000
Aroclor 1016	2	Averaged	22240.0000	22580.0000	22892.0000	21028.0000	21001.3333	21107.0000
Aroclor 1016	3	Averaged	10820.0000	11370.0000	11380.0000	10476.0000	10508.0000	10544.0000
Aroclor 1016	4	Averaged	10860.0000	10590.0000	10408.0000	9400.00000	9325.33333	9299.00000
Aroclor 1016	5	Averaged	10460.0000	10510.0000	10324.0000	9384.00000	9380.00000	9352.00000
Aroclor 1260	1	Averaged	21400.0000	21340.0000	21336.0000	19330.0000	19288.0000	19228.0000
Aroclor 1260	2	Averaged	25740.0000	25610.0000	25440.0000	23134.0000	23177.3333	23036.0000
Aroclor 1260	3	Averaged	28140.0000	28770.0000	31652.0000	29034.0000	29032.0000	29124.0000
Aroclor 1260	4	Averaged	43820.0000	44440.0000	44696.0000	41430.0000	41808.0000	41957.0000
Aroclor 1260	5	Averaged	26460.0000	26700.0000	26908.0000	25068.0000	24990.6666	25092.0000
Decachlorobiphenyl		Averaged	329300.000	325400.000	325900.000	305140.000	308640.000	310400.000
Tetrachloro-m-xylene		Averaged	472800.000	469600.000	469140.000	433280.000	438260.000	441975.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.35			11393.22	
Aroclor 1016	2	Averaged	3.94			21808.05	
Aroclor 1016	3	Averaged	3.91			10849.66	
Aroclor 1016	4	Averaged	7.16			9980.38	
Aroclor 1016	5	Averaged	5.89			9901.66	
Aroclor 1260	1	Averaged	5.60			20320.33	
Aroclor 1260	2	Averaged	5.59			24356.22	
Aroclor 1260	3	Averaged	4.13			29292.00	
Aroclor 1260	4	Averaged	3.38			43025.16	
Aroclor 1260	5	Averaged	3.51			25869.77	
Decachlorobiphenyl		Averaged	3.31		0.00	317463.33	
Tetrachloro-m-xylene		Averaged	3.99		0.00	454175.83	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.631	1.631	1.631	1.631	1.632	1.632
Aroclor 1016	2	1.878	1.878	1.878	1.878	1.879	1.879
Aroclor 1016	3	1.932	1.932	1.932	1.932	1.933	1.932
Aroclor 1016	4	2.188	2.188	2.188	2.188	2.189	2.189
Aroclor 1016	5	2.277	2.277	2.277	2.277	2.278	2.278
Aroclor 1260	1	2.798	2.797	2.797	2.797	2.798	2.798
Aroclor 1260	2	2.885	2.885	2.885	2.885	2.886	2.886
Aroclor 1260	3	2.995	2.994	2.995	2.995	2.995	2.995
Aroclor 1260	4	3.584	3.583	3.584	3.583	3.584	3.585
Aroclor 1260	5	3.827	3.826	3.826	3.826	3.826	3.827
Decachlorobiphenyl		4.501	4.5	4.501	4.5	4.501	4.501
Tetrachloro-m-xylene		1.21	1.21	1.21	1.21	1.212	1.211

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.631	1.601	1.661
Aroclor 1016	2	1.878	1.848	1.908
Aroclor 1016	3	1.932	1.902	1.962
Aroclor 1016	4	2.188	2.158	2.218
Aroclor 1016	5	2.277	2.247	2.307
Aroclor 1260	1	2.797	2.767	2.827
Aroclor 1260	2	2.885	2.855	2.915
Aroclor 1260	3	2.995	2.965	3.025
Aroclor 1260	4	3.584	3.554	3.614
Aroclor 1260	5	3.826	3.796	3.856
Decachlorobiphenyl		4.501	4.471	4.531
Tetrachloro-m-xylene		1.21	1.18	1.24

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.963	1.964	1.963	1.964	1.964	1.964
Aroclor 1016	2	2.286	2.286	2.286	2.286	2.287	2.286
Aroclor 1016	3	2.374	2.374	2.374	2.374	2.375	2.374
Aroclor 1016	4	2.47	2.47	2.47	2.47	2.471	2.471
Aroclor 1016	5	2.56	2.56	2.56	2.56	2.561	2.561
Aroclor 1260	1	3.309	3.309	3.309	3.308	3.309	3.309
Aroclor 1260	2	3.479	3.479	3.478	3.479	3.479	3.479
Aroclor 1260	3	3.663	3.663	3.662	3.662	3.663	3.663
Aroclor 1260	4	4.06	4.059	4.06	4.059	4.06	4.06
Aroclor 1260	5	4.247	4.247	4.247	4.247	4.248	4.248
Decachlorobiphenyl		4.959	4.959	4.96	4.959	4.959	4.961
Tetrachloro-m-xylene		1.586	1.586	1.586	1.587	1.587	1.587

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.963	1.933	1.993
Aroclor 1016	2	2.286	2.256	2.316
Aroclor 1016	3	2.374	2.344	2.404
Aroclor 1016	4	2.47	2.44	2.5
Aroclor 1016	5	2.56	2.53	2.59
Aroclor 1260	1	3.309	3.279	3.339
Aroclor 1260	2	3.478	3.448	3.508
Aroclor 1260	3	3.662	3.632	3.692
Aroclor 1260	4	4.06	4.03	4.09
Aroclor 1260	5	4.247	4.217	4.277
Decachlorobiphenyl		4.96	4.93	4.99
Tetrachloro-m-xylene		1.586	1.556	1.616

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-1.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.344	1.314	1.374	6424.00000
Aroclor 1221	.25	2	1.4	1.37	1.43	3800.00000
Aroclor 1221	.25	3	1.44	1.41	1.47	13644.0000
Decachlorobiphenyl (S)	.05		4.499	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-1.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.44	1.41	1.47	11544.0000
Aroclor 1232	.25	2	1.631	1.601	1.661	9880.00000
Aroclor 1232	.25	3	1.878	1.848	1.908	18436.0000
Aroclor 1232	.25	4	1.932	1.902	1.962	7344.00000
Aroclor 1232	.25	5	2.188	2.158	2.218	5264.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-1.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.44	1.41	1.47	7464.00000
Aroclor 1242	.25	2	1.631	1.601	1.661	15736.0000
Aroclor 1242	.25	3	1.878	1.848	1.908	31628.0000
Aroclor 1242	.25	4	1.932	1.902	1.962	12420.0000
Aroclor 1242	.25	5	2.188	2.158	2.218	9852.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-1.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	1.877	1.847	1.907	23488.0000
Aroclor 1248	.25	2	2.035	2.005	2.065	15488.0000
Aroclor 1248	.25	3	2.188	2.158	2.218	15912.0000
Aroclor 1248	.25	4	2.277	2.247	2.307	13976.0000
Aroclor 1248	.25	5	2.428	2.398	2.458	22740.0000
Decachlorobiphenyl (S)	.05		4.501	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-1.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.425	2.395	2.455	18132.0000
Aroclor 1254	.25	2	2.509	2.479	2.539	19748.0000
Aroclor 1254	.25	3	2.791	2.761	2.821	31456.0000
Aroclor 1254	.25	4	2.924	2.894	2.954	20272.0000
Aroclor 1254	.25	5	3.226	3.196	3.256	27216.0000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-2.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.67	1.64	1.7	5224.00000
Aroclor 1221	.25	2	1.712	1.682	1.742	3332.00000
Aroclor 1221	.25	3	1.761	1.731	1.791	12984.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-2.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.761	1.731	1.791	10988.0000
Aroclor 1232	.25	2	1.963	1.933	1.993	5164.00000
Aroclor 1232	.25	3	2.286	2.256	2.316	9684.00000
Aroclor 1232	.25	4	2.374	2.344	2.404	4784.00000
Aroclor 1232	.25	5	2.56	2.53	2.59	4028.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-2.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.761	1.731	1.791	7560.00000
Aroclor 1242	.25	2	1.963	1.933	1.993	8744.00000
Aroclor 1242	.25	3	2.286	2.256	2.316	16784.0000
Aroclor 1242	.25	4	2.374	2.344	2.404	8376.00000
Aroclor 1242	.25	5	2.56	2.53	2.59	7736.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.586	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-2.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	2.285	2.255	2.315	12308.0000
Aroclor 1248	.25	2	2.438	2.408	2.468	11556.0000
Aroclor 1248	.25	3	2.56	2.53	2.59	13084.0000
Aroclor 1248	.25	4	2.666	2.636	2.696	10252.0000
Aroclor 1248	.25	5	2.834	2.804	2.864	20392.0000
Decachlorobiphenyl (S)	.05		4.958	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30298231

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-2.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.816	2.786	2.846	14712.0000
Aroclor 1254	.25	2	2.958	2.928	2.988	22960.0000
Aroclor 1254	.25	3	3.198	3.168	3.228	24260.0000
Aroclor 1254	.25	4	3.392	3.362	3.422	18636.0000
Aroclor 1254	.25	5	3.66	3.63	3.69	19008.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.570	1203	768	0.638	1.611		
1.028	1158	867	0.749	1.819		
1.210	25243	21163	0.838	44.428	$ 10 Tetrachloro-m-xylene (S)	
1.267	572	404	0.706	0.847		
1.344	1607	1382	0.860	2.900	2 PCB-1221 (Aroclor 1221)	
1.375	317	327	1.030	0.686		
1.400	950	874	0.920	1.834	2 PCB-1221 (Aroclor 1221)	
1.440	3412	2903	0.851	6.092	2 PCB-1221 (Aroclor 1221)	
1.633	290	409	1.413	0.858		
1.693	510	501	0.982	1.051		
1.827	198	198	0.998	0.415		
1.879	442	357	0.808	0.749		
1.932	201	185	0.918	0.388		
3.369	1370	1113	0.812	2.335		
4.248	55	68	1.234	0.142		
4.343	73	117	1.608	0.245		
4.500	16180	15900	0.983	33.371	$ 11 Decachlorobiphenyl (S)	
5.557	6	20	3.425	0.041		
5.725	13	44	3.390	0.092		
6.494	11	46	4.028	0.096		
	53812	47646		100.000		

Total unknown % height = 11.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.344	1.344	0.000	1606	0.25000	0.250	80.00- 120.00	100.00	
1.400	1.400	0.000	950	0.25000	0.250	47.32- 70.98	59.12	
1.440	1.440	0.000	3411	0.25000	0.250	169.91- 254.87	212.30	
Average of Peak Amounts =					0.25000			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25242	0.05000	0.0500			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.499	4.501	-0.002	16180	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

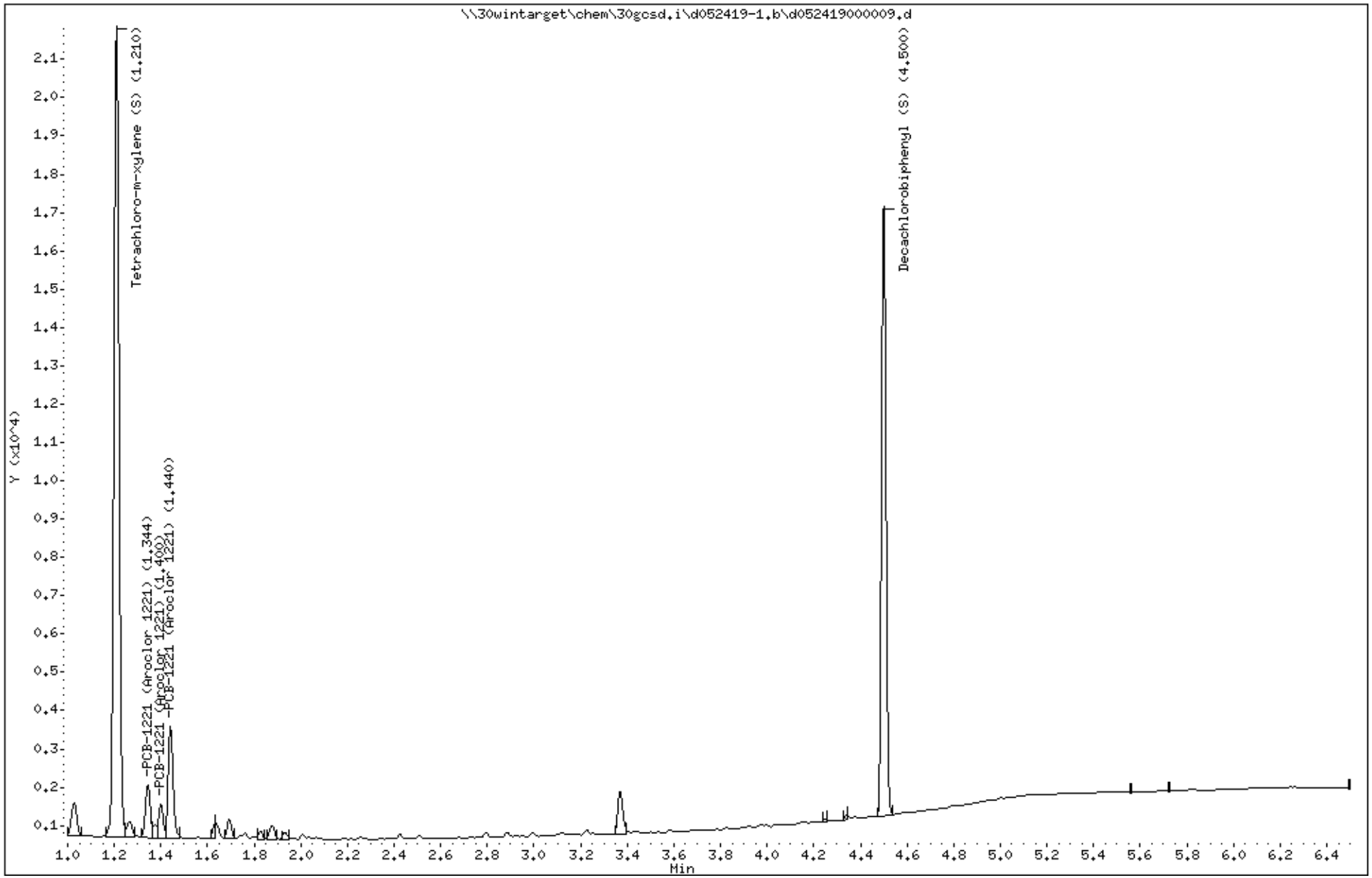
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

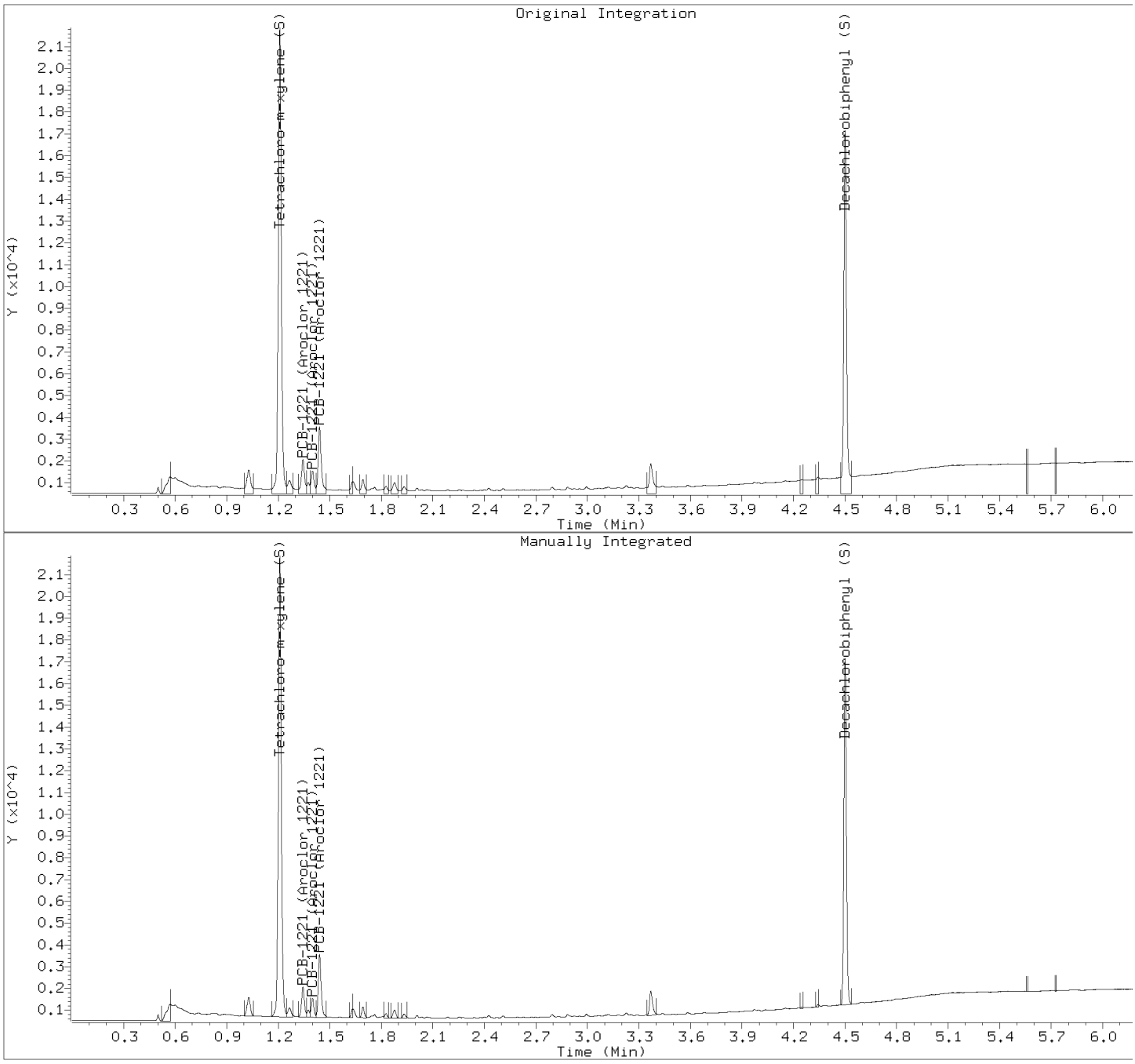
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11104-28-2	PCB-1221 (Aroclor 1221)		
	Peak found at 1.344	0.250	
	Peak found at 1.400	0.250	
	Peak found at 1.440	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0500	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	2088	1606
PCB-1221 (Aroclor 1221)	1298	950
PCB-1221 (Aroclor 1221)	3973	3411
Tetrachloro-m-xylene (S)	26230	25242
Decachlorobiphenyl (S)	18966	16180

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	930	1271	1.367	2.497		
0.568	790	576	0.729	1.131		
0.591	848	789	0.930	1.550		
0.625	622	713	1.147	1.401		
0.655	595	685	1.152	1.346		
0.729	917	598	0.652	1.175		
1.076	94	119	1.261	0.233		
1.255	1060	855	0.807	1.680		
1.474	339	308	0.909	0.605		
1.527	453	408	0.900	0.801		
1.556	154	195	1.266	0.383		
1.586	22320	21120	0.946	41.532	$ 10 Tetrachloro-m-xylene (S)	
1.670	1307	954	0.730	1.874	2 PCB-1221 (Aroclor 1221)	
1.713	833	801	0.961	1.574	2 PCB-1221 (Aroclor 1221)	
1.761	3246	3023	0.931	5.940	2 PCB-1221 (Aroclor 1221)	
1.811	124	126	1.017	0.247		
1.965	169	169	1.002	0.332		
2.018	166	173	1.045	0.339		
2.076	552	503	0.911	0.988		
2.225	135	218	1.613	0.428		
2.268	104	179	1.715	0.351		
2.287	234	248	1.059	0.487		
2.307	179	184	1.026	0.361		
2.817	46	74	1.611	0.145		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.959	64	87	1.351	0.170		
3.309	50	86	1.704	0.169		
3.478	42	83	1.968	0.163		
3.662	46	77	1.691	0.151		
3.913	1159	904	0.780	1.776		
4.314	10	29	2.912	0.056		
4.491	44	81	1.820	0.159		
4.601	13	44	3.326	0.086		
4.754	18	51	2.875	0.100		
4.794	11	41	3.612	0.080		
4.808	83	119	1.437	0.233		
4.959	15365	14265	0.928	28.033	$ 11 Decachlorobiphenyl (S)	
5.105	30	61	2.012	0.119		
5.119	20	62	3.134	0.121		
5.160	7	25	3.602	0.049		
5.400	11	34	3.047	0.066		
5.588	6	31	5.228	0.060		
5.615	4	18	4.176	0.035		
5.672	4	20	5.141	0.039		
5.743	4	19	5.191	0.037		
5.808	7	26	3.969	0.051		
5.826	23	54	2.360	0.106		
5.833	13	57	4.439	0.112		
5.896	1	8	6.015	0.015		
5.958	3	16	5.128	0.031		
5.970	3	19	5.556	0.037		
5.974	7	22	3.343	0.043		
6.129	13	34	2.640	0.066		
6.139	7	32	4.378	0.062		
6.185	9	44	5.029	0.086		
6.292	14	43	2.992	0.084		
6.332	9	39	4.230	0.076		
6.379	4	17	4.156	0.033		
6.410	10	22	2.196	0.043		
6.427	5	27	5.066	0.053		
	53338	50886		100.000		

Total unknown % height = 21.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
1.670	1.670	0.000	1306	0.25000	0.250	80.00- 120.00	100.00	(a)
1.712	1.712	0.000	833	0.25000	0.250	51.03- 76.54	63.76	
1.761	1.761	0.000	3246	0.25000	0.250	198.84- 298.25	248.48	
		Average of Peak Amounts =		0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.585	1.586	-0.001	22319	0.05000	0.0496			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15364	0.05000	0.0489			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

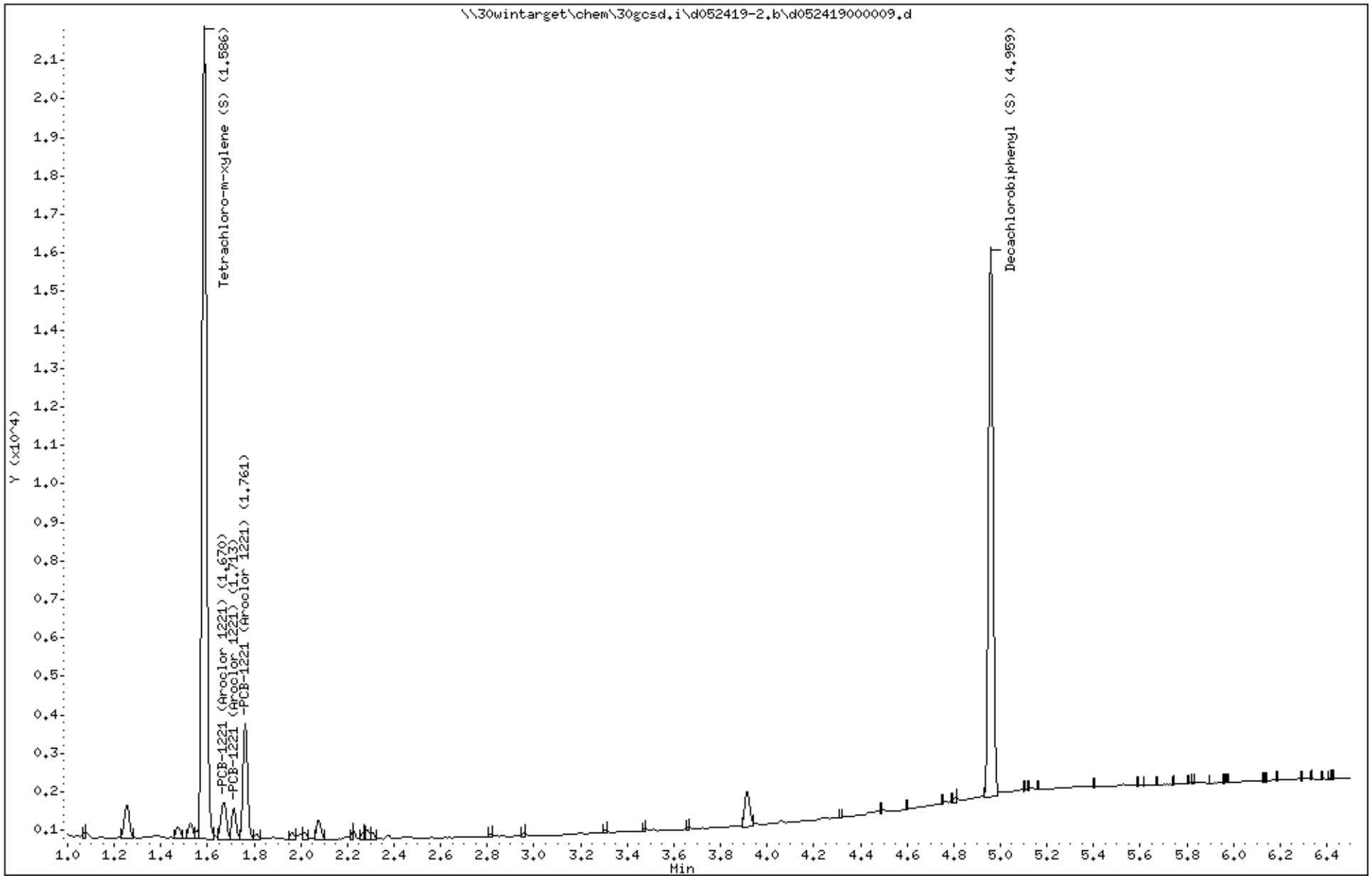
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11104-28-2	PCB-1221 (Aroclor 1221)		J
	Peak found at 1.670	0.250	J
	Peak found at 1.713	0.250	J
	Peak found at 1.761	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0489	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87759:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



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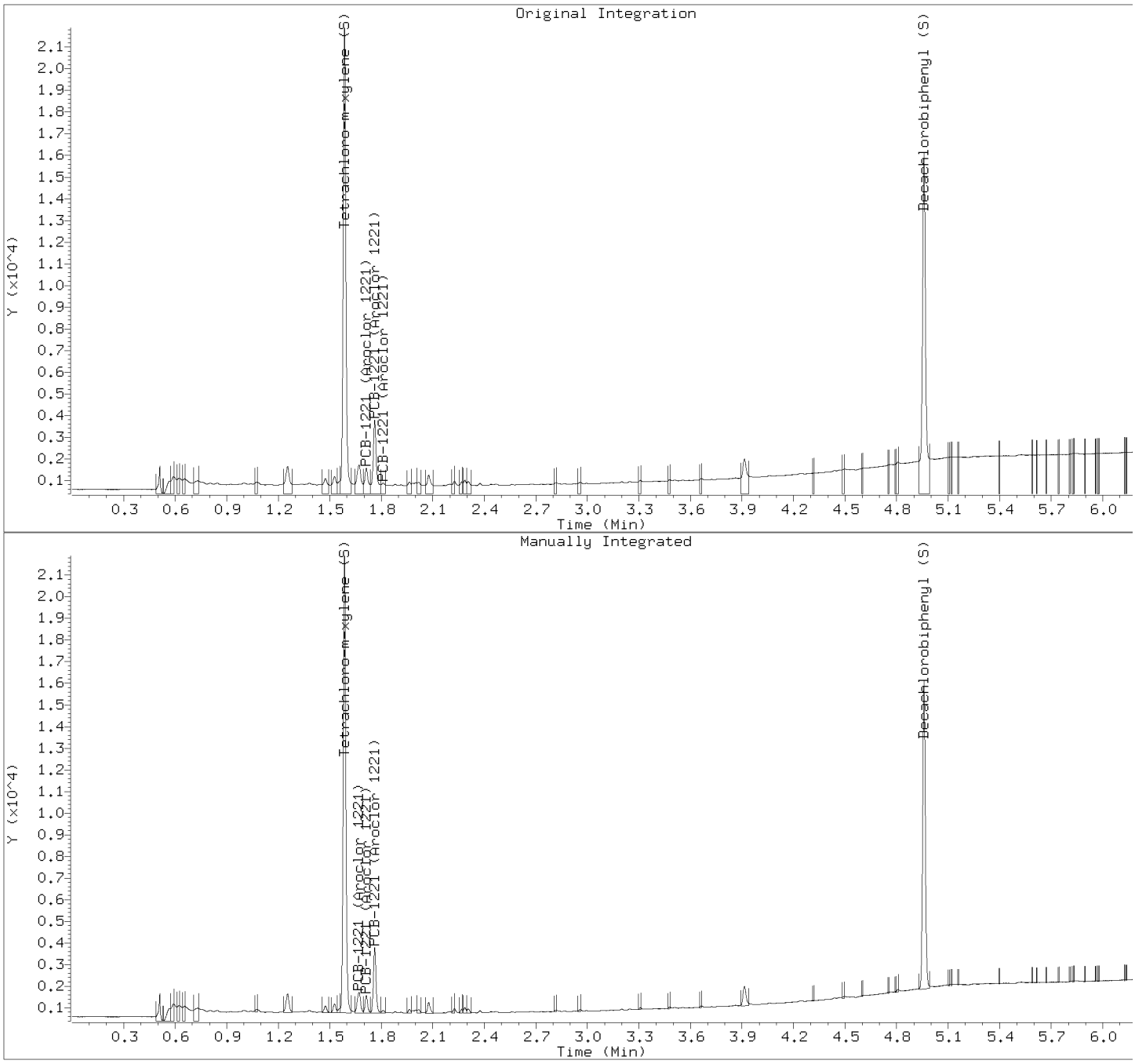
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	1792	1306
PCB-1221 (Aroclor 1221)	4594	833
PCB-1221 (Aroclor 1221)	693	3246
Tetrachloro-m-xylene (S)	23804	22319
Decachlorobiphenyl (S)	20789	15364

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	20125	7843	0.390	10.304		
1.028	809	545	0.674	0.716		
1.209	25188	21207	0.842	27.884	$ 10 Tetrachloro-m-xylene (S)	
1.266	471	341	0.723	0.448		
1.344	1077	926	0.860	1.216		
1.399	742	690	0.930	0.906		
1.440	2887	2487	0.862	3.267	3 PCB-1232 (Aroclor 1232)	
1.631	2470	1847	0.748	2.426	3 PCB-1232 (Aroclor 1232)	
1.693	644	484	0.752	0.635		
1.745	589	717	1.218	0.942		
1.760	963	952	0.989	1.250		
1.806	422	460	1.091	0.604		
1.824	400	389	0.973	0.511		
1.878	4610	3531	0.766	4.639	3 PCB-1232 (Aroclor 1232)	
1.932	1837	1712	0.932	2.249	3 PCB-1232 (Aroclor 1232)	
2.008	1092	1208	1.106	1.587		
2.035	1232	1136	0.922	1.492		
2.062	854	936	1.095	1.229		
2.077	901	887	0.985	1.165		
2.188	1317	1413	1.073	1.856	3 PCB-1232 (Aroclor 1232)	
2.212	523	559	1.068	0.734		
2.239	386	446	1.156	0.585		
2.255	403	461	1.144	0.605		
2.277	1188	1159	0.976	1.522		
2.345	382	371	0.972	0.487		
2.375	757	821	1.085	1.078		
2.401	1308	1406	1.075	1.847		
2.429	1512	1536	1.016	2.018		
2.509	306	297	0.969	0.390		
2.560	828	762	0.920	1.001		
2.580	790	691	0.875	0.907		
2.791	397	410	1.032	0.538		
2.924	252	272	1.078	0.357		
3.147	248	264	1.067	0.346		
3.370	1075	878	0.817	1.153		
3.973	78	130	1.662	0.170		
4.037	64	109	1.705	0.143		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.342	38	76	1.999	0.099		
4.500	15691	15466	0.986	20.320	$ 11 Decachlorobiphenyl (S)	
4.812	43	65	1.527	0.085		
4.861	59	111	1.886	0.145		
5.175	25	64	2.607	0.084		
5.312	4	17	4.048	0.022		
6.022	5	19	3.862	0.024		
6.104	2	11	5.189	0.014		
	94993	76112		100.000		

Total unknown % height = 37.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.440	1.440	0.000	2886	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	2470	0.25000	0.250	68.47- 102.70	85.58	
1.878	1.878	0.000	4609	0.25000	0.250	127.76- 191.64	159.70	
1.932	1.932	0.000	1836	0.25000	0.250	50.89- 76.34	63.64	
2.188	2.188	0.000	1316	0.25000	0.250	36.48- 54.72	45.62	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25188	0.05000	0.0499			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15691	0.05000	0.0474			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

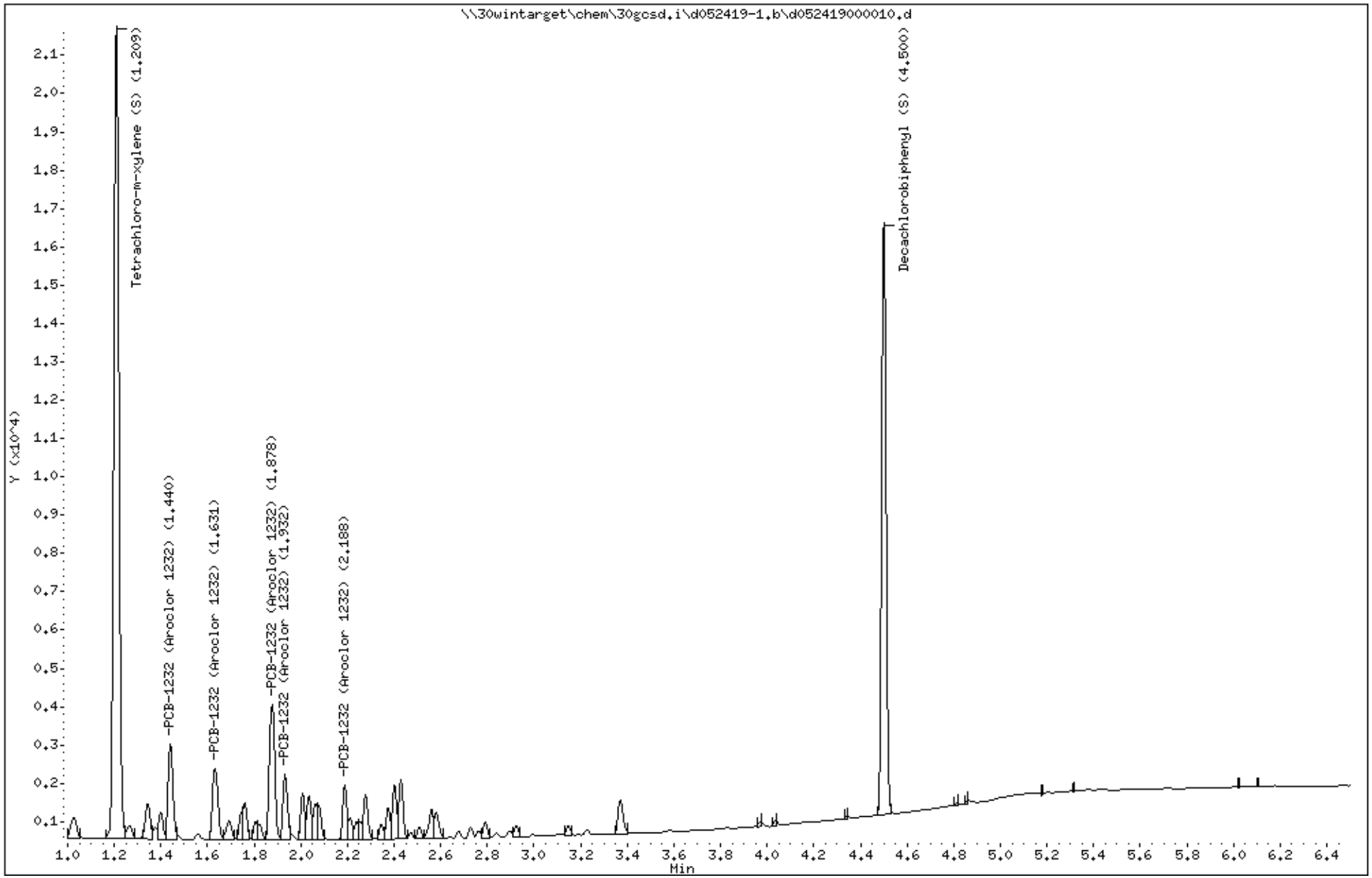
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

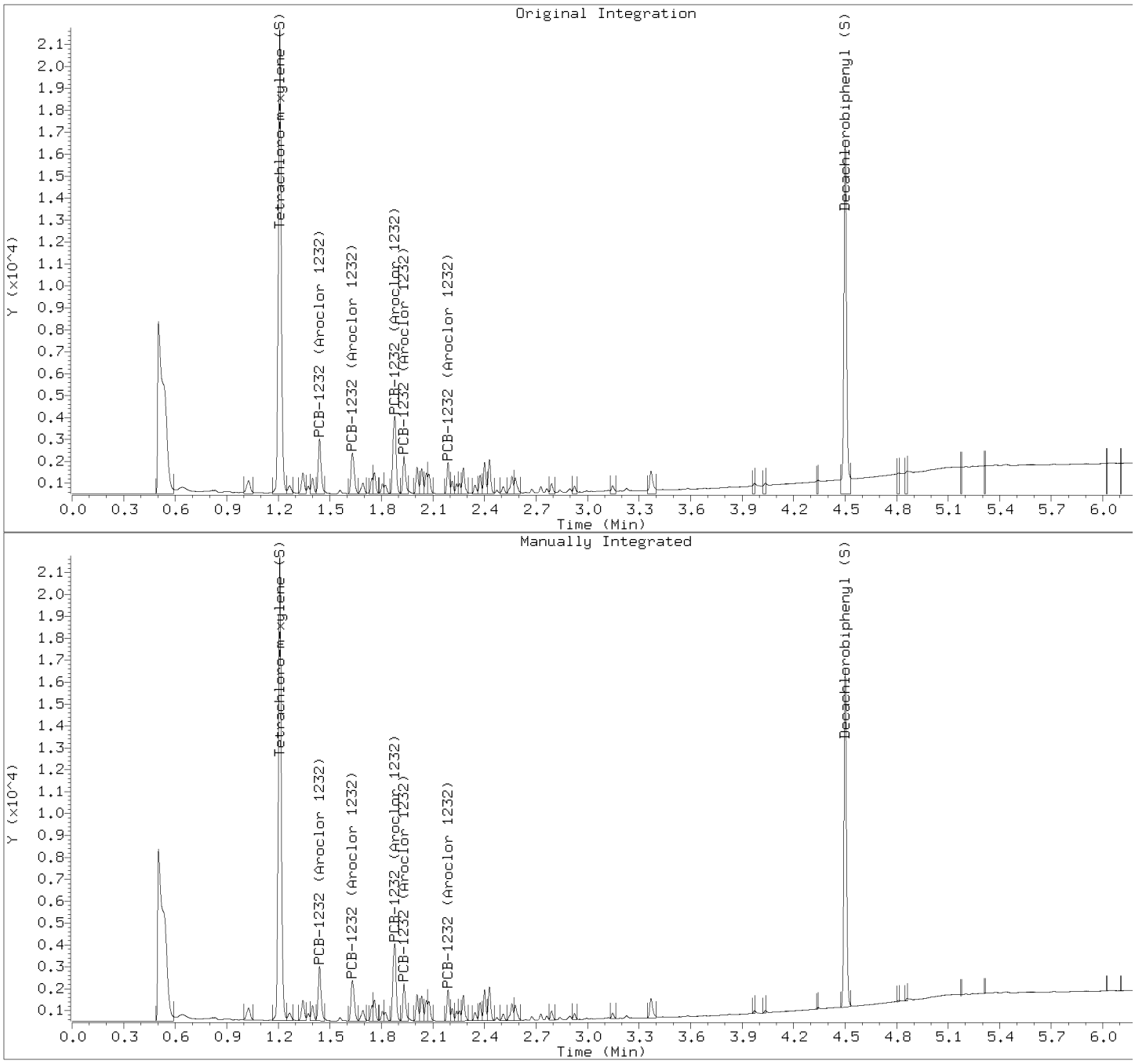
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11141-16-5	PCB-1232 (Aroclor 1232)		
	Peak found at 1.440	0.250	
	Peak found at 1.631	0.250	
	Peak found at 1.878	0.250	
	Peak found at 1.932	0.250	
	Peak found at 2.188	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0499	
2051-24-3	Decachlorobiphenyl (S)	0.0474	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	2894	2886
PCB-1232 (Aroclor 1232)	2445	2470
PCB-1232 (Aroclor 1232)	4582	4609
PCB-1232 (Aroclor 1232)	1816	1836
PCB-1232 (Aroclor 1232)	1303	1316
Tetrachloro-m-xylene (S)	25279	25188
Decachlorobiphenyl (S)	17912	15691

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	14746	21069	1.429	24.274		
0.561	8655	3518	0.406	4.053		
1.254	664	513	0.773	0.591		
1.527	369	332	0.899	0.382		
1.585	22405	21075	0.941	24.307	$ 10 Tetrachloro-m-xylene (S)	
1.669	937	664	0.709	0.765		
1.712	651	626	0.961	0.721		
1.761	2747	2583	0.940	2.975	3 PCB-1232 (Aroclor 1232)	
1.963	1291	1344	1.041	1.548	3 PCB-1232 (Aroclor 1232)	
1.983	830	785	0.946	0.904		
2.075	1571	1091	0.695	1.256		
2.200	377	390	1.036	0.449		
2.223	372	361	0.971	0.415		
2.268	1696	1935	1.141	2.229		
2.286	2421	2469	1.020	2.844	3 PCB-1232 (Aroclor 1232)	
2.306	1587	1559	0.983	1.796		
2.375	1196	1121	0.937	1.291	3 PCB-1232 (Aroclor 1232)	
2.438	849	865	1.019	0.996		
2.470	1008	1025	1.017	1.180		
2.499	377	356	0.945	0.410		
2.561	1007	1031	1.023	1.187	3 PCB-1232 (Aroclor 1232)	
2.590	566	500	0.884	0.576		
2.616	360	372	1.035	0.428		
2.668	1274	777	0.610	0.895		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.835	1885	1254	0.665	1.444		
2.864	1157	1157	1.000	1.333		
2.953	911	826	0.906	0.951		
2.986	670	559	0.834	0.644		
3.199	313	311	0.993	0.358		
3.393	232	230	0.992	0.264		
3.563	183	195	1.068	0.224		
3.914	846	685	0.809	0.789		
4.438	69	101	1.468	0.116		
4.491	65	99	1.534	0.114		
4.809	67	78	1.172	0.089		
4.959	14837	13952	0.940	16.074	$ 11 Decachlorobiphenyl (S)	
5.070	4	19	4.241	0.021		
5.077	6	22	3.566	0.025		
5.099	2	13	5.328	0.014		
5.293	40	99	2.496	0.114		
5.298	43	122	2.851	0.140		
5.407	25	63	2.571	0.072		
5.546	18	44	2.431	0.050		
5.637	12	53	4.369	0.061		
5.698	35	58	1.657	0.066		
5.842	26	80	3.033	0.092		
5.891	23	67	2.949	0.077		
5.898	21	85	3.965	0.097		
6.074	11	34	3.134	0.039		
6.186	20	55	2.691	0.063		
6.254	11	38	3.612	0.043		
6.284	12	32	2.710	0.036		
6.351	8	31	3.865	0.035		
6.390	8	28	3.665	0.032		
6.419	8	23	2.879	0.026		
6.484	6	22	3.723	0.025		
	89528	86796		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
1.761	1.761	0.000	2747	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	1291	0.25000	0.250	37.60- 56.40	47.00	
2.286	2.286	0.000	2421	0.25000	0.250	70.51- 105.76	88.13	
2.374	2.374	0.000	1196	0.25000	0.250	34.83- 52.25	43.54	
2.560	2.560	0.000	1007	0.25000	0.250	29.33- 43.99	36.67	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.585	1.586	-0.001	22405	0.05000	0.0497			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	14837	0.05000	0.0475			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

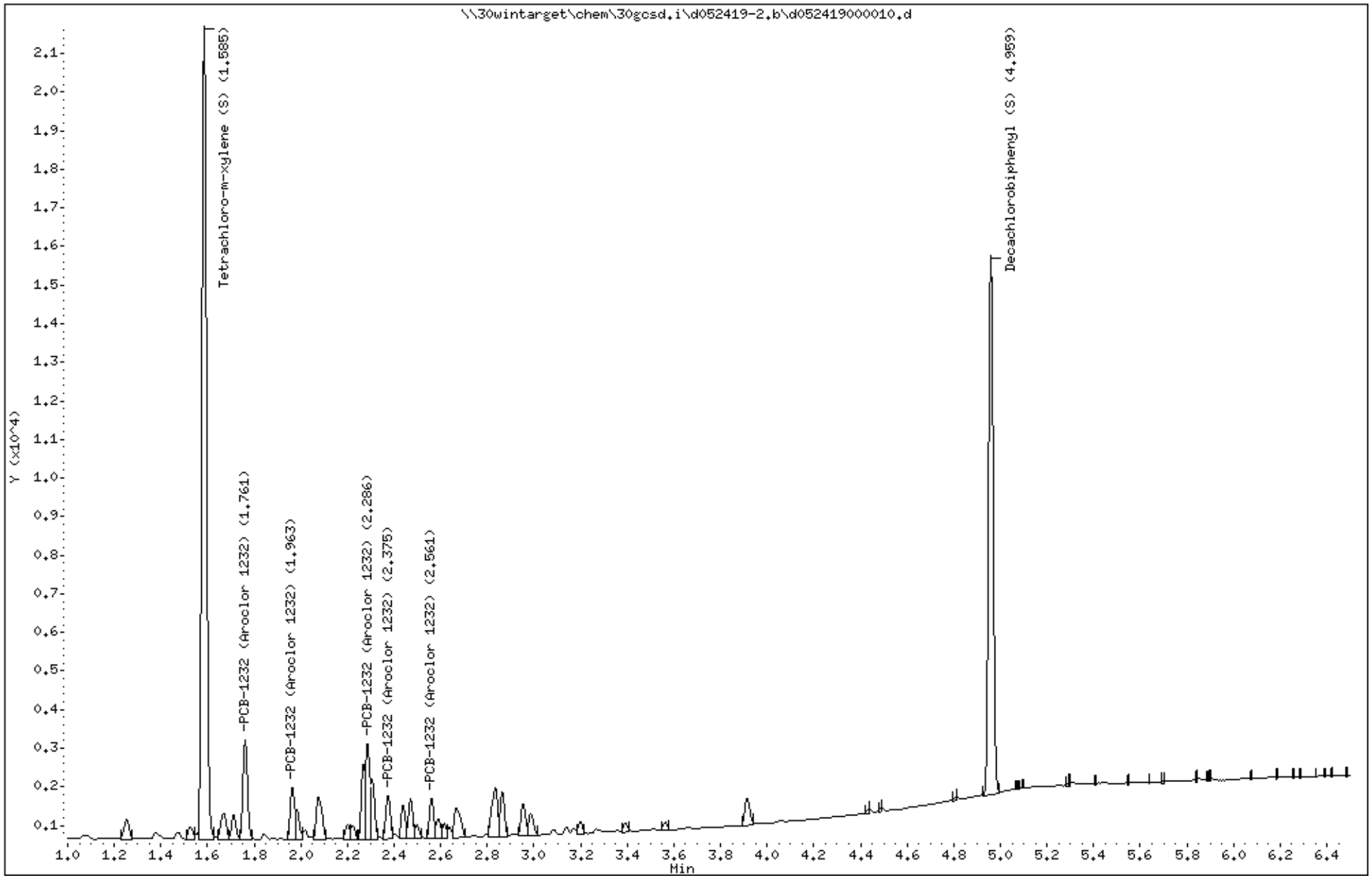
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

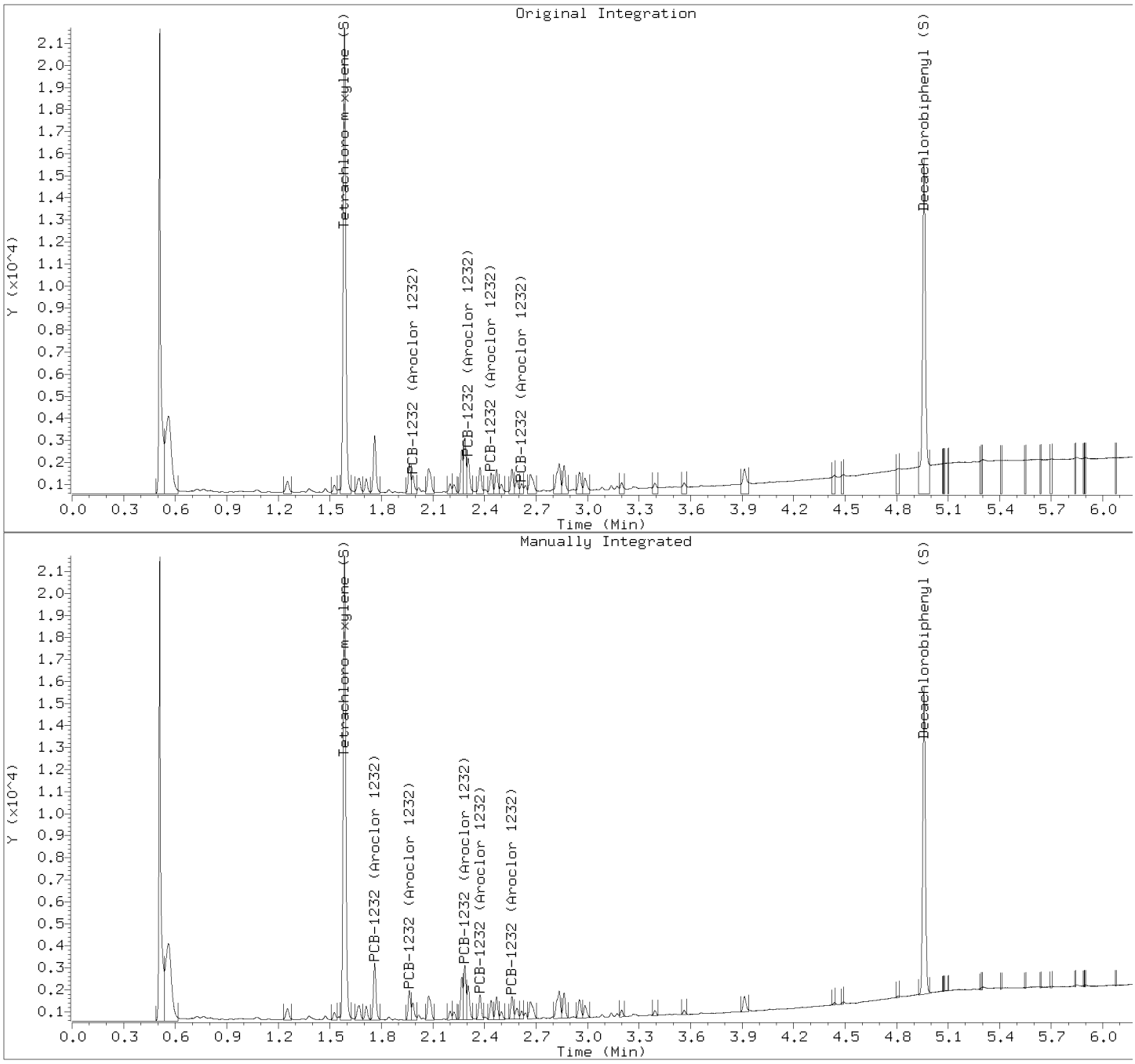
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11141-16-5	PCB-1232 (Aroclor 1232)		J
	Peak found at 1.761	0.250	J
	Peak found at 1.963	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0497	J
2051-24-3	Decachlorobiphenyl (S)	0.0475	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	0	2747
PCB-1232 (Aroclor 1232)	895	1291
PCB-1232 (Aroclor 1232)	1690	2421
PCB-1232 (Aroclor 1232)	977	1196
PCB-1232 (Aroclor 1232)	476	1007
Tetrachloro-m-xylene (S)	22563	22405
Decachlorobiphenyl (S)	19679	14837

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	888	1019	1.148	1.099		
0.542	3967	1653	0.417	1.783		
1.210	25115	21526	0.857	23.252	$ 10 Tetrachloro-m-xylene (S)	
1.344	482	372	0.772	0.401		
1.376	327	313	0.957	0.337		
1.400	396	377	0.952	0.406		
1.441	1866	1715	0.919	1.850	4 PCB-1242 (Aroclor 1242)	
1.632	3934	3022	0.768	3.261	4 PCB-1242 (Aroclor 1242)	
1.694	662	397	0.600	0.428		
1.745	993	1222	1.231	1.318		
1.760	1615	1594	0.987	1.720		
1.807	682	747	1.096	0.806		
1.826	848	790	0.932	0.852		
1.879	7907	6059	0.766	6.538	4 PCB-1242 (Aroclor 1242)	
1.933	3105	2897	0.933	3.126	4 PCB-1242 (Aroclor 1242)	
2.008	1829	2054	1.123	2.216		
2.036	2351	2205	0.938	2.379		
2.063	1580	1769	1.120	1.909		
2.077	1763	1705	0.967	1.839		
2.189	2463	2663	1.081	2.873	4 PCB-1242 (Aroclor 1242)	
2.213	975	1038	1.064	1.120		
2.239	728	832	1.143	0.897		
2.255	642	746	1.162	0.805		
2.278	2289	2243	0.980	2.420		
2.346	718	694	0.967	0.748		
2.375	1480	1611	1.089	1.738		
2.402	2512	2709	1.078	2.923		
2.429	2940	2945	1.002	3.178		
2.473	291	316	1.084	0.341		
2.510	678	658	0.970	0.710		
2.560	1663	1457	0.876	1.572		
2.581	1611	1355	0.841	1.462		
2.676	366	388	1.061	0.418		
2.728	605	637	1.052	0.687		
2.763	384	424	1.104	0.457		
2.791	882	936	1.061	1.010		
2.898	401	370	0.923	0.399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.924	672	726	1.080	0.783		
3.147	634	655	1.033	0.706		
3.228	297	279	0.940	0.301		
3.369	1107	913	0.825	0.985		
3.973	80	139	1.735	0.150		
4.038	61	97	1.583	0.104		
4.344	83	130	1.571	0.140		
4.500	16201	15974	0.986	17.238	$ 11 Decachlorobiphenyl (S)	
4.815	69	85	1.225	0.091		
4.862	94	147	1.563	0.158		
5.242	35	62	1.790	0.066		
	101271	92665		100.000		

Total unknown % height = 41.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)						CAS #: 53469-21-9		
1.440	1.440	0.000	1866	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	3934	0.25000	0.250	168.66- 252.99	210.80	
1.878	1.878	0.000	7907	0.25000	0.250	338.99- 508.49	423.71	
1.932	1.932	0.000	3105	0.25000	0.250	133.12- 199.68	166.40	
2.188	2.188	0.000	2463	0.25000	0.250	105.59- 158.39	131.98	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25115	0.05000	0.0498			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	16201	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

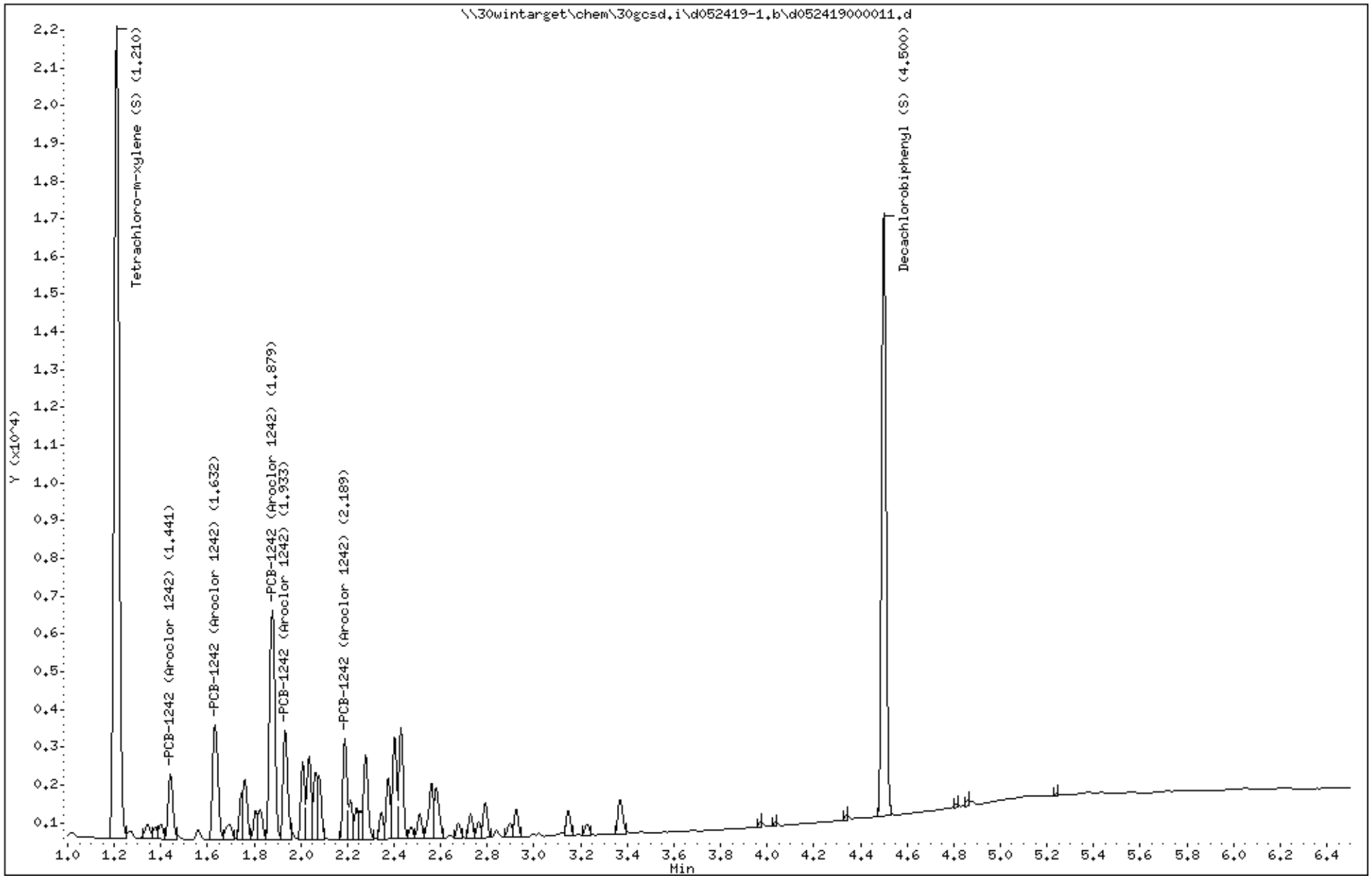
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

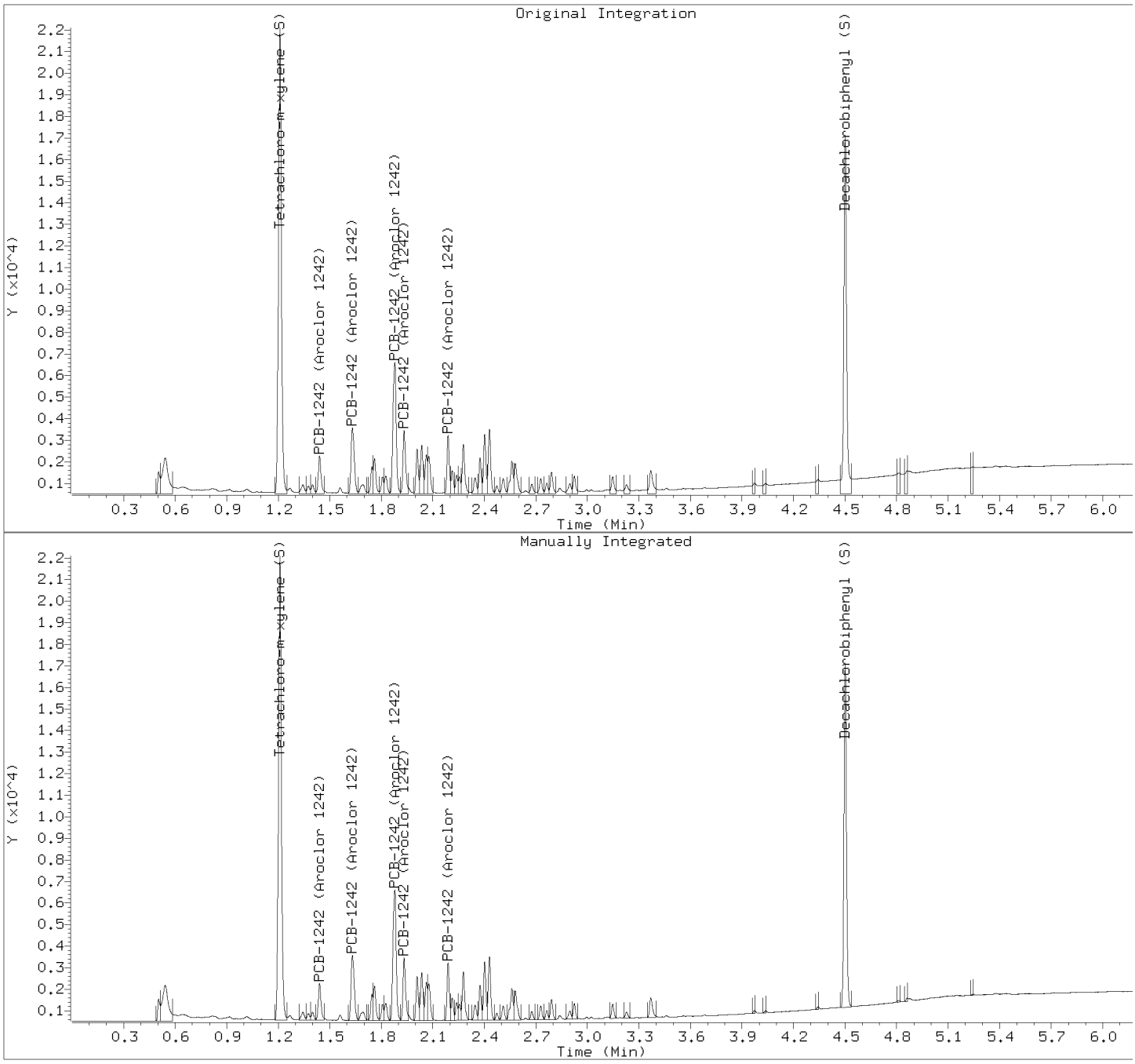
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
53469-21-9	PCB-1242 (Aroclor 1242)		
	Peak found at 1.441	0.250	
	Peak found at 1.632	0.250	
	Peak found at 1.879	0.250	
	Peak found at 1.933	0.250	
	Peak found at 2.189	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0498	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	1944	1866
PCB-1242 (Aroclor 1242)	4007	3934
PCB-1242 (Aroclor 1242)	7984	7907
PCB-1242 (Aroclor 1242)	3160	3105
PCB-1242 (Aroclor 1242)	2499	2463
Tetrachloro-m-xylene (S)	25294	25115
Decachlorobiphenyl (S)	18530	16201

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	1852	3928	2.120	4.544		
0.565	3768	1764	0.468	2.040		
1.586	22524	21344	0.948	24.730	$ 10 Tetrachloro-m-xylene (S)	
1.713	356	335	0.941	0.387		
1.762	1891	1795	0.949	2.076	4 PCB-1242 (Aroclor 1242)	
1.964	2187	2301	1.052	2.661	4 PCB-1242 (Aroclor 1242)	
1.984	1316	1328	1.009	1.536		
2.019	286	285	0.996	0.329		
2.076	2352	1514	0.644	1.751		
2.201	608	637	1.047	0.736		
2.225	866	816	0.942	0.943		
2.269	2958	3429	1.159	3.966		
2.286	4197	4259	1.015	4.927	4 PCB-1242 (Aroclor 1242)	
2.306	2716	2634	0.970	3.047		
2.375	2094	1934	0.924	2.237	4 PCB-1242 (Aroclor 1242)	
2.439	1649	1689	1.024	1.953		
2.471	1938	1966	1.014	2.274		
2.499	738	674	0.913	0.779		
2.561	1934	1991	1.029	2.303	4 PCB-1242 (Aroclor 1242)	
2.590	1072	957	0.893	1.107		
2.617	676	703	1.039	0.813		
2.639	535	545	1.018	0.630		
2.667	2420	1515	0.626	1.752		
2.835	3753	2447	0.652	2.830		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.864	2278	2280	1.001	2.637		
2.954	1870	1662	0.889	1.922		
2.987	1403	1114	0.794	1.288		
3.086	320	304	0.950	0.351		
3.139	452	449	0.993	0.519		
3.173	373	346	0.927	0.400		
3.199	741	733	0.989	0.847		
3.268	233	244	1.048	0.282		
3.393	608	583	0.959	0.674		
3.563	511	511	0.999	0.591		
3.661	81	133	1.636	0.153		
3.914	859	703	0.819	0.813		
4.439	78	101	1.287	0.116		
4.490	42	81	1.914	0.093		
4.809	109	117	1.072	0.135		
4.960	15347	14225	0.927	16.456	$ 11 Decachlorobiphenyl (S)	
5.116	8	26	3.202	0.030		
5.250	60	70	1.165	0.080		
5.298	88	143	1.617	0.165		
5.438	19	51	2.727	0.058		
5.554	13	49	3.687	0.056		
5.564	20	57	2.830	0.065		
5.600	20	78	3.881	0.090		
5.684	26	91	3.515	0.105		
5.823	36	152	4.274	0.175		
5.846	151	242	1.607	0.279		
5.892	64	208	3.267	0.240		
5.940	42	121	2.866	0.139		
6.008	24	105	4.303	0.121		
6.058	38	88	2.313	0.101		
6.067	28	85	3.040	0.098		
6.103	30	67	2.260	0.077		
6.209	14	63	4.605	0.072		
6.215	18	57	3.120	0.065		
6.228	22	62	2.821	0.071		
6.245	29	63	2.207	0.072		
6.257	15	57	3.810	0.065		
6.395	5	26	5.000	0.030		
6.421	7	29	3.973	0.033		
6.427	7	29	4.252	0.033		
6.454	6	28	4.930	0.032		
6.487	5	18	3.333	0.020		
	90787	86441		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
1.761	1.761	0.000	1890	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	2186	0.25000	0.250	92.53- 138.79	115.68	
2.286	2.286	0.000	4196	0.25000	0.250	177.61- 266.41	221.99	
2.374	2.374	0.000	2094	0.25000	0.250	88.63- 132.95	110.77	
2.560	2.560	0.000	1934	0.25000	0.250	81.86- 122.79	102.32	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	22523	0.05000	0.0499			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15346	0.05000	0.0488			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

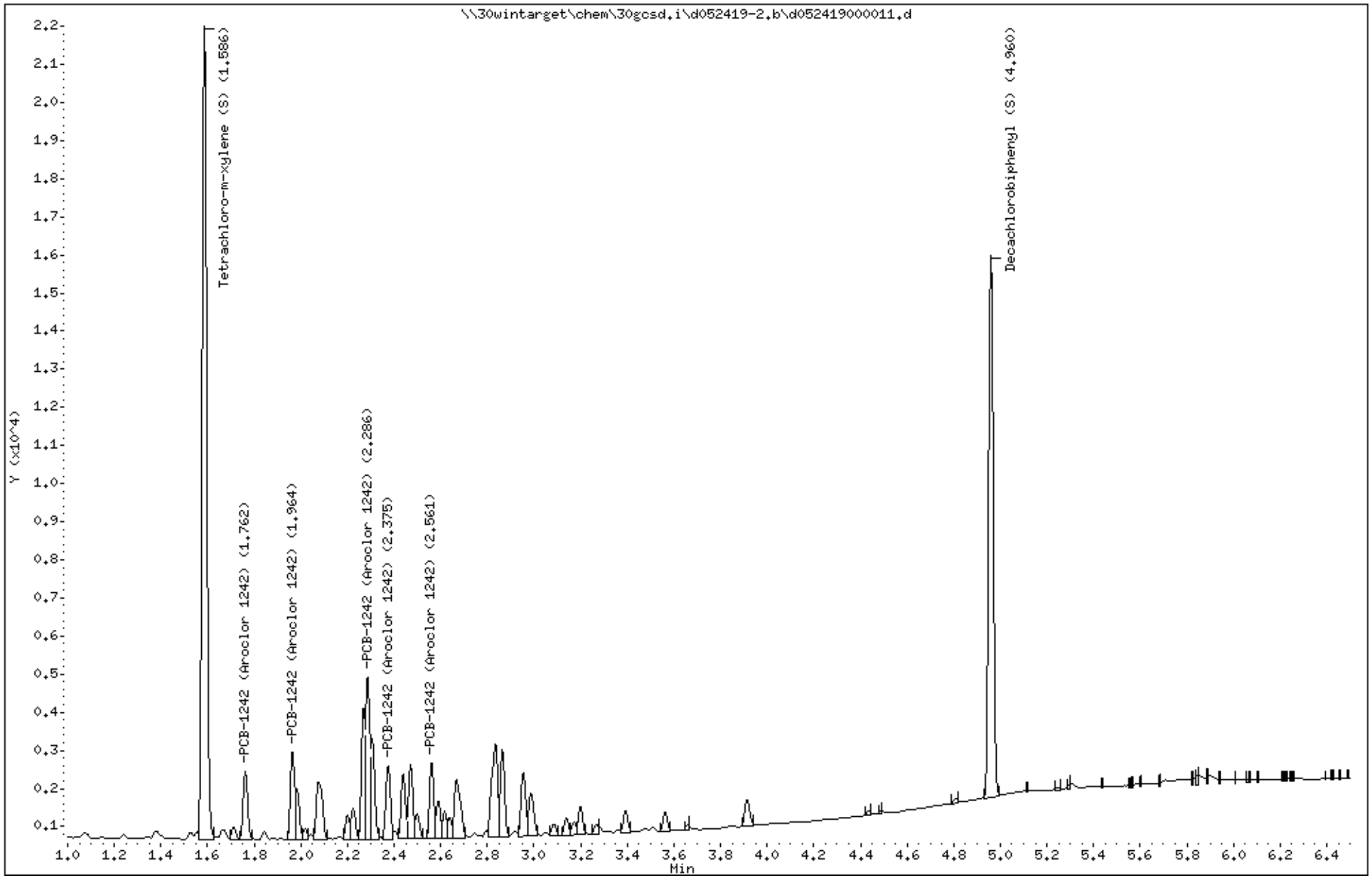
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

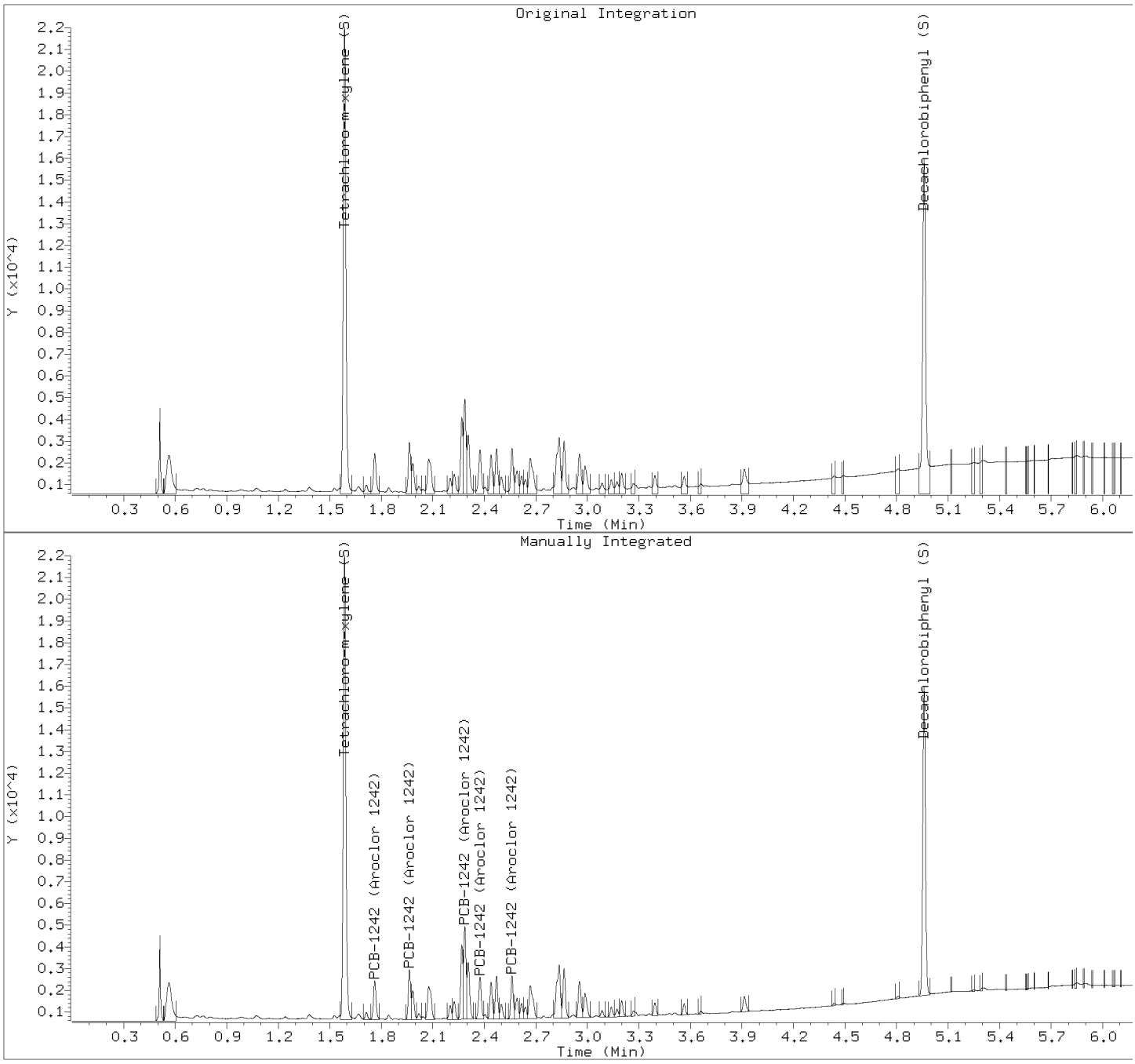
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
53469-21-9	PCB-1242 (Aroclor 1242)		J
	Peak found at 1.762	0.250	J
	Peak found at 1.964	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0499	J
2051-24-3	Decachlorobiphenyl (S)	0.0488	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	0	1890
PCB-1242 (Aroclor 1242)	0	2186
PCB-1242 (Aroclor 1242)	0	4196
PCB-1242 (Aroclor 1242)	0	2094
PCB-1242 (Aroclor 1242)	0	1934
Tetrachloro-m-xylene (S)	22784	22523
Decachlorobiphenyl (S)	19977	15346

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.547	410	285	0.696	0.272		
0.591	1961	869	0.443	0.831		
1.209	25304	21596	0.853	20.687	$ 10 Tetrachloro-m-xylene (S)	
1.375	330	314	0.953	0.300		
1.630	2043	1645	0.805	1.574		
1.745	604	688	1.140	0.658		
1.759	623	648	1.041	0.620		
1.877	5873	4432	0.755	4.241	5 PCB-1248 (Aroclor 1248)	
1.932	1842	1857	1.008	1.777		
2.008	1026	1159	1.130	1.109		
2.035	3872	3728	0.963	3.567	5 PCB-1248 (Aroclor 1248)	
2.062	2562	2771	1.082	2.651		
2.077	2603	2553	0.981	2.443		
2.188	3978	4280	1.076	4.096	5 PCB-1248 (Aroclor 1248)	
2.212	1465	1554	1.061	1.487		
2.238	1603	1404	0.876	1.343		
2.278	3494	3512	1.005	3.361	5 PCB-1248 (Aroclor 1248)	
2.345	1118	1064	0.951	1.018		
2.375	2668	2892	1.084	2.767		
2.401	4715	5070	1.075	4.852		
2.429	5685	5656	0.995	5.412	5 PCB-1248 (Aroclor 1248)	
2.473	720	754	1.047	0.721		
2.510	1507	1530	1.015	1.464		
2.546	715	1228	1.718	1.175		
2.560	2540	2575	1.014	2.464		
2.580	3063	2362	0.771	2.260		
2.676	899	932	1.037	0.891		
2.728	1487	1548	1.041	1.481		
2.763	940	1040	1.106	0.995		
2.791	2374	2440	1.028	2.335		
2.839	390	304	0.780	0.290		
2.898	1054	914	0.867	0.874		
2.924	1708	1784	1.044	1.707		
2.995	254	262	1.030	0.250		
3.147	1608	1676	1.042	1.603		
3.227	586	503	0.858	0.481		
3.369	1557	1267	0.814	1.212		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.584	218	231	1.061	0.221		
3.826	120	195	1.623	0.186		
4.152	48	83	1.731	0.079		
4.501	14933	14702	0.985	14.069	$ 11 Decachlorobiphenyl (S)	
4.814	46	73	1.584	0.069		
4.863	84	112	1.340	0.107		
	110629	104492		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
1.877	1.877	0.000	5872	0.25000	0.250	80.00- 120.00	100.00	
2.035	2.035	0.000	3872	0.25000	0.250	52.75- 79.13	65.94	
2.188	2.188	0.000	3978	0.25000	0.250	54.20- 81.29	67.75	
2.277	2.277	0.000	3494	0.25000	0.250	47.60- 71.40	59.50	
2.428	2.428	0.000	5685	0.25000	0.250	77.45- 116.18	96.81	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25304	0.05000	0.0501			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	14932	0.05000	0.0455			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

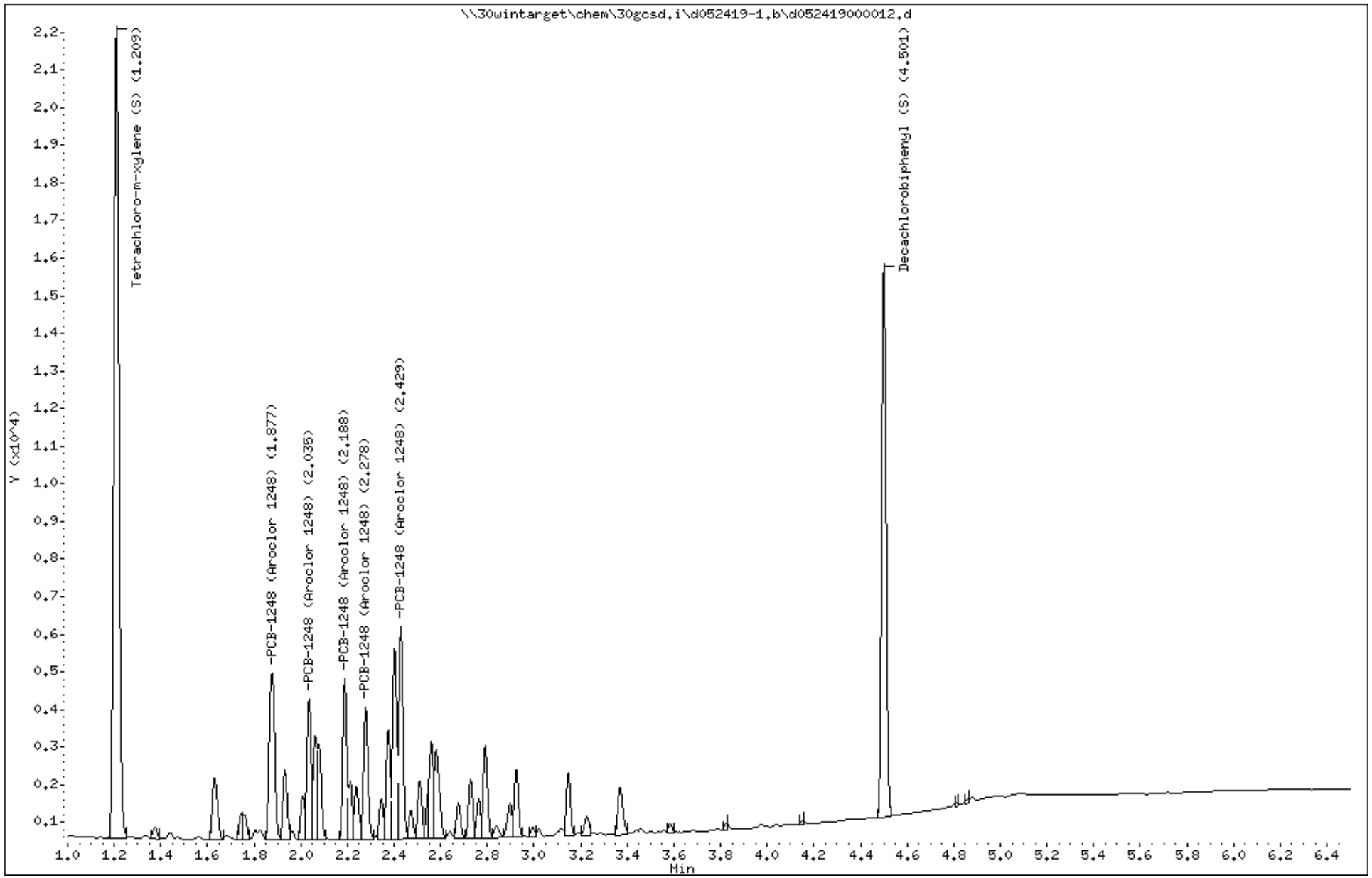
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

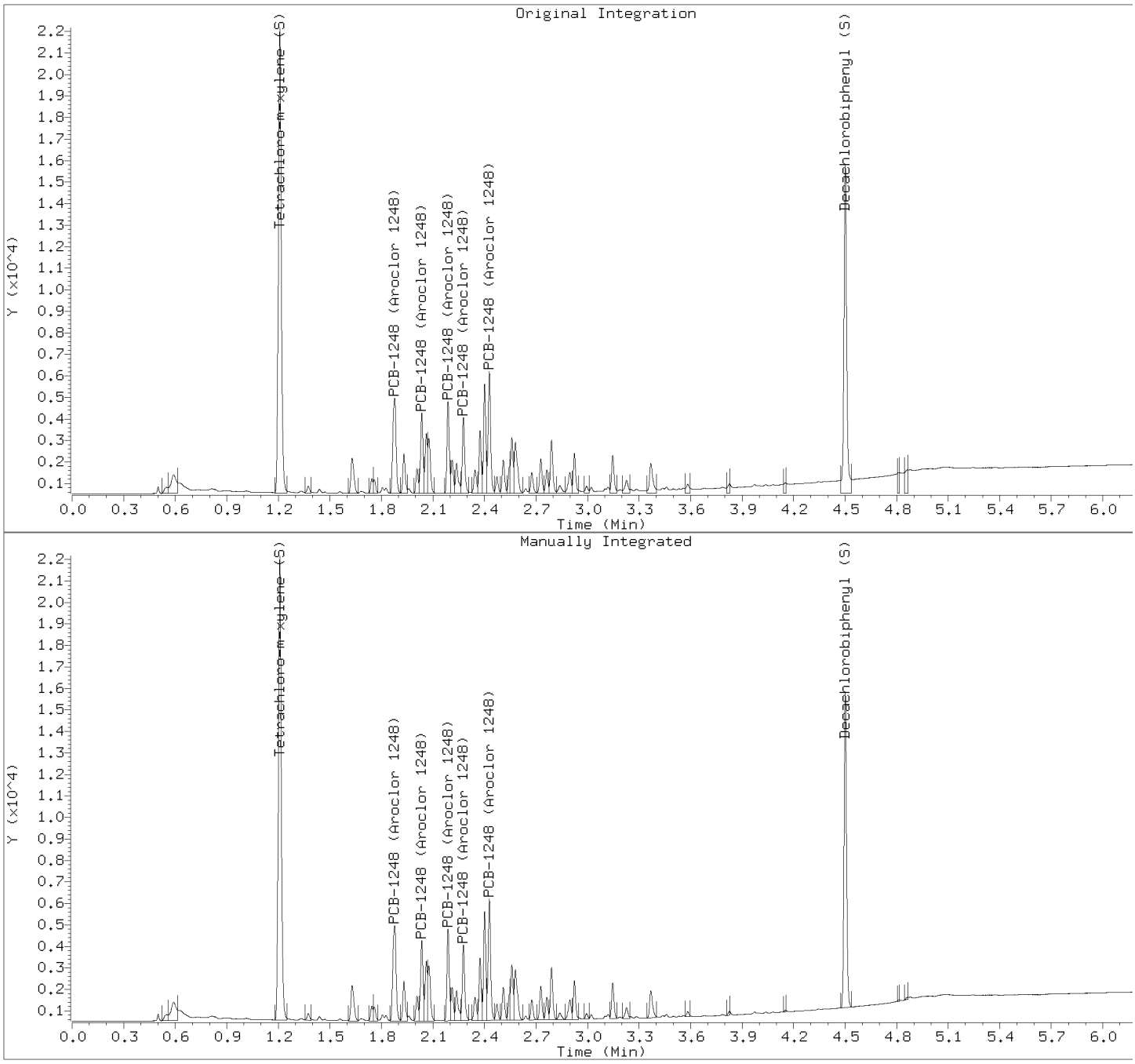
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12672-29-6	PCB-1248 (Aroclor 1248)		
	Peak found at 1.877	0.250	
	Peak found at 2.035	0.250	
	Peak found at 2.188	0.250	
	Peak found at 2.278	0.250	
	Peak found at 2.429	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0501	
2051-24-3	Decachlorobiphenyl (S)	0.0455	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	5857	5872
PCB-1248 (Aroclor 1248)	3850	3872
PCB-1248 (Aroclor 1248)	3962	3978
PCB-1248 (Aroclor 1248)	3506	3494
PCB-1248 (Aroclor 1248)	5722	5685
Tetrachloro-m-xylene (S)	25444	25304
Decachlorobiphenyl (S)	17105	14932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1037	1478	1.426	1.516		
0.566	599	506	0.844	0.519		
0.622	2352	967	0.411	0.991		
0.731	810	520	0.642	0.533		
1.073	437	412	0.943	0.422		
1.554	106	120	1.132	0.123		
1.586	22644	21310	0.941	21.891	$ 10 Tetrachloro-m-xylene (S)	
1.759	422	413	0.980	0.423		
1.964	1242	1288	1.037	1.321		
1.984	503	537	1.068	0.550		
2.086	1028	667	0.649	0.684		
2.200	221	228	1.033	0.233		
2.226	267	258	0.967	0.264		
2.268	2429	2724	1.122	2.794		
2.285	3077	3079	1.001	3.158	5 PCB-1248 (Aroclor 1248)	CO
2.305	1406	1362	0.968	1.397		
2.373	1495	1298	0.868	1.331		
2.404	254	256	1.007	0.262		
2.439	2890	2979	1.031	3.055	5 PCB-1248 (Aroclor 1248)	CO
2.471	2921	2975	1.018	3.051		
2.499	1241	1169	0.942	1.199		
2.560	3272	3401	1.039	3.488	5 PCB-1248 (Aroclor 1248)	CO
2.590	1462	1370	0.937	1.405		
2.616	1135	1167	1.028	1.197		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.638	638	671	1.052	0.688		
2.666	2564	2457	0.958	2.520	5 PCB-1248 (Aroclor 1248)	CO
2.682	377	1053	2.794	1.080		
2.798	144	234	1.624	0.240		
2.823	2237	3262	1.458	3.346		
2.835	5098	4585	0.899	4.703	5 PCB-1248 (Aroclor 1248)	CO
2.864	4276	4244	0.993	4.353		
2.922	278	263	0.945	0.269		
2.954	3760	3287	0.874	3.371		
2.987	2726	1999	0.733	2.050		
3.051	125	169	1.354	0.173		
3.085	771	744	0.965	0.763		
3.138	1142	1107	0.969	1.135		
3.172	934	878	0.940	0.900		
3.199	1971	1962	0.996	2.012		
3.268	821	598	0.729	0.613		
3.308	172	178	1.036	0.182		
3.357	119	197	1.662	0.202		
3.392	1463	1426	0.975	1.462		
3.478	227	214	0.943	0.219		
3.505	115	156	1.362	0.160		
3.563	1359	1348	0.992	1.382		
3.661	355	328	0.925	0.336		
3.845	84	115	1.363	0.117		
3.913	1239	992	0.800	1.017		
4.060	123	181	1.468	0.185		
4.247	90	130	1.441	0.133		
4.494	52	69	1.334	0.070		
4.617	50	86	1.709	0.088		
4.803	6	24	4.068	0.024		
4.959	14059	13126	0.934	13.464	$ 11 Decachlorobiphenyl (S)	
5.246	14	56	3.886	0.057		
5.298	55	102	1.841	0.104		
5.366	8	37	4.695	0.037		
5.489	13	44	3.364	0.045		
5.677	9	37	4.322	0.037		
5.711	15	64	4.148	0.065		
5.728	14	49	3.518	0.050		
5.767	9	43	4.694	0.044		
5.810	12	34	2.916	0.034		
5.833	12	45	3.886	0.046		
5.839	15	51	3.488	0.052		
5.891	24	69	2.844	0.070		
5.899	41	83	2.025	0.085		
6.162	9	42	4.924	0.043		
6.184	11	46	4.144	0.047		
6.233	20	50	2.498	0.051		
6.361	5	27	5.895	0.027		
6.404	5	21	4.303	0.021		
6.427	7	21	3.211	0.021		
	100918	97488		100.000		

Total unknown % height = 47.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
2.285	2.285	0.000	3077	0.25000	0.250	80.00- 120.00	100.00(aM)	CO
2.438	2.438	0.000	2889	0.25000	0.250	75.11- 112.67	93.92	CO
2.560	2.560	0.000	3271	0.25000	0.250	85.04- 127.57	106.33	CO
2.666	2.666	0.000	2563	0.25000	0.250	66.64- 99.95	83.31	CO
2.834	2.834	0.000	5098	0.25000	0.250	132.54- 198.82	165.68	CO
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22643	0.05000	0.0502			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.958	4.960	-0.002	14059	0.05000	0.0454		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

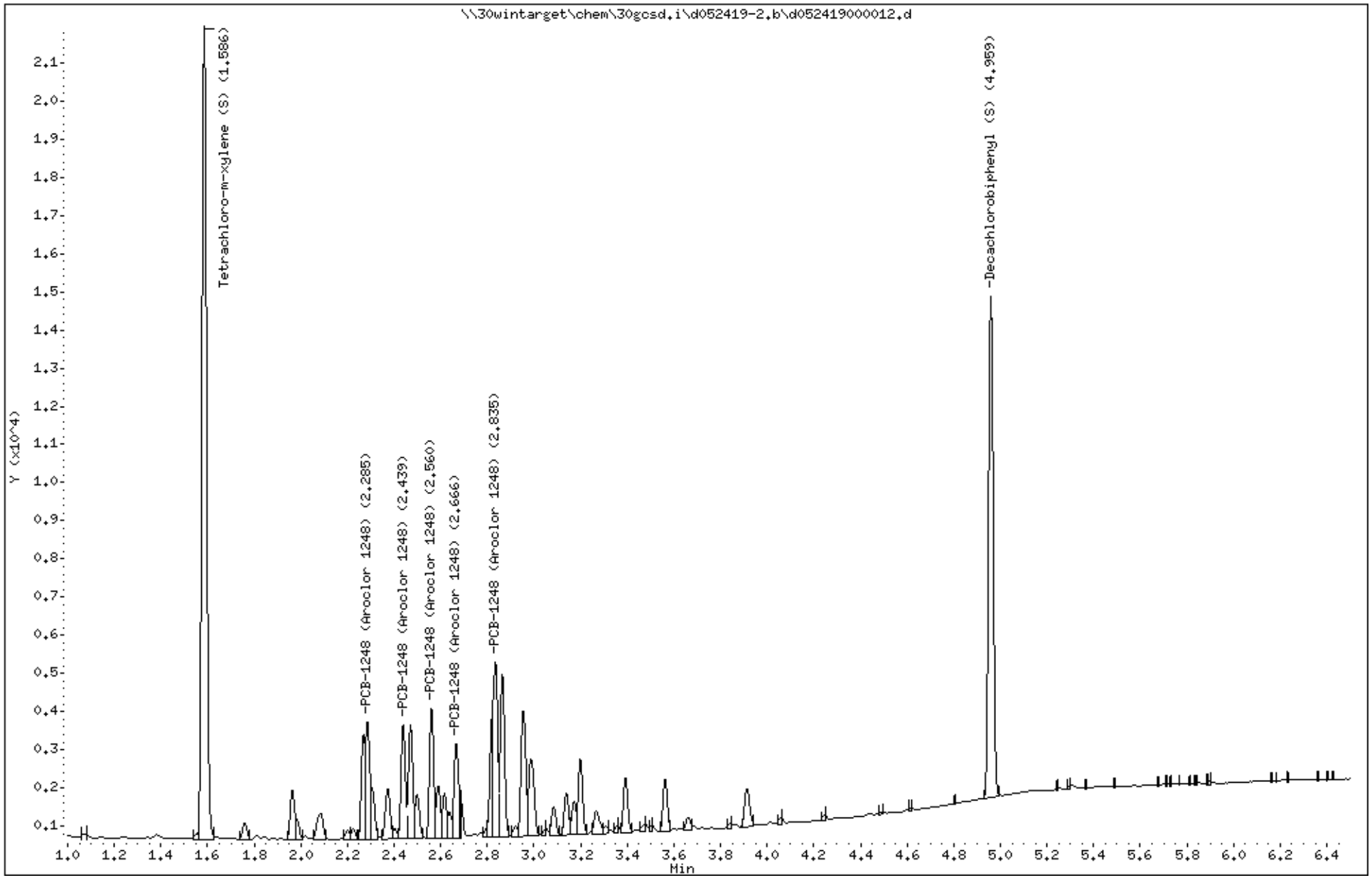
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

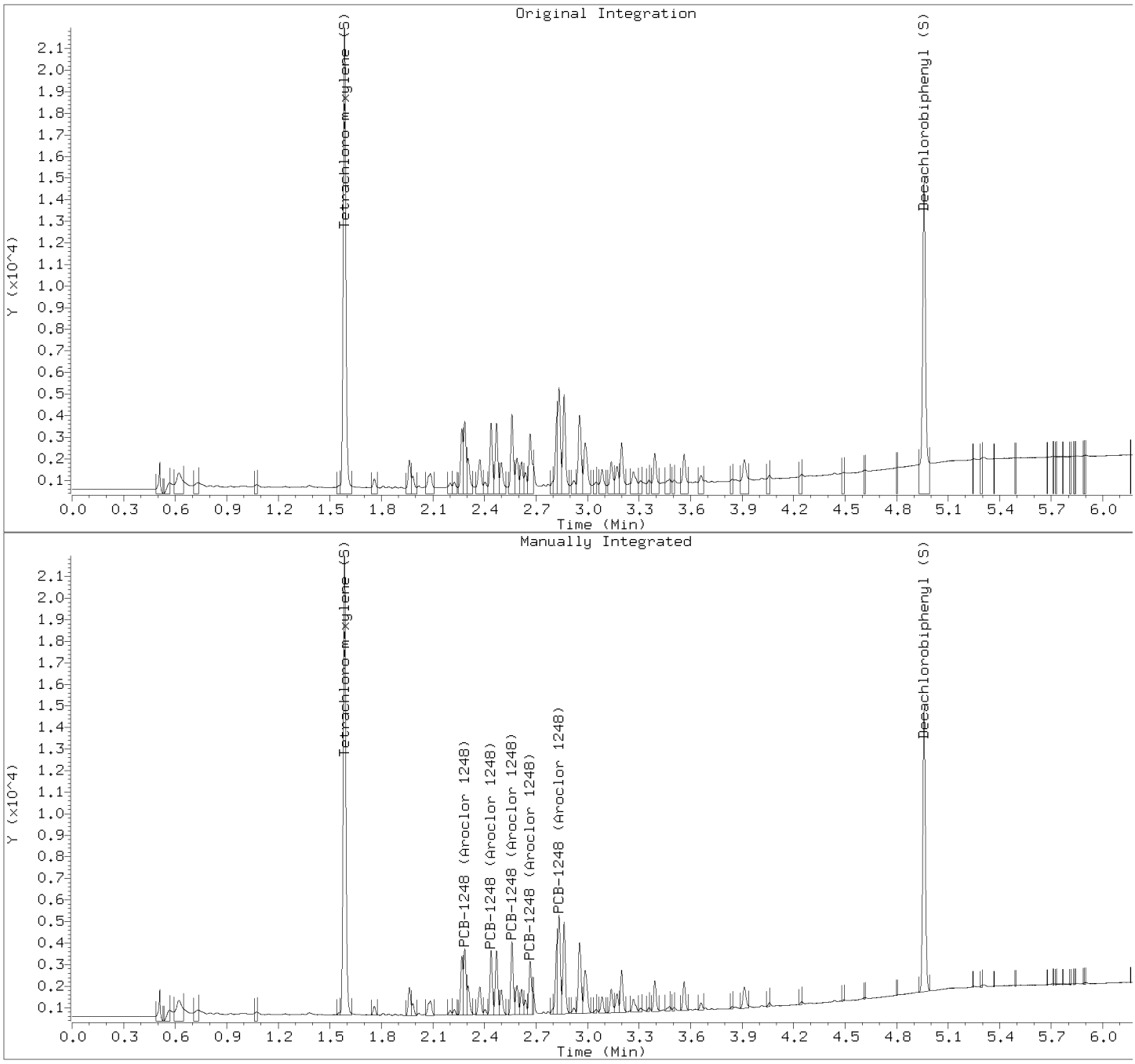
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12672-29-6	PCB-1248 (Aroclor 1248)		J
	Peak found at 2.285	0.250	J
	Peak found at 2.439	0.250	J
	Peak found at 2.560	0.250	J
	Peak found at 2.666	0.250	J
	Peak found at 2.835	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0502	
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	0	3077
PCB-1248 (Aroclor 1248)	0	2889
PCB-1248 (Aroclor 1248)	0	3271
PCB-1248 (Aroclor 1248)	0	2563
PCB-1248 (Aroclor 1248)	0	5098
Tetrachloro-m-xylene (S)	23722	22643
Decachlorobiphenyl (S)	18977	14059

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	489	461	0.942	0.405		
0.714	8162	4394	0.538	3.868		
1.021	285	217	0.761	0.191		
1.210	23752	20379	0.858	17.965	$ 10 Tetrachloro-m-xylene (S)	
1.314	813	677	0.833	0.596		
2.036	2429	2585	1.064	2.276		
2.062	911	778	0.854	0.685		
2.188	1434	1519	1.059	1.337		
2.278	529	568	1.073	0.500		
2.375	619	683	1.103	0.601		
2.402	2084	2328	1.117	2.049		
2.426	4533	4510	0.995	3.970	6 PCB-1254 (Aroclor 1254)	
2.473	1615	1715	1.062	1.510		
2.510	4937	5186	1.050	4.566	6 PCB-1254 (Aroclor 1254)	
2.545	2421	2257	0.932	1.987		
2.594	1826	1716	0.940	1.510		
2.639	369	388	1.051	0.341		
2.677	1826	1912	1.047	1.683		
2.729	3904	4052	1.038	3.567		
2.763	1190	1309	1.100	1.152		
2.792	7865	7801	0.992	6.868	6 PCB-1254 (Aroclor 1254)	
2.830	744	756	1.016	0.665		
2.852	340	303	0.890	0.266		
2.887	3770	2864	0.760	2.521		
2.924	5069	5258	1.037	4.629	6 PCB-1254 (Aroclor 1254)	
2.955	607	634	1.045	0.558		
2.995	3354	3095	0.923	2.725		
3.103	929	1210	1.302	1.065		
3.120	2124	2106	0.992	1.854		
3.148	3435	3276	0.954	2.884		
3.191	849	793	0.934	0.698		
3.227	6804	5419	0.796	4.771	6 PCB-1254 (Aroclor 1254)	
3.284	650	623	0.958	0.548		
3.369	1759	1478	0.840	1.301		
3.438	274	336	1.228	0.295		
3.460	1686	1660	0.985	1.461		
3.500	194	198	1.023	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.533	211	234	1.108	0.206		
3.558	958	1019	1.063	0.897		
3.584	945	758	0.802	0.667		
3.826	740	716	0.968	0.630		
3.973	268	265	0.987	0.233		
4.037	37	65	1.772	0.057		
4.500	15002	14730	0.982	12.969	$ 11 Decachlorobiphenyl (S)	
4.813	62	94	1.527	0.082		
4.862	99	144	1.450	0.126		
5.242	77	86	1.113	0.075		
5.666	5	19	3.740	0.016		
	122986	113574		100.000		

Total unknown % height = 44.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.425	2.425	0.000	4533	0.25000	0.250	80.00- 120.00	100.00	
2.509	2.509	0.000	4937	0.25000	0.250	87.13- 130.69	108.91	
2.791	2.791	0.000	7864	0.25000	0.250	138.79- 208.18	173.49	
2.924	2.924	0.000	5068	0.25000	0.250	89.44- 134.16	111.82	
3.226	3.226	0.000	6804	0.25000	0.250	120.08- 180.12	150.10	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	23751	0.05000	0.0475			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15001	0.05000	0.0457			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

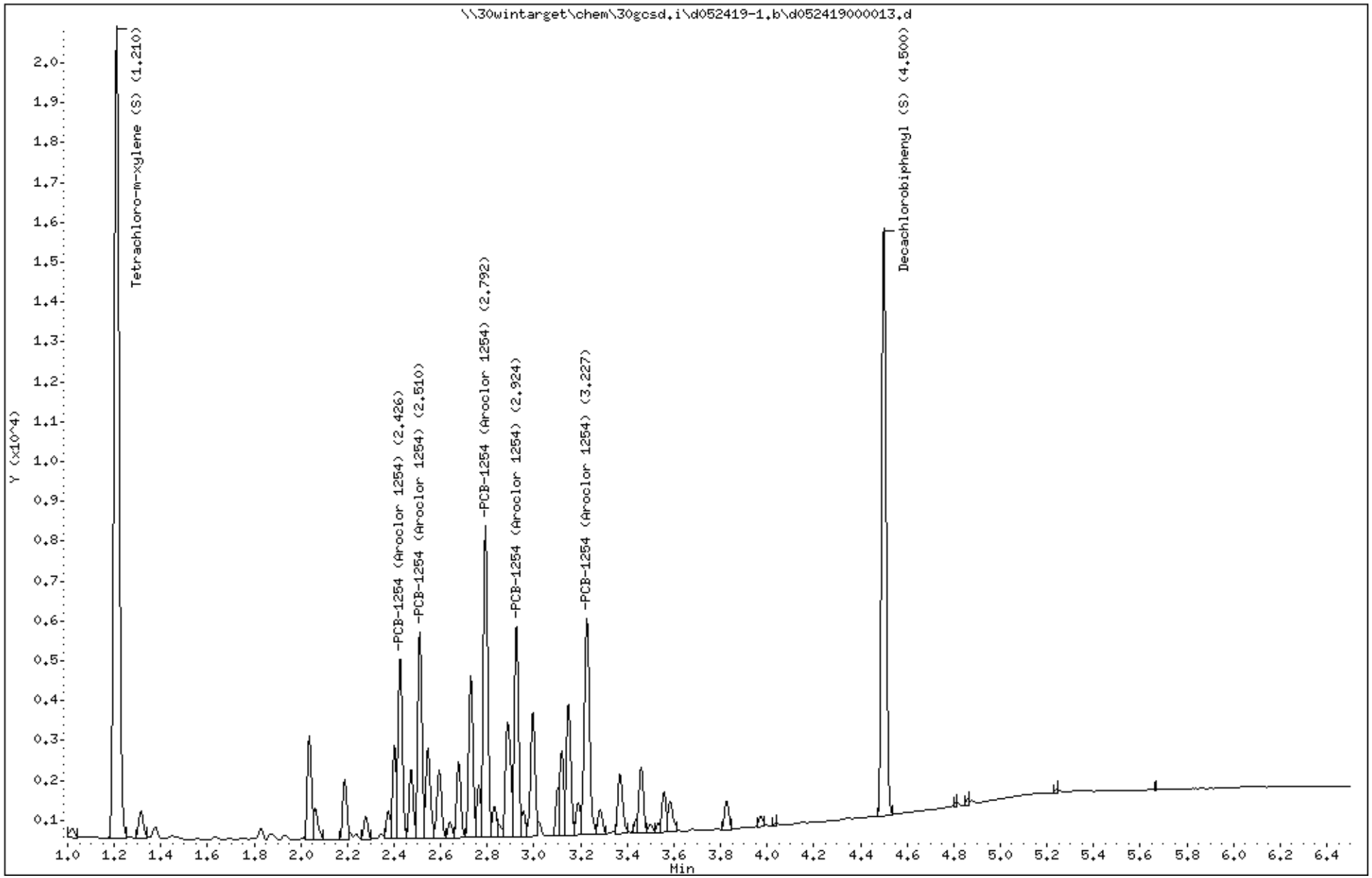
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

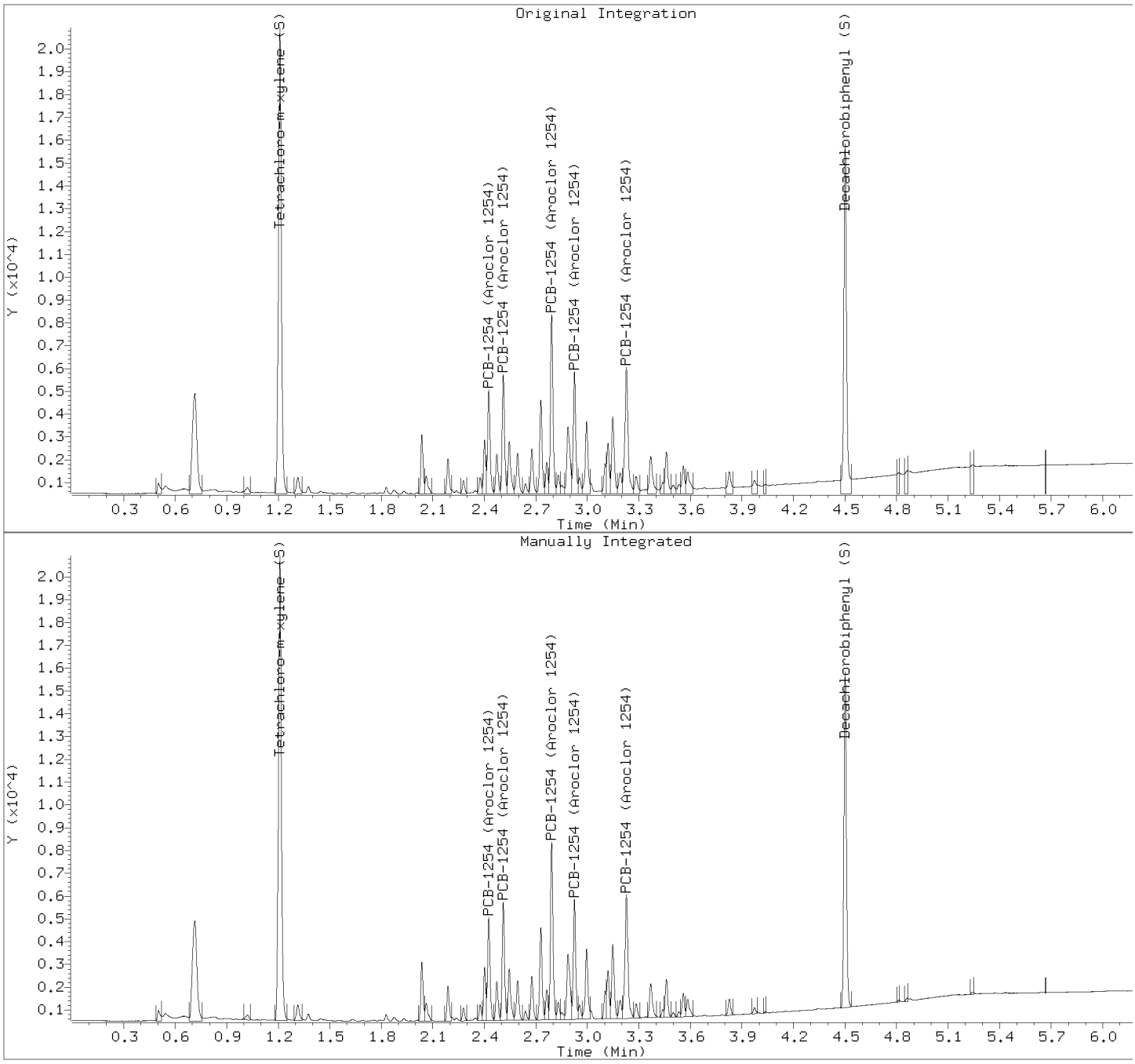
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11097-69-1	PCB-1254 (Aroclor 1254)		
	Peak found at 2.426	0.250	
	Peak found at 2.510	0.250	
	Peak found at 2.792	0.250	
	Peak found at 2.924	0.250	
	Peak found at 3.227	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0475	
2051-24-3	Decachlorobiphenyl (S)	0.0457	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	4578	4533
PCB-1254 (Aroclor 1254)	5002	4937
PCB-1254 (Aroclor 1254)	8012	7864
PCB-1254 (Aroclor 1254)	5215	5068
PCB-1254 (Aroclor 1254)	7278	6804
Tetrachloro-m-xylene (S)	23868	23751
Decachlorobiphenyl (S)	17224	15001

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	1164	1715	1.474	1.697		
0.565	444	358	0.806	0.354		
0.827	7649	4268	0.558	4.225		
1.249	181	204	1.130	0.201		
1.586	22006	20206	0.918	20.034	$ 10 Tetrachloro-m-xylene (S)	
1.759	291	293	1.006	0.290		
2.227	300	303	1.011	0.299		
2.439	2119	2167	1.023	2.145		
2.471	646	636	0.984	0.629		
2.561	1221	1245	1.020	1.232		
2.666	475	470	0.990	0.465		
2.817	3678	3626	0.986	3.589	6 PCB-1254 (Aroclor 1254)	
2.835	1933	2141	1.107	2.119		
2.865	1134	1119	0.986	1.107		
2.922	850	875	1.029	0.866		
2.959	5741	5239	0.913	5.186	6 PCB-1254 (Aroclor 1254)	
2.996	1983	1873	0.945	1.854		
3.051	384	329	0.856	0.325		
3.085	1567	1535	0.980	1.519		
3.139	3176	3105	0.978	3.073		
3.172	1572	1261	0.802	1.248		
3.199	6066	6090	1.004	6.028	6 PCB-1254 (Aroclor 1254)	
3.247	474	551	1.161	0.545		
3.266	1387	1035	0.746	1.024		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.308	2472	2083	0.843	2.062		
3.358	432	406	0.940	0.401		
3.392	4660	4537	0.974	4.491	6 PCB-1254 (Aroclor 1254)	
3.436	559	506	0.906	0.500		
3.479	2580	2455	0.952	2.430		
3.503	1726	1658	0.961	1.641		
3.562	3359	3014	0.897	2.983		
3.599	444	436	0.981	0.431		
3.628	664	535	0.805	0.529		
3.661	4753	4405	0.927	4.360	6 PCB-1254 (Aroclor 1254)	
3.686	1200	1214	1.012	1.201		
3.721	108	167	1.540	0.165		
3.758	86	144	1.673	0.142		
3.844	1446	1362	0.942	1.348		
3.914	1326	1009	0.761	0.998		
3.951	92	144	1.564	0.142		
4.015	861	845	0.981	0.836		
4.042	128	177	1.385	0.175		
4.060	624	581	0.931	0.575		
4.246	497	491	0.988	0.486		
4.437	173	179	1.036	0.177		
4.808	44	58	1.332	0.057		
4.929	5	17	3.184	0.016		
4.959	14086	13364	0.949	13.229	$ 11 Decachlorobiphenyl (S)	
5.069	7	21	3.070	0.020		
5.084	5	19	3.682	0.018		
5.237	4	21	4.839	0.020		
5.299	89	128	1.433	0.126		
5.626	7	32	4.469	0.031		
5.697	29	71	2.442	0.070		
5.701	34	85	2.468	0.084		
5.846	23	70	3.101	0.069		
5.893	65	110	1.682	0.108		
6.033	8	26	3.148	0.025		
	109038	101014		100.000		

Total unknown % height = 43.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.816	2.816	0.000	3678	0.25000	0.250	80.00- 120.00	100.00	(a)
2.958	2.958	0.000	5740	0.25000	0.250	124.85- 187.28	156.08	
3.198	3.198	0.000	6065	0.25000	0.250	131.92- 197.88	164.91	
3.392	3.392	0.000	4659	0.25000	0.250	101.34- 152.01	126.69	
3.660	3.660	0.000	4752	0.25000	0.250	103.36- 155.04	129.22	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22005	0.05000	0.0490			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14085	0.05000	0.0454			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

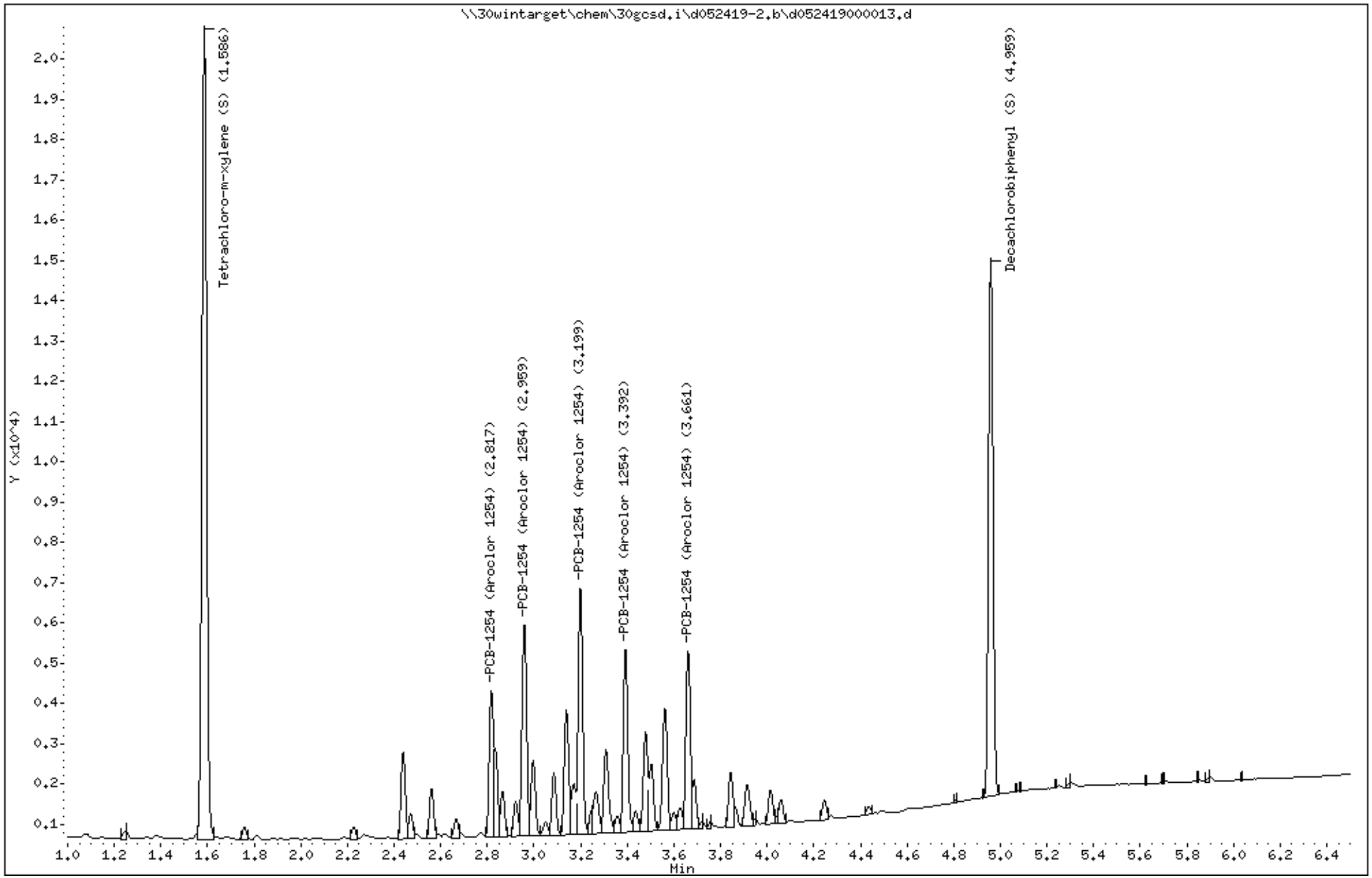
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

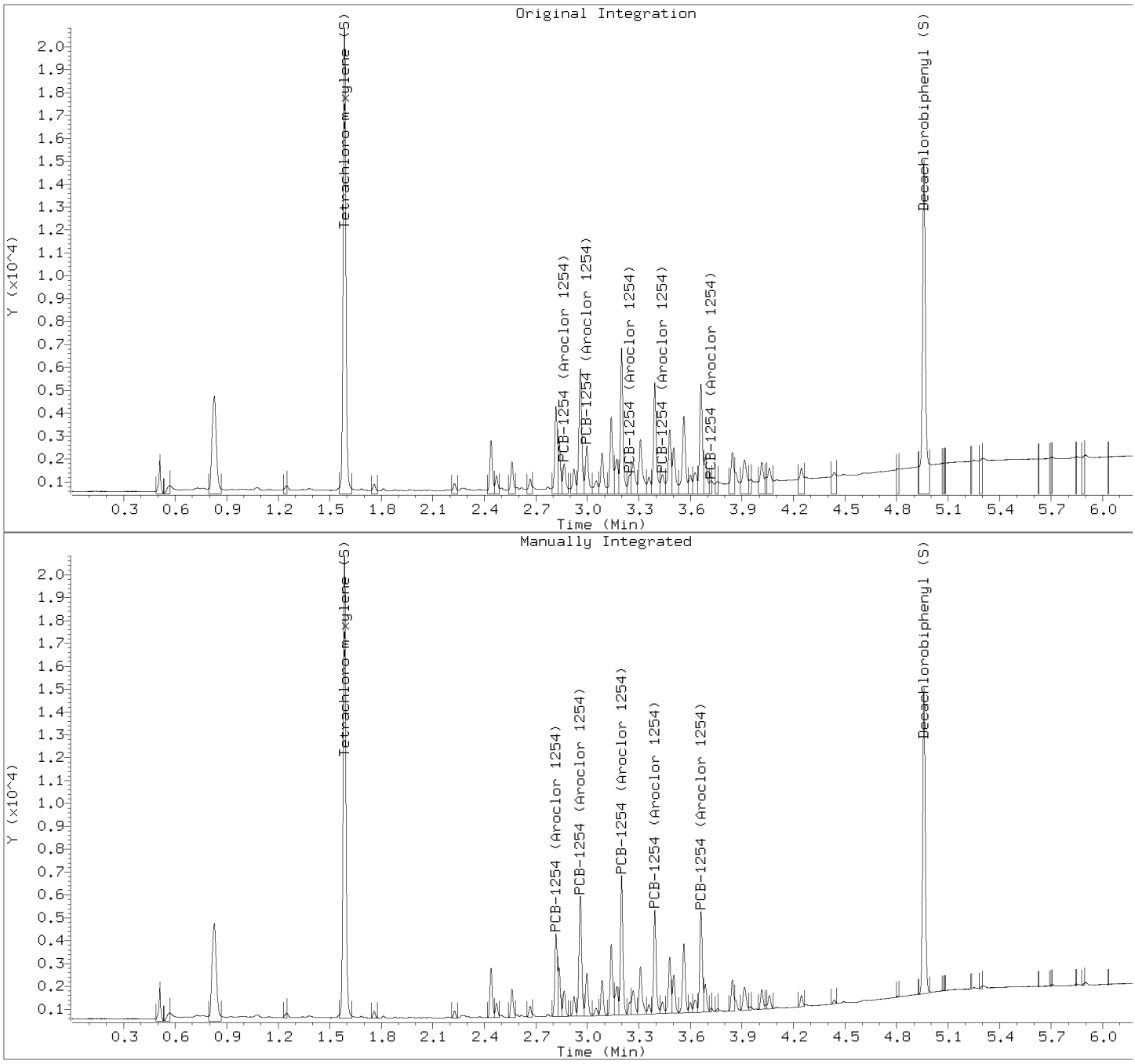
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.250	J
	Peak found at 2.959	0.250	J
	Peak found at 3.199	0.250	J
	Peak found at 3.392	0.250	J
	Peak found at 3.661	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0490	J
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	1571	3678
PCB-1254 (Aroclor 1254)	2610	5740
PCB-1254 (Aroclor 1254)	856	6065
PCB-1254 (Aroclor 1254)	1174	4659
PCB-1254 (Aroclor 1254)	461	4752
Tetrachloro-m-xylene (S)	22568	22005
Decachlorobiphenyl (S)	18623	14085

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	163989	77594	0.473	10.304		
0.837	1101	563	0.511	0.074		
1.212	99045	89696	0.906	11.946	$ 10 Tetrachloro-m-xylene (S)	
1.269	1347	988	0.734	0.131		
1.346	1767	1653	0.935	0.219		
1.377	1210	1227	1.014	0.162		
1.401	1865	1808	0.969	0.240		
1.442	9228	8406	0.911	1.116		
1.561	1227	1227	1.000	0.162		
1.632	18891	14503	0.768	1.926	1 PCB-1016 (Aroclor 1016)	
1.684	1037	1607	1.550	0.213		
1.694	2195	1812	0.826	0.240		
1.746	4850	5957	1.228	0.791		
1.761	7815	7709	0.986	1.023		
1.807	3320	3706	1.116	0.492		
1.823	2515	2601	1.034	0.345		
1.879	39182	30016	0.766	3.986	1 PCB-1016 (Aroclor 1016)	
1.933	15863	14197	0.895	1.885	1 PCB-1016 (Aroclor 1016)	
2.009	9085	10037	1.105	1.332		
2.036	11482	10735	0.935	1.425		
2.063	7459	8446	1.132	1.121		
2.078	8737	8070	0.924	1.071		
2.189	11848	12683	1.071	1.684	1 PCB-1016 (Aroclor 1016)	
2.213	4656	4939	1.061	0.655		
2.239	3692	3980	1.078	0.528		
2.255	1844	2434	1.320	0.323		
2.279	10413	10338	0.993	1.372	1 PCB-1016 (Aroclor 1016)	
2.346	2819	2803	0.994	0.372		
2.376	1617	1713	1.060	0.227		
2.402	2060	2315	1.124	0.307		
2.426	7917	7713	0.974	1.024		
2.473	1070	1132	1.058	0.150		
2.510	6862	7215	1.051	0.958		
2.594	567	441	0.778	0.058		
2.729	1046	1106	1.057	0.146		
2.798	17210	15294	0.889	2.031	7 PCB-1260 (Aroclor 1260)	
2.831	6293	6226	0.989	0.826		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	22006	22517	1.023	2.990	7 PCB-1260 (Aroclor 1260)	
2.924	1021	1052	1.030	0.139		
2.955	3598	3783	1.051	0.502		
2.996	27471	27628	1.006	3.669	7 PCB-1260 (Aroclor 1260)	
3.103	11008	12423	1.129	1.649		
3.122	14586	13517	0.927	1.795		
3.191	8268	6270	0.758	0.832		
3.228	29959	22713	0.758	3.016		
3.255	20426	20197	0.989	2.682		
3.289	11424	11438	1.001	1.519		
3.379	4271	3995	0.935	0.530		
3.440	22050	20396	0.925	2.708		
3.501	11106	11068	0.997	1.469		
3.535	8849	8475	0.958	1.125		
3.559	1841	2288	1.243	0.303		
3.586	48049	48506	1.010	6.441	7 PCB-1260 (Aroclor 1260)	
3.621	992	1027	1.036	0.136		
3.680	1684	1672	0.993	0.222		
3.759	642	695	1.082	0.092		
3.787	9403	9634	1.025	1.279		
3.828	34551	32963	0.954	4.377	7 PCB-1260 (Aroclor 1260)	
3.974	1729	1724	0.997	0.228		
4.037	405	437	1.079	0.058		
4.080	4865	4917	1.011	0.653		
4.154	11552	11199	0.969	1.487		
4.344	3935	3938	1.001	0.522		
4.393	54	96	1.788	0.012		
4.502	65460	65368	0.999	8.681	$ 11 Decachlorobiphenyl (S)	
4.815	145	149	1.026	0.019		
	874471	752975		100.000		

Total unknown % height = 49.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	18890	1.00000	0.920	80.00- 120.00	100.00	
1.879	1.878	0.001	39181	1.00000	0.948	162.66- 243.99	207.41	
1.932	1.932	0.000	15863	1.00000	0.952	63.55- 95.32	83.97	
2.189	2.188	0.001	11847	1.00000	0.927	49.13- 73.70	62.72	
2.278	2.277	0.001	10413	1.00000	0.948	42.04- 63.06	55.12	
Average of Peak Amounts =					0.93900			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	17209	1.00000	0.928	80.00- 120.00	100.00	
2.886	2.885	0.001	22006	1.00000	0.928	101.69- 152.53	127.87	
2.995	2.995	0.000	27470	1.00000	0.926	125.91- 188.87	159.62	
3.585	3.584	0.001	48049	1.00000	0.957	212.47- 318.70	279.20	
3.827	3.826	0.001	34551	1.00000	0.953	152.61- 228.91	200.77	
Average of Peak Amounts =					0.93840			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.211	1.210	0.001	99045	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	65459	0.20000	0.195			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

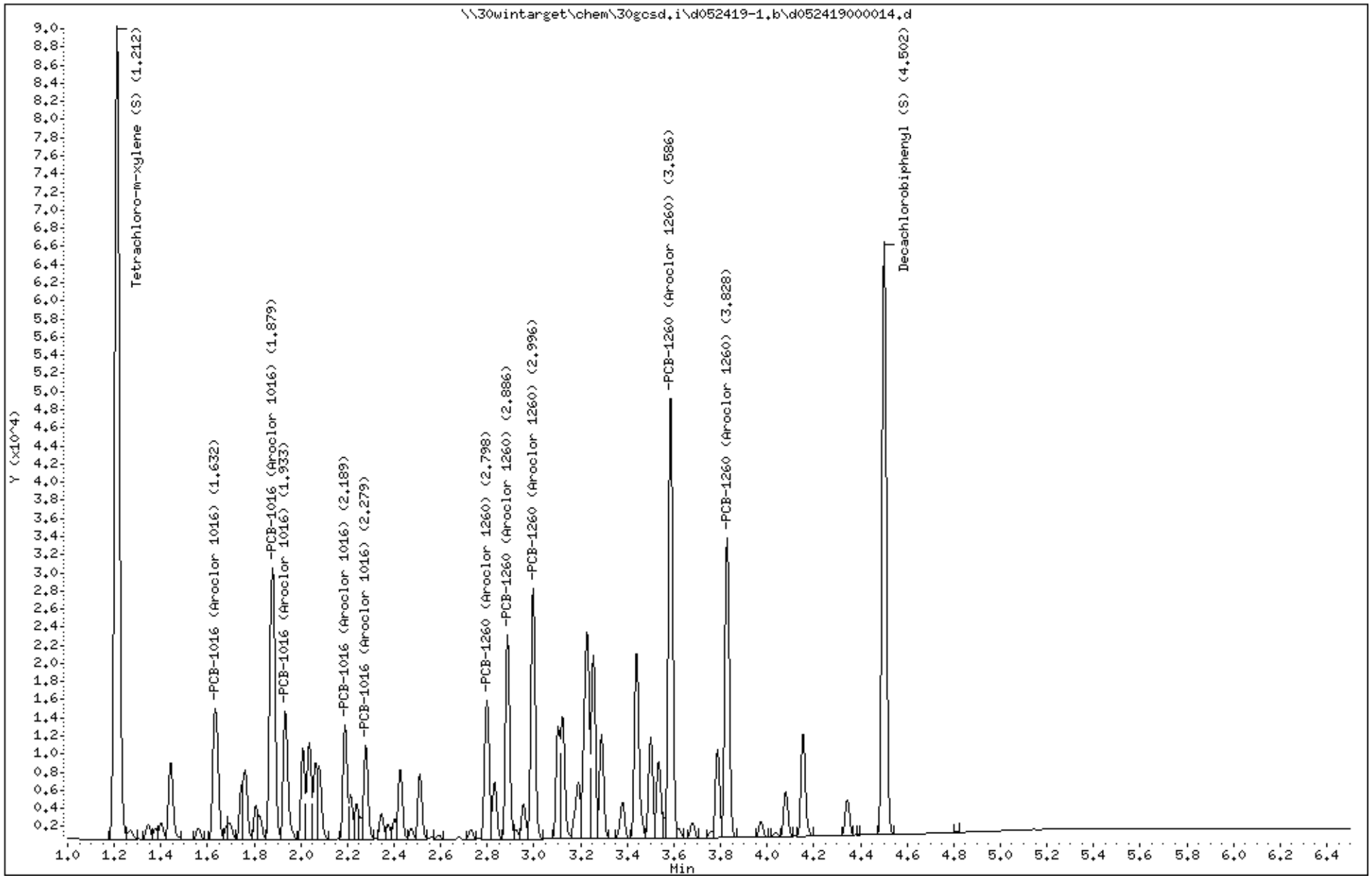
Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

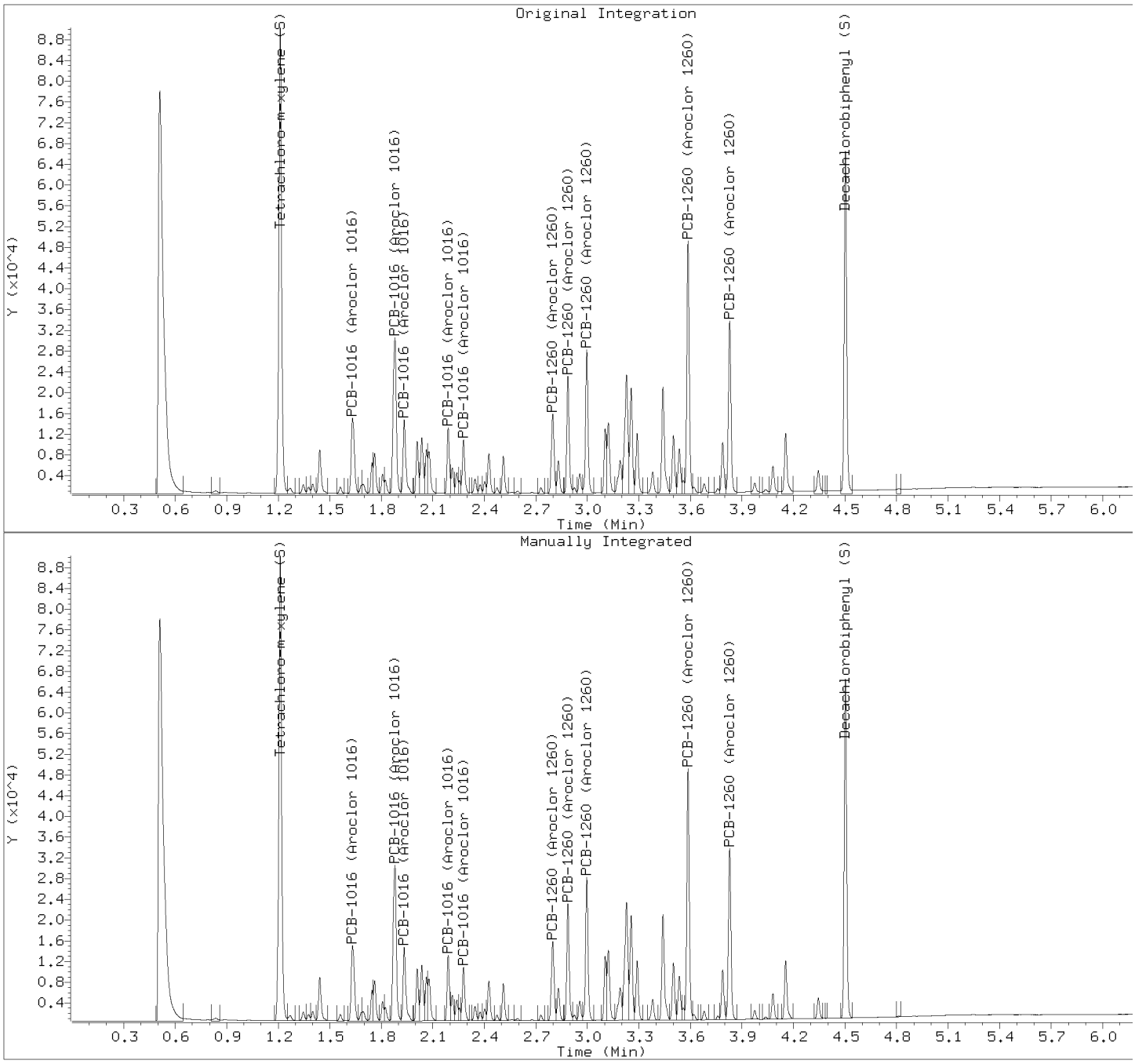
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.920	
	Peak found at 1.879	0.948	
	Peak found at 1.933	0.952	
	Peak found at 2.189	0.927	
	Peak found at 2.279	0.948	
	Average of Peak Amounts =	0.939	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.928	
	Peak found at 2.886	0.928	
	Peak found at 2.996	0.926	
	Peak found at 3.586	0.957	
	Peak found at 3.828	0.953	
	Average of Peak Amounts =	0.938	
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.195	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Sample Info: CAL6A, 87260:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	19009	18890
PCB-1016 (Aroclor 1016)	39317	39181
PCB-1016 (Aroclor 1016)	16020	15863
PCB-1016 (Aroclor 1016)	11911	11847
PCB-1016 (Aroclor 1016)	10527	10413
PCB-1260 (Aroclor 1260)	17378	17209
PCB-1260 (Aroclor 1260)	22259	22006
PCB-1260 (Aroclor 1260)	27877	27470
PCB-1260 (Aroclor 1260)	48628	48049
PCB-1260 (Aroclor 1260)	35616	34551
Tetrachloro-m-xylene (S)	99385	99045
Decachlorobiphenyl (S)	67924	65459

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	149851	90841	0.606	13.260		
0.649	2822	1416	0.502	0.205		
1.084	845	493	0.583	0.071		
1.528	951	877	0.923	0.127		
1.588	88396	86158	0.975	12.534	$ 10 Tetrachloro-m-xylene (S)	
1.668	1009	1195	1.185	0.173		
1.713	1695	1633	0.963	0.237		
1.763	8974	8653	0.964	1.258		
1.844	1111	1097	0.988	0.159		
1.964	10633	11154	1.049	1.622	1 PCB-1016 (Aroclor 1016)	
1.984	6311	6483	1.027	0.943		
2.019	1352	1366	1.011	0.198		
2.042	574	601	1.046	0.087		
2.076	11562	7468	0.646	1.086		
2.165	289	296	1.024	0.043		
2.201	2853	3143	1.102	0.457		
2.222	2279	2183	0.958	0.317		
2.269	14717	16943	1.151	2.464		
2.287	21107	21659	1.026	3.150	1 PCB-1016 (Aroclor 1016)	
2.306	13407	13101	0.977	1.905		
2.375	10544	9846	0.934	1.432	1 PCB-1016 (Aroclor 1016)	
2.404	988	1017	1.029	0.147		
2.439	7970	8304	1.042	1.208		
2.471	9299	9543	1.026	1.388	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	3713	3349	0.902	0.487		
2.561	9353	9634	1.030	1.401	1 PCB-1016 (Aroclor 1016)	
2.590	5197	4643	0.893	0.675		
2.617	3280	3350	1.021	0.487		
2.639	2522	2607	1.034	0.379		
2.667	10392	6925	0.666	1.007		
2.744	294	290	0.986	0.042		
2.818	8781	6460	0.736	0.939		
2.865	1455	1444	0.992	0.210		
2.922	658	673	1.023	0.097		
2.960	6563	6266	0.955	0.911		
3.139	761	891	1.171	0.129		
3.161	3301	3188	0.966	0.463		
3.199	2799	2830	1.011	0.411		
3.247	12512	9901	0.791	1.440		
3.277	2380	2630	1.105	0.382		
3.310	19229	19103	0.993	2.779	7 PCB-1260 (Aroclor 1260)	
3.391	1904	1768	0.928	0.257		
3.437	3126	3060	0.979	0.445		
3.479	23036	23099	1.003	3.360	7 PCB-1260 (Aroclor 1260)	
3.503	6549	6557	1.001	0.953		
3.557	15922	10892	0.684	1.584		
3.587	2209	2167	0.981	0.315		
3.631	2322	2097	0.903	0.305		
3.663	29125	22702	0.779	3.302	7 PCB-1260 (Aroclor 1260)	
3.722	17668	16726	0.947	2.433		
3.758	9485	9200	0.970	1.338		
3.840	3823	4234	1.107	0.615		
3.863	18296	17394	0.951	2.530		
3.897	990	1080	1.091	0.157		
3.923	8757	8535	0.975	1.241		
3.952	5402	4964	0.919	0.722		
3.981	455	478	1.051	0.069		
4.015	4872	4533	0.930	0.659		
4.061	41958	40037	0.954	5.824	7 PCB-1260 (Aroclor 1260)	
4.102	2242	2140	0.954	0.311		
4.248	25092	22192	0.884	3.228	7 PCB-1260 (Aroclor 1260)	
4.274	3303	4163	1.260	0.605		
4.296	11338	9552	0.842	1.389		
4.437	1030	983	0.954	0.143		
4.462	576	567	0.985	0.082		
4.497	4722	4354	0.922	0.633		
4.618	9821	9357	0.953	1.361		
4.660	566	524	0.926	0.076		
4.809	3678	3463	0.941	0.503		
4.909	16	48	3.015	0.006		
4.961	62081	60118	0.968	8.745	$ 11 Decachlorobiphenyl (S)	
5.251	127	144	1.132	0.020		
5.415	18	65	3.569	0.009		
5.494	26	52	1.990	0.007		
5.693	12	42	3.443	0.006		
5.700	14	47	3.431	0.006		
5.727	18	45	2.481	0.006		
5.943	5	22	4.135	0.003		
5.997	12	34	2.921	0.004		
6.051	9	26	2.975	0.003		
6.096	8	34	4.342	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.239	11	43	3.843	0.006		
6.257	9	38	4.199	0.005		
6.299	8	39	4.987	0.005		
6.319	7	33	4.694	0.004		
6.347	5	27	5.019	0.003		
6.351	6	31	4.829	0.004		
6.376	7	28	4.223	0.004		
	783395	687388		100.000		

Total unknown % height = 51.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	10632	1.00000	0.933	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	21107	1.00000	0.968	152.31- 228.47	198.51	
2.374	2.374	0.000	10544	1.00000	0.972	75.27- 112.91	99.17	
2.471	2.470	0.001	9299	1.00000	0.932	68.58- 102.86	87.46	
2.561	2.560	0.001	9352	1.00000	0.944	68.26- 102.40	87.96	
Average of Peak Amounts =					0.94980			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	19228	1.00000	0.946	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	23036	1.00000	0.946	88.62- 132.94	119.80	
3.663	3.662	0.001	29124	1.00000	0.994	120.10- 180.15	151.46	
4.060	4.060	0.000	41957	1.00000	0.975	171.60- 257.41	218.20	
4.248	4.247	0.001	25092	1.00000	0.970	103.64- 155.46	130.49	
Average of Peak Amounts =					0.96620			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	88395	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.961	4.960	0.001	62080	0.20000	0.196			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

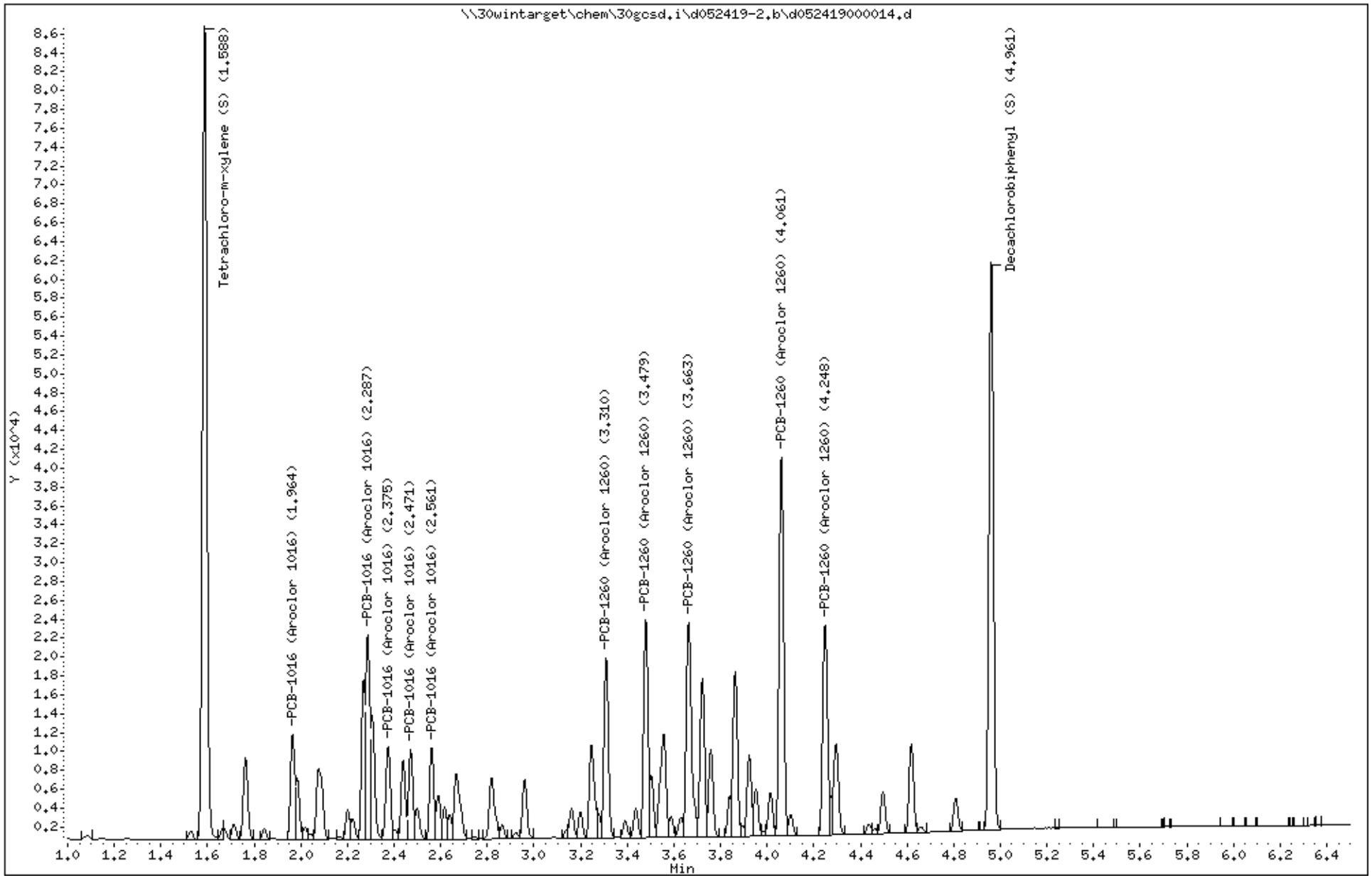
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

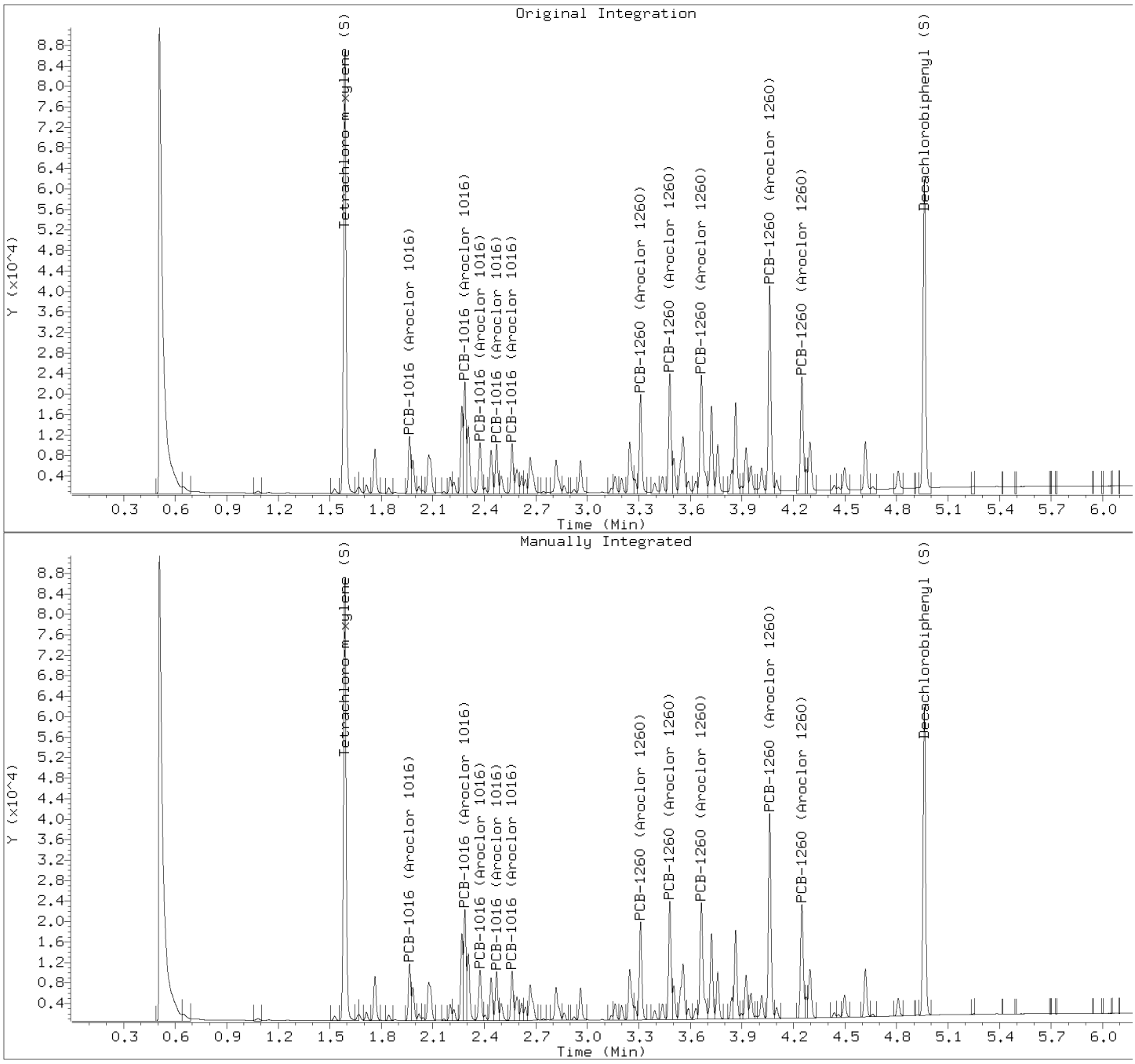
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.933	J
	Peak found at 2.287	0.968	J
	Peak found at 2.375	0.972	J
	Peak found at 2.471	0.932	J
	Peak found at 2.561	0.944	J
	Average of Peak Amounts =	0.950	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.310	0.946	J
	Peak found at 3.479	0.946	J
	Peak found at 3.663	0.994	J
	Peak found at 4.061	0.975	J
	Peak found at 4.248	0.970	J
	Average of Peak Amounts =	0.966	J
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.196	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Instrument: 30gcsd.i
Sample Info: CAL6A, 87260:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10758	10632
PCB-1016 (Aroclor 1016)	21025	21107
PCB-1016 (Aroclor 1016)	10868	10544
PCB-1016 (Aroclor 1016)	9511	9299
PCB-1016 (Aroclor 1016)	9646	9352
PCB-1260 (Aroclor 1260)	20026	19228
PCB-1260 (Aroclor 1260)	23650	23036
PCB-1260 (Aroclor 1260)	30352	29124
PCB-1260 (Aroclor 1260)	43504	41957
PCB-1260 (Aroclor 1260)	26725	25092
Tetrachloro-m-xylene (S)	88860	88395
Decachlorobiphenyl (S)	66819	62080

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	124890	55990	0.448	9.951		
0.838	796	485	0.609	0.086		
1.212	73352	67144	0.915	11.964	$ 10 Tetrachloro-m-xylene (S)	
1.269	1008	753	0.747	0.133		
1.346	1348	1284	0.953	0.228		
1.377	906	925	1.021	0.164		
1.401	1395	1373	0.985	0.244		
1.442	6790	6443	0.949	1.145		
1.561	909	927	1.019	0.164		
1.632	14239	11025	0.774	1.959	1 PCB-1016 (Aroclor 1016)	
1.685	808	1197	1.481	0.212		
1.694	1579	1358	0.860	0.241		
1.746	3638	4512	1.240	0.801		
1.761	5885	5863	0.996	1.042		
1.807	2448	2780	1.135	0.494		
1.823	1734	1879	1.084	0.333		
1.879	29319	22726	0.775	4.039	1 PCB-1016 (Aroclor 1016)	
1.933	11880	10655	0.897	1.893	1 PCB-1016 (Aroclor 1016)	
2.009	6798	7627	1.122	1.355		
2.036	8633	8100	0.938	1.439		
2.063	5698	6339	1.113	1.126		
2.078	6418	6130	0.955	1.089		
2.189	8874	9626	1.085	1.710	1 PCB-1016 (Aroclor 1016)	
2.213	3467	3773	1.088	0.670		
2.239	2728	2983	1.094	0.530		
2.255	1398	1825	1.306	0.324		
2.278	7765	7667	0.987	1.362	1 PCB-1016 (Aroclor 1016)	
2.345	2070	2047	0.989	0.363		
2.375	1181	1268	1.074	0.225		
2.402	1534	1748	1.140	0.310		
2.426	5909	5854	0.991	1.040		
2.473	778	842	1.082	0.149		
2.510	5144	5457	1.061	0.969		
2.594	401	322	0.803	0.057		
2.729	765	819	1.070	0.145		
2.798	12950	11669	0.901	2.073	7 PCB-1260 (Aroclor 1260)	
2.831	4691	4729	1.008	0.840		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	16494	17146	1.040	3.047	7 PCB-1260 (Aroclor 1260)	
2.924	741	772	1.042	0.137		
2.955	2687	2808	1.045	0.499		
2.995	20673	20619	0.997	3.664	7 PCB-1260 (Aroclor 1260)	
3.103	8216	9306	1.133	1.653		
3.121	11043	10096	0.914	1.794		
3.190	6092	4532	0.744	0.805		
3.227	22720	17189	0.757	3.054		
3.254	15319	15148	0.989	2.692		
3.289	8586	8517	0.992	1.513		
3.379	3180	3014	0.948	0.535		
3.439	16194	14815	0.915	2.633		
3.500	8372	8286	0.990	1.472		
3.533	6682	6393	0.957	1.136		
3.557	1394	1717	1.231	0.305		
3.585	35876	35949	1.002	6.389	7 PCB-1260 (Aroclor 1260)	
3.619	748	773	1.033	0.137		
3.678	1251	1255	1.003	0.223		
3.757	493	532	1.078	0.094		
3.786	7116	7261	1.020	1.290		
3.827	25993	24671	0.949	4.384	7 PCB-1260 (Aroclor 1260)	
3.973	1367	1321	0.966	0.234		
4.036	369	363	0.984	0.064		
4.078	3714	3754	1.011	0.667		
4.153	8615	8183	0.950	1.454		
4.343	2947	2931	0.994	0.520		
4.501	48876	49059	1.004	8.719	$ 11 Decachlorobiphenyl (S)	
4.814	72	101	1.409	0.017		
	655956	562655		100.000		

Total unknown % height = 48.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	14238	0.75000	0.693	80.00- 120.00	100.00	
1.879	1.878	0.001	29319	0.75000	0.709	162.66- 243.99	205.91	
1.933	1.932	0.001	11880	0.75000	0.713	63.55- 95.32	83.44	
2.189	2.188	0.001	8874	0.75000	0.695	49.13- 73.70	62.32	
2.278	2.277	0.001	7764	0.75000	0.707	42.04- 63.06	54.53	
Average of Peak Amounts =					0.70340			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	12949	0.75000	0.698	80.00- 120.00	100.00	
2.886	2.885	0.001	16493	0.75000	0.695	101.69- 152.53	127.37	
2.995	2.995	0.000	20672	0.75000	0.696	125.91- 188.87	159.64	
3.584	3.584	0.000	35875	0.75000	0.714	212.47- 318.70	277.04	
3.826	3.826	0.000	25992	0.75000	0.717	152.61- 228.91	200.72	
Average of Peak Amounts =					0.70400			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.212	1.210	0.002	73352	0.15000	0.144			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	48876	0.15000	0.146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

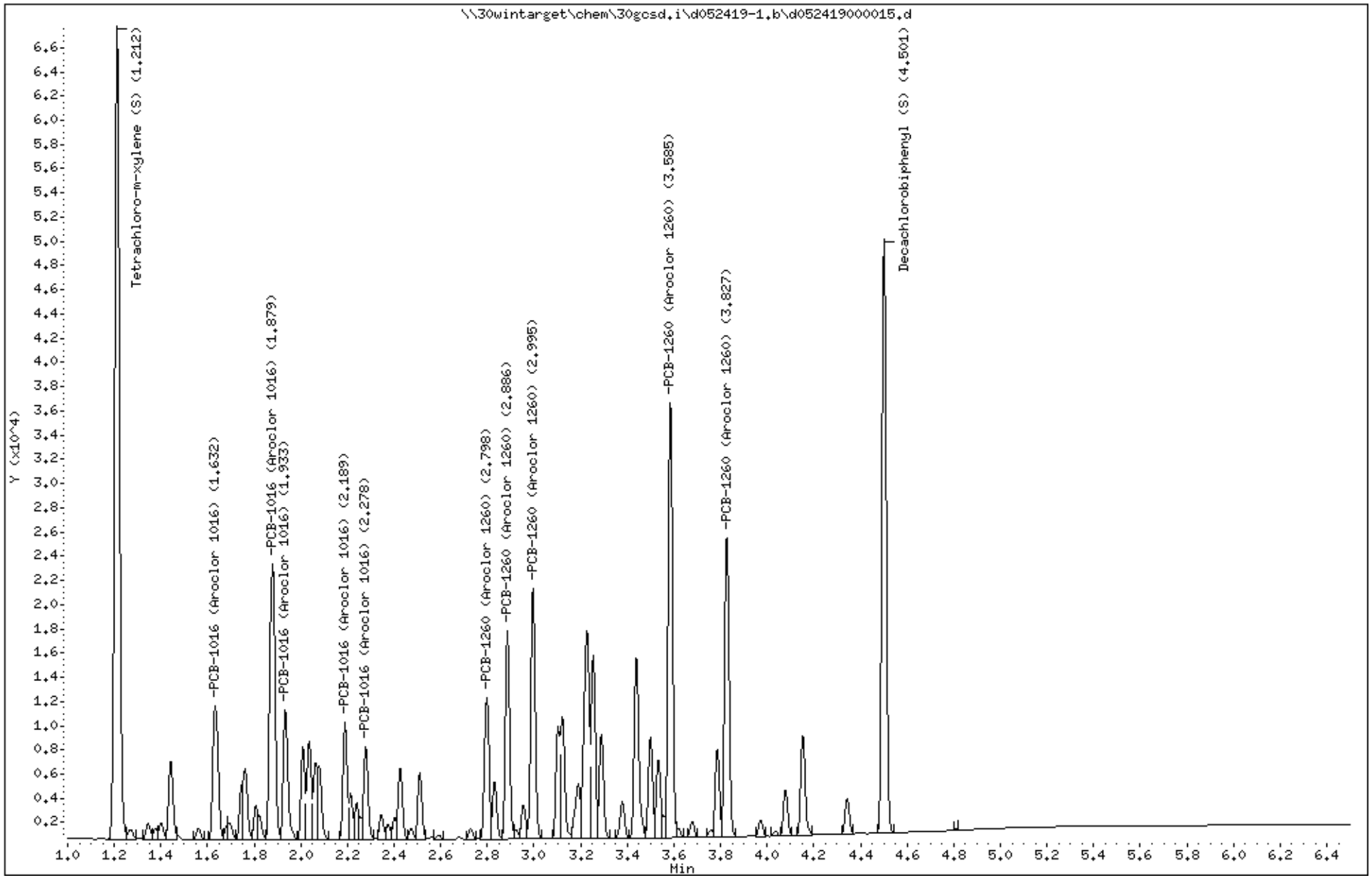
Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

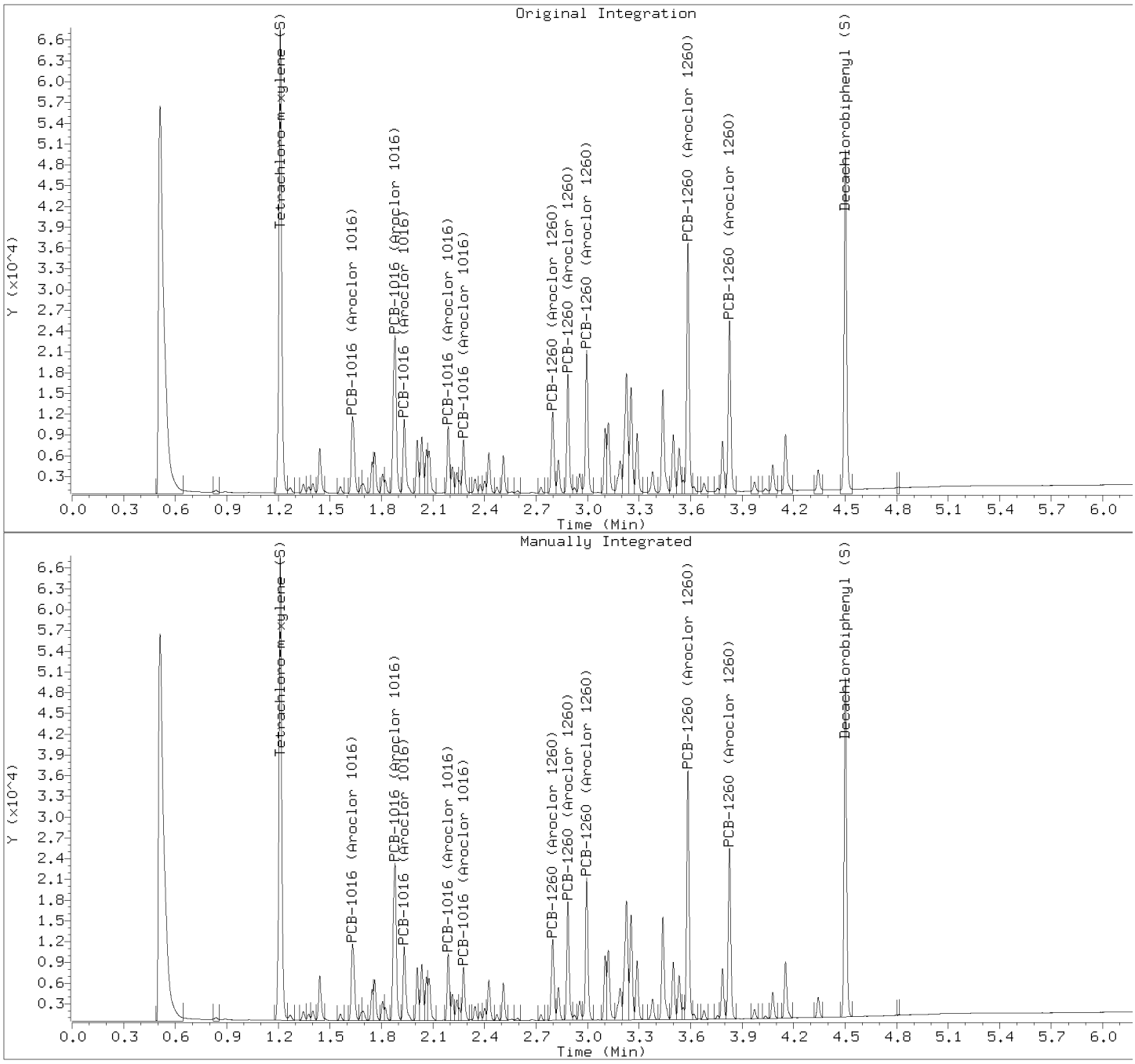
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.693	
	Peak found at 1.879	0.709	
	Peak found at 1.933	0.713	
	Peak found at 2.189	0.695	
	Peak found at 2.278	0.707	
	Average of Peak Amounts =	0.703	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.698	
	Peak found at 2.886	0.695	
	Peak found at 2.995	0.696	
	Peak found at 3.585	0.714	
	Peak found at 3.827	0.717	
	Average of Peak Amounts =	0.704	
877-09-8	Tetrachloro-m-xylene (S)	0.144	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Sample Info: CAL5A, 88856:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	14486	14238
PCB-1016 (Aroclor 1016)	29588	29319
PCB-1016 (Aroclor 1016)	12194	11880
PCB-1016 (Aroclor 1016)	9020	8874
PCB-1016 (Aroclor 1016)	7980	7764
PCB-1260 (Aroclor 1260)	13214	12949
PCB-1260 (Aroclor 1260)	16845	16493
PCB-1260 (Aroclor 1260)	21180	20672
PCB-1260 (Aroclor 1260)	36496	35875
PCB-1260 (Aroclor 1260)	27021	25992
Tetrachloro-m-xylene (S)	73821	73352
Decachlorobiphenyl (S)	51341	48876

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	114218	65304	0.572	12.804		
0.650	2510	1202	0.479	0.234		
1.084	734	427	0.582	0.083		
1.529	722	666	0.923	0.130		
1.588	65739	65002	0.989	12.702	$ 10 Tetrachloro-m-xylene (S)	
1.669	1346	896	0.666	0.175		
1.714	1284	1252	0.975	0.244		
1.763	6745	6578	0.975	1.285		
1.844	825	826	1.002	0.161		
1.965	7957	8509	1.069	1.662	1 PCB-1016 (Aroclor 1016)	
1.985	4783	4913	1.027	0.960		
2.019	1003	1022	1.019	0.199		
2.043	410	440	1.074	0.085		
2.076	8639	5590	0.647	1.092		
2.165	201	220	1.096	0.042		
2.201	2146	2347	1.094	0.458		
2.222	1467	1522	1.037	0.297		
2.269	11031	12633	1.145	2.468		
2.287	15752	16204	1.029	3.166	1 PCB-1016 (Aroclor 1016)	
2.307	10098	9870	0.977	1.928		
2.375	7882	7417	0.941	1.449	1 PCB-1016 (Aroclor 1016)	
2.405	725	756	1.042	0.147		
2.439	5999	6244	1.041	1.220		
2.471	6994	7201	1.030	1.407	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	2726	2507	0.920	0.489		
2.561	7035	7267	1.033	1.420	1 PCB-1016 (Aroclor 1016)	
2.590	3865	3499	0.905	0.683		
2.617	2433	2488	1.023	0.486		
2.639	1890	1980	1.048	0.386		
2.667	7766	5195	0.669	1.015		
2.744	221	216	0.975	0.042		
2.818	6590	4928	0.748	0.962		
2.864	1089	1092	1.003	0.213		
2.922	491	512	1.042	0.100		
2.960	4910	4738	0.965	0.925		
3.139	582	668	1.147	0.130		
3.161	2472	2429	0.983	0.474		
3.199	2122	2122	1.000	0.414		
3.246	9390	7380	0.786	1.442		
3.277	1796	2016	1.122	0.393		
3.309	14466	14176	0.980	2.770	7 PCB-1260 (Aroclor 1260)	
3.392	1423	1327	0.933	0.259		
3.437	2372	2292	0.966	0.447		
3.479	17384	17210	0.990	3.362	7 PCB-1260 (Aroclor 1260)	
3.503	5133	5091	0.992	0.994		
3.556	11923	8241	0.691	1.610		
3.587	1680	1585	0.944	0.309		
3.631	1744	1608	0.922	0.314		
3.663	21775	16839	0.773	3.290	7 PCB-1260 (Aroclor 1260)	
3.722	13250	12501	0.943	2.442		
3.758	7099	6979	0.983	1.363		
3.840	2853	3139	1.100	0.613		
3.863	13744	13045	0.949	2.549		
3.897	729	793	1.088	0.154		
3.923	6570	6448	0.981	1.260		
3.952	4024	3768	0.936	0.736		
3.981	340	352	1.035	0.068		
4.014	3635	3408	0.938	0.665		
4.060	31357	29815	0.951	5.826	7 PCB-1260 (Aroclor 1260)	
4.101	1677	1565	0.933	0.305		
4.248	18743	17066	0.911	3.334	7 PCB-1260 (Aroclor 1260)	
4.274	2410	3136	1.301	0.612		
4.295	8545	7010	0.820	1.369		
4.437	746	718	0.962	0.140		
4.462	409	411	1.005	0.080		
4.496	3524	3244	0.921	0.633		
4.618	7393	7044	0.953	1.376		
4.661	434	402	0.927	0.078		
4.808	2780	2613	0.940	0.510		
4.908	19	45	2.330	0.008		
4.960	46297	43353	0.936	8.471	$ 11 Decachlorobiphenyl (S)	
5.109	10	33	3.337	0.006		
5.245	49	106	2.153	0.020		
5.296	25	65	2.644	0.012		
5.378	25	80	3.172	0.015		
5.503	19	46	2.429	0.008		
5.607	13	34	2.652	0.006		
5.627	8	31	3.744	0.006		
5.978	2	10	5.208	0.001		
6.195	9	23	2.447	0.004		
6.347	6	16	2.544	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	589229	511746		100.000		

Total unknown % height = 51.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	7957	0.75000	0.698	80.00- 120.00	100.00(a)	
2.287	2.286	0.001	15751	0.75000	0.722	152.31- 228.47	197.96	
2.375	2.374	0.001	7881	0.75000	0.726	75.27- 112.91	99.05	
2.471	2.470	0.001	6994	0.75000	0.701	68.58- 102.86	87.90	
2.561	2.560	0.001	7035	0.75000	0.710	68.26- 102.40	88.41	
Average of Peak Amounts =					0.71140			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	14466	0.75000	0.712	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	17383	0.75000	0.714	88.62- 132.94	120.17	
3.663	3.662	0.001	21774	0.75000	0.743	120.10- 180.15	150.52	
4.060	4.060	0.000	31356	0.75000	0.729	171.60- 257.41	216.76	
4.248	4.247	0.001	18743	0.75000	0.724	103.64- 155.46	129.56	
Average of Peak Amounts =					0.72440			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	65739	0.15000	0.145			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	46296	0.15000	0.146			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

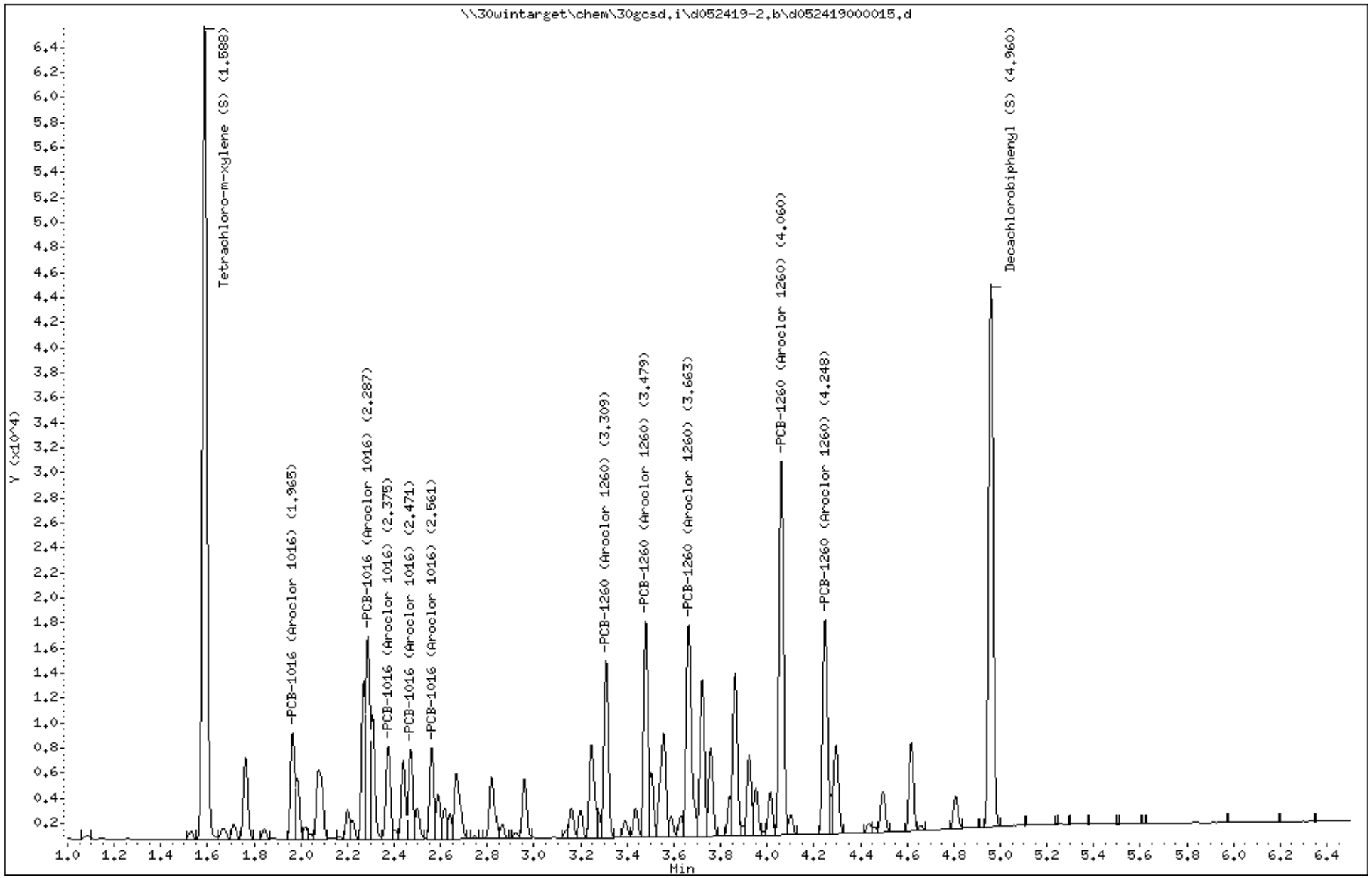
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

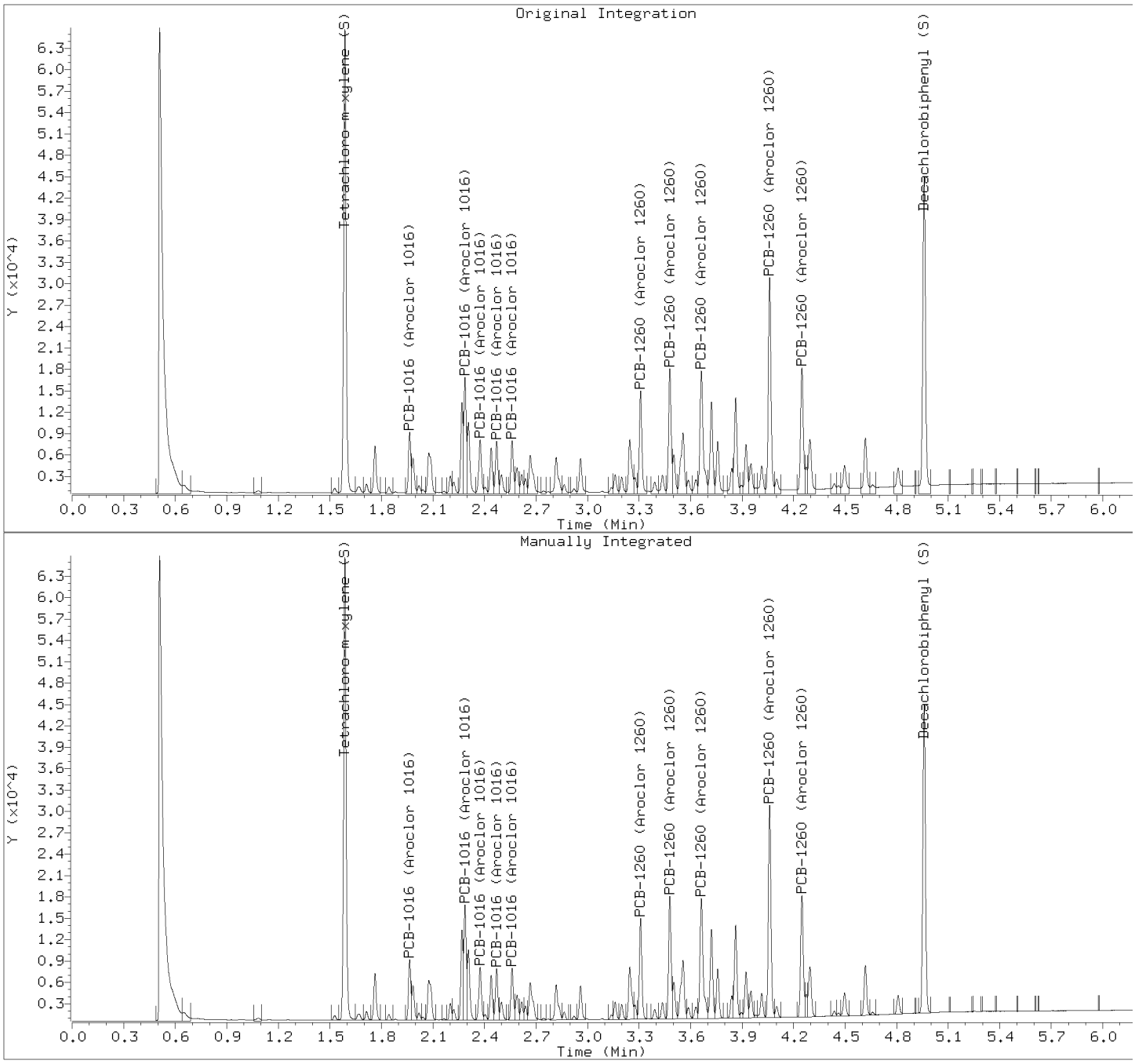
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.698	J
	Peak found at 2.287	0.722	J
	Peak found at 2.375	0.726	J
	Peak found at 2.471	0.701	J
	Peak found at 2.561	0.710	J
	Average of Peak Amounts =	0.711	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.712	J
	Peak found at 3.479	0.714	J
	Peak found at 3.663	0.743	J
	Peak found at 4.060	0.729	J
	Peak found at 4.248	0.724	J
	Average of Peak Amounts =	0.724	J
877-09-8	Tetrachloro-m-xylene (S)	0.145	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Instrument: 30gcsd.i
Sample Info: CAL5A, 88856:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8169	7957
PCB-1016 (Aroclor 1016)	15765	15751
PCB-1016 (Aroclor 1016)	8282	7881
PCB-1016 (Aroclor 1016)	7261	6994
PCB-1016 (Aroclor 1016)	7379	7035
PCB-1260 (Aroclor 1260)	15309	14466
PCB-1260 (Aroclor 1260)	18034	17383
PCB-1260 (Aroclor 1260)	23023	21774
PCB-1260 (Aroclor 1260)	32901	31356
PCB-1260 (Aroclor 1260)	20253	18743
Tetrachloro-m-xylene (S)	66379	65739
Decachlorobiphenyl (S)	51016	46296

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	75763	32966	0.435	8.921		
1.211	48455	42969	0.887	11.660	$ 10 Tetrachloro-m-xylene (S)	
1.269	678	504	0.743	0.136		
1.345	919	844	0.918	0.228		
1.376	592	603	1.019	0.163		
1.401	946	909	0.961	0.245		
1.441	4578	4287	0.936	1.160		
1.561	614	622	1.013	0.168		
1.632	9596	7333	0.764	1.984	1 PCB-1016 (Aroclor 1016)	
1.684	568	803	1.413	0.217		
1.694	1038	901	0.868	0.243		
1.746	2449	2986	1.219	0.808		
1.761	3945	3925	0.995	1.062		
1.807	1682	1855	1.103	0.502		
1.823	1125	1251	1.112	0.338		
1.879	19614	14933	0.761	4.041	1 PCB-1016 (Aroclor 1016)	
1.932	7993	7153	0.895	1.935	1 PCB-1016 (Aroclor 1016)	
2.009	4529	5069	1.119	1.371		
2.036	5856	5416	0.925	1.465		
2.062	3801	4273	1.124	1.156		
2.077	4393	4112	0.936	1.112		
2.189	5974	6480	1.085	1.753	1 PCB-1016 (Aroclor 1016)	
2.213	2358	2493	1.057	0.674		
2.239	1842	2020	1.097	0.546		
2.254	950	1235	1.301	0.334		
2.278	5231	5196	0.993	1.406	1 PCB-1016 (Aroclor 1016)	
2.345	1418	1428	1.007	0.386		
2.375	798	845	1.059	0.228		
2.401	1035	1181	1.141	0.319		
2.425	3994	3930	0.984	1.063		
2.473	532	576	1.084	0.155		
2.510	3489	3694	1.059	0.999		
2.729	509	560	1.099	0.151		
2.798	8727	7755	0.889	2.098	7 PCB-1260 (Aroclor 1260)	
2.830	3164	3173	1.003	0.858		
2.885	11129	11445	1.028	3.097	7 PCB-1260 (Aroclor 1260)	
2.924	512	521	1.017	0.140		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	1826	1922	1.053	0.520		
2.995	13948	14016	1.005	3.793	7 PCB-1260 (Aroclor 1260)	
3.103	5448	6210	1.140	1.680		
3.121	7441	6879	0.925	1.861		
3.190	4254	3180	0.748	0.860		
3.227	15419	11631	0.754	3.147		
3.254	10354	10307	0.995	2.789		
3.289	5787	5754	0.994	1.557		
3.378	2163	2010	0.929	0.543		
3.439	11320	10452	0.923	2.828		
3.500	5662	5563	0.983	1.505		
3.533	4498	4323	0.961	1.169		
3.557	913	1145	1.254	0.309		
3.584	23907	24026	1.005	6.501	7 PCB-1260 (Aroclor 1260)	
3.620	494	517	1.046	0.139		
3.679	839	850	1.013	0.230		
3.758	325	359	1.103	0.097		
3.786	4778	4853	1.016	1.313		
3.827	17316	16137	0.932	4.367	7 PCB-1260 (Aroclor 1260)	
3.973	937	900	0.960	0.243		
4.037	269	251	0.934	0.067		
4.078	2492	2459	0.987	0.665		
4.153	5882	5594	0.951	1.513		
4.343	1967	1945	0.989	0.526		
4.501	32103	31909	0.994	8.635	$ 11 Decachlorobiphenyl (S)	
4.815	58	81	1.403	0.021		
	431196	369519		100.000		

Total unknown % height = 48.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	9596	0.50000	0.467	80.00- 120.00	100.00	
1.878	1.878	0.000	19613	0.50000	0.474	162.66- 243.99	204.39	
1.932	1.932	0.000	7992	0.50000	0.480	63.55- 95.32	83.29	
2.188	2.188	0.000	5974	0.50000	0.468	49.13- 73.70	62.26	
2.277	2.277	0.000	5231	0.50000	0.476	42.04- 63.06	54.51	
Average of Peak Amounts =					0.47300			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	8727	0.50000	0.471	80.00- 120.00	100.00	
2.885	2.885	0.000	11129	0.50000	0.469	101.69- 152.53	127.52	
2.995	2.995	0.000	13947	0.50000	0.470	125.91- 188.87	159.82	
3.583	3.584	-0.001	23906	0.50000	0.476	212.47- 318.70	273.93	
3.826	3.826	0.000	17316	0.50000	0.478	152.61- 228.91	198.42	
Average of Peak Amounts =					0.47280			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	48454	0.10000	0.0953			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	32103	0.10000	0.0956			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

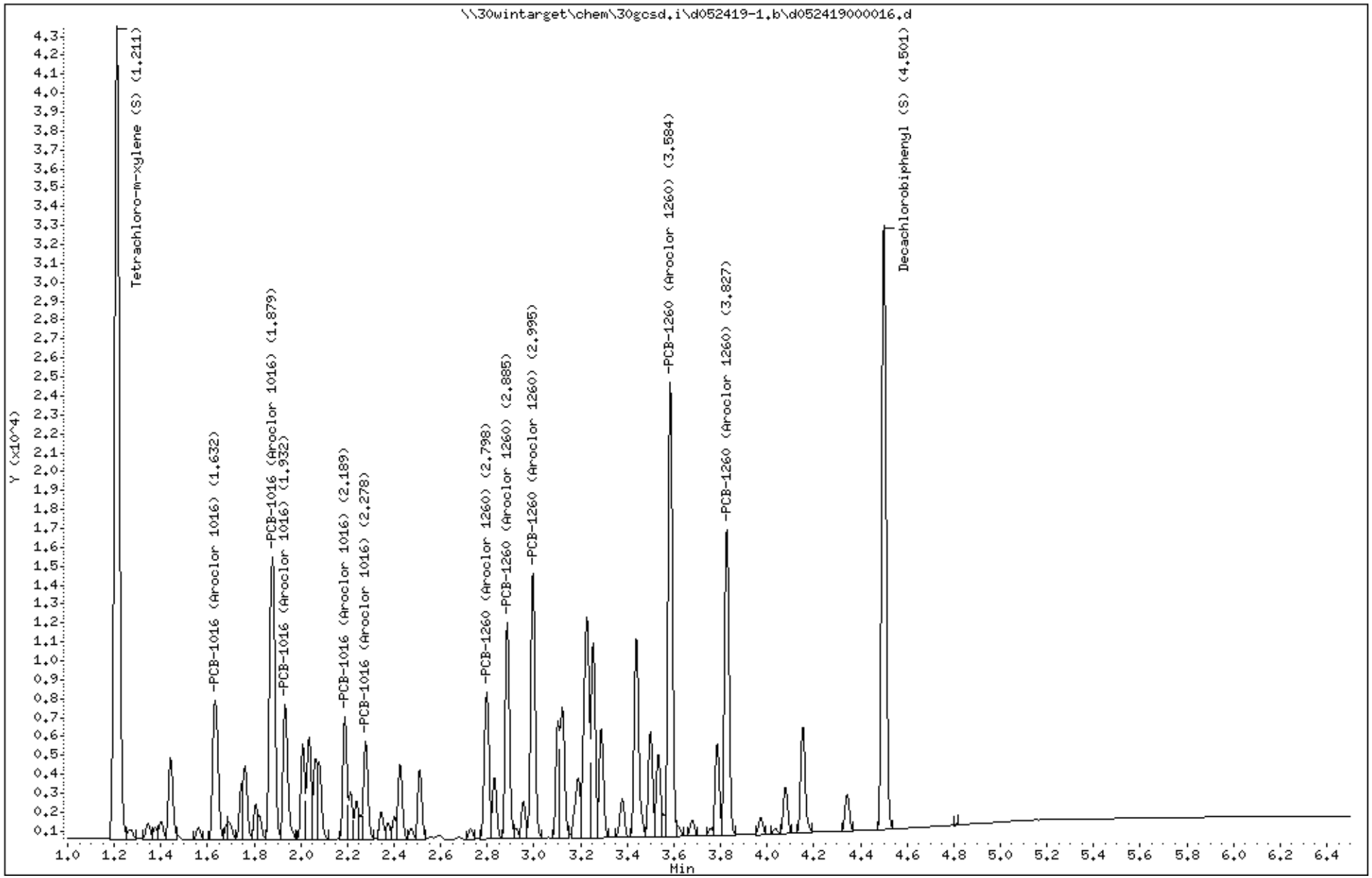
Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

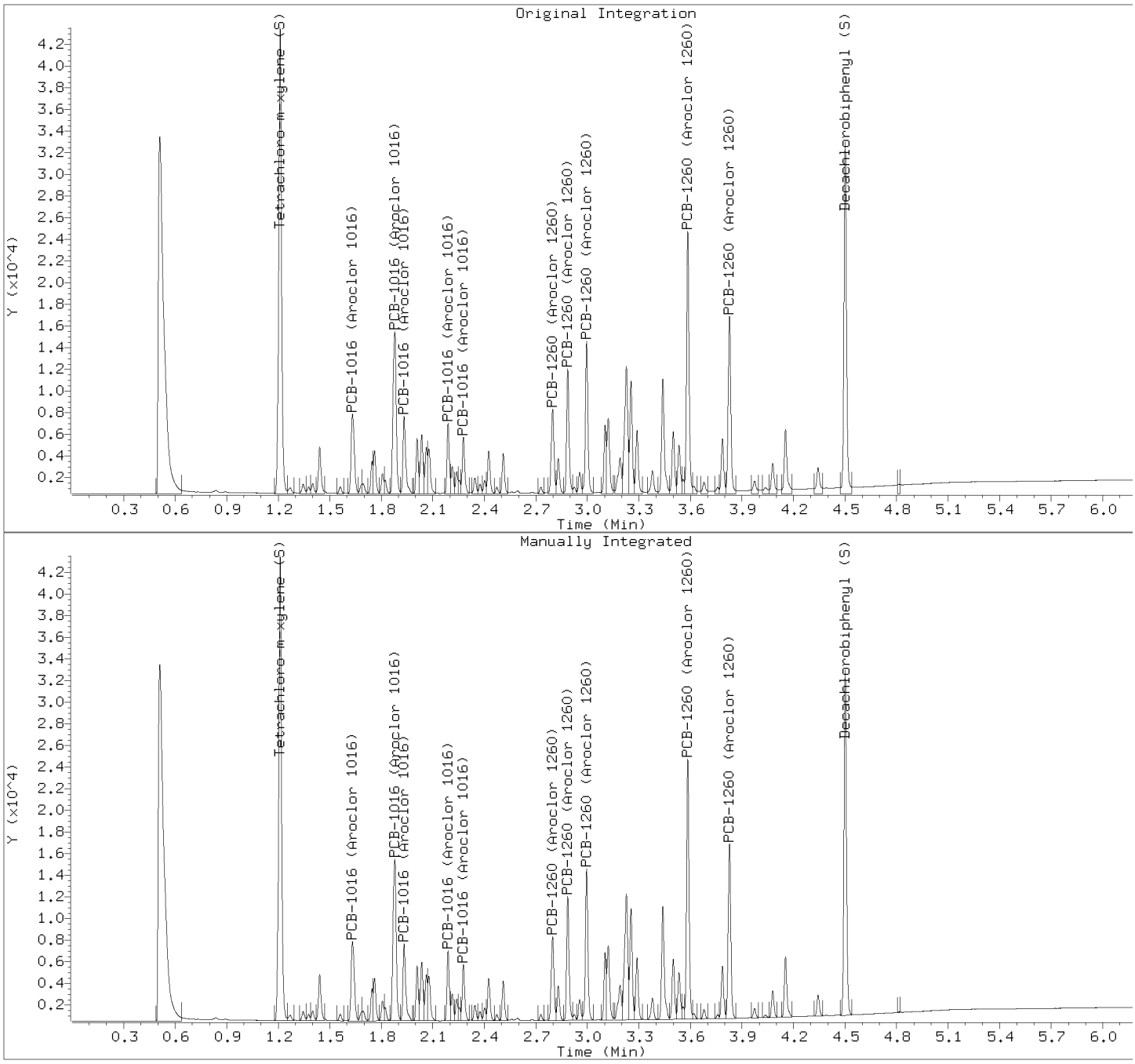
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.467	
	Peak found at 1.879	0.474	
	Peak found at 1.932	0.480	
	Peak found at 2.189	0.468	
	Peak found at 2.278	0.476	
	Average of Peak Amounts =	0.473	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.471	
	Peak found at 2.885	0.469	
	Peak found at 2.995	0.470	
	Peak found at 3.584	0.476	
	Peak found at 3.827	0.478	
	Average of Peak Amounts =	0.473	
877-09-8	Tetrachloro-m-xylene (S)	0.0953	
2051-24-3	Decachlorobiphenyl (S)	0.0956	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Sample Info: CAL4A, 88855:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	9633	9596
PCB-1016 (Aroclor 1016)	19667	19613
PCB-1016 (Aroclor 1016)	8054	7992
PCB-1016 (Aroclor 1016)	6002	5974
PCB-1016 (Aroclor 1016)	5283	5231
PCB-1260 (Aroclor 1260)	8853	8727
PCB-1260 (Aroclor 1260)	11312	11129
PCB-1260 (Aroclor 1260)	14232	13947
PCB-1260 (Aroclor 1260)	24394	23906
PCB-1260 (Aroclor 1260)	18143	17316
Tetrachloro-m-xylene (S)	48625	48454
Decachlorobiphenyl (S)	34248	32103

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	69759	39591	0.568	11.836		
0.649	1454	741	0.510	0.221		
1.085	410	262	0.639	0.078		
1.528	484	442	0.914	0.132		
1.587	43329	41735	0.963	12.513	$ 10 Tetrachloro-m-xylene (S)	
1.667	459	592	1.290	0.176		
1.713	855	827	0.967	0.247		
1.763	4499	4349	0.967	1.300		
1.844	546	546	1.000	0.163		
1.964	5363	5665	1.056	1.693	1 PCB-1016 (Aroclor 1016)	
1.984	3162	3255	1.030	0.973		
2.019	673	683	1.015	0.204		
2.042	270	292	1.080	0.087		
2.077	5775	3750	0.649	1.121		
2.202	1447	1551	1.072	0.463		
2.222	945	991	1.049	0.296		
2.269	7263	8396	1.156	2.510		
2.287	10514	10655	1.013	3.185	1 PCB-1016 (Aroclor 1016)	
2.307	6761	6604	0.977	1.974		
2.375	5238	4900	0.935	1.464	1 PCB-1016 (Aroclor 1016)	
2.404	487	506	1.039	0.151		
2.439	4017	4162	1.036	1.244		
2.471	4701	4761	1.013	1.423	1 PCB-1016 (Aroclor 1016)	
2.500	1820	1658	0.911	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.561	4692	4853	1.034	1.450	1 PCB-1016 (Aroclor 1016)	
2.590	2608	2329	0.893	0.696		
2.617	1626	1675	1.030	0.500		
2.638	1258	1303	1.036	0.389		
2.667	5178	3417	0.660	1.021		
2.818	4396	3270	0.744	0.977		
2.864	713	727	1.020	0.217		
2.922	326	335	1.027	0.100		
2.960	3258	3146	0.966	0.940		
3.139	391	461	1.178	0.137		
3.161	1686	1600	0.949	0.478		
3.199	1421	1409	0.991	0.421		
3.246	6272	4938	0.787	1.476		
3.278	1206	1323	1.097	0.395		
3.309	9665	9547	0.988	2.854	7 PCB-1260 (Aroclor 1260)	
3.391	979	889	0.908	0.265		
3.437	1583	1530	0.966	0.457		
3.479	11568	11638	1.006	3.479	7 PCB-1260 (Aroclor 1260)	
3.503	3562	3429	0.963	1.025		
3.556	7929	5512	0.695	1.647		
3.587	1120	1067	0.953	0.318		
3.631	1160	1068	0.920	0.319		
3.663	14518	11294	0.778	3.376	7 PCB-1260 (Aroclor 1260)	
3.722	8846	8381	0.947	2.505		
3.758	4729	4558	0.964	1.362		
3.840	1918	2060	1.074	0.615		
3.863	9126	8593	0.942	2.568		
3.897	506	541	1.070	0.161		
3.923	4396	4272	0.972	1.277		
3.951	2705	2519	0.931	0.753		
3.981	214	240	1.122	0.071		
4.014	2420	2246	0.928	0.671		
4.060	20715	20032	0.967	5.988	7 PCB-1260 (Aroclor 1260)	
4.101	1108	1036	0.935	0.309		
4.248	12535	11233	0.896	3.358	7 PCB-1260 (Aroclor 1260)	
4.273	1551	2073	1.336	0.619		
4.295	5654	4653	0.823	1.391		
4.436	491	476	0.970	0.142		
4.462	257	266	1.035	0.079		
4.496	2331	2145	0.920	0.641		
4.617	4895	4718	0.964	1.410		
4.660	272	261	0.958	0.078		
4.808	1856	1737	0.936	0.519		
4.960	30515	28490	0.934	8.517	$ 11 Decachlorobiphenyl (S)	
5.053	20	70	3.455	0.020		
5.180	10	30	2.927	0.008		
5.249	34	59	1.749	0.017		
5.550	10	29	2.906	0.008		
5.800	6	16	2.560	0.004		
5.808	4	14	3.878	0.004		
5.992	2	11	4.583	0.003		
6.134	5	24	4.388	0.007		
6.174	8	33	4.044	0.009		
	384484	334490		100.000		

Total unknown % height = 50.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	5363	0.50000	0.471	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	10514	0.50000	0.482	152.31- 228.47	196.04	
2.374	2.374	0.000	5238	0.50000	0.483	75.27- 112.91	97.67	
2.470	2.470	0.000	4700	0.50000	0.471	68.58- 102.86	87.65	
2.560	2.560	0.000	4692	0.50000	0.474	68.26- 102.40	87.49	
Average of Peak Amounts =					0.47620			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.308	3.309	-0.001	9665	0.50000	0.476	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	11567	0.50000	0.475	88.62- 132.94	119.68	
3.662	3.662	0.000	14517	0.50000	0.496	120.10- 180.15	150.20	
4.059	4.060	-0.001	20715	0.50000	0.481	171.60- 257.41	214.33	
4.247	4.247	0.000	12534	0.50000	0.484	103.64- 155.46	129.69	
Average of Peak Amounts =					0.48240			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	43328	0.10000	0.0954			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	30514	0.10000	0.0961			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

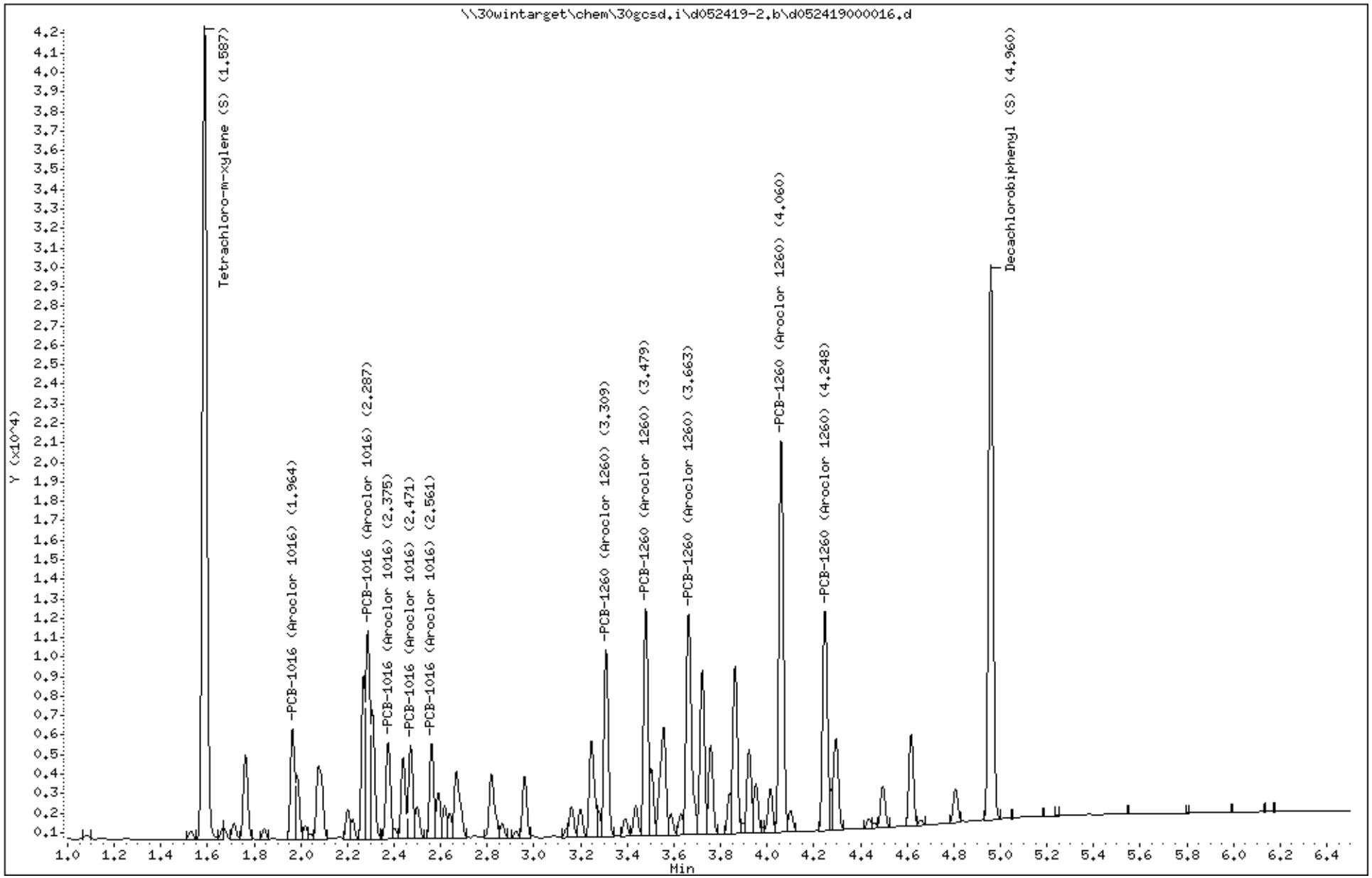
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

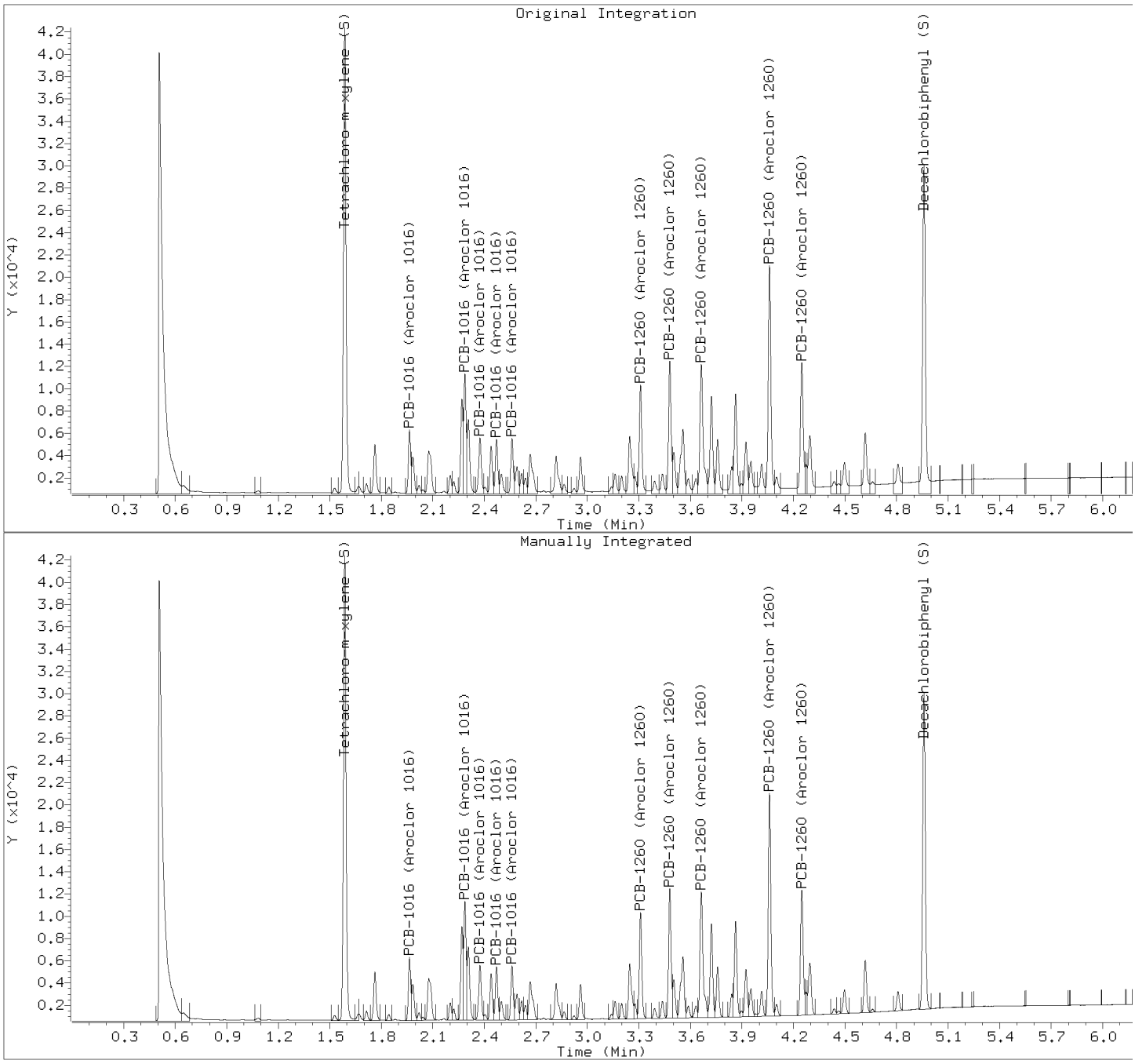
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.471	J
	Peak found at 2.287	0.482	J
	Peak found at 2.375	0.483	J
	Peak found at 2.471	0.471	J
	Peak found at 2.561	0.474	J
	Average of Peak Amounts =	0.476	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.476	J
	Peak found at 3.479	0.475	J
	Peak found at 3.663	0.496	J
	Peak found at 4.060	0.481	J
	Peak found at 4.248	0.484	J
	Average of Peak Amounts =	0.482	J
877-09-8	Tetrachloro-m-xylene (S)	0.0954	
2051-24-3	Decachlorobiphenyl (S)	0.0961	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Instrument: 30gcsd.i
Sample Info: CAL4A, 88855:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5458	5363
PCB-1016 (Aroclor 1016)	10510	10514
PCB-1016 (Aroclor 1016)	5484	5238
PCB-1016 (Aroclor 1016)	4877	4700
PCB-1016 (Aroclor 1016)	4922	4692
PCB-1260 (Aroclor 1260)	10289	9665
PCB-1260 (Aroclor 1260)	12108	11567
PCB-1260 (Aroclor 1260)	15587	14517
PCB-1260 (Aroclor 1260)	22087	20715
PCB-1260 (Aroclor 1260)	13972	12534
Tetrachloro-m-xylene (S)	43665	43328
Decachlorobiphenyl (S)	34931	30514

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	37809	15680	0.415	7.881		
1.210	26361	23522	0.892	11.848	$ 10 Tetrachloro-m-xylene (S)	RT
1.269	368	279	0.759	0.140		
1.345	496	469	0.946	0.235		
1.401	529	510	0.965	0.256		
1.441	2529	2351	0.930	1.181		
1.631	5348	4118	0.770	2.069	1 PCB-1016 (Aroclor 1016)	RT
1.693	921	528	0.573	0.265		
1.745	1353	1662	1.228	0.835		
1.761	2215	2185	0.986	1.098		
1.807	913	1035	1.134	0.520		
1.825	945	886	0.938	0.445		
1.879	10816	8305	0.768	4.174	1 PCB-1016 (Aroclor 1016)	RT
1.933	4465	3961	0.887	1.990	1 PCB-1016 (Aroclor 1016)	RT
2.009	2518	2798	1.111	1.406		
2.036	3250	3056	0.940	1.536		
2.062	2186	2412	1.103	1.212		
2.077	2437	2297	0.942	1.154		
2.189	3349	3625	1.082	1.822	1 PCB-1016 (Aroclor 1016)	RT
2.213	1310	1411	1.077	0.709		
2.239	1066	1139	1.069	0.572		
2.255	529	692	1.309	0.347		
2.278	2876	2864	0.996	1.439	1 PCB-1016 (Aroclor 1016)	RT
2.345	789	794	1.006	0.399		
2.375	439	477	1.086	0.239		
2.402	566	641	1.132	0.322		
2.426	2197	2186	0.995	1.098		
2.510	1917	2027	1.057	1.018		
2.798	4804	4253	0.885	2.137	7 PCB-1260 (Aroclor 1260)	RT
2.831	1717	1750	1.019	0.879		
2.886	6145	6397	1.041	3.215	7 PCB-1260 (Aroclor 1260)	RT
2.924	266	281	1.056	0.141		
2.955	1004	1063	1.059	0.534		
2.995	7705	7690	0.998	3.865	7 PCB-1260 (Aroclor 1260)	RT
3.103	3017	3411	1.131	1.714		
3.121	4072	3759	0.923	1.889		
3.190	2384	1751	0.734	0.880		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.227	8392	6321	0.753	3.177		
3.254	5691	5642	0.991	2.835		
3.289	3195	3167	0.991	1.591		
3.379	1212	1098	0.906	0.551		
3.439	6270	5788	0.923	2.909		
3.500	3143	3100	0.986	1.558		
3.533	2415	2327	0.964	1.169		
3.557	500	618	1.236	0.310		
3.584	13013	13118	1.008	6.593	7 PCB-1260 (Aroclor 1260)	RT
3.620	262	279	1.065	0.140		
3.679	453	468	1.032	0.235		
3.757	176	197	1.117	0.099		
3.786	2612	2639	1.010	1.326		
3.827	9426	8673	0.920	4.359	7 PCB-1260 (Aroclor 1260)	RT
3.972	500	496	0.991	0.249		
4.036	95	147	1.545	0.073		
4.079	1377	1352	0.982	0.679		
4.153	3194	3109	0.973	1.562		
4.343	1050	1069	1.018	0.537		
4.501	17173	17078	0.994	8.584	$ 11 Decachlorobiphenyl (S)	RT
	231763	198951		100.000		

Total unknown % height = 47.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.631	1.631	0.000	5348	0.25000	0.260	80.00- 120.00	100.00	(M)	RT
1.878	1.878	0.000	10815	0.25000	0.262	162.66- 243.99	202.22		RT
1.932	1.932	0.000	4465	0.25000	0.268	63.55- 95.32	83.49		RT
2.188	2.188	0.000	3348	0.25000	0.262	49.13- 73.70	62.60		RT
2.277	2.277	0.000	2875	0.25000	0.262	42.04- 63.06	53.76		RT
Average of Peak Amounts =					0.26280				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.797	0.000	4804	0.25000	0.259	80.00- 120.00	100.00	(M)	RT
2.885	2.885	0.000	6145	0.25000	0.259	101.69- 152.53	127.91		RT
2.995	2.995	0.000	7705	0.25000	0.260	125.91- 188.87	160.38		RT
3.584	3.584	0.000	13013	0.25000	0.259	212.47- 318.70	270.86		RT
3.826	3.826	0.000	9426	0.25000	0.260	152.61- 228.91	196.20		RT
Average of Peak Amounts =					0.25940				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.210	0.000	26360	0.05000	0.0518			(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.501	4.501	0.000	17172	0.05000	0.0512			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

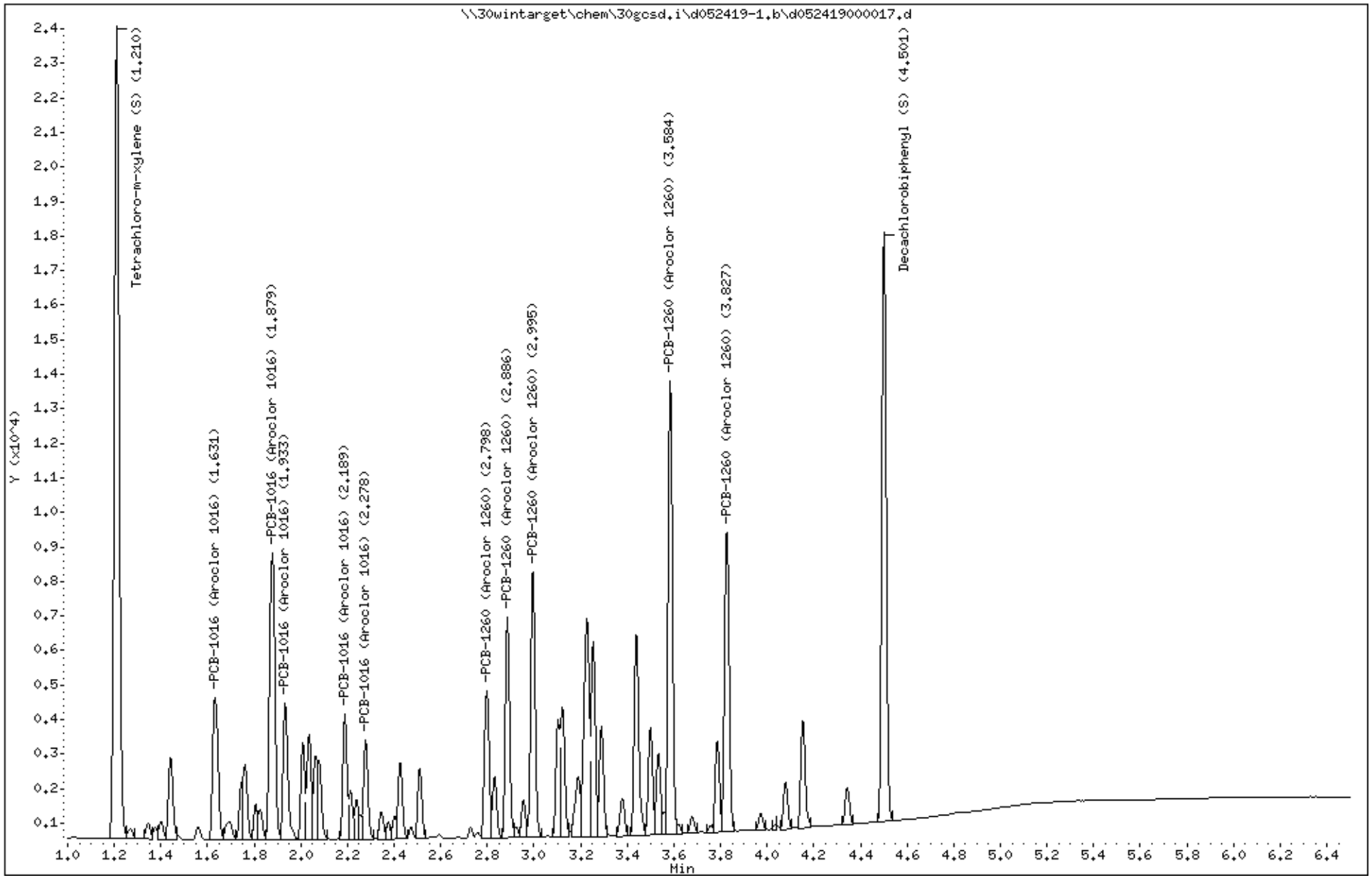
Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

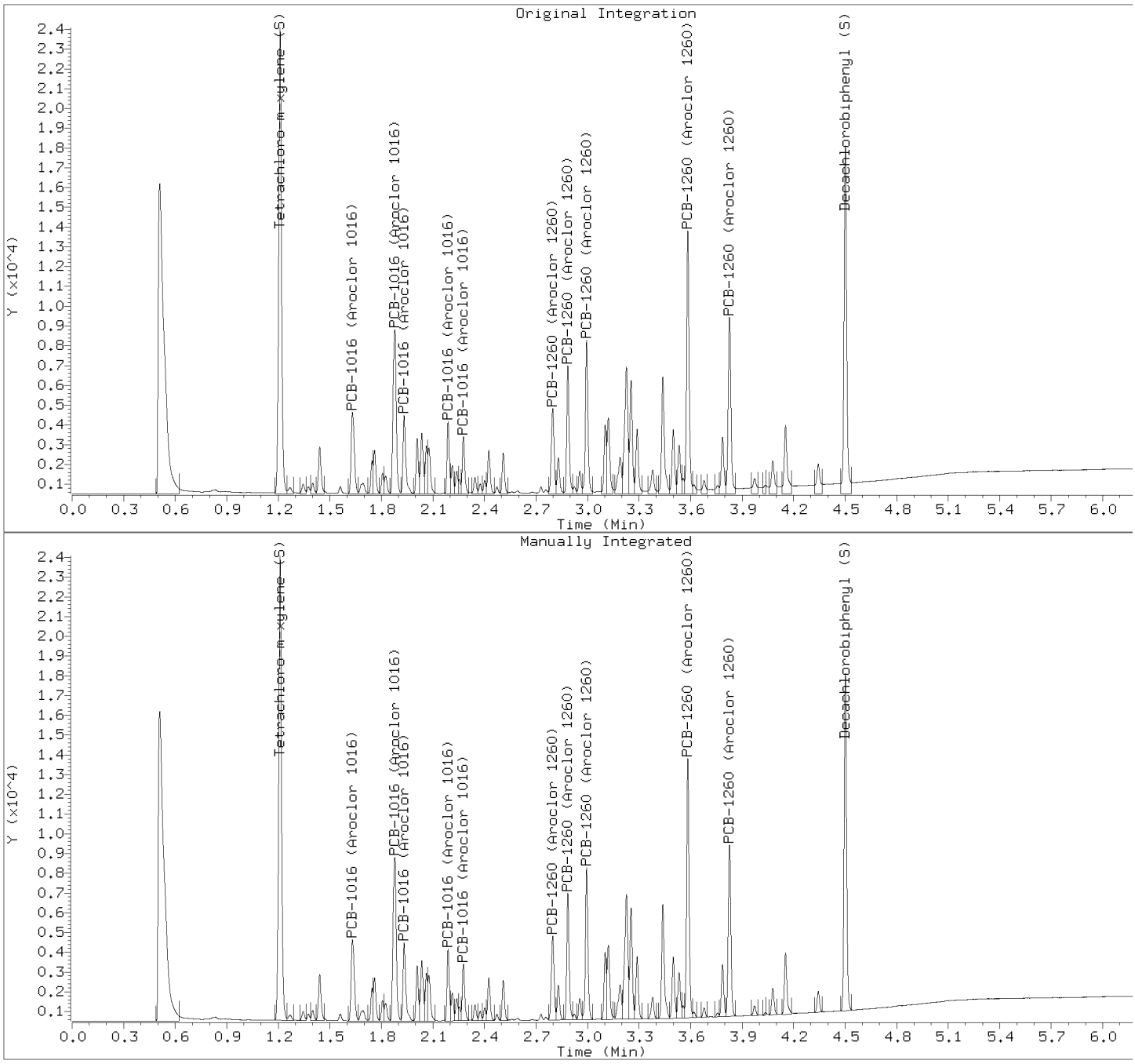
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.631	0.260	
	Peak found at 1.879	0.262	
	Peak found at 1.933	0.268	
	Peak found at 2.189	0.262	
	Peak found at 2.278	0.262	
	Average of Peak Amounts =	0.263	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.259	
	Peak found at 2.886	0.259	
	Peak found at 2.995	0.260	
	Peak found at 3.584	0.259	
	Peak found at 3.827	0.260	
	Average of Peak Amounts =	0.259	
877-09-8	Tetrachloro-m-xylene (S)	0.0518	
2051-24-3	Decachlorobiphenyl (S)	0.0512	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Sample Info: CAL3A, 88854:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5340	5348
PCB-1016 (Aroclor 1016)	10807	10815
PCB-1016 (Aroclor 1016)	4455	4465
PCB-1016 (Aroclor 1016)	3342	3348
PCB-1016 (Aroclor 1016)	2895	2875
PCB-1260 (Aroclor 1260)	4934	4804
PCB-1260 (Aroclor 1260)	6324	6145
PCB-1260 (Aroclor 1260)	7944	7705
PCB-1260 (Aroclor 1260)	13461	13013
PCB-1260 (Aroclor 1260)	10168	9426
Tetrachloro-m-xylene (S)	26476	26360
Decachlorobiphenyl (S)	19084	17172

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	35242	19909	0.565	11.087		
1.528	280	249	0.888	0.138		
1.586	23458	22708	0.968	12.680	$ 10 Tetrachloro-m-xylene (S)	RT
1.713	473	456	0.965	0.253		
1.762	2470	2400	0.972	1.336		
1.843	297	304	1.024	0.169		
1.964	2934	3126	1.065	1.740	1 PCB-1016 (Aroclor 1016)	RT
1.984	1796	1807	1.006	1.006		
2.019	374	377	1.007	0.209		
2.076	3188	2051	0.643	1.142		
2.201	774	847	1.095	0.471		
2.224	898	848	0.945	0.472		
2.268	4040	4695	1.162	2.614		
2.286	5723	5864	1.025	3.265	1 PCB-1016 (Aroclor 1016)	RT
2.306	3665	3630	0.991	2.021		
2.375	2846	2654	0.933	1.478	1 PCB-1016 (Aroclor 1016)	RT
2.404	265	274	1.033	0.152		
2.439	2246	2336	1.040	1.300		
2.471	2603	2658	1.021	1.480	1 PCB-1016 (Aroclor 1016)	RT
2.499	1007	930	0.924	0.517		
2.561	2582	2684	1.040	1.494	1 PCB-1016 (Aroclor 1016)	RT
2.589	1425	1281	0.899	0.713		
2.617	881	921	1.045	0.512		
2.639	687	716	1.043	0.398		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.667	2825	1897	0.672	1.056		
2.818	2441	1786	0.732	0.994		
2.864	396	401	1.013	0.223		
2.960	1803	1741	0.966	0.969		
3.138	232	261	1.126	0.145		
3.161	943	899	0.953	0.500		
3.199	795	781	0.982	0.434		
3.246	3441	2692	0.782	1.499		
3.277	665	735	1.106	0.409		
3.309	5335	5251	0.984	2.924	7 PCB-1260 (Aroclor 1260)	RT
3.391	540	494	0.914	0.275		
3.436	893	856	0.958	0.476		
3.479	6361	6449	1.014	3.591	7 PCB-1260 (Aroclor 1260)	RT
3.502	1884	1861	0.988	1.036		
3.556	4326	2998	0.693	1.669		
3.587	618	591	0.956	0.329		
3.631	647	581	0.898	0.323		
3.663	7914	6204	0.784	3.455	7 PCB-1260 (Aroclor 1260)	RT
3.721	4843	4626	0.955	2.576		
3.757	2568	2482	0.967	1.382		
3.839	1035	1098	1.061	0.611		
3.862	4961	4737	0.955	2.638		
3.897	274	296	1.080	0.164		
3.922	2387	2337	0.979	1.301		
3.952	1467	1327	0.905	0.739		
4.014	1268	1187	0.936	0.661		
4.060	11174	10647	0.953	5.929	7 PCB-1260 (Aroclor 1260)	RT
4.101	597	560	0.937	0.311		
4.248	6727	6099	0.907	3.396	7 PCB-1260 (Aroclor 1260)	RT
4.273	879	1104	1.256	0.614		
4.296	3021	2540	0.841	1.414		
4.437	155	250	1.616	0.139		
4.462	88	137	1.551	0.076		
4.497	1243	1157	0.931	0.644		
4.618	2663	2576	0.967	1.434		
4.660	136	157	1.153	0.087		
4.809	1011	937	0.927	0.521		
4.960	16295	15018	0.922	8.363	$ 11 Decachlorobiphenyl (S)	RT
5.729	5	18	3.797	0.010		
5.764	5	19	4.185	0.010		
5.983	4	17	4.696	0.009		
6.069	8	31	3.865	0.017		
	205024	179560		100.000		

Total unknown % height = 50.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	2933	0.25000	0.257	80.00- 120.00	100.00(aM)	RT
2.286	2.286	0.000	5723	0.25000	0.262	152.31- 228.47	195.07	RT
2.374	2.374	0.000	2845	0.25000	0.262	75.27- 112.91	96.97	RT
2.470	2.470	0.000	2602	0.25000	0.261	68.58- 102.86	88.69	RT
2.560	2.560	0.000	2581	0.25000	0.261	68.26- 102.40	87.97	RT
Average of Peak Amounts =					0.26060			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	5334	0.25000	0.262	80.00- 120.00	100.00(aM)	RT
3.478	3.478	0.000	6360	0.25000	0.261	88.62- 132.94	119.22	RT
3.662	3.662	0.000	7913	0.25000	0.270	120.10- 180.15	148.33	RT
4.060	4.060	0.000	11174	0.25000	0.260	171.60- 257.41	209.45	RT
4.247	4.247	0.000	6727	0.25000	0.260	103.64- 155.46	126.09	RT
Average of Peak Amounts =					0.26260			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	23457	0.05000	0.0516		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16295	0.05000	0.0513		(M)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

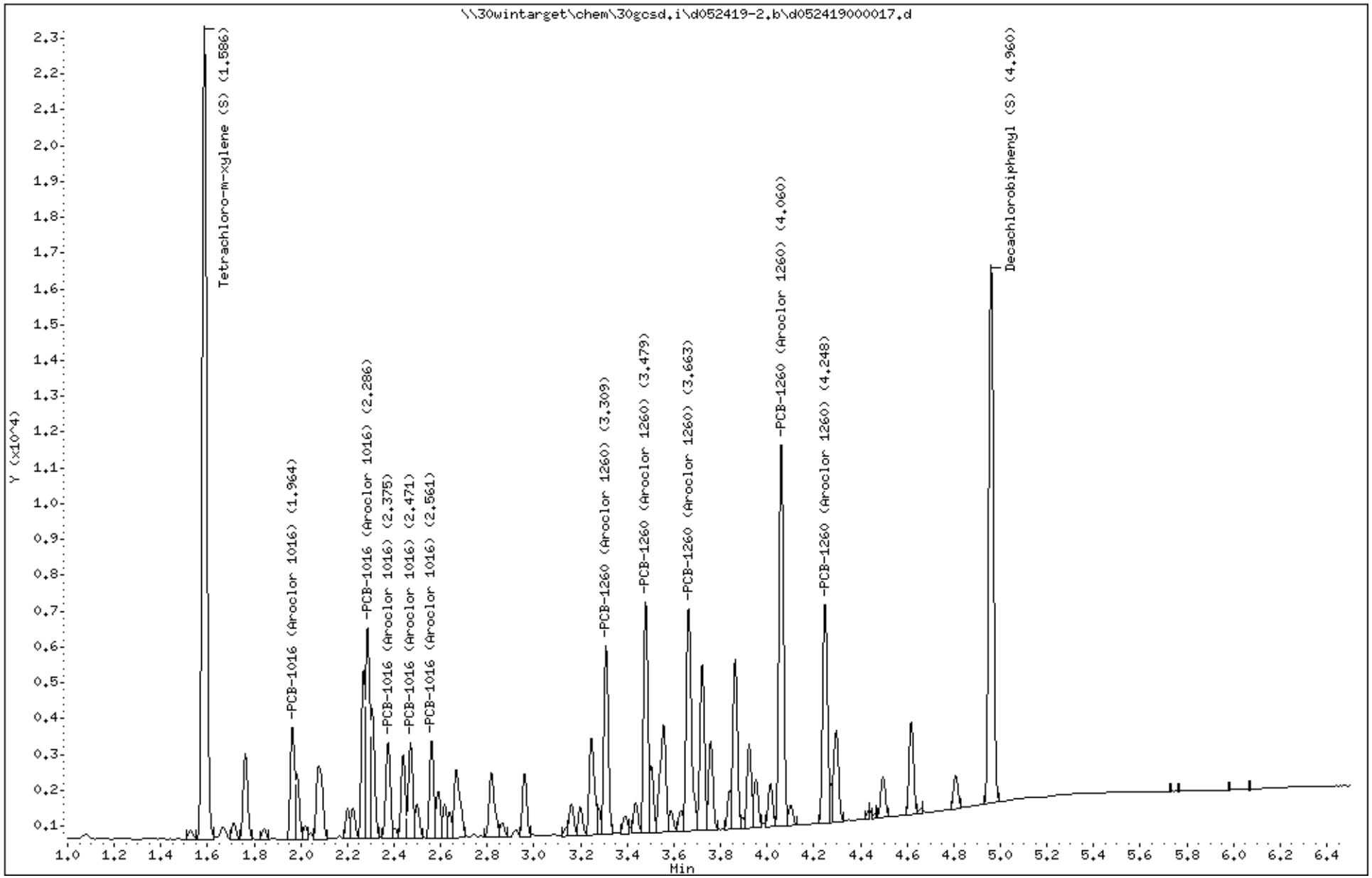
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

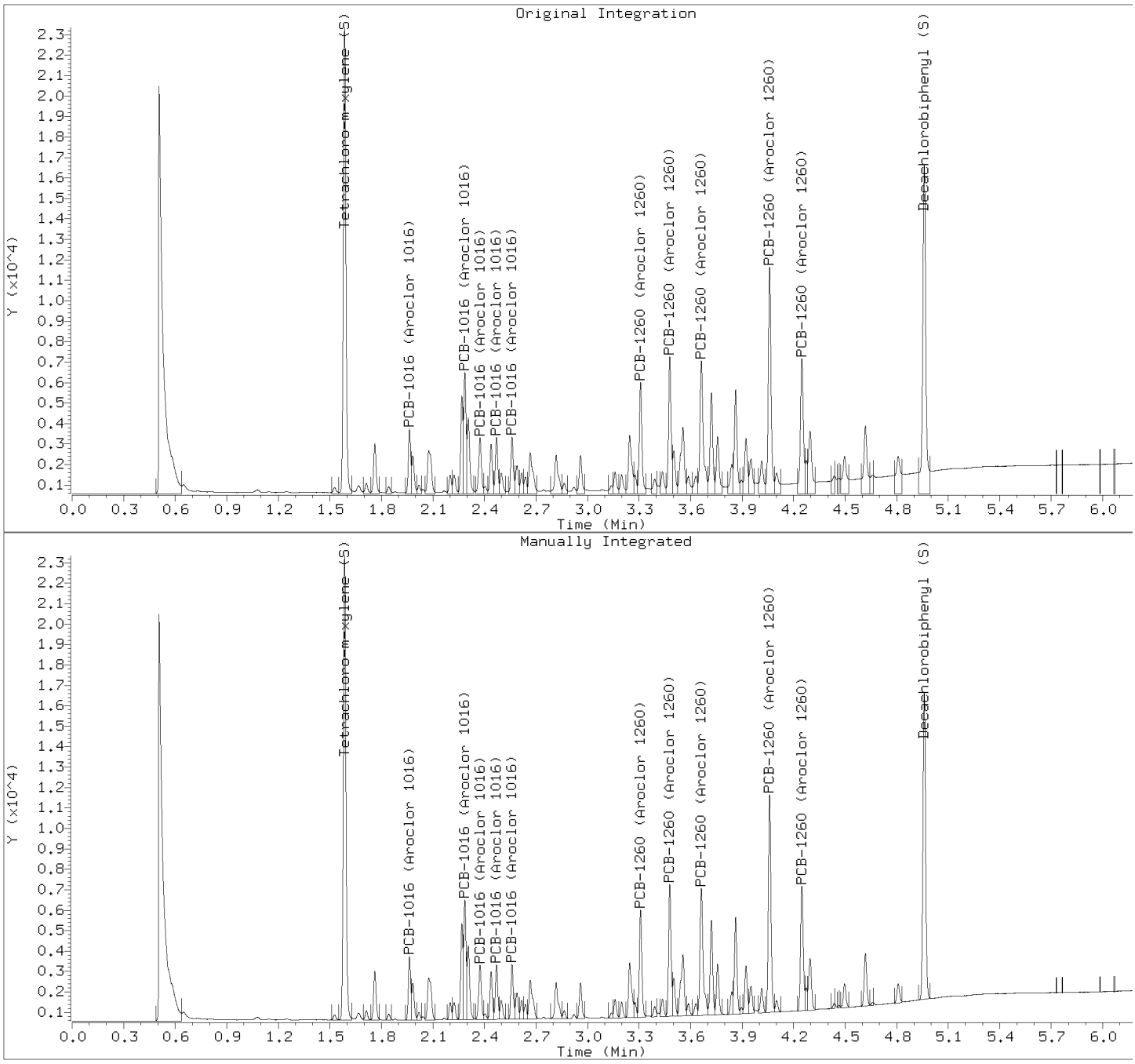
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.257	J
	Peak found at 2.286	0.262	J
	Peak found at 2.375	0.262	J
	Peak found at 2.471	0.261	J
	Peak found at 2.561	0.261	J
	Average of Peak Amounts =	0.261	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.262	J
	Peak found at 3.479	0.261	J
	Peak found at 3.663	0.270	J
	Peak found at 4.060	0.260	J
	Peak found at 4.248	0.260	J
	Average of Peak Amounts =	0.263	J
877-09-8	Tetrachloro-m-xylene (S)	0.0516	
2051-24-3	Decachlorobiphenyl (S)	0.0513	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Instrument: 30gcsd.i
Sample Info: CAL3A, 88854:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3009	2933
PCB-1016 (Aroclor 1016)	5753	5723
PCB-1016 (Aroclor 1016)	3054	2845
PCB-1016 (Aroclor 1016)	2756	2602
PCB-1016 (Aroclor 1016)	2779	2581
PCB-1260 (Aroclor 1260)	5883	5334
PCB-1260 (Aroclor 1260)	6861	6360
PCB-1260 (Aroclor 1260)	8895	7913
PCB-1260 (Aroclor 1260)	12486	11174
PCB-1260 (Aroclor 1260)	8067	6727
Tetrachloro-m-xylene (S)	23677	23457
Decachlorobiphenyl (S)	20662	16295

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	16733	6708	0.401	8.553		
1.211	10571	9451	0.894	12.072	$ 10 Tetrachloro-m-xylene (S)	
1.441	1046	982	0.939	1.252		
1.632	2224	1709	0.768	2.179	1 PCB-1016 (Aroclor 1016)	
1.746	554	680	1.227	0.867		
1.761	901	894	0.992	1.139		
1.807	368	423	1.150	0.539		
1.879	4376	3380	0.772	4.309	1 PCB-1016 (Aroclor 1016)	
1.932	1725	1634	0.947	2.083	1 PCB-1016 (Aroclor 1016)	
2.008	1007	1131	1.123	1.442		
2.036	1356	1260	0.929	1.606		
2.062	887	1002	1.130	1.277		
2.078	988	957	0.969	1.220		
2.188	1375	1478	1.075	1.884	1 PCB-1016 (Aroclor 1016)	
2.213	537	583	1.086	0.743		
2.239	425	463	1.089	0.590		
2.278	1167	1178	1.009	1.502	1 PCB-1016 (Aroclor 1016)	
2.425	901	914	1.014	1.165		
2.510	793	857	1.080	1.092		
2.797	1988	1762	0.886	2.246	7 PCB-1260 (Aroclor 1260)	
2.831	703	716	1.018	0.912		
2.885	2563	2622	1.023	3.343	7 PCB-1260 (Aroclor 1260)	
2.955	426	451	1.058	0.575		
2.995	3200	3162	0.988	4.031	7 PCB-1260 (Aroclor 1260)	
3.103	1224	1408	1.150	1.795		
3.122	1695	1581	0.932	2.015		
3.190	983	731	0.744	0.932		
3.227	3413	2567	0.752	3.273		
3.253	2331	2359	1.012	3.008		
3.289	1290	1278	0.990	1.629		
3.378	466	438	0.940	0.558		
3.439	2527	2297	0.909	2.928		
3.500	1281	1266	0.988	1.614		
3.533	996	965	0.969	1.230		
3.584	5271	5313	1.008	6.774	7 PCB-1260 (Aroclor 1260)	
3.786	1068	1078	1.009	1.374		
3.827	3806	3600	0.946	4.590	7 PCB-1260 (Aroclor 1260)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.973	200	202	1.009	0.257		
4.079	539	546	1.014	0.696		
4.153	1227	1221	0.995	1.556		
4.343	429	429	1.001	0.547		
4.501	6933	6747	0.973	8.603	$ 11 Decachlorobiphenyl (S)	
	92494	78423		100.000		

Total unknown % height = 46.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	2223	0.10000	0.108	80.00- 120.00	100.00	
1.878	1.878	0.000	4375	0.10000	0.106	162.66- 243.99	196.76	
1.932	1.932	0.000	1725	0.10000	0.104	63.55- 95.32	77.58	
2.188	2.188	0.000	1374	0.10000	0.108	49.13- 73.70	61.82	
2.277	2.277	0.000	1167	0.10000	0.106	42.04- 63.06	52.50	
Average of Peak Amounts =					0.10640			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	1988	0.10000	0.107	80.00- 120.00	100.00	
2.885	2.885	0.000	2562	0.10000	0.108	101.69- 152.53	128.89	
2.994	2.995	-0.001	3199	0.10000	0.108	125.91- 188.87	160.94	
3.583	3.584	-0.001	5270	0.10000	0.105	212.47- 318.70	265.09	
3.826	3.826	0.000	3806	0.10000	0.105	152.61- 228.91	191.43	
Average of Peak Amounts =					0.10660			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	10571	0.02000	0.0208			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	6932	0.02000	0.0206			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

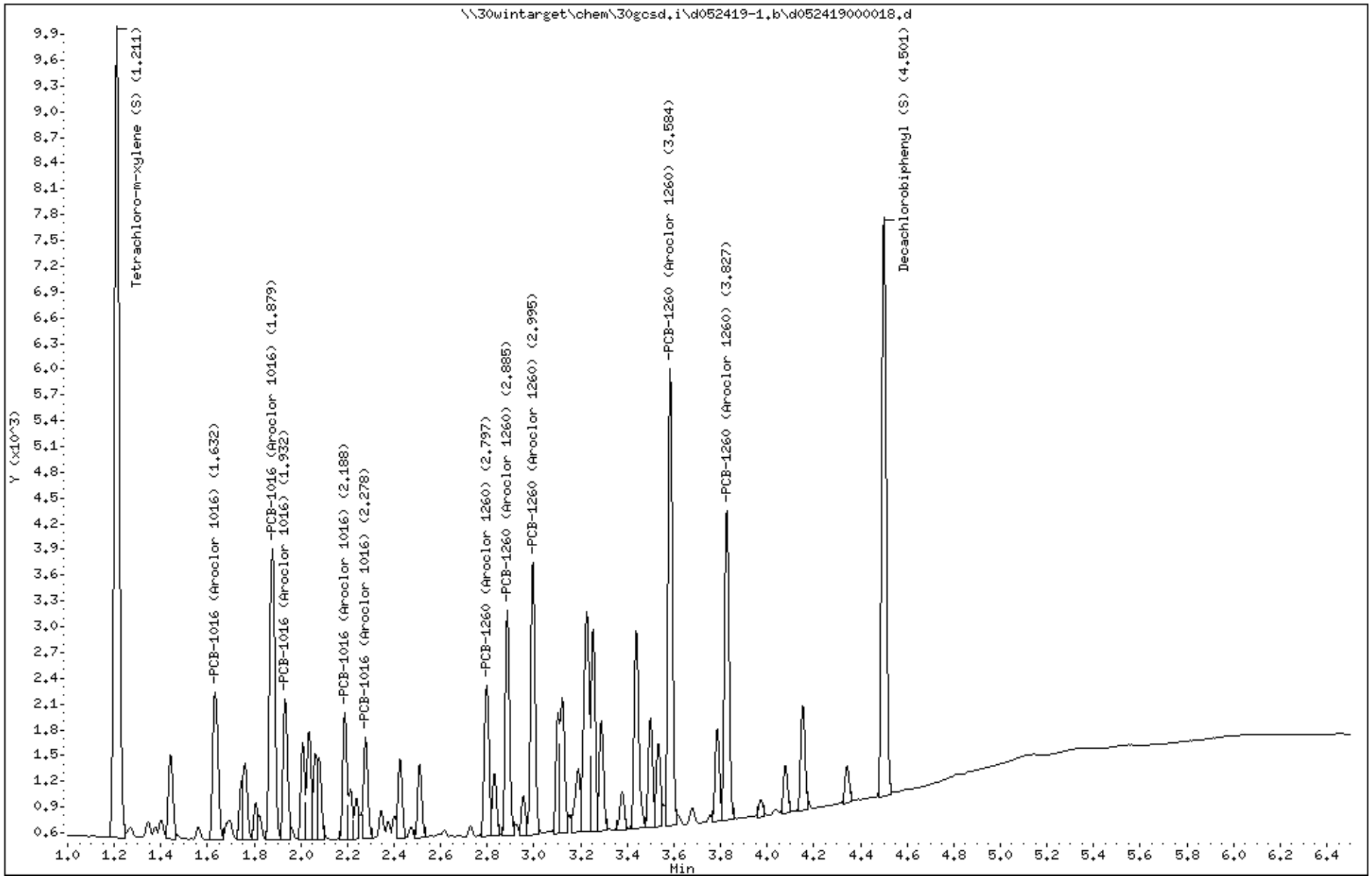
Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

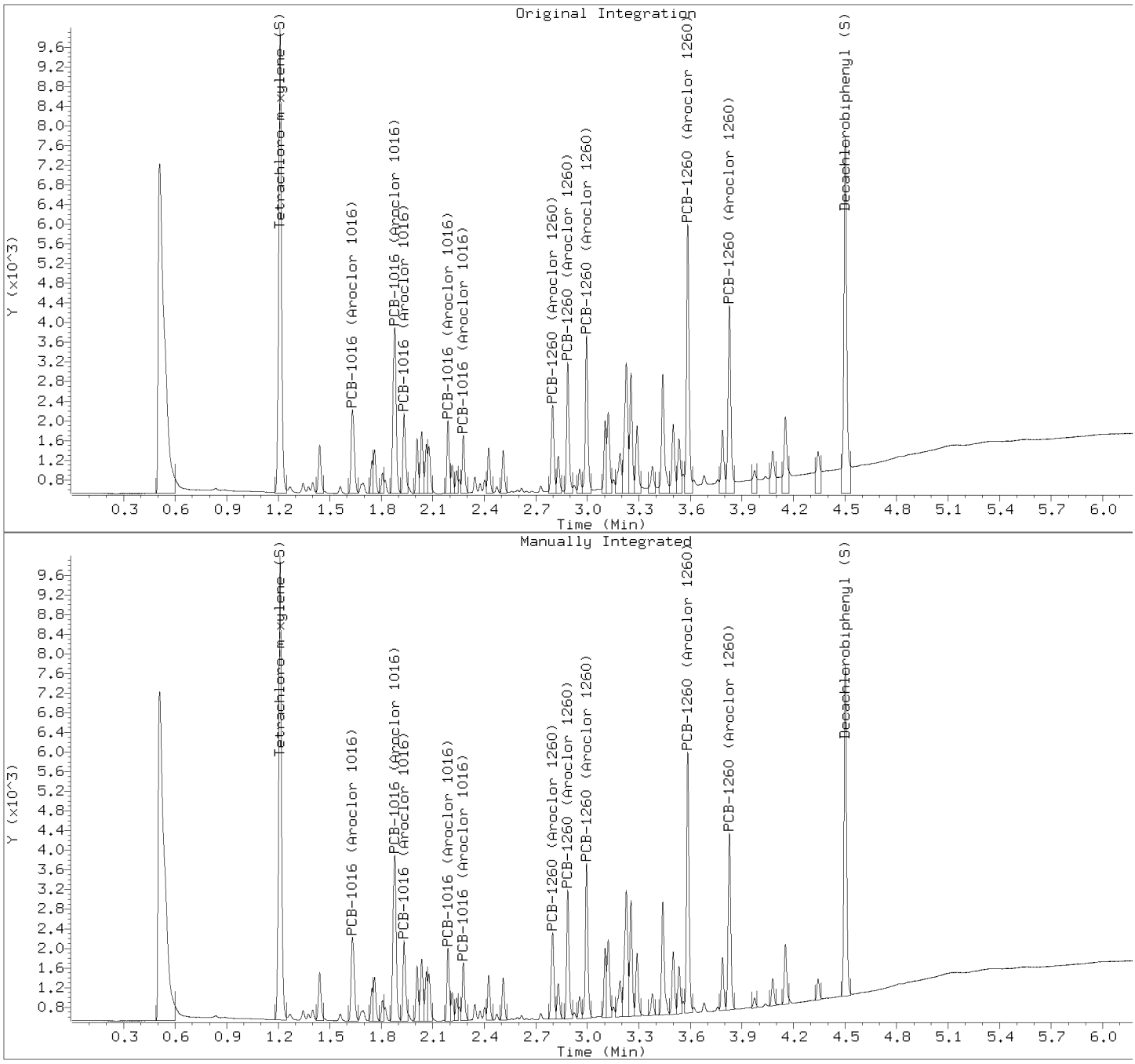
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.108	
	Peak found at 1.879	0.106	
	Peak found at 1.932	0.104	
	Peak found at 2.188	0.108	
	Peak found at 2.278	0.106	
	Average of Peak Amounts =	0.106	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.797	0.107	
	Peak found at 2.885	0.108	
	Peak found at 2.995	0.108	
	Peak found at 3.584	0.105	
	Peak found at 3.827	0.105	
	Average of Peak Amounts =	0.107	
877-09-8	Tetrachloro-m-xylene (S)	0.0208	
2051-24-3	Decachlorobiphenyl (S)	0.0206	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Sample Info: CAL2A, 88853:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2206	2223
PCB-1016 (Aroclor 1016)	4356	4375
PCB-1016 (Aroclor 1016)	1710	1725
PCB-1016 (Aroclor 1016)	1367	1374
PCB-1016 (Aroclor 1016)	1173	1167
PCB-1260 (Aroclor 1260)	2078	1988
PCB-1260 (Aroclor 1260)	2682	2562
PCB-1260 (Aroclor 1260)	3365	3199
PCB-1260 (Aroclor 1260)	5719	5270
PCB-1260 (Aroclor 1260)	4468	3806
Tetrachloro-m-xylene (S)	10649	10571
Decachlorobiphenyl (S)	8661	6932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	12555	9011	0.718	12.185		
0.565	1251	1243	0.994	1.680		
0.583	2098	1129	0.538	1.526		
1.587	9393	9098	0.969	12.330	$ 10 Tetrachloro-m-xylene (S)	
1.762	1000	973	0.973	1.315		
1.964	1229	1297	1.055	1.753	1 PCB-1016 (Aroclor 1016)	
1.984	714	737	1.032	0.996		
2.076	807	841	1.043	1.137		
2.201	317	344	1.087	0.465		
2.269	1623	1874	1.155	2.534		
2.286	2259	2342	1.037	3.167	1 PCB-1016 (Aroclor 1016)	
2.306	1489	1437	0.965	1.943		
2.375	1137	1074	0.944	1.452	1 PCB-1016 (Aroclor 1016)	
2.439	918	949	1.033	1.283		
2.470	1060	1080	1.019	1.460	1 PCB-1016 (Aroclor 1016)	
2.499	402	378	0.940	0.511		
2.561	1052	1094	1.040	1.479	1 PCB-1016 (Aroclor 1016)	
2.590	574	512	0.893	0.692		
2.617	355	370	1.042	0.500		
2.639	275	283	1.029	0.382		
2.667	880	762	0.866	1.030		
2.818	785	712	0.907	0.962		
2.960	772	734	0.951	0.992		
3.161	369	356	0.964	0.481		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.199	296	311	1.051	0.420		
3.246	1376	1078	0.784	1.457		
3.277	243	283	1.162	0.382		
3.309	2135	2112	0.989	2.856	7 PCB-1260 (Aroclor 1260)	
3.392	207	199	0.961	0.269		
3.437	332	333	1.002	0.450		
3.480	2562	2542	0.992	3.437	7 PCB-1260 (Aroclor 1260)	
3.503	832	838	1.007	1.133		
3.556	1686	1145	0.679	1.548		
3.588	225	217	0.964	0.293		
3.632	149	223	1.497	0.301		
3.663	2877	2427	0.843	3.282	7 PCB-1260 (Aroclor 1260)	
3.722	1928	1864	0.967	2.520		
3.758	1009	1011	1.002	1.367		
3.840	396	432	1.091	0.584		
3.863	1979	1853	0.936	2.505		
3.897	102	117	1.142	0.158		
3.923	961	952	0.990	1.287		
3.952	569	531	0.933	0.718		
4.014	486	466	0.959	0.630		
4.060	4445	4204	0.946	5.685	7 PCB-1260 (Aroclor 1260)	
4.102	147	227	1.542	0.306		
4.248	2671	2363	0.885	3.195	7 PCB-1260 (Aroclor 1260)	
4.273	349	449	1.288	0.607		
4.296	1207	1022	0.847	1.382		
4.437	71	106	1.502	0.143		
4.497	488	456	0.934	0.616		
4.618	1058	1021	0.965	1.380		
4.658	37	56	1.524	0.075		
4.809	380	368	0.967	0.497		
4.960	6509	6069	0.932	8.207	$ 11 Decachlorobiphenyl (S)	
5.279	6	21	3.333	0.028		
6.139	5	20	4.348	0.027		
	81035	73946		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	1228	0.10000	0.108	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	2258	0.10000	0.104	152.31- 228.47	183.79	
2.374	2.374	0.000	1137	0.10000	0.105	75.27- 112.91	92.56	
2.470	2.470	0.000	1059	0.10000	0.106	68.58- 102.86	86.23	
2.560	2.560	0.000	1051	0.10000	0.106	68.26- 102.40	85.59	
Average of Peak Amounts =					0.10580			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	2134	0.10000	0.105	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	2561	0.10000	0.105	88.62- 132.94	120.00	
3.663	3.662	0.001	2877	0.10000	0.0982	120.10- 180.15	134.78	
4.059	4.060	-0.001	4444	0.10000	0.103	171.60- 257.41	208.19	
4.247	4.247	0.000	2670	0.10000	0.103	103.64- 155.46	125.11	
Average of Peak Amounts =					0.10284			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	9392	0.02000	0.0207		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	6508	0.02000	0.0205		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

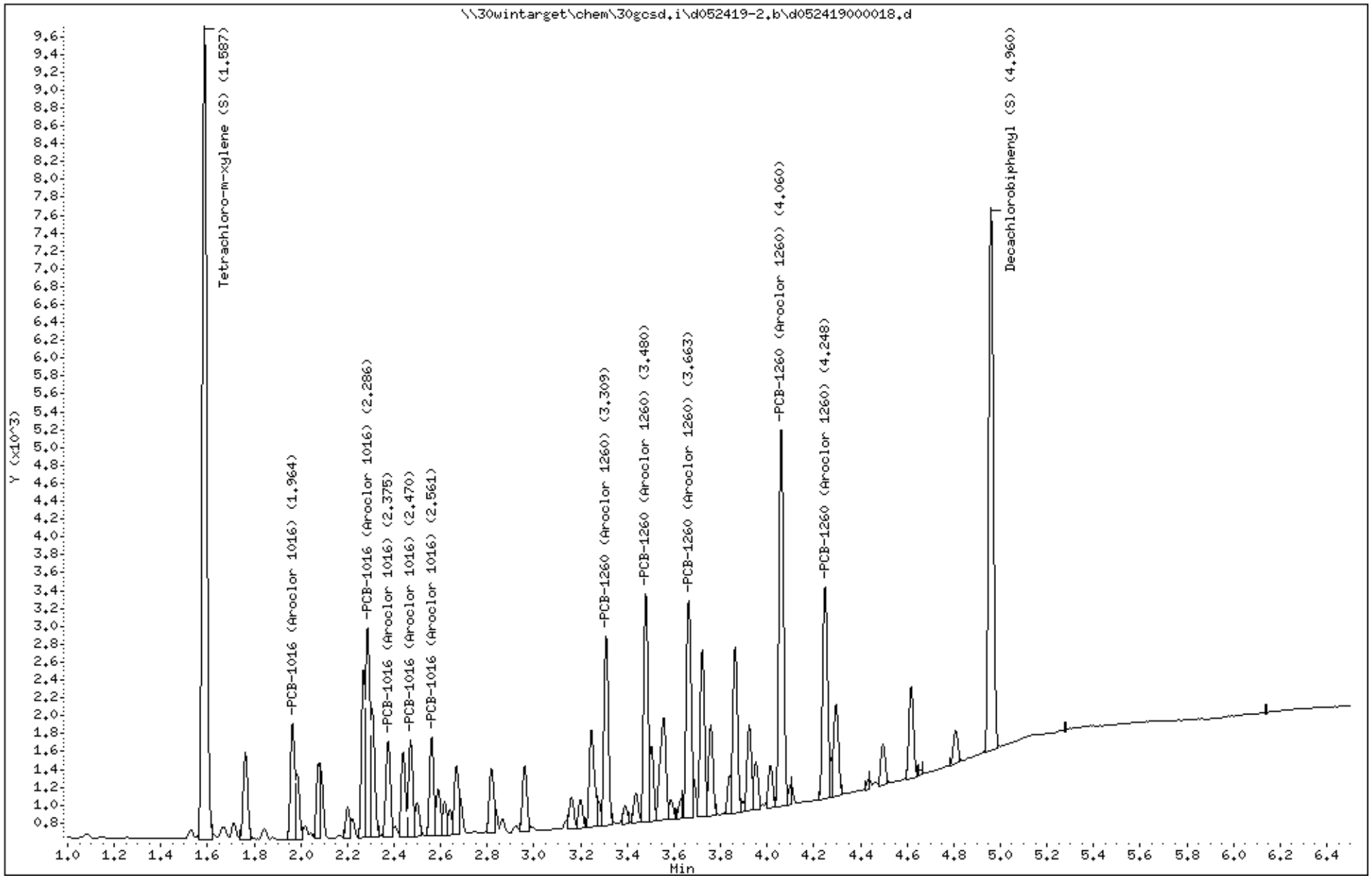
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

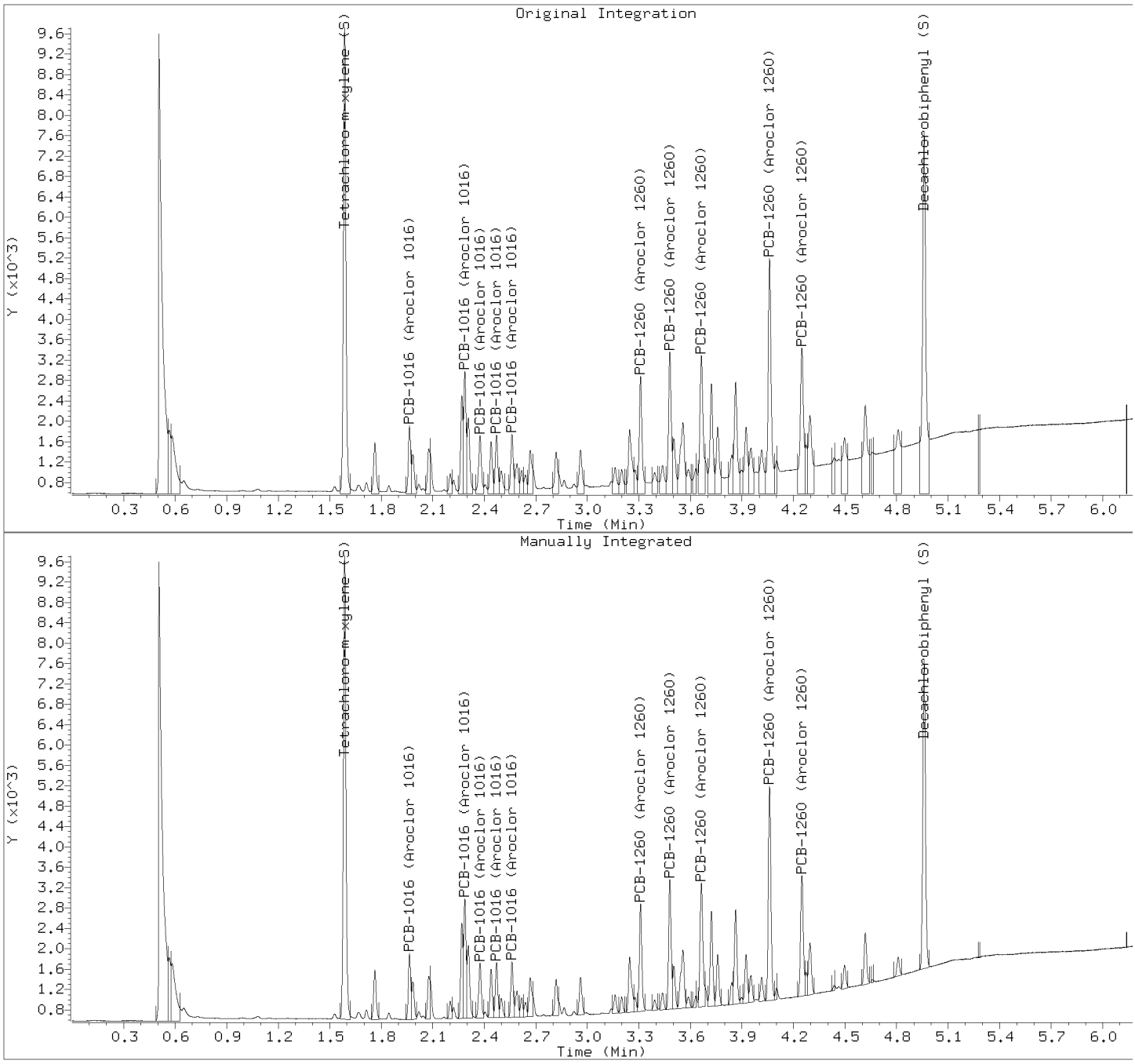
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.108	J
	Peak found at 2.286	0.104	J
	Peak found at 2.375	0.105	J
	Peak found at 2.470	0.106	J
	Peak found at 2.561	0.106	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.105	J
	Peak found at 3.480	0.105	J
	Peak found at 3.663	0.0982	J
	Peak found at 4.060	0.103	J
	Peak found at 4.248	0.103	J
	Average of Peak Amounts =	0.103	J
877-09-8	Tetrachloro-m-xylene (S)	0.0207	J
2051-24-3	Decachlorobiphenyl (S)	0.0205	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Instrument: 30gcsd.i
Sample Info: CAL2A, 88853:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1279	1228
PCB-1016 (Aroclor 1016)	2300	2258
PCB-1016 (Aroclor 1016)	1288	1137
PCB-1016 (Aroclor 1016)	1178	1059
PCB-1016 (Aroclor 1016)	1198	1051
PCB-1260 (Aroclor 1260)	2628	2134
PCB-1260 (Aroclor 1260)	3065	2561
PCB-1260 (Aroclor 1260)	3541	2877
PCB-1260 (Aroclor 1260)	5705	4444
PCB-1260 (Aroclor 1260)	3935	2670
Tetrachloro-m-xylene (S)	9501	9392
Decachlorobiphenyl (S)	9842	6508

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	9429	3422	0.363	8.960		
1.210	5272	4675	0.887	12.257	$ 10 Tetrachloro-m-xylene (S)	
1.441	524	497	0.948	1.301		
1.632	1128	871	0.772	2.280	1 PCB-1016 (Aroclor 1016)	
1.760	446	450	1.009	1.178		
1.879	2175	1662	0.764	4.351	1 PCB-1016 (Aroclor 1016)	
1.932	858	829	0.966	2.170	1 PCB-1016 (Aroclor 1016)	
2.008	500	560	1.119	1.466		
2.036	685	647	0.945	1.694		
2.063	462	509	1.102	1.332		
2.078	488	490	1.004	1.283		
2.189	695	751	1.081	1.966	1 PCB-1016 (Aroclor 1016)	
2.278	574	583	1.015	1.526	1 PCB-1016 (Aroclor 1016)	
2.426	452	460	1.017	1.204		
2.510	405	438	1.082	1.146		
2.798	1012	896	0.885	2.346	7 PCB-1260 (Aroclor 1260)	
2.831	354	364	1.030	0.953		
2.886	1293	1347	1.042	3.527	7 PCB-1260 (Aroclor 1260)	
2.955	214	224	1.044	0.586		
2.996	1617	1612	0.997	4.220	7 PCB-1260 (Aroclor 1260)	
3.103	602	681	1.131	1.783		
3.122	865	801	0.926	2.097		
3.190	501	366	0.731	0.958		
3.227	1708	1298	0.760	3.398		
3.254	1191	1181	0.992	3.092		
3.289	654	658	1.007	1.722		
3.379	219	216	0.985	0.565		
3.439	1183	1134	0.959	2.969		
3.500	640	633	0.989	1.657		
3.534	490	476	0.972	1.246		
3.584	2640	2633	0.998	6.894	7 PCB-1260 (Aroclor 1260)	
3.786	538	549	1.020	1.437		
3.827	1894	1813	0.957	4.747	7 PCB-1260 (Aroclor 1260)	
4.080	257	268	1.043	0.701		
4.153	606	615	1.016	1.610		
4.343	134	219	1.640	0.573		
4.501	3497	3363	0.962	8.805	$ 11 Decachlorobiphenyl (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	46199	38191		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	1127	0.05000	0.0549	80.00- 120.00	100.00	
1.878	1.878	0.000	2175	0.05000	0.0526	162.66- 243.99	192.87	
1.932	1.932	0.000	857	0.05000	0.0514	63.55- 95.32	76.07	
2.188	2.188	0.000	694	0.05000	0.0543	49.13- 73.70	61.59	
2.277	2.277	0.000	574	0.05000	0.0523	42.04- 63.06	50.92	
Average of Peak Amounts =					0.05310			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	1012	0.05000	0.0546	80.00- 120.00	100.00	
2.885	2.885	0.000	1292	0.05000	0.0545	101.69- 152.53	127.74	
2.995	2.995	0.000	1616	0.05000	0.0544	125.91- 188.87	159.77	
3.584	3.584	0.000	2639	0.05000	0.0526	212.47- 318.70	260.81	
3.827	3.826	0.001	1893	0.05000	0.0522	152.61- 228.91	187.11	
Average of Peak Amounts =					0.05366			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	5271	0.01000	0.0104			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	3497	0.01000	0.0104			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

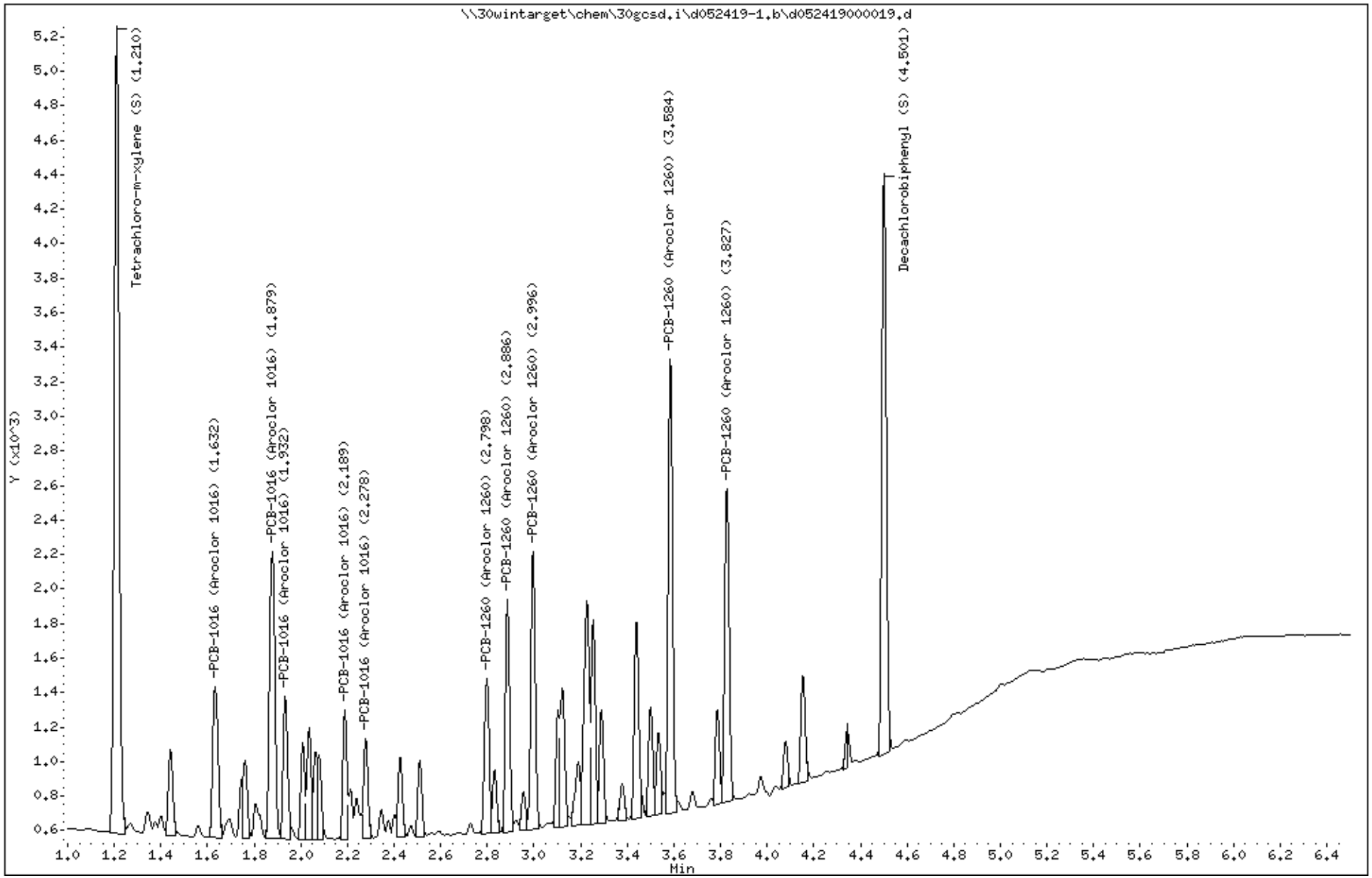
Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

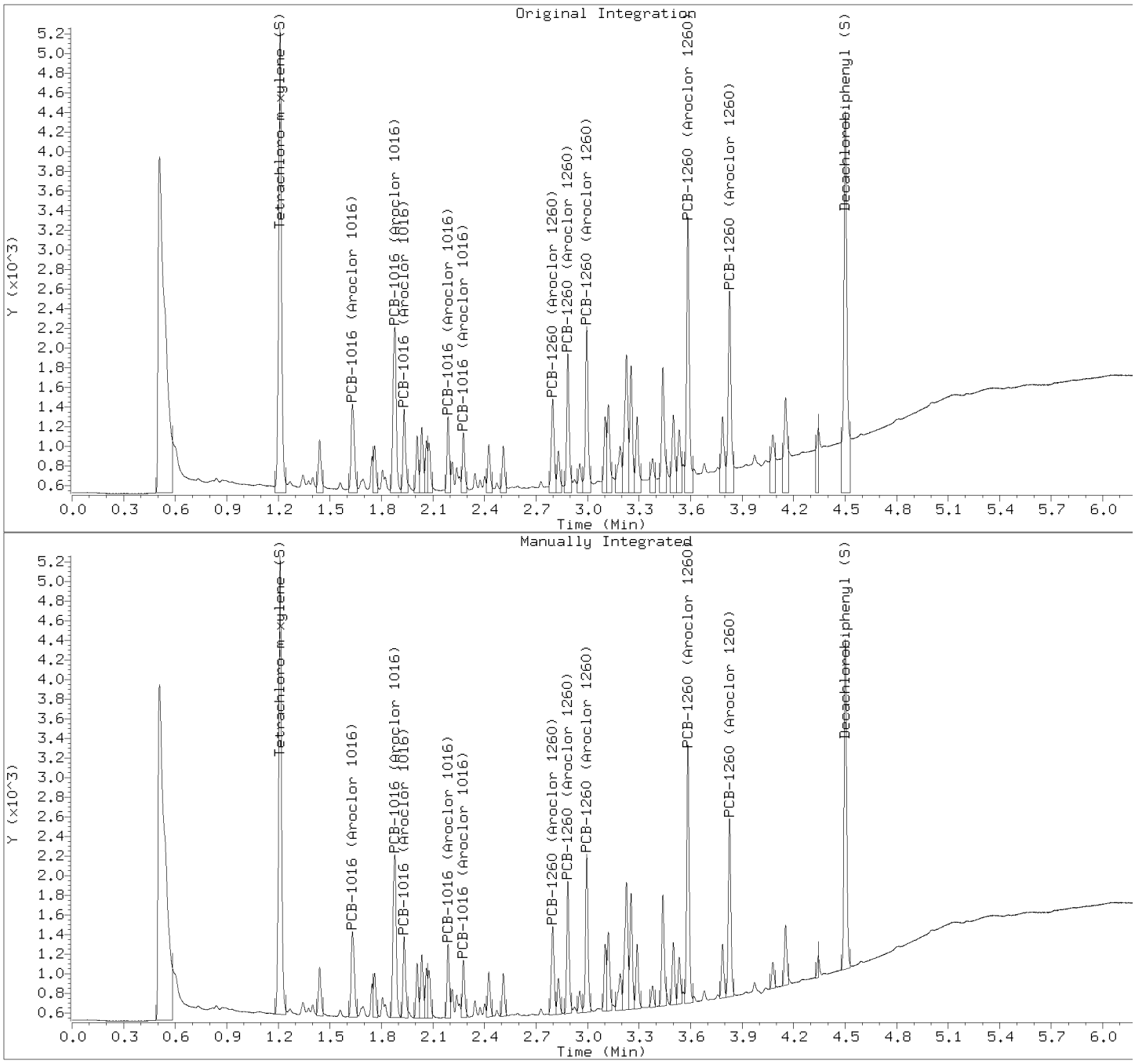
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.0549	
	Peak found at 1.879	0.0526	
	Peak found at 1.932	0.0514	
	Peak found at 2.189	0.0543	
	Peak found at 2.278	0.0523	
	Average of Peak Amounts =	0.0531	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.0546	
	Peak found at 2.886	0.0545	
	Peak found at 2.996	0.0544	
	Peak found at 3.584	0.0526	
	Peak found at 3.827	0.0522	
	Average of Peak Amounts =	0.0537	
877-09-8	Tetrachloro-m-xylene (S)	0.0104	
2051-24-3	Decachlorobiphenyl (S)	0.0104	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Sample Info: CAL1A, 88852:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1224	1127
PCB-1016 (Aroclor 1016)	2273	2175
PCB-1016 (Aroclor 1016)	919	857
PCB-1016 (Aroclor 1016)	737	694
PCB-1016 (Aroclor 1016)	629	574
PCB-1260 (Aroclor 1260)	1157	1012
PCB-1260 (Aroclor 1260)	1470	1292
PCB-1260 (Aroclor 1260)	1854	1616
PCB-1260 (Aroclor 1260)	3155	2639
PCB-1260 (Aroclor 1260)	2569	1893
Tetrachloro-m-xylene (S)	5489	5271
Decachlorobiphenyl (S)	5094	3497

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	6542	5060	0.773	13.893		
0.567	981	915	0.932	2.507		
0.585	1777	1034	0.582	2.834		
1.586	4728	4498	0.951	12.328	$ 10 Tetrachloro-m-xylene (S)	
1.762	486	485	0.998	1.329		
1.964	619	647	1.045	1.773	1 PCB-1016 (Aroclor 1016)	
1.984	360	373	1.036	1.022		
2.076	378	426	1.128	1.167		
2.268	797	925	1.160	2.535		
2.287	1112	1156	1.039	3.168	1 PCB-1016 (Aroclor 1016)	
2.306	723	717	0.991	1.965		
2.375	542	519	0.958	1.422	1 PCB-1016 (Aroclor 1016)	
2.439	457	475	1.039	1.301		
2.470	544	549	1.010	1.504	1 PCB-1016 (Aroclor 1016)	
2.560	524	550	1.050	1.507	1 PCB-1016 (Aroclor 1016)	
2.590	280	252	0.899	0.690		
2.667	406	373	0.920	1.022		
2.817	383	365	0.952	1.000		
2.960	355	355	1.001	0.973		
3.162	171	174	1.020	0.476		
3.246	672	537	0.799	1.471		
3.309	1071	1058	0.988	2.899	7 PCB-1260 (Aroclor 1260)	
3.479	1287	1252	0.972	3.431	7 PCB-1260 (Aroclor 1260)	
3.503	365	376	1.030	1.030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.556	840	563	0.671	1.543		
3.632	111	108	0.976	0.296		
3.663	1408	1212	0.861	3.322	7 PCB-1260 (Aroclor 1260)	
3.722	953	906	0.951	2.483		
3.758	496	493	0.993	1.351		
3.840	201	213	1.061	0.583		
3.863	976	935	0.958	2.562		
3.923	473	459	0.970	1.258		
3.951	287	273	0.951	0.748		
4.014	235	227	0.966	0.622		
4.060	2192	2097	0.957	5.747	7 PCB-1260 (Aroclor 1260)	
4.103	87	106	1.218	0.290		
4.248	1324	1190	0.899	3.261	7 PCB-1260 (Aroclor 1260)	
4.295	596	499	0.837	1.367		
4.437	30	54	1.784	0.148		
4.497	254	234	0.921	0.641		
4.618	508	496	0.977	1.359		
4.809	195	190	0.972	0.520		
4.960	3293	3051	0.926	8.362	$ 11 Decachlorobiphenyl (S)	
5.291	7	25	3.765	0.068		
5.663	11	28	2.593	0.076		
5.787	2	8	4.494	0.021		
5.934	3	3	1.163	0.008		
6.188	7	21	2.846	0.057		
6.234	8	22	2.764	0.060		
	40055	36484		100.000		

Total unknown % height = 51.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	619	0.05000	0.0543	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	1112	0.05000	0.0510	152.31- 228.47	179.71	
2.374	2.374	0.000	541	0.05000	0.0499	75.27- 112.91	87.51	
2.470	2.470	0.000	543	0.05000	0.0544	68.58- 102.86	87.83	
2.560	2.560	0.000	523	0.05000	0.0528	68.26- 102.40	84.60	
Average of Peak Amounts =					0.05248			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	1070	0.05000	0.0526	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	1287	0.05000	0.0528	88.62- 132.94	120.24	
3.663	3.662	0.001	1407	0.05000	0.0480	120.10- 180.15	131.46	
4.060	4.060	0.000	2191	0.05000	0.0509	171.60- 257.41	204.67	
4.247	4.247	0.000	1323	0.05000	0.0511	103.64- 155.46	123.61	
Average of Peak Amounts =					0.05108			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	4728	0.01000	0.0104		(a)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	3293	0.01000	0.0104		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

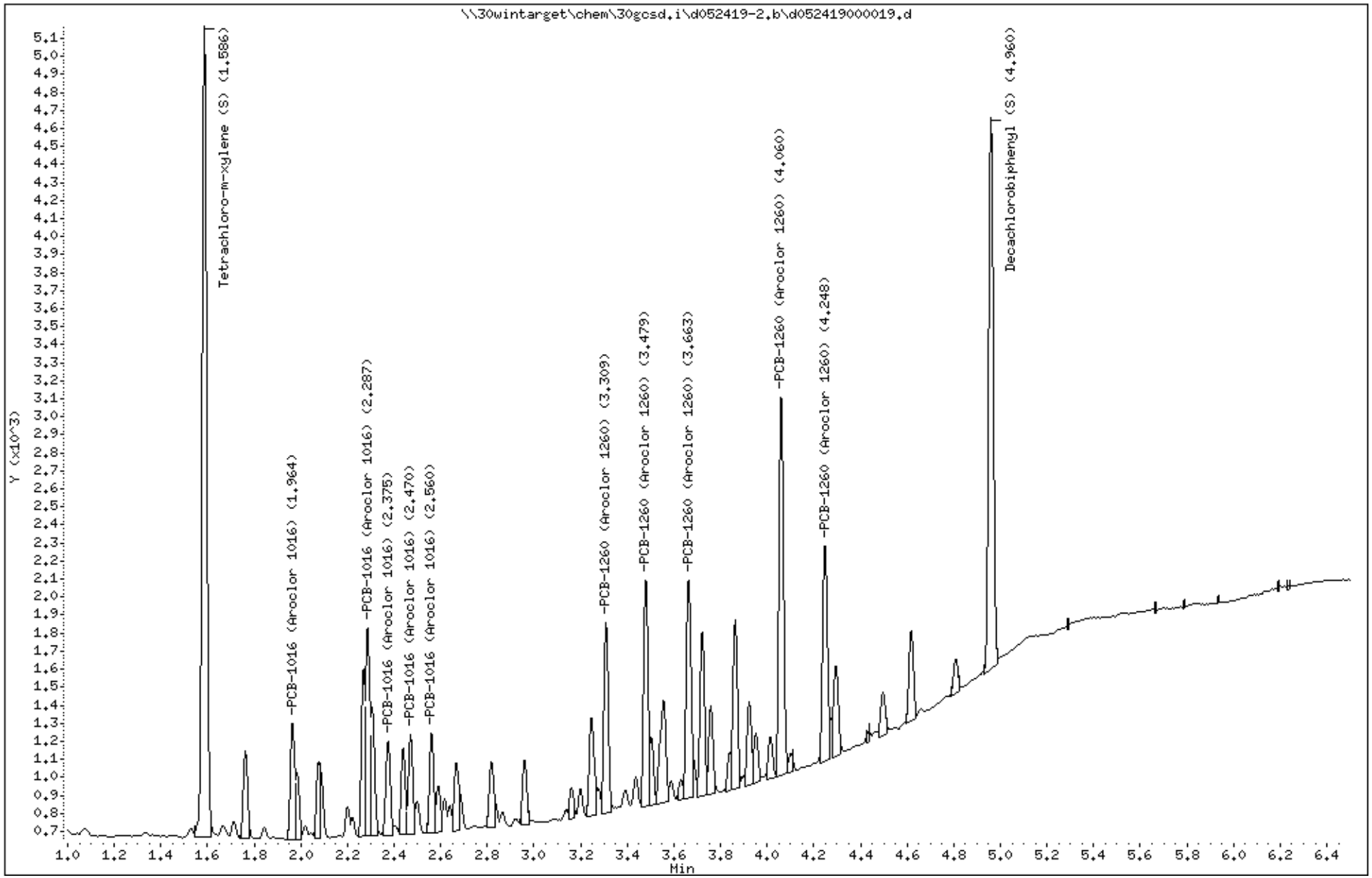
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

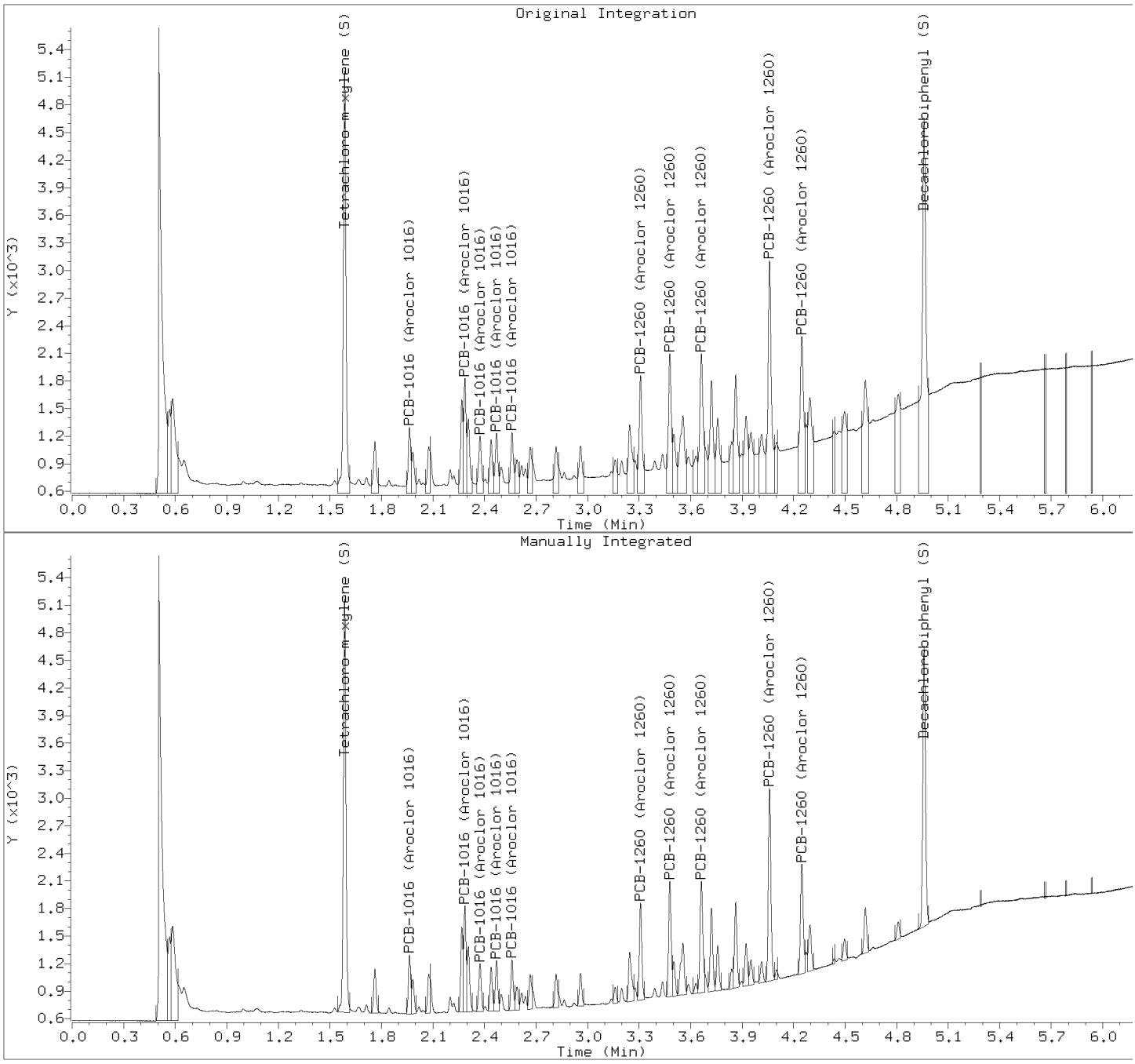
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.0543	J
	Peak found at 2.287	0.0510	J
	Peak found at 2.375	0.0499	J
	Peak found at 2.470	0.0544	J
	Peak found at 2.560	0.0528	J
	Average of Peak Amounts =	0.0525	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.0526	J
	Peak found at 3.479	0.0528	J
	Peak found at 3.663	0.0480	J
	Peak found at 4.060	0.0509	J
	Peak found at 4.248	0.0511	J
	Average of Peak Amounts =	0.0511	J
877-09-8	Tetrachloro-m-xylene (S)	0.0104	J
2051-24-3	Decachlorobiphenyl (S)	0.0104	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Instrument: 30gcsd.i
Sample Info: CAL1A, 88852:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	750	619
PCB-1016 (Aroclor 1016)	1222	1112
PCB-1016 (Aroclor 1016)	777	541
PCB-1016 (Aroclor 1016)	749	543
PCB-1016 (Aroclor 1016)	750	523
PCB-1260 (Aroclor 1260)	1629	1070
PCB-1260 (Aroclor 1260)	1847	1287
PCB-1260 (Aroclor 1260)	2144	1407
PCB-1260 (Aroclor 1260)	3520	2191
PCB-1260 (Aroclor 1260)	2605	1323
Tetrachloro-m-xylene (S)	5104	4728
Decachlorobiphenyl (S)	6898	3293

SAMPLE NO.

10982565ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-1.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.631	1.601	1.661	20538.0000	21604.0000	5.1904
Aroclor 1016	2	Averaged	1.878	1.848	1.908	41334.8333	44156.0000	6.8252
Aroclor 1016	3	Averaged	1.931	1.902	1.962	16656.1666	17236.0000	3.4812
Aroclor 1016	4	Averaged	2.187	2.158	2.218	12773.1666	13440.0000	5.2206
Aroclor 1016	5	Averaged	2.277	2.247	2.307	10979.5000	10340.0000	-5.8245
Aroclor 1260	1	Averaged	2.796	2.767	2.827	18544.0555	20096.0000	8.3690
Aroclor 1260	2	Averaged	2.884	2.855	2.915	23715.7777	23532.0000	-0.7749
Aroclor 1260	3	Averaged	2.994	2.965	3.025	29676.1111	29232.0000	-1.4965
Aroclor 1260	4	Averaged	3.583	3.554	3.614	50204.3888	49736.0000	-0.9330
Aroclor 1260	5	Averaged	3.826	3.796	3.856	36243.8333	37228.0000	2.7154
Decachlorobiphenyl		Averaged	4.5	4.471	4.531	335650.833	344620.000	13.7909
Tetrachloro-m-xylene		Averaged	1.21	1.18	1.24	508604.722	531440.000	4.8280

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10982548ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-2.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.963	1.933	1.993	11393.2222	11928.0000	4.6938
Aroclor 1016	2	Averaged	2.286	2.256	2.316	21808.0555	23348.0000	7.0614
Aroclor 1016	3	Averaged	2.374	2.344	2.404	10849.6666	11568.0000	6.6208
Aroclor 1016	4	Averaged	2.47	2.44	2.5	9980.38889	10672.0000	6.9297
Aroclor 1016	5	Averaged	2.56	2.53	2.59	9901.66667	10468.0000	5.7196
Aroclor 1260	1	Averaged	3.309	3.279	3.339	20320.3333	20036.0000	-1.3993
Aroclor 1260	2	Averaged	3.479	3.448	3.508	24356.2222	23864.0000	-2.0209
Aroclor 1260	3	Averaged	3.662	3.632	3.692	29292.0000	28836.0000	-1.5567
Aroclor 1260	4	Averaged	4.06	4.03	4.09	43025.1666	42548.0000	-1.1090
Aroclor 1260	5	Averaged	4.248	4.217	4.277	25869.7777	26776.0000	3.5030
Decachlorobiphenyl		Averaged	4.96	4.93	4.99	317463.333	326040.000	26.1248
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	474220.000	5.3381

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066063CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/11/2019 Time: 20:03

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-1.B\D061119000030.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.632	1.603	1.663	20538.0000	21820.0000	6.2421
Aroclor 1016	2	Averaged	1.88	1.85	1.91	41334.8333	43608.0000	5.4994
Aroclor 1016	3	Averaged	1.933	1.903	1.963	16656.1666	18016.0000	8.1641
Aroclor 1016	4	Averaged	2.189	2.159	2.219	12773.1666	13280.0000	3.9680
Aroclor 1016	5	Averaged	2.278	2.249	2.309	10979.5000	11504.0000	4.7771
Aroclor 1260	1	Averaged	2.798	2.768	2.828	18544.0555	18840.0000	1.5959
Aroclor 1260	2	Averaged	2.886	2.856	2.916	23715.7777	24076.0000	1.5189
Aroclor 1260	3	Averaged	2.995	2.966	3.026	29676.1111	29568.0000	-0.3643
Aroclor 1260	4	Averaged	3.584	3.555	3.615	50204.3888	50676.0000	0.9394
Aroclor 1260	5	Averaged	3.827	3.798	3.858	36243.8333	35964.0000	-0.7721
Decachlorobiphenyl		Averaged	4.5	4.472	4.532	335650.833	325980.000	-2.8812
Tetrachloro-m-xylene		Averaged	1.212	1.182	1.242	508604.722	539180.000	6.0116

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066057CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/11/2019 Time: 20:03

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-2.B\D061119000030.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.961	1.932	1.992	11393.2222	12032.0000	5.6066
Aroclor 1016	2	Averaged	2.284	2.254	2.314	21808.0555	22936.0000	5.1721
Aroclor 1016	3	Averaged	2.372	2.342	2.402	10849.6666	11408.0000	5.1461
Aroclor 1016	4	Averaged	2.467	2.438	2.498	9980.38889	10380.0000	4.0040
Aroclor 1016	5	Averaged	2.557	2.528	2.588	9901.66667	10220.0000	3.2149
Aroclor 1260	1	Averaged	3.304	3.275	3.335	20320.3333	20476.0000	0.7661
Aroclor 1260	2	Averaged	3.474	3.445	3.505	24356.2222	24304.0000	-0.2144
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	30936.0000	5.6125
Aroclor 1260	4	Averaged	4.055	4.026	4.086	43025.1666	42724.0000	-0.7000
Aroclor 1260	5	Averaged	4.242	4.213	4.273	25869.7777	25928.0000	0.2251
Decachlorobiphenyl		Averaged	4.953	4.925	4.985	317463.333	310080.000	-2.3257
Tetrachloro-m-xylene		Averaged	1.585	1.555	1.615	454175.833	479060.000	5.4790

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066059CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/11/2019 Time: 23:01

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-1.B\D061119000051.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.632	1.603	1.663	20538.0000	23124.0000	12.5913
Aroclor 1016	2	Averaged	1.879	1.85	1.91	41334.8333	46324.0000	12.0701
Aroclor 1016	3	Averaged	1.933	1.903	1.963	16656.1666	19112.0000	14.7443
Aroclor 1016	4	Averaged	2.189	2.159	2.219	12773.1666	14112.0000	10.4816
Aroclor 1016	5	Averaged	2.278	2.249	2.309	10979.5000	12340.0000	12.3913
Aroclor 1260	1	Averaged	2.797	2.768	2.828	18544.0555	20184.0000	8.8435
Aroclor 1260	2	Averaged	2.885	2.856	2.916	23715.7777	25824.0000	8.8895
Aroclor 1260	3	Averaged	2.995	2.966	3.026	29676.1111	31948.0000	7.6556
Aroclor 1260	4	Averaged	3.583	3.555	3.615	50204.3888	54808.0000	9.1697
Aroclor 1260	5	Averaged	3.826	3.798	3.858	36243.8333	39176.0000	8.0901
Decachlorobiphenyl		Averaged	4.498	4.472	4.532	335650.833	365540.000	8.9048
Tetrachloro-m-xylene		Averaged	1.212	1.182	1.242	508604.722	572260.000	12.5157

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066061CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/11/2019 Time: 23:01

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-2.B\D061119000051.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.961	1.932	1.992	11393.2222	12772.0000	12.1017
Aroclor 1016	2	Averaged	2.284	2.254	2.314	21808.0555	24104.0000	10.5280
Aroclor 1016	3	Averaged	2.372	2.342	2.402	10849.6666	12136.0000	11.8560
Aroclor 1016	4	Averaged	2.467	2.438	2.498	9980.38889	11160.0000	11.8193
Aroclor 1016	5	Averaged	2.557	2.528	2.588	9901.66667	10872.0000	9.7997
Aroclor 1260	1	Averaged	3.304	3.275	3.335	20320.3333	22172.0000	9.1124
Aroclor 1260	2	Averaged	3.475	3.445	3.505	24356.2222	26300.0000	7.9806
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	33172.0000	13.2459
Aroclor 1260	4	Averaged	4.054	4.026	4.086	43025.1666	46272.0000	7.5464
Aroclor 1260	5	Averaged	4.241	4.213	4.273	25869.7777	28044.0000	8.4045
Decachlorobiphenyl		Averaged	4.951	4.925	4.985	317463.333	341360.000	7.5274
Tetrachloro-m-xylene		Averaged	1.585	1.555	1.615	454175.833	511000.000	12.5115

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066056CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/12/2019 Time: 02:50

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-1.B\D061119000078.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.633	1.603	1.663	20538.0000	19728.0000	-3.9439
Aroclor 1016	2	Averaged	1.88	1.85	1.91	41334.8333	39452.0000	-4.5551
Aroclor 1016	3	Averaged	1.934	1.903	1.963	16656.1666	15576.0000	-6.4851
Aroclor 1016	4	Averaged	2.19	2.159	2.219	12773.1666	11392.0000	-10.8130
Aroclor 1016	5	Averaged	2.279	2.249	2.309	10979.5000	9692.00000	-11.7264
Aroclor 1260	1	Averaged	2.799	2.768	2.828	18544.0555	15876.0000	-14.3877
Aroclor 1260	2	Averaged	2.887	2.856	2.916	23715.7777	20276.0000	-14.5042
Aroclor 1260	3	Averaged	2.996	2.966	3.026	29676.1111	25768.0000	-13.1692
Aroclor 1260	4	Averaged	3.585	3.555	3.615	50204.3888	43780.0000	-12.7965
Aroclor 1260	5	Averaged	3.827	3.798	3.858	36243.8333	33208.0000	-8.3761
Decachlorobiphenyl		Averaged	4.5	4.472	4.532	335650.833	328260.000	-2.2019
Tetrachloro-m-xylene		Averaged	1.212	1.182	1.242	508604.722	518880.000	2.0203

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11066064CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/12/2019 Time: 02:50

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D061119-2.B\D061119000078.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30298231

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.962	1.932	1.992	11393.2222	10832.0000	-4.9259
Aroclor 1016	2	Averaged	2.284	2.254	2.314	21808.0555	20272.0000	-7.0435
Aroclor 1016	3	Averaged	2.372	2.342	2.402	10849.6666	9936.00000	-8.4211
Aroclor 1016	4	Averaged	2.468	2.438	2.498	9980.38889	8996.00000	-9.8632
Aroclor 1016	5	Averaged	2.558	2.528	2.588	9901.66667	8896.00000	-10.1565
Aroclor 1260	1	Averaged	3.305	3.275	3.335	20320.3333	18772.0000	-7.6196
Aroclor 1260	2	Averaged	3.475	3.445	3.505	24356.2222	21168.0000	-13.0900
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	28792.0000	-1.7070
Aroclor 1260	4	Averaged	4.055	4.026	4.086	43025.1666	42932.0000	-0.2165
Aroclor 1260	5	Averaged	4.242	4.213	4.273	25869.7777	25812.0000	-0.2233
Decachlorobiphenyl		Averaged	4.952	4.925	4.985	317463.333	327280.000	3.0922
Tetrachloro-m-xylene		Averaged	1.585	1.555	1.615	454175.833	457160.000	0.6571

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	10408	4009	0.385	2.152		
0.836	550	302	0.549	0.162		
1.210	26573	23583	0.887	12.692	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	344	262	0.761	0.140		
1.345	451	425	0.942	0.228		
1.400	483	471	0.975	0.252		
1.441	2399	2234	0.931	1.199		
1.632	5401	4154	0.769	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.693	564	496	0.880	0.266		
1.745	1366	1691	1.238	0.907		
1.760	2228	2203	0.989	1.182		
1.806	933	1053	1.129	0.565		
1.823	748	767	1.026	0.411		
1.878	11040	8493	0.769	4.560	1 PCB-1016 (Aroclor 1016)	BA
1.932	4310	4048	0.939	2.173	1 PCB-1016 (Aroclor 1016)	BA
2.008	2532	2834	1.119	1.521		
2.035	3429	3192	0.931	1.713		
2.062	2232	2481	1.111	1.332		
2.077	2421	2348	0.970	1.260		
2.188	3360	3631	1.081	1.949	1 PCB-1016 (Aroclor 1016)	BA
2.212	1294	1374	1.062	0.737		
2.238	988	1047	1.060	0.562		
2.278	2586	2572	0.995	1.381	1 PCB-1016 (Aroclor 1016)	BA
2.345	633	654	1.033	0.351		
2.374	395	432	1.094	0.231		
2.401	599	688	1.149	0.369		
2.425	2325	2310	0.993	1.240		
2.472	392	427	1.089	0.229		
2.510	2230	2325	1.043	1.248		
2.728	611	642	1.050	0.344		
2.796	5024	4347	0.865	2.334	7 PCB-1260 (Aroclor 1260)	BA
2.830	1719	1691	0.984	0.907		
2.885	5883	5982	1.017	3.211	7 PCB-1260 (Aroclor 1260)	BA
2.923	700	714	1.020	0.383		
2.954	1011	1047	1.035	0.562		
2.995	7309	7167	0.981	3.848	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.102	2838	3226	1.137	1.732		
3.121	4001	3738	0.934	2.007		
3.189	2317	1745	0.753	0.936		
3.227	8318	6392	0.768	3.432		
3.253	5447	5442	0.999	2.922		
3.288	3066	3057	0.997	1.641		
3.378	1187	1074	0.905	0.576		
3.439	6083	5407	0.889	2.903		
3.500	2929	2843	0.971	1.526		
3.533	2272	2228	0.981	1.196		
3.557	620	717	1.157	0.384		
3.584	12435	12505	1.006	6.714	7 PCB-1260 (Aroclor 1260)	BA
3.619	244	268	1.098	0.143		
3.679	487	500	1.028	0.268		
3.758	187	208	1.114	0.111		
3.785	2820	2892	1.026	1.552		
3.827	9308	8646	0.929	4.642	7 PCB-1260 (Aroclor 1260)	BA
3.973	350	353	1.010	0.189		
4.037	36	120	3.363	0.064		
4.079	1362	1393	1.023	0.747		
4.153	3518	3396	0.965	1.823		
4.344	864	879	1.017	0.471		
4.501	17232	17116	0.993	9.190	$ 11 Decachlorobiphenyl (S)	BA
	203390	186241		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	5401	0.25000	0.263	80.00- 120.00	100.00(M)	BA
1.878	1.878	0.000	11039	0.25000	0.267	162.66- 243.99	204.40	BA
1.931	1.932	-0.001	4309	0.25000	0.259	63.55- 95.32	79.79	BA
2.187	2.188	-0.001	3360	0.25000	0.263	49.13- 73.70	62.22	BA
2.277	2.277	0.000	2585	0.25000	0.235	42.04- 63.06	47.87	BA
Average of Peak Amounts =					0.25740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.797	-0.001	5024	0.25000	0.271	80.00- 120.00	100.00(M)	BA
2.884	2.885	-0.001	5883	0.25000	0.248	101.69- 152.53	117.10	BA
2.994	2.995	-0.001	7308	0.25000	0.246	125.91- 188.87	145.46	BA
3.583	3.584	-0.001	12434	0.25000	0.248	212.47- 318.70	247.49	BA
3.826	3.826	0.000	9307	0.25000	0.257	152.61- 228.91	185.26	BA
Average of Peak Amounts =					0.25400			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	26572	0.05000	0.0522		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.501	-0.001	17231	0.05000	0.0513		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21536	0.010	4.85929	20.00000	Aver	(M)
(2)	41335	44144	0.010	6.79612	20.00000	Aver	(M)
(3)	16656	17228	0.010	3.43316	20.00000	Aver	(M)
(4)	12773	13456	0.010	5.34584	20.00000	Aver	(M)
(5)	10980	10404	0.010	-5.24159	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20368	0.010	9.83574	20.00000	Aver	(M)
(2)	23716	23980	0.010	1.11412	20.00000	Aver	(M)
(3)	29676	29996	0.010	1.07793	20.00000	Aver	(M)
(4)	50204	51380	0.010	2.34165	20.00000	Aver	(M)
(5)	36244	40068	0.010	10.55122	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	533160	0.010	4.82797	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	381940	0.010	13.79087	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.33939
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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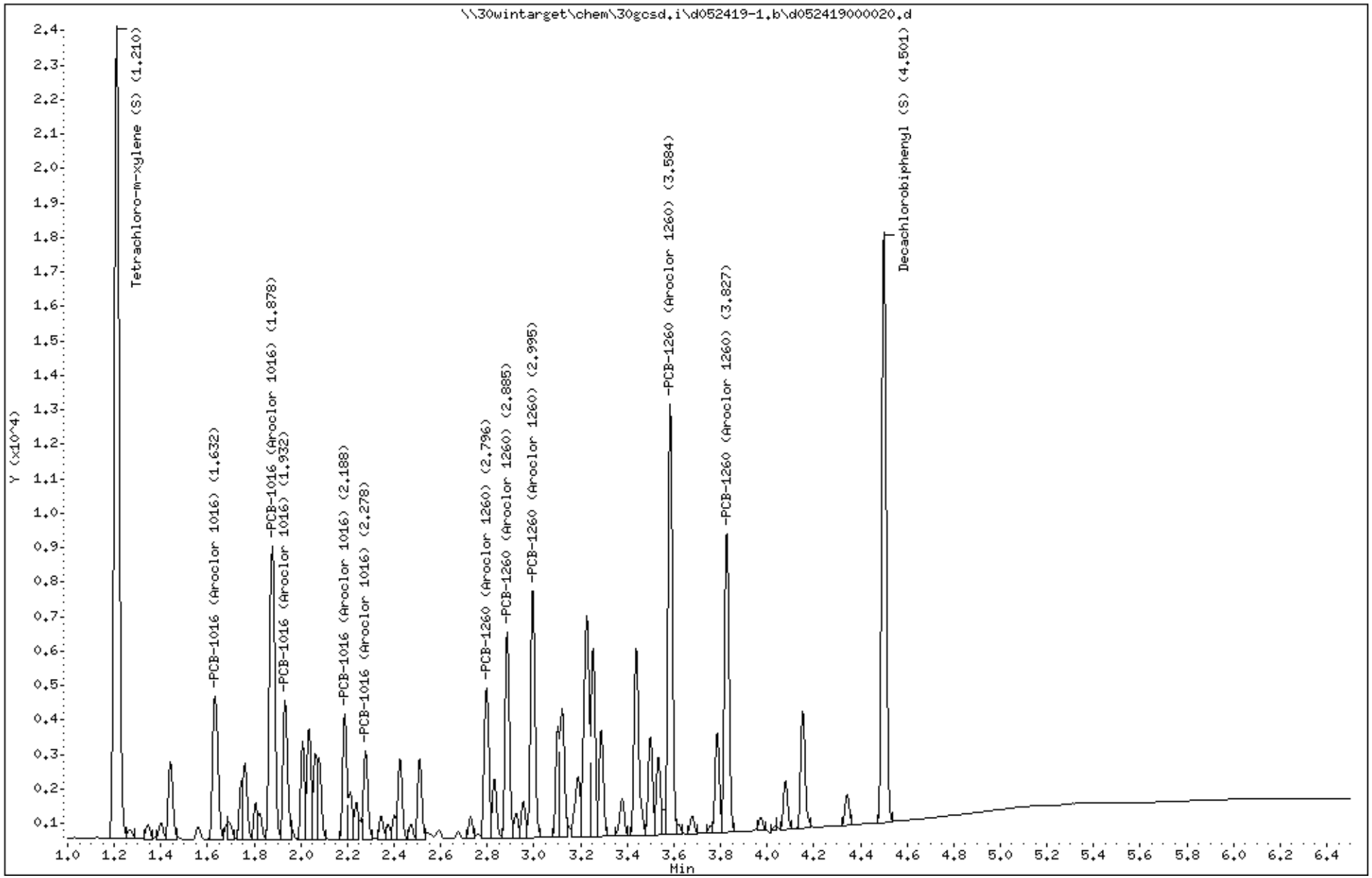
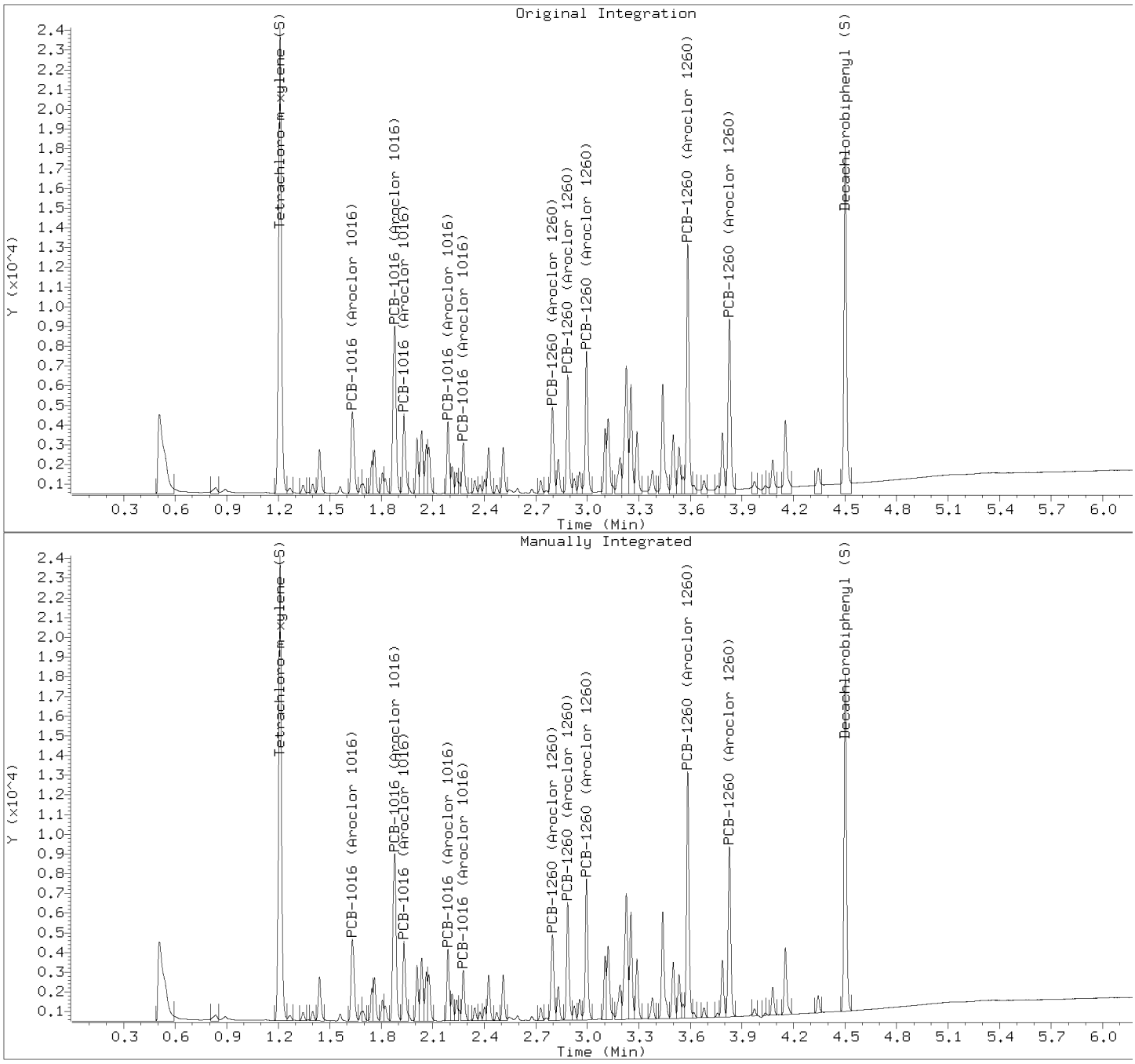
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5384	5401
PCB-1016 (Aroclor 1016)	11036	11039
PCB-1016 (Aroclor 1016)	4307	4309
PCB-1016 (Aroclor 1016)	3364	3360
PCB-1016 (Aroclor 1016)	2601	2585
PCB-1260 (Aroclor 1260)	5092	5024
PCB-1260 (Aroclor 1260)	5995	5883
PCB-1260 (Aroclor 1260)	7499	7308
PCB-1260 (Aroclor 1260)	12845	12434
PCB-1260 (Aroclor 1260)	10017	9307
Tetrachloro-m-xylene (S)	26658	26572
Decachlorobiphenyl (S)	19097	17231

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7506	5663	0.754	3.403		
0.567	1001	888	0.887	0.533		
0.583	1293	830	0.642	0.498		
1.084	490	306	0.625	0.183		
1.587	23711	23008	0.970	13.864	$ 10 Tetrachloro-m-xylene (S)	BA
1.713	427	423	0.991	0.254		
1.762	2107	2062	0.979	1.239		
1.844	299	302	1.011	0.181		
1.964	2982	3217	1.079	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.984	1804	1824	1.011	1.096		
2.019	367	375	1.021	0.225		
2.076	3211	2053	0.639	1.234		
2.201	789	869	1.101	0.522		
2.222	669	652	0.975	0.391		
2.269	4131	4766	1.154	2.864		
2.287	5838	5985	1.025	3.597	1 PCB-1016 (Aroclor 1016)	BA
2.306	3730	3665	0.983	2.202		
2.375	2892	2731	0.944	1.641	1 PCB-1016 (Aroclor 1016)	BA
2.404	270	284	1.051	0.170		
2.439	2379	2464	1.036	1.481		
2.470	2668	2714	1.017	1.631	1 PCB-1016 (Aroclor 1016)	BA
2.499	985	940	0.954	0.565		
2.561	2618	2705	1.033	1.625	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.590	1406	1262	0.898	0.758		
2.617	824	867	1.052	0.521		
2.638	623	655	1.052	0.393		
2.667	2404	1700	0.707	1.021		
2.817	2471	1871	0.757	1.124		
2.865	407	419	1.028	0.251		
2.922	248	258	1.038	0.155		
2.959	2140	2042	0.954	1.227		
3.086	162	164	1.015	0.098		
3.139	454	498	1.096	0.299		
3.160	942	865	0.918	0.519		
3.199	1209	1215	1.005	0.730		
3.246	3223	2461	0.764	1.479		
3.277	621	701	1.128	0.421		
3.309	5010	4937	0.985	2.967	7 PCB-1260 (Aroclor 1260)	BA
3.392	874	833	0.953	0.500		
3.436	857	841	0.981	0.505		
3.479	5967	5953	0.998	3.578	7 PCB-1260 (Aroclor 1260)	BA
3.503	1838	1812	0.986	1.089		
3.557	4166	2837	0.681	1.705		
3.587	601	543	0.904	0.326		
3.631	668	587	0.879	0.352		
3.662	7210	6095	0.845	3.663	7 PCB-1260 (Aroclor 1260)	BA
3.722	4629	4373	0.945	2.628		
3.758	2440	2351	0.964	1.413		
3.841	1113	1212	1.089	0.728		
3.863	4749	4380	0.922	2.632		
3.897	309	327	1.059	0.196		
3.923	2214	2198	0.993	1.321		
3.952	1419	1300	0.916	0.781		
4.014	1364	1241	0.910	0.745		
4.060	10638	10114	0.951	6.079	7 PCB-1260 (Aroclor 1260)	BA
4.101	616	586	0.951	0.352		
4.249	6695	5905	0.882	3.549	7 PCB-1260 (Aroclor 1260)	BA
4.274	811	1103	1.360	0.662		
4.296	3285	2731	0.831	1.641		
4.438	103	151	1.467	0.090		
4.464	108	147	1.363	0.088		
4.497	1332	1222	0.917	0.734		
4.589	13	6	0.462	0.003		
4.618	2928	2811	0.960	1.689		
4.661	181	173	0.957	0.103		
4.810	815	772	0.947	0.464		
4.961	16302	15071	0.924	9.058	$ 11 Decachlorobiphenyl (S)	BA
5.307	10	24	2.434	0.014		
5.867	2	2	1.266	0.001		
6.462	7	27	3.982	0.016		
	178574	166369		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.963	1.963	0.000	2982	0.25000	0.262	80.00- 120.00	100.00	(aM)	BA
2.286	2.286	0.000	5837	0.25000	0.268	152.31- 228.47	195.74		BA
2.374	2.374	0.000	2892	0.25000	0.266	75.27- 112.91	96.97		BA
2.470	2.470	0.000	2668	0.25000	0.267	68.58- 102.86	89.47		BA
2.560	2.560	0.000	2617	0.25000	0.264	68.26- 102.40	87.78		BA
Average of Peak Amounts =					0.26540				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.309	3.309	0.000	5009	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
3.479	3.478	0.001	5966	0.25000	0.245	88.62- 132.94	119.11		BA
3.662	3.662	0.000	7209	0.25000	0.246	120.10- 180.15	143.92		BA
4.060	4.060	0.000	10637	0.25000	0.247	171.60- 257.41	212.36		BA
4.248	4.247	0.001	6694	0.25000	0.259	103.64- 155.46	133.66		BA
Average of Peak Amounts =					0.24860				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.586	0.000	23711	0.05000	0.0522			(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16302	0.05000	0.0514		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
1 PCB-1016 (Aroclor 1016)	(1)	11393	12188	0.010	6.97588	20.00000	Aver	(aM)	
	(2)	21808	23452	0.010	7.53824	20.00000	Aver	(aM)	
	(3)	10850	12364	0.010	13.95742	20.00000	Aver	(aM)	
	(4)	9980	11280	0.010	13.02165	20.00000	Aver	(aM)	
	(5)	9902	11244	0.010	13.55664	20.00000	Aver	(aM)	
7 PCB-1260 (Aroclor 1260)	(1)	20320	22268	0.010	9.58482	20.00000	Aver	(aM)	
	(2)	24356	25920	0.010	6.42044	20.00000	Aver	(aM)	
	(3)	29292	31588	0.010	7.83832	20.00000	Aver	(aM)	
	(4)	43025	47496	0.010	10.39121	20.00000	Aver	(aM)	
	(5)	25870	31948	0.010	23.49546	20.00000	Aver	(aM)	<-
$ 10 Tetrachloro-m-xylene (S)		454176	478420	0.010	5.33806	20.00000	Aver	(M)	
$ 11 Decachlorobiphenyl (S)		317463	400400	0.010	26.12480	20.00000	Aver	(M)	<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.84432
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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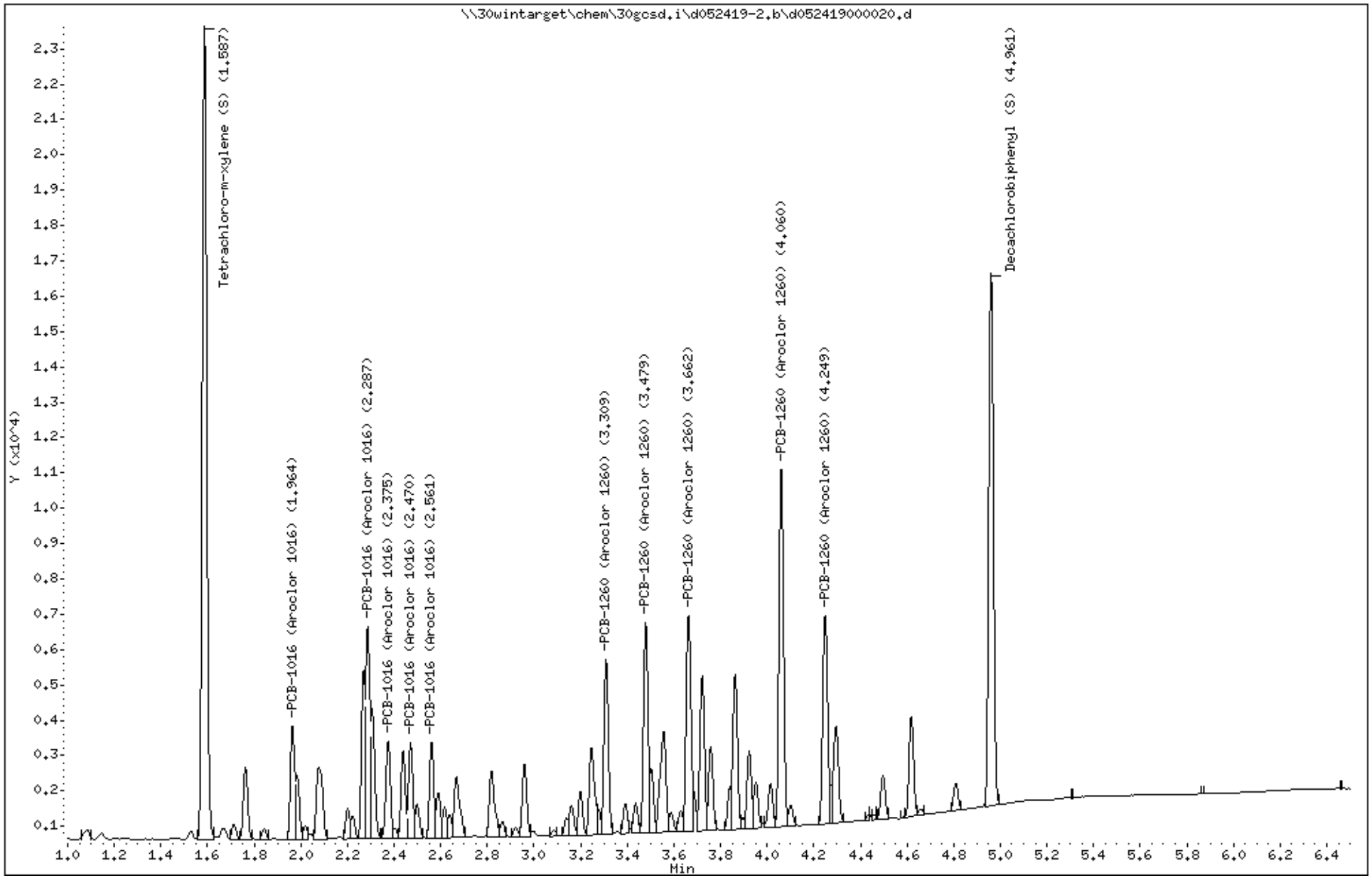
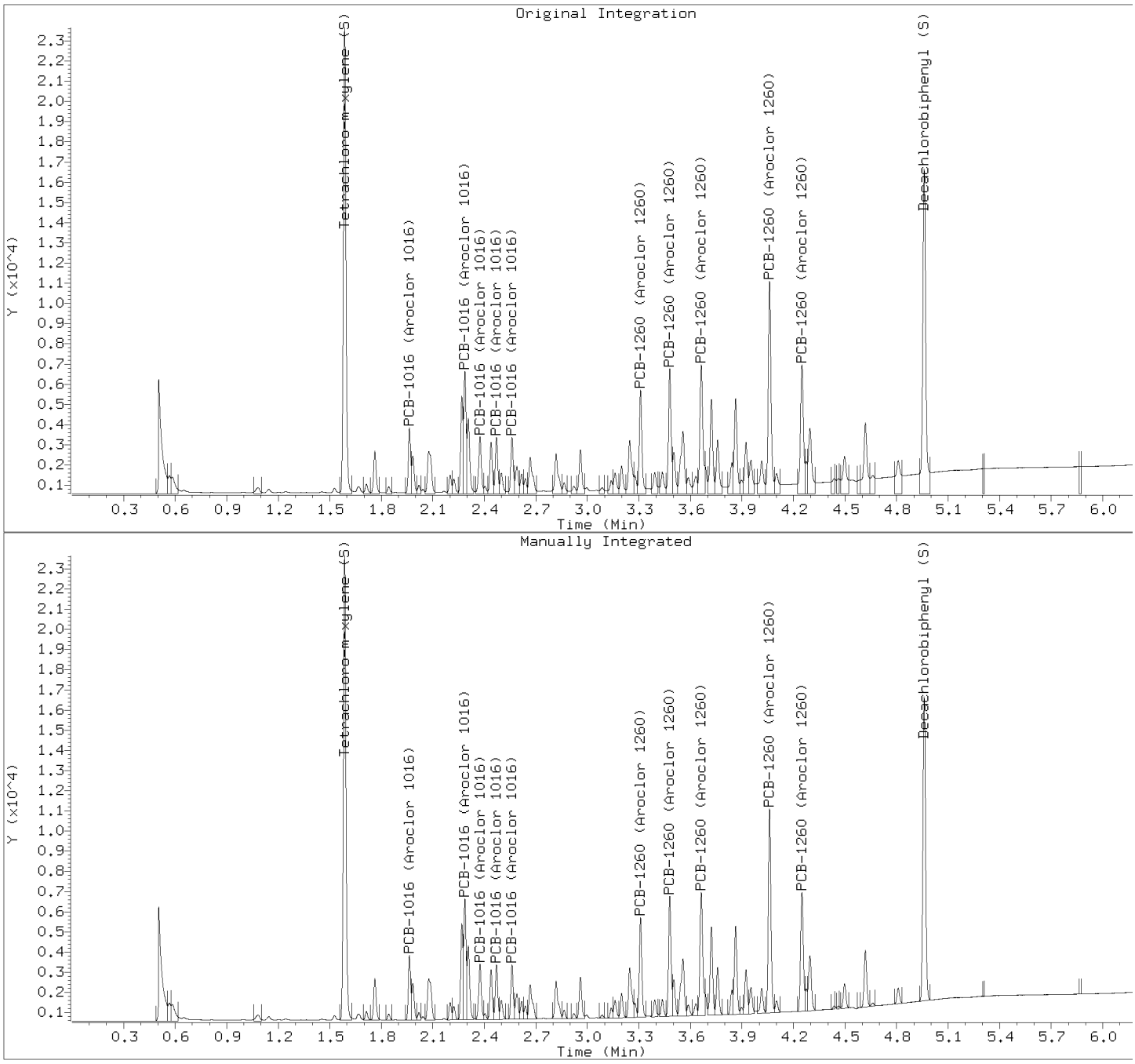
Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3047	2982
PCB-1016 (Aroclor 1016)	5863	5837
PCB-1016 (Aroclor 1016)	3091	2892
PCB-1016 (Aroclor 1016)	2820	2668
PCB-1016 (Aroclor 1016)	2811	2617
PCB-1260 (Aroclor 1260)	5567	5009
PCB-1260 (Aroclor 1260)	6480	5966
PCB-1260 (Aroclor 1260)	7897	7209
PCB-1260 (Aroclor 1260)	11874	10637
PCB-1260 (Aroclor 1260)	7987	6694
Tetrachloro-m-xylene (S)	23921	23711
Decachlorobiphenyl (S)	20020	16302

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000030.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	2322	1848	0.796	0.998		
0.546	8891	2634	0.296	1.423		
1.213	26959	24035	0.892	13.032	$ 10 Tetrachloro-m-xylene (S)	BA
1.271	392	300	0.766	0.162		
1.347	508	479	0.943	0.258		
1.378	340	339	0.998	0.183		
1.402	555	532	0.959	0.287		
1.443	2605	2402	0.922	1.298		
1.562	351	357	1.018	0.192		
1.633	5456	4160	0.762	2.248	1 PCB-1016 (Aroclor 1016)	BA
1.695	624	520	0.834	0.281		
1.747	1373	1666	1.213	0.900		
1.762	2231	2189	0.981	1.183		
1.808	915	1013	1.107	0.547		
1.826	836	810	0.969	0.437		
1.880	10903	8265	0.758	4.467	1 PCB-1016 (Aroclor 1016)	BA
1.934	4505	3936	0.874	2.127	1 PCB-1016 (Aroclor 1016)	BA
2.010	2493	2721	1.091	1.470		
2.037	3277	3019	0.921	1.631		
2.063	2197	2401	1.093	1.297		
2.079	2408	2287	0.950	1.236		
2.190	3320	3540	1.066	1.913	1 PCB-1016 (Aroclor 1016)	BA
2.214	1291	1372	1.063	0.741		
2.240	1033	1080	1.046	0.583		
2.256	496	644	1.299	0.348		
2.279	2877	2783	0.967	1.504	1 PCB-1016 (Aroclor 1016)	BA
2.346	781	771	0.987	0.416		
2.376	438	457	1.042	0.247		
2.403	552	625	1.132	0.337		
2.427	2191	2132	0.973	1.152		
2.473	291	308	1.058	0.166		
2.511	1908	1993	1.045	1.077		
2.730	280	289	1.032	0.156		
2.798	4711	4117	0.874	2.225	7 PCB-1260 (Aroclor 1260)	BA
2.831	1707	1661	0.973	0.897		
2.886	6019	6100	1.013	3.296	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.925	270	273	1.012	0.147		
2.955	963	1019	1.058	0.550		
2.996	7393	7346	0.994	3.970	7 PCB-1260 (Aroclor 1260)	BA
3.104	2861	3229	1.129	1.745		
3.122	3905	3682	0.943	1.990		
3.191	2214	1637	0.739	0.884		
3.227	7963	6028	0.757	3.258		
3.254	5474	5378	0.982	2.906		
3.289	3014	2980	0.989	1.610		
3.379	1082	1027	0.949	0.555		
3.439	5946	5458	0.918	2.949		
3.500	2889	2829	0.979	1.529		
3.534	2244	2137	0.952	1.155		
3.558	430	558	1.297	0.301		
3.585	12669	12698	1.002	6.863	7 PCB-1260 (Aroclor 1260)	BA
3.679	408	424	1.038	0.229		
3.758	160	179	1.116	0.096		
3.786	2465	2503	1.015	1.352		
3.828	8991	8484	0.944	4.585	7 PCB-1260 (Aroclor 1260)	BA
3.973	562	449	0.799	0.242		
4.038	56	63	1.125	0.034		
4.079	1198	1220	1.018	0.659		
4.153	2958	2855	0.965	1.543		
4.343	970	960	0.990	0.518		
4.501	16300	16112	0.988	8.708	$ 11 Decachlorobiphenyl (S)	BA
4.808	15	39	2.586	0.021		
4.965	19	71	3.793	0.038		
5.036	28	92	3.290	0.049		
5.048	52	103	1.975	0.055		
5.060	37	122	3.312	0.065		
5.078	62	133	2.142	0.071		
5.093	52	113	2.164	0.061		
5.125	32	79	2.502	0.042		
5.209	7	33	4.590	0.017		
5.227	13	46	3.662	0.024		
5.238	16	54	3.291	0.029		
5.243	22	54	2.507	0.029		
5.250	11	51	4.696	0.027		
5.433	12	44	3.624	0.023		
5.657	15	74	4.783	0.039		
5.707	15	66	4.447	0.035		
5.777	14	71	5.075	0.038		
5.824	30	77	2.559	0.041		
5.941	24	68	2.878	0.036		
5.961	22	85	3.953	0.045		
6.110	9	42	4.605	0.022		
6.221	5	26	4.943	0.014		
6.343	16	49	3.090	0.026		
6.440	11	32	2.963	0.017		
6.455	7	38	5.278	0.020		
6.476	11	43	3.931	0.023		
	201976	185018		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000030.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.632	1.633	-0.001	5455	0.25000	0.266	80.00- 120.00	100.00(M)	BA
1.880	1.880	0.000	10902	0.25000	0.264	160.93- 241.39	199.84	BA
1.933	1.933	0.000	4504	0.25000	0.270	65.29- 97.93	82.57	BA
2.189	2.189	0.000	3320	0.25000	0.260	47.30- 70.95	60.85	BA
2.278	2.279	-0.001	2876	0.25000	0.262	41.08- 61.63	52.73	BA
		Average of Peak Amounts =			0.26440			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.798	2.798	0.000	4710	0.25000	0.254	80.00- 120.00	100.00(M)	BA
2.886	2.886	0.000	6019	0.25000	0.254	102.15- 153.22	127.79	BA
2.995	2.996	-0.001	7392	0.25000	0.249	125.94- 188.91	156.94	BA
3.584	3.585	-0.001	12669	0.25000	0.252	213.36- 320.04	268.98	BA
3.827	3.828	-0.001	8991	0.25000	0.248	152.08- 228.11	190.89	BA
		Average of Peak Amounts =			0.25140			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.212	0.000	26959	0.05000	0.0530		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.502	-0.002	16299	0.05000	0.0486		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 11-JUN-2019 20:03
Lab File ID: d061119000030.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21820	0.010	6.24209	20.00000	Aver	(M)
(2)	41335	43608	0.010	5.49940	20.00000	Aver	(M)
(3)	16656	18016	0.010	8.16414	20.00000	Aver	(M)
(4)	12773	13280	0.010	3.96795	20.00000	Aver	(M)
(5)	10980	11504	0.010	4.77708	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	18840	0.010	1.59590	20.00000	Aver	(M)
(2)	23716	24076	0.010	1.51891	20.00000	Aver	(M)
(3)	29676	29568	0.010	-0.36430	20.00000	Aver	(M)
(4)	50204	50676	0.010	0.93938	20.00000	Aver	(M)
(5)	36244	35964	0.010	-0.77209	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	539180	0.010	6.01160	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	325980	0.010	-2.88122	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.72407
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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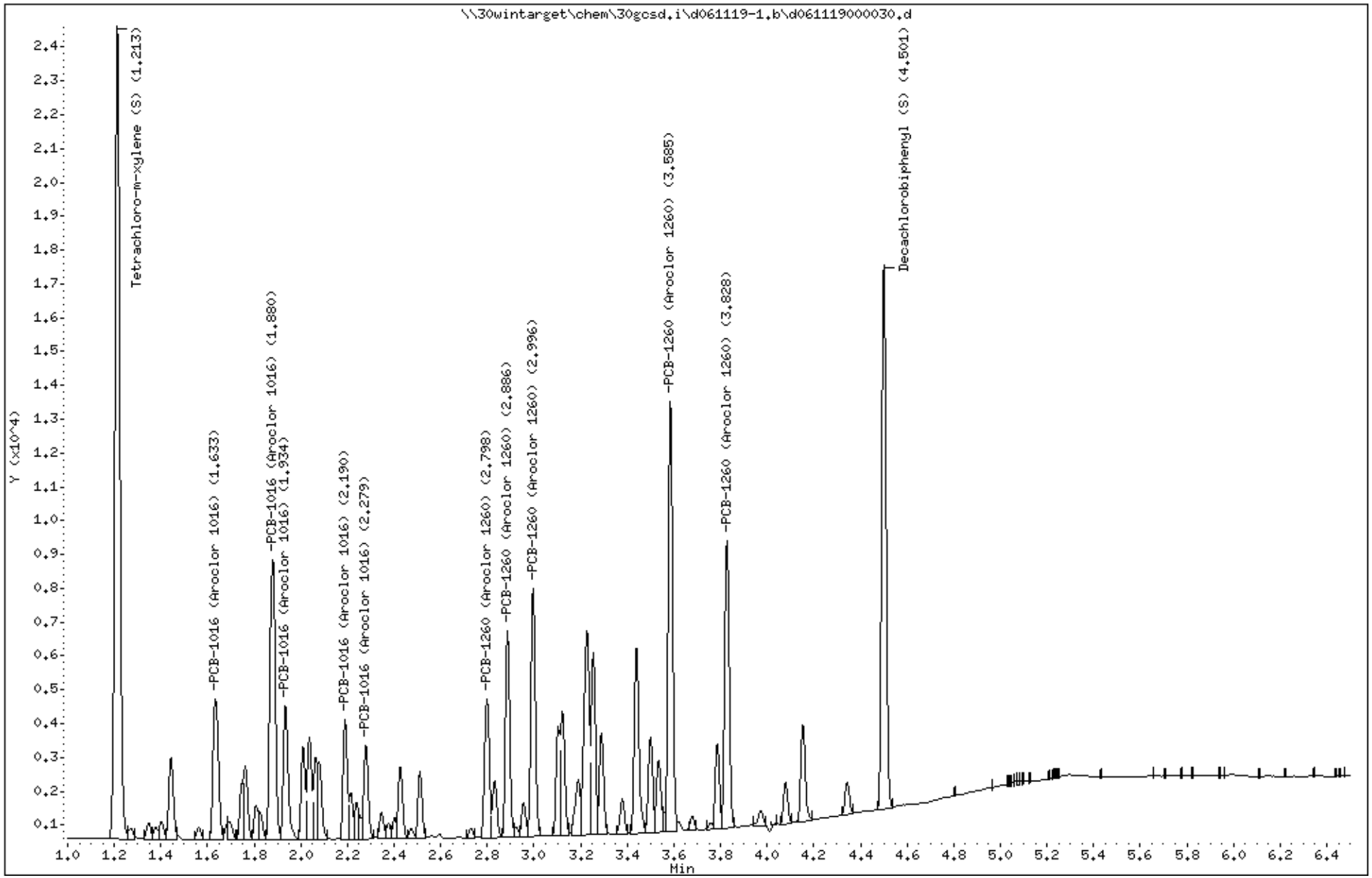
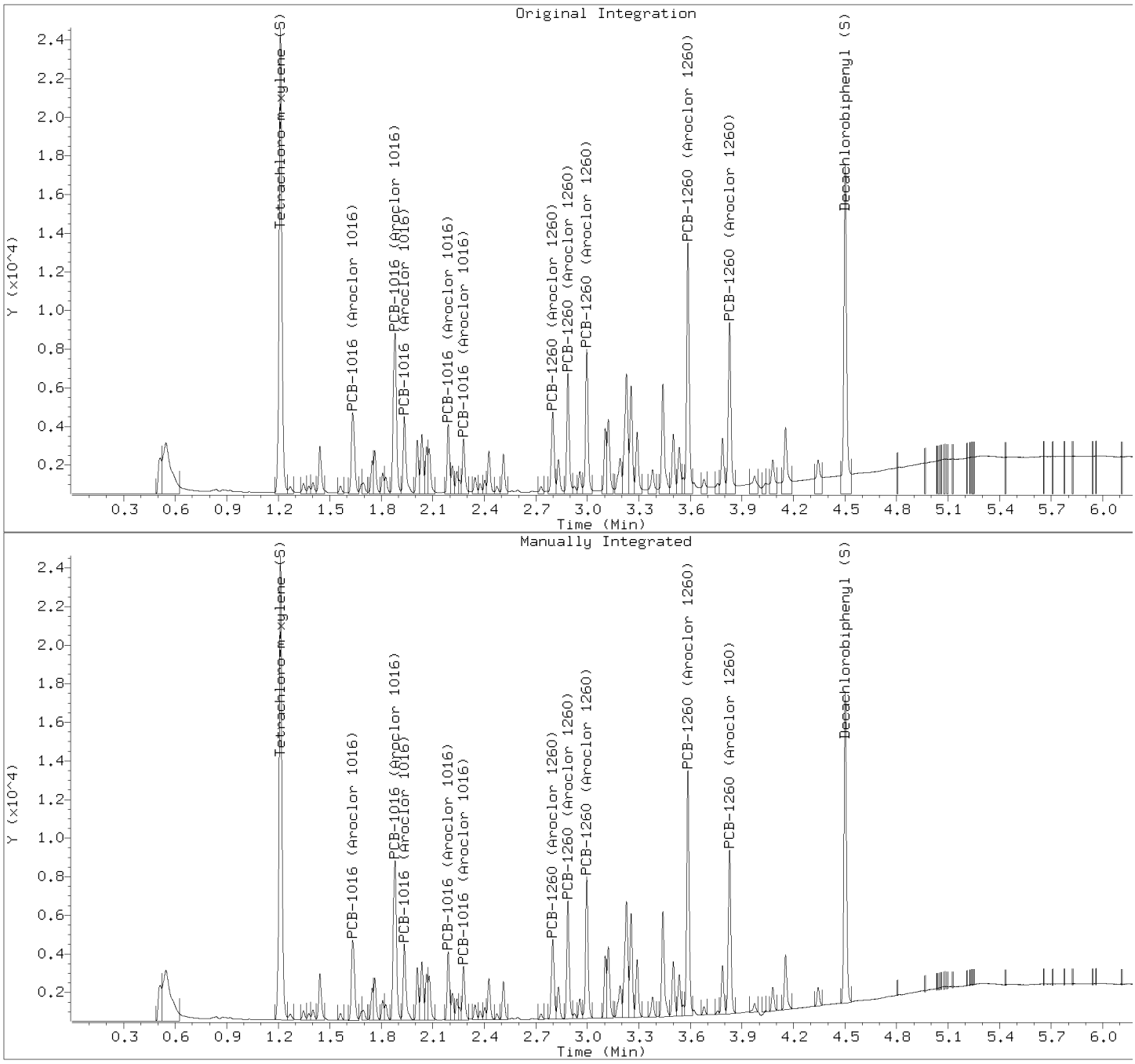
Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000030.d
Date : 11-JUN-2019 20:03
Client ID: CCV
Sample Info: CCV, 90508:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000030.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 11-JUN-2019 20:03 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5578	5455
PCB-1016 (Aroclor 1016)	11068	10902
PCB-1016 (Aroclor 1016)	4708	4504
PCB-1016 (Aroclor 1016)	3433	3320
PCB-1016 (Aroclor 1016)	3035	2876
PCB-1260 (Aroclor 1260)	4967	4710
PCB-1260 (Aroclor 1260)	6363	6019
PCB-1260 (Aroclor 1260)	7856	7392
PCB-1260 (Aroclor 1260)	13488	12669
PCB-1260 (Aroclor 1260)	10243	8991
Tetrachloro-m-xylene (S)	27231	26959
Decachlorobiphenyl (S)	19784	16299

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000030.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	2850	2363	0.829	1.415		
0.571	1498	1587	1.060	0.950		
0.584	4322	1860	0.430	1.114		
0.650	423	525	1.240	0.314		
1.527	294	260	0.884	0.155		
1.586	23954	23224	0.970	13.987	$ 10 Tetrachloro-m-xylene (S)	BA
1.667	298	342	1.150	0.204		
1.712	510	478	0.937	0.286		
1.761	2535	2410	0.951	1.444		
1.843	314	316	1.006	0.189		
1.962	3008	3181	1.057	1.906	1 PCB-1016 (Aroclor 1016)	BA
1.982	1831	1851	1.011	1.109		
2.017	382	382	1.000	0.228		
2.075	3234	2061	0.637	1.234		
2.199	775	845	1.090	0.506		
2.221	721	702	0.974	0.420		
2.266	4009	4574	1.141	2.740		
2.285	5735	5818	1.015	3.486	1 PCB-1016 (Aroclor 1016)	BA
2.304	3738	3601	0.963	2.157		
2.373	2852	2586	0.907	1.549	1 PCB-1016 (Aroclor 1016)	BA
2.402	271	284	1.047	0.170		
2.436	2243	2311	1.030	1.384		
2.468	2596	2650	1.021	1.587	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.496	1004	923	0.920	0.553		
2.558	2555	2649	1.037	1.587	1 PCB-1016 (Aroclor 1016)	BA
2.587	1408	1259	0.894	0.754		
2.615	888	910	1.025	0.545		
2.636	671	692	1.031	0.414		
2.664	2791	1839	0.659	1.101		
2.815	2404	1763	0.734	1.056		
2.861	387	384	0.992	0.230		
2.956	1743	1661	0.953	0.995		
3.136	203	235	1.158	0.140		
3.157	893	861	0.964	0.515		
3.195	727	729	1.003	0.436		
3.242	3300	2582	0.782	1.547		
3.273	610	676	1.108	0.405		
3.305	5119	5057	0.988	3.030	7 PCB-1260 (Aroclor 1260)	BA
3.387	473	439	0.929	0.263		
3.432	801	789	0.985	0.472		
3.475	6076	6055	0.997	3.628	7 PCB-1260 (Aroclor 1260)	BA
3.498	1712	1751	1.023	1.049		
3.552	4085	2786	0.682	1.669		
3.583	564	537	0.952	0.321		
3.627	602	549	0.912	0.328		
3.659	7735	5917	0.765	3.545	7 PCB-1260 (Aroclor 1260)	BA
3.717	4703	4421	0.940	2.649		
3.753	2465	2364	0.959	1.416		
3.835	977	1058	1.083	0.633		
3.858	4810	4474	0.930	2.680		
3.892	268	291	1.086	0.174		
3.918	2315	2249	0.972	1.347		
3.947	1404	1307	0.931	0.783		
4.010	1196	1144	0.956	0.685		
4.056	10681	10070	0.943	6.034	7 PCB-1260 (Aroclor 1260)	BA
4.096	575	546	0.950	0.327		
4.243	6483	5819	0.898	3.486	7 PCB-1260 (Aroclor 1260)	BA
4.269	857	1072	1.251	0.642		
4.290	2919	2441	0.836	1.462		
4.431	169	239	1.418	0.143		
4.457	94	143	1.519	0.085		
4.491	1211	1088	0.898	0.651		
4.583	78	1	0.013	0.000		
4.612	2549	2401	0.942	1.438		
4.653	88	156	1.763	0.093		
4.701	6	21	3.261	0.012		
4.726	8	30	3.580	0.017		
4.766	10	32	3.347	0.019		
4.803	929	856	0.922	0.512		
4.866	5	20	3.922	0.011		
4.883	5	20	3.831	0.011		
4.895	8	20	2.581	0.011		
4.908	16	32	2.028	0.019		
4.916	12	43	3.583	0.025		
4.953	15505	14502	0.935	8.689	$ 11 Decachlorobiphenyl (S)	BA
4.998	13	51	3.829	0.030		
5.020	17	63	3.642	0.037		
5.040	20	78	3.839	0.046		
5.075	17	90	5.269	0.053		
5.085	28	78	2.822	0.046		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.107	21	58	2.723	0.034		
5.160	7	24	3.529	0.014		
5.206	18	45	2.542	0.026		
5.213	7	42	6.017	0.025		
5.224	20	61	3.035	0.036		
5.231	19	74	3.924	0.044		
5.242	67	101	1.498	0.060		
5.260	24	105	4.464	0.062		
5.272	27	117	4.343	0.070		
5.279	38	122	3.253	0.073		
5.298	49	154	3.113	0.092		
5.318	57	157	2.769	0.094		
5.322	66	149	2.271	0.089		
5.329	26	148	5.754	0.088		
5.386	48	168	3.485	0.100		
5.413	59	171	2.875	0.102		
5.423	52	172	3.280	0.103		
5.430	50	177	3.547	0.106		
5.458	57	140	2.459	0.083		
5.476	41	125	3.058	0.074		
5.485	71	136	1.903	0.081		
5.509	63	128	2.023	0.076		
5.564	44	113	2.597	0.067		
5.581	20	96	4.844	0.057		
5.601	31	82	2.634	0.049		
5.638	11	67	6.158	0.040		
5.672	12	55	4.733	0.032		
5.725	29	81	2.813	0.048		
5.794	16	79	4.868	0.047		
5.846	15	72	4.962	0.043		
5.882	15	62	4.050	0.037		
5.922	24	80	3.396	0.047		
5.928	23	77	3.351	0.046		
5.977	51	96	1.886	0.057		
6.046	21	70	3.289	0.041		
6.058	10	62	6.206	0.037		
6.066	13	59	4.390	0.035		
6.124	16	50	3.053	0.029		
6.158	17	61	3.651	0.036		
6.169	14	63	4.375	0.037		
6.224	18	49	2.707	0.029		
6.233	14	45	3.114	0.026		
6.239	12	46	3.770	0.027		
6.324	10	38	3.838	0.022		
6.350	9	42	4.941	0.025		
6.359	18	47	2.655	0.028		
6.371	8	37	4.436	0.022		
6.411	3	22	7.801	0.013		
6.428	6	21	3.627	0.012		
6.435	9	26	2.808	0.015		
6.453	8	28	3.581	0.016		
6.473	7	37	5.125	0.022		
6.488	10	33	3.423	0.019		
6.493	14	41	2.841	0.024		
	176999	166885		100.000		

Total unknown % height = 47.5

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000030.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.961	1.962	-0.001	3008	0.25000	0.264	80.00- 120.00	100.00	(aM)	BA
2.284	2.284	0.000	5734	0.25000	0.263	150.73- 226.09	190.64		BA
2.372	2.372	0.000	2852	0.25000	0.263	72.86- 109.30	94.83		BA
2.467	2.468	-0.001	2595	0.25000	0.260	66.73- 100.09	86.30		BA
2.557	2.558	-0.001	2555	0.25000	0.258	65.78- 98.68	84.94		BA
Average of Peak Amounts =					0.26160				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.304	3.305	-0.001	5119	0.25000	0.252	80.00- 120.00	100.00	(aM)	BA
3.474	3.475	-0.001	6076	0.25000	0.249	95.10- 142.65	118.70		BA
3.658	3.659	-0.001	7734	0.25000	0.264	118.52- 177.78	151.08		BA
4.055	4.056	-0.001	10681	0.25000	0.248	168.36- 252.54	208.65		BA
4.242	4.243	-0.001	6482	0.25000	0.250	103.36- 155.04	126.64		BA
Average of Peak Amounts =					0.25260				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.585	1.585	0.000	23953	0.05000	0.0527			(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.953	4.955	-0.002	15504	0.05000	0.0488		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 11-JUN-2019 20:03
Lab File ID: d061119000030.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	12032	0.010	5.60665	20.00000	Aver	(aM)
(2)	21808	22936	0.010	5.17215	20.00000	Aver	(aM)
(3)	10850	11408	0.010	5.14609	20.00000	Aver	(aM)
(4)	9980	10380	0.010	4.00396	20.00000	Aver	(aM)
(5)	9902	10220	0.010	3.21495	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	20476	0.010	0.76606	20.00000	Aver	(aM)
(2)	24356	24304	0.010	-0.21441	20.00000	Aver	(aM)
(3)	29292	30936	0.010	5.61245	20.00000	Aver	(aM)
(4)	43025	42724	0.010	-0.69998	20.00000	Aver	(aM)
(5)	25870	25928	0.010	0.22506	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	479060	0.010	5.47897	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	310080	0.010	-2.32573	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 2.67367
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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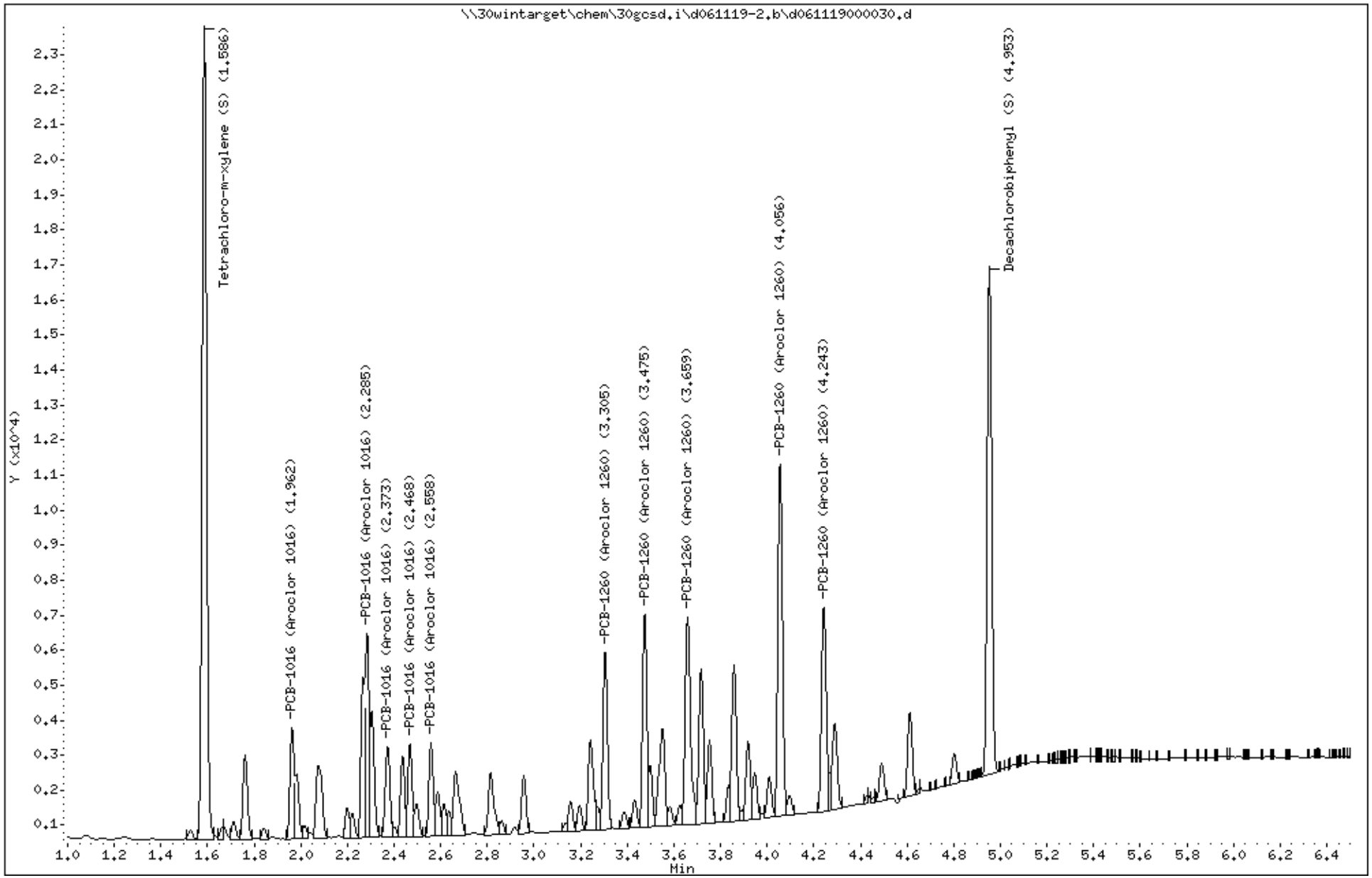
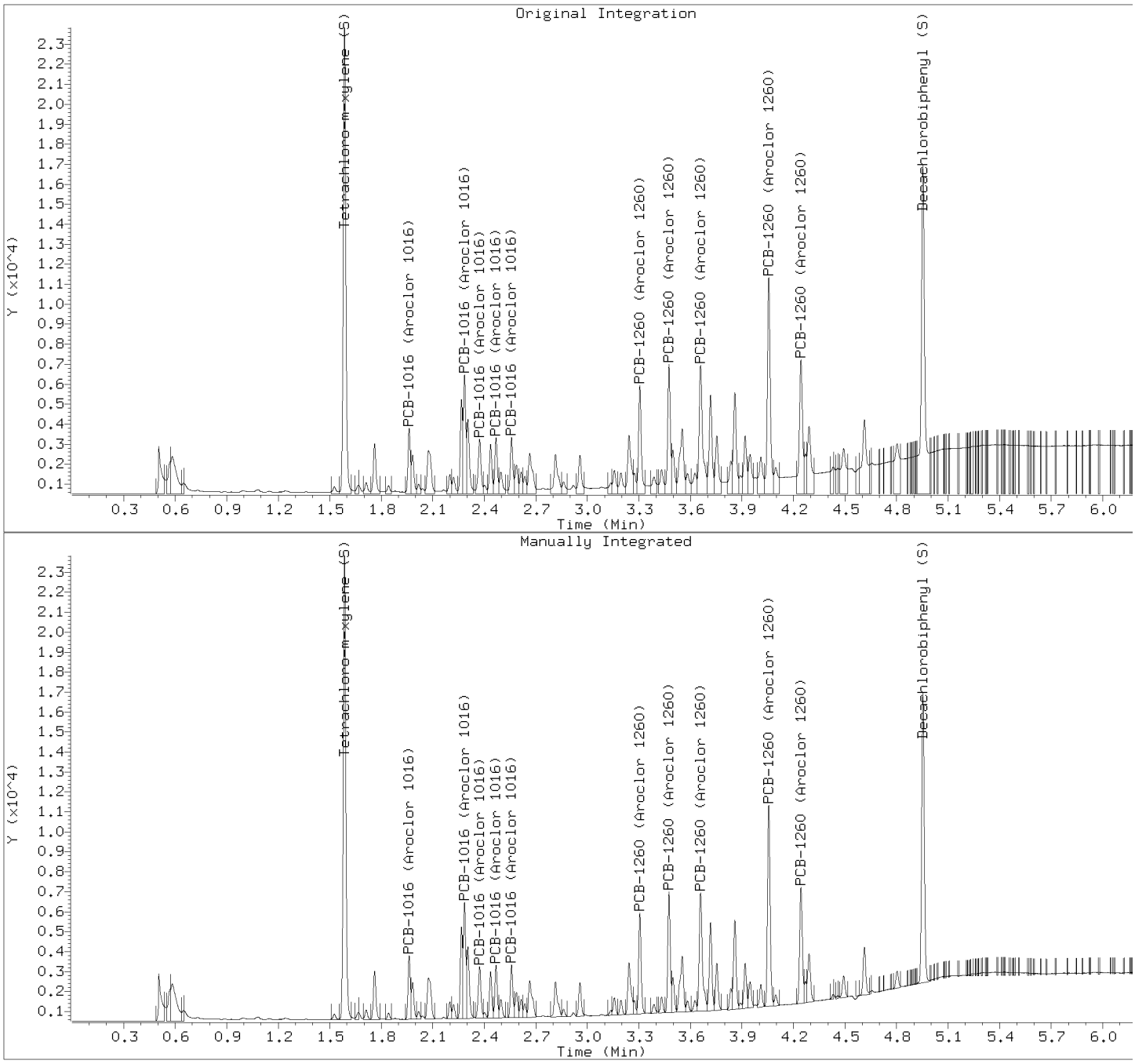
Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000030.d
Date : 11-JUN-2019 20:03
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 90508:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b/d061119000030.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 11-JUN-2019 20:03 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3152	3008
PCB-1016 (Aroclor 1016)	5831	5734
PCB-1016 (Aroclor 1016)	3221	2852
PCB-1016 (Aroclor 1016)	2868	2595
PCB-1016 (Aroclor 1016)	2901	2555
PCB-1260 (Aroclor 1260)	6114	5119
PCB-1260 (Aroclor 1260)	6995	6076
PCB-1260 (Aroclor 1260)	9440	7734
PCB-1260 (Aroclor 1260)	12950	10681
PCB-1260 (Aroclor 1260)	8806	6482
Tetrachloro-m-xylene (S)	24257	23953
Decachlorobiphenyl (S)	24256	15504

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000051.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 23:01
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	2337	1885	0.807	0.955		
0.546	7821	2848	0.364	1.442		
1.213	28613	25372	0.887	12.888	$ 10 Tetrachloro-m-xylene (S)	BA
1.271	425	315	0.741	0.159		
1.347	561	516	0.919	0.261		
1.378	368	366	0.994	0.185		
1.402	584	556	0.953	0.281		
1.443	2735	2531	0.925	1.282		
1.562	369	372	1.008	0.188		
1.633	5781	4403	0.762	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.685	321	475	1.478	0.240		
1.695	629	536	0.852	0.271		
1.747	1449	1770	1.222	0.896		
1.762	2376	2307	0.971	1.168		
1.808	964	1082	1.122	0.548		
1.825	865	844	0.976	0.427		
1.880	11582	8790	0.759	4.453	1 PCB-1016 (Aroclor 1016)	BA
1.933	4778	4165	0.872	2.110	1 PCB-1016 (Aroclor 1016)	BA
2.009	2663	2891	1.086	1.464		
2.037	3450	3185	0.923	1.613		
2.063	2302	2540	1.103	1.286		
2.078	2626	2456	0.935	1.244		
2.189	3529	3741	1.060	1.895	1 PCB-1016 (Aroclor 1016)	BA
2.214	1395	1455	1.043	0.737		
2.240	1100	1159	1.054	0.587		
2.255	525	700	1.332	0.354		
2.279	3085	2968	0.962	1.503	1 PCB-1016 (Aroclor 1016)	BA
2.346	830	813	0.979	0.411		
2.376	463	485	1.048	0.245		
2.402	594	649	1.093	0.328		
2.426	2330	2237	0.960	1.133		
2.473	309	326	1.056	0.165		
2.510	2031	2114	1.041	1.071		
2.729	284	306	1.079	0.155		
2.798	5047	4433	0.878	2.246	7 PCB-1260 (Aroclor 1260)	BA
2.831	1825	1819	0.997	0.921		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	6457	6471	1.002	3.278	7 PCB-1260 (Aroclor 1260)	BA
2.924	298	292	0.980	0.147		
2.955	1057	1095	1.036	0.554		
2.996	7988	7919	0.991	4.012	7 PCB-1260 (Aroclor 1260)	BA
3.103	3058	3525	1.153	1.786		
3.121	4229	3937	0.931	1.994		
3.190	2371	1737	0.733	0.880		
3.227	8599	6522	0.758	3.304		
3.254	5915	5859	0.990	2.968		
3.289	3284	3265	0.994	1.654		
3.378	1186	1102	0.929	0.558		
3.439	6350	5802	0.914	2.939		
3.499	3200	3146	0.983	1.593		
3.533	2472	2359	0.954	1.195		
3.557	509	621	1.221	0.314		
3.584	13703	13581	0.991	6.881	7 PCB-1260 (Aroclor 1260)	BA
3.619	290	311	1.073	0.157		
3.678	461	470	1.020	0.238		
3.757	114	193	1.692	0.097		
3.785	2690	2703	1.005	1.369		
3.826	9795	9158	0.935	4.640	7 PCB-1260 (Aroclor 1260)	BA
3.971	497	490	0.986	0.248		
4.036	11	86	7.963	0.043		
4.078	1360	1360	1.000	0.689		
4.152	3283	3138	0.956	1.589		
4.342	1104	1088	0.985	0.551		
4.499	18277	17664	0.966	8.949	$ 11 Decachlorobiphenyl (S)	BA
4.807	20	45	2.234	0.022		
6.202	7	18	2.632	0.009		
	215524	197367		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000051.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 23:01
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.632	1.633	-0.001	5781	0.25000	0.281	80.00- 120.00	100.00(M)	BA
1.879	1.880	-0.001	11581	0.25000	0.280	160.93- 241.39	200.33	BA
1.933	1.933	0.000	4778	0.25000	0.287	65.29- 97.93	82.65	BA
2.189	2.189	0.000	3528	0.25000	0.276	47.30- 70.95	61.04	BA
2.278	2.279	-0.001	3085	0.25000	0.281	41.08- 61.63	53.37	BA
Average of Peak Amounts =					0.28100			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.797	2.798	-0.001	5046	0.25000	0.272	80.00- 120.00	100.00(M)	BA
2.885	2.886	-0.001	6456	0.25000	0.272	102.15- 153.22	127.94	BA
2.995	2.996	-0.001	7987	0.25000	0.269	125.94- 188.91	158.28	BA
3.583	3.585	-0.002	13702	0.25000	0.273	213.36- 320.04	271.56	BA
3.826	3.828	-0.002	9794	0.25000	0.270	152.08- 228.11	194.11	BA
Average of Peak Amounts =					0.27120			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.212	0.000	28613	0.05000	0.0562		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.498	4.502	-0.004	18277	0.05000	0.0544		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 11-JUN-2019 23:01
Lab File ID: d061119000051.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	23124	0.010	12.59129	20.00000	Aver	(M)
(2)	41335	46324	0.010	12.07013	20.00000	Aver	(M)
(3)	16656	19112	0.010	14.74429	20.00000	Aver	(M)
(4)	12773	14112	0.010	10.48161	20.00000	Aver	(M)
(5)	10980	12340	0.010	12.39127	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20184	0.010	8.84350	20.00000	Aver	(M)
(2)	23716	25824	0.010	8.88953	20.00000	Aver	(M)
(3)	29676	31948	0.010	7.65562	20.00000	Aver	(M)
(4)	50204	54808	0.010	9.16974	20.00000	Aver	(M)
(5)	36244	39176	0.010	8.09011	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	572260	0.010	12.51567	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	365540	0.010	8.90484	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.72407
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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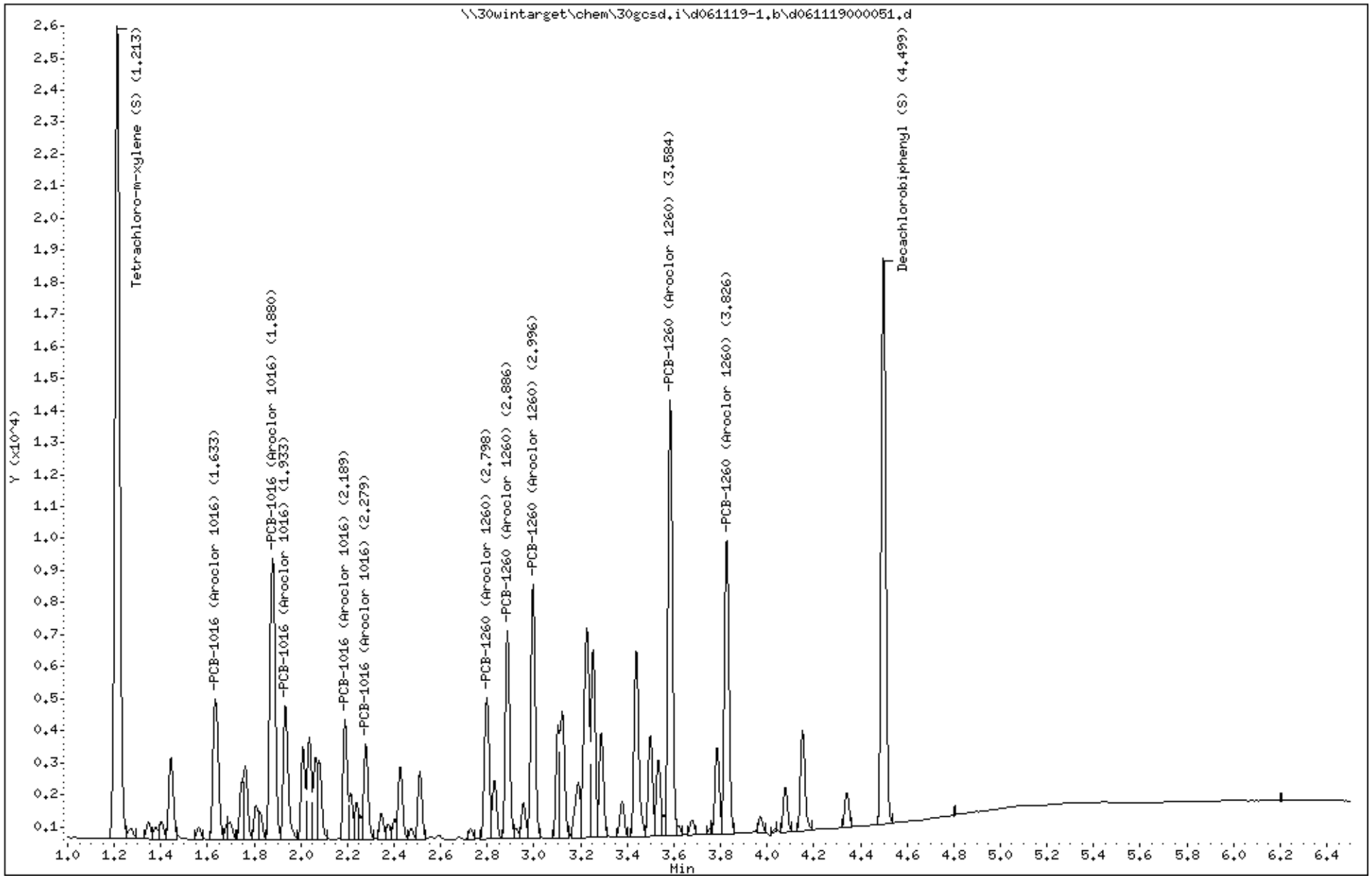
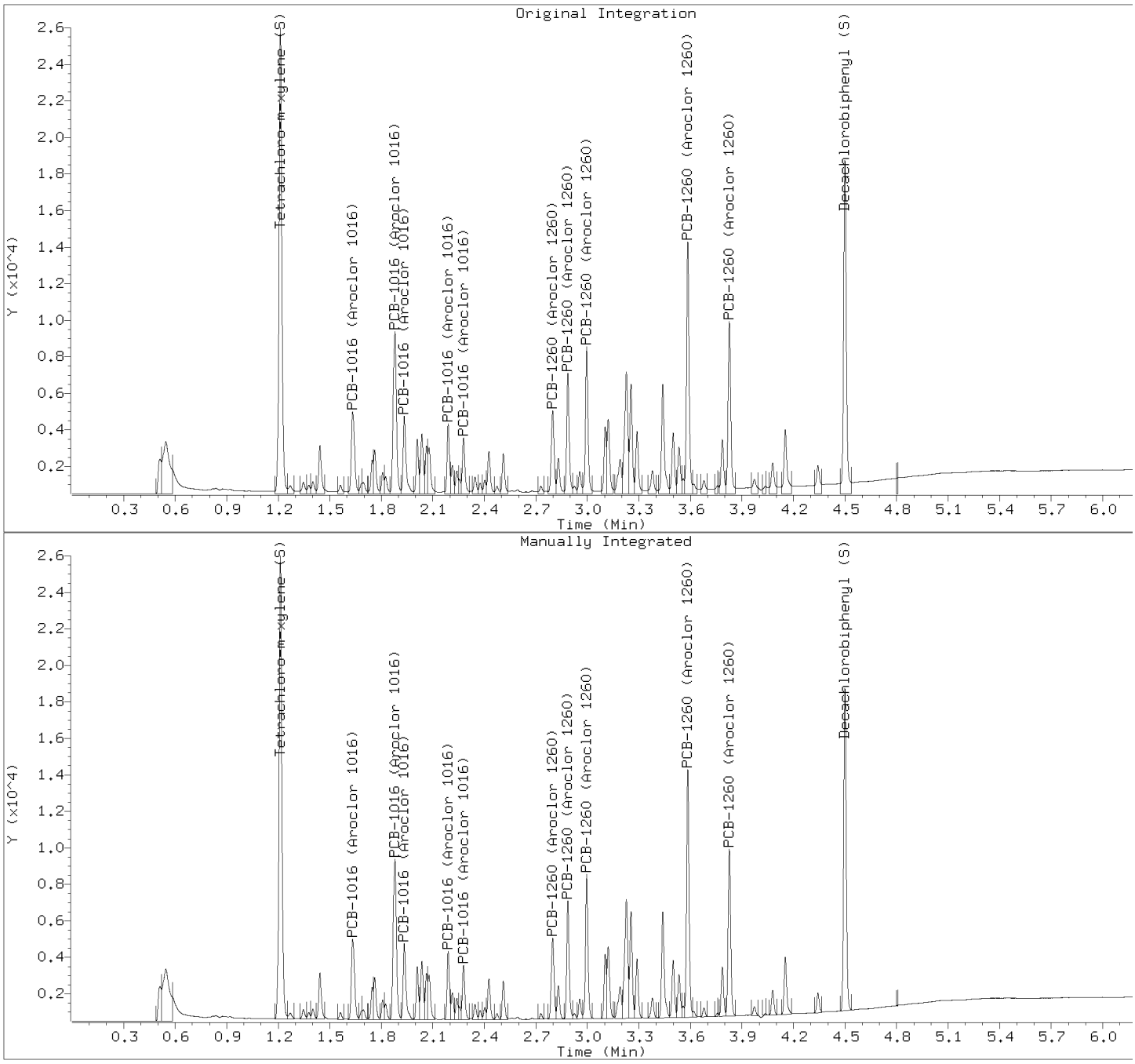
Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000051.d
Date : 11-JUN-2019 23:01
Client ID: CCV
Sample Info: CCV, 90508:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000051.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 11-JUN-2019 23:01 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	6085	5781
PCB-1016 (Aroclor 1016)	11888	11581
PCB-1016 (Aroclor 1016)	5128	4778
PCB-1016 (Aroclor 1016)	3689	3528
PCB-1016 (Aroclor 1016)	3310	3085
PCB-1260 (Aroclor 1260)	5323	5046
PCB-1260 (Aroclor 1260)	6798	6456
PCB-1260 (Aroclor 1260)	8413	7987
PCB-1260 (Aroclor 1260)	14288	13702
PCB-1260 (Aroclor 1260)	10661	9794
Tetrachloro-m-xylene (S)	29113	28613
Decachlorobiphenyl (S)	20410	18277

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000051.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 23:01
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	2805	2418	0.862	1.384		
0.570	1945	1777	0.913	1.017		
0.583	4686	2082	0.444	1.191		
0.648	493	661	1.340	0.378		
1.527	309	274	0.886	0.156		
1.586	25550	24669	0.966	14.167	$ 10 Tetrachloro-m-xylene (S)	BA
1.666	289	364	1.260	0.208		
1.712	526	499	0.948	0.285		
1.761	2699	2583	0.957	1.478		
1.842	334	330	0.989	0.188		
1.962	3194	3343	1.047	1.913	1 PCB-1016 (Aroclor 1016)	BA
1.982	1936	1948	1.006	1.115		
2.017	404	405	1.003	0.231		
2.075	3426	2187	0.638	1.252		
2.199	830	890	1.072	0.509		
2.221	731	717	0.980	0.410		
2.267	4353	4911	1.128	2.811		
2.284	6026	6132	1.018	3.510	1 PCB-1016 (Aroclor 1016)	BA
2.304	3998	3829	0.958	2.192		
2.373	3034	2729	0.899	1.562	1 PCB-1016 (Aroclor 1016)	BA
2.402	270	276	1.021	0.158		
2.436	2375	2441	1.028	1.397		
2.468	2790	2780	0.996	1.591	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.496	1055	978	0.927	0.559		
2.558	2719	2812	1.034	1.609	1 PCB-1016 (Aroclor 1016)	BA
2.587	1489	1346	0.904	0.770		
2.614	940	951	1.012	0.544		
2.636	718	739	1.029	0.423		
2.664	2969	1953	0.658	1.118		
2.814	2517	1862	0.740	1.066		
2.861	407	404	0.992	0.231		
2.919	185	193	1.043	0.110		
2.957	1865	1798	0.964	1.029		
3.135	223	261	1.169	0.149		
3.157	975	934	0.958	0.534		
3.196	807	792	0.982	0.453		
3.242	3569	2812	0.788	1.609		
3.273	689	744	1.081	0.425		
3.305	5544	5397	0.974	3.089	7 PCB-1260 (Aroclor 1260)	BA
3.387	294	480	1.632	0.274		
3.432	879	860	0.979	0.492		
3.475	6575	6540	0.995	3.744	7 PCB-1260 (Aroclor 1260)	BA
3.498	1879	1906	1.014	1.091		
3.552	4438	3040	0.685	1.740		
3.583	619	592	0.957	0.338		
3.627	643	587	0.913	0.336		
3.659	8293	6335	0.764	3.626	7 PCB-1260 (Aroclor 1260)	BA
3.717	5047	4727	0.937	2.706		
3.754	2668	2592	0.972	1.483		
3.835	1025	1129	1.102	0.646		
3.858	5174	4834	0.934	2.767		
3.892	296	307	1.036	0.175		
3.918	2485	2398	0.965	1.372		
3.947	1514	1404	0.927	0.803		
4.009	1314	1205	0.917	0.689		
4.055	11569	10984	0.949	6.288	7 PCB-1260 (Aroclor 1260)	BA
4.095	620	581	0.936	0.332		
4.242	7011	6192	0.883	3.545	7 PCB-1260 (Aroclor 1260)	BA
4.269	909	1154	1.269	0.660		
4.290	3212	2649	0.825	1.516		
4.431	275	255	0.928	0.145		
4.458	158	151	0.956	0.086		
4.490	1332	1207	0.906	0.691		
4.581	46	9	0.196	0.005		
4.612	2760	2650	0.960	1.517		
4.654	109	157	1.443	0.089		
4.801	1017	960	0.944	0.549		
4.951	17068	16209	0.950	9.279	$ 11 Decachlorobiphenyl (S)	BA
5.156	10	32	3.194	0.018		
5.227	3	18	5.590	0.010		
5.241	15	44	3.003	0.025		
5.297	4	14	3.743	0.008		
5.400	5	22	4.015	0.012		
5.435	16	43	2.614	0.024		
5.791	1	7	5.426	0.004		
6.038	1	0	0.000	0.000		
6.129	5	17	3.505	0.009		
6.159	4	24	6.138	0.013		
6.312	5	19	3.926	0.010		
6.319	3	14	5.224	0.008		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.334	4	19	4.922	0.010		
6.366	4	16	4.545	0.009		
6.378	10	23	2.376	0.013		
6.410	7	21	3.017	0.012		
6.482	3	18	5.844	0.010		
	189005	174666		100.000		

Total unknown % height = 46.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000051.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 11-JUN-2019 23:01
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.961	1.962	-0.001	3193	0.25000	0.280	80.00- 120.00	100.00(aM)	BA
2.284	2.284	0.000	6026	0.25000	0.276	150.73- 226.09	188.69	BA
2.372	2.372	0.000	3034	0.25000	0.280	72.86- 109.30	95.00	BA
2.467	2.468	-0.001	2790	0.25000	0.280	66.73- 100.09	87.36	BA
2.557	2.558	-0.001	2718	0.25000	0.274	65.78- 98.68	85.13	BA
		Average of Peak Amounts =			0.27800			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.304	3.305	-0.001	5543	0.25000	0.273	80.00- 120.00	100.00(aM)	BA
3.475	3.475	0.000	6575	0.25000	0.270	95.10- 142.65	118.62	BA
3.658	3.659	-0.001	8293	0.25000	0.283	118.52- 177.78	149.61	BA
4.054	4.056	-0.002	11568	0.25000	0.269	168.36- 252.54	208.70	BA
4.241	4.243	-0.002	7011	0.25000	0.271	103.36- 155.04	126.49	BA
		Average of Peak Amounts =			0.27320			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.585	1.585	0.000	25550	0.05000	0.0562		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.951	4.955	-0.004	17068	0.05000	0.0538		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 11-JUN-2019 23:01
Lab File ID: d061119000051.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	12772	0.010	12.10174	20.00000	Aver	(aM)
(2)	21808	24104	0.010	10.52796	20.00000	Aver	(aM)
(3)	10850	12136	0.010	11.85597	20.00000	Aver	(aM)
(4)	9980	11160	0.010	11.81929	20.00000	Aver	(aM)
(5)	9902	10872	0.010	9.79970	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	22172	0.010	9.11238	20.00000	Aver	(aM)
(2)	24356	26300	0.010	7.98062	20.00000	Aver	(aM)
(3)	29292	33172	0.010	13.24594	20.00000	Aver	(aM)
(4)	43025	46272	0.010	7.54636	20.00000	Aver	(aM)
(5)	25870	28044	0.010	8.40449	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	511000	0.010	12.51149	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	341360	0.010	7.52738	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 2.67367
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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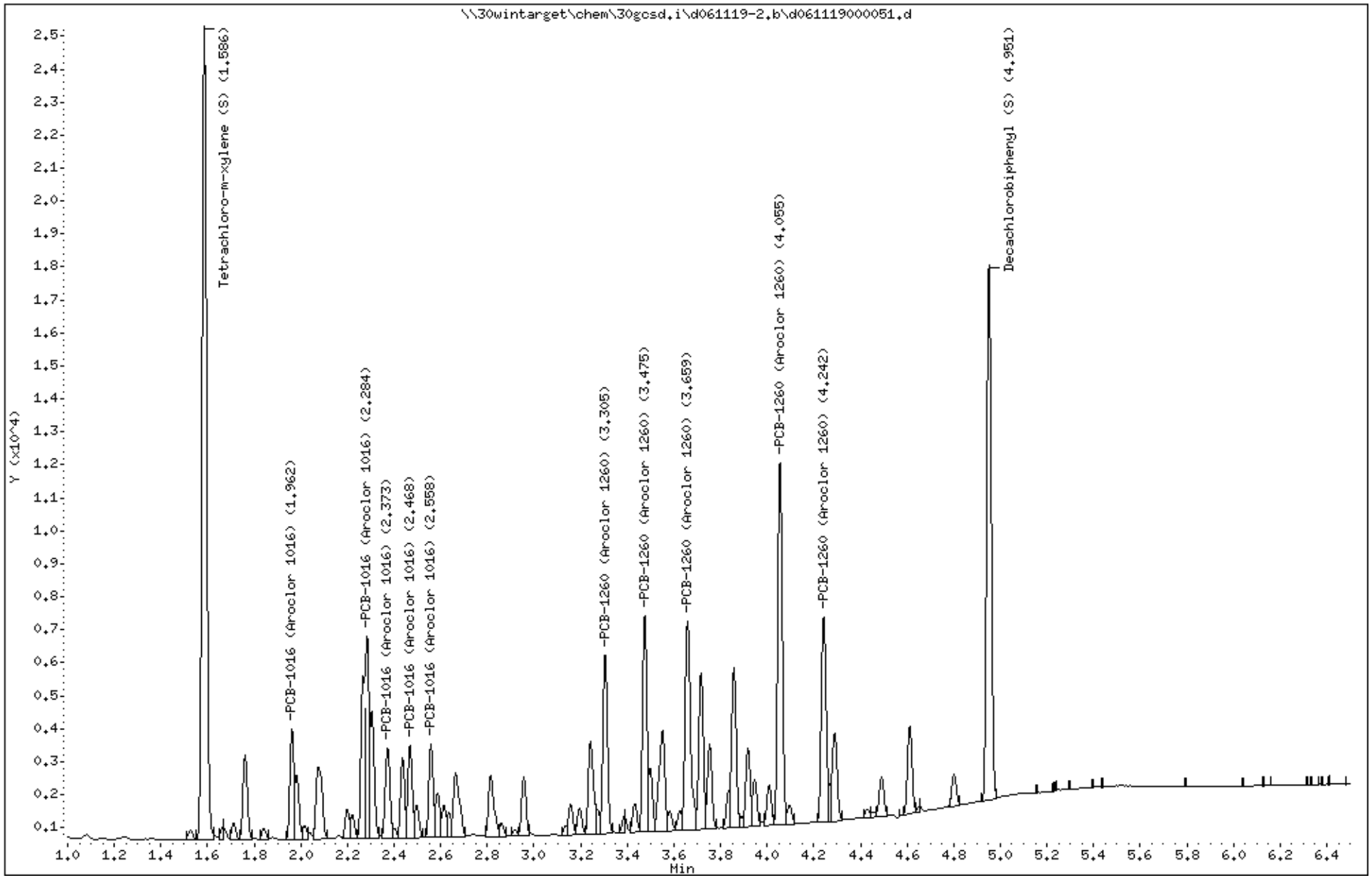
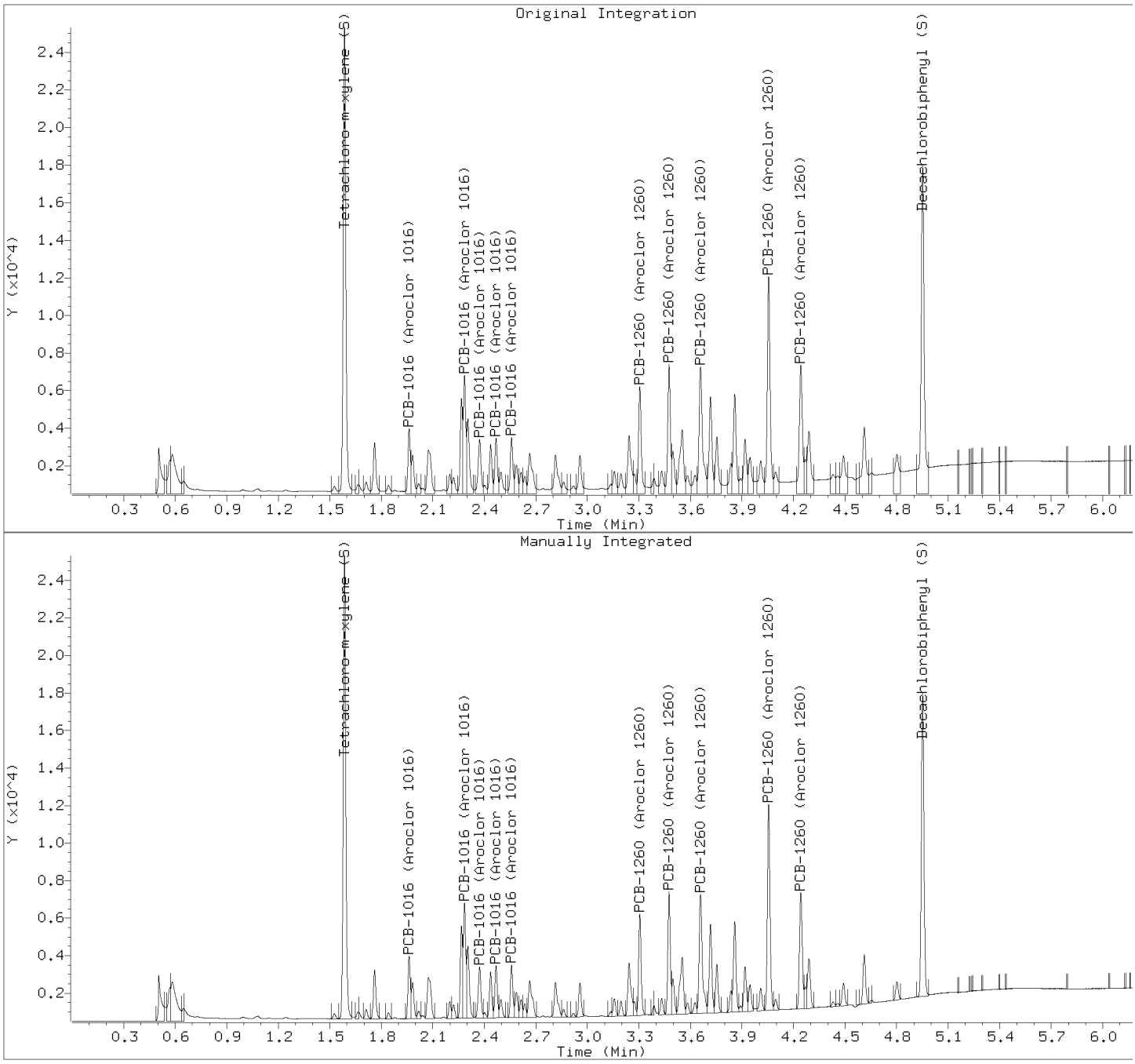
Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000051.d
Date : 11-JUN-2019 23:01
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 90508:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b/d061119000051.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 11-JUN-2019 23:01 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3409	3193
PCB-1016 (Aroclor 1016)	6147	6026
PCB-1016 (Aroclor 1016)	3459	3034
PCB-1016 (Aroclor 1016)	3103	2790
PCB-1016 (Aroclor 1016)	3102	2718
PCB-1260 (Aroclor 1260)	6398	5543
PCB-1260 (Aroclor 1260)	7333	6575
PCB-1260 (Aroclor 1260)	9694	8293
PCB-1260 (Aroclor 1260)	13313	11568
PCB-1260 (Aroclor 1260)	8709	7011
Tetrachloro-m-xylene (S)	26028	25550
Decachlorobiphenyl (S)	22460	17068

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000078.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-JUN-2019 02:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1758	1435	0.816	0.417		
0.546	8393	2457	0.293	0.715		
1.213	25944	23168	0.893	6.938	$ 10 Tetrachloro-m-xylene (S)	BA
1.270	324	252	0.778	0.073		
1.347	421	412	0.979	0.119		
1.379	309	303	0.982	0.088		
1.403	475	461	0.970	0.134		
1.443	2364	2212	0.936	0.644		
1.563	302	303	1.003	0.088		
1.634	4933	3781	0.767	1.100	1 PCB-1016 (Aroclor 1016)	BA
1.695	514	447	0.869	0.130		
1.747	1158	1452	1.253	0.422		
1.762	2001	1940	0.970	0.564		
1.809	764	879	1.151	0.255		
1.827	911	839	0.921	0.244		
1.880	9863	7541	0.765	2.195	1 PCB-1016 (Aroclor 1016)	BA
1.934	3895	3512	0.902	1.022	1 PCB-1016 (Aroclor 1016)	BA
2.010	2151	2398	1.115	0.698		
2.038	2806	2594	0.924	0.755		
2.064	1859	2051	1.103	0.597		
2.079	2066	1971	0.954	0.573		
2.190	2849	3074	1.079	0.895	1 PCB-1016 (Aroclor 1016)	BA
2.214	1094	1150	1.051	0.334		
2.241	872	907	1.040	0.264		
2.256	402	556	1.381	0.161		
2.279	2423	2393	0.988	0.696	1 PCB-1016 (Aroclor 1016)	BA
2.347	636	625	0.983	0.181		
2.376	355	365	1.027	0.106		
2.403	452	505	1.117	0.147		
2.427	1793	1770	0.987	0.515		
2.474	229	238	1.041	0.069		
2.512	1546	1637	1.059	0.476		
2.563	36	57	1.565	0.016		
2.595	49	88	1.784	0.025		
2.731	234	247	1.055	0.071		
2.799	3969	3547	0.894	1.032	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.832	1371	1339	0.977	0.389		
2.887	5069	5226	1.031	1.521	7 PCB-1260 (Aroclor 1260)	BA
2.926	237	232	0.980	0.067		
2.956	822	822	1.000	0.239		
2.997	6442	6375	0.990	1.856	7 PCB-1260 (Aroclor 1260)	BA
3.104	2433	2808	1.154	0.817		
3.123	3294	3075	0.934	0.895		
3.191	1766	1334	0.755	0.388		
3.228	6689	5167	0.772	1.504		
3.255	4565	4566	1.000	1.329		
3.290	2529	2541	1.005	0.739		
3.325	43	73	1.690	0.021		
3.348	46	80	1.727	0.023		
3.380	1160	929	0.801	0.270		
3.440	5270	4688	0.890	1.364		
3.500	2504	2440	0.975	0.710		
3.534	1861	1826	0.981	0.531		
3.559	377	465	1.233	0.135		
3.586	10946	11181	1.021	3.255	7 PCB-1260 (Aroclor 1260)	BA
3.618	72	204	2.825	0.059		
3.622	109	218	2.001	0.063		
3.645	18	63	3.488	0.018		
3.657	44	92	2.070	0.026		
3.681	669	497	0.743	0.144		
3.706	38	182	4.757	0.052		
3.710	44	191	4.381	0.055		
3.715	62	201	3.252	0.058		
3.721	58	198	3.400	0.057		
3.724	49	213	4.386	0.062		
3.729	56	203	3.656	0.059		
3.733	63	223	3.515	0.064		
3.740	106	242	2.284	0.070		
3.758	361	390	1.082	0.113		
3.787	2543	2318	0.912	0.674		
3.828	8303	7698	0.927	2.241	7 PCB-1260 (Aroclor 1260)	BA
3.869	32	93	2.904	0.027		
3.877	39	80	2.078	0.023		
3.884	21	82	3.946	0.023		
3.887	17	93	5.407	0.027		
3.894	35	104	2.969	0.030		
3.898	29	108	3.737	0.031		
3.903	36	98	2.703	0.028		
3.910	31	81	2.605	0.023		
3.923	72	105	1.453	0.030		
3.931	52	110	2.103	0.032		
3.935	30	120	3.976	0.034		
3.946	71	125	1.763	0.036		
3.955	75	145	1.922	0.042		
3.972	347	480	1.383	0.139		
3.998	27	85	3.100	0.024		
4.004	27	78	2.939	0.022		
4.015	23	58	2.504	0.016		
4.019	9	51	5.472	0.014		
4.037	173	163	0.942	0.047		
4.055	52	103	1.967	0.029		
4.079	1492	1206	0.808	0.351		
4.115	177	241	1.363	0.070		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.132	162	263	1.625	0.076		
4.154	3484	2817	0.808	0.820		
4.192	194	237	1.223	0.069		
4.203	25	164	6.534	0.047		
4.213	64	144	2.246	0.041		
4.220	70	97	1.382	0.028		
4.230	15	53	3.645	0.015		
4.236	17	46	2.656	0.013		
4.241	15	55	3.595	0.016		
4.244	11	56	5.091	0.016		
4.250	9	37	4.195	0.010		
4.267	105	196	1.861	0.057		
4.270	35	198	5.723	0.057		
4.276	91	192	2.107	0.055		
4.287	112	218	1.947	0.063		
4.301	202	244	1.208	0.071		
4.322	349	351	1.006	0.102		
4.325	88	388	4.402	0.112		
4.344	1608	1158	0.720	0.337		
4.366	128	395	3.096	0.115		
4.371	68	349	5.125	0.101		
4.379	158	324	2.057	0.094		
4.383	57	322	5.631	0.093		
4.387	104	334	3.214	0.097		
4.393	119	322	2.696	0.093		
4.399	113	318	2.814	0.092		
4.403	99	318	3.228	0.092		
4.410	40	291	7.352	0.084		
4.417	44	282	6.453	0.082		
4.429	230	325	1.414	0.094		
4.434	162	324	1.995	0.094		
4.441	53	249	4.732	0.072		
4.454	257	321	1.250	0.093		
4.462	119	269	2.265	0.078		
4.473	36	217	5.950	0.063		
4.501	16413	15958	0.972	4.646	$ 11 Decachlorobiphenyl (S)	BA
4.539	25	84	3.310	0.024		
4.556	201	281	1.401	0.081		
4.562	126	358	2.846	0.104		
4.569	158	381	2.410	0.110		
4.576	157	394	2.515	0.114		
4.578	63	408	6.464	0.118		
4.581	93	444	4.782	0.129		
4.584	86	444	5.170	0.129		
4.590	159	428	2.692	0.124		
4.605	42	265	6.328	0.077		
4.610	129	288	2.231	0.083		
4.618	105	204	1.937	0.059		
4.624	38	168	4.409	0.048		
4.635	93	151	1.622	0.043		
4.652	193	238	1.234	0.069		
4.659	104	194	1.873	0.056		
4.673	106	157	1.478	0.045		
4.684	163	285	1.751	0.082		
4.689	94	310	3.311	0.090		
4.695	115	352	3.073	0.102		
4.699	213	343	1.611	0.099		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.709	66	226	3.428	0.065		
4.718	22	145	6.603	0.042		
4.730	136	256	1.879	0.074		
4.732	73	248	3.418	0.072		
4.745	139	264	1.900	0.076		
4.754	165	323	1.962	0.094		
4.762	194	378	1.946	0.110		
4.769	158	438	2.779	0.127		
4.774	210	435	2.071	0.126		
4.779	77	405	5.233	0.117		
4.784	210	411	1.954	0.119		
4.795	64	275	4.296	0.080		
4.809	346	486	1.406	0.141		
4.814	148	467	3.158	0.135		
4.820	161	464	2.881	0.135		
4.823	94	496	5.281	0.144		
4.827	167	524	3.139	0.152		
4.831	123	458	3.737	0.133		
4.835	123	472	3.826	0.137		
4.841	119	439	3.705	0.127		
4.846	195	402	2.060	0.117		
4.857	250	364	1.457	0.105		
4.868	18	157	8.742	0.045		
4.878	113	217	1.918	0.063		
4.883	78	249	3.180	0.072		
4.888	89	286	3.228	0.083		
4.900	290	539	1.862	0.156		
4.914	595	764	1.284	0.222		
4.917	133	756	5.684	0.220		
4.927	440	794	1.806	0.231		
4.944	992	1098	1.107	0.319		
4.946	197	1113	5.664	0.324		
4.954	632	1050	1.661	0.305		
4.975	184	743	4.038	0.216		
4.979	293	707	2.414	0.205		
4.992	244	577	2.361	0.167		
4.996	105	545	5.215	0.158		
5.004	260	587	2.256	0.170		
5.007	118	615	5.223	0.179		
5.010	95	603	6.359	0.175		
5.016	254	563	2.221	0.163		
5.026	140	569	4.058	0.165		
5.042	780	990	1.270	0.288		
5.046	299	1013	3.383	0.294		
5.049	291	1050	3.611	0.305		
5.058	324	1120	3.452	0.326		
5.060	205	1156	5.641	0.336		
5.064	511	1258	2.461	0.366		
5.070	274	1265	4.622	0.368		
5.076	592	1265	2.137	0.368		
5.082	320	1257	3.928	0.365		
5.085	328	1291	3.935	0.375		
5.089	255	1295	5.083	0.377		
5.095	466	1317	2.827	0.383		
5.097	187	1353	7.226	0.393		
5.106	818	1490	1.822	0.433		
5.110	784	1546	1.973	0.450		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.116	689	1475	2.141	0.429		
5.124	567	1404	2.475	0.408		
5.162	338	714	2.115	0.207		
5.179	213	539	2.529	0.156		
5.186	97	504	5.189	0.146		
5.190	111	516	4.664	0.150		
5.194	156	535	3.436	0.155		
5.198	133	576	4.318	0.167		
5.200	84	619	7.359	0.180		
5.206	259	735	2.839	0.214		
5.208	135	779	5.777	0.226		
5.213	208	763	3.663	0.222		
5.226	687	1039	1.513	0.302		
5.229	466	1094	2.347	0.318		
5.242	421	1036	2.460	0.301		
5.255	416	966	2.325	0.281		
5.262	499	957	1.920	0.278		
5.270	311	906	2.916	0.263		
5.288	431	701	1.628	0.204		
5.302	172	585	3.407	0.170		
5.307	213	653	3.062	0.190		
5.312	142	682	4.816	0.198		
5.315	126	646	5.125	0.188		
5.320	217	712	3.285	0.207		
5.325	359	734	2.042	0.213		
5.331	278	753	2.710	0.219		
5.340	265	819	3.090	0.238		
5.343	388	903	2.329	0.262		
5.350	180	921	5.121	0.268		
5.358	1024	1093	1.067	0.318		
5.369	516	1099	2.130	0.319		
5.383	363	1026	2.829	0.298		
5.388	358	1015	2.833	0.295		
5.418	371	593	1.597	0.172		
5.431	101	439	4.353	0.127		
5.434	88	432	4.909	0.125		
5.437	186	434	2.331	0.126		
5.448	68	384	5.651	0.111		
5.453	143	427	2.989	0.124		
5.457	89	471	5.303	0.137		
5.466	327	557	1.703	0.162		
5.472	157	654	4.167	0.190		
5.479	322	821	2.552	0.239		
5.490	1075	999	0.930	0.290		
5.500	558	928	1.662	0.270		
5.519	281	628	2.234	0.182		
5.528	139	599	4.309	0.174		
5.531	161	636	3.955	0.185		
5.536	172	675	3.932	0.196		
5.541	222	719	3.243	0.209		
5.544	130	749	5.746	0.218		
5.550	528	815	1.542	0.237		
5.559	338	841	2.488	0.244		
5.564	177	816	4.605	0.237		
5.568	293	841	2.868	0.244		
5.573	391	794	2.028	0.231		
5.587	103	655	6.367	0.190		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.592	207	662	3.200	0.192		
5.595	143	664	4.630	0.193		
5.599	143	664	4.629	0.193		
5.602	147	686	4.673	0.199		
5.612	462	806	1.745	0.234		
5.616	161	819	5.100	0.238		
5.619	205	888	4.336	0.258		
5.622	364	929	2.554	0.270		
5.628	148	937	6.336	0.272		
5.632	564	1005	1.783	0.292		
5.640	549	1006	1.833	0.292		
5.648	351	912	2.600	0.265		
5.664	367	774	2.109	0.225		
5.675	271	725	2.675	0.211		
5.681	401	682	1.701	0.198		
5.698	259	594	2.295	0.172		
5.705	92	518	5.651	0.150		
5.708	107	554	5.202	0.161		
5.715	88	562	6.420	0.163		
5.718	158	554	3.499	0.161		
5.724	126	546	4.324	0.158		
5.727	162	598	3.695	0.174		
5.735	258	700	2.712	0.203		
5.742	389	808	2.075	0.235		
5.751	458	969	2.114	0.282		
5.754	200	1034	5.163	0.301		
5.757	187	1058	5.660	0.308		
5.761	402	1086	2.704	0.316		
5.765	271	1061	3.911	0.308		
5.770	359	1067	2.968	0.310		
5.777	668	1064	1.592	0.309		
5.788	519	1065	2.050	0.310		
5.805	543	944	1.738	0.274		
5.818	279	884	3.174	0.257		
5.826	703	912	1.297	0.265		
5.874	79	350	4.436	0.101		
5.880	121	364	3.012	0.105		
5.886	113	417	3.691	0.121		
5.894	249	616	2.476	0.179		
5.900	300	686	2.290	0.199		
5.904	152	704	4.627	0.204		
5.907	160	759	4.742	0.220		
5.913	302	844	2.793	0.245		
5.921	190	873	4.604	0.254		
5.928	418	891	2.133	0.259		
5.939	314	851	2.707	0.247		
5.945	187	798	4.262	0.232		
5.949	416	825	1.981	0.240		
5.957	272	830	3.050	0.241		
5.962	409	828	2.023	0.241		
5.976	225	772	3.438	0.224		
5.985	263	753	2.863	0.219		
5.993	315	746	2.369	0.217		
6.001	430	744	1.731	0.216		
6.018	238	565	2.373	0.164		
6.026	270	547	2.027	0.159		
6.033	174	504	2.899	0.146		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.046	62	454	7.297	0.132		
6.049	262	487	1.856	0.141		
6.068	201	502	2.500	0.146		
6.074	302	551	1.823	0.160		
6.085	128	468	3.657	0.136		
6.095	157	475	3.016	0.138		
6.098	159	516	3.244	0.150		
6.104	185	502	2.716	0.146		
6.111	278	485	1.743	0.141		
6.118	74	473	6.430	0.137		
6.124	233	527	2.261	0.153		
6.129	155	574	3.704	0.167		
6.135	214	638	2.978	0.185		
6.140	198	689	3.473	0.200		
6.142	185	730	3.943	0.212		
6.147	163	753	4.632	0.219		
6.150	199	787	3.952	0.229		
6.159	288	738	2.561	0.214		
6.177	335	654	1.953	0.190		
6.188	206	565	2.738	0.164		
6.205	246	519	2.110	0.151		
6.212	108	498	4.616	0.144		
6.220	200	513	2.570	0.149		
6.225	321	590	1.840	0.171		
6.232	92	585	6.364	0.170		
6.238	245	650	2.648	0.189		
6.241	221	676	3.052	0.196		
6.249	281	693	2.468	0.201		
6.256	301	708	2.349	0.206		
6.263	311	677	2.178	0.197		
6.284	218	399	1.833	0.116		
6.294	73	350	4.764	0.101		
6.299	158	357	2.256	0.103		
6.304	72	367	5.106	0.106		
6.308	83	400	4.816	0.116		
6.319	231	475	2.052	0.138		
6.325	192	548	2.857	0.159		
6.329	137	590	4.295	0.171		
6.332	180	615	3.415	0.179		
6.338	345	618	1.791	0.179		
6.345	277	616	2.222	0.179		
6.353	201	614	3.060	0.178		
6.358	209	576	2.752	0.167		
6.371	178	543	3.053	0.158		
6.382	260	541	2.081	0.157		
6.386	176	566	3.218	0.164		
6.391	206	553	2.681	0.161		
6.397	196	562	2.870	0.163		
6.409	133	526	3.962	0.153		
6.417	165	518	3.133	0.150		
6.422	75	482	6.413	0.140		
6.426	176	510	2.900	0.148		
6.430	144	537	3.732	0.156		
6.438	171	552	3.234	0.160		
6.443	250	557	2.231	0.162		
6.448	314	542	1.727	0.157		
6.459	214	489	2.281	0.142		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.475	156	370	2.375	0.107		
6.481	100	367	3.663	0.106		
6.490	199	367	1.843	0.106		
	250644	343453		100.000		

Total unknown % height = 72.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000078.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-JUN-2019 02:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.633	1.633	0.000	4932	0.25000	0.240	80.00- 120.00	100.00(M)	BA
1.880	1.880	0.000	9863	0.25000	0.239	160.93- 241.39	199.98	BA
1.934	1.933	0.001	3894	0.25000	0.234	65.29- 97.93	78.95	BA
2.190	2.189	0.001	2848	0.25000	0.223	47.30- 70.95	57.76	BA
2.279	2.279	0.000	2423	0.25000	0.221	41.08- 61.63	49.13	BA
Average of Peak Amounts =					0.23140			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.799	2.798	0.001	3969	0.25000	0.214	80.00- 120.00	100.00(M)	BA
2.887	2.886	0.001	5069	0.25000	0.214	102.15- 153.22	127.71	BA
2.996	2.996	0.000	6442	0.25000	0.217	125.94- 188.91	162.31	BA
3.585	3.585	0.000	10945	0.25000	0.218	213.36- 320.04	275.78	BA
3.827	3.828	-0.001	8302	0.25000	0.229	152.08- 228.11	209.19	BA
Average of Peak Amounts =					0.21840			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.212	0.000	25944	0.05000	0.0510		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.502	-0.002	16413	0.05000	0.0489		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 12-JUN-2019 02:50
Lab File ID: d061119000078.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	19728	0.010	-3.94391	20.00000	Aver	(M)
(2)	41335	39452	0.010	-4.55508	20.00000	Aver	(M)
(3)	16656	15576	0.010	-6.48509	20.00000	Aver	(M)
(4)	12773	11392	0.010	-10.81303	20.00000	Aver	(M)
(5)	10980	9692	0.010	-11.72640	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	15876	0.010	-14.38766	20.00000	Aver	(M)
(2)	23716	20276	0.010	-14.50417	20.00000	Aver	(M)
(3)	29676	25768	0.010	-13.16922	20.00000	Aver	(M)
(4)	50204	43780	0.010	-12.79647	20.00000	Aver	(M)
(5)	36244	33208	0.010	-8.37614	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	518880	0.010	2.02029	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	328260	0.010	-2.20194	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.72407
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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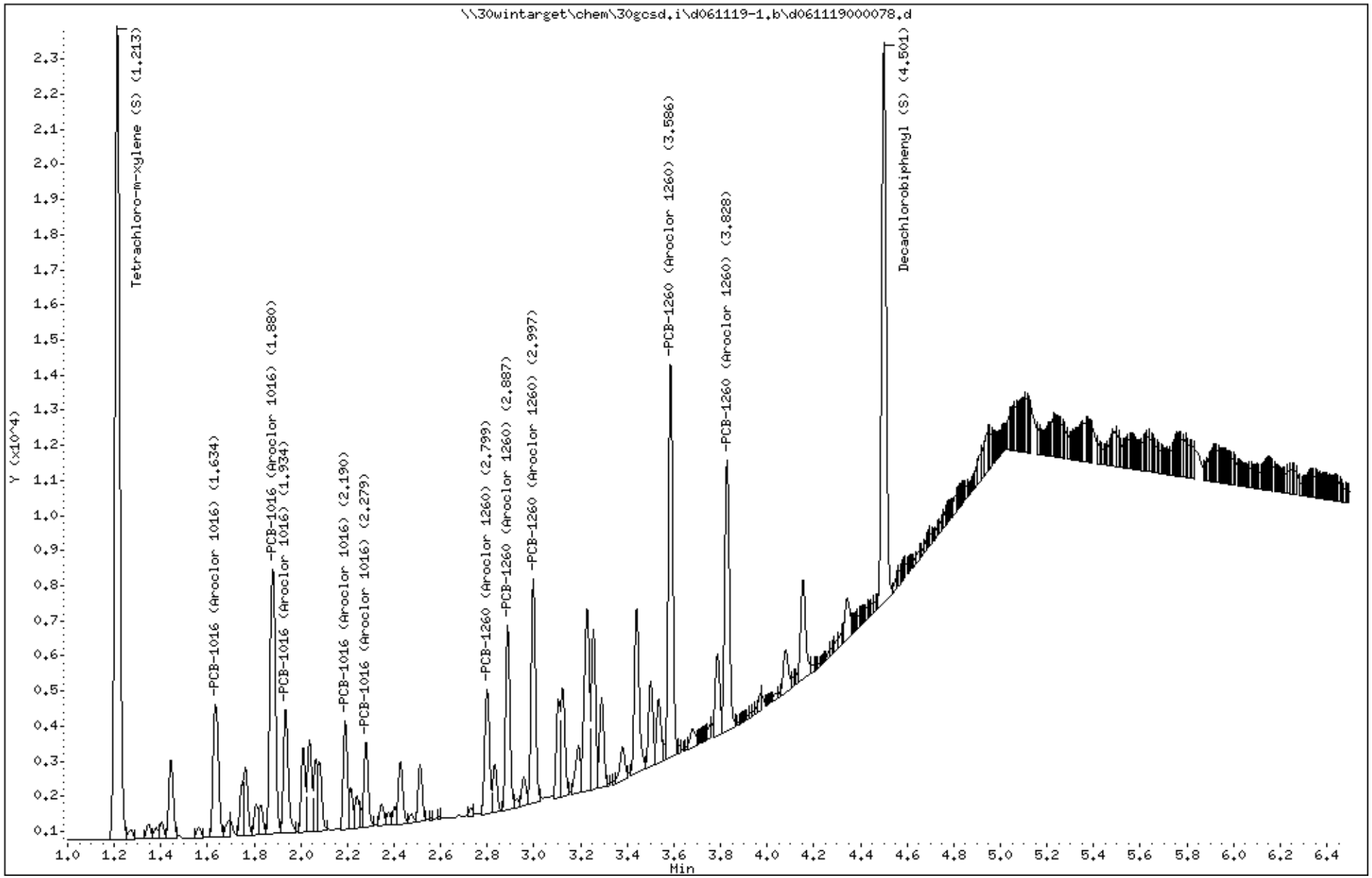
Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000078.d
Date : 12-JUN-2019 02:50
Client ID: CCV
Sample Info: CCV, 90508:1

Instrument: 30gcsd.i

Operator: CWB
Column diameter: 0.32

Column phase: DB-CLP1

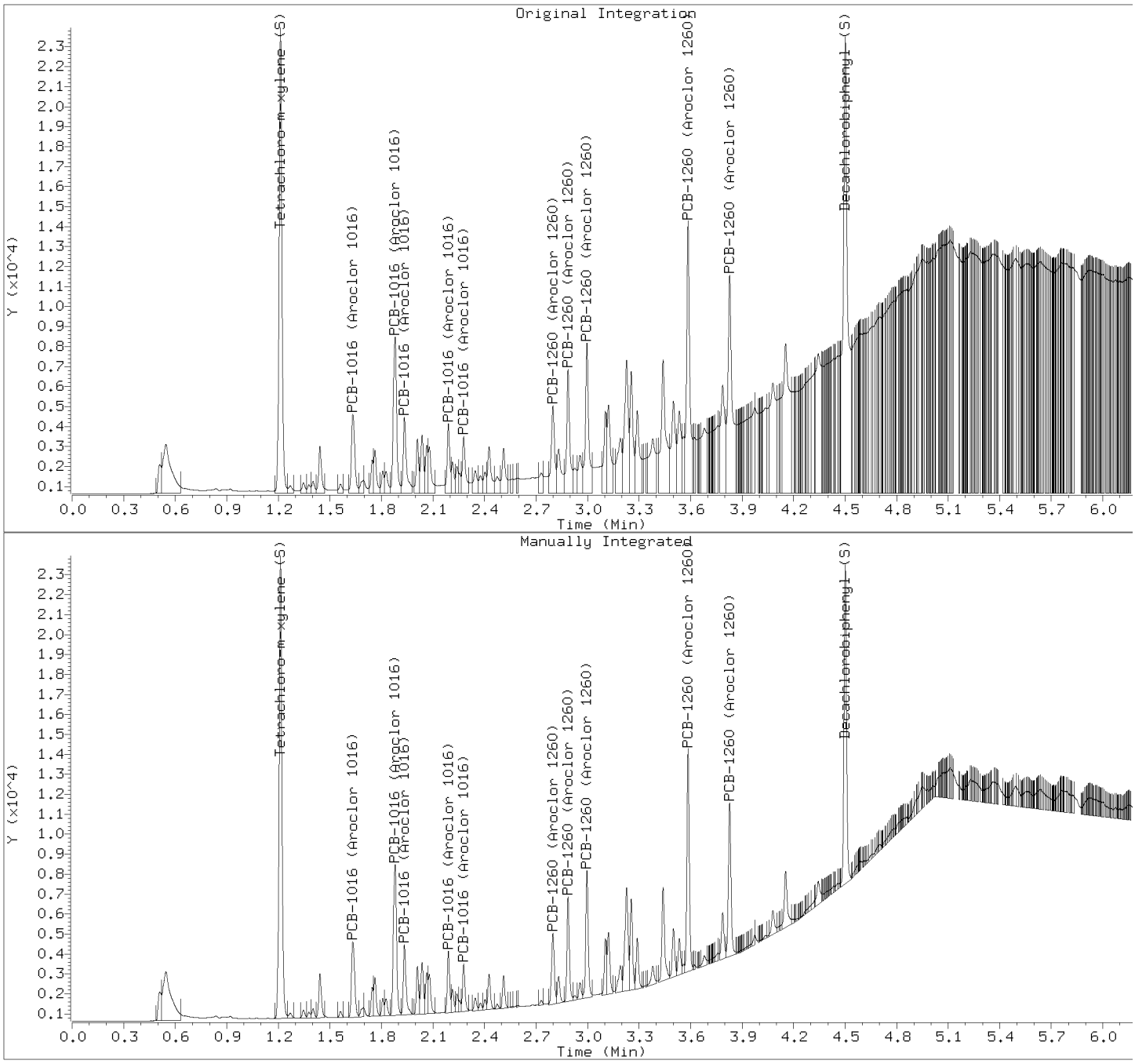


Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000078.d (ManInt: ar1660.sub Orig: ar1660.sub)

Injection Date: 12-JUN-2019 02:50 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5578	4932
PCB-1016 (Aroclor 1016)	10922	9863
PCB-1016 (Aroclor 1016)	5018	3894
PCB-1016 (Aroclor 1016)	3686	2848
PCB-1016 (Aroclor 1016)	3670	2423
PCB-1260 (Aroclor 1260)	6274	3969
PCB-1260 (Aroclor 1260)	8145	5069
PCB-1260 (Aroclor 1260)	10328	6442
PCB-1260 (Aroclor 1260)	17908	10945
PCB-1260 (Aroclor 1260)	19670	8302
Tetrachloro-m-xylene (S)	26464	25944
Decachlorobiphenyl (S)	41637	16413

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000078.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-JUN-2019 02:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	2649	2333	0.881	0.727		
0.569	1965	1841	0.937	0.574		
0.584	4423	2047	0.463	0.638		
1.526	313	249	0.797	0.077		
1.586	22859	22184	0.970	7.119	$ 10 Tetrachloro-m-xylene (S)	BA
1.666	281	309	1.101	0.096		
1.712	485	436	0.899	0.136		
1.761	2287	2227	0.974	0.694		
1.842	270	272	1.009	0.084		
1.962	2709	2872	1.060	0.896	1 PCB-1016 (Aroclor 1016)	BA
1.982	1582	1612	1.019	0.502		
2.017	308	315	1.023	0.098		
2.041	118	128	1.085	0.039		
2.075	2751	1812	0.659	0.565		
2.163	25	47	1.856	0.014		
2.199	624	703	1.127	0.219		
2.222	764	749	0.980	0.233		
2.266	3557	4095	1.151	1.277		
2.285	5069	5250	1.036	1.638	1 PCB-1016 (Aroclor 1016)	BA
2.304	3197	3131	0.979	0.976		
2.372	2484	2283	0.919	0.712	1 PCB-1016 (Aroclor 1016)	BA
2.401	142	252	1.778	0.078		
2.436	1926	1961	1.018	0.611		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.468	2249	2254	1.002	0.703	1 PCB-1016 (Aroclor 1016)	BA
2.496	890	798	0.897	0.248		
2.558	2224	2249	1.011	0.701	1 PCB-1016 (Aroclor 1016)	BA
2.587	1188	1076	0.906	0.335		
2.614	744	751	1.009	0.234		
2.636	561	584	1.041	0.182		
2.664	2297	1541	0.671	0.480		
2.742	42	65	1.536	0.020		
2.765	8	33	3.933	0.010		
2.815	1655	1413	0.854	0.440		
2.862	308	306	0.994	0.095		
2.892	8	19	2.381	0.005		
2.918	117	151	1.289	0.047		
2.957	1464	1417	0.968	0.442		
3.021	10	43	4.397	0.013		
3.032	19	42	2.225	0.013		
3.044	13	44	3.400	0.013		
3.057	13	44	3.498	0.013		
3.064	14	40	2.926	0.012		
3.109	9	39	4.372	0.012		
3.115	8	35	4.617	0.010		
3.136	193	219	1.133	0.068		
3.158	802	715	0.892	0.223		
3.196	708	638	0.901	0.199		
3.242	2987	2287	0.766	0.713		
3.273	316	665	2.106	0.207		
3.305	4693	4435	0.945	1.383	7 PCB-1260 (Aroclor 1260)	BA
3.339	35	140	3.973	0.043		
3.368	61	128	2.094	0.039		
3.388	566	466	0.824	0.145		
3.413	30	118	3.960	0.036		
3.433	773	714	0.923	0.222		
3.476	5293	5357	1.012	1.671	7 PCB-1260 (Aroclor 1260)	BA
3.499	1384	1463	1.057	0.456		
3.552	3383	2381	0.704	0.742		
3.582	359	477	1.327	0.148		
3.606	23	78	3.388	0.024		
3.626	667	569	0.853	0.177		
3.659	7199	5390	0.749	1.681	7 PCB-1260 (Aroclor 1260)	BA
3.718	4295	3934	0.916	1.227		
3.755	2261	2122	0.939	0.662		
3.787	17	42	2.424	0.013		
3.790	7	45	6.098	0.014		
3.801	22	48	2.216	0.014		
3.807	19	57	3.061	0.017		
3.812	19	73	3.822	0.022		
3.836	915	1010	1.104	0.315		
3.859	4374	3984	0.911	1.243		
3.893	283	309	1.091	0.096		
3.919	2154	2034	0.944	0.634		
3.947	1328	1203	0.906	0.375		
3.970	41	154	3.731	0.048		
3.974	53	182	3.457	0.056		
3.980	67	196	2.913	0.061		
3.984	54	206	3.833	0.064		
3.993	108	229	2.121	0.071		
4.009	1438	1133	0.788	0.353		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.056	10733	9794	0.913	3.055	7 PCB-1260 (Aroclor 1260)	BA
4.097	1138	769	0.676	0.239		
4.127	12	87	7.367	0.027		
4.139	64	110	1.730	0.034		
4.143	52	114	2.209	0.035		
4.154	38	83	2.171	0.025		
4.159	12	71	5.877	0.022		
4.164	16	76	4.897	0.023		
4.168	20	78	3.976	0.024		
4.173	22	94	4.294	0.029		
4.180	55	110	2.018	0.034		
4.187	51	151	2.990	0.047		
4.192	47	144	3.086	0.044		
4.196	24	140	5.917	0.043		
4.204	31	128	4.107	0.039		
4.207	19	134	6.943	0.041		
4.212	44	119	2.732	0.037		
4.243	6454	5551	0.860	1.731	7 PCB-1260 (Aroclor 1260)	BA
4.267	721	997	1.382	0.311		
4.290	2900	2300	0.793	0.717		
4.316	126	259	2.063	0.080		
4.323	49	187	3.827	0.058		
4.328	34	179	5.274	0.055		
4.331	40	193	4.871	0.060		
4.335	56	197	3.514	0.061		
4.340	44	173	3.890	0.053		
4.343	40	194	4.882	0.060		
4.348	49	181	3.671	0.056		
4.353	63	201	3.206	0.062		
4.355	49	219	4.510	0.068		
4.362	69	215	3.136	0.067		
4.366	48	204	4.277	0.063		
4.371	87	186	2.126	0.058		
4.379	45	135	2.982	0.042		
4.386	40	119	2.941	0.037		
4.394	66	142	2.145	0.044		
4.400	44	129	2.905	0.040		
4.428	352	351	0.998	0.109		
4.443	43	152	3.568	0.047		
4.447	22	154	6.962	0.048		
4.451	67	225	3.343	0.070		
4.459	171	287	1.676	0.089		
4.465	84	248	2.970	0.077		
4.474	63	200	3.169	0.062		
4.492	1663	1306	0.785	0.407		
4.513	58	372	6.434	0.116		
4.519	73	349	4.760	0.108		
4.528	172	367	2.137	0.114		
4.538	226	428	1.891	0.133		
4.541	95	454	4.768	0.141		
4.546	126	427	3.381	0.133		
4.555	229	430	1.877	0.134		
4.559	119	440	3.691	0.137		
4.562	276	424	1.535	0.132		
4.575	36	231	6.360	0.072		
4.586	164	260	1.583	0.081		
4.612	3114	2532	0.813	0.790		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.638	102	322	3.172	0.100		
4.651	331	466	1.409	0.145		
4.654	192	485	2.530	0.151		
4.669	51	159	3.089	0.049		
4.676	19	119	6.360	0.037		
4.681	34	125	3.671	0.039		
4.687	49	178	3.651	0.055		
4.690	36	195	5.471	0.060		
4.694	60	207	3.444	0.064		
4.697	66	201	3.031	0.062		
4.708	59	182	3.110	0.056		
4.711	36	189	5.276	0.058		
4.714	40	200	4.968	0.062		
4.721	70	184	2.644	0.057		
4.743	372	485	1.305	0.151		
4.745	144	497	3.451	0.155		
4.750	122	485	3.987	0.151		
4.761	264	467	1.769	0.145		
4.765	115	455	3.964	0.141		
4.771	172	424	2.462	0.132		
4.776	113	436	3.848	0.136		
4.780	164	402	2.452	0.125		
4.803	1541	1156	0.750	0.360		
4.827	61	130	2.115	0.040		
4.832	8	77	9.189	0.024		
4.841	36	131	3.612	0.040		
4.847	47	173	3.662	0.053		
4.860	257	392	1.524	0.122		
4.862	75	398	5.291	0.124		
4.867	121	414	3.431	0.129		
4.871	110	382	3.470	0.119		
4.876	68	358	5.252	0.111		
4.879	127	378	2.978	0.117		
4.886	85	324	3.833	0.101		
4.889	60	359	6.020	0.112		
4.892	87	379	4.377	0.118		
4.895	61	411	6.692	0.128		
4.899	102	454	4.472	0.141		
4.901	97	506	5.215	0.157		
4.906	188	524	2.789	0.163		
4.912	137	495	3.618	0.154		
4.916	133	470	3.540	0.146		
4.922	151	489	3.229	0.152		
4.925	132	526	4.000	0.164		
4.929	118	497	4.211	0.155		
4.952	16364	14706	0.899	4.588	$ 11 Decachlorobiphenyl (S)	BA
4.987	25	133	5.274	0.041		
4.999	95	246	2.585	0.076		
5.001	40	197	4.960	0.061		
5.008	26	124	4.738	0.038		
5.020	140	203	1.450	0.063		
5.027	63	229	3.653	0.071		
5.051	765	899	1.176	0.280		
5.054	186	955	5.142	0.297		
5.058	321	1047	3.261	0.326		
5.062	254	1101	4.332	0.343		
5.066	265	1133	4.271	0.353		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.073	376	1226	3.260	0.382		
5.077	642	1233	1.920	0.384		
5.091	265	980	3.703	0.305		
5.097	385	943	2.449	0.294		
5.103	465	951	2.044	0.296		
5.125	63	349	5.501	0.108		
5.131	175	353	2.022	0.110		
5.139	133	405	3.053	0.126		
5.143	113	470	4.141	0.146		
5.146	202	479	2.376	0.149		
5.153	154	442	2.874	0.137		
5.159	58	436	7.468	0.136		
5.162	77	447	5.828	0.139		
5.177	822	833	1.013	0.259		
5.185	164	850	5.186	0.265		
5.189	259	829	3.205	0.258		
5.193	146	833	5.687	0.259		
5.197	242	902	3.720	0.281		
5.202	321	1077	3.356	0.336		
5.207	749	1175	1.568	0.366		
5.216	511	1141	2.231	0.356		
5.223	714	1109	1.553	0.346		
5.244	431	788	1.830	0.245		
5.257	232	642	2.764	0.200		
5.264	114	653	5.735	0.203		
5.269	237	731	3.078	0.228		
5.277	351	860	2.450	0.268		
5.280	199	934	4.689	0.291		
5.285	355	1032	2.905	0.321		
5.291	386	1127	2.918	0.351		
5.294	234	1200	5.138	0.374		
5.303	1143	1297	1.135	0.404		
5.319	599	1179	1.970	0.367		
5.334	452	1022	2.260	0.318		
5.352	246	836	3.392	0.260		
5.355	354	866	2.445	0.270		
5.364	570	877	1.539	0.273		
5.377	444	759	1.709	0.236		
5.388	396	770	1.945	0.240		
5.396	122	698	5.703	0.217		
5.399	330	705	2.133	0.219		
5.418	75	483	6.457	0.150		
5.422	127	508	3.998	0.158		
5.424	328	569	1.736	0.177		
5.436	136	535	3.929	0.166		
5.441	138	620	4.490	0.193		
5.445	167	679	4.059	0.211		
5.447	96	711	7.389	0.221		
5.452	246	816	3.314	0.254		
5.457	258	826	3.208	0.257		
5.462	278	840	3.021	0.262		
5.465	372	881	2.368	0.274		
5.472	370	869	2.351	0.271		
5.489	254	560	2.205	0.174		
5.505	60	349	5.800	0.108		
5.511	127	409	3.222	0.127		
5.518	212	559	2.640	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.521	107	623	5.811	0.194		
5.529	412	838	2.035	0.261		
5.532	117	847	7.229	0.264		
5.535	160	918	5.746	0.286		
5.541	211	982	4.655	0.306		
5.544	216	990	4.580	0.308		
5.547	327	1046	3.203	0.326		
5.552	201	1029	5.112	0.321		
5.560	444	1034	2.330	0.322		
5.566	360	1033	2.867	0.322		
5.572	440	1015	2.305	0.316		
5.579	399	1023	2.563	0.319		
5.587	288	981	3.410	0.306		
5.594	662	964	1.456	0.300		
5.604	680	882	1.298	0.275		
5.618	252	655	2.596	0.204		
5.626	130	615	4.730	0.191		
5.632	301	605	2.011	0.188		
5.639	319	615	1.928	0.191		
5.647	120	624	5.180	0.194		
5.655	320	675	2.107	0.210		
5.660	90	651	7.261	0.203		
5.663	205	705	3.436	0.219		
5.671	357	737	2.067	0.229		
5.675	488	770	1.579	0.240		
5.685	296	775	2.619	0.241		
5.694	214	747	3.484	0.233		
5.700	269	737	2.739	0.229		
5.704	198	737	3.717	0.229		
5.715	415	783	1.888	0.244		
5.718	226	833	3.681	0.259		
5.722	205	882	4.298	0.275		
5.726	202	952	4.725	0.297		
5.729	227	962	4.238	0.300		
5.735	325	973	2.993	0.303		
5.742	366	983	2.689	0.306		
5.747	310	997	3.213	0.311		
5.751	173	974	5.639	0.303		
5.754	472	1025	2.170	0.319		
5.774	324	709	2.185	0.221		
5.782	252	678	2.689	0.211		
5.789	247	608	2.462	0.189		
5.796	373	616	1.653	0.192		
5.806	175	616	3.517	0.192		
5.814	230	695	3.024	0.216		
5.817	159	747	4.708	0.233		
5.820	188	819	4.366	0.255		
5.823	183	850	4.648	0.265		
5.828	327	895	2.737	0.279		
5.833	383	906	2.367	0.282		
5.844	220	763	3.467	0.238		
5.849	426	735	1.724	0.229		
5.867	247	565	2.286	0.176		
5.874	105	546	5.219	0.170		
5.878	247	566	2.288	0.176		
5.885	134	580	4.343	0.180		
5.889	81	591	7.271	0.184		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.891	122	631	5.152	0.196		
5.893	157	667	4.262	0.208		
5.898	150	701	4.685	0.218		
5.904	484	751	1.551	0.234		
5.912	321	699	2.180	0.218		
5.920	309	673	2.177	0.209		
5.928	427	654	1.530	0.204		
5.938	180	581	3.236	0.181		
5.942	218	602	2.760	0.187		
5.948	90	585	6.533	0.182		
5.952	167	620	3.705	0.193		
5.960	315	693	2.200	0.216		
5.966	360	751	2.084	0.234		
5.973	195	772	3.959	0.240		
5.977	350	830	2.371	0.258		
5.982	290	830	2.863	0.258		
5.990	318	762	2.394	0.237		
6.001	330	721	2.185	0.224		
6.013	262	551	2.106	0.171		
6.022	60	432	7.239	0.134		
6.035	382	547	1.433	0.170		
6.039	151	588	3.898	0.183		
6.044	280	615	2.193	0.191		
6.054	248	614	2.474	0.191		
6.060	316	615	1.947	0.191		
6.069	190	575	3.028	0.179		
6.075	320	547	1.711	0.170		
6.085	134	451	3.355	0.140		
6.090	121	425	3.518	0.132		
6.108	245	384	1.569	0.119		
6.118	90	331	3.697	0.103		
6.122	153	401	2.620	0.125		
6.130	151	467	3.101	0.145		
6.133	90	457	5.097	0.142		
6.136	269	521	1.936	0.162		
6.145	126	545	4.325	0.170		
6.148	100	574	5.723	0.179		
6.157	432	599	1.386	0.186		
6.177	211	458	2.172	0.142		
6.186	262	373	1.425	0.116		
6.204	63	200	3.164	0.062		
6.209	43	192	4.444	0.059		
6.218	23	206	8.818	0.064		
6.221	60	260	4.310	0.081		
6.226	86	310	3.590	0.096		
6.231	108	383	3.560	0.119		
6.235	84	407	4.849	0.126		
6.237	80	429	5.337	0.133		
6.242	89	419	4.734	0.130		
6.248	275	508	1.849	0.158		
6.255	266	499	1.876	0.155		
6.265	316	481	1.524	0.150		
6.284	132	294	2.232	0.091		
6.292	36	265	7.446	0.082		
6.296	150	312	2.082	0.097		
6.305	112	332	2.964	0.103		
6.309	77	362	4.693	0.112		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.314	125	434	3.485	0.135		
6.318	121	454	3.742	0.141		
6.323	109	530	4.859	0.165		
6.333	405	731	1.806	0.228		
6.337	214	786	3.674	0.245		
6.341	380	828	2.179	0.258		
6.348	264	794	3.010	0.247		
6.356	318	829	2.603	0.258		
6.359	524	874	1.668	0.272		
6.376	265	678	2.561	0.211		
6.382	369	626	1.696	0.195		
6.392	177	510	2.876	0.159		
6.400	229	503	2.192	0.156		
6.409	227	528	2.328	0.164		
6.415	207	542	2.624	0.169		
6.422	128	557	4.369	0.173		
6.429	201	571	2.839	0.178		
6.436	209	562	2.691	0.175		
6.442	121	561	4.638	0.175		
6.446	326	609	1.867	0.190		
6.453	256	595	2.327	0.185		
6.461	130	549	4.228	0.171		
6.465	89	565	6.344	0.176		
6.469	224	587	2.616	0.183		
6.473	84	535	6.374	0.166		
6.483	152	544	3.584	0.169		
6.490	241	500	2.075	0.156		
	227813	320501		100.000		

Total unknown % height = 74.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000078.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-JUN-2019 02:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 90508:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 78 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.962	1.962	0.000	2708	0.25000	0.238	80.00- 120.00	100.00	(aM)	BA
2.284	2.284	0.000	5068	0.25000	0.232	150.73- 226.09	187.15		BA
2.372	2.372	0.000	2484	0.25000	0.229	72.86- 109.30	91.73		BA
2.468	2.468	0.000	2249	0.25000	0.225	66.73- 100.09	83.05		BA
2.558	2.558	0.000	2224	0.25000	0.225	65.78- 98.68	82.13		BA
	Average of Peak Amounts =				0.22980				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.305	3.305	0.000	4693	0.25000	0.231	80.00- 120.00	100.00	(aM)	BA
3.475	3.475	0.000	5292	0.25000	0.217	95.10- 142.65	112.76		BA
3.658	3.659	-0.001	7198	0.25000	0.246	118.52- 177.78	153.38		BA
4.055	4.056	-0.001	10733	0.25000	0.249	168.36- 252.54	228.70		BA
4.242	4.243	-0.001	6453	0.25000	0.249	103.36- 155.04	137.52		BA
	Average of Peak Amounts =				0.23840				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.585	1.585	0.000	22858	0.05000	0.0503			(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.952	4.955	-0.003	16364	0.05000	0.0515		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 12-JUN-2019 02:50
Lab File ID: d061119000078.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	10832	0.010	-4.92593	20.00000	Aver	(aM)
(2)	21808	20272	0.010	-7.04352	20.00000	Aver	(aM)
(3)	10850	9936	0.010	-8.42115	20.00000	Aver	(aM)
(4)	9980	8996	0.010	-9.86323	20.00000	Aver	(aM)
(5)	9902	8896	0.010	-10.15654	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18772	0.010	-7.61963	20.00000	Aver	(aM)
(2)	24356	21168	0.010	-13.08997	20.00000	Aver	(aM)
(3)	29292	28792	0.010	-1.70695	20.00000	Aver	(aM)
(4)	43025	42932	0.010	-0.21654	20.00000	Aver	(aM)
(5)	25870	25812	0.010	-0.22334	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	457160	0.010	0.65705	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	327280	0.010	3.09222	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 2.67367
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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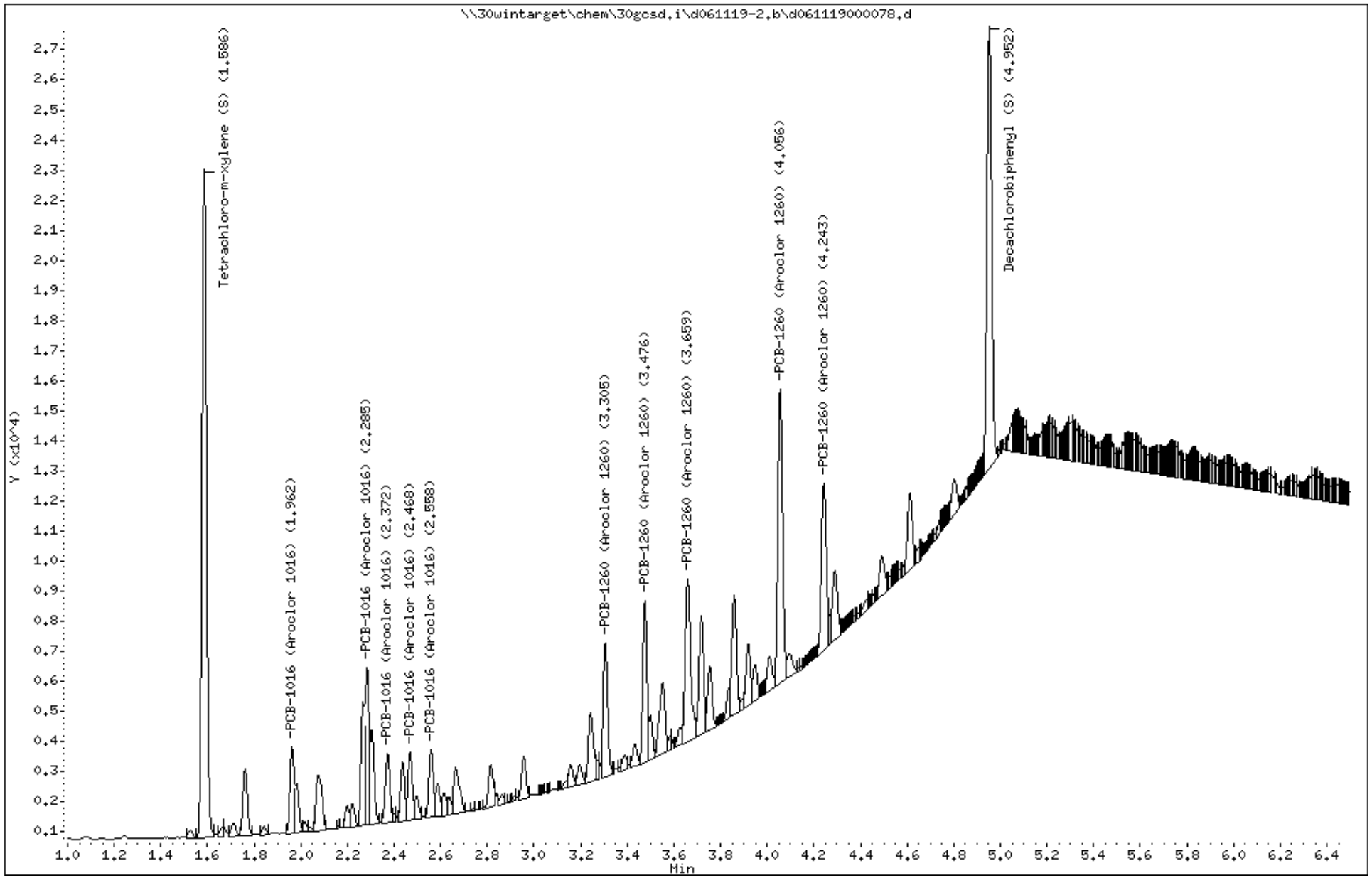
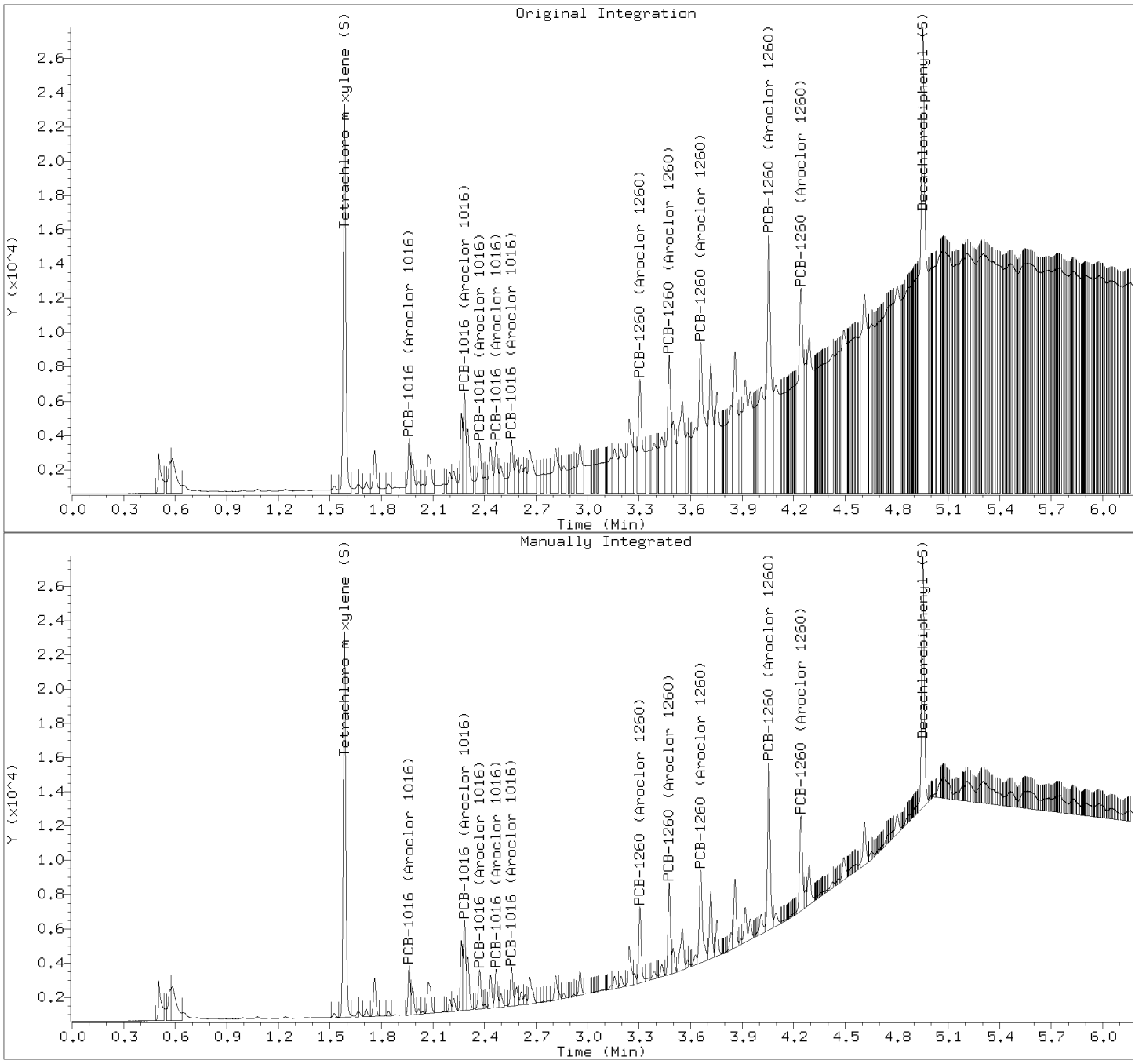
Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000078.d
Date : 12-JUN-2019 02:50
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 90508:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b/d061119000078.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 12-JUN-2019 02:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3391	2708
PCB-1016 (Aroclor 1016)	5808	5068
PCB-1016 (Aroclor 1016)	4416	2484
PCB-1016 (Aroclor 1016)	3727	2249
PCB-1016 (Aroclor 1016)	4106	2224
PCB-1260 (Aroclor 1260)	11262	4693
PCB-1260 (Aroclor 1260)	11476	5292
PCB-1260 (Aroclor 1260)	19119	7198
PCB-1260 (Aroclor 1260)	26693	10733
PCB-1260 (Aroclor 1260)	25121	6453
Tetrachloro-m-xylene (S)	23713	22858
Decachlorobiphenyl (S)	58907	16364

SAMPLE NO.

BLANK

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh | Contract: Former EPT Site-Soil IRM

Date Received: | Matrix: Solid | SDG No.: 30298231

Date Extracted: 06/07/2019 19:25 | Lab Sample ID: 1684396

Date Analyzed: 06/11/2019 21:19 | Lab File ID: D061119-2.B\D061119000039.D

Initial wt/vol: 15.05 g | Final wt/vol: 5 mL | Dilution: 1 | Instrument: 30GCSD | Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000039.d
Lab Smp Id: 1684396 Client Smp ID: MB
Inj Date : 11-JUN-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684396,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	578542	862839	1.491	85.389		
0.869	17117	5492	0.321	0.543		
0.959	4034	1741	0.432	0.172		
1.215	80354	72419	0.901	7.165	$ 10 Tetrachloro-m-xylene (S)	BA
1.379	1179	1036	0.879	0.102		
1.479	253	332	1.310	0.032		
1.695	120	162	1.354	0.016		
1.794	419	393	0.939	0.038		
1.831	577	484	0.839	0.047		
2.353	112	166	1.484	0.016		
2.758	326	304	0.934	0.030		
3.041	5	30	5.929	0.002		
3.230	69	109	1.573	0.010		
3.370	62	99	1.607	0.009		
3.538	78	27	0.344	0.002		
3.595	175	168	0.958	0.016		
3.973	155	229	1.474	0.022		
4.037	5	108	23.478	0.010		
4.343	407	435	1.068	0.043		
4.501	59187	59063	0.998	5.843	$ 11 Decachlorobiphenyl (S)	BA
4.890	47	125	2.665	0.012		
4.897	69	152	2.218	0.015		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.035	77	246	3.177	0.024		
5.054	73	284	3.882	0.028		
5.128	87	313	3.615	0.030		
5.156	97	291	2.990	0.028		
5.226	115	324	2.819	0.032		
5.252	204	346	1.697	0.034		
5.288	126	375	2.986	0.037		
5.302	172	395	2.296	0.039		
5.336	124	392	3.156	0.038		
5.574	59	248	4.219	0.024		
5.587	82	248	3.038	0.024		
5.669	128	234	1.833	0.023		
5.757	72	227	3.158	0.022		
6.204	68	219	3.204	0.021		
6.245	72	230	3.192	0.022		
6.326	100	232	2.310	0.022		
6.463	44	187	4.231	0.018		
	744990	1010704		100.000		

Total unknown % height = 87.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000039.d
Lab Smp Id: 1684396 Client Smp ID: MB
Inj Date : 11-JUN-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684396,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.214	1.212	0.002	80353	0.15799	0.0525		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.501	4.502	-0.001	59186	0.17633	0.0586		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

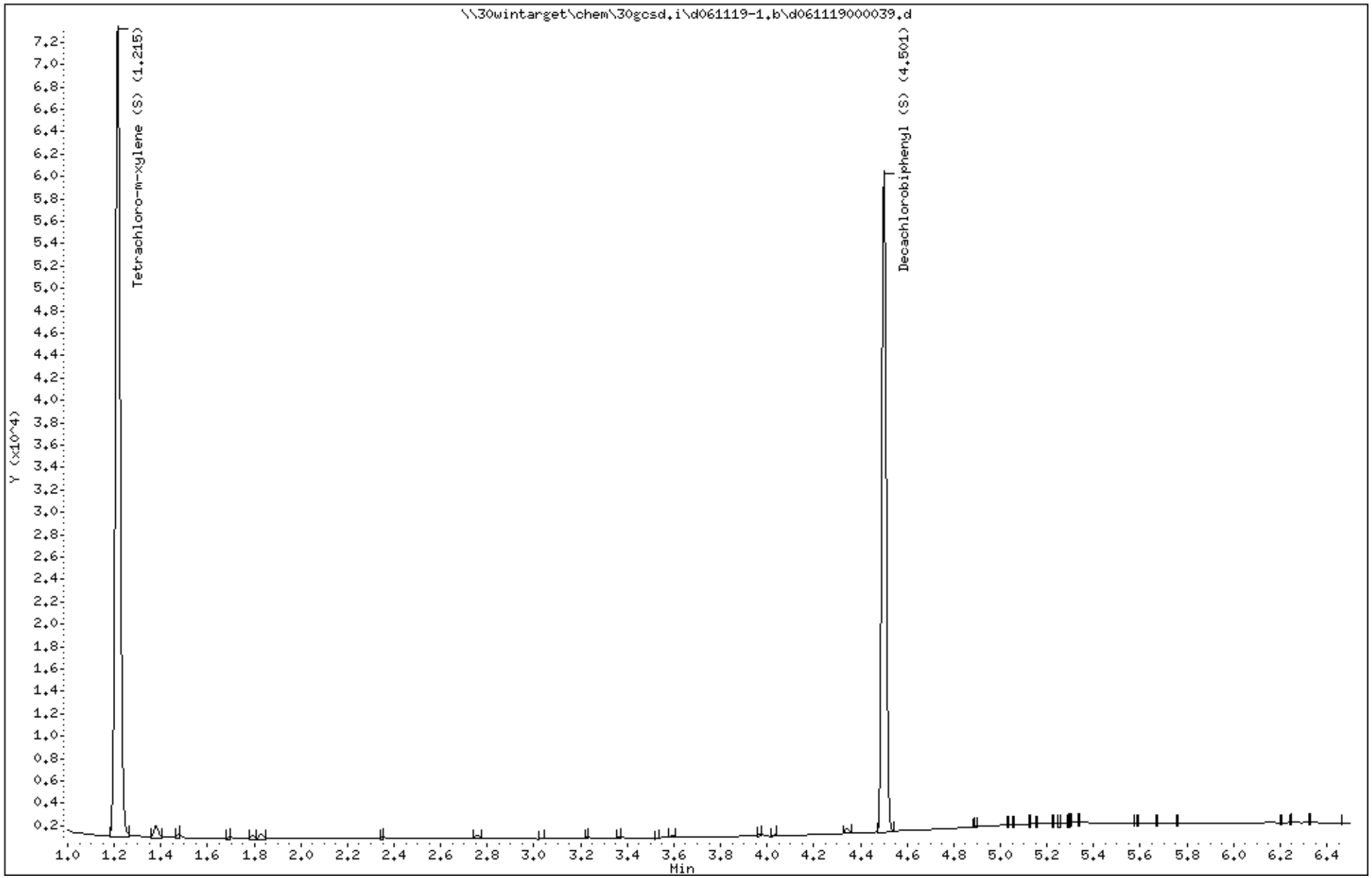
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1684396
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

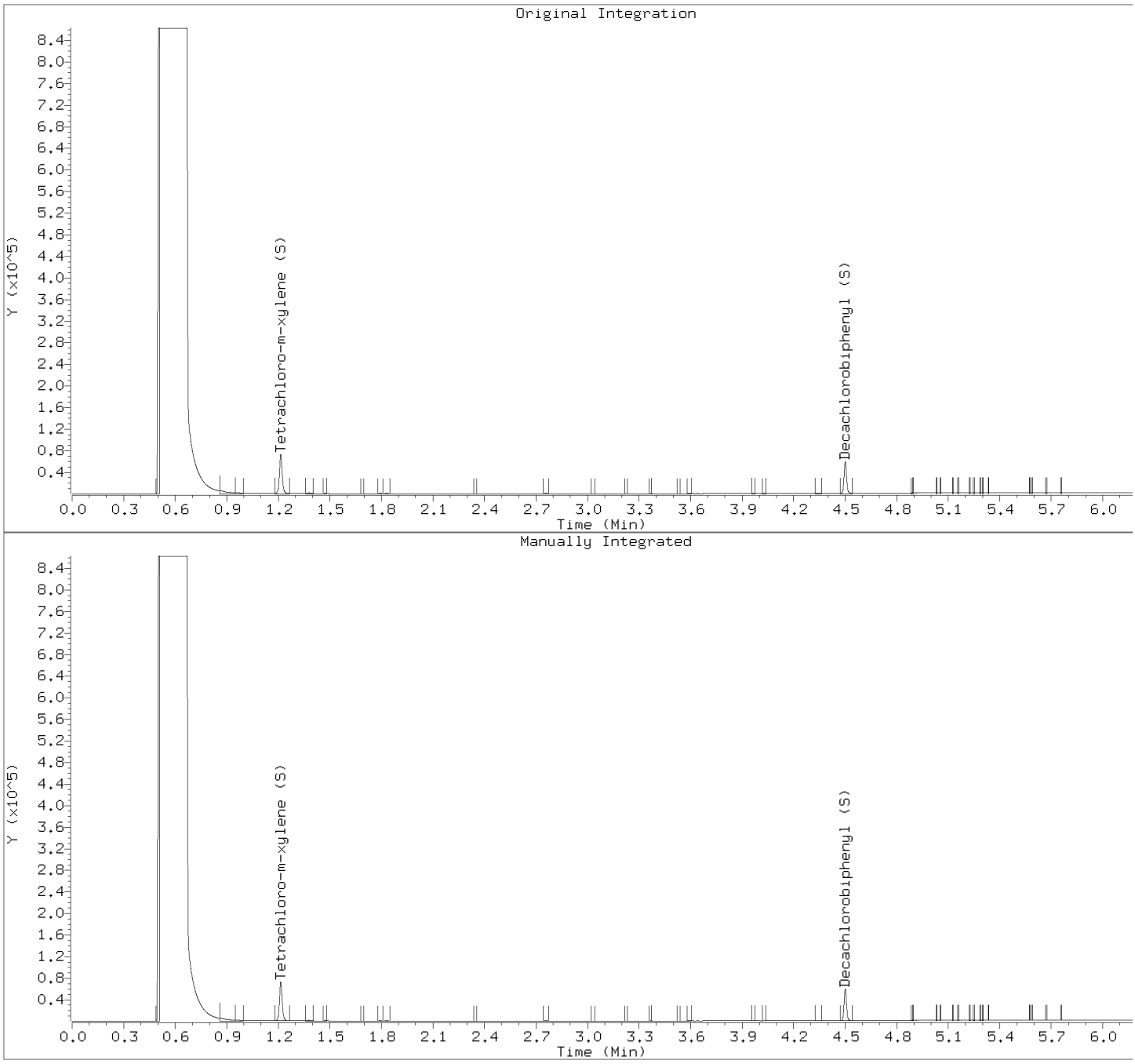
Client SDG: d061119-1.b
Client Smp ID: MB
Sample Point:
Date Received: 07-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0525	J
2051-24-3	Decachlorobiphenyl (S)	0.0586	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000039.d
Date : 11-JUN-2019 21:19
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1684396,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000039.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 11-JUN-2019 21:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1684396



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	82833	80353
Decachlorobiphenyl (S)	63016	59186

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000039.d
Lab Smp Id: 1684396 Client Smp ID: MB
Inj Date : 11-JUN-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684396,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	551930	862979	1.564	46.215		
0.696	920887	862432	0.937	46.152		
0.988	19641	5732	0.292	0.306		
1.069	1358	2352	1.732	0.125		
1.240	859	860	1.002	0.046		
1.587	72800	71186	0.978	3.809	$ 10 Tetrachloro-m-xylene (S)	BA
1.758	974	955	0.981	0.051		
1.880	184	186	1.010	0.009		
2.051	74	102	1.378	0.005		
2.111	119	159	1.340	0.008		
2.186	364	352	0.968	0.018		
2.225	423	394	0.932	0.021		
2.798	73	126	1.737	0.006		
3.408	328	279	0.851	0.014		
3.510	91	119	1.309	0.006		
3.669	179	205	1.145	0.010		
3.732	79	91	1.153	0.004		
3.909	152	190	1.248	0.010		
4.113	65	157	2.427	0.008		
4.252	111	158	1.421	0.008		
4.432	279	298	1.070	0.015		
4.485	294	274	0.930	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.517	44	150	3.401	0.008		
4.571	12	42	3.471	0.002		
4.591	95	110	1.158	0.005		
4.650	21	69	3.337	0.003		
4.761	18	42	2.332	0.002		
4.803	506	442	0.873	0.023		
4.866	12	44	3.719	0.002		
4.894	18	42	2.345	0.002		
4.953	56572	54393	0.961	2.910	$ 11 Decachlorobiphenyl (S)	BA
5.019	10	30	2.901	0.001		
5.025	14	40	2.907	0.002		
5.052	5	19	3.770	0.001		
5.123	18	47	2.654	0.002		
5.144	13	48	3.582	0.002		
5.279	44	130	2.933	0.006		
5.317	24	142	5.882	0.007		
5.323	47	145	3.096	0.007		
5.357	41	172	4.216	0.009		
5.366	47	189	4.027	0.010		
5.371	74	206	2.779	0.011		
5.402	37	170	4.600	0.009		
5.432	53	190	3.608	0.010		
5.477	37	161	4.296	0.008		
5.529	49	146	2.972	0.007		
5.558	74	139	1.868	0.007		
5.592	33	132	3.964	0.007		
5.604	33	132	4.005	0.007		
5.669	22	97	4.377	0.005		
5.702	41	94	2.299	0.005		
5.711	45	98	2.192	0.005		
5.746	36	87	2.402	0.004		
5.768	19	89	4.631	0.004		
5.783	16	87	5.534	0.004		
5.812	20	76	3.889	0.004		
5.841	23	64	2.757	0.003		
5.851	14	61	4.440	0.003		
5.855	18	68	3.722	0.003		
5.888	18	64	3.563	0.003		
5.942	23	63	2.706	0.003		
5.963	12	60	5.072	0.003		
6.078	14	62	4.300	0.003		
6.110	18	52	2.908	0.002		
6.194	19	69	3.696	0.003		
6.240	15	67	4.595	0.003		
6.255	12	62	4.972	0.003		
6.275	13	52	3.907	0.002		
6.343	11	29	2.608	0.001		
6.351	8	27	3.289	0.001		
6.428	8	40	4.779	0.002		
6.462	5	24	4.918	0.001		
6.497	0	4	14.815	0.000		
	1629644	1868654		100.000		

Total unknown % height = 93.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000039.d
Lab Smp Id: 1684396 Client Smp ID: MB
Inj Date : 11-JUN-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684396,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Peaks not detected for Quant. or Qual. signal(s).									
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Peaks not detected for Quant. or Qual. signal(s).									
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
Peaks not detected for Quant. or Qual. signal(s).									
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.587	1.585	0.002	72799	0.16029	0.0532			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.953	4.955	-0.002	56571	0.17820	0.0592			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

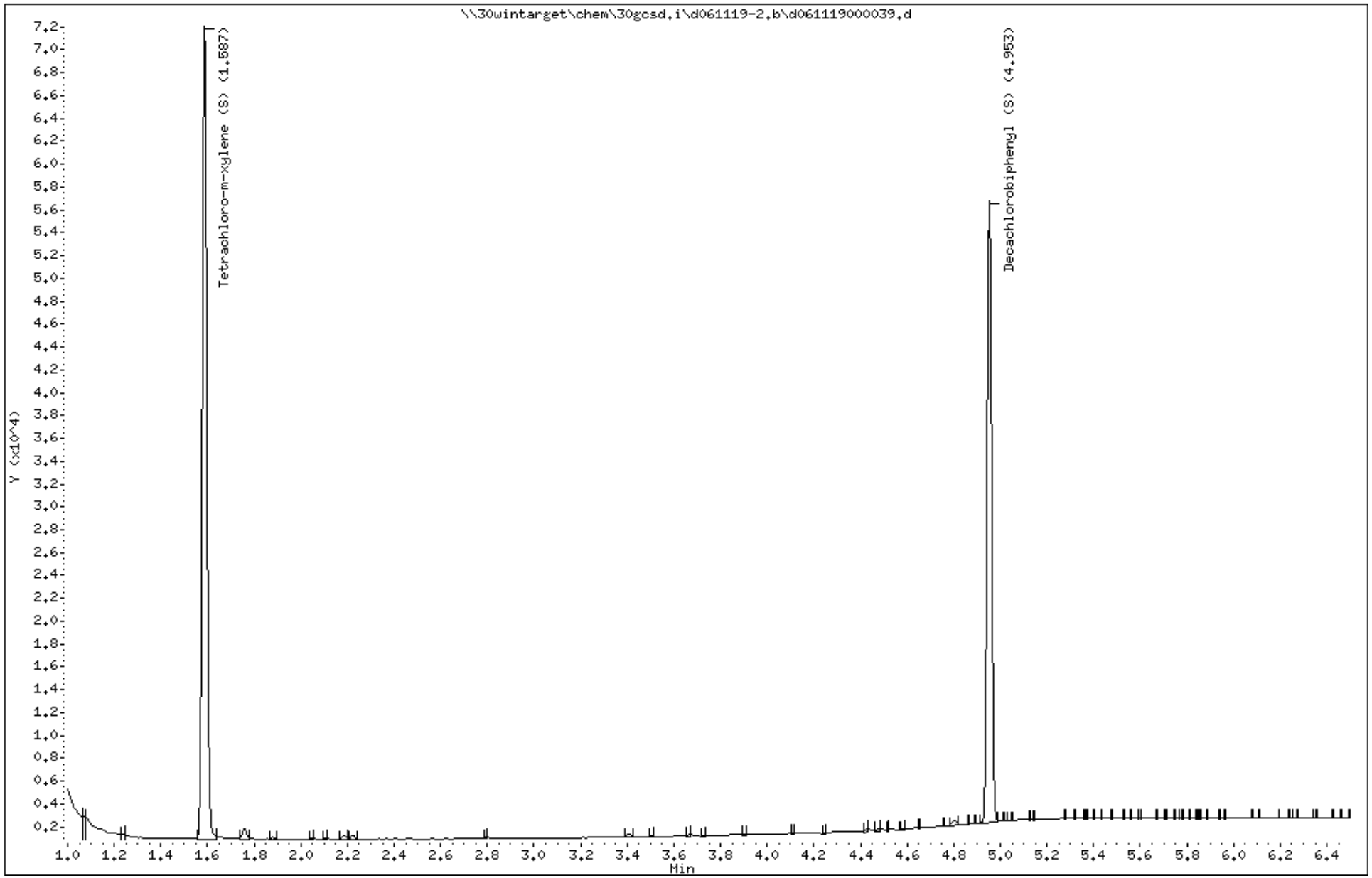
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1684396
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

Client SDG: d061119-2.b
Client Smp ID: MB
Sample Point:
Date Received: 07-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0532	J
2051-24-3	Decachlorobiphenyl (S)	0.0592	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000039.d
Date : 11-JUN-2019 21:19
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1684396,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



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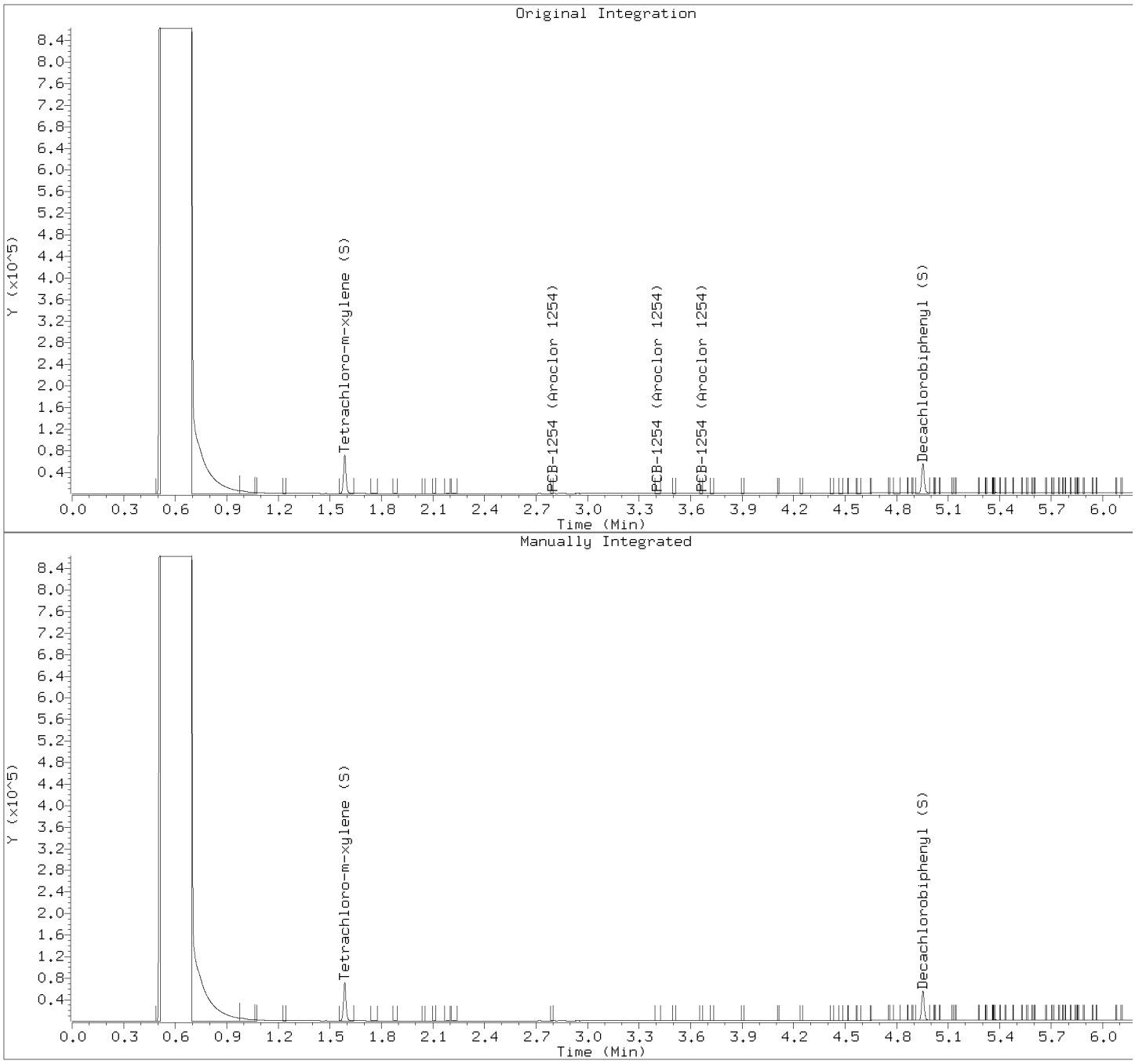
Injection Date: 11-JUN-2019 21:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1684396



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	463	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	1428	0
PCB-1254 (Aroclor 1254)	805	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	74760	72799
Decachlorobiphenyl (S)	65533	56571

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30298231

Date Extracted: 06/07/2019 19:25 Lab Sample ID: 1684397

Date Analyzed: 06/11/2019 21:28 Lab File ID: D061119-1.B\D061119000040.D

Initial wt/vol: 15.06 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
11096-82-5	PCB-1260 (Aroclor 1260)	139	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000040.d
Lab Smp Id: 1684397 Client Smp ID: MBLCS
Inj Date : 11-JUN-2019 21:28
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684397,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 40 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.060	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.513	15299	16381	1.071	2.993		
0.549	276862	138093	0.499	25.276		
0.589	23305	14167	0.608	2.588		
0.643	8666	6917	0.798	1.263		
0.648	12772	6947	0.544	1.269		
0.736	2366	1359	0.574	0.248		
0.819	727	730	1.004	0.133		
0.841	1014	770	0.759	0.140		
0.870	2907	1354	0.466	0.247		
0.919	694	489	0.704	0.089		
0.963	405	382	0.944	0.069		
1.213	80055	71206	0.889	13.010	$ 10 Tetrachloro-m-xylene (S)	BA
1.270	638	466	0.731	0.085		
1.347	727	651	0.895	0.118		
1.379	1029	990	0.963	0.180		
1.402	758	730	0.963	0.133		
1.443	3714	3461	0.932	0.632		
1.477	213	319	1.499	0.058		
1.563	525	498	0.948	0.090		
1.634	7866	6052	0.769	1.105	1 PCB-1016 (Aroclor 1016)	BA
1.695	839	770	0.918	0.140		
1.747	1910	2375	1.244	0.433		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.762	3170	3104	0.979	0.567		
1.808	1601	1498	0.936	0.273		
1.826	1241	1205	0.971	0.220		
1.880	16348	12324	0.754	2.251	1 PCB-1016 (Aroclor 1016)	BA
1.934	6698	5845	0.873	1.067	1 PCB-1016 (Aroclor 1016)	BA
2.010	3761	4116	1.094	0.752		
2.037	4806	4487	0.934	0.819		
2.064	3096	3475	1.122	0.634		
2.079	3531	3379	0.957	0.617		
2.190	4929	5262	1.067	0.961	1 PCB-1016 (Aroclor 1016)	BA
2.214	1923	2035	1.058	0.371		
2.240	1553	1659	1.068	0.303		
2.257	997	1232	1.236	0.225		
2.279	4587	4401	0.959	0.804	1 PCB-1016 (Aroclor 1016)	BA
2.347	1395	1332	0.955	0.243		
2.376	1194	1248	1.046	0.228		
2.403	1645	1826	1.110	0.333		
2.427	4589	4379	0.954	0.800		
2.474	635	658	1.036	0.120		
2.511	3435	3532	1.028	0.645		
2.560	195	198	1.015	0.036		
2.594	438	342	0.780	0.062		
2.677	127	133	1.044	0.024		
2.729	601	637	1.060	0.116		
2.798	8010	6912	0.863	1.262	7 PCB-1260 (Aroclor 1260)	BA
2.831	2850	2816	0.988	0.514		
2.886	9852	10075	1.023	1.840	7 PCB-1260 (Aroclor 1260)	BA
2.925	610	616	1.010	0.112		
2.955	1605	1662	1.036	0.303		
2.996	12418	12203	0.983	2.229	7 PCB-1260 (Aroclor 1260)	BA
3.103	4733	5404	1.142	0.987		
3.122	6745	6209	0.920	1.134		
3.190	3585	2724	0.760	0.497		
3.227	13653	10461	0.766	1.911		
3.254	9024	8888	0.985	1.623		
3.289	4866	4888	1.005	0.893		
3.378	1969	1718	0.873	0.313		
3.439	9759	8834	0.905	1.614		
3.500	4764	4630	0.972	0.845		
3.534	3615	3504	0.969	0.640		
3.558	884	1053	1.191	0.192		
3.585	20733	20604	0.994	3.764	7 PCB-1260 (Aroclor 1260)	BA
3.619	398	425	1.068	0.077		
3.679	725	742	1.024	0.135		
3.758	288	307	1.066	0.056		
3.786	4414	4476	1.014	0.817		
3.827	15071	14141	0.938	2.583	7 PCB-1260 (Aroclor 1260)	BA
3.973	689	659	0.957	0.120		
4.037	222	296	1.333	0.054		
4.079	2042	2055	1.006	0.375		
4.153	5265	5057	0.960	0.923		
4.343	1585	1563	0.986	0.285		
4.500	59385	59714	1.006	10.910	$ 11 Decachlorobiphenyl (S)	BA
4.612	13	36	2.835	0.006		
4.750	26	63	2.416	0.011		
4.897	105	108	1.033	0.019		
4.931	20	69	3.513	0.012		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.123	21	86	4.163	0.015		
5.207	6	27	4.206	0.004		
5.220	7	26	3.542	0.004		
5.304	933	703	0.754	0.128		
5.438	2	12	4.839	0.002		
5.511	15	34	2.335	0.006		
5.535	9	37	3.928	0.006		
5.748	5	24	4.380	0.004		
6.028	3	11	3.548	0.002		
6.042	5	11	2.371	0.002		
6.240	0	6	14.286	0.001		
6.300	0	4	100.000	0.000		
	726716	547307		100.000		

Total unknown % height = 58.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000040.d
Lab Smp Id: 1684397 Client Smp ID: MBLCS
Inj Date : 11-JUN-2019 21:28
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684397,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-1.b\df8082.new608.052419.m
Meth Date : 12-Jun-2019 08:55 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 40 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.060	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.633	1.633	0.000	7866	0.38300	0.127	80.00- 120.00	100.00(aM)	BA
1.879	1.880	-0.001	16348	0.39550	0.131	160.93- 241.39	207.83	BA
1.933	1.933	0.000	6697	0.40207	0.133	65.29- 97.93	85.15	BA
2.189	2.189	0.000	4929	0.38589	0.128	47.30- 70.95	62.67	BA
2.278	2.279	-0.001	4587	0.41778	0.139	41.08- 61.63	58.31	BA
		Average of Peak Concentrations =			0.132			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.798	-0.001	8009	0.43189	0.143	80.00- 120.00	100.00	(aM)	BA
2.886	2.886	0.000	9852	0.41542	0.138	102.15- 153.22	123.01		BA
2.995	2.996	-0.001	12417	0.41842	0.139	125.94- 188.91	155.04		BA
3.584	3.585	-0.001	20732	0.41295	0.137	213.36- 320.04	258.87		BA
3.826	3.828	-0.002	15071	0.41582	0.138	152.08- 228.11	188.18		BA
Average of Peak Concentrations =					0.139				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.213	1.212	0.001	80054	0.15740	0.0522			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.499	4.502	-0.003	59385	0.17692	0.0587			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Pace Analytical Services, Inc.

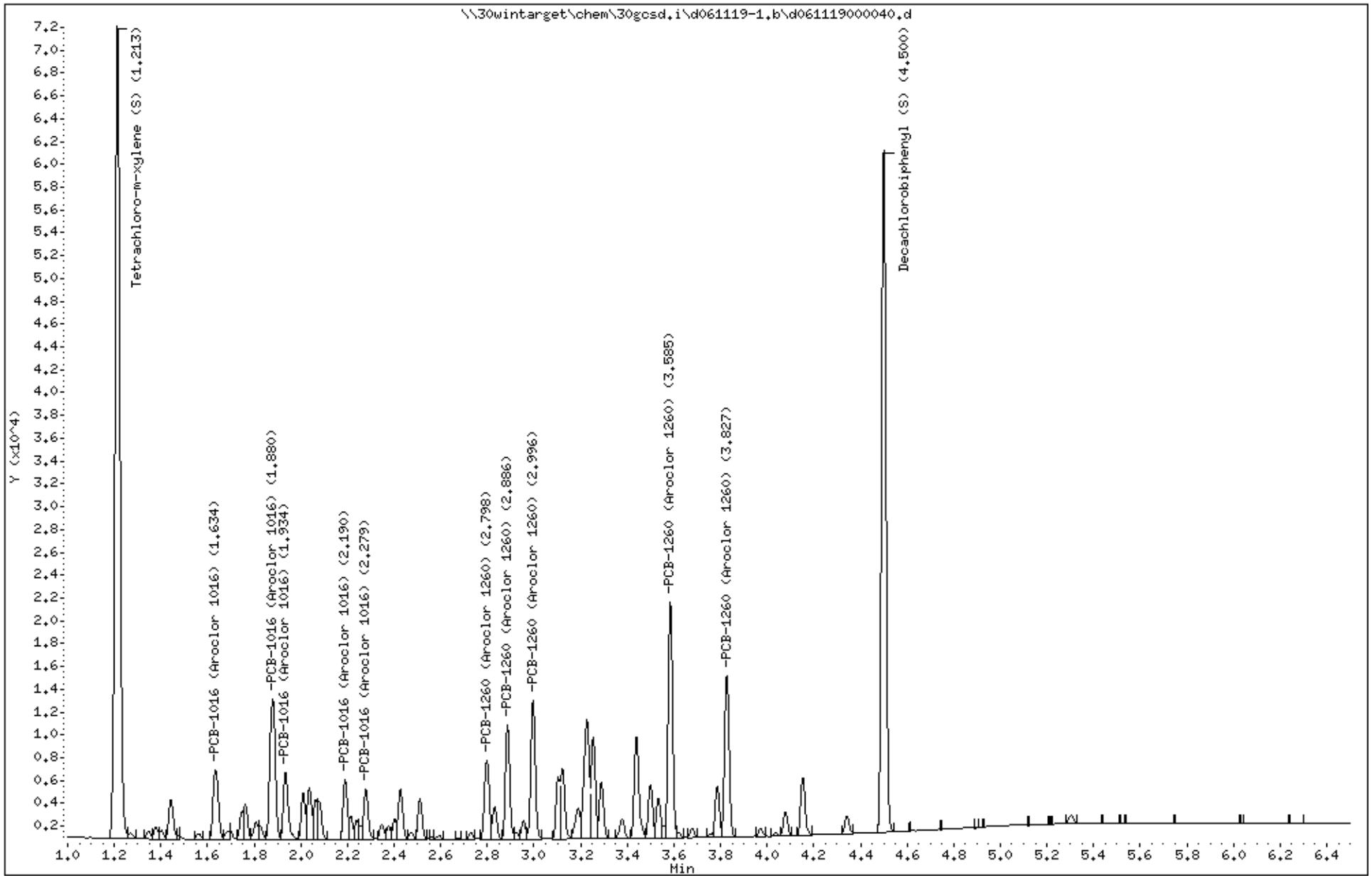
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1684397
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

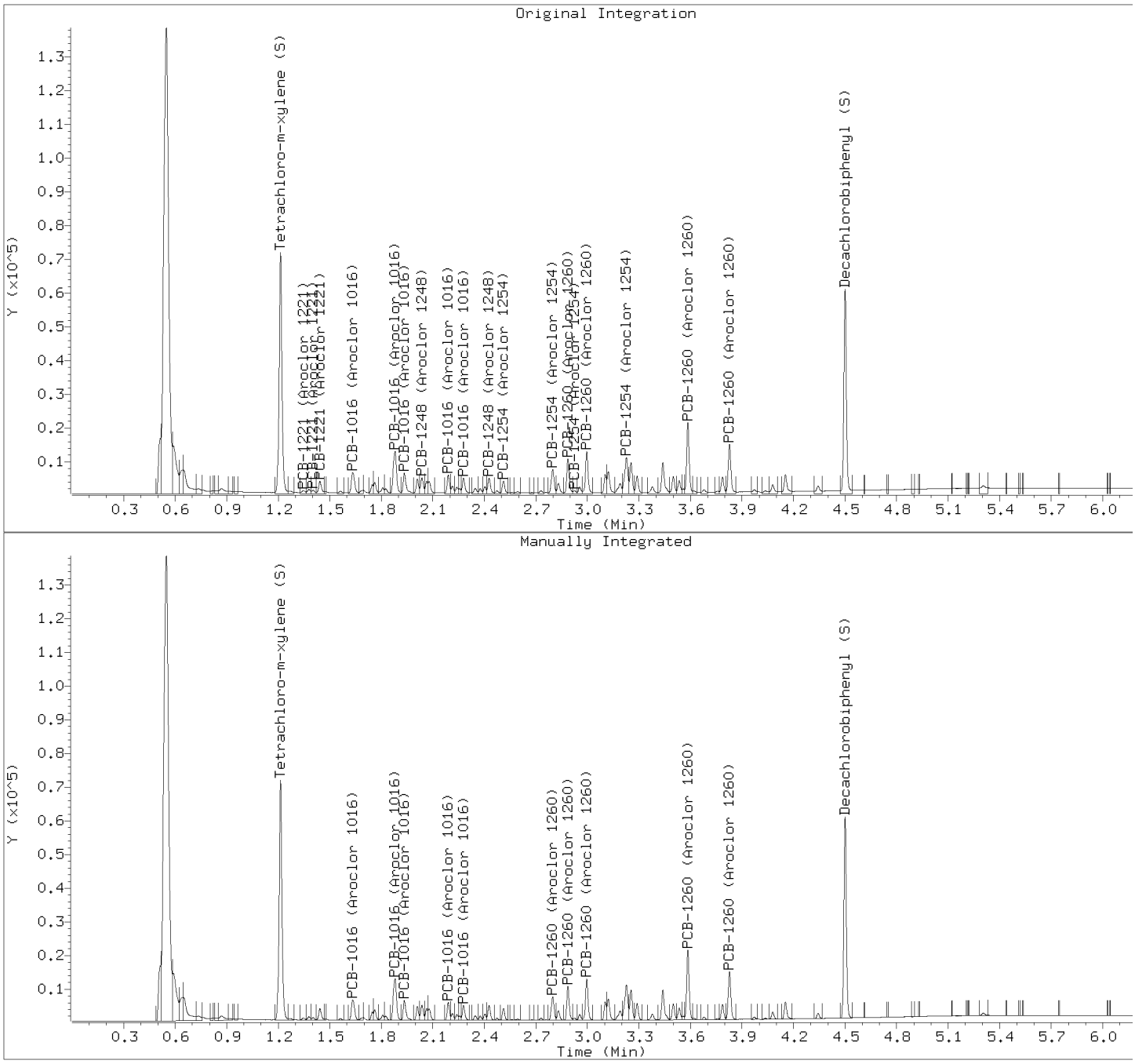
Client SDG: d061119-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 07-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.633	0.127	J
	Peak found at 1.880	0.131	J
	Peak found at 1.934	0.133	J
	Peak found at 2.190	0.128	J
	Peak found at 2.279	0.139	J
	Average of Peak Amounts =	0.132	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.798	0.143	J
	Peak found at 2.886	0.138	J
	Peak found at 2.996	0.139	J
	Peak found at 3.585	0.137	J
	Peak found at 3.827	0.138	J
	Average of Peak Amounts =	0.139	J
877-09-8	Tetrachloro-m-xylene (S)	0.0522	J
2051-24-3	Decachlorobiphenyl (S)	0.0587	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b\d061119000040.d
Date : 11-JUN-2019 21:28
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1684397,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-1.b/d061119000040.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 11-JUN-2019 21:28 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1684397



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8785	7866
PCB-1016 (Aroclor 1016)	17294	16348
PCB-1016 (Aroclor 1016)	7779	6697
PCB-1016 (Aroclor 1016)	5440	4929
PCB-1016 (Aroclor 1016)	5275	4587
PCB-1221 (Aroclor 1221)	1397	0
PCB-1221 (Aroclor 1221)	1273	0
PCB-1221 (Aroclor 1221)	4481	0
PCB-1232 (Aroclor 1232)	4481	0
PCB-1232 (Aroclor 1232)	8785	0
PCB-1232 (Aroclor 1232)	17294	0
PCB-1232 (Aroclor 1232)	7779	0
PCB-1232 (Aroclor 1232)	5440	0
PCB-1242 (Aroclor 1242)	4481	0

PCB-1242 (Aroclor 1242)	8785	0
PCB-1242 (Aroclor 1242)	17294	0
PCB-1242 (Aroclor 1242)	7779	0
PCB-1242 (Aroclor 1242)	5440	0
PCB-1248 (Aroclor 1248)	17294	0
PCB-1248 (Aroclor 1248)	5212	0
PCB-1248 (Aroclor 1248)	5440	0
PCB-1248 (Aroclor 1248)	5275	0
PCB-1248 (Aroclor 1248)	5238	0
PCB-1254 (Aroclor 1254)	5238	0
PCB-1254 (Aroclor 1254)	4105	0
PCB-1254 (Aroclor 1254)	8726	0
PCB-1254 (Aroclor 1254)	1020	0
PCB-1254 (Aroclor 1254)	14368	0
PCB-1260 (Aroclor 1260)	8726	8009
PCB-1260 (Aroclor 1260)	10688	9852
PCB-1260 (Aroclor 1260)	13460	12417
PCB-1260 (Aroclor 1260)	21874	20732
PCB-1260 (Aroclor 1260)	16724	15071
Tetrachloro-m-xylene (S)	81631	80054
Decachlorobiphenyl (S)	63145	59385

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30298231

Date Extracted: 06/07/2019 19:25 Lab Sample ID: 1684397

Date Analyzed: 06/11/2019 21:28 Lab File ID: D061119-2.B\D061119000040.D

Initial wt/vol: 15.06 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	131	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000040.d
Lab Smp Id: 1684397 Client Smp ID: MBLCS
Inj Date : 11-JUN-2019 21:28
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684397,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 40 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.060	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	30338	17923	0.591	3.647		
0.576	279683	125347	0.448	25.579		
0.650	22907	10989	0.480	2.236		
0.726	15725	7150	0.455	1.455		
0.817	2078	1068	0.514	0.217		
0.852	1239	883	0.713	0.179		
0.880	603	721	1.195	0.146		
0.989	2442	1113	0.456	0.226		
1.082	932	636	0.683	0.129		
1.145	306	353	1.155	0.071		
1.241	301	358	1.190	0.072		
1.527	381	348	0.913	0.070		
1.586	72364	70375	0.973	14.322	$ 10 Tetrachloro-m-xylene (S)	BA
1.664	525	555	1.057	0.112		
1.712	820	705	0.860	0.143		
1.761	4227	3905	0.924	0.794		
1.842	539	459	0.851	0.093		
1.879	157	165	1.050	0.033		
1.962	4488	4693	1.046	0.955	1 PCB-1016 (Aroclor 1016)	BA
1.982	2665	2712	1.018	0.551		
2.018	561	555	0.989	0.112		
2.042	160	259	1.621	0.052		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.074	4858	3097	0.638	0.630		
2.163	77	96	1.241	0.019		
2.199	1457	1334	0.916	0.271		
2.221	1128	1104	0.978	0.224		
2.266	6038	6959	1.153	1.416		
2.285	8511	8680	1.020	1.766	1 PCB-1016 (Aroclor 1016)	BA
2.304	5696	5429	0.953	1.104		
2.373	4348	4026	0.926	0.819	1 PCB-1016 (Aroclor 1016)	BA
2.402	419	430	1.027	0.087		
2.436	3366	3490	1.037	0.710		
2.468	3920	4008	1.023	0.815	1 PCB-1016 (Aroclor 1016)	BA
2.496	1417	1327	0.936	0.270		
2.558	3911	4024	1.029	0.818	1 PCB-1016 (Aroclor 1016)	BA
2.587	2132	1912	0.897	0.389		
2.614	1357	1391	1.025	0.283		
2.636	1032	1074	1.041	0.218		
2.664	4677	2934	0.627	0.597		
2.742	102	161	1.581	0.032		
2.815	4616	3556	0.770	0.723		
2.861	1248	1219	0.977	0.248		
2.919	351	365	1.041	0.074		
2.956	3358	3215	0.957	0.654		
3.083	72	107	1.480	0.021		
3.135	471	535	1.136	0.108		
3.157	1526	1441	0.944	0.293		
3.195	1559	1551	0.995	0.315		
3.242	5555	4371	0.787	0.889		
3.273	1069	1153	1.079	0.234		
3.305	8706	8504	0.977	1.730	7 PCB-1260 (Aroclor 1260)	BA
3.387	1081	1008	0.933	0.205		
3.432	1414	1409	0.996	0.286		
3.475	10377	10195	0.982	2.074	7 PCB-1260 (Aroclor 1260)	BA
3.498	3066	3090	1.008	0.628		
3.552	7018	4854	0.692	0.987		
3.582	935	881	0.942	0.179		
3.626	1088	970	0.892	0.197		
3.659	13391	10406	0.777	2.117	7 PCB-1260 (Aroclor 1260)	BA
3.717	7772	7423	0.955	1.510		
3.753	4027	3928	0.975	0.799		
3.835	1725	1887	1.094	0.384		
3.858	7989	7422	0.929	1.510		
3.892	485	516	1.065	0.105		
3.918	3927	3798	0.967	0.772		
3.947	2309	2090	0.905	0.425		
3.976	204	215	1.052	0.043		
4.010	2114	1959	0.927	0.398		
4.055	18143	17306	0.954	3.521	7 PCB-1260 (Aroclor 1260)	BA
4.096	1031	934	0.906	0.190		
4.203	105	89	0.851	0.018		
4.243	11180	10092	0.903	2.053	7 PCB-1260 (Aroclor 1260)	BA
4.268	1341	1733	1.292	0.352		
4.290	5163	4284	0.830	0.871		
4.432	430	380	0.883	0.077		
4.458	295	263	0.893	0.053		
4.491	2279	1999	0.877	0.406		
4.575	38	45	1.176	0.009		
4.612	4529	4324	0.955	0.879		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.655	252	235	0.932	0.047		
4.748	7	25	3.463	0.005		
4.802	1539	1402	0.911	0.285		
4.846	4	19	5.249	0.003		
4.856	7	23	3.177	0.004		
4.861	5	25	5.081	0.005		
4.899	11	39	3.501	0.007		
4.916	31	54	1.768	0.010		
4.952	56612	53798	0.950	10.948	$ 11 Decachlorobiphenyl (S)	BA
5.002	9	30	3.488	0.006		
5.028	18	39	2.113	0.007		
5.050	16	48	2.938	0.009		
5.056	11	50	4.496	0.010		
5.092	14	57	4.060	0.011		
5.097	32	62	1.965	0.012		
5.105	30	64	2.165	0.013		
5.167	9	23	2.684	0.004		
5.249	8	31	3.865	0.006		
5.267	13	45	3.368	0.009		
5.291	25	58	2.276	0.011		
5.307	16	72	4.489	0.014		
5.372	125	156	1.246	0.031		
5.402	50	119	2.366	0.024		
5.408	25	117	4.671	0.023		
5.416	31	129	4.106	0.026		
5.422	48	131	2.734	0.026		
5.496	36	103	2.860	0.020		
5.502	23	101	4.469	0.020		
5.509	26	99	3.882	0.020		
5.550	66	133	2.009	0.027		
5.558	99	144	1.461	0.029		
5.568	42	141	3.325	0.028		
5.631	16	79	5.019	0.016		
5.669	18	61	3.400	0.012		
5.685	16	60	3.783	0.012		
5.721	13	60	4.724	0.012		
5.759	12	55	4.783	0.011		
5.849	9	40	4.228	0.008		
5.860	10	39	3.980	0.007		
5.888	15	44	2.977	0.008		
5.943	9	41	4.779	0.008		
6.004	7	34	4.928	0.006		
6.012	6	29	5.142	0.005		
6.015	9	30	3.219	0.006		
6.057	10	35	3.669	0.007		
6.135	11	45	4.198	0.009		
6.143	14	53	3.762	0.010		
6.209	23	57	2.492	0.011		
6.237	23	50	2.151	0.010		
6.282	16	52	3.338	0.010		
6.285	14	58	4.173	0.011		
6.317	591	451	0.764	0.091		
6.364	7	37	5.522	0.007		
6.390	9	31	3.468	0.006		
6.395	5	37	6.752	0.007		
6.403	6	35	5.503	0.007		
6.492	7	21	2.996	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	699985	491371		100.000		

Total unknown % height = 58.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000040.d
Lab Smp Id: 1684397 Client Smp ID: MBLCS
Inj Date : 11-JUN-2019 21:28
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1684397,
Misc Info : 15649,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d061119-2.b\dr8082.new608.052419.m
Meth Date : 12-Jun-2019 09:02 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 40 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.060	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.961	1.962	-0.001	4488	0.39392	0.131	80.00- 120.00	100.00(aM)	BA
2.284	2.284	0.000	8511	0.39027	0.130	150.73- 226.09	189.64	BA
2.372	2.372	0.000	4347	0.40066	0.133	72.86- 109.30	96.87	BA
2.467	2.468	-0.001	3919	0.39267	0.130	66.73- 100.09	87.33	BA
2.558	2.558	0.000	3911	0.39498	0.131	65.78- 98.68	87.15	BA
		Average of Peak Concentrations =			0.131			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.304	3.305	-0.001	8706	0.42844	0.142	80.00- 120.00	100.00	(aM)	BA
3.474	3.475	-0.001	10377	0.42605	0.141	95.10- 142.65	119.19		BA
3.658	3.659	-0.001	13391	0.45716	0.152	118.52- 177.78	153.81		BA
4.055	4.056	-0.001	18142	0.42166	0.140	168.36- 252.54	208.39		BA
4.242	4.243	-0.001	11180	0.43216	0.143	103.36- 155.04	128.42		BA
Average of Peak Concentrations =					0.144				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.585	0.001	72364	0.15933	0.0529			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.952	4.955	-0.003	56612	0.17833	0.0592			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Pace Analytical Services, Inc.

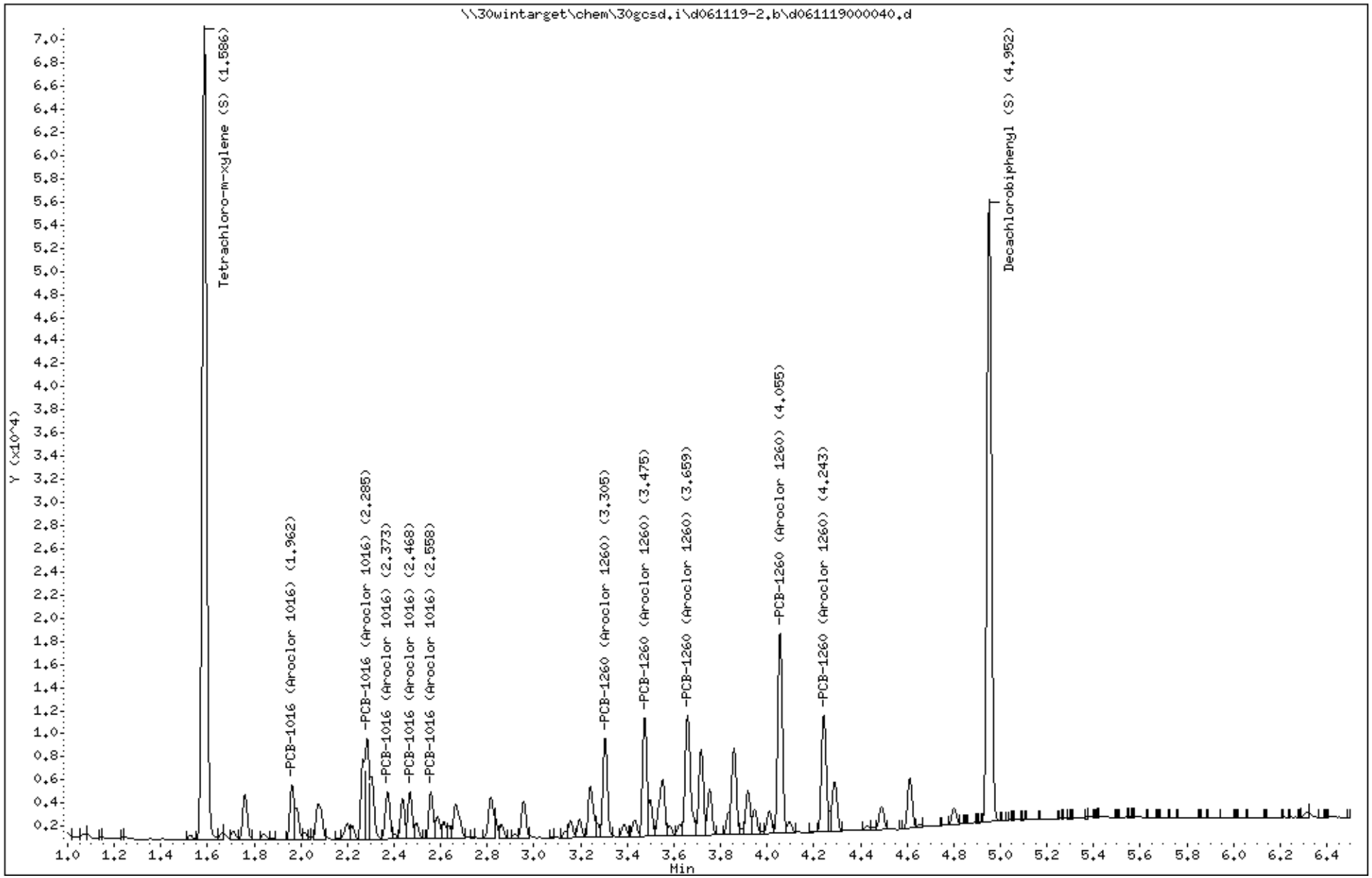
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1684397
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15649,

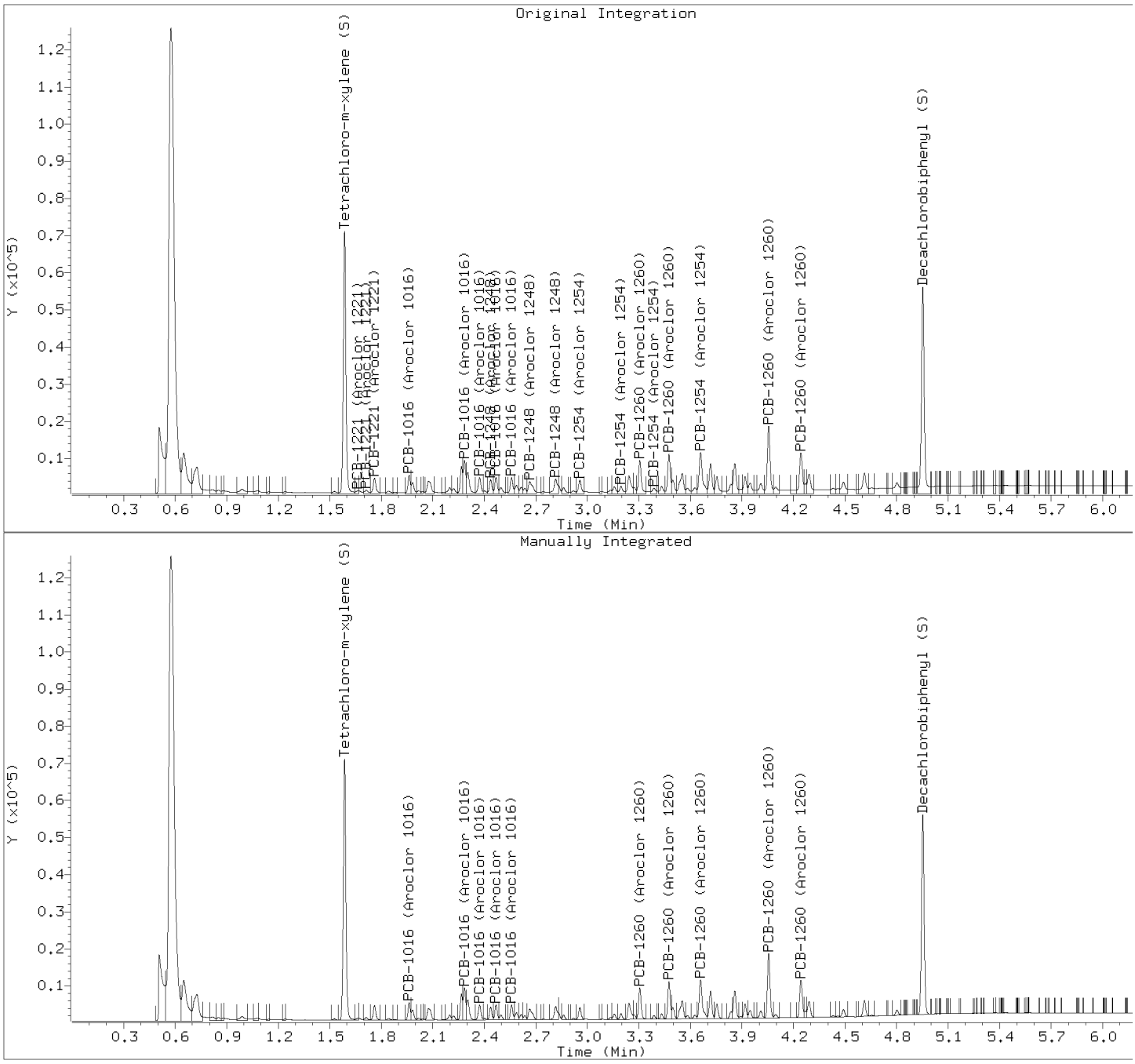
Client SDG: d061119-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 07-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.962	0.131	J
	Peak found at 2.285	0.130	J
	Peak found at 2.373	0.133	J
	Peak found at 2.468	0.130	J
	Peak found at 2.558	0.131	J
	Average of Peak Amounts =	0.131	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.305	0.142	J
	Peak found at 3.475	0.141	J
	Peak found at 3.659	0.152	J
	Peak found at 4.055	0.140	J
	Peak found at 4.243	0.143	J
	Average of Peak Amounts =	0.144	J
877-09-8	Tetrachloro-m-xylene (S)	0.0529	J
2051-24-3	Decachlorobiphenyl (S)	0.0592	J

Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b\d061119000040.d
Date : 11-JUN-2019 21:28
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1684397,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d061119-2.b/d061119000040.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 11-JUN-2019 21:28 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1684397



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5054	4488
PCB-1016 (Aroclor 1016)	8823	8511
PCB-1016 (Aroclor 1016)	5246	4347
PCB-1016 (Aroclor 1016)	4564	3919
PCB-1016 (Aroclor 1016)	4699	3911
PCB-1221 (Aroclor 1221)	875	0
PCB-1221 (Aroclor 1221)	1432	0
PCB-1221 (Aroclor 1221)	5126	0
PCB-1232 (Aroclor 1232)	5126	0
PCB-1232 (Aroclor 1232)	5054	0
PCB-1232 (Aroclor 1232)	8823	0
PCB-1232 (Aroclor 1232)	5246	0
PCB-1232 (Aroclor 1232)	4699	0
PCB-1242 (Aroclor 1242)	5126	0

PCB-1242 (Aroclor 1242)	5054	0
PCB-1242 (Aroclor 1242)	8823	0
PCB-1242 (Aroclor 1242)	5246	0
PCB-1242 (Aroclor 1242)	4699	0
PCB-1248 (Aroclor 1248)	8823	0
PCB-1248 (Aroclor 1248)	4080	0
PCB-1248 (Aroclor 1248)	4699	0
PCB-1248 (Aroclor 1248)	5910	0
PCB-1248 (Aroclor 1248)	5840	0
PCB-1254 (Aroclor 1254)	5840	0
PCB-1254 (Aroclor 1254)	4502	0
PCB-1254 (Aroclor 1254)	2710	0
PCB-1254 (Aroclor 1254)	2316	0
PCB-1254 (Aroclor 1254)	15656	0
PCB-1260 (Aroclor 1260)	10309	8706
PCB-1260 (Aroclor 1260)	11633	10377
PCB-1260 (Aroclor 1260)	15656	13391
PCB-1260 (Aroclor 1260)	20751	18142
PCB-1260 (Aroclor 1260)	13739	11180
Tetrachloro-m-xylene (S)	73904	72364
Decachlorobiphenyl (S)	64901	56612

SAMPLE NO.

LCS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1684397 SDG No.: 30298231 Date(s) Analyzed: 06/11/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63332	132	0.59
	2	2.55832	131	
PCB-1260 (Aroclor 1260)	1	2.79765	139	3.3
	2	4.24265	144	

SAMPLE NO.

MS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1684398 SDG No.: 30298231 Date(s) Analyzed: 06/11/2019
Instrument ID (1): 30GCSD Instrument ID (2): Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.629	497J	
	2	1.629		
PCB-1260 (Aroclor 1260)	1	2.79667	1200	
	2	2.79667		

SAMPLE NO.

MSD

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1684399 SDG No.: 30298231 Date(s) Analyzed: 06/12/2019
Instrument ID (1): 30GCSD Instrument ID (2): Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63065	560	
	2	1.63065		
PCB-1260 (Aroclor 1260)	1	2.79732	1550	
	2	2.79732		

Prep Log Report

Batch Information: OEXT 38349/ 346269 PCB-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8082A
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	06/07/2019 19:25:38:059	Extraction End Date/Time	06/07/2019 22:52:56:934
Witnessed By		Spiked By	BBR	Spiked By Date	06/07/2019 20:07:35:176	Concentrated By	BBR
Concentrated By Date	06/07/2019 22:11:37:188	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Dispenser ID 2	BTD011
Syringe ID 1	SYR029	Methylene Chloride	89661	1:1 MeCl/Acetone	89354	Hexane	52634
Ottawa Sand	47790	Hydromatrix	84270	Sodium Sulfate	88419	Gravity Filters	90158
Reviewed By	DSC	Reviewed By Date	06/13/2019 13:24	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	BLANK	**1684396**		TVAP006	15.05	5		87605 (1)	
8082ASM_P	LCS	**1684397**		TVAP006	15.06	5		87605 (1)	88418 (1)
8082ASM_P	PS	**30297106058**		TVAP006	15.25	5		87605 (1)	
8082ASM_P	PS	**30297106059**		TVAP006	15.5	5		87605 (1)	
8082ASM_P	PS	**30297106060**		TVAP006	15.09	5		87605 (1)	
8082ASM_P	PS	**30297106061**		TVAP006	15.19	5		87605 (1)	
8082ASM_P	PS	**30297106062**		TVAP005	15.09	5		87605 (1)	
8082ASM_P	PS	**30297106063**		TVAP005	15.25	5		87605 (1)	
8082ASM_P	PS	**30297106064**		TVAP005	15.46	5		87605 (1)	
8082ASM_P	PS	**30297106065**		TVAP005	15.46	5		87605 (1)	
8082ASM_P	PS	**30297106066**		TVAP005	15.11	5		87605 (1)	
8082ASM_P	PS	**30297746001**		TVAP005	15.47	5		87605 (1)	
8082ASM_P	PS	**30297746002**		TVAP003	15.35	5		87605 (1)	
8082ASM_P	PS	**30297746003**		TVAP003	10.05	5	2*	87605 (1)	
8082ASM_P	PS	**30298236001**		TVAP003	5.13	5	3*	87605 (1)	
8082ASM_P	MS	**1684398**		TVAP003	5.01	5	3*	87605 (1)	88418 (1)
8082ASM_P	MSD	**1684399**		TVAP003	5.04	5	3*	87605 (1)	88418 (1)
8082ASM_P	PS	**30298026001**		TVAP003	15.02	5		87605 (1)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	PS	**30298087001**		TVAP007	15.26	5		87605 (1)	
8082ASM_P	PS	**30298423001**		TVAP007	15.29	5		87605 (1)	
8082ASM_P	PS	**30298295001**		TVAP007	5.38	5	3*	87605 (1)	
8082ASM_P	PS	**30298231001**		TVAP007	15.47	5		87605 (1)	
8082ASM_P	PS	**30298231010**		TVAP007	15.36	5	1*	87605 (1)	

Sample Notes:

1*: Composite Sample= 7.50g from 007 and 7.86g from 008

2*: Limited Sample Volume

3*: Low Density Matrix

Standard Notes:

87605: OEXT Pesticide Surrogate 1 ppm

88418: oext AROCLOR 2.5 ppm spike methanol

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexane 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:00	CWB	
1/d052419000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:08	CWB	
1/d052419000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:17	CWB	
1/d052419000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:25	CWB	
1/d052419000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:34	CWB	
1/d052419000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:42	CWB	
1/d052419000007.d	CAL3S, 86571:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:51	CWB	
1/d052419000008.d	CAL3S, 86574:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:59	CWB	
1/d052419000009.d	CAL3S, 87759:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:08	CWB	
1/d052419000010.d	CAL3S, 87760:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:16	CWB	
1/d052419000011.d	CAL3S, 86155:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:25	CWB	
1/d052419000012.d	CAL3S, 86156:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:33	CWB	
1/d052419000013.d	CAL3S, 86172:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:42	CWB	
1/d052419000014.d	CAL6A, 87260:1	N/15570	CALIB_6	1	df8082.new608.052419	5/24/19	14:50	CWB	
1/d052419000015.d	CAL5A, 88856:1	N/15570	CALIB_5	1	df8082.new608.052419	5/24/19	14:59	CWB	
1/d052419000016.d	CAL4A, 88855:1	N/15570	CALIB_4	1	df8082.new608.052419	5/24/19	15:07	CWB	
1/d052419000017.d	CAL3A, 88854:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	15:16	CWB	
1/d052419000018.d	CAL2A, 88853:1	N/15570	CALIB_2	1	df8082.new608.052419	5/24/19	15:25	CWB	
1/d052419000019.d	CAL1A, 88852:1	N/15570	CALIB_1	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000019llc.d	CAL1A, 88852:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000020.d	ICV, 85333:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:42	CWB	
1/d052419000021.d	1672979,	L/15564	BLANK	1	df8082.new608.052419	5/24/19	15:50	CWB	
1/d052419000022.d	1672980,	L/15564	LCS	1	df8082.new608.052419	5/24/19	15:59	CWB	
1/d052419000023.d	30294592008,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:07	CWB	
1/d052419000024.d	30294597001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:16	CWB	
1/d052419000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:24	CWB	
1/d052419000026.d	30294597002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:33	CWB	
1/d052419000027.d	30294597003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:41	CWB	
1/d052419000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:50	CWB	
1/d052419000029.d	30294598004,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:58	CWB	
1/d052419000030.d	30294598005,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:07	CWB	
1/d052419000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:15	CWB	
1/d052419000032.d	30295167003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:24	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot:

Surr. lot: NA

Tune std: NA

Cal. std: NA

hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000033.d	30294501001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:32	CWB	
1/d052419000034.d	1672981,	L/15564	MS	1	df8082.new608.052419	5/24/19	17:41	CWB	
1/d052419000035.d	1672982,	L/15564	MSD	1	df8082.new608.052419	5/24/19	17:49	CWB	
1/d052419000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:58	CWB	
1/d052419000037.d	30294838001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:06	CWB	
1/d052419000038.d	30295070001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:15	CWB	
1/d052419000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:23	CWB	
1/d052419000040.d	30295070002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:32	CWB	
1/d052419000041.d	30295070003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:40	CWB	
1/d052419000042.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:49	CWB	
1/d052419000043.d	30296109004X5,	L/15567	SAMPLE	5	df8082.new608.052419	5/24/19	18:57	CWB	
1/d052419000044.d	30296109006X10,	L/15567	SAMPLE	10	df8082.new608.052419	5/24/19	19:06	CWB	
1/d052419000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	19:14	CWB	
1/d052419000046.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	19:23	CWB	
1/d052419000047.d	1672973,	L/15563	BLANK	1	df8082.new608.052419	5/24/19	19:31	CWB	
1/d052419000048.d	1672974,	L/15563	LCS	1	df8082.new608.052419	5/24/19	19:40	CWB	
1/d052419000049.d	30294501003,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:48	CWB	
1/d052419000050.d	30295057002,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:57	CWB	
1/d052419000051.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:05	CWB	
1/d052419000052.d	1672975,	L/15563	MS	1	df8082.new608.052419	5/24/19	20:14	CWB	
1/d052419000053.d	1672976,	L/15563	MSD	1	df8082.new608.052419	5/24/19	20:22	CWB	
1/d052419000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:31	CWB	
1/d052419000055.d	1671804,	L/15549	BLANK	1	df8082.new608.052419	5/24/19	20:39	CWB	
1/d052419000056.d	1671805,	L/15549	LCS	1	df8082.new608.052419	5/24/19	20:48	CWB	
1/d052419000057.d	30294948001,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	20:56	CWB	
1/d052419000058.d	30294948002,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:05	CWB	
1/d052419000059.d	30294948003,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:13	CWB	
1/d052419000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:22	CWB	
1/d052419000061.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	21:30	CWB	
1/d052419000062.d	30295597001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:39	CWB	
1/d052419000063.d	30295596001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:47	CWB	
1/d052419000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:56	CWB	
1/d052419000065.d	30295167001X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:04	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJG 5-28-19 Page: 2 of 3

* all sample intakes were acid cleaned *

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000066.d	30295167002X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:13	CWB	
1/d052419000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:21	CWB	
1/d052419000068.d	30295167005X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:30	CWB	
1/d052419000069.d	30295167006X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:38	CWB	
1/d052419000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:47	CWB	
1/d052419000071.d	30295167007X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:55	CWB	
1/d052419000072.d	30295167008X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:04	CWB	
1/d052419000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:12	CWB	
1/d052419000074.d	30295167009X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:21	CWB	
1/d052419000075.d	30295167010X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:29	CWB	
1/d052419000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:38	CWB	
1/d052419000077.d	30295167011X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:46	CWB	
1/d052419000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:55	CWB	
1/d052419000079.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/25/19	00:04	CWB	
1/d052419000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/25/19	00:12	CWB	

CWB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

SJC 5-28-19

Reviewed By/Date: _____ Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [S]:
ISTD lot: Surr. lot: NA
Tune std: NA Cal. std: NA

1:1 H_2SO_4 79621
hexanes 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061119000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/11/19	15:56	CWB	
1/d061119000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/11/19	16:05	CWB	
1/d061119000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/11/19	16:13	CWB	
1/d061119000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/11/19	16:22	CWB	
1/d061119000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/11/19	16:30	CWB	
1/d061119000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	16:39	CWB	
1/d061119000007.d	CCV, 90508:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/11/19	16:47	CWB	
1/d061119000008.d	1683450,	S/15642	BLANK	1	df8082.new608.052419	6/11/19	16:56	CWB	
1/d061119000009.d	1683451,	S/15642	LCS	1	df8082.new608.052419	6/11/19	17:05	CWB	
1/d061119000010.d	30297106038X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	17:13	CWB	
1/d061119000011.d	1683452X5,	S/15642	MS	5	df8082.new608.052419	6/11/19	17:22	CWB	
1/d061119000012.d	1683453X5,	S/15642	MSD	5	df8082.new608.052419	6/11/19	17:30	CWB	
1/d061119000013.d	30297106039X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	17:39	CWB	
1/d061119000014.d	30297106040X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	17:47	CWB	
1/d061119000015.d	30297106041X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	17:56	CWB	
1/d061119000016.d	30297106042X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:04	CWB	
1/d061119000017.d	30297106043X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:13	CWB	
1/d061119000018.d	30297106044X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:21	CWB	
1/d061119000019.d	30297106045X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:30	CWB	
1/d061119000020.d	30297106046X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:38	CWB	
1/d061119000021.d	30297106047X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:47	CWB	
1/d061119000022.d	30297106048X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	18:55	CWB	
1/d061119000023.d	30297106049X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	19:03	CWB	
1/d061119000024.d	30297106050X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	19:12	CWB	
1/d061119000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	19:20	CWB	
1/d061119000026.d	30297375005X10,	S/15655	SAMPLE	10	df8082.new608.052419	6/11/19	19:29	CWB	
1/d061119000027.d	30298343003X100,	S/15655	SAMPLE	100	df8082.new608.052419	6/11/19	19:37	CWB	
1/d061119000028.d	30298343009X10,	S/15655	SAMPLE	10	df8082.new608.052419	6/11/19	19:46	CWB	
1/d061119000029.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	19:54	CWB	
1/d061119000030.d	CCV, 90508:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/11/19	20:03	CWB	
1/d061119000031.d	30297106051X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:11	CWB	
1/d061119000032.d	30297106052X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:20	CWB	
1/d061119000033.d	30297106053X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:28	CWB	
1/d061119000034.d	30297106054X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:37	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CWB 6-12-19 * all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d061119-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:51 06/12/2019

Reviewed By/Date: SKC 6-12-19 Page: 1 of 4

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061119000035.d	30297106055X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:45	CWB	
1/d061119000036.d	30297106056X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	20:54	CWB	
1/d061119000037.d	30297106057X5,	S/15642	SAMPLE	5	df8082.new608.052419	6/11/19	21:02	CWB	
1/d061119000038.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	21:11	CWB	
1/d061119000039.d	1684396,	S/15649	BLANK	1	df8082.new608.052419	6/11/19	21:19	CWB	
1/d061119000040.d	1684397,	S/15649	LCS	1	df8082.new608.052419	6/11/19	21:28	CWB	
1/d061119000041.d	30297106058X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	21:36	CWB	
1/d061119000042.d	30297106059X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	21:45	CWB	
1/d061119000043.d	30297106060X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	21:53	CWB	
1/d061119000044.d	30297106061X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:01	CWB	
1/d061119000045.d	30297106062X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:10	CWB	
1/d061119000046.d	30297106063X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:18	CWB	
1/d061119000047.d	30297106064X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:27	CWB	
1/d061119000048.d	30297106065X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:36	CWB	
1/d061119000049.d	30297106066X5,	S/15649	SAMPLE	5	df8082.new608.052419	6/11/19	22:44	CWB	
1/d061119000050.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	22:53	CWB	
1/d061119000051.d	CCV, 90508:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/11/19	23:01	CWB	
1/d061119000052.d	30297746001,	S/15649	SAMPLE	1	df8082.new608.052419	6/11/19	23:09	CWB	
1/d061119000053.d	30297746002,	S/15649	SAMPLE	1	df8082.new608.052419	6/11/19	23:18	CWB	
1/d061119000054.d	30297746003,	S/15649	SAMPLE	1	df8082.new608.052419	6/11/19	23:26	CWB	
1/d061119000055.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/11/19	23:35	CWB	
1/d061119000056.d	30298236001X10,	S/15649	SAMPLE	10	df8082.new608.052419	6/11/19	23:43	CWB	
1/d061119000057.d	1684398X10,	S/15649	MS	10	df8082.new608.052419	6/11/19	23:52	CWB	
1/d061119000058.d	1684399X10,	S/15649	MSD	10	df8082.new608.052419	6/12/19	00:00	CWB	
1/d061119000059.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	00:09	CWB	
1/d061119000060.d	30298026001,	S/15649	SAMPLE	1	df8082.new608.052419	6/12/19	00:17	CWB	
1/d061119000061.d	30298087001,	S/15649	SAMPLE	1	df8082.new608.052419	6/12/19	00:25	CWB	
1/d061119000062.d	30298423001,	S/15649	SAMPLE	1	df8082.new608.052419	6/12/19	00:34	CWB	
1/d061119000063.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	00:42	CWB	
1/d061119000064.d	30298295001,	S/15649	SAMPLE	1	df8082.new608.052419	6/12/19	00:51	CWB	
1/d061119000065.d	30298231001X10,	S/15649	SAMPLE	10	df8082.new608.052419	6/12/19	00:59	CWB	
1/d061119000066.d	30298231010X10,	S/15649	SAMPLE	10	df8082.new608.052419	6/12/19	01:08	CWB	
1/d061119000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	01:16	CWB	
1/d061119000068.d	1683408,	S/15639	BLANK	1	df8082.new608.052419	6/12/19	01:25	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d061119-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:51 06/12/2019

Reviewed By/Date: SJG 6-12-19 Page: 2 of 4

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexane) 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061119000069.d	1683409,	S/15639	LCS	1	df8082.new608.052419	6/12/19	01:33	CWB	
1/d061119000070.d	30297287001X5,	S/15639	SAMPLE	5	df8082.new608.052419	6/12/19	01:42	CWB	
1/d061119000071.d	30297376001,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	01:50	CWB	
1/d061119000072.d	30297376002,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	01:59	CWB	
1/d061119000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	02:07	CWB	
1/d061119000074.d	30297376003,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	02:16	CWB	
1/d061119000075.d	30297376004,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	02:24	CWB	
1/d061119000076.d	30297376005,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	02:33	CWB	
1/d061119000077.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	02:41	CWB	
1/d061119000078.d	CCV, 90508:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/12/19	02:50	CWB	
1/d061119000079.d	30297376006X10,	S/15639	SAMPLE	10	df8082.new608.052419	6/12/19	02:58	CWB	
1/d061119000080.d	30297376007,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	03:07	CWB	
1/d061119000081.d	30297376008,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	03:15	CWB	
1/d061119000082.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	03:24	CWB	
1/d061119000083.d	30297376009,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	03:32	CWB	
1/d061119000084.d	30297376010,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	03:41	CWB	
1/d061119000085.d	30297376011,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	03:49	CWB	
1/d061119000086.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	03:58	CWB	
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1/d061119000088.d	1683435,	S/15639	MS	1	df8082.new608.052419	6/12/19	04:15	CWB	
1/d061119000089.d	1683436,	S/15639	MSD	1	df8082.new608.052419	6/12/19	04:23	CWB	
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1/d061119000091.d	30297726002,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	04:40	CWB	
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1/d061119000093.d	30297726004,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	04:57	CWB	
1/d061119000094.d	30297726005,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	05:06	CWB	
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1/d061119000097.d	30297726007,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	05:31	CWB	
1/d061119000098.d	30297726008,	S/15639	SAMPLE	1	df8082.new608.052419	6/12/19	05:40	CWB	
1/d061119000099.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	05:48	CWB	
1/d061119000100.d	CCV, 90508:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/12/19	05:57	CWB	
1/d061119000101.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/12/19	06:05	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d061119~1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:52 06/12/2019

Reviewed By/Date: SJC 8-12-19 Page: 3 of 4

Prep Log Report

Batch Information: PMST 8618/347907

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	VAK	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 | Corr | Date/Time | Init	105.0 | 105.0 | 06/18/2019 17:22 | VAK	Oven Temp Out1 | Corr | Date/Time | Init	105.0 | 105.0 | 06/19/2019 08:06 | SHD
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30298201001**	Y			2.370	97.63	06/18/2019 16:24:57	1.23	1.07	7.81	1.23	M	
DRY WEIGHT	DUP	**1691885**	Y			5.580	94.42	06/18/2019 16:25:00	1.69	1.06	12.36	1.69	M	
DRY WEIGHT	PS	**30298231001**	Y			82.63	17.37	06/18/2019 16:25:04	9.81	1.06	11.65	9.81	M	
DRY WEIGHT	DUP	**1691886**	Y			83.59	16.41	06/18/2019 16:25:20	8.12	1.04	9.51	8.12	M	
DRY WEIGHT	PS	**30298324001**	Y			95.68	4.320	06/18/2019 16:25:29	24.96	1.04	26.04	24.96	M	
DRY WEIGHT	PS	**92431669001**	Y			60.81	39.19	06/18/2019 16:25:33	6.18	1.06	9.48	6.18	M	
DRY WEIGHT	PS	**35473621001**	Y			85.41	14.59	06/18/2019 16:25:36	18	1.03	20.9	18	M	
DRY WEIGHT	PS	**35473621002**	Y			85.02	14.98	06/18/2019 16:25:38	9.94	1.03	11.51	9.94	M	
DRY WEIGHT	PS	**35473621003**	Y			97.56	2.441	06/18/2019 16:25:45	13.43	1.04	13.74	13.43	M	
DRY WEIGHT	PS	**35473621004**	Y			83.19	16.81	06/18/2019 16:25:48	11.6	1.06	13.73	11.6	M	
DRY WEIGHT	PS	**35473621005**	Y			91.38	8.621	06/18/2019 16:25:51	13.77	1.05	14.97	13.77	M	
DRY WEIGHT	PS	**35473621006**	Y			90.69	9.312	06/18/2019 16:25:54	9.61	1.04	10.49	9.61	M	
DRY WEIGHT	PS	**35473621007**	Y			91.40	8.604	06/18/2019 16:26:02	14.84	1.03	16.14	14.84	M	
DRY WEIGHT	PS	**30299120001**	Y			28.04	71.96	06/18/2019 16:26:08	3.62	1.04	10.24	3.62	M	
DRY WEIGHT	PS	**30299121001**	Y			56.67	43.33	06/18/2019 16:26:20	6.74	1.05	11.09	6.74	M	
DRY WEIGHT	PS	**30299640001**	Y			43.35	56.65	06/18/2019 16:26:23	6.4	1.02	13.43	6.4	M	
DRY WEIGHT	PS	**30299642001**	Y			81.33	18.67	06/18/2019 16:26:25	18.93	1.03	23.04	18.93	M	
DRY WEIGHT	PS	**30299839004**	Y			83.13	16.87	06/18/2019 16:26:29	13.53	1.01	16.07	13.53	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**50227649001**	Y			4.480	95.52	06/18/2019 16:26:30	1.29	1.03	6.83	1.29	M	
DRY WEIGHT	PS	**30298316001**	Y			20.99	79.01	06/18/2019 17:11:08	3.48	1.03	12.7	3.48	M	

Prep Log Report

Batch Information: PMST 8623/348343

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	VAK	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 | Corr | Date/Time | Init	105.0 | 105.0 | 06/20/2019 16:13 | VAK	Oven Temp Out1 | Corr | Date/Time | Init	105.0 | 105.0 | 06/21/2019 08:08 | SHD
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30298231010**	Y			91.69	8.312	06/20/2019 15:52:15	22.34	1.05	24.27	22.34	M	
DRY WEIGHT	DUP	**1693760**	Y			93.31	6.687	06/20/2019 15:52:21	22.83	1.06	24.39	22.83	M	
DRY WEIGHT	PS	**30299689006**	Y			89.47	10.53	06/20/2019 15:52:29	14.47	1.05	16.05	14.47	M	
DRY WEIGHT	DUP	**1693761**	Y			90.38	9.618	06/20/2019 15:52:37	12.41	1.04	13.62	12.41	M	
DRY WEIGHT	PS	**30299689007**	Y			96.59	3.408	06/20/2019 15:52:45	9.27	1.05	9.56	9.27	M	
DRY WEIGHT	PS	**30299689008**	Y			91.16	8.845	06/20/2019 15:52:50	14.56	1.06	15.87	14.56	M	
DRY WEIGHT	PS	**30299726001**	Y			77.28	22.72	06/20/2019 15:52:55	10.11	1.06	12.77	10.11	M	
DRY WEIGHT	PS	**30299726002**	Y			81.45	18.55	06/20/2019 15:53:03	7.82	1.06	9.36	7.82	M	
DRY WEIGHT	PS	**30299726003**	Y			84.06	15.94	06/20/2019 15:53:12	9.16	1.09	10.69	9.16	M	
DRY WEIGHT	PS	**30299726004**	Y			82.36	17.64	06/20/2019 15:53:18	13.32	1.09	15.94	13.32	M	
DRY WEIGHT	PS	**30299726005**	Y			82.16	17.84	06/20/2019 15:53:27	7.38	1.07	8.75	7.38	M	
DRY WEIGHT	PS	**30299726006**	Y			82.03	17.97	06/20/2019 15:53:43	9.34	1.08	11.15	9.34	M	
DRY WEIGHT	PS	**30299726007**	Y			74.00	26.00	06/20/2019 15:53:53	12.29	1.05	16.24	12.29	M	
DRY WEIGHT	PS	**30299726008**	Y			77.54	22.46	06/20/2019 15:53:58	9.67	1.04	12.17	9.67	M	
DRY WEIGHT	PS	**30299726009**	Y			80.04	19.96	06/20/2019 15:54:11	9.74	1.04	11.91	9.74	M	
DRY WEIGHT	PS	**30299726010**	Y			81.43	18.57	06/20/2019 15:54:17	9.16	1.05	11.01	9.16	M	
DRY WEIGHT	PS	**30299730001**	Y			83.97	16.03	06/20/2019 15:54:23	10.12	1.06	11.85	10.12	M	
DRY WEIGHT	PS	**30299730002**	Y			78.00	22.00	06/20/2019 15:54:28	10.39	1.03	13.03	10.39	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30299754001**	Y			87.10	12.90	06/20/2019 15:54:33	17.92	1.04	20.42	17.92	M	
DRY WEIGHT	PS	**30299754002**	Y			89.10	10.90	06/20/2019 15:54:38	12.99	1.06	14.45	12.99	M	
DRY WEIGHT	PS	**30299779001**	Y			97.90	2.098	06/20/2019 15:54:43	6.65	1.05	6.77	6.65	M	
DRY WEIGHT	PS	**30299828001**	Y			94.47	5.531	06/20/2019 15:54:48	16.09	1.06	16.97	16.09	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 7093238

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

June 14, 2019

Rachel Christner
Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601

RE: Project: 30298231
Pace Project No.: 7093238

Dear Rachel Christner:
Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicolette Lovari

Nicolette M. Lovari
nicolette.lovari@pacelabs.com
(631)694-3040
Project Manager

Enclosures

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: 30298231
Pace Project No.: 7093238

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE SUMMARY

Project: 30298231
Pace Project No.: 7093238

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30298231001	**AOC35L**	Solid	06/05/19 09:55	06/12/19 10:40
30298231010	**AOC34**	Solid	06/05/19 14:30	06/12/19 10:40

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: 30298231
Pace Project No.: 7093238

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30298231001	**AOC35L**	EPA 8151A	MJM	3
30298231010	**AOC34**	EPA 8151A	MJM	3

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 30298231
Pace Project No.: 7093238

Sample: AOC35L **Lab ID: 30298231001** Collected: 06/05/19 09:55 Received: 06/12/19 10:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Leachate Method/Date: EPA 1311; 06/13/19 11:55								
2,4-D	ND	mg/L	0.0050	0.0000050	1	06/12/19 11:00	06/14/19 01:36	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	06/12/19 11:00	06/14/19 01:36	93-72-1	
Surrogates									
2,4-DCAA (S)	63	%	36-121		1	06/12/19 11:00	06/14/19 01:36	19719-28-9	

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 30298231
Pace Project No.: 7093238

Sample: AOC34 **Lab ID: 30298231010** Collected: 06/05/19 14:30 Received: 06/12/19 10:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Leachate Method/Date: EPA 1311; 06/13/19 11:55								
2,4-D	ND	mg/L	0.0050	0.0000050	1	06/12/19 11:00	06/14/19 01:57	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	06/12/19 11:00	06/14/19 01:57	93-72-1	
Surrogates									
2,4-DCAA (S)	50	%	36-121		1	06/12/19 11:00	06/14/19 01:57	19719-28-9	

REPORT OF LABORATORY ANALYSIS

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Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 30298231
Pace Project No.: 7093238

QC Batch: 117385 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151 GCS Herbicides TCLP
Associated Lab Samples: 30298231001, 30298231010

METHOD BLANK: 555855 Matrix: Water
Associated Lab Samples: 30298231001, 30298231010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.0025	0.0000030	06/13/19 21:40	
2,4-D	mg/L	ND	0.0050	0.0000050	06/13/19 21:40	
2,4-DCAA (S)	%	50	36-121		06/13/19 21:40	

LABORATORY CONTROL SAMPLE: 555856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	0.01	0.0060	60	44-157	
2,4-D	mg/L	0.03	0.018	59	47-152	
2,4-DCAA (S)	%			54	36-121	

MATRIX SPIKE SAMPLE: 557022

Parameter	Units	30297746003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.01	0.0073	73	48-113	
2,4-D	mg/L	ND	0.03	0.020	65	39-111	
2,4-DCAA (S)	%				63	36-121	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: 30298231
Pace Project No.: 7093238

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 30298231
Pace Project No.: 7093238

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30298231001	**AOC35L**	EPA 8151A	117385	EPA 8151A	117599
30298231010	**AOC34**	EPA 8151A	117385	EPA 8151A	117599

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Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: ☒ Yes ☐ No

Workorder: 30298231 **Workorder Name:** Former EPT Site-Soil IRM **Owner Received Date:** 6/6/2019 **Results Requested By:** 6/20/2019

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040

Requested Analysis

WO#:7093238

7093238

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	8151 TCLP Herbicides	LAB USE ONLY
1	AOC35L	PS	6/5/2019 09:55	30298231001	Solid	1	X	
2	AOC34	PS	6/5/2019 14:30	30298231010	Solid	1	X	
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	6/7/19 1600		
2				
3				

Comments

Sample is TCLP extract
NY CAT B Package Required

Cooler Temperature on Receipt ____ °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical
www.pacelabs.co

WO#: 7093238

PM: NML Due Date: 06/19/19

CLIENT: PACE-PA

-OF-CUSTODY / Analytical Request Document

-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2203778

Section A Required Client Information:

Company: WSP	Report To: Dave.Rykaczewski@wsp.com
Address: 11 Stanwix Street, Suite 950 Pittsburgh, PA 15222	Copy To: Erin.Huntley@wsp.com
Email To: Dave.Rykaczewski@wsp.com	Purchase Order No.:
Phone: 412-375-0282 Fax:	Project Name: Former EPT Site – Soil IRM
Requested Due Date/TAT:	Project Number: 31401545.001

Section C Invoice Information:

Attention:	Environmental Accounts Payable
Company Name:	WSP
Address:	13530 Dulles Technology Drive
~~Pace Quote Reference:~~	Herndon, VA 20171
Pace Project Manager:	Rachel Christner
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ~~NYSDEC~~

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	TCLP RCRA8 Metals	TCLP ~~Volatile~~ VOCs	TCLP ~~Semi~~ SVOCs	TCLP Herbicides	TCLP Pesticides	Reactive Sulfide	Reactive Cyanide	Total PCBs	% Solids	Corrosivity by pH	Ignitability/Flashpoint	Total PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	AOC35L	SL	G	—	—	6/5/19	0955		5	5									X	X	X	X	X	X	X	X	X	X	X	X		001
2	AOC26-1	SL	G	—	—	↓	1120		5	5									X	X	X	X	X	X	X	X	X	X	X	X		002
3	AOC26-2	SL	G	—	—	↓	1140		5	5									X	X	X	X	X	X	X	X	X	X	X	X		003
4	AOC26-3	SL	G	—	—	↓	1200		5	5									X	X	X	X	X	X	X	X	X	X	X	X		004
5	AOC26-4	SL	G	—	—	↓	1220		5	5									X	X	X	X	X	X	X	X	X	X	X	X		005
6	AOC26-BLDG24	SL	G	—	—	↓	1345		5	5									X	X	X	X	X	X	X	X	X	X	X	X		006
7	AOC34-1	SL	G	—	—	↓	1430		5	5									X	X	X	X	X	X	X	X	X	X	X	X		007
8	AOC34-2	SL	G	—	—	↓	1550		5	5									X	X	X	X	X	X	X	X	X	X	X	X		008
9	TB_060519	SL	G	—	—	↓	—						2																			009
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
NYASP Category B data deliverable	[signature] /WSP	6/5/19	1645	FedEx	6/5/19	1645				
				[signature] PACE	06/06/19	0940	5.3	Y	NY	
TB_060519 Total VOCs										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Cummings

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 06/05/19

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

WSP

RECEIVED
By: QDC Date: 6/6/19

Chain of Custody Form

REVISED
Received by e-mail QDC 6/6/19

30298231

WSP Office Address	11 STANWIX STREET, SUITE 950 PITTSBURGH, PA 15220
Project Name	FORMER EPT SITE - SOIL IRM
WSP Contact Name	ERIN HUNTLEY/DAVE RYKACZEWSKI
Project Location	ITHACA, NY
WSP Contact E-mail	ERIN.HUNTLEY@WSP.COM DAVE.RYKACZEWSKI@WSP.COM
Project Number & Task	31401545.001-2
WSP Contact Phone	412-375-0265
Sampler(s) Name(s)	
Sampler(s) Signature(s)	

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 METALS	TCLP VOCs	TCLP SVOCs	TCLP HERBICIDES & PESTICIDES	REACTIVE SULFIDE & CYANIDE	PCBs	% SOLIDS	CORROSIVITY BY pH	IGNITABILITY/FLASHPOINT	PAHs		Sample Comments	
AOC35L	SL			6/5/19	955	5	X	X	X	X	X	X	X	X	X	X		COMPOSITE	001
AOC34	SL			6/5/19	1430	1	X	-	X	X	X	X	X	X	X	X		COMPOSITE AOC34-1 & AOC34-2	010
AOC34-1	SL			6/5/19	1430	4	-	X	-	-	-	-	-	-	-	-		GRAB SAMPLE	006
AOC34-2	SL			6/5/19	1550	4	-	X	-	-	-	-	-	-	-	-		GRAB SAMPLE	007

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

No. 2203778 (REVISED)

Laboratory Name & Location: PACE GREENSBURG, PA

Laboratory Project Manager: RACHEL CHRISTNER

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ____ HR

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP

Project # # 30298231

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label LIMS Login

Tracking #: 7783 4211 0842

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

Thermometer Used 11 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.3 °C Correction Factor: 0 °C Final Temp: 5.3 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# NA	Date and Initials of person examining contents: 06/20/19 JB3
Chain of Custody Present:	✓			1.	
Chain of Custody Filled Out:	✓			2.	
Chain of Custody Relinquished:	✓			3.	
Sampler Name & Signature on COC:	✓			4.	
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.	
Samples Arrived within Hold Time:	✓	✓		6. JB3 06/20/19 Encore soil kits out of hold	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:				8.	
Sufficient Volume:	✓			9.	
Correct Containers Used: -Pace Containers Used:	✓			10.	
Containers Intact:	✓			11.	
Orthophosphate field filtered			✓	12.	
Hex Cr Aqueous sample field filtered			✓	13.	
Organic Samples checked for dechlorination:			✓	14.	
Filtered volume received for Dissolved tests			✓	15.	
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.	
All containers meet method preservation requirements.	✓			Initial when completed JB3	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):		✓		17.	
Trip Blank Present:	✓			18. not Pace Provided	
Trip Blank Custody Seals Present	✓				
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed:	Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-9 5April2019)

Pace Analytical®

Sample Condition Upon Receipt

WO#: 7093238

PM: NML Due Date: 06/19/19

CLIENT: PACE-PA

Client Name: Pace

Proj

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 4942 9062 0187

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Ziploc ☐ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.9 Cooler Temperature Corrected (°C): 5.1

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: JK 6/12/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☒ Yes	☐ No		1.
Chain of Custody Filled Out:	☒ Yes	☐ No		2.
Chain of Custody Relinquished:	☒ Yes	☐ No		3.
Sampler Name & Signature on COC:	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☐ Yes	☒ No		6.
Rush Turn Around Time Requested:	☐ Yes	☒ No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☒ Yes	☐ No		8.
Correct Containers Used:	☒ Yes	☐ No		9.
-Pace Containers Used:	☒ Yes	☐ No		
Containers Intact:	☒ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☒ Yes	☐ No		12.
-Includes date/time/ID/Analysis Matrix SL WT OIL				
All containers needing preservation have been checked	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐ Yes	☐ No	☒ N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐ Yes	☐ No	☒ N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Present:	☐ Yes	☐ No	☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

HERBICIDES - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - New York SDG No.: 7093238 Contract: 30298231

Instrument ID: 70GCS1

LAB SAMPLE ID	SAMPLE NAME	DCPA
555855	555855BLANK	50
555856	555856LCS	54
30298231001	AOC35L	63
30298231010	AOC34	50

	QC LIMITS
(DCPA) = 2,4-DCAA (S)	(36-121)

* Values outside of QC Limits

HERBICIDES - FORM III SVOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - New York
Lab Sample ID: 555856LCS
Date Extracted: 06/12/2019
Date Analyzed (1): 06/13/2019
Instrument: 70GCS1
LCS Lot No: 69831
Lab File ID: 061319-2.B\123386.D
SDG No.: 7093238

COMPOUND	AMOUNT ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS %REC	QC LIMITS REC.
2,4-D	0.030	0.018	59	47-152
2,4,5-TP (Silvex)	0.010	0.0060	60	44-157

Spike Recovery: 0 out of 2 outside limits.

06/17/2019 4:00

HERBICIDES - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - New York

Date Extracted: 06/12/2019

Instrument: 70GCS1

Parent Sample ID: 30297746003

Matrix Spike - Sample No: 557022MS

Date Analyzed (1): 06/13/2019

Lab File ID: 061319-1.B\123391.D

SDG No.: 7093238

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS %REC	QC LIMITS REC.
2,4,5-TP (Silvex)	0.010	ND	0.0073	73	48-113
2,4-D	0.030	ND	0.020	65	39-111

Spike Recovery: 0 out of 2 outside limits.

SAMPLE NO.

555855BLANK

HERBICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - New York SDG No.: 7093238 Contract: 30298231

Instrument ID: 70GCS1 Matrix: Water Lab Sample ID: 555855

Lab File ID (1): 061319-1.B\123385.D Date Analyzed (1): 06/13/2019 Time (1): 21:40

Lab File ID (2): 061319-2.B\123385.D Date Analyzed (2): 06/13/2019 Time (2): 21:40

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
555856LCS	555856	061319-1.B\123386.D	06/13/2019 22:02
555856LCS	555856	061319-2.B\123386.D	06/13/2019 22:02
AOC35L	30298231001	061319-1.B\123396.D	06/14/2019 01:36
AOC35L	30298231001	061319-2.B\123396.D	06/14/2019 01:36
AOC34	30298231010	061319-1.B\123397.D	06/14/2019 01:57
AOC34	30298231010	061319-2.B\123397.D	06/14/2019 01:57

SAMPLE NO.

AOC35L

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30298231
Date Received: 06/12/2019 10:40
Matrix: Solid
SDG No.: 7093238
Date Extracted: 06/12/2019 11:00
Lab Sample ID: 30298231001
Date Analyzed: 06/14/2019 01:36
Lab File ID: 061319-1.B\123396.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U
93-72-1	2,4,5-TP (Silvex)	ND	U

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123396.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 14-JUN-2019 01:36
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 30298231001,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.681	8.679	0.002	79552243	0.64677	64.7	
3 2,4-D	9.826	9.805	0.021	182535	0.00118	0.118	
5 2,4,5-TP (Silvex)	10.591	10.590	0.001	598545	8e-004	0.0756	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123396.d

Page 2

Date : 14-JUN-2019 01:36

Client ID: AOC35L

Instrument: 70gcs1.i

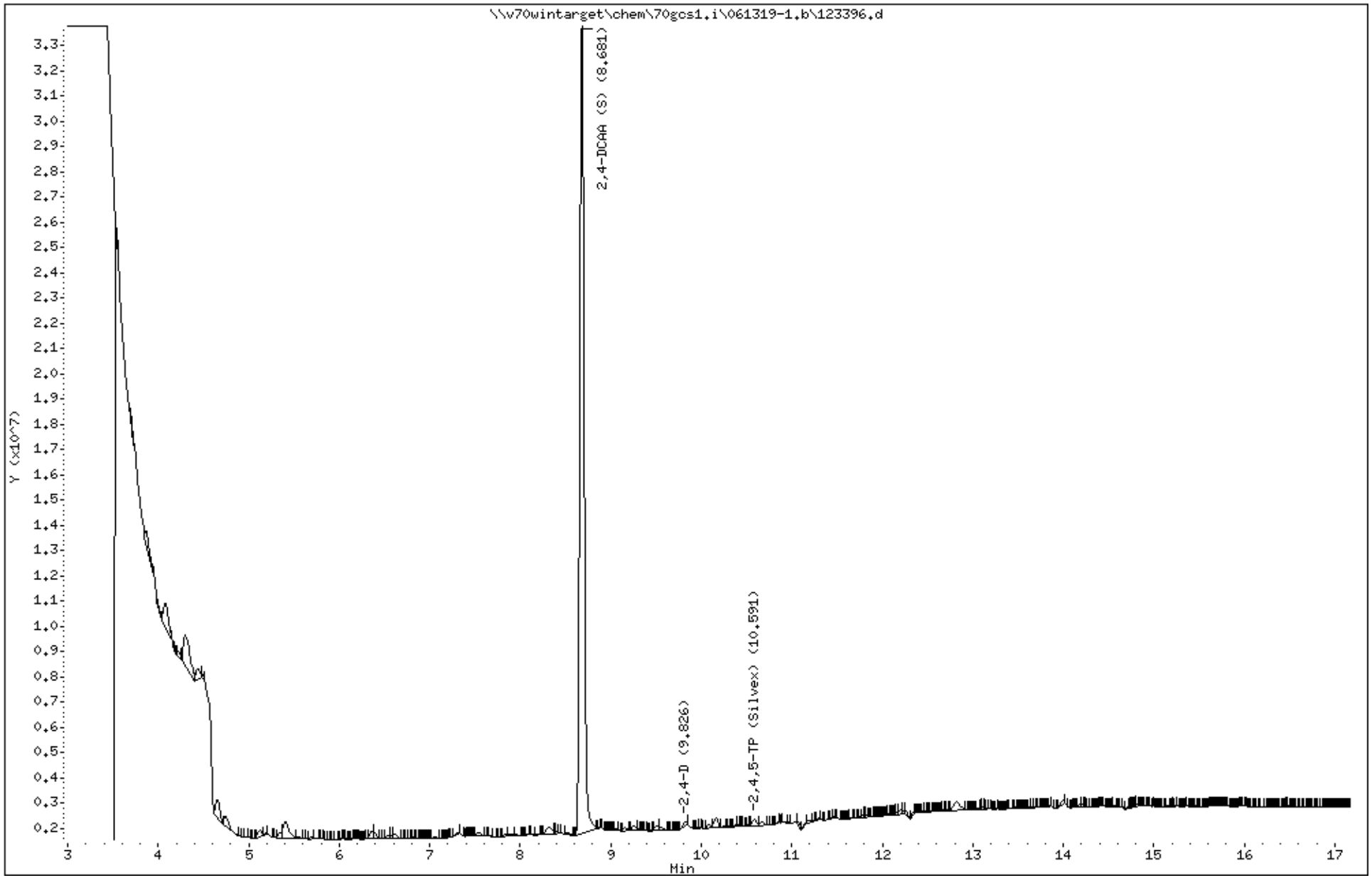
Sample Info: 30298231001,

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



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Injection Date: 14-JUN-2019 01:36
Instrument: 70gcs1.i
Lab Sample ID: 30298231001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

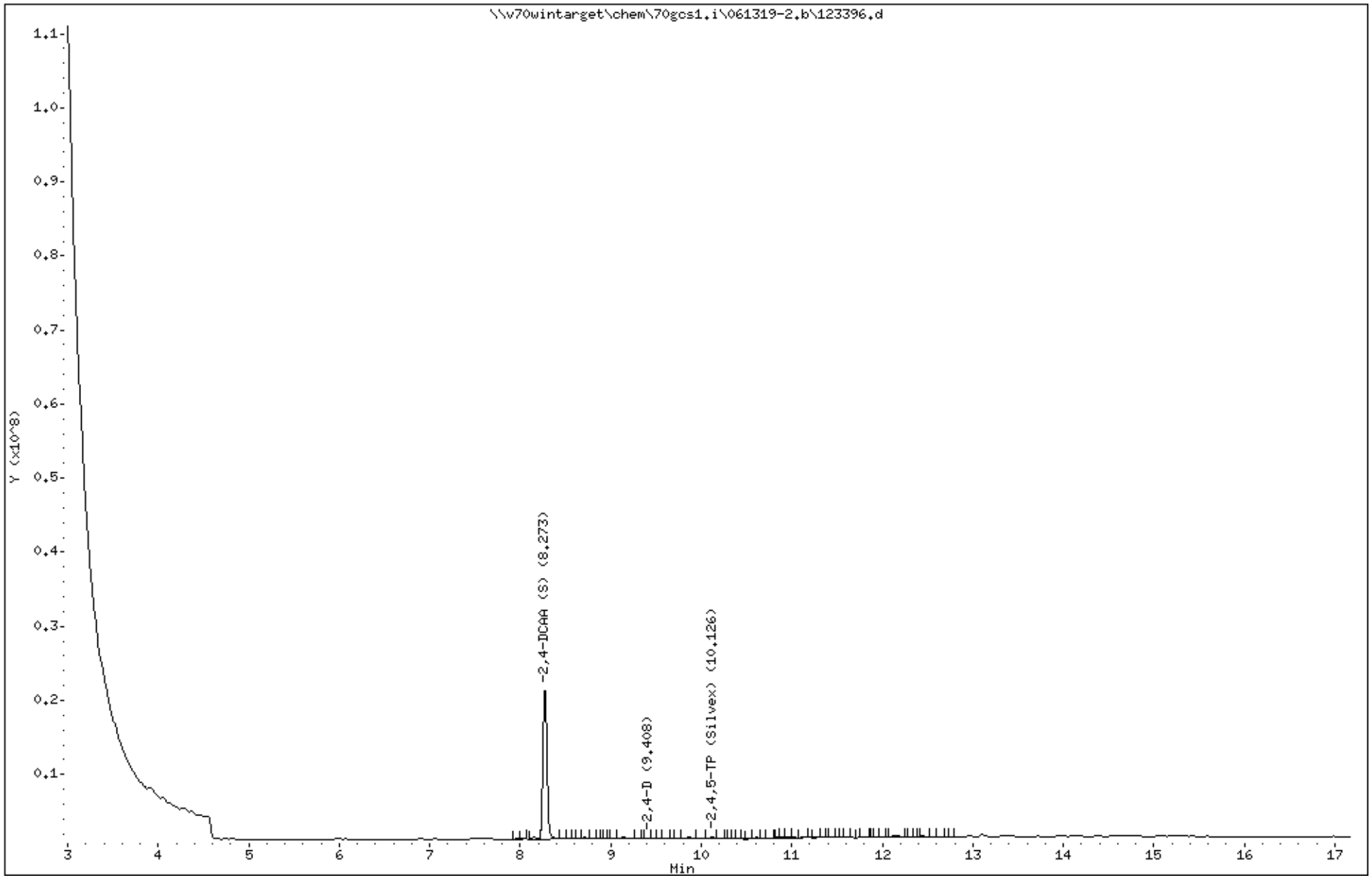
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123396.d
Lab Smp Id: 30298231001 Client Smp ID: AOC35L
Inj Date : 14-JUN-2019 01:36
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 30298231001,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$	1 2,4-DCAA (S)	8.272	8.270	0.002	46857591	0.62680	62.7	
	3 2,4-D	9.407	9.394	0.013	170508	0.00180	0.180	
	5 2,4,5-TP (Silvex)	10.126	10.120	0.006	459111	1e-003	0.0987	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123396.d
Date : 14-JUN-2019 01:36
Client ID: A0C35L
Instrument: 70gcs1.i
Sample Info: 30298231001,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



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Injection Date: 14-JUN-2019 01:36
Instrument: 70gcs1.i
Lab Sample ID: 30298231001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC34

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30298231
Date Received: 06/12/2019 10:40
Matrix: Solid
SDG No.: 7093238
Date Extracted: 06/12/2019 11:00
Lab Sample ID: 30298231010
Date Analyzed: 06/14/2019 01:57
Lab File ID: 061319-2.B\123397.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U
93-72-1	2,4,5-TP (Silvex)	ND	U

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123397.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 14-JUN-2019 01:57
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 30298231010,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$	1 2,4-DCAA (S)	8.678	8.679	-0.001	63525430	0.51647	51.6	
	3 2,4-D	9.828	9.805	0.023	1057716	0.00684	0.684	
	5 2,4,5-TP (Silvex)	10.585	10.590	-0.005	282997	4e-004	0.0357	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123397.d

Page 2

Date : 14-JUN-2019 01:57

Client ID: AOC34

Instrument: 70gcs1.i

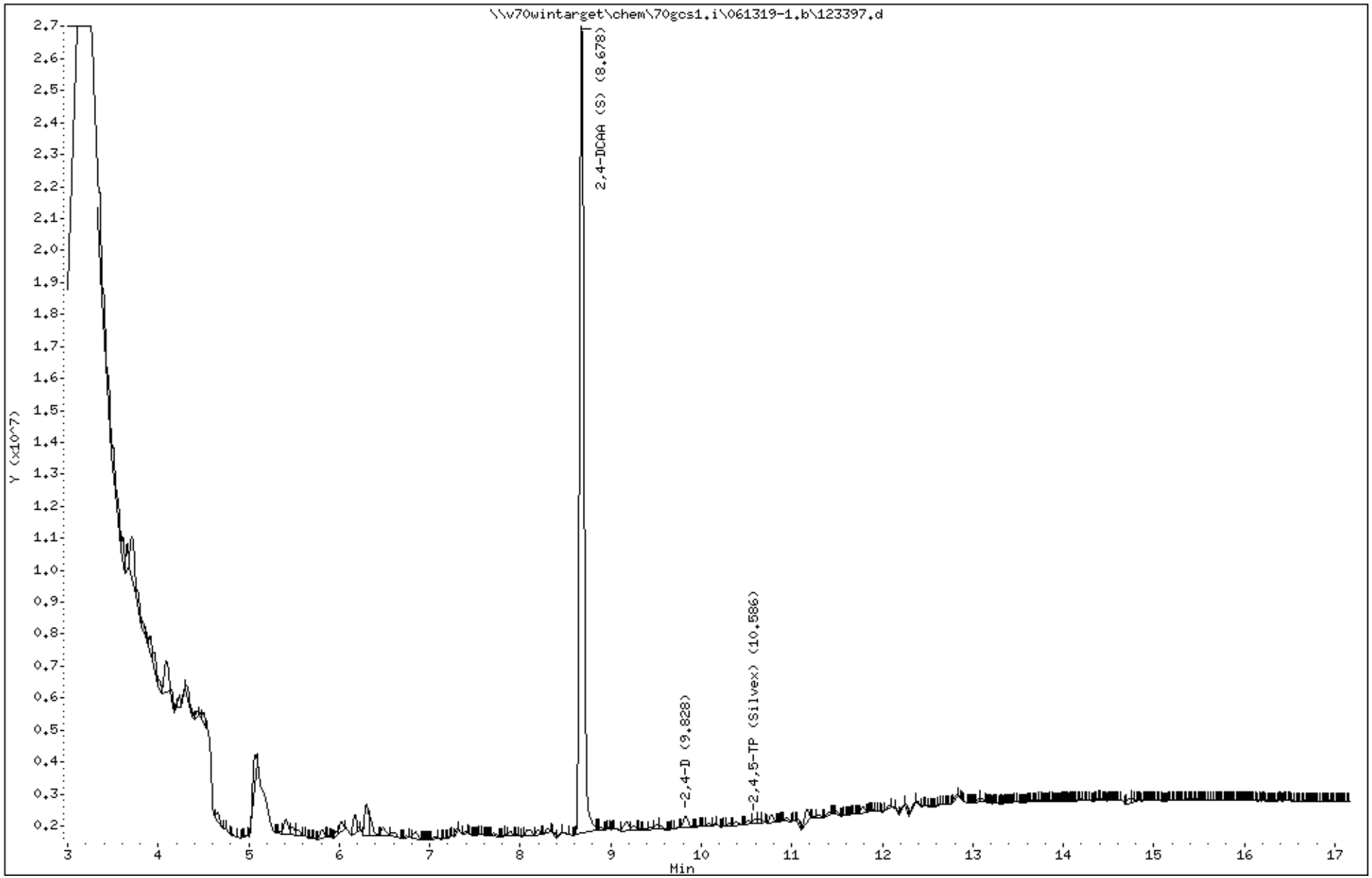
Sample Info: 30298231010,

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123397.d
Injection Date: 14-JUN-2019 01:57
Instrument: 70gcs1.i
Lab Sample ID: 30298231010
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

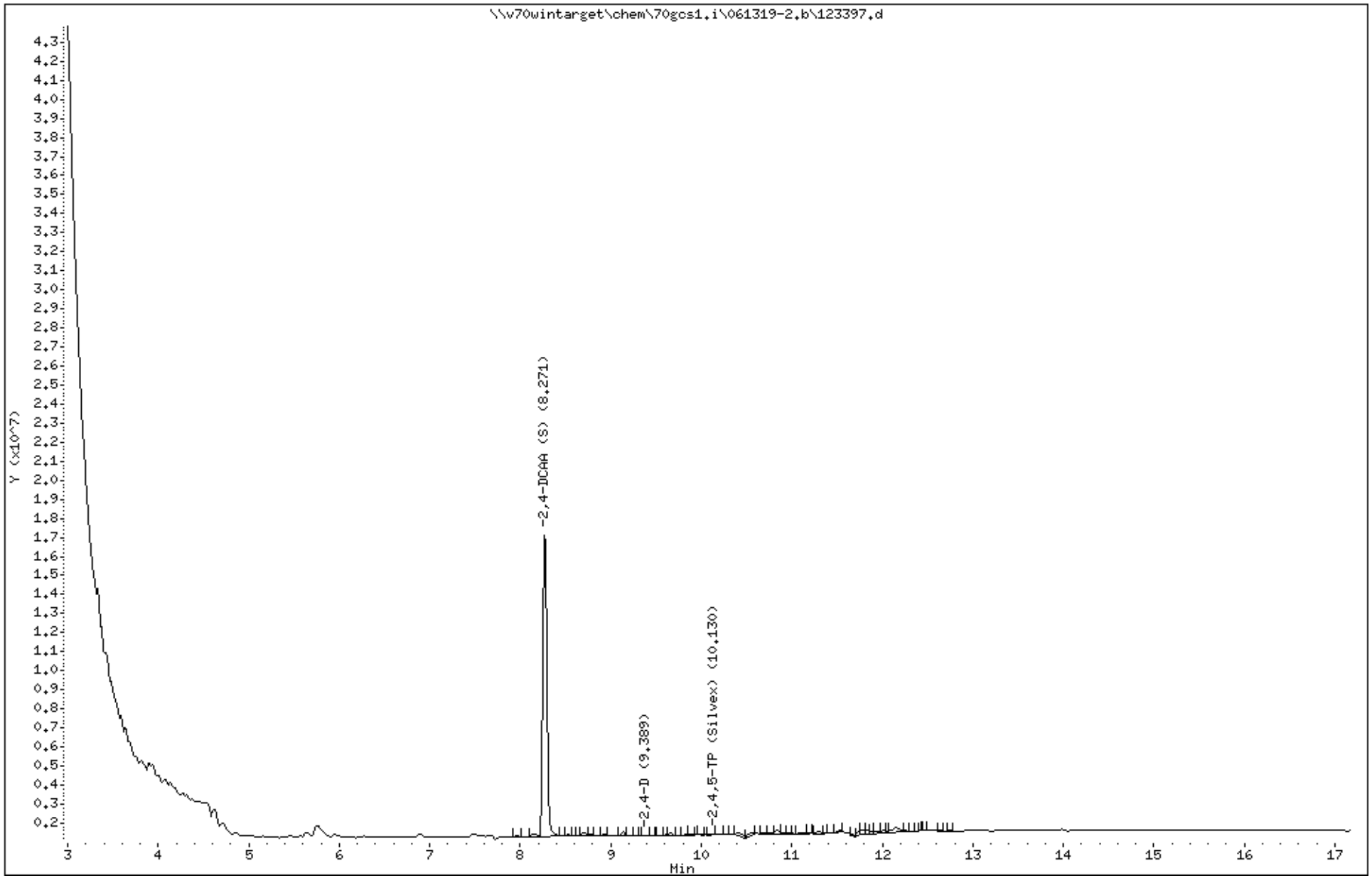
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123397.d
Lab Smp Id: 30298231010 Client Smp ID: AOC34
Inj Date : 14-JUN-2019 01:57
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 30298231010,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.270	8.270	0.000	37268922	0.49853	49.8	
3 2,4-D	9.389	9.394	-0.005	136196	0.00144	0.144	
5 2,4,5-TP (Silvex)	10.130	10.120	0.010	100118	2e-004	0.0215	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123397.d
Date : 14-JUN-2019 01:57
Client ID: A0C34
Instrument: 70gcs1.i
Sample Info: 30298231010,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123397.d
Injection Date: 14-JUN-2019 01:57
Instrument: 70gcs1.i
Lab Sample ID: 30298231010
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 1 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-1.B\122971.D CAL2 = 052919-1.B\122970.D CAL3 = 052919-1.B\122969.D

CAL4 = 052919-1.B\122968.D CAL5 = 052919-1.B\122967.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
2,4-D		Averaged	173587460.	150983340.	166511735.	143544700.	138881860.
2,4,5-TP (Silvex)		Averaged	846949440.	757625680.	863744700.	747767400.	744806517.
2,4-DCAA (S)		Averaged	139852728.	117272422.	131273314.	112983163.	113615995.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

HERBICIDES - FORM VI SVOA-2

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 1 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-1.B\122971.D CAL2 = 052919-1.B\122970.D CAL3 = 052919-1.B\122969.D

CAL4 = 052919-1.B\122968.D CAL5 = 052919-1.B\122967.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
2,4-D		Averaged	9.61			154701819.	
2,4,5-TP (Silvex)		Averaged	7.34			792178747.	
2,4-DCAA (S)		Averaged	9.73			122999524.	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 2 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-2.B\122971.D CAL2 = 052919-2.B\122970.D CAL3 = 052919-2.B\122969.D

CAL4 = 052919-2.B\122968.D CAL5 = 052919-2.B\122967.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
2,4-D		Averaged	104522800.	96549450.0	101394235.	85437427.5	85113937.5
2,4,5-TP (Silvex)		Averaged	487920880.	436755680.	502484820.	442810420.	454989762.
2,4-DCAA (S)		Averaged	83076548.0	69985404.0	79606358.0	69451985.0	71664160.0

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

HERBICIDES - FORM VI SVOA-2

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 2 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-2.B\122971.D CAL2 = 052919-2.B\122970.D CAL3 = 052919-2.B\122969.D

CAL4 = 052919-2.B\122968.D CAL5 = 052919-2.B\122967.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
2,4-D		Averaged	9.48			94603570.0	
2,4,5-TP (Silvex)		Averaged	6.19			464992312.	
2,4-DCAA (S)		Averaged	8.27			74756891.0	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 1 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-1.B\122971.D CAL2 = 052919-1.B\122970.D CAL3 = 052919-1.B\122969.D

CAL4 = 052919-1.B\122968.D CAL5 = 052919-1.B\122967.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
2,4-D		9.82	9.816	9.809	9.807	9.803	9.809	9.769	9.849
2,4,5-TP (Silvex)		10.598	10.596	10.592	10.592	10.588	10.593	10.553	10.633
2,4-DCAA (S)		8.682	8.681	8.68	8.679	8.678	8.68	8.64	8.72

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS1 GC Column: Col 2 SDG No.: 7093238

Calibration Date(s): 05/30/2019 05/30/2019 Calibration Time(s): 06:55 08:21

LAB FILE ID

CAL1 = 052919-2.B\122971.D CAL2 = 052919-2.B\122970.D CAL3 = 052919-2.B\122969.D

CAL4 = 052919-2.B\122968.D CAL5 = 052919-2.B\122967.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
2,4-D		9.408	9.405	9.4	9.397	9.393	9.399	9.369	9.429
2,4,5-TP (Silvex)		10.126	10.125	10.122	10.122	10.119	10.123	10.078	10.168
2,4-DCAA (S)		8.273	8.273	8.272	8.271	8.269	8.271	8.241	8.301

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122967.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 30-MAY-2019 06:55
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal5, 64842:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 06:55 Cal File: 122967.d
Als bottle: 45 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

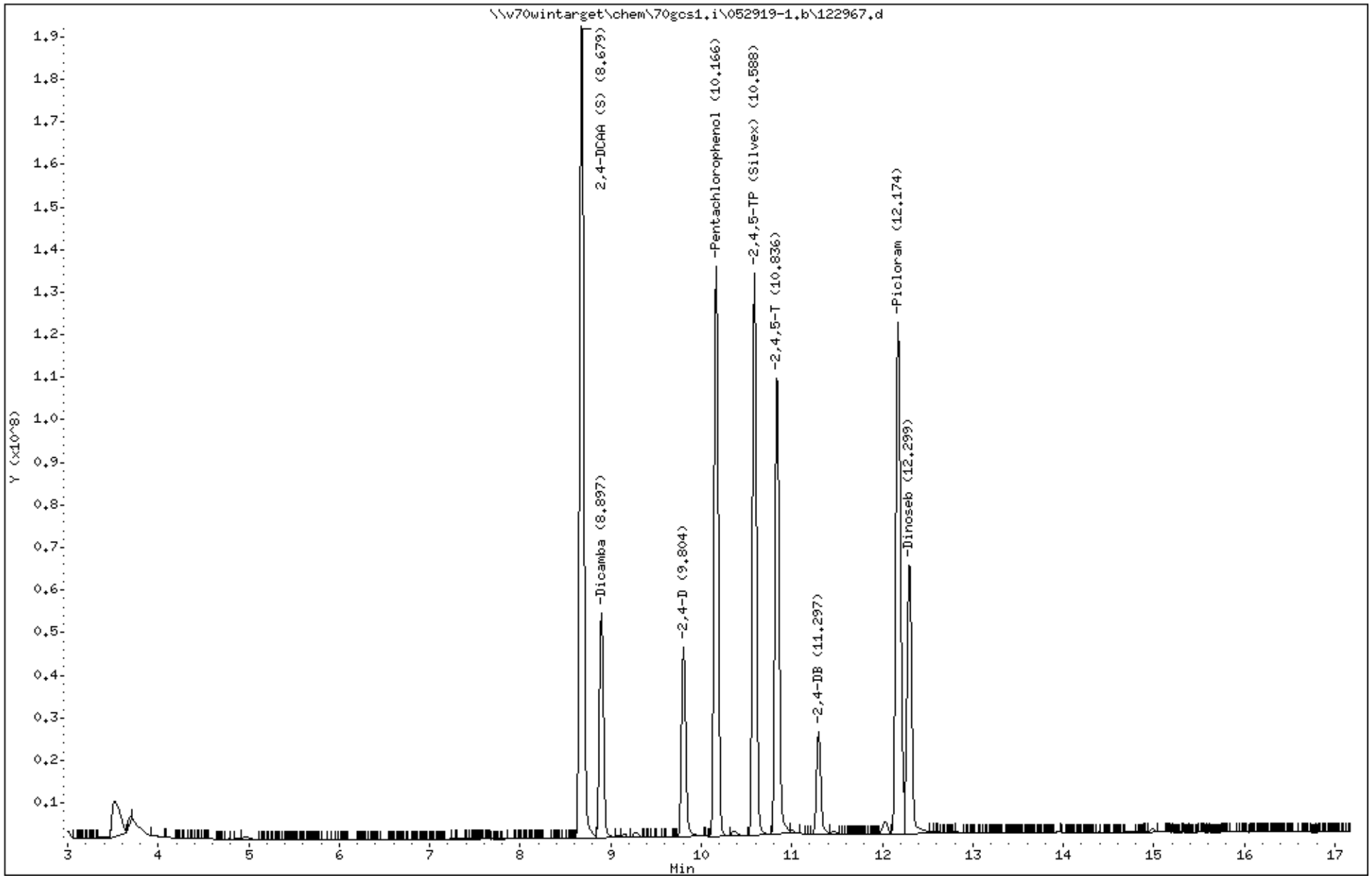
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.678	8.680	-0.002	454463981	4.00000	4.00	
2	Dicamba	8.897	8.899	-0.002	126504674	0.24000	0.240	
3	2,4-D	9.803	9.809	-0.006	111105488	0.80000	0.800	
4	Pentachlorophenol	10.165	10.167	-0.002	316228382	0.16000	0.160	
5	2,4,5-TP (Silvex)	10.588	10.593	-0.005	297922607	0.40000	0.400	
6	2,4,5-T	10.836	10.844	-0.008	263883204	0.40000	0.400	
7	2,4-DB	11.297	11.304	-0.007	61804991	0.80000	0.800	
8	Picloram	12.173	12.185	-0.012	351133047	0.40000	0.400	
9	Dinoseb	12.298	12.303	-0.005	182834432	0.32000	0.320	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122967.d
Date : 30-MAY-2019 06:55
Client ID: CAL5
Sample Info: CAL5, 64842:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122967.d
Injection Date: 30-MAY-2019 06:55
Instrument: 70gcs1.i
Lab Sample ID: CAL5
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122967.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 30-MAY-2019 06:55
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal5, 64842:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 06:55 Cal File: 122967.d
Als bottle: 45 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

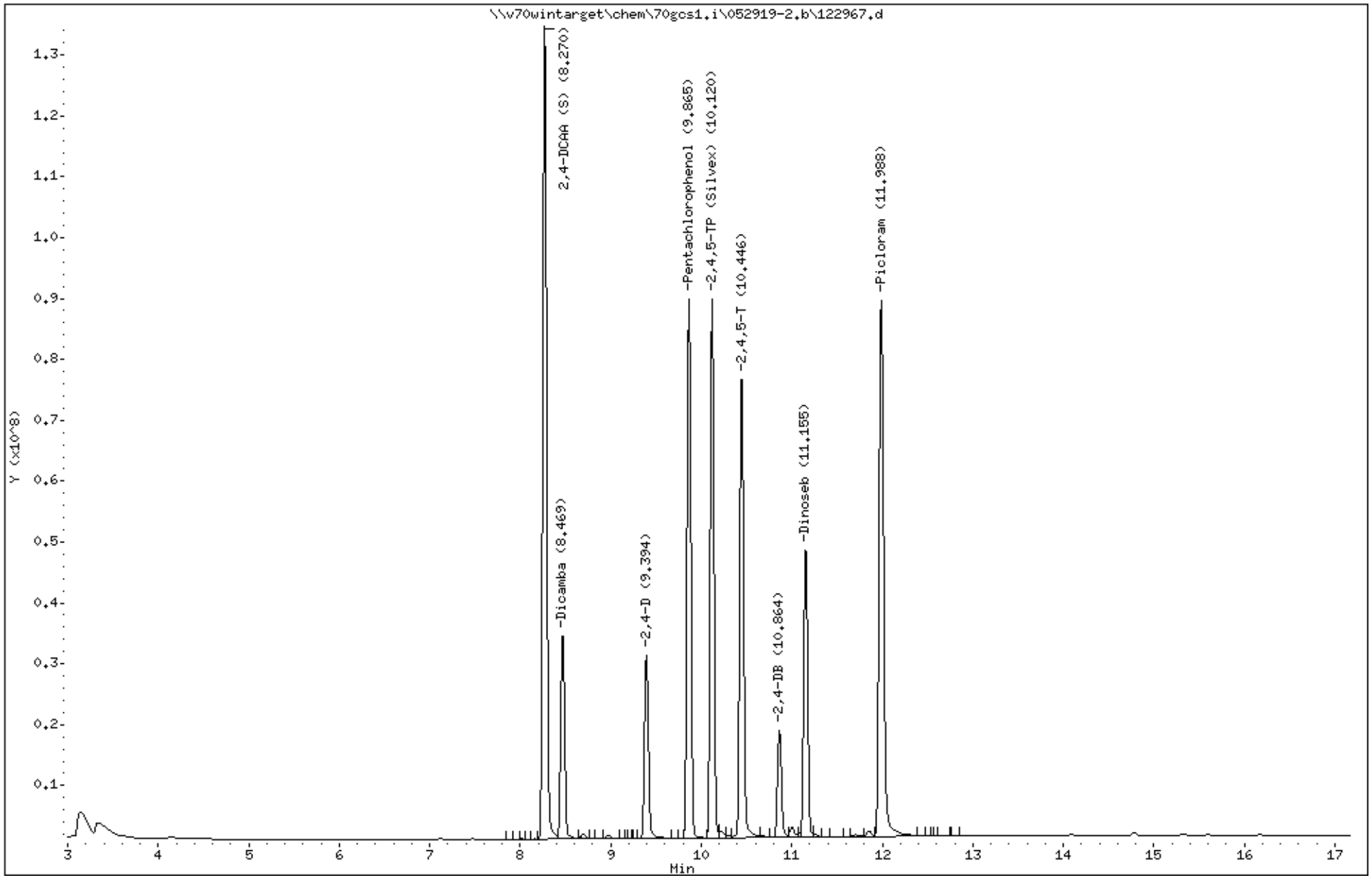
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.269	8.271	-0.002	286656640	4.00000	4.00	
2	Dicamba	8.468	8.470	-0.002	74429476	0.24000	0.240	
3	2,4-D	9.393	9.399	-0.006	68091150	0.80000	0.800	
4	Pentachlorophenol	9.864	9.865	-0.001	193361030	0.16000	0.160	
5	2,4,5-TP (Silvex)	10.119	10.123	-0.004	181995905	0.40000	0.400	
6	2,4,5-T	10.446	10.453	-0.007	169782720	0.40000	0.400	
7	2,4-DB	10.863	10.870	-0.007	40056216	0.80000	0.800	
9	Dinoseb	11.154	11.157	-0.003	103456687	0.32000	0.320	
8	Picloram	11.988	11.996	-0.008	243001340	0.40000	0.400	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122967.d
Date : 30-MAY-2019 06:55
Client ID: CAL5
Sample Info: CAL5, 64842:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



1857 of 112946

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122967.d
Injection Date: 30-MAY-2019 06:55
Instrument: 70gcs1.i
Lab Sample ID: CAL5
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122968.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 30-MAY-2019 07:16
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal4, 66434:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:16 Cal File: 122968.d
Als bottle: 46 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

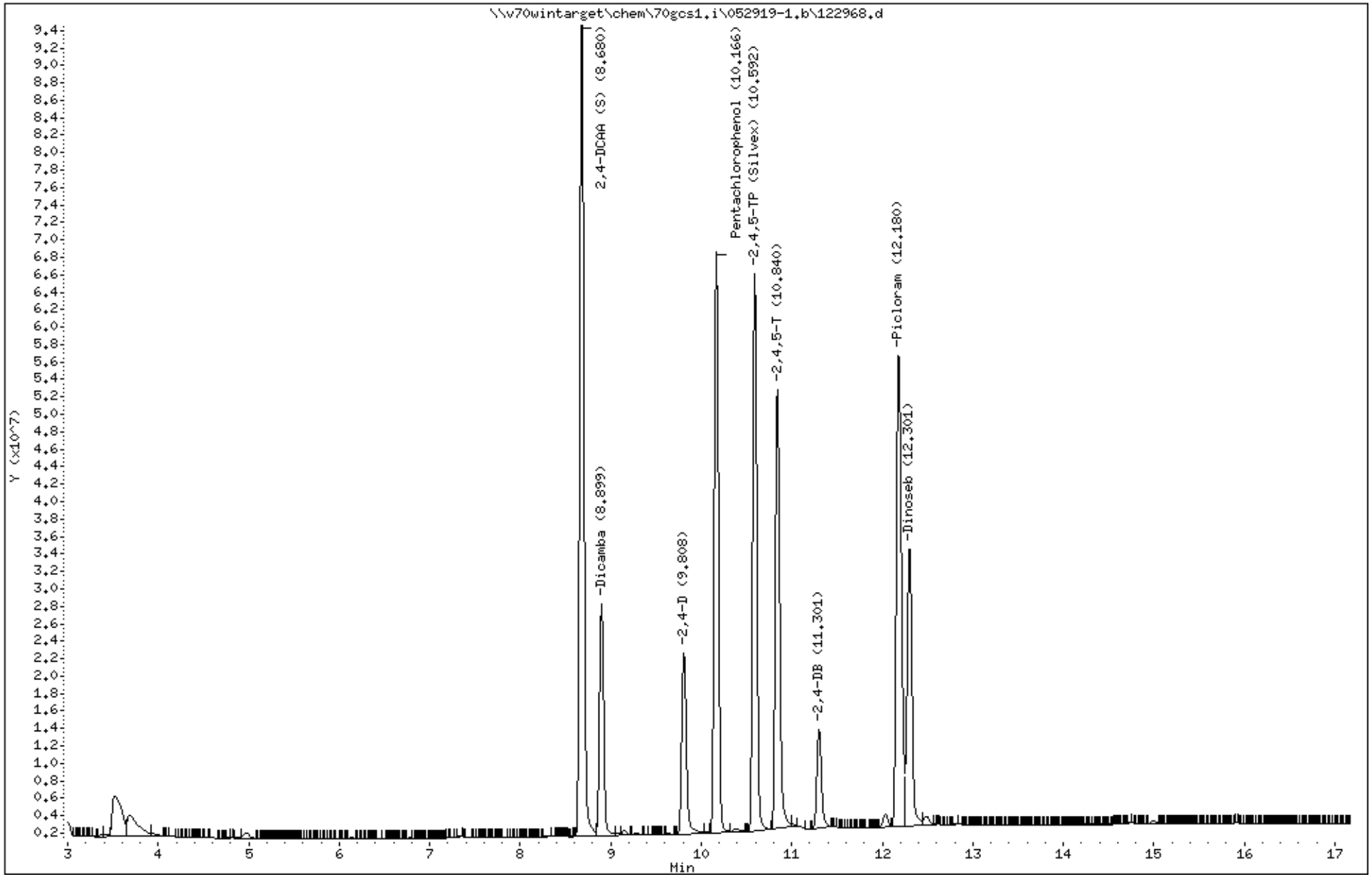
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.679	8.680	-0.001	225966326	2.00000	1.99	
2	Dicamba	8.898	8.899	-0.001	64961039	0.12000	0.122	
3	2,4-D	9.807	9.809	-0.002	57417880	0.40000	0.407	
4	Pentachlorophenol	10.166	10.167	-0.001	158869340	0.08000	0.0802	
5	2,4,5-TP (Silvex)	10.592	10.593	-0.001	149553480	0.20000	0.200	
6	2,4,5-T	10.840	10.844	-0.004	131501160	0.20000	0.200	
7	2,4-DB	11.301	11.304	-0.003	31118737	0.40000	0.401	
8	Picloram	12.180	12.185	-0.005	169204979	0.20000	0.196	
9	Dinoseb	12.301	12.303	-0.002	93449646	0.16000	0.162	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122968.d
Date : 30-MAY-2019 07:16
Client ID: CAL4
Sample Info: CAL4, 66434:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122968.d
Injection Date: 30-MAY-2019 07:16
Instrument: 70gcs1.i
Lab Sample ID: CAL4
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122968.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 30-MAY-2019 07:16
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal4, 66434:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:16 Cal File: 122968.d
Als bottle: 46 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

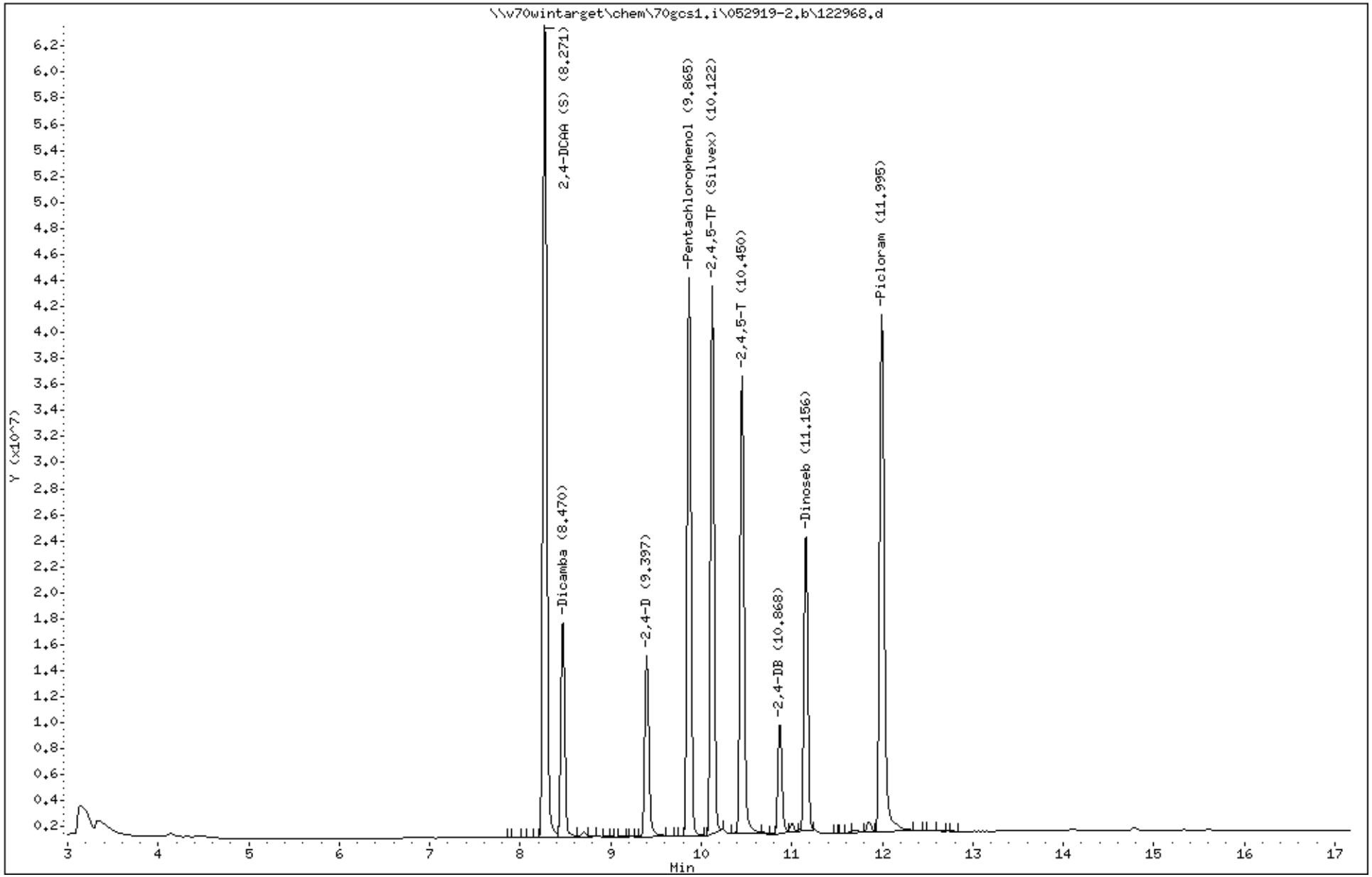
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.271	8.271	0.000	138903970	2.00000	1.97	
2	Dicamba	8.469	8.470	-0.001	37125168	0.12000	0.120	
3	2,4-D	9.397	9.399	-0.002	34174971	0.40000	0.401	
4	Pentachlorophenol	9.865	9.865	0.000	94349963	0.08000	0.0790	
5	2,4,5-TP (Silvex)	10.122	10.123	-0.001	88562084	0.20000	0.197	
6	2,4,5-T	10.450	10.453	-0.003	81920668	0.20000	0.196	
7	2,4-DB	10.867	10.870	-0.003	19656761	0.40000	0.396	
9	Dinoseb	11.156	11.157	-0.001	49551300	0.16000	0.156	
8	Picloram	11.994	11.996	-0.002	115299711	0.20000	0.195	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122968.d
Date : 30-MAY-2019 07:16
Client ID: CAL4
Sample Info: CAL4, 66434:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122968.d
Injection Date: 30-MAY-2019 07:16
Instrument: 70gcs1.i
Lab Sample ID: CAL4
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122969.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 30-MAY-2019 07:38
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal3, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:38 Cal File: 122969.d
Als bottle: 47 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

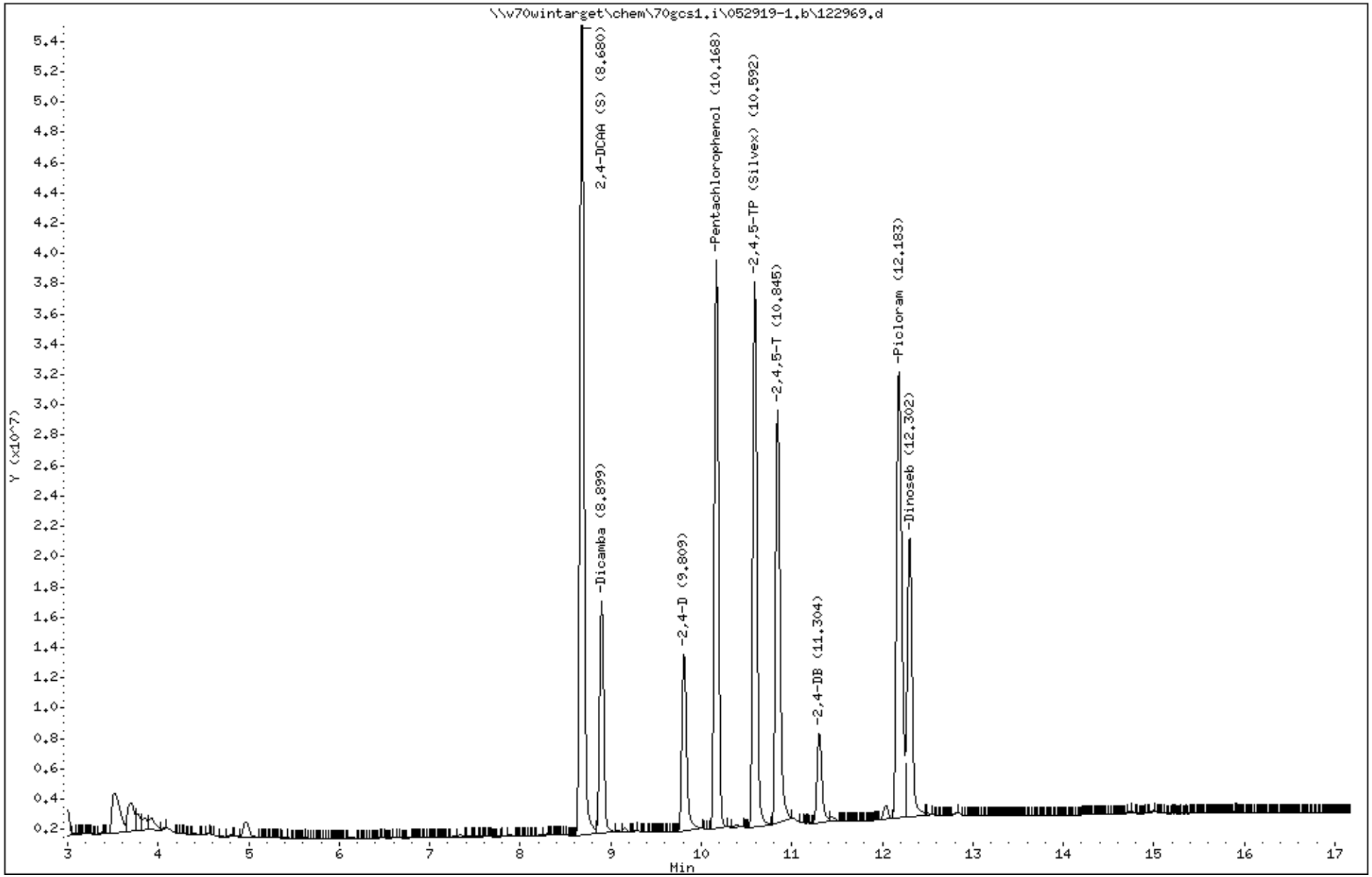
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.680	8.680	0.000	131273314	1.00000	1.10	
2 Dicamba	8.899	8.899	0.000	37352592	0.06000	0.0663	
3 2,4-D	9.809	9.809	0.000	33302347	0.20000	0.222	
4 Pentachlorophenol	10.167	10.167	0.000	89841230	0.04000	0.0434	
5 2,4,5-TP (Silvex)	10.592	10.593	-0.001	86374470	0.10000	0.110	
6 2,4,5-T	10.844	10.844	0.000	74344998	0.10000	0.108	
7 2,4-DB	11.303	11.304	-0.001	17362793	0.20000	0.215	
8 Picloram	12.182	12.185	-0.003	94529296	0.10000	0.106	
9 Dinoseb	12.302	12.303	-0.001	54502283	0.08000	0.0890	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122969.d
Date : 30-MAY-2019 07:38
Client ID: CAL3
Sample Info: CAL3, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122969.d
Injection Date: 30-MAY-2019 07:38
Instrument: 70gcs1.i
Lab Sample ID: CAL3
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122969.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 30-MAY-2019 07:38
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal3, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:38 Cal File: 122969.d
Als bottle: 47 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

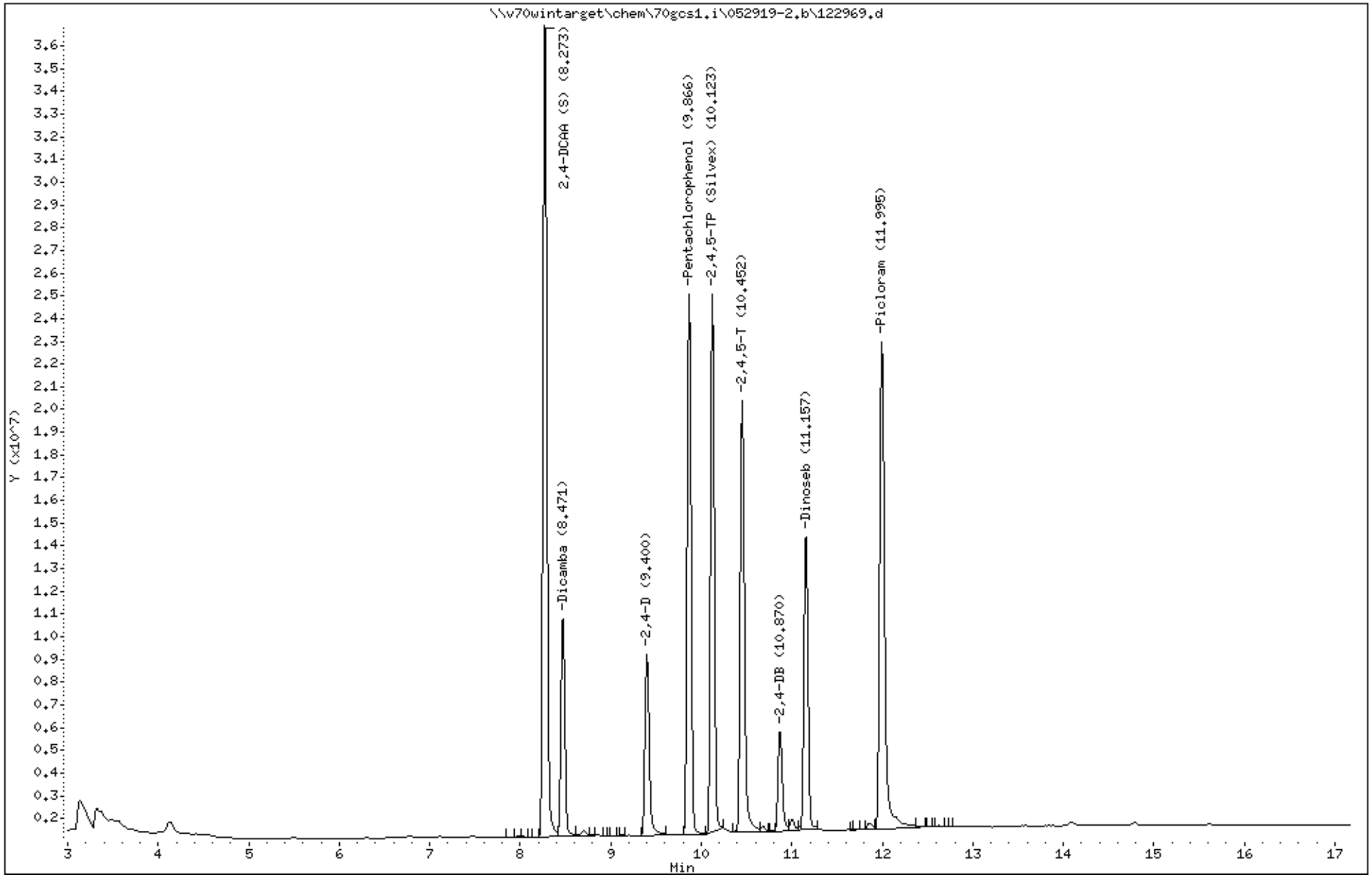
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.272	8.271	0.001	79606358	1.00000	1.08	
2	Dicamba	8.471	8.470	0.001	21331246	0.06000	0.0656	
3	2,4-D	9.400	9.399	0.001	20278847	0.20000	0.224	
4	Pentachlorophenol	9.866	9.865	0.001	52875982	0.04000	0.0428	
5	2,4,5-TP (Silvex)	10.122	10.123	-0.001	50248482	0.10000	0.108	
6	2,4,5-T	10.452	10.453	-0.001	47347903	0.10000	0.109	
7	2,4-DB	10.869	10.870	-0.001	11200518	0.20000	0.216	
9	Dinoseb	11.157	11.157	0.000	29373178	0.08000	0.0881	
8	Picloram	11.995	11.996	-0.001	66190427	0.10000	0.108	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122969.d
Date : 30-MAY-2019 07:38
Client ID: CAL3
Sample Info: CAL3, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122969.d
Injection Date: 30-MAY-2019 07:38
Instrument: 70gcs1.i
Lab Sample ID: CAL3
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122970.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 30-MAY-2019 07:59
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal2, 66433:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:59 Cal File: 122970.d
Als bottle: 48 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

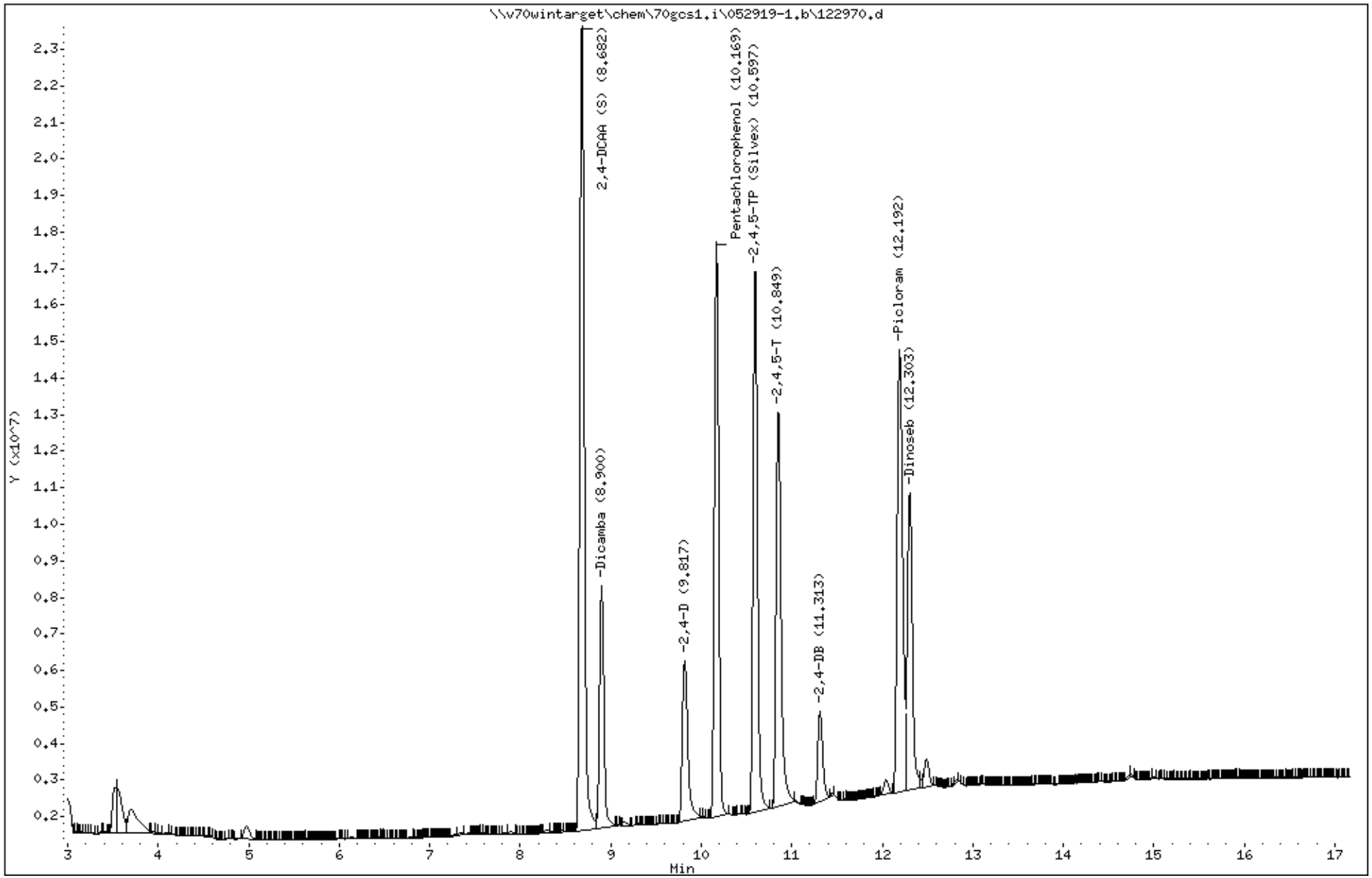
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.681	8.680	0.001	58636211	0.50000	0.494	
2	Dicamba	8.900	8.899	0.001	17019464	0.03000	0.0301	
3	2,4-D	9.816	9.809	0.007	15098334	0.10000	0.101	
4	Pentachlorophenol	10.169	10.167	0.002	39127961	0.02000	0.0192	
5	2,4,5-TP (Silvex)	10.596	10.593	0.003	37881284	0.05000	0.0487	
6	2,4,5-T	10.849	10.844	0.005	33456016	0.05000	0.0490	
7	2,4-DB	11.313	11.304	0.009	7475773	0.10000	0.0944	
8	Picloram	12.191	12.185	0.006	41344618	0.05000	0.0473	
9	Dinoseb	12.303	12.303	0.000	25388156	0.04000	0.0411	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122970.d
Date : 30-MAY-2019 07:59
Client ID: CAL2
Sample Info: CAL2, 66433:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122970.d
Injection Date: 30-MAY-2019 07:59
Instrument: 70gcs1.i
Lab Sample ID: CAL2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122970.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 30-MAY-2019 07:59
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal2, 66433:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 07:59 Cal File: 122970.d
Als bottle: 48 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.273	8.271	0.002	34992702	0.50000	0.481	
2	Dicamba	8.471	8.470	0.001	9389154	0.03000	0.0292	
3	2,4-D	9.405	9.399	0.006	9654945	0.10000	0.105	
4	Pentachlorophenol	9.867	9.865	0.002	22562055	0.02000	0.0186	
5	2,4,5-TP (Silvex)	10.125	10.123	0.002	21837784	0.05000	0.0475	
6	2,4,5-T	10.458	10.453	0.005	20773494	0.05000	0.0482	
7	2,4-DB	10.876	10.870	0.006	5474713	0.10000	0.104	
9	Dinoseb	11.159	11.157	0.002	13598412	0.04000	0.0406	
8	Picloram	12.002	11.996	0.006	27145322	0.05000	0.0454	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122970.d

Page 2

Date : 30-MAY-2019 07:59

Client ID: CAL2

Instrument: 70gcs1.i

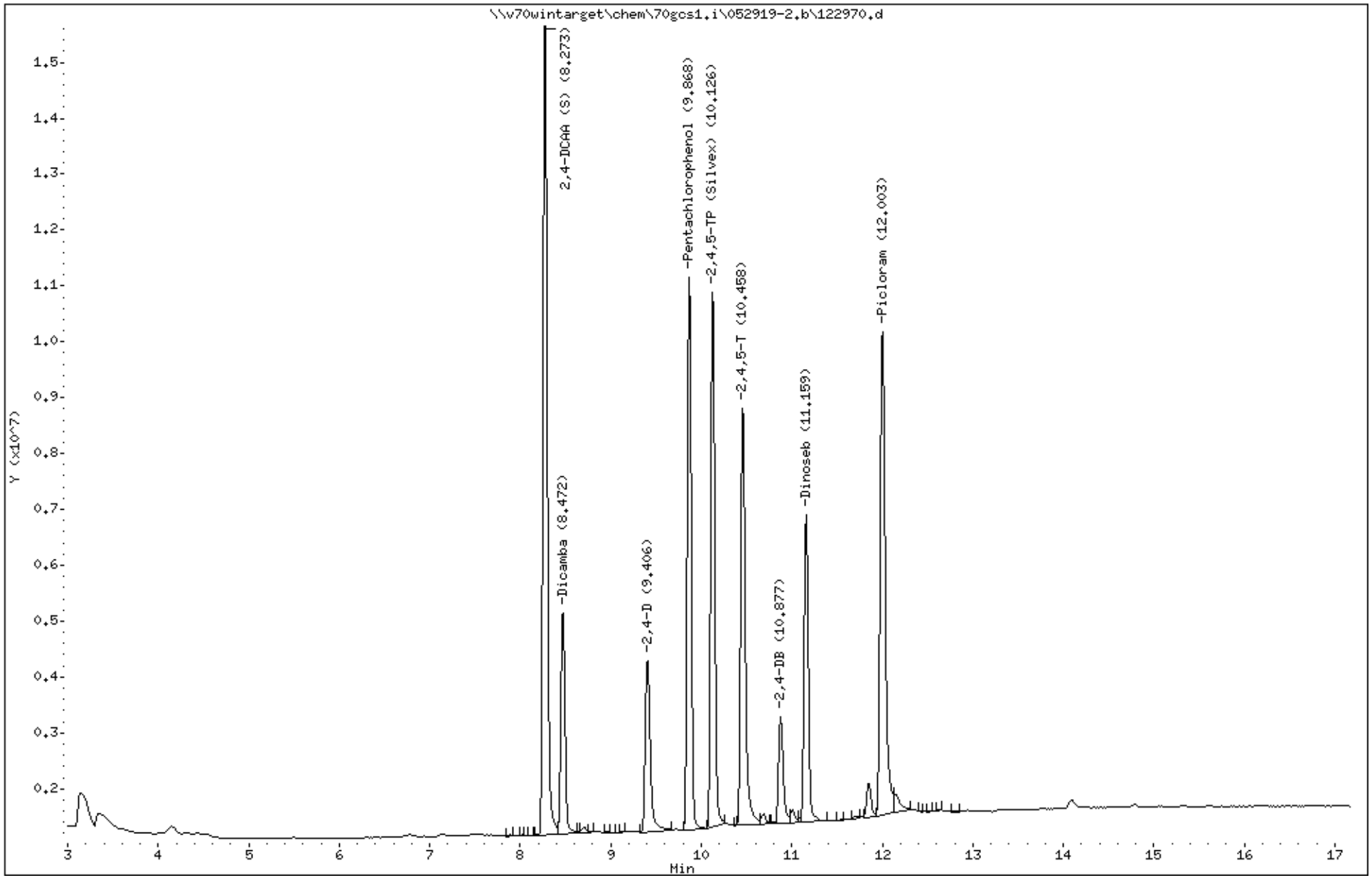
Sample Info: CAL2, 66433:1

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES2

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122970.d
Injection Date: 30-MAY-2019 07:59
Instrument: 70gcs1.i
Lab Sample ID: CAL2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122971.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 30-MAY-2019 08:21
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal1, 66431:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:21 Cal File: 122971.d
Als bottle: 49 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

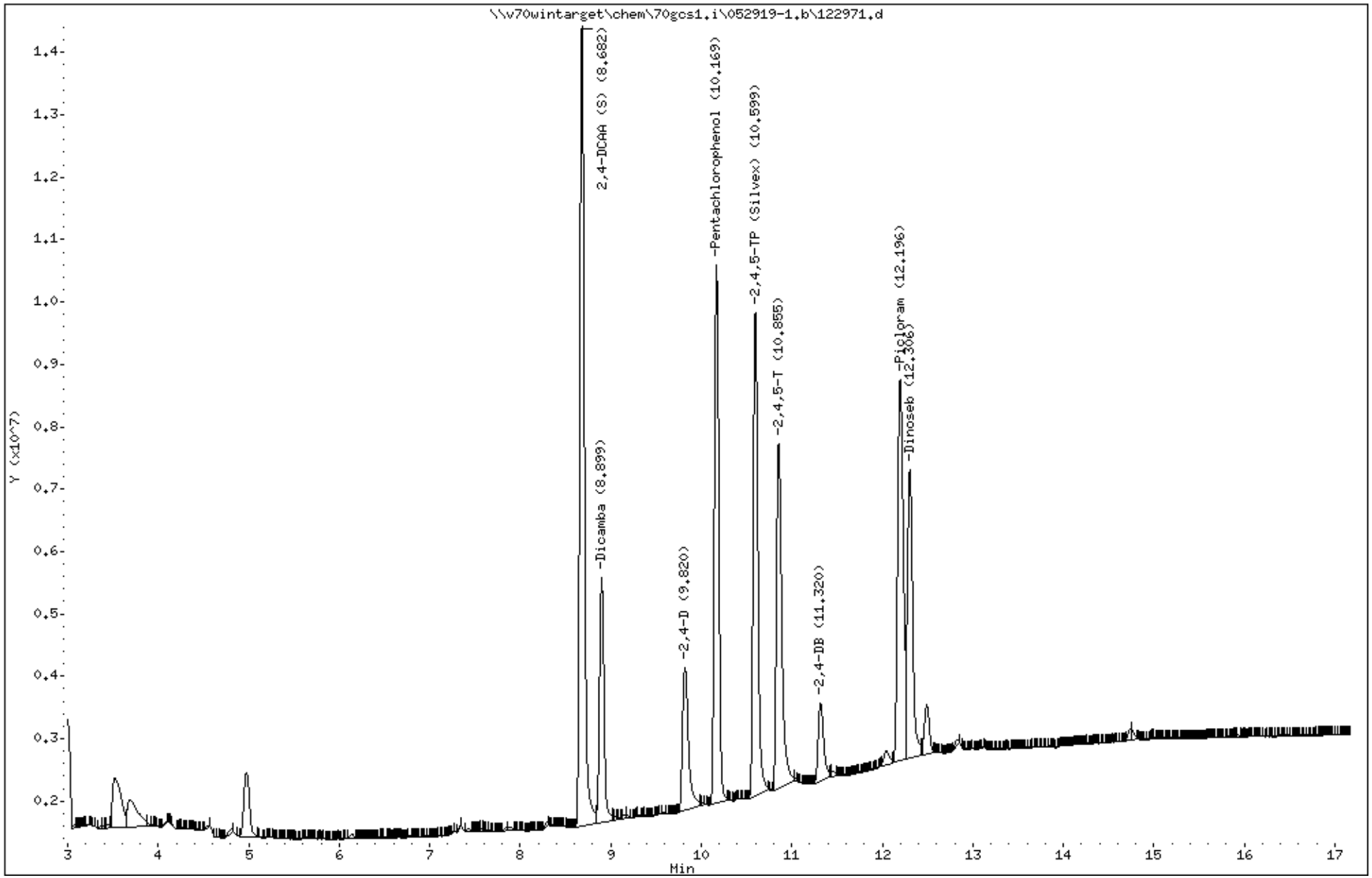
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.682	8.680	0.002	34963182	0.25000	0.284	
2 Dicamba	8.898	8.899	-0.001	10414839	0.01500	0.0176	
3 2,4-D	9.820	9.809	0.011	8679373	0.05000	0.0561	
4 Pentachlorophenol	10.168	10.167	0.001	22120064	0.01000	0.0106	
5 2,4,5-TP (Silvex)	10.598	10.593	0.005	21173736	0.02500	0.0267	
6 2,4,5-T	10.855	10.844	0.011	18597610	0.02500	0.0268	
7 2,4-DB	11.319	11.304	0.015	4268411	0.05000	0.0531	
8 Picloram	12.196	12.185	0.011	22139327	0.02500	0.0253	
9 Dinoseb	12.306	12.303	0.003	15332938	0.02000	0.0237	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122971.d
Date : 30-MAY-2019 08:21
Client ID: CAL1
Sample Info: CAL1, 66431:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122971.d
Injection Date: 30-MAY-2019 08:21
Instrument: 70gcs1.i
Lab Sample ID: CAL1
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122971.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 30-MAY-2019 08:21
Operator : MJM Inst ID: 70gcs1.i
Smp Info : cal1, 66431:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:21 Cal File: 122971.d
Als bottle: 49 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

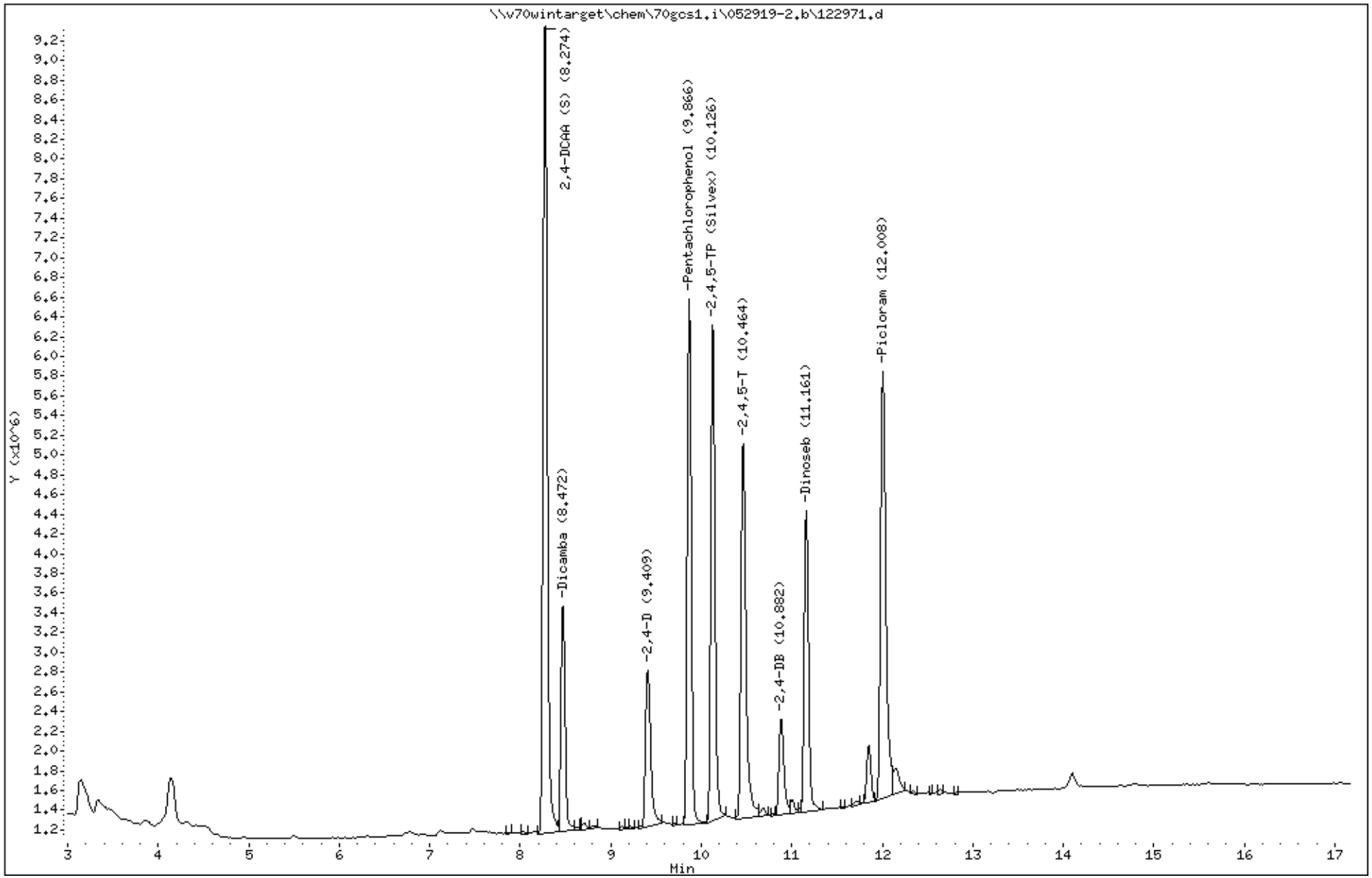
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.273	8.271	0.002	20769137	0.25000	0.278	
2	Dicamba	8.472	8.470	0.002	5527916	0.01500	0.0167	
3	2,4-D	9.408	9.399	0.009	5226140	0.05000	0.0552	
4	Pentachlorophenol	9.866	9.865	0.001	12553566	0.01000	0.0103	
5	2,4,5-TP (Silvex)	10.126	10.123	0.003	12198022	0.02500	0.0262	
6	2,4,5-T	10.463	10.453	0.010	11600318	0.02500	0.0265	
7	2,4-DB	10.882	10.870	0.012	3032985	0.05000	0.0560	
9	Dinoseb	11.160	11.157	0.003	7789129	0.02000	0.0225	
8	Picloram	12.008	11.996	0.012	14318757	0.02500	0.0242	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122971.d
Date : 30-MAY-2019 08:21
Client ID: CAL1
Sample Info: CAL1, 66431:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



1887 of 112946

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122971.d
Injection Date: 30-MAY-2019 08:21
Instrument: 70gcs1.i
Lab Sample ID: CAL1
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122973.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 30-MAY-2019 09:04
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

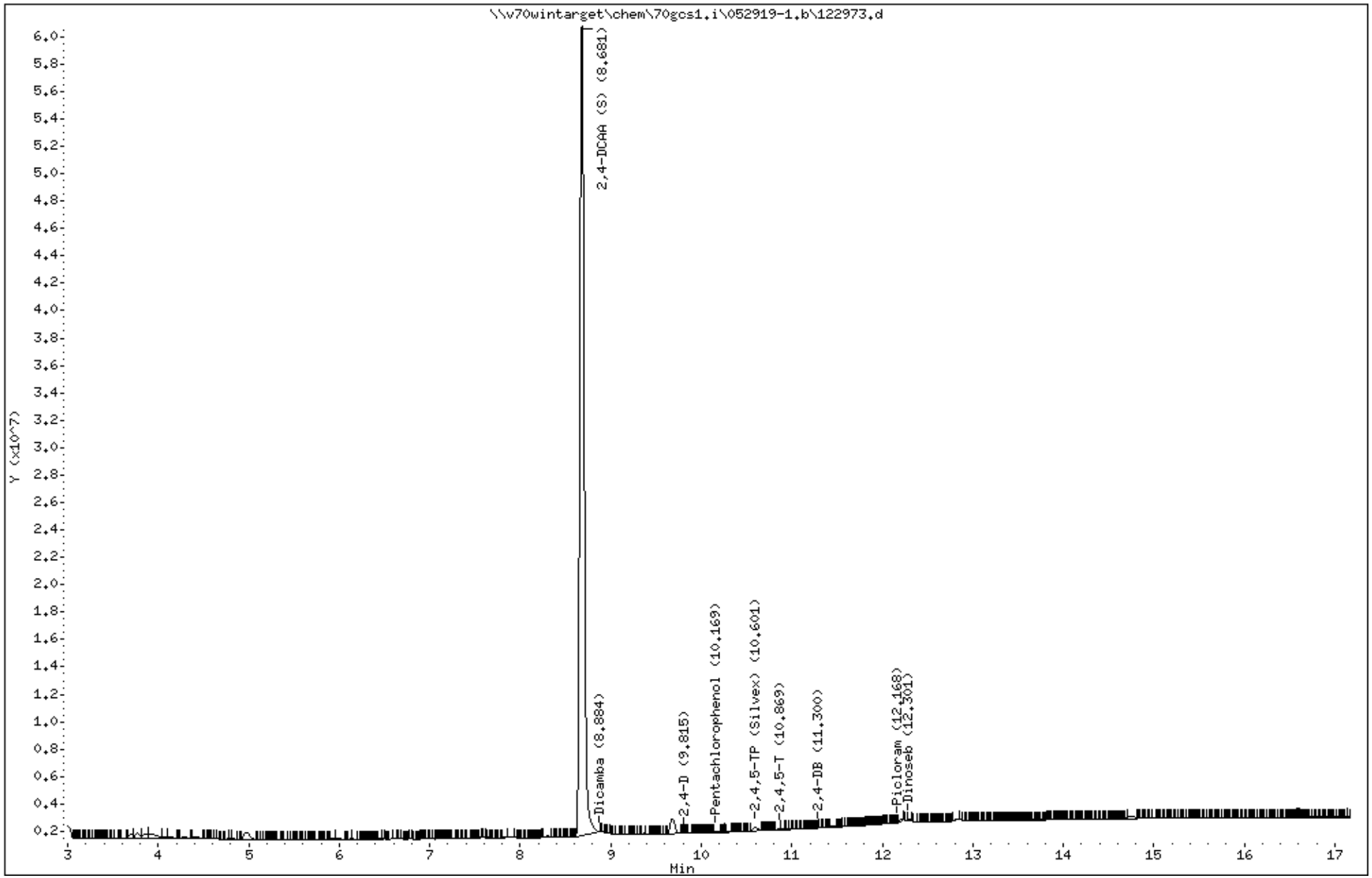
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.681	8.680	0.001	148768607	1.20951	403(R)	
2	Dicamba	8.883	8.899	-0.016	22291	4e-005	0.0126	
3	2,4-D	9.815	9.809	0.006	34156	2e-004	0.0736	
4	Pentachlorophenol	10.169	10.167	0.002	139875	7e-005	0.0225	
5	2,4,5-TP (Silvex)	10.601	10.593	0.008	718273	9e-004	0.302	
6	2,4,5-T	10.869	10.844	0.025	154256	2e-004	0.0740	
7	2,4-DB	11.300	11.304	-0.004	2397	3.e-005	0.00994	
8	Picloram	12.167	12.185	-0.018	2134	2e-006	0.000812	
9	Dinoseb	12.301	12.303	-0.002	106537	2e-004	0.0548	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122973.d
Date : 30-MAY-2019 09:04
Client ID: PBLK
Instrument: 70gcs1.i
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122973.d
Injection Date: 30-MAY-2019 09:04
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122973.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 30-MAY-2019 09:04
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

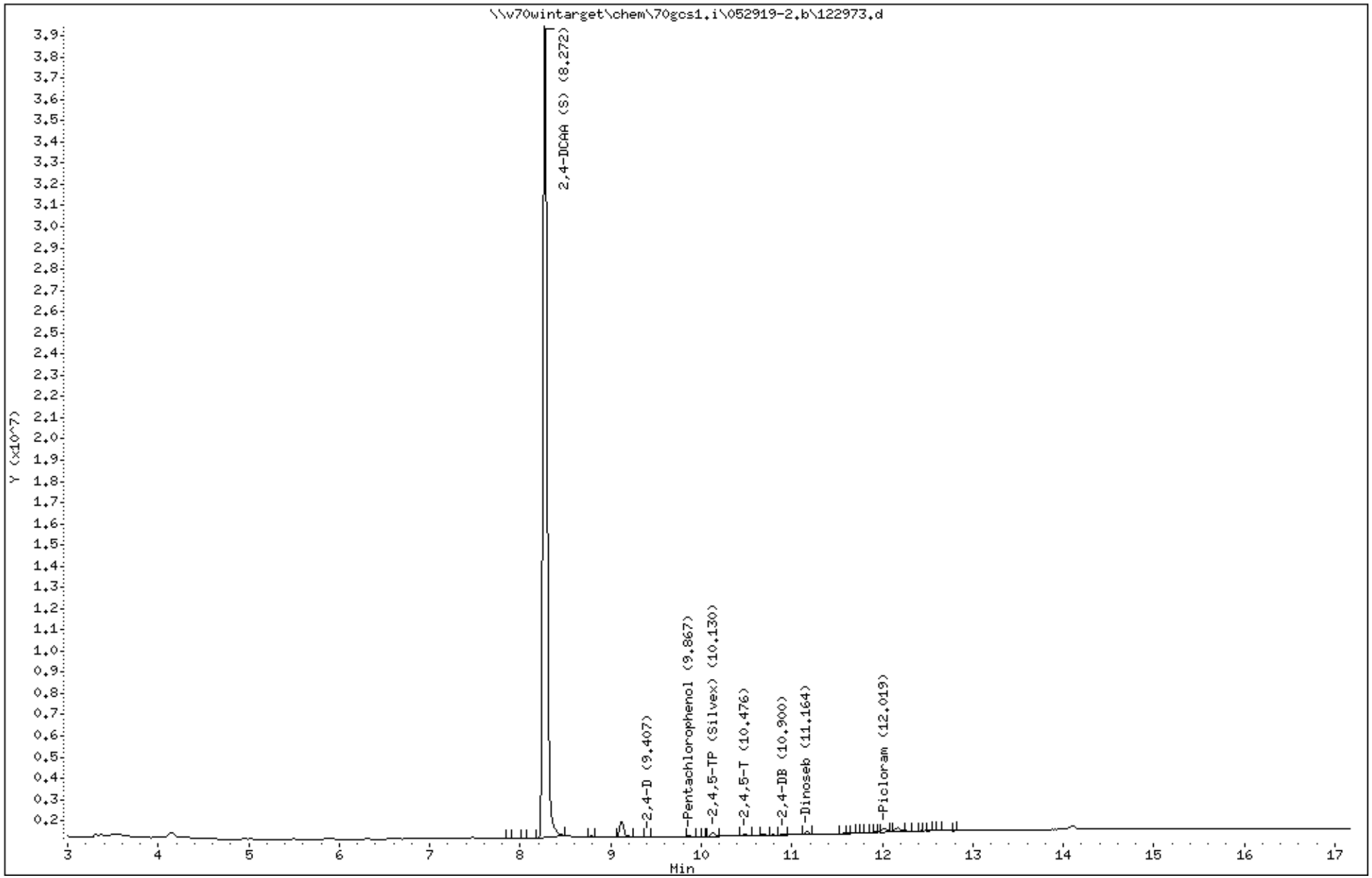
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.271	8.271	0.000	90954377	1.21667	406(R)	
2	Dicamba	Compound Not Detected.						
3	2,4-D	9.406	9.399	0.007	63901	7e-004	0.225	
4	Pentachlorophenol	9.866	9.865	0.001	148346	1e-004	0.0406	
5	2,4,5-TP (Silvex)	10.130	10.123	0.007	447152	1e-003	0.320	
6	2,4,5-T	10.476	10.453	0.023	254895	6e-004	0.194	
7	2,4-DB	10.900	10.870	0.030	149335	0.00276	0.920	
9	Dinoseb	11.163	11.157	0.006	368669	0.00107	0.355	
8	Picloram	12.018	11.996	0.022	621231	0.00105	0.350	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122973.d
Date : 30-MAY-2019 09:04
Client ID: PBLK
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122973.d
Injection Date: 30-MAY-2019 09:04
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

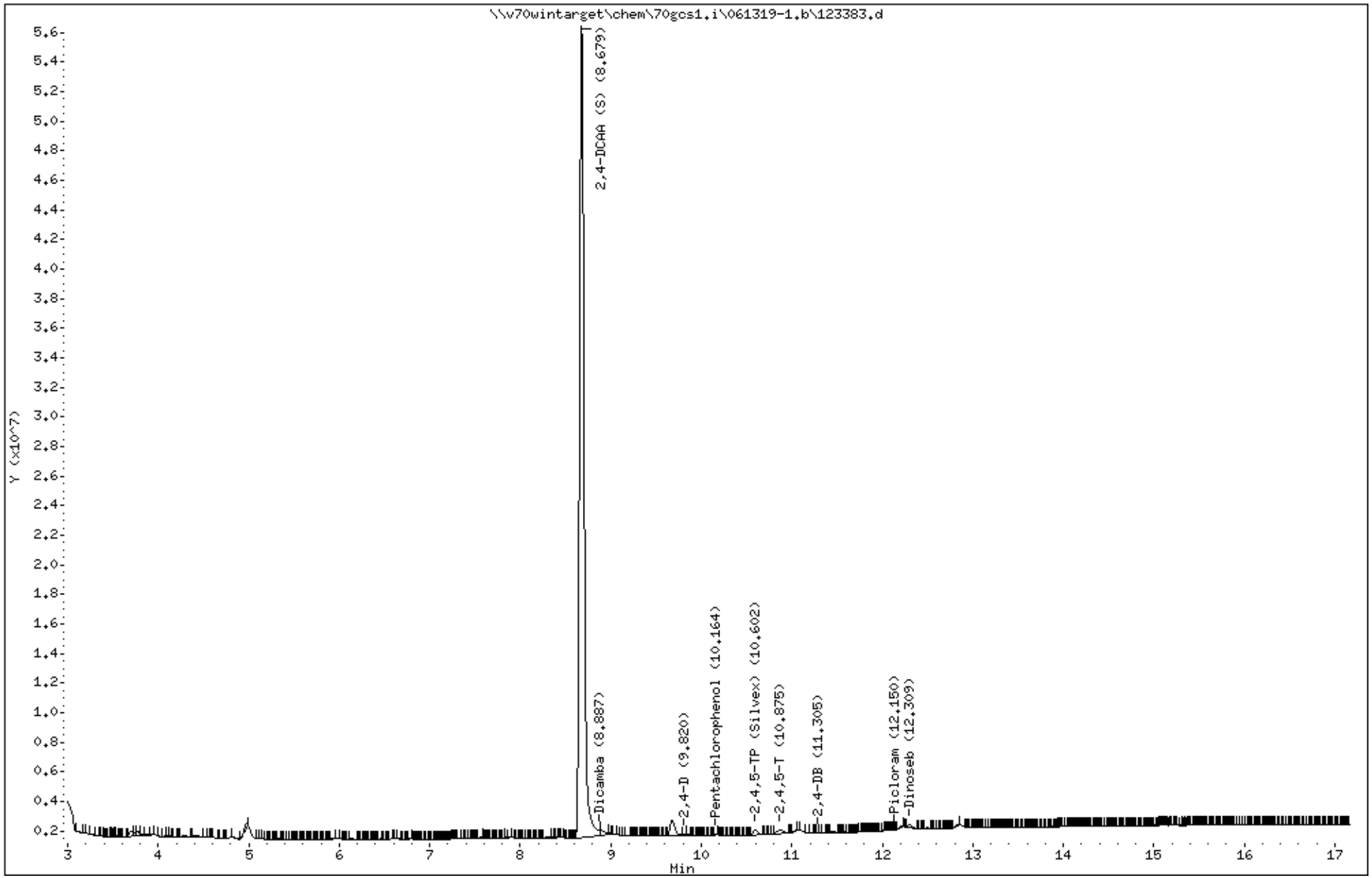
Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123383.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 13-JUN-2019 20:58
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.678	8.679	-0.001	144898480	1.17804	11.8	
2 Dicamba	8.887	8.898	-0.011	1089125	0.00184	0.0184	
3 2,4-D	9.819	9.805	0.014	69922	5e-004	0.00452	
4 Pentachlorophenol	10.163	10.166	-0.003	51763	2e-005	0.000249	
5 2,4,5-TP (Silvex)	10.602	10.590	0.012	863521	0.00109	0.0109	
6 2,4,5-T	10.875	10.839	0.036	1209704	0.00174	0.0174	
7 2,4-DB	11.304	11.297	0.007	1953	2e-005	0.000243	
8 Picloram	12.150	12.175	-0.025	2020	2e-006	0.0000230	
9 Dinoseb	12.308	12.300	0.008	461125	7e-004	0.00712	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123383.d
Date : 13-JUN-2019 20:58
Client ID: PBLK
Instrument: 70gcs1.i
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123383.d
Injection Date: 13-JUN-2019 20:58
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

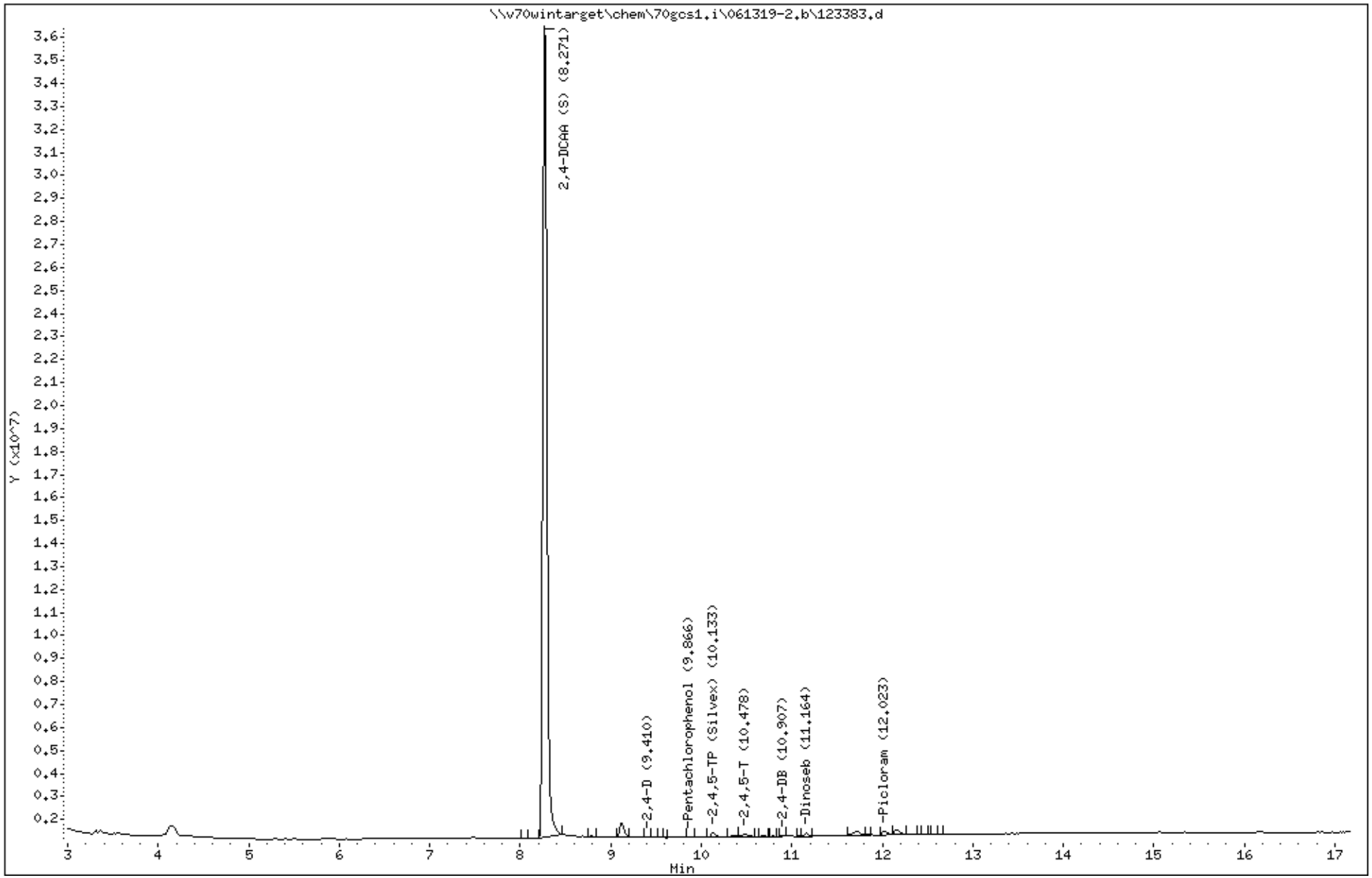
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123383.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 13-JUN-2019 20:58
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.271	8.270	0.001	85214675	1.13989	11.4	
2 Dicamba	Compound Not Detected.						
3 2,4-D	9.409	9.394	0.015	59600	0.00063	0.00630	
4 Pentachlorophenol	9.866	9.863	0.003	110804	9e-005	0.000909	
5 2,4,5-TP (Silvex)	10.132	10.120	0.012	622568	0.00134	0.0134	
6 2,4,5-T	10.477	10.445	0.032	556413	0.00127	0.0127	
7 2,4-DB	10.907	10.862	0.045	74110	0.00137	0.0137	
9 Dinoseb	11.163	11.153	0.010	351528	0.00102	0.0102	
8 Picloram	12.022	11.985	0.037	559516	9e-004	0.00945	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123383.d
Date : 13-JUN-2019 20:58
Client ID: PBLK
Instrument: 70gcs1.i
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



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Injection Date: 13-JUN-2019 20:58
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

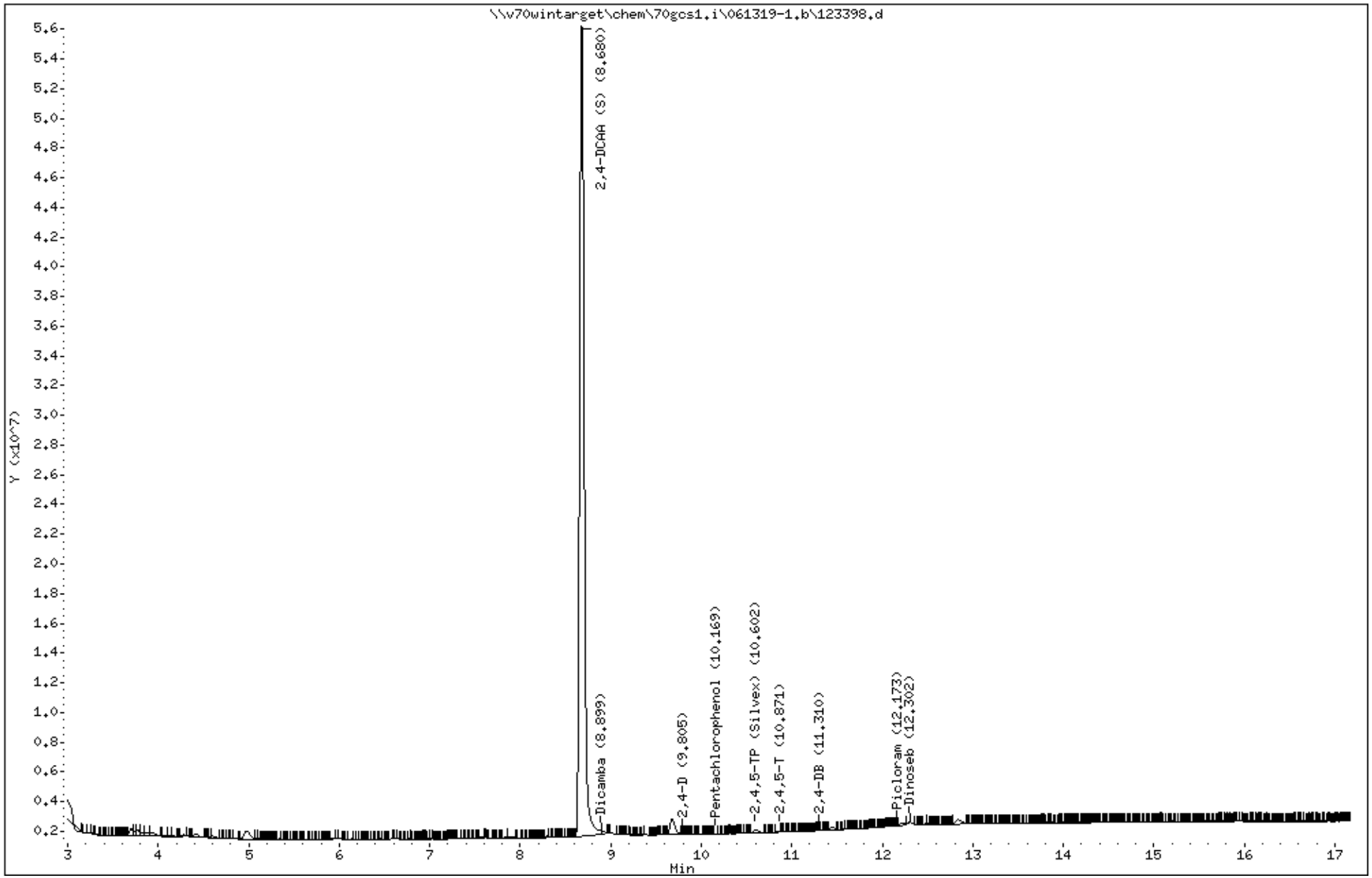
Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123398.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 14-JUN-2019 02:19
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.680	8.679	0.001	144944536	1.17842	11.8	
2 Dicamba	8.899	8.898	0.001	360851	6e-004	0.00611	
3 2,4-D	9.805	9.805	0.000	2897	2e-005	0.000187	
4 Pentachlorophenol	10.169	10.166	0.003	43903	2e-005	0.000212	
5 2,4,5-TP (Silvex)	10.601	10.590	0.011	651437	8e-004	0.00822	
6 2,4,5-T	10.870	10.839	0.031	38052	5e-005	0.000548	
7 2,4-DB	11.310	11.297	0.013	1010	1e-005	0.000126	
8 Picloram	12.172	12.175	-0.003	1539	2e-006	0.0000176	
9 Dinoseb	12.301	12.300	0.001	6808	1e-005	0.000105	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123398.d
Date : 14-JUN-2019 02:19
Client ID: PBLK
Instrument: 70gcs1.i
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123398.d
Injection Date: 14-JUN-2019 02:19
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

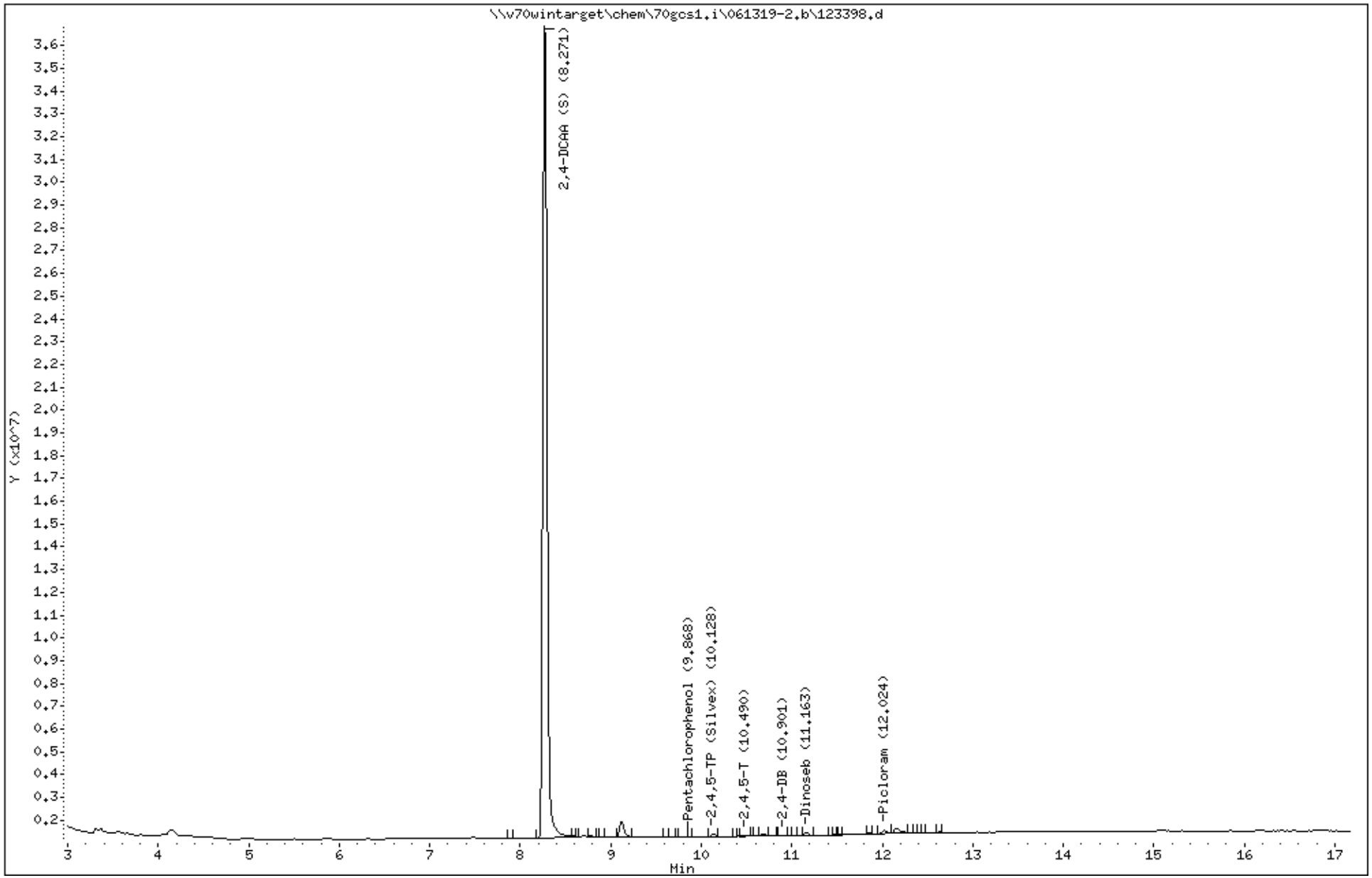
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123398.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 14-JUN-2019 02:19
Operator : MJM Inst ID: 70gcs1.i
Smp Info : pblk, 65383:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.270	8.270	0.000	88375364	1.18217	11.8	
2 Dicamba	Compound Not Detected.						
3 2,4-D	Compound Not Detected.						
4 Pentachlorophenol	9.867	9.863	0.004	40127	3e-005	0.000329	
5 2,4,5-TP (Silvex)	10.128	10.120	0.008	325935	7.e-004	0.00701	
6 2,4,5-T	10.490	10.445	0.045	170699	0.00039	0.00390	
7 2,4-DB	10.900	10.862	0.038	124310	0.00230	0.0230	
9 Dinoseb	11.162	11.153	0.009	356175	0.00103	0.0103	
8 Picloram	12.024	11.985	0.039	536017	9.e-004	0.00905	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123398.d
Date : 14-JUN-2019 02:19
Client ID: PBLK
Instrument: 70gcs1.i
Sample Info: PBLK, 65383:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123398.d
Injection Date: 14-JUN-2019 02:19
Instrument: 70gcs1.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11757551ICV

Lab Name: Pace Analytical - New York Calibration Date: 05/30/2019 Time: 08:42

Instrument ID: 70GCS1 GC Column: Col 1 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 052919-1.B\122972.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.812	9.769	9.849	154701819.	91287890.0	17.4307
2,4,5-TP (Silvex)		Averaged	10.593	10.553	10.633	792178747.	448972940.	13.3514
2,4-DCAA (S)		Averaged	8.682	8.64	8.72	122999524.	139227416.	13.1935

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11757549ICV

Lab Name: Pace Analytical - New York Calibration Date: 05/30/2019 Time: 08:42

Instrument ID: 70GCS1 GC Column: Col 2 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 052919-2.B\122972.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.401	9.369	9.429	94603570.0	56548340.0	18.9532
2,4,5-TP (Silvex)		Averaged	10.125	10.078	10.168	464992312.	264212750.	13.6418
2,4-DCAA (S)		Averaged	8.272	8.241	8.301	74756891.0	84535356.0	13.0804

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11838972CCV

Lab Name: Pace Analytical - New York Calibration Date: 06/13/2019 Time: 21:19

Instrument ID: 70GCS1 GC Column: Col 1 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 061319-1.B\123384.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.809	9.765	9.845	154701819.	171467220.	10.8372
2,4,5-TP (Silvex)		Averaged	10.591	10.55	10.63	792178747.	883726620.	11.5565
2,4-DCAA (S)		Averaged	8.678	8.639	8.719	122999524.	131785754.	7.1433

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 4:00

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11838970CCV

Lab Name: Pace Analytical - New York Calibration Date: 06/13/2019 Time: 21:19

Instrument ID: 70GCS1 GC Column: Col 2 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 061319-2.B\123384.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.401	9.364	9.424	94603570.0	97681345.0	3.2533
2,4,5-TP (Silvex)		Averaged	10.123	10.075	10.165	464992312.	516361740.	11.0474
2,4-DCAA (S)		Averaged	8.271	8.24	8.3	74756891.0	77967069.0	4.2942

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11838971CCV

Lab Name: Pace Analytical - New York Calibration Date: 06/14/2019 Time: 02:40

Instrument ID: 70GCS1 GC Column: Col 1 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 061319-1.B\123399.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.811	9.765	9.845	154701819.	177006370.	14.4178
2,4,5-TP (Silvex)		Averaged	10.592	10.55	10.63	792178747.	910360270.	14.9185
2,4-DCAA (S)		Averaged	8.68	8.639	8.719	122999524.	137195265.	11.5413

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

11838975CCV

Lab Name: Pace Analytical - New York Calibration Date: 06/14/2019 Time: 02:40

Instrument ID: 70GCS1 GC Column: Col 2 Init. Calib. Date(s): 05/30/2019 05/30/2019

Lab File ID: 061319-2.B\123399.D Init. Calib. Time(s): 06:55 08:42

SDG No.: 7093238

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	9.401	9.364	9.424	94603570.0	107004020.	13.1078
2,4,5-TP (Silvex)		Averaged	10.123	10.075	10.165	464992312.	533419750.	14.7158
2,4-DCAA (S)		Averaged	8.272	8.24	8.3	74756891.0	82472093.0	10.3204

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

06/17/2019 3:59

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-1.b\122972.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 30-MAY-2019 08:42
Operator : MJM Inst ID: 70gcs1.i
Smp Info : icv, 66027:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-1.b\8151A5290(6917).m
Meth Date : 30-May-2019 15:07 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

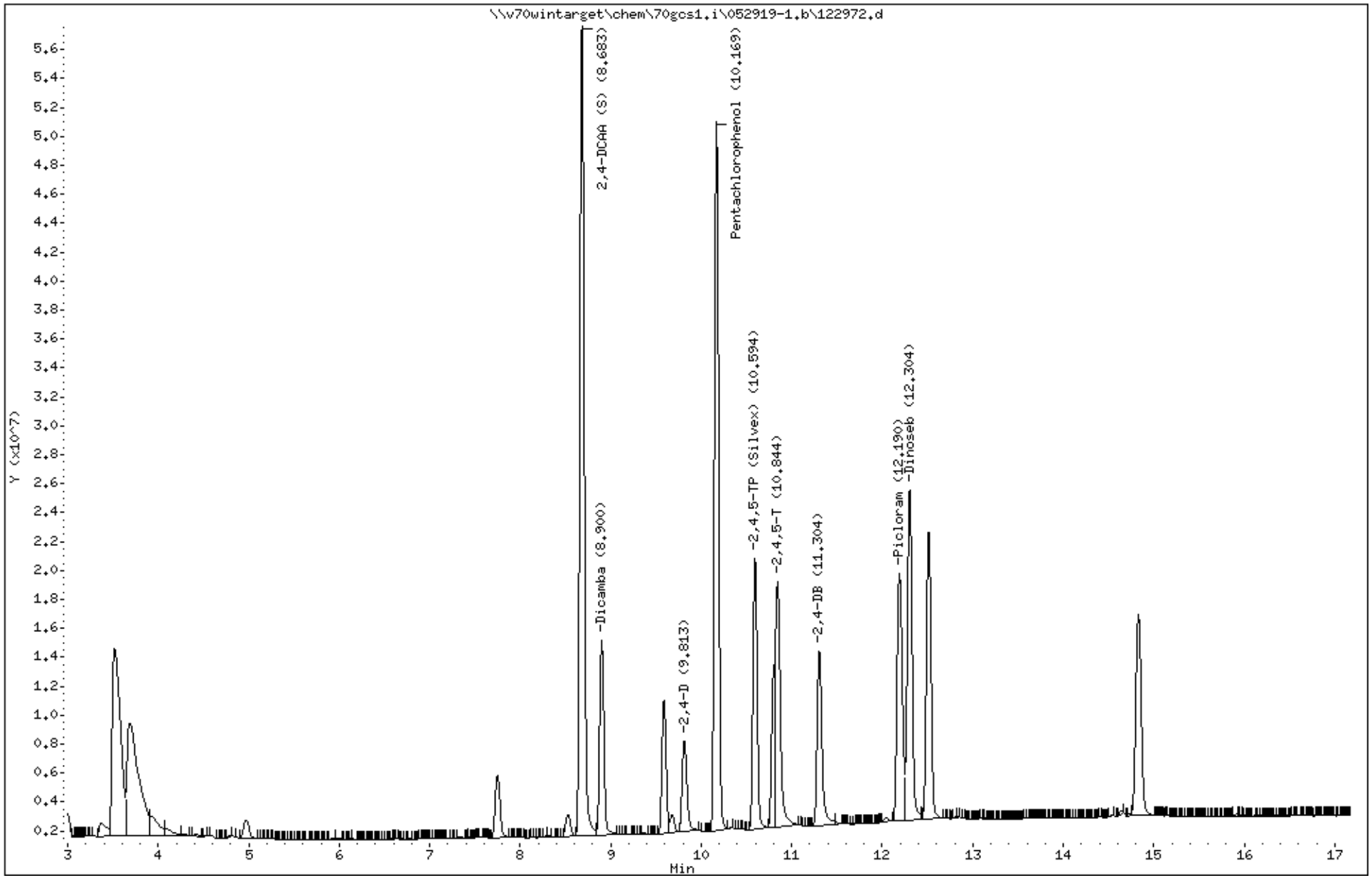
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	8.682	8.680	0.002	139227416	1.00000	1.13	
2 Dicamba	8.900	8.899	0.001	33674457	0.05000	0.0570	
3 2,4-D	9.812	9.809	0.003	18257578	0.10050	0.118	
4 Pentachlorophenol	10.168	10.167	0.001	117953232	0.05000	0.0568	
5 2,4,5-TP (Silvex)	10.593	10.593	0.000	44897294	0.05000	0.0567	
6 2,4,5-T	10.843	10.844	-0.001	53433592	0.05000	0.0769	
7 2,4-DB	11.304	11.304	0.000	35468455	0.40150	0.441	
8 Picloram	12.190	12.185	0.005	56465431	0.05000	0.0644	
9 Dinoseb	12.304	12.303	0.001	65134868	0.10000	0.100	

Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b\122972.d
Date : 30-MAY-2019 08:42
Client ID: ICV
Sample Info: ICV, 66027:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-1.b/122972.d
Injection Date: 30-MAY-2019 08:42
Instrument: 70gcs1.i
Lab Sample ID: ICV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\052919-2.b\122972.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 30-MAY-2019 08:42
Operator : MJM Inst ID: 70gcs1.i
Smp Info : icv, 66027:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\052919-2.b\8151B529(6917).m
Meth Date : 30-May-2019 15:11 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

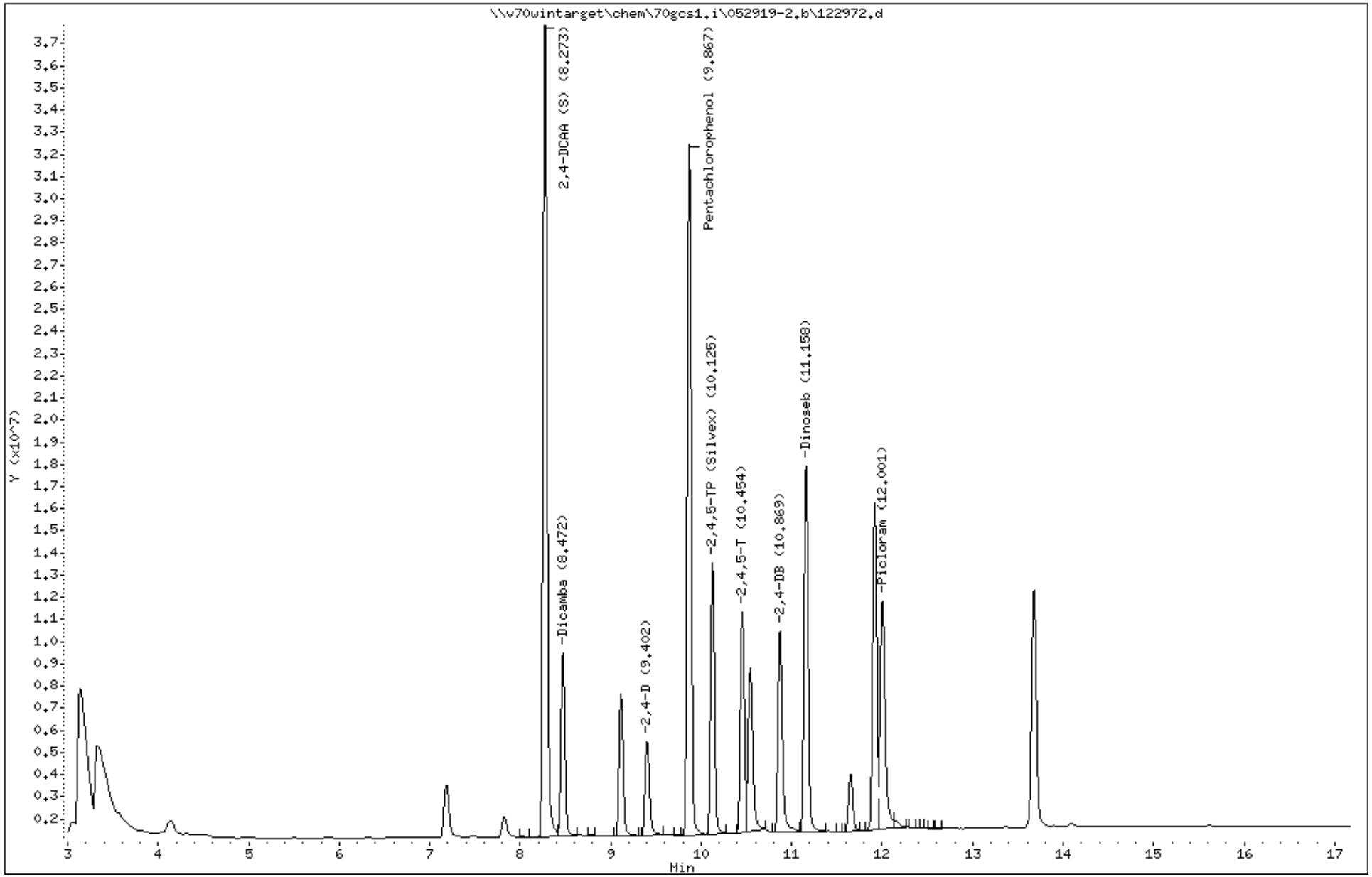
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.272	8.271	0.001	84535356	1.00000	1.13	
2	Dicamba	8.471	8.470	0.001	18549001	0.05000	0.0560	
3	2,4-D	9.401	9.399	0.002	11309668	0.10050	0.120	
4	Pentachlorophenol	9.866	9.865	0.001	70503833	0.05000	0.0578	
5	2,4,5-TP (Silvex)	10.125	10.123	0.002	26421275	0.05000	0.0568	
6	2,4,5-T	10.453	10.453	0.000	23349641	0.05000	0.0534	
7	2,4-DB	10.869	10.870	-0.001	24065218	0.40150	0.445	
9	Dinoseb	11.157	11.157	0.000	38345025	0.10050	0.111	
8	Picloram	12.001	11.996	0.005	32454770	0.05000	0.0548	

Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b\122972.d
Date : 30-MAY-2019 08:42
Client ID: ICV
Sample Info: ICV, 66027:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\052919-2.b/122972.d
Injection Date: 30-MAY-2019 08:42
Instrument: 70gcs1.i
Lab Sample ID: ICV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

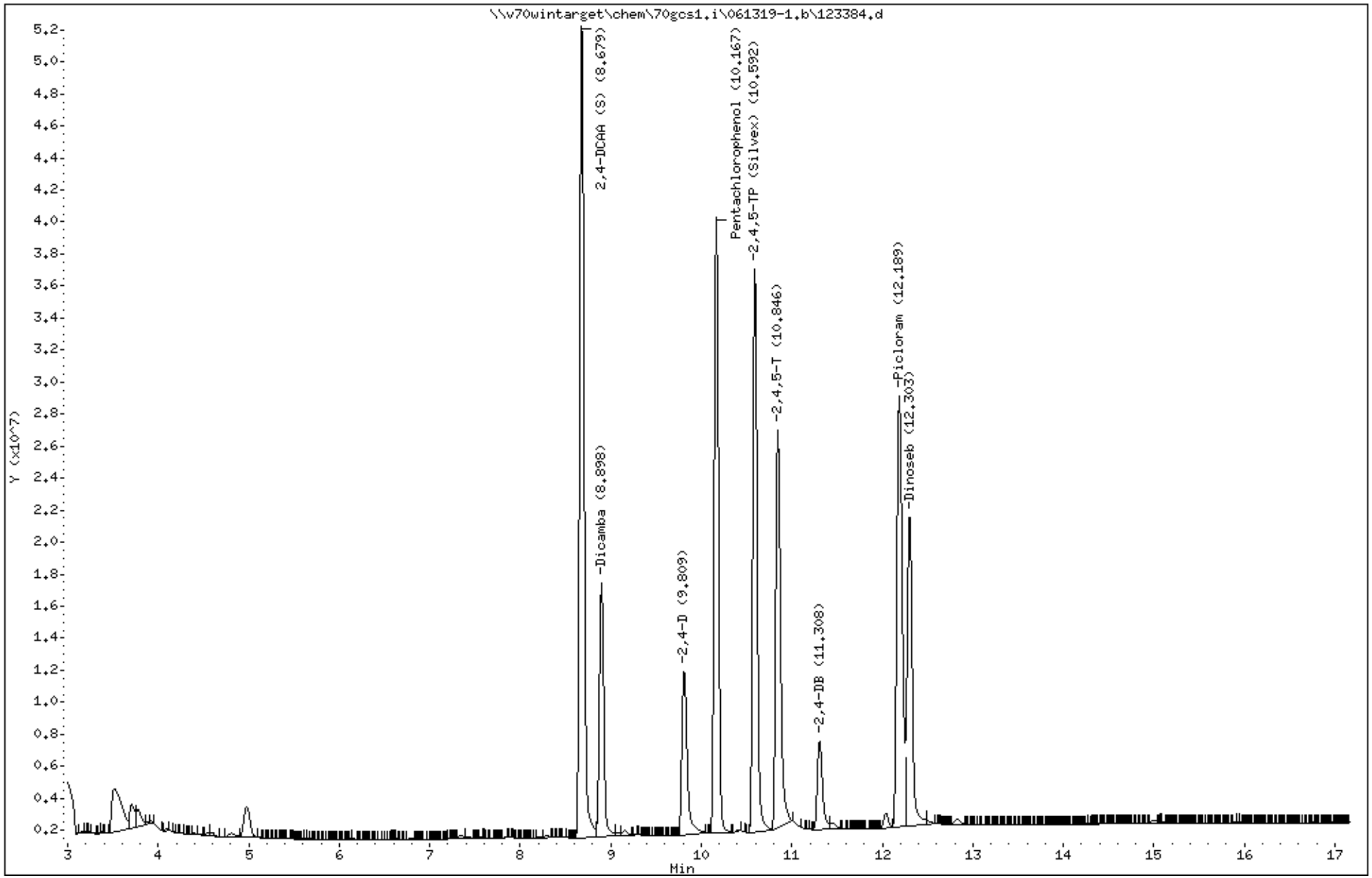
Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123384.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 13-JUN-2019 21:19
Operator : MJM Inst ID: 70gcs1.i
Smp Info : ccv, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.678	8.679	-0.001	131785754	1.00000	1.07	
2	Dicamba	8.897	8.898	-0.001	40737299	0.06000	0.0690	
3	2,4-D	9.809	9.805	0.004	34293444	0.20000	0.222	
4	Pentachlorophenol	10.166	10.166	0.000	94790299	0.04000	0.0457	
5	2,4,5-TP (Silvex)	10.591	10.590	0.001	88372662	0.10000	0.112	
6	2,4,5-T	10.846	10.839	0.007	72746838	0.10000	0.105	
7	2,4-DB	11.307	11.297	0.010	17385600	0.20000	0.216	
8	Picloram	12.189	12.175	0.014	90979293	0.10000	0.104	
9	Dinoseb	12.302	12.300	0.002	60180941	0.08000	0.0929	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123384.d
Date : 13-JUN-2019 21:19
Client ID: CCV
Instrument: 70gcs1.i
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123384.d
Injection Date: 13-JUN-2019 21:19
Instrument: 70gcs1.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123384.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 13-JUN-2019 21:19
Operator : MJM Inst ID: 70gcs1.i
Smp Info : ccv, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

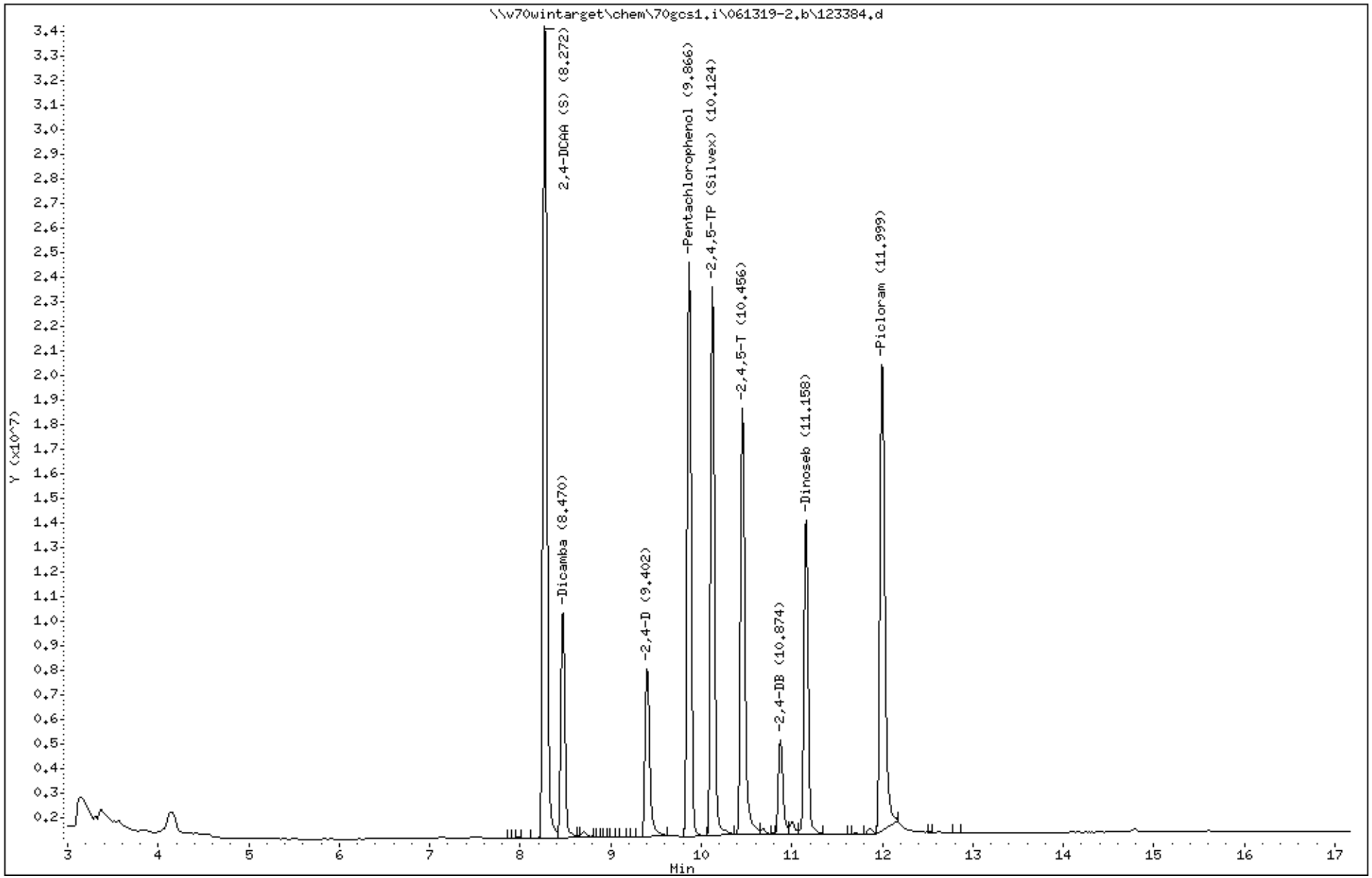
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.271	8.270	0.001	77967069	1.00000	1.04	
2	Dicamba	8.470	8.468	0.002	21873866	0.06000	0.0660	
3	2,4-D	9.401	9.394	0.007	19536269	0.20000	0.206	
4	Pentachlorophenol	9.866	9.863	0.003	53497195	0.04000	0.0439	
5	2,4,5-TP (Silvex)	10.123	10.120	0.003	51636174	0.10000	0.111	
6	2,4,5-T	10.456	10.445	0.011	45999922	0.10000	0.105	
7	2,4-DB	10.874	10.862	0.012	10832204	0.20000	0.200	
9	Dinoseb	11.157	11.153	0.004	31043788	0.08000	0.0897	
8	Picloram	11.998	11.985	0.013	57385070	0.10000	0.0969	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123384.d
Date : 13-JUN-2019 21:19
Client ID: CCV
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123384.d
Injection Date: 13-JUN-2019 21:19
Instrument: 70gcs1.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123399.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-JUN-2019 02:40
Operator : MJM Inst ID: 70gcs1.i
Smp Info : ccv, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

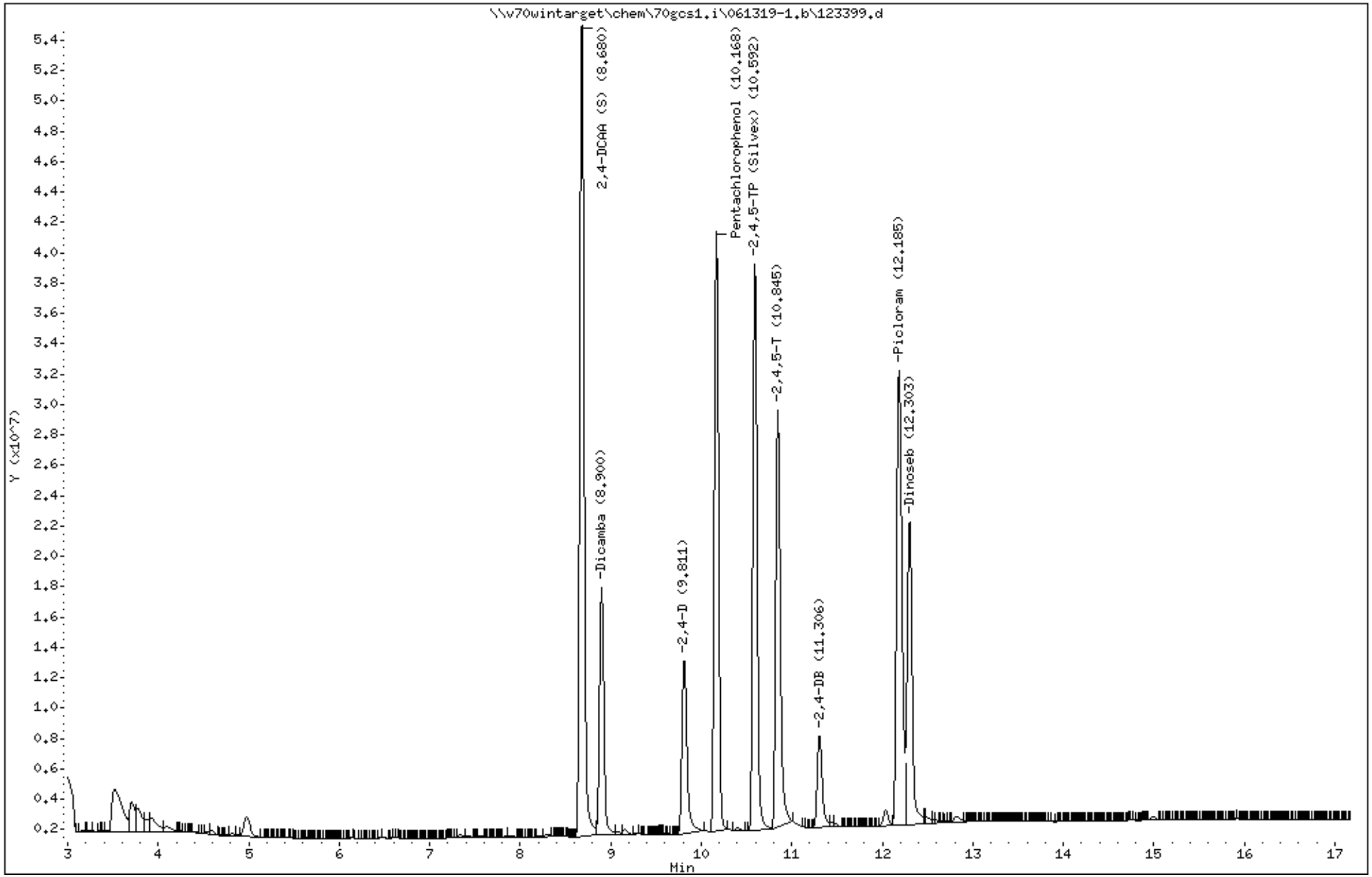
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.680	8.679	0.001	137195265	1.00000	1.12	
2	Dicamba	8.899	8.898	0.001	41467396	0.06000	0.0702	
3	2,4-D	9.811	9.805	0.006	35401274	0.20000	0.229	
4	Pentachlorophenol	10.167	10.166	0.001	96344084	0.04000	0.0464	
5	2,4,5-TP (Silvex)	10.592	10.590	0.002	91036027	0.10000	0.115	
6	2,4,5-T	10.845	10.839	0.006	76876011	0.10000	0.111	
7	2,4-DB	11.306	11.297	0.009	18414407	0.20000	0.229	
8	Picloram	12.184	12.175	0.009	98480782	0.10000	0.112	
9	Dinoseb	12.302	12.300	0.002	61195905	0.08000	0.0945	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123399.d
Date : 14-JUN-2019 02:40
Client ID: CCV
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123399.d
Injection Date: 14-JUN-2019 02:40
Instrument: 70gcs1.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123399.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-JUN-2019 02:40
Operator : MJM Inst ID: 70gcs1.i
Smp Info : ccv, 68183:1
Misc Info : 6917,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

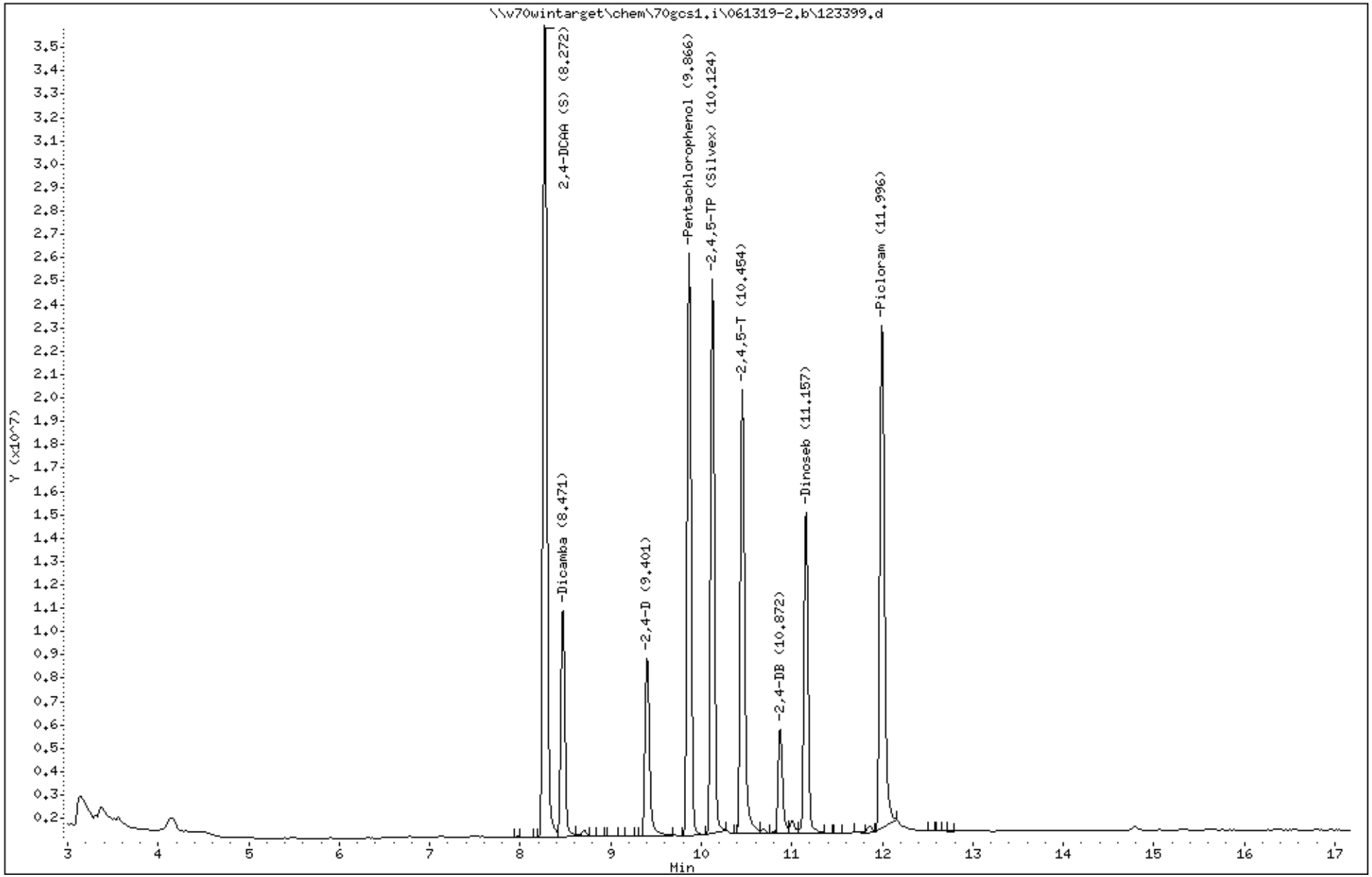
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	8.272	8.270	0.002	82472093	1.00000	1.10	
2	Dicamba	8.471	8.468	0.003	22923501	0.06000	0.0692	
3	2,4-D	9.401	9.394	0.007	21400804	0.20000	0.226	
4	Pentachlorophenol	9.866	9.863	0.003	56297177	0.04000	0.0462	
5	2,4,5-TP (Silvex)	10.123	10.120	0.003	53341975	0.10000	0.115	
6	2,4,5-T	10.453	10.445	0.008	49405559	0.10000	0.113	
7	2,4-DB	10.872	10.862	0.010	11733635	0.20000	0.217	
9	Dinoseb	11.157	11.153	0.004	32834334	0.08000	0.0949	
8	Picloram	11.996	11.985	0.011	62118550	0.10000	0.105	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123399.d
Date : 14-JUN-2019 02:40
Client ID: CCV
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123399.d
Injection Date: 14-JUN-2019 02:40
Instrument: 70gcs1.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BLANK

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30298231
Date Received:
Matrix: Water
SDG No.: 7093238
Date Extracted: 06/12/2019 11:00
Lab Sample ID: 555855
Date Analyzed: 06/13/2019 21:40
Lab File ID: 061319-1.B\123385.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	ND	U

Pace Analytical Service Inc.

SW846 8151A

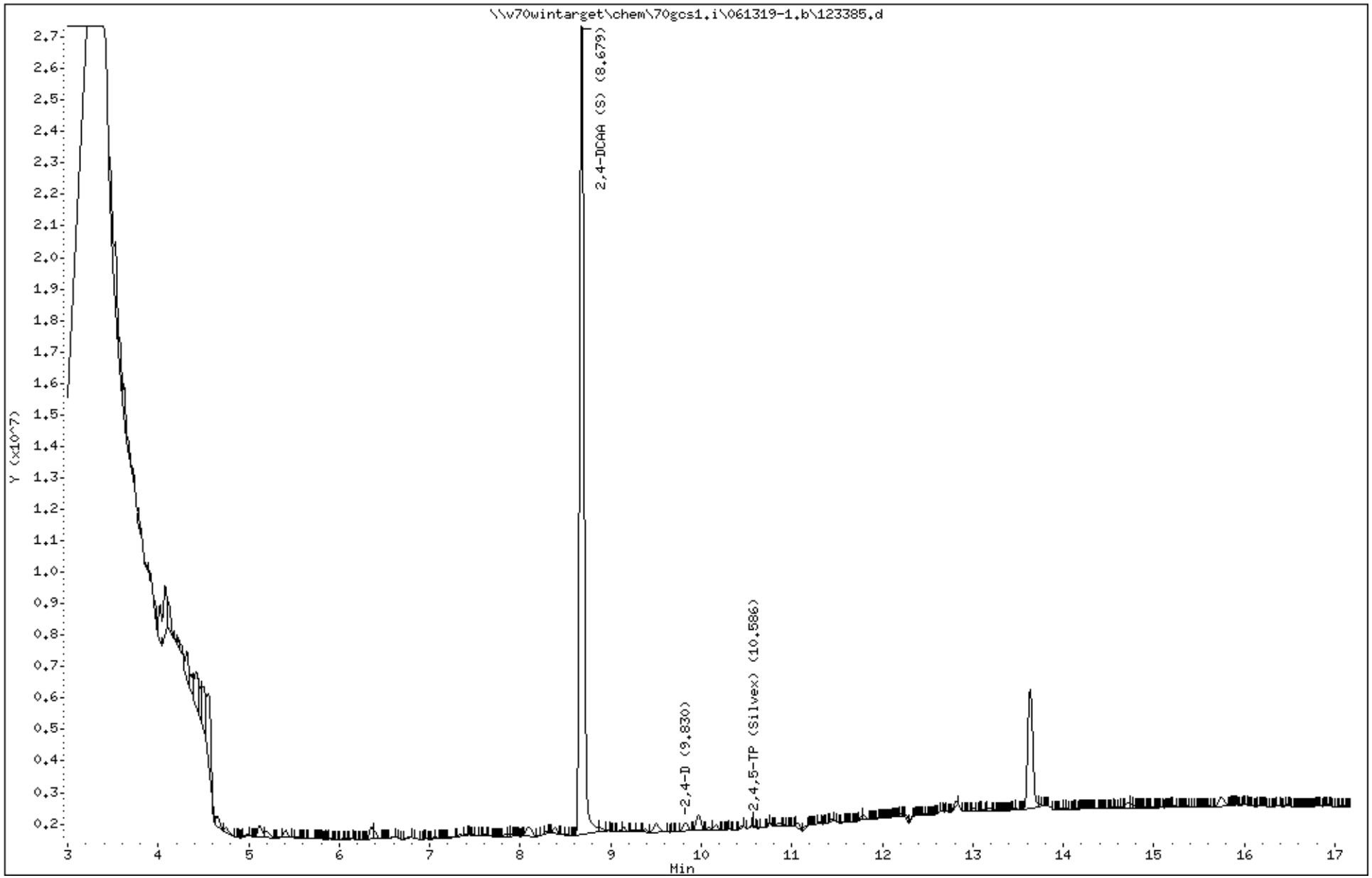
Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123385.d
Lab Smp Id: 555855 Client Smp ID: MB
Inj Date : 13-JUN-2019 21:40
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 555855,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 31 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
Compounds		RT	EXP RT	DLT RT	RESPONSE			
$	1 2,4-DCAA (S)	8.679	8.679	0.000	65079555	0.52910	52.9	
	3 2,4-D	9.830	9.805	0.025	756092	0.00489	0.489	
	5 2,4,5-TP (Silvex)	10.585	10.590	-0.005	20141	3e-005	0.00254	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123385.d
Date : 13-JUN-2019 21:40
Client ID: MB
Instrument: 70gcs1.i
Sample Info: 555855,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123385.d
Injection Date: 13-JUN-2019 21:40
Instrument: 70gcs1.i
Lab Sample ID: 555855
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BLANK

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30298231
Date Received:
Matrix: Water
SDG No.: 7093238
Date Extracted: 06/12/2019 11:00
Lab Sample ID: 555855
Date Analyzed: 06/13/2019 21:40
Lab File ID: 061319-2.B\123385.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U

Pace Analytical Service Inc.

SW846 8151A

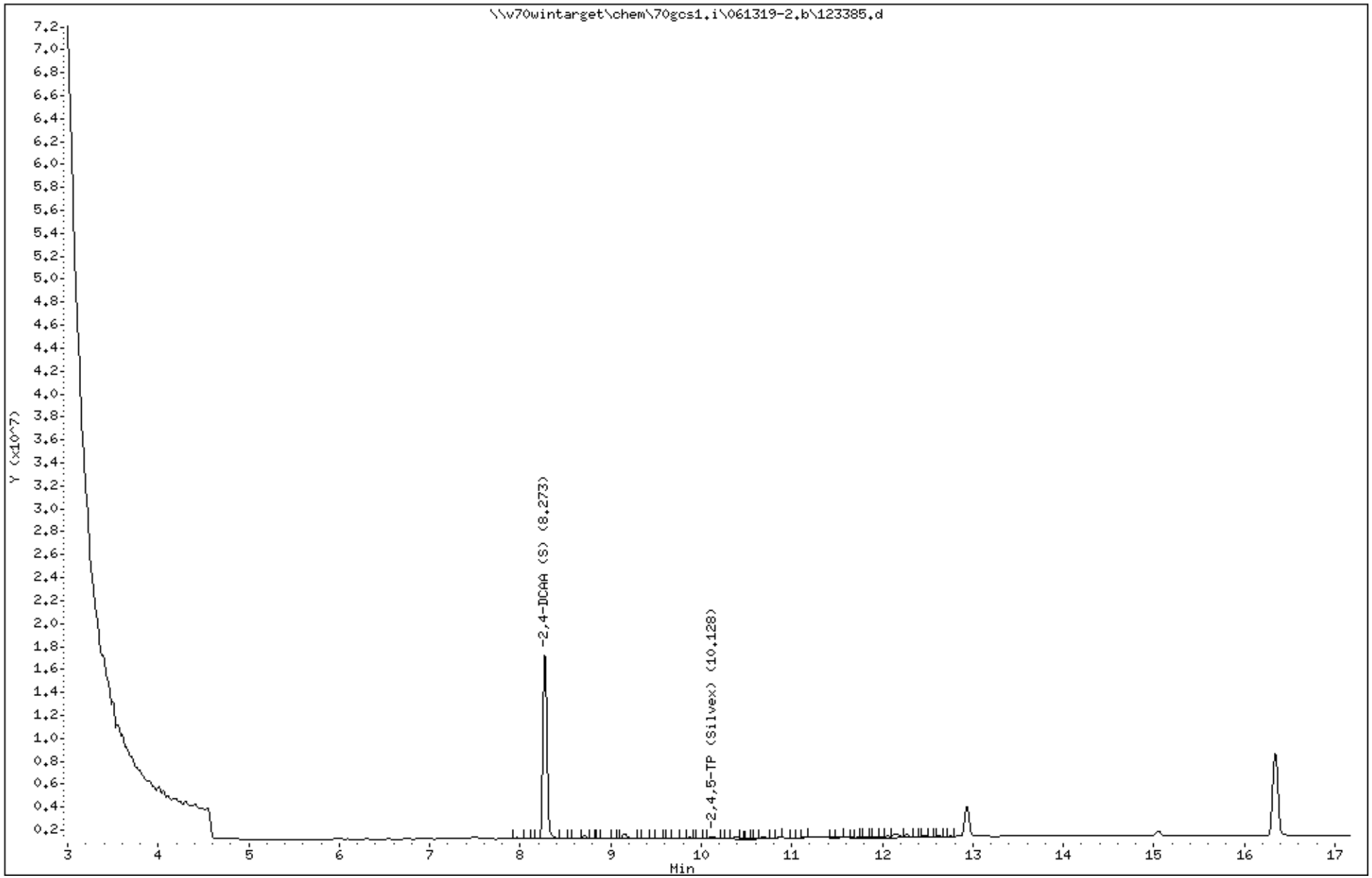
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123385.d
Lab Smp Id: 555855 Client Smp ID: MB
Inj Date : 13-JUN-2019 21:40
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 555855,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 31 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
Compounds	RT	EXP RT	DLT RT	RESPONSE				
$ 1 2,4-DCAA (S)	8.272	8.270	0.002	37302205		0.49898	49.9	
3 2,4-D	Compound Not Detected.							
5 2,4,5-TP (Silvex)	10.128	10.120	0.008	461381		1e-003	0.0992	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123385.d
Date : 13-JUN-2019 21:40
Client ID: MB
Instrument: 70gcs1.i
Sample Info: 555855,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123385.d
Injection Date: 13-JUN-2019 21:40
Instrument: 70gcs1.i
Lab Sample ID: 555855
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30298231
Date Received:
Matrix: Water
SDG No.: 7093238
Date Extracted: 06/12/2019 11:00
Lab Sample ID: 555856
Date Analyzed: 06/13/2019 22:02
Lab File ID: 061319-2.B\123386.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	0.018	
93-72-1	2,4,5-TP (Silvex)	0.0060	

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs1.i\061319-1.b\123386.d
Lab Smp Id: 555856 Client Smp ID: MBLCS
Inj Date : 13-JUN-2019 22:02
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 555856,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-1.b\8151A5290(6917).m
Meth Date : 14-Jun-2019 13:53 mmuens Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 32 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

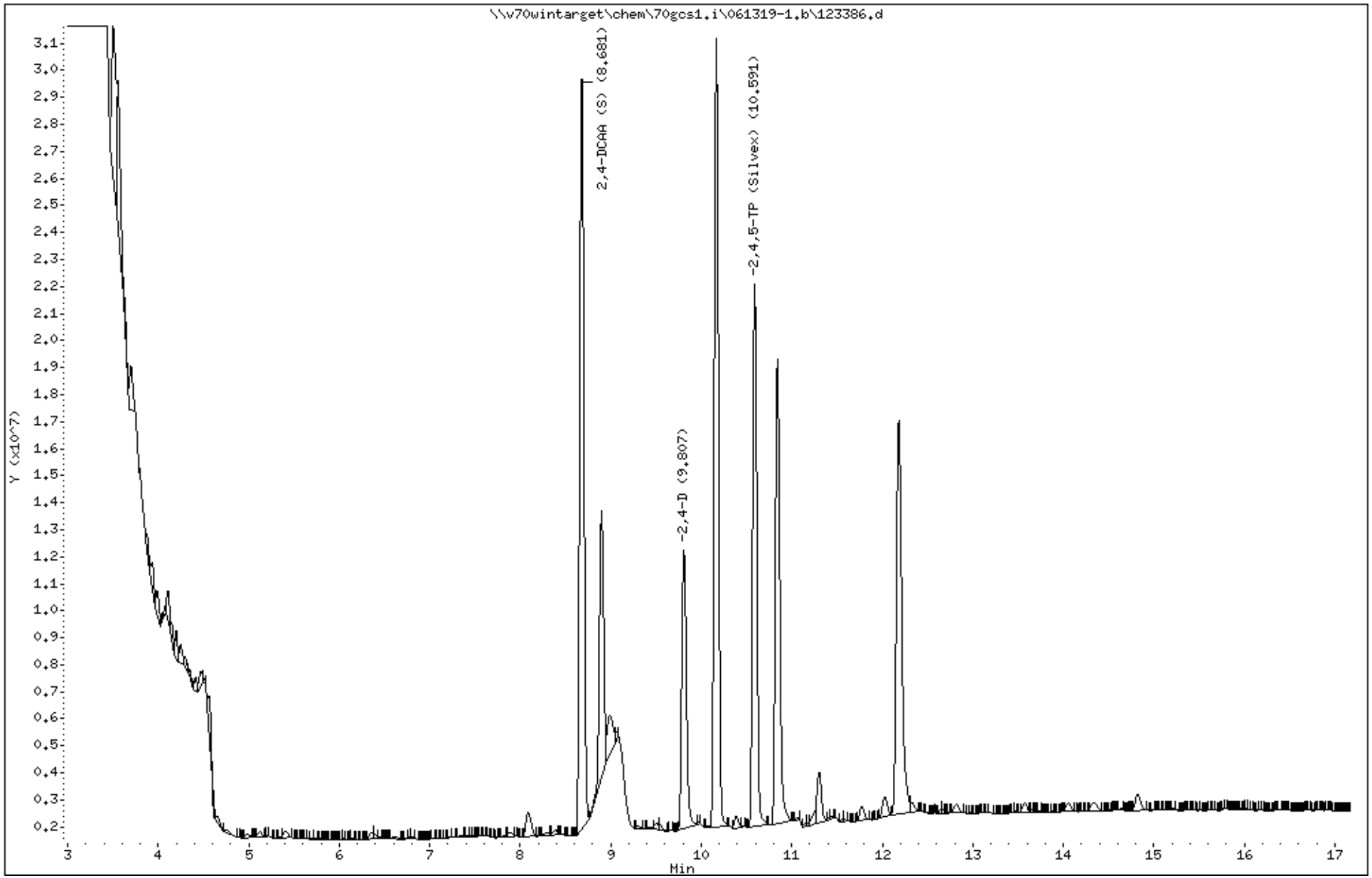
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
Compounds		RT	EXP RT	DLT RT	RESPONSE			
$	1 2,4-DCAA (S)	8.680	8.679	0.001	66383139	0.53970	54.0	
	3 2,4-D	9.807	9.805	0.002	28125024	0.18180	18.2	
	5 2,4,5-TP (Silvex)	10.591	10.590	0.001	48128508	0.06075	6.08	

Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b\123386.d
Date : 13-JUN-2019 22:02
Client ID: MBLCS
Sample Info: 555856,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs1.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-1.b/123386.d
Injection Date: 13-JUN-2019 22:02
Instrument: 70gcs1.i
Lab Sample ID: 555856
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

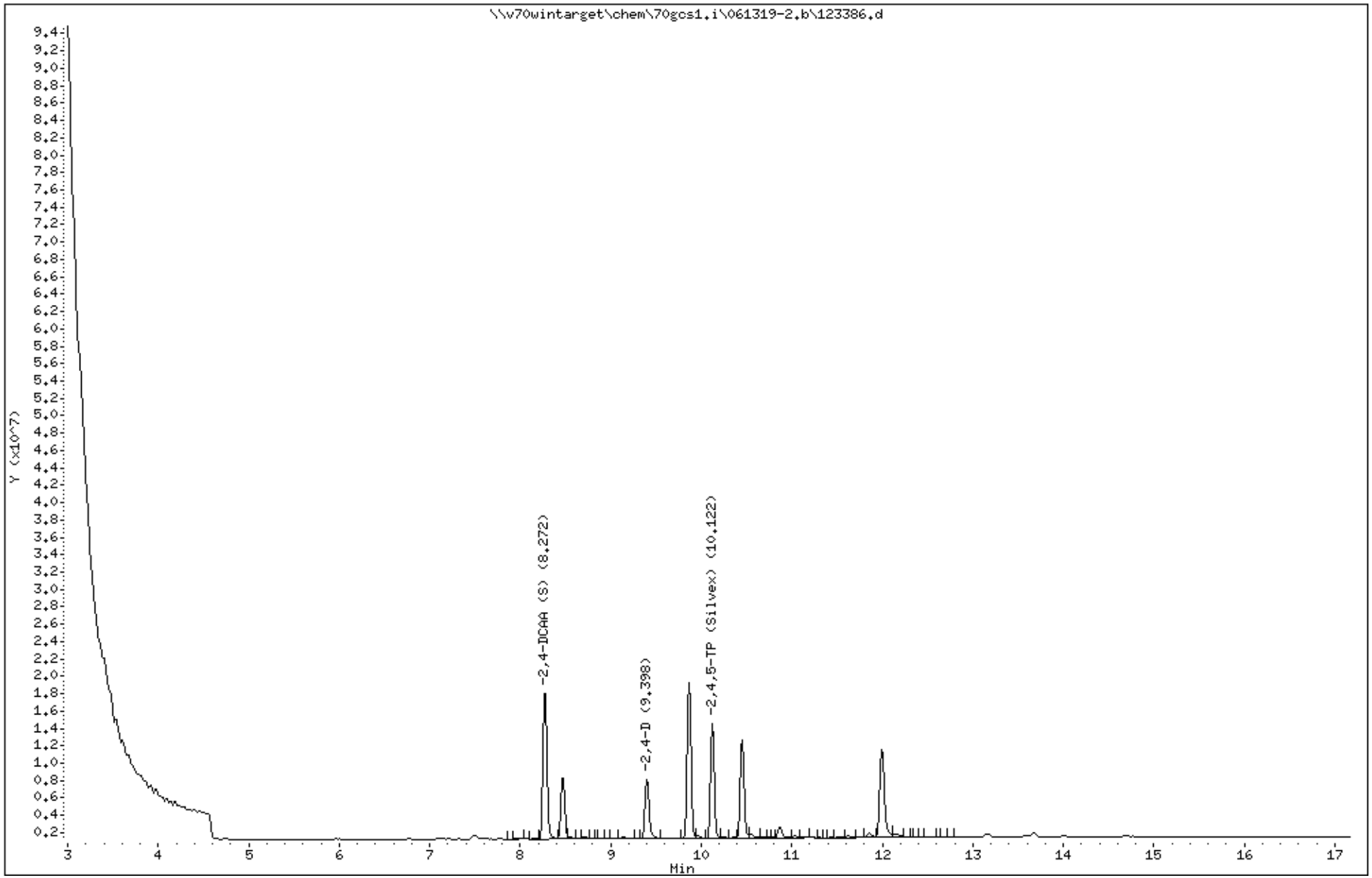
Data file : \\v70wintarget\chem\70gcs1.i\061319-2.b\123386.d
Lab Smp Id: 555856 Client Smp ID: MBLCS
Inj Date : 13-JUN-2019 22:02
Operator : MJM Inst ID: 70gcs1.i
Smp Info : 555856,
Misc Info : 7029,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs1.i\061319-2.b\8151B529(6917).m
Meth Date : 14-Jun-2019 15:26 70gcs1.i Quant Type: ESTD
Cal Date : 30-MAY-2019 08:42 Cal File: 122972.d
Als bottle: 32 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS		
						ON-COLUMN	FINAL	
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	REVIEW CODE
$	1 2,4-DCAA (S)	8.272	8.270	0.002	40087653	0.53624	53.6	
	3 2,4-D	9.398	9.394	0.004	16693379	0.17646	17.6	
	5 2,4,5-TP (Silvex)	10.122	10.120	0.002	27720377	0.05961	5.96	

Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b\123386.d
Date : 13-JUN-2019 22:02
Client ID: MBLCS
Instrument: 70gcs1.i
Sample Info: 555856,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs1.i\061319-2.b/123386.d
Injection Date: 13-JUN-2019 22:02
Instrument: 70gcs1.i
Lab Sample ID: 555856
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

10A - FORM X HERB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - New York Contract: 30298231
Lab Sample ID: 555856 SDG No.: 7093238 Date(s) Analyzed: 06/13/2019
Instrument ID (1): 70GCS1 Instrument ID (2): 70GCS1 Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/L	RPD
2,4-D	1	9.80723	0.018	3.0
	2	9.39807	0.018	
2,4,5-TP (Silvex)	1	10.5914	0.0061	1.9
	2	10.1222	0.0060	

SAMPLE NO.

MS

10A - FORM X HERB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - New York Contract: 30298231
Lab Sample ID: 557022 SDG No.: 7093238 Date(s) Analyzed: 06/13/2019
Instrument ID (1): 70GCS1 Instrument ID (2): 70GCS1 Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/L	RPD
2,4-D	1	9.81048	0.020	1.7
	2	9.40048	0.020	
2,4,5-TP (Silvex)	1	10.5904	0.0073	0.57
	2	10.1229	0.0073	

Prep Log Report

Batch Information: OEXT-8151ST_P-7724

Template Version: F-LI-O-017-Rev.01 (08Aug2017)

Prep Method	EPA 8151A	Analysis Method	EPA 8151A	Extracted By	RKS	Extracted Date/Time	06/12/2019 11:00:14:941
Spiked By	RKS	Spiked By Date/Time	06/16/2019 11:00:31:788	Witnessed By		Shaker ID	TUMBLER002
Shaker Start Date/Time	06/12/2019 12:30:40:955	Shaker End Date/Time	06/12/2019 13:30:49:019	Turbovap ID	TVAP002	Methylene Chloride	69034
Methanol	70146	Sodium Sulfate	70224	Sodium Chloride	59141	6 N NaOH	69406
Ethyl Ether	68838	H2SO4 Solution	47747	Hexane	69817	Iso-Octane	33925
Silica Gel	63721	KOH Solution	68787	Diazald Solution	69764	Reviewed By	
Reviewed By Date		Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Volume (mL)	Adjusted pH	Adjusted pH	Final Volume (mL)	Sulfur Cleaned	Sample Notes	8151-SPK (uL)	8151-SS (uL)
8151 ST_P	BLANK	**555855**	100	12	2	10	No			69830 (100)
8151 ST_P	LCS	**555856**	100	12	2	10	No		69831 (100)	69830 (100)
8151 ST_P	PS	**30297746001**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30297746002**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30297746003**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30297287002**	100	12	2	10	No			69830 (100)
8151 ST_P	MS	**557022**	100	12	2	10	No		69831 (100)	69830 (100)
8151 ST_P	PS	**30298142001**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30298142002**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30298295002**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30298231001**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30298231010**	100	12	2	10	No			69830 (100)

Standard Notes:

69830: OEXT 8151-SS **69831: OEXT 8151-SPK**

Prep Log Report

Batch Information: OEXT-TCLP-2115

Template Version: F-LI-O-019-Rev.02 (16Jan2019)

Prep Method	EPA 1311	Extracted By	RKS	Witnessed By		Instrument	
Hot Plate ID		Thermometer ID		pH Meter ID		Probe ID	
Room Thermo ID		Room Temp Correction Factor (C)		Room Temp Min | Corr | Init		Room Temp Max | Corr | Init	
Acceptance Range:	Room Temp 21.0-25.0 C	Tumbler Rotational Rate (rev/min)		Leachate Start Date/Time		Leachate End Date/Time	
Total Time Tumbled (hours)		Batch Notes	Recived as exctract	Reviewed By		Reviewed By Date	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Analytical Parameters	Tumbler ID	Initial pH	1 N HCL (mL)	pH After Adding HCl	Wet Sample Weight (g)	Dry Sample Weight (g)	Filtrate Weight (g)	% Solids	Dry Weight Leached (g)	Fluid pH
TCLP	LB	**557012**	Y				66783 (3.5)							
TCLP	PS	**30298142001**	Y				66783 (3.5)							
TCLP	PS	**30298142002**	Y				66783 (3.5)							
TCLP	PS	**30298295002**	Y				66783 (3.5)							
TCLP	PS	**30298231001**	Y				66783 (3.5)							
TCLP	PS	**30298231010**	Y				66783 (3.5)							

QC Rule	Sample Type	Lab Sample ID	TCLP Extraction Fluid 1 (mL)	Extracted pH	Acid Washed TCLP filters (Std. Units)	TCLP filters ()	Sample Notes
TCLP	LB	**557012**	70264 ()		57601 ()	31215 ()	
TCLP	PS	**30298142001**	70264 ()		57601 ()	31215 ()	
TCLP	PS	**30298142002**	70264 ()		57601 ()	31215 ()	
TCLP	PS	**30298295002**	70264 ()		57601 ()	31215 ()	
TCLP	PS	**30298231001**	70264 ()		57601 ()	31215 ()	
TCLP	PS	**30298231010**	70264 ()		57601 ()	31215 ()	

INSTRUMENT RUN LOG
Pace Analytical Service Inc.

Instrument: 70gcs1.i
Column RTX-CLPESTICIDES 30m X 0.32mm Helium Method: SW846 8151A
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 68206:1 Surr. lot:
Lot:
Tune std: _____ Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	Method/Sublist	Date	Time	Oper	Comments
1/122952.d	7090673001,	L/6911	SAMPLE	1	515A052819(690	5/29/19	23:48	KB1	
1/122953.d	543561,	L/6911	MS	1	515A052819(690	5/30/19	00:18	KB1	
1/122954.d	543562,	L/6911	MSD	1	515A052819(690	5/30/19	00:48	KB1	
1/122955.d	7090676001,	L/6911	SAMPLE	1	515A052819(690	5/30/19	01:17	KB1	
1/122956.d	7090676002,	L/6911	SAMPLE	1	515A052819(690	5/30/19	01:47	KB1	
1/122957.d	CCVA, 69219:1	L/6906	CCALIB_4	1	515A052819(690	5/30/19	02:17	KB1	
1/122958.d	7090825001,	L/6911	SAMPLE	1	515A052819(690	5/30/19	02:47	KB1	
1/122959.d	30294549001,	L/6911	SAMPLE	1	515A052819(690	5/30/19	03:16	KB1	
1/122960.d	30294549002,	L/6911	SAMPLE	1	515A052819(690	5/30/19	03:46	KB1	
1/122961.d	30294549003,	L/6911	SAMPLE	1	515A052819(690	5/30/19	04:16	KB1	
1/122962.d	7090595001,	L/6911	SAMPLE	1	515A052819(690	5/30/19	04:46	KB1	
1/122963.d	7090848001,	L/6911	SAMPLE	1	515A052819(690	5/30/19	05:16	KB1	
1/122964.d	CCVB, 69220:1	L/6906	CCALIB_5	1	515A052819(690	5/30/19	05:45	KB1	
1/122966.d	PRIMER	S/	CCALIB_3	1	8151A5290(6917	5/30/19	06:34	MJM	
1/122967.d	CAL5, 64842:1	S/6917	CALIB_5	1	8151A5290(6917	5/30/19	06:55	MJM	
1/122968.d	CAL4, 66434:1	S/6917	CALIB_4	1	8151A5290(6917	5/30/19	07:16	MJM	
1/122969.d	CAL3, 68183:1	S/6917	CALIB_3	1	8151A5290(6917	5/30/19	07:38	MJM	
1/122970.d	CAL2, 66433:1	S/6917	CALIB_2	1	8151A5290(6917	5/30/19	07:59	MJM	
1/122971.d	CAL1, 66431:1	S/6917	CALIB_1	1	8151A5290(6917	5/30/19	08:21	MJM	
1/122972.d	ICV, 66027:1	S/6917	CCALIB_6	1	8151A5290(6917	5/30/19	08:42	MJM	
1/122973.d	PBLK, 65383:1	S/6917	SAMPLE	1	8151A5290(6917	5/30/19	09:04	MJM	
1/122974.d	543563,	L/6914	BLANK	1	8151A5290(6917	5/30/19	09:25	MJM	
1/122975.d	543564,	L/6914	LCS	1	8151A5290(6917	5/30/19	09:46	MJM	
1/122976.d	METHCHK,7598	S/	METHSPIKE	1	8151A5290(6917	5/30/19	10:08	MJM	
1/122977.d	30295864004,	L/6914	SAMPLE	1	8151A5290(6917	5/30/19	10:29	MJM	
1/122978.d	30295864005,	L/6914	SAMPLE	1	8151A5290(6917	5/30/19	10:50	MJM	
1/122979.d	30295864006,	L/6914	SAMPLE	1	8151A5290(6917	5/30/19	11:12	MJM	
1/122980.d	30295990001,	L/6914	SAMPLE	1	8151A5290(6917	5/30/19	11:33	MJM	
1/122981.d	PBLK, 65383:1	S/6917	SAMPLE	1	8151A5290(6917	5/30/19	11:55	MJM	
1/122982.d	PBLK, 65383:1	S/6917	SAMPLE	1	8151A5290(6917	5/30/19	12:16	MJM	

File Path 1: \\v70wintarget\chem\70gcs1.i\052919-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:10 06/18/2019 Reviewed By/Date: _____ Page: 2 of 3

INSTRUMENT RUN LOG
Pace Analytical Service Inc.

Instrument: 70gcs1.i
Column RTX-CLPESTICIDES 30m X 0.32mm Helium Method: SW846 8151A
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Lot:
Tune std: _____ Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	Method/Sublist	Date	Time	Oper	Comments
1/123354.d	HEXANE	L/	SAMPLE	1	505APEM/all	6/13/19	10:13	MJM	
1/123355.d	BD MIX,66628	L/	SAMPLE	1	505APEM/all	6/13/19	10:35	MJM	
1/123356.d	PEM, 67162:1	L/	PEM	1	505APEM/all	6/13/19	10:57	MJM	
1/123381.d	HEXANE	S/	SAMPLE	1	8151A5290(6917	6/13/19	20:15	MJM	
1/123382.d	PRIMER	S/	CCALIB_3	1	8151A5290(6917	6/13/19	20:36	MJM	
1/123383.d	PBLK, 65383:1	L/6917	SAMPLE	1	8151A5290(6917	6/13/19	20:58	MJM	
1/123384.d	CCV, 68183:1	L/6917	CCALIB_3	1	8151A5290(6917	6/13/19	21:19	MJM	
1/123385.d	555855,	L/7029	BLANK	1	8151A5290(6917	6/13/19	21:40	MJM	
1/123386.d	555856,	L/7029	LCS	1	8151A5290(6917	6/13/19	22:02	MJM	
1/123387.d	METHCHK	L/	METHSPIKE	1	8151A5290(6917	6/13/19	22:23	MJM	
1/123388.d	30297746001,	S/7029	SAMPLE	1	8151A5290(6917	6/13/19	22:45	MJM	
1/123389.d	30297746002,	S/7029	SAMPLE	1	8151A5290(6917	6/13/19	23:06	MJM	
1/123390.d	30297746003,	S/7029	SAMPLE	1	8151A5290(6917	6/13/19	23:28	MJM	
1/123391.d	557022,	S/7029	MS	1	8151A5290(6917	6/13/19	23:49	MJM	
1/123392.d	30297287002,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	00:10	MJM	
1/123393.d	30298142001,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	00:32	MJM	
1/123394.d	30298142002,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	00:53	MJM	
1/123395.d	30298295002,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	01:14	MJM	
1/123396.d	30298231001,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	01:36	MJM	
1/123397.d	30298231010,	S/7029	SAMPLE	1	8151A5290(6917	6/14/19	01:57	MJM	
1/123398.d	PBLK, 65383:1	L/6917	SAMPLE	1	8151A5290(6917	6/14/19	02:19	MJM	
1/123399.d	CCV, 68183:1	L/6917	CCALIB_3	1	8151A5290(6917	6/14/19	02:40	MJM	
1/123400.d	555876,	L/7030	BLANK	1	8151A5290(6917	6/14/19	03:02	MJM	
1/123401.d	555877,	L/7030	LCS	1	8151A5290(6917	6/14/19	03:23	MJM	
1/123402.d	METHCHK	L/	METHSPIKE	1	8151A5290(6917	6/14/19	03:44	MJM	
1/123403.d	7093111001,	L/7030	SAMPLE	1	8151A5290(6917	6/14/19	04:06	MJM	
1/123404.d	557995,	L/7030	MS	1	8151A5290(6917	6/14/19	04:27	MJM	
1/123405.d	7093194005,	L/7030	SAMPLE	1	8151A5290(6917	6/14/19	04:49	MJM	
1/123406.d	PBLK, 65383:1	L/6917	SAMPLE	1	8151A5290(6917	6/14/19	05:10	MJM	
1/123407.d	CCV, 68183:1	L/6917	CCALIB_3	1	8151A5290(6917	6/14/19	05:31	MJM	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\v70wintarget\chem\70gcs1.i\061319-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:12 06/18/2019 Reviewed By/Date: _____ Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Service Inc.

Instrument: 70gcs1.i

Column RTX-CLPESTICIDES 30m X 0.32mm Helium Method: SW846 8151A

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Lot:

Tune std: _____ Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	Method/Sublist Date	Time	Oper	Comments
1/123408.d	CCV, 68183:1	L/6917	CCALIB_3	1	8151A5290(6917 6/14/19	05:53	MJM	_____

File Path 1: \\v70wintarget\chem\70gcs1.i\061319-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:12 06/18/2019

Reviewed By/Date: _____ Page: 2 of 2



Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30300161

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Percent Moisture

Percent Moisture . . . 1704

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 02, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30300161001	**AOC 26-1**	Solid	06/17/19 13:30	06/18/19 09:30
30300161002	**AOC 26-2**	Solid	06/17/19 13:40	06/18/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30300161001	**AOC 26-1**	EPA 8082A	CWB	9	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	18	PASI-PA
		EPA 8270D	SJG	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	SHD	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA
30300161002	**AOC 26-2**	EPA 8082A	CWB	9	PASI-PA
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	18	PASI-PA
		EPA 8270D	SJG	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	SHD	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 347878

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1691738)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 1691739)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 348126

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- AOC 26-1 (Lab ID: 30300161001)
  - Terphenyl-d14 (S)
- MSD (Lab ID: 1692795)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 348126

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30300161001

R1: RPD value was outside control limits.

- MSD (Lab ID: 1692795)
  - Acenaphthene
  - Acenaphthylene

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

QC Batch: 348126

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30300161001

R1: RPD value was outside control limits.

- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenz(a,h)anthracene
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd)pyrene
- Naphthalene
- Phenanthrene
- Pyrene

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3535A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 349113

2c: The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased low and should be considered estimated.

- LB (Lab ID: 1696432)
  - Pentachlorophenol
- LCS (Lab ID: 1697478)
  - Pentachlorophenol
- MS (Lab ID: 1697479)
  - Pentachlorophenol

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

Analyte Comments:

QC Batch: 349113

2c: The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased low and should be considered estimated.

- MSD (Lab ID: 1697480)
  - Pentachlorophenol

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- AOC 26-1 (Lab ID: 30300161001)
- AOC 26-2 (Lab ID: 30300161002)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Batch Comments:

CCV bias high; samples acceptable due to non-detect
- QC Batch: 348802

Analyte Comments:

QC Batch: 348701

1c: CCV bias high; samples acceptable due to non-detect
- AOC 26-1 (Lab ID: 30300161001)
  - Cyanide, Reactive
- AOC 26-2 (Lab ID: 30300161002)
  - Cyanide, Reactive
- BLANK (Lab ID: 1695815)
  - Cyanide, Reactive
- DUP (Lab ID: 1695817)
  - Cyanide, Reactive
- LCS (Lab ID: 1695816)
  - Cyanide, Reactive

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Method: **SM 4500S2F-2011**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 02, 2019

General Information:
2 samples were analyzed for SM 4500S2F-2011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-1 **Lab ID: 30300161001** Collected: 06/17/19 13:30 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.018	0.011	1	06/18/19 19:03	06/21/19 22:53	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.018	0.016	1	06/18/19 19:03	06/21/19 22:53	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.018	0.016	1	06/18/19 19:03	06/21/19 22:53	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.018	0.013	1	06/18/19 19:03	06/21/19 22:53	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.018	0.010	1	06/18/19 19:03	06/21/19 22:53	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	0.018	0.0094	1	06/18/19 19:03	06/21/19 22:53	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.018	0.010	1	06/18/19 19:03	06/21/19 22:53	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	69	%.	34-114		1	06/18/19 19:03	06/21/19 22:53	877-09-8	
Decachlorobiphenyl (S)	92	%.	38-139		1	06/18/19 19:03	06/21/19 22:53	2051-24-3	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.51; Final pH: 5.34								
Arsenic	ND	mg/L	0.025	0.010	1	06/26/19 14:30	06/27/19 09:49	7440-38-2	
Barium	**0.72**	mg/L	0.050	0.0034	1	06/26/19 14:30	06/27/19 09:49	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	06/26/19 14:30	06/27/19 09:49	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	06/26/19 14:30	06/27/19 09:49	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	06/26/19 14:30	06/27/19 10:12	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	06/26/19 14:30	06/27/19 09:49	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	06/26/19 14:30	06/27/19 09:49	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.51; Final pH: 5.34								
Mercury	ND	ug/L	1.0	0.030	1	06/26/19 15:11	06/26/19 21:26	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	mg/kg	0.072	0.0065	10	06/19/19 19:27	06/20/19 18:26	83-32-9	R1
Acenaphthylene	**0.099**	mg/kg	0.072	0.0051	10	06/19/19 19:27	06/20/19 18:26	208-96-8	M6,R1
Anthracene	**0.24**	mg/kg	0.072	0.0065	10	06/19/19 19:27	06/20/19 18:26	120-12-7	M6,R1
Benzo(a)anthracene	**0.73**	mg/kg	0.072	0.0084	10	06/19/19 19:27	06/20/19 18:26	56-55-3	M6,R1
Benzo(a)pyrene	**0.78**	mg/kg	0.072	0.0045	10	06/19/19 19:27	06/20/19 18:26	50-32-8	M6,R1
Benzo(b)fluoranthene	**1.3**	mg/kg	0.072	0.0086	10	06/19/19 19:27	06/20/19 18:26	205-99-2	M6,R1
Benzo(g,h,i)perylene	**0.27**	mg/kg	0.072	0.011	10	06/19/19 19:27	06/20/19 18:26	191-24-2	M6,R1
Benzo(k)fluoranthene	**0.44**	mg/kg	0.072	0.012	10	06/19/19 19:27	06/20/19 18:26	207-08-9	M6,R1
Chrysene	**0.73**	mg/kg	0.072	0.0037	10	06/19/19 19:27	06/20/19 18:26	218-01-9	M6,R1
Dibenz(a,h)anthracene	**0.10**	mg/kg	0.072	0.016	10	06/19/19 19:27	06/20/19 18:26	53-70-3	M6,R1
Fluoranthene	**1.3**	mg/kg	0.072	0.0054	10	06/19/19 19:27	06/20/19 18:26	206-44-0	M6,R1
Fluorene	ND	mg/kg	0.072	0.0067	10	06/19/19 19:27	06/20/19 18:26	86-73-7	M6,R1
Indeno(1,2,3-cd)pyrene	**0.26**	mg/kg	0.072	0.014	10	06/19/19 19:27	06/20/19 18:26	193-39-5	M6,R1
Naphthalene	**0.10**	mg/kg	0.072	0.014	10	06/19/19 19:27	06/20/19 18:26	91-20-3	R1
Phenanthrene	**0.55**	mg/kg	0.072	0.0063	10	06/19/19 19:27	06/20/19 18:26	85-01-8	M6,R1
Pyrene	**1.2**	mg/kg	0.072	0.0081	10	06/19/19 19:27	06/20/19 18:26	129-00-0	M6,R1
Surrogates									
2-Fluorobiphenyl (S)	94	%.	43-97		10	06/19/19 19:27	06/20/19 18:26	321-60-8	
Terphenyl-d14 (S)	113	%.	56-106		10	06/19/19 19:27	06/20/19 18:26	1718-51-0	S4

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-1 **Lab ID: 30300161001** Collected: 06/17/19 13:30 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A								
	Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.51; Final pH: 5.34								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	06/26/19 11:45	07/01/19 17:25	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	06/26/19 11:45	07/01/19 17:25	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	06/26/19 11:45	07/01/19 17:25	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	06/26/19 11:45	07/01/19 17:25	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	06/26/19 11:45	07/01/19 17:25	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	06/26/19 11:45	07/01/19 17:25	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	06/26/19 11:45	07/01/19 17:25		
Nitrobenzene	ND	ug/L	100	42.6	1	06/26/19 11:45	07/01/19 17:25	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	06/26/19 11:45	07/01/19 17:25	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	06/26/19 11:45	07/01/19 17:25	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	06/26/19 11:45	07/01/19 17:25	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	06/26/19 11:45	07/01/19 17:25	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	87	%.	61-105		1	06/26/19 11:45	07/01/19 17:25	4165-60-0	
2-Fluorobiphenyl (S)	71	%.	56-90		1	06/26/19 11:45	07/01/19 17:25	321-60-8	
Terphenyl-d14 (S)	71	%.	32-90		1	06/26/19 11:45	07/01/19 17:25	1718-51-0	
Phenol-d6 (S)	90	%.	64-101		1	06/26/19 11:45	07/01/19 17:25	13127-88-3	
2-Fluorophenol (S)	88	%.	61-116		1	06/26/19 11:45	07/01/19 17:25	367-12-4	
2,4,6-Tribromophenol (S)	83	%.	55-108		1	06/26/19 11:45	07/01/19 17:25	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 06/27/19 13:36								
Benzene	ND	ug/L	50.0	8.7	10		07/01/19 17:20	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/01/19 17:20	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/01/19 17:20	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/01/19 17:20	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/01/19 17:20	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/01/19 17:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/01/19 17:20	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/01/19 17:20	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/01/19 17:20	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/01/19 17:20	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%.	70-130		10		07/01/19 17:20	17060-07-0	
Toluene-d8 (S)	100	%.	70-130		10		07/01/19 17:20	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130		10		07/01/19 17:20	460-00-4	
Dibromofluoromethane (S)	100	%.	70-130		10		07/01/19 17:20	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.8**	%	0.10	0.10	1		06/30/19 12:48		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		06/27/19 09:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-1 **Lab ID: 30300161001** Collected: 06/17/19 13:30 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.9**	Std. Units	2.0	2.0	1		06/18/19 21:11		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.43	1	06/24/19 17:44	06/25/19 19:13		1c
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.8	10.8	1	06/24/19 17:44	06/24/19 19:34		

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-2 **Lab ID: 30300161002** Collected: 06/17/19 13:40 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.18	0.11	10	06/18/19 19:03	07/01/19 17:11	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.18	0.16	10	06/18/19 19:03	07/01/19 17:11	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.18	0.16	10	06/18/19 19:03	07/01/19 17:11	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.18	0.13	10	06/18/19 19:03	07/01/19 17:11	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.18	0.10	10	06/18/19 19:03	07/01/19 17:11	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.50**	mg/kg	0.18	0.094	10	06/18/19 19:03	07/01/19 17:11	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.18	0.10	10	06/18/19 19:03	07/01/19 17:11	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	88	%.	34-114		10	06/18/19 19:03	07/01/19 17:11	877-09-8	
Decachlorobiphenyl (S)	109	%.	38-139		10	06/18/19 19:03	07/01/19 17:11	2051-24-3	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.4; Final pH: 6.39								
Arsenic	ND	mg/L	0.025	0.010	1	06/26/19 14:30	06/27/19 09:58	7440-38-2	
Barium	**1.3**	mg/L	0.050	0.0034	1	06/26/19 14:30	06/27/19 09:58	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	06/26/19 14:30	06/27/19 09:58	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	06/26/19 14:30	06/27/19 09:58	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	06/26/19 14:30	06/27/19 10:20	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	06/26/19 14:30	06/27/19 09:58	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	06/26/19 14:30	06/27/19 09:58	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.4; Final pH: 6.39								
Mercury	ND	ug/L	1.0	0.030	1	06/26/19 15:11	06/26/19 21:32	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.28**	mg/kg	0.0072	0.00065	1	06/19/19 19:27	06/20/19 19:55	83-32-9	
Acenaphthylene	**0.092**	mg/kg	0.0072	0.00051	1	06/19/19 19:27	06/20/19 19:55	208-96-8	
Anthracene	**0.77**	mg/kg	0.0072	0.00065	1	06/19/19 19:27	06/20/19 19:55	120-12-7	
Benzo(a)anthracene	**2.2**	mg/kg	0.072	0.0084	10	06/19/19 19:27	06/20/19 20:13	56-55-3	
Benzo(a)pyrene	**1.8**	mg/kg	0.072	0.0045	10	06/19/19 19:27	06/20/19 20:13	50-32-8	
Benzo(b)fluoranthene	**2.8**	mg/kg	0.072	0.0086	10	06/19/19 19:27	06/20/19 20:13	205-99-2	
Benzo(g,h,i)perylene	**0.51**	mg/kg	0.0072	0.0011	1	06/19/19 19:27	06/20/19 19:55	191-24-2	
Benzo(k)fluoranthene	**0.76**	mg/kg	0.0072	0.0012	1	06/19/19 19:27	06/20/19 19:55	207-08-9	
Chrysene	**1.4**	mg/kg	0.0072	0.00037	1	06/19/19 19:27	06/20/19 19:55	218-01-9	
Dibenz(a,h)anthracene	**0.24**	mg/kg	0.0072	0.0016	1	06/19/19 19:27	06/20/19 19:55	53-70-3	
Fluoranthene	**4.1**	mg/kg	0.072	0.0054	10	06/19/19 19:27	06/20/19 20:13	206-44-0	
Fluorene	**0.39**	mg/kg	0.0072	0.00066	1	06/19/19 19:27	06/20/19 19:55	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.48**	mg/kg	0.0072	0.0014	1	06/19/19 19:27	06/20/19 19:55	193-39-5	
Naphthalene	**0.20**	mg/kg	0.0072	0.0014	1	06/19/19 19:27	06/20/19 19:55	91-20-3	
Phenanthrene	**3.3**	mg/kg	0.072	0.0063	10	06/19/19 19:27	06/20/19 20:13	85-01-8	
Pyrene	**3.3**	mg/kg	0.072	0.0080	10	06/19/19 19:27	06/20/19 20:13	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%.	43-97		1	06/19/19 19:27	06/20/19 19:55	321-60-8	
Terphenyl-d14 (S)	64	%.	56-106		1	06/19/19 19:27	06/20/19 19:55	1718-51-0	

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-2 **Lab ID: 30300161002** Collected: 06/17/19 13:40 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A								
	Leachate Method/Date: EPA 1311; 06/25/19 12:17 Initial pH: 9.4; Final pH: 6.39								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	06/26/19 11:45	07/01/19 17:47	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	06/26/19 11:45	07/01/19 17:47	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	06/26/19 11:45	07/01/19 17:47	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	06/26/19 11:45	07/01/19 17:47	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	06/26/19 11:45	07/01/19 17:47	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	06/26/19 11:45	07/01/19 17:47	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	06/26/19 11:45	07/01/19 17:47		
Nitrobenzene	ND	ug/L	100	42.6	1	06/26/19 11:45	07/01/19 17:47	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	06/26/19 11:45	07/01/19 17:47	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	06/26/19 11:45	07/01/19 17:47	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	06/26/19 11:45	07/01/19 17:47	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	06/26/19 11:45	07/01/19 17:47	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	86	%.	61-105		1	06/26/19 11:45	07/01/19 17:47	4165-60-0	
2-Fluorobiphenyl (S)	80	%.	56-90		1	06/26/19 11:45	07/01/19 17:47	321-60-8	
Terphenyl-d14 (S)	74	%.	32-90		1	06/26/19 11:45	07/01/19 17:47	1718-51-0	
Phenol-d6 (S)	88	%.	64-101		1	06/26/19 11:45	07/01/19 17:47	13127-88-3	
2-Fluorophenol (S)	88	%.	61-116		1	06/26/19 11:45	07/01/19 17:47	367-12-4	
2,4,6-Tribromophenol (S)	80	%.	55-108		1	06/26/19 11:45	07/01/19 17:47	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 06/27/19 13:36								
Benzene	ND	ug/L	50.0	8.7	10		07/01/19 17:47	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/01/19 17:47	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/01/19 17:47	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/01/19 17:47	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/01/19 17:47	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/01/19 17:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/01/19 17:47	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/01/19 17:47	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/01/19 17:47	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/01/19 17:47	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	104	%.	70-130		10		07/01/19 17:47	17060-07-0	
Toluene-d8 (S)	101	%.	70-130		10		07/01/19 17:47	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	70-130		10		07/01/19 17:47	460-00-4	
Dibromofluoromethane (S)	98	%.	70-130		10		07/01/19 17:47	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.9**	%	0.10	0.10	1		06/30/19 12:48		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		06/27/19 10:22		

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Sample: AOC 26-2 **Lab ID: 30300161002** Collected: 06/17/19 13:40 Received: 06/18/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.5**	Std. Units	2.0	2.0	1		06/18/19 21:12		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.43	1	06/24/19 17:44	06/25/19 19:15		1c
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.7	10.7	1	06/24/19 17:44	06/24/19 19:34		

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349222 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1697782 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/26/19 21:11	

METHOD BLANK: 1696433 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/26/19 21:14	

METHOD BLANK: 1696434 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	06/26/19 21:16	

LABORATORY CONTROL SAMPLE: 1697783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	.98J	98	80-120	

MATRIX SPIKE SAMPLE: 1697785

Parameter	Units	30300200001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.5	99	75-125	

MATRIX SPIKE SAMPLE: 1697787

Parameter	Units	30300616001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	97	75-125	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

SAMPLE DUPLICATE: 1697784

Parameter	Units	30300200001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 1697786

Parameter	Units	30300616001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349202 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1697708 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	06/27/19 09:40	
Barium	mg/L	ND	0.050	0.0034	06/27/19 09:40	
Cadmium	mg/L	ND	0.015	0.0017	06/27/19 09:40	
Chromium	mg/L	ND	0.025	0.0017	06/27/19 09:40	
Lead	mg/L	ND	0.025	0.025	06/27/19 09:40	
Selenium	mg/L	ND	0.040	0.027	06/27/19 09:40	
Silver	mg/L	ND	0.030	0.0072	06/27/19 09:40	

METHOD BLANK: 1696433 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	06/27/19 09:44	
Barium	mg/L	ND	0.050	0.0034	06/27/19 09:44	
Cadmium	mg/L	ND	0.015	0.0017	06/27/19 09:44	
Chromium	mg/L	ND	0.025	0.0017	06/27/19 09:44	
Lead	mg/L	ND	0.12	0.12	06/27/19 10:07	
Selenium	mg/L	ND	0.040	0.027	06/27/19 09:44	
Silver	mg/L	ND	0.030	0.0072	06/27/19 09:44	

METHOD BLANK: 1696434 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	06/27/19 09:47	
Barium	mg/L	ND	0.050	0.0034	06/27/19 09:47	
Cadmium	mg/L	ND	0.015	0.0017	06/27/19 09:47	
Chromium	mg/L	ND	0.025	0.0017	06/27/19 09:47	
Lead	mg/L	ND	0.12	0.12	06/27/19 10:09	
Selenium	mg/L	ND	0.040	0.027	06/27/19 09:47	
Silver	mg/L	ND	0.030	0.0072	06/27/19 09:47	

LABORATORY CONTROL SAMPLE: 1697709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.50	100	80-120	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

LABORATORY CONTROL SAMPLE: 1697709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	0.5	0.55	110	80-120	
Cadmium	mg/L	0.5	0.53	105	80-120	
Chromium	mg/L	0.5	0.52	104	80-120	
Lead	mg/L	0.5	0.51	102	80-120	
Selenium	mg/L	0.5	0.49	98	80-120	
Silver	mg/L	0.25	0.26	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1697711 1697712

Parameter	Units	30300161001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.56	0.56	112	110	75-125	2	20	
Barium	mg/L	0.72	0.5	0.5	1.3	1.2	108	100	75-125	3	20	
Cadmium	mg/L	ND	0.5	0.5	0.56	0.55	112	110	75-125	2	20	
Chromium	mg/L	ND	0.5	0.5	0.49	0.48	98	96	75-125	2	20	
Lead	mg/L	ND	0.5	0.5	0.51	0.50	102	100	75-125	2	20	
Selenium	mg/L	ND	0.5	0.5	0.55	0.54	110	108	75-125	2	20	
Silver	mg/L	ND	0.25	0.25	0.29	0.29	118	115	75-125	2	20	

SAMPLE DUPLICATE: 1697710

Parameter	Units	30300161001 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	0.72	0.71	1	20	
Cadmium	mg/L	ND	ND		20	
Chromium	mg/L	ND	ND		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349635 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1698540 Matrix: Solid
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	07/01/19 11:35	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	07/01/19 11:35	
2-Butanone (MEK)	ug/L	ND	100	9.1	07/01/19 11:35	
Benzene	ug/L	ND	50.0	8.7	07/01/19 11:35	
Carbon tetrachloride	ug/L	ND	50.0	17.2	07/01/19 11:35	
Chlorobenzene	ug/L	57.4	50.0	7.8	07/01/19 11:35	
Chloroform	ug/L	ND	50.0	15.0	07/01/19 11:35	
Tetrachloroethene	ug/L	ND	50.0	17.3	07/01/19 11:35	
Trichloroethene	ug/L	ND	50.0	14.7	07/01/19 11:35	
Vinyl chloride	ug/L	ND	50.0	21.5	07/01/19 11:35	
1,2-Dichloroethane-d4 (S)	%.	96	70-130		07/01/19 11:35	
4-Bromofluorobenzene (S)	%.	101	70-130		07/01/19 11:35	
Dibromofluoromethane (S)	%.	104	70-130		07/01/19 11:35	
Toluene-d8 (S)	%.	99	70-130		07/01/19 11:35	

LABORATORY CONTROL SAMPLE: 1699734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	19.5	98	45-124	
1,2-Dichloroethane	ug/L	20	17.8	89	57-110	
2-Butanone (MEK)	ug/L	20	15.0	75	46-117	
Benzene	ug/L	20	19.5	97	63-110	
Carbon tetrachloride	ug/L	20	19.0	95	59-114	
Chlorobenzene	ug/L	20	19.4	97	70-130	
Chloroform	ug/L	20	18.4	92	65-108	
Tetrachloroethene	ug/L	20	19.6	98	64-114	
Trichloroethene	ug/L	20	19.0	95	61-112	
Vinyl chloride	ug/L	20	16.4	82	54-142	
1,2-Dichloroethane-d4 (S)	%.			91	70-130	
4-Bromofluorobenzene (S)	%.			95	70-130	
Dibromofluoromethane (S)	%.			102	70-130	
Toluene-d8 (S)	%.			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1699732 1699733

Parameter	Units	30300161002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	155	136	78	68	10-133	13	30	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1699732 1699733

Parameter	Units	30300161002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	163	147	82	74	24-111	10	30	
2-Butanone (MEK)	ug/L	ND	200	200	116	121	58	60	10-175	4	30	
Benzene	ug/L	ND	200	200	171	152	86	76	15-121	12	30	
Carbon tetrachloride	ug/L	ND	200	200	160	136	80	68	20-125	16	30	
Chlorobenzene	ug/L	ND	200	200	199	181	91	83	10-122	9	30	
Chloroform	ug/L	ND	200	200	167	143	84	72	27-117	16	30	
Tetrachloroethene	ug/L	ND	200	200	172	150	86	75	13-125	14	30	
Trichloroethene	ug/L	ND	200	200	187	160	87	73	10-133	16	30	
Vinyl chloride	ug/L	ND	200	200	112	100	56	50	10-133	11	30	
1,2-Dichloroethane-d4 (S)	%.						100	92	70-130			
4-Bromofluorobenzene (S)	%.						96	96	70-130			
Dibromofluoromethane (S)	%.						98	101	70-130			
Toluene-d8 (S)	%.						98	96	70-130			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 347878 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1691736 Matrix: Solid
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.017	0.010	06/21/19 19:54	
PCB-1221 (Aroclor 1221)	mg/kg	ND	0.017	0.015	06/21/19 19:54	
PCB-1232 (Aroclor 1232)	mg/kg	ND	0.017	0.015	06/21/19 19:54	
PCB-1242 (Aroclor 1242)	mg/kg	ND	0.017	0.012	06/21/19 19:54	
PCB-1248 (Aroclor 1248)	mg/kg	ND	0.017	0.0096	06/21/19 19:54	
PCB-1254 (Aroclor 1254)	mg/kg	ND	0.017	0.0089	06/21/19 19:54	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.017	0.0095	06/21/19 19:54	
Decachlorobiphenyl (S)	%.	83	38-139		06/21/19 19:54	
Tetrachloro-m-xylene (S)	%.	71	34-114		06/21/19 19:54	

LABORATORY CONTROL SAMPLE: 1691737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	0.17	0.13	78	61-105	
PCB-1260 (Aroclor 1260)	mg/kg	0.17	0.14	82	70-100	
Decachlorobiphenyl (S)	%.			88	38-139	
Tetrachloro-m-xylene (S)	%.			75	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1691738 1691739

Parameter	Units	30300125001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	mg/kg	0.52 U	0.52	0.52	9.0	8.2	1750	1590	24-137	9	25	M6
PCB-1260 (Aroclor 1260)	mg/kg	0.52 U	0.52	0.52	5.2	4.2	997	804	19-156	21	25	M6
Decachlorobiphenyl (S)	%.						237	200	38-139			S4
Tetrachloro-m-xylene (S)	%.						52	58	34-114			

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(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 348126 — Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 — Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1692792 — Matrix: Solid
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0067	0.00060	06/20/19 11:15	
Acenaphthylene	mg/kg	ND	0.0067	0.00048	06/20/19 11:15	
Anthracene	mg/kg	ND	0.0067	0.00061	06/20/19 11:15	
Benzo(a)anthracene	mg/kg	ND	0.0067	0.00078	06/20/19 11:15	
Benzo(a)pyrene	mg/kg	ND	0.0067	0.00042	06/20/19 11:15	
Benzo(b)fluoranthene	mg/kg	ND	0.0067	0.00080	06/20/19 11:15	
Benzo(g,h,i)perylene	mg/kg	ND	0.0067	0.0010	06/20/19 11:15	
Benzo(k)fluoranthene	mg/kg	ND	0.0067	0.0011	06/20/19 11:15	
Chrysene	mg/kg	ND	0.0067	0.00035	06/20/19 11:15	
Dibenz(a,h)anthracene	mg/kg	ND	0.0067	0.0015	06/20/19 11:15	
Fluoranthene	mg/kg	ND	0.0067	0.00051	06/20/19 11:15	
Fluorene	mg/kg	ND	0.0067	0.00062	06/20/19 11:15	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0067	0.0013	06/20/19 11:15	
Naphthalene	mg/kg	ND	0.0067	0.0013	06/20/19 11:15	
Phenanthrene	mg/kg	ND	0.0067	0.00059	06/20/19 11:15	
Pyrene	mg/kg	ND	0.0067	0.00075	06/20/19 11:15	
2-Fluorobiphenyl (S)	%.	68	43-97		06/20/19 11:15	
Terphenyl-d14 (S)	%.	77	56-106		06/20/19 11:15	

LABORATORY CONTROL SAMPLE: 1692793

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.13	0.10	77	48-101	
Acenaphthylene	mg/kg	0.13	0.11	81	42-109	
Anthracene	mg/kg	0.13	0.11	82	54-110	
Benzo(a)anthracene	mg/kg	0.13	0.13	100	59-119	
Benzo(a)pyrene	mg/kg	0.13	0.13	97	55-125	
Benzo(b)fluoranthene	mg/kg	0.13	0.14	104	54-131	
Benzo(g,h,i)perylene	mg/kg	0.13	0.13	99	54-122	
Benzo(k)fluoranthene	mg/kg	0.13	0.12	90	57-123	
Chrysene	mg/kg	0.13	0.12	94	62-111	
Dibenz(a,h)anthracene	mg/kg	0.13	0.13	98	60-124	
Fluoranthene	mg/kg	0.13	0.12	91	60-116	
Fluorene	mg/kg	0.13	0.11	80	49-110	
Indeno(1,2,3-cd)pyrene	mg/kg	0.13	0.13	97	59-122	
Naphthalene	mg/kg	0.13	0.10	76	42-97	
Phenanthrene	mg/kg	0.13	0.11	81	52-107	
Pyrene	mg/kg	0.13	0.12	91	60-117	
2-Fluorobiphenyl (S)	%.			75	43-97	
Terphenyl-d14 (S)	%.			83	56-106	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1692794 1692795

Parameter	Units	30300161001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	mg/kg	ND	0.14	0.14	0.15	0.085	77	33	23-129	55	20	R1
Acenaphthylene	mg/kg	0.099	0.14	0.14	0.21	0.13	76	23	26-144	45	20	M6,R1
Anthracene	mg/kg	0.24	0.14	0.14	0.30	0.18	43	-46	10-166	53	20	M6,R1
Benzo(a)anthracene	mg/kg	0.73	0.14	0.14	0.64	0.40	-63	-230	10-175	46	20	M6,R1
Benzo(a)pyrene	mg/kg	0.78	0.14	0.14	0.67	0.38	-73	-278	10-175	56	20	M6,R1
Benzo(b)fluoranthene	mg/kg	1.3	0.14	0.14	1.1	0.67	-137	-463	10-175	52	20	M6,R1
Benzo(g,h,i)perylene	mg/kg	0.27	0.14	0.14	0.26	0.13	-5	-97	10-171	67	20	M6,R1
Benzo(k)fluoranthene	mg/kg	0.44	0.14	0.14	0.46	0.32	17	-85	10-160	38	20	M6,R1
Chrysene	mg/kg	0.73	0.14	0.14	0.61	0.39	-82	-234	10-175	44	20	M6,R1
Dibenz(a,h)anthracene	mg/kg	0.10	0.14	0.14	0.15	0.074	32	-21	10-149	68	20	M6,R1
Fluoranthene	mg/kg	1.3	0.14	0.14	1.0	0.65	-213	-470	10-175	45	20	M6,R1
Fluorene	mg/kg	ND	0.14	0.14	0.17	0.10	73	25	31-136	50	20	M6,R1
Indeno(1,2,3-cd)pyrene	mg/kg	0.26	0.14	0.14	0.27	0.14	6	-86	10-151	65	20	M6,R1
Naphthalene	mg/kg	0.10	0.14	0.14	0.19	0.12	58	13	10-149	41	20	R1
Phenanthrene	mg/kg	0.55	0.14	0.14	0.47	0.30	-55	-171	10-175	44	20	M6,R1
Pyrene	mg/kg	1.2	0.14	0.14	0.93	0.56	-155	-412	10-175	50	20	M6,R1
2-Fluorobiphenyl (S)	%.						78	48	43-97			
Terphenyl-d14 (S)	%.						89	46	56-106			S4

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349113 Analysis Method: EPA 8270D
QC Batch Method: EPA 3535A Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1696432 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	06/26/19 21:34	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	06/26/19 21:34	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	06/26/19 21:34	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	06/26/19 21:34	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	06/26/19 21:34	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	06/26/19 21:34	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	06/26/19 21:34	
Hexachlorobenzene	ug/L	ND	100	22.8	06/26/19 21:34	
Hexachloroethane	ug/L	ND	200	55.5	06/26/19 21:34	
Nitrobenzene	ug/L	ND	100	42.6	06/26/19 21:34	
Pentachlorophenol	ug/L	ND	5000	25.6	06/26/19 21:34	2c
Pyridine	ug/L	ND	250	19.3	06/26/19 21:34	
2,4,6-Tribromophenol (S)	%.	83	55-108		06/26/19 21:34	
2-Fluorobiphenyl (S)	%.	65	56-90		06/26/19 21:34	
2-Fluorophenol (S)	%.	89	61-116		06/26/19 21:34	
Nitrobenzene-d5 (S)	%.	84	61-105		06/26/19 21:34	
Phenol-d6 (S)	%.	86	64-101		06/26/19 21:34	
Terphenyl-d14 (S)	%.	62	32-90		06/26/19 21:34	

LABORATORY CONTROL SAMPLE: 1697478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	235J	47	38-85	
2,4,5-Trichlorophenol	ug/L	500	388J	78	60-110	
2,4,6-Trichlorophenol	ug/L	500	420	84	62-110	
2,4-Dinitrotoluene	ug/L	500	338	68	51-102	
2-Methylphenol(o-Cresol)	ug/L	500	426J	85	60-106	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	889J	89	64-106	
Hexachloro-1,3-butadiene	ug/L	500	221	44	27-97	
Hexachlorobenzene	ug/L	500	257	51	36-66	
Hexachloroethane	ug/L	500	229	46	37-89	
Nitrobenzene	ug/L	500	438	88	64-108	
Pentachlorophenol	ug/L	500	368J	74	47-107	2c
Pyridine	ug/L	500	202J	40	20-54	
2,4,6-Tribromophenol (S)	%.			78	55-108	
2-Fluorobiphenyl (S)	%.			56	56-90	
2-Fluorophenol (S)	%.			88	61-116	
Nitrobenzene-d5 (S)	%.			84	61-105	
Phenol-d6 (S)	%.			86	64-101	
Terphenyl-d14 (S)	%.			71	32-90	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1697479 1697480

Parameter	Units	30310254001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	ND	500	500	300J	302J	60	60	51-85		20	
2,4,5-Trichlorophenol	ug/L	ND	500	500	410J	401J	74	73	65-108		20	
2,4,6-Trichlorophenol	ug/L	ND	500	500	392	433	78	86	61-110	10	20	
2,4-Dinitrotoluene	ug/L	ND	500	500	358	376	72	75	52-106	5	20	
2-Methylphenol(o-Cresol)	ug/L	ND	500	500	430J	433J	85	86	65-105		20	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	1000	1000	892J	896J	89	89	69-106		20	
Hexachloro-1,3-butadiene	ug/L	ND	500	500	294	294	58	59	44-90	0	20	
Hexachlorobenzene	ug/L	ND	500	500	283	265	56	53	36-68	7	20	
Hexachloroethane	ug/L	ND	500	500	315	321	63	64	48-94	2	20	
Nitrobenzene	ug/L	ND	500	500	435	434	86	86	66-106	0	20	
Pentachlorophenol	ug/L	ND	500	500	344J	387J	69	77	49-120		20	2c
Pyridine	ug/L	ND	500	500	140J	139J	28	28	10-72		20	
2,4,6-Tribromophenol (S)	%.						88	84	55-108			
2-Fluorobiphenyl (S)	%.						69	67	56-90			
2-Fluorophenol (S)	%.						90	90	61-116			
Nitrobenzene-d5 (S)	%.						88	85	61-105			
Phenol-d6 (S)	%.						88	87	64-101			
Terphenyl-d14 (S)	%.						75	69	32-90			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349738 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30300161001, 30300161002

SAMPLE DUPLICATE: 1700599

Parameter	Units	30300161001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.8	9.1	15	20	

SAMPLE DUPLICATE: 1700600

Parameter	Units	30300161002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.9	6.5	6	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 349319 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1698459 Matrix: Water
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		06/27/19 09:15	

SAMPLE DUPLICATE: 1698460

Parameter	Units	30310523001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 347935 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30300161001, 30300161002

SAMPLE DUPLICATE: 1692190

Parameter	Units	30300168001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	6.4	6.3	1	10	H3

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 348701 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1695815 Matrix: Solid
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	1.0	0.40	06/25/19 18:55	1c

LABORATORY CONTROL SAMPLE: 1695816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.3	.7J	1	0-8	1c

SAMPLE DUPLICATE: 1695817

Parameter	Units	30299826001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	1c,H1

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

QC Batch: 348697 Analysis Method: SM 4500S2F-2011
QC Batch Method: SW-846 7.3.4.2 Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30300161001, 30300161002

METHOD BLANK: 1695808 Matrix: Solid
Associated Lab Samples: 30300161001, 30300161002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	10	10	06/24/19 19:34	

LABORATORY CONTROL SAMPLE: 1695809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	199	39.9	20	0-52	

SAMPLE DUPLICATE: 1695810

Parameter	Units	30299826001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	H1

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QUALIFIERS

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: 348802

[1]	CCV bias high; samples acceptable due to non-detect

ANALYTE QUALIFIERS

1c	CCV bias high; samples acceptable due to non-detect
2c	The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased low and should be considered estimated.
H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT Site-Soil IRM
Pace Project No.: 30300161

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30300161001	**AOC 26-1**	EPA 3546	347878	EPA 8082A	347946
30300161002	**AOC 26-2**	EPA 3546	347878	EPA 8082A	347946
30300161001	**AOC 26-1**	EPA 3005A	349202	EPA 6010C	349281
30300161002	**AOC 26-2**	EPA 3005A	349202	EPA 6010C	349281
30300161001	**AOC 26-1**	EPA 7470A	349222	EPA 7470A	349272
30300161002	**AOC 26-2**	EPA 7470A	349222	EPA 7470A	349272
30300161001	**AOC 26-1**	EPA 3546	348126	EPA 8270D by SIM	348189
30300161002	**AOC 26-2**	EPA 3546	348126	EPA 8270D by SIM	348189
30300161001	**AOC 26-1**	EPA 3535A	349113	EPA 8270D	349196
30300161002	**AOC 26-2**	EPA 3535A	349113	EPA 8270D	349196
30300161001	**AOC 26-1**	EPA 8260C	349635		
30300161002	**AOC 26-2**	EPA 8260C	349635		
30300161001	**AOC 26-1**	ASTM D2974-87	349738		
30300161002	**AOC 26-2**	ASTM D2974-87	349738		
30300161001	**AOC 26-1**	EPA 1010	349319		
30300161002	**AOC 26-2**	EPA 1010	349319		
30300161001	**AOC 26-1**	EPA 9045D	347935		
30300161002	**AOC 26-2**	EPA 9045D	347935		
30300161001	**AOC 26-1**	SW-846 7.3.3.2	348701	EPA 9014	348802
30300161002	**AOC 26-2**	SW-846 7.3.3.2	348701	EPA 9014	348802
30300161001	**AOC 26-1**	SW-846 7.3.4.2	348697	SM 4500S2F-2011	348801
30300161002	**AOC 26-2**	SW-846 7.3.4.2	348697	SM 4500S2F-2011	348801

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CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 11 Stanwix Street, Suite 950, Pittsburgh, PA 15222

No. 008839 WSP

Project Name: Former EPT - Soil IRM	WSP USA Contact Name: Dave Rykaczewski
Project Location: Former EPT - Ithaca, NY	WSP USA Contact E-mail: Dave.Rykaczewski@wsp.com
Project Number & Task: 31401545.001	WSP USA Contact Phone: 412-375-6282
Sampler(s) Name(s): Dan Cummings	Sampler(s) Signature(s):

Laboratory Name & Location: Pace Analytical, 1638 Roseytown Rd, Suite 2,3 & 4, Greensburg, PA 15601

Laboratory Project Manager: Rachel Christner

Requested Turn-Around-Time: [x] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs	TCLP SVOCs	Reactive Sulfide	Reactive Cyanide	Total PCBs	% Solids (Moisture Content)	Corrosivity by pH	Ignitability/Flashpoint	Total PAHs	Sample Comments
AOC26-1	SL			6/17/19	1330	4	X	X	X	X	X	X	X	X	X	X	NYASP Category B data deliverable 001
AOC26-2	SL			6/17/19	1340	4	X	X	X	X	X	X	X	X	X	X	002
~~AOC26-3~~	~~SL~~			6/17/19		~~4~~	X	X	X	X	X	X	X	X	X	X	Removed from shipment

WO#: 30300161

30300161

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
WSP	7/16/19	1630	FedEx	7/16/19	1630	FedEx	
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			Emily	6-18-19	0930	1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, SL = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

SL

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP

Project # 30300161

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Label ET

Tracking #: 7738 9211 0522

LIMS Login ET

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Thermometer Used 11 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 4.6 °C Correction Factor: 0.0 °C Final Temp: 4.6 °C

Temp should be above freezing to 6°C

pH paper Lot# N/A

Date and initials of person examining contents: ET 6-18-19

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓	✓		10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed ET / Date/time of preservation / Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: / Date:

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

AOC 26-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	06/27/2019 09:49
7440-39-3	Barium	0.72		mg/L	1	06/27/2019 09:49
7440-43-9	Cadmium	ND	U	mg/L	1	06/27/2019 09:49
7440-47-3	Chromium	ND	U	mg/L	1	06/27/2019 09:49
7439-92-1	Lead	ND	U	mg/L	5	06/27/2019 10:12
7782-49-2	Selenium	ND	U	mg/L	1	06/27/2019 09:49
7440-22-4	Silver	ND	U	mg/L	1	06/27/2019 09:49

SAMPLE NO.

AOC 26-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	06/27/2019 09:58
7440-39-3	Barium	1.3		mg/L	1	06/27/2019 09:58
7440-43-9	Cadmium	ND	U	mg/L	1	06/27/2019 09:58
7440-47-3	Chromium	ND	U	mg/L	1	06/27/2019 09:58
7439-92-1	Lead	ND	U	mg/L	5	06/27/2019 10:20
7782-49-2	Selenium	ND	U	mg/L	1	06/27/2019 09:58
7440-22-4	Silver	ND	U	mg/L	1	06/27/2019 09:58

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 90507

Continuing Calibration Verification Source: 91855

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	06/27/2019 09:00				06/27/2019 09:05			06/27/2019 09:35			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	2000	1930	96.7	90-110	1000	949	94.9	1000	1020	102.2	90-110
Barium	2000	2030	101.6	90-110	1000	931	93.1	1000	1040	103.8	90-110
Cadmium	2000	1990	99.6	90-110	1000	954	95.4	1000	1010	101.4	90-110
Chromium	2000	2030	101.7	90-110	1000	925	92.5	1000	985	98.5	90-110
Lead	2000	2070	103.6	90-110	1000	944	94.4	1000	965	96.5	90-110
Selenium	2000	1980	99.2	90-110	1000	958	95.8	1000	970	97.0	90-110
Silver	1000	1020	102.0	90-110	500	465	92.9	500	496	99.1	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 91855

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification									
	06/27/2019 10:00			06/27/2019 10:23			06/27/2019 11:15			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Arsenic	1000	997	99.7	1000	982	98.2	1000	962	96.2	90-110
Barium	1000	1010	100.6	1000	996	99.6	1000	963	96.3	90-110
Cadmium	1000	999	99.9	1000	992	99.2	1000	982	98.2	90-110
Chromium	1000	982	98.2	1000	984	98.4	1000	978	97.8	90-110
Lead	1000	974	97.4	1000	978	97.8	1000	991	99.1	90-110
Selenium	1000	966	96.6	1000	990	99.0	1000	998	99.8	90-110
Silver	500	490	97.9	500	490	98.1	500	488	97.5	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 90298 Analysis Date/Time: 06/27/2019 09:11

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.1	81.5	70-130
Barium	10.0	9.5	94.6	70-130
Cadmium	3.0	2.9	97.9	70-130
Chromium	5.0	4.7	93.7	70-130
Lead	5.0	3.8	76.4	70-130
Selenium	8.0	6.1	75.8	70-130
Silver	6.0	5.8	97.4	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 90298 Analysis Date/Time: 06/27/2019 10:37

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.1	82.8	70-130
Barium	10.0	10.3	103.4	70-130
Cadmium	3.0	3.1	104.8	70-130
Chromium	5.0	4.9	98.0	70-130
Lead	5.0	5.1	102.8	70-130
Selenium	8.0	8.4	104.5	70-130
Silver	6.0	6.4	107.2	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	06/27/2019 09:02	C	06/27/2019 09:37	C	06/27/2019 10:02	C	06/27/2019 10:25	C	1697708	C
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	ND	U
Barium	0.68	U	0.68	U	0.68	U	0.68	U	ND	U
Cadmium	0.34	U	0.34	U	0.34	U	0.34	U	ND	U
Chromium	0.35	U	0.35	U	0.35	U	0.35	U	ND	U
Lead	4.9	U	4.9	U	4.9	U	4.9	U	ND	U
Selenium	5.5	U	5.5	U	5.5	U	5.5	U	ND	U
Silver	1.4	U	1.4	U	1.4	U	1.4	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)						Leachate Blank	
		C	06/27/2019 11:17	C		C		C	1696433	C
Arsenic			2.0	U					ND	U
Barium			0.68	U					ND	U
Cadmium			0.34	U					ND	U
Chromium			0.35	U					ND	U
Lead			4.9	U						
Selenium			5.5	U					ND	U
Silver			1.4	U					ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1696434	C
Arsenic									ND	U
Barium									ND	U
Cadmium									ND	U
Chromium									ND	U
Lead										
Selenium									ND	U
Silver									ND	U

FORM III INORGANIC-4

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1696433	C
Arsenic										
Barium										
Cadmium										
Chromium										
Lead									ND	U
Selenium										
Silver										

FORM III INORGANIC-5

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1696434	C
Arsenic										
Barium										
Cadmium										
Chromium										
Lead									ND	U
Selenium										
Silver										

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 06/27/2019 09:07

ICS Source: 89695,89696 Solution AB Run Date: 06/27/2019 09:09

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	49850	99.7	48690	97.4	80-120
Arsenic			-0.1793		0.9713		
Barium		500	0.2268		473.9	94.8	80-120
Cadmium		1000	0.543		929.2	92.9	80-120
Calcium	50000	50000	48920	97.8	47600	95.2	80-120
Chromium		500	0.0541		458.1	91.6	80-120
Iron	20000	20000	19340	96.7	18860	94.3	80-120
Lead		1000	-3.311		911.2	91.1	80-120
Magnesium	50000	50000	49260	98.5	47570	95.1	80-120
Selenium			1.247		-0.2506		
Silver		1000	-0.3417		935.6	93.6	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 06/27/2019 10:31

ICS Source: 89695,89696 Solution AB Run Date: 06/27/2019 10:34

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	51610	103.2	51010	102	80-120
Arsenic			-0.2114		2.575		
Barium		500	0.0504		496.8	99.4	80-120
Cadmium		1000	0.4804		981.8	98.2	80-120
Calcium	50000	50000	50970	101.9	50160	100.3	80-120
Chromium		500	-0.0151		494.6	98.9	80-120
Iron	20000	20000	19990	100	19760	98.8	80-120
Lead		1000	-0.7315		974.3	97.4	80-120
Magnesium	50000	50000	51120	102.2	50380	100.8	80-120
Selenium			-0.3585		0.6889		
Silver		1000	-0.4647		1009	100.9	80-120

SAMPLE NO.

1697711MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC 26-1

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.56	ND	0.50	112
Barium	mg/L	75-125	1.3	0.72	0.50	108
Cadmium	mg/L	75-125	0.56	ND	0.50	112
Chromium	mg/L	75-125	0.49	ND	0.50	98
Lead	mg/L	75-125	0.51	ND	0.50	102
Selenium	mg/L	75-125	0.55	ND	0.50	110
Silver	mg/L	75-125	0.29	ND	0.25	118

SAMPLE NO.

1697712MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC 26-1

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.56	ND	0.50	110
Barium	mg/L	75-125	1.2	0.72	0.50	100
Cadmium	mg/L	75-125	0.55	ND	0.50	110
Chromium	mg/L	75-125	0.48	ND	0.50	96
Lead	mg/L	75-125	0.50	ND	0.50	100
Selenium	mg/L	75-125	0.54	ND	0.50	108
Silver	mg/L	75-125	0.29	ND	0.25	115

SAMPLE NO.

1697710DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	ND	
Barium	20	0.72	0.71	1
Cadmium	20	ND	ND	
Chromium	20	ND	ND	
Lead	20	ND	ND	
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1697712MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	0.56	0.56	2
Barium	20	1.3	1.2	3
Cadmium	20	0.56	0.55	2
Chromium	20	0.49	0.48	2
Lead	20	0.51	0.50	2
Selenium	20	0.55	0.54	2
Silver	20	0.29	0.29	2

SAMPLE NO.

1697709LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	mg/L	0.50	0.50	100	80	120
Barium	mg/L	0.50	0.55	110	80	120
Cadmium	mg/L	0.50	0.53	105	80	120
Chromium	mg/L	0.50	0.52	104	80	120
Lead	mg/L	0.50	0.51	102	80	120
Selenium	mg/L	0.50	0.49	98	80	120
Silver	mg/L	0.25	0.26	102	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Lead	5.0	4.9	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Instrument ID: 30ICP2

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Arsenic	0.025	0.010	11/14/2018
Barium	0.050	0.0034	11/14/2018
Cadmium	0.015	0.0017	11/14/2018
Chromium	0.025	0.0017	11/14/2018
Lead	0.025	0.025	11/14/2018
Selenium	0.040	0.027	11/14/2018
Silver	0.030	0.0072	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	7	V	-0.000010	0.000000	No
			Mn	0.000224	0.000000	No
			Cu	-0.000017	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.001213	0.000000	No
			Zr	0.006142	0.000000	No
			Fe	0.000009	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.335136	0.000000	No
			Zr	0.011123	0.000000	No
			Ca	0.000126	0.000000	No
			V	0.000716	0.000000	No
			Fe	-0.000080	0.000000	No
As 189.042 {478}	☒	8	Be	0.000082	0.000000	No
			Al	-0.000010	0.000000	No
			V	0.000009	0.000000	No
			Cr	-0.005878	0.000000	No
			Fe	-0.000008	0.000000	No
			Co	0.000030	0.000000	No
			Mo	0.000055	0.000000	No
			Tl	0.000011	0.000000	No
B 208.959 {461}	☒	4	Ti	0.000132	0.000000	No
			Mo	0.023149	0.000000	No
			Si	0.000180	0.000000	No
			V	0.002695	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	0.000136	0.000000	No
			Mo	-0.000019	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.006748	0.000000	No
Cd 228.802 {447}	☒	4	V	0.000070	0.000000	No
			Fe	0.000000	0.000000	No
			Ni	-0.000009	0.000000	No
			As	0.010303	0.000000	No
Co 228.616 {447}	☒	4	Ti	0.002208	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.004109	0.000000	No
			Ni	0.000111	0.000000	No
Cr 267.716 {126}	☒	2	Al	0.000006	0.000000	No
			Mn	0.000260	0.000000	No
Cu 324.754 {104}	☒	5	K	0.000004	0.000000	No
			V	-0.000071	0.000000	No
			Fe	-0.000155	0.000000	No
			Co	-0.000531	0.000000	No
			Mo	0.000478	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.002210	0.000000	No
			Mo	-0.000957	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000004	0.000000	No
Mo 202.030 {467}	☒	1	V	0.000400	0.000000	No
Na 818.326 { 41}	☒	1	Fe	0.001190	0.000000	No
Ni 231.604 {446}	☒	None				
P 177.495 {490}	☒	2	Ni	0.001261	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.003153	0.000000	No
Pb 220.353 {453}	☒	6	Al	0.000276	0.000000	No
			Si	0.000044	0.000000	No
			Mn	0.000090	0.000000	No
			Fe	0.000021	0.000000	No
			Cu	0.000517	0.000000	No
			Mo	-0.001816	0.000000	No
S 182.034 {485}	☒	8	Al	-0.000089	0.000000	No
			Mn	0.004470	0.000000	No
			Ti	-0.000441	0.000000	No
			V	-0.000354	0.000000	No
			Ni	-0.000410	0.000000	No
			Ca	0.000007	0.000000	No
			Fe	-0.000155	0.000000	No
			Mo	-0.007427	0.000000	No
Sb 206.833 {463}	☒	6	Al	-0.000007	0.000000	No
			Cr	0.024085	0.000000	No
			Fe	0.000007	0.000000	No
			Mo	-0.004113	0.000000	No
			Zr	-0.000778	0.000000	No
			Ti	0.001270	0.000000	No
Se 196.090 {472}	☒	3	Al	-0.000003	0.000000	No
			Mn	0.000486	0.000000	No
			Mo	0.000145	0.000000	No
Si 251.611 {134}	☒	2	V	0.052413	0.000000	No
			Mo	0.010972	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000015	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000218	0.000000	No
			Mo	0.000136	0.000000	No
			Ca	0.000007	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.001394	0.000000	No
			V	-0.012857	0.000000	No
			Cr	0.000322	0.000000	No
			Mn	0.001221	0.000000	No
			Fe	0.000008	0.000000	No
			Co	0.000561	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000258	0.000000	No
			Cr	-0.004547	0.000000	No
			Mn	-0.001050	0.000000	No
			Fe	-0.000004	0.000000	No
			Mo	-0.000036	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000244	0.000000	No
			Mn	0.000036	0.000000	No
			Fe	-0.000003	0.000000	No
			Co	0.000004	0.000000	No
			Ni	-0.000002	0.000000	No
			Mo	0.000153	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Effective Date:11/21/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	50000
Lead	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Batch: MPRP 26082

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1696433	1696433LB	06/26/2019	50	50
1696434	1696434LB	06/26/2019	50	50
1697708	1697708BLANK	06/26/2019	50	50
1697709	1697709LCS	06/26/2019	50	50
1697710	1697710DUP	06/26/2019	50	50
1697711	1697711MS	06/26/2019	50	50
1697712	1697712MSD	06/26/2019	50	50
30300161001	AOC 26-1	06/26/2019	50	50
30300161002	AOC 26-2	06/26/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 06/27/2019 08:56 End Date: 06/27/2019 11:17

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Pb	Se
11153529CAL0	11153529CAL0	1	06/27/2019	08:56	X	X	X	X	X	X	X
11153530CAL1	11153530CAL1	1	06/27/2019	08:58	X	X	X	X	X	X	X
11153531ICV	11153531ICV	1	06/27/2019	09:00	X	X	X	X	X	X	X
11153532ICB	11153532ICB	1	06/27/2019	09:02	X	X	X	X	X	X	X
11153533CCV	11153533CCV	1	06/27/2019	09:05	X	X	X	X	X	X	X
11153534ICSA	11153534ICSA	1	06/27/2019	09:07	X	X	X	X	X	X	X
11153535ICSAB	11153535ICSAB	1	06/27/2019	09:09	X	X	X	X	X	X	X
11153536CRDL	11153536CRDL	1	06/27/2019	09:11	X	X	X	X	X	X	X
11153537CCV	11153537CCV	1	06/27/2019	09:35	X	X	X	X	X	X	X
11153538CCB	11153538CCB	1	06/27/2019	09:37	X	X	X	X	X	X	X
1697708BLANK	1697708	1	06/27/2019	09:40	X	X	X	X	X	X	X
1697709LCS	1697709	1	06/27/2019	09:42	X	X	X	X	X	X	X
1696433LB	1696433	1	06/27/2019	09:44	X	X	X	X	X		X
1696434LB	1696434	1	06/27/2019	09:47	X	X	X	X	X		X
AOC 26-1	30300161001	1	06/27/2019	09:49	X	X	X	X	X		X
1697710DUP	1697710	1	06/27/2019	09:51	X	X	X	X	X		X
1697711MS	1697711	1	06/27/2019	09:53	X	X	X	X	X		X
1697712MSD	1697712	1	06/27/2019	09:55	X	X	X	X	X		X
AOC 26-2	30300161002	1	06/27/2019	09:58	X	X	X	X	X		X
11153539CCV	11153539CCV	1	06/27/2019	10:00	X	X	X	X	X	X	X
11153540CCB	11153540CCB	1	06/27/2019	10:02	X	X	X	X	X	X	X
1696433LB	1696433	5	06/27/2019	10:07						X	
1696434LB	1696434	5	06/27/2019	10:09						X	
AOC 26-1	30300161001	5	06/27/2019	10:12						X	
1697712MSD	1697712	5	06/27/2019	10:14						X	
1697711MS	1697711	5	06/27/2019	10:16						X	
1697710DUP	1697710	5	06/27/2019	10:18						X	
AOC 26-2	30300161002	5	06/27/2019	10:20						X	
11153541CCV	11153541CCV	1	06/27/2019	10:23	X	X	X	X	X	X	X
11153542CCB	11153542CCB	1	06/27/2019	10:25	X	X	X	X	X	X	X
11153543ICSA	11153543ICSA	1	06/27/2019	10:31	X	X	X	X	X	X	X
11153544ICSAB	11153544ICSAB	1	06/27/2019	10:34	X	X	X	X	X	X	X
11153545CRDL	11153545CRDL	1	06/27/2019	10:37	X	X	X	X	X	X	X
11153546CCV	11153546CCV	1	06/27/2019	11:15	X	X	X	X	X	X	X
11153547CCB	11153547CCB	1	06/27/2019	11:17	X	X	X	X	X	X	X

Sample Name: CAL0 Acquired: 6/27/2019 8:56:07 Type: Cal
Method: Pace-65002-2-CETAC1(v1749) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0009**	**-.0003**	**.0001**	**.0018**	**.0005**	**.0022**
Stddev	.0000	.0002	.0001	.0000	.0007	.0001	.0002
%RSD	.3815	25.27	55.26	27.32	40.21	16.80	7.643
#1	.0001	.0007	-.0003	.0001	.0023	.0005	.0023
#2	.0001	.0011	-.0002	.0001	.0013	.0004	.0021

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**-.0003**	**.0000**	**.0012**	**.0001**	**3947.**	**.0015**
Stddev	.0001	.0003	.0000	.0001	.0000	18.	.0002
%RSD	161.2	104.9	69.28	8.722	40.63	.4675	14.60
#1	.0000	-.0004	.0000	.0013	.0001	3934.	.0014
#2	-.0001	-.0001	.0001	.0011	.0001	3960.	.0017

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0015**	**-.0001**	**.0001**	**.0005**	**-.0052**	**.0001**	**.0001**
Stddev	.0000	.0001	.0000	.0000	.0004	.0001	.0000
%RSD	1.716	80.91	19.88	8.271	7.965	198.4	49.62
#1	-.0014	-.0002	.0001	.0005	-.0055	-.0000	.0001
#2	-.0015	-.0001	.0002	.0004	-.0049	.0001	.0001

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**-.0002**	**-.0002**	**.0001**	**.0001**	**.0001**	**.0009**
Stddev	.0002	.0000	.0000	.0001	.0000	.0001	.0001
%RSD	1365.	18.15	16.20	55.78	.2847	98.23	13.55
#1	-.0002	-.0002	-.0002	.0002	.0001	.0000	.0008
#2	.0002	-.0002	-.0002	.0001	.0001	.0002	.0010

Sample Name: CAL0 Acquired: 6/27/2019 8:56:07 Type: Cal
Method: Pace-65002-2-CETAC1(v1749) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**-.0006**	**.0001**	**7045.**	**107300.**	**13840.**	**.0002**
Stddev	.0000	.0002	.0000	28.	384.	148.	.0000
%RSD	14.52	30.14	30.34	.3932	.3575	1.071	23.46
#1	-.0002	-.0005	.0001	7025.	107600.	13730.	.0002
#2	-.0002	-.0007	.0001	7064.	107000.	13940.	.0002

Elem	Zr3391
Units	Cts/S
Avg	**-.0004**
Stddev	.0003
%RSD	69.55
#1	-.0006
#2	-.0002

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3947.2**	**7044.6**	**107310.**	**13840.**
Stddev	18.5	27.7	384.	148.
%RSD	.46753	.39317	.35752	1.0712
#1	3934.2	7025.0	107580.	13735.
#2	3960.3	7064.2	107040.	13944.

Sample Name: CAL1 Acquired: 6/27/2019 8:58:40 Type: Cal
Method: Pace-65002-2-CETAC1(v1749) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1449	1.467	.1723	.2632	9.246	6.680	1.546
Stddev	.0016	.010	.0010	.0008	.003	.005	.002
%RSD	1.100	.6886	.5542	.2994	.0327	.0778	.1289
#1	.1438	1.474	.1716	.2627	9.248	6.676	1.547
#2	.1460	1.460	.1729	.2638	9.244	6.684	1.545

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.061	3.026	.3316	.3192	.7299	3371.	.7982
Stddev	.023	.029	.0026	.0009	.0035	1.	.0081
%RSD	.5654	.9484	.7802	.2769	.4848	.0172	1.015
#1	4.045	3.006	.3298	.3199	.7324	3370.	.7925
#2	4.077	3.046	.3334	.3186	.7274	3371.	.8039

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.735	.1959	.7398	1.155	.1080	.8360	.0995
Stddev	.002	.0001	.0012	.011	.0011	.0056	.0007
%RSD	.1160	.0317	.1606	.9357	1.033	.6756	.7337
#1	1.737	.1959	.7389	1.148	.1072	.8320	.0989
#2	1.734	.1958	.7406	1.163	.1088	.8400	.1000

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.7480	.7507	.1954	.0780	.2287	.3511	13.03
Stddev	.0059	.0034	.0002	.0003	.0003	.0018	.08
%RSD	.7931	.4573	.1162	.3437	.1398	.5268	.6104
#1	.7438	.7483	.1952	.0778	.2285	.3498	12.98
#2	.7522	.7531	.1955	.0782	.2289	.3524	13.09

Sample Name: CAL1 Acquired: 6/27/2019 8:58:40 Type: Cal
Method: Pace-65002-2-CETAC1(v1749) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.7580	.2884	.3963	6732.	101600.	13770.	1.994
Stddev	.0066	.0028	.0024	22.	63.	65.	.018
%RSD	.8772	.9780	.6090	.3331	.0621	.4730	.9209
#1	.7533	.2864	.3946	6716.	101500.	13730.	1.981
#2	.7627	.2904	.3980	6747.	101600.	13820.	2.007

Elem	Zr3391
Units	Cts/S
Avg	.4911
Stddev	.0012
%RSD	.2458
#1	.4919
#2	.4902

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3370.6	6731.5	101580.	13774.
Stddev	.6	22.4	63.	65.
%RSD	.01718	.33308	.06210	.47298
#1	3370.1	6715.6	101540.	13728.
#2	3371.0	6747.4	101630.	13820.

Sample Name: ICV Acquired: 6/27/2019 9:00:45 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1020.**	**20390.**	**1934.**	**2010.**	**2031.**	**2042.**	**20580.**	**1993.**	**1960.**
Stddev	1.	343.	14.	1.	36.	31.	286.	7.	5.
%RSD	.1040	1.681	.7113	.0531	1.760	1.531	1.390	.3315	.2367
#1	1019.	20150.	1944.	2009.	2006.	2020.	20380.	1998.	1963.
#2	1020.	20630.	1924.	2010.	2057.	2064.	20780.	1989.	1957.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2034.**	**2018.**	**20400.**	**85.42**	**20640.**	**2054.**	**20470.**	**2023.**	**2037.**
Stddev	5.	35.	323.	.49	441.	46.	281.	24.	4.
%RSD	.2644	1.719	1.582	.5697	2.137	2.232	1.370	1.199	.2164
#1	2030.	1994.	20180.	85.08	20330.	2021.	20280.	2006.	2034.
#2	2038.	2043.	20630.	85.77	20960.	2086.	20670.	2040.	2040.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20730.**	**1982.**	**1993.**	**2072.**	**20160.**	**1996.**	**1983.**	**10230.**	**2009.**
Stddev	267.	3.	4.	2.	57.	1.	5.	124.	5.
%RSD	1.288	.1626	.1891	.0725	.2851	.0361	.2559	1.215	.2697
#1	20540.	1985.	1995.	2073.	20200.	1996.	1987.	10140.	2013.
#2	20920.	1980.	1990.	2071.	20120.	1995.	1979.	10320.	2006.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 6/27/2019 9:00:45 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2045.**	**2002.**	**1947.**	**2053.**	**96.06**	**94.59**	**99.32**	**1990.**	**2023.**
Stddev	79.	3.	8.	6.	.50	.43	.56	6.	32.
%RSD	3.876	.1605	.4243	.2872	.5240	.4498	.5590	.3076	1.591
#1	1989.	1999.	1941.	2049.	95.70	94.29	98.93	1995.	2000.
#2	2101.	2004.	1953.	2057.	96.42	94.90	99.71	1986.	2046.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3371.8**	**6767.1**	**101510.**	**13745.**
Stddev	19.2	35.5	457.	77.
%RSD	.56969	.52399	.44976	.55902
#1	3358.2	6742.0	101190.	13691.
#2	3385.4	6792.1	101840.	13799.

Sample Name: ICB Acquired: 6/27/2019 9:02:51 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4105**	**1.635**	**-.8006**	**1.214**	**.2257**	**.2404**	**.5104**	**.0634**	**-.0892**
Stddev	.0087	5.942	.5431	.302	.0196	.0486	1.524	.0448	.2066
%RSD	2.130	363.5	67.84	24.90	8.669	20.23	298.5	70.68	231.6
#1	-.4043	-2.567	-1.185	1.000	.2396	.2747	1.588	.0951	-.2353
#2	-.4166	5.837	-.4165	1.428	.2119	.2060	-.5670	.0317	.0569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0534**	**.4776**	**3.812**	**106.8**	**17.30**	**.7561**	**7.893**	**-.0745**	**1.412**
Stddev	.0506	.8421	.605	.1	12.48	.4691	2.843	.0258	.071
%RSD	94.80	176.3	15.88	.0985	72.12	62.05	36.02	34.68	5.042
#1	.0892	1.073	3.384	106.7	26.13	1.088	9.903	-.0928	1.462
#2	.0176	-.1179	4.240	106.8	8.480	.4244	5.882	-.0562	1.362
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**85.68**	**-.1571**	**.6954**	**-.0947**	**.4811**	**2.715**	**-2.367**	**8.052**	**.0452**
Stddev	79.91	.3935	.1514	.3209	2.807	1.194	1.788	4.542	.6970
%RSD	93.27	250.4	21.76	339.0	583.5	43.96	75.54	56.41	1542.
#1	29.17	.1211	.5884	-.3216	-1.504	1.871	-1.103	11.26	.5381
#2	142.2	-.4354	.8024	.1322	2.466	3.559	-3.632	4.840	-.4477
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 6/27/2019 9:02:51 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2371	.3432	2.448	-.1983	106.7	107.2	107.1	.9379	1.336
Stddev	.0255	.0556	2.368	.0297	.1	.1	.1	.0653	.023
%RSD	10.74	16.20	96.71	14.96	.0620	.1297	.1191	6.967	1.689
#1	.2551	.3039	.7740	-.1773	106.6	107.1	107.2	.9841	1.320
#2	.2191	.3826	4.123	-.2192	106.7	107.3	107.1	.8917	1.352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4214.3	7514.2	115050.	14829.
Stddev	4.2	4.7	149.	18.
%RSD	.09854	.06203	.12974	.11912
#1	4211.4	7510.9	114950.	14841.
#2	4217.2	7517.5	115160.	14816.

Sample Name: CCV Acquired: 6/27/2019 9:05:32 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**464.6**	**9187.**	**949.1**	**967.0**	**930.9**	**934.3**	**9329.**	**954.5**	**937.8**
Stddev	5.7	33.	7.4	14.4	8.7	6.5	46.	14.0	16.9
%RSD	1.216	.3602	.7812	1.488	.9368	.6928	.4894	1.461	1.805
#1	460.6	9163.	943.8	956.8	924.7	929.7	9296.	944.6	925.9
#2	468.6	9210.	954.3	977.2	937.1	938.9	9361.	964.3	949.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**924.9**	**927.3**	**9307.**	**93.59**	**9169.**	**915.3**	**9283.**	**935.3**	**926.8**
Stddev	6.3	6.4	38.	.73	132.	9.0	41.	5.7	17.5
%RSD	.6811	.6878	.4130	.7783	1.440	.9854	.4465	.6078	1.889
#1	920.5	922.8	9280.	94.10	9076.	908.9	9254.	931.2	914.4
#2	929.4	931.8	9334.	93.07	9263.	921.6	9313.	939.3	939.2
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9430.**	**967.7**	**951.4**	**944.5**	**9489.**	**949.9**	**957.5**	**4627.**	**956.7**
Stddev	117.	15.4	18.1	15.9	125.	15.6	12.6	20.	14.8
%RSD	1.235	1.595	1.902	1.685	1.313	1.639	1.316	.4230	1.545
#1	9348.	956.8	938.6	933.3	9401.	938.8	948.6	4613.	946.2
#2	9513.	978.6	964.2	955.8	9577.	960.9	966.4	4641.	967.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/27/2019 9:05:32 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**947.7**	**910.5**	**956.0**	**924.0**	**101.8**	**102.8**	**107.0**	**957.5**	**918.7**
Stddev	8.0	7.8	17.7	8.2	.7	.1	.0	12.5	5.0
%RSD	.8471	.8527	1.855	.8882	.6728	.0839	.0418	1.303	.5423
#1	942.0	905.1	943.4	918.2	102.3	102.7	107.0	948.7	915.2
#2	953.4	916.0	968.5	929.8	101.3	102.8	107.0	966.3	922.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3694.0**	**7172.6**	**110280.**	**14809.**
Stddev	28.8	48.3	93.	6.
%RSD	.77832	.67283	.08391	.04177
#1	3714.4	7206.8	110220.	14813.
#2	3673.7	7138.5	110350.	14804.

Sample Name: ICSA Acquired: 6/27/2019 9:07:35 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3417**	**49850.**	**-.1793**	**.7328**	**.2268**	**.1589**	**48920.**	**.5430**	**.0172**
Stddev	.2996	57.	.8410	1.062	.0287	.0040	7.	.1348	.4575
%RSD	87.69	.1144	469.0	145.0	12.65	2.536	.0138	24.82	2657.
#1	-.5536	49890.	-.7740	-.0183	.2471	.1561	48910.	.6382	.3407
#2	-.1298	49810.	.4154	1.484	.2065	.1618	48920.	.4477	-.3063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0541**	**.4647**	**19340.**	**88.50**	**10.79**	**1.057**	**49260.**	**.0378**	**1.165**
Stddev	.2586	1.019	13.	.17	8.08	.485	92.	.0051	.307
%RSD	478.0	219.2	.0689	.1962	74.85	45.89	.1867	13.59	26.39
#1	.2370	1.185	19350.	88.38	16.50	1.400	49200.	.0414	1.382
#2	-.1288	-.2555	19330.	88.63	5.079	.7141	49330.	.0342	.9472
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**84.91**	**.3586**	**-1.315**	**-3.311**	**-6.115**	**1.246**	**1.247**	**11.20**	**.9828**
Stddev	29.09	.0091	1.576	.554	.943	2.194	5.355	5.39	.1021
%RSD	34.26	2.541	119.9	16.72	15.42	176.1	429.3	48.14	10.39
#1	105.5	.3522	-.1999	-3.702	-6.781	2.798	-2.539	15.01	1.055
#2	64.34	.3651	-2.429	-2.919	-5.448	-.3055	5.034	7.388	.9106
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/27/2019 9:07:35 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1348**	**.4255**	**.1048**	**.5605**	**98.76**	**97.35**	**101.9**	**.5145**	**-.3851**
Stddev	.0374	.0590	1.703	.2158	.17	.15	.4	.3830	1.446
%RSD	27.72	13.86	1625.	38.51	.1736	.1552	.3913	74.45	375.4
#1	-.1084	.4672	1.309	.7131	98.89	97.24	101.6	.7854	.6370
#2	-.1613	.3838	-1.100	.4078	98.64	97.45	102.2	.2437	-1.407
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3493.5**	**6957.6**	**104470.**	**14099.**
Stddev	6.9	12.1	162.	55.
%RSD	.19618	.17358	.15516	.39128
#1	3488.6	6966.1	104350.	14060.
#2	3498.3	6949.0	104580.	14138.

Sample Name: ICSAB Acquired: 6/27/2019 9:09:48 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**935.6**	**48690.**	**.9713**	**-2.746**	**473.9**	**479.5**	**47600.**	**929.2**	**452.3**
Stddev	13.3	166.	.6283	.698	.8	.8	119.	5.1	.2
%RSD	1.421	.3417	64.68	25.42	.1612	.1583	.2502	.5534	.0419
#1	926.2	48800.	1.416	-3.240	474.5	480.0	47680.	925.5	452.1
#2	945.0	48570.	.5271	-2.253	473.4	478.9	47510.	932.8	452.4
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**458.1**	**469.6**	**18860.**	**90.59**	**14.49**	**1.085**	**47570.**	**464.6**	**.1483**
Stddev	2.1	1.7	108.	.44	2.04	.151	43.	.4	.1943
%RSD	.4543	.3574	.5703	.4910	14.07	13.90	.0896	.0802	131.0
#1	456.6	470.8	18930.	90.27	13.05	.9783	47600.	464.4	.2857
#2	459.5	468.5	18780.	90.90	15.93	1.192	47540.	464.9	.0109
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**31.85**	**908.3**	**-4.121**	**911.2**	**-8.771**	**.7899**	**-.2506**	**-9.294**	**.7168**
Stddev	71.75	3.1	4.441	3.2	.382	.4897	.8873	4.324	.1618
%RSD	225.3	.3392	107.7	.3555	4.349	61.99	354.1	46.52	22.57
#1	-18.88	906.1	-.9812	908.9	-9.041	.4436	-.8781	-6.237	.8312
#2	82.58	910.5	-7.261	913.5	-8.501	1.136	.3768	-12.35	.6024
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 6/27/2019 9:09:48 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2200**	**.3589**	**3.780**	**458.7**	**100.8**	**99.92**	**103.0**	**910.3**	**-.8827**
Stddev	.0275	.1619	1.512	4.4	.3	.06	.3	4.8	.2224
%RSD	12.50	45.11	40.02	.9587	.2790	.0617	.3132	.5240	25.20
#1	-.2395	.4733	4.849	455.6	100.6	99.97	102.8	906.9	-.7254
#2	-.2006	.2444	2.710	461.8	101.0	99.88	103.2	913.7	-1.040
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3575.7**	**7104.3**	**107230.**	**14257.**
Stddev	17.6	19.8	66.	45.
%RSD	.49101	.27897	.06167	.31323
#1	3563.3	7090.3	107280.	14226.
#2	3588.1	7118.3	107180.	14289.

Sample Name: CRDL Acquired: 6/27/2019 9:11:57 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.843**	**48.64**	**4.075**	**47.47**	**9.463**	**1.020**	**951.1**	**2.937**	**4.079**
Stddev	.003	6.73	.188	.03	.087	.010	.8	.001	.372
%RSD	.0515	13.83	4.621	.0530	.9252	.9929	.0816	.0268	9.109
#1	5.845	53.40	3.942	47.49	9.401	1.013	950.6	2.938	4.341
#2	5.841	43.88	4.208	47.46	9.525	1.028	951.7	2.937	3.816
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.683**	**5.551**	**68.91**	**104.0**	**461.2**	**37.04**	**196.8**	**4.384**	**17.34**
Stddev	.119	.371	3.63	.0	21.8	.67	.9	.090	.24
%RSD	2.536	6.681	5.266	.0080	4.725	1.819	.4816	2.045	1.359
#1	4.599	5.813	71.48	104.0	445.8	36.57	197.4	4.321	17.51
#2	4.767	5.288	66.35	104.0	476.6	37.52	196.1	4.448	17.18
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1009.**	**9.300**	**44.81**	**3.821**	**49.36**	**7.146**	**6.066**	**101.4**	**47.93**
Stddev	62.	.239	.46	.357	.09	.598	.064	2.8	.43
%RSD	6.100	2.569	1.024	9.338	.1832	8.365	1.047	2.748	.9056
#1	1052.	9.469	44.49	4.073	49.30	7.569	6.022	99.43	47.62
#2	965.4	9.131	45.14	3.568	49.43	6.724	6.111	103.4	48.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 6/27/2019 9:11:57 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.753**	**4.647**	**8.432**	**4.347**	**105.4**	**106.4**	**105.3**	**9.244**	**58.50**
Stddev	.005	.023	.725	.019	.1	.1	.5	.065	1.44
%RSD	.1123	.4957	8.604	.4388	.0652	.0483	.5023	.7025	2.467
#1	4.757	4.663	7.919	4.334	105.4	106.4	105.6	9.198	57.48
#2	4.749	4.630	8.944	4.361	105.3	106.3	104.9	9.289	59.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4103.8**	**7424.9**	**114160.**	**14570.**
Stddev	.3	4.8	55.	73.
%RSD	.00800	.06523	.04833	.50230
#1	4103.5	7428.3	114200.	14621.
#2	4104.0	7421.4	114120.	14518.

Sample Name: CCV Acquired: 6/27/2019 9:35:03 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495.7**	**10150.**	**1022.**	**974.2**	**1038.**	**999.5**	**9997.**	**1014.**	**947.3**
Stddev	7.0	2.	7.	4.5	1.	1.1	60.	6.	6.6
%RSD	1.417	.0155	.6914	.4587	.1417	.1106	.5974	.6346	.6950
#1	490.7	10140.	1017.	971.1	1037.	998.8	9955.	1009.	942.6
#2	500.6	10150.	1027.	977.4	1039.	1000.	10040.	1019.	951.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**984.8**	**1022.**	**10070.**	**86.94**	**10090.**	**1026.**	**9679.**	**991.2**	**913.2**
Stddev	10.5	3.	40.	.24	118.	3.	88.	1.2	6.8
%RSD	1.063	.3397	.3984	.2797	1.170	.3293	.9103	.1164	.7399
#1	977.4	1025.	10040.	86.77	10010.	1024.	9616.	990.4	908.4
#2	992.2	1020.	10100.	87.11	10180.	1029.	9741.	992.0	918.0
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10380.**	**995.1**	**968.1**	**965.1**	**10100.**	**986.3**	**970.5**	**4982.**	**992.6**
Stddev	36.	6.3	3.1	.5	48.	5.4	2.5	7.	3.6
%RSD	.3424	.6293	.3179	.0542	.4770	.5447	.2585	.1369	.3661
#1	10350.	990.6	965.9	964.7	10060.	982.5	968.7	4987.	990.1
#2	10400.	999.5	970.3	965.4	10130.	990.1	972.3	4977.	995.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/27/2019 9:35:03 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1034.	972.3	975.2	973.4	93.62	93.58	96.12	986.7	1010.
Stddev	.	11.6	12.0	11.6	.26	.06	.07	7.6	4.
%RSD	.0244	1.189	1.230	1.196	.2732	.0641	.0774	.7686	.4329
#1	1034.	964.2	966.7	965.2	93.44	93.62	96.06	981.3	1013.
#2	1034.	980.5	983.6	981.6	93.80	93.54	96.17	992.0	1007.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3431.6	6595.4	100420.	13302.
Stddev	9.6	18.0	64.	10.
%RSD	.27970	.27324	.06405	.07741
#1	3424.8	6582.7	100470.	13295.
#2	3438.4	6608.1	100380.	13309.

Sample Name: CCB Acquired: 6/27/2019 9:37:07 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0276**	**4.141**	**-.9648**	**-.2259**	**.1929**	**.2288**	**2.779**	**.1573**	**-.0784**
Stddev	.3228	3.236	.2051	.1081	.0870	.0278	.618	.2333	.2435
%RSD	1168.	78.15	21.25	47.87	45.08	12.15	22.25	148.3	310.8
#1	.2006	6.429	-1.110	-.1494	.1314	.2485	2.342	.3223	-.2506
#2	-.2559	1.852	-.8198	-.3023	.2544	.2092	3.216	-.0077	.0938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1633**	**.2681**	**.7426**	**97.11**	**29.85**	**1.531**	**5.519**	**.1475**	**.6051**
Stddev	.0542	.5569	.4298	.10	4.37	.122	7.267	.1839	.0266
%RSD	33.18	207.8	57.88	.1006	14.64	7.940	131.7	124.6	4.399
#1	.1250	-.1258	1.046	97.18	32.93	1.445	.3798	.2775	.6240
#2	.2016	.6619	.4387	97.04	26.76	1.617	10.66	.0175	.5863
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**216.3**	**-.4097**	**-1.073**	**-.1566**	**1.346**	**2.025**	**.5474**	**2.672**	**-.1169**
Stddev	119.3	.0945	.842	.0081	3.210	.586	5.453	2.951	.2967
%RSD	55.12	23.06	78.48	5.167	238.5	28.93	996.2	110.5	253.7
#1	132.0	-.3429	-.4776	-.1624	3.616	2.439	-3.309	.5849	.0928
#2	300.7	-.4765	-1.669	-.1509	-.9238	1.611	4.404	4.759	-.3267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/27/2019 9:37:07 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1803	.2009	-.1468	-.0596	96.35	97.23	95.15	.5681	.0120
Stddev	.0611	.0666	.1100	.2620	.13	.19	.13	.0984	.0625
%RSD	33.87	33.13	74.92	439.4	.1339	.1948	.1365	17.32	520.6
#1	.2234	.2480	-.2245	.1256	96.26	97.36	95.06	.6377	.0562
#2	.1371	.1539	-.0690	-.2449	96.44	97.10	95.24	.4985	-.0322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3833.3	6787.7	104340.	13169.
Stddev	3.9	9.1	203.	18.
%RSD	.10064	.13395	.19481	.13649
#1	3836.0	6781.2	104490.	13156.
#2	3830.6	6794.1	104200.	13181.

Sample Name: 1697708_26844 Acquired: 6/27/2019 9:40:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1644**	**-4.044**	**-.6218**	**-.1976**	**.0419**	**.0864**	**-4.019**	**.1209**	**-.1504**
Stddev	.1087	1.925	.6479	1.357	.0402	.0016	1.686	.1015	.3036
%RSD	66.14	47.60	104.2	687.1	96.01	1.883	41.93	83.95	201.9
#1	-.2413	-5.405	-1.080	-1.157	.0704	.0876	-5.211	.0491	-.3651
#2	-.0875	-2.683	-.1636	.7623	.0135	.0853	-2.828	.1926	.0643

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1329**	**-.0741**	**1.889**	**98.27**	**29.54**	**-.4159**	**8.989**	**-.7910**	**.2976**
Stddev	.0484	.6068	1.147	.29	16.51	.3995	7.963	.0992	.2163
%RSD	36.45	819.1	60.72	.2966	55.91	96.05	88.59	12.54	72.69
#1	.1671	-.5031	2.700	98.07	41.21	-.6984	3.358	-.8612	.4506
#2	.0986	.3550	1.078	98.48	17.86	-.1335	14.62	-.7209	.1446

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**208.5**	**-.4021**	**2.242**	**-.9071**	**1.217**	**1.431**	**-.9691**	**5.257**	**.3291**
Stddev	143.2	.2968	.419	.8794	.804	.228	3.146	3.477	.8502
%RSD	68.68	73.81	18.68	96.95	66.11	15.91	324.6	66.14	258.4
#1	309.8	-.6119	1.946	-1.529	1.786	1.270	1.255	2.798	-.2721
#2	107.3	-.1922	2.538	-.2853	.6479	1.592	-3.193	7.715	.9303

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0117**	**.1247**	**1.029**	**-.1505**	**97.71**	**98.55**	**96.11**	**.7388**	**-.4027**
Stddev	.0195	.1200	.623	.0553	.30	.13	.09	.1283	.1357
%RSD	167.1	96.25	60.53	36.74	.3063	.1290	.0892	17.36	33.69
#1	.0254	.2095	.5887	-.1114	97.49	98.64	96.17	.8295	-.3068
#2	-.0021	.0398	1.470	-.1896	97.92	98.46	96.05	.6481	-.4987

Sample Name: 1697708_26844 Acquired: 6/27/2019 9:40:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3879.1	6883.0	105750.	13301.
Stddev	11.5	21.1	136.	12.
%RSD	.29662	.30629	.12899	.08917
#1	3871.0	6868.1	105850.	13310.
#2	3887.3	6897.9	105660.	13293.

Sample Name: 1697709_26844 Acquired: 6/27/2019 9:42:47 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**255.4**	**5334.**	**501.7**	**479.2**	**547.7**	**531.1**	**5369.**	**526.8**	**470.8**
Stddev	.5	6.	.4	1.3	4.1	6.0	49.	2.1	2.1
%RSD	.2126	.1095	.0802	.2708	.7475	1.123	.9076	.3932	.4526
#1	255.8	5330.	502.0	478.3	544.8	526.9	5335.	528.3	469.3
#2	255.0	5338.	501.4	480.1	550.6	535.4	5404.	525.3	472.3

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.4**	**534.1**	**5342.**	**91.39**	**5329.**	**543.3**	**5206.**	**526.1**	**451.7**
Stddev	.1	1.0	6.	.72	21.	4.0	61.	4.4	1.9
%RSD	.0161	.1840	.1186	.7900	.4016	.7299	1.163	.8300	.4149
#1	521.3	533.5	5338.	90.88	5314.	540.5	5163.	523.0	450.4
#2	521.5	534.8	5347.	91.90	5345.	546.1	5249.	529.2	453.1

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5414.**	**513.4**	**493.3**	**511.6**	**5098.**	**496.3**	**492.2**	**2577.**	**506.7**
Stddev	112.	.9	3.8	1.0	19.	.6	1.5	32.	3.8
%RSD	2.071	.1726	.7664	.2038	.3685	.1117	.2997	1.260	.7578
#1	5335.	512.7	490.6	512.3	5111.	496.7	491.2	2554.	509.4
#2	5493.	514.0	496.0	510.8	5085.	495.9	493.3	2600.	504.0

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**545.0**	**492.1**	**494.8**	**516.1**	**96.21**	**95.93**	**95.07**	**509.2**	**494.1**
Stddev	5.1	.0	.5	.8	1.07	.27	.95	1.6	7.5
%RSD	.9397	.0055	.0919	.1591	1.115	.2821	.9982	.3175	1.516
#1	541.4	492.1	494.5	516.7	95.46	95.74	94.40	508.1	488.8
#2	548.6	492.0	495.1	515.5	96.97	96.12	95.74	510.3	499.4

Sample Name: 1697709_26844 Acquired: 6/27/2019 9:42:47 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3607.4	6777.9	102950.	13157.
Stddev	28.5	75.6	290.	131.
%RSD	.78999	1.1153	.28212	.99821
#1	3587.3	6724.5	102740.	13064.
#2	3627.6	6831.4	103150.	13250.

Sample Name: 1696433_26844 Acquired: 6/27/2019 9:44:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2265**	**17.34**	**1.259**	**13.57**	**6.735**	**.1850**	**1008.**
Stddev	.0746	4.07	.102	1.30	.074	.0221	3.
%RSD	32.95	23.49	8.131	9.582	1.101	11.96	.2635
#1	.1737	20.22	1.186	12.65	6.683	.2006	1010.
#2	.2792	14.46	1.331	14.49	6.788	.1694	1006.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2560**	**-1.937**	**2.196**	**1.687**	**11.46**	**65.57**	**260.8**
Stddev	.0255	.290	.115	1.117	.86	.09	24.4
%RSD	9.964	14.97	5.228	66.21	7.507	.1387	9.343
#1	.2379	-1.732	2.277	.8970	10.85	65.64	243.5
#2	.2740	-2.142	2.115	2.476	12.06	65.51	278.0

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.601**	**33.33**	**1.493**	**2.637**	**1413000.**	**.9216**	**8.591**
Stddev	.703	3.95	.013	.106	8475.	.0846	.965
%RSD	43.92	11.85	.8824	4.032	.6000	9.176	11.23
#1	1.103	36.12	1.483	2.561	1407000.	.8618	9.273
#2	2.098	30.54	1.502	2.712	1419000.	.9814	7.909

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.006**	**53.47**	**2.683**	**8.638**	**41.25**	**1.141**	**67.03**
Stddev	.804	1.57	.842	2.214	.04	.286	.05
%RSD	79.93	2.938	31.39	25.63	.0988	25.04	.0677
#1	-1.575	54.58	3.278	7.073	41.22	.9392	67.00
#2	-.4374	52.36	2.087	10.20	41.28	1.343	67.07

Sample Name: 1696433_26844 Acquired: 6/27/2019 9:44:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3985	-2.576	.1064	77.97	75.57	88.53	11.64
Stddev	.0025	1.537	.1391	.07	.31	.38	.14
%RSD	.6227	59.66	130.8	.0911	.4108	.4257	1.178
#1	.3967	-1.490	.2047	78.02	75.35	88.26	11.74
#2	.4002	-3.663	.0080	77.92	75.79	88.80	11.54

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.9094
Stddev	1.136
%RSD	124.9
#1	1.712
#2	.1063

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2588.3	5492.6	81092.	12252.
Stddev	3.6	5.0	333.	52.
%RSD	.13873	.09108	.41079	.42572
#1	2590.9	5496.1	80857.	12215.
#2	2585.8	5489.0	81328.	12289.

Sample Name: 1696434_26844 Acquired: 6/27/2019 9:47:00 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3215**	**8.615**	**.4879**	**15.11**	**8.239**	**.1134**	**186.1**
Stddev	.1671	4.515	1.077	.06	.011	.0084	1.8
%RSD	51.96	52.40	220.8	.3994	.1309	7.425	.9576
#1	.4397	11.81	1.249	15.15	8.232	.1075	187.4
#2	.2034	5.423	-.2737	15.06	8.247	.1194	184.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1950**	**-1.736**	**1.733**	**-.0913**	**14.14**	**65.05**	**306.4**
Stddev	.1841	.441	.080	.3809	.60	.44	18.5
%RSD	94.39	25.40	4.608	417.4	4.258	.6741	6.049
#1	.0649	-2.048	1.789	-.3606	13.72	65.36	293.3
#2	.3252	-1.424	1.676	.1781	14.57	64.74	319.5

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.228**	**36.85**	**.3548**	**2.092**	**1385000.**	**-.3072**	**68.00**
Stddev	.012	9.56	.0079	.108	17860.	.1078	2.24
%RSD	.5319	25.95	2.224	5.137	1.289	35.08	3.288
#1	2.237	30.09	.3492	2.168	1372000.	-.3834	66.42
#2	2.220	43.62	.3604	2.016	1397000.	-.2310	69.58

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.320**	**47.13**	**.3542**	**6.401**	**44.37**	**2.079**	**1.143**
Stddev	.414	1.42	.9986	2.220	6.26	.260	.011
%RSD	31.40	3.012	281.9	34.69	14.10	12.48	.9857
#1	-1.027	46.13	1.060	7.971	39.94	1.896	1.135
#2	-1.613	48.14	-.3519	4.831	48.79	2.263	1.151

Sample Name: 1696434_26844 Acquired: 6/27/2019 9:47:00 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3423	-2.848	-.0848	76.72	75.35	88.66	5.812
Stddev	.0177	.444	.2997	.81	.09	.61	.045
%RSD	5.177	15.58	353.4	1.051	.1209	.6886	.7830
#1	.3298	-2.534	.1271	77.29	75.28	88.23	5.780
#2	.3548	-3.162	-.2967	76.15	75.41	89.10	5.844

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	1.305
Stddev	.059
%RSD	4.539
#1	1.347
#2	1.263

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2567.7	5404.9	80857.	12271.
Stddev	17.3	56.8	98.	84.
%RSD	.67413	1.0508	.12091	.68857
#1	2579.9	5445.0	80788.	12211.
#2	2555.5	5364.7	80927.	12330.

Sample Name: 30300161001_26844 Acquired: 6/27/2019 9:49:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.109**	**4.705**	**3.121**	**42.66**	**719.3**	**-.3390**	**675500.**
Stddev	.404	.280	2.979	.08	4.4	.0054	3169.
%RSD	36.47	5.955	95.44	.1810	.6167	1.579	.4692
#1	-.8231	4.507	5.228	42.60	716.1	-.3353	673200.
#2	-1.395	4.903	1.015	42.71	722.4	-.3428	677700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.114**	**1.228**	**1.244**	**1.020**	**17.34**	**59.80**	**3737.**
Stddev	.041	.122	.034	.070	1.33	.29	48.
%RSD	3.711	9.930	2.723	6.810	7.652	.4863	1.289
#1	1.085	1.142	1.268	1.070	16.40	60.00	3703.
#2	1.143	1.314	1.220	.9712	18.28	59.59	3771.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**15.56**	**10710.**	**2558.**	**2.153**	**1423000.**	**11.01**	**35.16**
Stddev	.42	17.	18.	.570	16290.	.28	2.10
%RSD	2.673	.1541	.7212	26.47	1.145	2.537	5.983
#1	15.85	10720.	2545.	2.555	1412000.	10.81	36.65
#2	15.26	10700.	2571.	1.750	1435000.	11.21	33.68

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.686**	**2079.**	**-4.332**	**1.188**	**2158.**	**4.100**	**1190.**
Stddev	1.597	2.	.347	6.606	12.	.345	6.
%RSD	43.33	.0907	8.015	556.3	.5624	8.420	.4662
#1	-2.556	2078.	-4.086	-3.484	2149.	4.345	1186.
#2	-4.815	2081.	-4.577	5.859	2167.	3.856	1194.

Sample Name: 30300161001_26844 Acquired: 6/27/2019 9:49:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.078	-4.940	1.006	72.31	72.34	87.43	13.56
Stddev	.133	3.985	.473	.16	.04	.06	.06
%RSD	12.37	80.66	46.97	.2263	.0543	.0729	.4358
#1	-.9833	-2.123	.6722	72.43	72.31	87.38	13.60
#2	-1.172	-7.758	1.341	72.20	72.37	87.47	13.51

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.8613
Stddev	.4530
%RSD	52.60
#1	.5409
#2	1.182

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2360.3	5094.1	77633.	12099.
Stddev	11.5	11.5	42.	9.
%RSD	.48634	.22626	.05430	.07295
#1	2368.4	5102.2	77604.	12093.
#2	2352.2	5085.9	77663.	12105.

Sample Name: 1697710_26844 Acquired: 6/27/2019 9:51:32 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.064**	**-21.02**	**2.094**	**42.49**	**708.6**	**-.3470**	**661900.**
Stddev	.182	19.52	2.530	1.15	5.2	.0167	3370.
%RSD	17.09	92.85	120.8	2.715	.7332	4.816	.5092
#1	-.9356	-7.220	3.883	41.67	705.0	-.3352	659500.
#2	-1.193	-34.82	.3050	43.31	712.3	-.3588	664200.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.085**	**1.177**	**1.260**	**-.0633**	**14.38**	**59.87**	**3651.**
Stddev	.089	.254	.170	.3598	2.19	.12	63.
%RSD	8.178	21.57	13.49	568.2	15.25	.2002	1.719
#1	1.022	1.357	1.380	-.3177	15.93	59.78	3606.
#2	1.147	.9975	1.140	.1911	12.83	59.95	3695.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**15.24**	**10520.**	**2521.**	**2.464**	**1392000.**	**10.88**	**35.34**
Stddev	.61	65.	19.	.204	18620.	.05	.88
%RSD	4.006	.6158	.7377	8.272	1.337	.4805	2.501
#1	14.81	10470.	2508.	2.320	1379000.	10.84	35.96
#2	15.67	10560.	2534.	2.608	1405000.	10.92	34.71

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.311**	**2070.**	**-3.894**	**-.5793**	**2117.**	**2.021**	**1173.**
Stddev	1.512	14.	1.544	.9432	38.	1.222	8.
%RSD	115.3	.6788	39.65	162.8	1.803	60.47	.7206
#1	2.380	2080.	-2.802	-1.246	2090.	1.157	1167.
#2	.2419	2060.	-4.985	.0877	2144.	2.885	1179.

Sample Name: 1697710_26844 Acquired: 6/27/2019 9:51:32 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.248**	**-4.746**	**.9009**	**72.38**	**72.93**	**88.62**	**12.08**
Stddev	.284	2.331	.0688	.30	.12	.15	.07
%RSD	22.72	49.11	7.641	.4141	.1637	.1659	.5852
#1	-1.449	-3.098	.9496	72.16	73.01	88.51	12.13
#2	-1.048	-6.394	.8522	72.59	72.85	88.72	12.03

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.2213**
Stddev	.4724
%RSD	213.4
#1	-.1127
#2	.5553

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2363.1**	**5098.6**	**78264.**	**12264.**
Stddev	4.7	21.1	128.	20.
%RSD	.20025	.41412	.16375	.16593
#1	2359.7	5083.6	78354.	12250.
#2	2366.4	5113.5	78173.	12278.

Sample Name: 1697711_26844 Acquired: 6/27/2019 9:53:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**293.9**	**5364.**	**564.1**	**525.2**	**1261.**	**507.8**	**692900.**
Stddev	1.1	6.	2.3	.6	5.	1.4	333.
%RSD	.3803	.1184	.4101	.1206	.3765	.2713	.0481
#1	293.2	5360.	562.5	525.6	1258.	506.8	693100.
#2	294.7	5369.	565.7	524.7	1264.	508.8	692700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**562.6**	**493.1**	**490.7**	**541.6**	**4985.**	**59.42**	**9668.**
Stddev	1.5	1.1	.7	3.0	10.	.01	143.
%RSD	.2625	.2214	.1373	.5569	.1963	.0144	1.474
#1	563.7	493.8	490.3	539.5	4978.	59.41	9567.
#2	561.6	492.3	491.2	543.8	4992.	59.43	9769.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**593.3**	**15610.**	**3088.**	**535.7**	**1459000.**	**464.7**	**598.0**
Stddev	2.7	4.	4.	.7	10360.	2.8	1.1
%RSD	.4502	.0267	.1410	.1239	.7097	.6047	.1783
#1	591.4	15610.	3085.	535.2	1452000.	466.6	597.2
#2	595.2	15600.	3091.	536.1	1467000.	462.7	598.7

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**493.9**	**7825.**	**525.6**	**549.7**	**5106.**	**454.6**	**1744.**
Stddev	1.9	11.	3.7	2.3	4.	3.2	7.
%RSD	.3936	.1451	.7000	.4193	.0773	.6996	.4123
#1	495.3	7833.	528.2	548.0	5108.	456.9	1739.
#2	492.6	7817.	523.0	551.3	5103.	452.4	1749.

Sample Name: 1697711_26844 Acquired: 6/27/2019 9:53:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.1**	**417.4**	**512.2**	**72.90**	**73.39**	**88.88**	**490.9**
Stddev	.4	1.3	.1	.06	.19	.42	3.3
%RSD	.0759	.3203	.0182	.0798	.2585	.4751	.6648
#1	493.8	418.4	512.1	72.86	73.26	88.58	493.2
#2	494.4	416.5	512.3	72.94	73.53	89.18	488.6

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**500.3**
Stddev	1.7
%RSD	.3444
#1	499.1
#2	501.6

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2345.5**	**5135.4**	**78762.**	**12300.**
Stddev	.3	4.1	204.	58.
%RSD	.01438	.07978	.25849	.47508
#1	2345.2	5132.5	78618.	12259.
#2	2345.7	5138.3	78906.	12342.

Sample Name: 1697712_26844 Acquired: 6/27/2019 9:55:57 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**287.9**	**5239.**	**555.2**	**528.0**	**1218.**	**492.1**	**668100.**
Stddev	4.6	42.	1.6	.0	15.	5.7	7334.
%RSD	1.607	.8054	.2829	.0075	1.215	1.163	1.098
#1	284.6	5209.	554.1	528.0	1208.	488.0	662900.
#2	291.2	5268.	556.3	528.0	1229.	496.1	673300.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**551.9**	**487.4**	**479.6**	**524.5**	**4839.**	**60.23**	**9350.**
Stddev	1.3	.3	4.8	6.5	37.	.01	215.
%RSD	.2344	.0694	1.005	1.240	.7560	.0175	2.296
#1	551.0	487.1	476.2	519.9	4813.	60.24	9198.
#2	552.8	487.6	483.0	529.1	4865.	60.22	9502.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**575.3**	**15150.**	**2987.**	**536.5**	**1405000.**	**459.0**	**592.8**
Stddev	8.1	191.	40.	.6	27800.	1.5	.3
%RSD	1.411	1.259	1.323	.1057	1.979	.3281	.0524
#1	569.6	15020.	2959.	536.9	1385000.	460.1	592.6
#2	581.1	15290.	3015.	536.1	1425000.	457.9	593.0

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.0**	**7666.**	**520.4**	**539.2**	**4962.**	**449.4**	**1682.**
Stddev	1.7	23.	3.0	8.7	63.	.6	18.
%RSD	.3416	.3062	.5723	1.608	1.264	.1399	1.068
#1	485.8	7650.	518.3	533.1	4917.	449.8	1669.
#2	488.1	7683.	522.5	545.4	5006.	448.9	1695.

Sample Name: 1697712_26844 Acquired: 6/27/2019 9:55:57 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**486.3**	**412.8**	**501.7**	**73.88**	**74.29**	**89.07**	**483.1**
Stddev	5.2	8.2	4.8	.09	.35	.50	.2
%RSD	1.078	1.980	.9618	.1187	.4744	.5574	.0425
#1	482.6	407.0	498.3	73.94	74.54	89.42	483.0
#2	490.0	418.5	505.1	73.82	74.04	88.72	483.3

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**491.3**
Stddev	4.3
%RSD	.8766
#1	488.3
#2	494.4

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2377.4**	**5204.7**	**79725.**	**12327.**
Stddev	.4	6.2	378.	69.
%RSD	.01749	.11874	.47437	.55744
#1	2377.7	5209.1	79993.	12376.
#2	2377.1	5200.3	79458.	12279.

Sample Name: 30300161002_26844 Acquired: 6/27/2019 9:58:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.145**	**-23.14**	**1.499**	**29.89**	**1254.**	**-.2931**	**720500.**
Stddev	.382	.21	.293	1.45	11.	.0083	8594.
%RSD	33.33	.9008	19.57	4.860	.8933	2.818	1.193
#1	-.8753	-23.00	1.707	28.86	1246.	-.2989	714400.
#2	-1.415	-23.29	1.292	30.91	1262.	-.2872	726500.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.374**	**5.605**	**1.220**	**5.270**	**7.333**	**59.58**	**3210.**
Stddev	.030	.092	.099	.929	.043	.33	43.
%RSD	.9002	1.648	8.138	17.63	.5927	.5616	1.329
#1	3.353	5.671	1.150	5.927	7.364	59.34	3180.
#2	3.396	5.540	1.291	4.613	7.302	59.81	3240.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**19.14**	**10890.**	**3807.**	**2.679**	**1440000.**	**16.21**	**16.16**
Stddev	.34	29.	22.	.237	17260.	.33	2.42
%RSD	1.787	.2699	.5690	8.830	1.199	2.028	14.98
#1	19.38	10870.	3792.	2.512	1428000.	15.97	17.87
#2	18.89	10910.	3823.	2.846	1452000.	16.44	14.45

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.497**	**1822.**	**-4.530**	**-6.011**	**2125.**	**2.265**	**1364.**
Stddev	.903	10.	.317	.112	8.	1.137	11.
%RSD	60.35	.5736	7.002	1.862	.3718	50.18	.8277
#1	-2.135	1830.	-4.754	-6.090	2120.	3.069	1356.
#2	-.8579	1815.	-4.306	-5.932	2131.	1.461	1372.

Sample Name: 30300161002_26844 Acquired: 6/27/2019 9:58:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.159**	**-3.736**	**1.252**	**72.15**	**72.48**	**86.54**	**165.0**
Stddev	.127	1.454	.206	.47	.10	.26	1.4
%RSD	10.93	38.92	16.43	.6472	.1371	.3009	.8418
#1	-1.249	-2.708	1.107	71.82	72.55	86.72	165.9
#2	-1.070	-4.765	1.398	72.48	72.41	86.36	164.0

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.7288**
Stddev	.2030
%RSD	27.85
#1	.8723
#2	.5852

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2351.7**	**5082.5**	**77776.**	**11977.**
Stddev	13.2	32.9	107.	36.
%RSD	.56162	.64721	.13709	.30091
#1	2342.3	5059.2	77852.	12002.
#2	2361.0	5105.8	77701.	11951.

Sample Name: CCV Acquired: 6/27/2019 10:00:25 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**489.6**	**10030.**	**996.7**	**972.5**	**1006.**	**991.3**	**10210.**	**998.9**	**958.0**
Stddev	5.8	40.	8.9	18.9	1.	3.7	78.	8.9	6.2
%RSD	1.193	.4025	.8960	1.940	.0822	.3721	.7643	.8958	.6460
#1	485.4	10050.	990.4	959.2	1005.	993.9	10270.	992.6	953.6
#2	493.7	9997.	1003.	985.9	1006.	988.7	10160.	1005.	962.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**982.0**	**997.6**	**10120.**	**90.45**	**9994.**	**992.5**	**9984.**	**990.9**	**936.6**
Stddev	8.9	3.0	69.	.04	115.	7.5	104.	4.8	9.1
%RSD	.9067	.2978	.6845	.0396	1.154	.7604	1.042	.4890	.9755
#1	975.7	999.7	10170.	90.43	9912.	987.1	10060.	994.3	930.2
#2	988.3	995.5	10070.	90.48	10080.	997.8	9910.	987.5	943.1
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10350.**	**993.7**	**967.5**	**974.2**	**9860.**	**971.4**	**966.5**	**4961.**	**990.3**
Stddev	158.	8.7	14.3	3.0	53.	13.1	12.3	8.	9.7
%RSD	1.525	.8722	1.479	.3072	.5422	1.348	1.271	.1615	.9779
#1	10240.	987.6	957.3	972.1	9822.	962.1	957.8	4966.	983.5
#2	10460.	999.9	977.6	976.4	9898.	980.7	975.2	4955.	997.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/27/2019 10:00:25 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1009.	961.5	981.3	966.4	98.33	97.35	96.37	998.7	986.6
Stddev	1.	9.3	4.6	10.2	.36	.34	.84	4.3	6.6
%RSD	.0978	.9713	.4638	1.054	.3684	.3530	.8667	.4282	.6698
#1	1008.	954.9	978.1	959.2	98.59	97.11	95.78	995.6	991.3
#2	1010.	968.1	984.5	973.6	98.08	97.60	96.96	1002.	981.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3570.4	6927.1	104470.	13337.
Stddev	1.4	25.5	369.	116.
%RSD	.03962	.36842	.35298	.86670
#1	3569.4	6945.1	104210.	13255.
#2	3571.4	6909.0	104740.	13419.

Sample Name: CCB Acquired: 6/27/2019 10:02:29 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0841**	**2.532**	**-.5358**	**-.0649**	**.2420**	**.1787**	**19.43**	**.1523**	**-.2052**
Stddev	.0524	3.422	1.305	.3050	.0056	.0638	3.36	.0193	.1648
%RSD	62.35	135.1	243.5	470.2	2.305	35.71	17.30	12.70	80.31
#1	-.1212	4.952	-1.459	-.2806	.2459	.1336	17.05	.1386	-.3217
#2	-.0470	.1124	.3869	.1508	.2381	.2238	21.81	.1659	-.0887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1038**	**.0135**	**.4685**	**100.5**	**62.75**	**1.282**	**12.52**	**-.0626**	**.6222**
Stddev	.0109	.5754	1.148	.0	4.23	.686	6.89	.1792	.3578
%RSD	10.48	4250.	245.1	.0482	6.750	53.51	55.05	286.3	57.52
#1	.0961	.4204	-.3434	100.5	59.76	.7971	7.646	.0641	.8752
#2	.1115	-.3933	1.280	100.5	65.75	1.767	17.39	-.1893	.3691
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**109.9**	**-.1906**	**.4031**	**-.0818**	**-2.120**	**.6926**	**2.936**	**.7232**	**-.2590**
Stddev	83.8	.1742	.2364	.3417	1.851	1.004	2.188	1.418	.1240
%RSD	76.22	91.40	58.65	417.8	87.31	144.9	74.53	196.0	47.88
#1	50.66	-.0674	.2359	-.3235	-.8112	1.402	1.389	1.726	-.3467
#2	169.1	-.3137	.5703	.1599	-3.429	-.0170	4.483	-.2792	-.1713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/27/2019 10:02:29 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1843	.2058	.4346	-.0238	100.4	100.4	97.40	.5140	-.0700
Stddev	.0381	.0120	.1450	.0635	.3	.2	.02	.0846	.5319
%RSD	20.69	5.814	33.35	266.8	.3229	.2019	.0232	16.46	759.8
#1	.2112	.1973	.5371	.0211	100.2	100.2	97.41	.5738	-.4461
#2	.1573	.2142	.3321	-.0687	100.6	100.5	97.38	.4541	.3061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3966.6	7071.6	107730.	13480.
Stddev	1.9	22.8	218.	3.
%RSD	.04815	.32293	.20192	.02319
#1	3965.3	7055.4	107580.	13482.
#2	3968.0	7087.7	107880.	13477.

Sample Name: 1696433_26844X5 Acquired: 6/27/2019 10:07:41 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0359**	**-5.466**	**-.5839**	**2.453**	**1.221**	**.0768**	**207.9**	**-.0612**
Stddev	.1371	1.167	.8232	.244	.135	.0192	1.2	.0257
%RSD	382.1	21.35	141.0	9.939	11.08	24.94	.5872	41.92
#1	.0611	-4.641	-1.166	2.625	1.125	.0903	208.7	-.0794
#2	-.1328	-6.292	-.0018	2.281	1.316	.0632	207.0	-.0431

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7699**	**.1695**	**-.1772**	**1.172**	**80.80**	**73.60**	**.4150**	**12.55**
Stddev	.2924	.1775	.0359	1.347	.05	14.21	.4011	15.08
%RSD	37.98	104.7	20.28	114.9	.0575	19.30	96.65	120.2
#1	-.5631	.0440	-.1518	.2199	80.83	83.65	.1314	23.22
#2	-.9767	.2950	-.2026	2.125	80.76	63.56	.6987	1.888

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0810**	**.4210**	**277900.**	**.2208**	**1.941**	**-1.020**	**12.32**	**1.177**
Stddev	.1436	.4060	3590.	.3329	1.025	.819	.96	1.315
%RSD	177.3	96.43	1.292	150.8	52.83	80.30	7.824	111.7
#1	.1825	.1339	275400.	.4562	1.216	-1.600	13.00	.2475
#2	-.0205	.7081	280400.	-.0146	2.665	-.4410	11.64	2.107

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.9709**	**12.94**	**.6861**	**13.08**	**-.0500**	**1.809**	**-.0545**	**91.66**
Stddev	1.747	1.39	.7382	.19	.1779	1.250	.1461	.10
%RSD	179.9	10.74	107.6	1.450	355.5	69.11	268.0	.1124
#1	-2.206	11.96	.1641	12.95	.0758	.9249	.0488	91.73
#2	.2644	13.93	1.208	13.22	-.1759	2.693	-.1579	91.59

Sample Name: 1696433_26844X5 Acquired: 6/27/2019 10:07:41 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**89.59**	**96.48**	**2.649**	**.1362**
Stddev	.33	1.27	.066	1.113
%RSD	.3681	1.321	2.496	817.6
#1	89.35	95.58	2.602	.9235
#2	89.82	97.38	2.696	-.6512

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3189.3**	**6457.0**	**96137.**	**13353.**
Stddev	1.8	7.3	354.	176.
%RSD	.05748	.11239	.36814	1.3213
#1	3190.5	6462.2	95887.	13228.
#2	3188.0	6451.9	96388.	13478.

Sample Name: 1696434_26844X5 Acquired: 6/27/2019 10:09:53 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1395**	**-4.547**	**1.036**	**3.317**	**1.620**	**.0589**	**40.07**	**-.0411**
Stddev	.1446	4.074	1.300	.828	.018	.0063	3.34	.0161
%RSD	103.7	89.60	125.5	24.97	1.106	10.77	8.334	39.26
#1	.2418	-1.666	1.956	3.902	1.633	.0544	42.43	-.0297
#2	.0372	-7.428	.1169	2.731	1.607	.0634	37.71	-.0525

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.8665**	**.3639**	**-.3041**	**-.0324**	**80.54**	**55.51**	**.2889**	**20.62**
Stddev	.2966	.0733	.4904	.0255	.55	22.81	.6392	11.24
%RSD	34.23	20.14	161.2	78.75	.6865	41.09	221.3	54.53
#1	-1.076	.3121	.0426	-.0144	80.93	39.38	-.1631	28.57
#2	-.6568	.4157	-.6509	-.0504	80.15	71.64	.7408	12.67

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1344**	**.1136**	**272500.**	**-.1970**	**13.37**	**-.2743**	**9.016**	**2.370**
Stddev	.2076	.2136	5772.	.4537	1.85	.2768	1.738	.217
%RSD	154.4	188.0	2.118	230.3	13.86	100.9	19.27	9.168
#1	.0124	-.0375	268400.	.1238	14.68	-.4700	10.24	2.523
#2	-.2813	.2647	276600.	-.5178	12.06	-.0786	7.787	2.216

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.668**	**13.78**	**.9861**	**.2107**	**-.0044**	**.2365**	**-.0937**	**91.51**
Stddev	4.081	1.35	.9437	.0166	.0404	1.271	.0806	.34
%RSD	153.0	9.796	95.70	7.871	917.1	537.6	86.10	.3725
#1	.2179	12.83	1.653	.2224	.0241	1.135	-.0366	91.75
#2	-5.553	14.74	.3188	.1990	-.0330	-.6625	-.1507	91.27

Sample Name: 1696434_26844X5 Acquired: 6/27/2019 10:09:53 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**89.54**	**96.28**	**1.575**	**-.7883**
Stddev	.08	.32	.016	.0037
%RSD	.0860	.3301	1.000	.4748
#1	89.60	96.51	1.586	-.7910
#2	89.49	96.06	1.564	-.7857

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3179.2**	**6446.5**	**96091.**	**13325.**
Stddev	21.8	24.0	83.	44.
%RSD	.68653	.37250	.08602	.33013
#1	3194.6	6463.5	96150.	13356.
#2	3163.7	6429.6	96033.	13294.

Sample Name: 30300161001_26844X5 Acquired: 6/27/2019 10:12:11 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3129**	**-8.471**	**2.276**	**5.403**	**233.8**	**-.0144**	**145700.**	**.4826**
Stddev	.1457	2.027	1.928	.356	3.8	.0395	1513.	.0931
%RSD	46.58	23.92	84.72	6.584	1.621	274.0	1.038	19.30
#1	-.4159	-9.904	3.640	5.152	231.1	.0135	144700.	.4167
#2	-.2098	-7.038	.9126	5.655	236.5	-.0424	146800.	.5485

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3781**	**.6784**	**.7779**	**.5525**	**76.74**	**578.3**	**3.113**	**2221.**
Stddev	.3097	.1079	.0850	1.898	.82	48.8	.454	27.
%RSD	81.92	15.91	10.93	343.6	1.073	8.440	14.57	1.226
#1	.1591	.7547	.7177	1.895	76.16	543.8	2.792	2201.
#2	.5971	.6021	.8380	-.7897	77.32	612.9	3.433	2240.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**757.7**	**-.1067**	**269600.**	**2.766**	**.0783**	**-1.032**	**336.3**	**.7794**
Stddev	5.7	.3133	4460.	.182	3.087	1.415	5.7	.0781
%RSD	.7536	293.6	1.654	6.590	3945.	137.1	1.697	10.01
#1	753.7	-.3282	266500.	2.895	-2.105	-2.032	340.4	.8346
#2	761.8	.1148	272800.	2.637	2.261	-.0313	332.3	.7242

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.966**	**404.6**	**.5584**	**259.0**	**-.2848**	**.3260**	**.2248**	**88.74**
Stddev	.771	.6	.4104	4.3	.0931	1.313	.0656	.84
%RSD	15.53	.1482	73.50	1.671	32.68	402.9	29.18	.9441
#1	-4.421	404.2	.8486	256.0	-.3506	1.255	.1784	88.14
#2	-5.512	405.1	.2682	262.1	-.2190	-.6027	.2712	89.33

Sample Name: 30300161001_26844X5 Acquired: 6/27/2019 10:12:11 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**87.67**	**95.18**	**34.09**	**-.2385**
Stddev	.10	.68	.37	.2492
%RSD	.1084	.7164	1.072	104.5
#1	87.60	94.70	34.34	-.0623
#2	87.74	95.67	33.83	-.4148

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3029.0**	**6251.1**	**94081.**	**13173.**
Stddev	32.5	59.0	102.	94.
%RSD	1.0730	.94410	.10835	.71638
#1	3006.1	6209.4	94009.	13106.
#2	3052.0	6292.8	94153.	13240.

Sample Name: 1697712_26844X5 Acquired: 6/27/2019 10:14:23 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.81**	**993.9**	**96.72**	**106.4**	**233.0**	**98.46**	**138900.**
Stddev	.30	21.7	5.69	7.2	6.4	1.81	3327.
%RSD	.5943	2.184	5.884	6.740	2.729	1.837	2.395
#1	50.60	978.6	92.70	101.3	228.5	97.18	136600.
#2	51.02	1009.	100.7	111.4	237.5	99.74	141300.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**100.7**	**95.63**	**100.2**	**98.77**	**970.6**	**78.97**	**1737.**
Stddev	6.0	5.94	.8	1.44	21.2	3.99	64.
%RSD	5.932	6.210	.8341	1.454	2.186	5.049	3.662
#1	96.48	91.43	99.57	97.75	955.6	81.79	1692.
#2	104.9	99.82	100.8	99.78	985.6	76.15	1782.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**103.3**	**3164.**	**609.1**	**94.60**	**271800.**	**95.47**	**111.9**
Stddev	2.9	62.	14.0	5.23	7307.	5.68	5.4
%RSD	2.809	1.947	2.298	5.531	2.688	5.947	4.870
#1	101.2	3121.	599.2	90.91	266600.	91.45	108.0
#2	105.3	3208.	619.0	98.30	277000.	99.48	115.7

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**99.90**	**1431.**	**98.56**	**96.98**	**955.0**	**93.51**	**327.7**
Stddev	5.65	84.	4.34	5.61	11.7	6.16	7.8
%RSD	5.655	5.880	4.400	5.788	1.230	6.590	2.383
#1	95.91	1372.	95.49	93.01	946.7	89.15	322.2
#2	103.9	1491.	101.6	100.9	963.3	97.87	333.3

Sample Name: 1697712_26844X5 Acquired: 6/27/2019 10:14:23 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	TI1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**98.59**	**85.00**	**101.5**	**92.28**	**88.56**	**96.88**	**98.99**
Stddev	1.09	3.07	1.0	4.57	.08	.54	5.97
%RSD	1.103	3.614	1.018	4.952	.0931	.5610	6.031
#1	97.82	82.82	100.8	95.51	88.50	97.27	94.77
#2	99.35	87.17	102.3	89.04	88.62	96.50	103.2

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**79.55**
Stddev	1.94
%RSD	2.432
#1	78.18
#2	80.91

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3117.2**	**6500.5**	**95034.**	**13408.**
Stddev	157.4	321.9	88.	75.
%RSD	5.0494	4.9522	.09309	.56105
#1	3228.5	6728.1	94972.	13462.
#2	3005.9	6272.9	95097.	13355.

Sample Name: 1697711_26844X5 Acquired: 6/27/2019 10:16:32 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.79**	**1003.**	**100.5**	**109.6**	**237.0**	**100.1**	**142100.**	**104.5**
Stddev	.55	5.	.1	1.0	4.4	1.1	2125.	.3
%RSD	1.078	.5267	.0862	.9170	1.860	1.060	1.496	.2830
#1	50.41	999.1	100.5	108.9	233.9	99.35	140600.	104.7
#2	51.18	1007.	100.4	110.3	240.1	100.9	143600.	104.3

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**98.11**	**101.0**	**98.41**	**994.3**	**76.18**	**1740.**	**105.0**	**3231.**
Stddev	.43	.2	3.11	13.0	.13	71.	1.4	39.
%RSD	.4400	.1884	3.156	1.307	.1726	4.083	1.307	1.200
#1	97.80	100.9	96.21	985.1	76.27	1690.	104.0	3204.
#2	98.41	101.2	100.6	1003.	76.09	1791.	105.9	3259.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**620.5**	**98.54**	**277200.**	**98.26**	**118.1**	**102.3**	**1486.**	**102.3**
Stddev	4.9	.86	5034.	.76	1.3	.4	3.	.2
%RSD	.7952	.8698	1.816	.7689	1.074	.3639	.1884	.2078
#1	617.0	97.93	273700.	97.72	117.2	102.0	1484.	102.2
#2	624.0	99.14	280800.	98.79	119.0	102.5	1488.	102.5

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**103.5**	**973.1**	**96.08**	**333.5**	**98.31**	**86.38**	**101.3**	**88.76**
Stddev	6.6	.7	.12	5.0	.28	.13	.1	.09
%RSD	6.427	.0678	.1259	1.512	.2836	.1461	.1056	.1067
#1	108.2	973.6	96.16	330.0	98.11	86.46	101.2	88.69
#2	98.76	972.6	95.99	337.1	98.51	86.29	101.3	88.83

Sample Name: 1697711_26844X5 Acquired: 6/27/2019 10:16:32 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**87.78**	**96.22**	**102.8**	**87.80**
Stddev	.11	.28	.7	1.33
%RSD	.1272	.2954	.6617	1.512
#1	87.70	96.42	102.3	86.86
#2	87.86	96.02	103.2	88.74

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3007.0**	**6252.9**	**94197.**	**13316.**
Stddev	5.2	6.7	120.	39.
%RSD	.17259	.10668	.12718	.29537
#1	3010.6	6248.2	94112.	13344.
#2	3003.3	6257.6	94282.	13288.

Sample Name: 1697710_26844X5 Acquired: 6/27/2019 10:18:40 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2688**	**-6.374**	**.6529**	**8.718**	**132.2**	**.0007**	**134500.**
Stddev	.0731	1.021	1.036	.330	2.6	.0044	2170.
%RSD	27.19	16.02	158.6	3.789	1.952	652.1	1.613
#1	-.3205	-7.096	1.385	8.485	130.4	-.0024	133000.
#2	-.2171	-5.652	-.0794	8.952	134.1	.0038	136100.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1249**	**-.1777**	**.6719**	**.0820**	**3.820**	**77.12**	**639.0**
Stddev	.1180	.0802	.1464	1.013	2.103	.25	26.8
%RSD	94.47	45.12	21.79	1236.	55.05	.3180	4.190
#1	.2084	-.1210	.7754	.7983	5.307	76.95	620.1
#2	.0415	-.2344	.5683	-.6344	2.333	77.30	658.0

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.367**	**2148.**	**500.2**	**.7204**	**263900.**	**2.420**	**6.791**
Stddev	.013	12.	6.7	.0720	5996.	.195	2.110
%RSD	.5680	.5784	1.341	9.996	2.272	8.050	31.07
#1	2.377	2140.	495.4	.7713	259700.	2.283	8.283
#2	2.358	2157.	504.9	.6695	268200.	2.558	5.299

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.725**	**387.7**	**.6544**	**-.9181**	**402.7**	**.9777**	**222.4**
Stddev	1.205	2.5	1.146	2.402	3.9	.1918	4.2
%RSD	69.83	.6449	175.1	261.6	.9714	19.62	1.910
#1	.8735	389.5	1.465	.7804	405.4	1.113	219.4
#2	2.577	385.9	-.1559	-2.617	399.9	.8421	225.4

Sample Name: 1697710_26844X5 Acquired: 6/27/2019 10:18:40 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1998	.7723	.0094	89.02	88.37	96.63	2.789
Stddev	.1003	1.606	.2376	.01	.38	.06	.240
%RSD	50.20	208.0	2537.	.0159	.4275	.0617	8.591
#1	-.1289	1.908	-.1587	89.03	88.10	96.59	2.619
#2	-.2707	-.3634	.1774	89.01	88.64	96.67	2.958

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.1718
Stddev	.3195
%RSD	185.9
#1	.3977
#2	-.0541

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3044.2	6271.3	94834.	13373.
Stddev	9.7	1.0	405.	8.
%RSD	.31802	.01585	.42748	.06167
#1	3037.4	6272.0	94547.	13368.
#2	3051.1	6270.6	95120.	13379.

Sample Name: 30300161002_26844X5 Acquired: 6/27/2019 10:20:52 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3953**	**-7.516**	**2.800**	**8.763**	**131.7**	**-.0298**	**133900.**	**.1573**
Stddev	.1086	.697	.375	.246	2.3	.0325	3071.	.0265
%RSD	27.47	9.268	13.40	2.810	1.712	109.1	2.293	16.87
#1	-.3185	-7.023	3.065	8.589	130.1	-.0527	131800.	.1761
#2	-.4721	-8.008	2.534	8.937	133.3	-.0068	136100.	.1385

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1400**	**.6497**	**.2631**	**2.531**	**76.92**	**634.6**	**2.029**	**2148.**
Stddev	.0658	.0642	1.642	1.426	.08	31.0	.037	49.
%RSD	47.02	9.875	624.3	56.35	.0991	4.883	1.835	2.295
#1	-.1865	.6043	-.8983	3.540	76.87	612.7	2.003	2114.
#2	-.0934	.6950	1.424	1.523	76.97	656.5	2.055	2183.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.0**	**.3459**	**261800.**	**2.224**	**7.728**	**-2.453**	**389.8**	**.8069**
Stddev	9.5	.4289	6295.	.681	3.191	1.297	.4	.5761
%RSD	1.895	124.0	2.404	30.63	41.30	52.89	.1025	71.39
#1	495.3	.6492	257400.	2.706	9.984	-3.370	390.1	1.214
#2	508.8	.0427	266300.	1.743	5.471	-1.536	389.5	.3996

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.182**	**411.1**	**.6382**	**222.2**	**-.2747**	**1.257**	**-.0511**	**88.81**
Stddev	5.276	7.7	.9034	3.9	.2624	.131	.0874	.18
%RSD	446.4	1.879	141.6	1.758	95.53	10.38	171.0	.2038
#1	-4.912	405.6	1.277	219.5	-.4602	1.349	-.1129	88.68
#2	2.549	416.6	-.0006	225.0	-.0891	1.165	.0107	88.94

Sample Name: 30300161002_26844X5 Acquired: 6/27/2019 10:20:52 Type: Unk
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**88.09**	**97.43**	**3.502**	**-.5413**
Stddev	.54	.44	.159	.6933
%RSD	.6170	.4465	4.535	128.1
#1	87.70	97.74	3.614	-.0511
#2	88.47	97.12	3.389	-1.032

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3036.2**	**6256.5**	**94528.**	**13484.**
Stddev	3.0	12.8	583.	60.
%RSD	.09911	.20381	.61698	.44650
#1	3034.1	6247.5	94115.	13527.
#2	3038.4	6265.5	94940.	13442.

Sample Name: CCV Acquired: 6/27/2019 10:23:07 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.3**	**9847.**	**982.0**	**1002.**	**995.9**	**994.0**	**9959.**	**991.6**	**977.1**
Stddev	5.2	63.	.1	9.	.7	.4	22.	6.3	1.7
%RSD	1.063	.6441	.0058	.8535	.0654	.0377	.2248	.6336	.1767
#1	486.7	9892.	981.9	996.3	996.3	993.8	9975.	987.2	975.9
#2	494.0	9802.	982.0	1008.	995.4	994.3	9943.	996.0	978.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**983.5**	**991.1**	**9914.**	**90.30**	**9820.**	**983.5**	**9835.**	**991.0**	**967.4**
Stddev	5.9	4.3	38.	.52	52.	4.5	10.	.2	4.5
%RSD	.5977	.4311	.3782	.5736	.5314	.4535	.1064	.0199	.4600
#1	979.3	994.1	9941.	89.94	9784.	986.7	9843.	991.1	964.2
#2	987.6	988.1	9888.	90.67	9857.	980.4	9828.	990.8	970.5
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10120.**	**1004.**	**995.5**	**977.9**	**9791.**	**978.9**	**989.8**	**4905.**	**995.2**
Stddev	28.	8.	8.5	4.5	82.	5.3	3.8	5.	5.9
%RSD	.2781	.7547	.8489	.4637	.8425	.5428	.3888	.0936	.5962
#1	10140.	998.2	989.5	974.7	9732.	975.2	987.1	4909.	991.0
#2	10100.	1009.	1001.	981.1	9849.	982.7	992.5	4902.	999.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/27/2019 10:23:07 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.	966.8	988.0	977.4	98.52	97.47	99.81	995.1	1007.
Stddev	.	6.1	3.7	8.3	.19	.11	.40	6.3	8.
%RSD	.0274	.6299	.3782	.8467	.1909	.1133	.4050	.6354	.7529
#1	1015.	962.5	985.4	971.5	98.38	97.39	99.53	990.6	1012.
#2	1015.	971.1	990.7	983.2	98.65	97.55	100.1	999.6	1001.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3564.5	6940.1	104600.	13813.
Stddev	20.4	13.3	119.	56.
%RSD	.57358	.19095	.11332	.40495
#1	3550.0	6930.7	104520.	13774.
#2	3578.9	6949.5	104680.	13853.

Sample Name: CCB Acquired: 6/27/2019 10:25:09 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2107**	**.7056**	**-.9097**	**.9356**	**.1459**	**.2130**	**3.738**	**.0535**	**-.3177**
Stddev	.0103	.8447	.5540	.1256	.0644	.0035	5.244	.0257	.2101
%RSD	4.895	119.7	60.90	13.43	44.17	1.643	140.3	48.13	66.13
#1	-.2180	.1083	-.5180	.8467	.1914	.2105	.0303	.0716	-.1691
#2	-.2034	1.303	-1.301	1.024	.1003	.2154	7.446	.0353	-.4662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2537**	**-.4158**	**1.951**	**100.7**	**29.80**	**1.110**	**1.494**	**.0215**	**.7618**
Stddev	.0880	.9338	.479	.1	5.78	1.138	.298	.0666	.4755
%RSD	34.68	224.6	24.57	.0972	19.40	102.5	19.96	310.1	62.42
#1	.3159	-1.076	2.290	100.8	33.88	.3052	1.705	.0685	1.098
#2	.1915	.2445	1.612	100.6	25.71	1.915	1.284	-.0256	.4256
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**183.0**	**-.3595**	**-1.678**	**-.7871**	**.1296**	**2.158**	**1.139**	**7.732**	**.2548**
Stddev	82.5	.1410	.122	.1958	2.433	1.152	.124	.061	.7493
%RSD	45.07	39.21	7.284	24.87	1877.	53.40	10.86	.7894	294.0
#1	241.3	-.2598	-1.591	-.9256	-1.591	1.343	1.227	7.775	.7846
#2	124.7	-.4592	-1.764	-.6487	1.850	2.973	1.052	7.689	-.2750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/27/2019 10:25:09 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1900	.2899	-.0471	.1236	100.5	101.1	100.9	.5273	-.3972
Stddev	.0705	.0230	.3506	.2021	.1	.3	.2	.0152	.4483
%RSD	37.09	7.935	745.0	163.5	.0768	.3179	.1859	2.892	112.9
#1	.2398	.3062	-.2950	.2665	100.5	100.9	101.0	.5165	-.0802
#2	.1401	.2737	.2009	-.0193	100.4	101.3	100.8	.5381	-.7142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3974.2	7078.6	108500.	13965.
Stddev	3.9	5.4	345.	26.
%RSD	.09715	.07685	.31788	.18593
#1	3976.9	7082.4	108260.	13984.
#2	3971.4	7074.7	108750.	13947.

Sample Name: ICSA Acquired: 6/27/2019 10:31:34 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4647**	**51610.**	**-.2114**	**-.7109**	**.0504**	**.0309**	**50970.**	**.4804**	**-.3447**
Stddev	.0124	589.	1.016	.3688	.0138	.0425	737.	.0873	.1690
%RSD	2.662	1.142	480.5	51.87	27.28	137.7	1.447	18.17	49.03
#1	-.4734	51190.	-.9298	-.9717	.0602	.0008	50440.	.5421	-.4642
#2	-.4559	52030.	.5069	-.4502	.0407	.0609	51490.	.4187	-.2252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0151**	**.2025**	**19990.**	**87.14**	**23.03**	**1.178**	**51120.**	**-.4839**	**-.1235**
Stddev	.0711	.2773	229.	.51	3.76	.595	715.	.2106	.2433
%RSD	469.6	136.9	1.145	.5830	16.34	50.53	1.398	43.52	197.0
#1	.0351	.3986	19830.	86.78	20.37	1.599	50610.	-.6329	.0486
#2	-.0654	.0064	20160.	87.50	25.70	.7569	51630.	-.3350	-.2955
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**107.0**	**.2687**	**-.0170**	**-.7315**	**-5.155**	**1.829**	**-.3585**	**10.32**	**1.051**
Stddev	25.8	.0092	2.465	.5186	3.283	1.047	1.643	.24	.354
%RSD	24.10	3.442	14470.	70.90	63.70	57.26	458.2	2.323	33.65
#1	125.2	.2752	-1.760	-.3647	-7.476	1.088	-1.520	10.15	1.301
#2	88.76	.2621	1.726	-1.098	-2.833	2.569	.8031	10.49	.8009
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/27/2019 10:31:34 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2559**	**.2693**	**-1.588**	**.7286**	**97.46**	**96.55**	**99.59**	**.6332**	**-.3879**
Stddev	.0013	.0941	1.693	.1675	.40	.12	.14	.0009	1.435
%RSD	.4893	34.95	106.6	22.99	.4122	.1257	.1372	.1480	370.0
#1	-.2550	.3359	-.3909	.8470	97.17	96.47	99.69	.6326	-1.402
#2	-.2568	.2028	-2.785	.6102	97.74	96.64	99.49	.6339	.6268
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3439.5**	**6865.5**	**103610.**	**13783.**
Stddev	20.1	28.3	130.	19.
%RSD	.58305	.41223	.12573	.13717
#1	3425.4	6845.5	103520.	13796.
#2	3453.7	6885.5	103710.	13769.

Sample Name: ICSAB Acquired: 6/27/2019 10:34:29 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1009.**	**51010.**	**2.575**	**-2.442**	**496.8**	**506.8**	**50160.**	**981.8**	**488.8**
Stddev	7.	376.	1.320	.996	4.5	3.0	474.	10.3	5.5
%RSD	.6588	.7367	51.26	40.78	.8960	.5889	.9445	1.044	1.122
#1	1004.	50740.	1.642	-1.738	493.6	504.7	49820.	989.1	492.7
#2	1013.	51270.	3.508	-3.146	499.9	508.9	50490.	974.6	484.9
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.6**	**493.2**	**19760.**	**87.30**	**13.33**	**.6634**	**50380.**	**491.2**	**-.4031**
Stddev	1.3	2.9	153.	.59	.32	.2799	408.	3.5	.0888
%RSD	.2696	.5809	.7732	.6706	2.386	42.20	.8107	.7216	22.03
#1	493.6	491.1	19660.	86.88	13.56	.4655	50090.	488.7	-.4659
#2	495.5	495.2	19870.	87.71	13.11	.8614	50670.	493.7	-.3403
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**116.2**	**971.6**	**-1.965**	**974.3**	**-9.581**	**.4280**	**.6889**	**-16.23**	**.9765**
Stddev	89.6	12.3	2.258	12.2	.639	.0270	1.042	7.40	.0933
%RSD	77.07	1.270	114.9	1.248	6.667	6.311	151.3	45.60	9.555
#1	179.6	980.3	-3.562	982.9	-10.03	.4471	-.0481	-11.00	.9105
#2	52.89	962.8	-.3687	965.7	-9.129	.4089	1.426	-21.47	1.042
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 6/27/2019 10:34:29 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2318**	**.1892**	**3.874**	**497.0**	**97.65**	**96.78**	**100.7**	**972.5**	**-.8173**
Stddev	.0206	.0340	1.353	2.6	.70	.31	.5	9.3	.2472
%RSD	8.874	17.95	34.93	.5185	.7173	.3203	.4679	.9588	30.25
#1	-.2463	.2132	4.830	495.2	97.15	96.56	101.1	979.1	-.9921
#2	-.2173	.1652	2.917	498.8	98.14	97.00	100.4	965.9	-.6425
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3445.8**	**6878.8**	**103860.**	**13940.**
Stddev	23.1	49.3	333.	65.
%RSD	.67061	.71732	.32032	.46793
#1	3429.5	6843.9	103620.	13986.
#2	3462.2	6913.7	104090.	13894.

Sample Name: CRDL Acquired: 6/27/2019 10:37:17 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.434**	**55.36**	**4.139**	**51.22**	**10.34**	**1.106**	**1045.**	**3.143**	**4.790**
Stddev	.143	1.46	.611	.01	.05	.060	2.	.050	.185
%RSD	2.226	2.636	14.76	.0199	.4444	5.389	.2141	1.576	3.858
#1	6.536	54.33	4.571	51.23	10.37	1.148	1046.	3.178	4.660
#2	6.333	56.39	3.707	51.22	10.30	1.064	1043.	3.108	4.921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.901**	**3.930**	**75.80**	**100.7**	**518.9**	**41.47**	**229.9**	**4.837**	**19.79**
Stddev	.343	.210	1.41	.0	4.1	1.25	7.7	.192	.34
%RSD	7.000	5.352	1.865	.0165	.7992	3.001	3.346	3.970	1.693
#1	4.659	4.079	74.80	100.7	521.8	40.59	224.5	4.973	19.55
#2	5.144	3.782	76.80	100.7	516.0	42.35	235.4	4.701	20.03
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1109.**	**9.909**	**49.92**	**5.140**	**49.50**	**6.054**	**8.361**	**108.0**	**52.18**
Stddev	53.	.323	2.34	.852	1.65	.202	3.343	2.1	.58
%RSD	4.793	3.256	4.677	16.58	3.337	3.341	39.98	1.956	1.117
#1	1146.	9.681	48.27	5.743	50.67	6.197	10.72	106.5	51.76
#2	1071.	10.14	51.57	4.538	48.33	5.911	5.998	109.5	52.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 6/27/2019 10:37:17 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.243**	**4.950**	**9.660**	**4.938**	**102.7**	**102.7**	**101.3**	**10.12**	**67.17**
Stddev	.023	.031	1.229	.007	.1	.1	1.1	.14	.95
%RSD	.4468	.6231	12.72	.1463	.0747	.0678	1.053	1.359	1.421
#1	5.227	4.971	8.791	4.943	102.8	102.7	100.6	10.22	66.49
#2	5.260	4.928	10.53	4.933	102.6	102.6	102.1	10.02	67.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3974.0**	**7235.0**	**110180.**	**14022.**
Stddev	.7	5.4	75.	148.
%RSD	.01646	.07472	.06785	1.0533
#1	3973.5	7238.9	110230.	13918.
#2	3974.5	7231.2	110120.	14127.

Sample Name: CCV Acquired: 6/27/2019 11:15:11 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.5**	**9526.**	**962.2**	**1006.**	**963.2**	**981.7**	**9943.**	**982.1**	**988.5**
Stddev	5.1	16.	8.2	6.	5.5	3.8	7.	8.5	6.2
%RSD	1.049	.1649	.8484	.6410	.5727	.3862	.0683	.8703	.6249
#1	483.9	9515.	956.4	1001.	959.3	979.1	9938.	976.0	984.1
#2	491.1	9537.	967.9	1010.	967.1	984.4	9948.	988.1	992.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**978.2**	**961.1**	**9729.**	**92.62**	**9577.**	**944.6**	**9880.**	**984.4**	**985.6**
Stddev	2.3	2.8	59.	.02	126.	3.6	90.	1.4	6.7
%RSD	.2346	.2876	.6062	.0267	1.311	.3802	.9146	.1432	.6829
#1	976.6	959.1	9687.	92.64	9489.	942.0	9816.	983.4	980.8
#2	979.9	963.0	9770.	92.61	9666.	947.1	9944.	985.4	990.3
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10220.**	**1007.**	**1004.**	**990.6**	**9705.**	**974.5**	**998.5**	**4826.**	**998.8**
Stddev	99.	7.	10.	3.1	70.	8.2	5.7	31.	6.5
%RSD	.9709	.7338	.9568	.3172	.7248	.8376	.5689	.6477	.6535
#1	10150.	1002.	997.2	988.3	9655.	968.7	994.5	4804.	994.2
#2	10290.	1012.	1011.	992.8	9755.	980.2	1003.	4848.	1003.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 6/27/2019 11:15:11 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**991.7**	**958.6**	**1005.**	**979.9**	**101.6**	**100.0**	**101.6**	**1011.**	**978.3**
Stddev	4.3	4.7	12.	5.5	.0	.6	.1	3.	.6
%RSD	.4355	.4884	1.167	.5654	.0234	.6461	.0510	.3136	.0657
#1	988.6	955.2	997.0	976.0	101.7	99.57	101.7	1009.	977.8
#2	994.7	961.9	1014.	983.8	101.6	100.5	101.6	1013.	978.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3656.1**	**7160.5**	**107340.**	**14064.**
Stddev	1.0	1.7	694.	7.
%RSD	.02668	.02343	.64611	.05102
#1	3656.8	7161.7	106850.	14069.
#2	3655.4	7159.4	107830.	14059.

Sample Name: CCB Acquired: 6/27/2019 11:17:15 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2966**	**-1.502**	**.3358**	**.6294**	**.2298**	**.1412**	**16.34**	**.1000**	**-.0089**
Stddev	.1984	4.408	1.309	.0495	.0079	.0183	1.29	.1167	.2253
%RSD	66.87	293.5	389.9	7.860	3.442	12.99	7.923	116.7	2544.
#1	-.1564	1.615	-.5901	.6644	.2242	.1542	15.42	.1825	-.1682
#2	-.4369	-4.619	1.262	.5945	.2354	.1282	17.25	.0175	.1505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0816**	**-.4228**	**.9316**	**103.2**	**31.16**	**.5355**	**11.68**	**.0964**	**.7742**
Stddev	.1020	.1730	2.180	.2	2.47	.6258	4.35	.2073	.2153
%RSD	124.9	40.92	234.0	.2247	7.936	116.9	37.23	215.0	27.80
#1	.1537	-.3005	2.473	103.0	32.91	.9781	8.608	-.0502	.9265
#2	.0095	-.5451	-.6097	103.4	29.42	.0930	14.76	.2430	.6220
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**86.80**	**-.3121**	**-2.264**	**.6452**	**1.247**	**2.384**	**-2.451**	**4.966**	**-.2922**
Stddev	.59	.0777	.973	.9672	.653	.299	2.776	2.174	.8505
%RSD	.6762	24.88	43.00	149.9	52.41	12.52	113.3	43.78	291.1
#1	87.21	-.2572	-2.952	1.329	.7846	2.595	-4.414	3.429	.3092
#2	86.38	-.3670	-1.575	-.0388	1.709	2.173	-.4880	6.503	-.8936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 6/27/2019 11:17:15 Type: QC
Method: Pace-65002-2-CETAC1(v1749) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2142	.1564	.7233	.0658	104.0	103.5	102.5	.3397	.3860
Stddev	.0406	.1646	1.691	.0016	.1	.1	.3	.1921	.4127
%RSD	18.95	105.2	233.7	2.440	.1382	.1015	.3281	56.55	106.9
#1	.2429	.2727	-.4722	.0646	104.1	103.6	102.2	.2038	.0942
#2	.1855	.0400	1.919	.0669	103.9	103.4	102.7	.4755	.6778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4073.4	7327.6	111060.	14183.
Stddev	9.2	10.1	113.	47.
%RSD	.22465	.13815	.10154	.32811
#1	4066.9	7334.7	111140.	14151.
#2	4079.8	7320.4	110980.	14216.

Prep Log Report

Batch Information: TCLP 8691/348888; 8692/348889

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/25/2019 12:17:08:970	Tumbler Start Temp. (C)	20.8
Tumbler End Temp. (C)	22	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 90433	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1696432**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
TCLP	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
TCLP	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
TCLP	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
TCLP	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
TCLP	PS	**30300768001**	Y		H	30TBL5	HP001	Other	Y	Y	7.63	1.43	5	100
TCLP	PS	**30300762002**	Y		I	30TBL5	HP001	Other	Y	Y	8.4	1.6	5	100
TCLP	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100
TCLP	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
TCLP	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
TCLP	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
TCLP	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	LB	**1696433**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1696434**	Y		1	30TBL5	HP001		Y	Y	4.88		0	100
1311MET_L	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
1311MET_L	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
1311MET_L	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
1311MET_L	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
1311MET_L	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
1311MET_L	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
1311MET_L	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
1311MET_L	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
1311MET_L	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	PS	**30300200001**	Y		2	30TBL5	HP001	Other	Y	Y	9.66	1.57	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1696432**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146				
TCLP	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146				
TCLP	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146		476.2	478.3	2.1
TCLP	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146				
TCLP	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146				
TCLP	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146				
TCLP	PS	**30300768001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.75	06/26/2019 09:44:35:146				
TCLP	PS	**30300762002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.17	06/26/2019 09:44:52:223				
TCLP	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146				
TCLP	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146				
TCLP	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146				
TCLP	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146				
1311MET_L	LB	**1696433**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146	Y			
1311MET_L	LB	**1696434**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.84	06/26/2019 10:03:35:146	Y			
1311MET_L	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146	Y			
1311MET_L	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146	Y	476.2	478.3	2.1
1311MET_L	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146	Y			
1311MET_L	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300200001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.97	06/26/2019 10:19:35:146	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1696432**								2000	
TCLP	PS	**30300500001**								2000	sand
TCLP	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
TCLP	PS	**30300161001**								2000	dirt
TCLP	PS	**30300161002**								2000	clay
TCLP	PS	**30300192001**								2000	sand
TCLP	PS	**30300768001**								2000	water
TCLP	PS	**30300762002**								2000	dirt
TCLP	PS	**30300510001**								2000	fabric
TCLP	PS	**30300616001**								2000	rock
TCLP	PS	**30300616002**								2000	rock
TCLP	PS	**30300616003**								2000	rock
TCLP	PS	**30310254001**								2000	rock
1311MET_L	LB	**1696433**								2000	
1311MET_L	LB	**1696434**								2000	
1311MET_L	PS	**30300500001**								2000	sand
1311MET_L	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
1311MET_L	PS	**30300161001**								2000	dirt

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30300161002**								2000	clay
1311MET_L	PS	**30300192001**								2000	sand
1311MET_L	PS	**30300510001**								2000	fabric
1311MET_L	PS	**30300616001**								2000	rock
1311MET_L	PS	**30300616002**								2000	rock
1311MET_L	PS	**30300616003**								2000	rock
1311MET_L	PS	**30310254001**								2000	rock
1311MET_L	PS	**30300200001**								2000	rock

Prep Log Report

Batch Information: MPRP 349202-3005 B TCLP **Template Version: F-PA-I-001-Rev.00 (5May2016)**

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	06/26/2019 14:30:09:244
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	95.9	Correction Factor (C)	-0.2
Corrected Temp. (C)	95.70	Therm. Position	2.5	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	06/26/2019 15:05:24:800
Digestion End Time	06/26/2019 20:15:38:502	Digestion Vessel	91657	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B ST_P	BLANK	**1697708**	Water	Yes	50	90433 (1)	91031 (2.5)	50					
3005B ST_P	LCS	**1697709**	Water	Yes	50	90433 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30300161001**	Solid	Yes	50	90433 (1)	91031 (2.5)	50					
3005B ST_P	DUP	**1697710**	Solid	Yes	50	90433 (1)	91031 (2.5)	50					
3005B ST_P	MS	**1697711**	Solid	Yes	50	90433 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	MSD	**1697712**	Solid	Yes	50	90433 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30300161002**	Solid	Yes	50	90433 (1)	91031 (2.5)	50					
3005B ST_P	LB	**1696433**	Water	Yes	50	90433 (1)	91031 (2.5)	50		EF 1G 6/25			
3005B ST_P	LB	**1696434**	Water	Yes	50	90433 (1)	91031 (2.5)	50		EF 1P 6/25			

Standard Notes:

87420: 6010-SPK1 ICP **87421: 6010-SPK2 ICP** **87422: 6010-SPK3 ICP**

SAMPLE NO.

AOC 26-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	06/26/2019 21:26

SAMPLE NO.

AOC 26-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	06/26/2019 21:32

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 92099

Continuing Calibration Verification Source: 92097

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	06/26/2019 21:03				06/26/2019 21:05			06/26/2019 21:28			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	0.99	99.0	90-110	5.0	5.0	100.0	5.0	5.0	100.0	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 92097

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification						
	06/26/2019 21:48			06/26/2019 22:06			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Mercury	5.0	5.0	99.0	5.0	4.9	98.4	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 91163,92020,92094 Analysis Date/Time: 06/26/2019 21:10

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.19	95.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	06/26/2019 21:08	C	06/26/2019 21:30	C	06/26/2019 21:51	C	06/26/2019 22:09	C	1697782	C
Mercury	0.030	U	0.030	U	0.030	U	0.030	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1696433	C
Mercury									ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1696434	C
Mercury									ND	U

SAMPLE NO.

1697785MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30300200001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.5	ND	2.5	99

SAMPLE NO.

1697787MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30300616001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.4	ND	2.5	97

SAMPLE NO.

1697784DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1697786DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1697783LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	0.98J	98	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	1.0	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Batch: MERP 10891

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1696433	1696433LB	06/26/2019	25	25
1696434	1696434LB	06/26/2019	25	25
1697782	1697782BLANK	06/26/2019	25	25
1697783	1697783LCS	06/26/2019	25	25
1697784	1697784DUP	06/26/2019	25	25
1697785	1697785MS	06/26/2019	25	25
1697786	1697786DUP	06/26/2019	25	25
1697787	1697787MS	06/26/2019	25	25
30300161001	AOC 26-1	06/26/2019	25	25
30300161002	AOC 26-2	06/26/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 06/26/2019 20:51 End Date: 06/26/2019 22:09

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11150202CAL0	11150202CAL0	1	06/26/2019	20:51	X
11150203CAL1	11150203CAL1	1	06/26/2019	20:53	X
11150204CAL2	11150204CAL2	1	06/26/2019	20:54	X
11150205CAL3	11150205CAL3	1	06/26/2019	20:56	X
11150206CAL4	11150206CAL4	1	06/26/2019	20:58	X
11150207CAL5	11150207CAL5	1	06/26/2019	21:00	X
11150208ICV	11150208ICV	1	06/26/2019	21:03	X
11150209CCV	11150209CCV	1	06/26/2019	21:05	X
11150210ICB	11150210ICB	1	06/26/2019	21:08	X
11150211CRDL	11150211CRDL	1	06/26/2019	21:10	X
1697782BLANK	1697782	1	06/26/2019	21:11	X
1697783LCS	1697783	1	06/26/2019	21:13	X
1696433LB	1696433	1	06/26/2019	21:14	X
1696434LB	1696434	1	06/26/2019	21:16	X
30300200001	30300200001	1	06/26/2019	21:18	X
1697784DUP	1697784	1	06/26/2019	21:19	X
1697785MS	1697785	1	06/26/2019	21:21	X
AOC 26-1	30300161001	1	06/26/2019	21:26	X
11150212CCV	11150212CCV	1	06/26/2019	21:28	X
11150213CCB	11150213CCB	1	06/26/2019	21:30	X
AOC 26-2	30300161002	1	06/26/2019	21:32	X
30300616001	30300616001	1	06/26/2019	21:42	X
1697786DUP	1697786	1	06/26/2019	21:43	X
1697787MS	1697787	1	06/26/2019	21:45	X
11150214CCV	11150214CCV	1	06/26/2019	21:48	X
11150215CCB	11150215CCB	1	06/26/2019	21:51	X
11150216CCV	11150216CCV	1	06/26/2019	22:06	X
11150217CCB	11150217CCB	1	06/26/2019	22:09	X

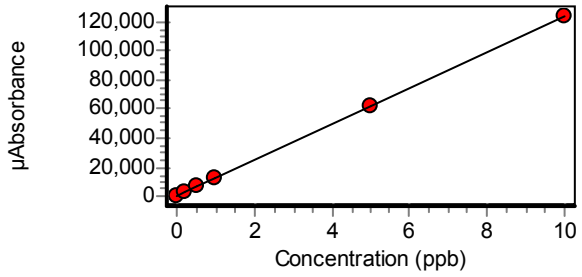
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg062619C.wsz
Date Started: 7/6/2016 3:55:19 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	06/26/19 08:51:40 pm	0.00	291	15.62		1.00	1.00
											1.00	
	Replicates	295.1	240.1	280.1	350.1							
CAL1					STD	06/26/19 08:53:17 pm	0.20	2856	2.91		1.00	1.00
											1.00	
	Replicates	2755.0	2844.2	2866.2	2957.2							
CAL2					STD	06/26/19 08:54:54 pm	0.50	6603	1.29		1.00	1.00
											1.00	
	Replicates	6491.6	6582.3	6657.1	6681.3							
CAL3					STD	06/26/19 08:56:31 pm	1.00	13145	0.87		1.00	1.00
											1.00	
	Replicates	13001.1	13104.4	13230.4	13242.3							
CAL4					STD	06/26/19 08:58:09 pm	5.00	61930	1.02		1.00	1.00
											1.00	
	Replicates	61119.2	61755.6	62295.5	62548.5							
CAL5					STD	06/26/19 09:00:51 pm	10.00	123662	1.00		1.00	1.00
											1.00	
	Replicates	122071.5	123362.3	124270.8	124942.5							

Calibration

Equation: A = 465.443 + 12316.970C
R2: 0.99998
SEE: 213.5868
Flags:



ICV					ICV	06/26/19 09:03:52 pm	0.99	12716	1.12		1.00	1.00
	% Recovery	99.46									1.00	
	Replicates	12556.6	12646.4	12788.0	12874.7							
CCV					CCV	06/26/19 09:05:31 pm	5.00	62058	1.02		1.00	1.00
	% Recovery	100.01									1.00	
	Replicates	61256.7	61892.6	62366.1	62718.4							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
ICB					ICB	06/26/19 09:08:21 pm	-0.02	216	17.88		1.00	1.00
											1.00	
	Replicates	232.5	261.5	175.9	193.4							
CRDL					CRDL	06/26/19 09:10:01 pm	0.19	2807	0.34		1.00	1.00
	% Recovery	95.05									1.00	
	Replicates	2804.8	2810.1	2817.6	2795.0							
1697782_12295					PBK	06/26/19 09:11:38 pm	-0.02	273	4.76		1.00	1.00
											1.00	
	Replicates	290.6	259.4	271.9	269.4							
1697783_12295					LCS	06/26/19 09:13:16 pm	0.98	12481	1.26		1.00	1.00
	% Recovery	97.56									1.00	
	Replicates	12285.4	12425.7	12591.5	12623.2							
1696433_12295					MB	06/26/19 09:14:53 pm	-0.02	251	15.29		1.00	1.00
											1.00	
	Replicates	256.5	201.5	252.5	295.2							
1696434_12295					MB	06/26/19 09:16:31 pm	-0.01	371	8.71		1.00	1.00
											1.00	
	Replicates	374.8	406.7	328.2	372.5							
30300200001_12295					UNK	06/26/19 09:18:10 pm	-0.02	231	13.28		1.00	1.00
											1.00	
	Replicates	266.6	205.6	205.4	247.1							
1697784_12295					DUP	06/26/19 09:19:47 pm	-0.02	216	16.59		1.00	1.00
			RPD	0.00							1.00	
	Replicates	194.7	181.7	262.4	223.4							
1697785_12295					MSK	06/26/19 09:21:25 pm	2.47	30900	0.96		1.00	1.00
	% Recovery	99.60									1.00	
	Replicates	30536.8	30783.7	31096.7	31182.5							
30300096001_12295					UNK	06/26/19 09:23:03 pm	0.00	516	3.24		1.00	1.00
											1.00	
	Replicates	496.9	507.6	526.3	533.3							
30310254001_12295					UNK	06/26/19 09:24:41 pm	-0.02	274	20.25		1.00	1.00
											1.00	
	Replicates	206.0	256.4	297.9	334.9							
30300161001_12295					UNK	06/26/19 09:26:20 pm	-0.02	256	4.81		1.00	1.00
											1.00	
	Replicates	245.5	272.1	247.2	259.4							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	06/26/19 09:28:00 pm	5.00	62016	1.01		1.00	1.00
	% Recovery	99.94									1.00	
	Replicates	61230.7	61846.7	62286.2	62699.7							
CCB					CCB	06/26/19 09:30:41 pm	-0.02	263	18.20		1.00	1.00
											1.00	
	Replicates	216.2	320.5	231.9	283.0							
30300161002_12295					UNK	06/26/19 09:32:18 pm	-0.01	288	6.83		1.00	1.00
											1.00	
	Replicates	259.3	302.5	298.2	292.8							
30300192001_12295					UNK	06/26/19 09:33:57 pm	-0.02	275	14.33		1.00	1.00
											1.00	
	Replicates	223.7	317.8	288.0	270.0							
30300500001_12295					UNK	06/26/19 09:35:35 pm	-0.02	212	7.48		1.00	1.00
											1.00	
	Replicates	208.7	234.7	198.7	204.9							
30300510001_12295					UNK	06/26/19 09:37:14 pm	-0.02	265	6.34		1.00	1.00
											1.00	
	Replicates	244.9	263.2	267.4	285.9							
30300616002_12295					UNK	06/26/19 09:38:53 pm	-0.02	235	25.84		1.00	1.00
											1.00	
	Replicates	300.5	156.4	257.4	225.7							
30300616003_12295					UNK	06/26/19 09:40:31 pm	-0.02	238	10.51		1.00	1.00
											1.00	
	Replicates	244.7	212.1	225.3	269.6							
30300616001_12295					UNK	06/26/19 09:42:09 pm	-0.02	220	18.29		1.00	1.00
											1.00	
	Replicates	272.0	198.2	229.7	180.2							
1697786_12295					DUP	06/26/19 09:43:48 pm	-0.02	278	18.40		1.00	1.00
			RPD	0.00							1.00	
	Replicates	225.0	290.8	343.3	253.3							
1697787_12295					MSK	06/26/19 09:45:27 pm	2.43	30423	1.06		1.00	1.00
	% Recovery	98.09									1.00	
	Replicates	29986.4	30386.1	30589.7	30730.7							
1697788_12296					PBK	06/26/19 09:47:07 pm	-0.02	276	8.11		1.00	1.00
											1.00	
	Replicates	258.5	259.3	280.8	306.0							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	06/26/19 09:48:46 pm	4.95	61384	1.19		1.00	1.00
	% Recovery	98.92									1.00	
	Replicates	60465.7	61178.6	61749.7	62143.9							
CCB					CCB	06/26/19 09:51:32 pm	-0.02	267	9.05		1.00	1.00
											1.00	
	Replicates	298.6	252.1	272.4	244.6							
1697789_12296					LCS	06/26/19 09:53:11 pm	0.95	12213	1.32		1.00	1.00
	% Recovery	95.38									1.00	
	Replicates	11982.6	12220.9	12306.4	12342.0							
1696431_12296					MB	06/26/19 09:54:49 pm	-0.02	271	11.21		1.00	1.00
											1.00	
	Replicates	242.3	297.4	247.7	297.7							
30299665001_12296					UNK	06/26/19 09:56:28 pm	0.00	428	9.12		1.00	1.00
											1.00	
	Replicates	393.7	454.2	469.2	396.2							
1697790_12296					DUP	06/26/19 09:58:08 pm	-0.01	399	6.70		1.00	1.00
		RPD	0.00								1.00	
	Replicates	382.7	438.7	384.0	390.0							
1697791_12296					MSK	06/26/19 09:59:48 pm	2.41	30191	1.40		1.00	1.00
	% Recovery	96.66									1.00	
	Replicates	29671.4	30087.2	30326.3	30681.0							
30299665003_12296					UNK	06/26/19 10:01:26 pm	0.00	489	5.32		1.00	1.00
											1.00	
	Replicates	469.9	474.4	527.1	486.4							
30299663002_12296					UNK	06/26/19 10:03:06 pm	0.00	466	10.71		1.00	1.00
											1.00	
	Replicates	449.0	483.9	524.4	407.3							
30299663004_12296					UNK	06/26/19 10:04:45 pm	0.00	497	4.87		1.00	1.00
											1.00	
	Replicates	465.3	494.7	523.2	504.2							
CCV					CCV	06/26/19 10:06:24 pm	4.92	61074	1.18		1.00	1.00
	% Recovery	98.41									1.00	
	Replicates	60159.7	60890.2	61407.4	61836.9							
CCB					CCB	06/26/19 10:09:14 pm	-0.01	293	13.08		1.00	1.00
											1.00	
	Replicates	318.6	240.2	289.2	323.7							

Prep Log Report

Batch Information: TCLP 8691/348888; 8692/348889

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/25/2019 12:17:08:970	Tumbler Start Temp. (C)	20.8
Tumbler End Temp. (C)	22	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 90433	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1696432**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
TCLP	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
TCLP	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
TCLP	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
TCLP	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
TCLP	PS	**30300768001**	Y		H	30TBL5	HP001	Other	Y	Y	7.63	1.43	5	100
TCLP	PS	**30300762002**	Y		I	30TBL5	HP001	Other	Y	Y	8.4	1.6	5	100
TCLP	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100
TCLP	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
TCLP	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
TCLP	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
TCLP	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	LB	**1696433**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1696434**	Y		1	30TBL5	HP001		Y	Y	4.88		0	100
1311MET_L	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
1311MET_L	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
1311MET_L	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
1311MET_L	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
1311MET_L	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
1311MET_L	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
1311MET_L	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
1311MET_L	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
1311MET_L	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	PS	**30300200001**	Y		2	30TBL5	HP001	Other	Y	Y	9.66	1.57	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1696432**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146				
TCLP	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146				
TCLP	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146		476.2	478.3	2.1
TCLP	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146				
TCLP	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146				
TCLP	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146				
TCLP	PS	**30300768001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.75	06/26/2019 09:44:35:146				
TCLP	PS	**30300762002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.17	06/26/2019 09:44:52:223				
TCLP	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146				
TCLP	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146				
TCLP	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146				
TCLP	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146				
1311MET_L	LB	**1696433**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146	Y			
1311MET_L	LB	**1696434**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.84	06/26/2019 10:03:35:146	Y			
1311MET_L	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146	Y			
1311MET_L	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146	Y	476.2	478.3	2.1
1311MET_L	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146	Y			
1311MET_L	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300200001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.97	06/26/2019 10:19:35:146	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1696432**								2000	
TCLP	PS	**30300500001**								2000	sand
TCLP	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
TCLP	PS	**30300161001**								2000	dirt
TCLP	PS	**30300161002**								2000	clay
TCLP	PS	**30300192001**								2000	sand
TCLP	PS	**30300768001**								2000	water
TCLP	PS	**30300762002**								2000	dirt
TCLP	PS	**30300510001**								2000	fabric
TCLP	PS	**30300616001**								2000	rock
TCLP	PS	**30300616002**								2000	rock
TCLP	PS	**30300616003**								2000	rock
TCLP	PS	**30310254001**								2000	rock
1311MET_L	LB	**1696433**								2000	
1311MET_L	LB	**1696434**								2000	
1311MET_L	PS	**30300500001**								2000	sand
1311MET_L	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
1311MET_L	PS	**30300161001**								2000	dirt

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30300161002**								2000	clay
1311MET_L	PS	**30300192001**								2000	sand
1311MET_L	PS	**30300510001**								2000	fabric
1311MET_L	PS	**30300616001**								2000	rock
1311MET_L	PS	**30300616002**								2000	rock
1311MET_L	PS	**30300616003**								2000	rock
1311MET_L	PS	**30310254001**								2000	rock
1311MET_L	PS	**30300200001**								2000	rock

Prep Log Report

Batch Information: MERP 349222-7470 TCLP

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	06/26/2019 15:11:05:058
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	95	Correction Factor (C)	-0.8
Corrected Temp. (C)	94.20	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	2.5	Digestion Start Time	06/26/2019 16:04:17:191
Digestion End Time	06/26/2019 18:04:28:966	Digestion Vessel	91657	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	BLANK	**1697782**	Y	Water	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	LCS	**1697783**	Y	Water	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300200001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	DUP	**1697784**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	MS	**1697785**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			91752 (.25)
7470 ST_P	PS	**30300096001**	Y	Water	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30310254001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300161001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300161002**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300192001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300500001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300510001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300616002**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300616003**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	PS	**30300616001**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			
7470 ST_P	DUP	**1697786**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	MS	**1697787**	Y	Solid	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25			91752 (.25)
7470 ST_P	LB	**1696433**	Y	Water	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25		EF 1G 6/25	
7470 ST_P	LB	**1696434**	Y	Water	Yes	25	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	25		EF 1P 6/25	
HG WATER_Q	CAL0	**CAL0**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	CAL1	**CAL1**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	CAL2	**CAL2**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	CAL3	**CAL3**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	CAL4	**CAL4**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	CAL5	**CAL5**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			
HG WATER_Q	ICV	**ICV**	Y	Water	Yes	1	88823 (0.625)	91032 (1.25)	90922 (3.75)	87834 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	BLANK	**1697782**		
7470 ST_P	LCS	**1697783**	90501 (.1)	
7470 ST_P	PS	**30300200001**		
7470 ST_P	DUP	**1697784**		
7470 ST_P	MS	**1697785**		
7470 ST_P	PS	**30300096001**		
7470 ST_P	PS	**30310254001**		
7470 ST_P	PS	**30300161001**		
7470 ST_P	PS	**30300161002**		
7470 ST_P	PS	**30300192001**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	PS	**30300500001**		
7470 ST_P	PS	**30300510001**		
7470 ST_P	PS	**30300616002**		
7470 ST_P	PS	**30300616003**		
7470 ST_P	PS	**30300616001**		
7470 ST_P	DUP	**1697786**		
7470 ST_P	MS	**1697787**		
7470 ST_P	LB	**1696433**		
7470 ST_P	LB	**1696434**		
HG WATER_Q	CAL0	**CAL0**		92093 (1)
HG WATER_Q	CAL1	**CAL1**		92094 (1)
HG WATER_Q	CAL2	**CAL2**		92095 (1)
HG WATER_Q	CAL3	**CAL3**		92096 (1)
HG WATER_Q	CAL4	**CAL4**		92097 (1)
HG WATER_Q	CAL5	**CAL5**		92098 (1)
HG WATER_Q	ICV	**ICV**		92099 (1)

Standard Notes:

92093: CALO
92094: CAL1
92095: CAL2
92096: CAL3
92097: CAL4
92098: CAL5
92099: Hg ICV Source 2

SAMPLE NO.

AOC 26-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161001 Percent Moisture: 7.8

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	06/25/2019 19:13
	Flashpoint	>200		deg F	1	06/27/2019 09:50
	Sulfide, Reactive	ND	U	mg/kg	1	06/24/2019 19:34
	pH in water at 25 degrees C	8.9		Std. Units	1	06/18/2019 21:11

SAMPLE NO.

AOC 26-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30300161002 Percent Moisture: 6.9

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	06/25/2019 19:15
	Flashpoint	>200		deg F	1	06/27/2019 10:22
	Sulfide, Reactive	ND	U	mg/kg	1	06/24/2019 19:34
	pH in water at 25 degrees C	8.5		Std. Units	1	06/18/2019 21:12

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 68828

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	06/18/2019 14:24			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	4.0	4.0	100.0	98.75-101.25
pH in water at 25 degrees C		4.0		98.75-101.25

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 84019

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	06/18/2019 14:24			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	7.0	7.0	99.7	98.5-101.43
pH in water at 25 degrees C		7.0		98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification				Continuing Calibration Verification						
					06/18/2019 19:14			06/18/2019 19:53			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
pH at 25 Degrees C					7.0	7.0	99.9	7.0	7.0	99.7	98.5-101.43

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification									
	06/18/2019 20:33			06/18/2019 20:59			06/18/2019 21:04			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	100.4	7.0	7.0	100.6	7.0	7.0	100.3	98.5-101.43
pH in water at 25 degrees C				7.0	7.0	100.6	7.0	7.0	100.3	98.5-101.43

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification			
	06/18/2019 21:13			Control Limit
Analyte	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	100.1	98.5-101.43
pH in water at 25 degrees C	7.0	7.0	100.1	98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 91975

Continuing Calibration Verification Source: 91973

Concentration Units: mg/L Instrument ID: 30WTA1

	Initial Calibration Verification				Continuing Calibration Verification						
	06/25/2019 18:09				06/25/2019 18:55			06/25/2019 19:07			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Cyanide	0.1	0.096	96.4	90-110	0.2	0.22	111.0	0.2	0.23	113.5	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 91973

Concentration Units: mg/L Instrument ID: 30WTA1

	Continuing Calibration Verification			
	06/25/2019 19:20			Control Limit
Analyte	True	Found	%R	
Cyanide	0.2	0.22	110.8	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30WET6

Method Blank Concentration Units: deg F

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1698459	C
Flashpoint									>200	

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WET0

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1695808	C
Sulfide, Reactive									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WTA1

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank (mg/L)		Continuing Calibration Blank (mg/L)						Method Blank	
	06/25/2019 18:09	C	06/25/2019 18:54	C	06/25/2019 19:07	C	06/25/2019 19:19	C	1695815	C
Cyanide	0.0045	J	0.0095		0.010		0.013			
Cyanide, Reactive									ND	U

SAMPLE NO.

1692190DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: Std. Units

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
pH in water at 25 degrees C	10	6.4	6.3	1

SAMPLE NO.

1695810DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	ND	ND	

SAMPLE NO.

1695817DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	ND	ND	

SAMPLE NO.

1695809LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Sulfide, Reactive	mg/kg	199	39.9	20	0	52

SAMPLE NO.

1695816LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Cyanide, Reactive	mg/kg	99.3	0.7J	1	0	8

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Instrument ID: 30WET0

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Sulfide, Reactive	10.0	10.0	06/07/2019

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30WTA1

Concentration Units: mg/L

Analyte	PQL	IDL	IDL Date
Cyanide	0.005	0.0012	01/01/2007

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Instrument ID: 30WTA1

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Cyanide, Reactive	1.0	0.40	11/06/2016

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Instrument ID: 30WETG

Concentration Units: Std. Units

Analyte	PQL	MDL	MDL Date
pH in water at 25 degrees	2.0	2.0	11/06/2016

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Batch: WET 50634

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1692190	1692190DUP	06/18/2019	19.97	20
30300161001	AOC 26-1	06/18/2019	20.03	20
30300161002	AOC 26-2	06/18/2019	19.97	20

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Batch: WETA 42795

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1695808	1695808BLANK	06/24/2019	10.01	200
1695809	1695809LCS	06/24/2019	10.03	200
1695810	1695810DUP	06/24/2019	10.07	200
30300161001	AOC 26-1	06/24/2019	10.02	200
30300161002	AOC 26-2	06/24/2019	10.08	200

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Batch: WETA 42797

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1695815	1695815BLANK	06/24/2019	10.01	50
1695816	1695816LCS	06/24/2019	10.07	50
1695817	1695817DUP	06/24/2019	10.07	50
30300161001	AOC 26-1	06/24/2019	10.02	50
30300161002	AOC 26-2	06/24/2019	10.08	50

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 1010 Batch: WET 50816

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1698459	1698459BLANK	06/27/2019	1	1
1698460	1698460DUP	06/27/2019	1	1
30300161001	AOC 26-1	06/27/2019	1	1
30300161002	AOC 26-2	06/27/2019	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET0 Analysis Method: SM 4500S2F-2011

Start Date: 06/24/2019 19:34 End Date: 06/24/2019 19:34

Sample Name	Lab Sample ID	D/F	Date	Time	rS
1695808BLANK	1695808	1	06/24/2019	19:34	X
1695809LCS	1695809	1	06/24/2019	19:34	X
1695810DUP	1695810	1	06/24/2019	19:34	X
30299826001	30299826001	1	06/24/2019	19:34	X
AOC 26-1	30300161001	1	06/24/2019	19:34	X
AOC 26-2	30300161002	1	06/24/2019	19:34	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET6 Analysis Method: EPA 1010

Start Date: 06/27/2019 09:15 End Date: 06/27/2019 10:22

Sample Name	Lab Sample ID	D/F	Date	Time	flpt
1698459BLANK	1698459	1	06/27/2019	09:15	X
30310523001	30310523001	1	06/27/2019	09:33	X
AOC 26-1	30300161001	1	06/27/2019	09:50	X
1698460DUP	1698460	1	06/27/2019	09:52	X
AOC 26-2	30300161002	1	06/27/2019	10:22	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WETG Analysis Method: EPA 9045D

Start Date: 06/18/2019 14:17 End Date: 06/18/2019 21:13

Sample Name	Lab Sample ID	D/F	Date	Time	pH 25	pH 25
11100529CAL1	11100529CAL1	1	06/18/2019	14:17	X	X
11100530CAL2	11100530CAL2	1	06/18/2019	14:17	X	X
11100531CAL3	11100531CAL3	1	06/18/2019	14:17	X	X
11100535CAL4	11100535CAL4	1	06/18/2019	14:18	X	X
11100533CAL5	11100533CAL5	1	06/18/2019	14:20	X	X
11100534ICVA	11100534ICVA	1	06/18/2019	14:24	X	X
11100532ICVB	11100532ICVB	1	06/18/2019	14:24	X	X
11103744CCV	11103744CCV	1	06/18/2019	19:14	X	
11103747CCV	11103747CCV	1	06/18/2019	19:53	X	
11103746CCV	11103746CCV	1	06/18/2019	20:33	X	
11103733CCV	11103733CCV	1	06/18/2019	20:59	X	X
11103735CCV	11103735CCV	1	06/18/2019	21:04	X	X
30300168001	30300168001	1	06/18/2019	21:10		X
1692190DUP	1692190	1	06/18/2019	21:11		X
AOC 26-1	30300161001	1	06/18/2019	21:11		X
AOC 26-2	30300161002	1	06/18/2019	21:12		X
11103734CCV	11103734CCV	1	06/18/2019	21:13	X	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WTA1 Analysis Method: EPA 9014

Start Date: 06/25/2019 18:01 End Date: 06/25/2019 19:20

Sample Name	Lab Sample ID	D/F	Date	Time	CN	rCN
11141944CAL0	11141944CAL0	1	06/25/2019	18:01	X	
11141945CAL1	11141945CAL1	1	06/25/2019	18:04	X	
11141946CAL2	11141946CAL2	1	06/25/2019	18:04	X	
11141947CAL3	11141947CAL3	1	06/25/2019	18:05	X	
11141948CAL4	11141948CAL4	1	06/25/2019	18:05	X	
11141949CAL5	11141949CAL5	1	06/25/2019	18:08	X	
11141950CAL6	11141950CAL6	1	06/25/2019	18:08	X	
11141951ICV	11141951ICV	1	06/25/2019	18:09	X	
11141952ICB	11141952ICB	1	06/25/2019	18:09	X	
11142065CCB	11142065CCB	1	06/25/2019	18:54	X	
11142066CCV	11142066CCV	1	06/25/2019	18:55	X	
1695815BLANK	1695815	1	06/25/2019	18:55		X
1695816LCS	1695816	1	06/25/2019	18:56		X
30299826001	30299826001	1	06/25/2019	18:58		X
1695817DUP	1695817	1	06/25/2019	18:59		X
11142067CCB	11142067CCB	1	06/25/2019	19:07	X	
11142068CCV	11142068CCV	1	06/25/2019	19:07	X	
AOC 26-1	30300161001	1	06/25/2019	19:13		X
AOC 26-2	30300161002	1	06/25/2019	19:15		X
11142069CCB	11142069CCB	1	06/25/2019	19:19	X	
11142070CCV	11142070CCV	1	06/25/2019	19:20	X	

Pace Analytical Services, Inc.
1638 Roseytown Road, Suites 2, 3 & 4
Greensburg
PA 15601

Method : CYN -Unit [ppm] - CN 9014/SM 4500 E,G,I

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0000	0.0037	0.00	R	5:59:55 PM
DIL-1	RBL	0.0000	0.0084	0.00	R	6:00:13 PM
DIL-1	RBL	0.0000	0.0065	0.00	R	6:01:07 PM
ST-1	Std-1	0.0000	-0.0020	0.00	INV	6:01:25 PM
ST-2	Std-2	0.0100	0.0023	0.00		6:04:07 PM
ST-3	Std-3	0.0500	0.0404	0.00		6:04:25 PM
ST-4	Std-4	0.1000	0.0894	0.00		6:05:19 PM
ST-5	Std-5	0.1500	0.1286	0.00		6:05:37 PM
ST-6	Std-6	0.2000	0.1906	0.00		6:08:19 PM
ST-7	Std-7	0.3000	0.3017	0.00		6:08:37 PM
R-6	CICV (0.1 ppm)	0.0964	0.0877	96.37		6:09:31 PM
R-5	CNBK (0 ppm)	0.0045	-0.0055	0.00	INV,><	6:09:49 PM
R-4	CNCV (0.2 ppm)	0.1916	0.1842	95.81		6:12:31 PM
1	1695815_42821x1	0.0423	0.0329	0.00	EPL	6:12:49 PM
2	1695816_42821x1	0.1248	0.1165	0.00		6:13:43 PM
3	30299826001_42821x1	0.0050	-0.0050	0.00	INV,><	6:14:01 PM
4	1695817_42821x1	0.0054	-0.0046	0.00	INV,><	6:16:43 PM
5	30300125001_42821x1	0.0053	-0.0047	0.00	INV,><	6:17:02 PM
6	30300381001_42821x1	0.0061	-0.0038	0.00	INV,><	6:17:56 PM
7	30300242001_42821x1	0.0071	-0.0028	0.00	INV,><	6:18:14 PM
8	30300244001_42821x1	0.0079	-0.0020	0.00	INV	6:20:56 PM
9	30310053001_42821x1	0.0074	-0.0025	0.00	INV,><	6:21:14 PM
10	30310054001_42821x1	0.0391	0.0297	0.00		6:22:08 PM
R-5	CNBK (0 ppm)	0.0049	-0.0051	0.00	INV,><	6:22:26 PM
R-4	CNCV (0.2 ppm)	0.1693	0.1616	84.66		6:25:08 PM
11	30300470001_42821x1	0.0121	0.0023	0.00		6:25:26 PM
12	30300748001_42821x1	0.0130	0.0032	0.00		6:26:20 PM
13	30300763001_42821x1	0.0077	-0.0022	0.00	INV,><	6:26:38 PM
14	30300096001_42821x1	0.0079	-0.0020	0.00	INV	6:29:20 PM

Report Date :06/25/2019 **Run Date :06/25/2019** **Operator : WESTCO** **Plan # :20190625008**

Plan Description : CN06252019A

Pace Analytical Services, Inc.
1638 Roseytown Road, Suites 2, 3 & 4
Greensburg
PA 15601

Method : CYN -Unit [ppm] - CN 9014/SM 4500 E,G,I

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0000	0.0061	0.00	R	6:50:34 PM
DIL-1	RBL	0.0000	0.0032	0.00	R	6:50:52 PM
DIL-1	RBL	0.0000	0.0030	0.00	R	6:51:46 PM
R-6	CICV (0.1 ppm)	0.1134	0.1049	113.39		6:52:04 PM
R-5	CNBK (0 ppm)	0.0095	-0.0003	0.00	INV	6:54:46 PM
R-4	CNCV (0.2 ppm)	0.2219	0.2148	110.94		6:55:04 PM
1	1695815_42821x1	0.0107	0.0009	0.00		6:55:58 PM
2	1695816_42821x1	0.1399	0.1318	0.00		6:56:16 PM
3	30299826001_42821x1	0.0250	0.0154	0.00	EPL	6:58:58 PM
4	1695817_42821x1	0.0095	-0.0003	0.00	INV	6:59:16 PM
5	30300125001_42821x1	0.0138	0.0040	0.00	EPL	7:00:10 PM
6	30300381001_42821x1	0.0097	-0.0001	0.00	INV	7:00:28 PM
7	30300242001_42821x1	0.0162	0.0064	0.00		7:03:10 PM
8	30300244001_42821x1	0.0123	0.0025	0.00		7:03:28 PM
9	30310053001_42821x1	0.0120	0.0022	0.00		7:04:22 PM
10	30310054001_42821x1	0.0132	0.0034	0.00		7:04:40 PM
R-5	CNBK (0 ppm)	0.0104	0.0006	0.00		7:07:22 PM
R-4	CNCV (0.2 ppm)	0.2270	0.2200	113.51		7:07:40 PM
11	30300470001_42821x1	0.0222	0.0125	0.00		7:08:34 PM
12	30300748001_42821x1	0.0222	0.0125	0.00		7:08:52 PM
13	30300763001_42821x1	0.0113	0.0015	0.00		7:11:34 PM
14	30300096001_42821x1	0.0134	0.0036	0.00		7:11:52 PM
15	30300185001_42821x1	0.0159	0.0061	0.00		7:12:46 PM
16	30300161001_42821x1	0.0118	0.0020	0.00	EPL	7:13:04 PM
17	30300161002_42821x1	0.0125	0.0027	0.00		7:15:46 PM
18	30300192001_42821x1	0.0101	0.0003	0.00		7:16:04 PM
19	30300466001_42821x1	0.0856	0.0767	0.00	EPL	7:16:58 PM
20	30300617001_42821x1	0.0180	0.0083	0.00		7:17:16 PM
R-5	CNBK (0 ppm)	0.0130	0.0032	0.00	EPL	7:19:58 PM
R-4	CNCV (0.2 ppm)	0.2217	0.2146	110.84		7:20:16 PM
21	1696110_42824x1	0.0098	0.0000	0.00		7:21:10 PM
22	1696111_42824x1	0.0110	0.0012	0.00		7:21:28 PM
23	30300617002_42824x1	0.0148	0.0050	0.00		7:24:10 PM
24	1696112_42824x1	0.0101	0.0003	0.00		7:24:28 PM
25	30300617003_42824x1	0.0103	0.0005	0.00		7:25:22 PM
26	30300617004_42824x1	0.0092	-0.0007	0.00	INV	7:25:41 PM

Report Date :06/25/2019 **Run Date :06/25/2019** **Operator : WESTCO** **Plan # :20190625009**

Plan Description : CN06252019B

Pace Analytical Services, Inc.
1638 Roseytown Road, Suites 2, 3 & 4
Greensburg
PA 15601

Method : CYN -Unit [ppm] - CN 9014/SM 4500 E,G,I

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
27	30300617005_42824x1	0.0121	0.0023	0.00		7:28:22 PM
28	30300835007_42824x1	0.0122	0.0024	0.00		7:28:41 PM
29	30300762001_42824x1	0.0136	0.0038	0.00	EPL	7:29:35 PM
30	30310016001_42824x1	0.0112	0.0014	0.00		7:29:53 PM
R-5	CNBK (0 ppm)	0.0113	0.0015	0.00		7:32:35 PM
R-4	CNCV (0.2 ppm)	0.2213	0.2142	110.64		7:32:53 PM
31	30310018001_42824x1	0.1031	0.0945	0.00	EPL	7:33:47 PM
32	30310254001_42824x1	0.0113	0.0015	0.00		7:34:05 PM
33	30300510001_42824x1	0.0096	-0.0002	0.00	INV	7:36:47 PM
34	30300616001_42824x1	0.0534	0.0441	0.00		7:37:05 PM
35	30300616002_42824x1	0.0132	0.0034	0.00		7:37:59 PM
36	30300616003_42824x1	0.0144	0.0046	0.00		7:38:17 PM
37	10479780001_42824x1	0.0123	0.0025	0.00		7:40:59 PM
38	30310094002_42824x1	0.0175	0.0078	0.00		7:41:17 PM
39	30310094003_42824x1	0.0145	0.0047	0.00		7:42:11 PM
40	30310094005_42824x1	0.0111	0.0013	0.00		7:42:29 PM
R-5	CNBK (0 ppm)	0.0093	-0.0006	0.00	INV	7:45:11 PM
R-4	CNCV (0.2 ppm)	0.2195	0.2124	109.75		7:45:29 PM
41	30310073001_42824x1	0.0154	0.0056	0.00		7:46:23 PM
42	30310094006_42824x1	0.0249	0.0153	0.00	EPL	7:46:41 PM
43	30310098002_42824x1	0.0172	0.0075	0.00		7:49:23 PM
44	1696264_42825x1	0.0112	0.0014	0.00		7:49:41 PM
45	1696265_42825x1	0.0993	0.0906	0.00		7:50:35 PM
46	30299959001_42825x1	0.0084	-0.0015	0.00	INV	7:50:53 PM
47	1696267_42825x1	0.0070	-0.0029	0.00	INV,><	7:53:35 PM
48	1696962_42876x1	0.0080	-0.0019	0.00	INV	7:53:53 PM
49	1696963_42876x1	0.0077	-0.0022	0.00	INV,><	7:54:47 PM
50	30310055001_42876x1	0.0549	0.0456	0.00		7:55:05 PM
R-5	CNBK (0 ppm)	0.0156	0.0058	0.00	EPL	7:57:47 PM
R-4	CNCV (0.2 ppm)	0.2159	0.2087	107.93		7:58:05 PM
51	1696964_42876x1	0.0090	-0.0009	0.00	INV	7:58:59 PM
52	30299331001_42876x1	0.0092	-0.0007	0.00	INV	7:59:17 PM
R-5	CNBK (0 ppm)	0.0090	-0.0009	0.00	INV	8:01:59 PM
R-4	CNCV (0.2 ppm)	0.2178	0.2107	108.92		8:02:17 PM
53	1695815_42821	0.0067	-0.0032	0.00	INV,><	8:03:11 PM
54	1695816_42821	0.0068	-0.0031	0.00	INV,><	8:03:29 PM

Report Date :06/25/2019 **Run Date :06/25/2019** **Operator : WESTCO** **Plan # :20190625009**

Plan Description : CN06252019B

Prep Log Report

Batch Information: WET 349319 flashpoint2

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	170327318	Correction Factor (F)	0	Barometric Pressure (in Hg)	29.02
Corrected Barometric Pressure Factor (F)	1.3735	Instrument	30WET6	Analyzed By	CMR	p-Xylene	90207
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	06/27/2019 14:44						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVA	**CCVA**	N	06/27/2019 08:54:48	Nonaqueous liquid	78.4	79.77	
1010 W	BLANK	**1698459**	N	06/27/2019 09:20:55	Water	>200	>200	
1010 W	PS	**30300161001**	Y	06/27/2019 09:50:13	Solid	>200	>200	
1010 W	PS	**30300161002**	Y	06/27/2019 10:22:15	Solid	>200	>200	
1010 W	PS	**92434453001**	Y	06/27/2019 10:39:29	Solid	122.1	123.47	
1010 W	PS	**92434453001**	N	06/27/2019 10:43:35	Solid	124.8	126.17	
1010 W	PS	**92434453002**	Y	06/27/2019 10:52:09	Solid	130.6	131.97	
1010 W	PS	**92434453002**	N	06/27/2019 11:00:32	Solid	134.0	135.37	
1010 W	PS	**30300420001**	Y	06/27/2019 11:34:33	Water	>200	>200	
1010 W	PS	**30300426001**	Y	06/27/2019 12:12:07	Water	143.1	144.47	
1010 W	PS	**30300429001**	Y	06/27/2019 12:56:15	Water	110.0	111.37	
1010 W	PS	**30300429001**	N	06/27/2019 13:07:42	Water	112.3	113.67	

Prep Log Report

Batch Information: WET 349319 flashpoint3

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	180063467	Correction Factor (F)	-0.1	Barometric Pressure (in Hg)	29.02
Corrected Barometric Pressure Factor (F)	1.3735	Instrument	30WET6	Analyzed By	CMR	p-Xylene	90207
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	06/27/2019 14:44						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVB	**CCVB**	N	06/27/2019 08:56:18	Nonaqueous liquid	78.8	80.07	
1010 W	BLANK	**1698459**	Y	06/27/2019 09:15:32	Water	>200	>200	
1010 W	PS	**30310523001**	Y	06/27/2019 09:33:11	Water	>200	>200	
1010 W	DUP	**1698460**	Y	06/27/2019 09:52:44	Water	>200	>200	
1010 W	PS	**10479780001**	Y	06/27/2019 10:31:02	Solid	>200	>200	
1010 W	PS	**30300192001**	Y	06/27/2019 10:02:57	Solid	>200	>200	
1010 W	PS	**10477727001**	Y	06/27/2019 10:57:52	Solid	>200	>200	
1010 W	PS	**10477727002**	Y	06/27/2019 11:11:53	Solid	>200	>200	
1010 W	PS	**10477727003**	Y	06/27/2019 11:38:22	Solid	>200	>200	
1010 W	PS	**10477727004**	Y	06/27/2019 12:05:58	Solid	>200	>200	
1010 W	PS	**10477727005**	Y	06/27/2019 12:16:15	Solid	>200	>200	
1010 W	PS	**10477727006**	Y	06/27/2019 13:13:43	Solid	>200	>200	

Prep Log Report

Batch Information: WET 348697/348701 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	06/24/2019 17:44:24:894	Instrument	30BA14
Date/Time On	06/24/2019 13:44:18:599	Date/Time Off	06/24/2019 17:44:13:919	Lead Acetate Solution	90656	Sulfuric Acid	89890
10N Sodium Hydroxide	91499	Reviewed By	BKH	Reviewed By Date	06/25/2019 09:19	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1695808**	10.01	200	No			
733C S_P	BLANK	**1695815**	10.01	50	No			
734S S2_P	LCS	**1695809**	10.03	200	No			91573 (2)
733C S_P	LCS	**1695816**	10.07	50	No		84021 (1)	
734S S2_P	PS	**30299826001**	10.01	200	No			
733C S_P	PS	**30299826001**	10.01	50	No			
734S S2_P	DUP	**1695810**	10.07	200	No			
733C S_P	DUP	**1695817**	10.07	50	No			
734S S2_P	PS	**30300125001**	10	200	No			
733C S_P	PS	**30300125001**	10	50	No			
734S S2_P	PS	**30300381001**	10.06	200	No			
733C S_P	PS	**30300381001**	10.06	50	No			
734S S2_P	PS	**30300242001**	10.03	200	No			
733C S_P	PS	**30300242001**	10.03	50	No			
734S S2_P	PS	**30300244001**	10.08	200	No			
733C S_P	PS	**30300244001**	10.08	50	No			
734S S2_P	PS	**30310053001**	10.07	200	No			
733C S_P	PS	**30310053001**	10.07	50	No			
734S S2_P	PS	**30310054001**	10.01	200	No			
733C S_P	PS	**30310054001**	10.01	50	No			
734S S2_P	PS	**30300470001**	10.08	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30300470001**	10.08	50	No			
734S S2_P	PS	**30300748001**	10.08	200	No			
733C S_P	PS	**30300748001**	10.08	50	No			
734S S2_P	PS	**30300763001**	10.07	200	No			
733C S_P	PS	**30300763001**	10.07	50	No			
734S S2_P	PS	**30300096001**	10.01	200	No			
733C S_P	PS	**30300096001**	10.01	50	No			
734S S2_P	PS	**30300185001**	10	200	No			
733C S_P	PS	**30300185001**	10	50	No			
734S S2_P	PS	**30300161001**	10.02	200	No			
733C S_P	PS	**30300161001**	10.02	50	No			
734S S2_P	PS	**30300161002**	10.08	200	No			
733C S_P	PS	**30300161002**	10.08	50	No			
734S S2_P	PS	**30300192001**	10.04	200	No			
733C S_P	PS	**30300192001**	10.04	50	No			
734S S2_P	PS	**30300466001**	10.05	200	No			
733C S_P	PS	**30300466001**	10.05	50	No			
734S S2_P	PS	**30300617001**	10.01	200	No			
733C S_P	PS	**30300617001**	10.01	50	No			
734S S2_P	PS	**30300183001**	10	200	No			
734S S2_P	PS	**50228146001**	10.02	200	No			
734S S2_P	PS	**30299883001**	10.08	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 348801 Rx Sulfide **Template Version: F-PA-I-032-Rev.00 (05Nov2016)**

Analysis Method	SM 4500S2F-2011	Analyzed By	PAS	Instrument	30WET0	1:1 HCl (mL)	88025 (2)
Starch Indicator Solution (mL)	84280 (1)	Reviewed By	BKH	Reviewed By Date	06/25/2019 09:19	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	BLANK	**1695808**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	LCS	**1695809**	Y	06/24/2019 19:34:52	200	88037 (5)	0	4	74724 (4.00)	2.00	19.9402	39.8804	
734S S2	PS	**30299826001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	DUP	**1695810**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8610	0.0000	
734S S2	PS	**30300125001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30300381001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8807	0.0000	
734S S2	PS	**30300242001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	
734S S2	PS	**30300244001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30310053001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8610	0.0000	
734S S2	PS	**30310054001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30300470001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30300748001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30300763001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8610	0.0000	
734S S2	PS	**30300096001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30300185001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30300161001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30300161002**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30300192001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30300466001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9005	0.0000	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	PS	**30300617001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30300183001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**50228146001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30299883001**	Y	06/24/2019 19:34:52	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	

Prep Log Report

Batch Information: WET 347851 PH CURVE 06182019

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	PH CURVE	Daily Cal Slope	99.175	Cal Date/Time	06/18/2019 14:08:25:531	Analyzed By	ZMH
Instrument	30WETG	Reviewed By	BKH	Reviewed By Date	06/20/2019 10:51	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Notes	CAL-STD
WET pH_Q	CAL1	**CAL1**	Y		06/18/2019 14:17:46		2.05	2.05	2.05			80722 (1)
WET pH_Q	CAL2	**CAL2**	Y		06/18/2019 14:17:50		4.09	4.09	4.09			76233 (1)
WET pH_Q	CAL3	**CAL3**	Y		06/18/2019 14:17:54		7.03	7.03	7.03			80724 (1)
WET pH_Q	CAL4	**CAL4**	Y		06/18/2019 14:18:31		9.96	9.96	9.96			67950 (1)
WET pH_Q	CAL5	**CAL5**	Y		06/18/2019 14:20:25		12.84	12.84	12.84			80723 (1)
WET pH_Q	ICVA	**ICVA**	Y		06/18/2019 14:24:29		4	4	4			68828 (1)
WET pH_Q	ICVB	**ICVB**	Y		06/18/2019 14:24:33		6.98	6.98	6.98			84019 (1)

Standard Notes:

67950: WET pH 10.0 Buffer
68828: 2nd pH 4 buffer
76233: WET 1st pH 4.0
80722: WET pH 2.0 Buffer
80723: WET pH 13.0 Buffer
80724: WET pH 7.0 Buffer / CCV
84019: WC29-186-7 ICVB

Prep Log Report

Batch Information: WET 347933 347934 347935 PH

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	SM 4500H+B-2011	Daily Cal Slope	99.175	Cal Date/Time	06/18/2019 19:45:16:428	Analyzed By	ZMH
Instrument	30WETG	Balance ID	30BA14	Shaker On ID | Date/Time | Init	06/18/2019 19:45:22:322 | 06/18/2019 19:45 | ZMH	Shaker Off Date/Time | Init	06/18/2019 19:50 | ZMH
Reviewed By	BKH	Reviewed By Date	06/20/2019 10:52	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		06/18/2019 20:59:12		7.04	7.02	7.04	19.8			80724 (1)
4500H+B	PS	**30300278001**	Y		06/18/2019 21:01:04	Water	9.25	9.23	9.25	15.2			
4500H+B	DUP	**1692188**	Y		06/18/2019 21:01:24	Water	9.33	9.29	9.33	15.5			
4500H+B	PS	**30300278002**	Y		06/18/2019 21:02:02	Water	9.35	9.33	9.35	15.1			
4500H+B	PS	**30300176001**	Y		06/18/2019 21:03:02	Water	7.27	7.3	7.27	14.1			
4500H+B	PS	**30300189001**	Y		06/18/2019 21:04:07	Water	12.28	12.28	12.28	17.2			
WET pH_Q	CCV	**CCV**	Y		06/18/2019 21:04:57		7.02	6.99	7.02	20.1			80724 (1)
9045 S	PS	**30300335001**	Y		06/18/2019 21:05:29	Solid	6.8	6.84	6.8	20.1	20.01		
9045 S	DUP	**1692189**	Y		06/18/2019 21:06:16	Solid	6.73	6.76	6.73	20.2	20.06		
9045 S	PS	**30300124002**	Y		06/18/2019 21:06:33	Solid	7.4	7.36	7.4	20.4	20.01		
9045 S	PS	**30300192001**	Y		06/18/2019 21:07:36	Solid	7.43	7.47	7.43	20.2	20.07		
9045 S	PS	**30300183001**	Y		06/18/2019 21:08:30	Solid	11.89	11.87	11.89	20.7	20.03		
9045D S	PS	**30300168001**	Y		06/18/2019 21:10:04	Solid	6.38	6.4	6.38	20.5	19.99		
9045D S	DUP	**1692190**	Y		06/18/2019 21:11:28	Solid	6.32	6.36	6.32	20.5	19.97		
9045D S	PS	**30300161001**	Y		06/18/2019 21:11:42	Solid	8.88	8.86	8.88	21.5	20.03		
9045D S	PS	**30300161002**	Y		06/18/2019 21:12:39	Solid	8.5	8.56	8.5	21.4	19.97		
WET pH_Q	CCV	**CCV**	Y		06/18/2019 21:13:24		7.01	7.03	7.01	20.5			80724 (1)

Standard Notes:

80724: WET pH 7.0 Buffer / CCV

Prep Log Report

Batch Information: WET 348697/348701 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	06/24/2019 17:44:24:894	Instrument	30BA14
Date/Time On	06/24/2019 13:44:18:599	Date/Time Off	06/24/2019 17:44:13:919	Lead Acetate Solution	90656	Sulfuric Acid	89890
10N Sodium Hydroxide	91499	Reviewed By	BKH	Reviewed By Date	06/25/2019 09:19	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1695808**	10.01	200	No			
733C S_P	BLANK	**1695815**	10.01	50	No			
734S S2_P	LCS	**1695809**	10.03	200	No			91573 (2)
733C S_P	LCS	**1695816**	10.07	50	No		84021 (1)	
734S S2_P	PS	**30299826001**	10.01	200	No			
733C S_P	PS	**30299826001**	10.01	50	No			
734S S2_P	DUP	**1695810**	10.07	200	No			
733C S_P	DUP	**1695817**	10.07	50	No			
734S S2_P	PS	**30300125001**	10	200	No			
733C S_P	PS	**30300125001**	10	50	No			
734S S2_P	PS	**30300381001**	10.06	200	No			
733C S_P	PS	**30300381001**	10.06	50	No			
734S S2_P	PS	**30300242001**	10.03	200	No			
733C S_P	PS	**30300242001**	10.03	50	No			
734S S2_P	PS	**30300244001**	10.08	200	No			
733C S_P	PS	**30300244001**	10.08	50	No			
734S S2_P	PS	**30310053001**	10.07	200	No			
733C S_P	PS	**30310053001**	10.07	50	No			
734S S2_P	PS	**30310054001**	10.01	200	No			
733C S_P	PS	**30310054001**	10.01	50	No			
734S S2_P	PS	**30300470001**	10.08	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30300470001**	10.08	50	No			
734S S2_P	PS	**30300748001**	10.08	200	No			
733C S_P	PS	**30300748001**	10.08	50	No			
734S S2_P	PS	**30300763001**	10.07	200	No			
733C S_P	PS	**30300763001**	10.07	50	No			
734S S2_P	PS	**30300096001**	10.01	200	No			
733C S_P	PS	**30300096001**	10.01	50	No			
734S S2_P	PS	**30300185001**	10	200	No			
733C S_P	PS	**30300185001**	10	50	No			
734S S2_P	PS	**30300161001**	10.02	200	No			
733C S_P	PS	**30300161001**	10.02	50	No			
734S S2_P	PS	**30300161002**	10.08	200	No			
733C S_P	PS	**30300161002**	10.08	50	No			
734S S2_P	PS	**30300192001**	10.04	200	No			
733C S_P	PS	**30300192001**	10.04	50	No			
734S S2_P	PS	**30300466001**	10.05	200	No			
733C S_P	PS	**30300466001**	10.05	50	No			
734S S2_P	PS	**30300617001**	10.01	200	No			
733C S_P	PS	**30300617001**	10.01	50	No			
734S S2_P	PS	**30300183001**	10	200	No			
734S S2_P	PS	**50228146001**	10.02	200	No			
734S S2_P	PS	**30299883001**	10.08	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 348802, 348821, 348822, 349029 Rx CN **Template Version: F-PA-I-040-Rev.03 (03Apr2019)**

Prep Method	SW-846 7.3.3.2	Analysis Method	EPA 9014	Prepared By	PAS	Prep Date Date/Time	06/25/2019 18:41:44:695
Instrument	30WTA1	Chloramine-T Soln. (CN)	91967	NaOH Soln.	None Added	Pyridine-Barbituric Acid Reage	91124
Reviewed By	BKH	Reviewed By Date	06/26/2019 08:33	Batch Notes	Instrument Traceability- NaOH (91679) + Phos Buffer (91680)		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
WETA CN_Q	CAL0	**CAL0**				No			91968 (1)
WETA CN_Q	CAL1	**CAL1**				No			91969 (1)
WETA CN_Q	CAL2	**CAL2**				No			91970 (1)
WETA CN_Q	CAL3	**CAL3**				No			91971 (1)
WETA CN_Q	CAL4	**CAL4**				No			91972 (1)
WETA CN_Q	CAL5	**CAL5**				No			91973 (1)
WETA CN_Q	CAL6	**CAL6**				No			91974 (1)
WETA CN_Q	ICV	**ICV**				No			91975 (1)
WETA CN_Q	ICB	**ICB**				No			91968 (1)
733C S2	BLANK	**1695815**		10.01	50	No	Solid		
733C S2	LCS	**1695816**		10.07	50	No	Solid		
733C S2	PS	**30299826001**		10.01	50	No	Solid		
733C S2	DUP	**1695817**		10.07	50	No	Solid		
733C S2	PS	**30300125001**		10	50	No	Solid		
733C S2	PS	**30300381001**		10.06	50	No	Solid		
733C S2	PS	**30300242001**		10.03	50	No	Solid		
733C S2	PS	**30300244001**		10.08	50	No	Solid		
733C S2	PS	**30310053001**		10.07	50	No	Solid		
733C S2	PS	**30310054001**		10.01	50	No	Solid		
733C S2	PS	**30300470001**		10.08	50	No	Solid		
733C S2	PS	**30300748001**		10.08	50	No	Solid		
733C S2	PS	**30300763001**		10.07	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**30300096001**		10.01	50	No	Water		
733C S2	PS	**30300185001**		10	50	No	Solid		
733C S2	PS	**30300161001**		10.02	50	No	Solid		
733C S2	PS	**30300161002**		10.08	50	No	Solid		
733C S2	PS	**30300192001**		10.04	50	No	Solid		
733C S2	PS	**30300466001**		10.05	50	No	Solid		
733C S2	PS	**30300617001**		10.01	50	No	Solid		
733C S2	BLANK	**1696110**		10.06	50	No	Solid		
733C S2	LCS	**1696111**		10.06	50	No	Solid		
733C S2	PS	**30300617002**		10.05	50	No	Solid		
733C S2	DUP	**1696112**		9.96	50	No	Solid		
733C S2	PS	**30300617003**		10.01	50	No	Solid		
733C S2	PS	**30300617004**		10.08	50	No	Solid		
733C S2	PS	**30300617005**		10.05	50	No	Solid		
733C S2	PS	**30300835007**		10.02	50	No	Solid		
733C S2	PS	**30300762001**		9.92	50	No	Solid		
733C S2	PS	**30310016001**		10.06	50	No	Solid		
733C S2	PS	**30310018001**		9.97	50	No	Solid		
733C S2	PS	**30310254001**		9.99	50	No	Solid		
733C S2	PS	**30300510001**		5.02	50	No	Solid		
733C S2	PS	**30300616001**		10.08	50	No	Solid		
733C S2	PS	**30300616002**		10.08	50	No	Solid		
733C S2	PS	**30300616003**		9.98	50	No	Solid		
733C S2	PS	**10479780001**		10.07	50	No	Solid		
733C S2	PS	**30310094002**		10.08	50	No	Solid		
733C S2	PS	**30310094003**		9.99	50	No	Solid		
733C S2	PS	**30310094005**		10	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**30310073001**		10.02	50	No	Solid		
733C S2	PS	**30310094006**		10.05	50	No	Solid		
733C S2	PS	**30310098002**		9.99	50	No	Solid		
733C S2	BLANK	**1696264**		10	50	No	Solid		
733C S2	LCS	**1696265**		10.01	50	No	Solid		
733C S2	PS	**30299959001**		10.06	50	No	Solid		
733C S2	DUP	**1696267**		10.02	50	No	Solid		
733C S2	BLANK	**1696962**		10	50	No	Solid		
733C S2	LCS	**1696963**		10.07	50	No	Solid		
733C S2	PS	**30310055001**		10.01	50	No	Solid		
733C S2	DUP	**1696964**		10.08	50	No	Solid		
733C S2	PS	**30299331001**		10.05	50	No	Solid		
WETA CN_Q	CCV	**CCV**				No			91973 (1)
WETA CN_Q	CCB	**CCB**				No			91968 (1)

Standard Notes:

91968: WET CN CAL0
91969: WET-CN-CAL1
91970: WET-CN-CAL2
91971: WET-CN-CAL3
91972: WET-CN-CAL4
91973: WET-CN-CAL5
91974: WET-CN-CAL6
91975: CN ICV

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV5A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1698540	1698540LB	96	101	104	99
1699732	1699732MS	100	96	98	98
1699733	1699733MSD	92	96	101	96
1699734	1699734LCS	91	95	102	99
30300161001	AOC 26-1	103	98	100	100
30300161002	AOC 26-2	104	97	98	101

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1699734LCS
Date Extracted: 07/01/2019
Date Analyzed (1): 07/01/2019
Instrument: 30MV5A
LCS Lot No: 92408
Lab File ID: 5190701.B\1.B\50701009-45152.D
SDG No.: 30300161

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	19.5	97	63-110
2-Butanone (MEK)	20.0	15.0	75	46-117
Carbon tetrachloride	20.0	19.0	95	59-114
Chlorobenzene	20.0	19.4	97	70-130
Chloroform	20.0	18.4	92	65-108
1,2-Dichloroethane	20.0	17.8	89	57-110
1,1-Dichloroethene	20.0	19.5	98	45-124
Tetrachloroethene	20.0	19.6	98	64-114
Trichloroethene	20.0	19.0	95	61-112
Vinyl chloride	20.0	16.4	82	54-142

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1699732MS
Date Extracted: 07/01/2019
Date Analyzed (1): 07/01/2019
Instrument: 30MV5A
Lab File ID: 5190701.B\1.B\50701045.D
Parent Sample ID: AOC 26-2
SDG No.: 30300161

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	155	78	10-133
1,2-Dichloroethane	200	ND	163	82	24-111
2-Butanone (MEK)	200	ND	116	58	10-175
Benzene	200	ND	171	86	15-121
Carbon tetrachloride	200	ND	160	80	20-125
Chlorobenzene	200	ND	199	91	10-122
Chloroform	200	ND	167	84	27-117
Tetrachloroethene	200	ND	172	86	13-125
Trichloroethene	200	ND	187	87	10-133
Vinyl chloride	200	ND	112	56	10-133

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV5A Matrix Spike Duplicate - Sample No: 1699733MSD

Lab File ID (2): 5190701.B\1.B\50701047.D Date Analyzed (2): 07/01/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	136	68	13	0-30	10-133
1,2-Dichloroethane	200	147	74	10	0-30	24-111
2-Butanone (MEK)	200	121	60	4	0-30	10-175
Benzene	200	152	76	12	0-30	15-121
Carbon tetrachloride	200	136	68	16	0-30	20-125
Chlorobenzene	200	181	83	9	0-30	10-122
Chloroform	200	143	72	16	0-30	27-117
Tetrachloroethene	200	150	75	14	0-30	13-125
Trichloroethene	200	160	73	16	0-30	10-133
Vinyl chloride	200	100	50	11	0-30	10-133

RPD: 0 out of 10 outside limits.

Spike Recovery: 0 out of 10 outside limits.

SAMPLE NO.

1698540LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV5A Matrix: Solid Lab Sample ID: 1698540

Lab File ID: 5190701.B\1.B\50701015-45152.D Date Analyzed: 07/01/2019 Time: 11:35

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1699734LCS	1699734	5190701.B\1.B\50701009-45152.D	07/01/2019 10:16
AOC 26-1	30300161001	5190701.B\1.B\50701041.D	07/01/2019 17:20
AOC 26-2	30300161002	5190701.B\1.B\50701043.D	07/01/2019 17:47
1699732MS	1699732	5190701.B\1.B\50701045.D	07/01/2019 18:13
1699733MSD	1699733	5190701.B\1.B\50701047.D	07/01/2019 18:40

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: 5190618.B\1.B\50618003.D BFB Injection Date 06/18/2019
Instrument ID: 30MV5A BFB Injection Time 09:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	21.25	
75	30.00 - 60.00% of mass 95	52.14	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.48	
173	Less than 2.00% of mass 174	0.94	(1.24)[1]
174	50.00 - 120.00% of mass 95	76.08	
175	5.00 - 9.00% of mass 174	5.41	(7.12)[1]
176	95.00 - 101.00% of mass 174	73.24	(96.27)[1]
177	5.00 - 9.00% of mass 176	4.85	(6.62)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11167106CAL1	11167106CAL1	5190618.B\1.B\50618005.D	06/18/2019	09:34
11146258CAL2	11146258CAL2	5190618.B\1.B\50618007.D	06/18/2019	10:01
11146246CAL3	11146246CAL3	5190618.B\1.B\50618009.D	06/18/2019	10:27
11146253CAL4	11146253CAL4	5190618.B\1.B\50618011.D	06/18/2019	10:54
11146260CAL5	11146260CAL5	5190618.B\1.B\50618013.D	06/18/2019	11:20
11146251CAL6	11146251CAL6	5190618.B\1.B\50618015.D	06/18/2019	11:47
11146255CAL7	11146255CAL7	5190618.B\1.B\50618017.D	06/18/2019	12:13
11146249CAL8	11146249CAL8	5190618.B\1.B\50618019.D	06/18/2019	12:40
11146257ICV	11146257ICV	5190618.B\1.B\50618023.D	06/18/2019	13:33

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: 5190701.B\1.B\50701003.D BFB Injection Date 07/01/2019
Instrument ID: 30MV5A BFB Injection Time 08:56

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	18.45	
75	30.00 - 60.00% of mass 95	51.64	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	7.53	
173	Less than 2.00% of mass 174	0.86	(1.12)[1]
174	50.00 - 120.00% of mass 95	77.45	
175	5.00 - 9.00% of mass 174	5.19	(6.70)[1]
176	95.00 - 101.00% of mass 174	74.94	(96.77)[1]
177	5.00 - 9.00% of mass 176	5.09	(6.80)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11173574CCV	11173574CCV	5190701.B\1.B\50701005.D	07/01/2019	09:23
1699734LCS	1699734LCS	5190701.B\1.B\50701009-45152.D	07/01/2019	10:16
1698540LB	1698540LB	5190701.B\1.B\50701015-45152.D	07/01/2019	11:35
AOC 26-1	30300161001	5190701.B\1.B\50701041.D	07/01/2019	17:20
AOC 26-2	30300161002	5190701.B\1.B\50701043.D	07/01/2019	17:47
1699732MS	1699732MS	5190701.B\1.B\50701045.D	07/01/2019	18:13
1699733MSD	1699733MSD	5190701.B\1.B\50701047.D	07/01/2019	18:40

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11173574CCV Date Analyzed: 07/01/2019

Instrument ID: 30MV5A GC Column: Col 1 Time Analyzed: 09:23

Lab File ID: 5190701.B\1.B\50701005.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		132458	5.766	61733	6.711	172749	4.28
UPPER LIMIT		264916	6.266	123466	7.211	345498	4.78
LOWER LIMIT		66229	5.266	30866.5	6.211	86374.5	3.78
LAB SAMPLE ID	SAMPLE NO.						
1698540	1698540LB	119776	5.766	48704	6.711	161061	4.28
1699732	1699732MS	109065	5.766	48338	6.711	145036	4.277
1699733	1699733MSD	120299	5.763	54446	6.711	154741	4.277
1699734	1699734LCS	124964	5.766	56065	6.711	167062	4.277
30300161001	AOC 26-1	107397	5.766	41558	6.711	145889	4.277
30300161002	AOC 26-2	104564	5.763	42053	6.711	140515	4.277

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 26-1

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/18/2019 09:30 Matrix: Solid SDG No.: 30300161

Date Extracted: 07/01/2019 17:20 Lab Sample ID: 30300161001

Date Analyzed: 07/01/2019 17:20 Lab File ID: 5190701.B\1.B\50701041.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Lab Smp Id: 30300161001 Client Smp ID: AOC 26-1
Inj Date : 01-JUL-2019 17:20
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 30300161001x10
Misc Info : 45152
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	7.832	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	38200	29.9398	32.5	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	42280	30.7565	33.4	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	145889	30.0000		
	50 Trichloroethene	95	4.376	4.373	(0.759)	708	0.44260	4.80(a)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	138257	30.0200	32.6	
	59 Toluene	91	5.106	5.110	(0.886)	6806	1.11097	12.0(a)	
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	107397	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	10872	2.66159	28.9(a)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	35401	29.2603	31.7	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Report Date: 02-Jul-2019 08:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	41558	30.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701041.d
Lab Smp Id: 30300161001
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: AOC 26-1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	145889	-15.55
71 Chlorobenzene-d5	132458	66229	264916	107397	-18.92
94 1,4-Dichlorobenze	61733	30867	123466	41558	-32.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30300161
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30300161001
Client Smp ID: AOC 26-1
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	32.5	32.5	99.80	0-130
$ 45 1,2-Dichloroethane	32.5	33.4	102.52	0-138
$ 58 Toluene-d8 (S)	32.5	32.6	100.07	0-124
$ 79 4-Bromofluorobenze	32.5	31.7	97.53	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Report Date: 02-Jul-2019 08:23

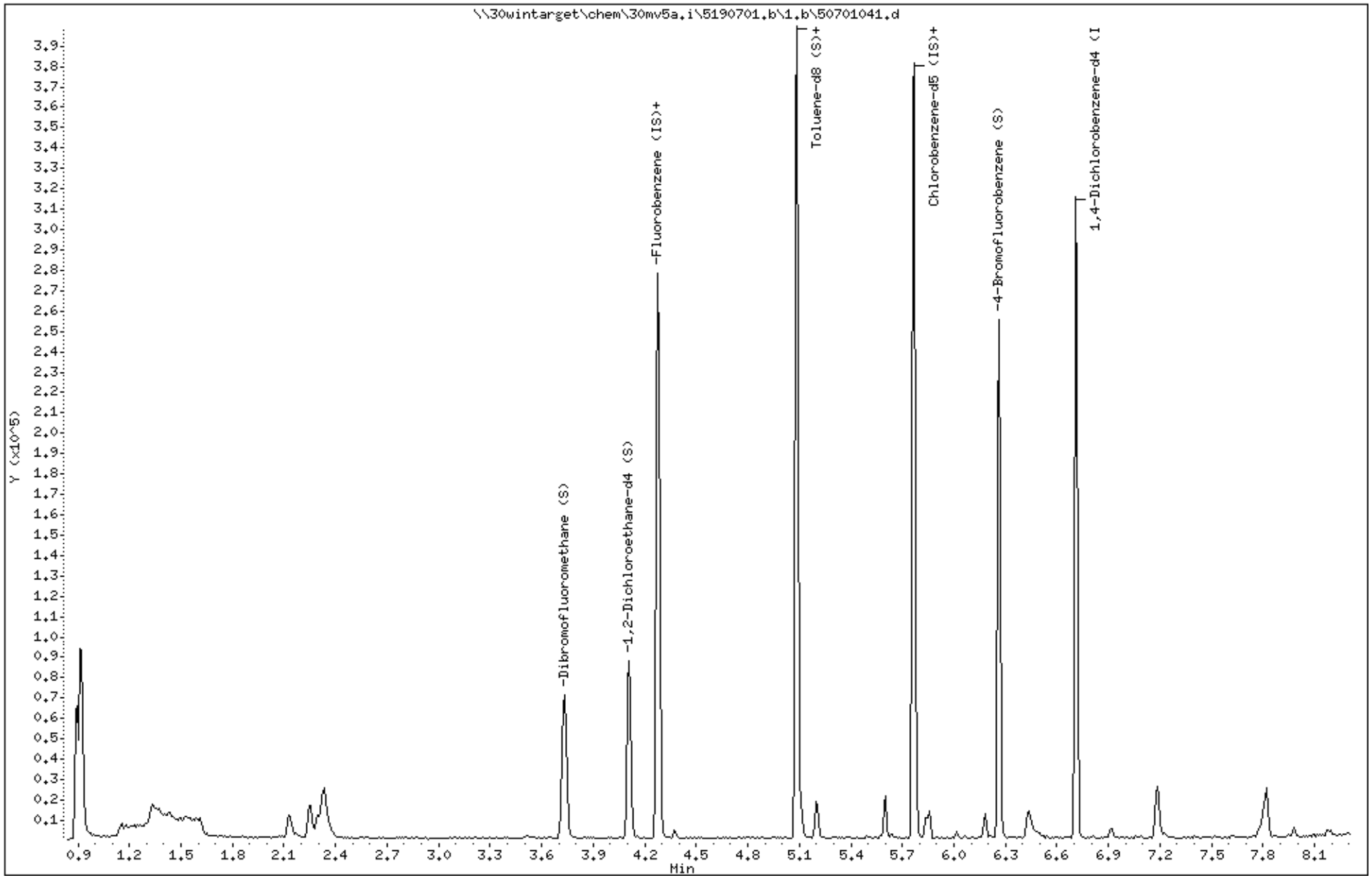
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30300161
Lab Smp Id: 30300161001
Client Smp ID: AOC 26-1
Sample Location:
Sample Point:
Sample Date: 17-JUN-2019
Date Received: 18-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45152

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
79-01-6	Trichloroethene	4.80	J
108-88-3	Toluene	12.0	J
108-90-7	Chlorobenzene	28.9	J
1868-53-7	Dibromofluoromethane (S)	32.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.4	
2037-26-5	Toluene-d8 (S)	32.6	
460-00-4	4-Bromofluorobenzene (S)	31.7	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d
Date : 01-JUL-2019 17:20
Client ID: AOC 26-1
Instrument: 30mv5a.i
Sample Info: 30300161001x10
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d

Date : 01-JUL-2019 17:20

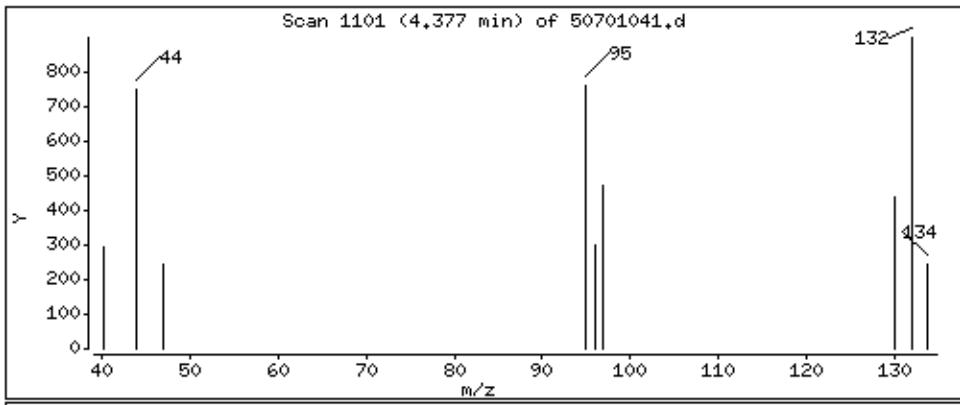
Client ID: AOC 26-1 Instrument: 30mv5a.i

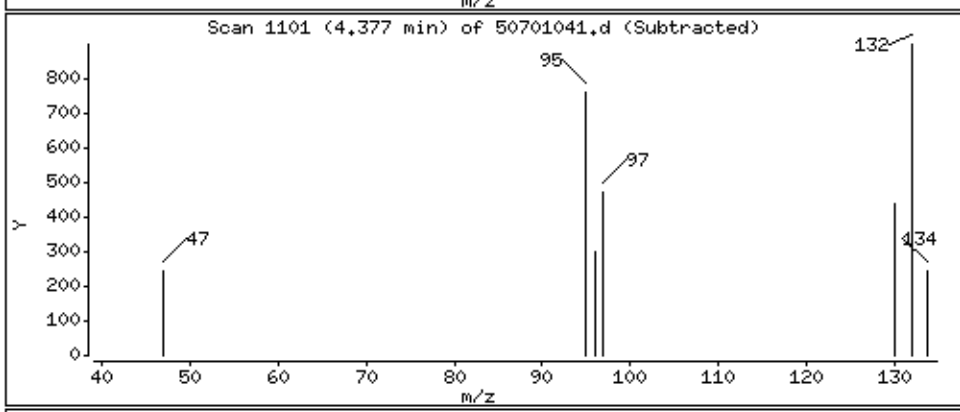
Sample Info: 30300161001x10

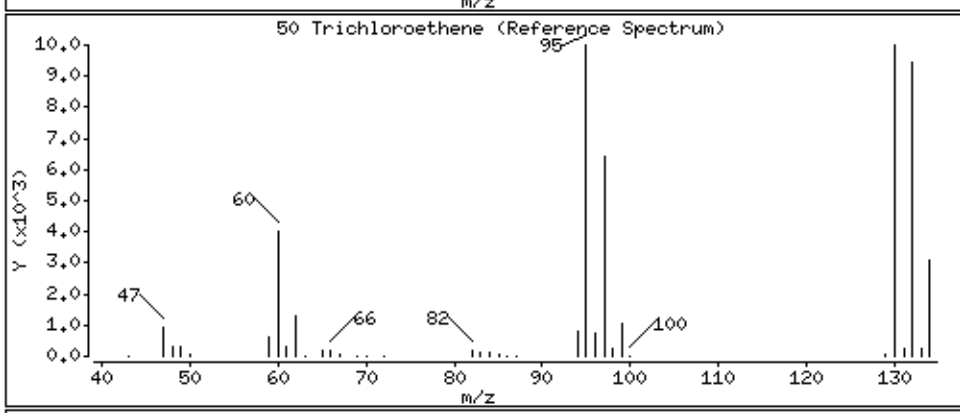
Operator: JEW

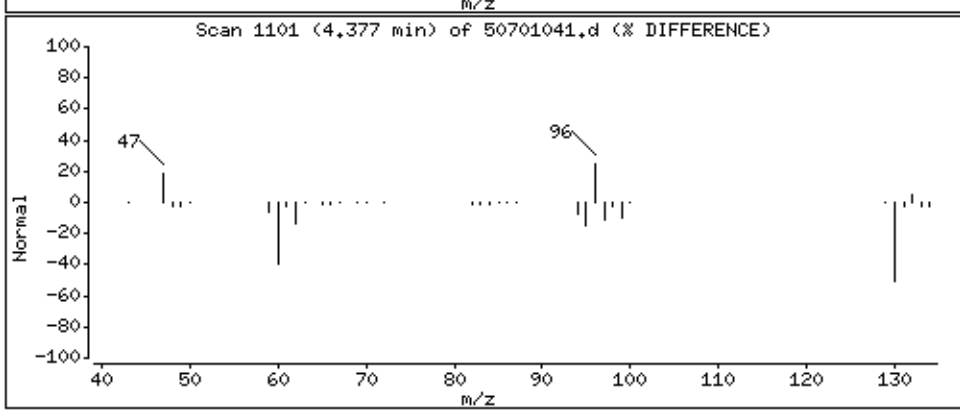
Column phase: RTX-VMS Column diameter: 0.18

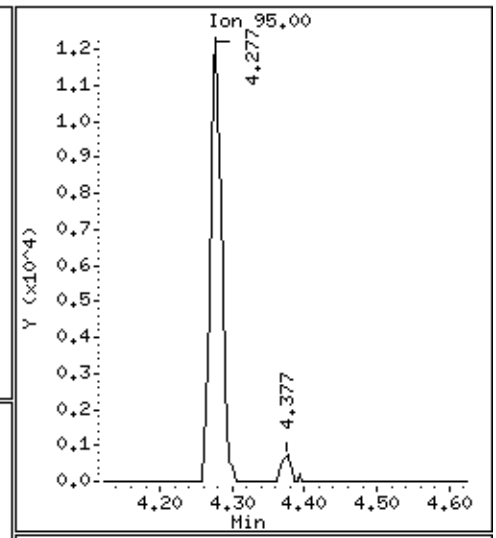
50 Trichloroethene Concentration: 4.80 ug/kg

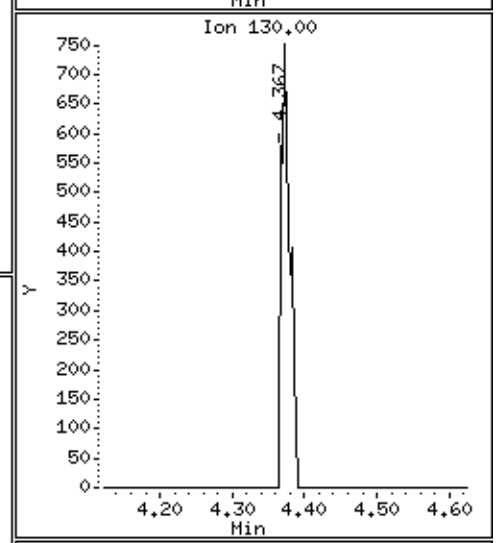


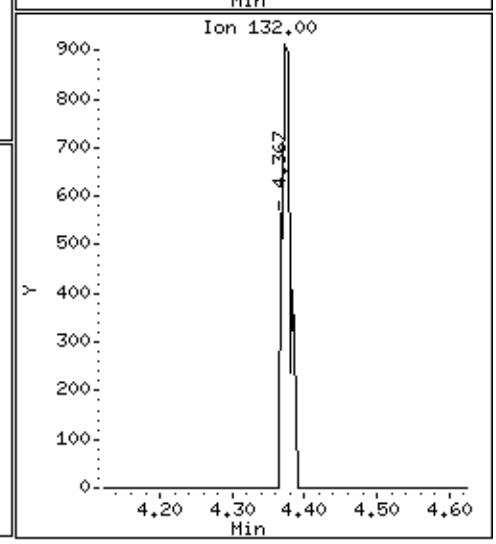












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d

Date : 01-JUL-2019 17:20

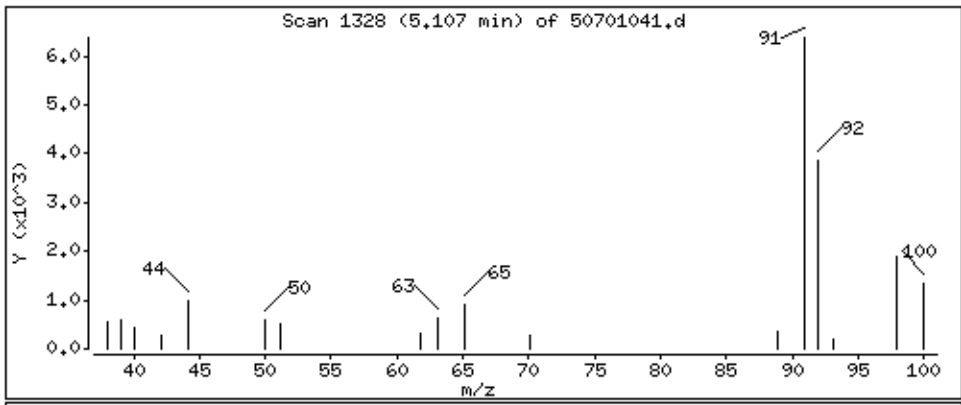
Client ID: AOC 26-1 Instrument: 30mv5a.i

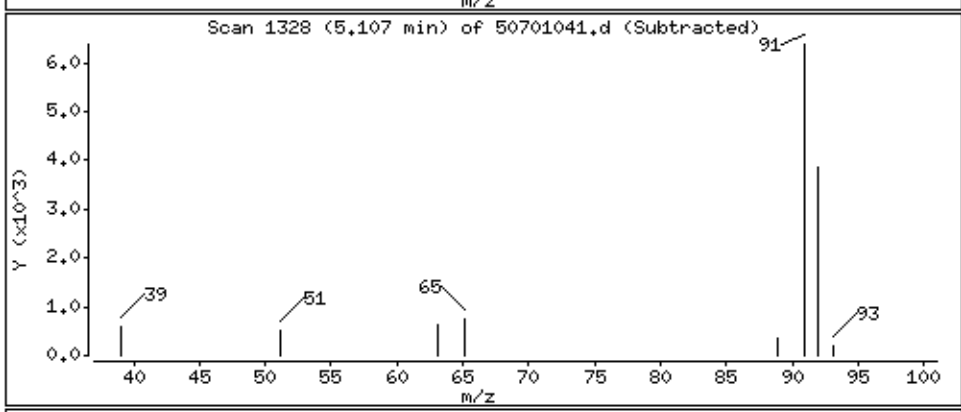
Sample Info: 30300161001x10

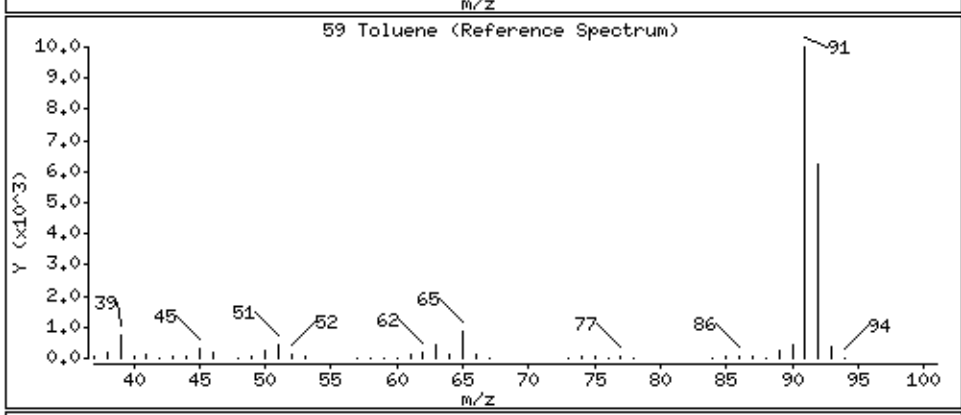
Operator: JEW

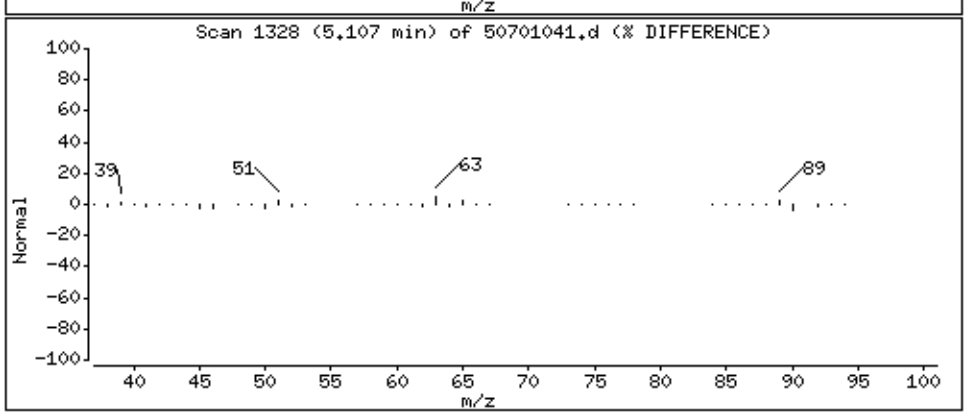
Column phase: RTX-VMS Column diameter: 0.18

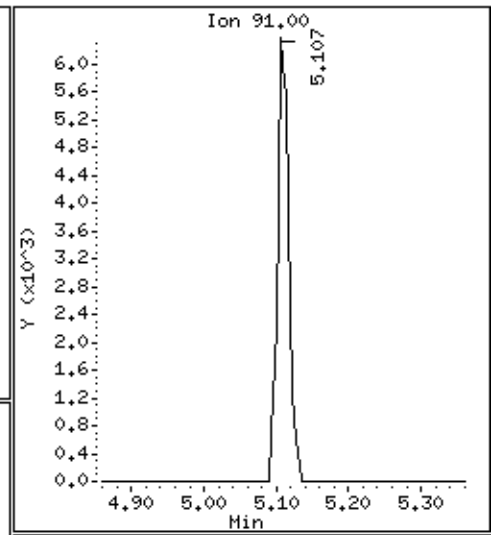
59 Toluene Concentration: 12.0 ug/kg

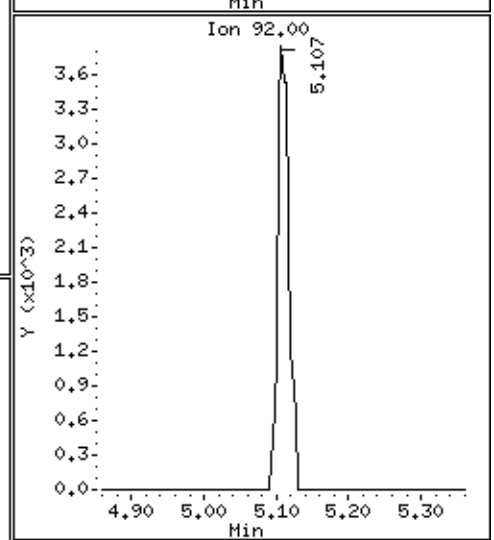












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701041.d

Date : 01-JUL-2019 17:20

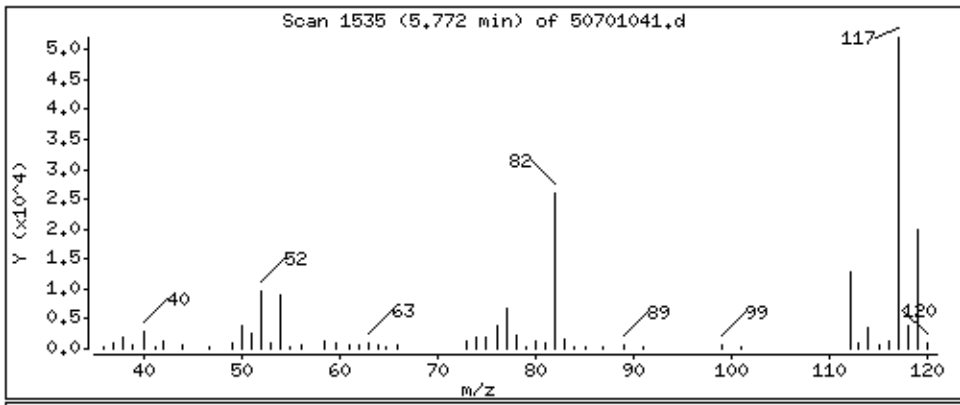
Client ID: AOC 26-1 Instrument: 30mv5a.i

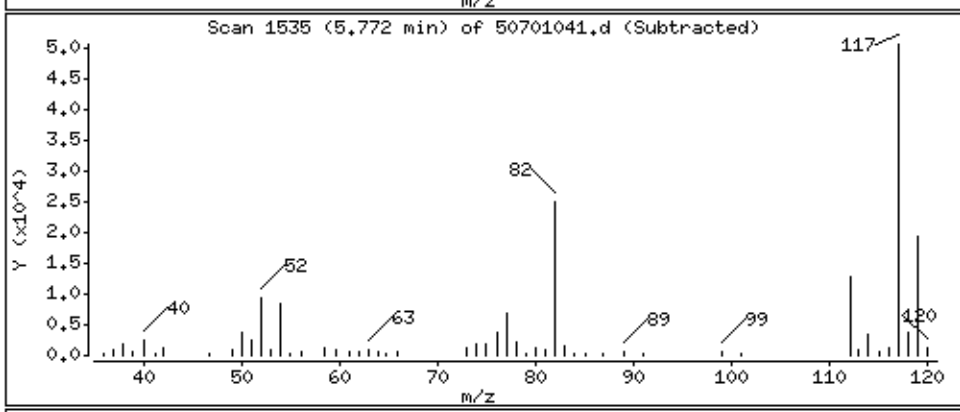
Sample Info: 30300161001x10

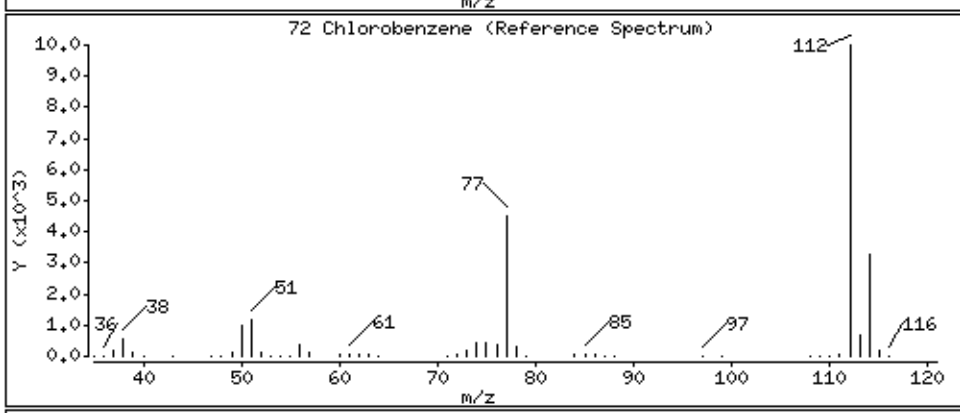
Operator: JEW

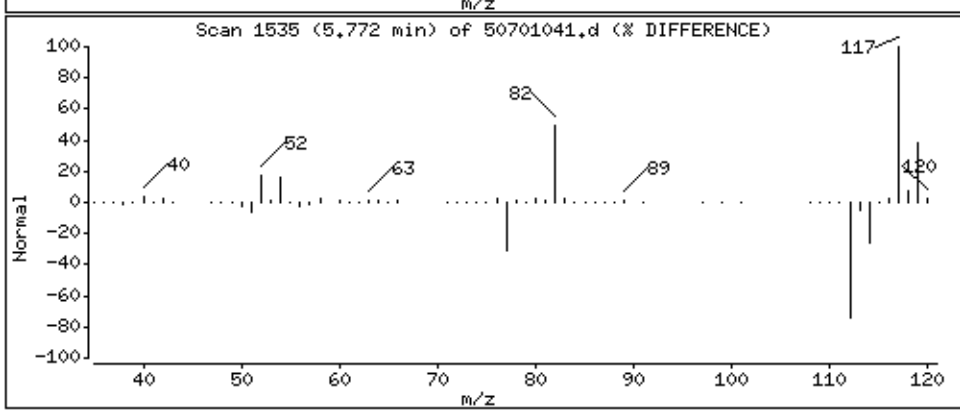
Column phase: RTX-VMS Column diameter: 0.18

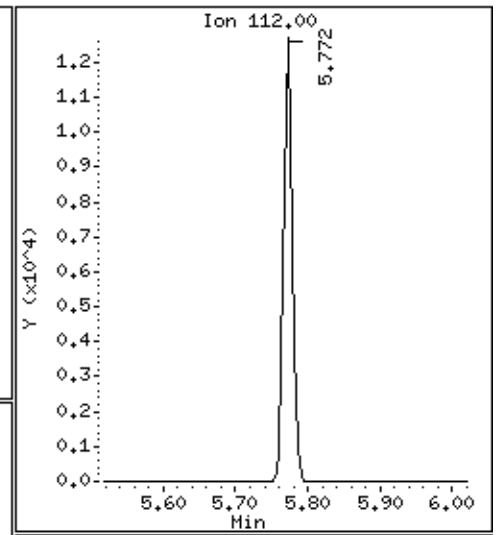
72 Chlorobenzene Concentration: 28.9 ug/kg

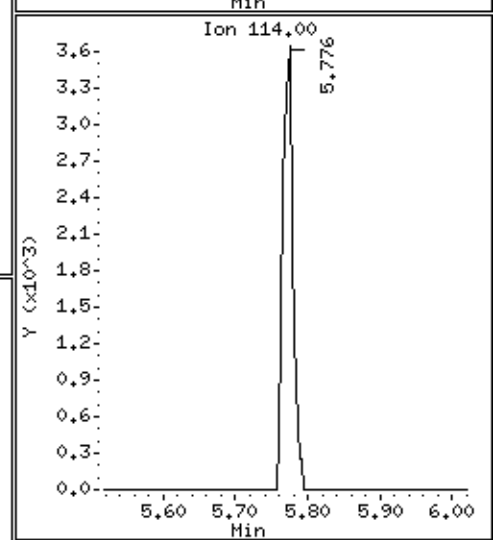


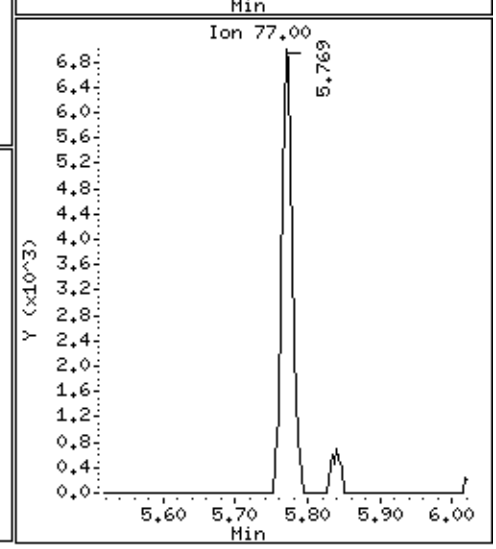












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701041.d
Injection Date: 01-JUL-2019 17:20
Instrument: 30mv5a.i
Lab Sample ID: 30300161001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC 26-2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/18/2019 09:30 Matrix: Solid SDG No.: 30300161

Date Extracted: 07/01/2019 17:47 Lab Sample ID: 30300161002

Date Analyzed: 07/01/2019 17:47 Lab File ID: 5190701.B\1.B\50701043.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:47
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 30300161002x10
Misc Info : 45152
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	6.947	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	35999	29.2938	31.5	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	41182	31.1035	33.4	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	140515	30.0000		
	50 Trichloroethene	95	4.373	4.373	(0.759)	1998	1.28287	13.8(a)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	135501	30.2187	32.5	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	104564	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.002)	6243	1.56977	16.9(a)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	35724	29.1797	31.4	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Report Date: 02-Jul-2019 08:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	42053	30.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701043.d
Lab Smp Id: 30300161002
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: AOC 26-2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	140515	-18.66
71 Chlorobenzene-d5	132458	66229	264916	104564	-21.06
94 1,4-Dichlorobenze	61733	30867	123466	42053	-31.88

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.76	-0.05
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30300161
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30300161002
Client Smp ID: AOC 26-2
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	32.2	31.5	97.65	0-130
$ 45 1,2-Dichloroethane	32.2	33.4	103.68	0-138
$ 58 Toluene-d8 (S)	32.2	32.5	100.73	0-124
$ 79 4-Bromofluorobenze	32.2	31.4	97.27	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

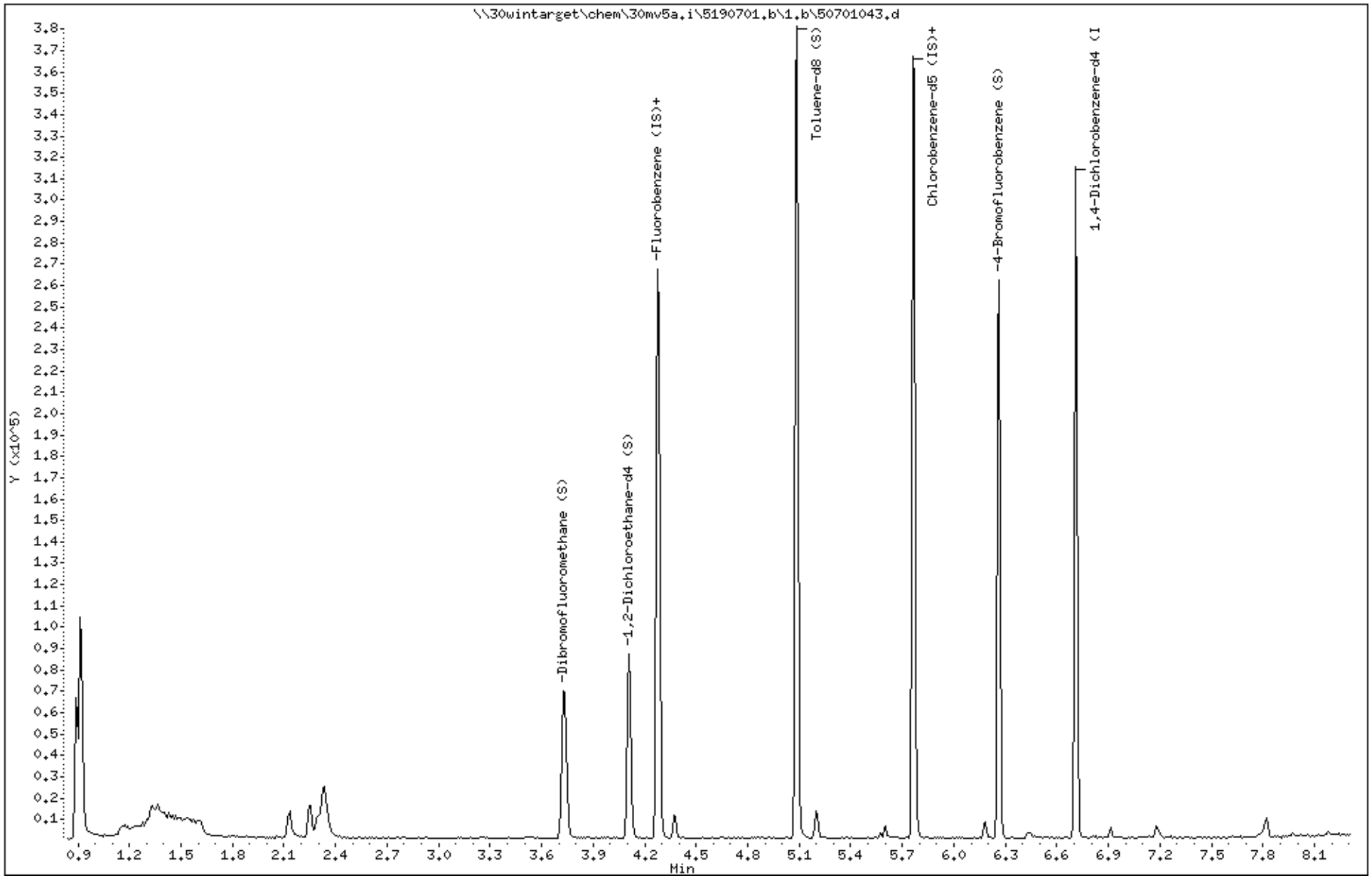
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30300161
Lab Smp Id: 30300161002
Client Smp ID: AOC 26-2
Sample Location:
Sample Point:
Sample Date: 17-JUN-2019
Date Received: 18-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45152

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
79-01-6	Trichloroethene	13.8	J
108-90-7	Chlorobenzene	16.9	J
1868-53-7	Dibromofluoromethane (S)	31.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.4	
2037-26-5	Toluene-d8 (S)	32.5	
460-00-4	4-Bromofluorobenzene (S)	31.4	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d
Date : 01-JUL-2019 17:47
Client ID: AOC 26-2
Sample Info: 30300161002x10

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d

Date : 01-JUL-2019 17:47

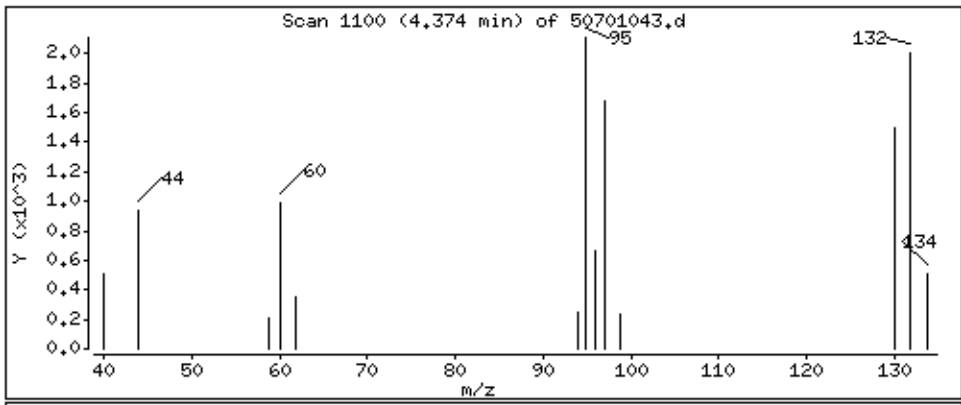
Client ID: AOC 26-2 Instrument: 30mv5a.i

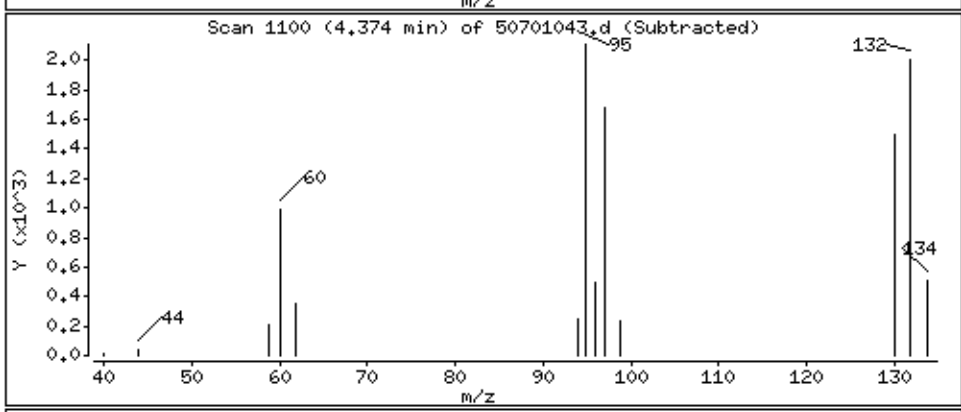
Sample Info: 30300161002x10

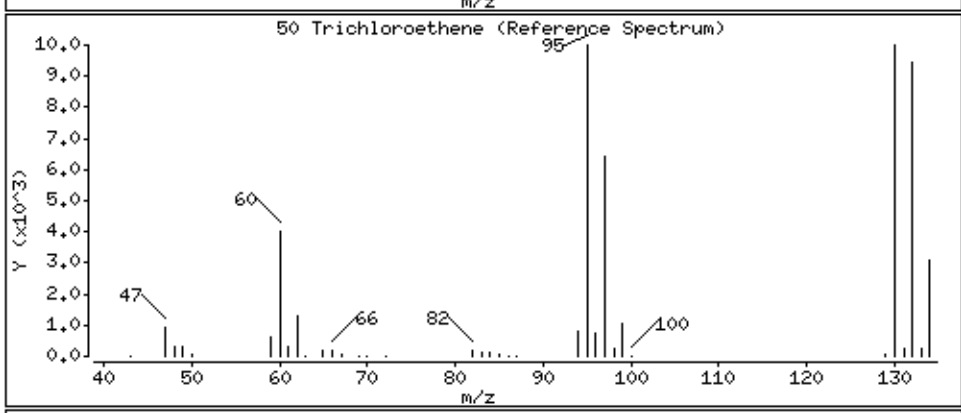
Operator: JEW

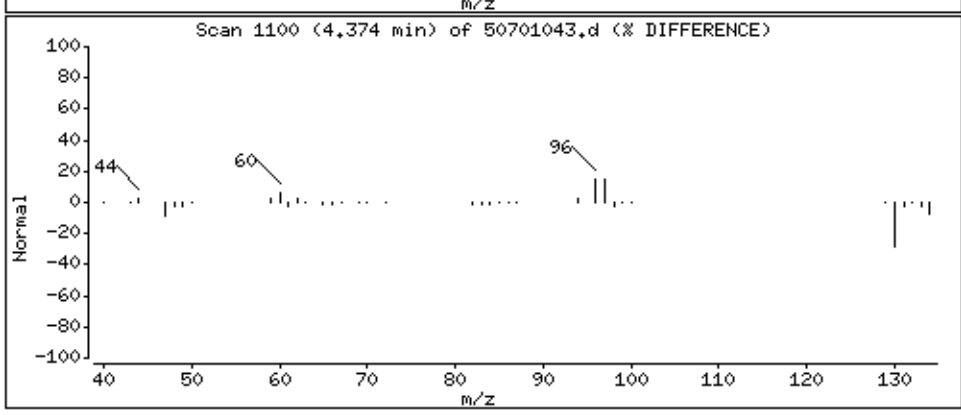
Column phase: RTX-VMS Column diameter: 0.18

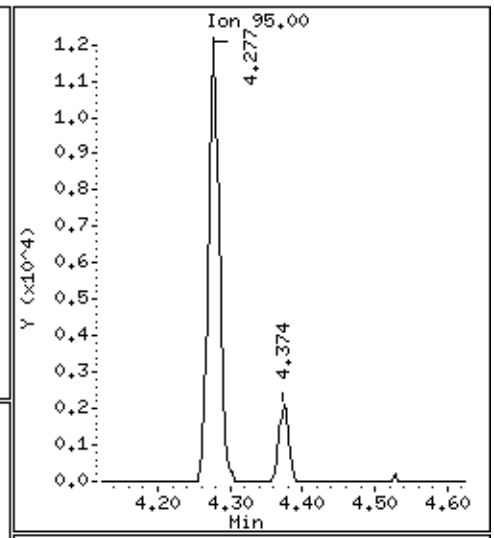
50 Trichloroethene Concentration: 13.8 ug/kg

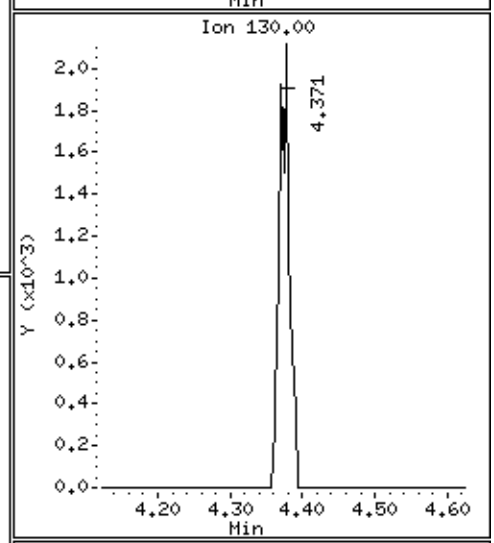


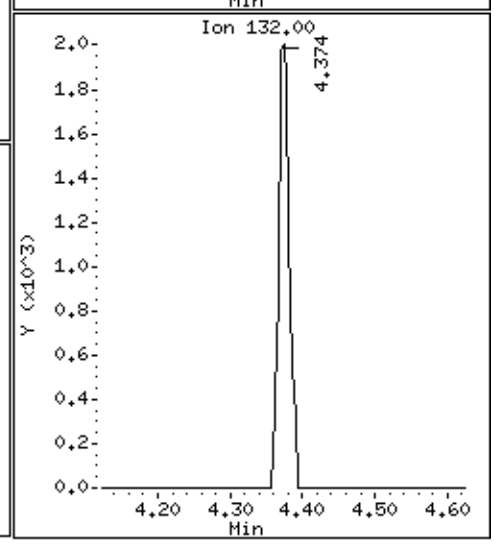












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701043.d

Date : 01-JUL-2019 17:47

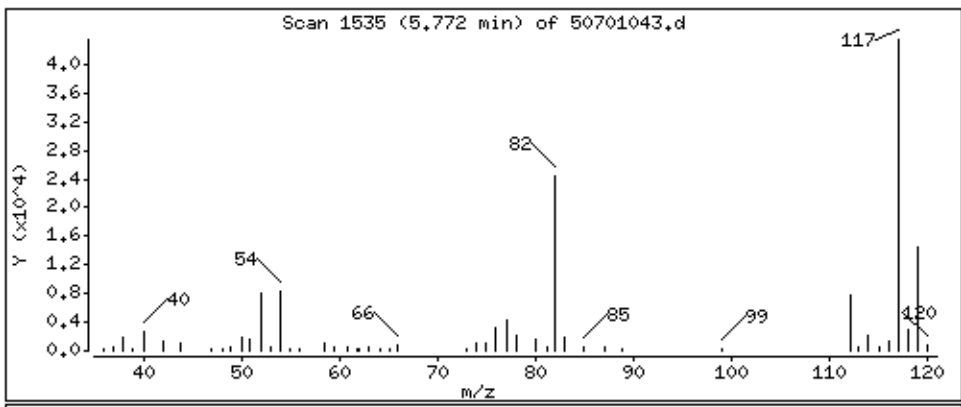
Client ID: AOC 26-2 Instrument: 30mv5a.i

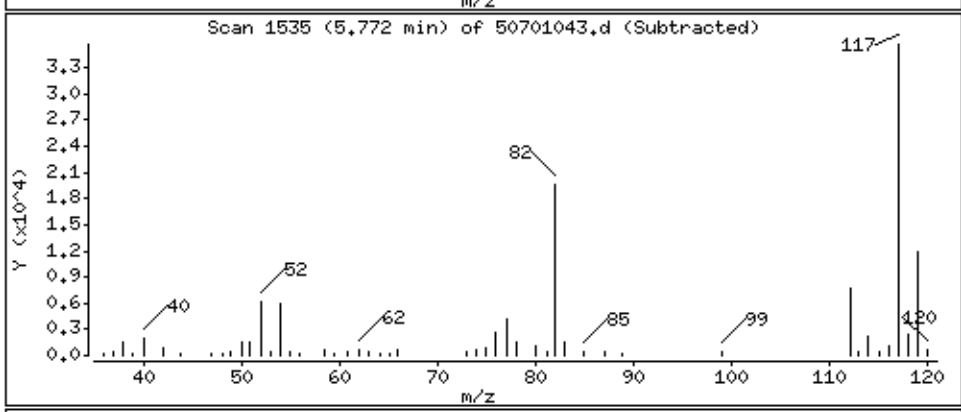
Sample Info: 30300161002x10

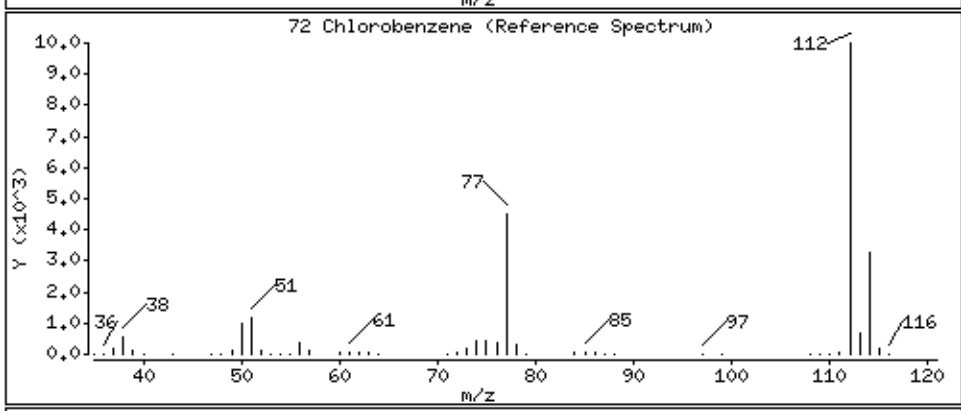
Operator: JEW

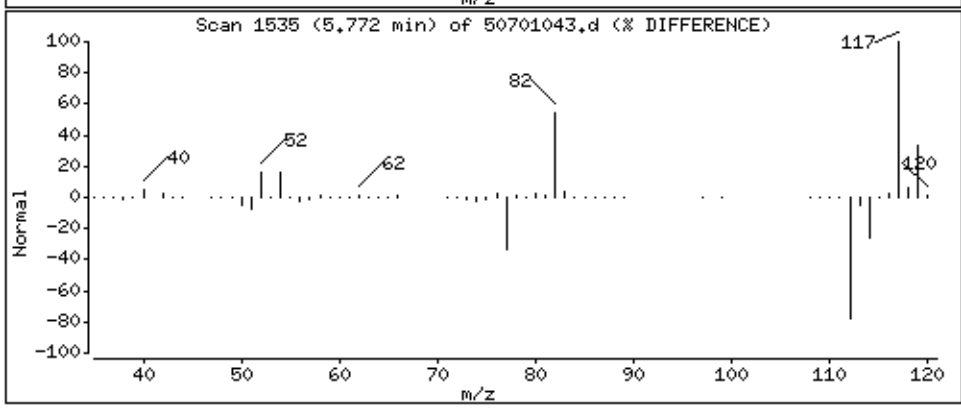
Column phase: RTX-VMS Column diameter: 0.18

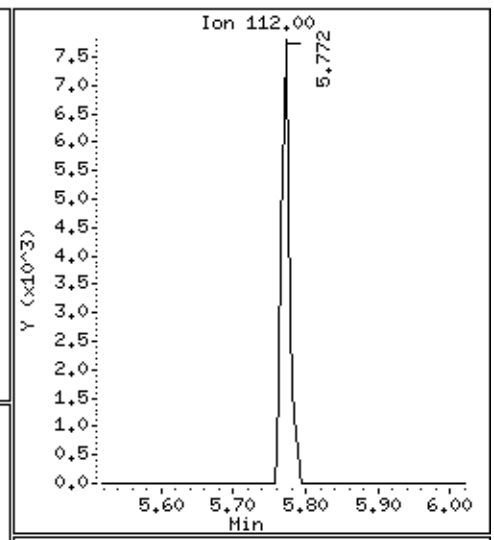
72 Chlorobenzene Concentration: 16.9 ug/kg

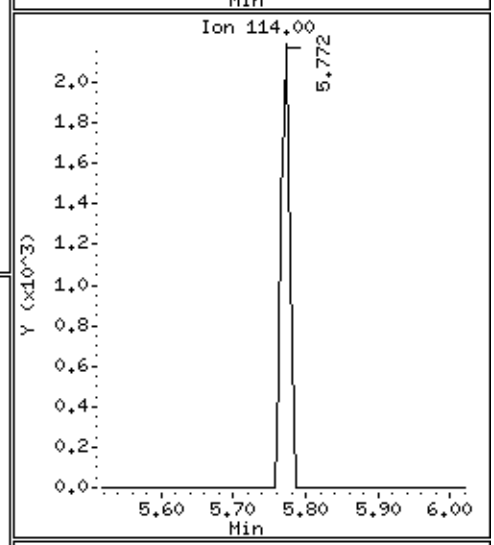


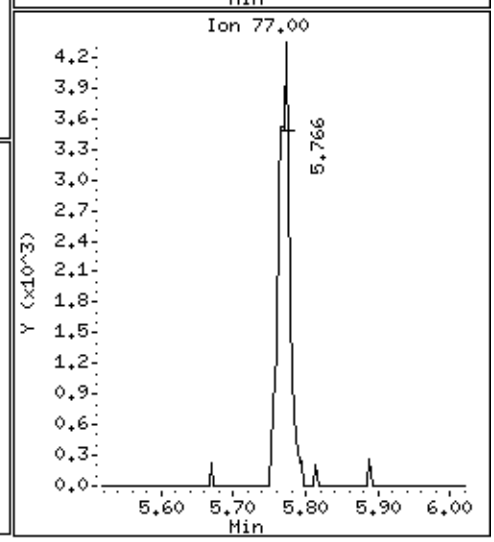












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701043.d
Injection Date: 01-JUL-2019 17:47
Instrument: 30mv5a.i
Lab Sample ID: 30300161002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Benzene	Averaged	0.81423	1.23559	1.19089	1.25463	1.24503	1.19880
2-Butanone (MEK)	Averaged		0.11600	0.12608	0.13736	0.13387	0.13325
Carbon tetrachloride	Averaged		0.39398	0.40408	0.43983	0.43548	0.43086
Chlorobenzene	Averaged		1.09161	1.14004	1.19445	1.19704	1.14450
Chloroform	Averaged		0.65919	0.62001	0.60705	0.60387	0.56337
1,2-Dichloroethane	Averaged		0.46332	0.41494	0.42591	0.42889	0.41941
1,1-Dichloroethene	Averaged		0.43469	0.41677	0.41799	0.40417	0.36722
Tetrachloroethene	Averaged		0.38227	0.40205	0.48083	0.45734	0.43541
Trichloroethene	Averaged		0.41732	0.46031	0.46596	0.46961	0.43682
Vinyl chloride	Averaged		0.37458	0.35095	0.32696	0.32322	0.30961
4-Bromofluorobenzene (S)	Averaged		0.88881	0.90079	0.85836	0.83817	0.81440
Dibromofluoromethane (S)	Averaged		0.26790	0.26660	0.27467	0.27238	0.27083
1,2-Dichloroethane-d4 (S)	Averaged		0.28191	0.27754	0.28224	0.28913	0.27455
Toluene-d8 (S)	Averaged		1.25629	1.31726	1.30282	1.26484	1.24165

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Benzene	Averaged	1.10553	1.11620
2-Butanone (MEK)	Averaged	0.13149	0.12089
Carbon tetrachloride	Averaged	0.38301	0.40044
Chlorobenzene	Averaged	1.07743	1.14214
Chloroform	Averaged	0.51654	0.47237
1,2-Dichloroethane	Averaged	0.41193	0.38749
1,1-Dichloroethene	Averaged	0.31954	0.30223
Tetrachloroethene	Averaged	0.40782	0.46497
Trichloroethene	Averaged	0.41119	0.46669
Vinyl chloride	Averaged	0.26767	0.27048
4-Bromofluorobenzene (S)	Averaged	0.88653	0.92662
Dibromofluoromethane (S)	Averaged	0.25944	0.22478
1,2-Dichloroethane-d4 (S)	Averaged	0.29876	0.27464
Toluene-d8 (S)	Averaged	1.29047	1.33208

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Benzene	Averaged	12.65610			1.14511	
2-Butanone (MEK)	Averaged	6.02134			0.12842	
Carbon tetrachloride	Averaged	5.45701			0.41252	
Chlorobenzene	Averaged	3.99896			1.14103	
Chloroform	Averaged	11.18178			0.57749	
1,2-Dichloroethane	Averaged	5.40596			0.42170	
1,1-Dichloroethene	Averaged	13.67583			0.38037	
Tetrachloroethene	Averaged	8.47268			0.43296	
Trichloroethene	Averaged	5.55880			0.44684	
Vinyl chloride	Averaged	12.36517			0.31764	
4-Bromofluorobenzene (S)	Averaged	4.42004			0.87338	
Dibromofluoromethane (S)	Averaged	6.58933			0.26237	
1,2-Dichloroethane-d4 (S)	Averaged	3.09069			0.28268	
Toluene-d8 (S)	Averaged	2.59731			1.28649	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 18-JUN-2019 09:34
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal1, 91185:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 01-Jul-2019 08:18 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	945	2.50000	0.904(aQ)	
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	1.145	1.145	(0.268)	1366	2.50000	1.03(aQ)	
4 Bromomethane	94	1.325	1.325	(0.310)	2850	2.50000	3.06(Q)	
5 Chloroethane	64	1.380	1.380	(0.323)	1548	2.50000	1.82(aQ)	
6 Trichlorofluoromethane	101	1.467	1.467	(0.343)	3067	2.50000	1.59(a)	
7 Diethyl ether (Ethyl ether)	59	1.634	1.634	(0.382)	1900	2.50000	1.95(aQ)	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.759	1.759	(0.411)	2631	2.50000	1.65(a)	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.775	(0.415)	805	2.50000	1.08(a)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	3069	2.50000	1.11(aQ)	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	2.055	2.055	(0.481)	13999	12.5000	11.0(Q)	
15 Methylene Chloride	49	2.132	2.132	(0.499)	3438	2.50000	3.12(Q)	
16 Acetone	43	Compound Not Detected.						
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	2280	2.50000	1.40(aQ)	
18 Methyl acetate	74	2.254	2.254	(0.527)	496	2.50000	2.53	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	2.312	2.312	(0.541)	5043	2.50000	1.41(aQ)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.386	2.386	(0.558)	874	12.5000	5.84(Q)	
	22 Acetonitrile	41	Compound Not Detected.						
	23 Diisopropyl ether	45	2.618	2.618	(0.612)	7075	2.50000	2.06(a)	
	24 Chloroprene	53	2.705	2.705	(0.632)	777	2.50000	0.531(aQ)	
	25 1,1-Dichloroethane	63	2.727	2.727	(0.638)	1735	2.50000	0.801(aQ)	
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	2.939	2.939	(0.687)	3313	2.50000	0.920(aQ)	
	28 Vinyl acetate	43	2.965	2.965	(0.693)	2553	2.50000	0.926(aQ)	
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	1719	2.50000	1.04(aQ)	
	30 2,2-Dichloropropane	77	3.351	3.351	(0.783)	1353	2.50000	0.688(aQ)	
	31 Cyclohexane	56	3.450	3.450	(0.807)	1417	2.50000	0.866(aQ)	
	32 Bromochloromethane	130	3.467	3.467	(0.811)	970	2.50000	1.29(aQ)	
	33 Chloroform	83	3.553	3.553	(0.831)	2167	2.50000	0.897(aQ)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	1107	2.50000	0.641(aQ)	
	35 Ethyl acetate	43	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.711	3.711	(0.868)	858	2.50000	1.86(aQ)	
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	34689	30.0000	31.6	
	38 1,1,1-Trichloroethane	97	3.733	3.733	(0.873)	1648	2.50000	0.790(aQ)	
	39 2-Butanone (MEK)	43	3.865	3.865	(0.904)	1004	2.50000	1.87(aQM)	WP
	40 1,1-Dichloropropene	75	3.846	3.846	(0.899)	2303	2.50000	1.32(a)	
	41 Benzene	78	4.020	4.020	(0.940)	8518	2.50000	1.78(aQM)	NI
	42 Propionitrile	54	4.049	4.049	(0.947)	276	2.50000	2.21(aQ)	
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	4.106	4.106	(0.960)	7414	2.50000	2.03(aQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	35115	30.0000	29.7	
	46 Isobutanol	43	4.213	4.213	(0.985)	773	12.5000	16.0(QM)	WP
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	3445	2.50000	1.95(a)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	125537	30.0000		
	49 Methylcyclohexane	83	4.364	4.364	(1.020)	2956	2.50000	1.68(aQ)	
	50 Trichloroethene	95	4.373	4.373	(0.759)	2222	2.50000	1.55(a)	
	51 Dibromomethane	174	4.598	4.598	(1.075)	1684	2.50000	2.01(a)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	2305	2.50000	1.90(aQ)	
	53 Bromodichloromethane	83	4.688	4.688	(1.096)	3487	2.50000	2.05(a)	
	54 Methyl methacrylate	69	4.775	4.775	(1.117)	2272	2.50000	2.52(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	4.978	4.978	(1.164)	1100	2.50000	2.37(aQ)	
	57 cis-1,3-Dichloropropene	75	5.000	5.000	(1.169)	3916	2.50000	1.92(aQ)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	121235	30.0000	29.3	
	59 Toluene	91	5.110	5.110	(0.886)	9540	2.50000	1.74(a)	
	60 2-Nitropropane	43	5.216	5.216	(1.219)	4416	12.5000	11.0(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.283	(1.235)	2619	2.50000	2.16(aQ)	
	62 Tetrachloroethene	166	5.290	5.290	(0.917)	1935	2.50000	1.39(a)	
	63 trans-1,3-Dichloropropene	75	5.303	5.303	(0.920)	3560	2.50000	1.72(aQ)	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	2734	2.50000	2.50(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.931)	2594	2.50000	2.10(a)	
	66 Dibromochloromethane	129	5.450	5.450	(0.945)	2758	2.50000	1.92(a)	
	67 1,3-Dichloropropane	76	5.492	5.492	(0.953)	3966	2.50000	2.00(aQ)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.963)	2501	2.50000	2.06(a)	
	69 2-Hexanone	43	5.643	5.643	(0.979)	2131	2.50000	2.29(aQ)	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	3091	2.50000	1.62(aQM)	WP
*	71 Chlorobenzene-d5 (IS)	117	5.766	5.766	(1.000)	96358	30.0000		
	72 Chlorobenzene	112	5.769	5.769	(1.001)	6534	2.50000	1.78(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	2586	2.50000	1.87(aQ)	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	7804	5.00000	3.39	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.016	6.016	(1.043)	3894	2.50000	1.71(a)	
	76 Styrene	104	Compound Not Detected.						
	77 Bromoform	173	6.058	6.058	(0.903)	1911	2.50000	2.14(a)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	9237	2.50000	1.90(aQ)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	33651	30.0000	30.9	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	10989	2.50000	1.97(a)	
	81 Bromobenzene	77	6.309	6.309	(0.940)	5218	2.50000	2.35(a)	
	82 1,1,2,2-Tetrachloroethane	83	6.335	6.335	(0.944)	4203	2.50000	2.83	
	83 1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	7834	2.50000	2.00(a)	
	84 2-Chlorotoluene	126	6.380	6.380	(0.951)	2331	2.50000	1.91(a)	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	1027	2.50000	2.38(a)	
	86 trans-1,4-Dichloro-2-butene	53	6.409	6.409	(0.955)	1022	2.50000	2.88(Q)	
	87 Cyclohexanone	55	6.421	6.421	(0.957)	1355	12.5000	19.6(Q)	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	2331	2.50000	1.91(a)	
	89 tert-Butylbenzene	119	6.511	6.511	(0.970)	7397	2.50000	2.29(a)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	7739	2.50000	1.99(a)	
	91 sec-Butylbenzene	105	6.582	6.582	(0.981)	9248	2.50000	2.02(a)	
	92 p-Isopropyltoluene	119	6.634	6.634	(0.989)	8371	2.50000	2.17(a)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	4244	2.50000	1.96(a)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	37365	30.0000		
	95 1,4-Dichlorobenzene	146	6.714	6.714	(1.000)	4467	2.50000	2.06(aQ)	
	96 n-Butylbenzene	91	6.804	6.804	(1.014)	7048	2.50000	2.11(a)	
	97 1,2-Dichlorobenzene	146	6.891	6.891	(1.027)	3898	2.50000	1.90(a)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	37771	30.0000	30.3	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	479	2.50000	1.97(a)	
	99 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	1245	2.50000	2.38(aQ)	
	101 1,2,4-Trichlorobenzene	180	7.486	7.486	(1.115)	2180	2.50000	2.23(a)	
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	1825	2.50000	2.05(aM)	WP
	104 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  NI: Indicates that the peak was not integrated at all by the
      computer software.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618005.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	125537	-12.63
71 Chlorobenzene-d5	102704	51352	205408	96358	-6.18
94 1,4-Dichlorobenze	44519	22260	89038	37365	-16.07

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.01
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	0.904	J
75-01-4	Vinyl chloride	1.03	J
74-83-9	Bromomethane	3.06	
75-00-3	Chloroethane	1.82	J
75-69-4	Trichlorofluoromethane	1.59	J
60-29-7	Diethyl ether (Ethyl ether)	1.95	J
75-35-4	1,1-Dichloroethene	1.65	J
76-13-1	1,1,2-Trichlorotrifluoroetha	1.08	J
75-15-0	Carbon disulfide	1.11	J
107-05-1	Allyl chloride	11.0	
75-09-2	Methylene Chloride	3.12	
156-60-5	trans-1,2-Dichloroethene	1.40	J
79-20-9	Methyl acetate	2.53	
1634-04-4	Methyl-tert-butyl ether	1.41	J
75-65-0	tert-Butyl Alcohol	5.84	
108-20-3	Diisopropyl ether	2.06	J
126-99-8	Chloroprene	0.531	J
75-34-3	1,1-Dichloroethane	0.801	J
637-92-3	Ethyl-tert-butyl ether	0.920	J
108-05-4	Vinyl acetate	0.926	J
156-59-2	cis-1,2-Dichloroethene	1.04	J
594-20-7	2,2-Dichloropropane	0.688	J
110-82-7	Cyclohexane	0.866	J
74-97-5	Bromochloromethane	1.29	J
67-66-3	Chloroform	0.897	J
56-23-5	Carbon tetrachloride	0.641	J
109-99-9	Tetrahydrofuran	1.86	J
71-55-6	1,1,1-Trichloroethane	0.790	J
78-93-3	2-Butanone (MEK)	1.87	J
563-58-6	1,1-Dichloropropene	1.32	J
71-43-2	Benzene	1.78	J
107-12-0	Propionitrile	2.21	J
994-05-8	tert-Amylmethyl ether	2.03	J
78-83-1	Isobutanol	16.0	
107-06-2	1,2-Dichloroethane	1.95	J
108-87-2	Methylcyclohexane	1.68	J
79-01-6	Trichloroethene	1.55	J
74-95-3	Dibromomethane	2.01	J
78-87-5	1,2-Dichloropropane	1.90	J
75-27-4	Bromodichloromethane	2.05	J
80-62-6	Methyl methacrylate	2.52	
110-75-8	2-Chloroethylvinyl ether	2.37	J

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
10061-01-5	cis-1,3-Dichloropropene	1.92	J
108-88-3	Toluene	1.74	J
79-46-9	2-Nitropropane	11.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.16	J
127-18-4	Tetrachloroethene	1.39	J
10061-02-6	trans-1,3-Dichloropropene	1.72	J
97-63-2	Ethyl methacrylate	2.50	
79-00-5	1,1,2-Trichloroethane	2.10	J
124-48-1	Dibromochloromethane	1.92	J
142-28-9	1,3-Dichloropropane	2.00	J
106-93-4	1,2-Dibromoethane (EDB)	2.06	J
591-78-6	2-Hexanone	2.29	J
100-41-4	Ethylbenzene	1.62	J
108-90-7	Chlorobenzene	1.78	J
630-20-6	1,1,1,2-Tetrachloroethane	1.87	J
7816-60-0	m&p-Xylene	3.39	
95-47-6	o-Xylene	1.71	J
75-25-2	Bromoform	2.14	J
98-82-8	Isopropylbenzene (Cumene)	1.90	J
103-65-1	n-Propylbenzene	1.97	J
108-86-1	Bromobenzene	2.35	J
79-34-5	1,1,2,2-Tetrachloroethane	2.83	
108-67-8	1,3,5-Trimethylbenzene	2.00	J
95-49-8	2-Chlorotoluene	1.91	J
96-18-4	1,2,3-Trichloropropane	2.38	J
110-57-6	trans-1,4-Dichloro-2-butene	2.88	
108-94-1	Cyclohexanone	19.6	
106-43-4	4-Chlorotoluene	1.91	J
98-06-6	tert-Butylbenzene	2.29	J
95-63-6	1,2,4-Trimethylbenzene	1.99	J
135-98-8	sec-Butylbenzene	2.02	J
99-87-6	p-Isopropyltoluene	2.17	J
541-73-1	1,3-Dichlorobenzene	1.96	J
106-46-7	1,4-Dichlorobenzene	2.06	J
104-51-8	n-Butylbenzene	2.11	J
95-50-1	1,2-Dichlorobenzene	1.90	J
96-12-8	1,2-Dibromo-3-chloropropane	1.97	J
87-68-3	Hexachloro-1,3-butadiene	2.38	J
120-82-1	1,2,4-Trichlorobenzene	2.23	J
87-61-6	1,2,3-Trichlorobenzene	2.05	J
1868-53-7	Dibromofluoromethane (S)	31.6	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

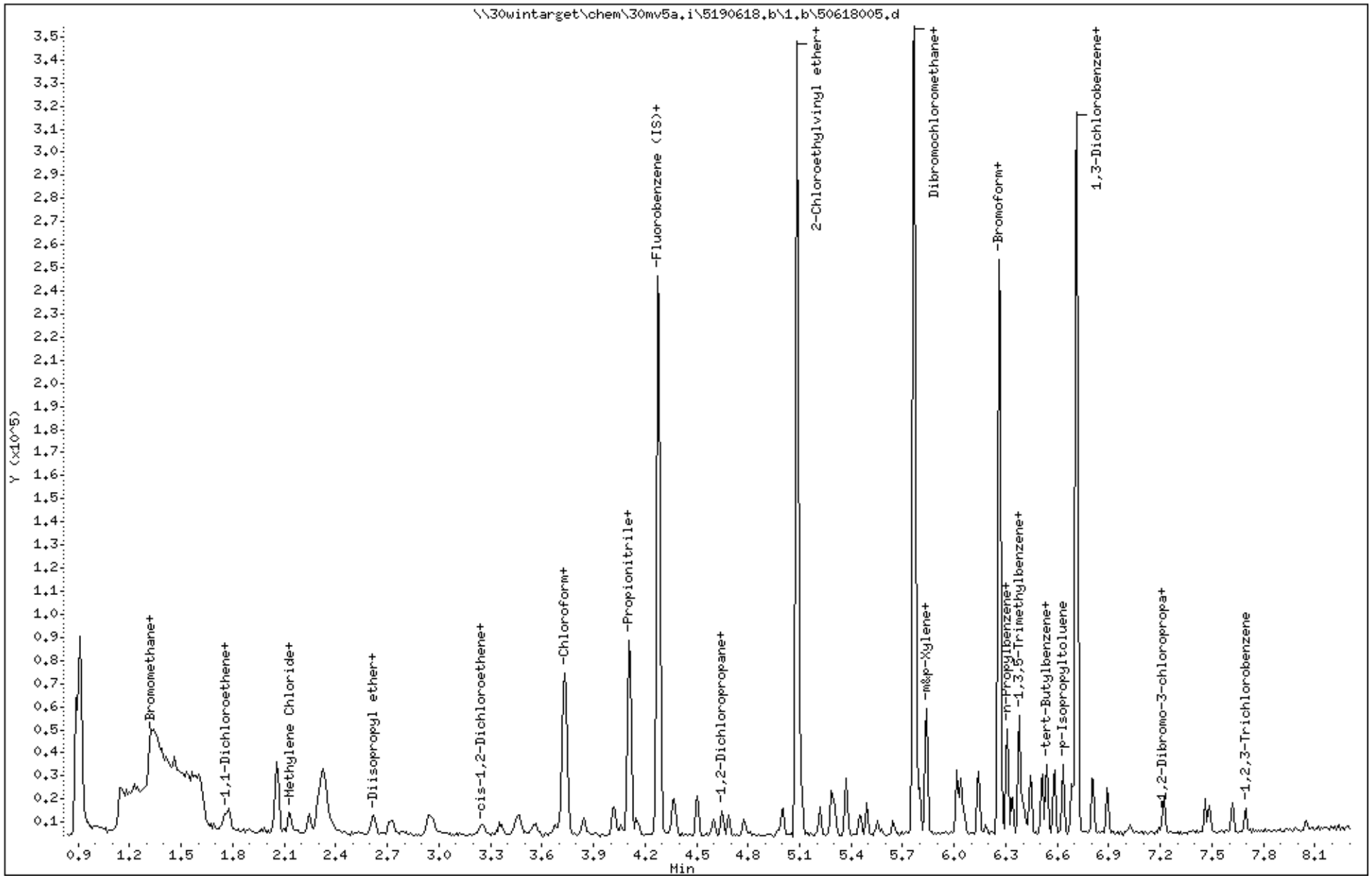
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
17060-07-0	1,2-Dichloroethane-d4 (S)	29.7	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	30.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.3	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Date : 18-JUN-2019 09:34
Client ID: CAL1
Sample Info: CAL1, 91185:1

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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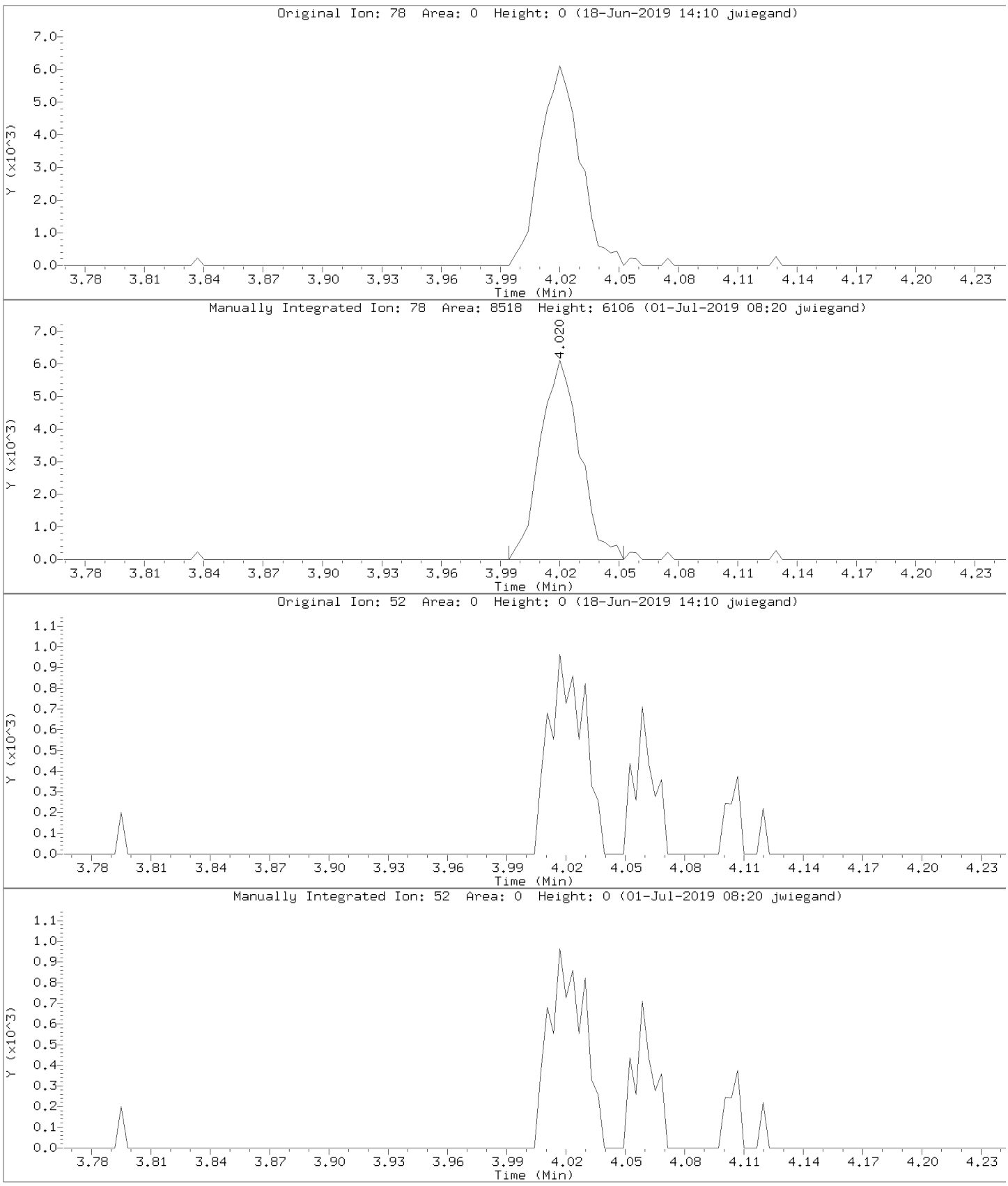
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Benzene Review Code: NI
CAS Number: 71-43-2



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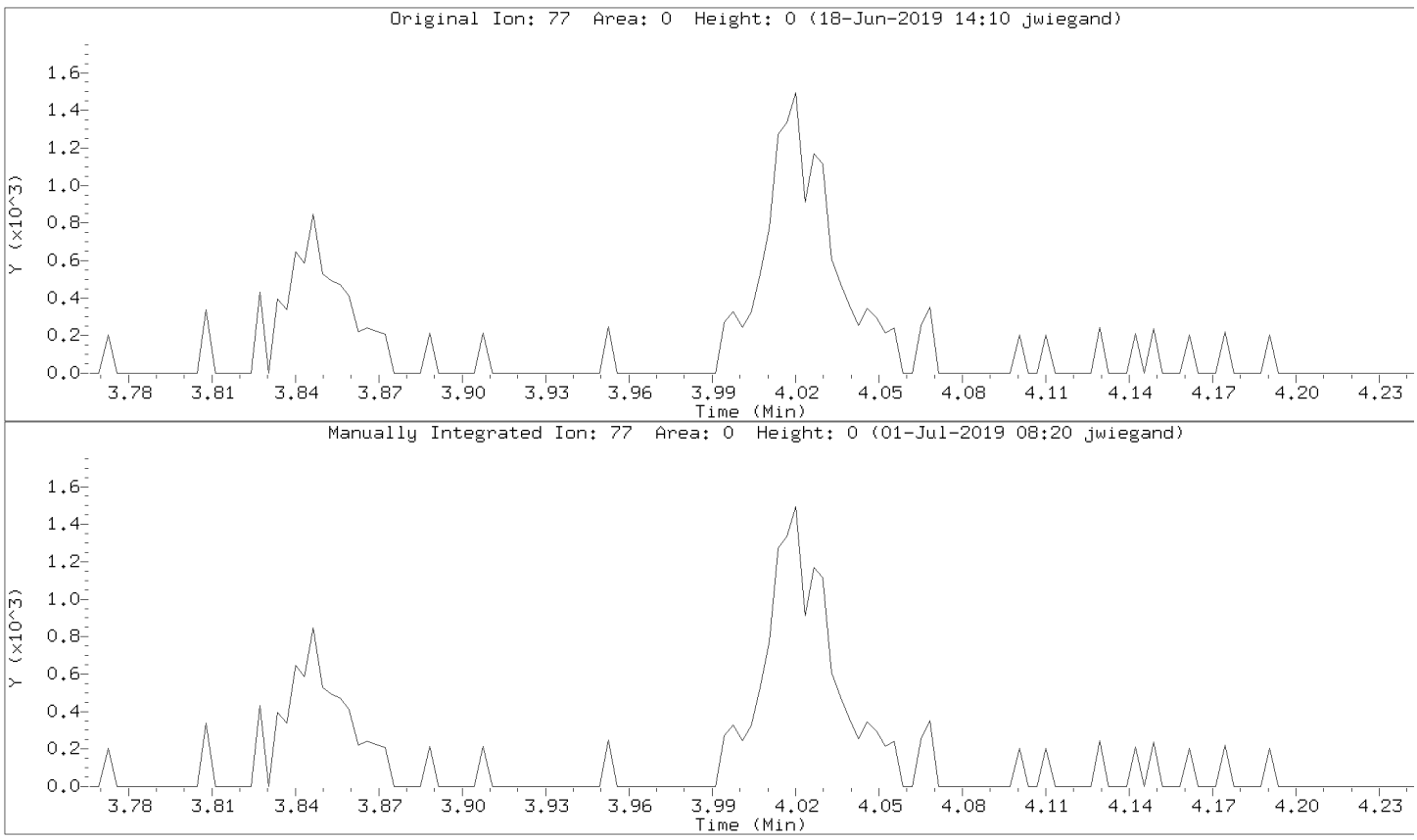
Lab Sample ID: CAL1



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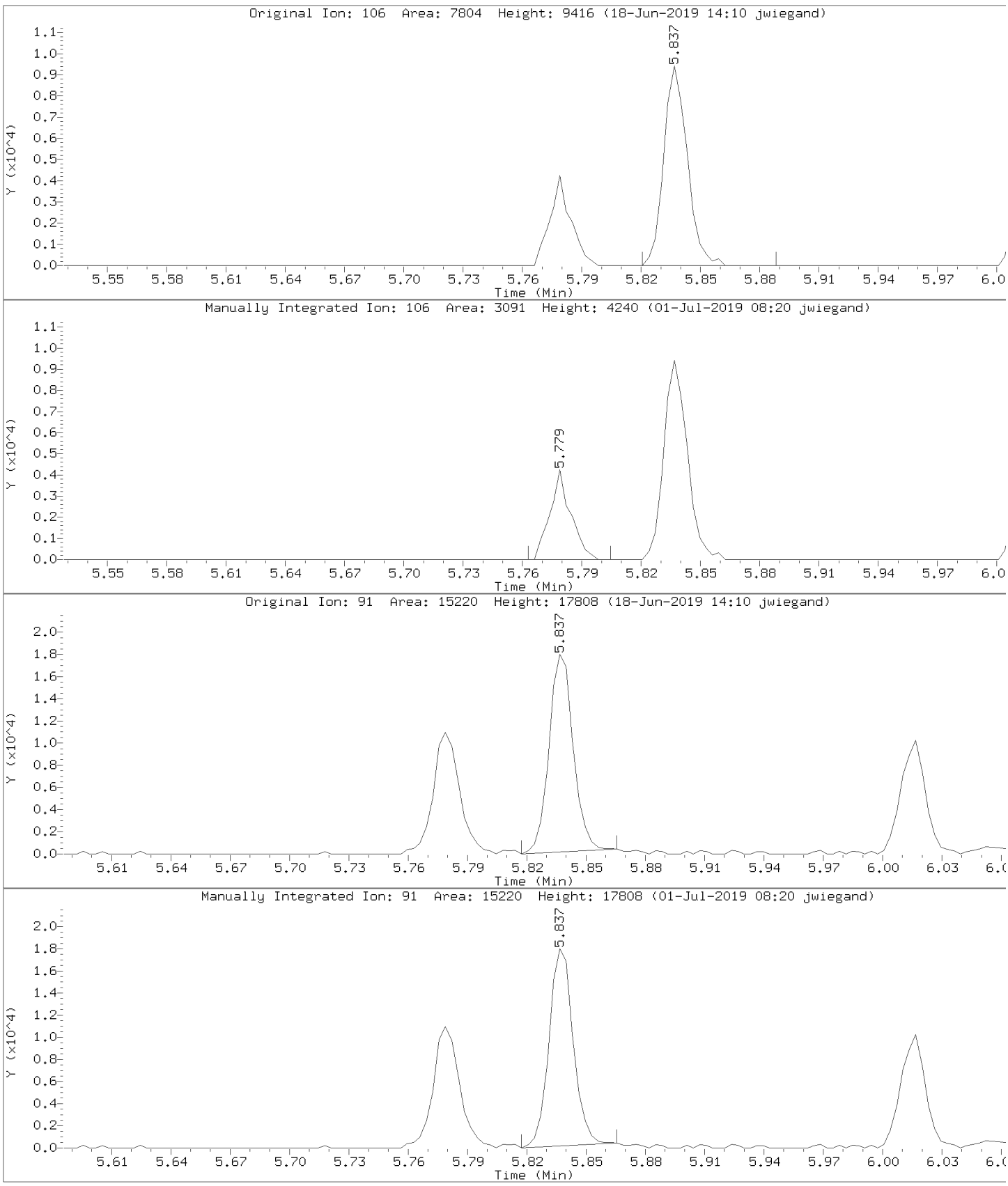
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Ethylbenzene Review Code: WP
CAS Number: 100-41-4



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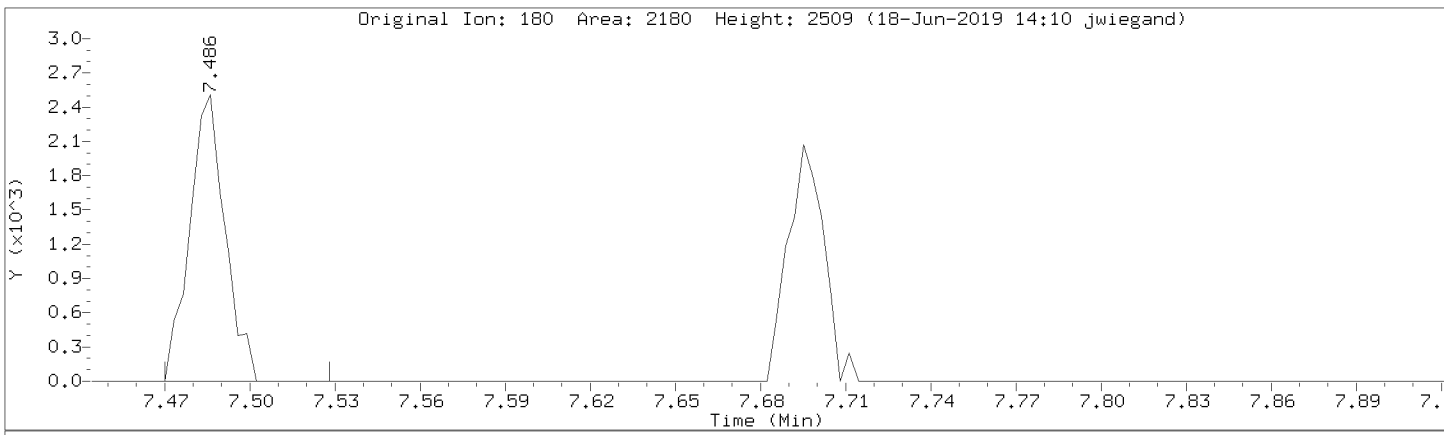
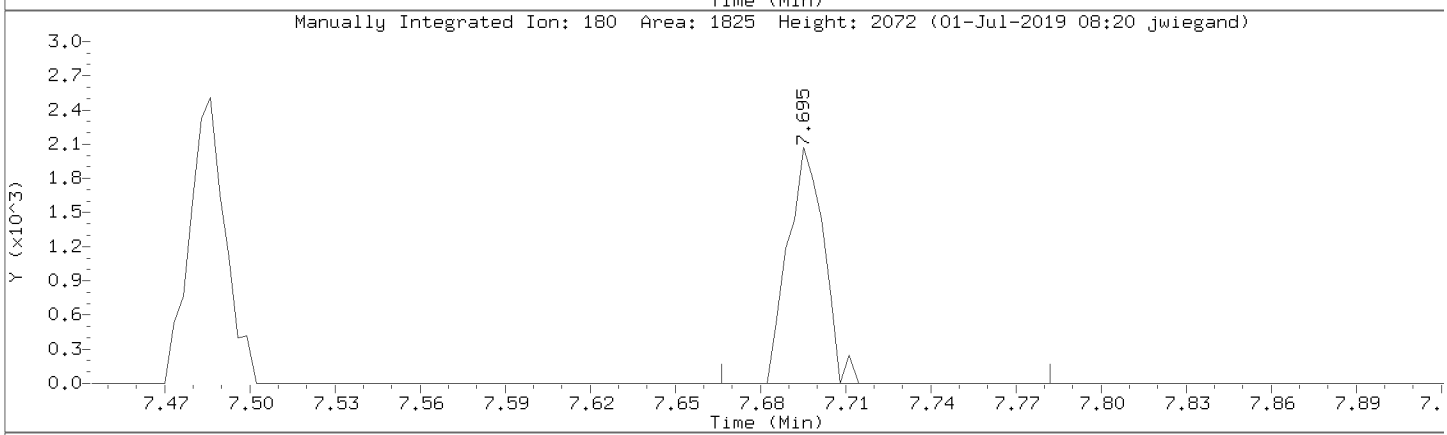
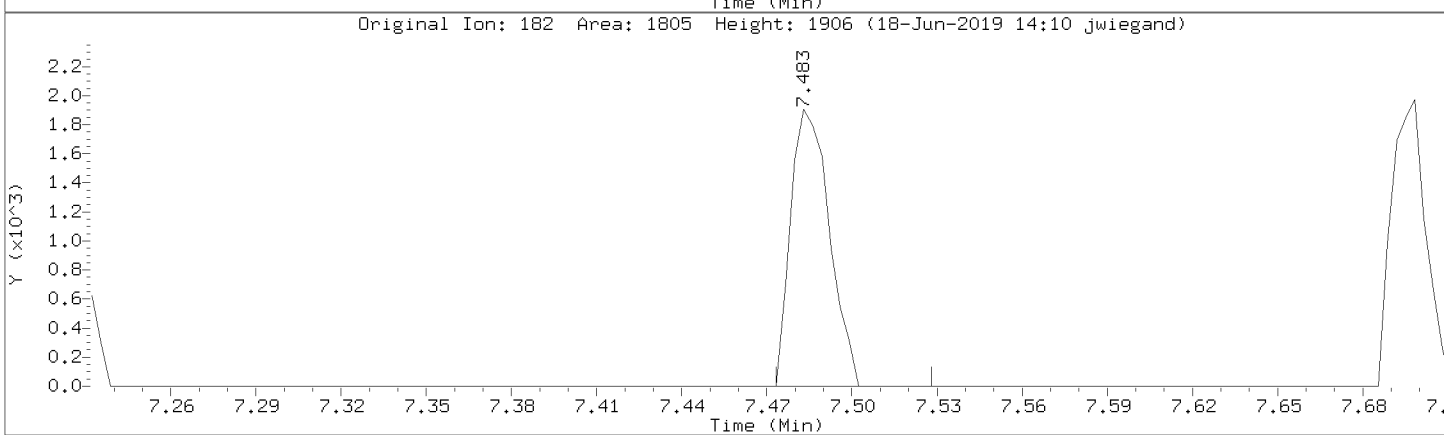
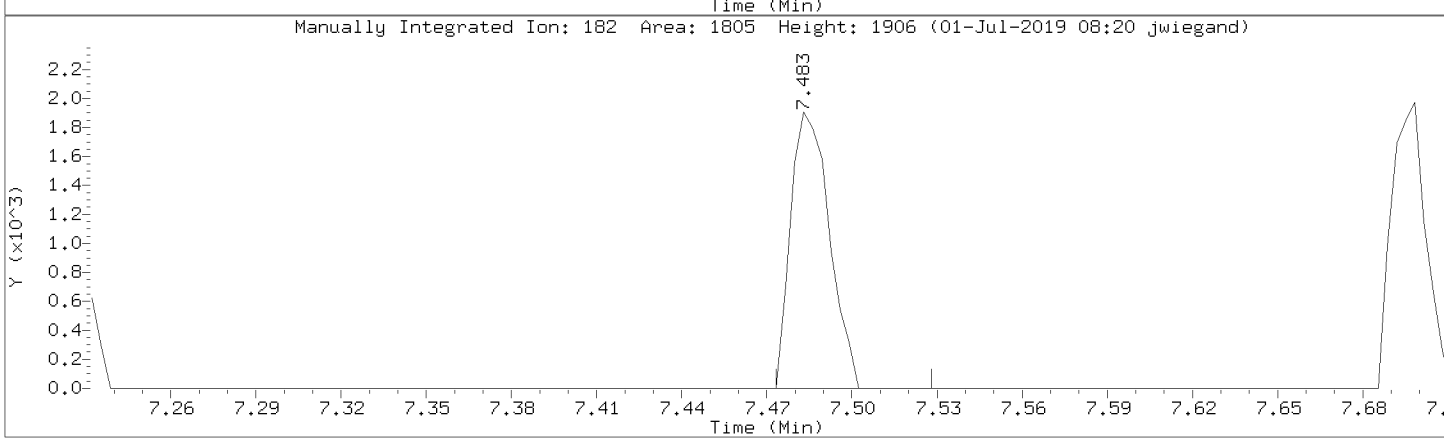
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 1,2,3-Trichlorobenzene Review Code: WP
CAS Number: 87-61-6

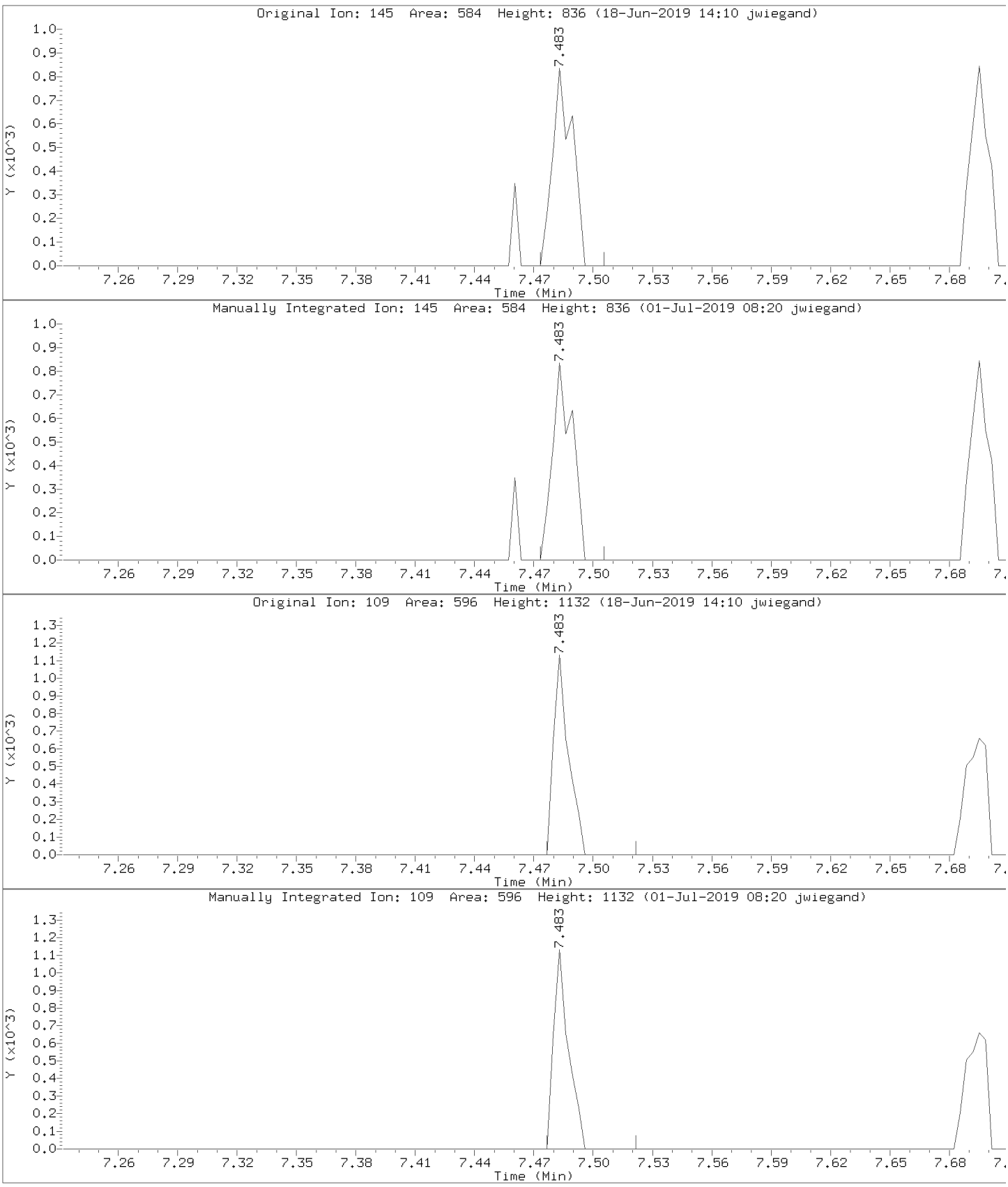








Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618005.d
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1



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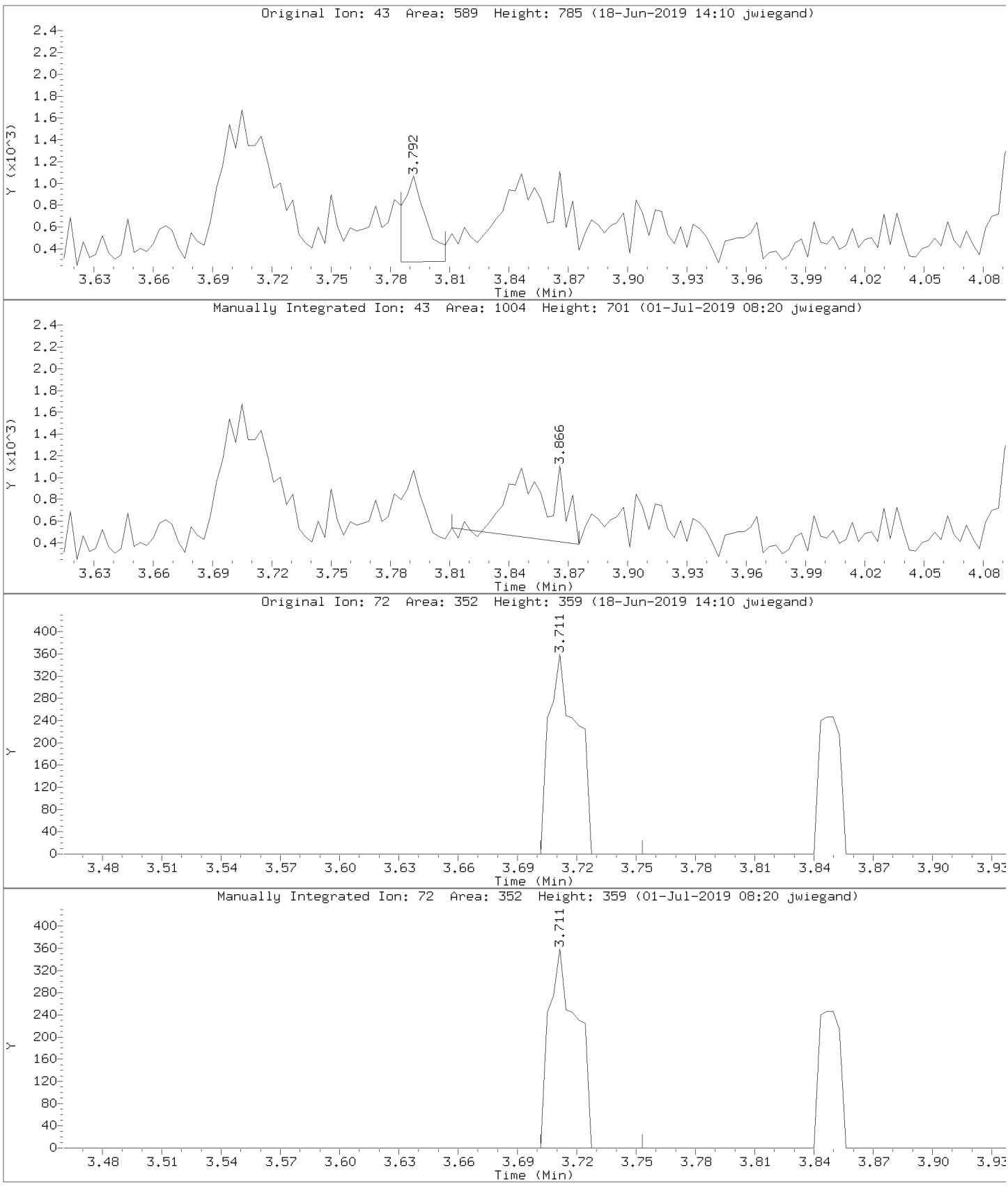
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 2-Butanone (MEK) Review Code: WP
CAS Number: 78-93-3



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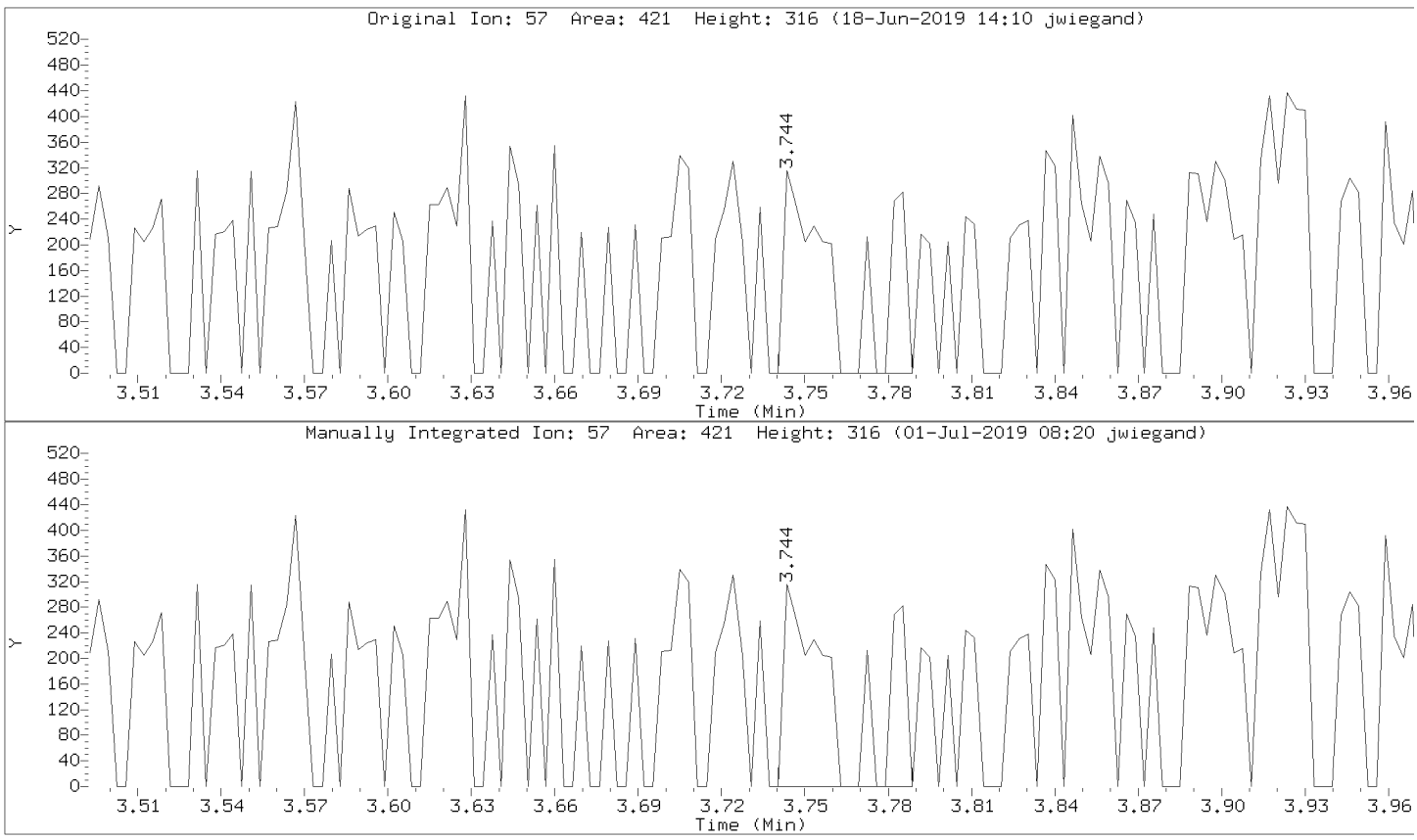
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1



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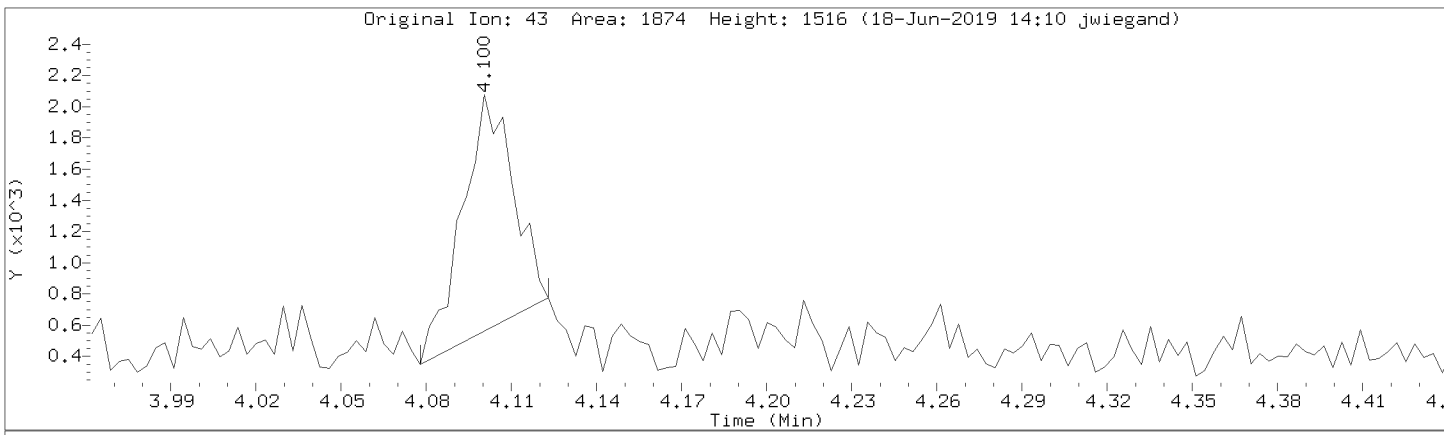
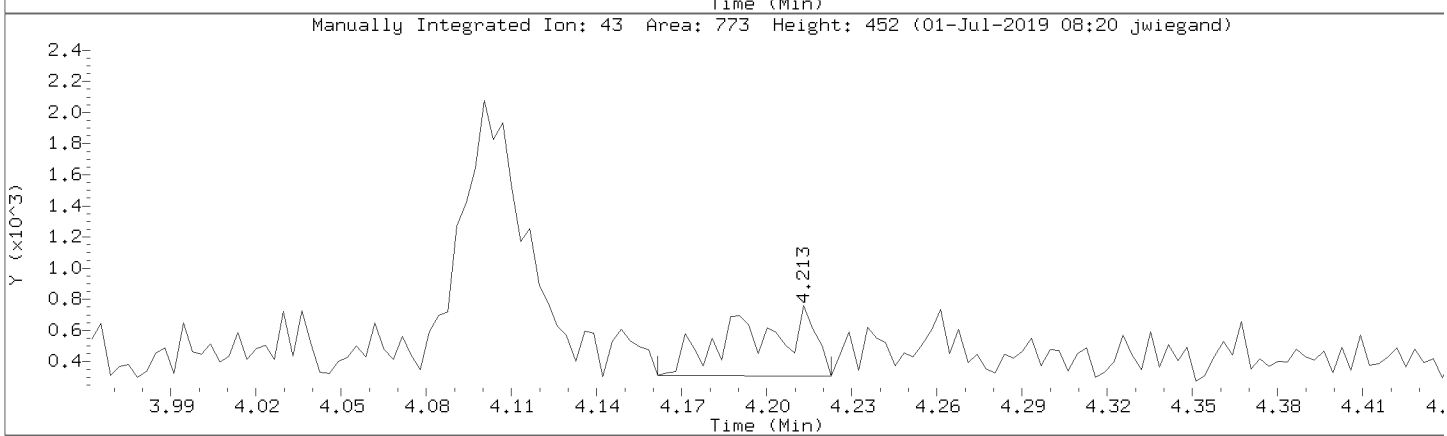
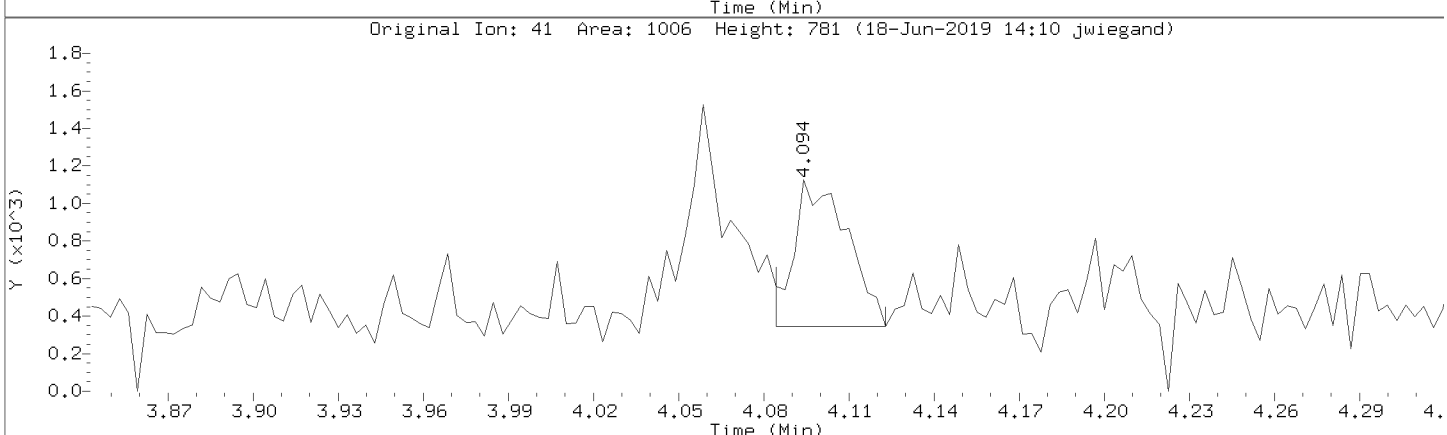
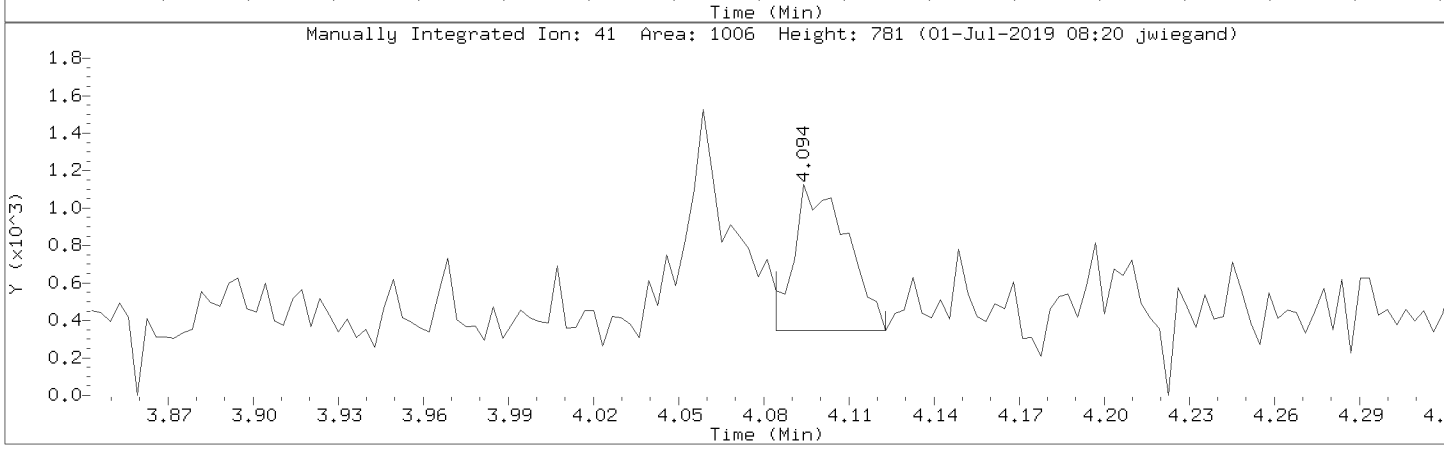
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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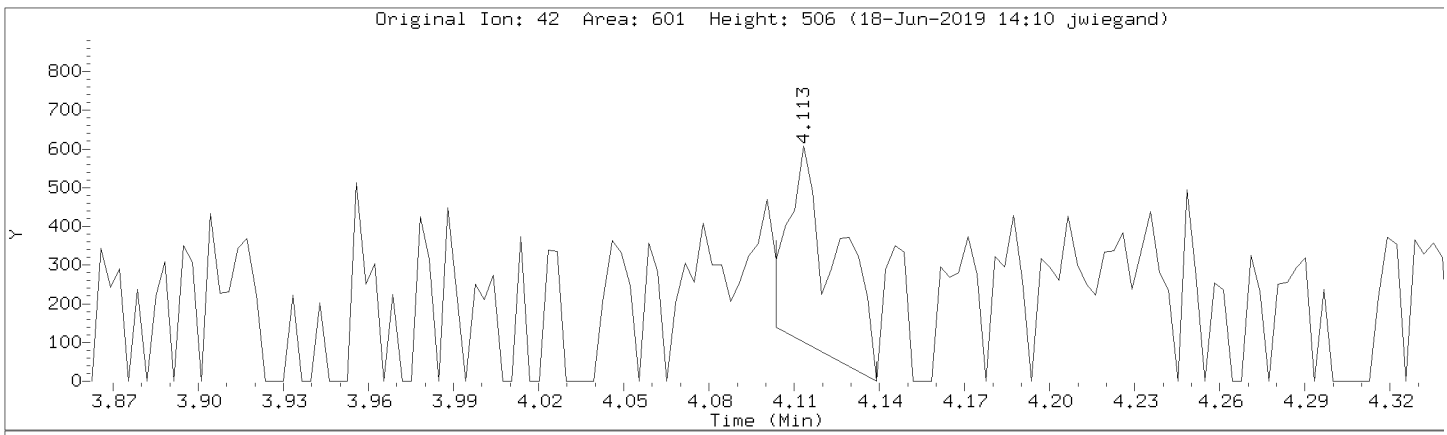
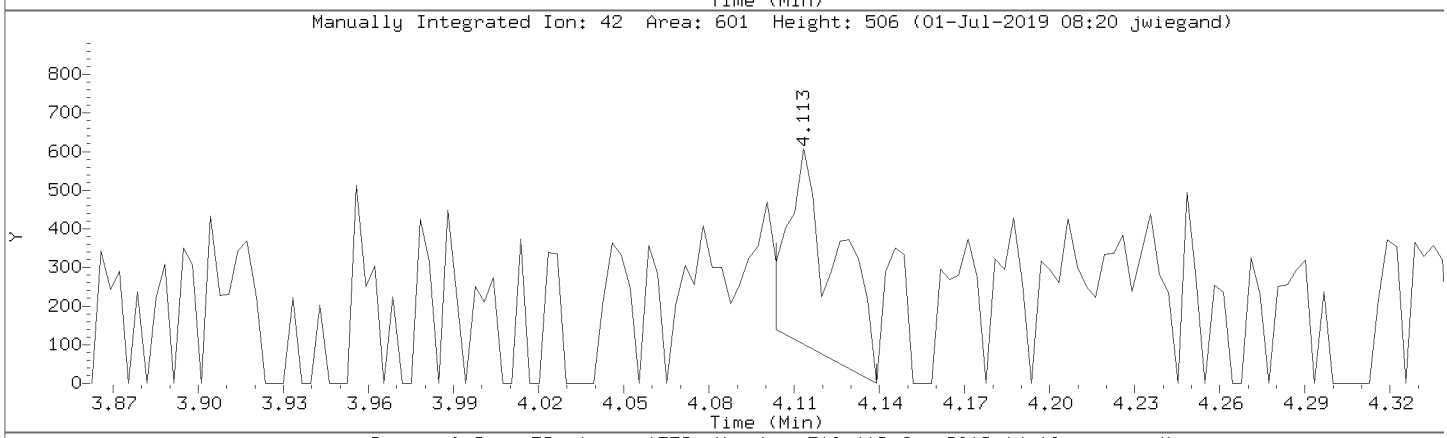
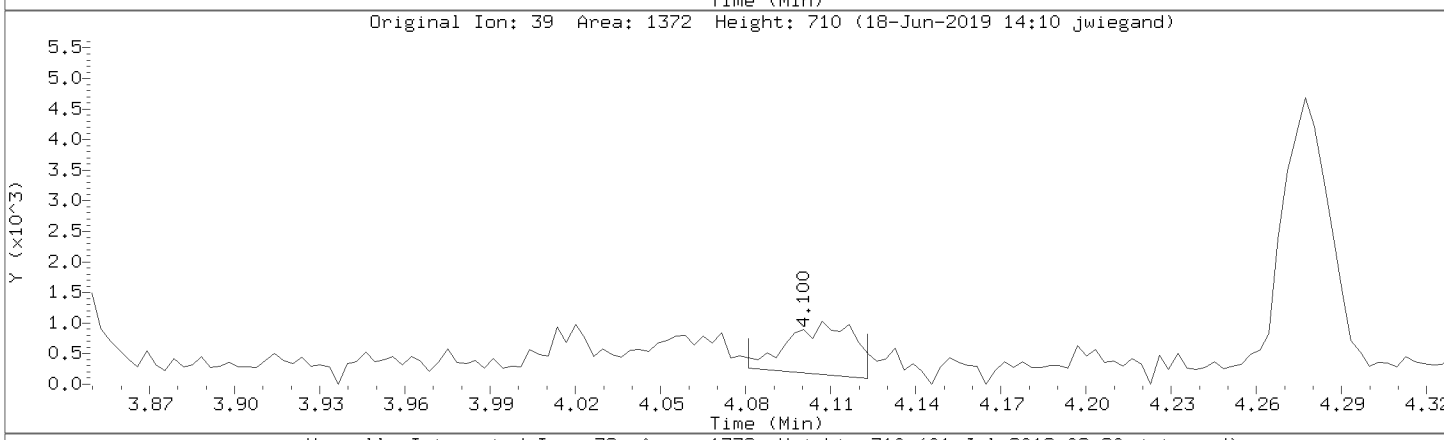
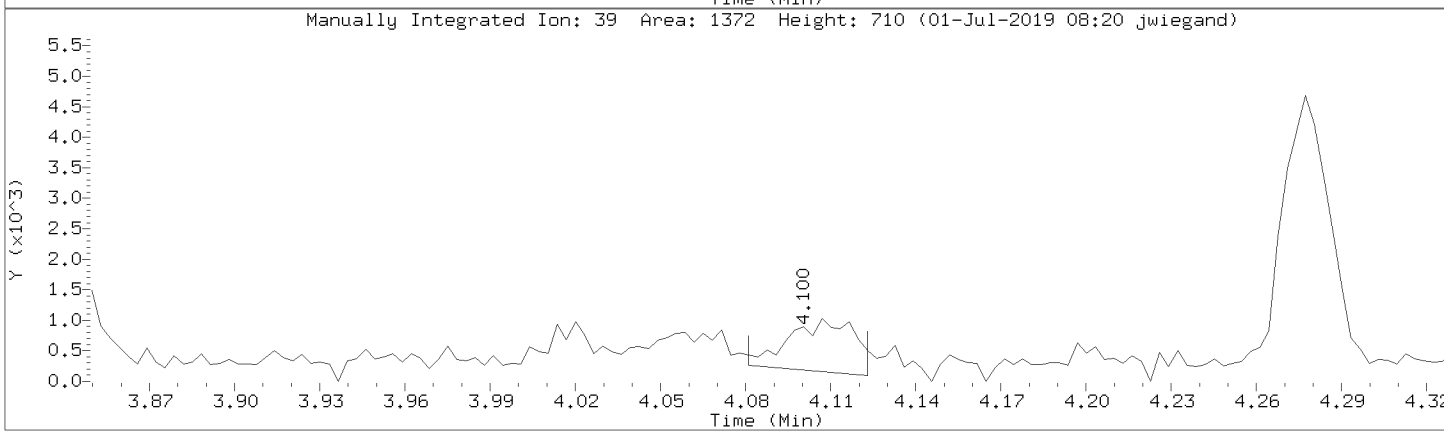
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1



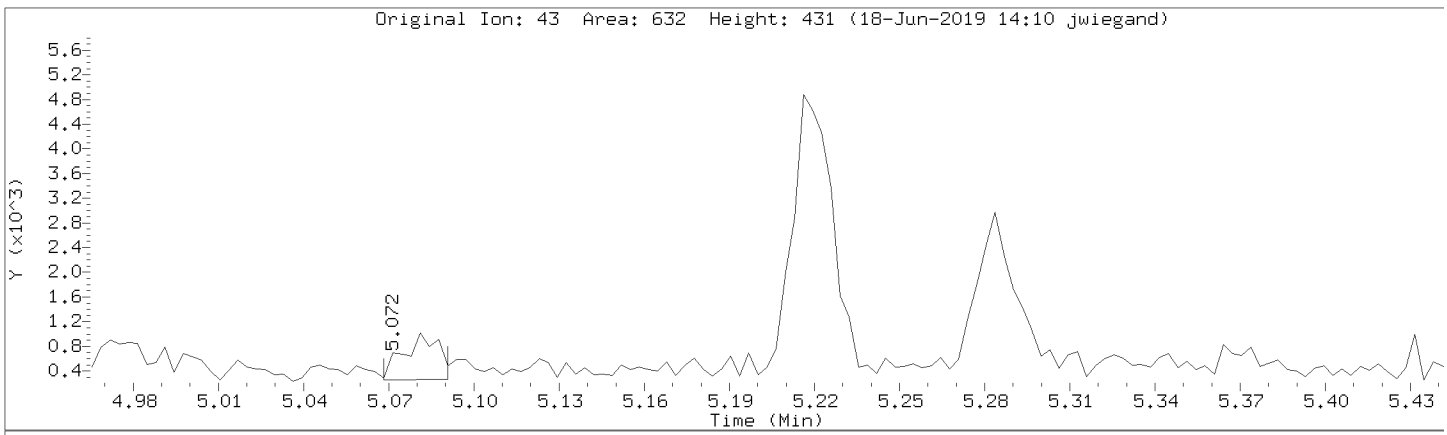


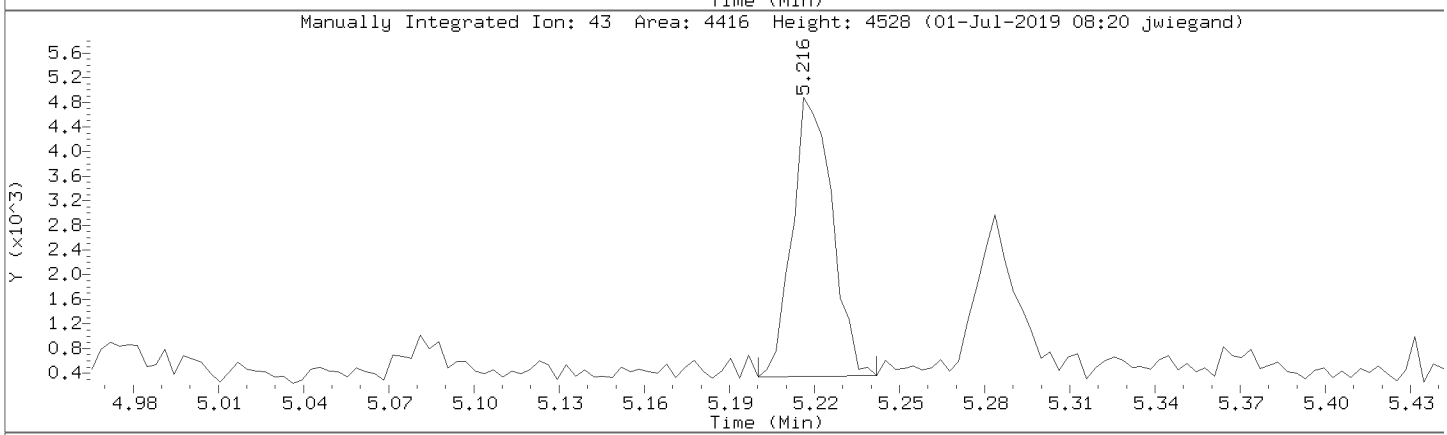


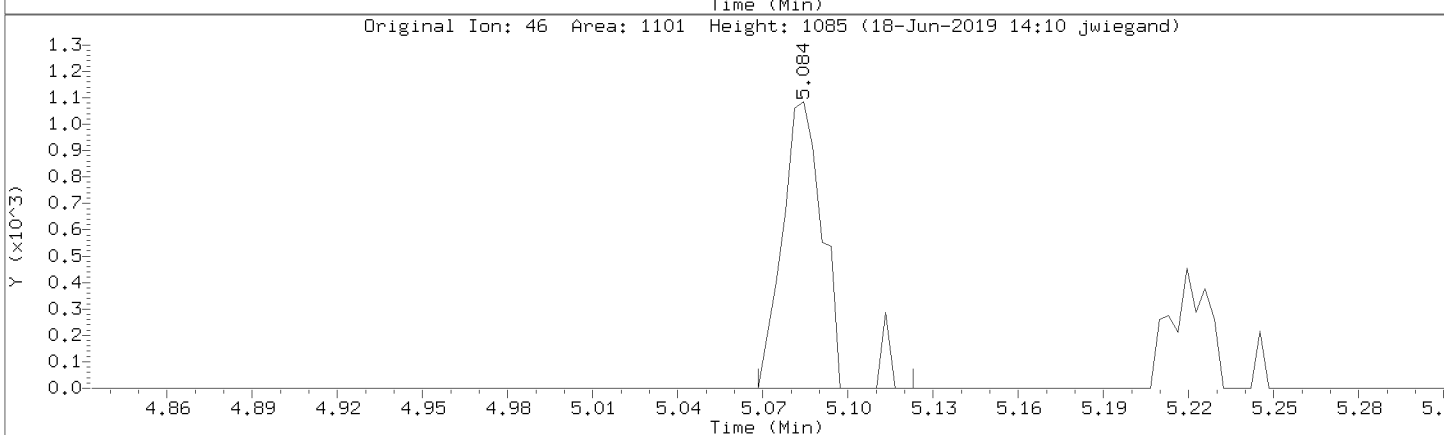


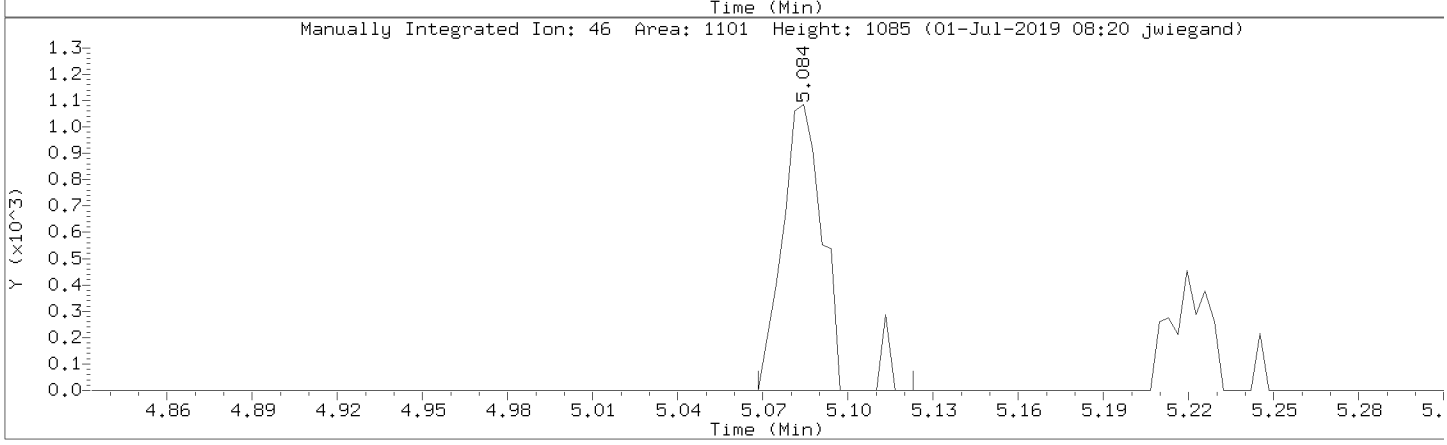
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618005.d
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9









Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 18-JUN-2019 10:01
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal2, 91186:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:01 Cal File: 50618007.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	5566	5.00000	5.09(QM)	LT
2 Chloromethane	50	1.142	1.142	(0.267)	5371	5.00000	6.41(QM)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	8189	5.00000	5.90(M)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	6864	5.00000	6.29(M)	NI
5 Chloroethane	64	1.386	1.380	(0.324)	5735	5.00000	6.46(M)	LT
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	11109	5.00000	5.52	
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	4983	5.00000	4.91	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	9503	5.00000	5.71	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	3378	5.00000	4.35(Q)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	15558	5.00000	5.41	
12 Iodomethane	142	1.856	1.856	(0.434)	683	5.00000	1.66(aQM)	NI
13 Acrolein	56	1.968	1.969	(0.460)	1139	5.00000	7.85(QM)	LT
14 Allyl chloride	41	2.055	2.056	(0.481)	42770	25.0000	31.4(Q)	
15 Methylene Chloride	49	2.129	2.133	(0.498)	8172	5.00000	6.85(Q)	
16 Acetone	43	2.164	2.165	(0.506)	2080	5.00000	6.79(QM)	NI
17 trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	9314	5.00000	5.47	
18 Methyl acetate	74	2.251	2.255	(0.526)	998	5.00000	4.88	
19 n-Hexane	86	2.296	2.297	(0.537)	1600	5.00000	5.77(Q)	
20 Methyl-tert-butyl ether	73	2.312	2.313	(0.541)	19929	5.00000	5.33(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	4088	25.0000	26.1(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	2030	25.0000	27.7(M)	WP
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	19675	5.00000	5.48	
	24 Chloroprene	53	2.708	2.705	(0.633)	7901	5.00000	5.16(QM)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	12374	5.00000	5.72(QM)	LT
	26 Acrylonitrile	53	2.785	2.785	(0.651)	1824	5.00000	5.24(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	20253	5.00000	5.38(QM)	LT
	28 Vinyl acetate	43	2.965	2.965	(0.693)	13635	5.00000	4.73(QM)	NI
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	9868	5.00000	5.70(QM)	LT
	30 2,2-Dichloropropane	77	3.360	3.351	(0.786)	11909	5.00000	5.80(QM)	LT
	31 Cyclohexane	56	3.457	3.451	(0.808)	8729	5.00000	5.11(QM)	LT
	32 Bromochloromethane	130	3.463	3.467	(0.810)	4385	5.00000	5.57(QM)	LT
	33 Chloroform	83	3.553	3.554	(0.831)	14411	5.00000	5.71(QM)	LT
	34 Carbon tetrachloride	117	3.682	3.679	(0.861)	8613	5.00000	4.78(QM)	LT
	35 Ethyl acetate	43	3.701	3.702	(0.865)	5913	5.00000	4.90(QM)	LT
	36 Tetrahydrofuran	42	3.711	3.711	(0.868)	3411	5.00000	6.68(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	35140	30.0000	30.6	
	38 1,1,1-Trichloroethane	97	3.737	3.734	(0.874)	11803	5.00000	5.42(QM)	LT
	39 2-Butanone (MEK)	43	3.846	3.866	(0.899)	2536	5.00000	4.52(QM)	LT
	40 1,1-Dichloropropene	75	3.843	3.846	(0.898)	9325	5.00000	5.13	
	41 Benzene	78	4.016	4.019	(0.939)	27012	5.00000	5.18	
	42 Propionitrile	54	4.042	4.049	(0.945)	618	5.00000	4.73(Q)	
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	3743	5.00000	5.31(Q)	
	44 tert-Amylmethyl ether	73	4.106	4.107	(0.960)	19819	5.00000	5.19(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	36978	30.0000	29.9	
	46 Isobutanol	43	4.183	4.099	(0.978)	872	25.0000	17.3(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	10129	5.00000	5.49(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	131170	30.0000		
	49 Methylcyclohexane	83	4.364	4.364	(1.020)	7531	5.00000	4.10(QM)	LT
	50 Trichloroethene	95	4.373	4.374	(0.759)	6738	5.00000	4.67	
	51 Dibromomethane	174	4.598	4.599	(1.075)	4103	5.00000	4.69	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	6794	5.00000	5.37(Q)	
	53 Bromodichloromethane	83	4.688	4.689	(1.096)	9447	5.00000	5.31	
	54 Methyl methacrylate	69	4.772	4.776	(1.116)	4974	5.00000	5.28	
	55 1,4-Dioxane (p-Dioxane)	88	4.807	4.808	(1.124)	231	50.0000	28.2(QM)	
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	2334	5.00000	4.82	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	10823	5.00000	5.08(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	121703	30.0000	29.3	
	59 Toluene	91	5.109	5.110	(0.886)	27105	5.00000	4.90	
	60 2-Nitropropane	43	5.216	5.216	(1.220)	11242	25.0000	26.8	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	6961	5.00000	5.48	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	6172	5.00000	4.41	
	63 trans-1,3-Dichloropropene	75	5.302	5.303	(0.920)	10314	5.00000	4.96	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	5553	5.00000	5.05	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	6277	5.00000	5.05	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	6797	5.00000	4.72	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	10061	5.00000	5.05	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	6317	5.00000	5.05	
	69 2-Hexanone	43	5.643	5.644	(0.979)	4922	5.00000	5.26(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	8598	5.00000	4.49	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	96875	30.0000		
	72 Chlorobenzene	112	5.769	5.769	(1.001)	17625	5.00000	4.78	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	6485	5.00000	4.65	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	20673	10.0000	8.94	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.013	6.017	(1.043)	10531	5.00000	4.60	
76	Styrene	104	6.035	6.036	(1.047)	16659	5.00000	4.44(Q)	
77	Bromoform	173	6.052	6.059	(0.902)	4402	5.00000	4.75	
78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	23876	5.00000	4.73	
$ 79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	34531	30.0000	30.5	
80	n-Propylbenzene	91	6.302	6.306	(0.939)	25971	5.00000	4.49	
81	Bromobenzene	77	6.306	6.309	(0.940)	11379	5.00000	4.92	
82	1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	8578	5.00000	5.56	
83	1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	19492	5.00000	4.80	
84	2-Chlorotoluene	126	6.376	6.380	(0.950)	5962	5.00000	4.69	
85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	2415	5.00000	5.39	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	2280	5.00000	6.17(Q)	
87	Cyclohexanone	55	6.418	6.422	(0.956)	2039	25.0000	28.3(Q)	
88	4-Chlorotoluene	126	6.444	6.444	(0.960)	5888	5.00000	4.64	
89	tert-Butylbenzene	119	6.511	6.512	(0.970)	15049	5.00000	4.48	
90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	20525	5.00000	5.08	
91	sec-Butylbenzene	105	6.579	6.583	(0.980)	21686	5.00000	4.55	
92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	17494	5.00000	4.35	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	10205	5.00000	4.52	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	38851	30.0000		
95	1,4-Dichlorobenzene	146	6.714	6.715	(1.000)	10630	5.00000	4.71	
96	n-Butylbenzene	91	6.804	6.805	(1.014)	14772	5.00000	4.26	
97	1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	9993	5.00000	4.70	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	38851	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	1209	5.00000	4.79	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	5448	5.00000	4.44	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	2059	5.00000	3.73	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	4404	5.00000	4.33	
102	Naphthalene	128	7.617	7.618	(1.135)	10483	5.00000	4.00(Q)	
103	1,2,3-Trichlorobenzene	180	7.698	7.695	(1.147)	3737	5.00000	4.04	
104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	2326	5.00000	2.30(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  NI: Indicates that the peak was not integrated at all by the
      computer software.
   :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618007.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	131170	-8.71
71 Chlorobenzene-d5	102704	51352	205408	96875	-5.68
94 1,4-Dichlorobenze	44519	22260	89038	38851	-12.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	5.09	
74-87-3	Chloromethane	6.41	
75-01-4	Vinyl chloride	5.90	
74-83-9	Bromomethane	6.29	
75-00-3	Chloroethane	6.46	
75-69-4	Trichlorofluoromethane	5.52	
60-29-7	Diethyl ether (Ethyl ether)	4.91	
75-35-4	1,1-Dichloroethene	5.71	
76-13-1	1,1,2-Trichlorotrifluoroetha	4.35	
75-15-0	Carbon disulfide	5.41	
74-88-4	Iodomethane	1.66	J
107-02-8	Acrolein	7.85	
107-05-1	Allyl chloride	31.4	
75-09-2	Methylene Chloride	6.85	
67-64-1	Acetone	6.79	
156-60-5	trans-1,2-Dichloroethene	5.47	
79-20-9	Methyl acetate	4.88	
110-54-3	n-Hexane	5.77	
1634-04-4	Methyl-tert-butyl ether	5.33	
75-65-0	tert-Butyl Alcohol	26.1	
75-05-8	Acetonitrile	27.7	
108-20-3	Diisopropyl ether	5.48	
126-99-8	Chloroprene	5.16	
75-34-3	1,1-Dichloroethane	5.72	
107-13-1	Acrylonitrile	5.24	
637-92-3	Ethyl-tert-butyl ether	5.38	
108-05-4	Vinyl acetate	4.73	
156-59-2	cis-1,2-Dichloroethene	5.70	
594-20-7	2,2-Dichloropropane	5.80	
110-82-7	Cyclohexane	5.11	
74-97-5	Bromochloromethane	5.57	
67-66-3	Chloroform	5.71	
56-23-5	Carbon tetrachloride	4.78	
141-78-6	Ethyl acetate	4.90	
109-99-9	Tetrahydrofuran	6.68	
71-55-6	1,1,1-Trichloroethane	5.42	
78-93-3	2-Butanone (MEK)	4.52	
563-58-6	1,1-Dichloropropene	5.13	
71-43-2	Benzene	5.18	
107-12-0	Propionitrile	4.73	
126-98-7	Methacrylonitrile	5.31	
994-05-8	tert-Amylmethyl ether	5.19	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	17.3	
107-06-2	1,2-Dichloroethane	5.49	
108-87-2	Methylcyclohexane	4.10	
79-01-6	Trichloroethene	4.67	
74-95-3	Dibromomethane	4.69	
78-87-5	1,2-Dichloropropane	5.37	
75-27-4	Bromodichloromethane	5.31	
80-62-6	Methyl methacrylate	5.28	
123-91-1	1,4-Dioxane (p-Dioxane)	28.2	
110-75-8	2-Chloroethylvinyl ether	4.82	
10061-01-5	cis-1,3-Dichloropropene	5.08	
108-88-3	Toluene	4.90	
79-46-9	2-Nitropropane	26.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.48	
127-18-4	Tetrachloroethene	4.41	
10061-02-6	trans-1,3-Dichloropropene	4.96	
97-63-2	Ethyl methacrylate	5.05	
79-00-5	1,1,2-Trichloroethane	5.05	
124-48-1	Dibromochloromethane	4.72	
142-28-9	1,3-Dichloropropane	5.05	
106-93-4	1,2-Dibromoethane (EDB)	5.05	
591-78-6	2-Hexanone	5.26	
100-41-4	Ethylbenzene	4.49	
108-90-7	Chlorobenzene	4.78	
630-20-6	1,1,1,2-Tetrachloroethane	4.65	
7816-60-0	m&p-Xylene	8.94	
95-47-6	o-Xylene	4.60	
100-42-5	Styrene	4.44	
75-25-2	Bromoform	4.75	
98-82-8	Isopropylbenzene (Cumene)	4.73	
103-65-1	n-Propylbenzene	4.49	
108-86-1	Bromobenzene	4.92	
79-34-5	1,1,2,2-Tetrachloroethane	5.56	
108-67-8	1,3,5-Trimethylbenzene	4.80	
95-49-8	2-Chlorotoluene	4.69	
96-18-4	1,2,3-Trichloropropane	5.39	
110-57-6	trans-1,4-Dichloro-2-butene	6.17	
108-94-1	Cyclohexanone	28.3	
106-43-4	4-Chlorotoluene	4.64	
98-06-6	tert-Butylbenzene	4.48	
95-63-6	1,2,4-Trimethylbenzene	5.08	
135-98-8	sec-Butylbenzene	4.55	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

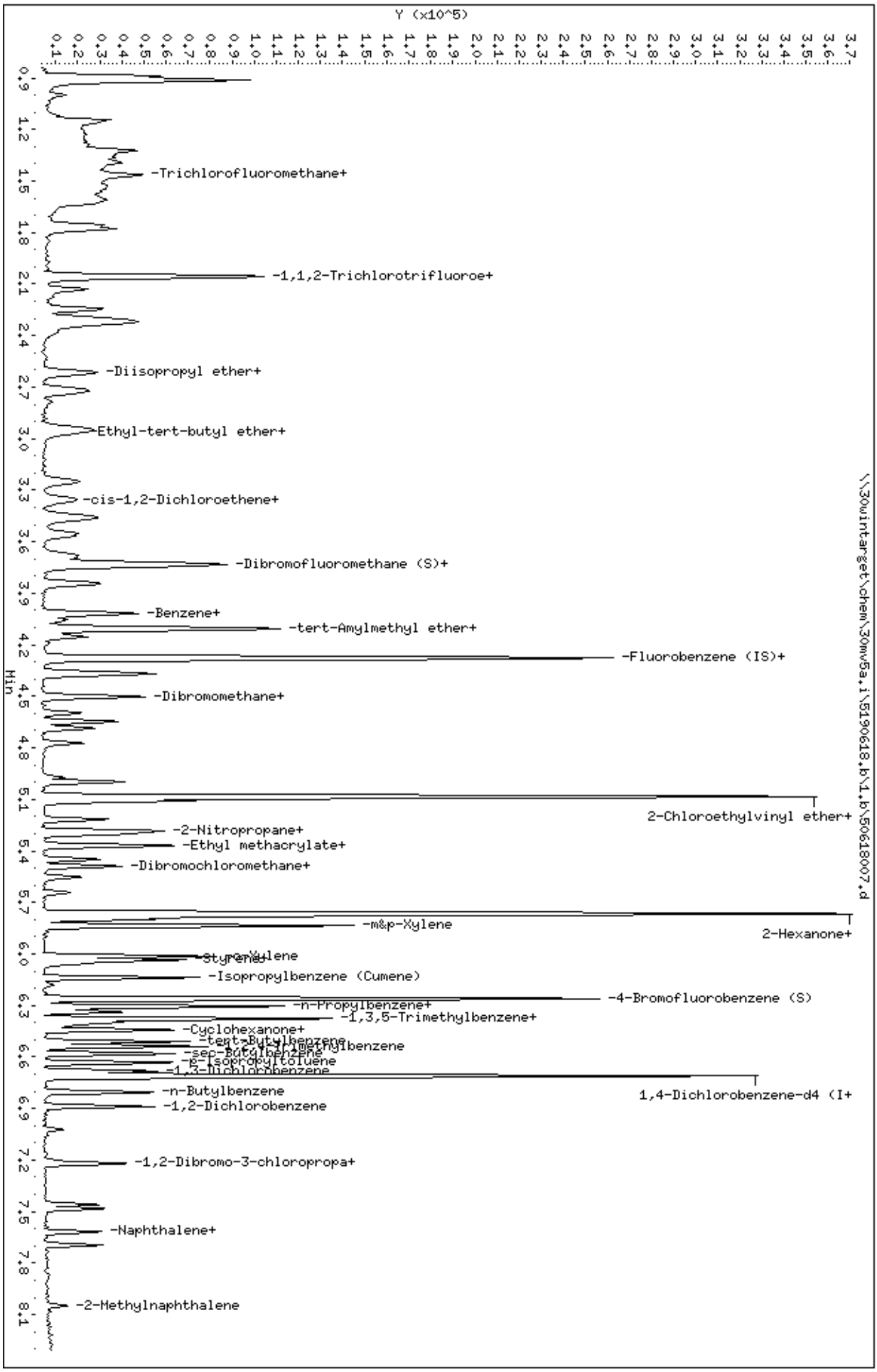
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	4.35	
541-73-1	1,3-Dichlorobenzene	4.52	
106-46-7	1,4-Dichlorobenzene	4.71	
104-51-8	n-Butylbenzene	4.26	
95-50-1	1,2-Dichlorobenzene	4.70	
96-12-8	1,2-Dibromo-3-chloropropane	4.79	
108-70-3	1,3,5-Trichlorobenzene	4.44	
87-68-3	Hexachloro-1,3-butadiene	3.73	
120-82-1	1,2,4-Trichlorobenzene	4.33	
91-20-3	Naphthalene	4.00	
87-61-6	1,2,3-Trichlorobenzene	4.04	
91-57-6	2-Methylnaphthalene	2.30	J
1868-53-7	Dibromofluoromethane (S)	30.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.9	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	30.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 18-JUN-2019 10:01
Client ID: CAL2
Sample Info: CAL2, 91186:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Y (x10^5)
Min
-Trichlorofluoromethane+
-1,1,2-Trichlorotrifluoroe+
-Diisopropyl ether+
Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene+
-Dibromofluoromethane (S)+
-Benzene+
-tert-Amylmethyl ether+
-Fluorobenzene (IS)+
-Dibromomethane+
2-Chloroethylvinyl ether+
-2-Nitropropane+
-Ethyl methacrylate+
-Dibromochloromethane+
-m&p-Xylene
2-Hexanone+
-o-Xylene
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene+
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
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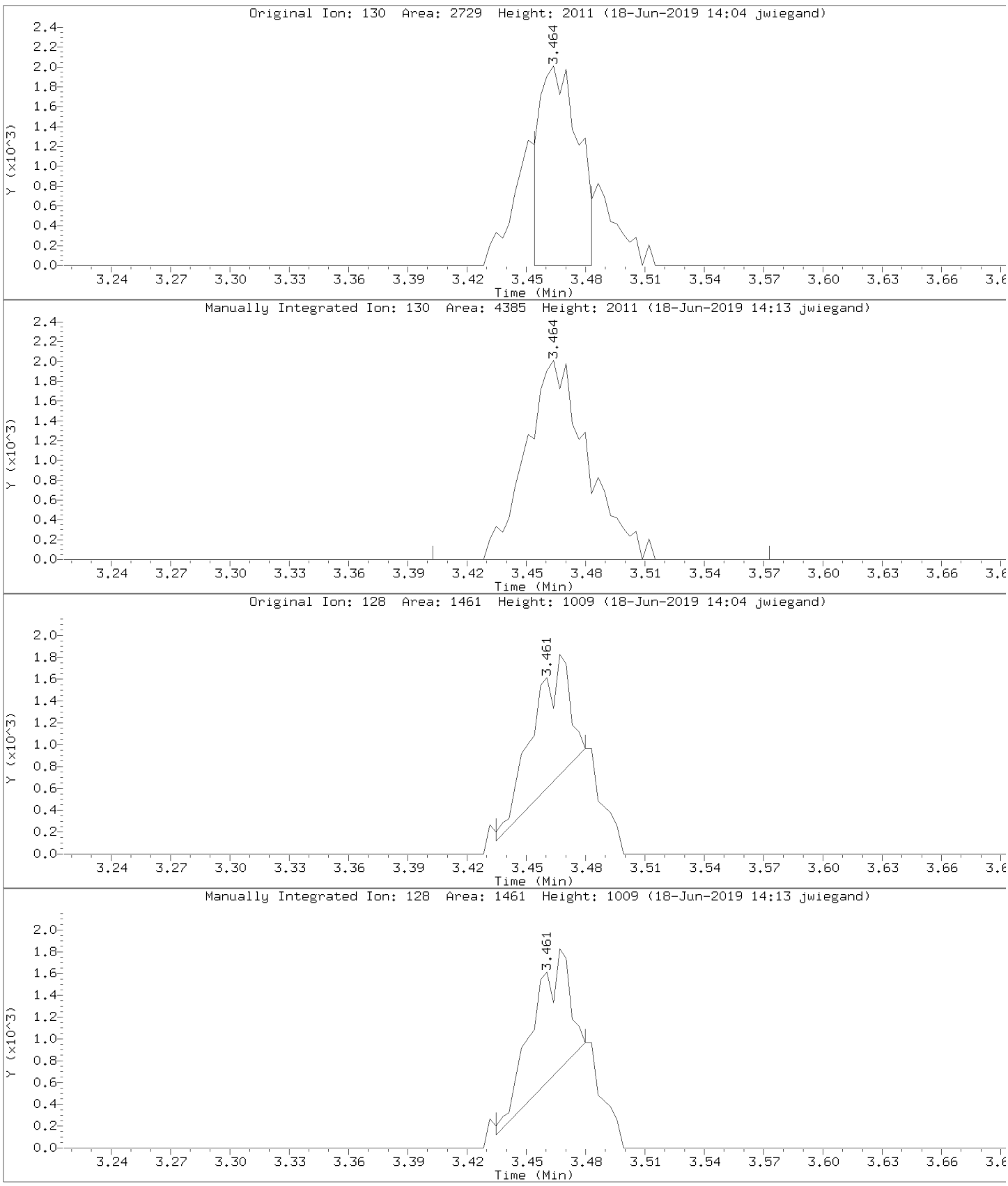
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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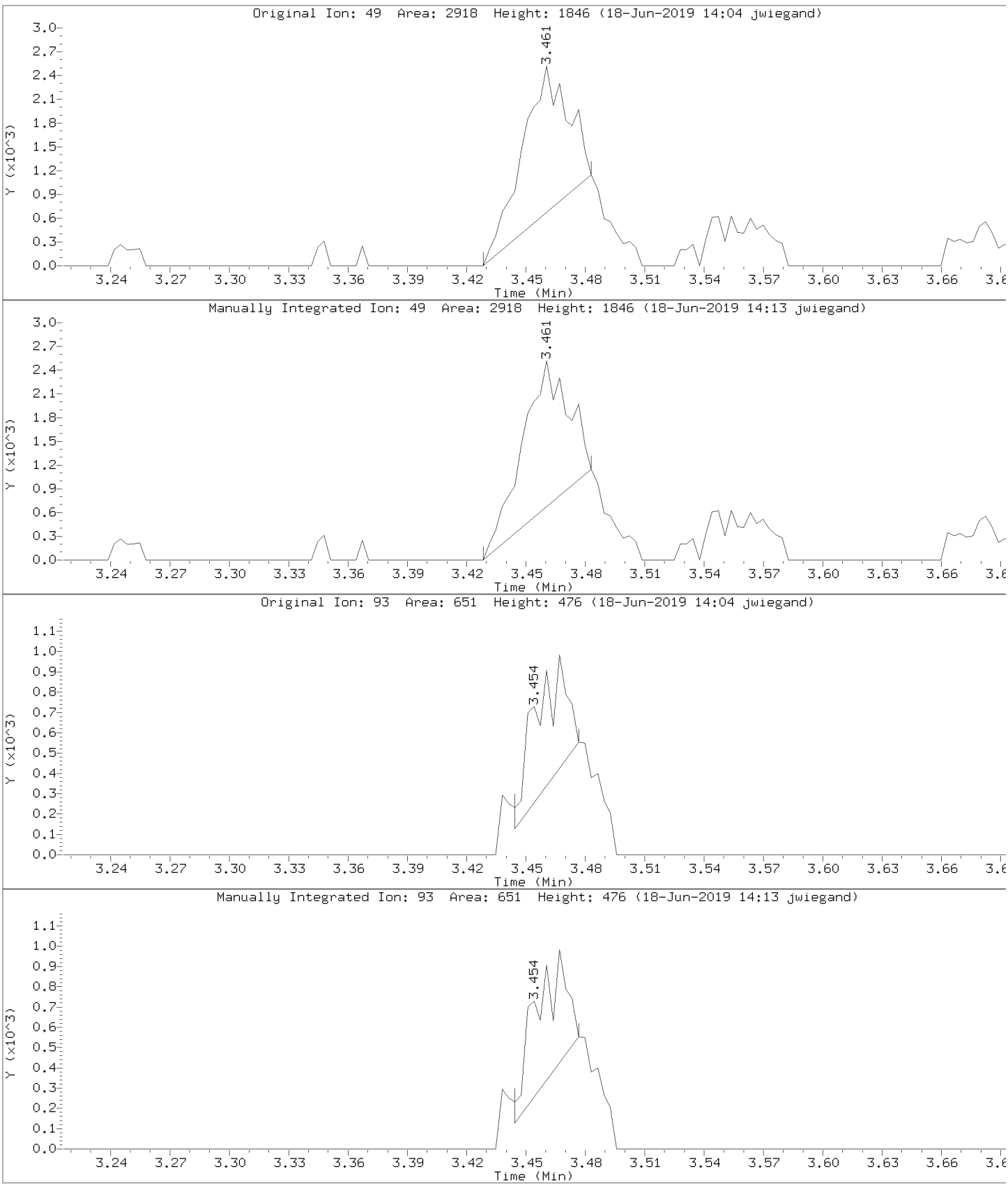
Lab Sample ID: CAL2



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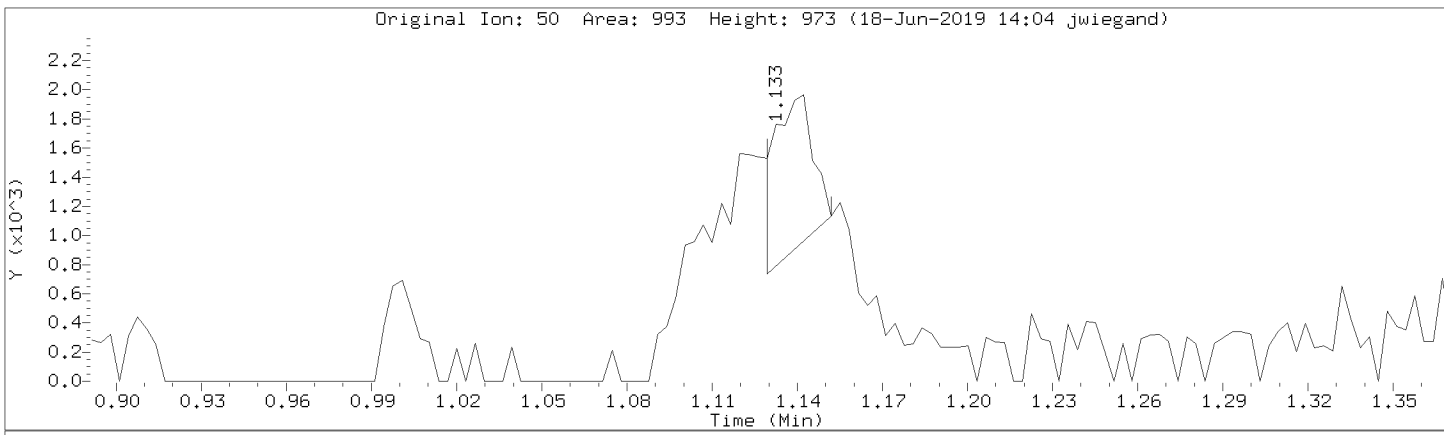
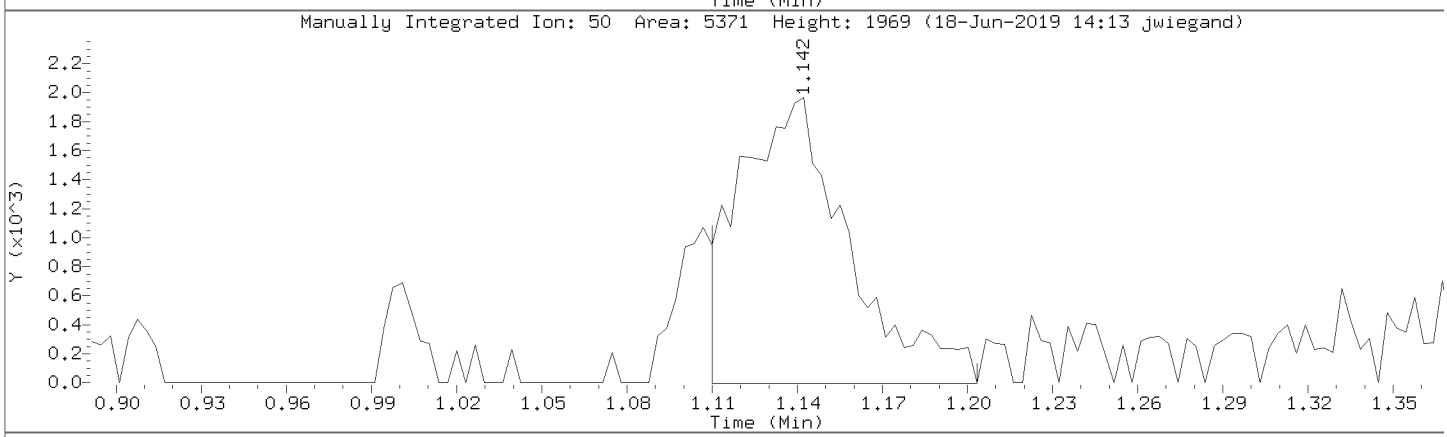
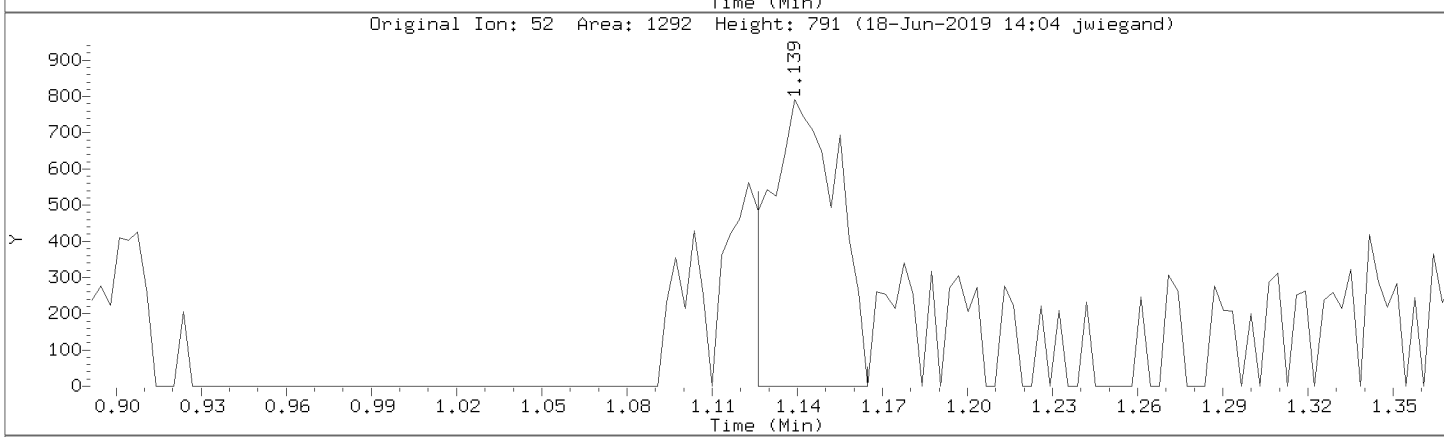
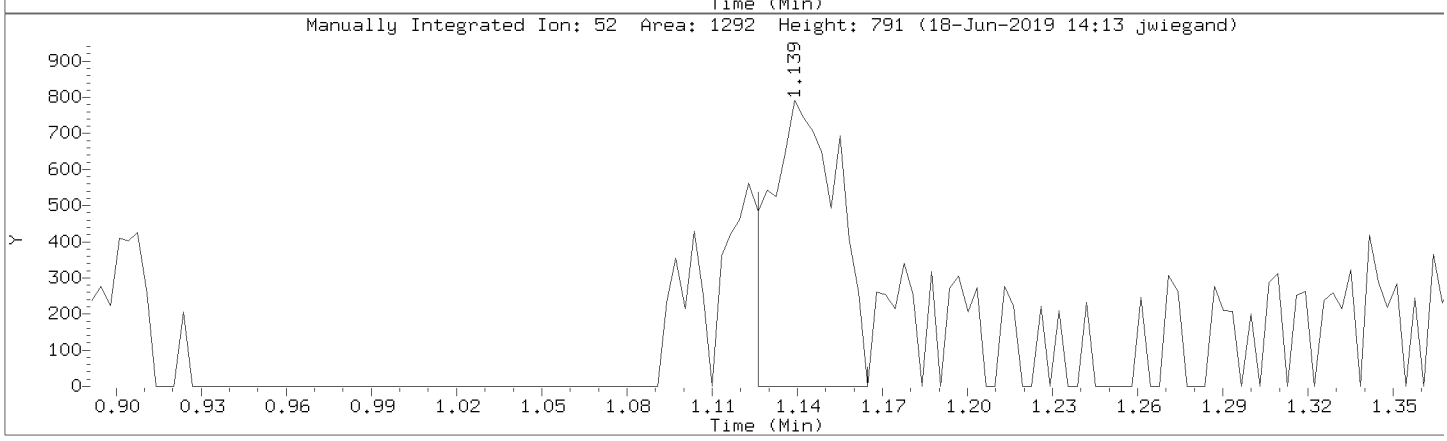
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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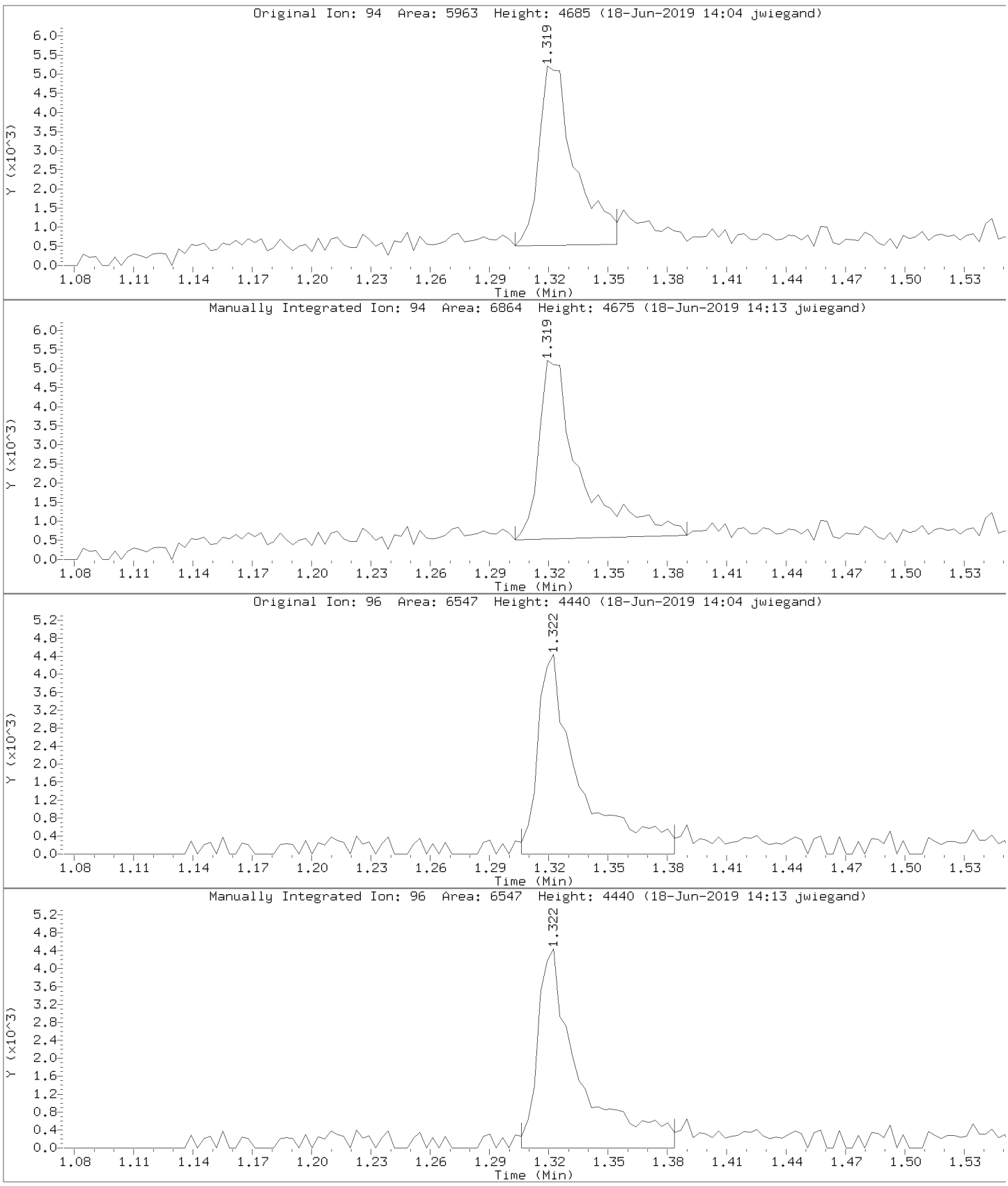
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Bromomethane Review Code: NI
CAS Number: 74-83-9



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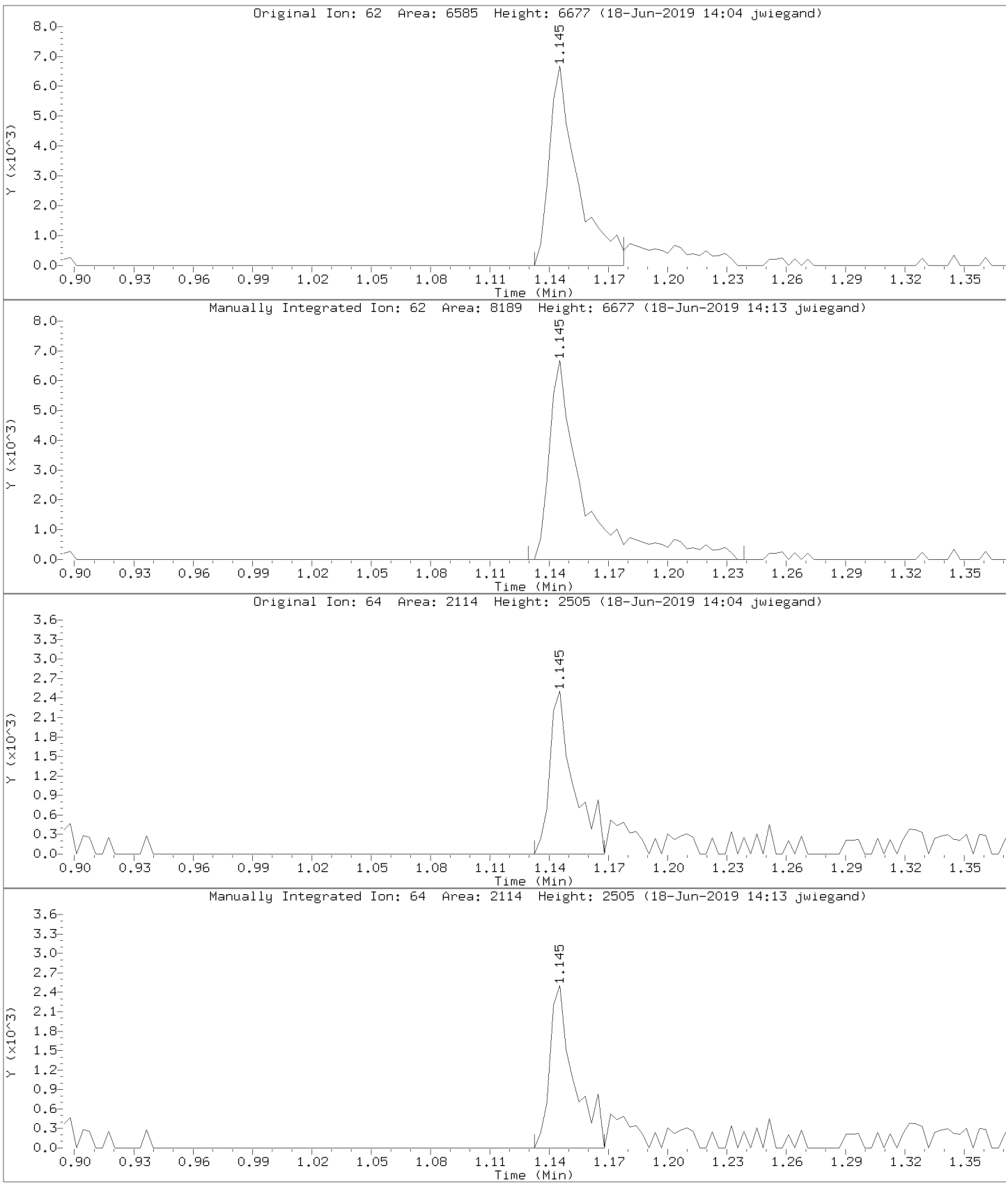
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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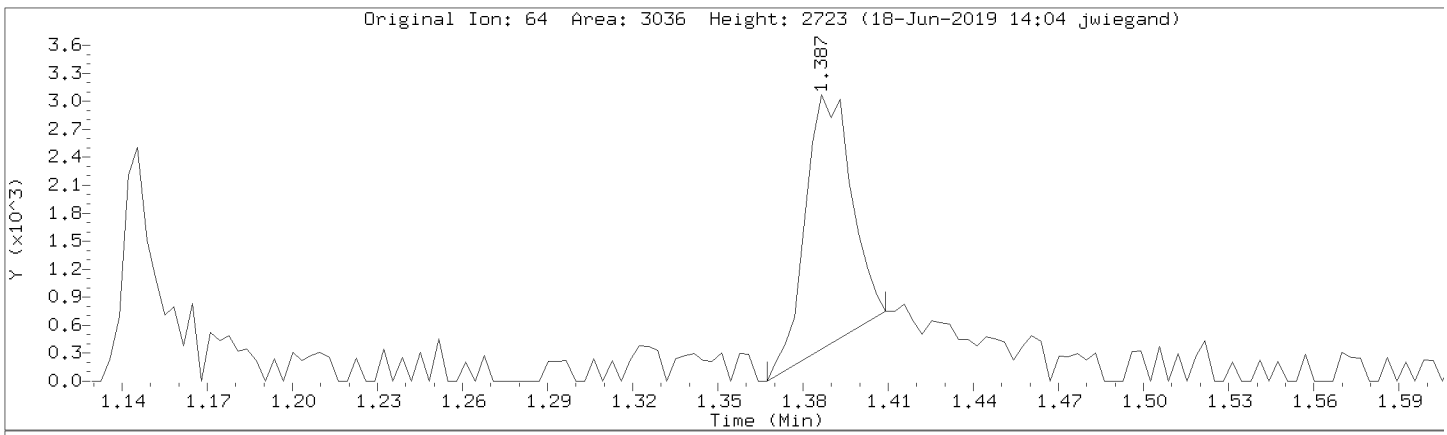
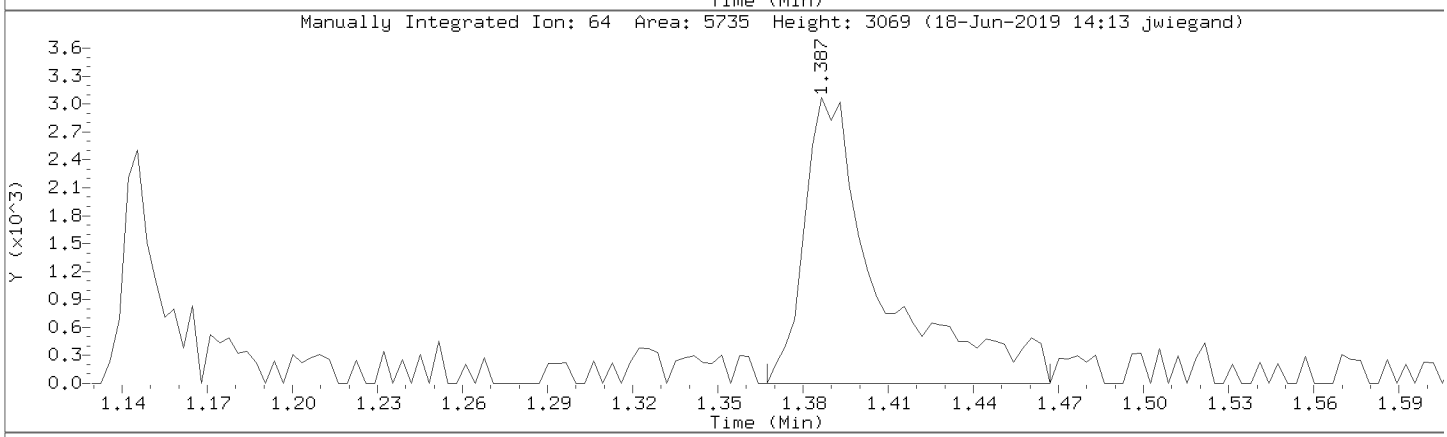
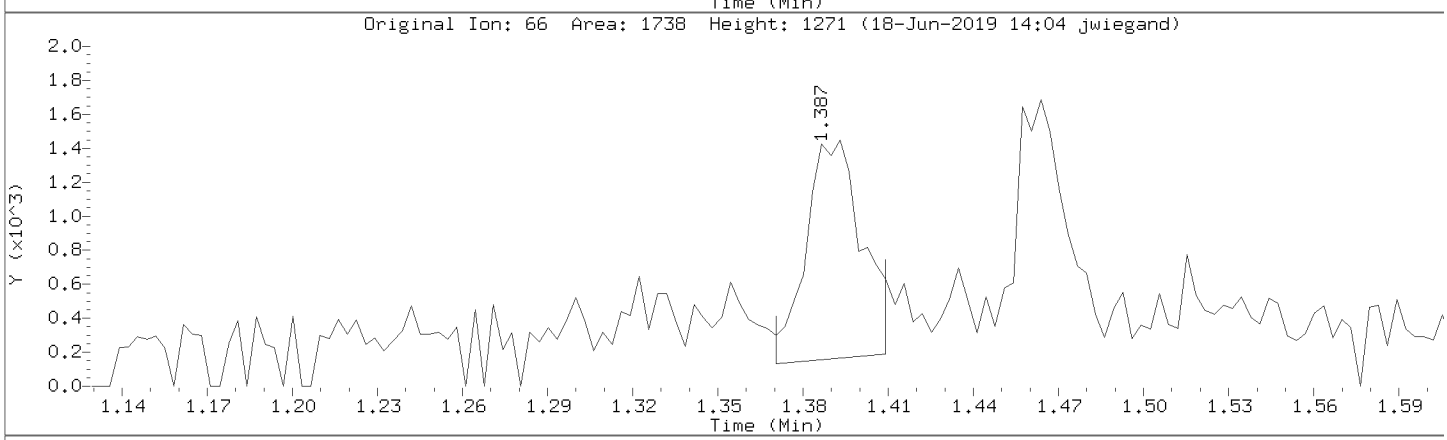
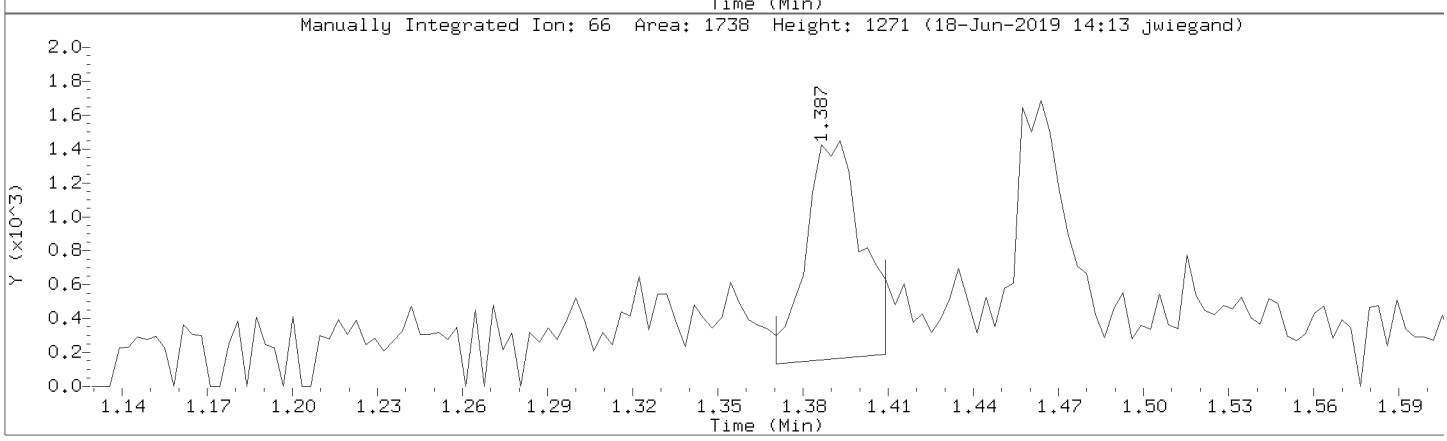
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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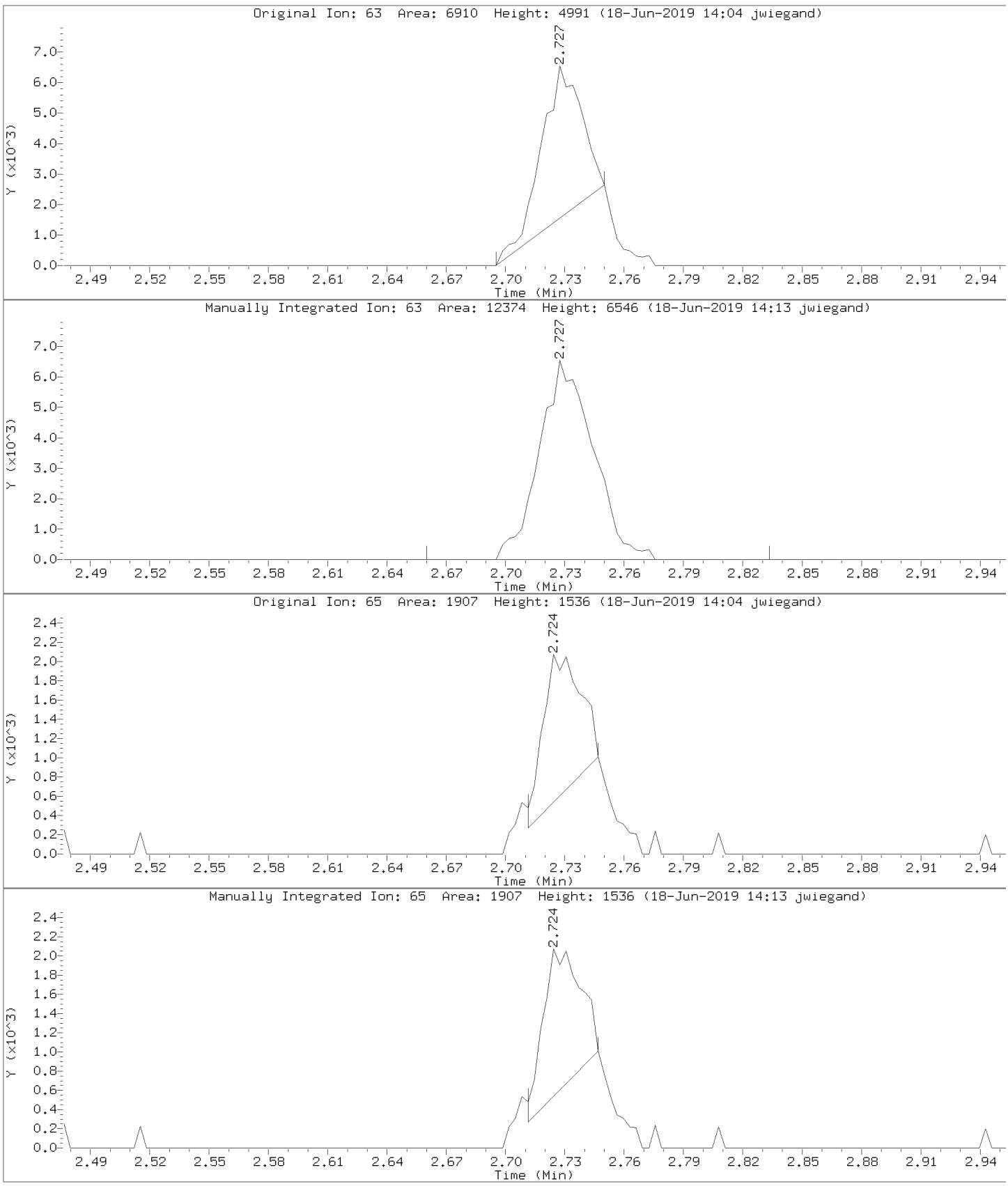
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 1,1-Dichloroethane Review Code: LT
CAS Number: 75-34-3



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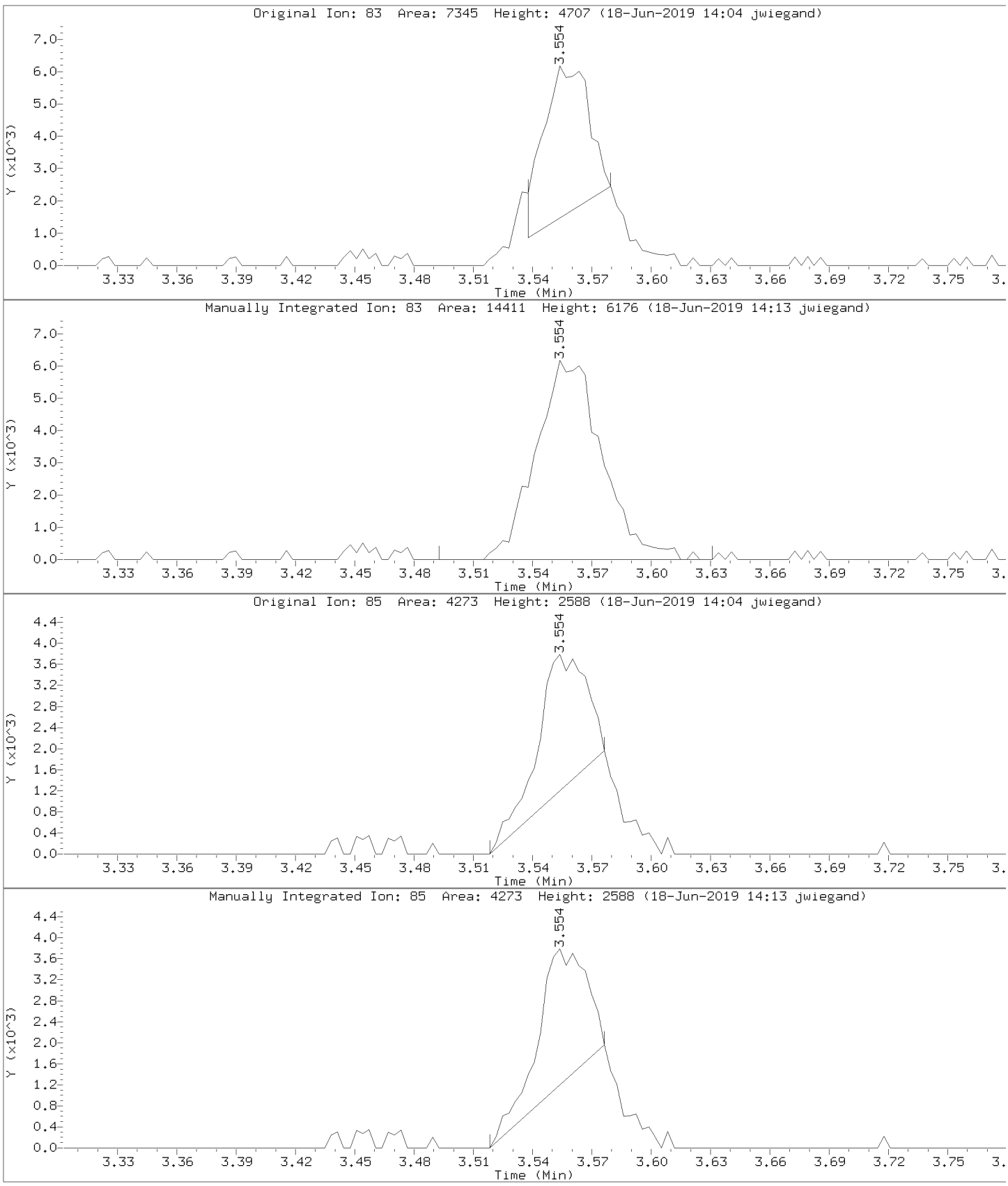
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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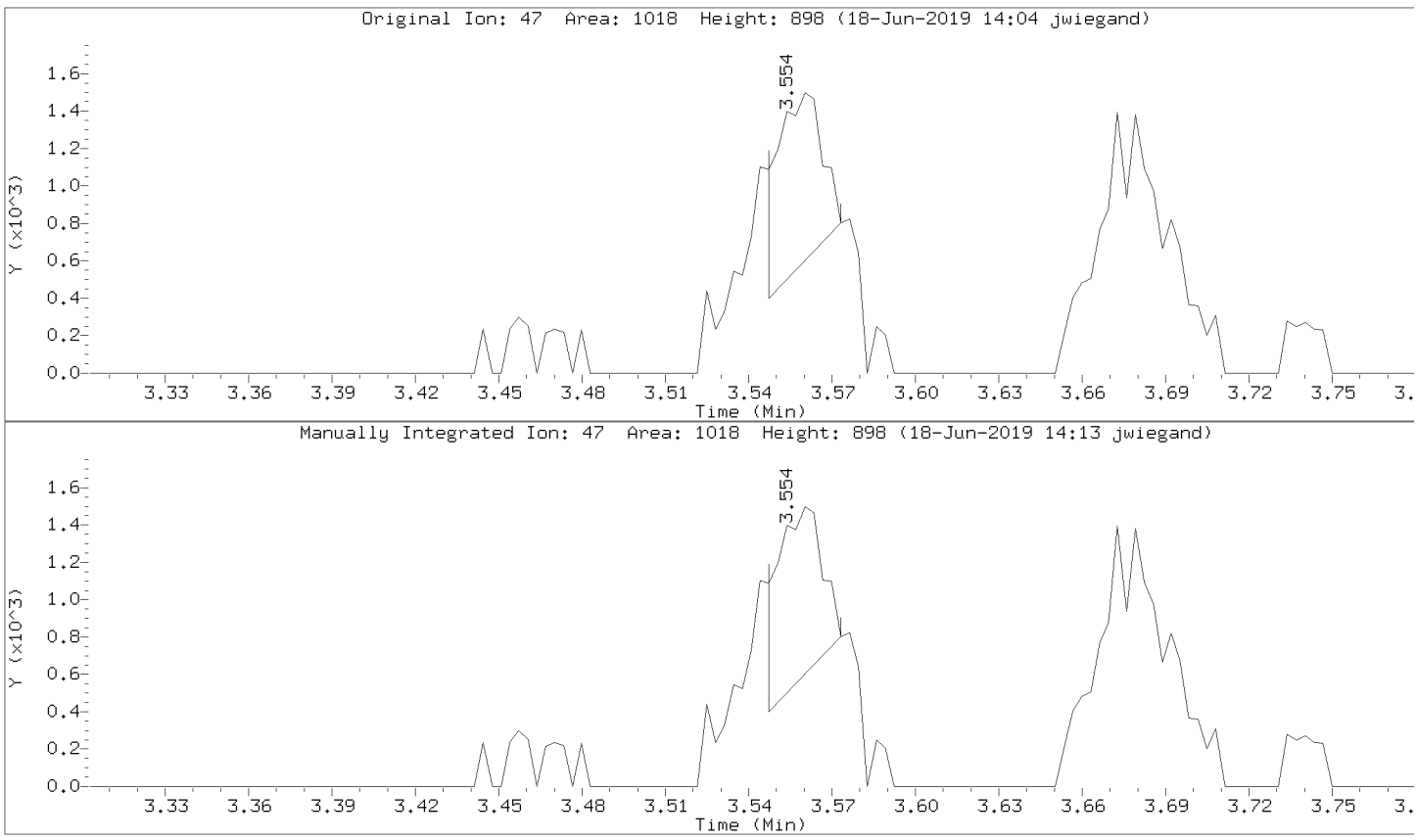
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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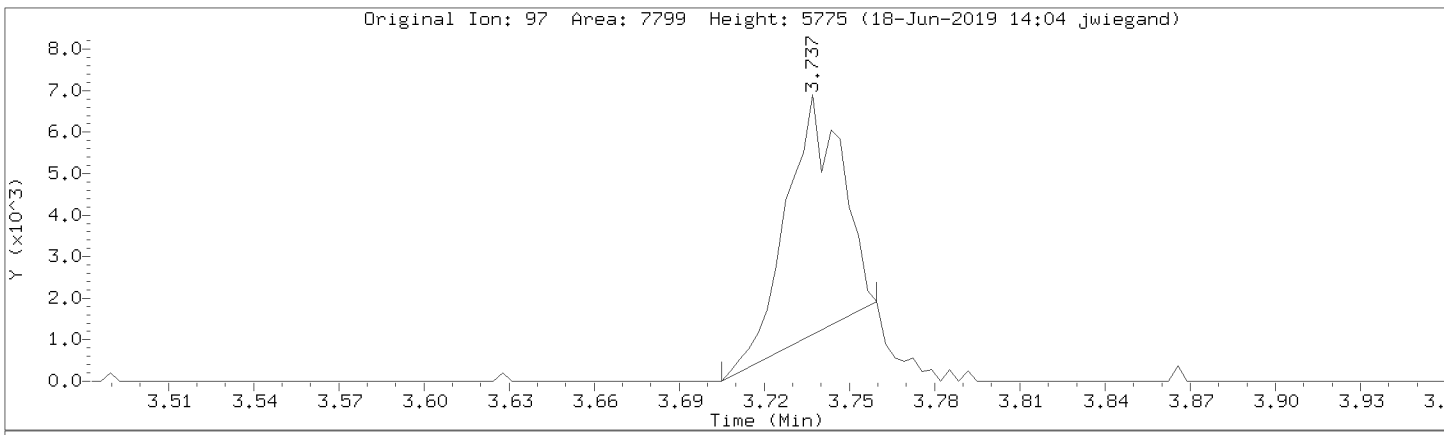
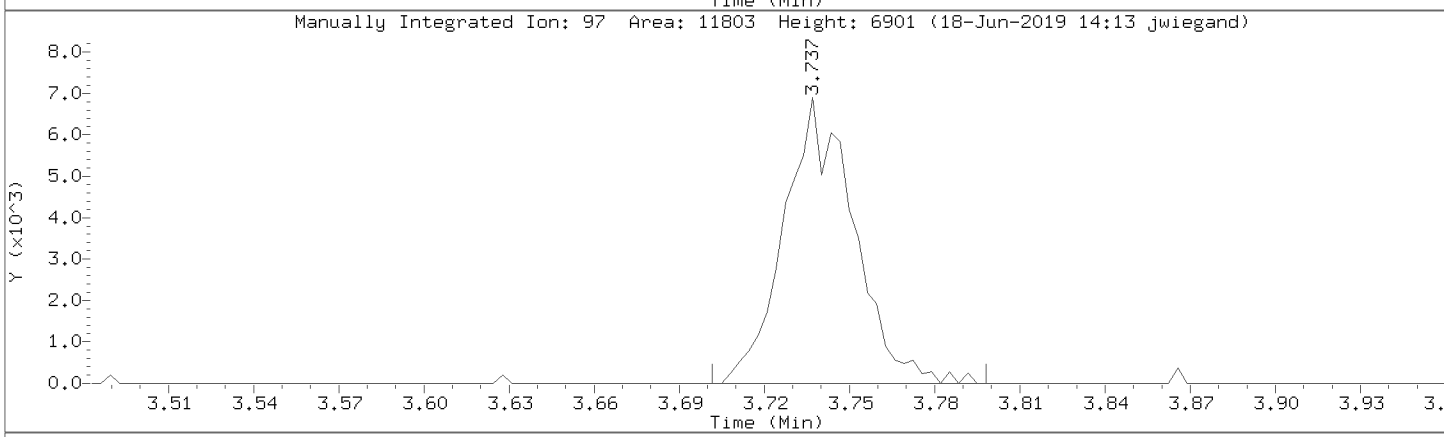
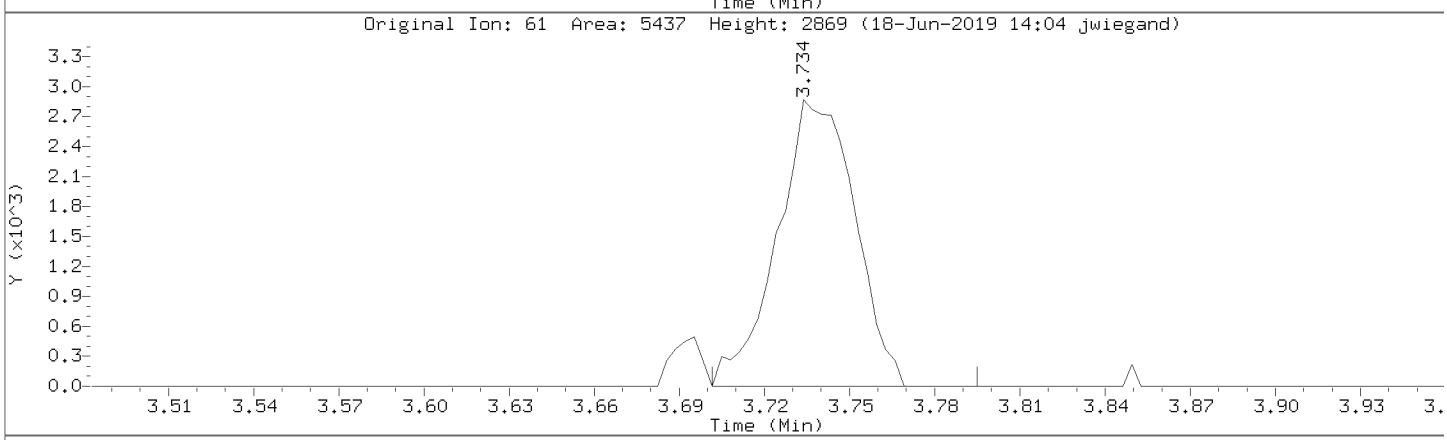
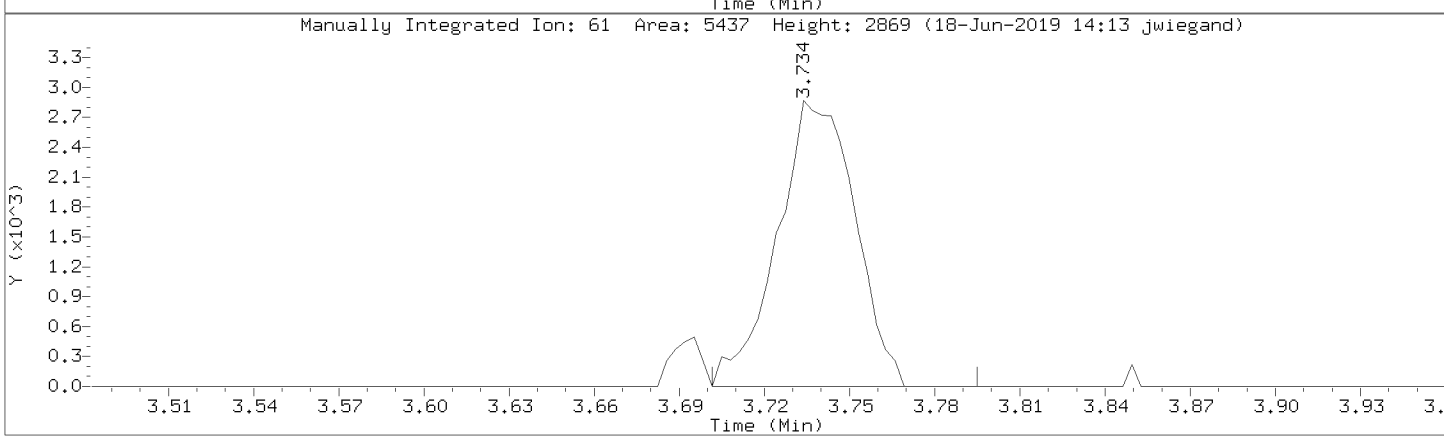
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 1,1,1-Trichloroethane Review Code: LT
CAS Number: 71-55-6









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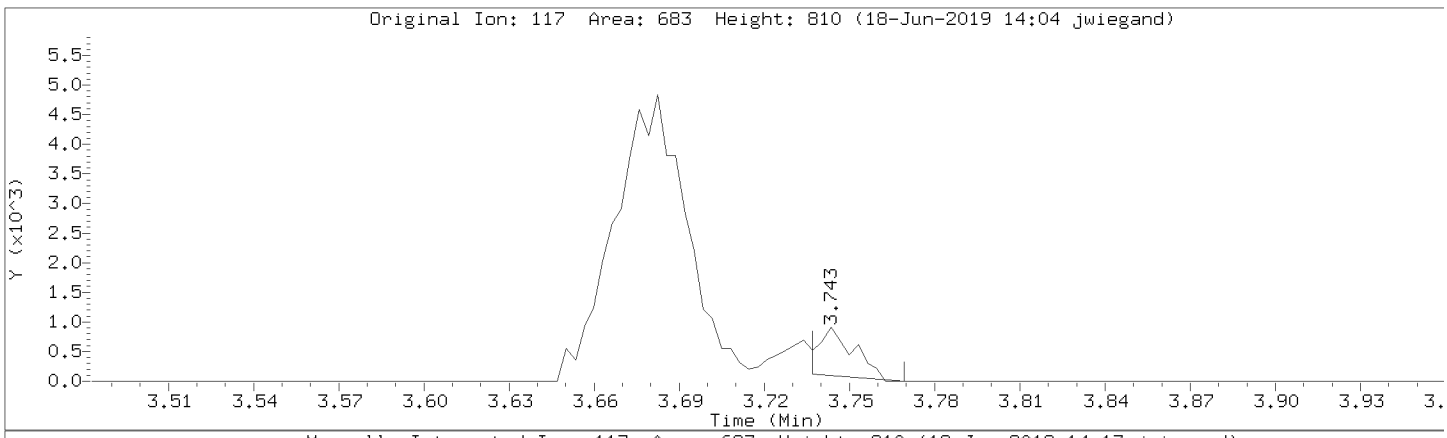
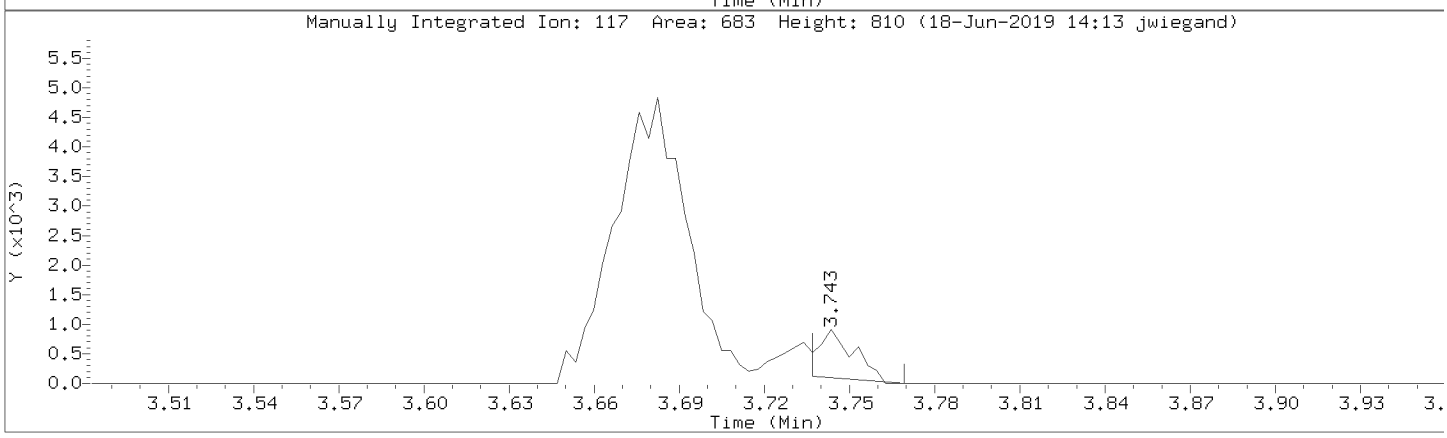
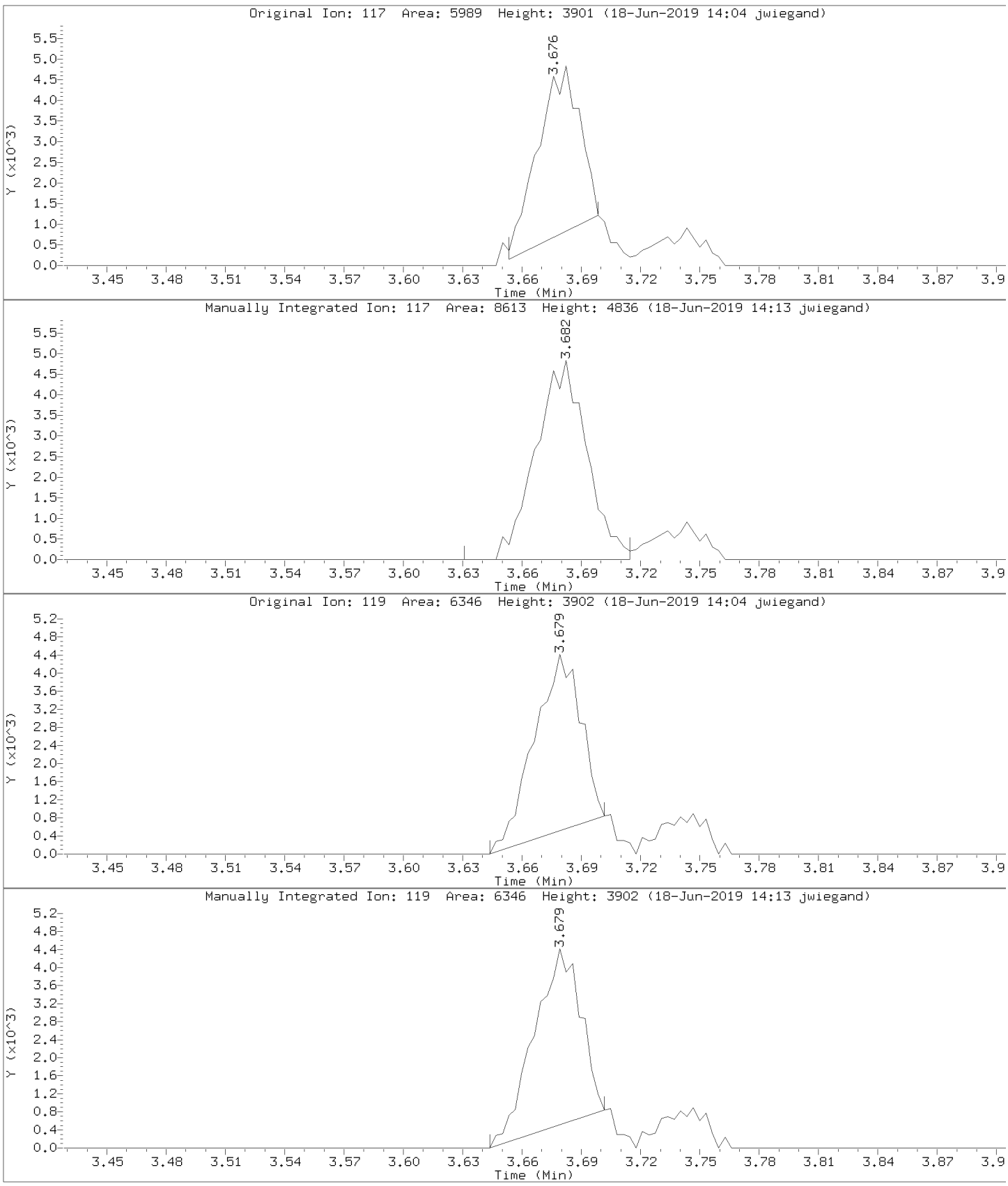
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2





Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Carbon tetrachloride Review Code: LT
CAS Number: 56-23-5



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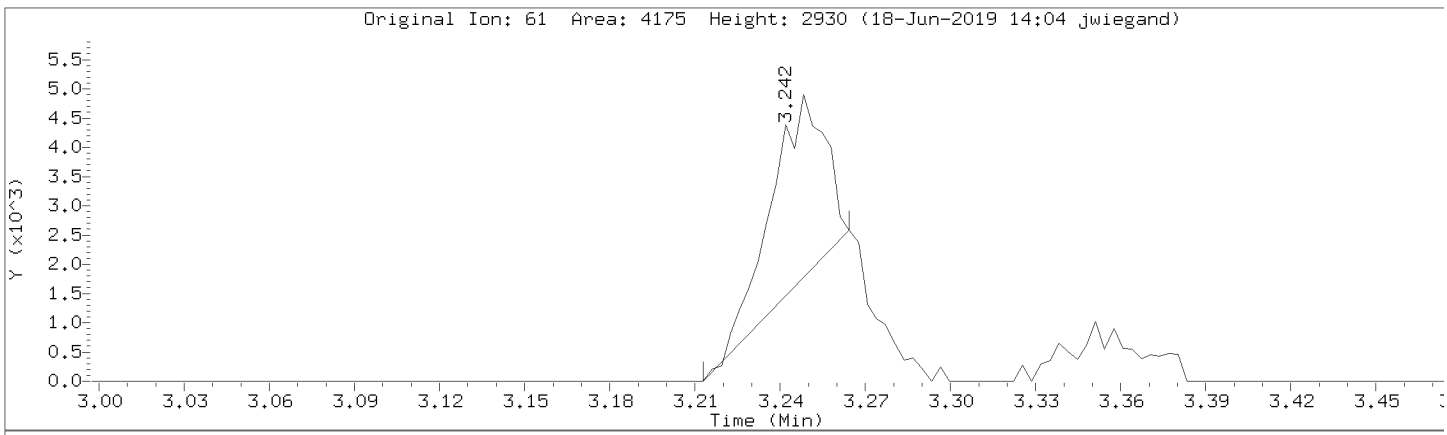
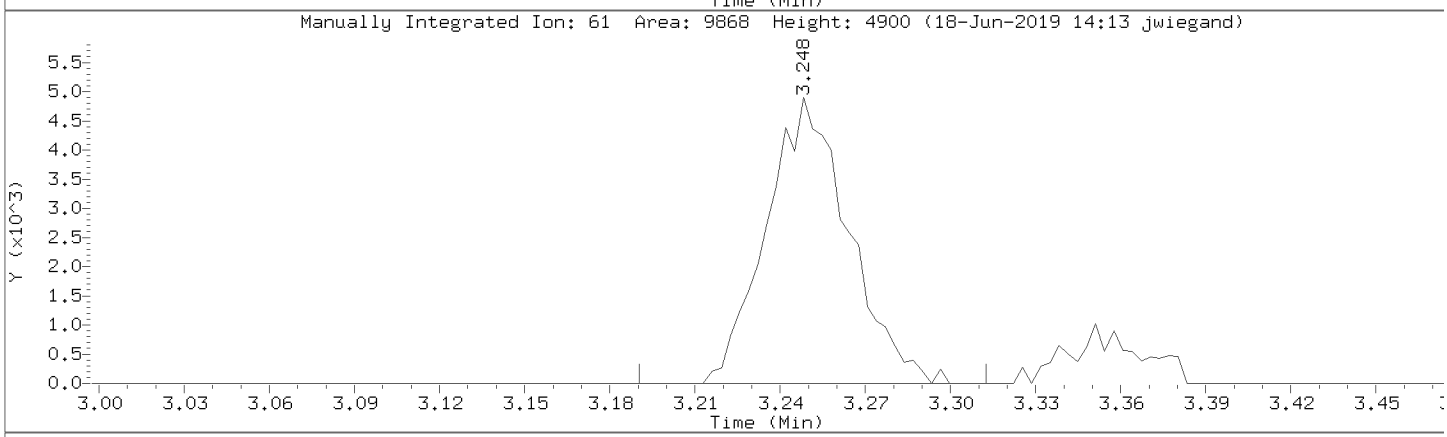
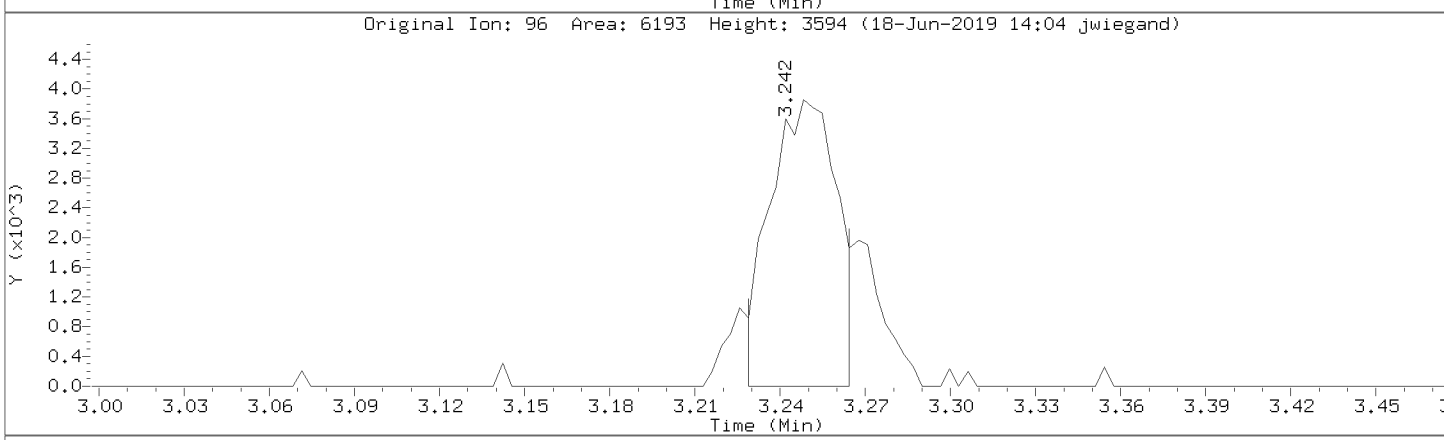
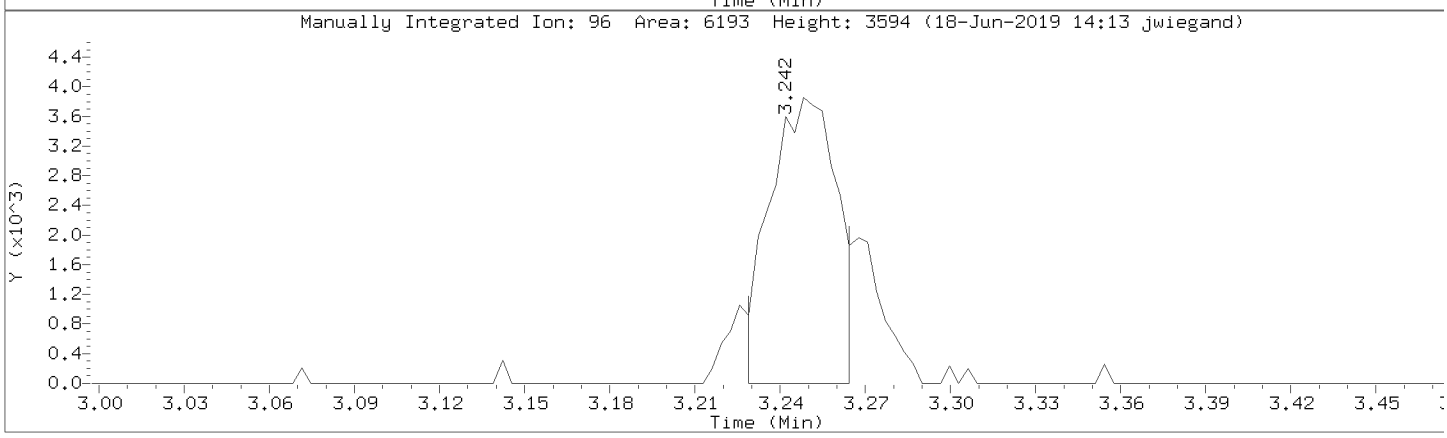
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2









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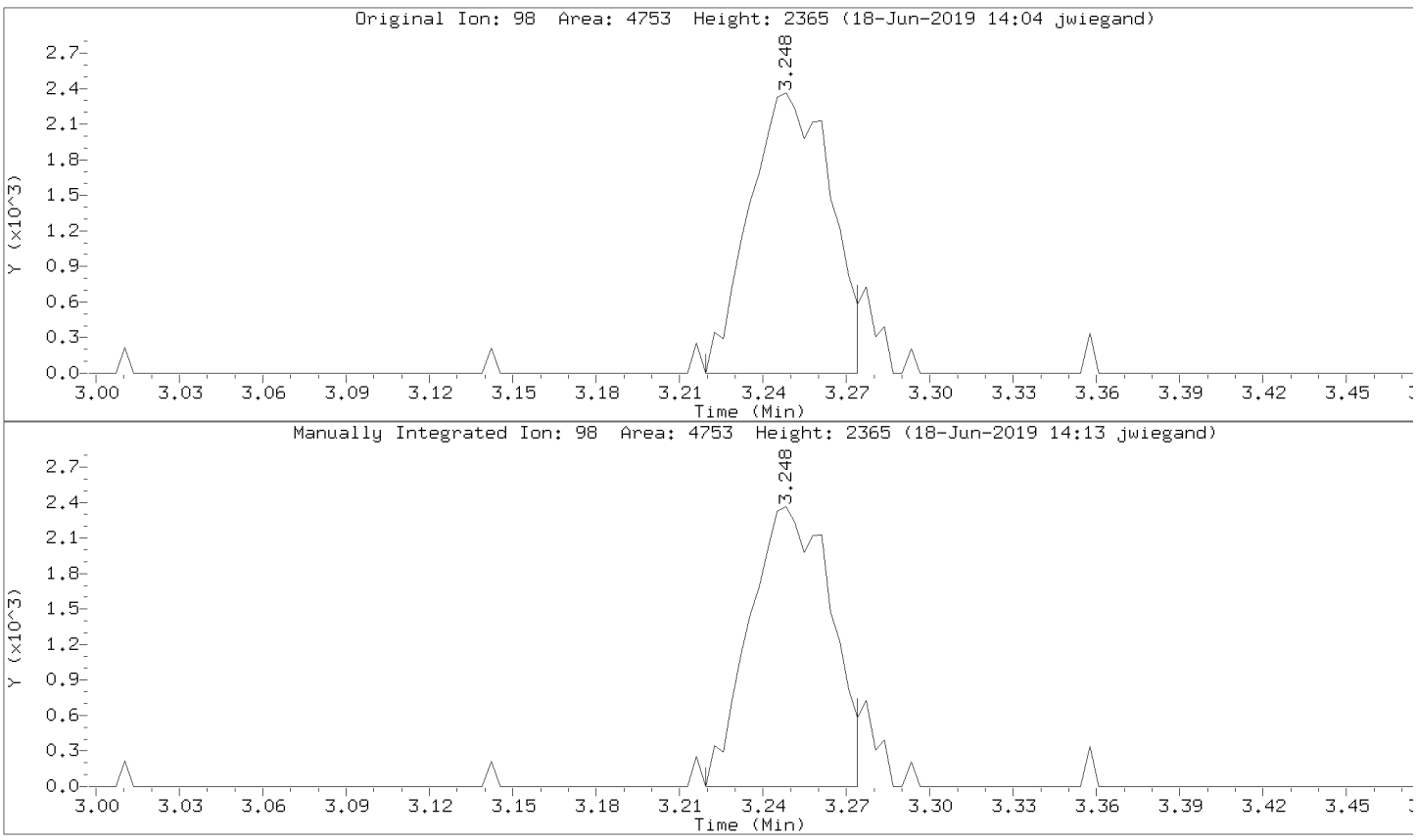
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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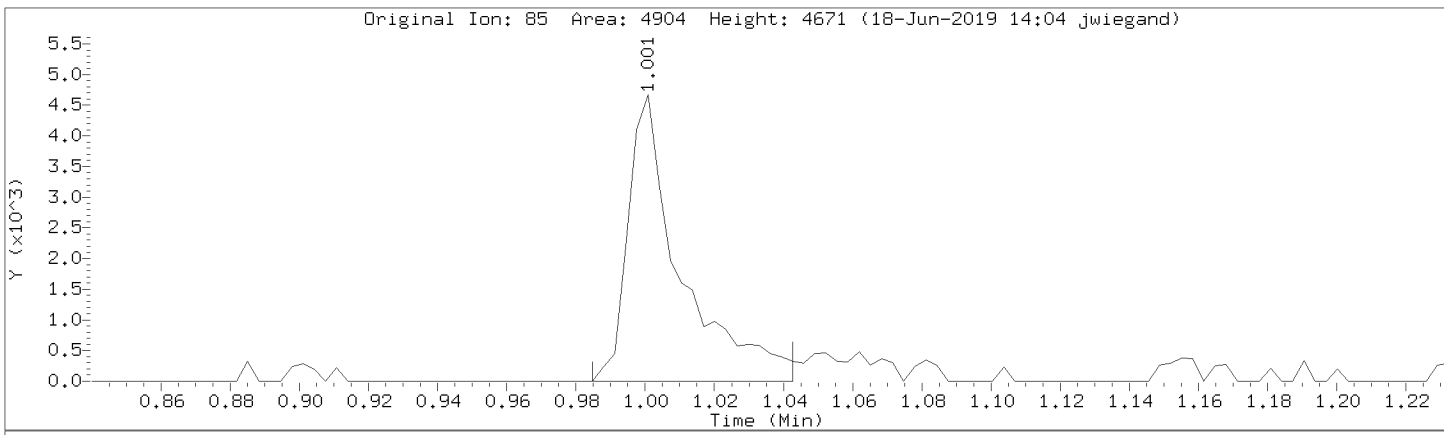
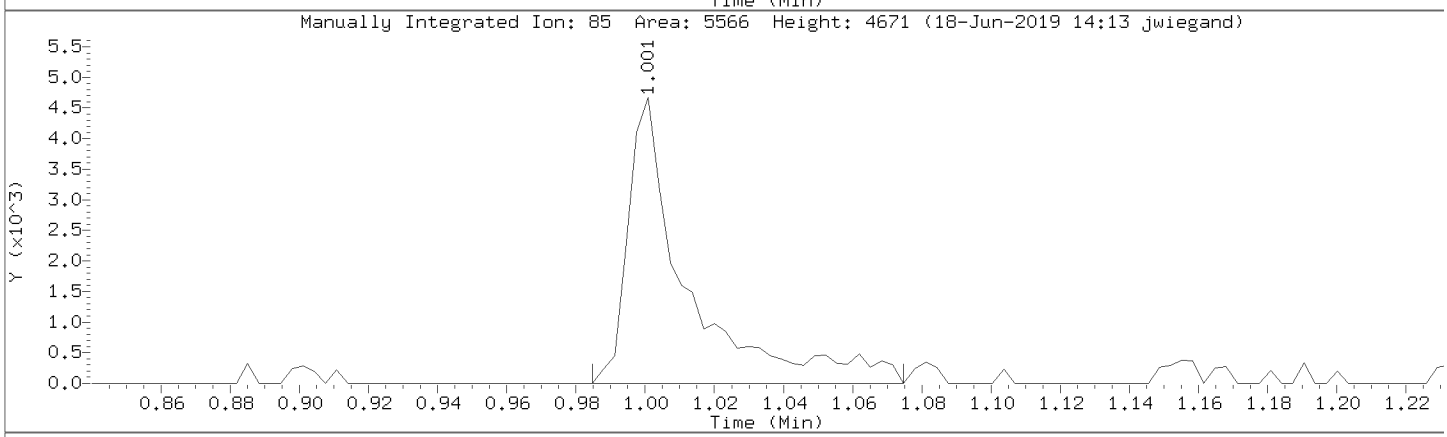
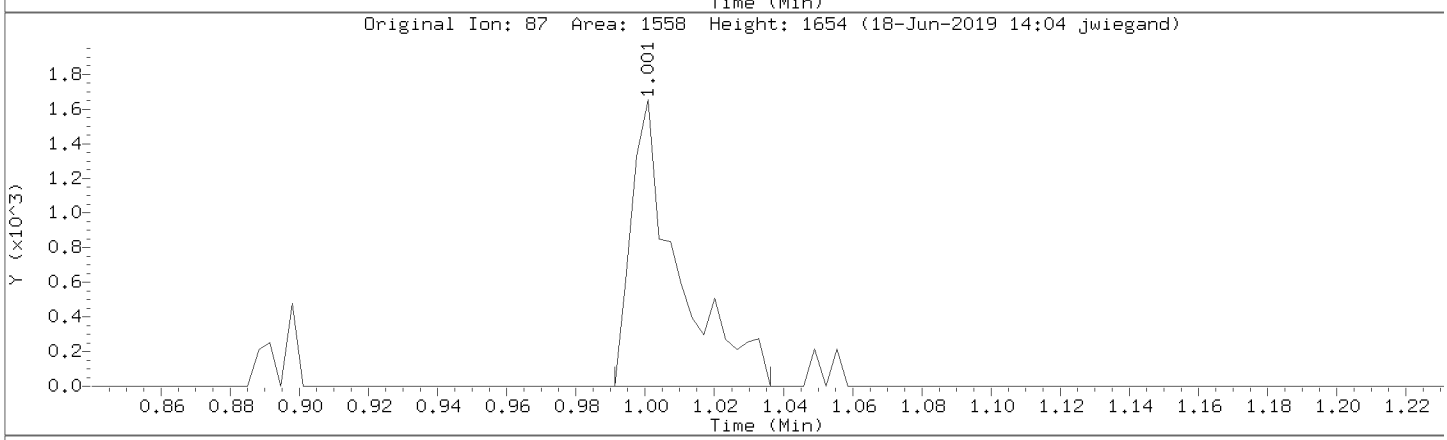
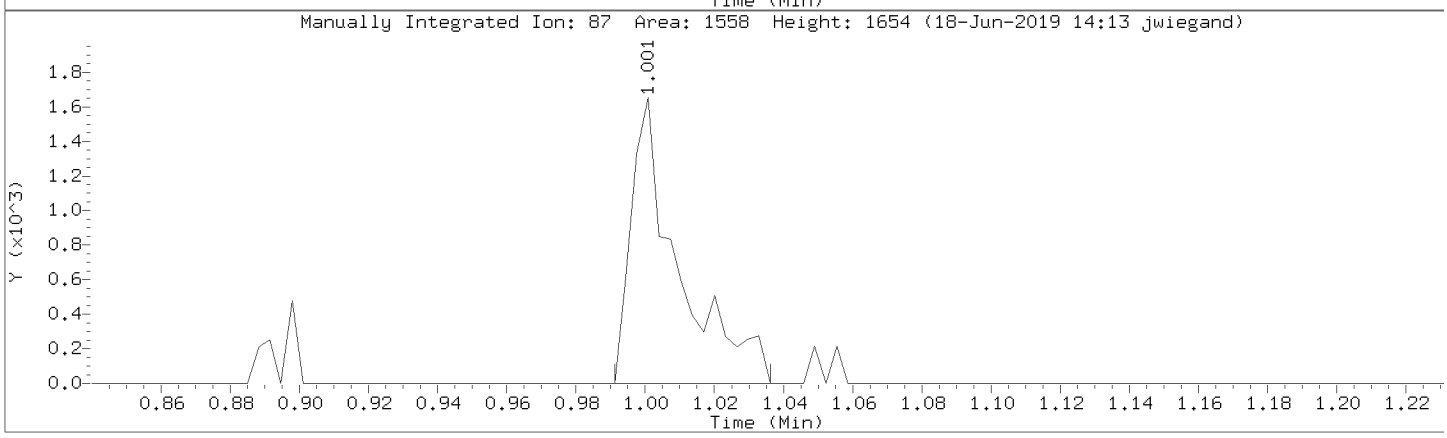
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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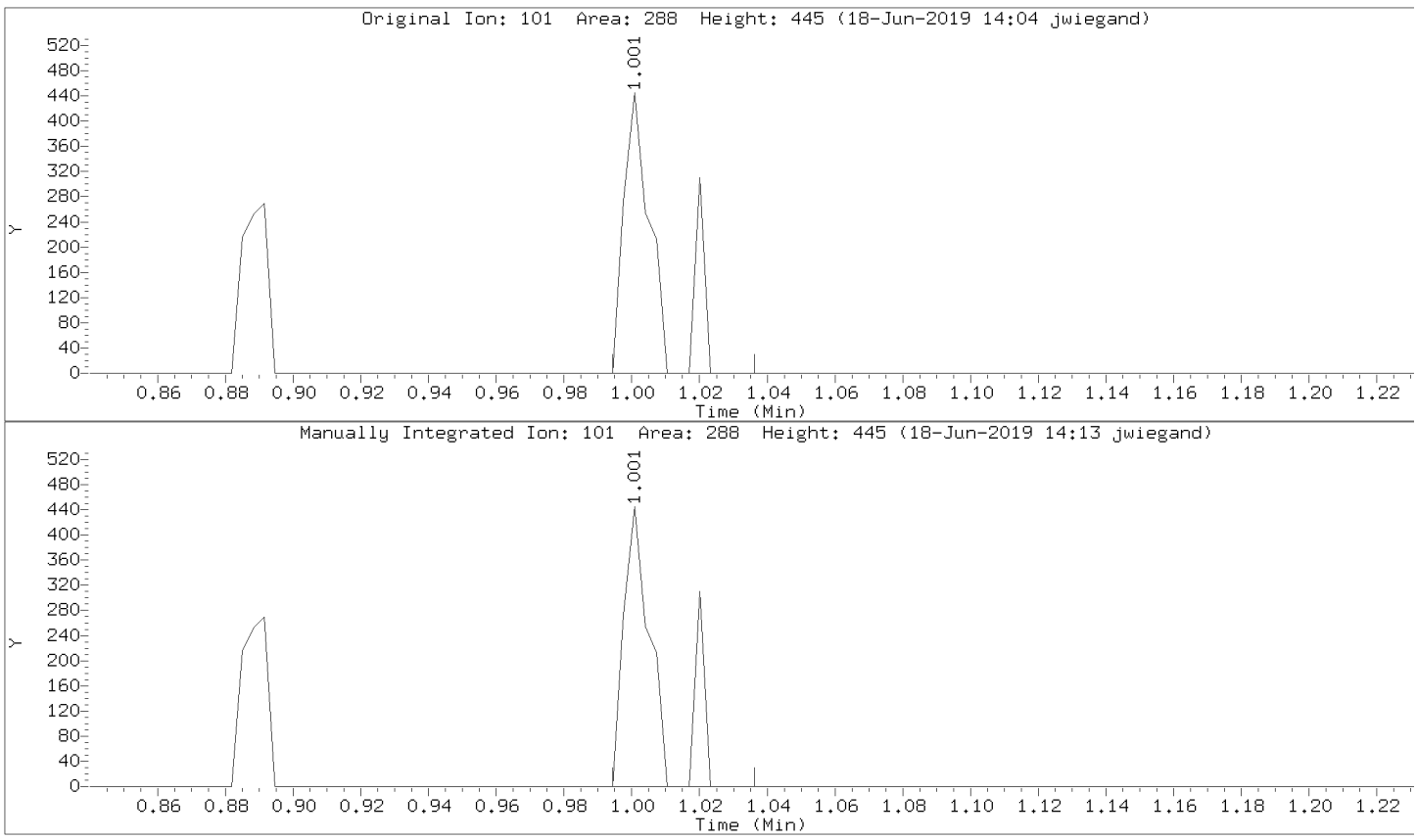
Lab Sample ID: CAL2



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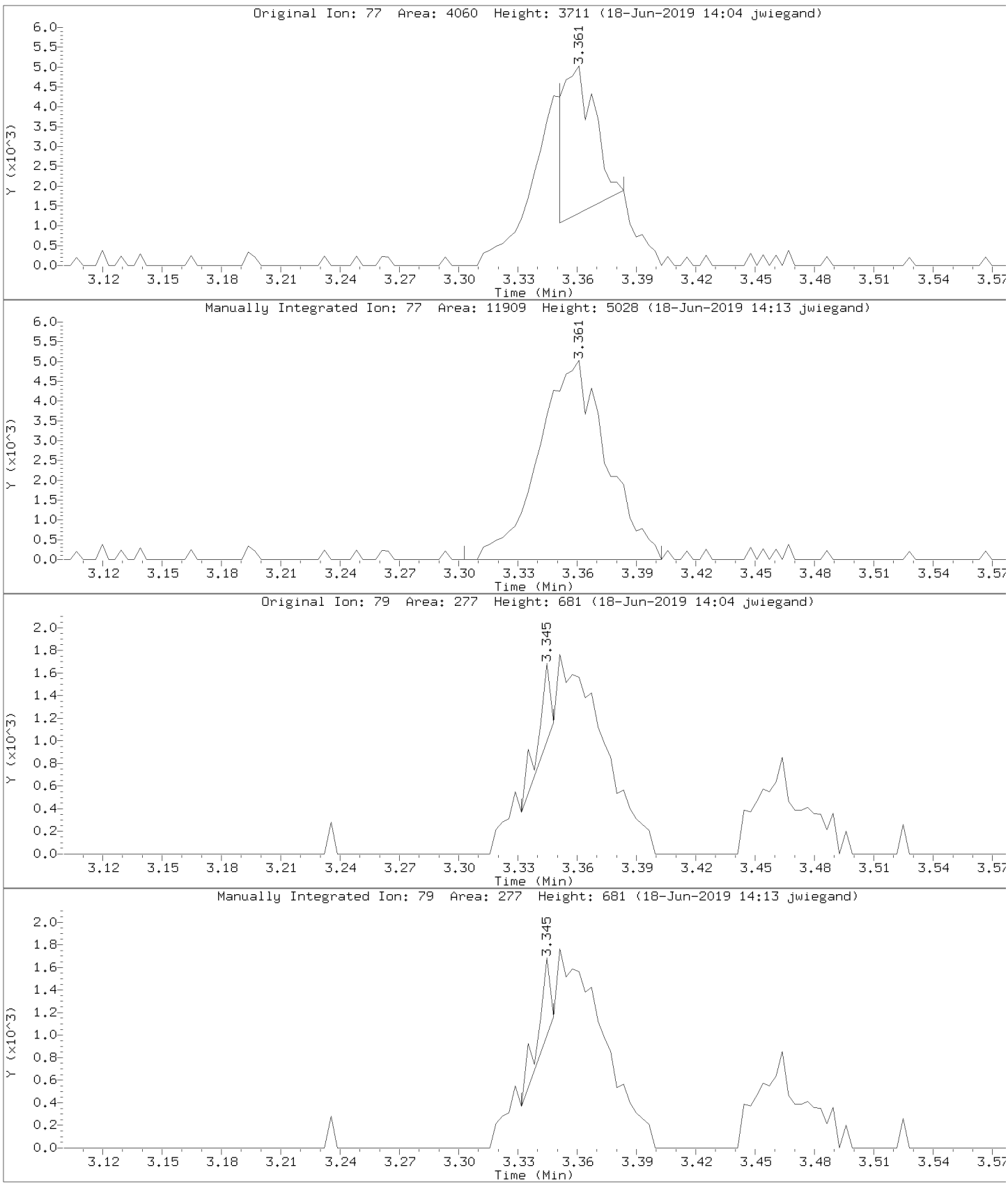
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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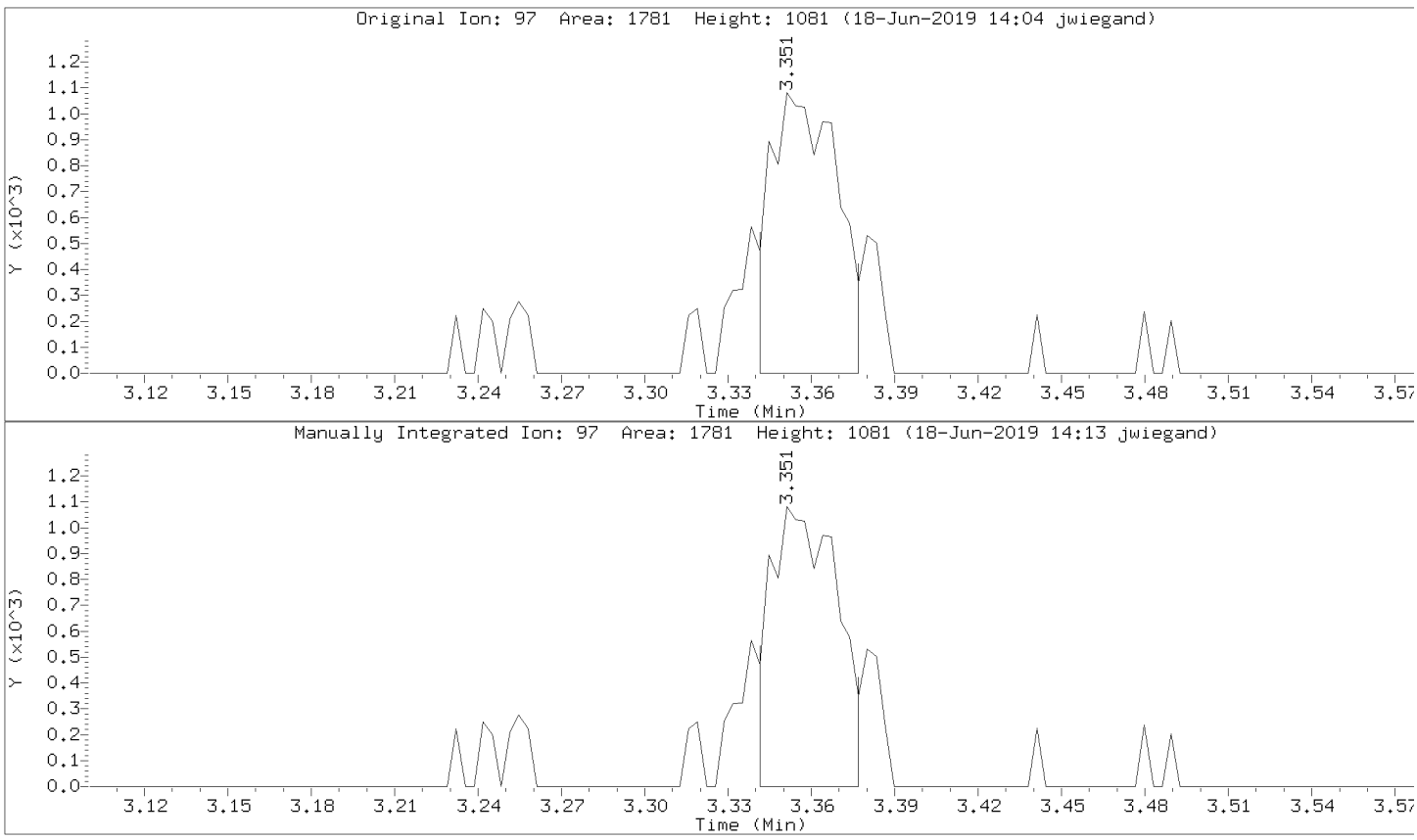
Lab Sample ID: CAL2



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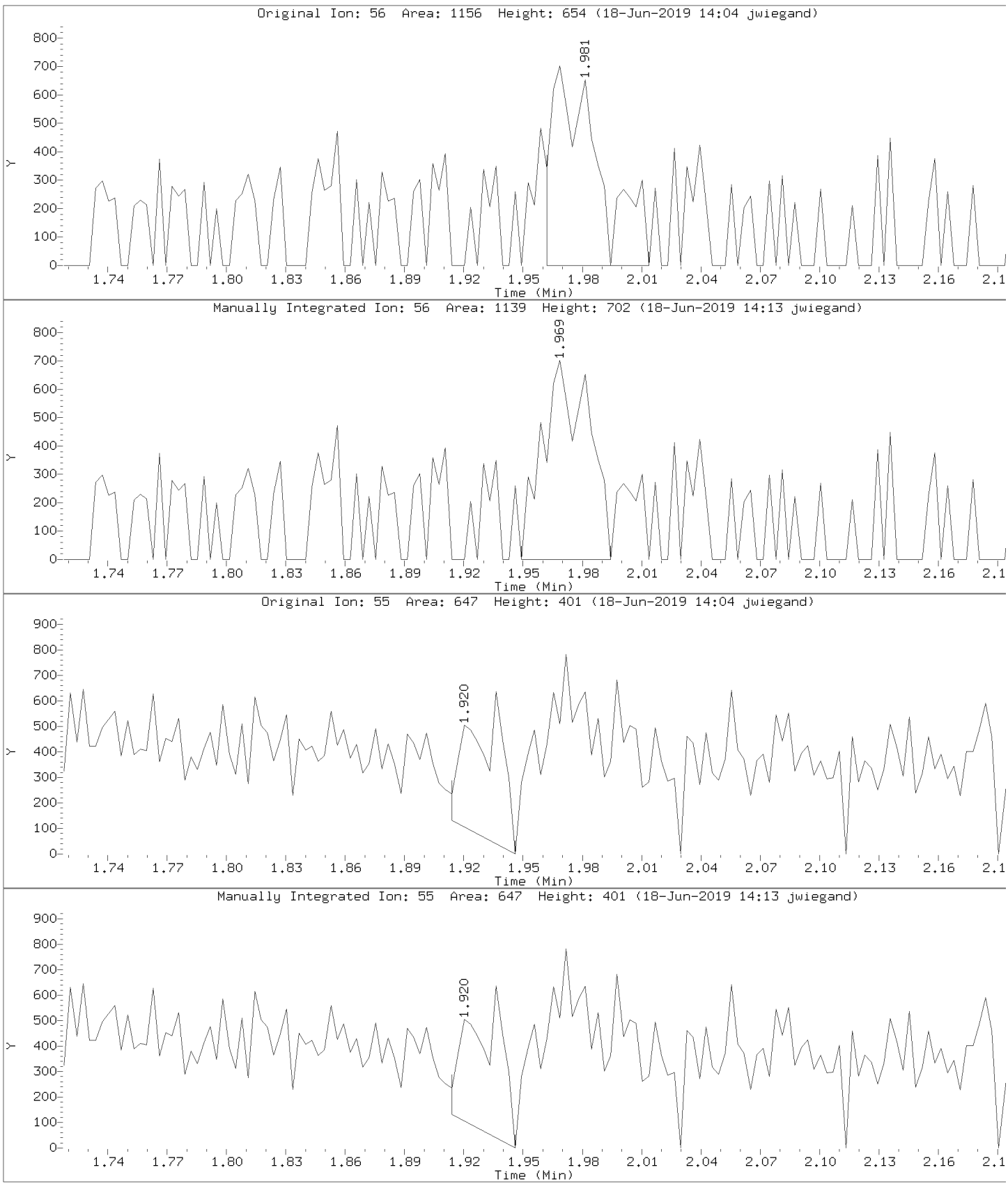
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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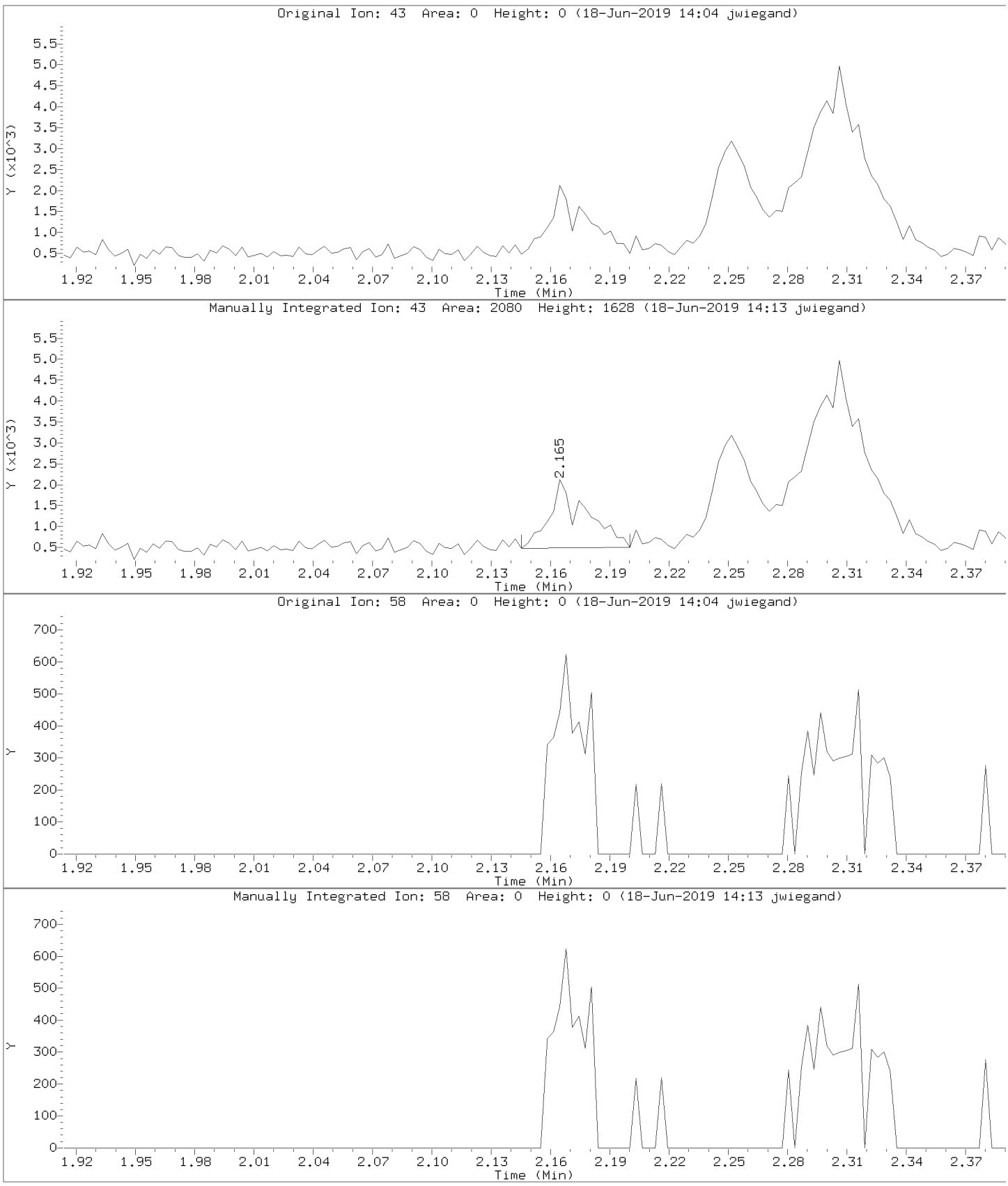
Lab Sample ID: CAL2

Compound: Acetone Review Code: NI
CAS Number: 67-64-1



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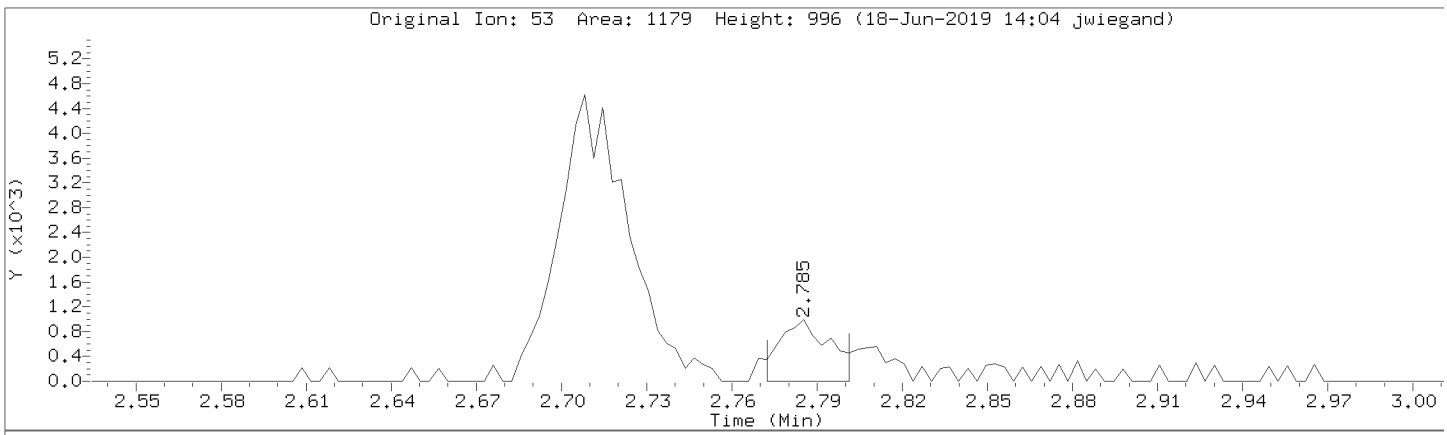
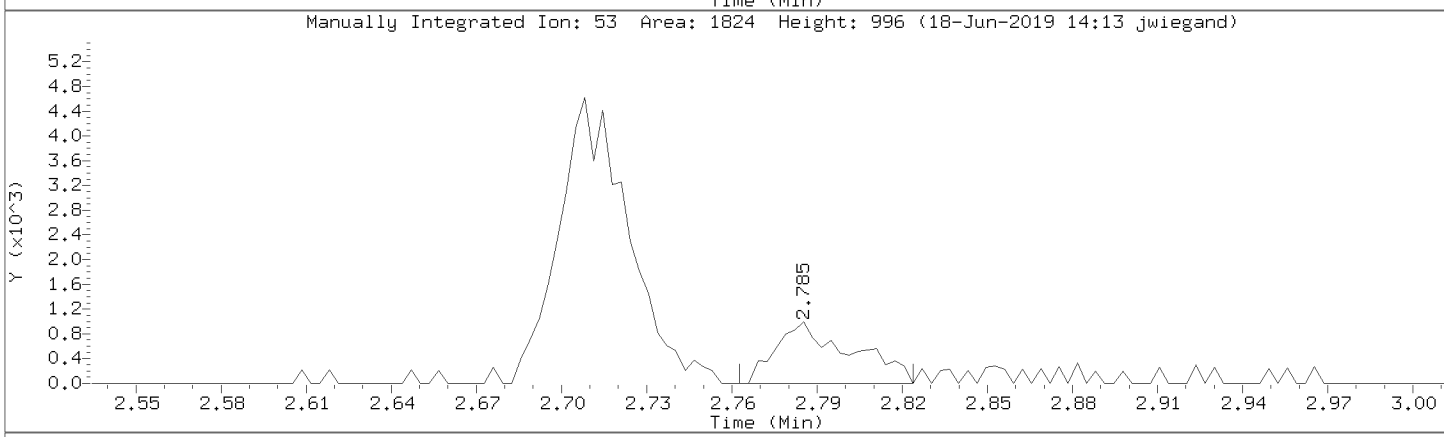
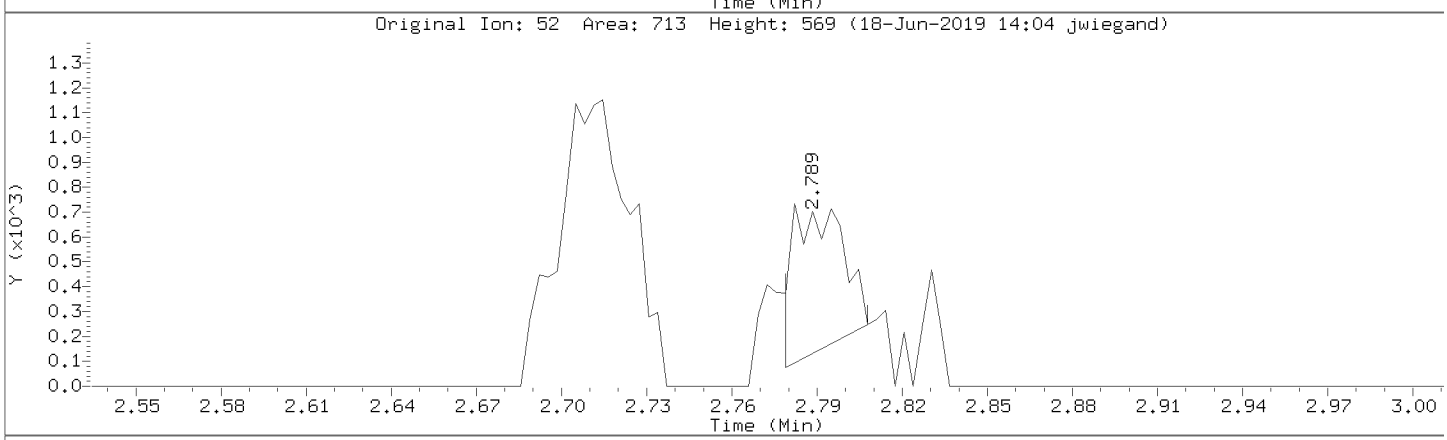
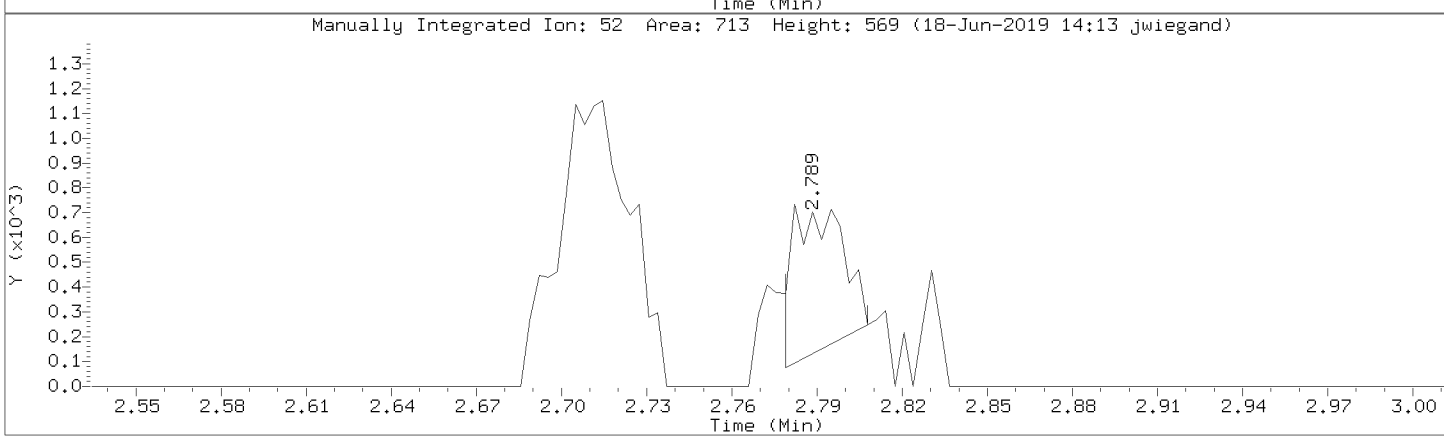
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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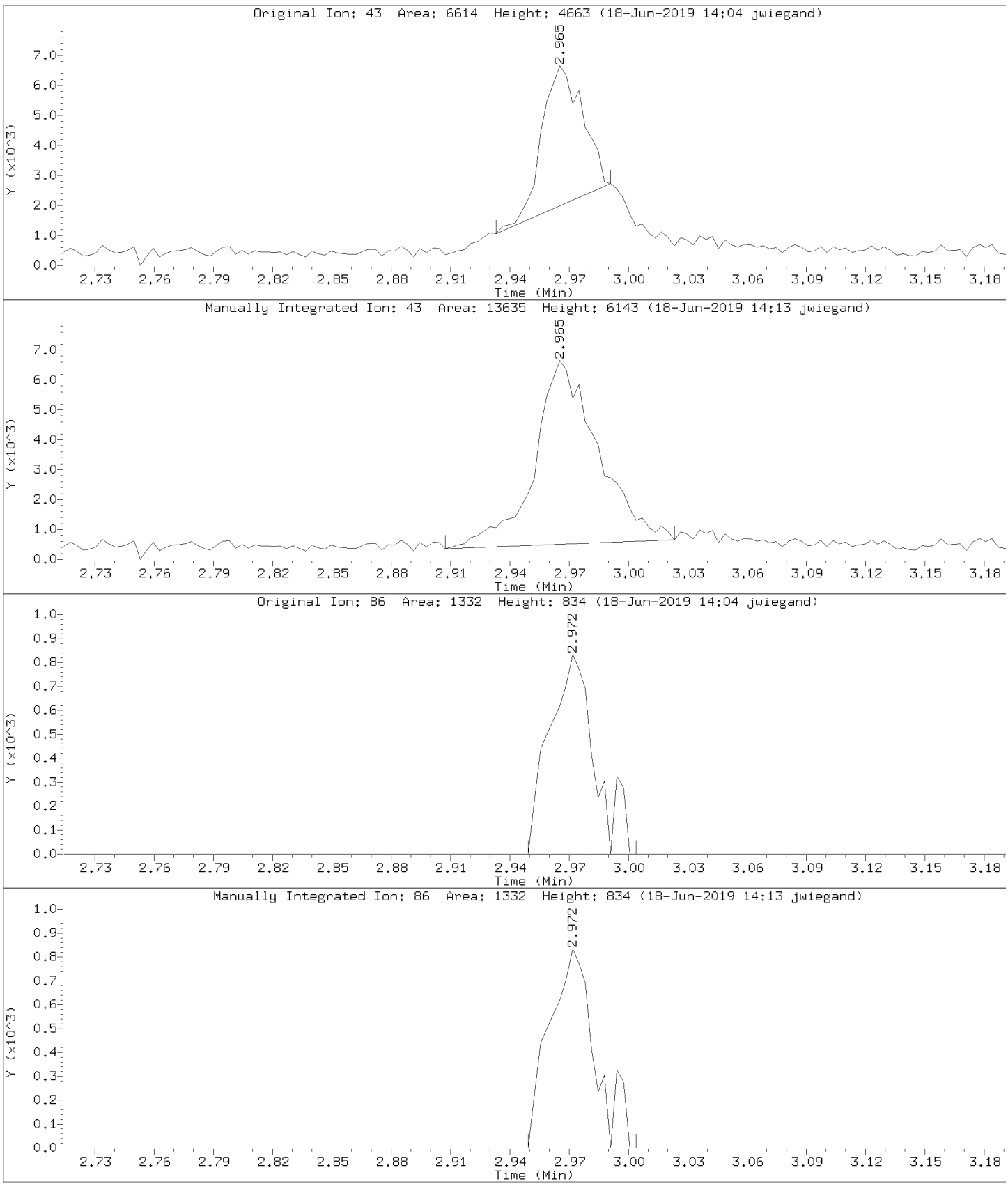
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Vinyl acetate Review Code: NI
CAS Number: 108-05-4



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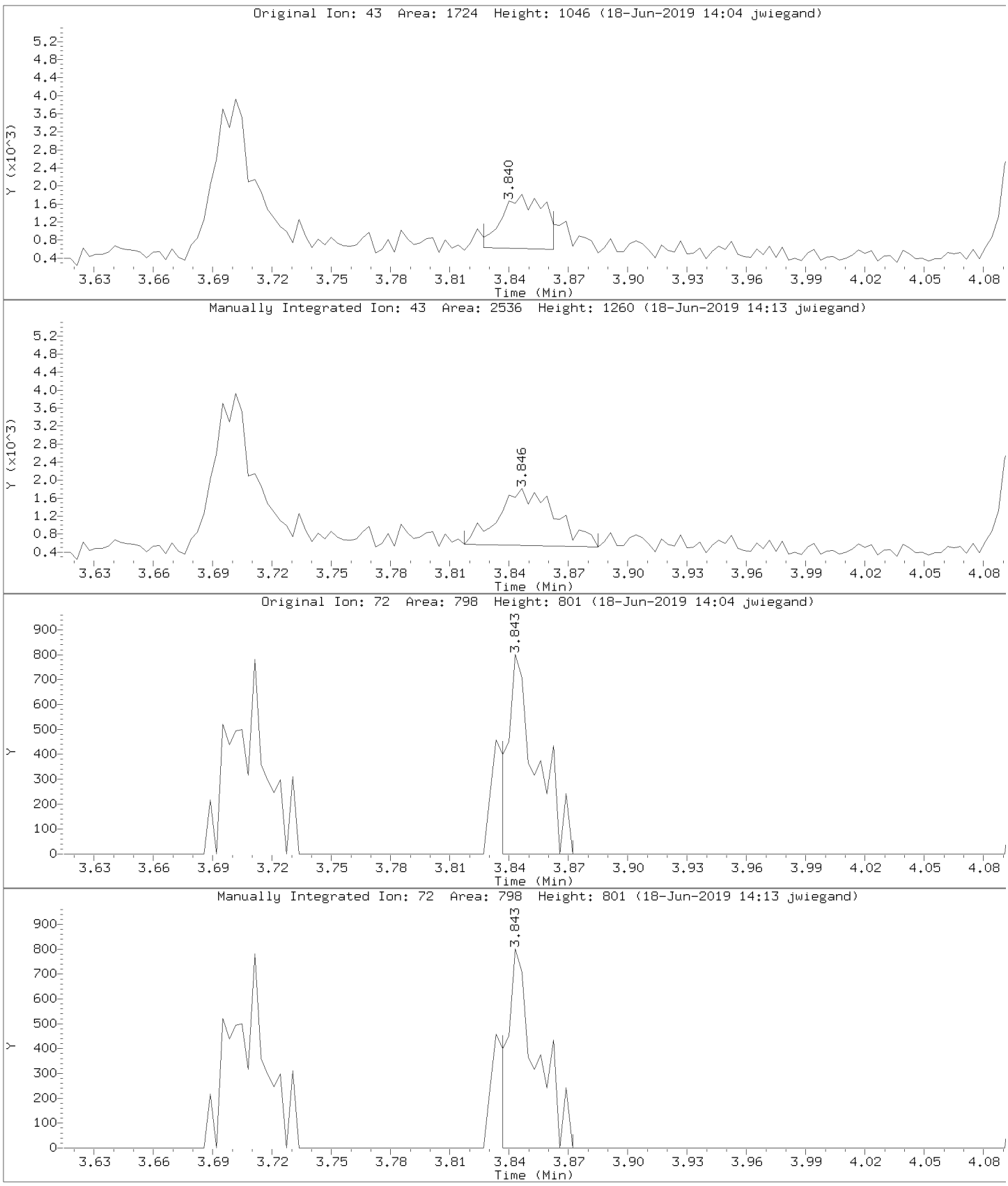
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3



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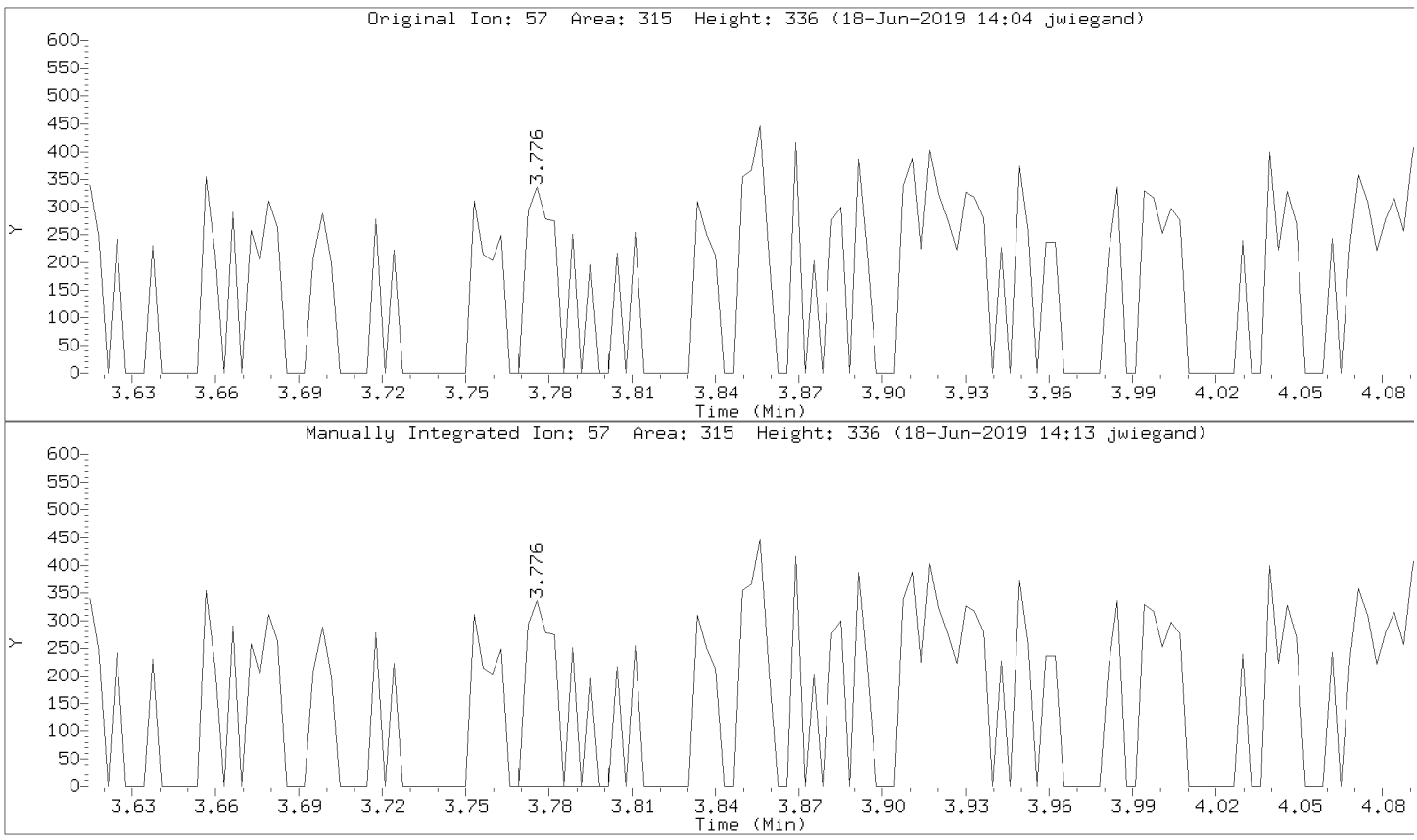
Lab Sample ID: CAL2



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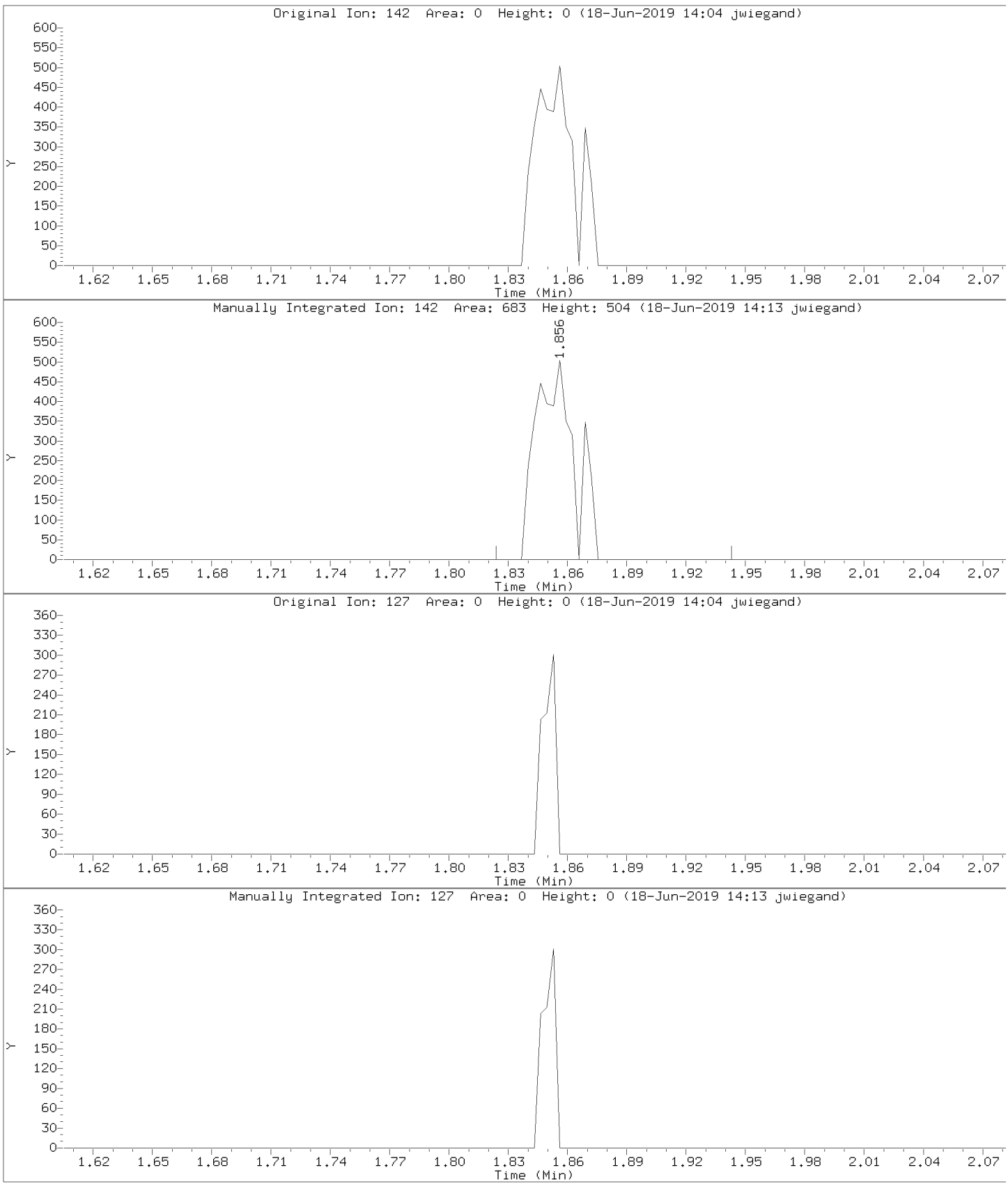
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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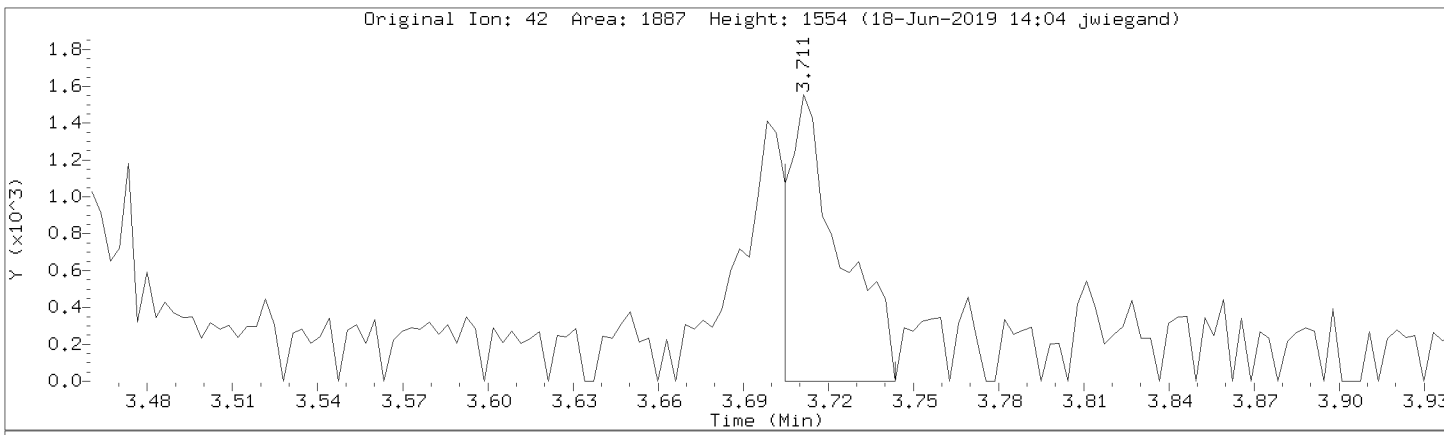
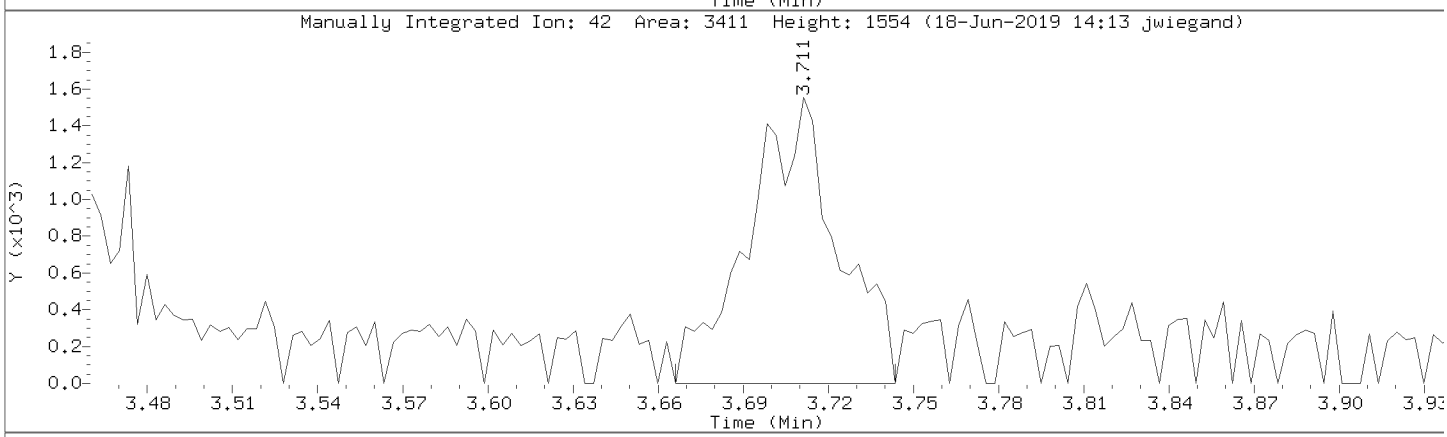
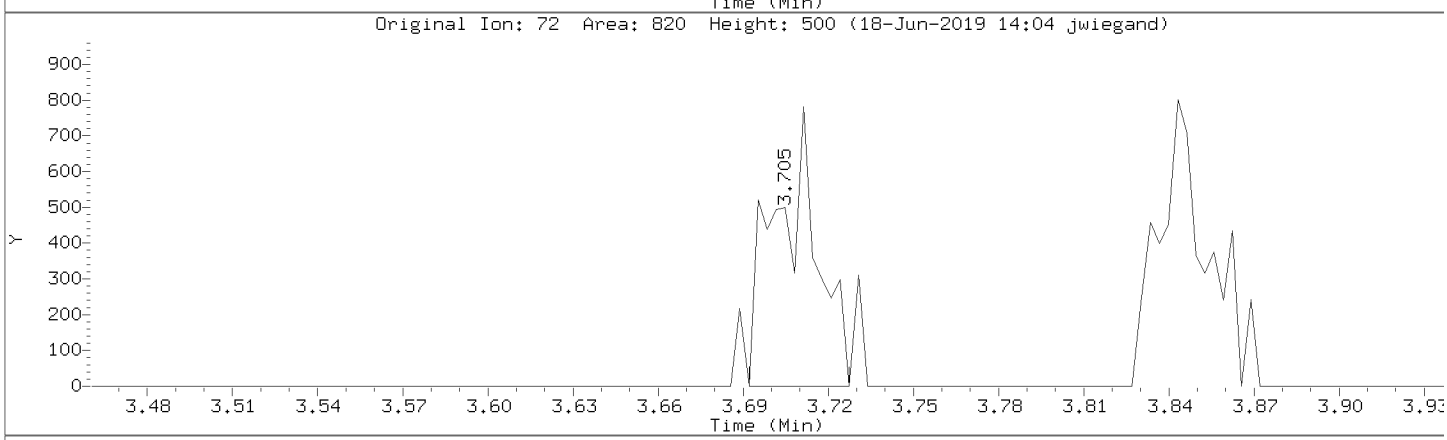
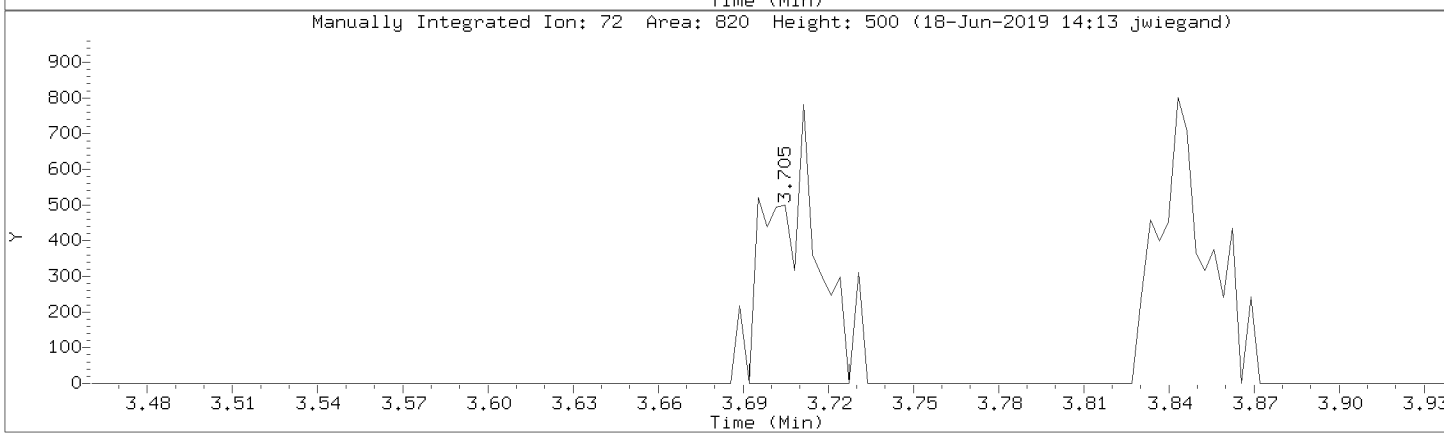
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9









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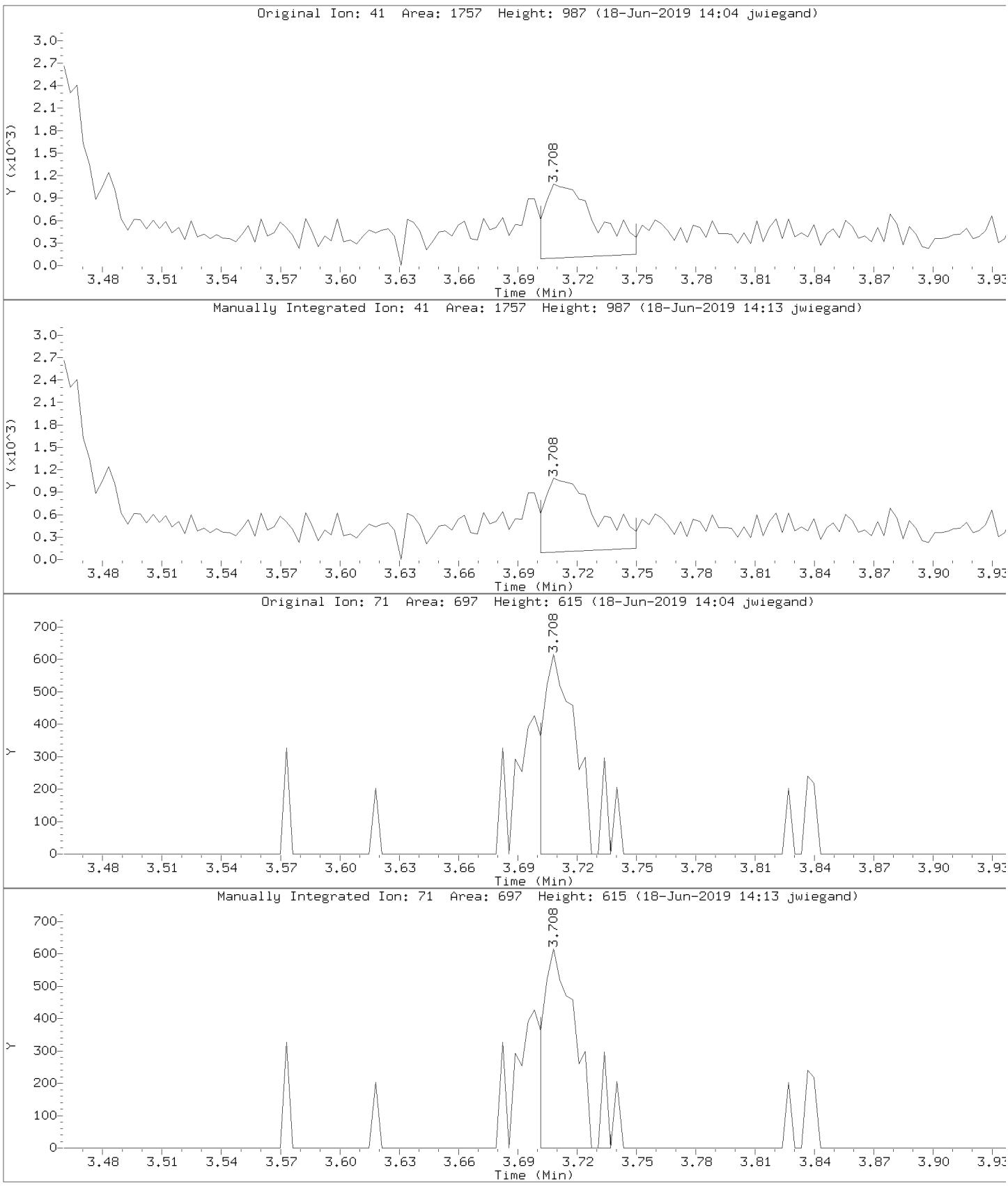
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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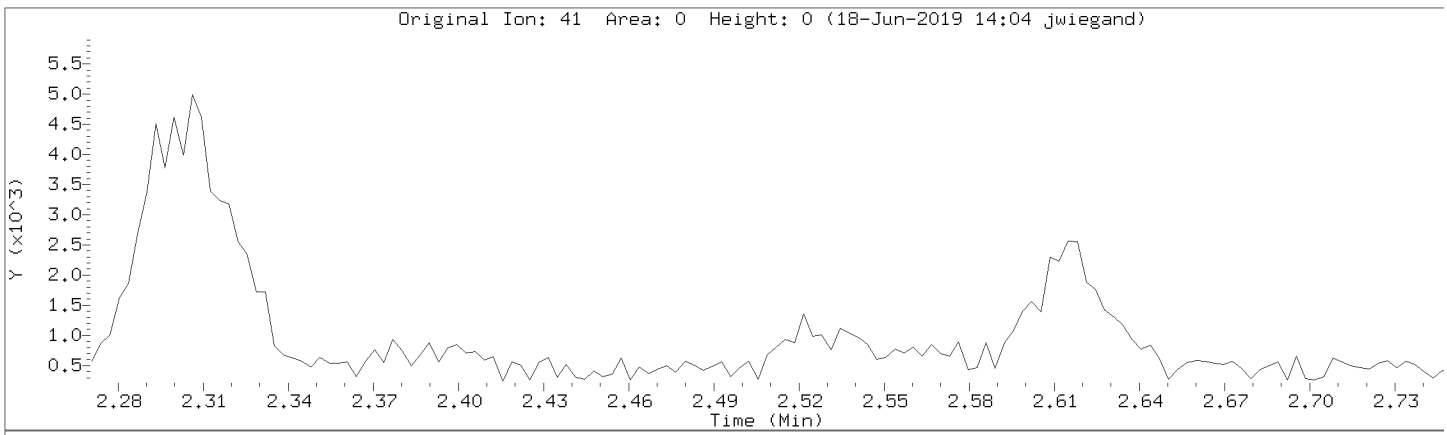
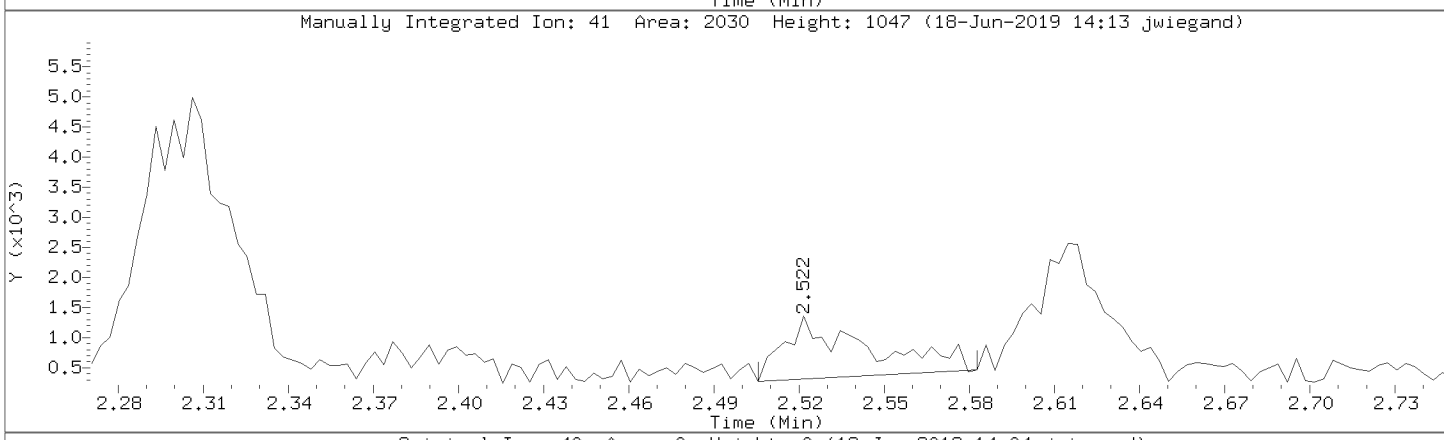
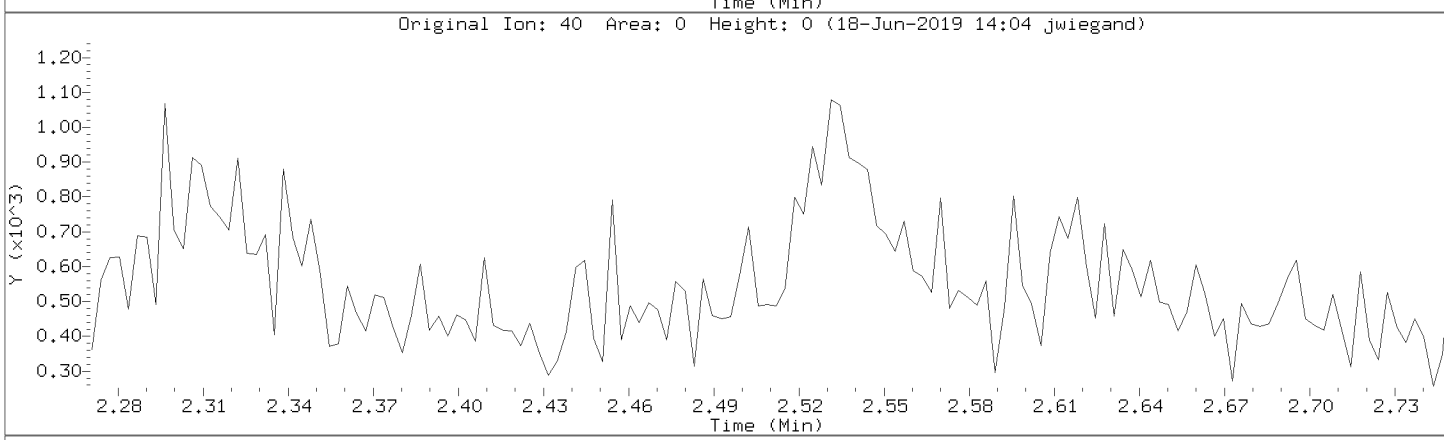
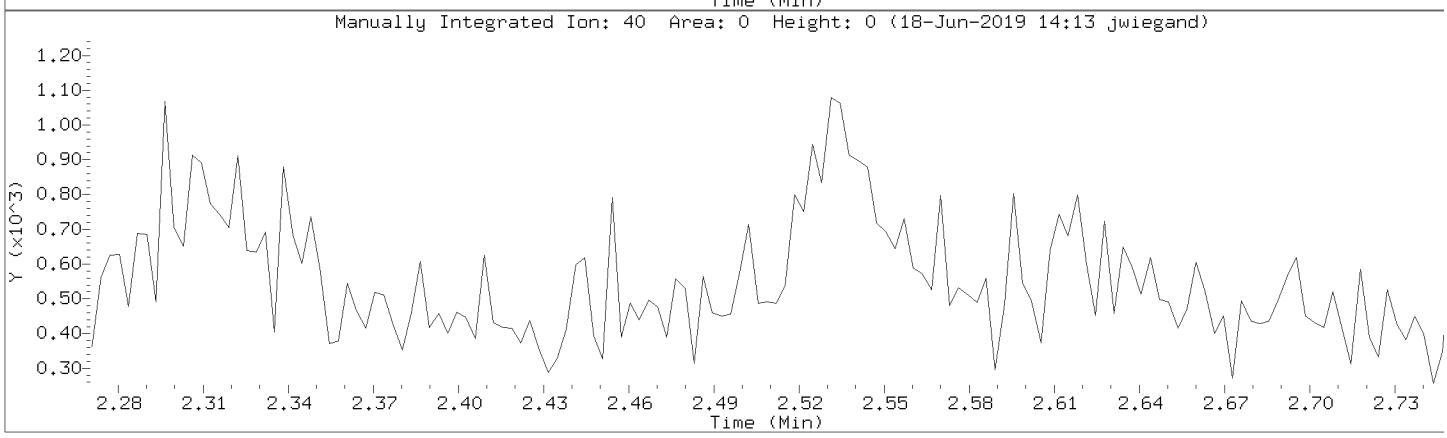
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acetonitrile Review Code: WP
CAS Number: 75-05-8









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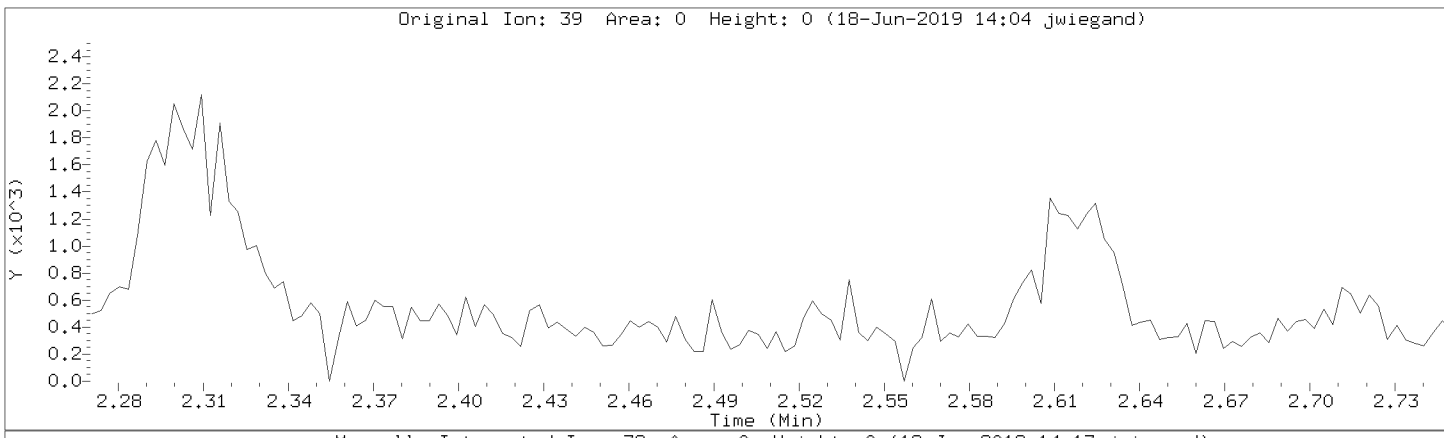
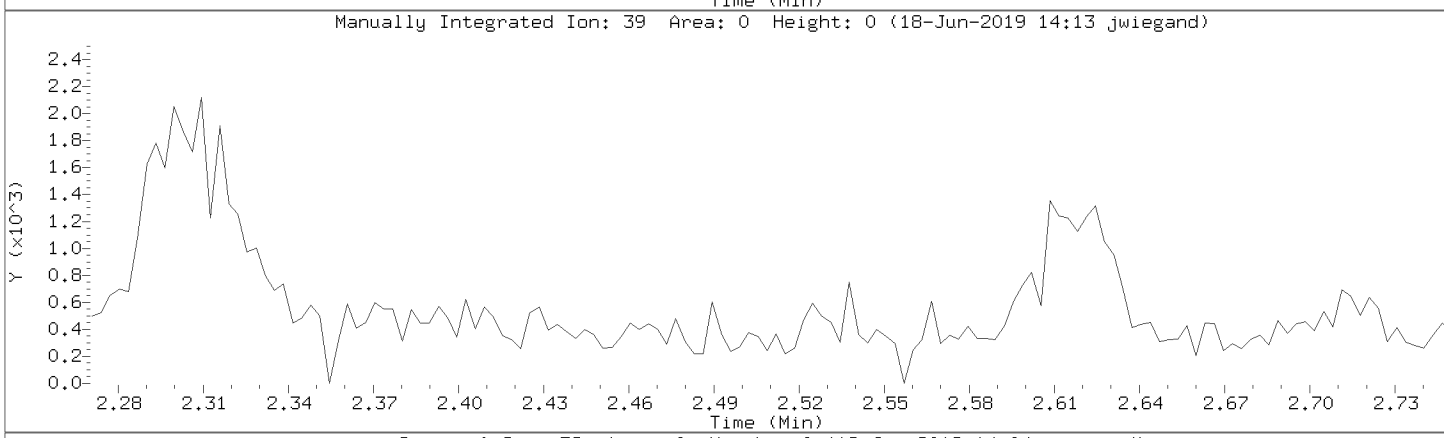
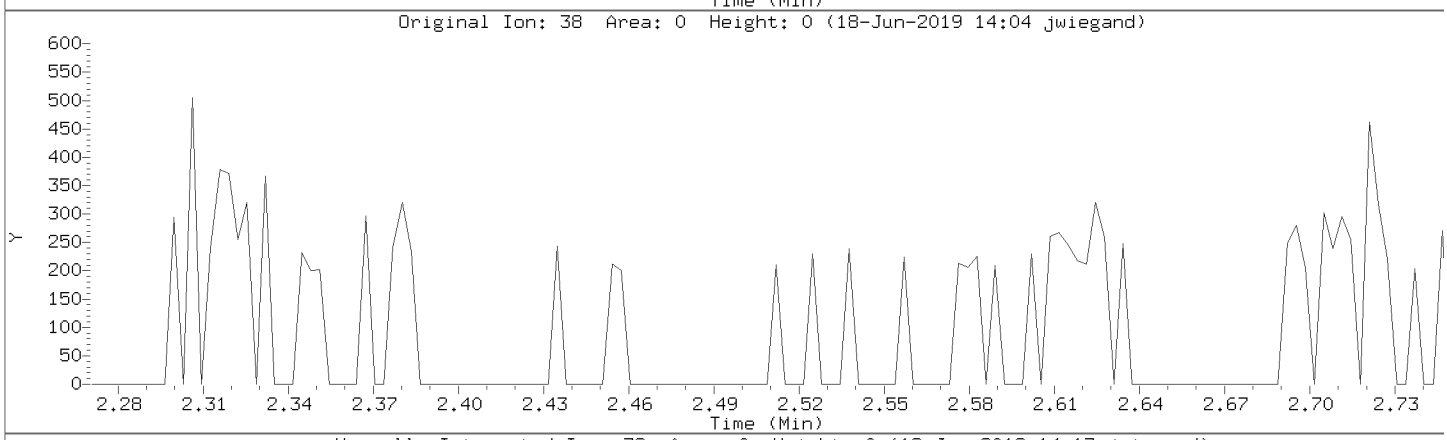
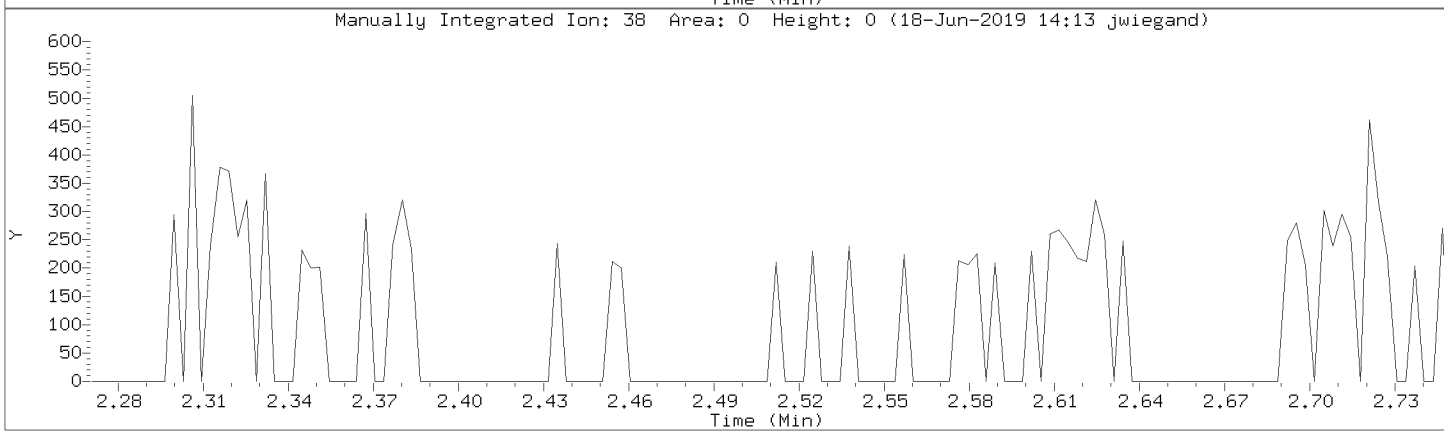
Instrument: 30mv5a.i
Lab Sample ID: CAL2









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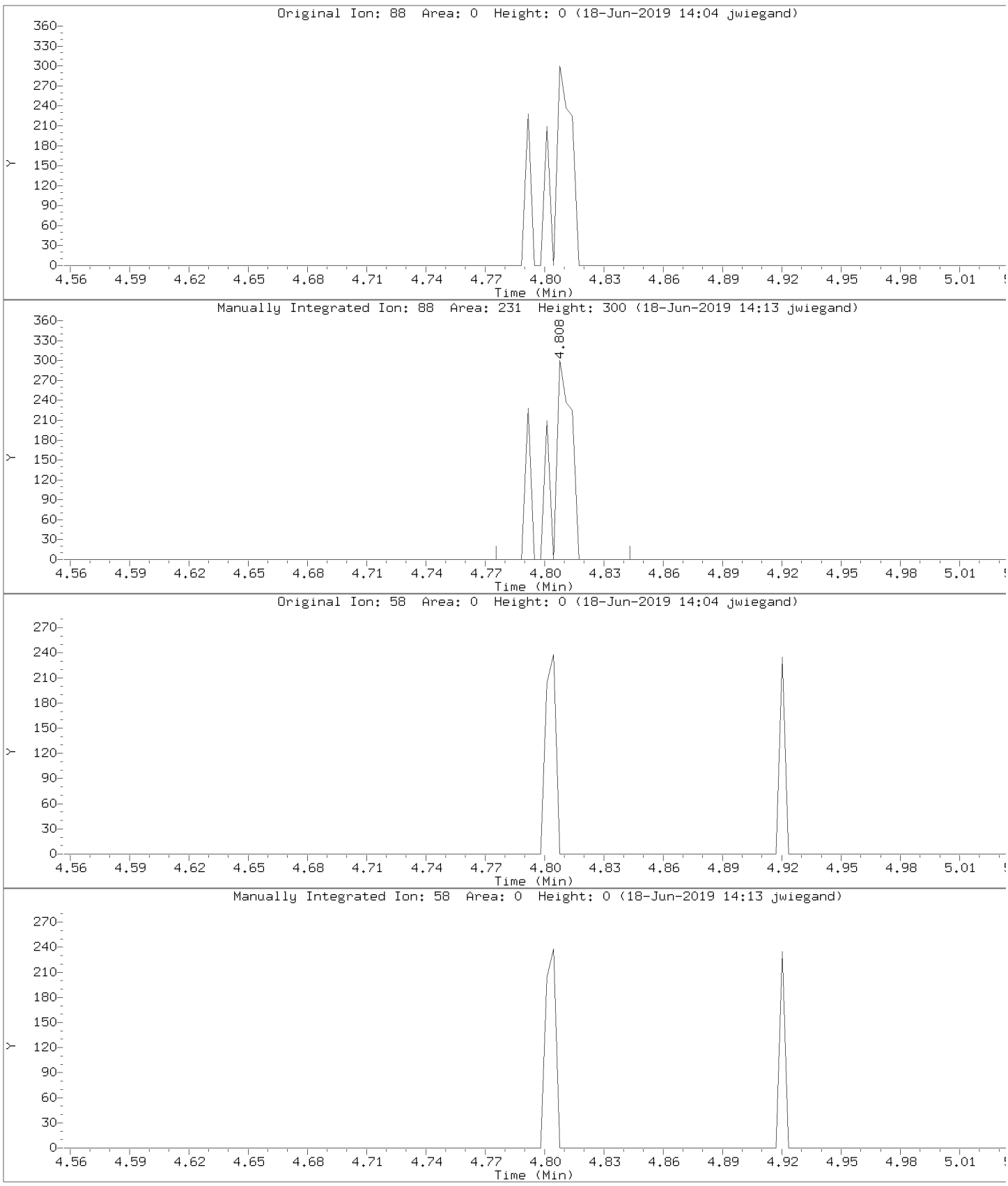
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 1,4-Dioxane (p-Dioxane) Review Code:
CAS Number: 123-91-1



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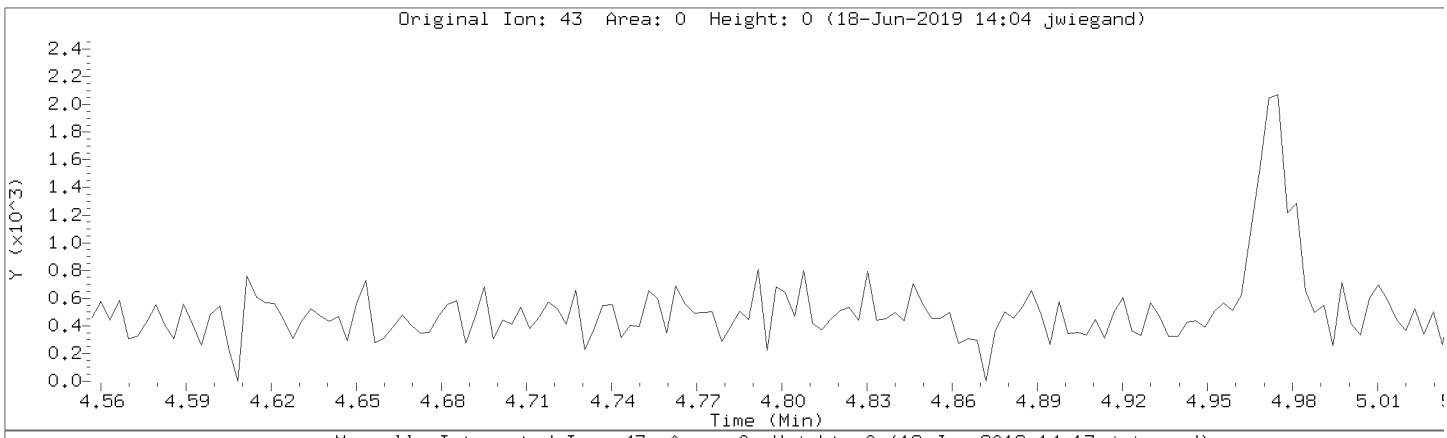
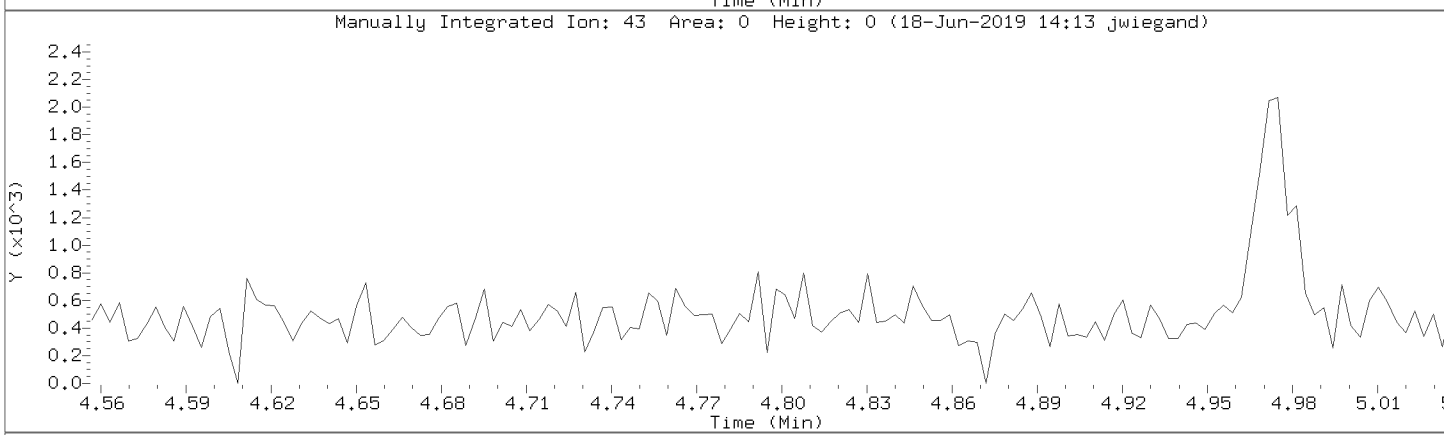
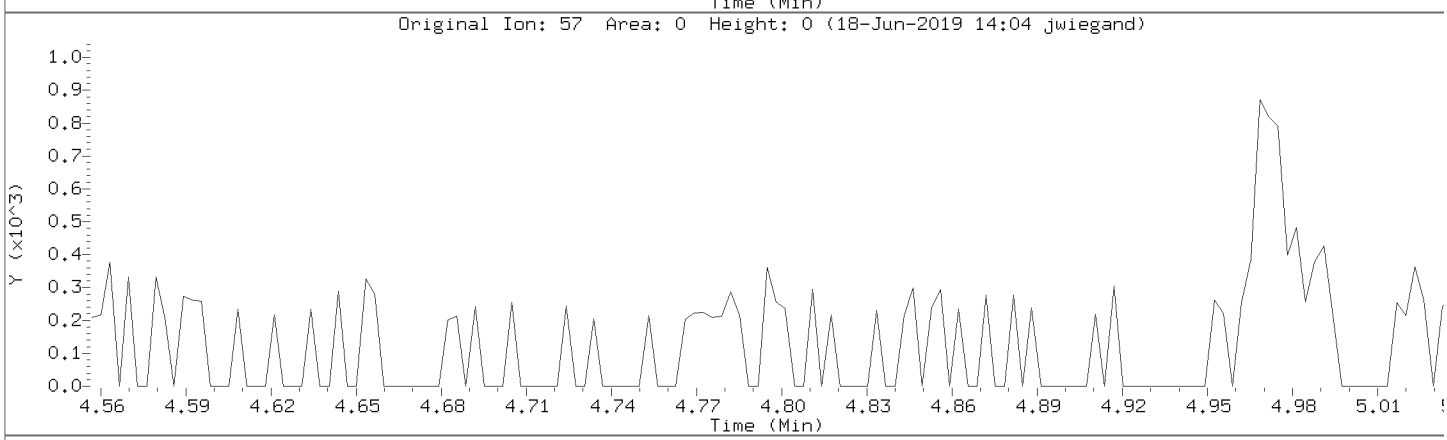
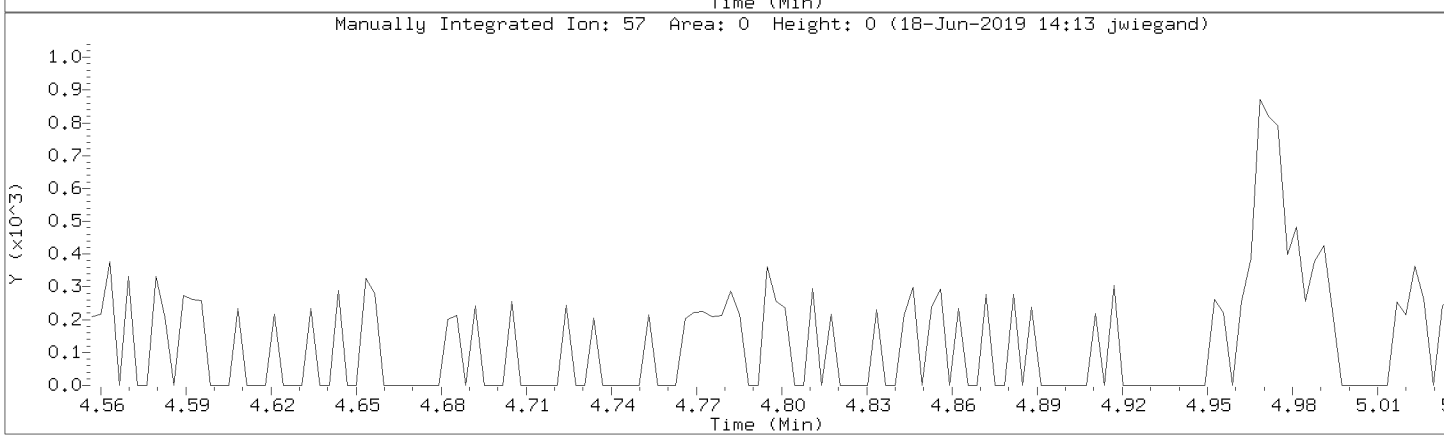
Instrument: 30mv5a.i
Lab Sample ID: CAL2









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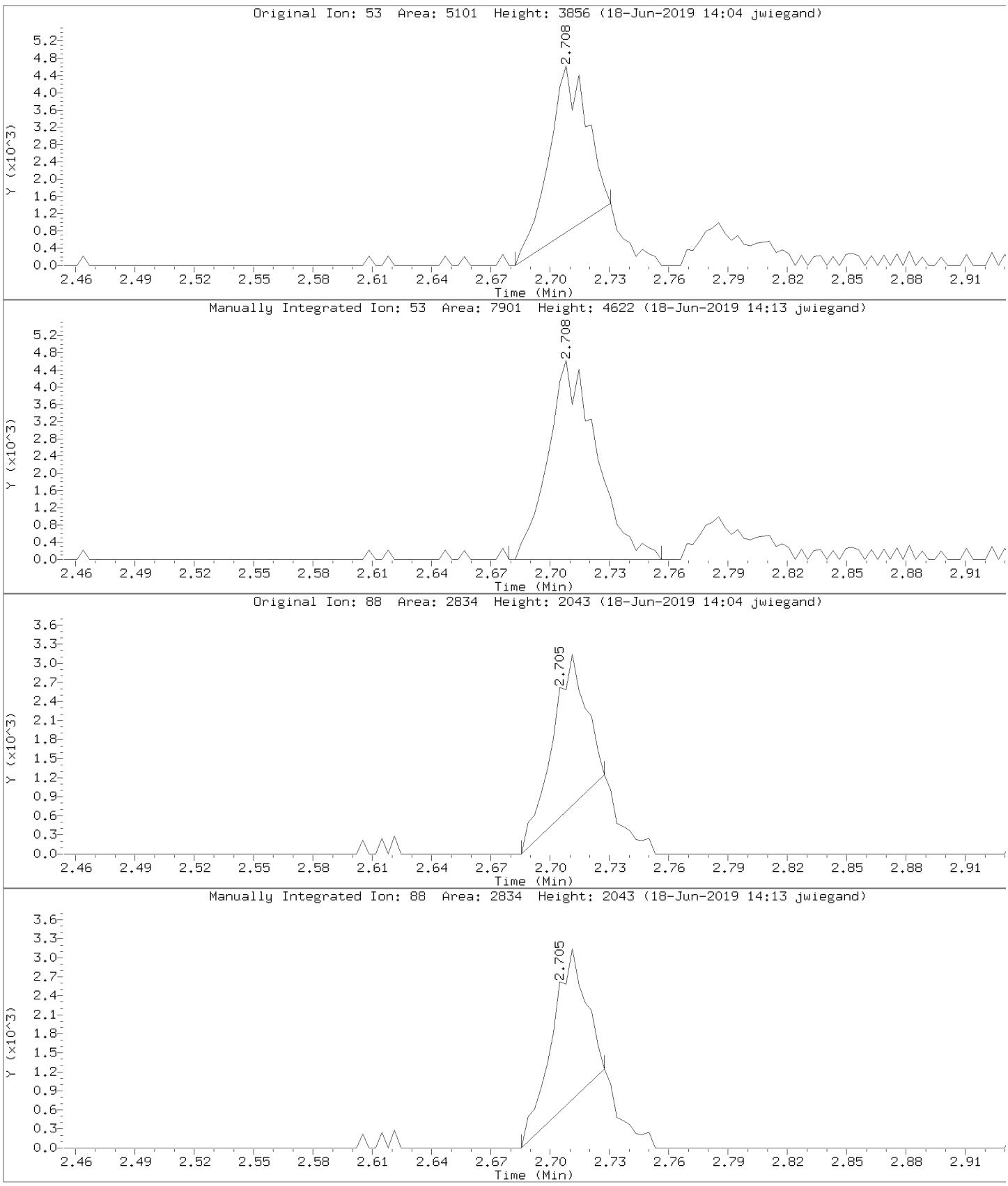
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloroprene Review Code:
CAS Number: 126-99-8



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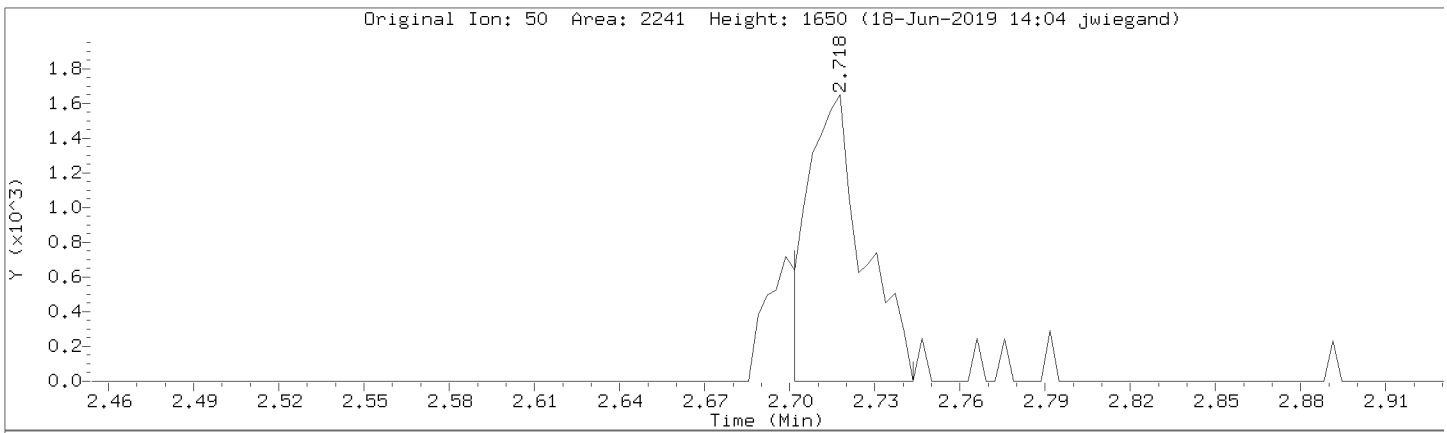
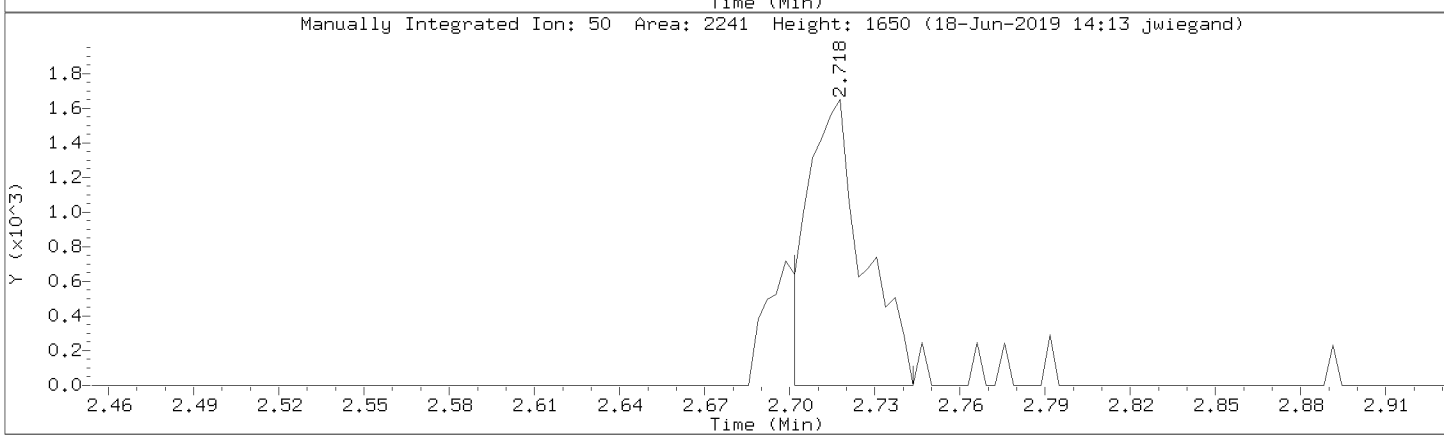
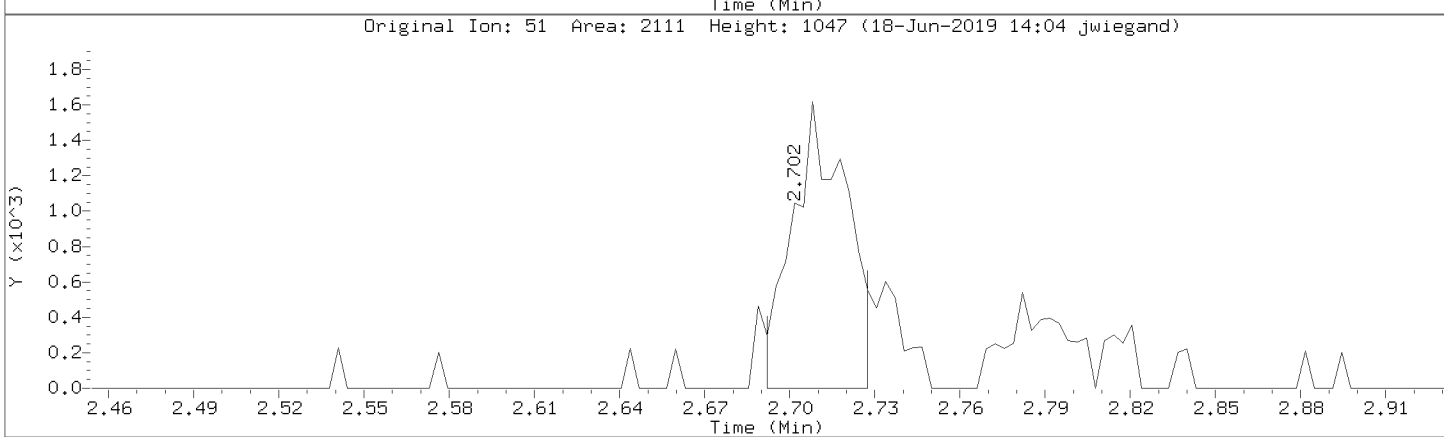
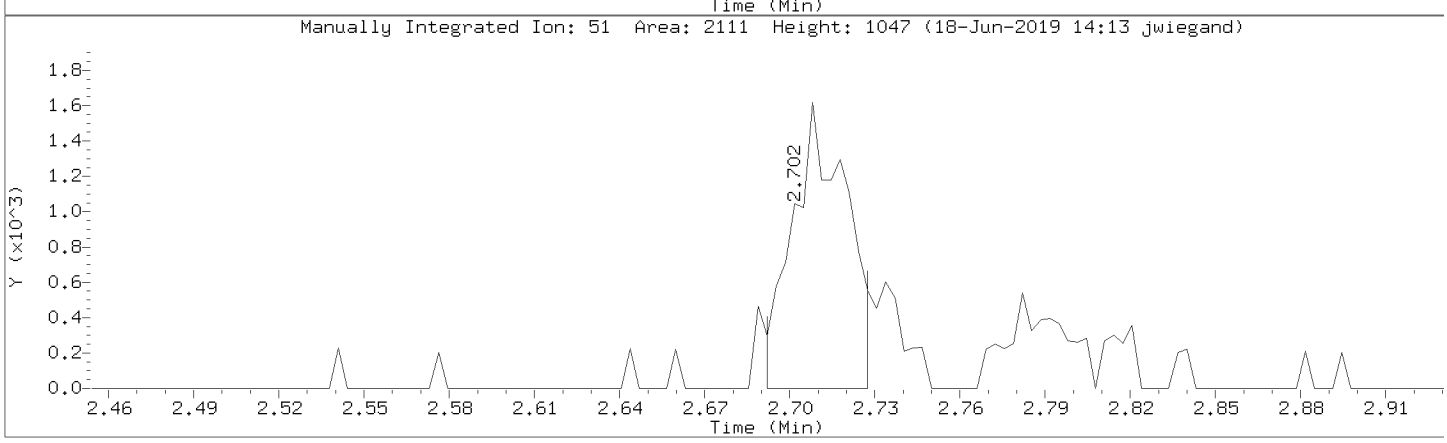
Lab Sample ID: CAL2



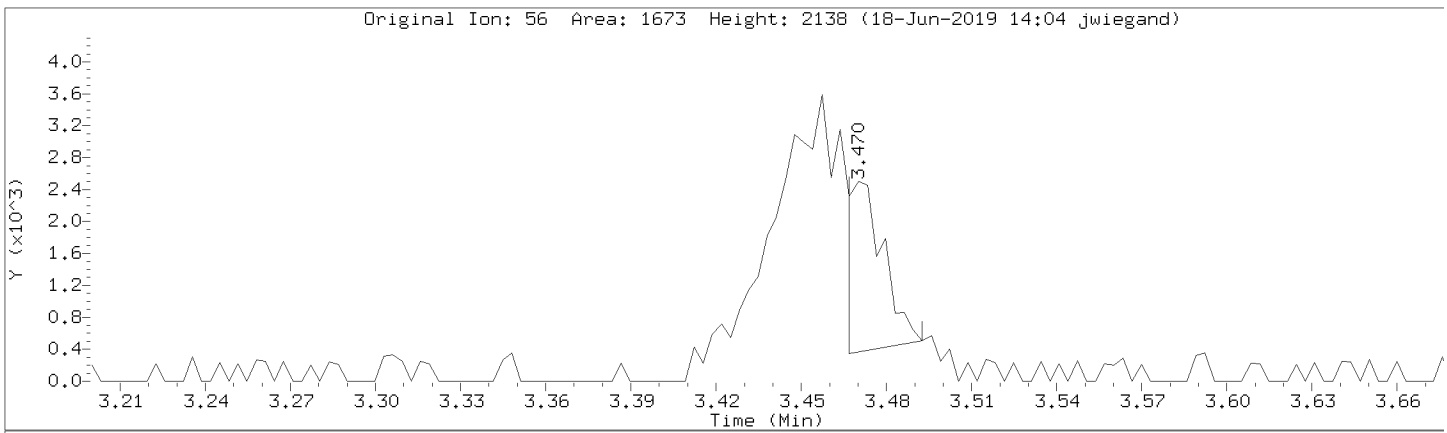


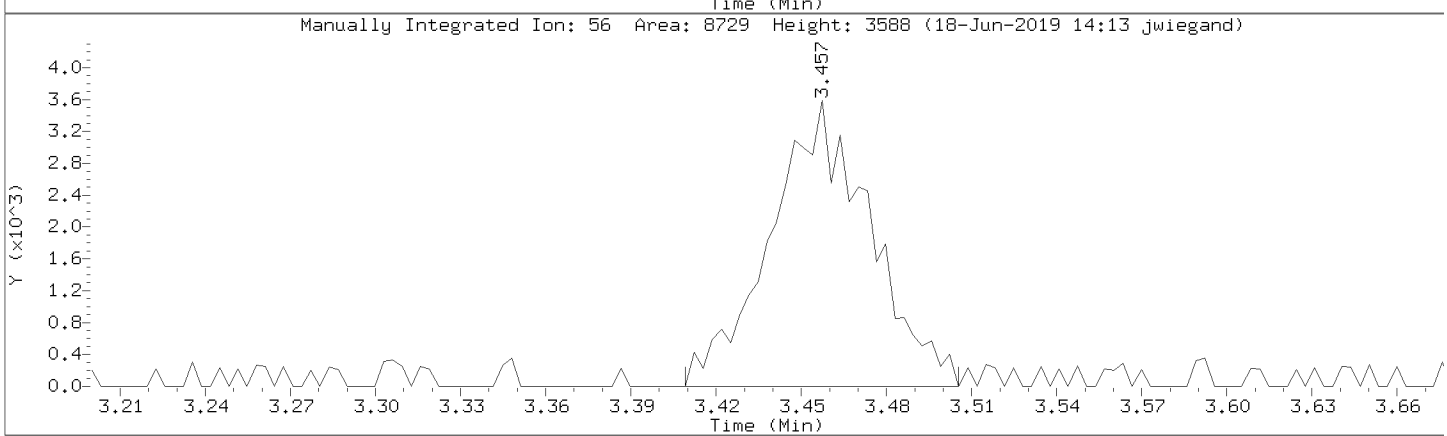


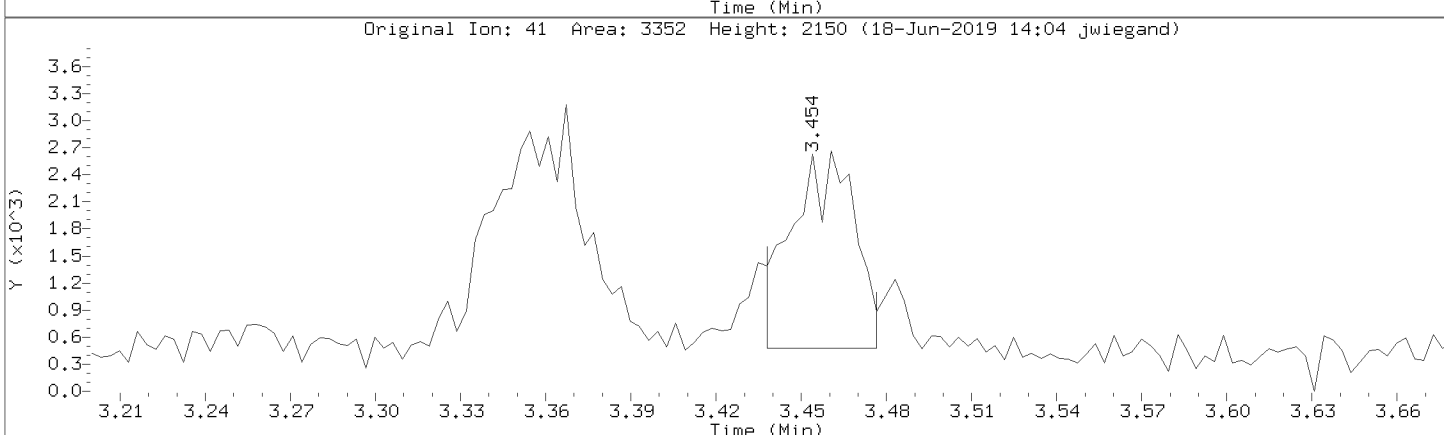


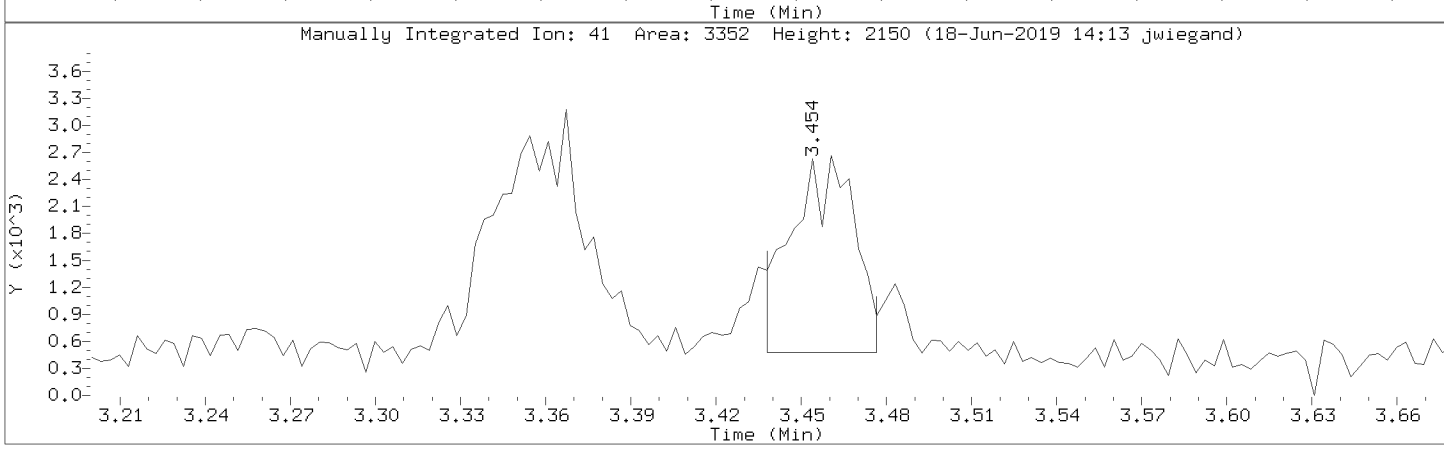
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7









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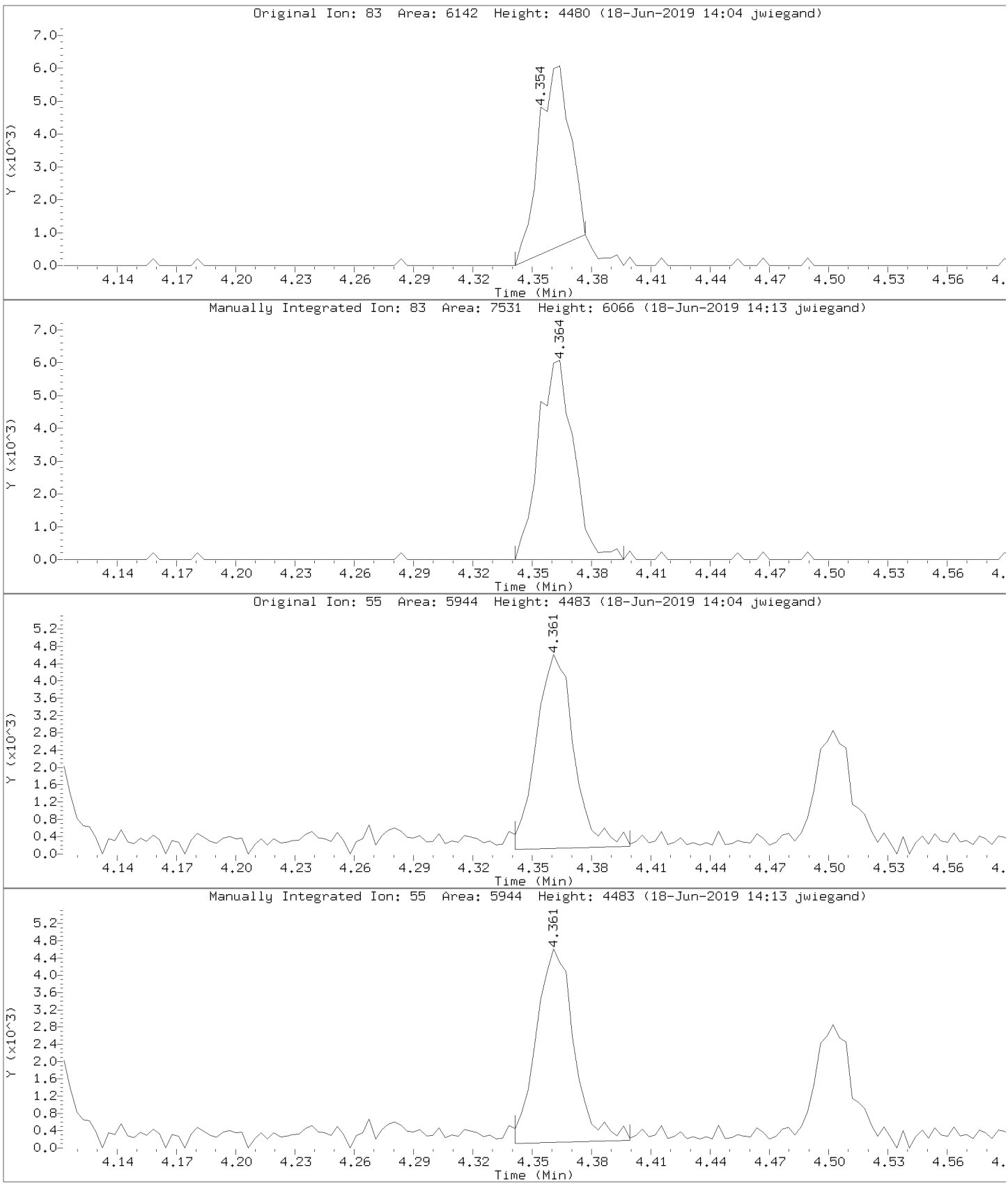
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2



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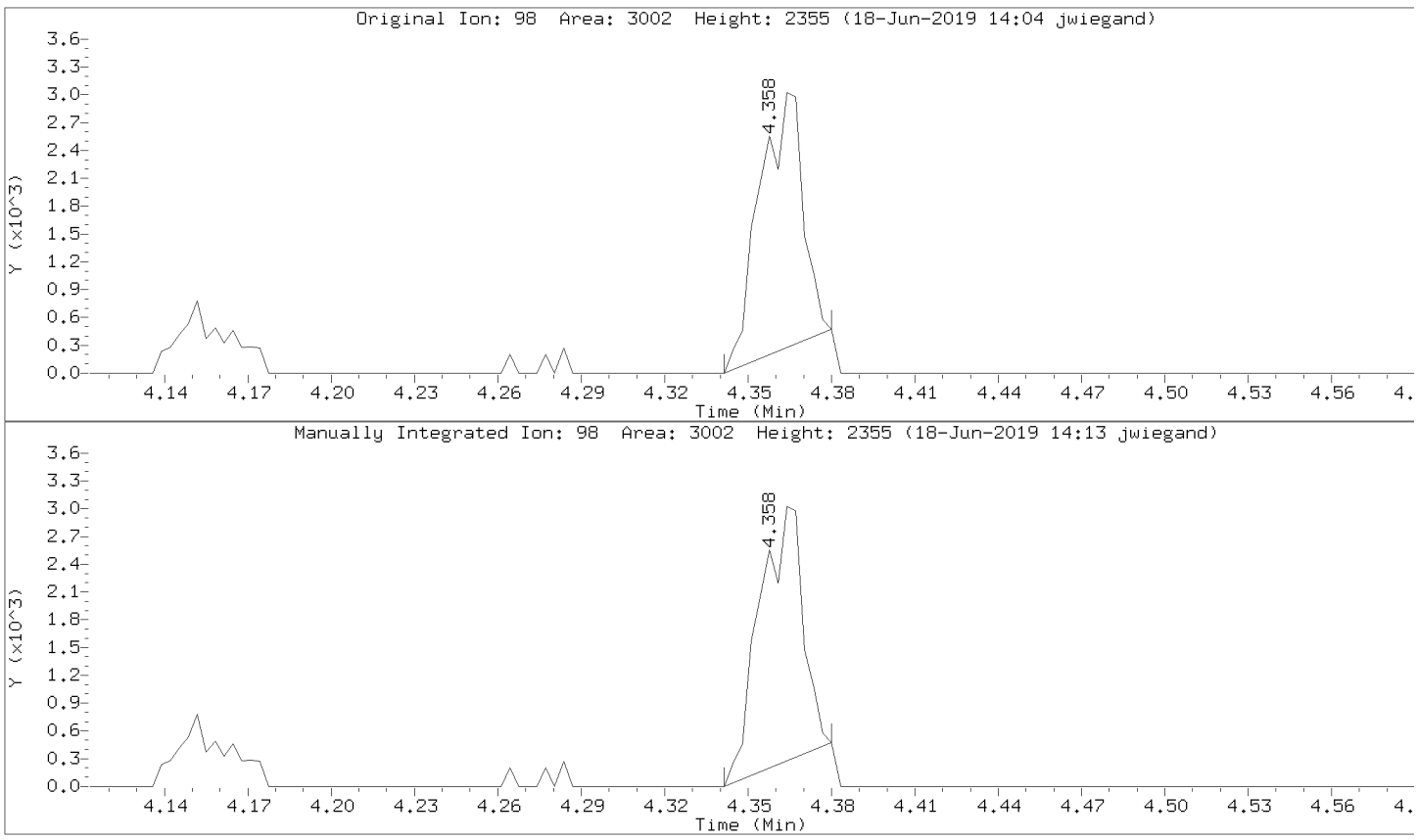
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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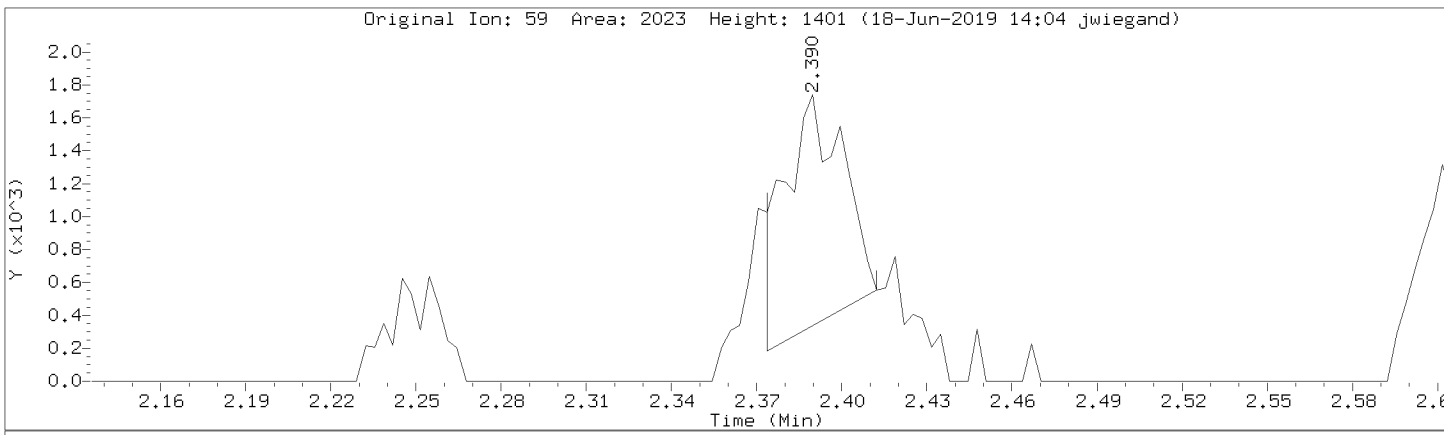
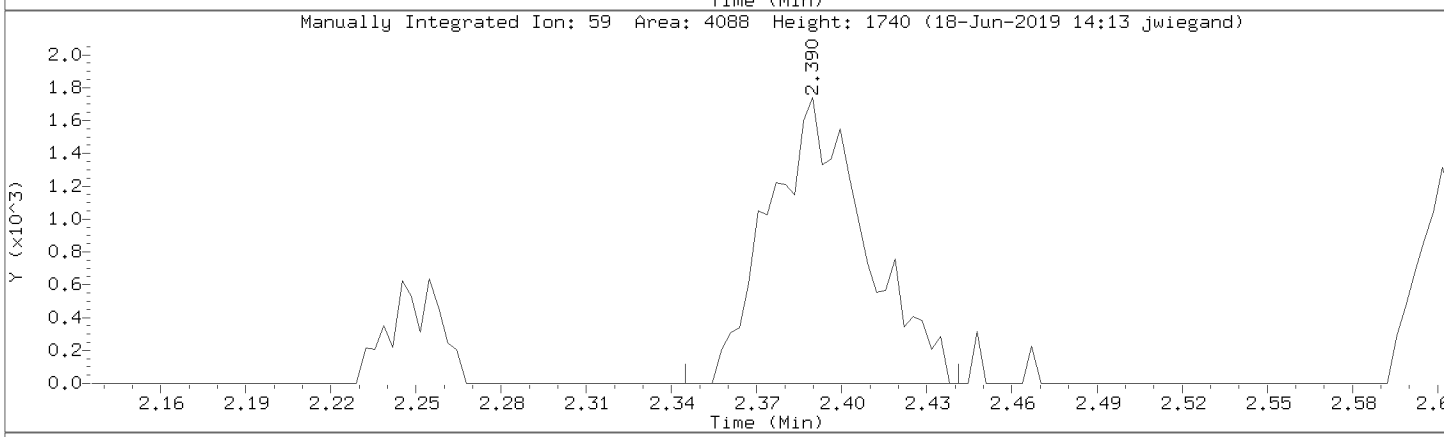
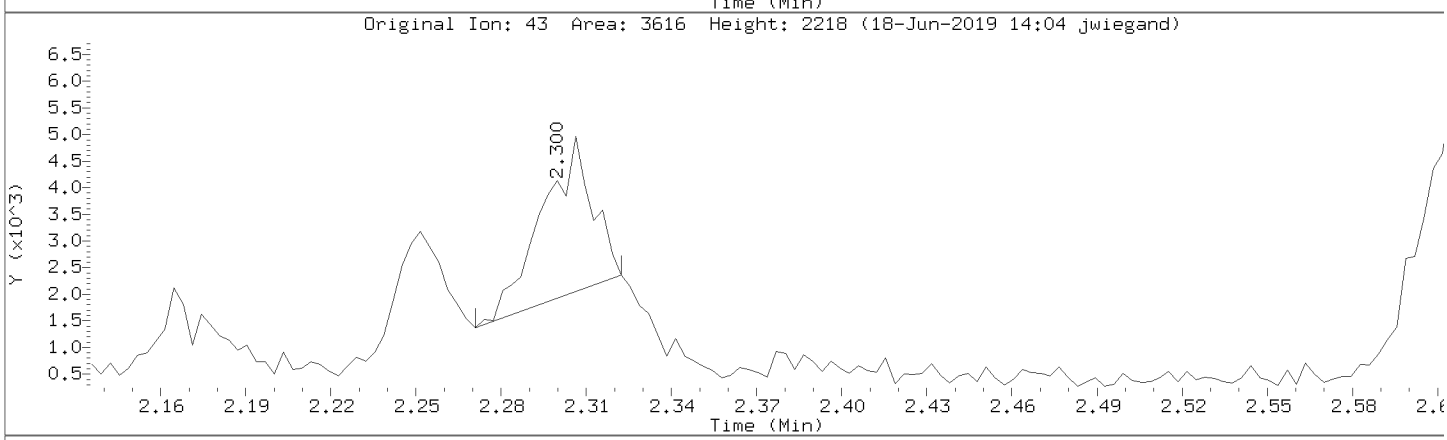
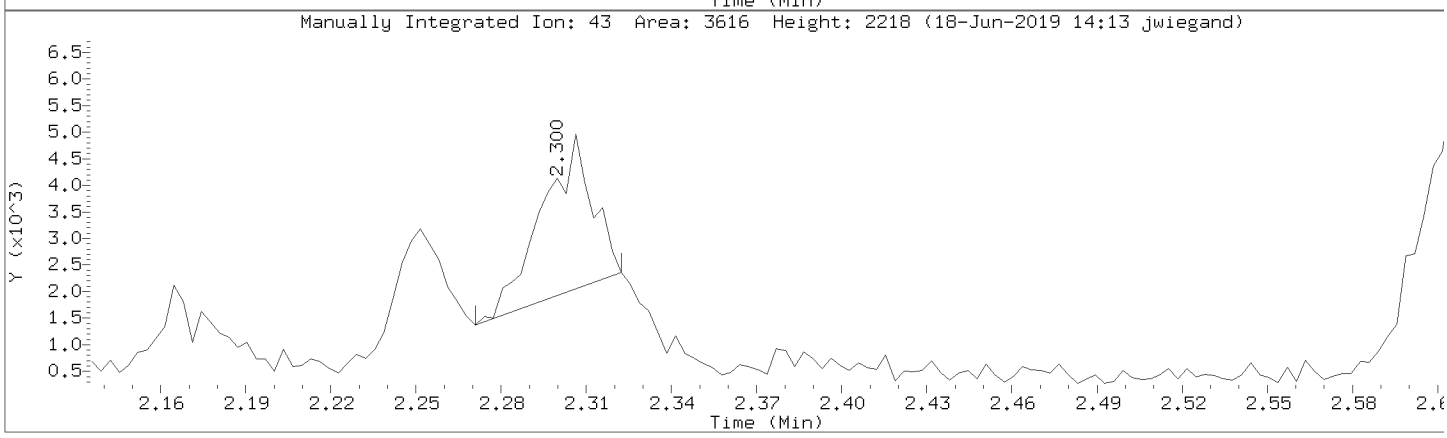
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









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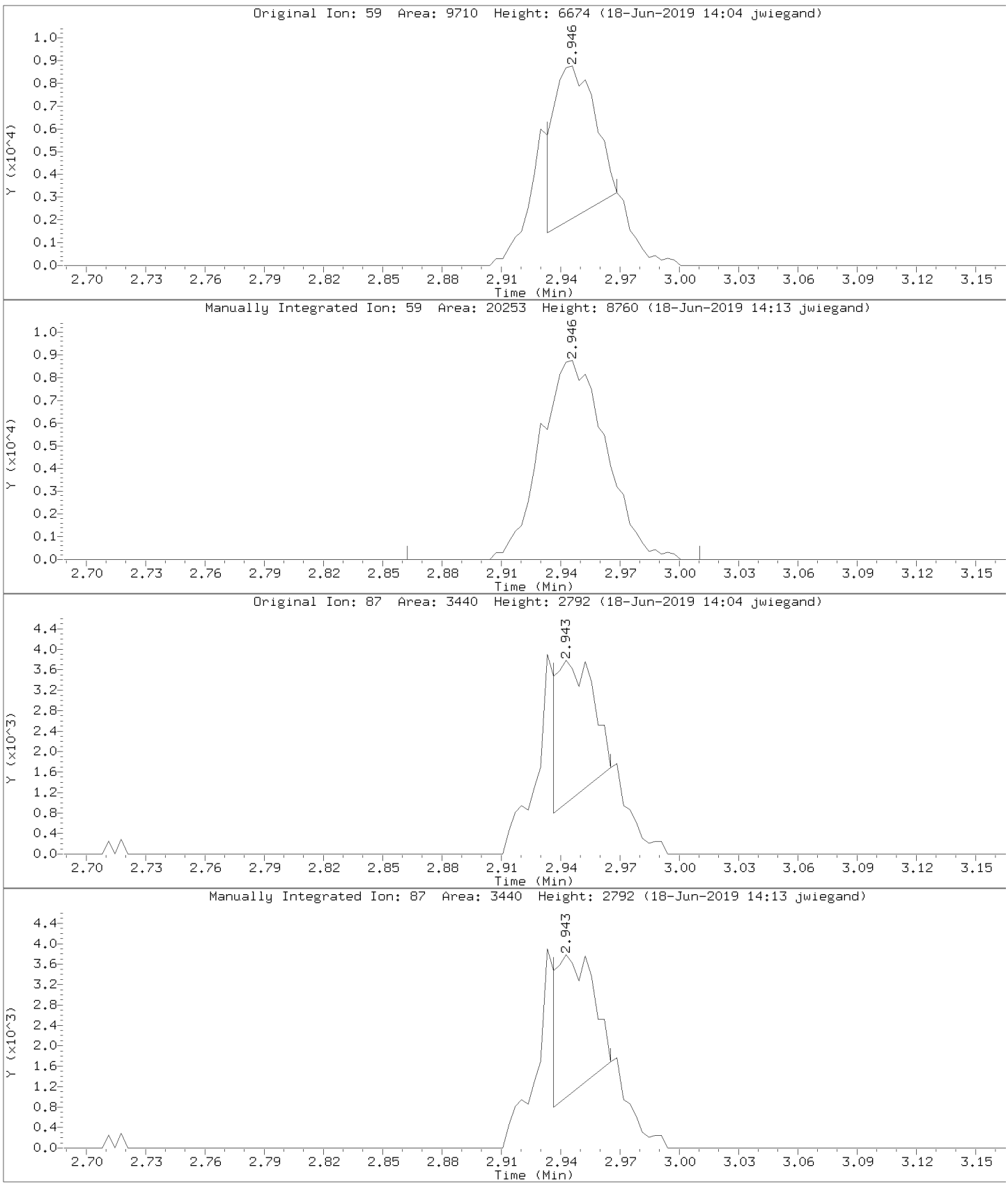
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Ethyl-tert-butyl ether Review Code: LT
CAS Number: 637-92-3



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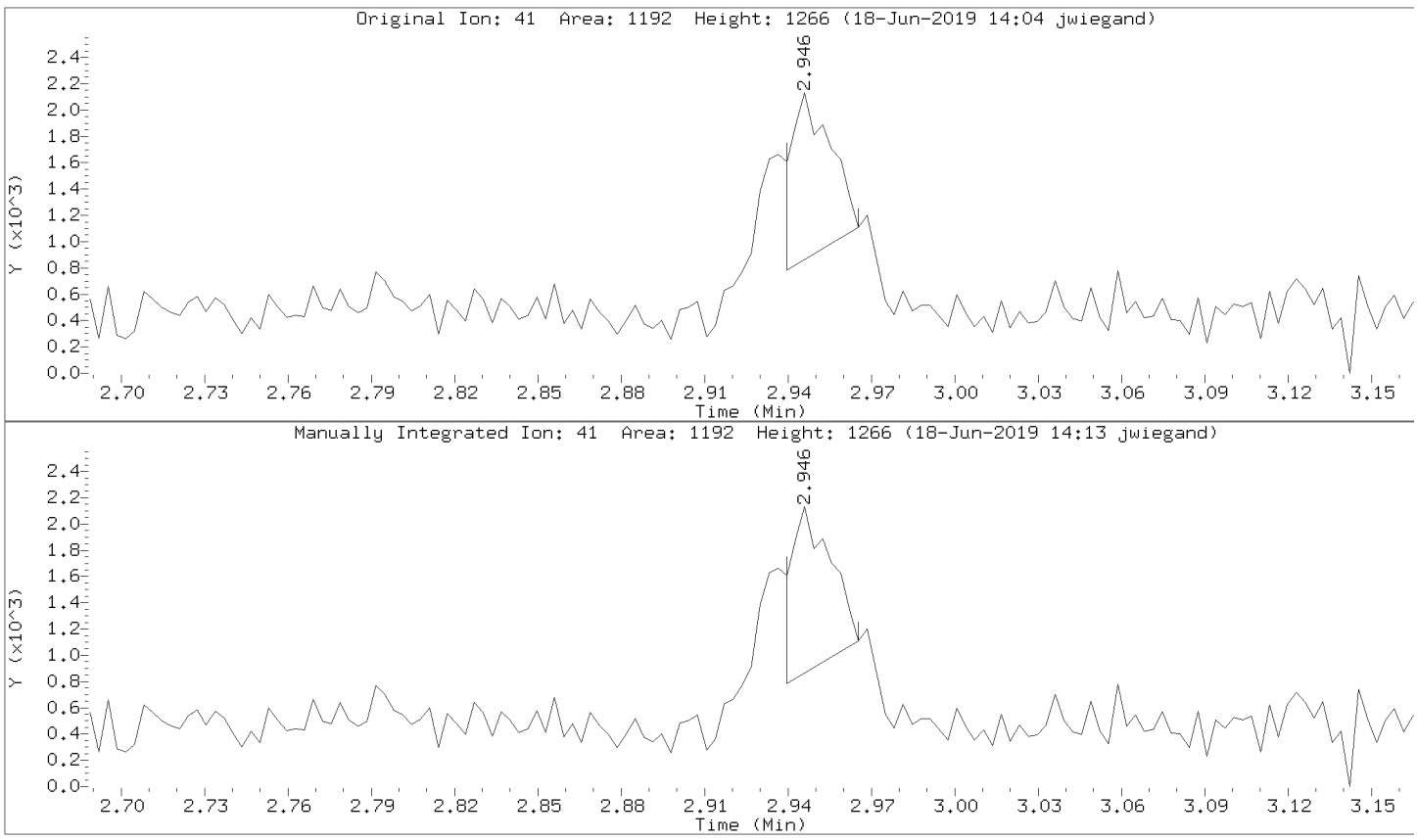
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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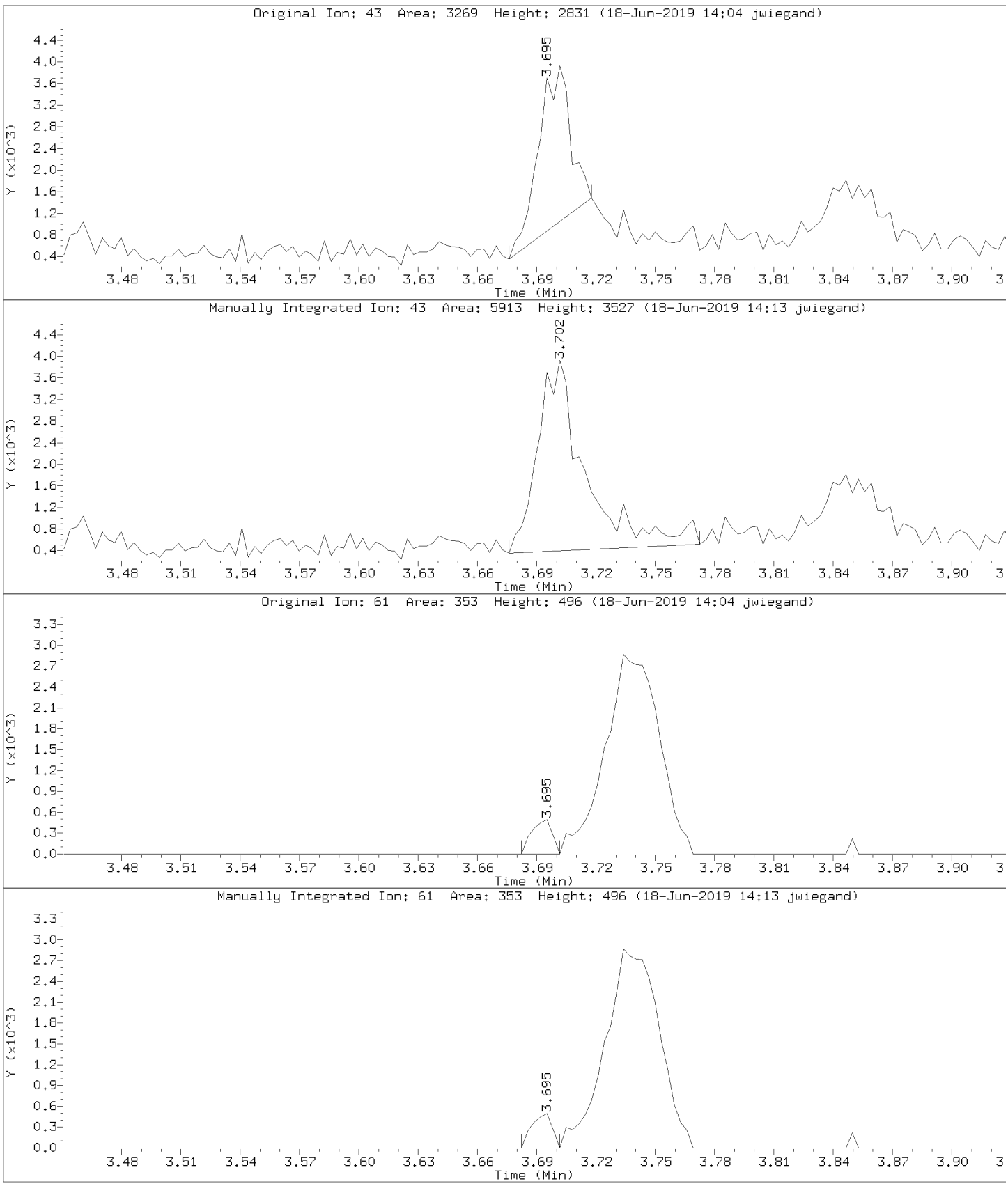
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



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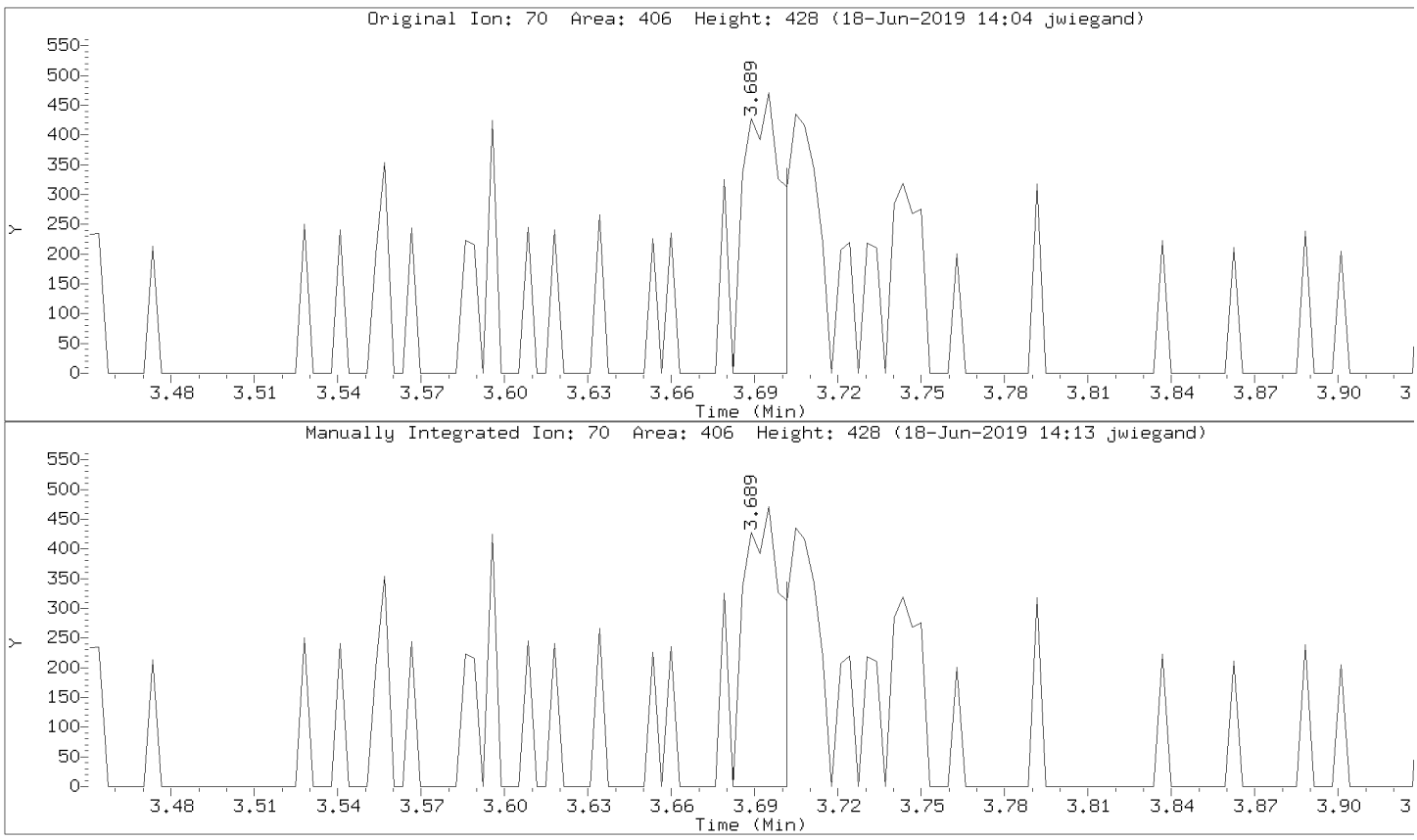
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 18-JUN-2019 10:27
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal3, 91187:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:27 Cal File: 50618009.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	13165	10.0000	10.9(QM)	LT
2 Chloromethane	50	1.138	1.142	(0.266)	10593	10.0000	11.5(M)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	16896	10.0000	11.0(M)	NI
4 Bromomethane	94	1.322	1.326	(0.309)	15314	10.0000	12.7(M)	LT
5 Chloroethane	64	1.386	1.380	(0.324)	9508	10.0000	9.73	
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	23570	10.0000	10.6	
7 Diethyl ether (Ethyl ether)	59	1.630	1.634	(0.381)	12424	10.0000	11.1	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	20065	10.0000	11.0	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	8267	10.0000	9.66(Q)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	33988	10.0000	10.7	
12 Iodomethane	142	1.849	1.856	(0.432)	2427	10.0000	5.38(M)	LT
13 Acrolein	56	1.971	1.969	(0.461)	2159	10.0000	13.5(QM)	NI
14 Allyl chloride	41	2.055	2.056	(0.481)	91532	50.0000	61.0	
15 Methylene Chloride	49	2.129	2.133	(0.498)	13987	10.0000	10.6(Q)	
16 Acetone	43	2.174	2.165	(0.508)	3986	10.0000	11.8(QM)	LT
17 trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	20674	10.0000	11.0	
18 Methyl acetate	74	2.248	2.255	(0.526)	2518	10.0000	11.2	
19 n-Hexane	86	2.293	2.297	(0.536)	2859	10.0000	9.36(Q)	
20 Methyl-tert-butyl ether	73	2.318	2.313	(0.542)	43601	10.0000	10.6(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.396	2.387	(0.560)	9407	50.0000	54.6(QM)	LT
	22 Acetonitrile	41	2.531	2.522	(0.592)	4189	50.0000	44.8(QM)	WP
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	44690	10.0000	11.3	
	24 Chloroprene	53	2.711	2.705	(0.634)	18631	10.0000	11.1(Q)	
	25 1,1-Dichloroethane	63	2.733	2.728	(0.639)	27669	10.0000	11.6(Q)	
	26 Acrylonitrile	53	2.781	2.785	(0.650)	4564	10.0000	11.9(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.949	2.940	(0.690)	44845	10.0000	10.8(QM)	LT
	28 Vinyl acetate	43	2.965	2.965	(0.693)	32451	10.0000	10.2(Q)	
	29 cis-1,2-Dichloroethene	61	3.251	3.248	(0.760)	20358	10.0000	10.7(QM)	LT
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	23965	10.0000	10.6(QM)	LT
	31 Cyclohexane	56	3.460	3.451	(0.809)	18272	10.0000	9.71(QM)	LT
	32 Bromochloromethane	130	3.460	3.467	(0.809)	9536	10.0000	11.0(QM)	LT
	33 Chloroform	83	3.556	3.554	(0.832)	29850	10.0000	10.7(Q)	
	34 Carbon tetrachloride	117	3.685	3.679	(0.862)	19454	10.0000	9.80(QM)	LT
	35 Ethyl acetate	43	3.691	3.702	(0.863)	13267	10.0000	9.99(Q)	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	6457	10.0000	11.5(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	38506	30.0000	30.5	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	24312	10.0000	10.1	
	39 2-Butanone (MEK)	43	3.839	3.866	(0.898)	6070	10.0000	9.82(Q)	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.898)	19874	10.0000	9.93	
	41 Benzene	78	4.016	4.019	(0.939)	57334	10.0000	9.99	
	42 Propionitrile	54	4.052	4.049	(0.947)	1557	10.0000	10.8(QM)	LT
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	7531	10.0000	9.70(Q)	
	44 tert-Amylmethyl ether	73	4.106	4.107	(0.960)	42488	10.0000	10.1(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	40085	30.0000	29.4	
	46 Isobutanol	43	4.193	4.099	(0.980)	3115	50.0000	56.2(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	19977	10.0000	9.84	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	144432	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	17062	10.0000	8.44	
	50 Trichloroethene	95	4.373	4.374	(0.759)	15597	10.0000	10.3	
	51 Dibromomethane	174	4.598	4.599	(1.075)	9974	10.0000	10.3	
	52 1,2-Dichloropropane	63	4.650	4.647	(1.087)	14114	10.0000	10.1	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	19729	10.0000	10.1	
	54 Methyl methacrylate	69	4.772	4.776	(1.116)	10167	10.0000	9.81	
	55 1,4-Dioxane (p-Dioxane)	88	4.807	4.808	(1.124)	756	100.000	84.0(QM)	NI
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	5371	10.0000	10.1	
	57 cis-1,3-Dichloropropene	75	5.000	5.001	(1.169)	24484	10.0000	10.4	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	133902	30.0000	30.7	
	59 Toluene	91	5.109	5.110	(0.886)	58918	10.0000	10.2	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	23750	50.0000	51.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.284	(1.235)	14043	10.0000	10.0	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	13623	10.0000	9.29	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	21980	10.0000	10.1	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	11283	10.0000	9.79	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	13544	10.0000	10.4	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	15540	10.0000	10.3	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	21090	10.0000	10.1	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	13351	10.0000	10.2	
	69 2-Hexanone	43	5.643	5.644	(0.979)	10082	10.0000	10.3	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	19723	10.0000	9.81	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	101652	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	38629	10.0000	9.99	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	14813	10.0000	10.1	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	47949	20.0000	19.8	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.043)	24254	10.0000	10.1	
	76 Styrene	104	6.035	6.036	(1.047)	38744	10.0000	9.85	
	77 Bromoform	173	6.055	6.059	(0.902)	10086	10.0000	9.73	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	54797	10.0000	9.70	
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	39144	30.0000	30.9	
	80 n-Propylbenzene	91	6.305	6.306	(0.940)	61226	10.0000	9.46	
	81 Bromobenzene	77	6.305	6.309	(0.940)	26324	10.0000	10.2	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	18421	10.0000	10.7	
	83 1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	45387	10.0000	9.98	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	14866	10.0000	10.5	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	5183	10.0000	10.3	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	4100	10.0000	9.92(Q)	
	87 Cyclohexanone	55	6.421	6.422	(0.957)	4685	50.0000	58.2	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	14365	10.0000	10.1	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	35295	10.0000	9.40	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	44243	10.0000	9.80	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	49010	10.0000	9.18	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.988)	41339	10.0000	9.20	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	24426	10.0000	9.68	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	43455	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	24970	10.0000	9.90	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	35444	10.0000	9.13	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	24233	10.0000	10.2	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	43454	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	2576	10.0000	9.12	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	12951	10.0000	9.43	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	5347	10.0000	8.66	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	10753	10.0000	9.44	
	102 Naphthalene	128	7.617	7.618	(1.135)	26941	10.0000	9.19	
	103 1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	9812	10.0000	9.48	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	7411	10.0000	6.55	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618009.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	144432	0.52
71 Chlorobenzene-d5	102704	51352	205408	101652	-1.02
94 1,4-Dichlorobenze	44519	22260	89038	43455	-2.39

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	10.9	
74-87-3	Chloromethane	11.5	
75-01-4	Vinyl chloride	11.0	
74-83-9	Bromomethane	12.7	
75-00-3	Chloroethane	9.73	
75-69-4	Trichlorofluoromethane	10.6	
60-29-7	Diethyl ether (Ethyl ether)	11.1	
75-35-4	1,1-Dichloroethene	11.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	9.66	
75-15-0	Carbon disulfide	10.7	
74-88-4	Iodomethane	5.38	
107-02-8	Acrolein	13.5	
107-05-1	Allyl chloride	61.0	
75-09-2	Methylene Chloride	10.6	
67-64-1	Acetone	11.8	
156-60-5	trans-1,2-Dichloroethene	11.0	
79-20-9	Methyl acetate	11.2	
110-54-3	n-Hexane	9.36	
1634-04-4	Methyl-tert-butyl ether	10.6	
75-65-0	tert-Butyl Alcohol	54.6	
75-05-8	Acetonitrile	44.8	
108-20-3	Diisopropyl ether	11.3	
126-99-8	Chloroprene	11.1	
75-34-3	1,1-Dichloroethane	11.6	
107-13-1	Acrylonitrile	11.9	
637-92-3	Ethyl-tert-butyl ether	10.8	
108-05-4	Vinyl acetate	10.2	
156-59-2	cis-1,2-Dichloroethene	10.7	
594-20-7	2,2-Dichloropropane	10.6	
110-82-7	Cyclohexane	9.71	
74-97-5	Bromochloromethane	11.0	
67-66-3	Chloroform	10.7	
56-23-5	Carbon tetrachloride	9.80	
141-78-6	Ethyl acetate	9.99	
109-99-9	Tetrahydrofuran	11.5	
71-55-6	1,1,1-Trichloroethane	10.1	
78-93-3	2-Butanone (MEK)	9.82	
563-58-6	1,1-Dichloropropene	9.93	
71-43-2	Benzene	9.99	
107-12-0	Propionitrile	10.8	
126-98-7	Methacrylonitrile	9.70	
994-05-8	tert-Amylmethyl ether	10.1	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	56.2	
107-06-2	1,2-Dichloroethane	9.84	
108-87-2	Methylcyclohexane	8.44	
79-01-6	Trichloroethene	10.3	
74-95-3	Dibromomethane	10.3	
78-87-5	1,2-Dichloropropane	10.1	
75-27-4	Bromodichloromethane	10.1	
80-62-6	Methyl methacrylate	9.81	
123-91-1	1,4-Dioxane (p-Dioxane)	84.0	
110-75-8	2-Chloroethylvinyl ether	10.1	
10061-01-5	cis-1,3-Dichloropropene	10.4	
108-88-3	Toluene	10.2	
79-46-9	2-Nitropropane	51.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.0	
127-18-4	Tetrachloroethene	9.29	
10061-02-6	trans-1,3-Dichloropropene	10.1	
97-63-2	Ethyl methacrylate	9.79	
79-00-5	1,1,2-Trichloroethane	10.4	
124-48-1	Dibromochloromethane	10.3	
142-28-9	1,3-Dichloropropane	10.1	
106-93-4	1,2-Dibromoethane (EDB)	10.2	
591-78-6	2-Hexanone	10.3	
100-41-4	Ethylbenzene	9.81	
108-90-7	Chlorobenzene	9.99	
630-20-6	1,1,1,2-Tetrachloroethane	10.1	
7816-60-0	m&p-Xylene	19.8	
95-47-6	o-Xylene	10.1	
100-42-5	Styrene	9.85	
75-25-2	Bromoform	9.73	
98-82-8	Isopropylbenzene (Cumene)	9.70	
103-65-1	n-Propylbenzene	9.46	
108-86-1	Bromobenzene	10.2	
79-34-5	1,1,2,2-Tetrachloroethane	10.7	
108-67-8	1,3,5-Trimethylbenzene	9.98	
95-49-8	2-Chlorotoluene	10.5	
96-18-4	1,2,3-Trichloropropane	10.3	
110-57-6	trans-1,4-Dichloro-2-butene	9.92	
108-94-1	Cyclohexanone	58.2	
106-43-4	4-Chlorotoluene	10.1	
98-06-6	tert-Butylbenzene	9.40	
95-63-6	1,2,4-Trimethylbenzene	9.80	
135-98-8	sec-Butylbenzene	9.18	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

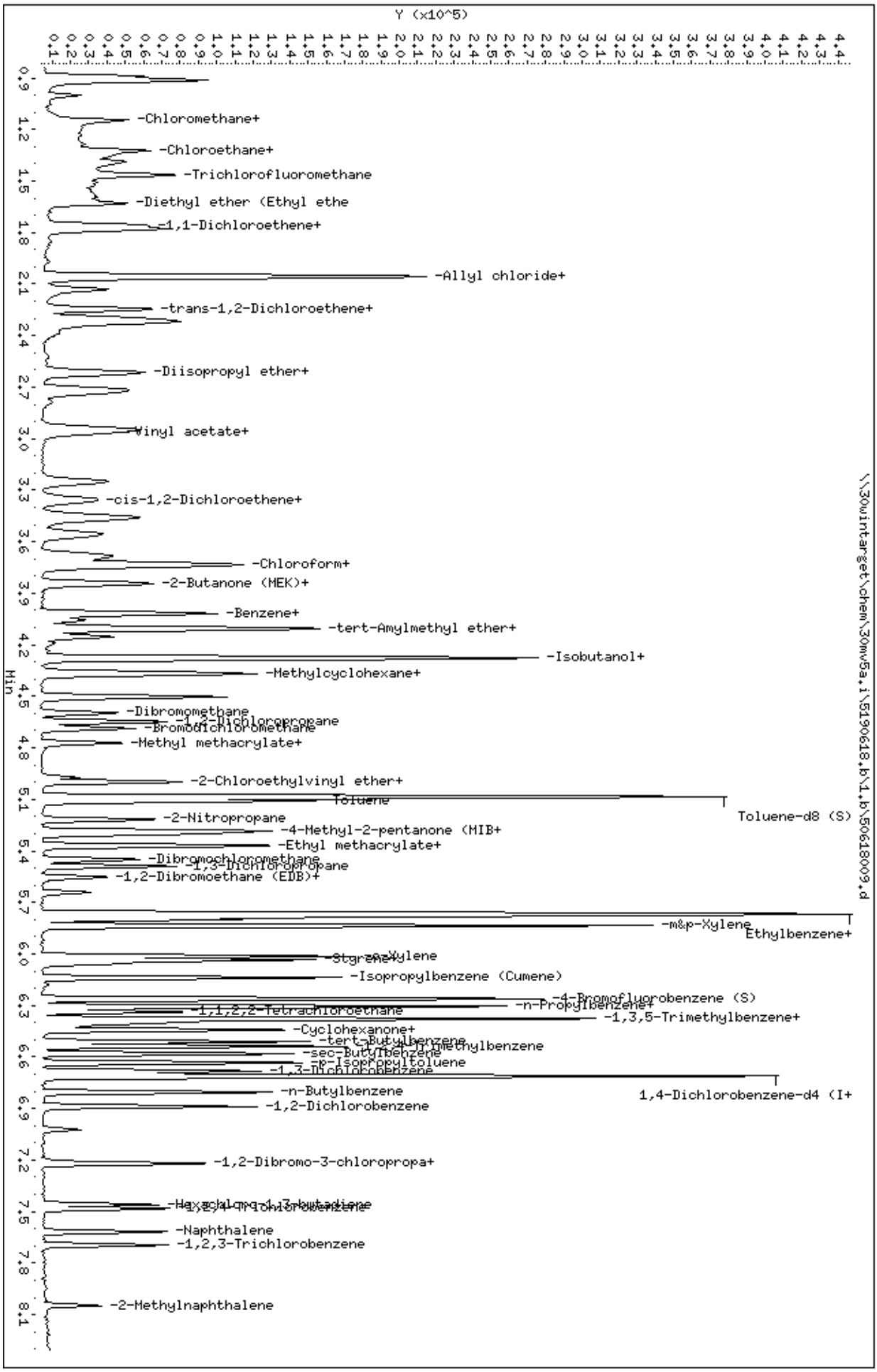
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	9.20	
541-73-1	1,3-Dichlorobenzene	9.68	
106-46-7	1,4-Dichlorobenzene	9.90	
104-51-8	n-Butylbenzene	9.13	
95-50-1	1,2-Dichlorobenzene	10.2	
96-12-8	1,2-Dibromo-3-chloropropane	9.12	
108-70-3	1,3,5-Trichlorobenzene	9.43	
87-68-3	Hexachloro-1,3-butadiene	8.66	
120-82-1	1,2,4-Trichlorobenzene	9.44	
91-20-3	Naphthalene	9.19	
87-61-6	1,2,3-Trichlorobenzene	9.48	
91-57-6	2-Methylnaphthalene	6.55	
1868-53-7	Dibromofluoromethane (S)	30.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.4	
2037-26-5	Toluene-d8 (S)	30.7	
460-00-4	4-Bromofluorobenzene (S)	30.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 18-JUN-2019 10:27
Client ID: CAL3
Sample Info: CAL3, 91187:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Y (x10^5)
Min
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Allyl chloride+
-trans-1,2-Dichloroethene+
-Diisopropyl ether+
-Vinyl acetate+
-cis-1,2-Dichloroethene+
-Chloroform+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether+
Toluene
Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)+
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618009.d
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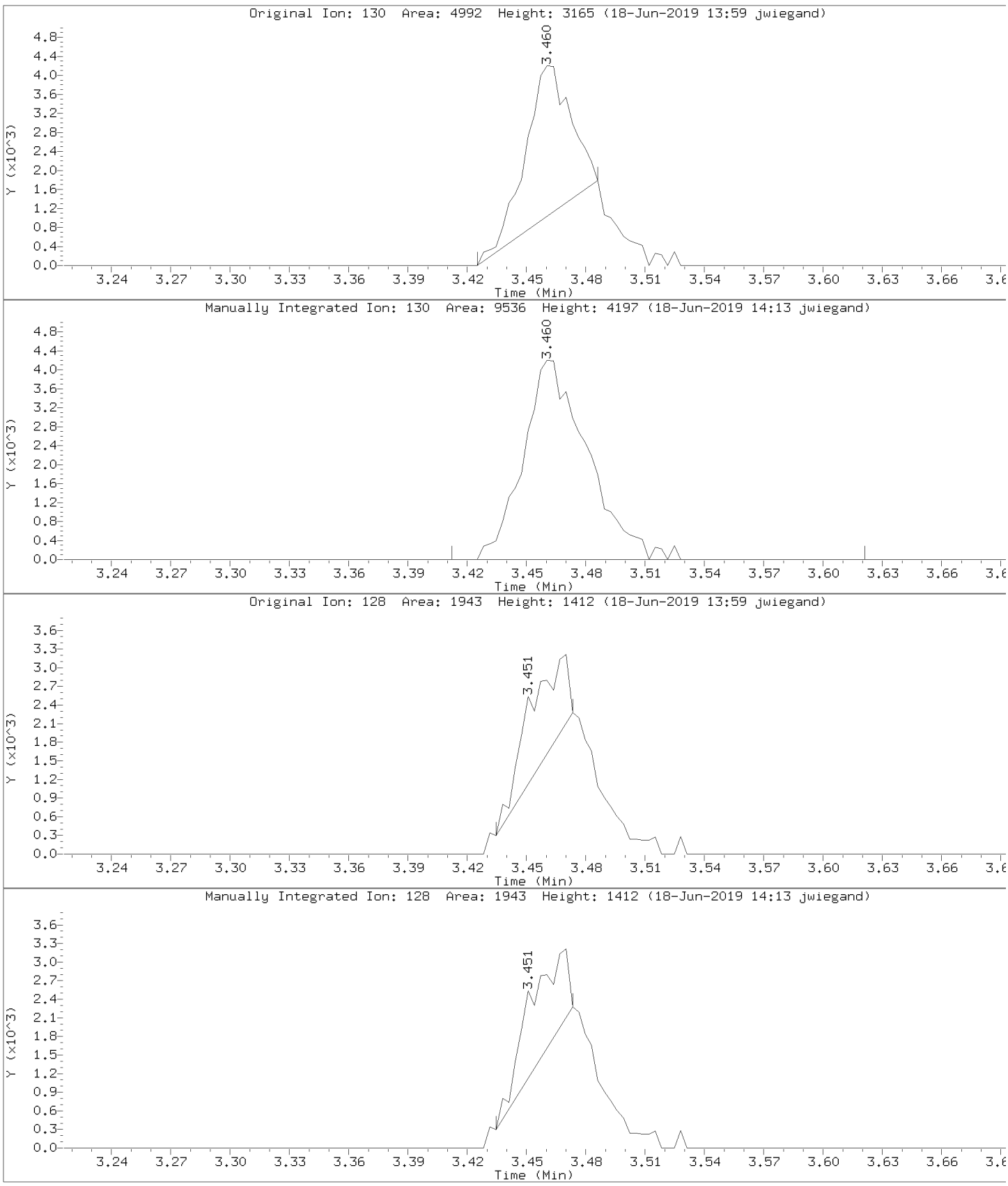
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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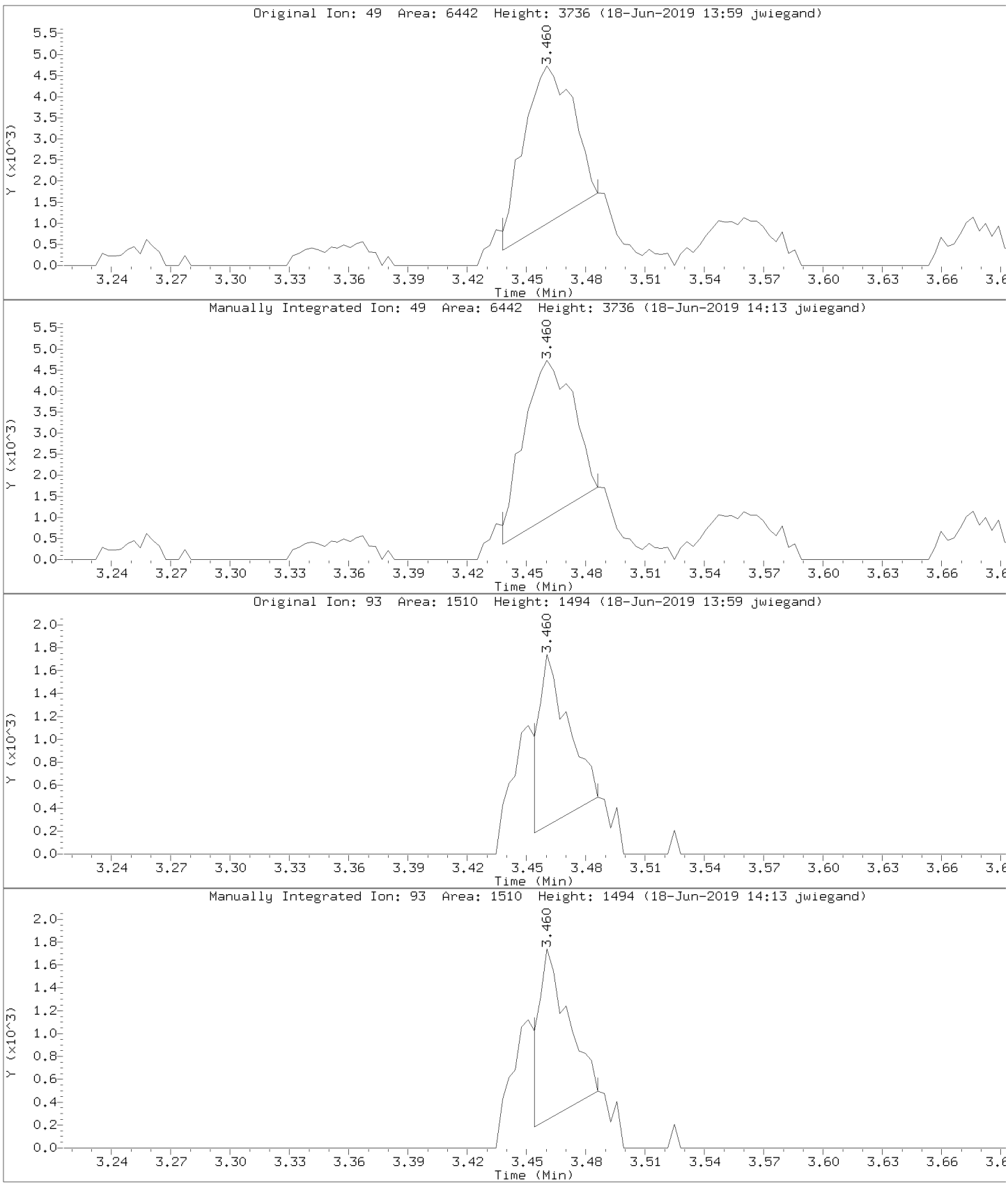
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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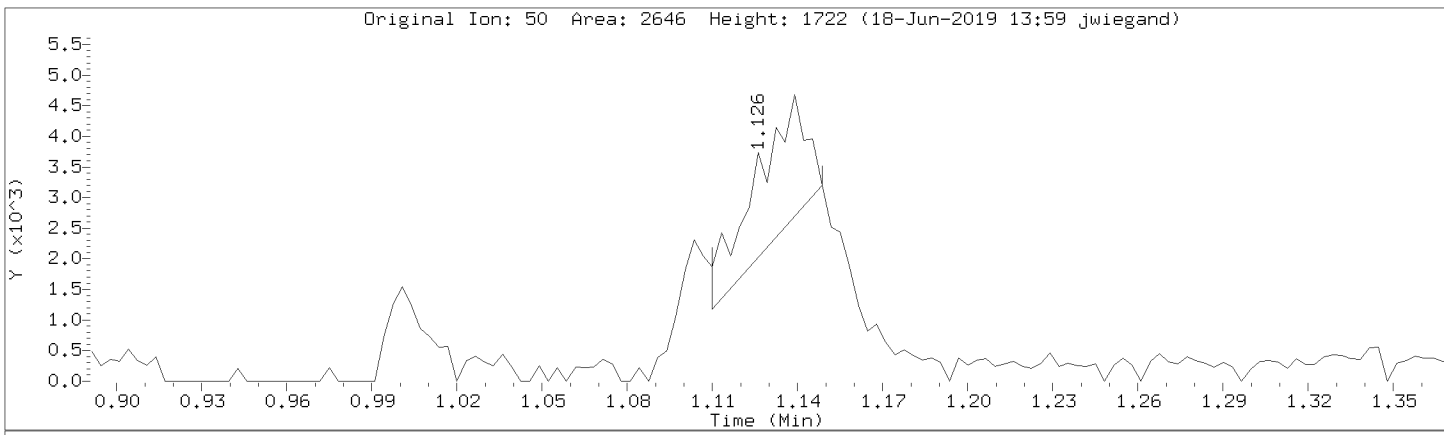
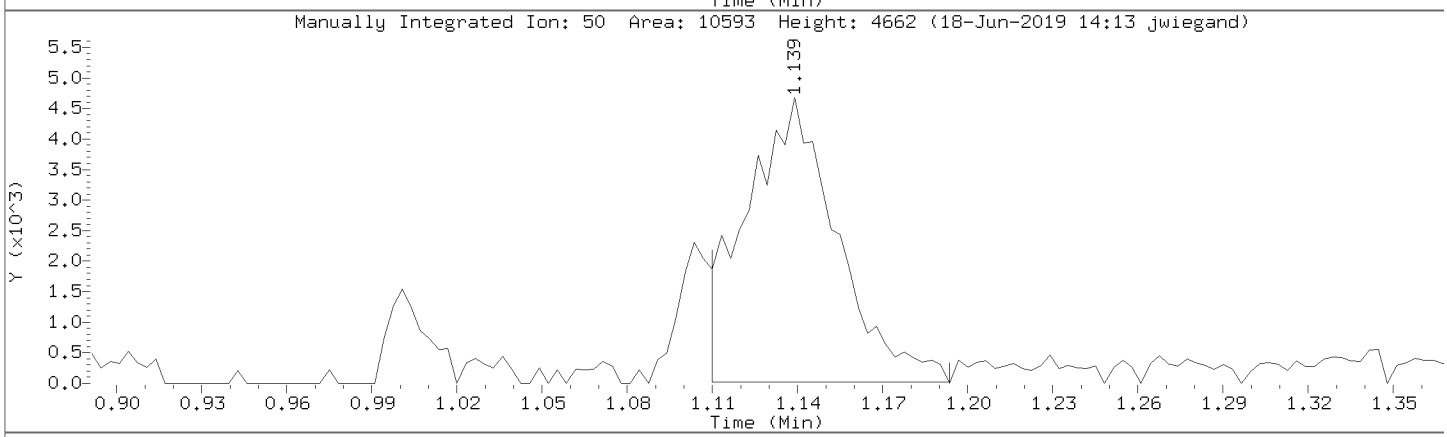
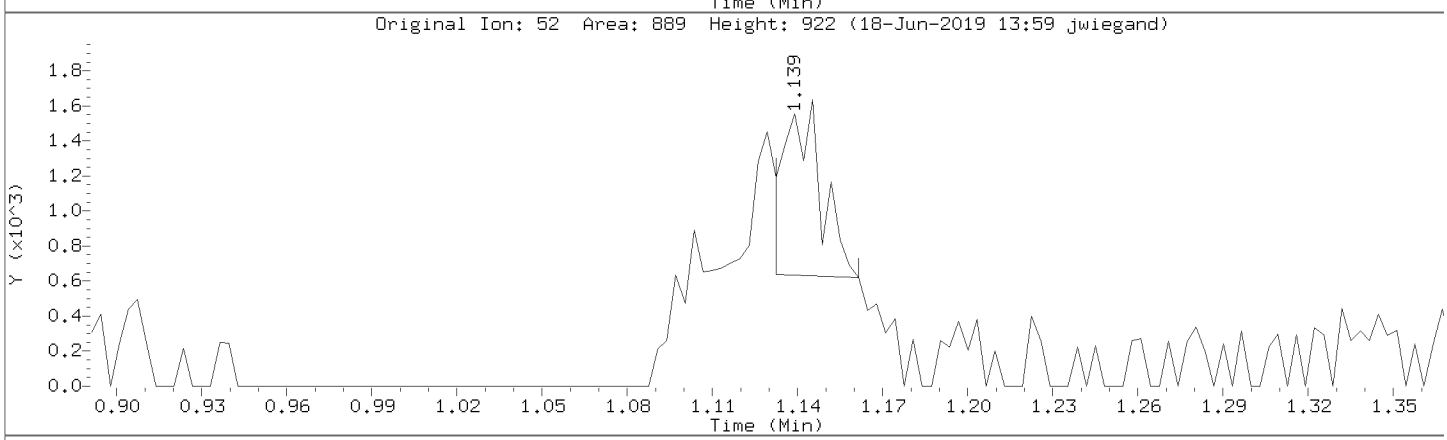
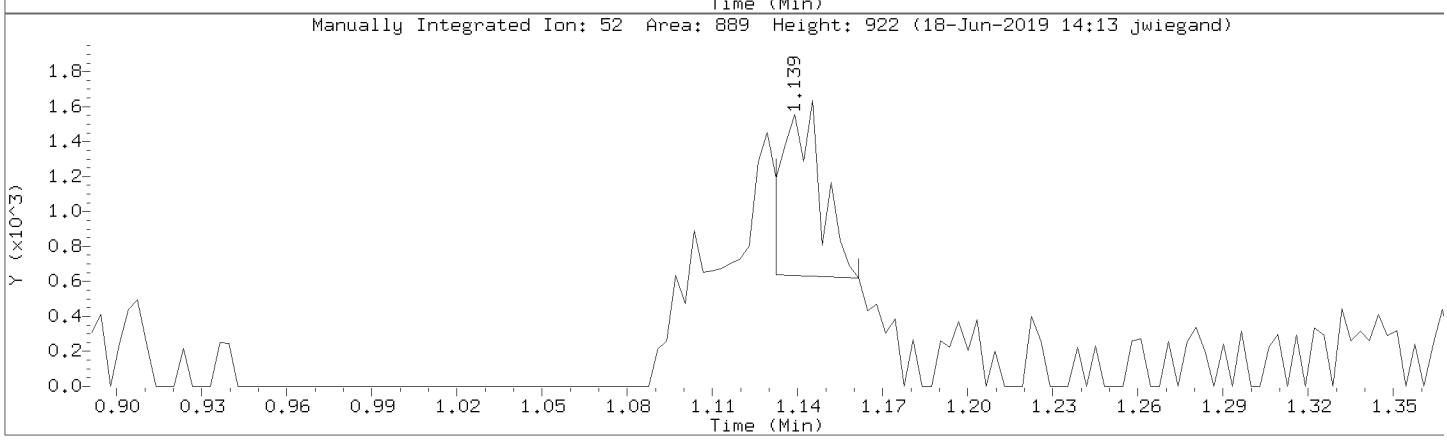
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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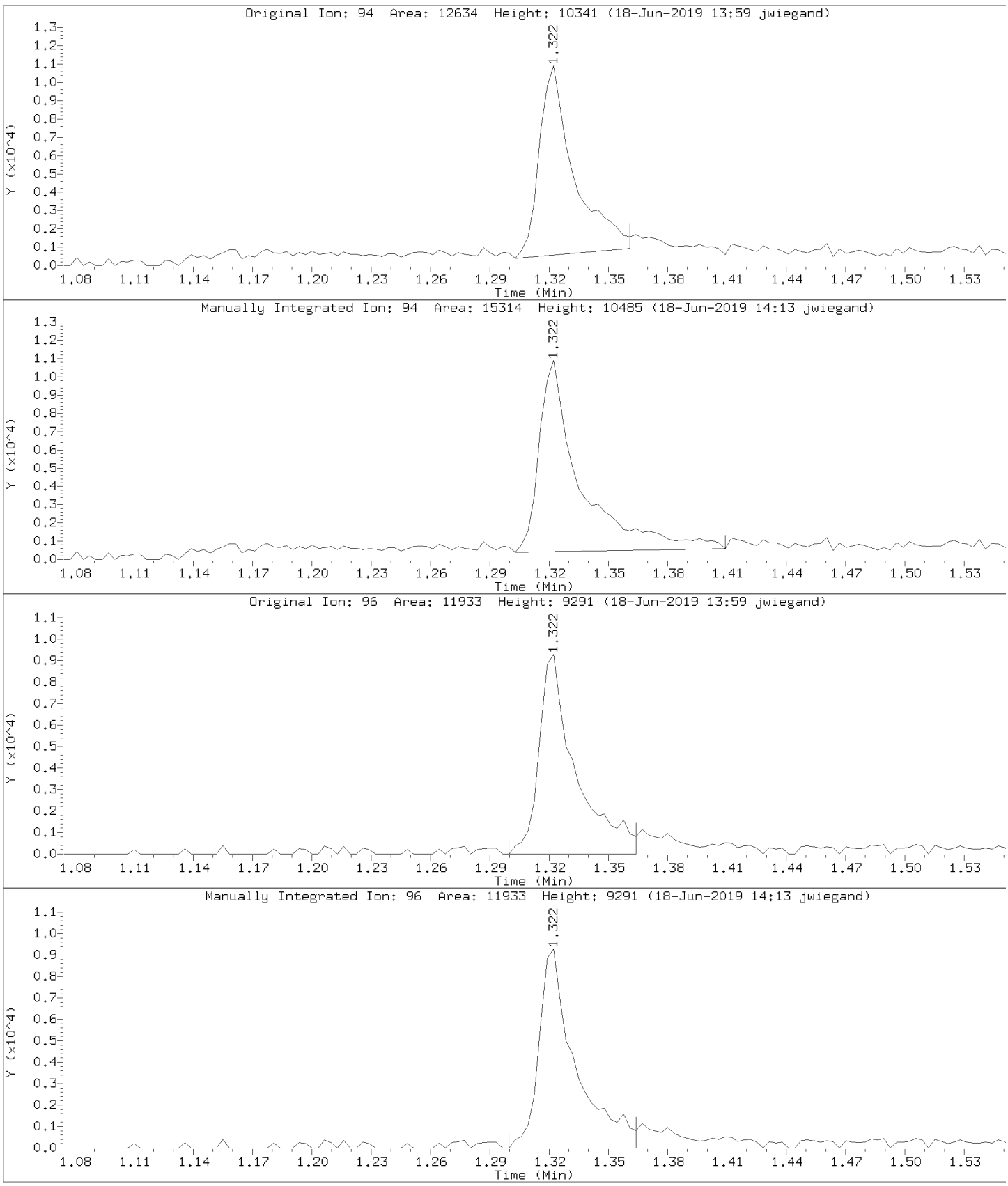
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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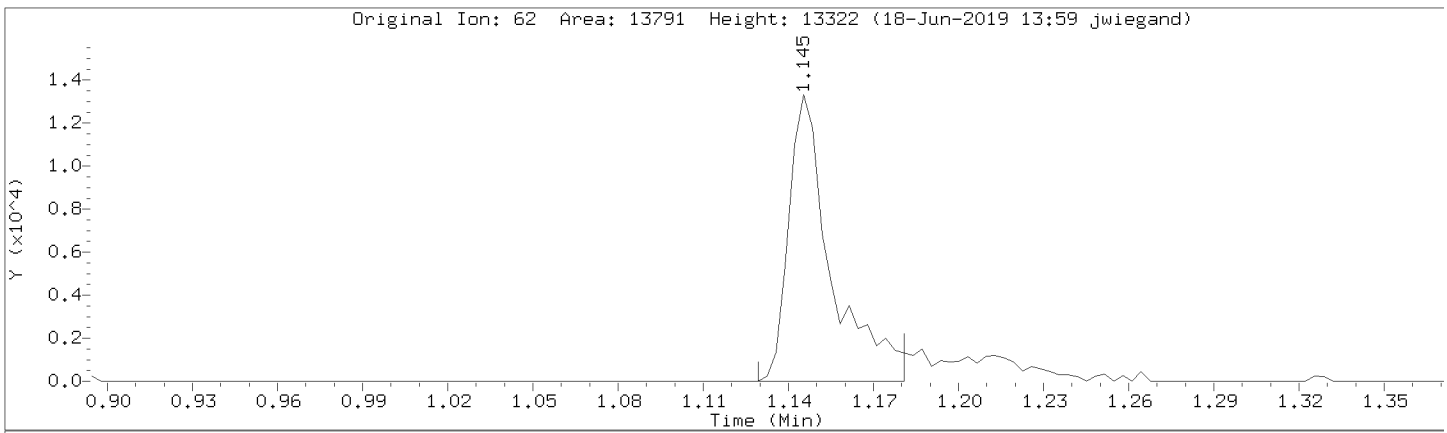
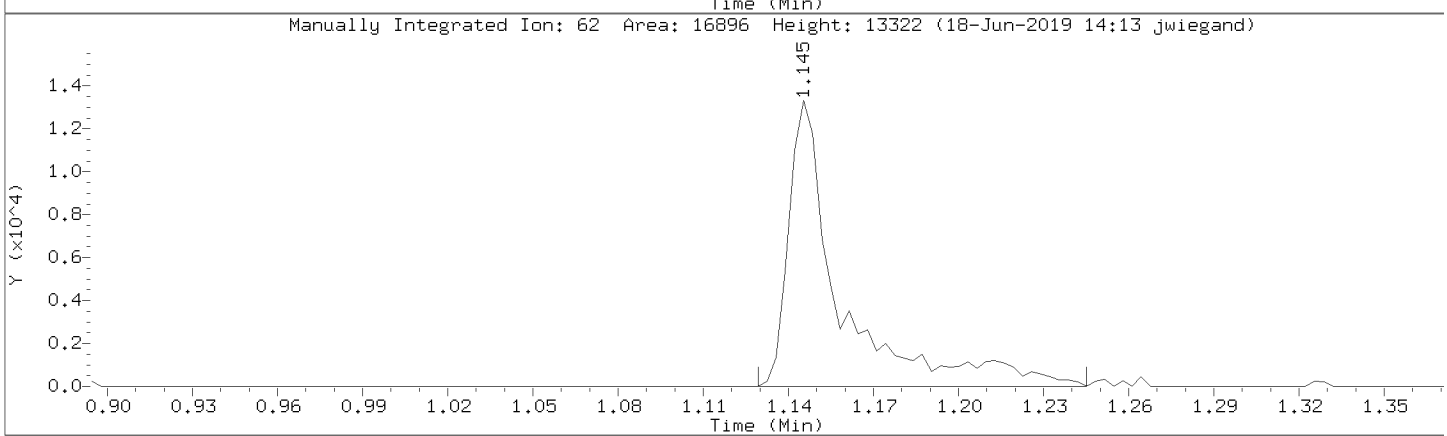
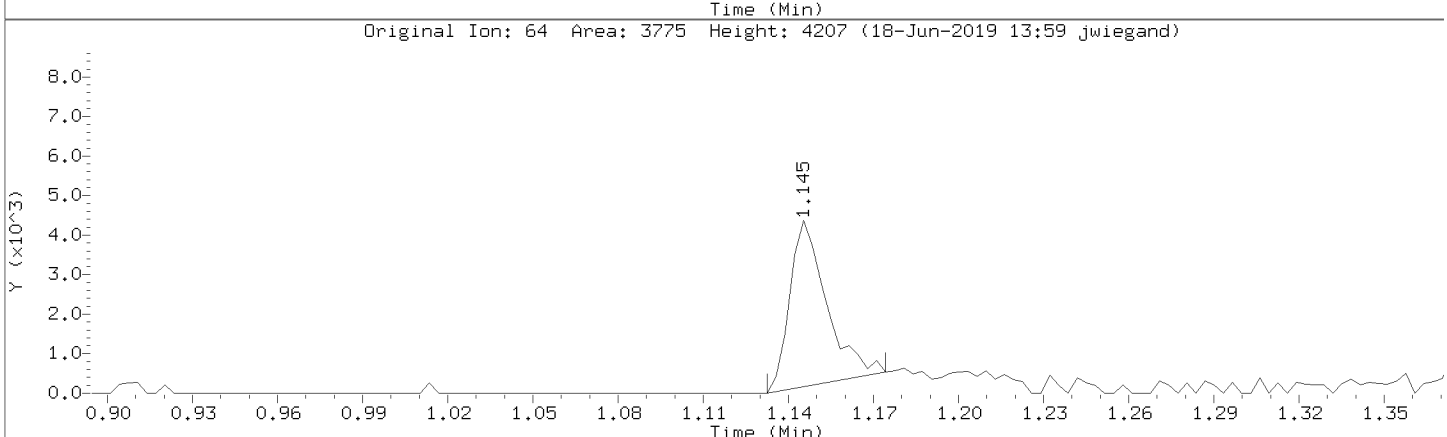
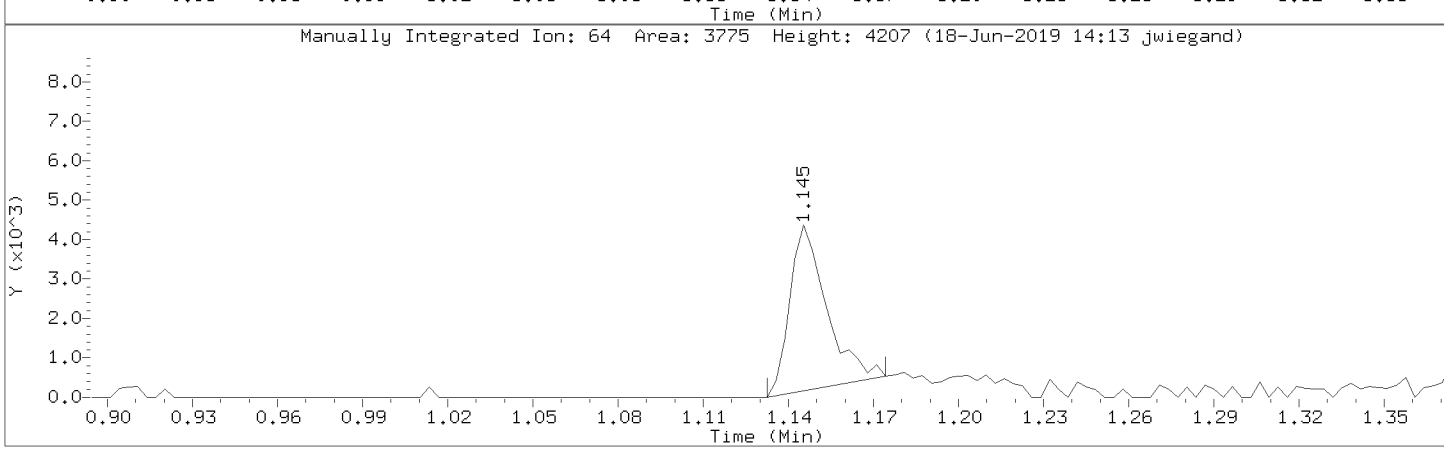
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Vinyl chloride Review Code: NI
CAS Number: 75-01-4









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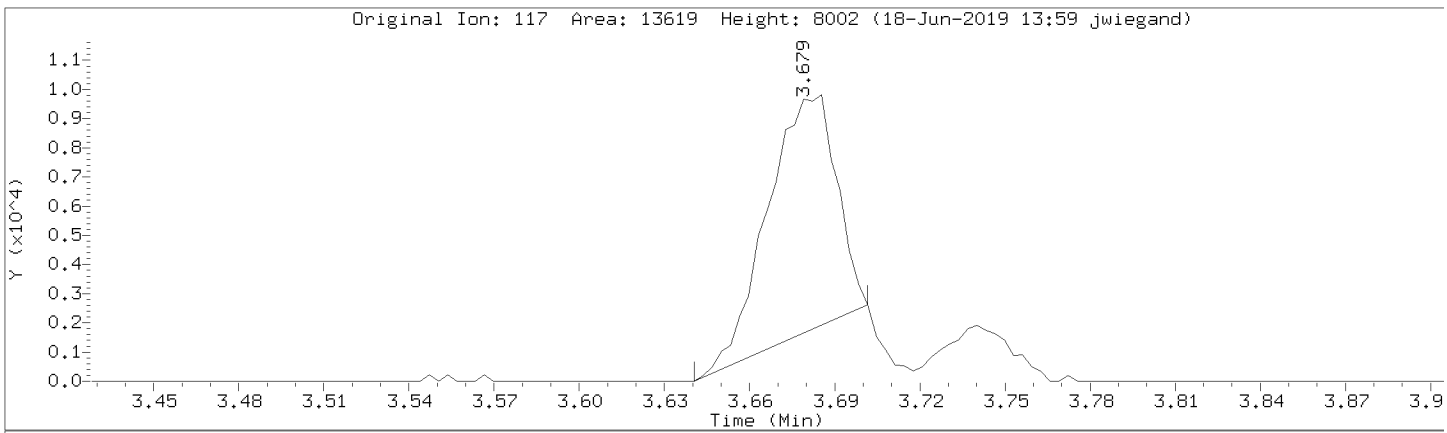
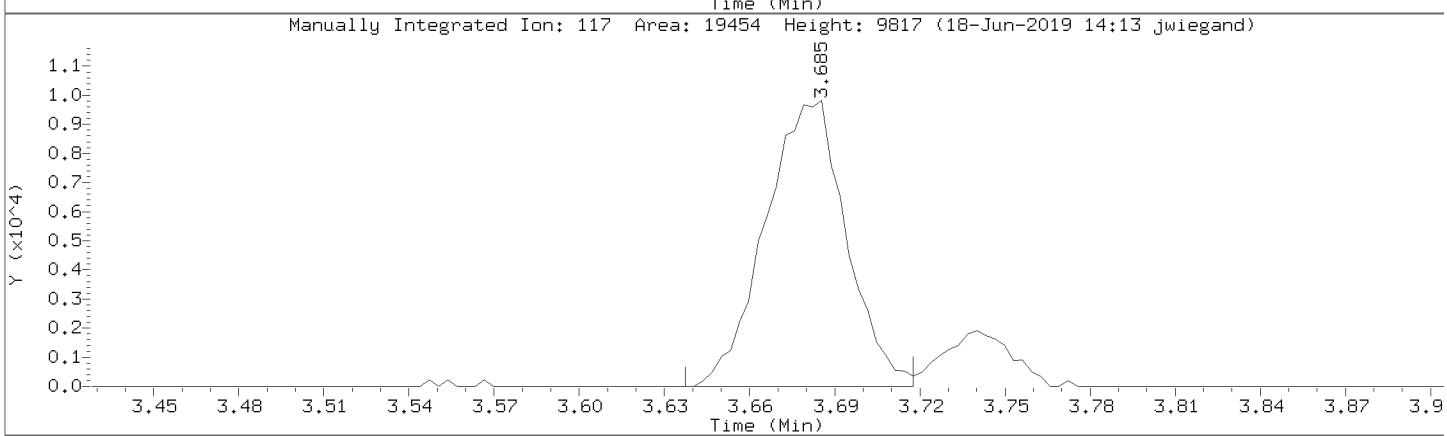
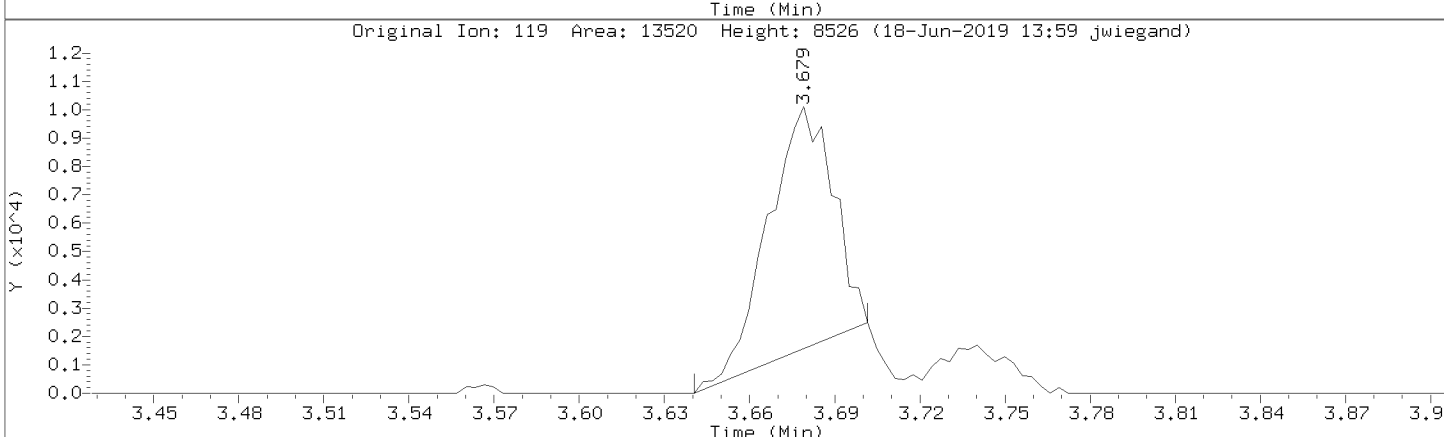
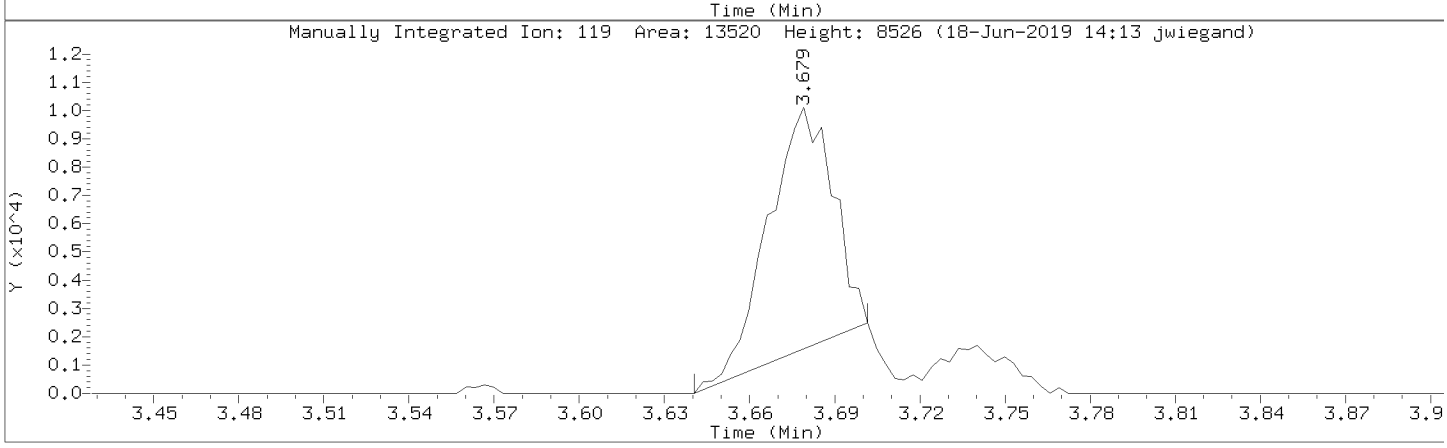
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Carbon tetrachloride Review Code: LT
CAS Number: 56-23-5









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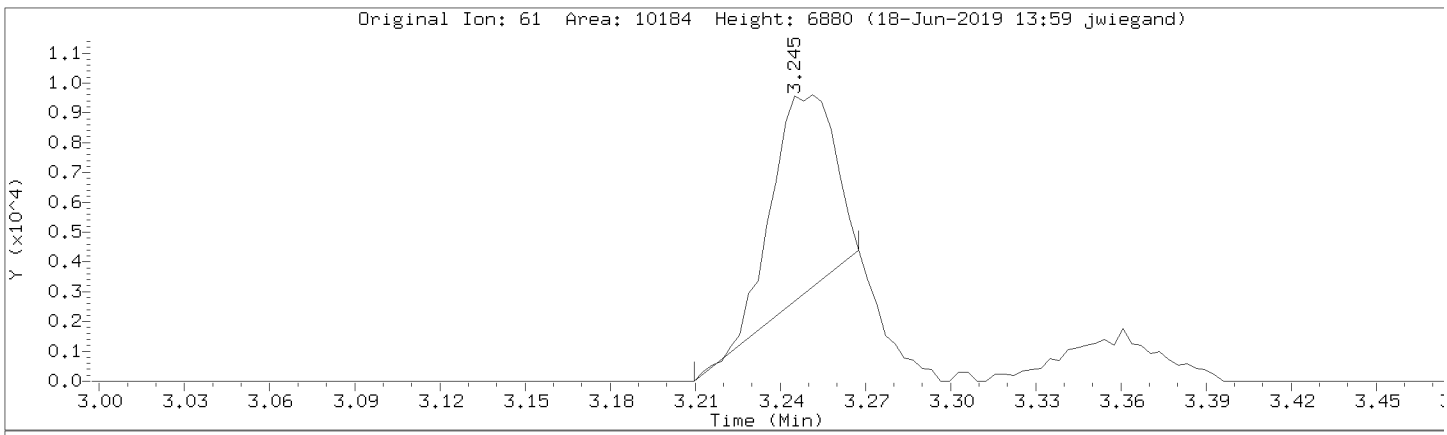
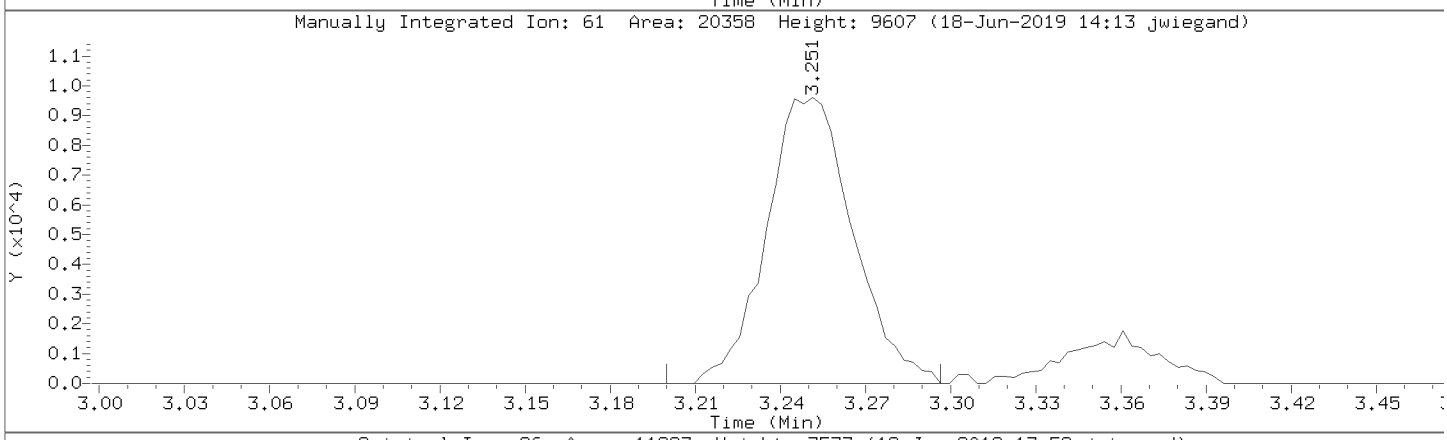
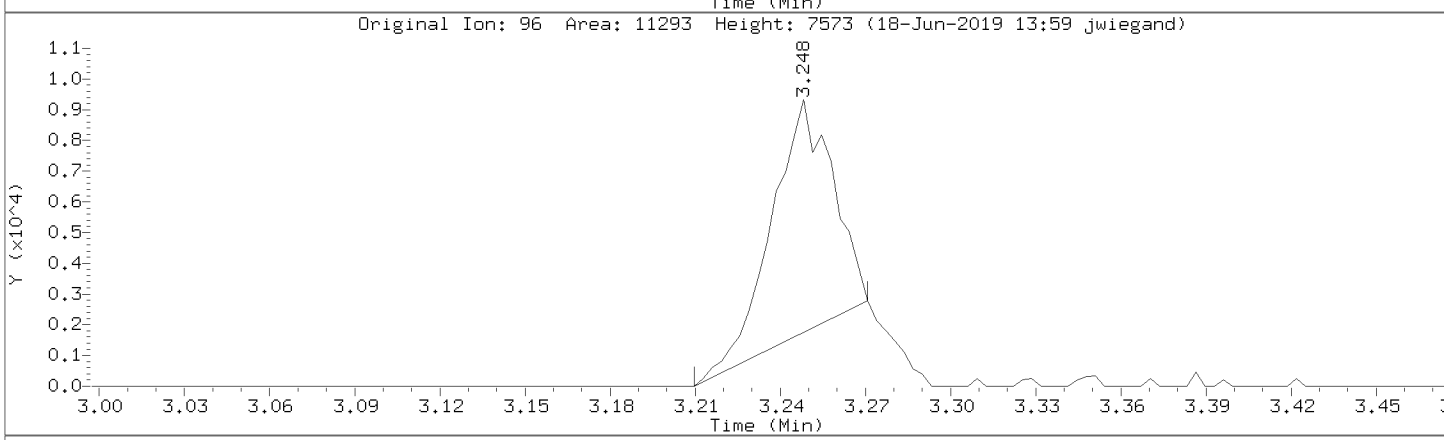
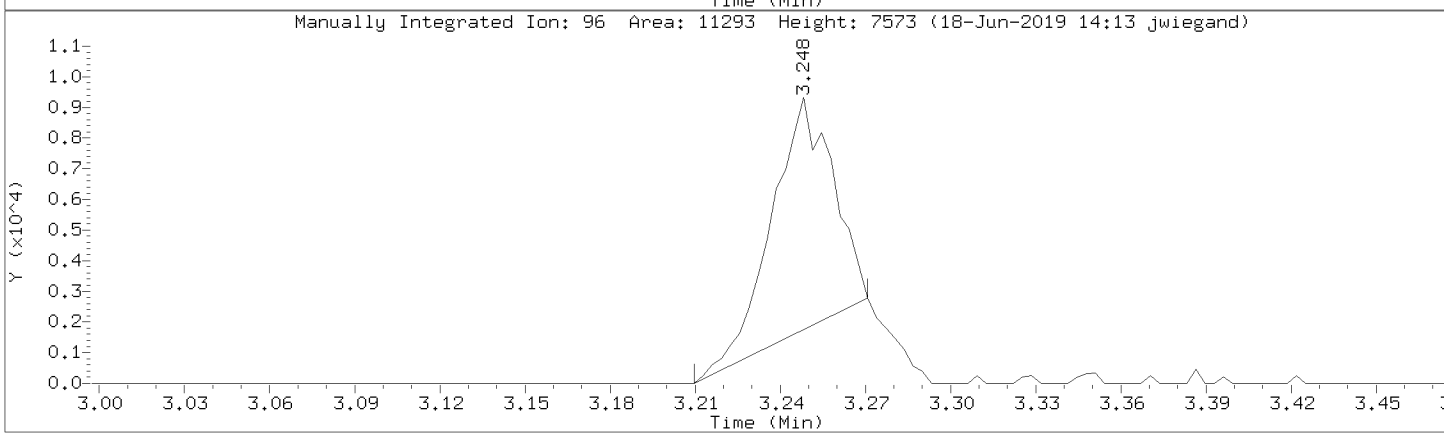
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2









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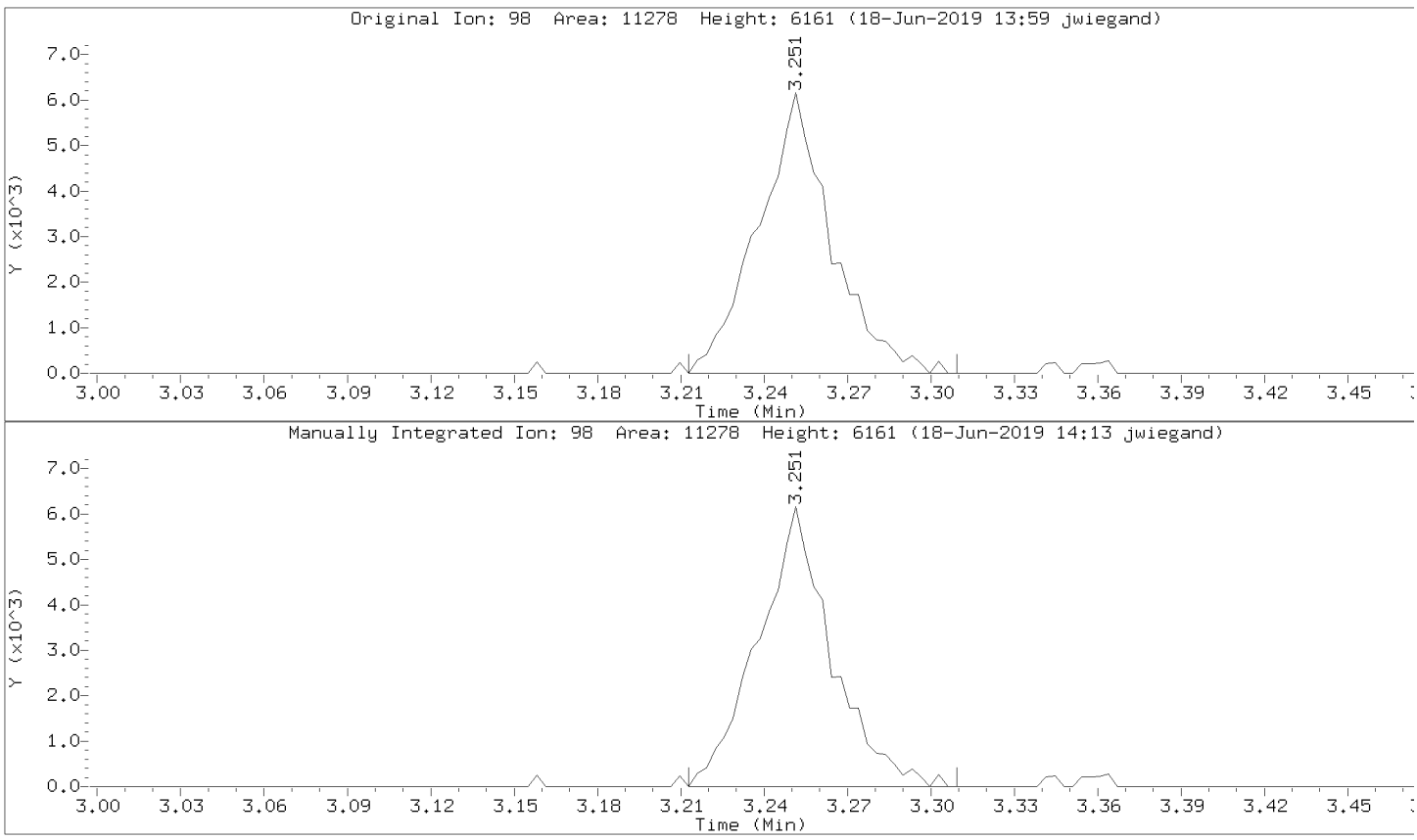
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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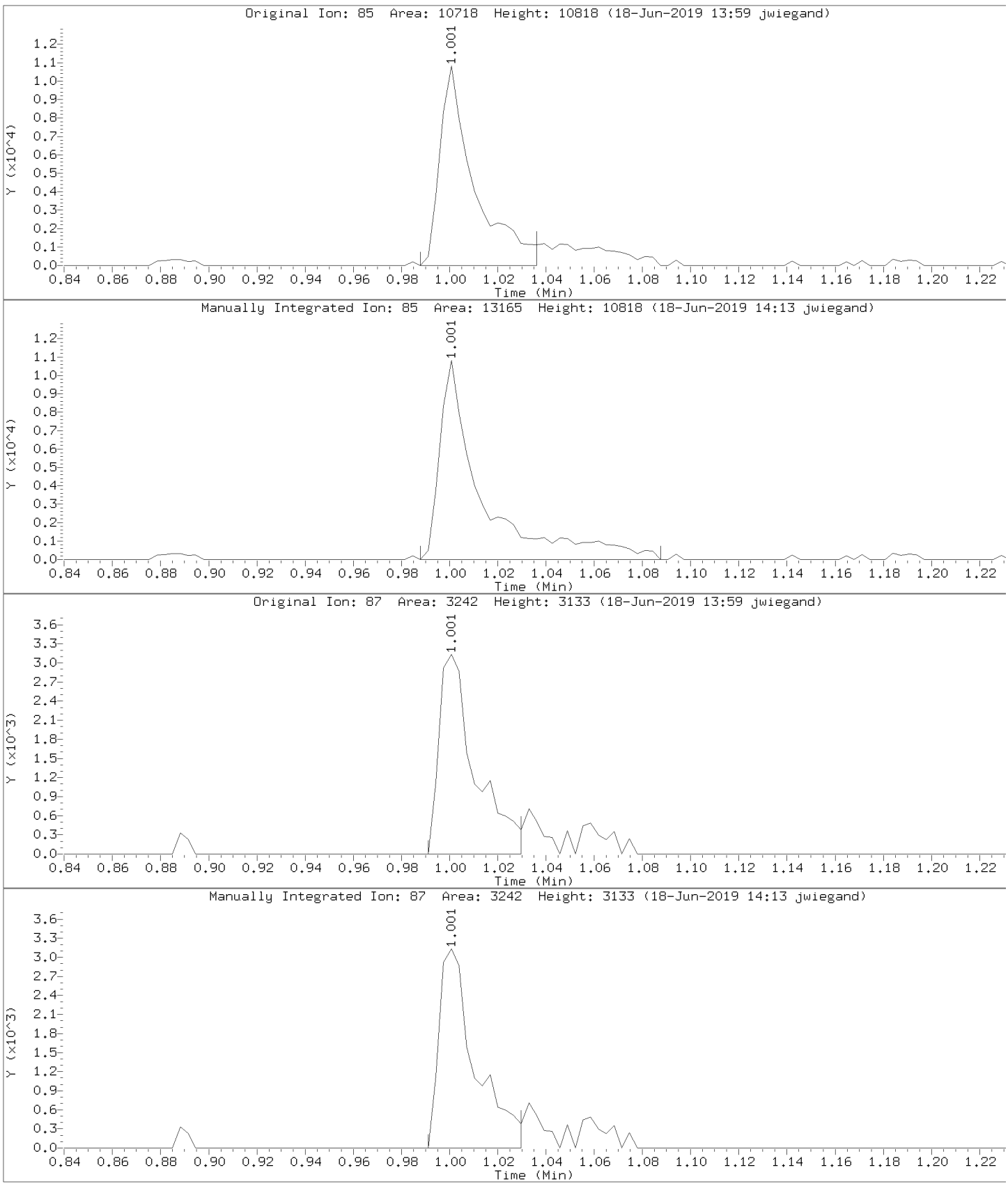
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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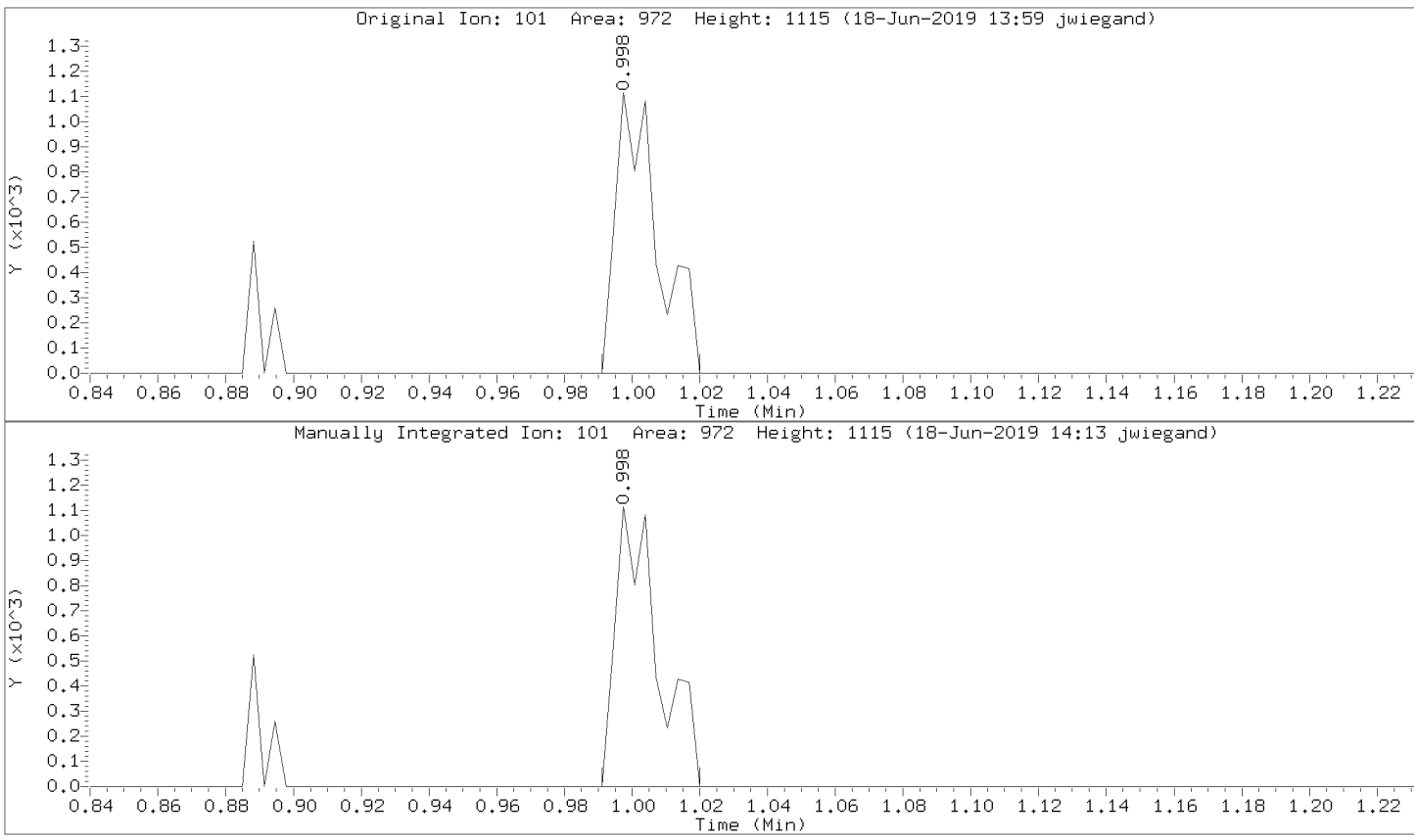
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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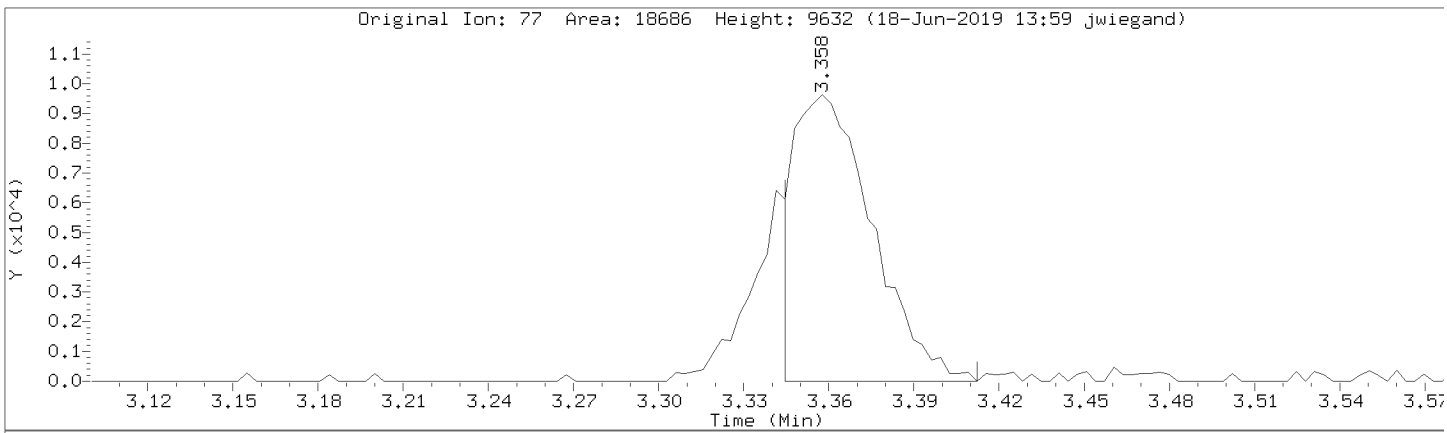
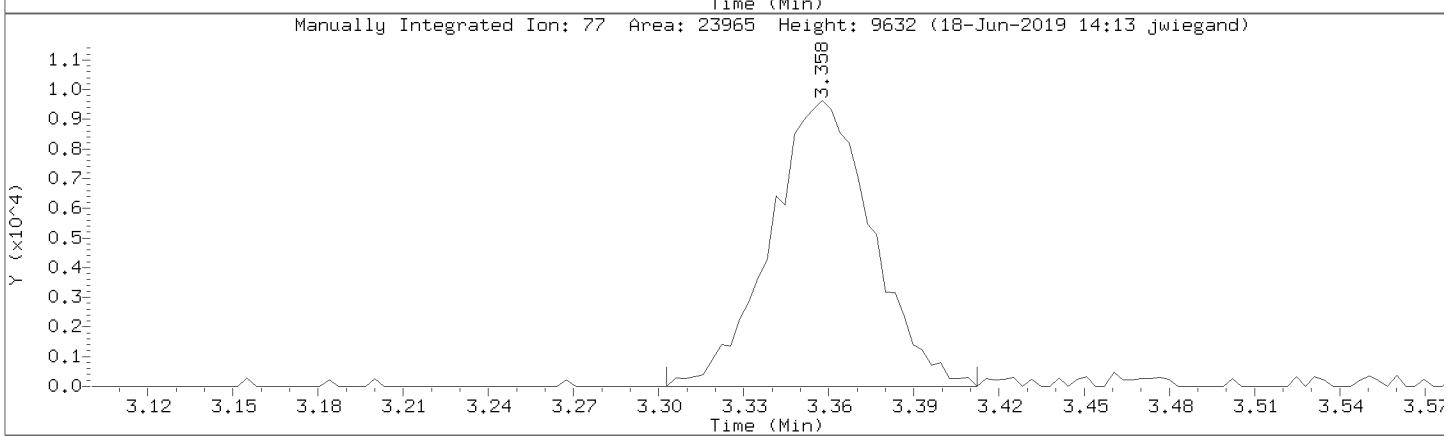
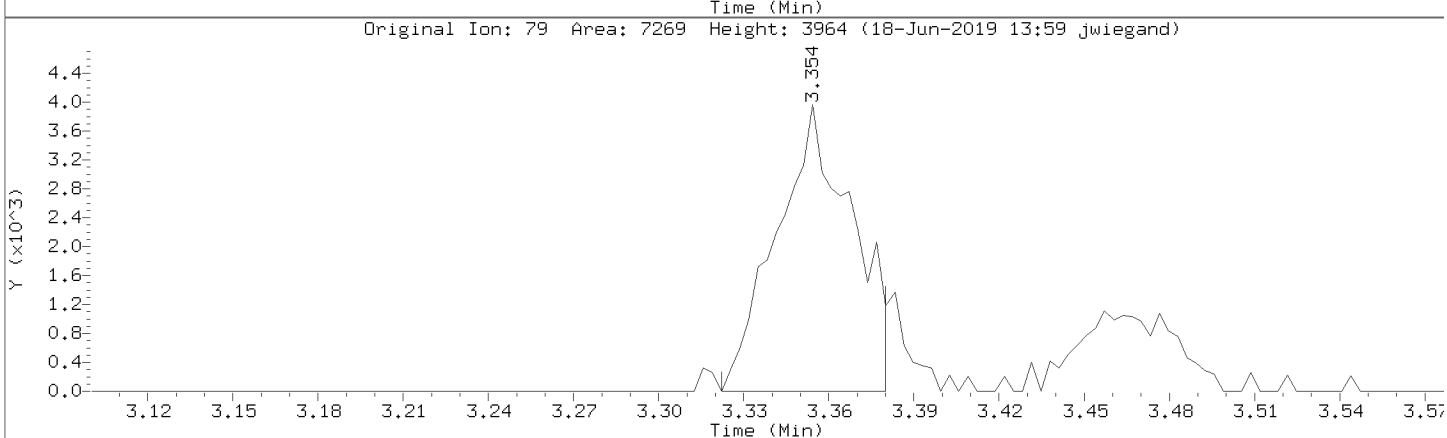
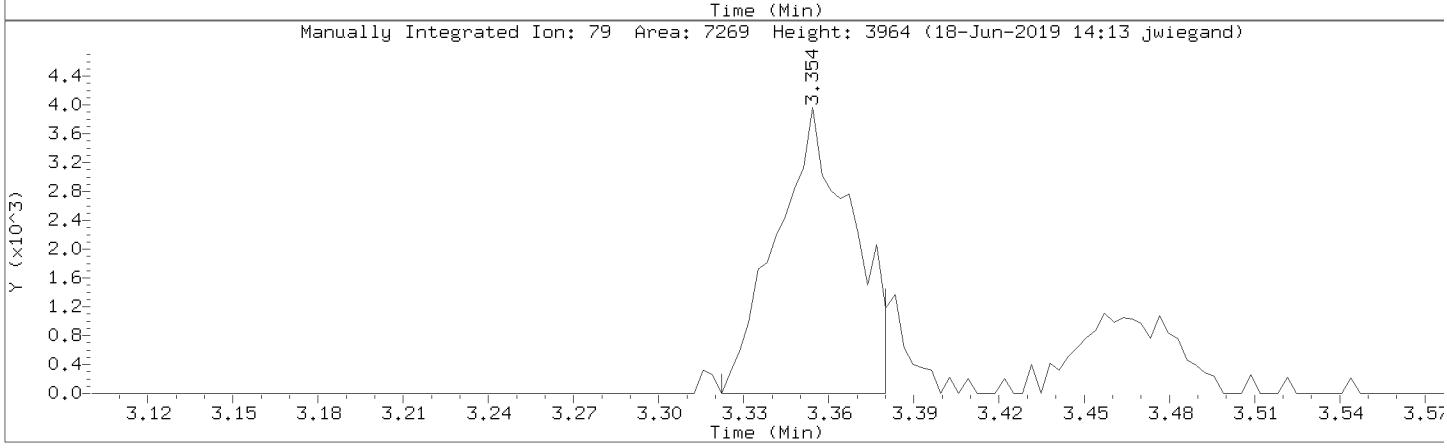
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7









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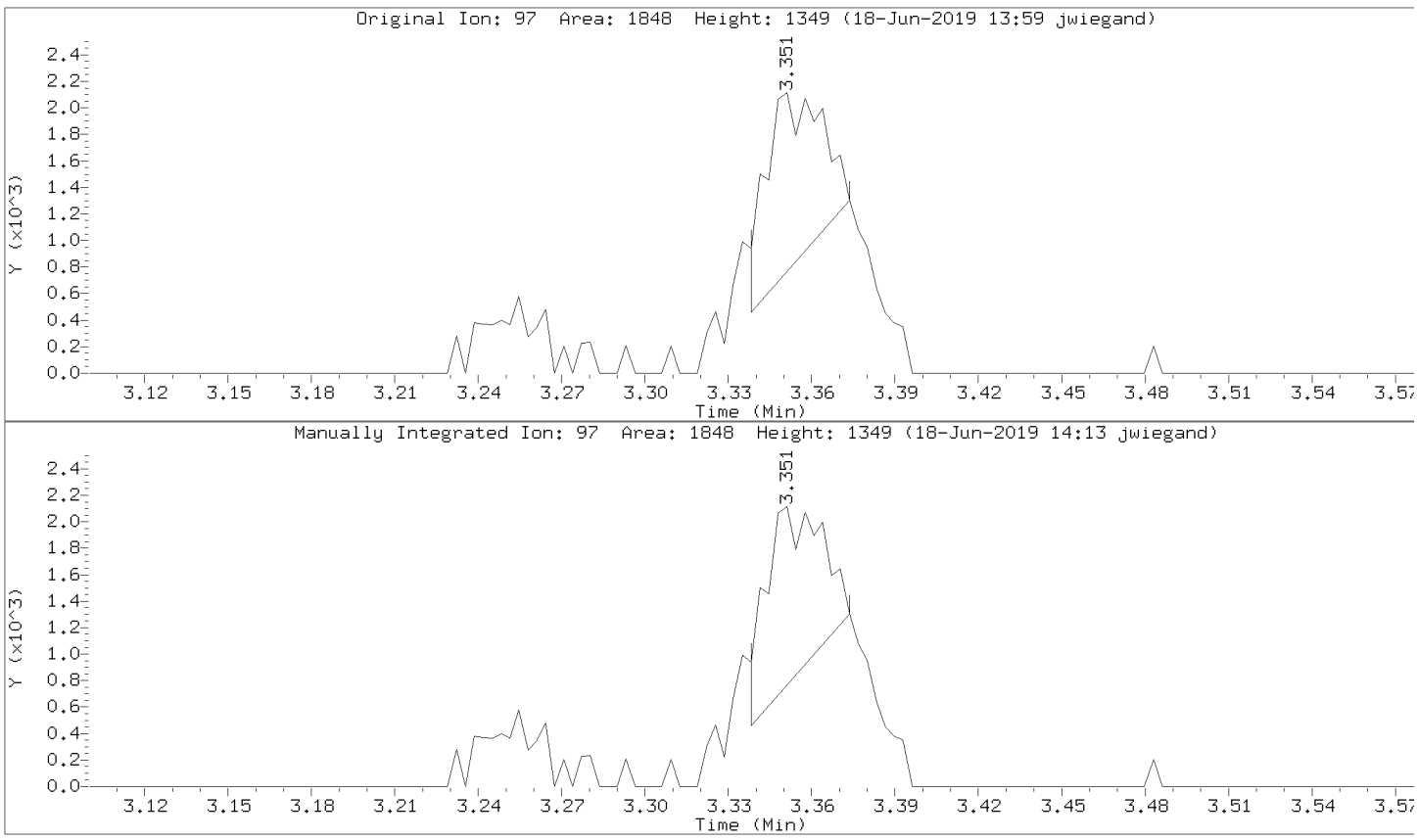
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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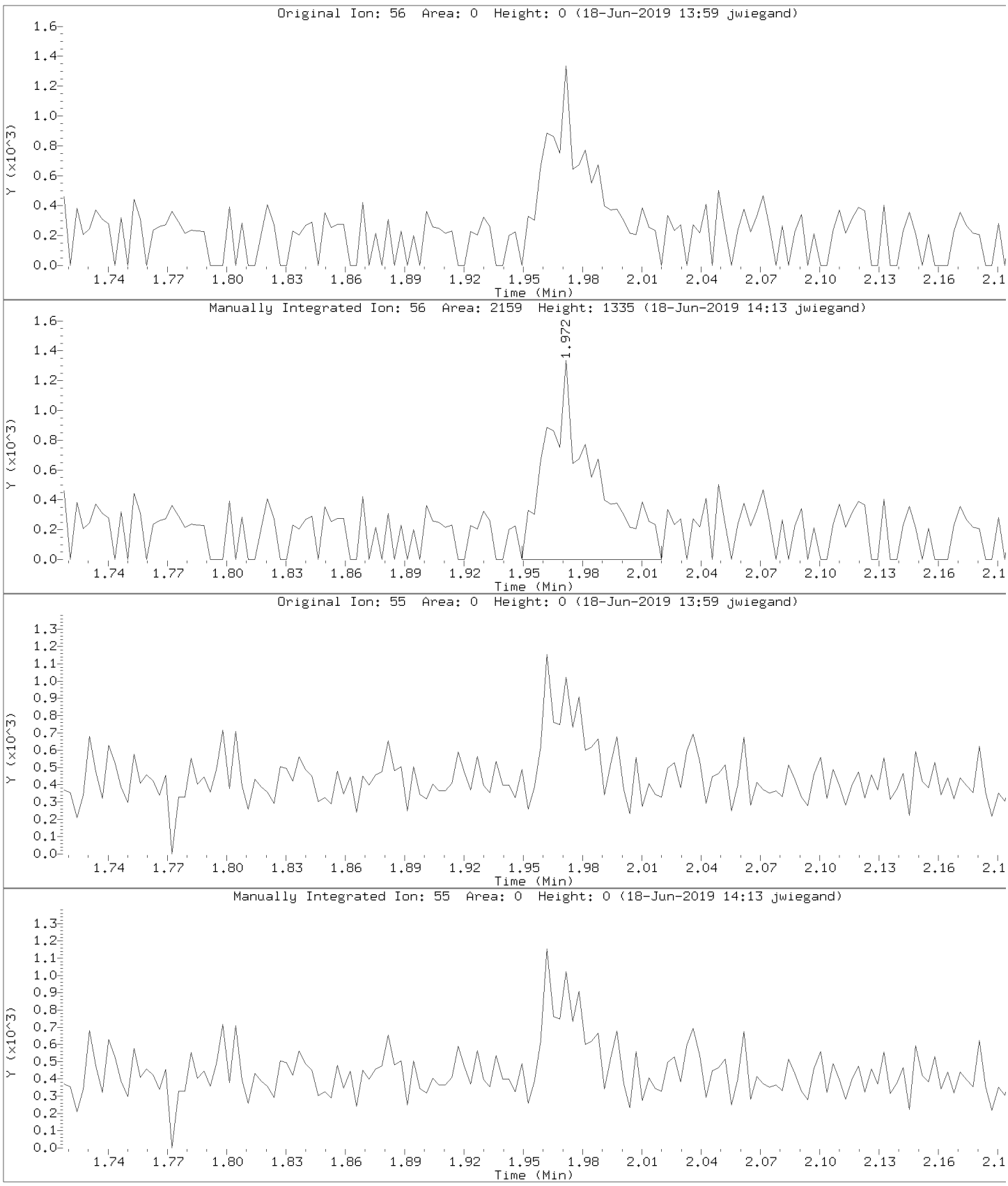
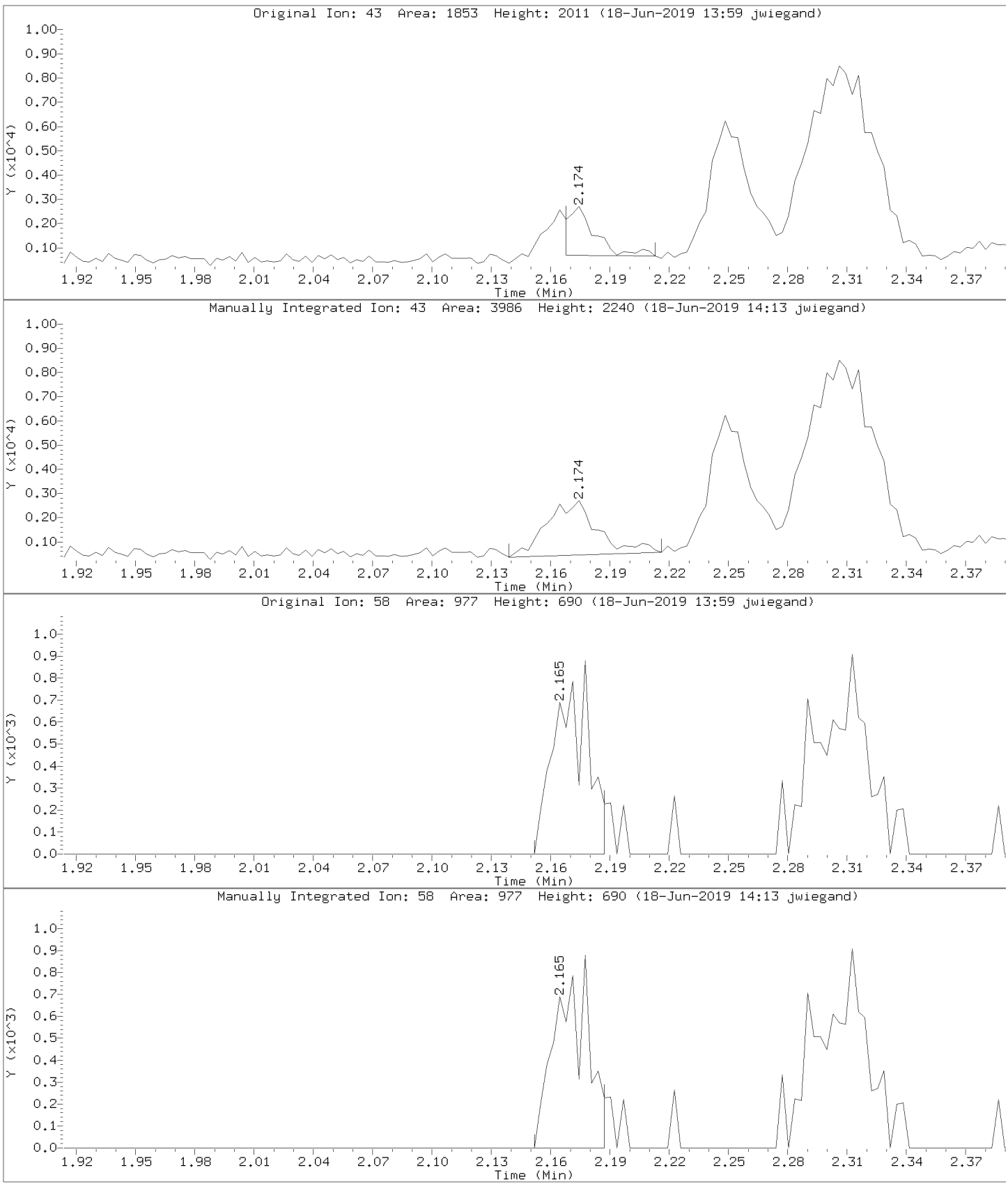
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618009.d
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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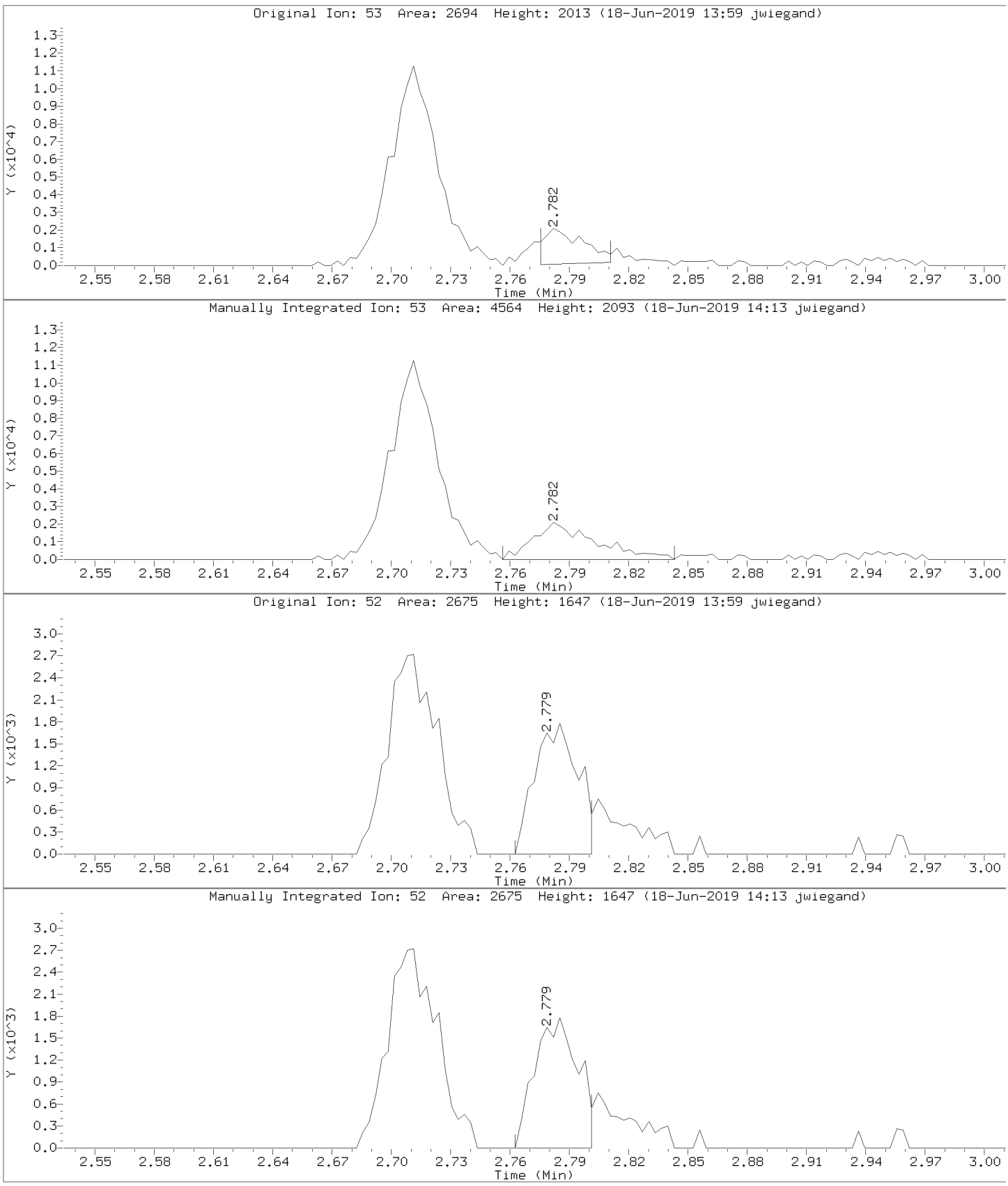
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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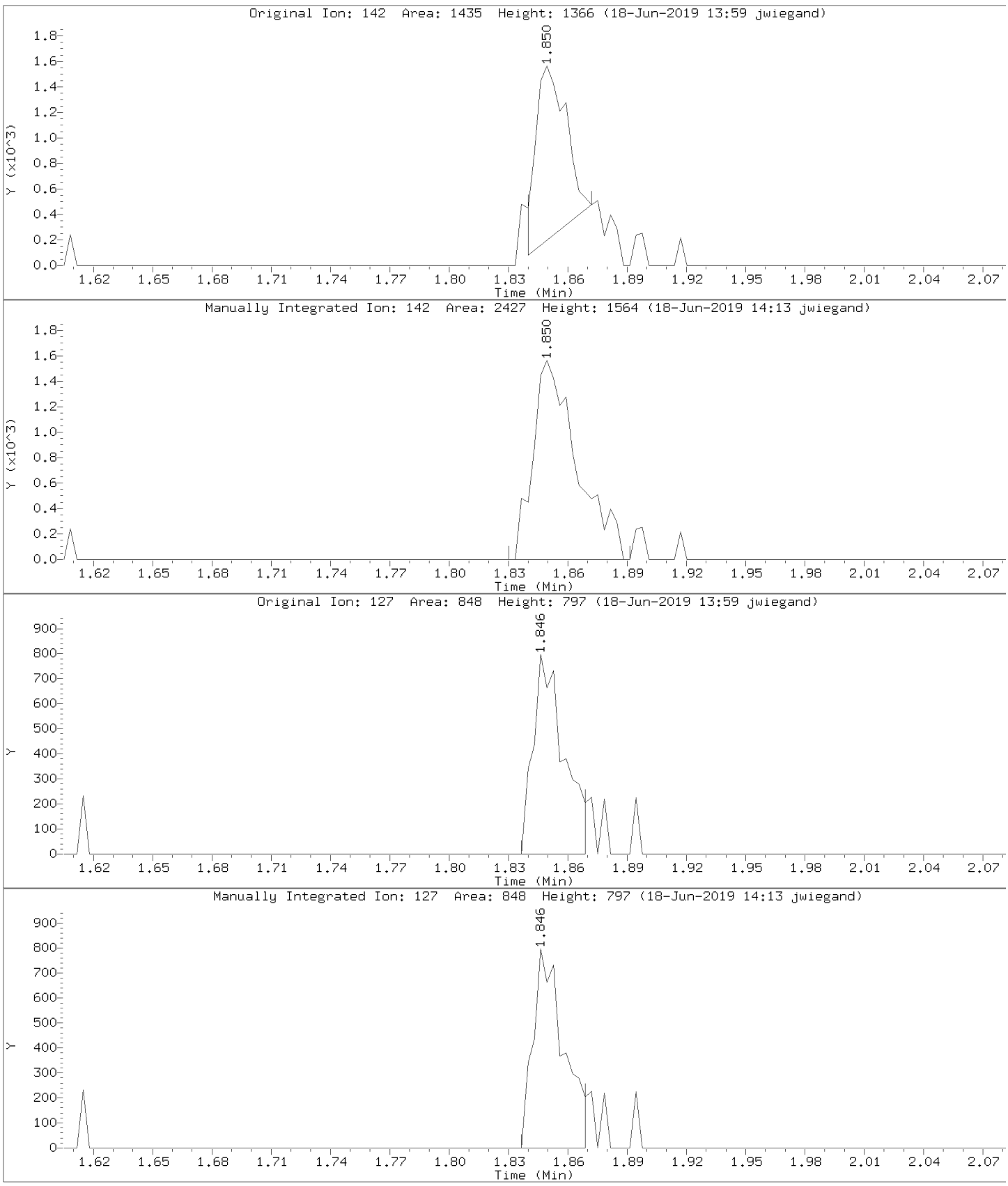
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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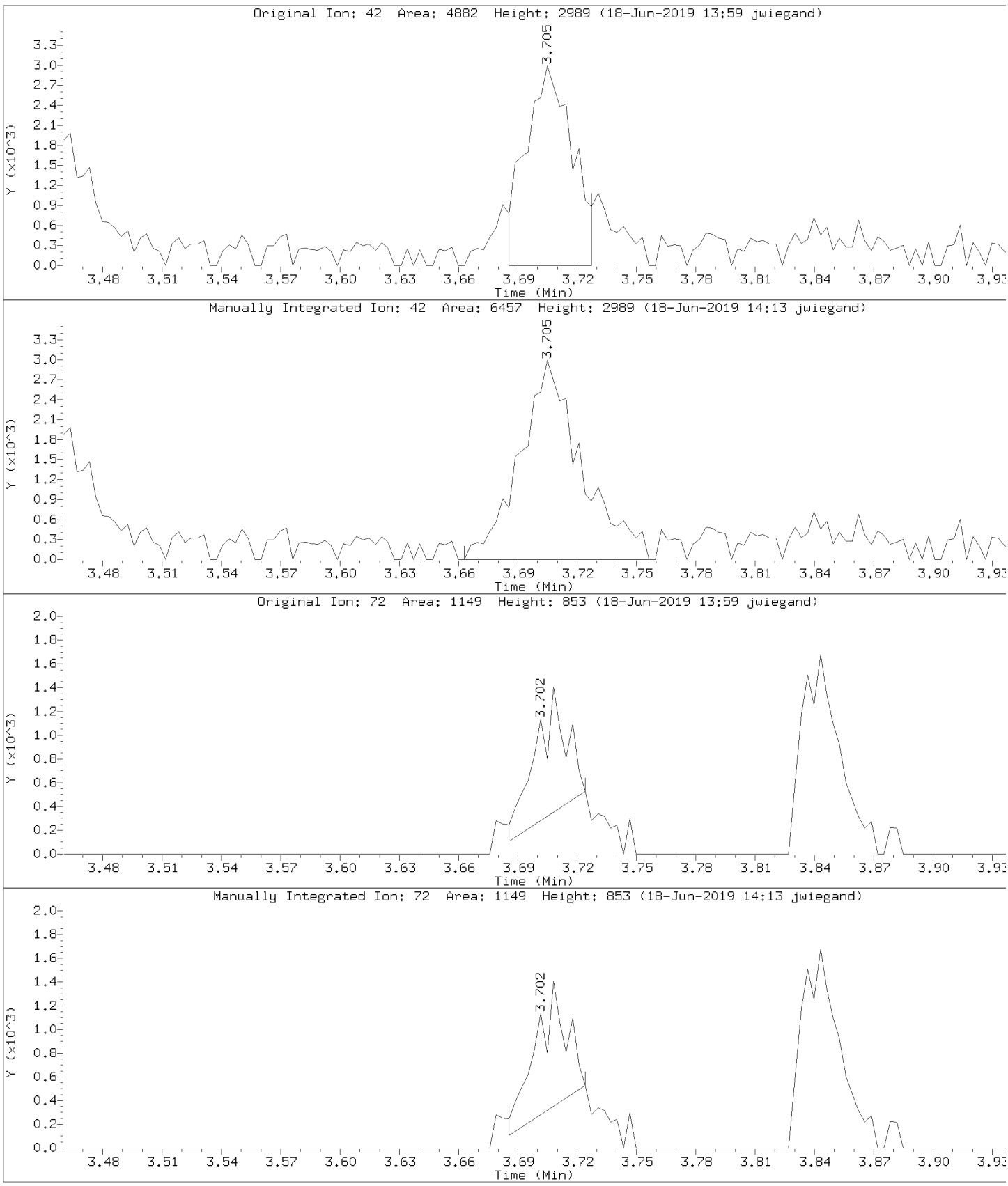
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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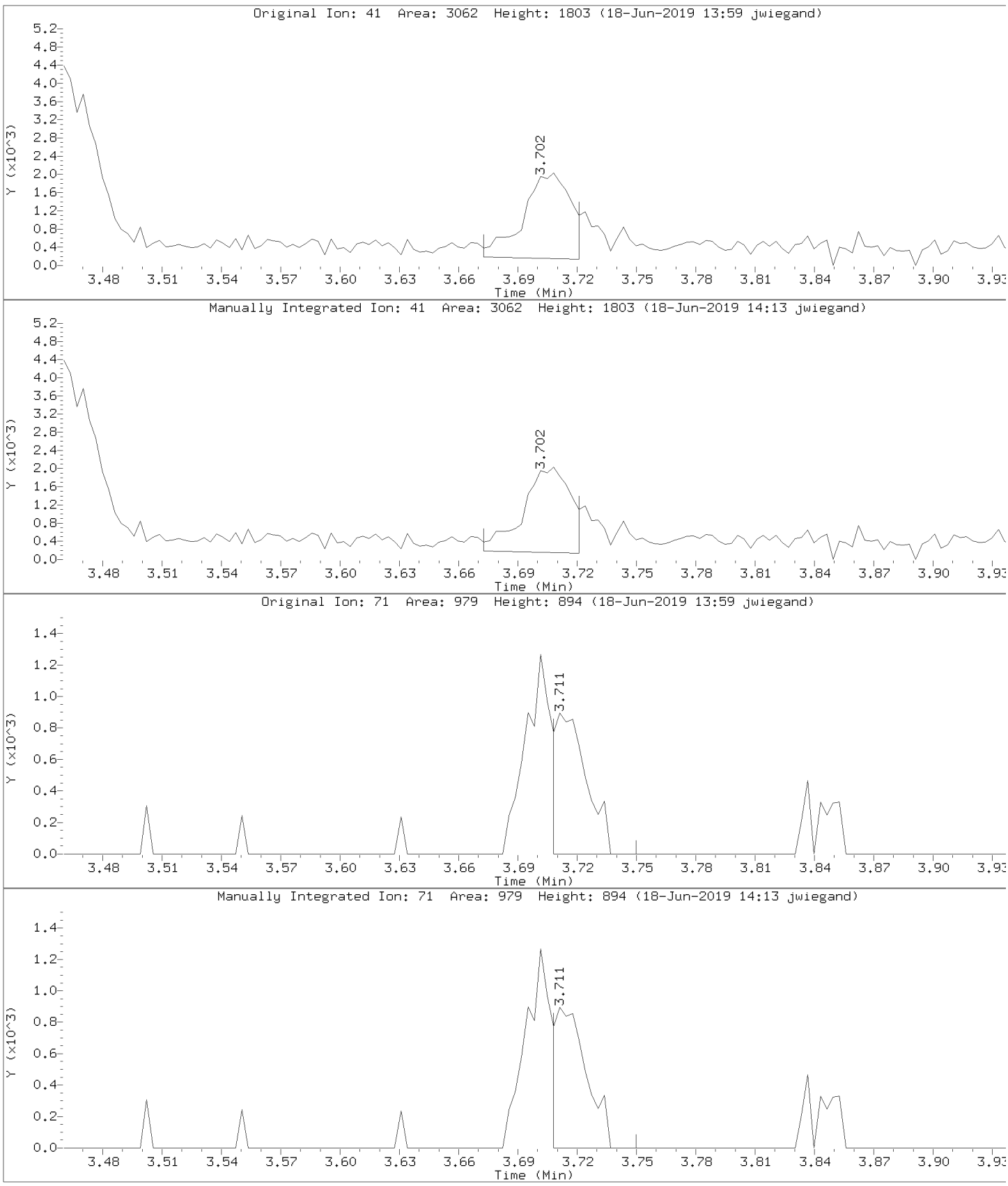
Lab Sample ID: CAL3



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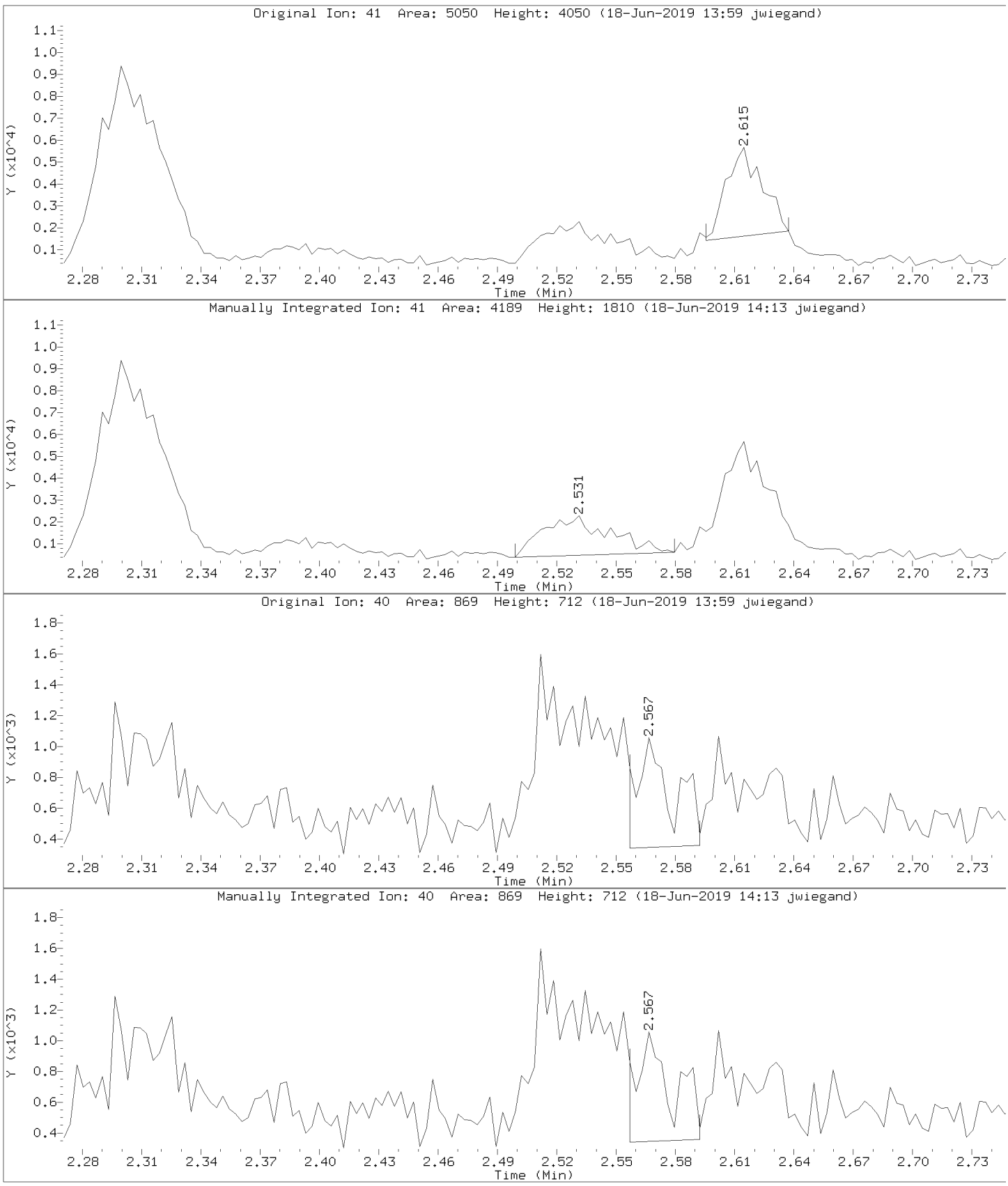
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acetonitrile Review Code: WP
CAS Number: 75-05-8



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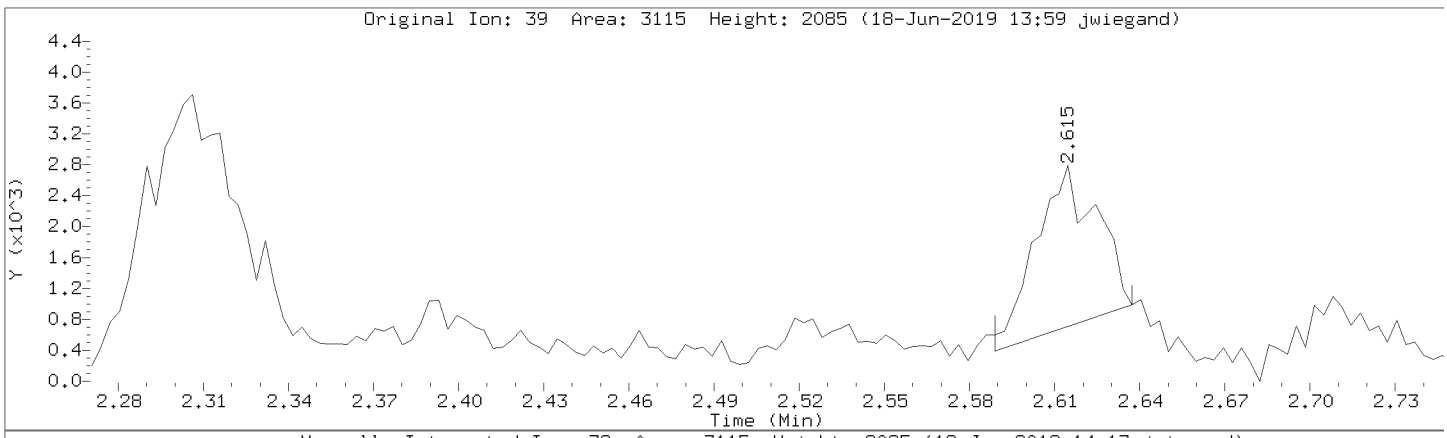
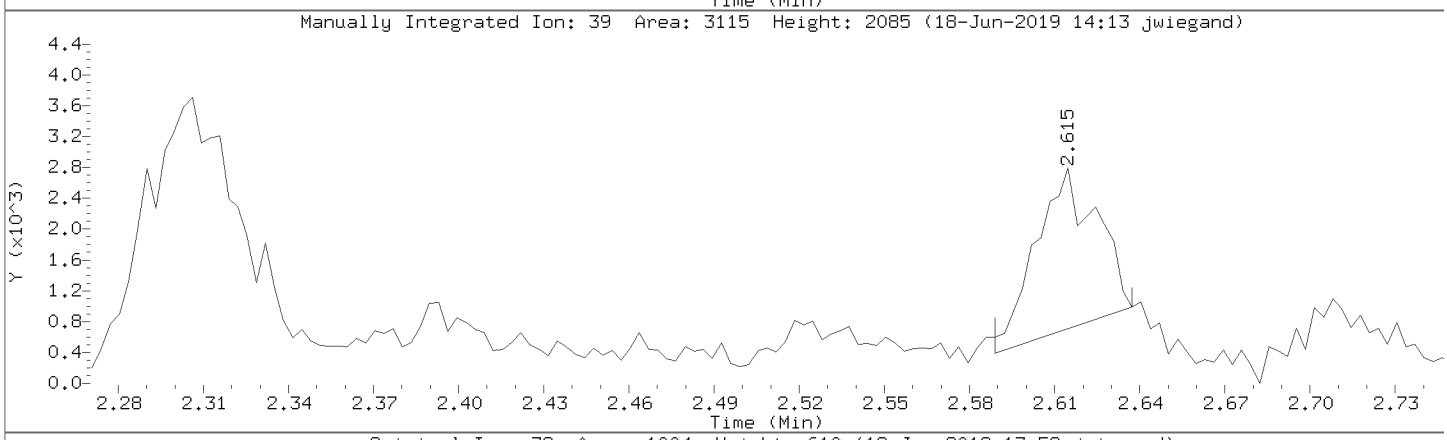
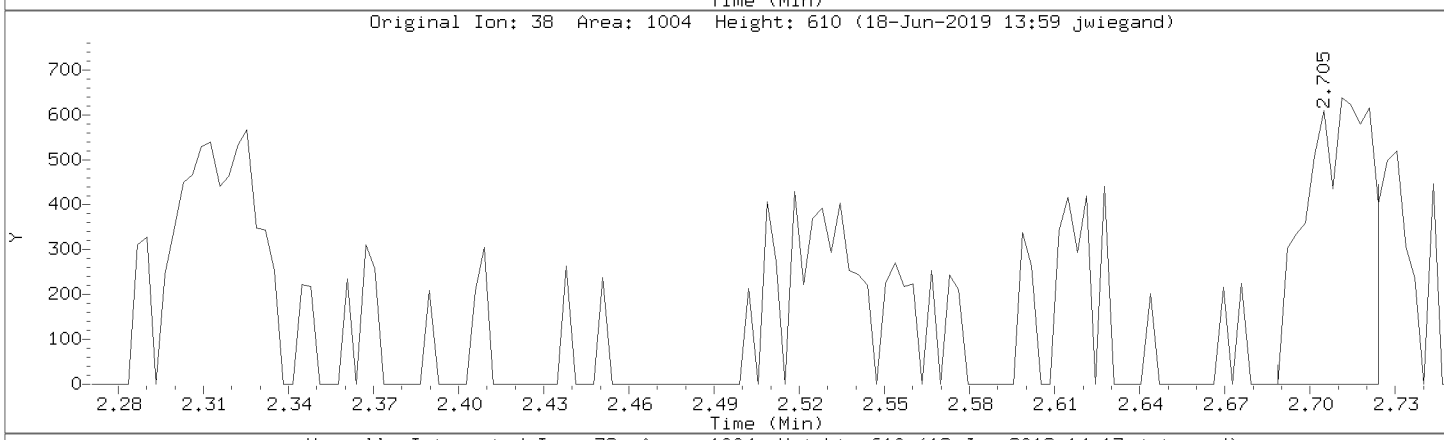
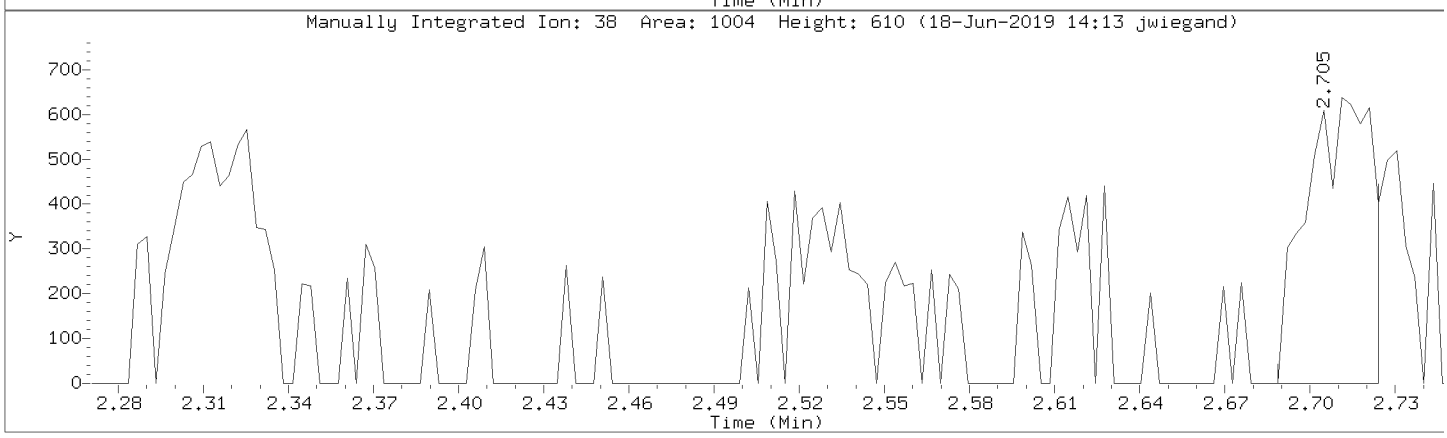
Lab Sample ID: CAL3









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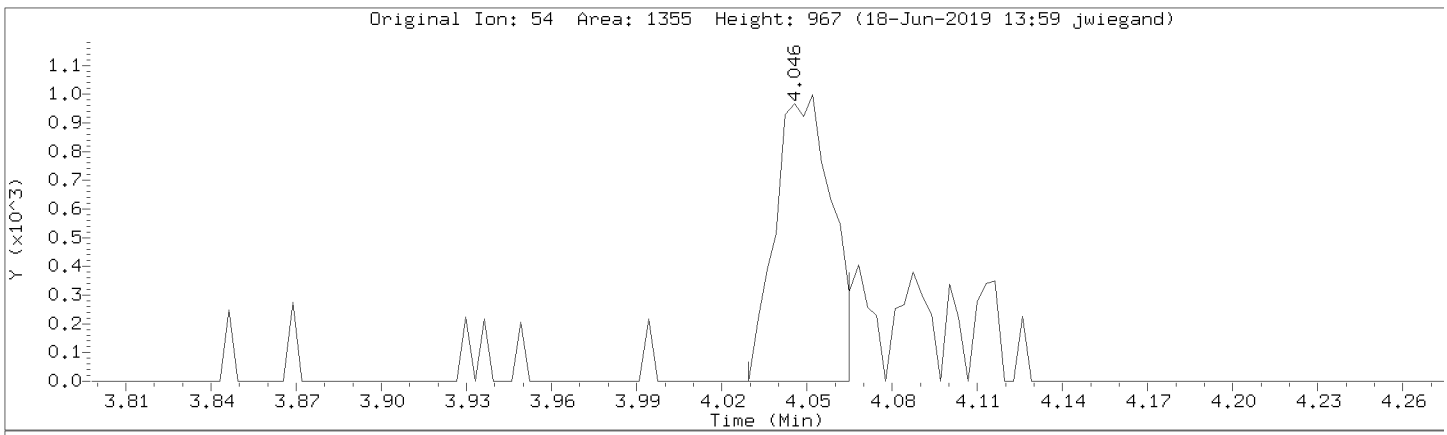
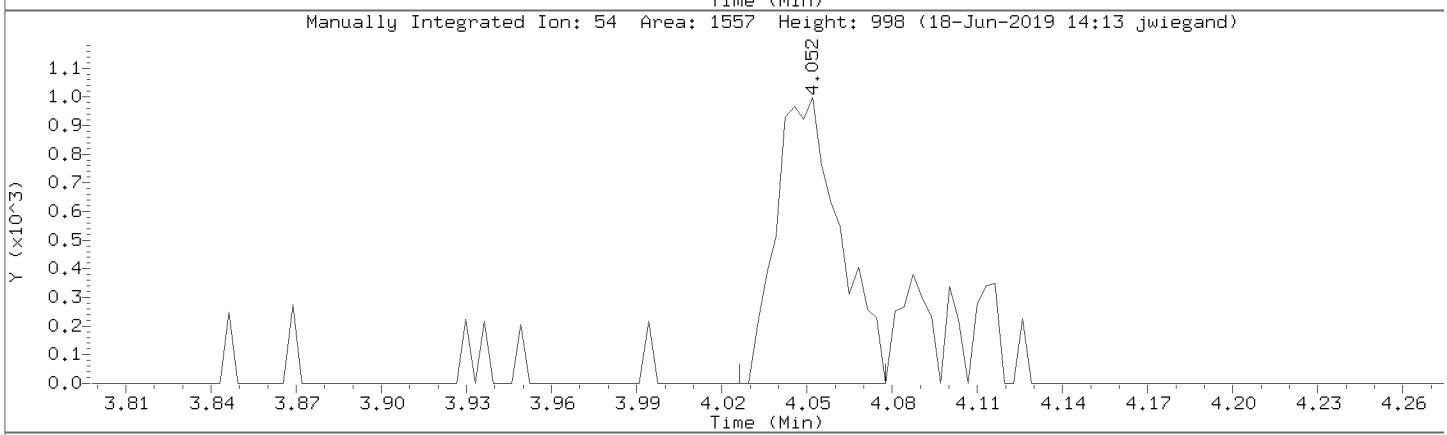
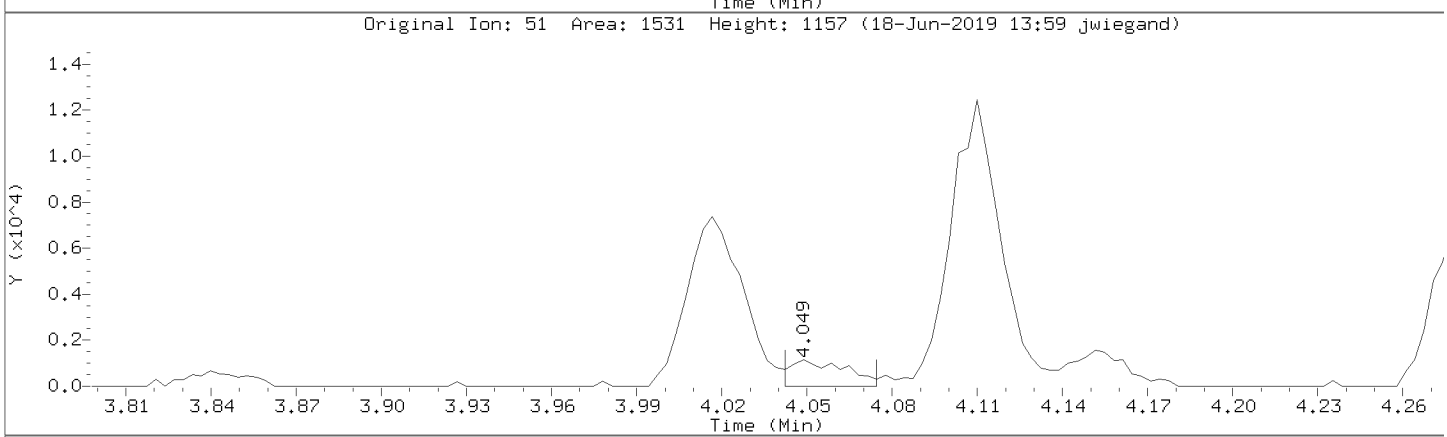
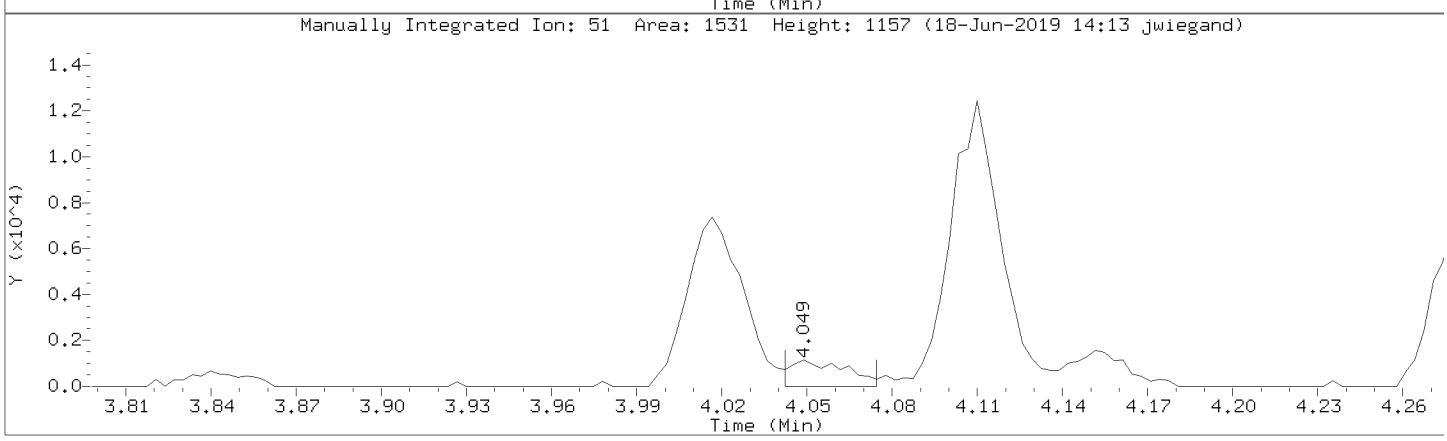
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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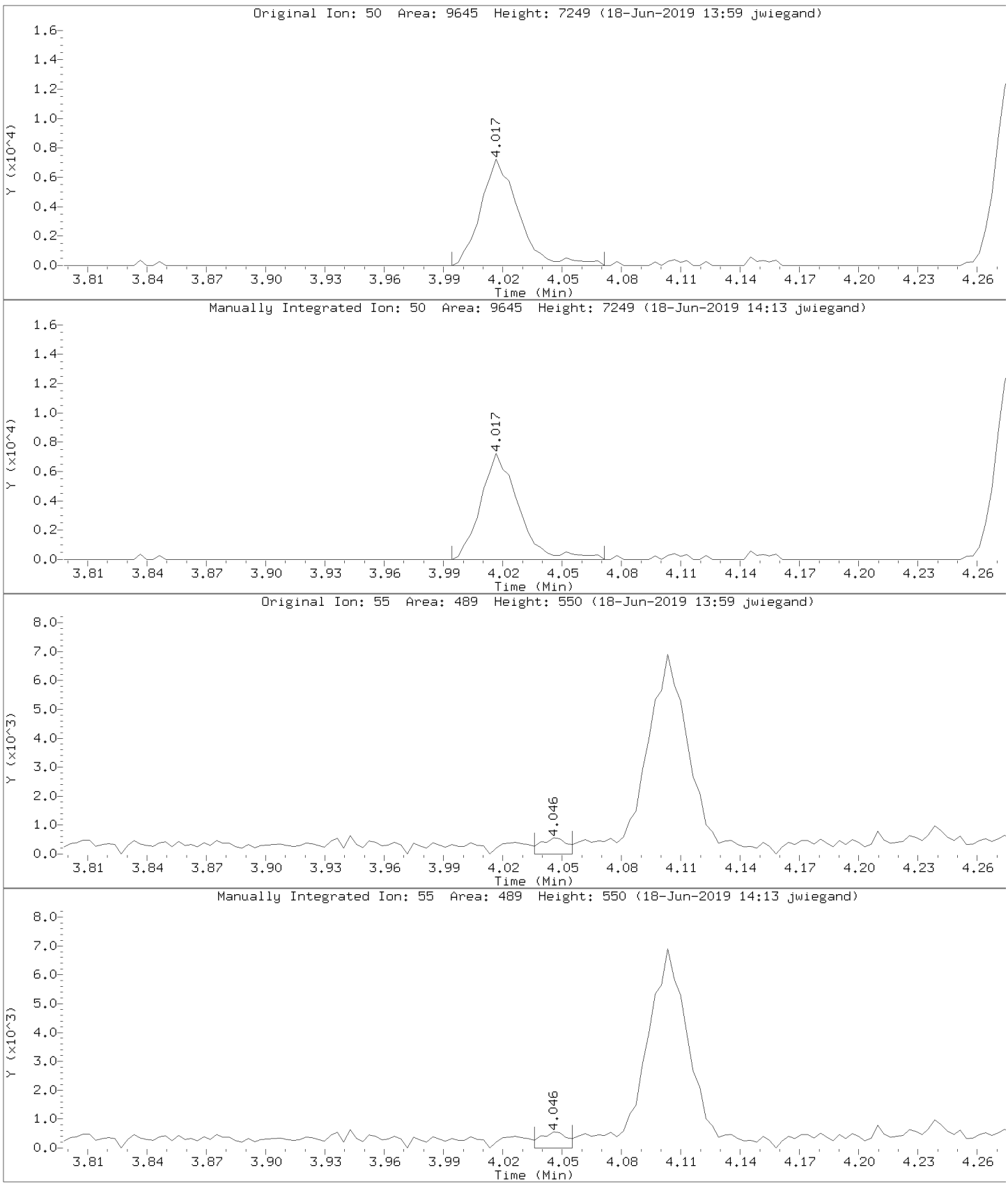
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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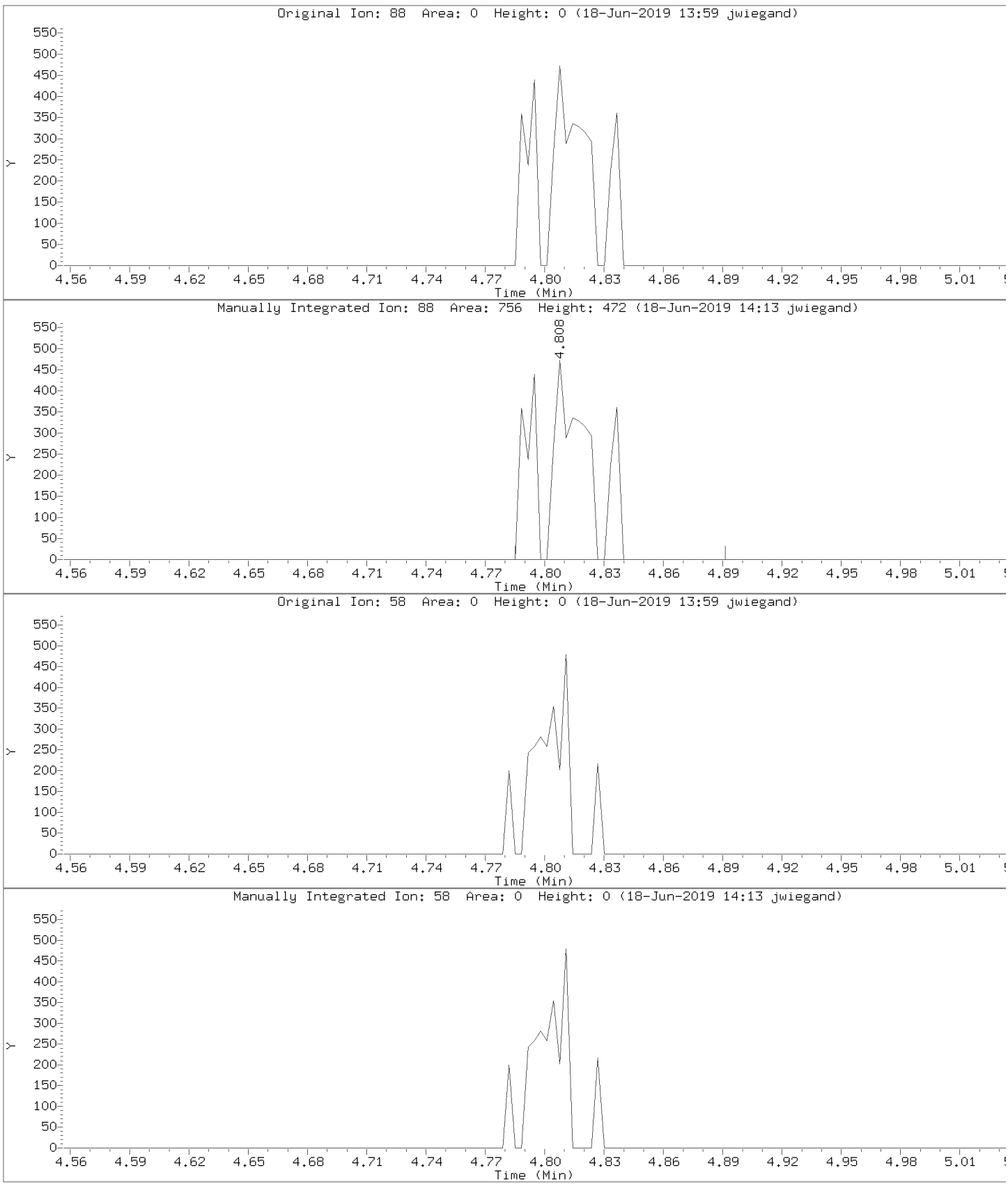
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1



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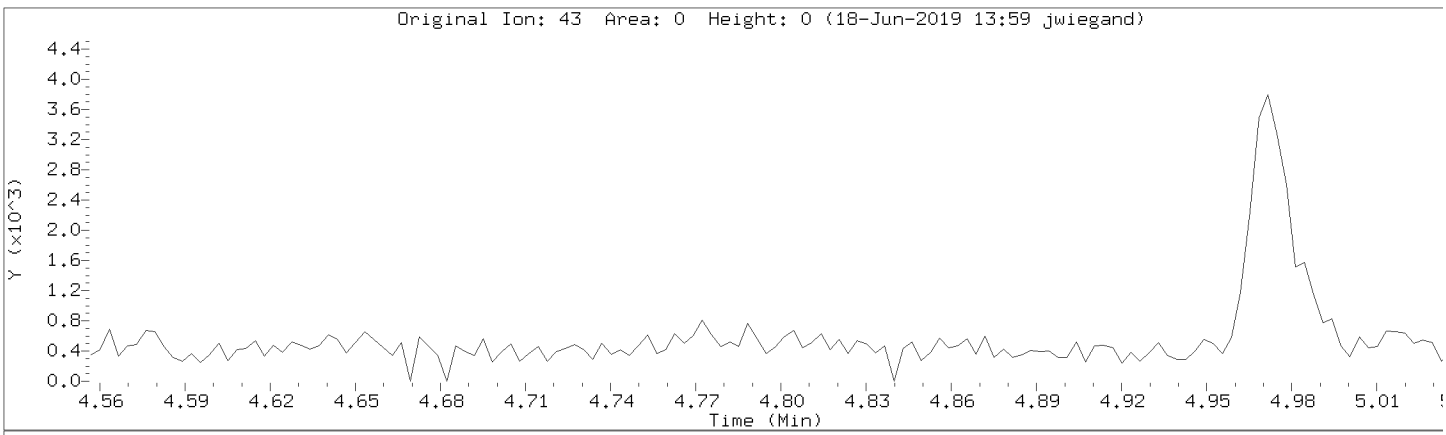
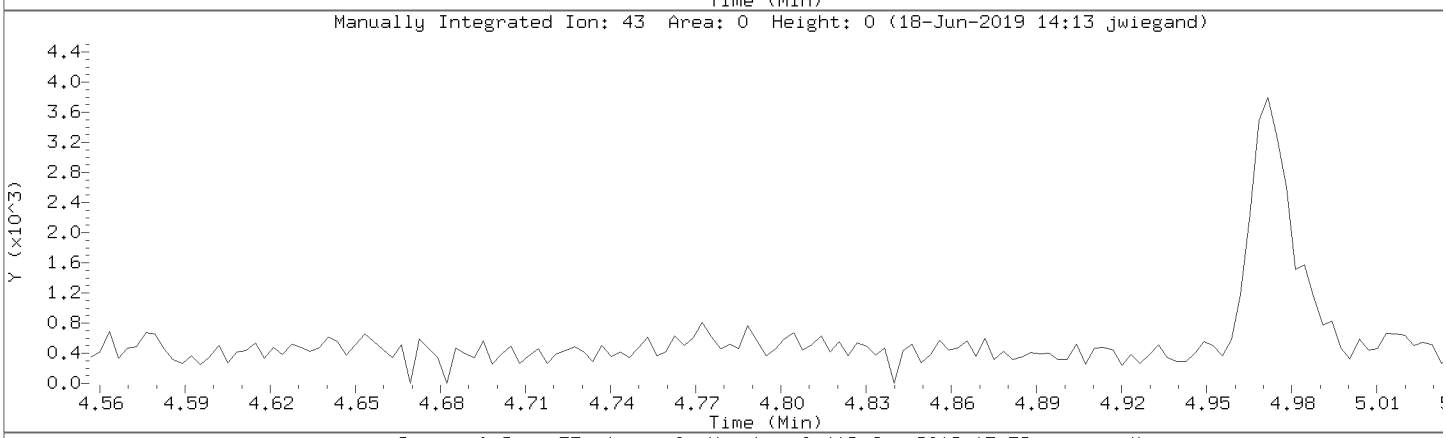
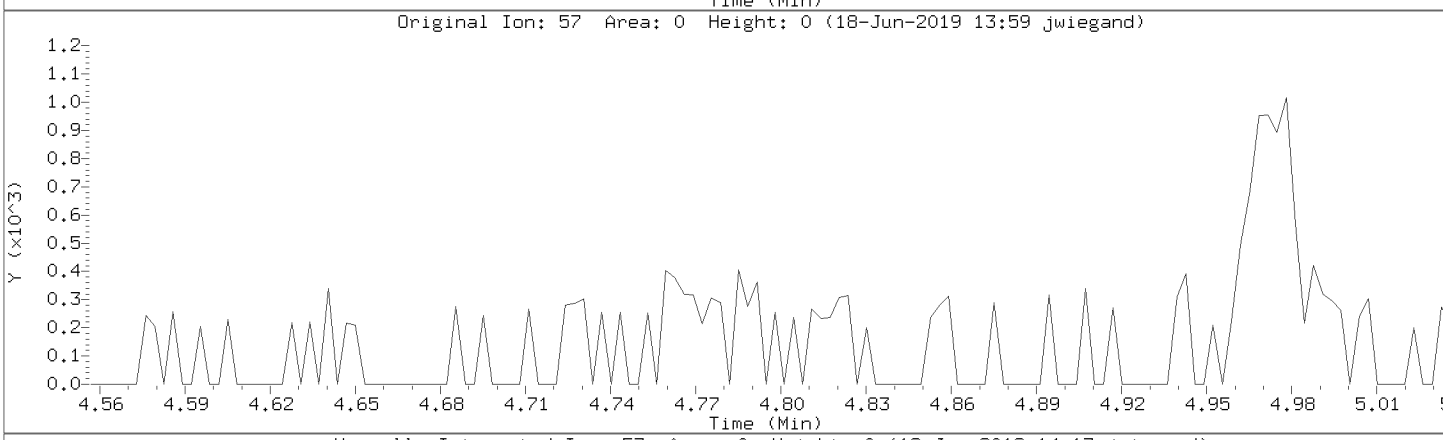
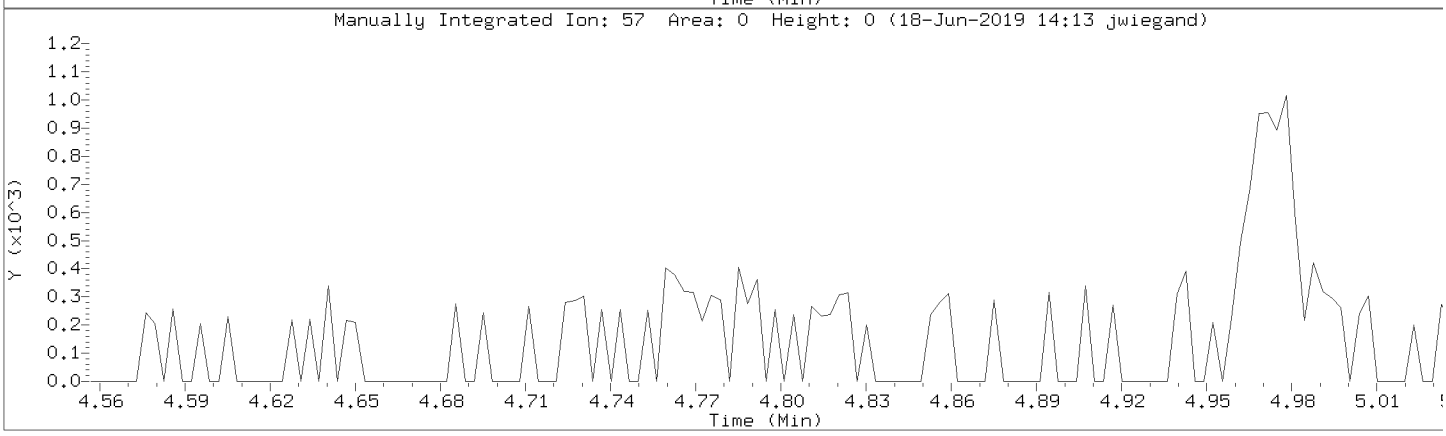
Lab Sample ID: CAL3









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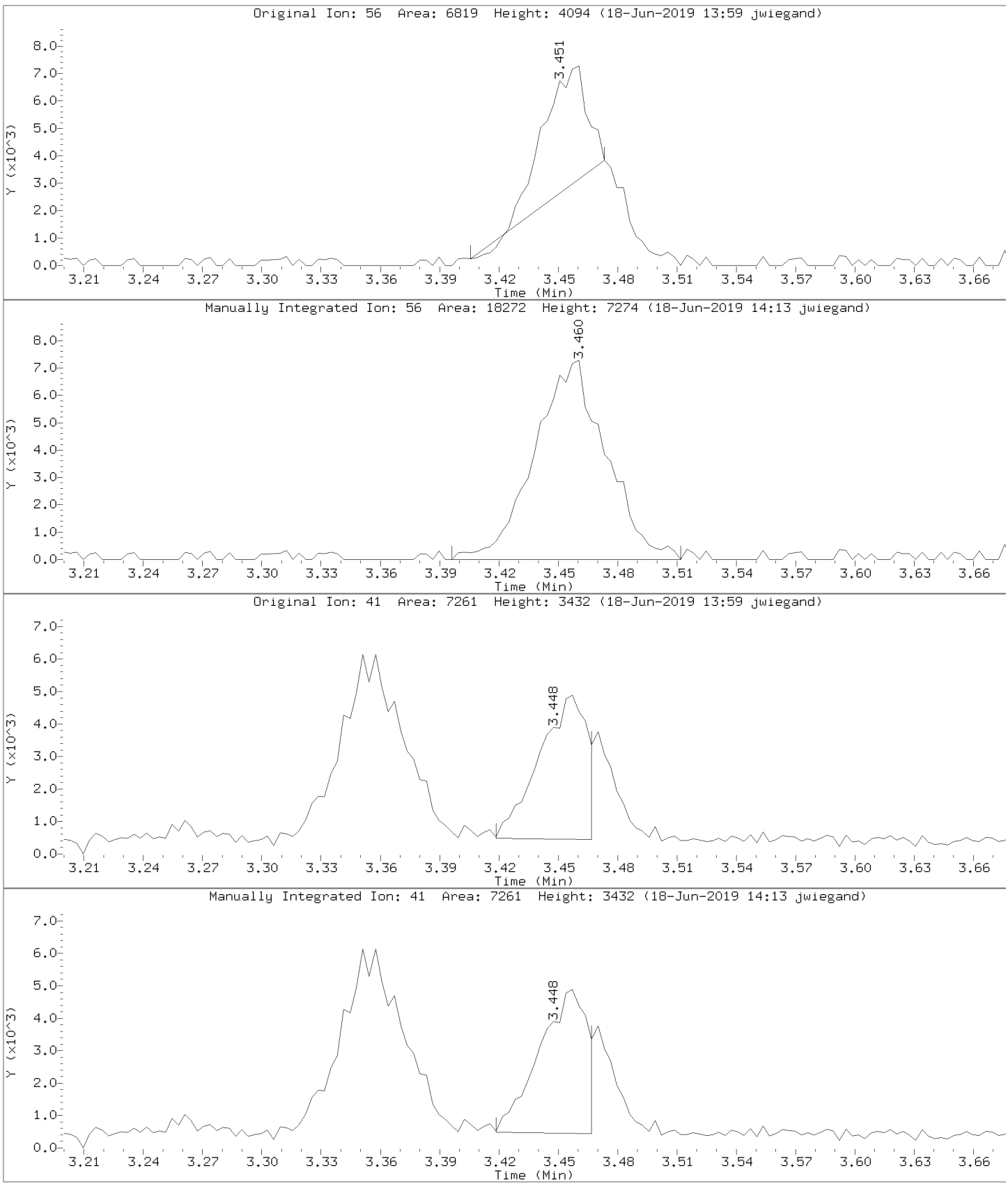
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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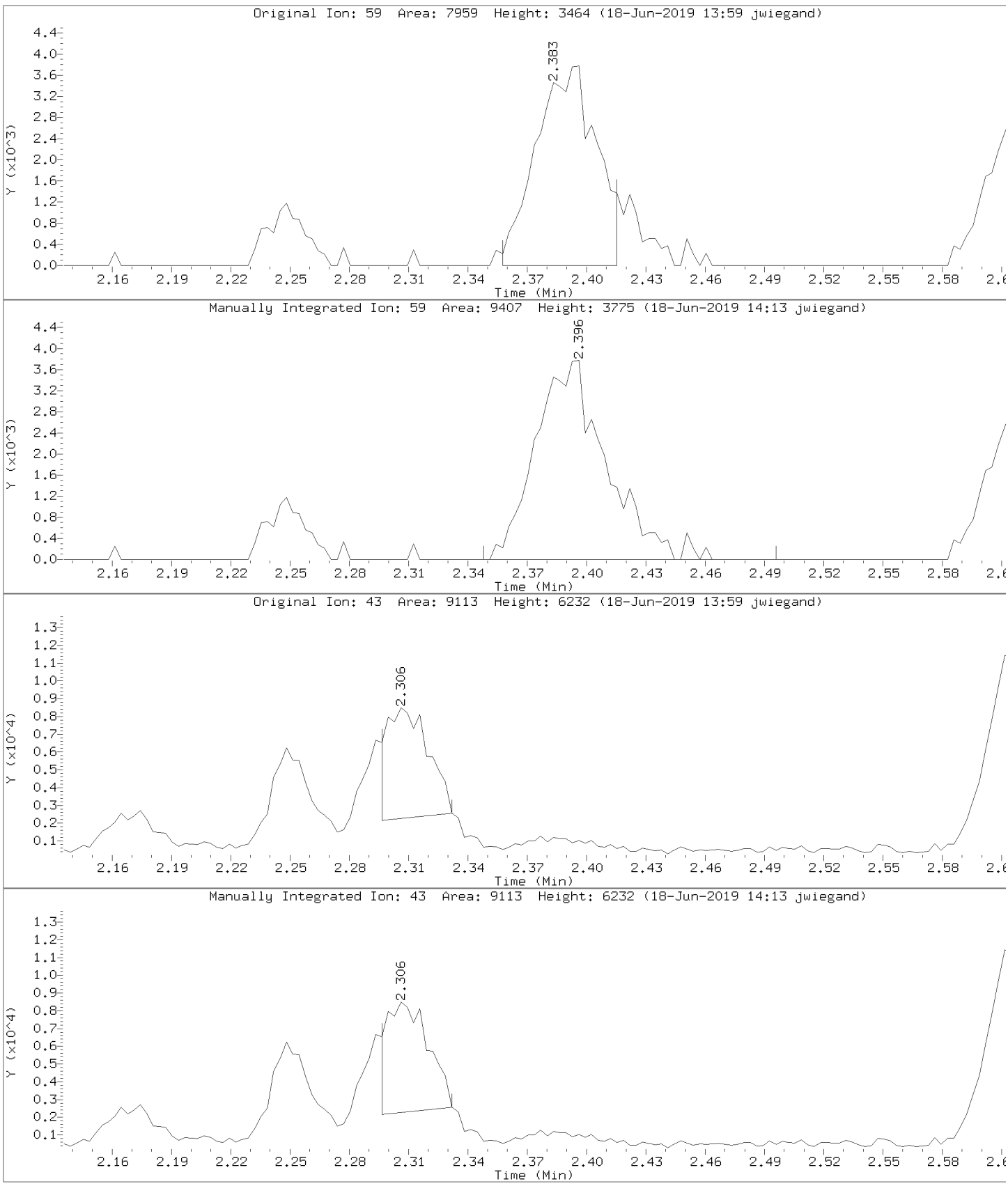
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



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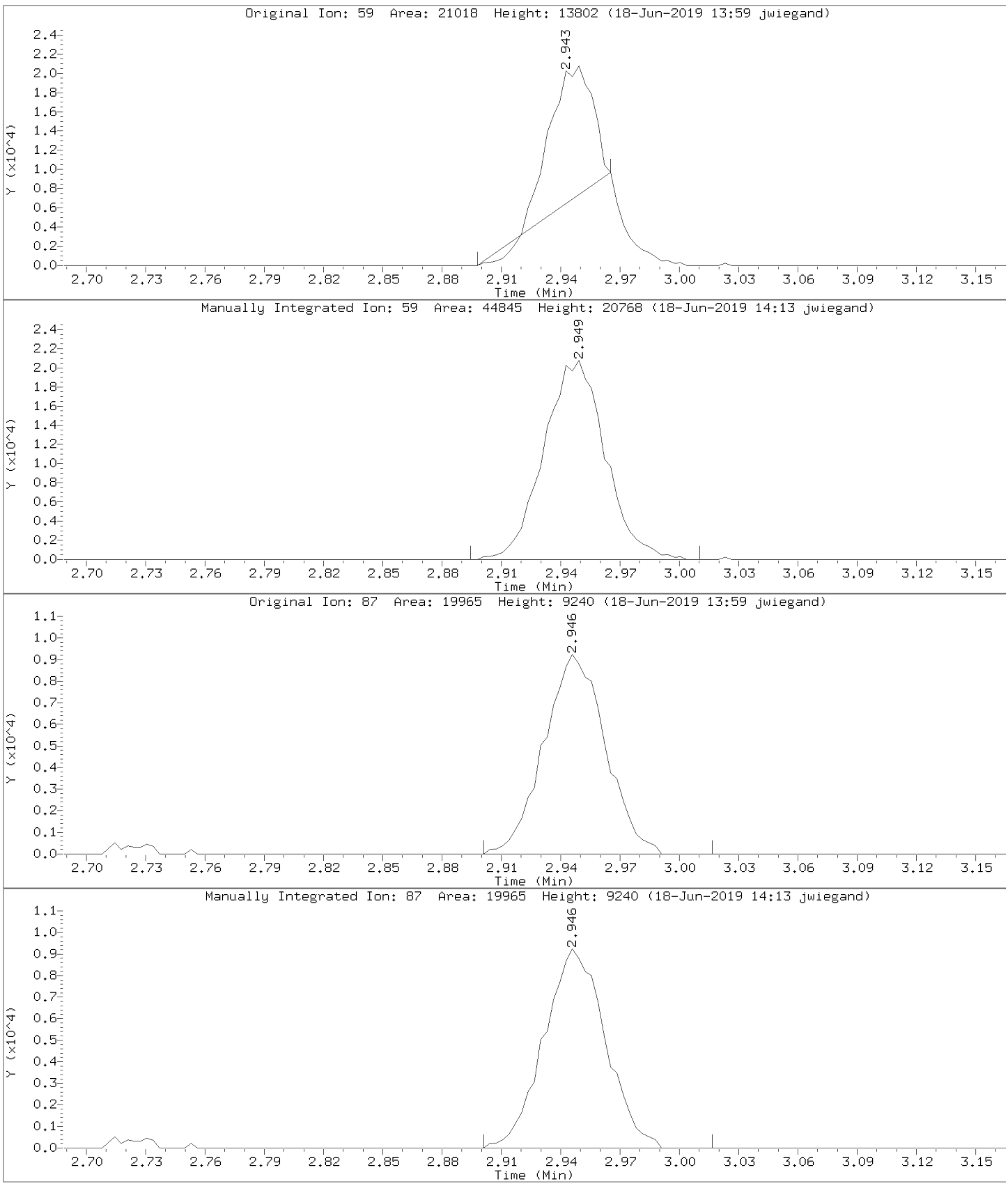
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Ethyl-tert-butyl ether Review Code: LT
CAS Number: 637-92-3



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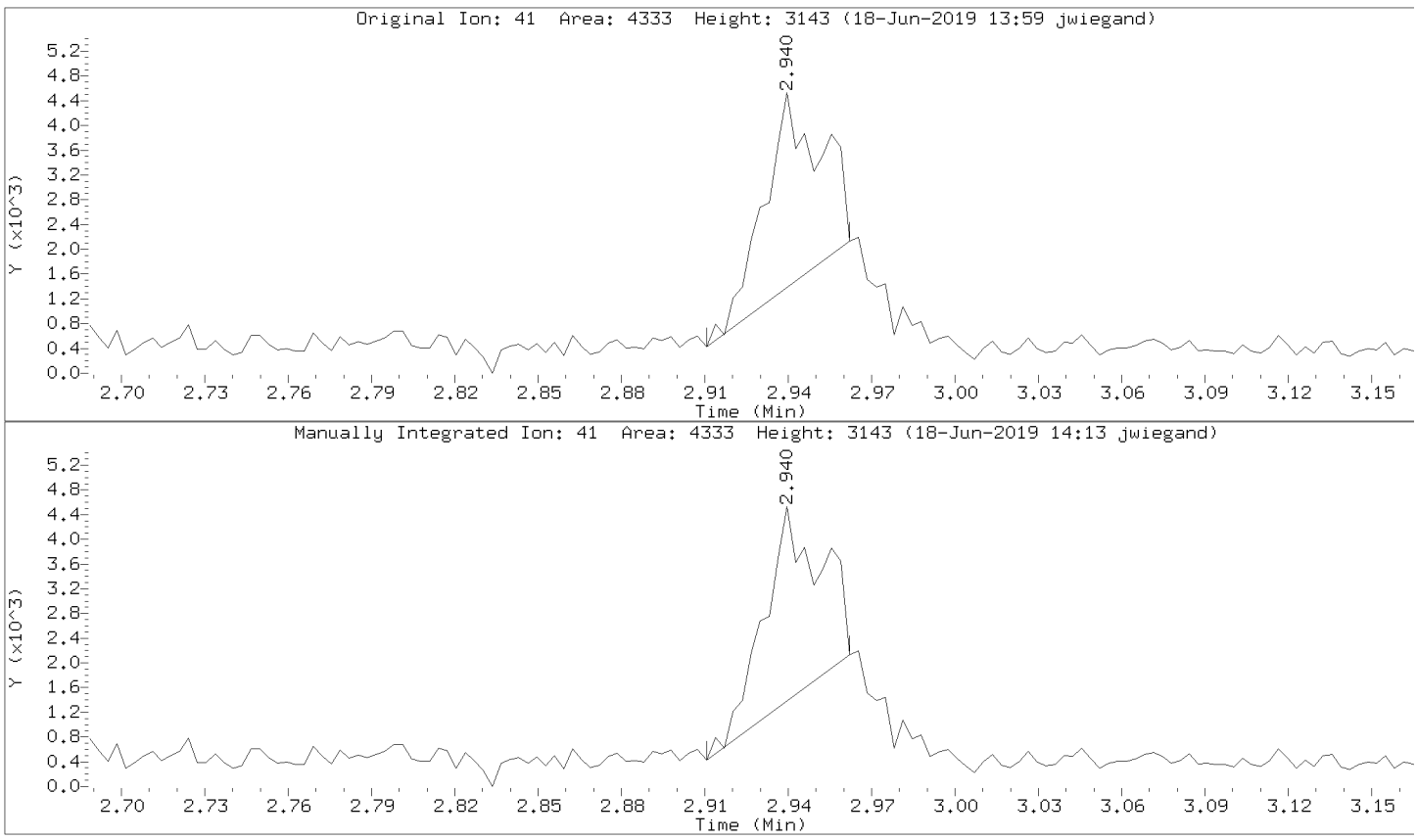
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 18-JUN-2019 10:54
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal4, 91188:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:54 Cal File: 50618011.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	25375	20.0000	21.5(M)	LT
2 Chloromethane	50	1.142	1.142	(0.267)	16977	20.0000	20.1(M)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	31572	20.0000	21.8(M)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	25393	20.0000	23.6(M)	LT
5 Chloroethane	64	1.389	1.380	(0.325)	18442	20.0000	19.9	
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	47135	20.0000	21.9	
7 Diethyl ether (Ethyl ether)	59	1.631	1.634	(0.381)	22024	20.0000	20.0	
8 Ethanol	45	1.772	1.773	(0.264)	535	200.000	(a)	
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	40362	20.0000	23.1	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	19879	20.0000	22.4	
11 Carbon disulfide	76	1.782	1.785	(0.417)	68483	20.0000	22.2	
12 Iodomethane	142	1.852	1.856	(0.433)	8024	20.0000	14.4(M)	LT
13 Acrolein	56	1.962	1.969	(0.459)	2698	20.0000	20.6	
14 Allyl chloride	41	2.058	2.056	(0.481)	170904	100.000	125	
15 Methylene Chloride	49	2.129	2.133	(0.498)	27984	20.0000	23.2	
16 Acetone	43	2.171	2.165	(0.508)	6589	20.0000	21.8(M)	LT
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	42136	20.0000	23.3	
18 Methyl acetate	74	2.251	2.255	(0.526)	4643	20.0000	20.9	
19 n-Hexane	86	2.296	2.297	(0.537)	7153	20.0000	23.8	
20 Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	88164	20.0000	21.9	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.383	2.387	(0.557)	20219	100.000	120(M)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	9844	100.000	125(M)	NI
	23 Diisopropyl ether	45	2.615	2.618	(0.611)	86622	20.0000	22.9	
	24 Chloroprene	53	2.711	2.705	(0.634)	38703	20.0000	23.6	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	54775	20.0000	24.4	
	26 Acrylonitrile	53	2.778	2.785	(0.650)	7950	20.0000	21.7	
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	88439	20.0000	22.0	
	28 Vinyl acetate	43	2.965	2.965	(0.693)	65810	20.0000	20.6	
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	40504	20.0000	22.1	
	30 2,2-Dichloropropane	77	3.360	3.351	(0.786)	47205	20.0000	21.8	
	31 Cyclohexane	56	3.460	3.451	(0.809)	40843	20.0000	21.6(M)	LT
	32 Bromochloromethane	130	3.467	3.467	(0.811)	19198	20.0000	23.0(M)	LT
	33 Chloroform	83	3.557	3.554	(0.832)	58618	20.0000	22.0	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	42471	20.0000	21.0	
	35 Ethyl acetate	43	3.692	3.702	(0.863)	25458	20.0000	19.0	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	10395	20.0000	20.4	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	39784	30.0000	31.6	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	51478	20.0000	21.8	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	13264	20.0000	20.9	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.899)	42522	20.0000	21.3	
	41 Benzene	78	4.020	4.019	(0.940)	121150	20.0000	21.2	
	42 Propionitrile	54	4.049	4.049	(0.947)	2998	20.0000	20.9	
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	14192	20.0000	18.3	
	44 tert-Amylmethyl ether	73	4.103	4.107	(0.959)	85465	20.0000	20.4	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	40881	30.0000	29.8	
	46 Isobutanol	43	4.193	4.099	(0.980)	5731	100.000	99.5	
	47 1,2-Dichloroethane	62	4.155	4.152	(0.971)	41127	20.0000	20.5	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	144844	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	44598	20.0000	20.6	
	50 Trichloroethene	95	4.373	4.374	(0.759)	32516	20.0000	20.7	
	51 Dibromomethane	174	4.598	4.599	(1.075)	20272	20.0000	20.8	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	28087	20.0000	20.5	
	53 Bromodichloromethane	83	4.688	4.689	(1.096)	39632	20.0000	20.5	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	20385	20.0000	19.8	
	55 1,4-Dioxane (p-Dioxane)	88	4.791	4.808	(1.120)	1834	200.000	181(M)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	10470	20.0000	19.5	
	57 cis-1,3-Dichloropropene	75	5.000	5.001	(1.169)	47276	20.0000	20.3	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	136373	30.0000	30.4	
	59 Toluene	91	5.110	5.110	(0.886)	125004	20.0000	20.9	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	45184	100.000	99.6	
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.284	(1.235)	27035	20.0000	19.7	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	33554	20.0000	21.4	
	63 trans-1,3-Dichloropropene	75	5.302	5.303	(0.920)	44402	20.0000	19.8	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	21758	20.0000	18.3	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	27197	20.0000	20.5	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	31405	20.0000	20.1	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	43348	20.0000	20.2	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	26493	20.0000	19.7	
	69 2-Hexanone	43	5.640	5.644	(0.978)	20013	20.0000	20.1	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	45063	20.0000	21.2	
*	71 Chlorobenzene-d5 (IS)	117	5.766	5.766	(1.000)	104675	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	83353	20.0000	20.8	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	32094	20.0000	21.1	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	108939	40.0000	42.6	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.043)	53892	20.0000	21.5	
	76 Styrene	104	6.036	6.036	(1.047)	87395	20.0000	21.0	
	77 Bromoform	173	6.058	6.059	(0.903)	21952	20.0000	19.0	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	132976	20.0000	21.1	
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	40851	30.0000	29.8	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	150303	20.0000	20.6	
	81 Bromobenzene	77	6.309	6.309	(0.940)	58117	20.0000	20.5	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	38014	20.0000	20.9	
	83 1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	107460	20.0000	21.4	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	32217	20.0000	20.6	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	11005	20.0000	20.5	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	8613	20.0000	19.9	
	87 Cyclohexanone	55	6.421	6.422	(0.957)	8852	100.000	107	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	31612	20.0000	20.1	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	91499	20.0000	21.6	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	106024	20.0000	21.4	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	127392	20.0000	21.1	
	92 p-Isopropyltoluene	119	6.634	6.634	(0.989)	107756	20.0000	21.0	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	58376	20.0000	20.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	47592	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	57872	20.0000	20.7	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	95658	20.0000	21.5	
	97 1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	55191	20.0000	21.0	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	47591	30.0000	29.9	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	6394	20.0000	20.2	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	33788	20.0000	21.7	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	15951	20.0000	21.9	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	26797	20.0000	20.7	
	102 Naphthalene	128	7.618	7.618	(1.135)	68151	20.0000	20.1	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	24894	20.0000	20.9	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	23324	20.0000	16.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618011.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	144844	0.81
71 Chlorobenzene-d5	102704	51352	205408	104675	1.92
94 1,4-Dichlorobenze	44519	22260	89038	47592	6.90

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	21.5	
74-87-3	Chloromethane	20.1	
75-01-4	Vinyl chloride	21.8	
74-83-9	Bromomethane	23.6	
75-00-3	Chloroethane	19.9	
75-69-4	Trichlorofluoromethane	21.9	
60-29-7	Diethyl ether (Ethyl ether)	20.0	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	23.1	
76-13-1	1,1,2-Trichlorotrifluoroetha	22.4	
75-15-0	Carbon disulfide	22.2	
74-88-4	Iodomethane	14.4	
107-02-8	Acrolein	20.6	
107-05-1	Allyl chloride	125	
75-09-2	Methylene Chloride	23.2	
67-64-1	Acetone	21.8	
156-60-5	trans-1,2-Dichloroethene	23.3	
79-20-9	Methyl acetate	20.9	
110-54-3	n-Hexane	23.8	
1634-04-4	Methyl-tert-butyl ether	21.9	
75-65-0	tert-Butyl Alcohol	120	
75-05-8	Acetonitrile	125	
108-20-3	Diisopropyl ether	22.9	
126-99-8	Chloroprene	23.6	
75-34-3	1,1-Dichloroethane	24.4	
107-13-1	Acrylonitrile	21.7	
637-92-3	Ethyl-tert-butyl ether	22.0	
108-05-4	Vinyl acetate	20.6	
156-59-2	cis-1,2-Dichloroethene	22.1	
594-20-7	2,2-Dichloropropane	21.8	
110-82-7	Cyclohexane	21.6	
74-97-5	Bromochloromethane	23.0	
67-66-3	Chloroform	22.0	
56-23-5	Carbon tetrachloride	21.0	
141-78-6	Ethyl acetate	19.0	
109-99-9	Tetrahydrofuran	20.4	
71-55-6	1,1,1-Trichloroethane	21.8	
78-93-3	2-Butanone (MEK)	20.9	
563-58-6	1,1-Dichloropropene	21.3	
71-43-2	Benzene	21.2	
107-12-0	Propionitrile	20.9	
126-98-7	Methacrylonitrile	18.3	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	20.4	
78-83-1	Isobutanol	99.5	
107-06-2	1,2-Dichloroethane	20.5	
108-87-2	Methylcyclohexane	20.6	
79-01-6	Trichloroethene	20.7	
74-95-3	Dibromomethane	20.8	
78-87-5	1,2-Dichloropropane	20.5	
75-27-4	Bromodichloromethane	20.5	
80-62-6	Methyl methacrylate	19.8	
123-91-1	1,4-Dioxane (p-Dioxane)	181	
110-75-8	2-Chloroethylvinyl ether	19.5	
10061-01-5	cis-1,3-Dichloropropene	20.3	
108-88-3	Toluene	20.9	
79-46-9	2-Nitropropane	99.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.7	
127-18-4	Tetrachloroethene	21.4	
10061-02-6	trans-1,3-Dichloropropene	19.8	
97-63-2	Ethyl methacrylate	18.3	
79-00-5	1,1,2-Trichloroethane	20.5	
124-48-1	Dibromochloromethane	20.1	
142-28-9	1,3-Dichloropropane	20.2	
106-93-4	1,2-Dibromoethane (EDB)	19.7	
591-78-6	2-Hexanone	20.1	
100-41-4	Ethylbenzene	21.2	
108-90-7	Chlorobenzene	20.8	
630-20-6	1,1,1,2-Tetrachloroethane	21.1	
7816-60-0	m&p-Xylene	42.6	
95-47-6	o-Xylene	21.5	
100-42-5	Styrene	21.0	
75-25-2	Bromoform	19.0	
98-82-8	Isopropylbenzene (Cumene)	21.1	
103-65-1	n-Propylbenzene	20.6	
108-86-1	Bromobenzene	20.5	
79-34-5	1,1,2,2-Tetrachloroethane	20.9	
108-67-8	1,3,5-Trimethylbenzene	21.4	
95-49-8	2-Chlorotoluene	20.6	
96-18-4	1,2,3-Trichloropropane	20.5	
110-57-6	trans-1,4-Dichloro-2-butene	19.9	
108-94-1	Cyclohexanone	107	
106-43-4	4-Chlorotoluene	20.1	
98-06-6	tert-Butylbenzene	21.6	
95-63-6	1,2,4-Trimethylbenzene	21.4	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

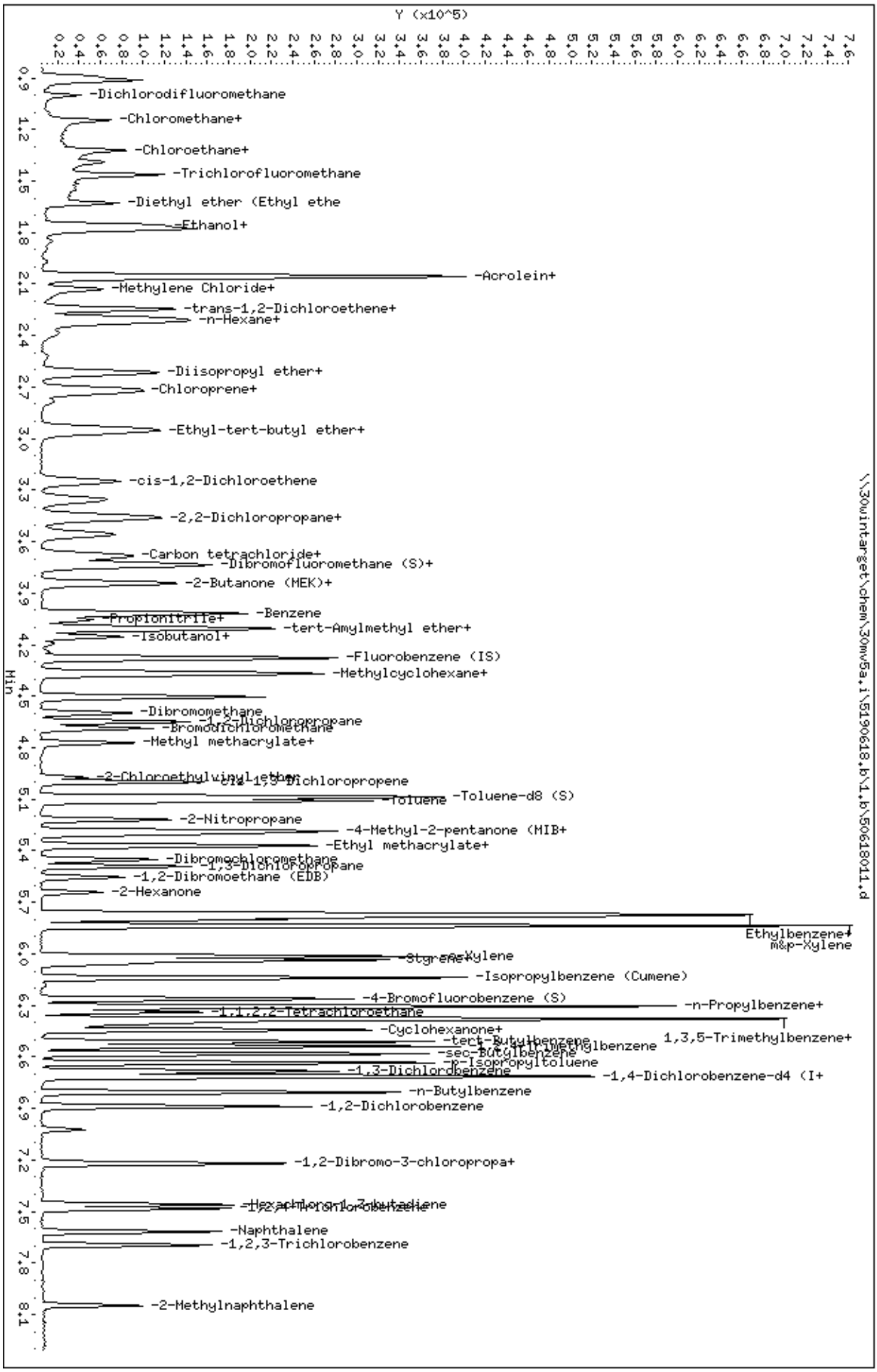
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.1	
99-87-6	p-Isopropyltoluene	21.0	
541-73-1	1,3-Dichlorobenzene	20.6	
106-46-7	1,4-Dichlorobenzene	20.7	
104-51-8	n-Butylbenzene	21.5	
95-50-1	1,2-Dichlorobenzene	21.0	
96-12-8	1,2-Dibromo-3-chloropropane	20.2	
108-70-3	1,3,5-Trichlorobenzene	21.7	
87-68-3	Hexachloro-1,3-butadiene	21.9	
120-82-1	1,2,4-Trichlorobenzene	20.7	
91-20-3	Naphthalene	20.1	
87-61-6	1,2,3-Trichlorobenzene	20.9	
91-57-6	2-Methylnaphthalene	16.0	
1868-53-7	Dibromofluoromethane (S)	31.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.8	
2037-26-5	Toluene-d8 (S)	30.4	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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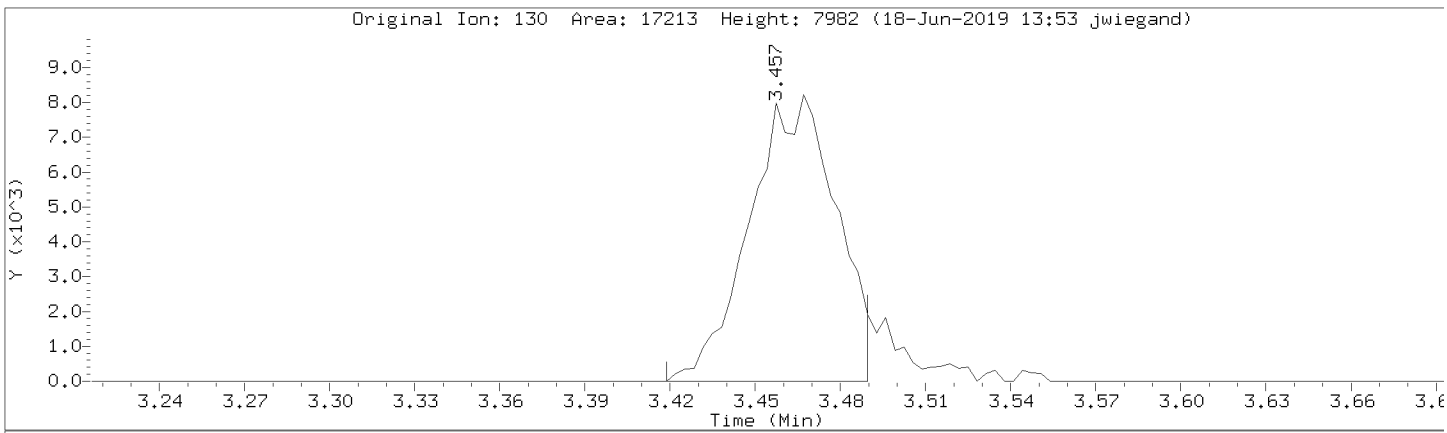
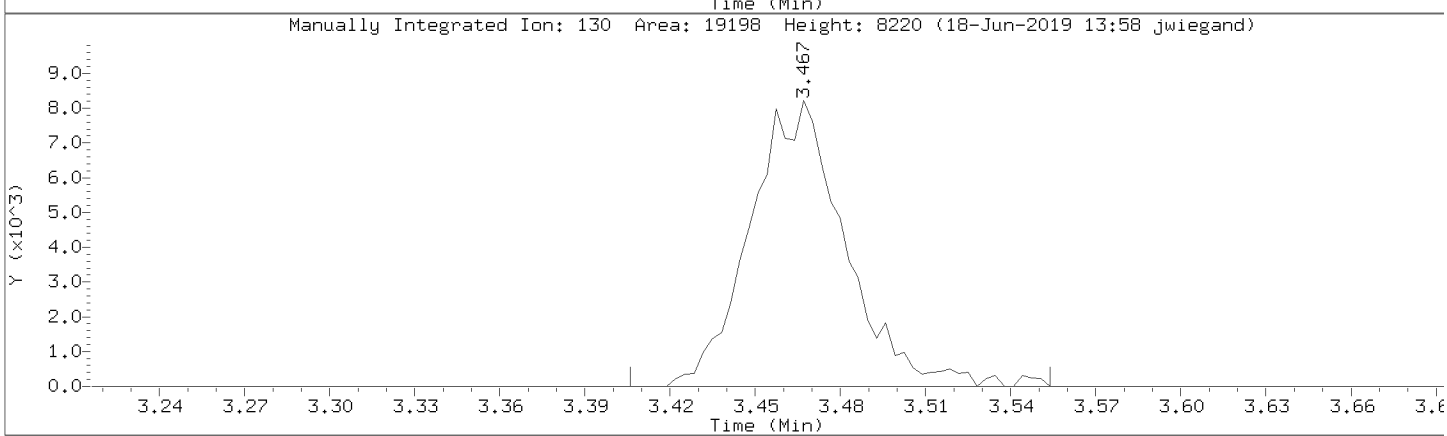
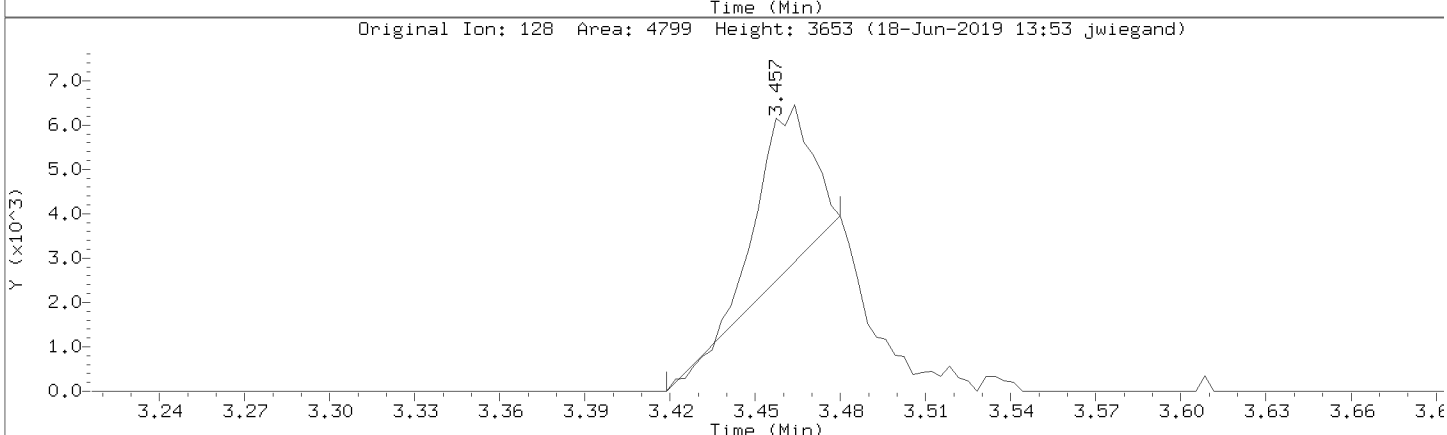
Date : 18-JUN-2019 10:54
Client ID: CAL4
Sample Info: CAL4, 91188:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane+
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
m&p-Xylene
-Styrene+
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachlorobutadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

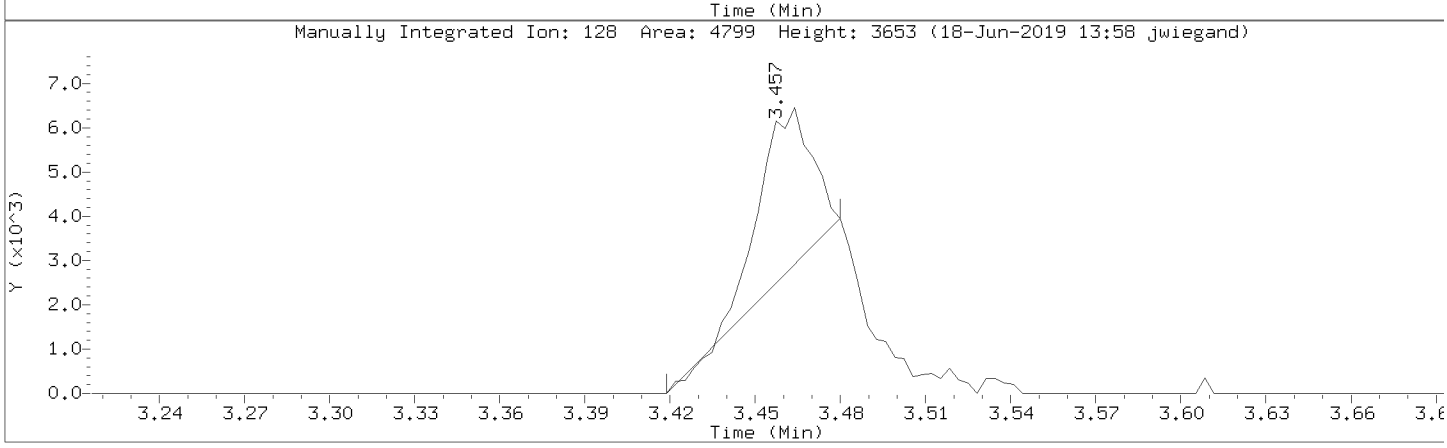
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618011.d
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5









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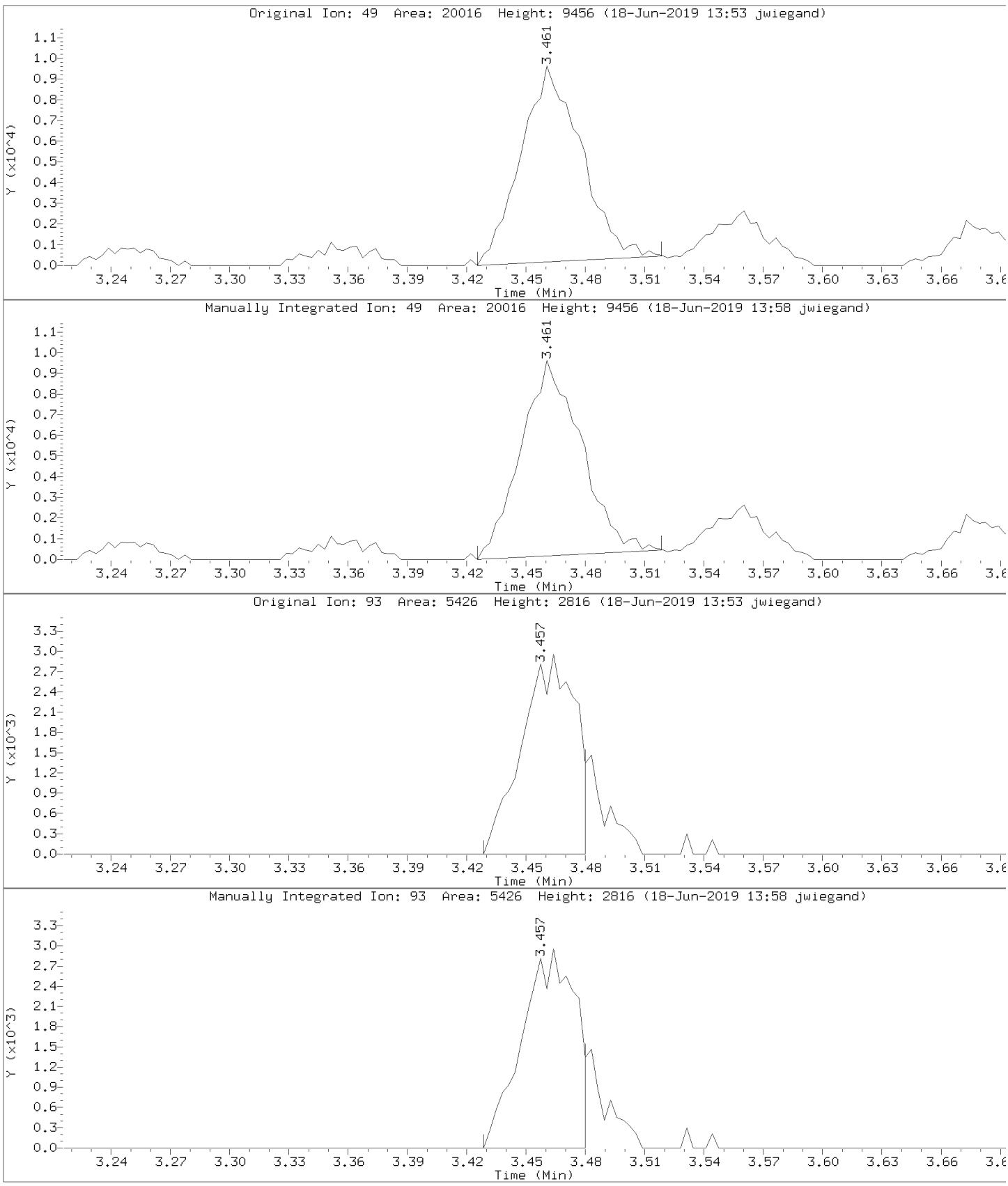
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4



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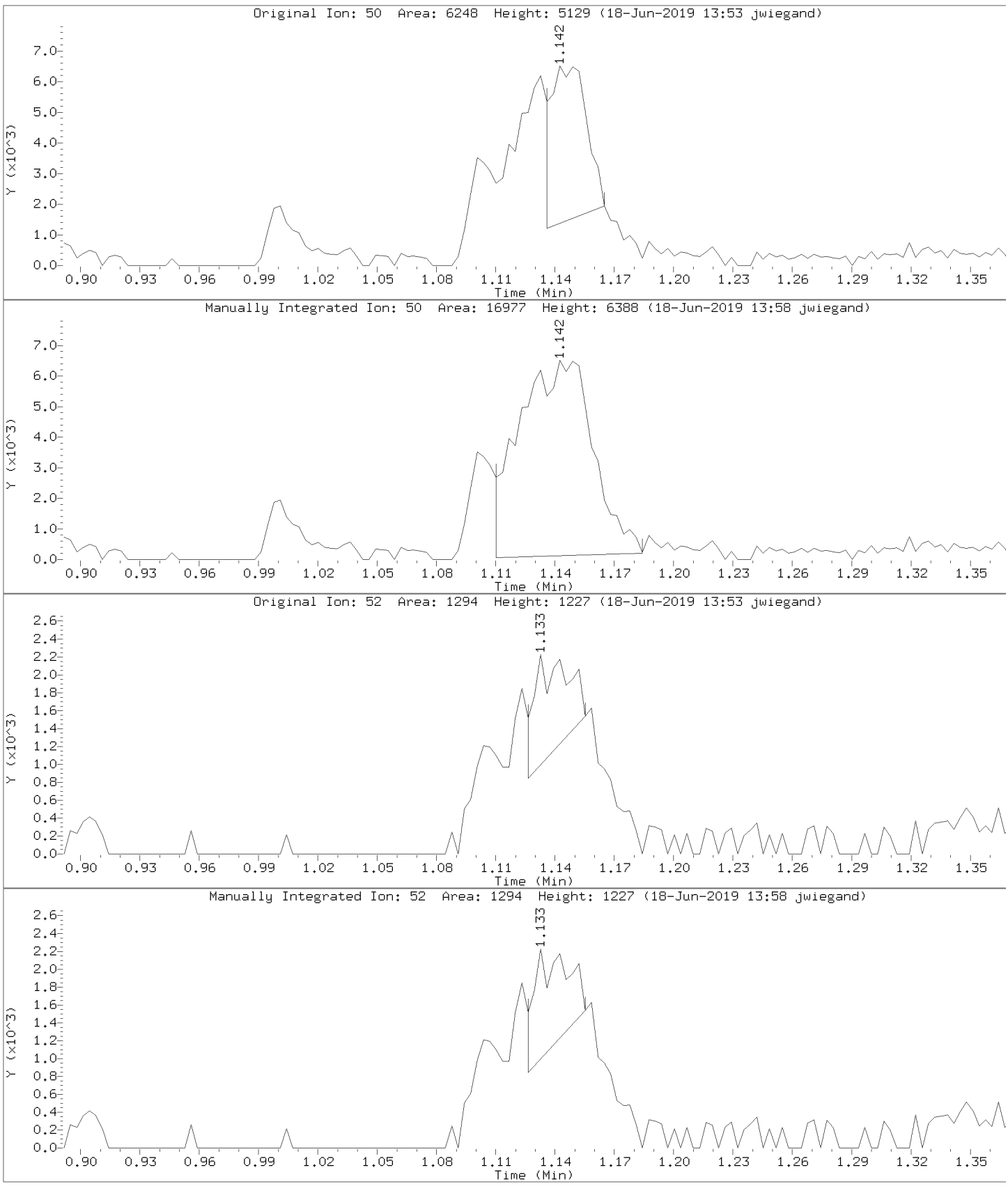
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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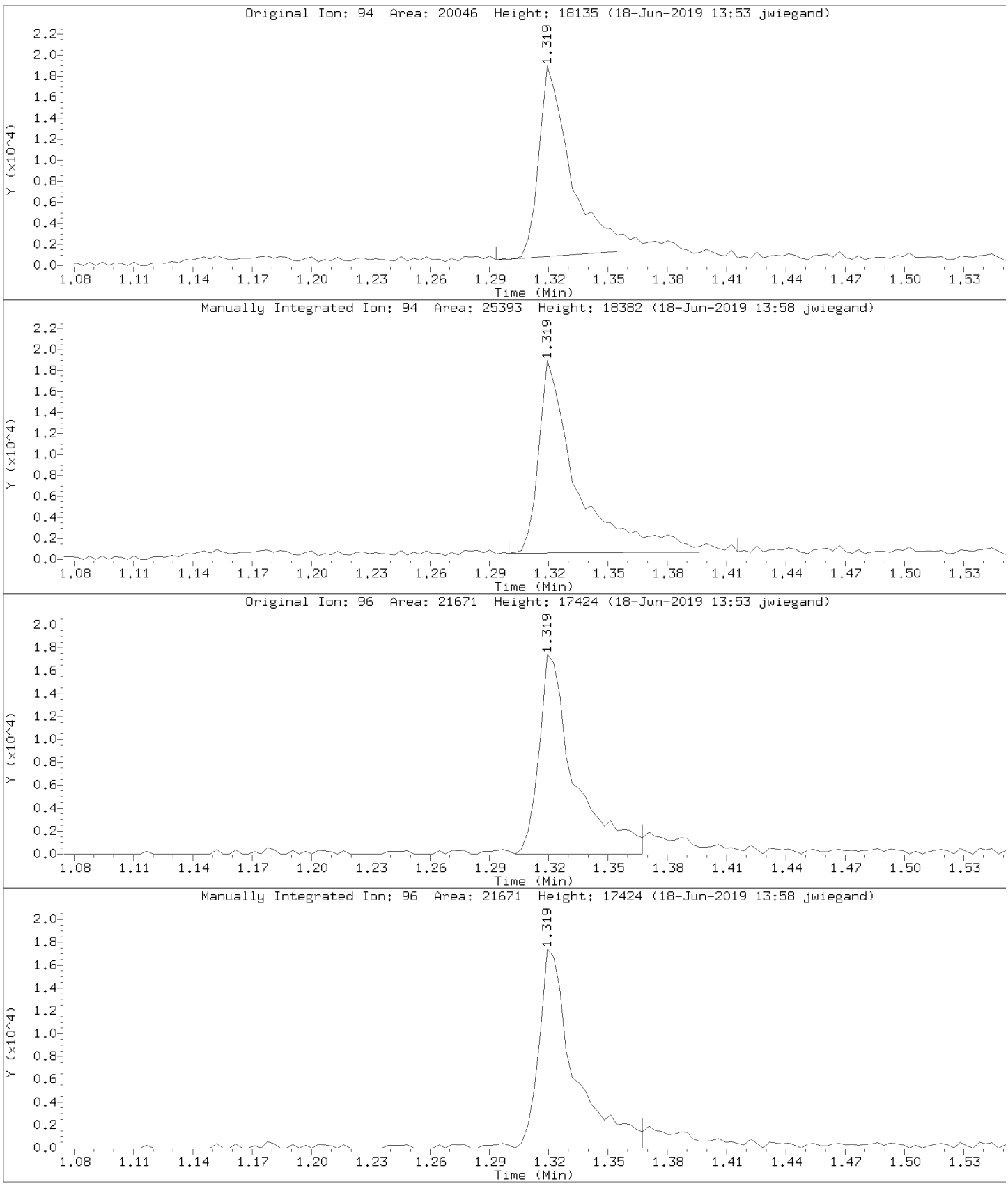
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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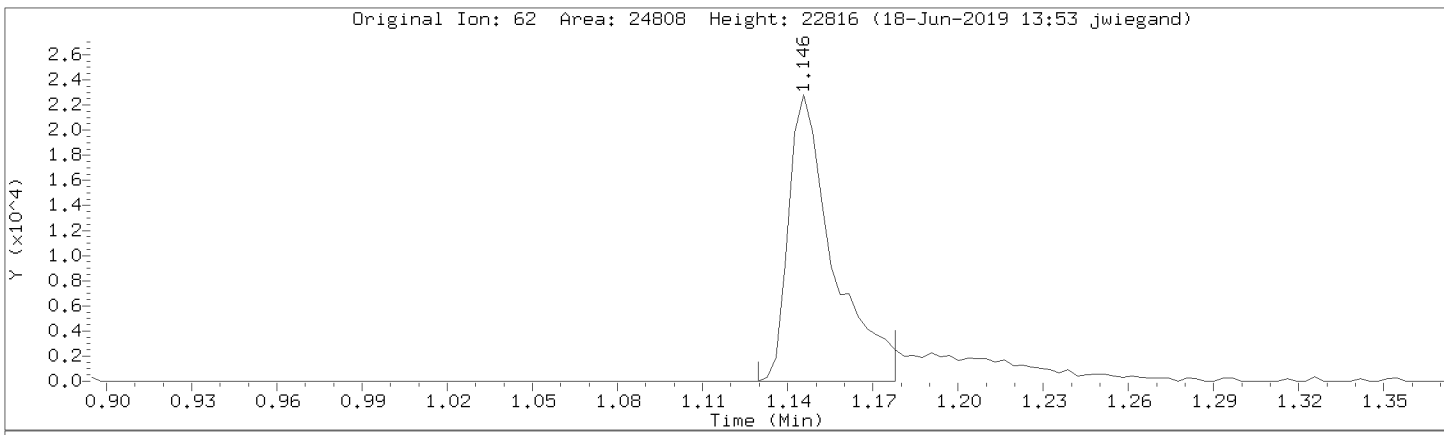
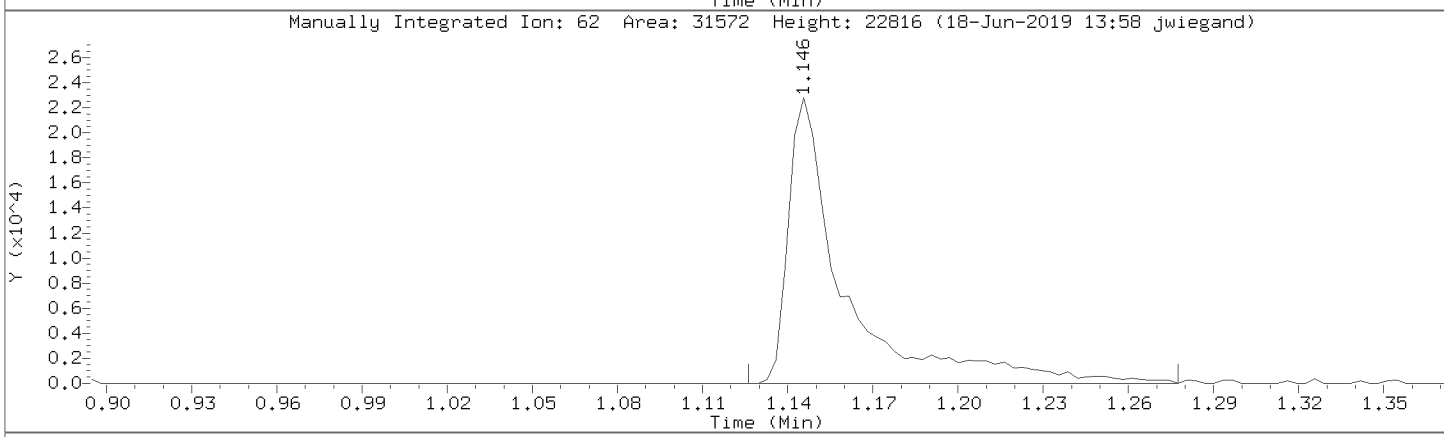
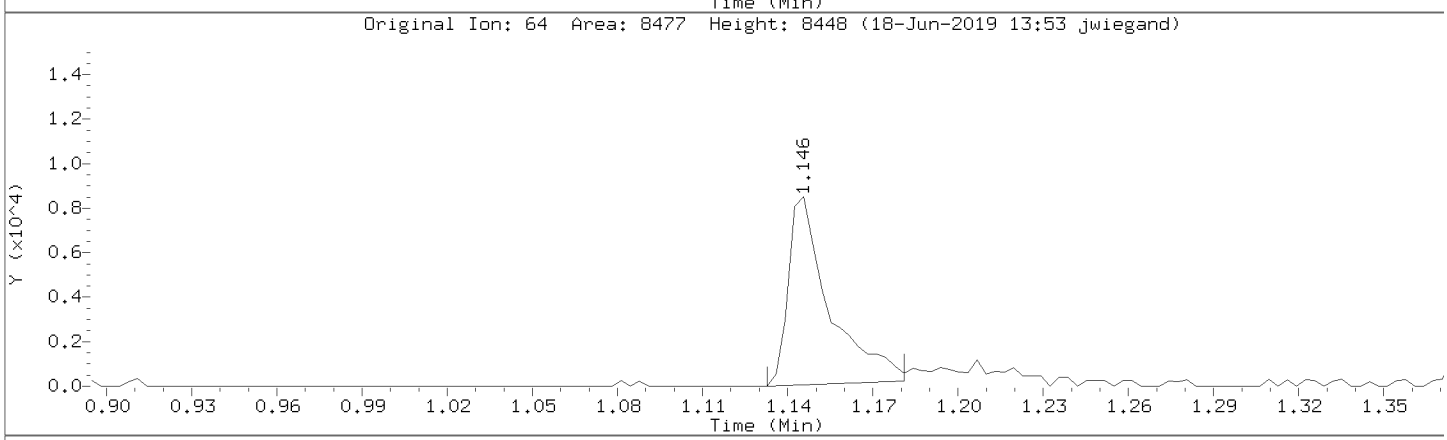
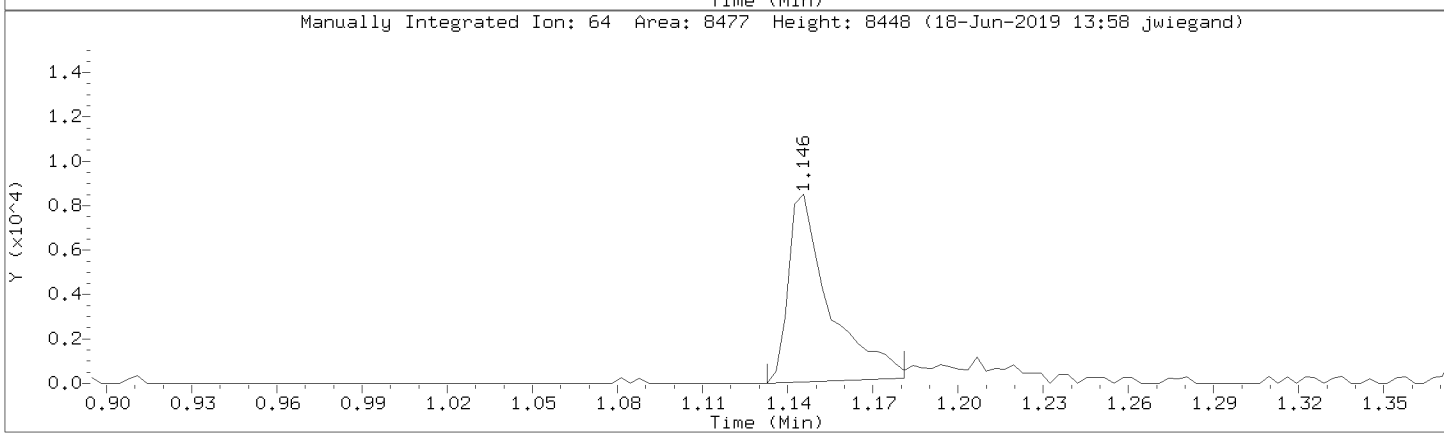
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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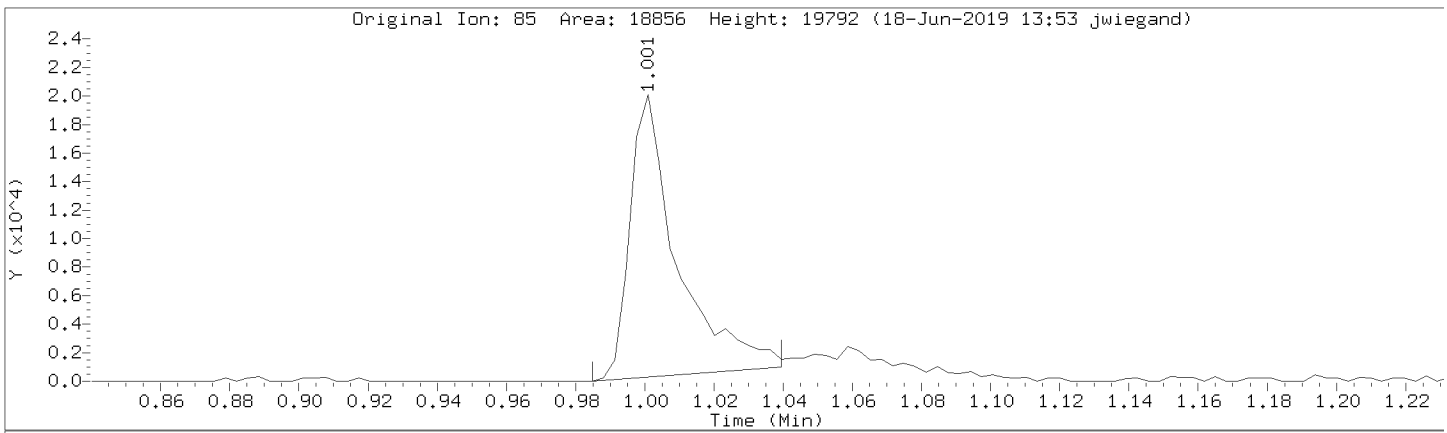
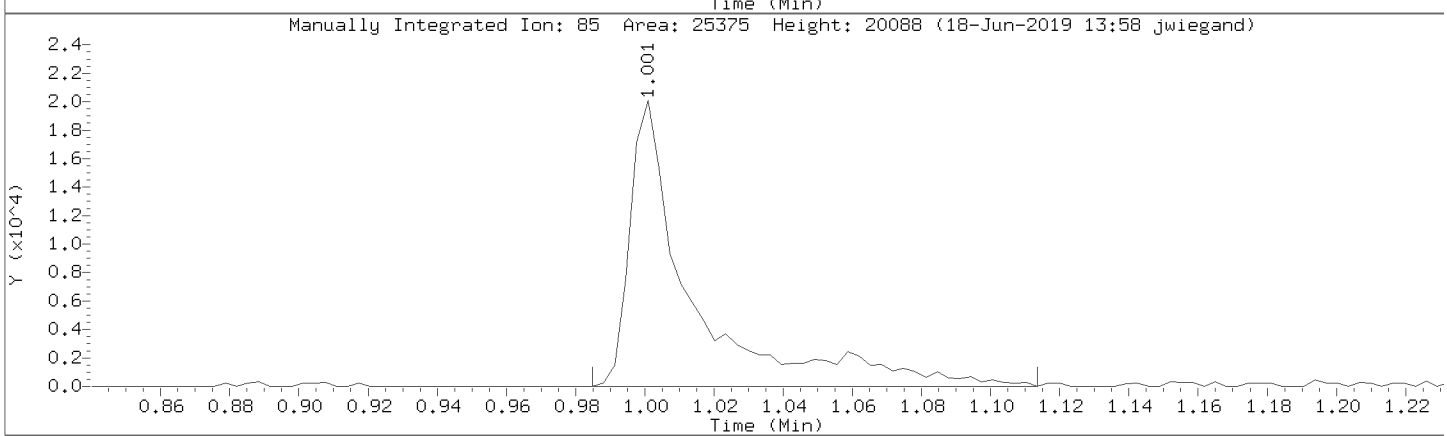
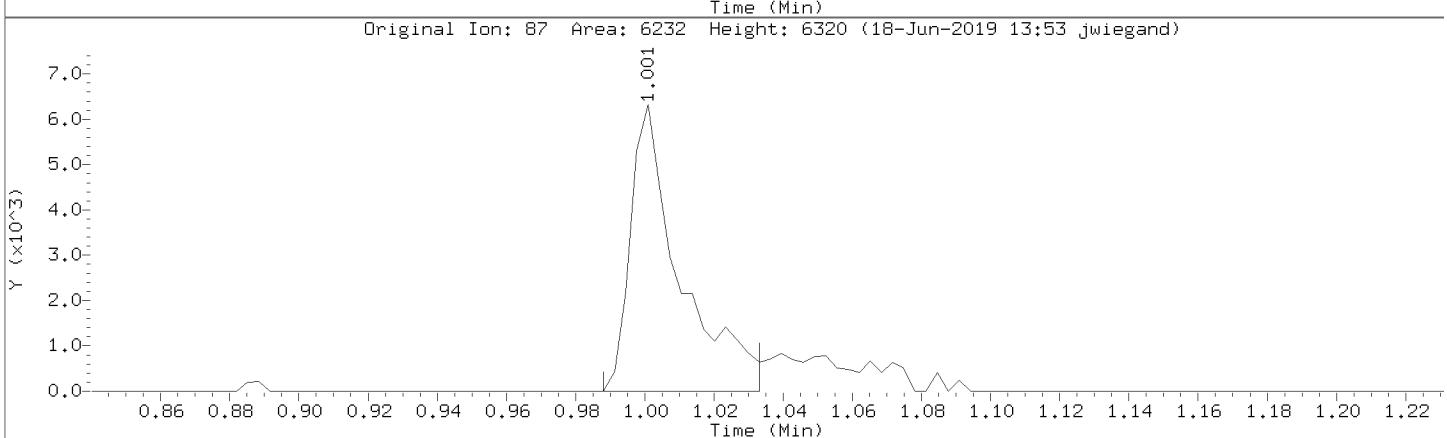
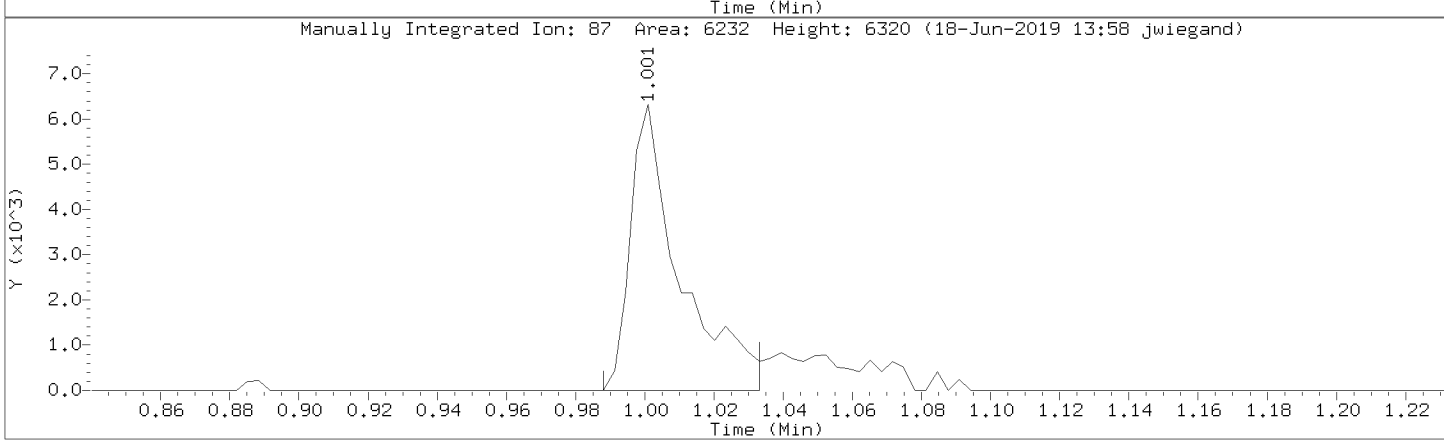
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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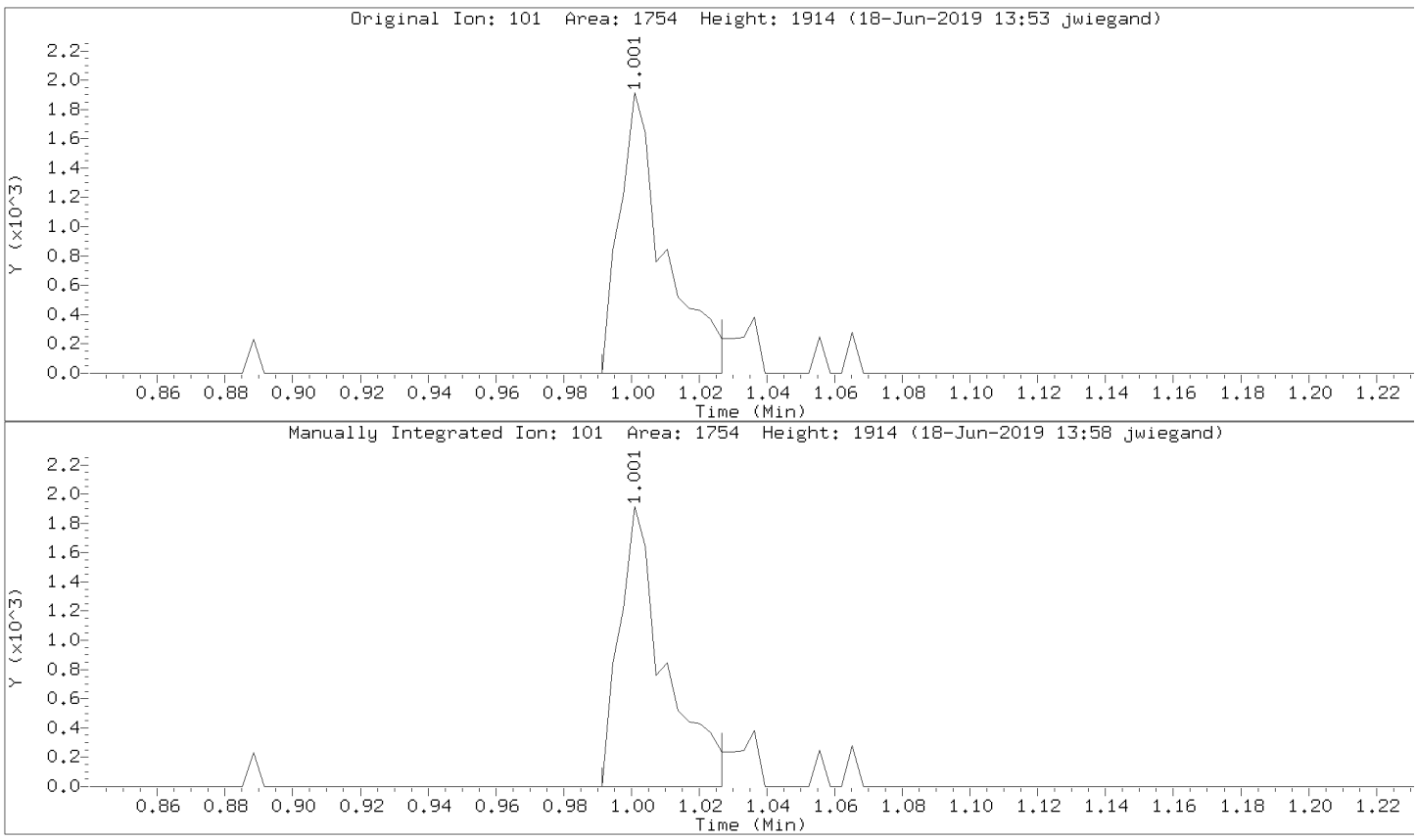
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4



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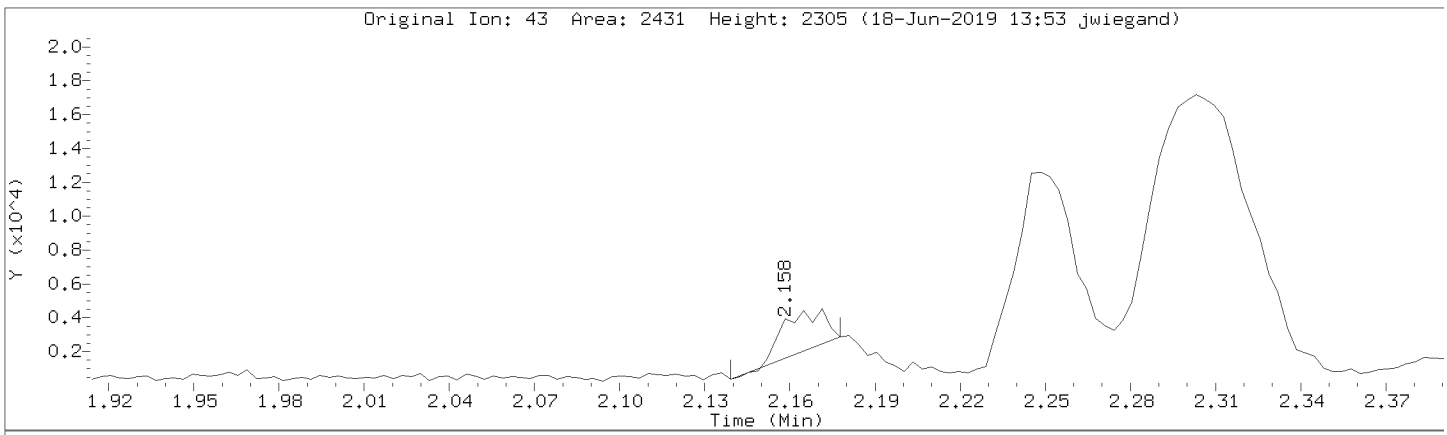
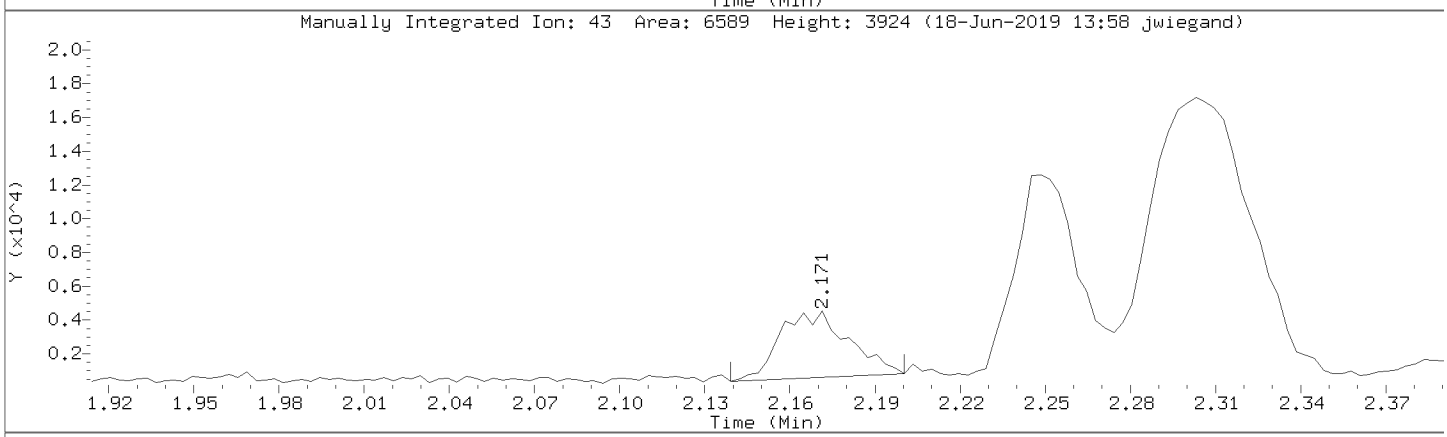
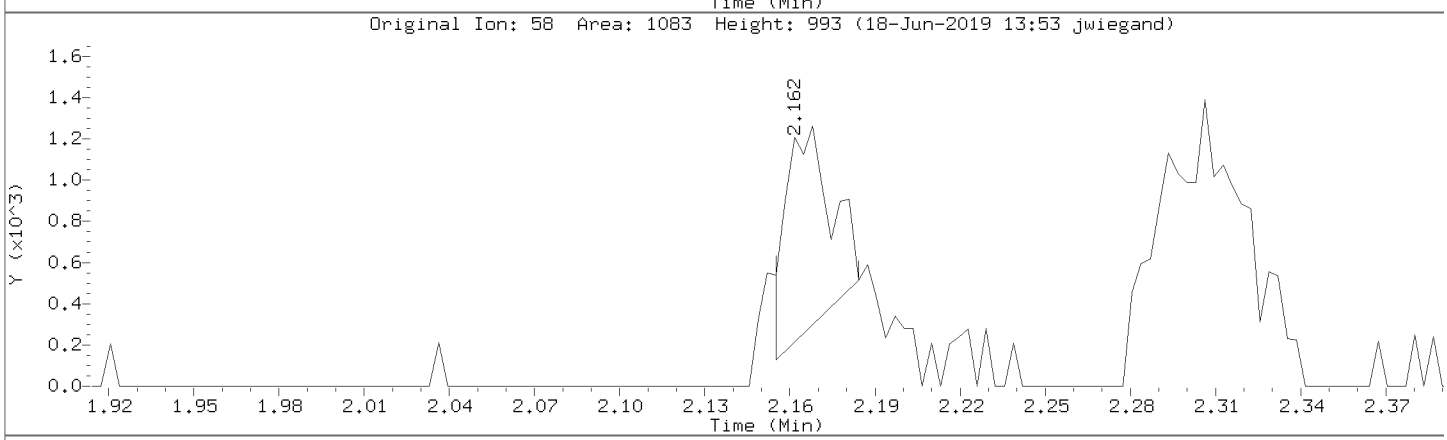
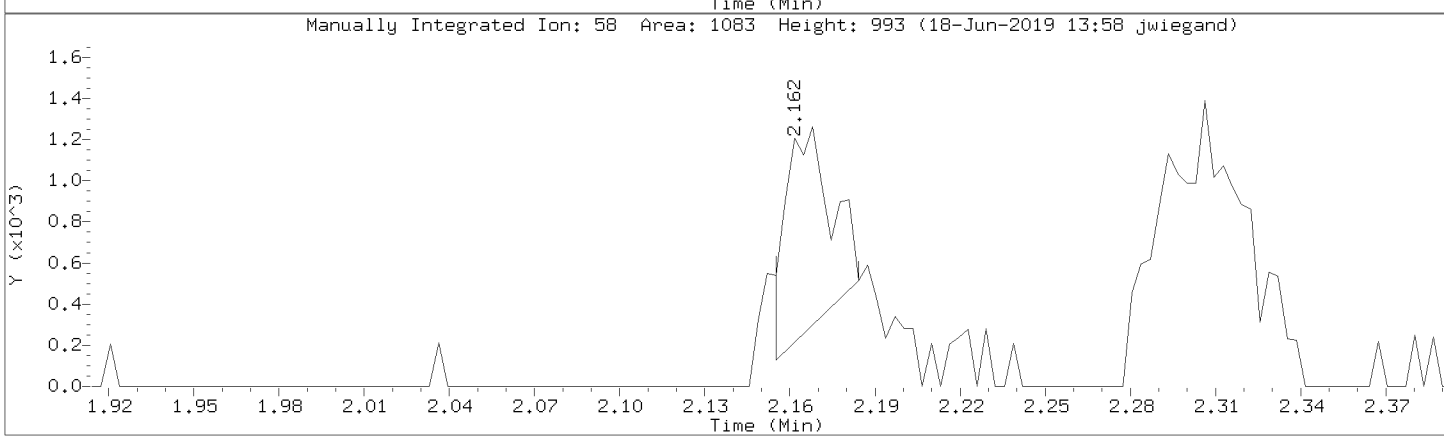
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Acetone Review Code: LT
CAS Number: 67-64-1









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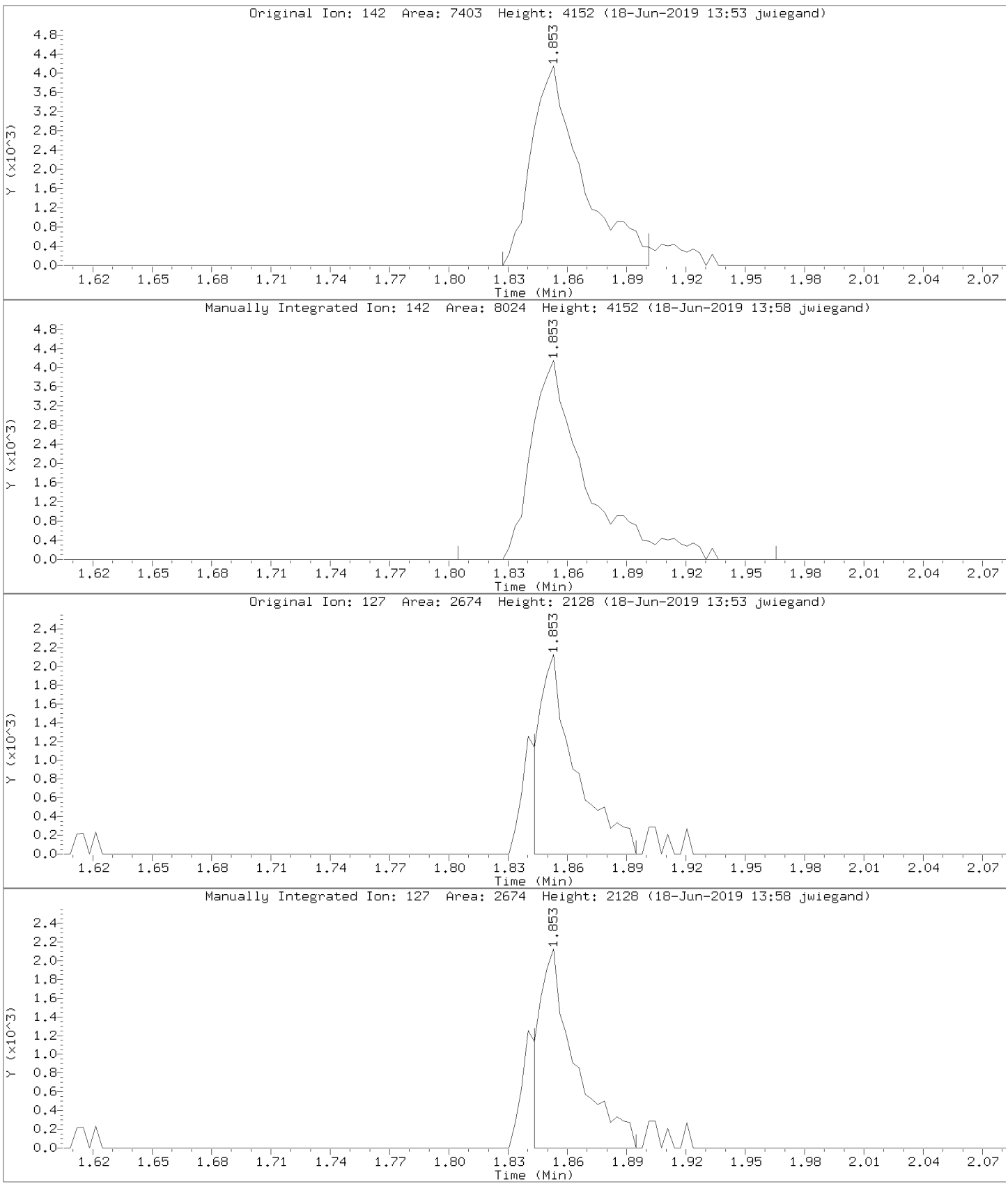
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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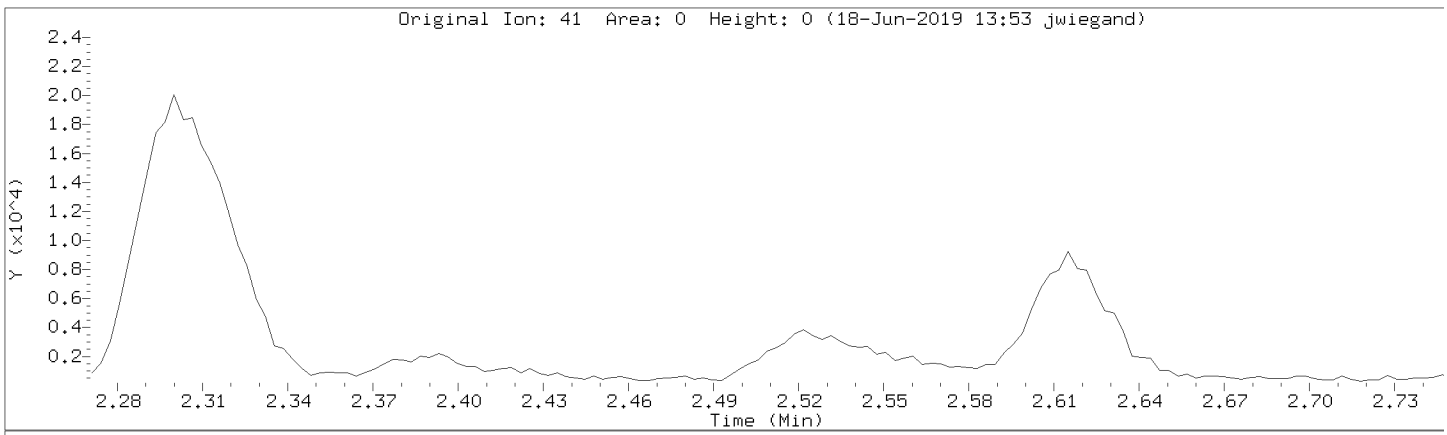
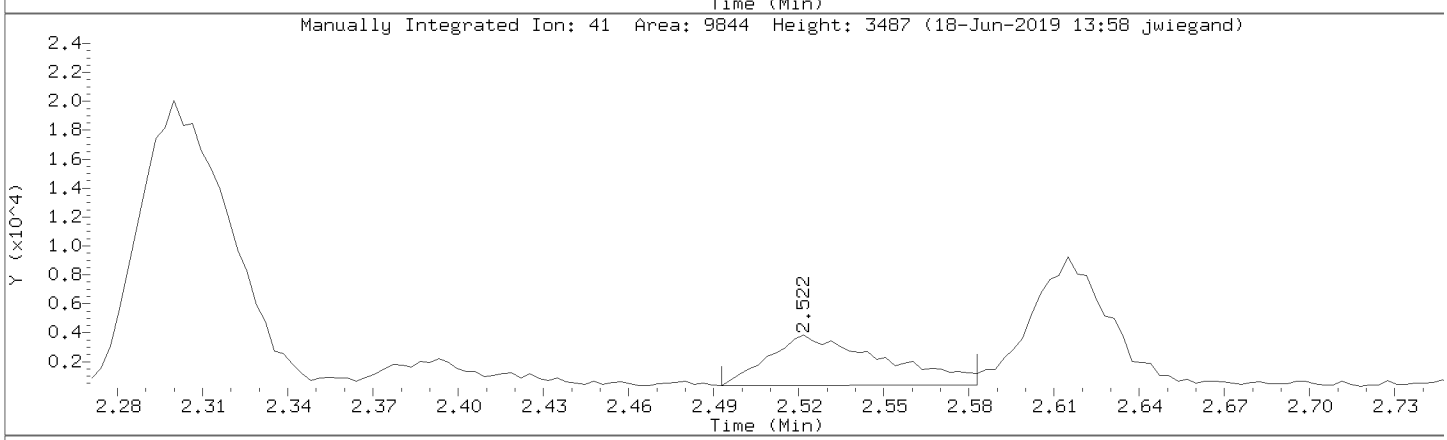
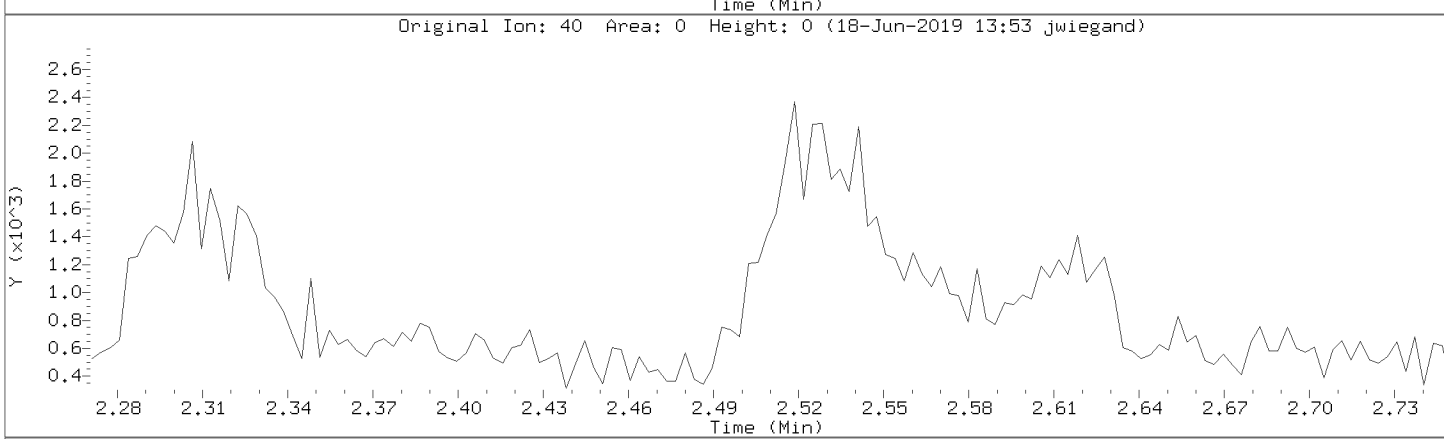
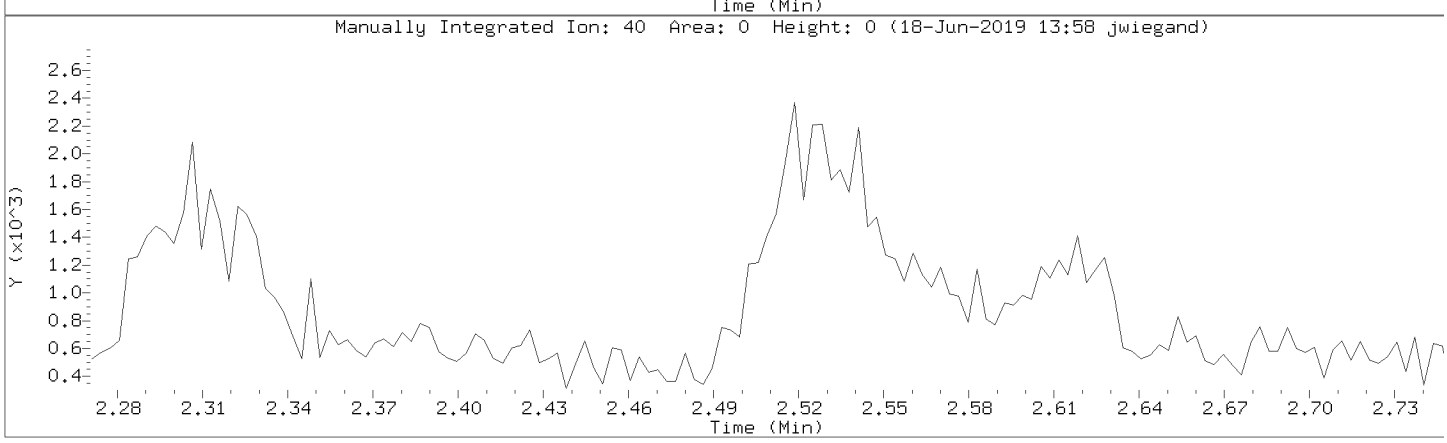
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8









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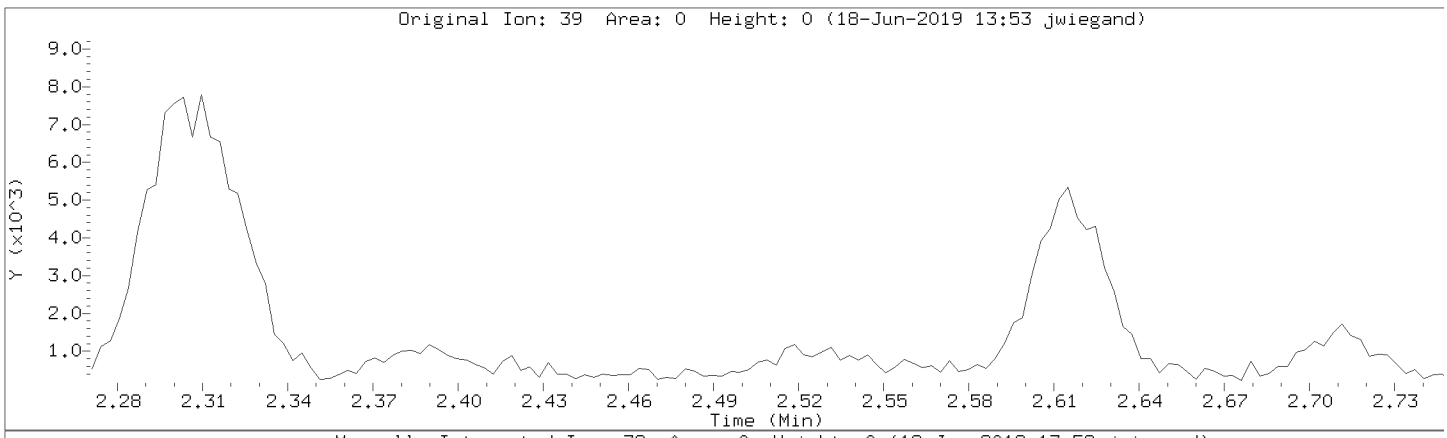
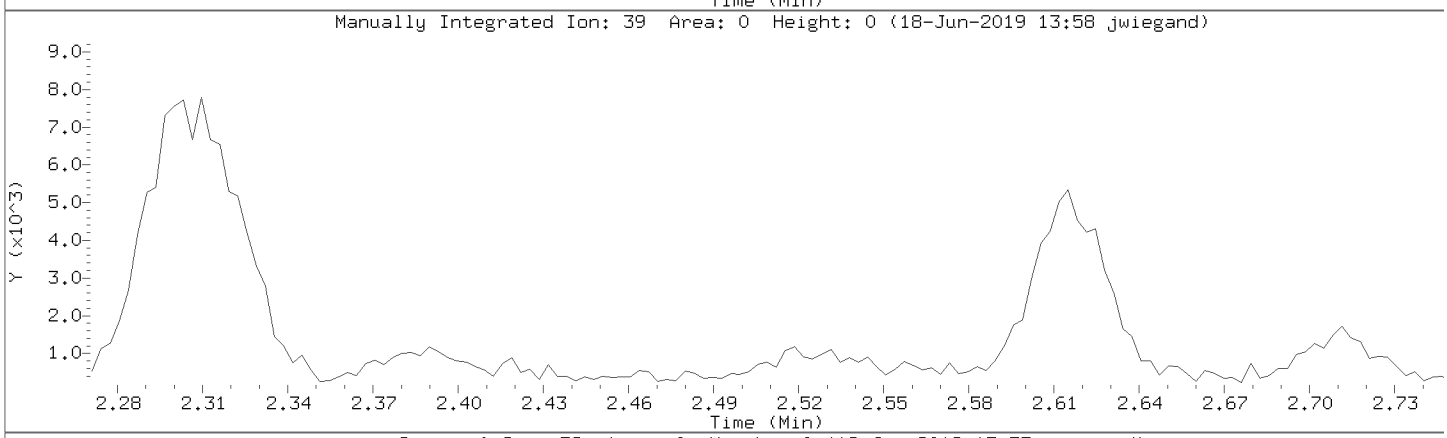
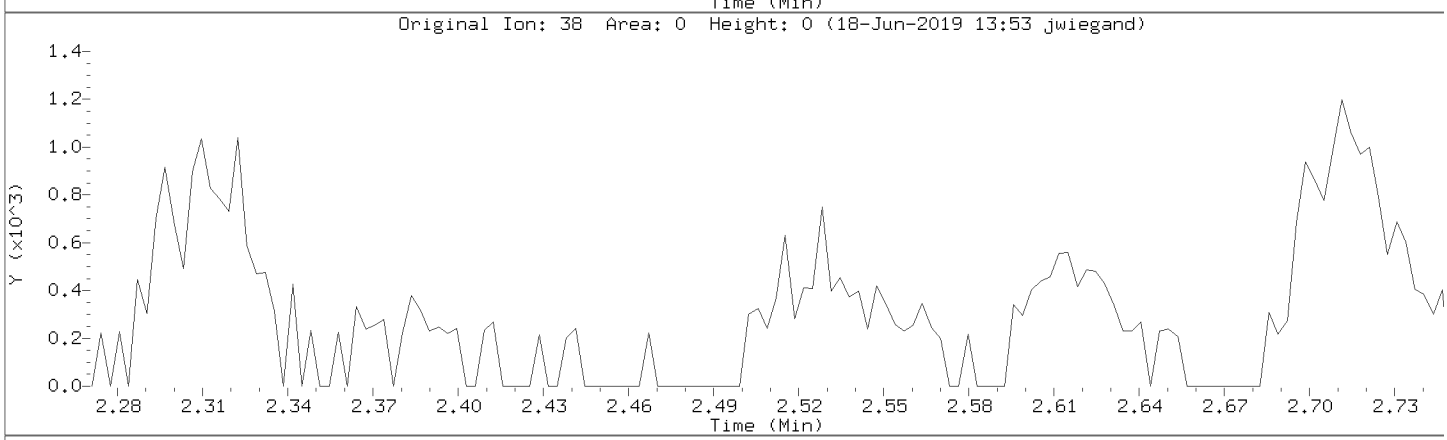
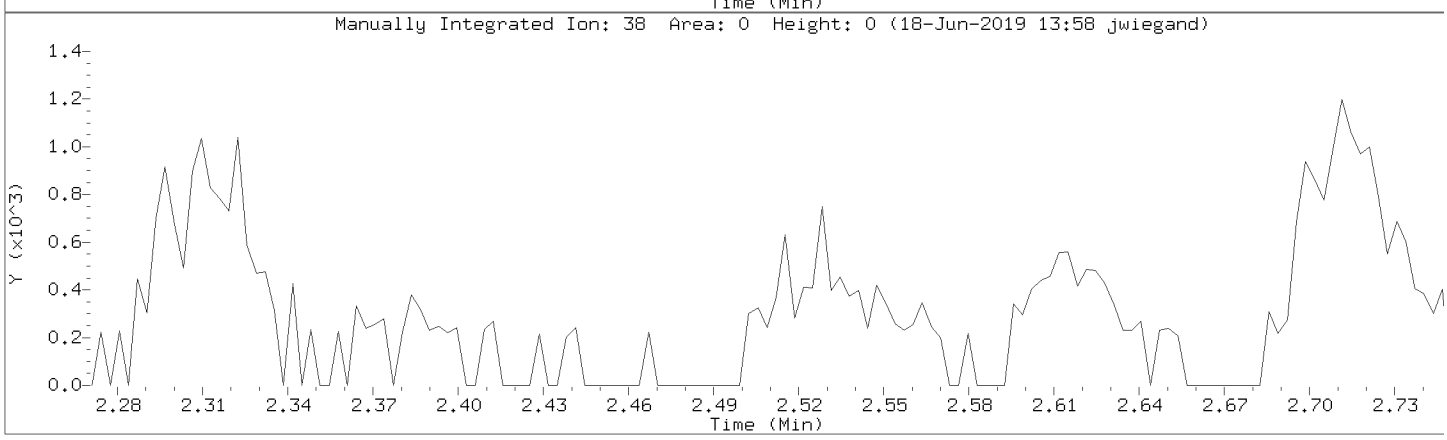
Lab Sample ID: CAL4









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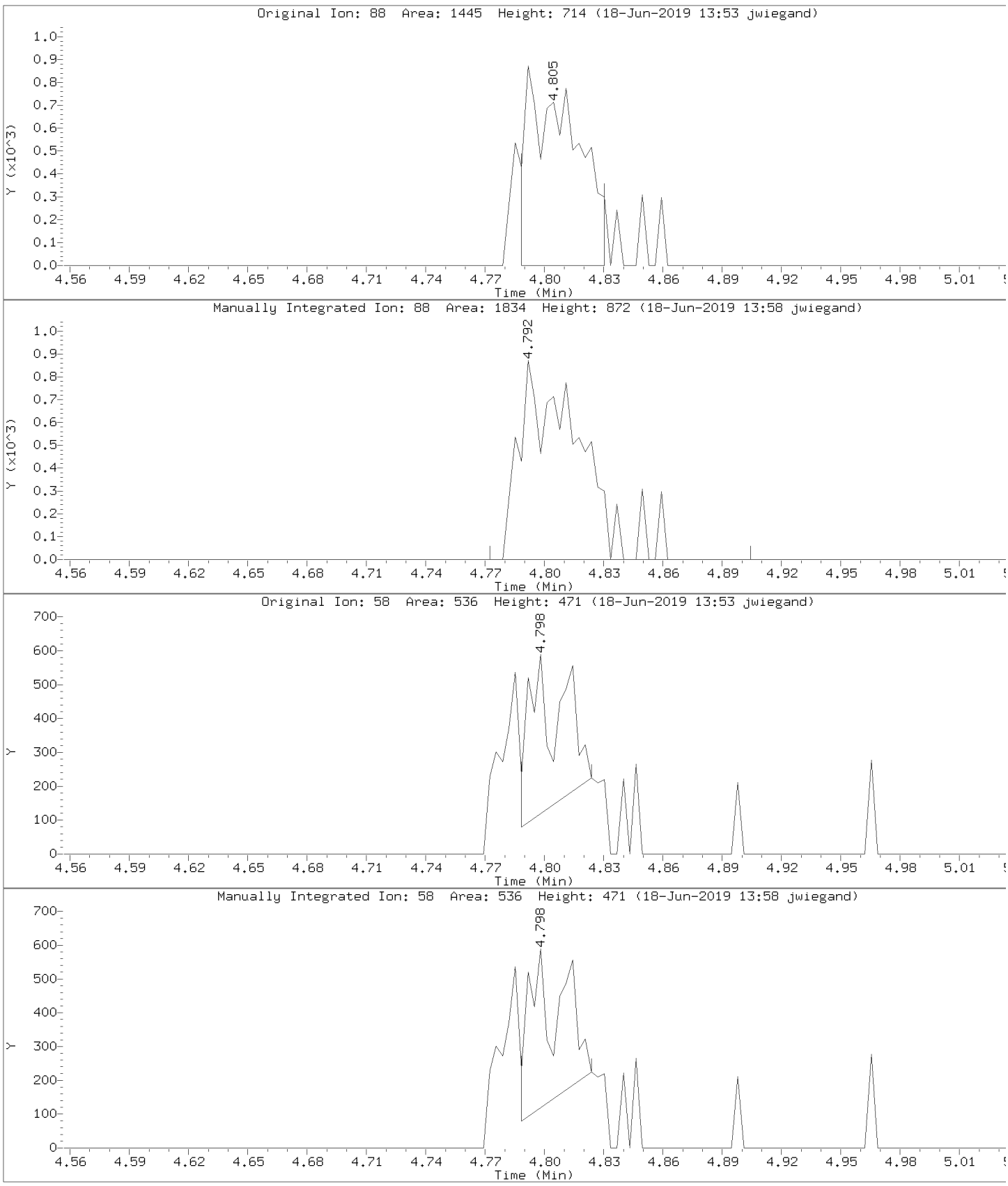
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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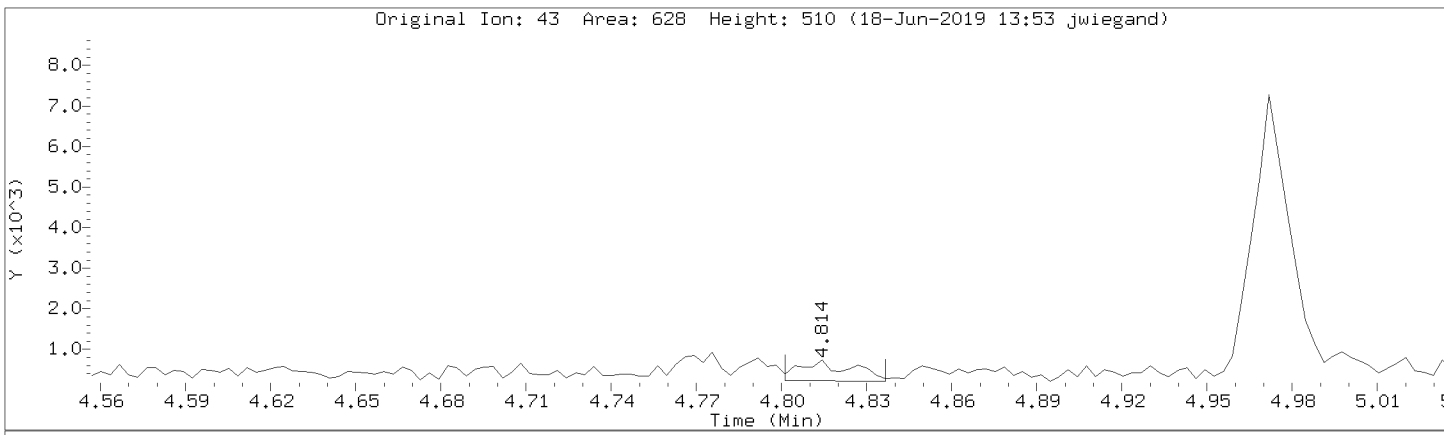
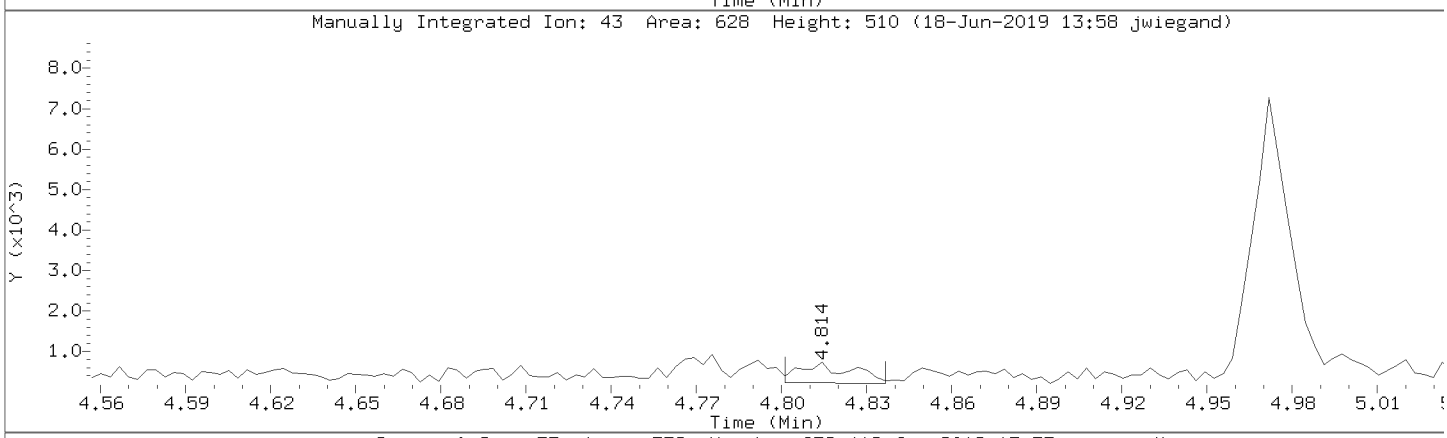
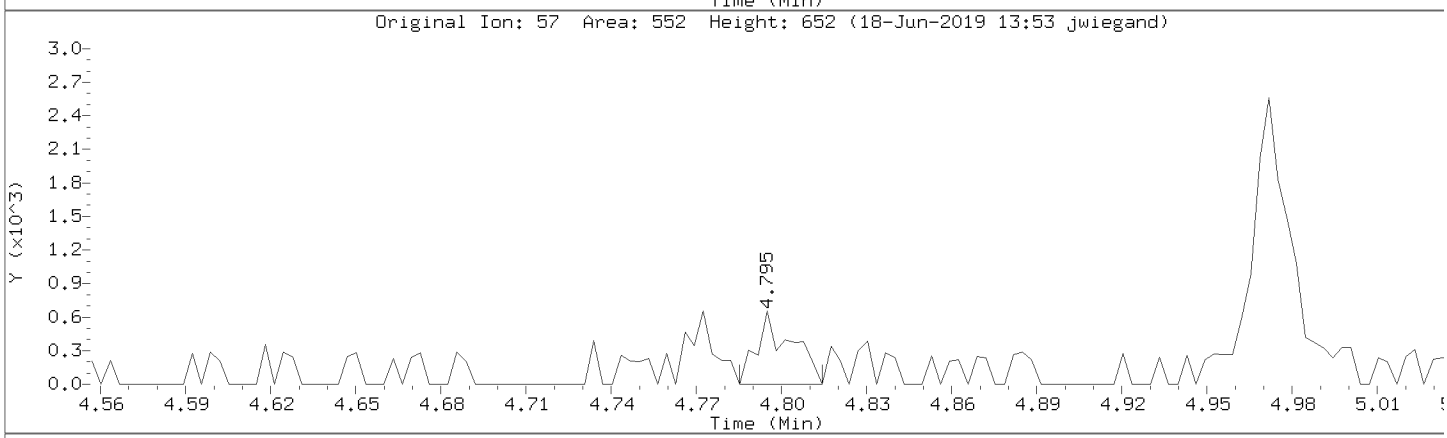
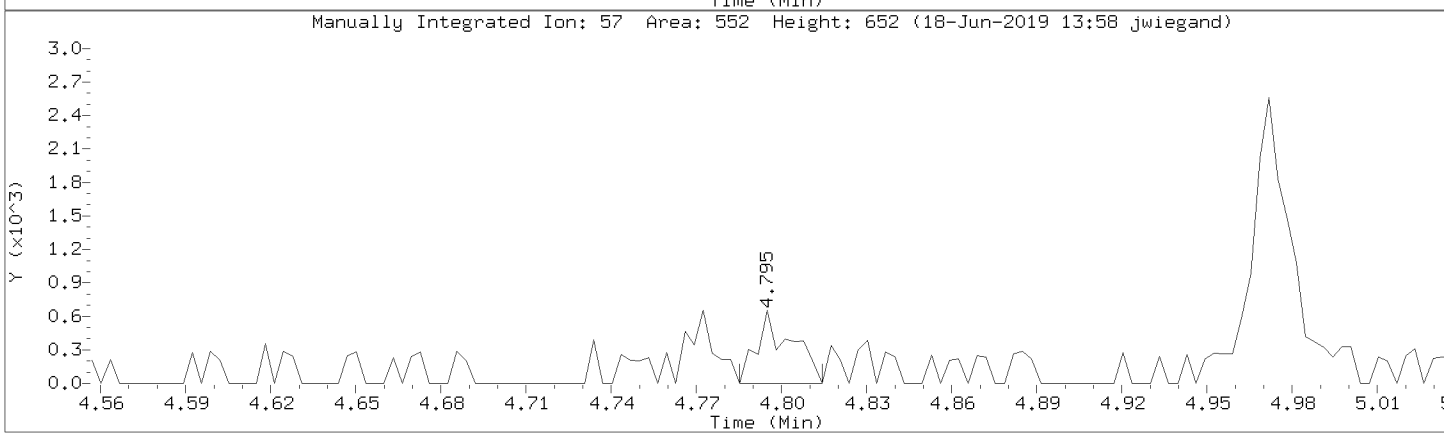
Lab Sample ID: CAL4









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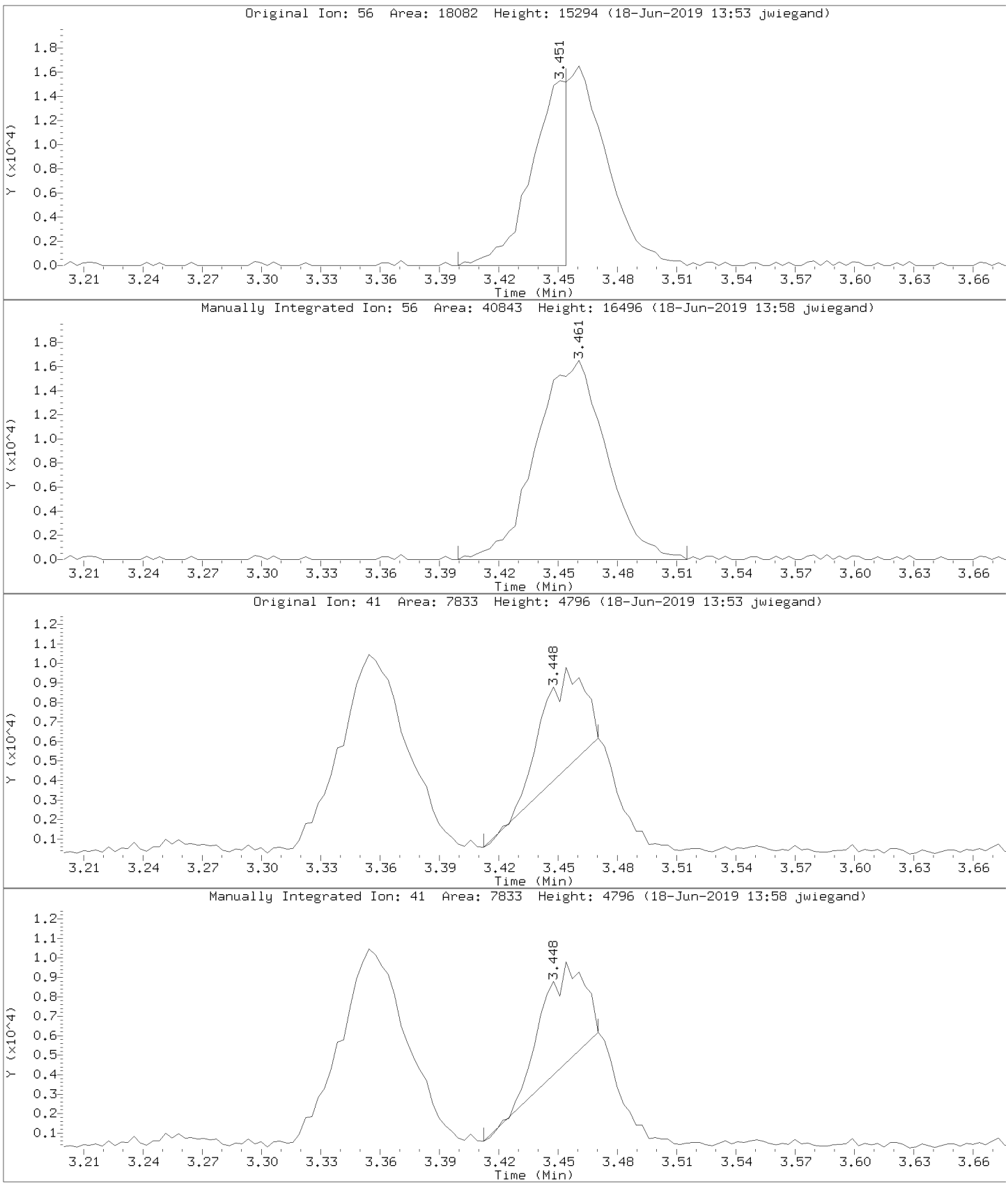
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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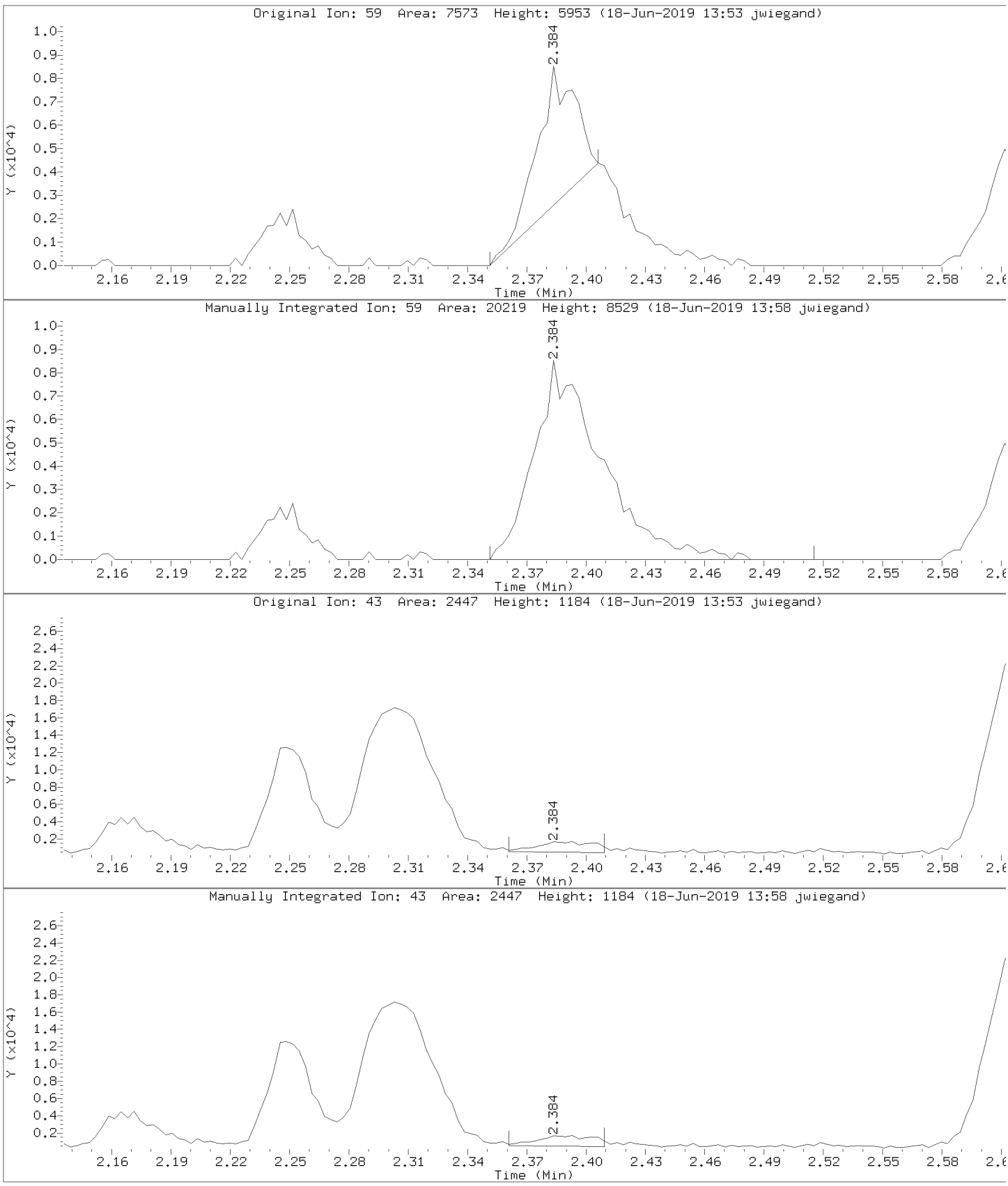
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 18-JUN-2019 11:20
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal5, 91189:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 11:20 Cal File: 50618013.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	60336	50.0000	54.6(QM)	LT
2	Chloromethane	50	1.142	1.142	(0.267)	42974	50.0000	53.2(QM)	LT
3	Vinyl chloride	62	1.145	1.146	(0.268)	74575	50.0000	55.2(QM)	LT
4	Bromomethane	94	1.322	1.326	(0.309)	55042	50.0000	56.0(QM)	LT
5	Chloroethane	64	1.386	1.380	(0.324)	47794	50.0000	53.8(QM)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	102367	50.0000	51.1(Q)	
7	Diethyl ether (Ethyl ether)	59	1.631	1.634	(0.381)	53431	50.0000	50.8(Q)	
8	Ethanol	45	1.717	1.773	(0.256)	7367	500.000	(aQM)	LT
9	1,1-Dichloroethene	61	1.756	1.760	(0.411)	93253	50.0000	58.0(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	43112	50.0000	52.5(Q)	
11	Carbon disulfide	76	1.782	1.785	(0.417)	160619	50.0000	56.2(Q)	
12	Iodomethane	142	1.852	1.856	(0.433)	26800	50.0000	47.2(Q)	
13	Acrolein	56	1.968	1.969	(0.460)	6732	50.0000	54.3(Q)	
14	Allyl chloride	41	2.055	2.056	(0.481)	385599	250.000	316(Q)	
15	Methylene Chloride	49	2.129	2.133	(0.498)	63709	50.0000	57.7(Q)	
16	Acetone	43	2.168	2.165	(0.507)	14577	50.0000	51.7(Q)	
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	92062	50.0000	55.6(Q)	
18	Methyl acetate	74	2.245	2.255	(0.525)	10405	50.0000	49.6(Q)	
19	n-Hexane	86	2.303	2.297	(0.538)	14532	50.0000	53.0(Q)	
20	Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	196506	50.0000	52.2(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	40057	250.000	263(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	16258	250.000	231(QM)	LT
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	186995	50.0000	53.6(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	80710	50.0000	53.8(Q)	
	25 1,1-Dichloroethane	63	2.733	2.728	(0.639)	117696	50.0000	58.1(Q)	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	15756	50.0000	46.1(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	198355	50.0000	52.8(Q)	
	28 Vinyl acetate	43	2.962	2.965	(0.693)	156197	50.0000	51.4(Q)	
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	101570	50.0000	59.6(Q)	
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	112573	50.0000	55.6(Q)	
	31 Cyclohexane	56	3.454	3.451	(0.808)	98881	50.0000	55.8(QM)	
	32 Bromochloromethane	130	3.463	3.467	(0.810)	42544	50.0000	55.6(QM)	LT
	33 Chloroform	83	3.557	3.554	(0.832)	139330	50.0000	56.0(Q)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	100476	50.0000	52.8(Q)	
	35 Ethyl acetate	43	3.692	3.702	(0.863)	66277	50.0000	51.2(Q)	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	26367	50.0000	54.4(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	37707	30.0000	31.8(Q)	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	120277	50.0000	54.6(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	30887	50.0000	51.5(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	103442	50.0000	55.0(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	287262	50.0000	53.4(Q)	
	42 Propionitrile	54	4.042	4.049	(0.945)	6551	50.0000	48.4(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	37554	50.0000	49.8(Q)	
	44 tert-Amylmethyl ether	73	4.103	4.107	(0.959)	203898	50.0000	51.3(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	40026	30.0000	30.5(Q)	
	46 Isobutanol	43	4.190	4.099	(0.980)	13968	250.000	253(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	98956	50.0000	52.0(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	138436	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	107825	50.0000	52.5(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	76869	50.0000	52.6(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	45692	50.0000	49.7(Q)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	67586	50.0000	51.9(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	95603	50.0000	51.9(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	48819	50.0000	49.4(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.794	4.808	(1.121)	4596	500.000	465(QM)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	25655	50.0000	49.6(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	111048	50.0000	50.2(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	124224	30.0000	29.6(Q)	
	59 Toluene	91	5.110	5.110	(0.886)	290016	50.0000	52.3(Q)	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	107261	250.000	247(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	67852	50.0000	51.5(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	74861	50.0000	51.8(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	111102	50.0000	52.5(Q)	
	64 Ethyl methacrylate	41	5.364	5.367	(0.930)	60278	50.0000	52.9(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	63497	50.0000	51.2(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	74028	50.0000	50.4(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	104367	50.0000	52.0(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	65391	50.0000	51.7(Q)	
	69 2-Hexanone	43	5.640	5.644	(0.978)	47795	50.0000	51.2(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	105629	50.0000	53.9(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	98213	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.001)	195941	50.0000	52.5(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	75449	50.0000	53.6(Q)	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	256650	100.000	109(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	==========	====	====	========	========	========	=======	=======	========
75	o-Xylene	106	6.013	6.017	(1.043)	124660	50.0000	54.0(Q)	
76	Styrene	104	6.036	6.036	(1.047)	205287	50.0000	53.4(Q)	
77	Bromoform	173	6.055	6.059	(0.902)	52046	50.0000	48.0(Q)	
78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	311351	50.0000	54.0(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	37083	30.0000	29.0(Q)	
80	n-Propylbenzene	91	6.306	6.306	(0.940)	364041	50.0000	53.9(Q)	
81	Bromobenzene	77	6.306	6.309	(0.940)	137861	50.0000	52.7(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	88031	50.0000	52.6(Q)	
83	1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	251345	50.0000	54.8(Q)	
84	2-Chlorotoluene	126	6.376	6.380	(0.950)	76698	50.0000	53.3(Q)	
85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	25517	50.0000	51.4(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	20760	50.0000	51.7(Q)	
87	Cyclohexanone	55	6.421	6.422	(0.957)	19412	250.000	256(Q)	
88	4-Chlorotoluene	126	6.444	6.444	(0.960)	77251	50.0000	52.9(Q)	
89	tert-Butylbenzene	119	6.511	6.512	(0.970)	212302	50.0000	54.8(Q)	
90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	247234	50.0000	54.7(Q)	
91	sec-Butylbenzene	105	6.582	6.583	(0.981)	305863	50.0000	55.2(Q)	
92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	256114	50.0000	54.4(Q)	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	139271	50.0000	53.3(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	44243	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	136365	50.0000	52.8(Q)	
96	n-Butylbenzene	91	6.804	6.805	(1.014)	223881	50.0000	55.2(Q)	
97	1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	129299	50.0000	53.6(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	44242	30.0000	29.9(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	14471	50.0000	49.2(Q)	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	77492	50.0000	54.8(Q)	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	35538	50.0000	53.7(Q)	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	62346	50.0000	52.3(Q)	
102	Naphthalene	128	7.617	7.618	(1.135)	159317	50.0000	50.6(Q)	
103	1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	57448	50.0000	52.6(Q)	
104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	64600	50.0000	45.4(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618013.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	138436	-3.65
71 Chlorobenzene-d5	102704	51352	205408	98213	-4.37
94 1,4-Dichlorobenze	44519	22260	89038	44243	-0.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	54.6	
74-87-3	Chloromethane	53.2	
75-01-4	Vinyl chloride	55.2	
74-83-9	Bromomethane	56.0	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	51.1	
60-29-7	Diethyl ether (Ethyl ether)	50.8	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	58.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	52.5	
75-15-0	Carbon disulfide	56.2	
74-88-4	Iodomethane	47.2	
107-02-8	Acrolein	54.3	
107-05-1	Allyl chloride	316	
75-09-2	Methylene Chloride	57.7	
67-64-1	Acetone	51.7	
156-60-5	trans-1,2-Dichloroethene	55.6	
79-20-9	Methyl acetate	49.6	
110-54-3	n-Hexane	53.0	
1634-04-4	Methyl-tert-butyl ether	52.2	
75-65-0	tert-Butyl Alcohol	263	
75-05-8	Acetonitrile	231	
108-20-3	Diisopropyl ether	53.6	
126-99-8	Chloroprene	53.8	
75-34-3	1,1-Dichloroethane	58.1	
107-13-1	Acrylonitrile	46.1	
637-92-3	Ethyl-tert-butyl ether	52.8	
108-05-4	Vinyl acetate	51.4	
156-59-2	cis-1,2-Dichloroethene	59.6	
594-20-7	2,2-Dichloropropane	55.6	
110-82-7	Cyclohexane	55.8	
74-97-5	Bromochloromethane	55.6	
67-66-3	Chloroform	56.0	
56-23-5	Carbon tetrachloride	52.8	
141-78-6	Ethyl acetate	51.2	
109-99-9	Tetrahydrofuran	54.4	
71-55-6	1,1,1-Trichloroethane	54.6	
78-93-3	2-Butanone (MEK)	51.5	
563-58-6	1,1-Dichloropropene	55.0	
71-43-2	Benzene	53.4	
107-12-0	Propionitrile	48.4	
126-98-7	Methacrylonitrile	49.8	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	51.3	
78-83-1	Isobutanol	253	
107-06-2	1,2-Dichloroethane	52.0	
108-87-2	Methylcyclohexane	52.5	
79-01-6	Trichloroethene	52.6	
74-95-3	Dibromomethane	49.7	
78-87-5	1,2-Dichloropropane	51.9	
75-27-4	Bromodichloromethane	51.9	
80-62-6	Methyl methacrylate	49.4	
123-91-1	1,4-Dioxane (p-Dioxane)	465	
110-75-8	2-Chloroethylvinyl ether	49.6	
10061-01-5	cis-1,3-Dichloropropene	50.2	
108-88-3	Toluene	52.3	
79-46-9	2-Nitropropane	247	
108-10-1	4-Methyl-2-pentanone (MIBK)	51.5	
127-18-4	Tetrachloroethene	51.8	
10061-02-6	trans-1,3-Dichloropropene	52.5	
97-63-2	Ethyl methacrylate	52.9	
79-00-5	1,1,2-Trichloroethane	51.2	
124-48-1	Dibromochloromethane	50.4	
142-28-9	1,3-Dichloropropane	52.0	
106-93-4	1,2-Dibromoethane (EDB)	51.7	
591-78-6	2-Hexanone	51.2	
100-41-4	Ethylbenzene	53.9	
108-90-7	Chlorobenzene	52.5	
630-20-6	1,1,1,2-Tetrachloroethane	53.6	
7816-60-0	m&p-Xylene	109	
95-47-6	o-Xylene	54.0	
100-42-5	Styrene	53.4	
75-25-2	Bromoform	48.0	
98-82-8	Isopropylbenzene (Cumene)	54.0	
103-65-1	n-Propylbenzene	53.9	
108-86-1	Bromobenzene	52.7	
79-34-5	1,1,2,2-Tetrachloroethane	52.6	
108-67-8	1,3,5-Trimethylbenzene	54.8	
95-49-8	2-Chlorotoluene	53.3	
96-18-4	1,2,3-Trichloropropane	51.4	
110-57-6	trans-1,4-Dichloro-2-butene	51.7	
108-94-1	Cyclohexanone	256	
106-43-4	4-Chlorotoluene	52.9	
98-06-6	tert-Butylbenzene	54.8	
95-63-6	1,2,4-Trimethylbenzene	54.7	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

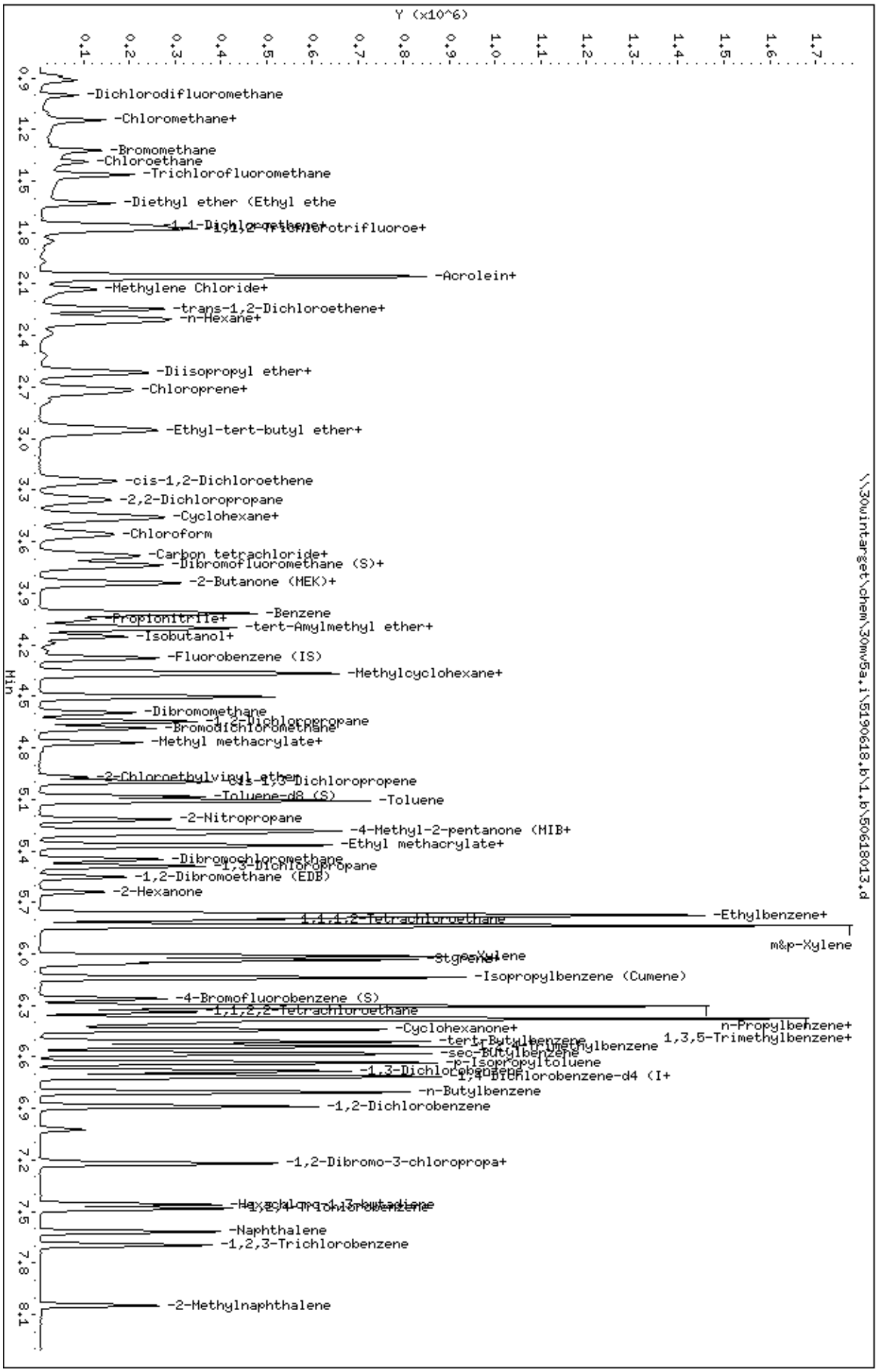
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	55.2	
99-87-6	p-Isopropyltoluene	54.4	
541-73-1	1,3-Dichlorobenzene	53.3	
106-46-7	1,4-Dichlorobenzene	52.8	
104-51-8	n-Butylbenzene	55.2	
95-50-1	1,2-Dichlorobenzene	53.6	
96-12-8	1,2-Dibromo-3-chloropropane	49.2	
108-70-3	1,3,5-Trichlorobenzene	54.8	
87-68-3	Hexachloro-1,3-butadiene	53.7	
120-82-1	1,2,4-Trichlorobenzene	52.3	
91-20-3	Naphthalene	50.6	
87-61-6	1,2,3-Trichlorobenzene	52.6	
91-57-6	2-Methylnaphthalene	45.4	
1868-53-7	Dibromofluoromethane (S)	31.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.5	
2037-26-5	Toluene-d8 (S)	29.6	
460-00-4	4-Bromofluorobenzene (S)	29.0	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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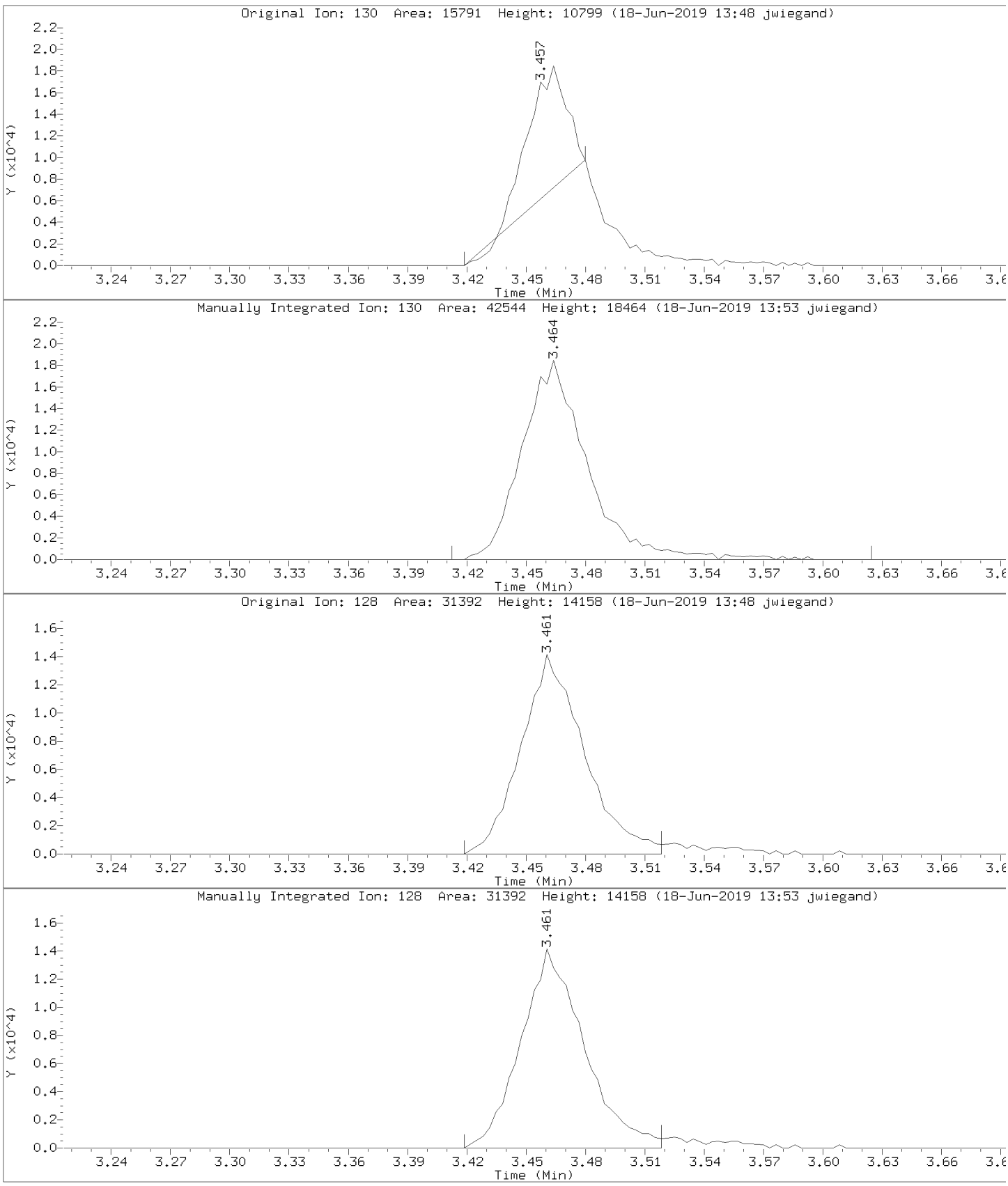
Date : 18-JUN-2019 11:20
Client ID: CAL5
Sample Info: CAL5, 91189:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
n-Propylbenzene+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618013.d
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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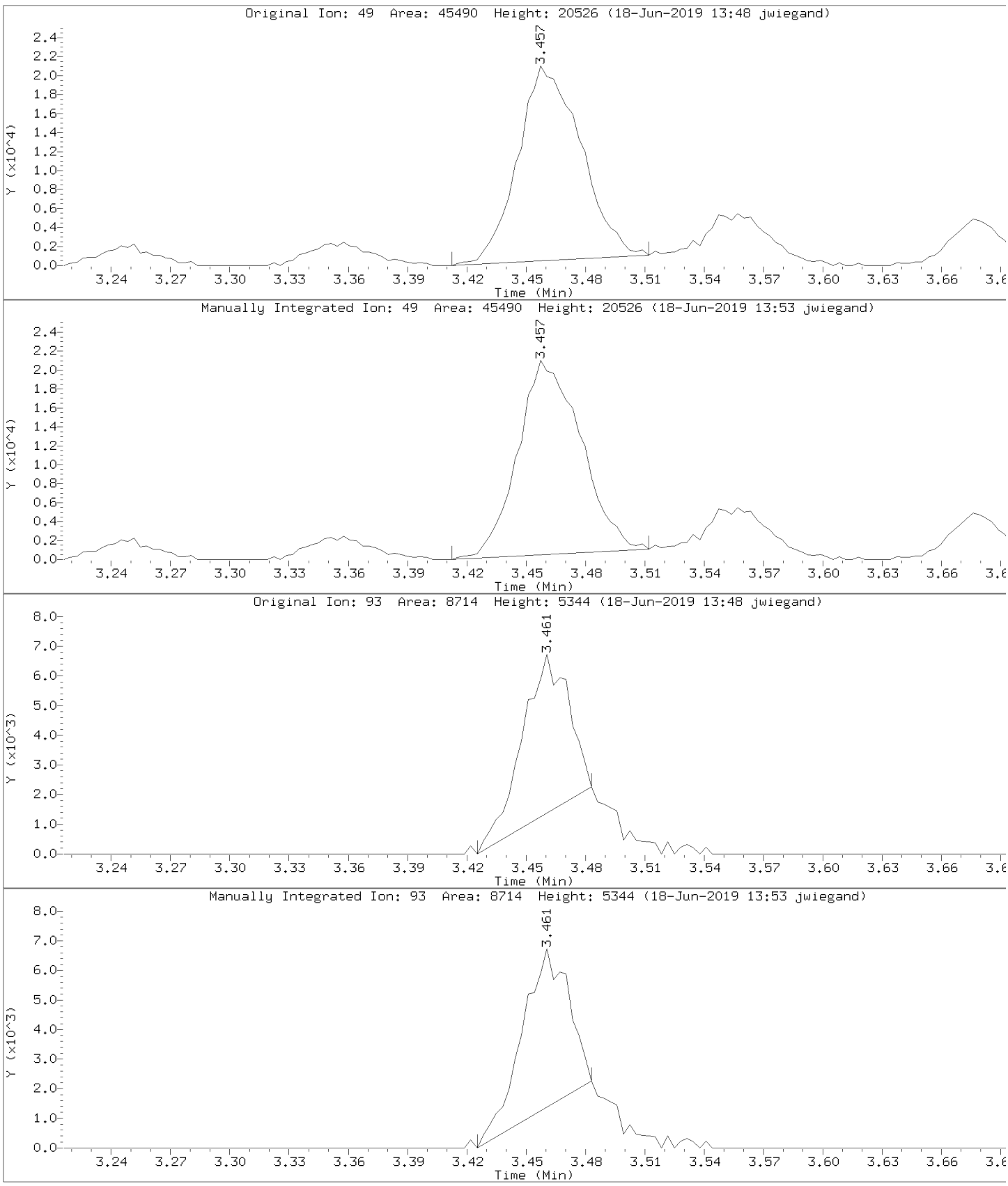
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5



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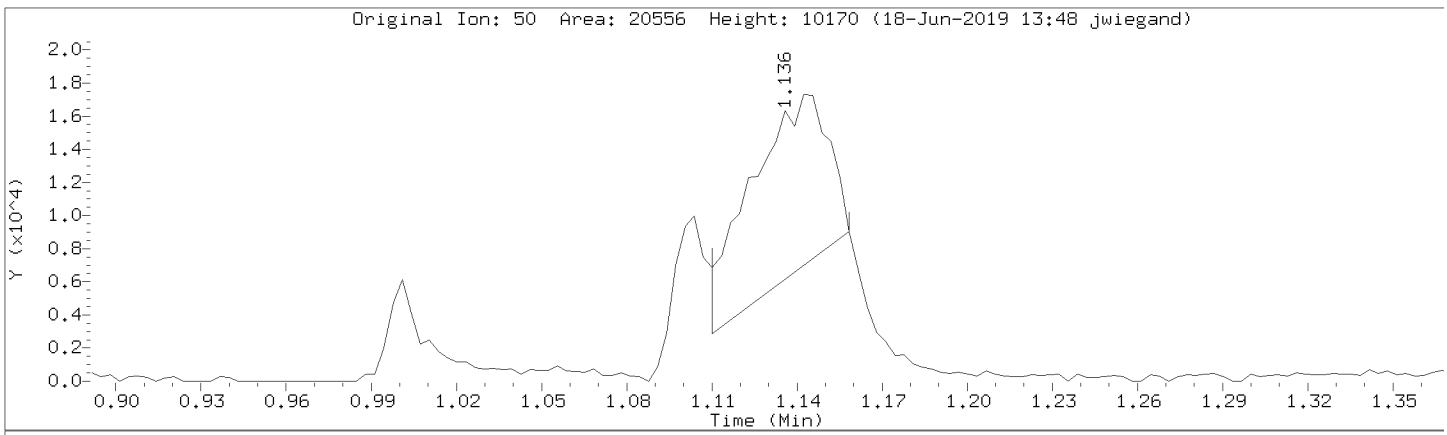
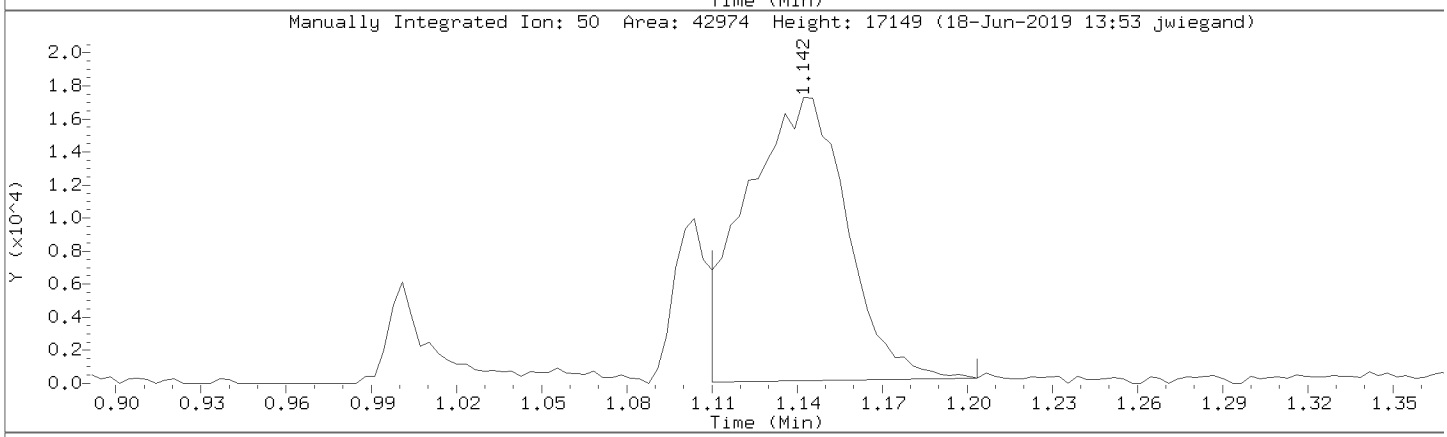
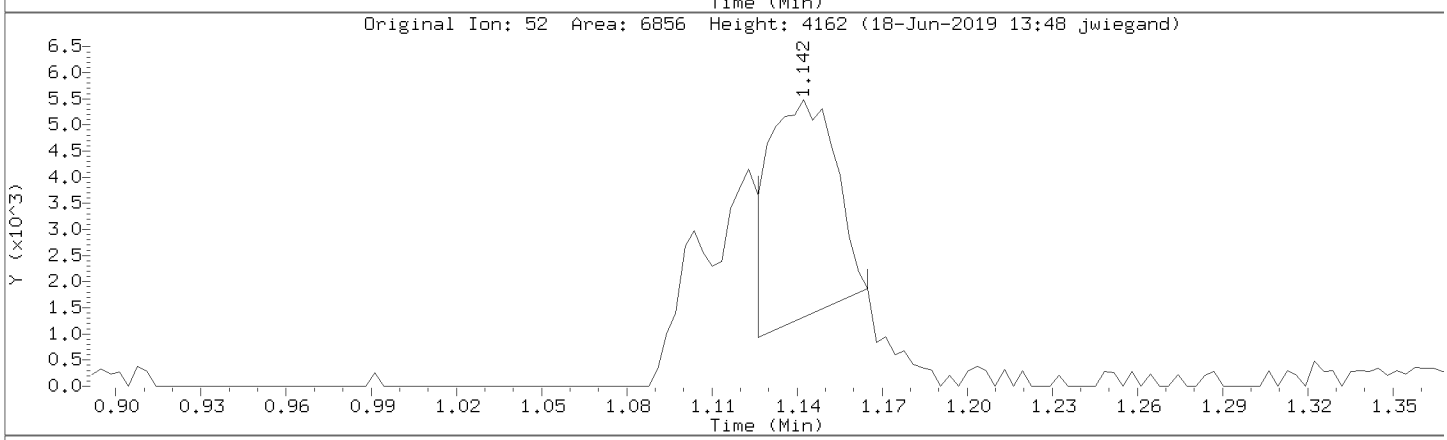
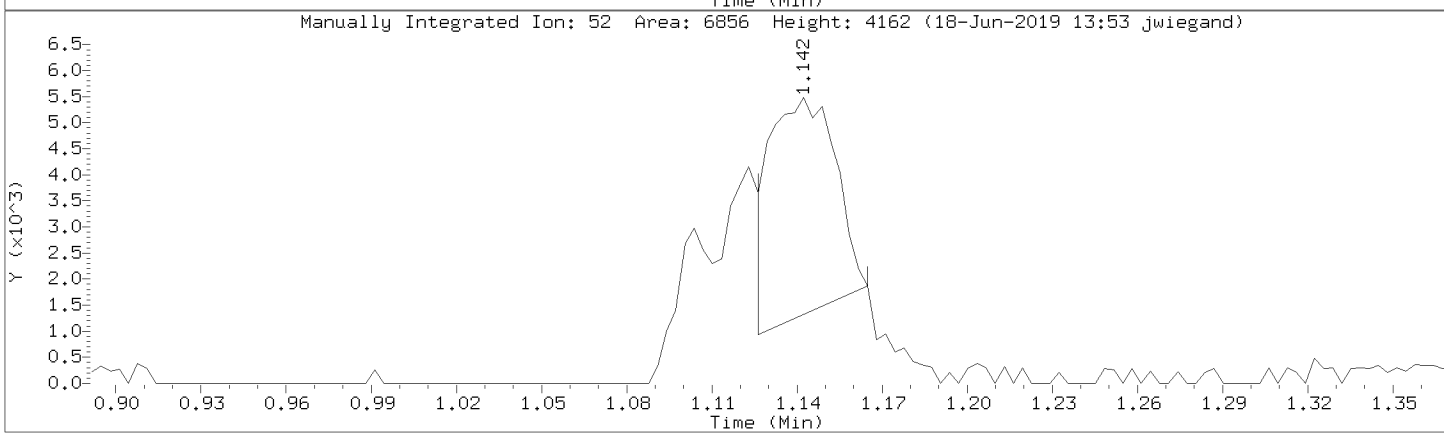
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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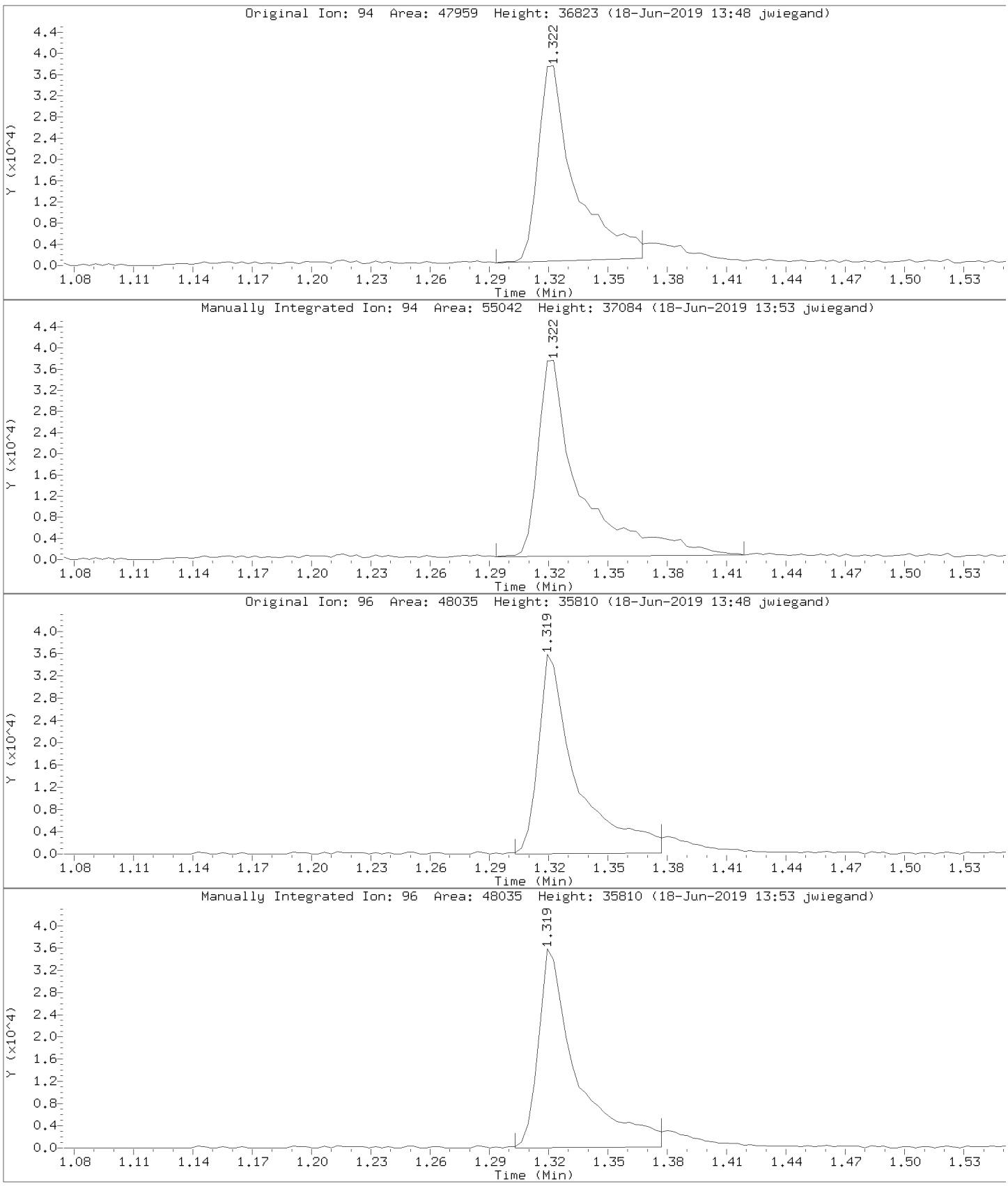
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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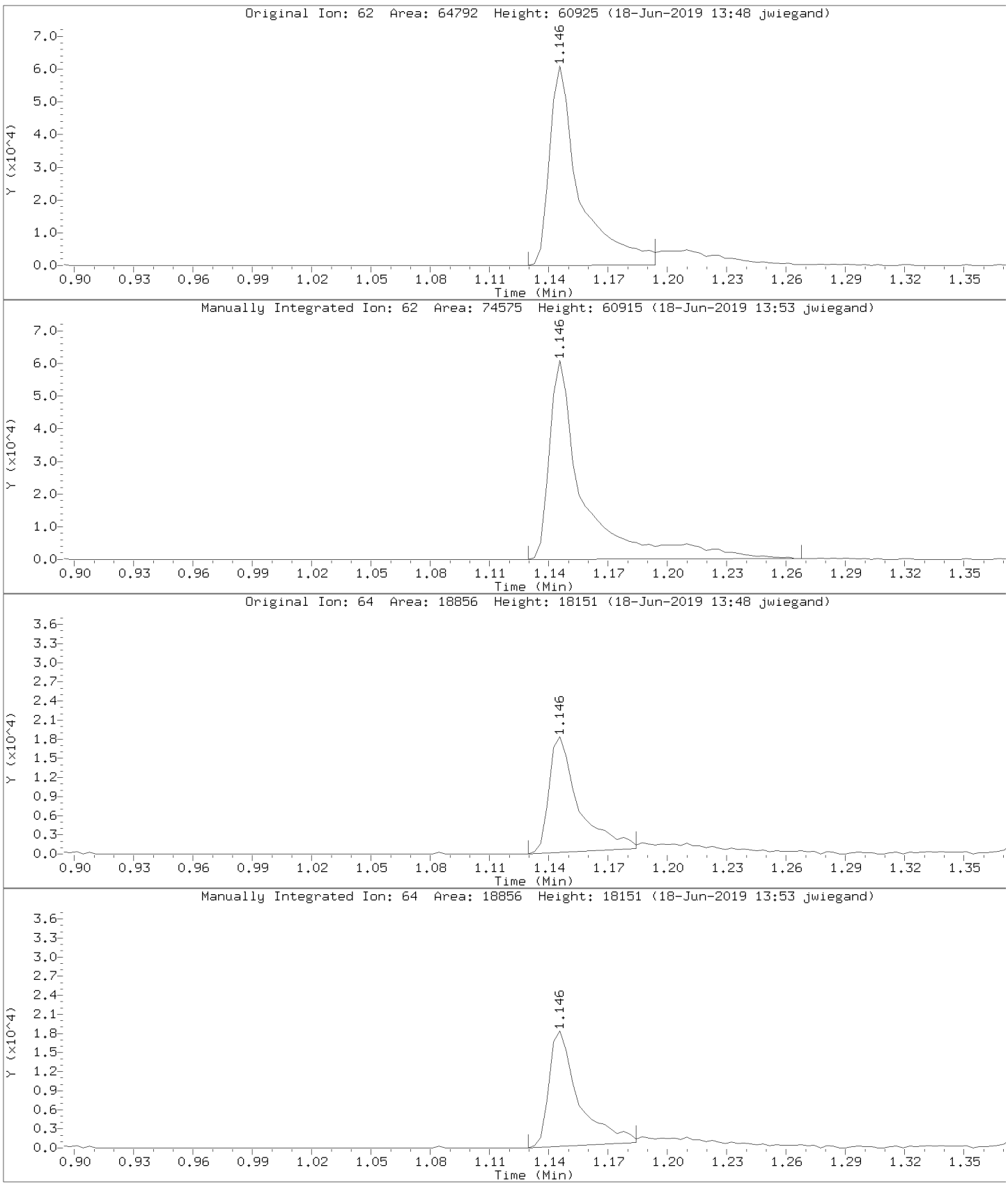
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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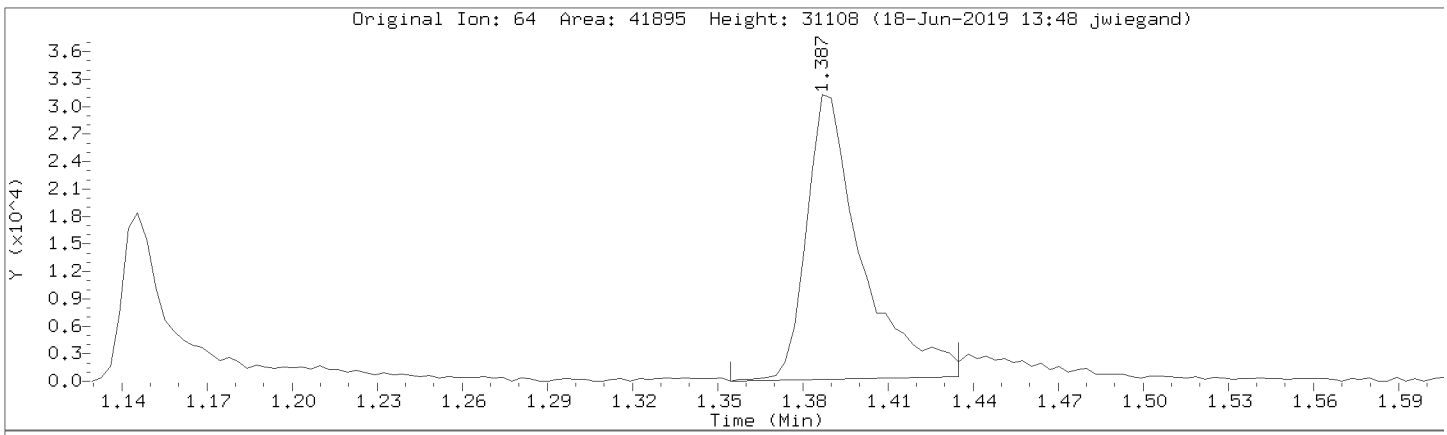
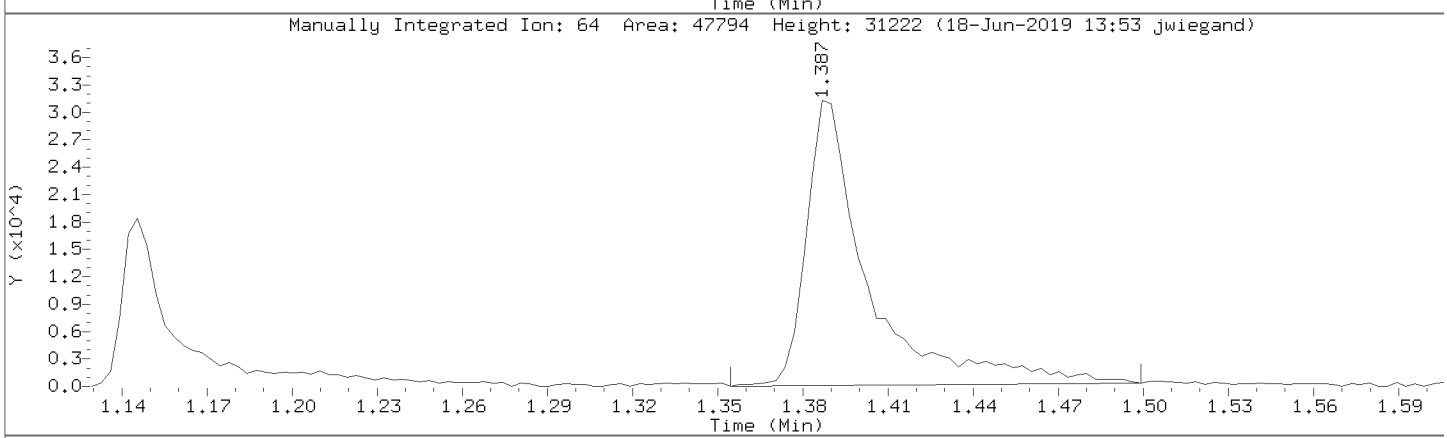
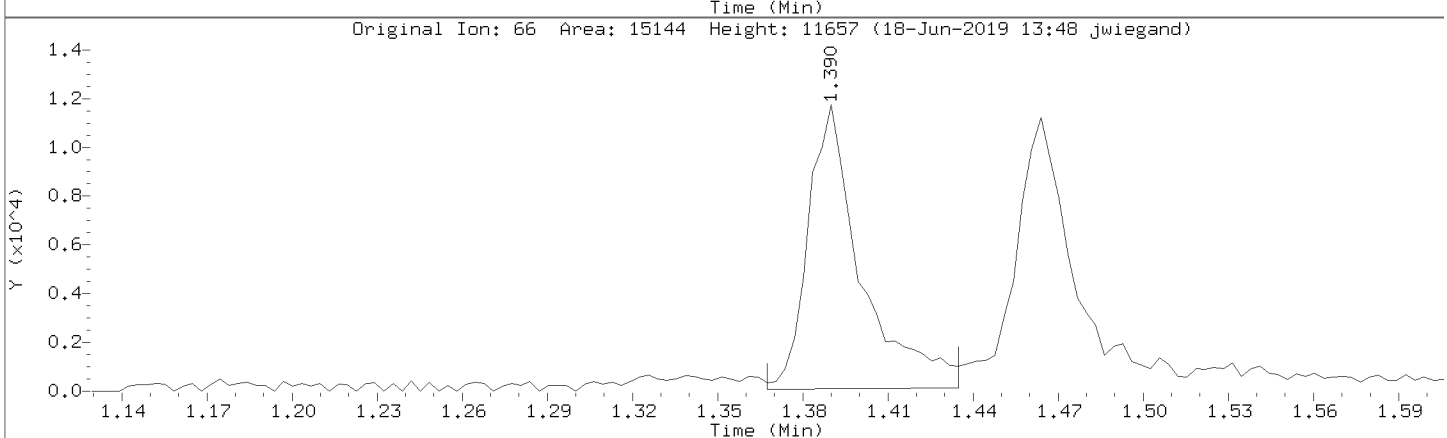
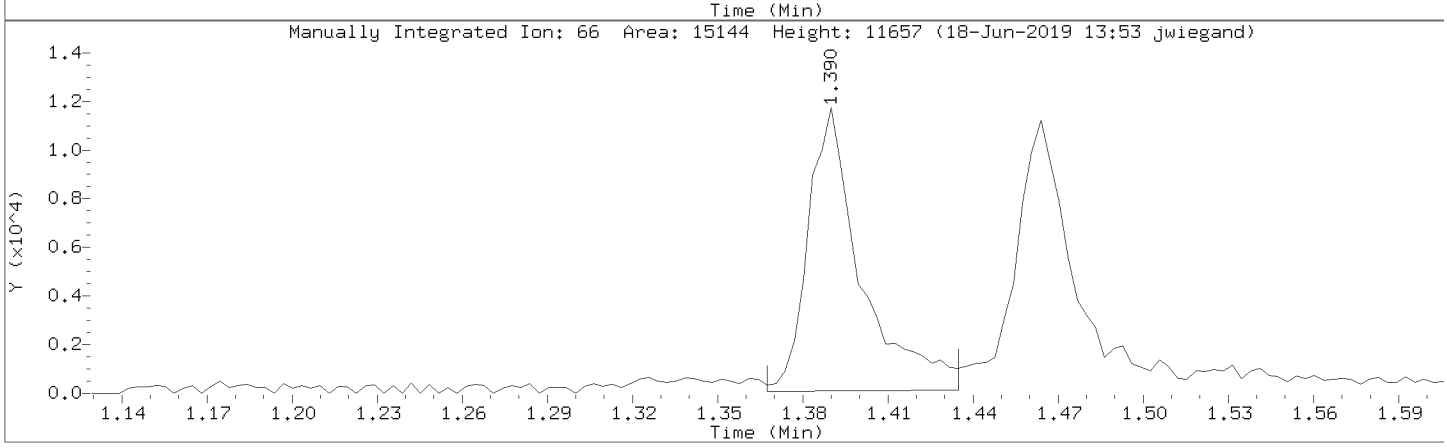
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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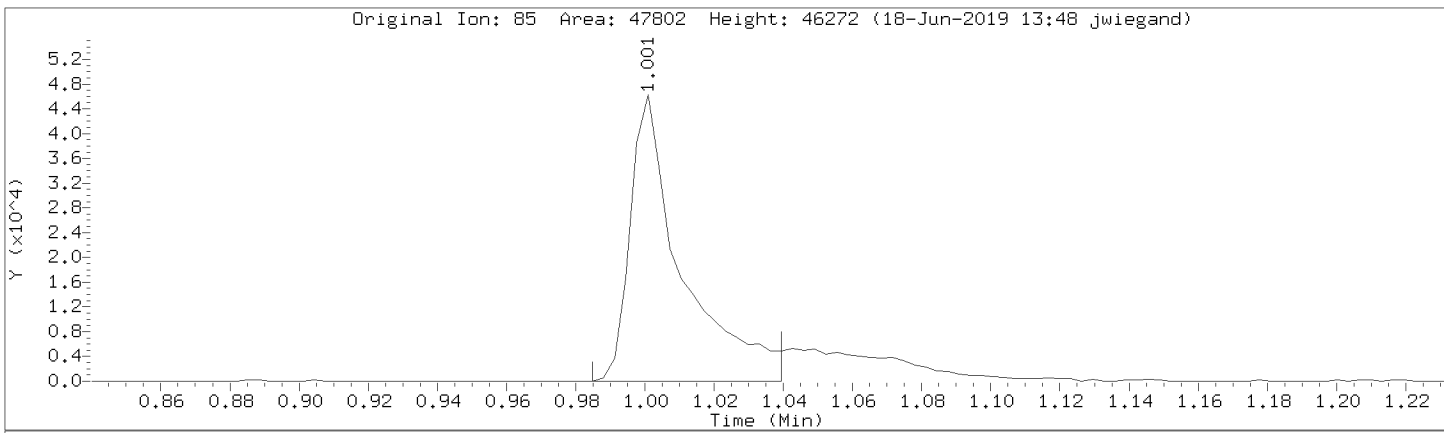
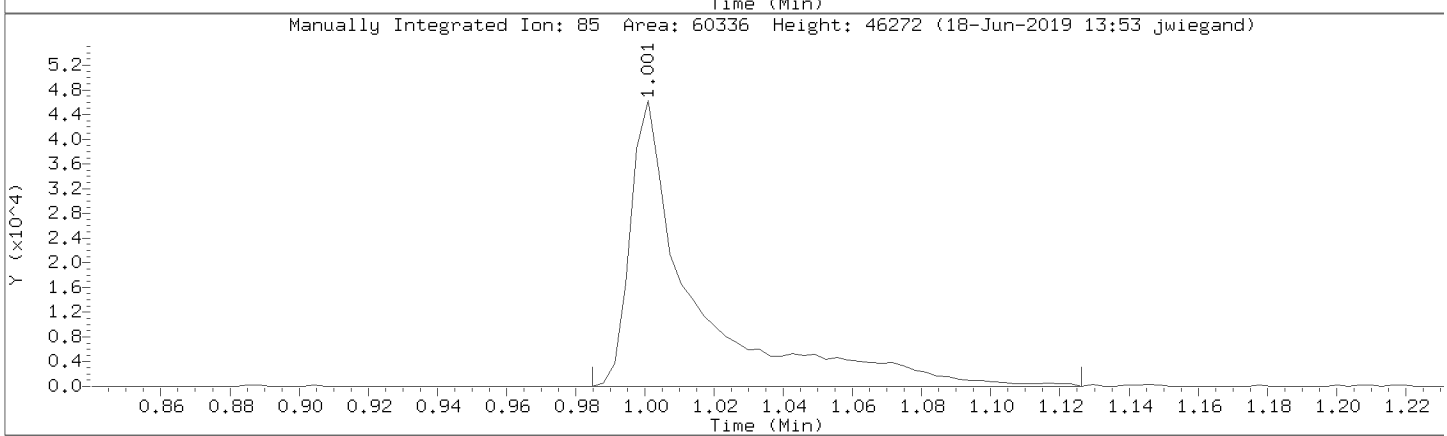
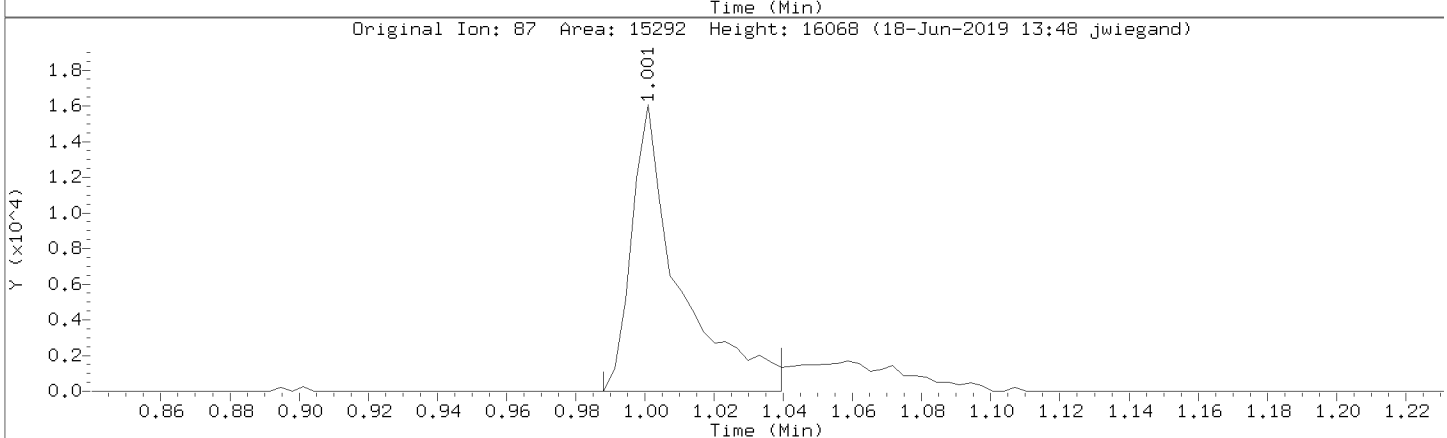
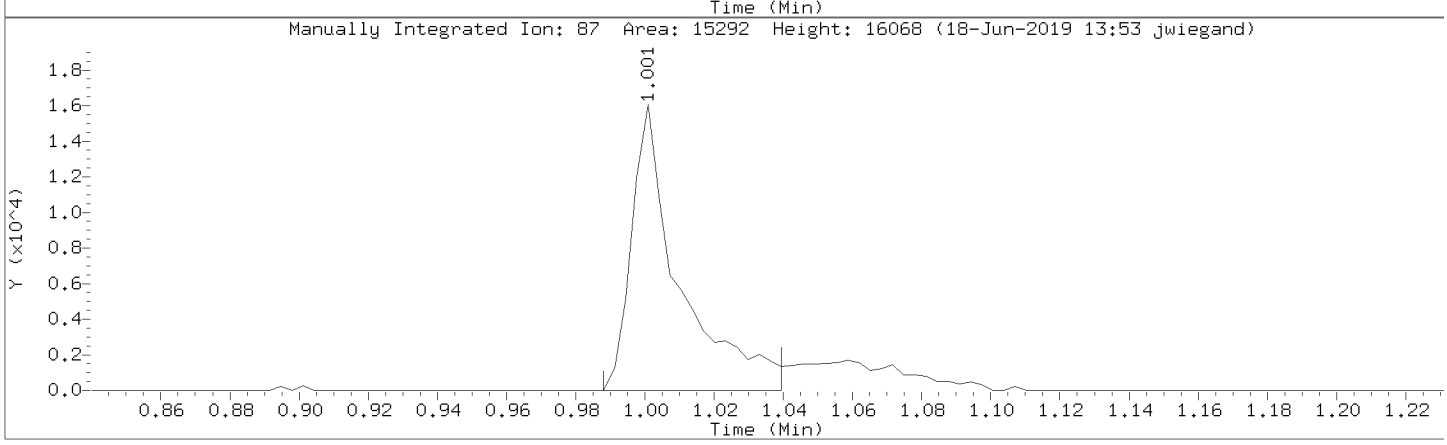
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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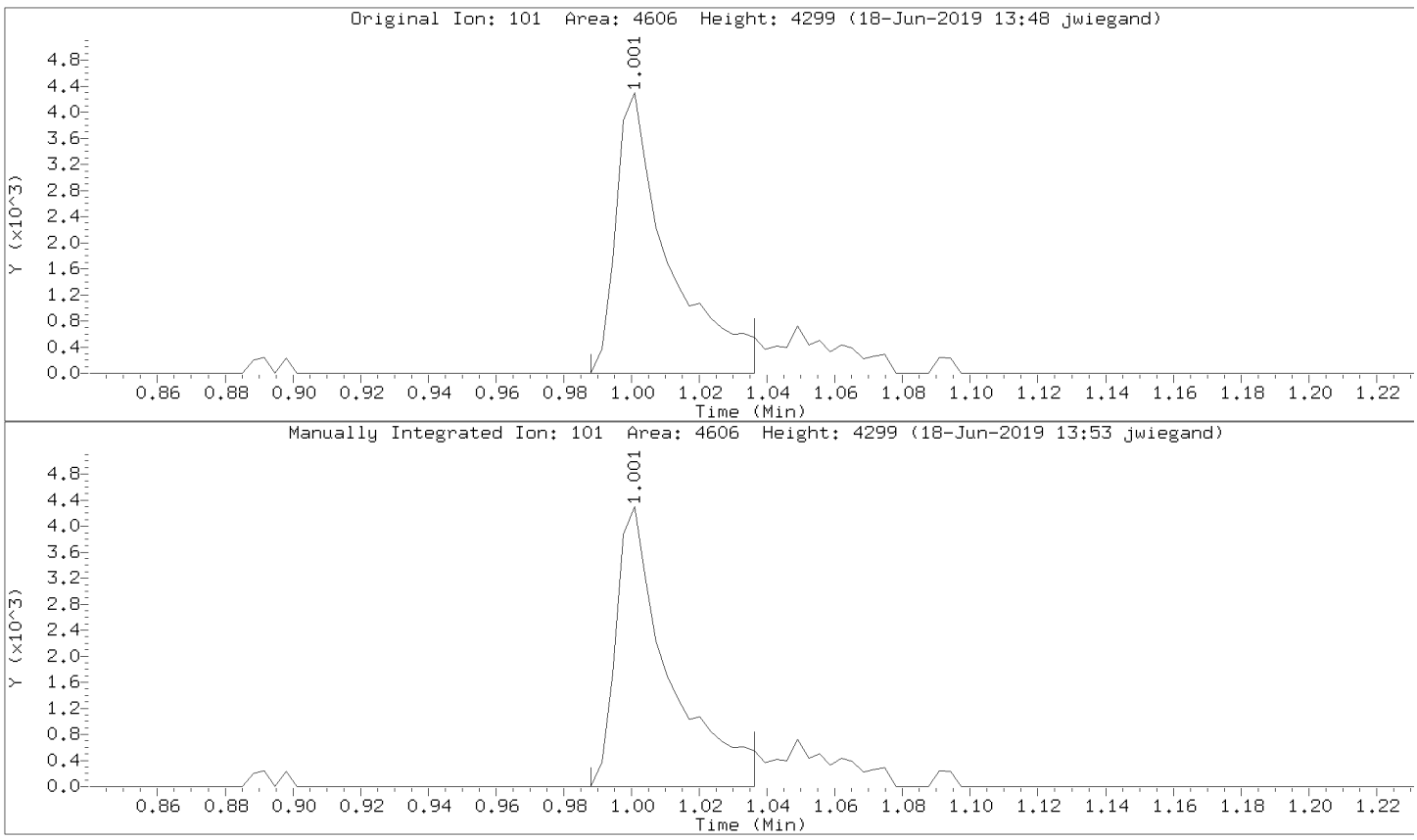
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5



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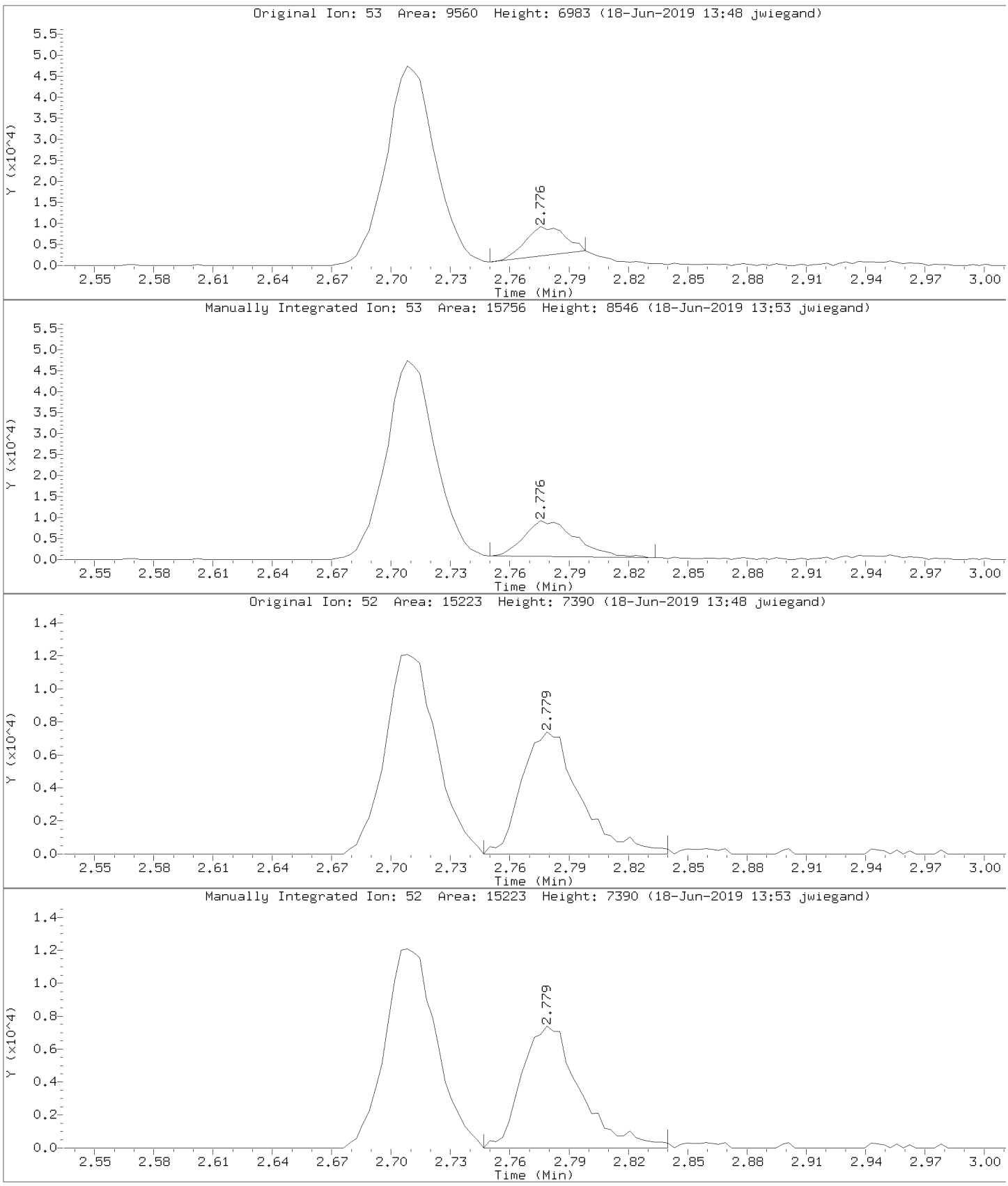
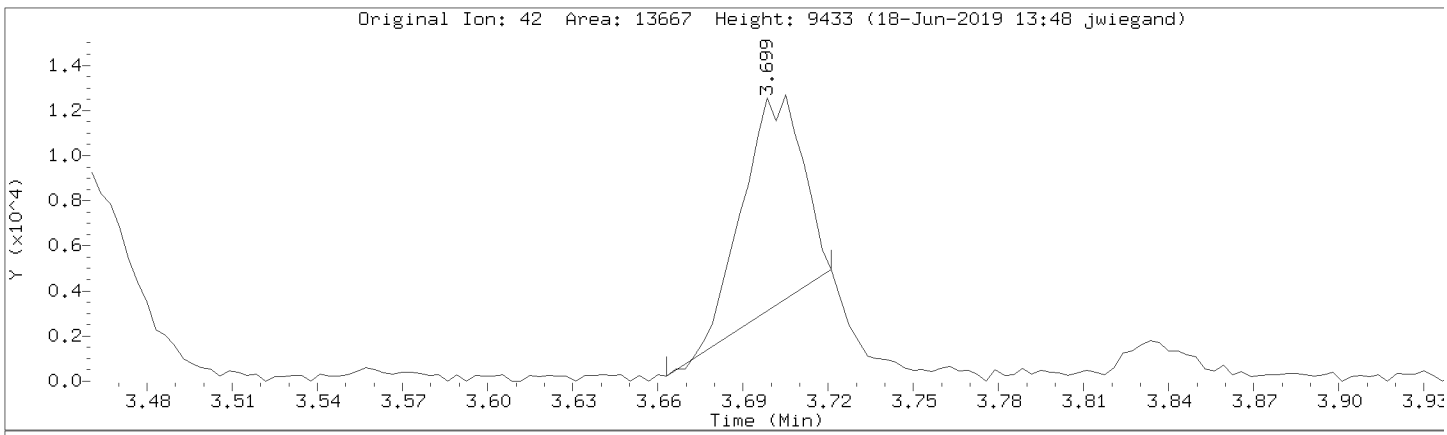
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

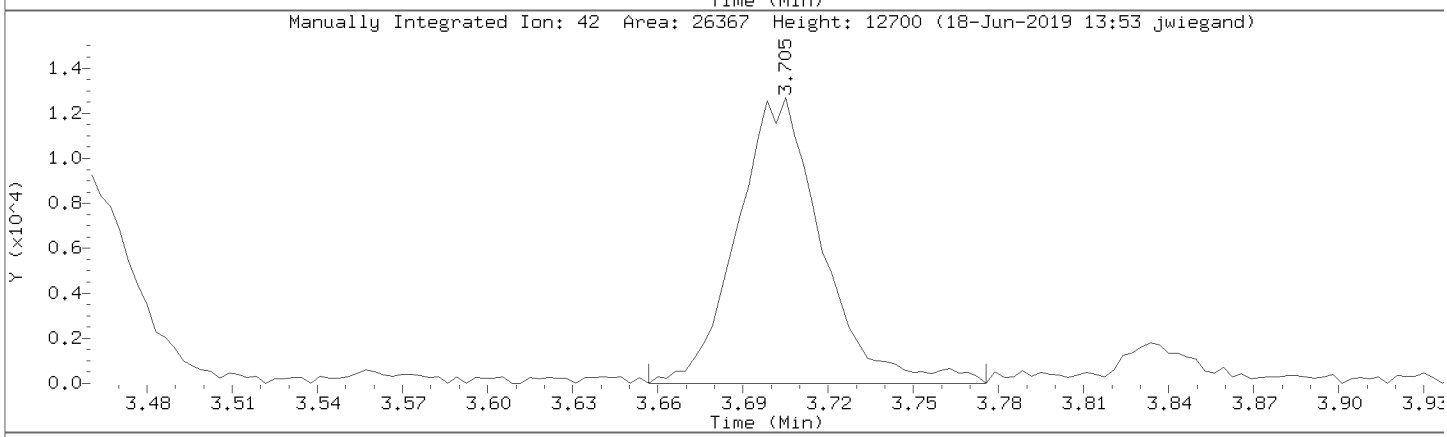
Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1

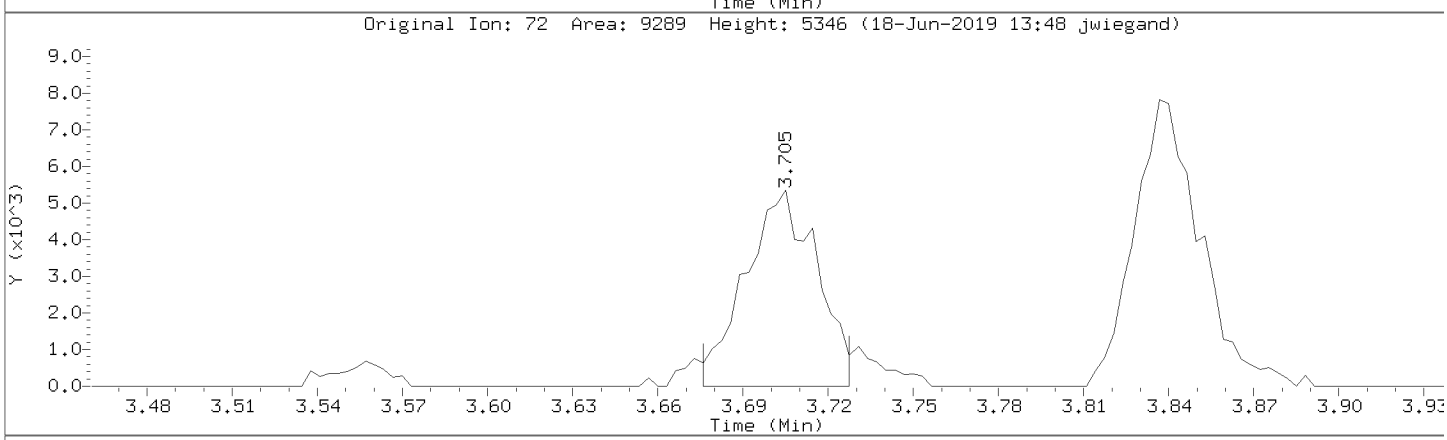


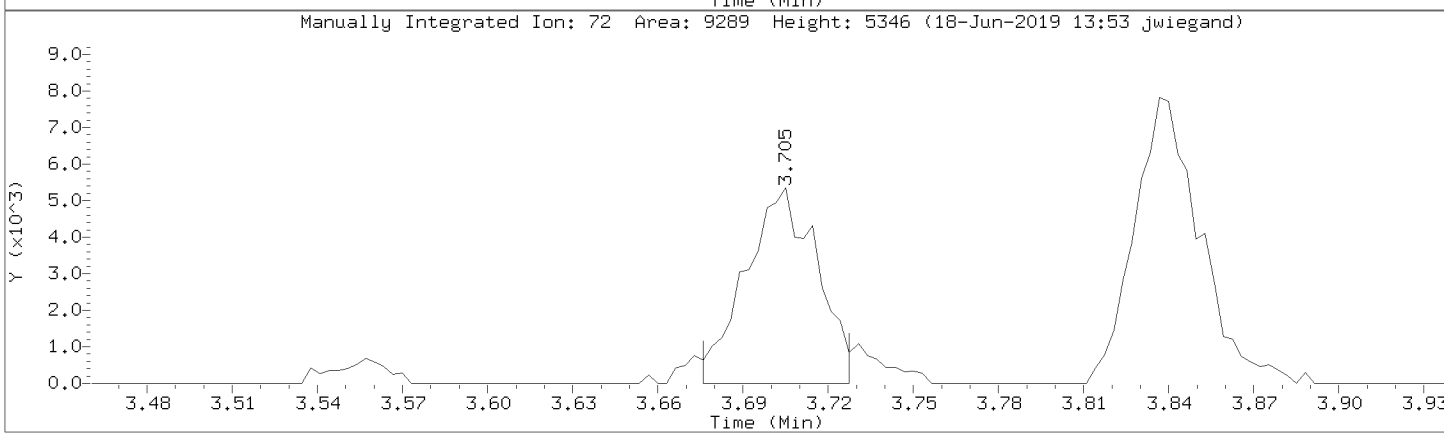
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618013.d
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9









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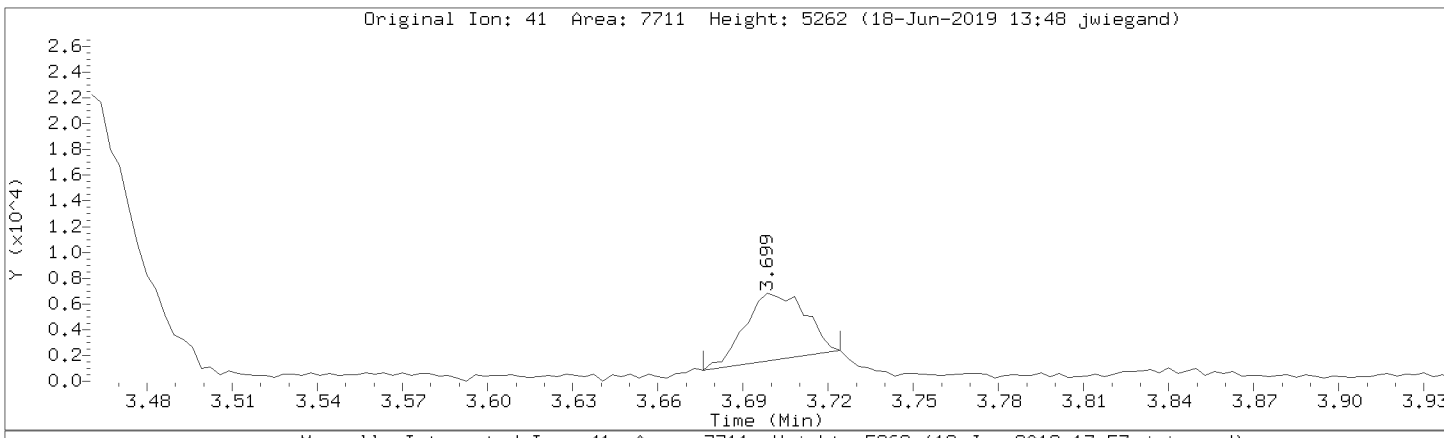
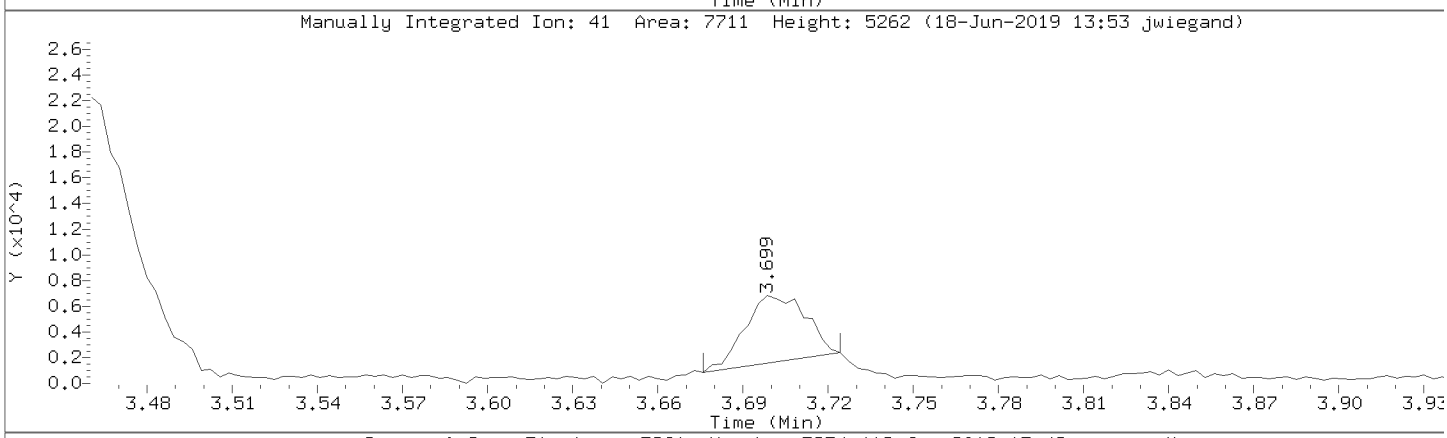
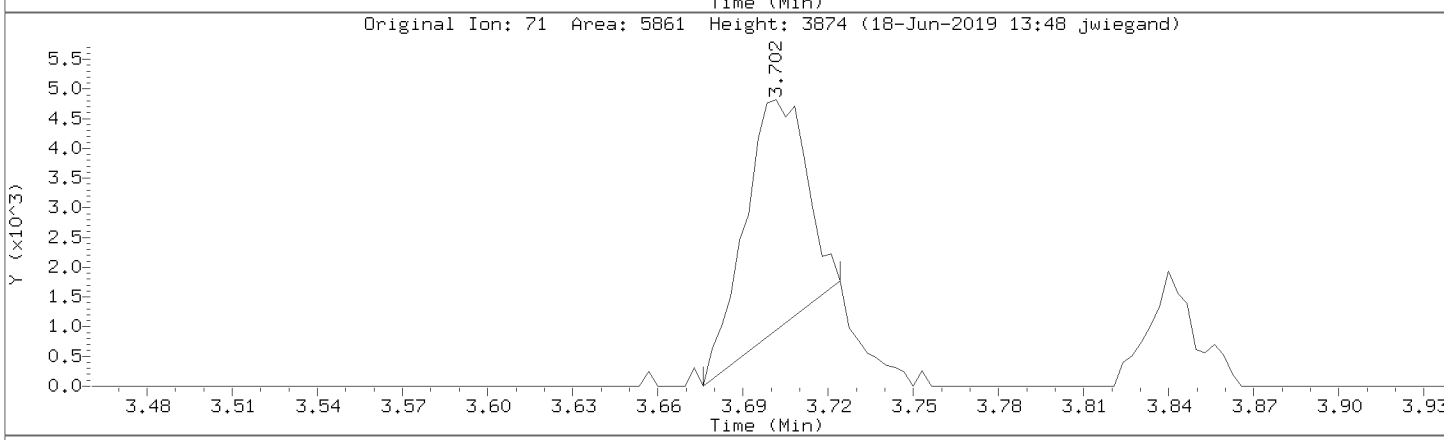
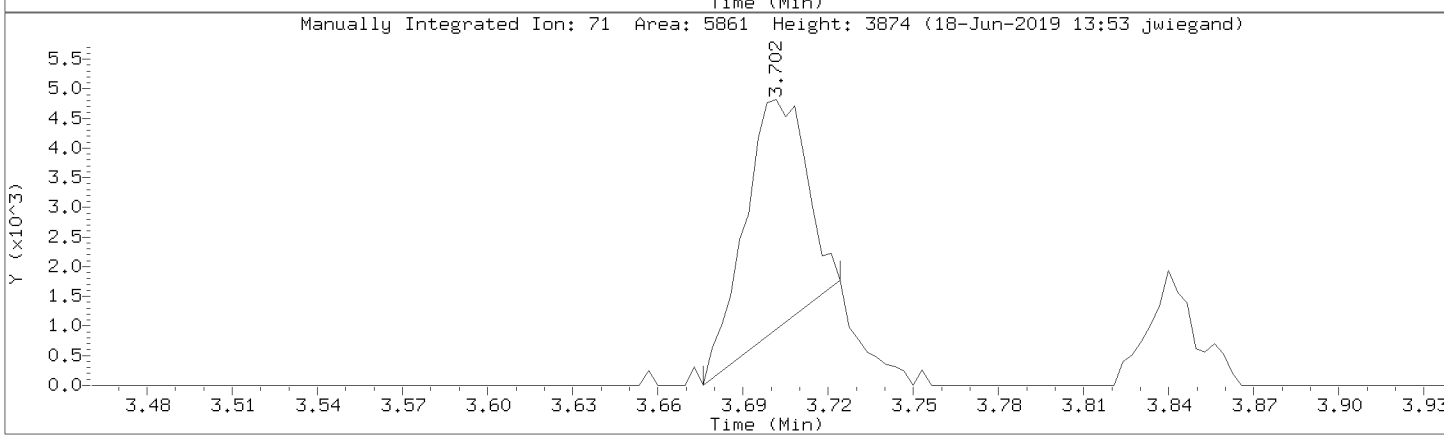
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5









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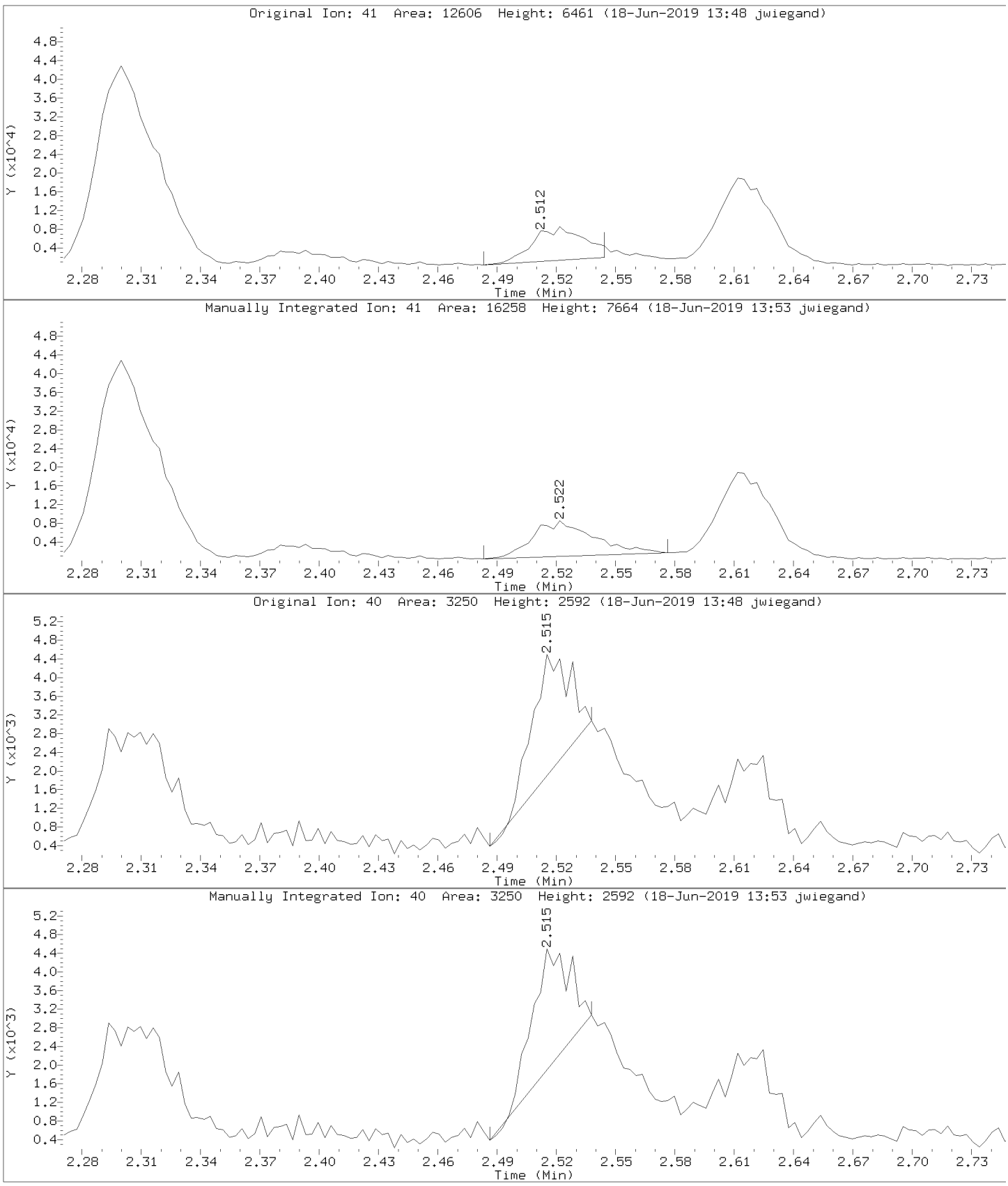
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8



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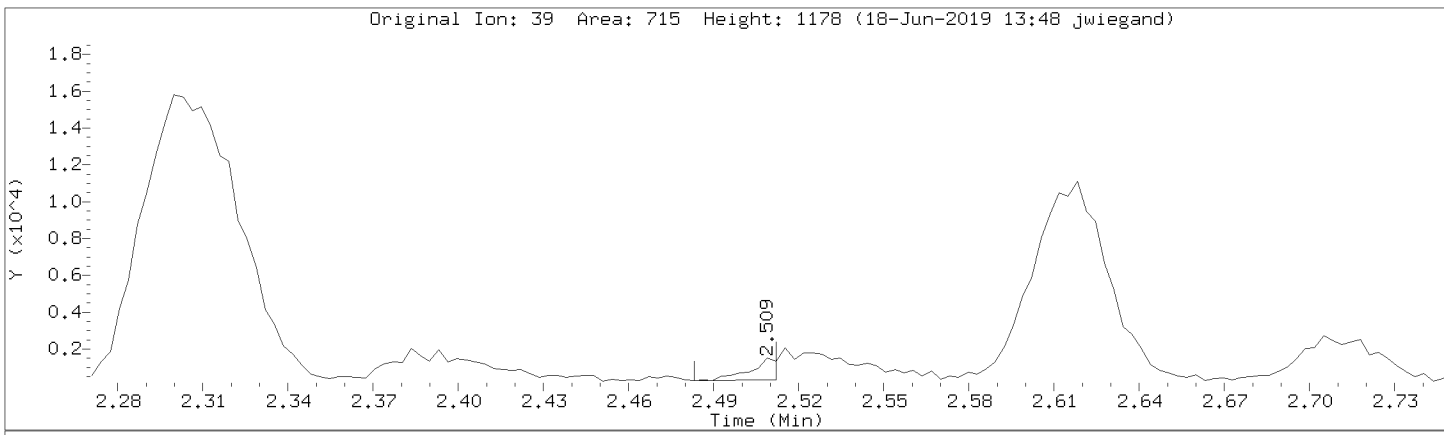
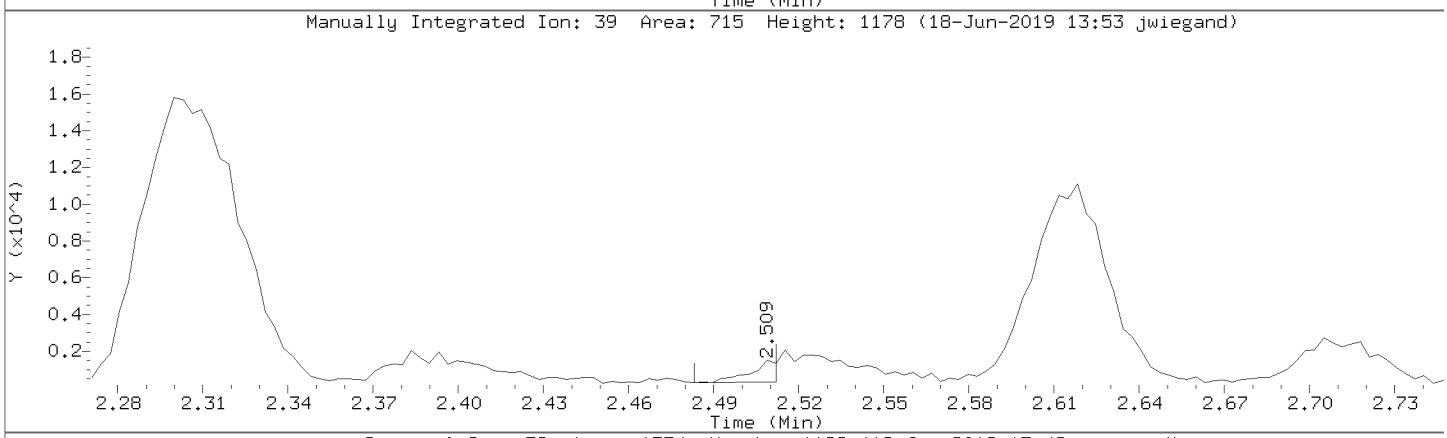
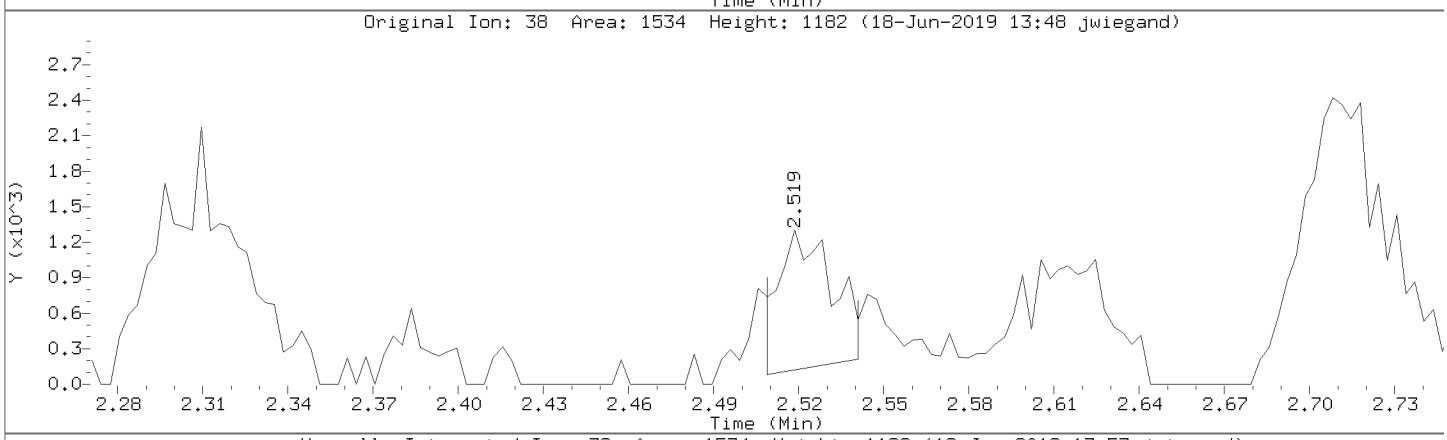
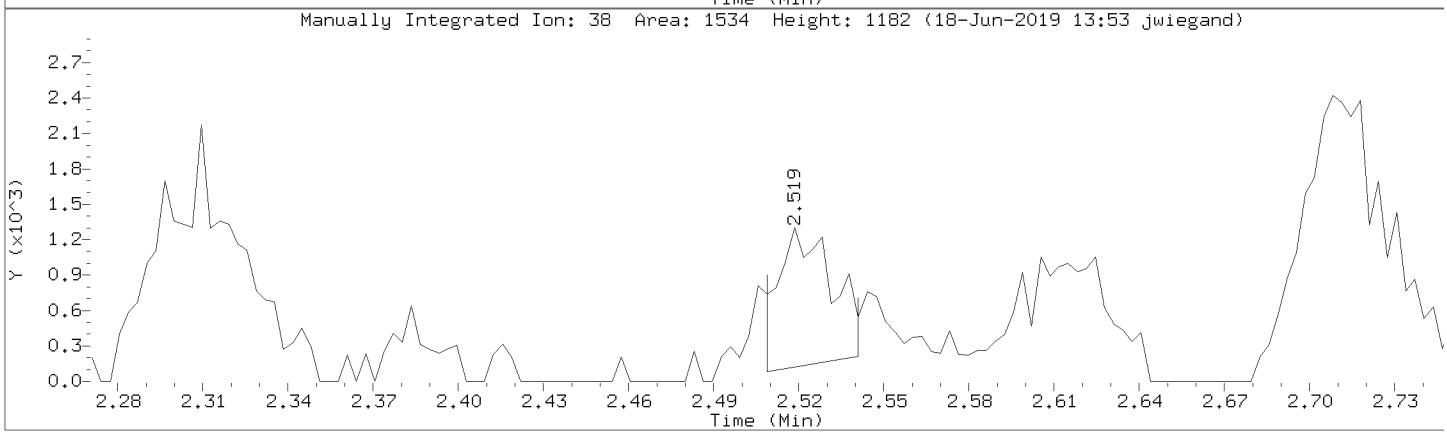
Lab Sample ID: CAL5









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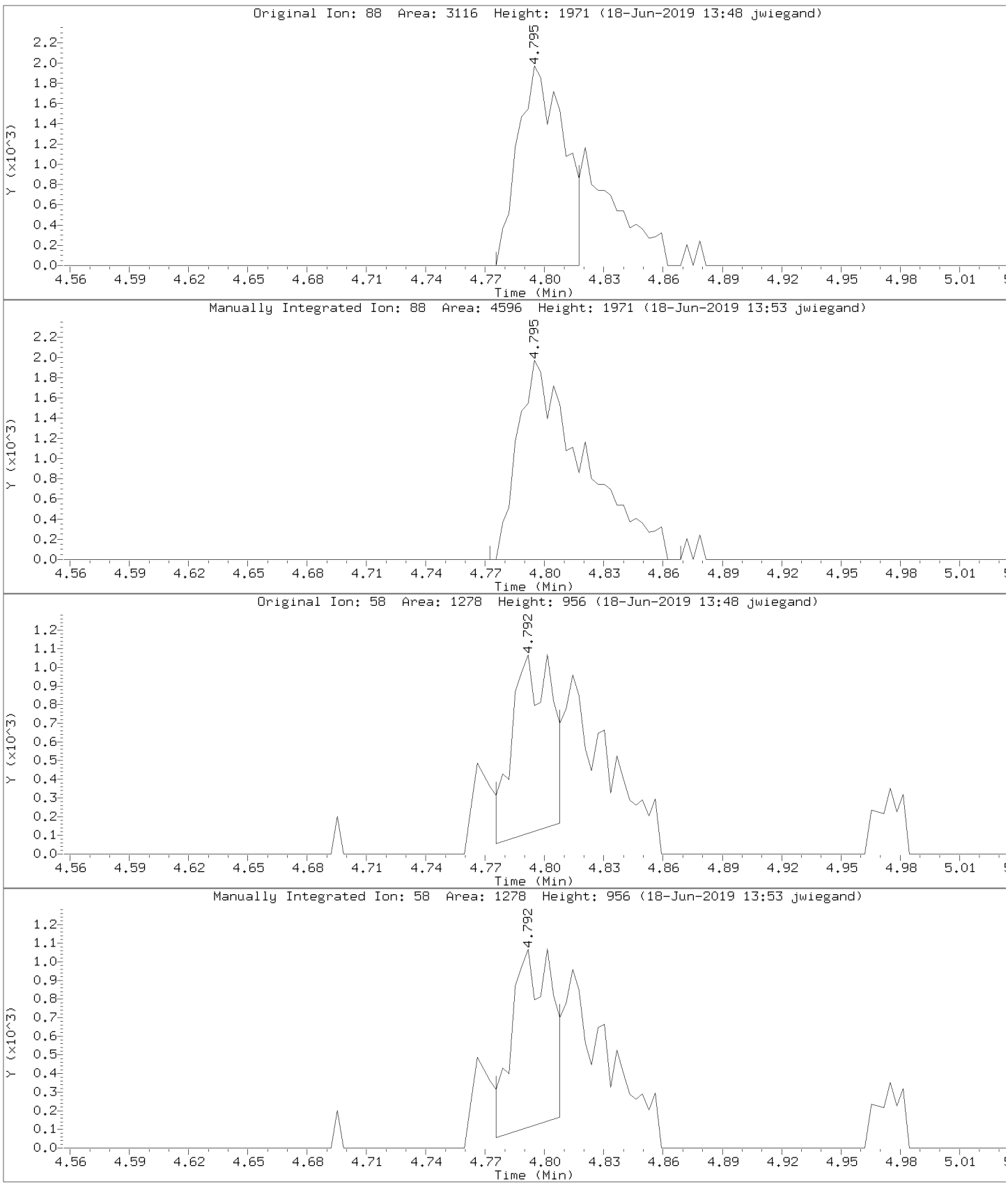
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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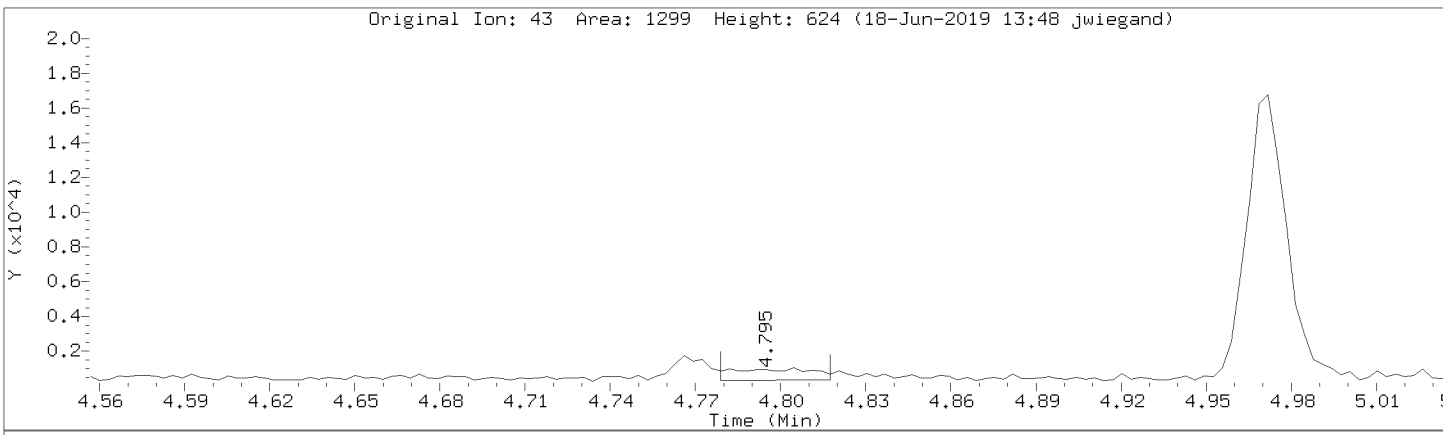
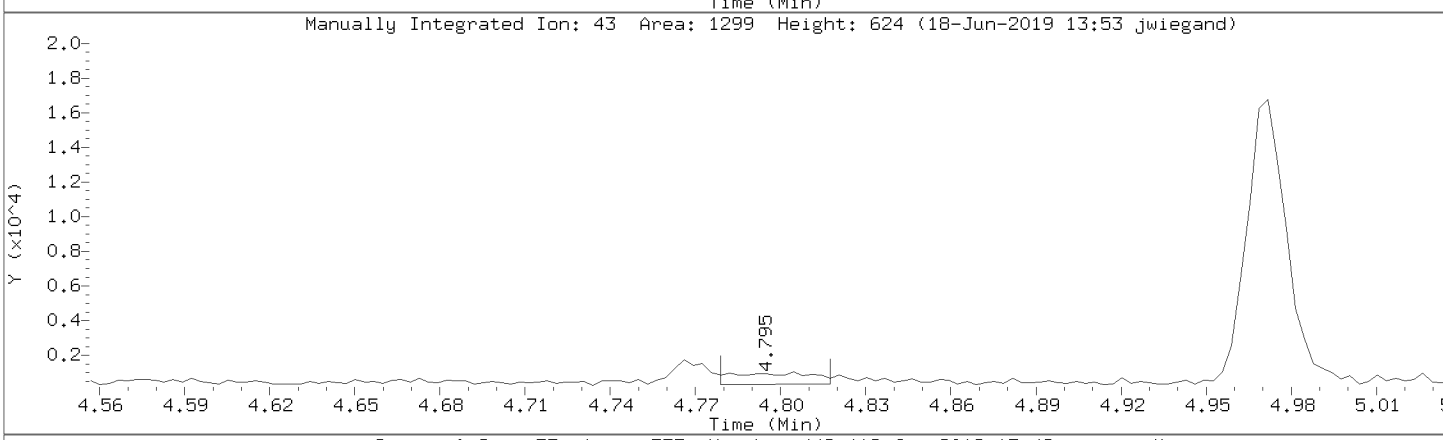
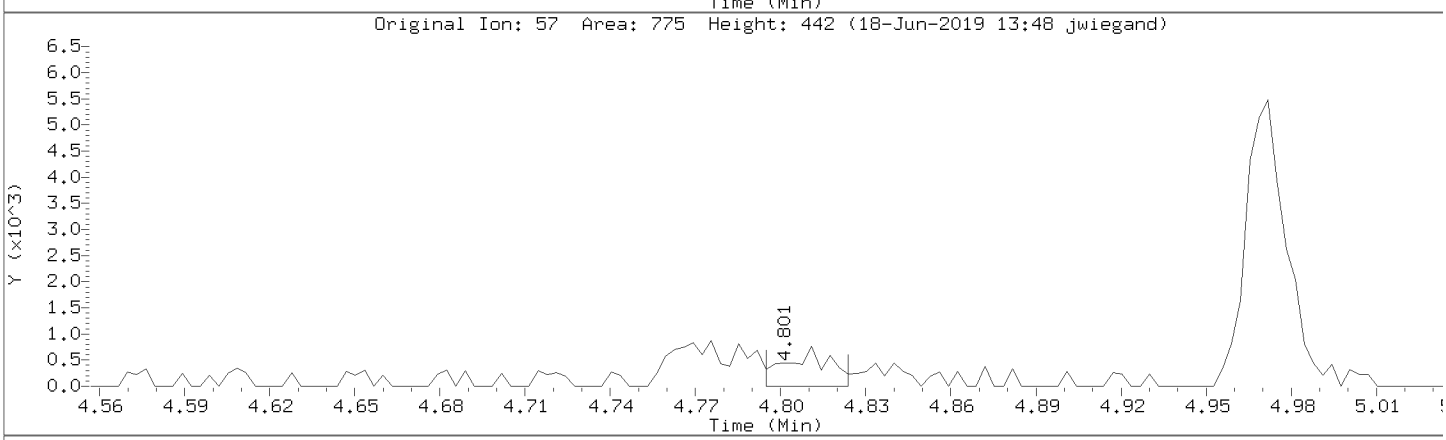
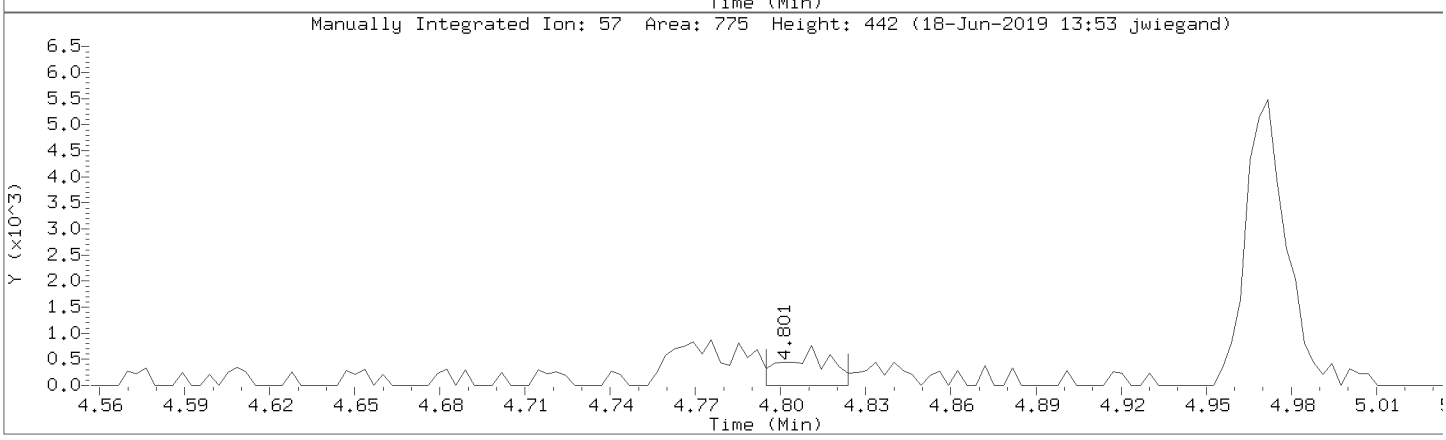
Lab Sample ID: CAL5









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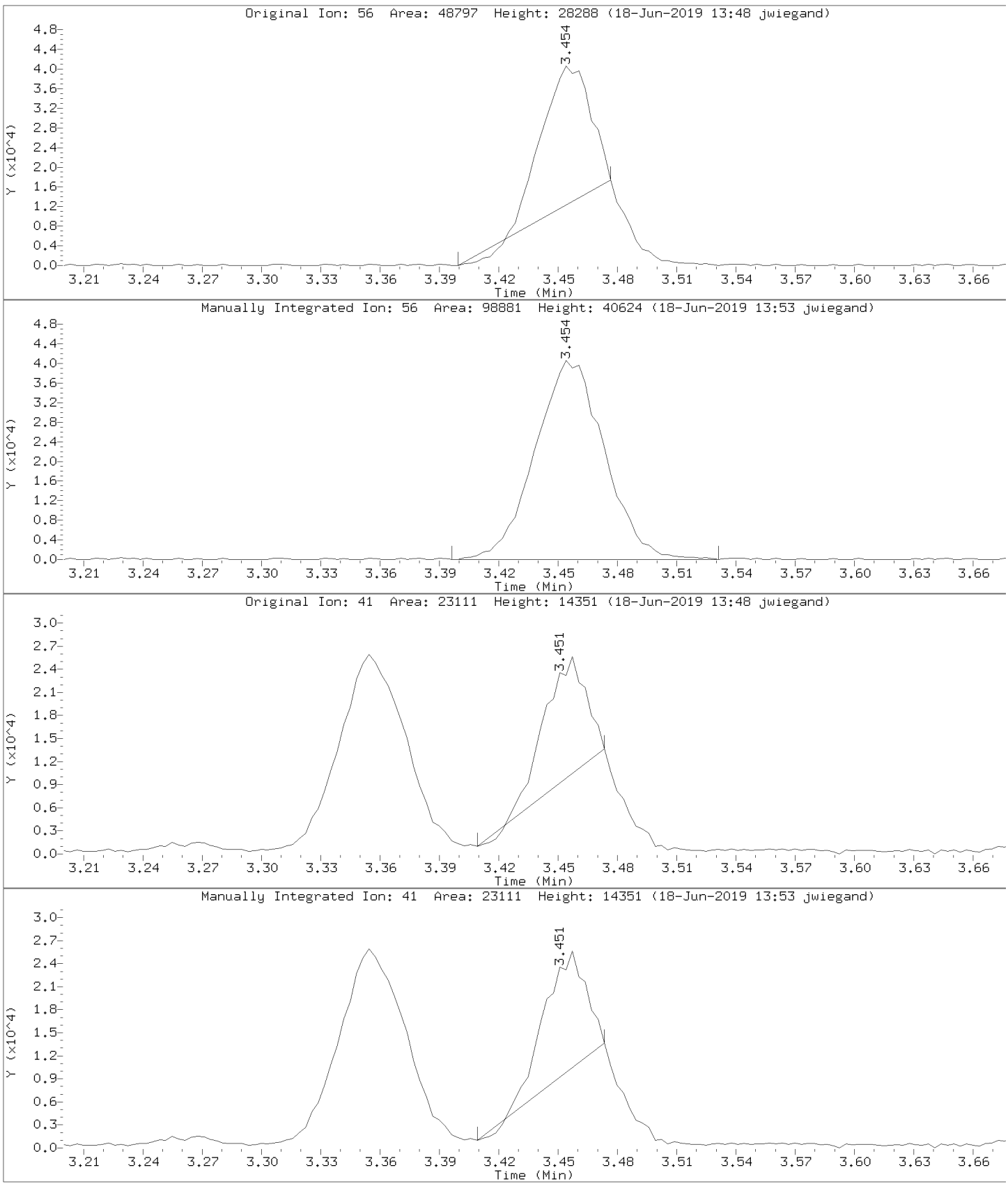
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Cyclohexane Review Code:
CAS Number: 110-82-7



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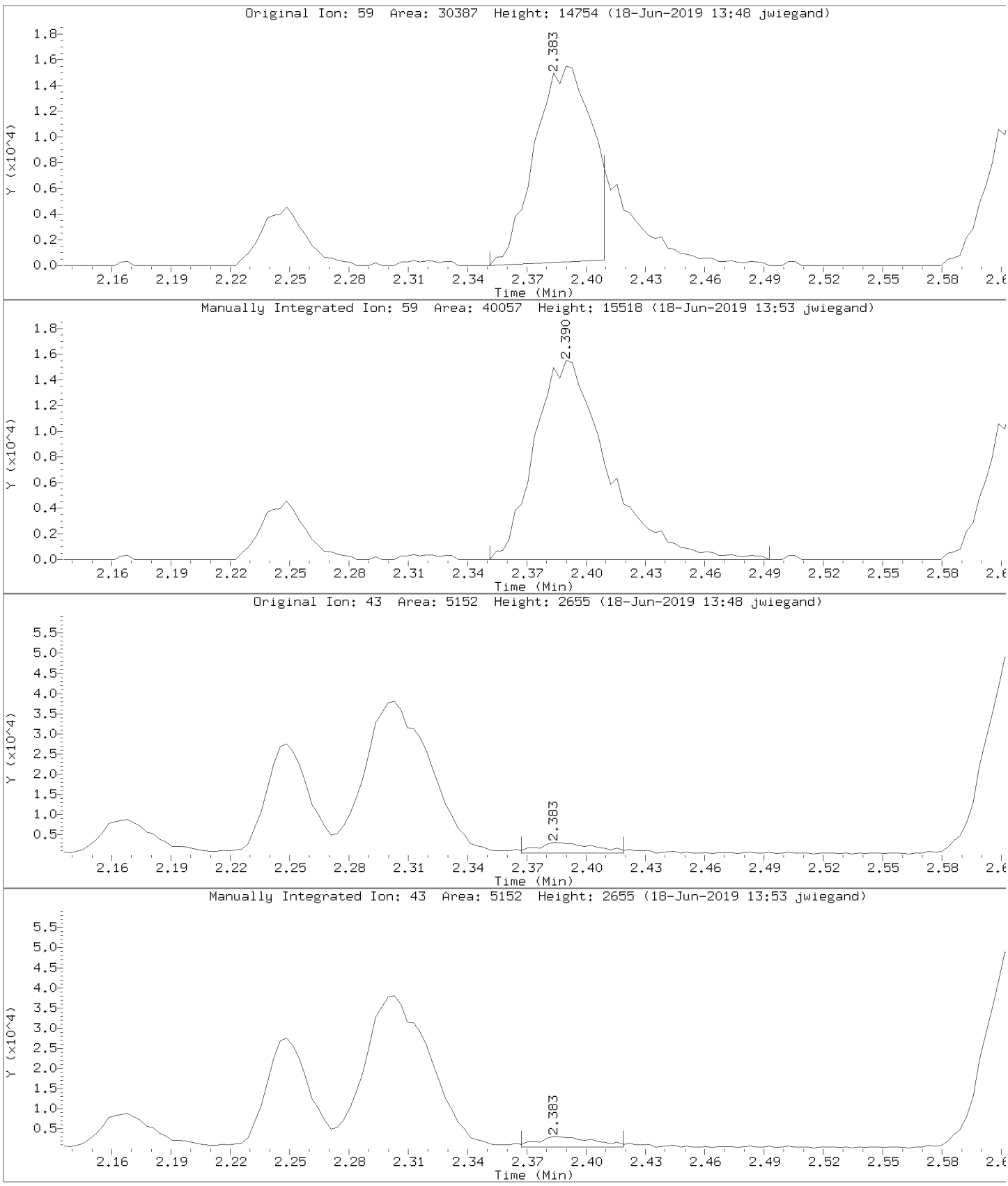
Lab Sample ID: CAL5

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



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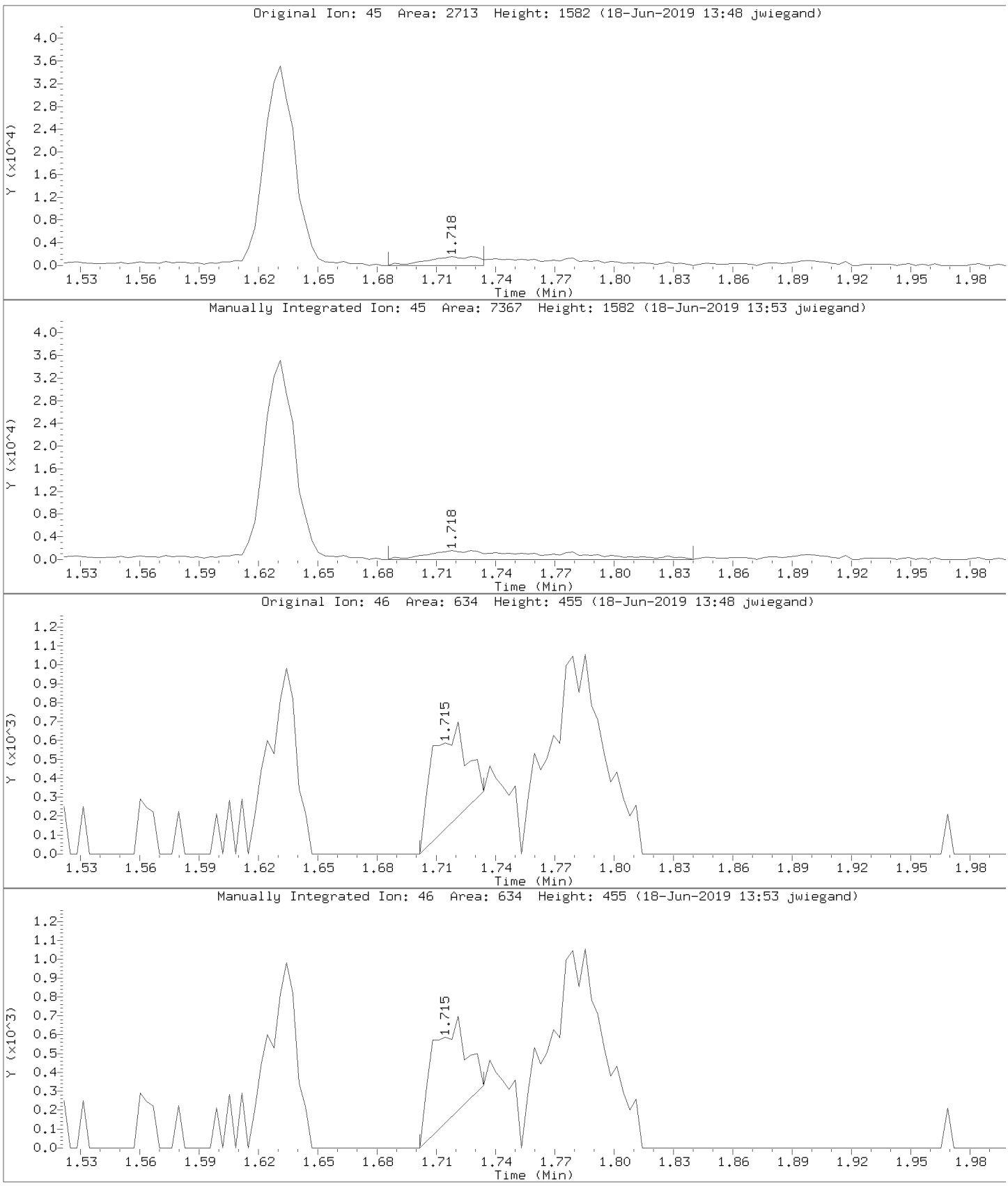
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5



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Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
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Inj Date : 18-JUN-2019 11:47
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal6, 91190:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 11:47 Cal File: 50618015.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	116782	100.000	103(QM)	LT
2	Chloromethane	50	1.145	1.142	(0.268)	84376	100.000	101(AQ)	
3	Vinyl chloride	62	1.145	1.146	(0.268)	150755	100.000	110(QM)	LT
4	Bromomethane	94	1.319	1.326	(0.308)	106857	100.000	107(QM)	
5	Chloroethane	64	1.386	1.380	(0.324)	98198	100.000	107(AQM)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	232671	100.000	111(QM)	LT
7	Diethyl ether (Ethyl ether)	59	1.630	1.634	(0.381)	110338	100.000	100(Q)	
8	Ethanol	45	1.724	1.773	(0.257)	10541	1000.00	(aQM)	LT
9	1,1-Dichloroethene	61	1.756	1.760	(0.411)	178809	100.000	111(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	88999	100.000	104(Q)	
11	Carbon disulfide	76	1.782	1.785	(0.417)	319664	100.000	110(Q)	
12	Iodomethane	142	1.852	1.856	(0.433)	64237	100.000	105(QM)	LT
13	Acrolein	56	1.965	1.969	(0.459)	12639	100.000	99.6(Q)	
14	Allyl chloride	41	2.055	2.056	(0.481)	675353	500.000	575(Q)	
15	Methylene Chloride	49	2.129	2.133	(0.498)	115301	100.000	104(Q)	
16	Acetone	43	2.161	2.165	(0.505)	30754	100.000	105(Q)	
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	180243	100.000	107(Q)	
18	Methyl acetate	74	2.245	2.255	(0.525)	21771	100.000	98.2(Q)	
19	n-Hexane	86	2.296	2.297	(0.537)	28758	100.000	102(Q)	
20	Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	395498	100.000	101(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	81616	500.000	516(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	32465	500.000	427(QM)	LT
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	359657	100.000	100(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	158716	100.000	103(Q)	
	25 1,1-Dichloroethane	63	2.730	2.728	(0.638)	225963	100.000	112(Q)	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	37287	100.000	101(Q)	
	27 Ethyl-tert-butyl ether	59	2.945	2.940	(0.689)	389403	100.000	100(Q)	
	28 Vinyl acetate	43	2.958	2.965	(0.692)	313772	100.000	98.8(Q)	
	29 cis-1,2-Dichloroethene	61	3.244	3.248	(0.759)	184779	100.000	110(Q)	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	218977	100.000	106(Q)	
	31 Cyclohexane	56	3.453	3.451	(0.808)	186331	100.000	104(Q)	
	32 Bromochloromethane	130	3.463	3.467	(0.810)	83208	100.000	107(Q)	
	33 Chloroform	83	3.553	3.554	(0.831)	274320	100.000	109(Q)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	209795	100.000	106(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	137223	100.000	101(Q)	
	36 Tetrahydrofuran	42	3.701	3.711	(0.865)	51894	100.000	104(Q)	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	39562	30.0000	32.3(Q)	
	38 1,1,1-Trichloroethane	97	3.736	3.734	(0.874)	243357	100.000	108(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	64883	100.000	104(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	204460	100.000	107(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	583729	100.000	105(Q)	
	42 Propionitrile	54	4.039	4.049	(0.944)	14918	100.000	103(Q)	
	43 Methacrylonitrile	41	4.048	4.054	(0.947)	80344	100.000	101(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	420097	100.000	101(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.961)	40106	30.0000	29.1(Q)	
	46 Isobutanol	43	4.187	4.099	(0.979)	30537	500.000	527(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	204224	100.000	103(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	146078	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	219632	100.000	103(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	157608	100.000	99.7(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	100344	100.000	103(Q)	
	52 1,2-Dichloropropane	63	4.643	4.647	(1.086)	138990	100.000	102(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	196715	100.000	103(Q)	
	54 Methyl methacrylate	69	4.765	4.776	(1.114)	105700	100.000	101(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	10046	1000.00	941(QM)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	54002	100.000	98.7(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	235771	100.000	101(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	134400	30.0000	28.9(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	601063	100.000	100(Q)	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	226539	500.000	493(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	138470	100.000	100(Q)	
	62 Tetrachloroethene	166	5.283	5.290	(0.917)	157102	100.000	99.8(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	225640	100.000	98.5(Q)	
	64 Ethyl methacrylate	41	5.363	5.367	(0.931)	119397	100.000	96.9(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.932)	134136	100.000	99.0(Q)	
	66 Dibromochloromethane	129	5.447	5.451	(0.945)	160282	100.000	99.4(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.953)	218947	100.000	100(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.550	5.554	(0.963)	137341	100.000	99.7(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	100303	100.000	98.4(Q)	
	70 Ethylbenzene	106	5.775	5.779	(1.002)	219868	100.000	104(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	108243	30.0000	(Q)	
	72 Chlorobenzene	112	5.769	5.769	(1.001)	412948	100.000	102(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.794	5.798	(1.006)	158819	100.000	105(Q)	
	74 m&p-Xylene	106	5.833	5.837	(1.012)	530174	200.000	210(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.013	6.017	(1.044)	261595	100.000	106(Q)	
76	Styrene	104	6.035	6.036	(1.047)	433238	100.000	104(Q)	
77	Bromoform	173	6.055	6.059	(0.903)	117030	100.000	93.4(Q)	
78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	640636	100.000	100(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	41101	30.0000	27.9(Q)	
80	n-Propylbenzene	91	6.302	6.306	(0.940)	745464	100.000	99.4(Q)	
81	Bromobenzene	77	6.305	6.309	(0.940)	288011	100.000	98.4(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	184869	100.000	98.4(Q)	
83	1,3,5-Trimethylbenzene	105	6.376	6.380	(0.951)	514749	100.000	102(Q)	
84	2-Chlorotoluene	126	6.376	6.380	(0.951)	159013	100.000	99.0(Q)	
85	1,2,3-Trichloropropane	110	6.395	6.396	(0.954)	56190	100.000	100(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.955)	44144	100.000	97.4(Q)	
87	Cyclohexanone	55	6.418	6.422	(0.957)	37432	500.000	437(Q)	
88	4-Chlorotoluene	126	6.441	6.444	(0.960)	164360	100.000	101(Q)	
89	tert-Butylbenzene	119	6.511	6.512	(0.971)	437920	100.000	102(Q)	
90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.975)	513002	100.000	103(Q)	
91	sec-Butylbenzene	105	6.579	6.583	(0.981)	627208	100.000	103(Q)	
92	p-Isopropyltoluene	119	6.633	6.634	(0.989)	531614	100.000	102(Q)	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	291894	100.000	100(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.707	6.711	(1.000)	50468	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	292580	100.000	101(Q)	
96	n-Butylbenzene	91	6.804	6.805	(1.014)	453066	100.000	101(Q)	
97	1,2-Dichlorobenzene	146	6.887	6.891	(1.027)	269577	100.000	100(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.707	6.711	(1.000)	50467	30.0000	29.9(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	31807	100.000	94.2(Q)	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.077)	156883	100.000	100(Q)	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	72142	100.000	98.0(Q)	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.116)	134025	100.000	100(Q)	
102	Naphthalene	128	7.617	7.618	(1.136)	345925	100.000	96.7(Q)	
103	1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	120683	100.000	98.6(Q)	
104	2-Methylnaphthalene	142	8.045	8.048	(1.199)	149305	100.000	89.3(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618015.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	146078	1.66
71 Chlorobenzene-d5	102704	51352	205408	108243	5.39
94 1,4-Dichlorobenze	44519	22260	89038	50468	13.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.76	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	103	
74-87-3	Chloromethane	101	E
75-01-4	Vinyl chloride	110	
74-83-9	Bromomethane	107	
75-00-3	Chloroethane	107	E
75-69-4	Trichlorofluoromethane	111	
60-29-7	Diethyl ether (Ethyl ether)	100	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	111	
76-13-1	1,1,2-Trichlorotrifluoroetha	104	
75-15-0	Carbon disulfide	110	
74-88-4	Iodomethane	105	
107-02-8	Acrolein	99.6	
107-05-1	Allyl chloride	575	
75-09-2	Methylene Chloride	104	
67-64-1	Acetone	105	
156-60-5	trans-1,2-Dichloroethene	107	
79-20-9	Methyl acetate	98.2	
110-54-3	n-Hexane	102	
1634-04-4	Methyl-tert-butyl ether	101	
75-65-0	tert-Butyl Alcohol	516	
75-05-8	Acetonitrile	427	
108-20-3	Diisopropyl ether	100	
126-99-8	Chloroprene	103	
75-34-3	1,1-Dichloroethane	112	
107-13-1	Acrylonitrile	101	
637-92-3	Ethyl-tert-butyl ether	100	
108-05-4	Vinyl acetate	98.8	
156-59-2	cis-1,2-Dichloroethene	110	
594-20-7	2,2-Dichloropropane	106	
110-82-7	Cyclohexane	104	
74-97-5	Bromochloromethane	107	
67-66-3	Chloroform	109	
56-23-5	Carbon tetrachloride	106	
141-78-6	Ethyl acetate	101	
109-99-9	Tetrahydrofuran	104	
71-55-6	1,1,1-Trichloroethane	108	
78-93-3	2-Butanone (MEK)	104	
563-58-6	1,1-Dichloropropene	107	
71-43-2	Benzene	105	
107-12-0	Propionitrile	103	
126-98-7	Methacrylonitrile	101	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	101	
78-83-1	Isobutanol	527	
107-06-2	1,2-Dichloroethane	103	
108-87-2	Methylcyclohexane	103	
79-01-6	Trichloroethene	99.7	
74-95-3	Dibromomethane	103	
78-87-5	1,2-Dichloropropane	102	
75-27-4	Bromodichloromethane	103	
80-62-6	Methyl methacrylate	101	
123-91-1	1,4-Dioxane (p-Dioxane)	941	
110-75-8	2-Chloroethylvinyl ether	98.7	
10061-01-5	cis-1,3-Dichloropropene	101	
108-88-3	Toluene	100	
79-46-9	2-Nitropropane	493	
108-10-1	4-Methyl-2-pentanone (MIBK)	100	
127-18-4	Tetrachloroethene	99.8	
10061-02-6	trans-1,3-Dichloropropene	98.5	
97-63-2	Ethyl methacrylate	96.9	
79-00-5	1,1,2-Trichloroethane	99.0	
124-48-1	Dibromochloromethane	99.4	
142-28-9	1,3-Dichloropropane	100	
106-93-4	1,2-Dibromoethane (EDB)	99.7	
591-78-6	2-Hexanone	98.4	
100-41-4	Ethylbenzene	104	
108-90-7	Chlorobenzene	102	
630-20-6	1,1,1,2-Tetrachloroethane	105	
7816-60-0	m&p-Xylene	210	
95-47-6	o-Xylene	106	
100-42-5	Styrene	104	
75-25-2	Bromoform	93.4	
98-82-8	Isopropylbenzene (Cumene)	100	
103-65-1	n-Propylbenzene	99.4	
108-86-1	Bromobenzene	98.4	
79-34-5	1,1,2,2-Tetrachloroethane	98.4	
108-67-8	1,3,5-Trimethylbenzene	102	
95-49-8	2-Chlorotoluene	99.0	
96-18-4	1,2,3-Trichloropropane	100	
110-57-6	trans-1,4-Dichloro-2-butene	97.4	
108-94-1	Cyclohexanone	437	
106-43-4	4-Chlorotoluene	101	
98-06-6	tert-Butylbenzene	102	
95-63-6	1,2,4-Trimethylbenzene	103	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

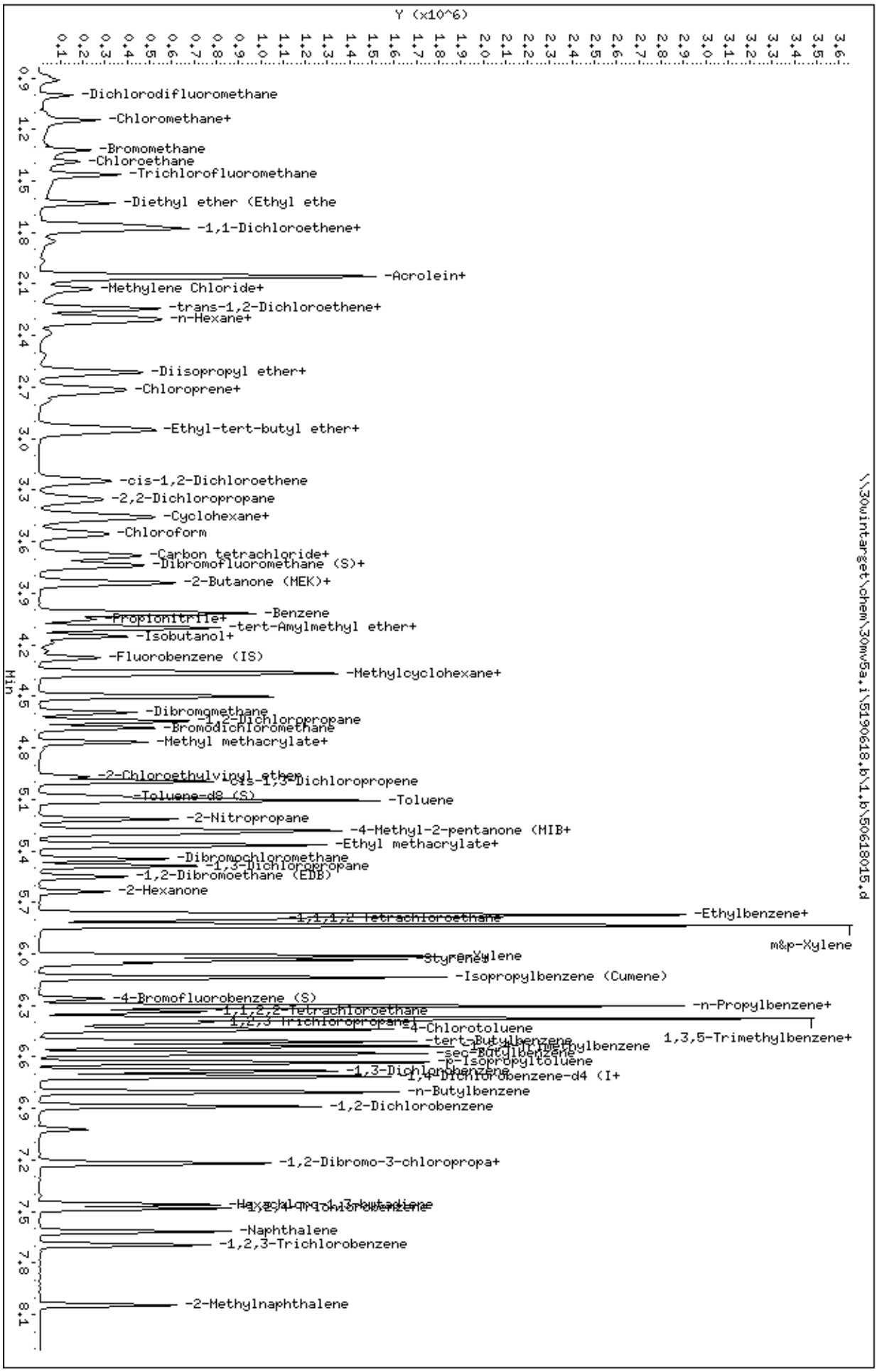
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	103	
99-87-6	p-Isopropyltoluene	102	
541-73-1	1,3-Dichlorobenzene	100	
106-46-7	1,4-Dichlorobenzene	101	
104-51-8	n-Butylbenzene	101	
95-50-1	1,2-Dichlorobenzene	100	
96-12-8	1,2-Dibromo-3-chloropropane	94.2	
108-70-3	1,3,5-Trichlorobenzene	100	
87-68-3	Hexachloro-1,3-butadiene	98.0	
120-82-1	1,2,4-Trichlorobenzene	100	
91-20-3	Naphthalene	96.7	
87-61-6	1,2,3-Trichlorobenzene	98.6	
91-57-6	2-Methylnaphthalene	89.3	
1868-53-7	Dibromofluoromethane (S)	32.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.1	
2037-26-5	Toluene-d8 (S)	28.9	
460-00-4	4-Bromofluorobenzene (S)	27.9	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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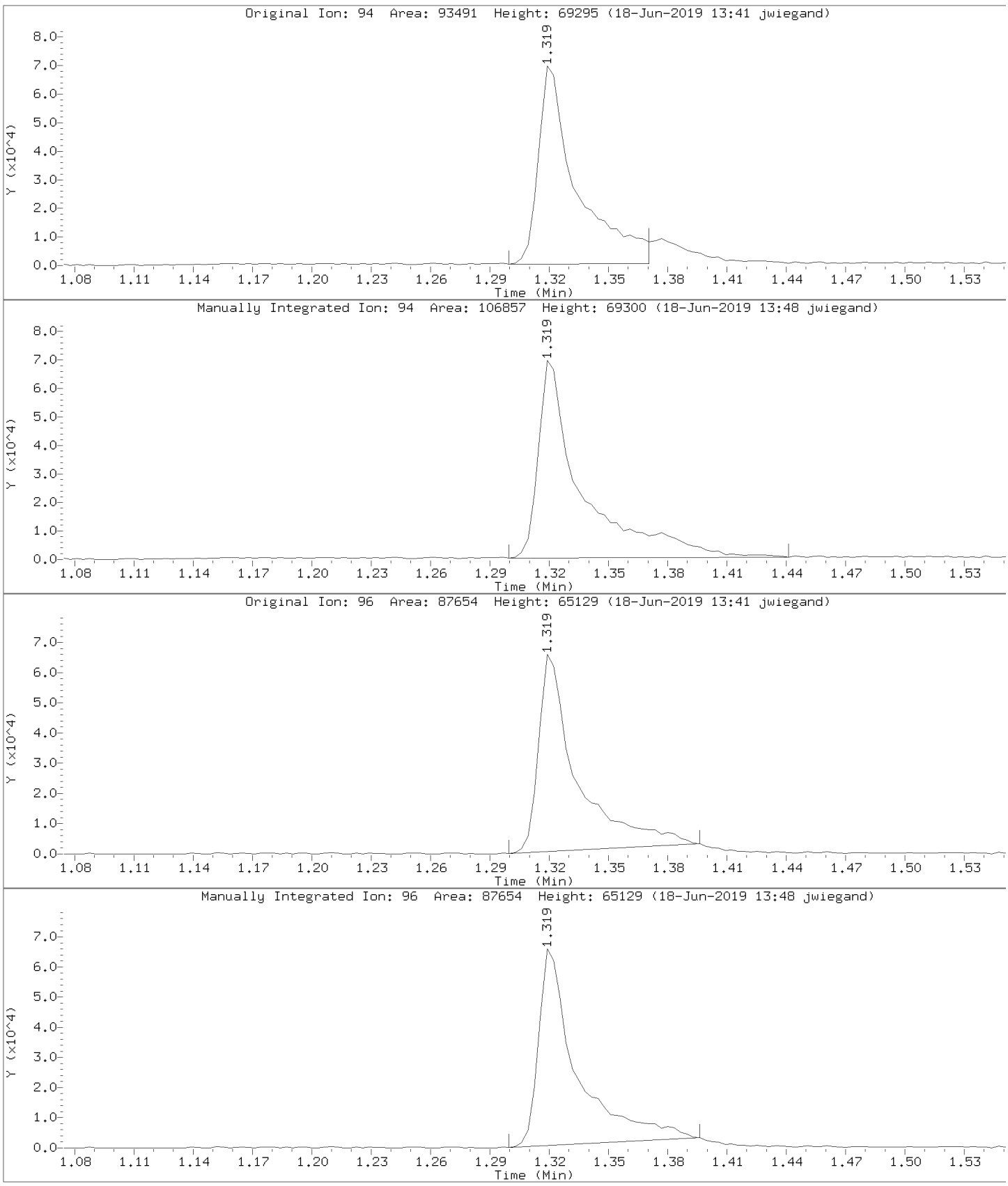
Date : 18-JUN-2019 11:47
Client ID: CAL6
Sample Info: CAL6, 91190:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Styrene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane
-4-Chlorotoluene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Bromomethane Review Code:
CAS Number: 74-83-9



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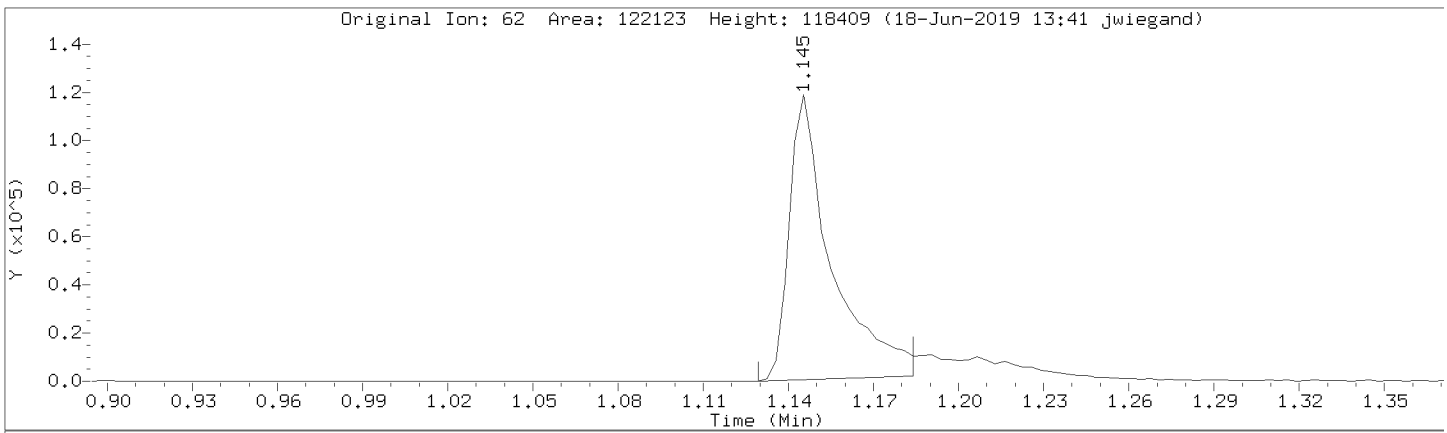
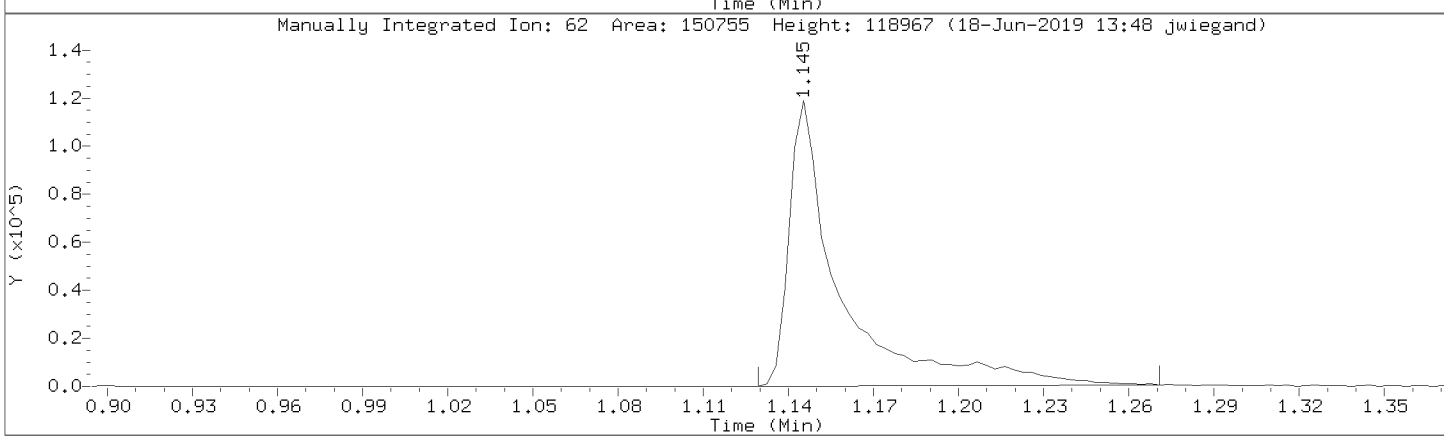
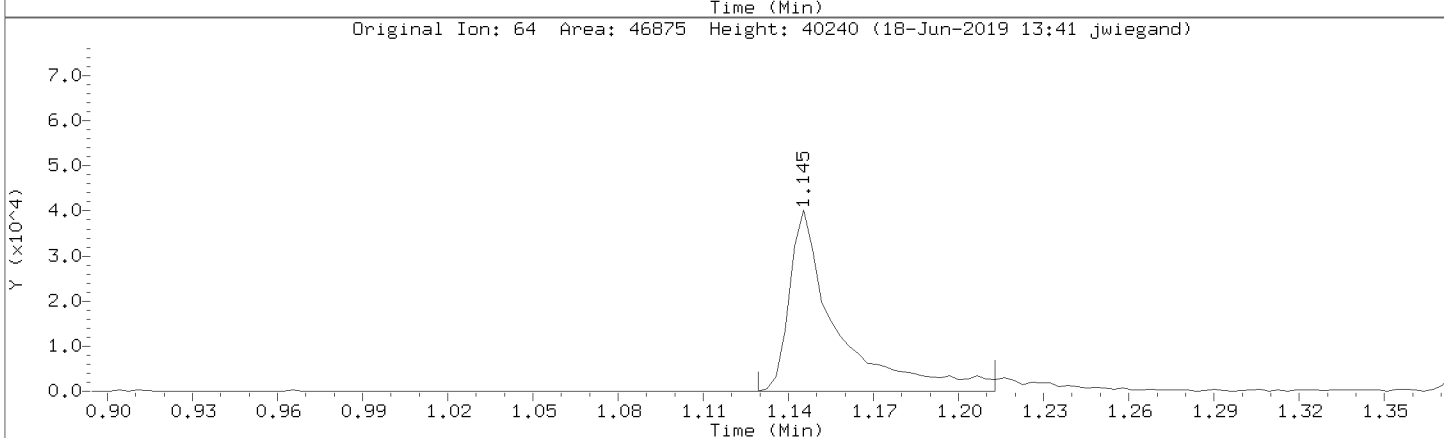
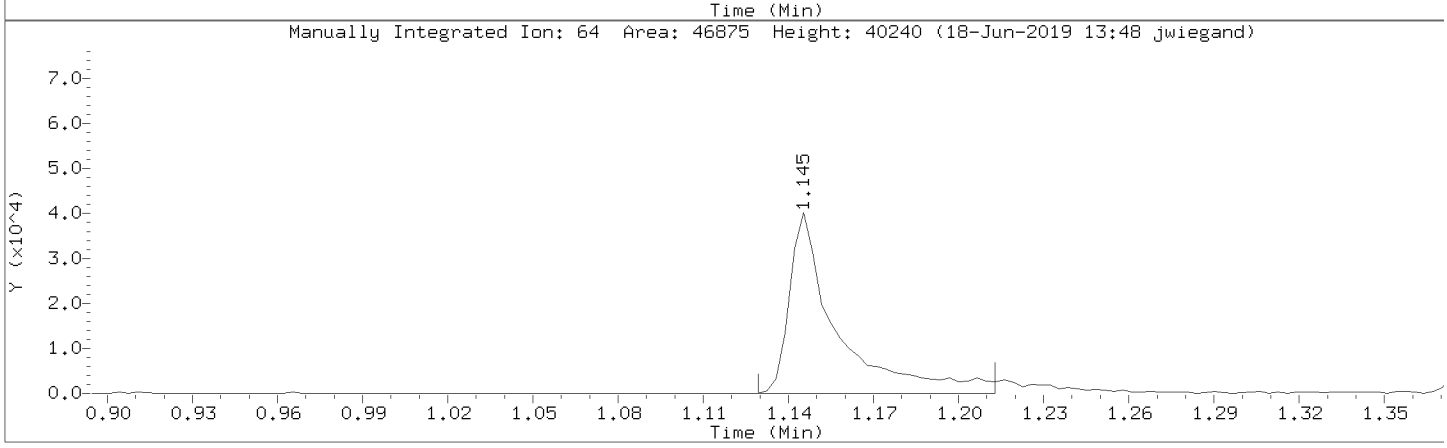
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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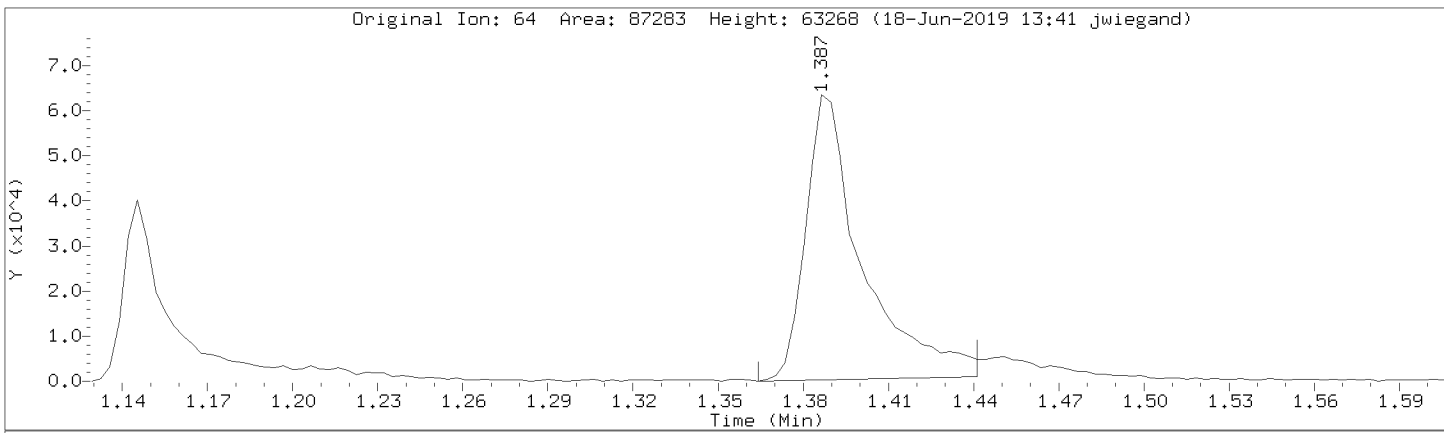
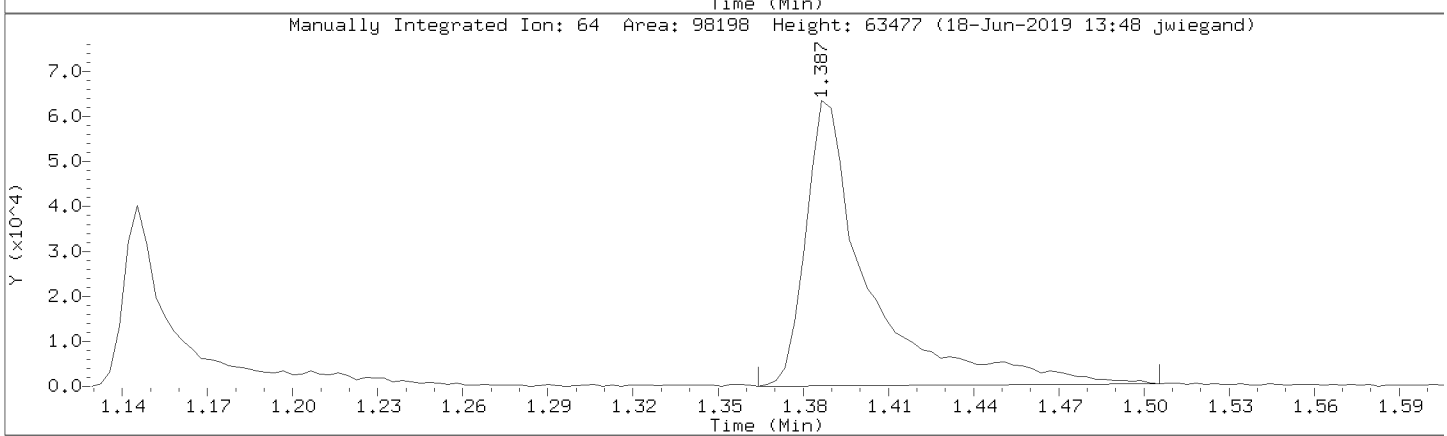
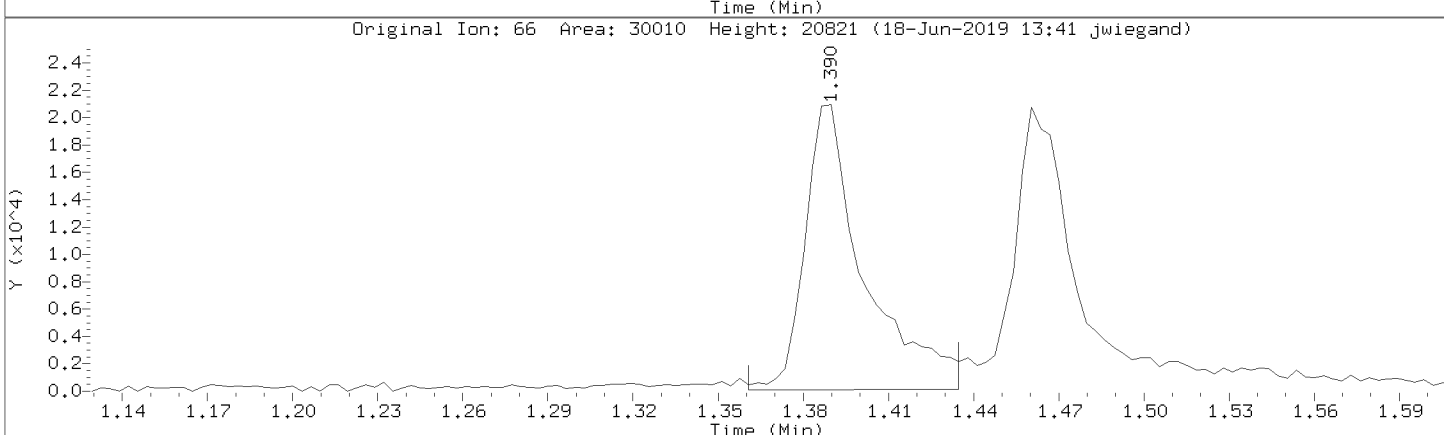
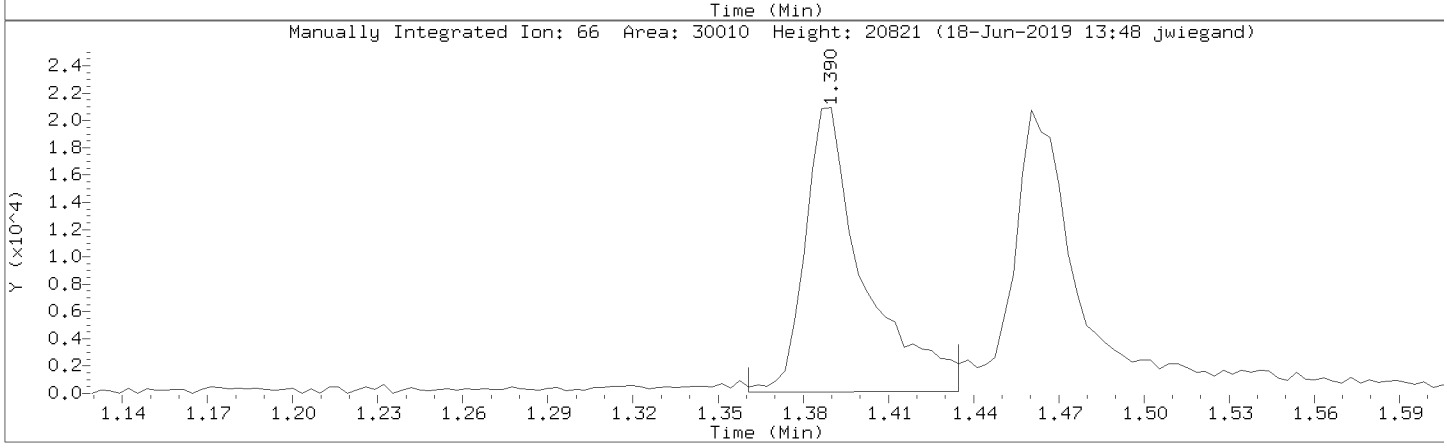
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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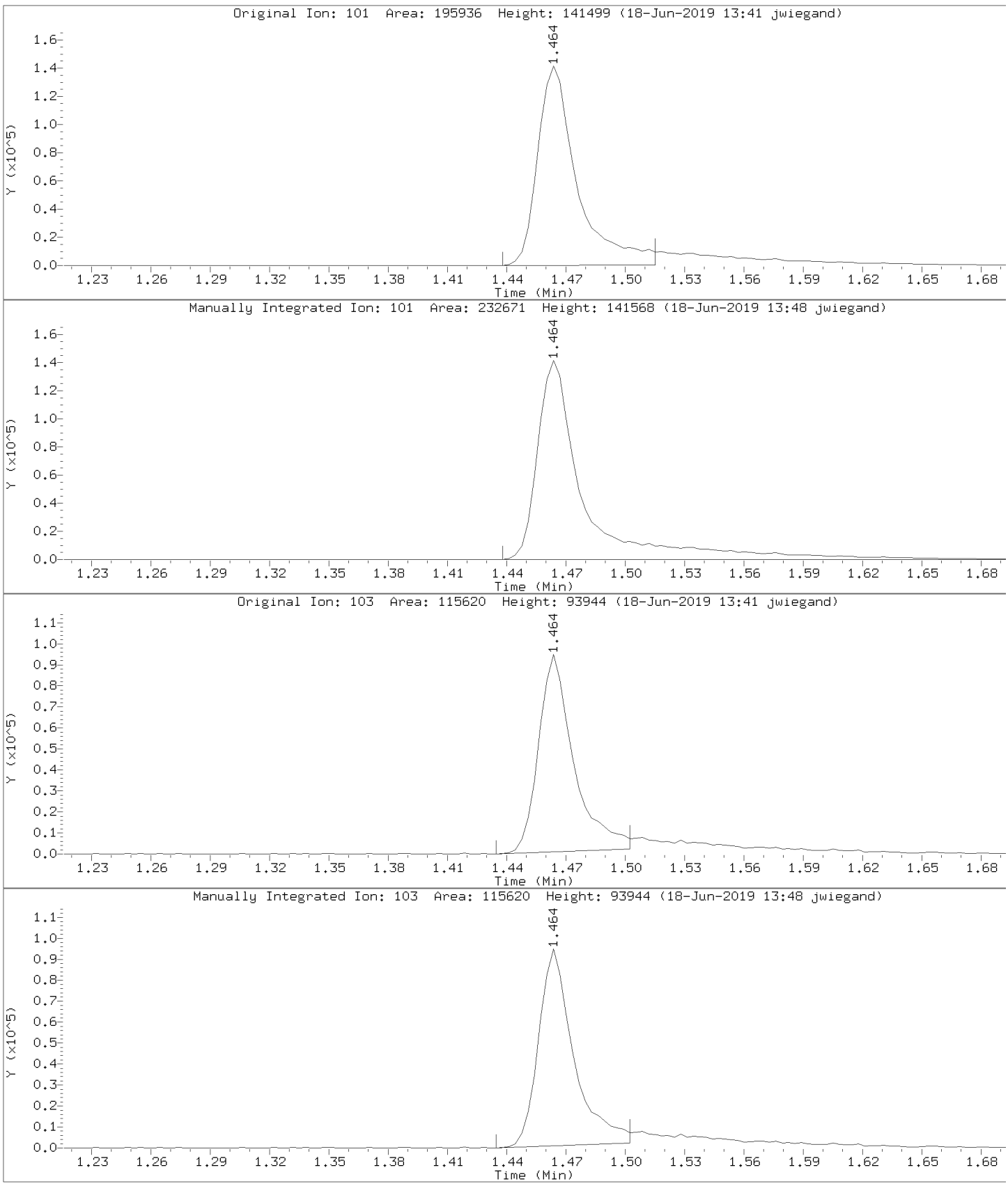
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4



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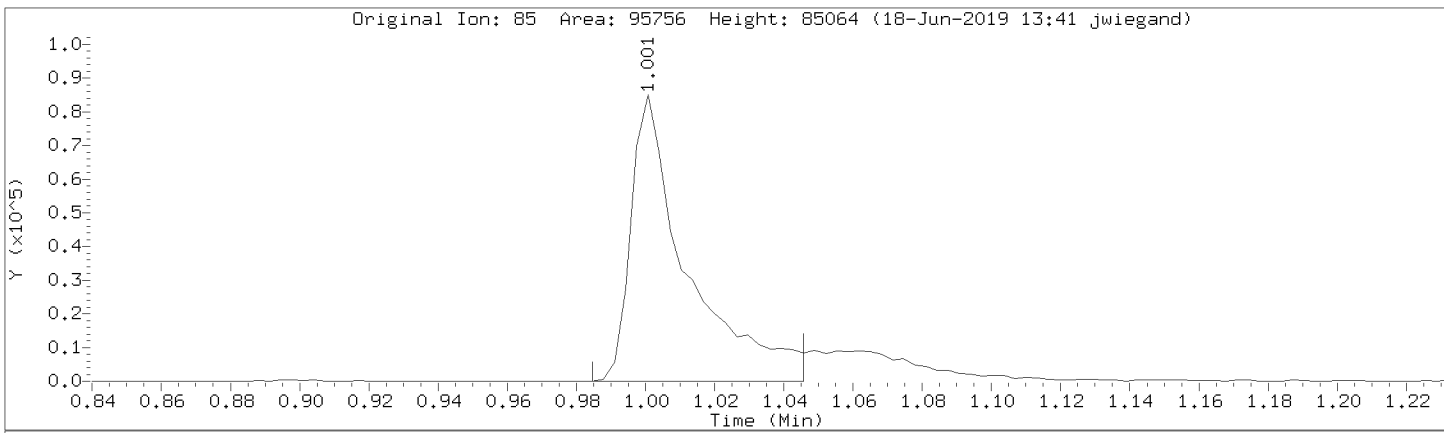
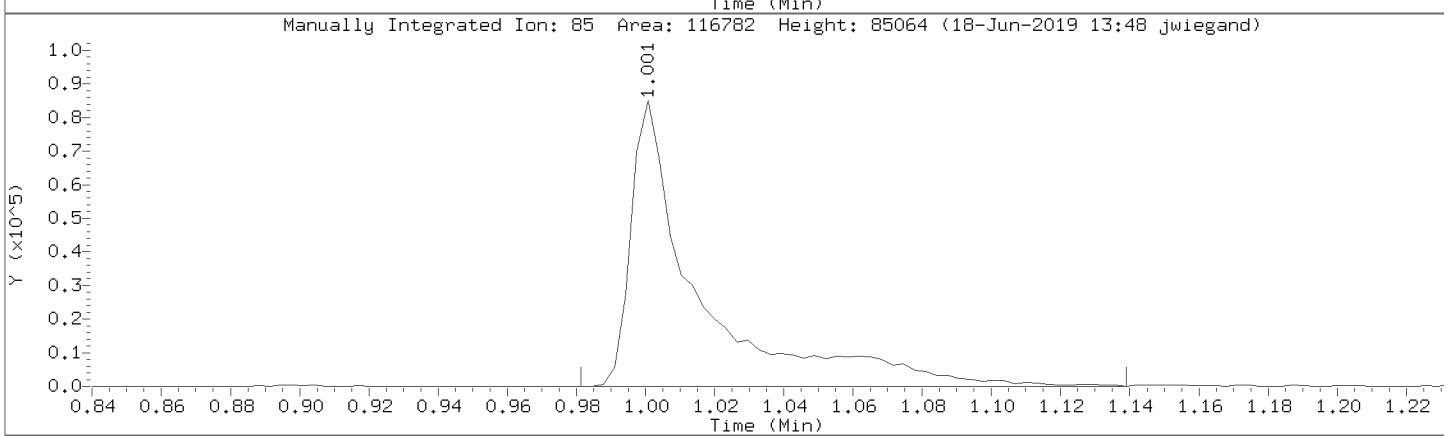
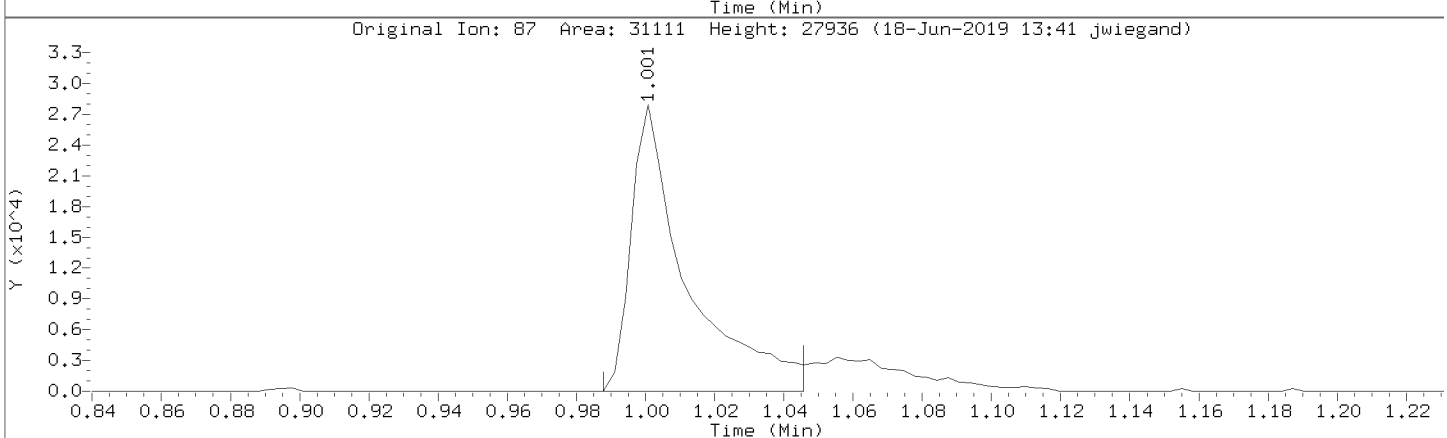
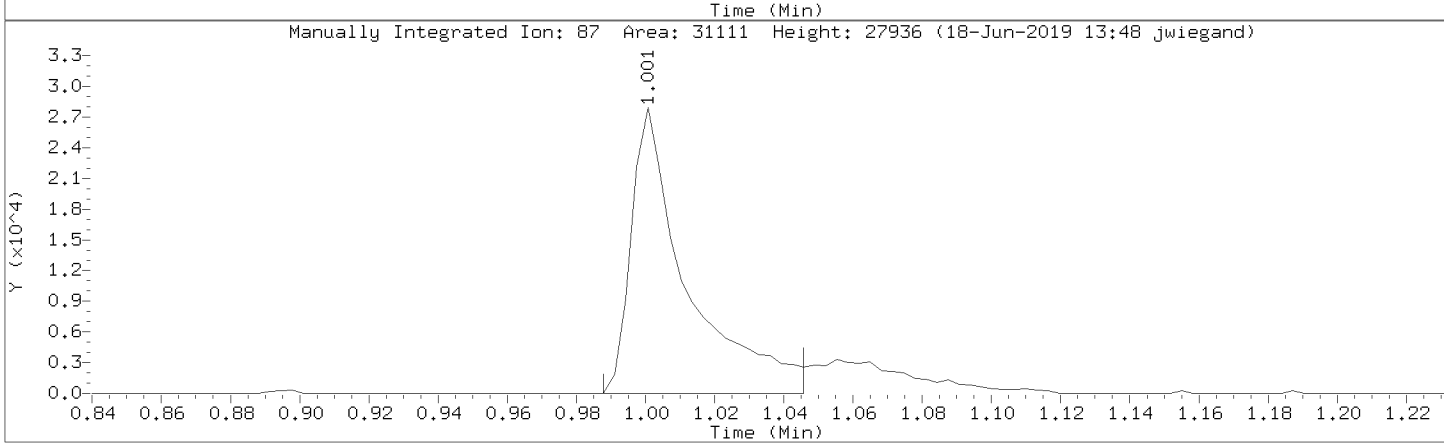
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4

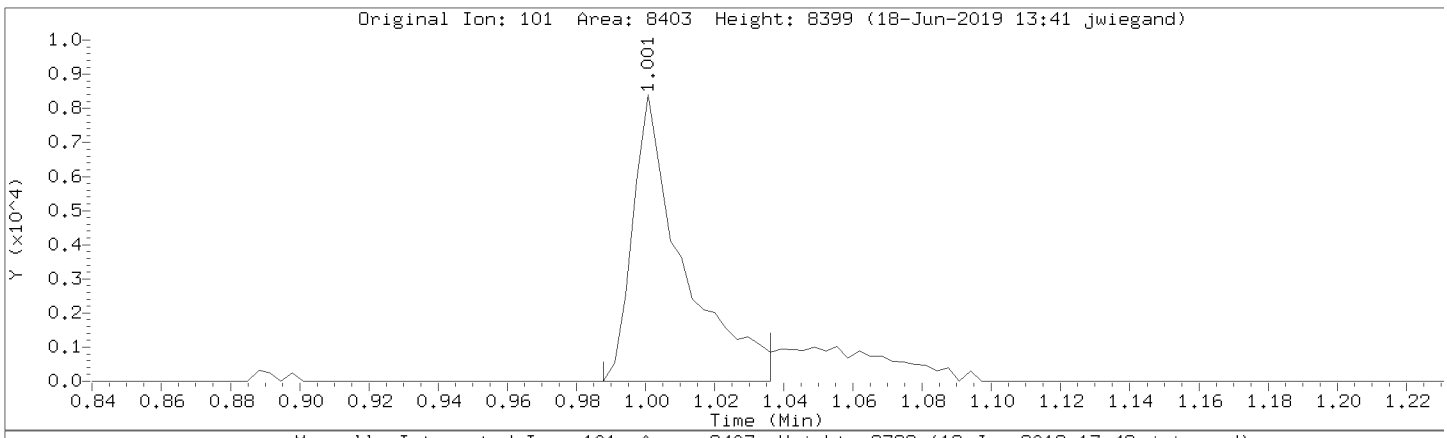


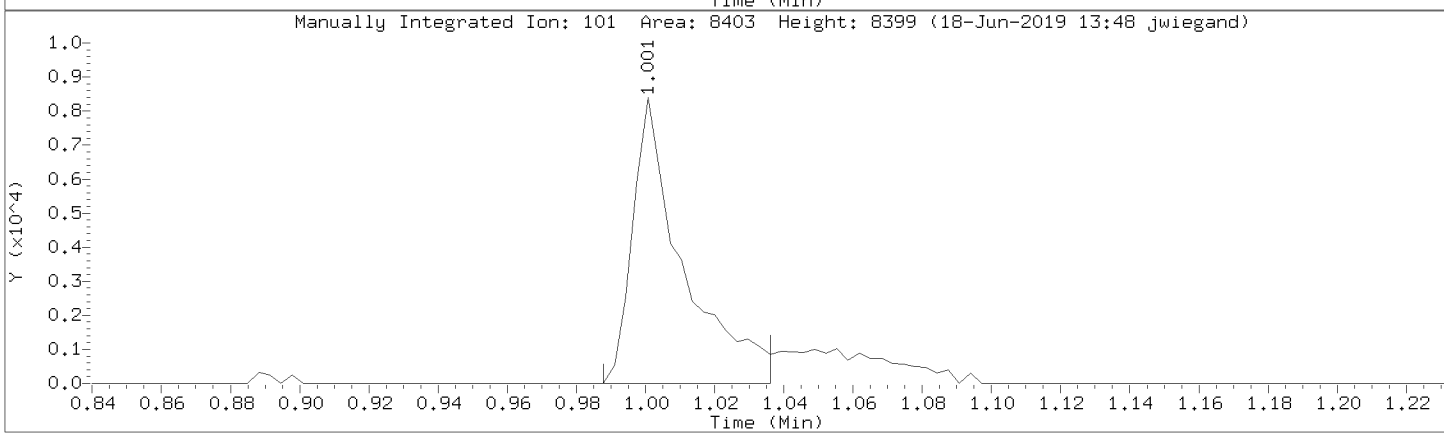






Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6





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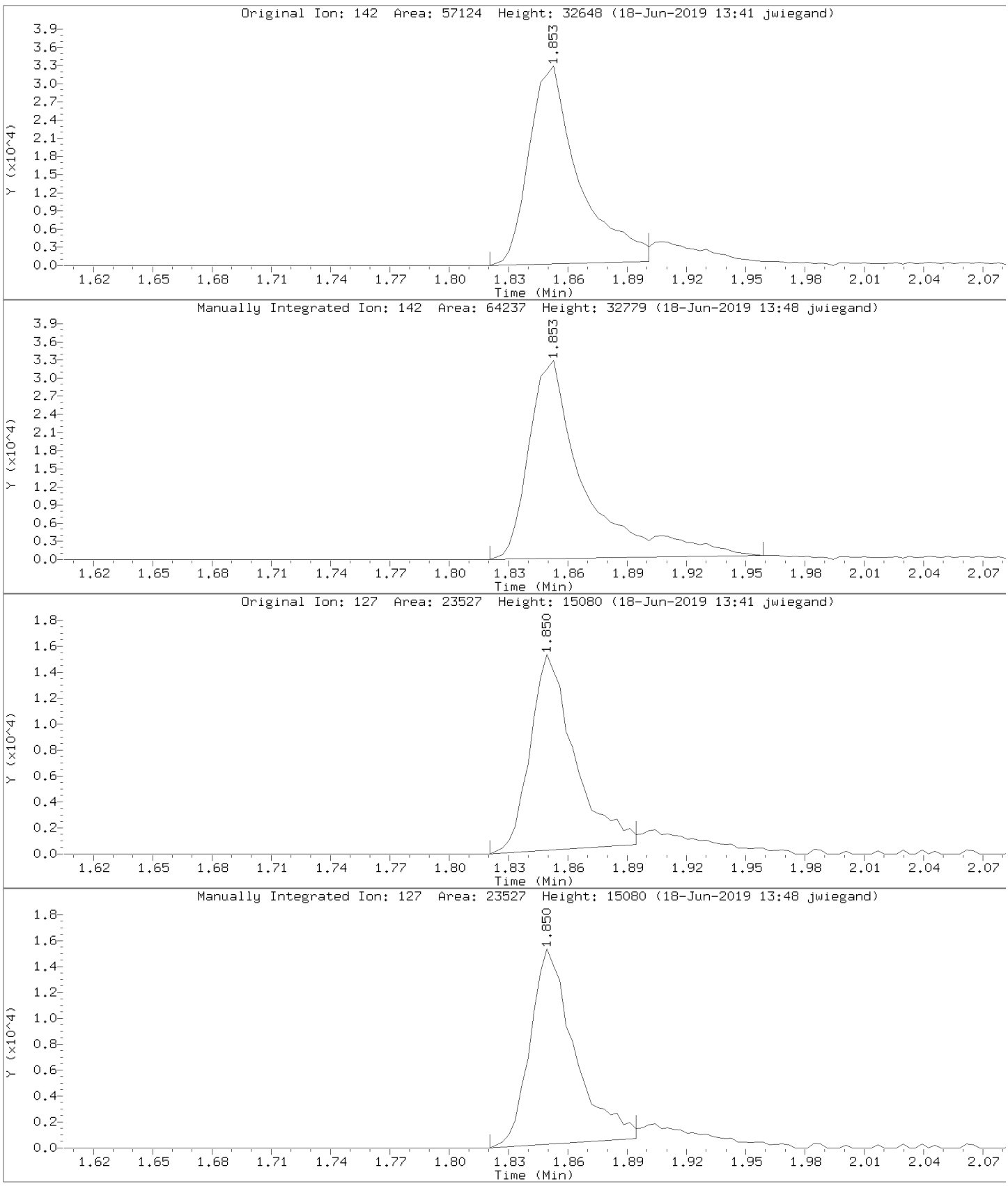
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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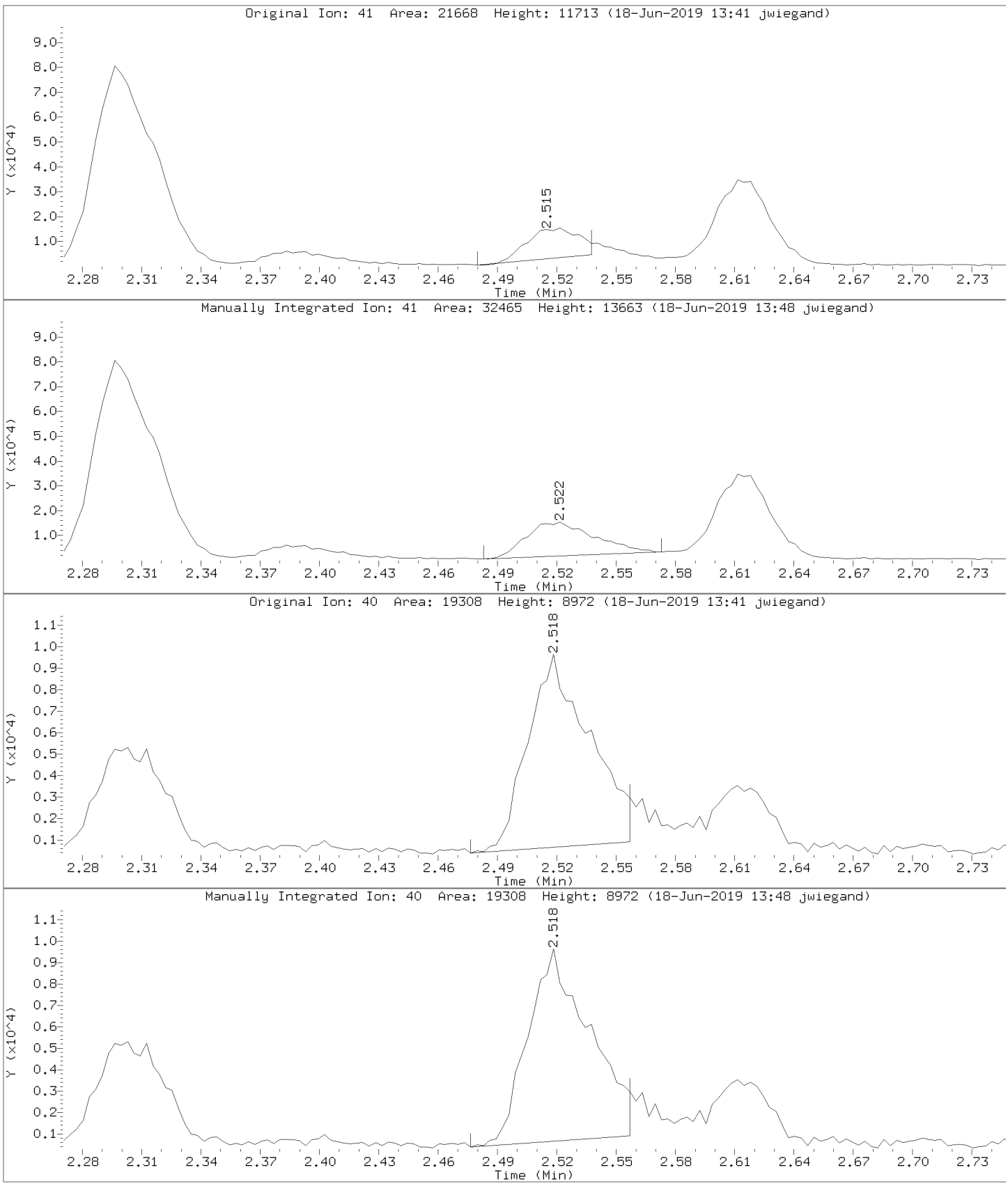
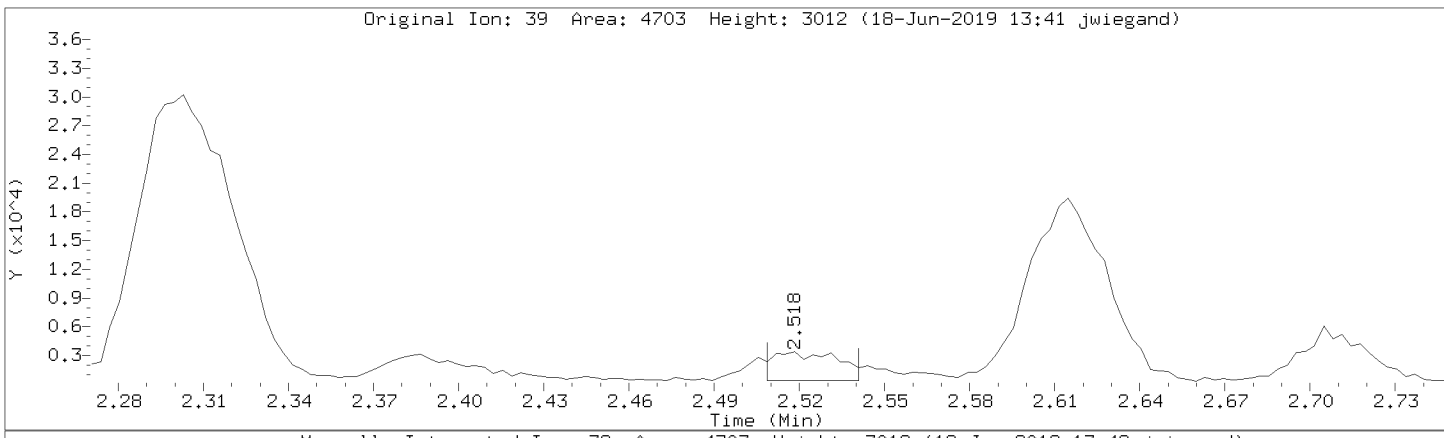
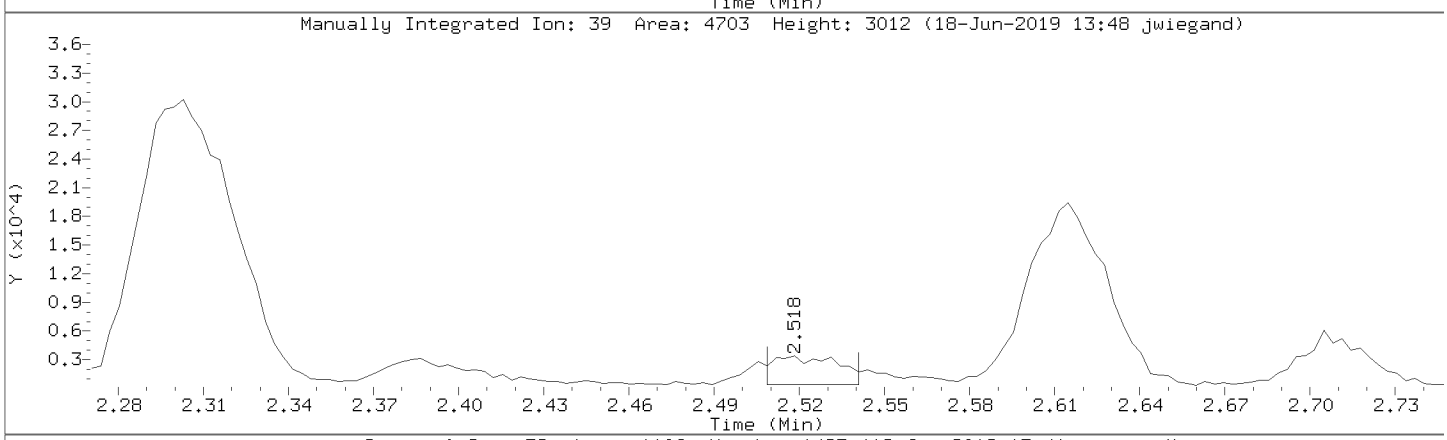
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

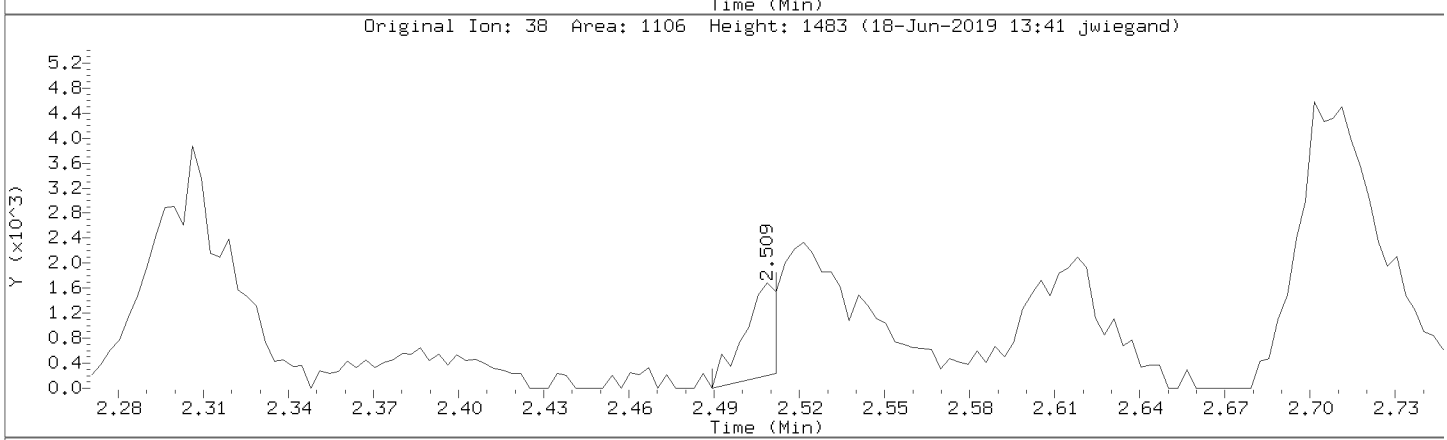
Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8

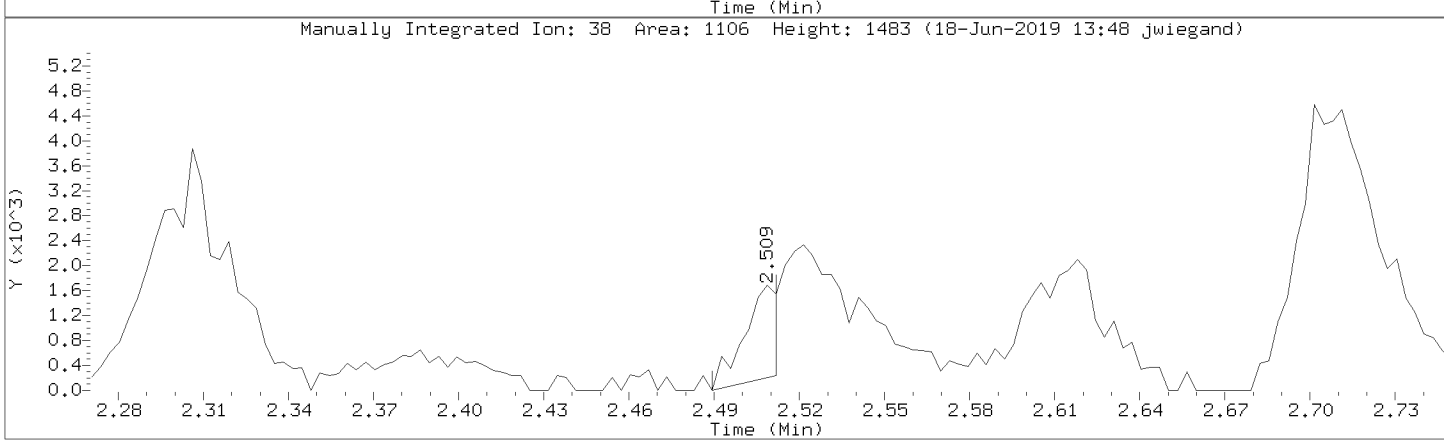


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6



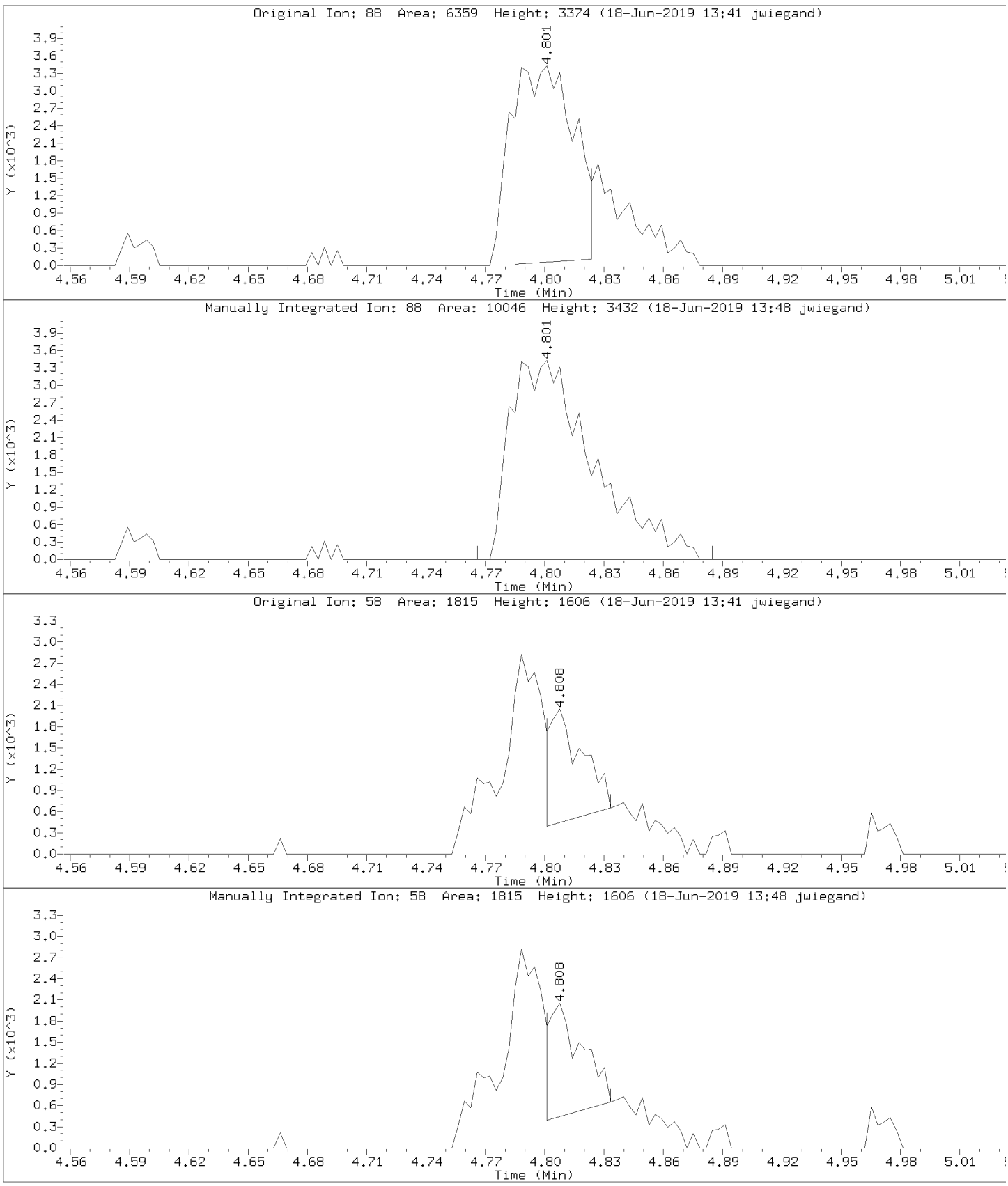




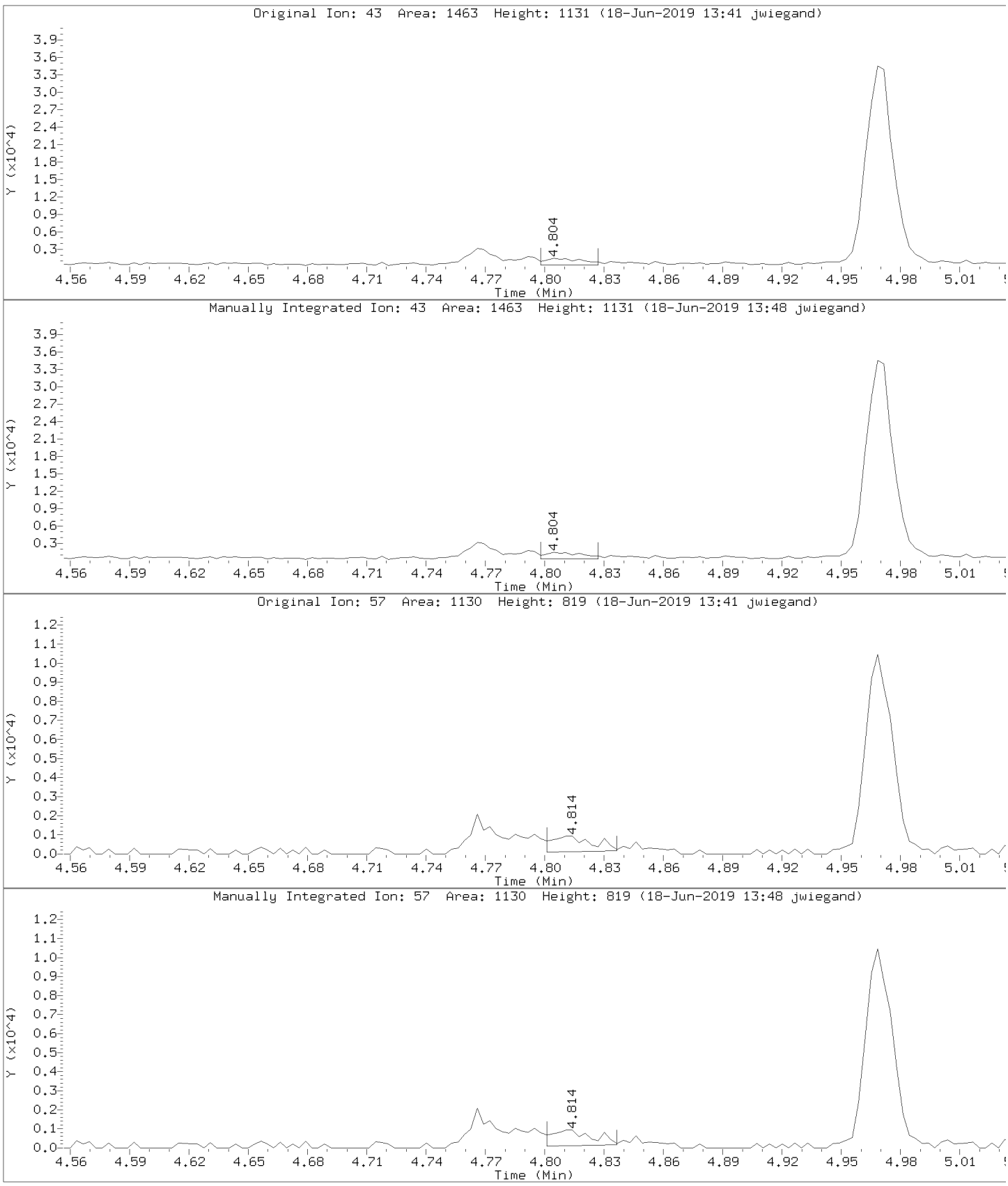


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6



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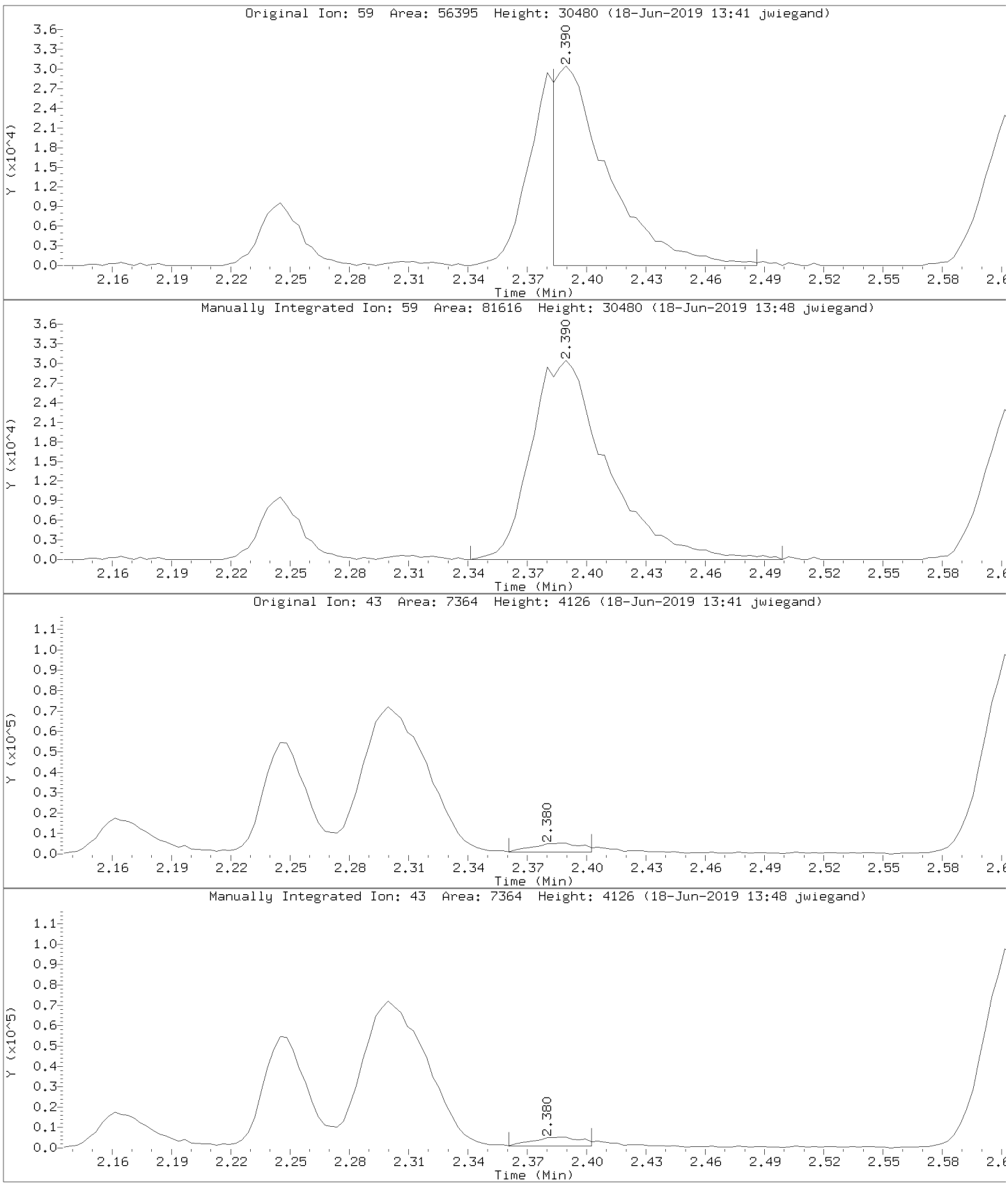
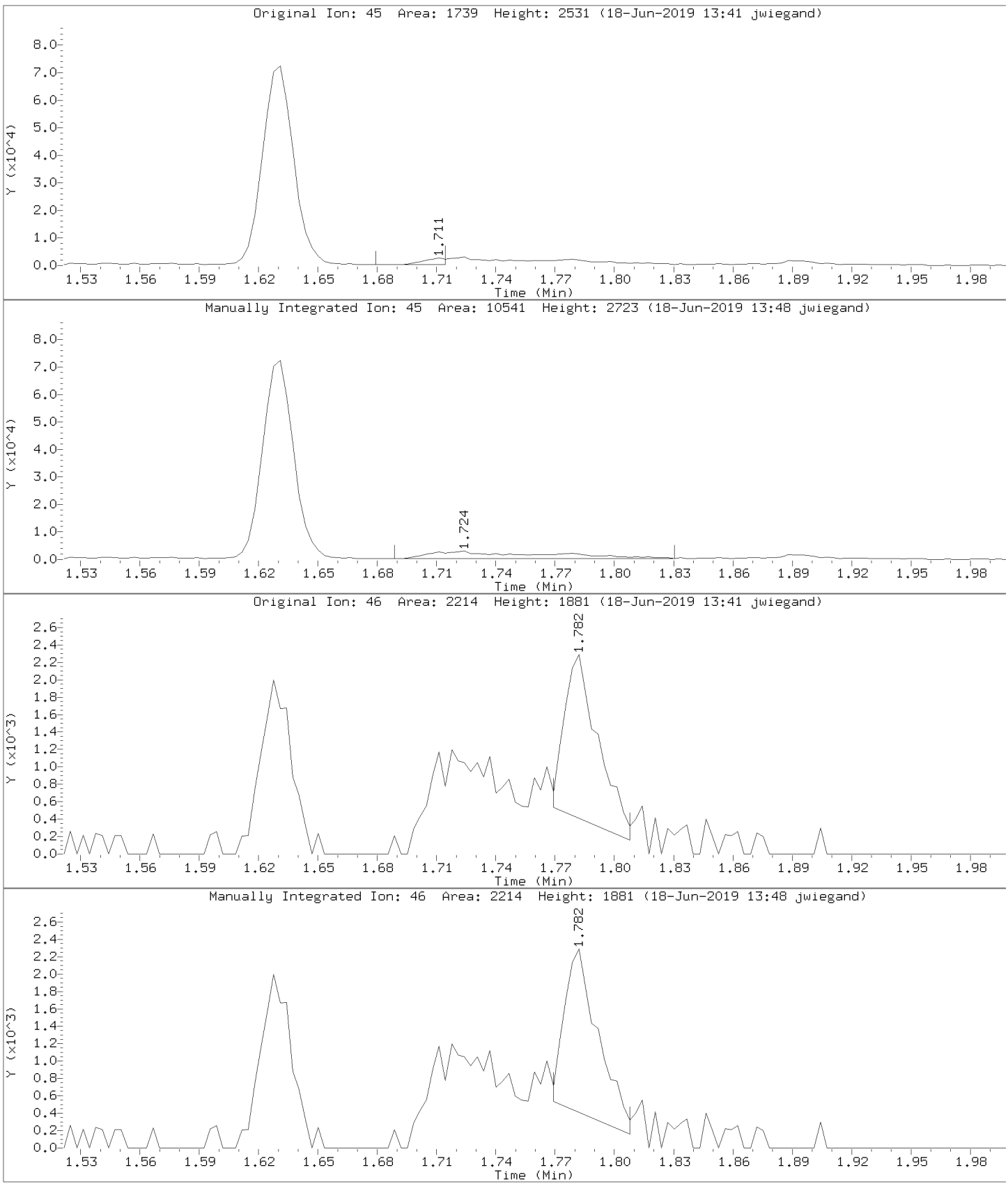
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 18-JUN-2019 12:13
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal7, 91191:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 12:13 Cal File: 50618017.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	213174	200.000	198(QM)	LT
2 Chloromethane	50	1.132	1.142	(0.265)	157596	200.000	197(AQM)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	252136	200.000	199(QM)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	190172	200.000	205(QM)	LT
5 Chloroethane	64	1.386	1.380	(0.324)	179327	200.000	211(AQM)	LT
6 Trichlorofluoromethane	101	1.460	1.467	(0.342)	386080	200.000	201(QM)	
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	211935	200.000	198(Q)	
8 Ethanol	45	1.714	1.773	(0.255)	2740	2000.00	(aQ)	
9 1,1-Dichloroethene	61	1.753	1.760	(0.410)	300997	200.000	206(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	1.772	1.776	(0.414)	155647	200.000	193(Q)	
11 Carbon disulfide	76	1.779	1.785	(0.416)	555406	200.000	209(Q)	
12 Iodomethane	142	1.849	1.856	(0.432)	113692	200.000	198(QM)	LT
13 Acrolein	56	1.965	1.969	(0.460)	26618	200.000	216(Q)	
14 Allyl chloride	41	2.055	2.056	(0.481)	1162036	1000.00	1100(Q)	
15 Methylene Chloride	49	2.126	2.133	(0.497)	223418	200.000	214(Q)	
16 Acetone	43	2.164	2.165	(0.506)	59201	200.000	213(Q)	
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	325725	200.000	207(Q)	
18 Methyl acetate	74	2.245	2.255	(0.525)	44394	200.000	205(Q)	
19 n-Hexane	86	2.293	2.297	(0.536)	51968	200.000	191(Q)	
20 Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	769856	200.000	205(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.386	2.387	(0.558)	156753	1000.00	1040(AQ)	
	22 Acetonitrile	41	2.515	2.522	(0.588)	80951	1000.00	1020(AQ)	
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	707313	200.000	203(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	292721	200.000	199(Q)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	397236	200.000	216(Q)	
	26 Acrylonitrile	53	2.772	2.785	(0.648)	73324	200.000	206(AQ)	
	27 Ethyl-tert-butyl ether	59	2.942	2.940	(0.688)	750385	200.000	200(Q)	
	28 Vinyl acetate	43	2.955	2.965	(0.691)	627380	200.000	203(Q)	
	29 cis-1,2-Dichloroethene	61	3.241	3.248	(0.758)	333116	200.000	215(Q)	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	390889	200.000	203(Q)	
	31 Cyclohexane	56	3.450	3.451	(0.807)	341969	200.000	201(Q)	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	151793	200.000	209(Q)	
	33 Chloroform	83	3.553	3.554	(0.831)	486562	200.000	209(Q)	
	34 Carbon tetrachloride	117	3.676	3.679	(0.859)	360787	200.000	196(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	266273	200.000	205(Q)	
	36 Tetrahydrofuran	42	3.698	3.711	(0.865)	96888	200.000	206(Q)	
$	37 Dibromofluoromethane (S)	111	3.727	3.731	(0.871)	36657	30.0000	32.1(Q)	
	38 1,1,1-Trichloroethane	97	3.737	3.734	(0.874)	415420	200.000	198(Q)	
	39 2-Butanone (MEK)	43	3.830	3.866	(0.895)	123860	200.000	208(Q)	
	40 1,1-Dichloropropene	75	3.840	3.846	(0.898)	354361	200.000	198(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	1041376	200.000	199(Q)	
	42 Propionitrile	54	4.042	4.049	(0.945)	28249	200.000	206(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	157541	200.000	205(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	812938	200.000	203(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	42213	30.0000	31.3(Q)	
	46 Isobutanol	43	4.187	4.099	(0.979)	54766	1000.00	1000(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	388023	200.000	206(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	141295	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	392395	200.000	193(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	277699	200.000	187(Q)	
	51 Dibromomethane	174	4.592	4.599	(1.074)	188803	200.000	204(Q)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	258300	200.000	199(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	369753	200.000	202(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	206629	200.000	205(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.798	4.808	(1.122)	21552	2000.00	2030(AQM)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	110521	200.000	208(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	451841	200.000	202(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	130728	30.0000	29.5(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	1077329	200.000	191(Q)	
	60 2-Nitropropane	43	5.216	5.216	(1.219)	462863	1000.00	1030(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	278821	200.000	210(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	275425	200.000	187(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	428413	200.000	198(Q)	
	64 Ethyl methacrylate	41	5.364	5.367	(0.931)	237651	200.000	203(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.932)	251305	200.000	197(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.946)	298613	200.000	197(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.953)	409841	200.000	201(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.550	5.554	(0.963)	257861	200.000	200(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	197856	200.000	206(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.003)	375127	200.000	195(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	101303	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.002)	727646	200.000	194(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	277750	200.000	200(Q)	
	74 m&p-Xylene	106	5.836	5.837	(1.013)	907529	400.000	393(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.044)	449383	200.000	199(Q)	
	76 Styrene	104	6.036	6.036	(1.047)	761152	200.000	201(Q)	
	77 Bromoform	173	6.055	6.059	(0.902)	216933	200.000	196(Q)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	1065437	200.000	195(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	38290	30.0000	29.3(Q)	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	1252985	200.000	195(Q)	
	81 Bromobenzene	77	6.306	6.309	(0.940)	496199	200.000	196(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.335	6.335	(0.944)	331743	200.000	205(Q)	
	83 1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	846307	200.000	197(Q)	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	270160	200.000	196(Q)	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	97334	200.000	203(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	79979	200.000	204(Q)	
	87 Cyclohexanone	55	6.418	6.422	(0.956)	75944	1000.00	974(Q)	
	88 4-Chlorotoluene	126	6.441	6.444	(0.960)	275690	200.000	198(Q)	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	713966	200.000	198(Q)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	839232	200.000	199(Q)	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	1018871	200.000	198(Q)	
	92 p-Isopropyltoluene	119	6.634	6.634	(0.989)	869428	200.000	197(Q)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	496450	200.000	199(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	43191	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	486946	200.000	198(Q)	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	748405	200.000	197(Q)	
	97 1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	459213	200.000	200(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	43647	30.0000	30.2(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	59766	200.000	201(Q)	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	261539	200.000	196(Q)	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	123435	200.000	194(Q)	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	227980	200.000	199(Q)	
	102 Naphthalene	128	7.618	7.618	(1.135)	635649	200.000	204(Q)	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	210312	200.000	199(Q)	
	104 2-Methylnaphthalene	142	8.045	8.048	(1.199)	286607	200.000	190(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618017.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	141295	-1.66
71 Chlorobenzene-d5	102704	51352	205408	101303	-1.36
94 1,4-Dichlorobenze	44519	22260	89038	43191	-2.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.01
71 Chlorobenzene-d5	5.76	5.26	6.26	5.76	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	198	
74-87-3	Chloromethane	197	E
75-01-4	Vinyl chloride	199	
74-83-9	Bromomethane	205	
75-00-3	Chloroethane	211	E
75-69-4	Trichlorofluoromethane	201	
60-29-7	Diethyl ether (Ethyl ether)	198	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	206	
76-13-1	1,1,2-Trichlorotrifluoroetha	193	
75-15-0	Carbon disulfide	209	
74-88-4	Iodomethane	198	
107-02-8	Acrolein	216	
107-05-1	Allyl chloride	1100	
75-09-2	Methylene Chloride	214	
67-64-1	Acetone	213	
156-60-5	trans-1,2-Dichloroethene	207	
79-20-9	Methyl acetate	205	
110-54-3	n-Hexane	191	
1634-04-4	Methyl-tert-butyl ether	205	
75-65-0	tert-Butyl Alcohol	1040	E
75-05-8	Acetonitrile	1020	E
108-20-3	Diisopropyl ether	203	
126-99-8	Chloroprene	199	
75-34-3	1,1-Dichloroethane	216	
107-13-1	Acrylonitrile	206	E
637-92-3	Ethyl-tert-butyl ether	200	
108-05-4	Vinyl acetate	203	
156-59-2	cis-1,2-Dichloroethene	215	
594-20-7	2,2-Dichloropropane	203	
110-82-7	Cyclohexane	201	
74-97-5	Bromochloromethane	209	
67-66-3	Chloroform	209	
56-23-5	Carbon tetrachloride	196	
141-78-6	Ethyl acetate	205	
109-99-9	Tetrahydrofuran	206	
71-55-6	1,1,1-Trichloroethane	198	
78-93-3	2-Butanone (MEK)	208	
563-58-6	1,1-Dichloropropene	198	
71-43-2	Benzene	199	
107-12-0	Propionitrile	206	
126-98-7	Methacrylonitrile	205	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	203	
78-83-1	Isobutanol	1000	
107-06-2	1,2-Dichloroethane	206	
108-87-2	Methylcyclohexane	193	
79-01-6	Trichloroethene	187	
74-95-3	Dibromomethane	204	
78-87-5	1,2-Dichloropropane	199	
75-27-4	Bromodichloromethane	202	
80-62-6	Methyl methacrylate	205	
123-91-1	1,4-Dioxane (p-Dioxane)	2030	E
110-75-8	2-Chloroethylvinyl ether	208	
10061-01-5	cis-1,3-Dichloropropene	202	
108-88-3	Toluene	191	
79-46-9	2-Nitropropane	1030	
108-10-1	4-Methyl-2-pentanone (MIBK)	210	
127-18-4	Tetrachloroethene	187	
10061-02-6	trans-1,3-Dichloropropene	198	
97-63-2	Ethyl methacrylate	203	
79-00-5	1,1,2-Trichloroethane	197	
124-48-1	Dibromochloromethane	197	
142-28-9	1,3-Dichloropropane	201	
106-93-4	1,2-Dibromoethane (EDB)	200	
591-78-6	2-Hexanone	206	
100-41-4	Ethylbenzene	195	
108-90-7	Chlorobenzene	194	
630-20-6	1,1,1,2-Tetrachloroethane	200	
7816-60-0	m&p-Xylene	393	
95-47-6	o-Xylene	199	
100-42-5	Styrene	201	
75-25-2	Bromoform	196	
98-82-8	Isopropylbenzene (Cumene)	195	
103-65-1	n-Propylbenzene	195	
108-86-1	Bromobenzene	196	
79-34-5	1,1,2,2-Tetrachloroethane	205	
108-67-8	1,3,5-Trimethylbenzene	197	
95-49-8	2-Chlorotoluene	196	
96-18-4	1,2,3-Trichloropropane	203	
110-57-6	trans-1,4-Dichloro-2-butene	204	
108-94-1	Cyclohexanone	974	
106-43-4	4-Chlorotoluene	198	
98-06-6	tert-Butylbenzene	198	
95-63-6	1,2,4-Trimethylbenzene	199	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

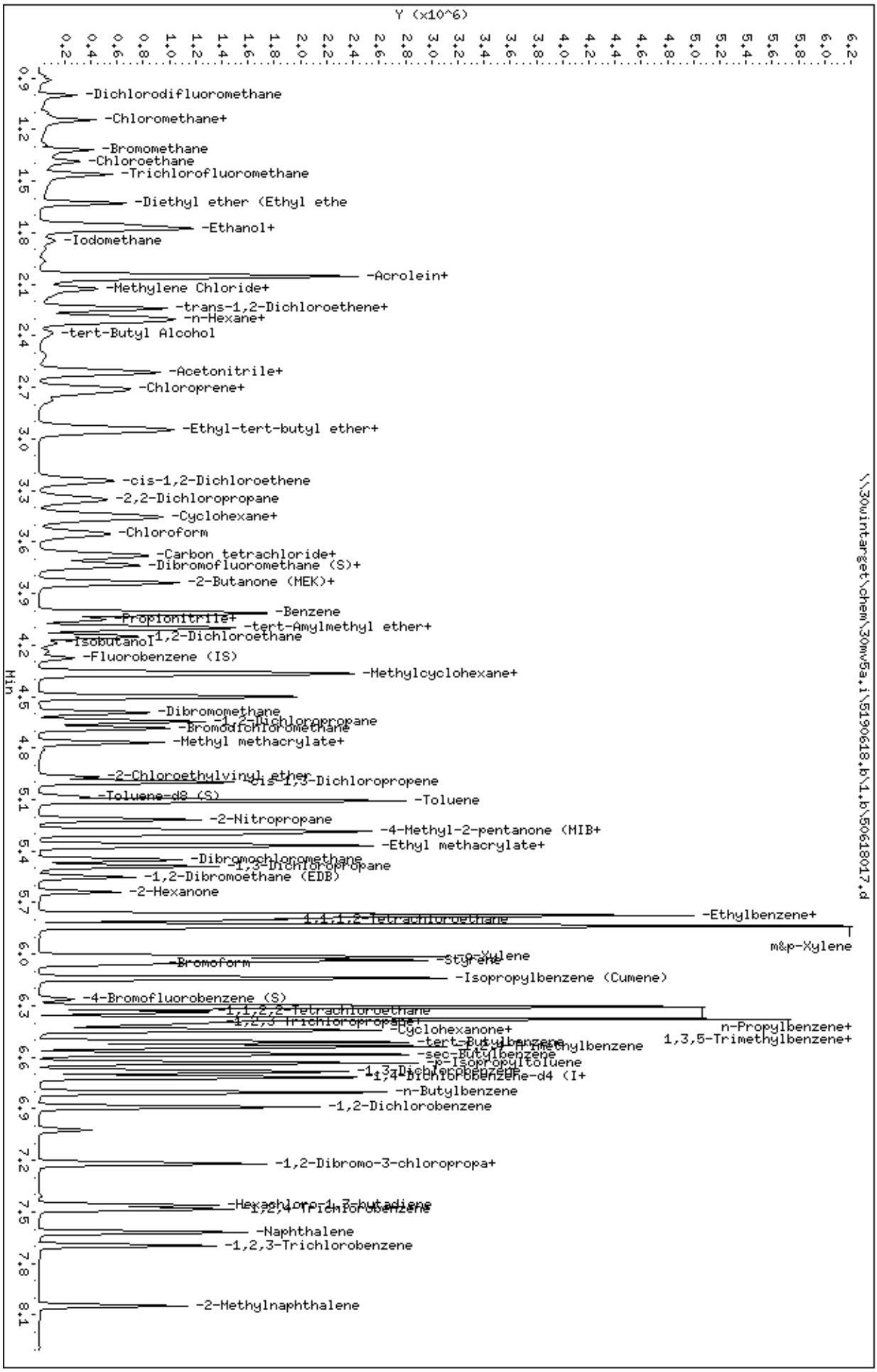
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	198	
99-87-6	p-Isopropyltoluene	197	
541-73-1	1,3-Dichlorobenzene	199	
106-46-7	1,4-Dichlorobenzene	198	
104-51-8	n-Butylbenzene	197	
95-50-1	1,2-Dichlorobenzene	200	
96-12-8	1,2-Dibromo-3-chloropropane	201	
108-70-3	1,3,5-Trichlorobenzene	196	
87-68-3	Hexachloro-1,3-butadiene	194	
120-82-1	1,2,4-Trichlorobenzene	199	
91-20-3	Naphthalene	204	
87-61-6	1,2,3-Trichlorobenzene	199	
91-57-6	2-Methylnaphthalene	190	
1868-53-7	Dibromofluoromethane (S)	32.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.3	
2037-26-5	Toluene-d8 (S)	29.5	
460-00-4	4-Bromofluorobenzene (S)	29.3	
----------	1,2-Dichlorobenzene-d4 (S)	30.2	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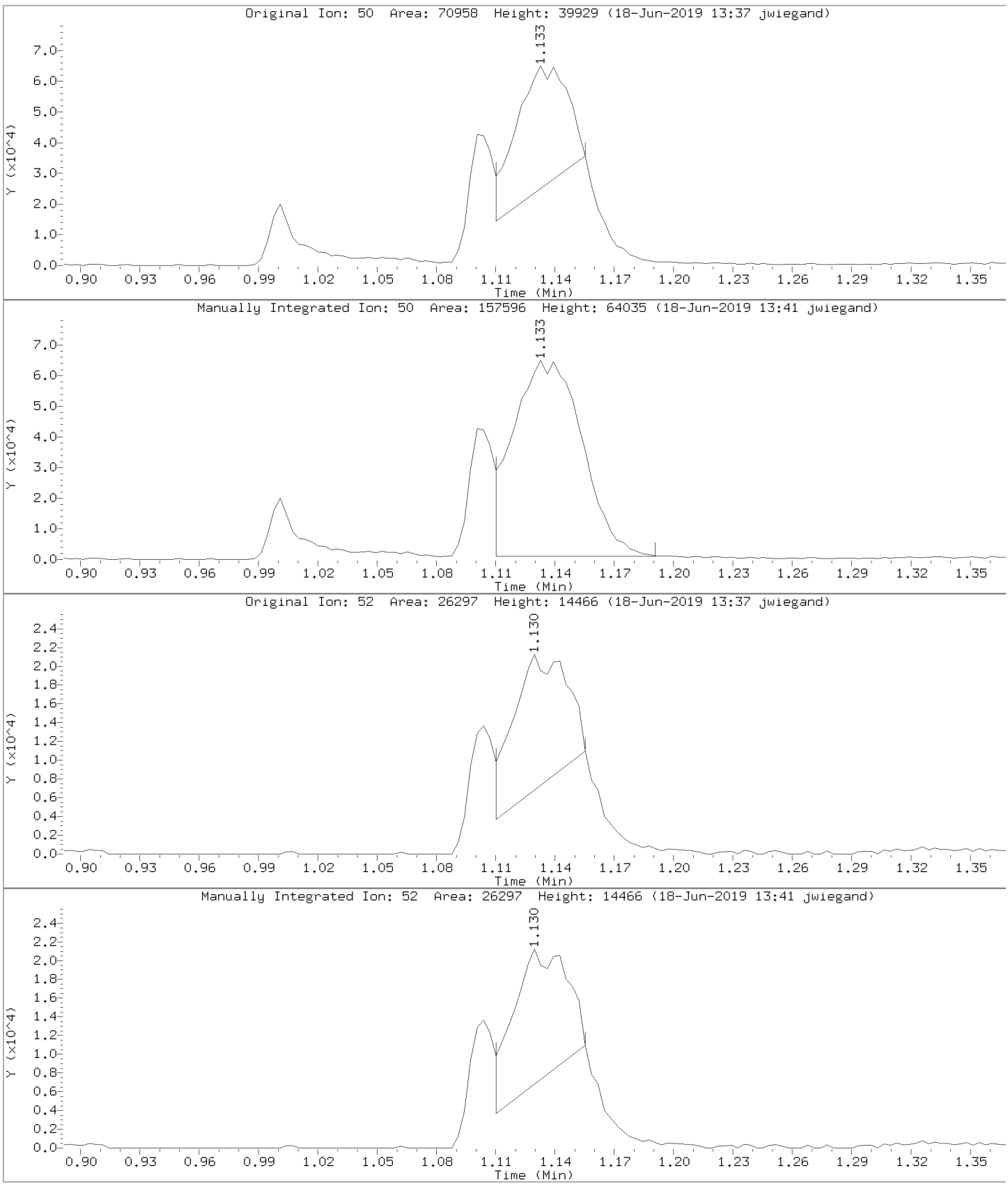
Date : 18-JUN-2019 12:13
Client ID: CAL7
Sample Info: CAL7, 91191:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol
1,2-Dichloroethane
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-Bromoform
-Styrene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane
-Cyclohexanone+
n-Propylbenzene+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618017.d
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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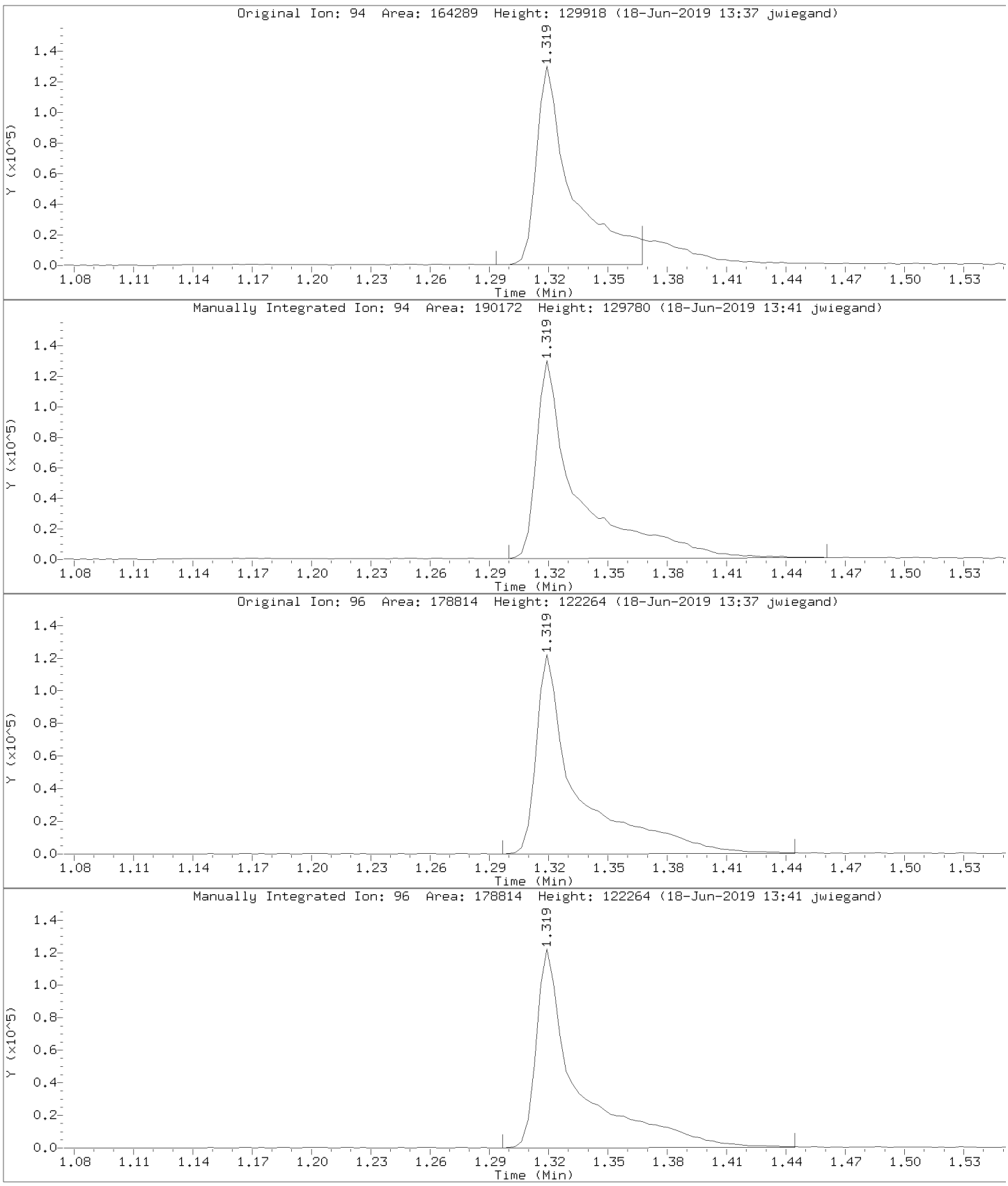
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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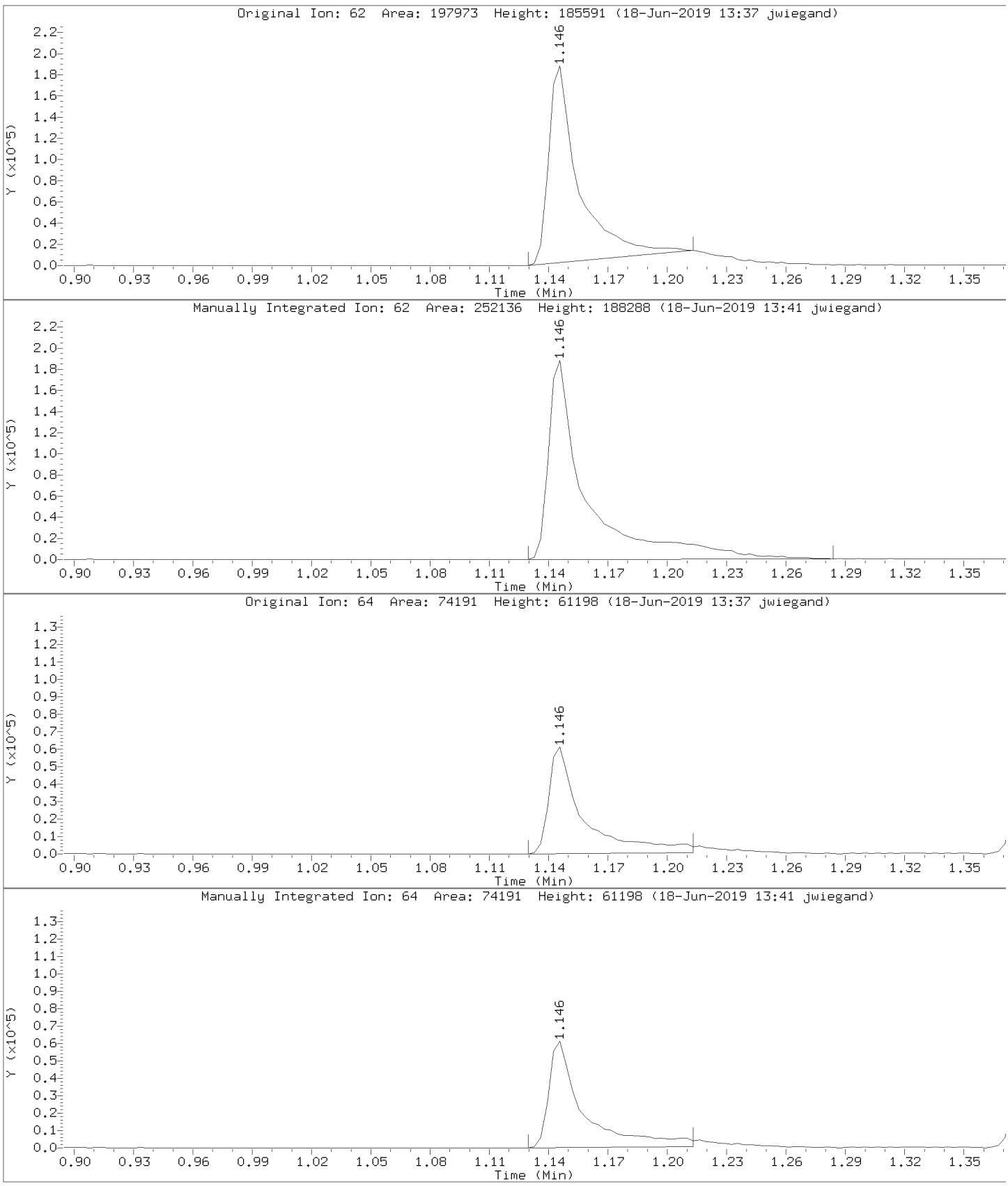
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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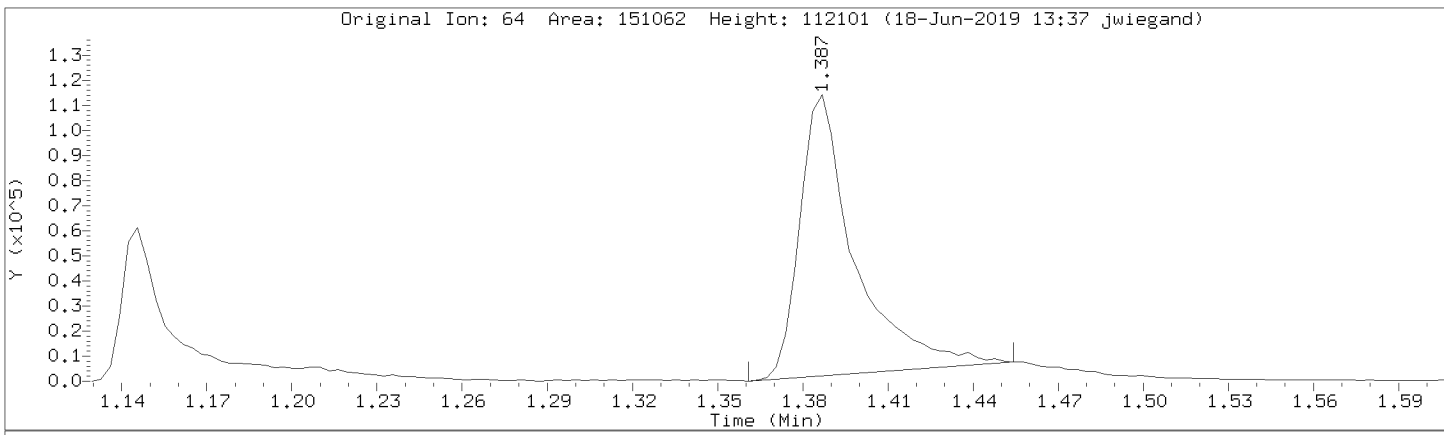
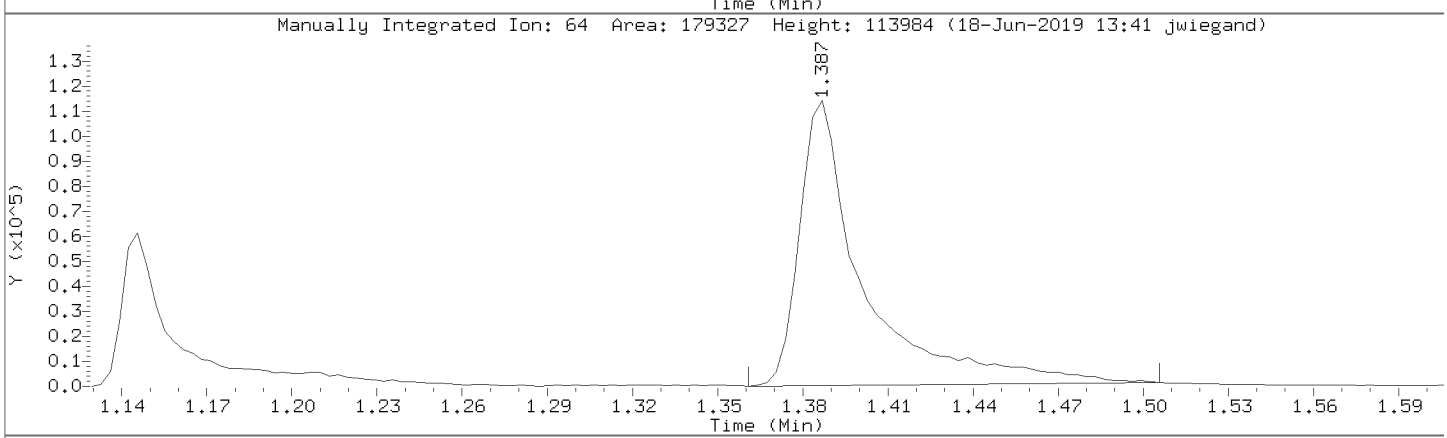
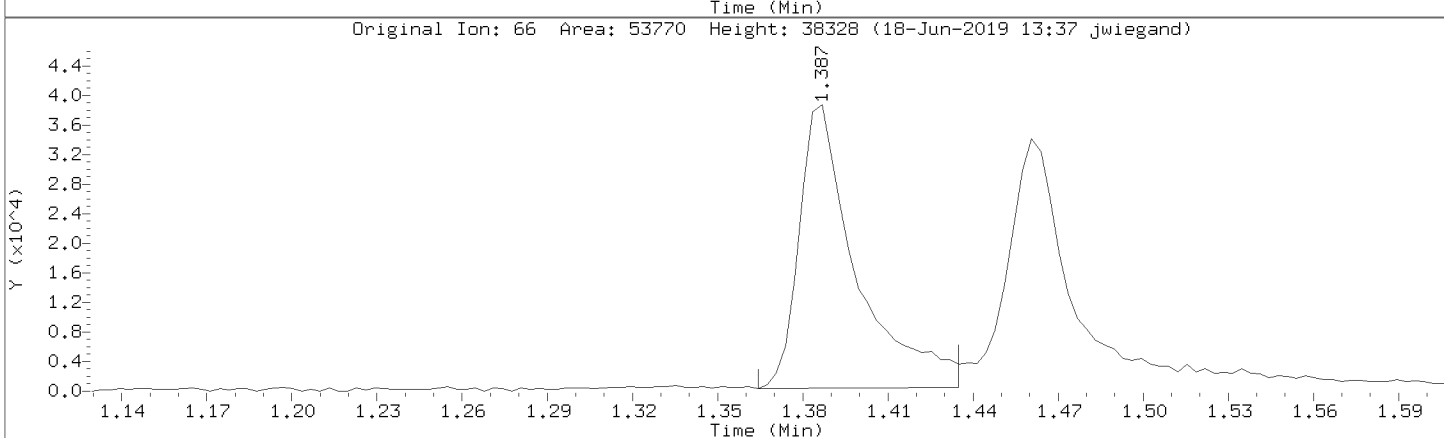
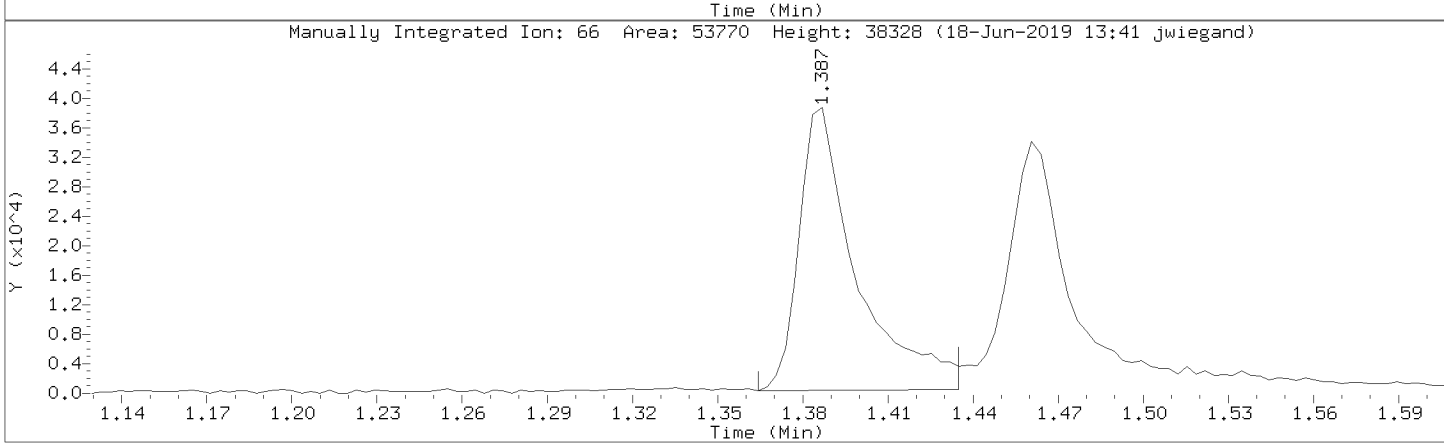
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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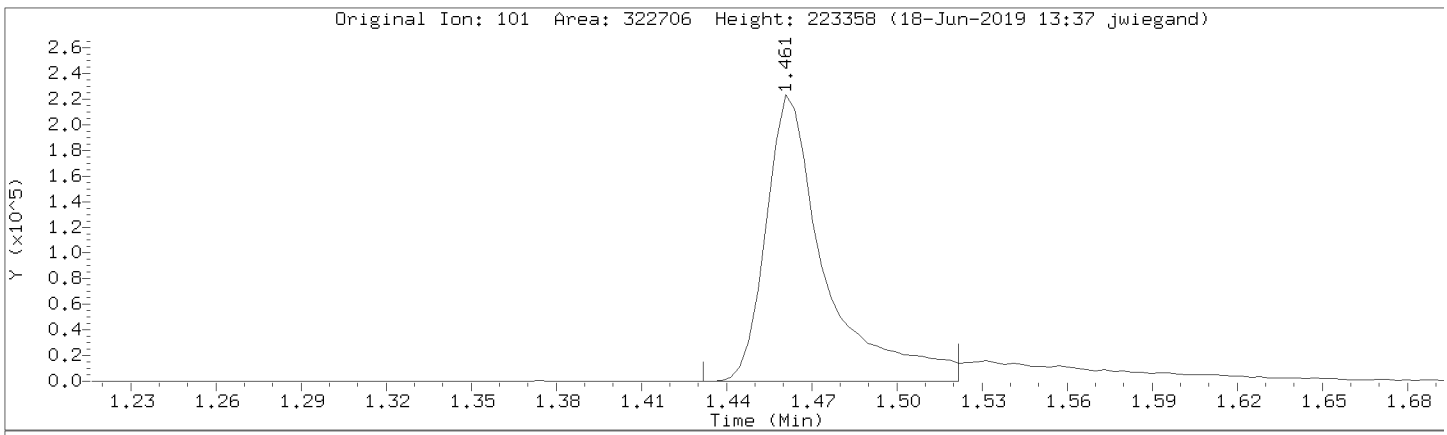
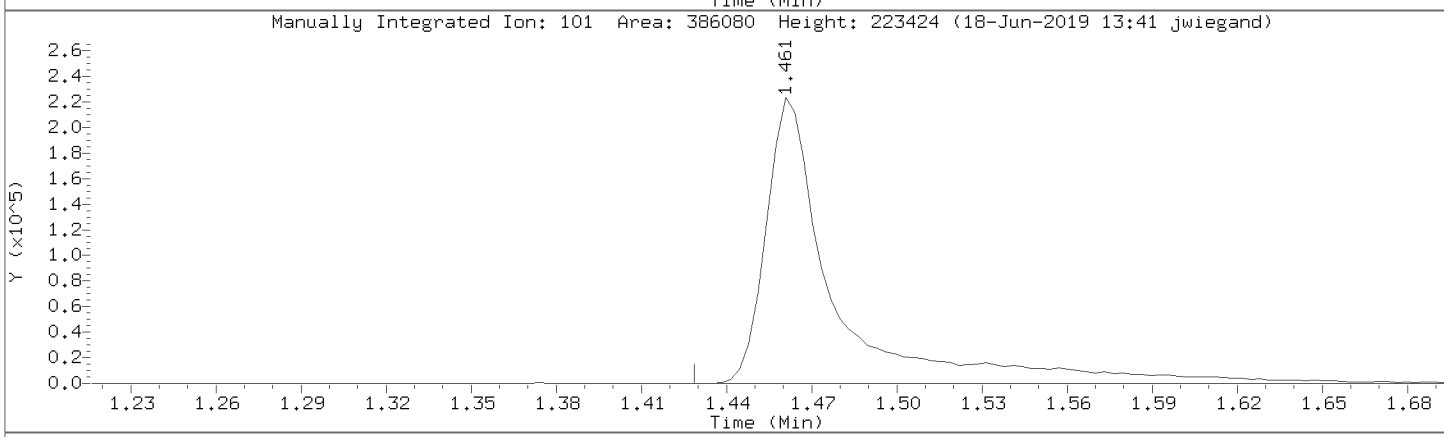
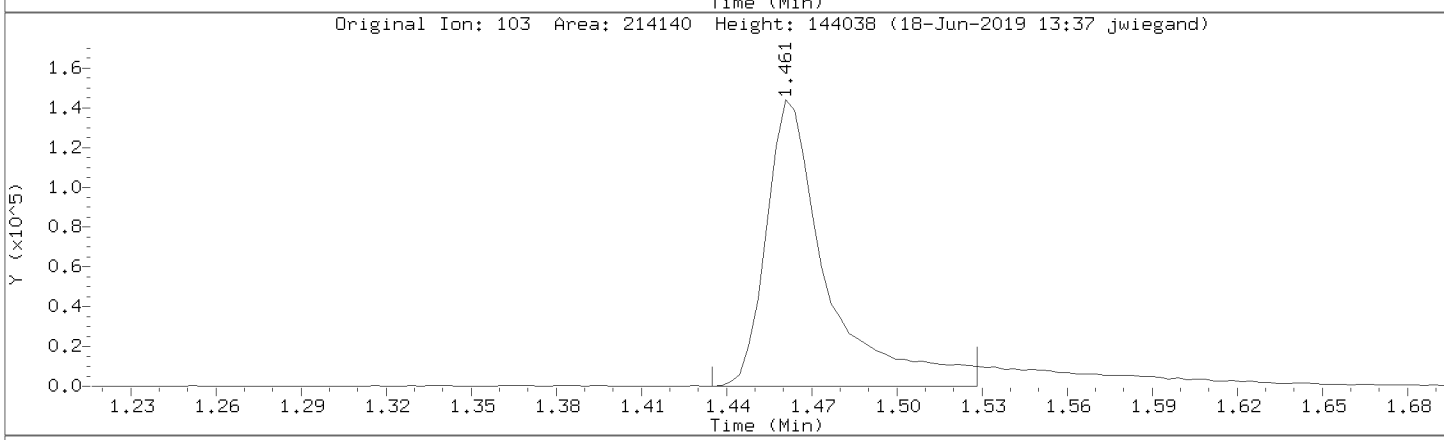
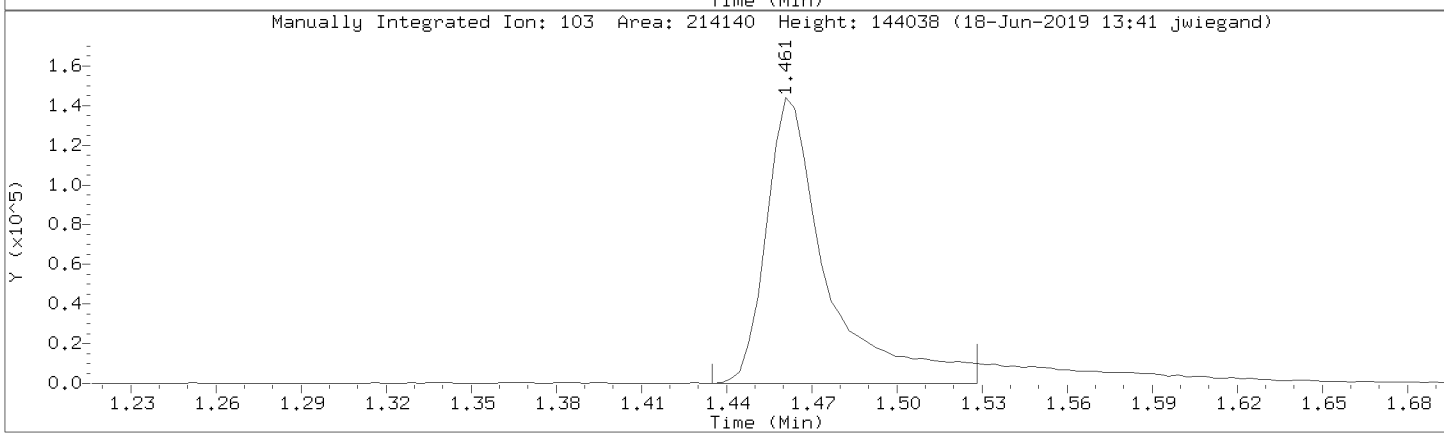
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Trichlorofluoromethane Review Code:
CAS Number: 75-69-4









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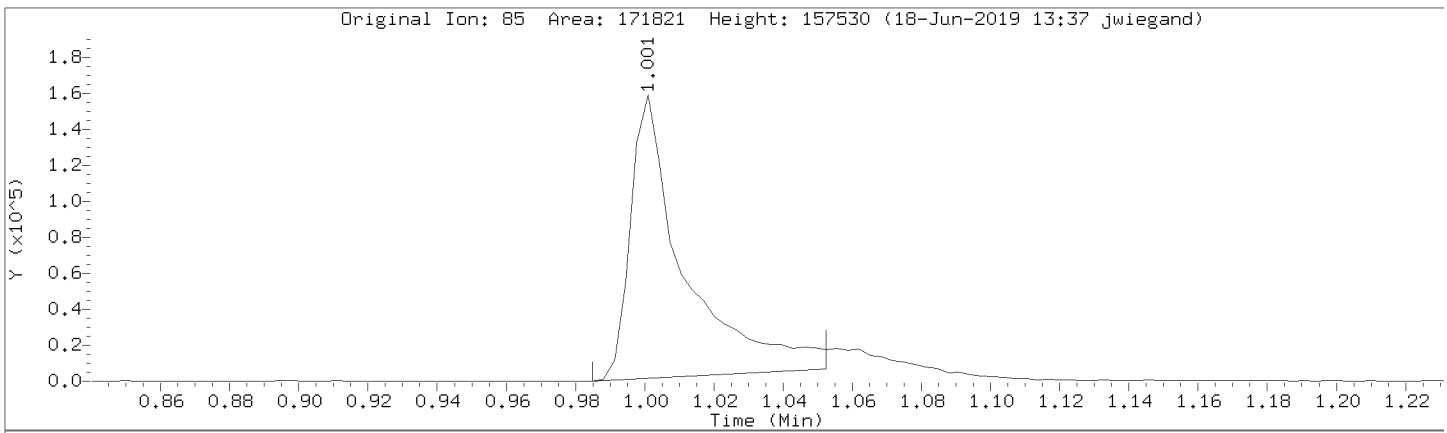
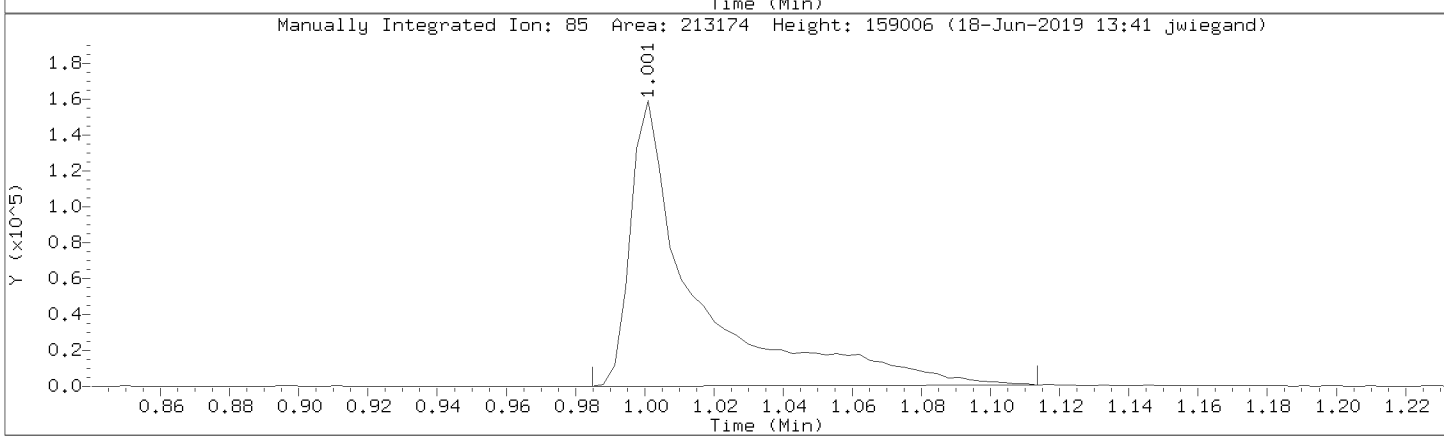
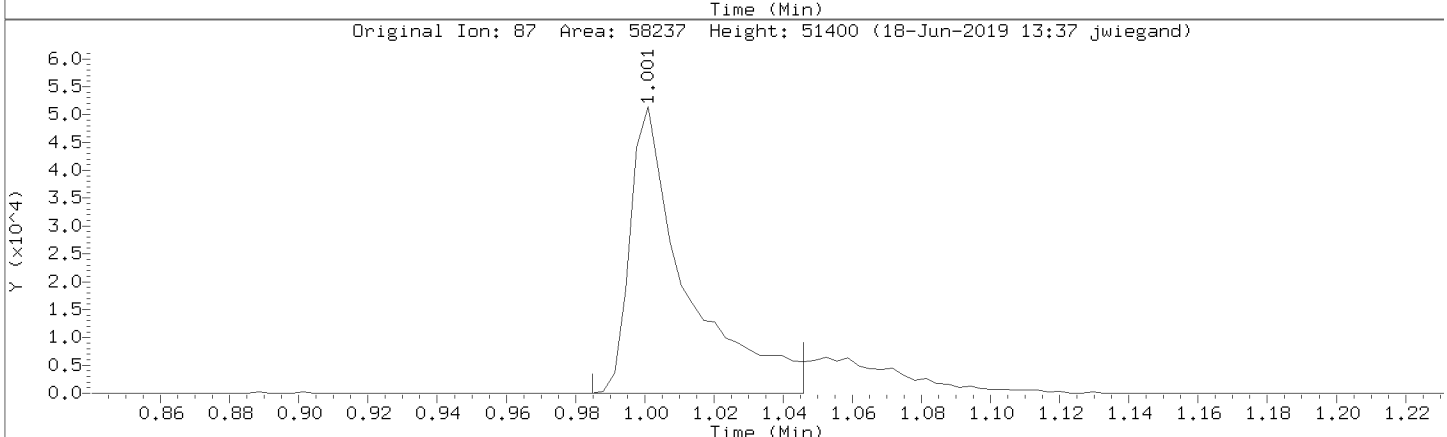
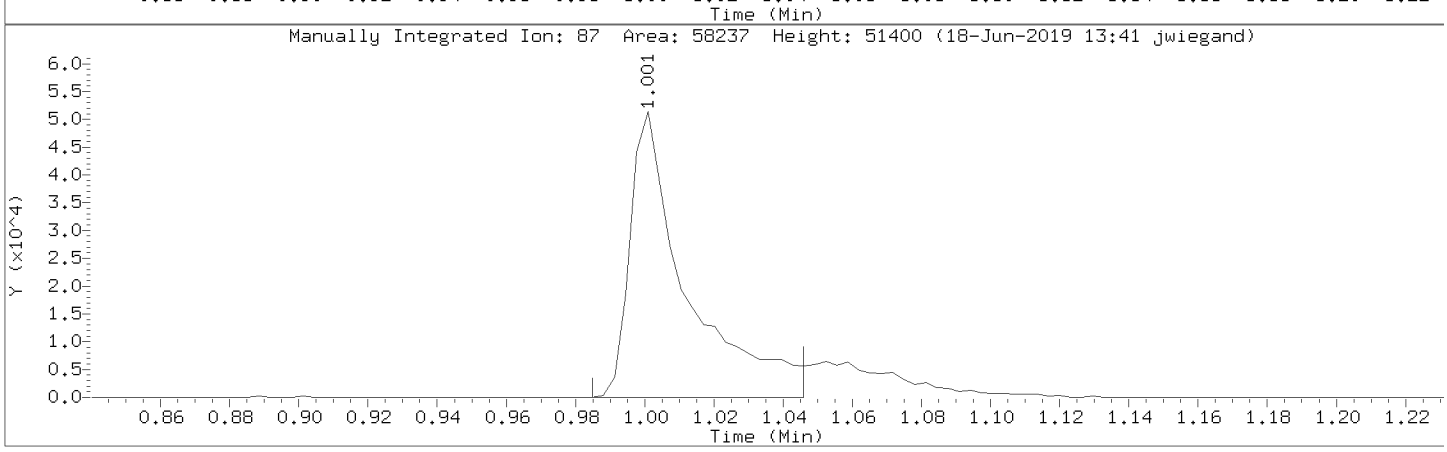
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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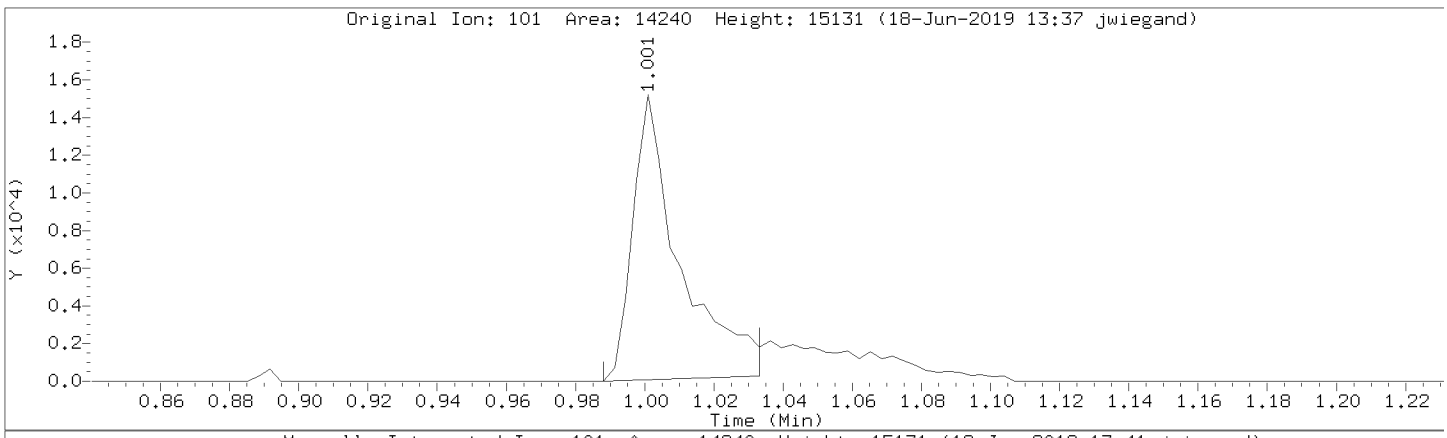
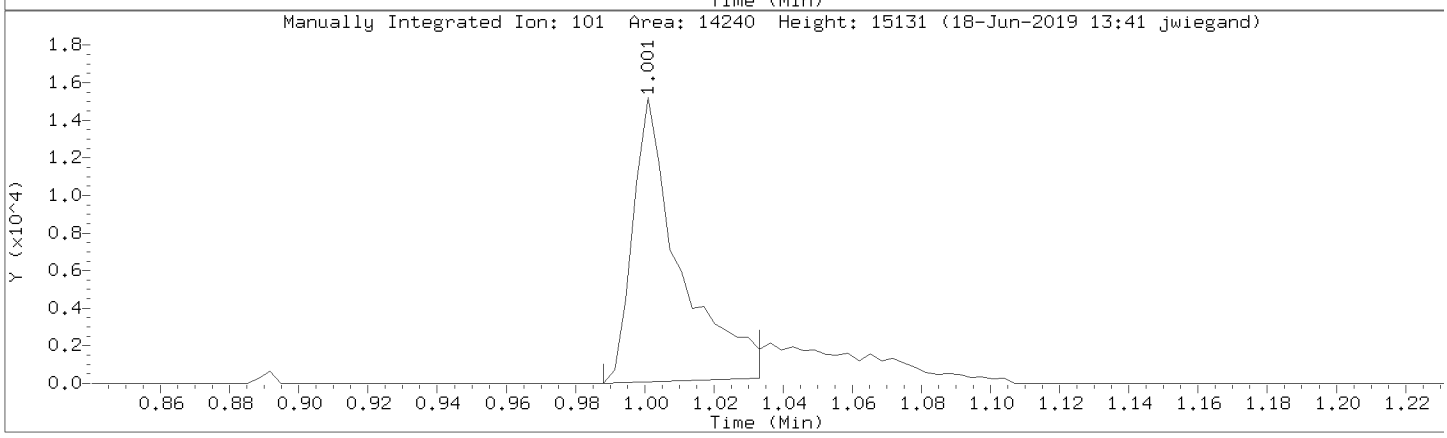
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7





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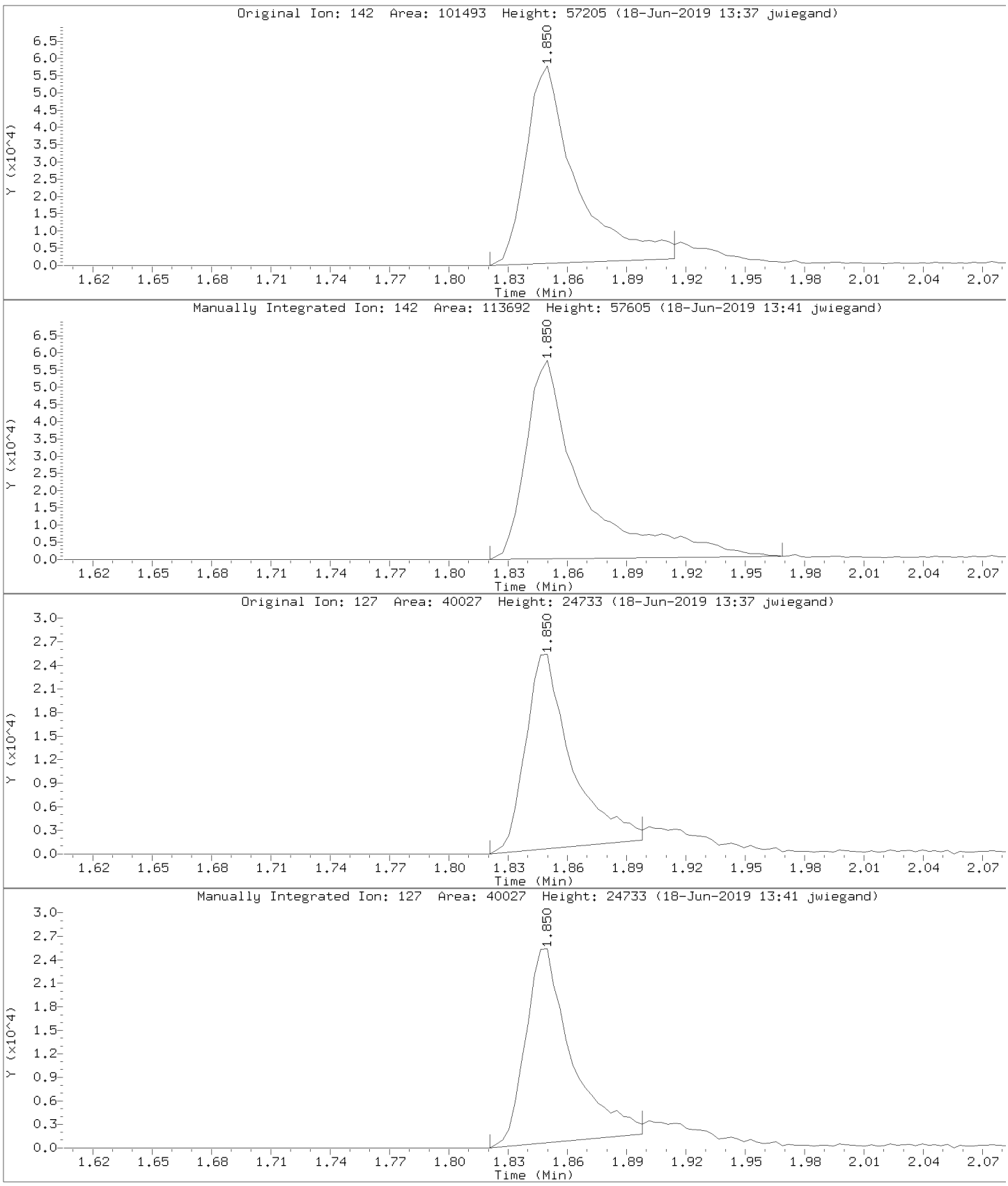
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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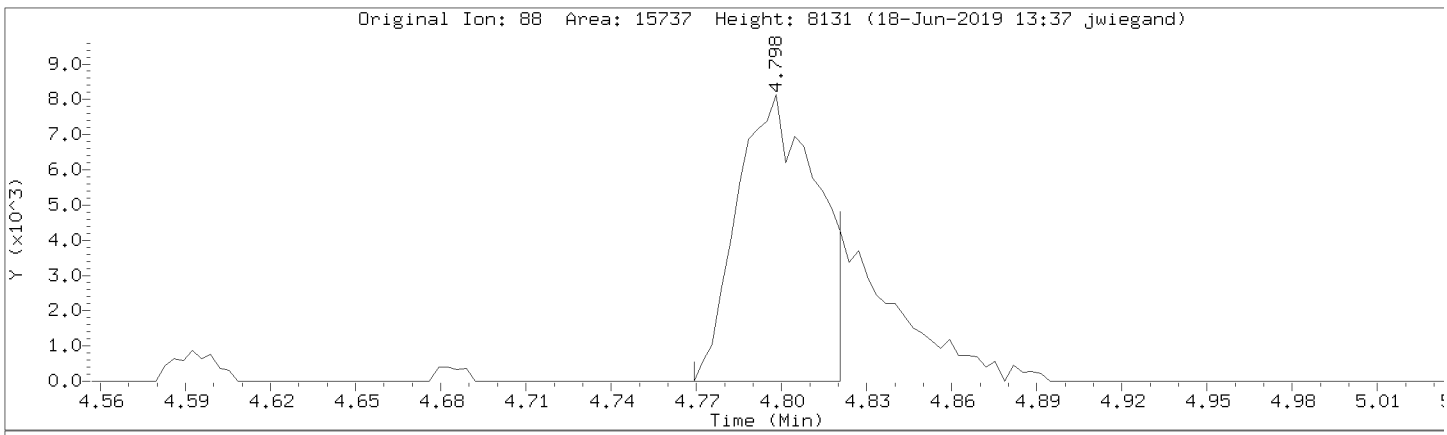
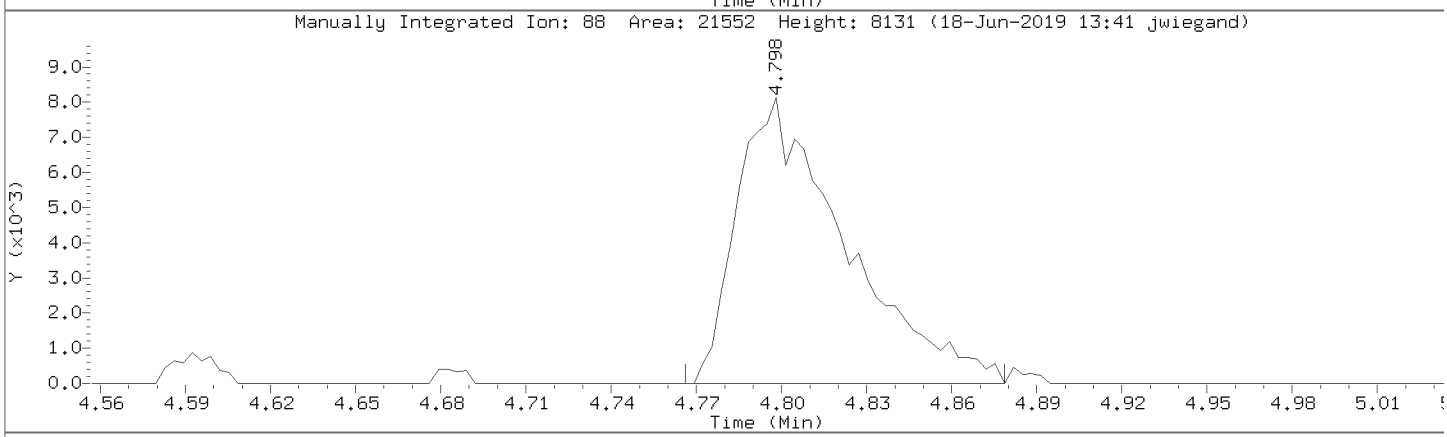
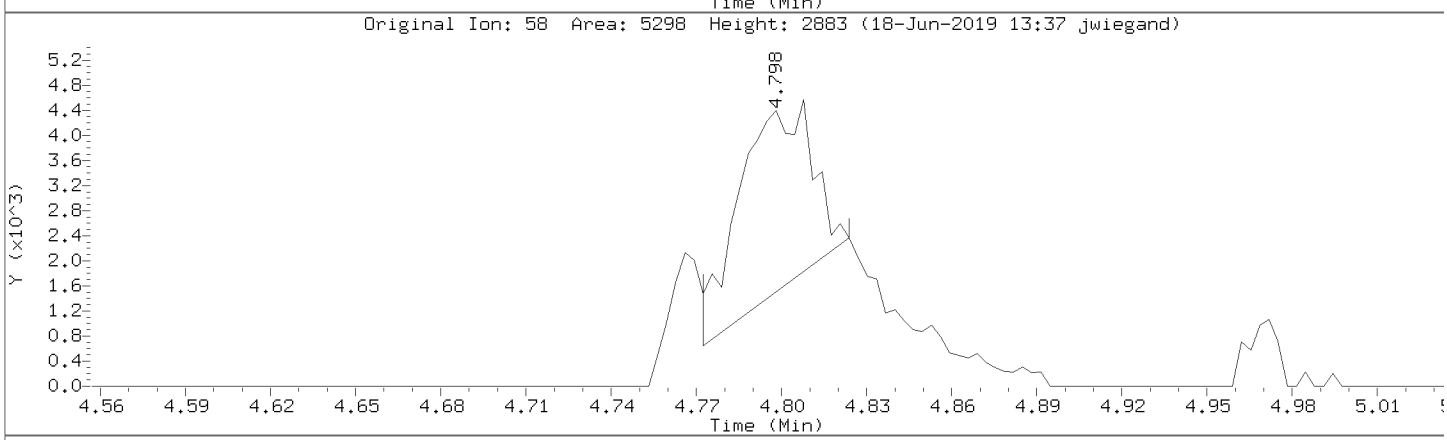
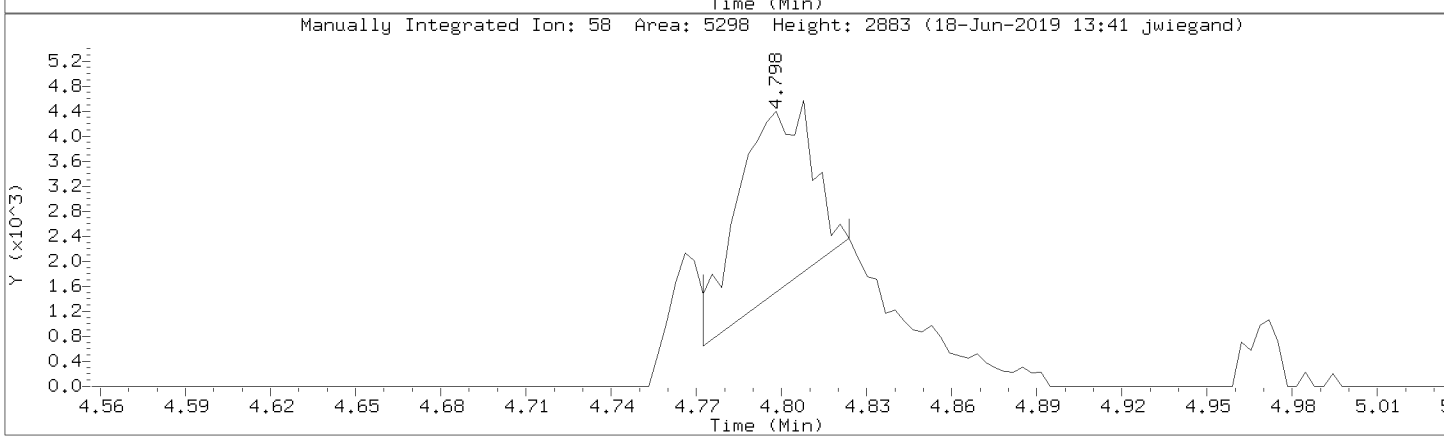
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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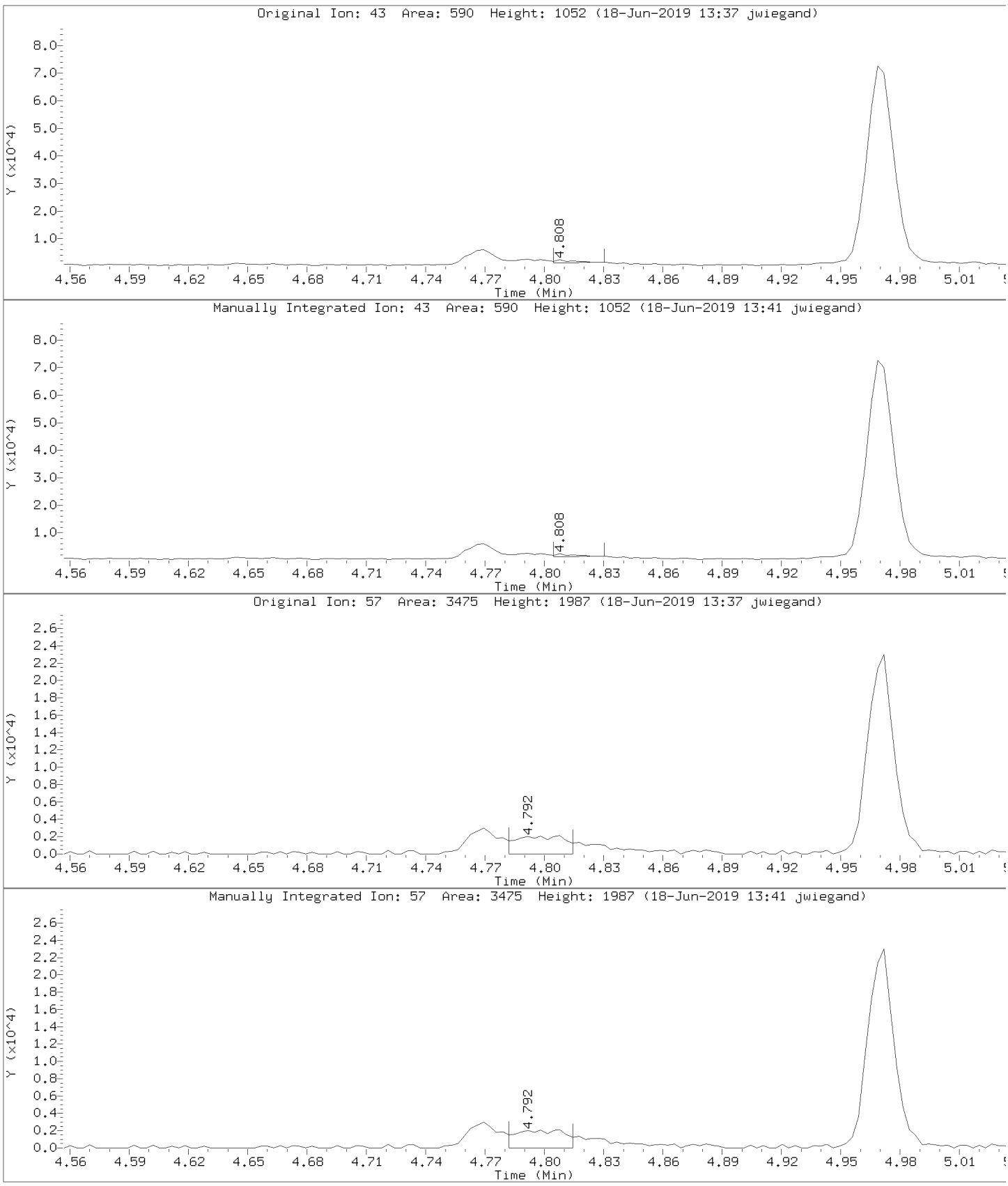
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 18-JUN-2019 12:40
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal8, 91192:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 12:40 Cal File: 50618019.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	480644	400.000	400(AQM)	LT
2 Chloromethane	50	1.145	1.142	(0.268)	359944	400.000	400(AQ)	
3 Vinyl chloride	62	1.145	1.146	(0.268)	562991	400.000	400(QM)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	399705	400.000	400(AQM)	LT
5 Chloroethane	64	1.383	1.380	(0.323)	355871	400.000	400(AQ)	
6 Trichlorofluoromethane	101	1.460	1.467	(0.341)	842968	400.000	400(QM)	LT
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	475716	400.000	400(Q)	
8 Ethanol	45	1.717	1.773	(0.256)	15260	4000.00	(aQ)	
9 1,1-Dichloroethene	61	1.753	1.760	(0.410)	629086	400.000	400(AQ)	
10 1,1,2-Trichlorotrifluoroethane	151	1.772	1.776	(0.414)	367741	400.000	400(Q)	
11 Carbon disulfide	76	1.778	1.785	(0.416)	1118140	400.000	400(AQ)	
12 Iodomethane	142	1.849	1.856	(0.432)	255823	400.000	400(QM)	LT
13 Acrolein	56	1.962	1.969	(0.459)	49907	400.000	400(Q)	
14 Allyl chloride	41	2.052	2.056	(0.480)	2077476	2000.00	2000(AQ)	
15 Methylene Chloride	49	2.129	2.133	(0.498)	430148	400.000	400(Q)	
16 Acetone	43	2.164	2.165	(0.506)	114648	400.000	400(Q)	
17 trans-1,2-Dichloroethene	61	2.238	2.242	(0.523)	668070	400.000	400(AQ)	
18 Methyl acetate	74	2.245	2.255	(0.525)	93037	400.000	400(Q)	
19 n-Hexane	86	2.293	2.297	(0.536)	125518	400.000	400(AQ)	
20 Methyl-tert-butyl ether	73	2.312	2.313	(0.541)	1621097	400.000	400(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.392	2.387	(0.559)	318528	2000.00	2000(AQ)	
	22 Acetonitrile	41	2.518	2.522	(0.589)	170066	2000.00	2000(AQ)	
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	1512857	400.000	400(Q)	
	24 Chloroprene	53	2.704	2.705	(0.632)	652324	400.000	400(Q)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	746991	400.000	400(AQ)	
	26 Acrylonitrile	53	2.772	2.785	(0.648)	153063	400.000	400(AQ)	
	27 Ethyl-tert-butyl ether	59	2.942	2.940	(0.688)	1658622	400.000	400(AQ)	
	28 Vinyl acetate	43	2.955	2.965	(0.691)	1344383	400.000	400(Q)	
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	634794	400.000	400(AQ)	
	30 2,2-Dichloropropane	77	3.351	3.351	(0.783)	839510	400.000	400(Q)	
	31 Cyclohexane	56	3.450	3.451	(0.807)	750792	400.000	400(Q)	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	306086	400.000	400(Q)	
	33 Chloroform	83	3.556	3.554	(0.832)	983224	400.000	400(AQ)	
	34 Carbon tetrachloride	117	3.675	3.679	(0.859)	833499	400.000	400(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	560049	400.000	400(AQ)	
	36 Tetrahydrofuran	42	3.698	3.711	(0.865)	200820	400.000	400(AQ)	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	35090	30.0000	30.0(Q)	
	38 1,1,1-Trichloroethane	97	3.736	3.734	(0.874)	934724	400.000	400(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	251632	400.000	400(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	801475	400.000	400(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	2323354	400.000	400(Q)	
	42 Propionitrile	54	4.039	4.049	(0.944)	58885	400.000	400(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	330901	400.000	400(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	1737299	400.000	400(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.961)	42875	30.0000	30.0(Q)	
	46 Isobutanol	43	4.190	4.099	(0.980)	119715	2000.00	2000(Q)	
	47 1,2-Dichloroethane	62	4.148	4.152	(0.970)	806562	400.000	400(AQ)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	156111	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	926795	400.000	400(AQ)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	645249	400.000	400(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	400046	400.000	400(AQ)	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	575052	400.000	400(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	800683	400.000	400(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	435514	400.000	400(AQ)	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	46278	4000.00	4000(AQM)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	226254	400.000	400(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	981031	400.000	400(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	138130	30.0000	30.0(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	2401819	400.000	400(Q)	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	955264	2000.00	2000(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	558675	400.000	400(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	642866	400.000	400(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	892273	400.000	400(Q)	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	472398	400.000	400(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	528654	400.000	400(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	627696	400.000	400(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	831858	400.000	400(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	529782	400.000	400(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	382214	400.000	400(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	806132	400.000	400(AQ)	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	103695	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.001)	1579118	400.000	400(AQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	565348	400.000	400(AQ)	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	1920245	800.000	800(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.043)	927019	400.000	400(Q)	
	76 Styrene	104	6.035	6.036	(1.047)	1547210	400.000	400(AQ)	
	77 Bromoform	173	6.055	6.059	(0.902)	435741	400.000	400(AQ)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	2162909	400.000	400(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	38578	30.0000	30.0(Q)	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	2544921	400.000	400(Q)	
	81 Bromobenzene	77	6.306	6.309	(0.940)	990909	400.000	400(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	609331	400.000	400(Q)	
	83 1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	1680942	400.000	400(AQ)	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	544549	400.000	400(Q)	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	181785	400.000	400(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	148832	400.000	400(AQ)	
	87 Cyclohexanone	55	6.421	6.422	(0.957)	154202	2000.00	2000(AQ)	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	543421	400.000	400(AQ)	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	1407229	400.000	400(Q)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	1629960	400.000	400(Q)	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	2010034	400.000	400(AQ)	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	1727306	400.000	400(AQ)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	964467	400.000	400(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	41633	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	953829	400.000	400(Q)	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	1487512	400.000	400(Q)	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	885990	400.000	400(AQ)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	41632	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	114027	400.000	400(Q)	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	523013	400.000	400(Q)	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	252605	400.000	400(Q)	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	444850	400.000	400(Q)	
	102 Naphthalene	128	7.617	7.618	(1.135)	1173337	400.000	400(AQ)	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	407892	400.000	400(AQ)	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	609976	400.000	400(AQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618019.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	156111	8.65
71 Chlorobenzene-d5	102704	51352	205408	103695	0.96
94 1,4-Dichlorobenze	44519	22260	89038	41633	-6.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	400	E
74-87-3	Chloromethane	400	E
75-01-4	Vinyl chloride	400	
74-83-9	Bromomethane	400	E
75-00-3	Chloroethane	400	E
75-69-4	Trichlorofluoromethane	400	
60-29-7	Diethyl ether (Ethyl ether)	400	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	400	E
76-13-1	1,1,2-Trichlorotrifluoroetha	400	
75-15-0	Carbon disulfide	400	E
74-88-4	Iodomethane	400	
107-02-8	Acrolein	400	
107-05-1	Allyl chloride	2000	E
75-09-2	Methylene Chloride	400	
67-64-1	Acetone	400	
156-60-5	trans-1,2-Dichloroethene	400	E
79-20-9	Methyl acetate	400	
110-54-3	n-Hexane	400	E
1634-04-4	Methyl-tert-butyl ether	400	
75-65-0	tert-Butyl Alcohol	2000	E
75-05-8	Acetonitrile	2000	E
108-20-3	Diisopropyl ether	400	
126-99-8	Chloroprene	400	
75-34-3	1,1-Dichloroethane	400	E
107-13-1	Acrylonitrile	400	E
637-92-3	Ethyl-tert-butyl ether	400	E
108-05-4	Vinyl acetate	400	
156-59-2	cis-1,2-Dichloroethene	400	E
594-20-7	2,2-Dichloropropane	400	
110-82-7	Cyclohexane	400	
74-97-5	Bromochloromethane	400	
67-66-3	Chloroform	400	E
56-23-5	Carbon tetrachloride	400	
141-78-6	Ethyl acetate	400	E
109-99-9	Tetrahydrofuran	400	E
71-55-6	1,1,1-Trichloroethane	400	
78-93-3	2-Butanone (MEK)	400	
563-58-6	1,1-Dichloropropene	400	
71-43-2	Benzene	400	
107-12-0	Propionitrile	400	
126-98-7	Methacrylonitrile	400	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	400	
78-83-1	Isobutanol	2000	
107-06-2	1,2-Dichloroethane	400	E
108-87-2	Methylcyclohexane	400	E
79-01-6	Trichloroethene	400	
74-95-3	Dibromomethane	400	E
78-87-5	1,2-Dichloropropane	400	
75-27-4	Bromodichloromethane	400	
80-62-6	Methyl methacrylate	400	E
123-91-1	1,4-Dioxane (p-Dioxane)	4000	E
110-75-8	2-Chloroethylvinyl ether	400	
10061-01-5	cis-1,3-Dichloropropene	400	
108-88-3	Toluene	400	
79-46-9	2-Nitropropane	2000	
108-10-1	4-Methyl-2-pentanone (MIBK)	400	
127-18-4	Tetrachloroethene	400	
10061-02-6	trans-1,3-Dichloropropene	400	
97-63-2	Ethyl methacrylate	400	
79-00-5	1,1,2-Trichloroethane	400	
124-48-1	Dibromochloromethane	400	
142-28-9	1,3-Dichloropropane	400	
106-93-4	1,2-Dibromoethane (EDB)	400	
591-78-6	2-Hexanone	400	
100-41-4	Ethylbenzene	400	E
108-90-7	Chlorobenzene	400	E
630-20-6	1,1,1,2-Tetrachloroethane	400	E
7816-60-0	m&p-Xylene	800	
95-47-6	o-Xylene	400	
100-42-5	Styrene	400	E
75-25-2	Bromoform	400	E
98-82-8	Isopropylbenzene (Cumene)	400	
103-65-1	n-Propylbenzene	400	
108-86-1	Bromobenzene	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	
108-67-8	1,3,5-Trimethylbenzene	400	E
95-49-8	2-Chlorotoluene	400	
96-18-4	1,2,3-Trichloropropane	400	
110-57-6	trans-1,4-Dichloro-2-butene	400	E
108-94-1	Cyclohexanone	2000	E
106-43-4	4-Chlorotoluene	400	E
98-06-6	tert-Butylbenzene	400	
95-63-6	1,2,4-Trimethylbenzene	400	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

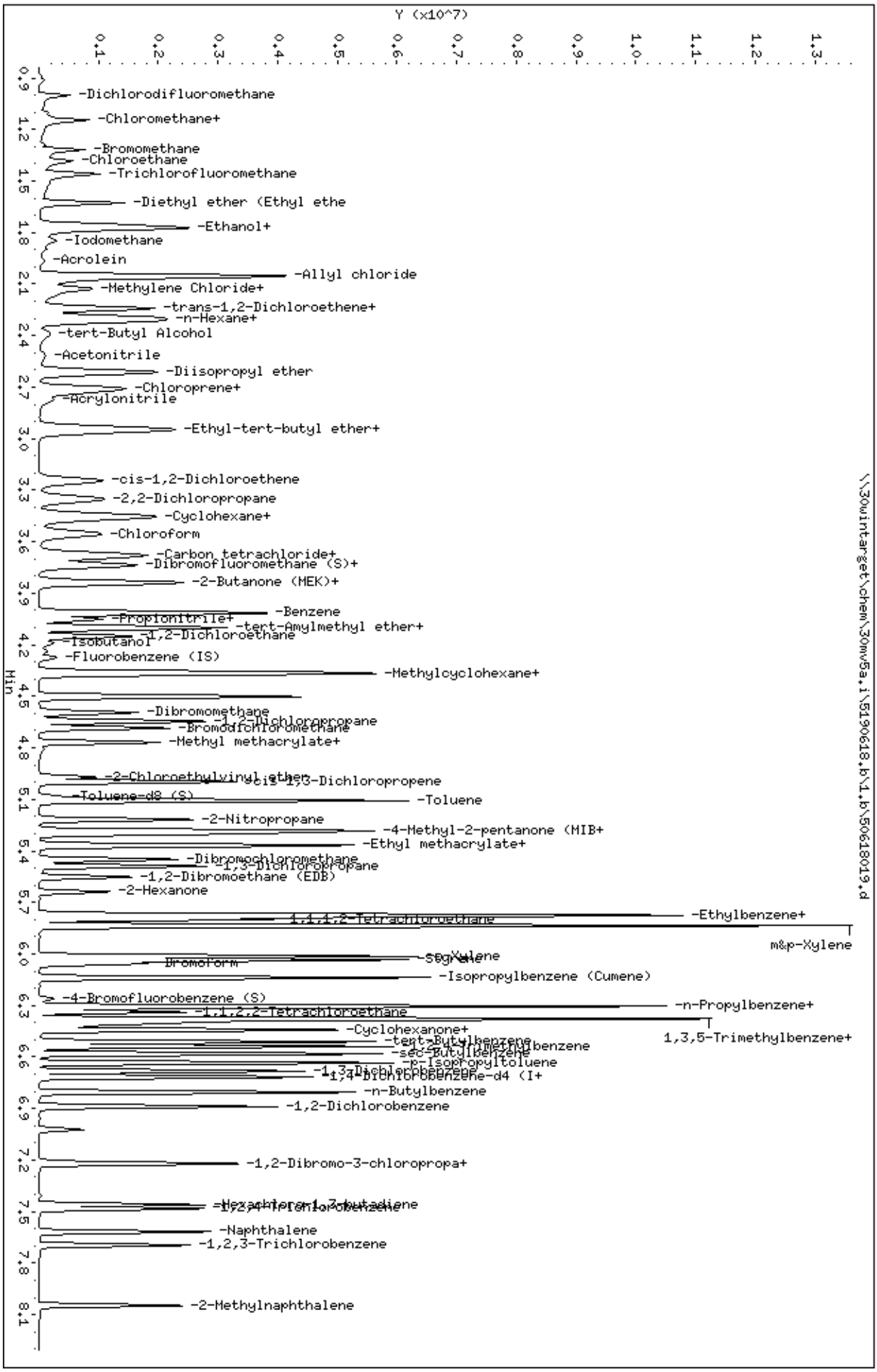
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	400	E
99-87-6	p-Isopropyltoluene	400	E
541-73-1	1,3-Dichlorobenzene	400	
106-46-7	1,4-Dichlorobenzene	400	
104-51-8	n-Butylbenzene	400	
95-50-1	1,2-Dichlorobenzene	400	E
96-12-8	1,2-Dibromo-3-chloropropane	400	
108-70-3	1,3,5-Trichlorobenzene	400	
87-68-3	Hexachloro-1,3-butadiene	400	
120-82-1	1,2,4-Trichlorobenzene	400	
91-20-3	Naphthalene	400	E
87-61-6	1,2,3-Trichlorobenzene	400	E
91-57-6	2-Methylnaphthalene	400	E
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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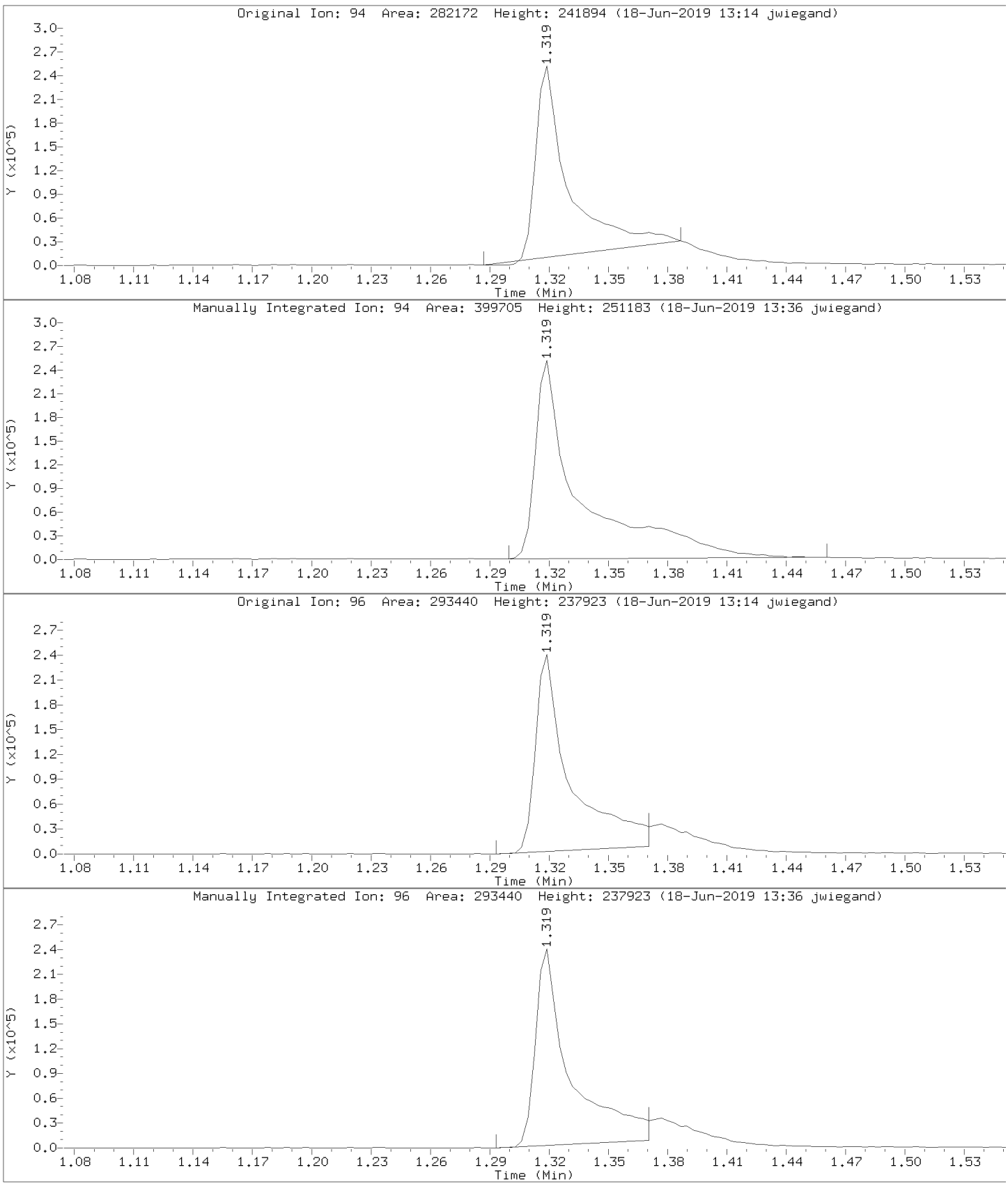
Date : 18-JUN-2019 12:40
Client ID: CAL8
Sample Info: CAL8, 91192:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618019.d
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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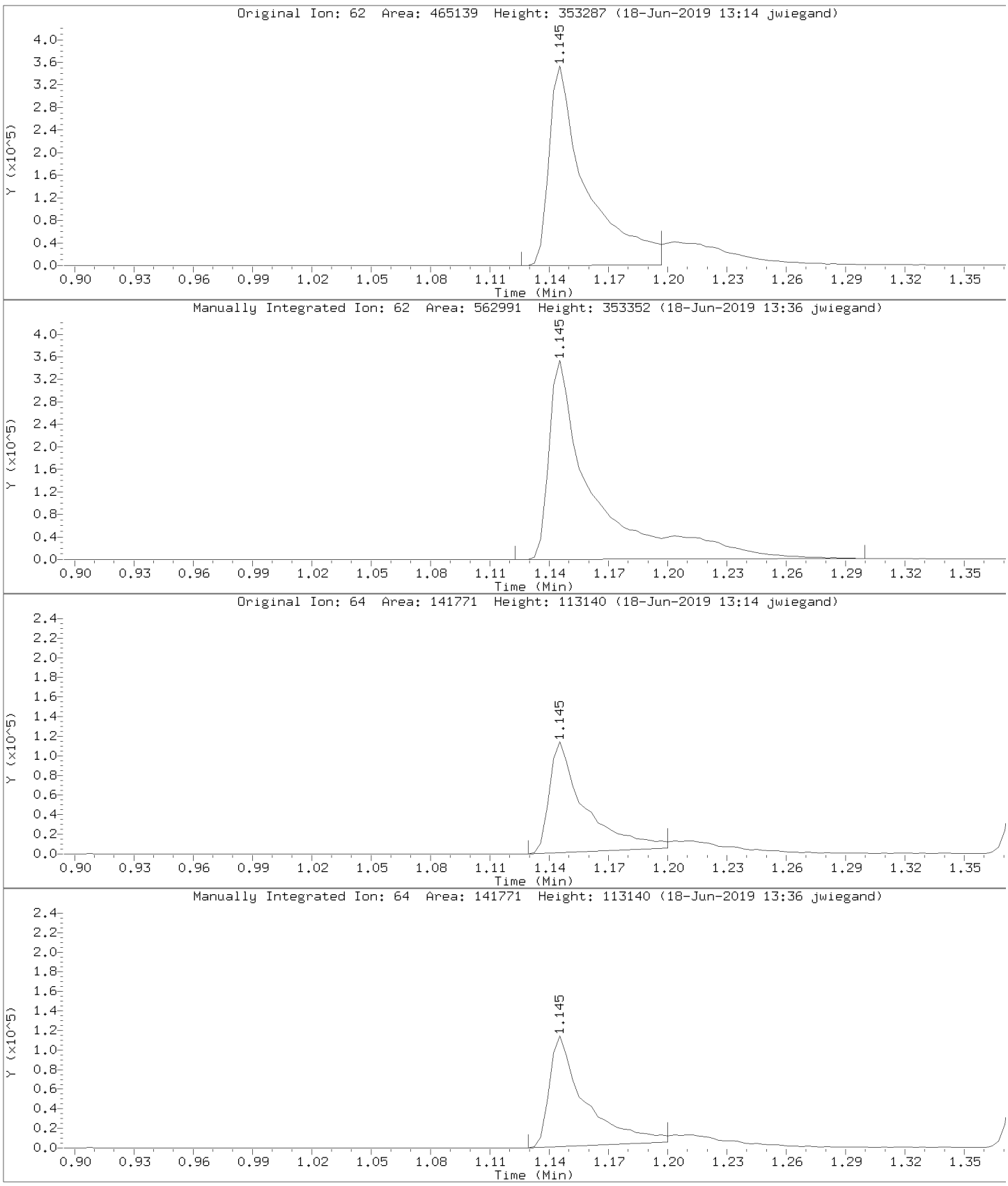
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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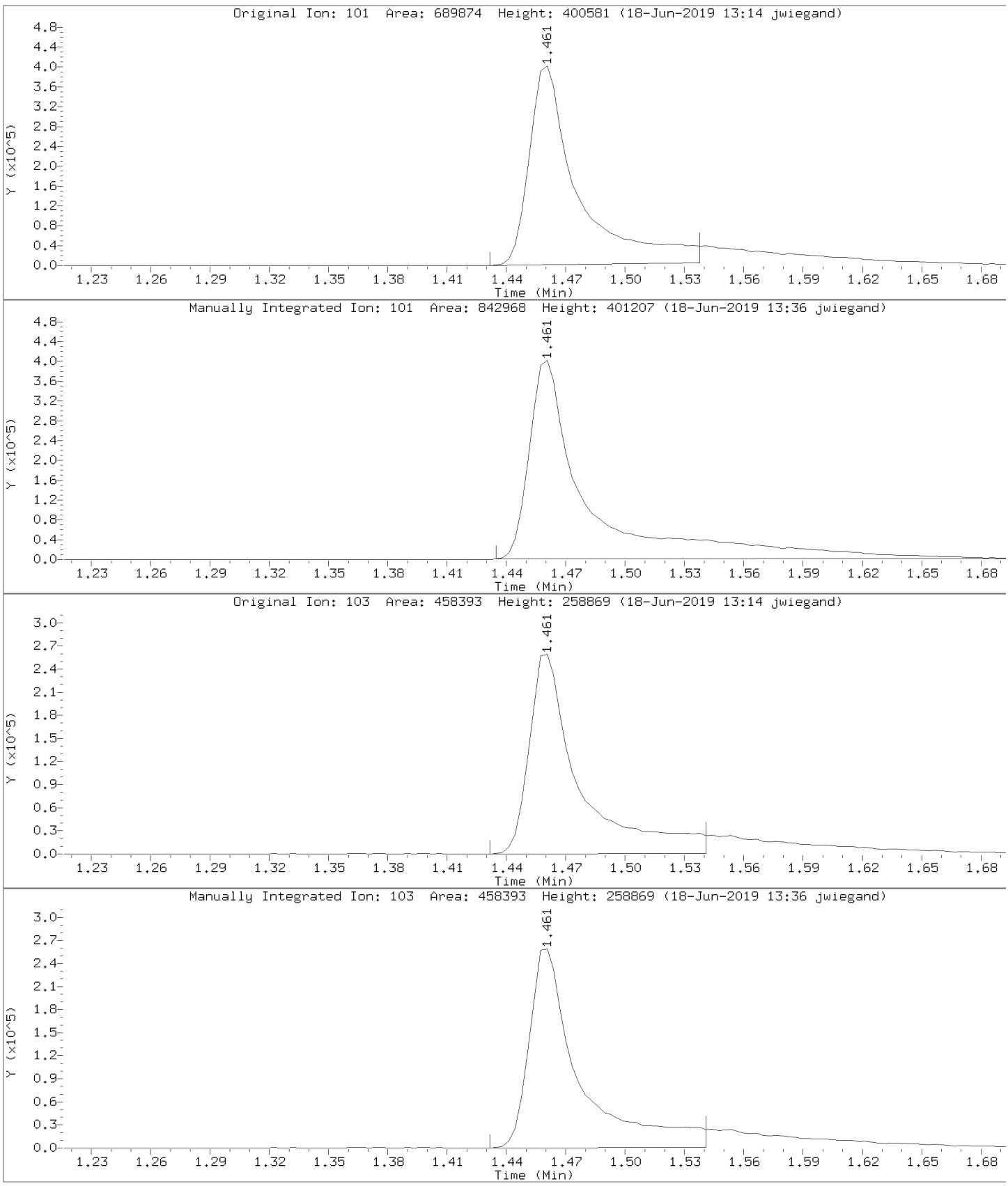
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4



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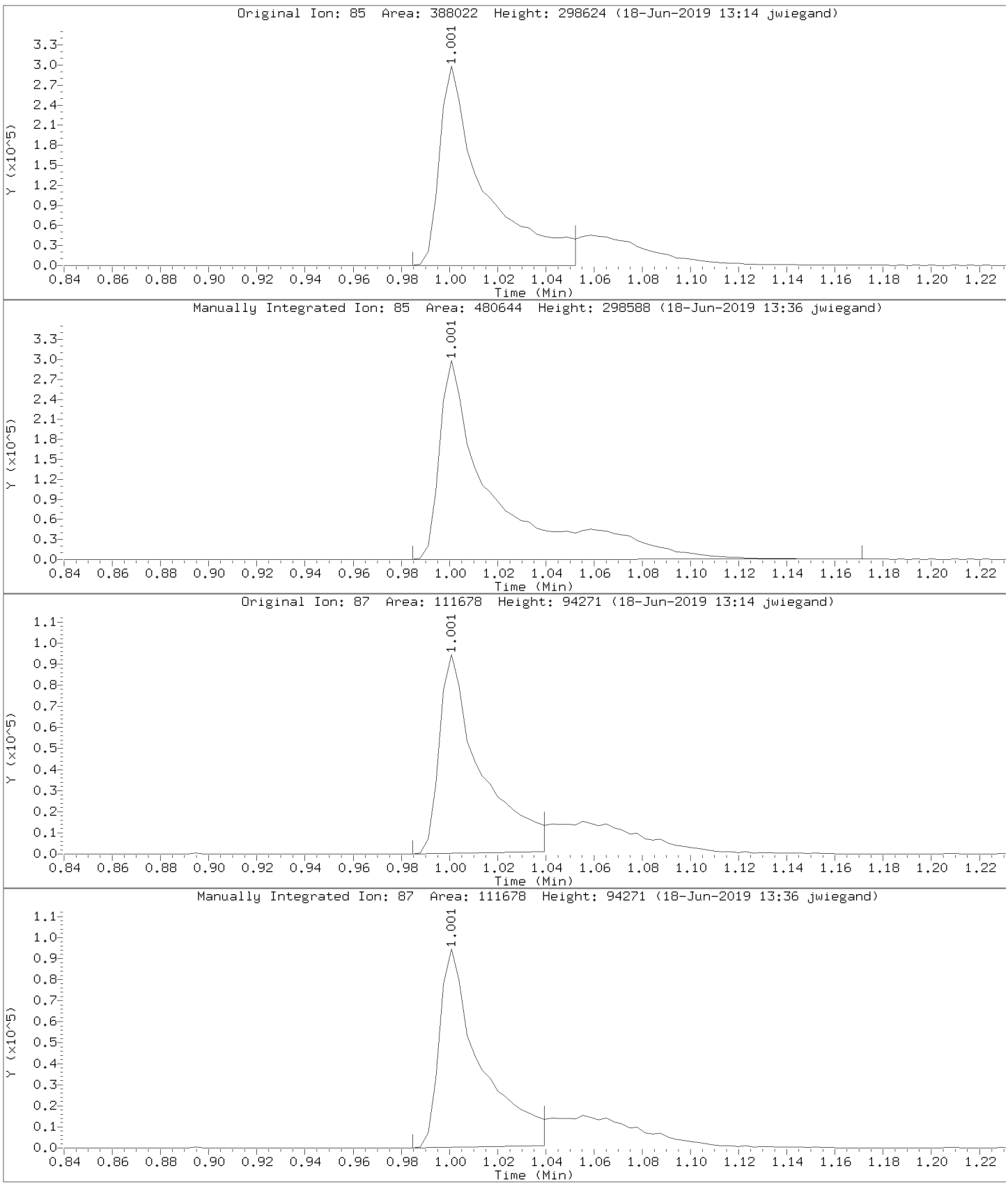
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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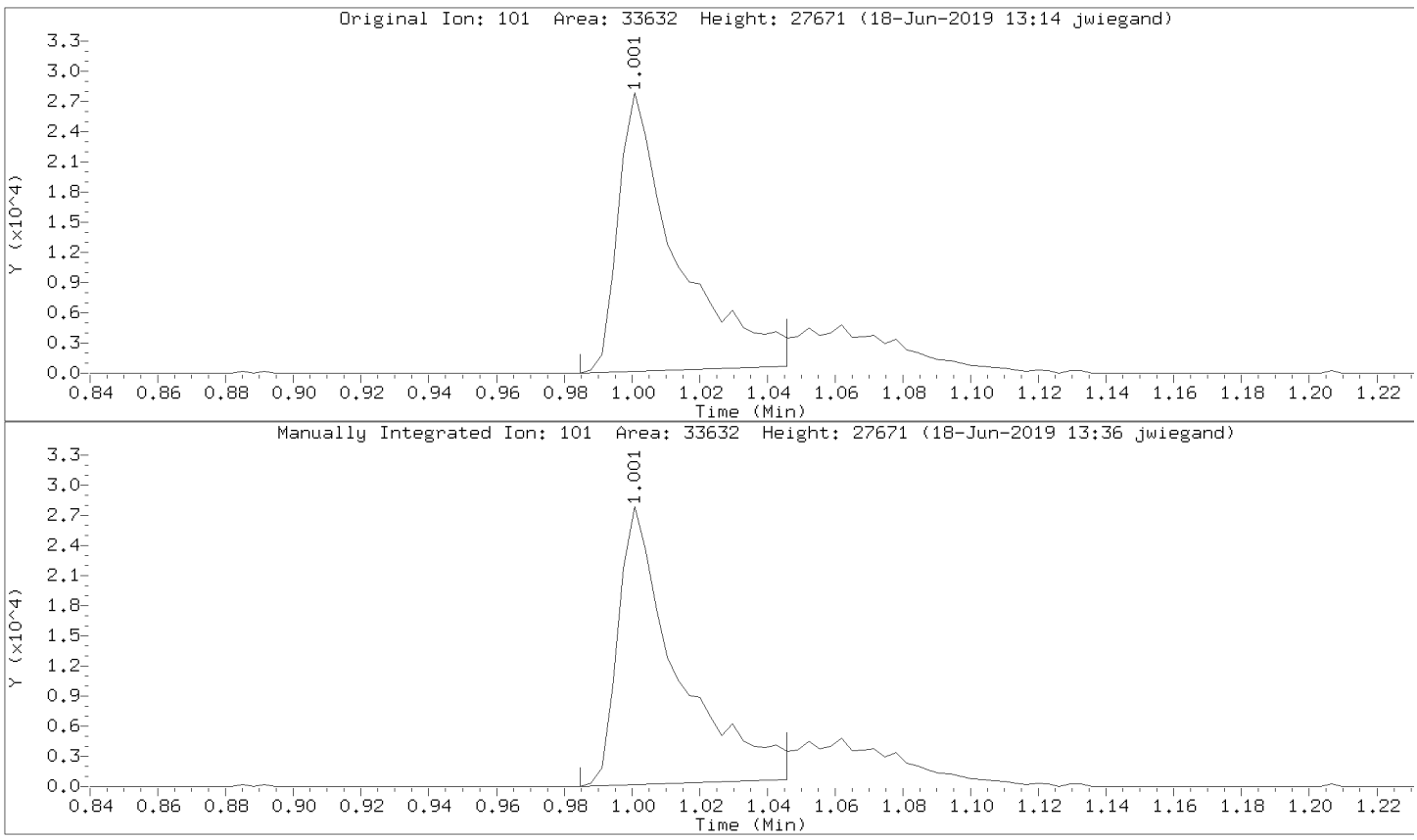
Instrument: 30mv5a.i
Lab Sample ID: CAL8



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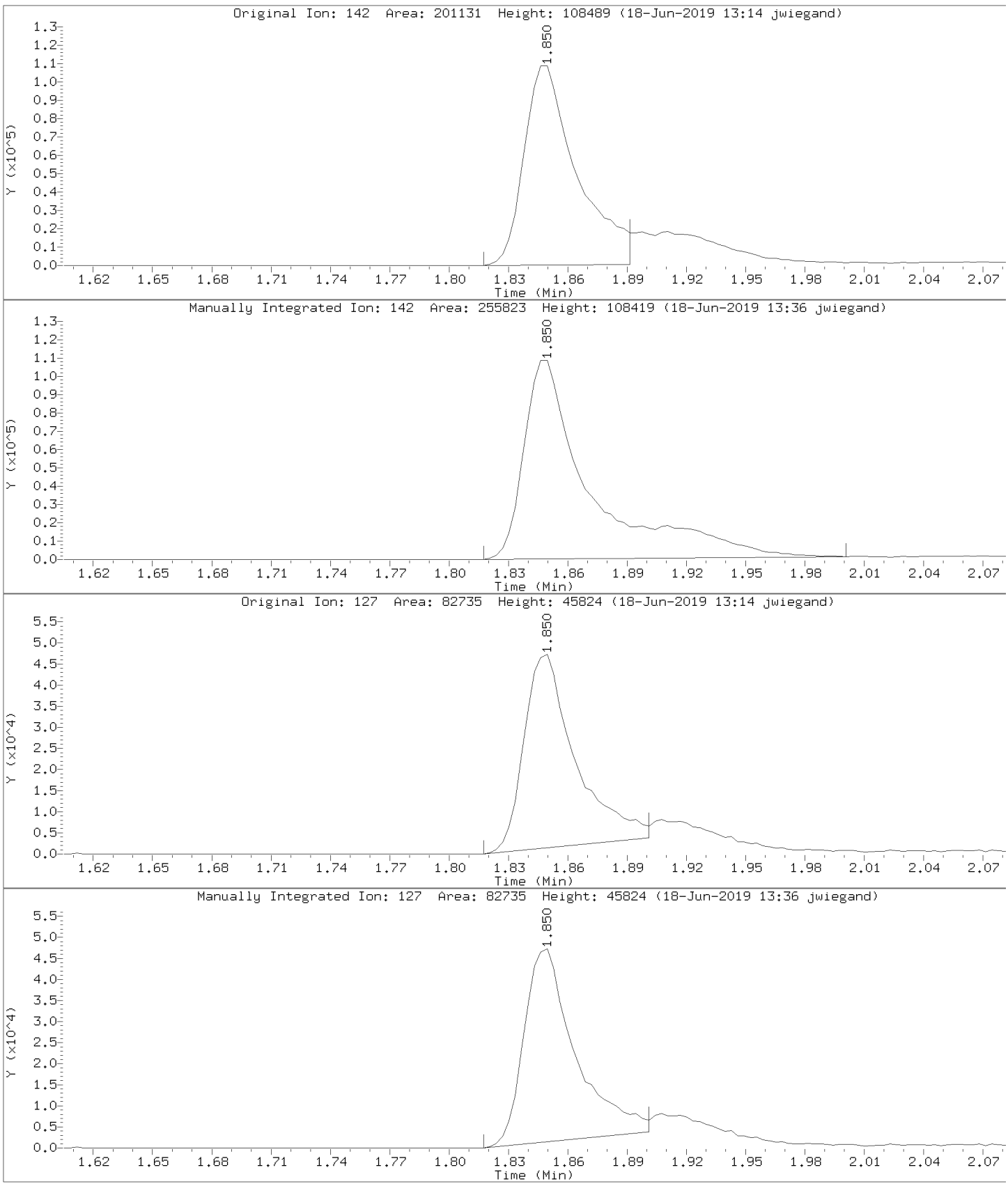
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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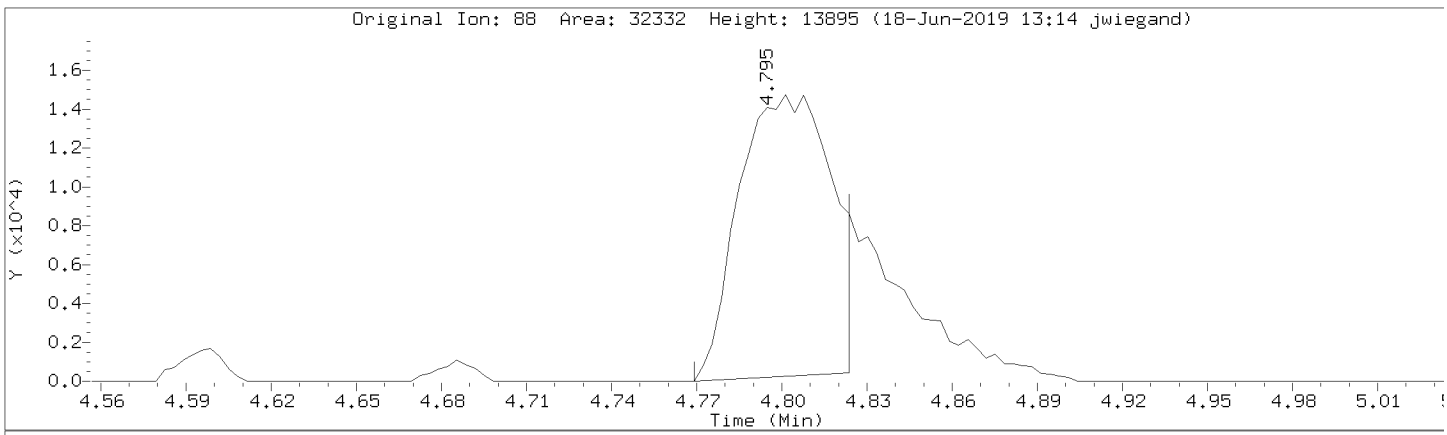
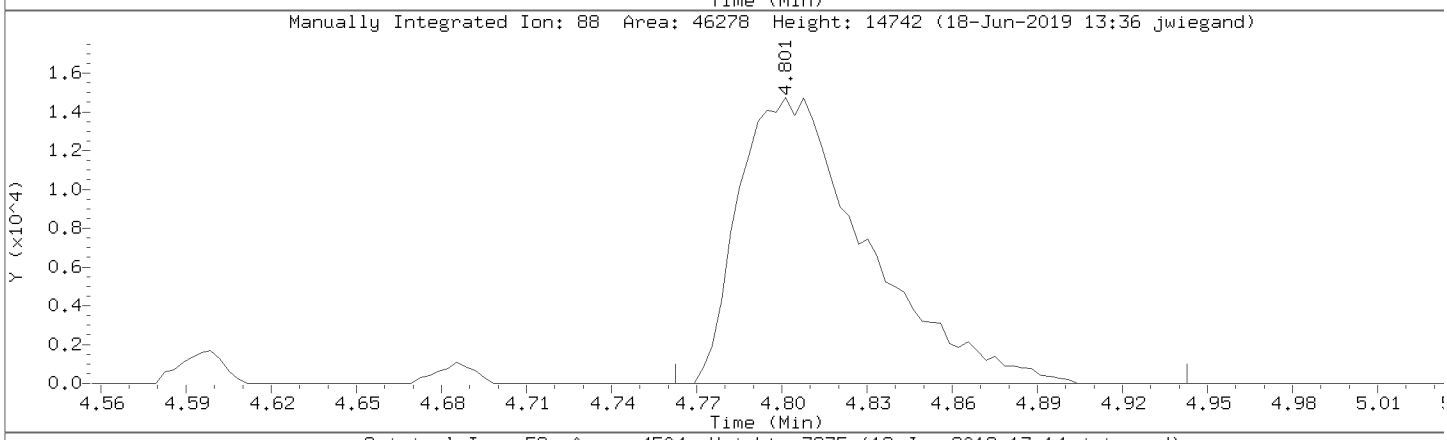
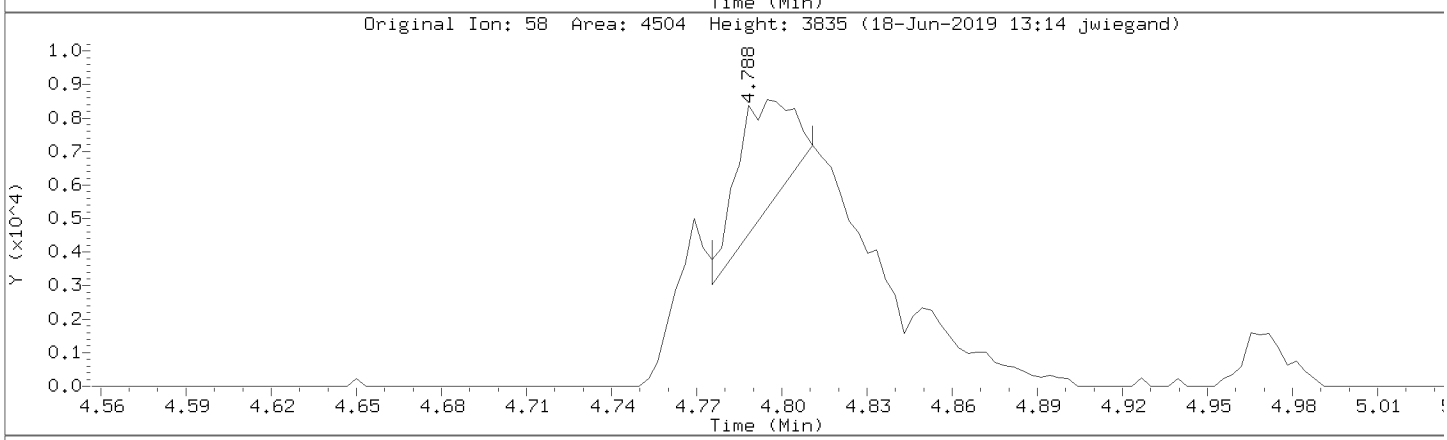
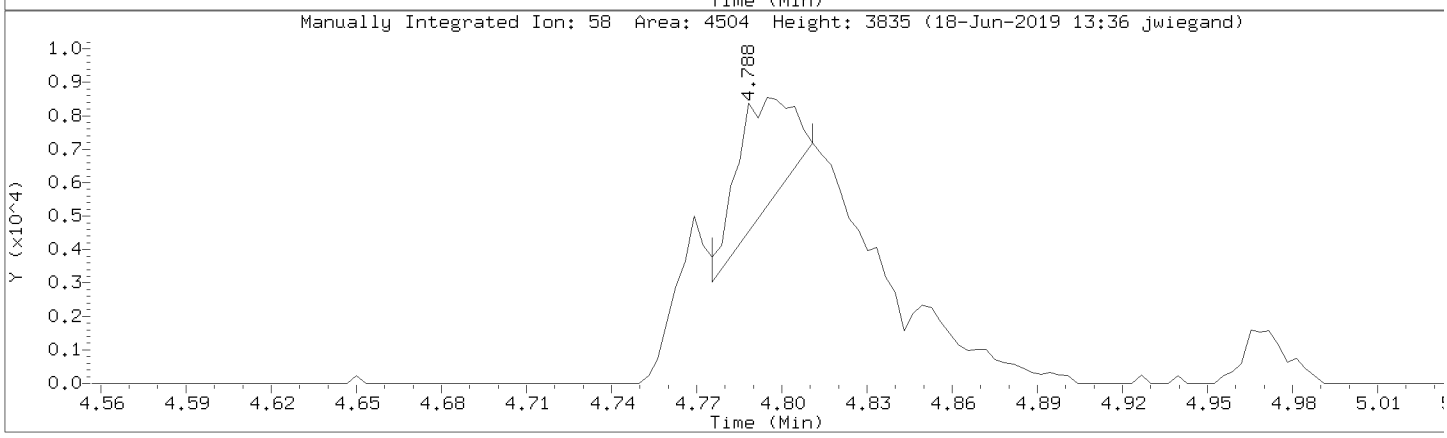
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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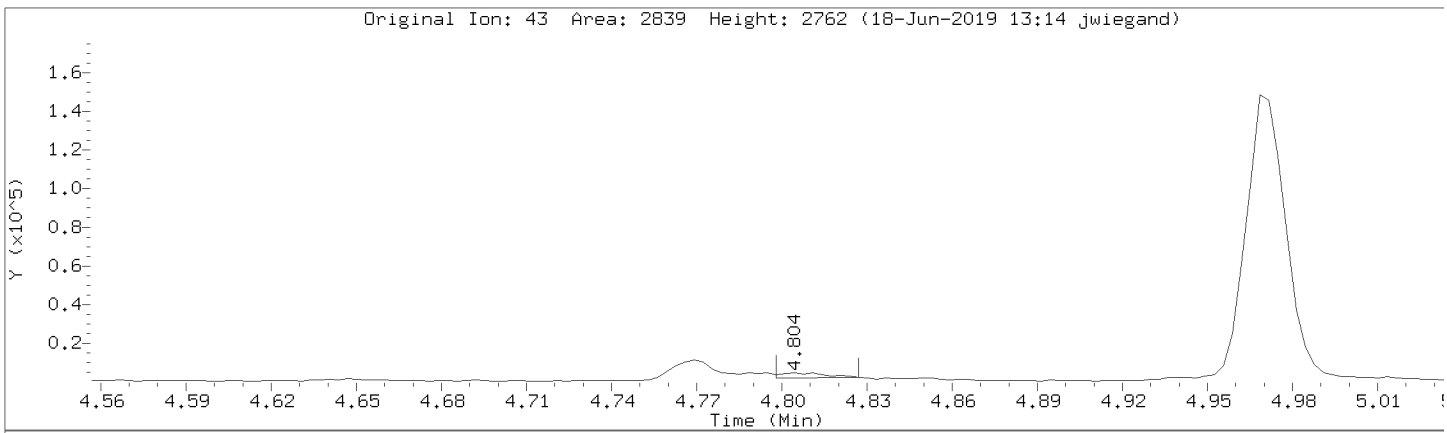
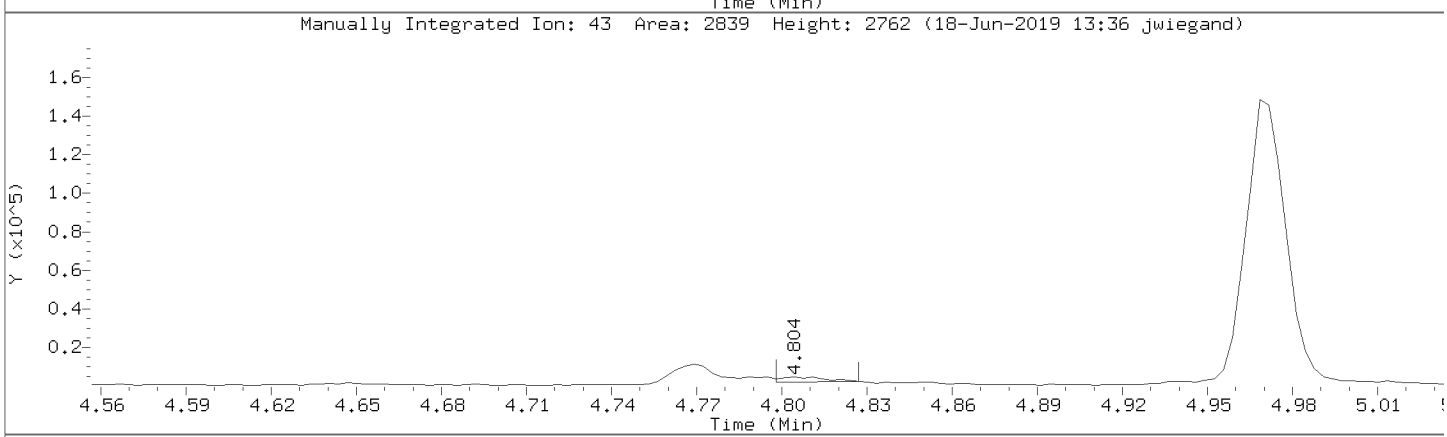
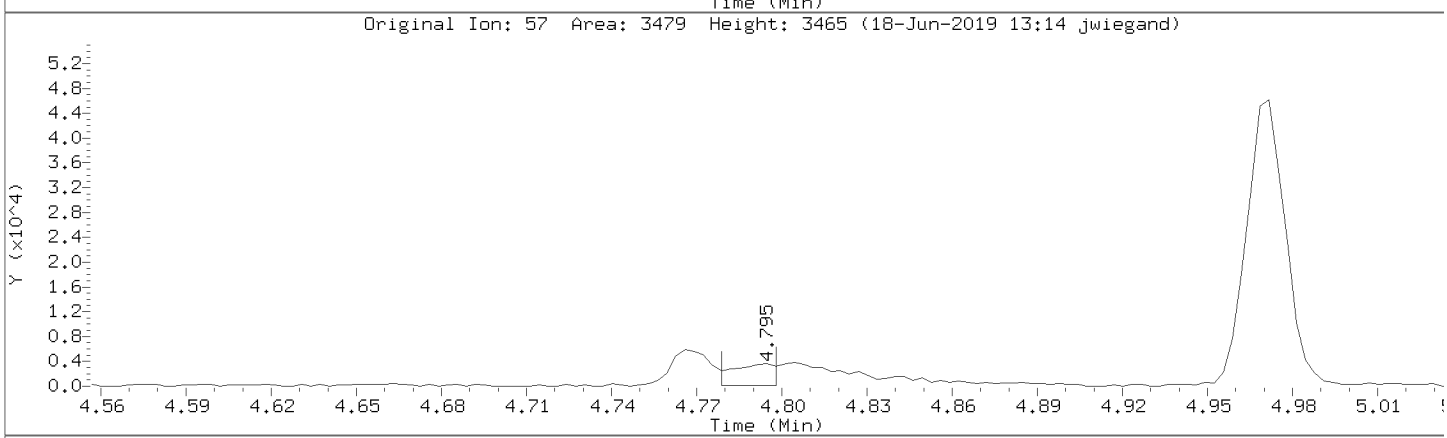
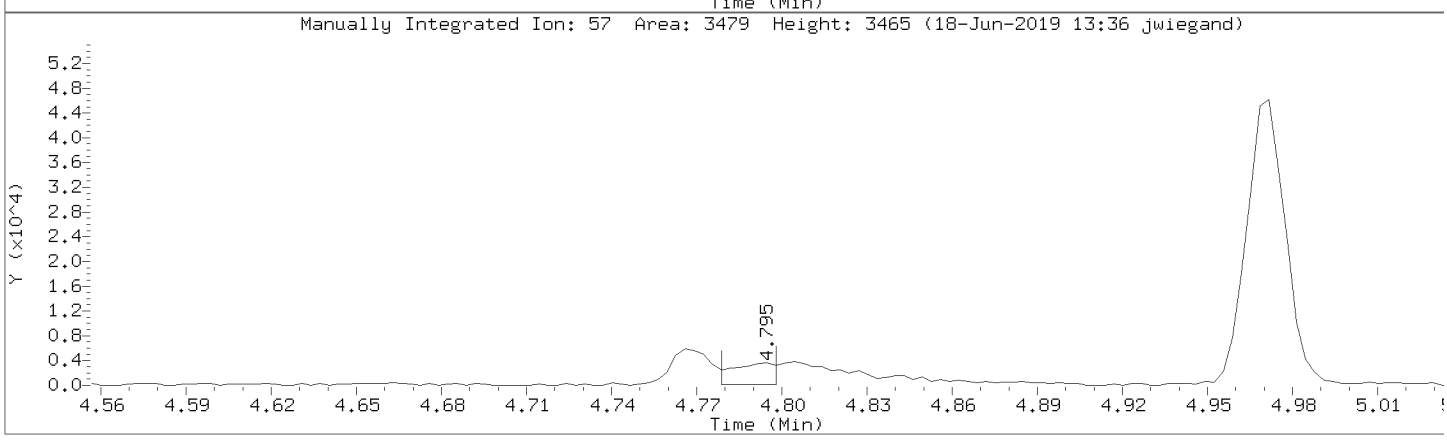
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8









SAMPLE NO.

11146257ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/18/2019 Time: 13:33

Instrument ID: 30MV5A GC Column: Col 1 Init. Calib. Date(s): 06/18/2019 06/18/2019

Lab File ID: 5190618.B\1.B\50618023.D Init. Calib. Time(s): 09:34 12:40

SDG No.: 30300161

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	1.14511	0.95863	0.0100	-16.2855	30.0000
2-Butanone (MEK)	Averaged	0.12842	0.10946	0.0100	-14.7670	30.0000
Carbon tetrachloride	Averaged	0.41252	0.31595	0.0100	-23.4112	30.0000
Chlorobenzene	Averaged	1.14103	1.03492	0.3000	-9.2999	30.0000
Chloroform	Averaged	0.57749	0.47296	0.0100	-18.1010	30.0000
1,2-Dichloroethane	Averaged	0.42170	0.35118	0.0100	-16.7228	30.0000
1,1-Dichloroethene	Averaged	0.38037	0.28128	0.0100	-26.0519	30.0000
Tetrachloroethene	Averaged	0.43296	0.38020	0.0100	-12.1852	30.0000
Trichloroethene	Averaged	0.44684	0.37624	0.0100	-15.7998	30.0000
Vinyl chloride	Averaged	0.31764	0.25219	0.0100	-20.6030	30.0000
4-Bromofluorobenzene (S)	Averaged	0.87338	0.86992	0.0100	-0.3962	30.0000
Dibromofluoromethane (S)	Averaged	0.26237	0.26588	0.0100	1.3367	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.28268	0.28351	0.0100	0.2938	30.0000
Toluene-d8 (S)	Averaged	1.28649	1.29957	0.0100	1.0169	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11173574CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/01/2019 Time: 09:23

Instrument ID: 30MV5A GC Column: Col 1 Init. Calib. Date(s): 06/18/2019 06/18/2019

Lab File ID: 5190701.B\1.B\50701005.D Init. Calib. Time(s): 09:34 12:40

SDG No.: 30300161

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	1.14511	2.78983	0.0100	-2.5484	20.0000
2-Butanone (MEK)	Averaged	0.12842	0.26308	0.0100	-18.0564	20.0000
Carbon tetrachloride	Averaged	0.41252	0.95126	0.0100	-7.7618	20.0000
Chlorobenzene	Averaged	1.14103	2.68288	0.3000	-5.9487	20.0000
Chloroform	Averaged	0.57749	1.30079	0.0100	-9.8997	20.0000
1,2-Dichloroethane	Averaged	0.42170	0.95104	0.0100	-9.7903	20.0000
1,1-Dichloroethene	Averaged	0.38037	0.95794	0.0100	0.7369	20.0000
Tetrachloroethene	Averaged	0.43296	1.05884	0.0100	-2.1759	20.0000
Trichloroethene	Averaged	0.44684	1.02492	0.0100	-8.2519	20.0000
Vinyl chloride	Averaged	0.31764	0.66610	0.0100	-16.1181	20.0000
4-Bromofluorobenzene (S)	Averaged	0.87338	0.81979	0.0100	-6.1363	20.0000
Dibromofluoromethane (S)	Averaged	0.26237	0.26461	0.0100	0.8537	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.28268	0.26153	0.0100	-7.4825	20.0000
Toluene-d8 (S)	Averaged	1.28649	1.25099	0.0100	-2.7590	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 18-JUN-2019 13:33
Operator : JEW Inst ID: 30mv5a.i
Smp Info : icv, 91193:1
Misc Info : 44968,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 01-Jul-2019 08:29 30mv5a.i Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	20565	20.0000	17.2(QM)	LT
2 Chloromethane	50	1.148	1.142	(0.269)	15427	20.0000	19.0(M)	LT
3 Vinyl chloride	62	1.145	1.145	(0.268)	24158	20.0000	15.9(M)	LT
4 Bromomethane	94	1.319	1.325	(0.308)	20872	20.0000	19.7(M)	LT
5 Chloroethane	64	1.386	1.380	(0.324)	16053	20.0000	16.5	
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	40990	20.0000	18.6	
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	22106	20.0000	19.9	
8 Ethanol	45	1.798	1.773	(0.268)	472	200.000	(a)	
9 1,1-Dichloroethene	61	1.756	1.759	(0.411)	26944	20.0000	14.8	
10 1,1,2-Trichlorotrifluoroethane	151	1.772	1.775	(0.414)	17788	20.0000	20.9	
11 Carbon disulfide	76	1.782	1.785	(0.417)	59971	20.0000	19.0	
12 Iodomethane	142	1.849	1.856	(0.432)	5797	20.0000	9.91(M)	LT
13 Acrolein	56	1.968	1.969	(0.460)	5493	20.0000	38.5	
14 Allyl chloride	41	2.055	2.055	(0.481)	148939	100.000	104	
15 Methylene Chloride	49	2.126	2.132	(0.497)	21990	20.0000	17.6	
16 Acetone	43	2.161	2.165	(0.505)	7451	20.0000	23.0	
17 trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	27525	20.0000	14.7	
18 Methyl acetate	74	2.245	2.254	(0.525)	5129	20.0000	22.9	
19 n-Hexane	86	2.293	2.297	(0.536)	11513	20.0000	37.9	
20 Methyl-tert-butyl ether	73	2.312	2.312	(0.541)	76827	20.0000	18.7	
21 tert-Butyl Alcohol	59	2.386	2.386	(0.558)	19543	100.000	114(M)	LT

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.515	2.522	(0.588)	7905	100.000	98.5(M)	LT
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	71841	20.0000	18.2	
	24 Chloroprene	53	2.704	2.705	(0.632)	30662	20.0000	18.3(M)	LT
	25 1,1-Dichloroethane	63	2.724	2.727	(0.637)	37590	20.0000	15.2	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	6796	20.0000	17.8	
	27 Ethyl-tert-butyl ether	59	2.942	2.939	(0.688)	74629	20.0000	18.1	
	28 Vinyl acetate	43	2.962	2.965	(0.693)	51750	20.0000	16.4	
	29 cis-1,2-Dichloroethene	61	3.244	3.248	(0.759)	28947	20.0000	15.3	
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	36518	20.0000	16.2(M)	LT
	31 Cyclohexane	56	3.453	3.450	(0.808)	37877	20.0000	20.2(M)	LT
	32 Bromochloromethane	130	3.460	3.467	(0.809)	14597	20.0000	16.9(M)	LT
	33 Chloroform	83	3.550	3.553	(0.830)	45304	20.0000	16.4(M)	LT
	34 Carbon tetrachloride	117	3.675	3.679	(0.859)	30265	20.0000	15.3	
	35 Ethyl acetate	43	3.685	3.702	(0.862)	27249	20.0000	20.6	
	36 Tetrahydrofuran	42	3.701	3.711	(0.865)	11539	20.0000	22.0(M)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	38203	30.0000	30.4	
	38 1,1,1-Trichloroethane	97	3.740	3.733	(0.874)	38009	20.0000	15.9(M)	LT
	39 2-Butanone (MEK)	43	3.836	3.865	(0.897)	11740	20.0000	19.1(H)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	32045	20.0000	16.1	
	41 Benzene	78	4.016	4.020	(0.939)	91828	20.0000	16.7	
	42 Propionitrile	54	4.039	4.049	(0.944)	3005	20.0000	21.0	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	16683	20.0000	21.6	
	44 tert-Amylmethyl ether	73	4.100	4.106	(0.959)	78127	20.0000	18.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	40737	30.0000	30.1	
	46 Isobutanol	43	4.190	4.213	(0.980)	7175	100.000	130(H)	
	47 1,2-Dichloroethane	62	4.148	4.151	(0.970)	33640	20.0000	16.6	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	143687	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	43158	20.0000	21.4	
	50 Trichloroethene	95	4.370	4.373	(0.758)	25761	20.0000	16.8	
	51 Dibromomethane	174	4.595	4.598	(1.074)	16287	20.0000	17.0	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	24033	20.0000	17.4	
	53 Bromodichloromethane	83	4.685	4.688	(1.095)	37439	20.0000	19.2	
	54 Methyl methacrylate	69	4.769	4.775	(1.115)	19603	20.0000	19.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	2195	200.000	210(M)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	9307	20.0000	17.6	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	43026	20.0000	18.4	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	133471	30.0000	30.3	
	59 Toluene	91	5.106	5.110	(0.886)	105380	20.0000	18.0	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	48309	100.000	105	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.235)	30159	20.0000	21.7	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	26032	20.0000	17.6	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	40846	20.0000	18.5	
	64 Ethyl methacrylate	41	5.363	5.367	(0.931)	23241	20.0000	20.0	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.932)	25566	20.0000	19.4	
	66 Dibromochloromethane	129	5.450	5.450	(0.946)	28427	20.0000	18.6	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.953)	39895	20.0000	18.9	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.964)	25177	20.0000	19.5	
	69 2-Hexanone	43	5.640	5.643	(0.979)	21140	20.0000	21.3	
	70 Ethylbenzene	106	5.778	5.778	(1.003)	38623	20.0000	19.0	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	102704	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.002)	70860	20.0000	18.1	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	26410	20.0000	17.9	
	74 m&p-Xylene	106	5.836	5.836	(1.013)	94026	40.0000	38.3	
	75 o-Xylene	106	6.013	6.016	(1.044)	46217	20.0000	19.0	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	76 Styrene	104	6.035	6.036	(1.047)	73654	20.0000	18.5	
	77 Bromoform	173	6.055	6.058	(0.902)	19534	20.0000	18.4	
	78 Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	115739	20.0000	20.0	
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	38728	30.0000	29.9	
	80 n-Propylbenzene	91	6.305	6.306	(0.940)	135744	20.0000	20.5	
	81 Bromobenzene	77	6.305	6.309	(0.940)	52427	20.0000	19.8	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	36184	20.0000	20.5	
	83 1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	95339	20.0000	20.5	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	28255	20.0000	19.4	
	85 1,2,3-Trichloropropane	110	6.395	6.396	(0.953)	10527	20.0000	20.5	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	9284	20.0000	21.9	
	87 Cyclohexanone	55	6.421	6.421	(0.957)	12960	100.000	157	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	28234	20.0000	19.4	
	89 tert-Butylbenzene	119	6.511	6.511	(0.970)	80487	20.0000	20.9	
	90 1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	94668	20.0000	20.5	
	91 sec-Butylbenzene	105	6.582	6.582	(0.981)	117803	20.0000	21.6	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	97954	20.0000	21.3	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	52652	20.0000	20.4	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	44519	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	52751	20.0000	20.4	
	96 n-Butylbenzene	91	6.804	6.804	(1.014)	92408	20.0000	23.2	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	49848	20.0000	20.4	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	44519	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	6402	20.0000	22.1	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	34704	20.0000	24.7	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	13797	20.0000	22.1	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	26765	20.0000	22.9	
	102 Naphthalene	128	7.617	7.618	(1.135)	72780	20.0000	24.2	
	103 1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	25414	20.0000	24.0	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	31531	20.0000	24.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618023.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 10:54
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	144844	72422	289688	143687	-0.80
71 Chlorobenzene-d5	104675	52338	209350	102704	-1.88
94 1,4-Dichlorobenze	47592	23796	95184	44519	-6.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.00
71 Chlorobenzene-d5	5.77	5.27	6.27	5.76	-0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.24991	0.21469	0.21469	0.010	-14.09615	20.00000	Aver	(QM)	
2 Chloromethane	20.00000	19.02810	0.16105	0.100	-4.85951	20.00000	Quad	(M)	
3 Vinyl chloride	0.31764	0.25219	0.25219	0.010	-20.60303	20.00000	Aver	(M)	<-
4 Bromomethane	20.00000	19.70046	0.21789	0.010	-1.49769	20.00000	Quad	(M)	
5 Chloroethane	0.20300	0.16758	0.16758	0.010	-17.44486	20.00000	Aver		
6 Trichlorofluoromethane	0.46032	0.42791	0.42791	0.010	-7.04005	20.00000	Aver		
7 Diethyl ether (Ethyl ether)	0.23226	0.23077	0.23077	0.010	-0.63859	20.00000	Aver		
8 Ethanol	++++	0.00159	0.00159	0.010	++++	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.38037	0.28128	0.28128	0.010	-26.05195	20.00000	Aver		<-
10 1,1,2-Trichlorotrifluoroeth	0.17766	0.18570	0.18570	0.010	4.52146	20.00000	Aver		
11 Carbon disulfide	0.65804	0.62606	0.62606	0.010	-4.86000	20.00000	Aver		
12 Iodomethane	20.00000	9.91207	0.06052	0.010	-50.43963	20.00000	Quad	(M)	<-
13 Acrolein	20.00000	38.54495	0.05734	0.010	92.72473	20.00000	Quad		<-
14 Allyl chloride	100	104	0.31097	0.010	3.64973	20.00000	Quad		
15 Methylene Chloride	20.00000	17.56467	0.22956	0.010	-12.17664	20.00000	Quad		
16 Acetone	20.00000	22.97721	0.07778	0.010	14.88603	20.00000	Quad		
17 trans-1,2-Dichloroethene	0.38968	0.28734	0.28734	0.010	-26.26137	20.00000	Aver		<-
18 Methyl acetate	0.04681	0.05354	0.05354	0.010	14.38497	20.00000	Aver		
19 n-Hexane	0.06345	0.12019	0.12019	0.010	89.41619	20.00000	Aver		<-
20 Methyl-tert-butyl ether	0.85575	0.80202	0.80202	0.010	-6.27861	20.00000	Aver		
21 tert-Butyl Alcohol	0.03578	0.04080	0.04080	0.010	14.02648	20.00000	Aver	(M)	
22 Acetonitrile	0.01676	0.01650	0.01650	0.010	-1.52218	20.00000	Aver	(M)	
23 Diisopropyl ether	0.82173	0.74997	0.74997	0.010	-8.73191	20.00000	Aver		
24 Chloroprene	0.34987	0.32009	0.32009	0.010	-8.51213	20.00000	Aver	(M)	
25 1,1-Dichloroethane	0.51731	0.39242	0.39242	0.100	-24.14293	20.00000	Aver		<-
26 Acrylonitrile	0.07954	0.07095	0.07095	0.010	-10.80870	20.00000	Aver		
27 Ethyl-tert-butyl ether	0.86095	0.77908	0.77908	0.010	-9.50924	20.00000	Aver		
28 Vinyl acetate	0.65893	0.54024	0.54024	0.010	-18.01361	20.00000	Aver		
29 cis-1,2-Dichloroethene	0.39600	0.30219	0.30219	0.010	-23.69008	20.00000	Aver		<-
30 2,2-Dichloropropane	0.46961	0.38122	0.38122	0.010	-18.82150	20.00000	Aver	(M)	
31 Cyclohexane	0.39096	0.39541	0.39541	0.010	1.13753	20.00000	Aver	(M)	
32 Bromochloromethane	0.18013	0.15238	0.15238	0.010	-15.40558	20.00000	Aver	(M)	
33 Chloroform	0.57749	0.47294	0.47294	0.010	-18.10285	20.00000	Aver	(M)	
34 Carbon tetrachloride	0.41252	0.31595	0.31595	0.010	-23.41118	20.00000	Aver		<-
35 Ethyl acetate	0.27578	0.28446	0.28446	0.010	3.14641	20.00000	Aver		
36 Tetrahydrofuran	20.00000	21.95862	0.12046	0.010	9.79309	20.00000	Quad	(M)	
$ 37 Dibromofluoromethane (S)	0.26237	0.26588	0.26588	0.010	1.33671	20.00000	Aver		
38 1,1,1-Trichloroethane	0.49845	0.39679	0.39679	0.010	-20.39516	20.00000	Aver	(M)	<-
39 2-Butanone (MEK)	0.12842	0.12256	0.12256	0.010	-4.56508	20.00000	Aver	(H)	
40 1,1-Dichloropropene	0.41560	0.33453	0.33453	0.010	-19.50635	20.00000	Aver		
41 Benzene	1.14511	0.95863	0.95863	0.010	-16.28549	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	0.02985	0.03137	0.03137	0.010	5.08516	20.00000	Aver		
43 Methacrylonitrile	0.16123	0.17416	0.17416	0.010	8.02058	20.00000	Aver		
44 tert-Amylmethyl ether	0.87404	0.81560	0.81560	0.010	-6.68695	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.28268	0.28351	0.28351	0.010	0.29384	20.00000	Aver		
46 Isobutanol	0.01151	0.01498	0.01498	0.010	30.15305	20.00000	Aver	(H)	<-
47 1,2-Dichloroethane	0.42170	0.35118	0.35118	0.010	-16.72281	20.00000	Aver		
49 Methylcyclohexane	0.42014	0.45054	0.45054	0.010	7.23728	20.00000	Aver		
50 Trichloroethene	0.44684	0.37624	0.37624	0.010	-15.79978	20.00000	Aver		
51 Dibromomethane	0.20022	0.17003	0.17003	0.010	-15.07964	20.00000	Aver		
52 1,2-Dichloropropane	0.28909	0.25089	0.25089	0.010	-13.21535	20.00000	Aver		
53 Bromodichloromethane	0.40684	0.39084	0.39084	0.010	-3.93356	20.00000	Aver		
54 Methyl methacrylate	0.21529	0.20464	0.20464	0.010	-4.94761	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	200	210	0.00229	0.010	4.83666	20.00000	Quad	(M)	<-
56 2-Chloroethylvinyl ether	0.11070	0.09716	0.09716	0.010	-12.22923	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.48710	0.44916	0.44916	0.010	-7.78832	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.28649	1.29957	1.29957	0.010	1.01692	20.00000	Aver		
59 Toluene	1.71127	1.53908	1.53908	0.010	-10.06204	20.00000	Aver		
60 2-Nitropropane	0.09588	0.10086	0.10086	0.010	5.19367	20.00000	Aver		
61 4-Methyl-2-pentanone (MIBK)	0.29042	0.31484	0.31484	0.010	8.40931	20.00000	Aver		
62 Tetrachloroethene	0.43296	0.38020	0.38020	0.010	-12.18518	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.64394	0.59656	0.59656	0.010	-7.35827	20.00000	Aver		
64 Ethyl methacrylate	0.34021	0.33944	0.33944	0.010	-0.22597	20.00000	Aver		
65 1,1,2-Trichloroethane	0.38462	0.37339	0.37339	0.010	-2.91993	20.00000	Aver		
66 Dibromochloromethane	0.44604	0.41518	0.41518	0.010	-6.91862	20.00000	Aver		
67 1,3-Dichloropropane	0.61709	0.58267	0.58267	0.010	-5.57858	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.37769	0.36771	0.36771	0.010	-2.64128	20.00000	Aver		
69 2-Hexanone	0.28980	0.30875	0.30875	0.010	6.54088	20.00000	Aver		
70 Ethylbenzene	0.59336	0.56409	0.56409	0.010	-4.93302	20.00000	Aver		
72 Chlorobenzene	1.14103	1.03492	1.03492	0.300	-9.29986	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.43143	0.38572	0.38572	0.010	-10.59472	20.00000	Aver		
74 m&p-Xylene	0.71618	0.68663	0.68663	0.010	-4.12660	20.00000	Aver		
75 o-Xylene	0.70897	0.67500	0.67500	0.010	-4.79121	20.00000	Aver		
76 Styrene	1.16122	1.07572	1.07572	0.010	-7.36298	20.00000	Aver		
77 Bromoform	0.71541	0.65817	0.65817	0.100	-8.00121	20.00000	Aver		
78 Isopropylbenzene (Cumene)	3.89837	3.89965	3.89965	0.010	0.03280	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.87338	0.86992	0.86992	0.010	-0.39625	20.00000	Aver		
80 n-Propylbenzene	4.46847	4.57369	4.57369	0.010	2.35463	20.00000	Aver		
81 Bromobenzene	1.78520	1.76645	1.76645	0.010	-1.05020	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	1.19102	1.21916	1.21916	0.300	2.36272	20.00000	Aver		
83 1,3,5-Trimethylbenzene	3.13805	3.21230	3.21230	0.010	2.36623	20.00000	Aver		
84 2-Chlorotoluene	0.98101	0.95201	0.95201	0.010	-2.95612	20.00000	Aver		
85 1,2,3-Trichloropropane	0.34617	0.35469	0.35469	0.010	2.46068	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.28521	0.31281	0.31281	0.010	9.67824	20.00000	Aver		
87 Cyclohexanone	0.05556	0.08733	0.08733	0.010	57.18515	20.00000	Aver		<-
88 4-Chlorotoluene	0.97978	0.95130	0.95130	0.010	-2.90628	20.00000	Aver		
89 tert-Butylbenzene	2.59165	2.71189	2.71189	0.010	4.63951	20.00000	Aver		
90 1,2,4-Trimethylbenzene	3.11701	3.18969	3.18969	0.010	2.33176	20.00000	Aver		
91 sec-Butylbenzene	3.68336	3.96919	3.96919	0.010	7.76018	20.00000	Aver		
92 p-Isopropyltoluene	3.10234	3.30041	3.30041	0.010	6.38449	20.00000	Aver		
93 1,3-Dichlorobenzene	1.74109	1.77403	1.77403	0.010	1.89180	20.00000	Aver		
95 1,4-Dichlorobenzene	1.74106	1.77736	1.77736	0.010	2.08503	20.00000	Aver		
96 n-Butylbenzene	2.67877	3.11355	3.11355	0.010	16.23032	20.00000	Aver		
97 1,2-Dichlorobenzene	1.64323	1.67955	1.67955	0.010	2.21054	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00149	1.00000	1.00000	0.010	-0.14902	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19491	0.21571	0.21571	0.010	10.66880	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.94777	1.16930	1.16930	0.010	23.37417	20.00000	Aver		<-
100 Hexachloro-1,3-butadiene	20.00000	22.08370	0.46487	0.010	10.41850	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.78606	0.90181	0.90181	0.010	14.72499	20.00000	Aver		
102 Naphthalene	2.02357	2.45221	2.45221	0.010	21.18218	20.00000	Aver		<-
103 1,2,3-Trichlorobenzene	0.71440	0.85629	0.85629	0.010	19.86114	20.00000	Aver		
104 2-Methylnaphthalene	20.00000	24.39628	1.06239	0.010	21.98139	20.00000	Quad		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.90622
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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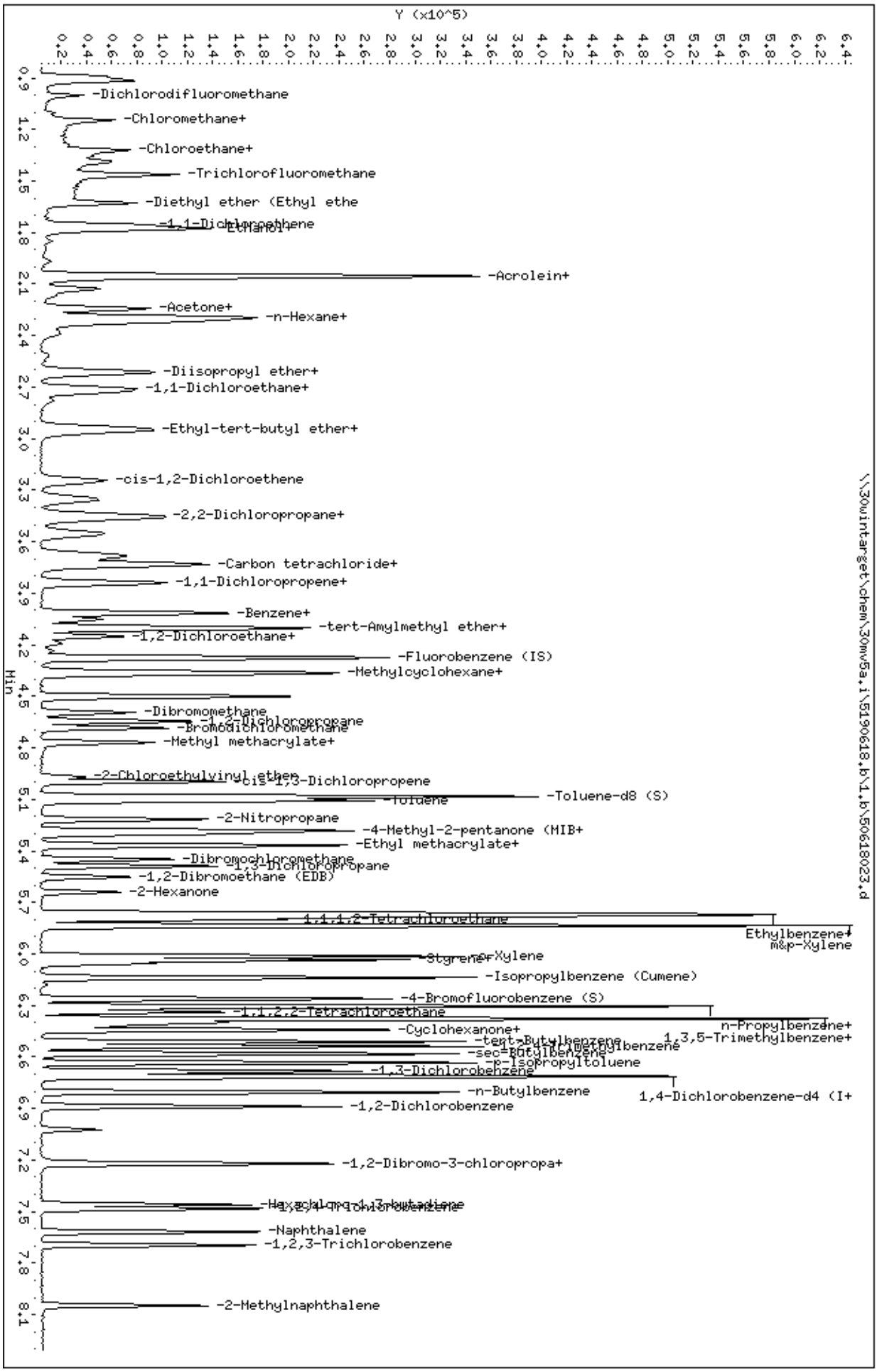
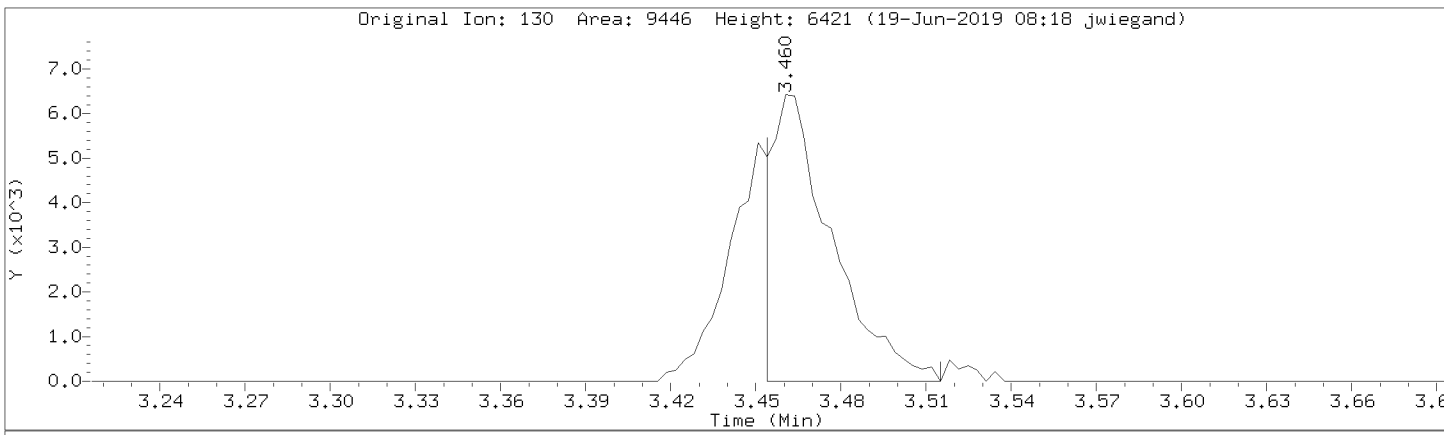
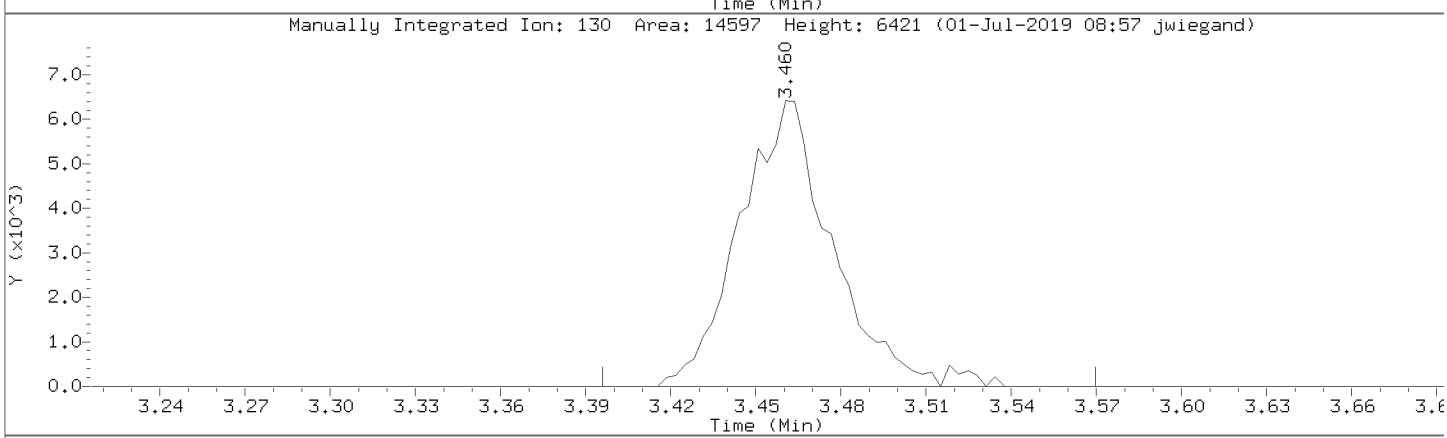
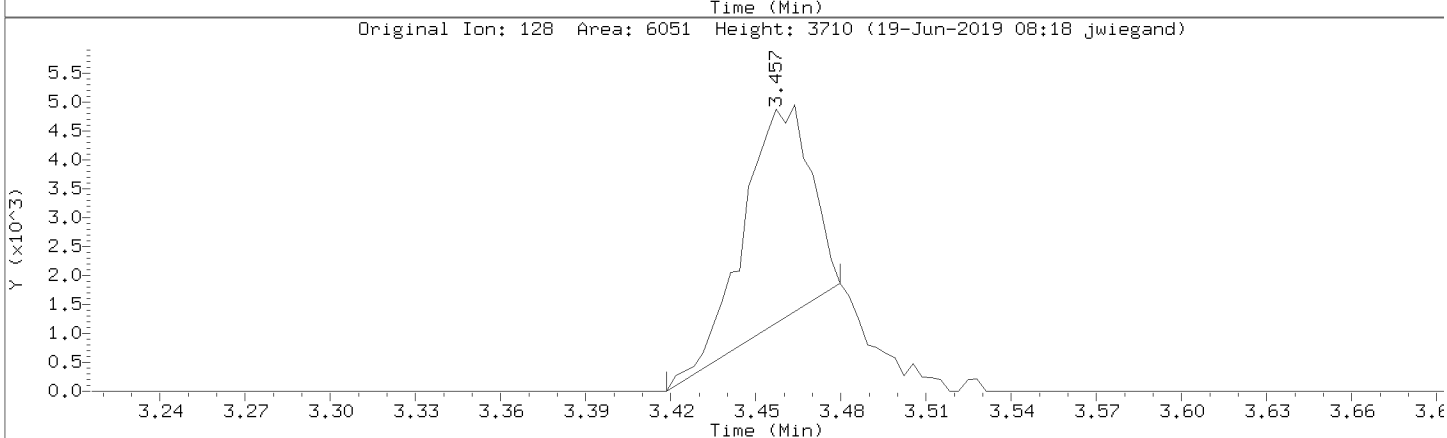

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Date : 18-JUN-2019 13:33
Client ID: ICV
Sample Info: ICV, 9119311
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene
Ethanol
-Acrolein+
-Acetone+
-n-Hexane+
-Diisopropyl ether+
-1,1-Dichloroethane+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane+
-Carbon tetrachloride+
-1,1-Dichloropropene+
-Benzene+
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
n-Propylbenzene+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

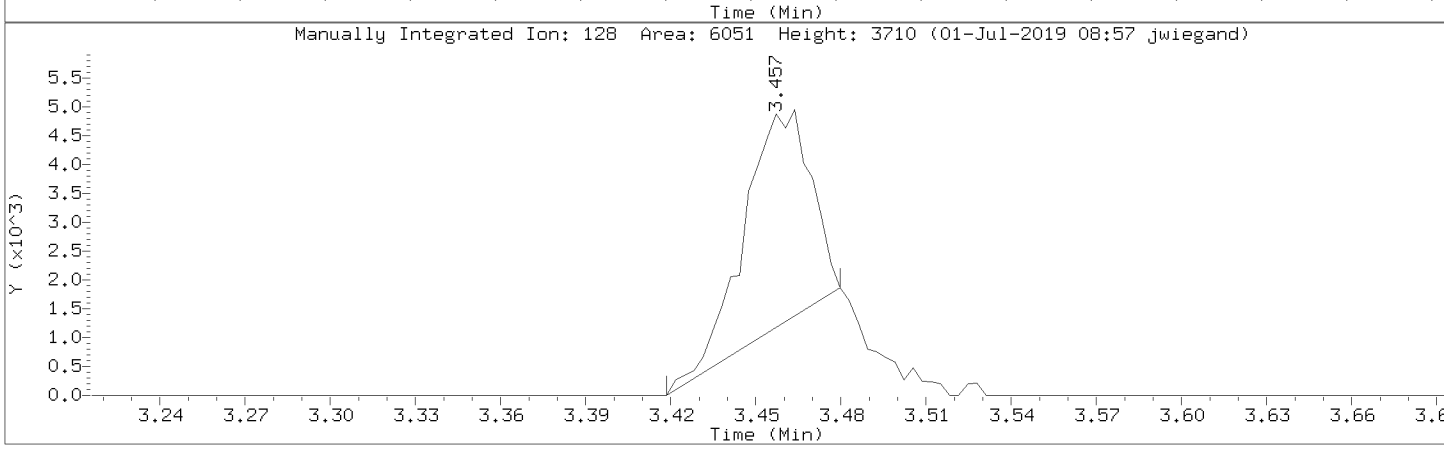
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618023.d
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5

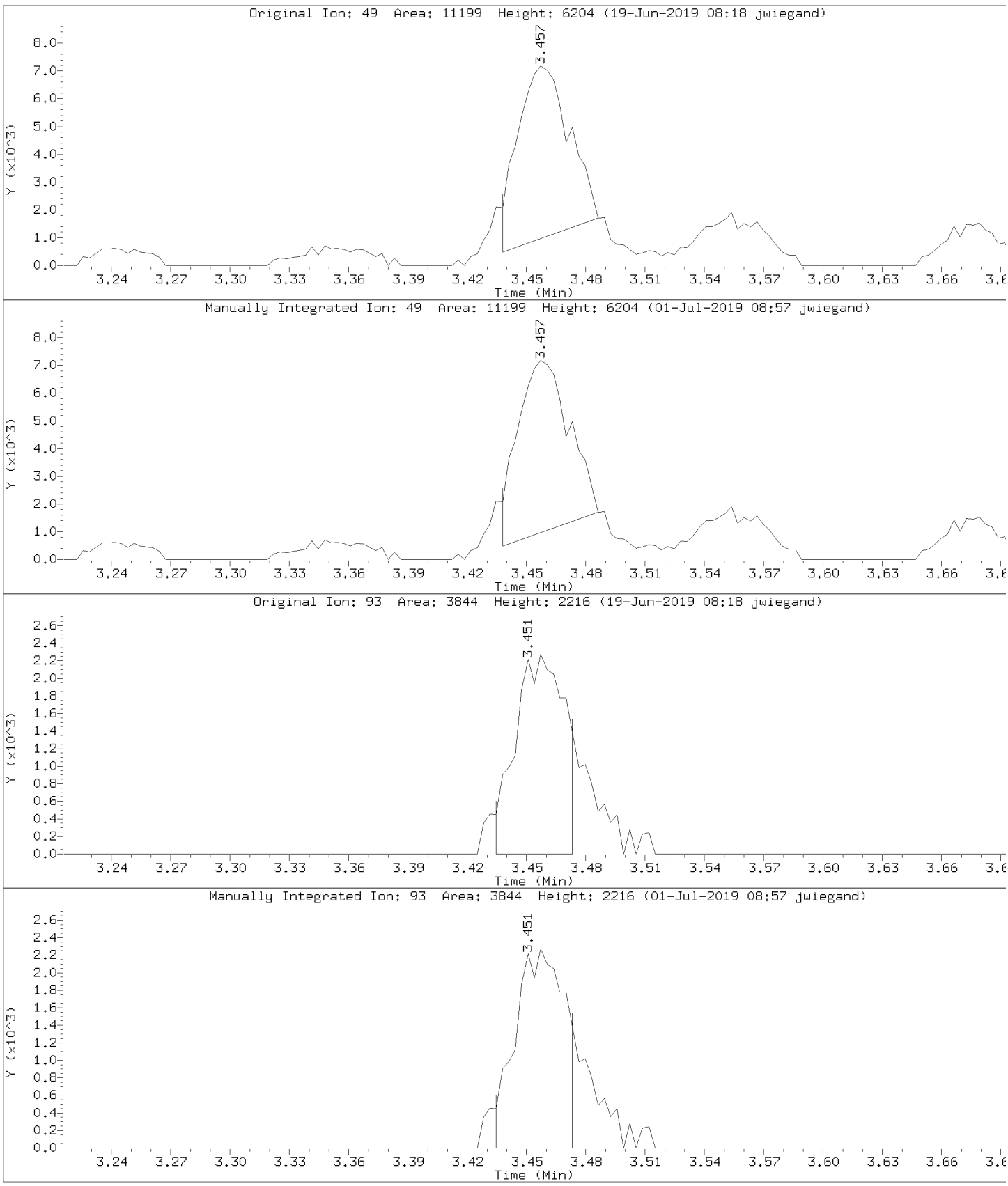








Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618023.d
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV



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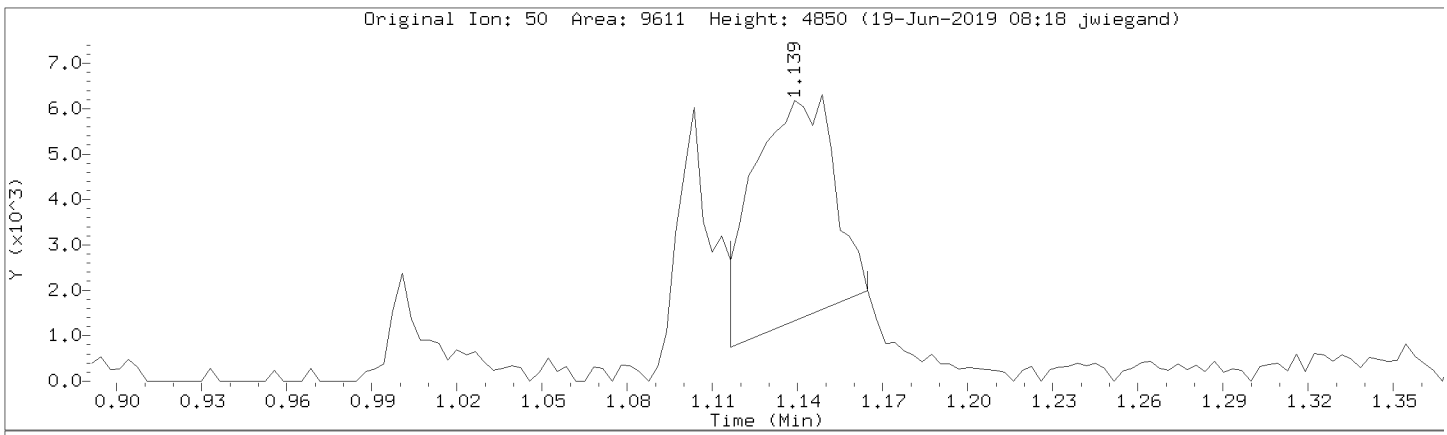
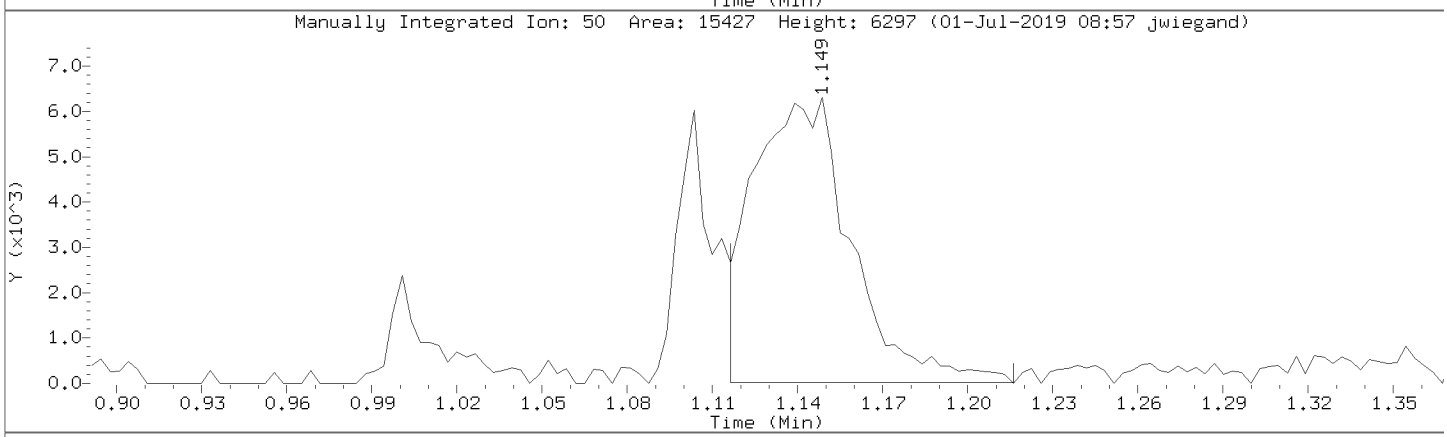
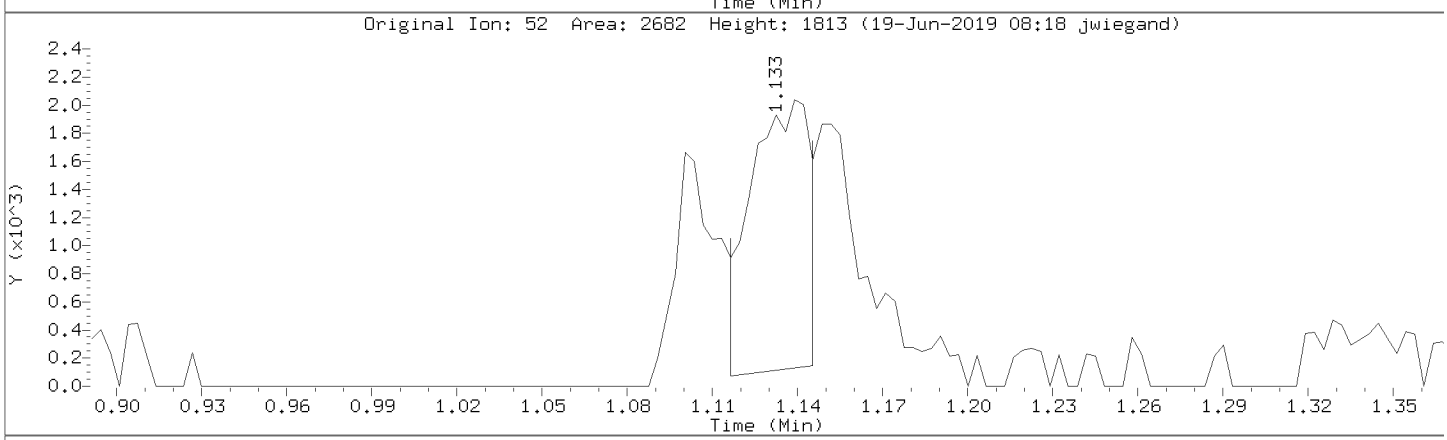
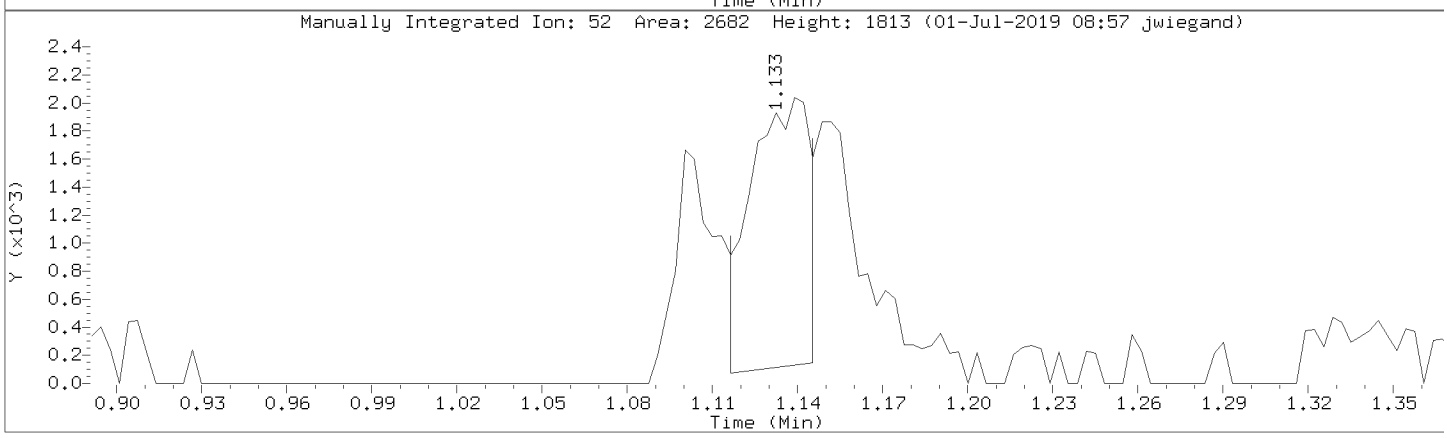
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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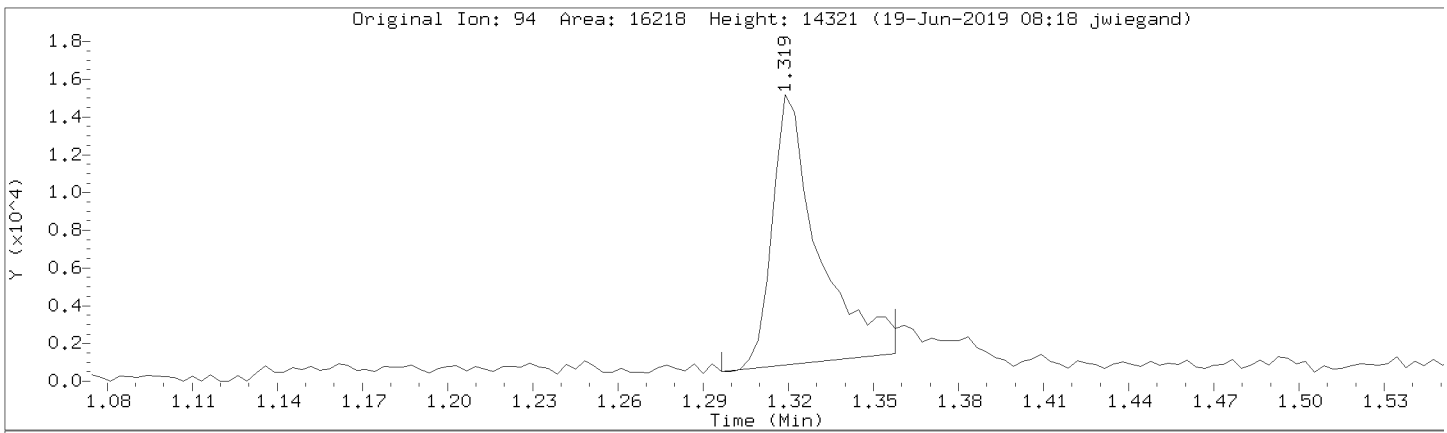
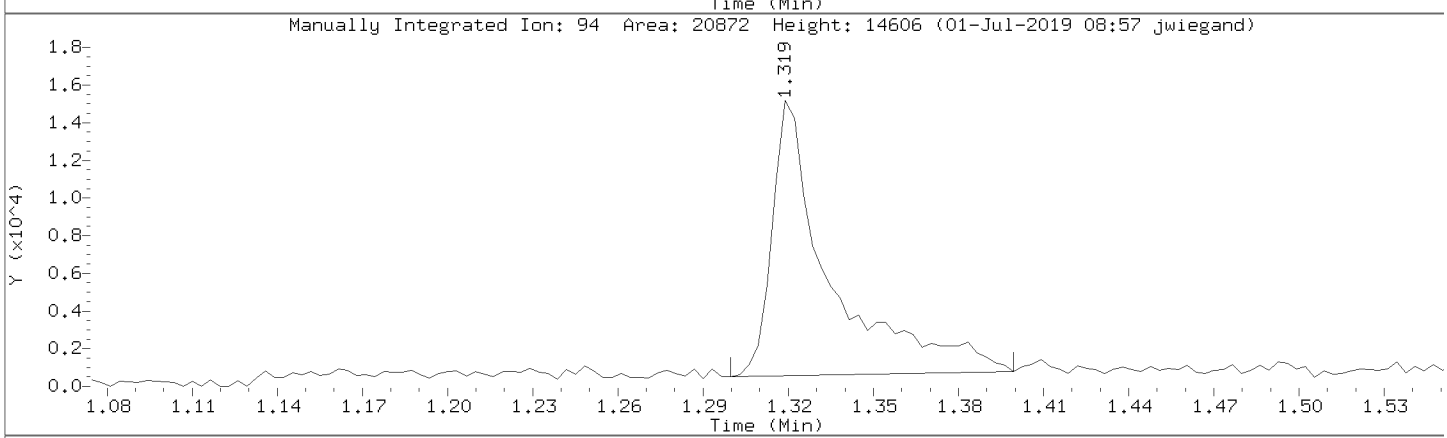
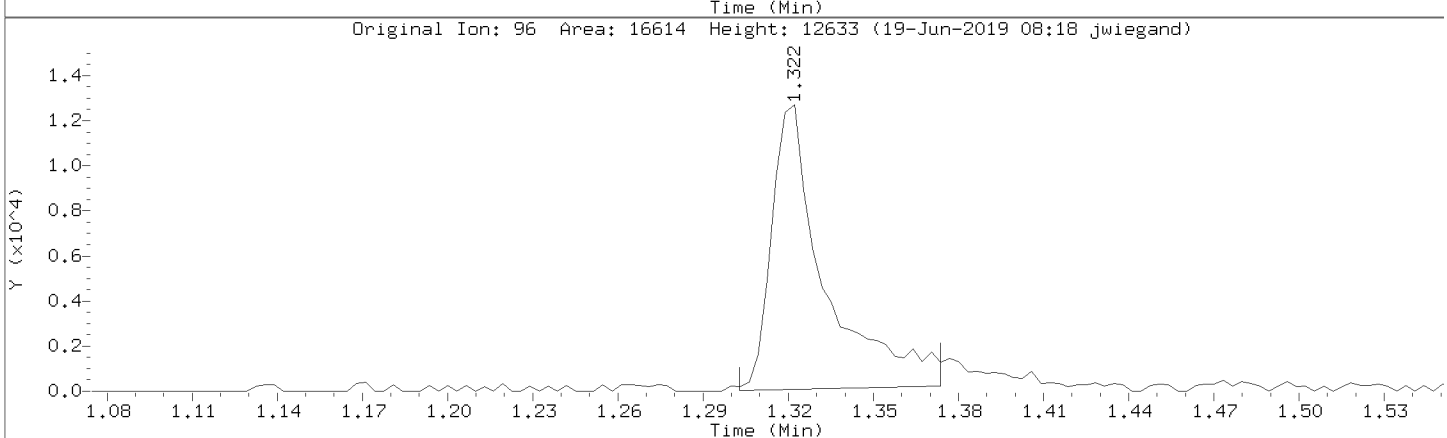
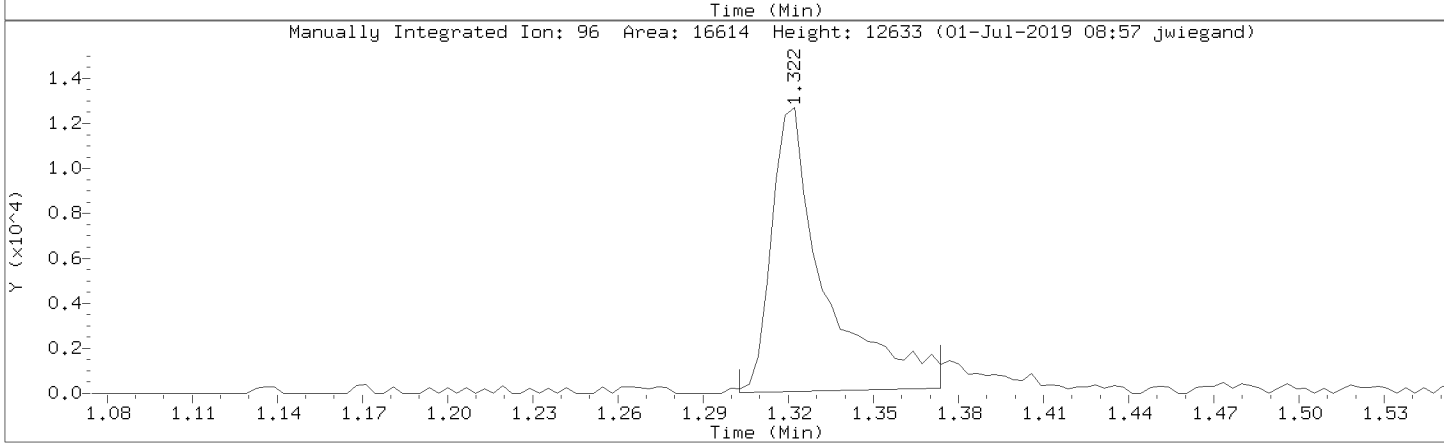
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9









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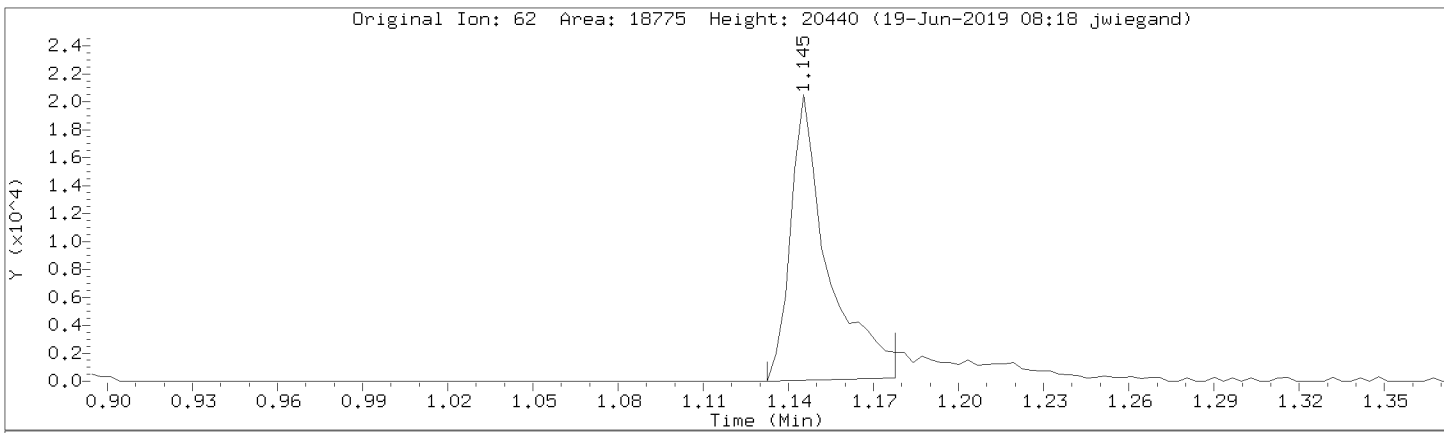
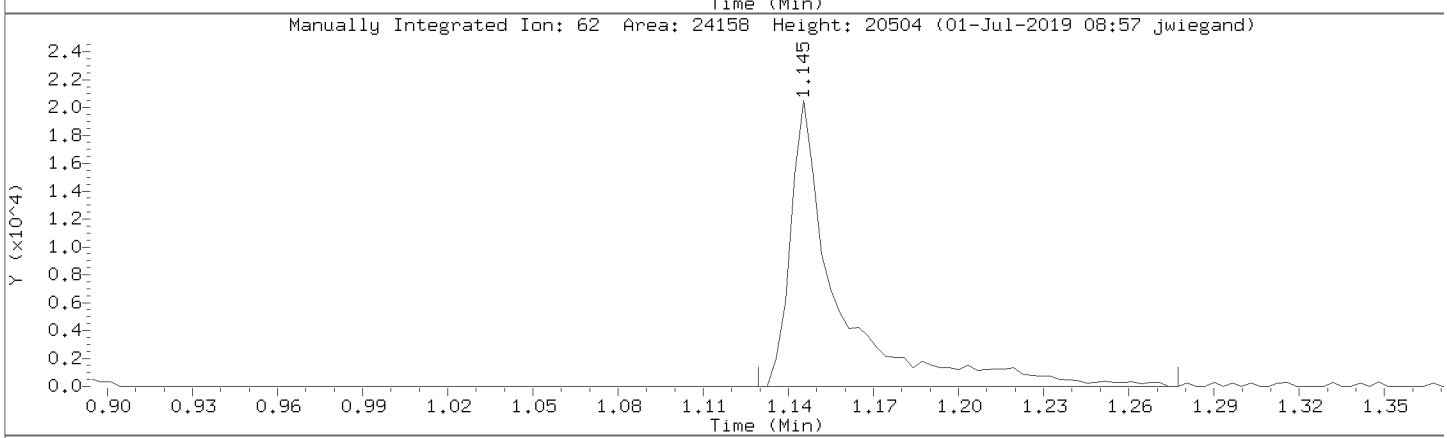
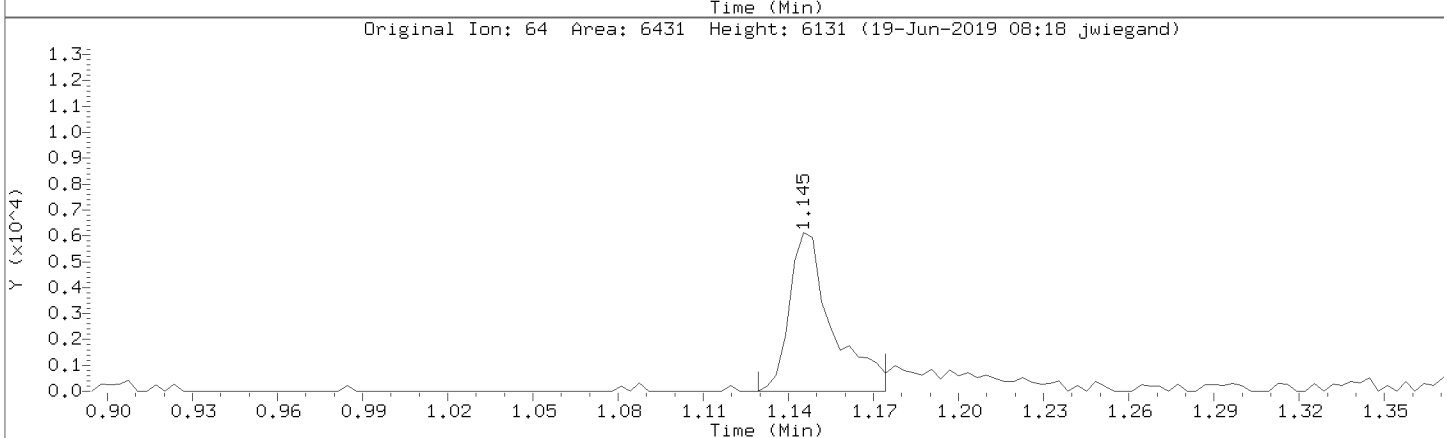
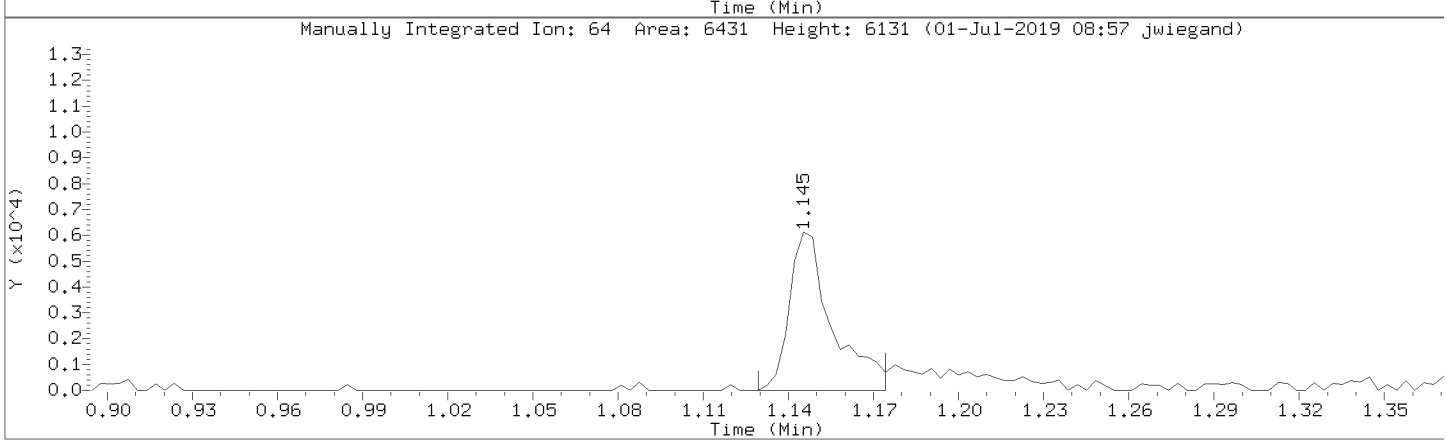
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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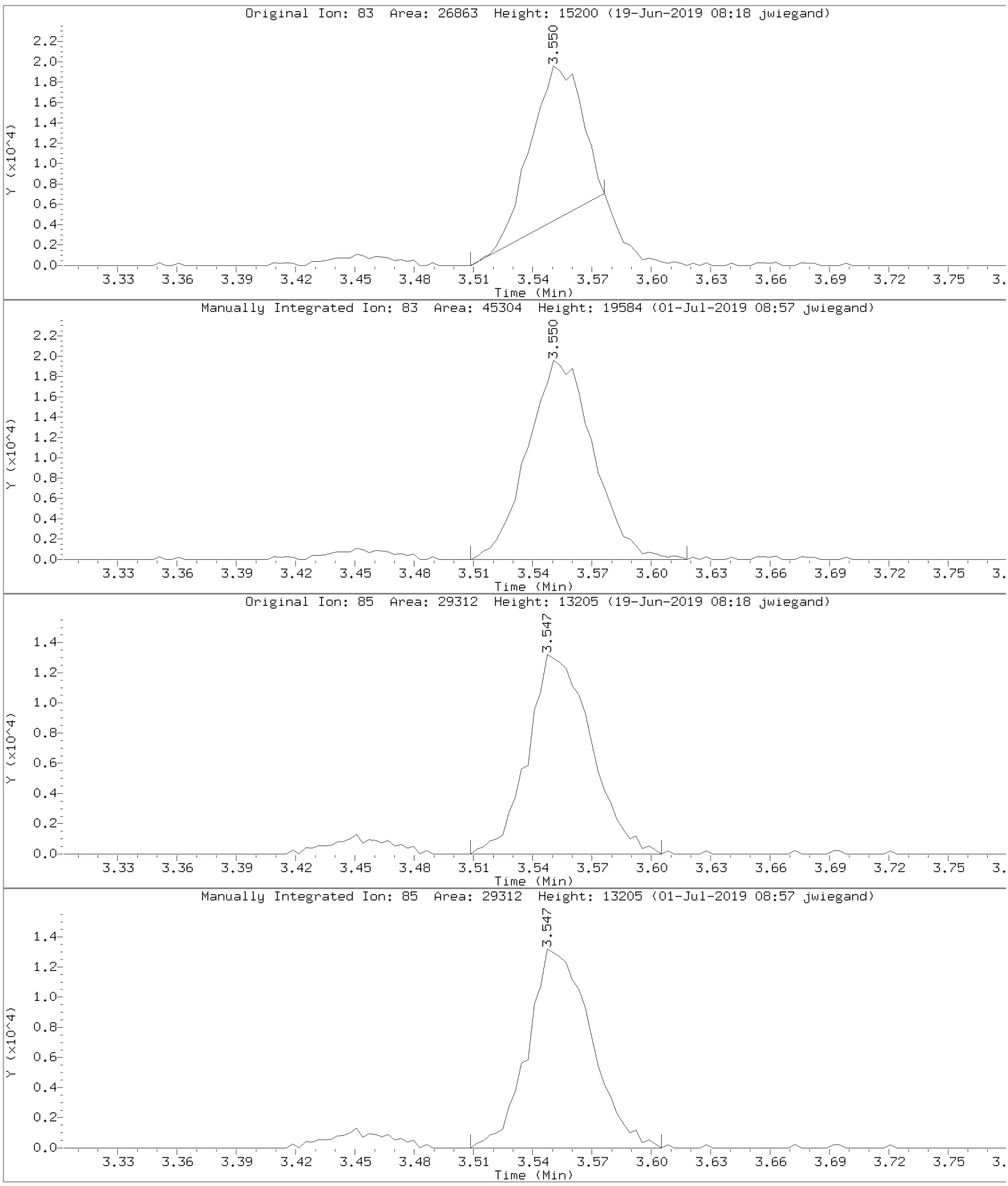
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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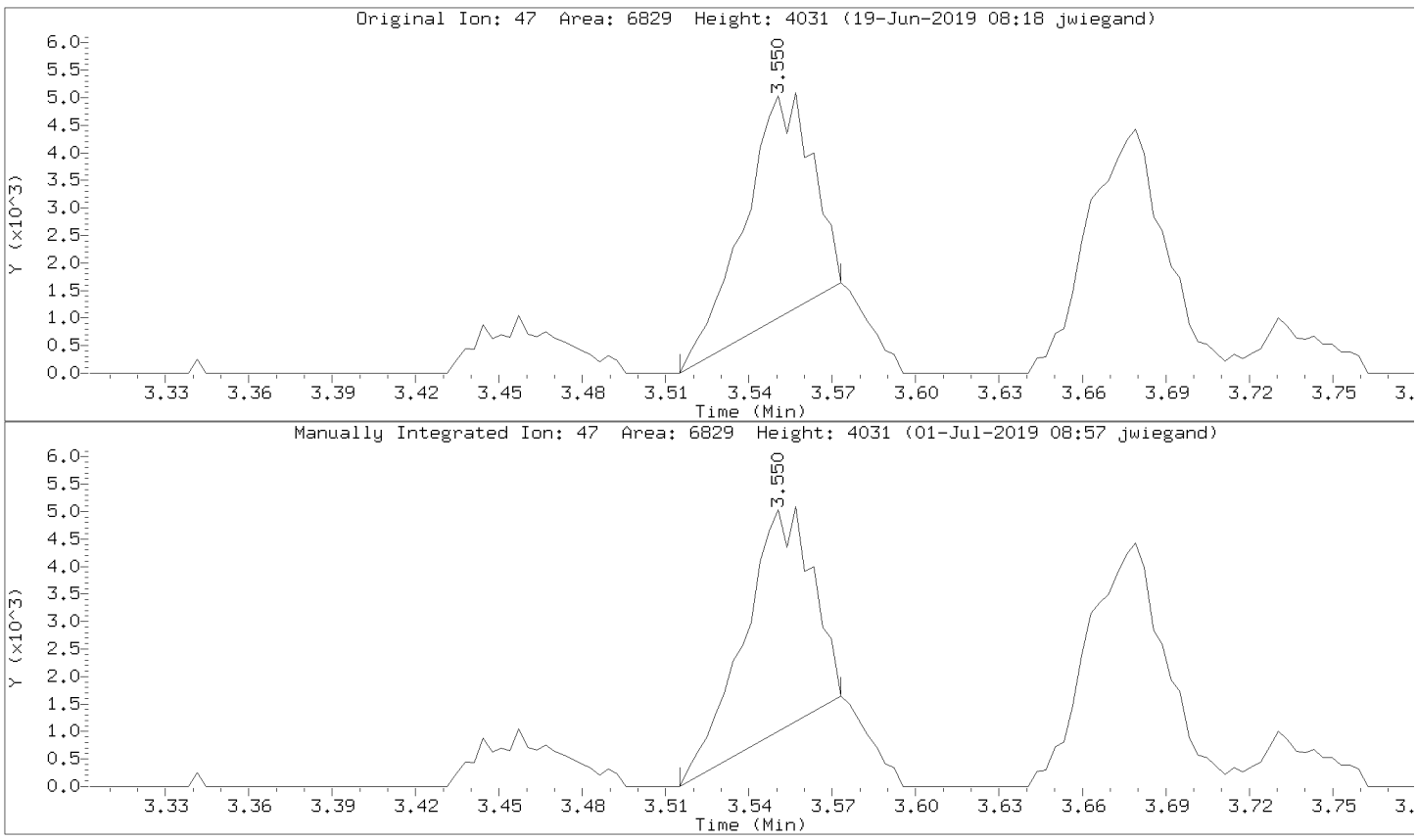
Instrument: 30mv5a.i
Lab Sample ID: ICV



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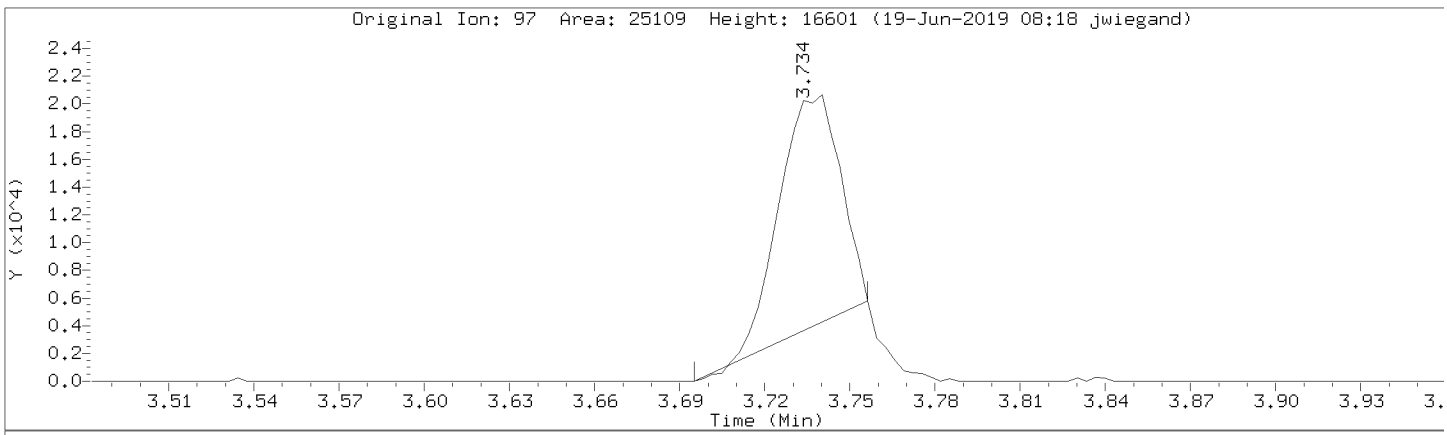
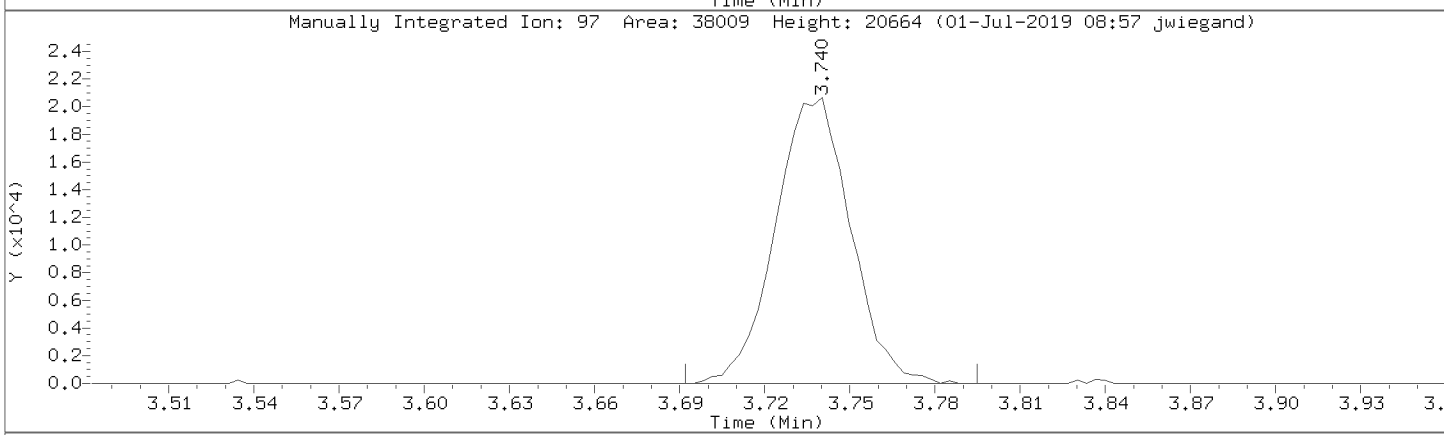
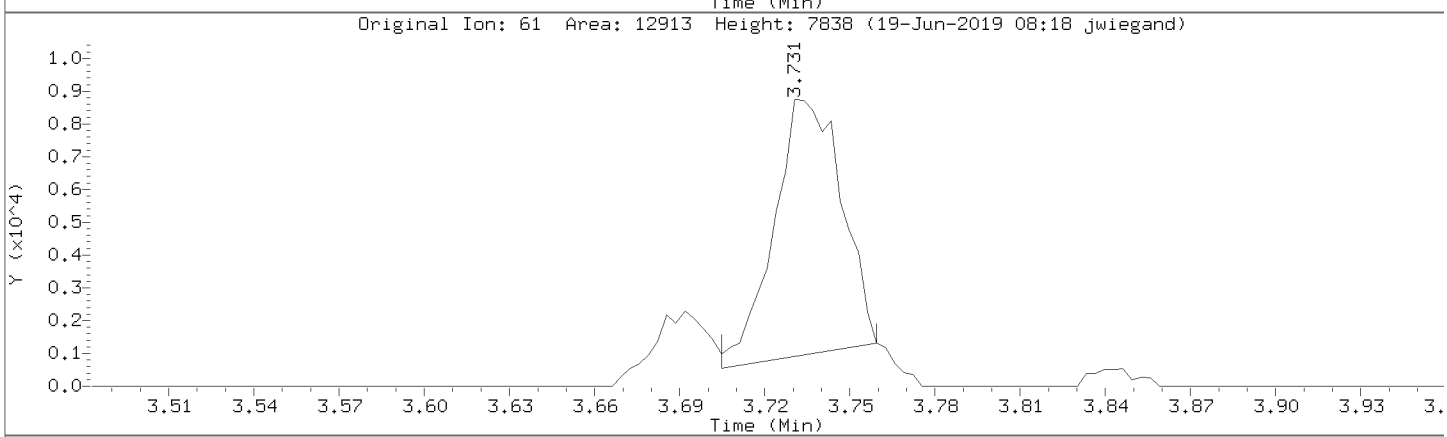
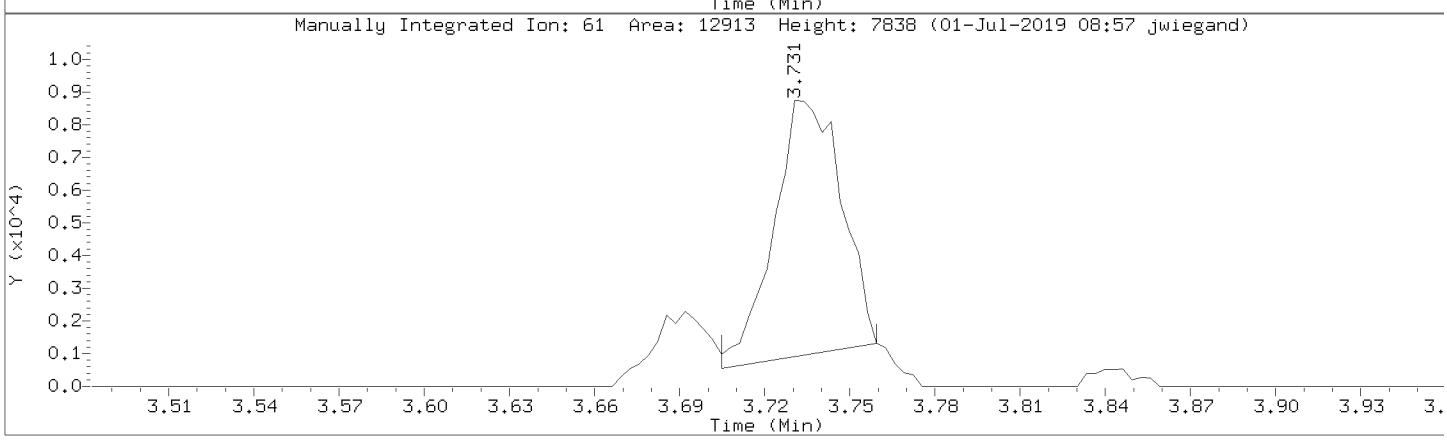
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 1,1,1-Trichloroethane Review Code: LT
CAS Number: 71-55-6









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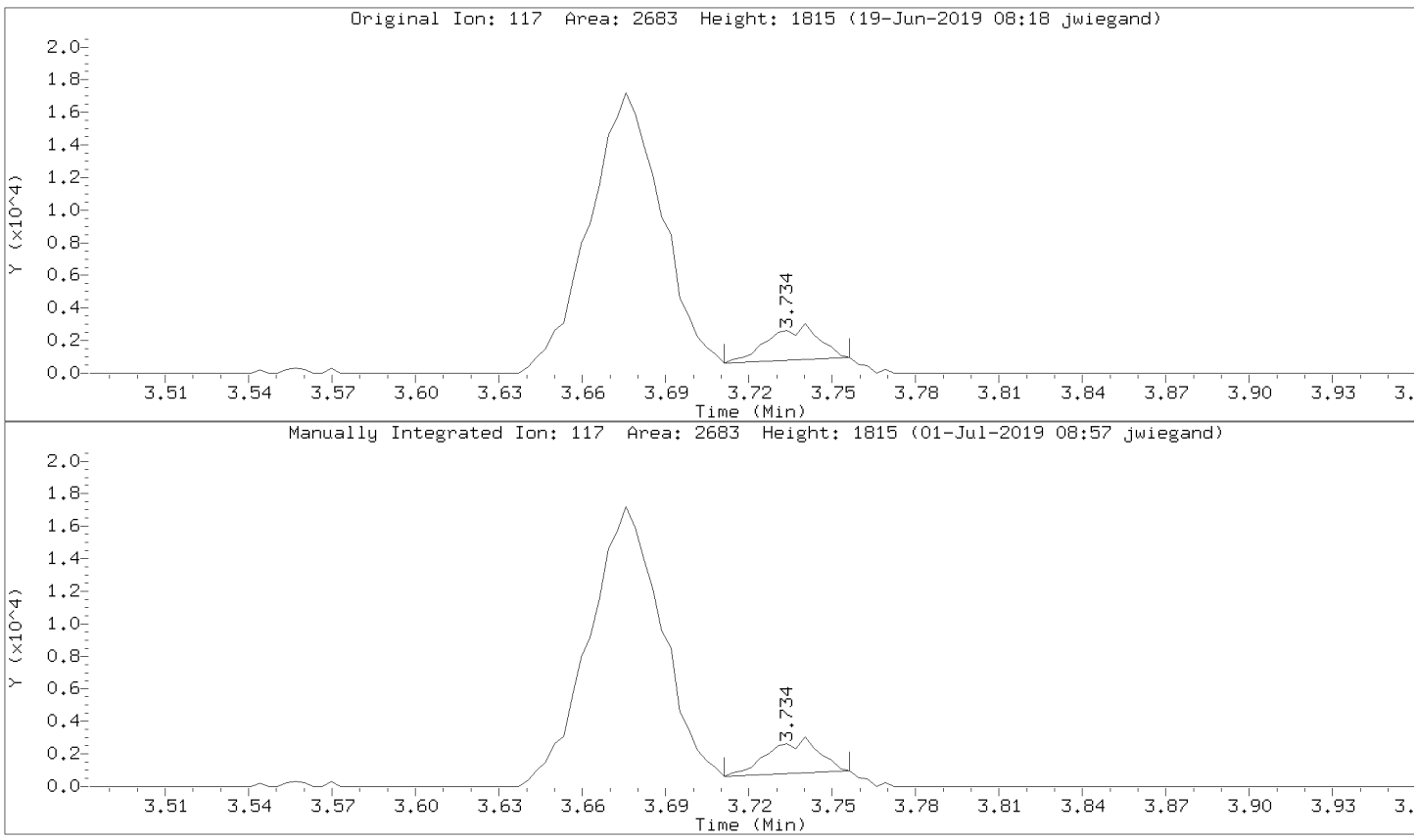
Instrument: 30mv5a.i
Lab Sample ID: ICV



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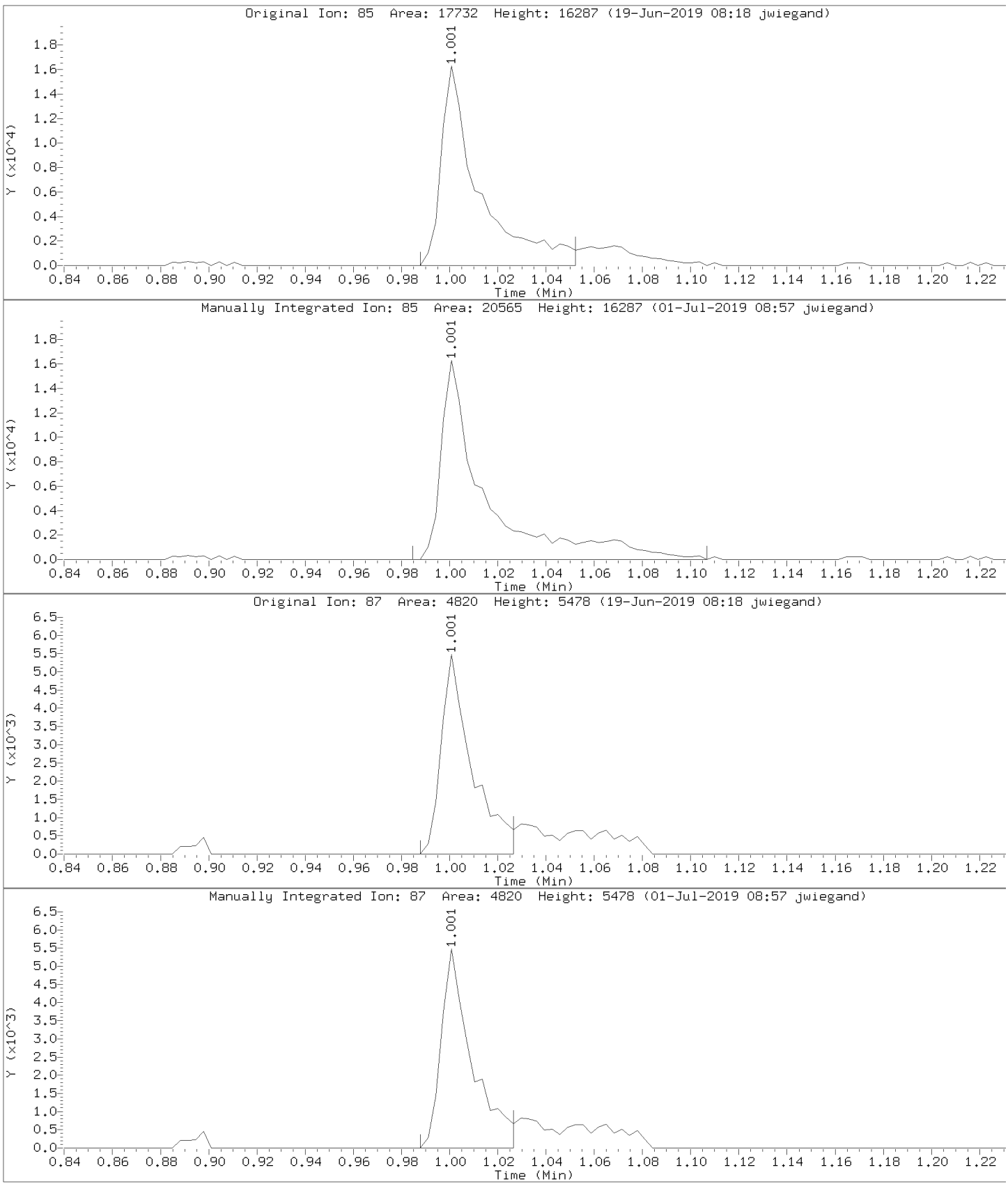
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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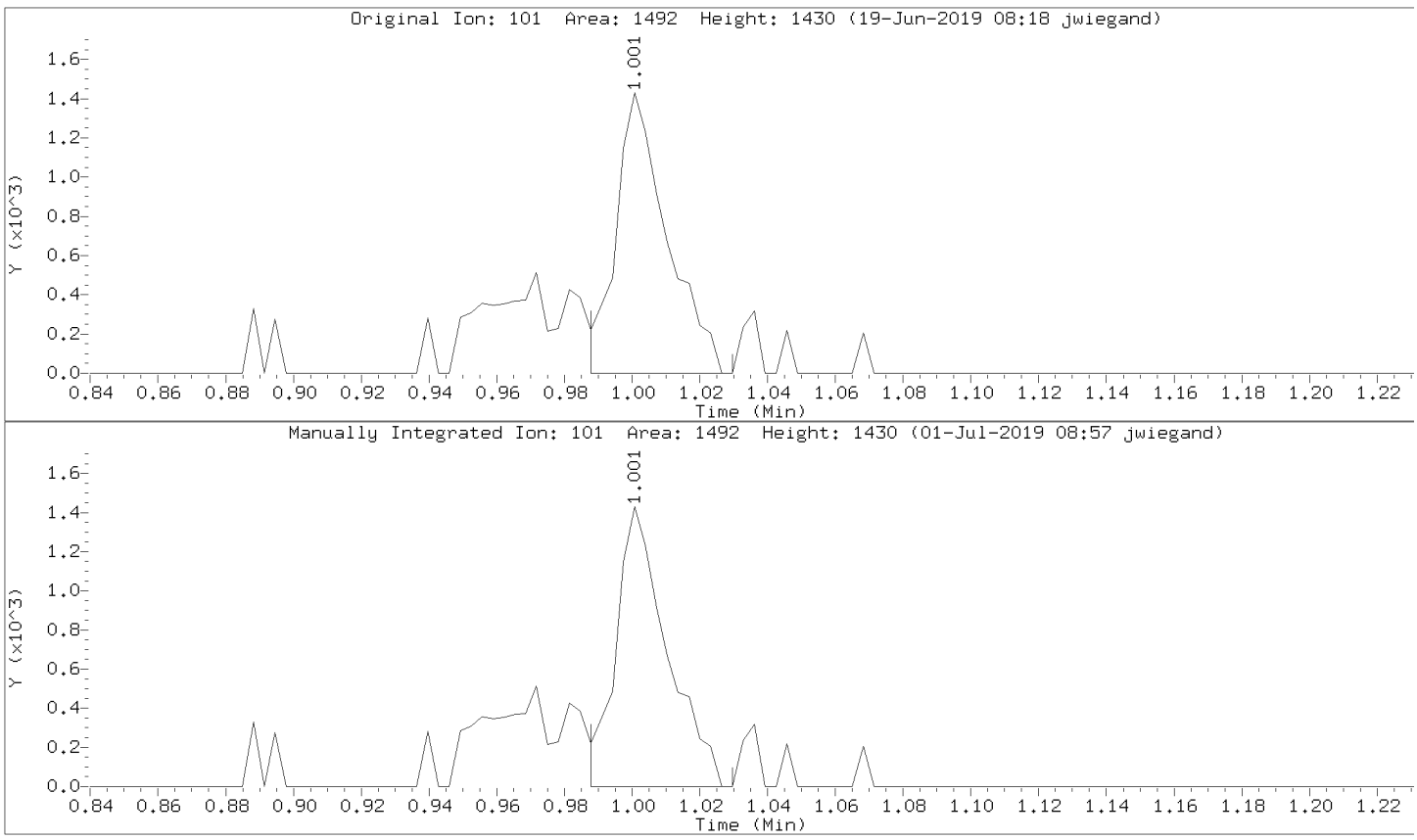
Lab Sample ID: ICV



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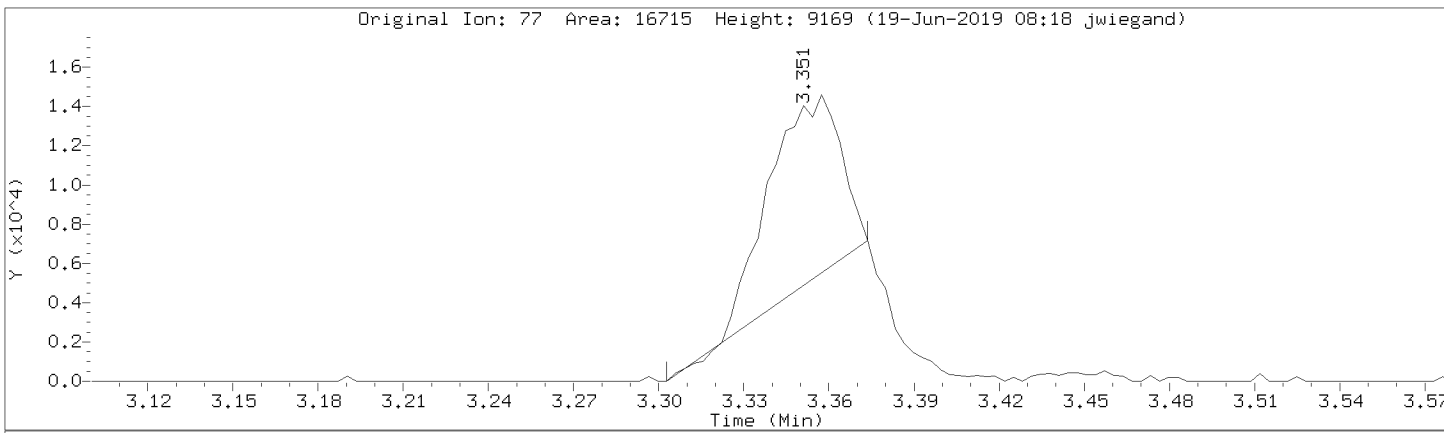
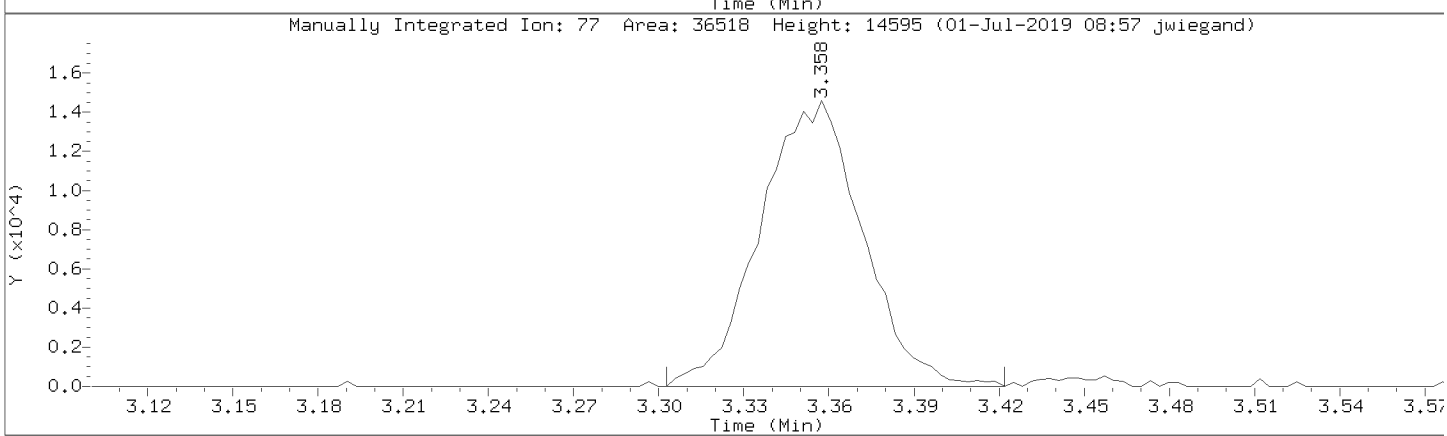
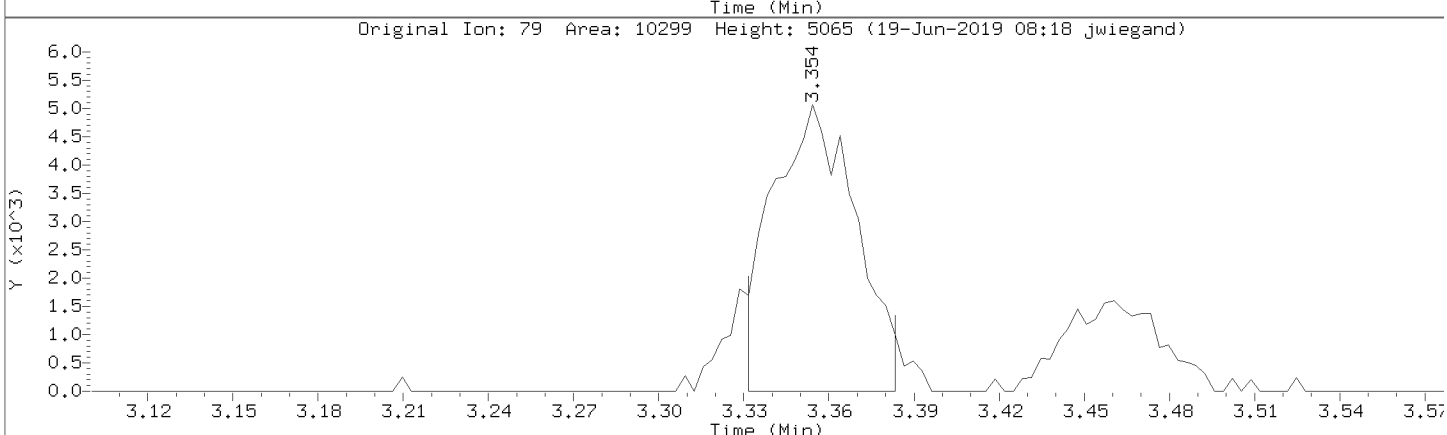
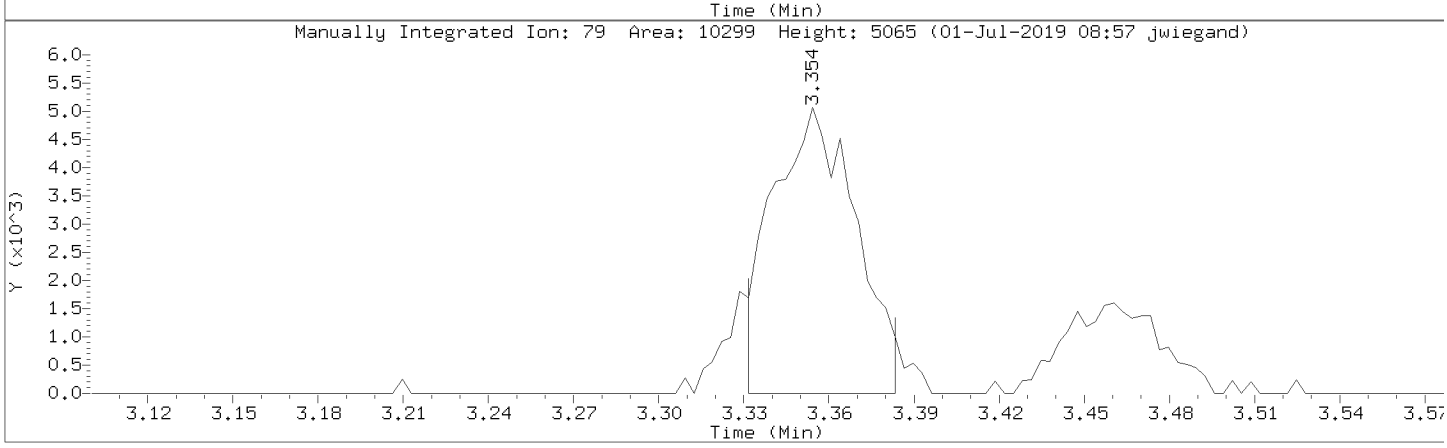
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7









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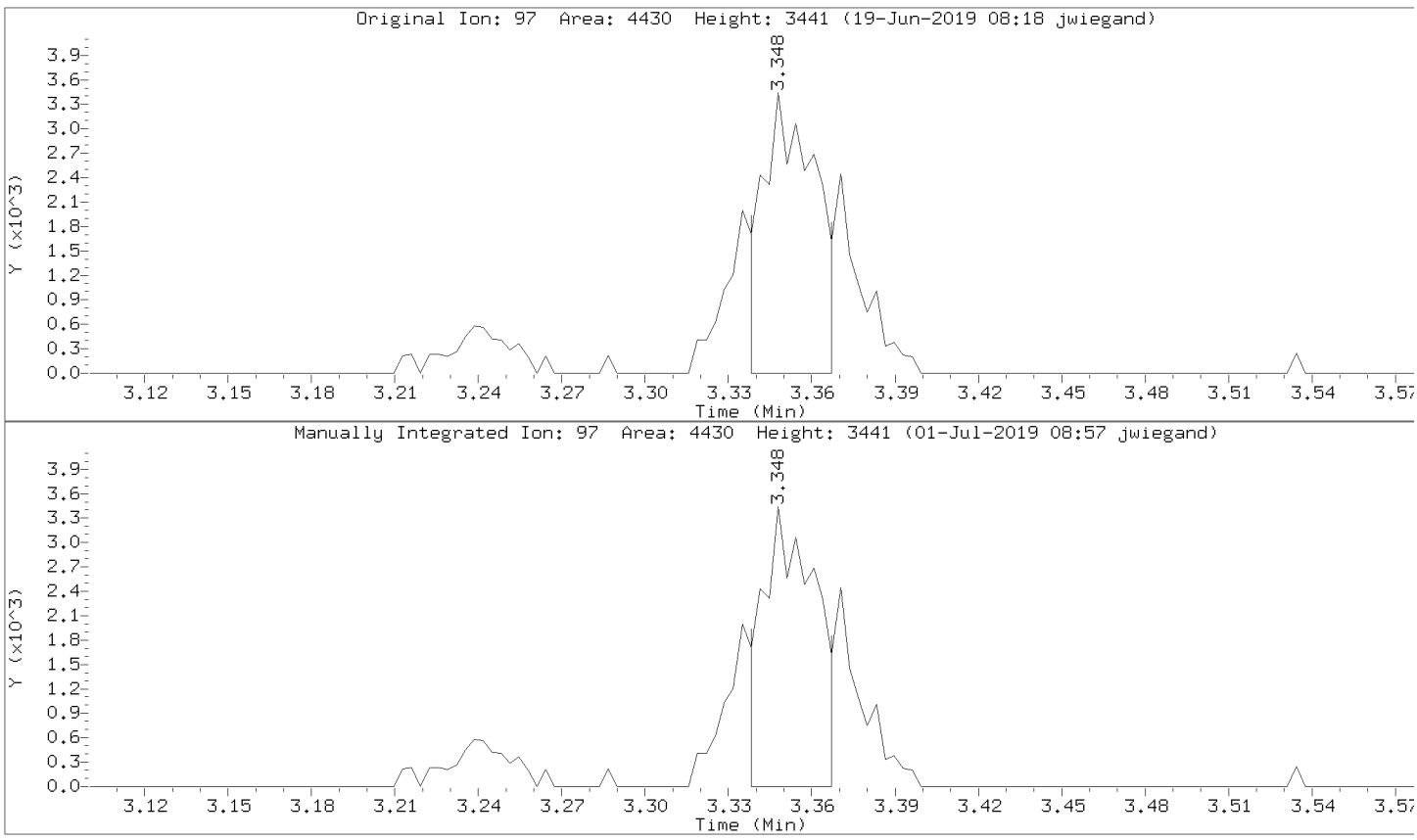
Instrument: 30mv5a.i
Lab Sample ID: ICV



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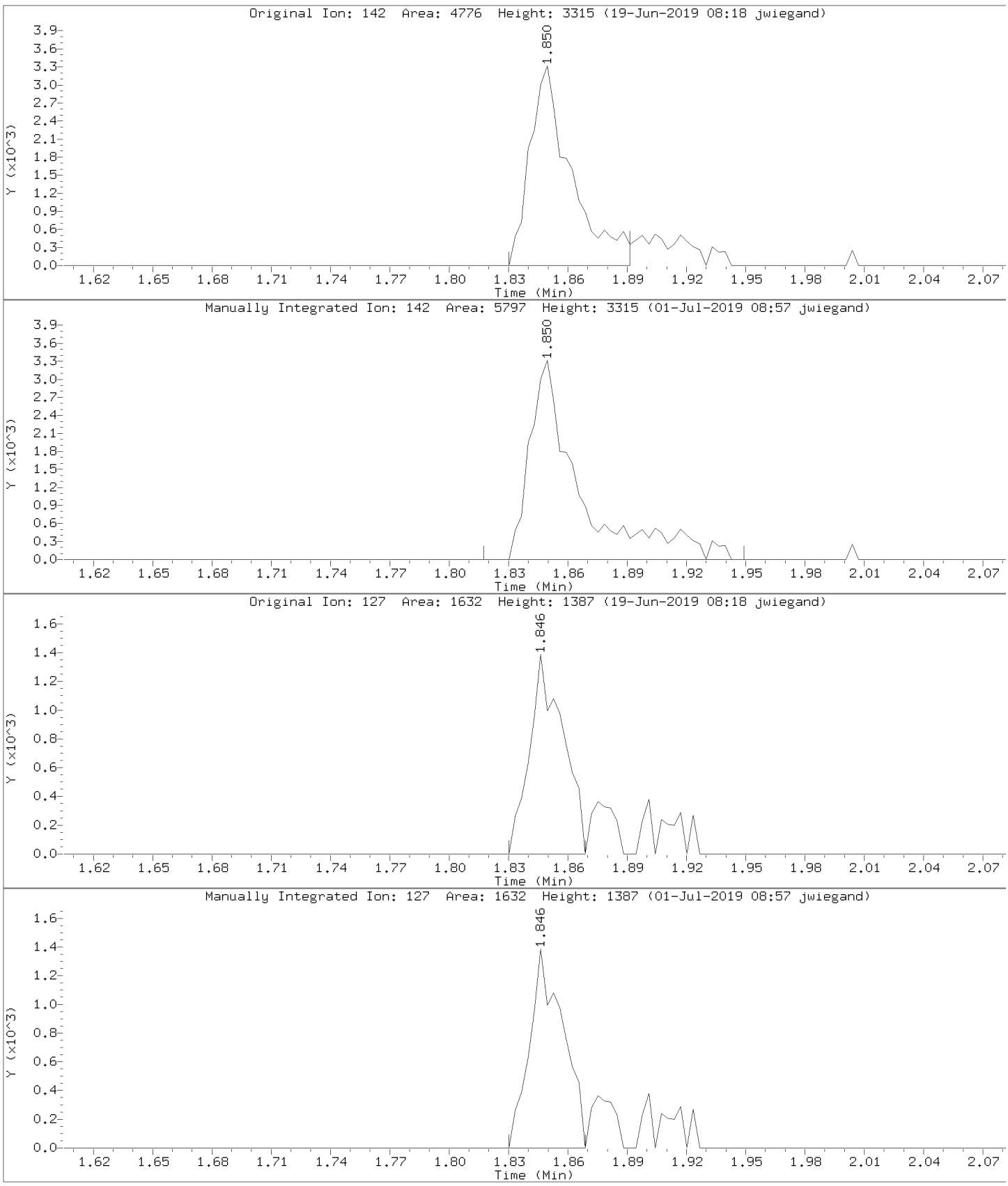
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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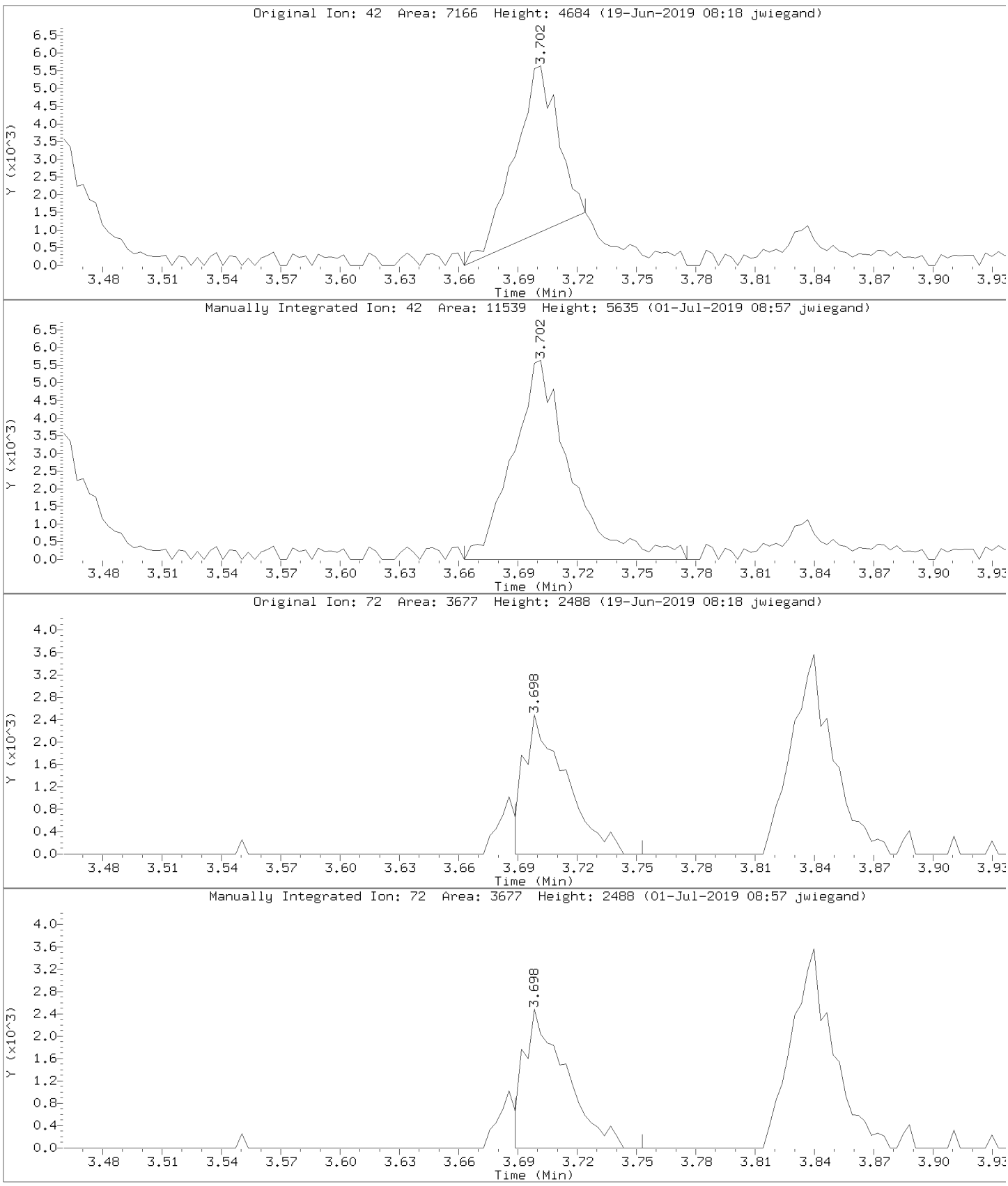
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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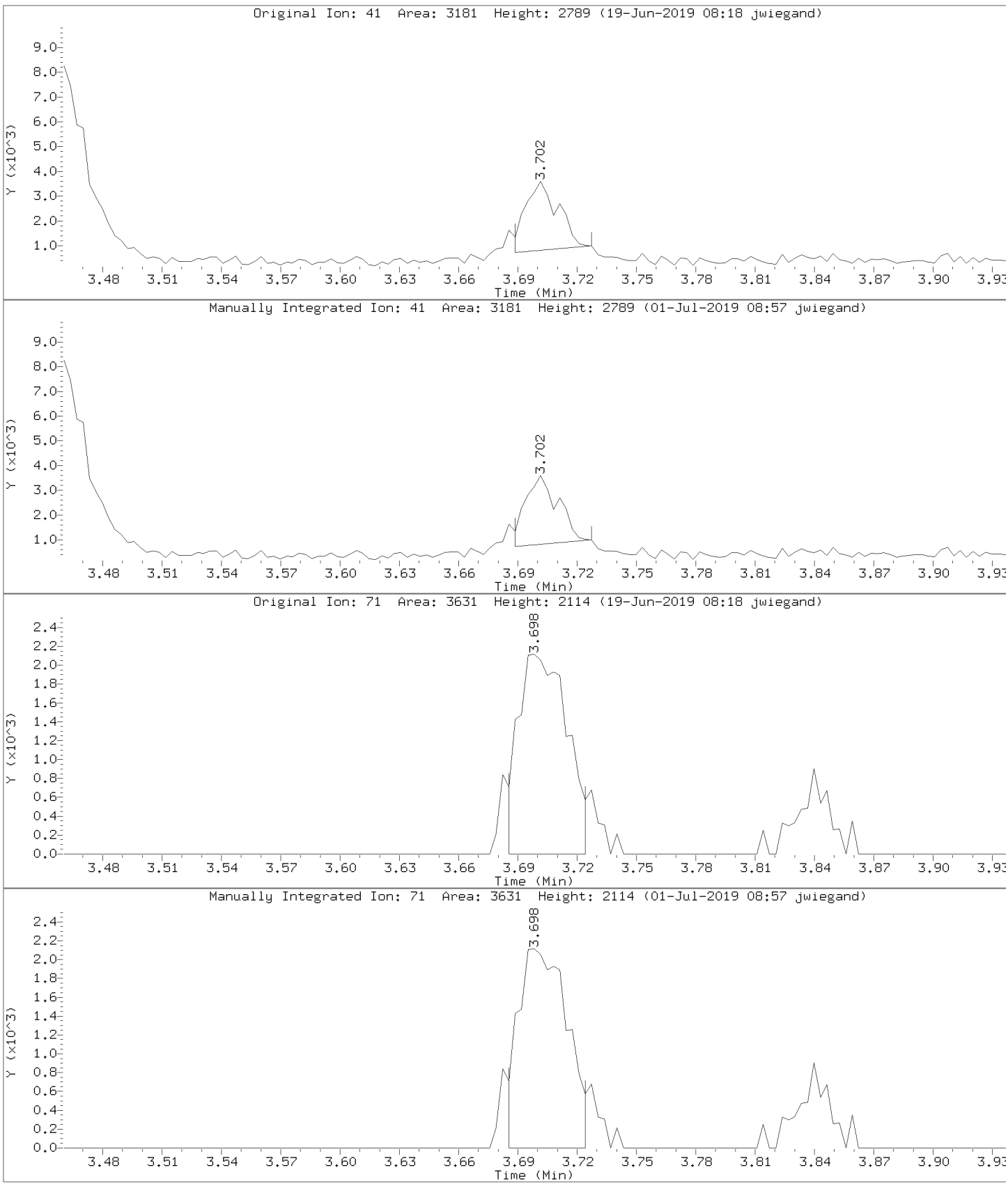
Lab Sample ID: ICV



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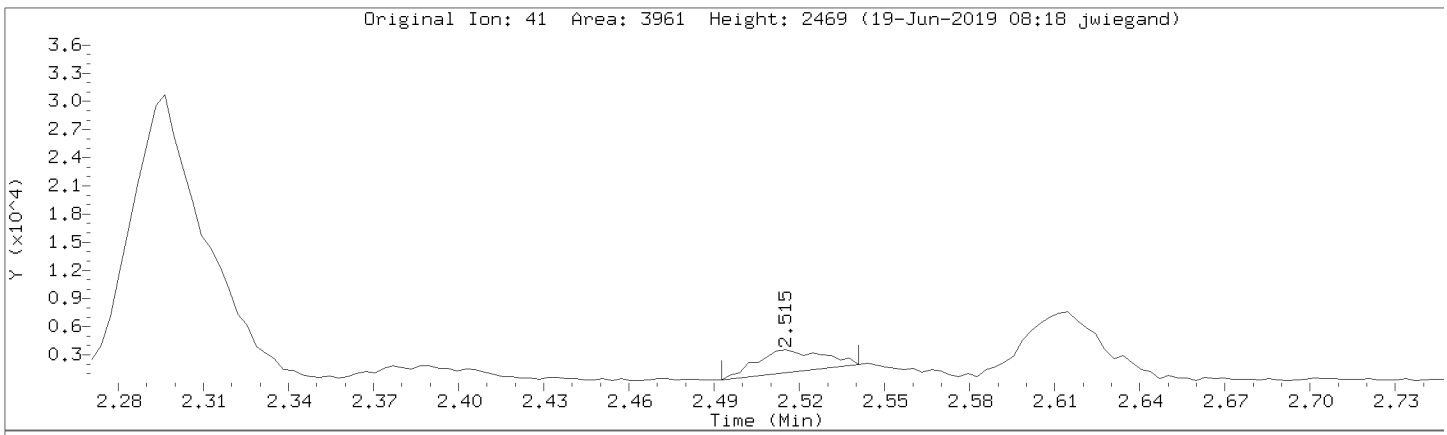
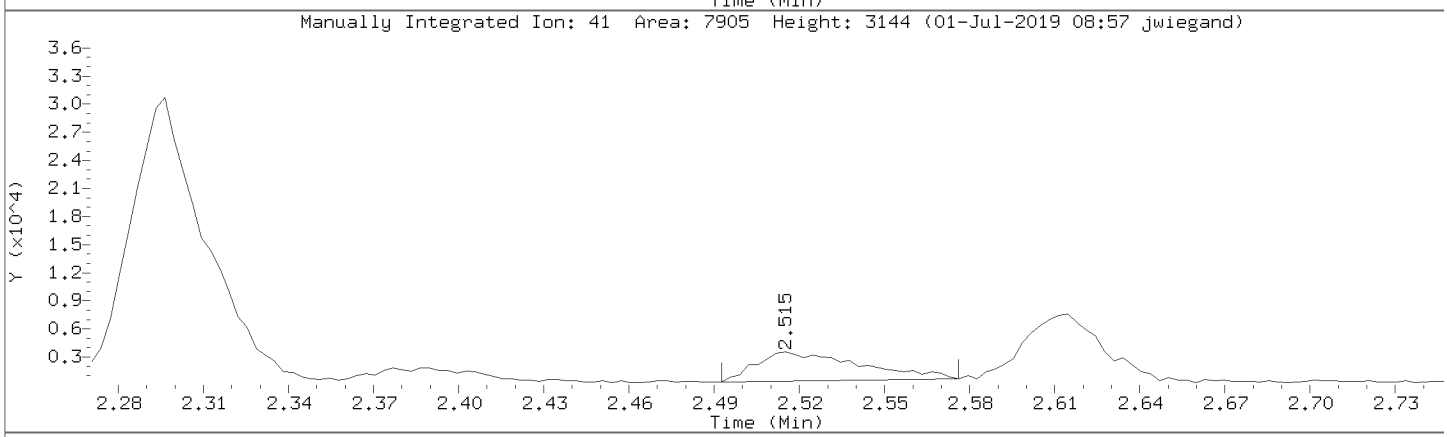
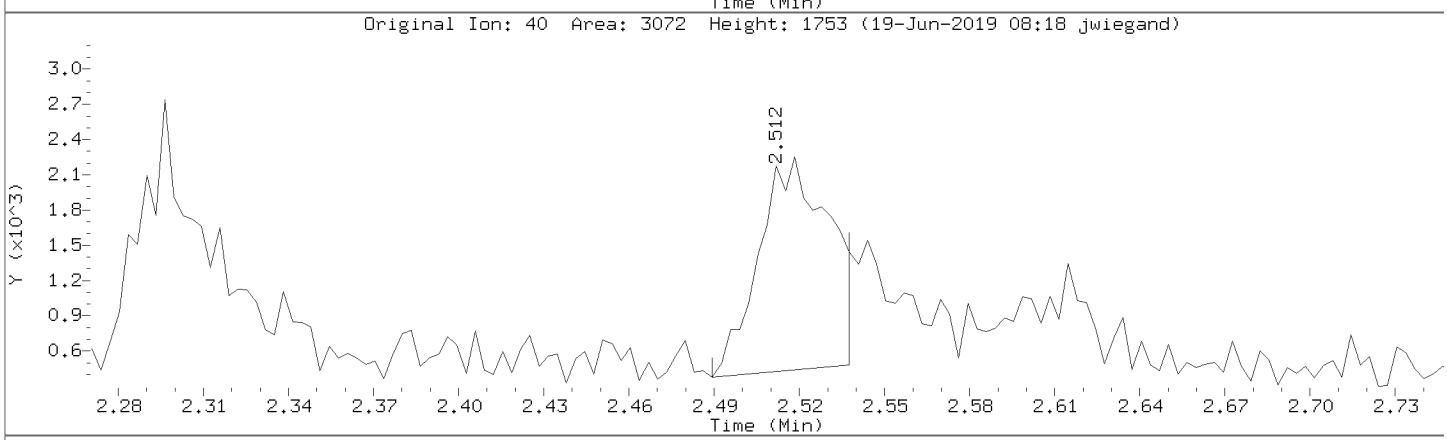
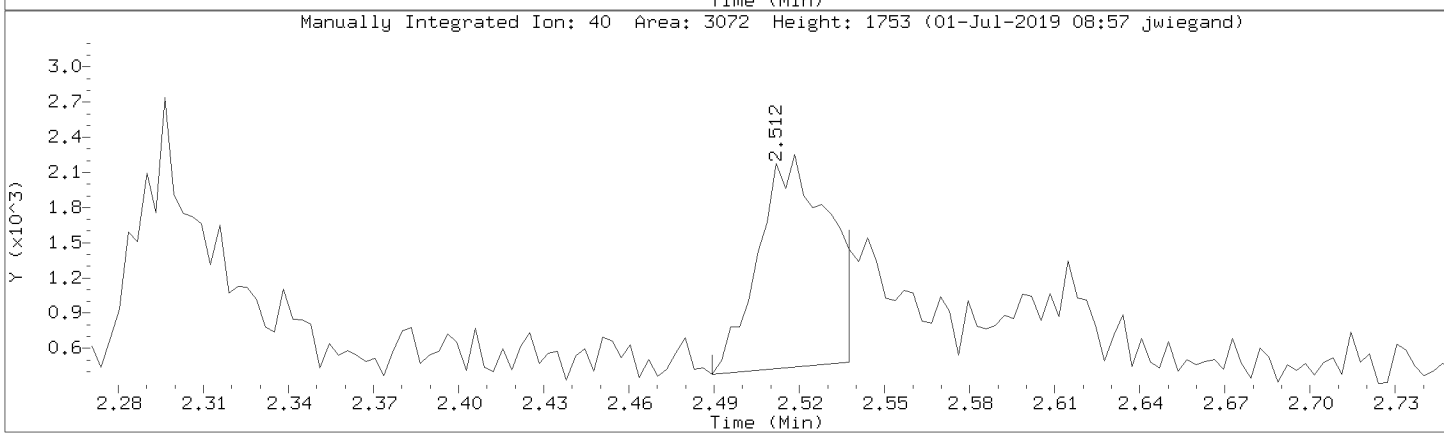
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8









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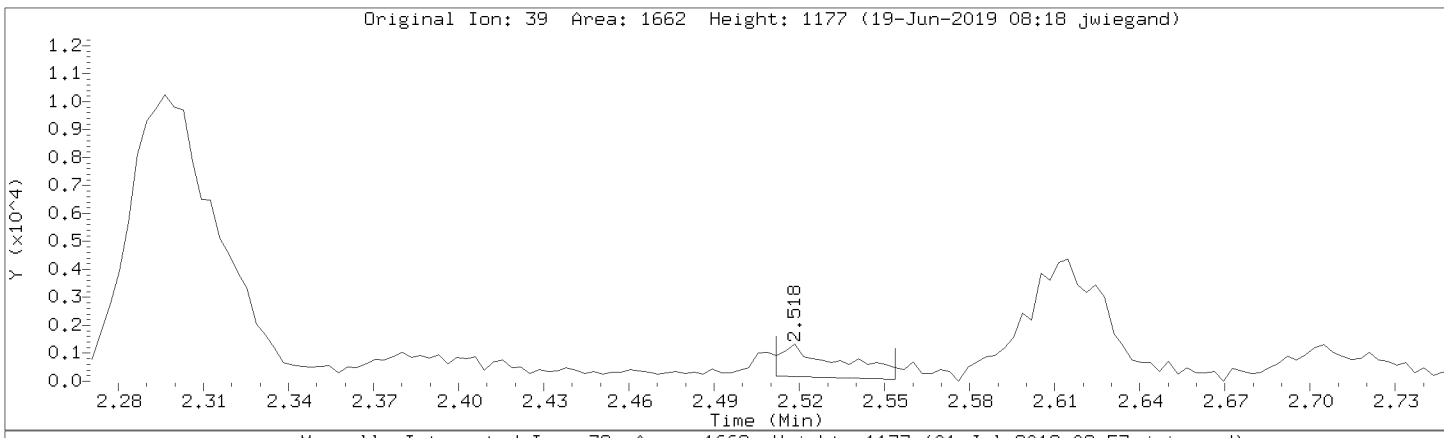
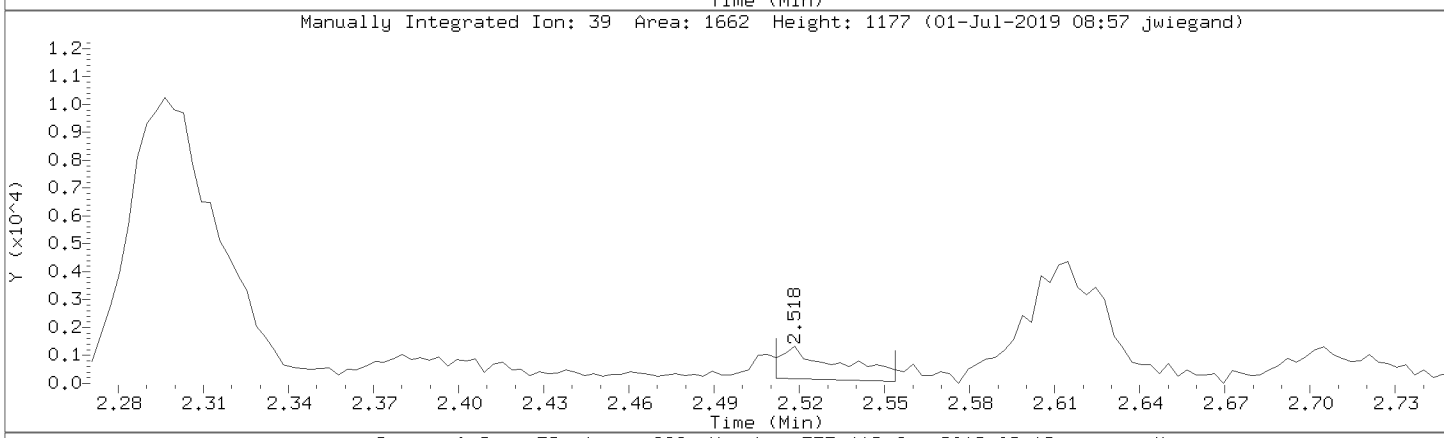
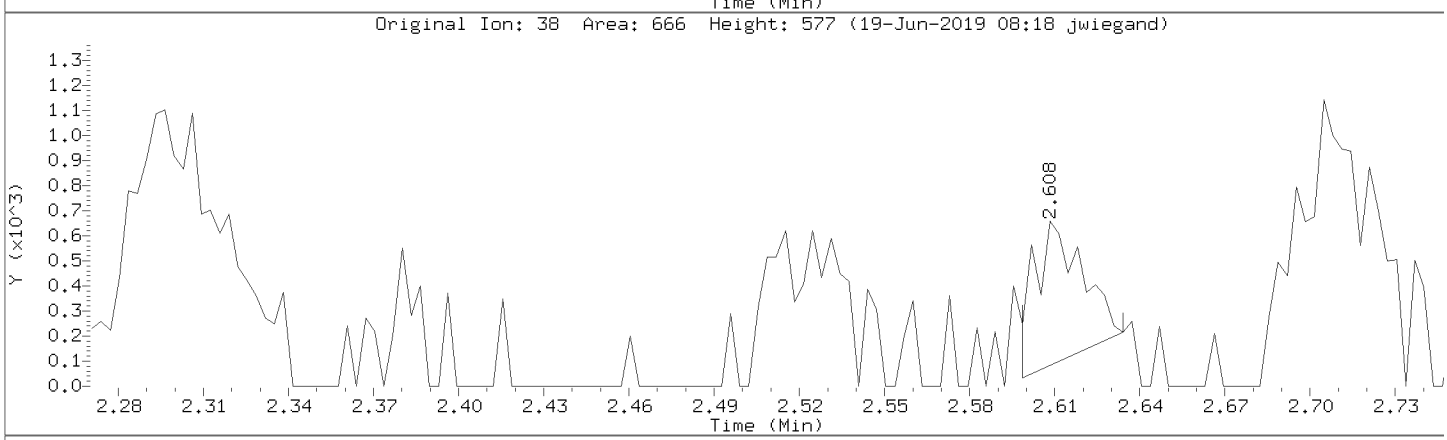
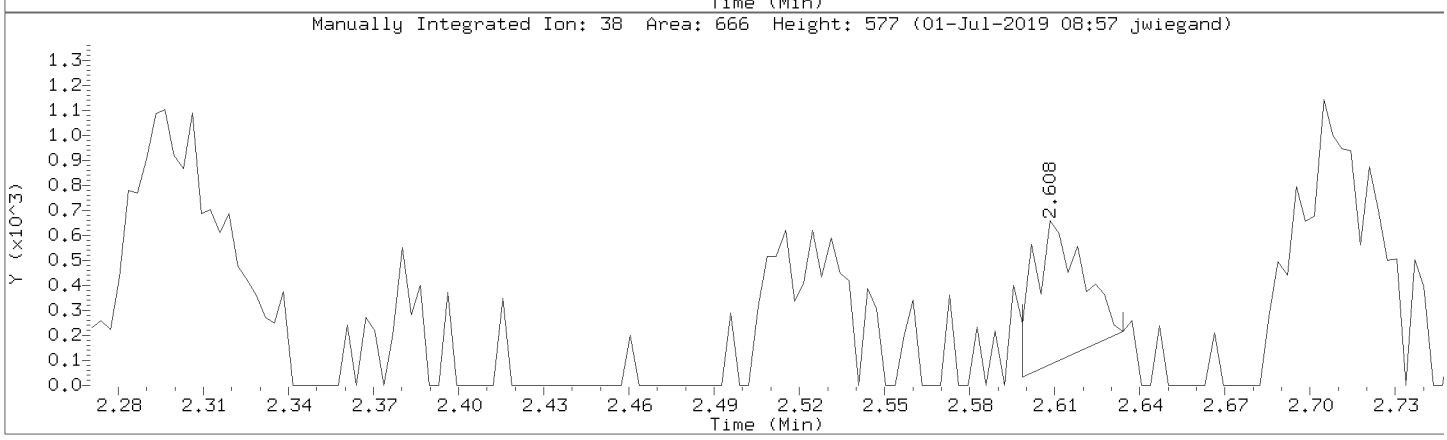
Instrument: 30mv5a.i
Lab Sample ID: ICV









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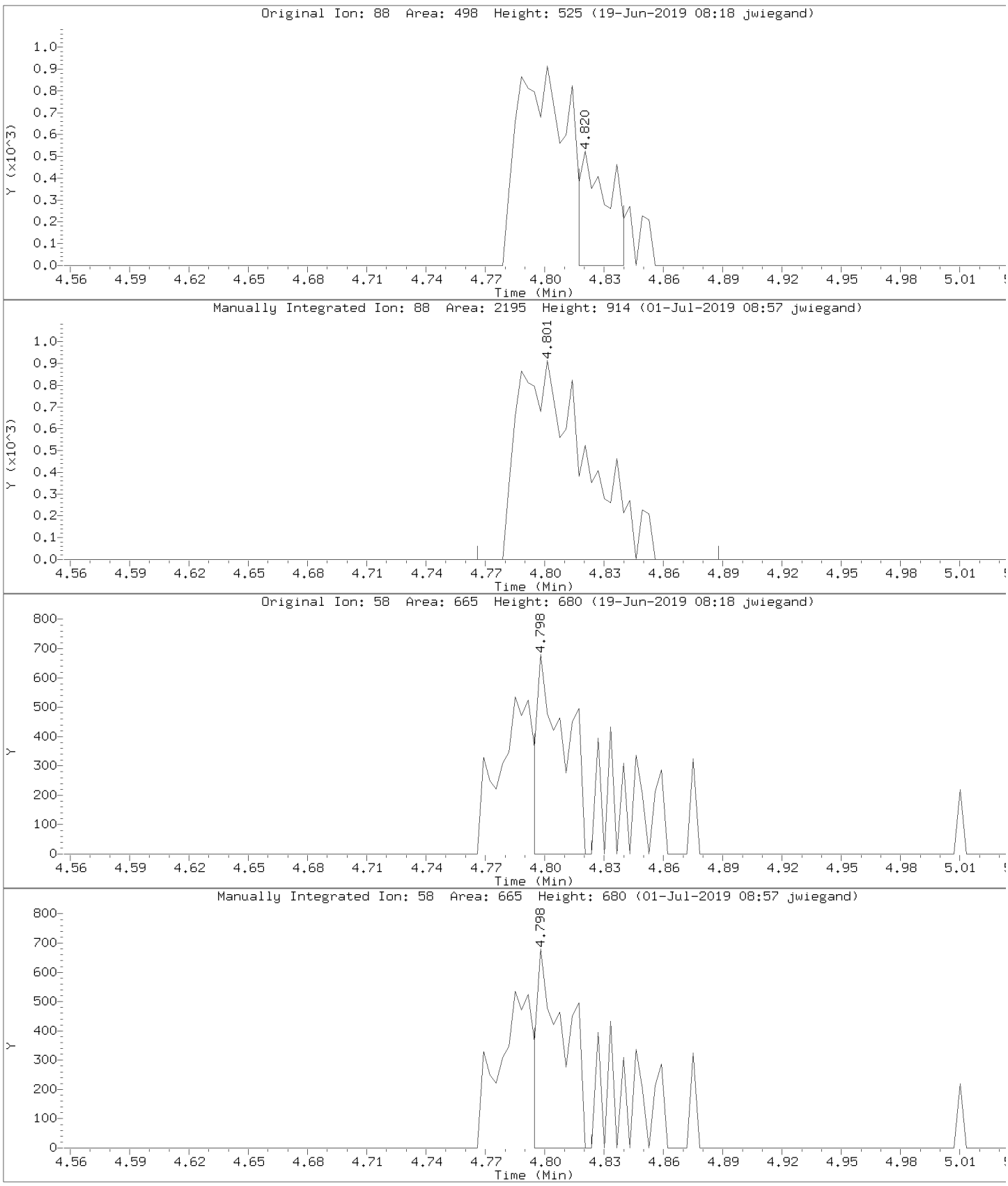
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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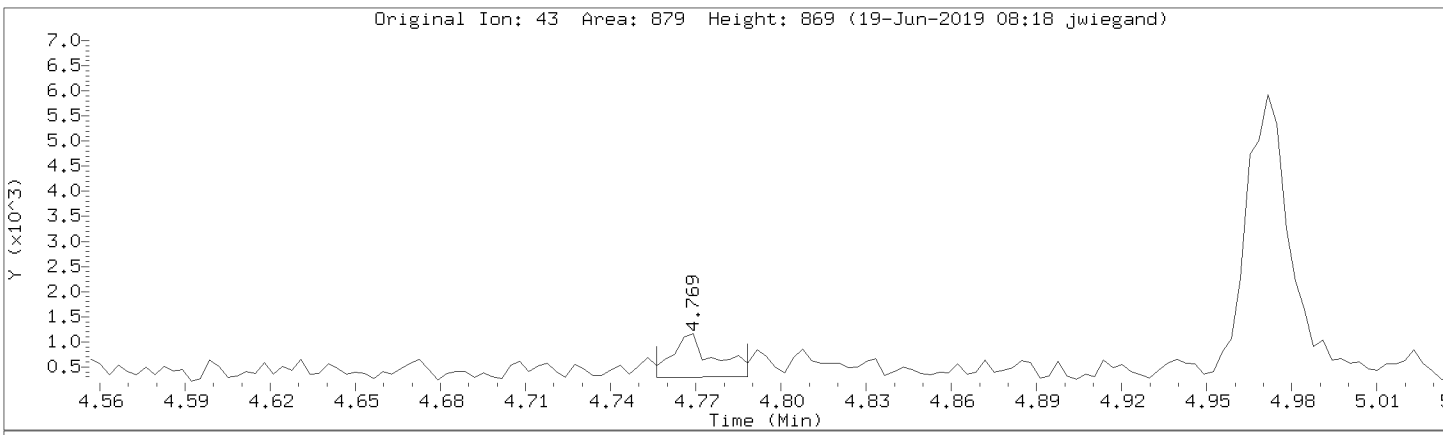
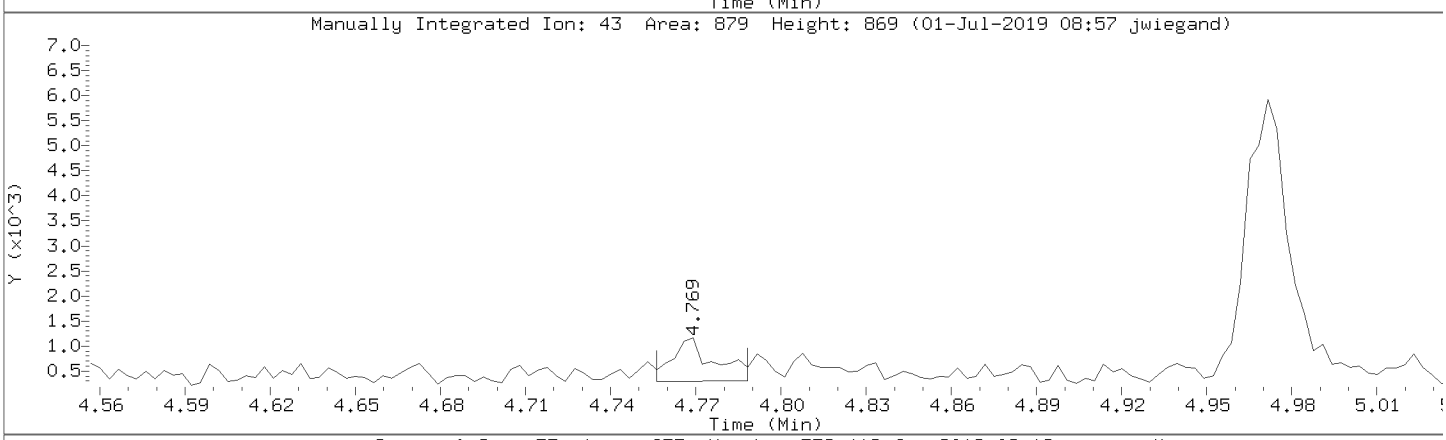
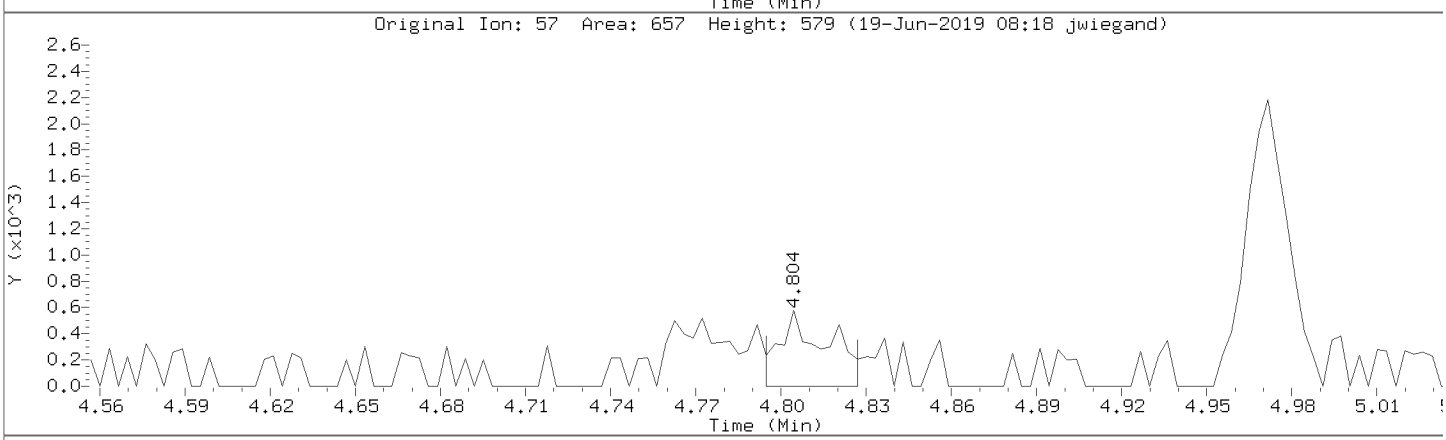
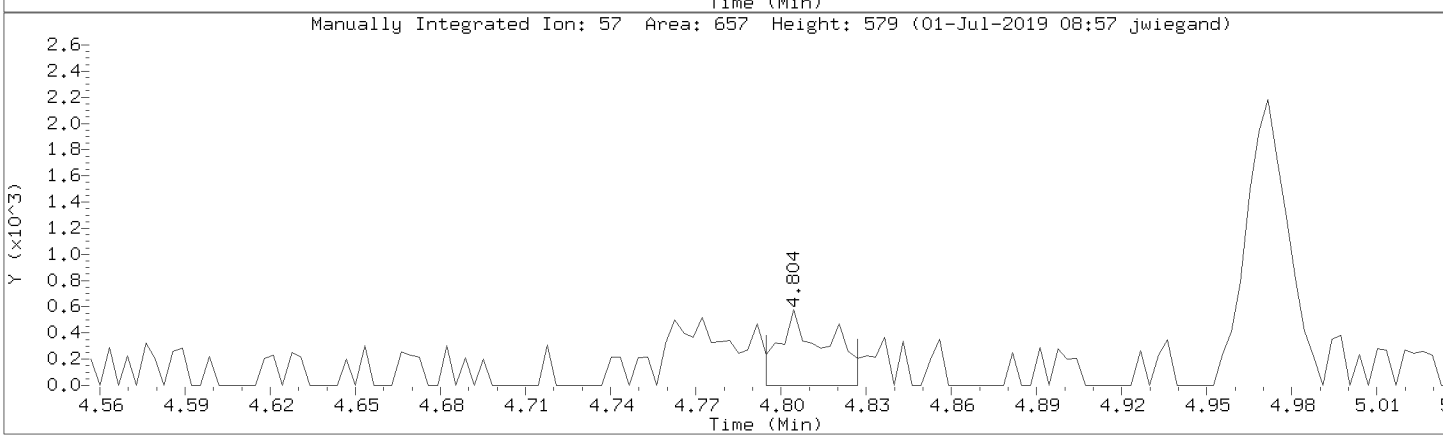
Lab Sample ID: ICV









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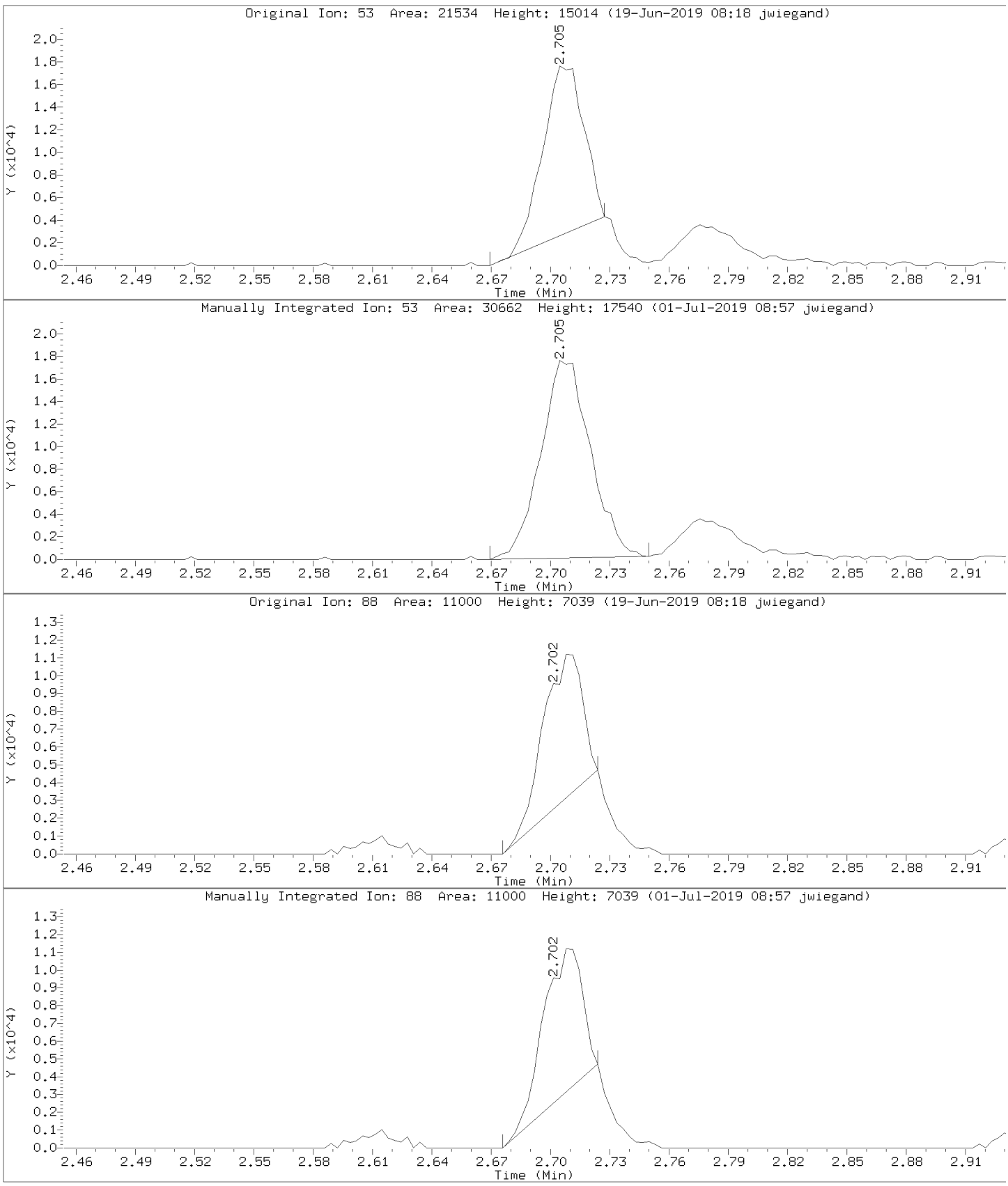
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloroprene Review Code: LT
CAS Number: 126-99-8



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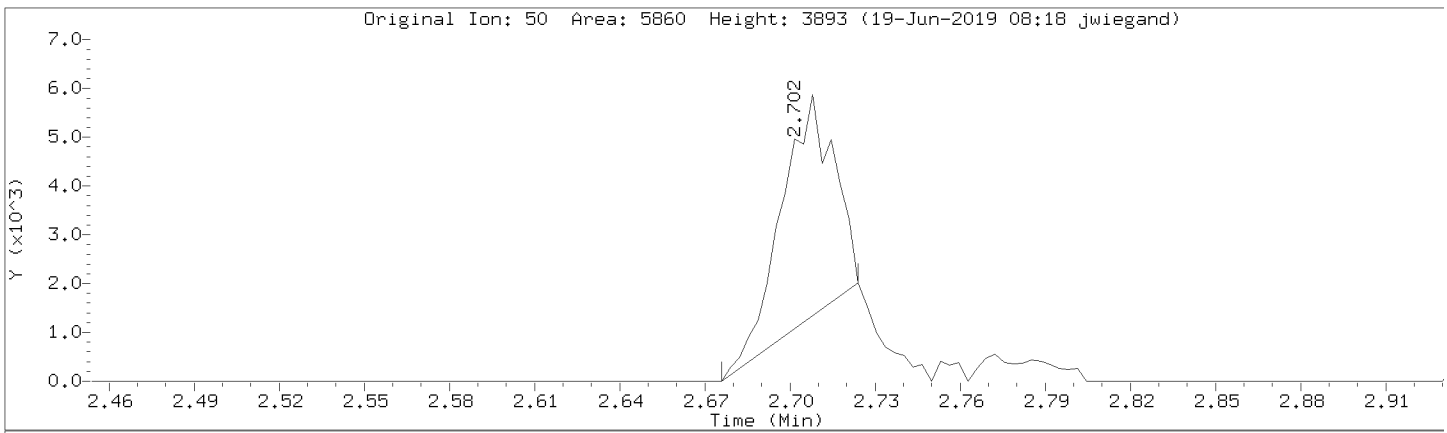
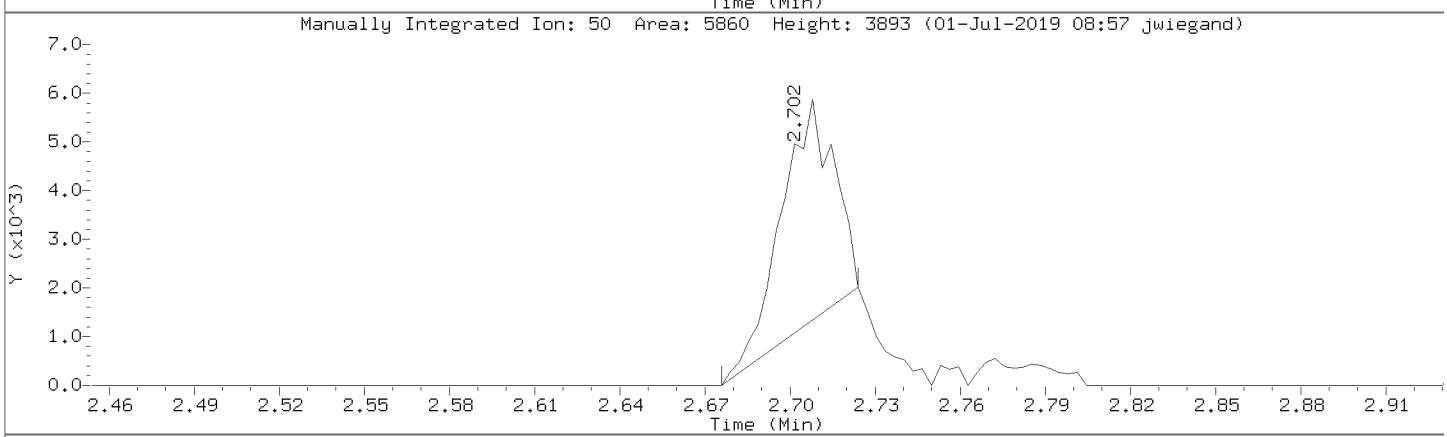
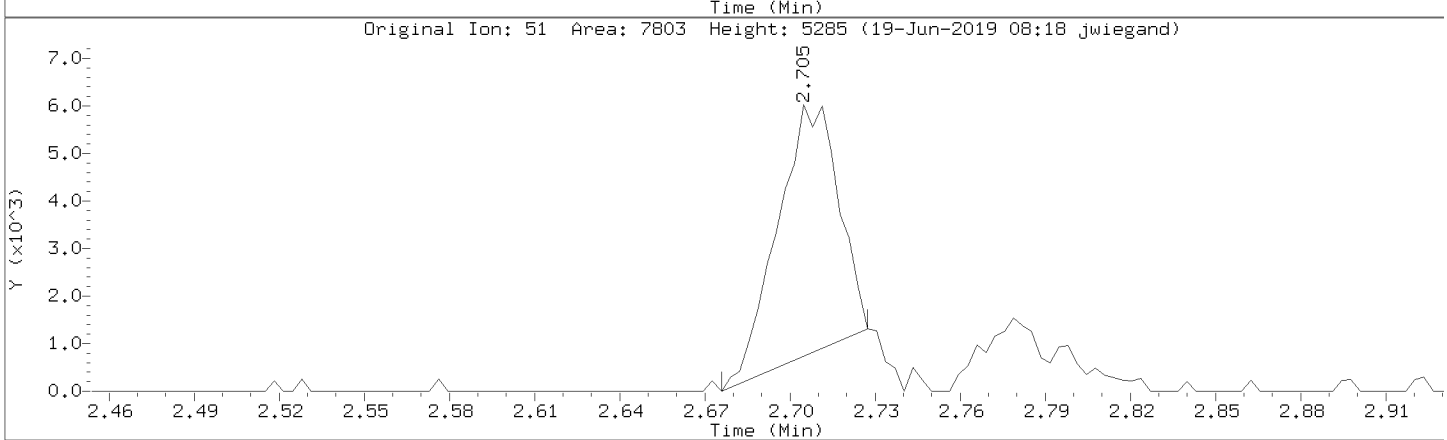
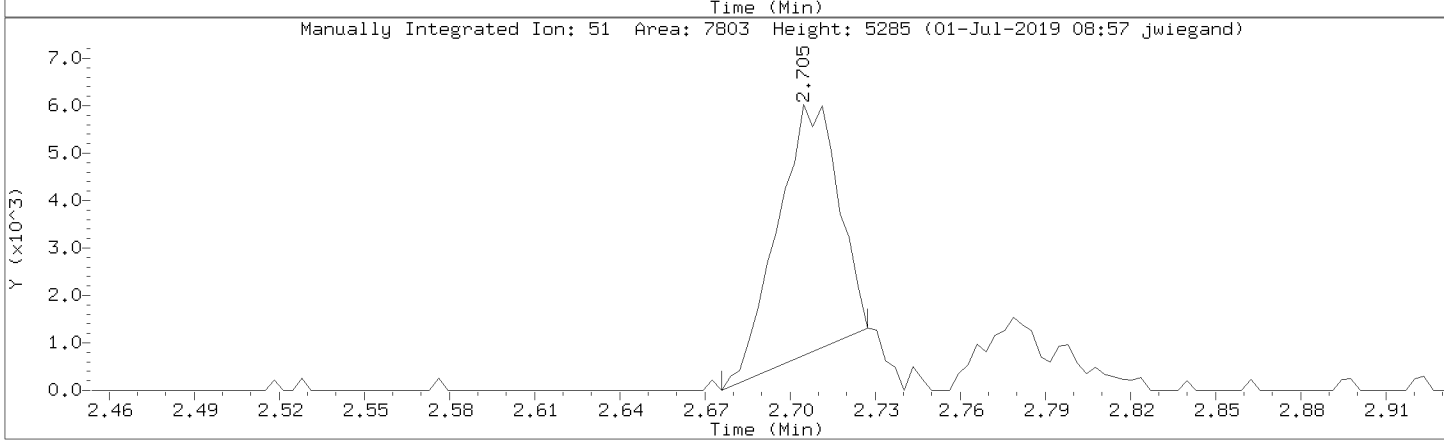
Lab Sample ID: ICV



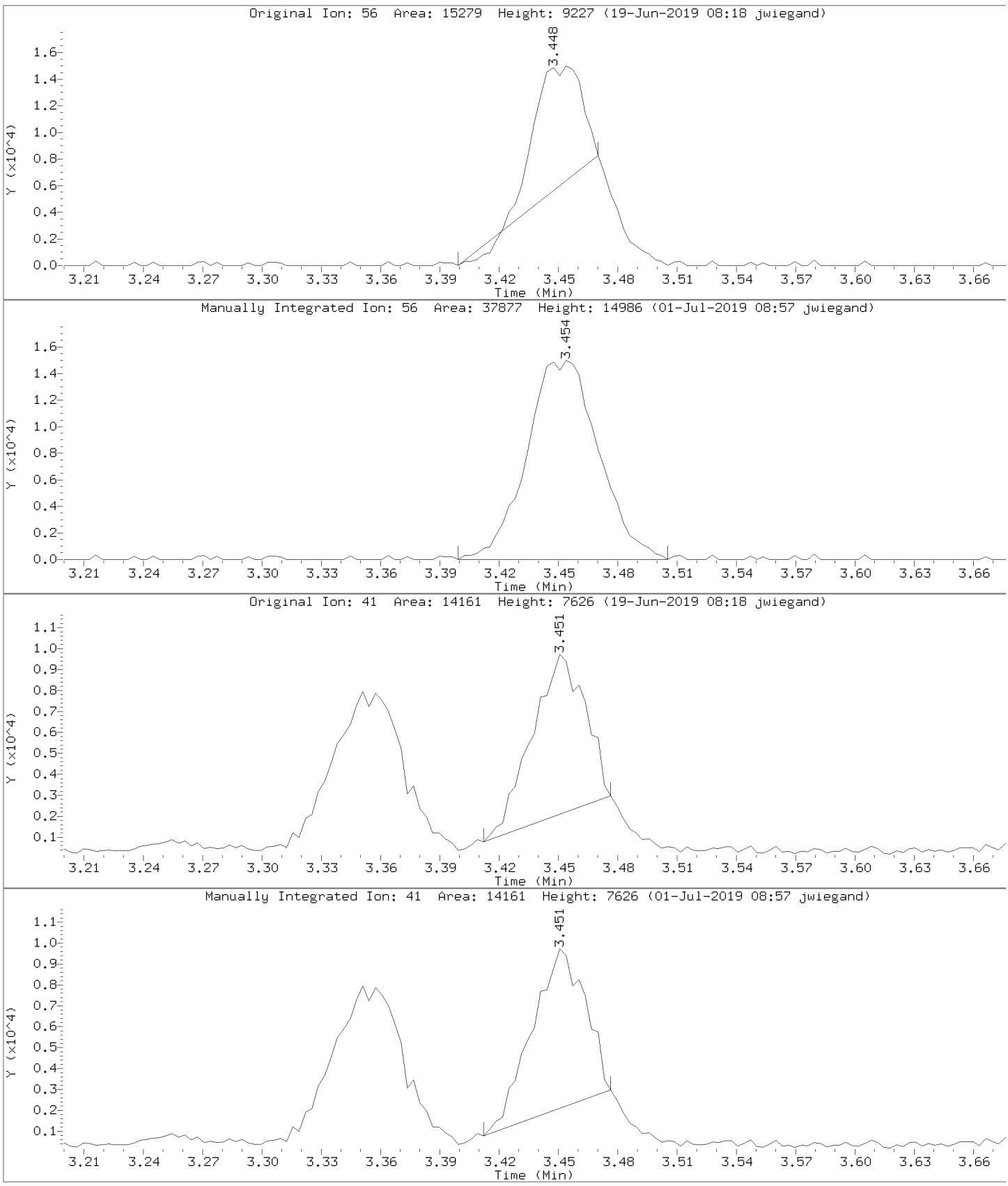






Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618023.d
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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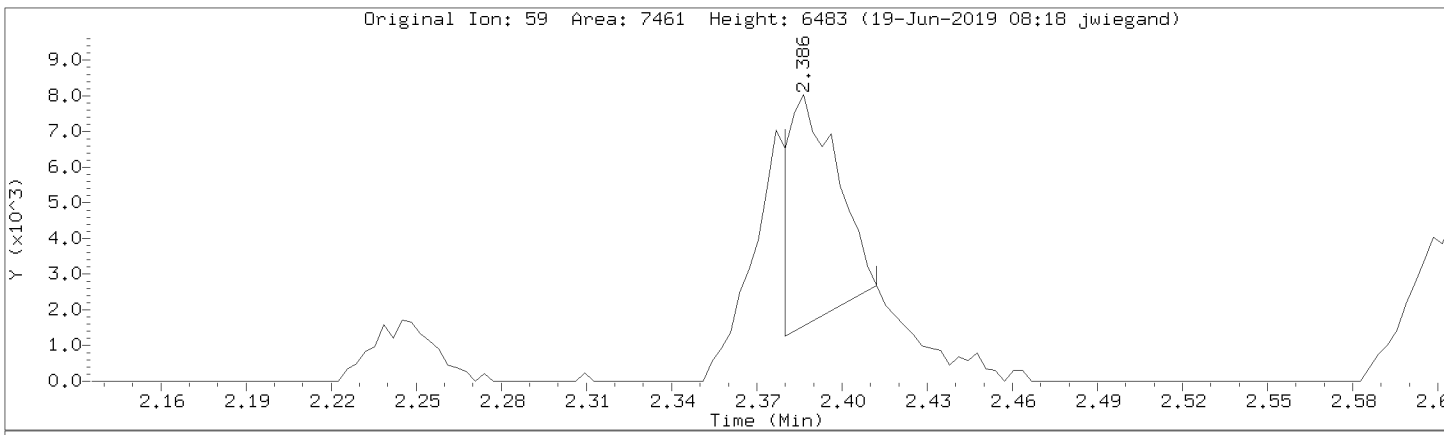
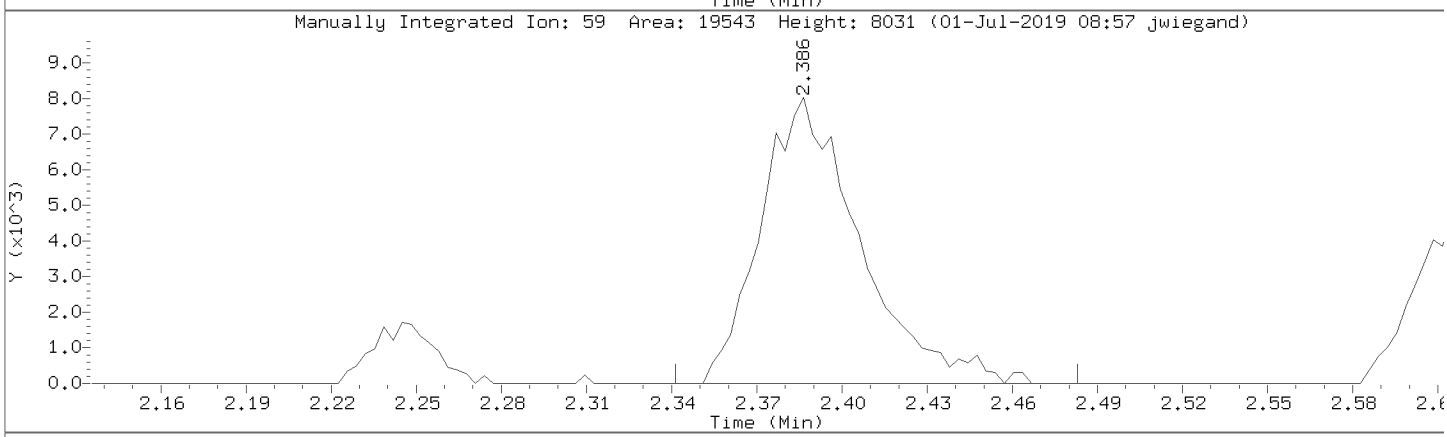
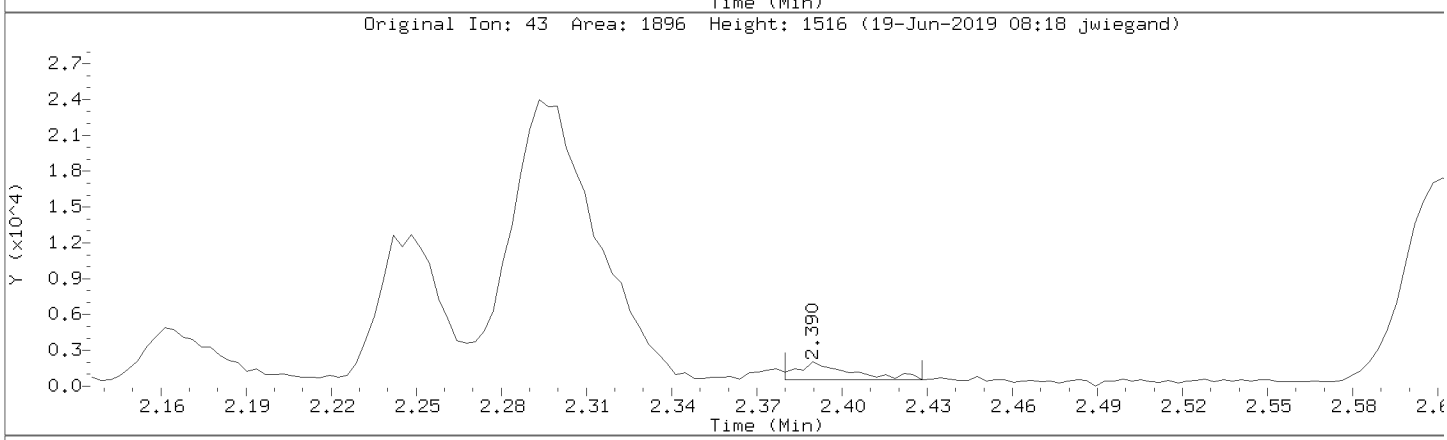
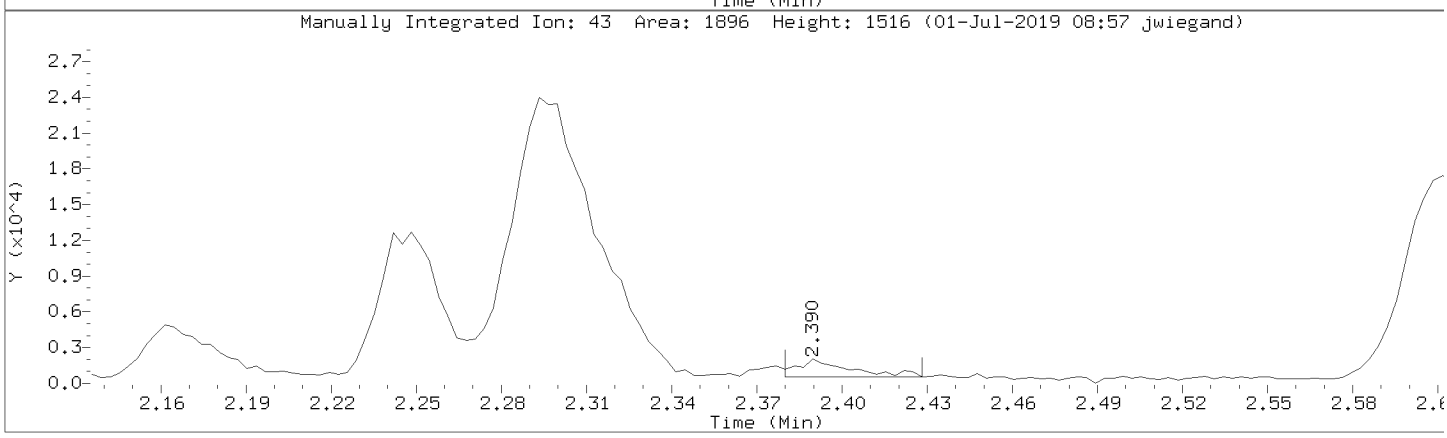
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 09:23
Operator : JEW Inst ID: 30mv5a.i
Smp Info : ccv, 92406:1
Misc Info : 44968,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	67164	50.0000	46.7(QM)	LT
2	Chloromethane	50	1.139	1.142	(0.266)	41160	50.0000	42.2(M)	LT
3	Vinyl chloride	62	1.145	1.145	(0.268)	76712	50.0000	41.9(M)	LT
4	Bromomethane	94	1.322	1.325	(0.309)	60961	50.0000	48.3(M)	LT
5	Chloroethane	64	1.389	1.380	(0.325)	51089	50.0000	43.7(M)	LT
6	Trichlorofluoromethane	101	1.466	1.467	(0.343)	121805	50.0000	46.0	
7	Diethyl ether (Ethyl ether)	59	1.634	1.634	(0.382)	62825	50.0000	47.0	
8	Ethanol	45	1.785	1.773	(0.266)	825	500.000	(a)	
9	1,1-Dichloroethene	61	1.759	1.759	(0.411)	110322	50.0000	50.4	
10	1,1,2-Trichlorotrifluoroethane	151	1.778	1.775	(0.416)	59791	50.0000	58.4	
11	Carbon disulfide	76	1.785	1.785	(0.417)	200717	50.0000	53.0	
12	Iodomethane	142	1.852	1.856	(0.433)	34203	50.0000	48.6(M)	LT
13	Acrolein	56	1.968	1.969	(0.460)	5551	50.0000	32.3	
14	Allyl chloride	41	2.058	2.055	(0.481)	425972	250.000	253	
15	Methylene Chloride	49	2.132	2.132	(0.498)	75778	50.0000	51.3	
16	Acetone	43	2.164	2.165	(0.506)	17052	50.0000	44.2(M)	LT
17	trans-1,2-Dichloroethene	61	2.248	2.242	(0.525)	102627	50.0000	45.7	
18	Methyl acetate	74	2.251	2.254	(0.526)	12246	50.0000	45.4	
19	n-Hexane	86	2.299	2.297	(0.537)	18778	50.0000	51.4	
20	Methyl-tert-butyl ether	73	2.319	2.312	(0.542)	231654	50.0000	47.0	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.386	(0.558)	39329	250.000	191(M)	LT
	22 Acetonitrile	41	2.521	2.522	(0.589)	20771	250.000	215	
	23 Diisopropyl ether	45	2.621	2.618	(0.612)	200321	50.0000	42.3	
	24 Chloroprene	53	2.714	2.705	(0.634)	87134	50.0000	43.2	
	25 1,1-Dichloroethane	63	2.733	2.727	(0.639)	130915	50.0000	43.9	
	26 Acrylonitrile	53	2.778	2.785	(0.649)	16137	50.0000	35.2(M)	LT
	27 Ethyl-tert-butyl ether	59	2.949	2.939	(0.689)	219417	50.0000	44.2	
	28 Vinyl acetate	43	2.962	2.965	(0.692)	151356	50.0000	39.9	
	29 cis-1,2-Dichloroethene	61	3.254	3.248	(0.760)	100051	50.0000	43.9(M)	LT
	30 2,2-Dichloropropane	77	3.364	3.351	(0.786)	115952	50.0000	42.9(M)	LT
	31 Cyclohexane	56	3.460	3.450	(0.808)	108927	50.0000	48.4	
	32 Bromochloromethane	130	3.466	3.467	(0.810)	50080	50.0000	48.3	
	33 Chloroform	83	3.560	3.553	(0.832)	149807	50.0000	45.0	
	34 Carbon tetrachloride	117	3.682	3.679	(0.860)	109553	50.0000	46.1	
	35 Ethyl acetate	43	3.695	3.702	(0.863)	56947	50.0000	35.8	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	23342	50.0000	37.1(M)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	45711	30.0000	30.2	
	38 1,1,1-Trichloroethane	97	3.743	3.733	(0.875)	132052	50.0000	46.0	
	39 2-Butanone (MEK)	43	3.836	3.865	(0.896)	30298	50.0000	41.0	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.898)	112755	50.0000	47.1	
	41 Benzene	78	4.019	4.020	(0.939)	321293	50.0000	48.7	
	42 Propionitrile	54	4.045	4.049	(0.945)	6716	50.0000	39.1(M)	LT
	43 Methacrylonitrile	41	4.055	4.054	(0.947)	37467	50.0000	40.4	
	44 tert-Amylmethyl ether	73	4.103	4.106	(0.959)	237756	50.0000	47.2	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.960)	45179	30.0000	27.8	
	46 Isobutanol	43	4.190	4.213	(0.979)	11933	250.000	180(M)	WP
	47 1,2-Dichloroethane	62	4.151	4.151	(0.970)	109527	50.0000	45.1	
*	48 Fluorobenzene (IS)	96	4.280	4.277	(1.000)	172749	30.0000		
	49 Methylcyclohexane	83	4.363	4.364	(1.020)	137880	50.0000	57.0	
	50 Trichloroethene	95	4.373	4.373	(0.759)	90506	50.0000	45.9	
	51 Dibromomethane	174	4.595	4.598	(1.074)	57334	50.0000	49.7	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	77578	50.0000	46.6	
	53 Bromodichloromethane	83	4.688	4.688	(1.095)	106308	50.0000	45.4	
	54 Methyl methacrylate	69	4.769	4.775	(1.114)	57279	50.0000	46.2	
	55 1,4-Dioxane (p-Dioxane)	88	4.798	4.808	(1.121)	5841	500.000	463(M)	NI
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	28148	50.0000	44.2	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	131843	50.0000	47.0	
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	165704	30.0000	29.2	
	59 Toluene	91	5.109	5.110	(0.886)	346995	50.0000	45.9	
	60 2-Nitropropane	43	5.219	5.216	(1.219)	113592	250.000	206	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.234)	70733	50.0000	42.3	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	93501	50.0000	48.9	
	63 trans-1,3-Dichloropropene	75	5.302	5.303	(0.920)	119581	50.0000	42.0	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	63796	50.0000	42.5	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.931)	74330	50.0000	43.8	
	66 Dibromochloromethane	129	5.450	5.450	(0.945)	88152	50.0000	44.8	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.952)	122901	50.0000	45.1	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.963)	77878	50.0000	46.7	
	69 2-Hexanone	43	5.640	5.643	(0.978)	49124	50.0000	38.4	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	129340	50.0000	49.4	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	132458	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	236913	50.0000	47.0	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	89085	50.0000	46.8	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	308513	100.000	97.6	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	==========	====	====	========	========	========	=======	=======	========
75	o-Xylene	106	6.013	6.016	(1.043)	150253	50.0000	48.0	
76	Styrene	104	6.035	6.036	(1.047)	238027	50.0000	46.4	
77	Bromoform	173	6.055	6.058	(0.902)	58707	50.0000	39.9	
78	Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	363671	50.0000	45.3	
$ 79	4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	50608	30.0000	28.2	
80	n-Propylbenzene	91	6.306	6.306	(0.940)	412681	50.0000	44.9	
81	Bromobenzene	77	6.306	6.309	(0.940)	155489	50.0000	42.3	
82	1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	97365	50.0000	39.7	
83	1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	295863	50.0000	45.8	
84	2-Chlorotoluene	126	6.376	6.380	(0.950)	94281	50.0000	46.7	
85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	31349	50.0000	44.0	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	20784	50.0000	35.4	
87	Cyclohexanone	55	6.418	6.421	(0.956)	17326	250.000	152	
88	4-Chlorotoluene	126	6.441	6.444	(0.960)	94508	50.0000	46.9	
89	tert-Butylbenzene	119	6.511	6.511	(0.970)	257700	50.0000	48.3	
90	1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	294879	50.0000	46.0	
91	sec-Butylbenzene	105	6.582	6.582	(0.981)	369308	50.0000	48.7	
92	p-Isopropyltoluene	119	6.633	6.634	(0.988)	311311	50.0000	48.8	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	169847	50.0000	47.4	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	61733	30.0000		
95	1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	168394	50.0000	47.0	
96	n-Butylbenzene	91	6.804	6.804	(1.014)	256922	50.0000	46.6	
97	1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	159458	50.0000	47.2	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	61732	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	15225	50.0000	38.0	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	96647	50.0000	49.6	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	45491	50.0000	52.2	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	81286	50.0000	50.2	
102	Naphthalene	128	7.617	7.618	(1.135)	187998	50.0000	45.1	
103	1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	72132	50.0000	49.1	
104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	82571	50.0000	45.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
    :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  NI: Indicates that the peak was not integrated at all by the
      computer software.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701005.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	144844	72422	289688	172749	19.27
71 Chlorobenzene-d5	104675	52338	209350	132458	26.54
94 1,4-Dichlorobenze	47592	23796	95184	61733	29.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	-0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 01-JUL-2019 09:23
Lab File ID: 50701005.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.24991	0.23328	0.23328	0.010	-6.65686	20.00000	Aver	(QM)	
2 Chloromethane	50.00000	42.17717	0.14296	0.100	-15.64565	20.00000	Quad	(M)	
3 Vinyl chloride	0.31764	0.26644	0.26644	0.010	-16.11811	20.00000	Aver	(M)	
4 Bromomethane	50.00000	48.34850	0.21173	0.010	-3.30300	20.00000	Quad	(M)	
5 Chloroethane	0.20300	0.17744	0.17744	0.010	-12.58676	20.00000	Aver	(M)	
6 Trichlorofluoromethane	0.46032	0.42306	0.42306	0.010	-8.09376	20.00000	Aver		
7 Diethyl ether (Ethyl ether)	0.23226	0.21821	0.21821	0.010	-6.04887	20.00000	Aver		
8 Ethanol	++++	0.00080	0.00080	0.010	++++	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.38037	0.38318	0.38318	0.010	0.73693	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.17766	0.20767	0.20767	0.010	16.88966	20.00000	Aver		
11 Carbon disulfide	0.65804	0.69714	0.69714	0.010	5.94195	20.00000	Aver		
12 Iodomethane	50.00000	48.61574	0.11880	0.010	-2.76852	20.00000	Quad	(M)	
13 Acrolein	50.00000	32.29210	0.01928	0.010	-35.41580	20.00000	Quad		<-
14 Allyl chloride	250	253	0.29590	0.010	1.32106	20.00000	Quad		
15 Methylene Chloride	50.00000	51.29130	0.26320	0.010	2.58259	20.00000	Quad		
16 Acetone	50.00000	44.19867	0.05923	0.010	-11.60267	20.00000	Quad	(M)	
17 trans-1,2-Dichloroethene	0.38968	0.35645	0.35645	0.010	-8.52734	20.00000	Aver		
18 Methyl acetate	0.04681	0.04253	0.04253	0.010	-9.13588	20.00000	Aver		
19 n-Hexane	0.06345	0.06522	0.06522	0.010	2.78739	20.00000	Aver		
20 Methyl-tert-butyl ether	0.85575	0.80459	0.80459	0.010	-5.97863	20.00000	Aver		
21 tert-Butyl Alcohol	0.03578	0.02732	0.02732	0.010	-23.65347	20.00000	Aver	(M)	<-
22 Acetonitrile	0.01676	0.01443	0.01443	0.010	-13.90937	20.00000	Aver		
23 Diisopropyl ether	0.82173	0.69576	0.69576	0.010	-15.32894	20.00000	Aver		
24 Chloroprene	0.34987	0.30264	0.30264	0.010	-13.50070	20.00000	Aver		
25 1,1-Dichloroethane	0.51731	0.45470	0.45470	0.100	-12.10279	20.00000	Aver		
26 Acrylonitrile	0.07954	0.05605	0.05605	0.010	-29.53818	20.00000	Aver	(M)	<-
27 Ethyl-tert-butyl ether	0.86095	0.76209	0.76209	0.010	-11.48257	20.00000	Aver		
28 Vinyl acetate	0.65893	0.52570	0.52570	0.010	-20.22019	20.00000	Aver		<-
29 cis-1,2-Dichloroethene	0.39600	0.34750	0.34750	0.010	-12.24724	20.00000	Aver	(M)	
30 2,2-Dichloropropane	0.46961	0.40273	0.40273	0.010	-14.24208	20.00000	Aver	(M)	
31 Cyclohexane	0.39096	0.37833	0.37833	0.010	-3.23145	20.00000	Aver		
32 Bromochloromethane	0.18013	0.17394	0.17394	0.010	-3.43843	20.00000	Aver		
33 Chloroform	0.57749	0.52032	0.52032	0.010	-9.89969	20.00000	Aver		
34 Carbon tetrachloride	0.41252	0.38050	0.38050	0.010	-7.76179	20.00000	Aver		
35 Ethyl acetate	0.27578	0.19779	0.19779	0.010	-28.28066	20.00000	Aver		<-
36 Tetrahydrofuran	50.00000	37.12746	0.08107	0.010	-25.74508	20.00000	Quad	(M)	<-
$ 37 Dibromofluoromethane (S)	0.26237	0.26461	0.26461	0.010	0.85373	20.00000	Aver		
38 1,1,1-Trichloroethane	0.49845	0.45865	0.45865	0.010	-7.98472	20.00000	Aver		
39 2-Butanone (MEK)	0.12842	0.10523	0.10523	0.010	-18.05639	20.00000	Aver		
40 1,1-Dichloropropene	0.41560	0.39163	0.39163	0.010	-5.76785	20.00000	Aver		
41 Benzene	1.14511	1.11593	1.11593	0.010	-2.54843	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 01-JUL-2019 09:23
Lab File ID: 50701005.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	0.02985	0.02333	0.02333	0.010	-21.86069	20.00000	Aver	(M)	<-
	43 Methacrylonitrile	0.16123	0.13013	0.13013	0.010	-19.28705	20.00000	Aver		
	44 tert-Amylmethyl ether	0.87404	0.82579	0.82579	0.010	-5.52114	20.00000	Aver		
$	45 1,2-Dichloroethane-d4 (S)	0.28268	0.26153	0.26153	0.010	-7.48253	20.00000	Aver		
	46 Isobutanol	0.01151	0.00829	0.00829	0.010	-27.98151	20.00000	Aver	(M)	<-
	47 1,2-Dichloroethane	0.42170	0.38041	0.38041	0.010	-9.79031	20.00000	Aver		
	49 Methylcyclohexane	0.42014	0.47889	0.47889	0.010	13.98499	20.00000	Aver		
	50 Trichloroethene	0.44684	0.40997	0.40997	0.010	-8.25191	20.00000	Aver		
	51 Dibromomethane	0.20022	0.19914	0.19914	0.010	-0.54082	20.00000	Aver		
	52 1,2-Dichloropropane	0.28909	0.26945	0.26945	0.010	-6.79581	20.00000	Aver		
	53 Bromodichloromethane	0.40684	0.36923	0.36923	0.010	-9.24401	20.00000	Aver		
	54 Methyl methacrylate	0.21529	0.19894	0.19894	0.010	-7.59450	20.00000	Aver		
	55 1,4-Dioxane (p-Dioxane)	500	463	0.00203	0.010	-7.31132	20.00000	Quad	(M)	<-
	56 2-Chloroethylvinyl ether	0.11070	0.09776	0.09776	0.010	-11.68191	20.00000	Aver		
	57 cis-1,3-Dichloropropene	0.48710	0.45792	0.45792	0.010	-5.99002	20.00000	Aver		
$	58 Toluene-d8 (S)	1.28649	1.25099	1.25099	0.010	-2.75901	20.00000	Aver		
	59 Toluene	1.71127	1.57180	1.57180	0.010	-8.15041	20.00000	Aver		
	60 2-Nitropropane	0.09588	0.07891	0.07891	0.010	-17.70542	20.00000	Aver		
	61 4-Methyl-2-pentanone (MIBK)	0.29042	0.24567	0.24567	0.010	-15.40715	20.00000	Aver		
	62 Tetrachloroethene	0.43296	0.42354	0.42354	0.010	-2.17594	20.00000	Aver		
	63 trans-1,3-Dichloropropene	0.64394	0.54167	0.54167	0.010	-15.88210	20.00000	Aver		
	64 Ethyl methacrylate	0.34021	0.28898	0.28898	0.010	-15.05745	20.00000	Aver		
	65 1,1,2-Trichloroethane	0.38462	0.33670	0.33670	0.010	-12.46120	20.00000	Aver		
	66 Dibromochloromethane	0.44604	0.39931	0.39931	0.010	-10.47731	20.00000	Aver		
	67 1,3-Dichloropropane	0.61709	0.55671	0.55671	0.010	-9.78544	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.37769	0.35277	0.35277	0.010	-6.59829	20.00000	Aver		
	69 2-Hexanone	0.28980	0.22252	0.22252	0.010	-23.21539	20.00000	Aver		<-
	70 Ethylbenzene	0.59336	0.58588	0.58588	0.010	-1.26168	20.00000	Aver		
	72 Chlorobenzene	1.14103	1.07315	1.07315	0.300	-5.94868	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.43143	0.40353	0.40353	0.010	-6.46621	20.00000	Aver		
	74 m&p-Xylene	0.71618	0.69874	0.69874	0.010	-2.43528	20.00000	Aver		
	75 o-Xylene	0.70897	0.68061	0.68061	0.010	-4.00080	20.00000	Aver		
	76 Styrene	1.16122	1.07820	1.07820	0.010	-7.14964	20.00000	Aver		
	77 Bromoform	0.71541	0.57059	0.57059	0.100	-20.24299	20.00000	Aver		<-
	78 Isopropylbenzene (Cumene)	3.89837	3.53462	3.53462	0.010	-9.33089	20.00000	Aver		
$	79 4-Bromofluorobenzene (S)	0.87338	0.81979	0.81979	0.010	-6.13627	20.00000	Aver		
	80 n-Propylbenzene	4.46847	4.01096	4.01096	0.010	-10.23866	20.00000	Aver		
	81 Bromobenzene	1.78520	1.51124	1.51124	0.010	-15.34598	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	1.19102	0.94632	0.94632	0.300	-20.54594	20.00000	Aver		<-
	83 1,3,5-Trimethylbenzene	3.13805	2.87557	2.87557	0.010	-8.36428	20.00000	Aver		
	84 2-Chlorotoluene	0.98101	0.91634	0.91634	0.010	-6.59180	20.00000	Aver		
	85 1,2,3-Trichloropropane	0.34617	0.30469	0.30469	0.010	-11.98345	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 01-JUL-2019 09:23
Lab File ID: 50701005.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.28521	0.20201	0.20201	0.010	-29.17241	20.00000	Aver		<-
87 Cyclohexanone	0.05556	0.03368	0.03368	0.010	-39.38323	20.00000	Aver		<-
88 4-Chlorotoluene	0.97978	0.91855	0.91855	0.010	-6.24913	20.00000	Aver		
89 tert-Butylbenzene	2.59165	2.50466	2.50466	0.010	-3.35656	20.00000	Aver		
90 1,2,4-Trimethylbenzene	3.11701	2.86601	2.86601	0.010	-8.05267	20.00000	Aver		
91 sec-Butylbenzene	3.68336	3.58941	3.58941	0.010	-2.55071	20.00000	Aver		
92 p-Isopropyltoluene	3.10234	3.02572	3.02572	0.010	-2.46991	20.00000	Aver		
93 1,3-Dichlorobenzene	1.74109	1.65079	1.65079	0.010	-5.18648	20.00000	Aver		
95 1,4-Dichlorobenzene	1.74106	1.63667	1.63667	0.010	-5.99607	20.00000	Aver		
96 n-Butylbenzene	2.67877	2.49710	2.49710	0.010	-6.78214	20.00000	Aver		
97 1,2-Dichlorobenzene	1.64323	1.54982	1.54982	0.010	-5.68467	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00149	0.99998	0.99998	0.010	-0.15064	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19491	0.14798	0.14798	0.010	-24.08023	20.00000	Aver		<-
99 1,3,5-Trichlorobenzene	0.94777	0.93934	0.93934	0.010	-0.88917	20.00000	Aver		
100 Hexachloro-1,3-butadiene	50.00000	52.18215	0.44214	0.010	4.36431	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.78606	0.79004	0.79004	0.010	0.50659	20.00000	Aver		
102 Naphthalene	2.02357	1.82720	1.82720	0.010	-9.70411	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.71440	0.70107	0.70107	0.010	-1.86558	20.00000	Aver		
104 2-Methylnaphthalene	50.00000	45.40323	0.80253	0.010	-9.19355	20.00000	Quad		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 10.46148
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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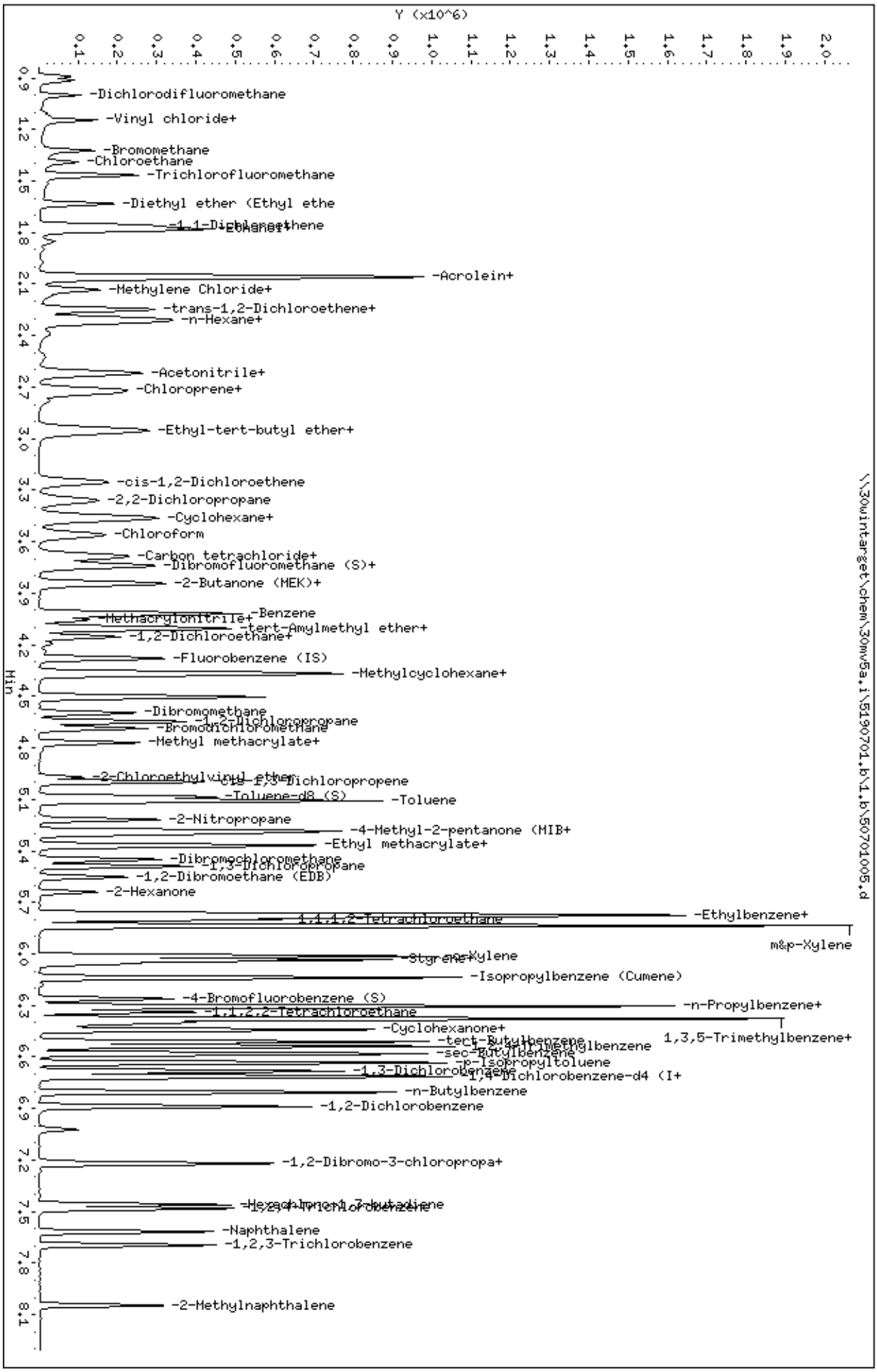
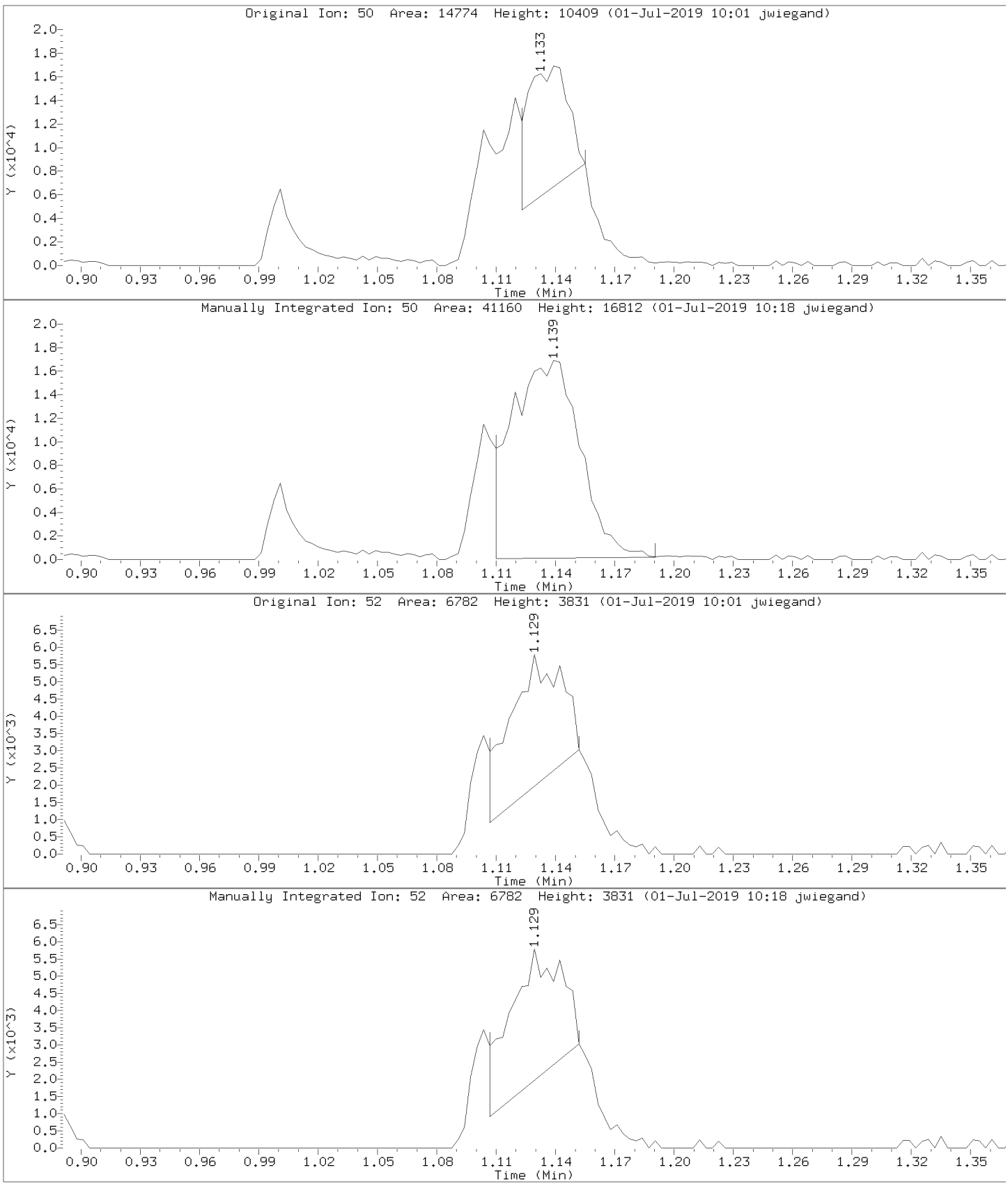

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Date : 01-JUL-2019 09:23
Client ID: CCV
Sample Info: CCV, 9240611
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701005.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Vinyl chloride+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
1,3,5-Trimethylbenzene+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701005.d
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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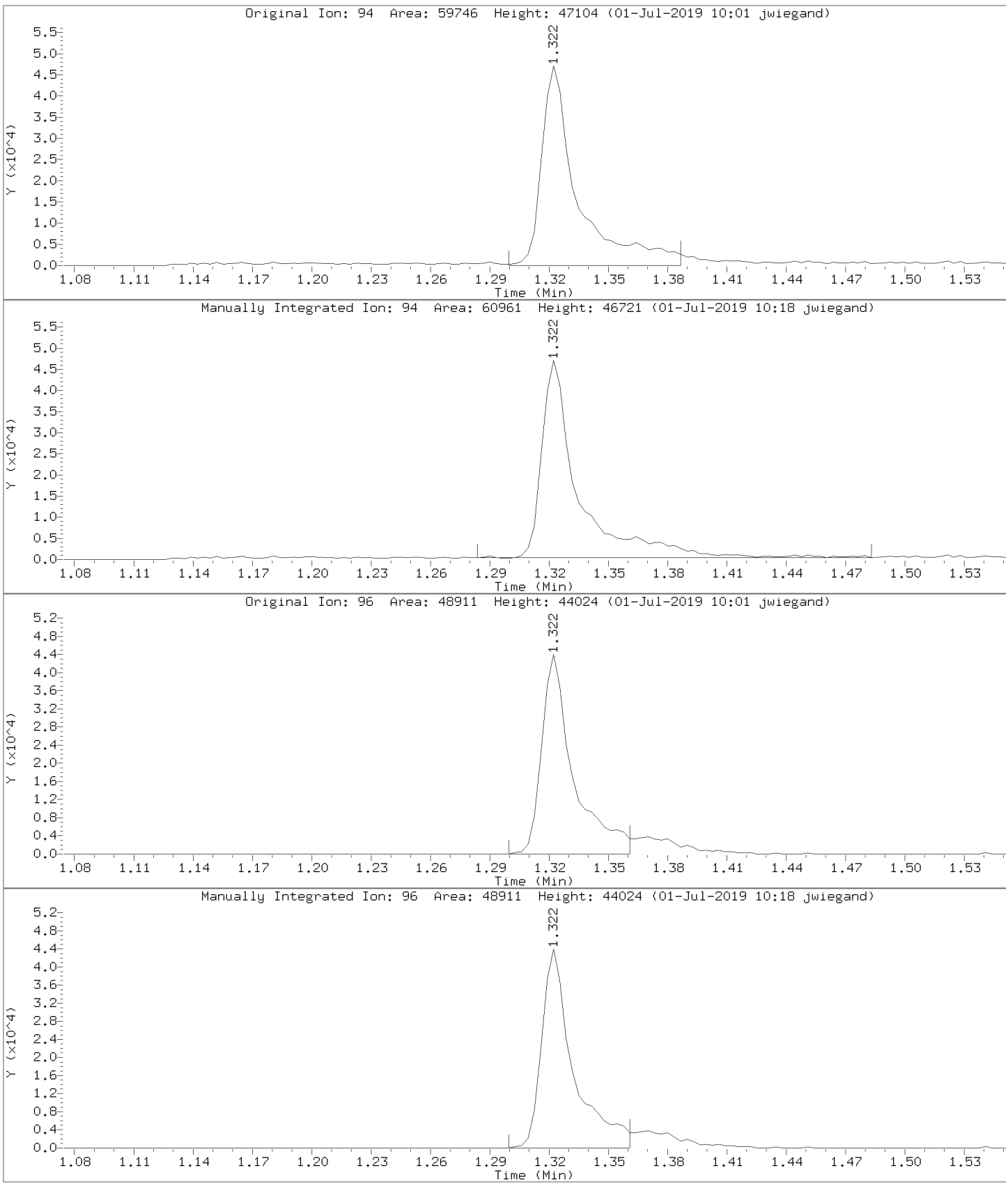
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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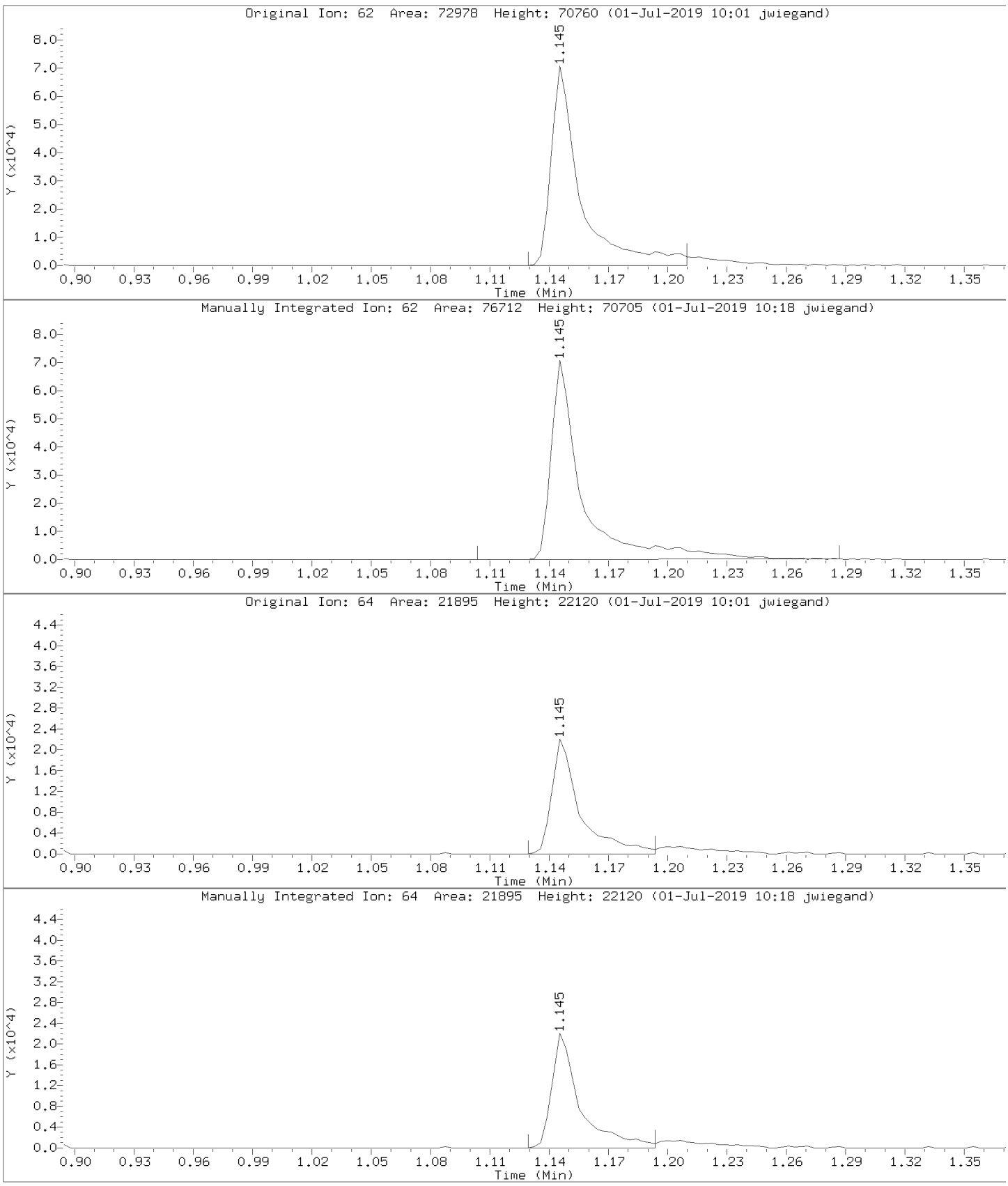
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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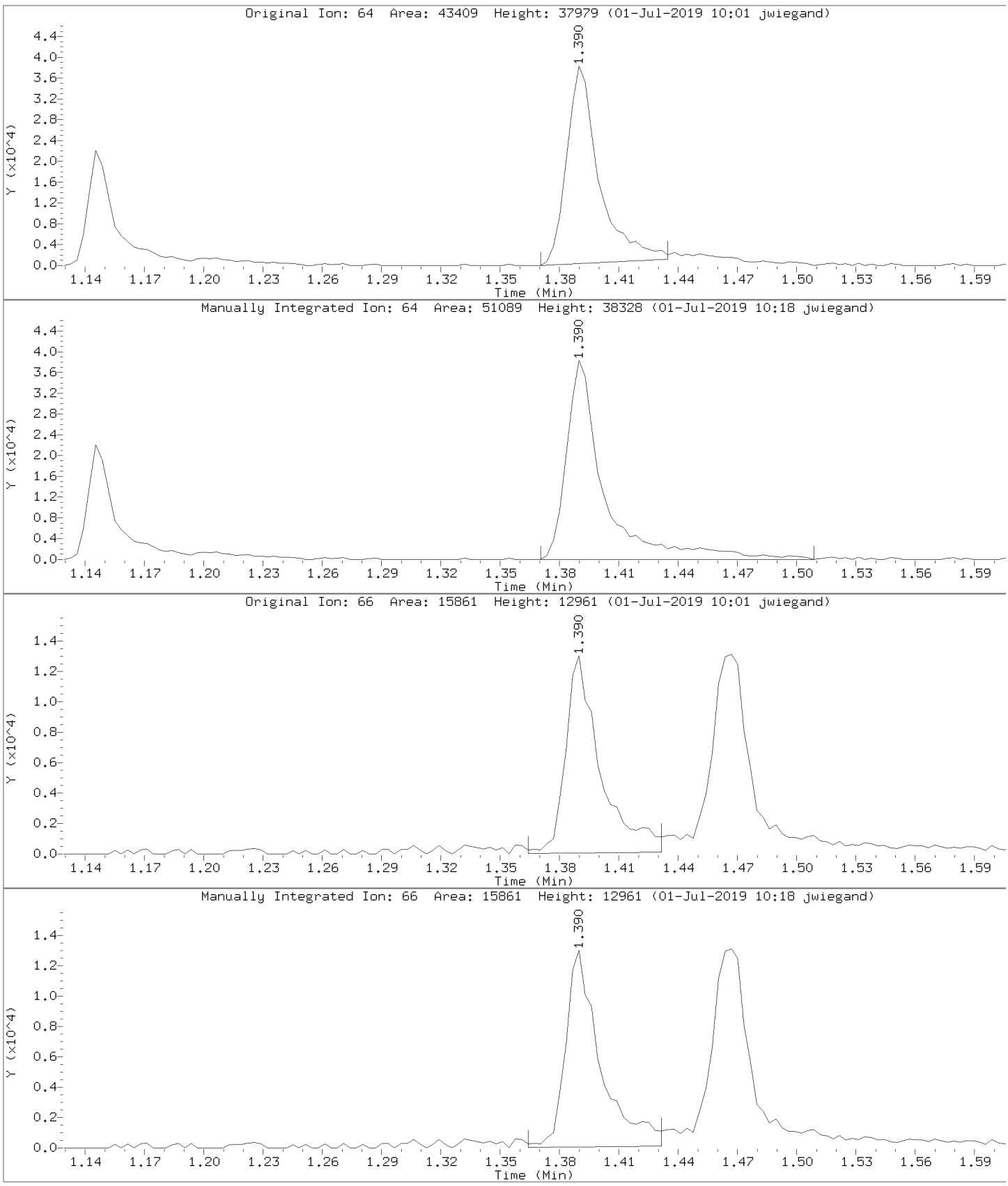
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



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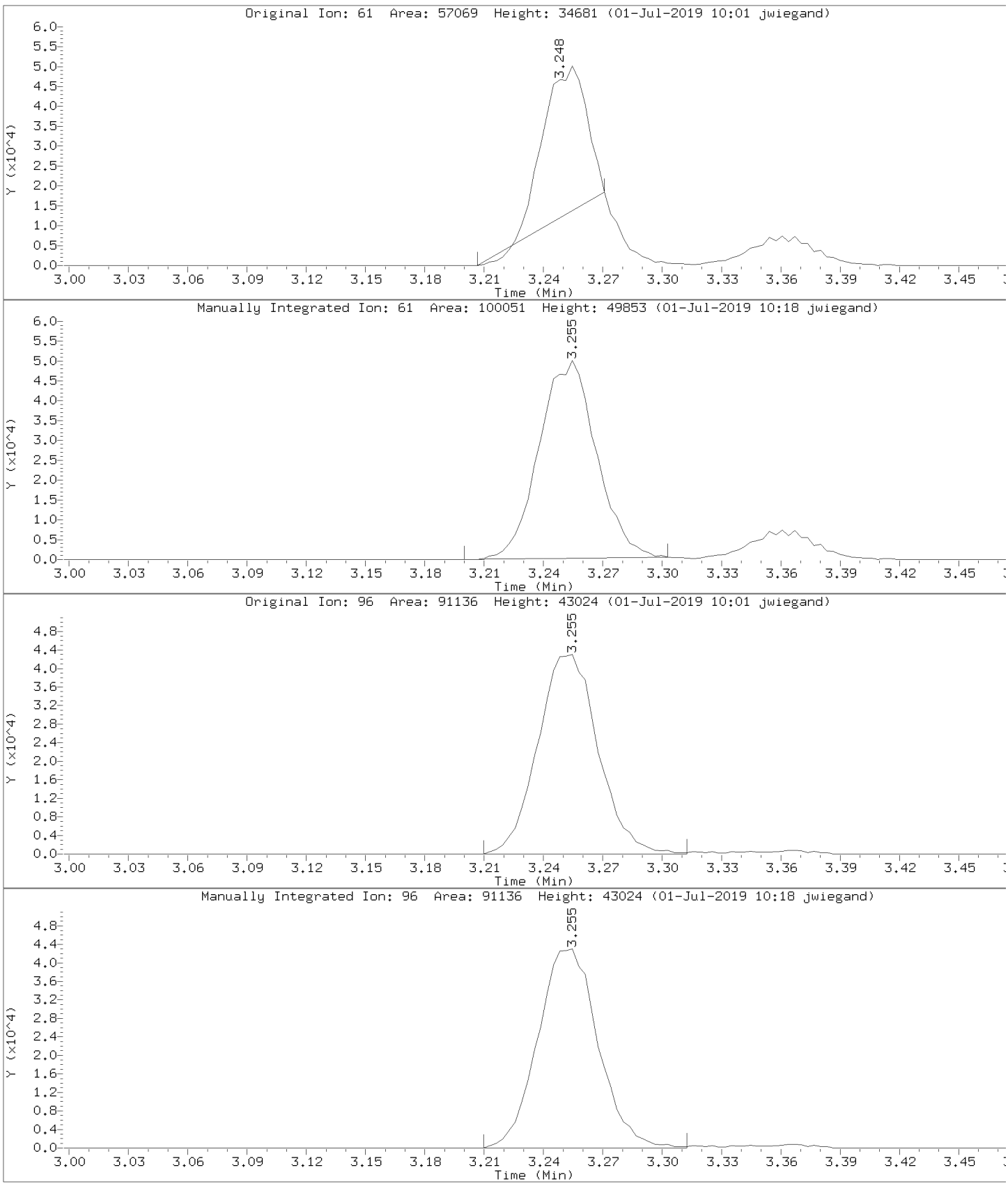
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2



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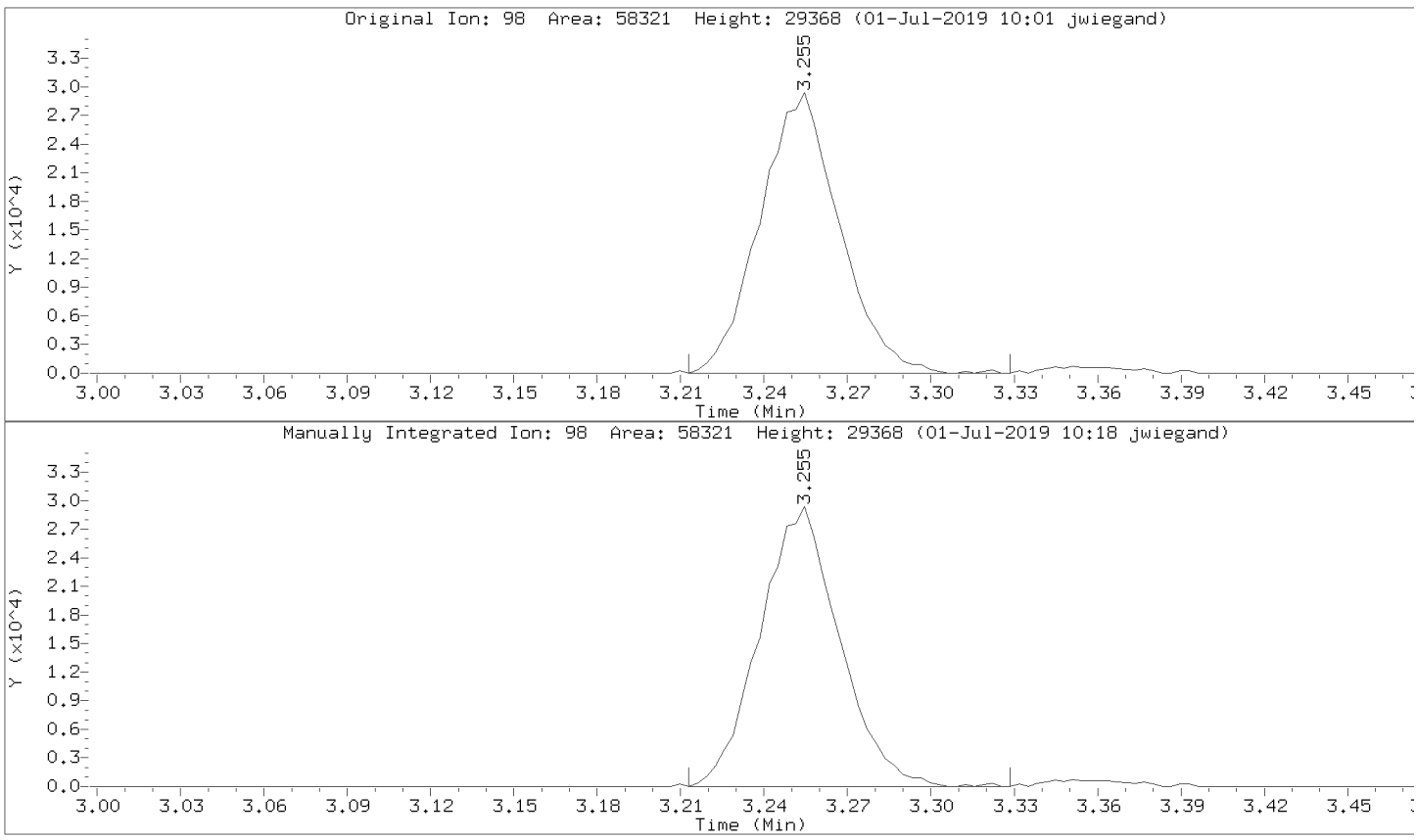
Instrument: 30mv5a.i
Lab Sample ID: CCV



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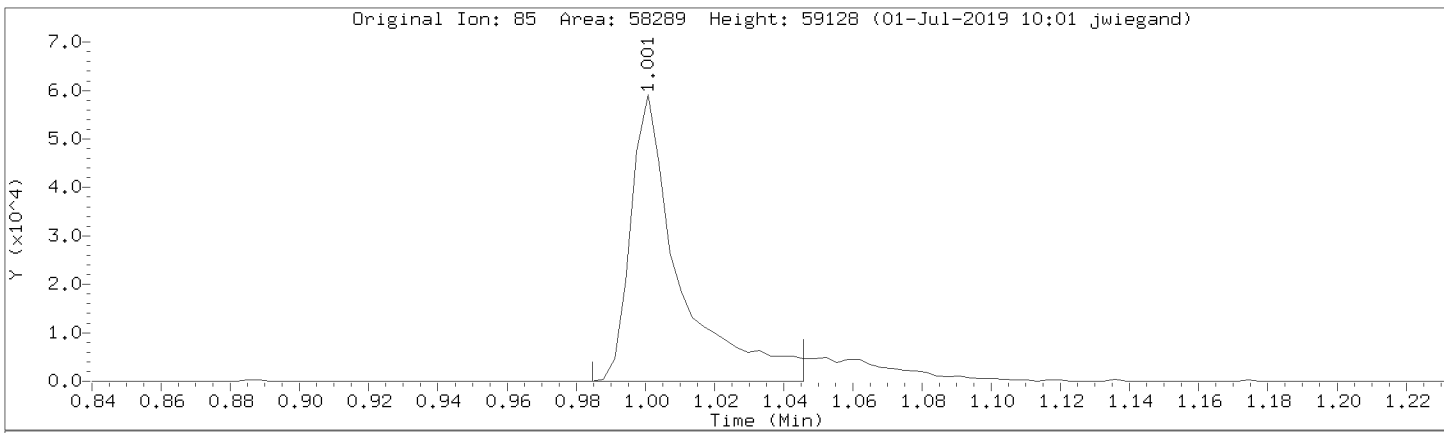
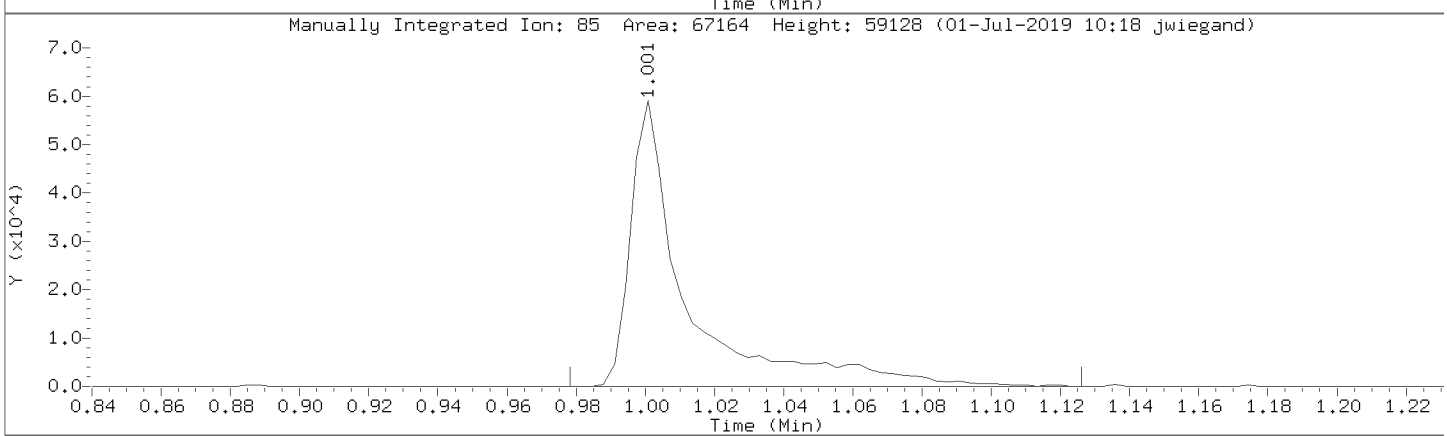
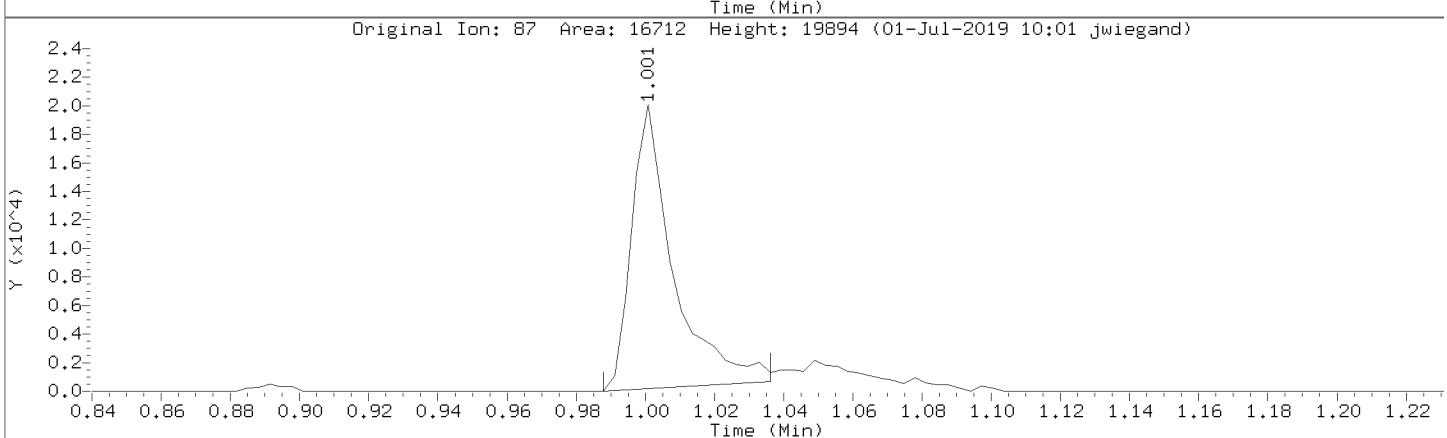
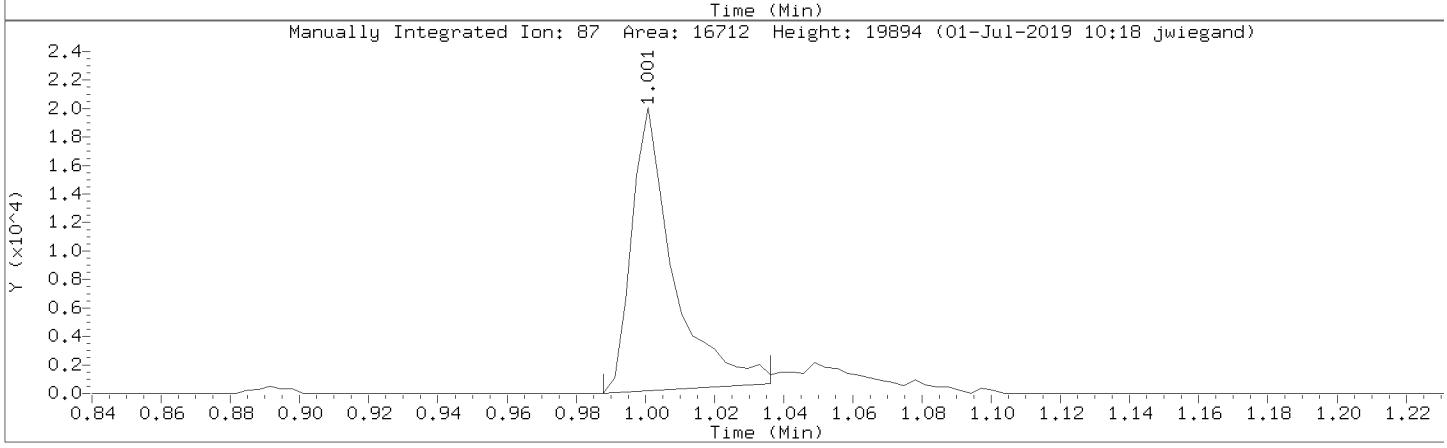
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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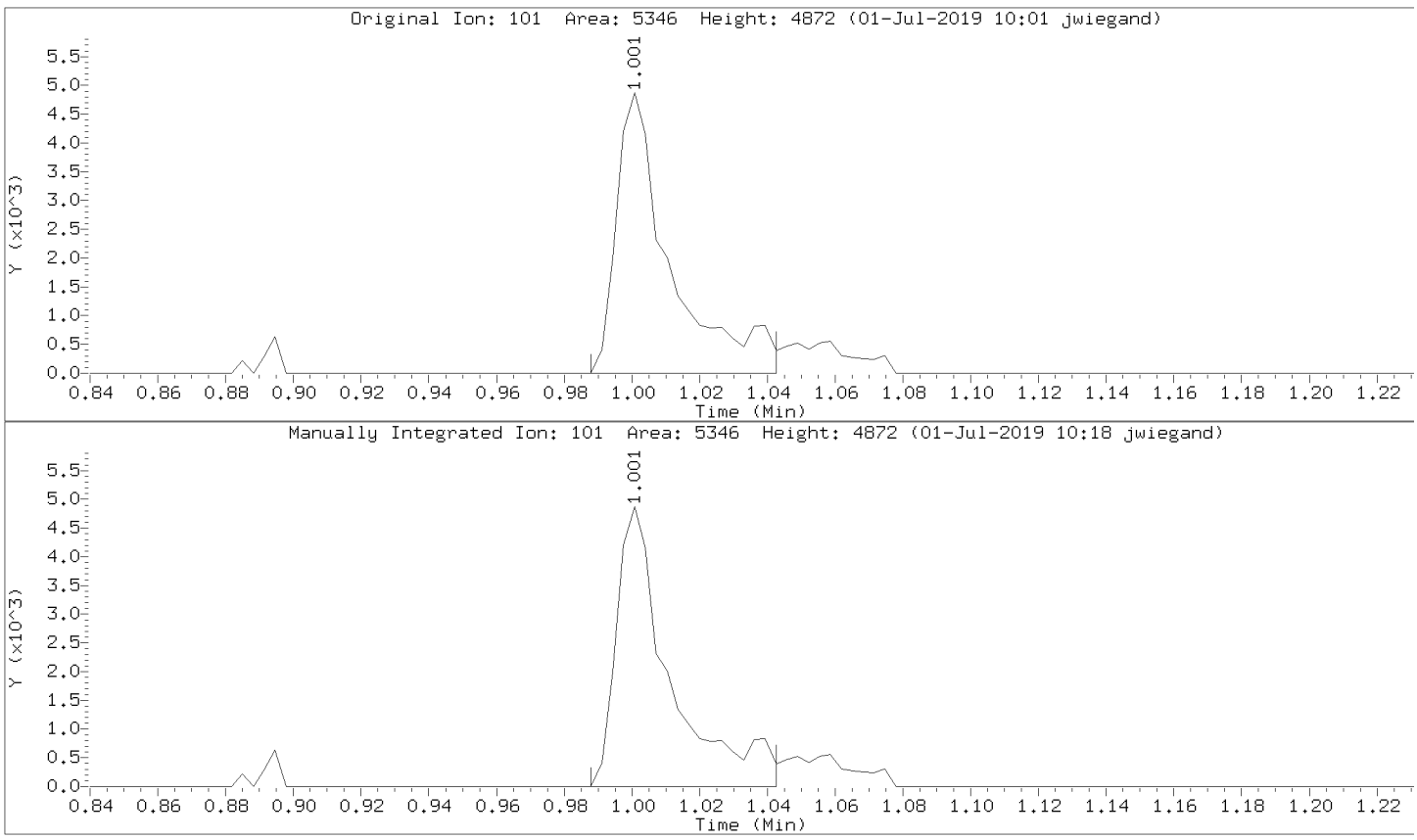
Instrument: 30mv5a.i
Lab Sample ID: CCV



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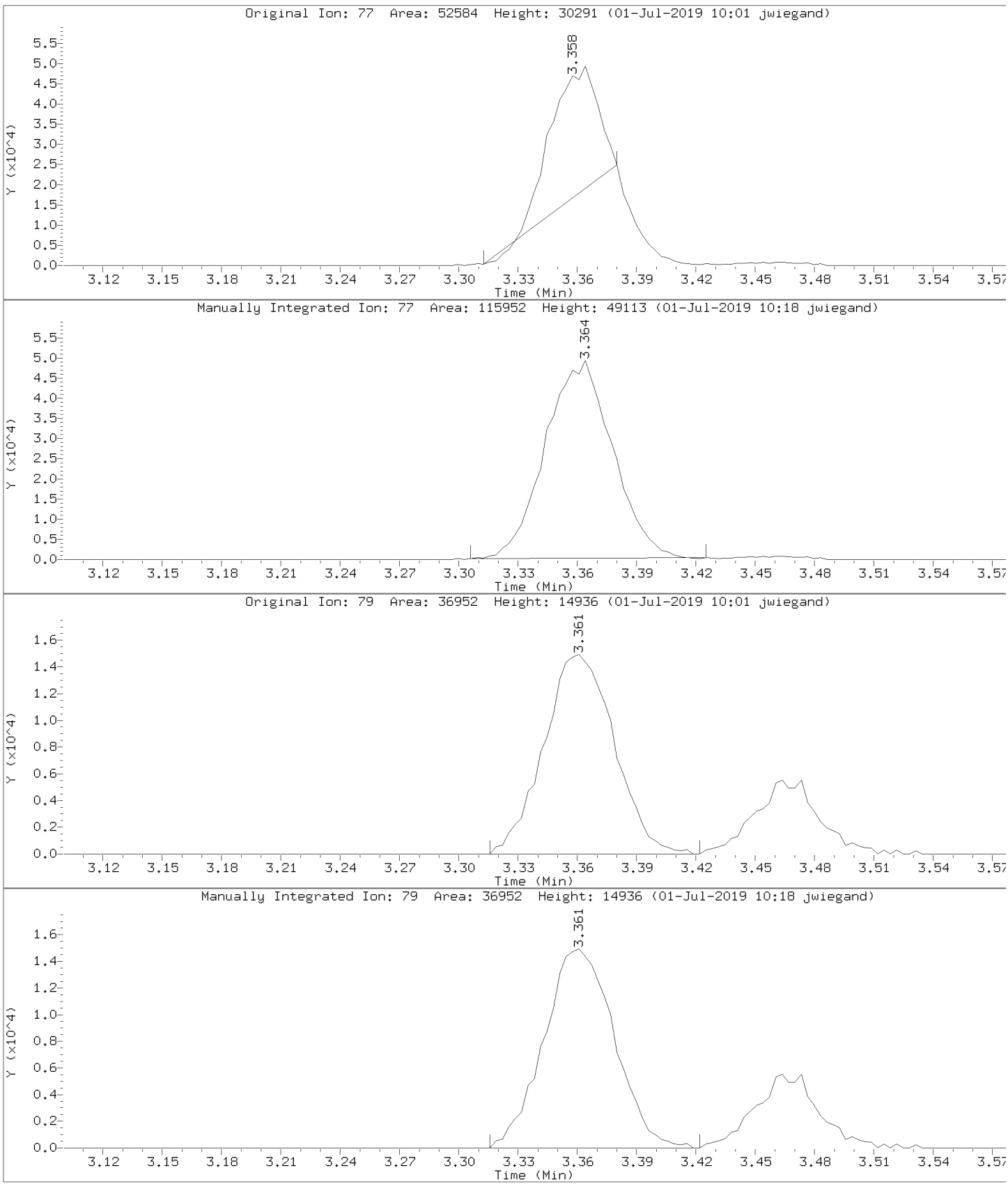
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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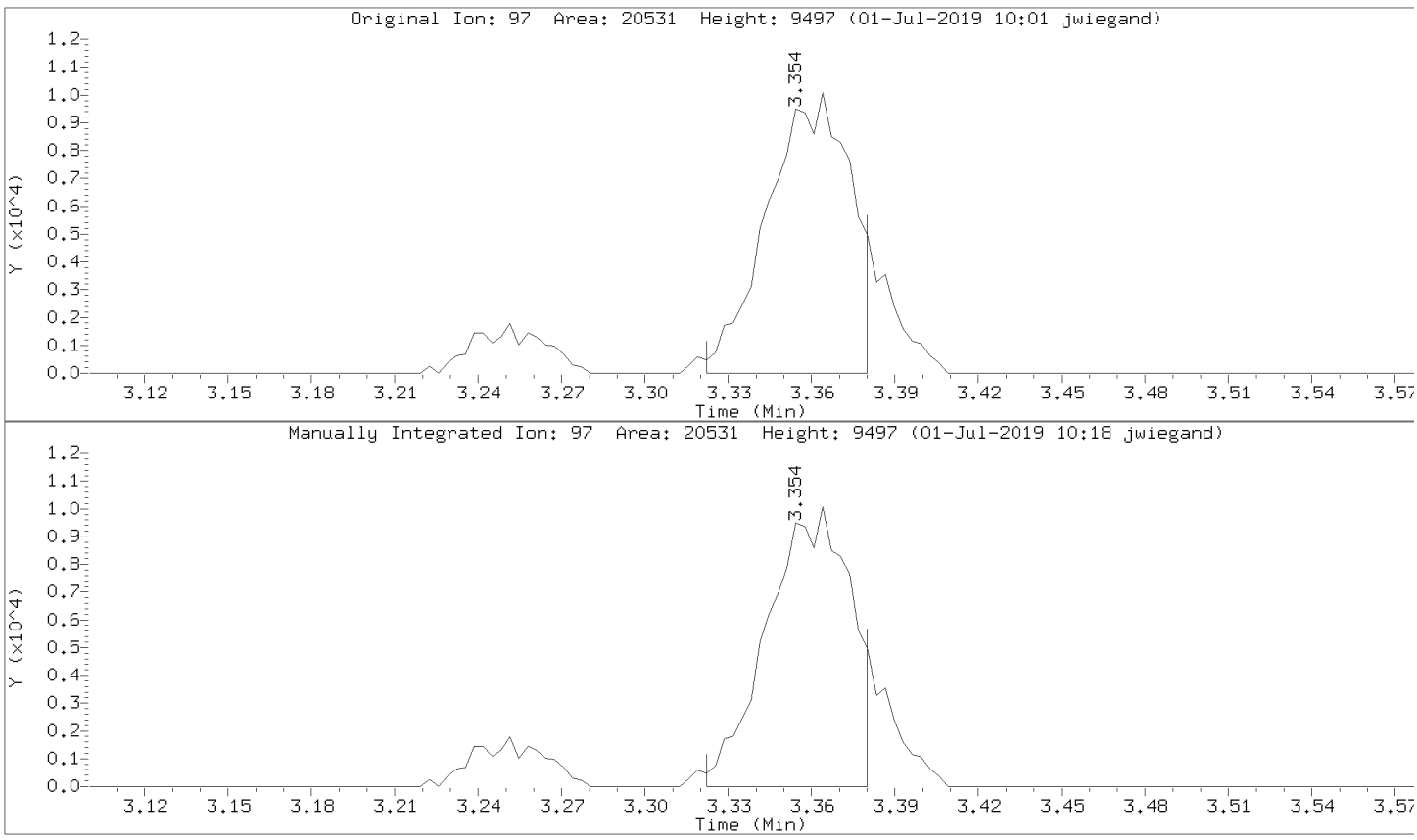
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV



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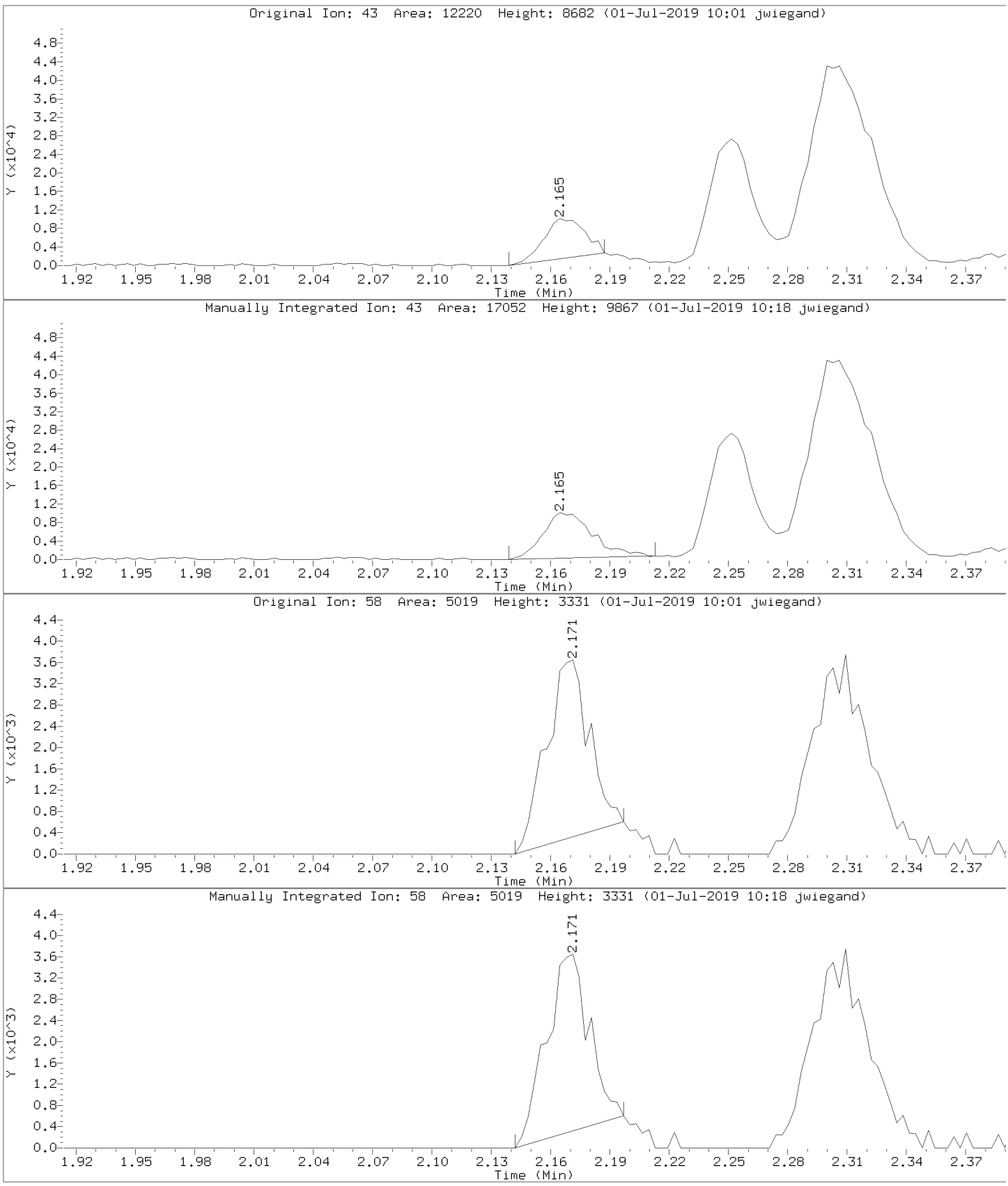
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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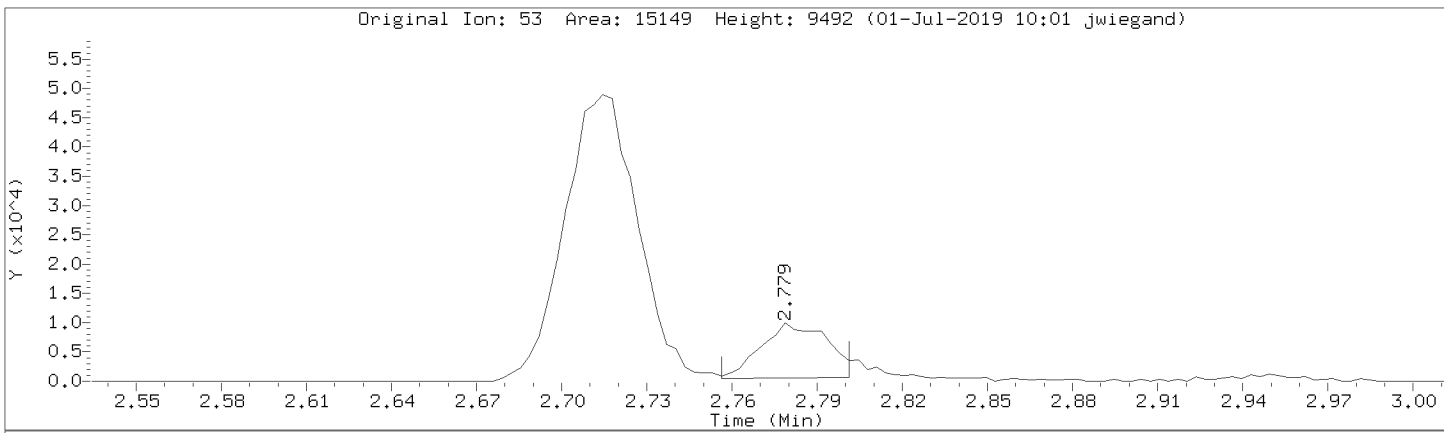
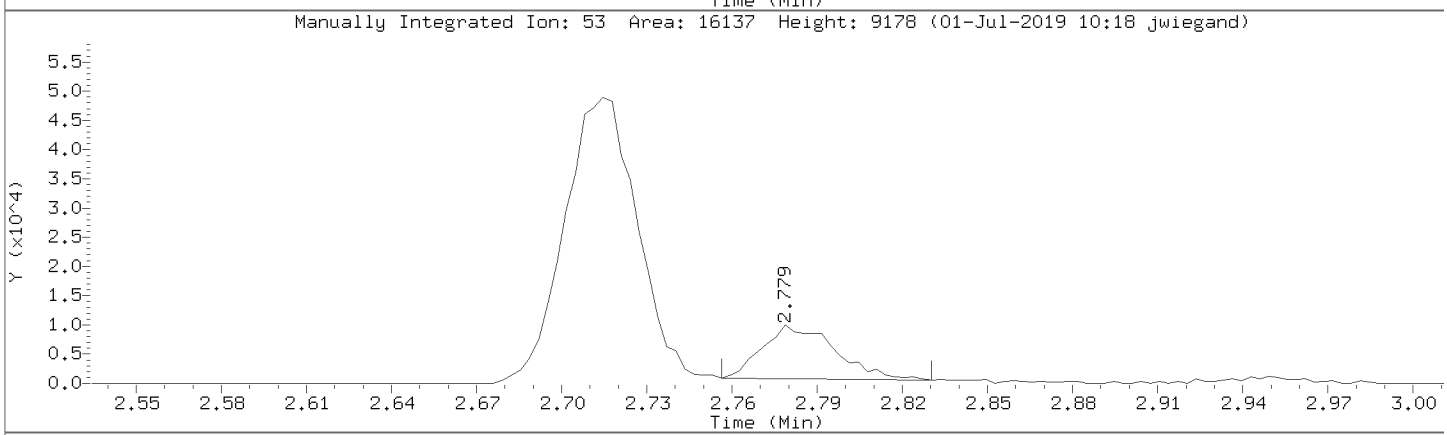
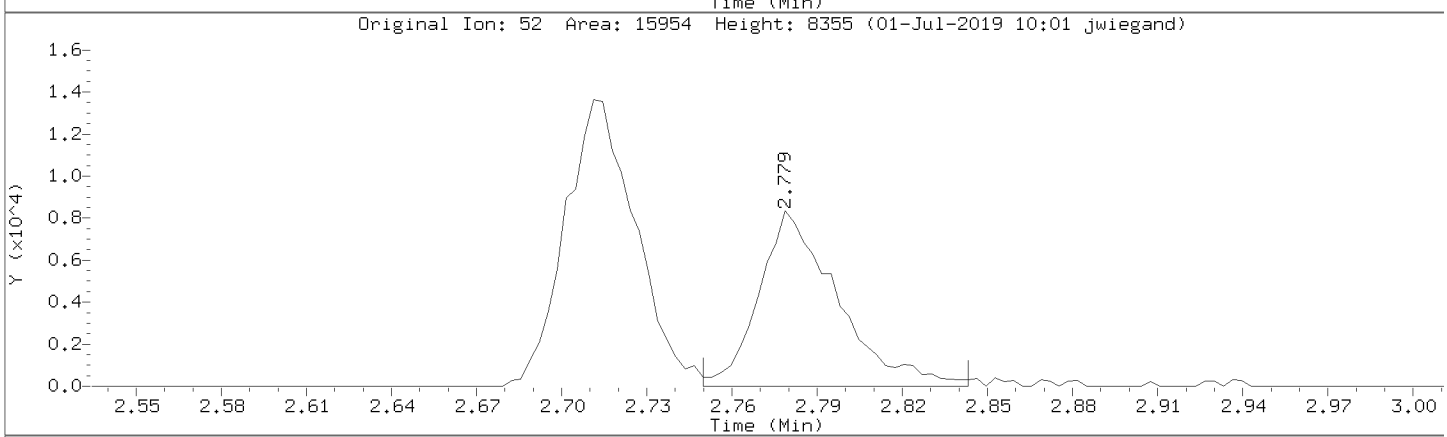
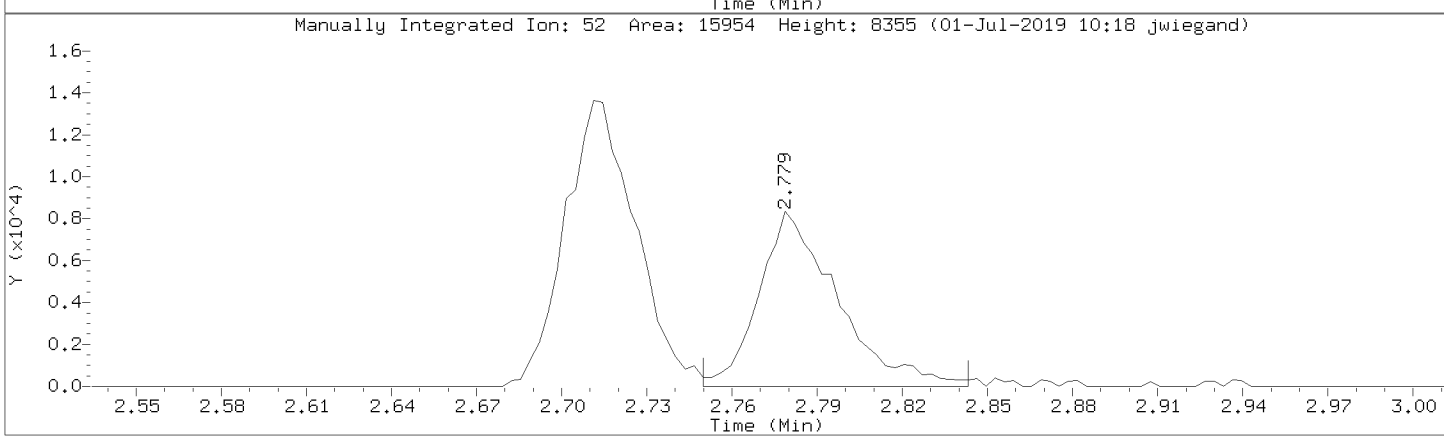
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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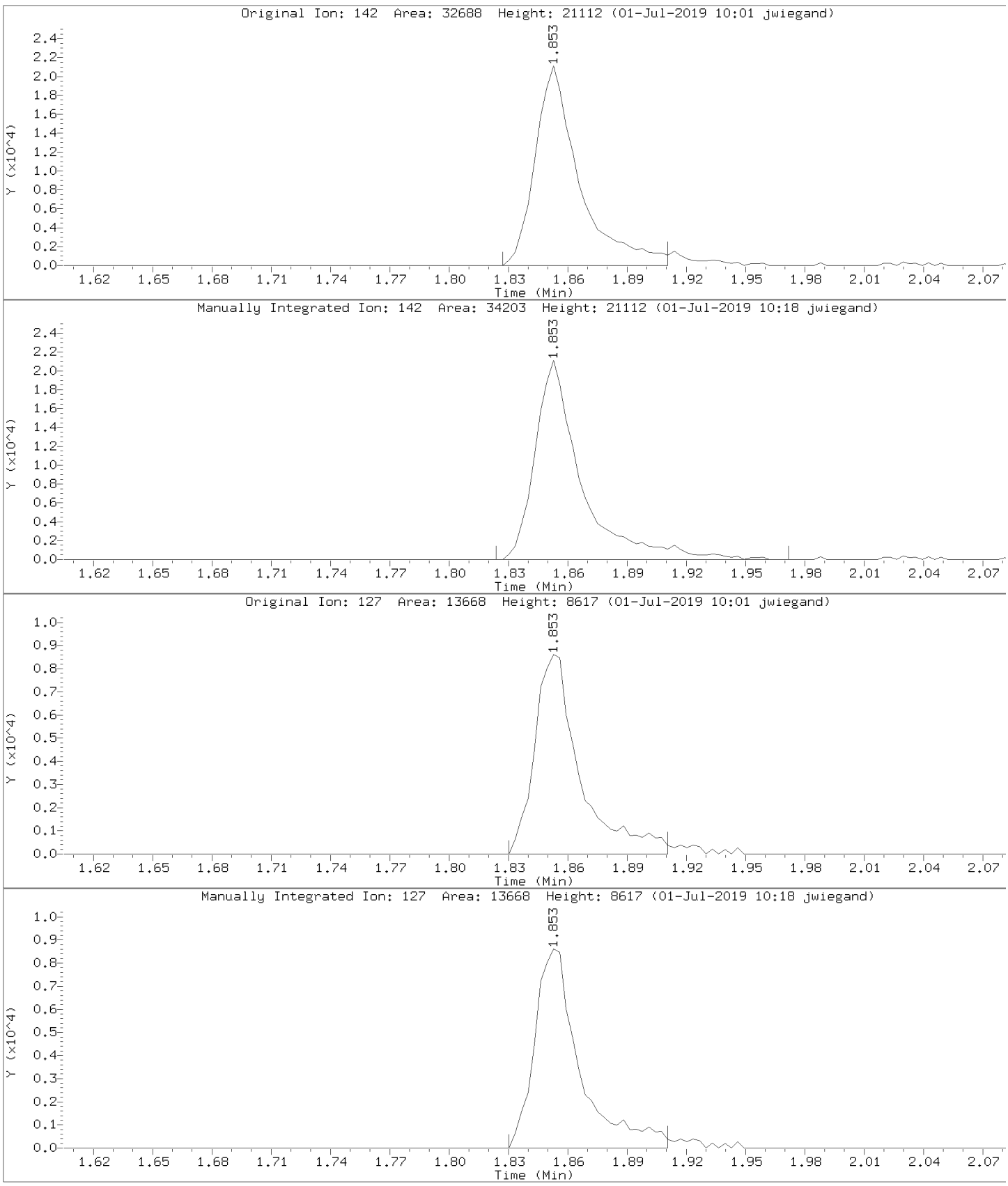
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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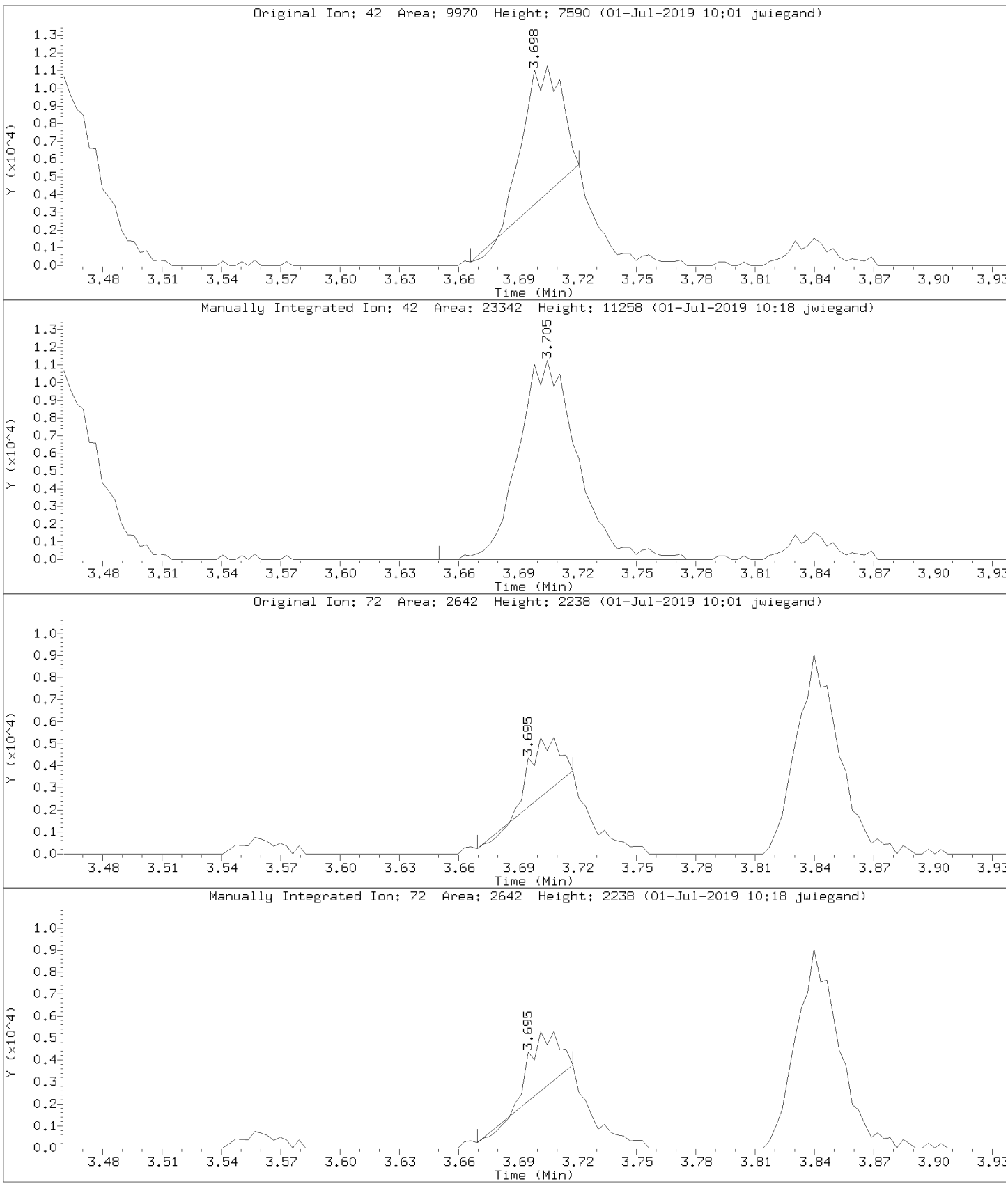
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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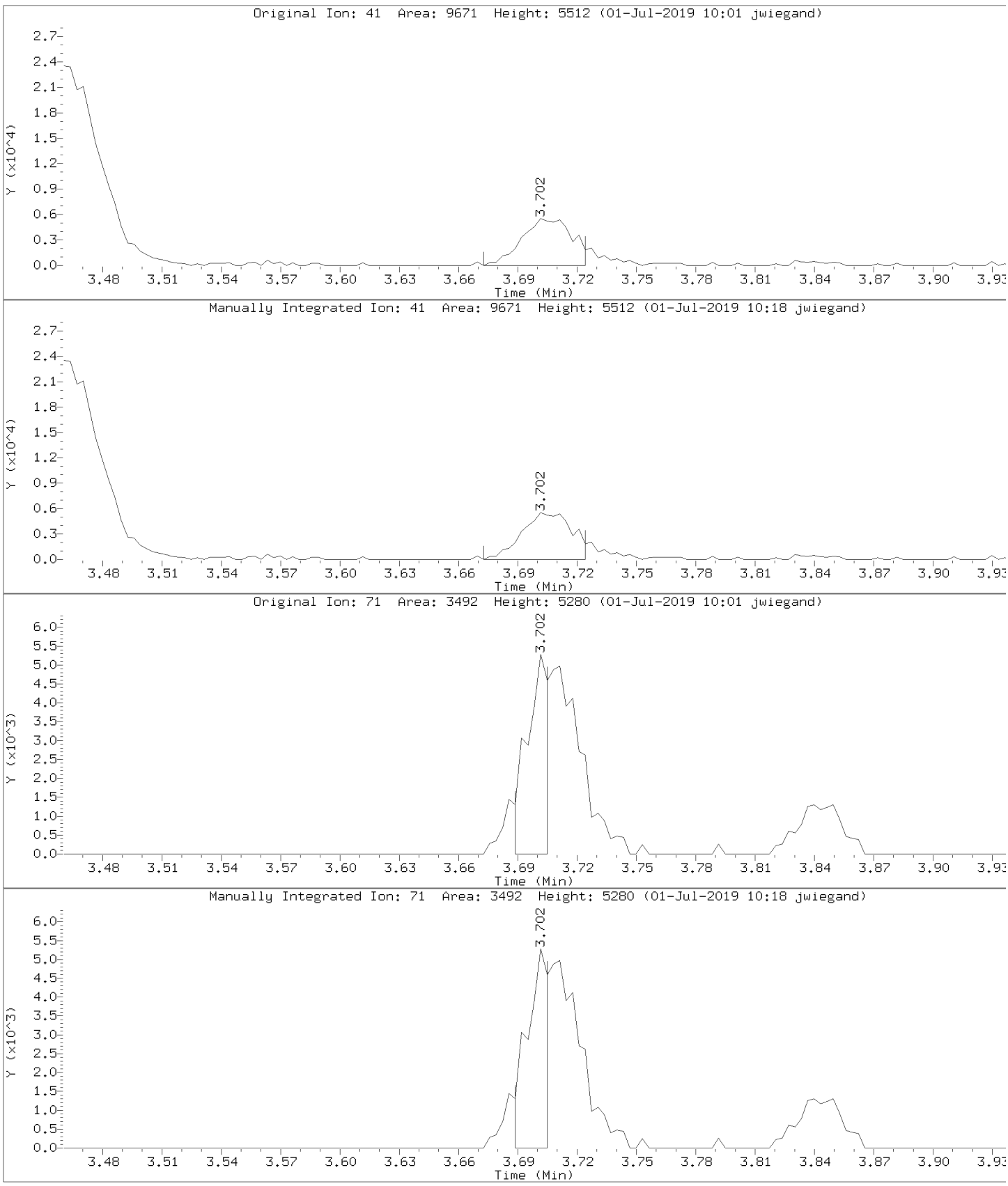
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV



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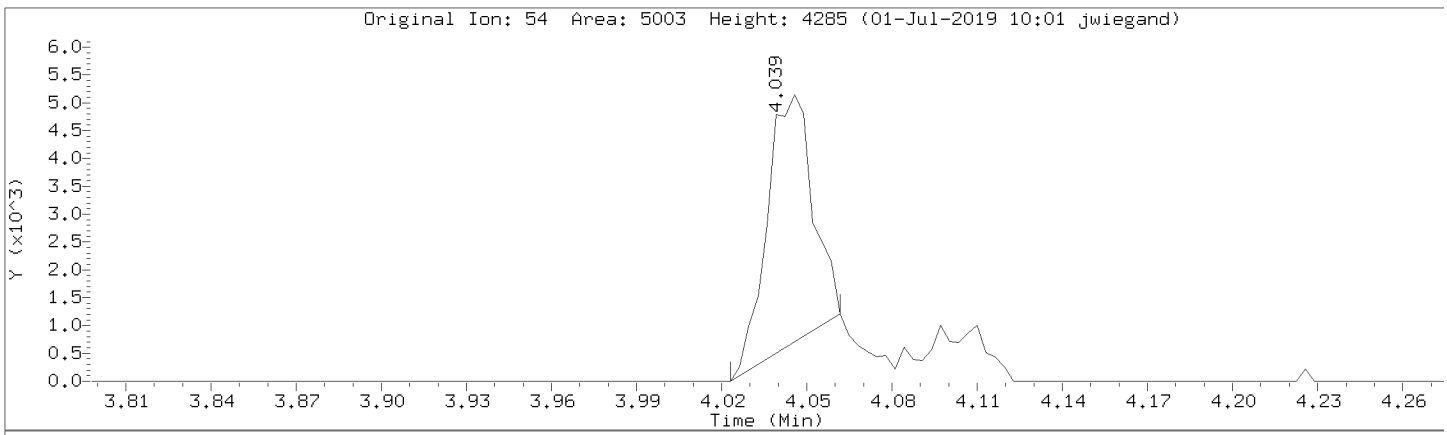
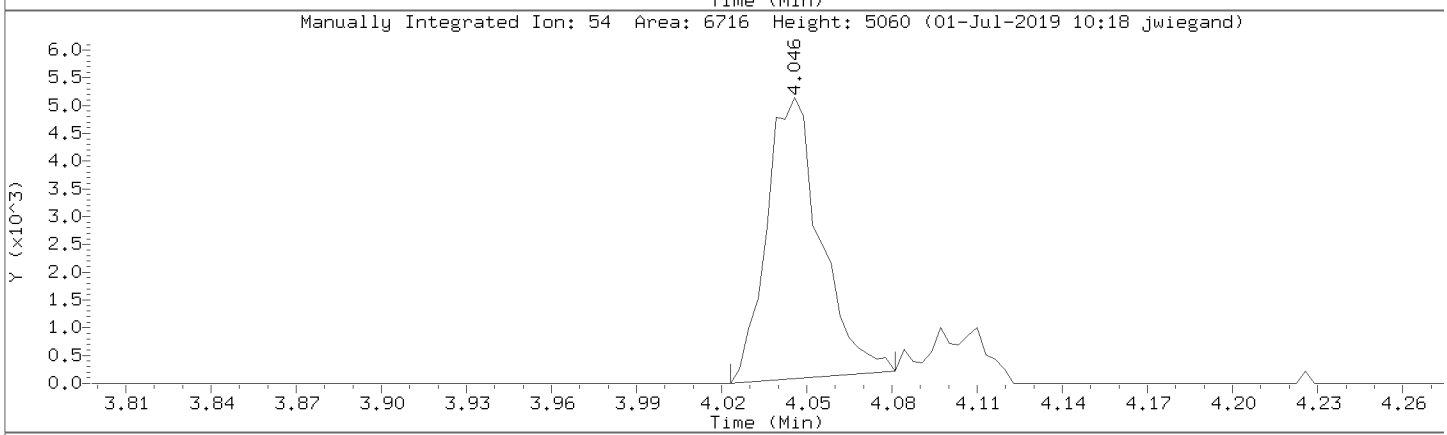
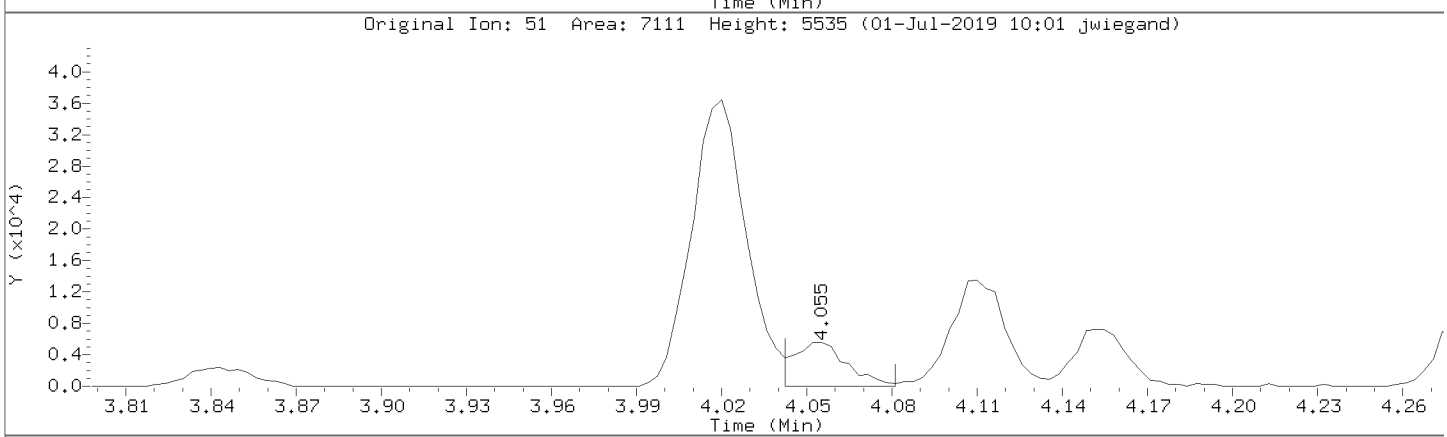
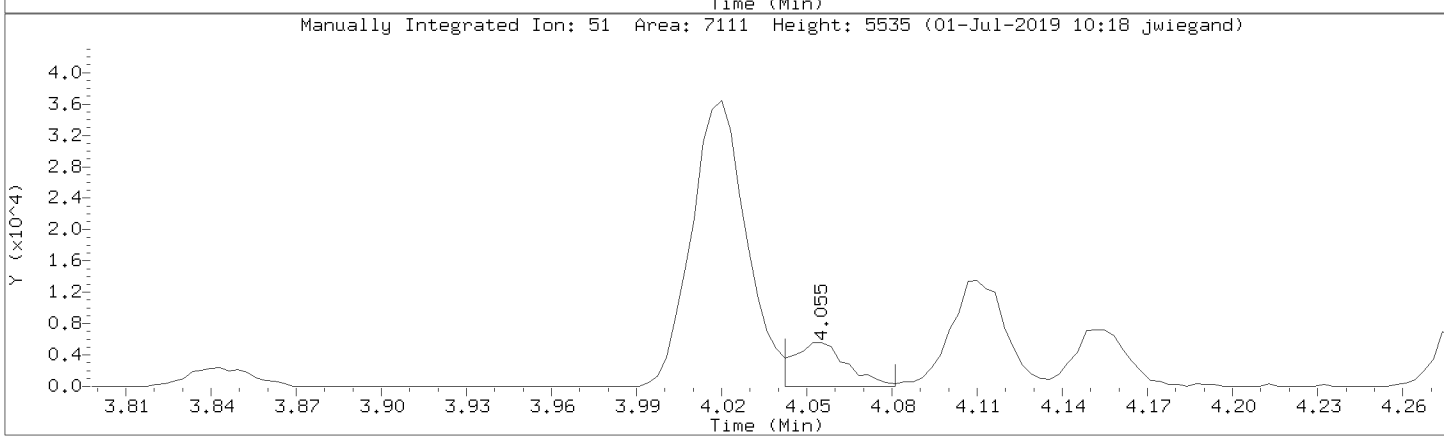
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0

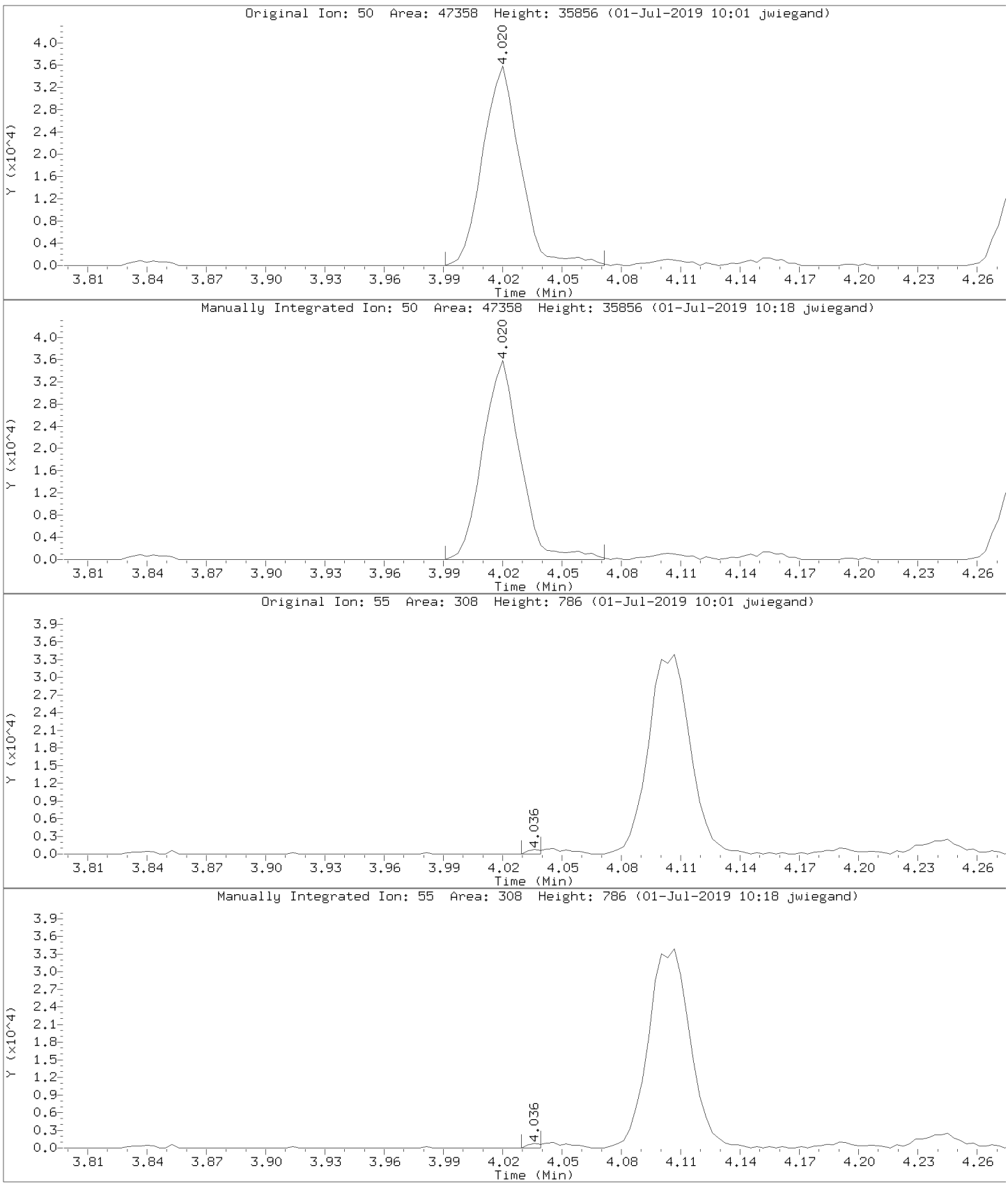








Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701005.d
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV



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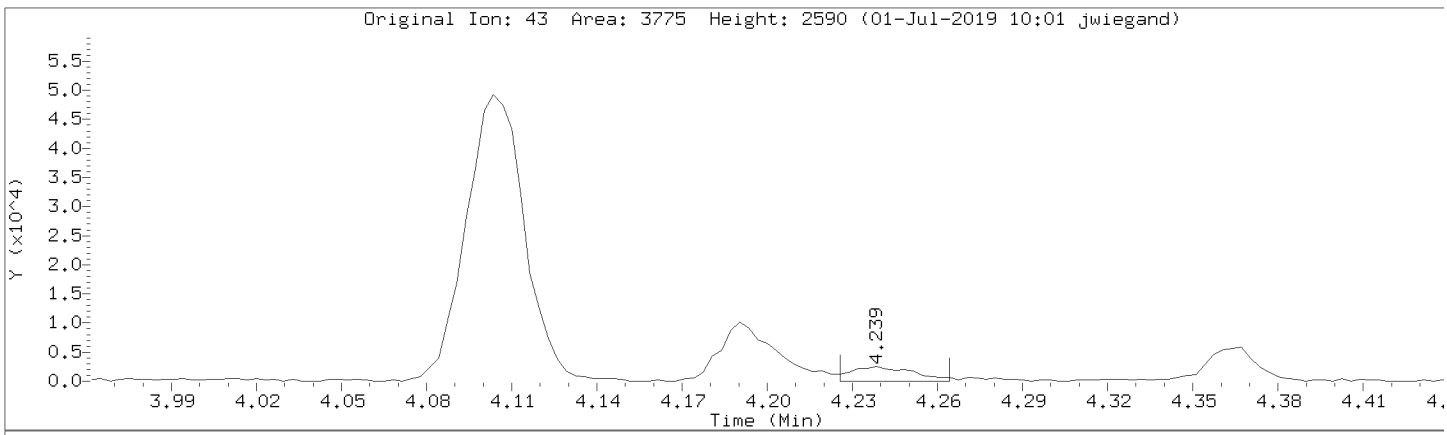
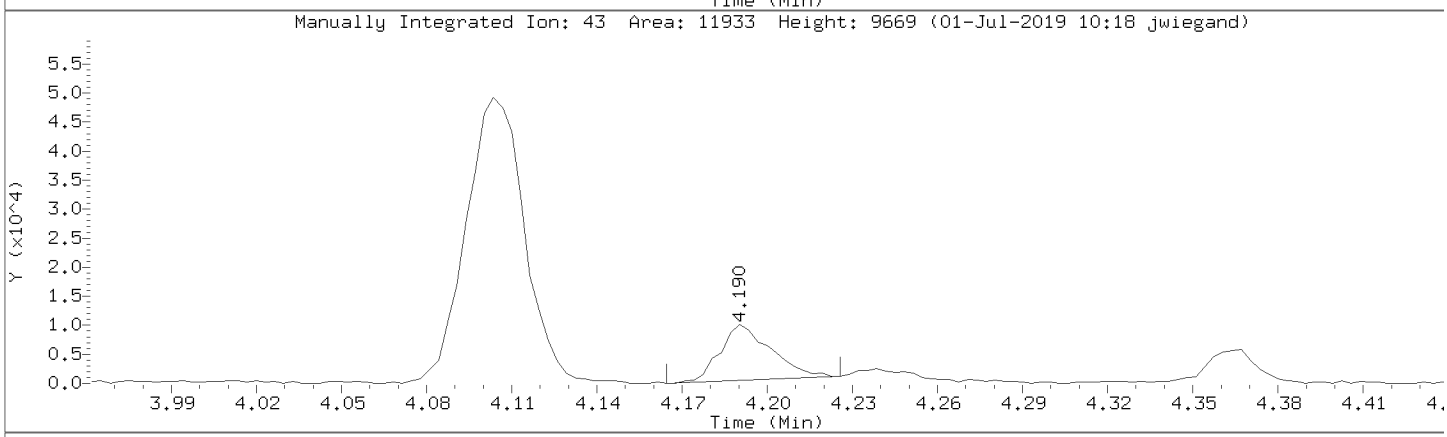
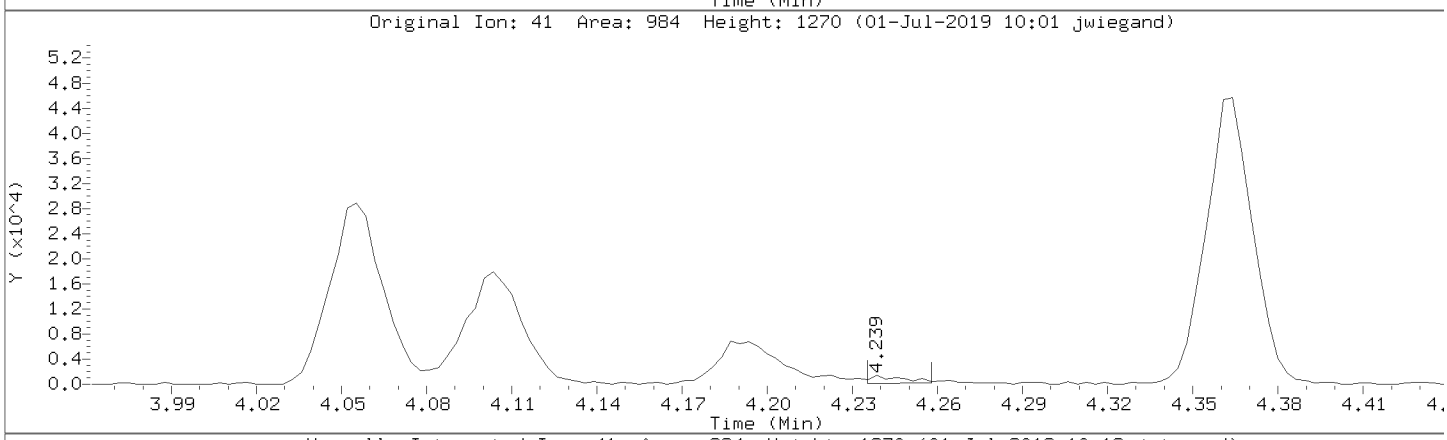
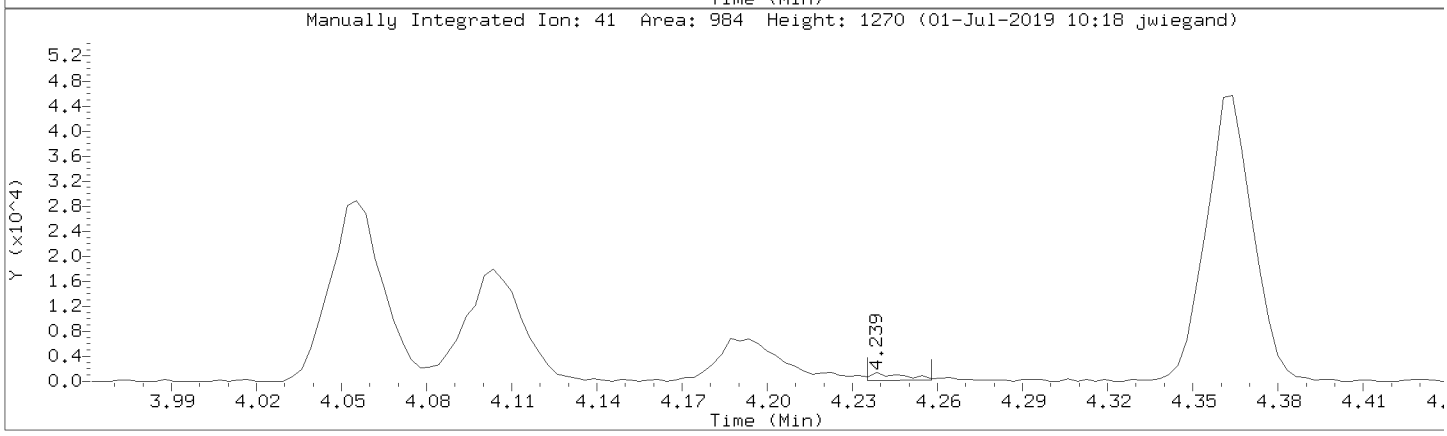
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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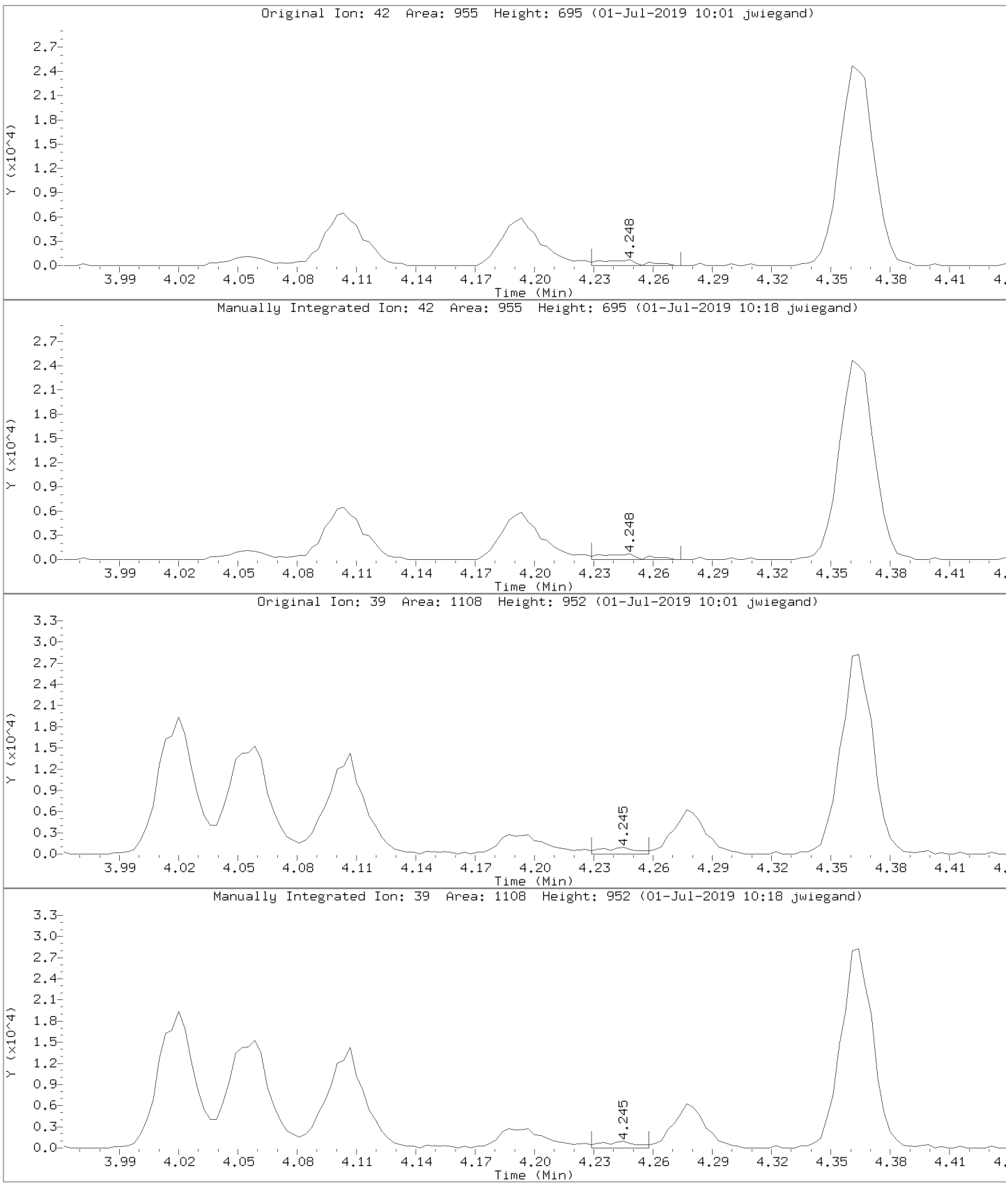
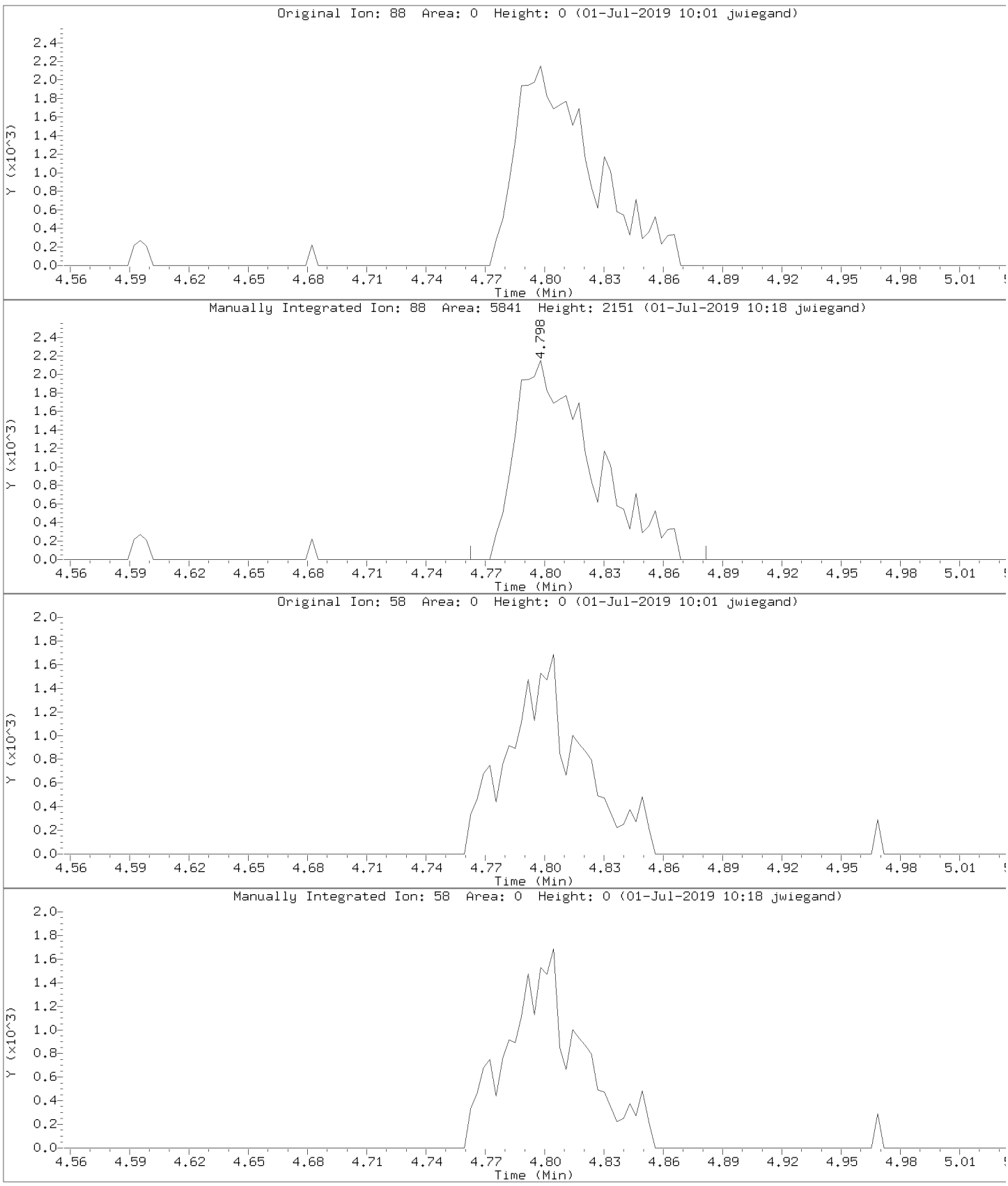
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

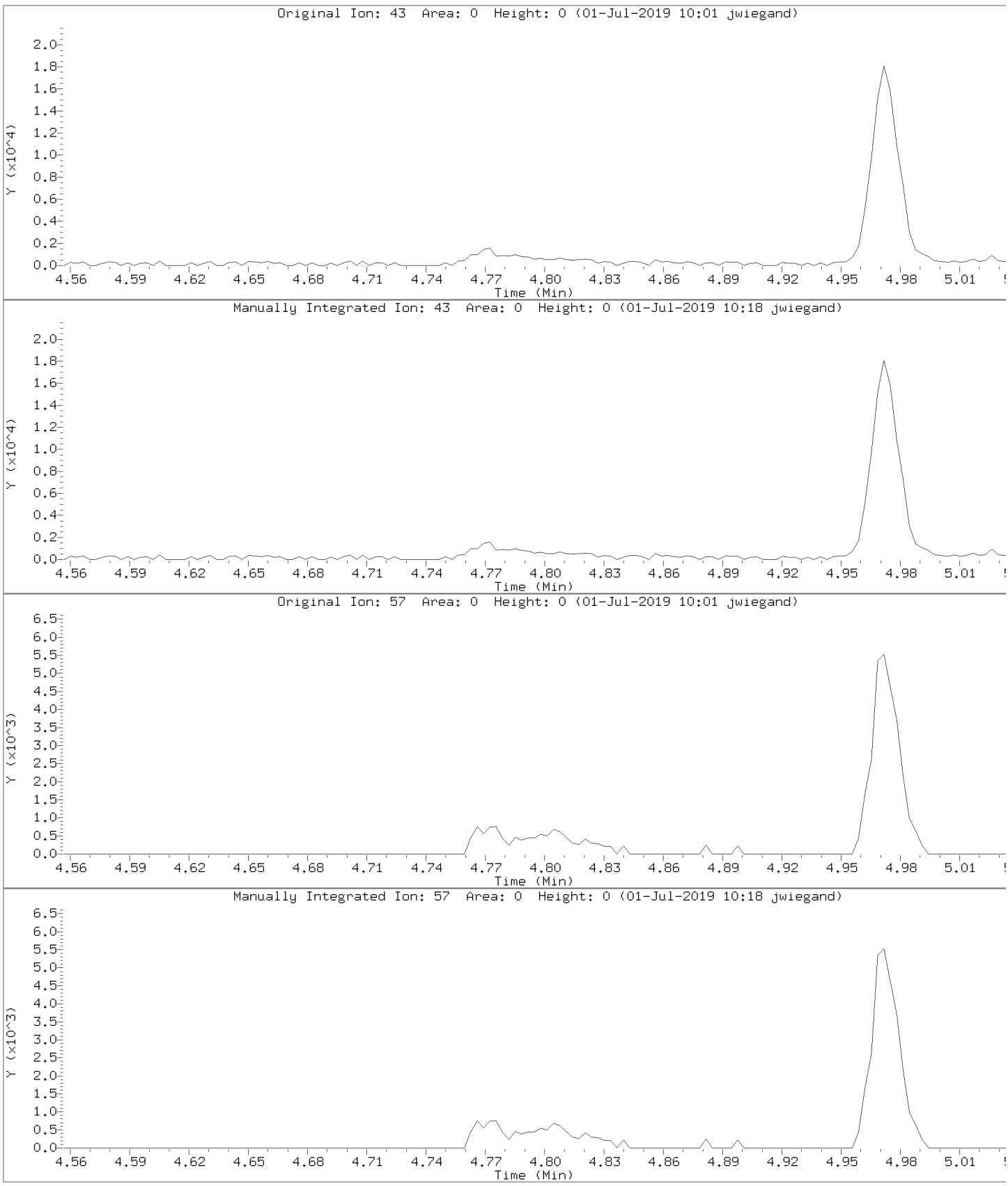


Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701005.d
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701005.d
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV



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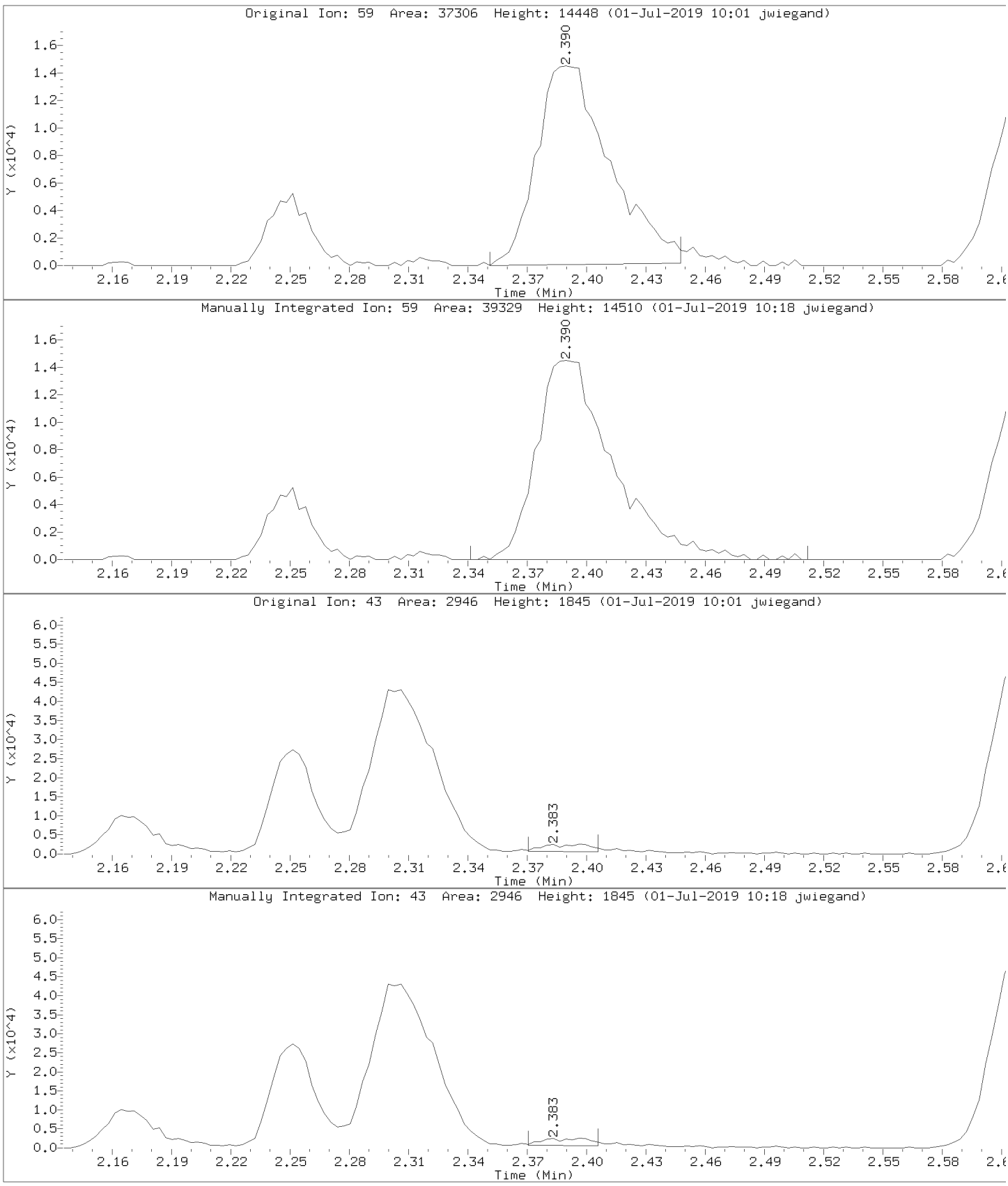
Injection Date: 01-JUL-2019 09:23
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618003.d

Date : 18-JUN-2019 09:08

Client ID: TUNE

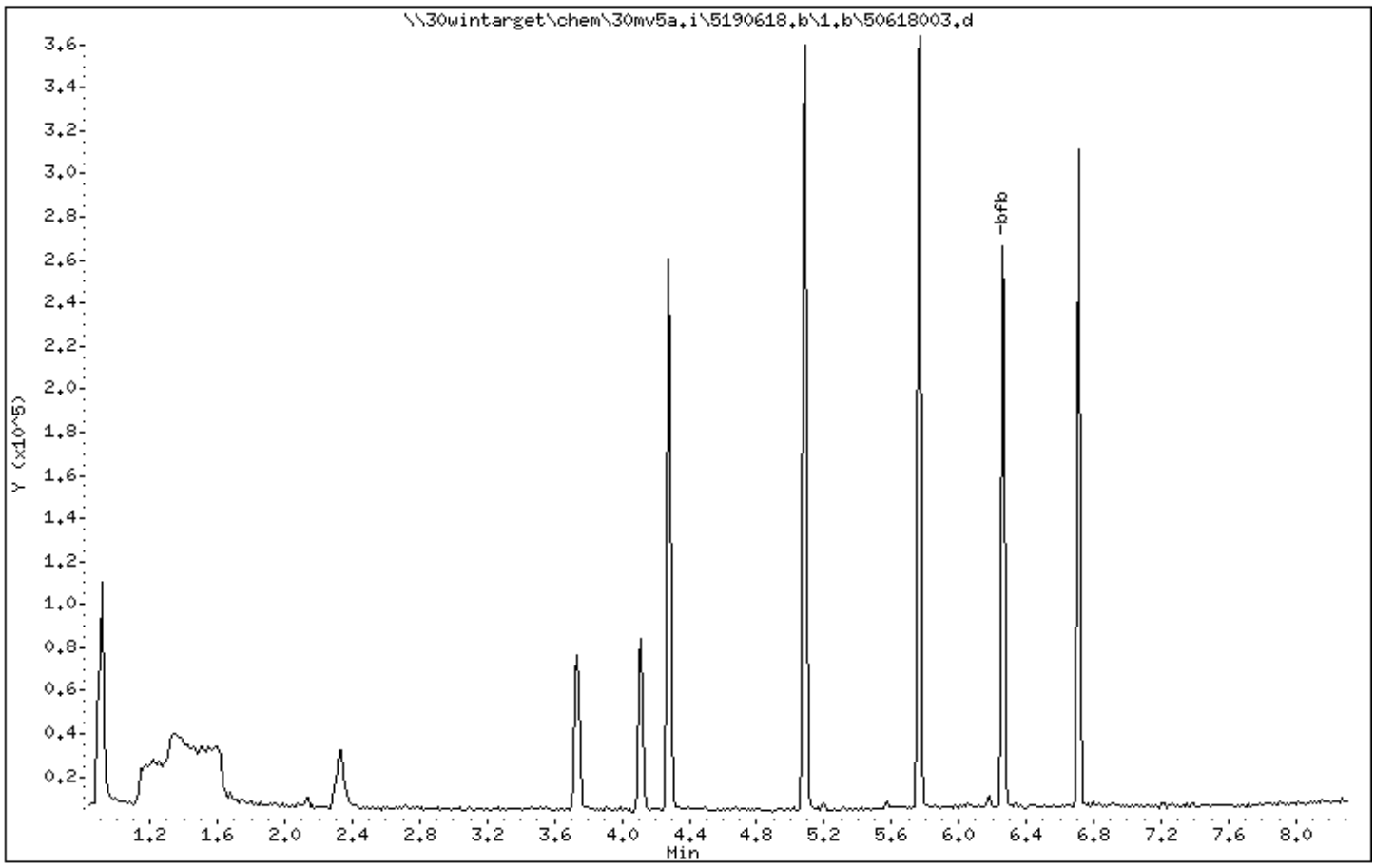
Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618003.d

Date : 18-JUN-2019 09:08

Client ID: TUNE

Instrument: 30mv5a.i

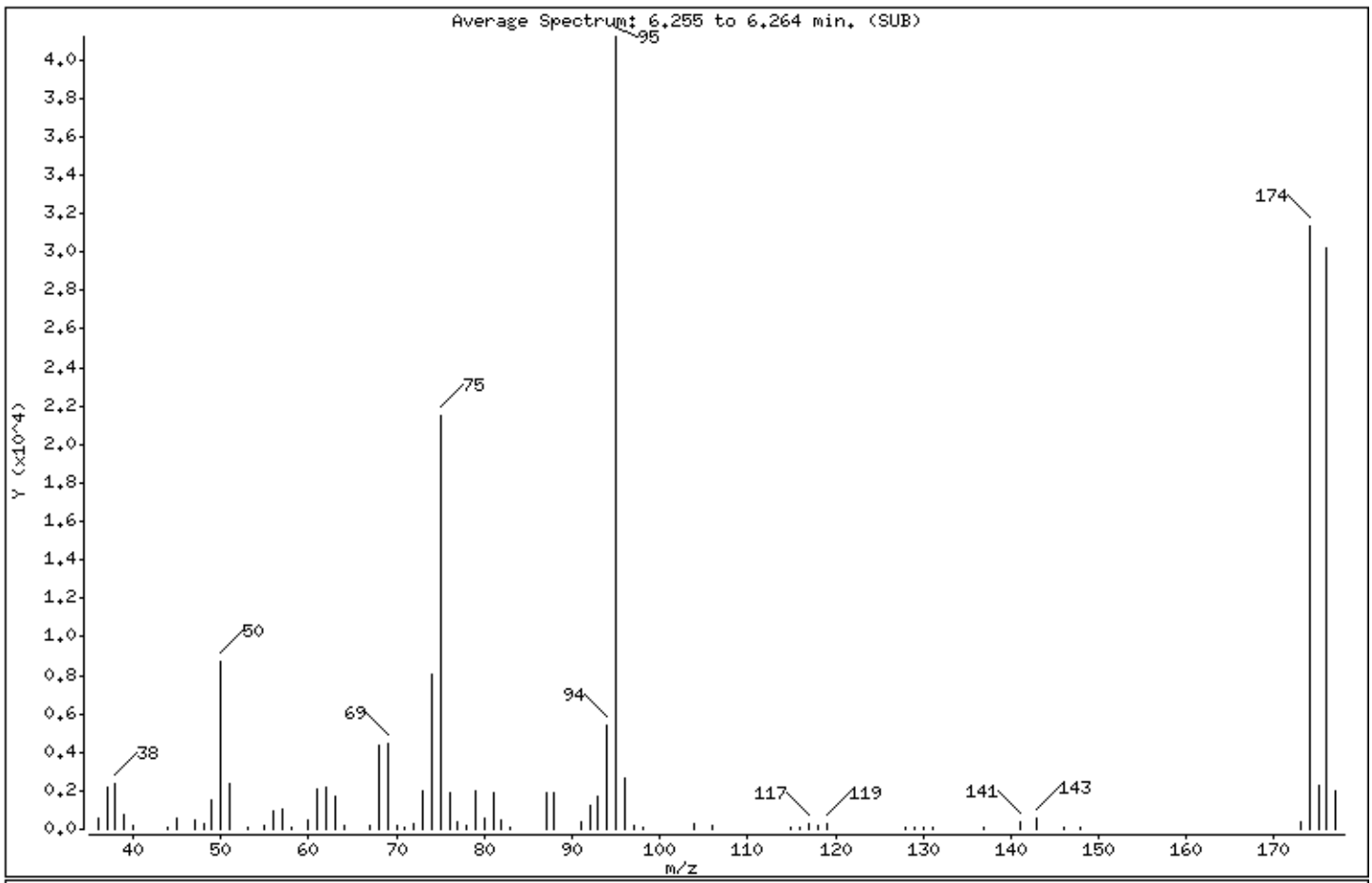
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.25
75	30.00 - 60.00% of mass 95	52.14
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	0.94 (1.24)
174	50.00 - 120.00% of mass 95	76.08
175	5.00 - 9.00% of mass 174	5.41 (7.12)
176	95.00 - 101.00% of mass 174	73.24 (96.27)
177	5.00 - 9.00% of mass 176	4.85 (6.62)

Date : 18-JUN-2019 09:08

Client ID: TUNE Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS Column diameter: 0.18

Data File: 50618003.d
Spectrum: Average Spectrum: 6.255 to 6.264 min. (SUB)
Location of Maximum: 95.00
Number of points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	561	61.00	2074	81.00	1896	118.00	153
37.00	2198	62.00	2203	82.00	470	119.00	278
38.00	2413	63.00	1750	83.00	57	128.00	50
39.00	802	64.00	201	87.00	1855	129.00	50
40.00	185	67.00	155	88.00	1886	130.00	59
44.00	121	68.00	4322	91.00	361	131.00	54
45.00	587	69.00	4448	92.00	1221	137.00	53
47.00	445	70.00	189	93.00	1735	141.00	386
48.00	246	71.00	70	94.00	5358	143.00	558
49.00	1556	72.00	286	95.00	41184	146.00	53
50.00	8751	73.00	2034	96.00	2667	148.00	55
51.00	2342	74.00	8022	97.00	179	173.00	388
53.00	68	75.00	21472	98.00	52	174.00	31328
55.00	182	76.00	1898	104.00	255	175.00	2230
56.00	981	77.00	381	106.00	188	176.00	30160
57.00	1024	78.00	149	115.00	51	177.00	1997
58.00	61	79.00	2019	116.00	125		
60.00	441	80.00	557	117.00	263		

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701003.d

Date : 01-JUL-2019 08:56

Client ID: TUNE

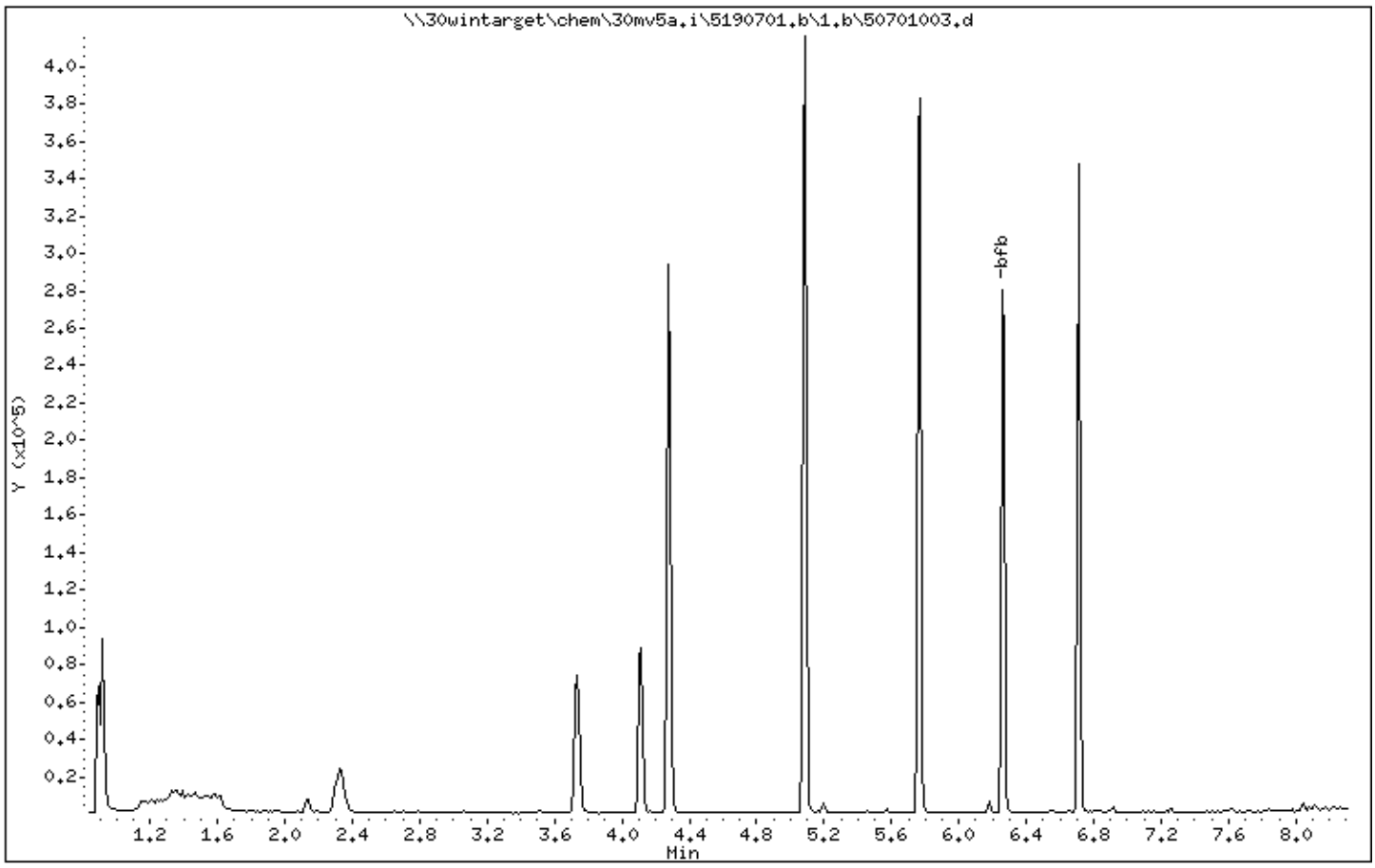
Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701003.d

Date : 01-JUL-2019 08:56

Client ID: TUNE

Instrument: 30mv5a.i

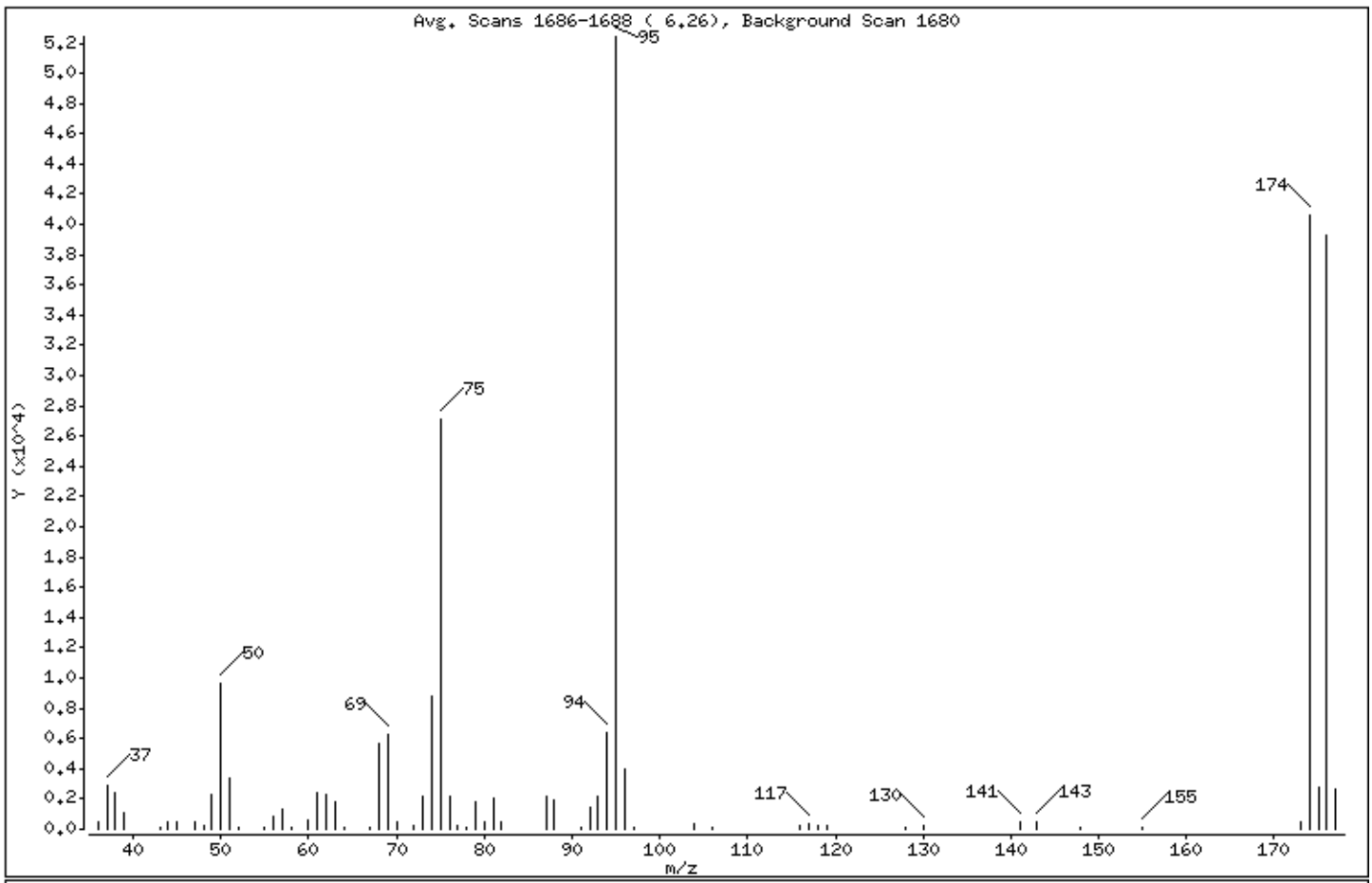
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.45
75	30.00 - 60.00% of mass 95	51.64
96	5.00 - 9.00% of mass 95	7.53
173	Less than 2.00% of mass 174	0.86 (1.12)
174	50.00 - 120.00% of mass 95	77.45
175	5.00 - 9.00% of mass 174	5.19 (6.70)
176	95.00 - 101.00% of mass 174	74.94 (96.77)
177	5.00 - 9.00% of mass 176	5.09 (6.80)

Date : 01-JUL-2019 08:56

Client ID: TUNE Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS Column diameter: 0.18

Data File: 50701003.d
Spectrum: Avg. Scans 1686-1688 (6.26), Background Scan 1680
Location of Maximum: 95.00
Number of points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	488	58.00	86	78.00	131	116.00	182
37.00	2873	60.00	629	79.00	1856	117.00	371
38.00	2401	61.00	2382	80.00	485	118.00	234
39.00	1039	62.00	2347	81.00	2083	119.00	188
43.00	75	63.00	1843	82.00	467	128.00	117
44.00	433	64.00	170	87.00	2154	130.00	193
45.00	473	67.00	124	88.00	1940	141.00	455
47.00	485	68.00	5686	91.00	149	143.00	453
48.00	233	69.00	6233	92.00	1386	148.00	81
49.00	2275	70.00	506	93.00	2184	155.00	68
50.00	9671	72.00	296	94.00	6407	173.00	453
51.00	3395	73.00	2143	95.00	52424	174.00	40600
52.00	116	74.00	8816	96.00	3948	175.00	2722
55.00	95	75.00	27072	97.00	78	176.00	39288
56.00	886	76.00	2206	104.00	384	177.00	2670
57.00	1366	77.00	248	106.00	81		

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Water SDG No.: 30300161

Date Extracted: 07/01/2019 10:16 Lab Sample ID: 1699734

Date Analyzed: 07/01/2019 10:16 Lab File ID: 5190701.B\1.B\50701009-45152.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	19.5	
78-93-3	2-Butanone (MEK)	15.0	
56-23-5	Carbon tetrachloride	19.0	
108-90-7	Chlorobenzene	19.4	
67-66-3	Chloroform	18.4	
107-06-2	1,2-Dichloroethane	17.8	
75-35-4	1,1-Dichloroethene	19.5	
127-18-4	Tetrachloroethene	19.6	
79-01-6	Trichloroethene	19.0	
75-01-4	Vinyl chloride	16.4	

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Lab Smp Id: 1699734 Client Smp ID: MBLCS
Inj Date : 01-JUL-2019 10:16
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1699734,92408:5,,
Misc Info : 45152,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	27023	19.4172	19.4(M)	LT
2	Chloromethane	50	1.135	1.142	(0.266)	16061	17.0400	17.0(M)	LT
3	Vinyl chloride	62	1.145	1.145	(0.268)	28956	16.3701	16.4(M)	LT
4	Bromomethane	94	1.322	1.325	(0.309)	23529	19.0969	19.1(M)	LT
5	Chloroethane	64	1.389	1.380	(0.325)	19512	17.2607	17.3(M)	LT
6	Trichlorofluoromethane	101	1.466	1.467	(0.343)	50559	19.7236	19.7	
7	Diethyl ether (Ethyl ether)	59	1.634	1.634	(0.382)	22090	17.0794	17.1	
8	Ethanol	45	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.759	1.759	(0.411)	41349	19.5209	19.5	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.775	(0.415)	18989	19.1933	19.2(M)	LT
11	Carbon disulfide	76	1.785	1.785	(0.417)	68822	18.7810	18.8	
12	Iodomethane	142	1.849	1.856	(0.432)	10155	14.9330	14.9(RM)	LT
13	Acrolein	56	1.965	1.969	(0.459)	3754	22.4653	22.5(QM)	LT
14	Allyl chloride	41	2.058	2.055	(0.481)	157867	94.3351	94.3(R)	
15	Methylene Chloride	49	2.132	2.132	(0.499)	29872	20.5556	20.6	
16	Acetone	43	2.167	2.165	(0.507)	8203	21.7436	21.7(QM)	LT
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	38747	17.8556	17.8(M)	LT
18	Methyl acetate	74	2.254	2.254	(0.527)	5145	19.7375	19.7	
19	n-Hexane	86	2.299	2.297	(0.538)	7055	19.9662	20.0(QM)	LT
20	Methyl-tert-butyl ether	73	2.319	2.312	(0.542)	86214	18.0914	18.1(Q)	
21	tert-Butyl Alcohol	59	2.392	2.386	(0.559)	15491	77.7381	77.7(QM)	LT
22	Acetonitrile	41	2.521	2.522	(0.590)	9335	100.021	100(QRM)	LT
23	Diisopropyl ether	45	2.618	2.618	(0.612)	78352	17.1225	17.1	

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	2.714	2.705	(0.635)	32046	16.4478	16.4(Q)	
	25 1,1-Dichloroethane	63	2.733	2.727	(0.639)	49377	17.1403	17.1(Q)	
	26 Acrylonitrile	53	2.785	2.785	(0.651)	6098	13.7666	13.8(QRM)	LT
	27 Ethyl-tert-butyl ether	59	2.949	2.939	(0.690)	82794	17.2689	17.3(Q)	
	28 Vinyl acetate	43	2.968	2.965	(0.694)	49293	13.4334	13.4(R)	
	29 cis-1,2-Dichloroethene	61	3.254	3.248	(0.761)	41007	18.5954	18.6(QM)	LT
	30 2,2-Dichloropropane	77	3.360	3.351	(0.786)	47752	18.2598	18.2(QM)	LT
	31 Cyclohexane	56	3.460	3.450	(0.809)	41456	19.0412	19.0(Q)	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	21208	21.1421	21.1(QM)	LT
	33 Chloroform	83	3.556	3.553	(0.832)	59302	18.4404	18.4(Q)	
	34 Carbon tetrachloride	117	3.682	3.679	(0.861)	43533	18.9502	19.0	
	35 Ethyl acetate	43	3.698	3.702	(0.865)	20581	13.4011	13.4(RM)	LT
	36 Tetrahydrofuran	42	3.711	3.711	(0.868)	8779	14.3338	14.3(Q)	
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	44679	30.5797	30.6	
	38 1,1,1-Trichloroethane	97	3.740	3.733	(0.874)	50552	18.2121	18.2(Q)	
	39 2-Butanone (MEK)	43	3.839	3.865	(0.898)	10723	14.9943	15.0(Q)	
	40 1,1-Dichloropropene	75	3.846	3.846	(0.899)	43838	18.9418	18.9	
	41 Benzene	78	4.016	4.020	(0.939)	124342	19.4990	19.5	
	42 Propionitrile	54	4.045	4.049	(0.946)	2695	16.2116	16.2(QM)	LT
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	13574	15.1185	15.1	
	44 tert-Amylmethyl ether	73	4.100	4.106	(0.959)	87182	17.9117	17.9(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.961)	43012	27.3235	27.3	
	46 Isobutanol	43	4.193	4.213	(0.980)	4378	68.3043	68.3(QR)	
	47 1,2-Dichloroethane	62	4.154	4.151	(0.971)	41906	17.8450	17.8	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	167062	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	49994	21.3684	21.4	
	50 Trichloroethene	95	4.373	4.373	(0.759)	35315	18.9733	19.0	
	51 Dibromomethane	174	4.598	4.598	(1.075)	20907	18.7513	18.8	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	30622	19.0212	19.0	
	53 Bromodichloromethane	83	4.688	4.688	(1.096)	43288	19.1067	19.1	
	54 Methyl methacrylate	69	4.769	4.775	(1.115)	20398	17.0137	17.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.791	4.808	(1.120)	1821	149.658	150(RM)	NI
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	10466	16.9782	17.0	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	50059	18.4547	18.4	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	159502	29.7644	29.8	
	59 Toluene	91	5.109	5.110	(0.886)	135140	18.9584	19.0	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	40640	76.1123	76.1(R)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.235)	27741	17.1531	17.2	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	35330	19.5901	19.6	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	43883	16.3601	16.4	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	23040	16.2584	16.2	
	65 1,1,2-Trichloroethane	97	5.373	5.370	(0.932)	28438	17.7500	17.8	
	66 Dibromochloromethane	129	5.450	5.450	(0.945)	31984	17.2146	17.2	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.952)	47737	18.5712	18.6	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.963)	30377	19.3085	19.3	
	69 2-Hexanone	43	5.640	5.643	(0.978)	18501	15.3264	15.3	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	48470	19.6105	19.6	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	124964	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	92060	19.3691	19.4	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	34054	18.9494	18.9	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	118476	39.7139	39.7	
	75 o-Xylene	106	6.013	6.016	(1.043)	56823	19.2412	19.2	
	76 Styrene	104	6.035	6.036	(1.047)	88268	18.2484	18.2	
	77 Bromoform	173	6.055	6.058	(0.902)	20083	15.0211	15.0	

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	140454	19.2788	19.3	
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	46506	28.4928	28.5	
	80 n-Propylbenzene	91	6.305	6.306	(0.940)	161532	19.3432	19.3	
	81 Bromobenzene	77	6.309	6.309	(0.940)	60128	18.0227	18.0	
	82 1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	38431	17.2660	17.3	
	83 1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	114144	19.4636	19.5	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	35694	19.4694	19.5	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	11608	17.9429	17.9	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	6820	12.7954	12.8	
	87 Cyclohexanone	55	6.418	6.421	(0.956)	6102	58.7668	58.8	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	34076	18.6102	18.6	
	89 tert-Butylbenzene	119	6.511	6.511	(0.970)	99859	20.6177	20.6	
	90 1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	111814	19.1950	19.2	
	91 sec-Butylbenzene	105	6.582	6.582	(0.981)	137927	20.0371	20.0	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	120026	20.7021	20.7	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	64247	19.7452	19.7	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	56065	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	63144	19.4065	19.4	
	96 n-Butylbenzene	91	6.804	6.804	(1.014)	103248	20.6241	20.6	
	97 1,2-Dichlorobenzene	146	6.891	6.891	(1.027)	59157	19.2636	19.3	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	56491	30.1829	30.2	
	98 1,2-Dibromo-3-chloropropane	157	7.215	7.212	(1.075)	5829	16.0025	16.0	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	39008	22.0233	22.0	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	15530	19.7480	19.7	
	101 1,2,4-Trichlorobenzene	180	7.486	7.486	(1.115)	31163	21.2136	21.2	
	102 Naphthalene	128	7.621	7.618	(1.136)	70008	18.5122	18.5	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	26505	19.8526	19.8	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	28024	17.3036	17.3	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701009-45152.d
Lab Smp Id: 1699734
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152,

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	167062	-3.29
71 Chlorobenzene-d5	132458	66229	264916	124964	-5.66
94 1,4-Dichlorobenze	61733	30867	123466	56065	-9.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.08
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	-0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1699734 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.0	19.4	97.09	70-130
2 Chloromethane	20.0	17.0	85.20	70-130
3 Vinyl chloride	20.0	16.4	81.85	70-130
4 Bromomethane	20.0	19.1	95.48	70-130
5 Chloroethane	20.0	17.3	86.30	70-130
6 Trichlorofluoromet	20.0	19.7	98.62	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	19.5	97.60	70-130
10 1,1,2-Trichlorotri	20.0	19.2	95.97	50-150
11 Carbon disulfide	20.0	18.8	93.91	70-130
12 Iodomethane	50.0	14.9	29.87*	70-130
13 Acrolein	20.0	22.5	112.33	70-130
14 Allyl chloride	50.0	94.3	188.67*	70-130
15 Methylene Chloride	20.0	20.6	102.78	70-130
16 Acetone	20.0	21.7	108.72	70-130
17 trans-1,2-Dichloro	20.0	17.8	89.28	70-130
18 Methyl acetate	20.0	19.7	98.69	70-130
19 n-Hexane	20.0	20.0	99.83	50-150
20 Methyl-tert-butyl	20.0	18.1	90.46	50-150
22 Acetonitrile	50.0	100	200.04*	70-130
23 Diisopropyl ether	20.0	17.1	85.61	70-130
24 Chloroprene	20.0	16.4	82.24	70-130
25 1,1-Dichloroethane	20.0	17.1	85.70	70-130
26 Acrylonitrile	20.0	13.8	68.83*	70-130
27 Ethyl-tert-butyl e	20.0	17.3	86.34	50-150
28 Vinyl acetate	20.0	13.4	67.17*	70-130
29 cis-1,2-Dichloroet	20.0	18.6	92.98	70-130
30 2,2-Dichloropropan	20.0	18.2	91.30	70-130
31 Cyclohexane	20.0	19.0	95.21	70-130
32 Bromochloromethane	20.0	21.1	105.71	70-130
33 Chloroform	20.0	18.4	92.20	70-130
34 Carbon tetrachlori	20.0	19.0	94.75	70-130
35 Ethyl acetate	20.0	13.4	67.01*	70-130
36 Tetrahydrofuran	20.0	14.3	71.67	70-130
38 1,1,1-Trichloroeth	20.0	18.2	91.06	70-130
39 2-Butanone (MEK)	20.0	15.0	74.97	50-150
40 1,1-Dichloropropen	20.0	18.9	94.71	70-130
41 Benzene	20.0	19.5	97.50	70-130
42 Propionitrile	20.0	16.2	81.06	70-130
43 Methacrylonitrile	20.0	15.1	75.59	70-130

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44	tert-Amylmethyl et	20.0	17.9	89.56	50-150
46	Isobutanol	20.0	68.3	341.52*	70-130
47	1,2-Dichloroethane	20.0	17.8	89.22	70-130
49	Methylcyclohexane	20.0	21.4	106.84	70-130
50	Trichloroethene	20.0	19.0	94.87	70-130
51	Dibromomethane	20.0	18.8	93.76	70-130
52	1,2-Dichloropropan	20.0	19.0	95.11	70-130
53	Bromodichlorometha	20.0	19.1	95.53	70-130
54	Methyl methacrylat	20.0	17.0	85.07	70-130
55	1,4-Dioxane (p-Dio	20.0	150	748.29*	50-150
56	2-Chloroethylvinyl	20.0	17.0	84.89	50-150
57	cis-1,3-Dichloropr	20.0	18.4	92.27	70-130
59	Toluene	20.0	19.0	94.79	70-130
60	2-Nitropropane	50.0	76.1	152.22*	70-130
61	4-Methyl-2-pentano	20.0	17.2	85.77	50-150
62	Tetrachloroethene	20.0	19.6	97.95	70-130
63	trans-1,3-Dichloro	20.0	16.4	81.80	70-130
64	Ethyl methacrylate	20.0	16.2	81.29	70-130
65	1,1,2-Trichloroeth	20.0	17.8	88.75	70-130
66	Dibromochlorometha	20.0	17.2	86.07	70-130
67	1,3-Dichloropropan	20.0	18.6	92.86	70-130
69	2-Hexanone	20.0	15.3	76.63	70-130
70	Ethylbenzene	20.0	19.6	98.05	70-130
72	Chlorobenzene	20.0	19.4	96.85	70-130
73	1,1,1,2-Tetrachlor	20.0	18.9	94.75	70-130
74	m&p-Xylene	40.0	39.7	99.28	50-150
75	o-Xylene	20.0	19.2	96.21	70-130
76	Styrene	20.0	18.2	91.24	70-130
77	Bromoform	20.0	15.0	75.11	70-130
80	n-Propylbenzene	20.0	19.3	96.72	70-130
81	Bromobenzene	20.0	18.0	90.11	70-130
82	1,1,2,2-Tetrachlor	20.0	17.3	86.33	70-130
83	1,3,5-Trimethylben	20.0	19.5	97.32	70-130
84	2-Chlorotoluene	20.0	19.5	97.35	70-130
85	1,2,3-Trichloropro	20.0	17.9	89.71	70-130
86	trans-1,4-Dichloro	20.0	12.8	63.98	50-150
87	Cyclohexanone	50.0	58.8	117.53	70-130
88	4-Chlorotoluene	20.0	18.6	93.05	70-130
90	1,2,4-Trimethylben	20.0	19.2	95.97	70-130
92	p-Isopropyltoluene	20.0	20.7	103.51	50-150
93	1,3-Dichlorobenzen	20.0	19.7	98.73	70-130
95	1,4-Dichlorobenzen	20.0	19.4	97.03	70-130
97	1,2-Dichlorobenzen	20.0	19.3	96.32	70-130
98	1,2-Dibromo-3-chlo	20.0	16.0	80.01	70-130
100	Hexachloro-1,3-but	20.0	19.7	98.74	50-150
101	1,2,4-Trichloroben	20.0	21.2	106.07	70-130
102	Naphthalene	20.0	18.5	92.56	70-130
103	1,2,3-Trichloroben	20.0	19.8	99.26	70-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	30.6	101.93	70-130

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	27.3	91.08	70-130
$ 58 Toluene-d8 (S)	30.0	29.8	99.21	70-130
$ 79 4-Bromofluorobenze	30.0	28.5	94.98	70-130
$ 161 1,2-Dichlorobenzen	30.0	30.2	100.61	0-200

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1699734
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 28-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Dichlorodifluoromethane	19.4	
74-87-3	Chloromethane	17.0	
75-01-4	Vinyl chloride	16.4	
74-83-9	Bromomethane	19.1	
75-00-3	Chloroethane	17.3	
75-69-4	Trichlorofluoromethane	19.7	
60-29-7	Diethyl ether (Ethyl ether)	17.1	
75-35-4	1,1-Dichloroethene	19.5	
76-13-1	1,1,2-Trichlorotrifluoroetha	19.2	
75-15-0	Carbon disulfide	18.8	
74-88-4	Iodomethane	14.9	
107-02-8	Acrolein	22.5	
107-05-1	Allyl chloride	94.3	
75-09-2	Methylene Chloride	20.6	
67-64-1	Acetone	21.7	
156-60-5	trans-1,2-Dichloroethene	17.8	
79-20-9	Methyl acetate	19.7	
110-54-3	n-Hexane	20.0	
1634-04-4	Methyl-tert-butyl ether	18.1	
75-65-0	tert-Butyl Alcohol	77.7	
75-05-8	Acetonitrile	100	
108-20-3	Diisopropyl ether	17.1	
126-99-8	Chloroprene	16.4	
75-34-3	1,1-Dichloroethane	17.1	
107-13-1	Acrylonitrile	13.8	
637-92-3	Ethyl-tert-butyl ether	17.3	
108-05-4	Vinyl acetate	13.4	
156-59-2	cis-1,2-Dichloroethene	18.6	
594-20-7	2,2-Dichloropropane	18.2	
110-82-7	Cyclohexane	19.0	
74-97-5	Bromochloromethane	21.1	
67-66-3	Chloroform	18.4	
56-23-5	Carbon tetrachloride	19.0	
141-78-6	Ethyl acetate	13.4	
109-99-9	Tetrahydrofuran	14.3	
71-55-6	1,1,1-Trichloroethane	18.2	
78-93-3	2-Butanone (MEK)	15.0	
563-58-6	1,1-Dichloropropene	18.9	
71-43-2	Benzene	19.5	
107-12-0	Propionitrile	16.2	
126-98-7	Methacrylonitrile	15.1	
994-05-8	tert-Amylmethyl ether	17.9	

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1699734
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 28-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
78-83-1	Isobutanol	68.3	
107-06-2	1,2-Dichloroethane	17.8	
108-87-2	Methylcyclohexane	21.4	
79-01-6	Trichloroethene	19.0	
74-95-3	Dibromomethane	18.8	
78-87-5	1,2-Dichloropropane	19.0	
75-27-4	Bromodichloromethane	19.1	
80-62-6	Methyl methacrylate	17.0	
123-91-1	1,4-Dioxane (p-Dioxane)	150	
110-75-8	2-Chloroethylvinyl ether	17.0	
10061-01-5	cis-1,3-Dichloropropene	18.4	
108-88-3	Toluene	19.0	
79-46-9	2-Nitropropane	76.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.2	
127-18-4	Tetrachloroethene	19.6	
10061-02-6	trans-1,3-Dichloropropene	16.4	
97-63-2	Ethyl methacrylate	16.2	
79-00-5	1,1,2-Trichloroethane	17.8	
124-48-1	Dibromochloromethane	17.2	
142-28-9	1,3-Dichloropropane	18.6	
106-93-4	1,2-Dibromoethane (EDB)	19.3	
591-78-6	2-Hexanone	15.3	
100-41-4	Ethylbenzene	19.6	
108-90-7	Chlorobenzene	19.4	
630-20-6	1,1,1,2-Tetrachloroethane	18.9	
7816-60-0	m&p-Xylene	39.7	
95-47-6	o-Xylene	19.2	
100-42-5	Styrene	18.2	
75-25-2	Bromoform	15.0	
98-82-8	Isopropylbenzene (Cumene)	19.3	
103-65-1	n-Propylbenzene	19.3	
108-86-1	Bromobenzene	18.0	
79-34-5	1,1,2,2-Tetrachloroethane	17.3	
108-67-8	1,3,5-Trimethylbenzene	19.5	
95-49-8	2-Chlorotoluene	19.5	
96-18-4	1,2,3-Trichloropropane	17.9	
110-57-6	trans-1,4-Dichloro-2-butene	12.8	
108-94-1	Cyclohexanone	58.8	
106-43-4	4-Chlorotoluene	18.6	
98-06-6	tert-Butylbenzene	20.6	
95-63-6	1,2,4-Trimethylbenzene	19.2	
135-98-8	sec-Butylbenzene	20.0	

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d
Report Date: 02-Jul-2019 08:22

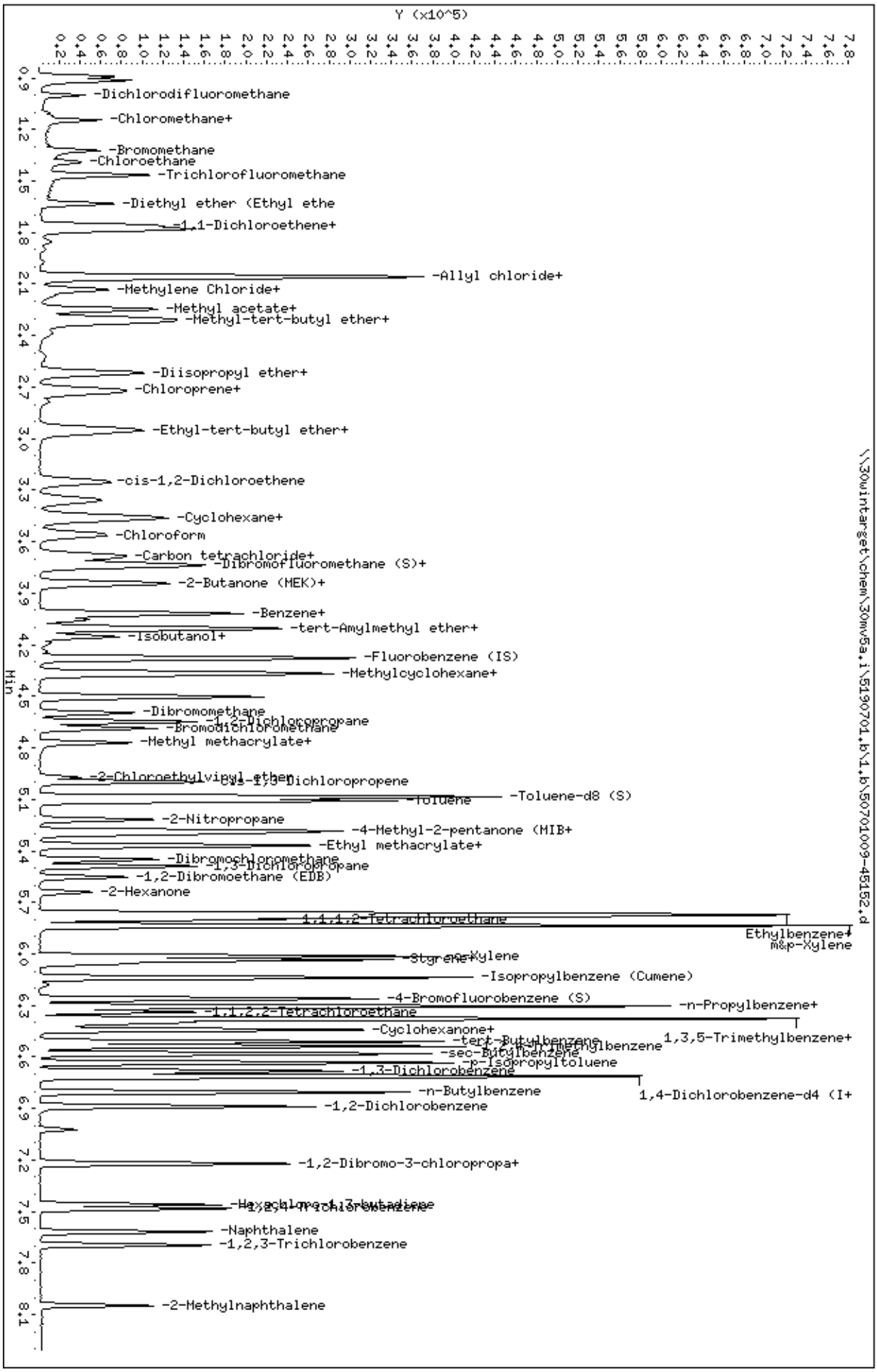
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1699734
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 28-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	20.7	
541-73-1	1,3-Dichlorobenzene	19.7	
106-46-7	1,4-Dichlorobenzene	19.4	
104-51-8	n-Butylbenzene	20.6	
95-50-1	1,2-Dichlorobenzene	19.3	
96-12-8	1,2-Dibromo-3-chloropropane	16.0	
108-70-3	1,3,5-Trichlorobenzene	22.0	
87-68-3	Hexachloro-1,3-butadiene	19.7	
120-82-1	1,2,4-Trichlorobenzene	21.2	
91-20-3	Naphthalene	18.5	
87-61-6	1,2,3-Trichlorobenzene	19.8	
91-57-6	2-Methylnaphthalene	17.3	
1868-53-7	Dibromofluoromethane (S)	30.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.3	
2037-26-5	Toluene-d8 (S)	29.8	
460-00-4	4-Bromofluorobenzene (S)	28.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.2	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Date : 01-JUL-2019 10:16
Client ID: MBLCS
Sample Info: 1699734,92408:5,,
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Allyl chloride+
-Methylene Chloride+
-Methyl acetate+
-Methyl-tert-butyl ether+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-Styrene+
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
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Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

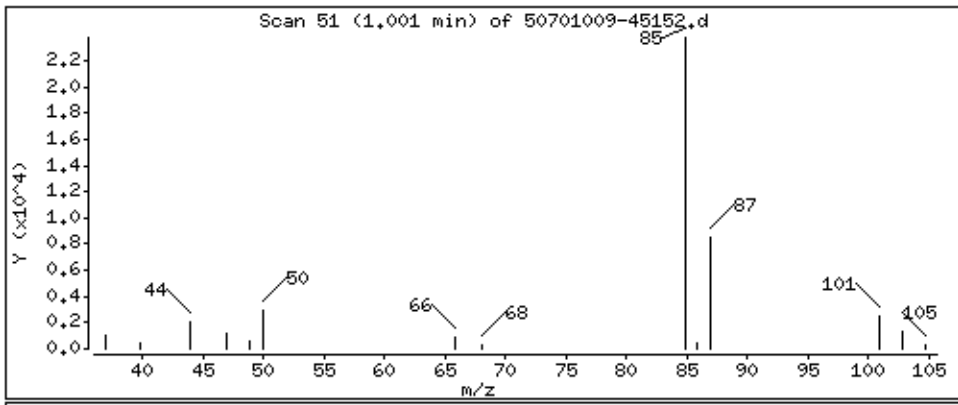
Operator: JEW

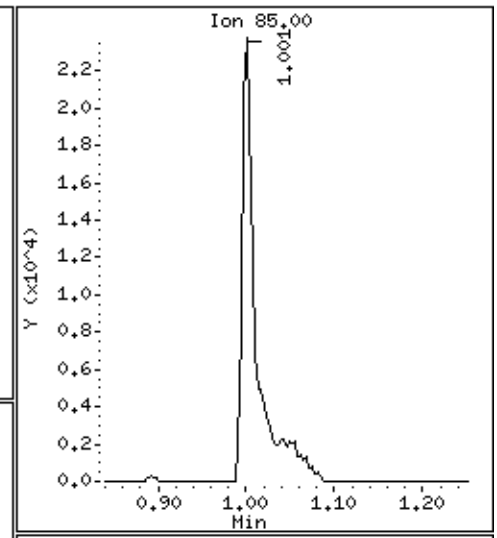
Column phase: RTX-VMS

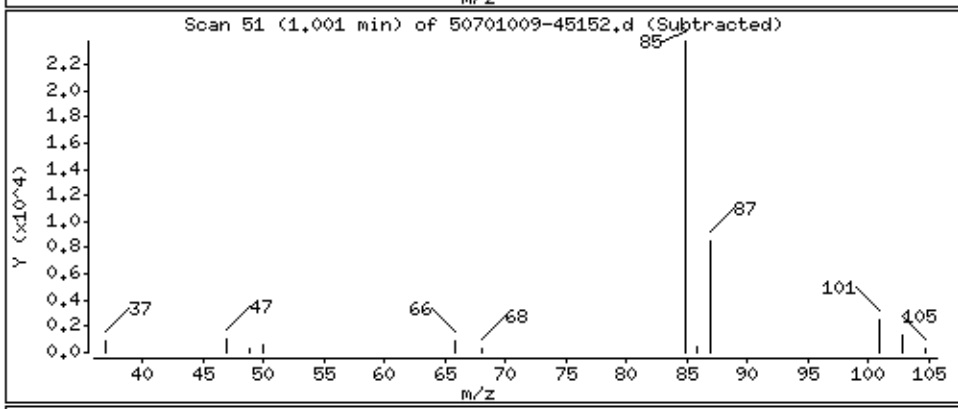
Column diameter: 0.18

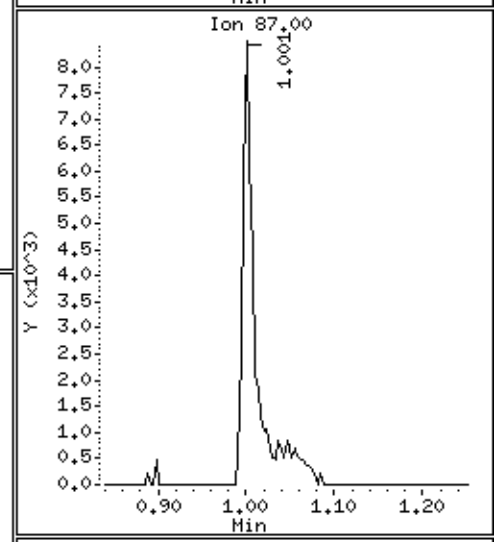
1 Dichlorodifluoromethane

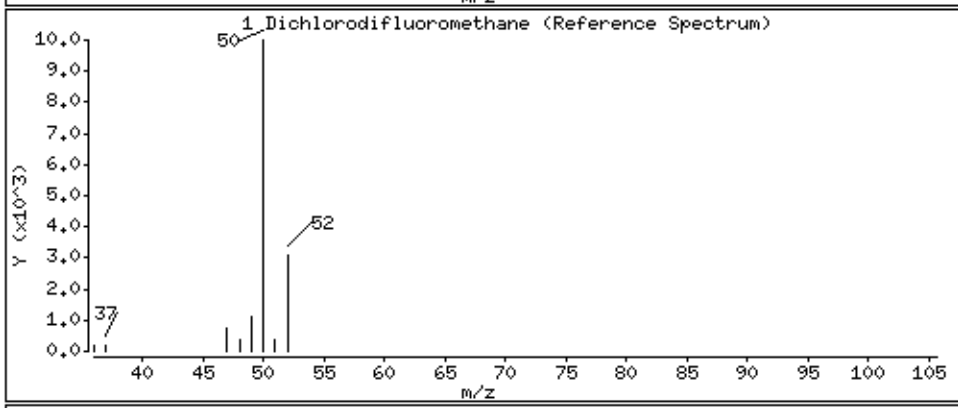
Concentration: 19.4 ug/L

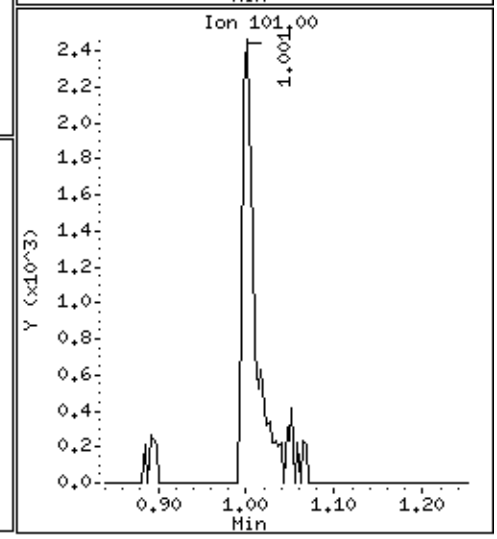


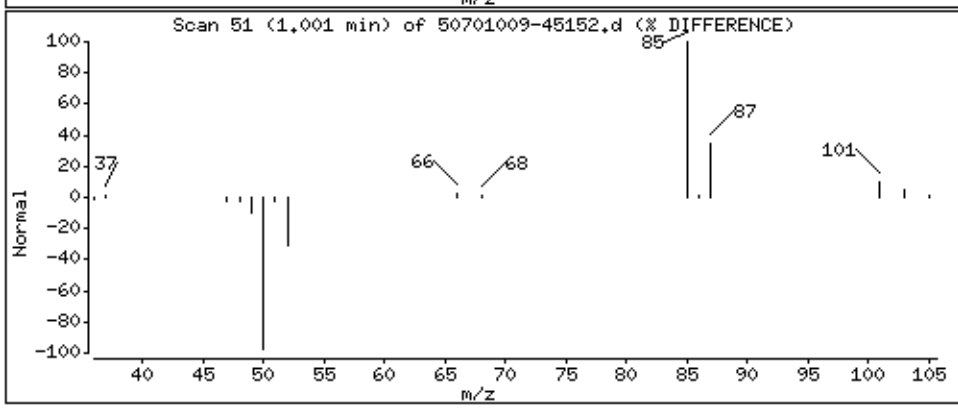












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

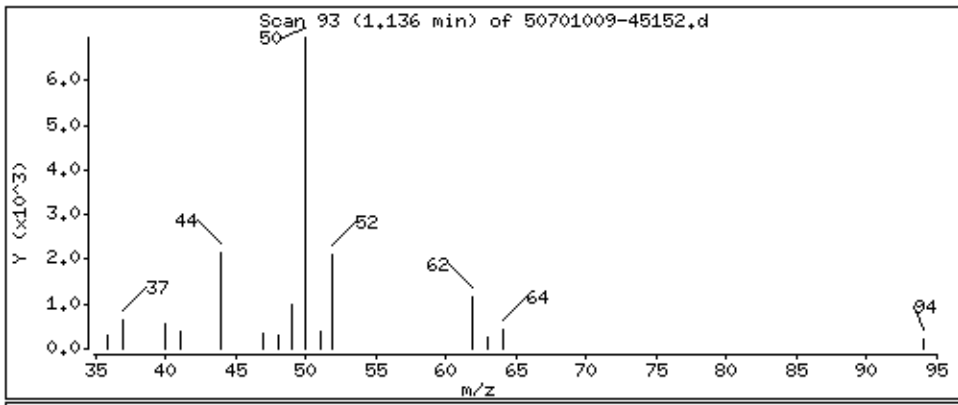
Operator: JEW

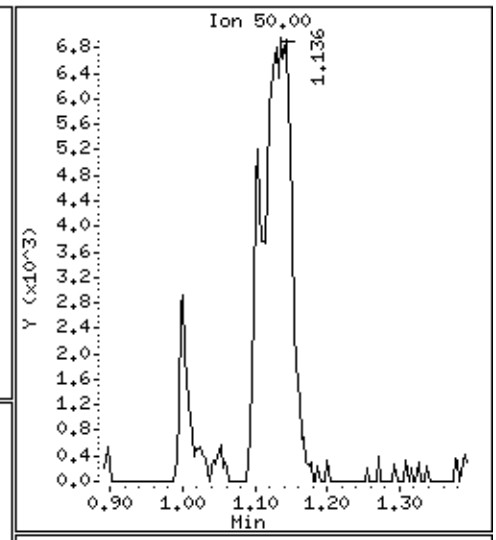
Column phase: RTX-VMS

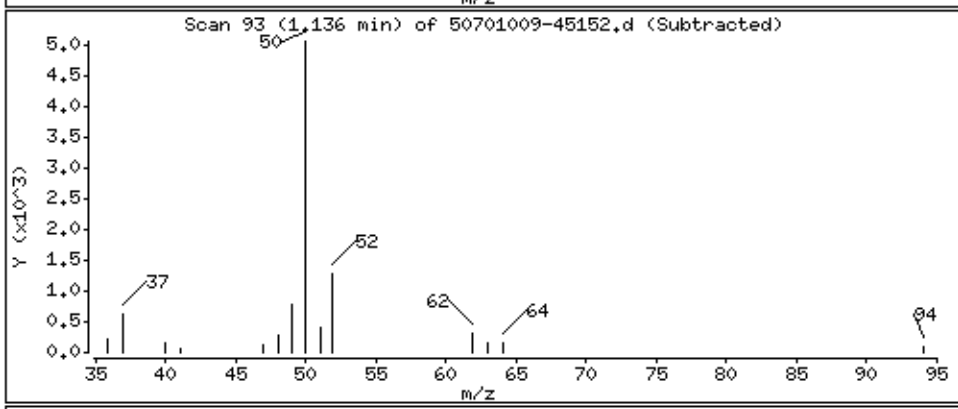
Column diameter: 0.18

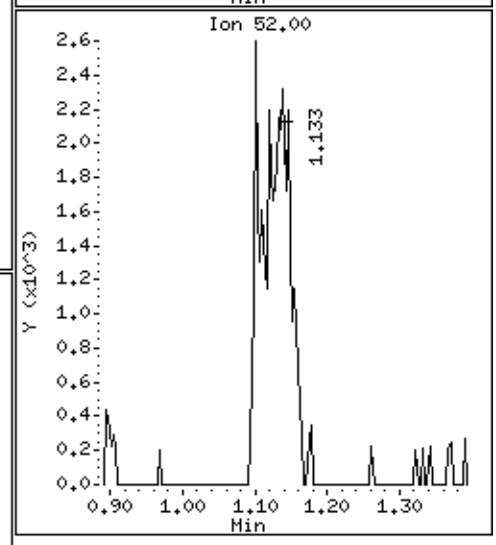
2 Chloromethane

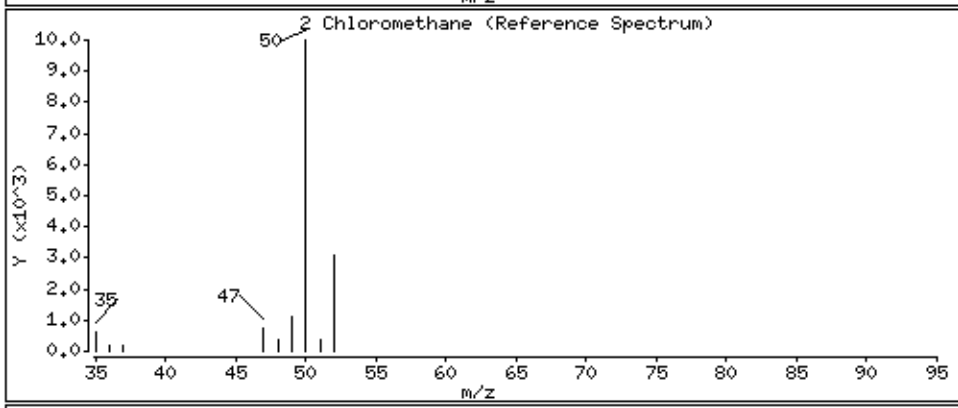
Concentration: 17.0 ug/L

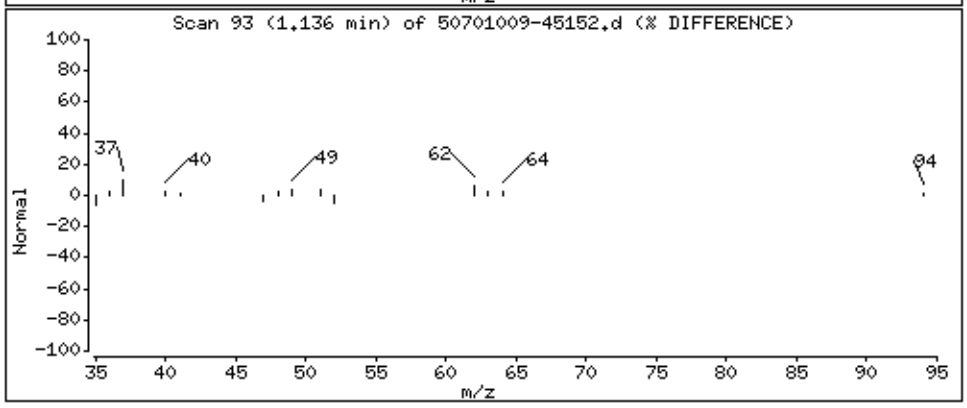












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

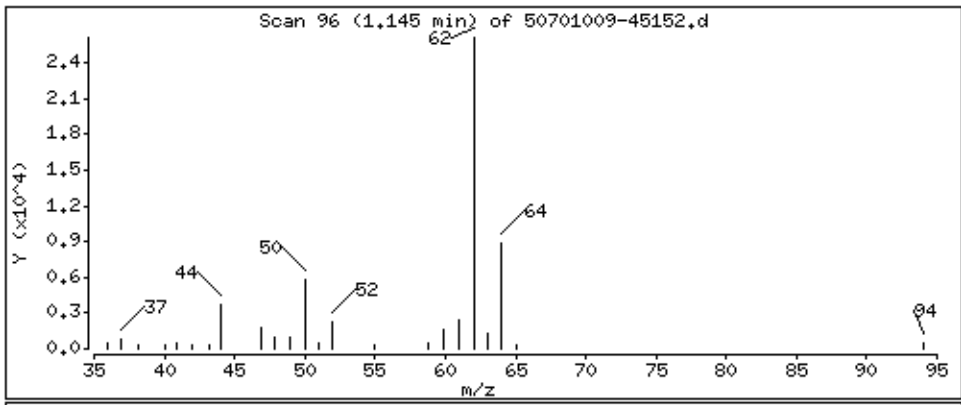
Operator: JEW

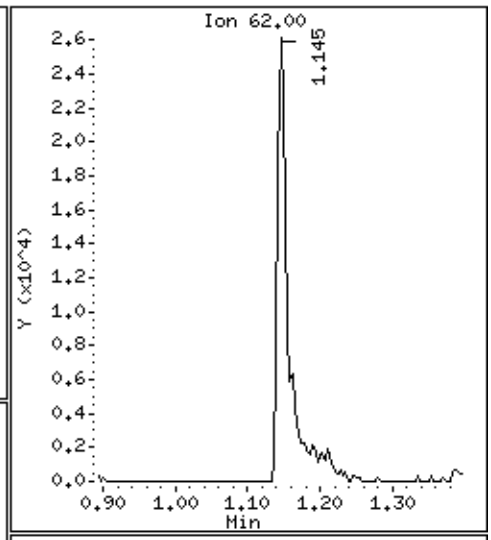
Column phase: RTX-VMS

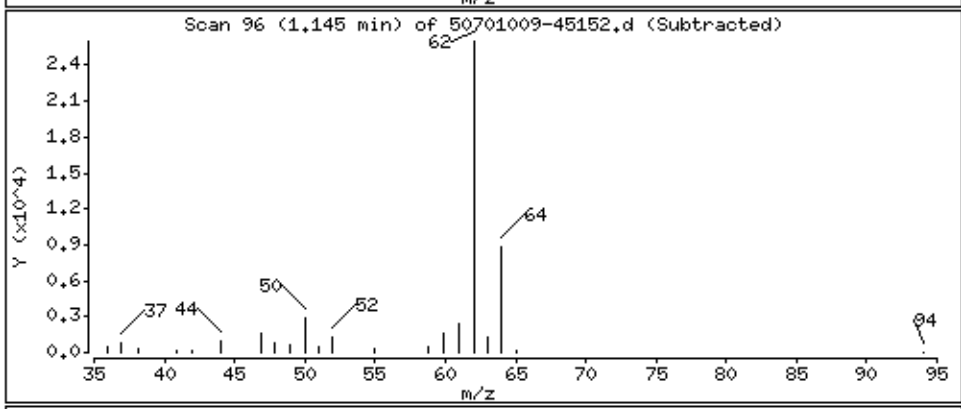
Column diameter: 0.18

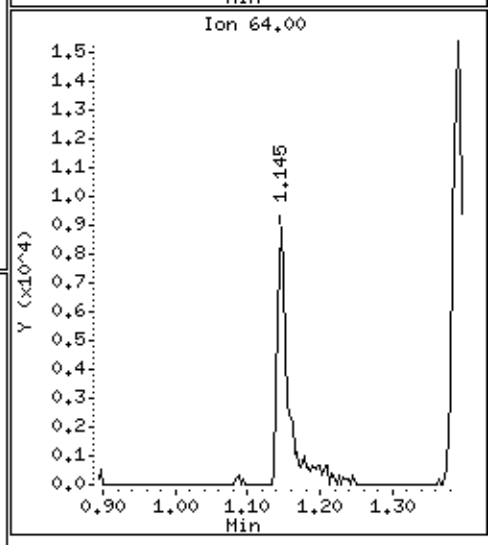
3 Vinyl chloride

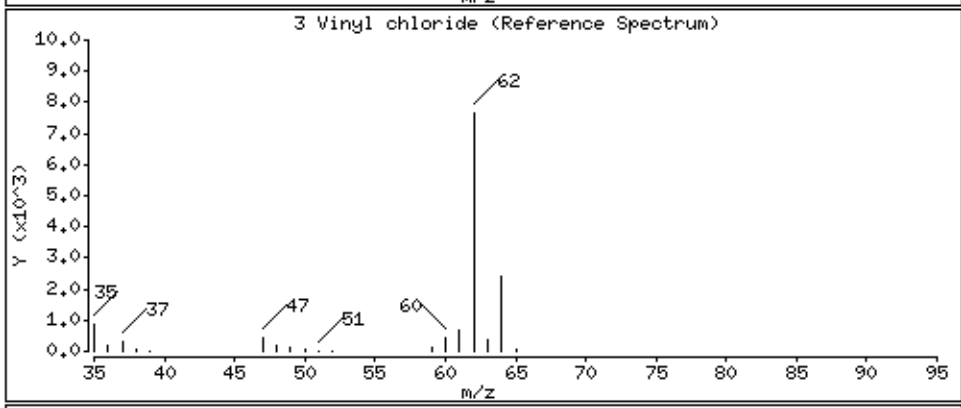
Concentration: 16.4 ug/L

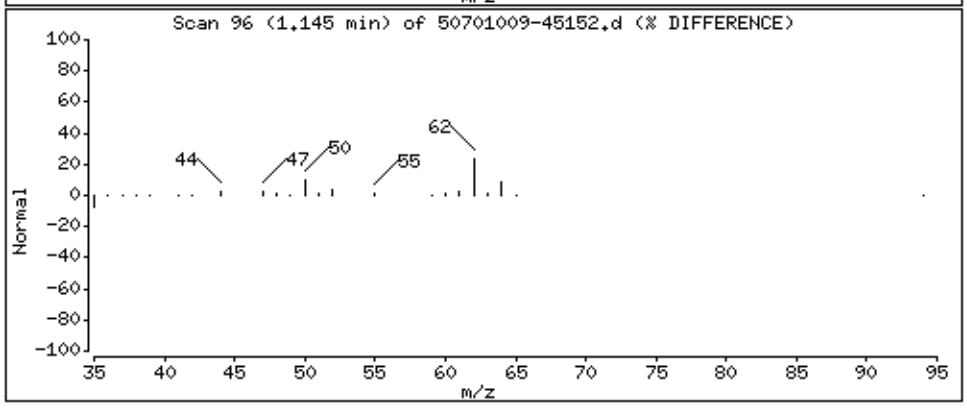












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

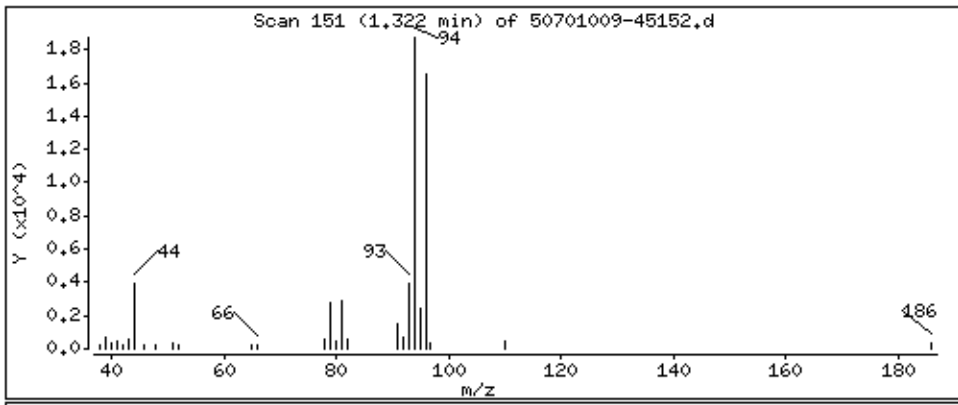
Operator: JEW

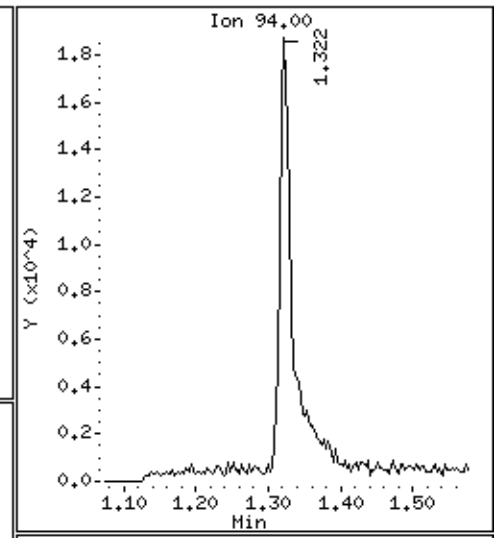
Column phase: RTX-VMS

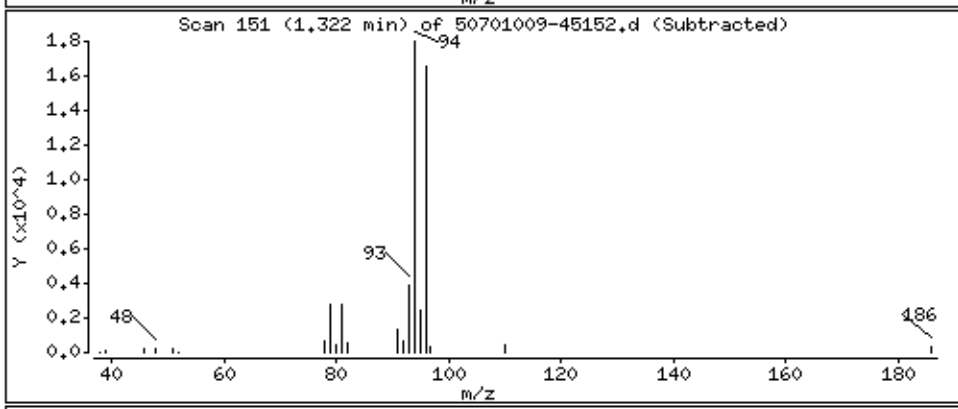
Column diameter: 0.18

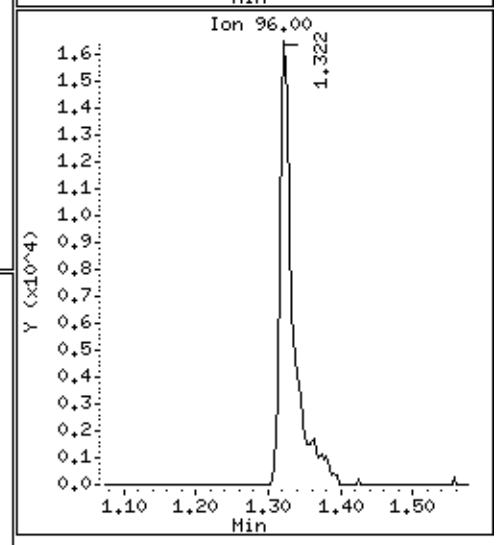
4 Bromomethane

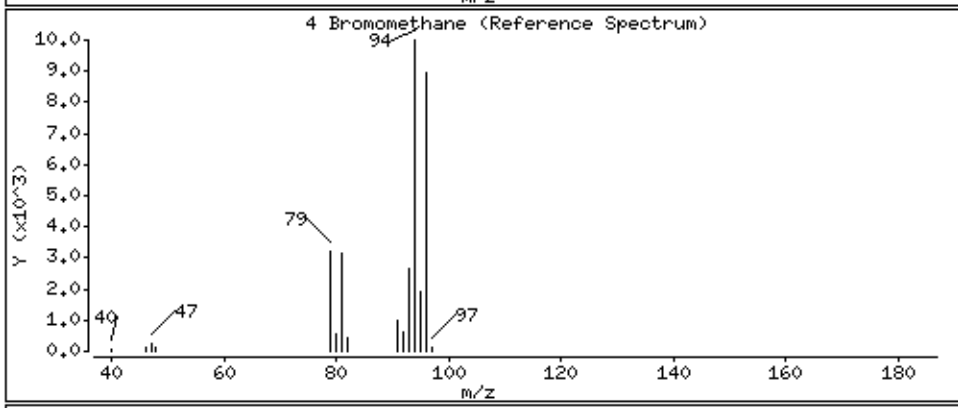
Concentration: 19.1 ug/L

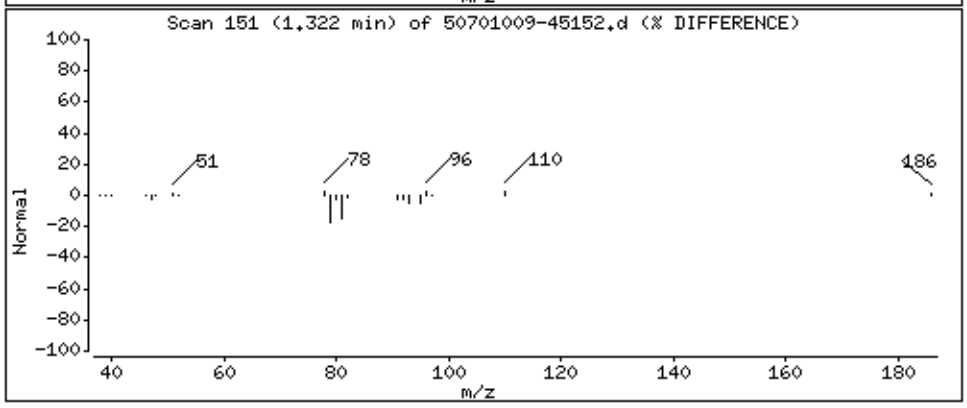












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

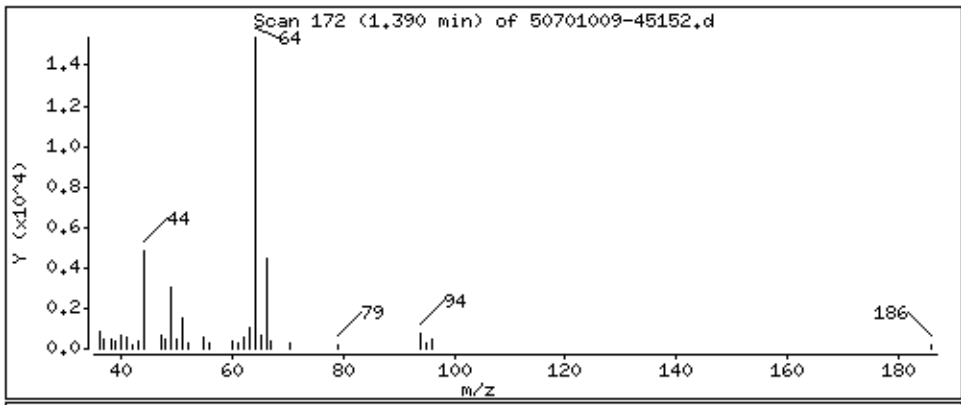
Operator: JEW

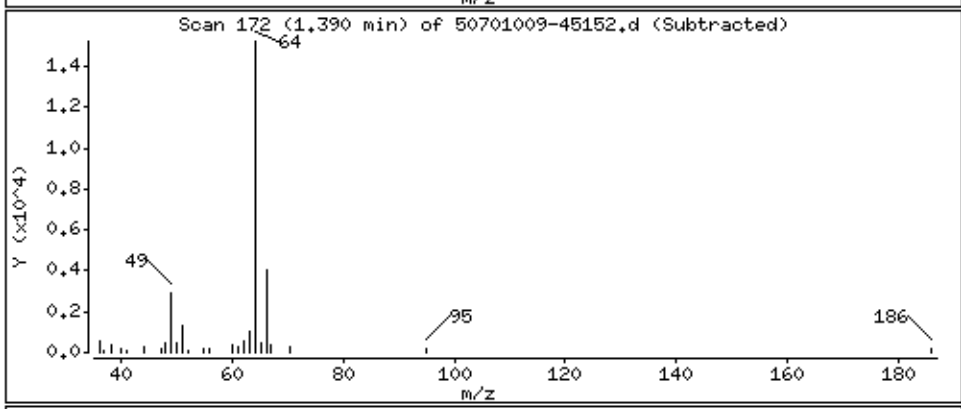
Column phase: RTX-VMS

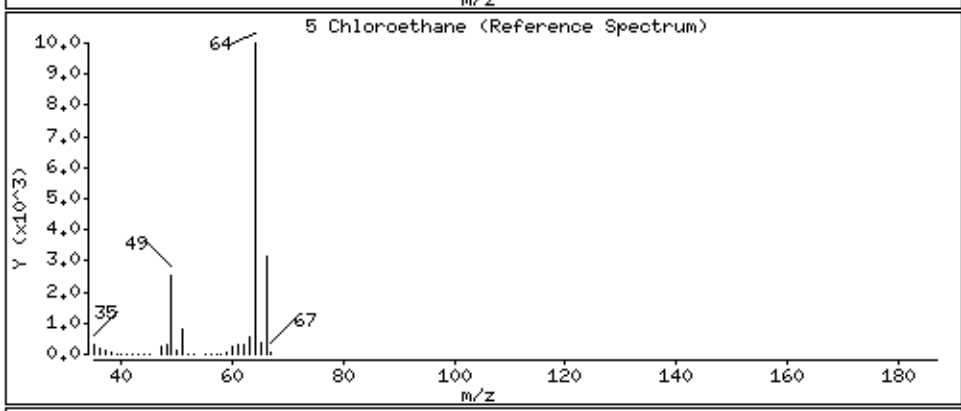
Column diameter: 0.18

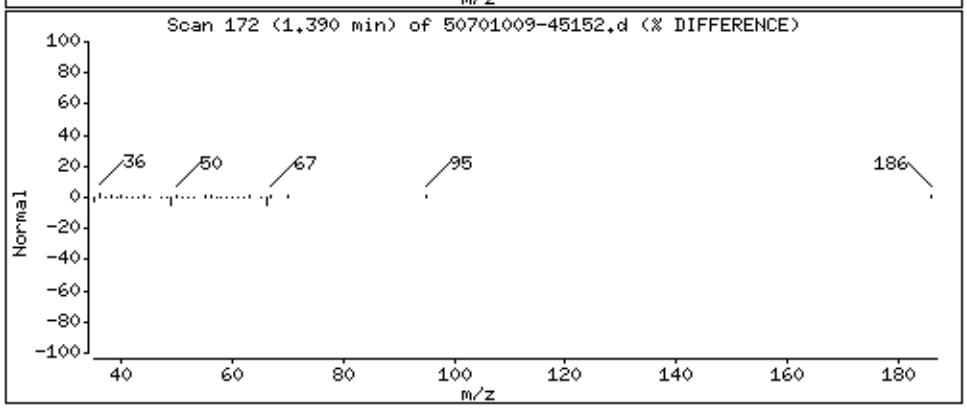
5 Chloroethane

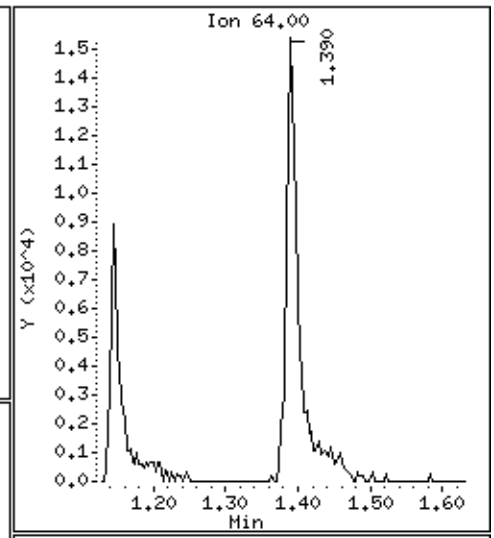
Concentration: 17.3 ug/L

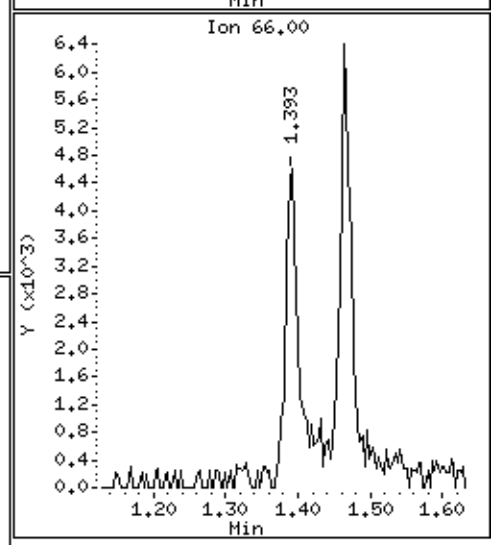












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

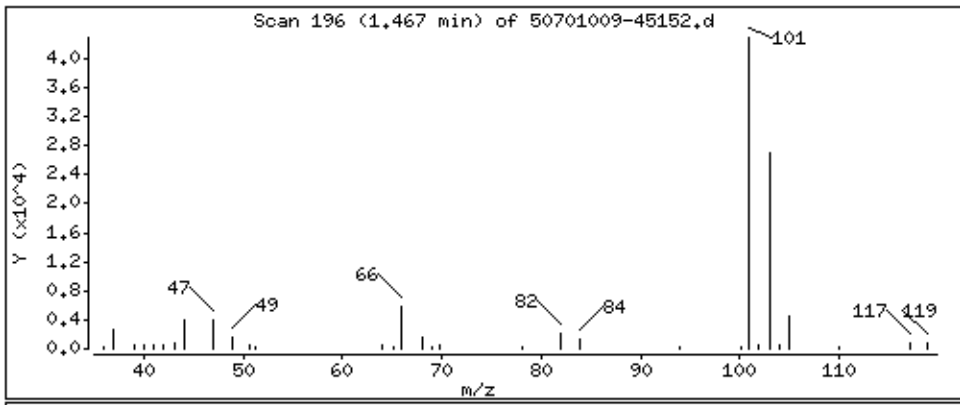
Operator: JEW

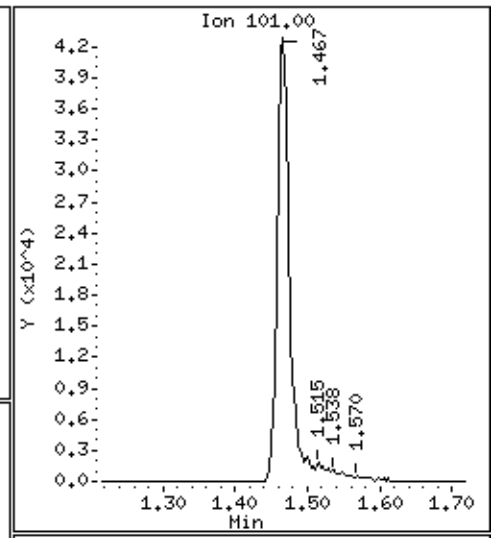
Column phase: RTX-VMS

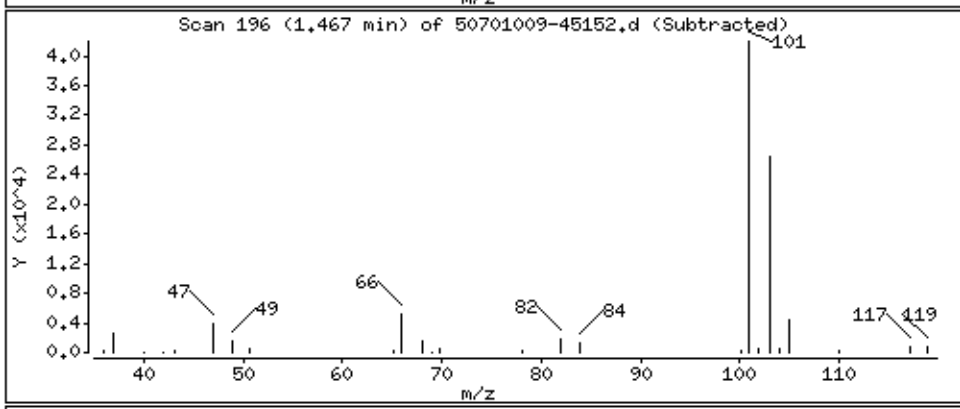
Column diameter: 0.18

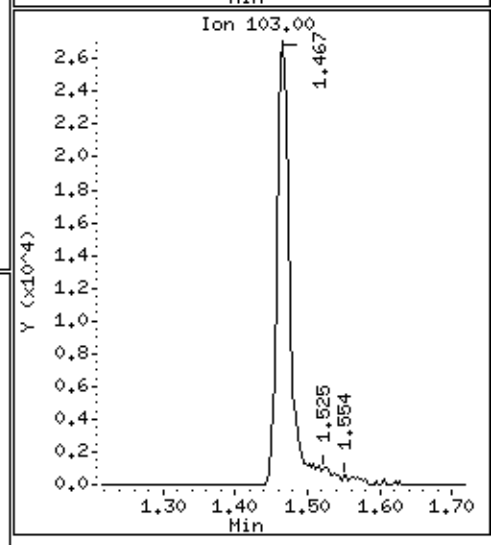
6 Trichlorofluoromethane

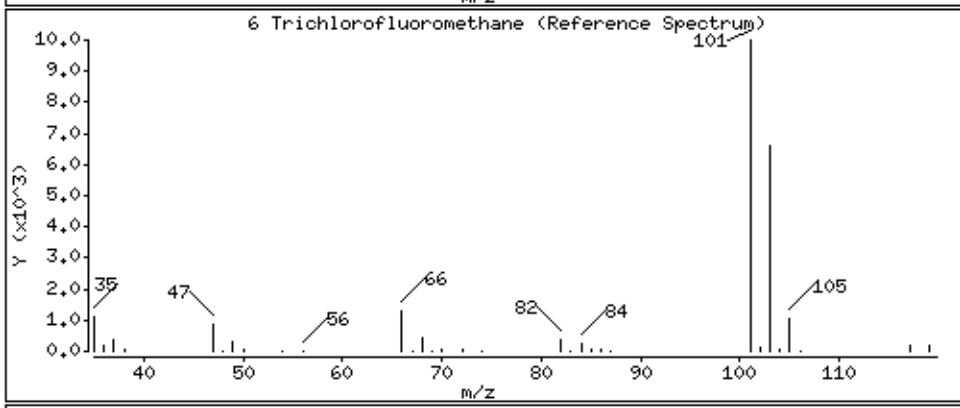
Concentration: 19.7 ug/L

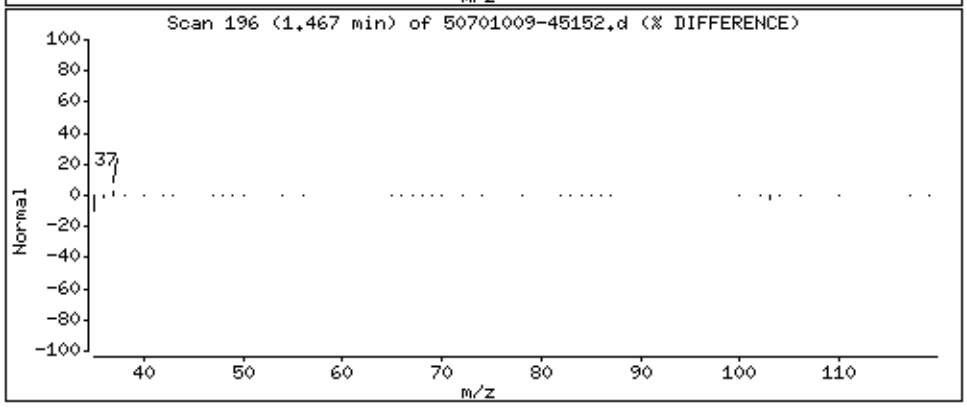












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

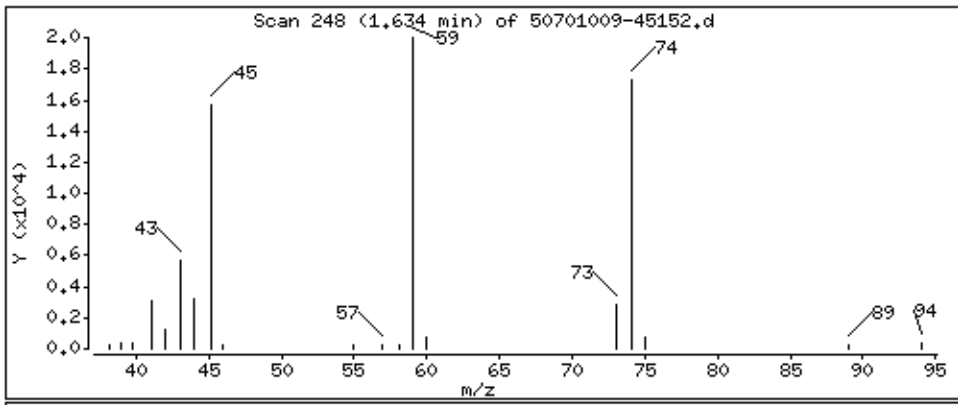
Operator: JEW

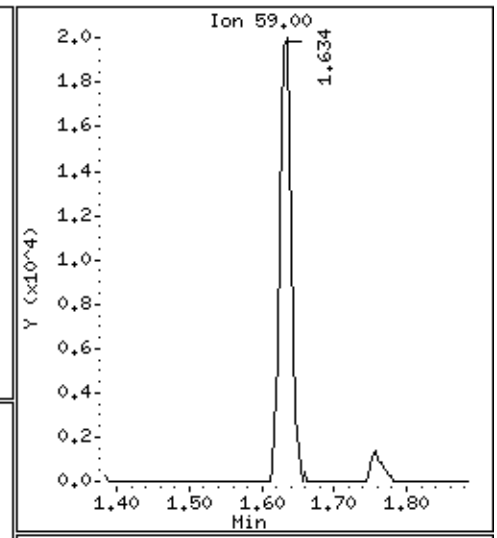
Column phase: RTX-VMS

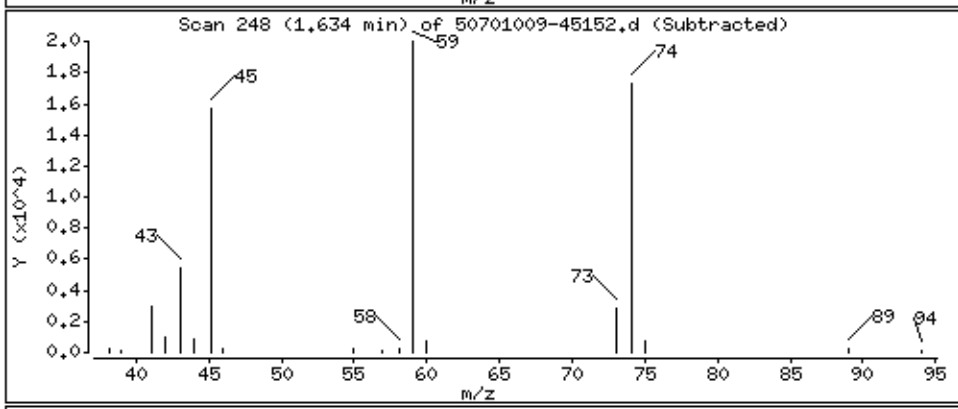
Column diameter: 0.18

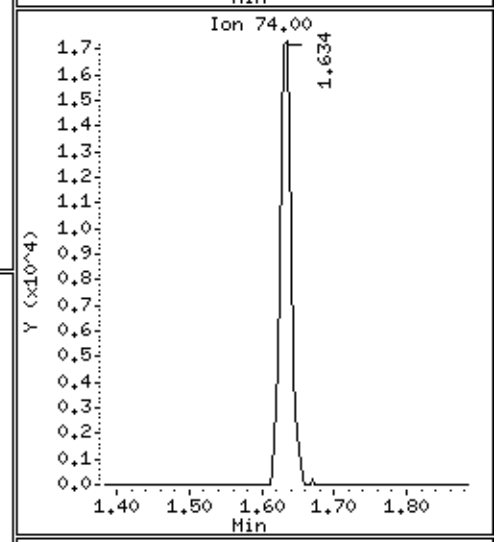
7 Diethyl ether (Ethyl ether)

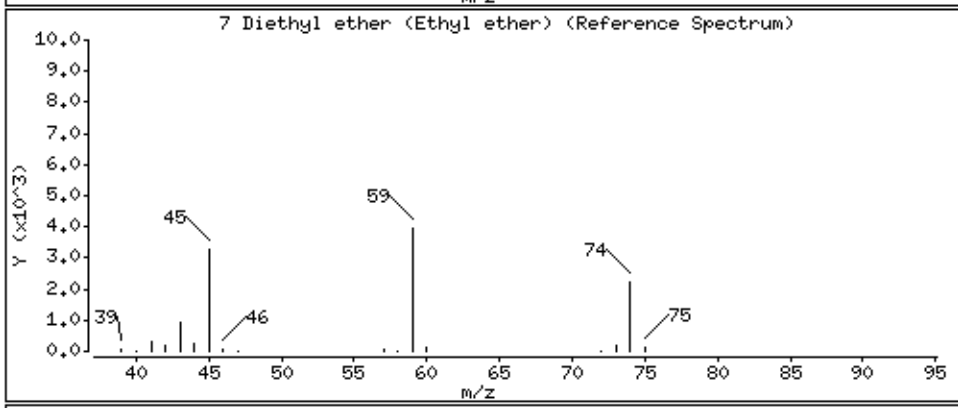
Concentration: 17.1 ug/L

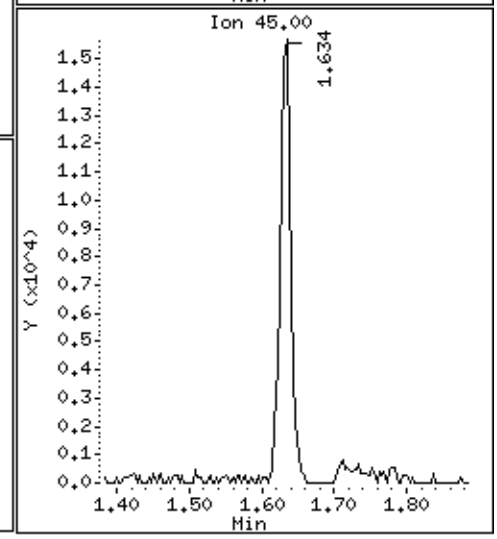


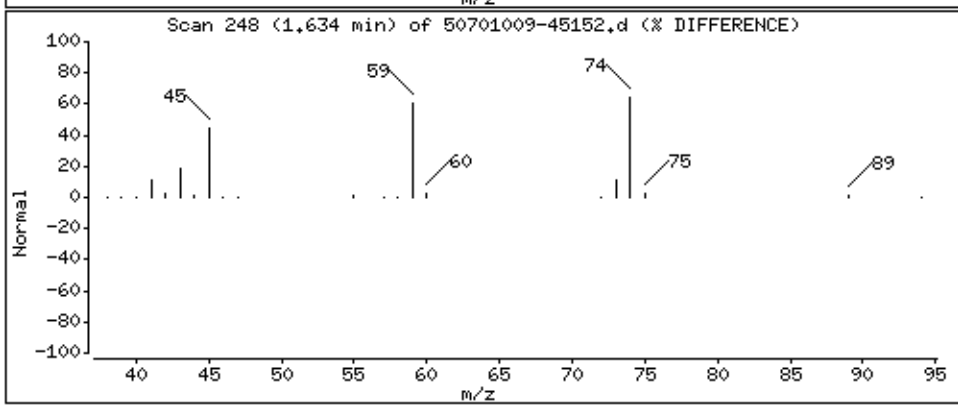












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

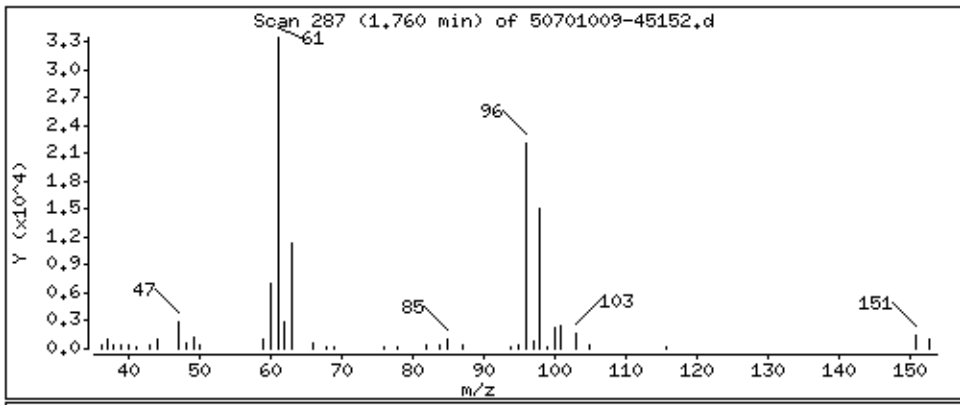
Operator: JEW

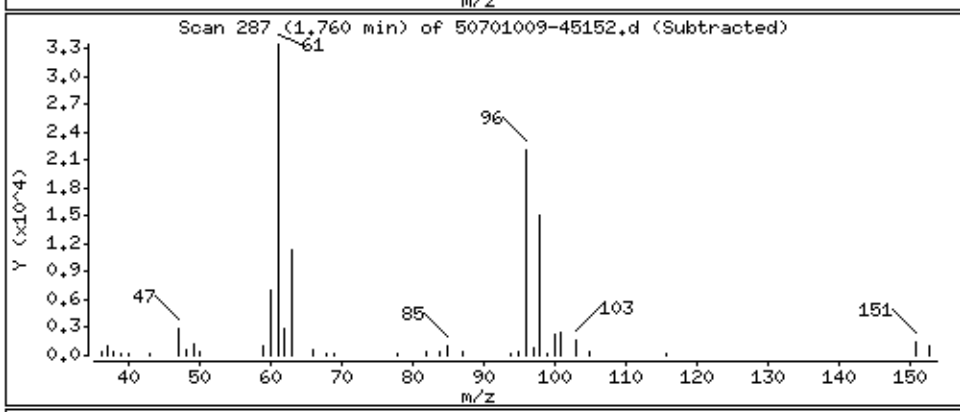
Column phase: RTX-VMS

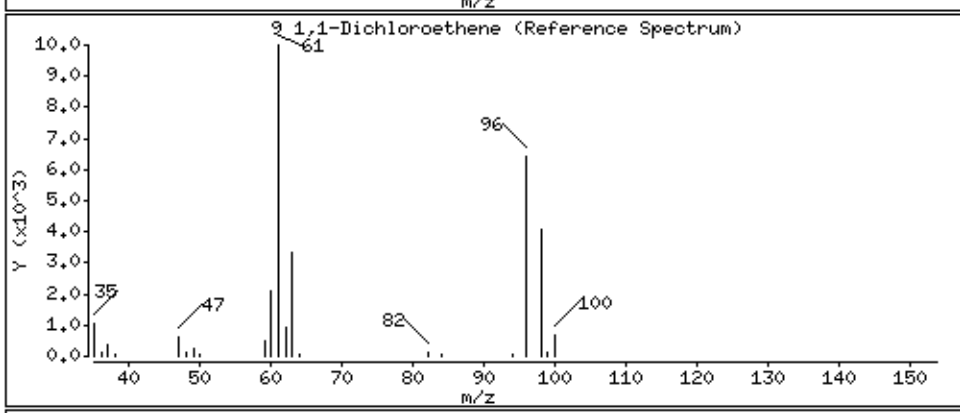
Column diameter: 0.18

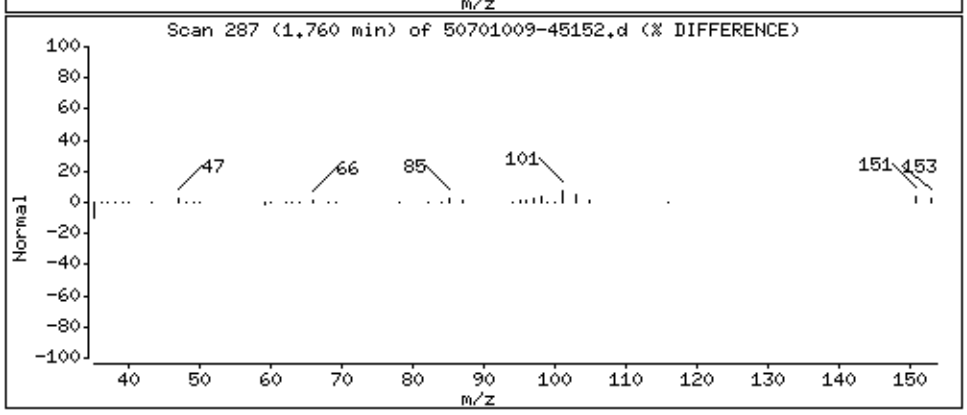
9 1,1-Dichloroethene

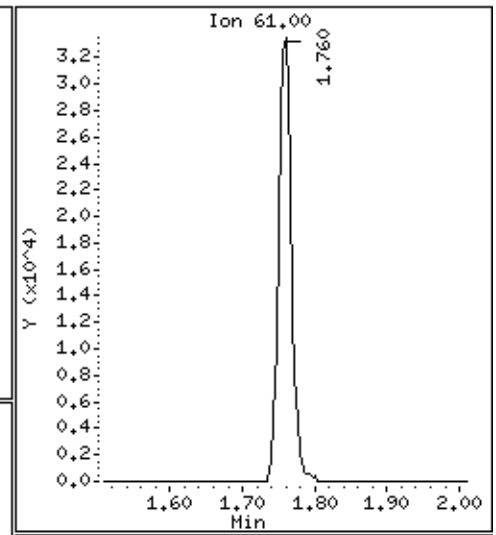
Concentration: 19.5 ug/L

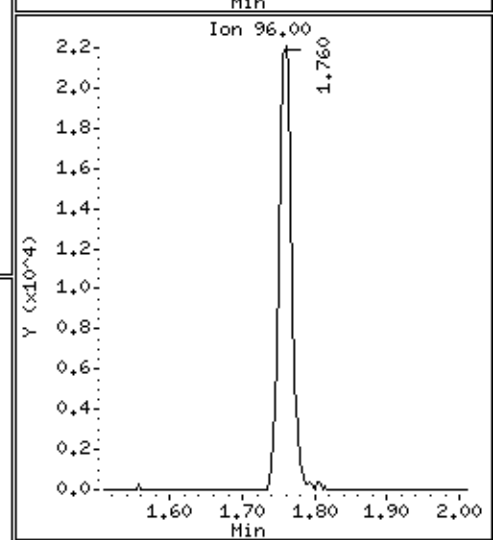












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

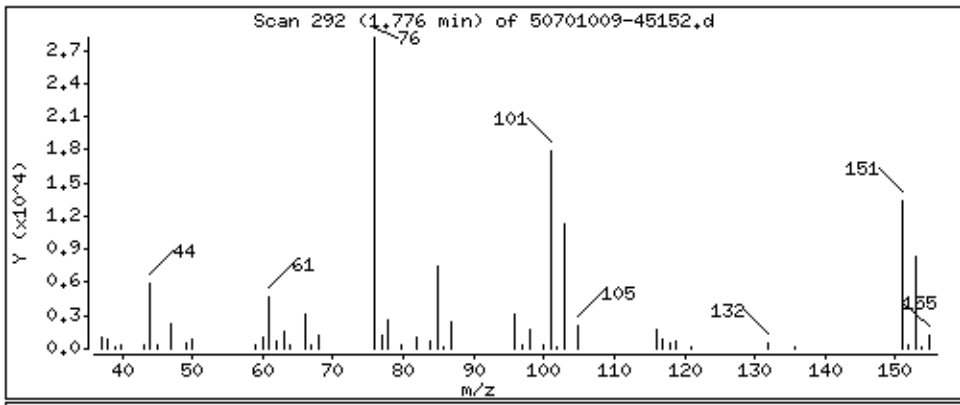
Operator: JEW

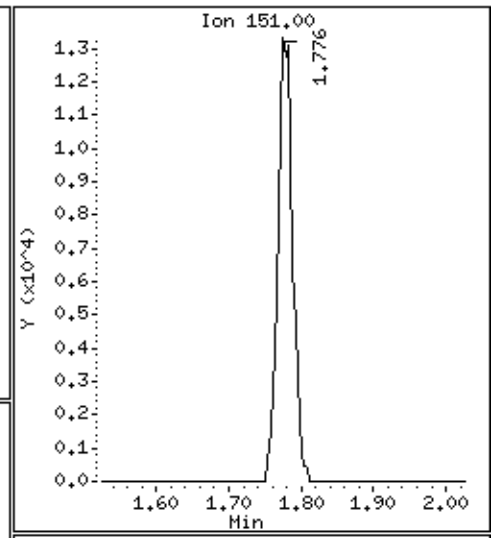
Column phase: RTX-VMS

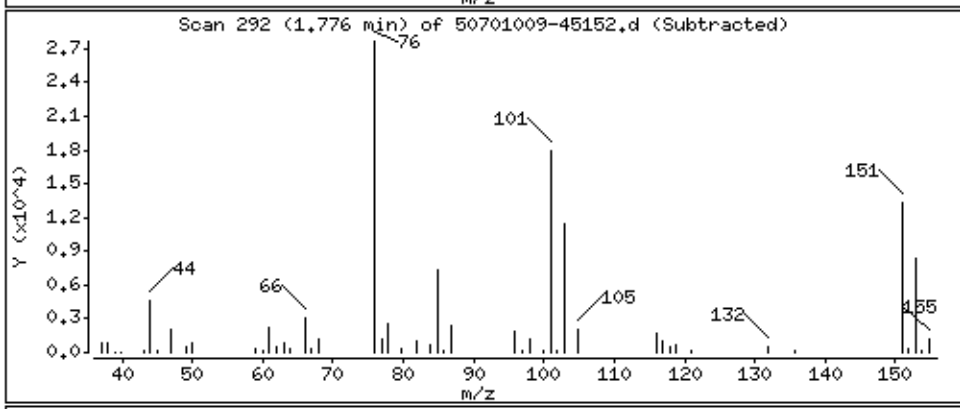
Column diameter: 0.18

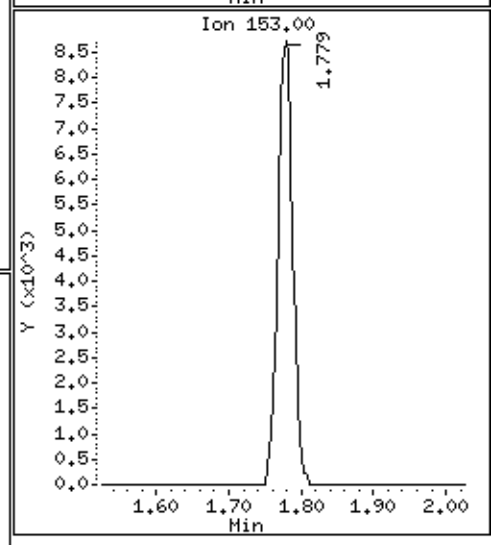
10 1,1,2-Trichlorotrifluoroethane

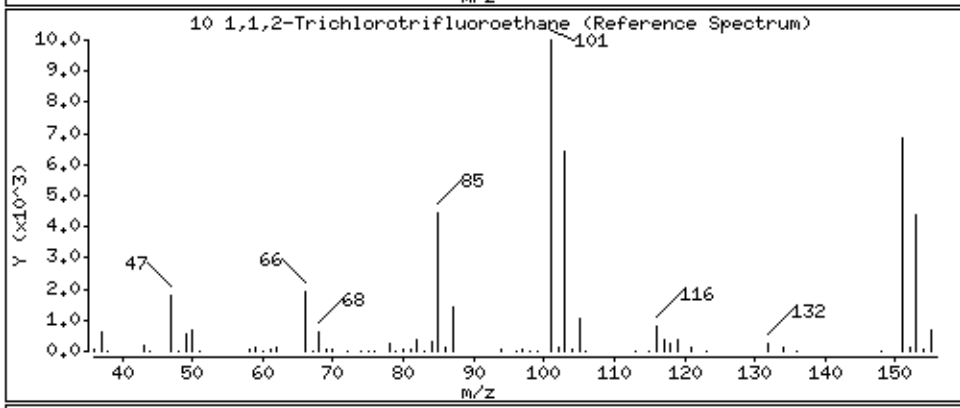
Concentration: 19.2 ug/L

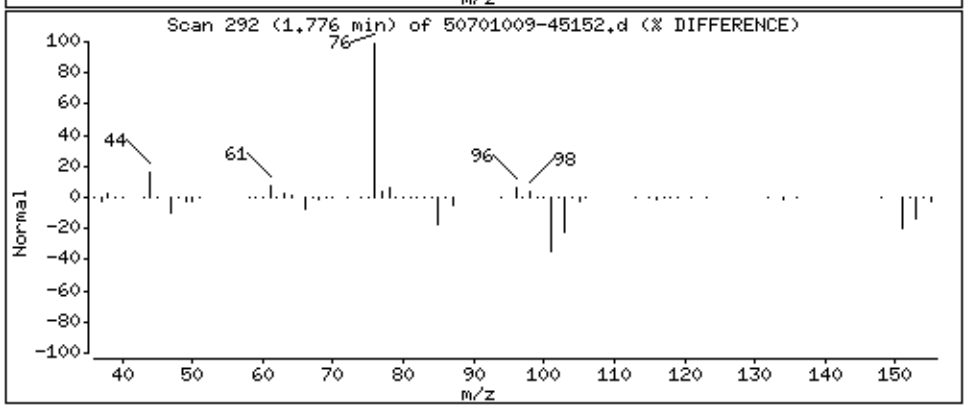












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

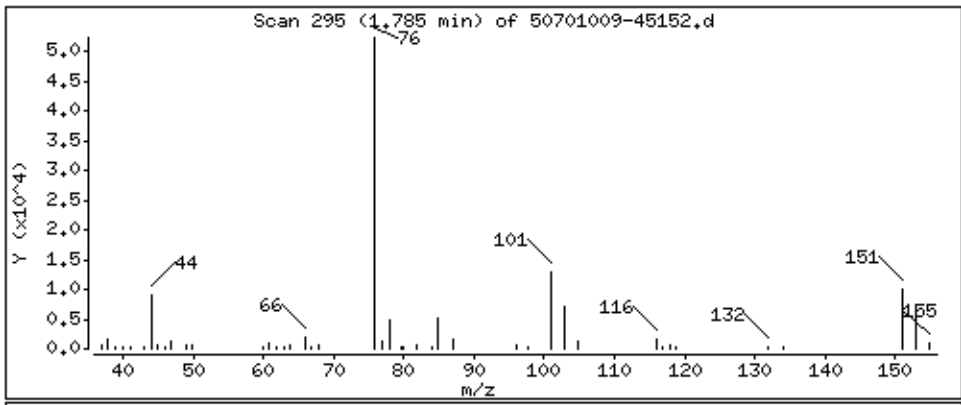
Operator: JEW

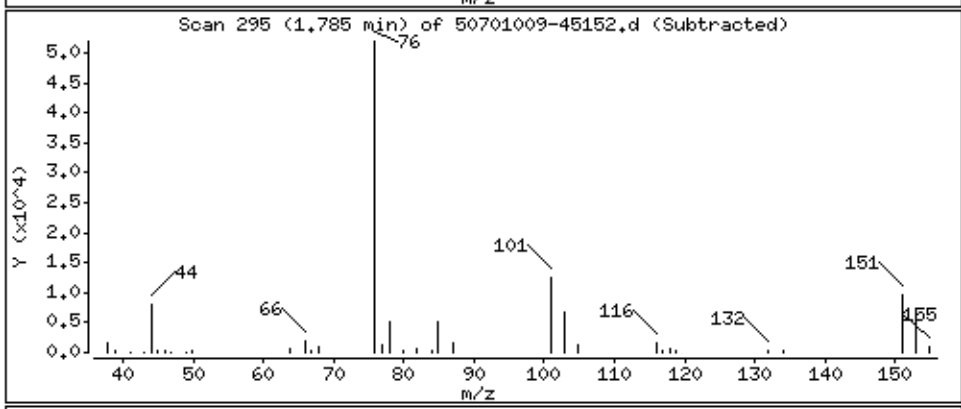
Column phase: RTX-VMS

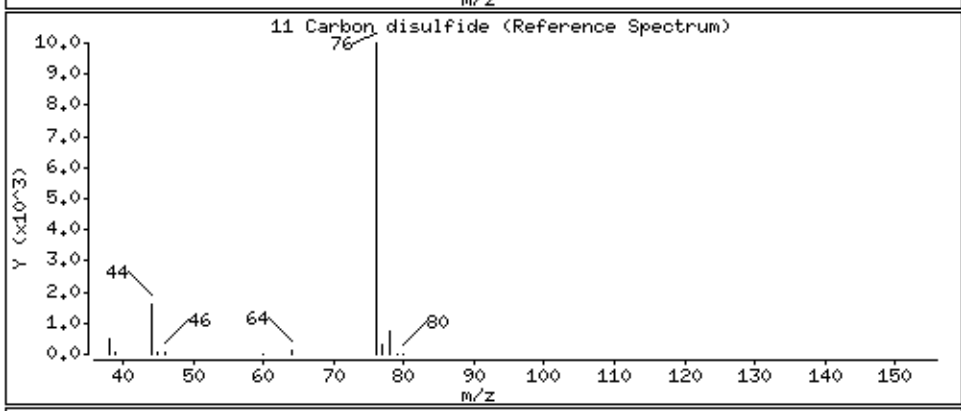
Column diameter: 0.18

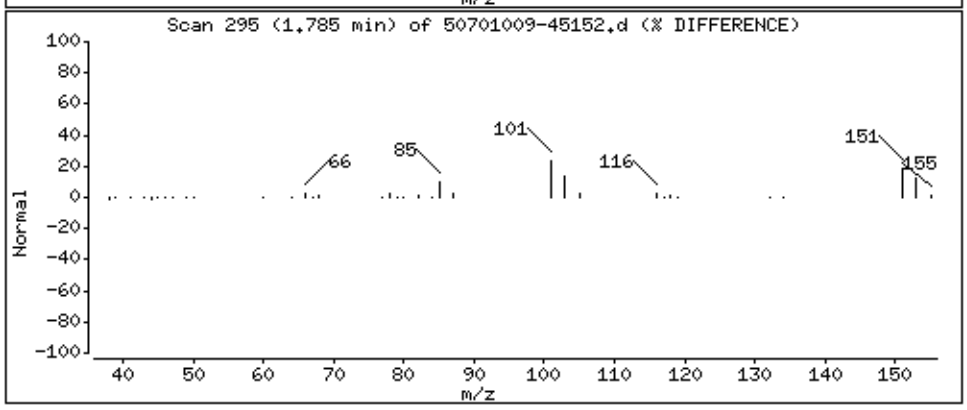
11 Carbon disulfide

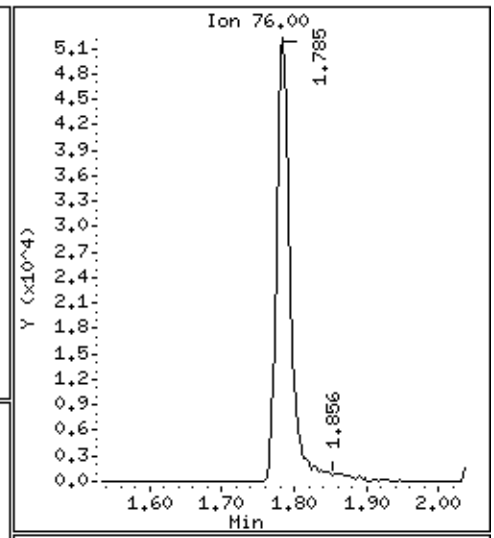
Concentration: 18.8 ug/L

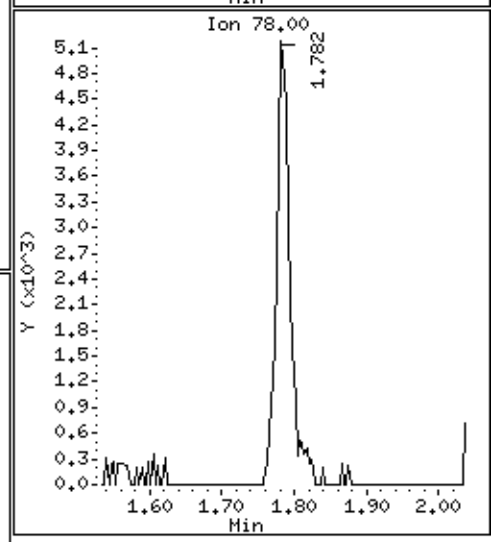












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

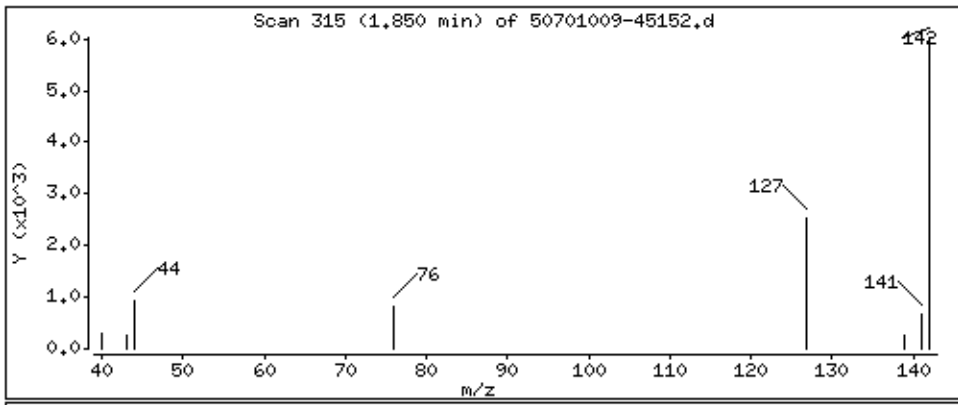
Operator: JEW

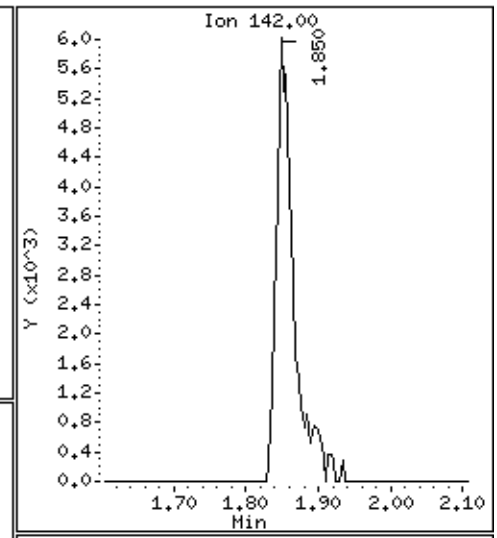
Column phase: RTX-VMS

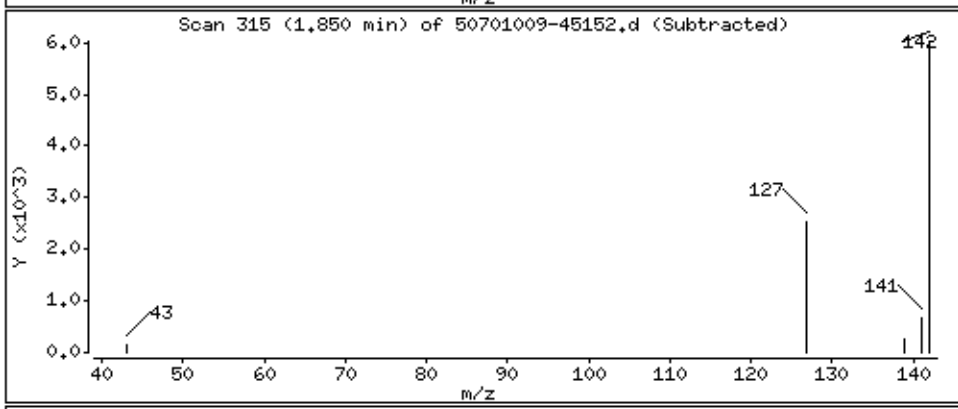
Column diameter: 0.18

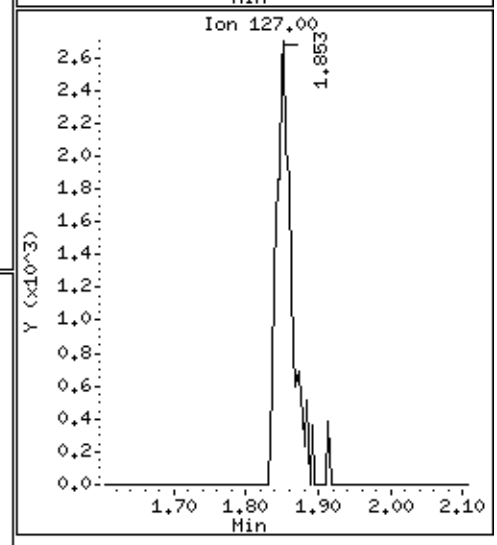
12 Iodomethane

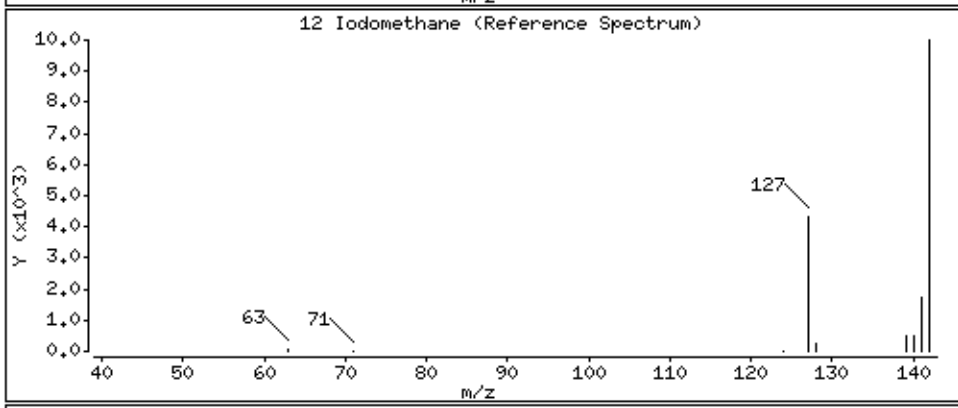
Concentration: 14.9 ug/L

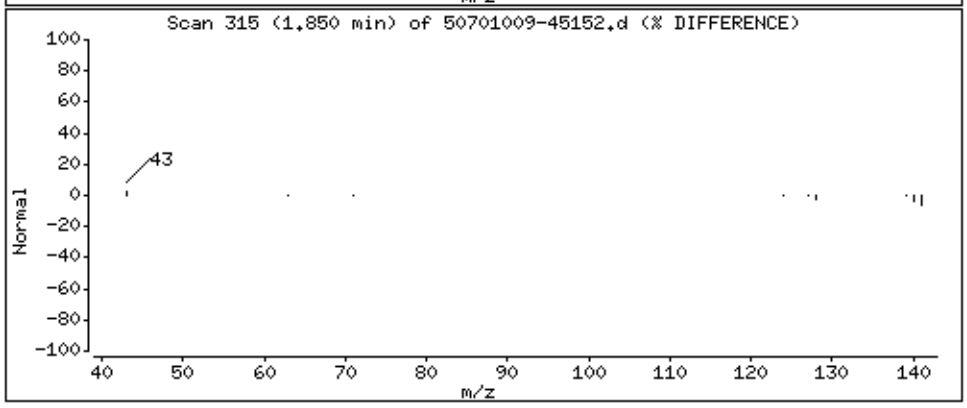












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

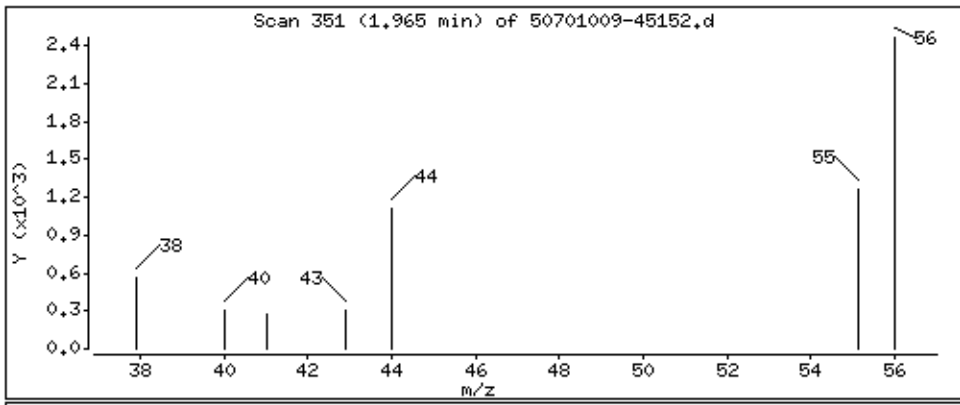
Operator: JEW

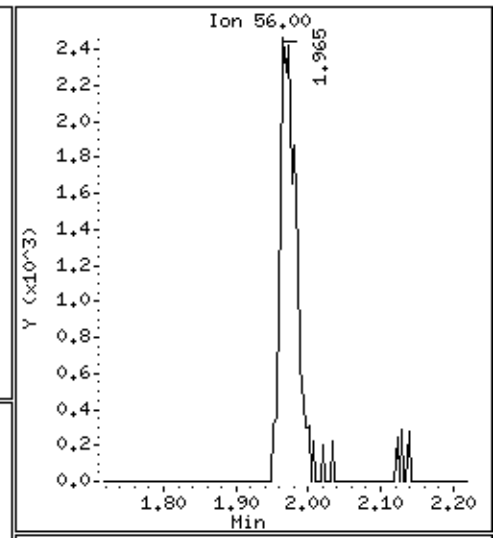
Column phase: RTX-VMS

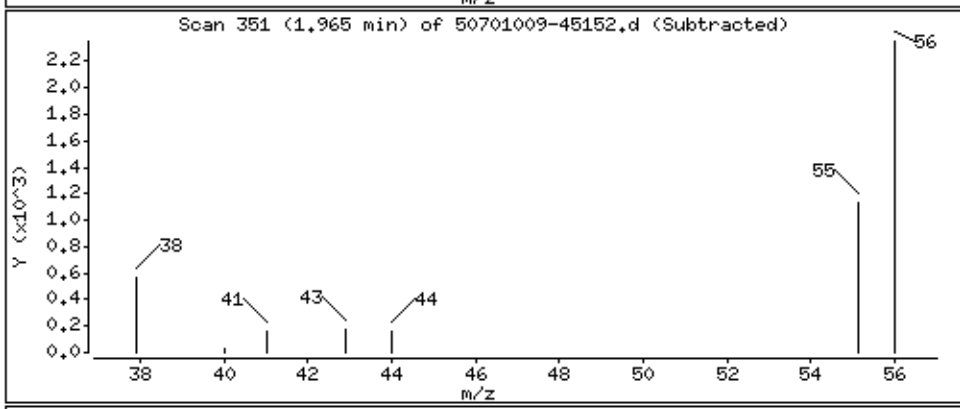
Column diameter: 0.18

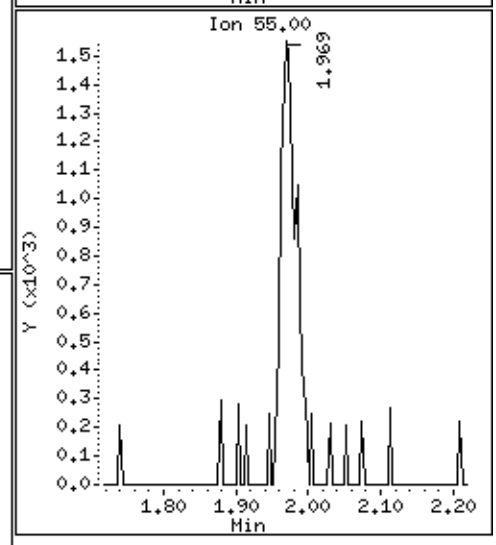
13 Acrolein

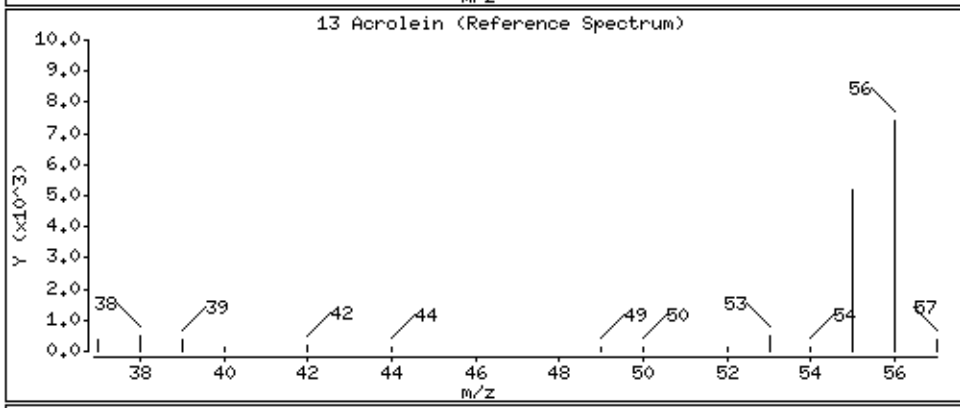
Concentration: 22.5 ug/L

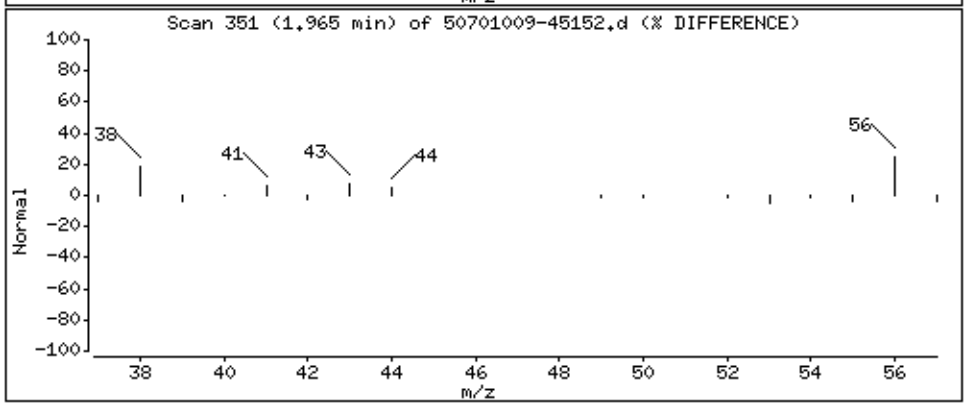












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

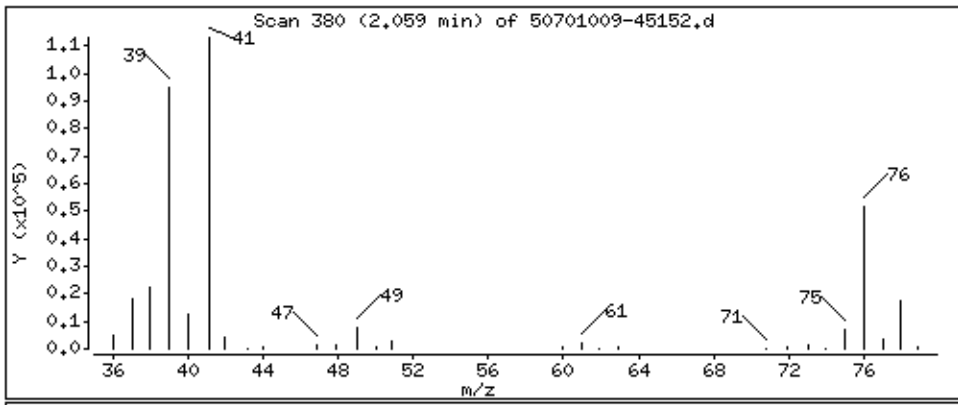
Operator: JEW

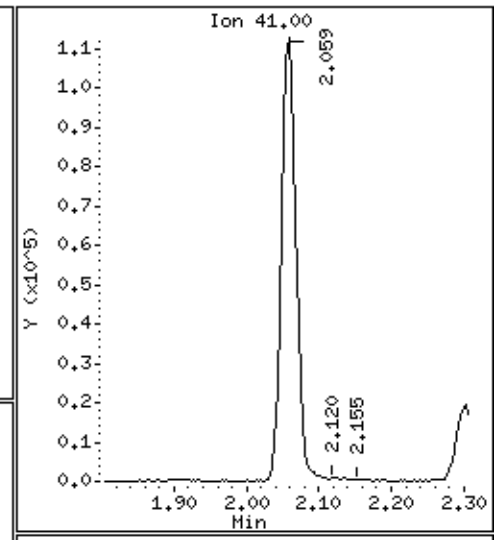
Column phase: RTX-VMS

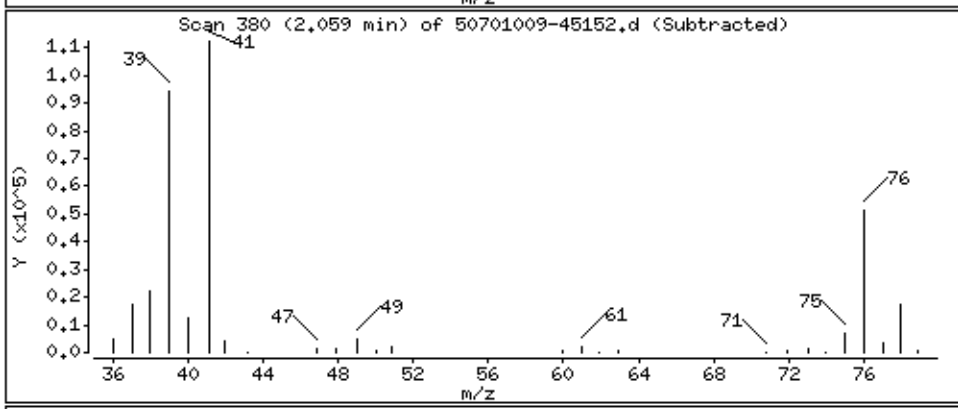
Column diameter: 0.18

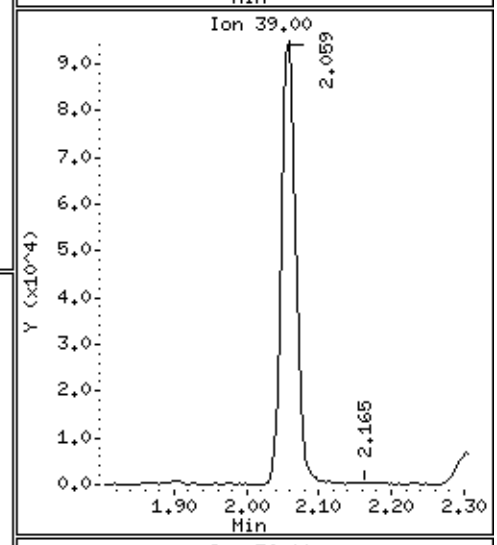
14 Allyl chloride

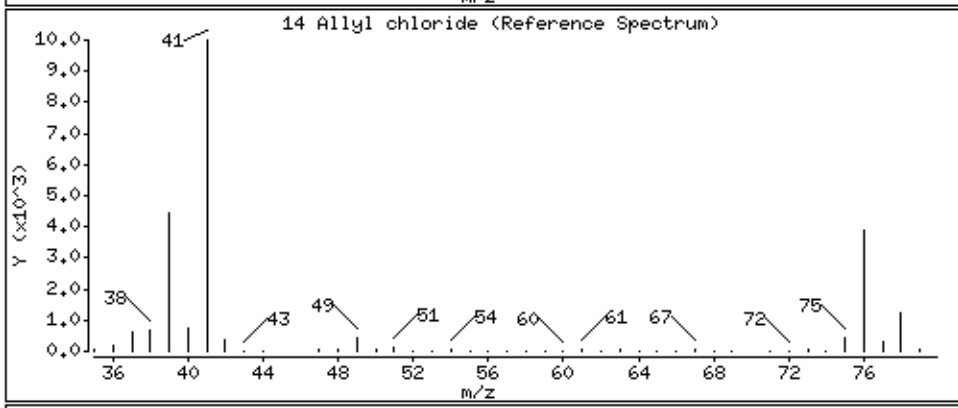
Concentration: 94.3 ug/L

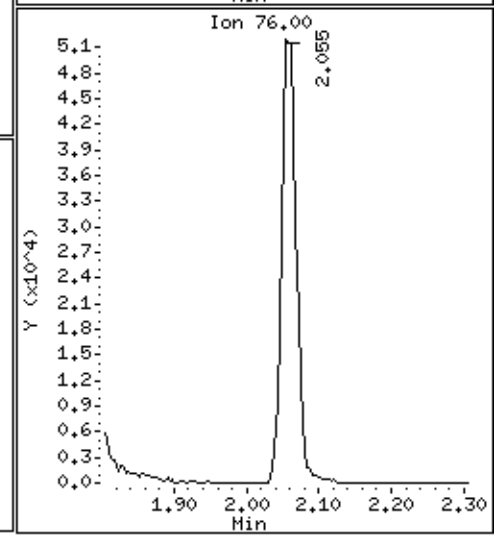


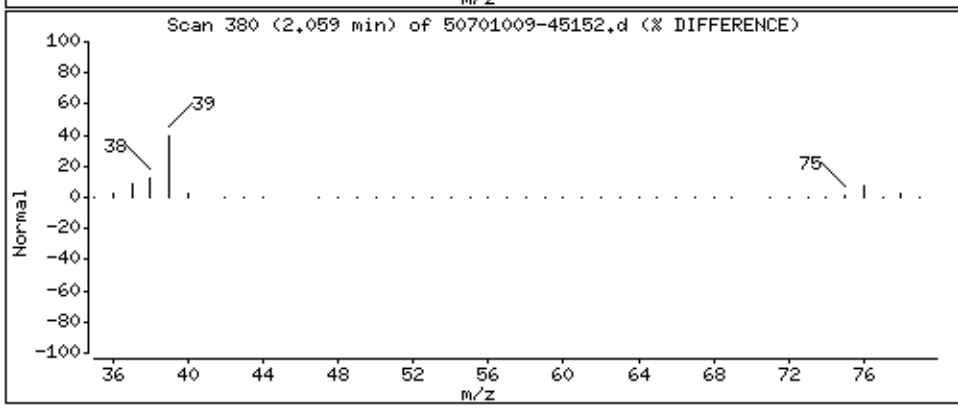












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

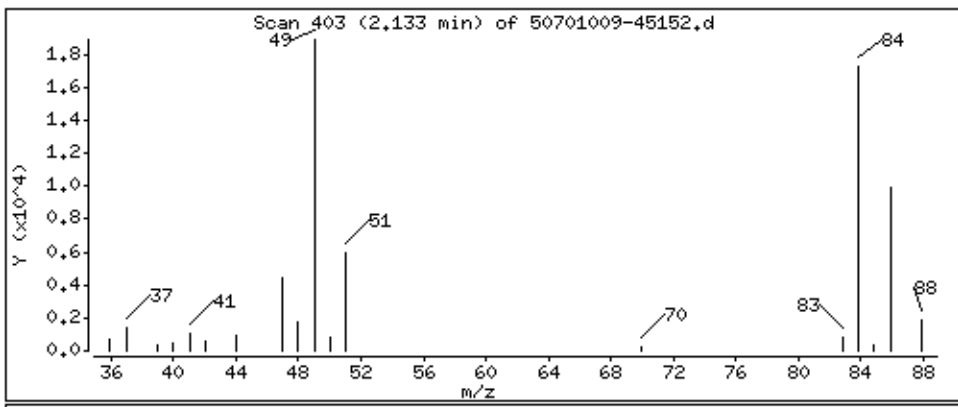
Operator: JEW

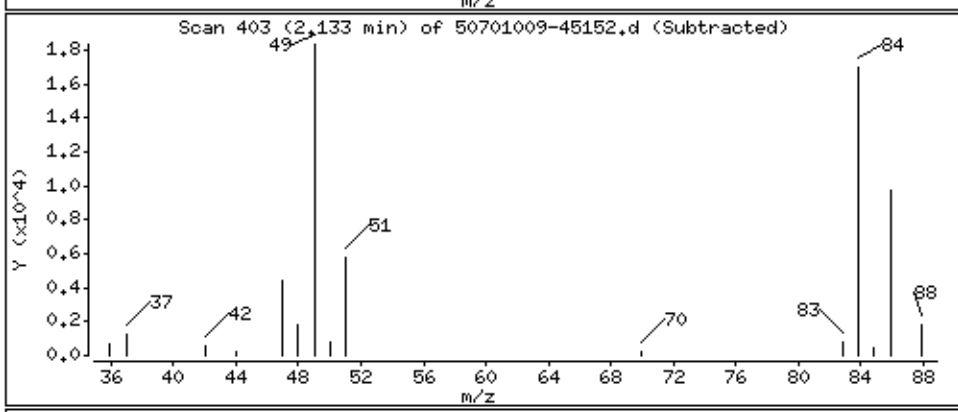
Column phase: RTX-VMS

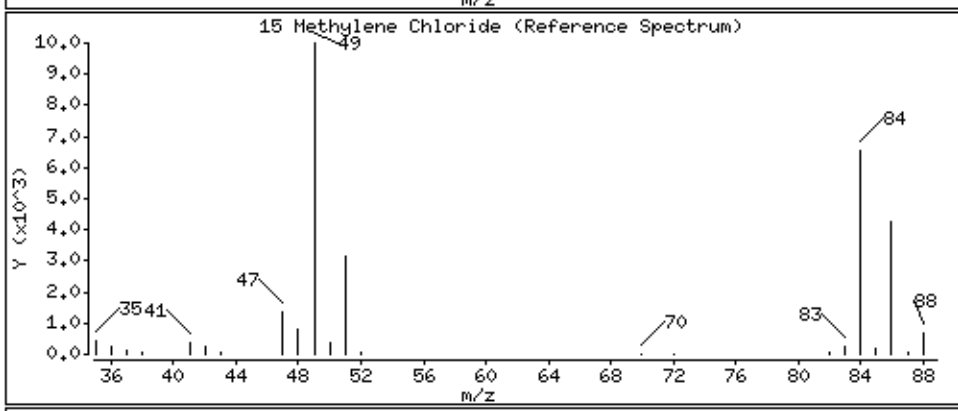
Column diameter: 0.18

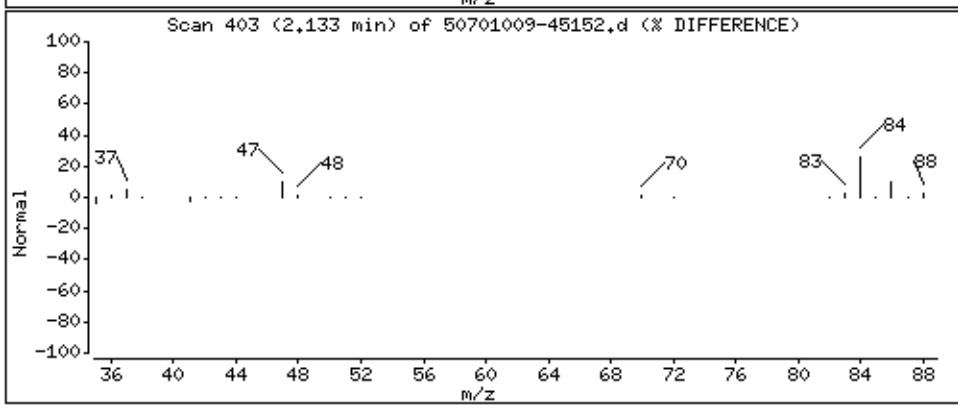
15 Methylene Chloride

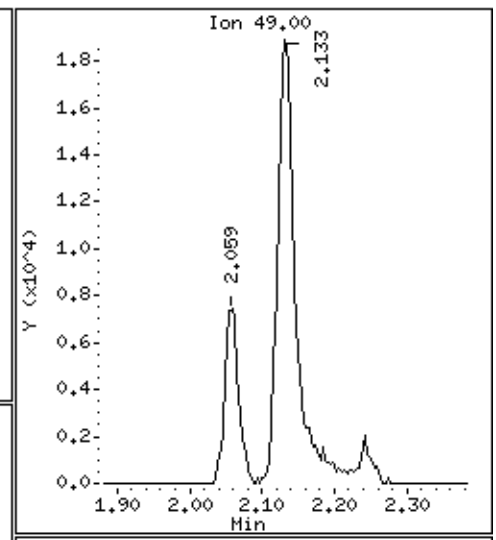
Concentration: 20.6 ug/L

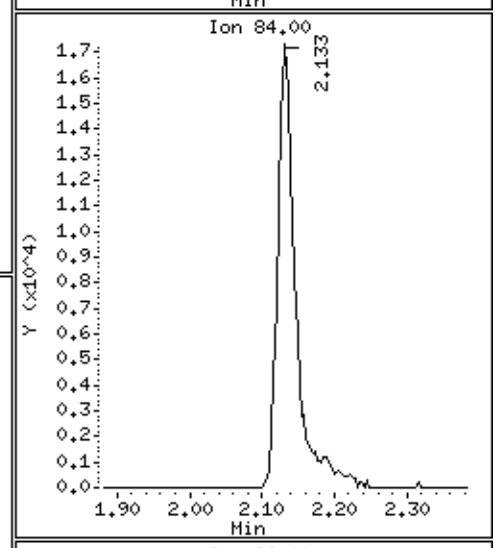


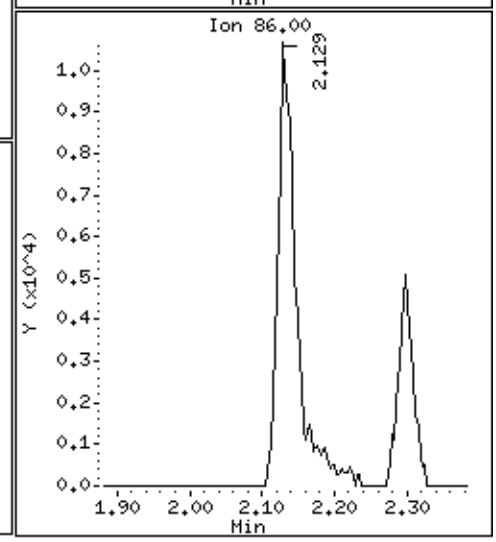












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

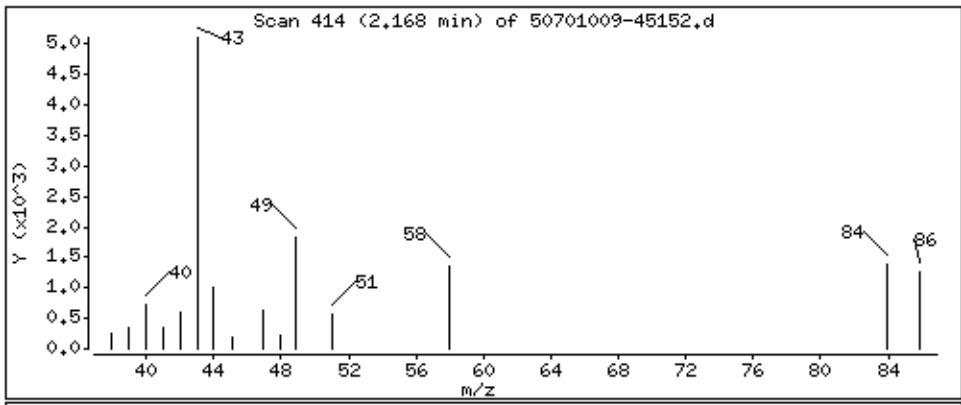
Operator: JEW

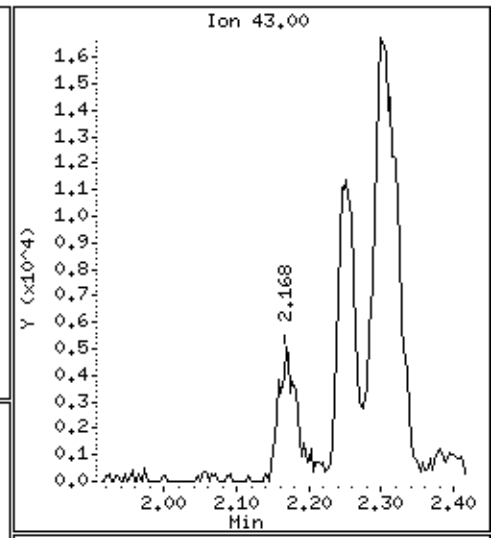
Column phase: RTX-VMS

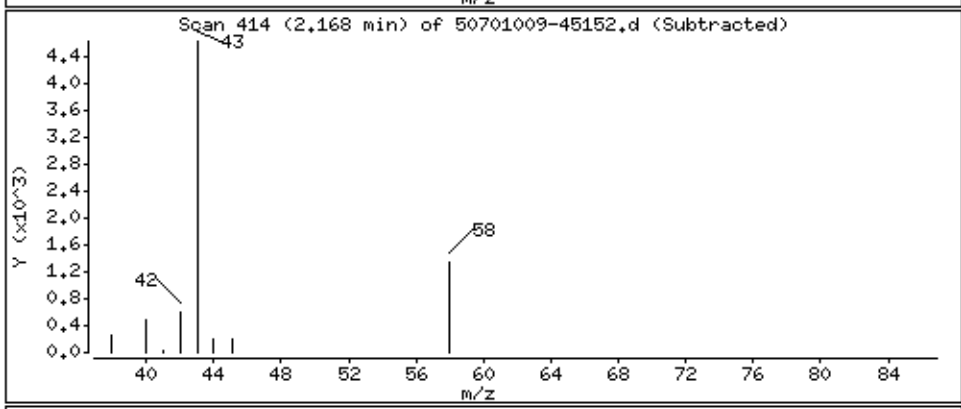
Column diameter: 0.18

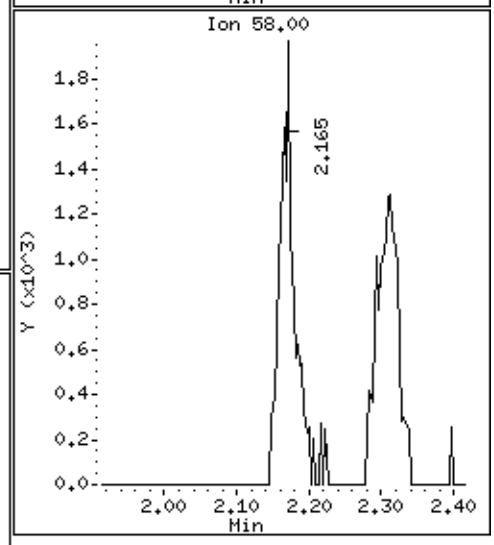
16 Acetone

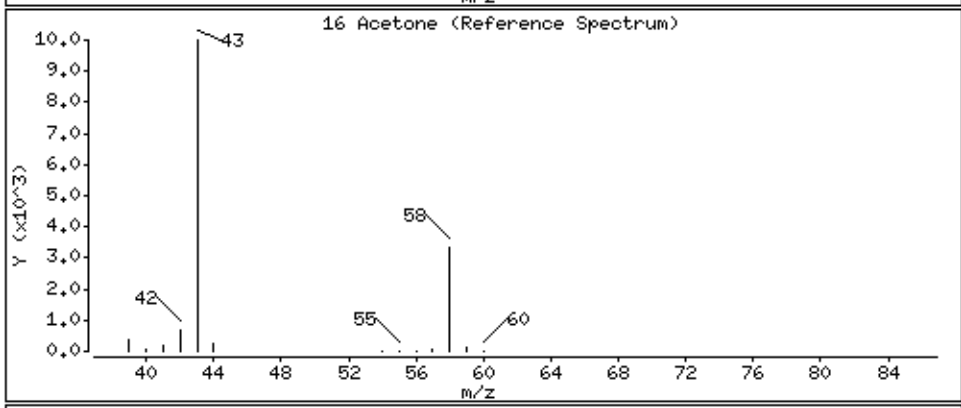
Concentration: 21.7 ug/L

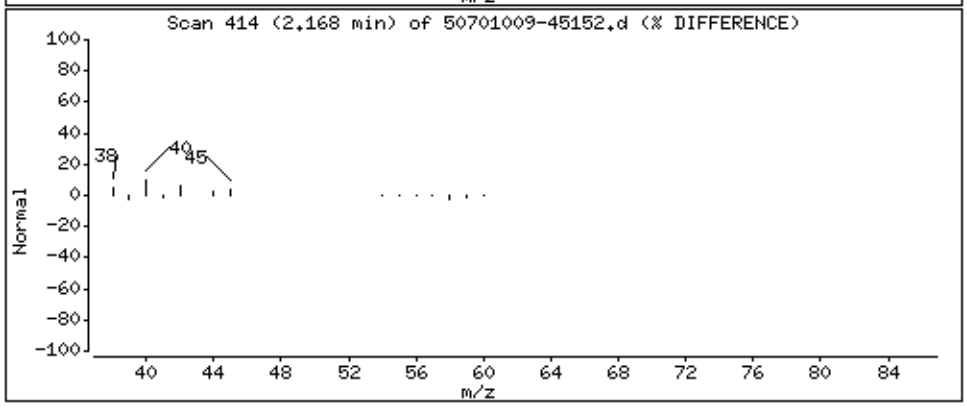












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

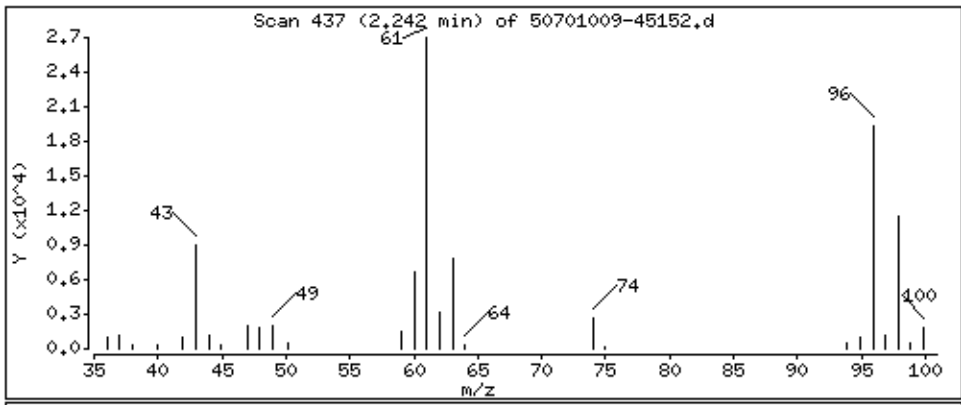
Operator: JEW

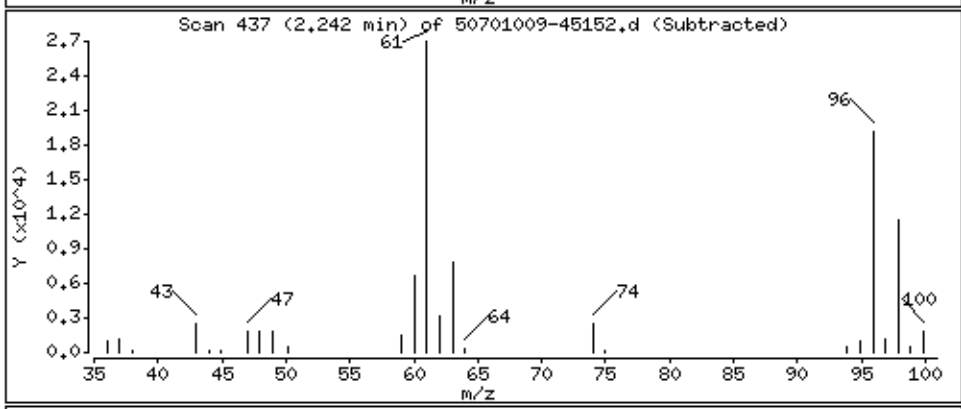
Column phase: RTX-VMS

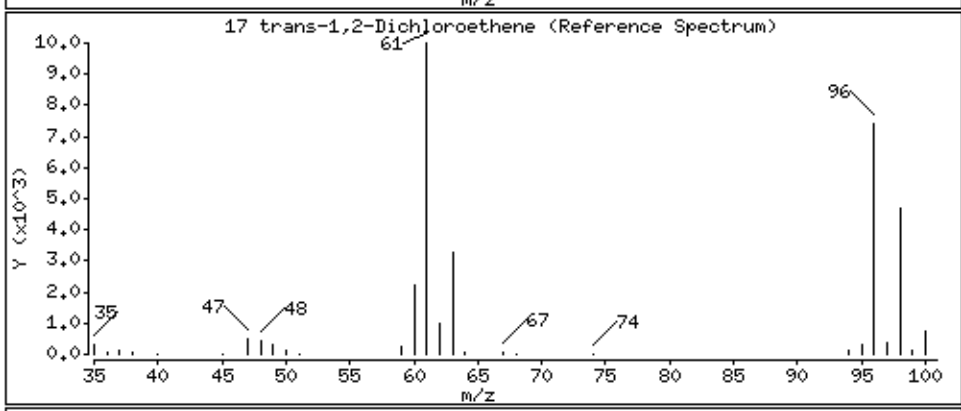
Column diameter: 0.18

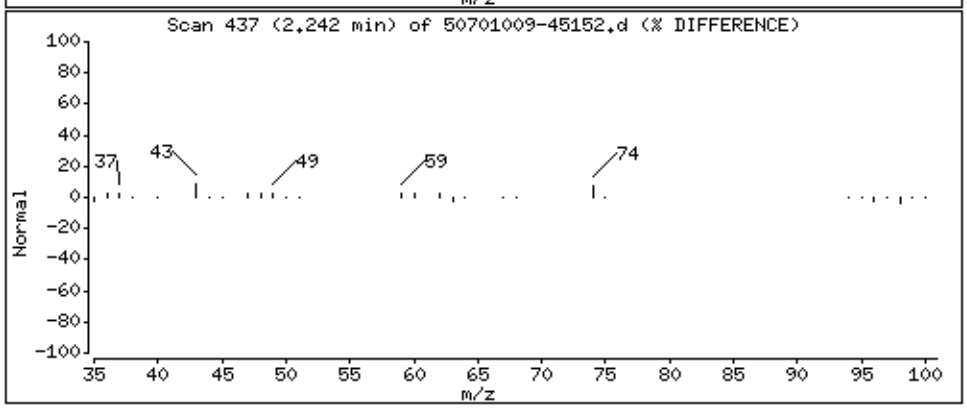
17 trans-1,2-Dichloroethene

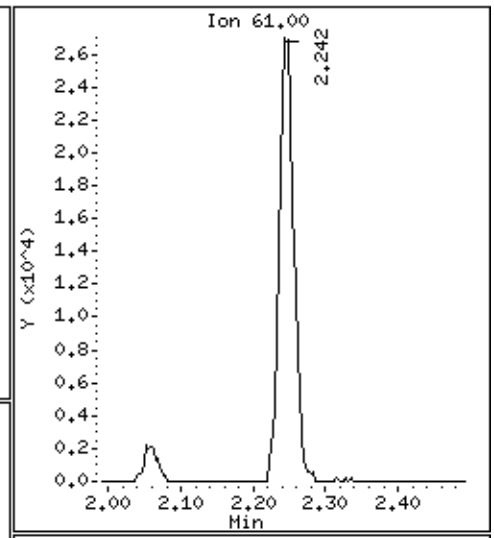
Concentration: 17.8 ug/L

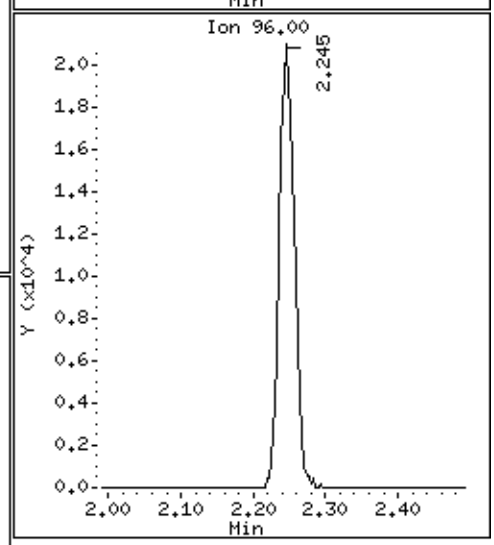












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

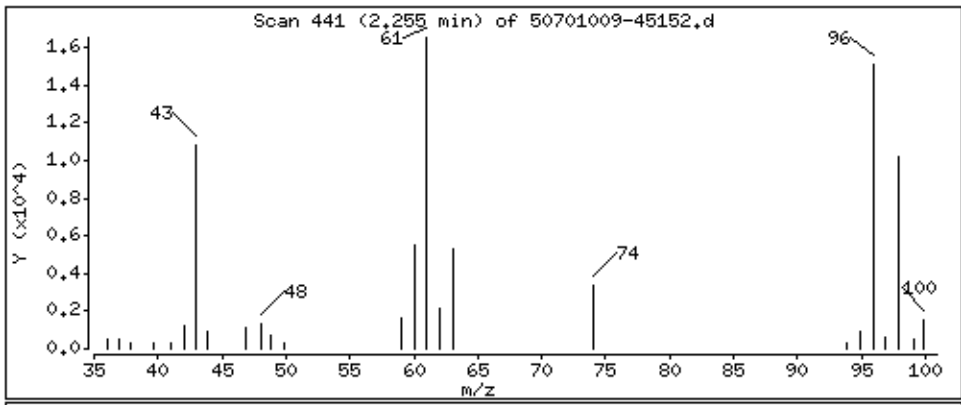
Operator: JEW

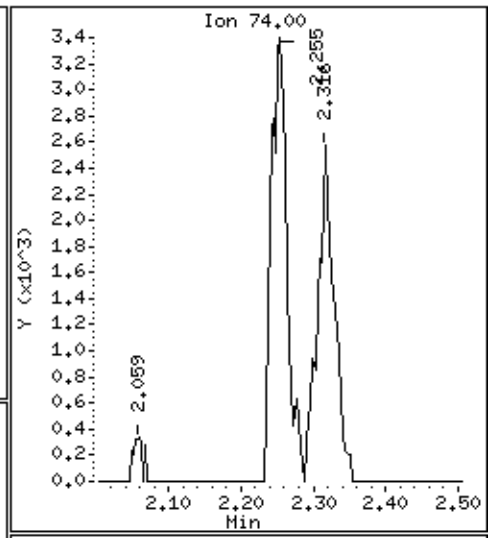
Column phase: RTX-VMS

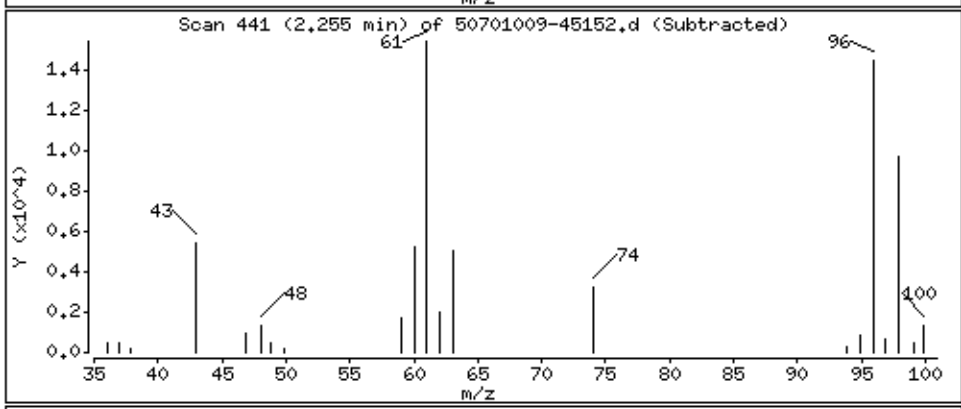
Column diameter: 0.18

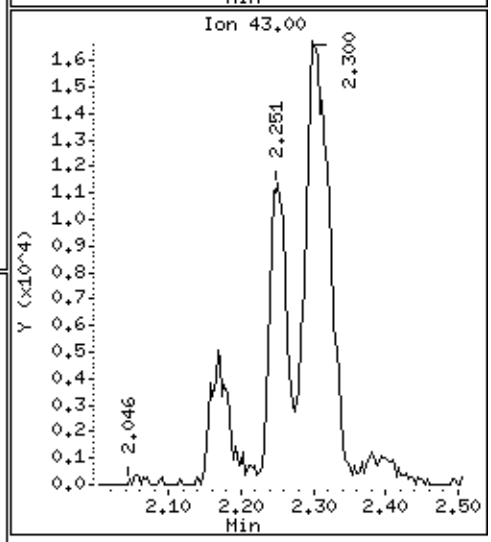
18 Methyl acetate

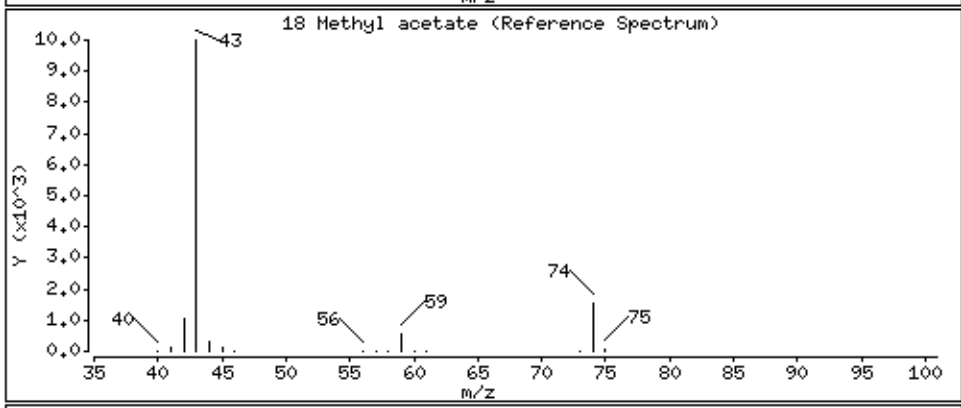
Concentration: 19.7 ug/L

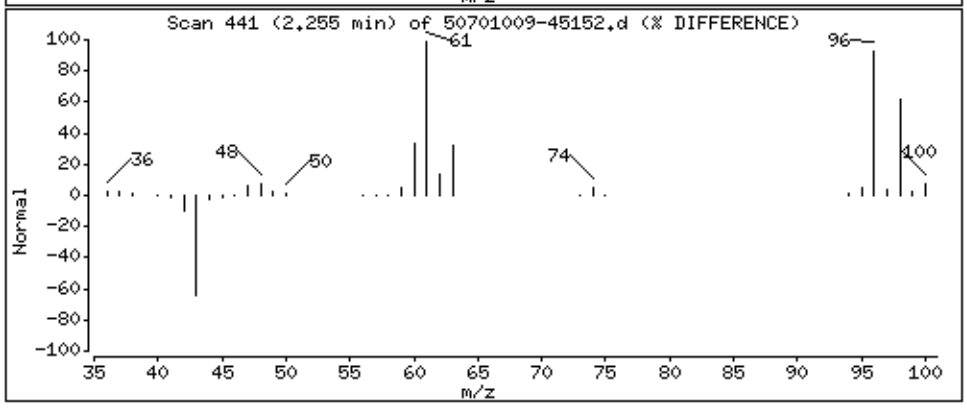












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

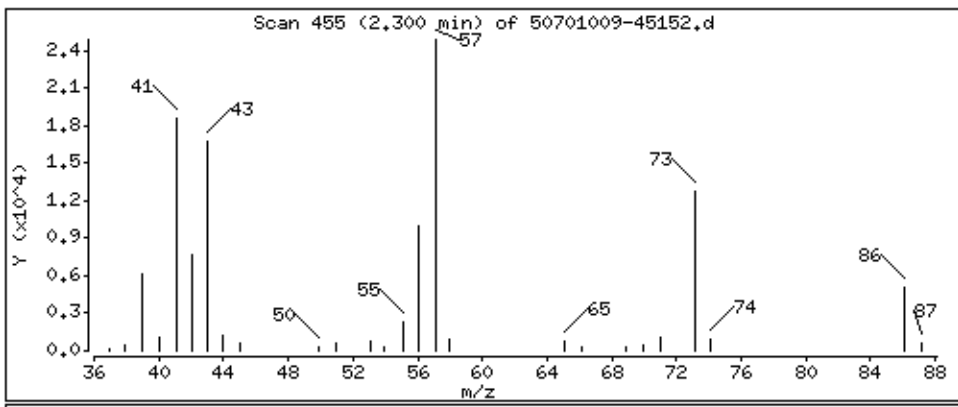
Operator: JEW

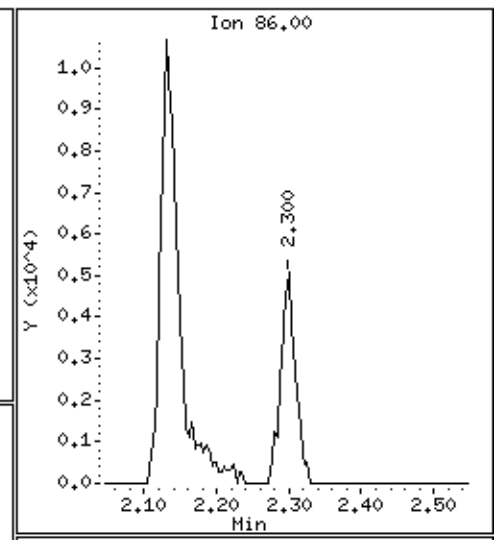
Column phase: RTX-VMS

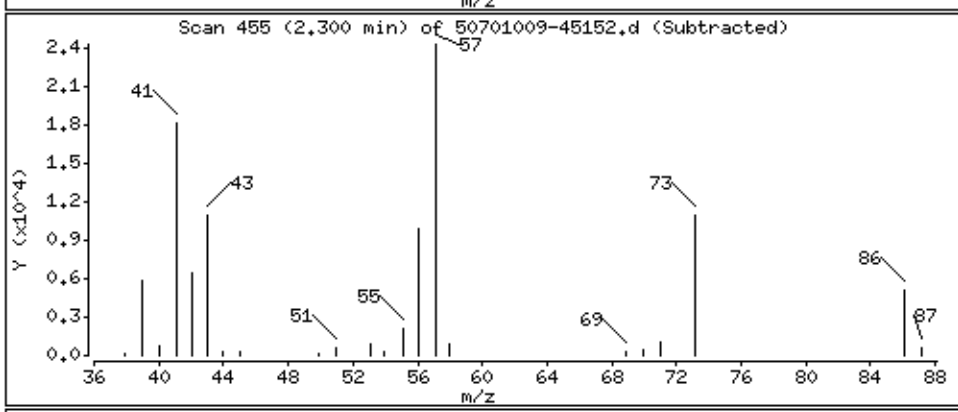
Column diameter: 0.18

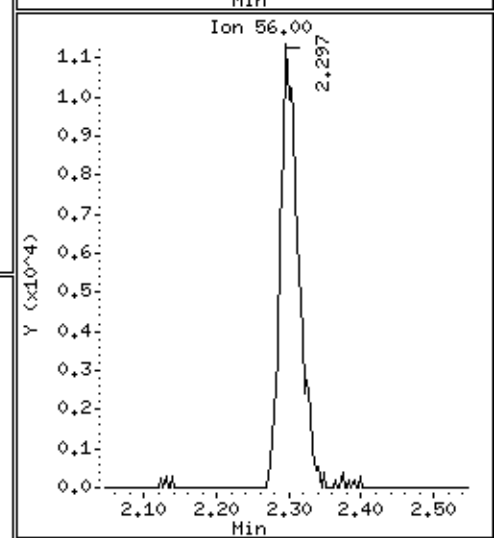
19 n-Hexane

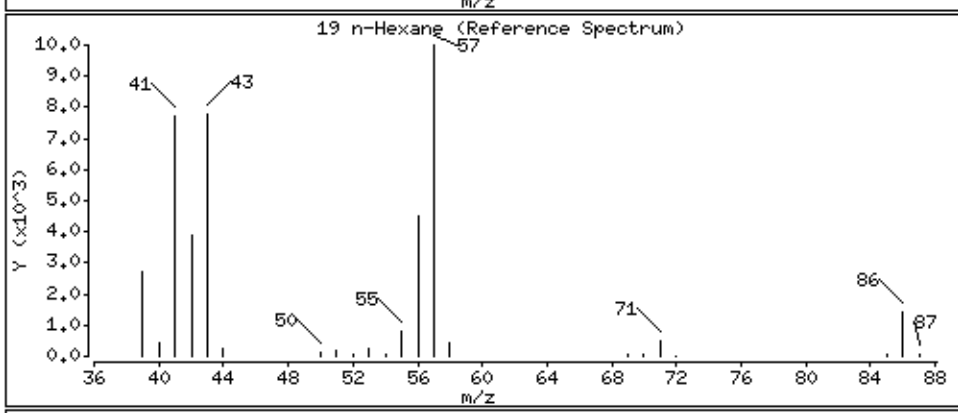
Concentration: 20.0 ug/L

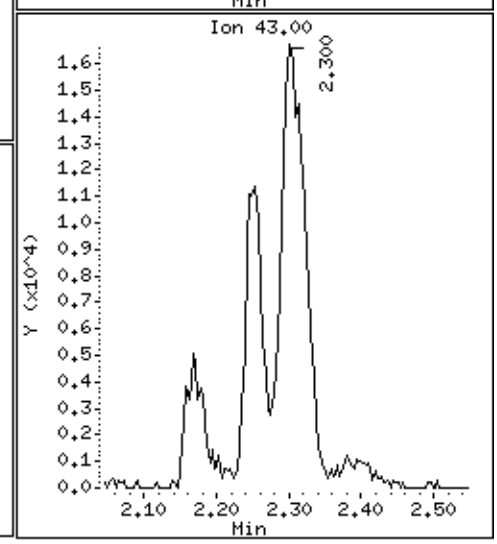


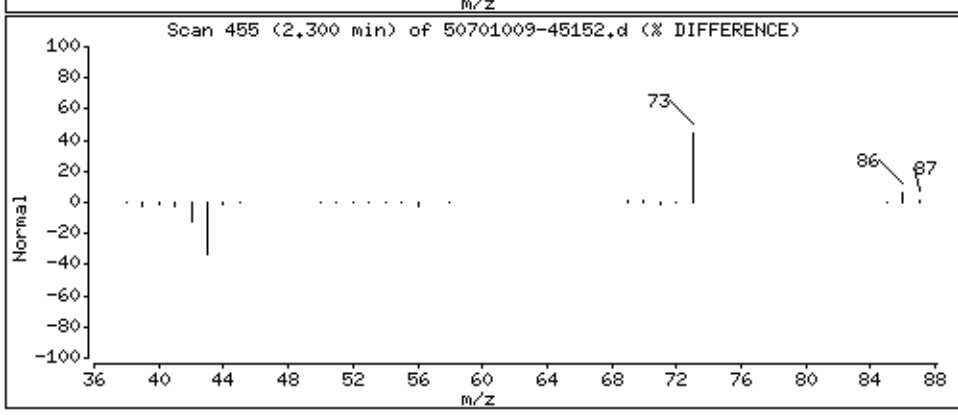












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

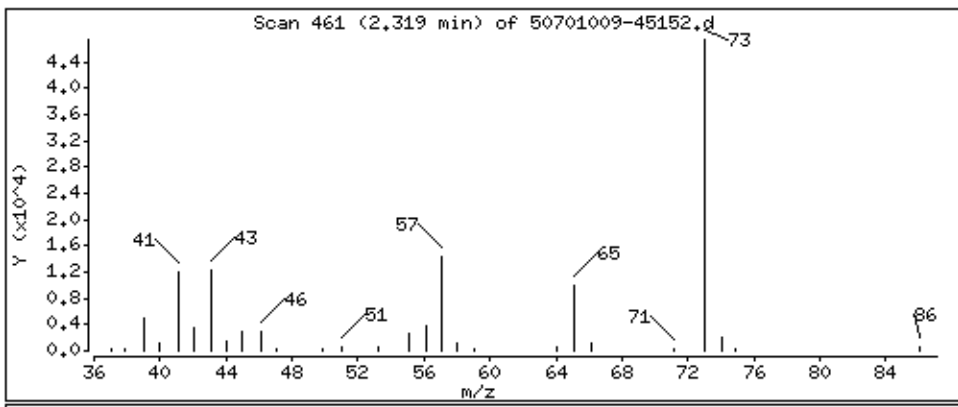
Operator: JEW

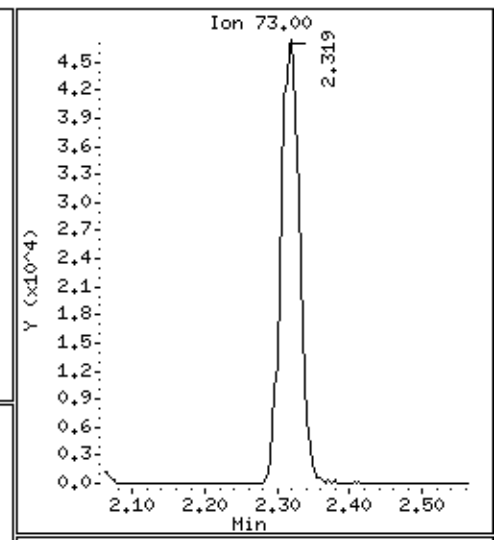
Column phase: RTX-VMS

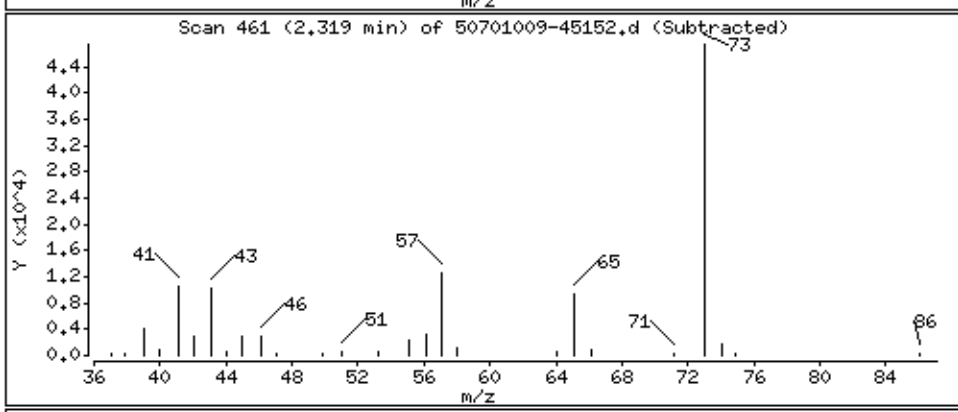
Column diameter: 0.18

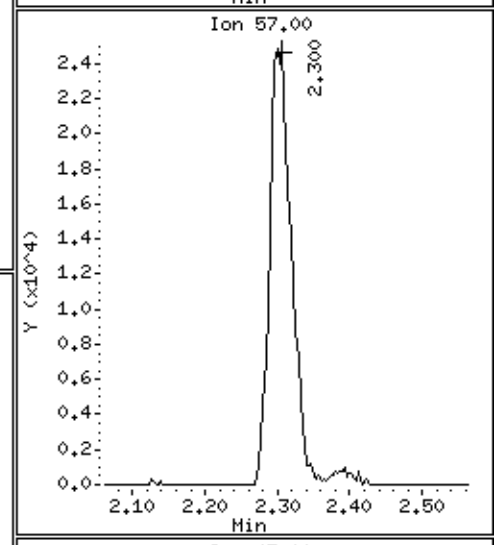
20 Methyl-tert-butyl ether

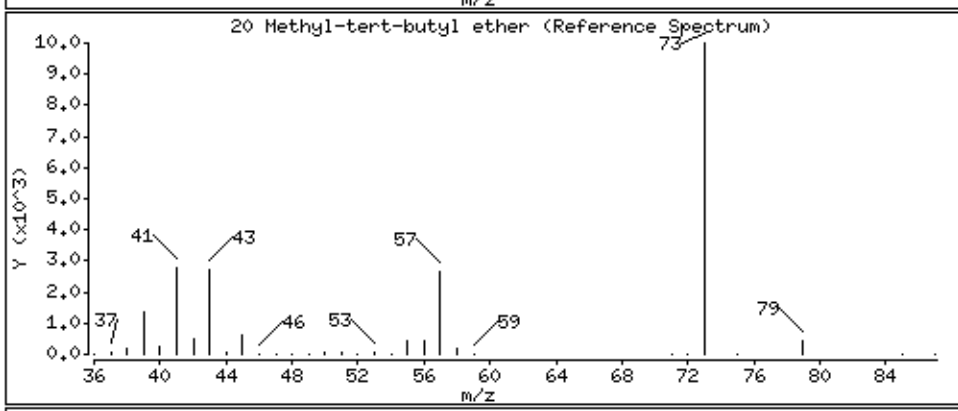
Concentration: 18.1 ug/L

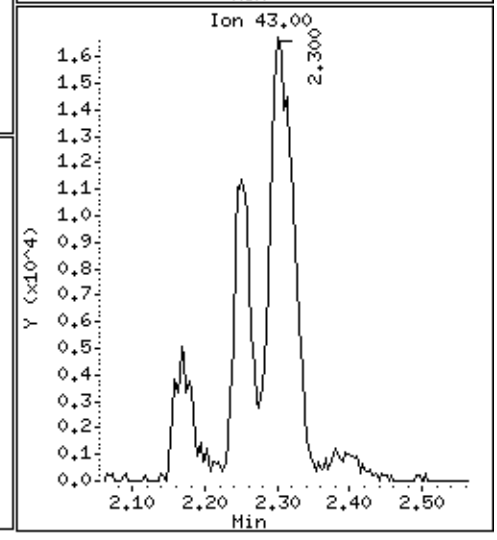


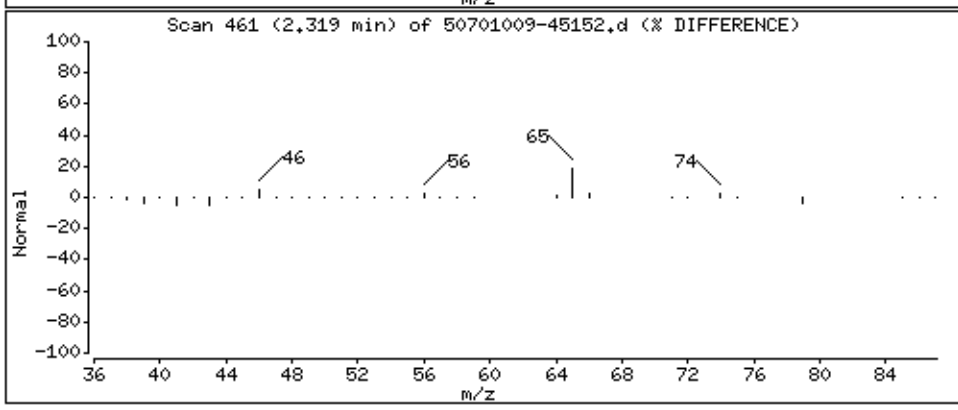












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

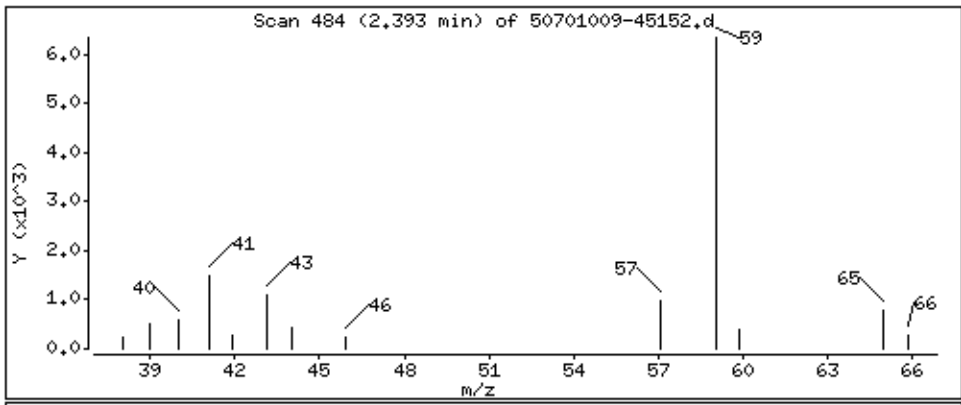
Operator: JEW

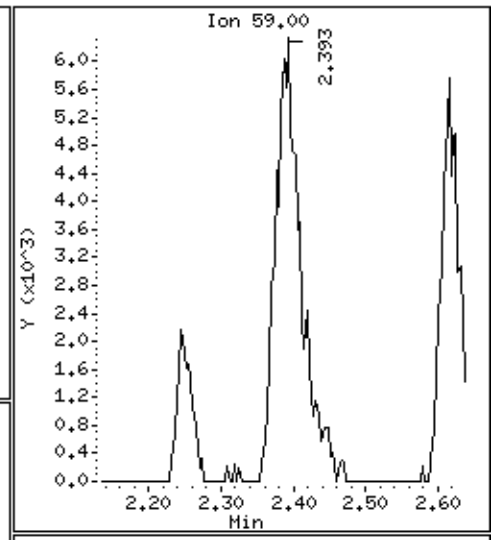
Column phase: RTX-VMS

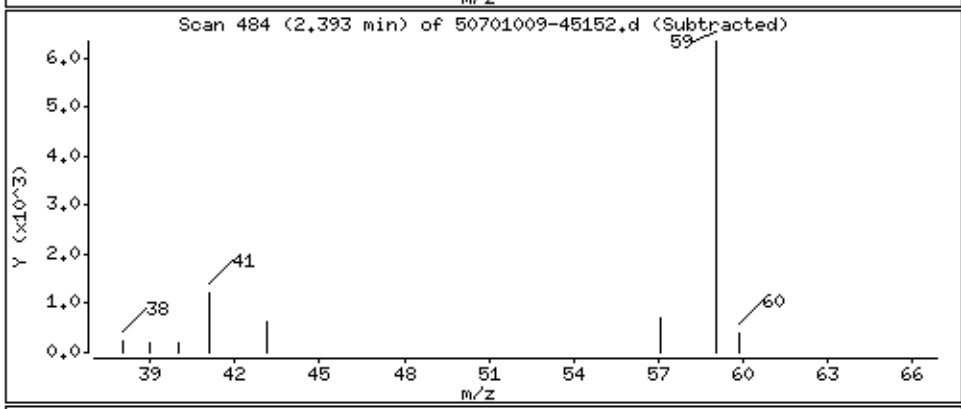
Column diameter: 0.18

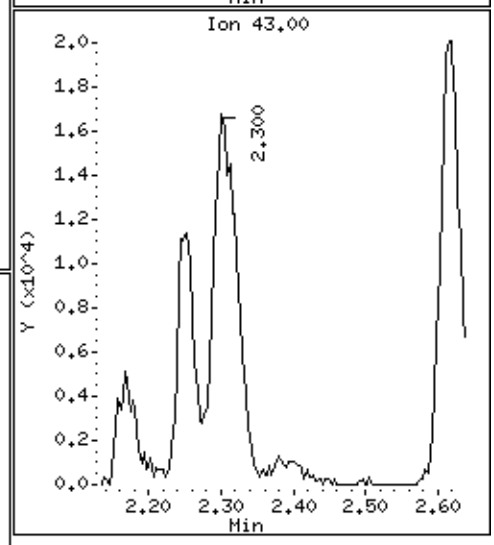
21 tert-Butyl Alcohol

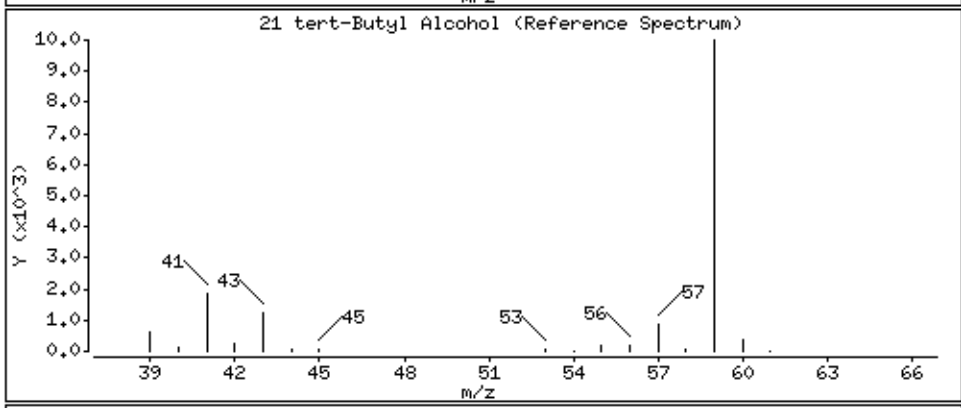
Concentration: 77.7 ug/L

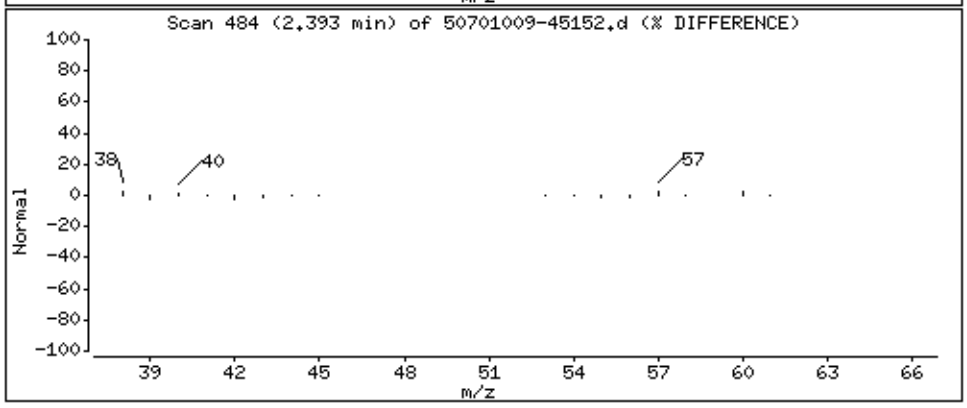












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

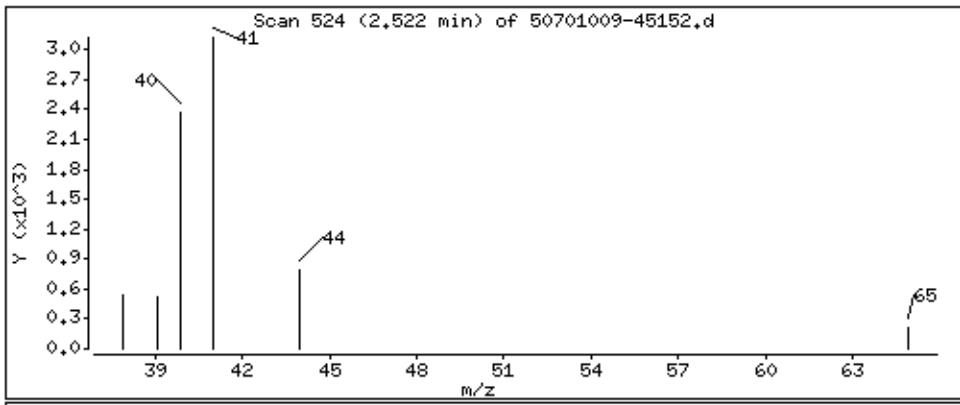
Operator: JEW

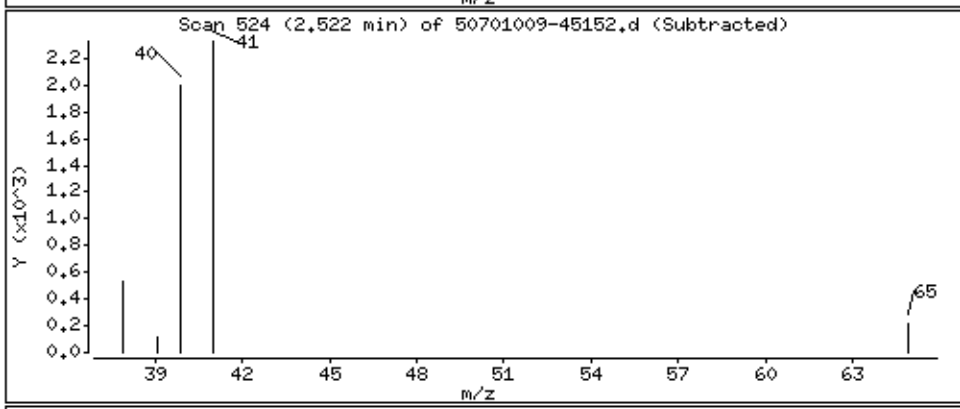
Column phase: RTX-VMS

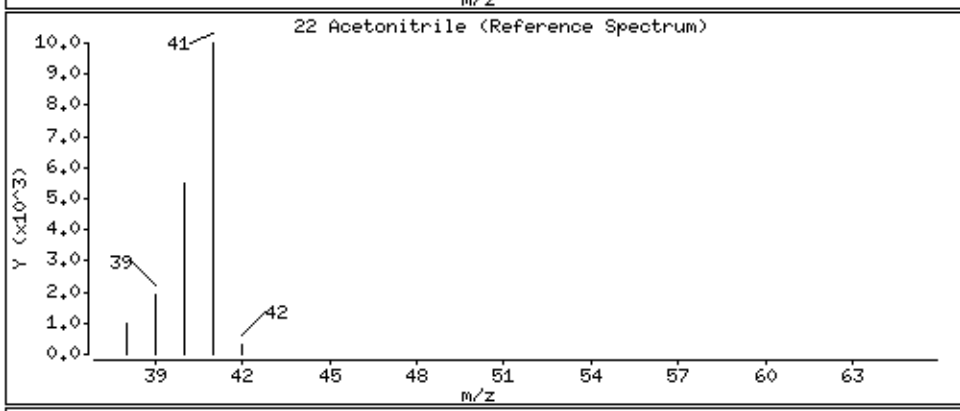
Column diameter: 0.18

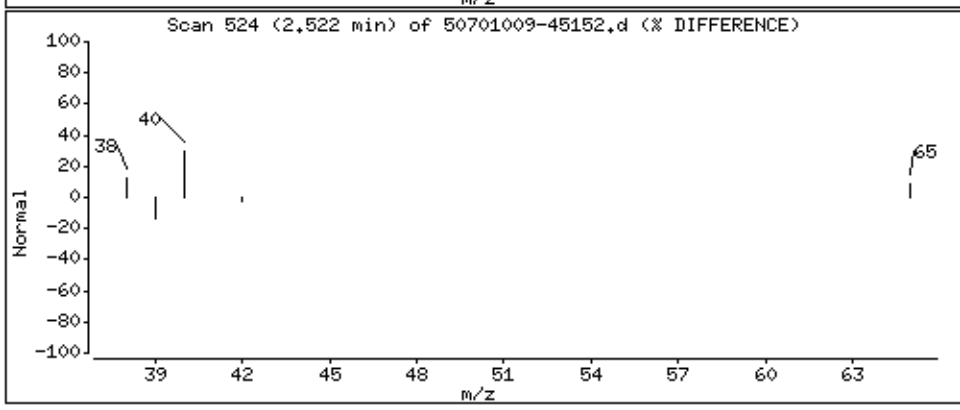
22 Acetonitrile

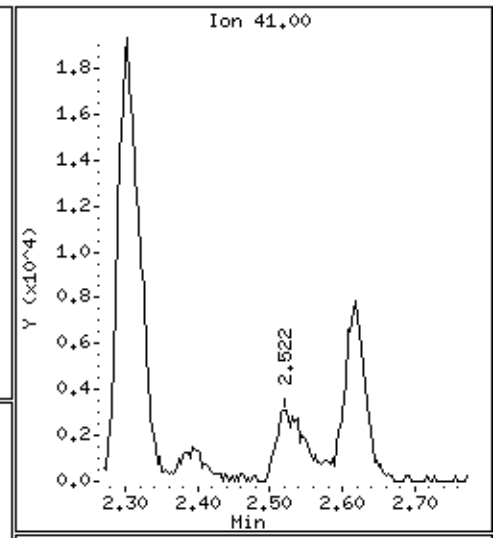
Concentration: 100 ug/L

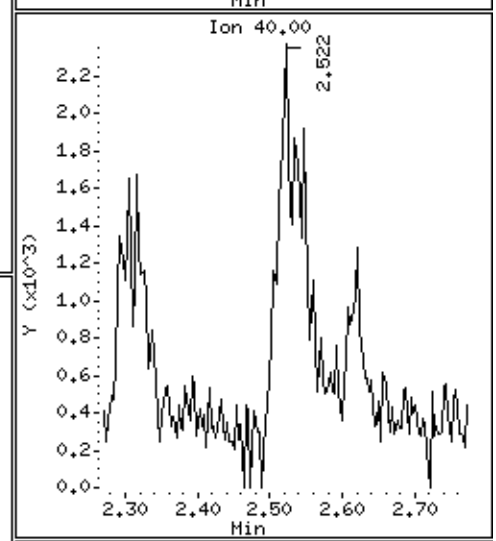


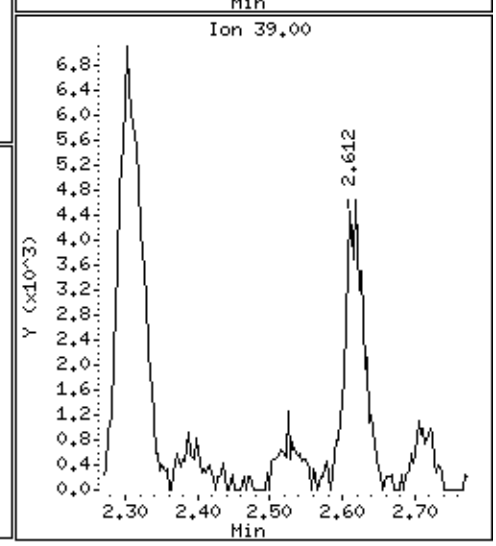












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

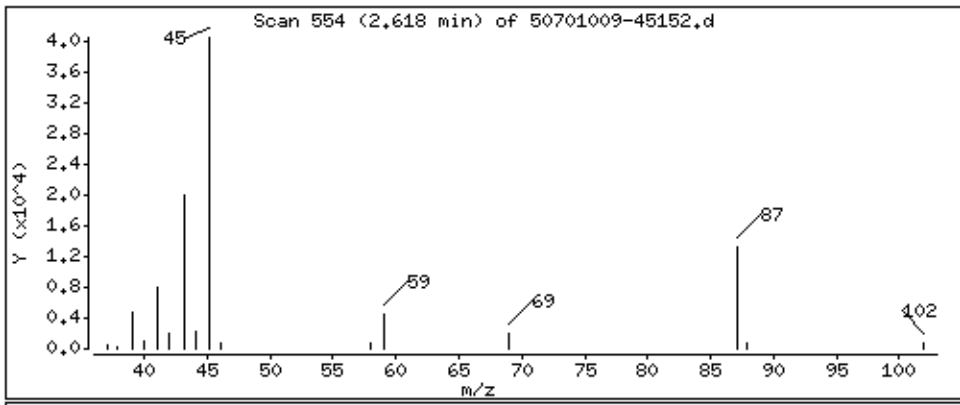
Operator: JEW

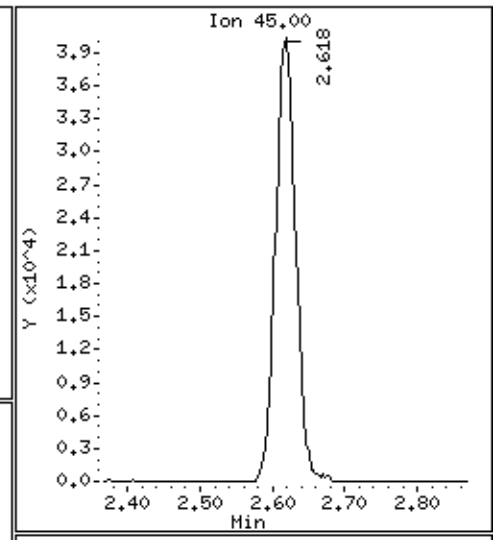
Column phase: RTX-VMS

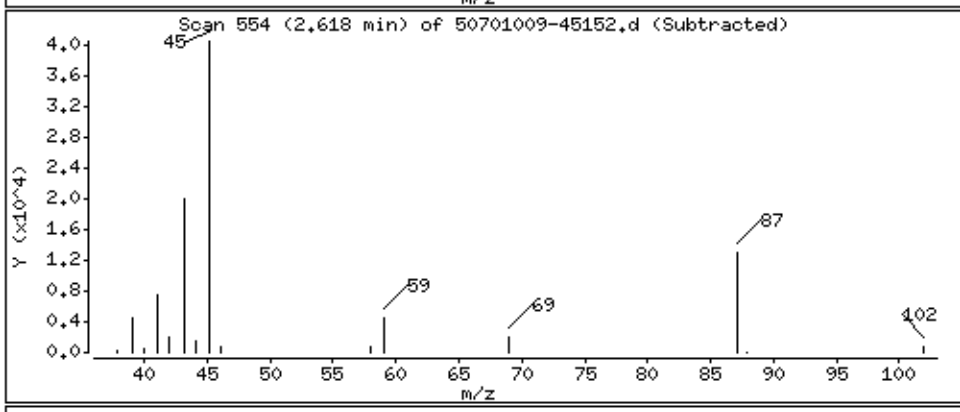
Column diameter: 0.18

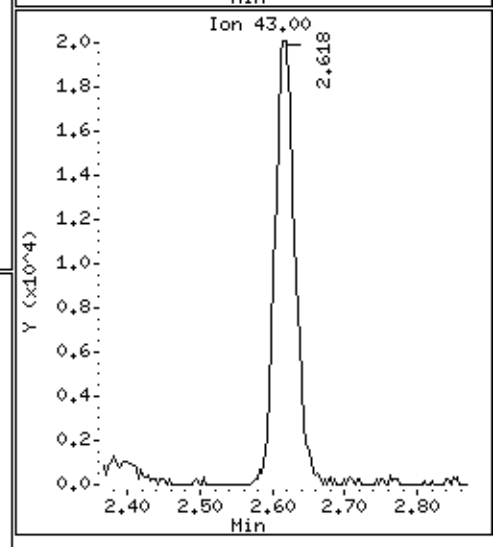
23 Diisopropyl ether

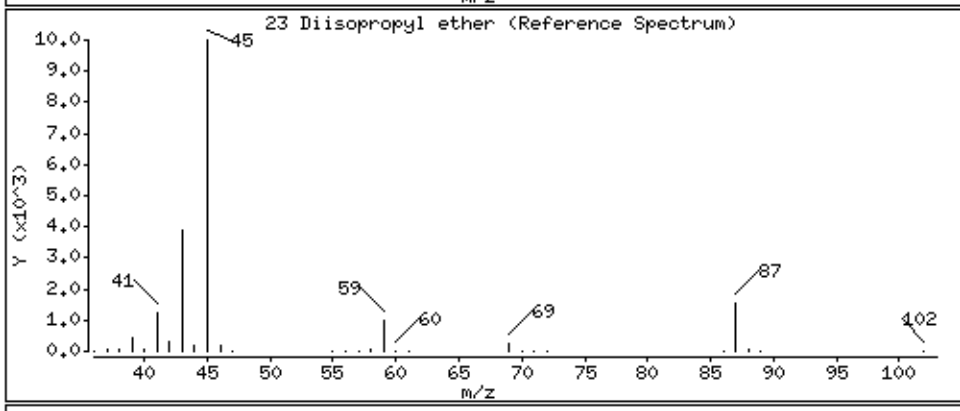
Concentration: 17.1 ug/L

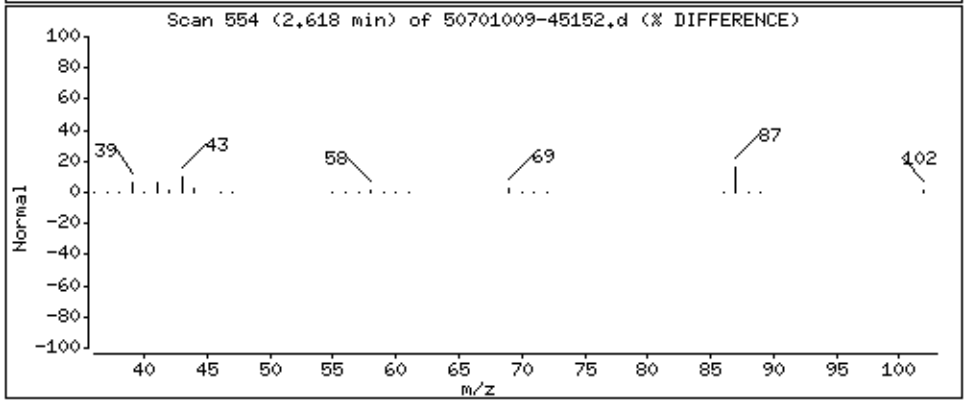












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

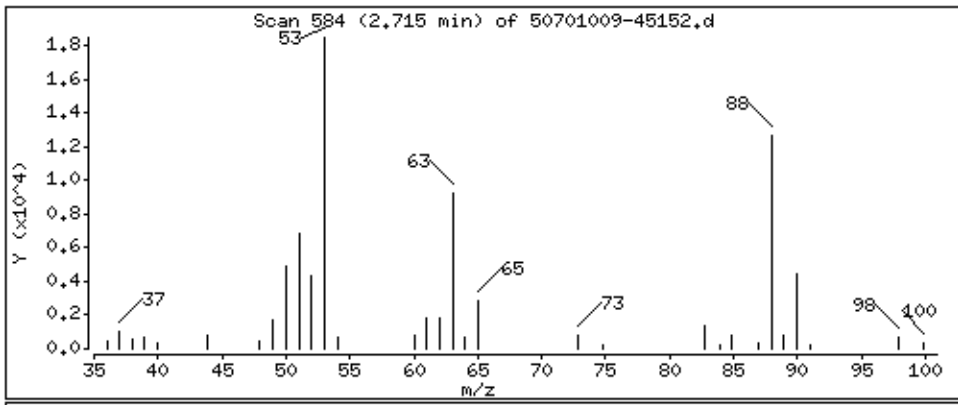
Operator: JEW

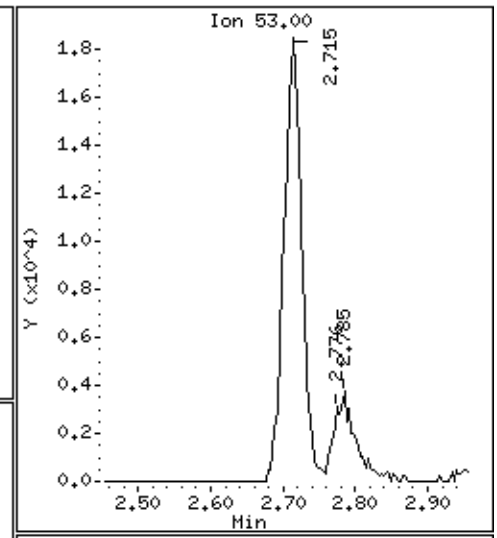
Column phase: RTX-VMS

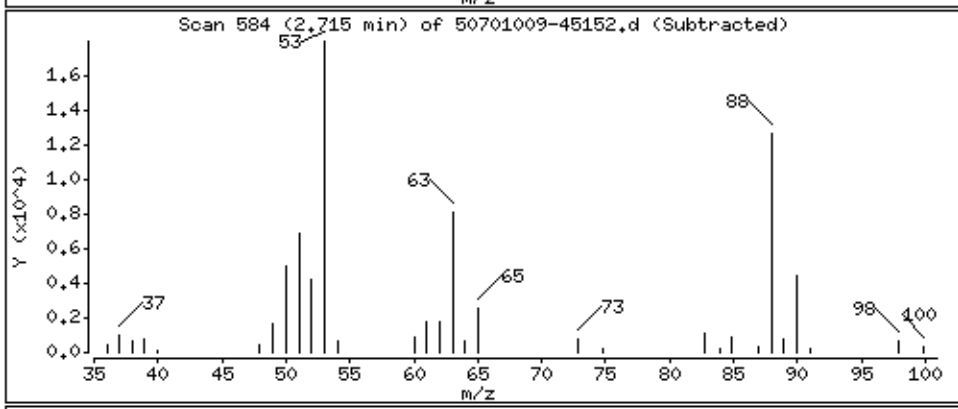
Column diameter: 0.18

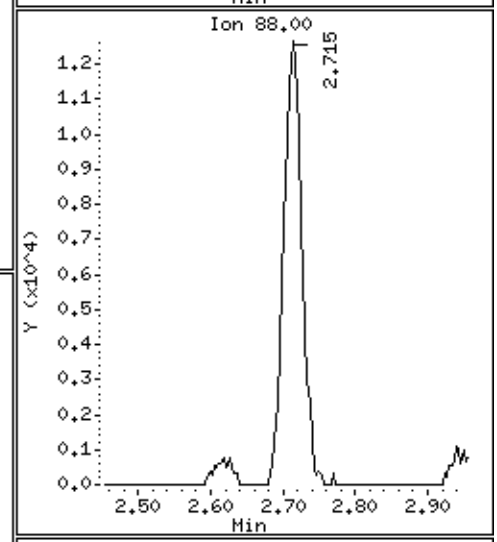
24 Chloroprene

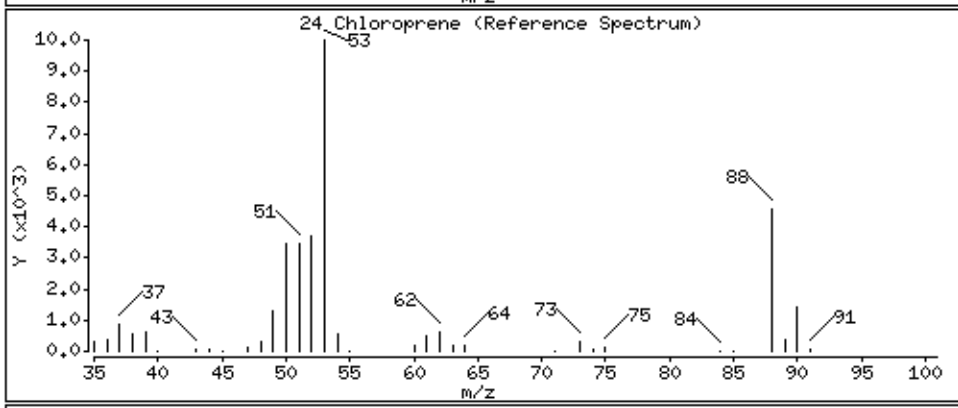
Concentration: 16.4 ug/L

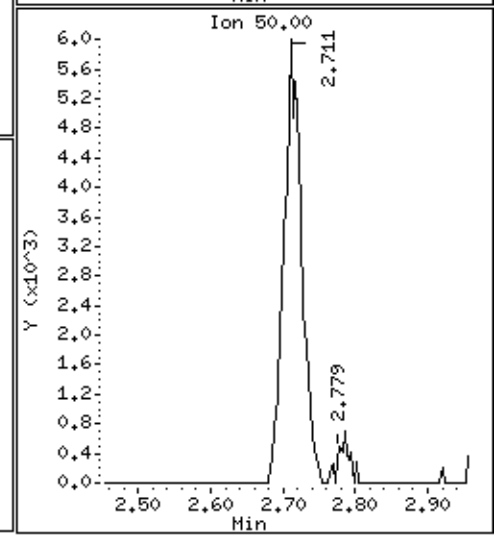


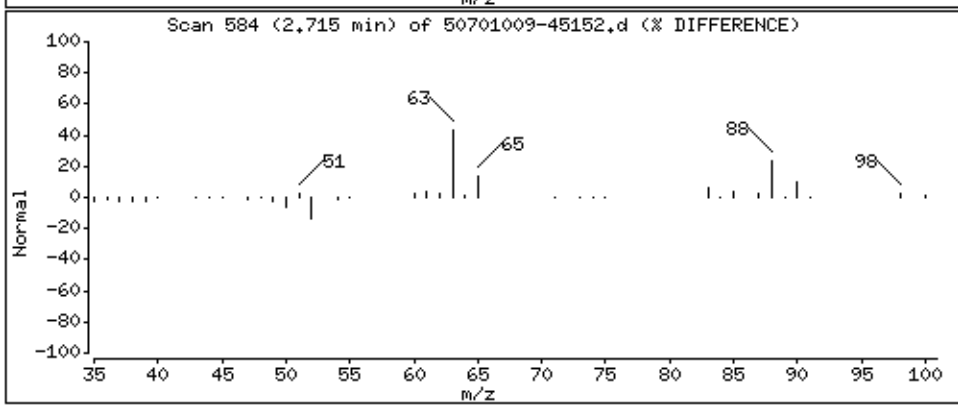












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

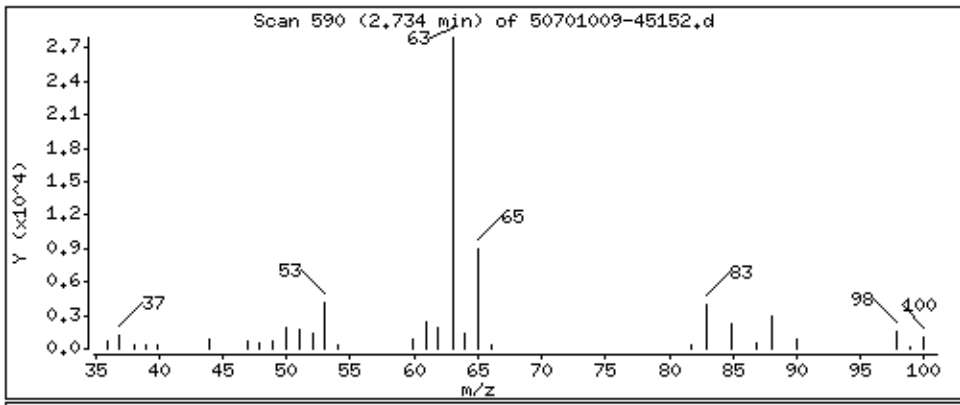
Operator: JEW

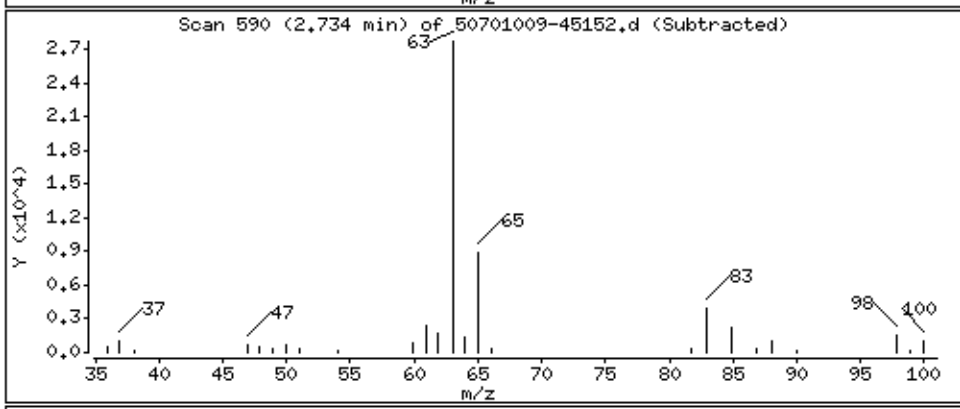
Column phase: RTX-VMS

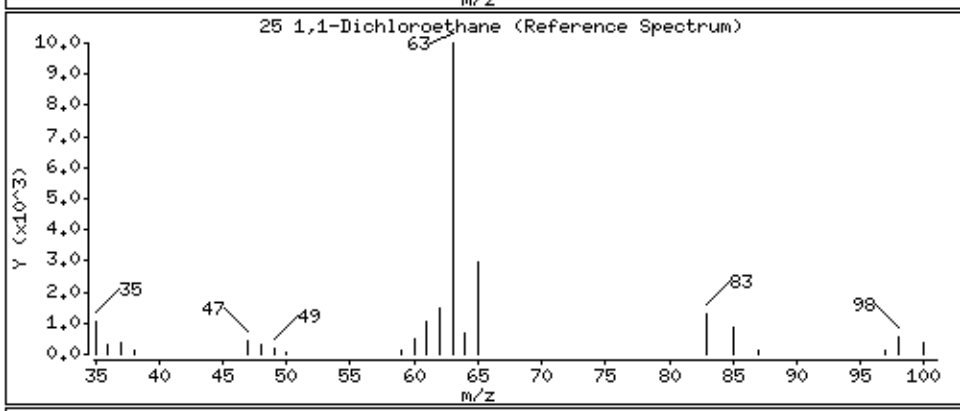
Column diameter: 0.18

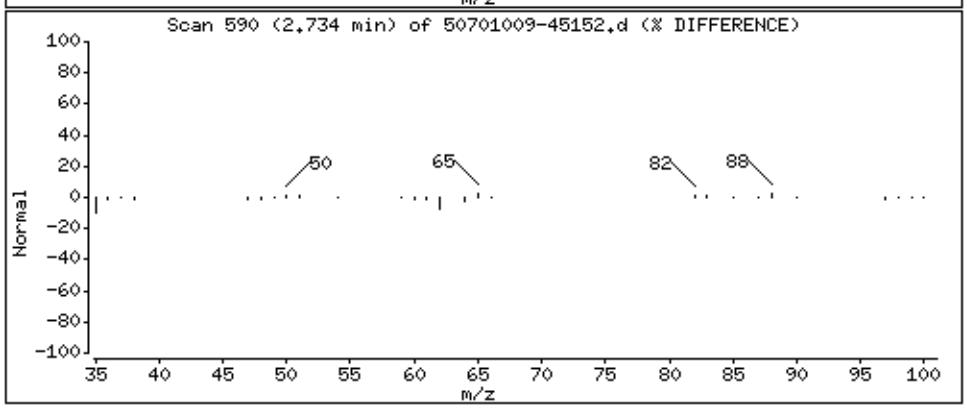
25 1,1-Dichloroethane

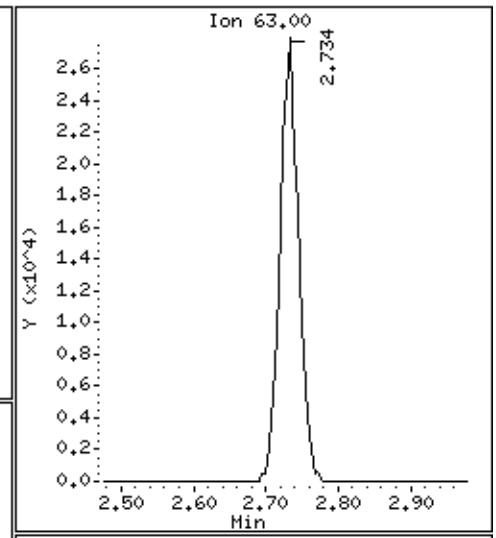
Concentration: 17.1 ug/L

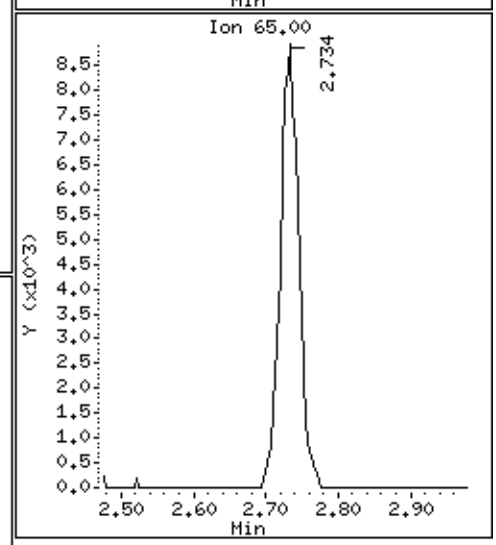












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

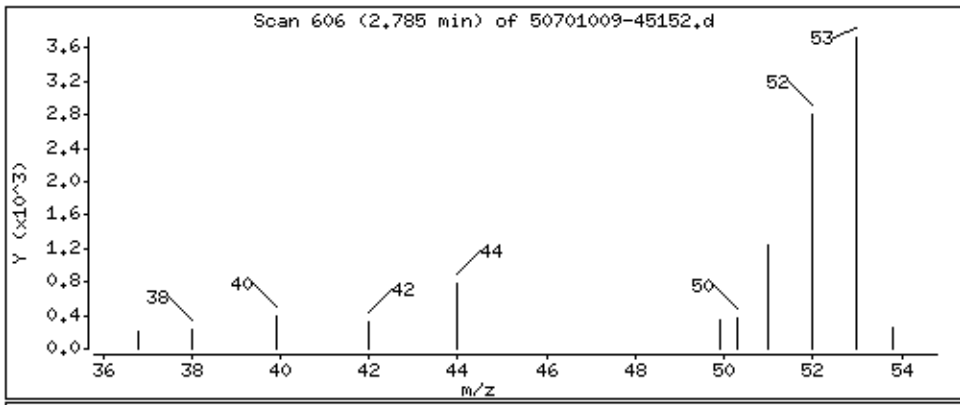
Operator: JEW

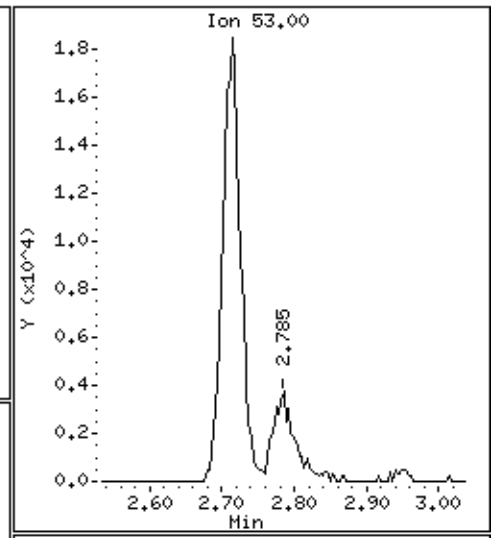
Column phase: RTX-VMS

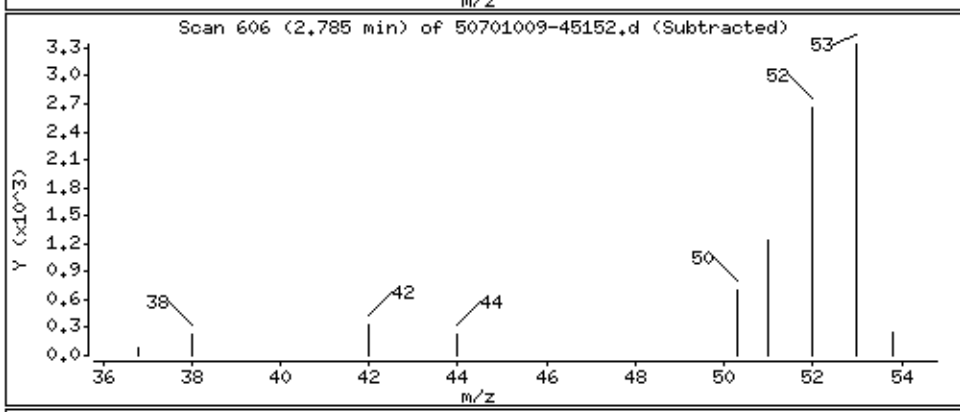
Column diameter: 0.18

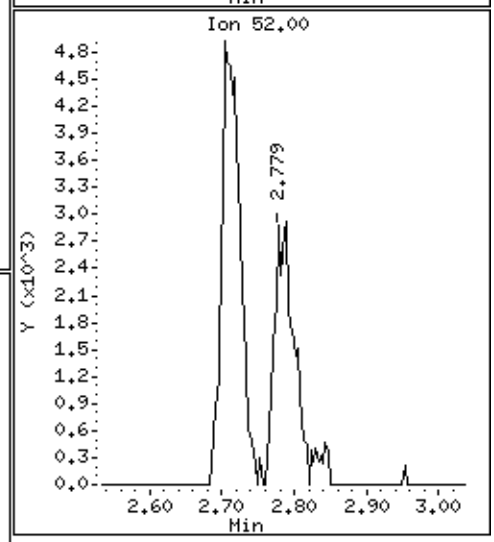
26 Acrylonitrile

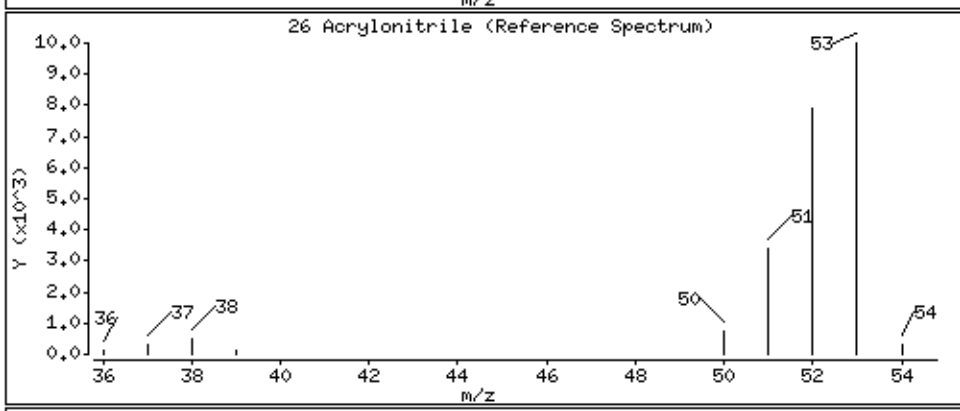
Concentration: 13.8 ug/L

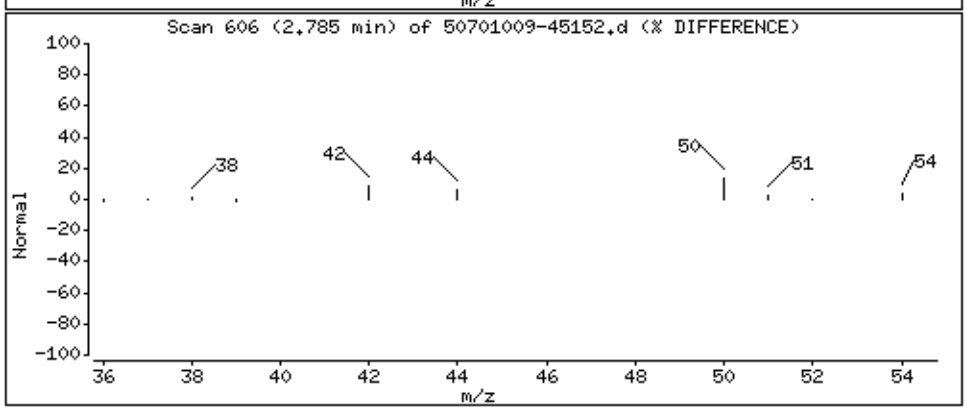












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

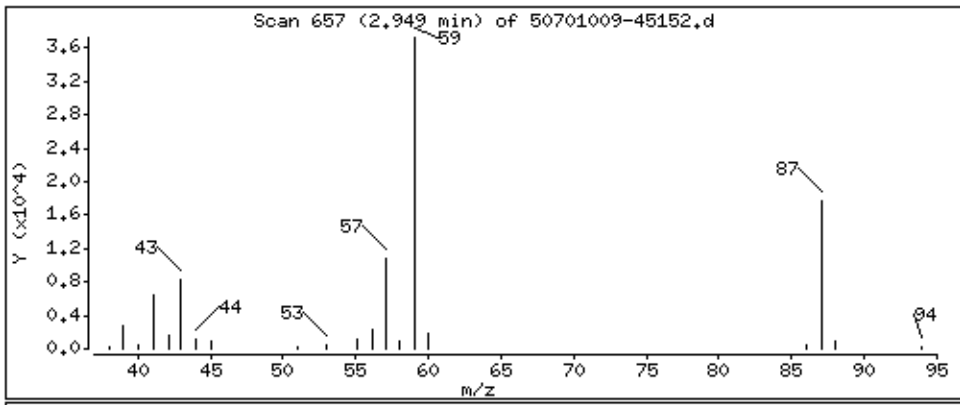
Operator: JEW

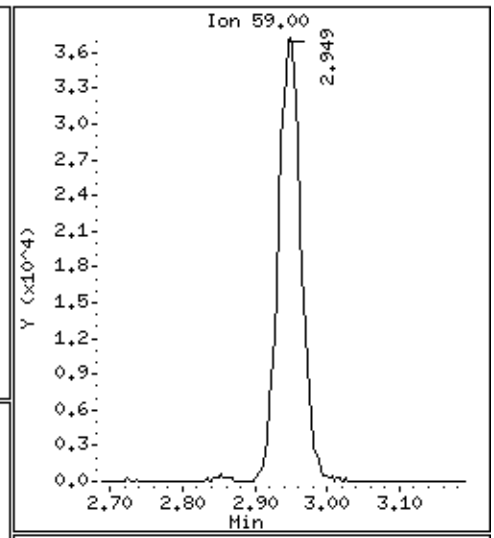
Column phase: RTX-VMS

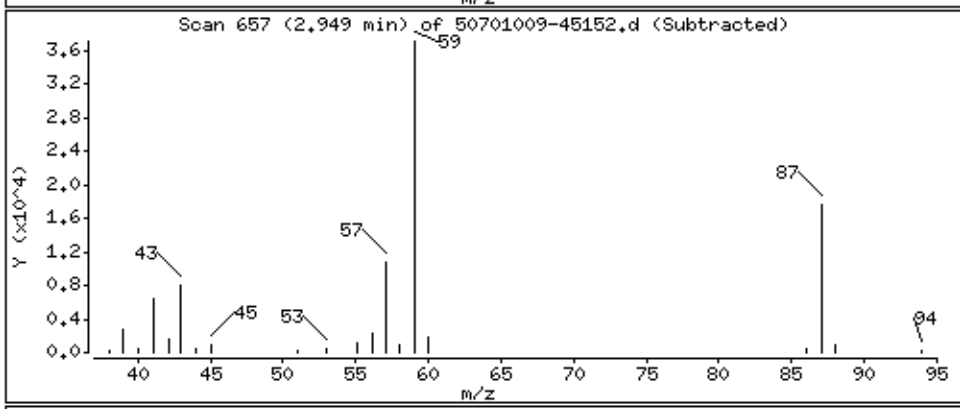
Column diameter: 0.18

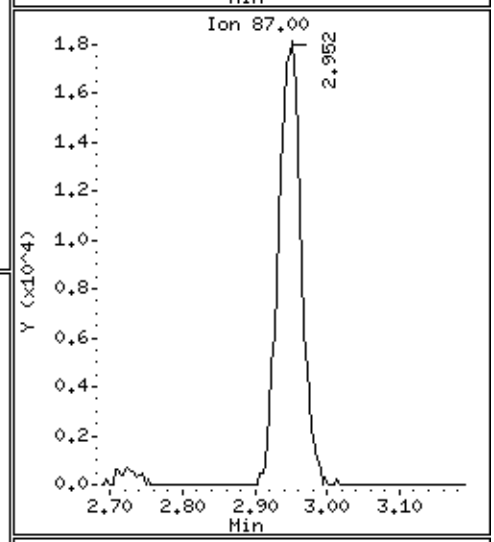
27 Ethyl-tert-butyl ether

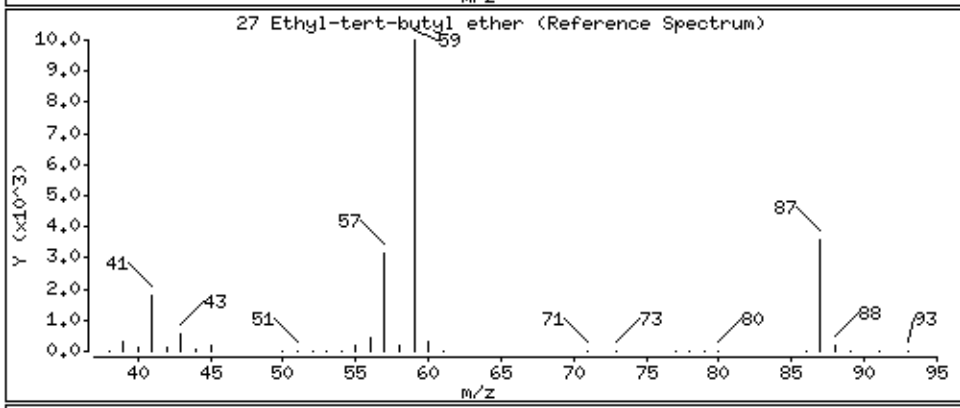
Concentration: 17.3 ug/L

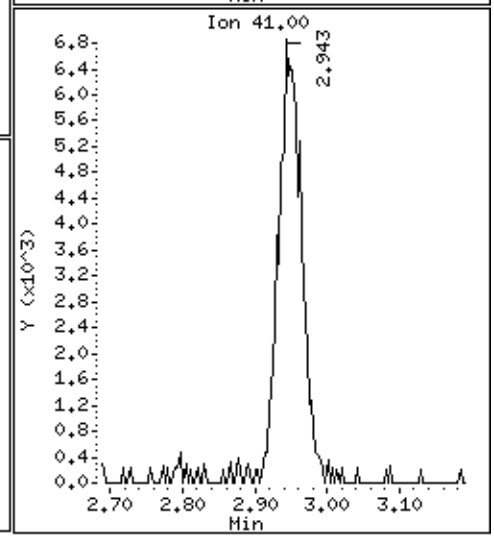


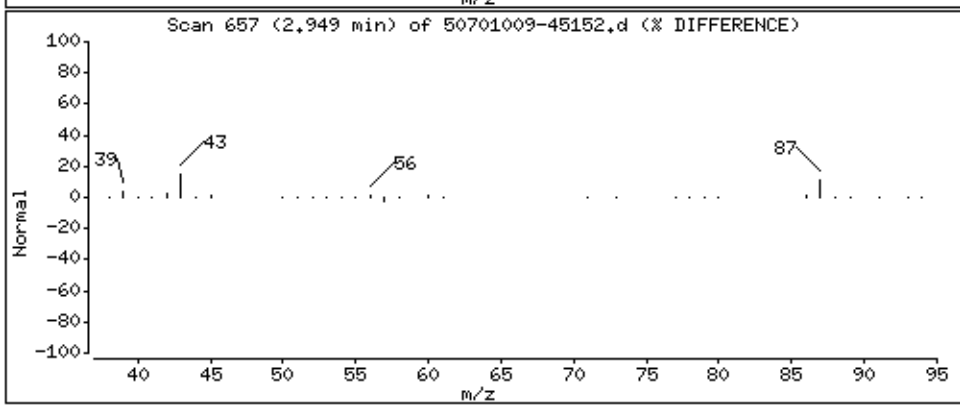












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

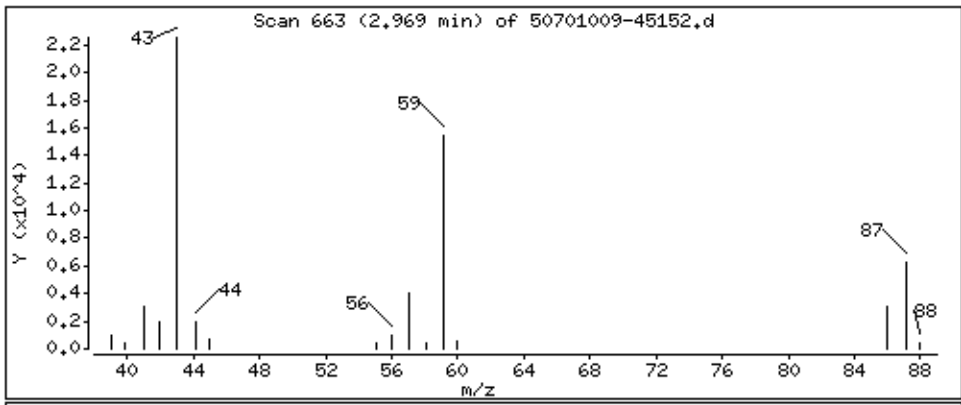
Operator: JEW

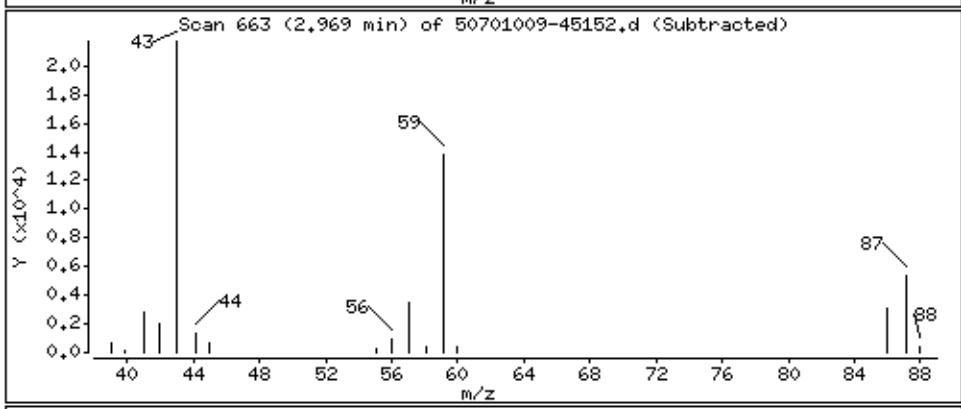
Column phase: RTX-VMS

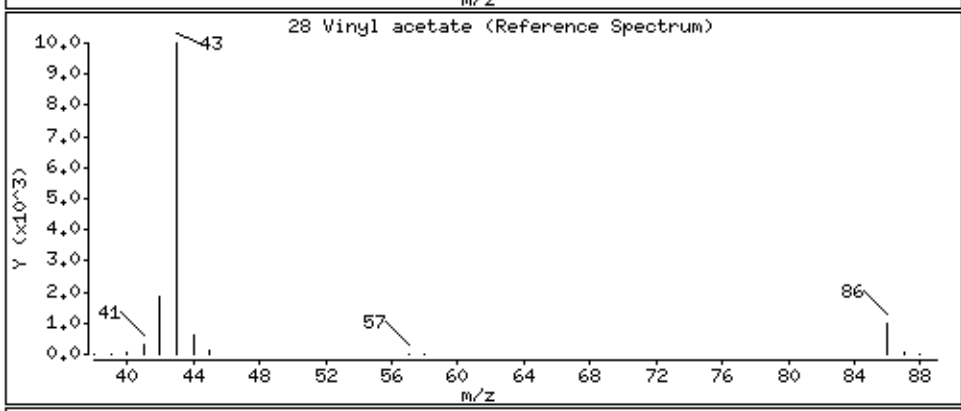
Column diameter: 0.18

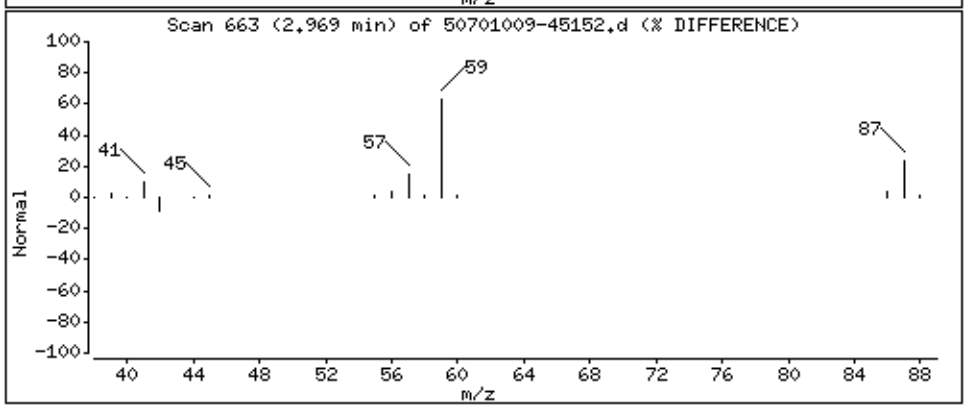
28 Vinyl acetate

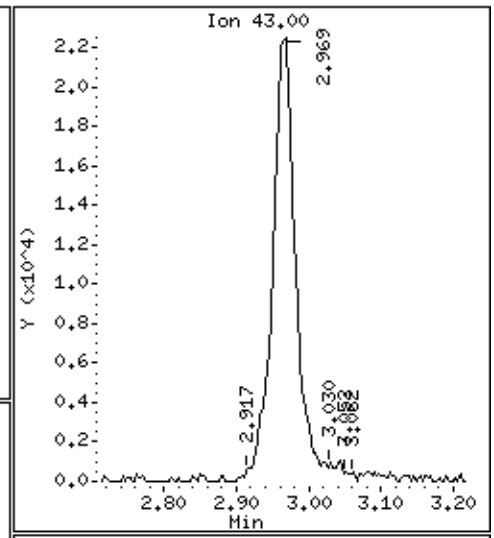
Concentration: 13.4 ug/L

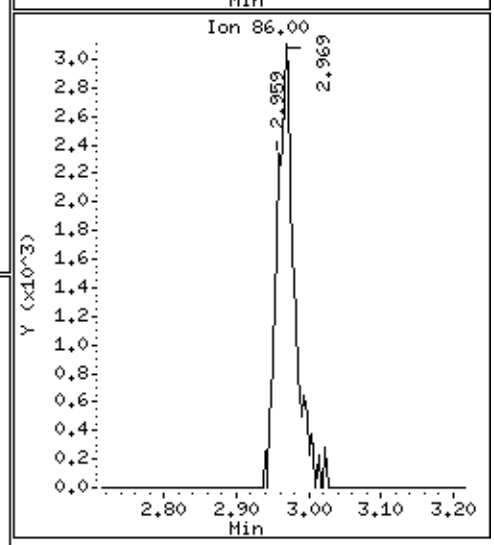












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

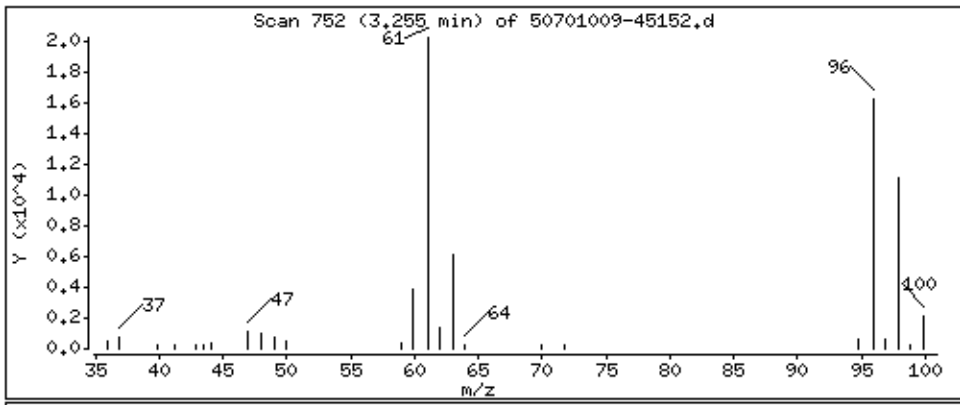
Operator: JEW

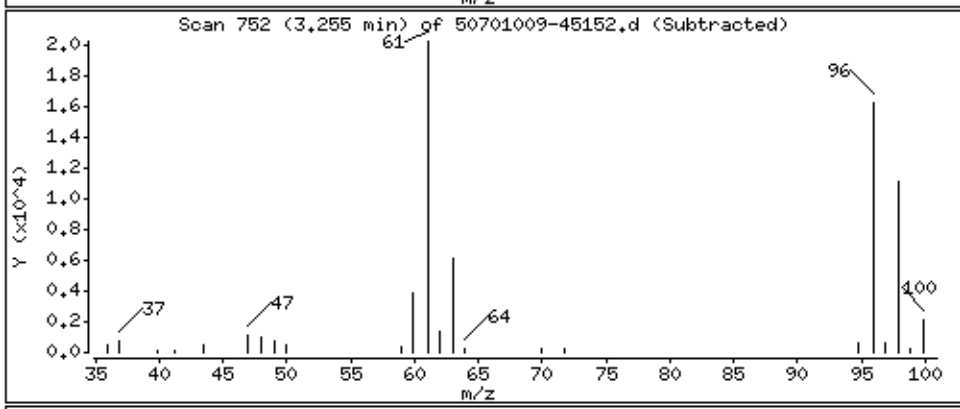
Column phase: RTX-VMS

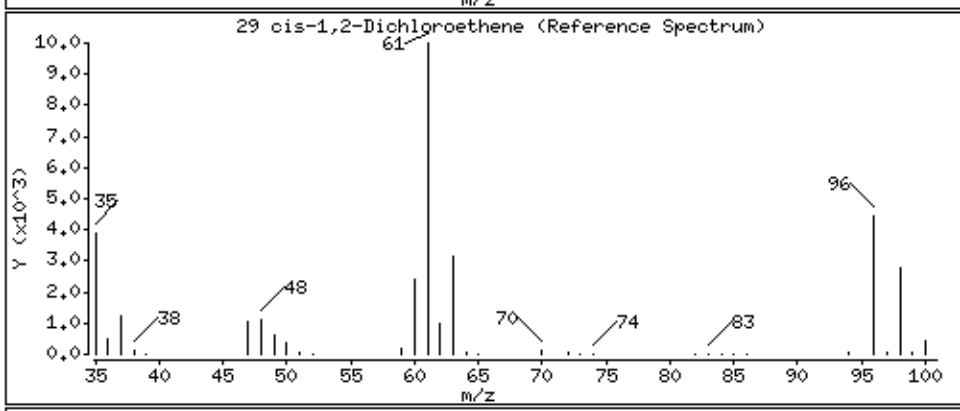
Column diameter: 0.18

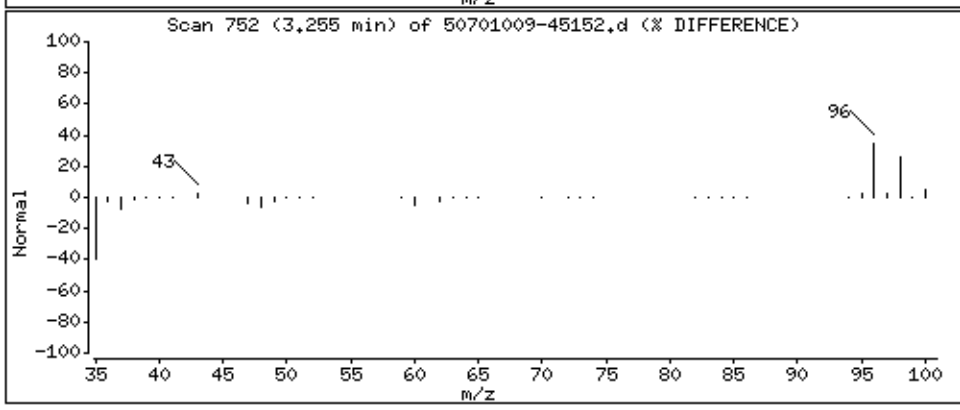
29 cis-1,2-Dichloroethene

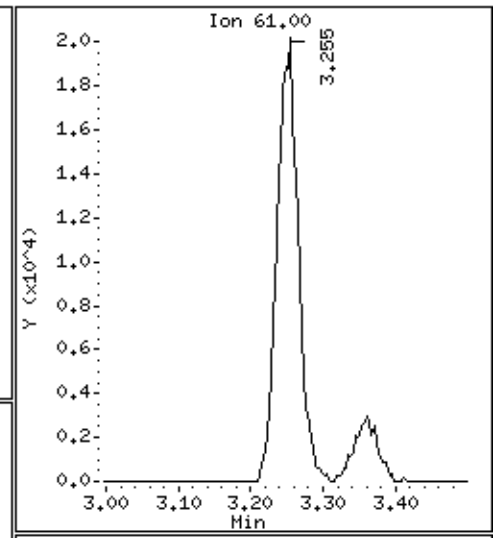
Concentration: 18.6 ug/L

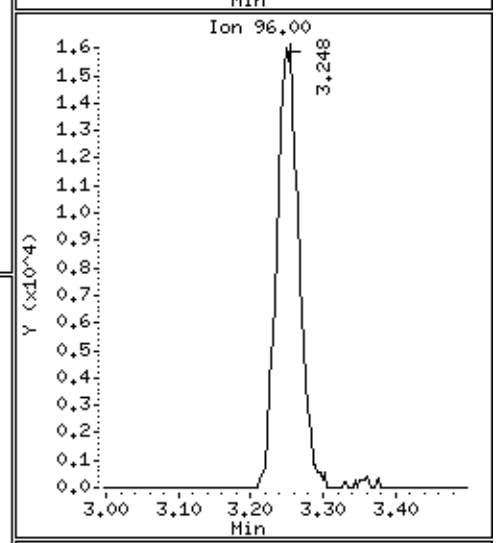


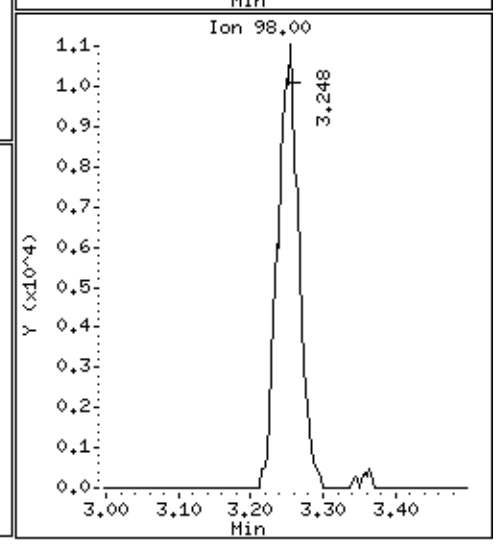












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

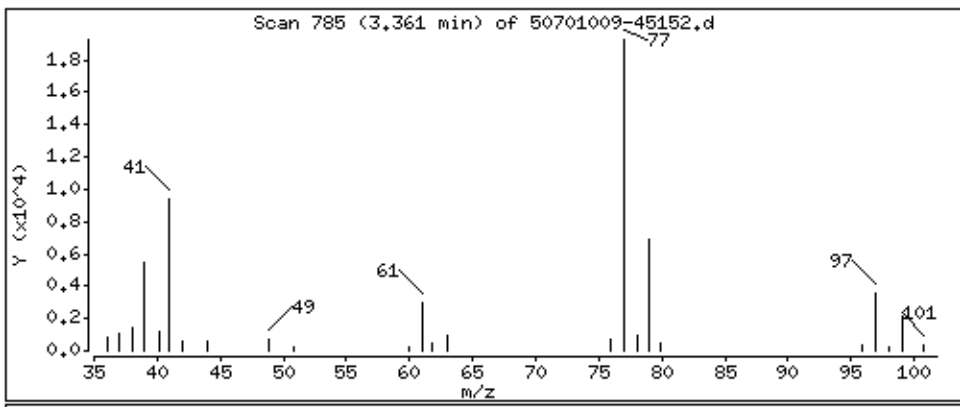
Operator: JEW

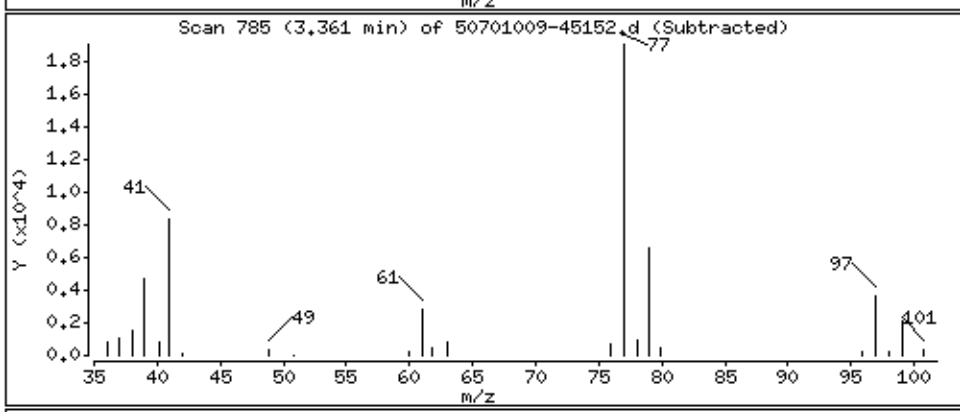
Column phase: RTX-VMS

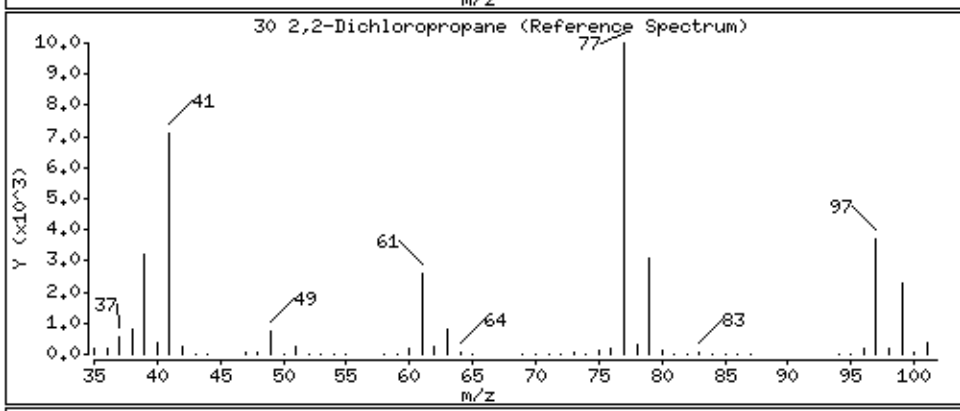
Column diameter: 0.18

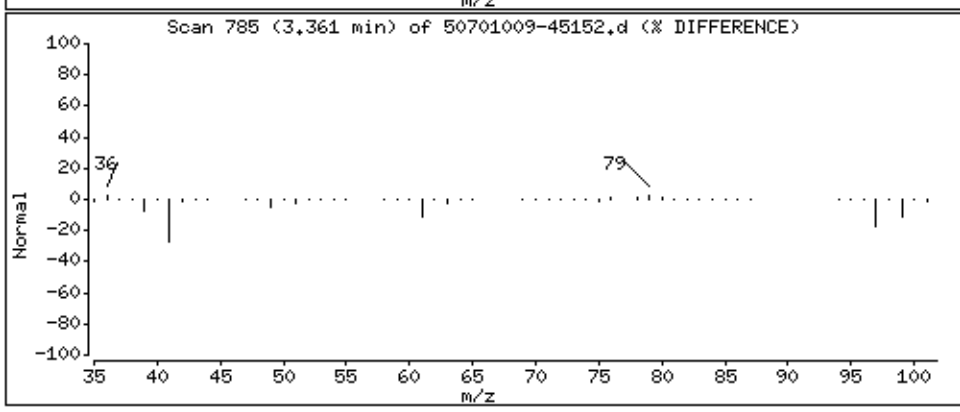
30 2,2-Dichloropropane

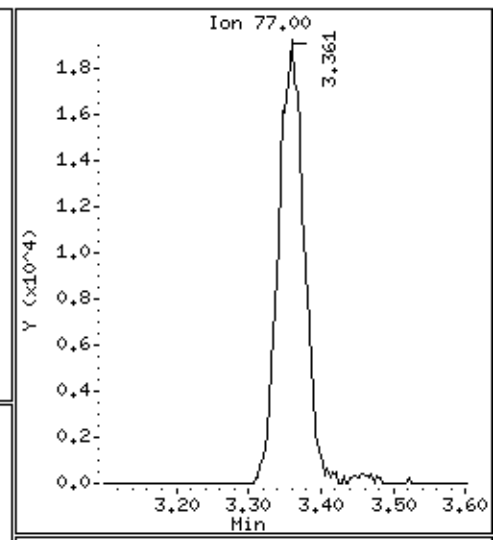
Concentration: 18.2 ug/L

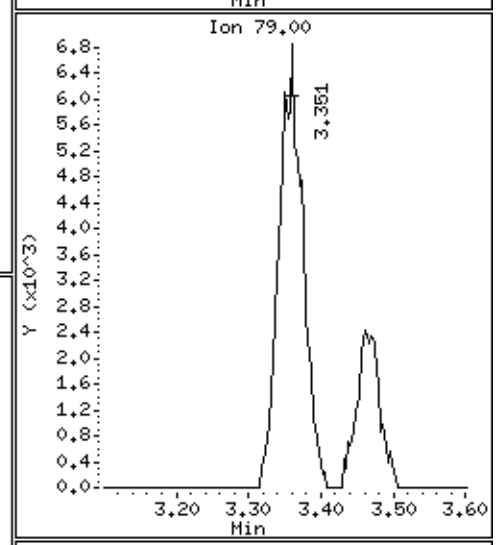


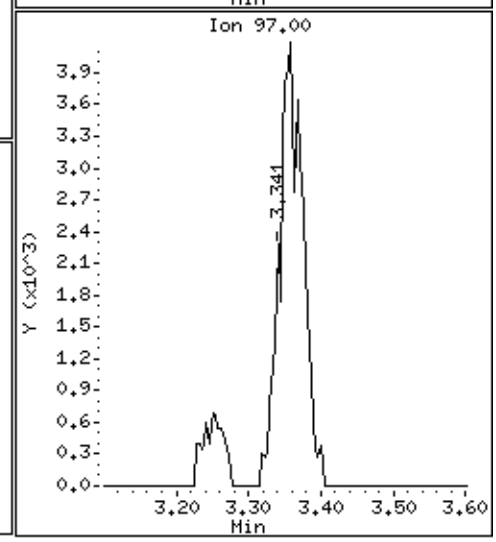












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

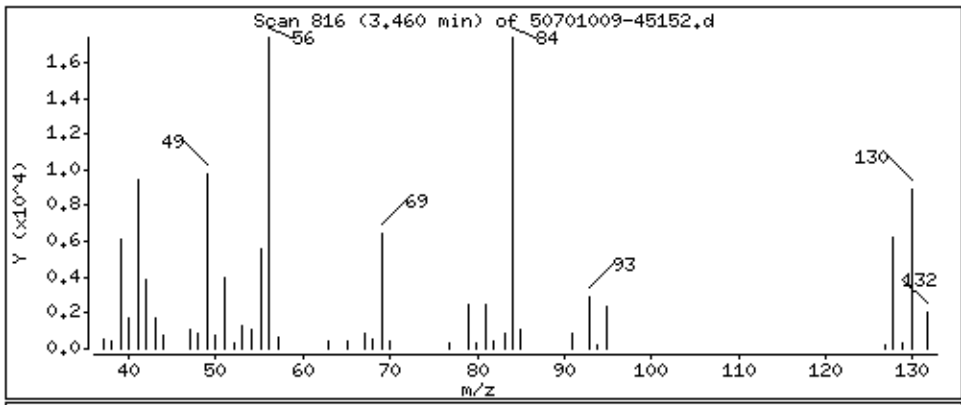
Operator: JEW

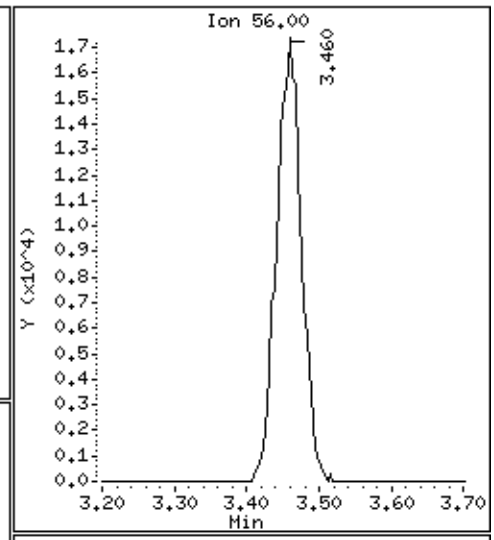
Column phase: RTX-VMS

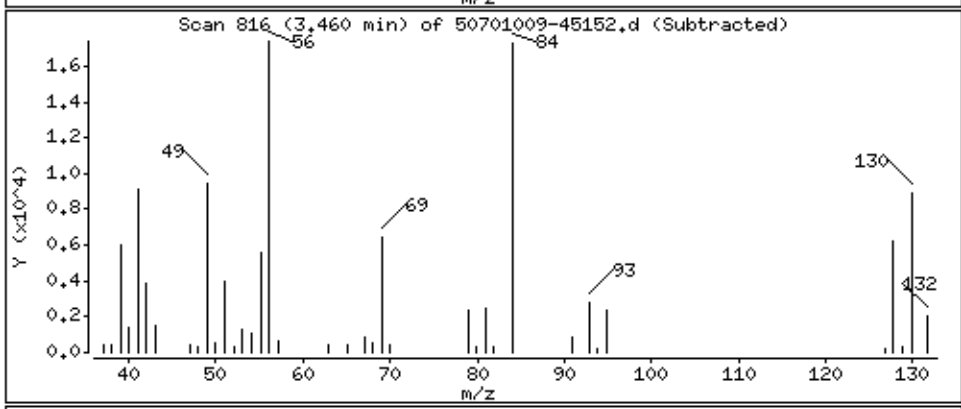
Column diameter: 0.18

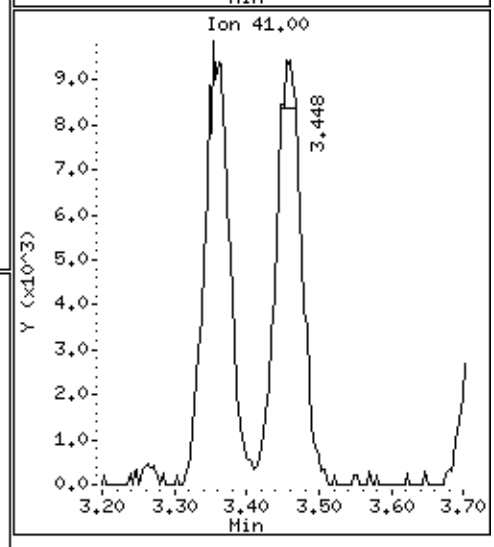
31 Cyclohexane

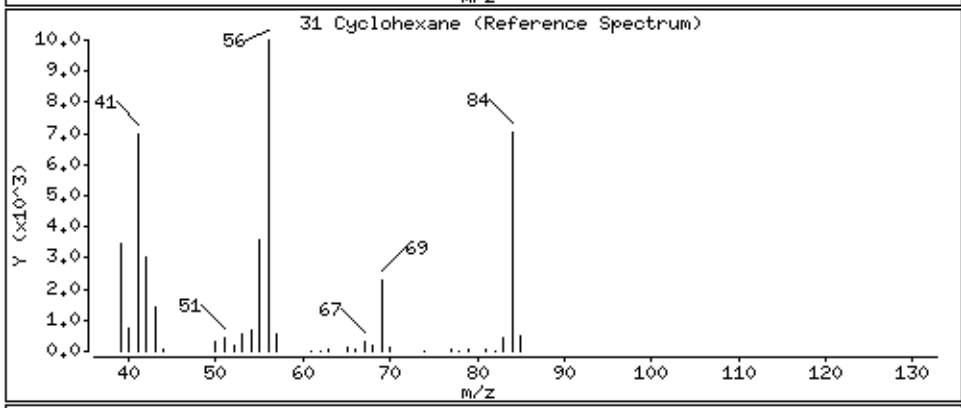
Concentration: 19.0 ug/L

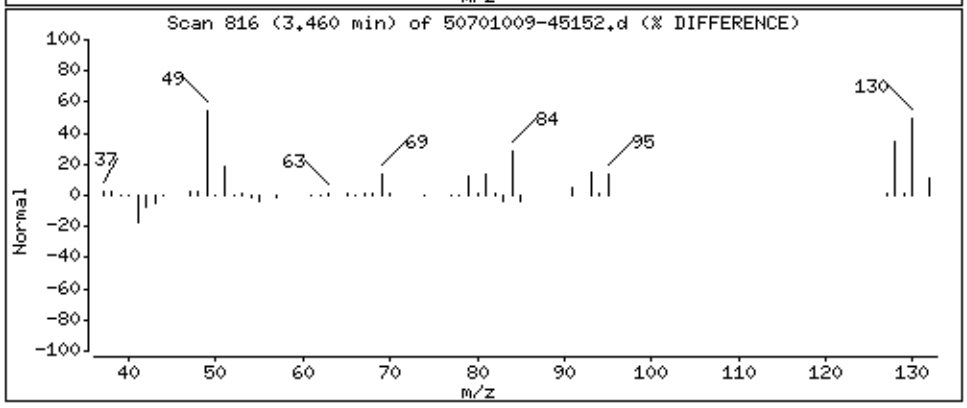












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

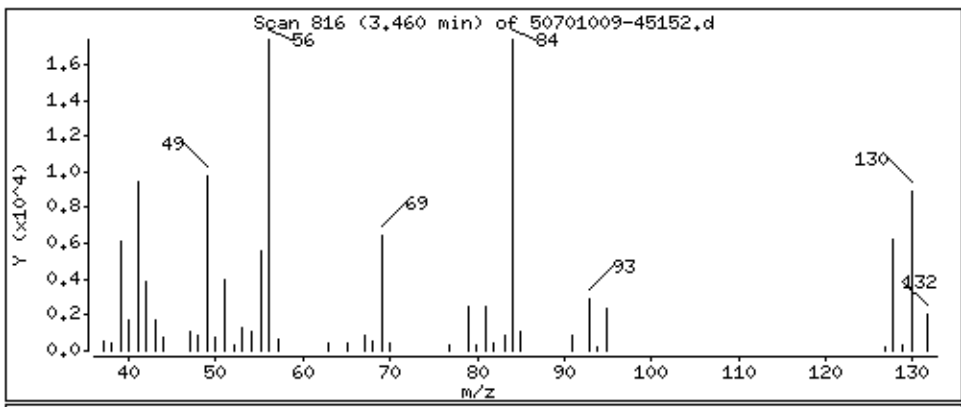
Operator: JEW

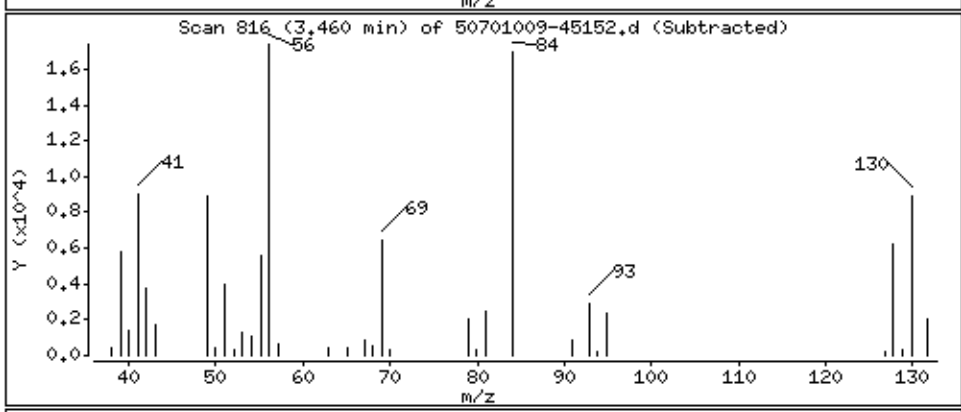
Column phase: RTX-VMS

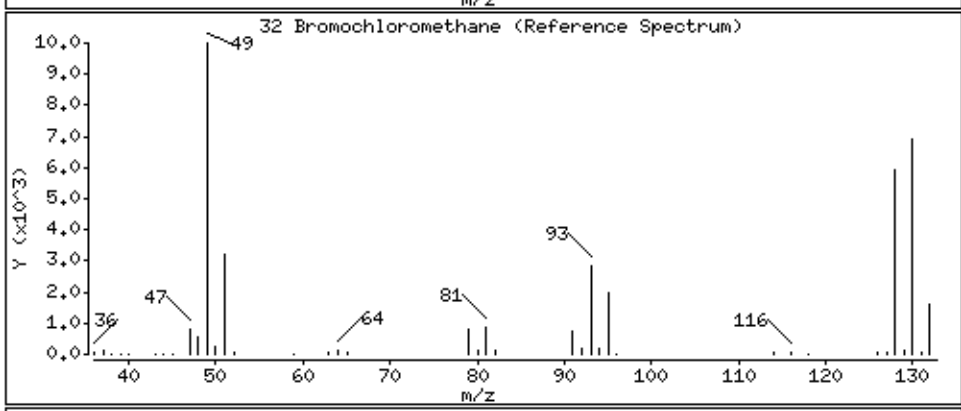
Column diameter: 0.18

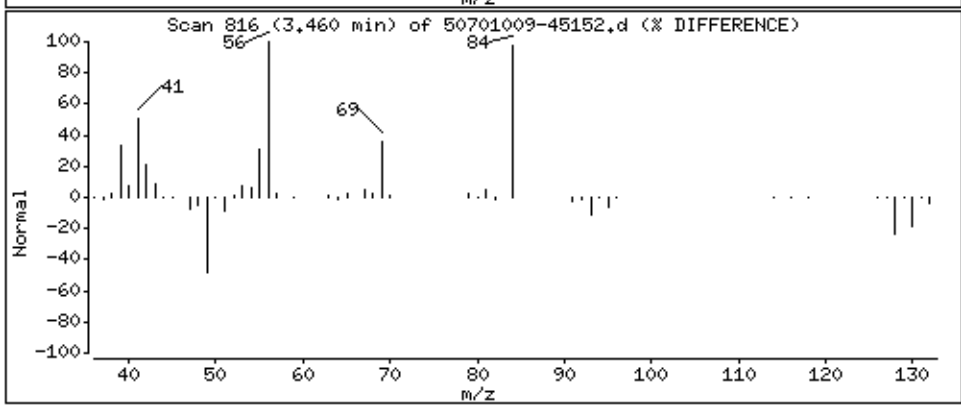
32 Bromochloromethane

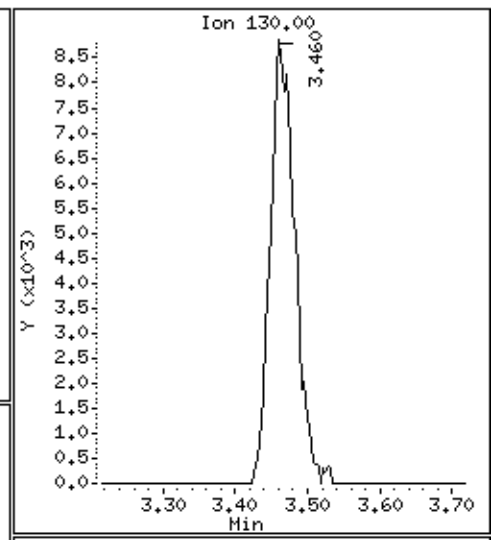
Concentration: 21.1 ug/L

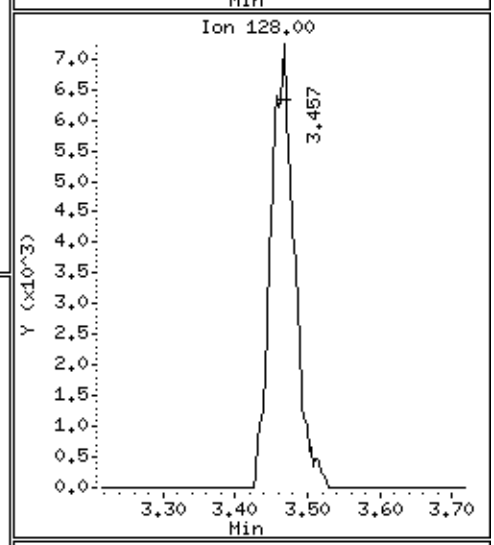


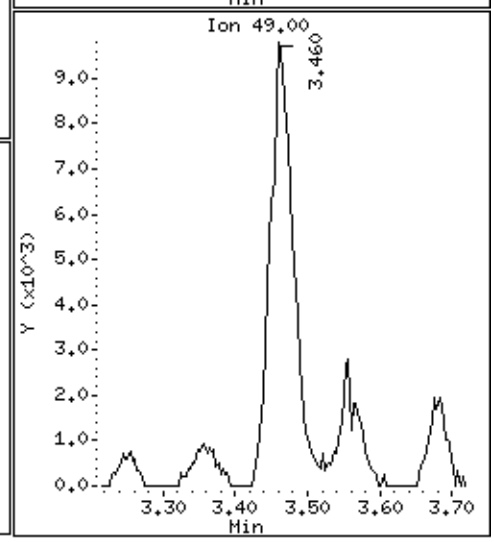












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

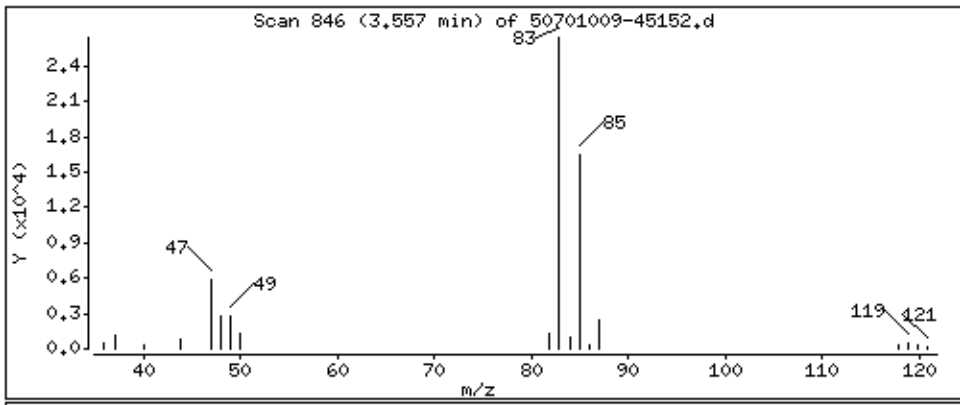
Operator: JEW

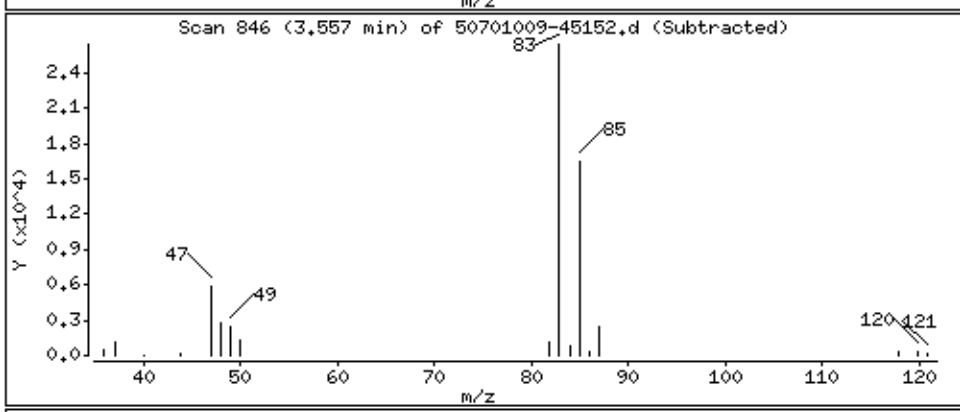
Column phase: RTX-VMS

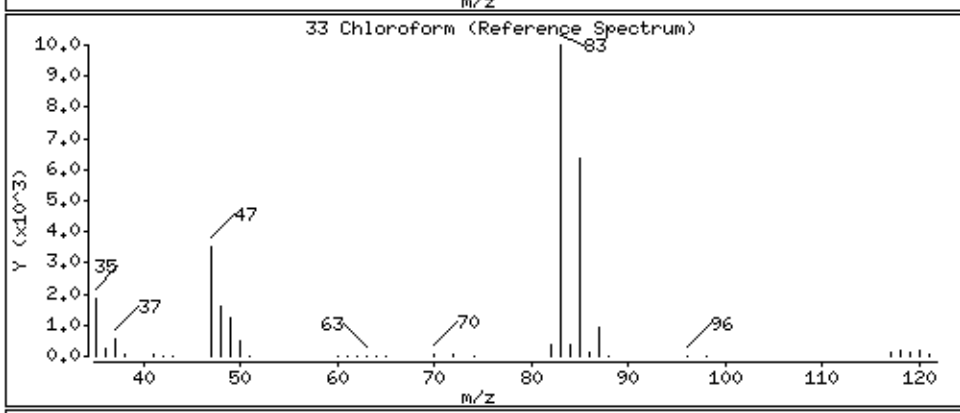
Column diameter: 0.18

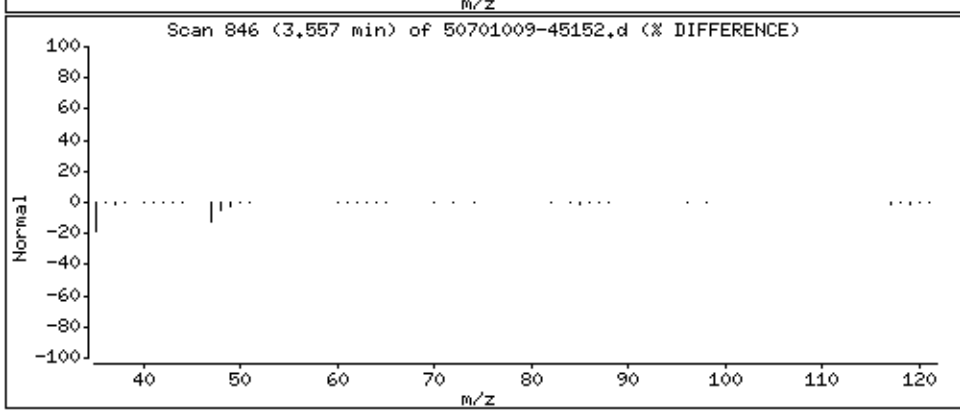
33 Chloroform

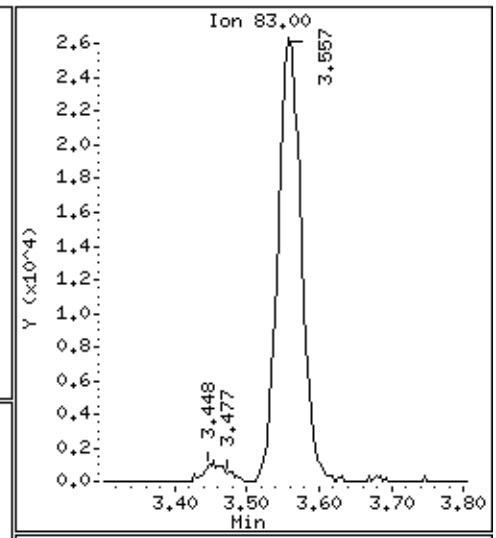
Concentration: 18.4 ug/L

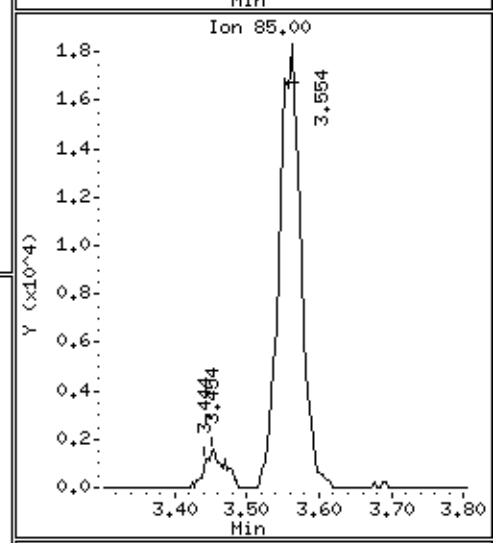


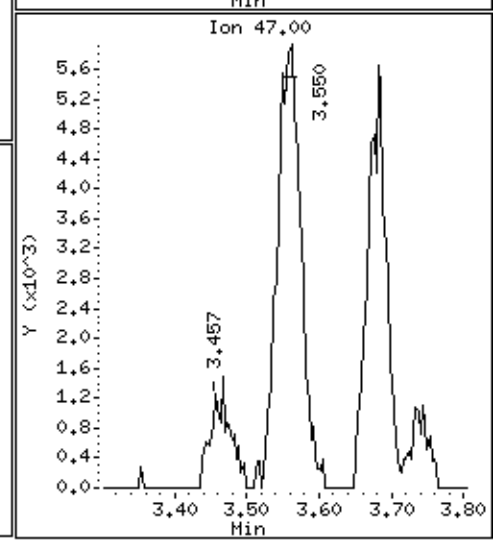












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

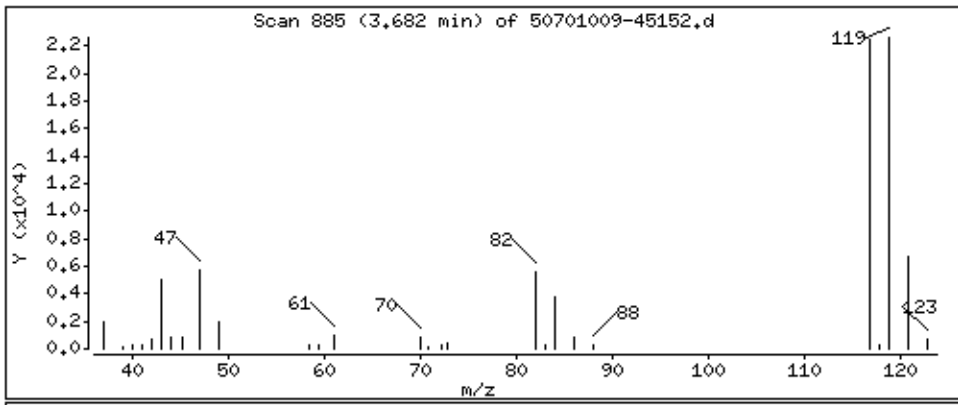
Operator: JEW

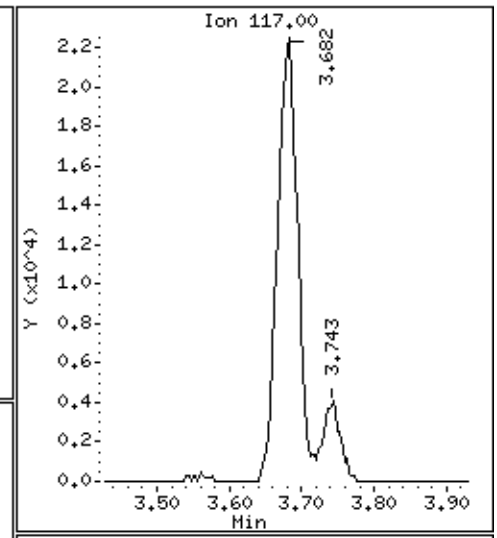
Column phase: RTX-VMS

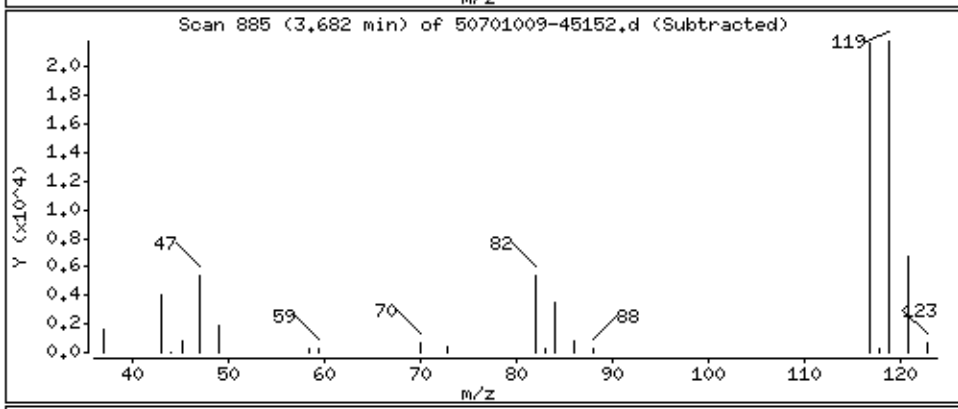
Column diameter: 0.18

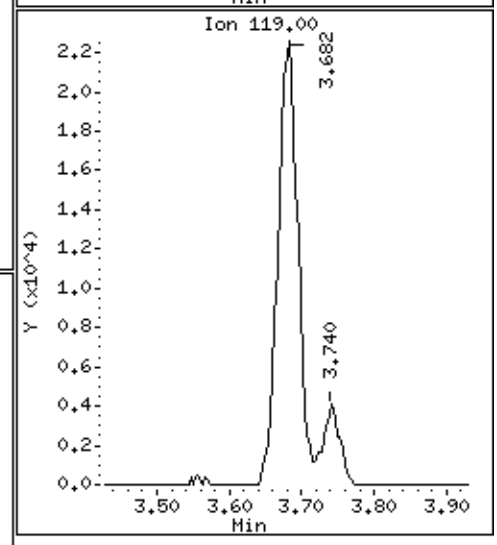
34 Carbon tetrachloride

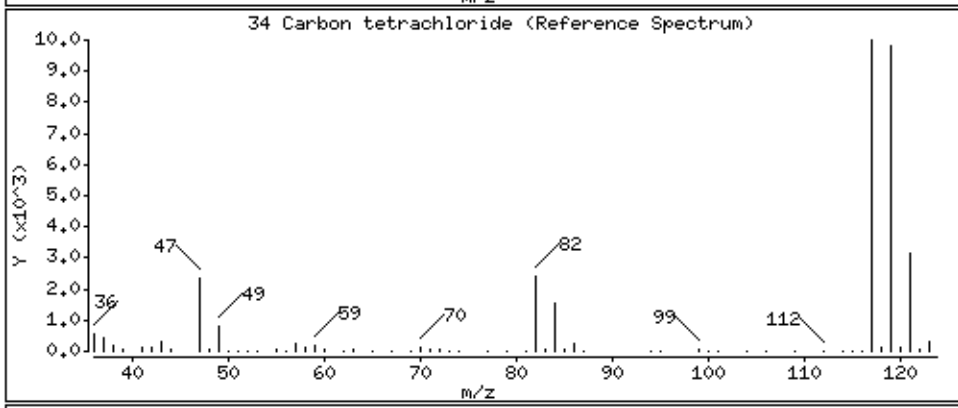
Concentration: 19.0 ug/L

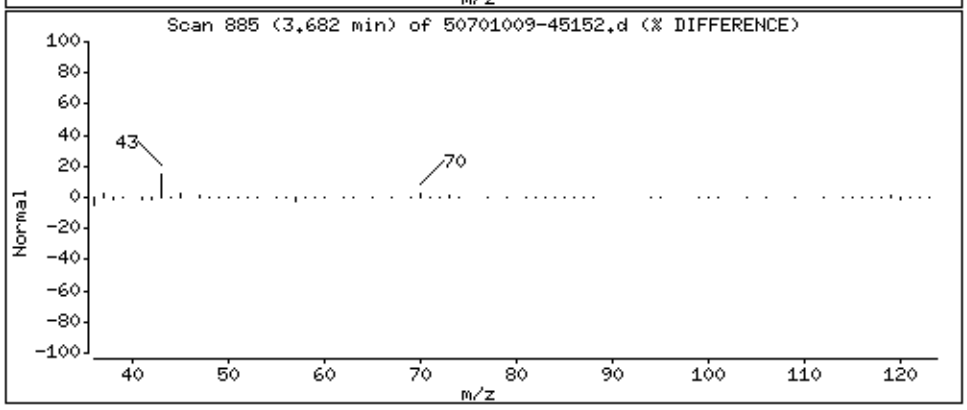












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

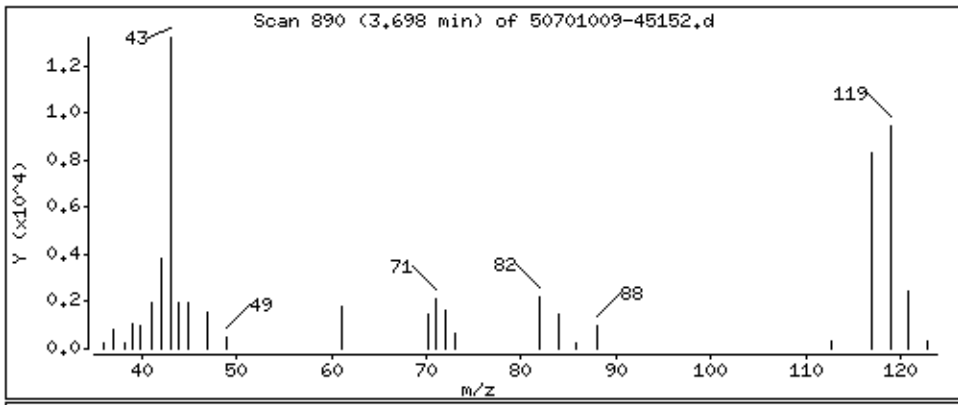
Operator: JEW

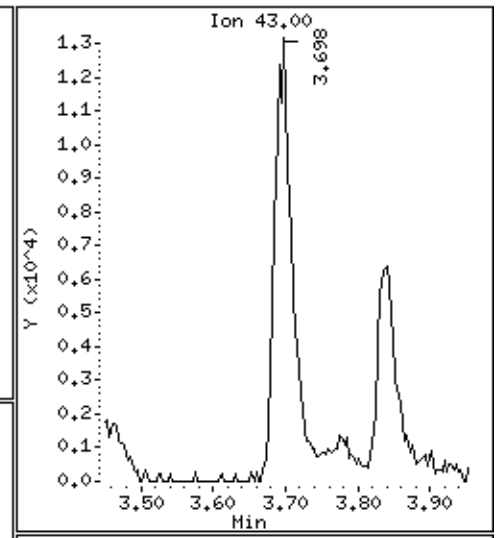
Column phase: RTX-VMS

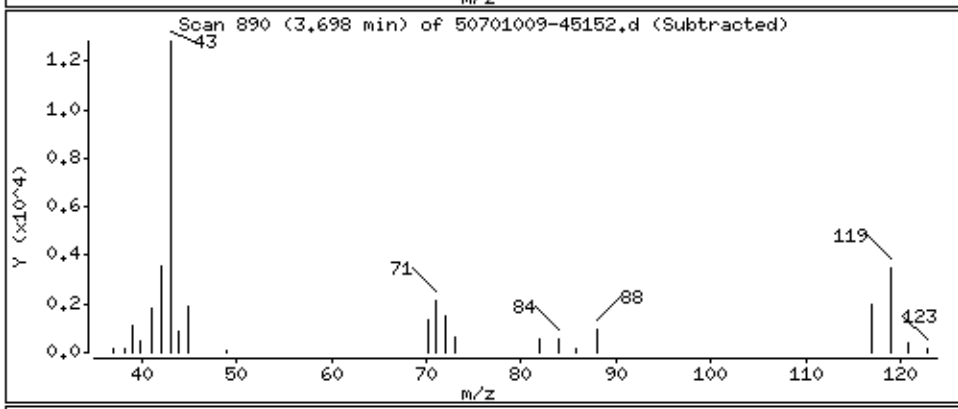
Column diameter: 0.18

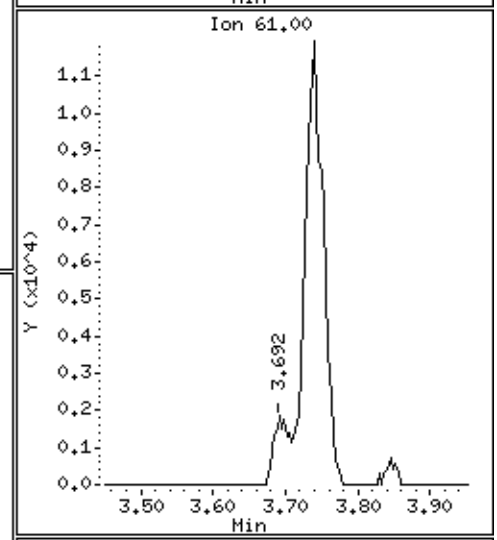
35 Ethyl acetate

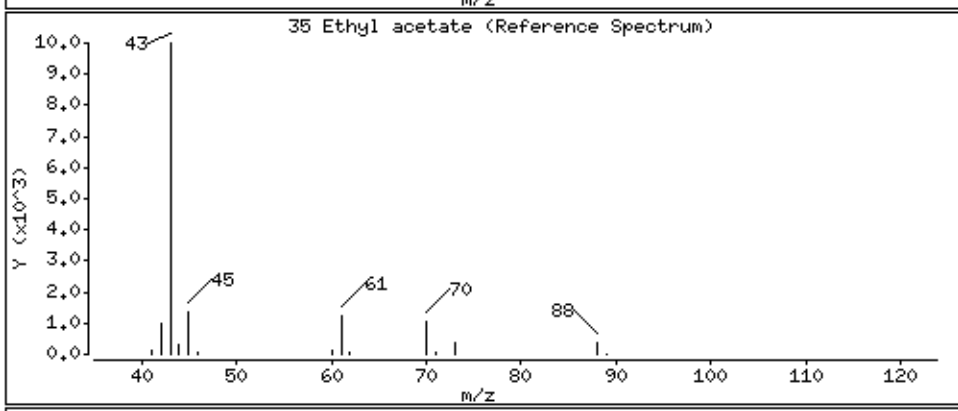
Concentration: 13.4 ug/L

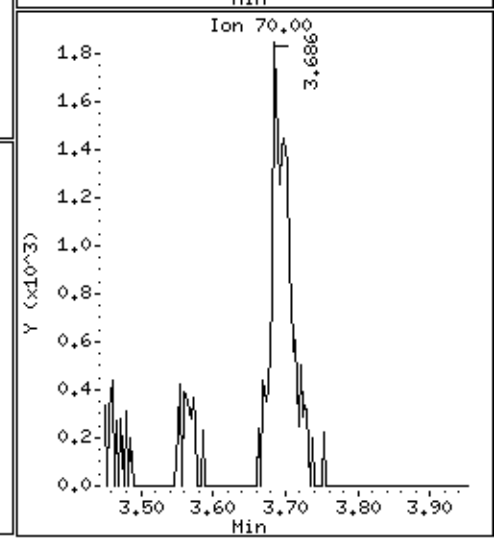


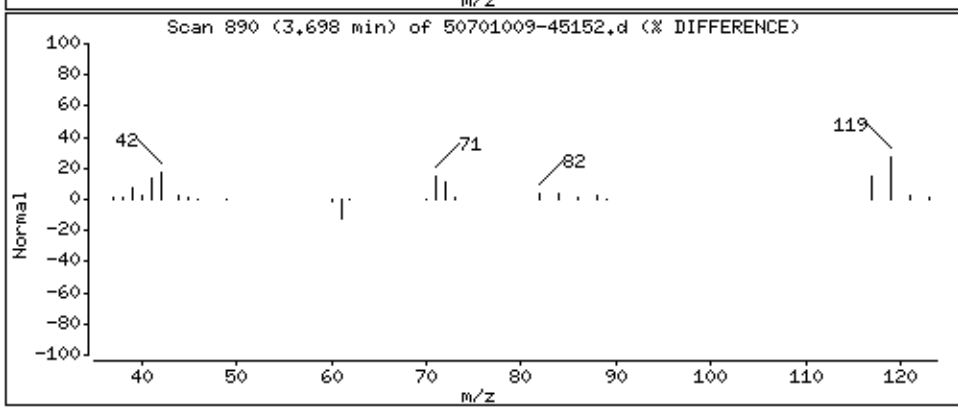












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

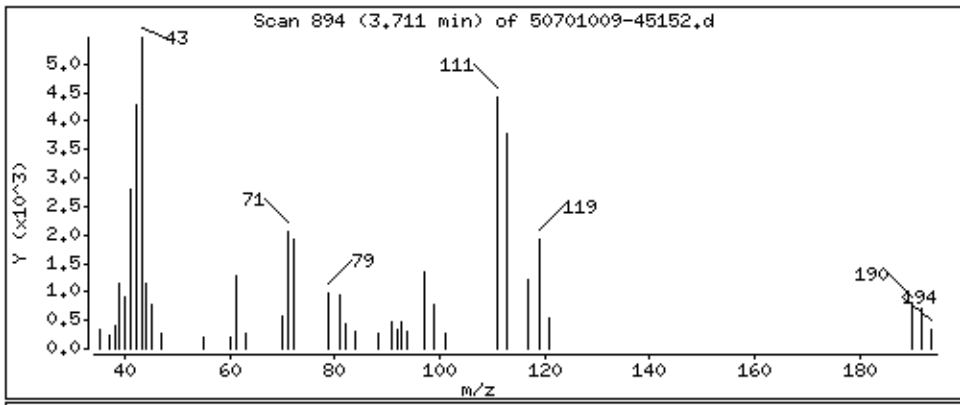
Operator: JEW

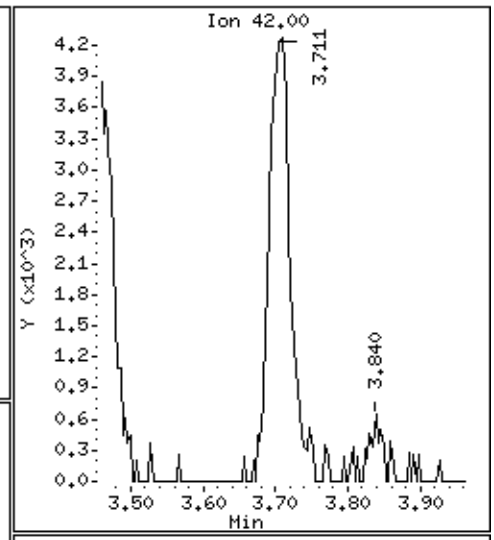
Column phase: RTX-VMS

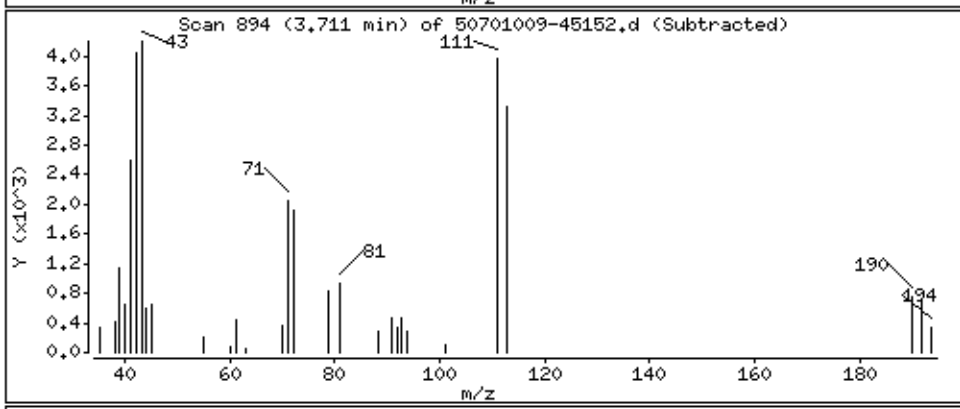
Column diameter: 0.18

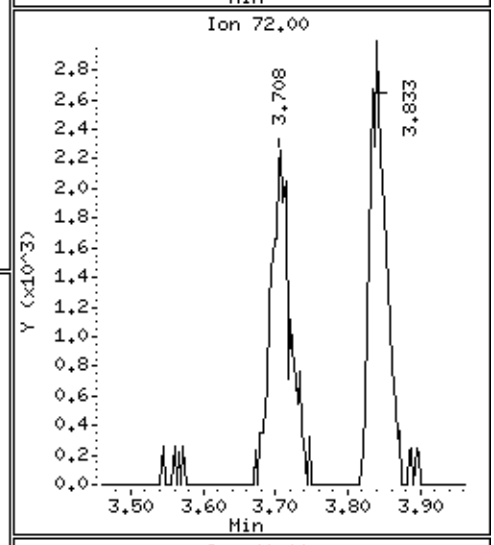
36 Tetrahydrofuran

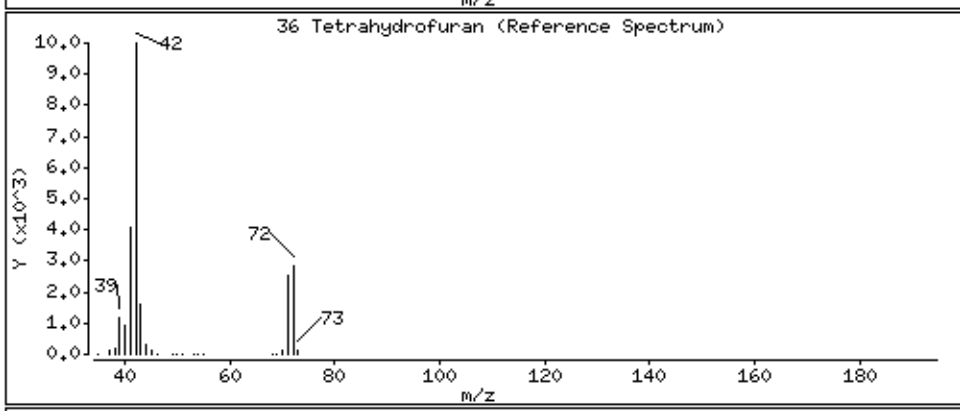
Concentration: 14.3 ug/L

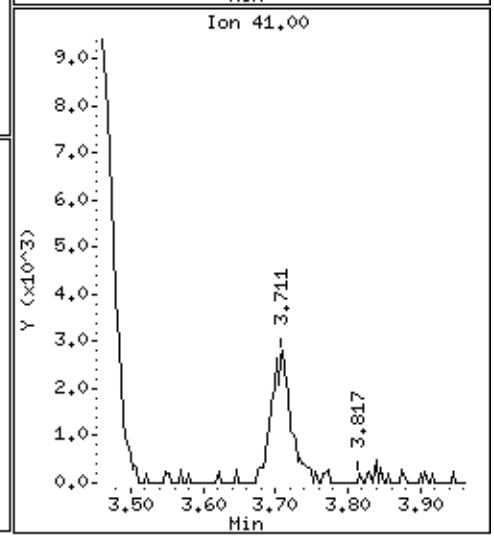


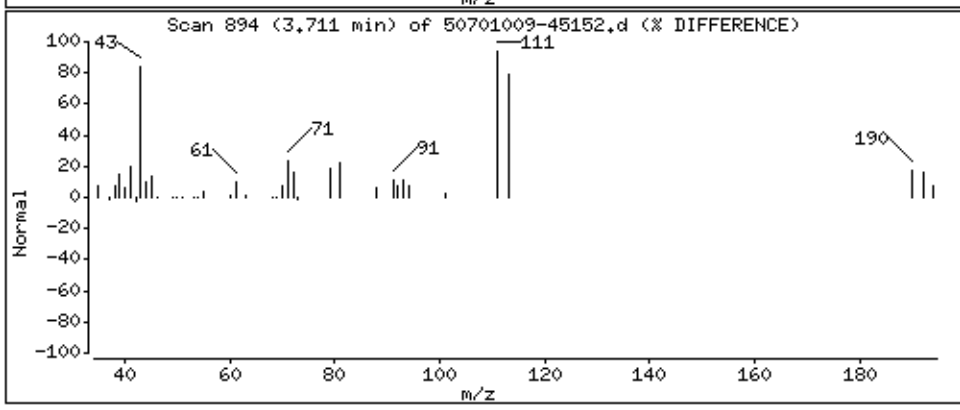












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

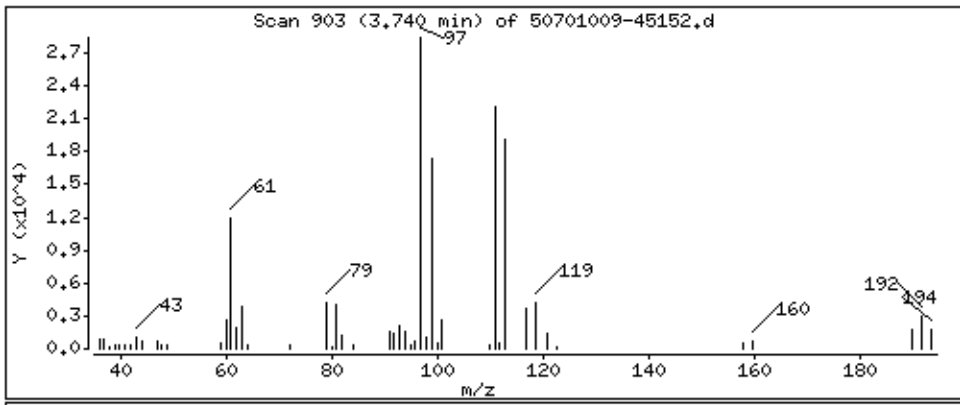
Operator: JEW

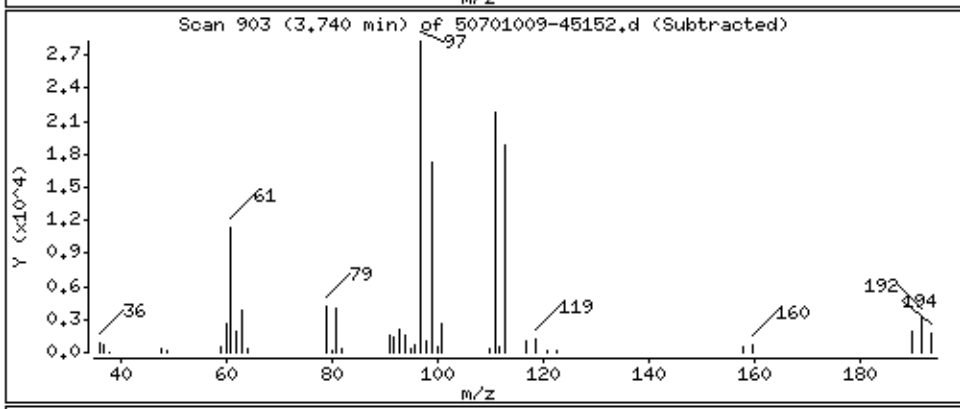
Column phase: RTX-VMS

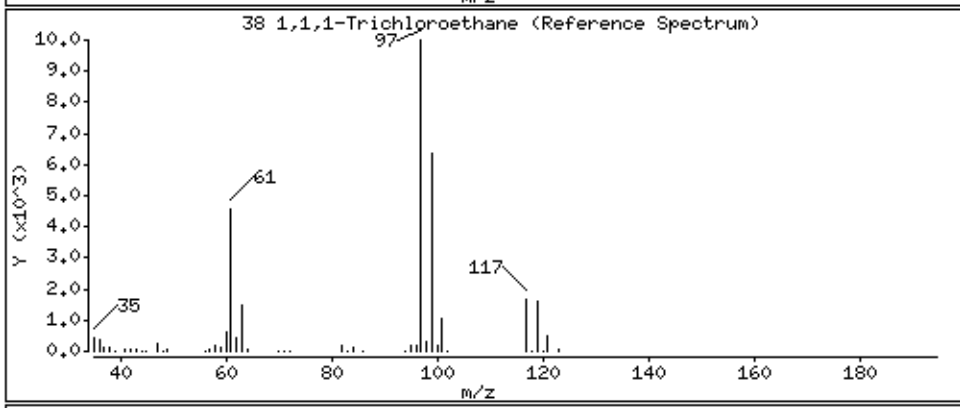
Column diameter: 0.18

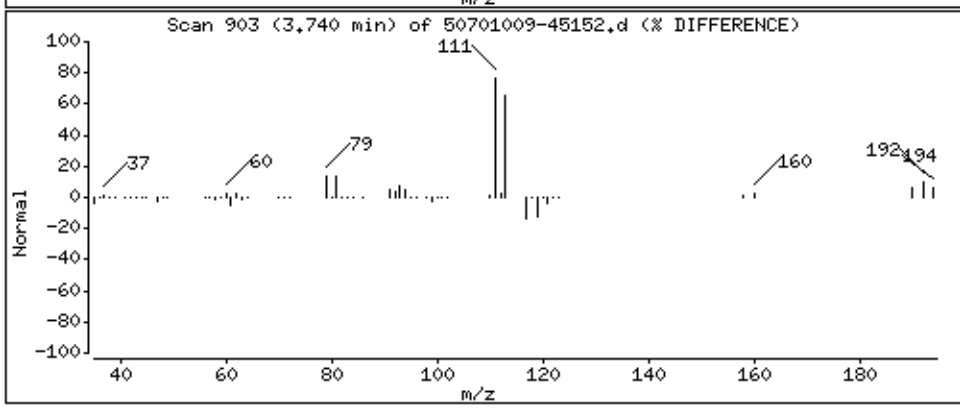
38 1,1,1-Trichloroethane

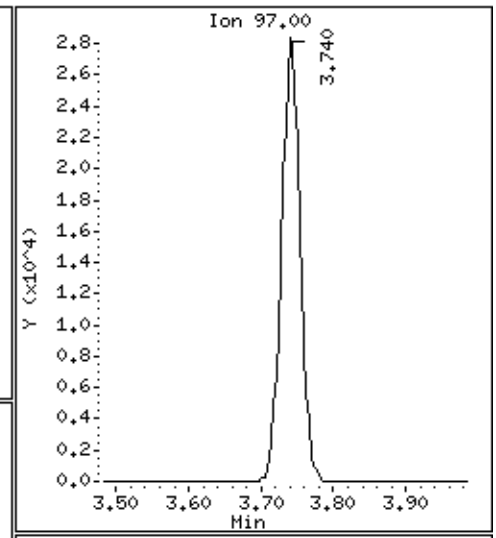
Concentration: 18.2 ug/L

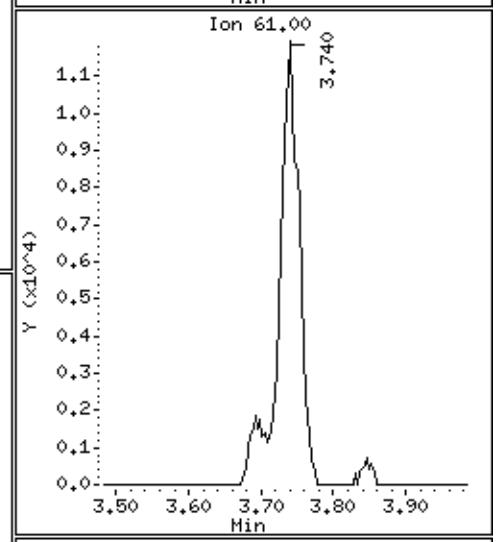


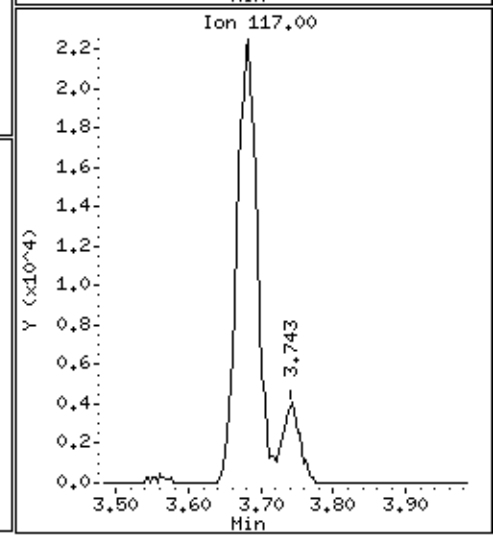












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

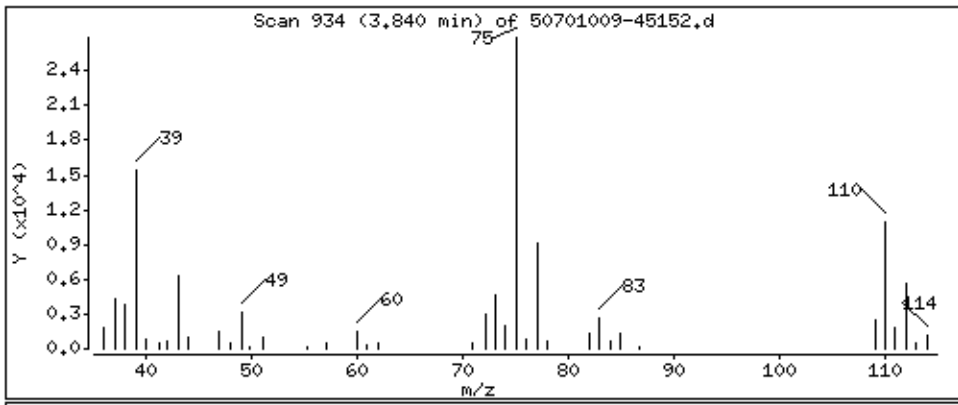
Operator: JEW

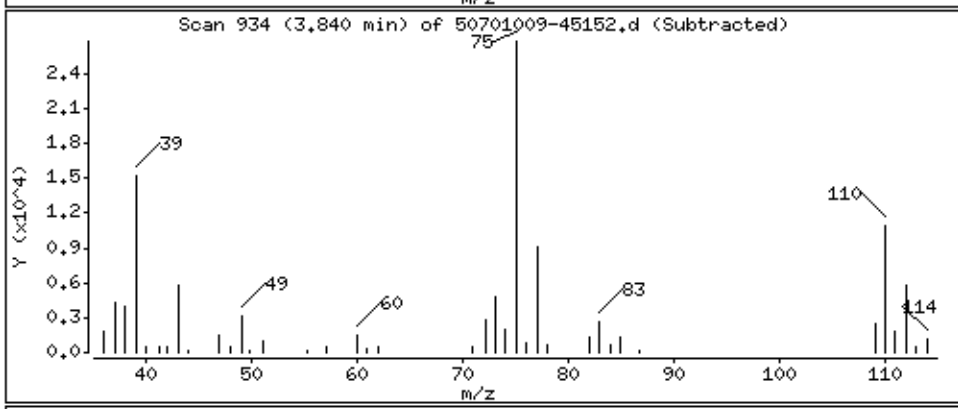
Column phase: RTX-VMS

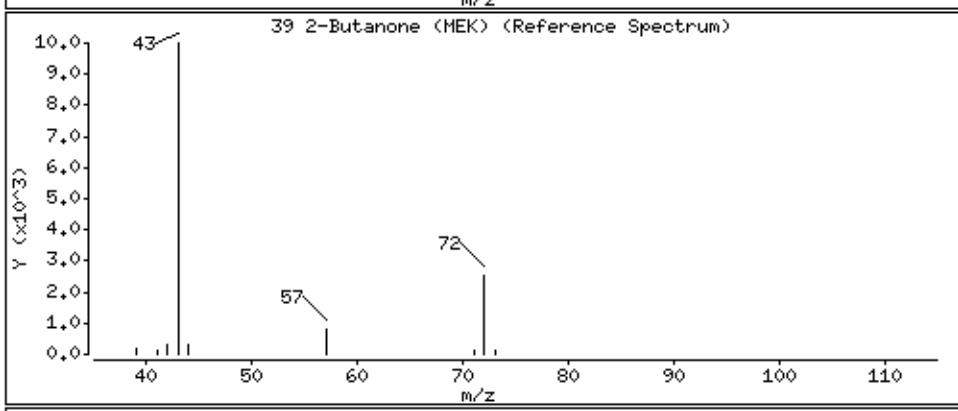
Column diameter: 0.18

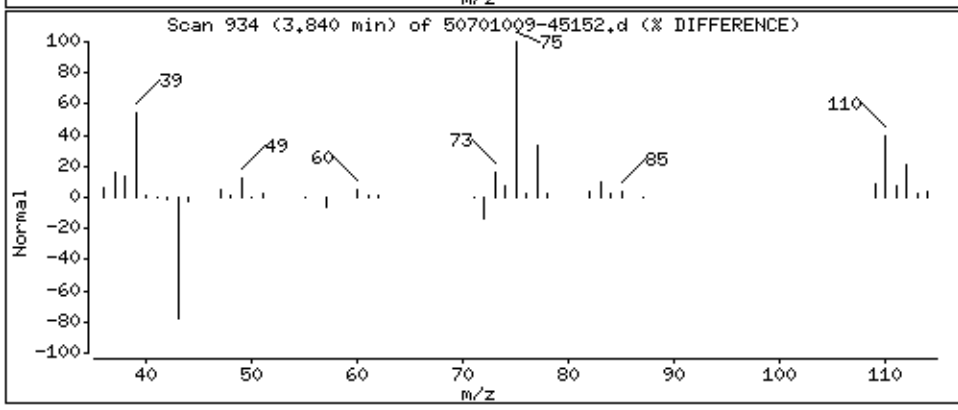
39 2-Butanone (MEK)

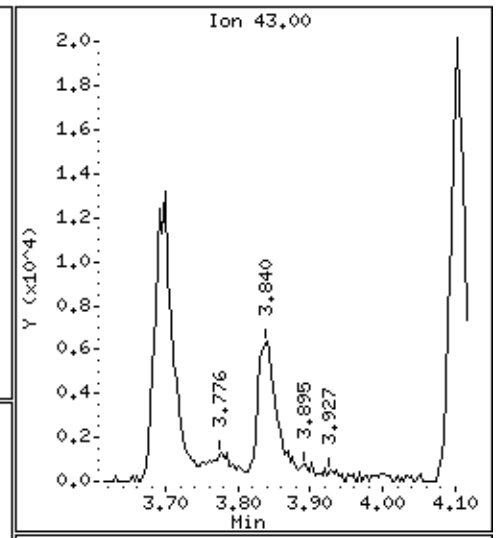
Concentration: 15.0 ug/L

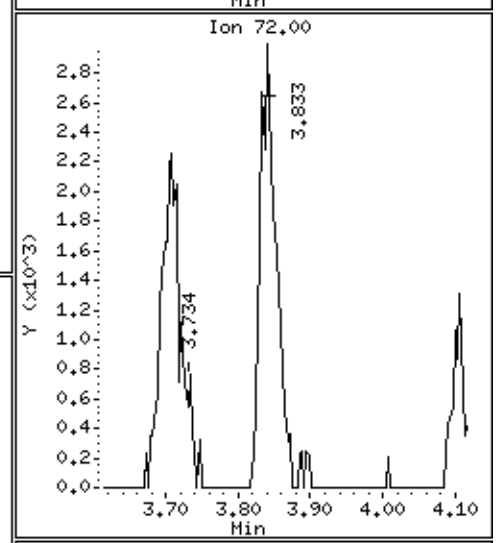


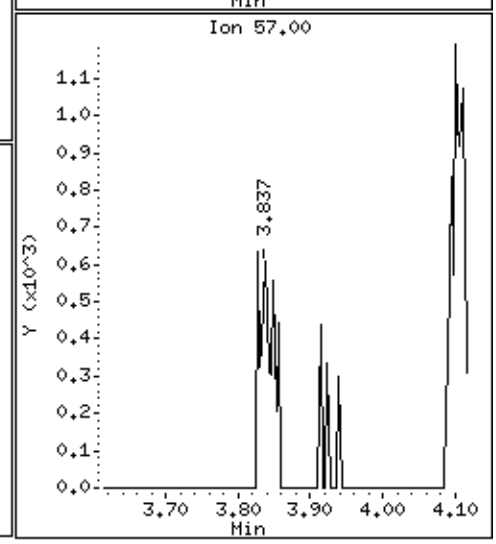












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

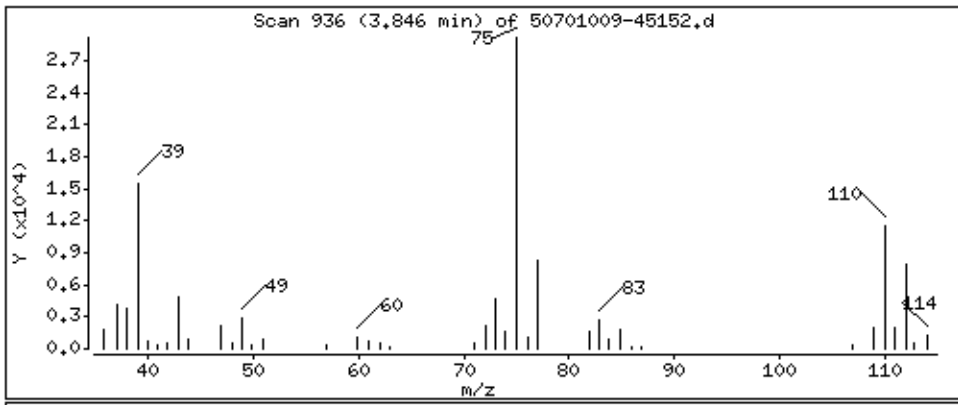
Operator: JEW

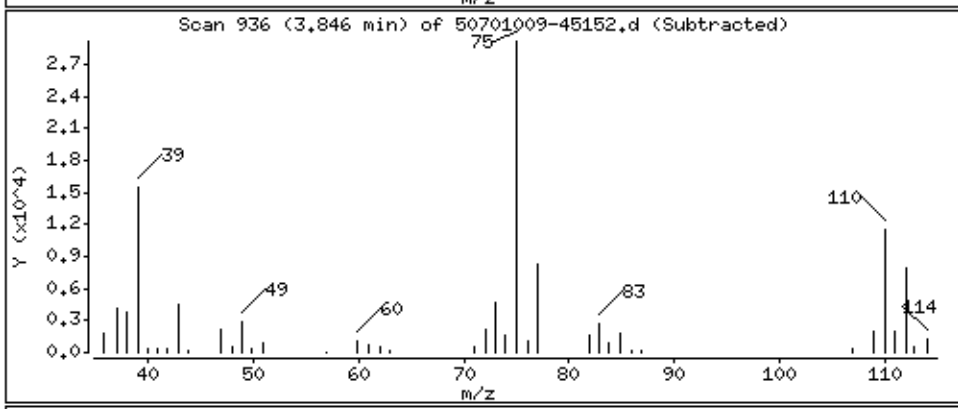
Column phase: RTX-VMS

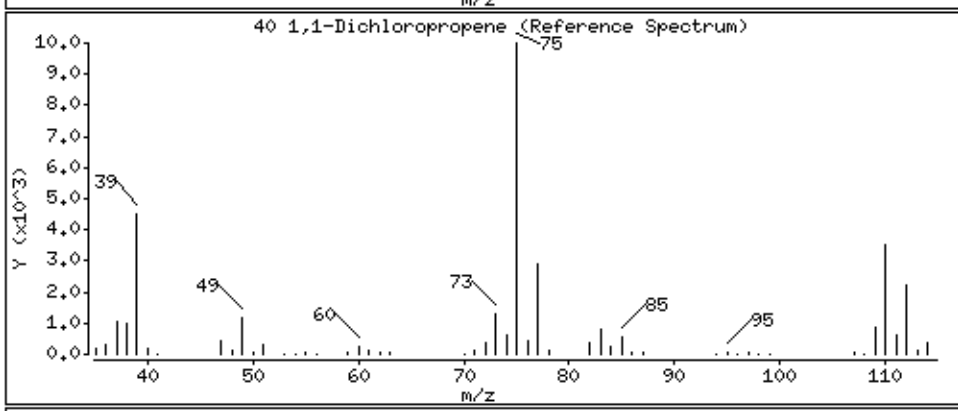
Column diameter: 0.18

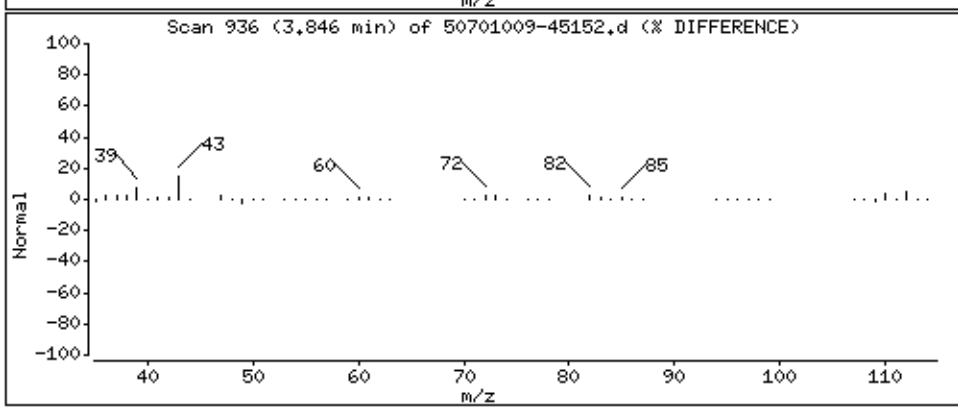
40 1,1-Dichloropropene

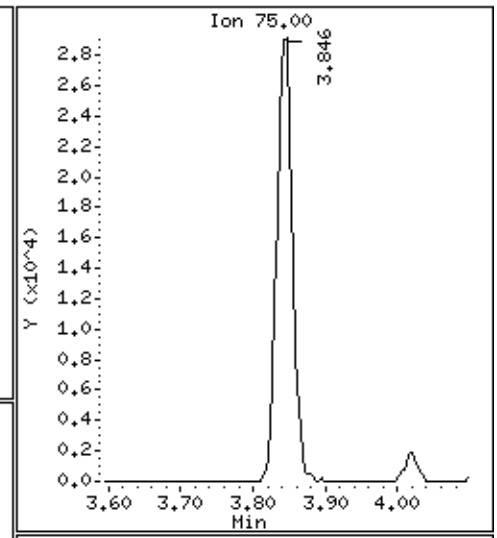
Concentration: 18.9 ug/L

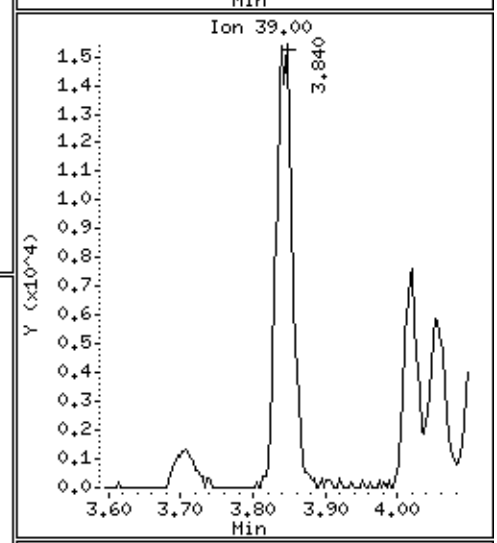


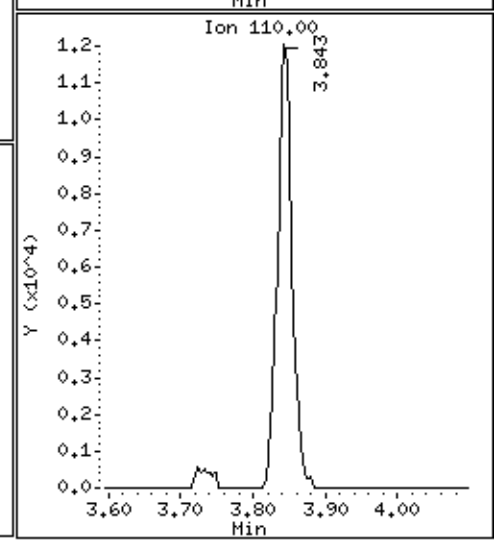












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

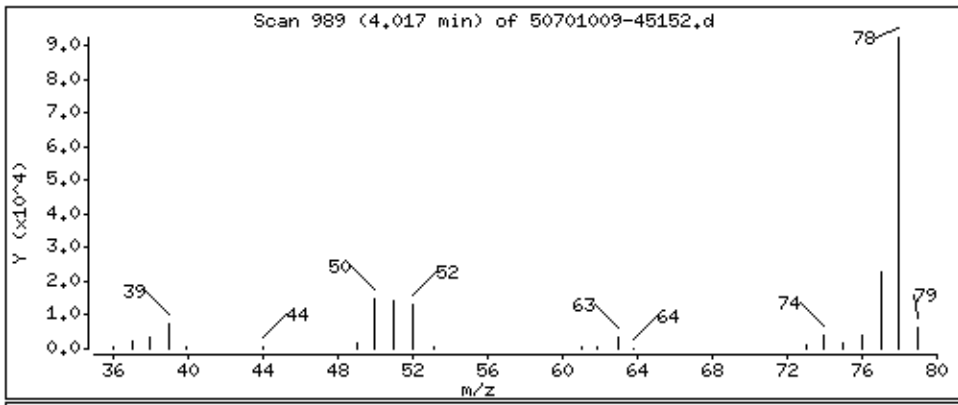
Operator: JEW

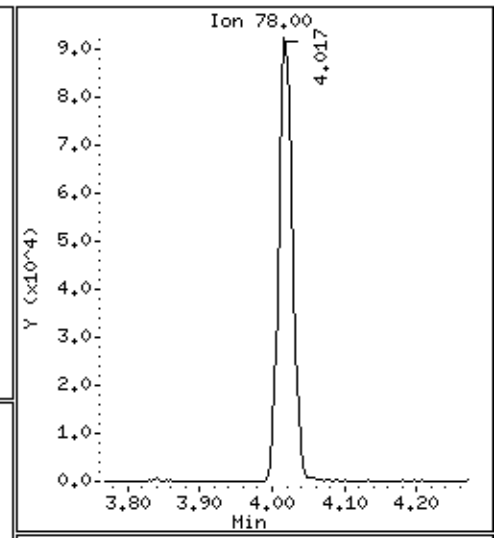
Column phase: RTX-VMS

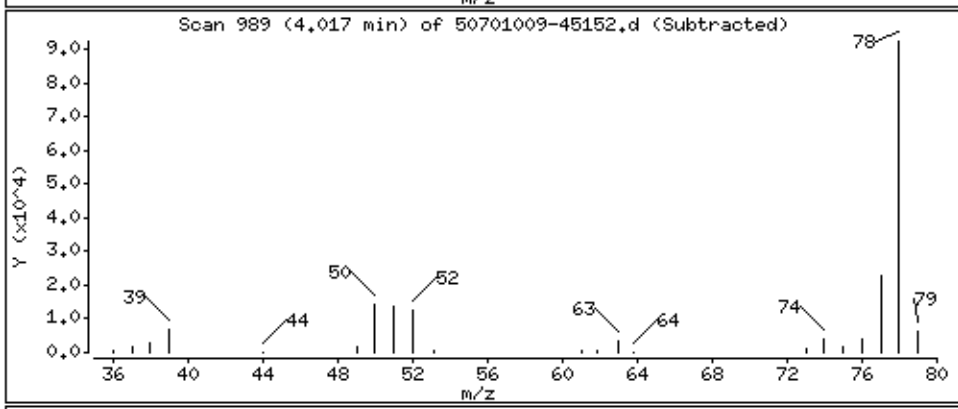
Column diameter: 0.18

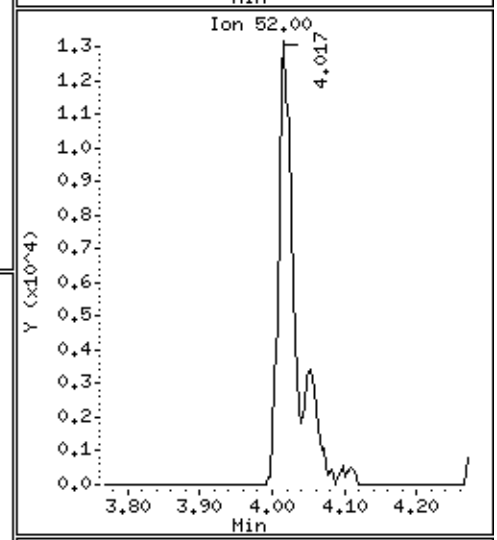
41 Benzene

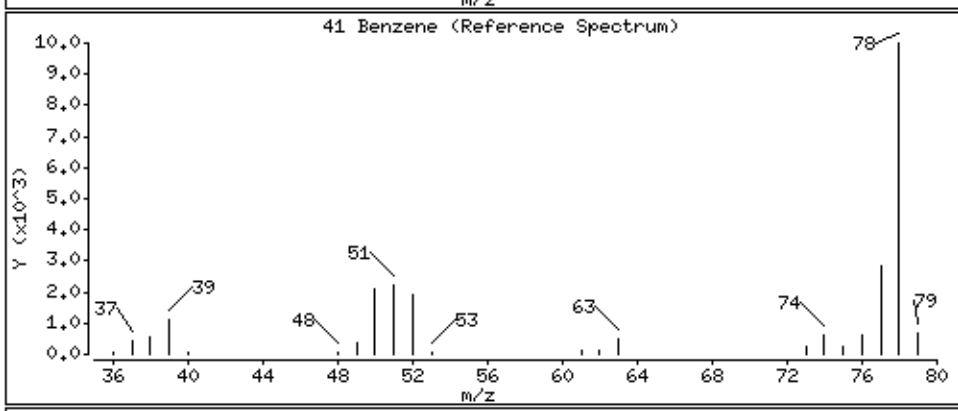
Concentration: 19.5 ug/L

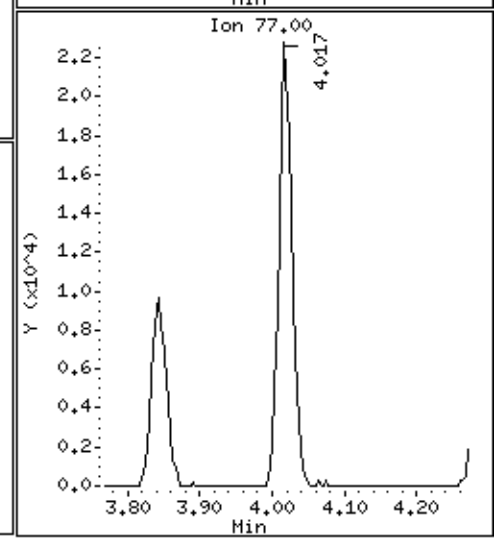


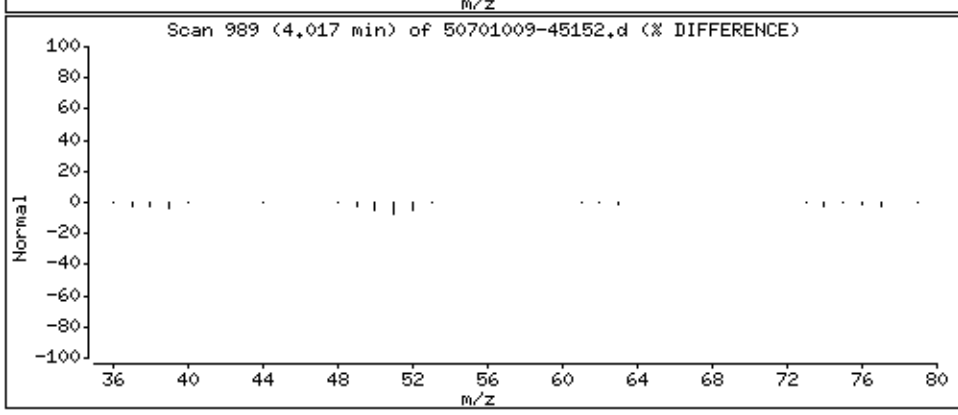












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

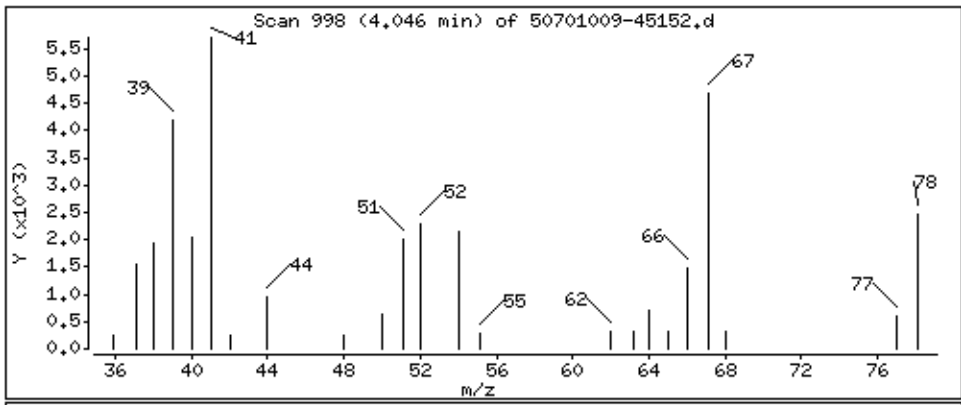
Operator: JEW

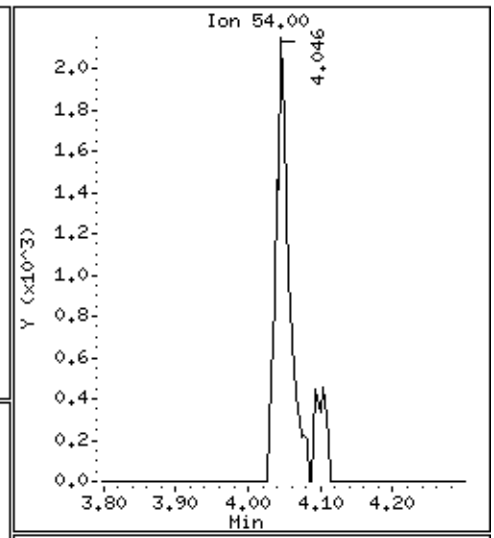
Column phase: RTX-VMS

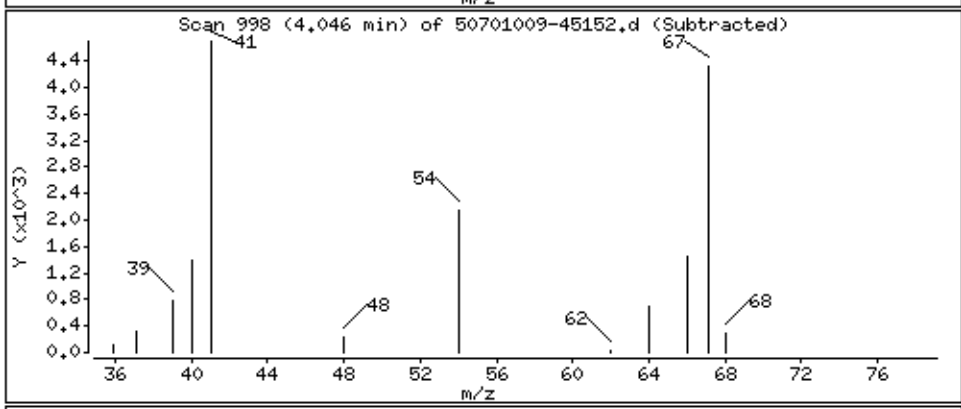
Column diameter: 0.18

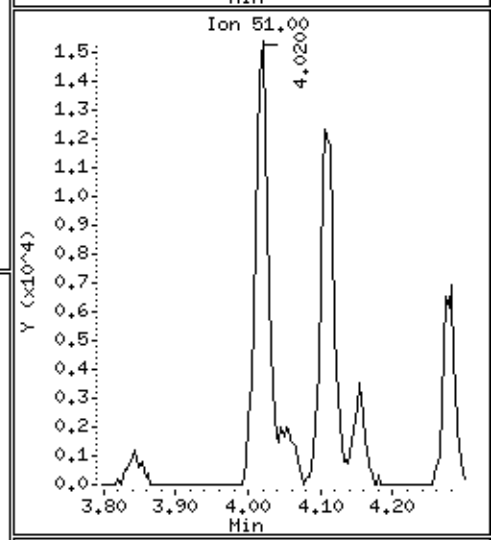
42 Propionitrile

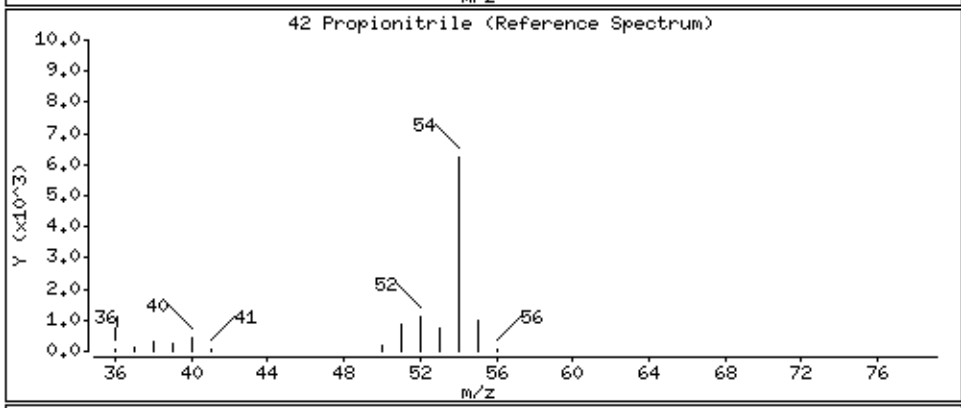
Concentration: 16.2 ug/L

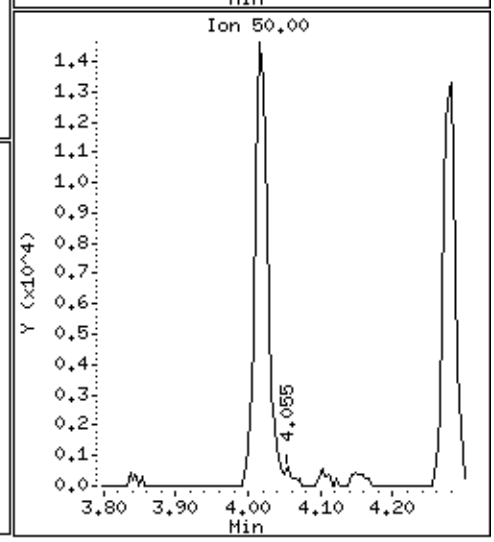


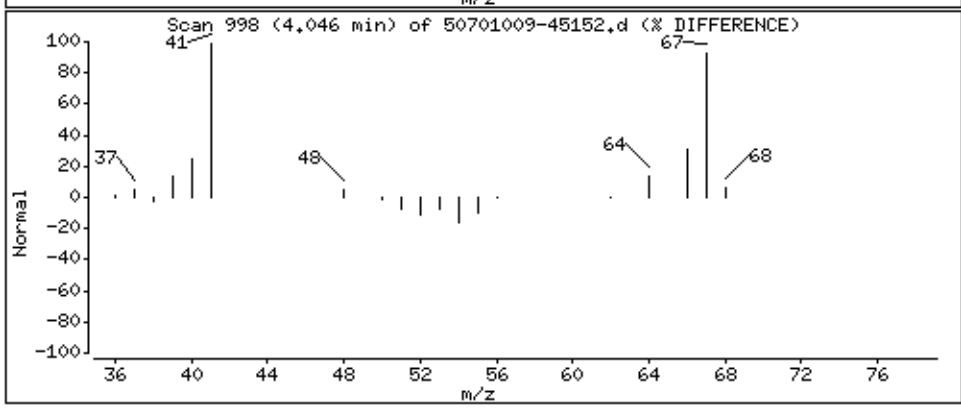












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

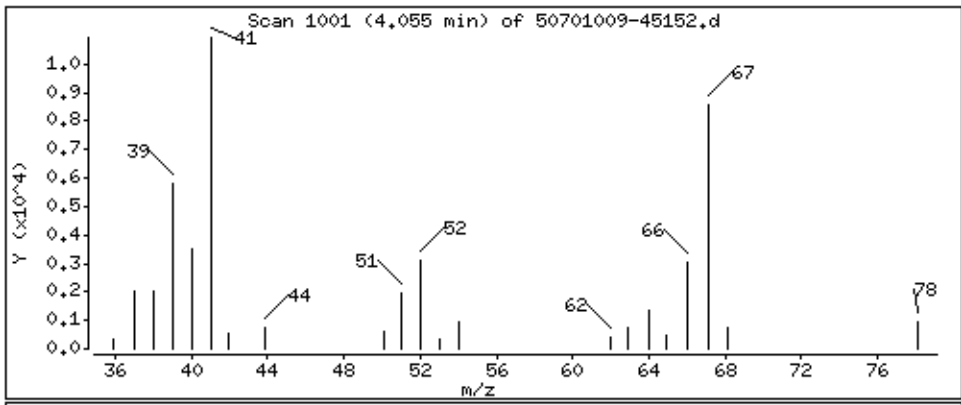
Operator: JEW

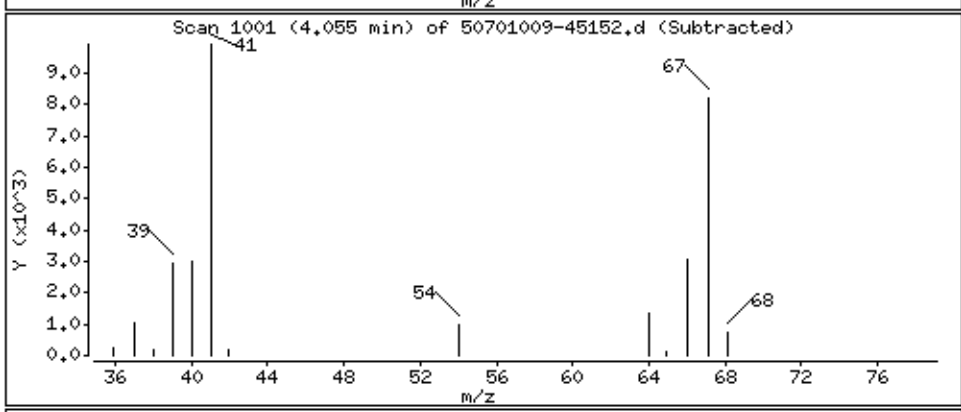
Column phase: RTX-VMS

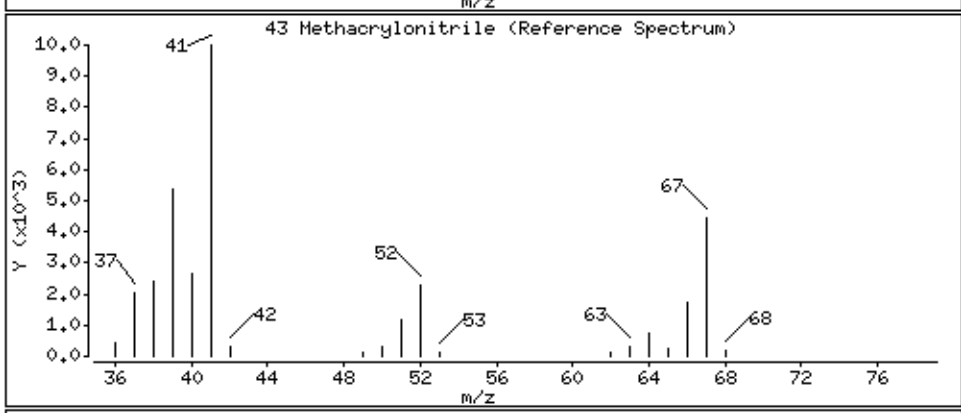
Column diameter: 0.18

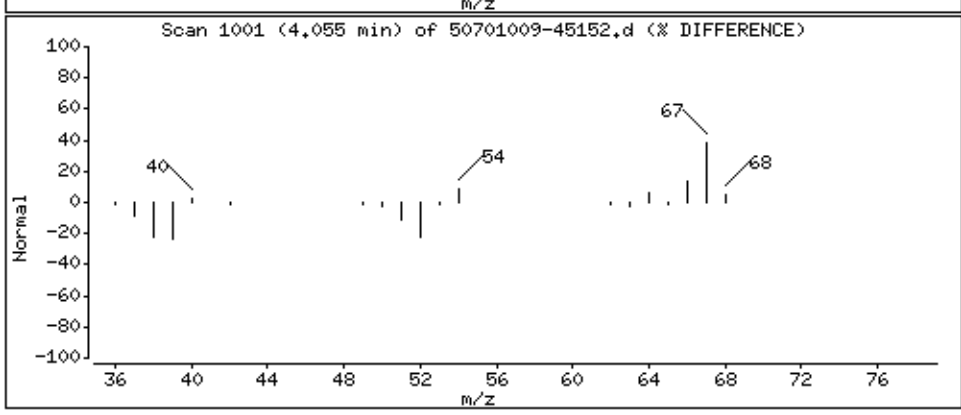
43 Methacrylonitrile

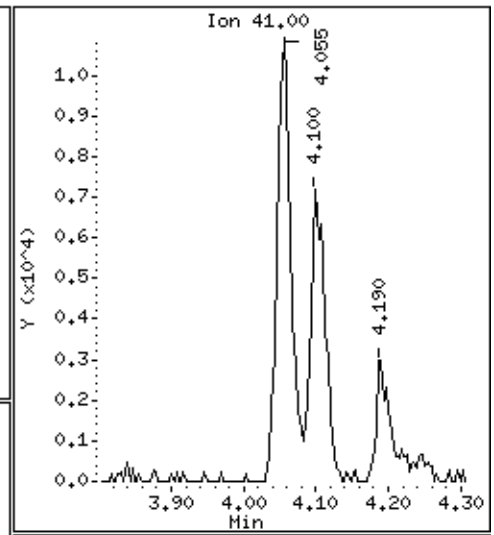
Concentration: 15.1 ug/L

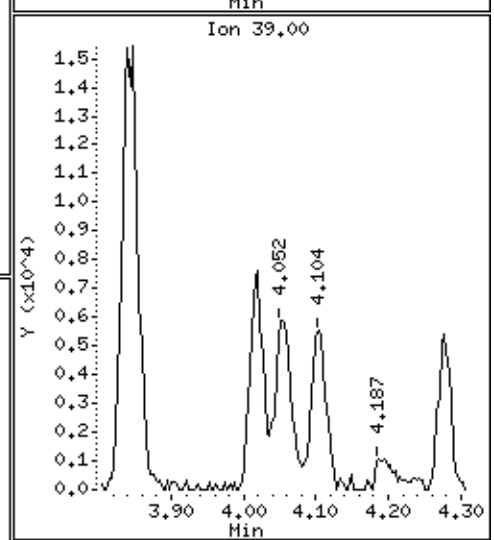


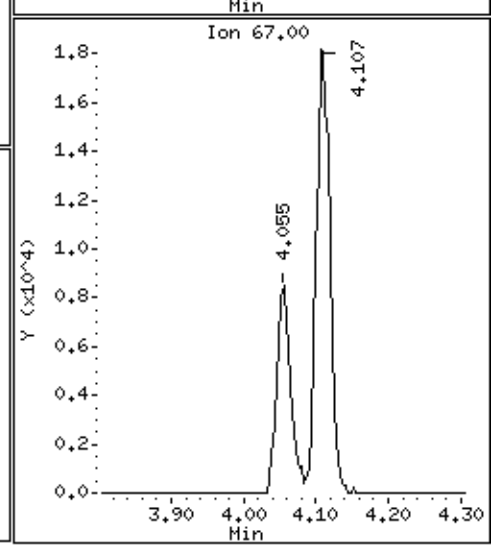












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

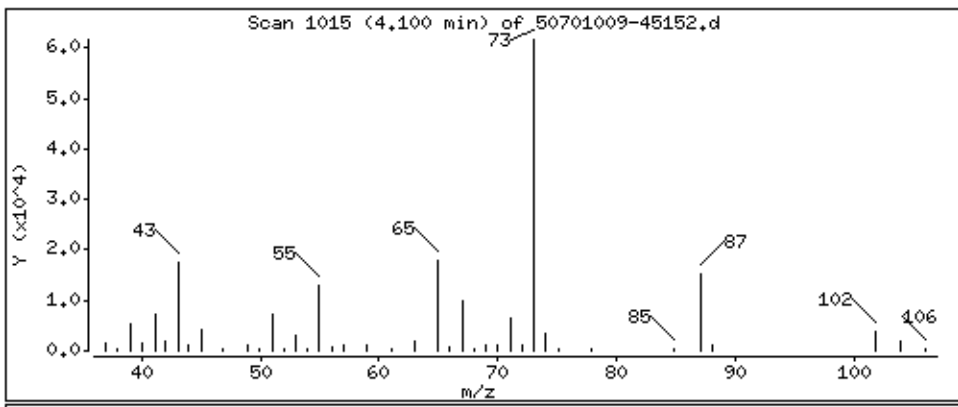
Operator: JEW

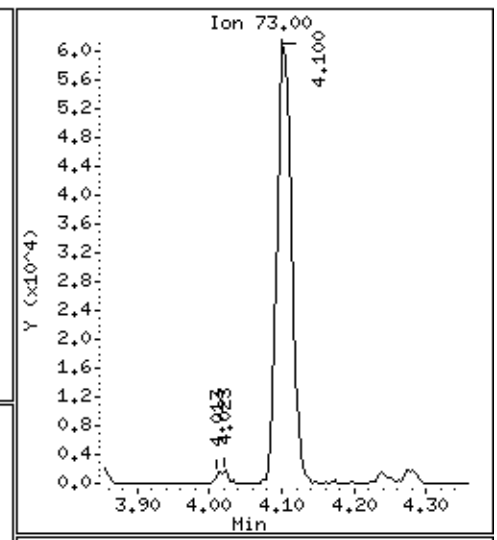
Column phase: RTX-VMS

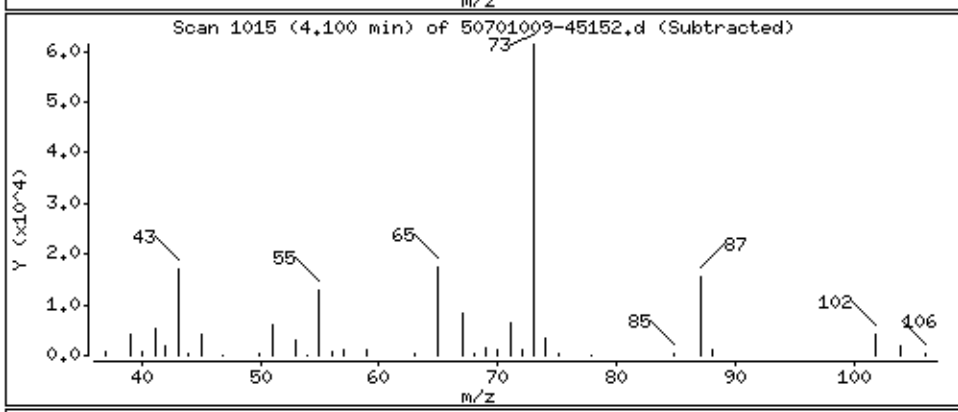
Column diameter: 0.18

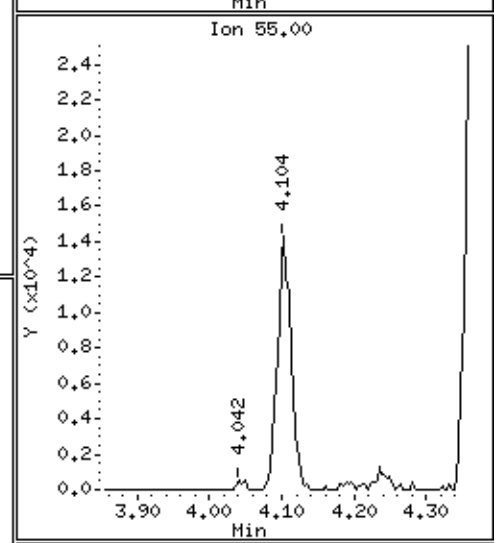
44 tert-Amylmethyl ether

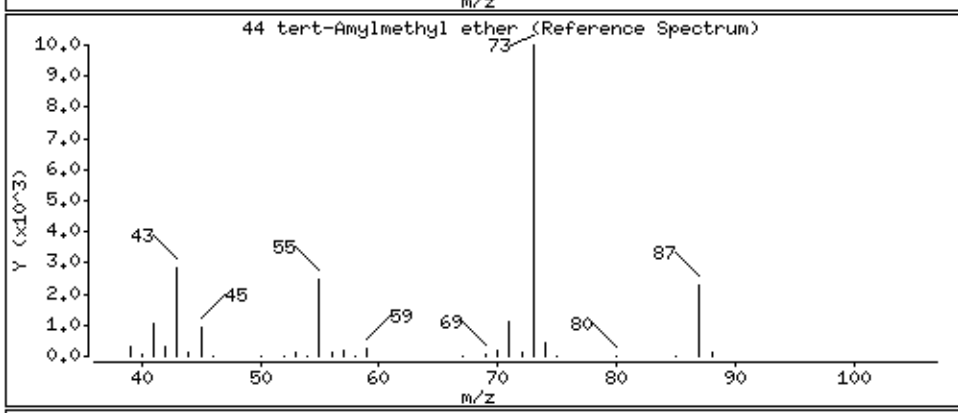
Concentration: 17.9 ug/L

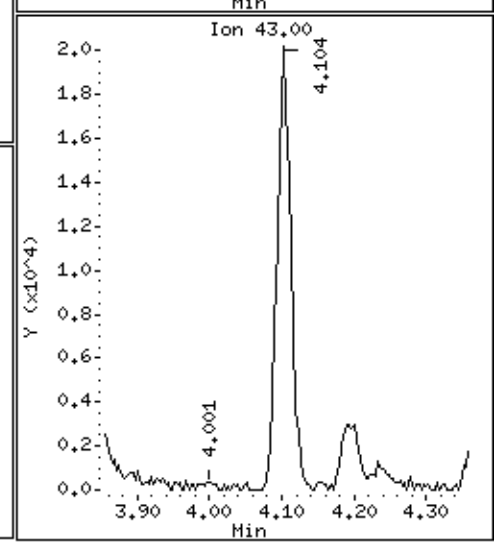


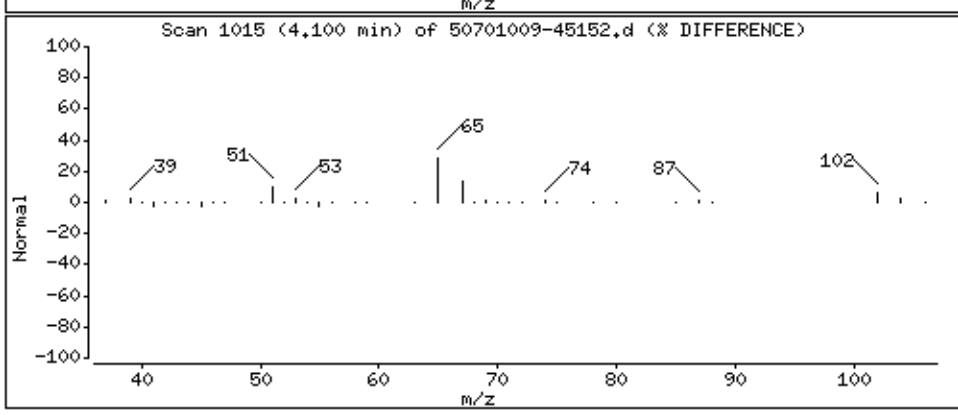












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

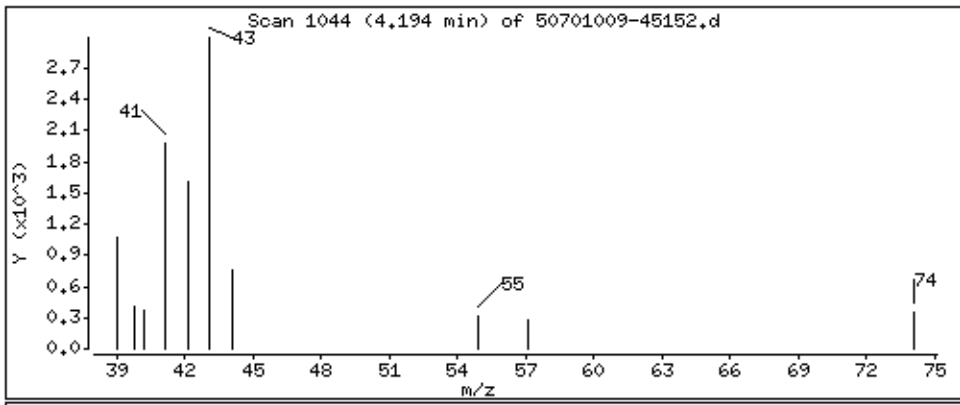
Operator: JEW

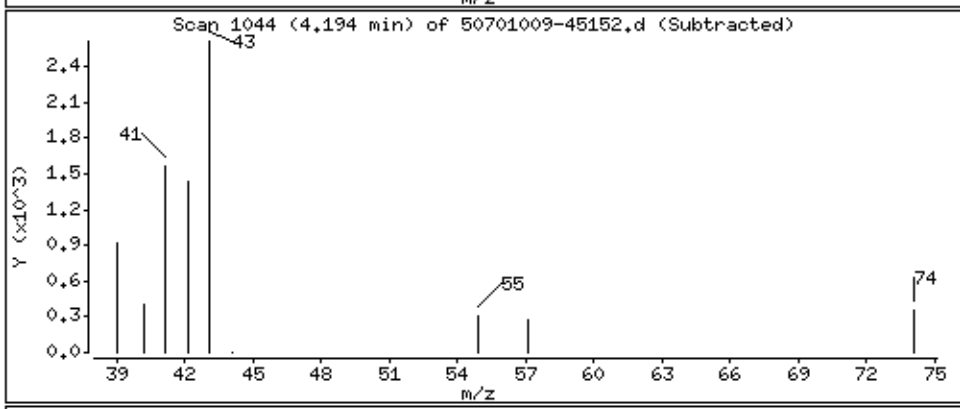
Column phase: RTX-VMS

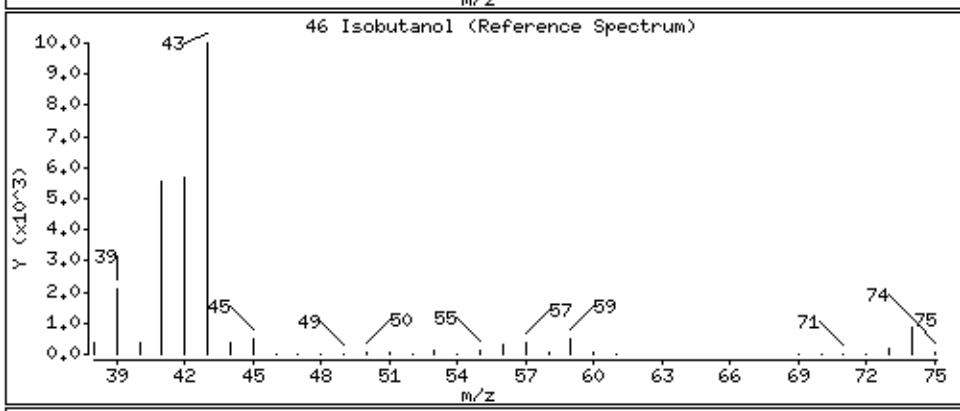
Column diameter: 0.18

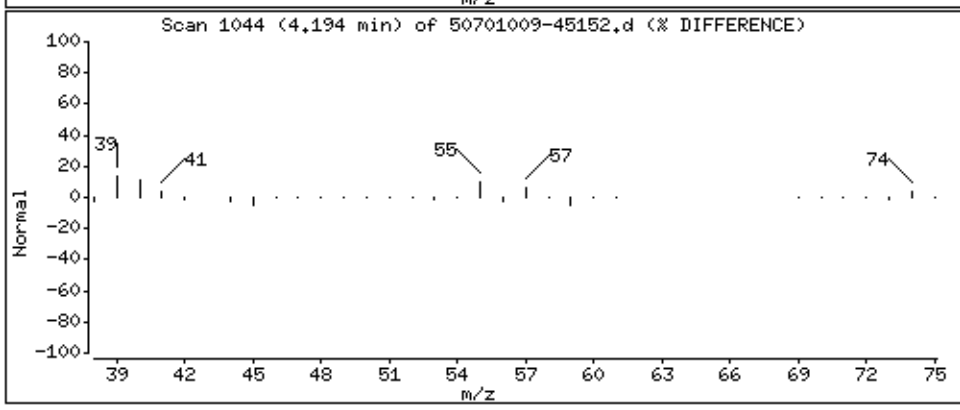
46 Isobutanol

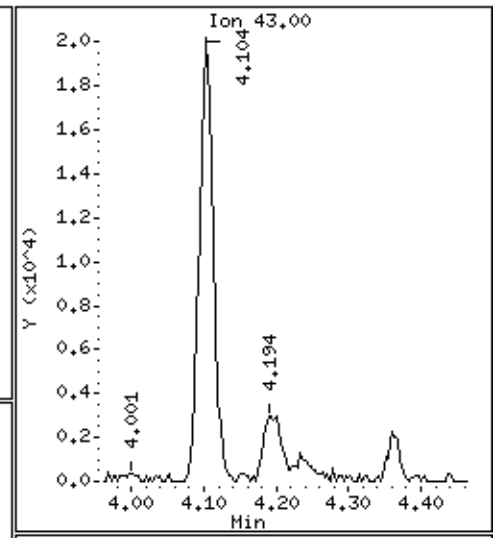
Concentration: 68.3 ug/L

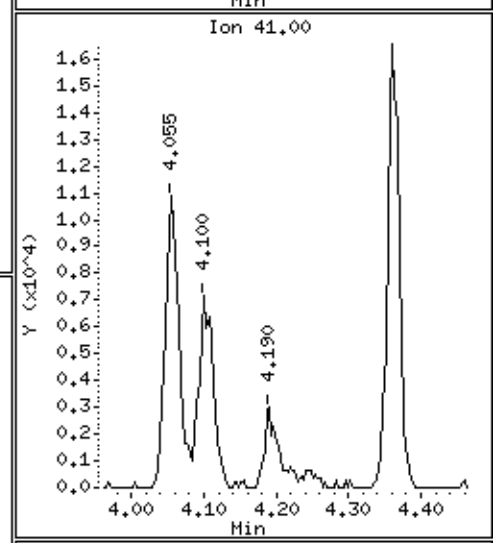


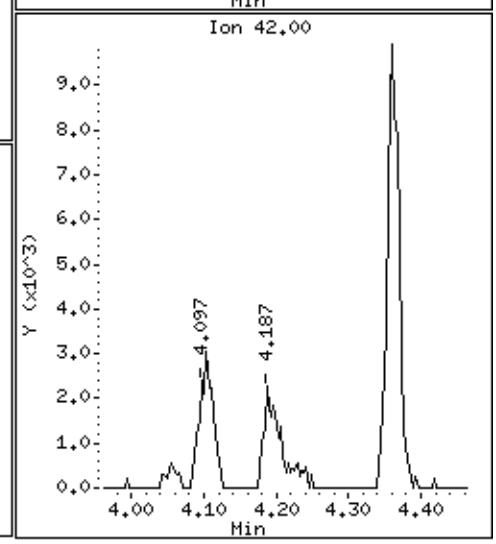












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

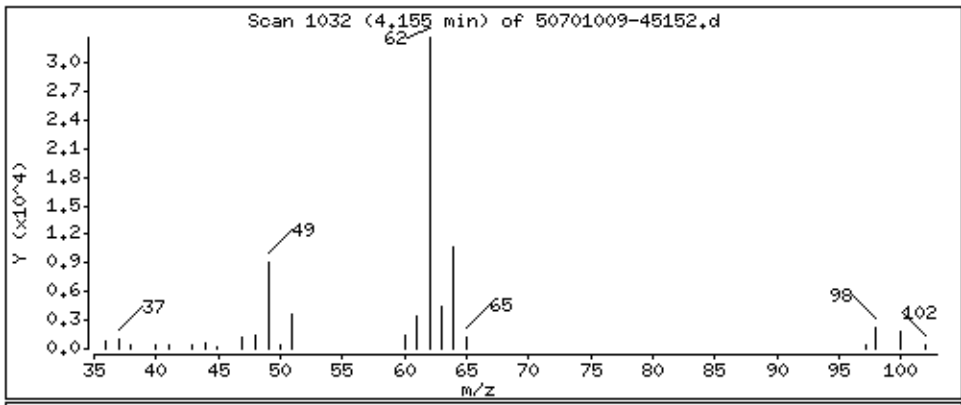
Operator: JEW

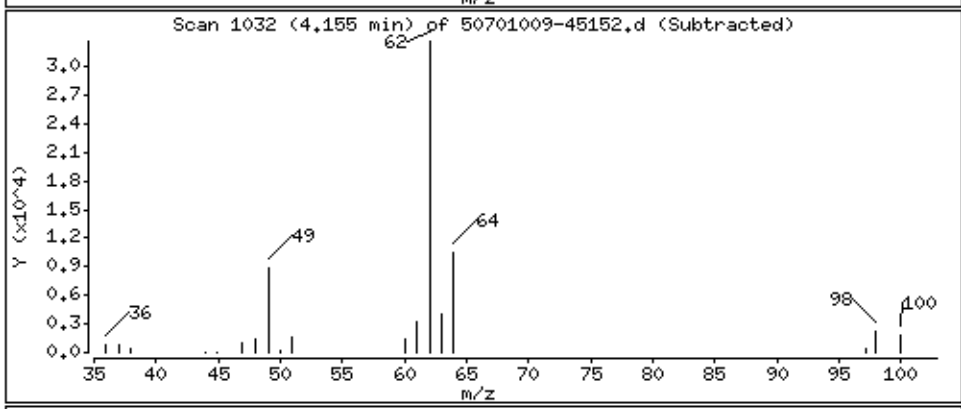
Column phase: RTX-VMS

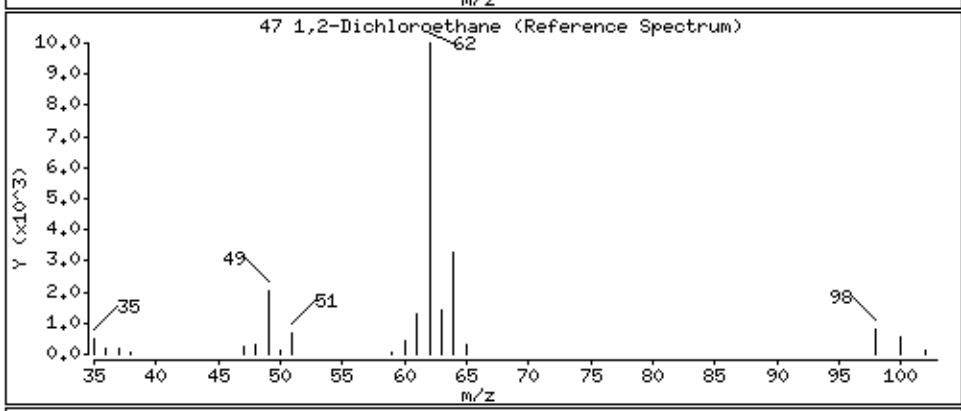
Column diameter: 0.18

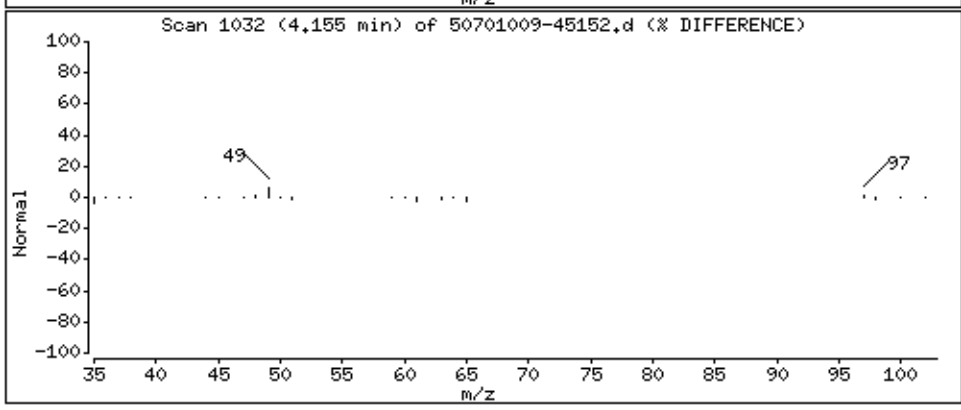
47 1,2-Dichloroethane

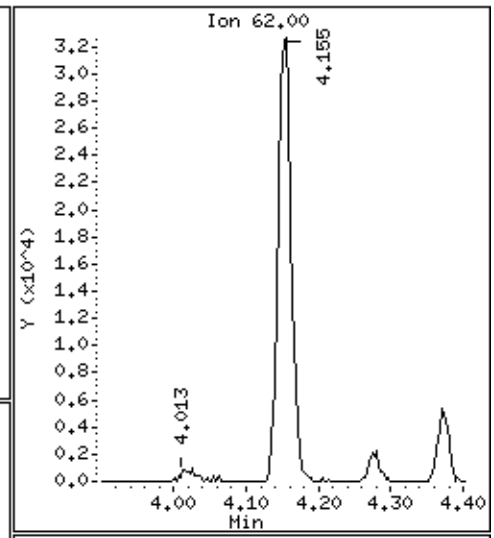
Concentration: 17.8 ug/L

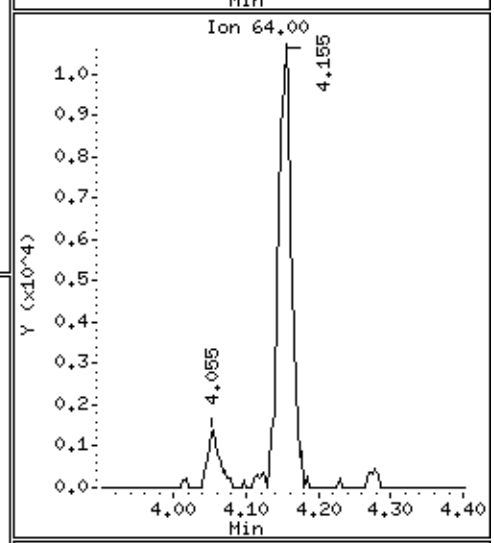


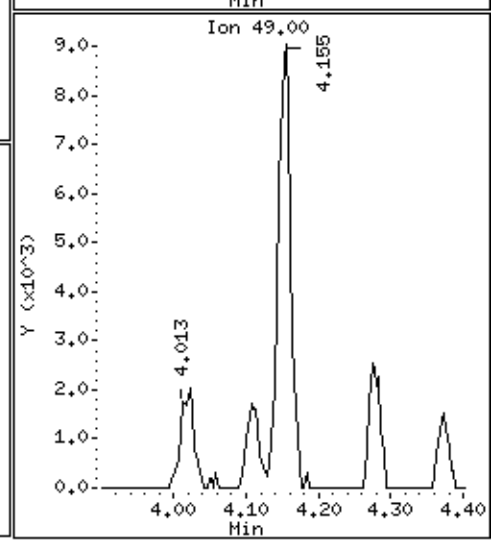












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

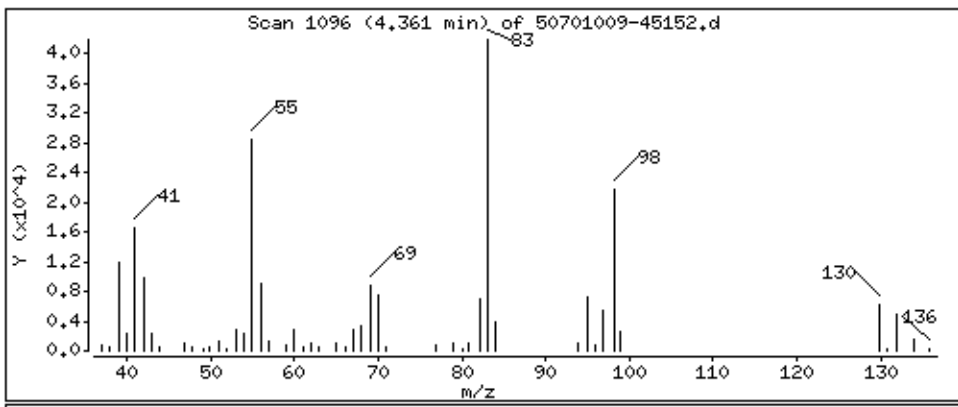
Operator: JEW

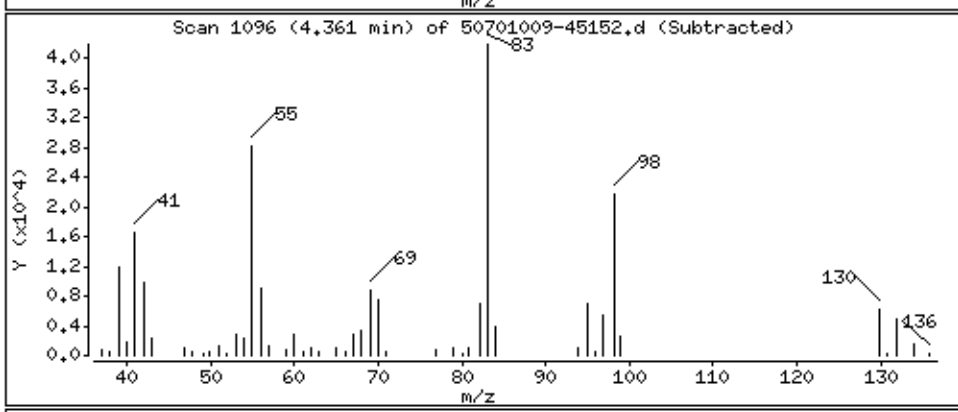
Column phase: RTX-VMS

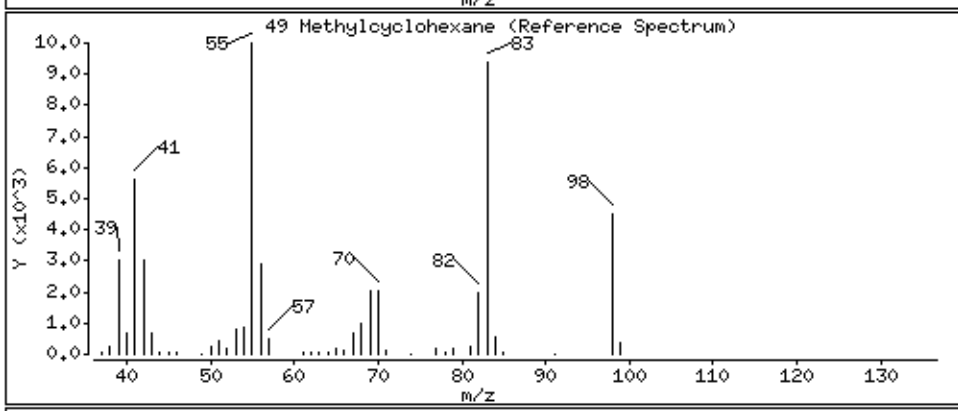
Column diameter: 0.18

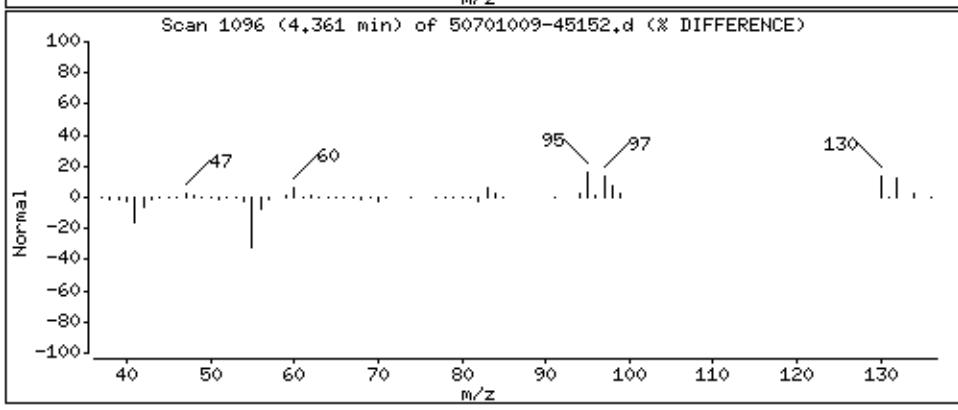
49 Methylcyclohexane

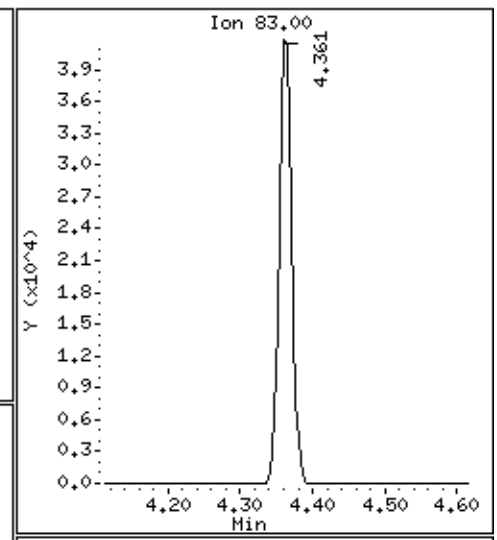
Concentration: 21.4 ug/L

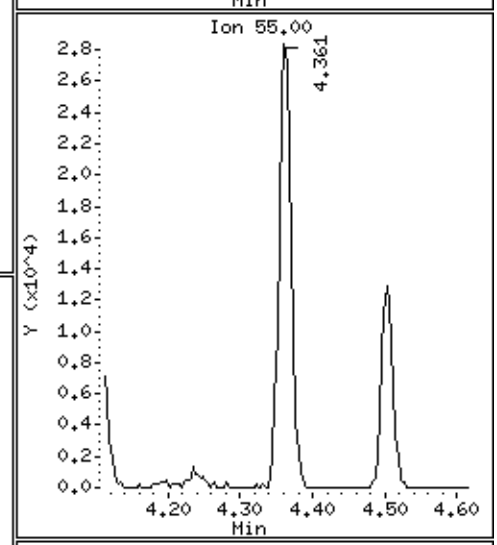


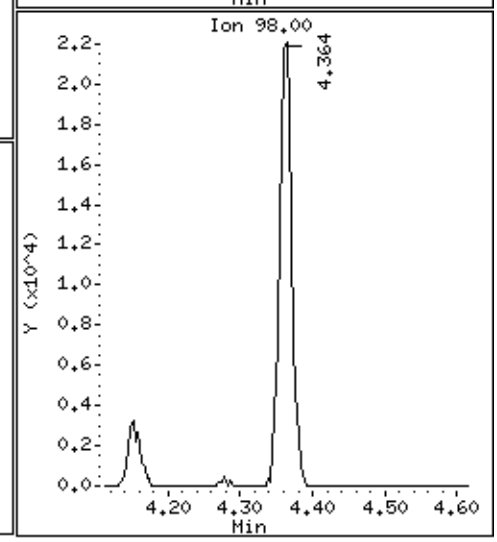












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

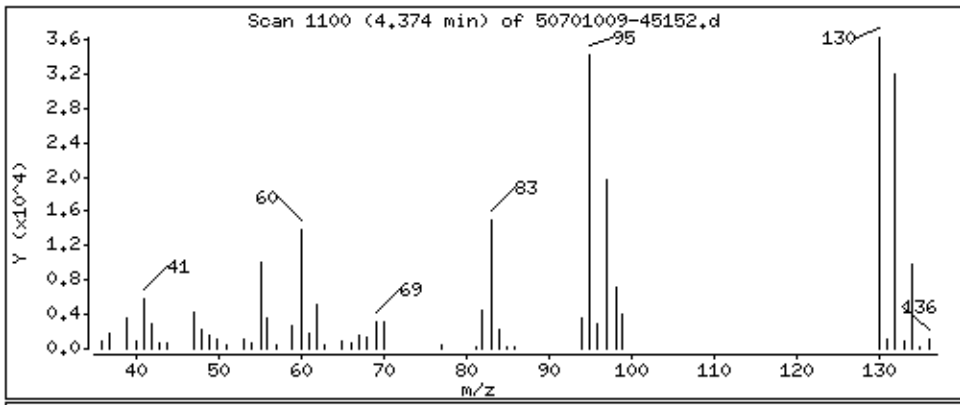
Operator: JEW

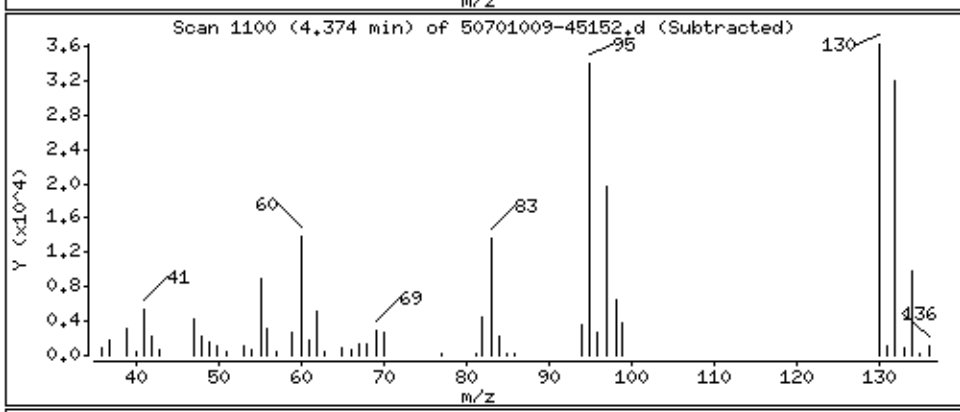
Column phase: RTX-VMS

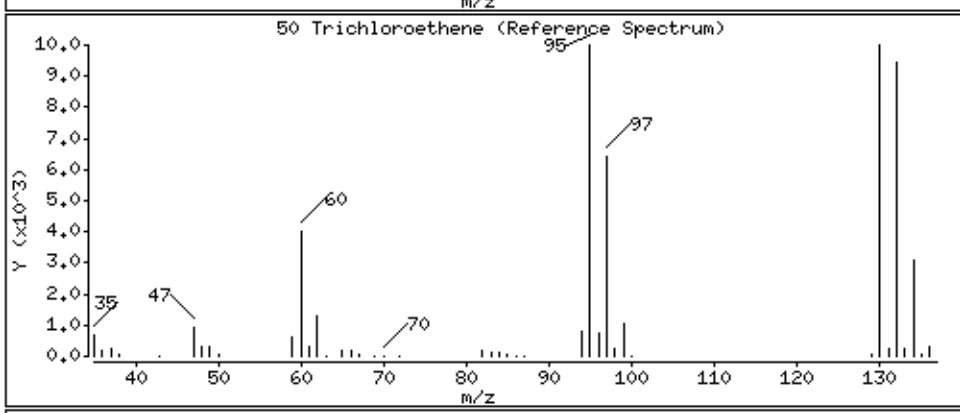
Column diameter: 0.18

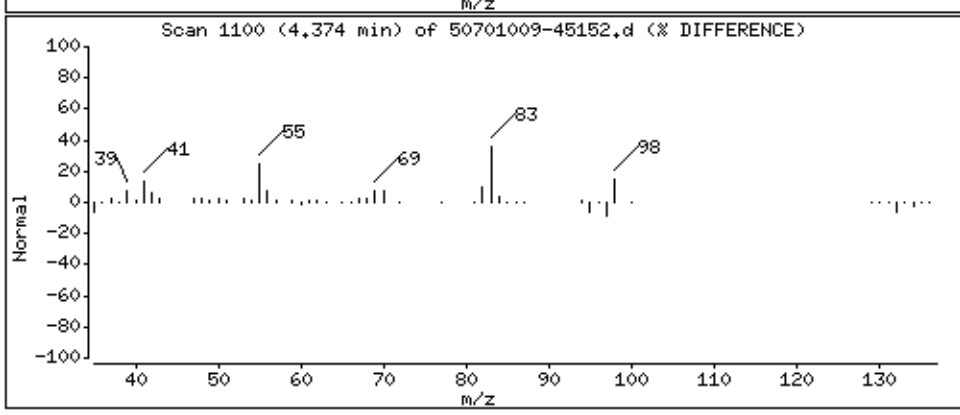
50 Trichloroethene

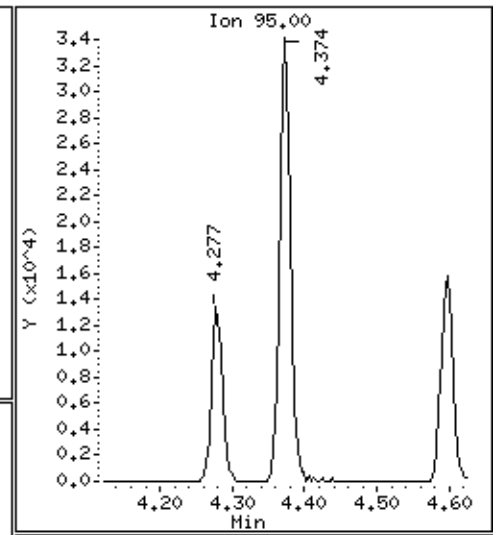
Concentration: 19.0 ug/L

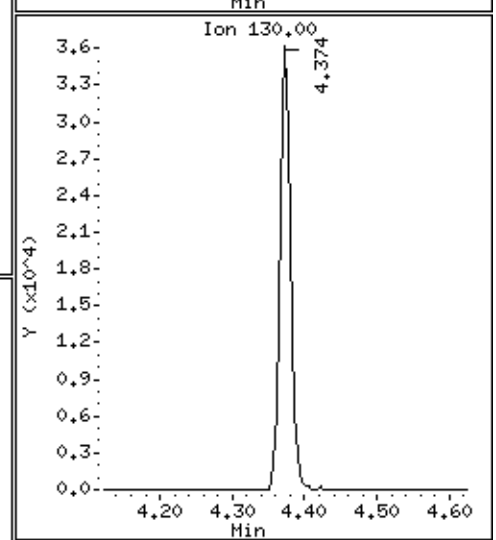


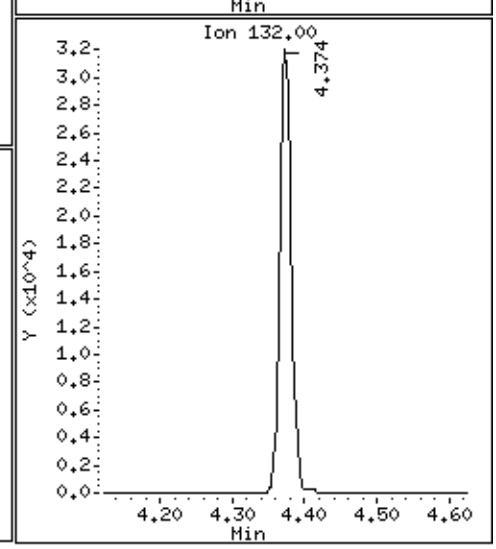












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

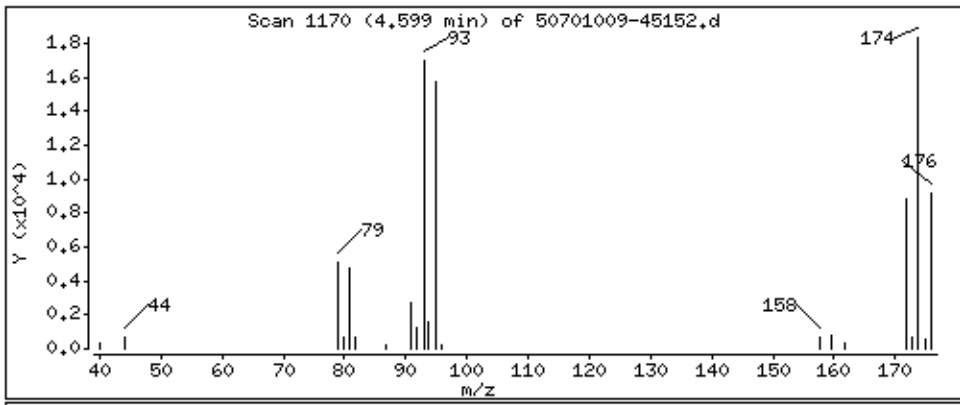
Operator: JEW

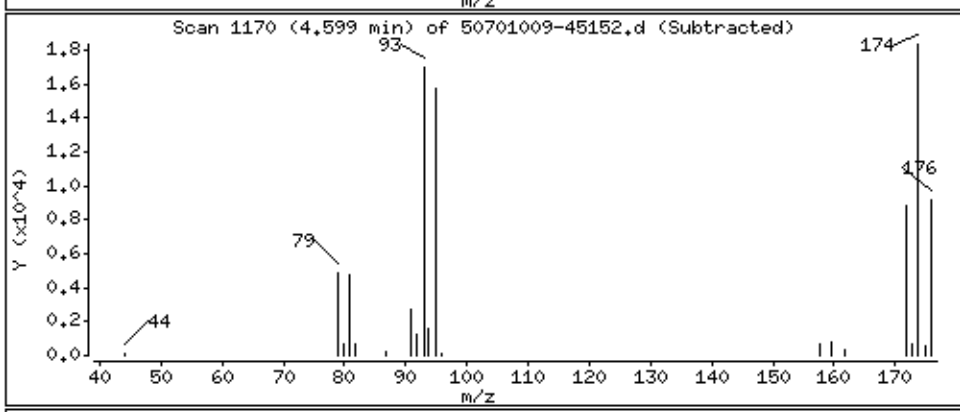
Column phase: RTX-VMS

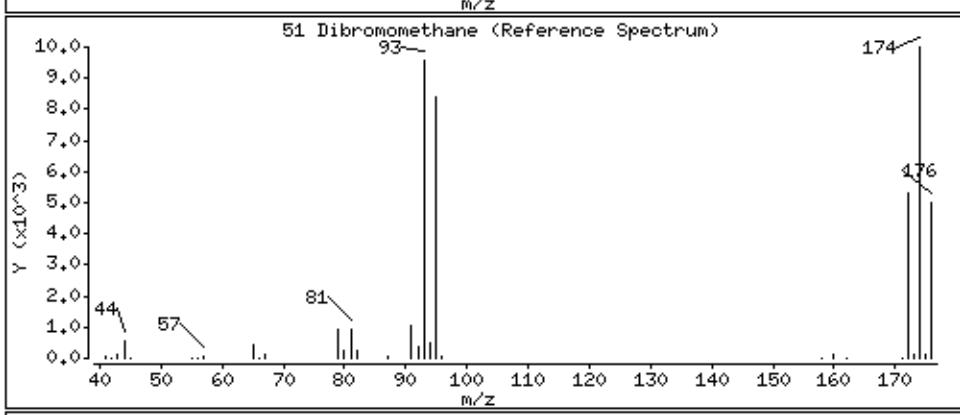
Column diameter: 0.18

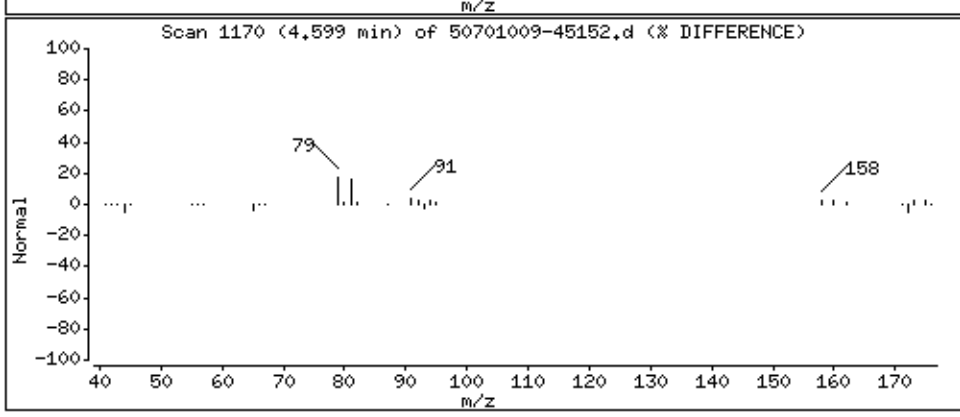
51 Dibromomethane

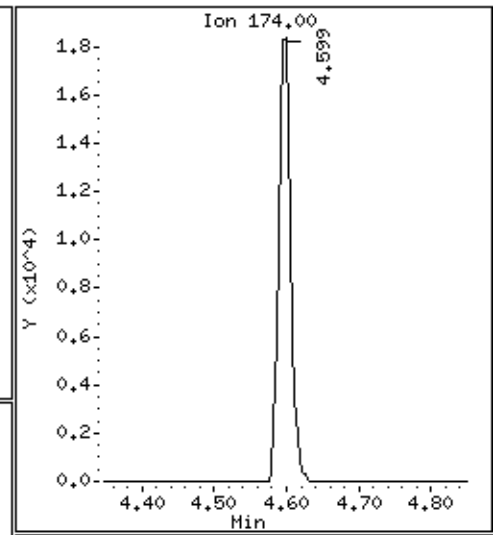
Concentration: 18.8 ug/L

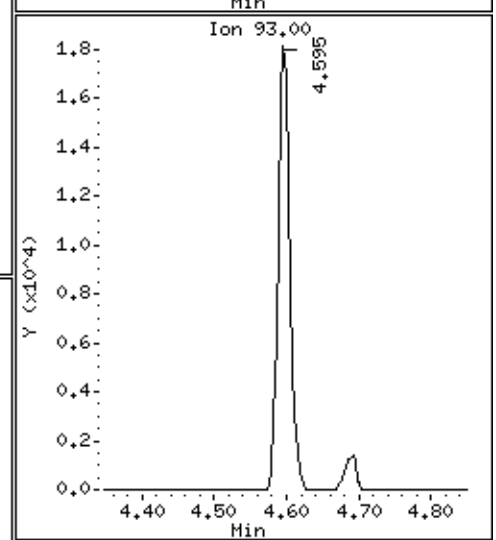


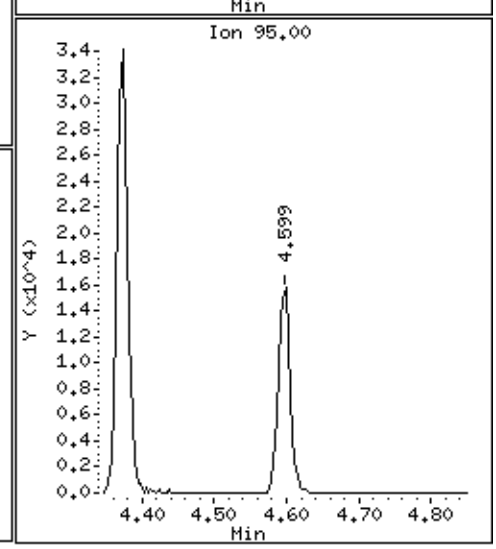












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

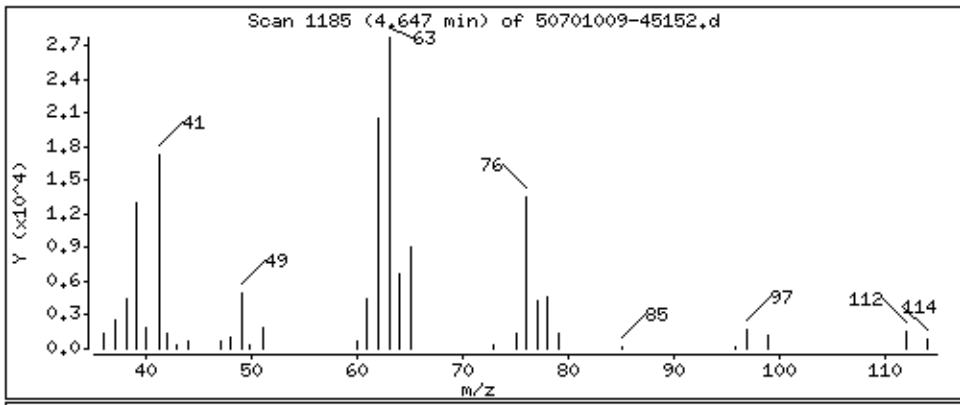
Operator: JEW

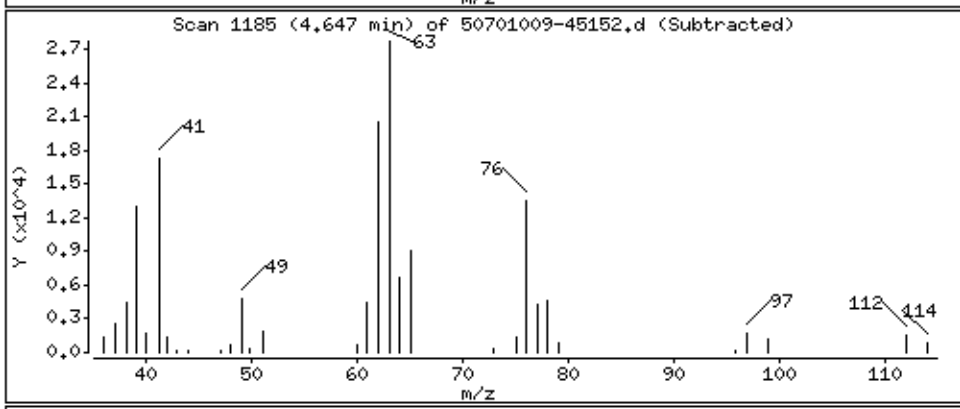
Column phase: RTX-VMS

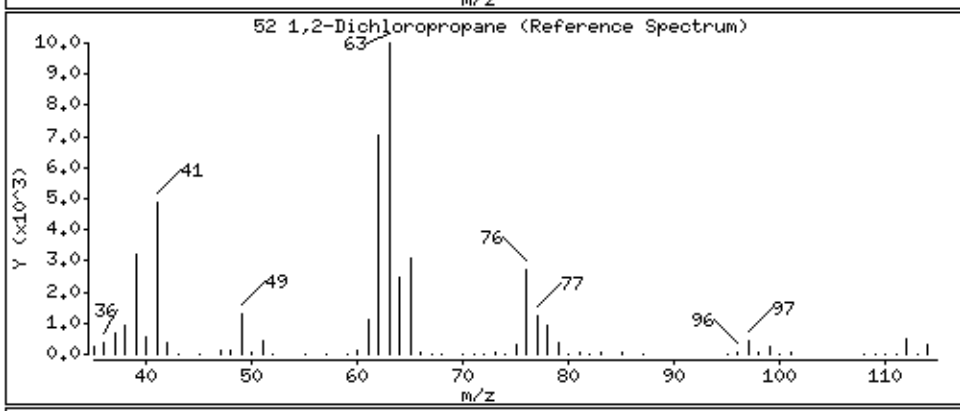
Column diameter: 0.18

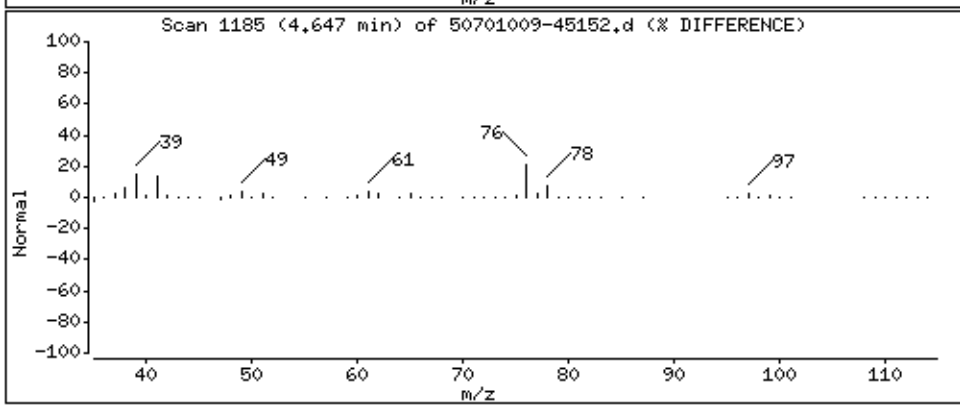
52 1,2-Dichloropropane

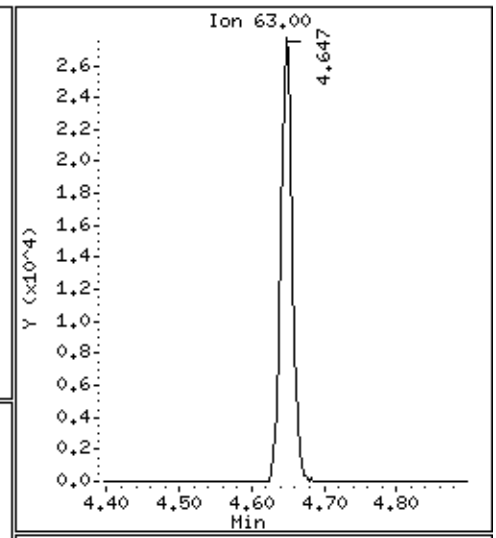
Concentration: 19.0 ug/L

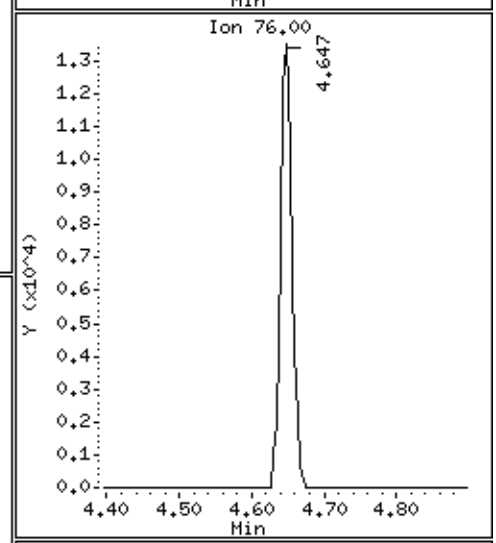


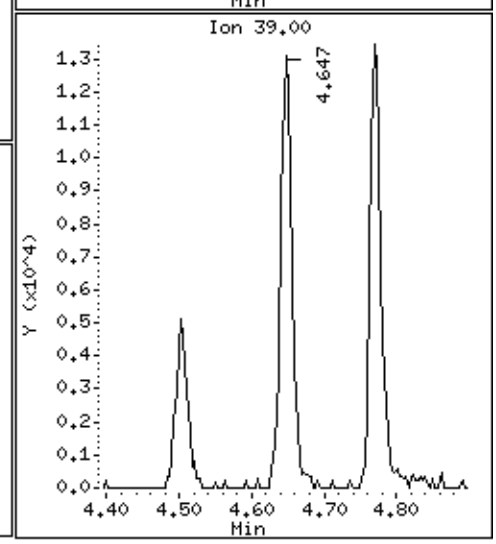












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

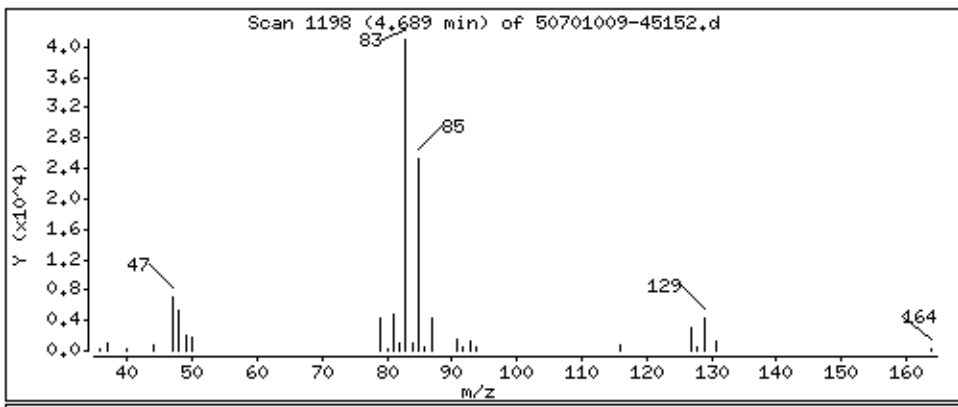
Operator: JEW

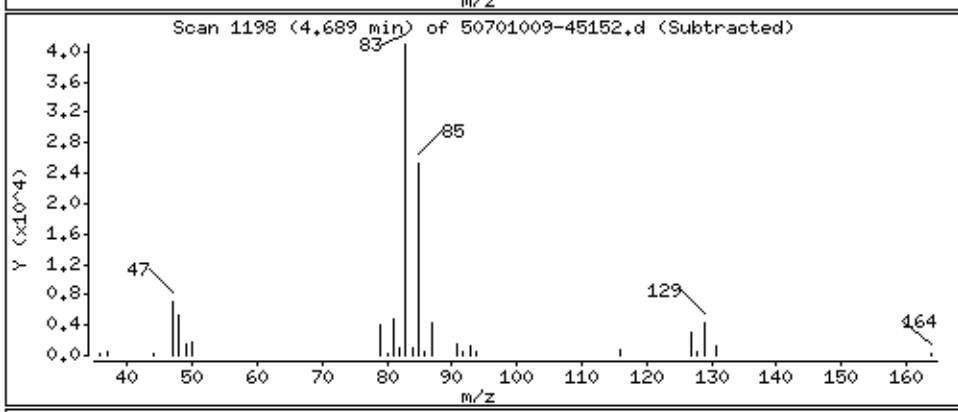
Column phase: RTX-VMS

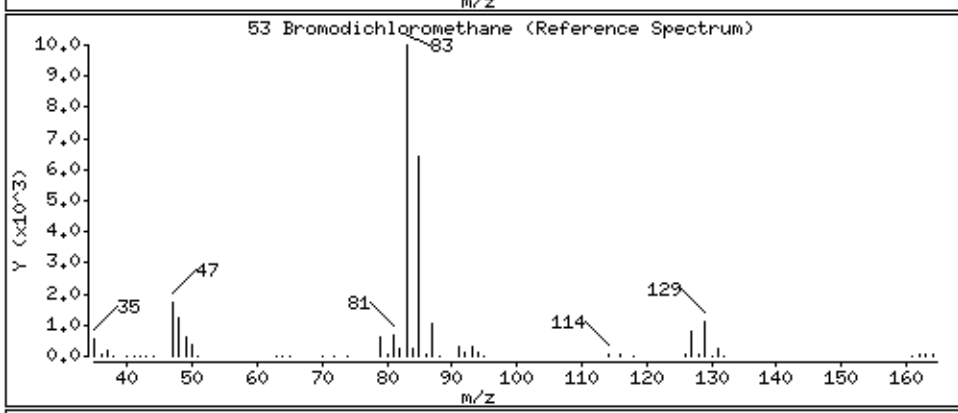
Column diameter: 0.18

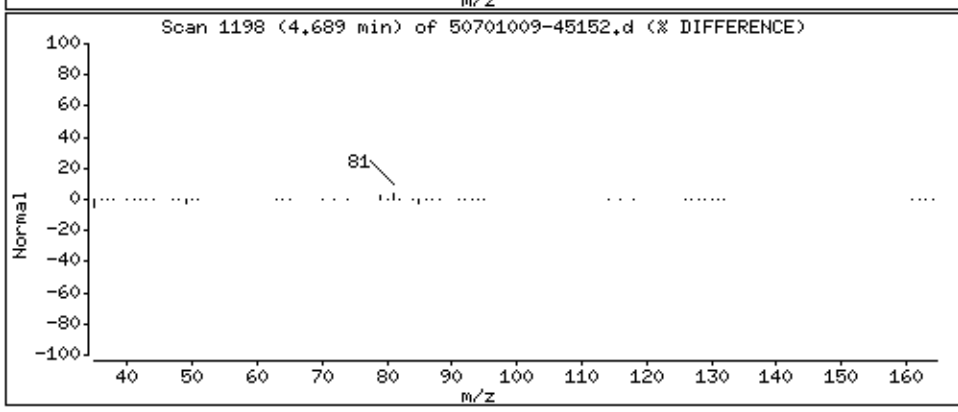
53 Bromodichloromethane

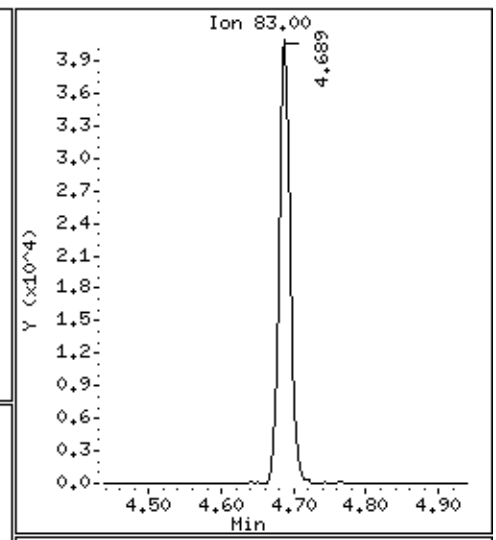
Concentration: 19.1 ug/L

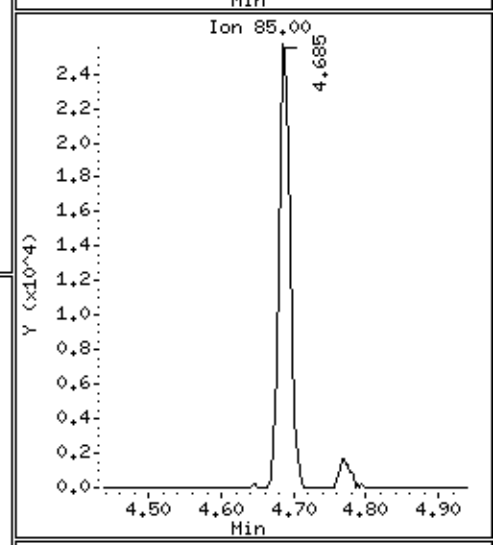


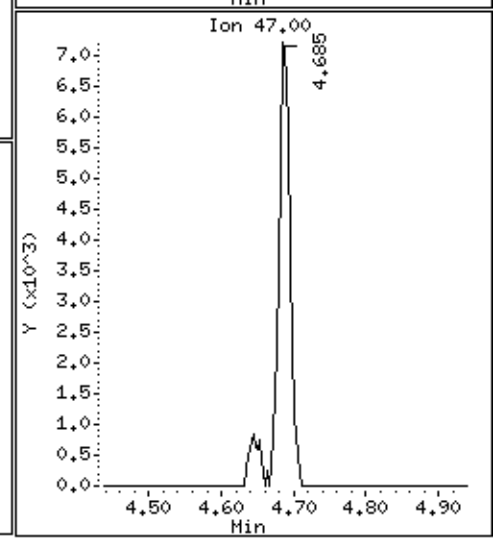












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

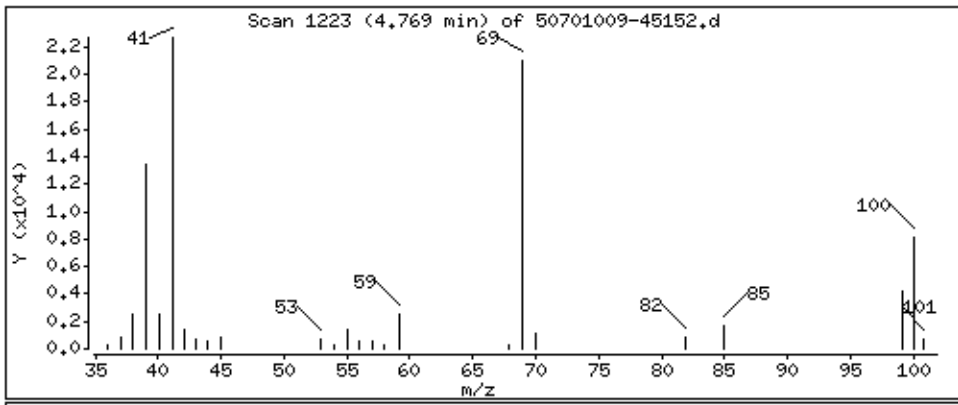
Operator: JEW

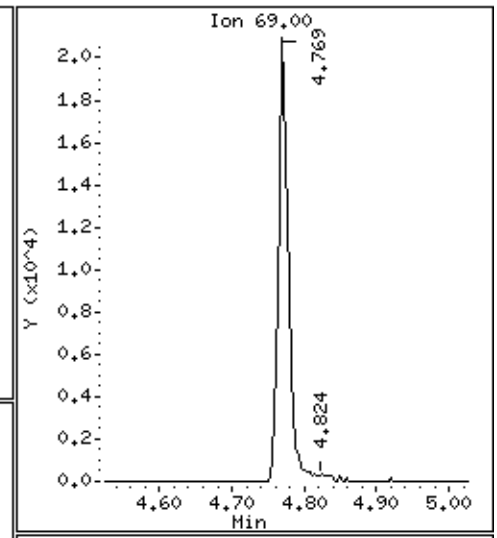
Column phase: RTX-VMS

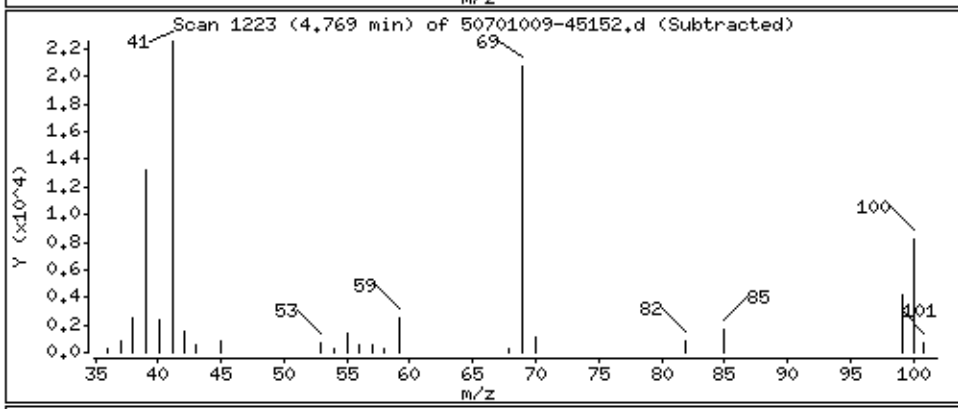
Column diameter: 0.18

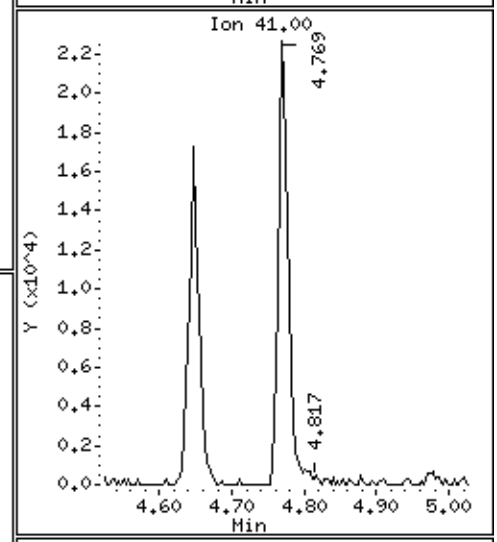
54 Methyl methacrylate

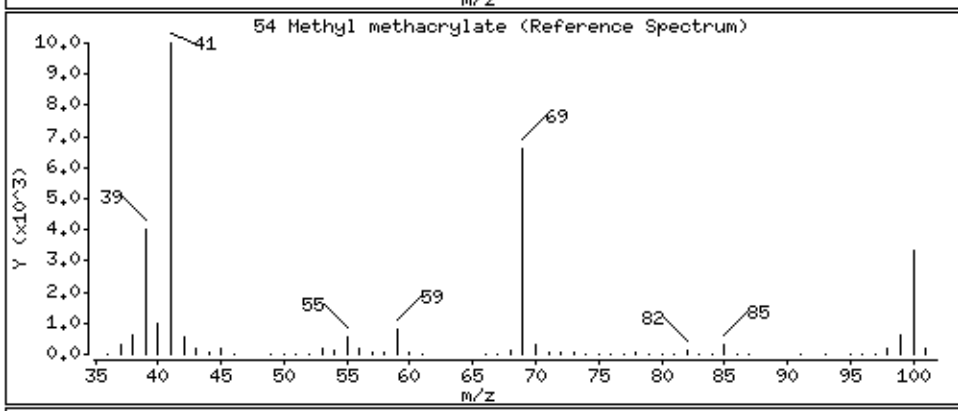
Concentration: 17.0 ug/L

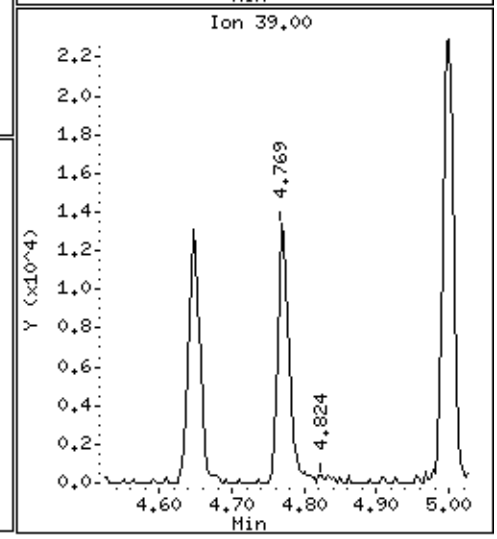


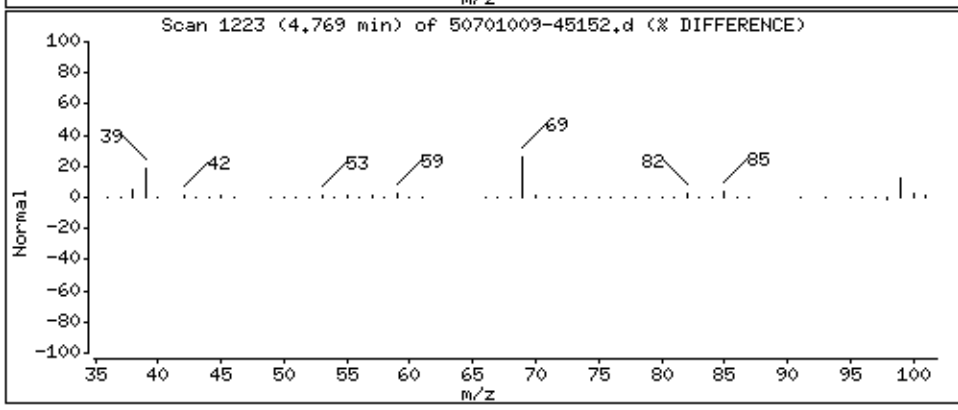












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

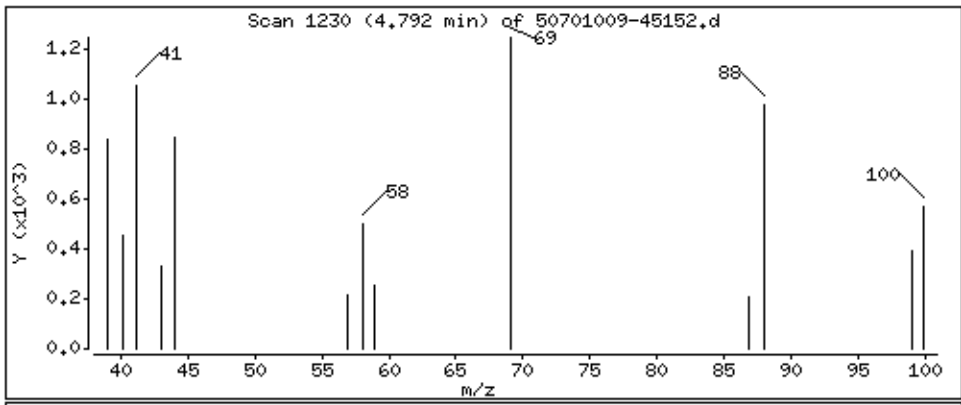
Operator: JEW

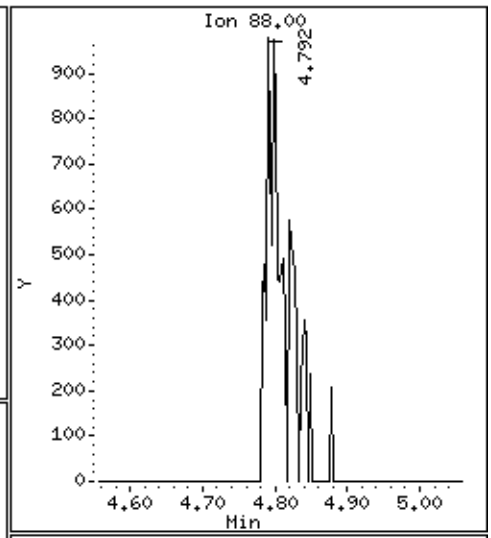
Column phase: RTX-VMS

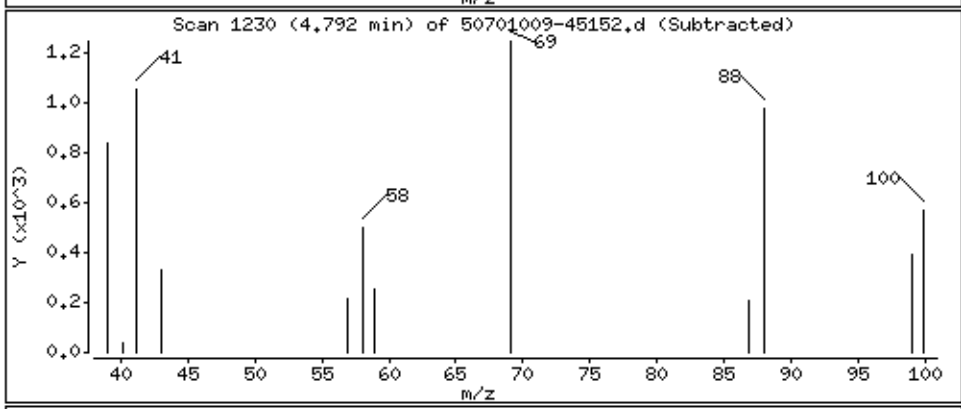
Column diameter: 0.18

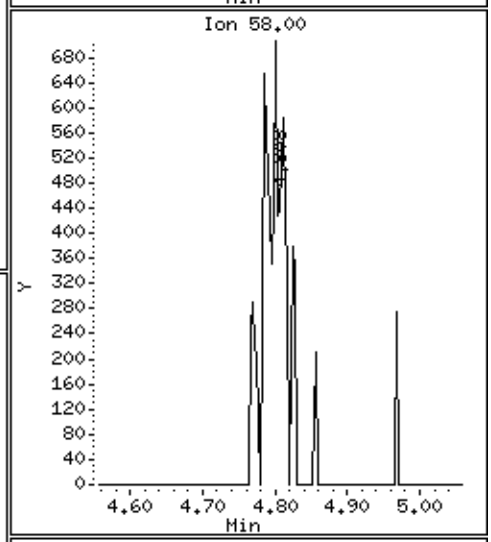
55 1,4-Dioxane (p-Dioxane)

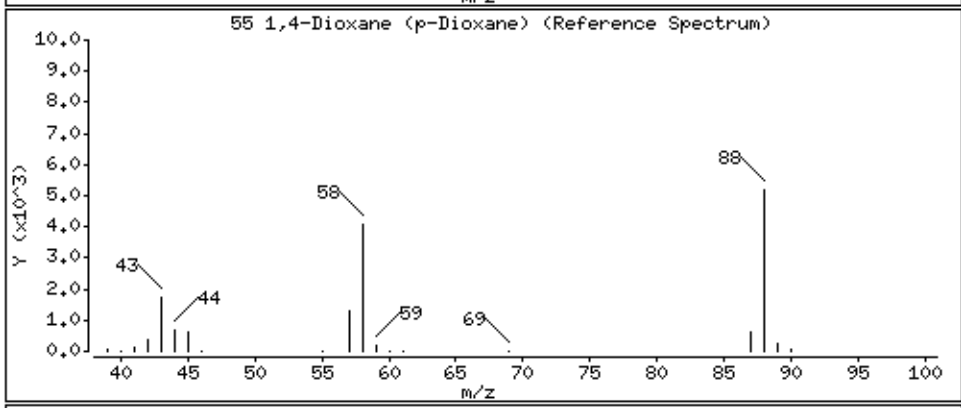
Concentration: 150 ug/L

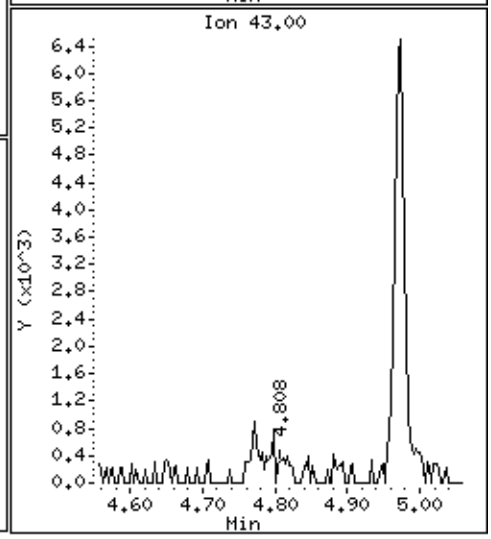


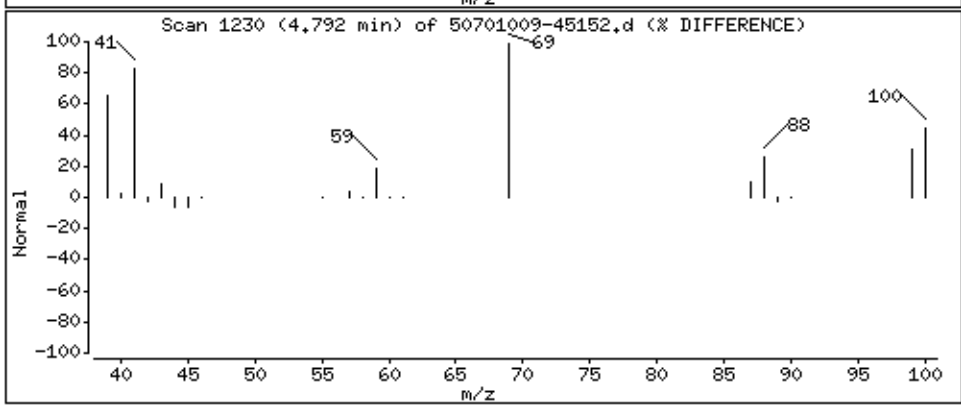












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

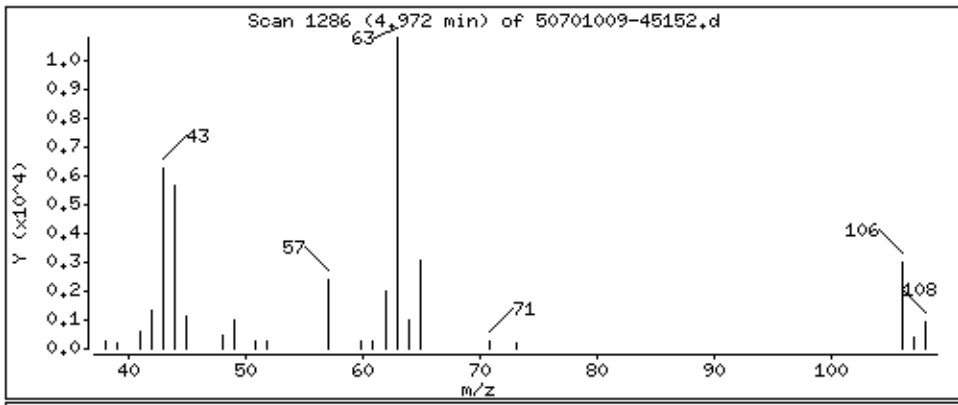
Operator: JEW

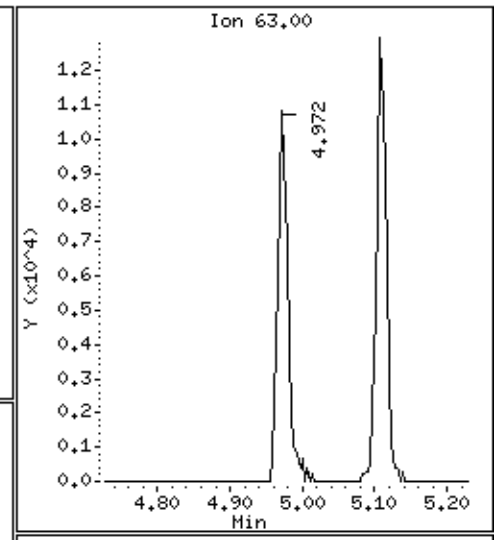
Column phase: RTX-VMS

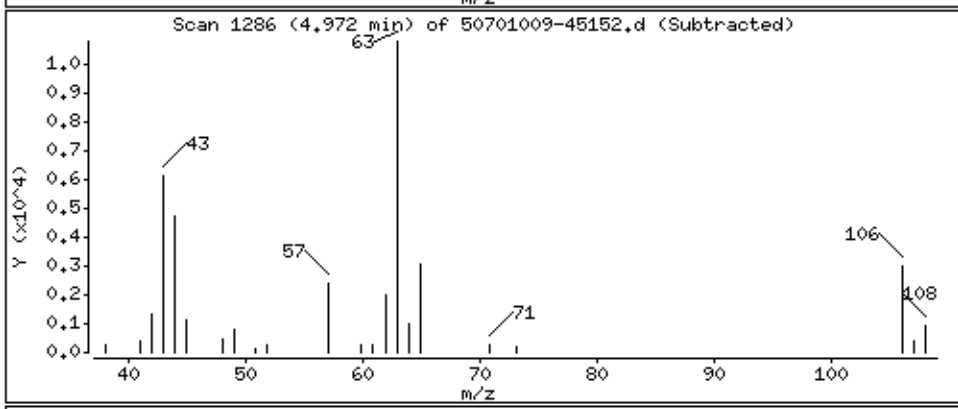
Column diameter: 0.18

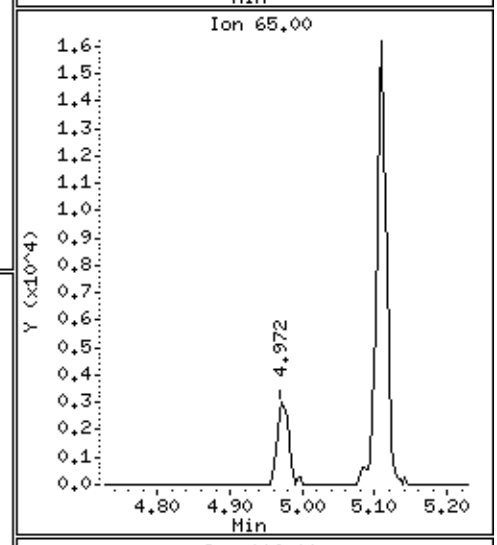
56 2-Chloroethylvinyl ether

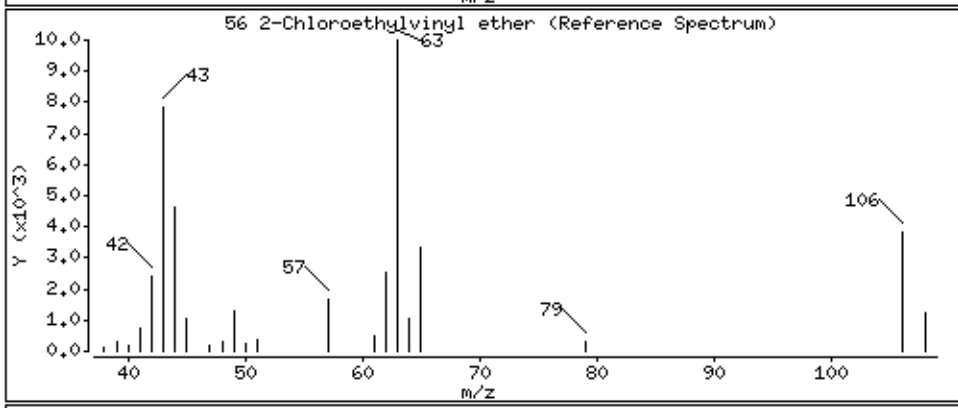
Concentration: 17.0 ug/L

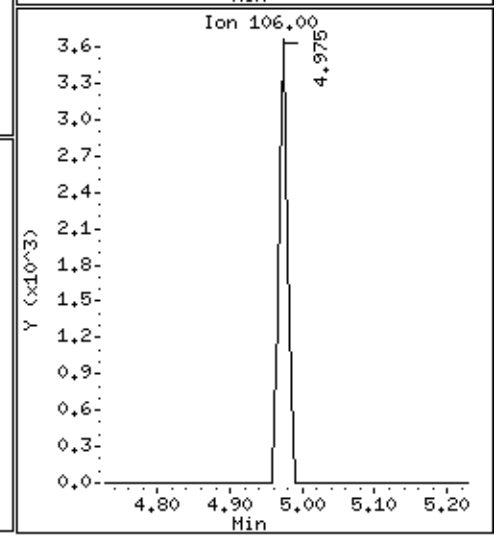


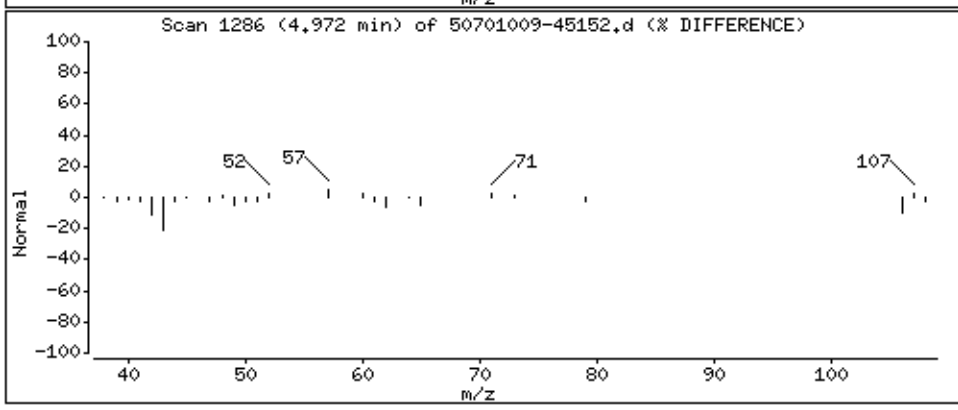












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

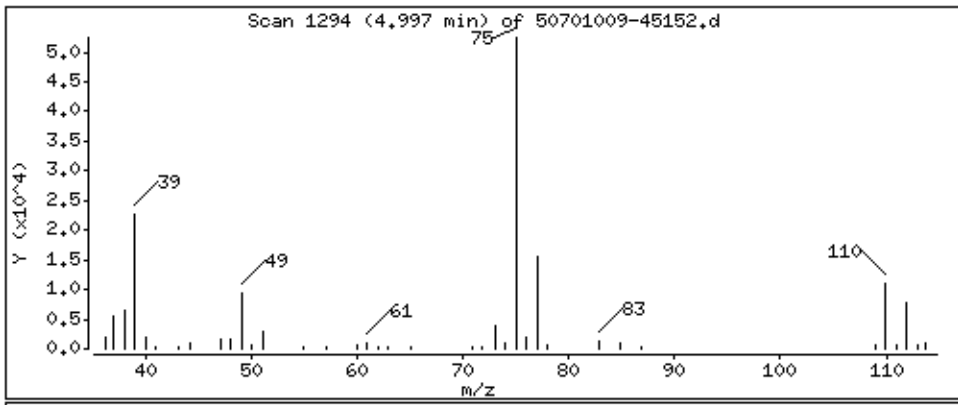
Operator: JEW

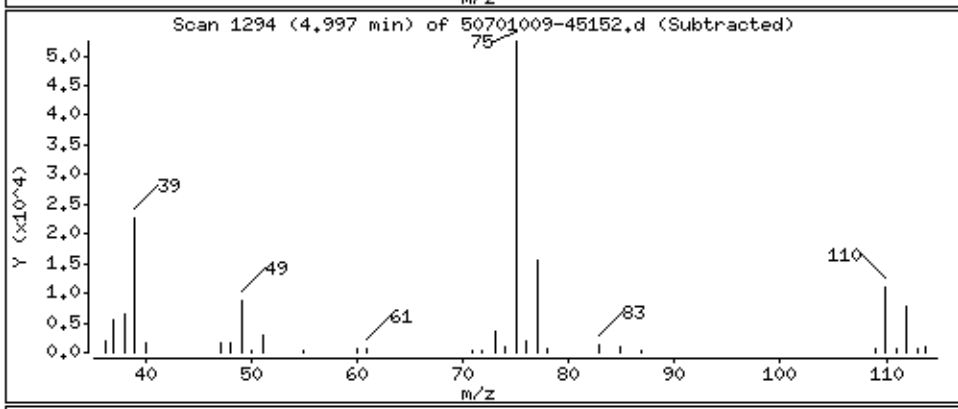
Column phase: RTX-VMS

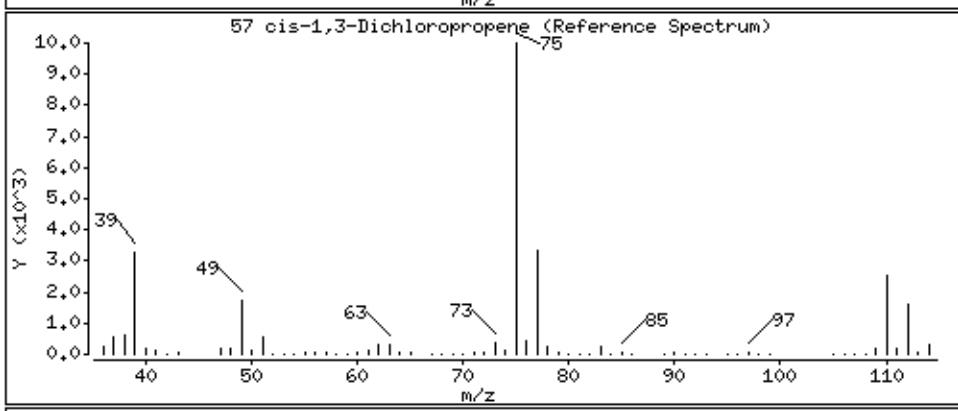
Column diameter: 0.18

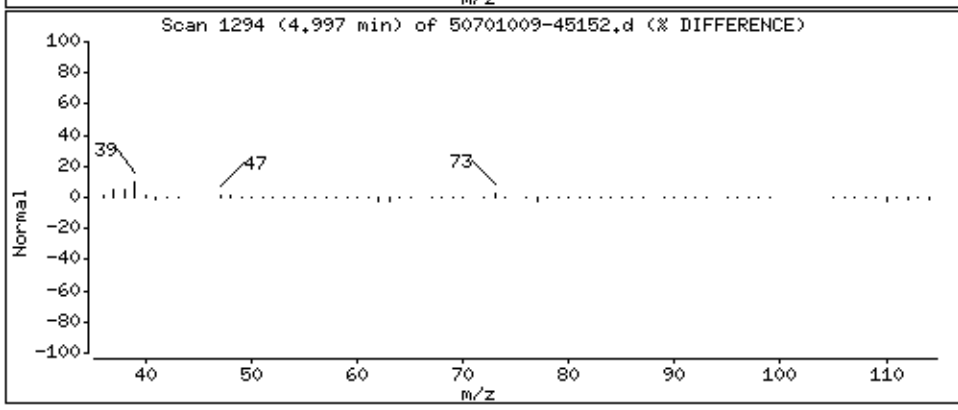
57 cis-1,3-Dichloropropene

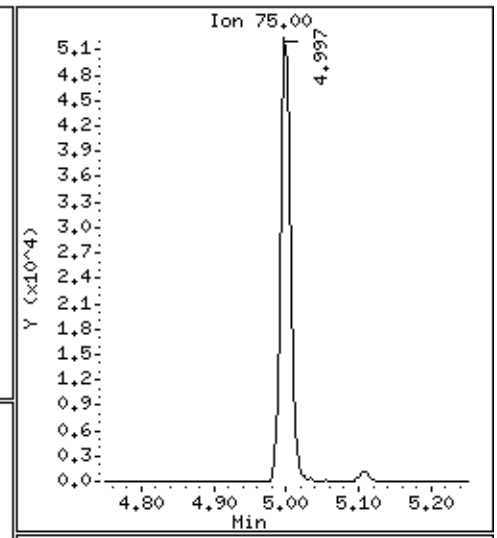
Concentration: 18.4 ug/L

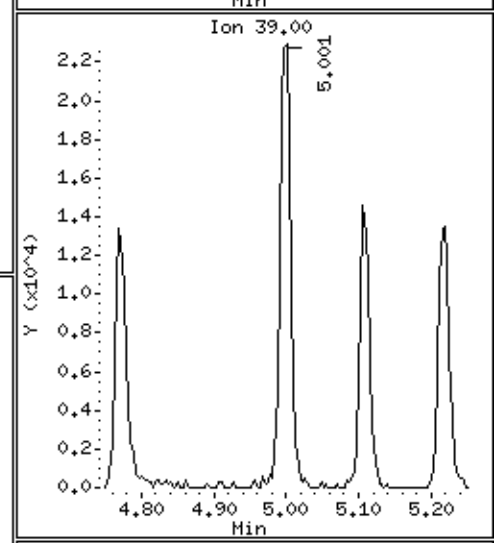


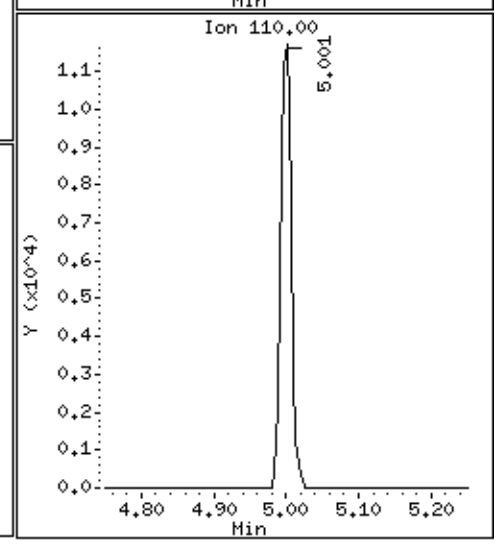












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

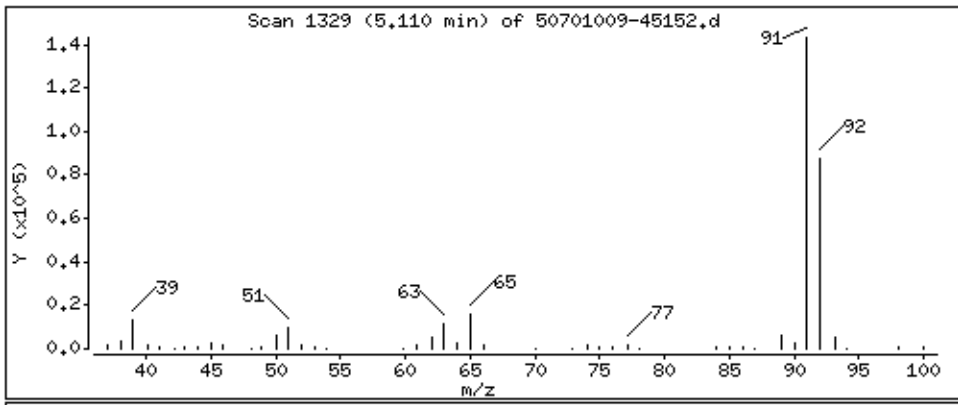
Operator: JEW

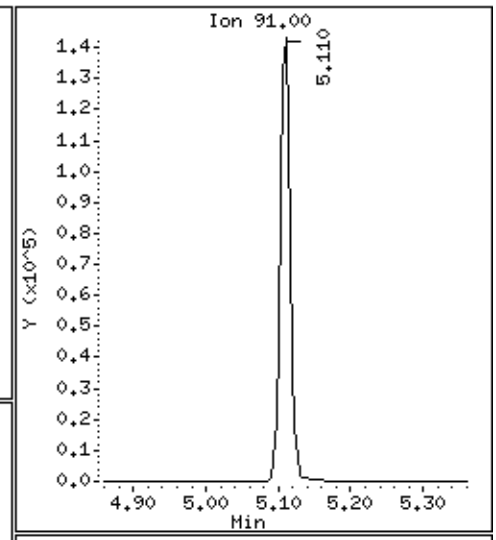
Column phase: RTX-VMS

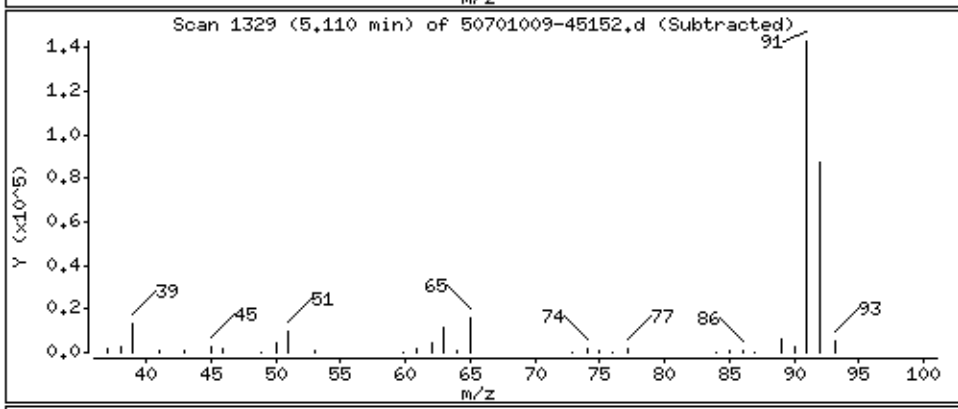
Column diameter: 0.18

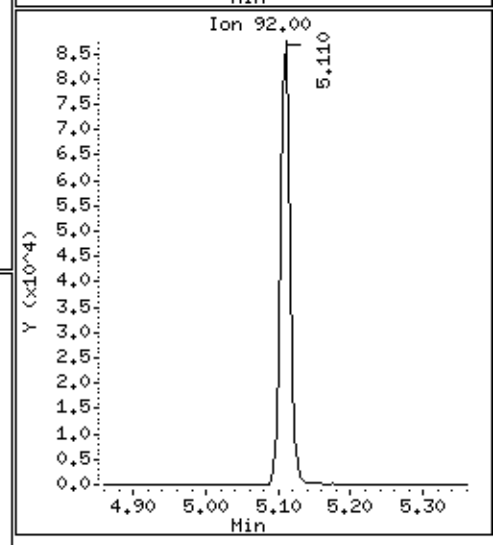
59 Toluene

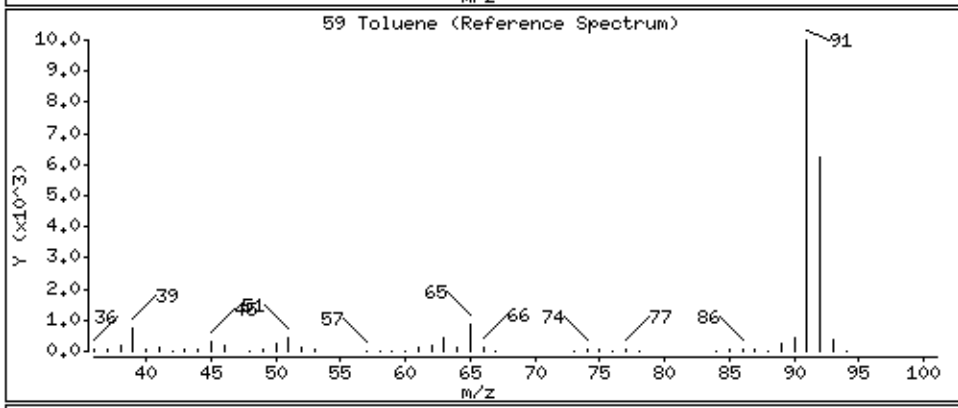
Concentration: 19.0 ug/L

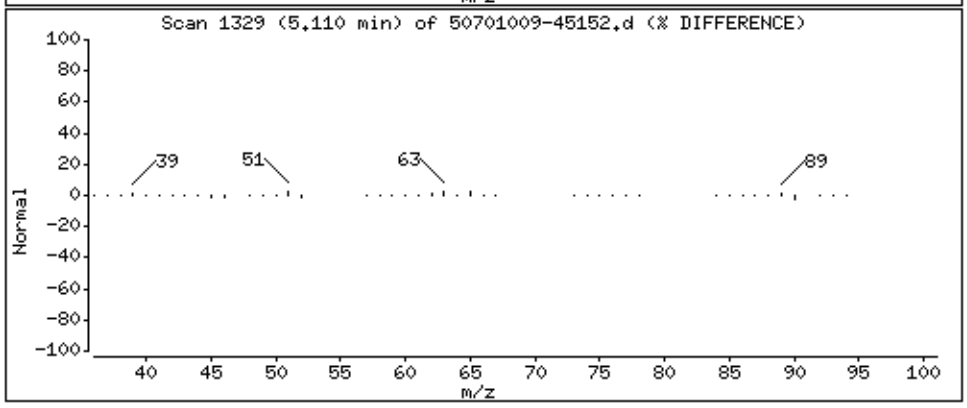












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

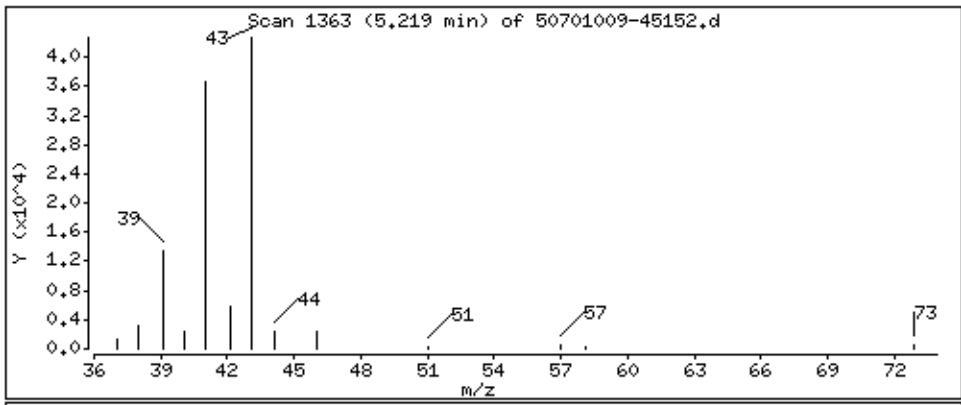
Operator: JEW

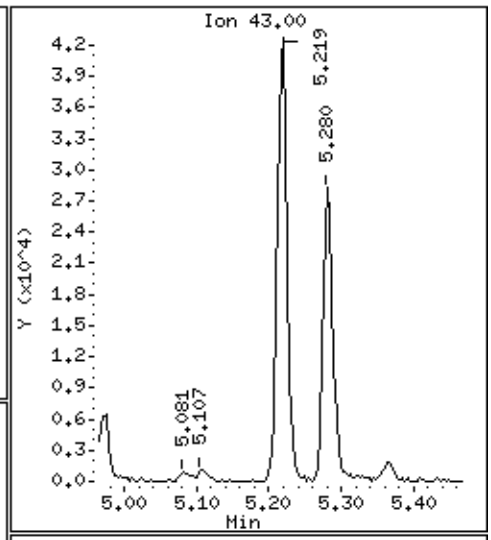
Column phase: RTX-VMS

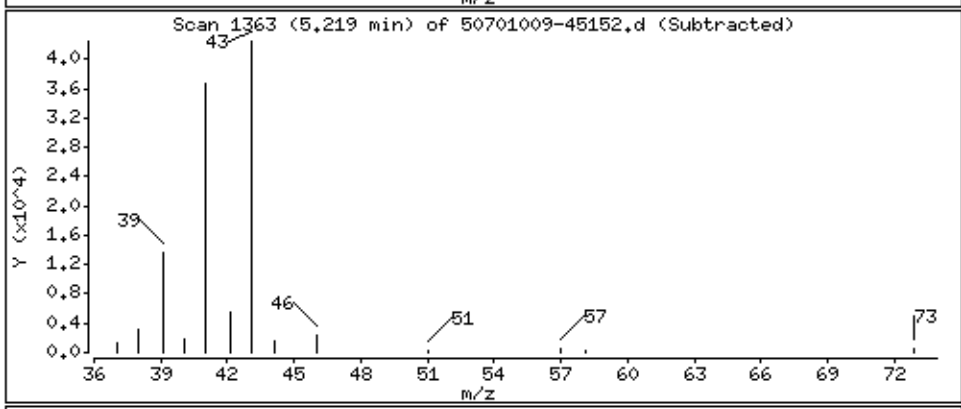
Column diameter: 0.18

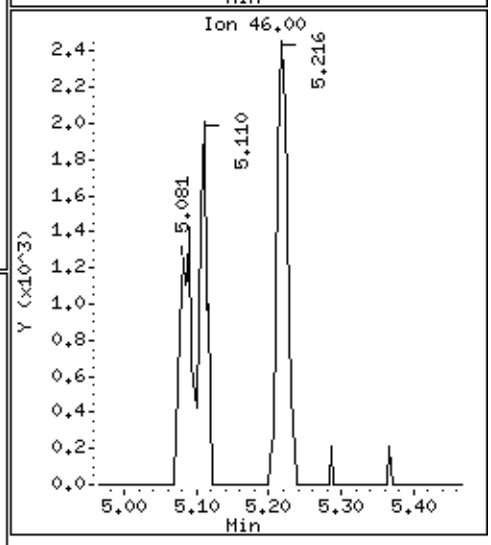
60 2-Nitropropane

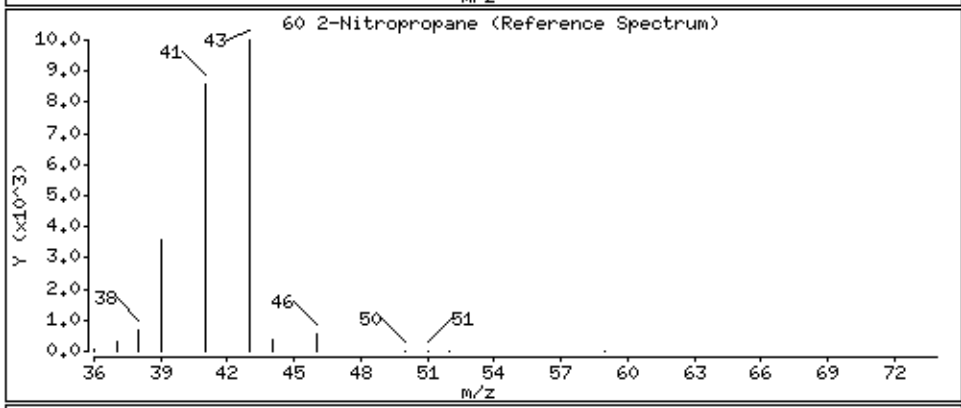
Concentration: 76.1 ug/L

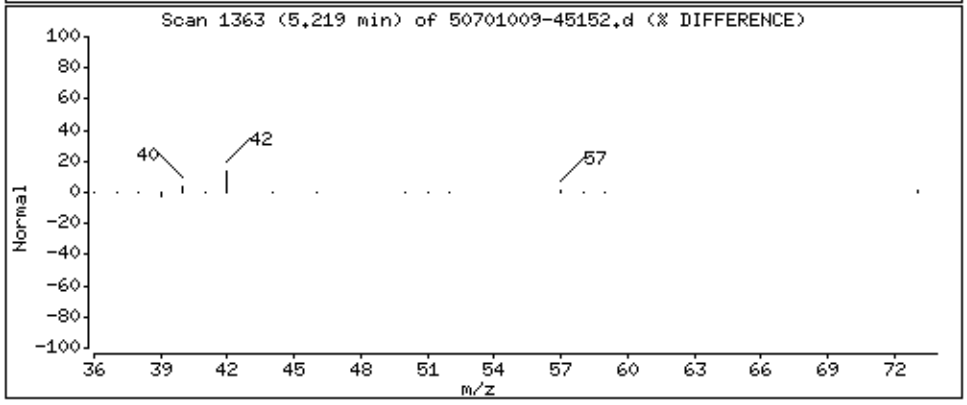












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

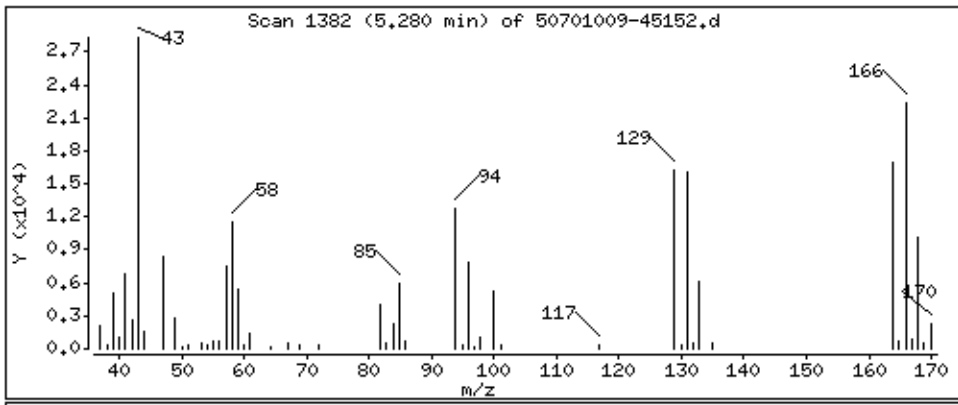
Operator: JEW

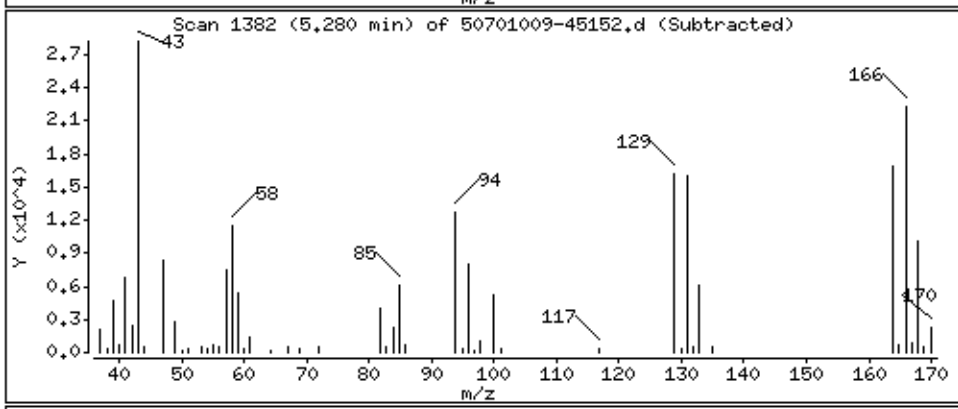
Column phase: RTX-VMS

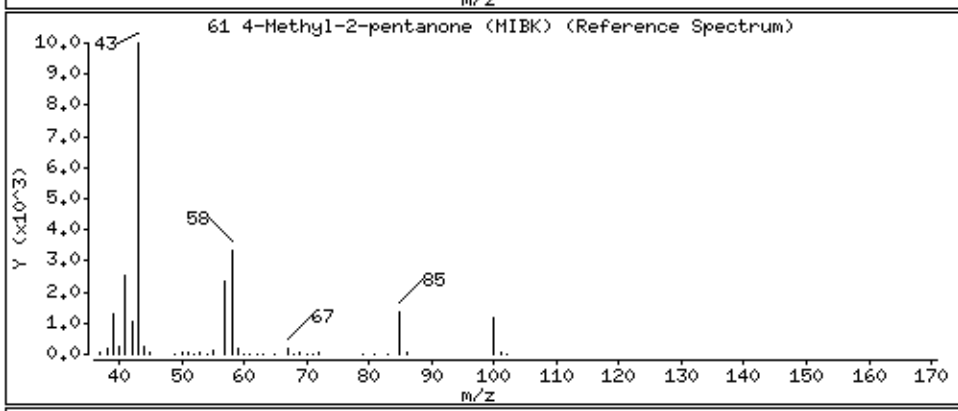
Column diameter: 0.18

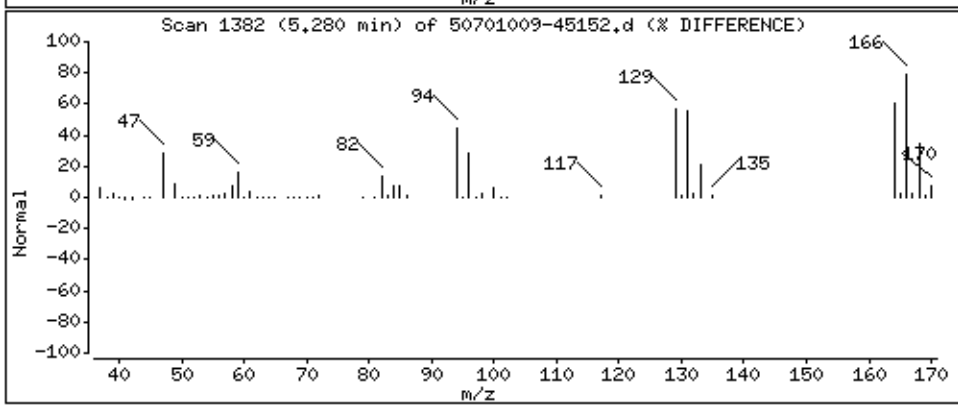
61 4-Methyl-2-pentanone (MIBK)

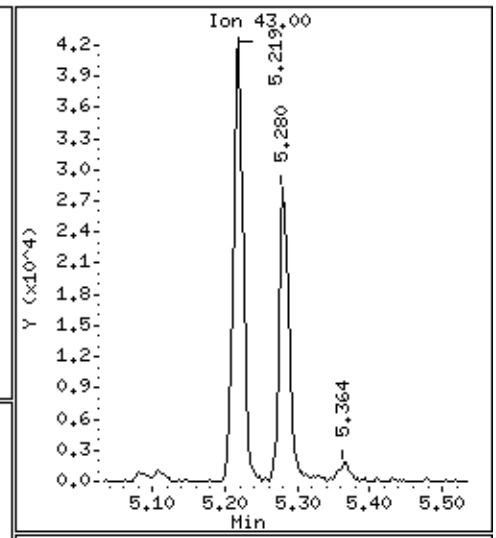
Concentration: 17.2 ug/L

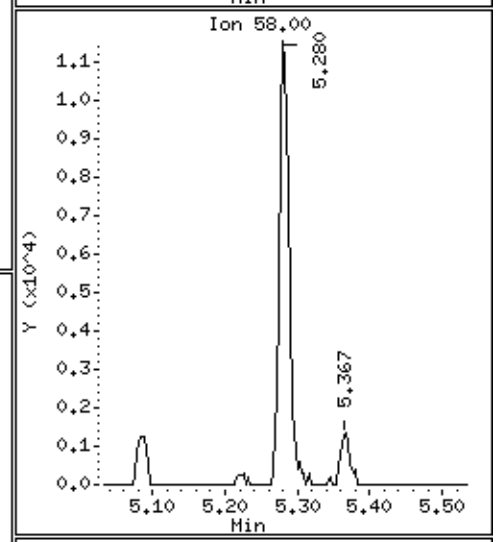


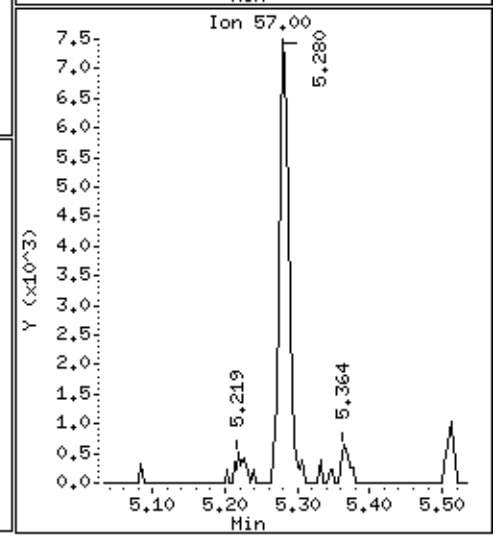












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

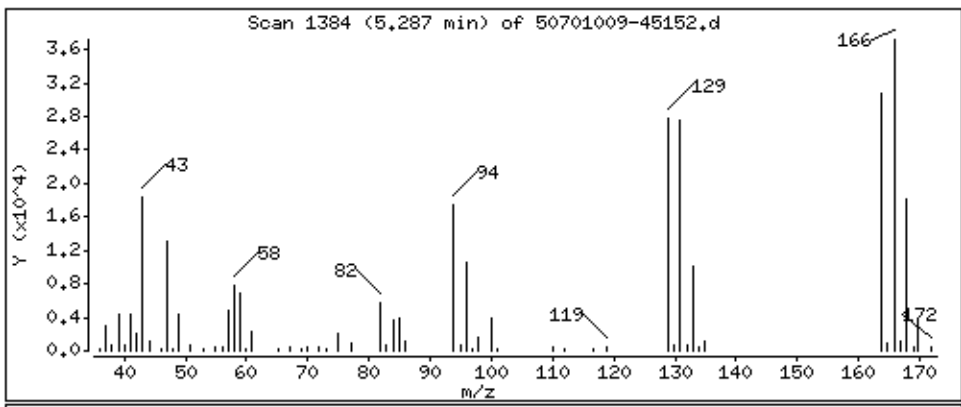
Operator: JEW

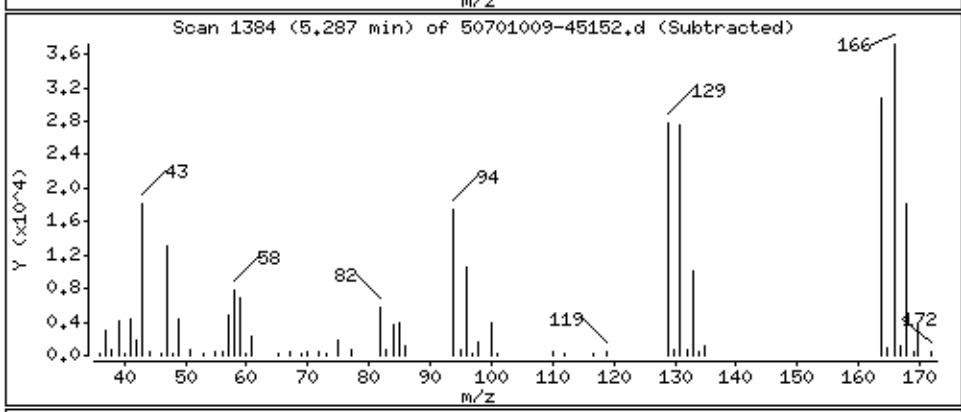
Column phase: RTX-VMS

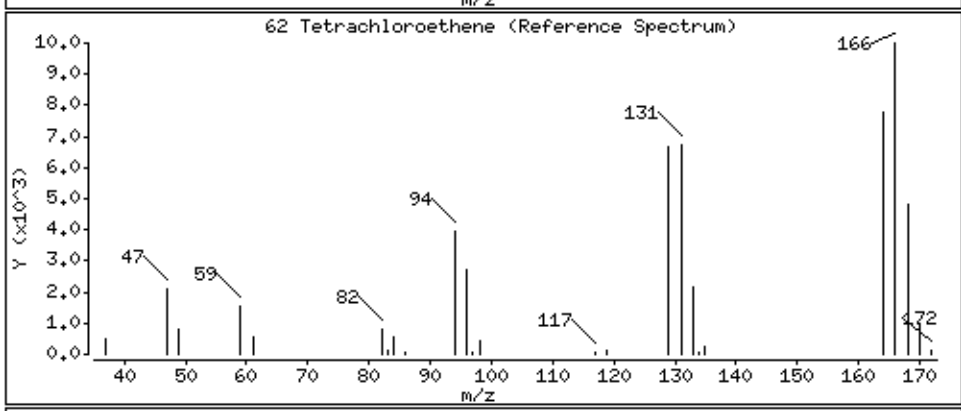
Column diameter: 0.18

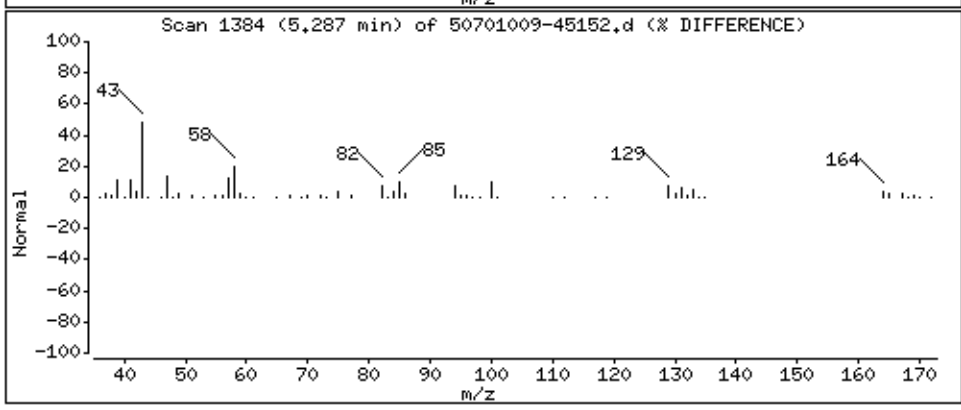
62 Tetrachloroethene

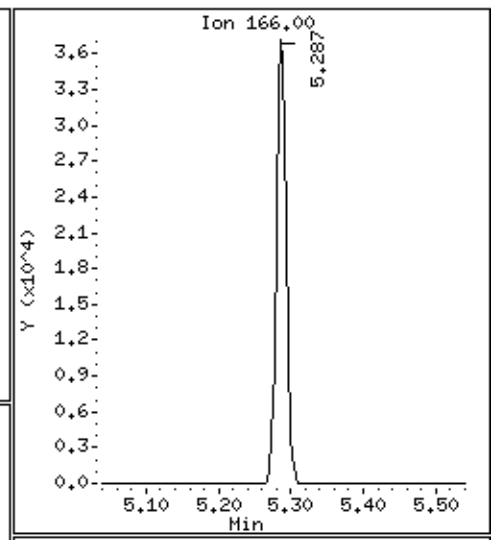
Concentration: 19.6 ug/L

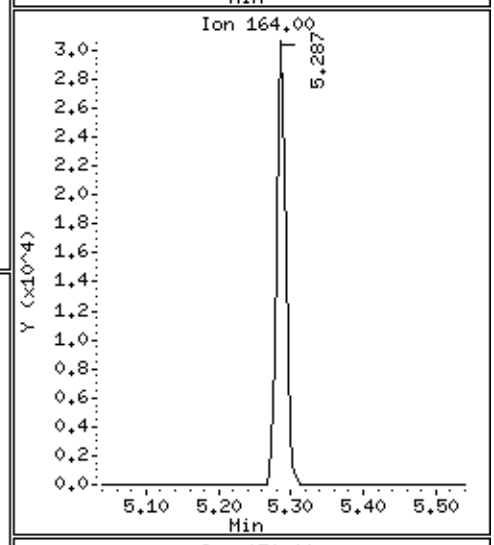


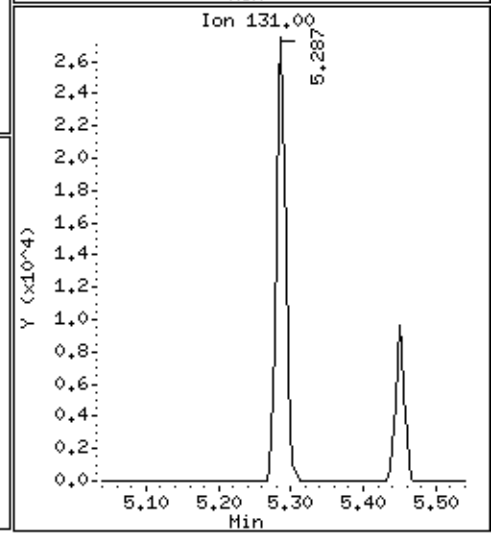












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

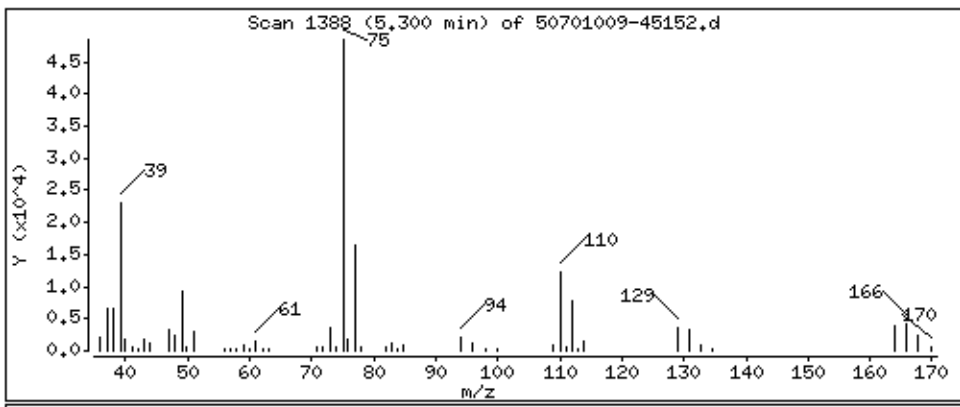
Operator: JEW

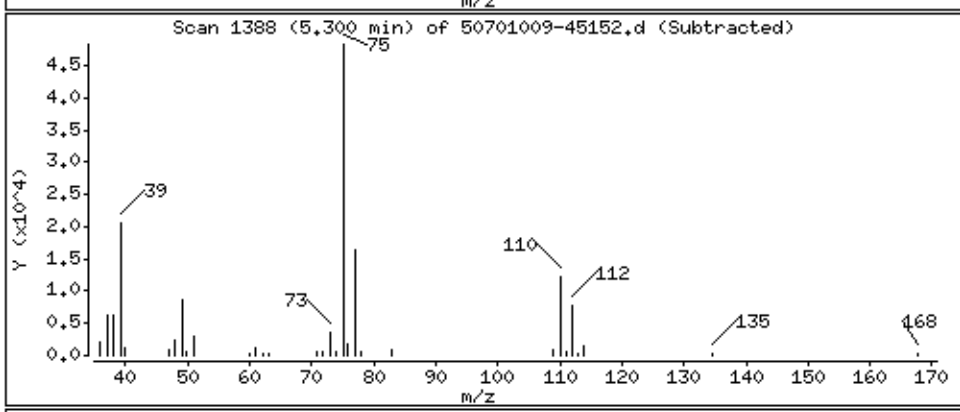
Column phase: RTX-VMS

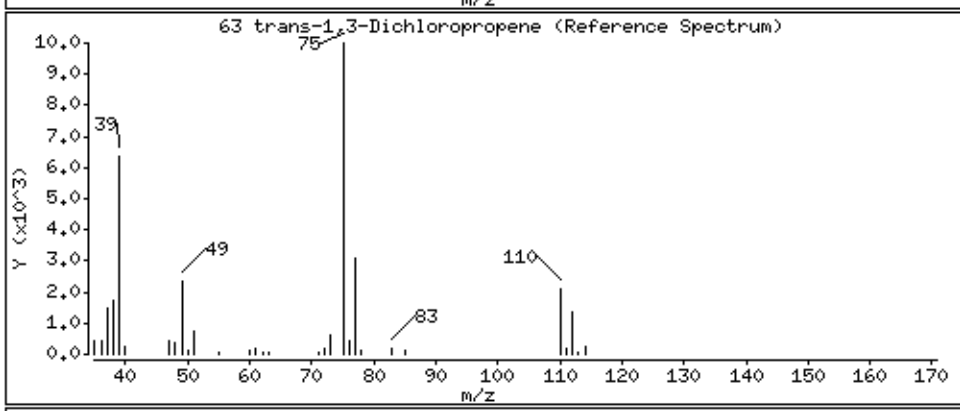
Column diameter: 0.18

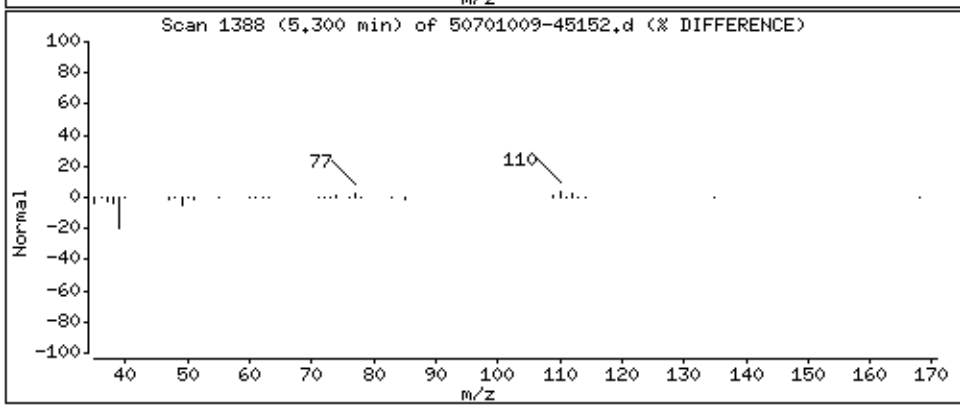
63 trans-1,3-Dichloropropene

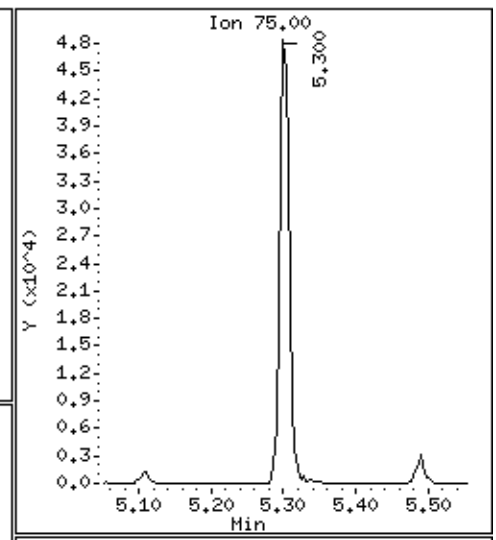
Concentration: 16.4 ug/L

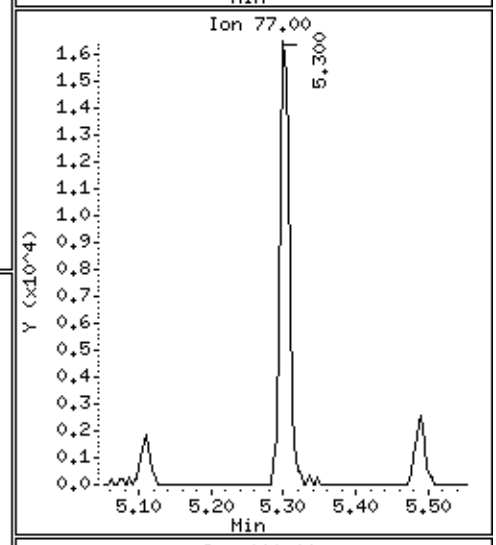


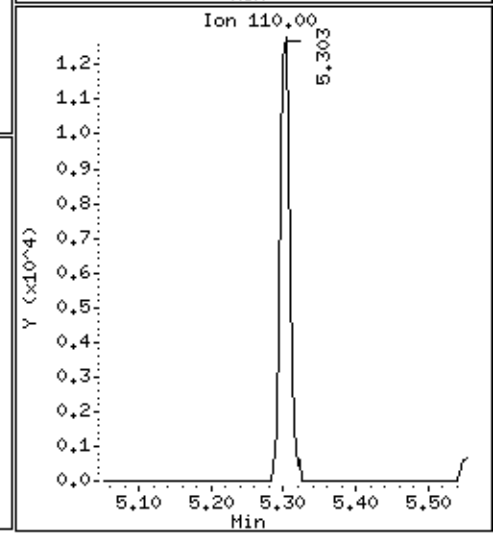












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

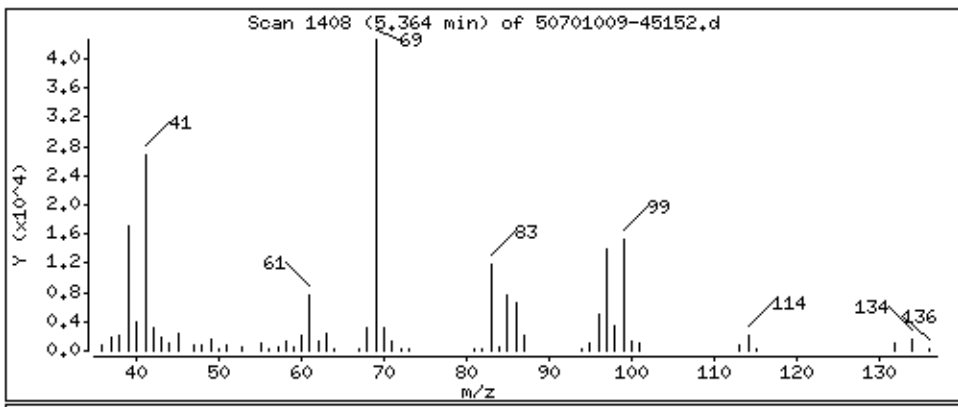
Operator: JEW

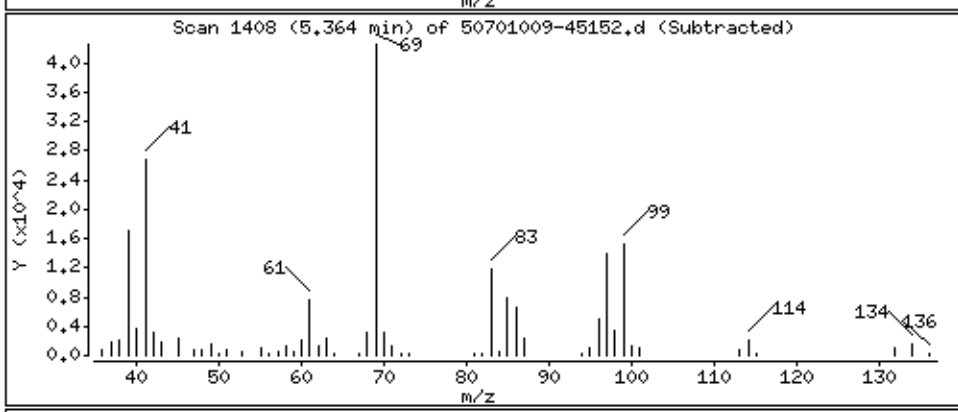
Column phase: RTX-VMS

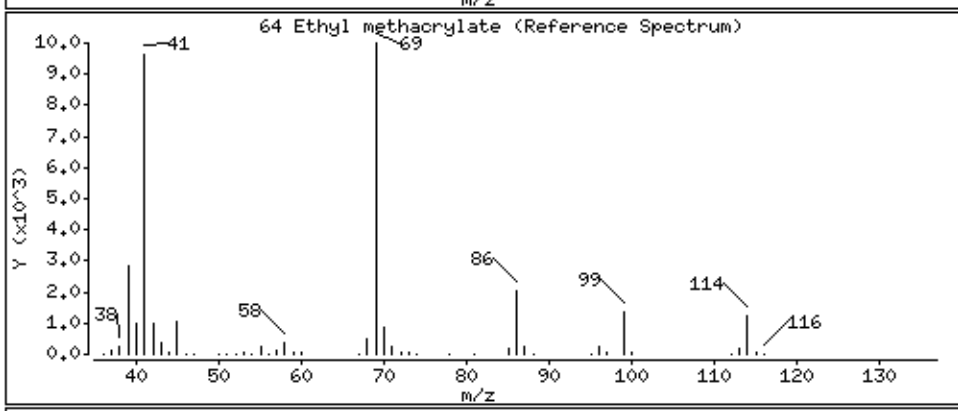
Column diameter: 0.18

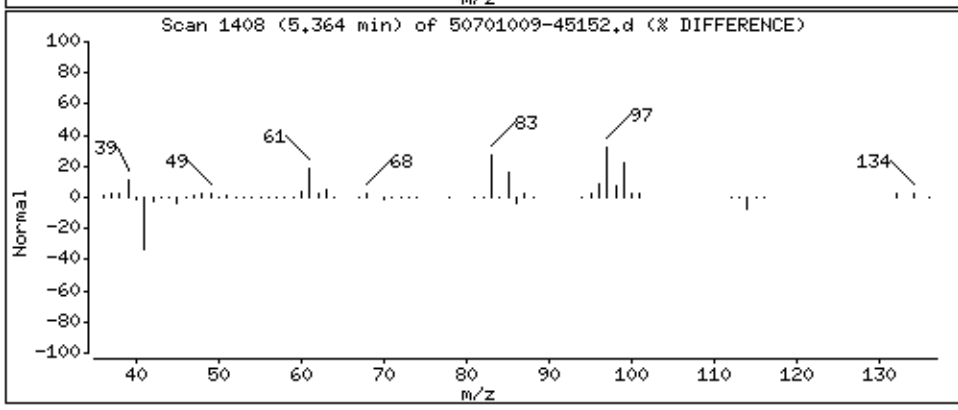
64 Ethyl methacrylate

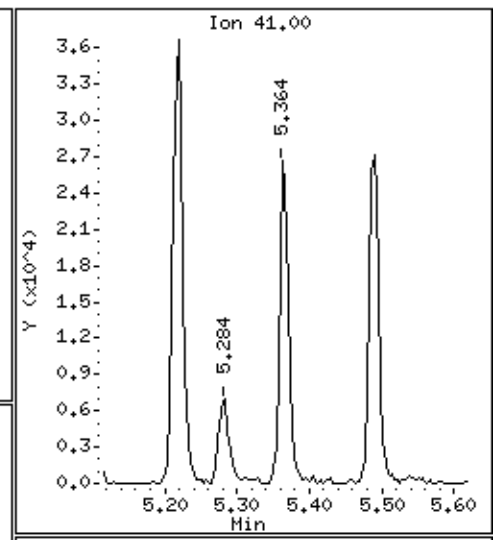
Concentration: 16.2 ug/L

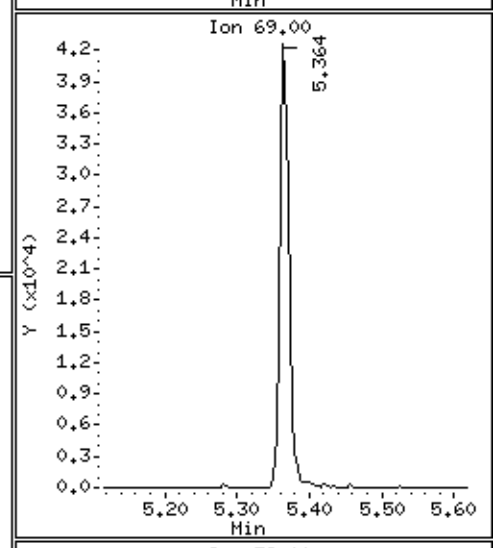


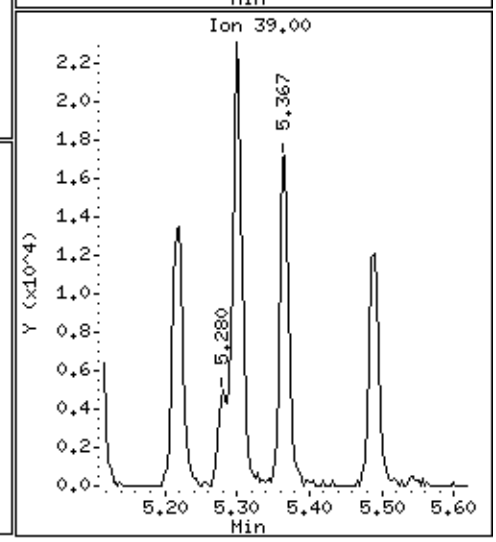












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

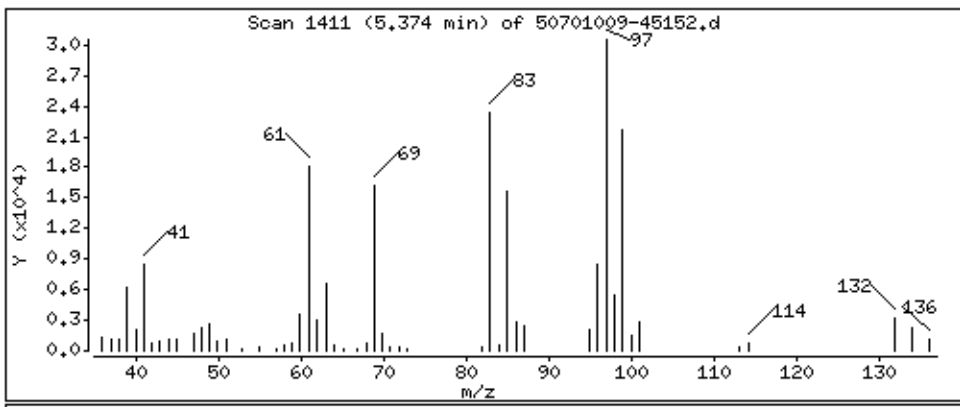
Operator: JEW

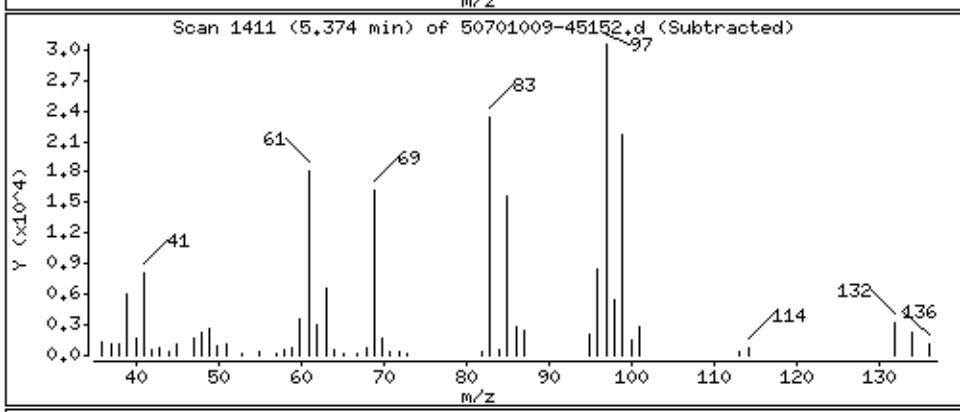
Column phase: RTX-VMS

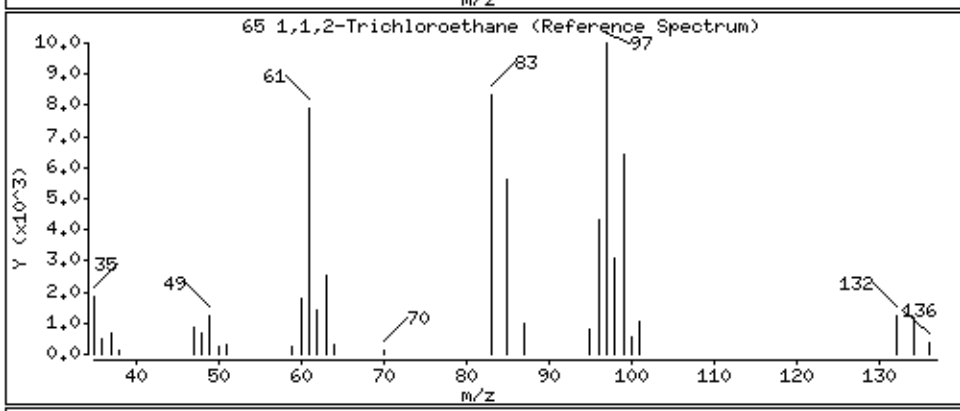
Column diameter: 0.18

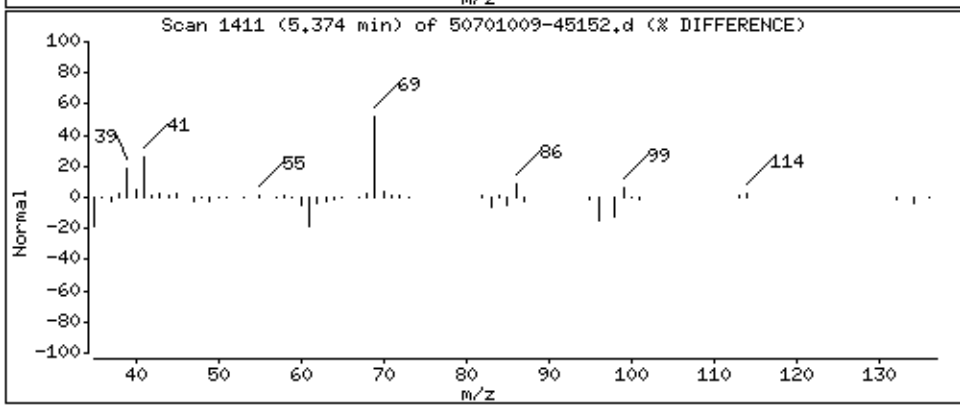
65 1,1,2-Trichloroethane

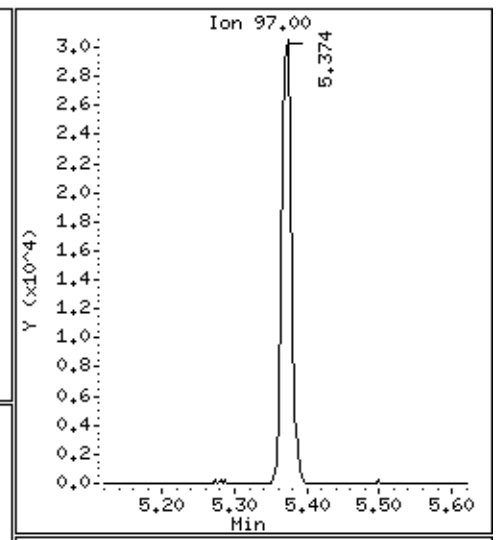
Concentration: 17.8 ug/L

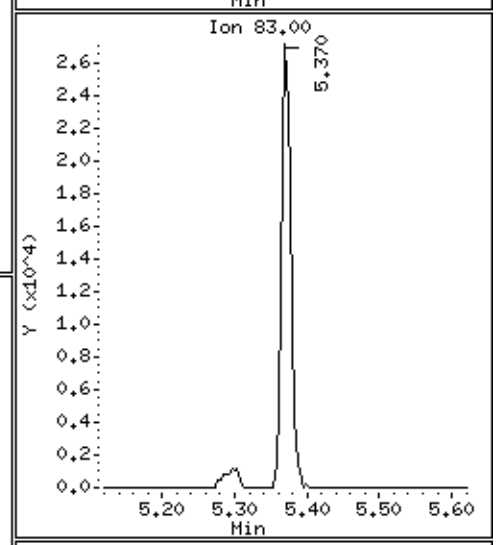


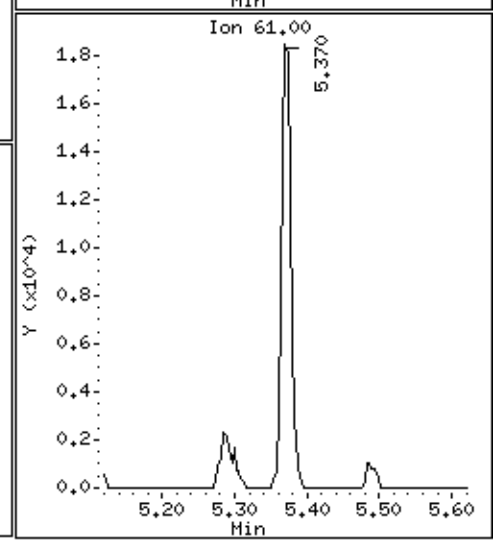












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

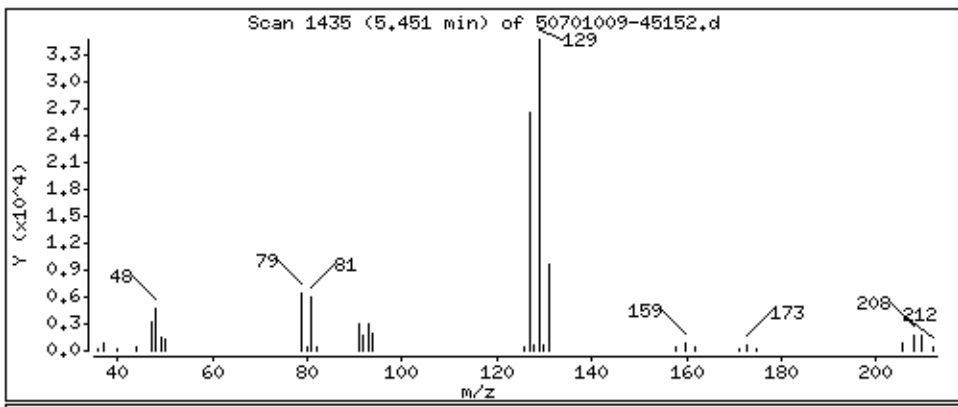
Operator: JEW

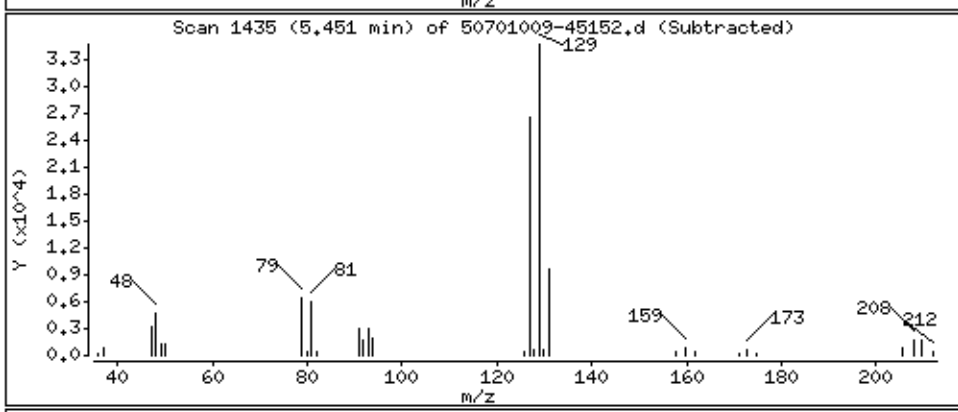
Column phase: RTX-VMS

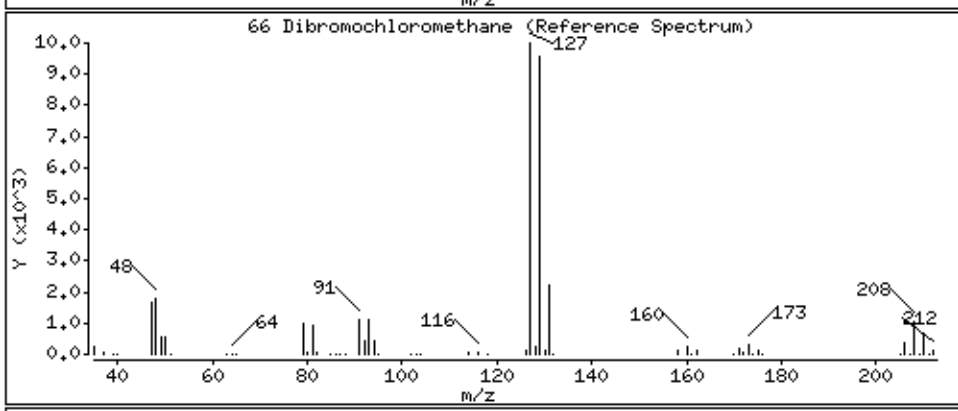
Column diameter: 0.18

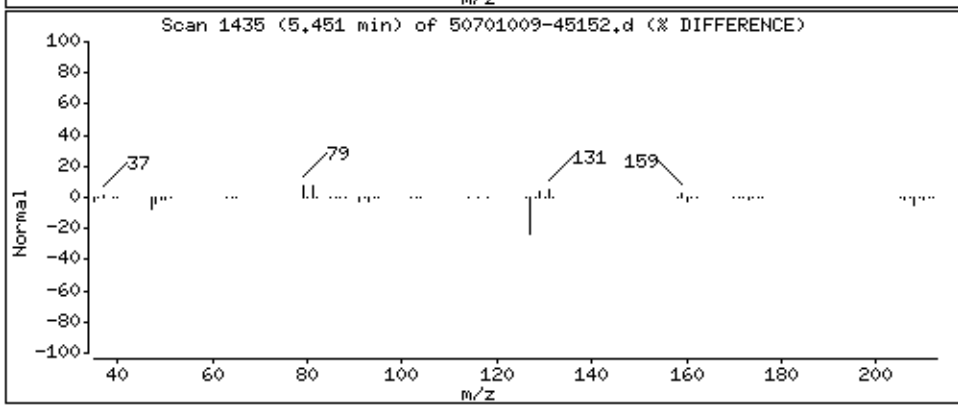
66 Dibromochloromethane

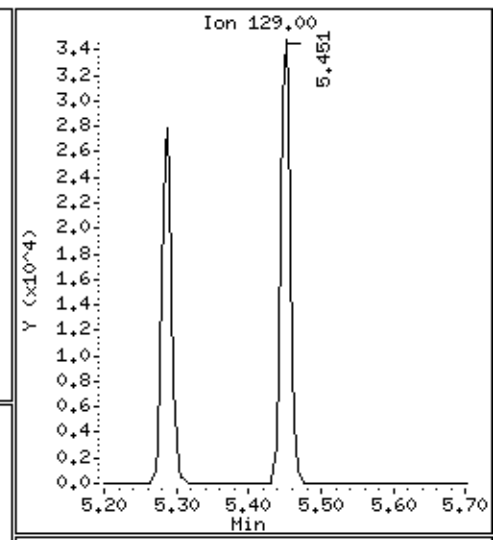
Concentration: 17.2 ug/L

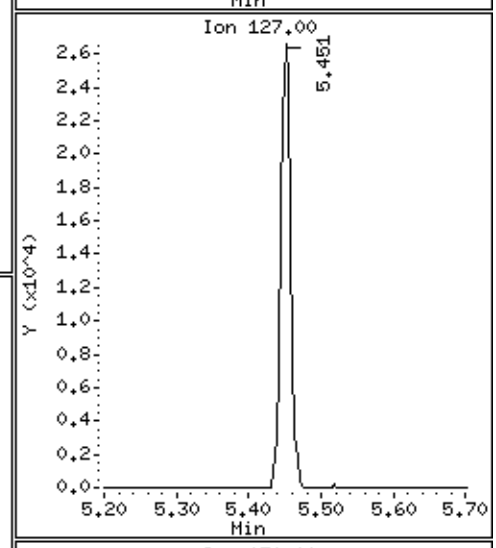


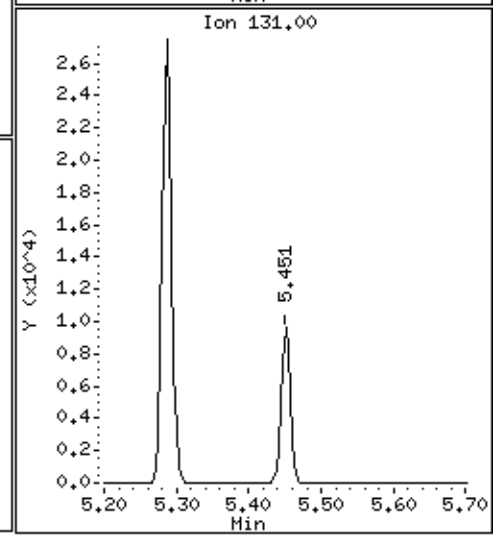












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

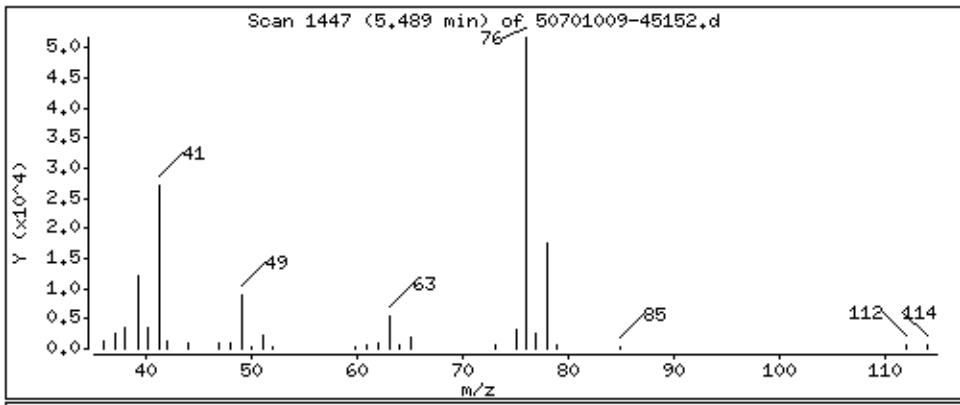
Operator: JEW

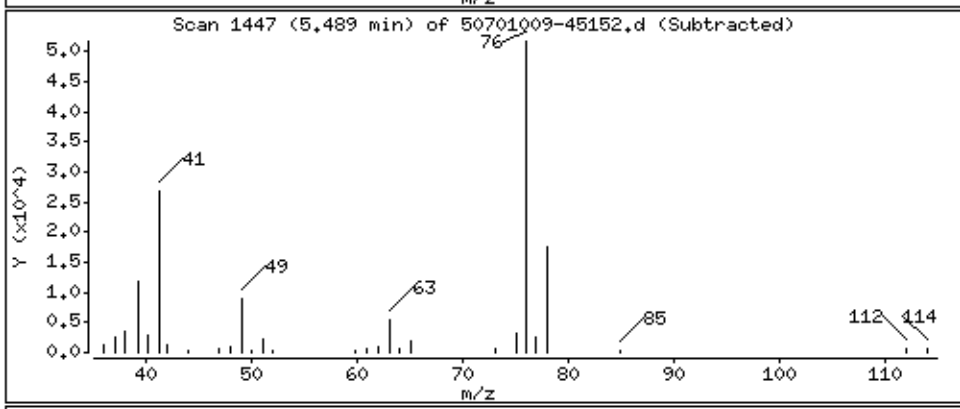
Column phase: RTX-VMS

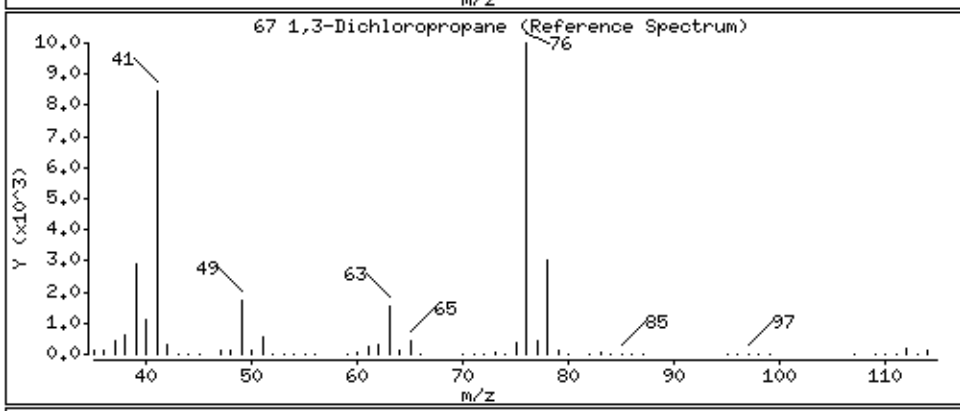
Column diameter: 0.18

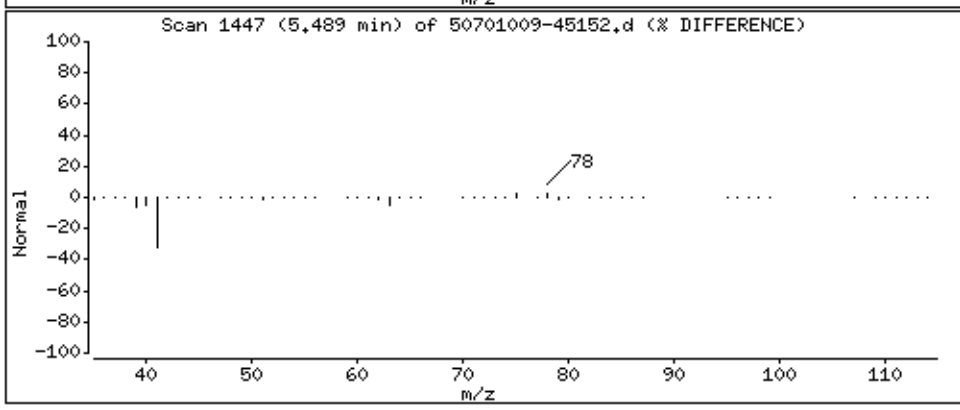
67 1,3-Dichloropropane

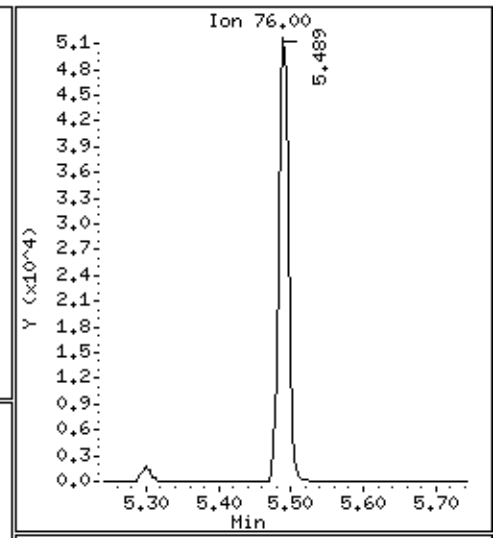
Concentration: 18.6 ug/L

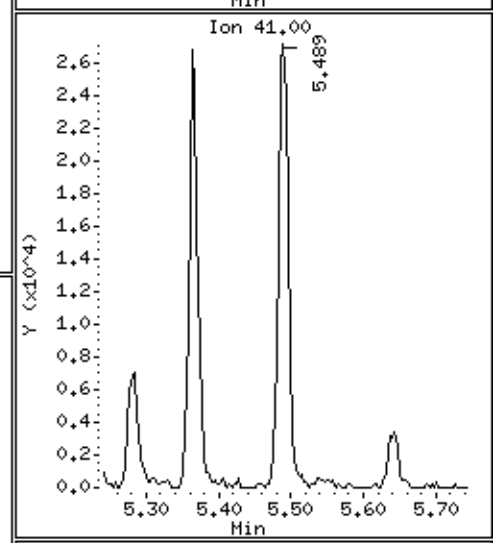


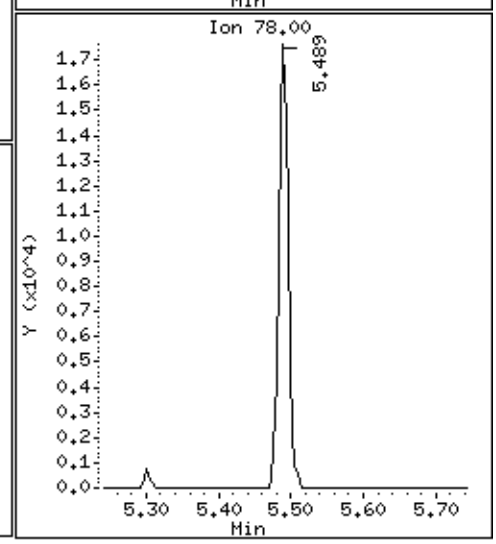












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

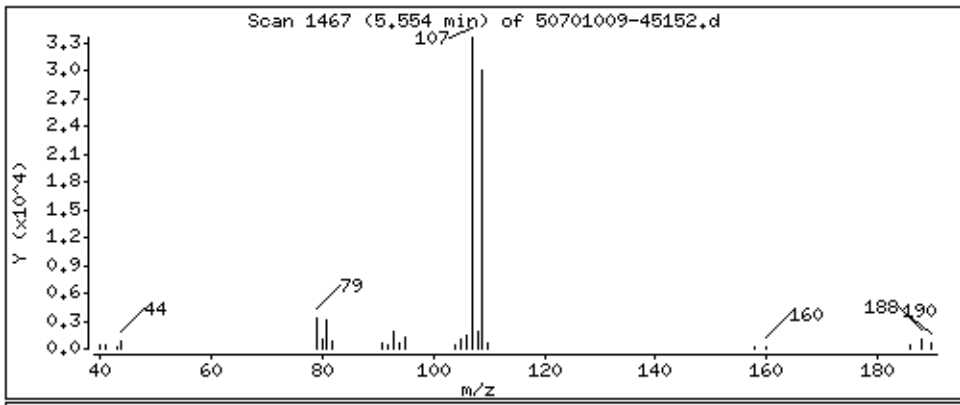
Operator: JEW

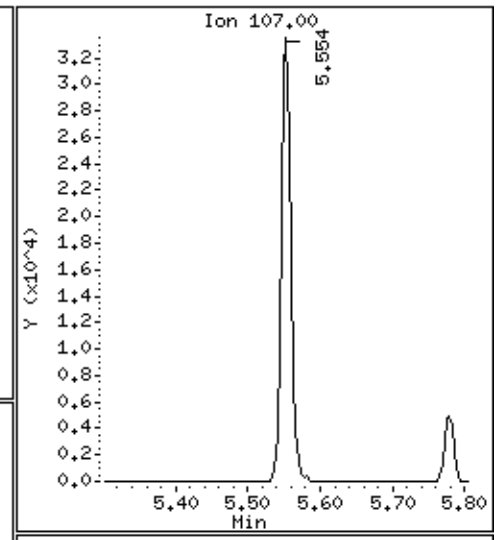
Column phase: RTX-VMS

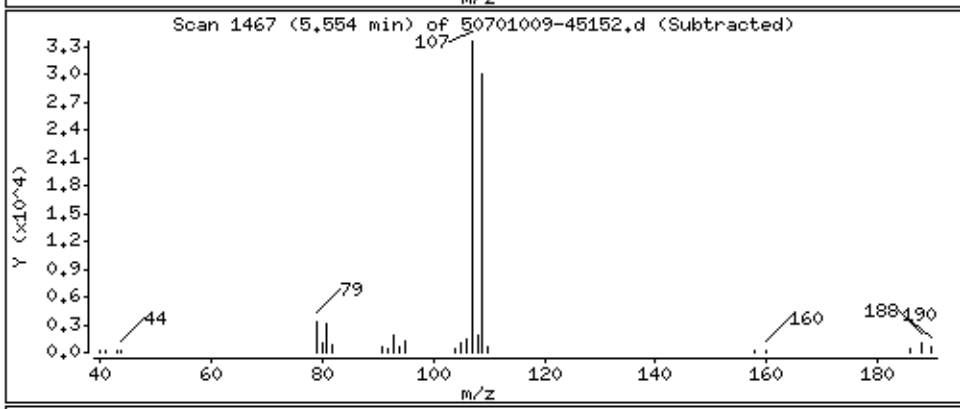
Column diameter: 0.18

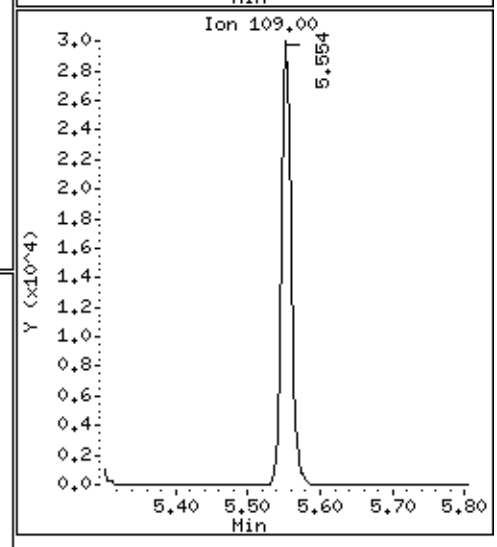
68 1,2-Dibromoethane (EDB)

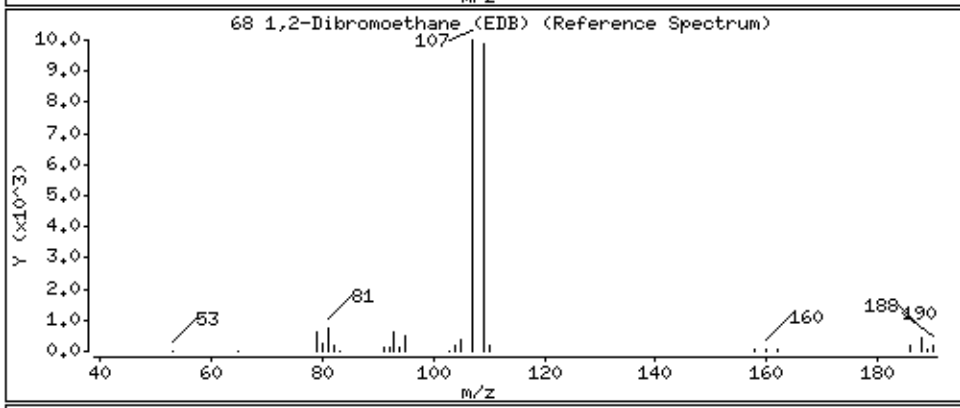
Concentration: 19.3 ug/L

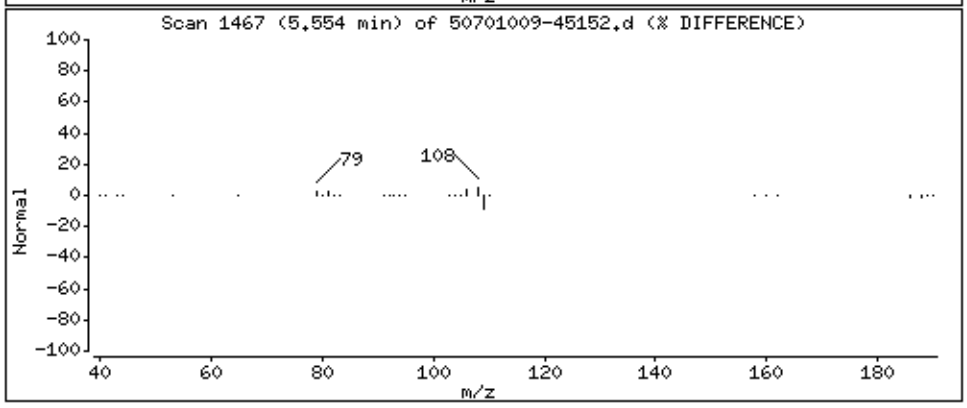












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

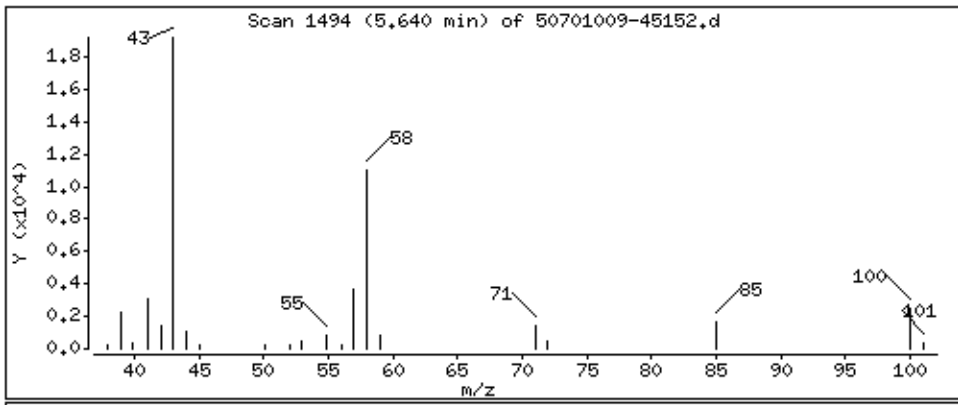
Operator: JEW

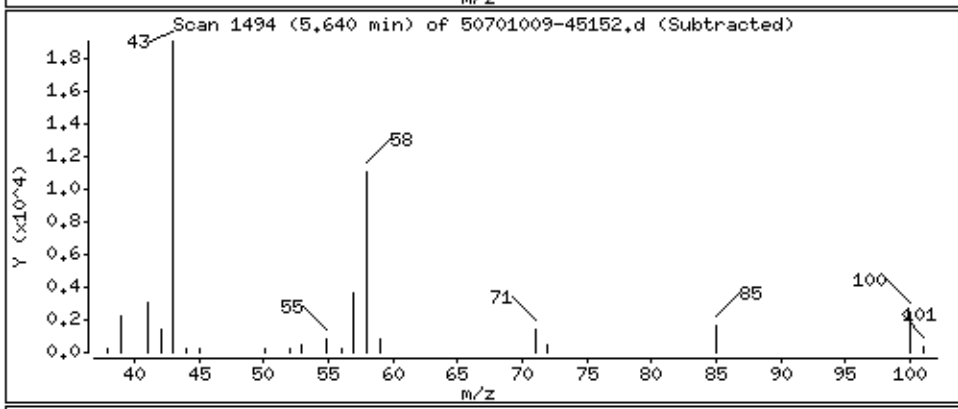
Column phase: RTX-VMS

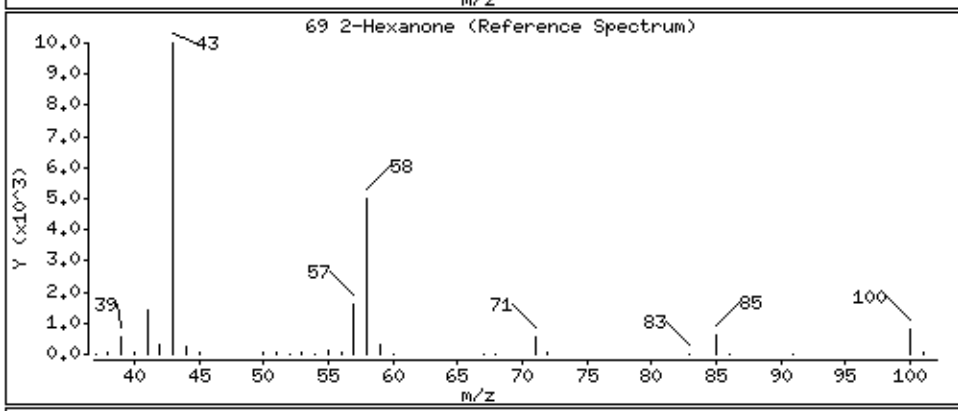
Column diameter: 0.18

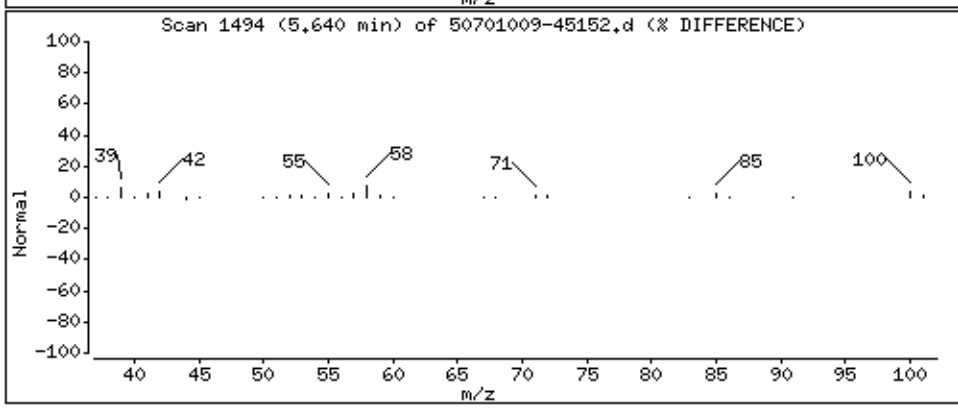
69 2-Hexanone

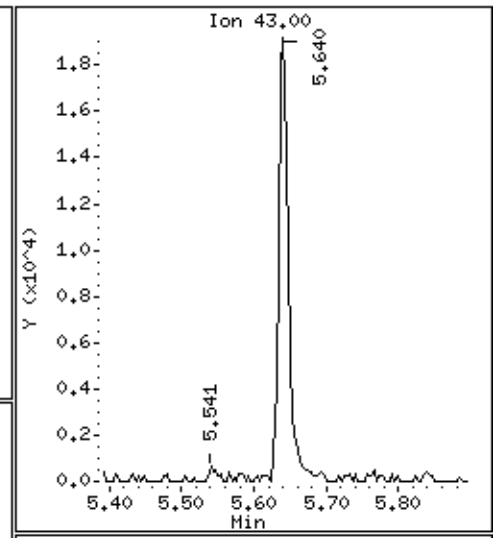
Concentration: 15.3 ug/L

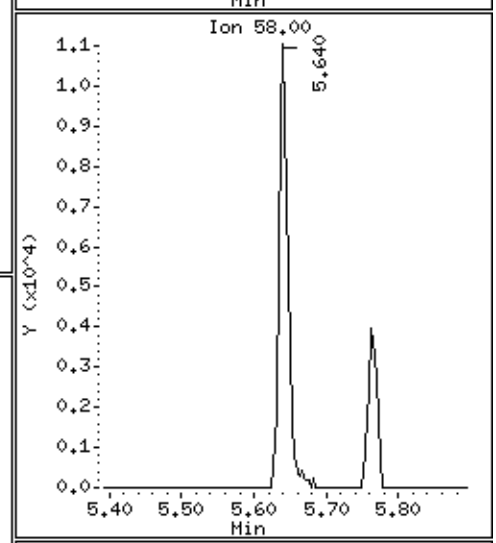


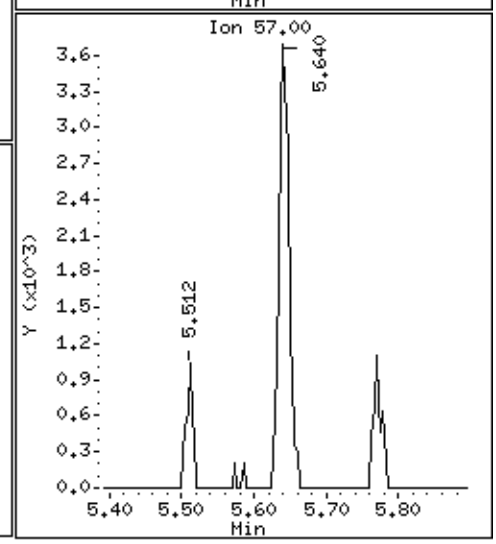












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

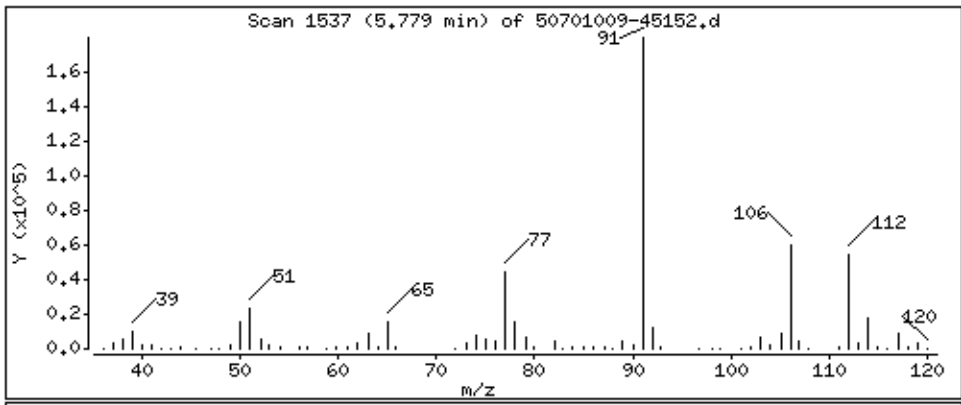
Operator: JEW

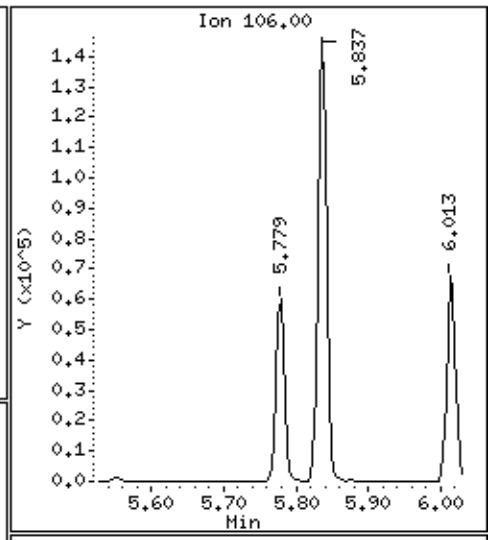
Column phase: RTX-VMS

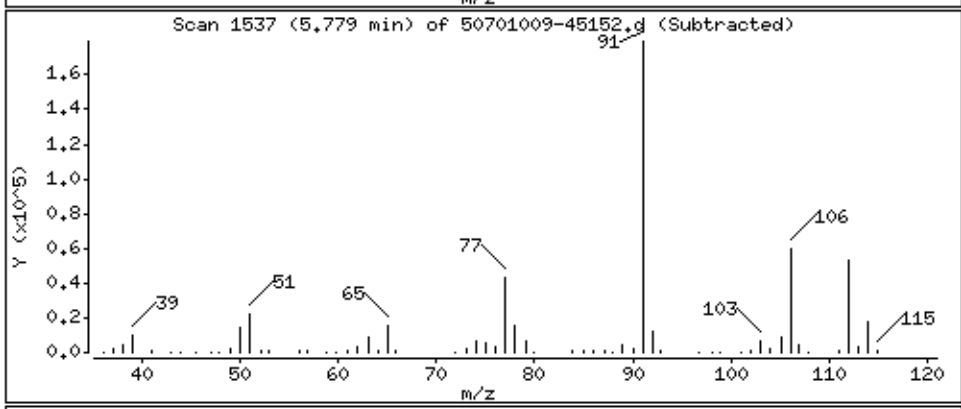
Column diameter: 0.18

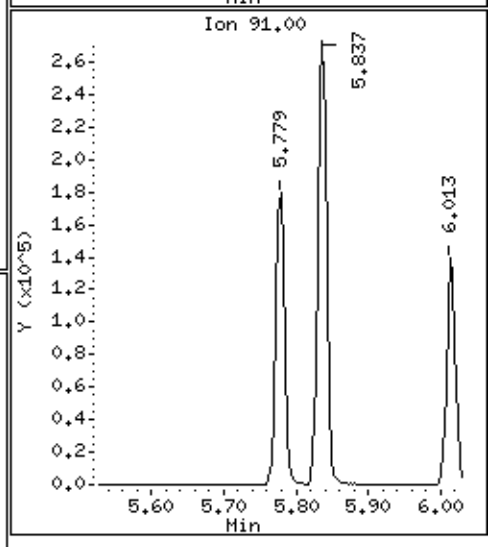
70 Ethylbenzene

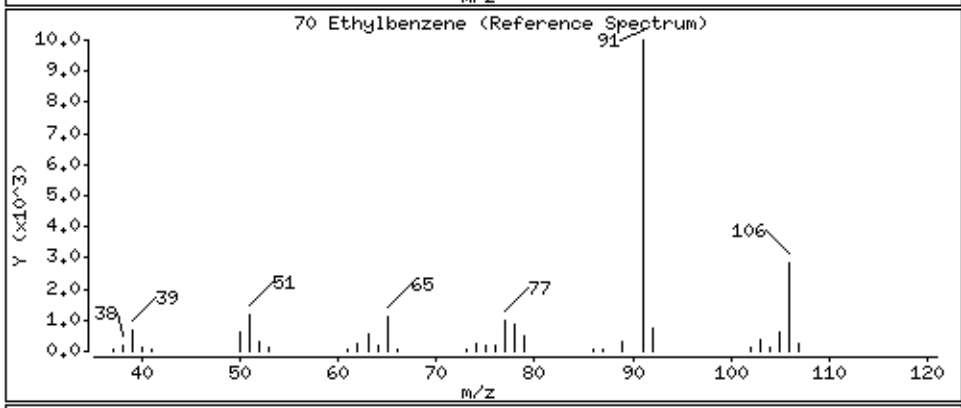
Concentration: 19.6 ug/L

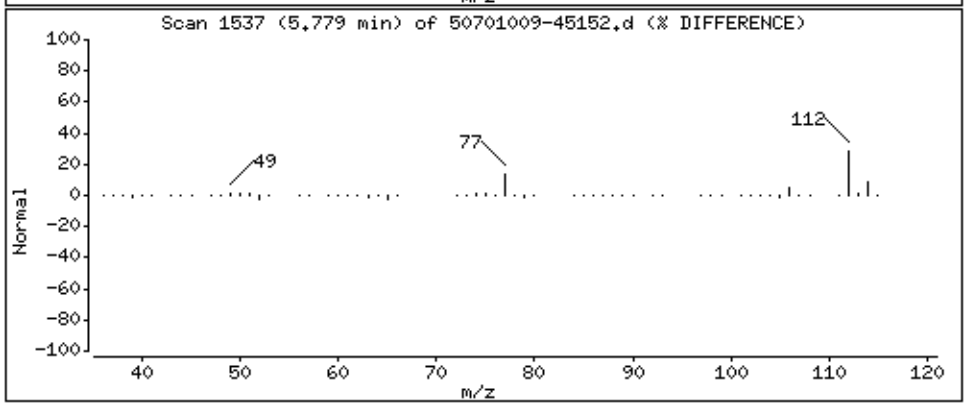












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

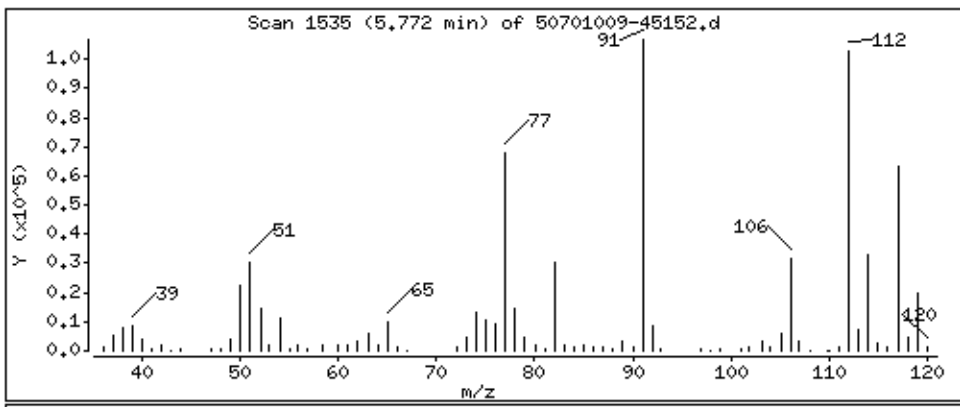
Operator: JEW

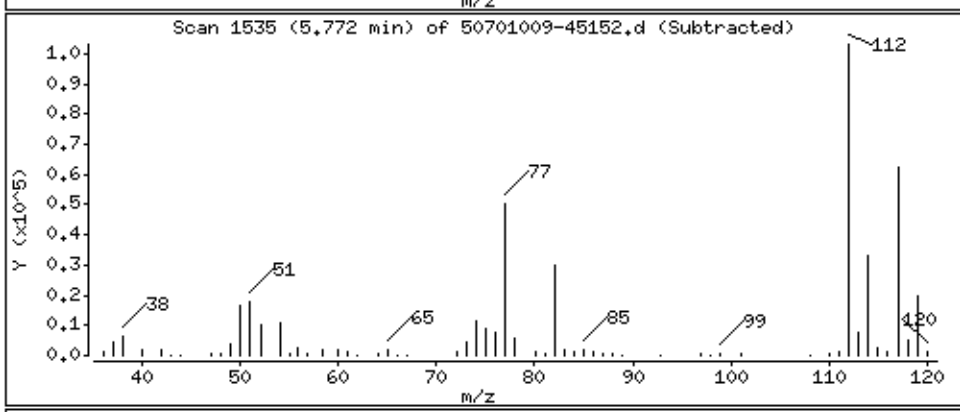
Column phase: RTX-VMS

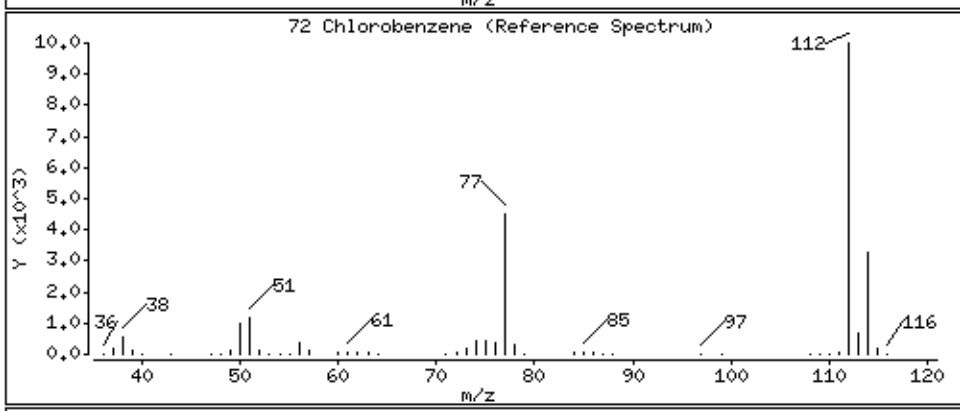
Column diameter: 0.18

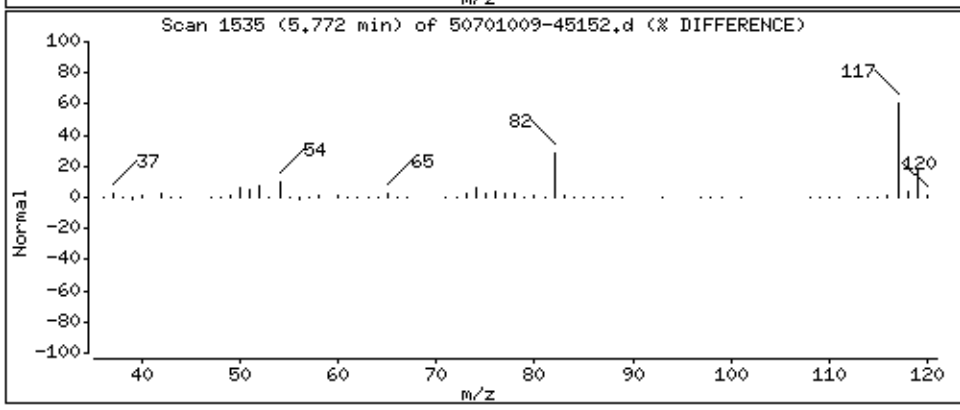
72 Chlorobenzene

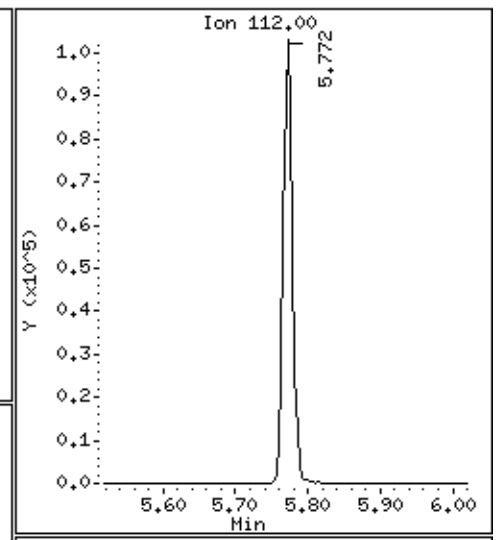
Concentration: 19.4 ug/L

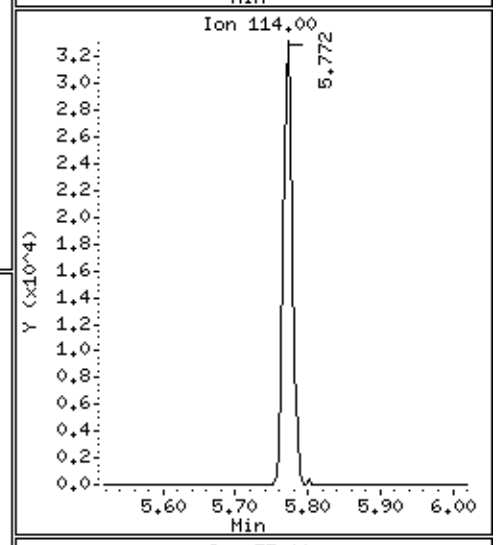


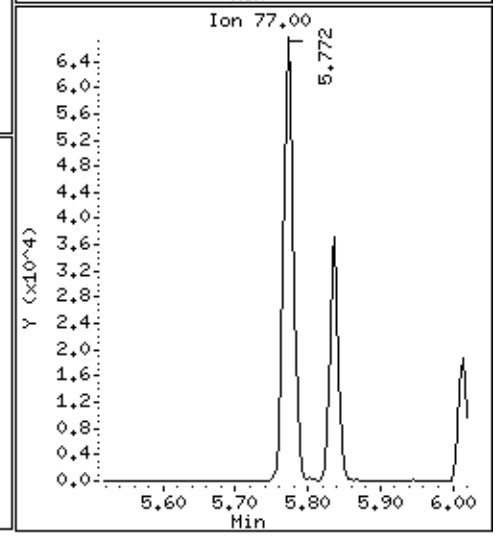












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

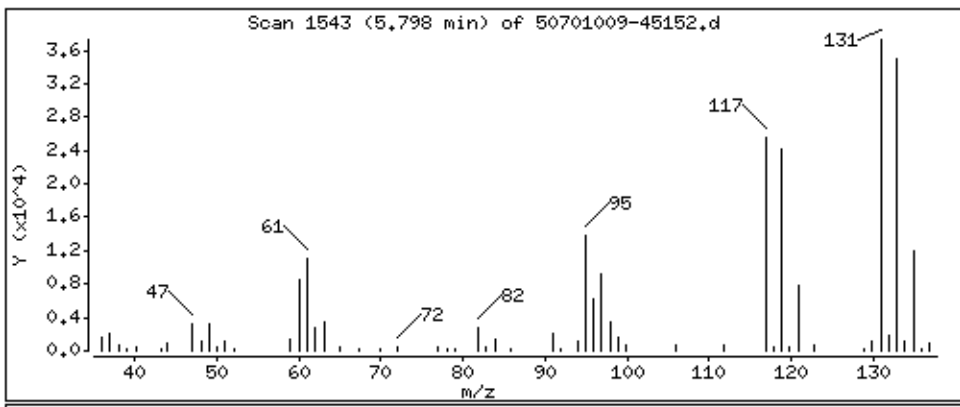
Operator: JEW

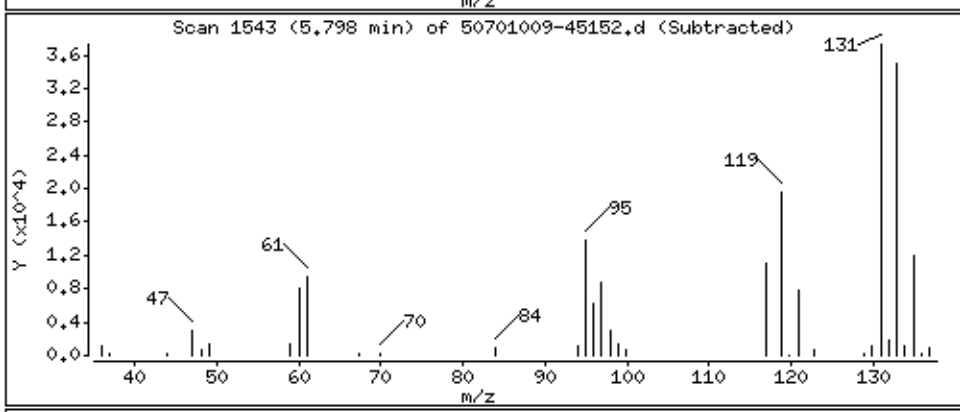
Column phase: RTX-VMS

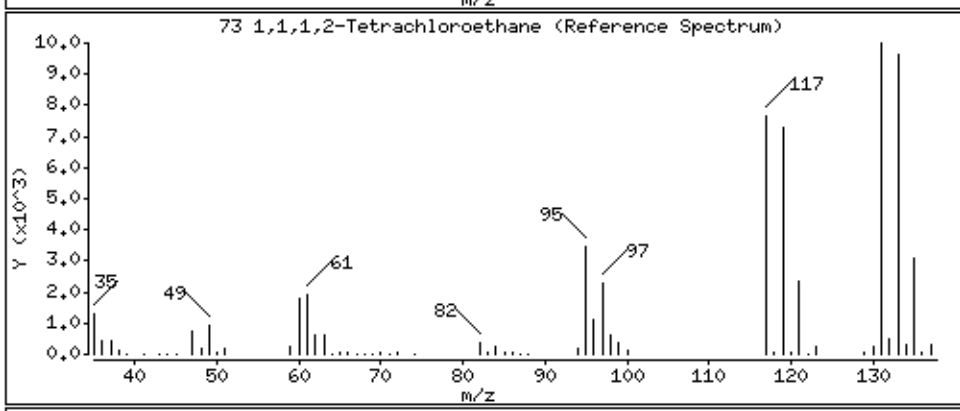
Column diameter: 0.18

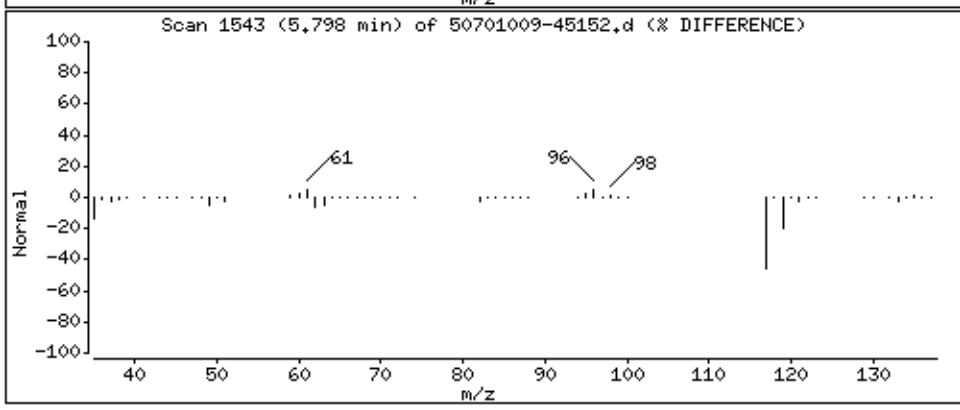
73 1,1,1,2-Tetrachloroethane

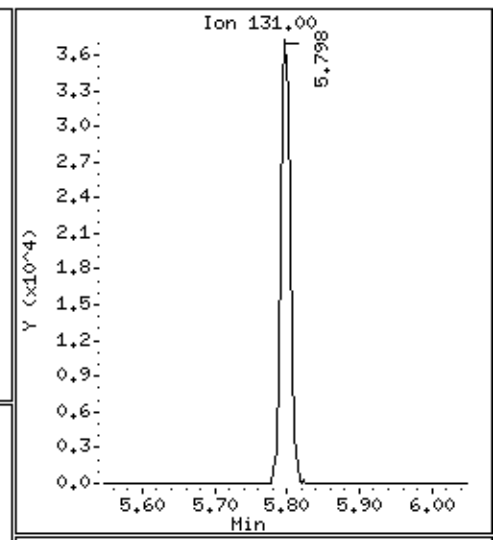
Concentration: 18.9 ug/L

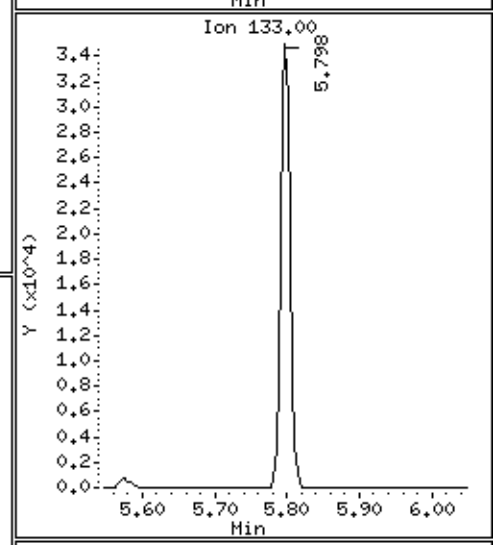


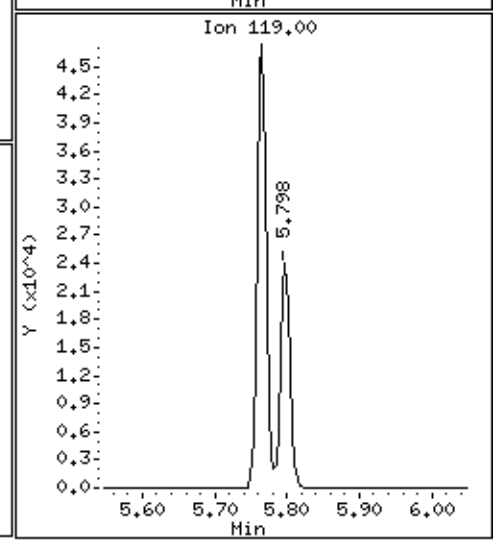












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

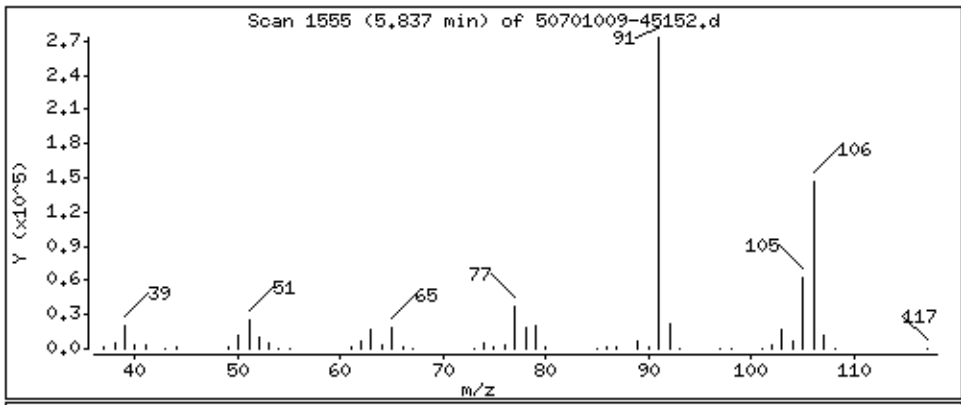
Operator: JEW

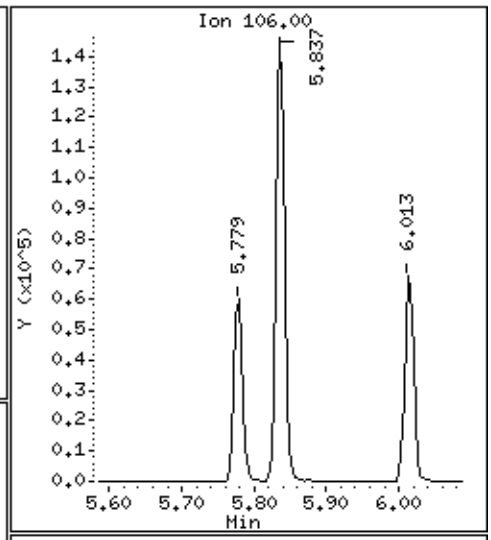
Column phase: RTX-VMS

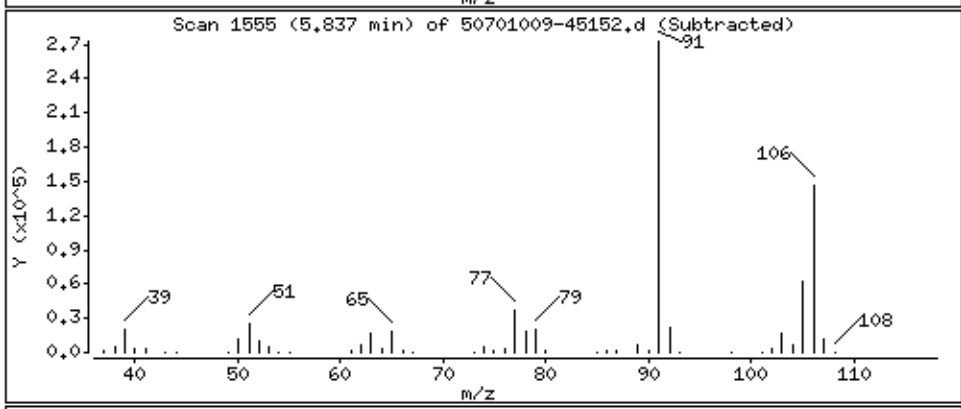
Column diameter: 0.18

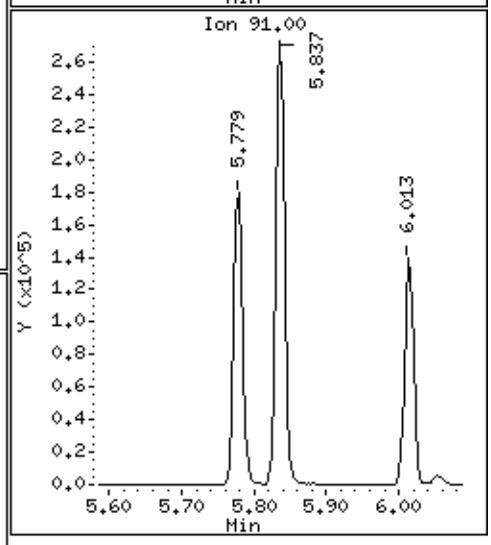
74 m&p-Xylene

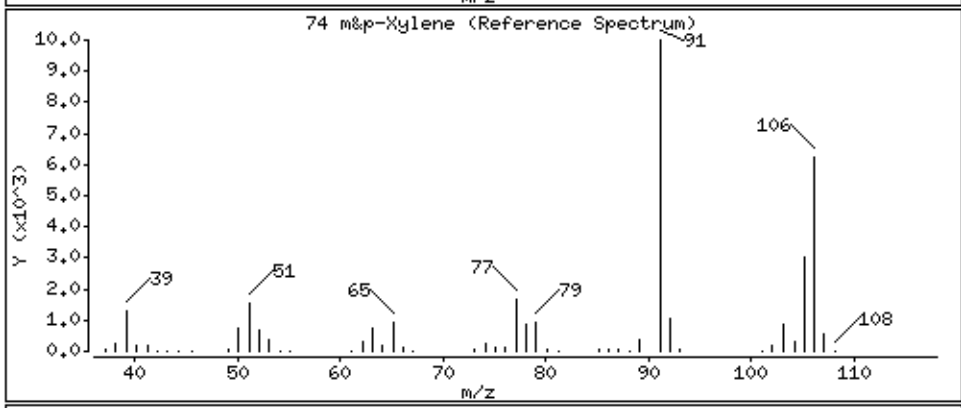
Concentration: 39.7 ug/L

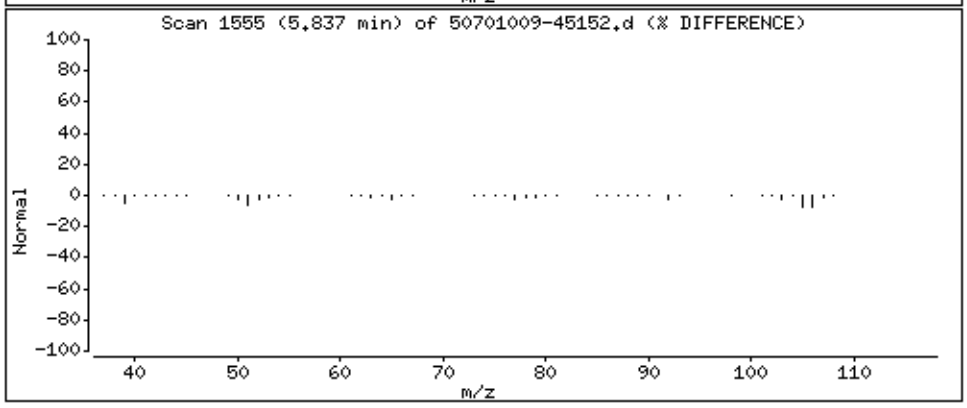












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

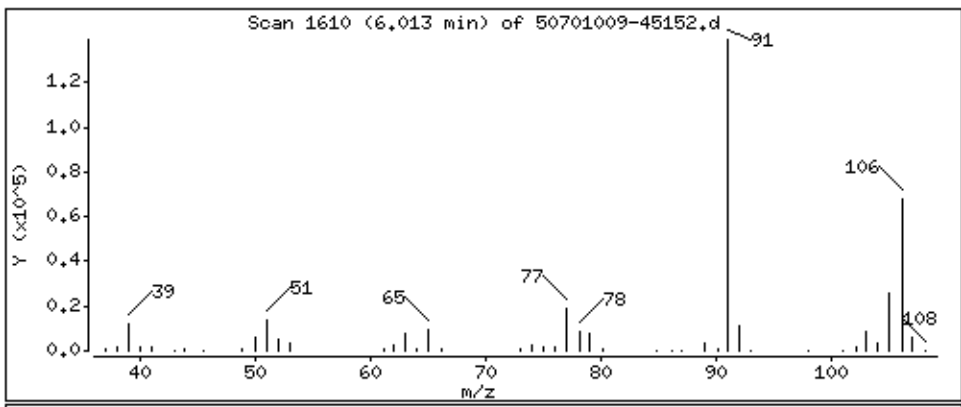
Operator: JEW

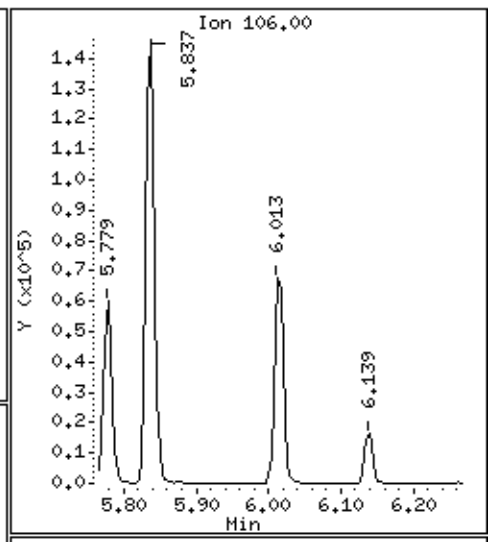
Column phase: RTX-VMS

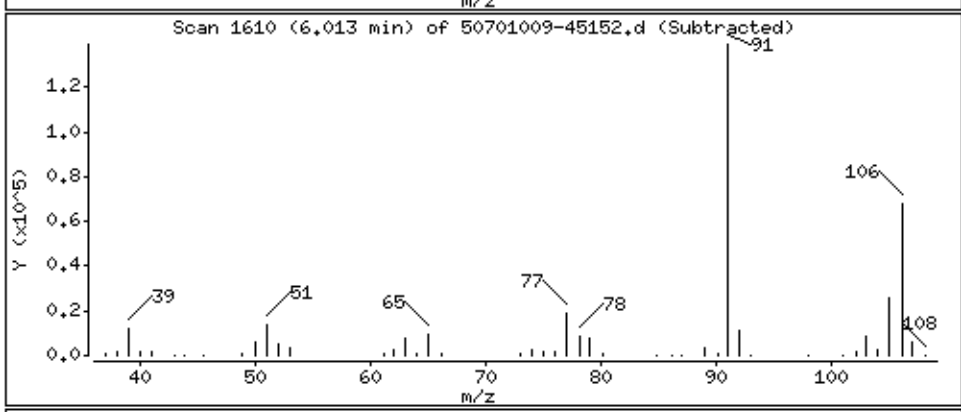
Column diameter: 0.18

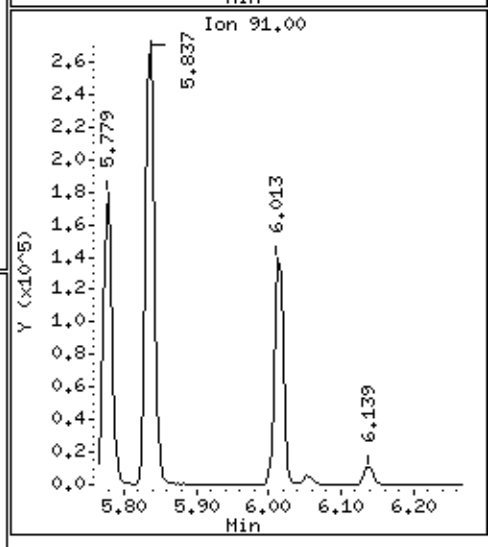
75 o-Xylene

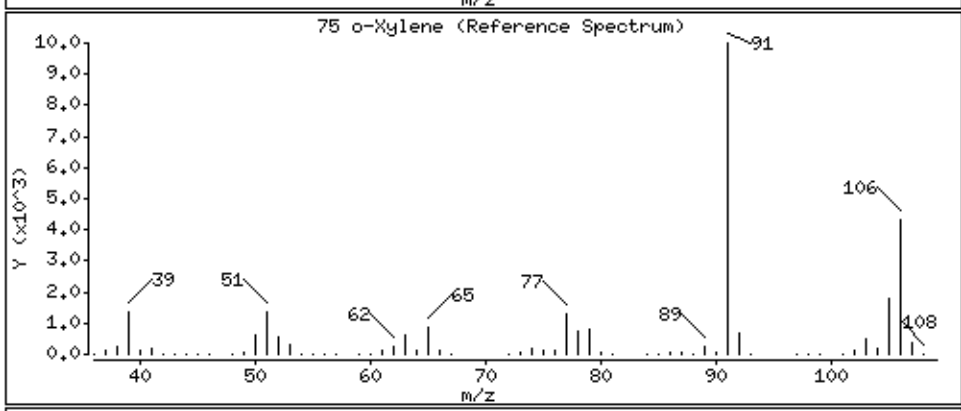
Concentration: 19.2 ug/L

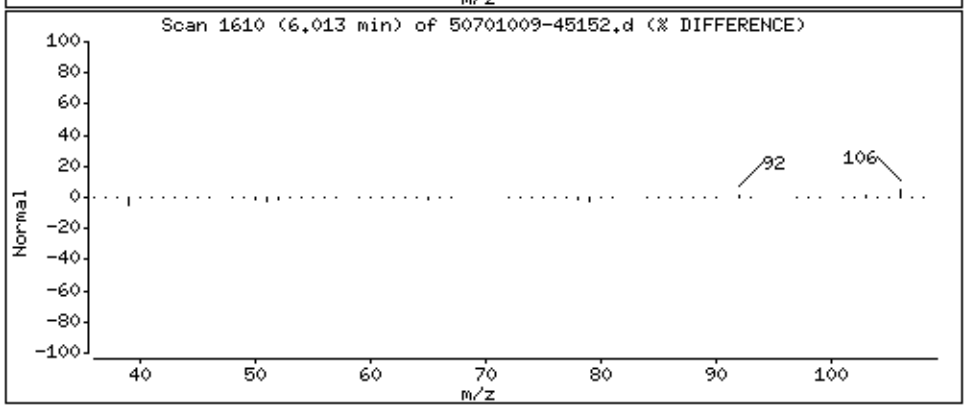












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

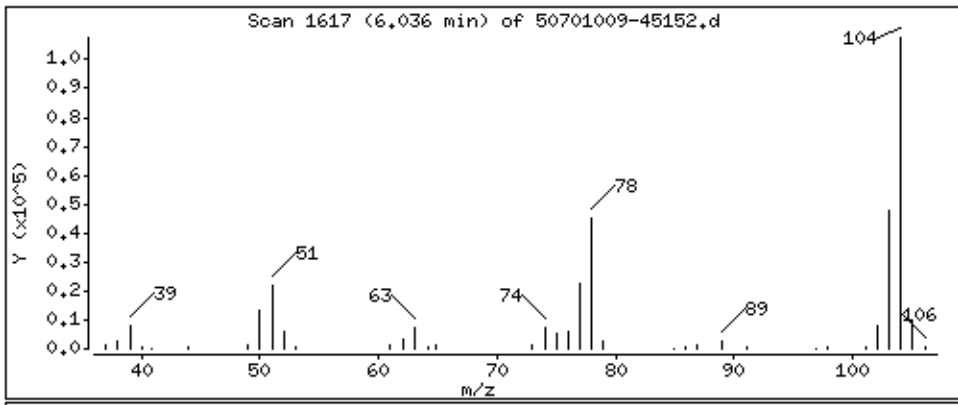
Operator: JEW

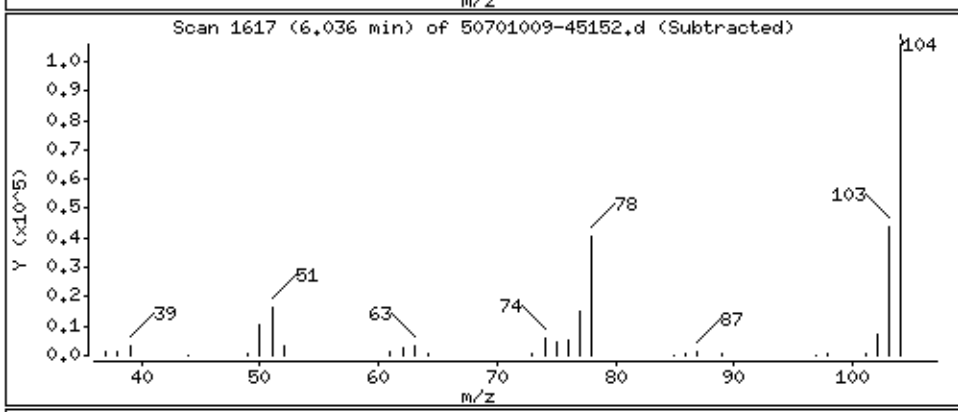
Column phase: RTX-VMS

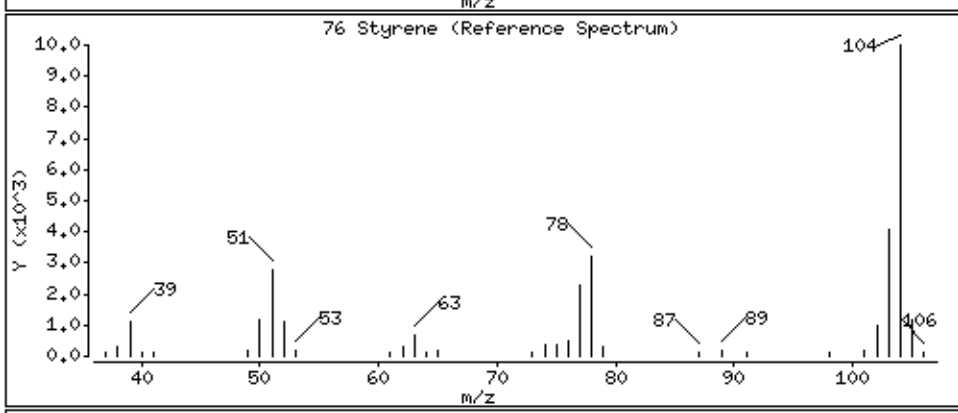
Column diameter: 0.18

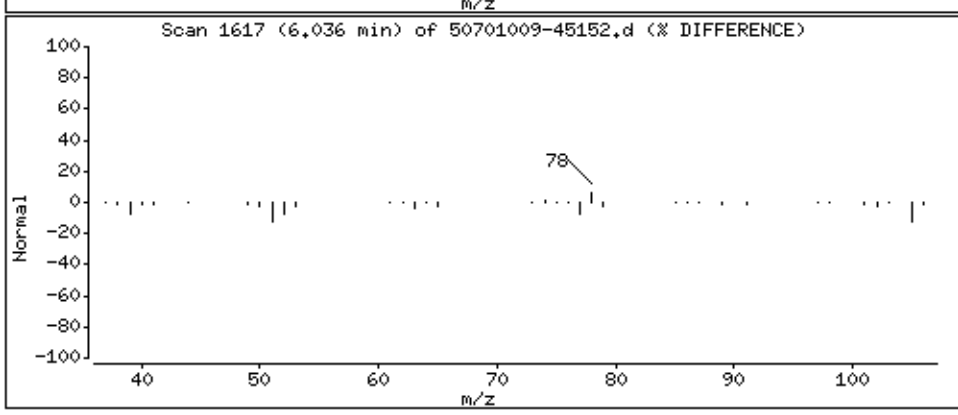
76 Styrene

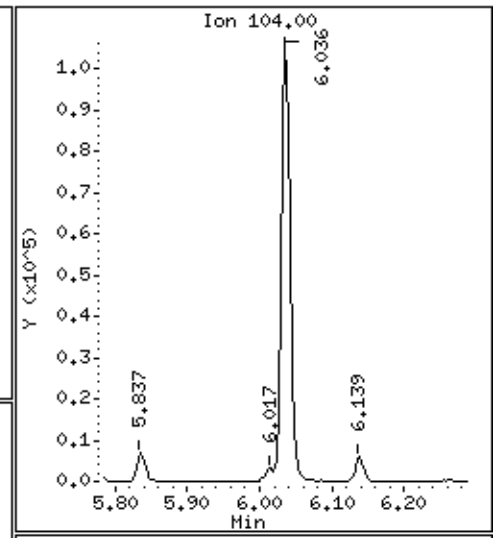
Concentration: 18.2 ug/L

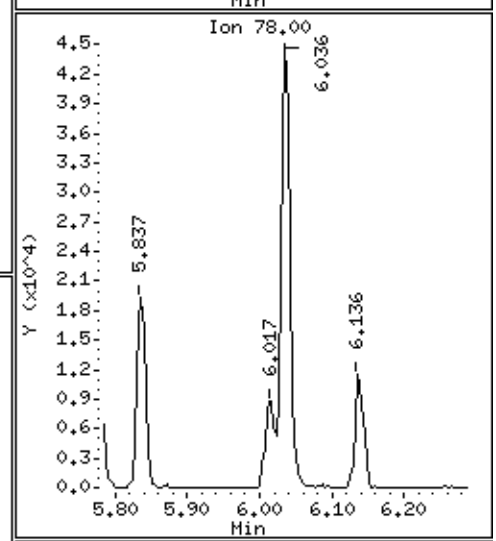


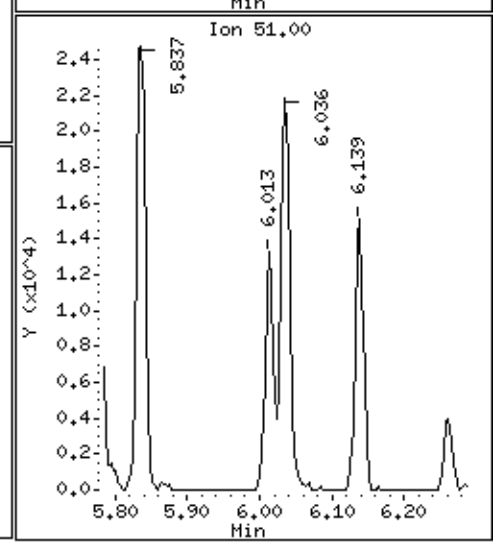












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

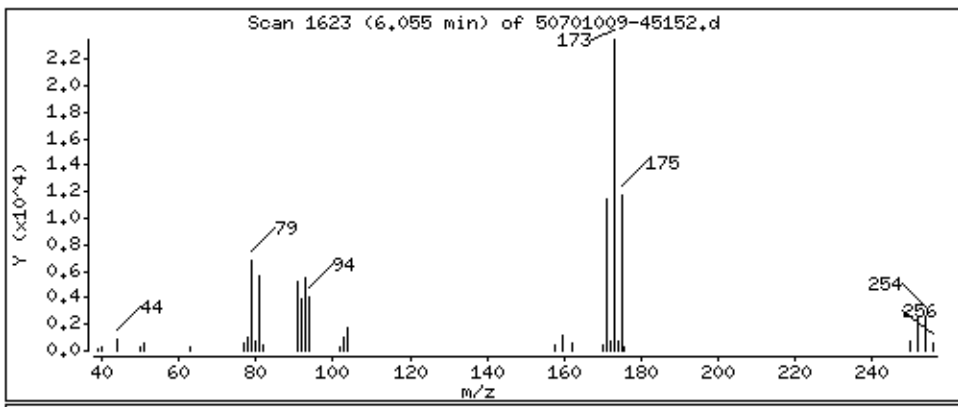
Operator: JEW

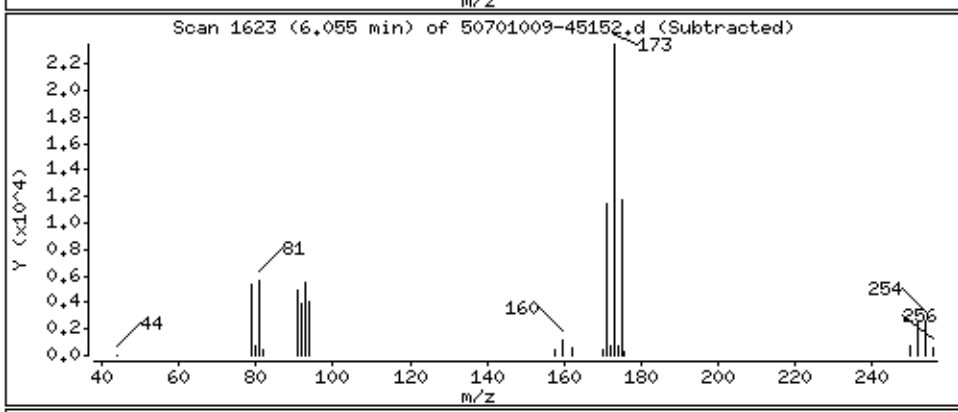
Column phase: RTX-VMS

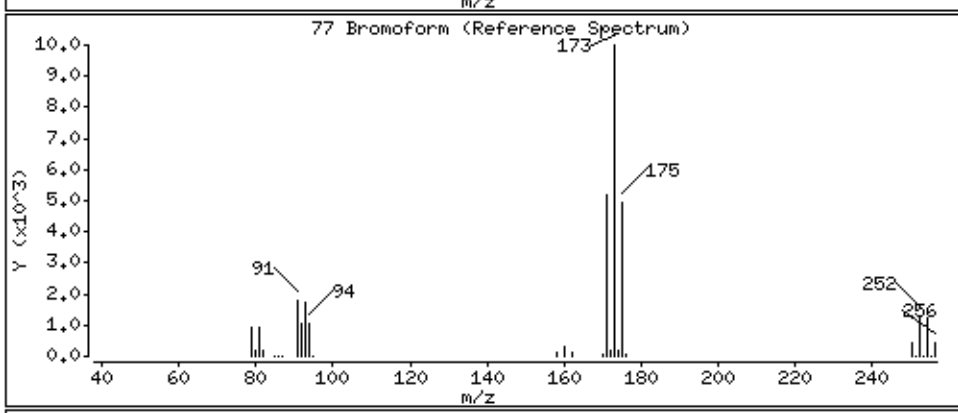
Column diameter: 0.18

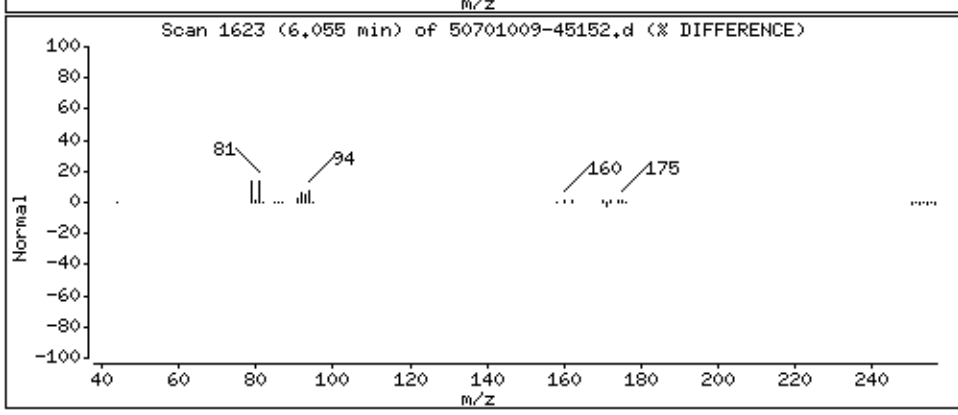
77 Bromoform

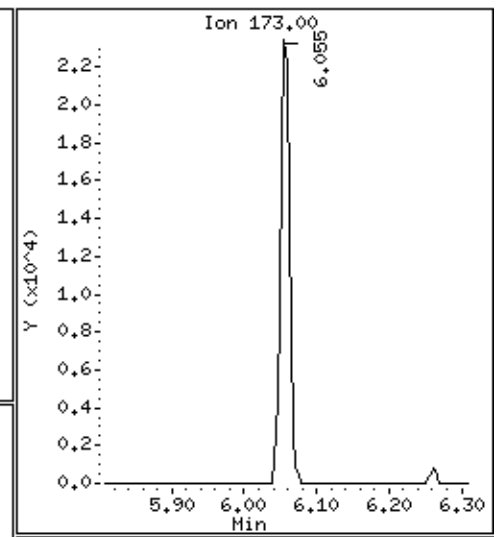
Concentration: 15.0 ug/L

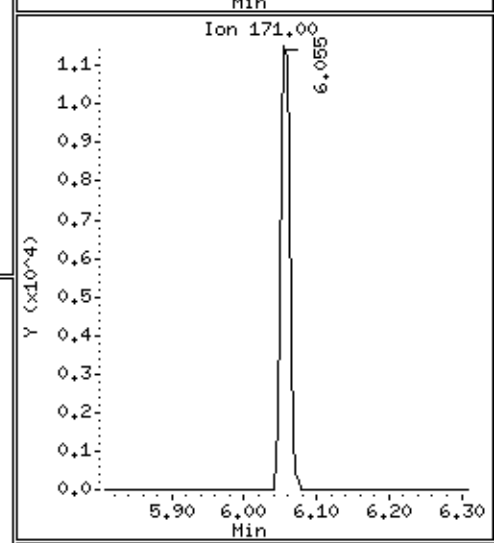


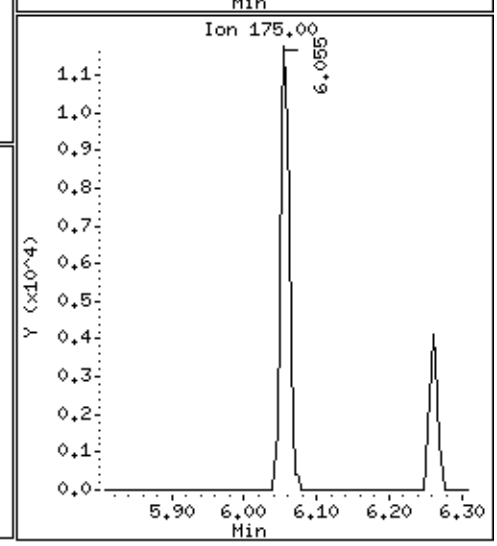












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

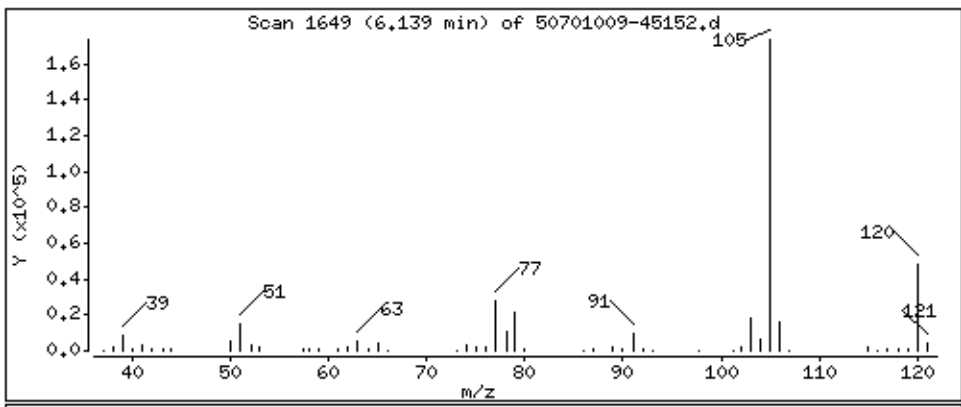
Operator: JEW

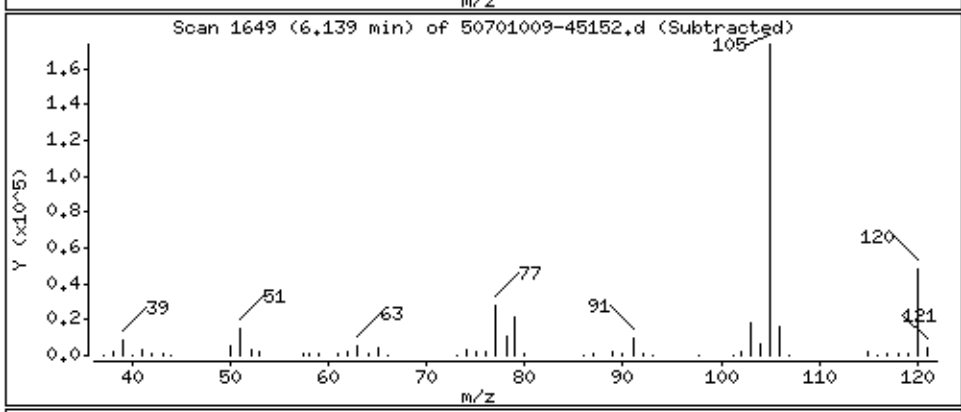
Column phase: RTX-VMS

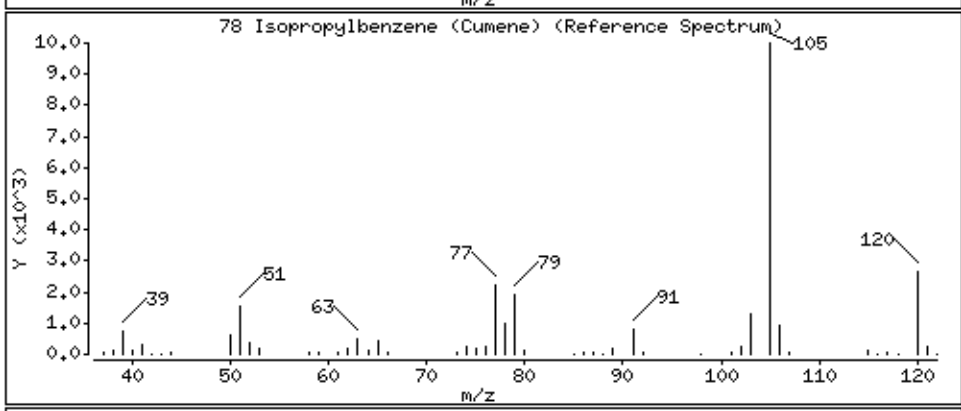
Column diameter: 0.18

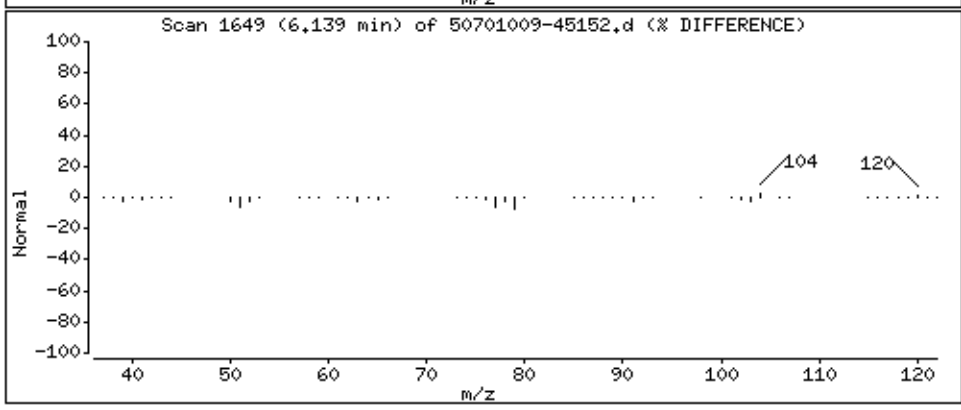
78 Isopropylbenzene (Cumene)

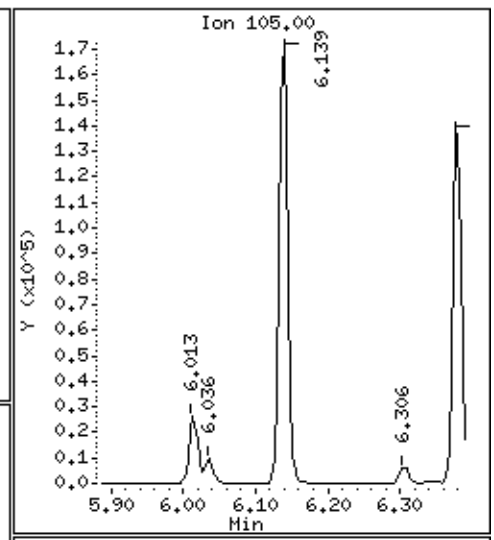
Concentration: 19.3 ug/L

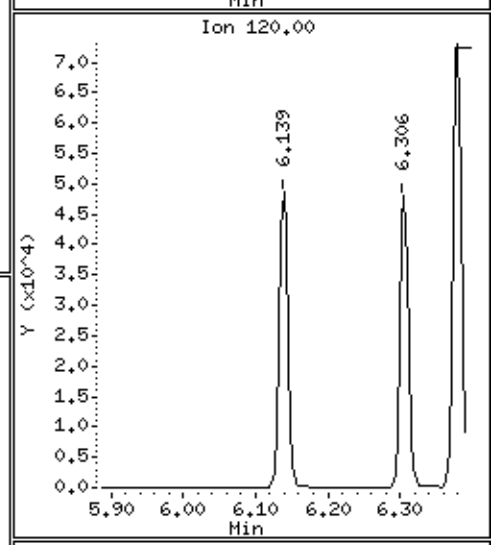


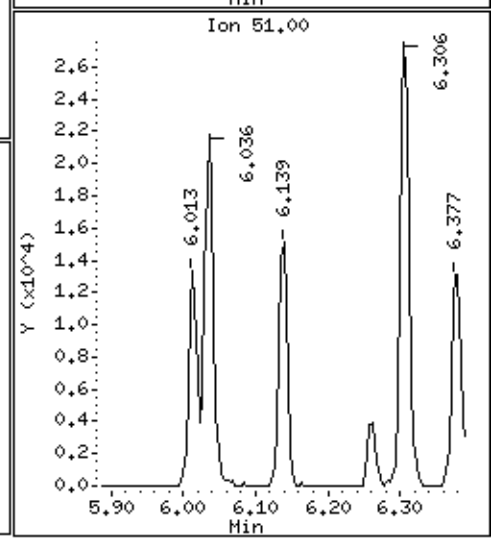












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

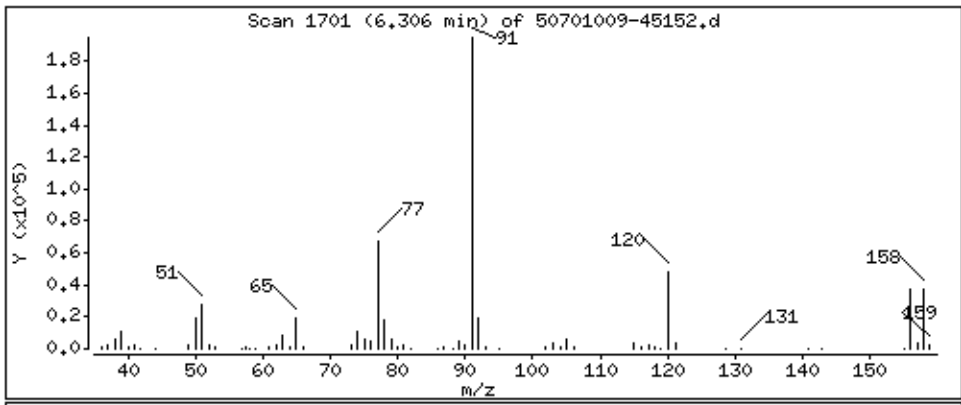
Operator: JEW

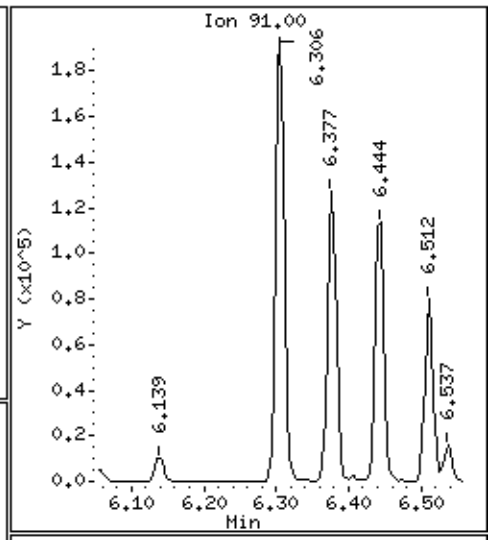
Column phase: RTX-VMS

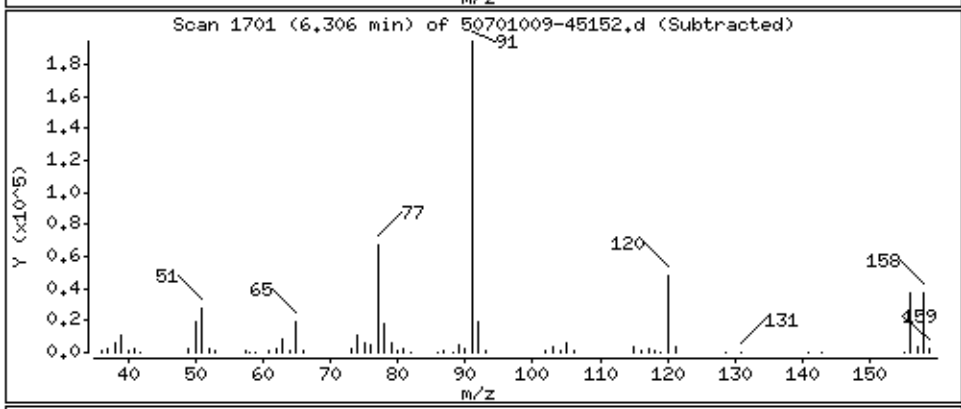
Column diameter: 0.18

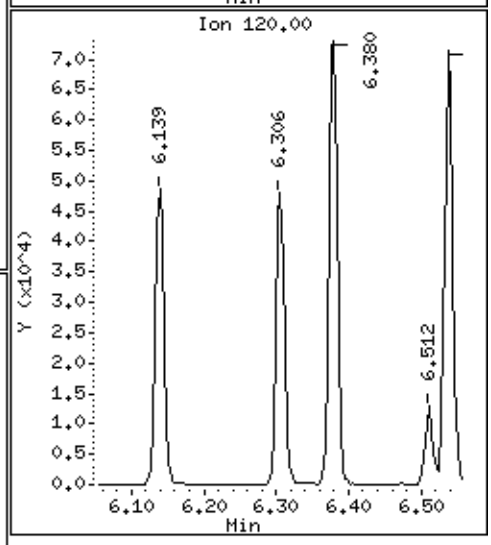
80 n-Propylbenzene

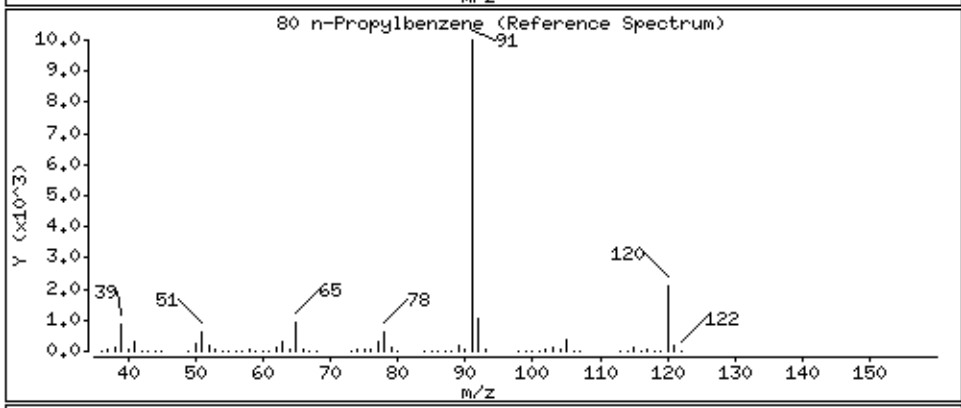
Concentration: 19.3 ug/L

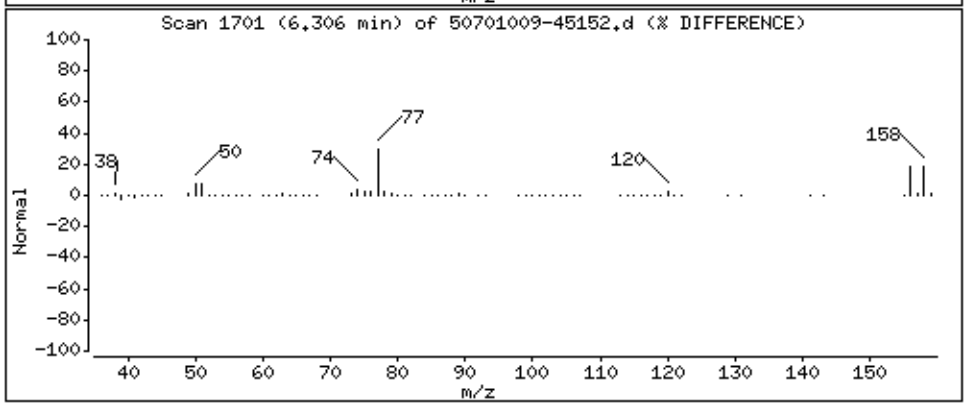












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

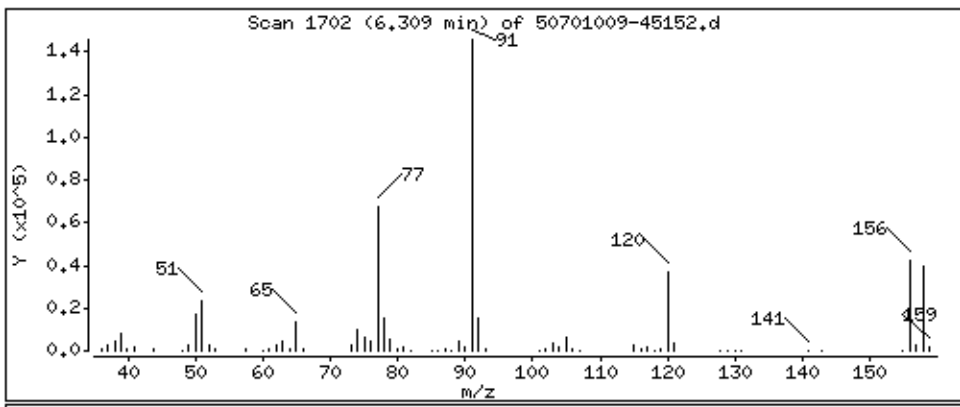
Operator: JEW

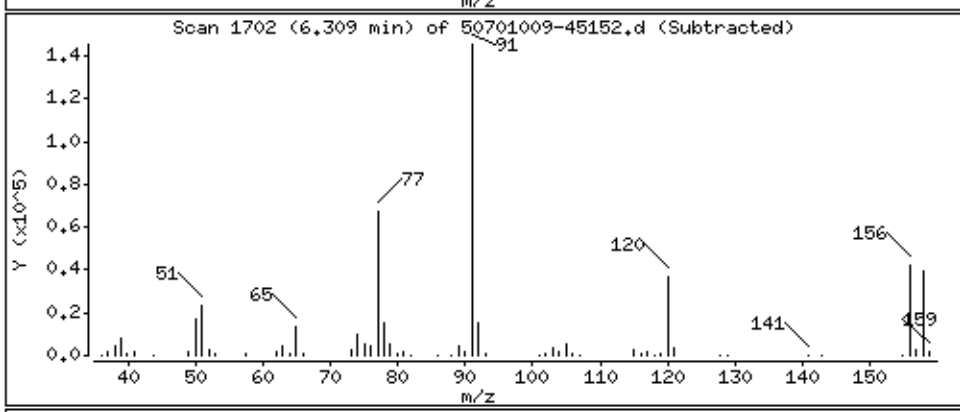
Column phase: RTX-VMS

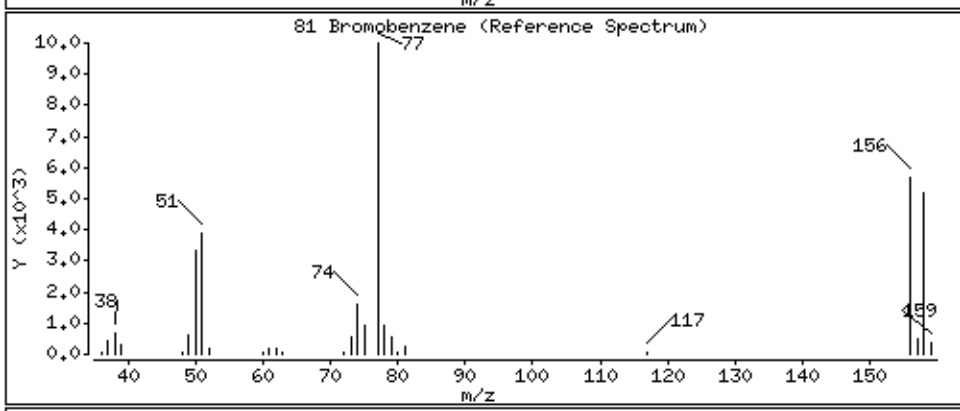
Column diameter: 0.18

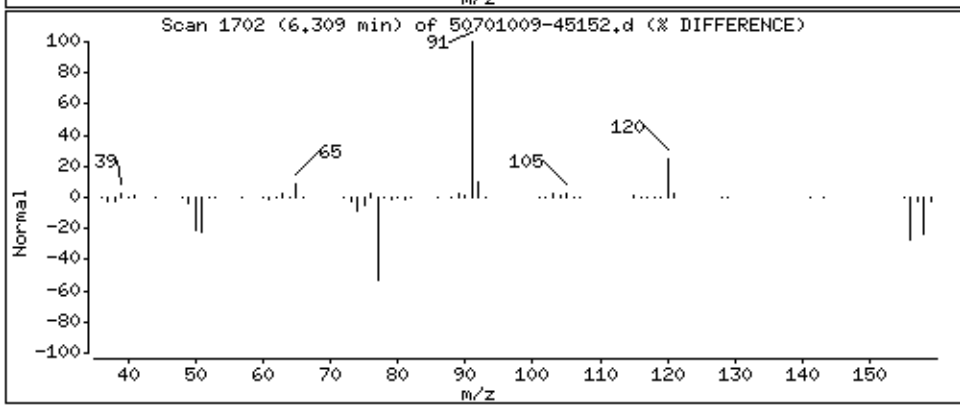
81 Bromobenzene

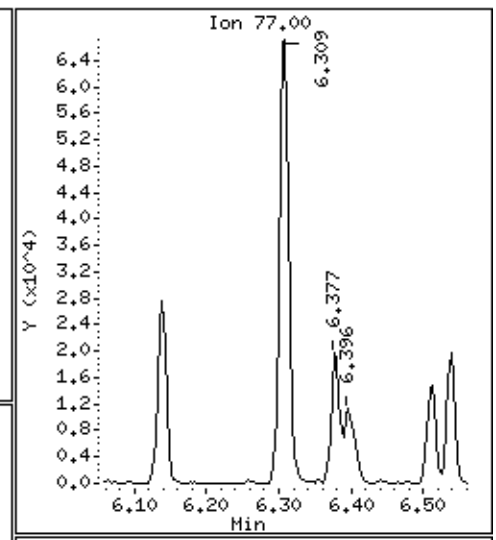
Concentration: 18.0 ug/L

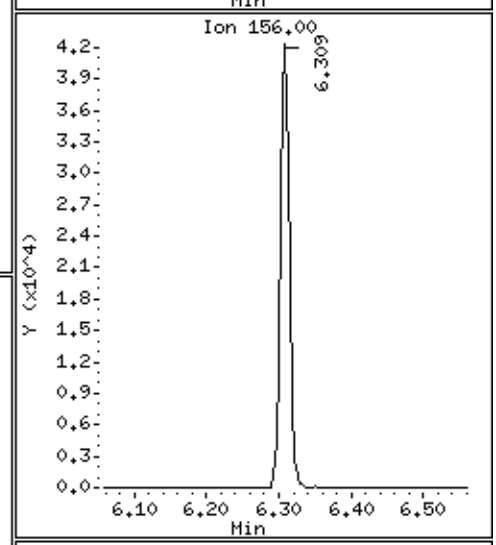


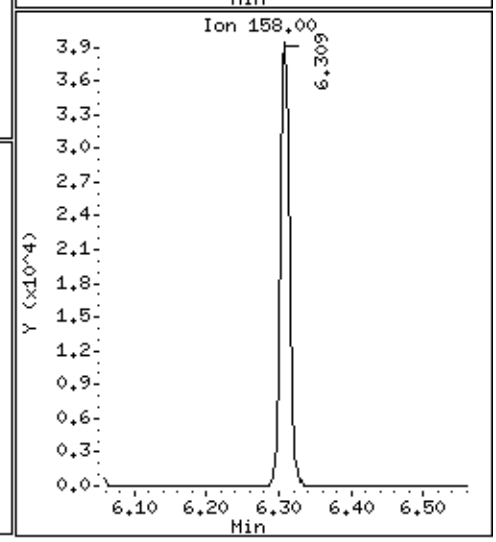












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

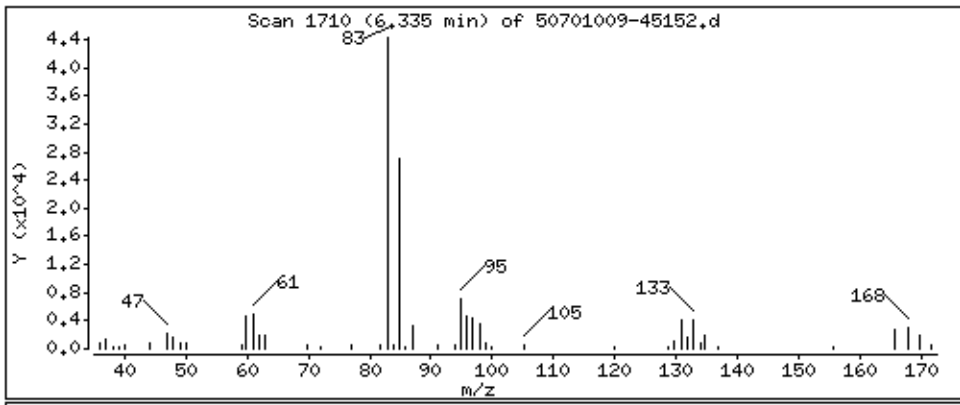
Operator: JEW

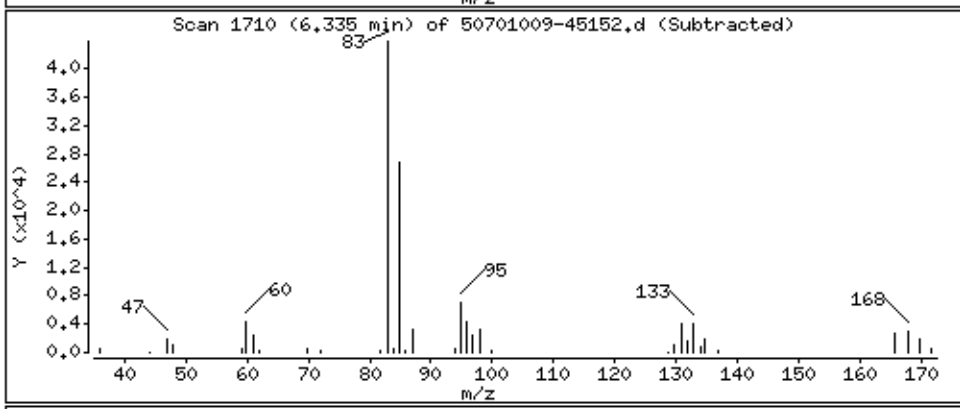
Column phase: RTX-VMS

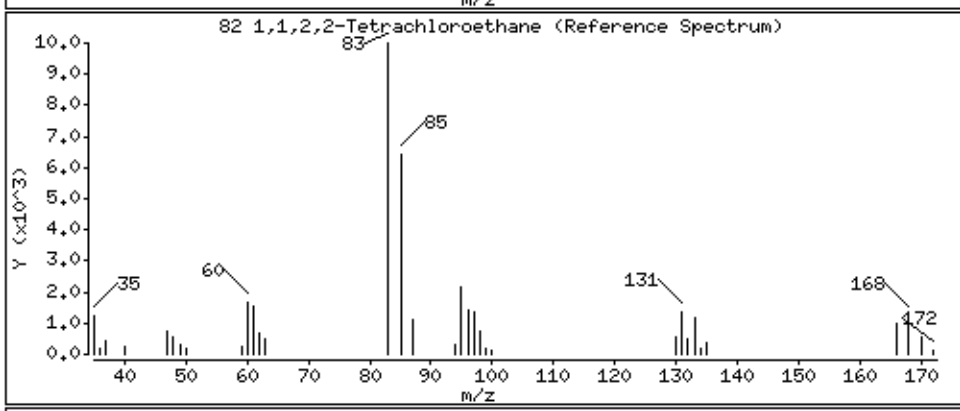
Column diameter: 0.18

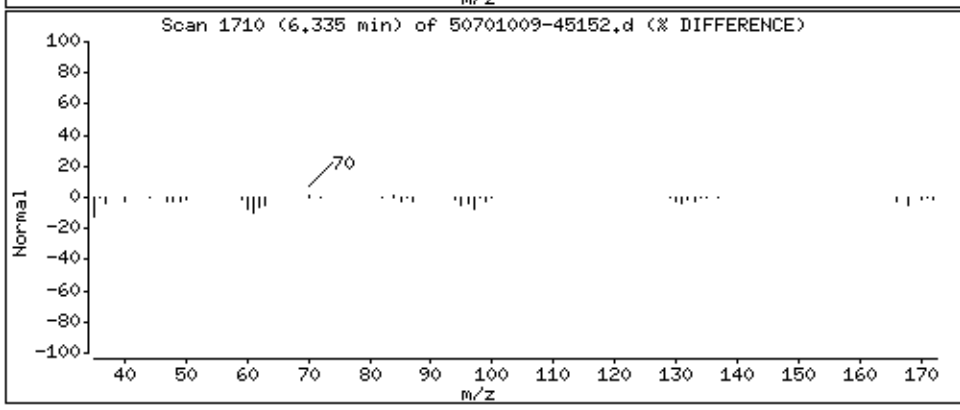
82 1,1,2,2-Tetrachloroethane

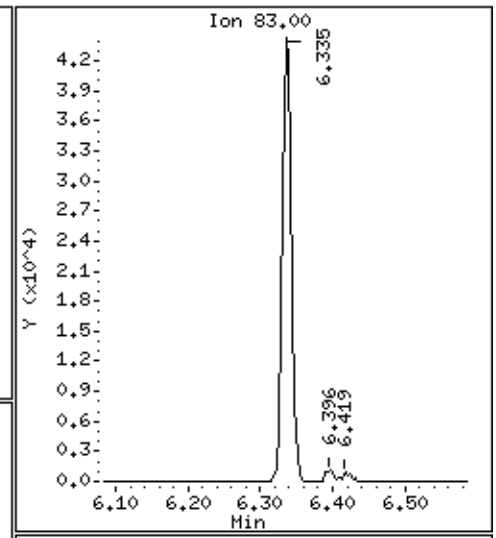
Concentration: 17.3 ug/L

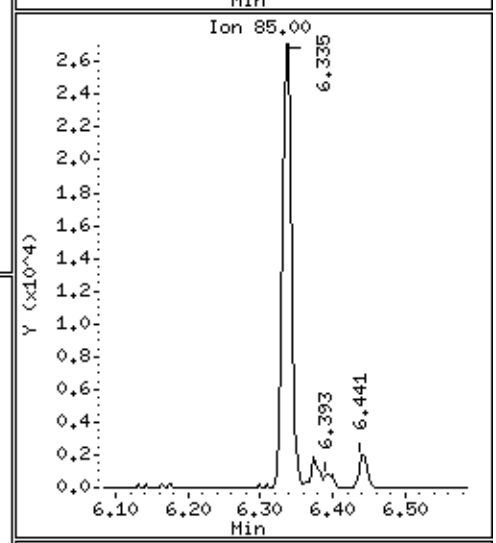


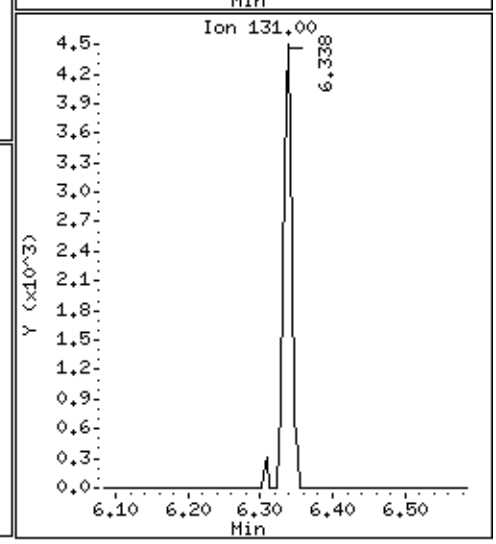












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

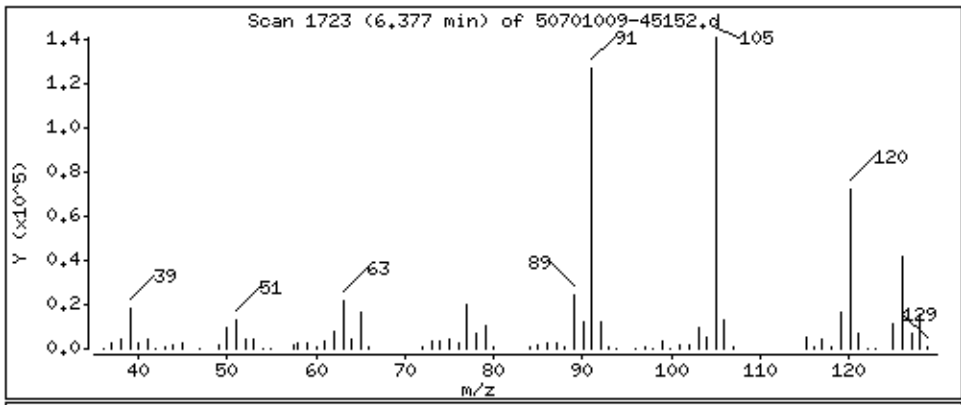
Operator: JEW

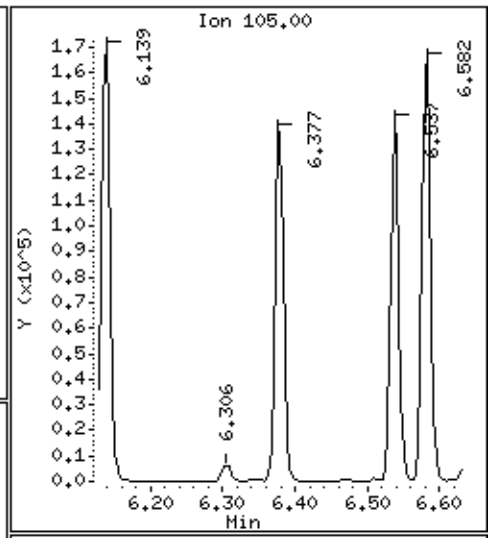
Column phase: RTX-VMS

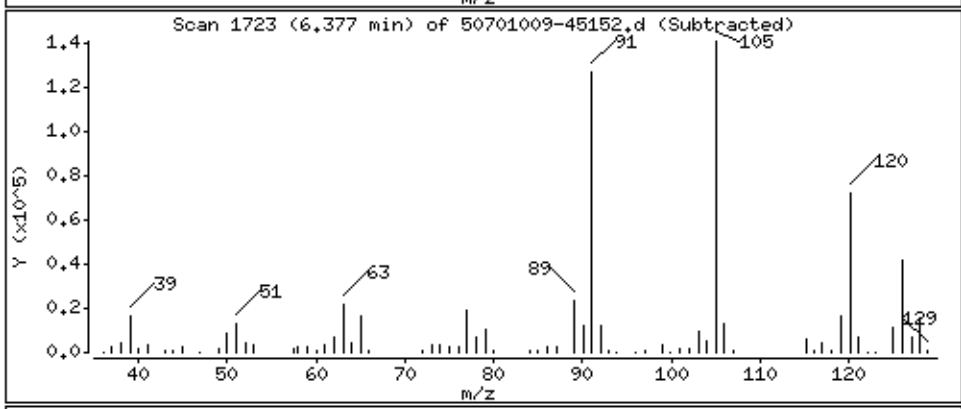
Column diameter: 0.18

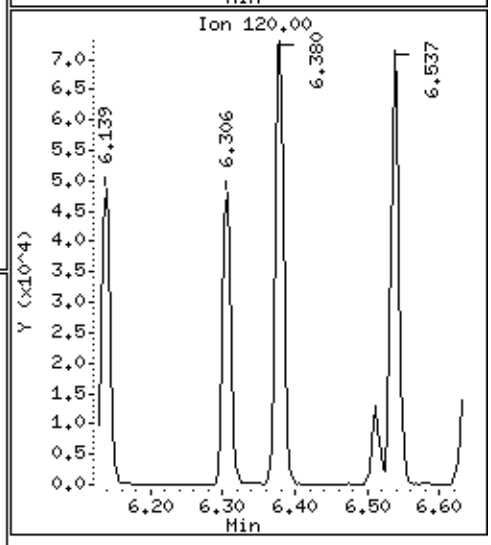
83 1,3,5-Trimethylbenzene

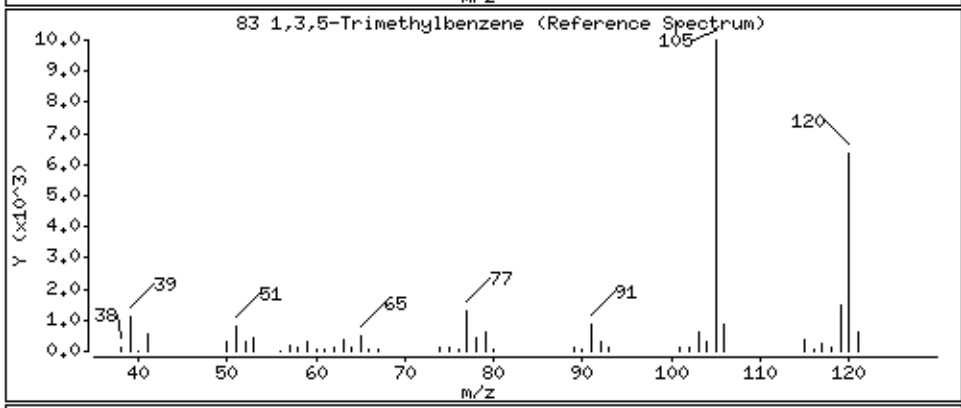
Concentration: 19.5 ug/L

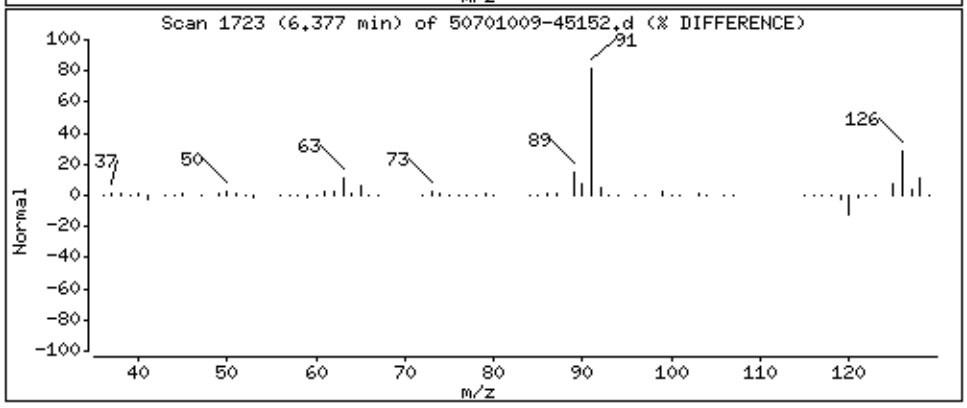












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

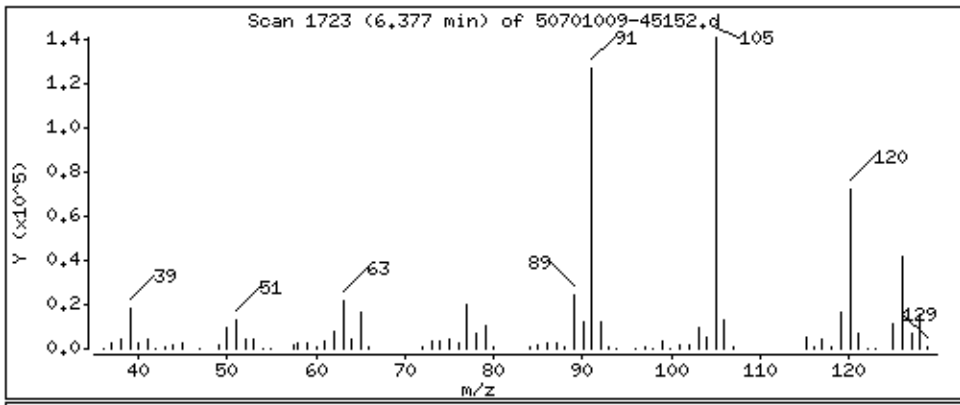
Operator: JEW

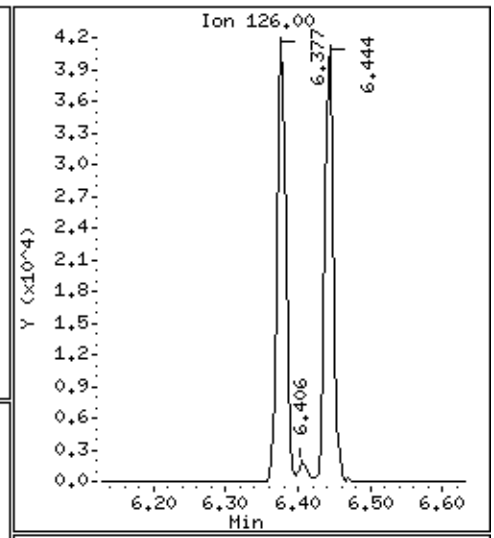
Column phase: RTX-VMS

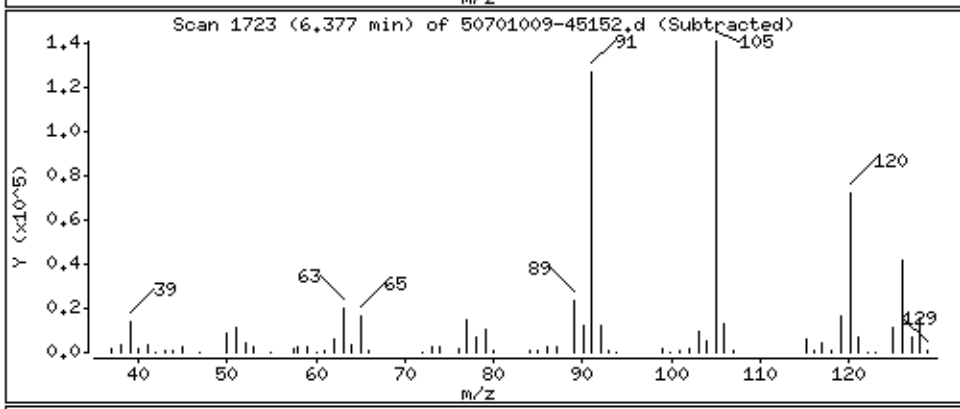
Column diameter: 0.18

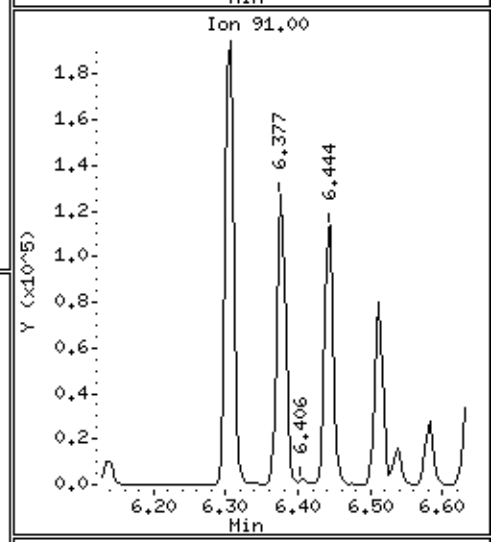
84 2-Chlorotoluene

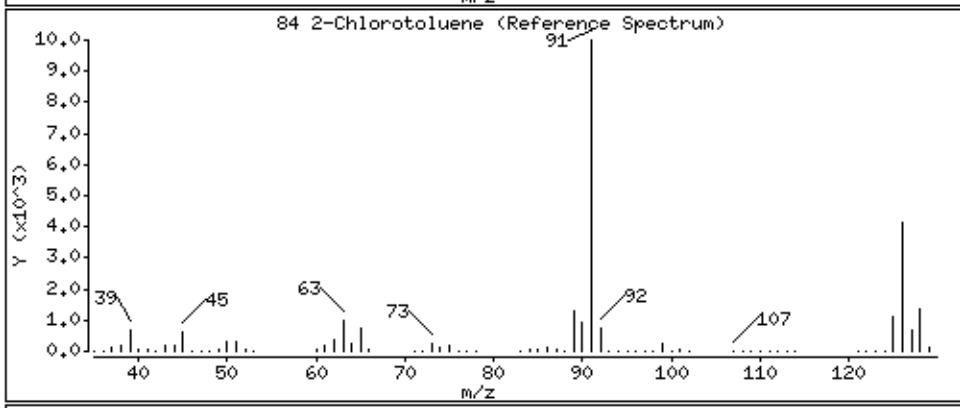
Concentration: 19.5 ug/L

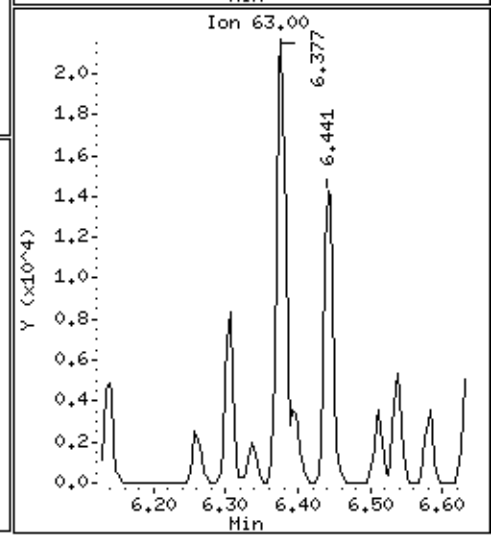


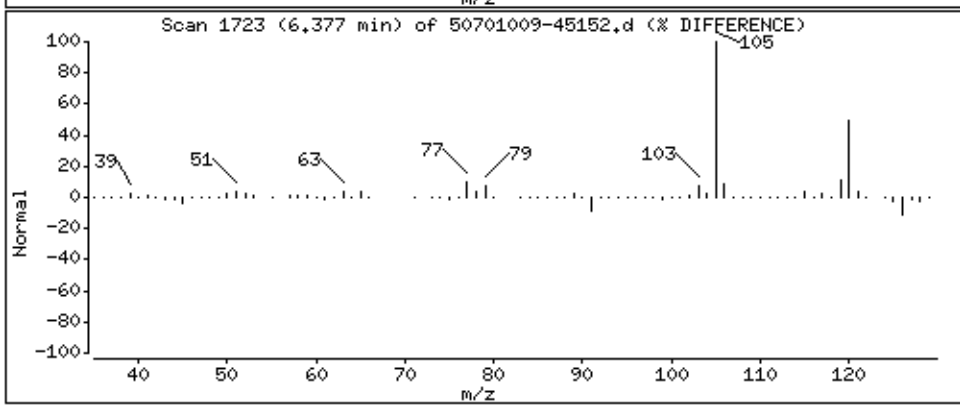












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

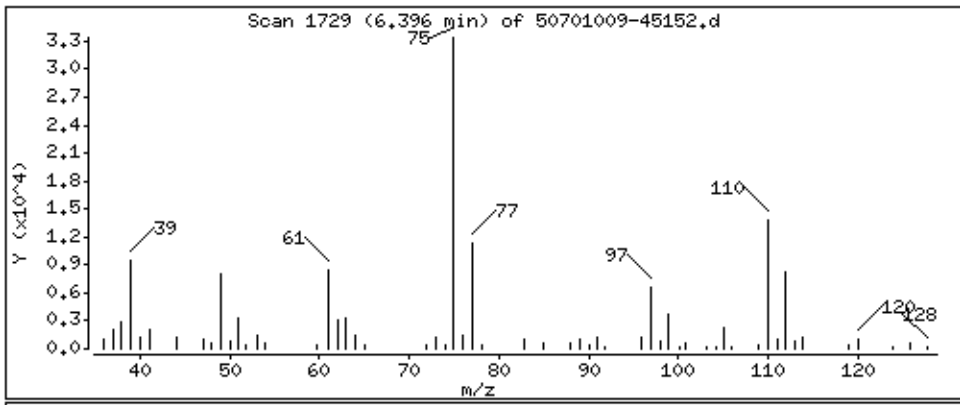
Operator: JEW

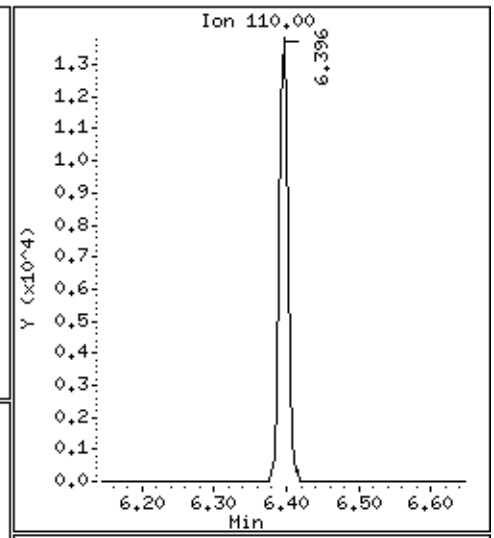
Column phase: RTX-VMS

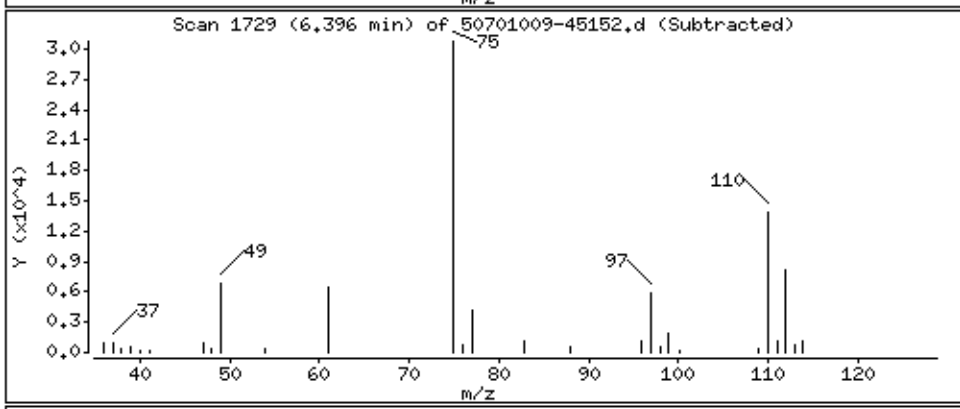
Column diameter: 0.18

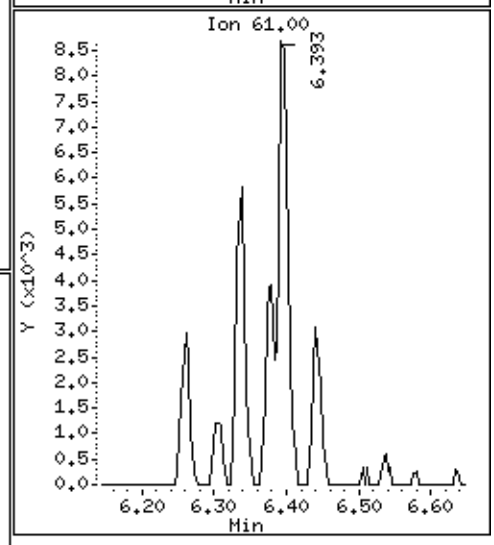
85 1,2,3-Trichloropropane

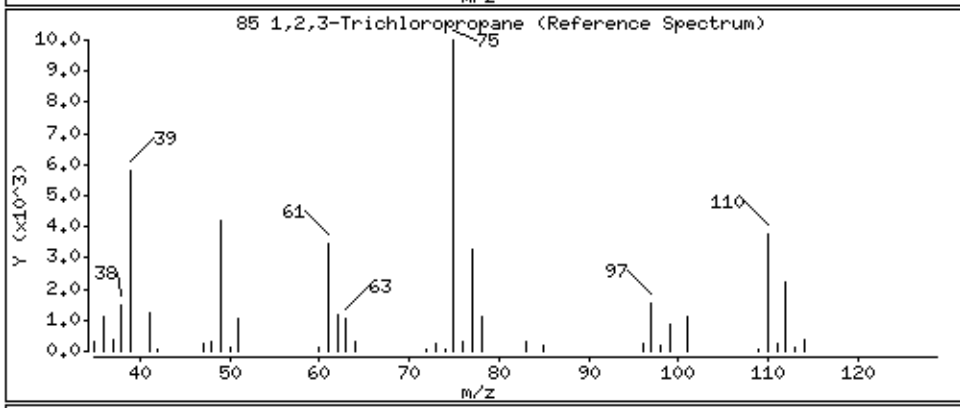
Concentration: 17.9 ug/L

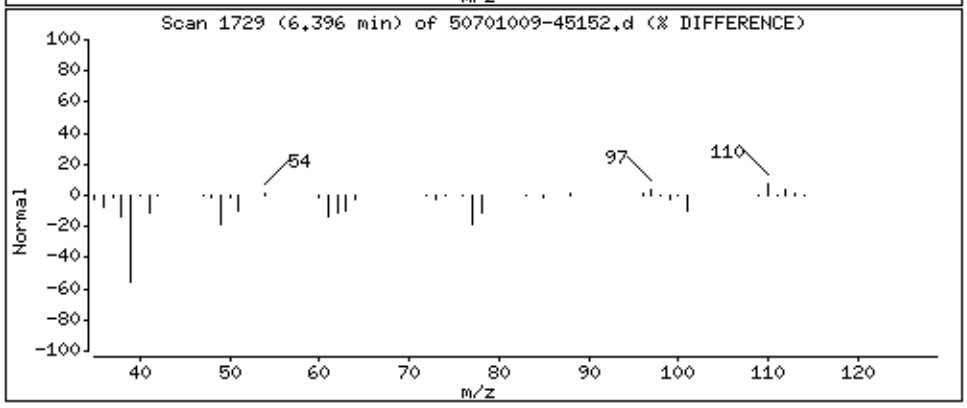












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

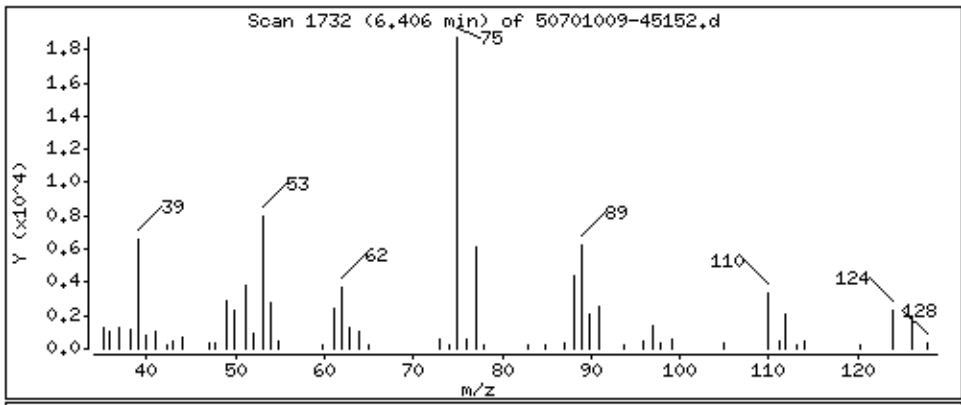
Operator: JEW

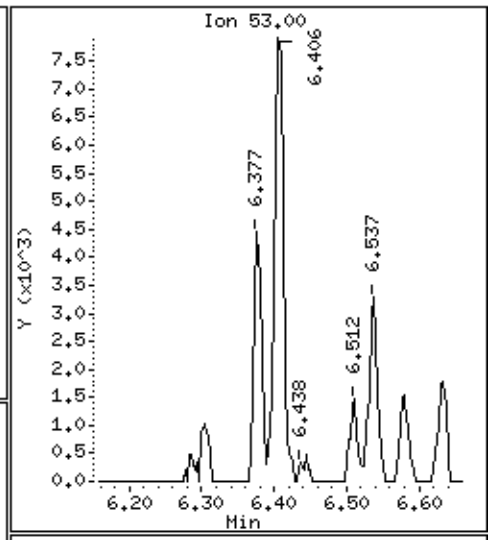
Column phase: RTX-VMS

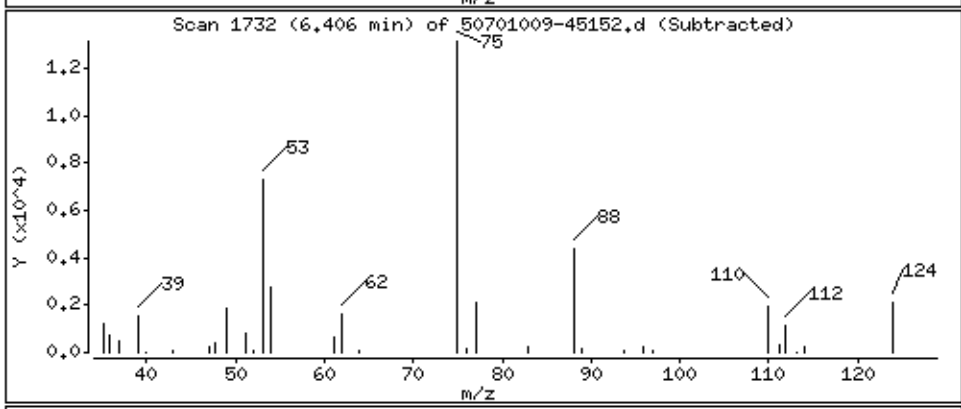
Column diameter: 0.18

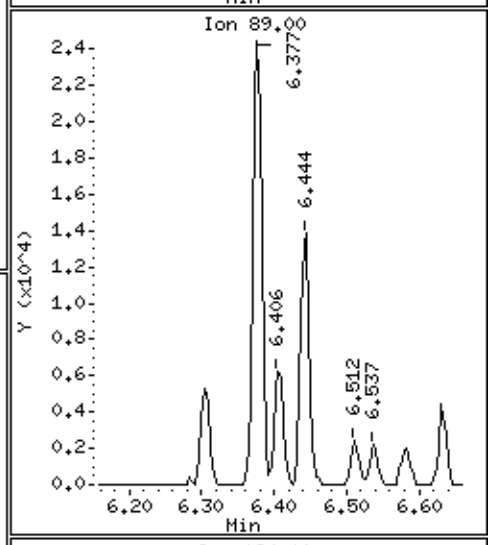
86 trans-1,4-Dichloro-2-butene

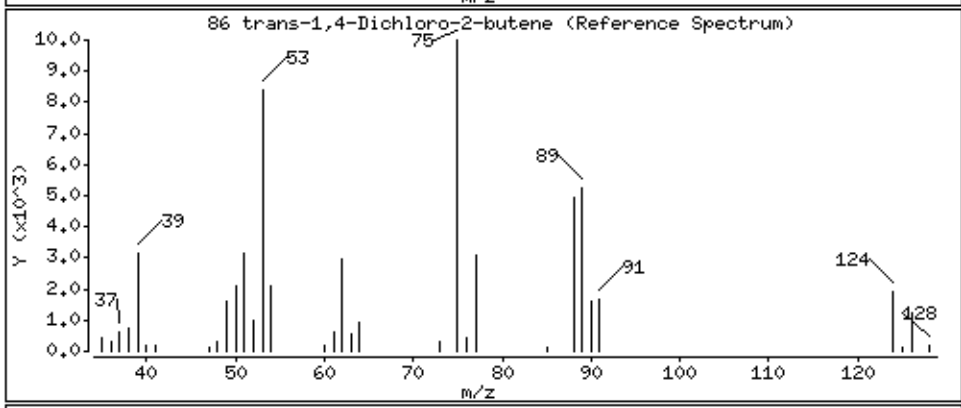
Concentration: 12.8 ug/L

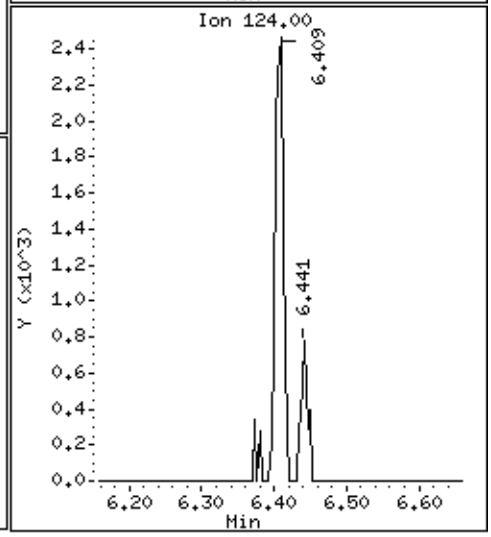


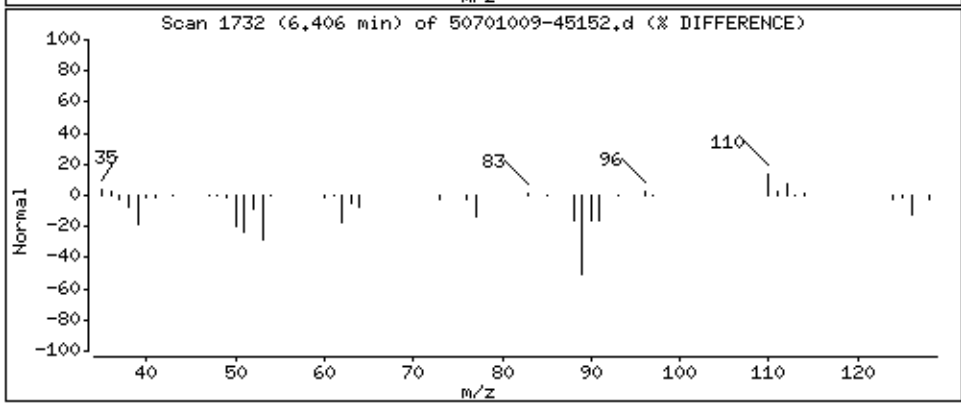












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

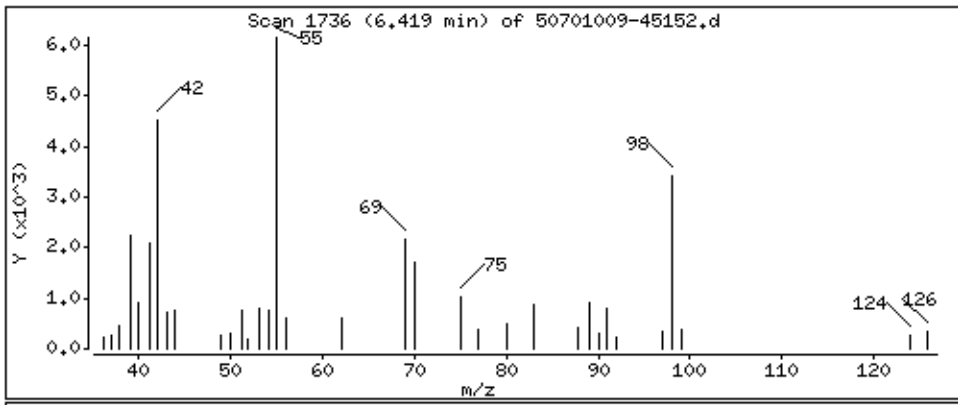
Operator: JEW

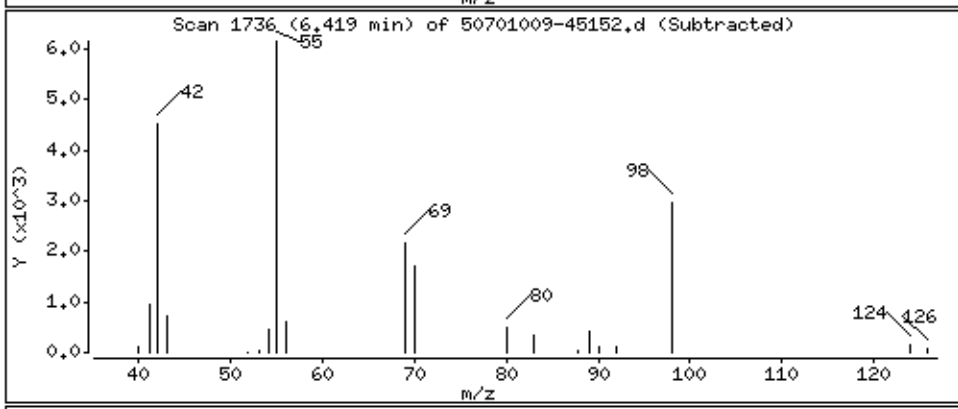
Column phase: RTX-VMS

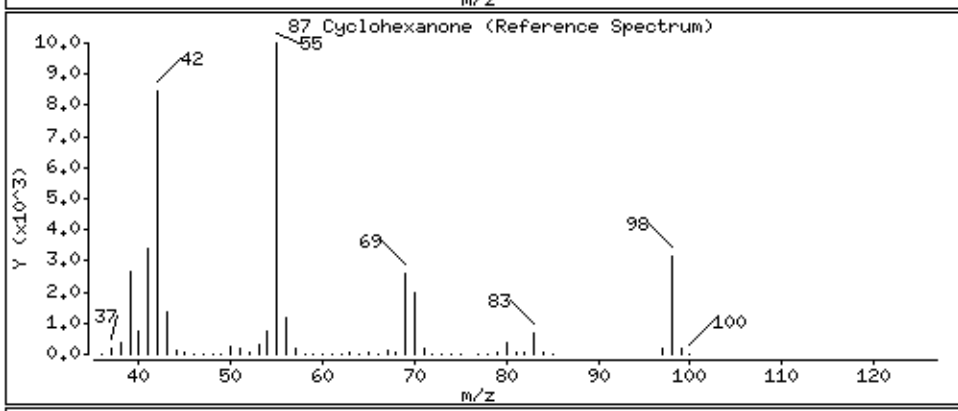
Column diameter: 0.18

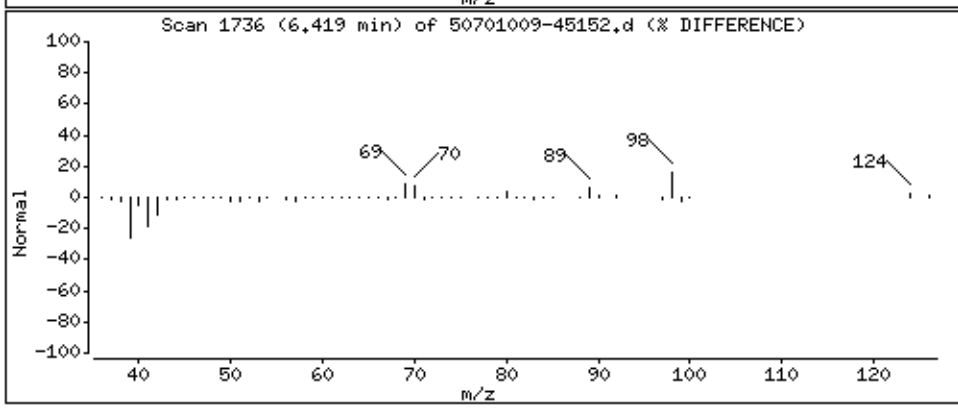
87 Cyclohexanone

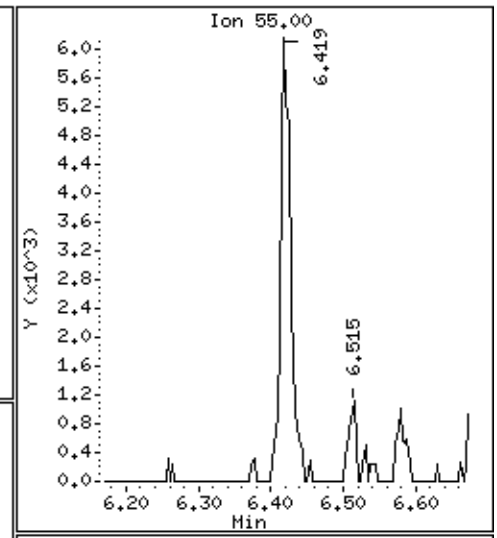
Concentration: 58.8 ug/L

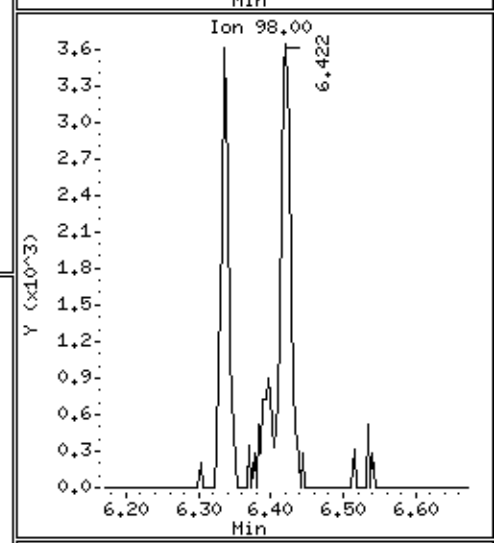


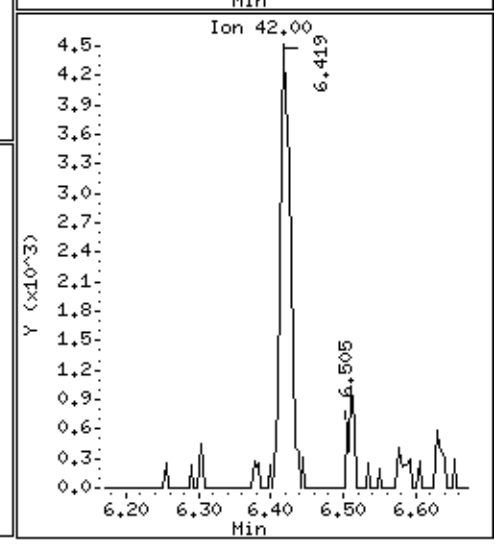












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

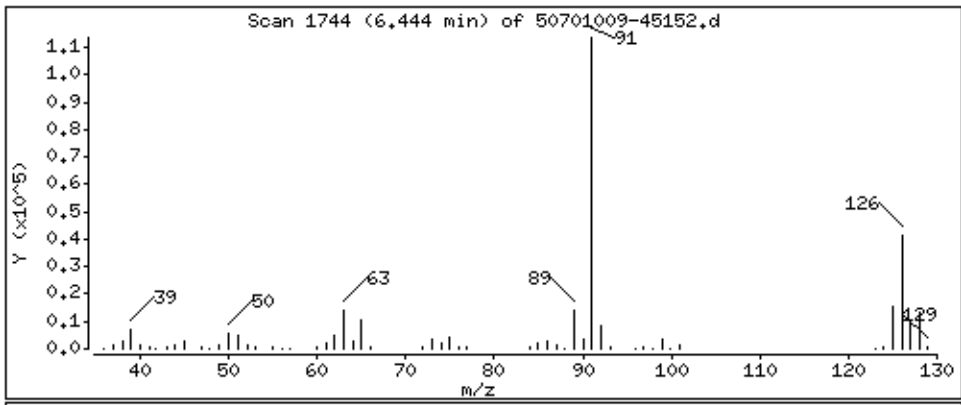
Operator: JEW

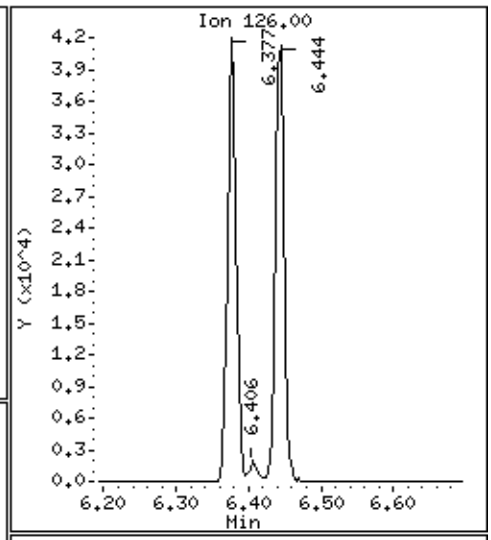
Column phase: RTX-VMS

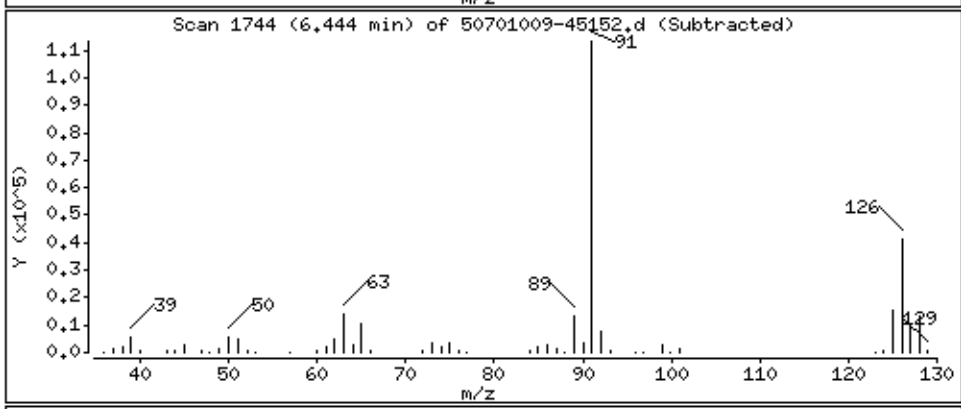
Column diameter: 0.18

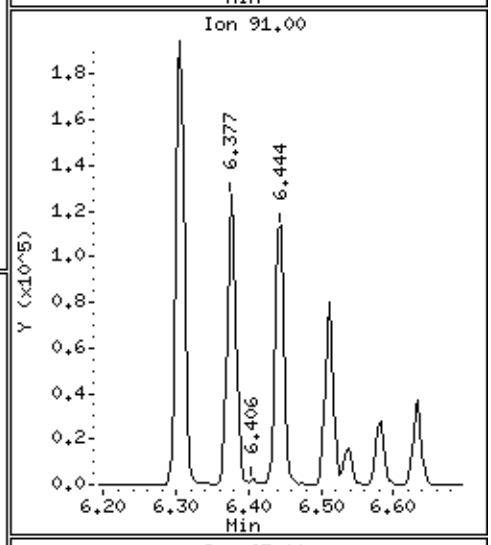
88 4-Chlorotoluene

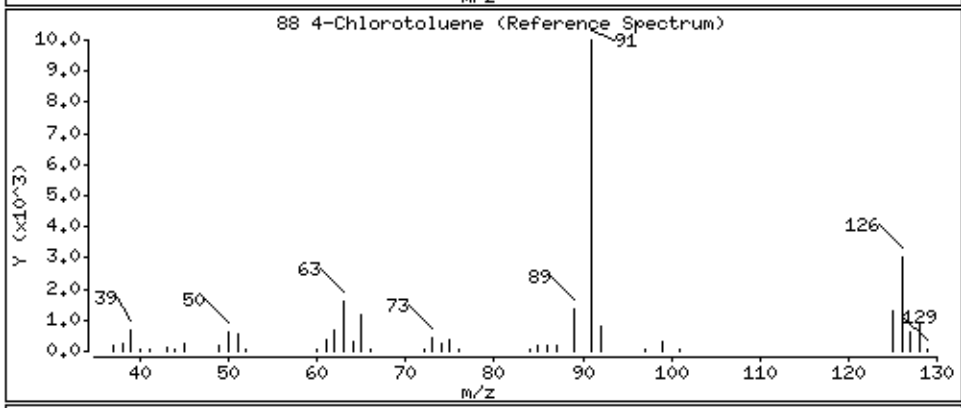
Concentration: 18.6 ug/L

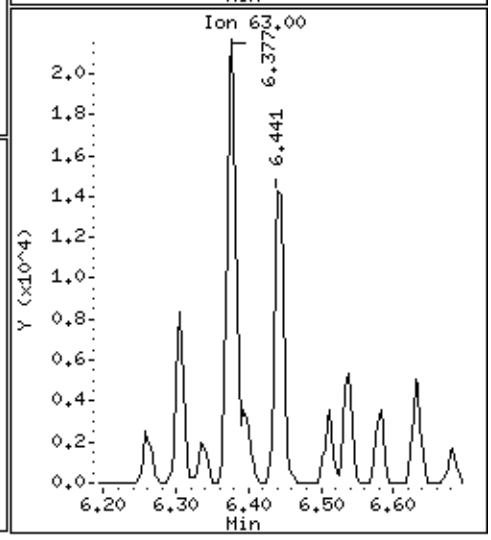


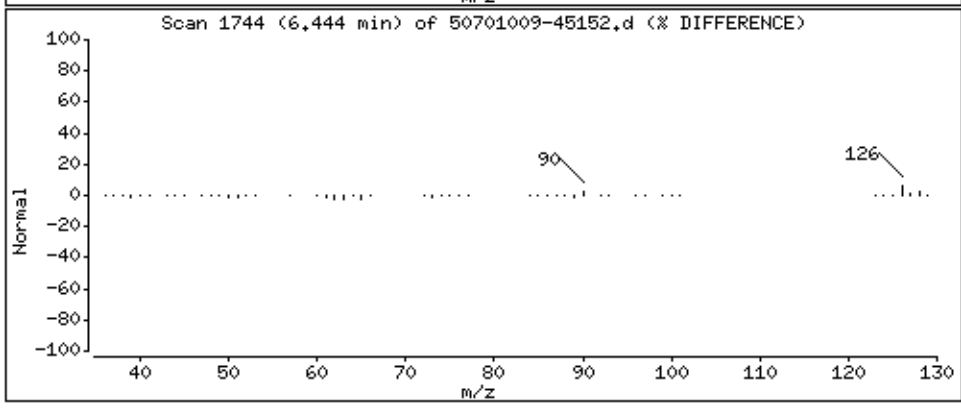












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

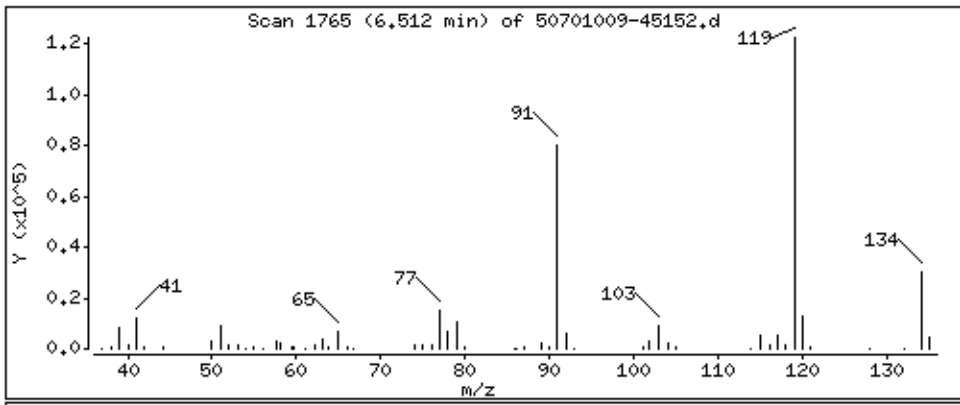
Operator: JEW

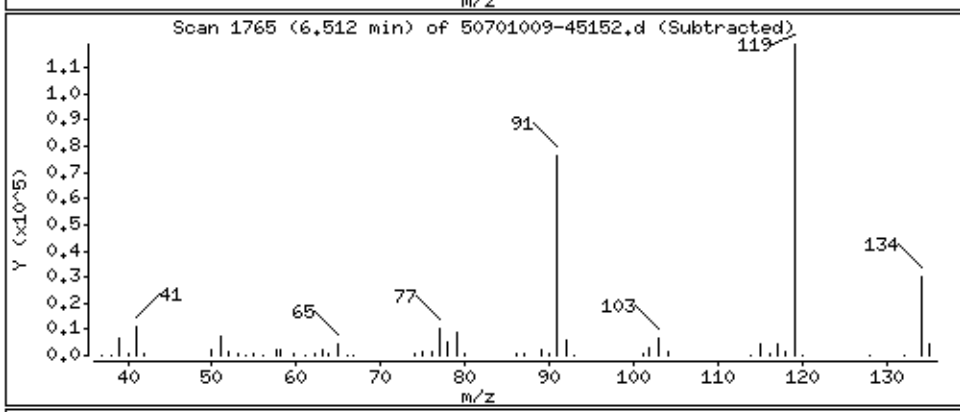
Column phase: RTX-VMS

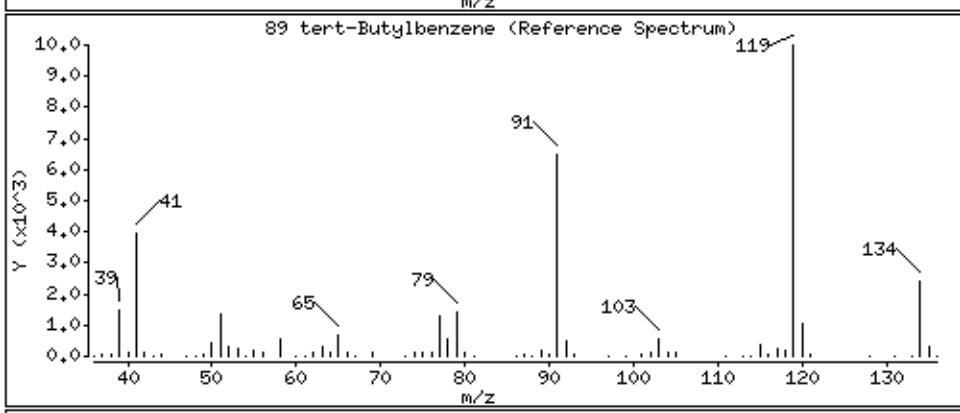
Column diameter: 0.18

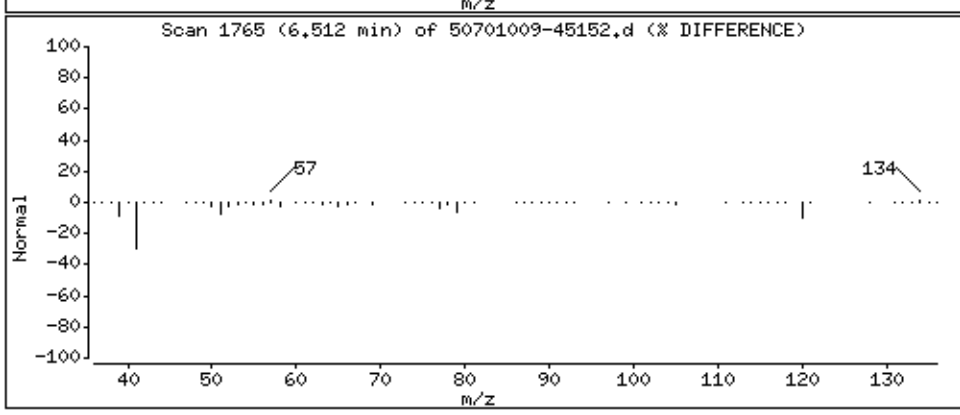
89 tert-Butylbenzene

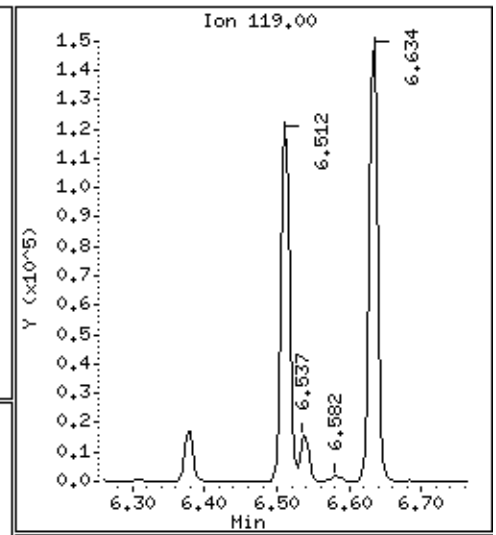
Concentration: 20.6 ug/L

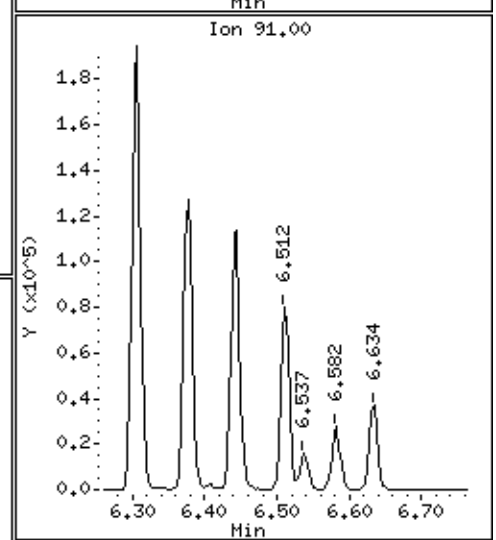


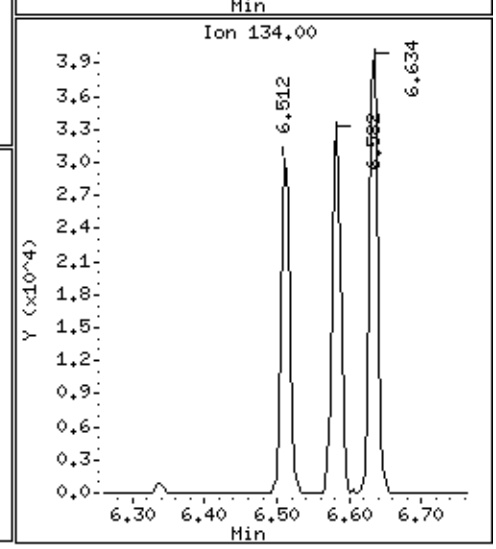












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

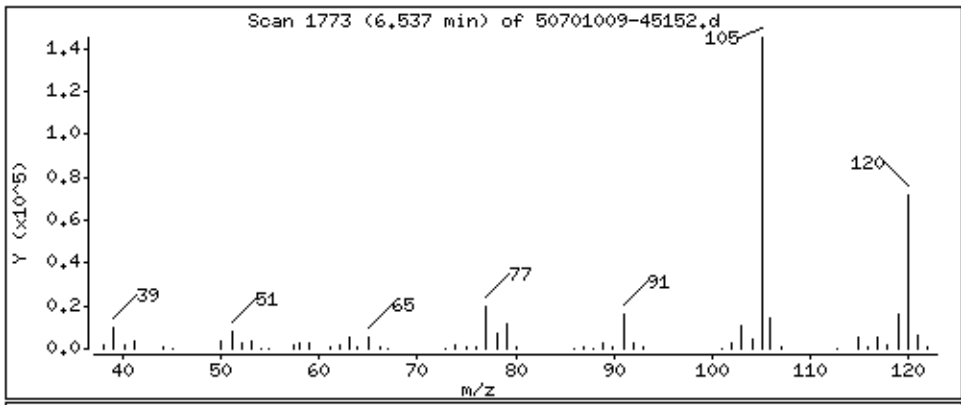
Operator: JEW

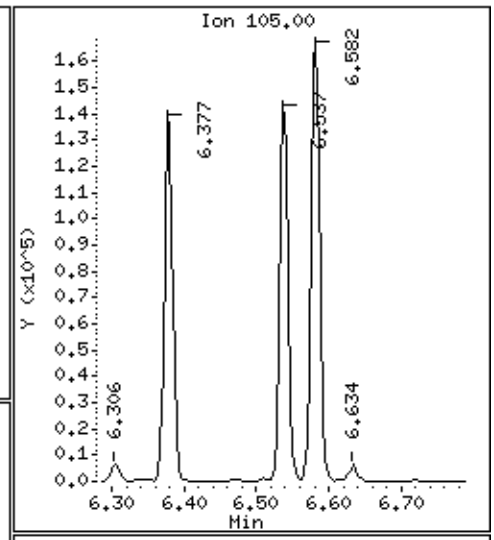
Column phase: RTX-VMS

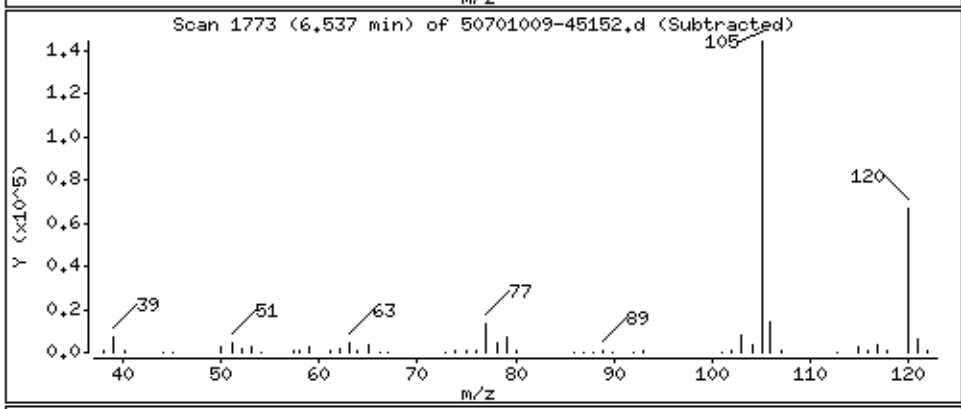
Column diameter: 0.18

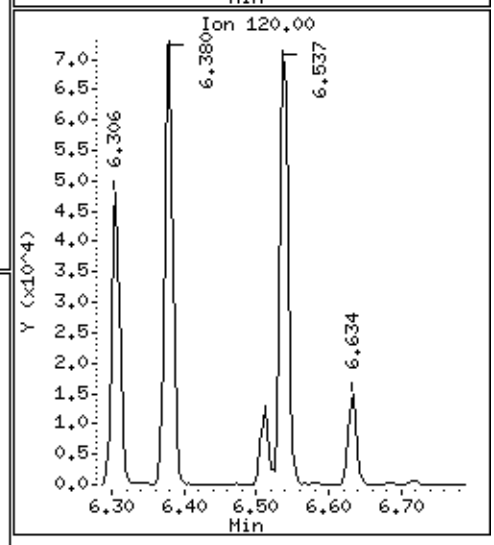
90 1,2,4-Trimethylbenzene

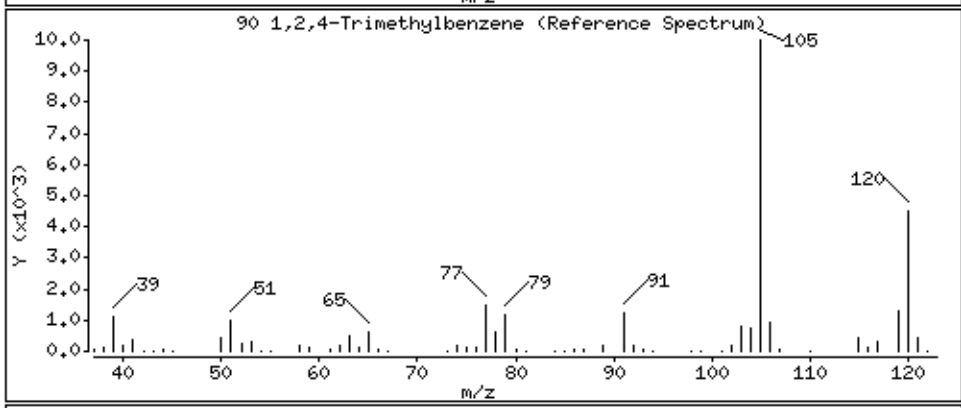
Concentration: 19.2 ug/L

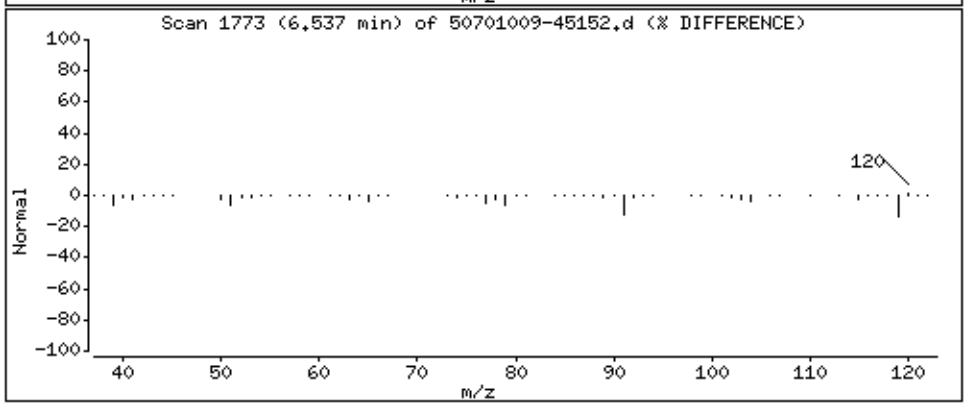












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

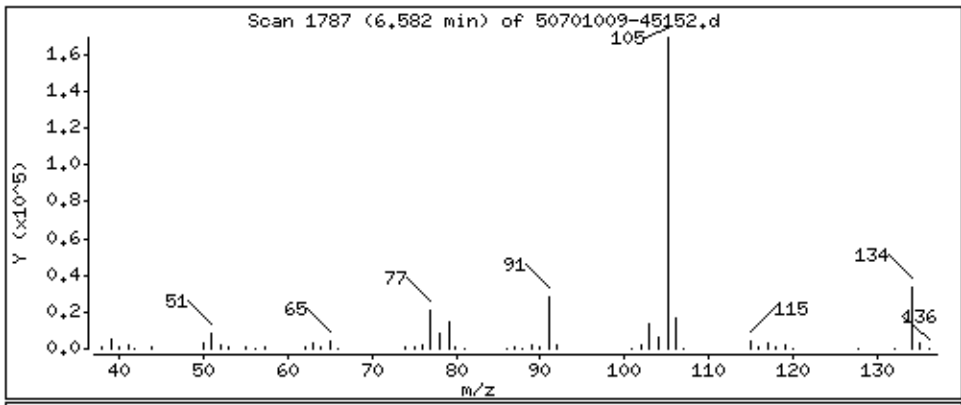
Operator: JEW

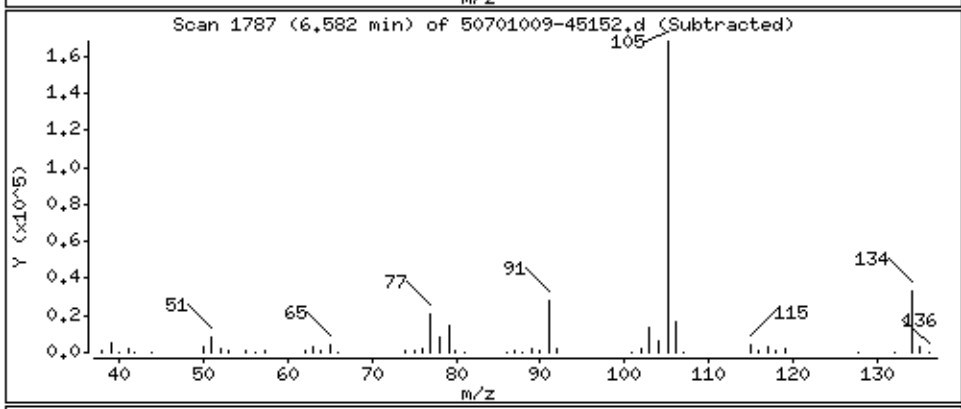
Column phase: RTX-VMS

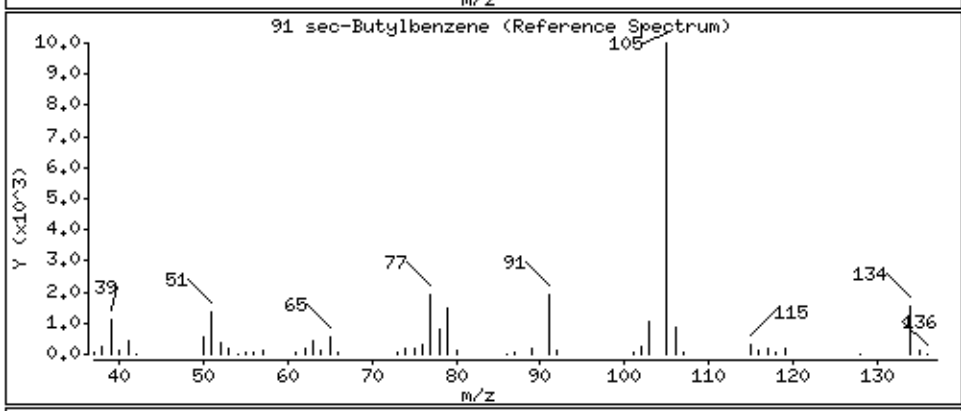
Column diameter: 0.18

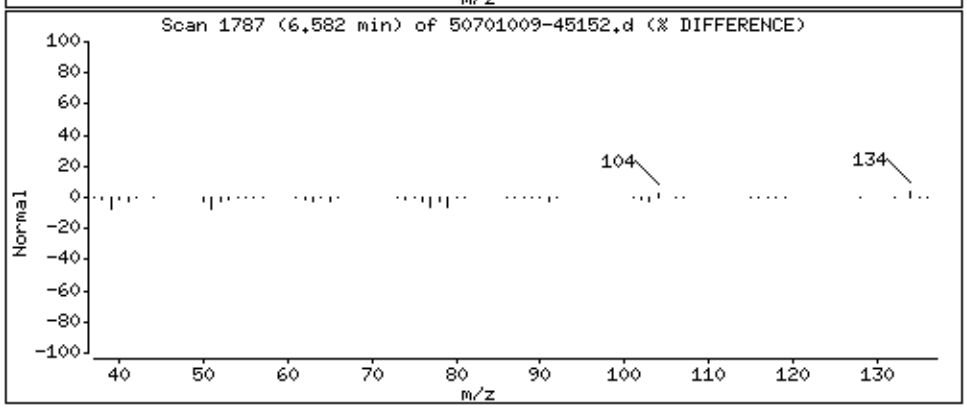
91 sec-Butylbenzene

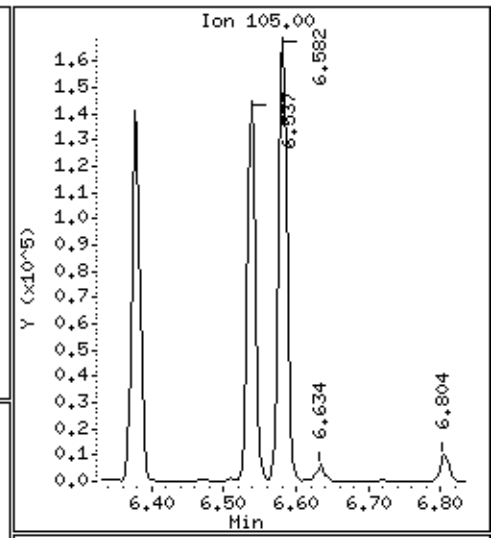
Concentration: 20.0 ug/L

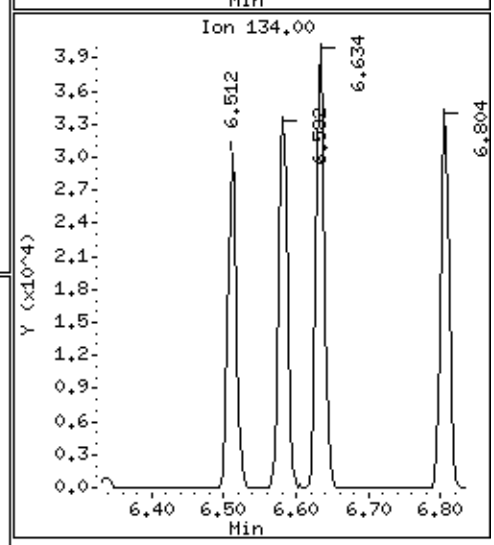












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

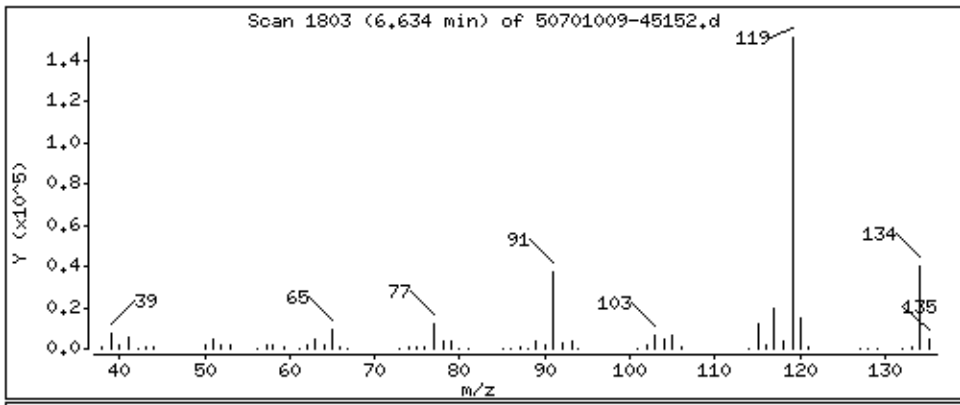
Operator: JEW

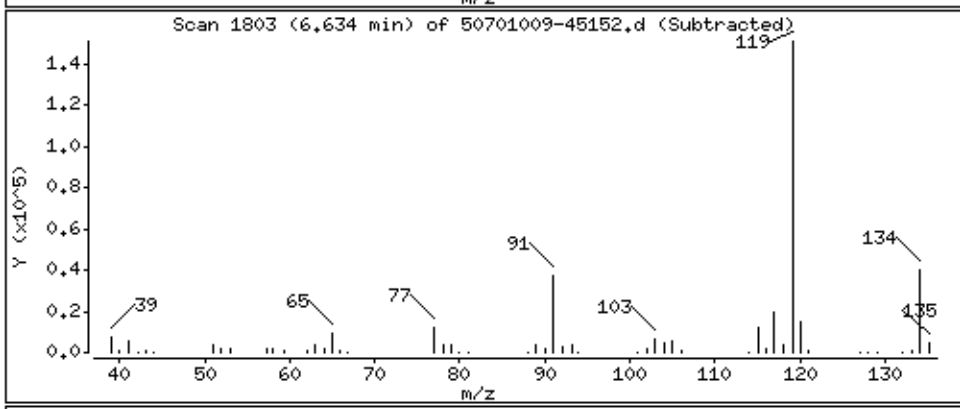
Column phase: RTX-VMS

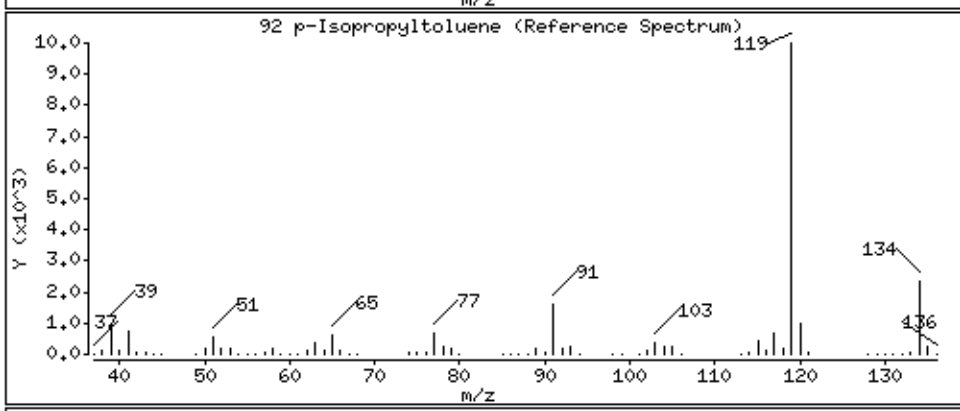
Column diameter: 0.18

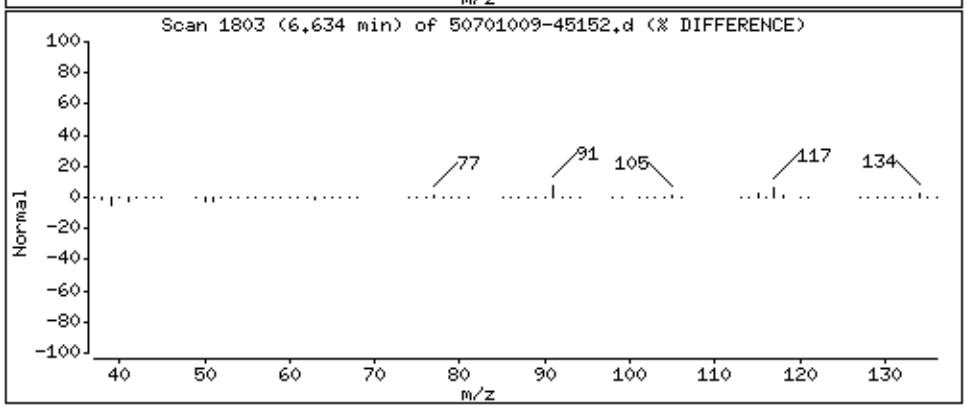
92 p-Isopropyltoluene

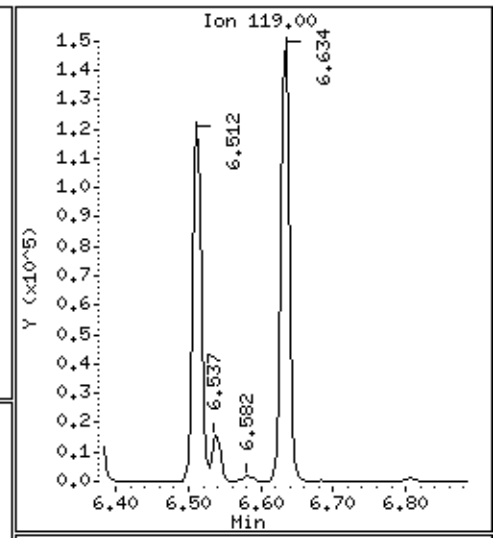
Concentration: 20.7 ug/L

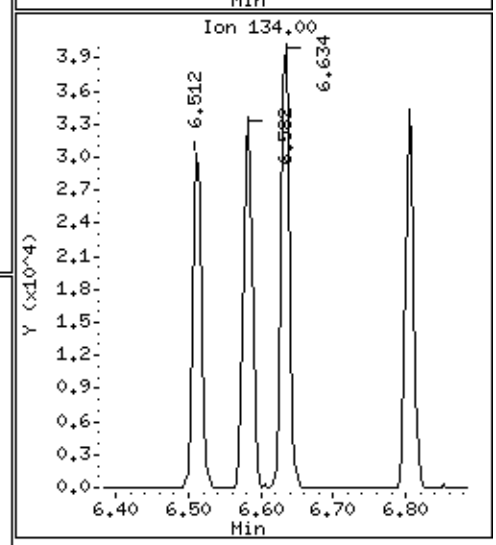












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

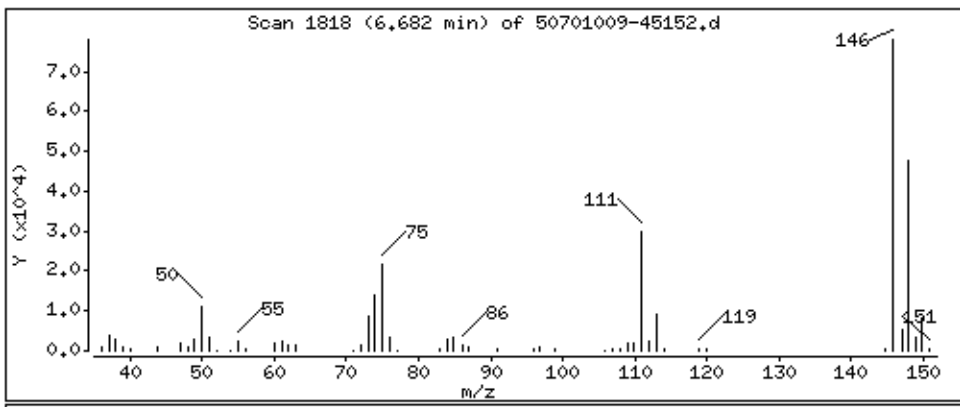
Operator: JEW

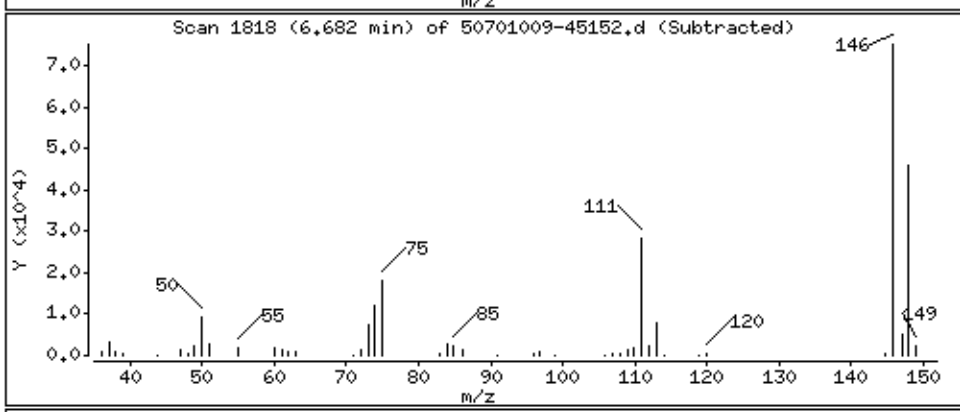
Column phase: RTX-VMS

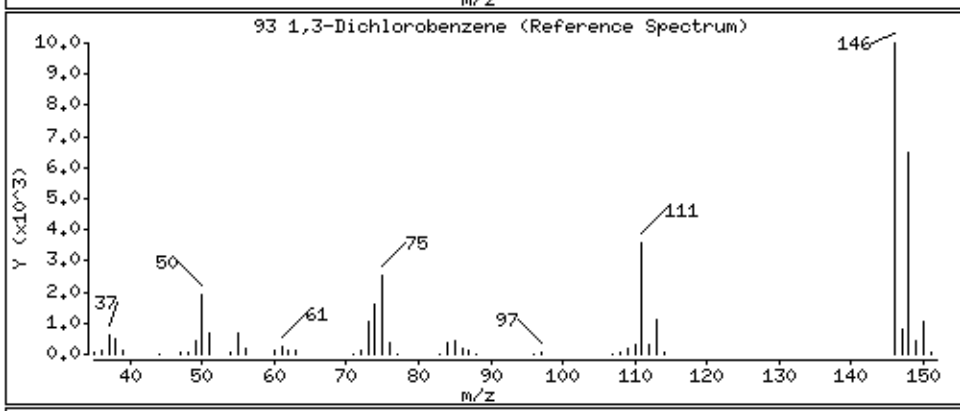
Column diameter: 0.18

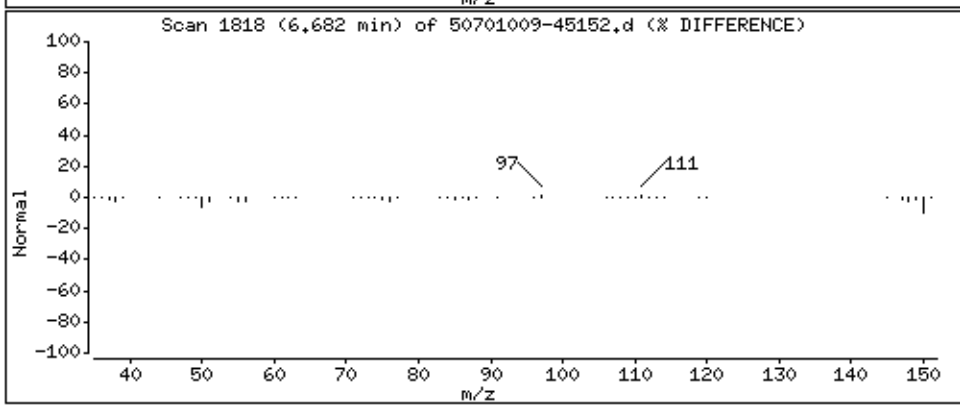
93 1,3-Dichlorobenzene

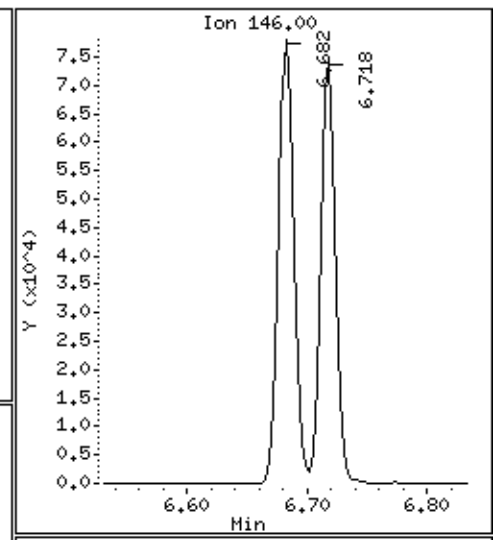
Concentration: 19.7 ug/L

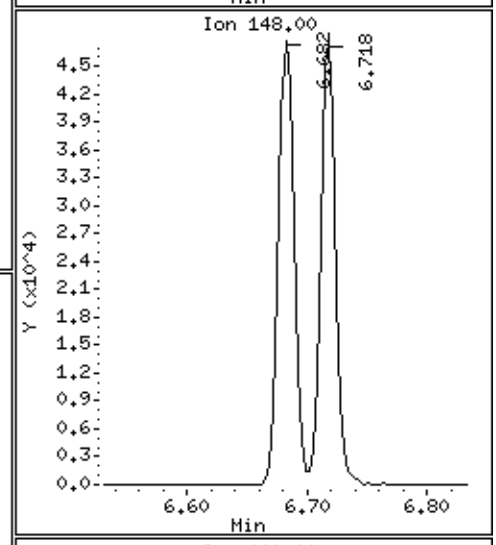


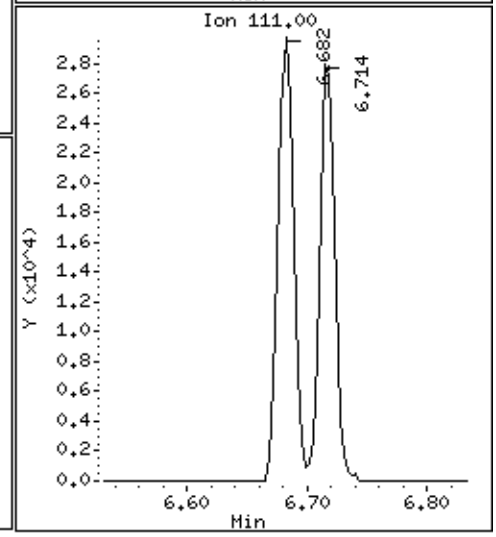












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

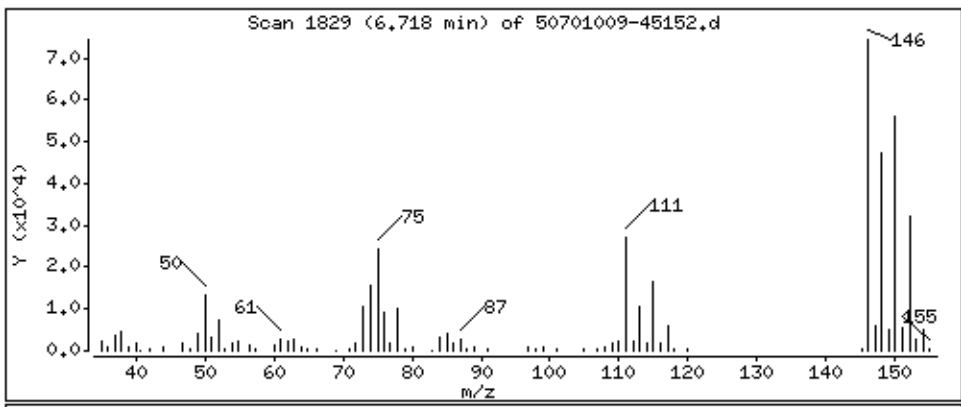
Operator: JEW

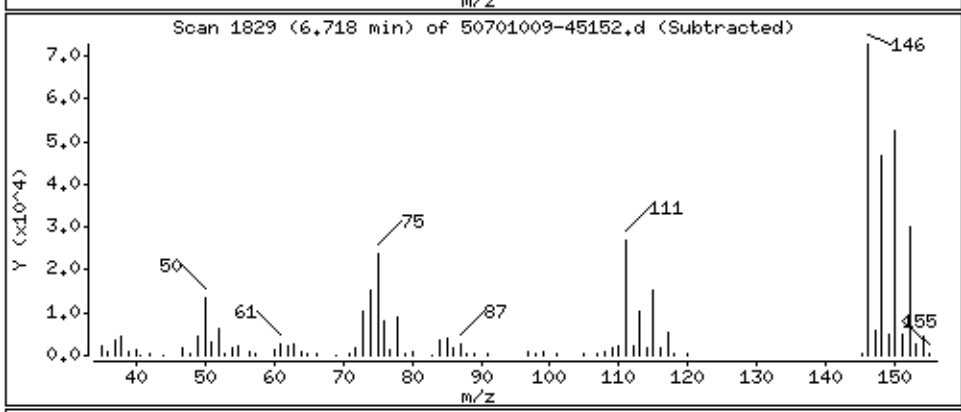
Column phase: RTX-VMS

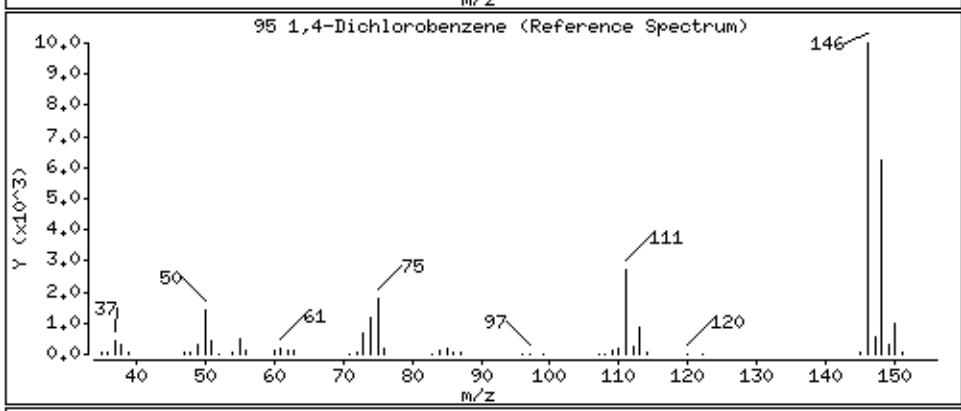
Column diameter: 0.18

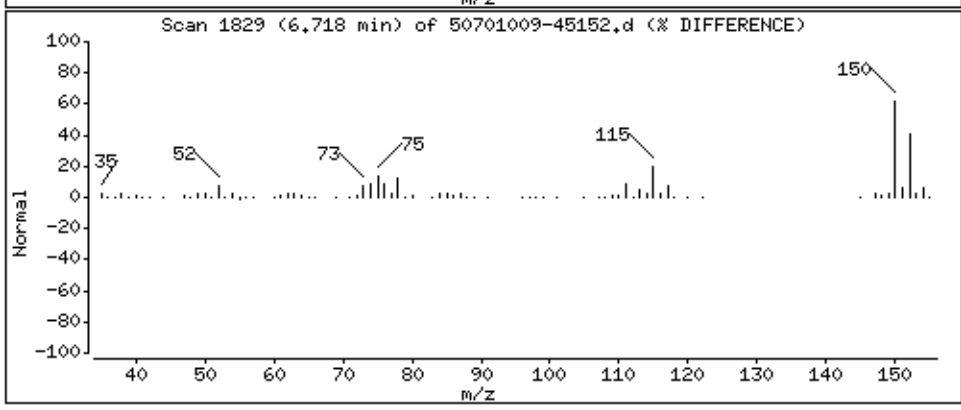
95 1,4-Dichlorobenzene

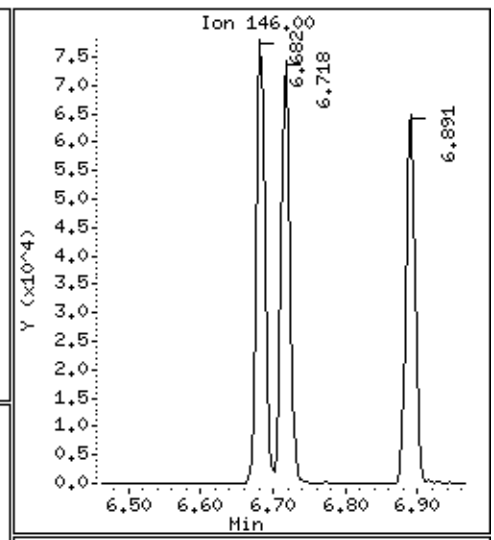
Concentration: 19.4 ug/L

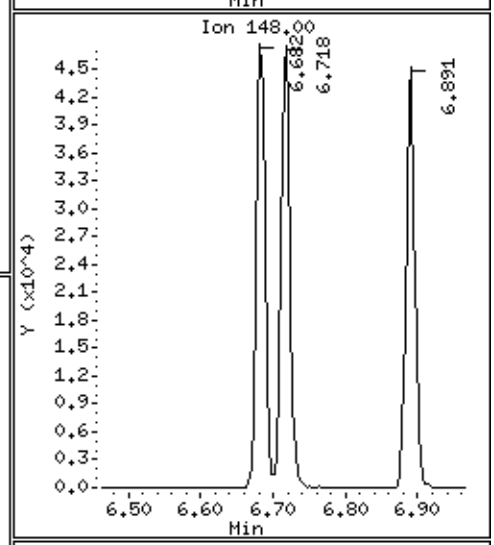


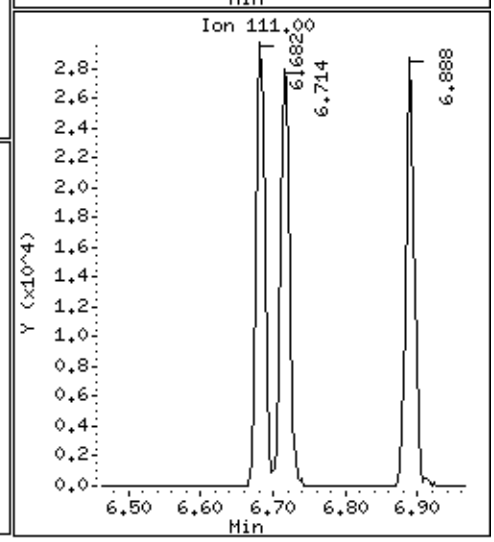












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701009-45152.d

Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

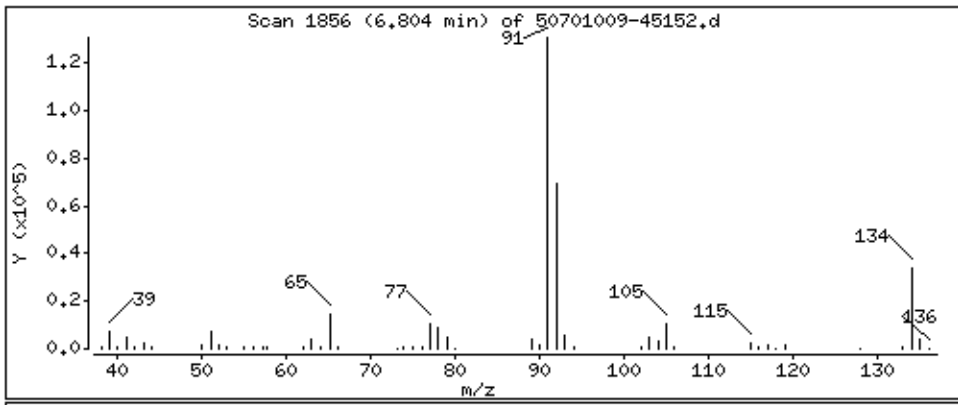
Operator: JEW

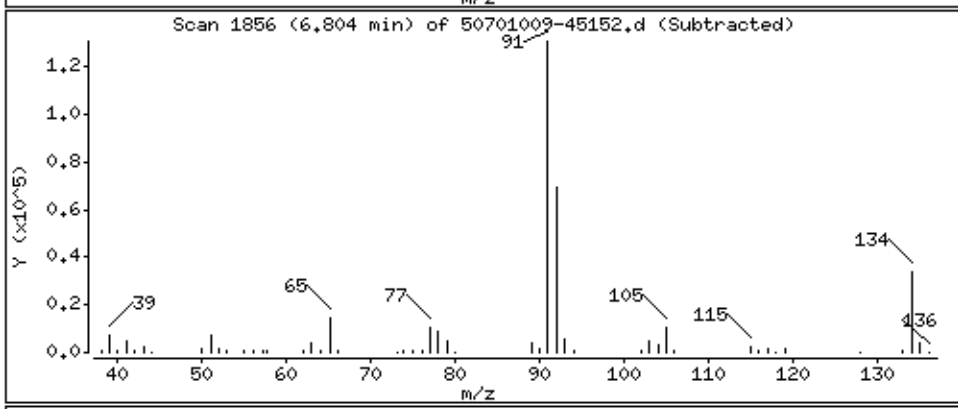
Column phase: RTX-VMS

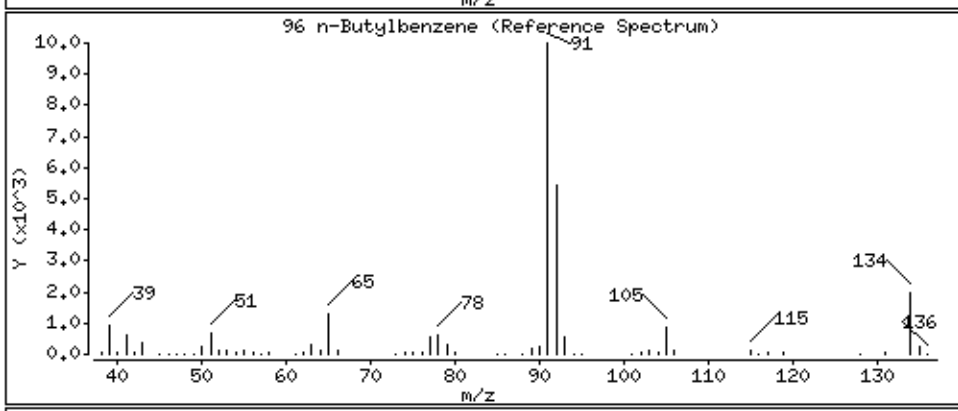
Column diameter: 0.18

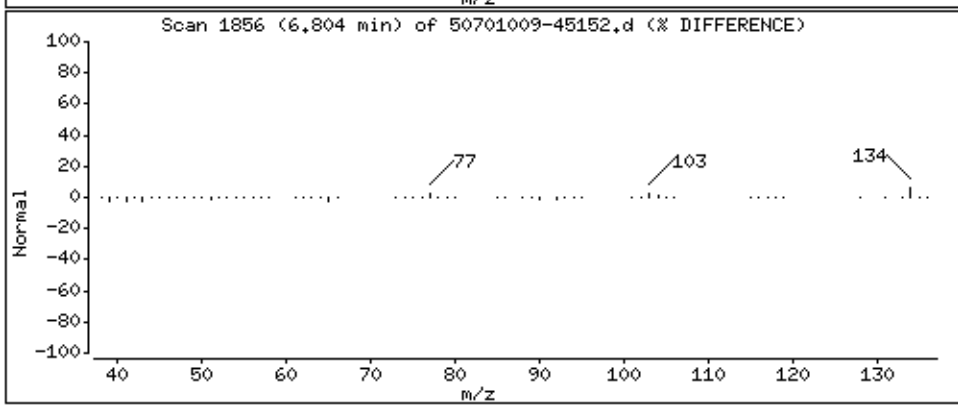
96 n-Butylbenzene

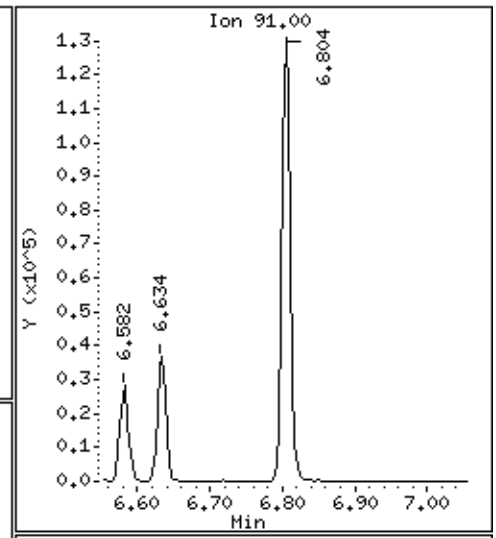
Concentration: 20.6 ug/L

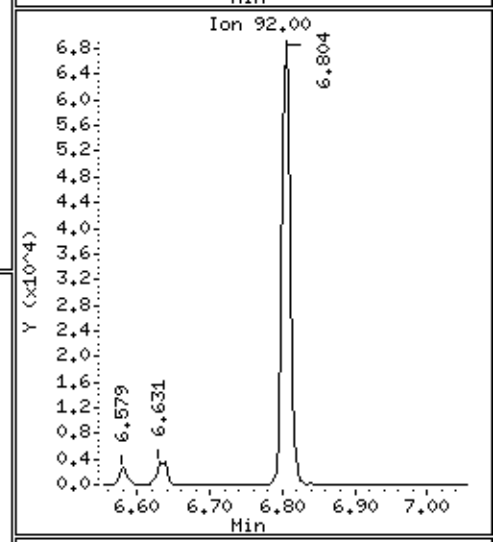


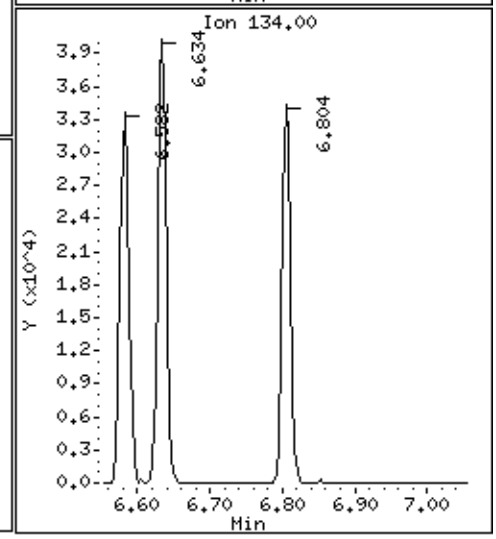












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

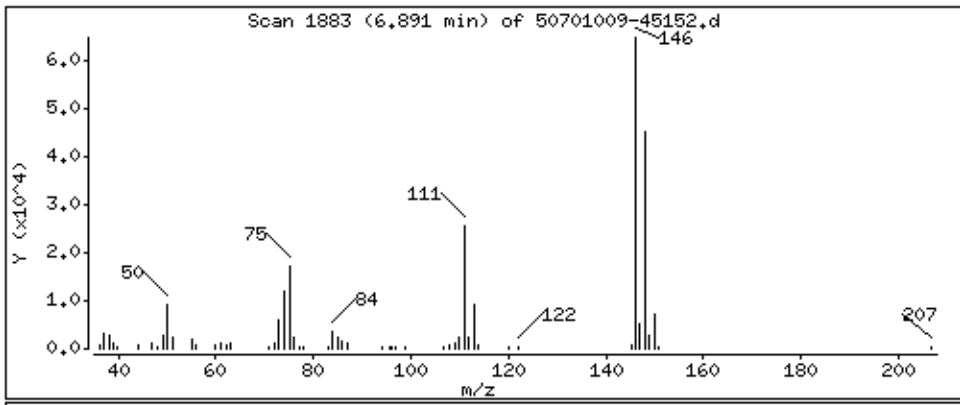
Operator: JEW

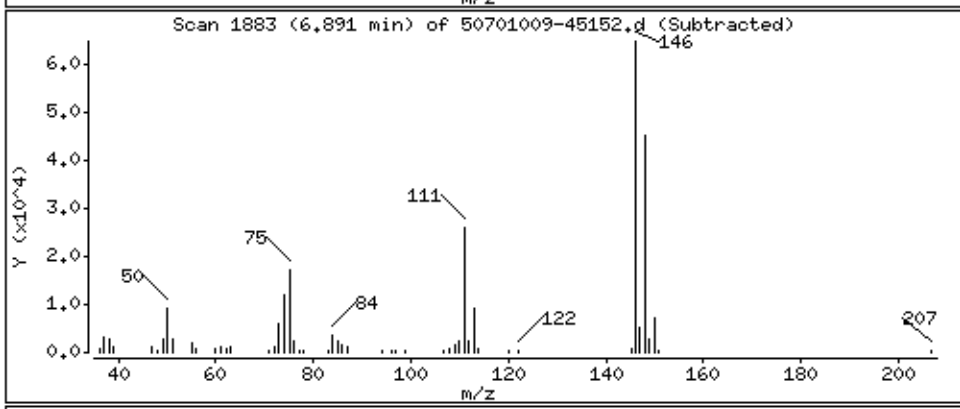
Column phase: RTX-VMS

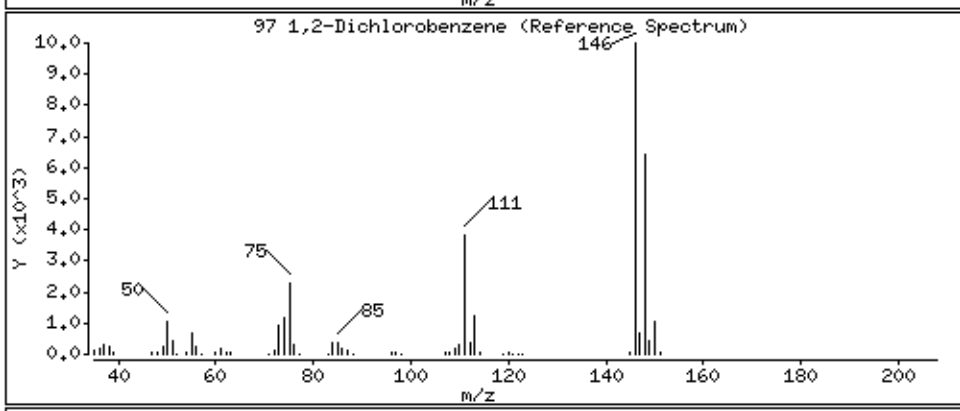
Column diameter: 0.18

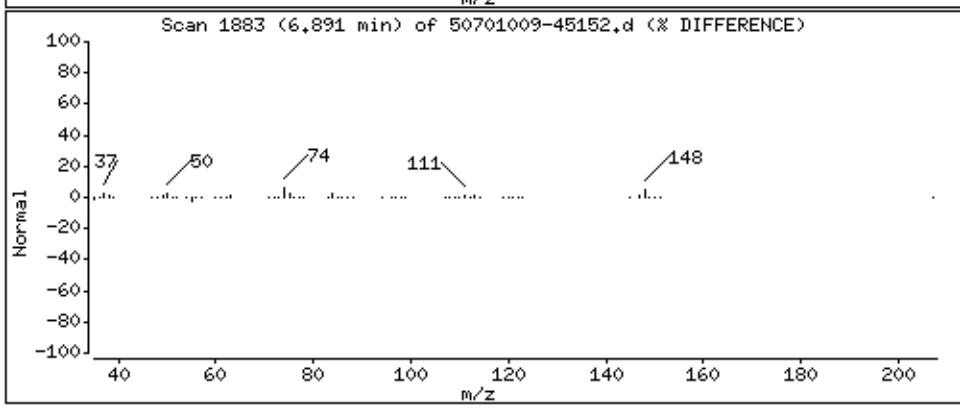
97 1,2-Dichlorobenzene

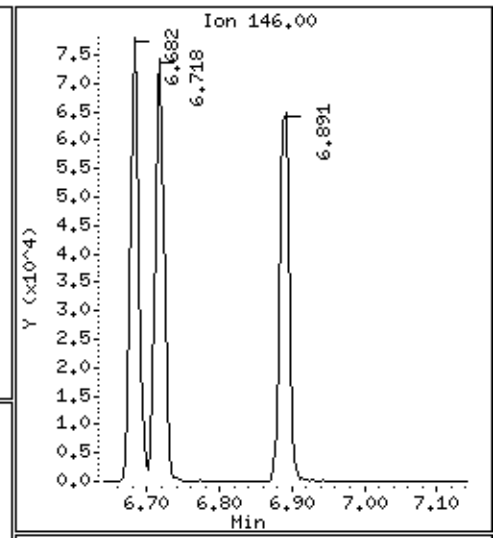
Concentration: 19.3 ug/L

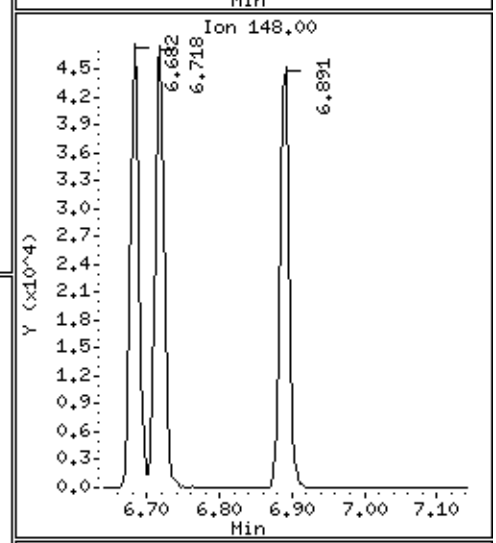


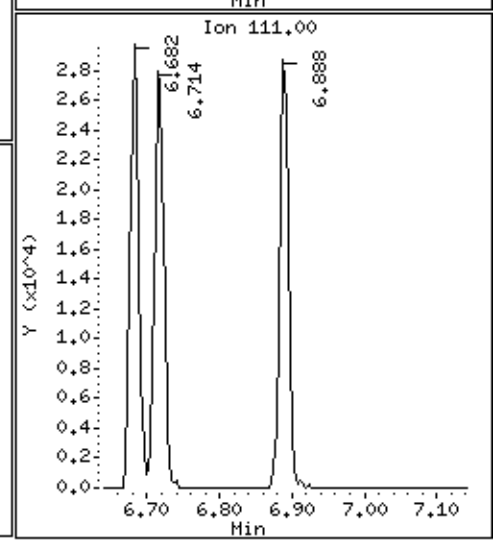












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

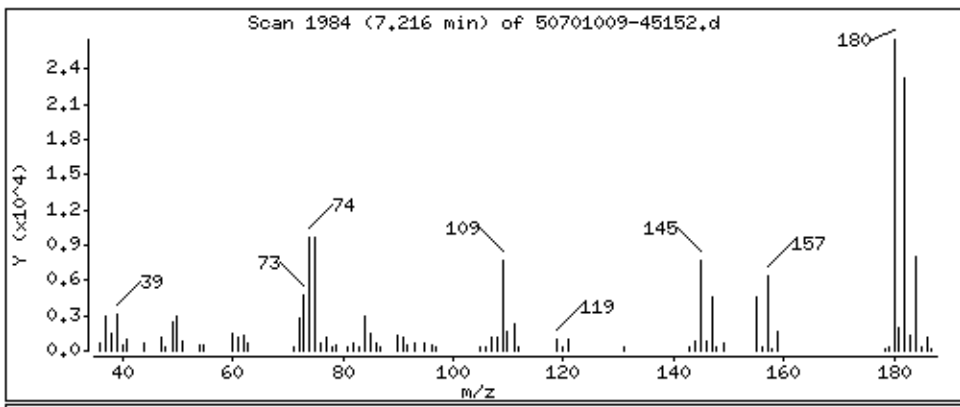
Operator: JEW

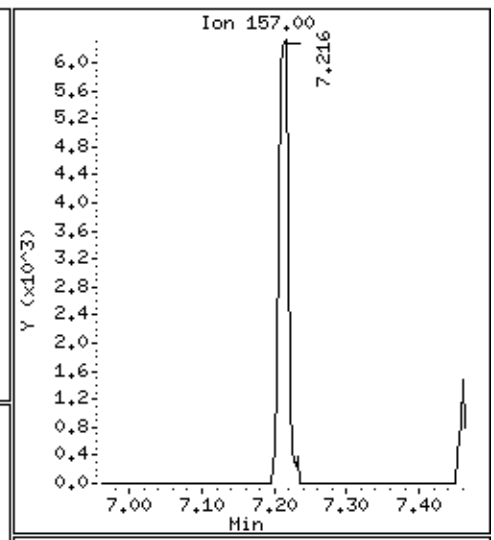
Column phase: RTX-VMS

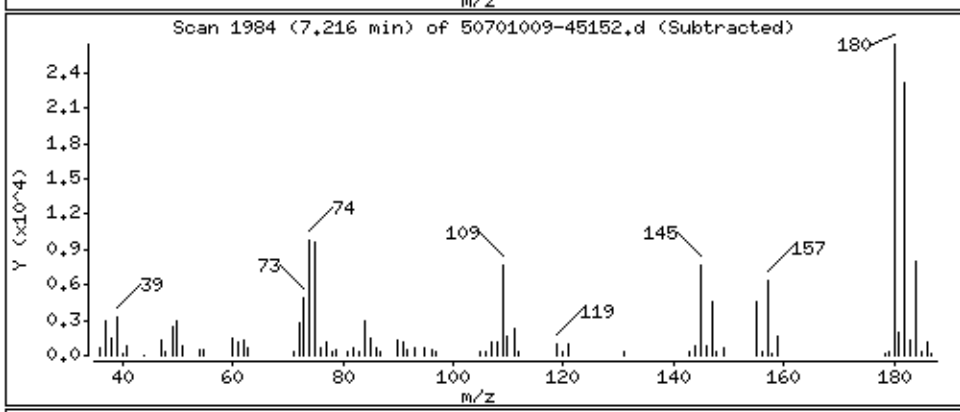
Column diameter: 0.18

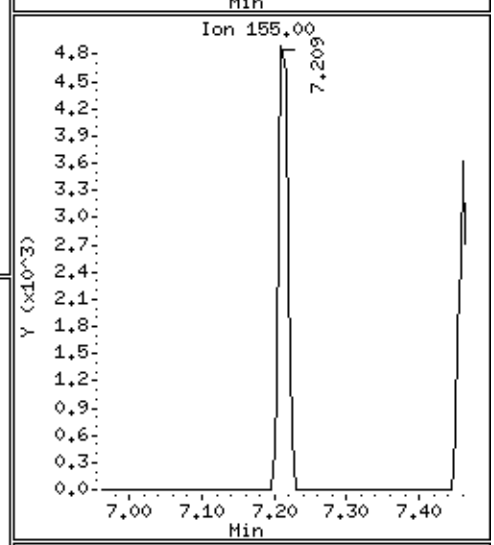
98 1,2-Dibromo-3-chloropropane

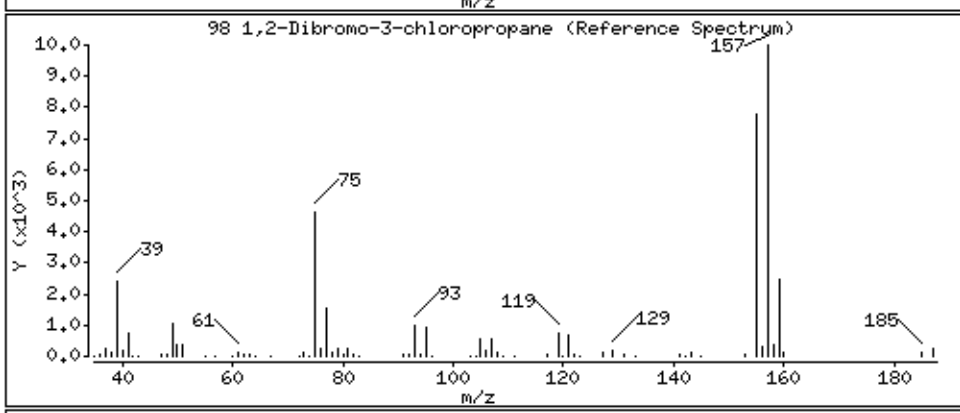
Concentration: 16.0 ug/L

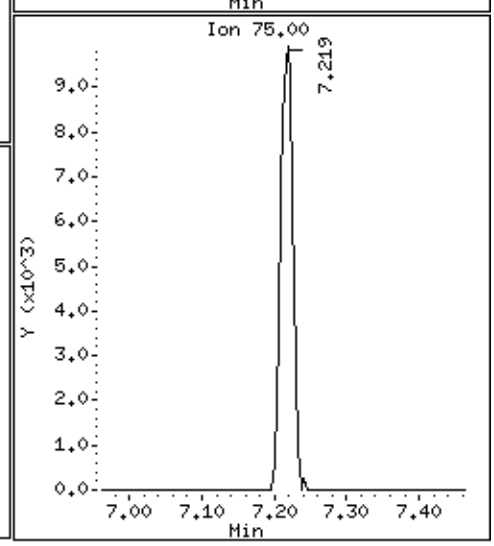


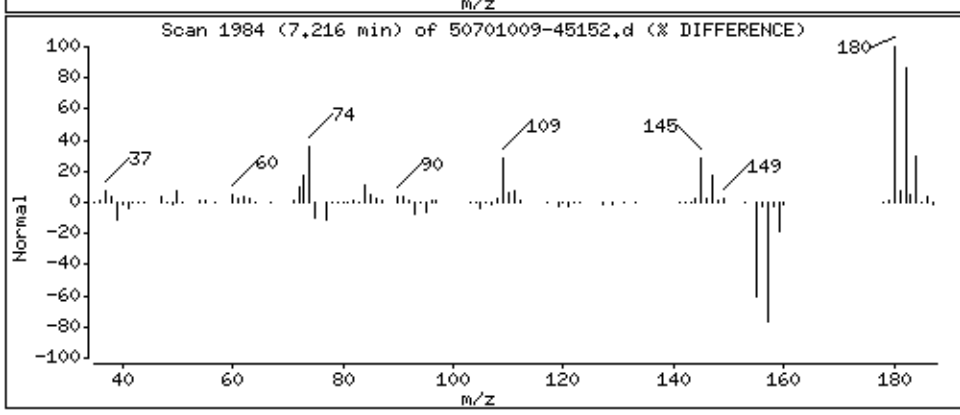












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

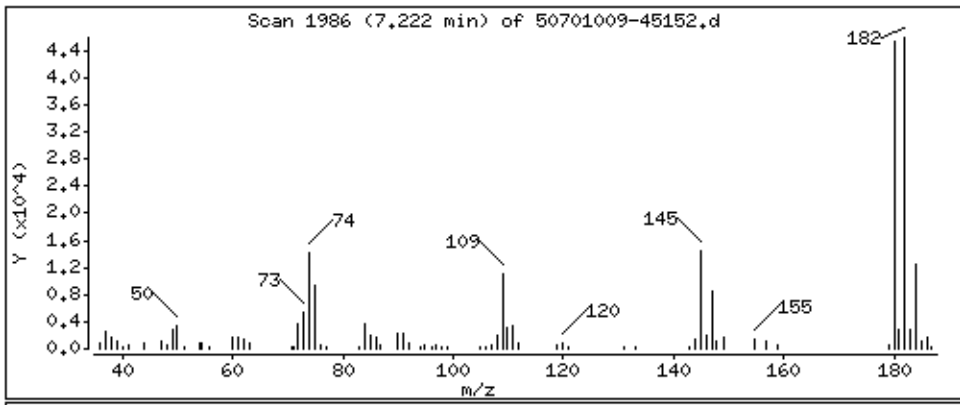
Operator: JEW

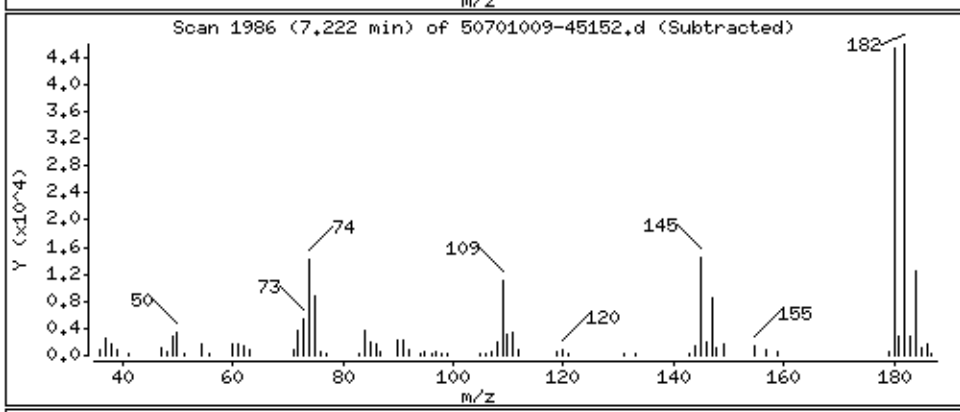
Column phase: RTX-VMS

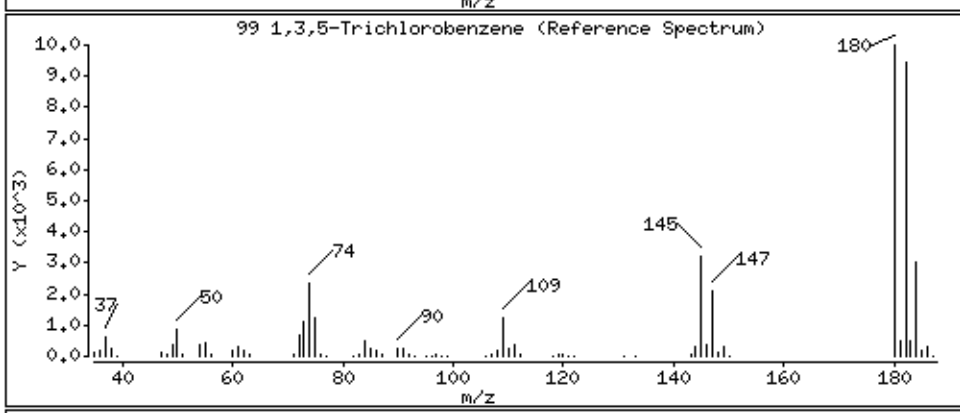
Column diameter: 0.18

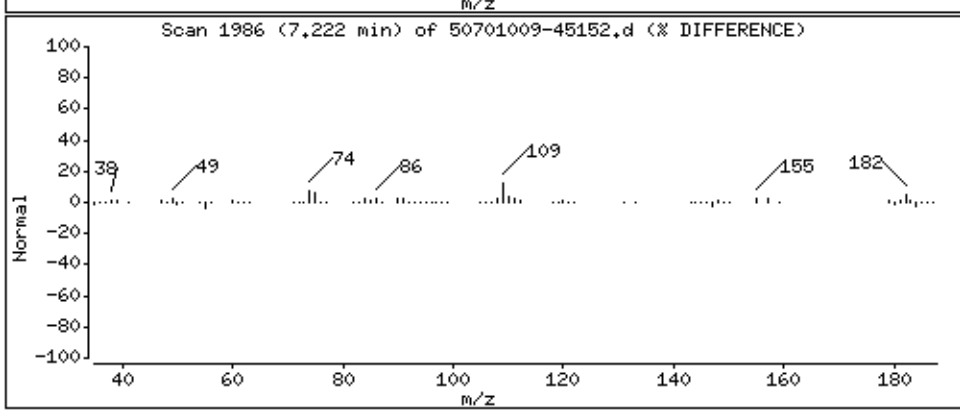
99 1,3,5-Trichlorobenzene

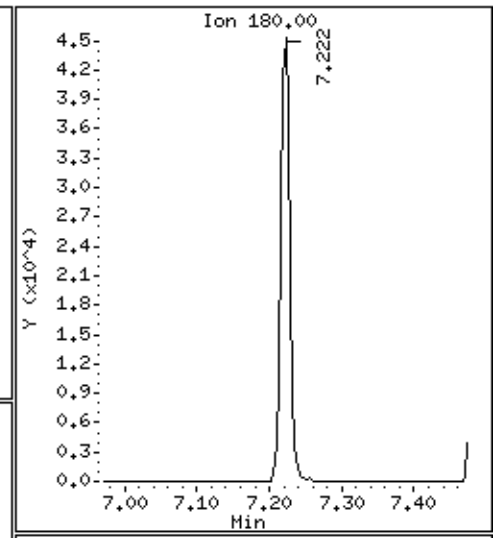
Concentration: 22.0 ug/L

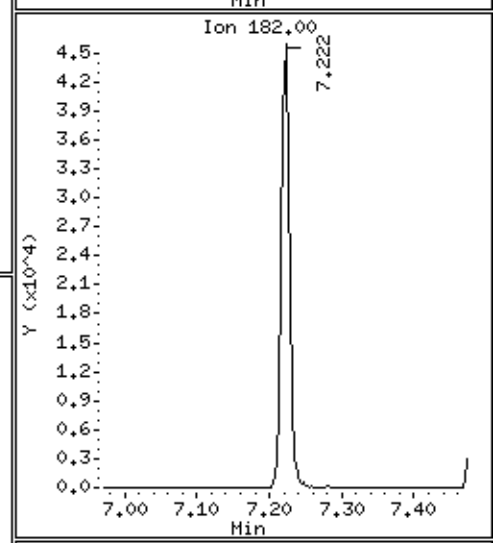


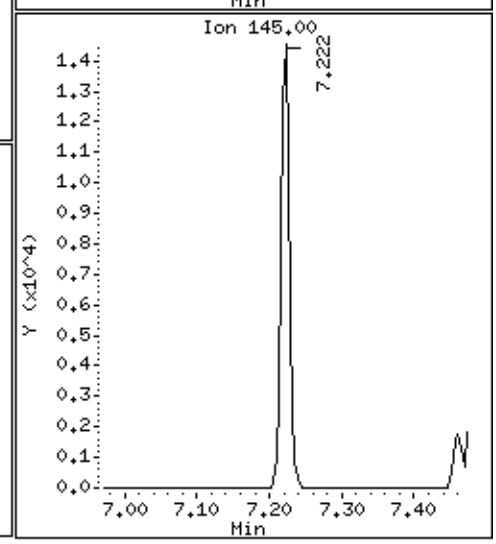












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

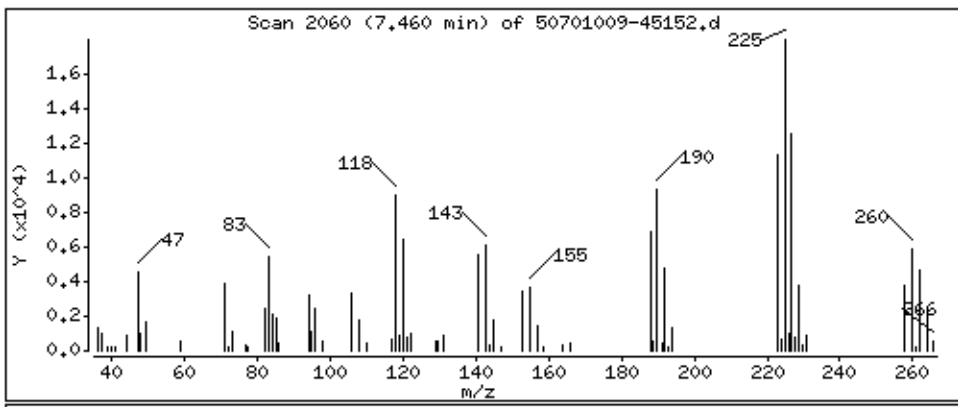
Operator: JEW

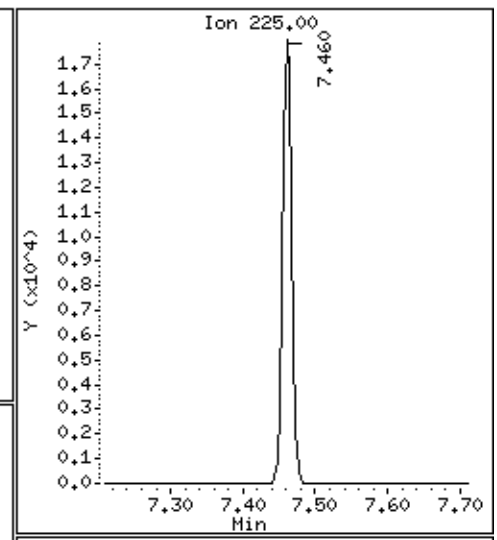
Column phase: RTX-VMS

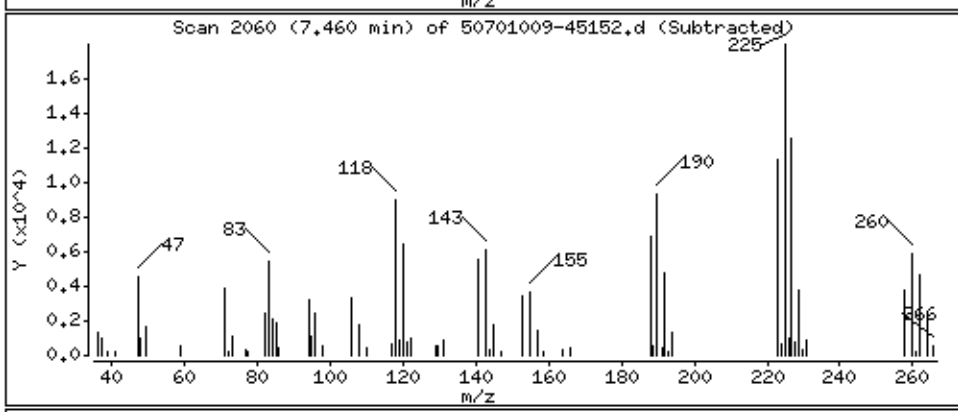
Column diameter: 0.18

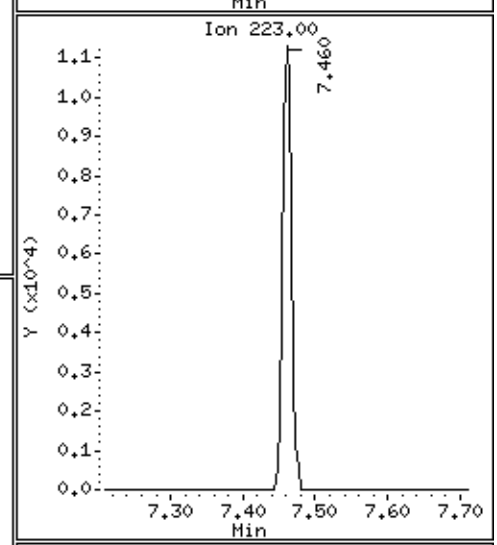
100 Hexachloro-1,3-butadiene

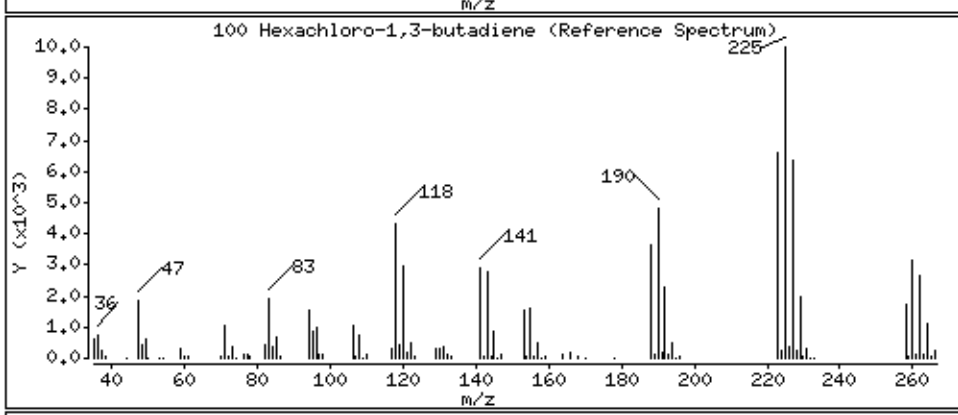
Concentration: 19.7 ug/L

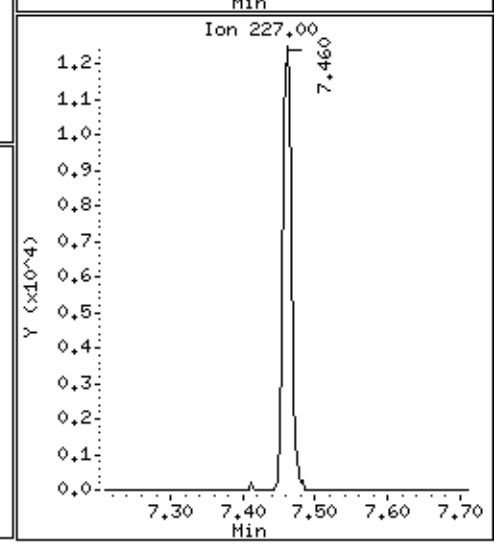


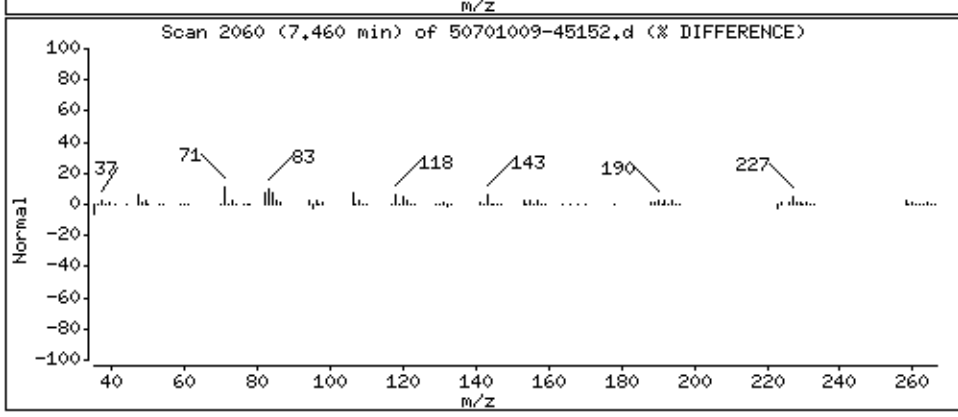












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

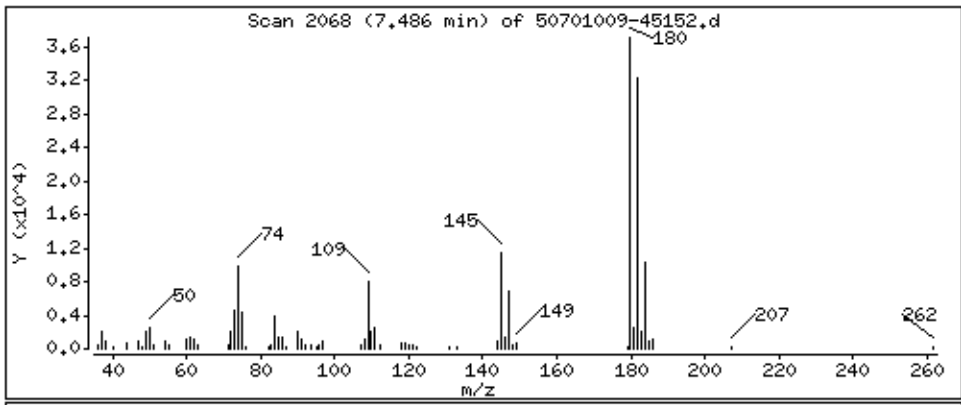
Operator: JEW

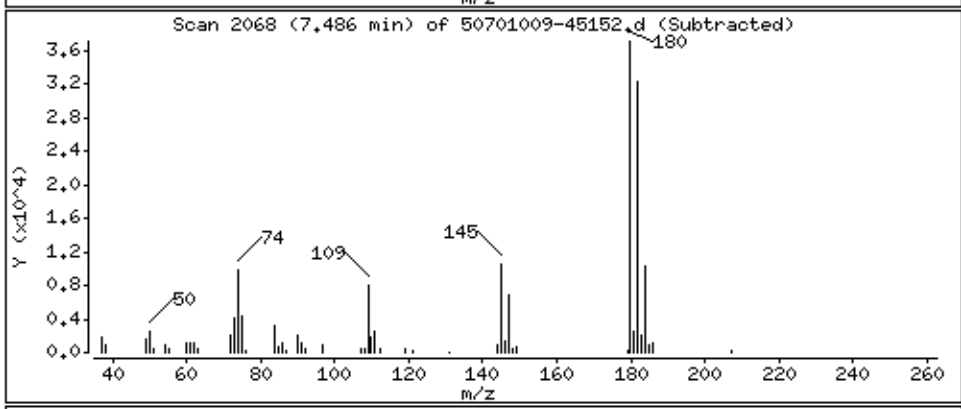
Column phase: RTX-VMS

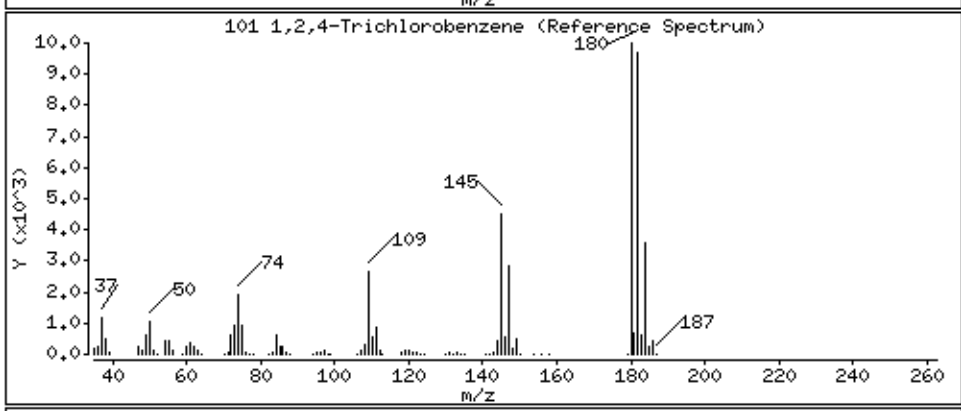
Column diameter: 0.18

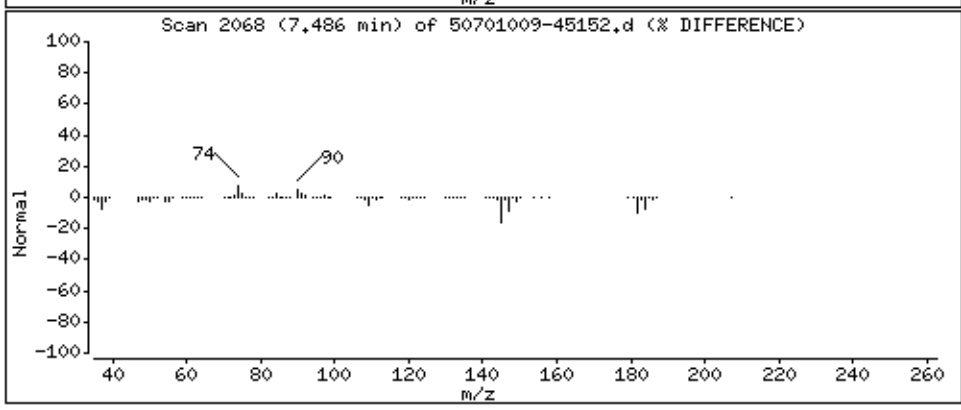
101 1,2,4-Trichlorobenzene

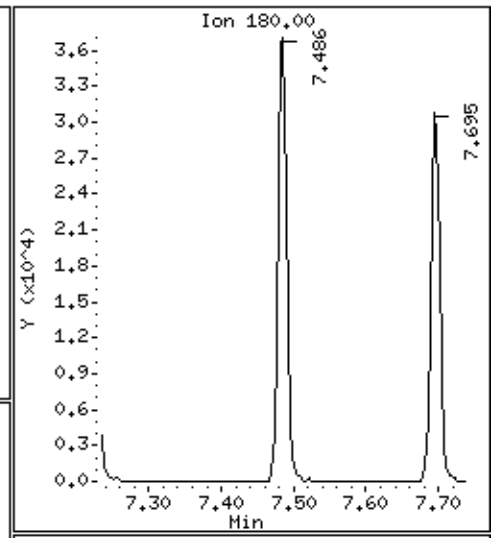
Concentration: 21.2 ug/L

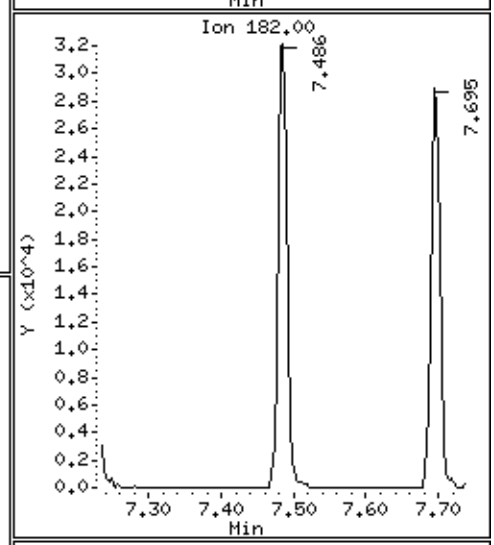


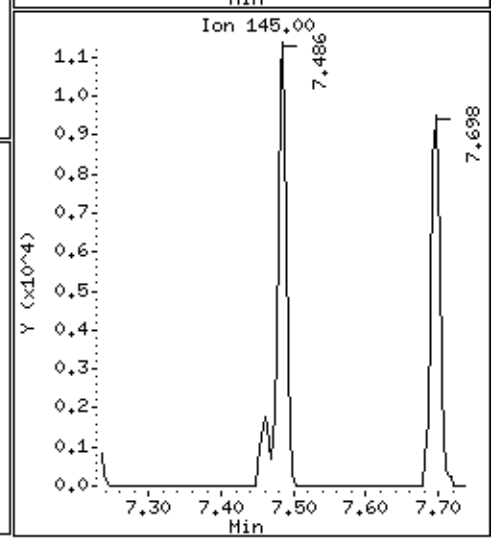












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

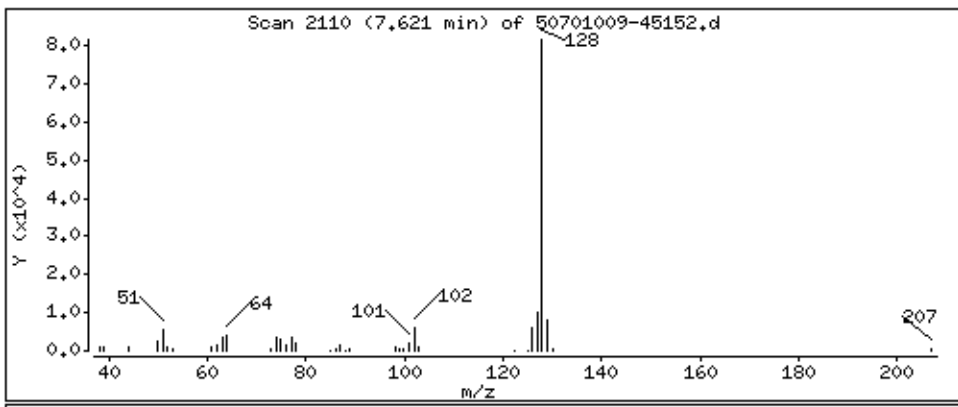
Operator: JEW

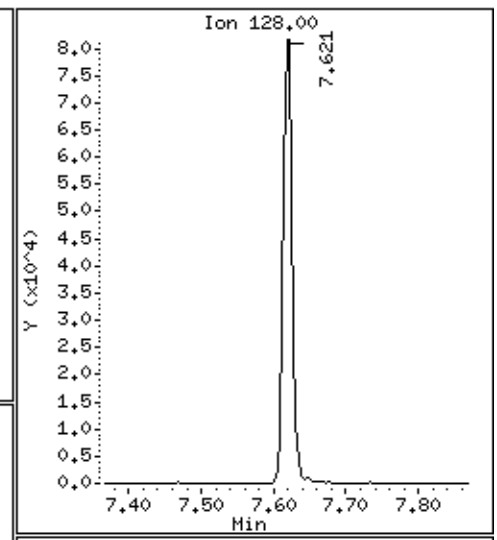
Column phase: RTX-VMS

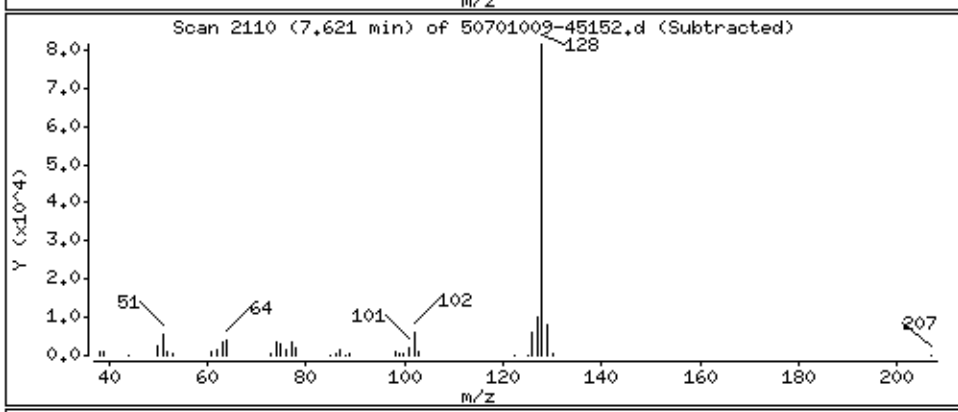
Column diameter: 0.18

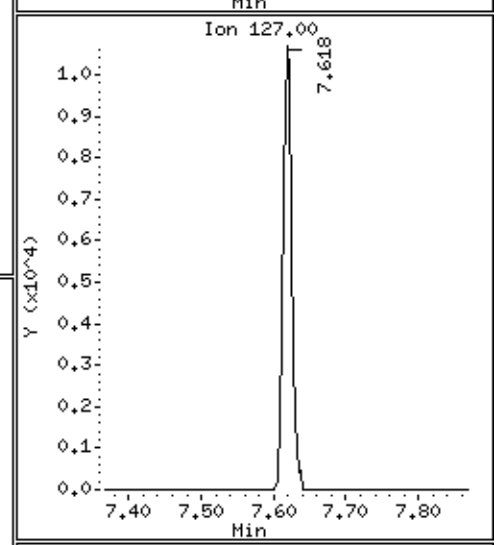
102 Naphthalene

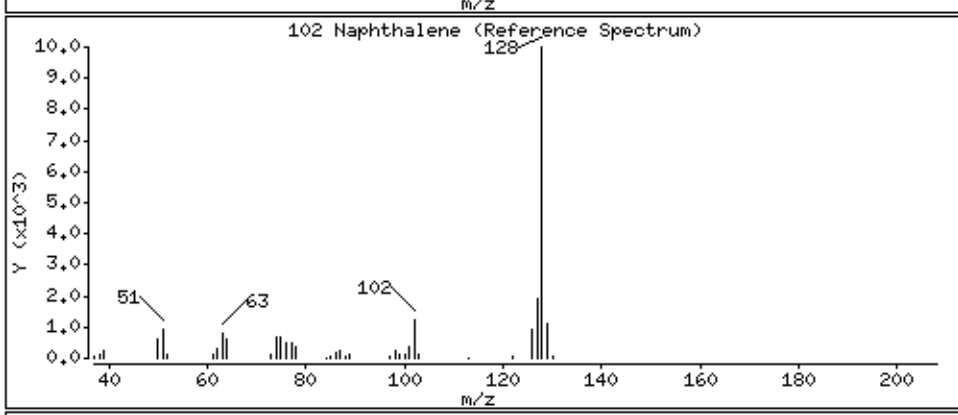
Concentration: 18.5 ug/L

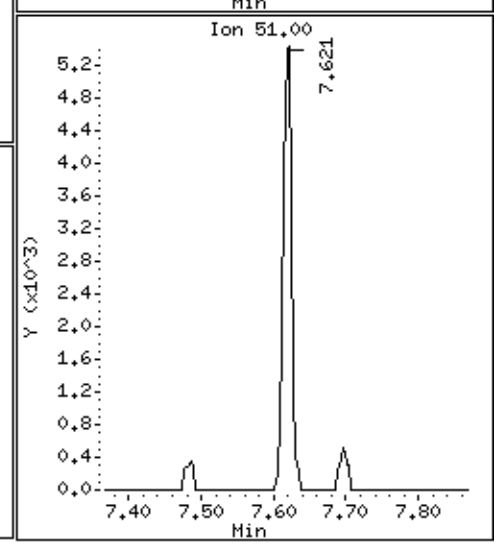


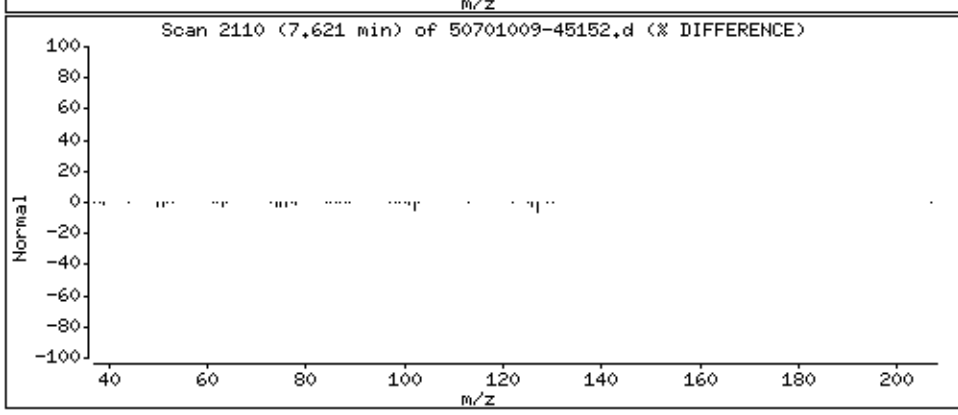












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

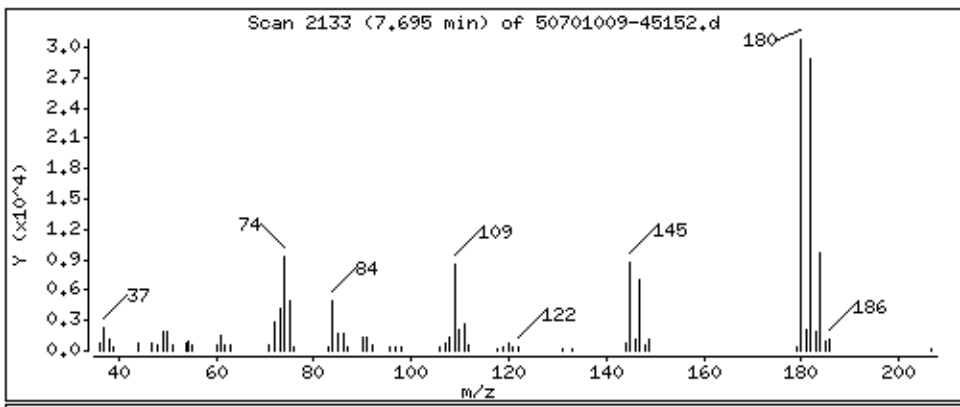
Operator: JEW

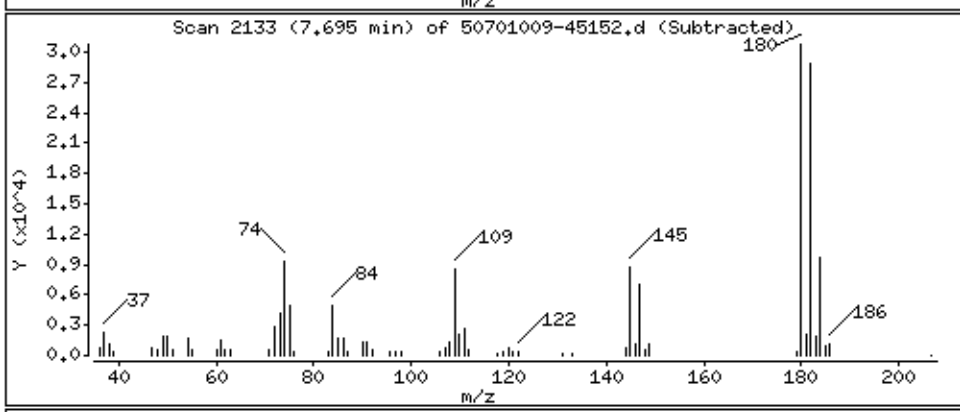
Column phase: RTX-VMS

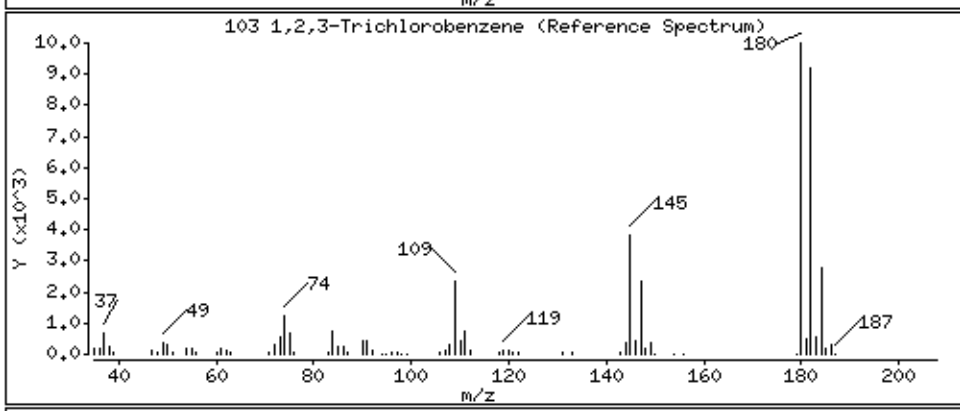
Column diameter: 0.18

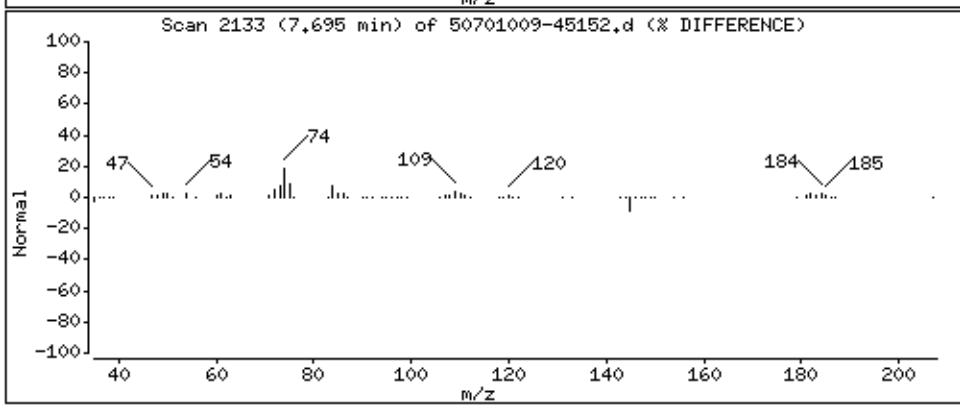
103 1,2,3-Trichlorobenzene

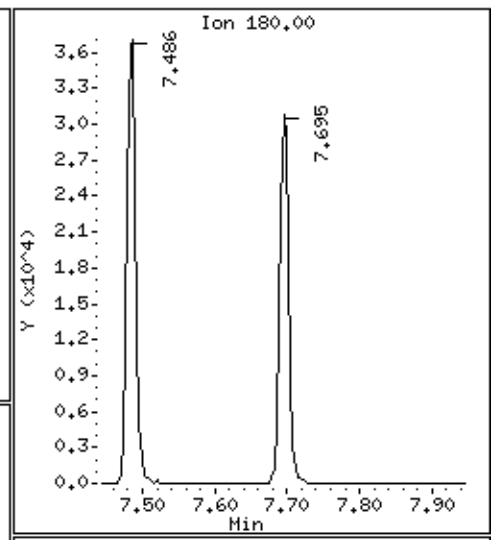
Concentration: 19.8 ug/L

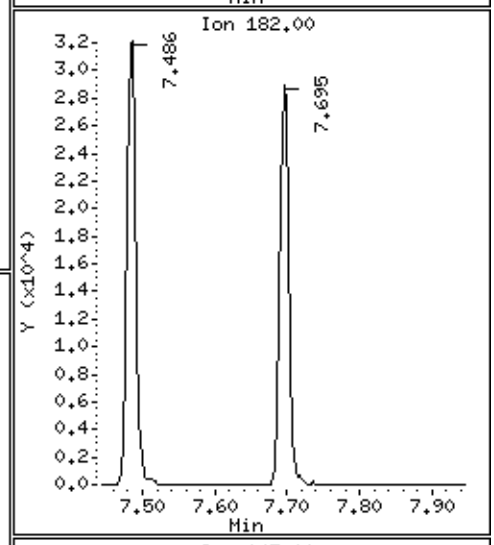


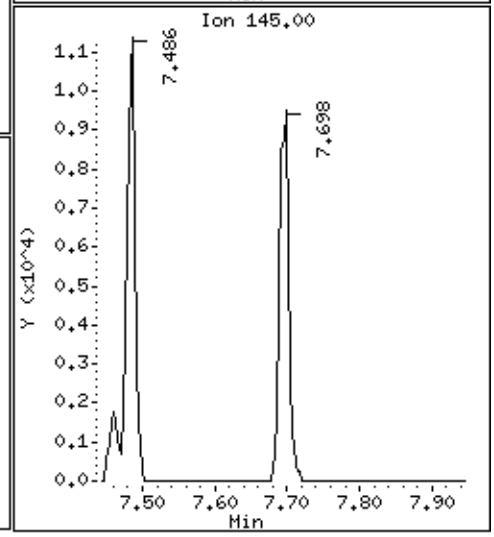












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Date : 01-JUL-2019 10:16

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1699734,92408:5,,

Purge Volume: 5.0

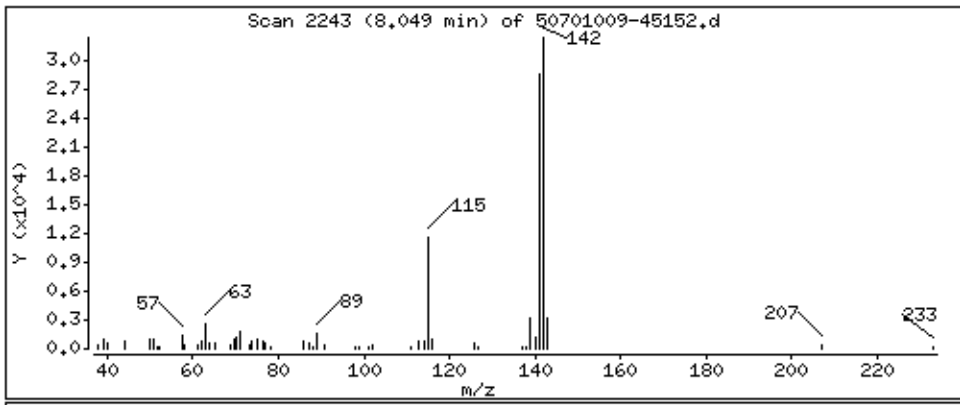
Operator: JEW

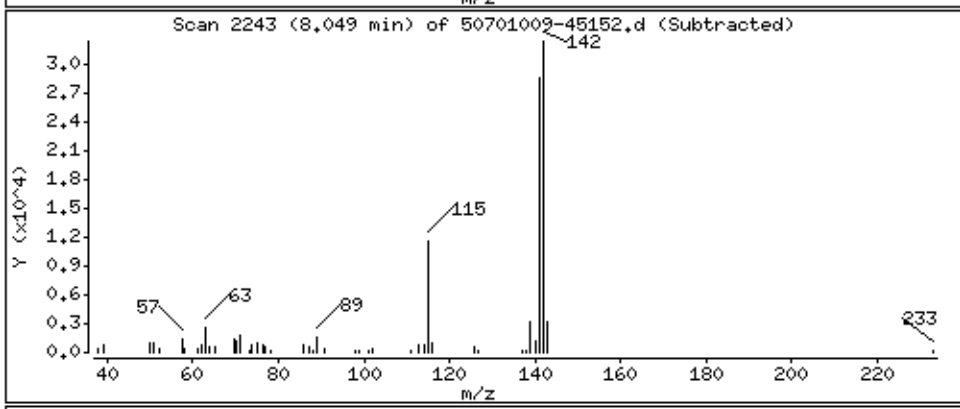
Column phase: RTX-VMS

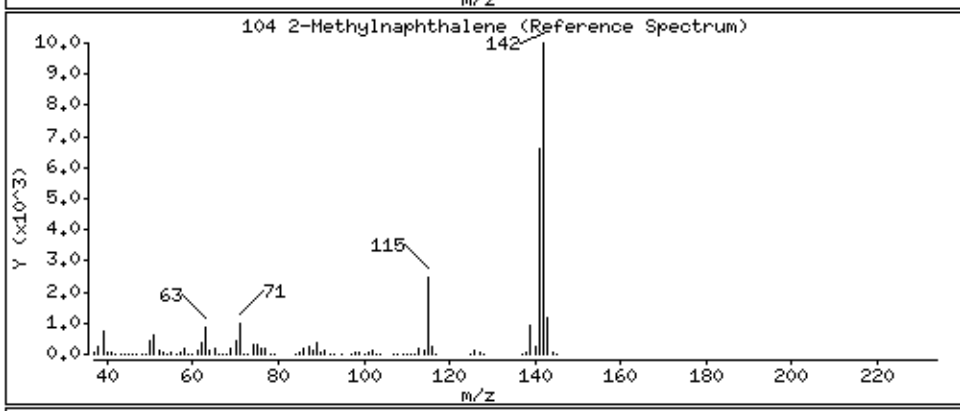
Column diameter: 0.18

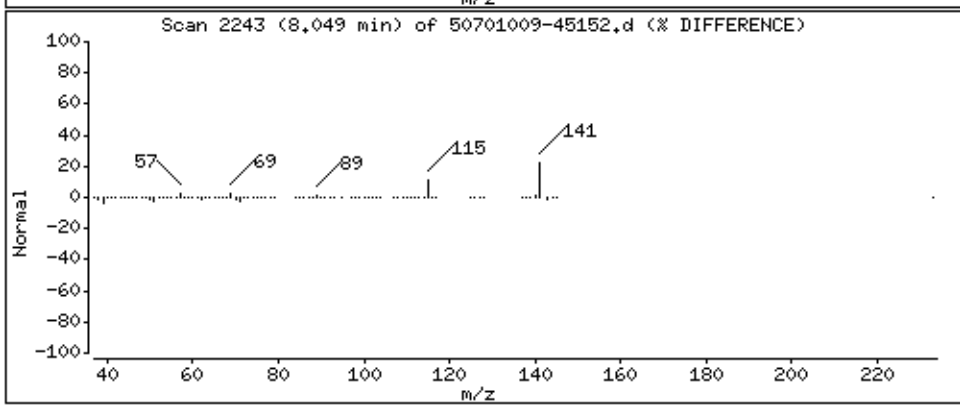
104 2-Methylnaphthalene

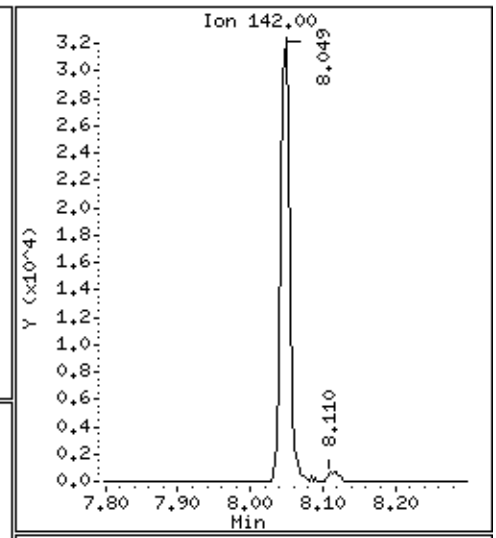
Concentration: 17.3 ug/L

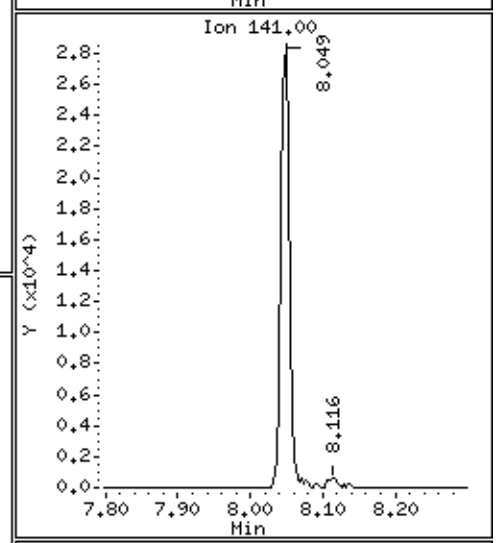


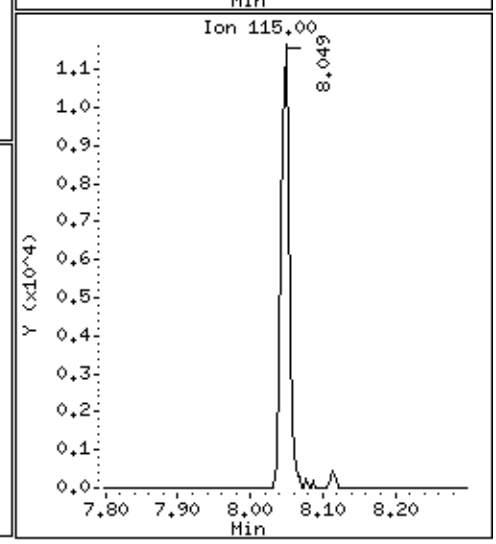






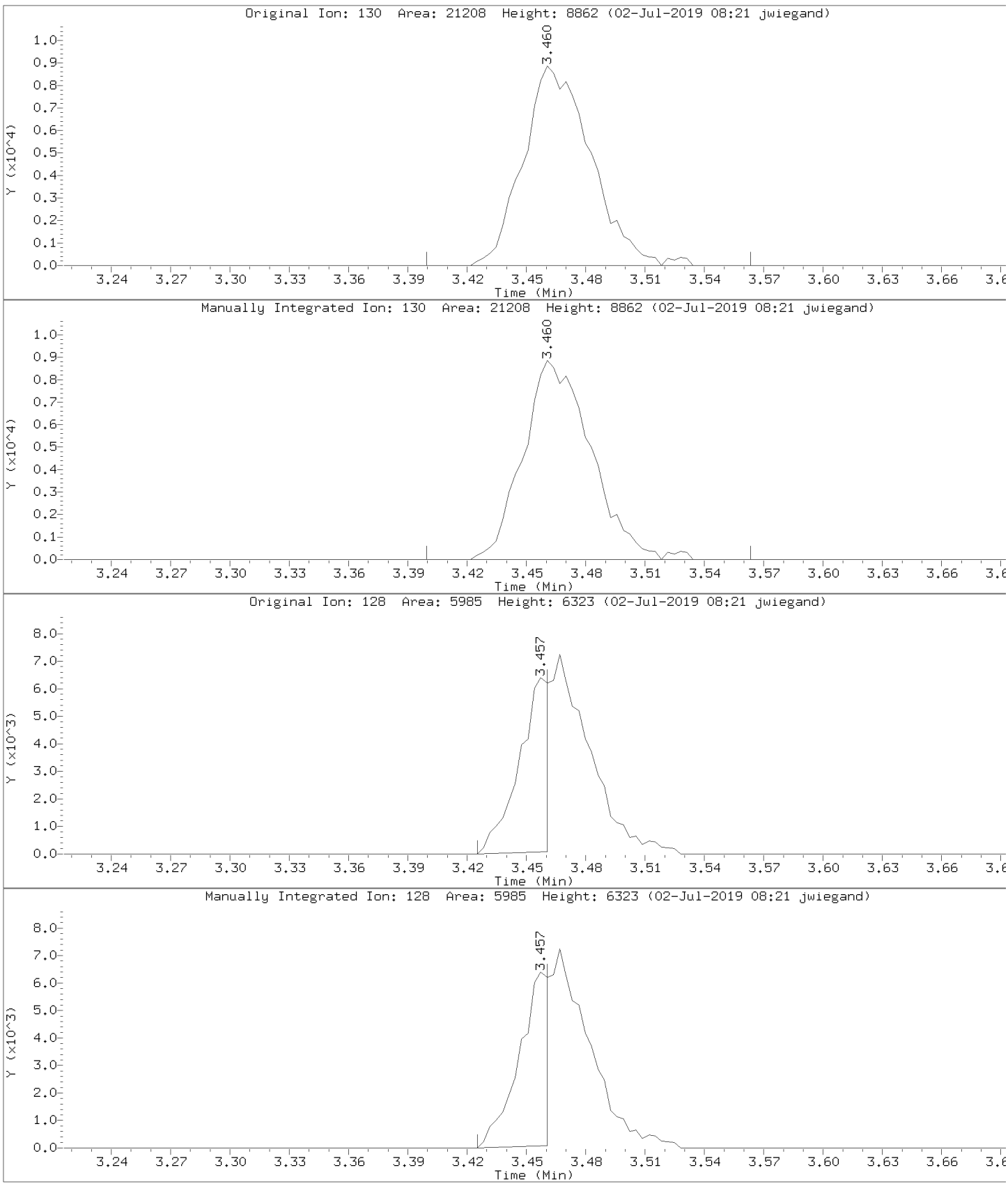






Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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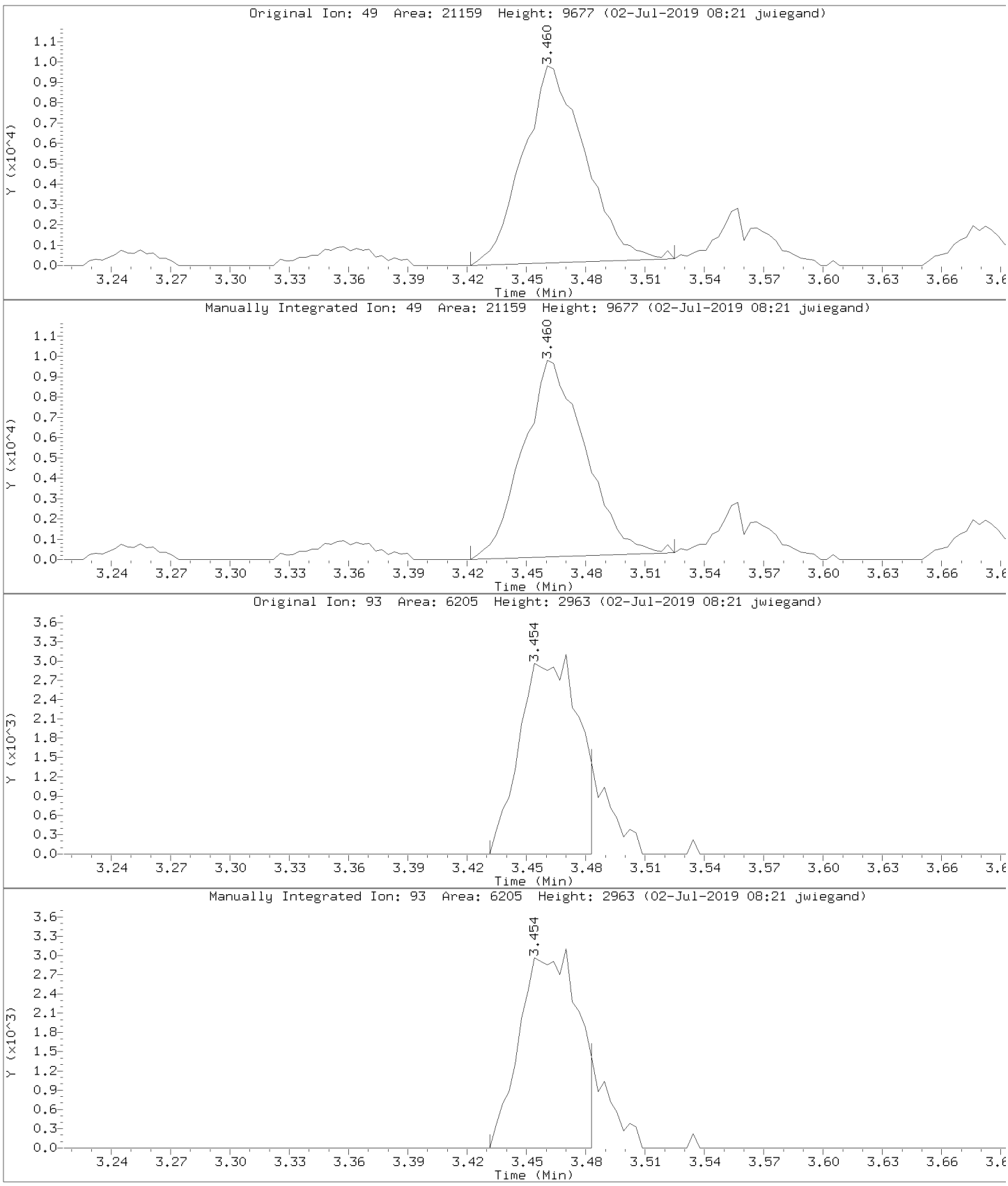
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



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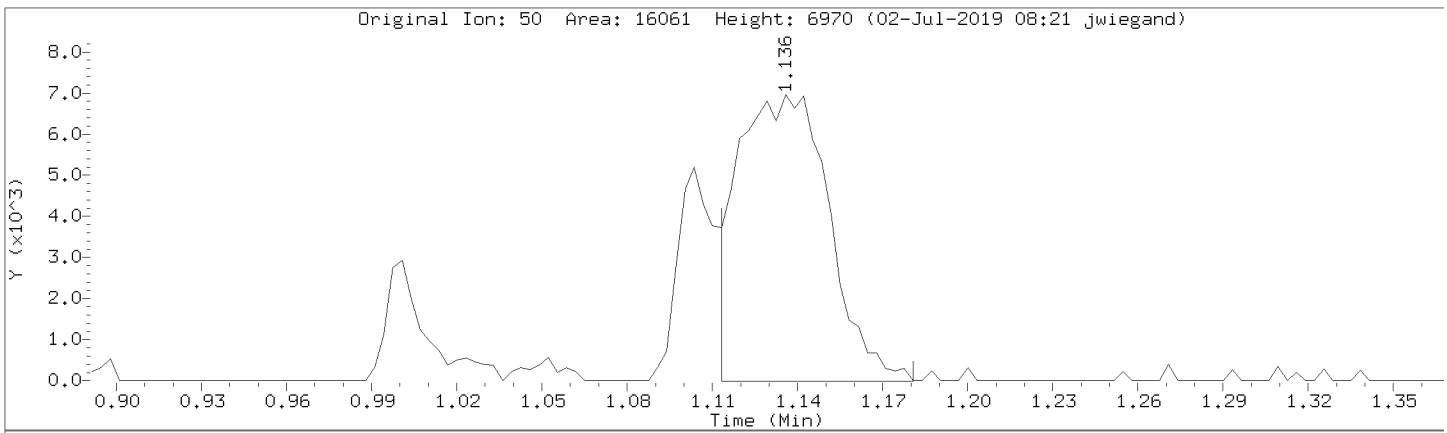
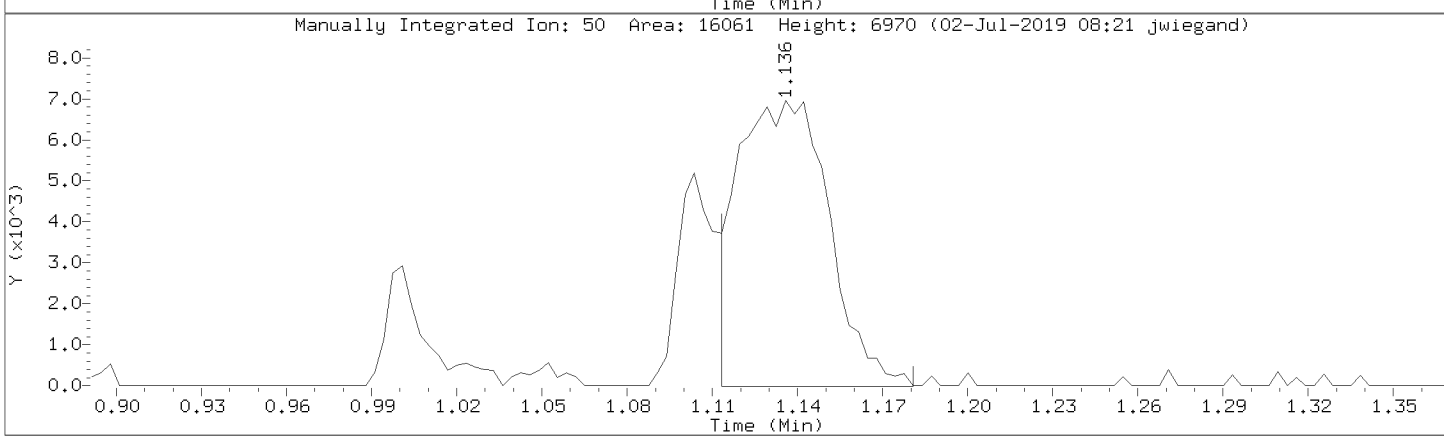
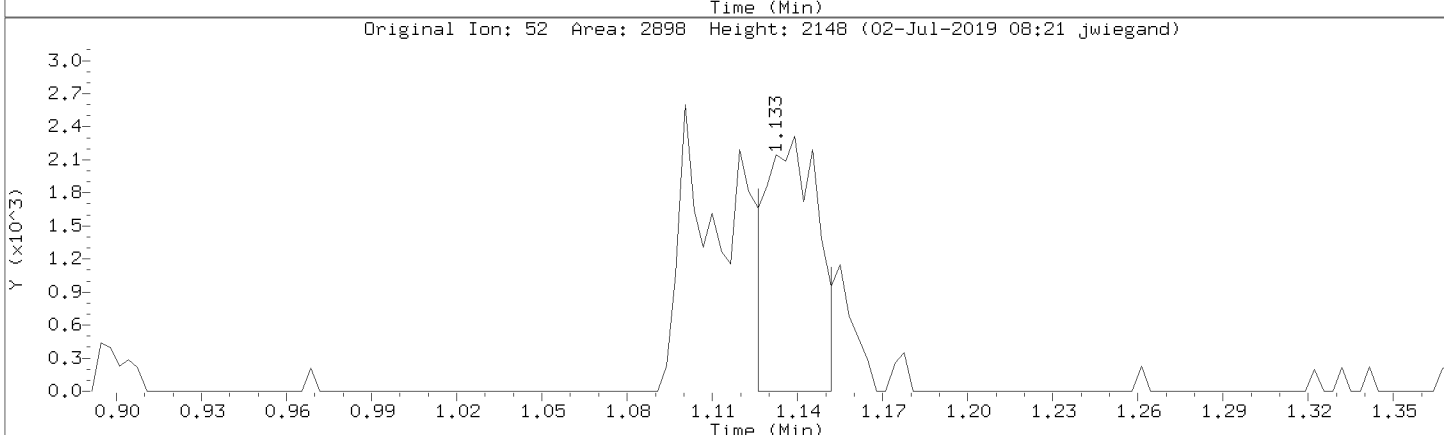
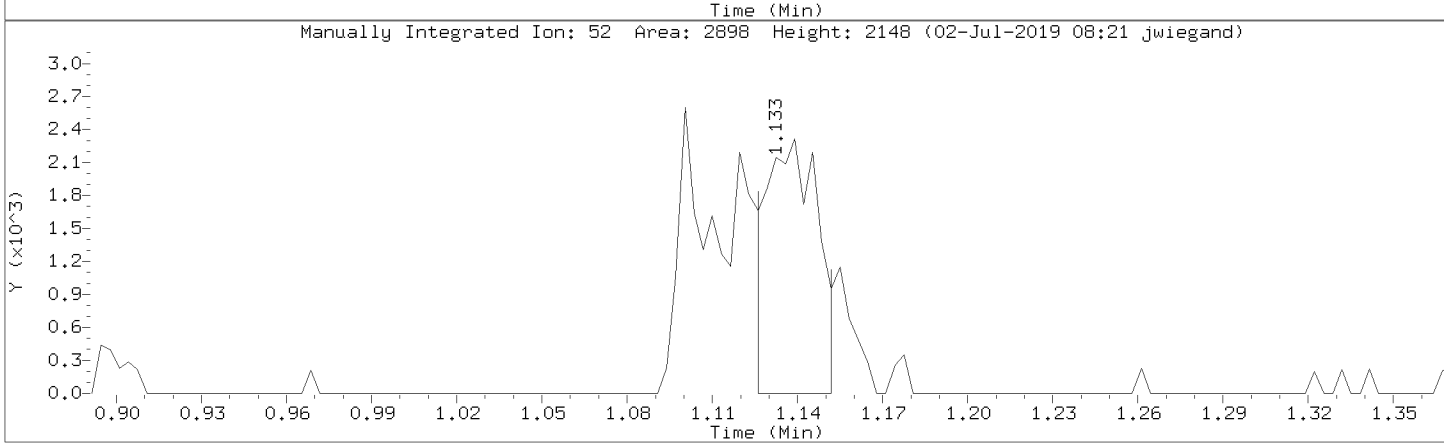
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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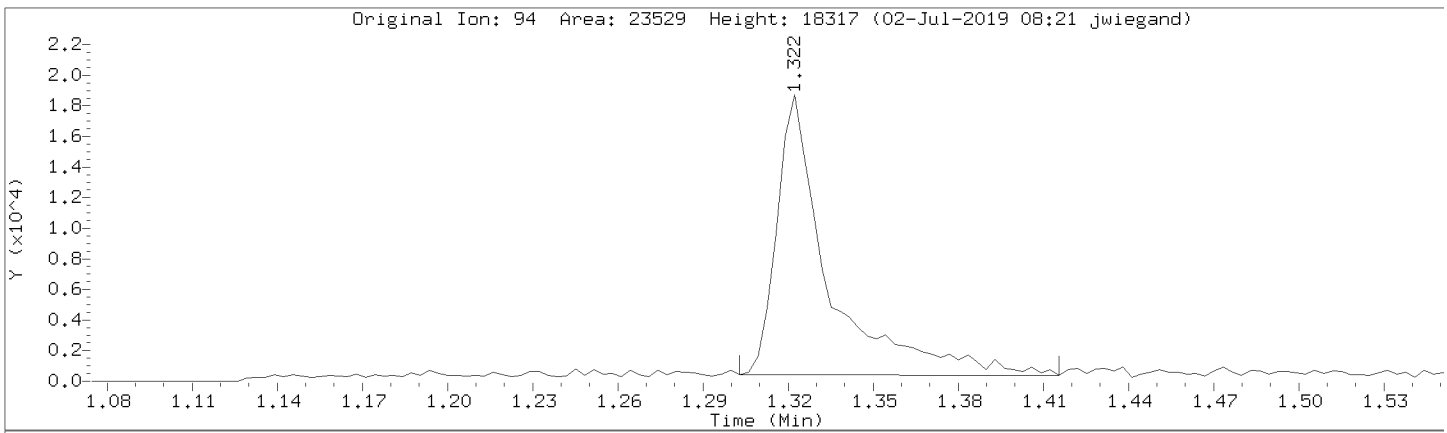
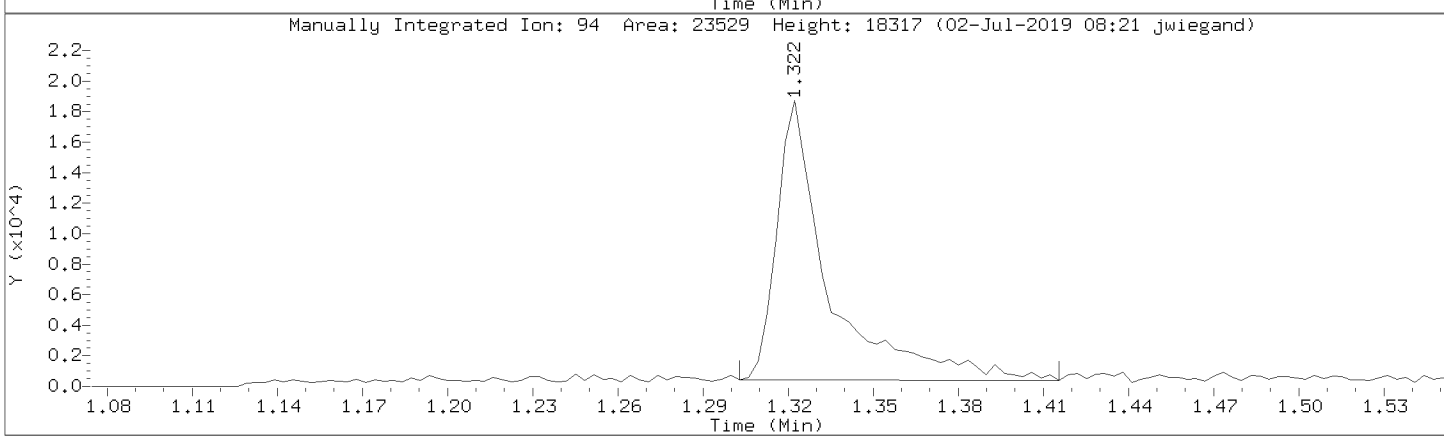
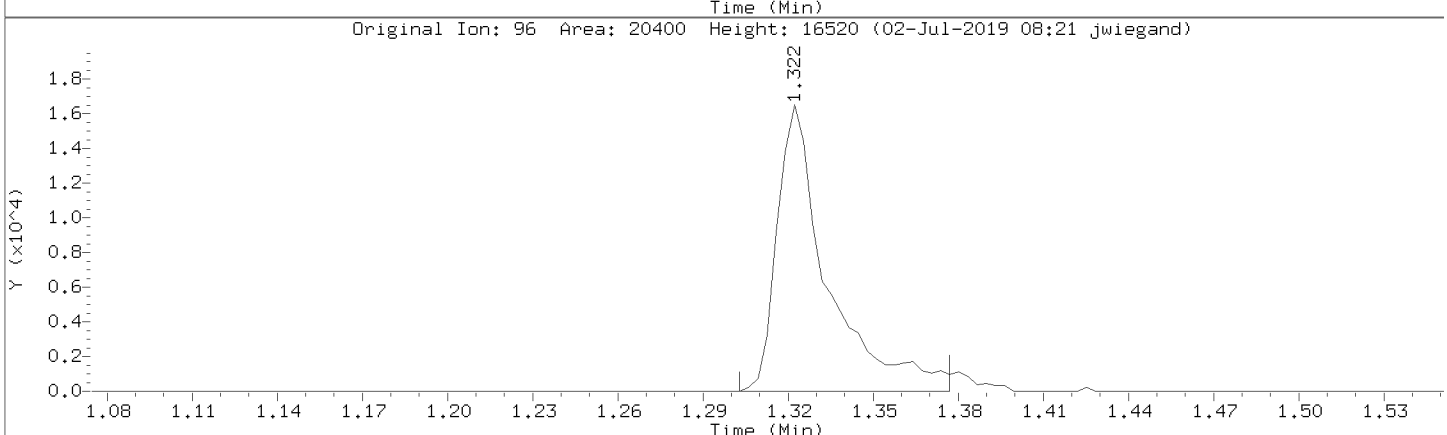
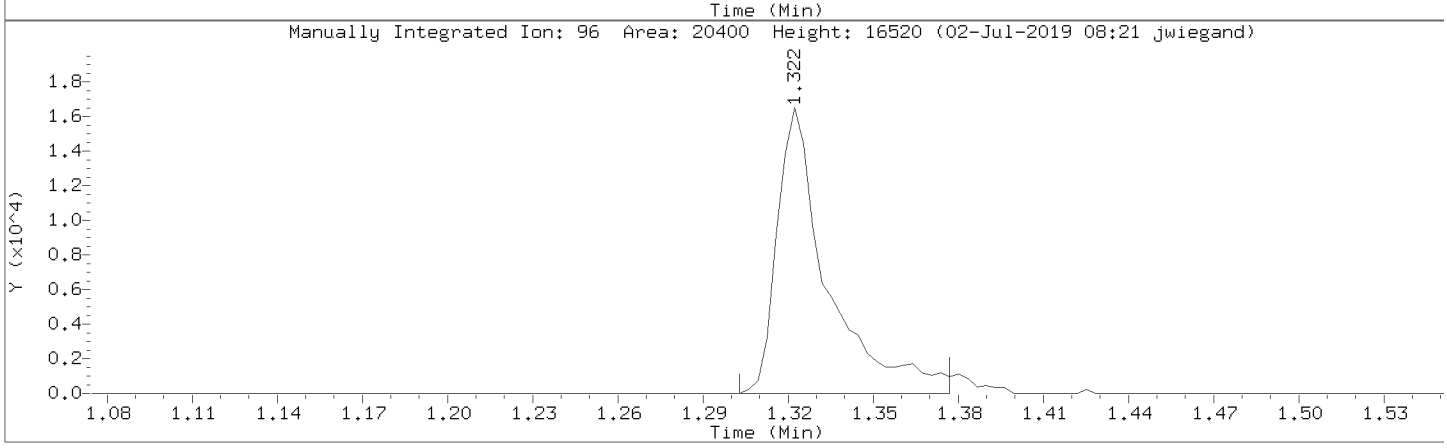
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9









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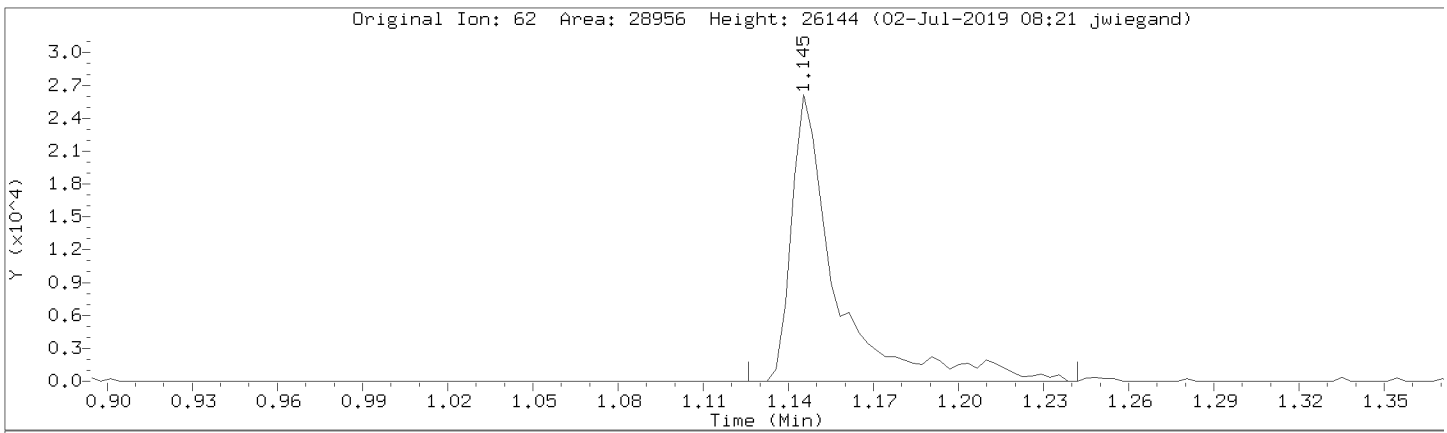
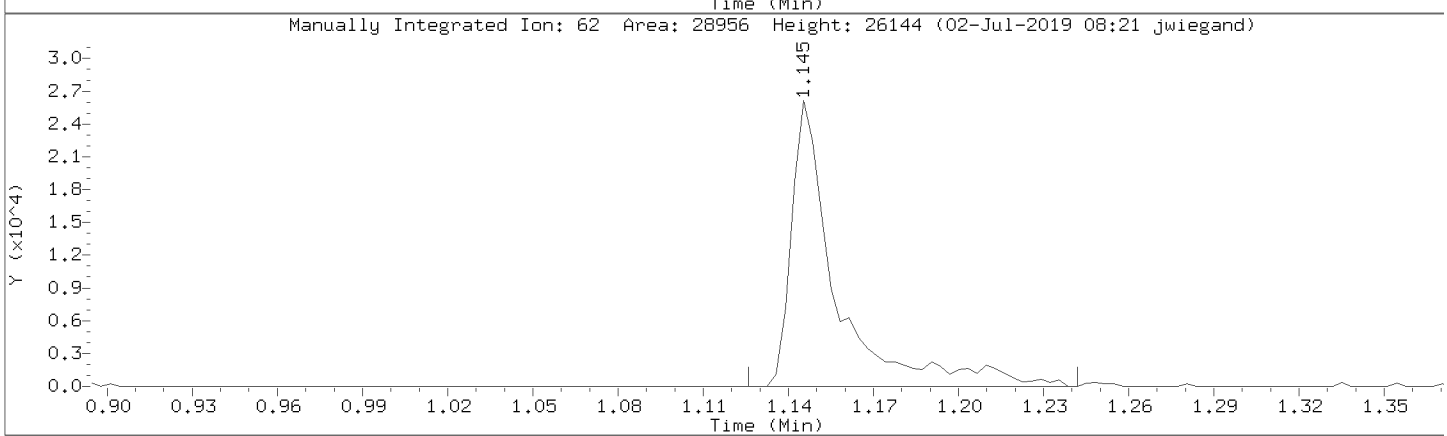
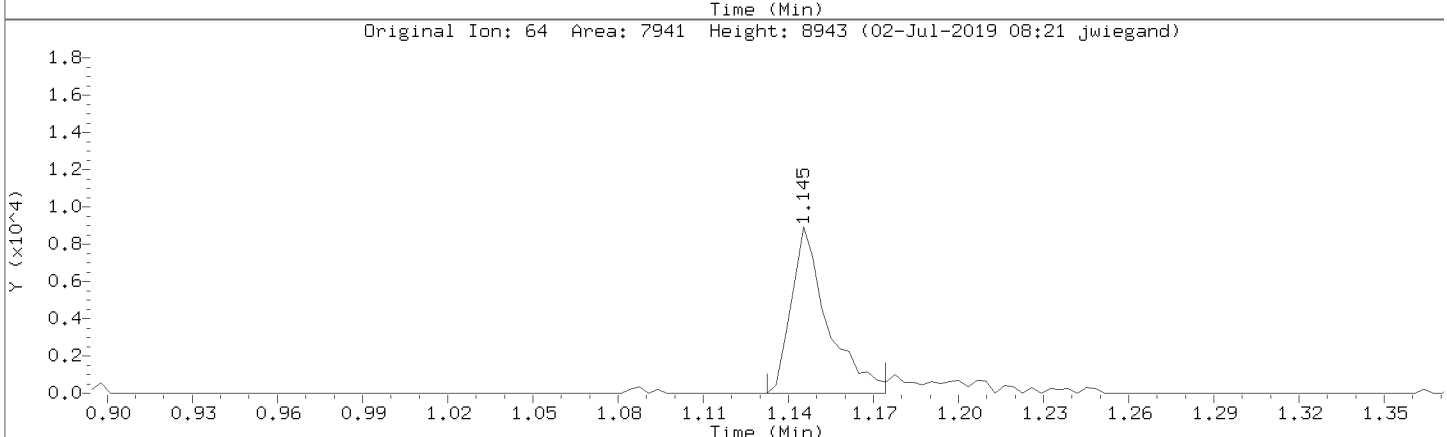
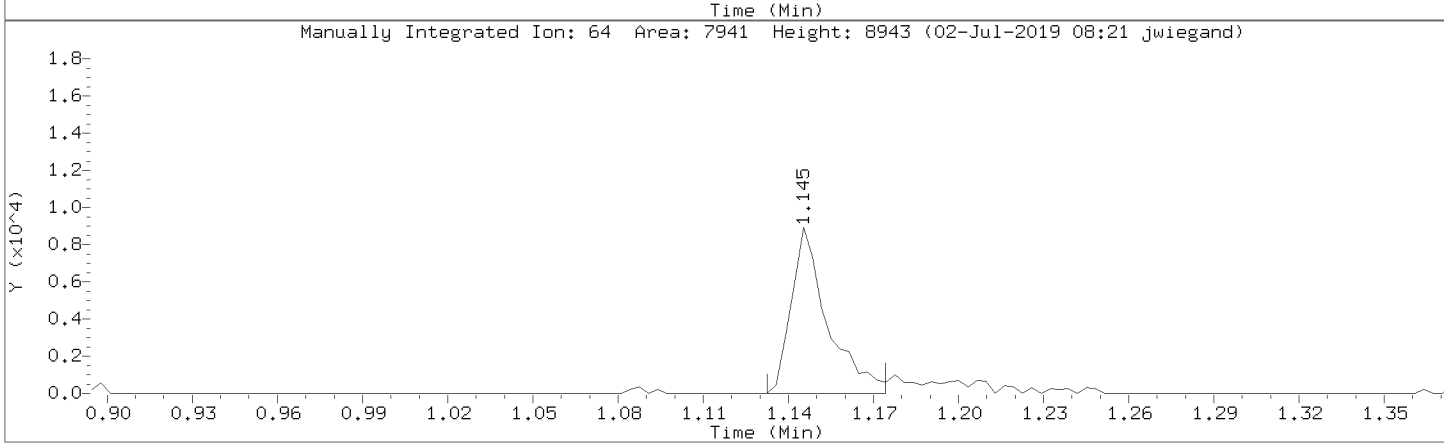
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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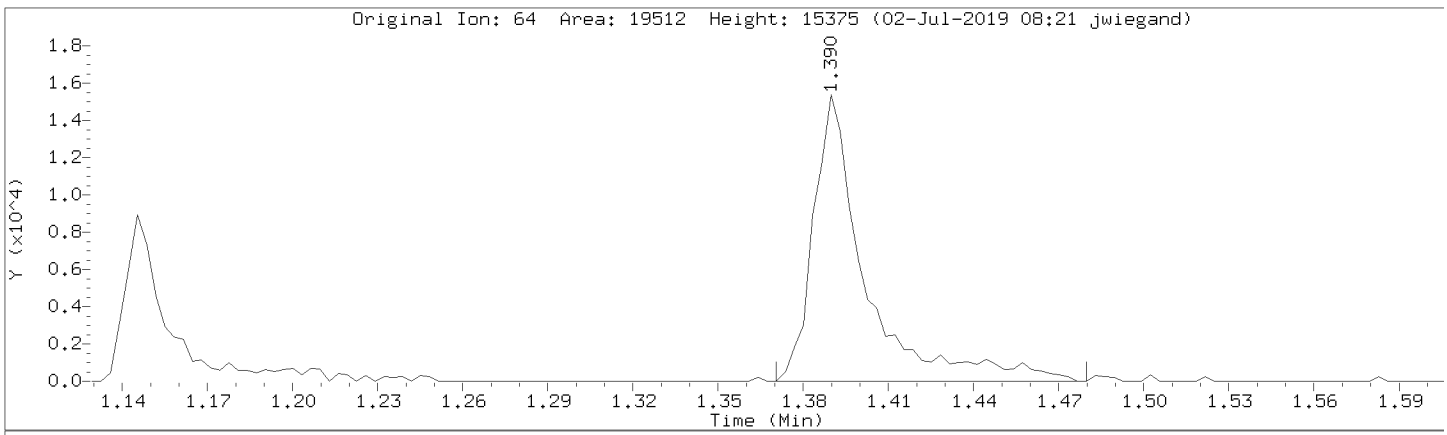
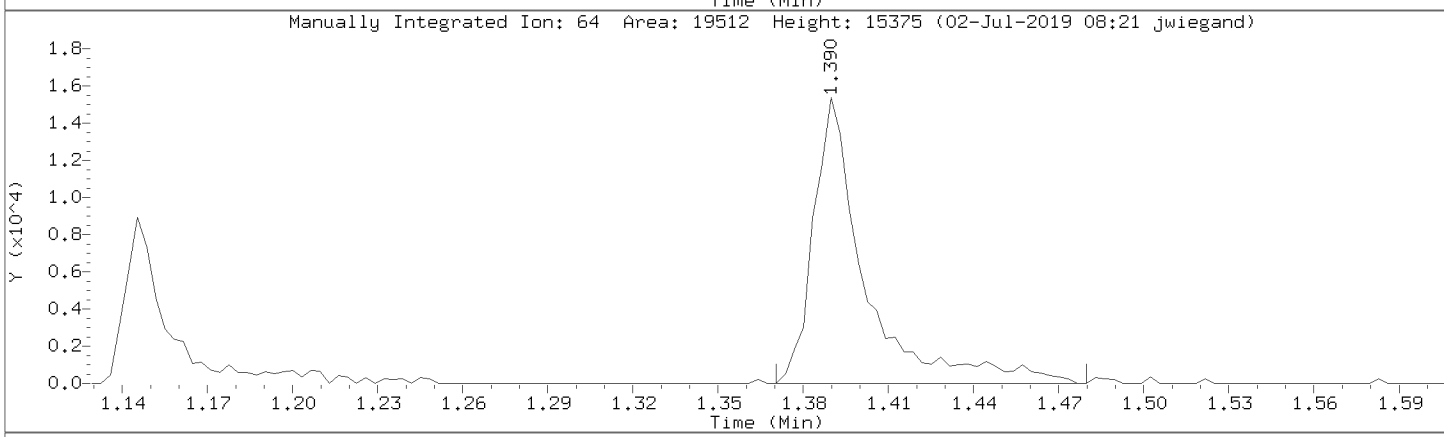
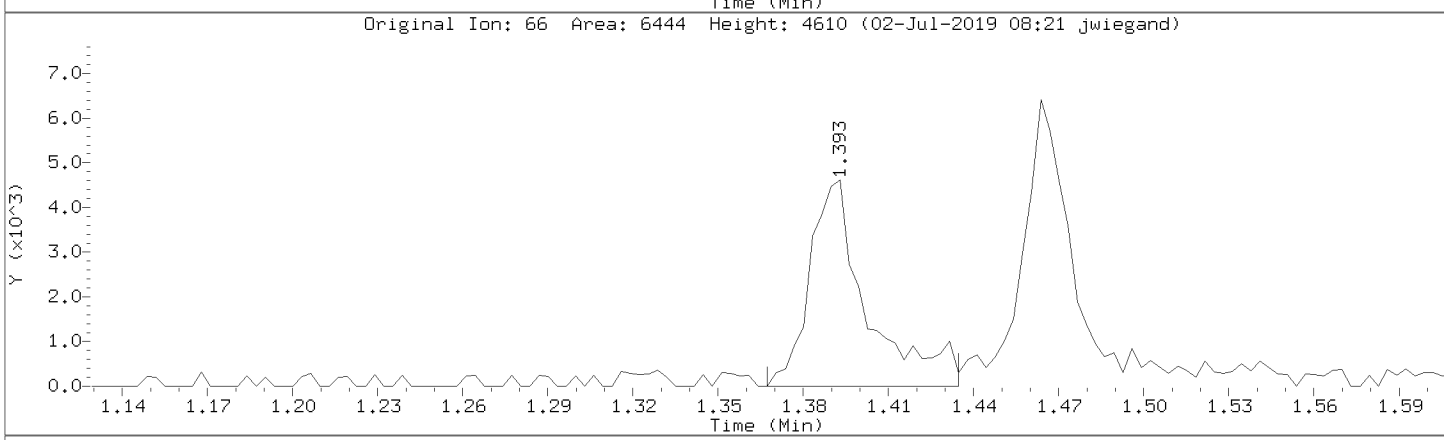
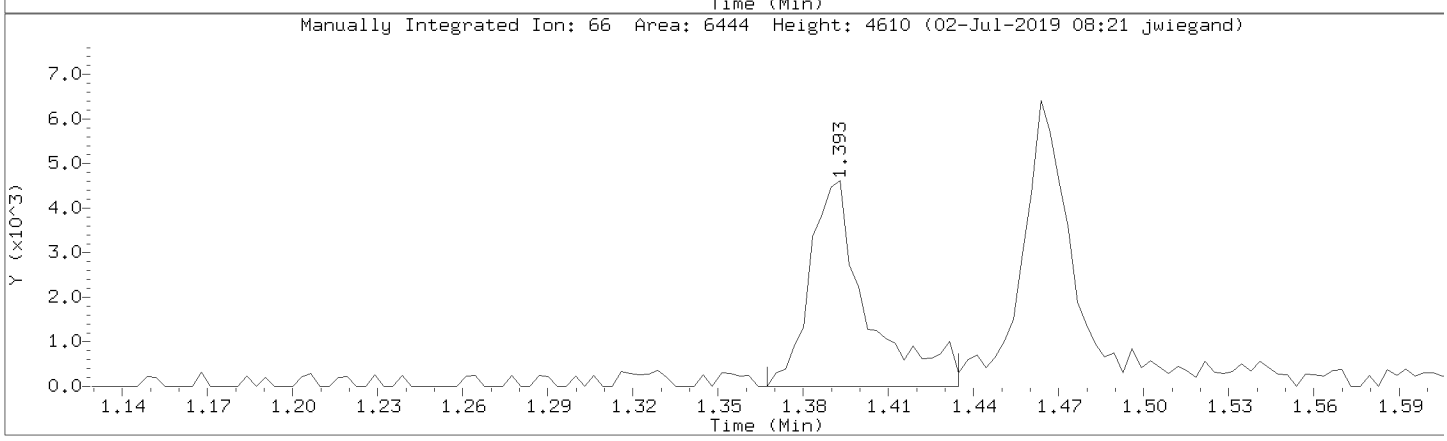
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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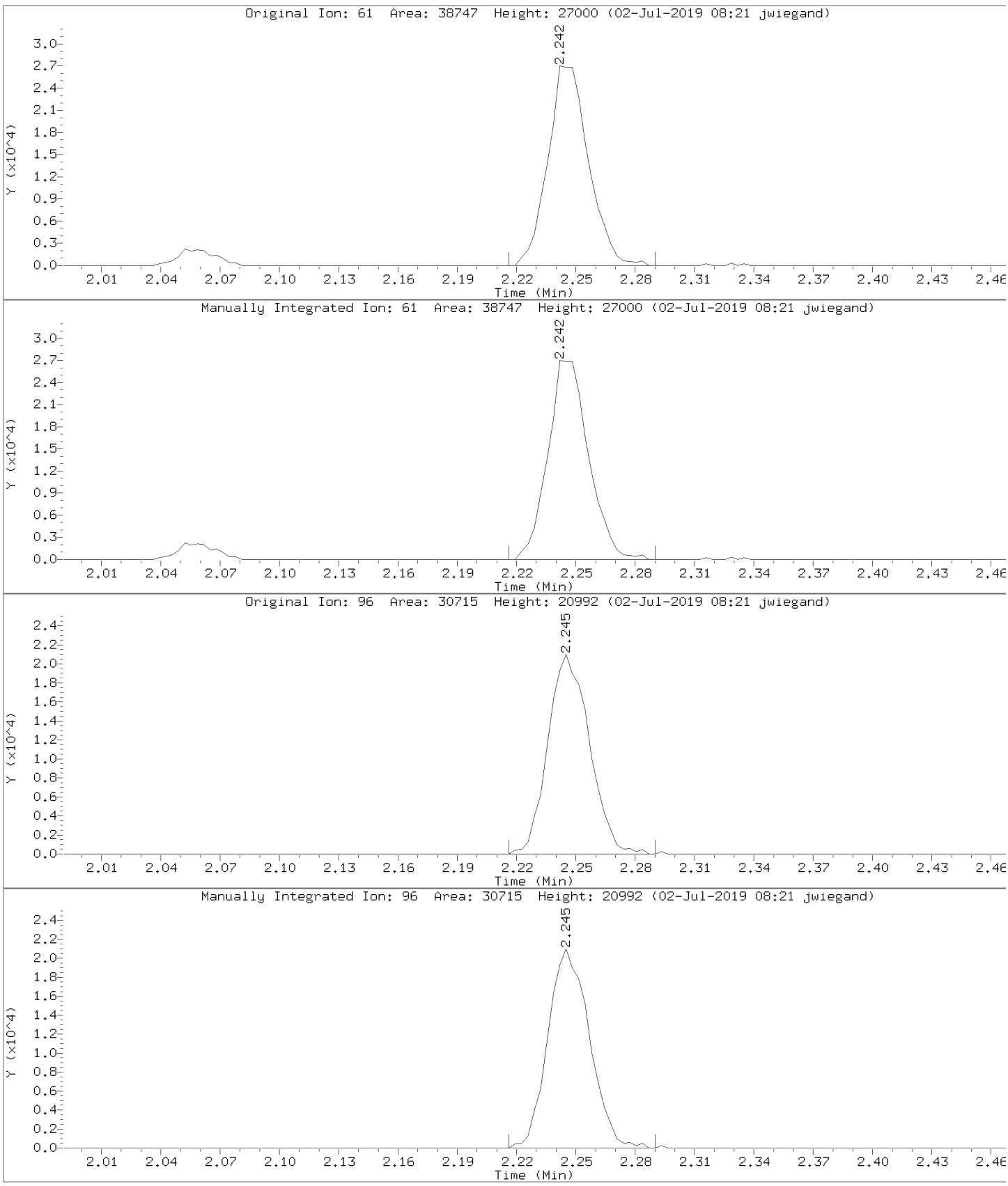
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: trans-1,2-Dichloroethene Review Code: LT
CAS Number: 156-60-5



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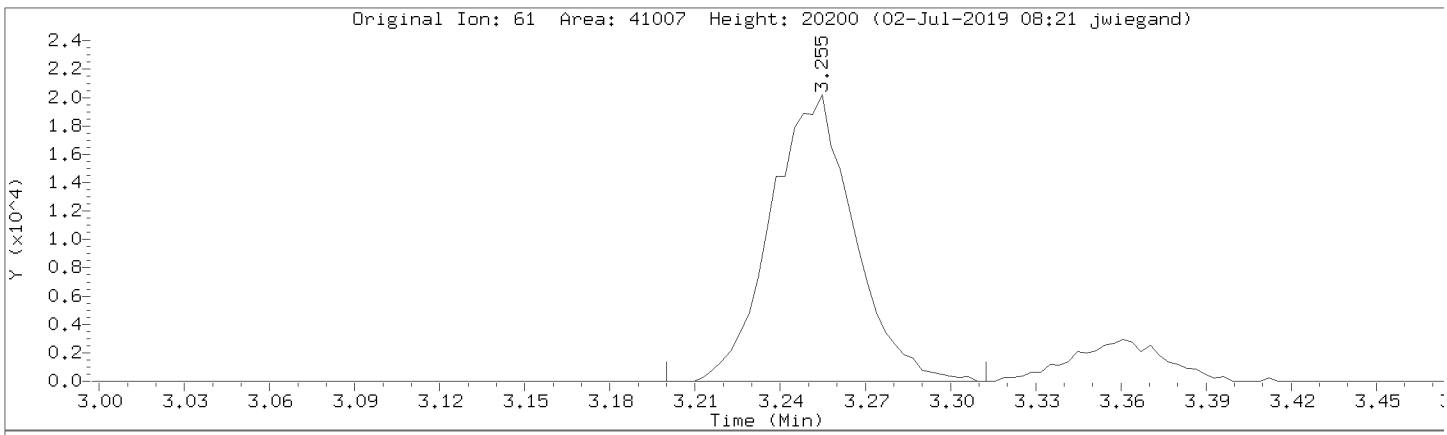
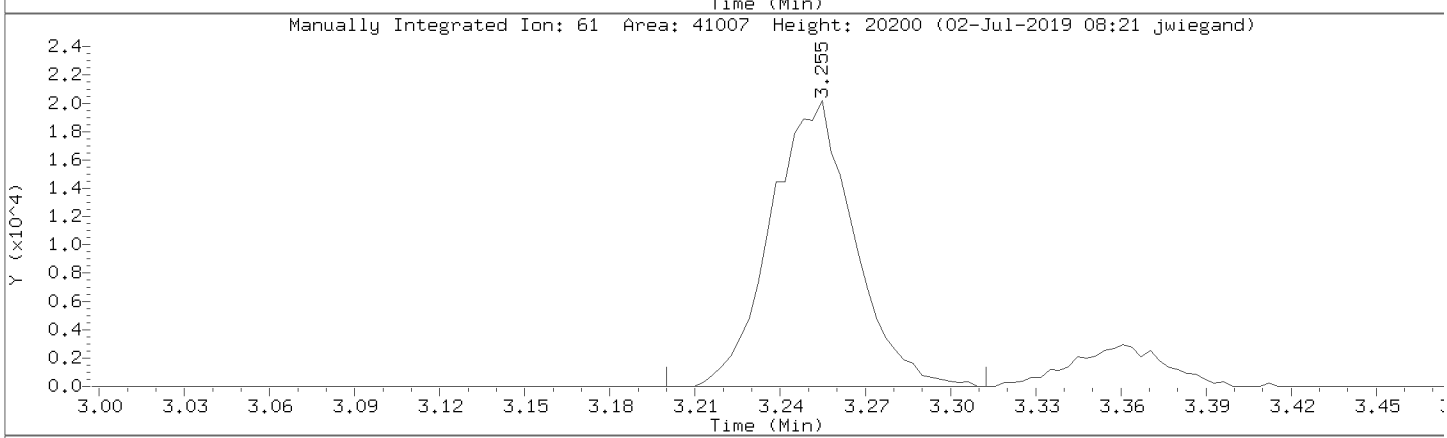
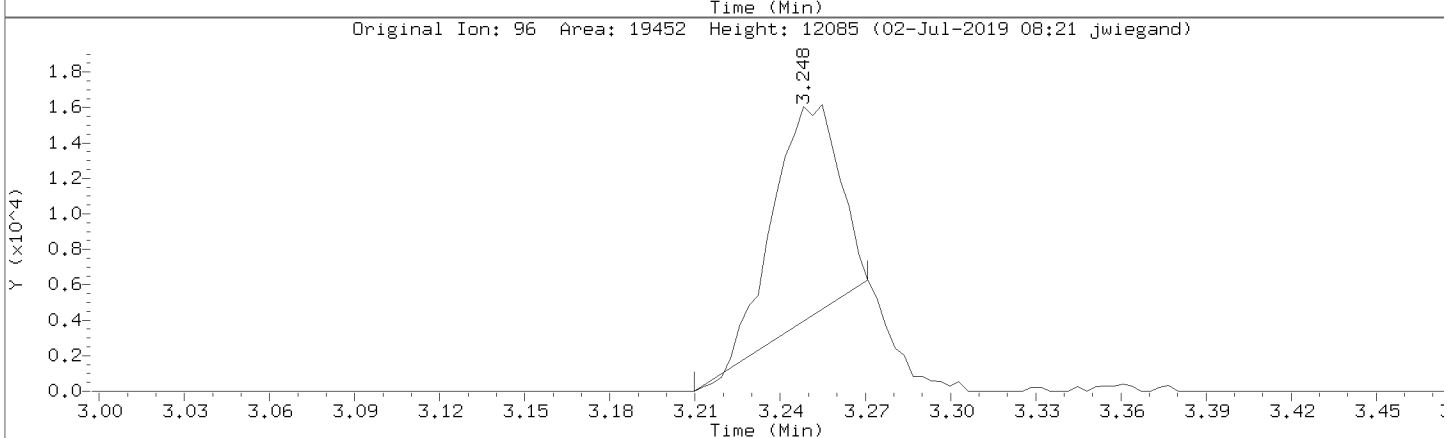
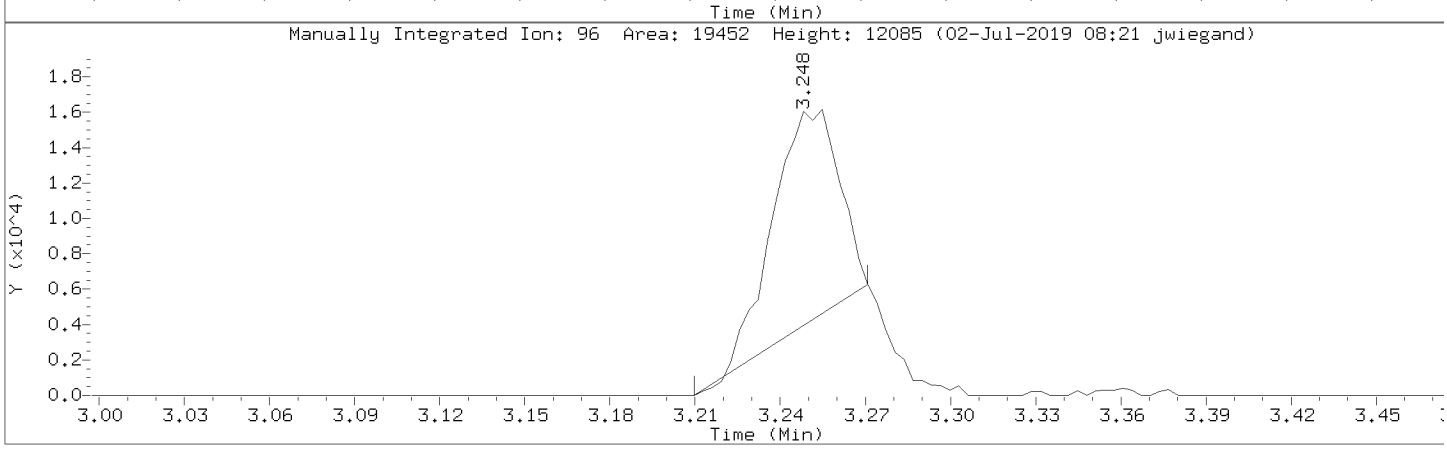
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2









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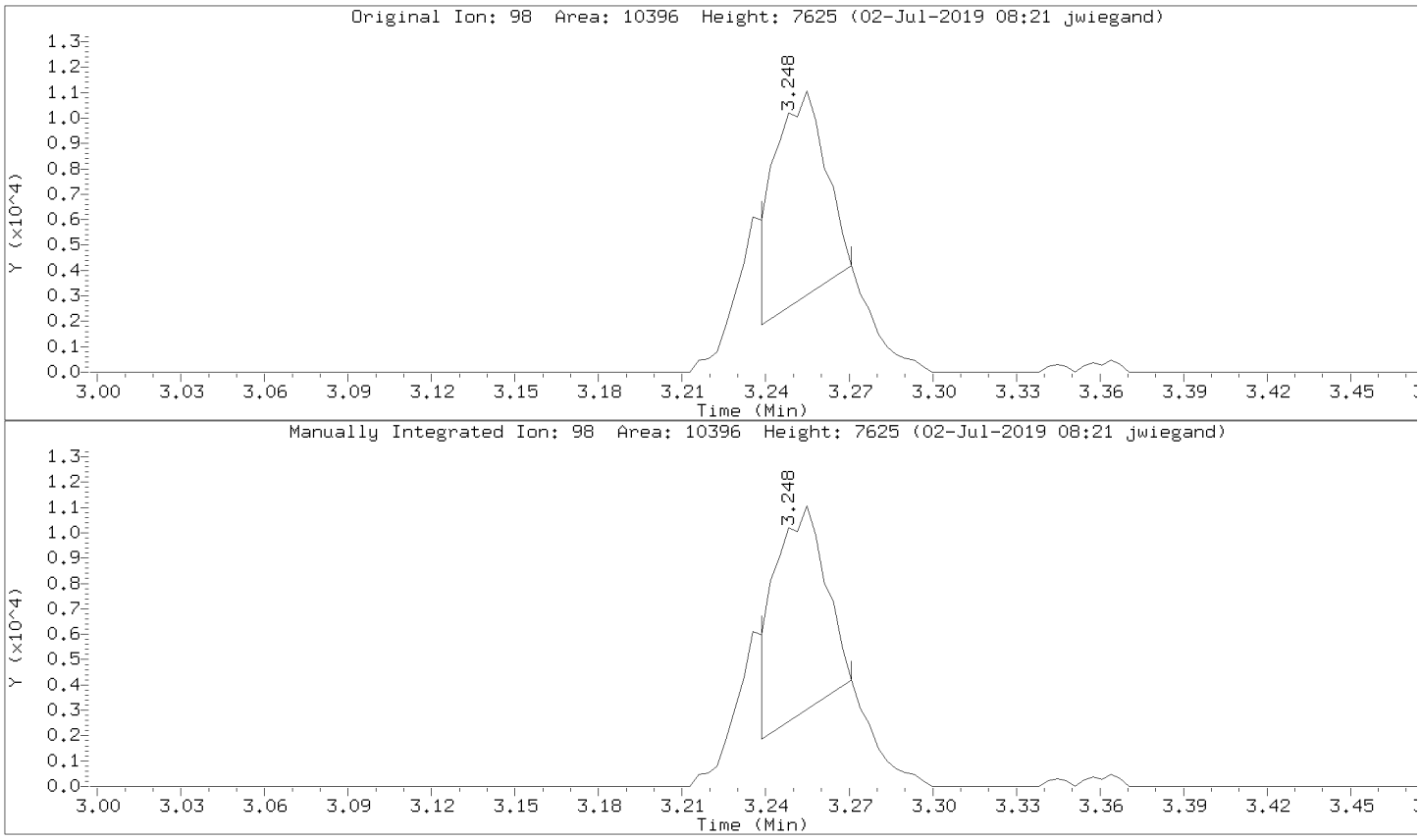
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



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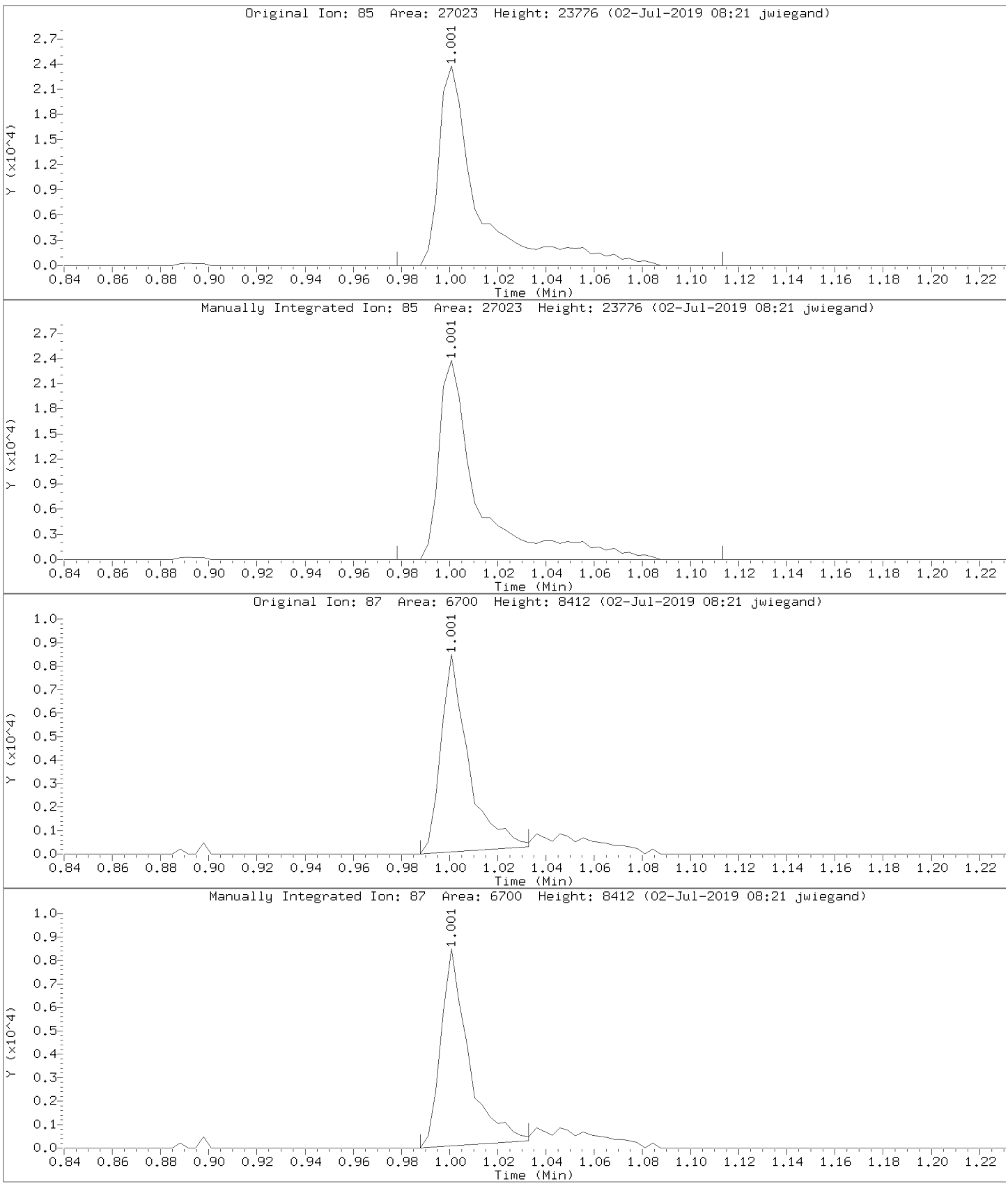
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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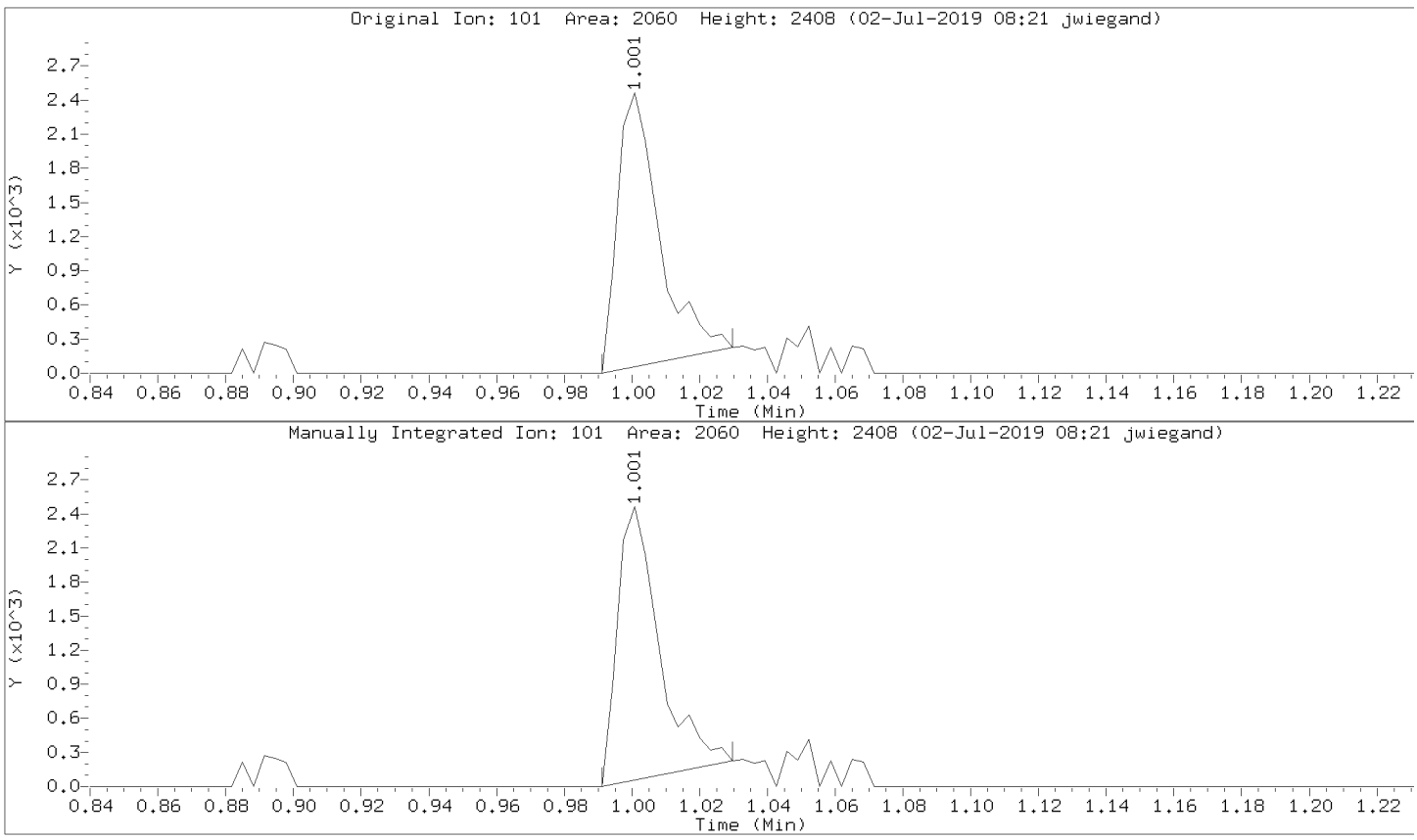
Lab Sample ID: 1699734



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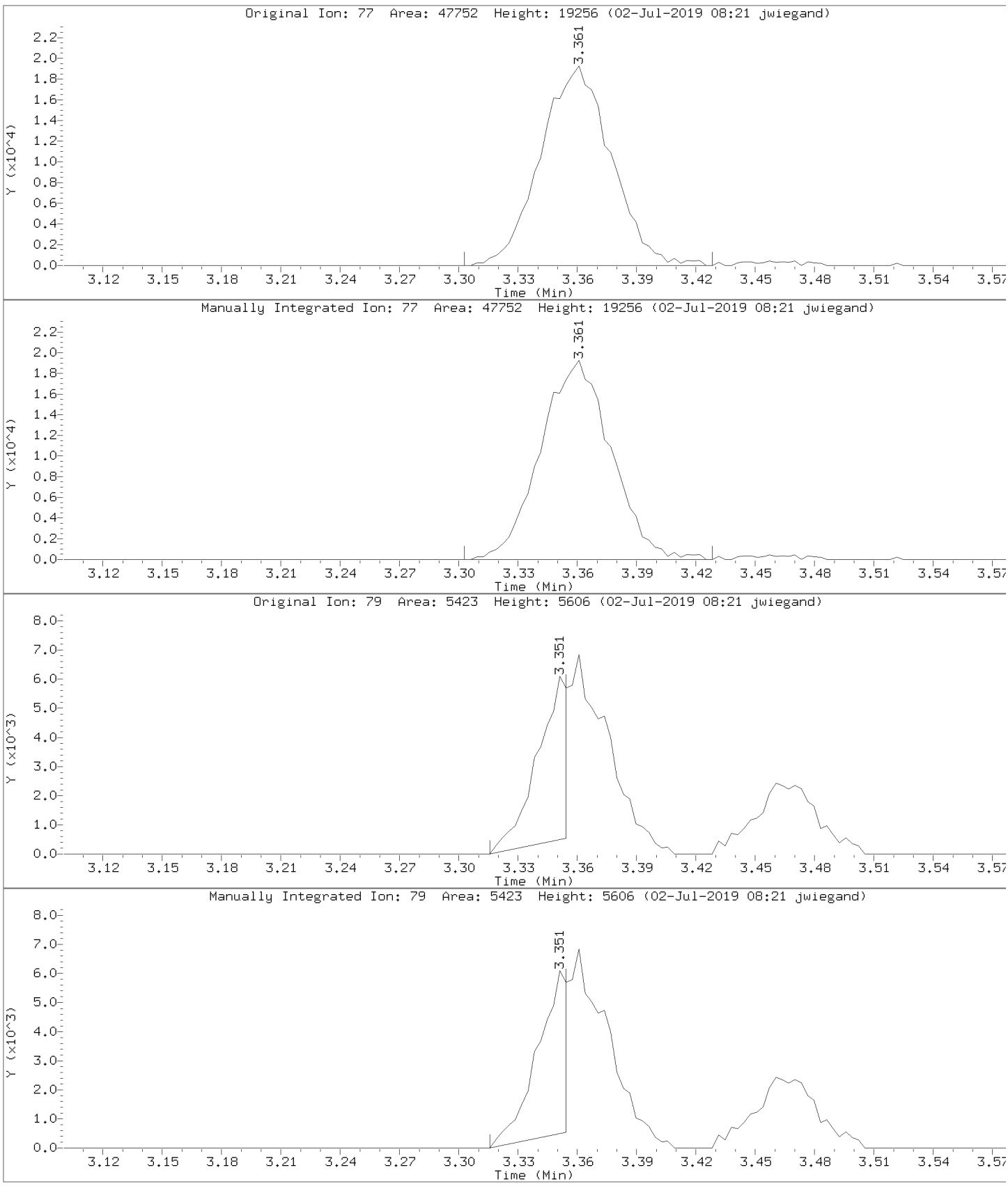
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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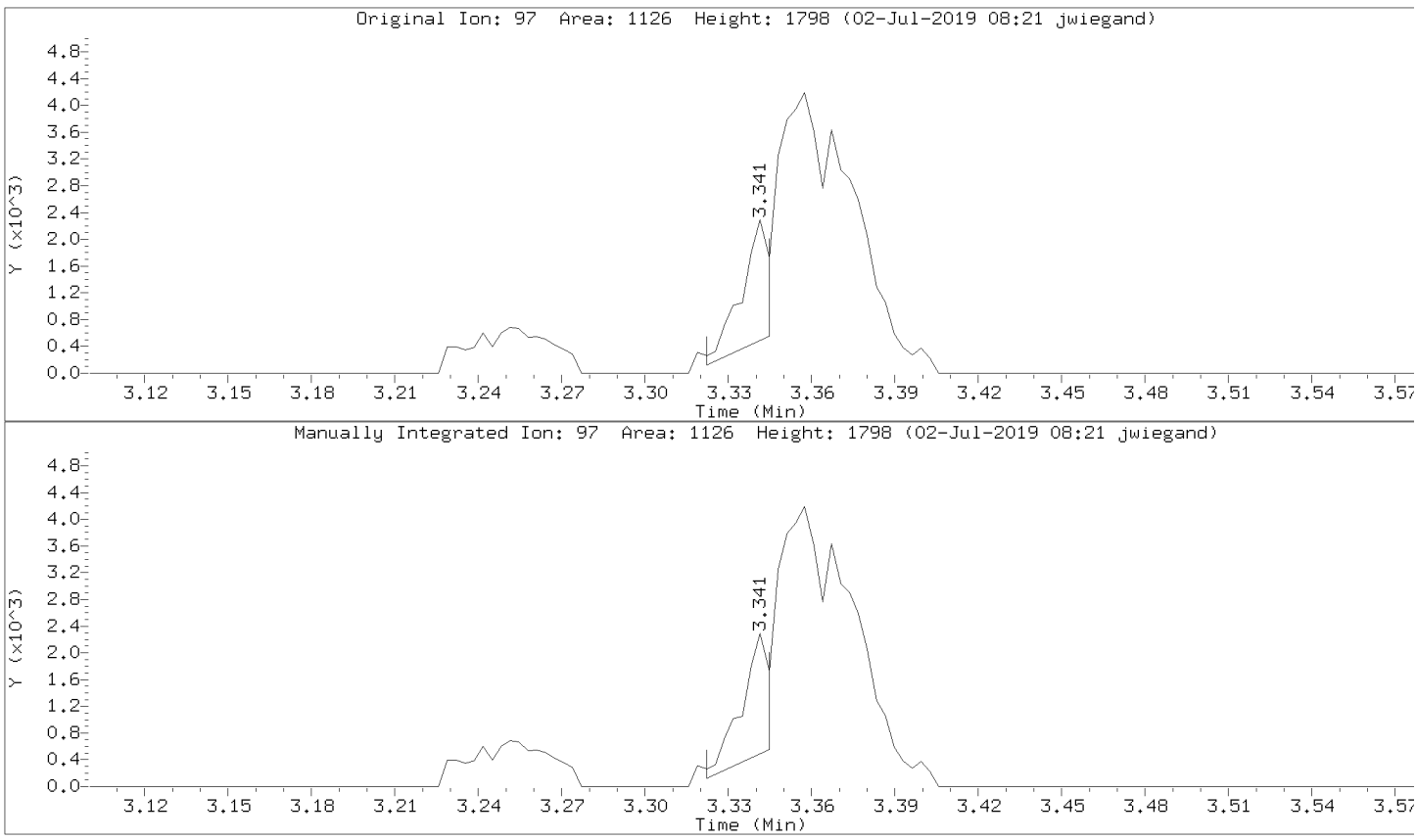
Lab Sample ID: 1699734



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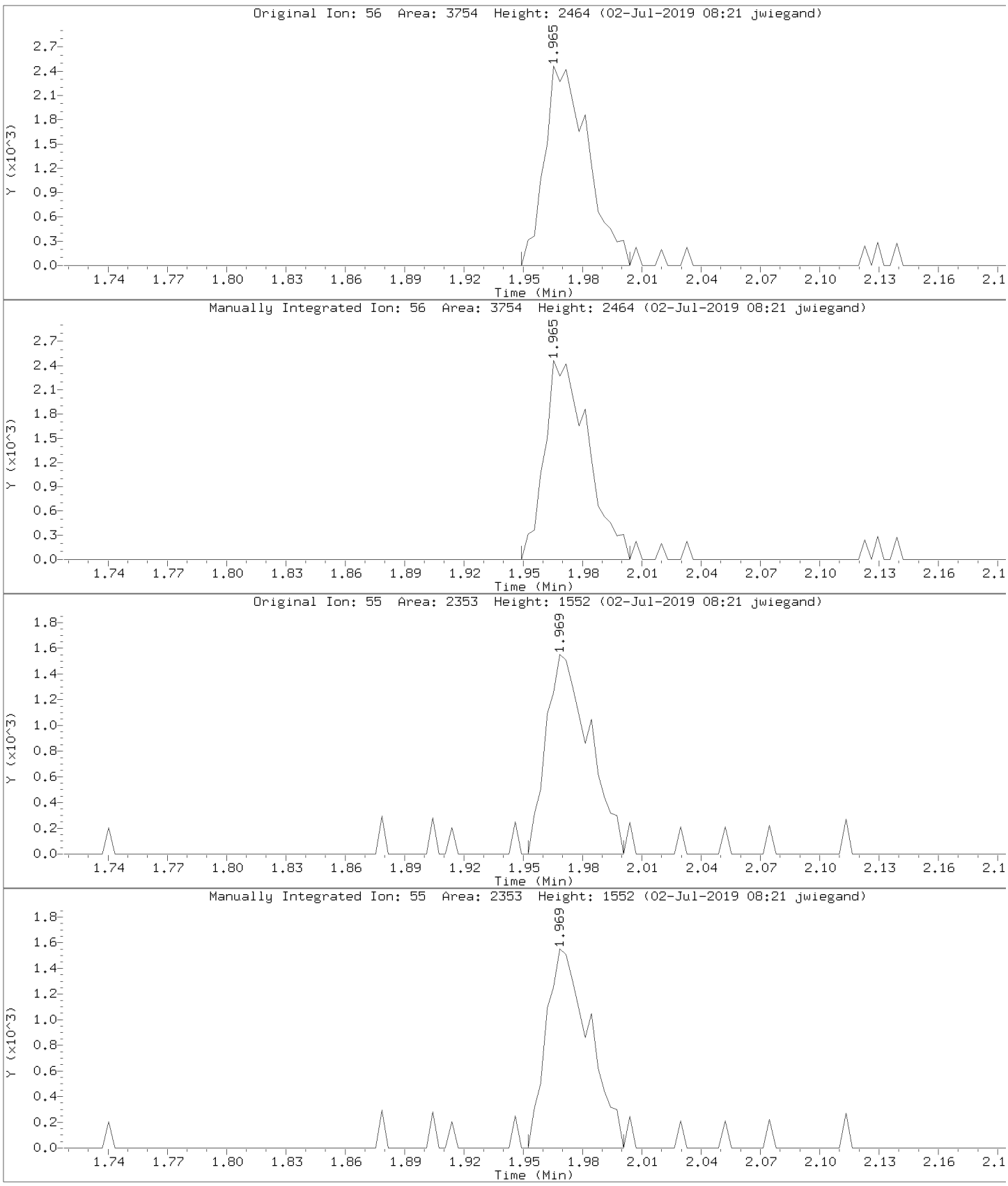
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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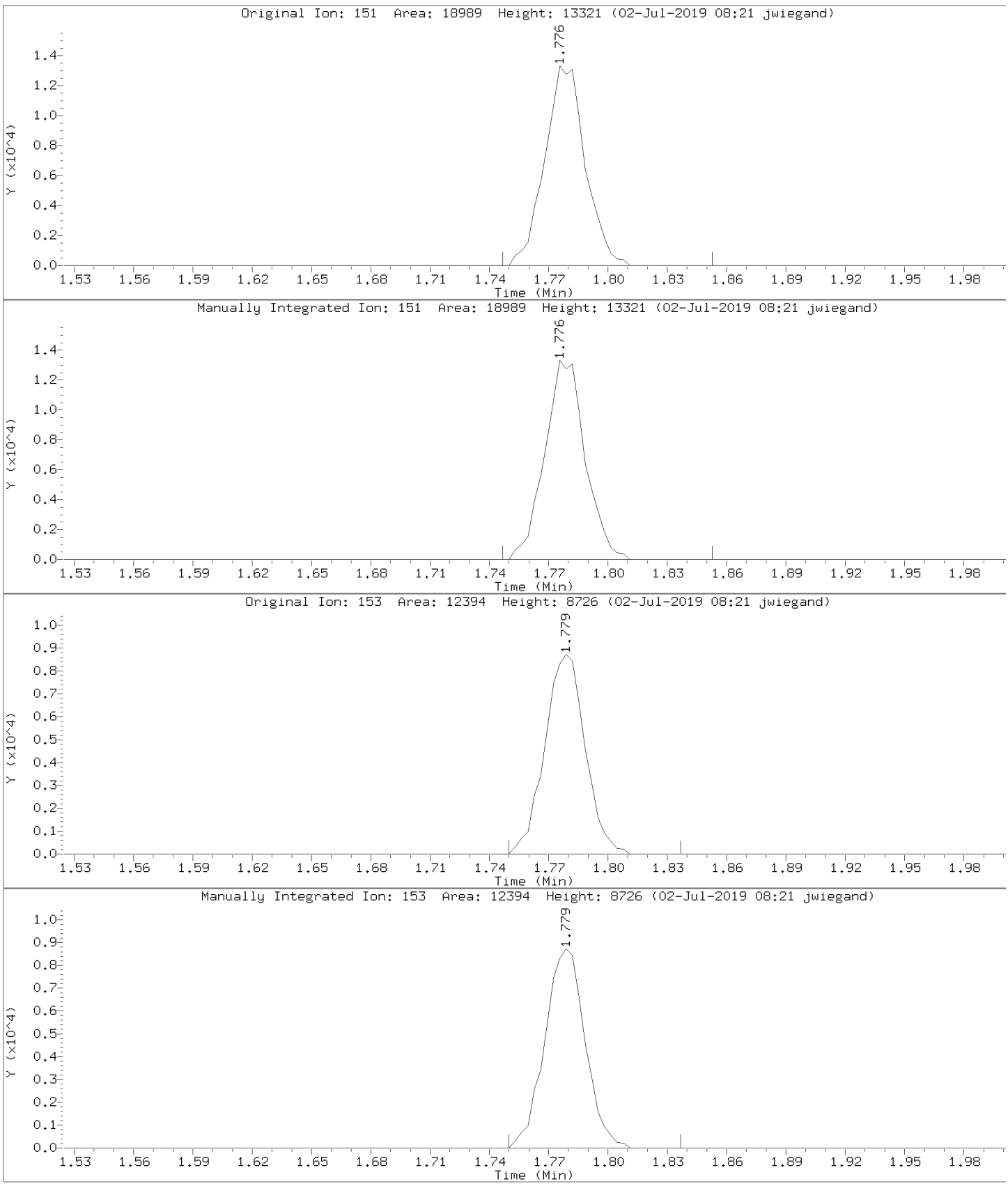
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1



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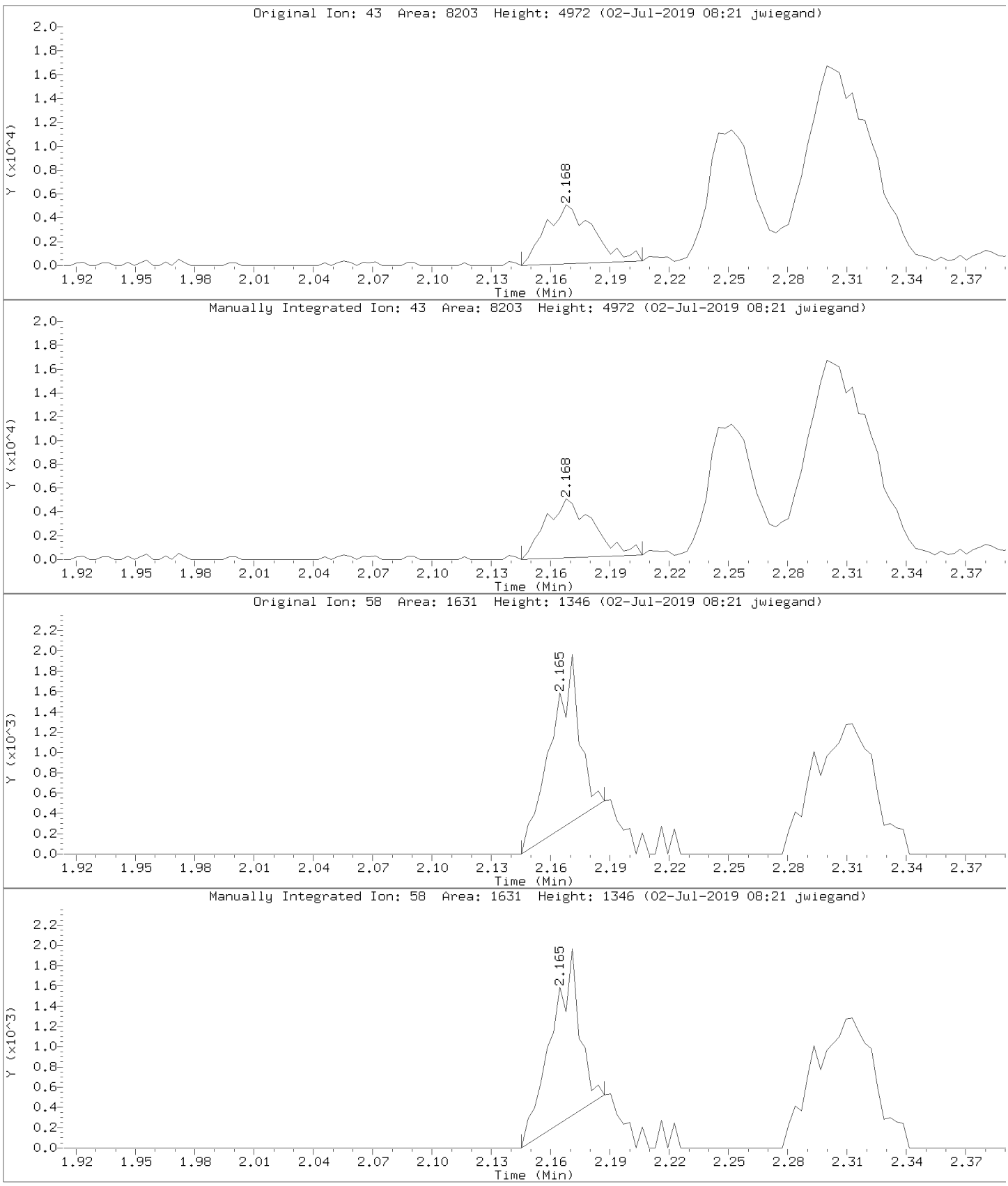
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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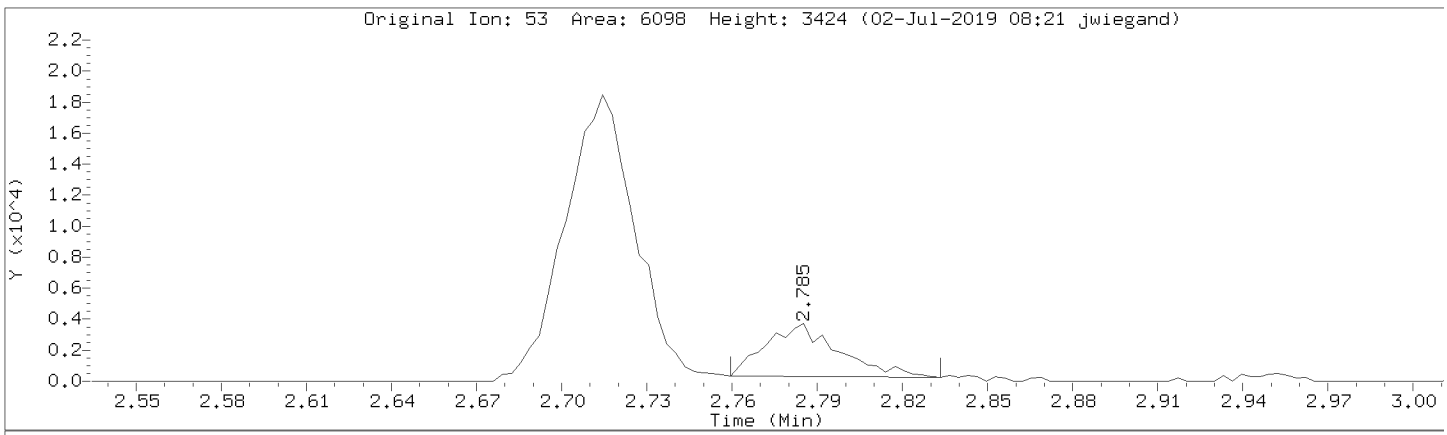
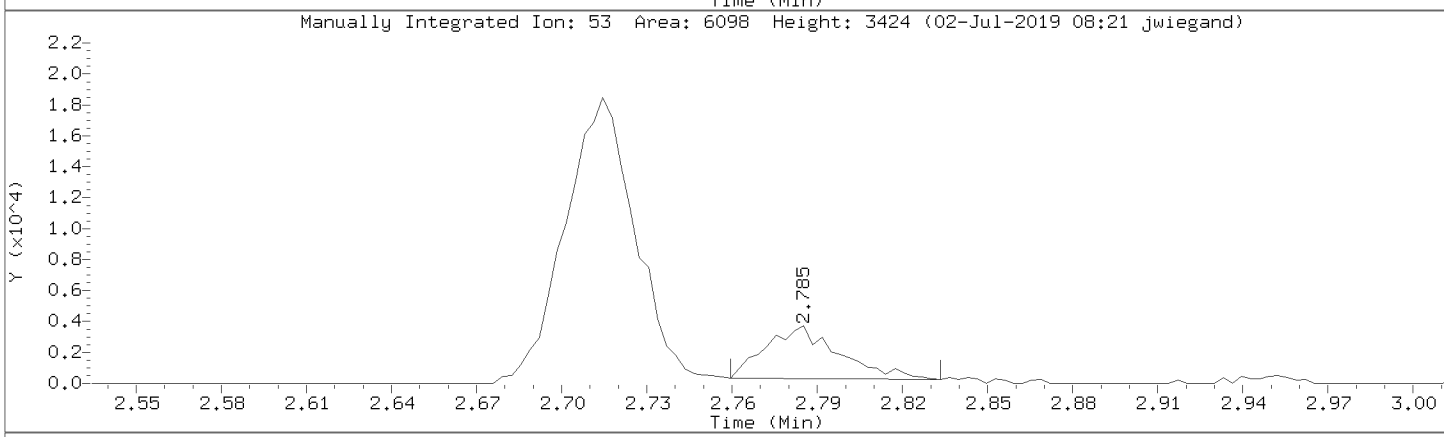
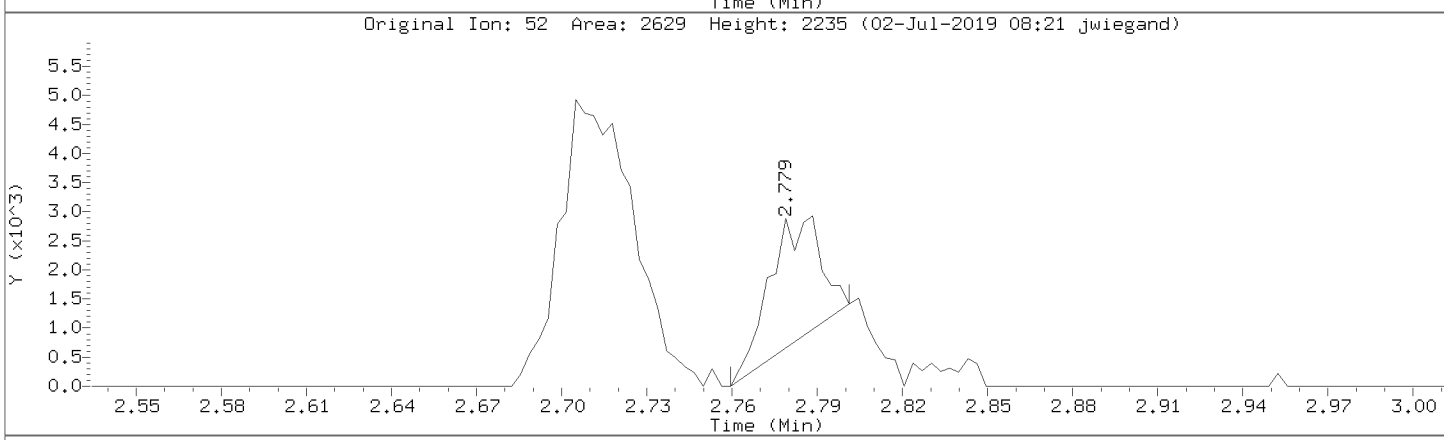
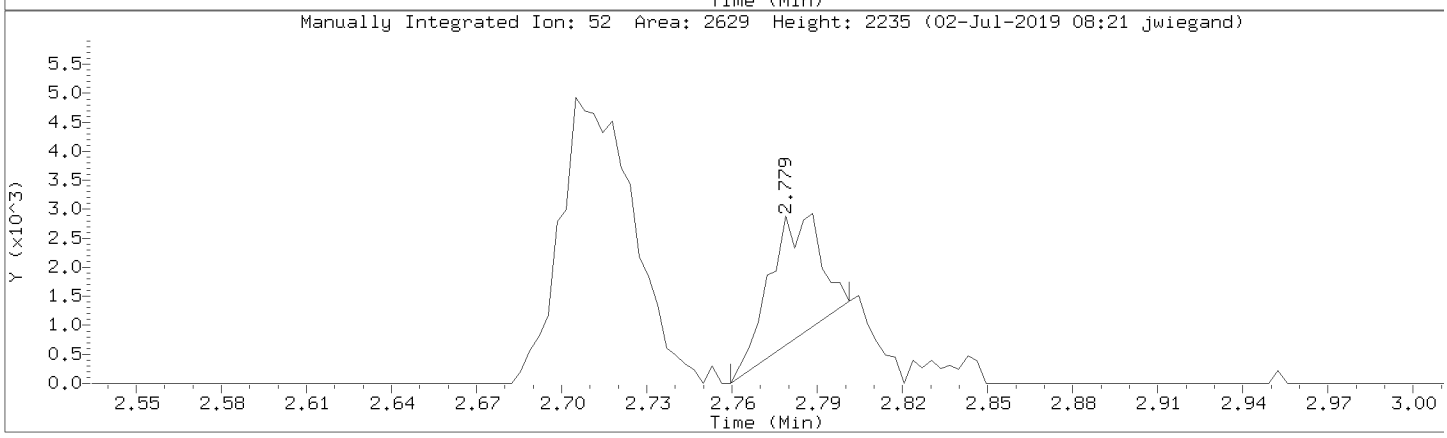
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



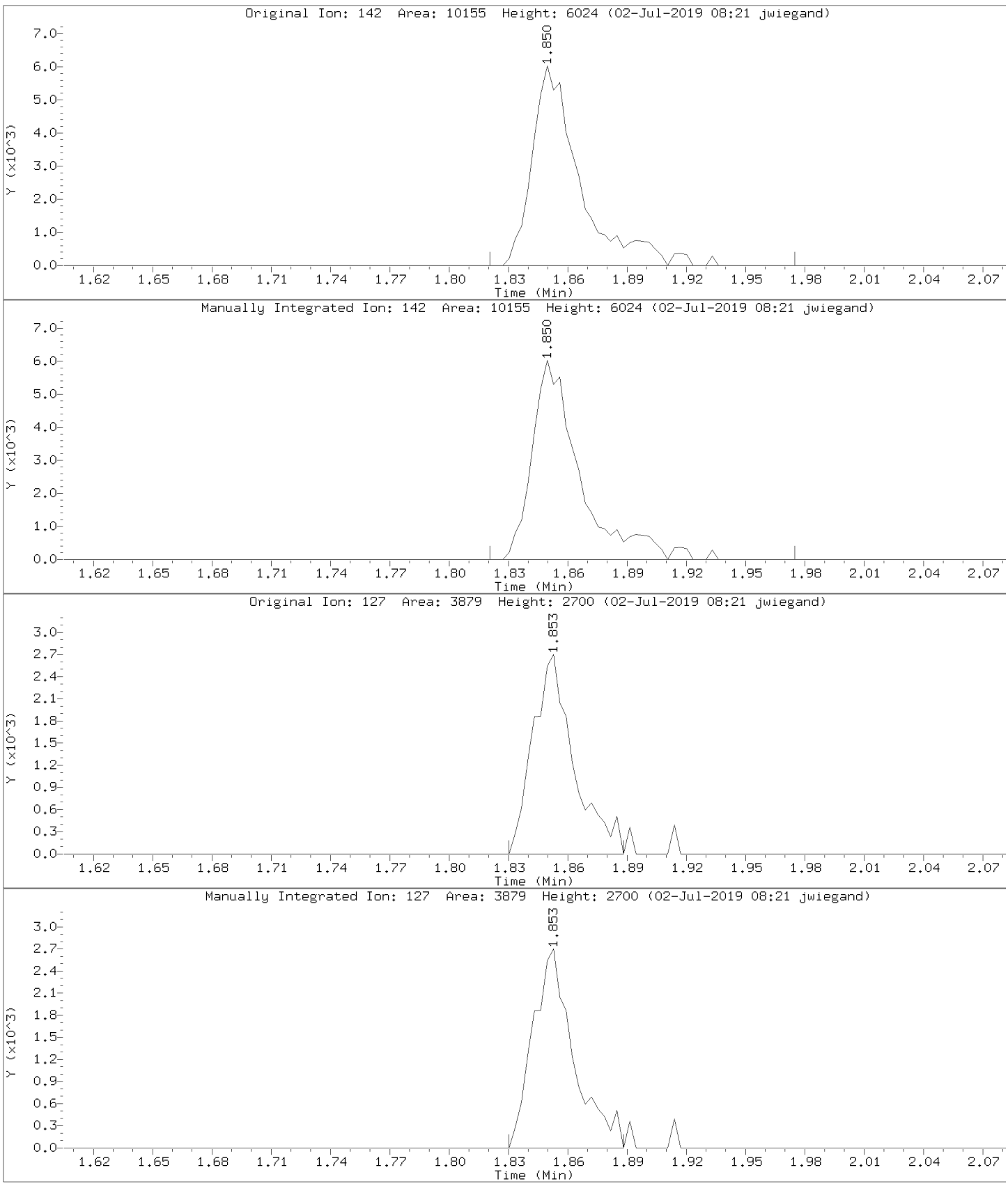






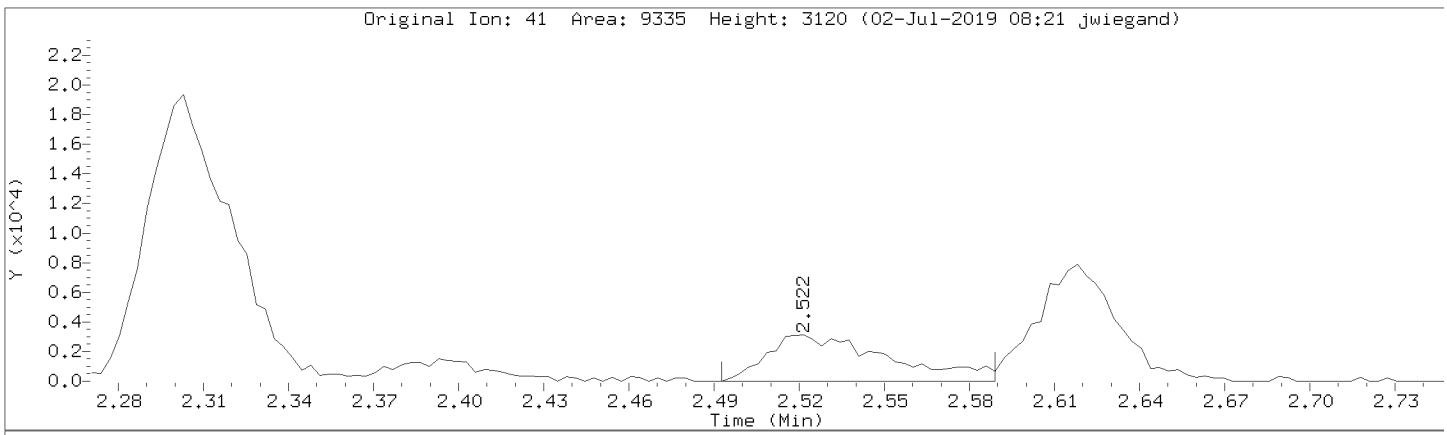
Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

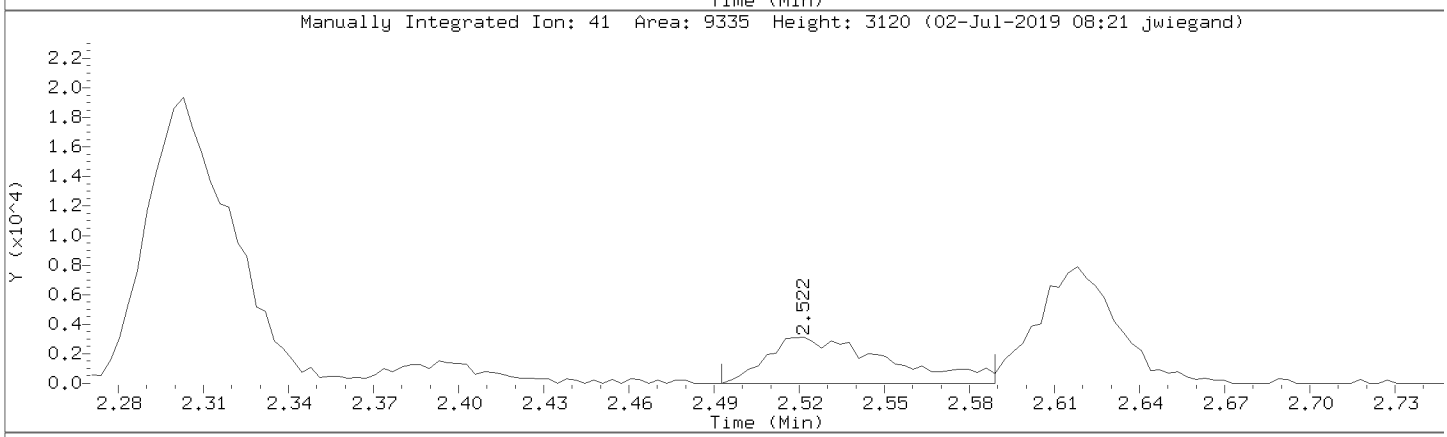
Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4

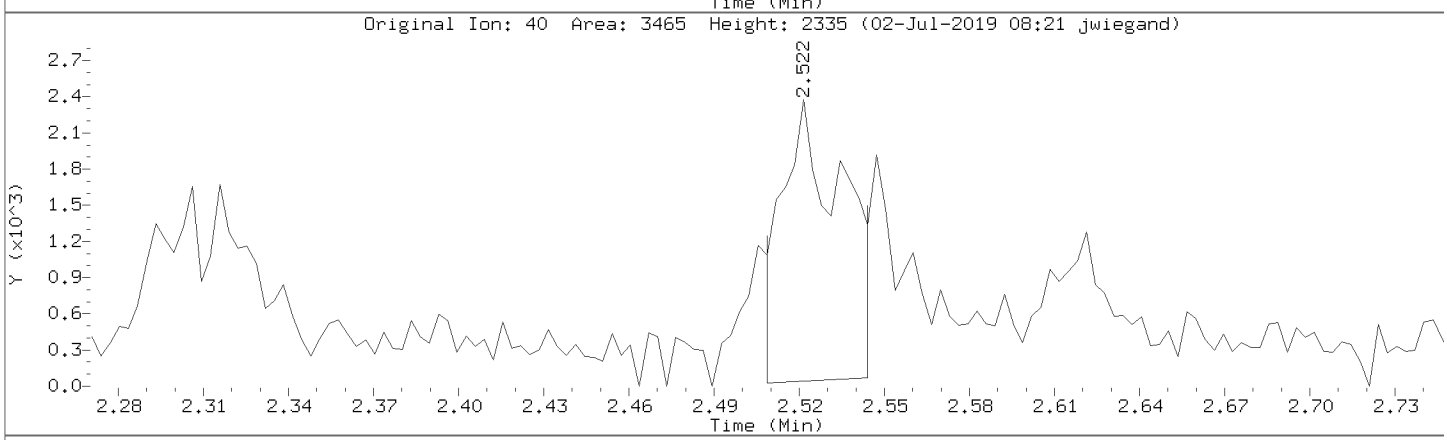


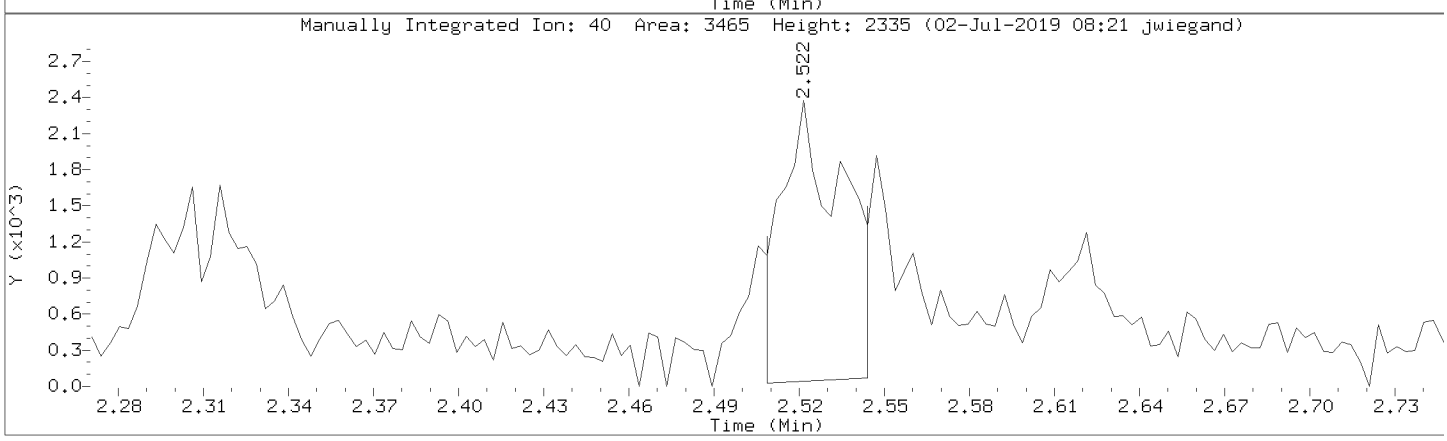
Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8

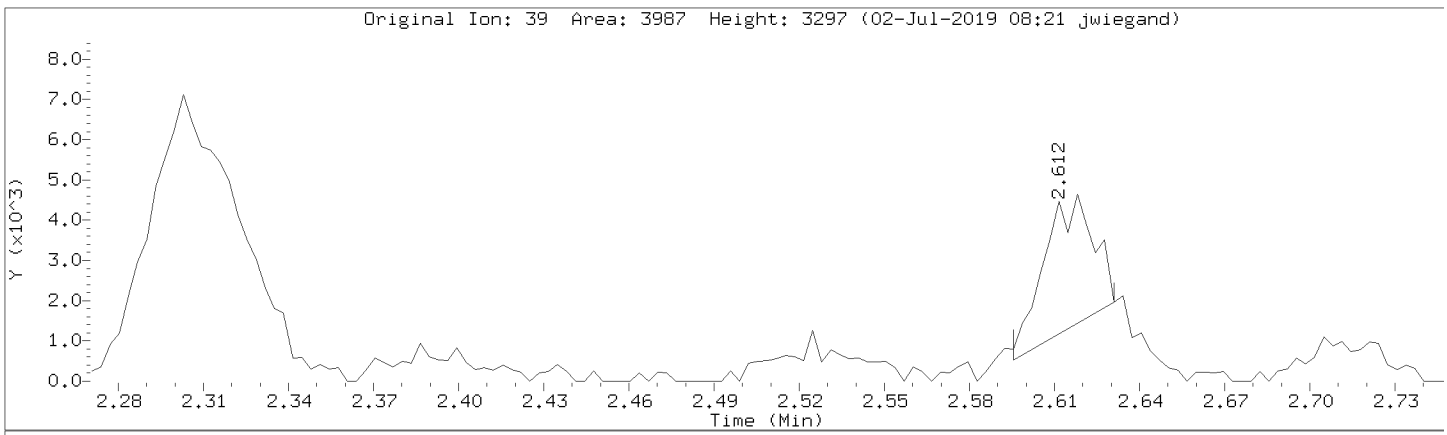


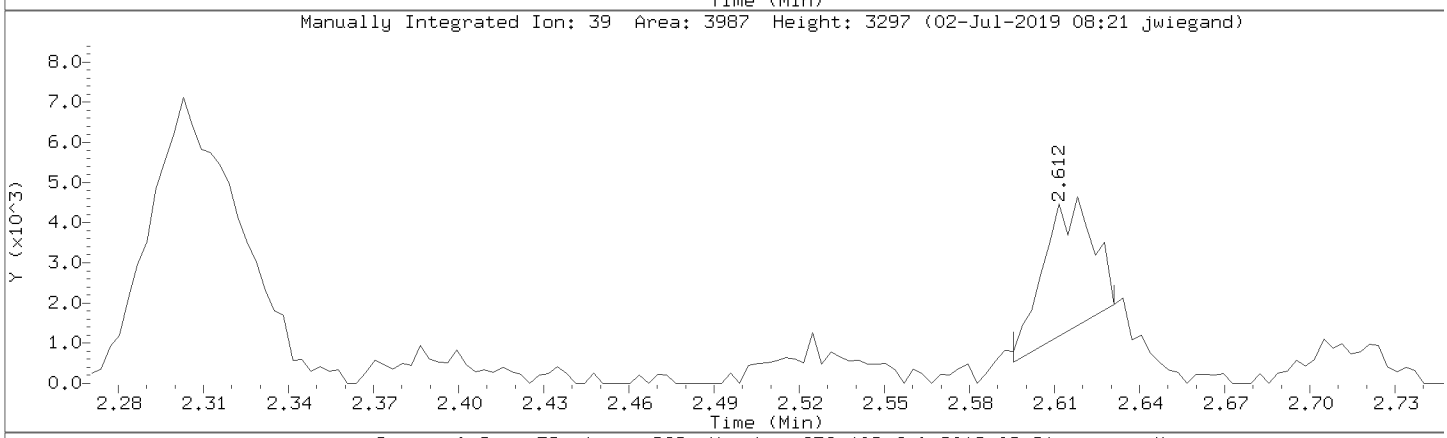


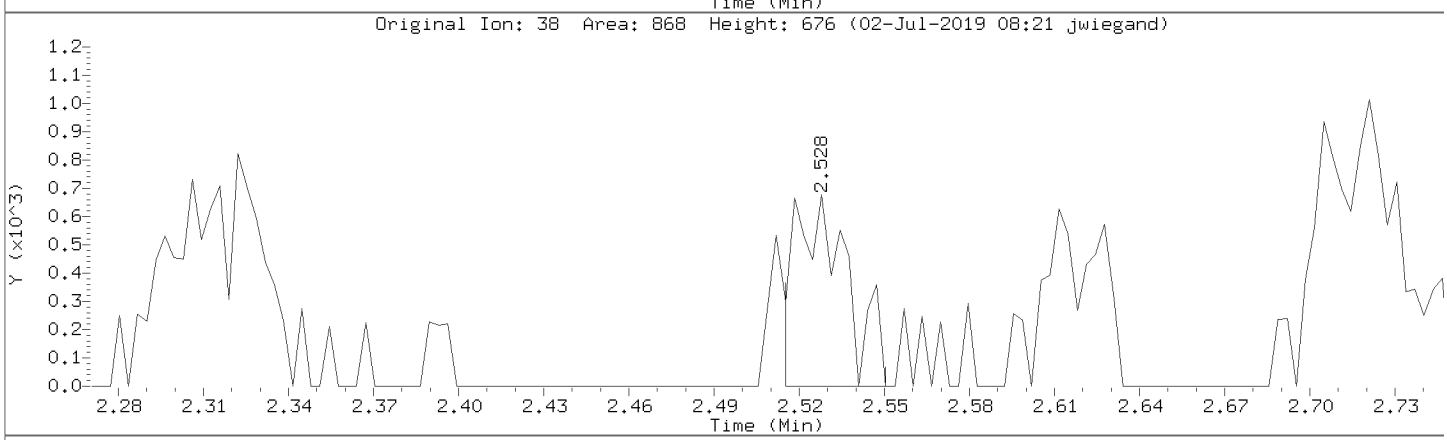


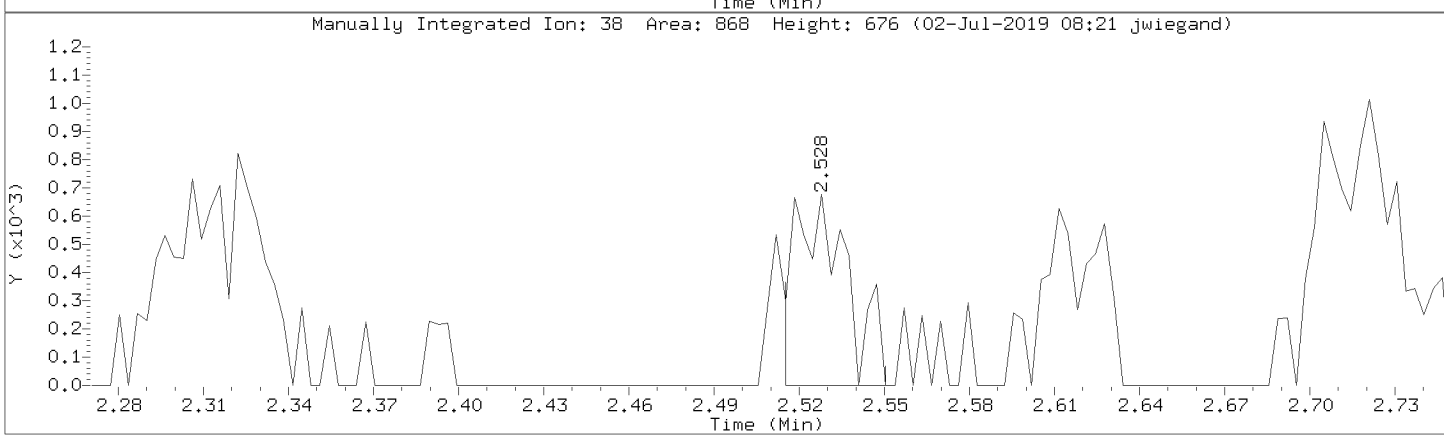


Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



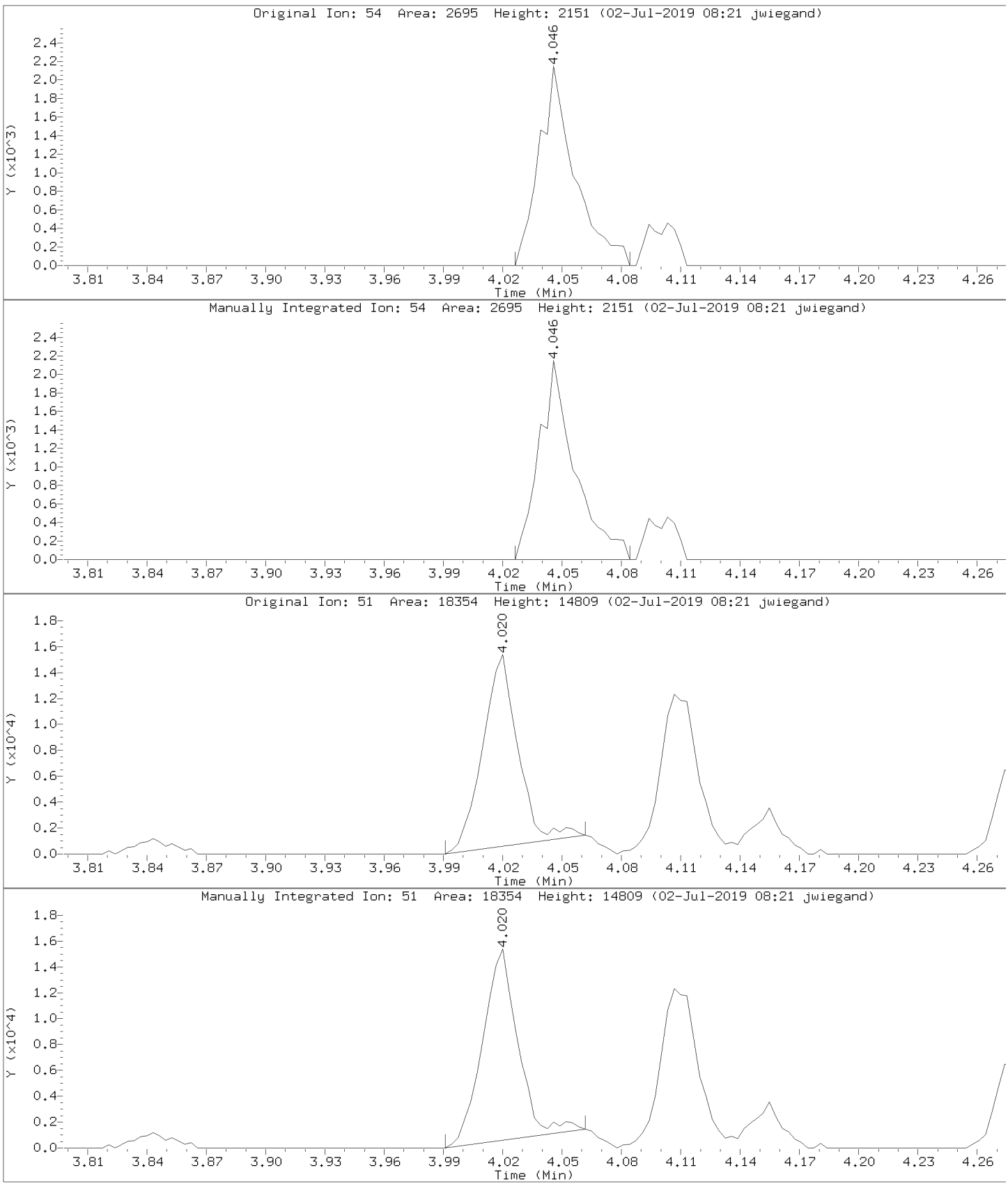






Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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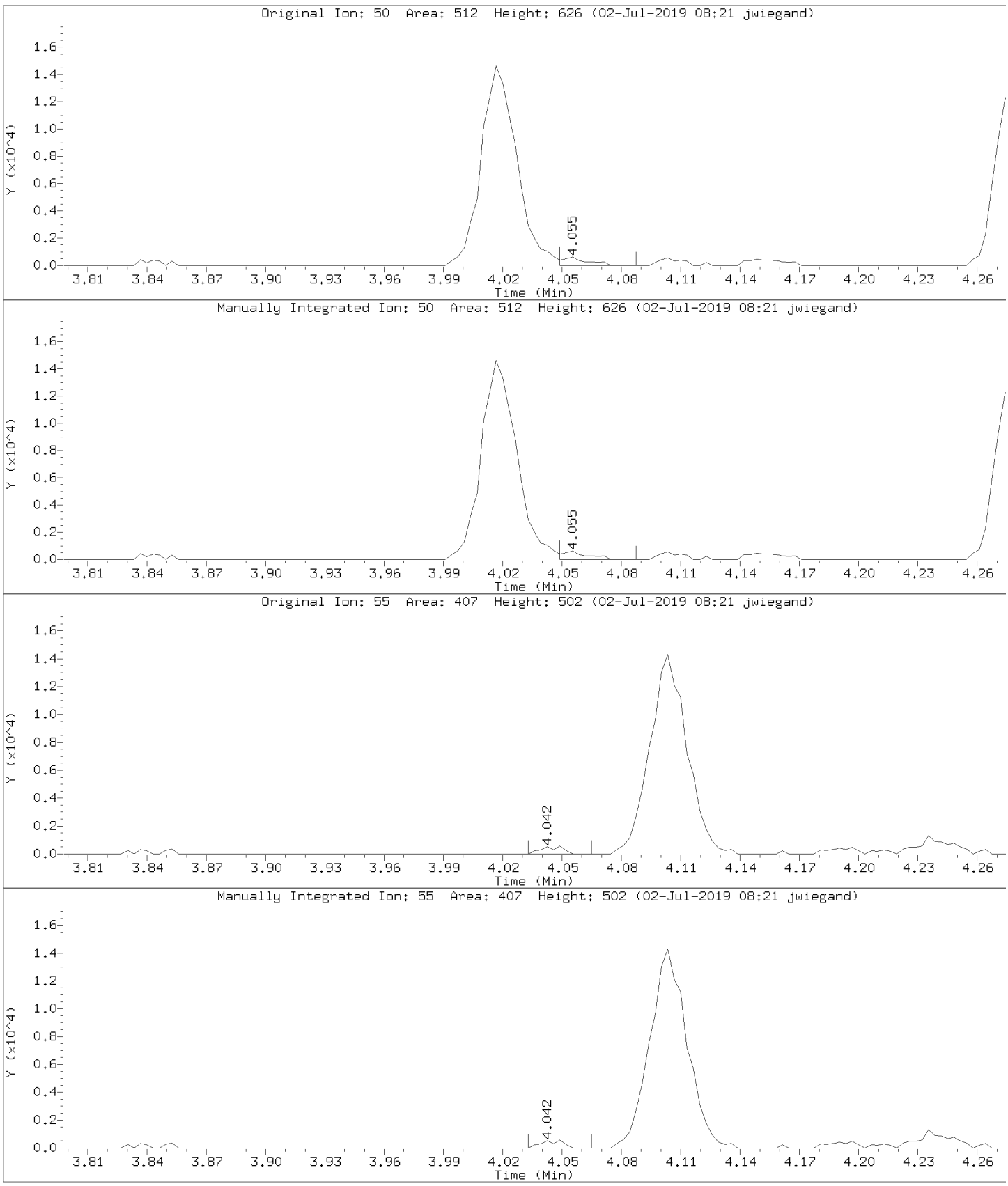
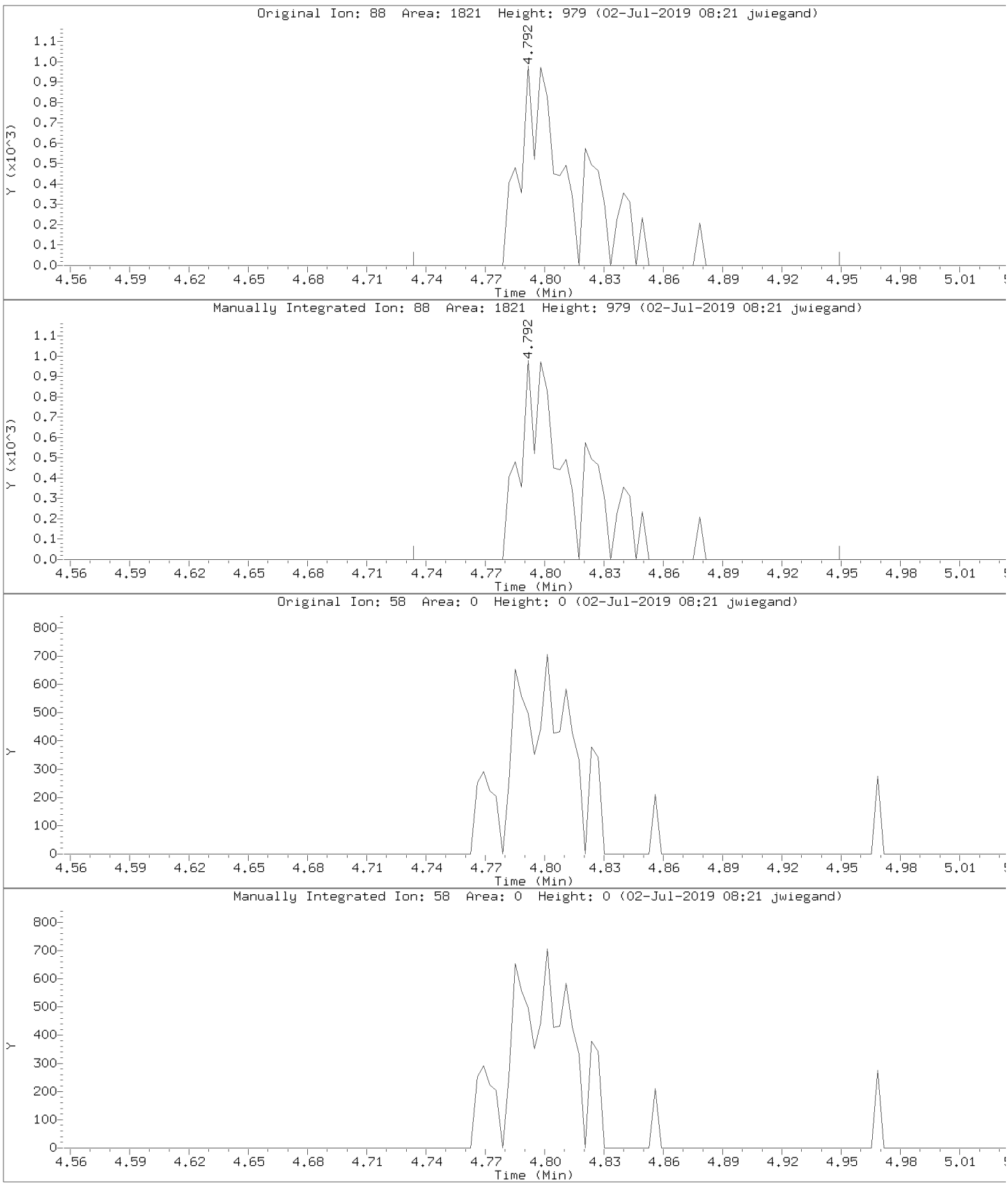
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1



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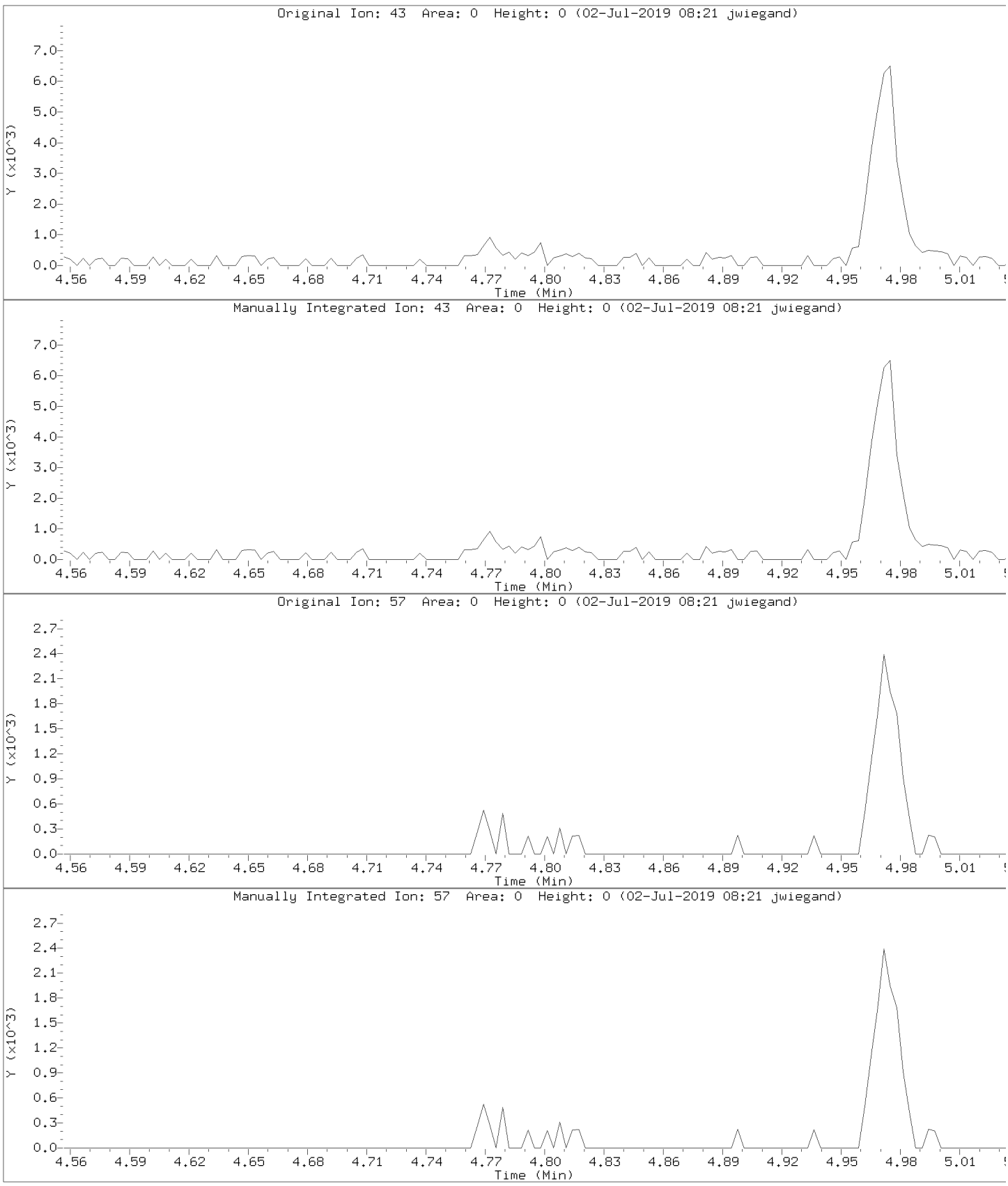
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



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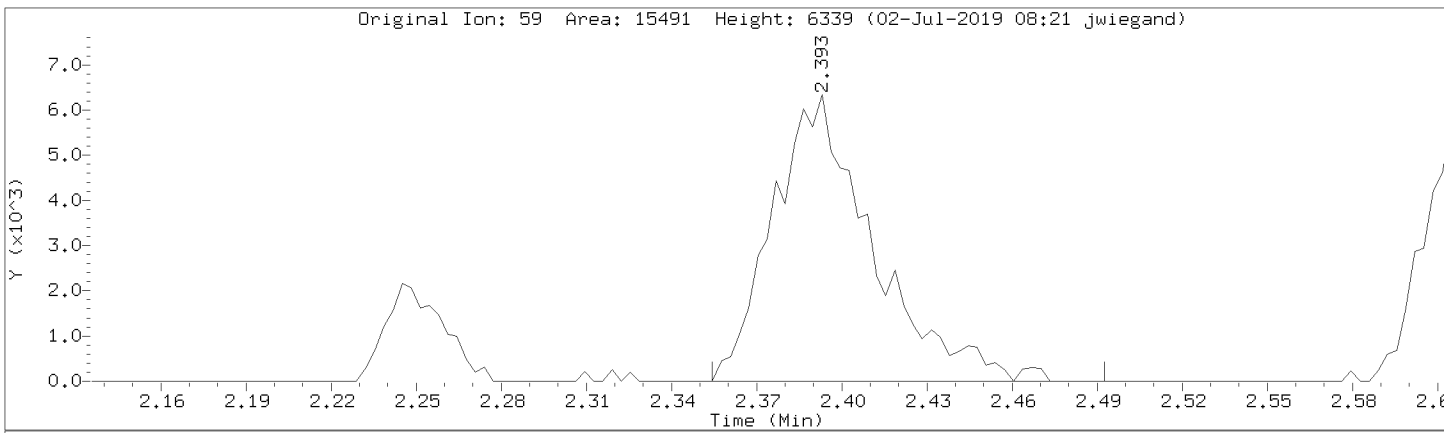
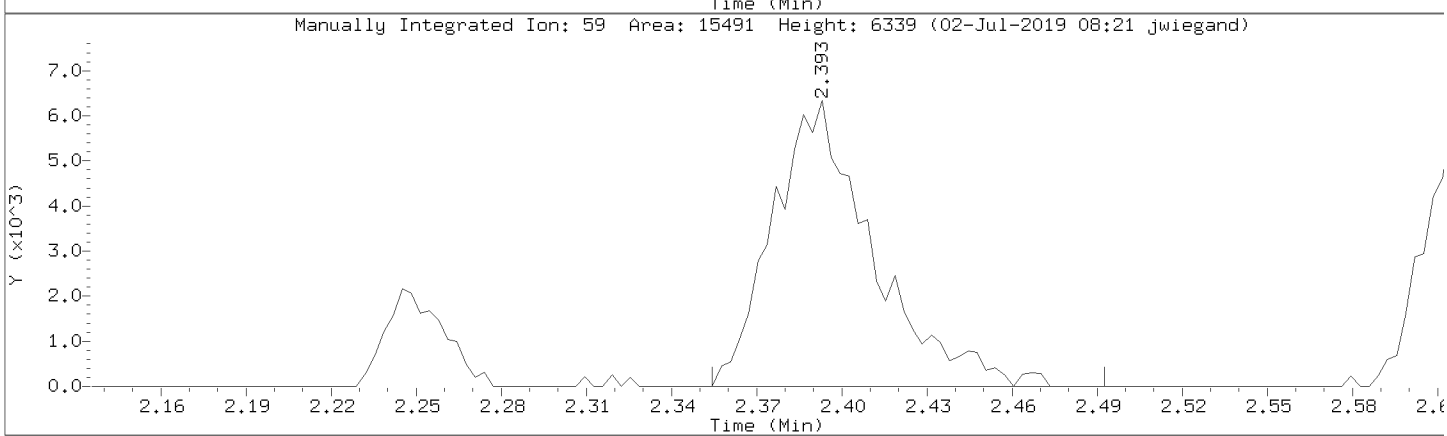
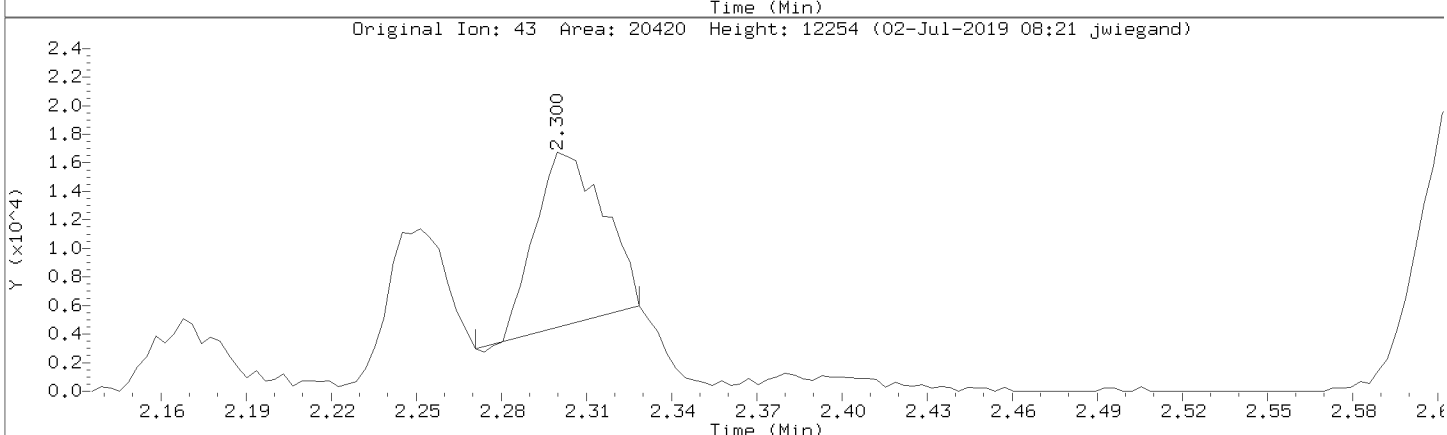
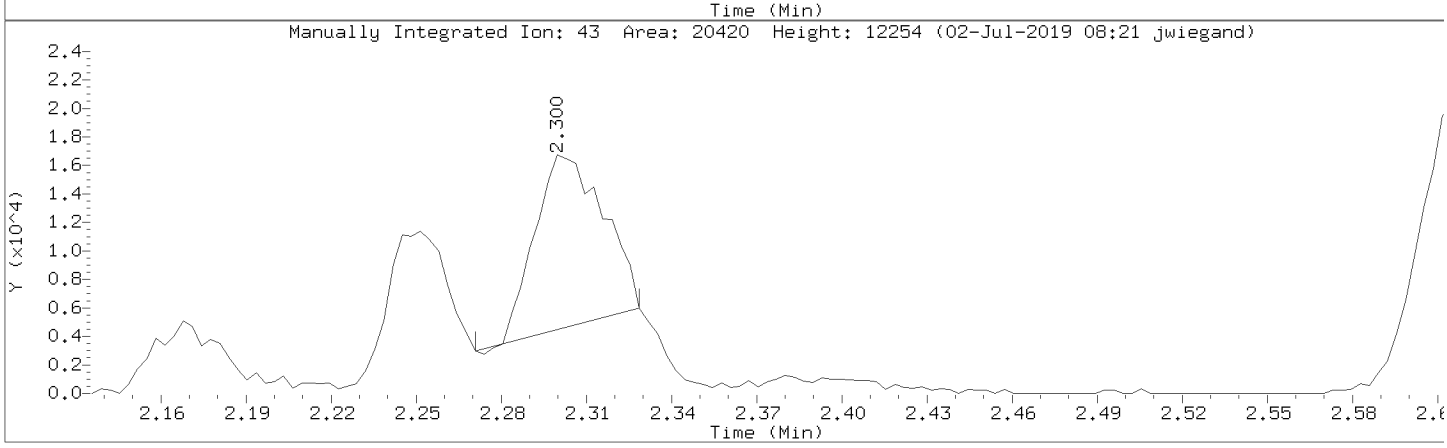
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



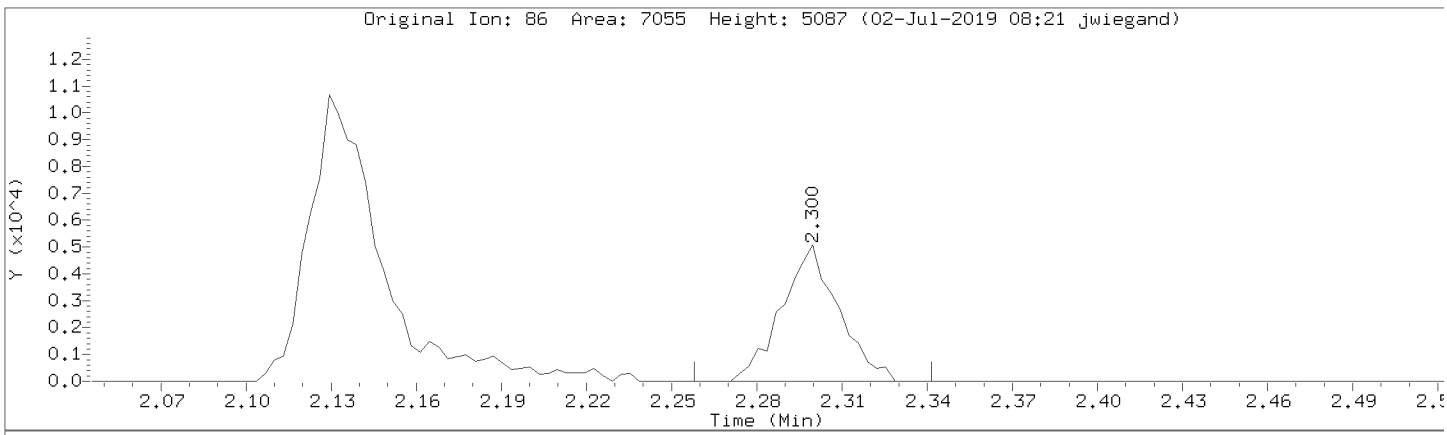


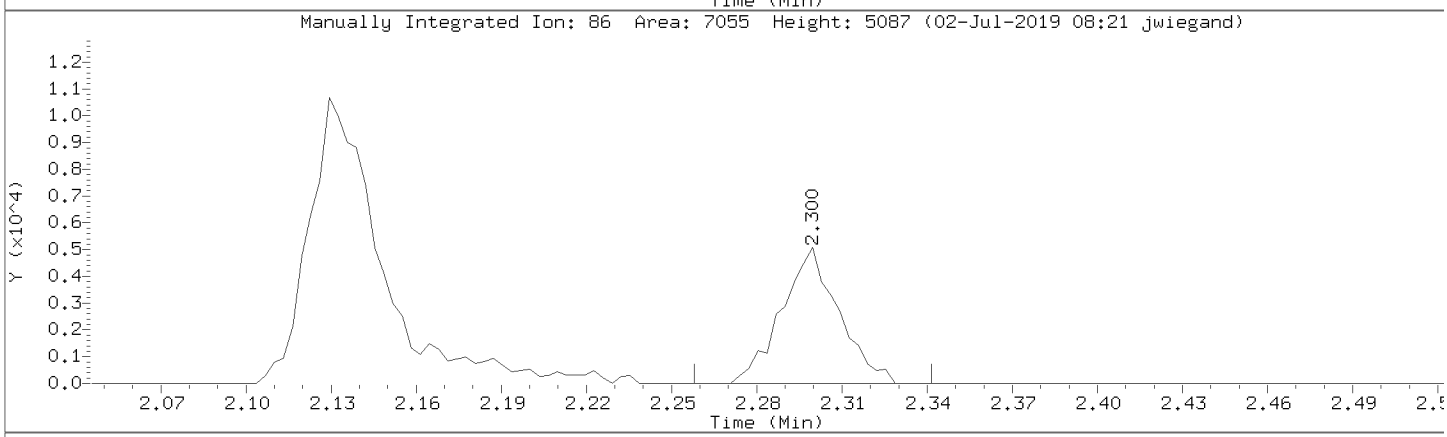


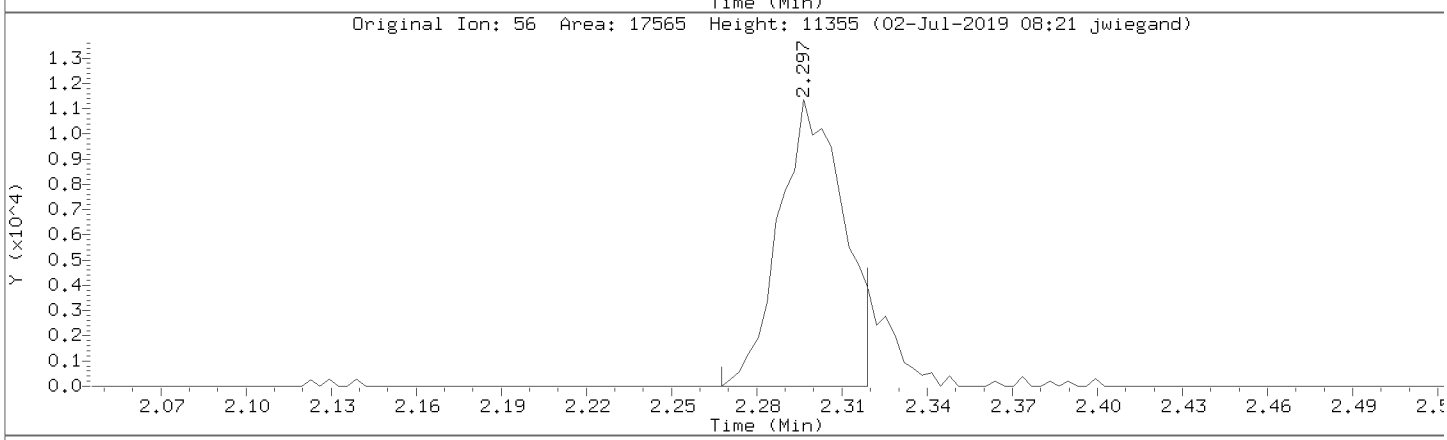


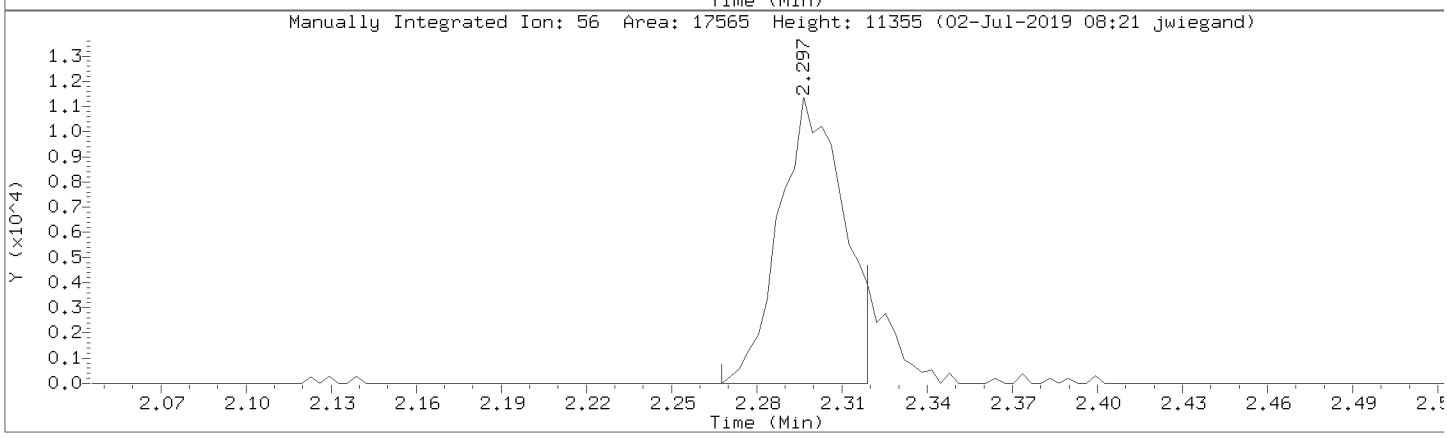
Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-3

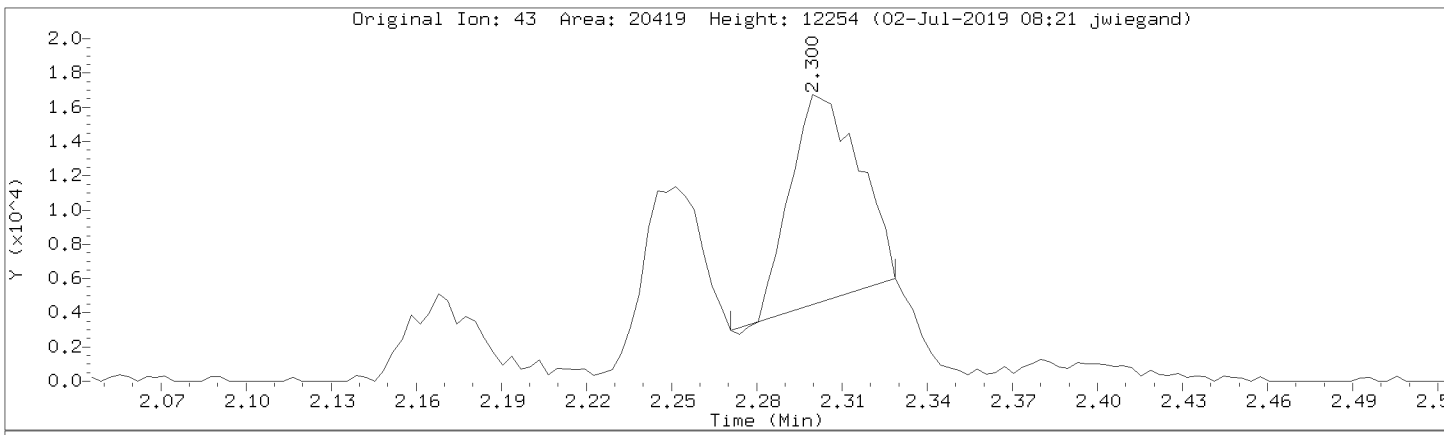


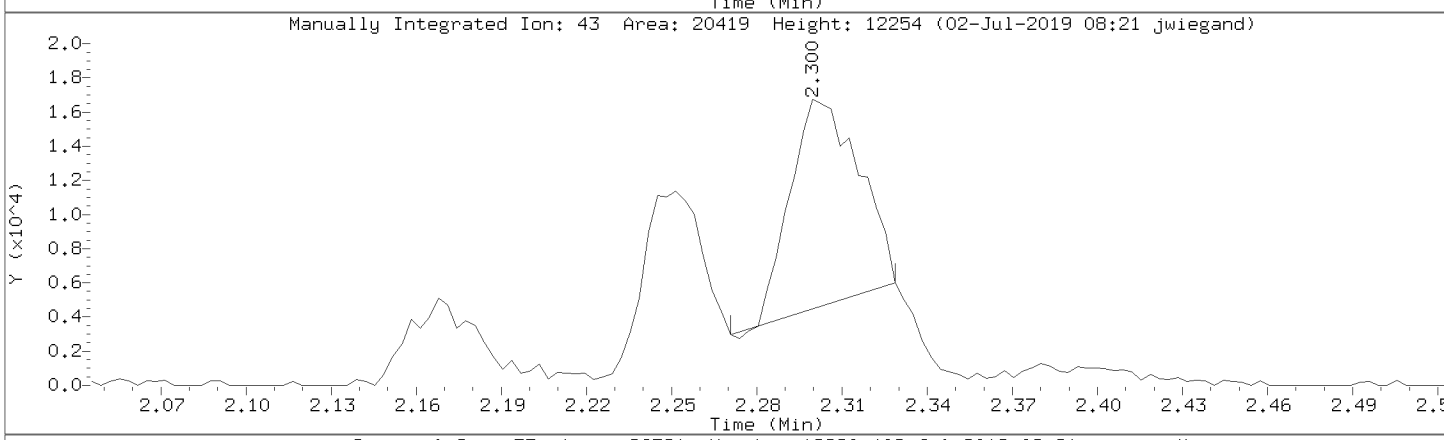


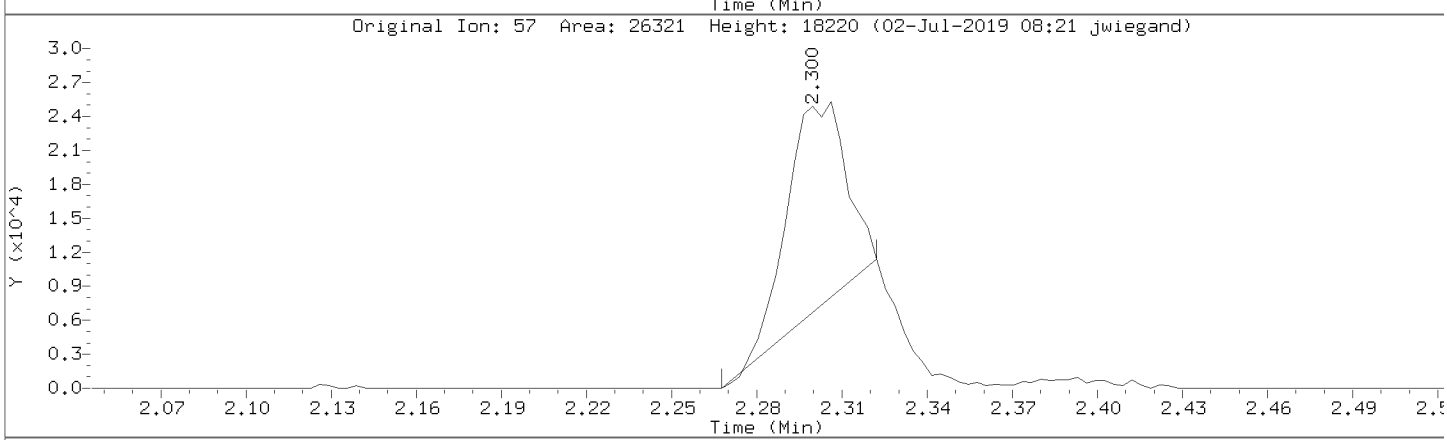


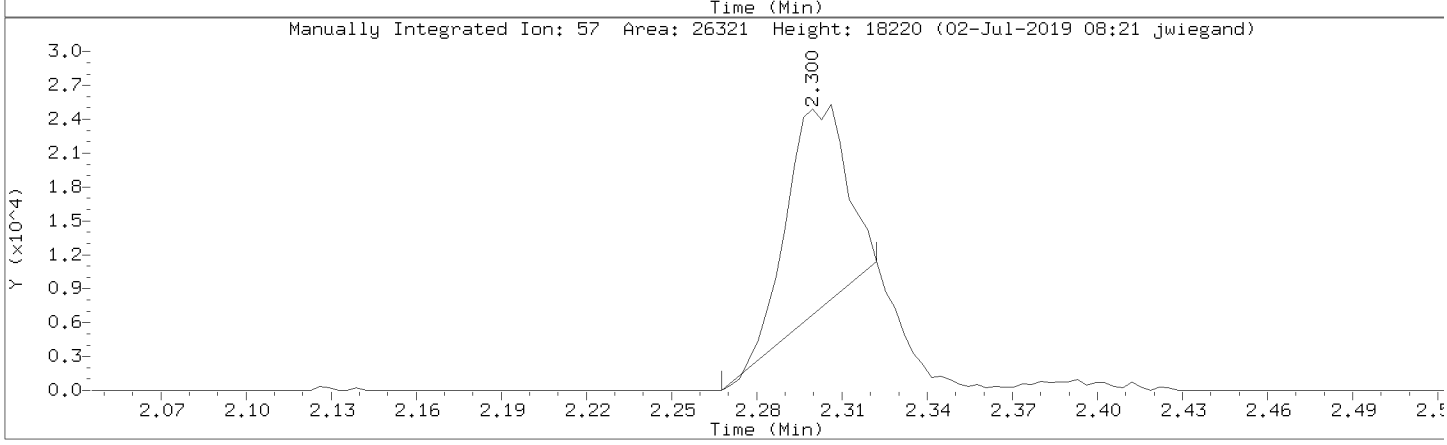


Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



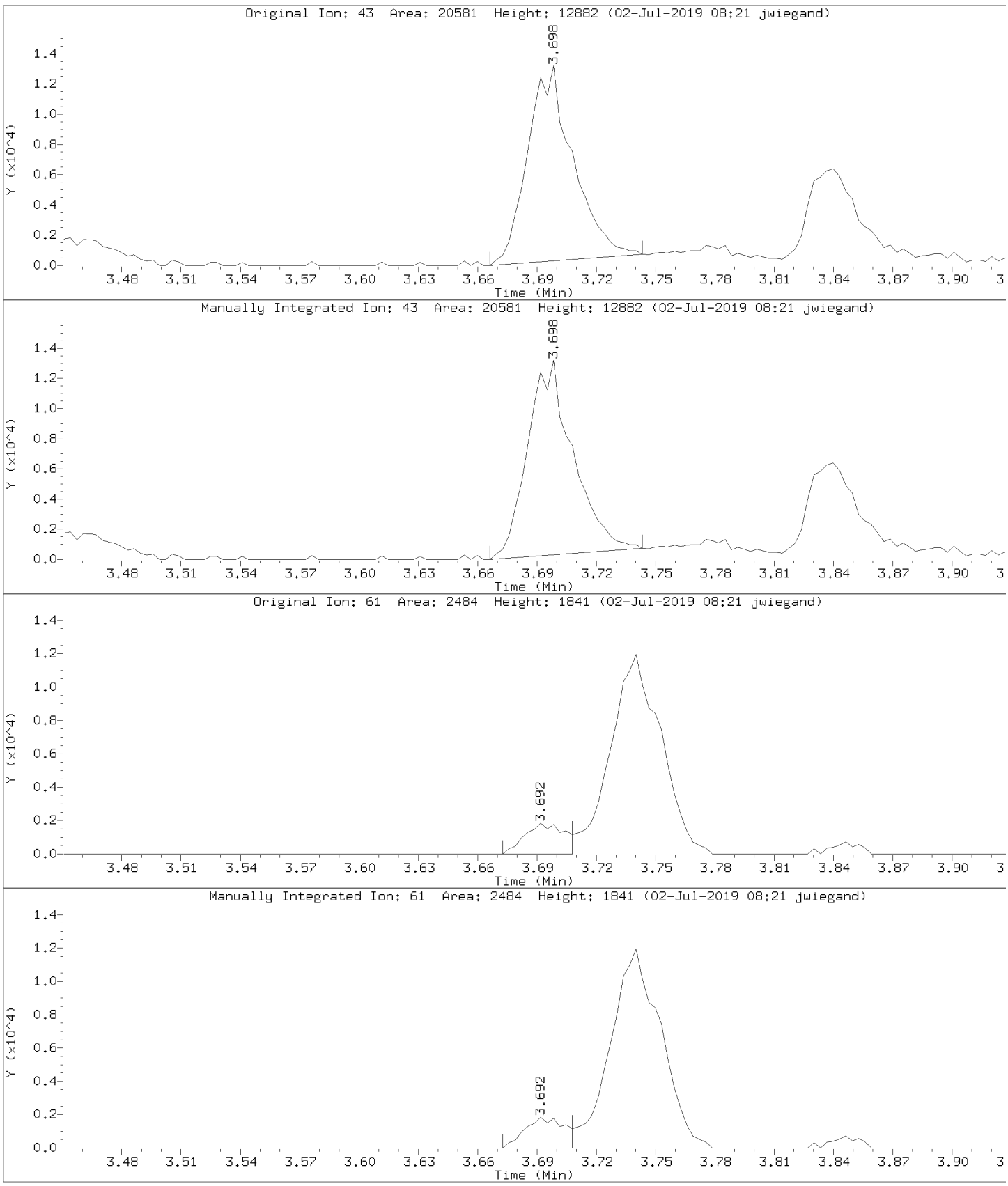




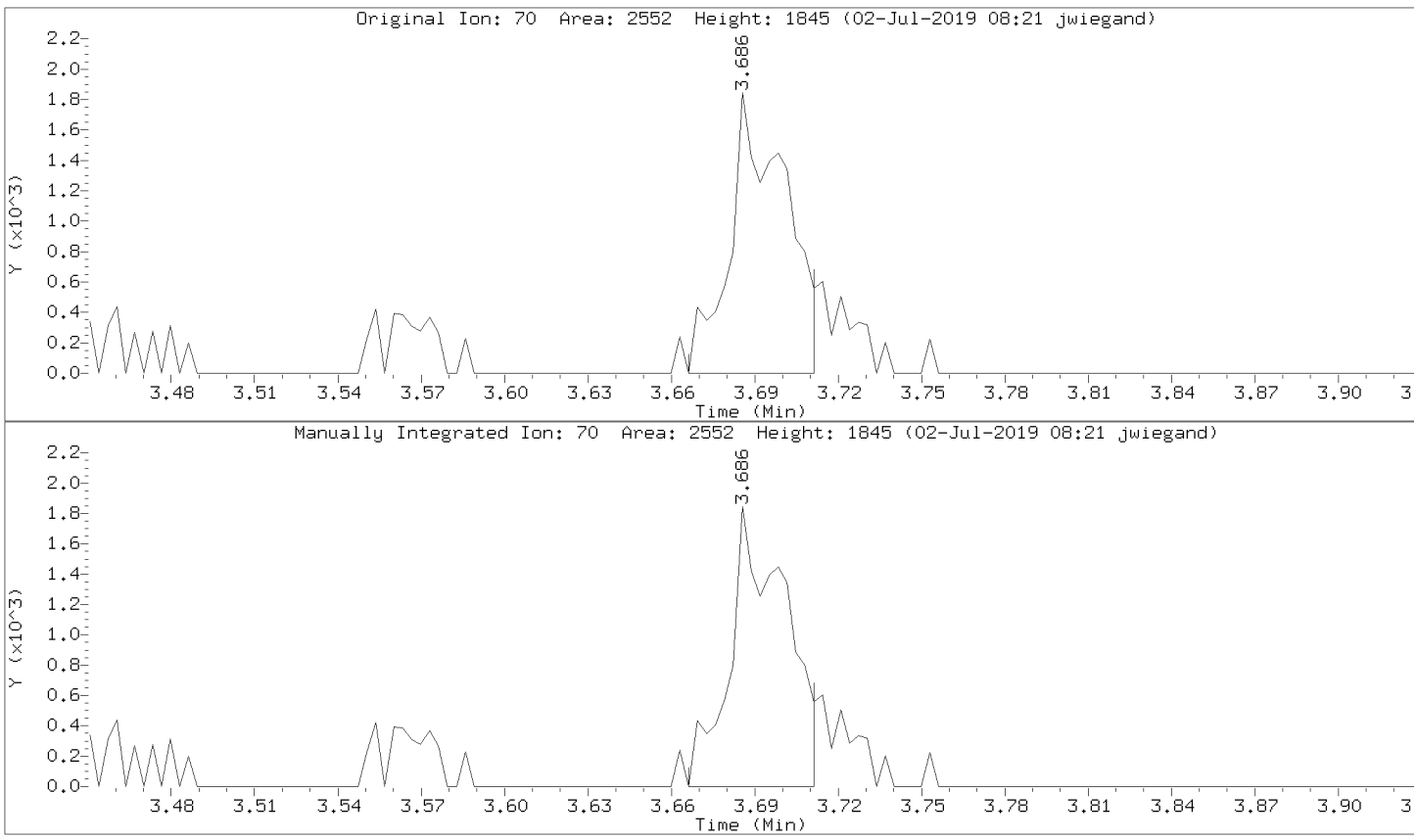


Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701009-45152.d
Injection Date: 01-JUL-2019 10:16
Instrument: 30mv5a.i
Lab Sample ID: 1699734



SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/18/2019 09:30 Matrix: Solid SDG No.: 30300161

Date Extracted: 07/01/2019 18:13 Lab Sample ID: 1699732

Date Analyzed: 07/01/2019 18:13 Lab File ID: 5190701.B\1.B\50701045.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	171	
78-93-3	2-Butanone (MEK)	116	
56-23-5	Carbon tetrachloride	160	
108-90-7	Chlorobenzene	199	
67-66-3	Chloroform	167	
107-06-2	1,2-Dichloroethane	163	
75-35-4	1,1-Dichloroethene	155	
127-18-4	Tetrachloroethene	172	
79-01-6	Trichloroethene	187	
75-01-4	Vinyl chloride	112	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Lab Smp Id: 1699732 Client Smp ID: AOC 26-2MS
Inj Date : 01-JUL-2019 18:13
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1699732x10
Misc Info : 45152
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	6.947	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.145	1.145	(0.268)	17241	11.2273	121(RM)	LT
	9 1,1-Dichloroethene	61	1.756	1.759	(0.411)	28520	15.5091	167(R)	
	33 Chloroform	83	3.553	3.553	(0.831)	46737	16.7404	180(QRM)	LT
	34 Carbon Tetrachloride	117	3.682	3.679	(0.861)	31842	15.9660	172(R)	
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	37209	29.3346	31.5	
	39 2-Butanone (MEK)	43	3.833	3.865	(0.896)	7204	11.6034	125(QR)	
	41 Benzene	78	4.016	4.020	(0.939)	94835	17.1303	184(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	41048	30.0359	32.3	
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	33256	16.3122	175(R)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	145036	30.0000		
	50 Trichloroethene	95	4.373	4.373	(0.759)	30351	18.6834	201(R)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	137763	29.4553	31.6	
	59 Toluene	91	5.106	5.110	(0.886)	108267	17.4026	187(R)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	27041	17.1797	185(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	109065	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	82398	19.8635	213(R)	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	40758	18.8942	203(R)	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	96946	37.2342	400(R)	
	75 o-Xylene	106	6.013	6.016	(1.043)	46331	17.9754	193(R)	
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	40684	28.9103	31.1	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	48338	30.0000		

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701045.d
Lab Smp Id: 1699732
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: AOC 26-2MS
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	145036	-16.04
71 Chlorobenzene-d5	132458	66229	264916	109065	-17.66
94 1,4-Dichlorobenze	61733	30867	123466	48338	-21.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1699732 Client Smp ID: AOC 26-2MS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	21.5	0.000	*	70-130
2 Chloromethane	21.5	0.000	*	70-130
3 Vinyl Chloride	21.5	121	561.37*	70-130
4 Bromomethane	21.5	0.000	*	70-130
5 Chloroethane	21.5	0.000	*	70-130
6 Trichlorofluorome	21.5	0.000	*	70-130
8 Ethanol	215	0.000	*	10-175
9 1,1-Dichloroethene	21.5	167	775.45*	70-130
10 1,1,2-Trichlorotr	21.5	0.000	*	50-150
11 Carbon disulfide	21.5	0.000	*	70-130
12 Iodomethane	53.7	0.000	*	70-130
13 Acrolein	21.5	0.000	*	70-130
14 Allyl chloride	53.7	0.000	*	70-130
15 Methylene Chloride	21.5	0.000	*	70-130
16 Acetone	21.5	0.000	*	70-130
17 trans-1,2-Dichlor	21.5	0.000	*	70-130
18 Methyl acetate	21.5	0.000	*	70-130
19 n-Hexane	21.5	0.000	*	50-150
20 Methyl-tert-butyl	21.5	0.000	*	50-150
22 Acetonitrile	53.7	0.000	*	70-130
23 Diisopropyl ether	21.5	0.000	*	70-130
24 Chloroprene	21.5	0.000	*	70-130
25 1,1-Dichloroethane	21.5	0.000	*	70-130
26 Acrylonitrile	21.5	0.000	*	70-130
27 Ethyl-tert-butyl	21.5	0.000	*	50-150
28 Vinyl acetate	21.5	0.000	*	70-130
29 cis-1,2-Dichloroe	21.5	0.000	*	70-130
30 2,2-Dichloropropa	21.5	0.000	*	70-130
31 Cyclohexane	21.5	0.000	*	70-130
32 Bromochloromethane	21.5	0.000	*	70-130
33 Chloroform	21.5	180	837.02*	70-130
34 Carbon Tetrachlori	21.5	172	798.30*	70-130
35 Ethyl acetate	21.5	0.000	*	70-130
36 Tetrahydrofuran	21.5	0.000	*	70-130
38 1,1,1-Trichloroet	21.5	0.000	*	70-130
39 2-Butanone (MEK)	21.5	125	580.17*	50-150
40 1,1-Dichloroprope	21.5	0.000	*	70-130
41 Benzene	21.5	184	856.52*	70-130
42 Propionitrile	21.5	0.000	*	70-130
43 Methacrylonitrile	21.5	0.000	*	70-130

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44	tert-Amylmethyl e	21.5	0.000	*	50-150
46	Isobutanol	21.5	0.000	*	70-130
47	1,2-Dichloroethane	21.5	175	815.61*	70-130
49	Methylcyclohexane	21.5	0.000	*	70-130
50	Trichloroethene	21.5	201	934.17*	70-130
51	Dibromomethane	21.5	0.000	*	70-130
52	1,2-Dichloropropa	21.5	0.000	*	70-130
53	Bromodichlorometh	21.5	0.000	*	70-130
54	Methyl methacryla	21.5	0.000	*	70-130
55	1,4-Dioxane (p-Di	21.5	0.000	*	50-150
56	2-Chloroethylviny	21.5	0.000	*	50-150
57	cis-1,3-Dichlorop	21.5	0.000	*	70-130
59	Toluene	21.5	187	870.13*	70-130
60	2-Nitropropane	53.7	0.000	*	70-130
61	4-Methyl-2-pentan	21.5	0.000	*	50-150
62	Tetrachloroethene	21.5	185	858.98*	70-130
63	trans-1,3-Dichlor	21.5	0.000	*	70-130
64	Ethyl methacrylate	21.5	0.000	*	70-130
65	1,1,2-Trichloroet	21.5	0.000	*	70-130
66	Dibromochlorometh	21.5	0.000	*	70-130
67	1,3-Dichloropropa	21.5	0.000	*	70-130
69	2-Hexanone	21.5	0.000	*	70-130
70	Ethylbenzene	21.5	203	944.71*	70-130
72	Chlorobenzene	21.5	213	993.17*	70-130
73	1,1,1,2-Tetrachlo	21.5	0.000	*	70-130
74	m&p-Xylene	43.0	400	930.85*	50-150
75	o-Xylene	21.5	193	898.77*	70-130
76	Styrene	21.5	0.000	*	70-130
77	Bromoform	21.5	0.000	*	70-130
80	n-Propylbenzene	21.5	0.000	*	70-130
81	Bromobenzene	21.5	0.000	*	70-130
82	1,1,2,2-Tetrachlo	21.5	0.000	*	70-130
83	1,3,5-Trimethylbe	21.5	0.000	*	70-130
84	2-Chlorotoluene	21.5	0.000	*	70-130
85	1,2,3-Trichloropr	21.5	0.000	*	70-130
86	trans-1,4-Dichlor	21.5	0.000	*	50-150
87	Cyclohexanone	53.7	0.000	*	70-130
88	4-Chlorotoluene	21.5	0.000	*	70-130
90	1,2,4-Trimethylbe	21.5	0.000	*	70-130
92	p-Isopropyltoluene	21.5	0.000	*	50-150
93	1,3-Dichlorobenze	21.5	0.000	*	70-130
95	1,4-Dichlorobenze	21.5	0.000	*	70-130
97	1,2-Dichlorobenze	21.5	0.000	*	70-130
98	1,2-Dibromo-3-chl	21.5	0.000	*	70-130
100	Hexachloro-1,3-bu	21.5	0.000	*	50-150
101	1,2,4-Trichlorobe	21.5	0.000	*	70-130
102	Naphthalene	21.5	0.000	*	70-130
103	1,2,3-Trichlorobe	21.5	0.000	*	70-130

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	32.2	31.5	97.78	0-130

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	32.2	32.3	100.12	0-138
$ 58 Toluene-d8 (S)	32.2	31.6	98.18	0-124
$ 79 4-Bromofluorobenze	32.2	31.1	96.37	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

TARGET COMPOUNDS

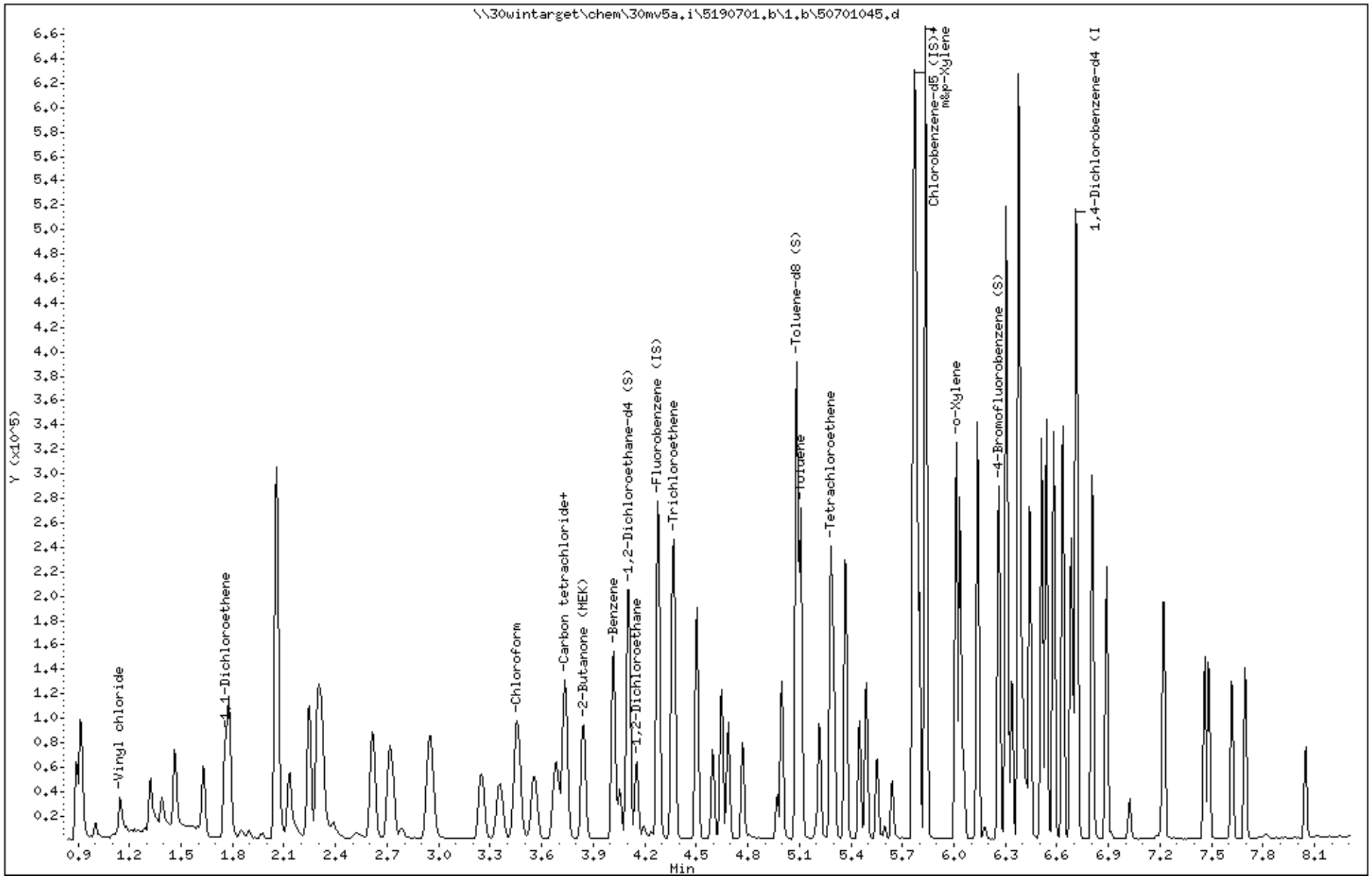
Client Name:
Lab Smp Id: 1699732
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152

Client SDG: 1.b
Client Smp ID: AOC 26-2MS
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	121	
75-35-4	1,1-Dichloroethene	167	
67-66-3	Chloroform	180	
56-23-5	Carbon Tetrachloride	172	
78-93-3	2-Butanone (MEK)	125	
71-43-2	Benzene	184	
107-06-2	1,2-Dichloroethane	175	
79-01-6	Trichloroethene	201	
108-88-3	Toluene	187	
127-18-4	Tetrachloroethene	185	
108-90-7	Chlorobenzene	213	
100-41-4	Ethylbenzene	203	
7816-60-0	m&p-Xylene	400	
95-47-6	o-Xylene	193	
1868-53-7	Dibromofluoromethane (S)	31.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.3	
2037-26-5	Toluene-d8 (S)	31.6	
460-00-4	4-Bromofluorobenzene (S)	31.1	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d
Date : 01-JUL-2019 18:13
Client ID: AOC 26-2MS
Sample Info: 1699732x10

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

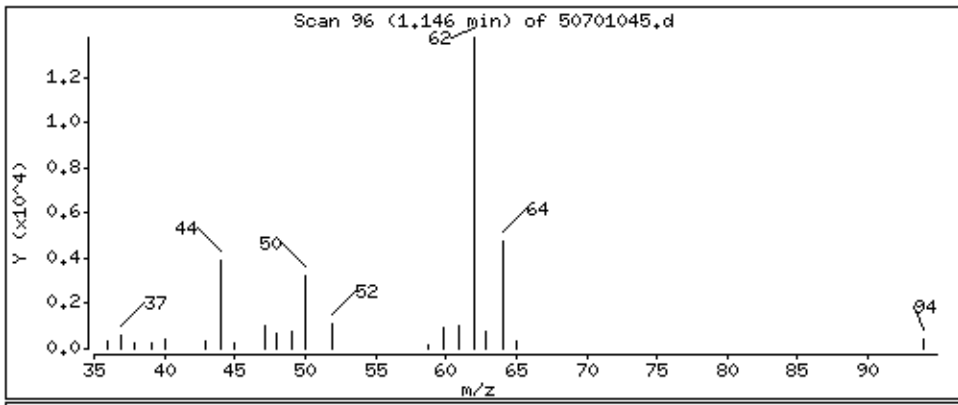
Operator: JEW

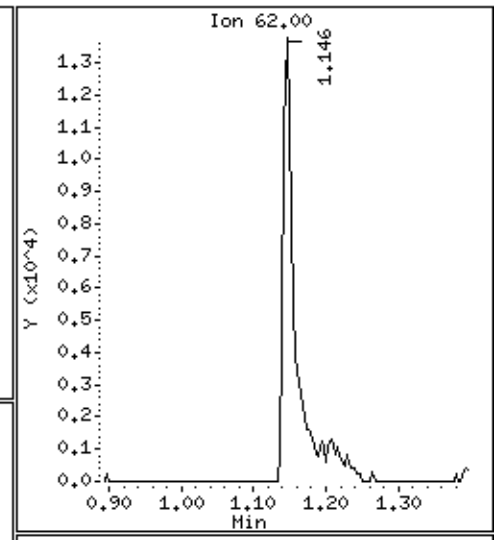
Column phase: RTX-VMS

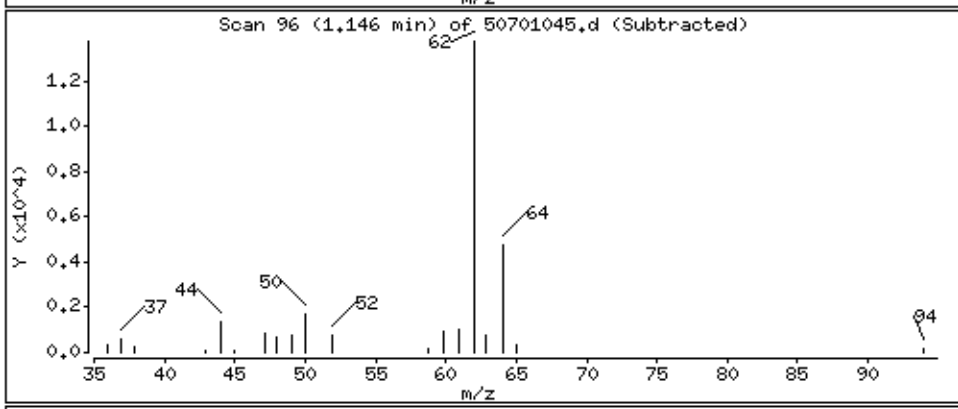
Column diameter: 0.18

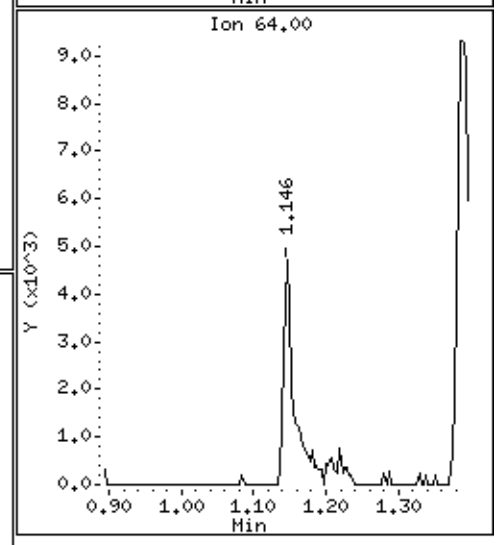
3 Vinyl Chloride

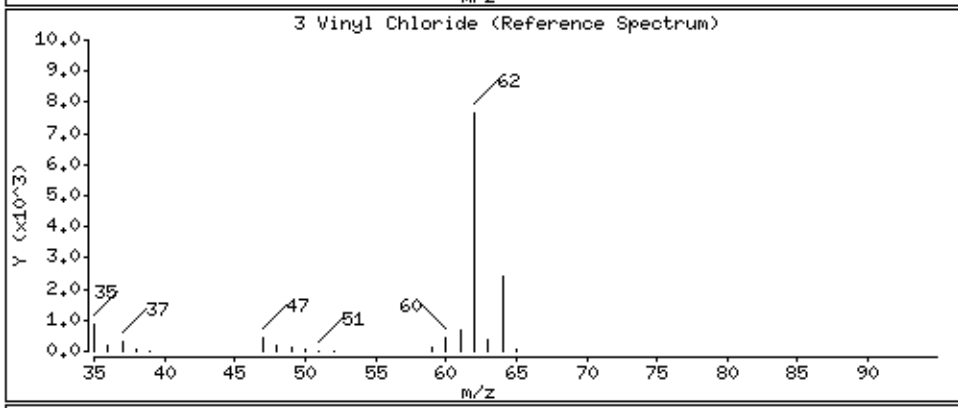
Concentration: 121 ug/kg

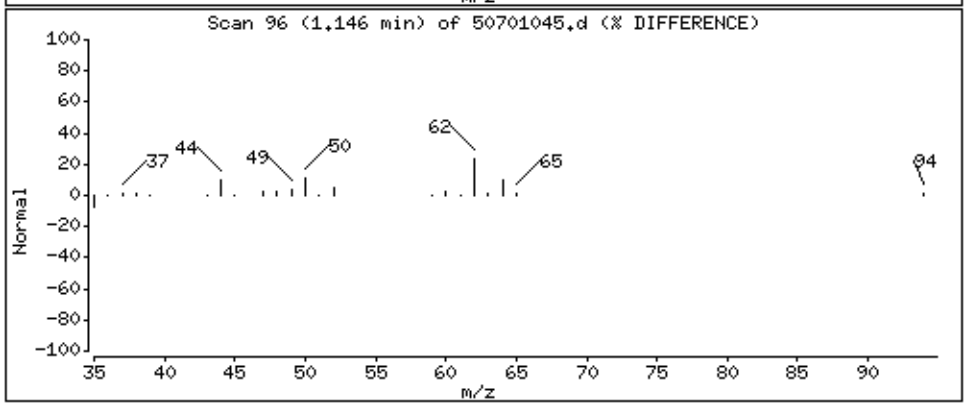












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

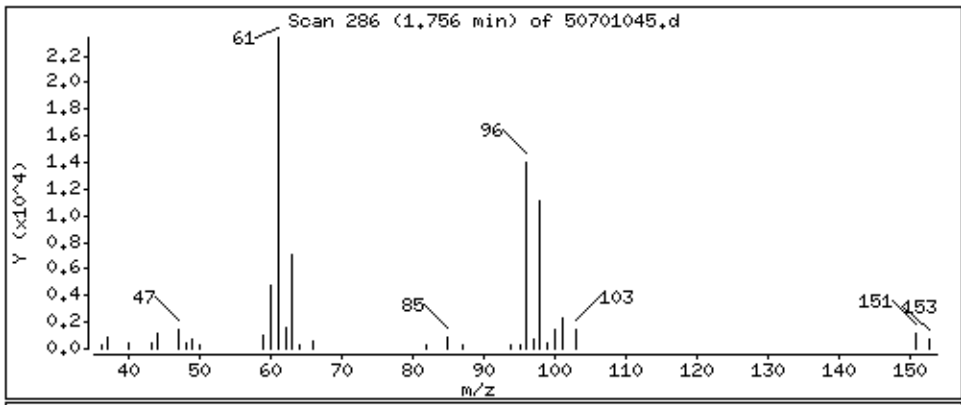
Operator: JEW

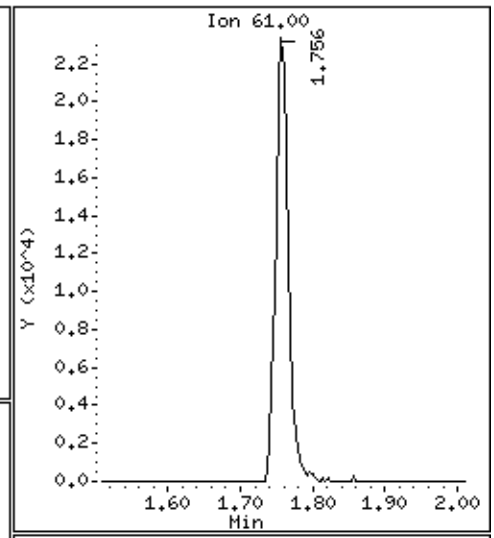
Column phase: RTX-VMS

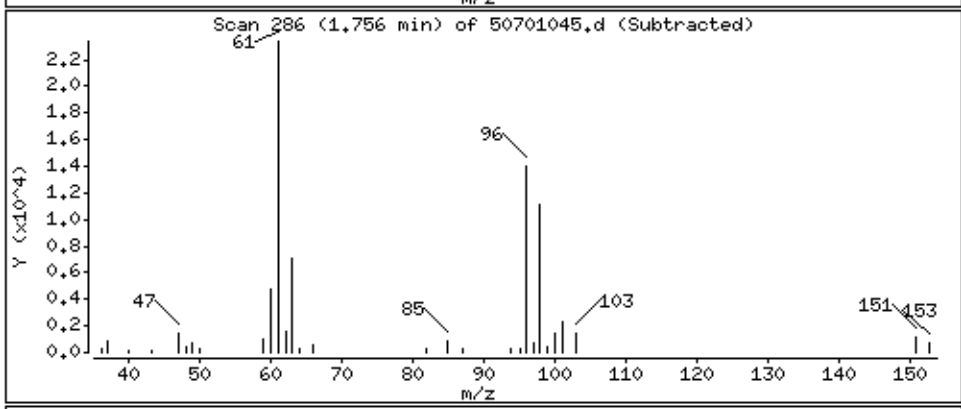
Column diameter: 0.18

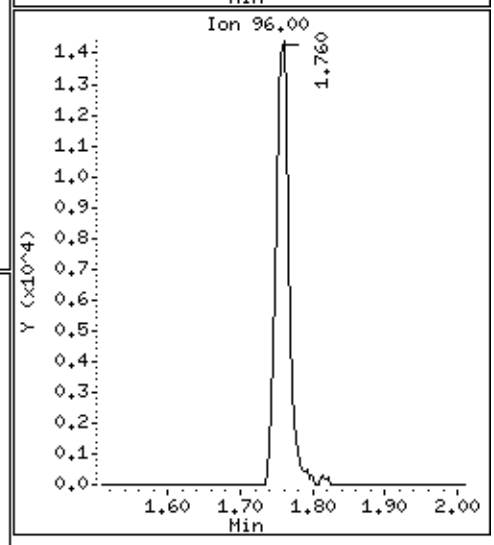
9 1,1-Dichloroethene

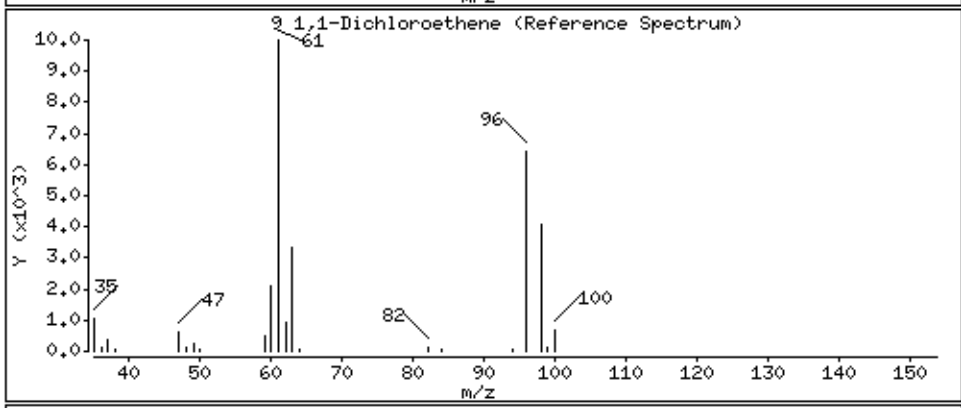
Concentration: 167 ug/kg

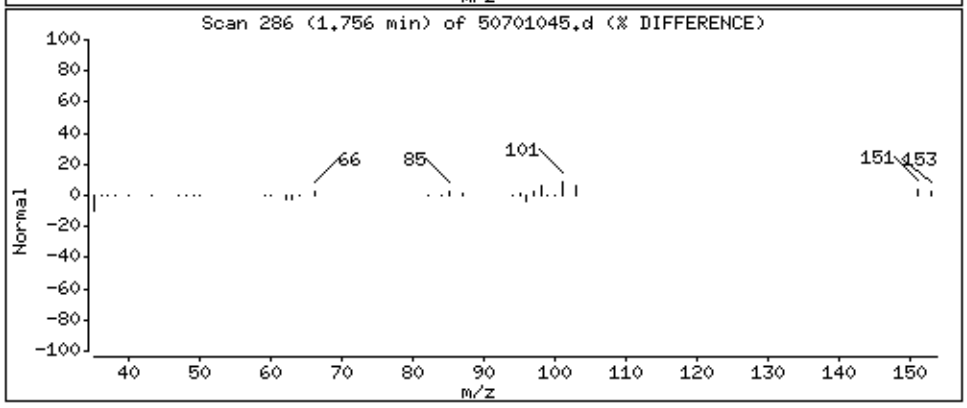












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

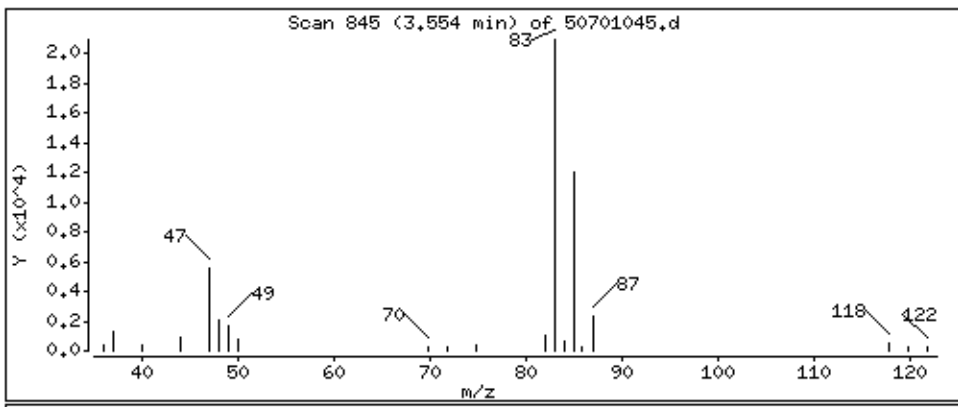
Operator: JEW

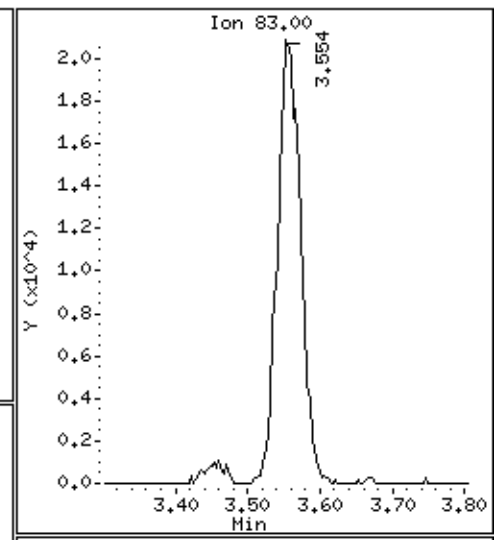
Column phase: RTX-VMS

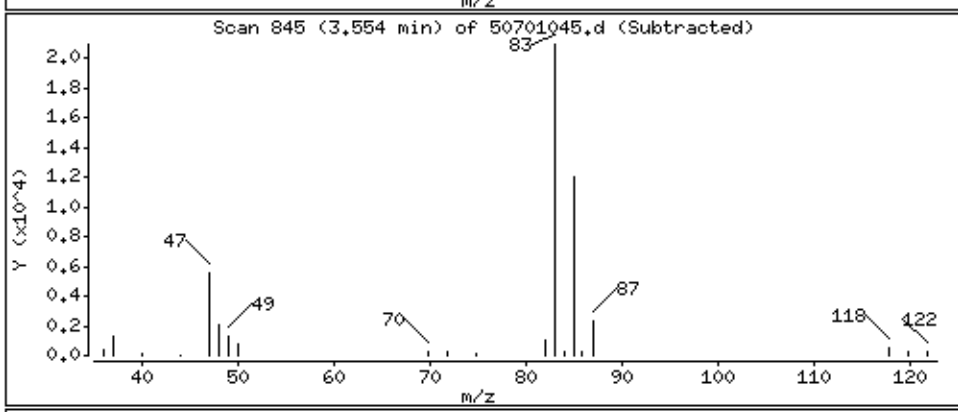
Column diameter: 0.18

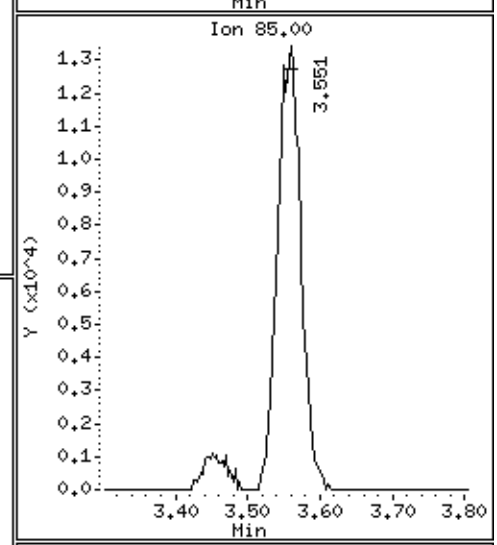
33 Chloroform

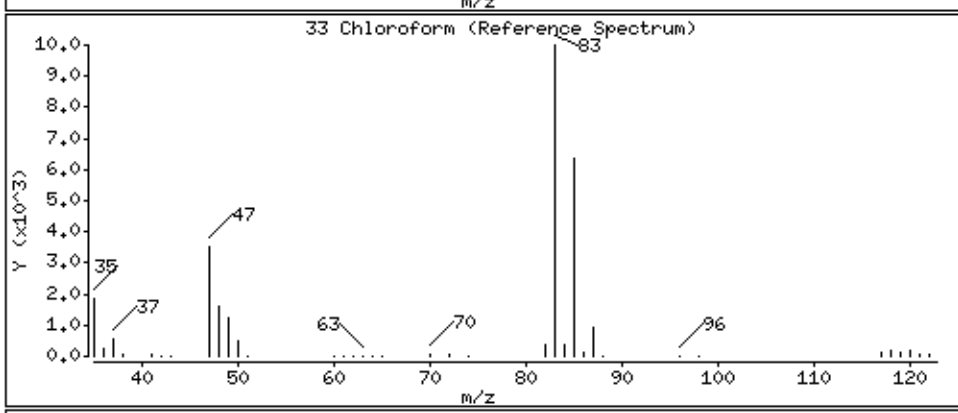
Concentration: 180 ug/kg

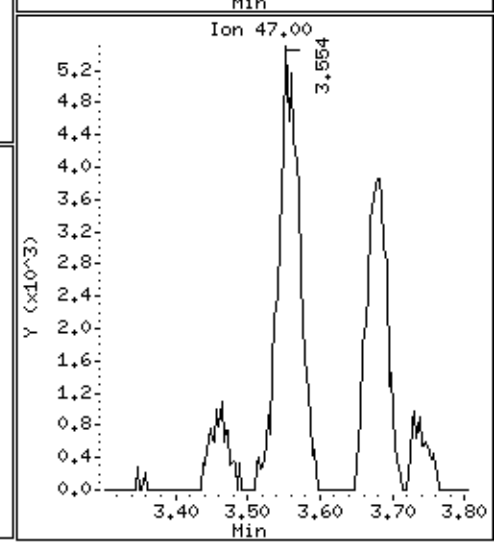


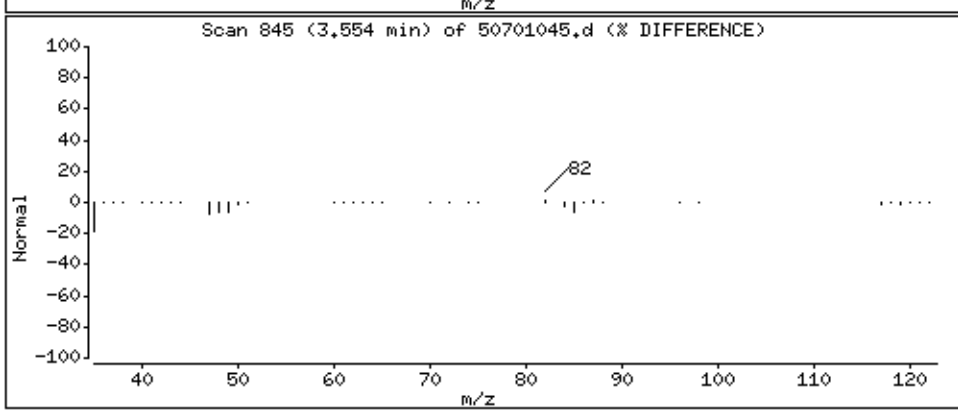












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

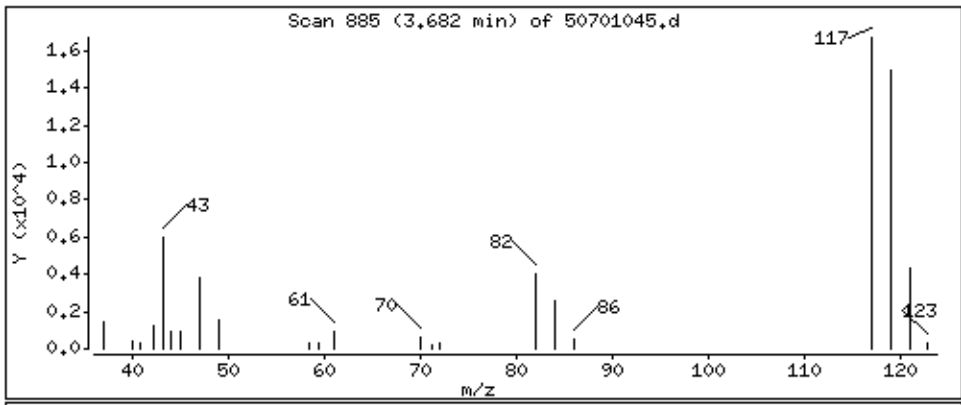
Operator: JEW

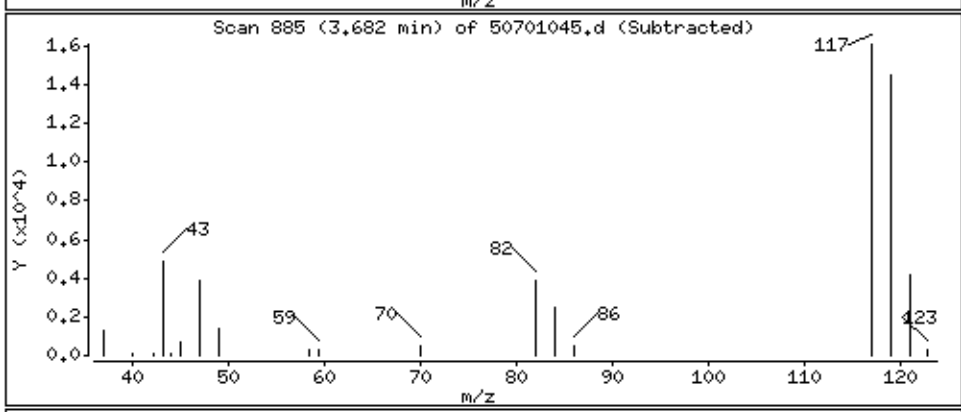
Column phase: RTX-VMS

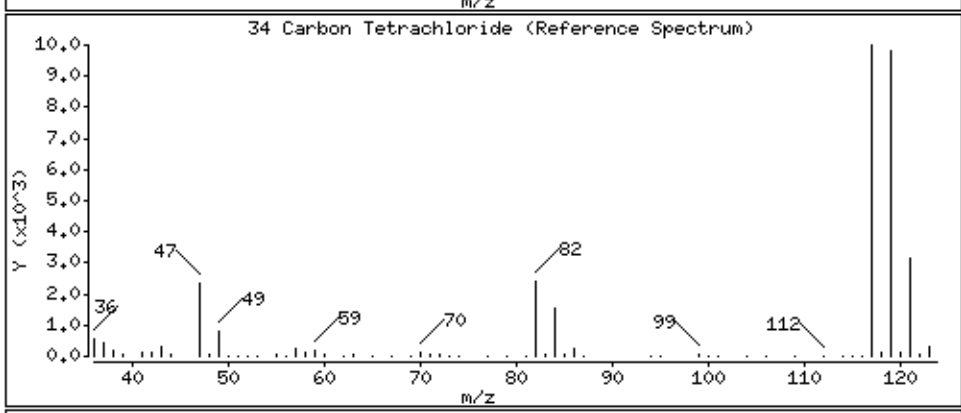
Column diameter: 0.18

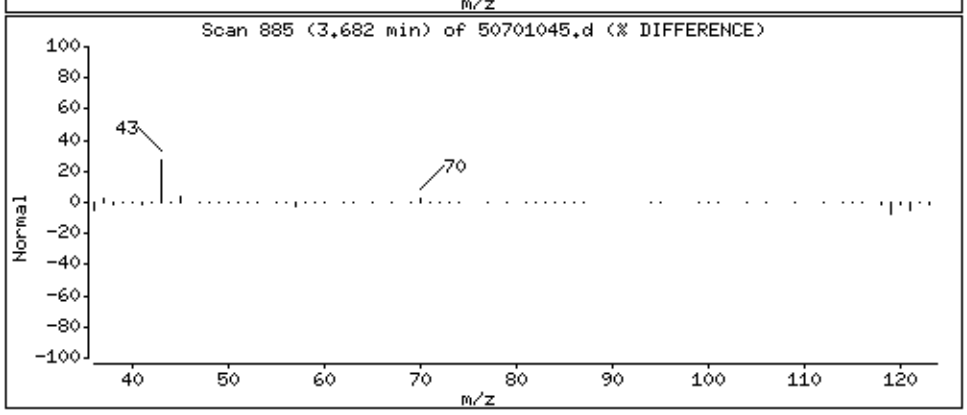
34 Carbon Tetrachloride

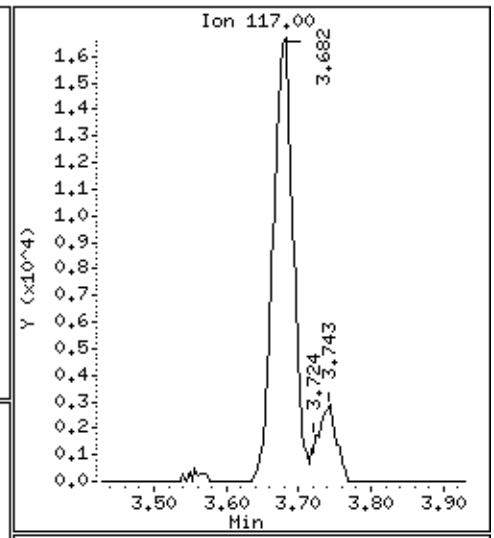
Concentration: 172 ug/kg

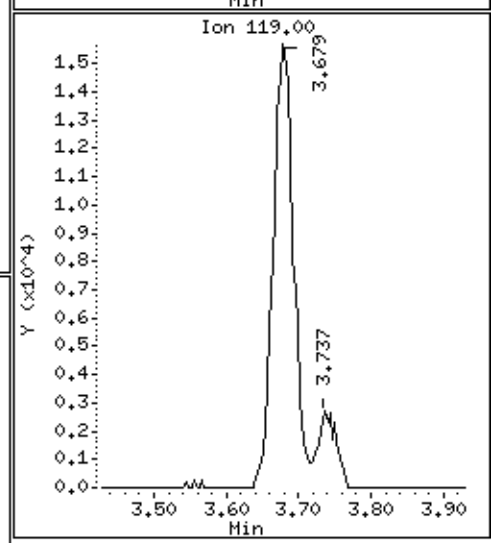












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

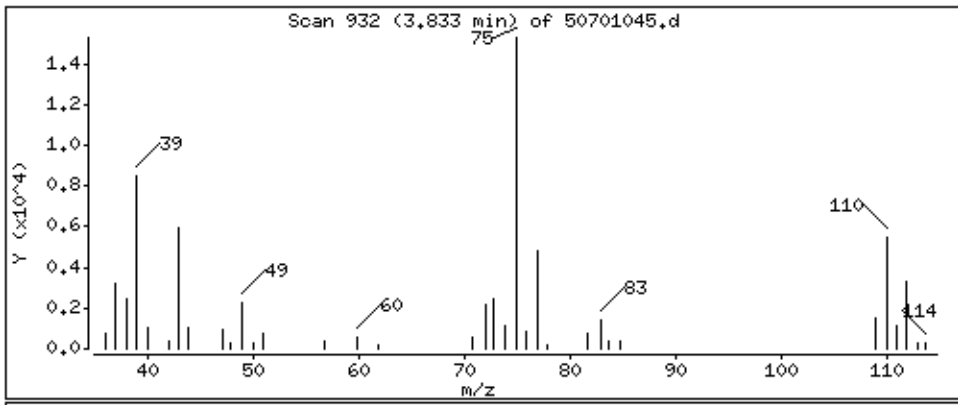
Operator: JEW

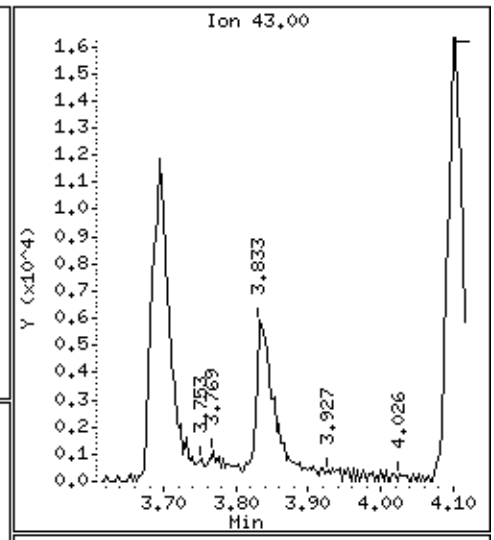
Column phase: RTX-VMS

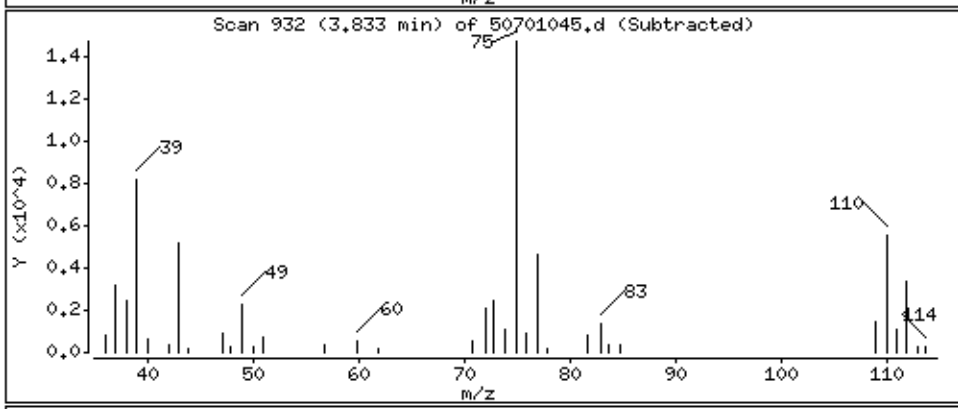
Column diameter: 0.18

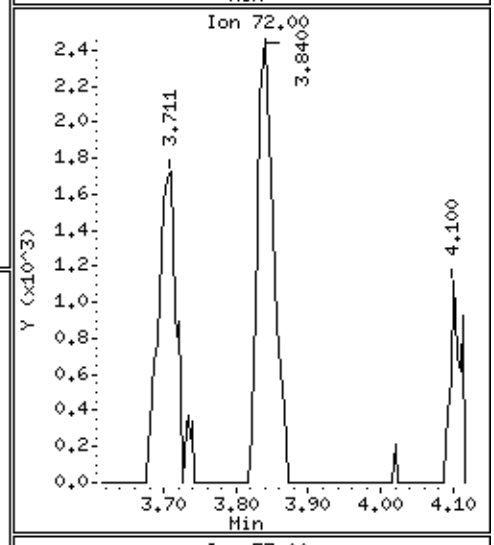
39 2-Butanone (MEK)

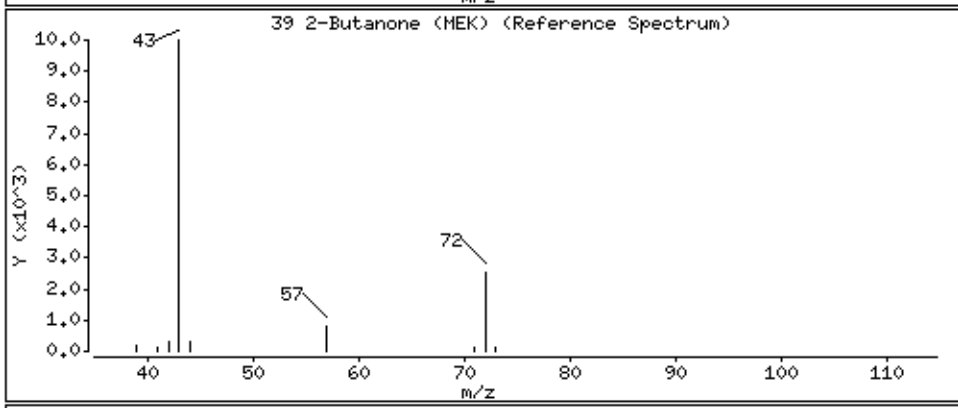
Concentration: 125 ug/kg

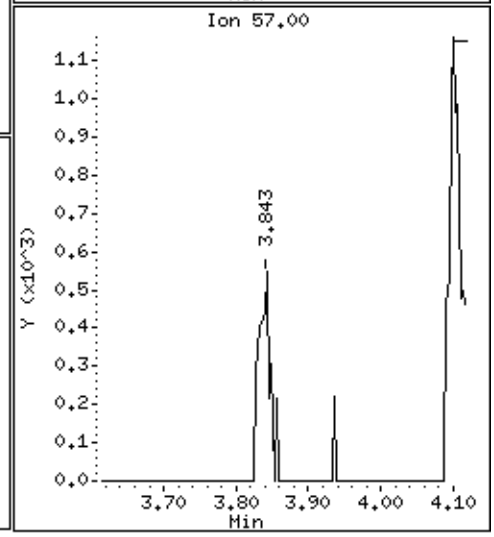


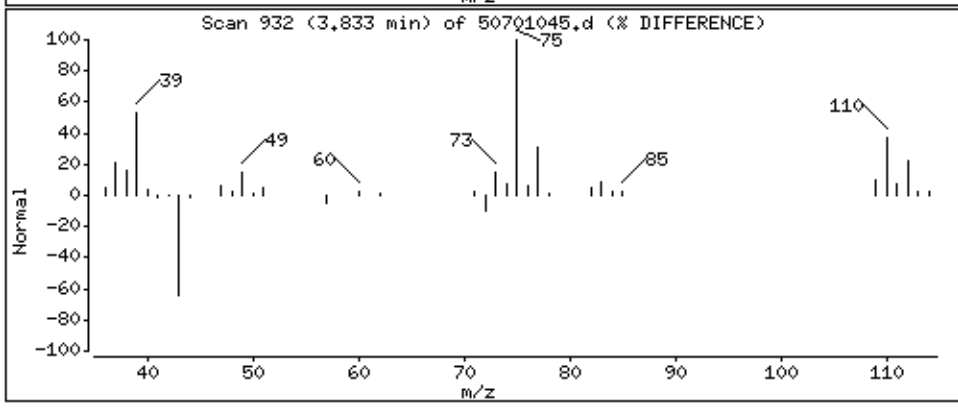












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

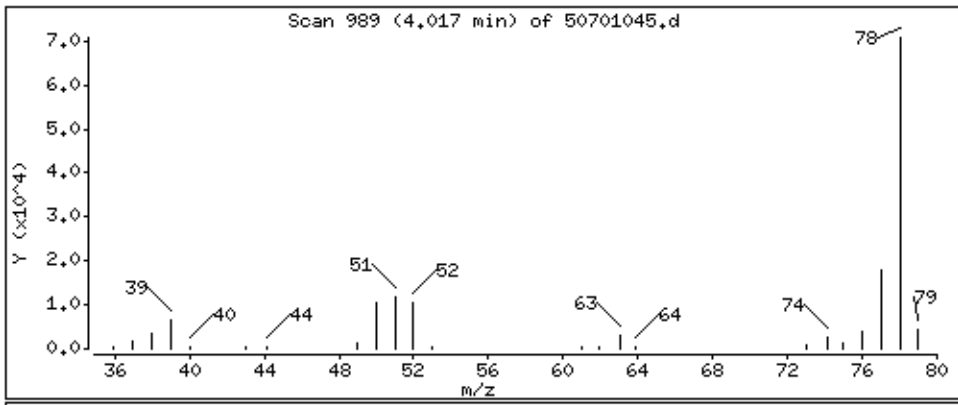
Operator: JEW

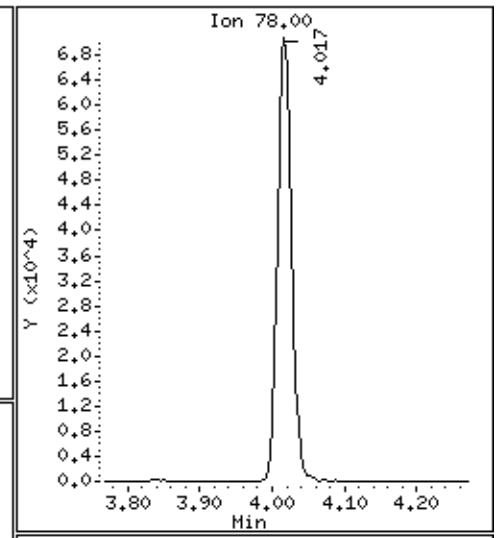
Column phase: RTX-VMS

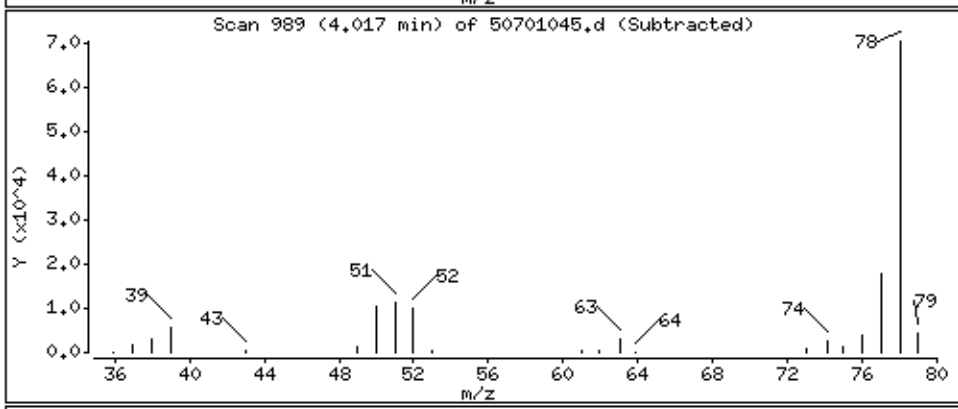
Column diameter: 0.18

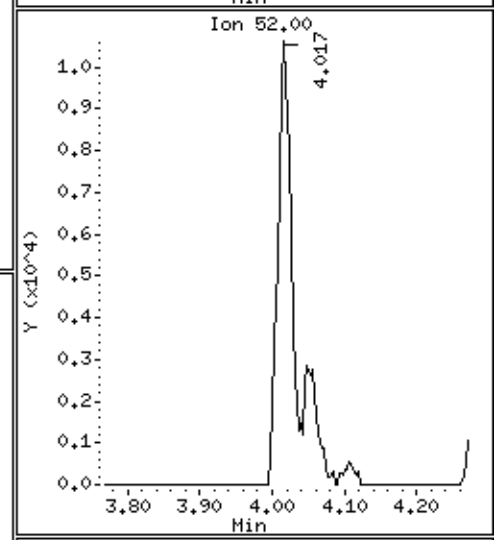
41 Benzene

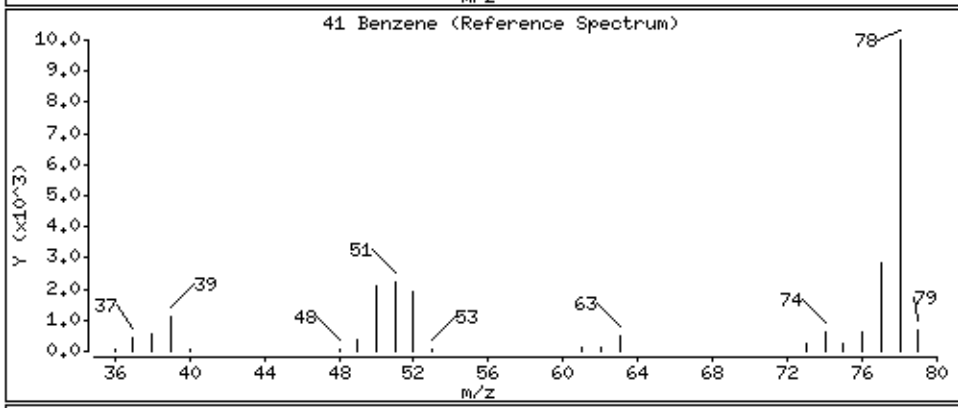
Concentration: 184 ug/kg

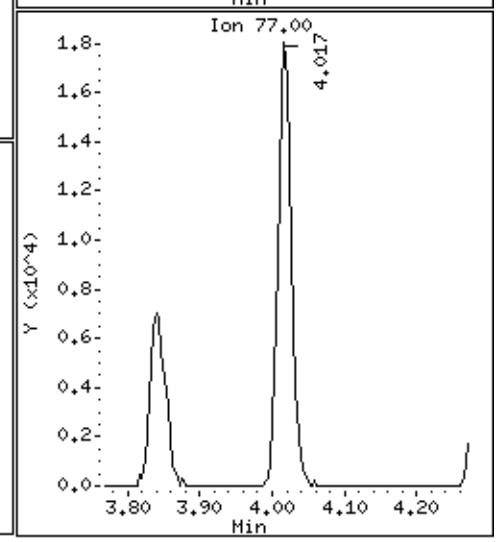


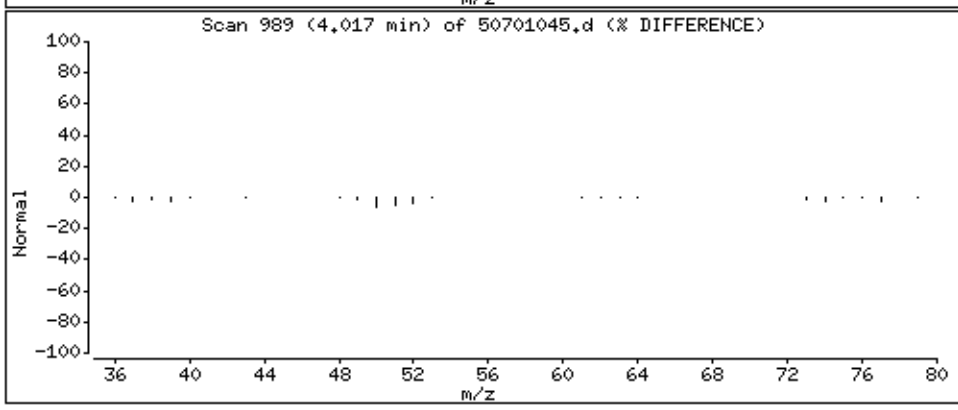












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

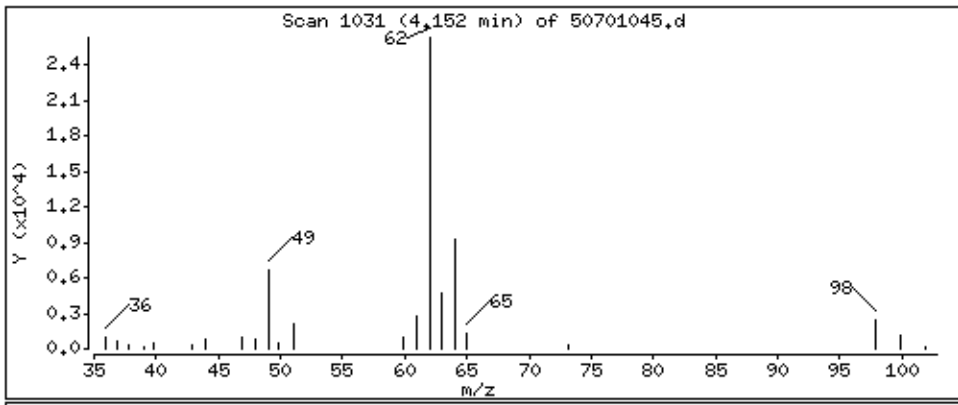
Operator: JEW

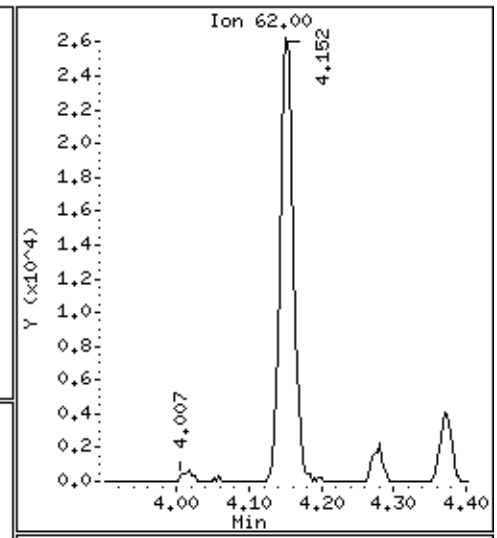
Column phase: RTX-VMS

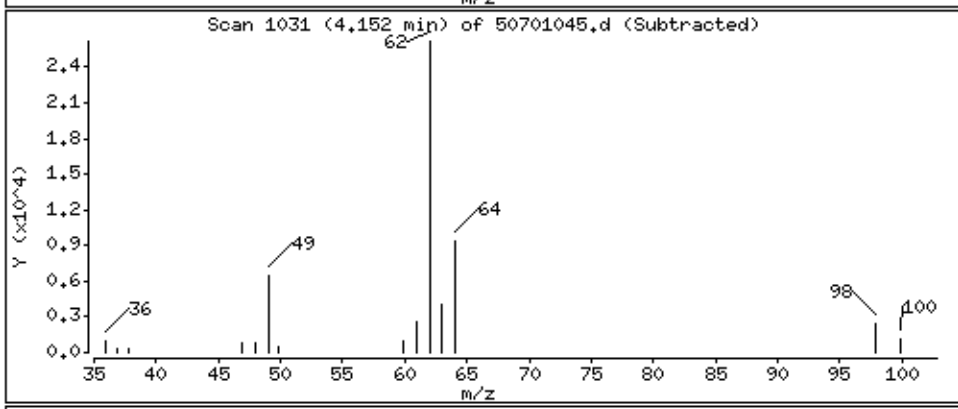
Column diameter: 0.18

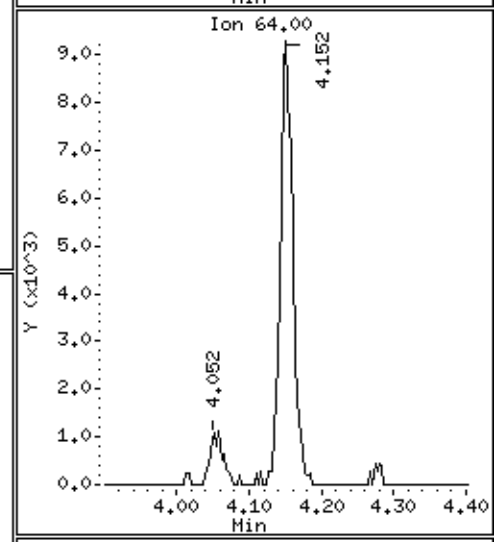
47 1,2-Dichloroethane

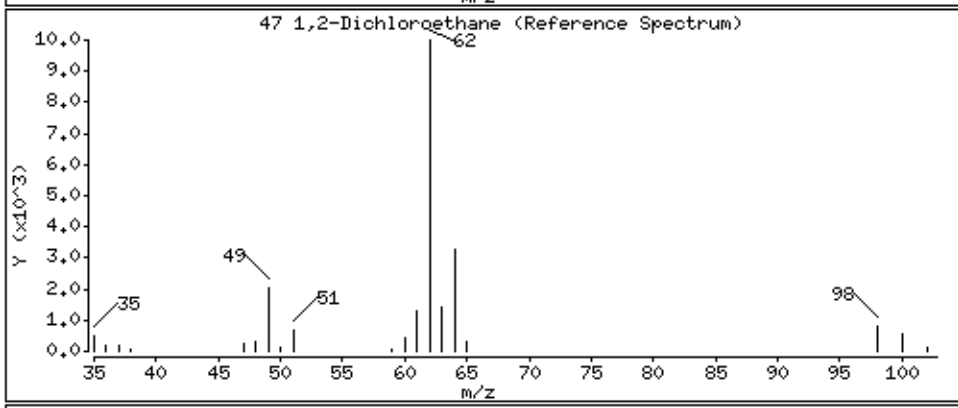
Concentration: 175 ug/kg

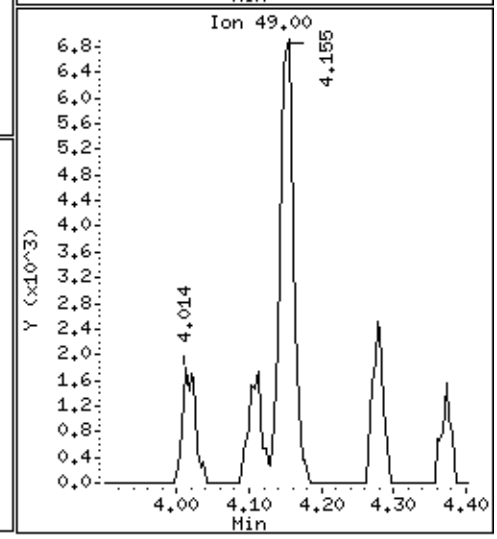


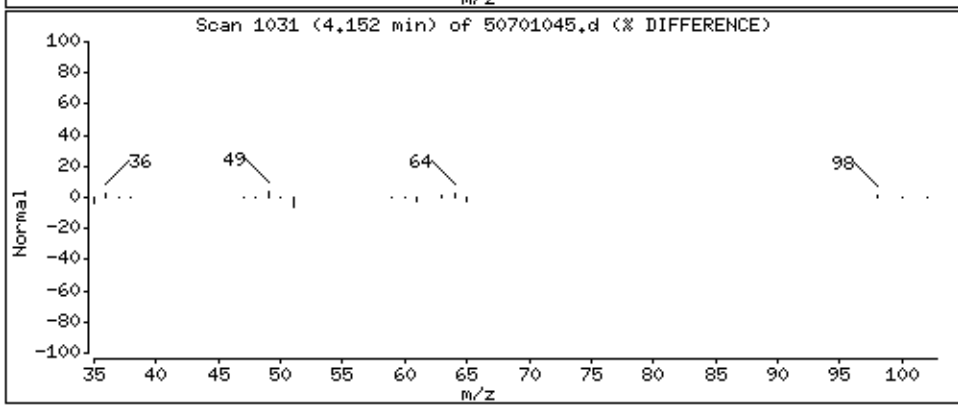












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

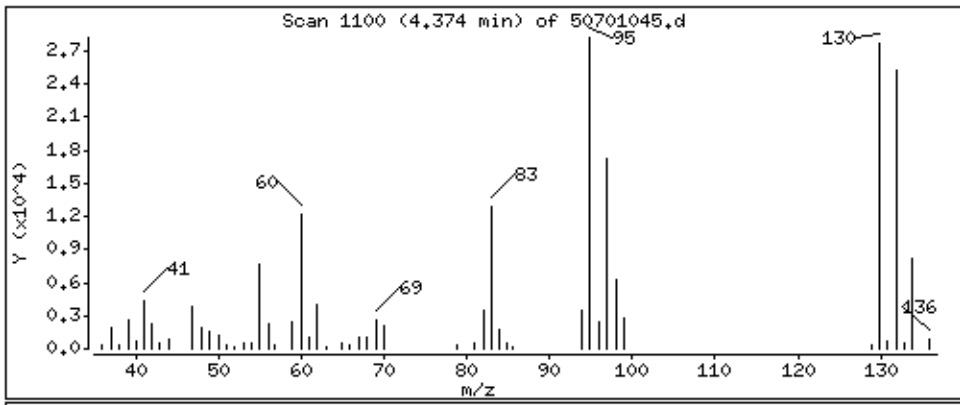
Operator: JEW

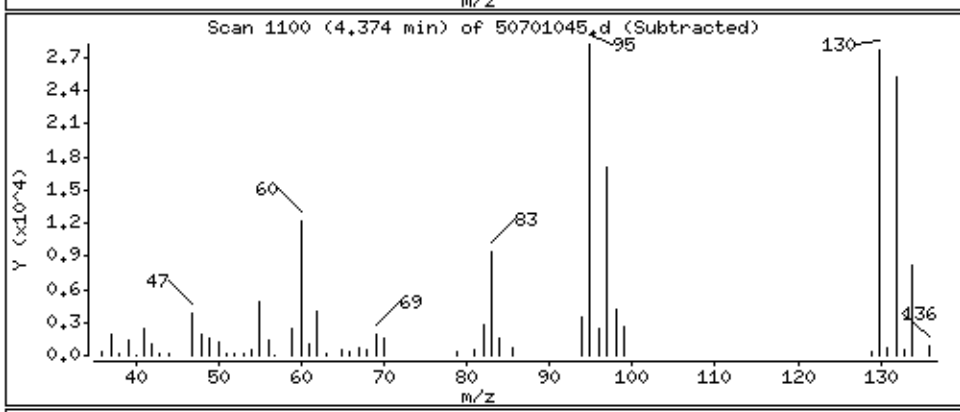
Column phase: RTX-VMS

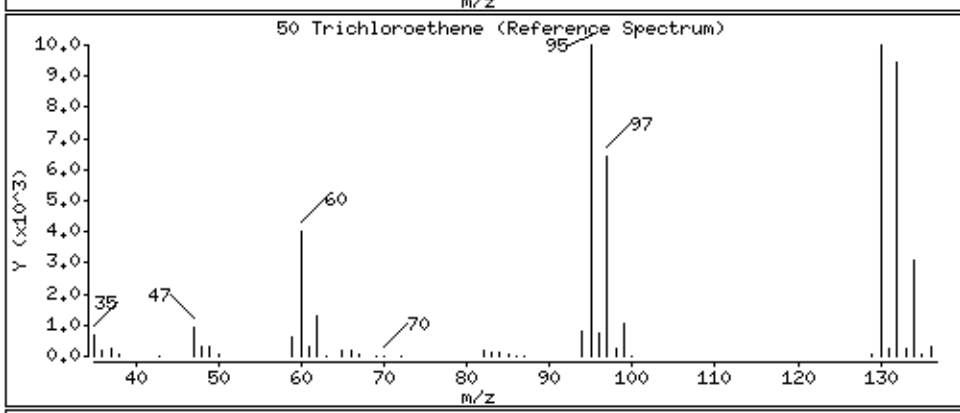
Column diameter: 0.18

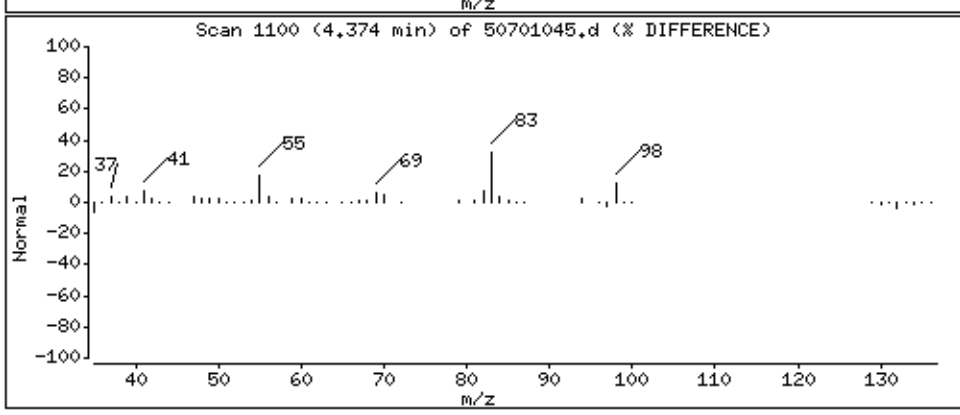
50 Trichloroethene

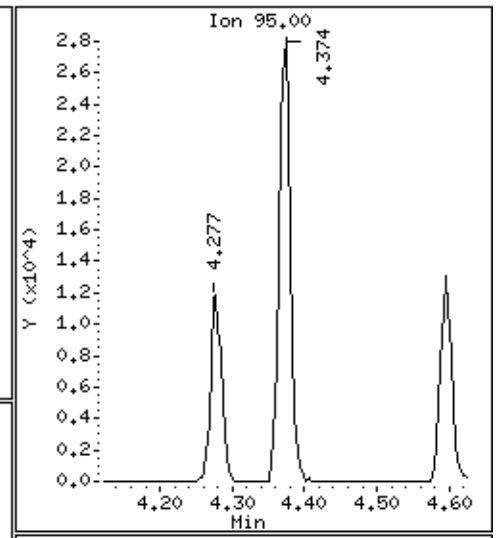
Concentration: 201 ug/kg

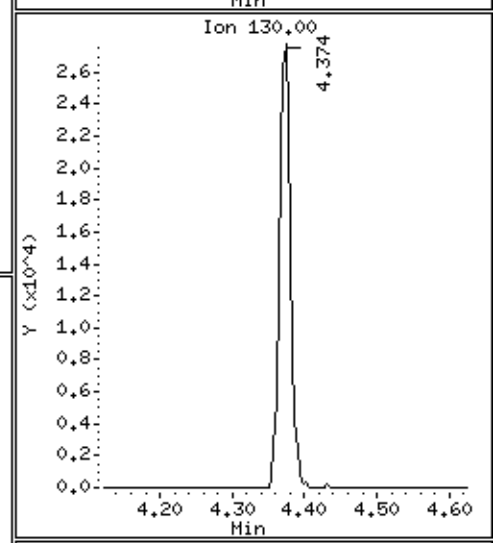


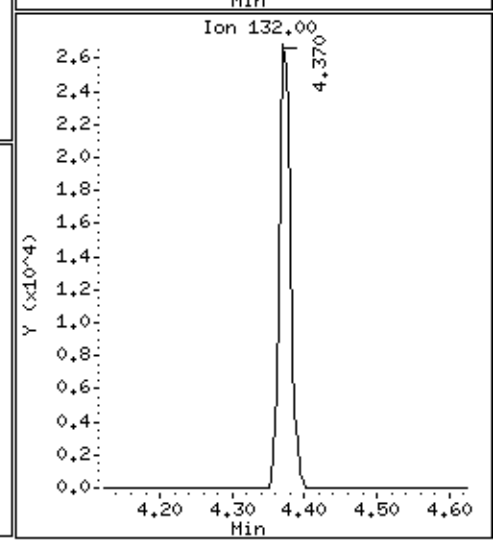












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d

Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

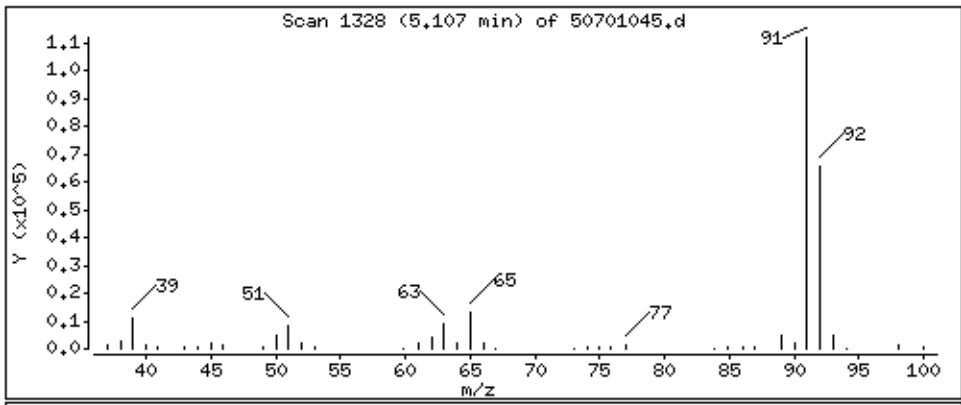
Operator: JEW

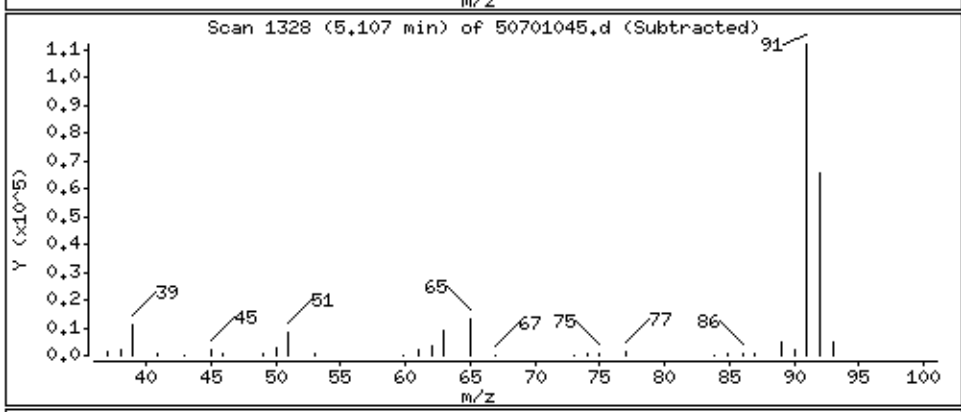
Column phase: RTX-VMS

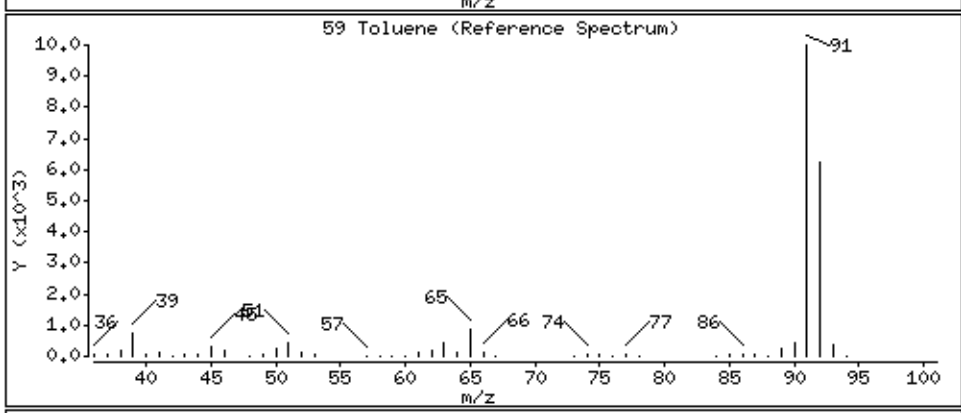
Column diameter: 0.18

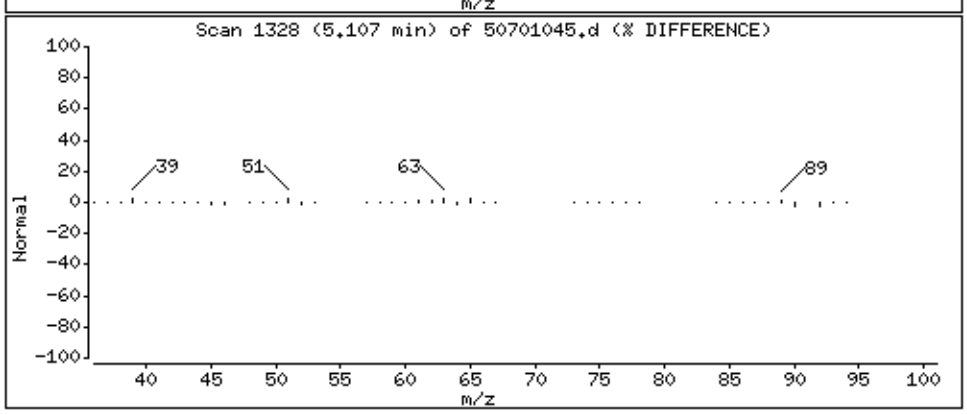
59 Toluene

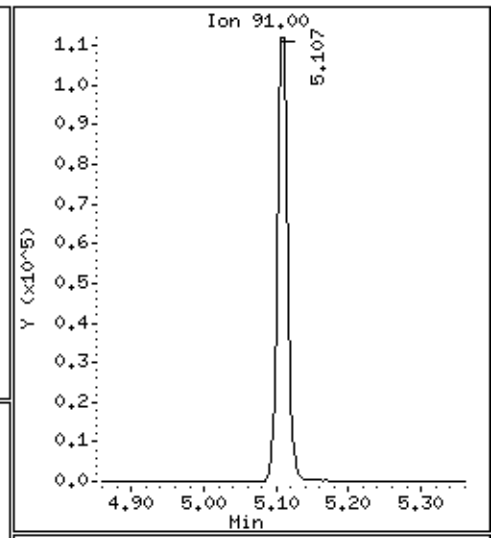
Concentration: 187 ug/kg

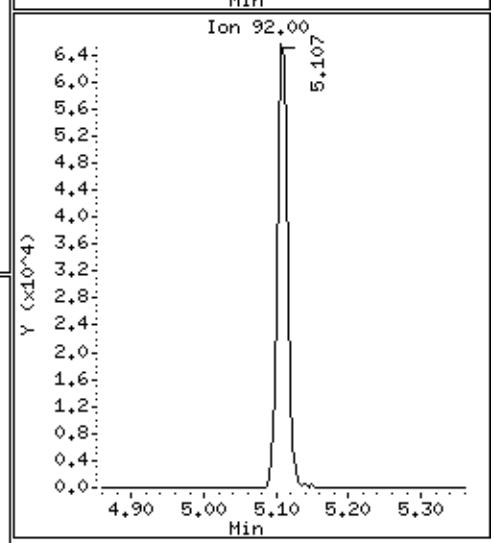












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

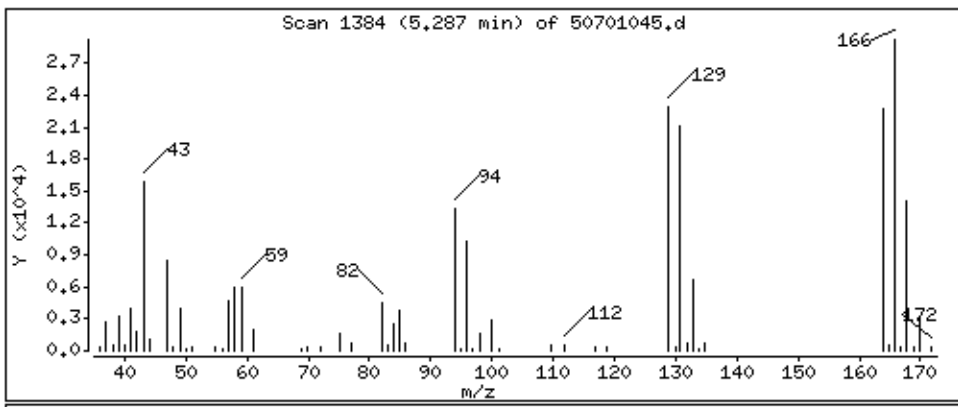
Operator: JEW

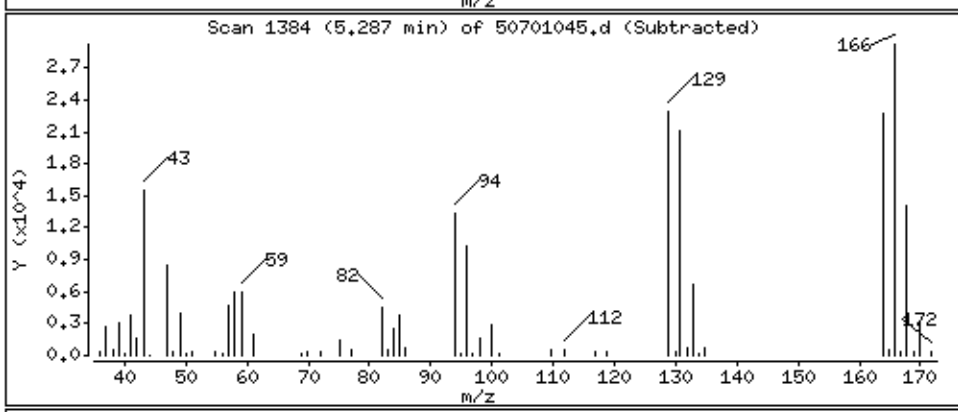
Column phase: RTX-VMS

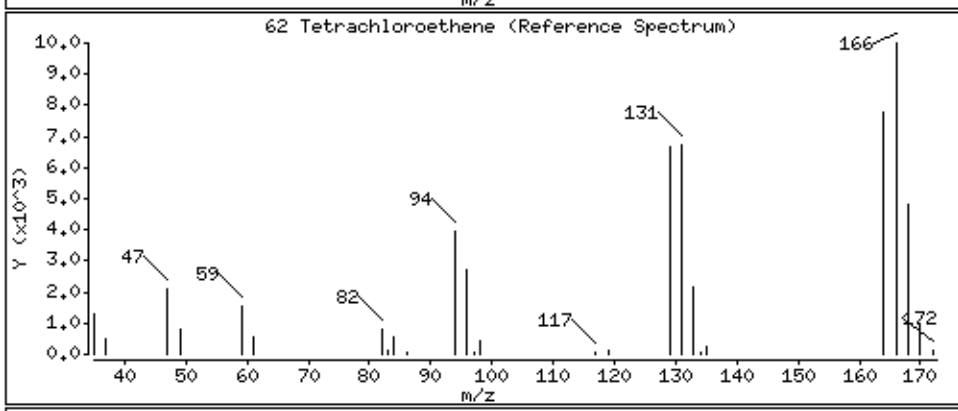
Column diameter: 0.18

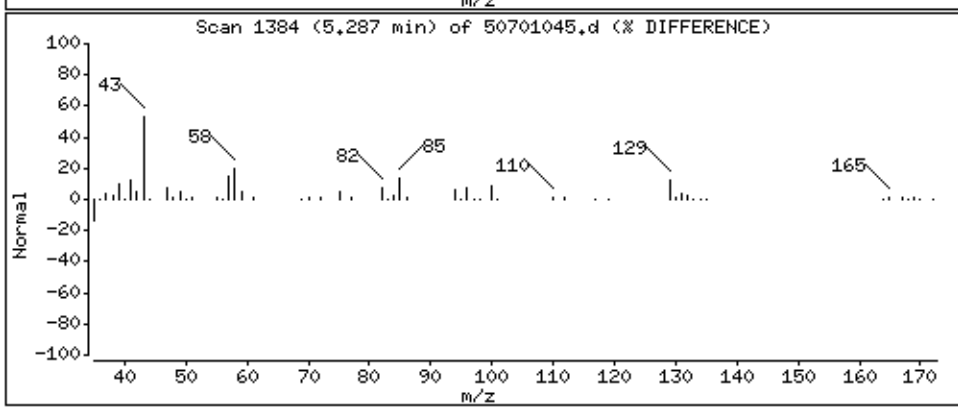
62 Tetrachloroethene

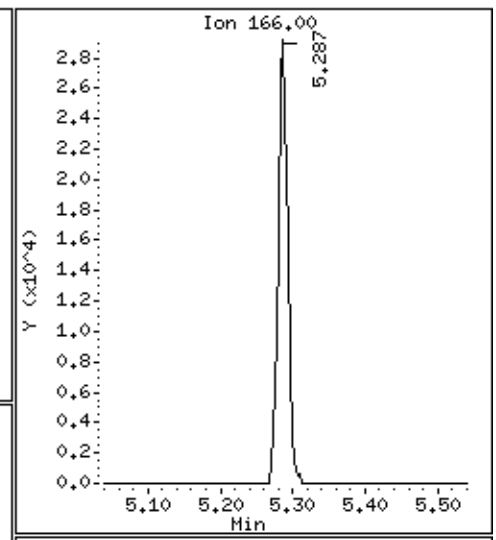
Concentration: 185 ug/kg

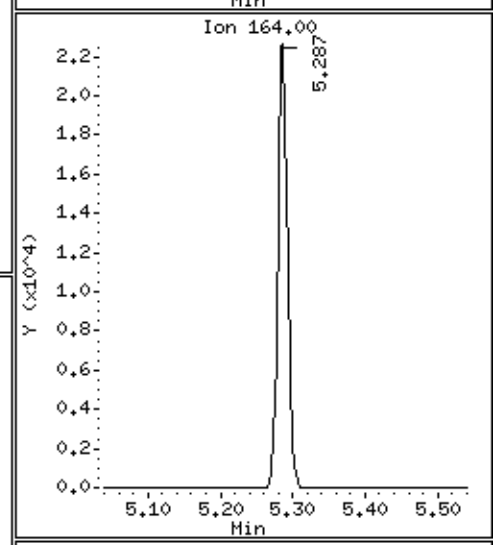


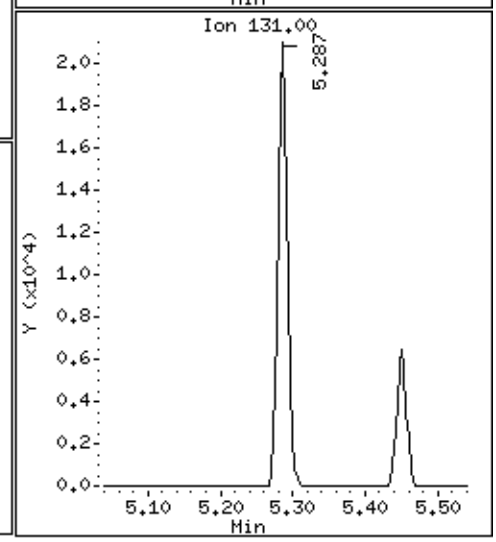












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Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

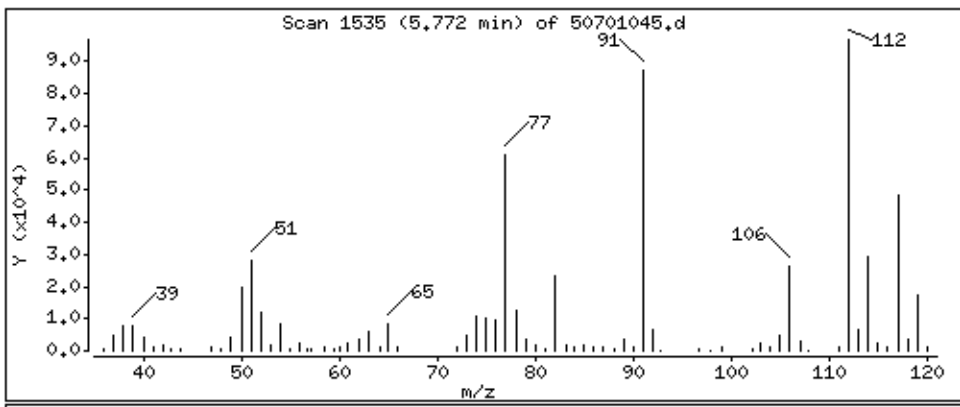
Operator: JEW

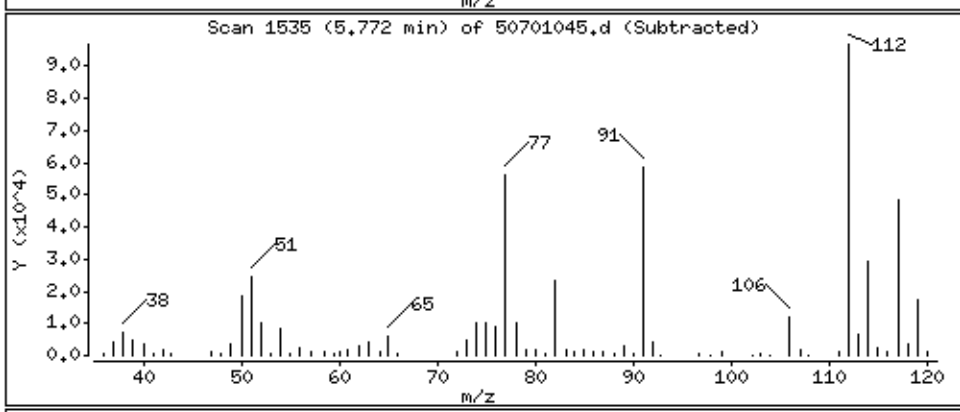
Column phase: RTX-VMS

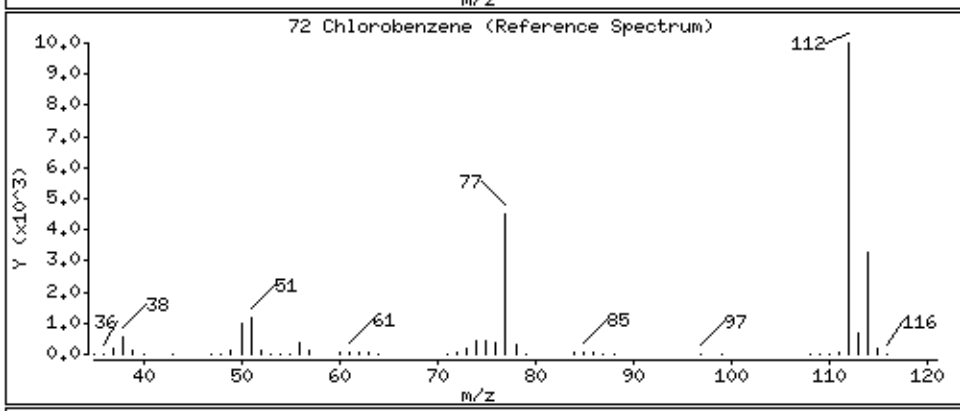
Column diameter: 0.18

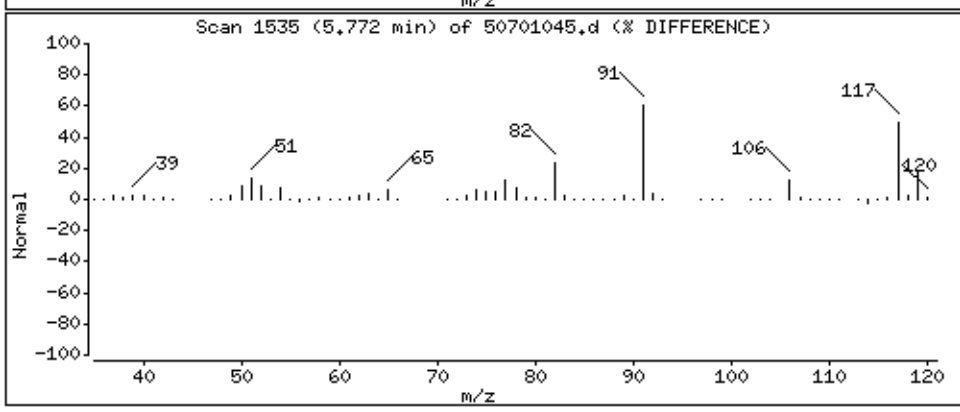
72 Chlorobenzene

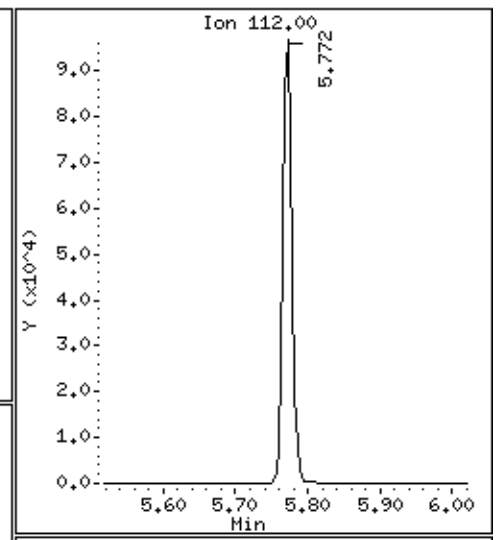
Concentration: 213 ug/kg

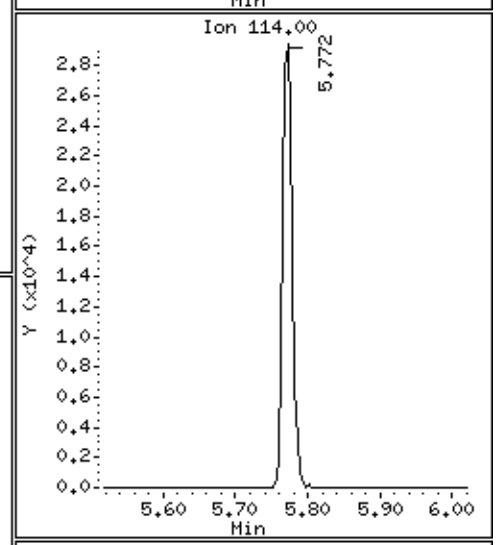


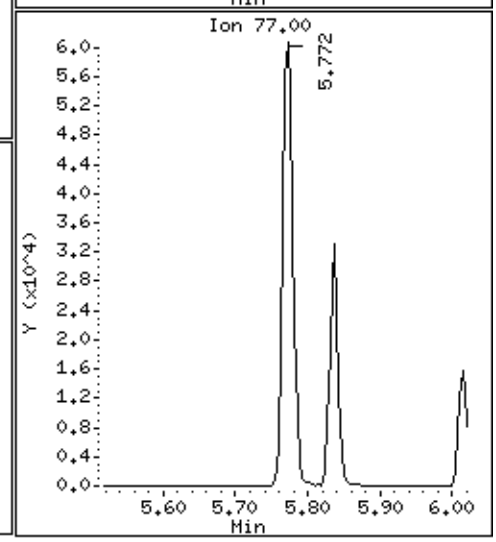












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d

Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

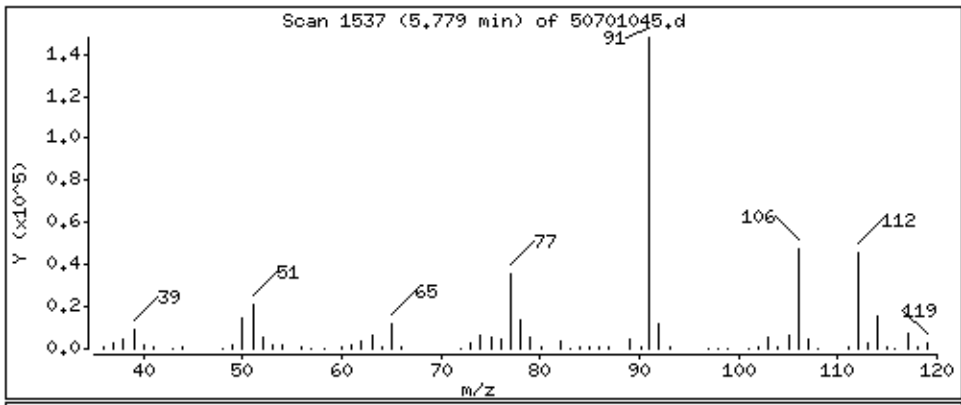
Operator: JEW

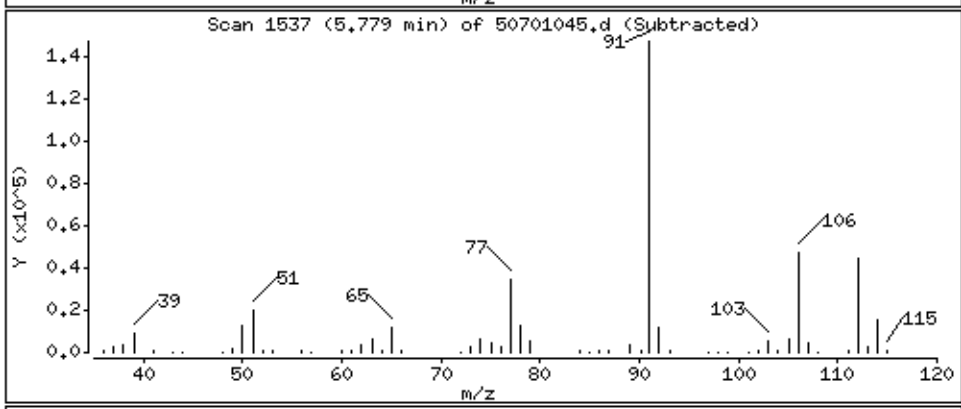
Column phase: RTX-VMS

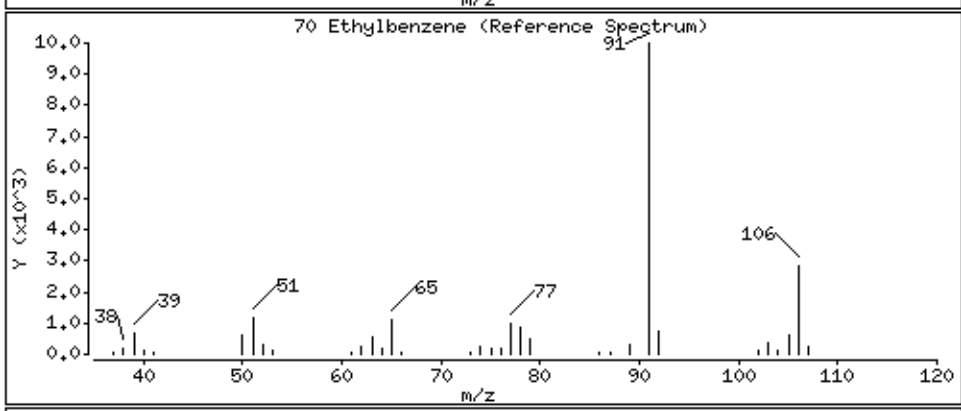
Column diameter: 0.18

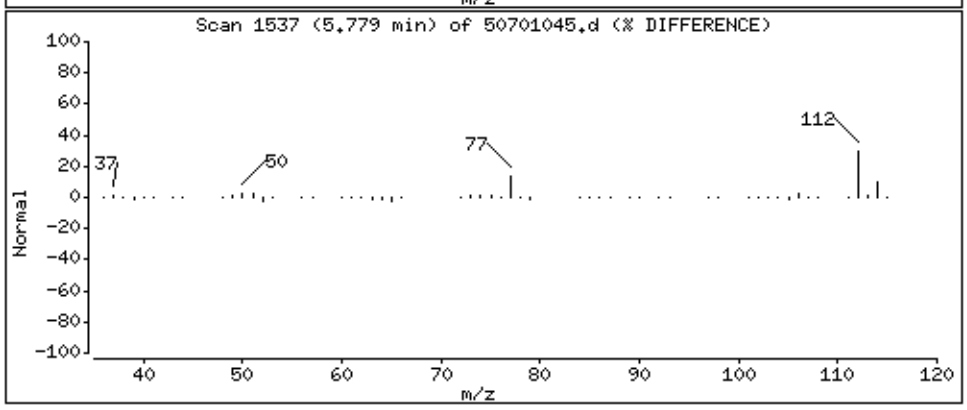
70 Ethylbenzene

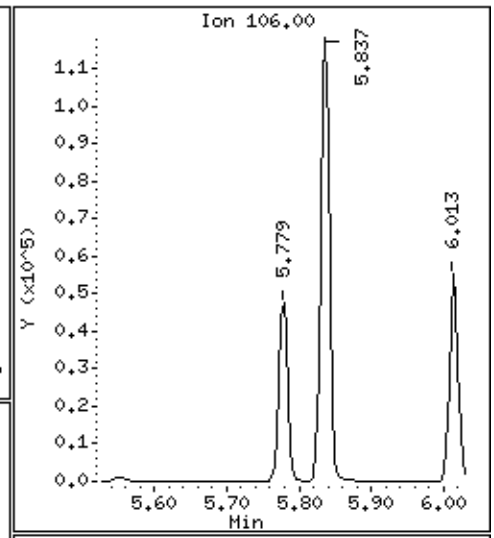
Concentration: 203 ug/kg

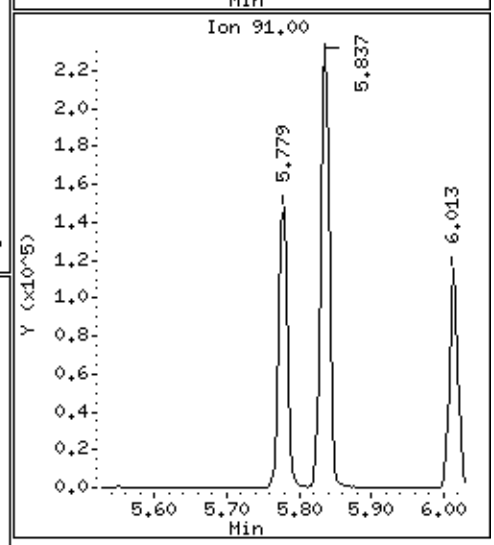












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d

Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

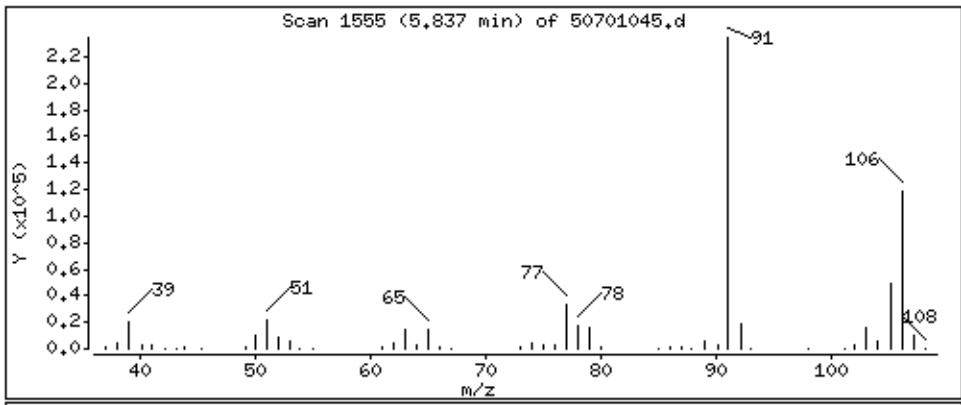
Operator: JEW

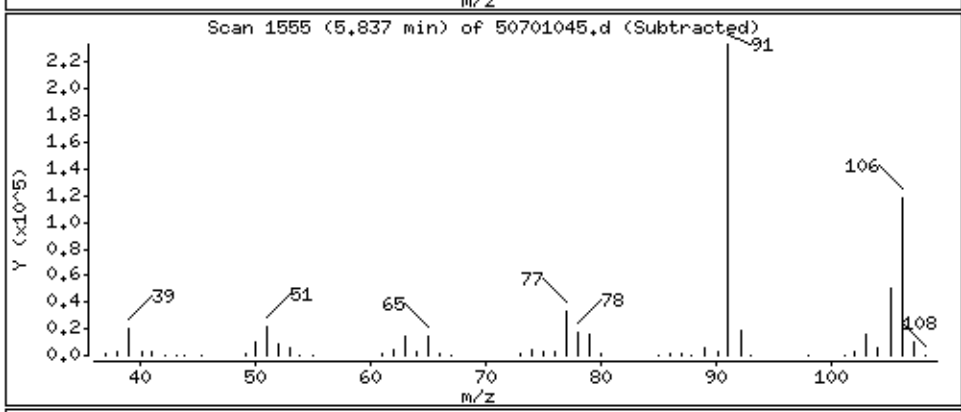
Column phase: RTX-VMS

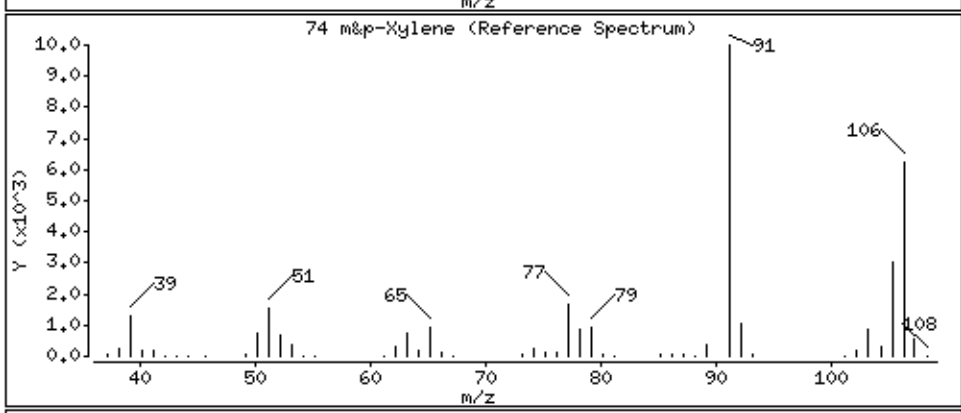
Column diameter: 0.18

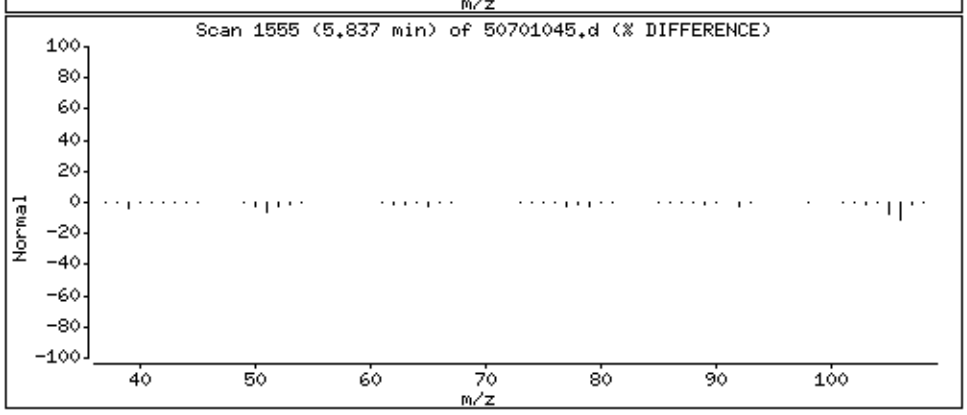
74 m&p-Xylene

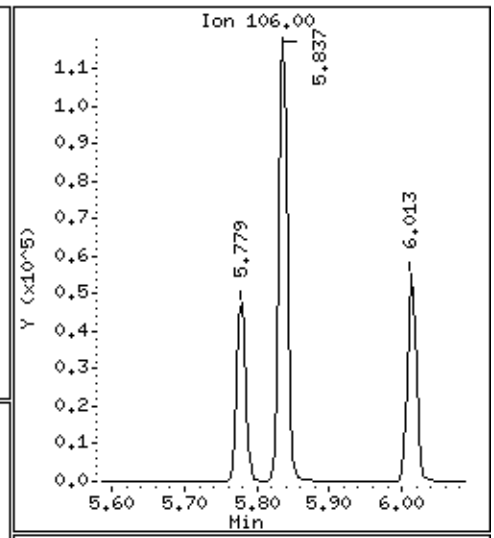
Concentration: 400 ug/kg

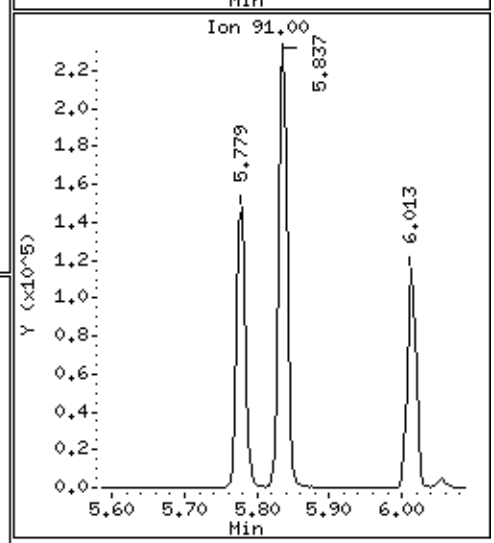












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701045.d

Date : 01-JUL-2019 18:13

Client ID: AOC 26-2MS

Instrument: 30mv5a.i

Sample Info: 1699732x10

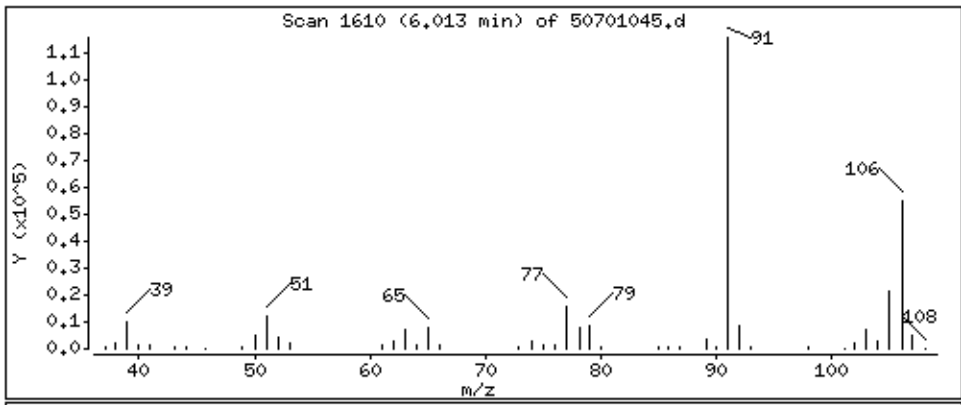
Operator: JEW

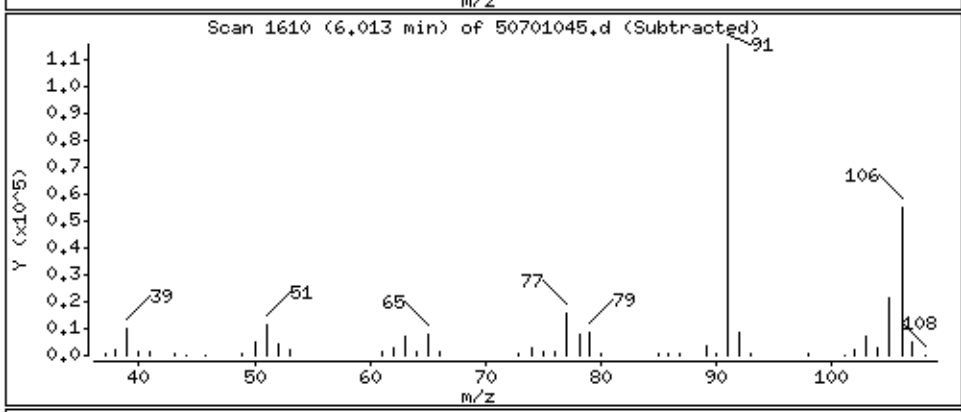
Column phase: RTX-VMS

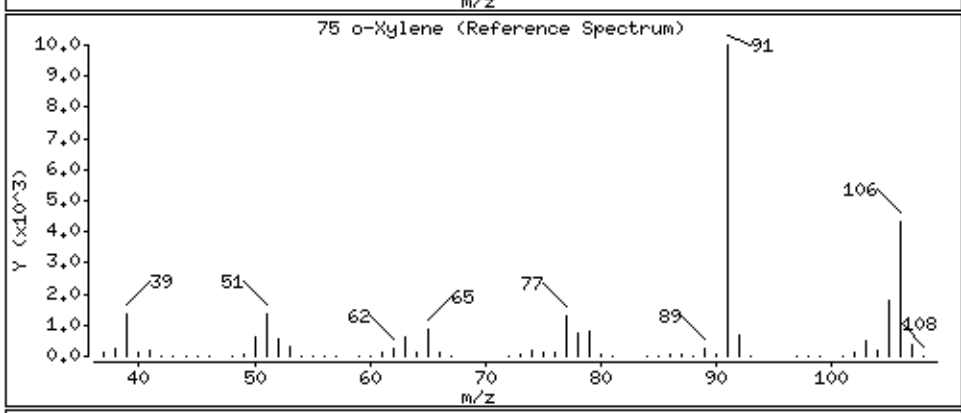
Column diameter: 0.18

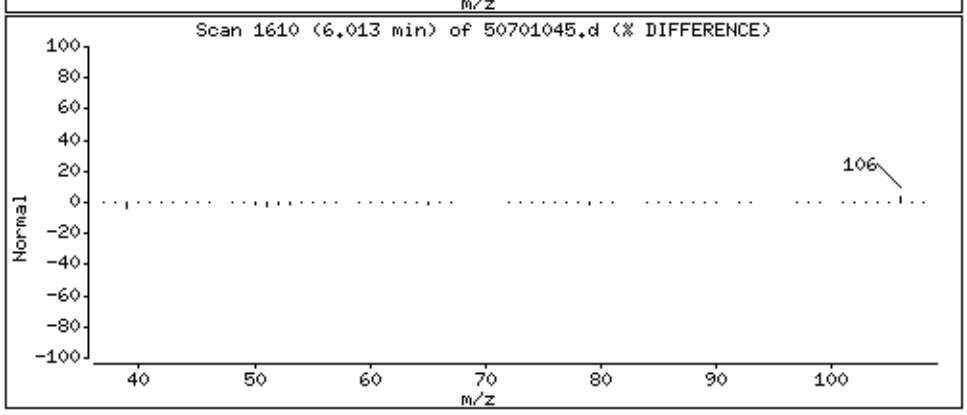
75 o-Xylene

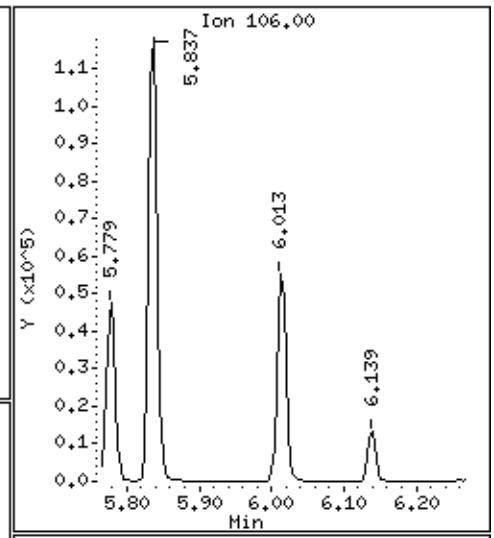
Concentration: 193 ug/kg

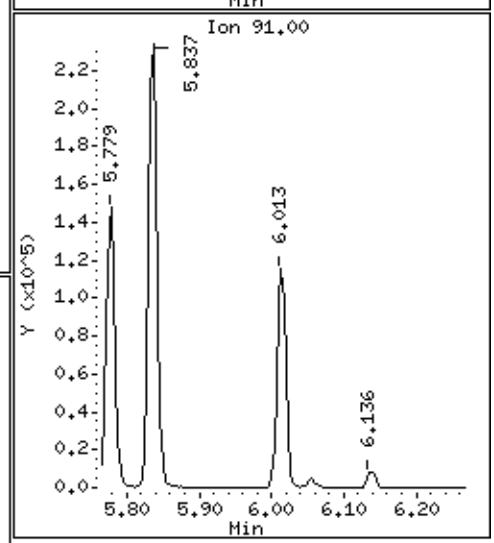












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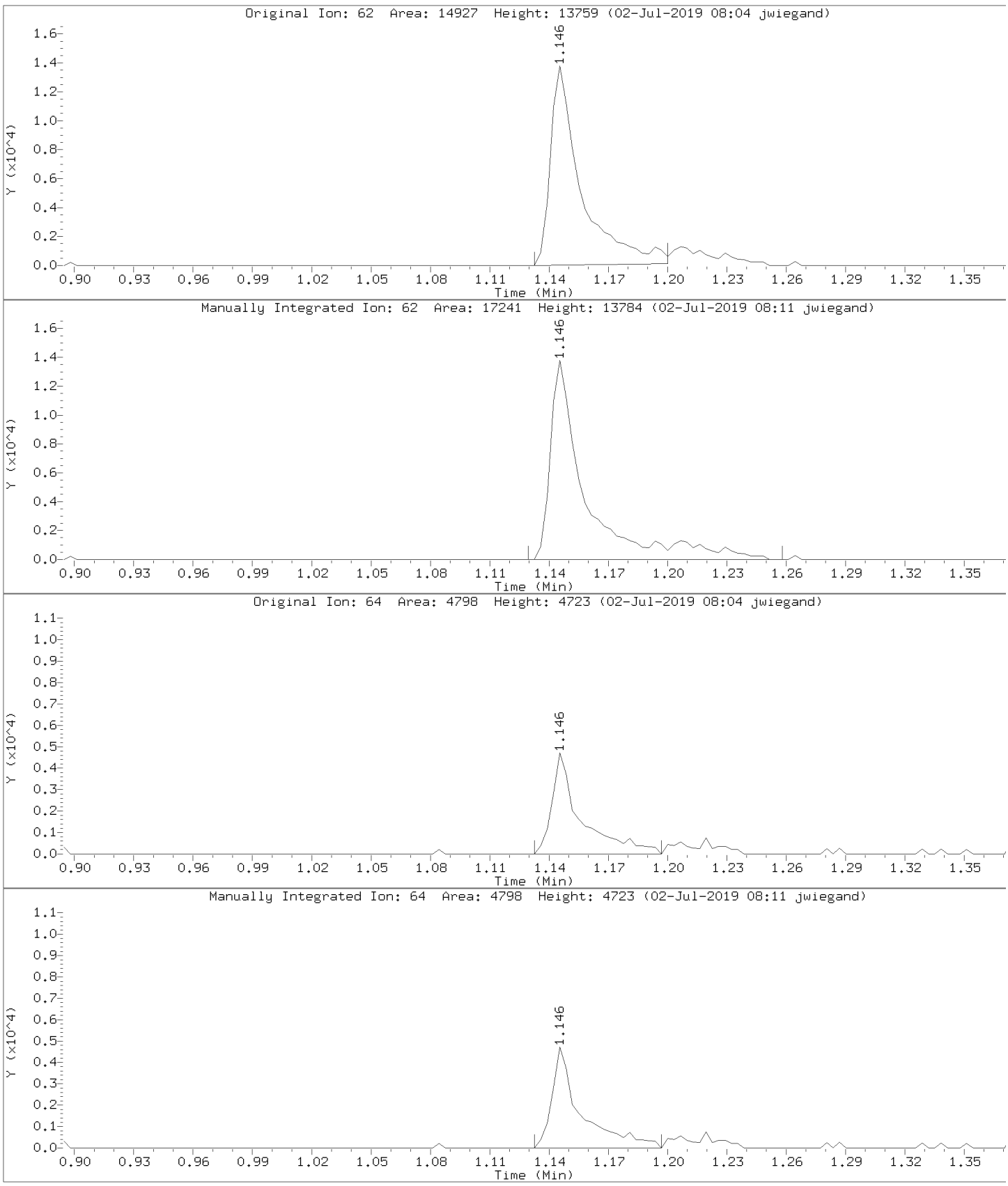
Injection Date: 01-JUL-2019 18:13
Instrument: 30mv5a.i
Lab Sample ID: 1699732

Compound: Vinyl Chloride Review Code: LT
CAS Number: 75-01-4



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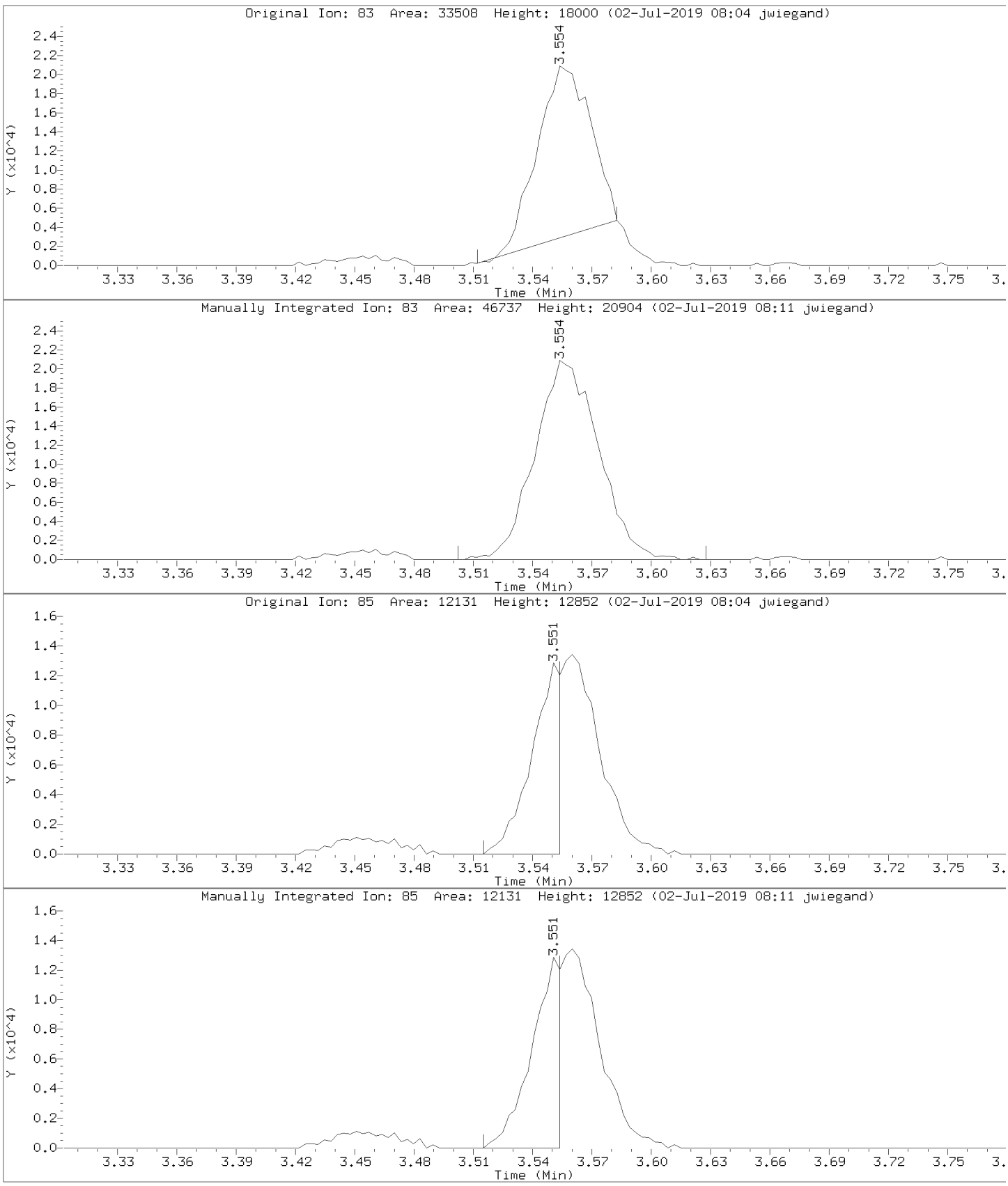
Injection Date: 01-JUL-2019 18:13
Instrument: 30mv5a.i
Lab Sample ID: 1699732

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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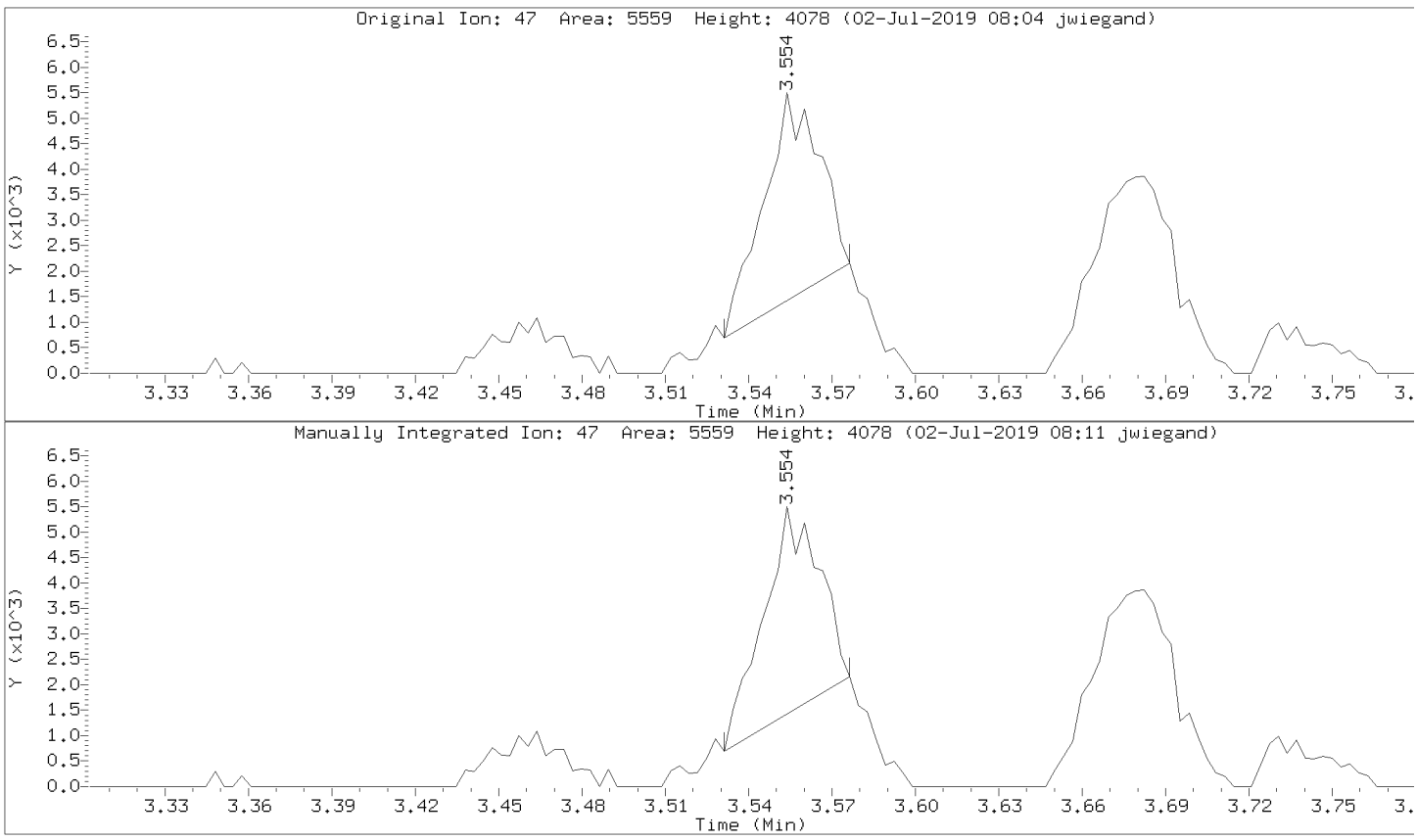
Injection Date: 01-JUL-2019 18:13
Instrument: 30mv5a.i
Lab Sample ID: 1699732



SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/27/2019 10:27 Matrix: Solid SDG No.: 30300161

Date Extracted: 07/01/2019 11:35 Lab Sample ID: 1698540

Date Analyzed: 07/01/2019 11:35 Lab File ID: 5190701.B\1.B\50701015-45152.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	57.4	
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Lab Smp Id: 1698540 Client Smp ID: LB for HBN 349363 [
Inj Date : 01-JUL-2019 11:35
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1698540x10
Misc Info : 45152
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.733	3.730	(0.872)	43819	31.1086	31.1	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.960)	43784	28.8502	28.8	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.280	4.277	(1.000)	161061	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	152553	29.7007	29.7	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	119776	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	26170	5.74458	57.4(Q)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	43022	30.3419	30.3	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	48704	30.0000		

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Report Date: 02-Jul-2019 08:23

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Review Codes Legend

:

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701015-45152.d
Lab Smp Id: 1698540
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: LB for HBN 349
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	161061	-6.77
71 Chlorobenzene-d5	132458	66229	264916	119776	-9.57
94 1,4-Dichlorobenze	61733	30867	123466	48704	-21.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1698540 Client Smp ID: LB for HBN 349363 [
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.1	103.70	0-130
$ 45 1,2-Dichloroethane	30.0	28.8	96.17	0-138
$ 58 Toluene-d8 (S)	30.0	29.7	99.00	0-124
$ 79 4-Bromofluorobenze	30.0	30.3	101.14	0-124

Data File: ...arget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

TARGET COMPOUNDS

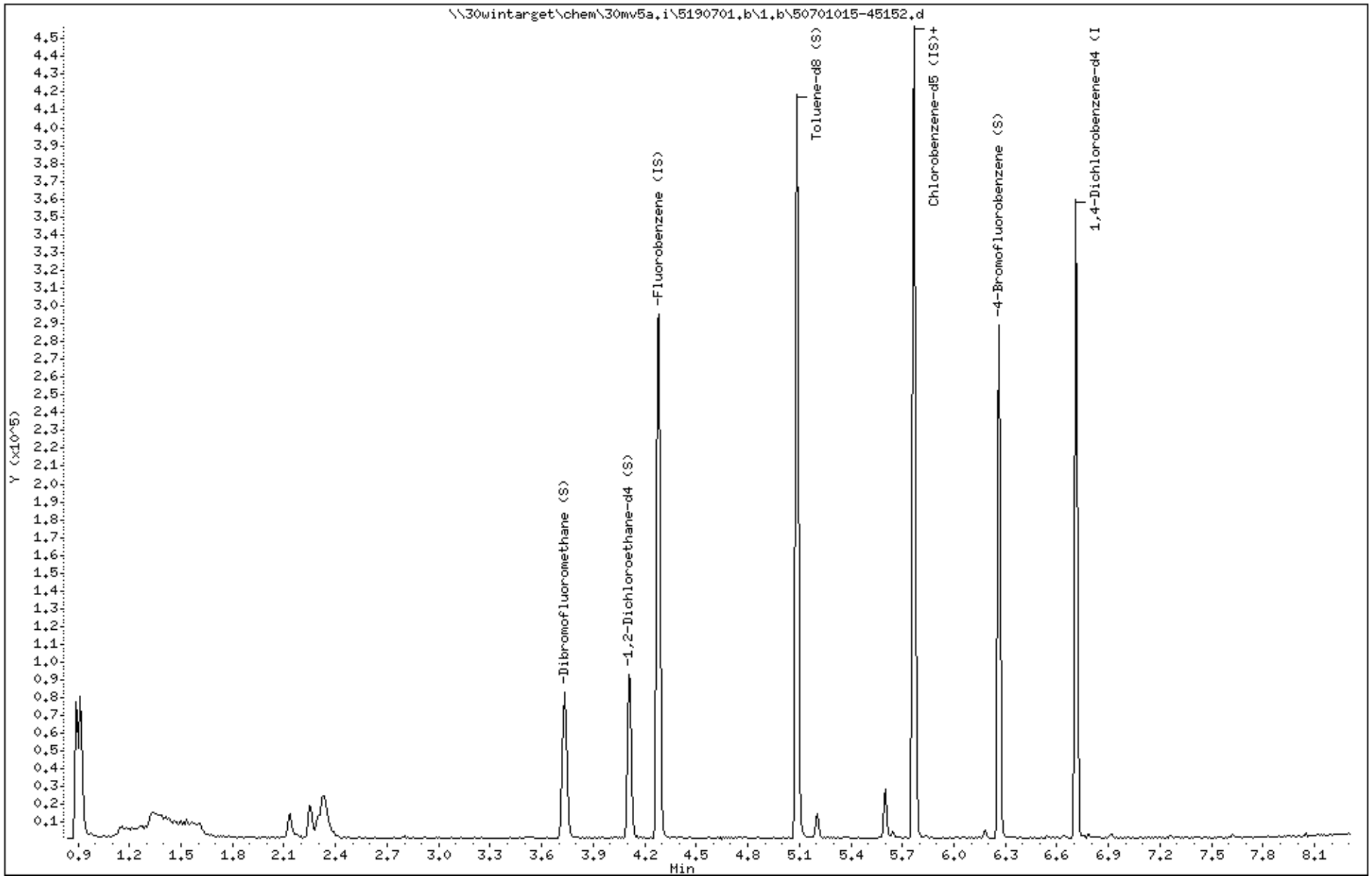
Client Name:
Lab Smp Id: 1698540
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152

Client SDG: 1.b
Client Smp ID: LB for HBN 349363 [
Sample Point:
Date Received: 27-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	57.4	
1868-53-7	Dibromofluoromethane (S)	31.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.8	
2037-26-5	Toluene-d8 (S)	29.7	
460-00-4	4-Bromofluorobenzene (S)	30.3	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d
Date : 01-JUL-2019 11:35
Client ID: LB for HBN 349363 [
Sample Info: 1698540x10

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701015-45152.d

Date : 01-JUL-2019 11:35

Client ID: LB for HBN 349363 [

Instrument: 30mv5a.i

Sample Info: 1698540x10

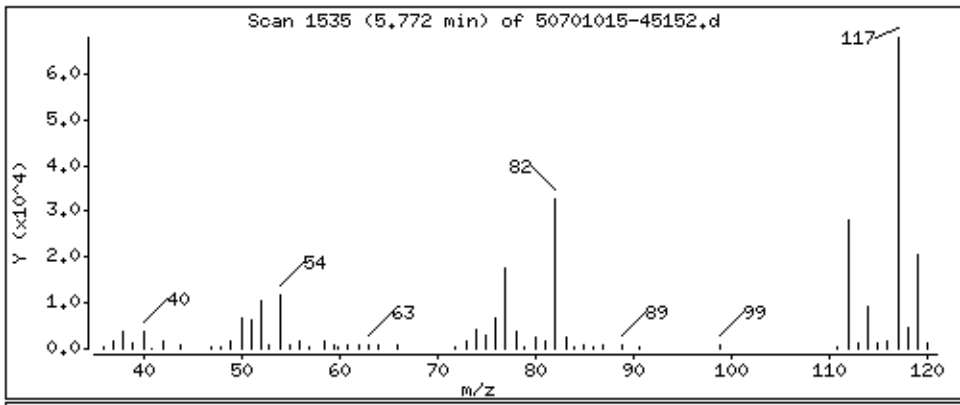
Operator: JEW

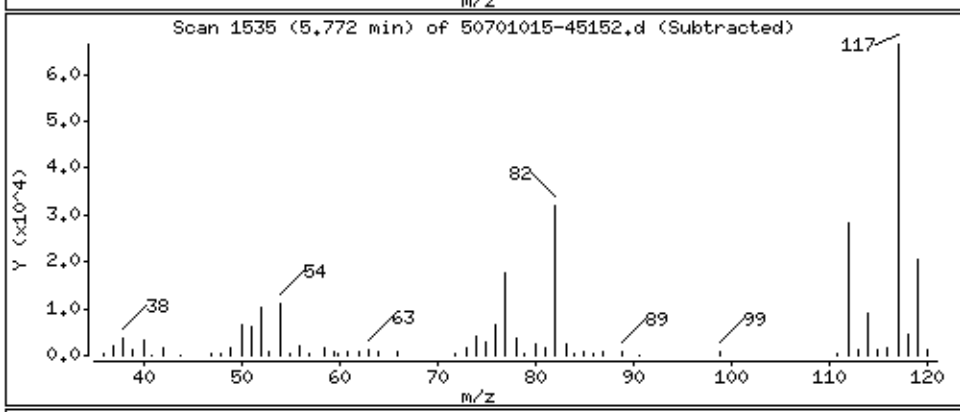
Column phase: RTX-VMS

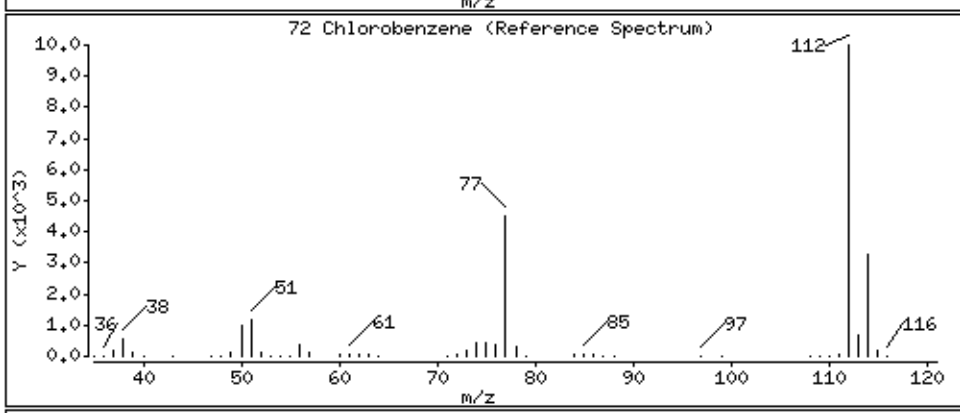
Column diameter: 0.18

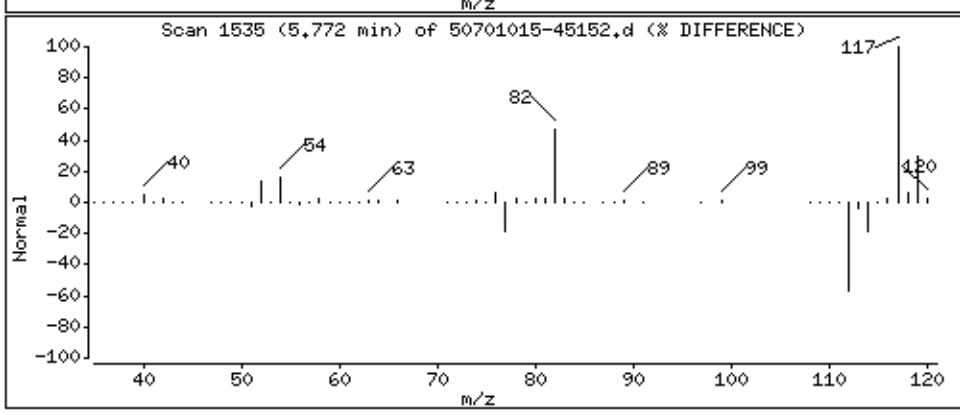
72 Chlorobenzene

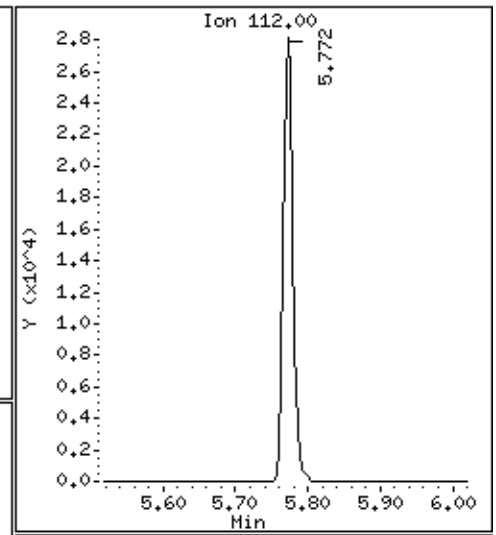
Concentration: 57.4 ug/kg

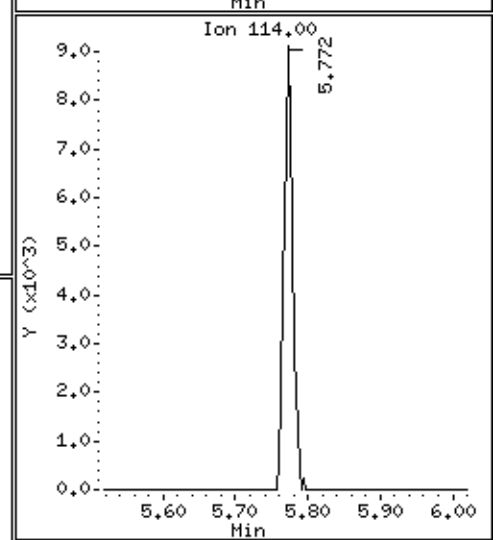


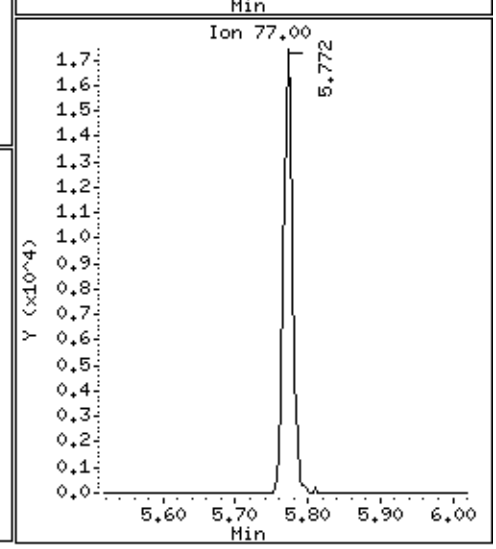












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701015-45152.d
Injection Date: 01-JUL-2019 11:35
Instrument: 30mv5a.i
Lab Sample ID: 1698540
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 06/18/2019 09:30 Matrix: Solid SDG No.: 30300161

Date Extracted: 07/01/2019 18:40 Lab Sample ID: 1699733

Date Analyzed: 07/01/2019 18:40 Lab File ID: 5190701.B\1.B\50701047.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	152	
78-93-3	2-Butanone (MEK)	121	
56-23-5	Carbon tetrachloride	136	
108-90-7	Chlorobenzene	181	
67-66-3	Chloroform	143	
107-06-2	1,2-Dichloroethane	147	
75-35-4	1,1-Dichloroethene	136	
127-18-4	Tetrachloroethene	150	
79-01-6	Trichloroethene	160	
75-01-4	Vinyl chloride	100	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Lab Smp Id: 1699733 Client Smp ID: AOC 26-2MSD
Inj Date : 01-JUL-2019 18:40
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1699733x10
Misc Info : 45152
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Meth Date : 02-Jul-2019 08:04 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	6.947	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.145	1.145	(0.268)	16464	10.0489	108(RM)	
	9 1,1-Dichloroethene	61	1.753	1.759	(0.410)	26606	13.5608	146(R)	
	33 Chloroform	83	3.557	3.553	(0.832)	42676	14.3271	154(QR)	
	34 Carbon Tetrachloride	117	3.679	3.679	(0.860)	29043	13.6492	147(RM)	LT
$	37 Dibromofluoromethane (S)	111	3.727	3.730	(0.871)	41119	30.3840	32.6	
	39 2-Butanone (MEK)	43	3.836	3.865	(0.897)	7998	12.0743	130(RH)	
	41 Benzene	78	4.016	4.020	(0.939)	89760	15.1967	163(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	40317	27.6507	29.7	
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	32005	14.7140	158(R)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	154741	30.0000		
	50 Trichloroethene	95	4.370	4.373	(0.758)	28621	15.9732	172(R)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	148941	28.8714	31.0	
	59 Toluene	91	5.110	5.110	(0.887)	102780	14.9778	161(R)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	25995	14.9729	161(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	120299	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.002)	83030	18.1467	195(R)	
	70 Ethylbenzene	106	5.778	5.778	(1.003)	37087	15.5869	168(R)	
	74 m&p-Xylene	106	5.836	5.836	(1.013)	91845	31.9809	344(R)	
	75 o-Xylene	106	6.013	6.016	(1.044)	43656	15.3559	165(R)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	45575	28.7527	30.9	

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	54446	30.0000		

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50701047.d
Lab Smp Id: 1699733
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

Calibration Date: 01-JUL-2019
Calibration Time: 09:23
Client Smp ID: AOC 26-2MSD
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	172749	86375	345498	154741	-10.42
71 Chlorobenzene-d5	132458	66229	264916	120299	-9.18
94 1,4-Dichlorobenze	61733	30867	123466	54446	-11.80

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.76	-0.05
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1699733 Client Smp ID: AOC 26-2MSD
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MSD
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\msv5061819a.m
Misc Info: 45152

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	21.5	0.000	*	70-130
2 Chloromethane	21.5	0.000	*	70-130
3 Vinyl Chloride	21.5	108	502.45*	70-130
4 Bromomethane	21.5	0.000	*	70-130
5 Chloroethane	21.5	0.000	*	70-130
6 Trichlorofluorome	21.5	0.000	*	70-130
8 Ethanol	215	0.000	*	10-175
9 1,1-Dichloroethene	21.5	146	678.04*	70-130
10 1,1,2-Trichlorotr	21.5	0.000	*	50-150
11 Carbon disulfide	21.5	0.000	*	70-130
12 Iodomethane	53.7	0.000	*	70-130
13 Acrolein	21.5	0.000	*	70-130
14 Allyl chloride	53.7	0.000	*	70-130
15 Methylene Chloride	21.5	0.000	*	70-130
16 Acetone	21.5	0.000	*	70-130
17 trans-1,2-Dichlor	21.5	0.000	*	70-130
18 Methyl acetate	21.5	0.000	*	70-130
19 n-Hexane	21.5	0.000	*	50-150
20 Methyl-tert-butyl	21.5	0.000	*	50-150
22 Acetonitrile	53.7	0.000	*	70-130
23 Diisopropyl ether	21.5	0.000	*	70-130
24 Chloroprene	21.5	0.000	*	70-130
25 1,1-Dichloroethane	21.5	0.000	*	70-130
26 Acrylonitrile	21.5	0.000	*	70-130
27 Ethyl-tert-butyl	21.5	0.000	*	50-150
28 Vinyl acetate	21.5	0.000	*	70-130
29 cis-1,2-Dichloroe	21.5	0.000	*	70-130
30 2,2-Dichloropropa	21.5	0.000	*	70-130
31 Cyclohexane	21.5	0.000	*	70-130
32 Bromochloromethane	21.5	0.000	*	70-130
33 Chloroform	21.5	154	716.35*	70-130
34 Carbon Tetrachlori	21.5	147	682.46*	70-130
35 Ethyl acetate	21.5	0.000	*	70-130
36 Tetrahydrofuran	21.5	0.000	*	70-130
38 1,1,1-Trichloroet	21.5	0.000	*	70-130
39 2-Butanone (MEK)	21.5	130	603.72*	50-150
40 1,1-Dichloroprope	21.5	0.000	*	70-130
41 Benzene	21.5	163	759.84*	70-130
42 Propionitrile	21.5	0.000	*	70-130
43 Methacrylonitrile	21.5	0.000	*	70-130

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	21.5	0.000	*	50-150
46 Isobutanol	21.5	0.000	*	70-130
47 1,2-Dichloroethane	21.5	158	735.70*	70-130
49 Methylcyclohexane	21.5	0.000	*	70-130
50 Trichloroethene	21.5	172	798.66*	70-130
51 Dibromomethane	21.5	0.000	*	70-130
52 1,2-Dichloropropa	21.5	0.000	*	70-130
53 Bromodichlorometh	21.5	0.000	*	70-130
54 Methyl methacryla	21.5	0.000	*	70-130
55 1,4-Dioxane (p-Di	21.5	0.000	*	50-150
56 2-Chloroethylviny	21.5	0.000	*	50-150
57 cis-1,3-Dichlorop	21.5	0.000	*	70-130
59 Toluene	21.5	161	748.89*	70-130
60 2-Nitropropane	53.7	0.000	*	70-130
61 4-Methyl-2-pentan	21.5	0.000	*	50-150
62 Tetrachloroethene	21.5	161	748.64*	70-130
63 trans-1,3-Dichlor	21.5	0.000	*	70-130
64 Ethyl methacrylate	21.5	0.000	*	70-130
65 1,1,2-Trichloroet	21.5	0.000	*	70-130
66 Dibromochlorometh	21.5	0.000	*	70-130
67 1,3-Dichloropropa	21.5	0.000	*	70-130
69 2-Hexanone	21.5	0.000	*	70-130
70 Ethylbenzene	21.5	168	779.35*	70-130
72 Chlorobenzene	21.5	195	907.33*	70-130
73 1,1,1,2-Tetrachlo	21.5	0.000	*	70-130
74 m&p-Xylene	43.0	344	799.52*	50-150
75 o-Xylene	21.5	165	767.79*	70-130
76 Styrene	21.5	0.000	*	70-130
77 Bromoform	21.5	0.000	*	70-130
80 n-Propylbenzene	21.5	0.000	*	70-130
81 Bromobenzene	21.5	0.000	*	70-130
82 1,1,2,2-Tetrachlo	21.5	0.000	*	70-130
83 1,3,5-Trimethylbe	21.5	0.000	*	70-130
84 2-Chlorotoluene	21.5	0.000	*	70-130
85 1,2,3-Trichloropr	21.5	0.000	*	70-130
86 trans-1,4-Dichlor	21.5	0.000	*	50-150
87 Cyclohexanone	53.7	0.000	*	70-130
88 4-Chlorotoluene	21.5	0.000	*	70-130
90 1,2,4-Trimethylbe	21.5	0.000	*	70-130
92 p-Isopropyltoluene	21.5	0.000	*	50-150
93 1,3-Dichlorobenze	21.5	0.000	*	70-130
95 1,4-Dichlorobenze	21.5	0.000	*	70-130
97 1,2-Dichlorobenze	21.5	0.000	*	70-130
98 1,2-Dibromo-3-chl	21.5	0.000	*	70-130
100 Hexachloro-1,3-bu	21.5	0.000	*	50-150
101 1,2,4-Trichlorobe	21.5	0.000	*	70-130
102 Naphthalene	21.5	0.000	*	70-130
103 1,2,3-Trichlorobe	21.5	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	32.2	32.6	101.28	0-130

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	32.2	29.7	92.17	0-138
$ 58 Toluene-d8 (S)	32.2	31.0	96.24	0-124
$ 79 4-Bromofluorobenze	32.2	30.9	95.84	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
Report Date: 02-Jul-2019 08:23

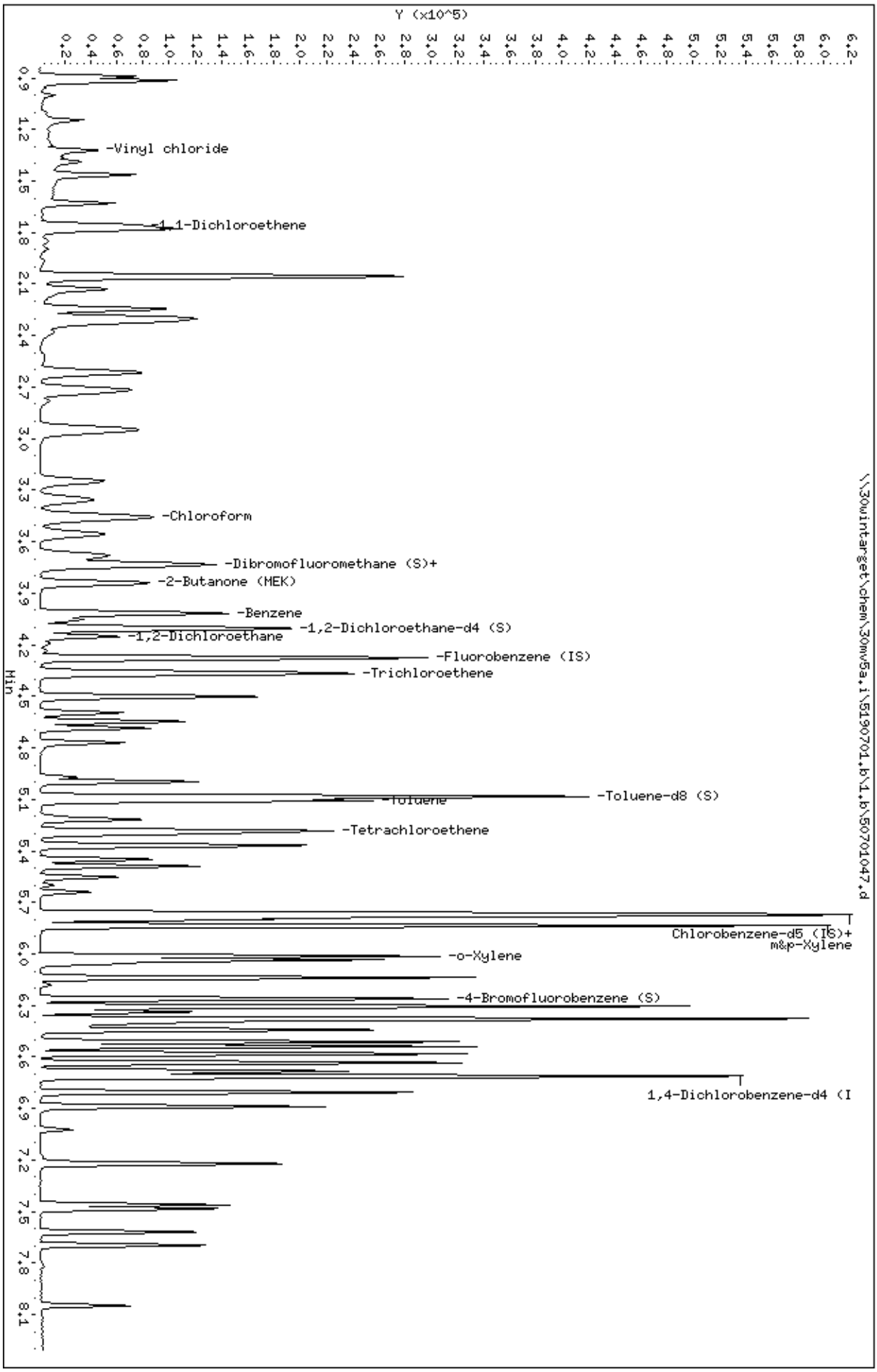
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1699733
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45152

Client SDG: 1.b
Client Smp ID: AOC 26-2MSD
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	108	
75-35-4	1,1-Dichloroethene	146	
67-66-3	Chloroform	154	
56-23-5	Carbon Tetrachloride	147	
78-93-3	2-Butanone (MEK)	130	
71-43-2	Benzene	163	
107-06-2	1,2-Dichloroethane	158	
79-01-6	Trichloroethene	172	
108-88-3	Toluene	161	
127-18-4	Tetrachloroethene	161	
108-90-7	Chlorobenzene	195	
100-41-4	Ethylbenzene	168	
7816-60-0	m&p-Xylene	344	
95-47-6	o-Xylene	165	
1868-53-7	Dibromofluoromethane (S)	32.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.7	
2037-26-5	Toluene-d8 (S)	31.0	
460-00-4	4-Bromofluorobenzene (S)	30.9	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Date : 01-JUL-2019 18:40
Client ID: AOC 26-2MSD
Sample Info: 1699733x10
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
Y (x10^5)
Min
\\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d
-Vinyl chloride
-1,1-Dichloroethene
-Chloroform
-Dibromofluoromethane (S)+
-2-Butanone (MEK)
-Benzene
-1,2-Dichloroethane-d4 (S)
-1,2-Dichloroethane
-Fluorobenzene (IS)
-Trichloroethene
-Toluene-d8 (S)
-Toluene
-Tetrachloroethene
Chlorobenzene-d5 (IS)+
m&p-Xylene
-o-Xylene
-4-Bromofluorobenzene (S)
1,4-Dichlorobenzene-d4 (I

Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

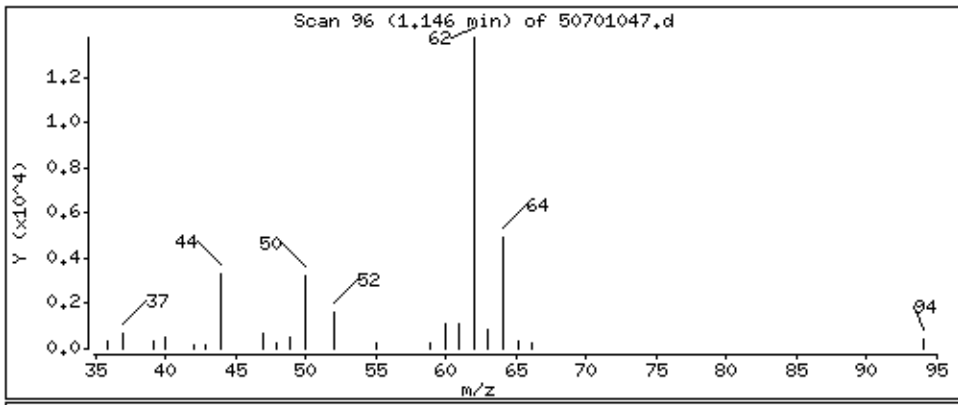
Operator: JEW

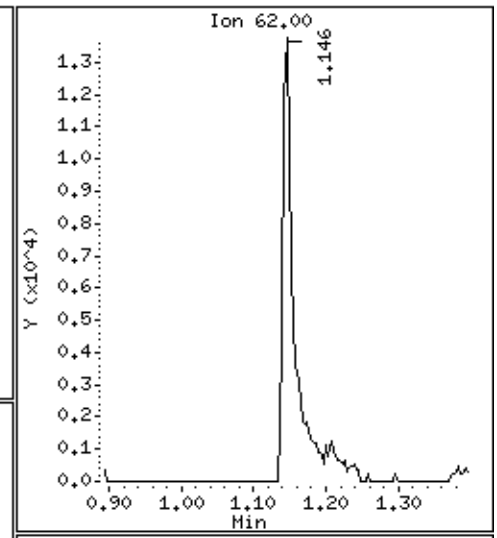
Column phase: RTX-VMS

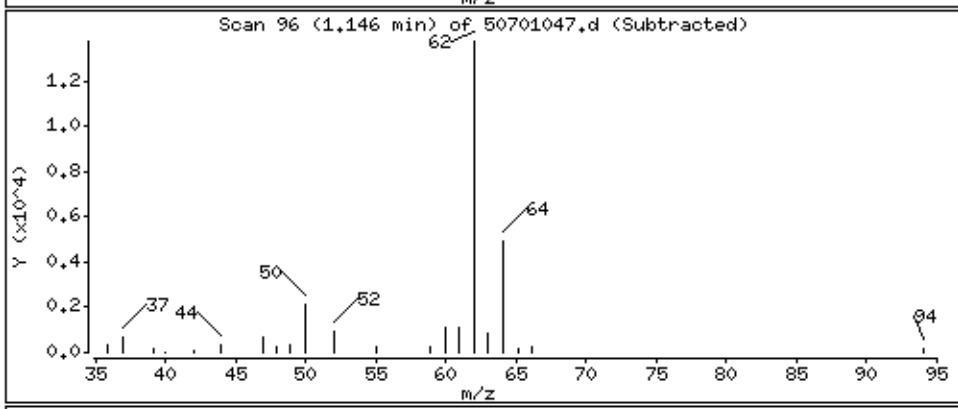
Column diameter: 0.18

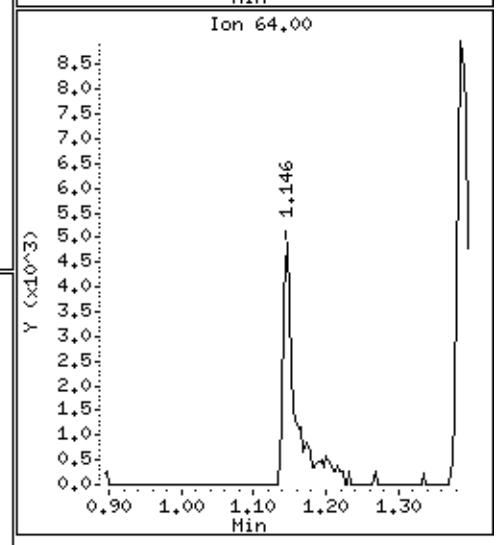
3 Vinyl Chloride

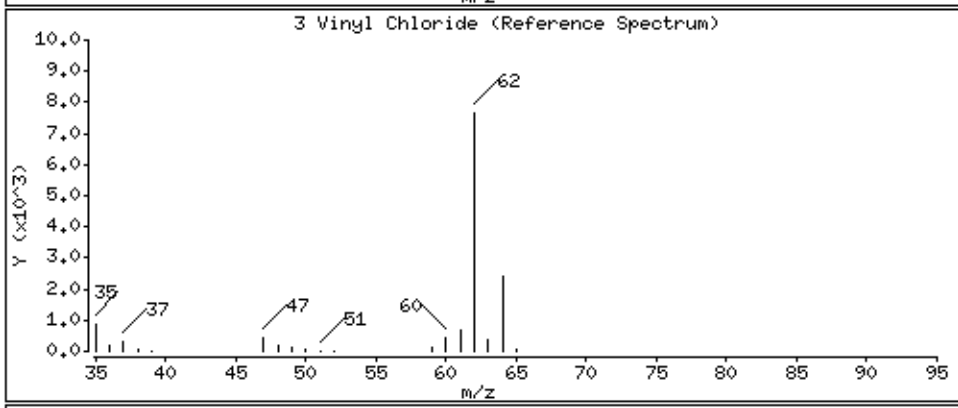
Concentration: 108 ug/kg

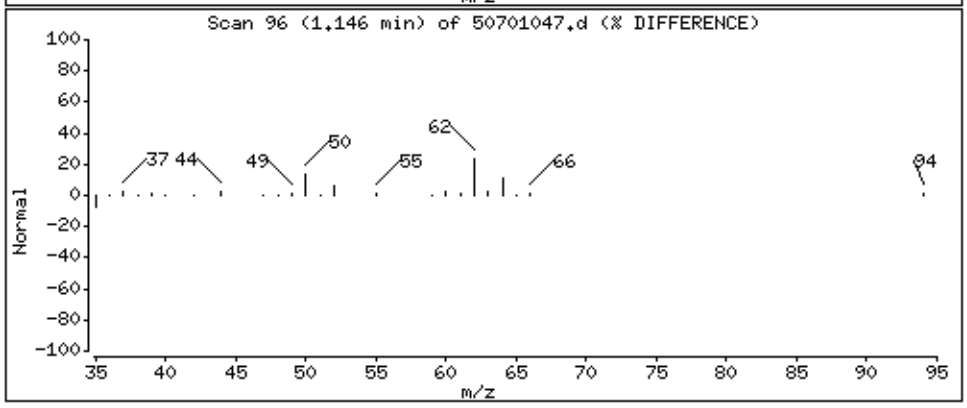












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

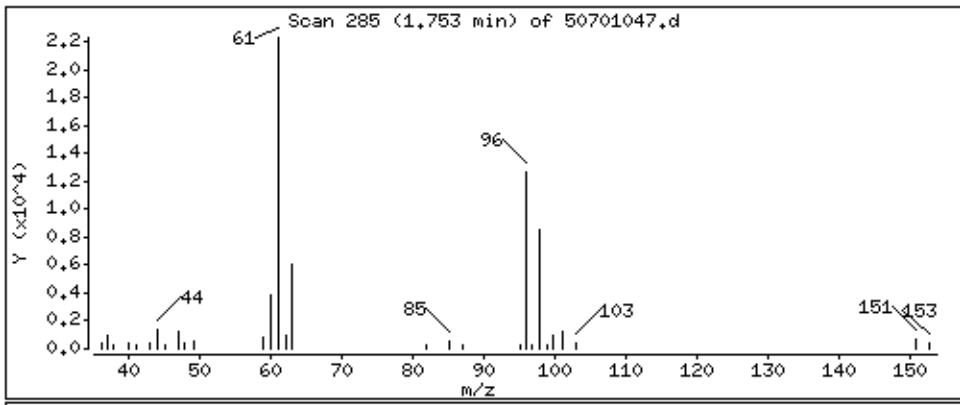
Operator: JEW

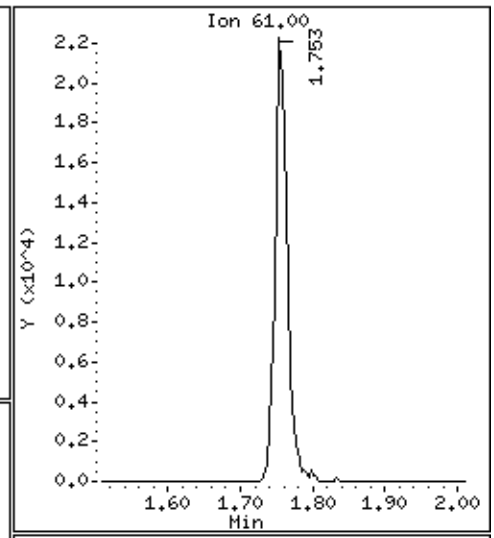
Column phase: RTX-VMS

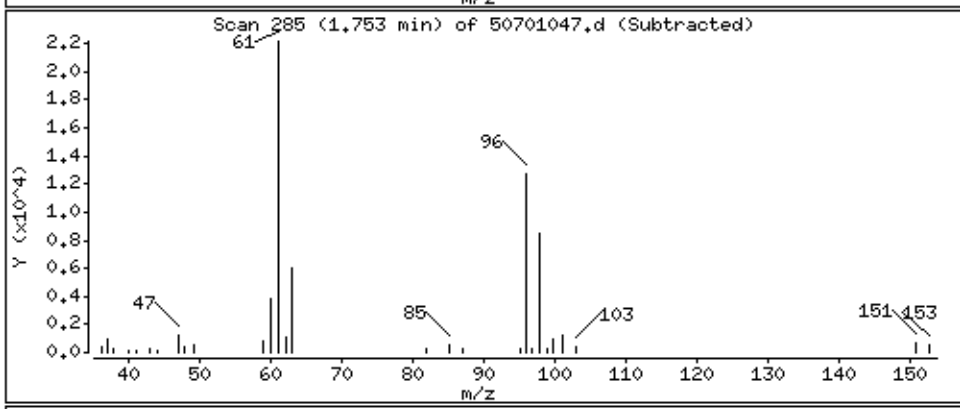
Column diameter: 0.18

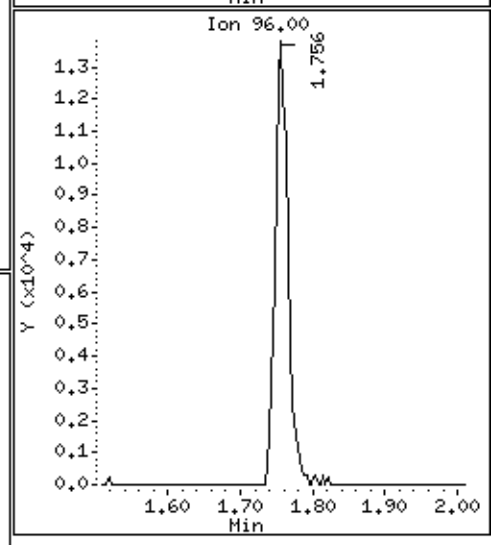
9 1,1-Dichloroethene

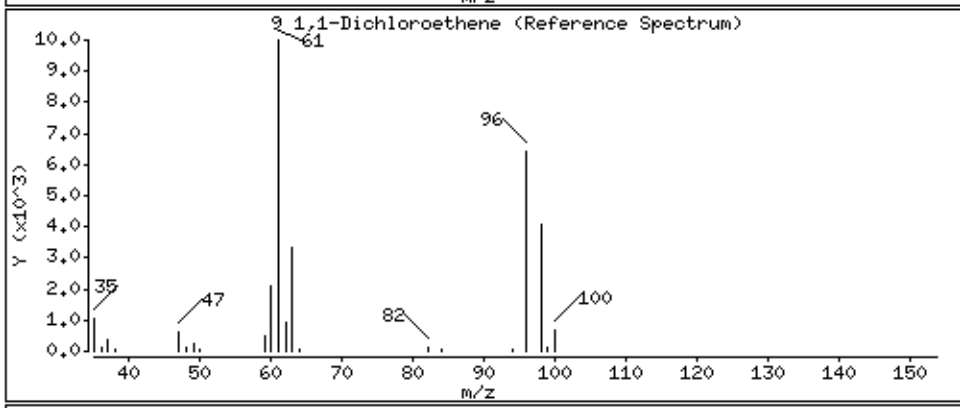
Concentration: 146 ug/kg

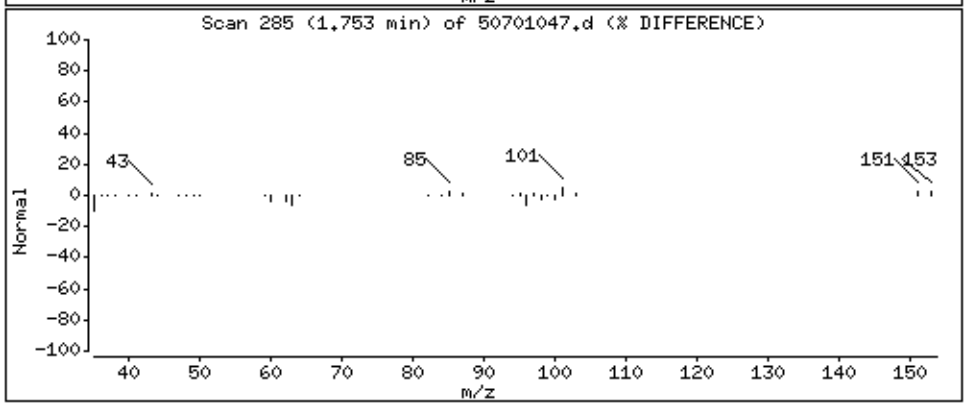












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

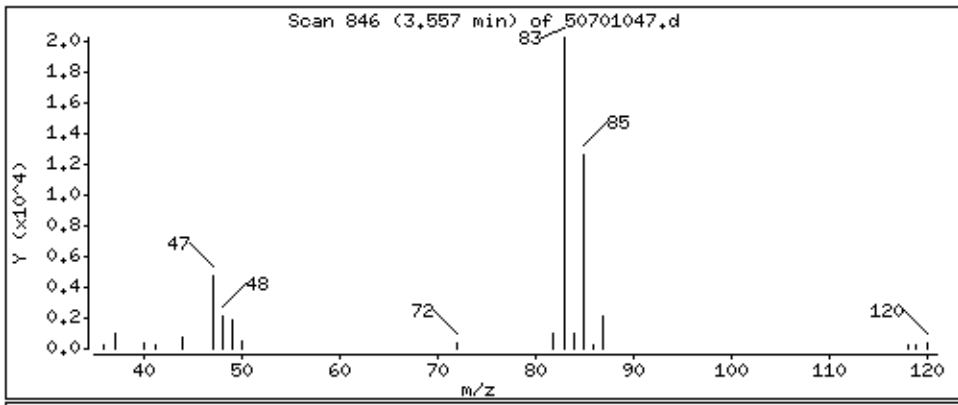
Operator: JEW

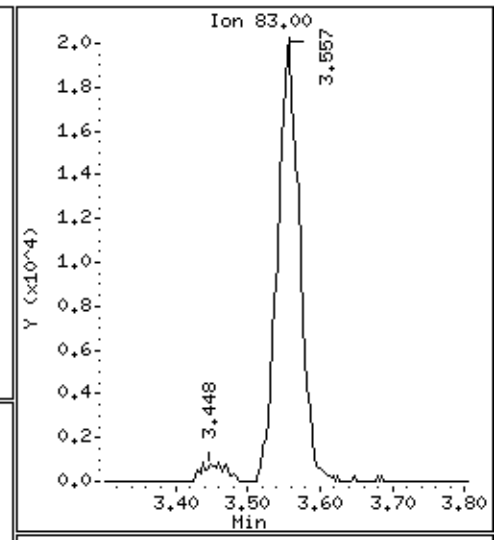
Column phase: RTX-VMS

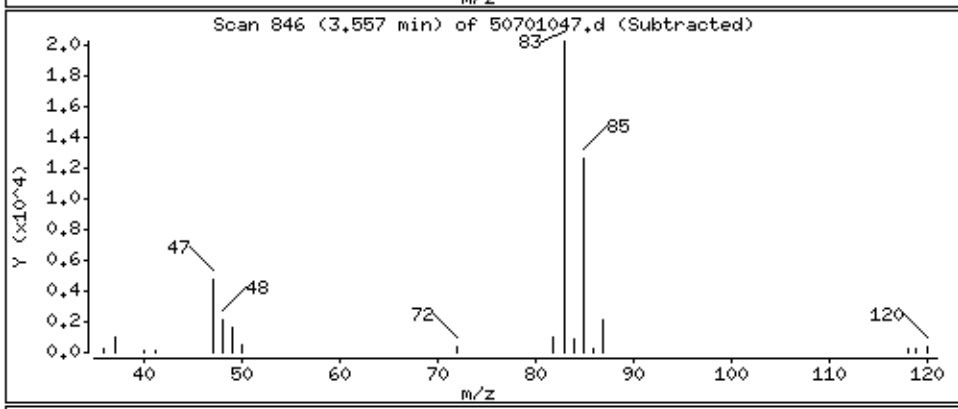
Column diameter: 0.18

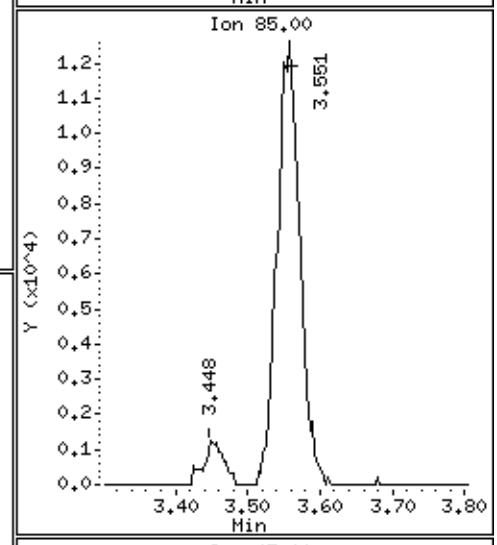
33 Chloroform

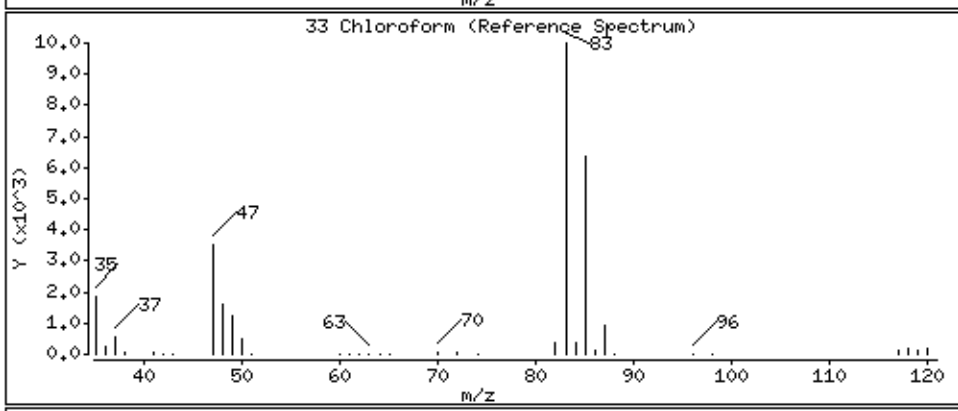
Concentration: 154 ug/kg

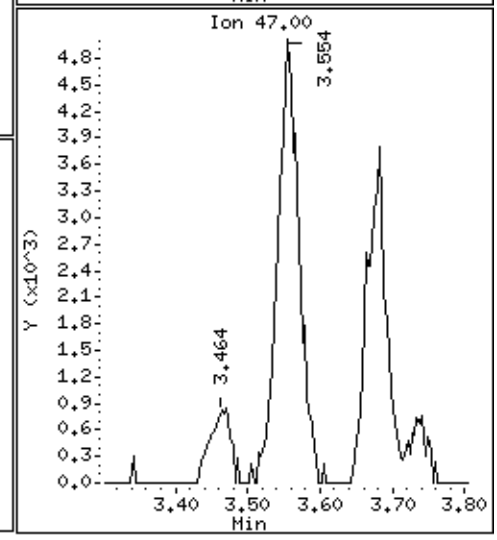


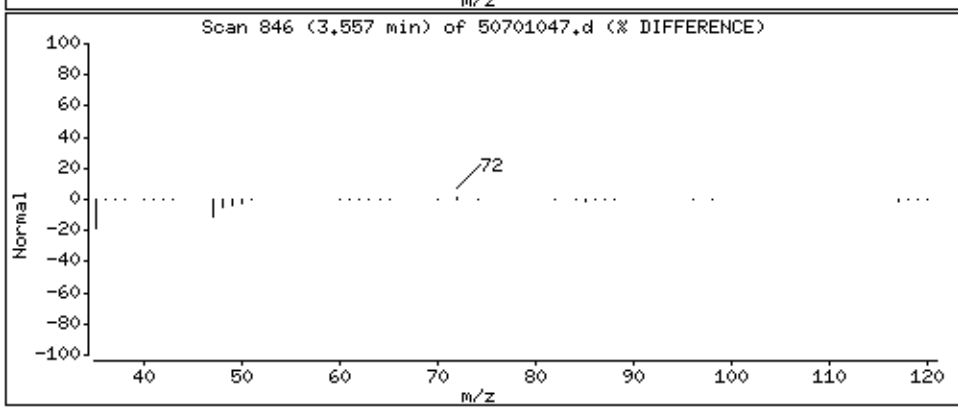












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

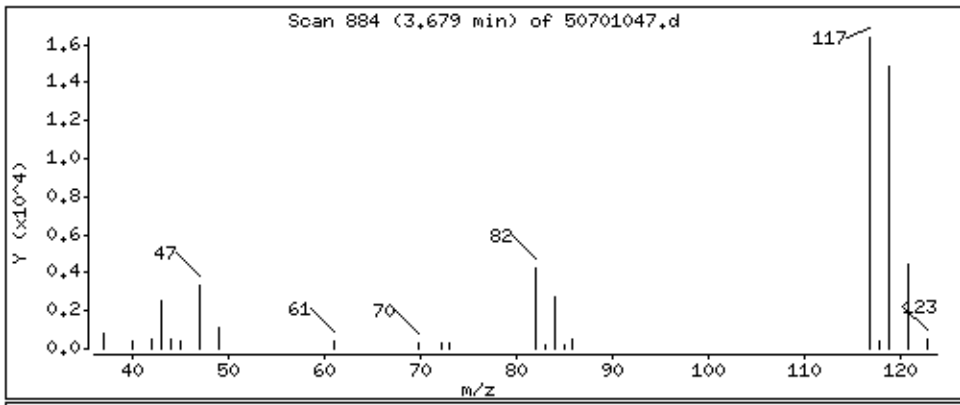
Operator: JEW

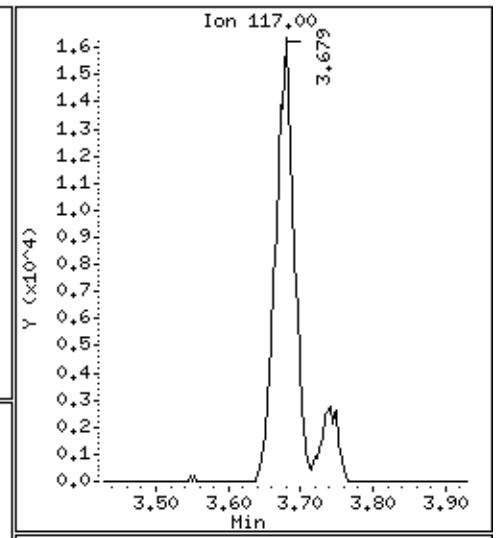
Column phase: RTX-VMS

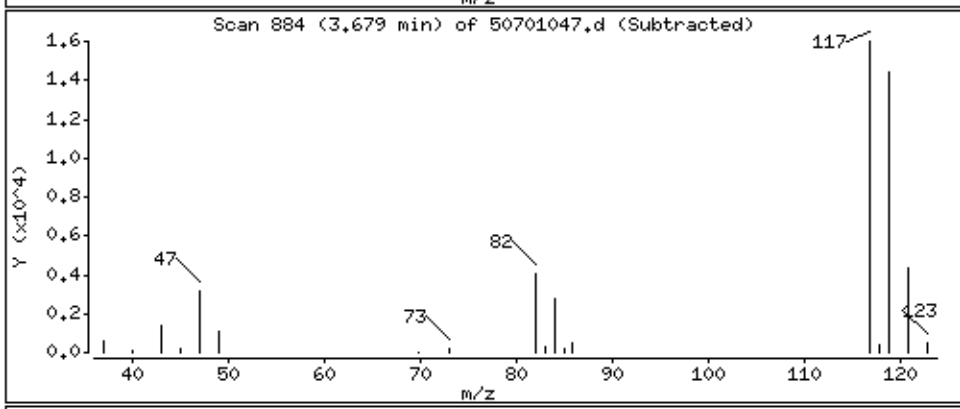
Column diameter: 0.18

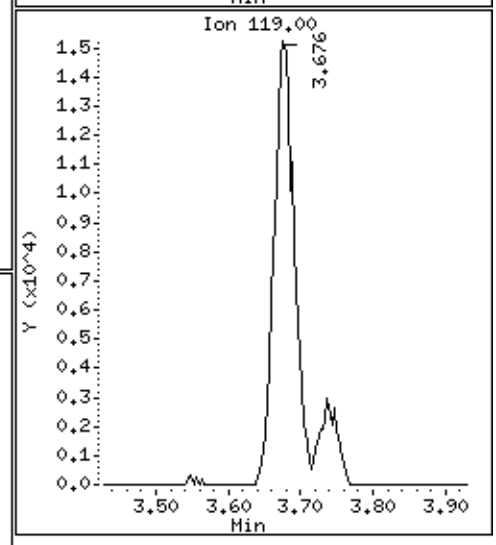
34 Carbon Tetrachloride

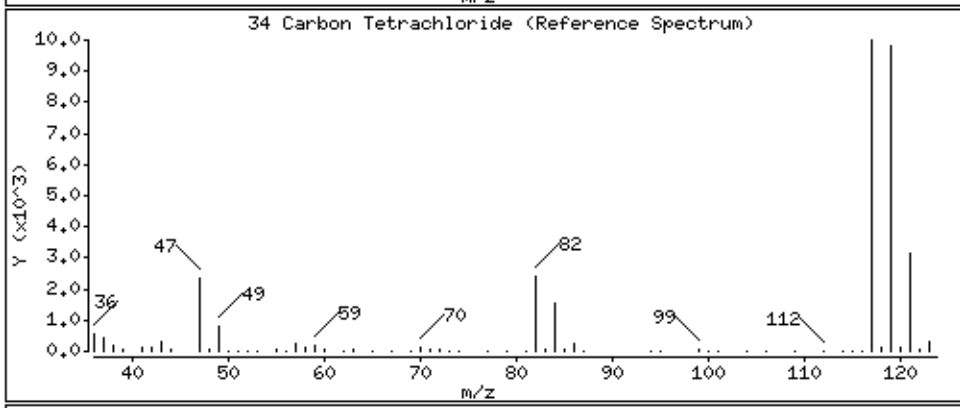
Concentration: 147 ug/kg

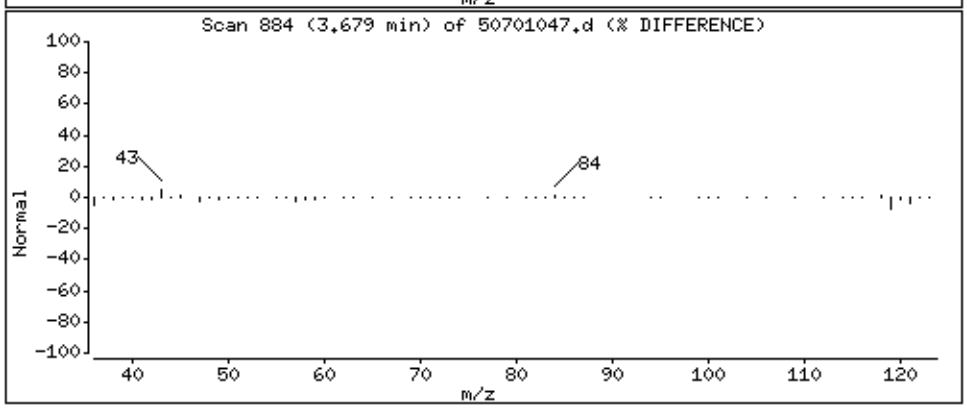












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

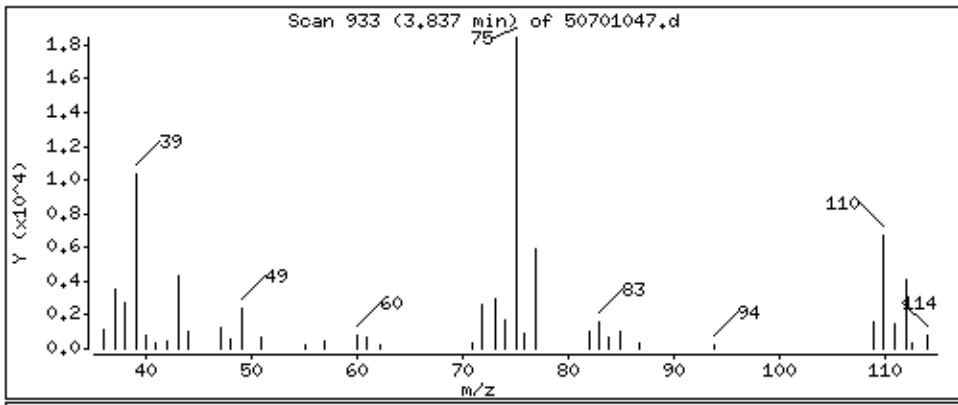
Operator: JEW

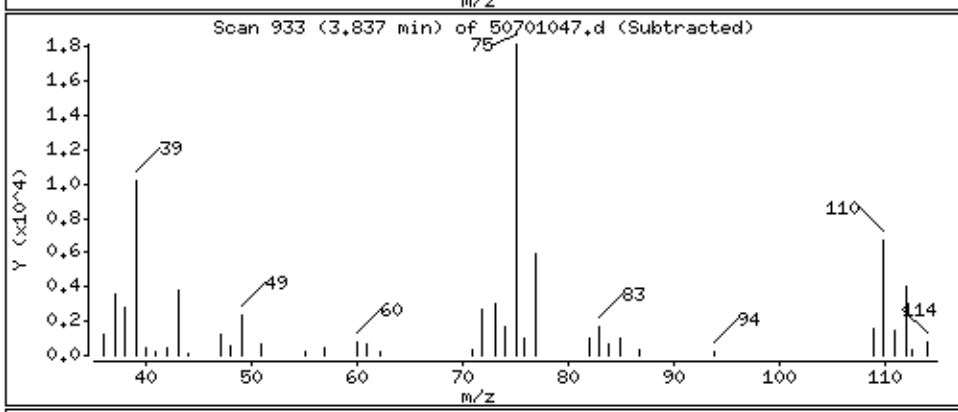
Column phase: RTX-VMS

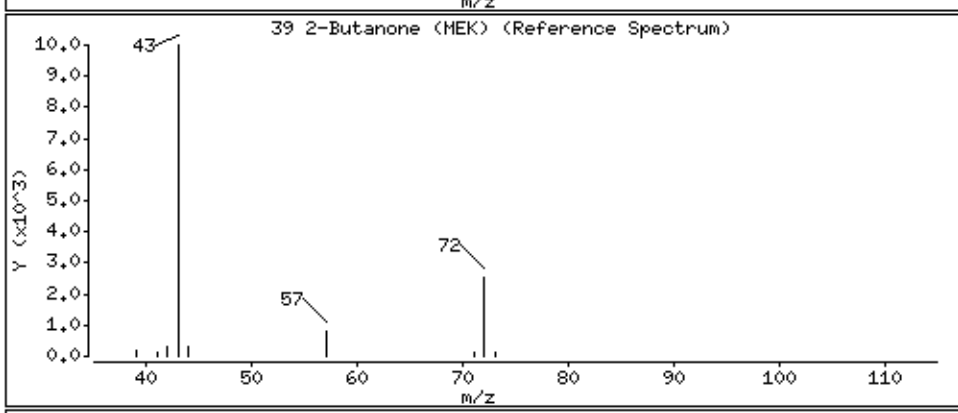
Column diameter: 0.18

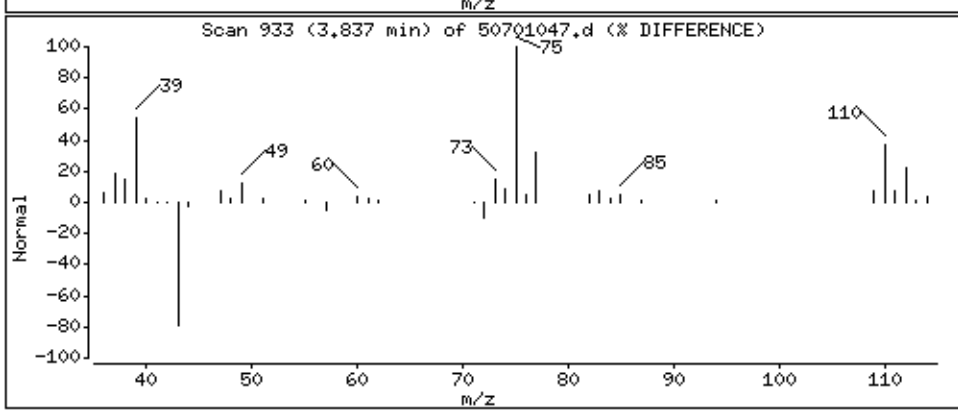
39 2-Butanone (MEK)

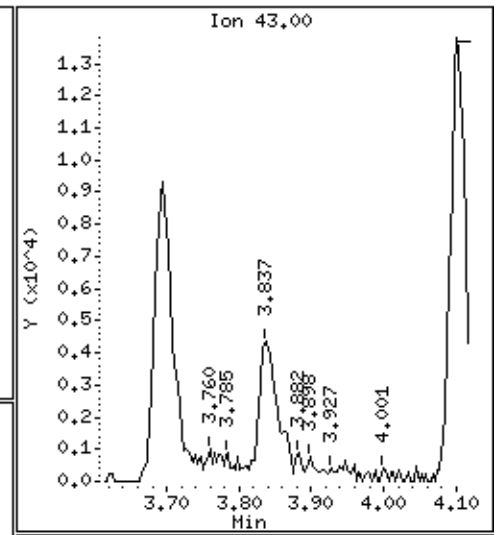
Concentration: 130 ug/kg

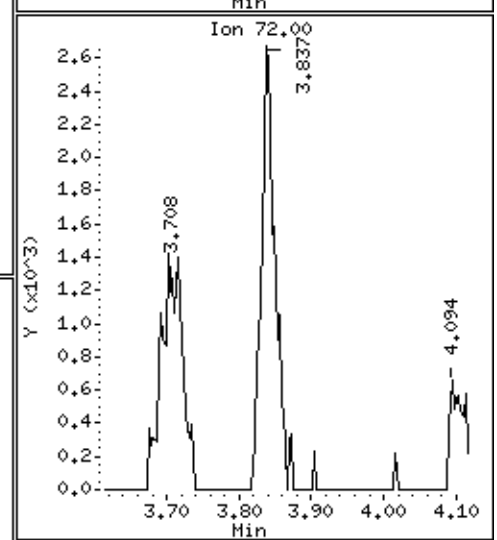


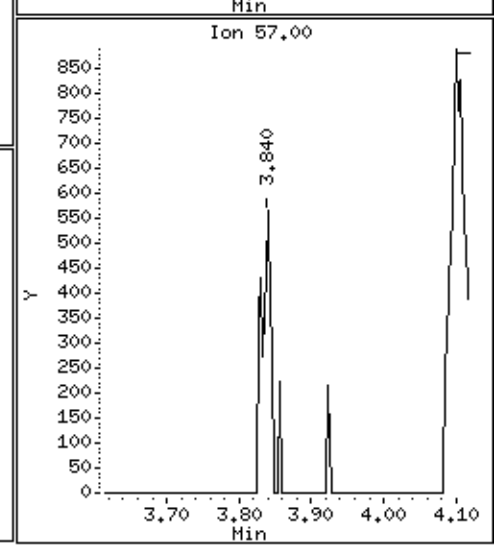












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

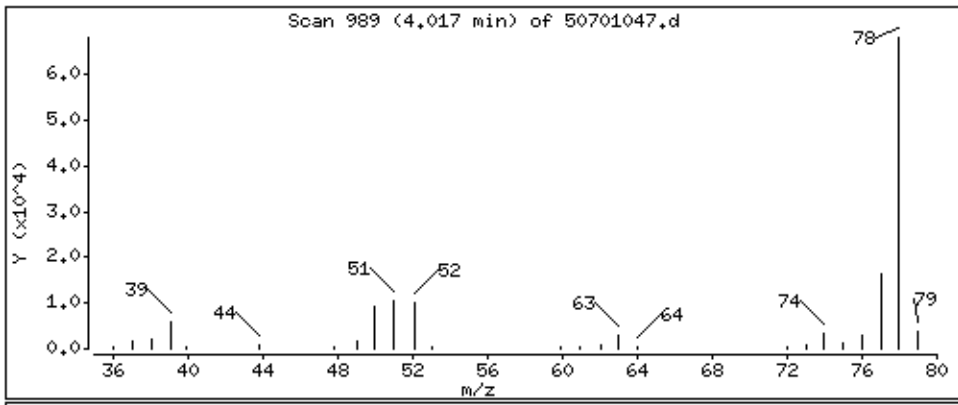
Operator: JEW

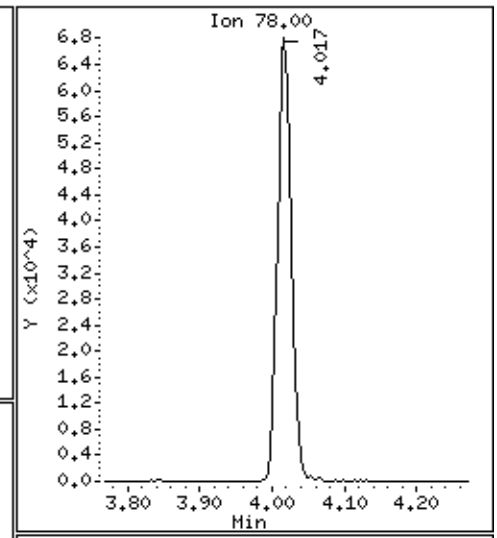
Column phase: RTX-VMS

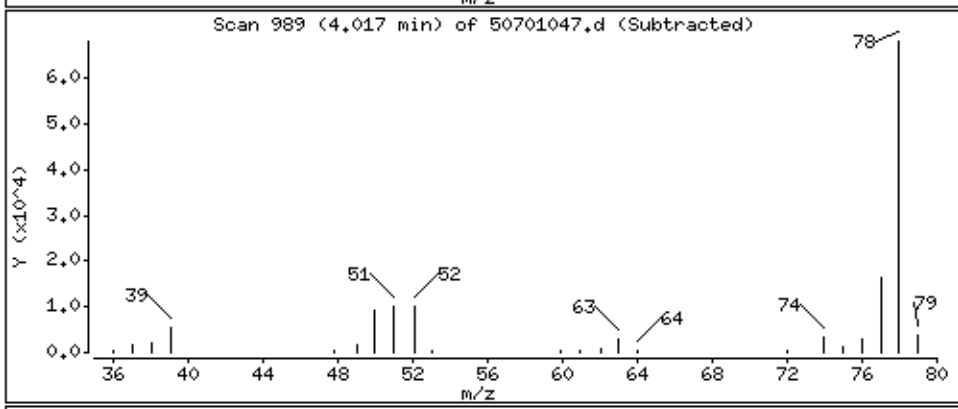
Column diameter: 0.18

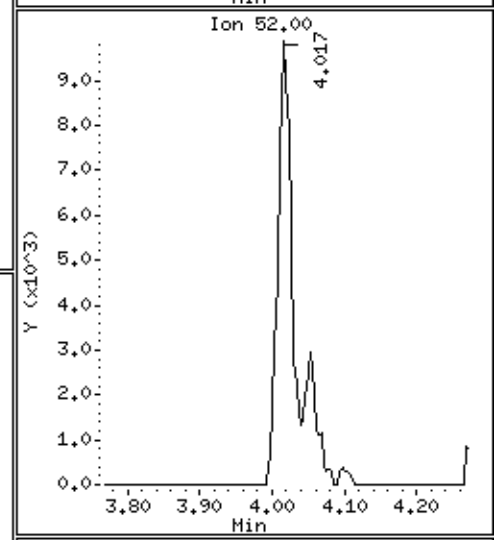
41 Benzene

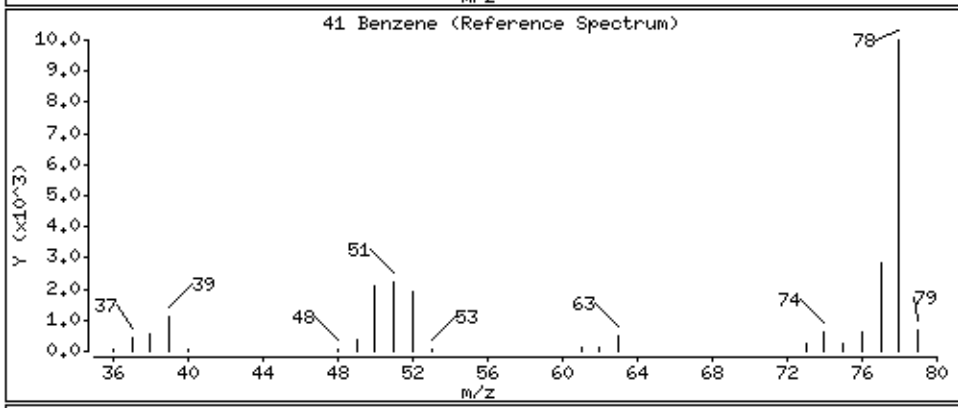
Concentration: 163 ug/kg

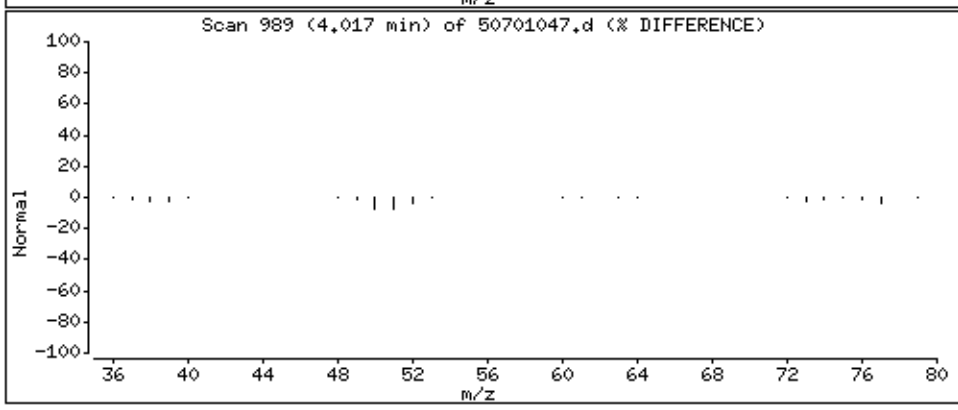


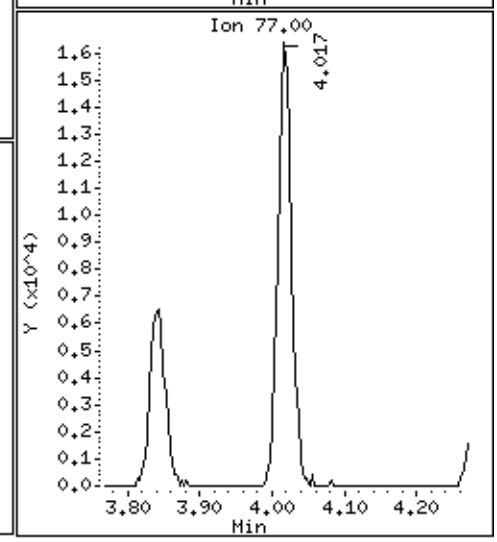












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

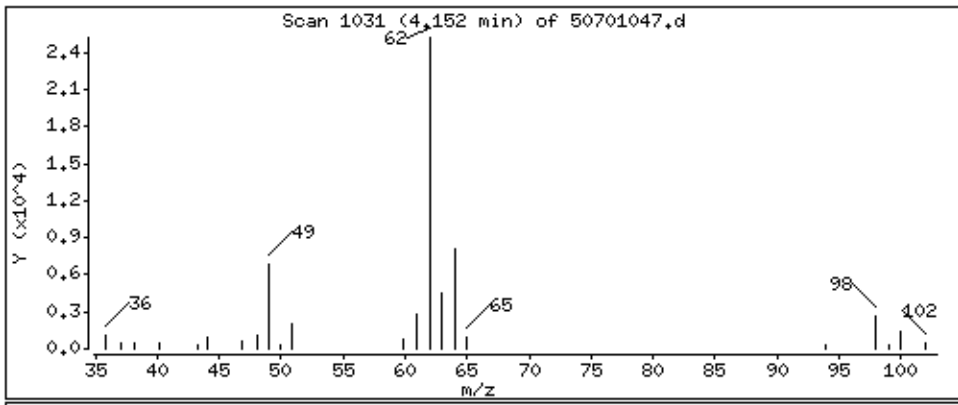
Operator: JEW

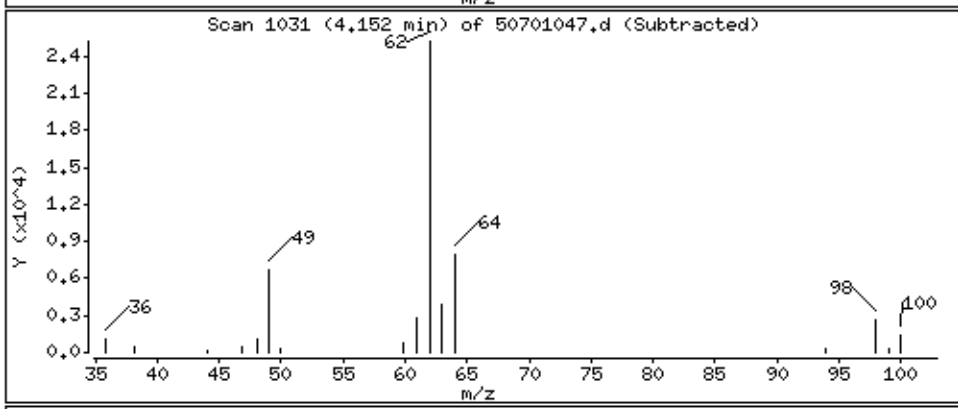
Column phase: RTX-VMS

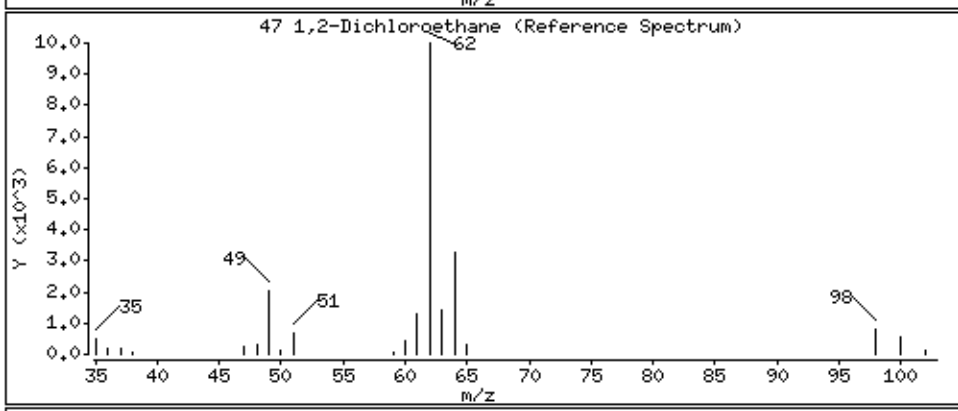
Column diameter: 0.18

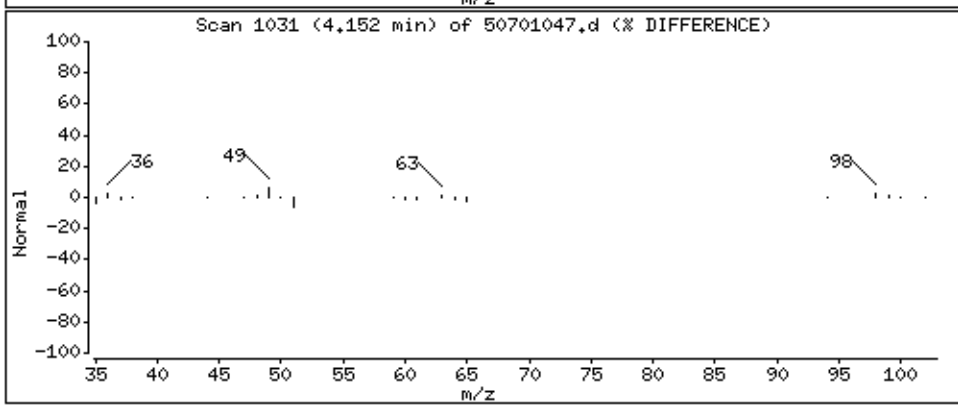
47 1,2-Dichloroethane

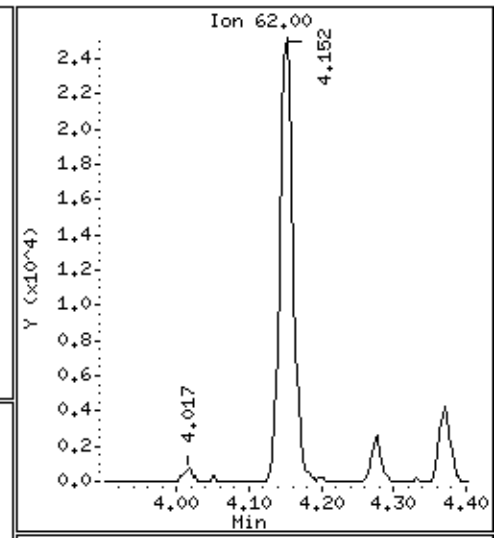
Concentration: 158 ug/kg

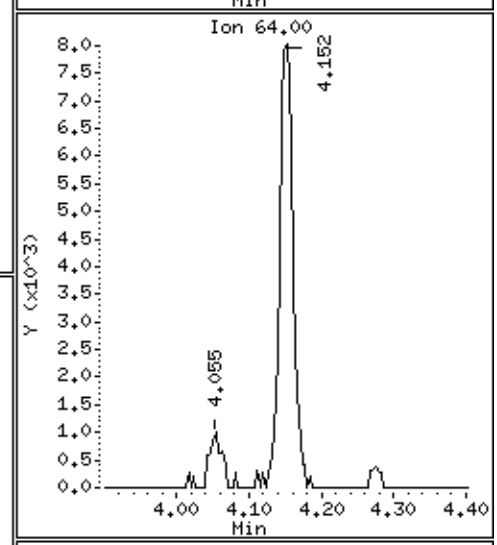


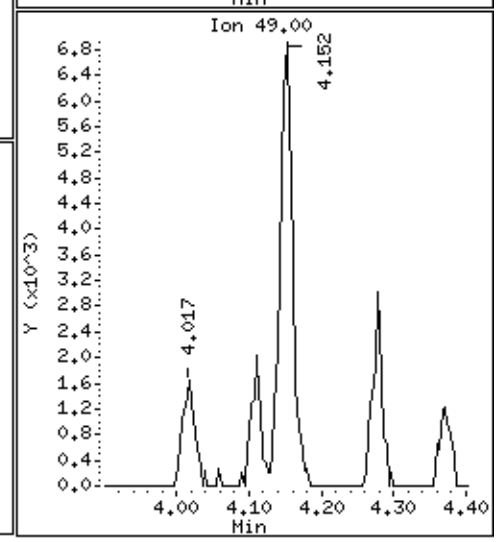












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

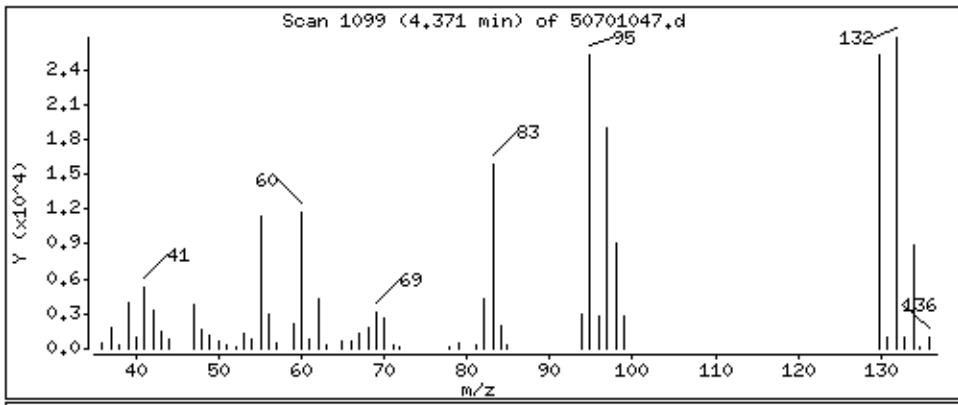
Operator: JEW

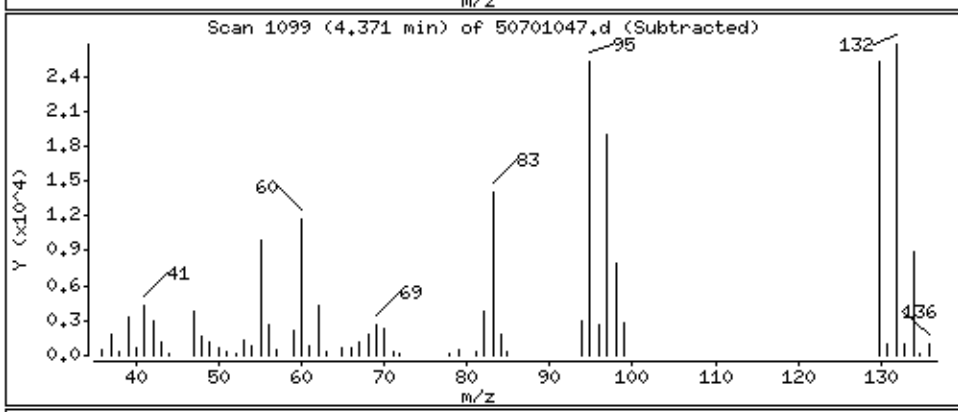
Column phase: RTX-VMS

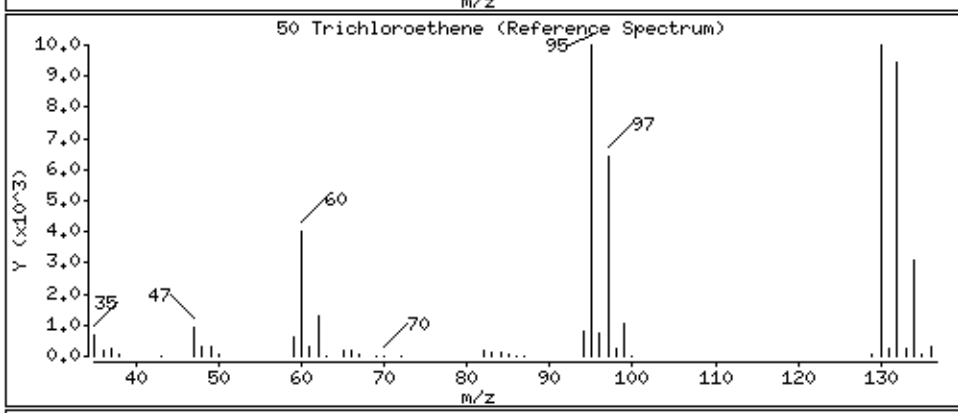
Column diameter: 0.18

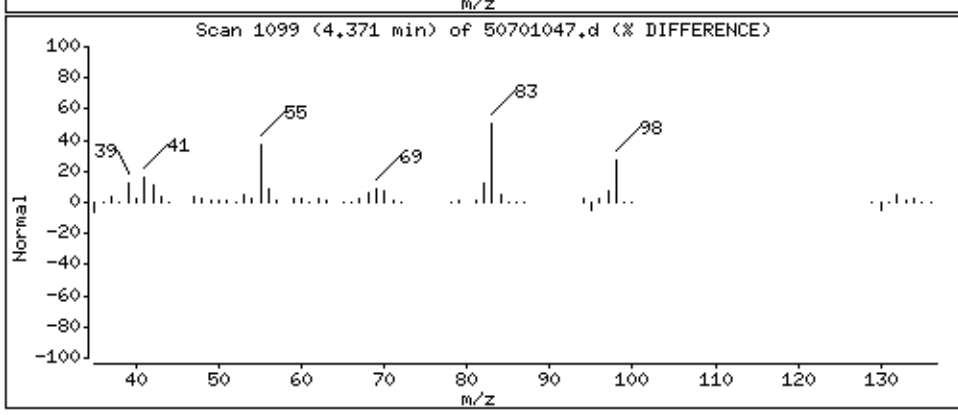
50 Trichloroethene

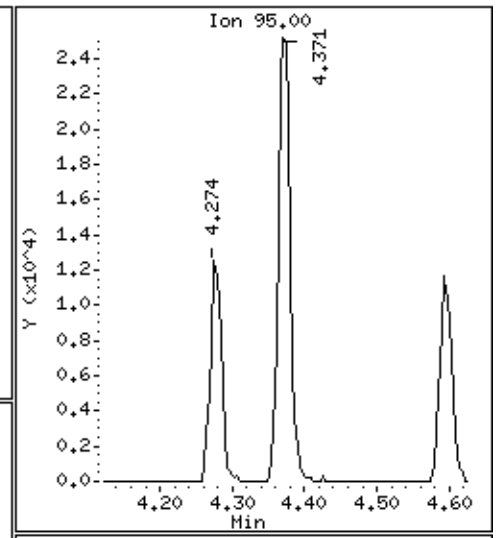
Concentration: 172 ug/kg

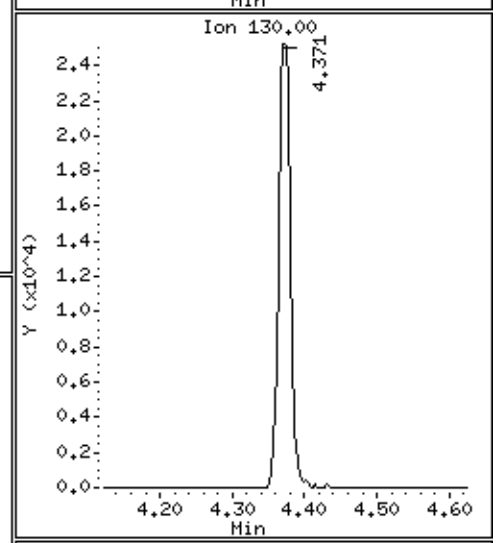


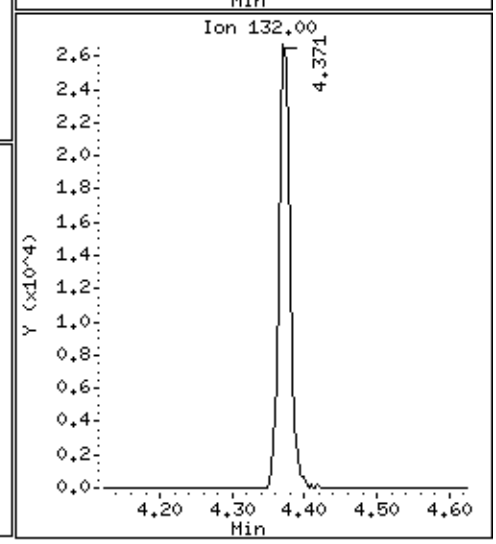












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

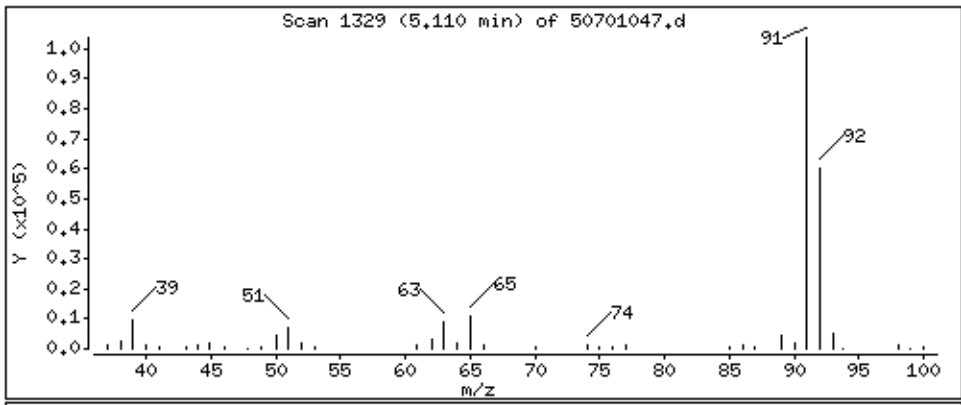
Operator: JEW

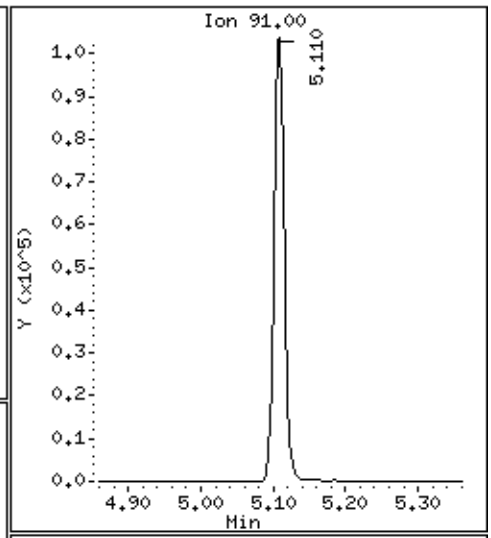
Column phase: RTX-VMS

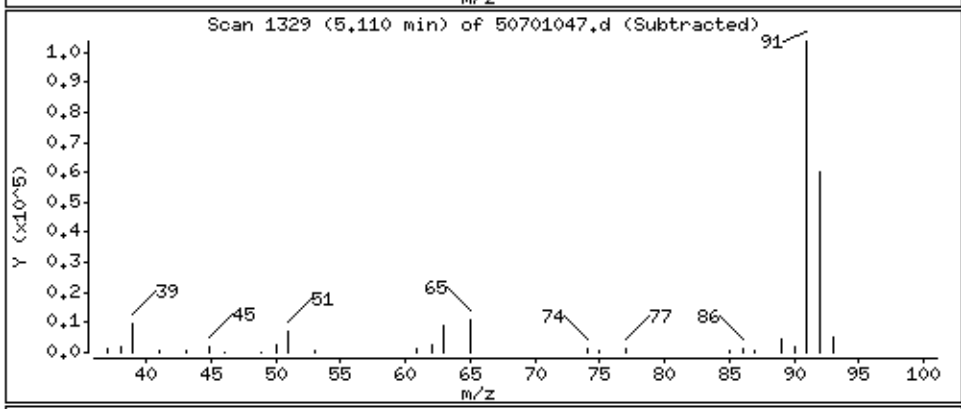
Column diameter: 0.18

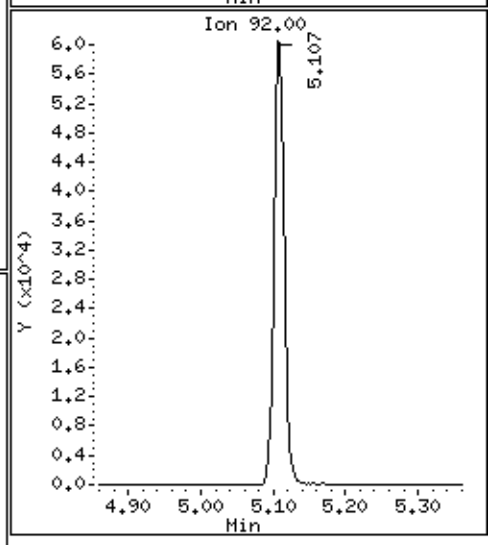
59 Toluene

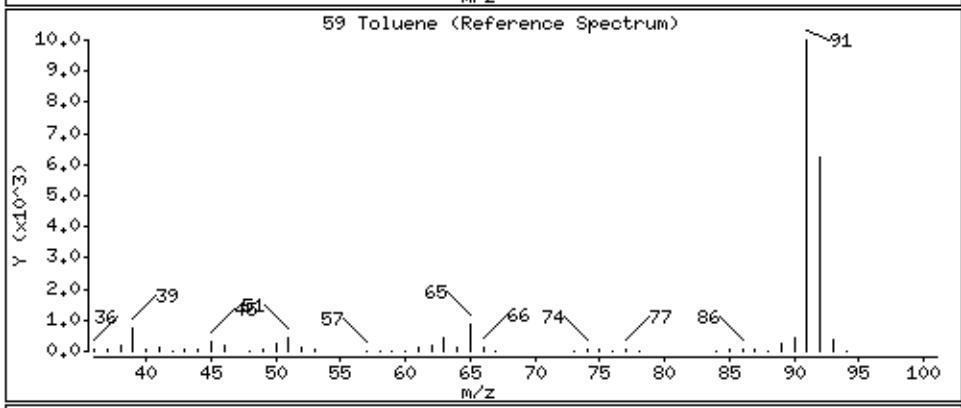
Concentration: 161 ug/kg

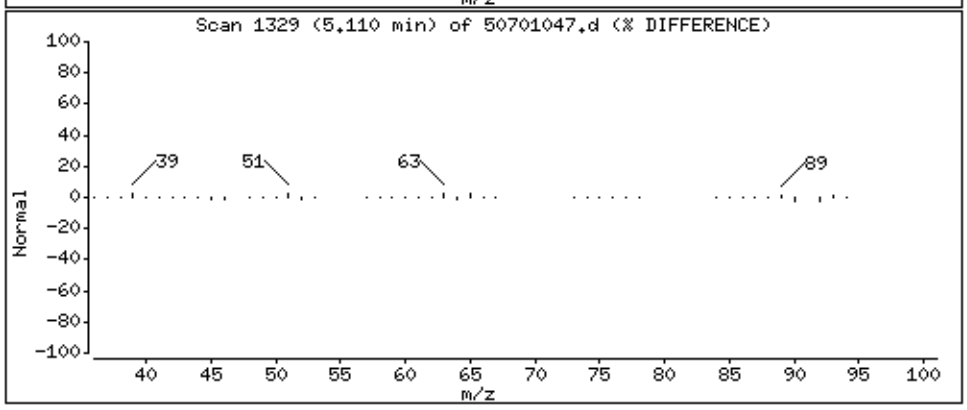












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

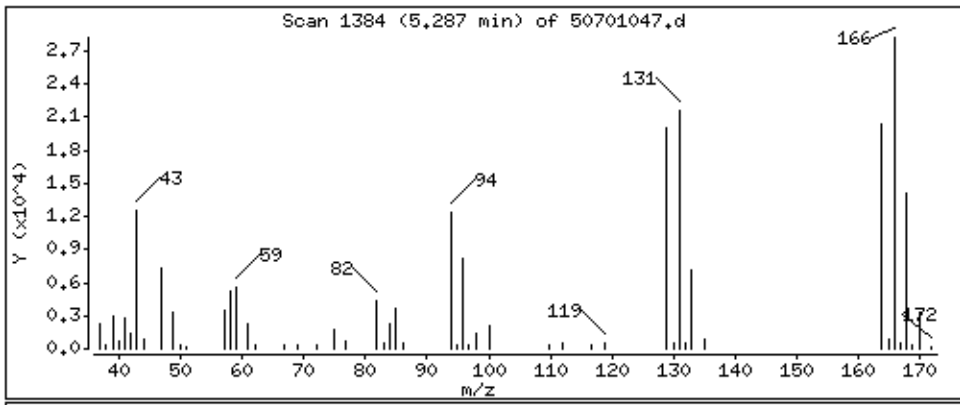
Operator: JEW

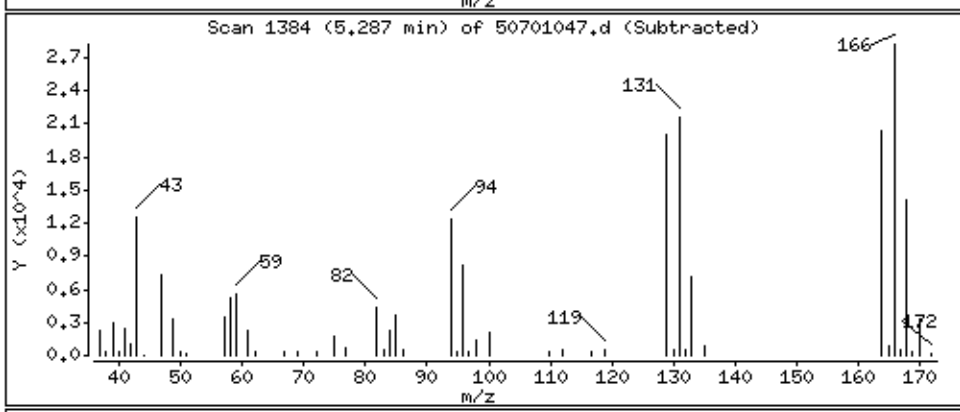
Column phase: RTX-VMS

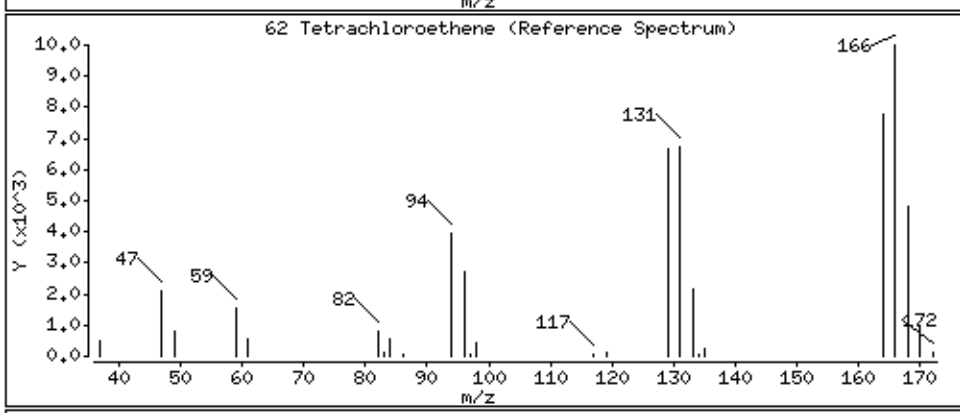
Column diameter: 0.18

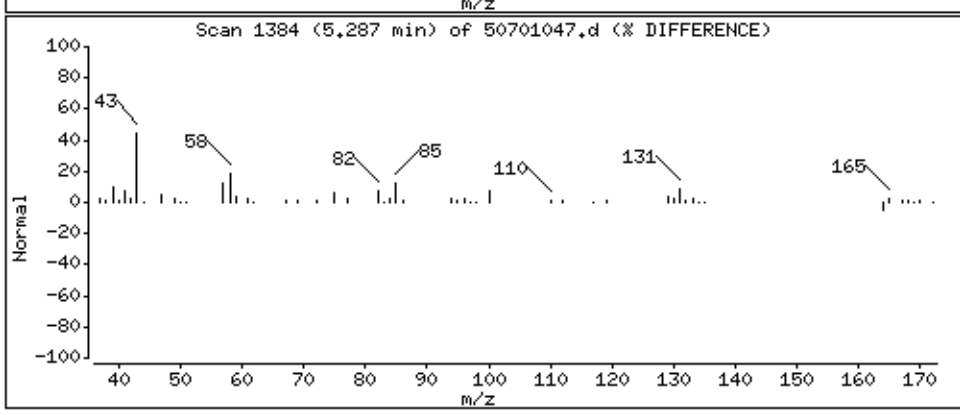
62 Tetrachloroethene

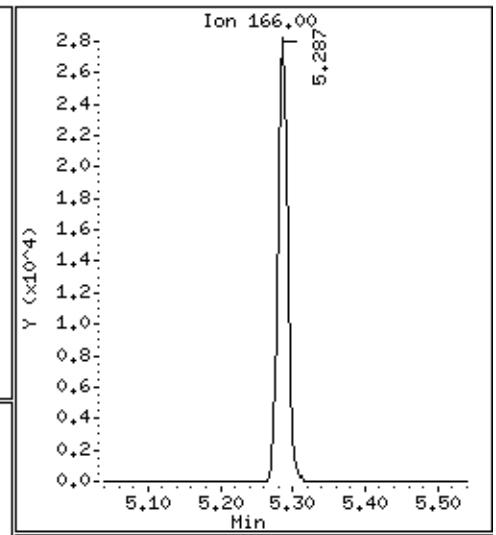
Concentration: 161 ug/kg

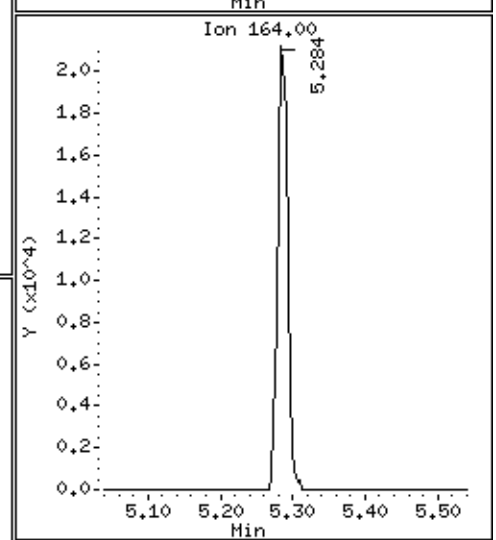


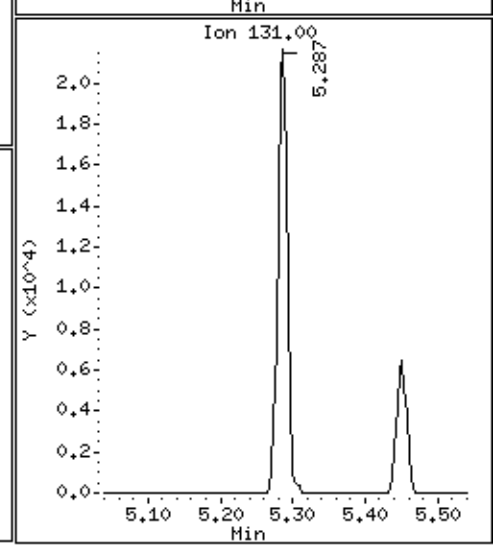












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

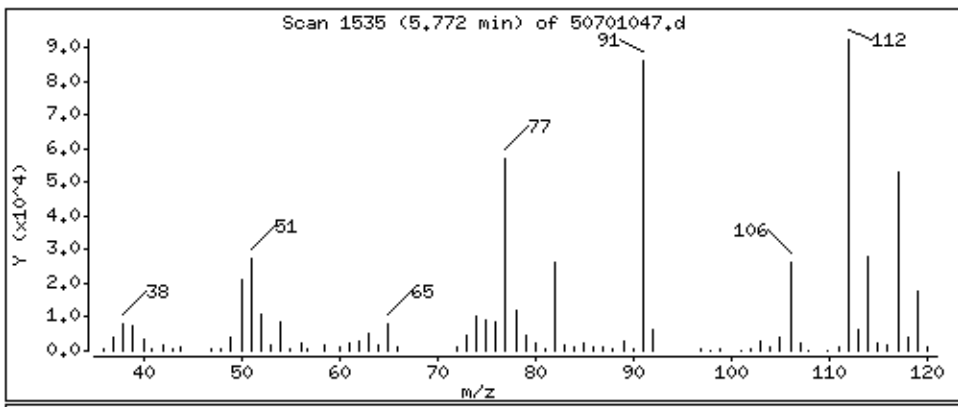
Operator: JEW

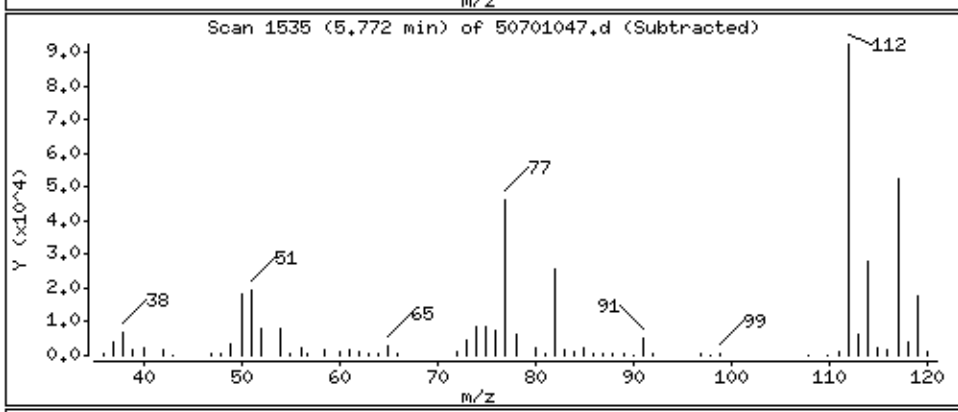
Column phase: RTX-VMS

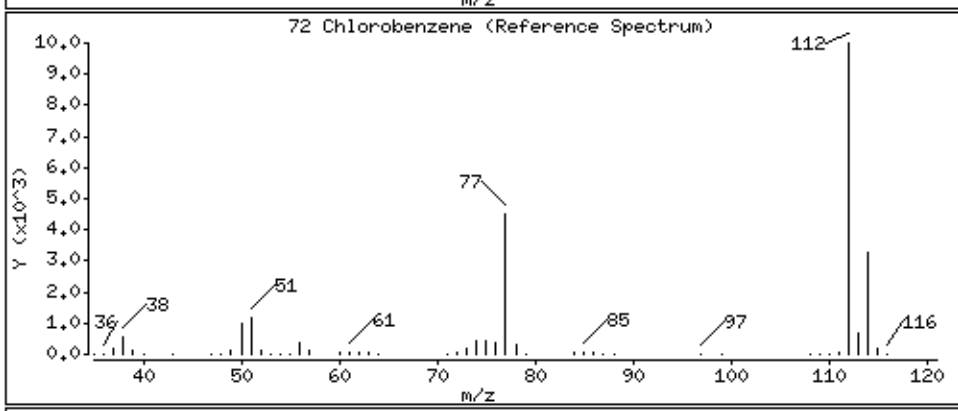
Column diameter: 0.18

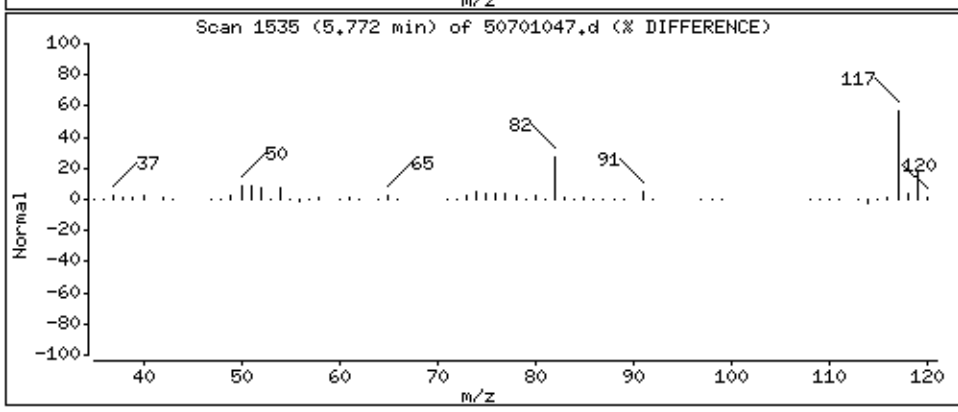
72 Chlorobenzene

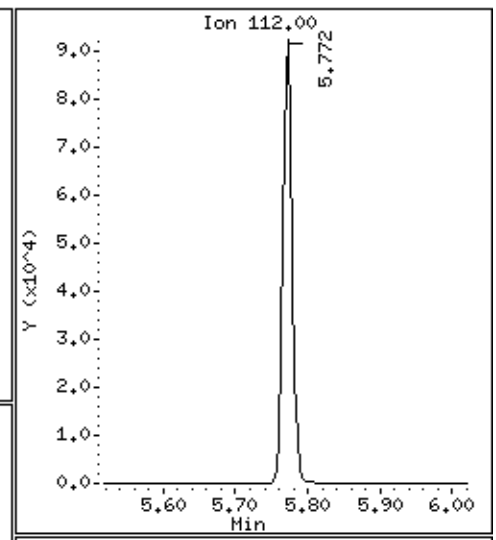
Concentration: 195 ug/kg

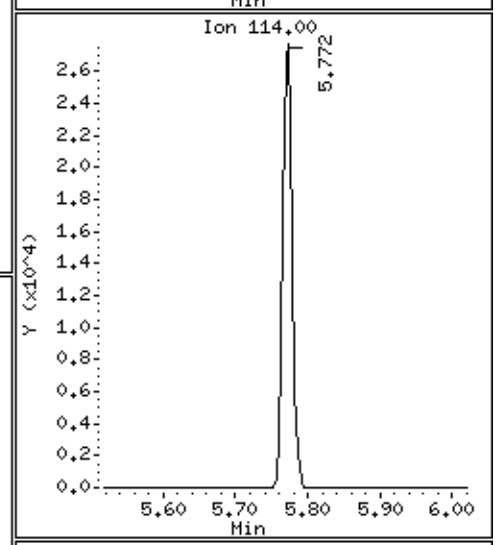


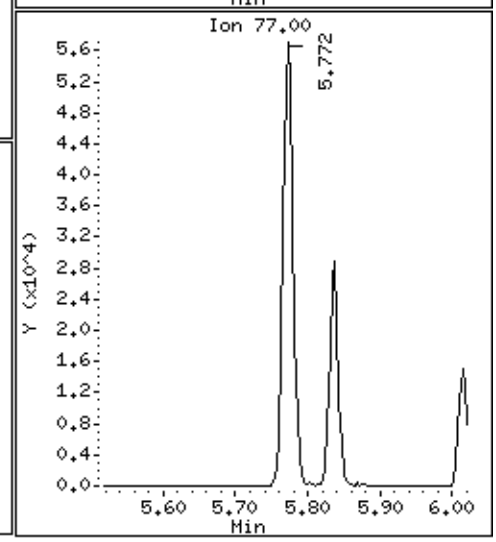












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Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

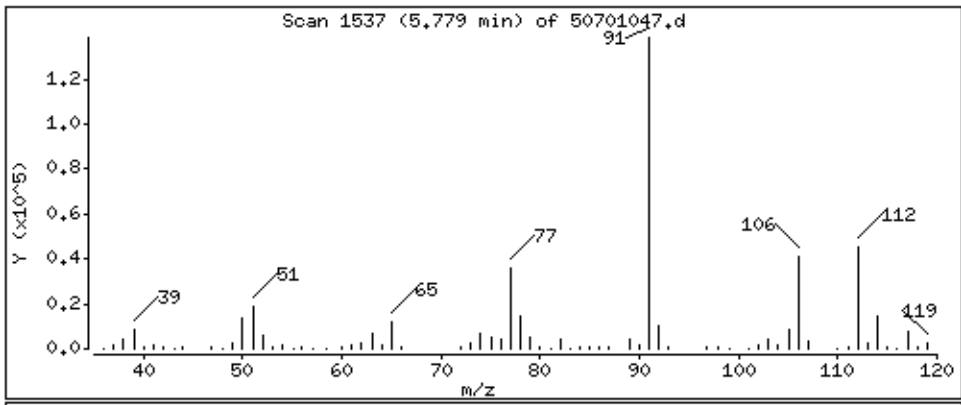
Operator: JEW

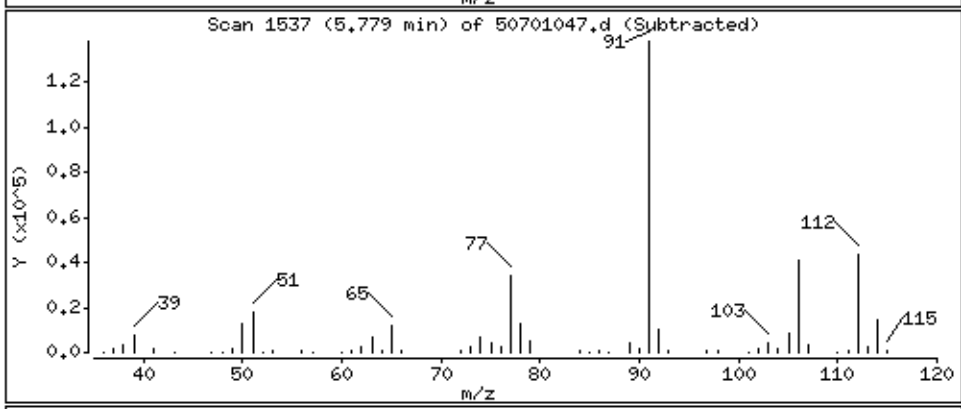
Column phase: RTX-VMS

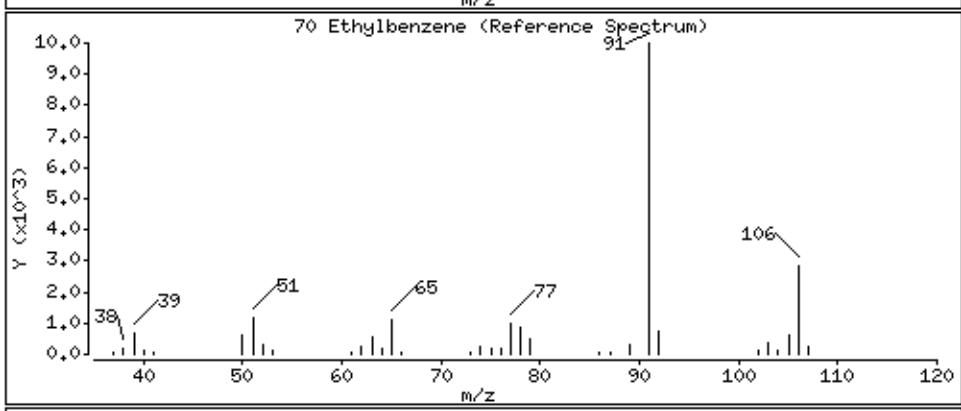
Column diameter: 0.18

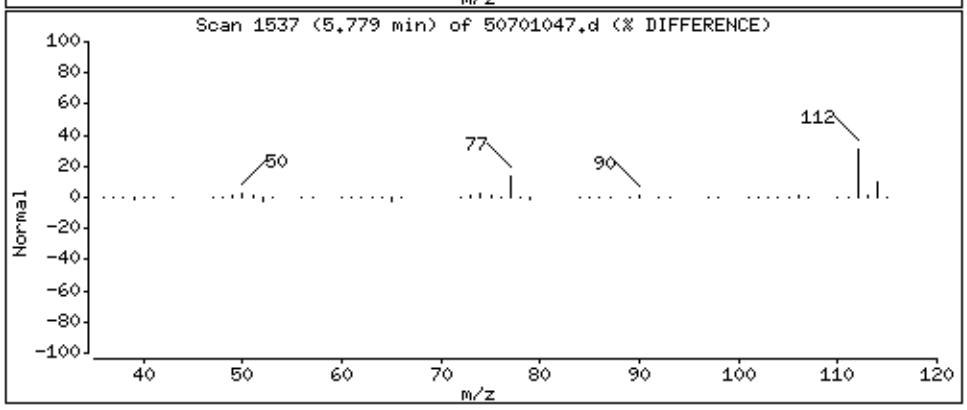
70 Ethylbenzene

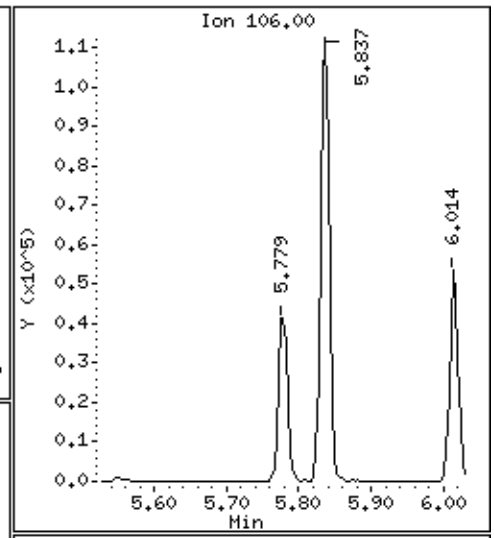
Concentration: 168 ug/kg

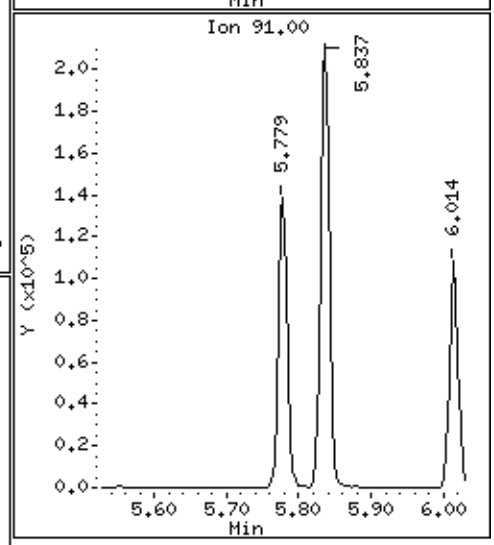












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

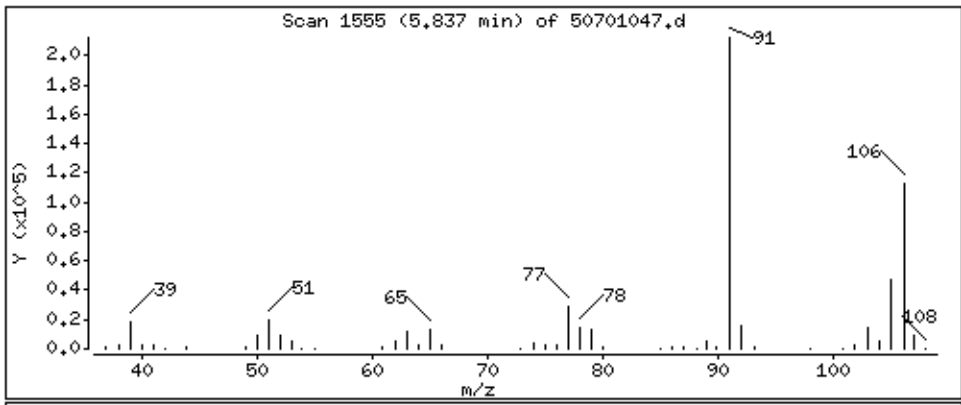
Operator: JEW

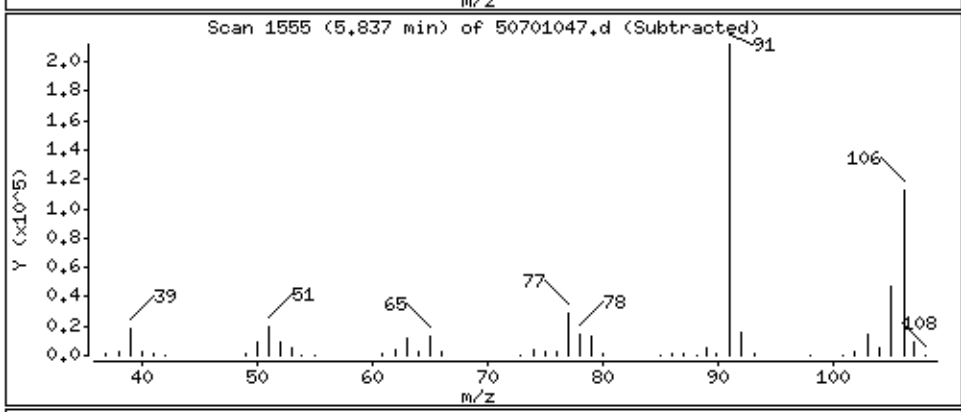
Column phase: RTX-VMS

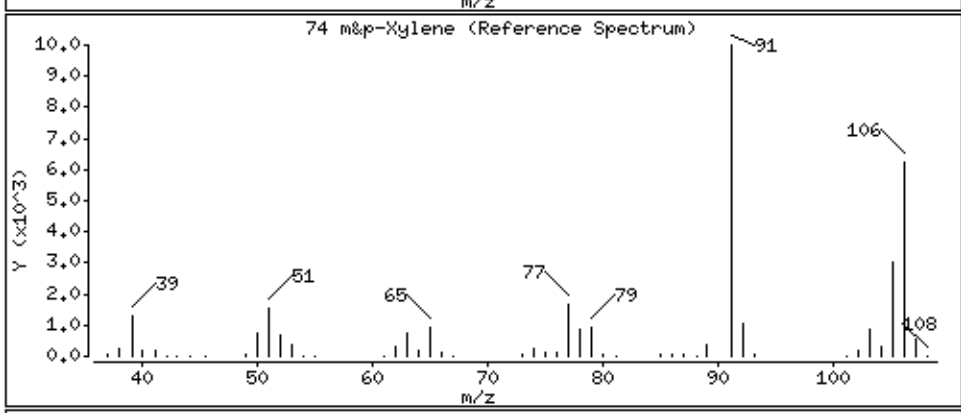
Column diameter: 0.18

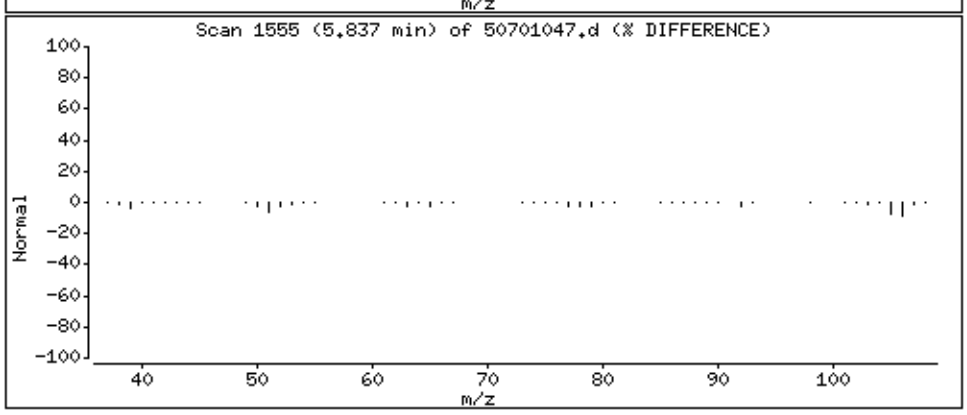
74 m&p-Xylene

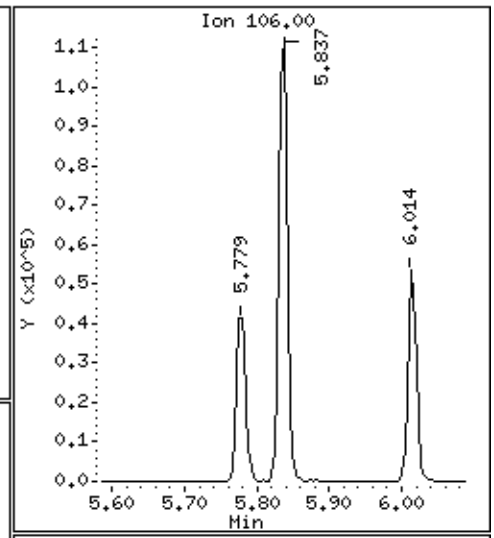
Concentration: 344 ug/kg

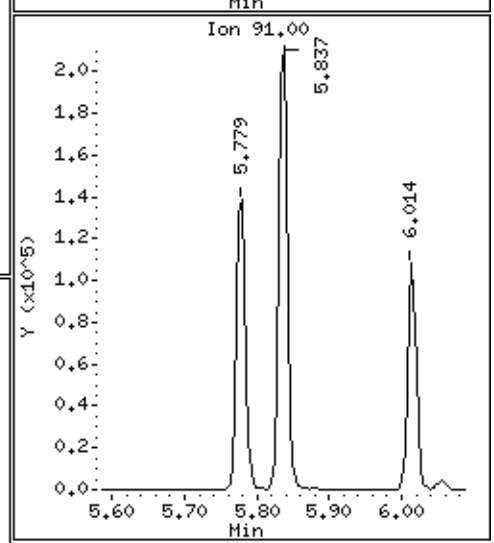












Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b\50701047.d

Date : 01-JUL-2019 18:40

Client ID: AOC 26-2MSD

Instrument: 30mv5a.i

Sample Info: 1699733x10

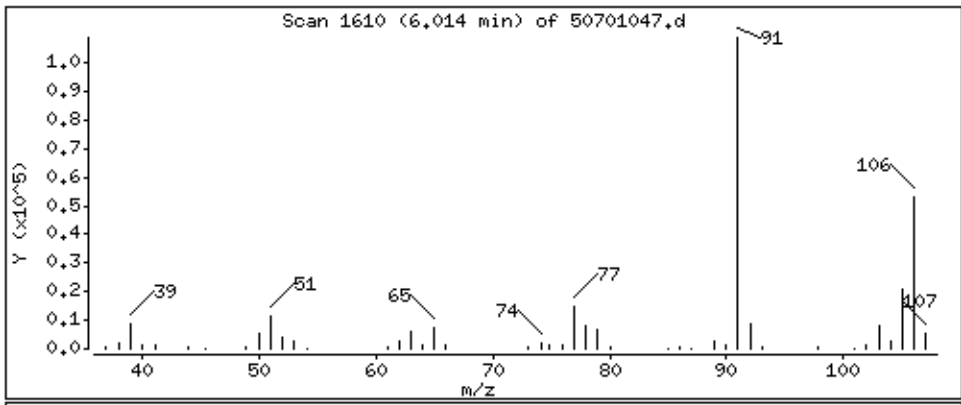
Operator: JEW

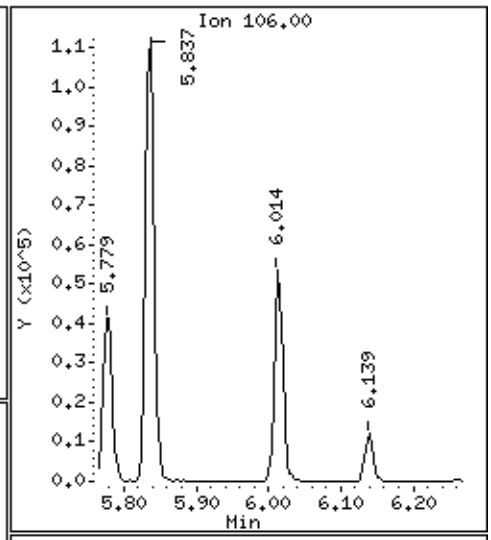
Column phase: RTX-VMS

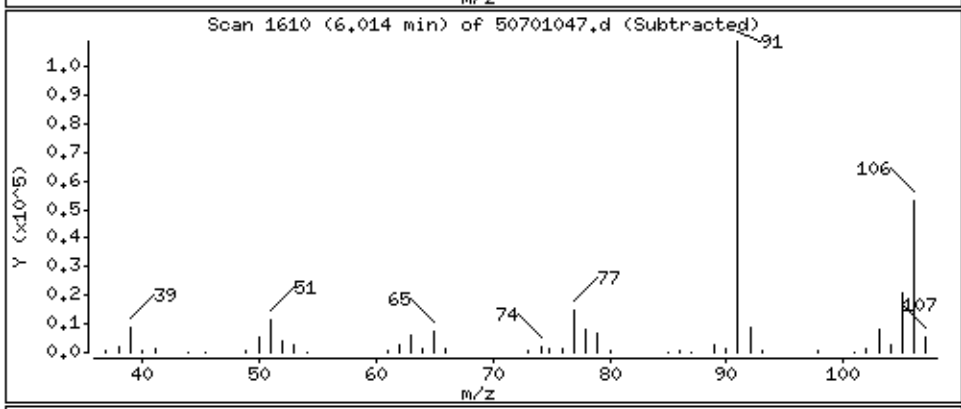
Column diameter: 0.18

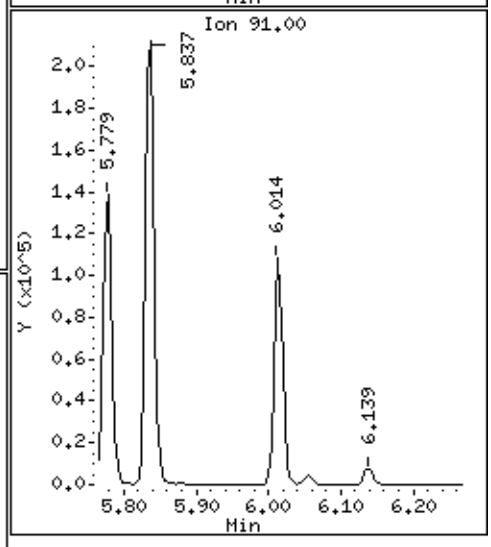
75 o-Xylene

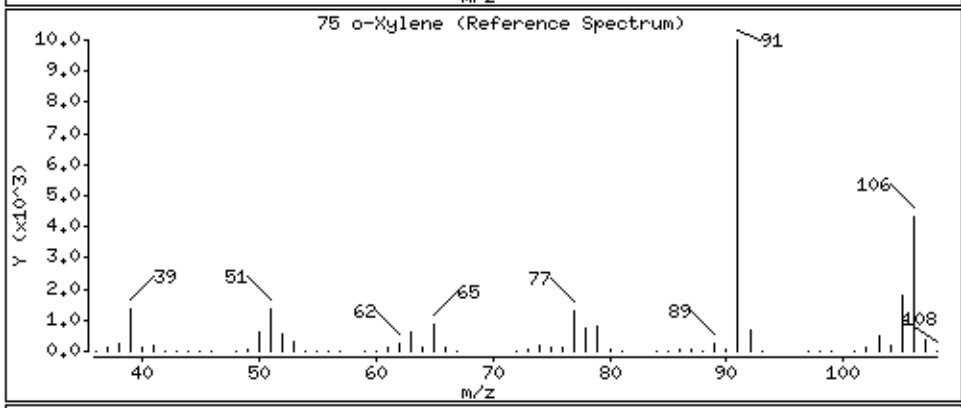
Concentration: 165 ug/kg

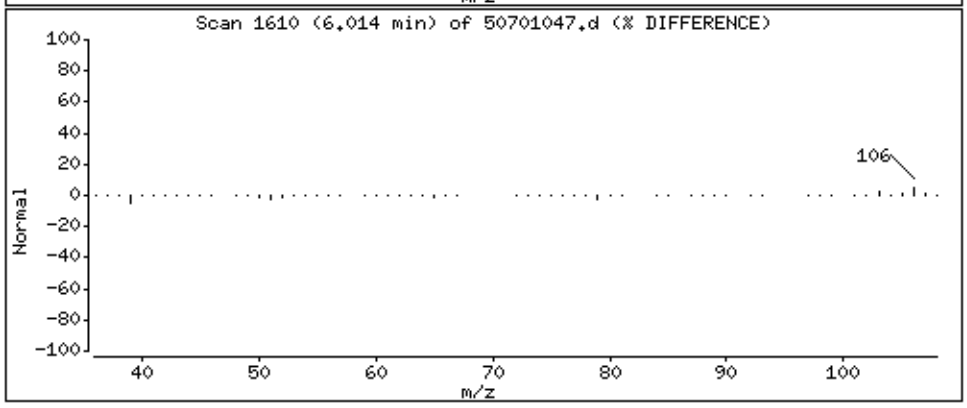






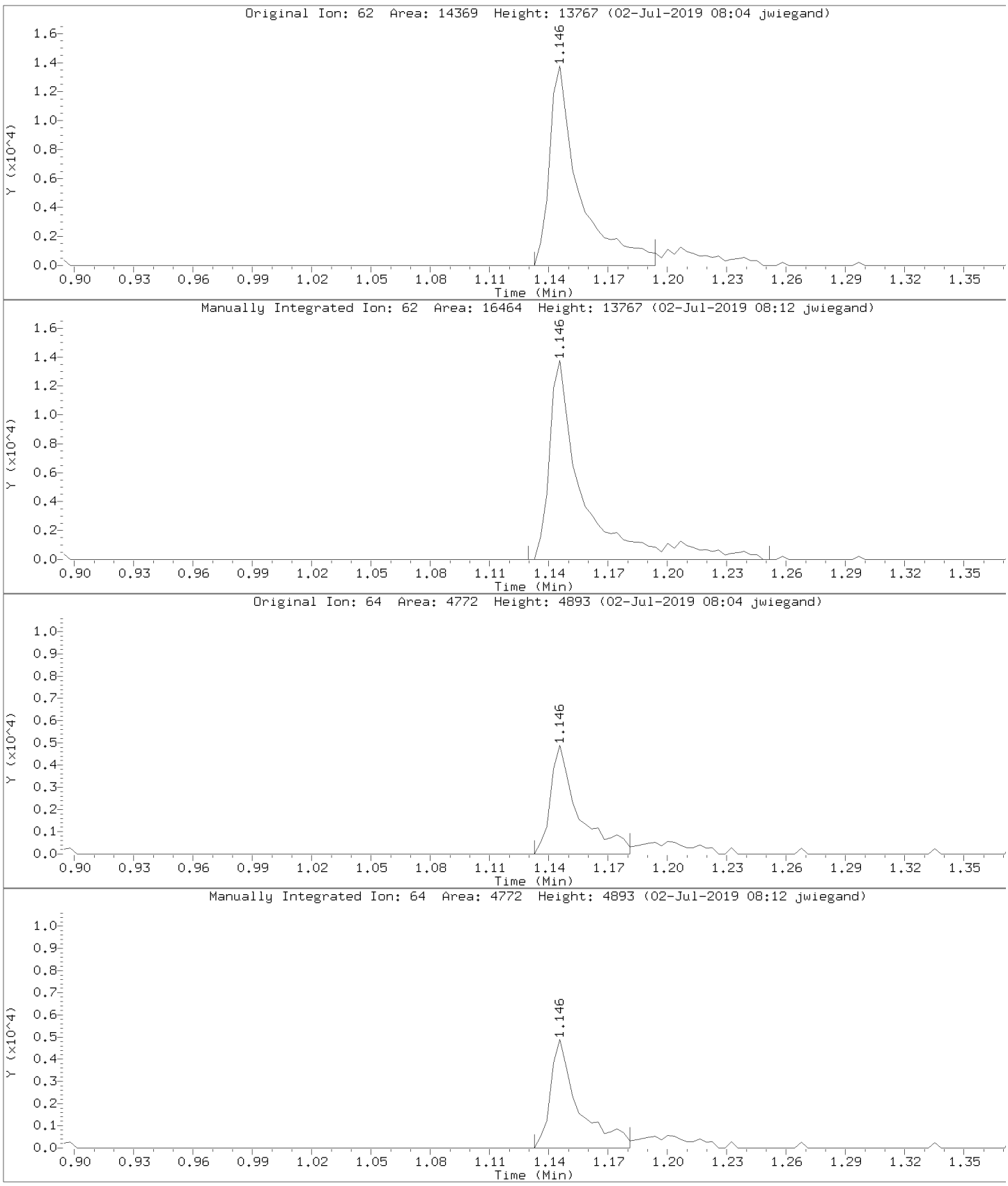






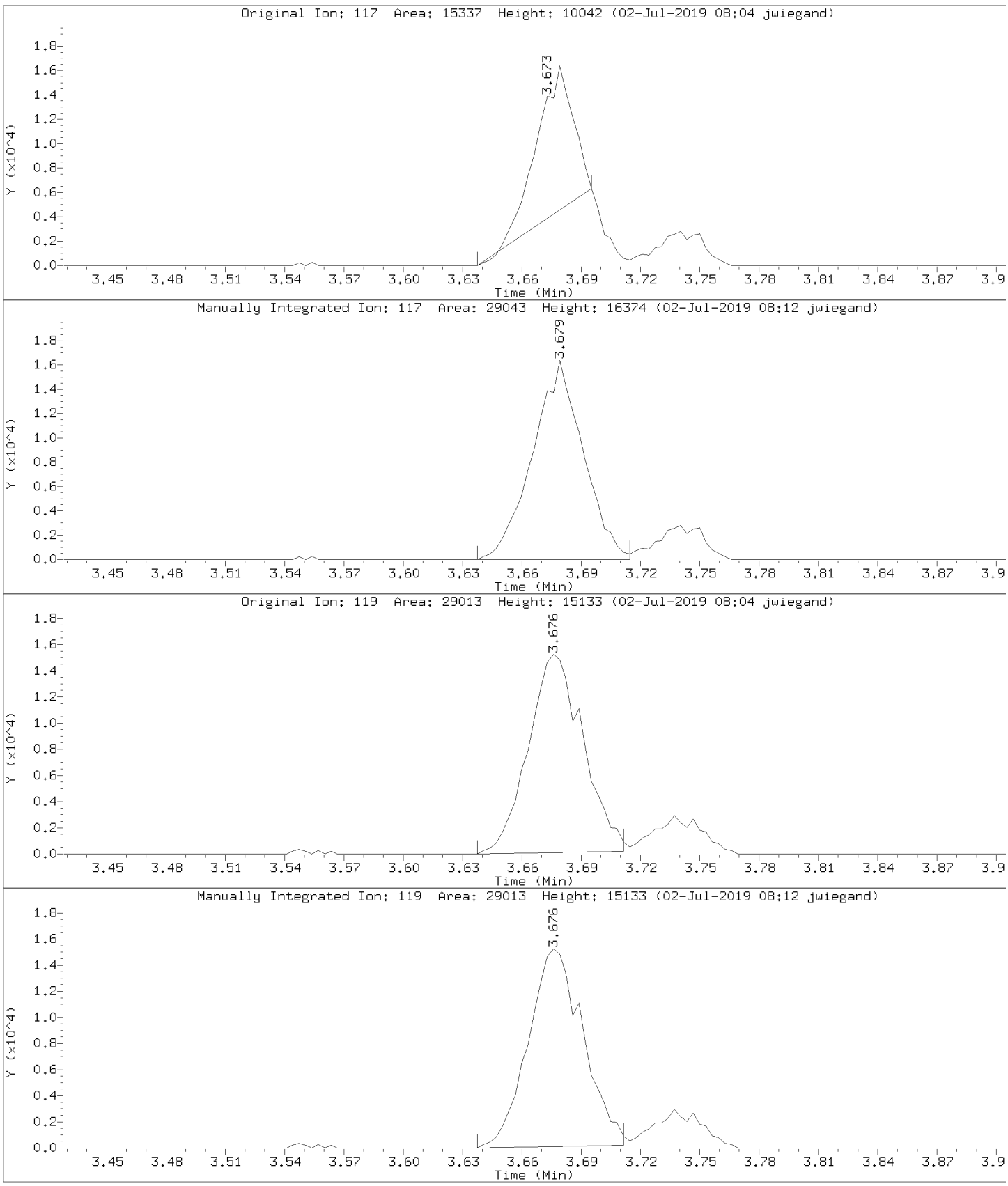
Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701047.d
Injection Date: 01-JUL-2019 18:40
Instrument: 30mv5a.i
Lab Sample ID: 1699733

Compound: Vinyl Chloride Review Code:
CAS Number: 75-01-4



Data File: \\30wintarget\chem\30mv5a.i\5190701.b\1.b/50701047.d
Injection Date: 01-JUL-2019 18:40
Instrument: 30mv5a.i
Lab Sample ID: 1699733

Compound: Carbon Tetrachloride Review Code: LT
CAS Number: 56-23-5



Prep Log Report

Batch Information: ZHE 8698/349363

Template Version: F-PA-O-010-Rev.02 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/27/2019 13:36:20:809	Tedlar Bag	91795
Tumbler Start Temp. (C)	21.9	Tumbler End Temp. (C)	24.6	Tumbler Rotational Rate (rev/min)	30	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Batch Notes	
Reviewed By		Reviewed By Date					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	TCLP Matrix	Actual sample Weight (g) used	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time
ZHETCLP	LB	**1698540**	Y		2	30TBL3		0	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300063001**	Y		4	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300096001**	Y		5	30TBL3	Water	6	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300161001**	Y		6	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300161002**	Y		7	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300192001**	Y		10	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300617001**	Y		11	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300617002**	Y		12	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300617003**	Y		13	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300617005**	Y		17	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30300617004**	Y		16	30TBL3	Other	10	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52
ZHETCLP	PS	**30310523001**	Y		1	30TBL3	Water	2	89048 ()	TCLP 1	92092 ()	72915 ()	06/27/2019 16:23:15	06/28/2019 08:07:52

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	LB	**1698540**	Y	10	10		06/28/2019 11:45:26:852							

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	PS	**30300063001**	Y	10	10		06/28/2019 11:48:26:852							
ZHETCLP	PS	**30300096001**	Y	10	10		06/28/2019 11:51:26:852					78	10.2	82.2
ZHETCLP	PS	**30300161001**	Y	10	10		06/28/2019 11:54:26:852							
ZHETCLP	PS	**30300161002**	Y	10	10		06/28/2019 11:57:26:852							
ZHETCLP	PS	**30300192001**	Y	10	10		06/28/2019 12:00:26:852							
ZHETCLP	PS	**30300617001**	Y	10	10		06/28/2019 12:03:26:852							
ZHETCLP	PS	**30300617002**	Y	10	10		06/28/2019 12:06:26:852							
ZHETCLP	PS	**30300617003**	Y	10	10		06/28/2019 12:09:26:852							
ZHETCLP	PS	**30300617005**	Y	10	10		06/28/2019 12:12:26:852							
ZHETCLP	PS	**30300617004**	Y	10	10		06/28/2019 12:15:26:852							
ZHETCLP	PS	**30310523001**	Y	10	10		06/28/2019 12:18:26:852					77.1	10.3	85.4

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	LB	**1698540**				400	
ZHETCLP	PS	**30300063001**				200	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	PS	**30300096001**	72.0	6.0	7.69	120.00	water
ZHETCLP	PS	**30300161001**				200	dirt/rock
ZHETCLP	PS	**30300161002**				200	dirt/rock
ZHETCLP	PS	**30300192001**				200	sand
ZHETCLP	PS	**30300617001**				200	dirt/rock
ZHETCLP	PS	**30300617002**				200	dirt/rock
ZHETCLP	PS	**30300617003**				200	dirt/rock
ZHETCLP	PS	**30300617005**				200	dirt/rock
ZHETCLP	PS	**30300617004**				200	dirt/rock
ZHETCLP	PS	**30310523001**	75.1	2.0	2.59	40.00	water

Sample Notes:

1*: steel balls

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv5a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: 1 Cal. std: See curve

Instrument name..... 30MV5A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/50618001.d	blk	S/	SAMPLE	1	< 2	msv5061819a	6/18/19	08:41	JEW	
1/50618003.d	TUNE, 84349:10	L/44968	BFB	1	7	bfb390	6/18/19	09:08	JEW	
1/50618005.d	CAL1, 91185:1	S/44968	CALIB_1	1	< 2	msv5061819a	6/18/19	09:34	JEW	
1/50618007.d	CAL2, 91186:1	S/44968	CALIB_2	1	< 2	msv5061819a	6/18/19	10:01	JEW	
1/50618009.d	CAL3, 91187:1	S/44968	CALIB_3	1	< 2	msv5061819a	6/18/19	10:27	JEW	
1/50618009l1.d	CAL3, 91187:1	S/44968	SAMPLE	1	< 2	msv5061819a	6/18/19	10:27	JEW	
1/50618011.d	CAL4, 91188:1	S/44968	CALIB_4	1	< 2	msv5061819a	6/18/19	10:54	JEW	
1/50618013.d	CAL5, 91189:1	S/44968	CALIB_5	1	< 2	msv5061819a	6/18/19	11:20	JEW	
1/50618015.d	CAL6, 91190:1	S/44968	CALIB_6	1	< 2	msv5061819a	6/18/19	11:47	JEW	
1/50618017.d	CAL7, 91191:1	S/44968	CALIB_7	1	< 2	msv5061819a	6/18/19	12:13	JEW	
1/50618019.d	CAL8, 91192:1	S/44968	CALIB_8	1	< 2	msv5061819a	6/18/19	12:40	JEW	
1/50618021.d	blk	S/	SAMPLE	1	< 2	msv5061819a	6/18/19	13:06	JEW	
1/50618023.d	ICV, 91193:1	S/44968	CCALIB_4	1	< 2	msv5061819a	6/18/19	13:33	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv5a.i\5190618.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:05 06/26/2019

Reviewed By/Date: ARD 6/20/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv5a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: 1 Cal. std: 92406

Instrument name..... 30MV5A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/50701003.d	TUNE, 84349:10	L/44968	BFB	1	7	bfb390	7/01/19	08:56	JEW	
1/50701005.d	CCV, 92406:1	S/44968	CCALIB_5	1	< 2	msv5061819a	7/01/19	09:23	JEW	
1/50701007.d	LLCHECK,92407:1,	S/	SAMPLE	1	< 2	msv5061819a	7/01/19	09:49	JEW	
1/50701009-45151.d	1699731,92408:5,	L/45151	LCS	1	< 2	msv5061819a	7/01/19	10:16	JEW	
1/50701009-45152.d	1699734,92408:5,	L/45152	LCS	1	< 2	msv5061819a	7/01/19	10:16	JEW	
1/50701009-45175.d	1700814,92408:5,	S/45175	LCS	1	< 2	msv5061819a	7/01/19	10:16	JEW	
1/50701011.d	MBLKX50	S/	SAMPLE	1	< 2	msv5061819a	7/01/19	10:42	JEW	
1/50701013.d	1700813	S/45175	BLANK	1	< 2	msv5061819a	7/01/19	11:09	JEW	
1/50701015-45151.d	1698540x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	11:35	JEW	
1/50701015-45152.d	1698540x10	S/45152	SAMPLE	10	< 2	msv5061819a	7/01/19	11:35	JEW	
1/50701017.d	30300063001x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	12:02	JEW	
1/50701019.d	1699728x10	S/45151	MS	10	< 2	msv5061819a	7/01/19	12:28	JEW	
1/50701021.d	1699729x10	S/45151	MSD	10	< 2	msv5061819a	7/01/19	12:55	JEW	
1/50701023.d	30300096001x10	L/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	13:21	JEW	
1/50701025.d	1699730x10	L/45151	MS	10	< 2	msv5061819a	7/01/19	13:48	JEW	
1/50701027.d	30310523001x10	L/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	14:14	JEW	
1/50701029.d	30300192001x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	14:41	JEW	
1/50701031.d	30300617001x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	15:07	JEW	
1/50701033.d	30300617002x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	15:34	JEW	
1/50701035.d	30300617003x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	16:00	JEW	
1/50701037.d	30300617004x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	16:27	JEW	
1/50701039.d	30300617005x10	S/45151	SAMPLE	10	< 2	msv5061819a	7/01/19	16:53	JEW	
1/50701041.d	30300161001x10	S/45152	SAMPLE	10	< 2	msv5061819a	7/01/19	17:20	JEW	
1/50701043.d	30300161002x10	S/45152	SAMPLE	10	< 2	msv5061819a	7/01/19	17:47	JEW	
1/50701045.d	1699732x10	S/45152	MS	10	< 2	msv5061819a	7/01/19	18:13	JEW	
1/50701047.d	1699733x10	S/45152	MSD	10	< 2	msv5061819a	7/01/19	18:40	JEW	
1/50701049.d	30311116001	S/45175	SAMPLE	1	< 2	msv5061819a	7/01/19	19:06	JEW	
1/50701051.d	30311116002	S/45175	SAMPLE	1	< 2	msv5061819a	7/01/19	19:33	JEW	
1/50701053.d	30311116003	S/45175	SAMPLE	1	< 2	msv5061819a	7/01/19	19:59	JEW	
1/50701055.d	30311116004	S/45175	SAMPLE	1	< 2	msv5061819a	7/01/19	20:26	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv5a.i\5190701.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:22 07/02/2019 Reviewed By/Date: QRD 7/2/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS4

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
30300161001	AOC 26-1	83	71	88	87	90	71
30300161002	AOC 26-2	80	80	88	86	88	74

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1696432	1696432LB	83	65	89	84	86	62
1697478	1697478LCS	78	56	88	84	86	71

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1697478LCS
Date Extracted: 06/26/2019
Date Analyzed (1): 06/26/2019
Instrument: 30MSS1
LCS Lot No: 90624
Lab File ID: MSS1062619.B\M1062604.D
SDG No.: 30300161

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	235J	47	38-85
2,4-Dinitrotoluene	500	338	68	51-102
Hexachloro-1,3-butadiene	500	221	44	27-97
Hexachlorobenzene	500	257	51	36-66
Hexachloroethane	500	229	46	37-89
2-Methylphenol(o-Cresol)	500	426J	85	60-106
3&4-Methylphenol(m&p Cresol)	1000	889J	89	64-106
Nitrobenzene	500	438	88	64-108
Pentachlorophenol	500	368J	74	47-107
Pyridine	500	202J	40	20-54
2,4,5-Trichlorophenol	500	388J	78	60-110
2,4,6-Trichlorophenol	500	420	84	62-110

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1697479MS

Date Extracted: 06/26/2019

Date Analyzed (1): 06/27/2019

Instrument: 30MSS1

Lab File ID: MSS1062619.B\M1062614.D

Parent Sample ID: 30310254001

SDG No.: 30300161

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	ND	300J	60	51-85
2,4,5-Trichlorophenol	500	ND	410J	74	65-108
2,4,6-Trichlorophenol	500	ND	392	78	61-110
2,4-Dinitrotoluene	500	ND	358	72	52-106
2-Methylphenol(o-Cresol)	500	ND	430J	85	65-105
3&4-Methylphenol(m&p Cresol)	1000	ND	892J	89	69-106
Hexachloro-1,3-butadiene	500	ND	294	58	44-90
Hexachlorobenzene	500	ND	283	56	36-68
Hexachloroethane	500	ND	315	63	48-94
Nitrobenzene	500	ND	435	86	66-106
Pentachlorophenol	500	ND	344J	69	49-120
Pyridine	500	ND	140J	28	10-72

Spike Recovery: 0 out of 12 outside limits.

07/15/2019 10:51

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1697480MSD

Lab File ID (2): MSS1062619.B\M1062613.D Date Analyzed (2): 06/27/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,4-Dichlorobenzene	500	302J	60		0-20	51-85
2,4,5-Trichlorophenol	500	401J	73		0-20	65-108
2,4,6-Trichlorophenol	500	433	86	10	0-20	61-110
2,4-Dinitrotoluene	500	376	75	5	0-20	52-106
2-Methylphenol(o-Cresol)	500	433J	86		0-20	65-105
3&4-Methylphenol(m&p Cresol)	1000	896J	89		0-20	69-106
Hexachloro-1,3-butadiene	500	294	59	0	0-20	44-90
Hexachlorobenzene	500	265	53	7	0-20	36-68
Hexachloroethane	500	321	64	2	0-20	48-94
Nitrobenzene	500	434	86	0	0-20	66-106
Pentachlorophenol	500	387J	77		0-20	49-120
Pyridine	500	139J	28		0-20	10-72

RPD: 0 out of 6 outside limits.

Spike Recovery: 0 out of 12 outside limits.

SAMPLE NO.

1696432LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1696432

Lab File ID: MSS1062619.B\M1062603.D Date Analyzed: 06/26/2019 Time: 21:34

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1697478LCS	1697478	MSS1062619.B\M1062604.D	06/26/2019 21:58
AOC 26-1	30300161001	MSS4070119.B\M4070103.D	07/01/2019 17:25
AOC 26-2	30300161002	MSS4070119.B\M4070104.D	07/01/2019 17:47

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1062619.B\M10626T2.D DFTPP Injection Date: 06/26/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 16:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	32.91	
68	Less than 2.00% of mass 69	0.30	(0.78)[1]
69	Mass 69 relative abundance	39.24	
70	Less than 2.00% of mass 69	0.16	(0.42)[1]
127	40.00 - 60.00% of mass 198	49.12	
197	Less than 1.00% of mass 198	0.18	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.93	
275	10.00 - 30.00% of mass 198	28.25	
365	Greater than 1.00% of mass 198	4.31	
441	Present, but less than mass 443	17.94	
442	Greater than 40.00% of mass 198	124.66	
443	17.00 - 23.00% of mass 442	24.75	(19.85)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11204227CAL7	11204227CAL7	MSS1062619.B\M10626Y1.D	06/26/2019	17:41
11204231CAL6	11204231CAL6	MSS1062619.B\M10626Y2.D	06/26/2019	18:04
11204229CAL5	11204229CAL5	MSS1062619.B\M10626Y3.D	06/26/2019	18:28
11204230CAL4	11204230CAL4	MSS1062619.B\M10626Y4.D	06/26/2019	18:51
11204223CAL3	11204223CAL3	MSS1062619.B\M10626Y5.D	06/26/2019	19:15
11204226CAL2	11204226CAL2	MSS1062619.B\M10626Y6.D	06/26/2019	19:38
11204224CAL1	11204224CAL1	MSS1062619.B\M10626Y7.D	06/26/2019	20:02
11204222ICV	11204222ICV	MSS1062619.B\M10626Y8.D	06/26/2019	20:25
1696432LB	1696432LB	MSS1062619.B\M1062603.D	06/26/2019	21:34
1697478LCS	1697478LCS	MSS1062619.B\M1062604.D	06/26/2019	21:58

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS4070119.B\M40701T1.D DFTPP Injection Date 07/01/2019
Instrument ID: 30MSS4 DFTPP Injection Time 09:26

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	31.06	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	36.38	
70	Less than 2.00% of mass 69	0.13	(0.36)[1]
127	40.00 - 60.00% of mass 198	46.83	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.89	
275	10.00 - 30.00% of mass 198	28.22	
365	Greater than 1.00% of mass 198	4.14	
441	Present, but less than mass 443	14.99	
442	Greater than 40.00% of mass 198	98.26	
443	17.00 - 23.00% of mass 442	18.97	(19.31)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11178281CAL1	11178281CAL1	MSS4070119.B\M40701X1.D	07/01/2019	13:44
11178280CAL2	11178280CAL2	MSS4070119.B\M40701X2.D	07/01/2019	14:06
11178277CAL3	11178277CAL3	MSS4070119.B\M40701X3.D	07/01/2019	14:28
11178276CAL4	11178276CAL4	MSS4070119.B\M40701X4.D	07/01/2019	14:50
11178274CAL5	11178274CAL5	MSS4070119.B\M40701X5.D	07/01/2019	15:12
11178275CAL6	11178275CAL6	MSS4070119.B\M40701X6.D	07/01/2019	15:34
11178278CAL7	11178278CAL7	MSS4070119.B\M40701X7.D	07/01/2019	15:56
11178279ICV	11178279ICV	MSS4070119.B\M40701X8.D	07/01/2019	16:19
AOC 26-1	30300161001	MSS4070119.B\M4070103.D	07/01/2019	17:25
AOC 26-2	30300161002	MSS4070119.B\M4070104.D	07/01/2019	17:47

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11204230CAL4 Date Analyzed: 06/26/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 18:51

Lab File ID: MSS1062619.B\M10626Y4.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		403564	6.978	730412	11.3	206562	4.457	795828	5.472
UPPER LIMIT		807128	7.478	1460824	11.8	413124	4.957	1591656	5.972
LOWER LIMIT		201782	6.478	365206	10.8	103281	3.957	397914	4.972
LAB SAMPLE ID	SAMPLE NO.								
1696432	1696432LB	418025	6.97	708232	11.292	195361	4.454	748840	5.469
1697478	1697478LCS	410394	6.973	755633	11.289	192153	4.451	739292	5.471

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11204230CAL4 Date Analyzed: 06/26/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 18:51

Lab File ID: MSS1062619.B\M10626Y4.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		698565	8.517	704581	12.694
UPPER LIMIT		1397130	9.017	1409162	13.194
LOWER LIMIT		349282.5	8.017	352290.5	12.194
LAB SAMPLE ID	SAMPLE NO.				
1696432	1696432LB	698885	8.509	716055	12.686
1697478	1697478LCS	726146	8.506	776891	12.689

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11178276CAL4 Date Analyzed: 07/01/2019

Instrument ID: 30MSS4 GC Column: Col 1 Time Analyzed: 14:50

Lab File ID: MSS4070119.B\M40701X4.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		163048	6.625	267621	10.904	78121	4.164	302984	5.17
UPPER LIMIT		326096	7.125	535242	11.404	156242	4.664	605968	5.67
LOWER LIMIT		81524	6.125	133810.5	10.404	39060.5	3.664	151492	4.67
LAB SAMPLE ID	SAMPLE NO.								
30300161001	AOC 26-1	162463	6.619	247881	10.898	81322	4.159	311642	5.164
30300161002	AOC 26-2	164188	6.619	248460	10.893	82837	4.159	317568	5.164

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11178276CAL4 Date Analyzed: 07/01/2019

Instrument ID: 30MSS4 GC Column: Col 1 Time Analyzed: 14:50

Lab File ID: MSS4070119.B\M40701X4.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		270746	8.122	264409	12.257
UPPER LIMIT		541492	8.622	528818	12.757
LOWER LIMIT		135373	7.622	132204.5	11.757
LAB SAMPLE ID	SAMPLE NO.				
30300161001	AOC 26-1	268967	8.117	236913	12.251
30300161002	AOC 26-2	264076	8.117	230569	12.251

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 26-1

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/26/2019 11:45
Lab Sample ID: 30300161001
Date Analyzed: 07/01/2019 17:25
Lab File ID: MSS4070119.B\M4070103.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 30MSS4
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m4070103.d
Lab Smp Id: 30300161001 Client Smp ID: AOC 26-1
Inj Date : 01-JUL-2019 17:25 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : 30300161001,
Misc Info : 14753,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4070119.b\8270070119.m
Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:56 Cal File: m40701x7.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	7.832	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.249	3.254	(0.781)	167948	6.61750	718	
$	4 Phenol-d6 (S)	99	3.875	3.880	(0.932)	214167	6.73646	731	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.158	4.164	(1.000)	81322	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.602	4.608	(0.891)	55128	4.36157	473	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.164	5.169	(1.000)	311642	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.041	6.046	(0.913)	193790	3.56100	386	
*	50 Acenaphthene-d10 (IS)	164	6.619	6.624	(1.000)	162463	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						

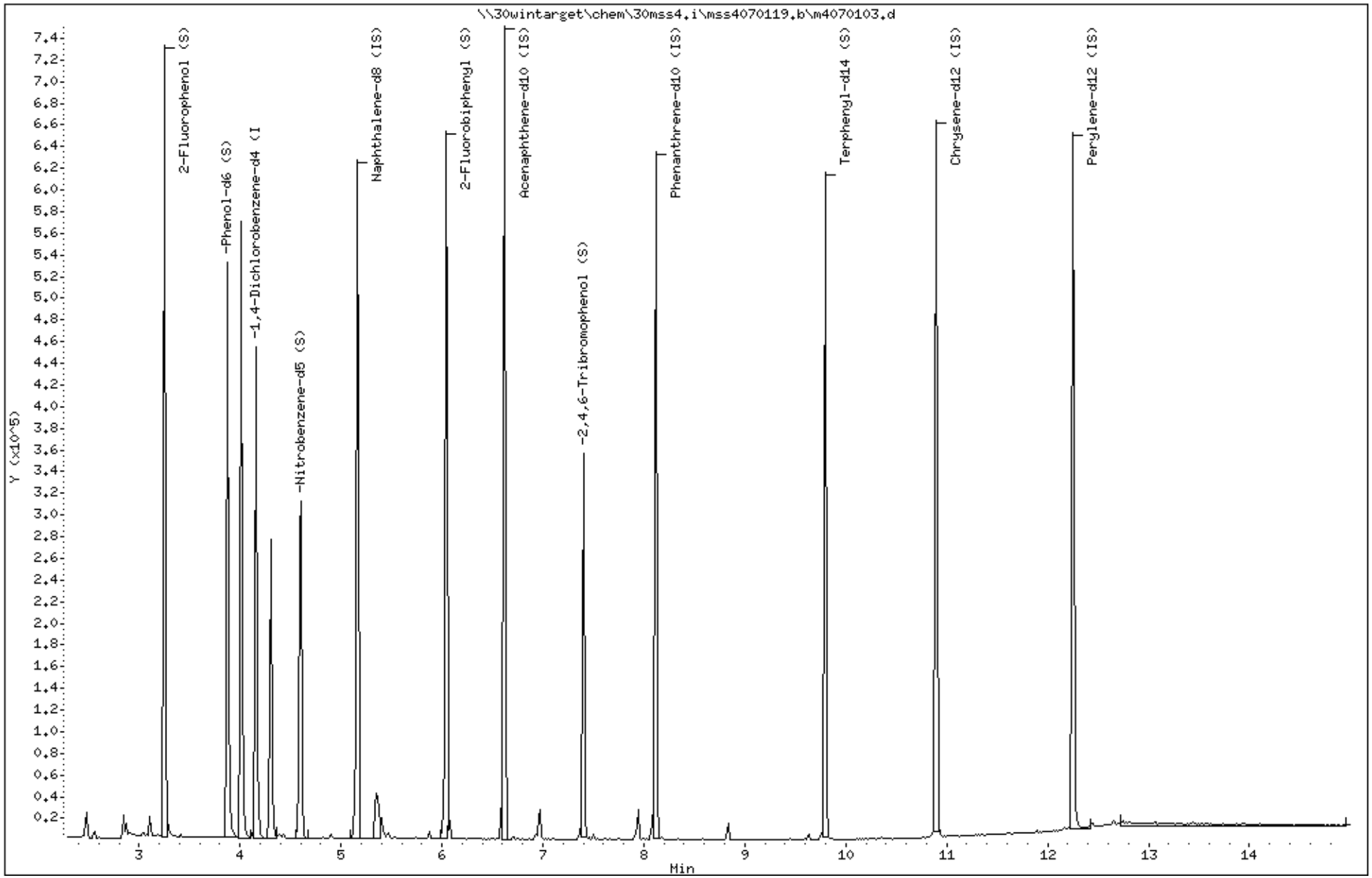
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	7.405	7.405	(0.912)	49370	6.22422	675	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.116	8.122	(1.000)	268967	4.00000		
$ 77 Terphenyl-d14 (S)	244	9.796	9.801	(0.899)	208475	3.55755	386	
* 82 Chrysene-d12 (IS)	240	10.898	10.903	(1.000)	247881	4.00000		
* 88 Perylene-d12 (IS)	264	12.251	12.256	(1.000)	236913	4.00000		

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m4070103.d
Date : 01-JUL-2019 17:25
Client ID: A0C 26-1
Sample Info: 30300161001,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss4.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m4070103.d
Injection Date: 01-JUL-2019 17:25
Instrument: 30mss4.i
Lab Sample ID: 30300161001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC 26-2

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/26/2019 11:45
Lab Sample ID: 30300161002
Date Analyzed: 07/01/2019 17:47
Lab File ID: MSS4070119.B\M4070104.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 30MSS4
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m4070104.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:47 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : 30300161002,
Misc Info : 14753,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4070119.b\8270070119.m
Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:56 Cal File: m40701x7.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	6.947	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	3.249	3.254	(0.781)	170724	6.60385	710	
$	4 Phenol-d6 (S)	99	3.875	3.880	(0.932)	214799	6.63277	713	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.158	4.164	(1.000)	82837	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.602	4.608	(0.891)	55692	4.32397	465	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	5.164	5.169	(1.000)	317568	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	6.041	6.046	(0.913)	219099	3.98376	428	
*	50 Acenaphthene-d10 (IS)	164	6.619	6.624	(1.000)	164188	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	7.400	7.405	(0.912)	46952	6.02901	648	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	8.116	8.122	(1.000)	264076	4.00000		
$ 77 Terphenyl-d14 (S)	244	9.796	9.801	(0.899)	218771	3.72455	400	
* 82 Chrysene-d12 (IS)	240	10.892	10.903	(1.000)	248460	4.00000		
* 88 Perylene-d12 (IS)	264	12.251	12.256	(1.000)	230569	4.00000		

Review Codes Legend

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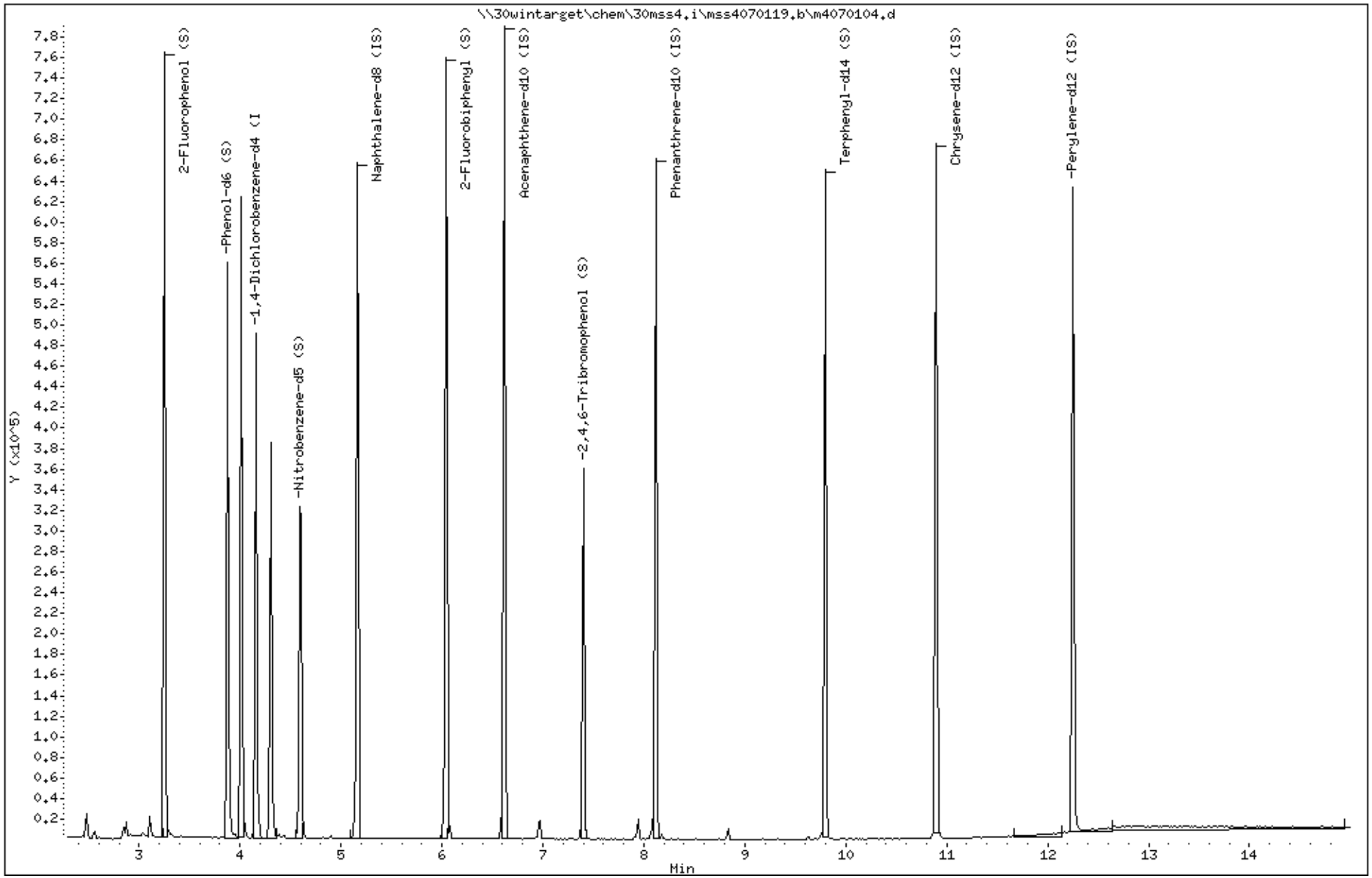
Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m4070104.d
Date : 01-JUL-2019 17:47
Client ID: A0C 26-2
Sample Info: 30300161002,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss4.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m4070104.d
Injection Date: 01-JUL-2019 17:47
Instrument: 30mss4.i
Lab Sample ID: 30300161002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/26/2019 06/26/2019 Calibration Time(s): 17:41 20:02

LAB FILE ID

CAL1 = MSS1062619.B\M10626Y7.D CAL2 = MSS1062619.B\M10626Y6.D CAL3 = MSS1062619.B\M10626Y5.D

CAL4 = MSS1062619.B\M10626Y4.D CAL5 = MSS1062619.B\M10626Y3.D CAL6 = MSS1062619.B\M10626Y2.D

CAL7 = MSS1062619.B\M10626Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.74606	1.69293	1.62952	1.67855	1.60861	1.62331
2,4-Dinitrotoluene	Averaged	0.32199	0.32449	0.34500	0.39064	0.40303	0.37018
Hexachloro-1,3-butadiene	Averaged	0.18819	0.18304	0.17967	0.18435	0.18694	0.18988
Hexachlorobenzene	Averaged	0.28547	0.29344	0.30198	0.30090	0.33467	0.33480
Hexachloroethane	Averaged	0.57912	0.56261	0.54298	0.55537	0.54986	0.55538
2-Methylphenol(o-Cresol)	Averaged	1.26523	1.21734	1.18378	1.19103	1.19996	1.20433
3&4-Methylphenol(m&p Cresol)	Averaged	1.29335	1.23528	1.21087	1.21573	1.21756	1.21747
Nitrobenzene	Averaged	0.34983	0.33559	0.32723	0.33160	0.32930	0.32773
Pentachlorophenol	Averaged		0.08613	0.11192	0.12664	0.14235	0.14477
Pyridine	Averaged	1.31634	1.26790	1.23133	1.21827	1.20928	1.22142
2,4,5-Trichlorophenol	Quadratic	0.31505	0.30764	0.31131	0.34710	0.35929	0.33099
2,4,6-Trichlorophenol	Averaged	0.41926	0.39089	0.39617	0.47330	0.46955	0.45362
2-Fluorobiphenyl (S)	Averaged	1.48984	1.37695	1.36768	1.51816	1.52330	1.41443
2-Fluorophenol (S)	Averaged	1.20166	1.16898	1.14347	1.15067	1.13768	1.13667
Nitrobenzene-d5 (S)	Averaged	0.16077	0.15948	0.15891	0.16439	0.16307	0.16485
Phenol-d6 (S)	Averaged	1.50467	1.44779	1.41817	1.41955	1.42144	1.42985
Terphenyl-d14 (S)	Averaged	0.94729	0.96504	0.95866	0.95989	0.98780	1.04540
2,4,6-Tribromophenol (S)	Averaged	0.11138	0.12042	0.12959	0.13407	0.14006	0.14404

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/26/2019 06/26/2019 Calibration Time(s): 17:41 20:02

LAB FILE ID

CAL1 = MSS1062619.B\M10626Y7.D CAL2 = MSS1062619.B\M10626Y6.D CAL3 = MSS1062619.B\M10626Y5.D

CAL4 = MSS1062619.B\M10626Y4.D CAL5 = MSS1062619.B\M10626Y3.D CAL6 = MSS1062619.B\M10626Y2.D

CAL7 = MSS1062619.B\M10626Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.62805	2.98994			1.65815	
2,4-Dinitrotoluene	Averaged	0.38217	8.91982			0.36250	
Hexachloro-1,3-butadiene	Averaged	0.18766	1.89527			0.18568	
Hexachlorobenzene	Averaged	0.32544	6.53618			0.31096	
Hexachloroethane	Averaged	0.54338	2.25818			0.55553	
2-Methylphenol(o-Cresol)	Averaged	1.20751	2.21012			1.20988	
3&4-Methylphenol(m&p Cresol)	Averaged	1.19921	2.53602			1.22707	
Nitrobenzene	Averaged	0.32477	2.55019			0.33229	
Pentachlorophenol	Averaged	0.15042	19.27397			0.12704	
Pyridine	Averaged	1.21854	3.10520			1.24044	
2,4,5-Trichlorophenol	Quadratic	0.33399		0.99820	-0.0337015	0.38281	-0.00874
2,4,6-Trichlorophenol	Averaged	0.47321	8.32584			0.43943	
2-Fluorobiphenyl (S)	Averaged	1.41523	4.55205			1.44365	
2-Fluorophenol (S)	Averaged	1.12733	2.20579			1.15235	
Nitrobenzene-d5 (S)	Averaged	0.16213	1.43317			0.16194	
Phenol-d6 (S)	Averaged	1.41194	2.25104			1.43620	
Terphenyl-d14 (S)	Averaged	1.01630	3.65649			0.98291	
2,4,6-Tribromophenol (S)	Averaged	0.14843	9.96523			0.13257	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS4 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 07/01/2019 07/01/2019 Calibration Time(s): 13:44 15:56

LAB FILE ID

CAL1 = MSS4070119.B\M40701X1.D CAL2 = MSS4070119.B\M40701X2.D CAL3 = MSS4070119.B\M40701X3.D

CAL4 = MSS4070119.B\M40701X4.D CAL5 = MSS4070119.B\M40701X5.D CAL6 = MSS4070119.B\M40701X6.D

CAL7 = MSS4070119.B\M40701X7.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.86227	1.65424	1.65125	1.65582	1.55255	1.54884
2,4-Dinitrotoluene	Averaged	0.33443	0.35468	0.34465	0.36828	0.36943	0.37508
Hexachloro-1,3-butadiene	Averaged	0.18962	0.17905	0.17756	0.17561	0.17125	0.17085
Hexachlorobenzene	Averaged	0.28364	0.26095	0.25966	0.25293	0.24941	0.25122
Hexachloroethane	Averaged	0.59279	0.56649	0.55993	0.56944	0.56586	0.56375
2-Methylphenol(o-Cresol)	Averaged	1.35852	1.27711	1.25128	1.23333	1.22971	1.22016
3&4-Methylphenol(m&p Cresol)	Averaged	1.38518	1.30740	1.28691	1.27667	1.28517	1.26673
Nitrobenzene	Averaged	0.36330	0.34076	0.33330	0.33401	0.32100	0.31553
Pentachlorophenol	Averaged		0.09724	0.11527	0.13494	0.14334	0.14863
Pyridine	Averaged	1.52532	1.46170	1.44392	1.40013	1.33690	1.32304
2,4,5-Trichlorophenol	Averaged	0.35832	0.34533	0.34899	0.36000	0.35294	0.36130
2,4,6-Trichlorophenol	Averaged	0.38854	0.38451	0.39347	0.39348	0.39871	0.39973
2-Fluorobiphenyl (S)	Averaged	1.52722	1.41157	1.39674	1.31857	1.27169	1.24886
2-Fluorophenol (S)	Averaged	1.25255	1.23664	1.27650	1.28767	1.21916	1.23692
Nitrobenzene-d5 (S)	Averaged	0.16521	0.15797	0.15851	0.16401	0.16426	0.16340
Phenol-d6 (S)	Averaged	1.66673	1.60052	1.56123	1.55897	1.54560	1.51462
Terphenyl-d14 (S)	Averaged	1.00955	0.96807	0.95081	0.92100	0.91065	0.93802
2,4,6-Tribromophenol (S)	Averaged	0.10011	0.10663	0.11505	0.12233	0.12563	0.12990

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS4 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 07/01/2019 07/01/2019 Calibration Time(s): 13:44 15:56

LAB FILE ID

CAL1 = MSS4070119.B\M40701X1.D CAL2 = MSS4070119.B\M40701X2.D CAL3 = MSS4070119.B\M40701X3.D

CAL4 = MSS4070119.B\M40701X4.D CAL5 = MSS4070119.B\M40701X5.D CAL6 = MSS4070119.B\M40701X6.D

CAL7 = MSS4070119.B\M40701X7.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.53139	6.95121			1.63662	
2,4-Dinitrotoluene	Averaged	0.37091	4.27888			0.35964	
Hexachloro-1,3-butadiene	Averaged	0.16717	4.18126			0.17587	
Hexachlorobenzene	Averaged	0.24937	4.71337			0.25817	
Hexachloroethane	Averaged	0.56073	1.97748			0.56843	
2-Methylphenol(o-Cresol)	Averaged	1.20218	4.16012			1.25318	
3&4-Methylphenol(m&p Cresol)	Averaged	1.25847	3.29337			1.29522	
Nitrobenzene	Averaged	0.30868	5.50313			0.33094	
Pentachlorophenol	Averaged	0.14797	15.81291			0.13123	
Pyridine	Averaged	1.29582	5.99662			1.39812	
2,4,5-Trichlorophenol	Averaged	0.36017	1.76444			0.35529	
2,4,6-Trichlorophenol	Averaged	0.38740	1.46431			0.39226	
2-Fluorobiphenyl (S)	Averaged	1.20450	8.35474			1.33988	
2-Fluorophenol (S)	Averaged	1.22894	2.02981			1.24834	
Nitrobenzene-d5 (S)	Averaged	0.16227	1.77140			0.16223	
Phenol-d6 (S)	Averaged	1.49873	3.59458			1.56377	
Terphenyl-d14 (S)	Averaged	0.92129	3.63681			0.94563	
2,4,6-Tribromophenol (S)	Averaged	0.12608	9.42542			0.11796	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 26-JUN-2019 17:41
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14757,91767:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1062619.b\8270062619.m
Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 17:41 Cal File: m10626y1.d
Als bottle: 4 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.700	2.684	(0.606)	793562	20.0000	19.7	
	2 Pyridine	79	2.700	2.695	(0.606)	1272974	20.0000	19.6	
$	3 2-Fluorophenol (S)	112	3.544	3.539	(0.795)	1177694	20.0000	19.6	
$	4 Phenol-d6 (S)	99	4.169	4.159	(0.935)	1475016	20.0000	19.7	
	5 Benzaldehyde	77	4.143	4.137	(0.929)	917554	20.0000	18.3	
	6 Phenol	94	4.180	4.169	(0.938)	1587629	20.0000	19.4	
	7 Aniline	66	4.239	4.228	(0.951)	615344	20.0000	19.5	
	8 bis(2-Chloroethyl)ether	63	4.260	4.250	(0.956)	901379	20.0000	19.1	
	9 2-Chlorophenol	128	4.324	4.319	(0.970)	1384718	20.0000	19.8	
	10 1,3-Dichlorobenzene	146	4.436	4.431	(0.995)	1517610	20.0000	19.3	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.458	4.458	(1.000)	208935	4.00000		
	12 1,4-Dichlorobenzene	146	4.469	4.469	(1.002)	1700786	20.0000	19.6	
	13 Benzyl Alcohol	79	4.559	4.549	(1.023)	990160	20.0000	19.3	
	14 1,2-Dichlorobenzene	146	4.618	4.618	(1.036)	1518504	20.0000	19.6	
	15 2-Methylphenol(o-Cresol)	108	4.634	4.629	(1.040)	1261452	20.0000	20.0	
	16 bis(2-Chloroisopropyl)ether	45	4.672	4.666	(1.048)	1336596	20.0000	18.7	
	17 3&4-Methylphenol(m&p Cresol)	108	4.746	4.736	(1.065)	1252788	20.0000	19.5	
	18 N-Nitroso-di-n-propylamine	70	4.789	4.778	(1.074)	967523	20.0000	19.5	
	19 Acetophenone	105	4.784	4.773	(1.073)	1761845	20.0000	19.4	
	20 Hexachloroethane	117	4.864	4.864	(1.091)	567651	20.0000	19.6	
$	21 Nitrobenzene-d5 (S)	128	4.907	4.901	(0.896)	649853	20.0000	20.0(A)	
	22 Nitrobenzene	77	4.923	4.917	(0.899)	1301724	20.0000	19.5	
	23 Isophorone	82	5.104	5.094	(0.932)	2399309	20.0000	19.4	
	24 2,4-Dimethylphenol	107	5.168	5.158	(0.943)	1305928	20.0000	20.0(A)	
	25 2-Nitrophenol	139	5.174	5.168	(0.944)	718612	20.0000	21.0(A)	
	26 Benzoic acid	105	5.259	5.206	(0.960)	674998	20.0000	22.9(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	5.248	5.243	(0.958)	1495545	20.0000	19.4	
	28 2,4-Dichlorophenol	162	5.355	5.345	(0.978)	1145327	20.0000	20.3(A)	
	29 1,2,4-Trichlorobenzene	180	5.435	5.430	(0.992)	1301653	20.0000	20.0	
*	30 Naphthalene-d8 (IS)	136	5.478	5.473	(1.000)	801632	4.00000		
	31 Naphthalene	128	5.494	5.489	(1.003)	4039574	20.0000	19.4	
	32 4-Chloroaniline	65	5.526	5.521	(1.009)	386525	20.0000	19.9	
	33 Hexachloro-1,3-butadiene	225	5.622	5.622	(1.026)	752162	20.0000	20.2(A)	
	34 Caprolactam	55	5.815	5.772	(1.061)	370452	20.0000	19.0(MH)	LT

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.900	5.890	(1.077)	1073250	20.0000	20.4(A)	
36	2-Methylnaphthalene	142	6.055	6.050	(1.105)	2879769	20.0000	19.7	
37	1-Methylnaphthalene	142	6.146	6.141	(1.122)	2732302	20.0000	19.7	
38	Hexachlorocyclopentadiene	237	6.237	6.231	(0.893)	925472	20.0000	23.4(A)	
39	1,2,4,5-Tetrachlorobenzene	216	6.226	6.221	(0.891)	1371011	20.0000	20.1(A)	
40	2,4,6-Trichlorophenol	196	6.296	6.290	(0.901)	1038526	20.0000	21.5(A)	
41	2,4,5-Trichlorophenol	196	6.333	6.322	(0.907)	732987	20.0000	20.3(A)	
$ 42	2-Fluorobiphenyl (S)	172	6.354	6.349	(0.910)	3105947	20.0000	19.6	
43	Biphenyl (Diphenyl)	154	6.434	6.429	(0.921)	3421485	20.0000	19.7	
44	2-Chloronaphthalene	164	6.461	6.456	(0.925)	883718	20.0000	21.0(AM)	LT
45	2-Nitroaniline	138	6.552	6.541	(0.938)	818687	20.0000	21.0(A)	
46	Dimethylphthalate	163	6.718	6.702	(0.962)	2834307	20.0000	20.9(AMH)	LT
47	2,6-Dinitrotoluene	165	6.787	6.776	(0.972)	563828	20.0000	18.9(H)	
48	Acenaphthylene	152	6.840	6.830	(0.979)	4049985	20.0000	19.6	
49	3-Nitroaniline	65	6.931	6.910	(0.992)	699206	20.0000	20.6(AM)	LT
* 50	Acenaphthene-d10 (IS)	164	6.985	6.974	(1.000)	438931	4.00000		
51	2,4-Dinitrophenol	184	7.027	7.011	(1.006)	339336	20.0000	20.1(A)	
52	Acenaphthene	153	7.017	7.006	(1.005)	2676065	20.0000	20.0(A)	
53	4-Nitrophenol	109	7.059	7.033	(1.011)	279021	20.0000	19.3(H)	
54	2,4-Dinitrotoluene	165	7.182	7.166	(1.028)	838732	20.0000	21.1(A)	
55	Dibenzofuran	168	7.177	7.166	(1.028)	3752844	20.0000	19.9	
56	2,3,4,6-Tetrachlorophenol	232	7.327	7.321	(1.049)	676797	20.0000	21.0(A)	
57	Diethylphthalate	149	7.412	7.396	(1.061)	2814343	20.0000	20.9(AMH)	LT
58	4-Chlorophenylphenyl ether	204	7.503	7.492	(1.074)	1575965	20.0000	21.2(AMH)	LT
59	Fluorene	166	7.530	7.519	(1.078)	3106125	20.0000	20.7(A)	
60	4-Nitroaniline	108	7.578	7.540	(1.085)	409643	20.0000	20.9(AMH)	LT
61	4,6-Dinitro-2-methylphenol	198	7.615	7.588	(0.894)	468109	20.0000	20.1(A)	
62	N-Nitrosodiphenylamine	169	7.631	7.615	(0.896)	2664829	20.0000	20.5(A)	
63	Azobenzene	77	7.668	7.658	(0.900)	2304374	20.0000	18.1	
64	1,2-Diphenylhydrazine	77	7.668	7.658	(0.900)	2304374	20.0000	18.1	
$ 65	2,4,6-Tribromophenol (S)	330	7.797	7.791	(0.915)	556526	20.0000	22.4(A)	
66	4-Bromophenylphenyl ether	248	8.016	8.005	(0.941)	961156	20.0000	20.8(A)	
67	Hexachlorobenzene	284	8.197	8.187	(0.962)	1220173	20.0000	20.9(A)	
68	Atrazine	200	8.203	8.181	(0.963)	862779	20.0000	20.4(A)	
69	Pentachlorophenol	266	8.374	8.363	(0.983)	563977	20.0000	20.0(A)	
* 70	Phenanthrene-d10 (IS)	188	8.518	8.513	(1.000)	749859	4.00000		
71	Phenanthrene	178	8.550	8.534	(1.004)	4725608	20.0000	20.0	
72	Anthracene	178	8.598	8.582	(1.009)	4024105	20.0000	19.1	
73	Carbazole	167	8.753	8.737	(1.028)	3634030	20.0000	19.6	
74	Di-n-butylphthalate	149	9.127	9.116	(1.071)	4308135	20.0000	19.5	
75	Fluoranthene	202	9.816	9.800	(1.152)	4500291	20.0000	19.8	
76	Pyrene	202	10.056	10.040	(0.889)	4850876	20.0000	20.7(A)	
$ 77	Terphenyl-d14 (S)	244	10.190	10.179	(0.901)	3865889	20.0000	20.7(A)	
78	Butylbenzylphthalate	149	10.697	10.692	(0.946)	2086845	20.0000	22.0(A)	
79	3,3'-Dichlorobenzidine	252	11.253	11.237	(0.995)	1802839	20.0000	23.0(A)	
80	bis(2-Ethylhexyl)phthalate	149	11.280	11.274	(0.998)	2931947	20.0000	20.8(A)	
81	Benzo(a)anthracene	228	11.290	11.274	(0.999)	4657006	20.0000	20.0	
* 82	Chrysene-d12 (IS)	240	11.306	11.296	(1.000)	760776	4.00000		
83	Chrysene	228	11.339	11.317	(1.003)	4157201	20.0000	19.7	
84	Di-n-octylphthalate	149	11.867	11.857	(0.934)	4257487	20.0000	19.5	
85	Benzo(b)fluoranthene	252	12.337	12.322	(0.971)	4806537	20.0000	21.3(A)	
86	Benzo(k)fluoranthene	252	12.359	12.343	(0.973)	4956096	20.0000	20.4(A)	
87	Benzo(a)pyrene	252	12.658	12.637	(0.997)	4386245	20.0000	21.9(A)	
* 88	Perylene-d12 (IS)	264	12.701	12.690	(1.000)	723778	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.903	13.865	(1.095)	5178600	20.0000	23.1(A)	
90 Dibenz(a,h)anthracene	278	13.897	13.865	(1.094)	4506274	20.0000	24.0(A)	
91 Benzo(g,h,i)perylene	276	14.250	14.213	(1.122)	3688634	20.0000	20.9(A)	

QC Flag Legend

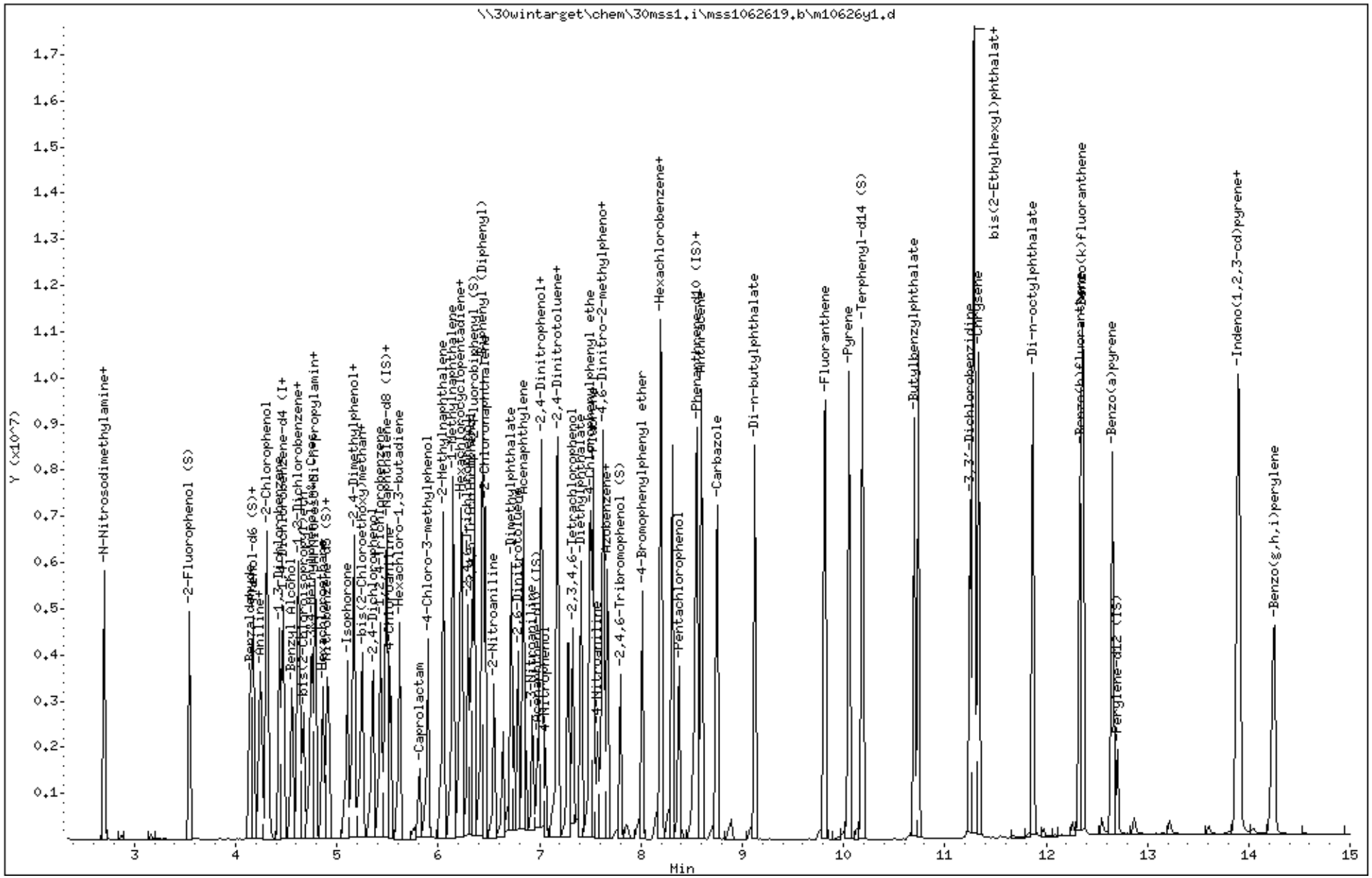
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y1.d
Date : 26-JUN-2019 17:41
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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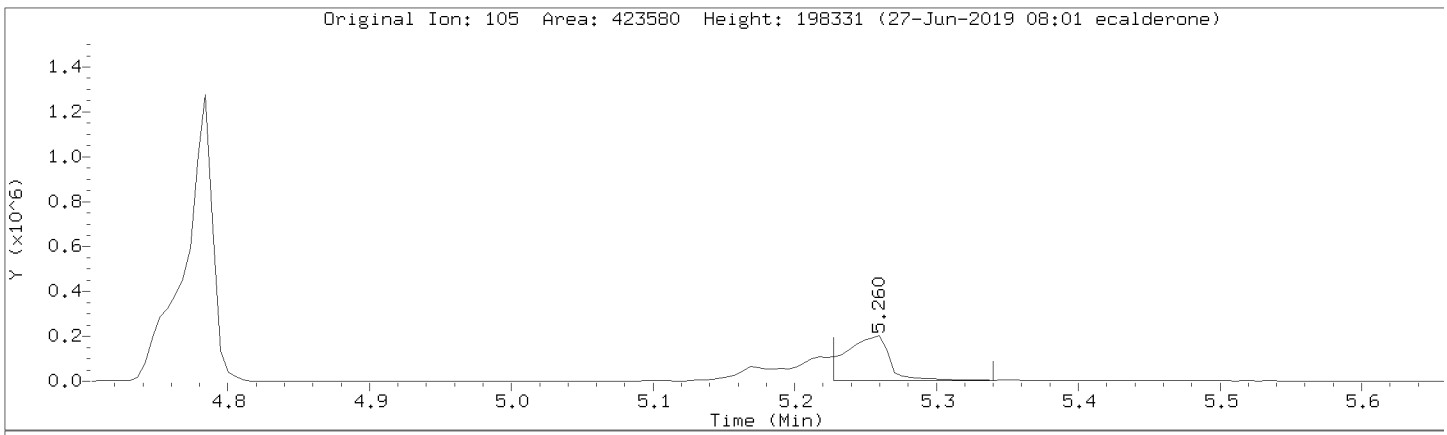
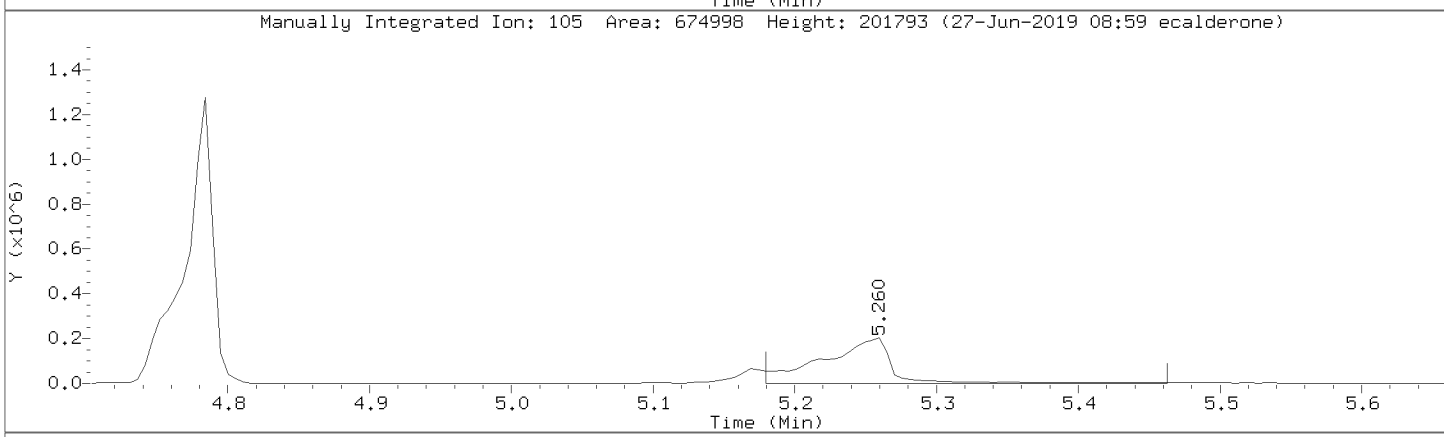
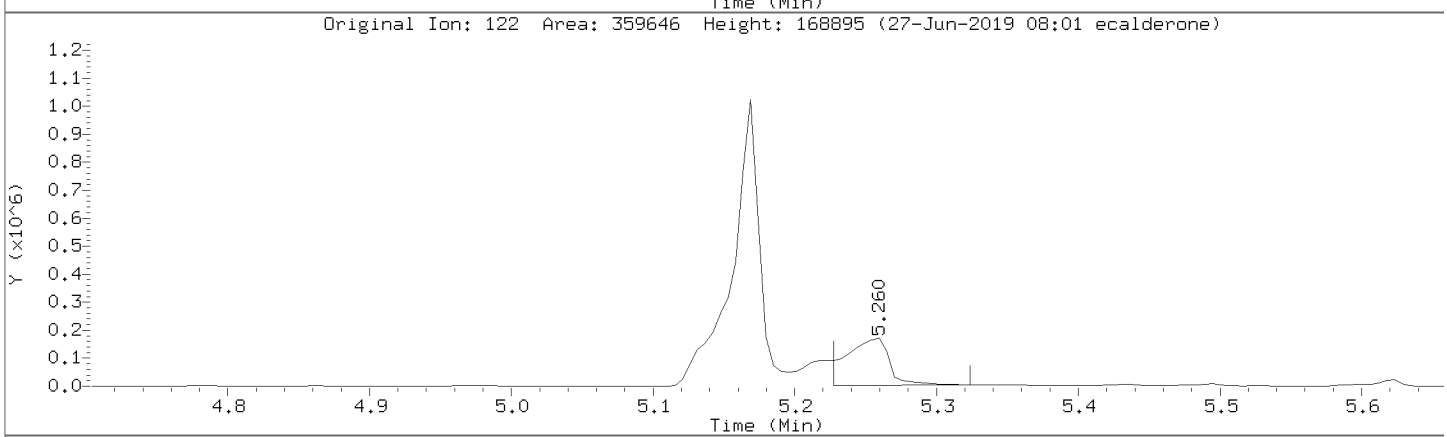
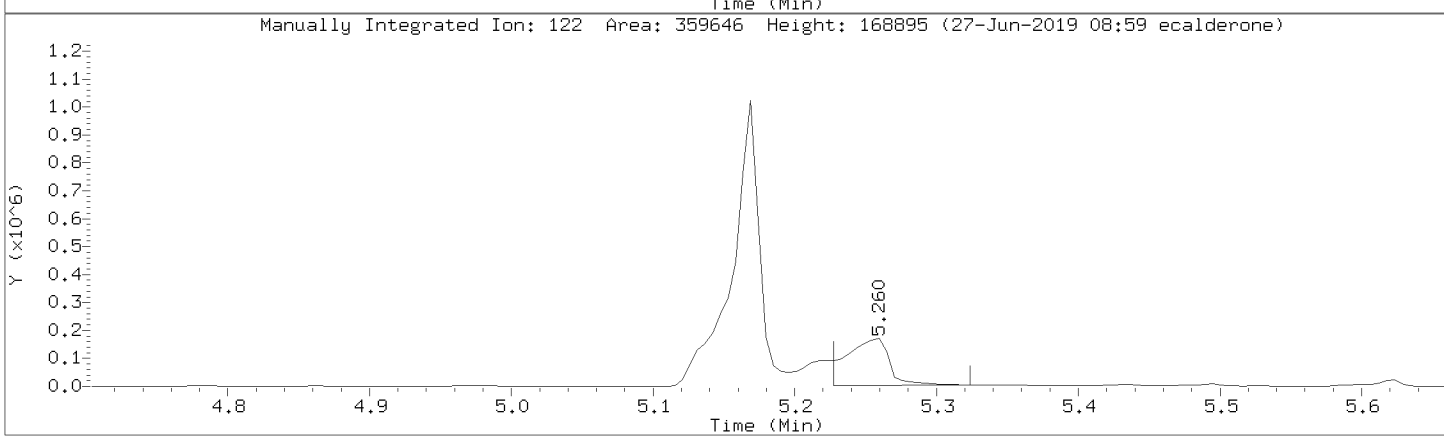
Injection Date: 26-JUN-2019 17:41
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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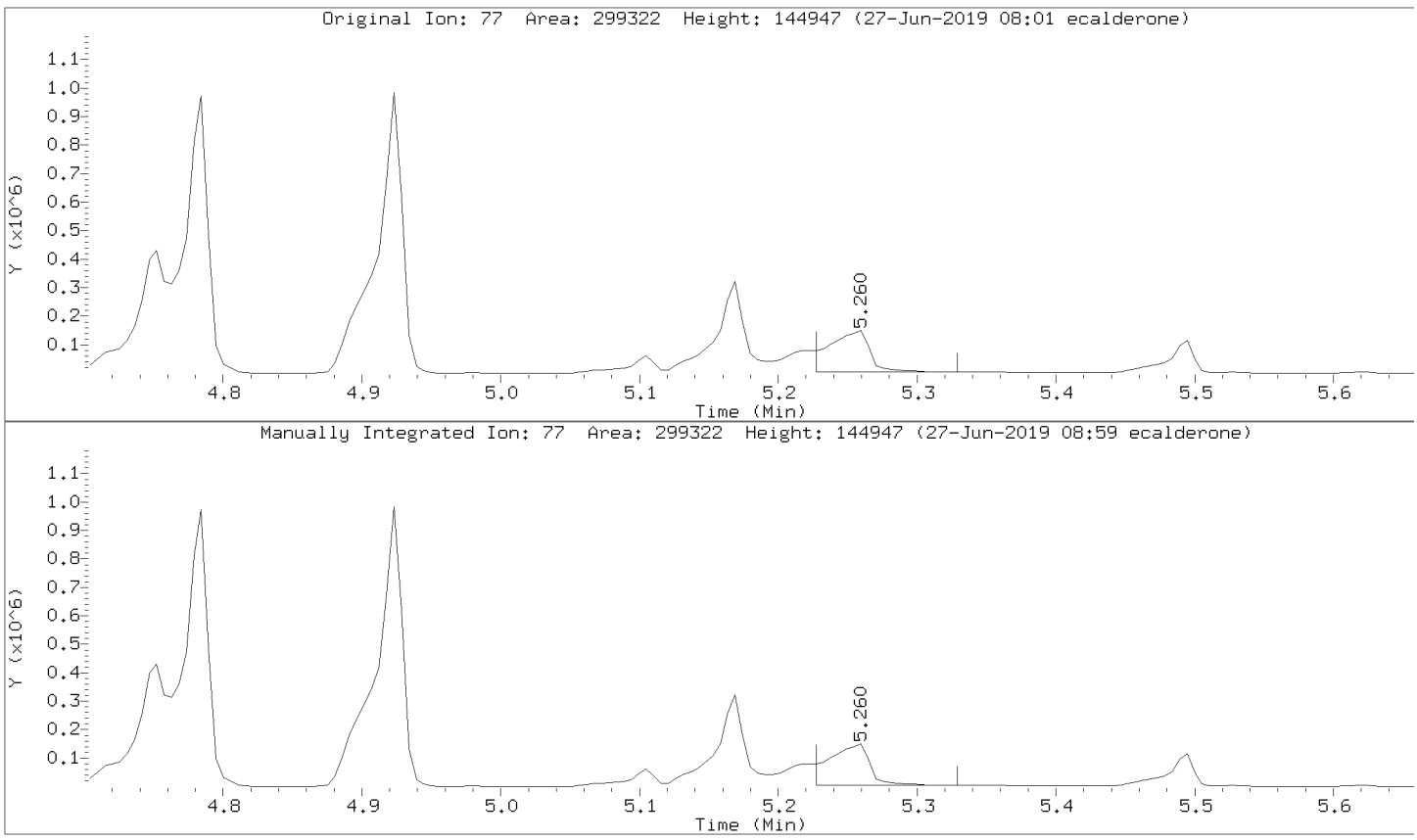
Instrument: 30mss1.i
Lab Sample ID: CAL7



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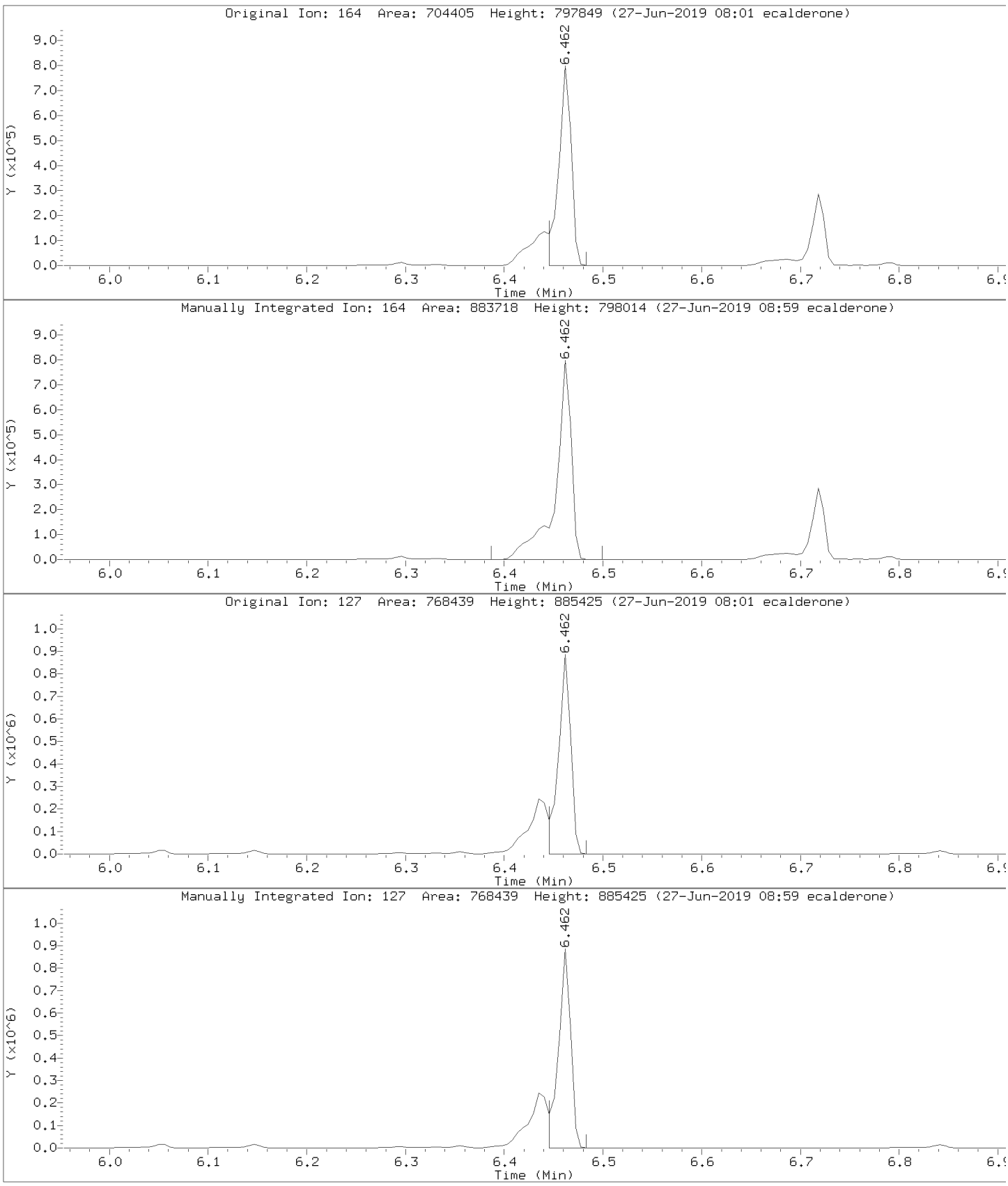
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 2-Chloronaphthalene Review Code: LT
CAS Number: 91-58-7



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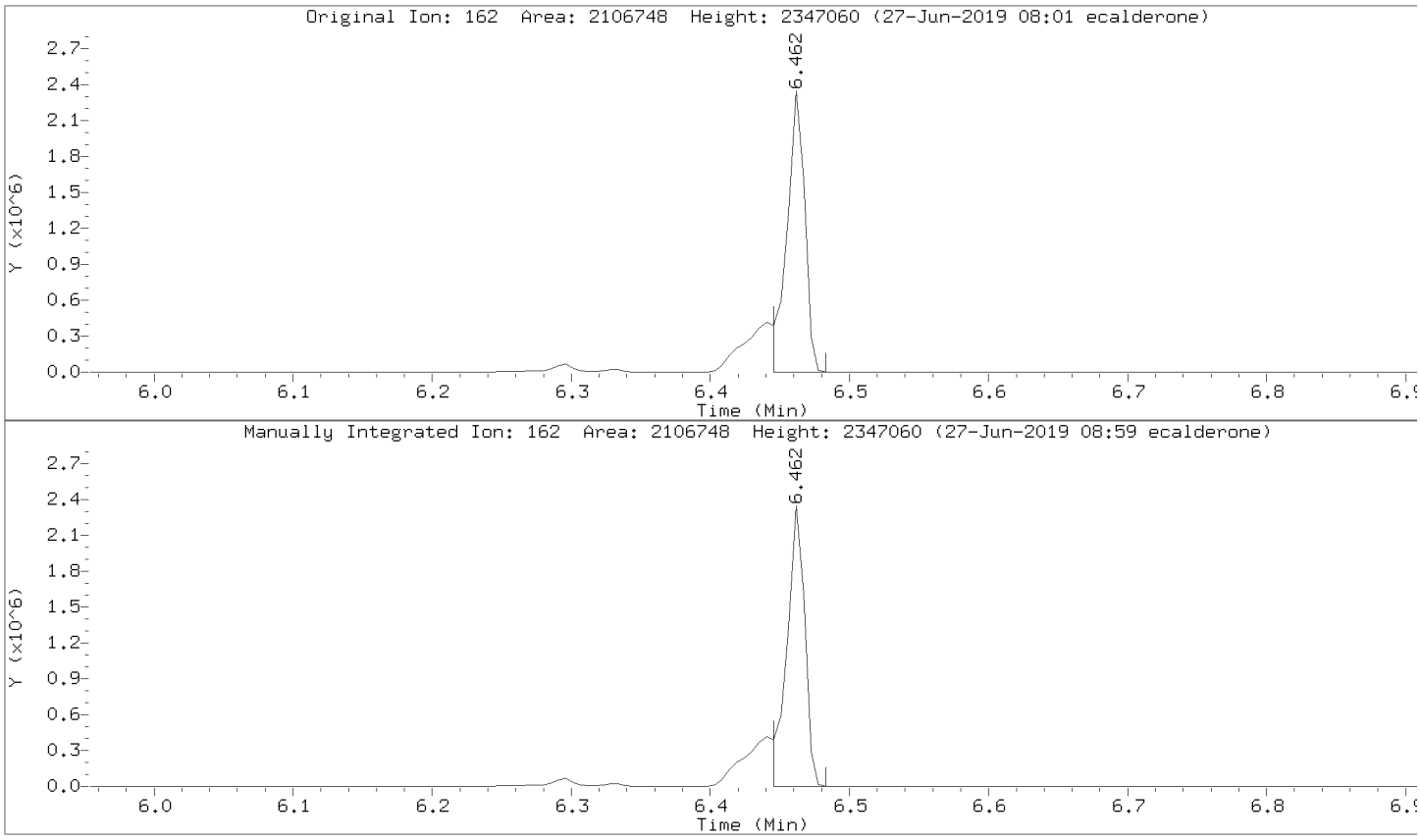
Lab Sample ID: CAL7



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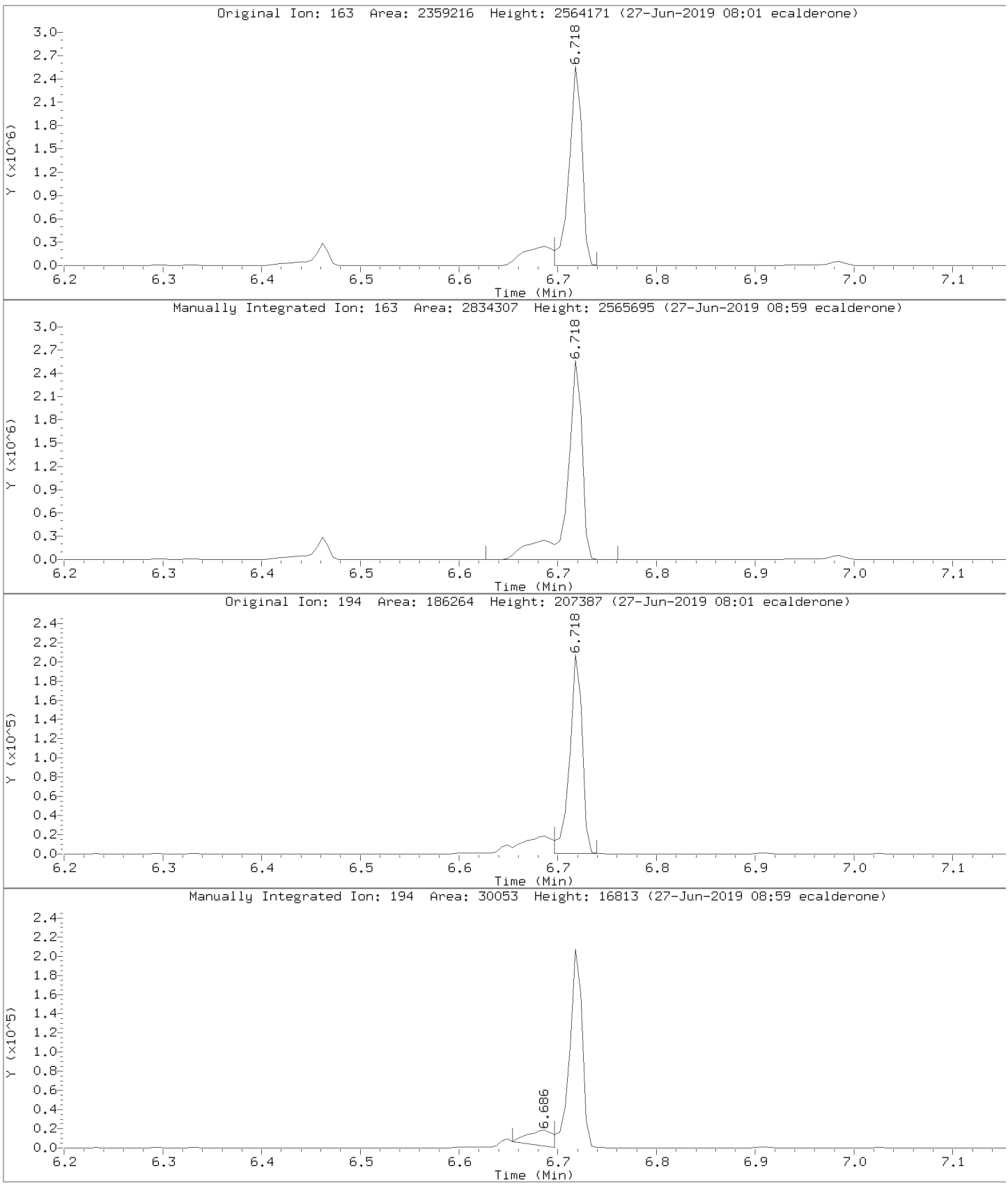
Injection Date: 26-JUN-2019 17:41
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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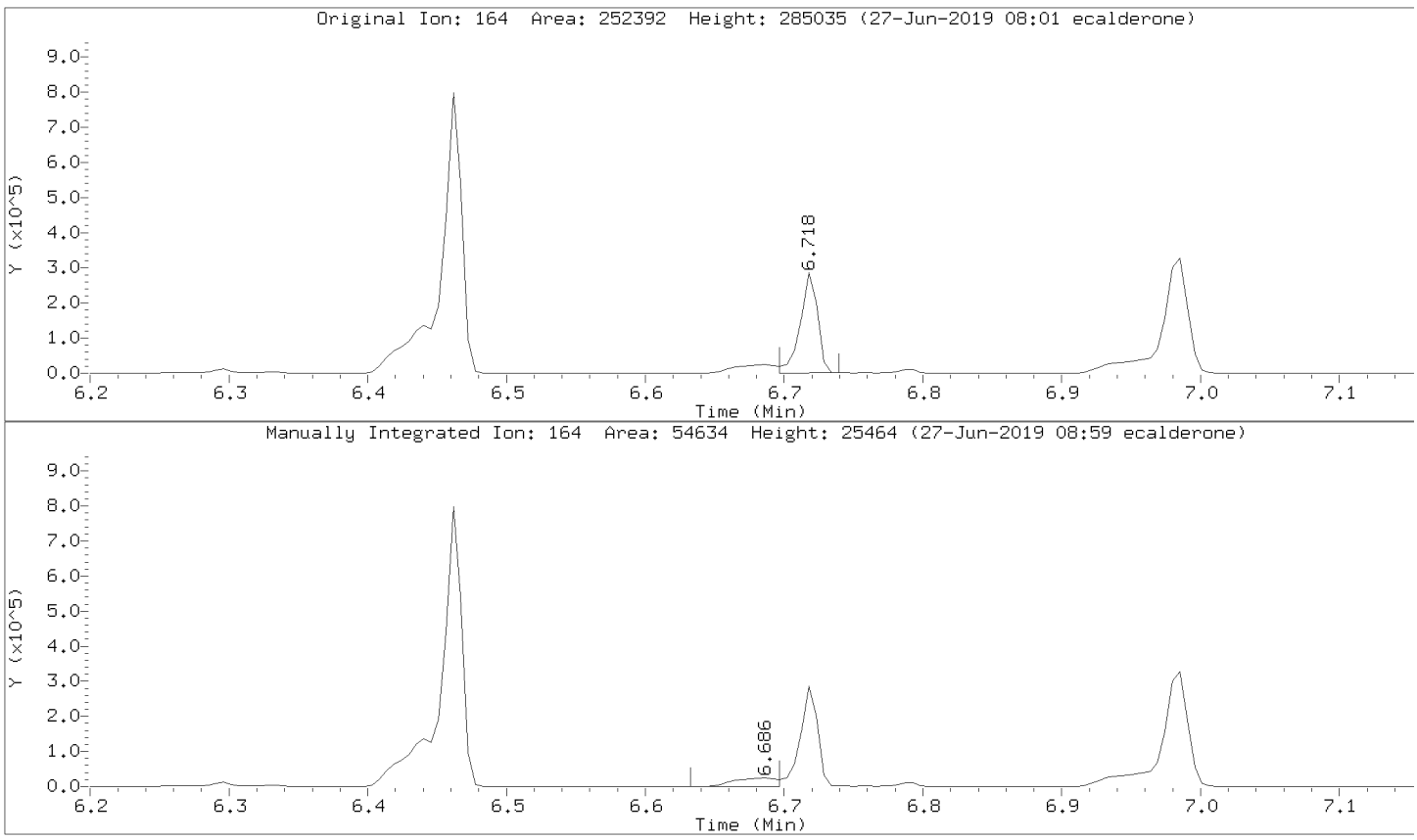
Instrument: 30mss1.i
Lab Sample ID: CAL7



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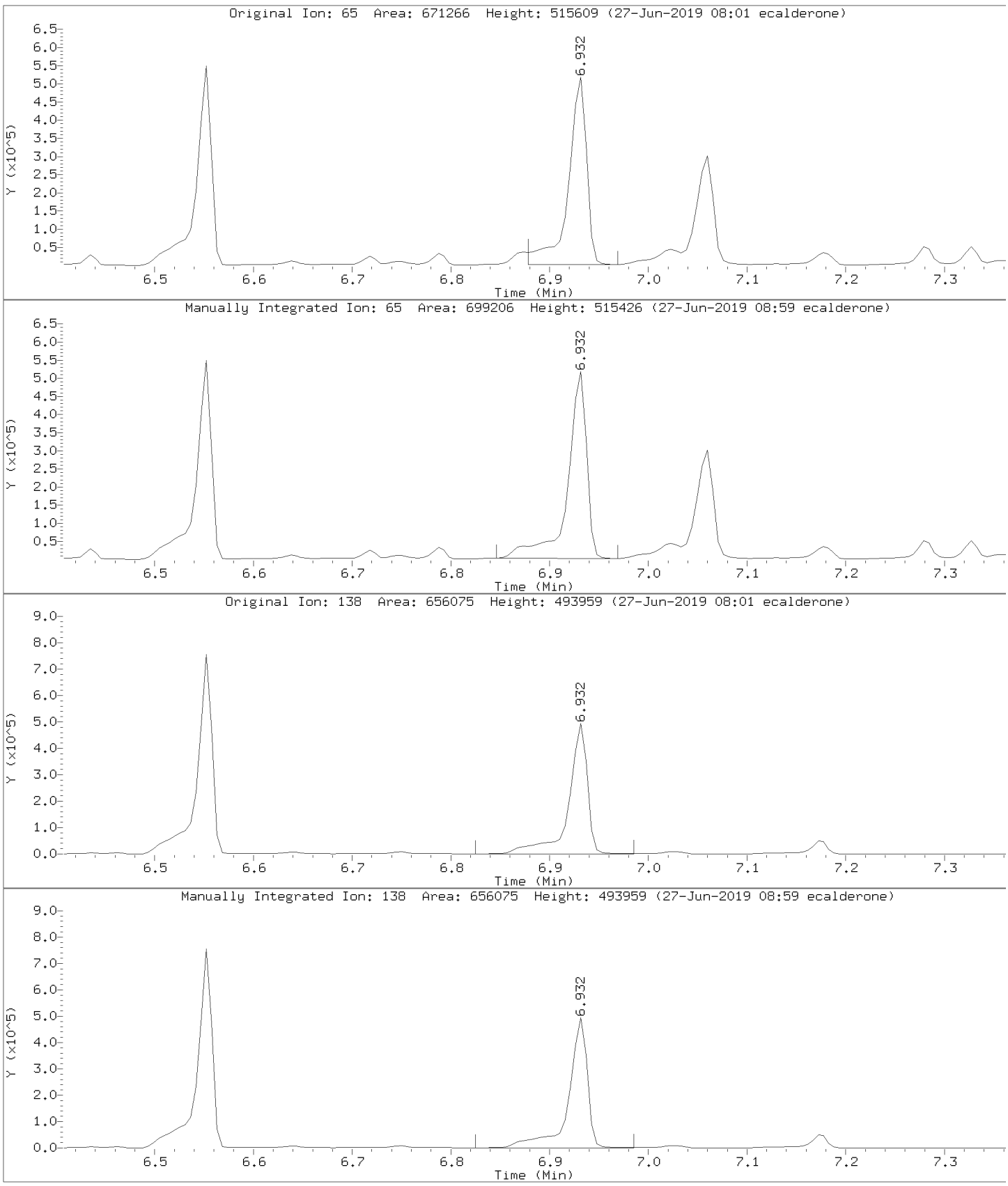
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 3-Nitroaniline Review Code: LT
CAS Number: 99-09-2



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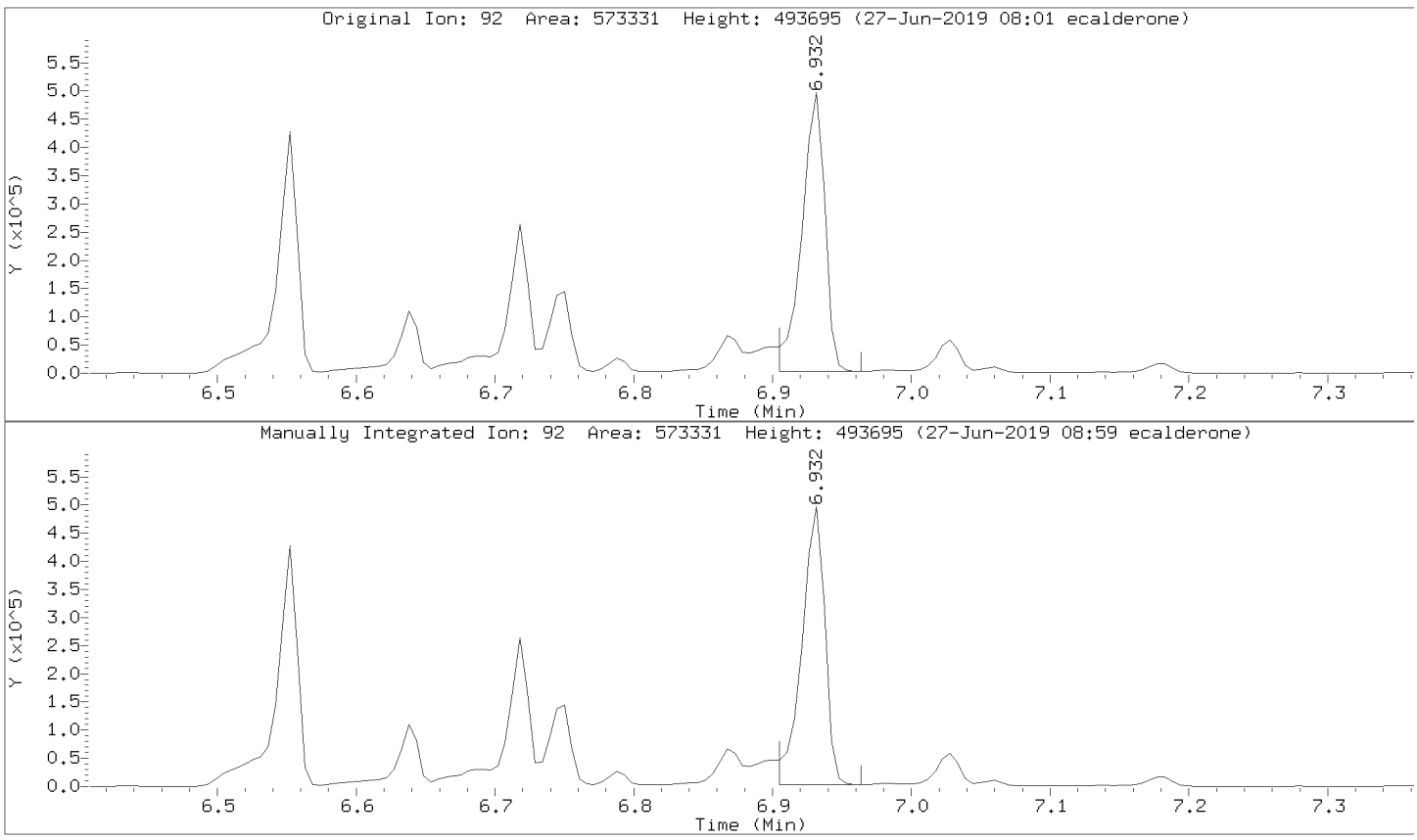
Lab Sample ID: CAL7



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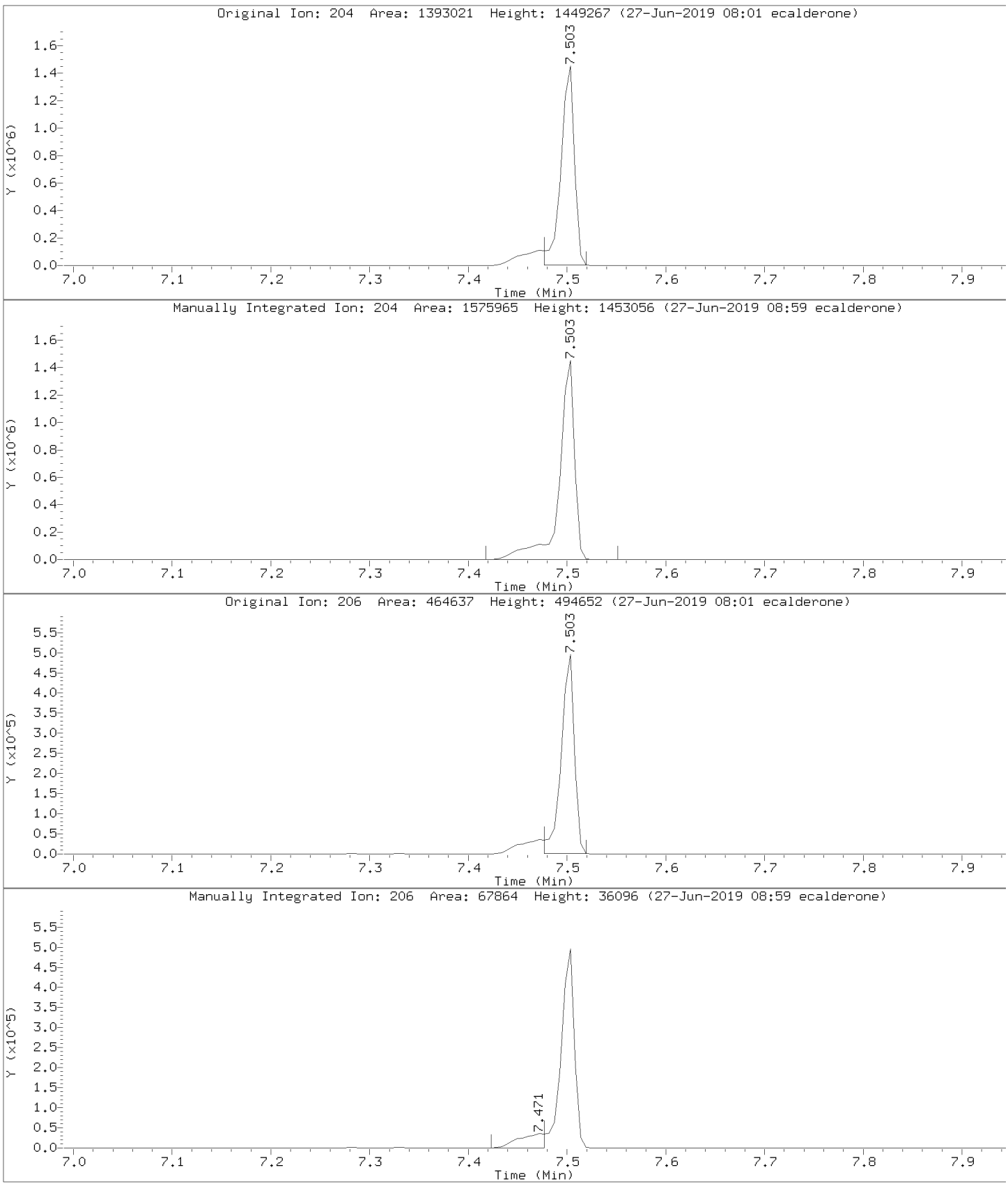
Injection Date: 26-JUN-2019 17:41
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Chlorophenylphenyl ether Review Code: LT
CAS Number: 7005-72-3



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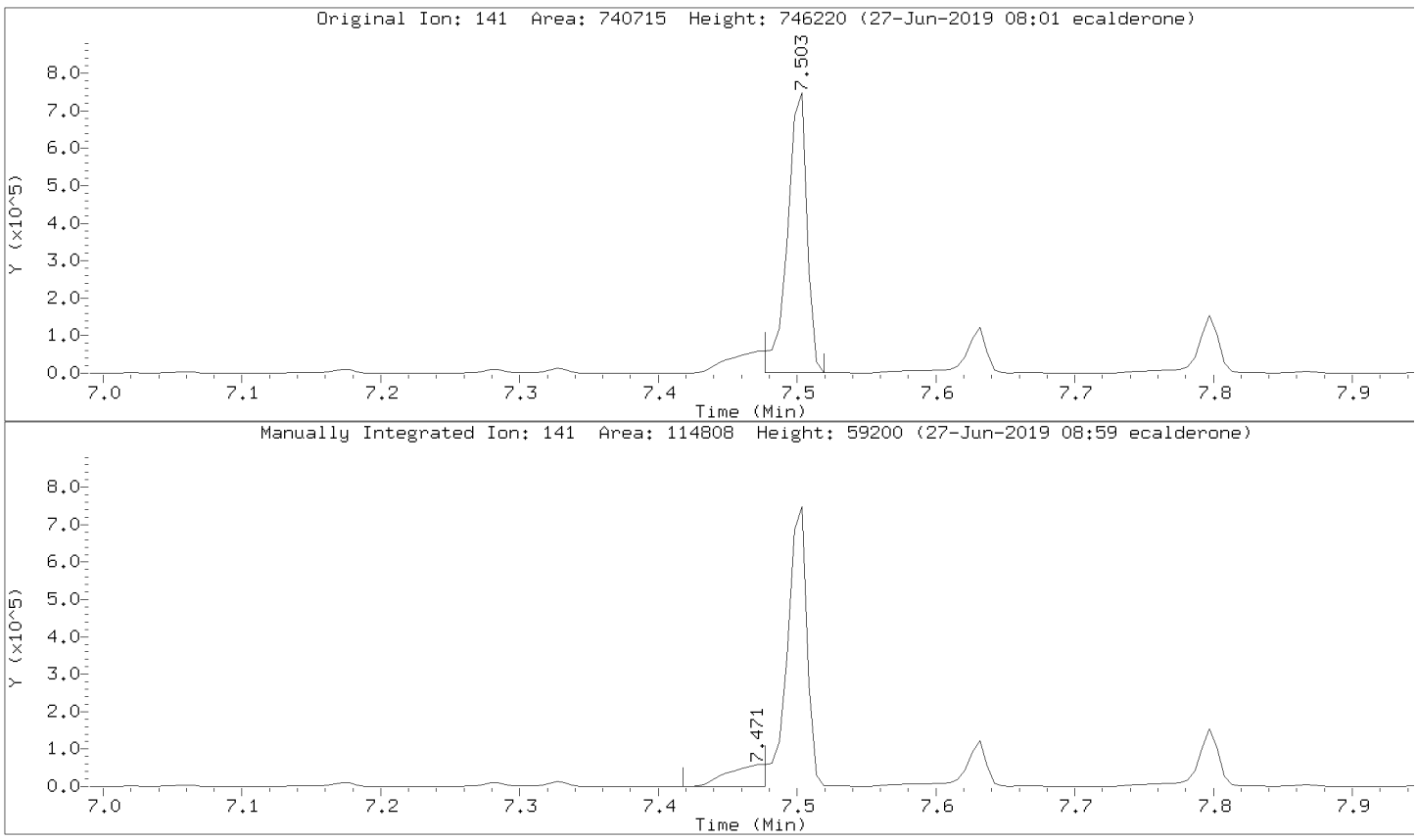
Lab Sample ID: CAL7



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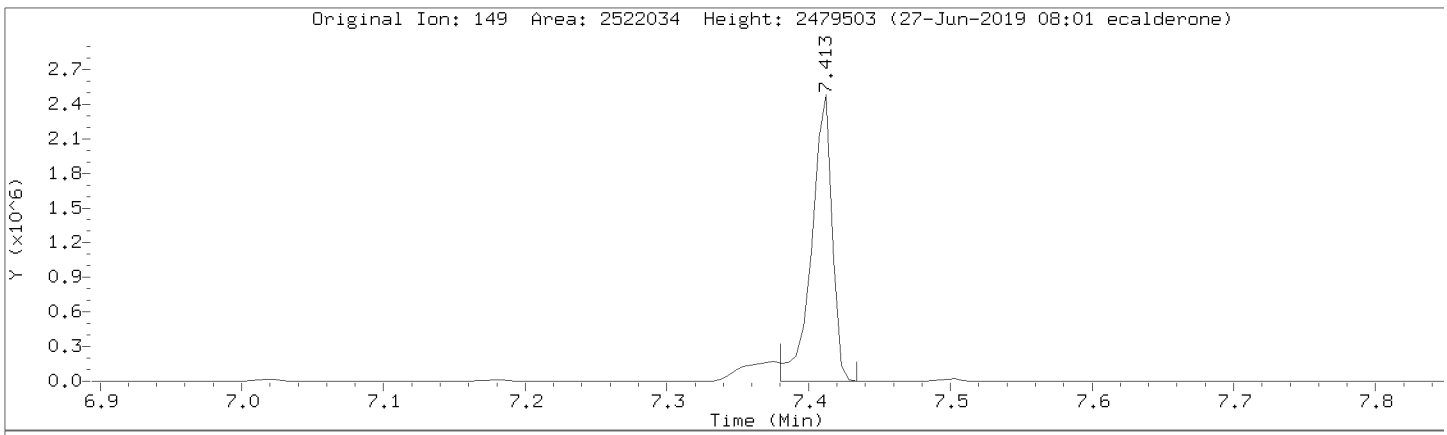
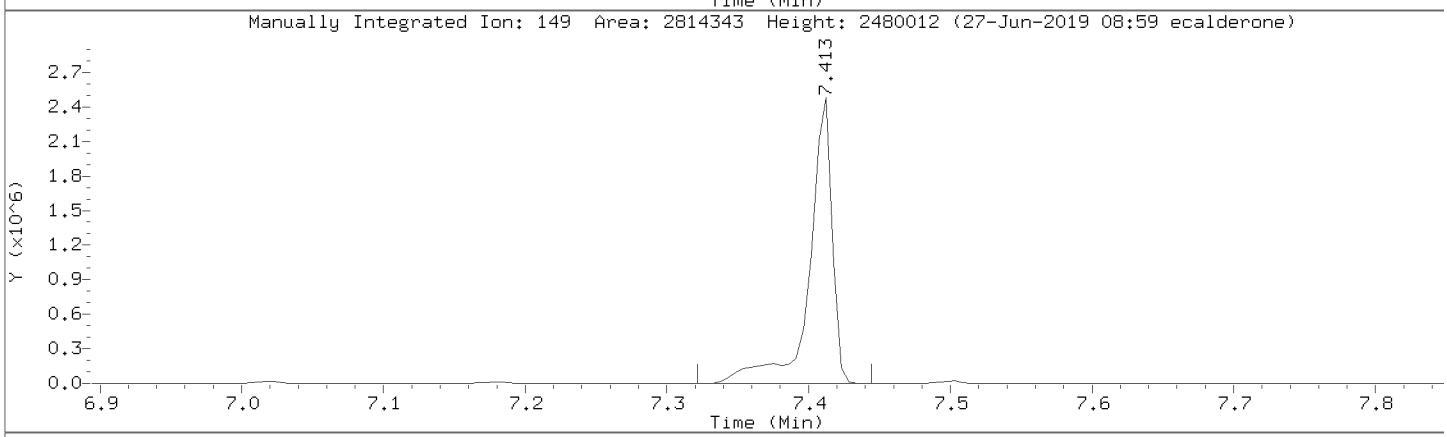
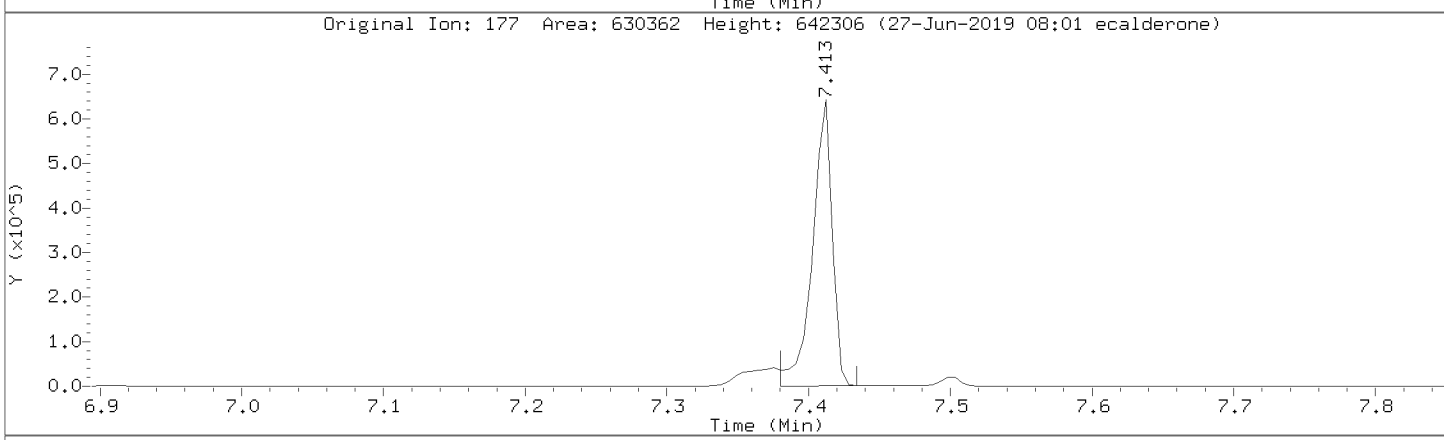
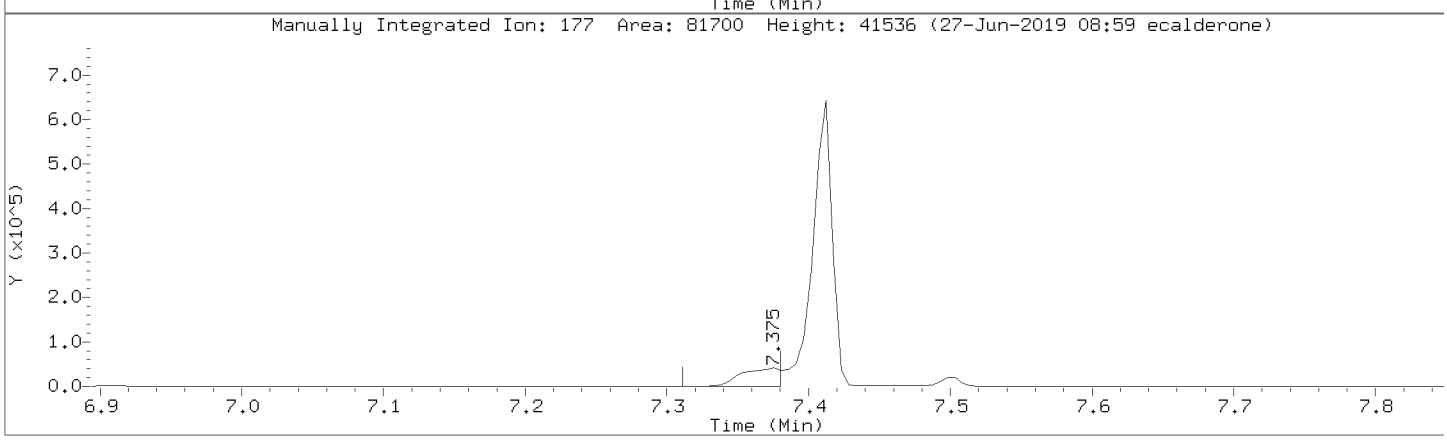
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2









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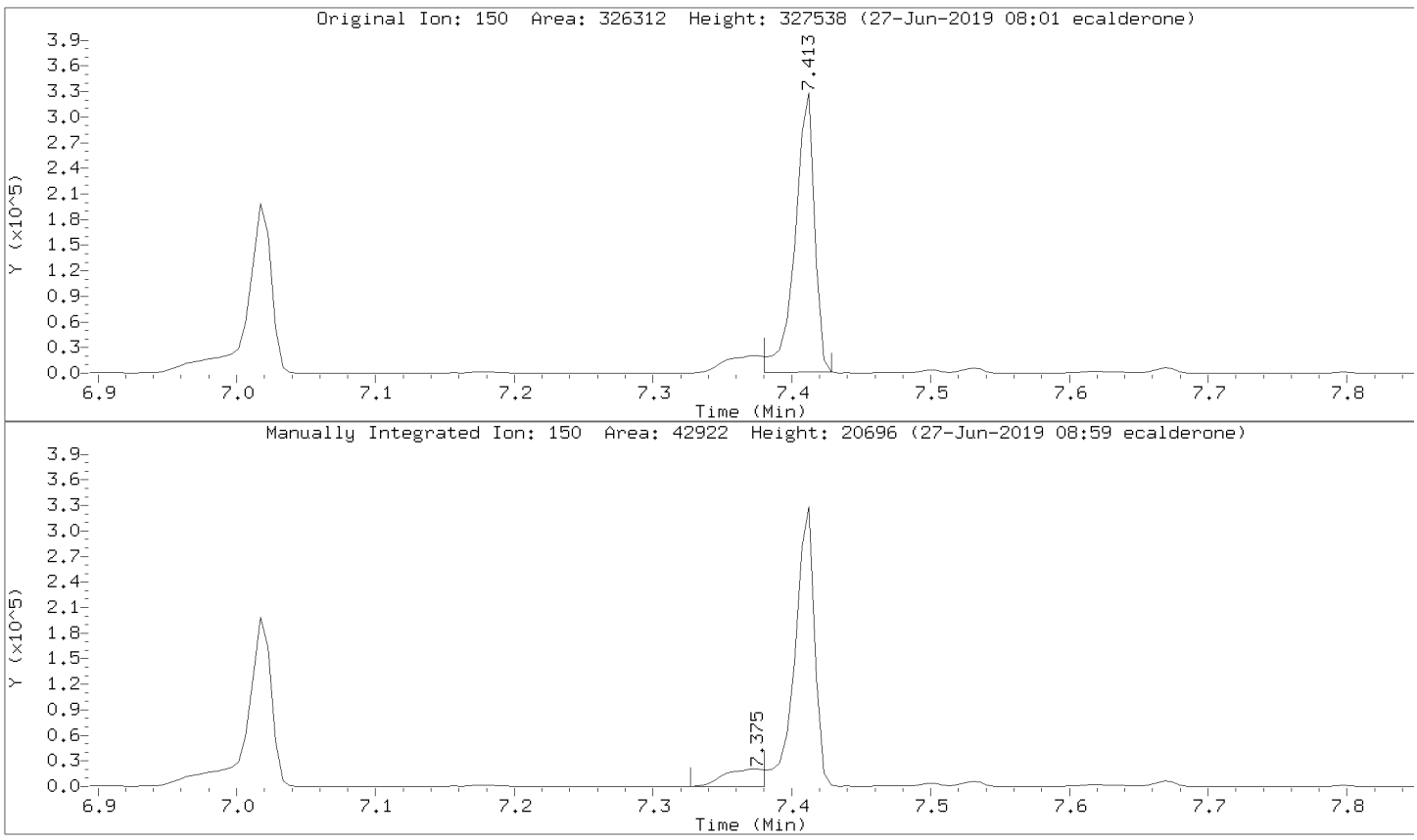
Instrument: 30mss1.i
Lab Sample ID: CAL7



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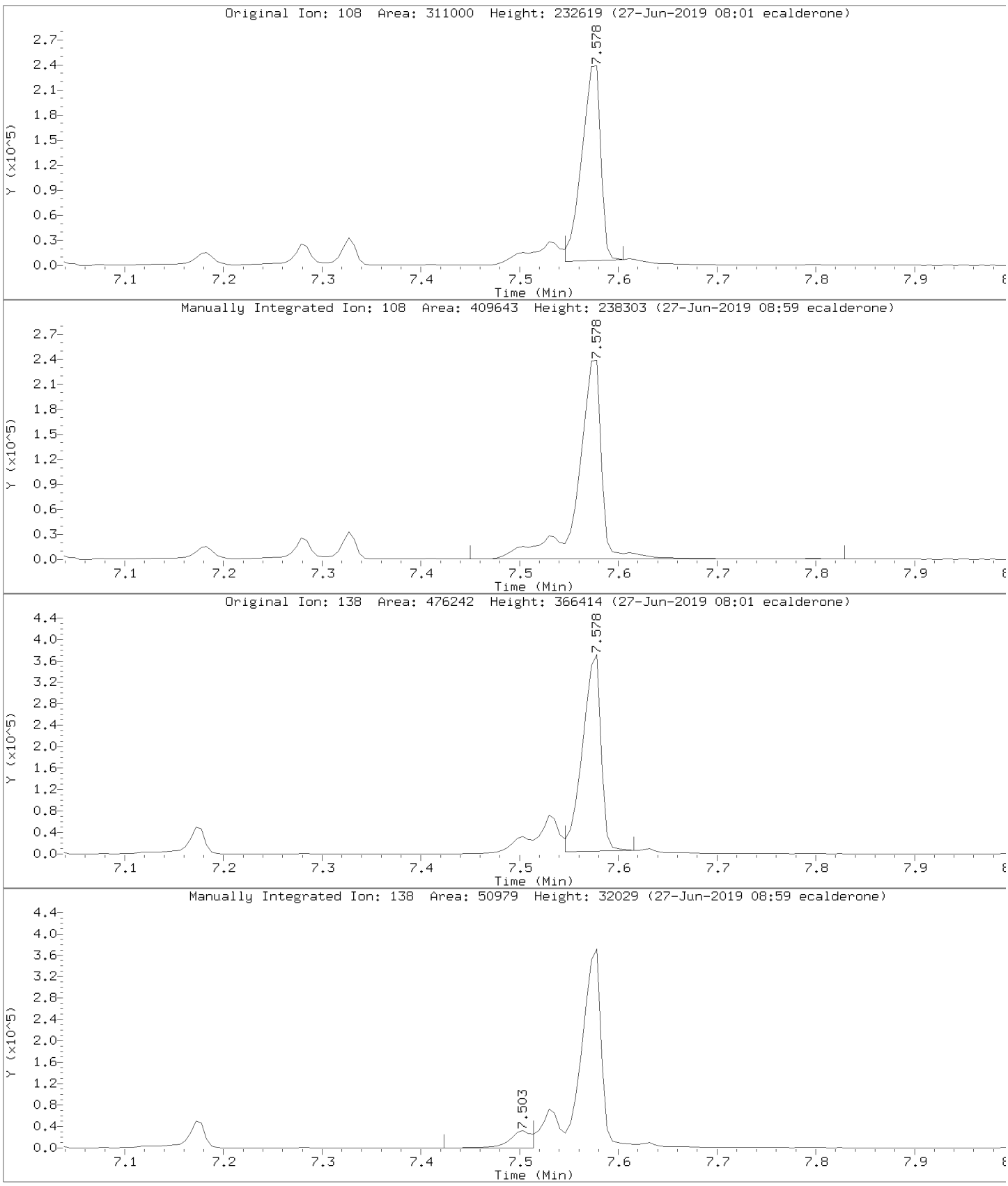
Injection Date: 26-JUN-2019 17:41
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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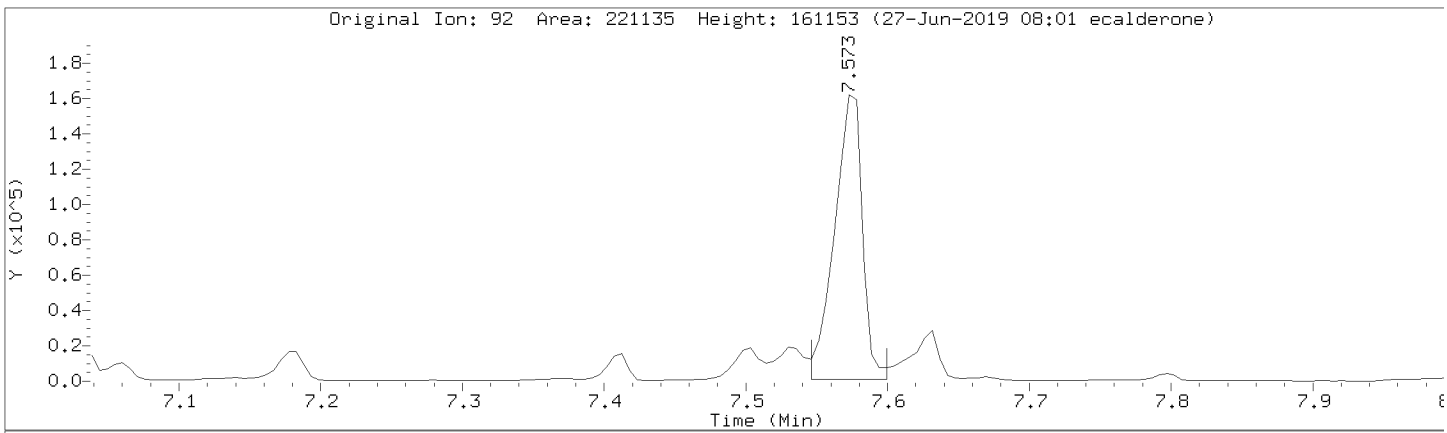
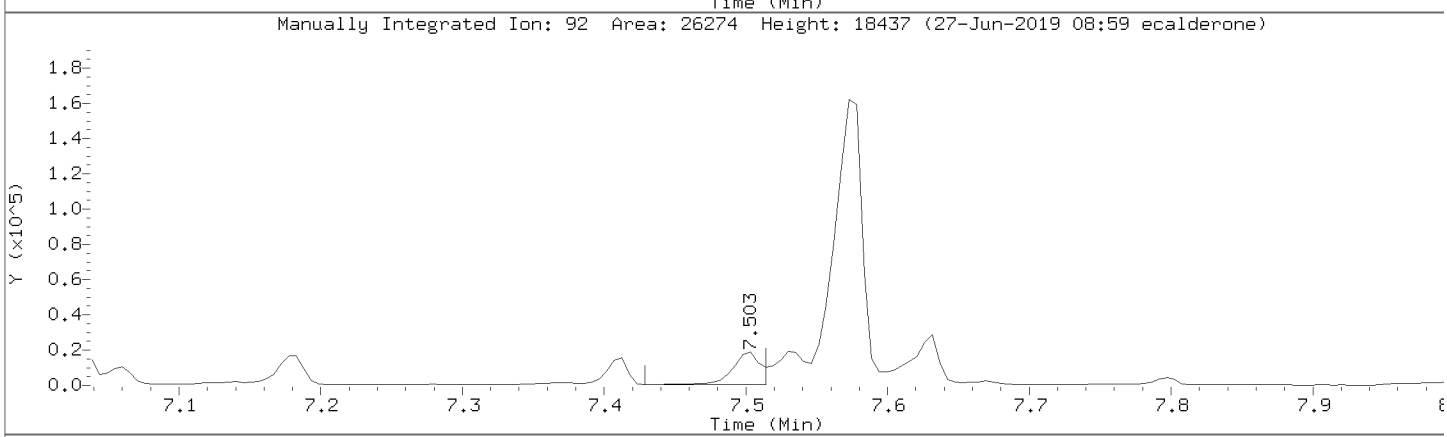
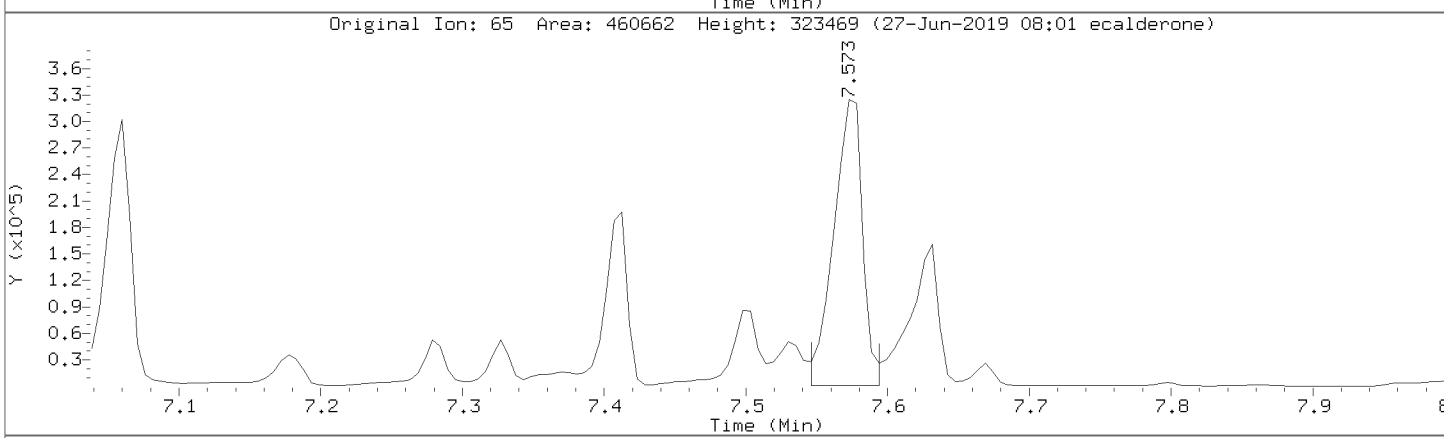
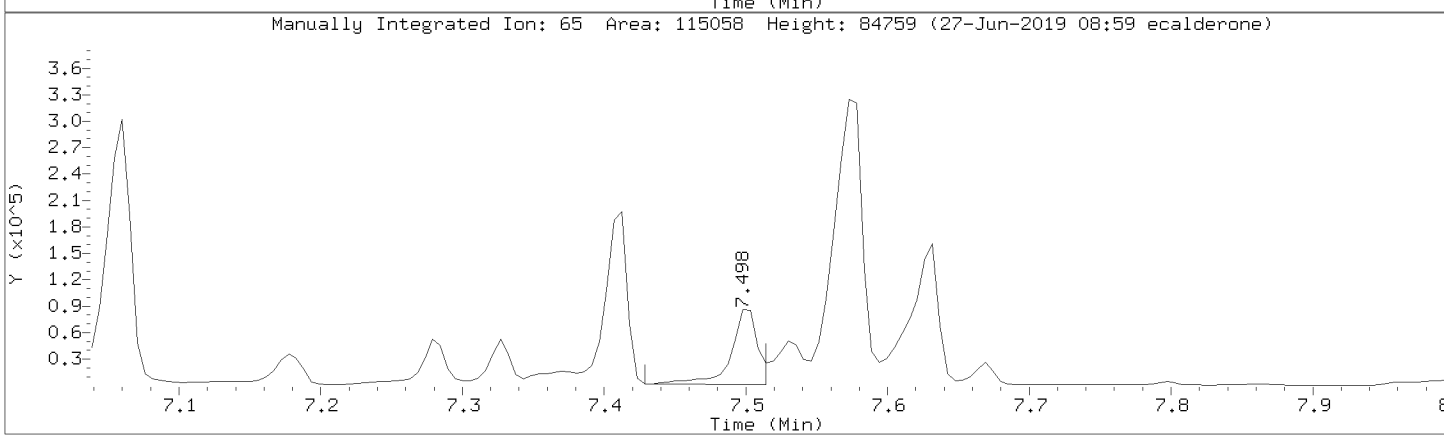
Instrument: 30mss1.i
Lab Sample ID: CAL7









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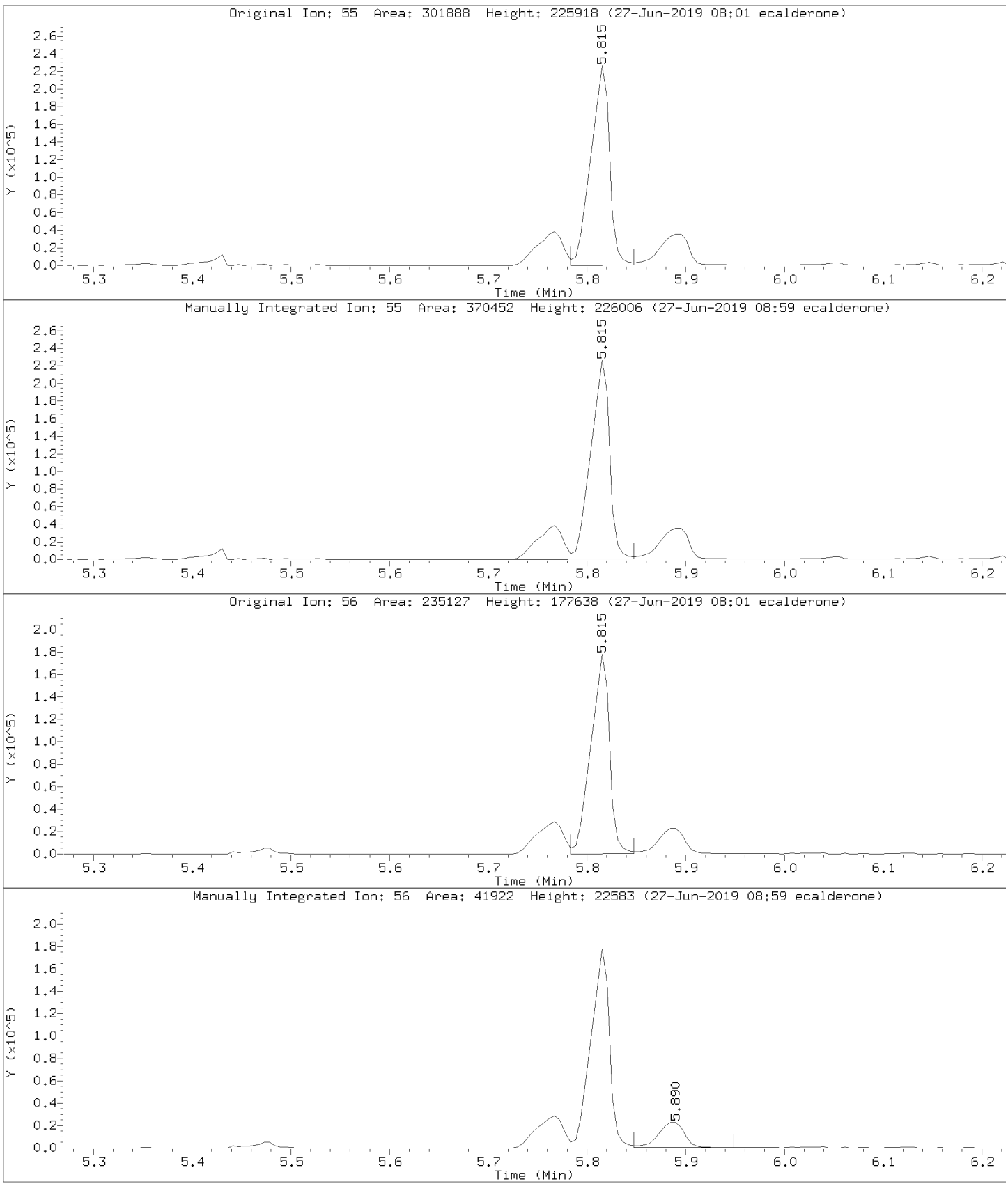
Injection Date: 26-JUN-2019 17:41
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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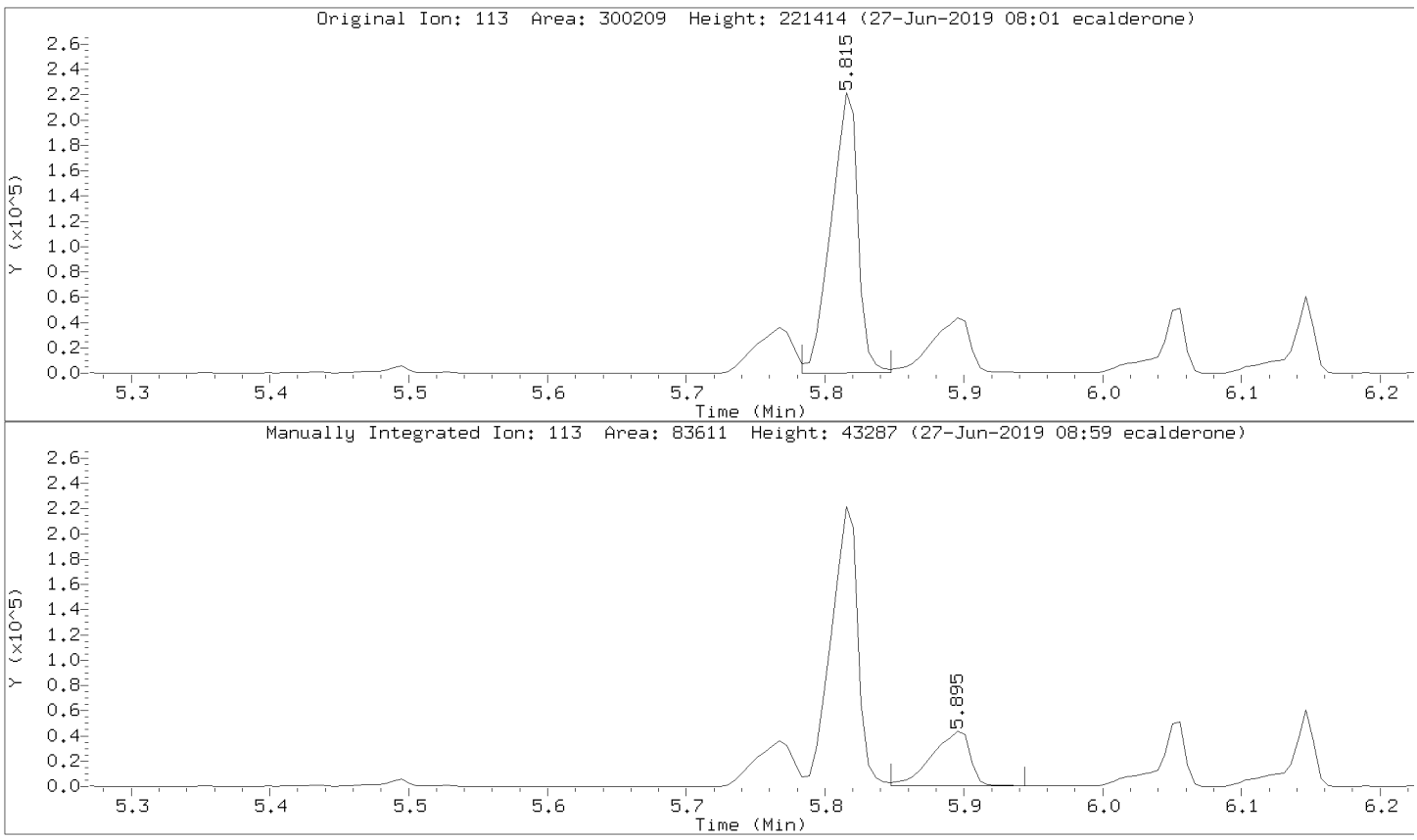
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y2.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 26-JUN-2019 18:04
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14757,91768:1
Comment :
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Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 18:04 Cal File: m10626y2.d
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.688	2.684	(0.603)	592958	16.0000	15.9	
	2 Pyridine	79	2.688	2.695	(0.603)	947982	16.0000	15.8	
$	3 2-Fluorophenol (S)	112	3.538	3.539	(0.794)	882198	16.0000	15.8	
$	4 Phenol-d6 (S)	99	4.168	4.159	(0.935)	1109745	16.0000	15.9	
	5 Benzaldehyde	77	4.141	4.137	(0.929)	700801	16.0000	15.1	
	6 Phenol	94	4.174	4.169	(0.936)	1189773	16.0000	15.6	
	7 Aniline	66	4.238	4.228	(0.951)	472671	16.0000	16.1	
	8 bis(2-Chloroethyl)ether	63	4.259	4.250	(0.956)	665856	16.0000	15.2	
	9 2-Chlorophenol	128	4.323	4.319	(0.970)	1043450	16.0000	16.0	
	10 1,3-Dichlorobenzene	146	4.435	4.431	(0.995)	1187781	16.0000	16.2	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.457	4.458	(1.000)	194032	4.00000		
	12 1,4-Dichlorobenzene	146	4.473	4.469	(1.004)	1259899	16.0000	15.7	
	13 Benzyl Alcohol	79	4.558	4.549	(1.023)	749509	16.0000	15.7	
	14 1,2-Dichlorobenzene	146	4.617	4.618	(1.036)	1149261	16.0000	16.0	
	15 2-Methylphenol(o-Cresol)	108	4.633	4.629	(1.040)	934717	16.0000	15.9	
	16 bis(2-Chloroisopropyl)ether	45	4.670	4.666	(1.048)	1015800	16.0000	15.3	
	17 3&4-Methylphenol(m&p Cresol)	108	4.745	4.736	(1.065)	944912	16.0000	15.9	
	18 N-Nitroso-di-n-propylamine	70	4.788	4.778	(1.074)	731360	16.0000	15.8	
	19 Acetophenone	105	4.777	4.773	(1.072)	1322344	16.0000	15.7	
	20 Hexachloroethane	117	4.863	4.864	(1.091)	431049	16.0000	16.0	
$	21 Nitrobenzene-d5 (S)	128	4.905	4.901	(0.896)	493266	16.0000	16.3	
	22 Nitrobenzene	77	4.921	4.917	(0.899)	980639	16.0000	15.8	
	23 Isophorone	82	5.103	5.094	(0.932)	1847174	16.0000	16.0	
	24 2,4-Dimethylphenol	107	5.167	5.158	(0.943)	982543	16.0000	16.2	
	25 2-Nitrophenol	139	5.173	5.168	(0.944)	555732	16.0000	17.4	
	26 Benzoic acid	105	5.247	5.206	(0.958)	472935	16.0000	17.2(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.247	5.243	(0.958)	1143364	16.0000	15.8(M)	LT
	28 2,4-Dichlorophenol	162	5.354	5.345	(0.978)	857197	16.0000	16.3	
	29 1,2,4-Trichlorobenzene	180	5.434	5.430	(0.992)	979647	16.0000	16.1	
*	30 Naphthalene-d8 (IS)	136	5.477	5.473	(1.000)	748065	4.00000		
	31 Naphthalene	128	5.493	5.489	(1.003)	3023604	16.0000	15.6	
	32 4-Chloroaniline	65	5.525	5.521	(1.009)	300927	16.0000	16.2	
	33 Hexachloro-1,3-butadiene	225	5.621	5.622	(1.026)	568178	16.0000	16.4	
	34 Caprolactam	55	5.803	5.772	(1.059)	280063	16.0000	15.4(M)	LT

			QUANT SIG					AMOUNTS			
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	35	4-Chloro-3-methylphenol	107	5.899	5.890	(1.077)	798003	16.0000	16.3		
	36	2-Methylnaphthalene	142	6.054	6.050	(1.105)	2191864	16.0000	16.1		
	37	1-Methylnaphthalene	142	6.145	6.141	(1.122)	2054951	16.0000	15.9		
	38	Hexachlorocyclopentadiene	237	6.236	6.231	(0.893)	642782	16.0000	17.4		
	39	1,2,4,5-Tetrachlorobenzene	216	6.225	6.221	(0.891)	1031467	16.0000	16.2		
	40	2,4,6-Trichlorophenol	196	6.294	6.290	(0.901)	745930	16.0000	16.5		
	41	2,4,5-Trichlorophenol	196	6.326	6.322	(0.906)	544275	16.0000	16.1		
$	42	2-Fluorobiphenyl (S)	172	6.353	6.349	(0.910)	2325848	16.0000	15.7	(MH)	LT
	43	Biphenyl (Diphenyl)	154	6.433	6.429	(0.921)	2524083	16.0000	15.5	(MH)	LT
	44	2-Chloronaphthalene	164	6.460	6.456	(0.925)	575038	16.0000	14.6	(H)	
	45	2-Nitroaniline	138	6.551	6.541	(0.938)	598537	16.0000	16.4		
	46	Dimethylphthalate	163	6.711	6.702	(0.961)	1831067	16.0000	14.4		
	47	2,6-Dinitrotoluene	165	6.786	6.776	(0.972)	436795	16.0000	15.6		
	48	Acenaphthylene	152	6.839	6.830	(0.979)	3009478	16.0000	15.6	(M)	LT
	49	3-Nitroaniline	65	6.925	6.910	(0.992)	508445	16.0000	16.0	(MH)	LT
*	50	Acenaphthene-d10 (IS)	164	6.983	6.974	(1.000)	411094	4.00000		(MH)	LT
	51	2,4-Dinitrophenol	184	7.021	7.011	(1.005)	232126	16.0000	15.6	(MH)	LT
	52	Acenaphthene	153	7.016	7.006	(1.005)	2006406	16.0000	16.0	(M)	LT
	53	4-Nitrophenol	109	7.053	7.033	(1.010)	200149	16.0000	14.8	(H)	
	54	2,4-Dinitrotoluene	165	7.176	7.166	(1.028)	608723	16.0000	16.3		
	55	Dibenzofuran	168	7.170	7.166	(1.027)	2786056	16.0000	15.7	(M)	LT
	56	2,3,4,6-Tetrachlorophenol	232	7.325	7.321	(1.049)	496210	16.0000	16.5		
	57	Diethylphthalate	149	7.406	7.396	(1.060)	1858125	16.0000	14.7		
	58	4-Chlorophenylphenyl ether	204	7.496	7.492	(1.073)	1138847	16.0000	16.3	(MH)	LT
	59	Fluorene	166	7.528	7.519	(1.078)	2248151	16.0000	16.0	(MH)	LT
	60	4-Nitroaniline	108	7.560	7.540	(1.083)	271146	16.0000	14.7	(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	7.603	7.588	(0.893)	289272	16.0000	15.8		
	62	N-Nitrosodiphenylamine	169	7.625	7.615	(0.895)	1897469	16.0000	17.5		
	63	Azobenzene	77	7.667	7.658	(0.900)	1699284	16.0000	16.0		
	64	1,2-Diphenylhydrazine	77	7.667	7.658	(0.900)	1699284	16.0000	16.0		
$	65	2,4,6-Tribromophenol (S)	330	7.795	7.791	(0.915)	359847	16.0000	17.4		
	66	4-Bromophenylphenyl ether	248	8.009	8.005	(0.940)	634263	16.0000	16.4		
	67	Hexachlorobenzene	284	8.196	8.187	(0.962)	836418	16.0000	17.2		
	68	Atrazine	200	8.196	8.181	(0.962)	633324	16.0000	18.0		
	69	Pentachlorophenol	266	8.367	8.363	(0.982)	361667	16.0000	15.9		
*	70	Phenanthrene-d10 (IS)	188	8.517	8.513	(1.000)	624572	4.00000			
	71	Phenanthrene	178	8.543	8.534	(1.003)	3289293	16.0000	16.7	(M)	LT
	72	Anthracene	178	8.591	8.582	(1.009)	2929878	16.0000	16.7		
	73	Carbazole	167	8.746	8.737	(1.027)	2382090	16.0000	15.4		
	74	Di-n-butylphthalate	149	9.126	9.116	(1.071)	3205254	16.0000	17.4		
	75	Fluoranthene	202	9.809	9.800	(1.152)	3176637	16.0000	16.8		
	76	Pyrene	202	10.050	10.040	(0.889)	3307667	16.0000	16.8		
$	77	Terphenyl-d14 (S)	244	10.183	10.179	(0.901)	2680696	16.0000	17.0		
	78	Butylbenzylphthalate	149	10.696	10.692	(0.947)	1461063	16.0000	18.2		
	79	3,3'-Dichlorobenzidine	252	11.247	11.237	(0.995)	1206025	16.0000	18.3		
	80	bis(2-Ethylhexyl)phthalate	149	11.279	11.274	(0.998)	2162881	16.0000	18.2		
	81	Benzo(a)anthracene	228	11.284	11.274	(0.999)	3320649	16.0000	16.9		
*	82	Chrysene-d12 (IS)	240	11.300	11.296	(1.000)	641072	4.00000			
	83	Chrysene	228	11.332	11.317	(1.003)	2930683	16.0000	16.5		
	84	Di-n-octylphthalate	149	11.866	11.857	(0.935)	2999200	16.0000	17.1		
	85	Benzo(b)fluoranthene	252	12.331	12.322	(0.971)	3051544	16.0000	16.8		
	86	Benzo(k)fluoranthene	252	12.352	12.343	(0.973)	3358807	16.0000	17.2		
	87	Benzo(a)pyrene	252	12.646	12.637	(0.996)	2813259	16.0000	17.5		
*	88	Perylene-d12 (IS)	264	12.694	12.690	(1.000)	581559	4.00000			

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.891	13.865	(1.094)	3174416	16.0000	17.6	
90 Dibenz(a,h)anthracene	278	13.886	13.865	(1.094)	2709158	16.0000	18.0	
91 Benzo(g,h,i)perylene	276	14.233	14.213	(1.121)	2388153	16.0000	16.8	

QC Flag Legend

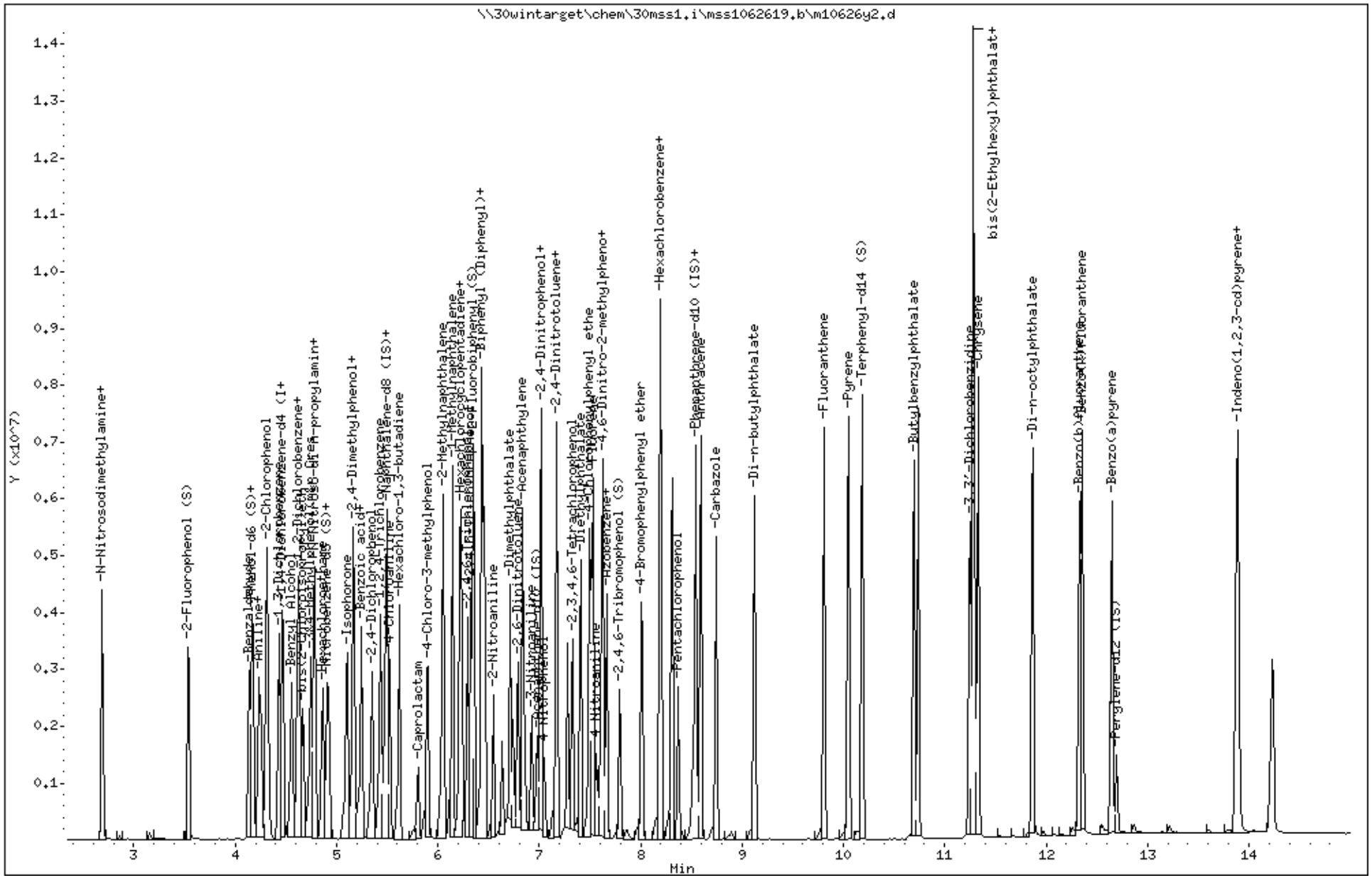
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y2.d
Date : 26-JUN-2019 18:04
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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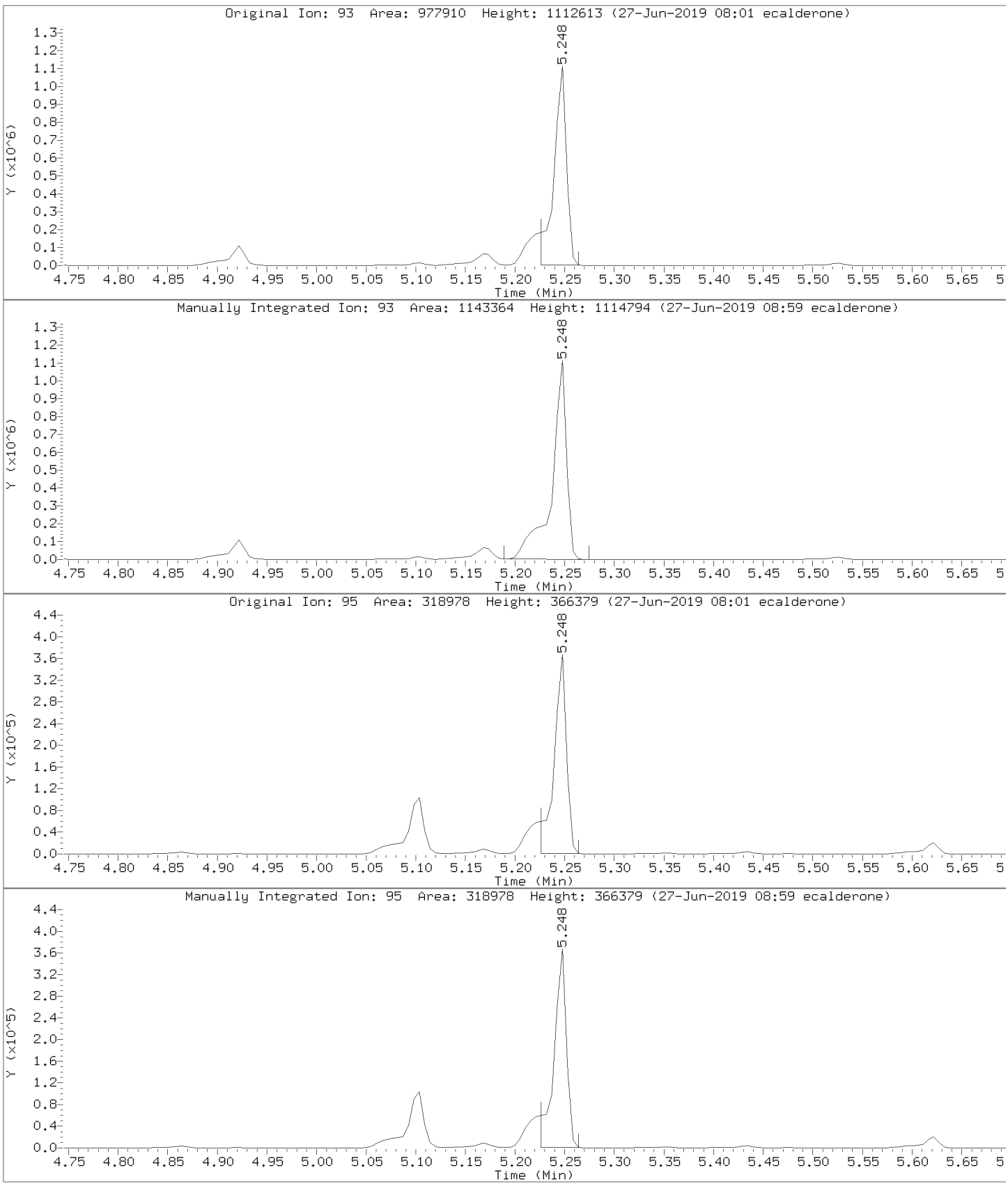
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: bis(2-Chloroethoxy)methane Review Code: LT
CAS Number: 111-91-1



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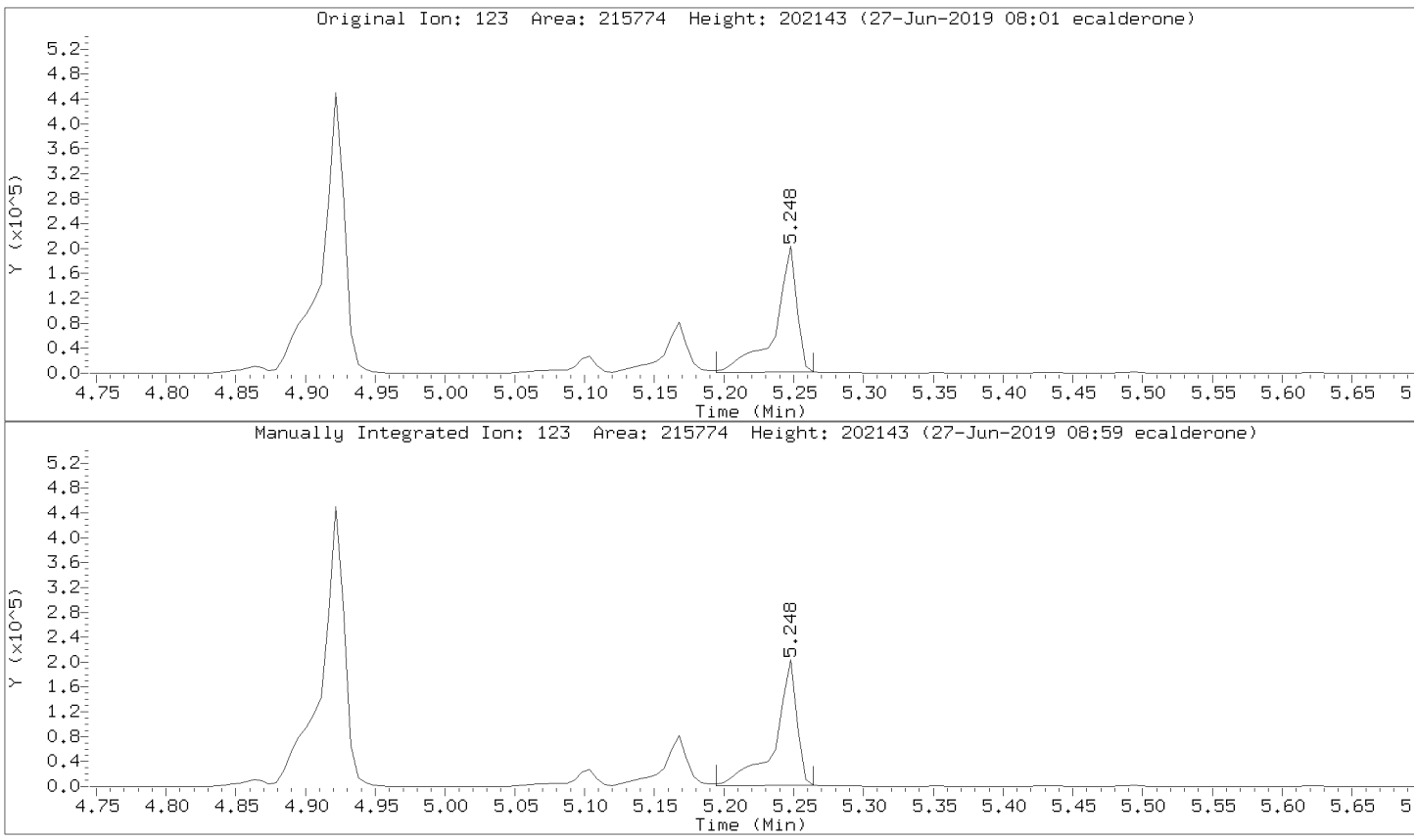

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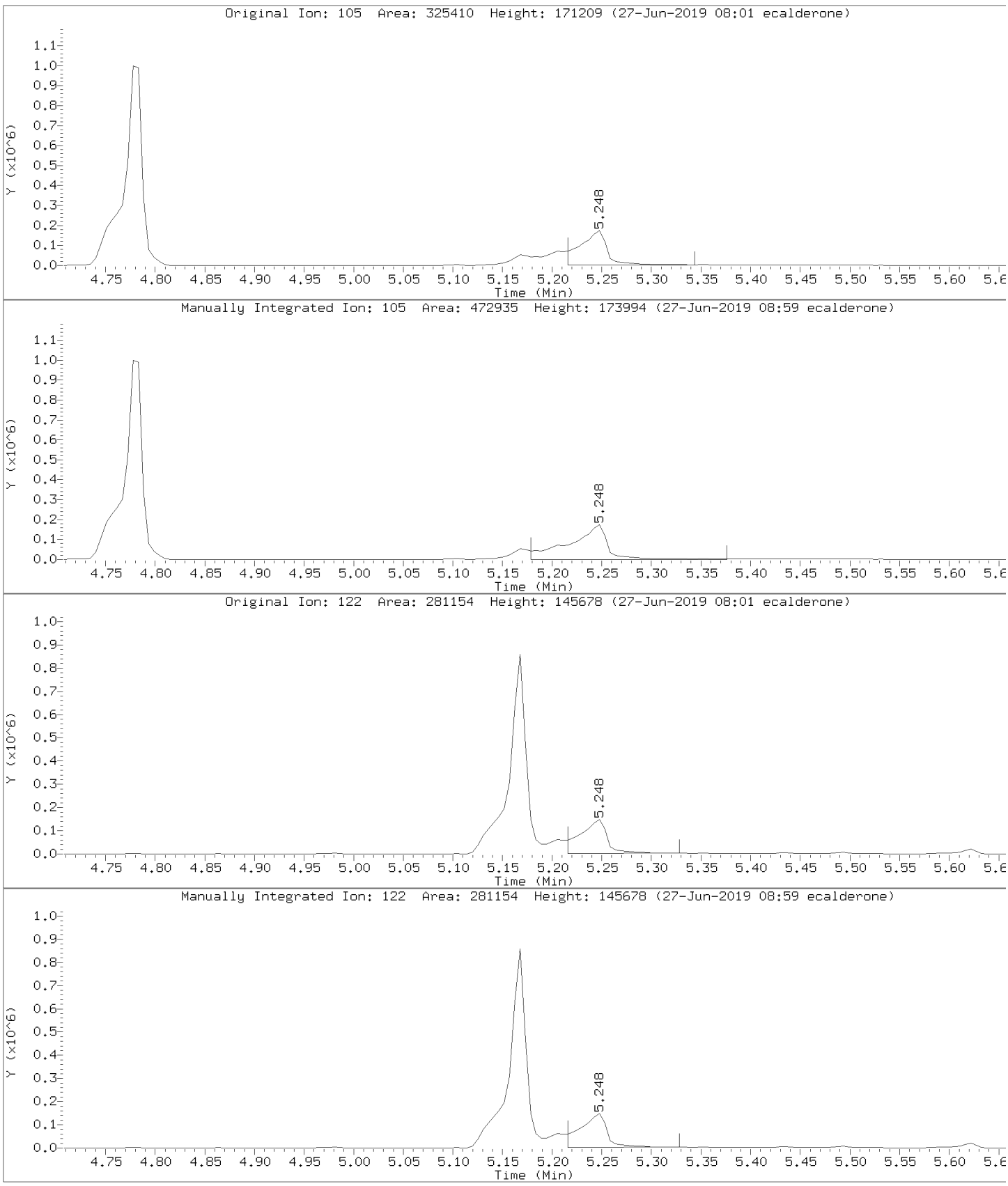
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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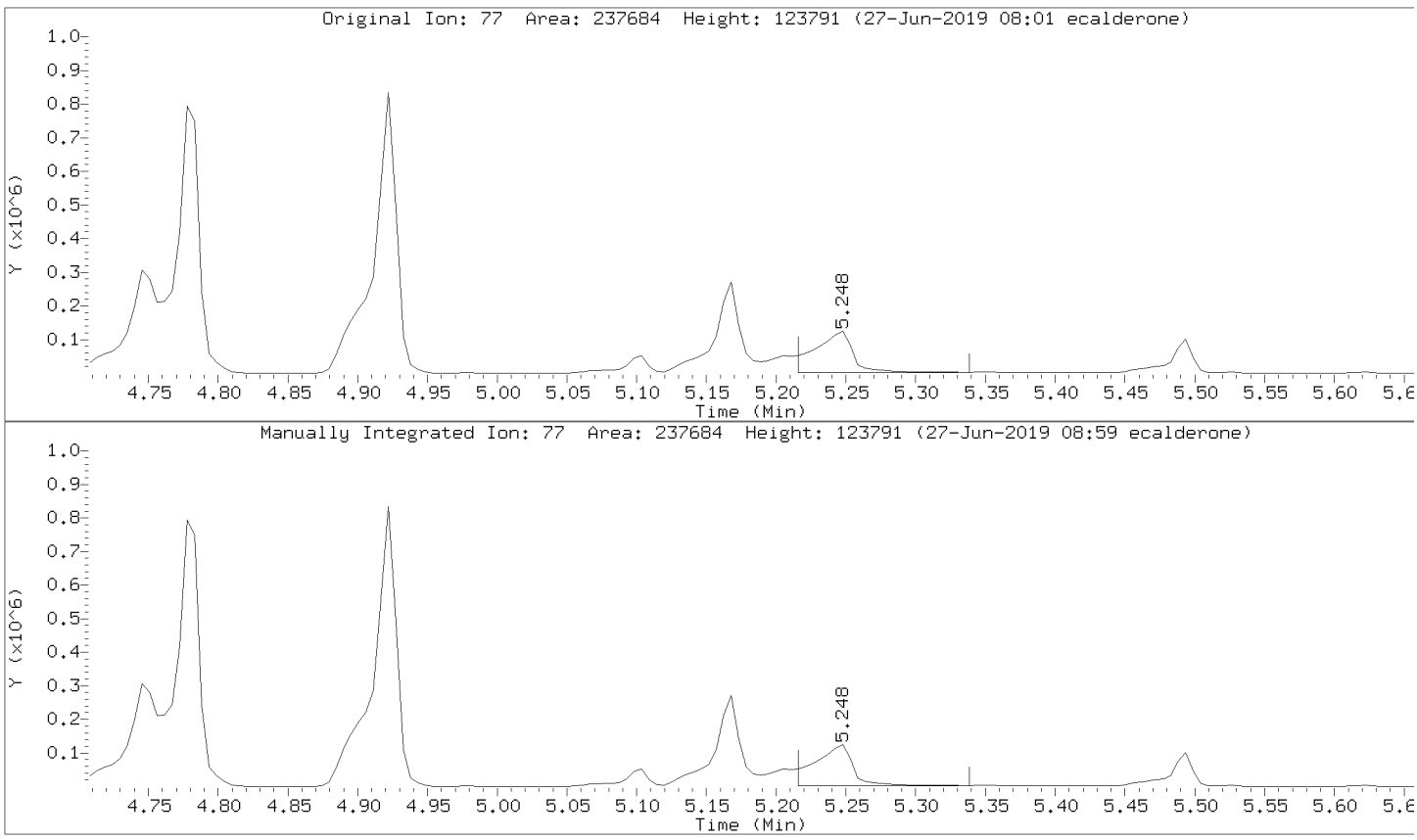

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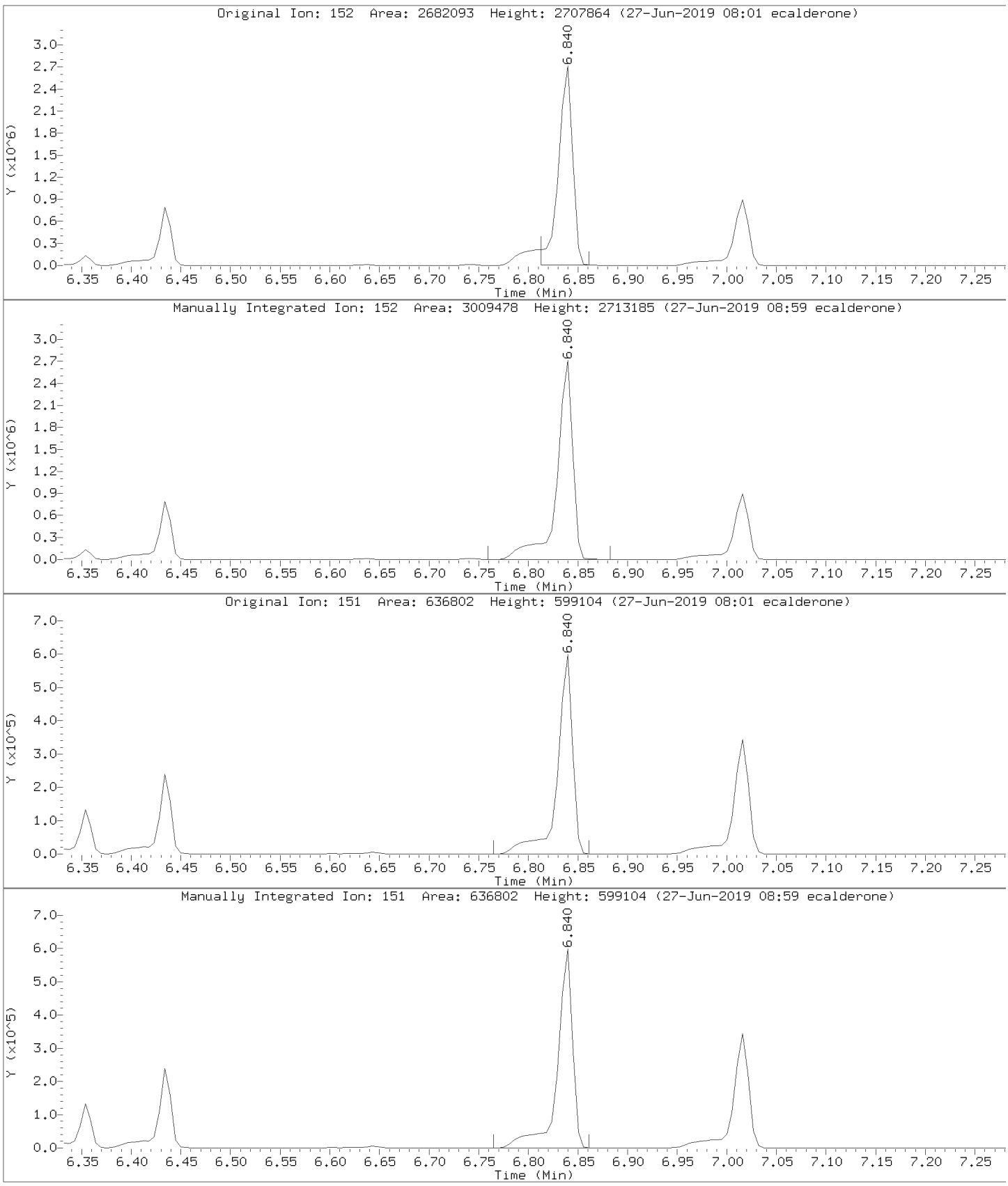
Lab Sample ID: CAL6

Compound: Acenaphthylene Review Code: LT
CAS Number: 208-96-8



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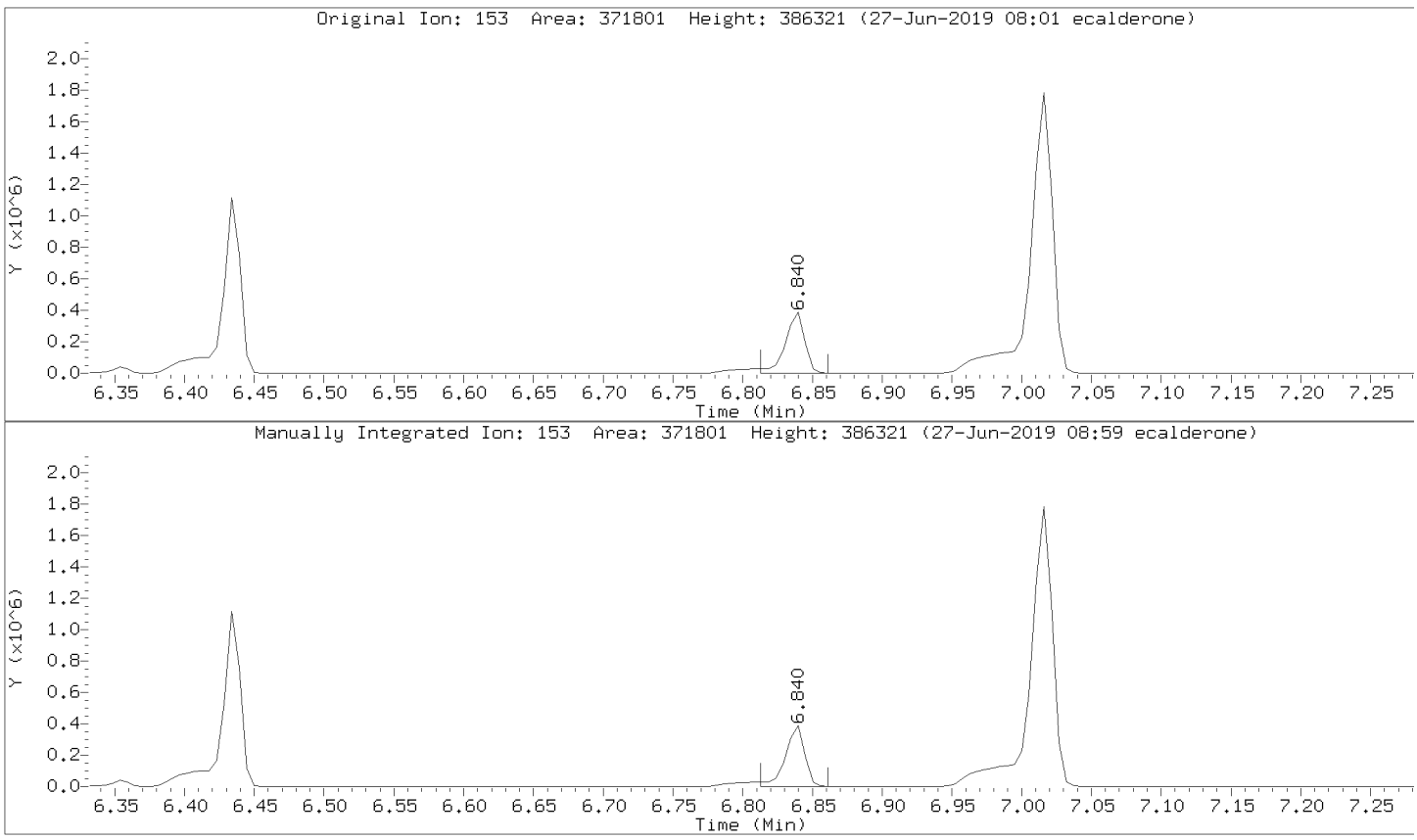

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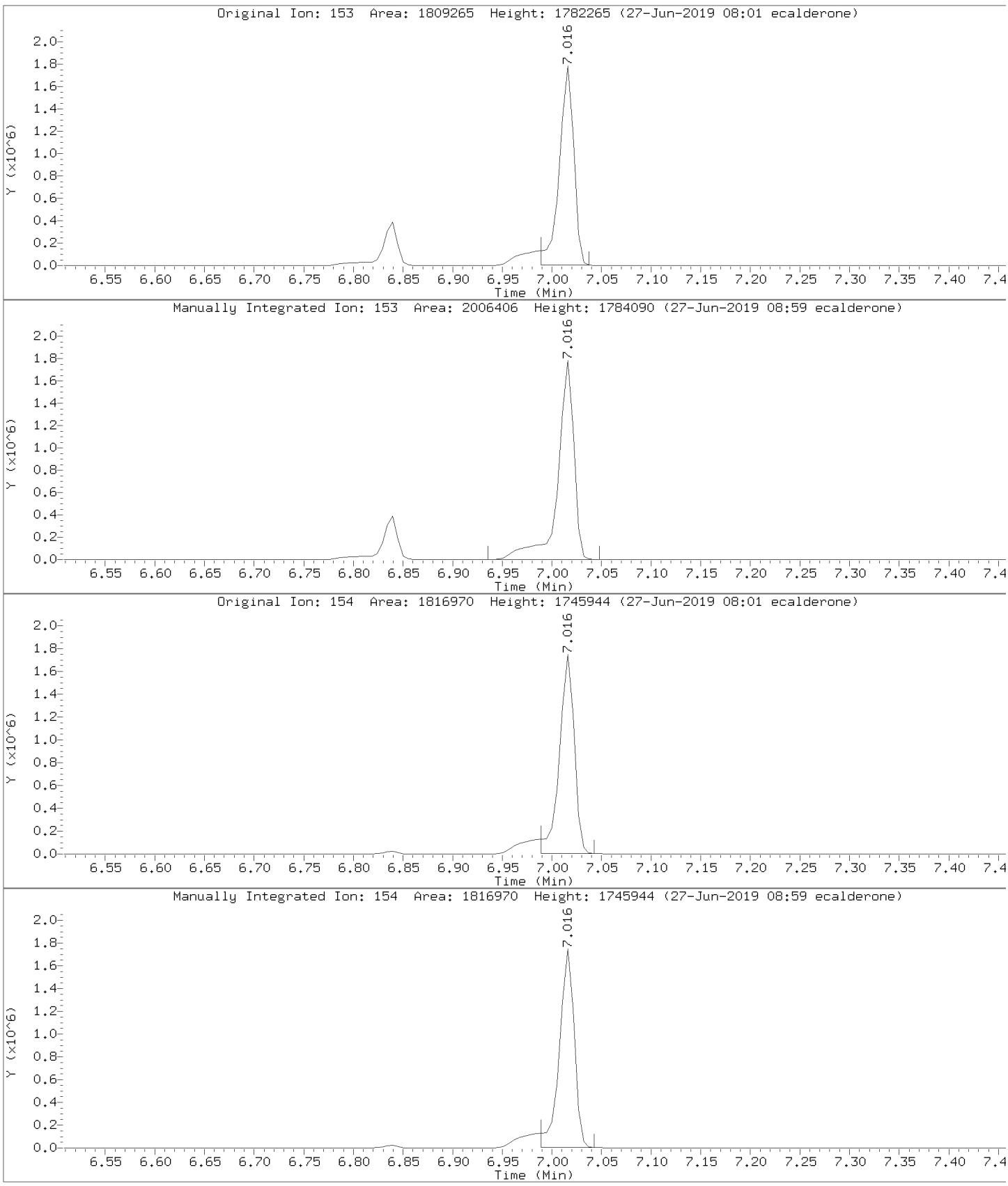
Lab Sample ID: CAL6

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9



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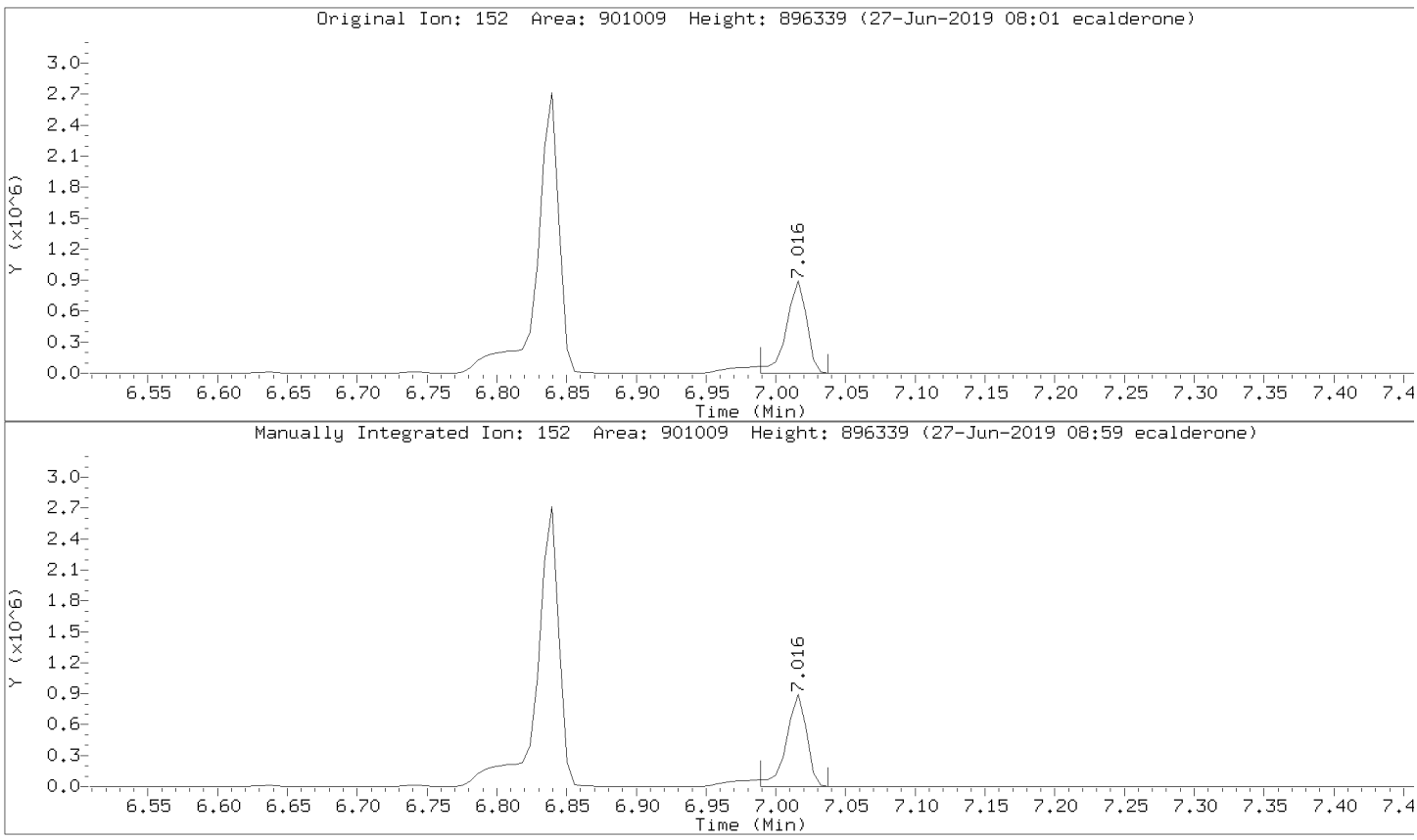
Instrument: 30mss1.i
Lab Sample ID: CAL6



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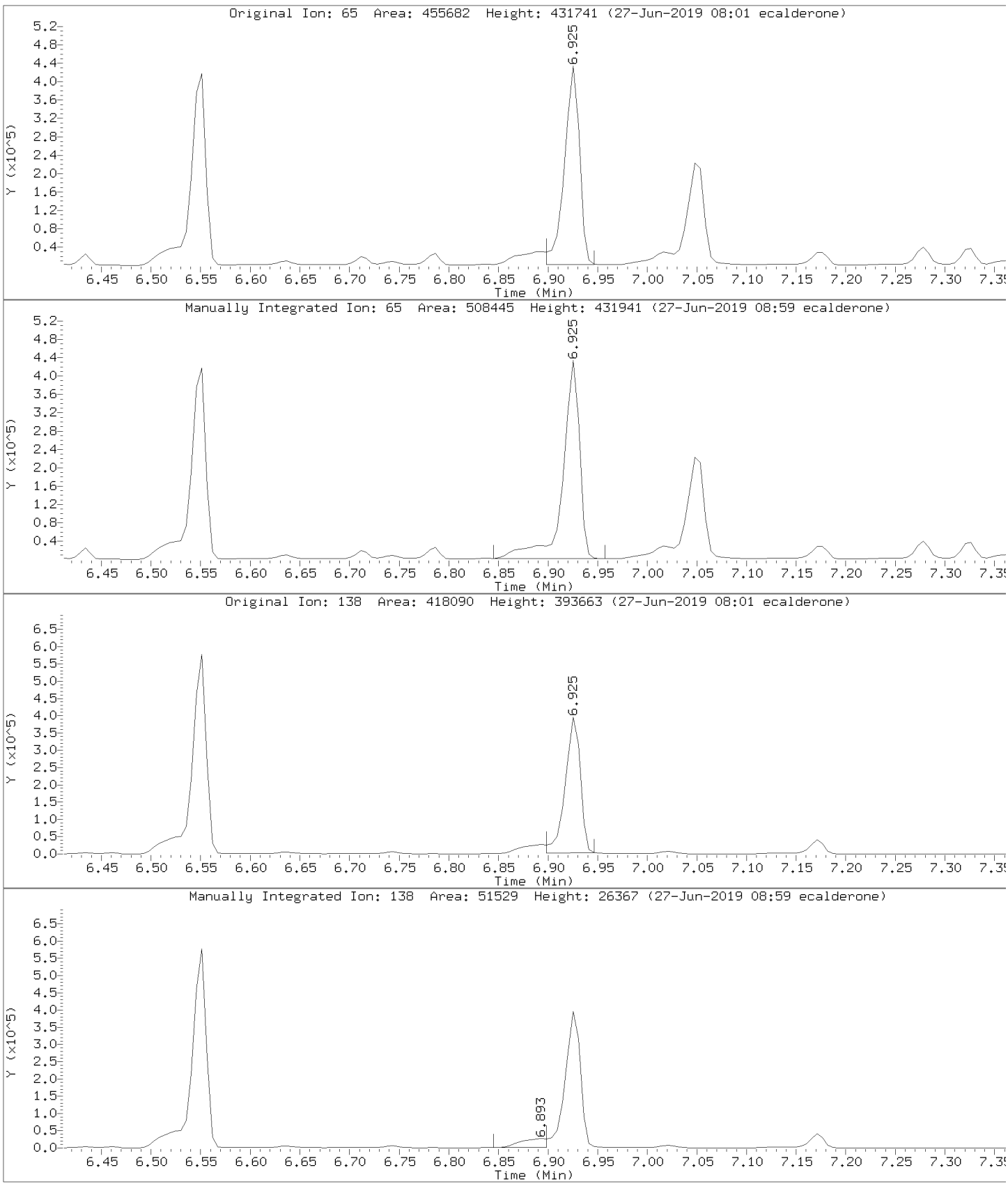
Lab Sample ID: CAL6

Compound: 3-Nitroaniline Review Code: LT
CAS Number: 99-09-2



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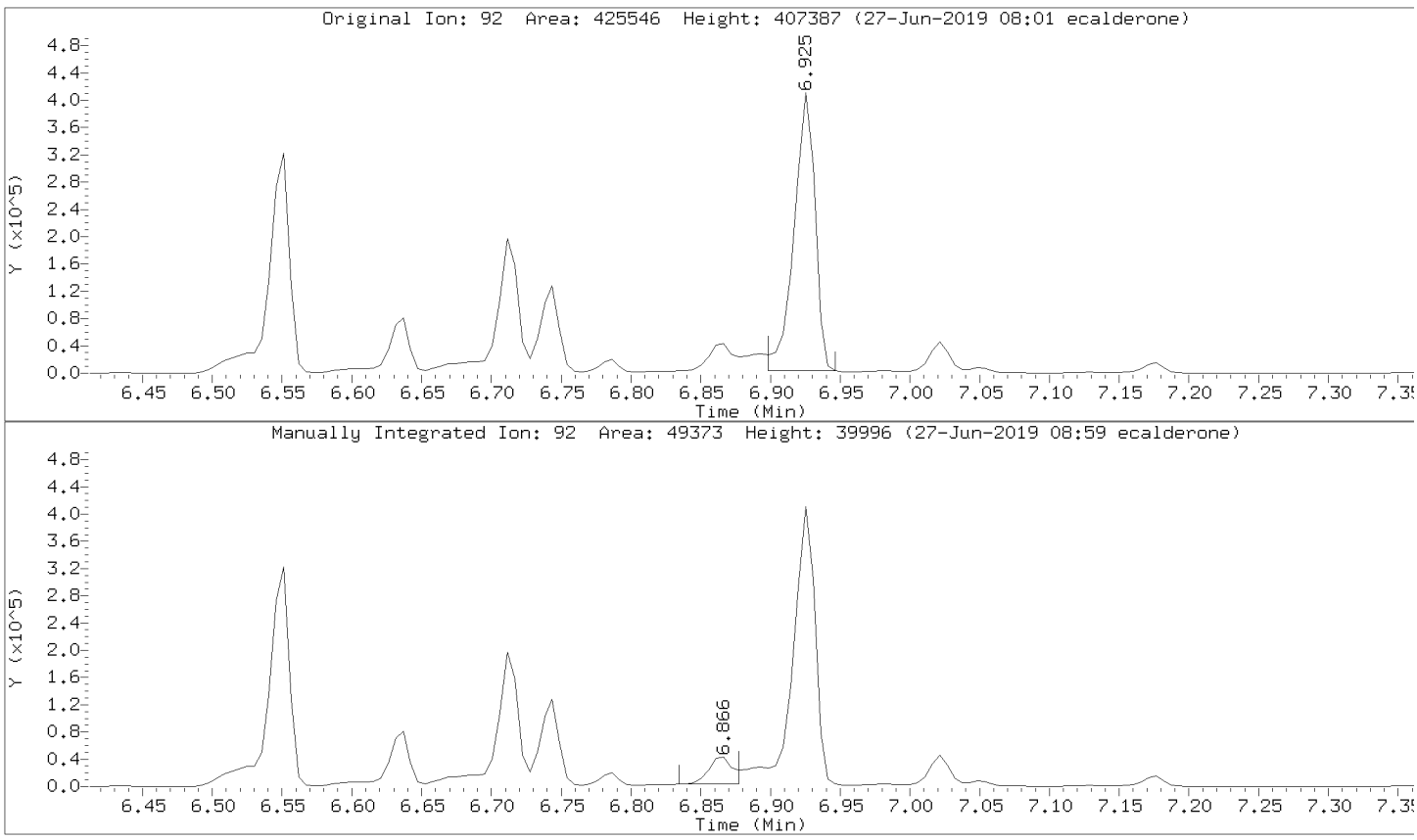

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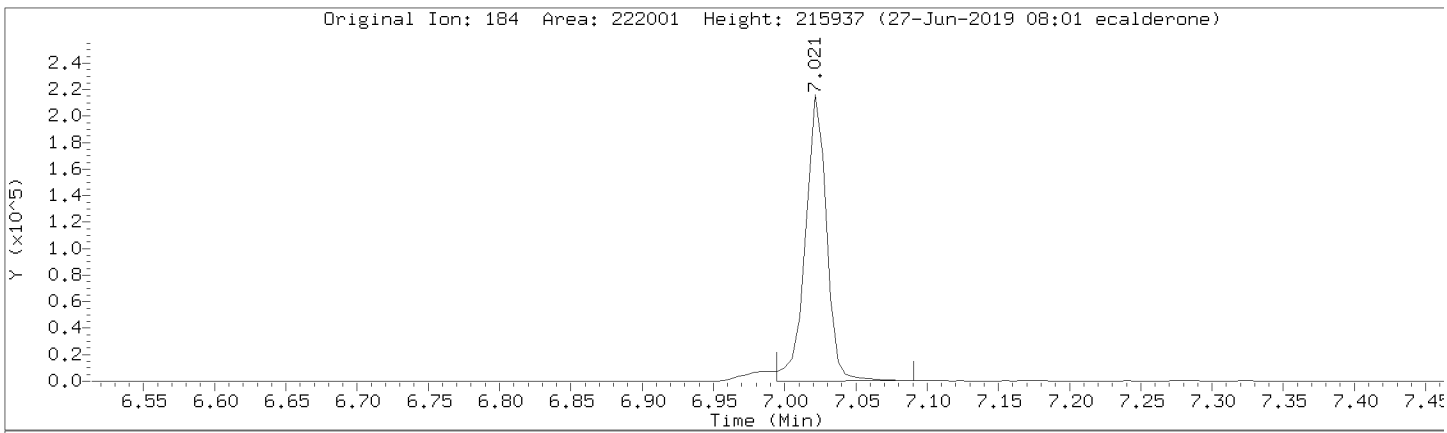
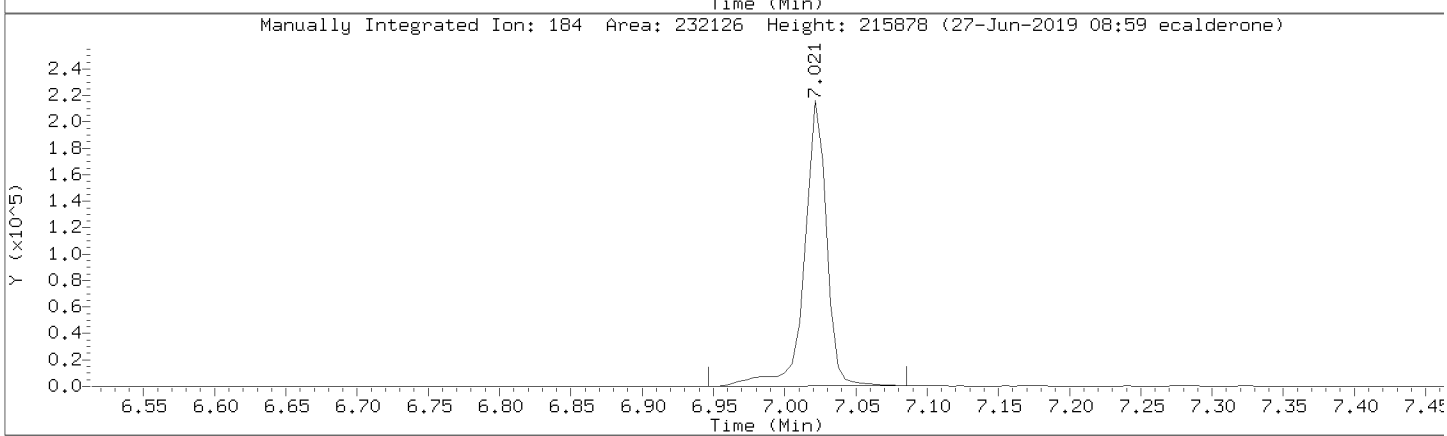
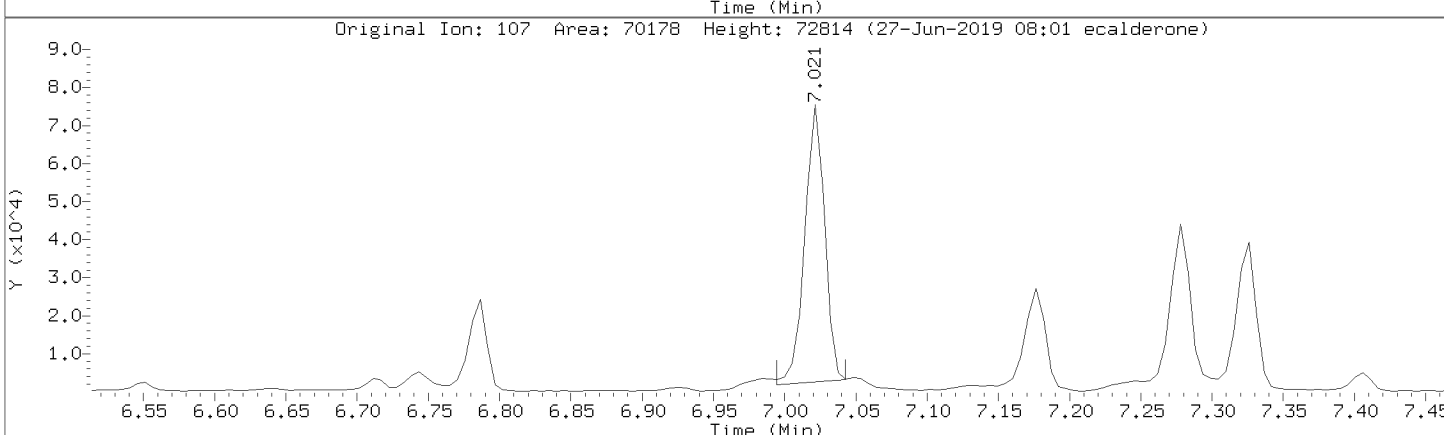
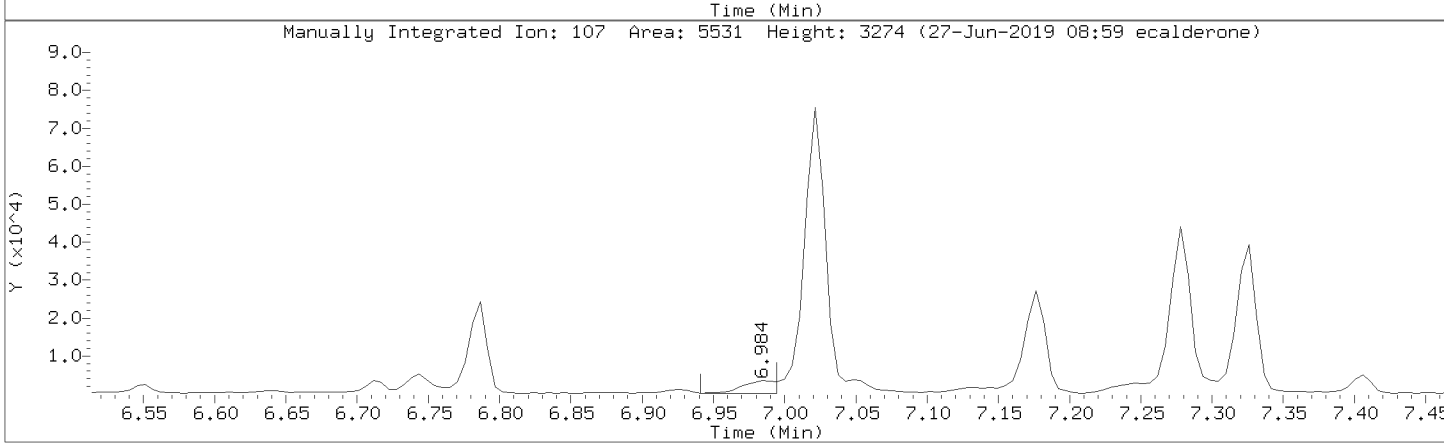
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5









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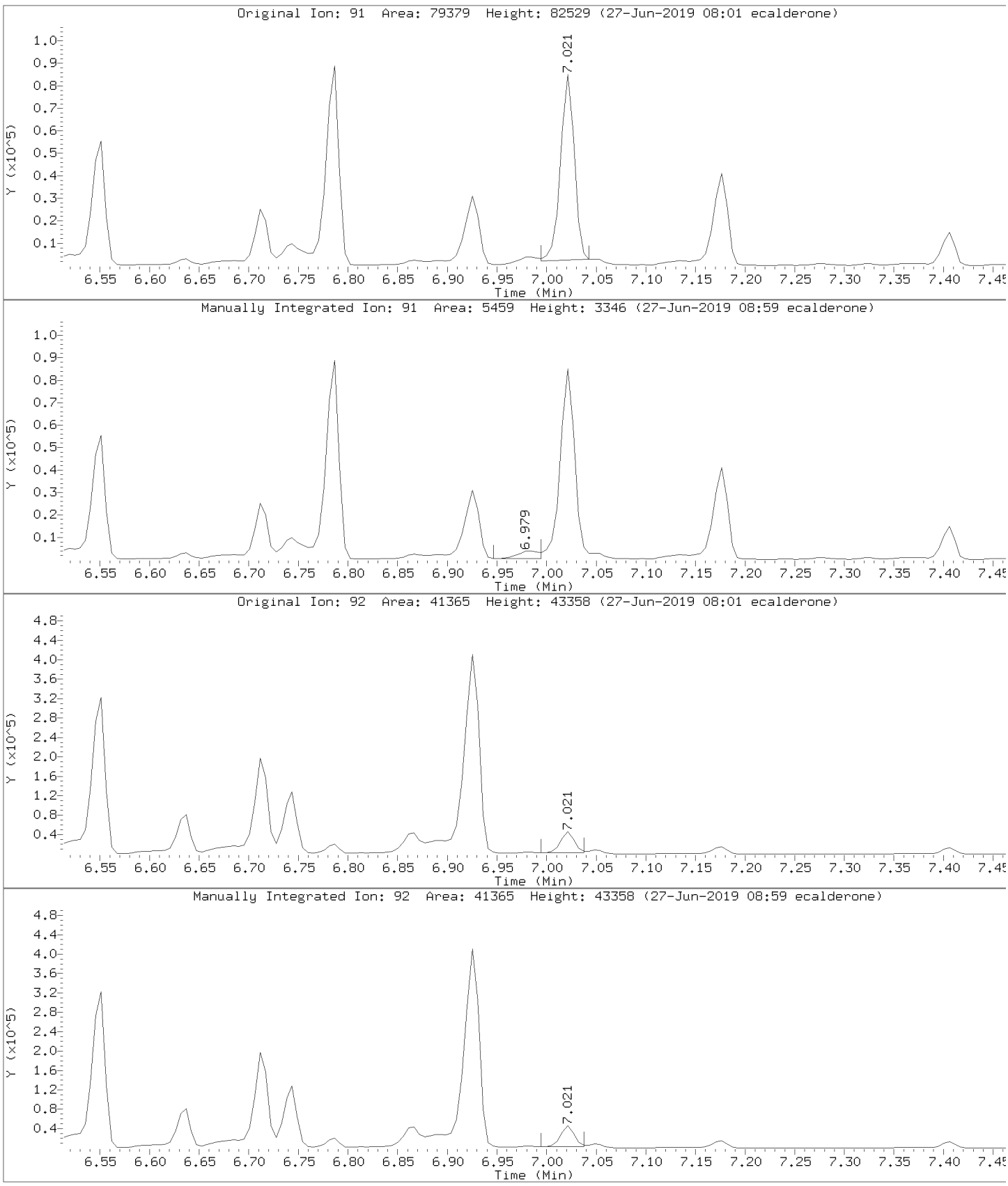

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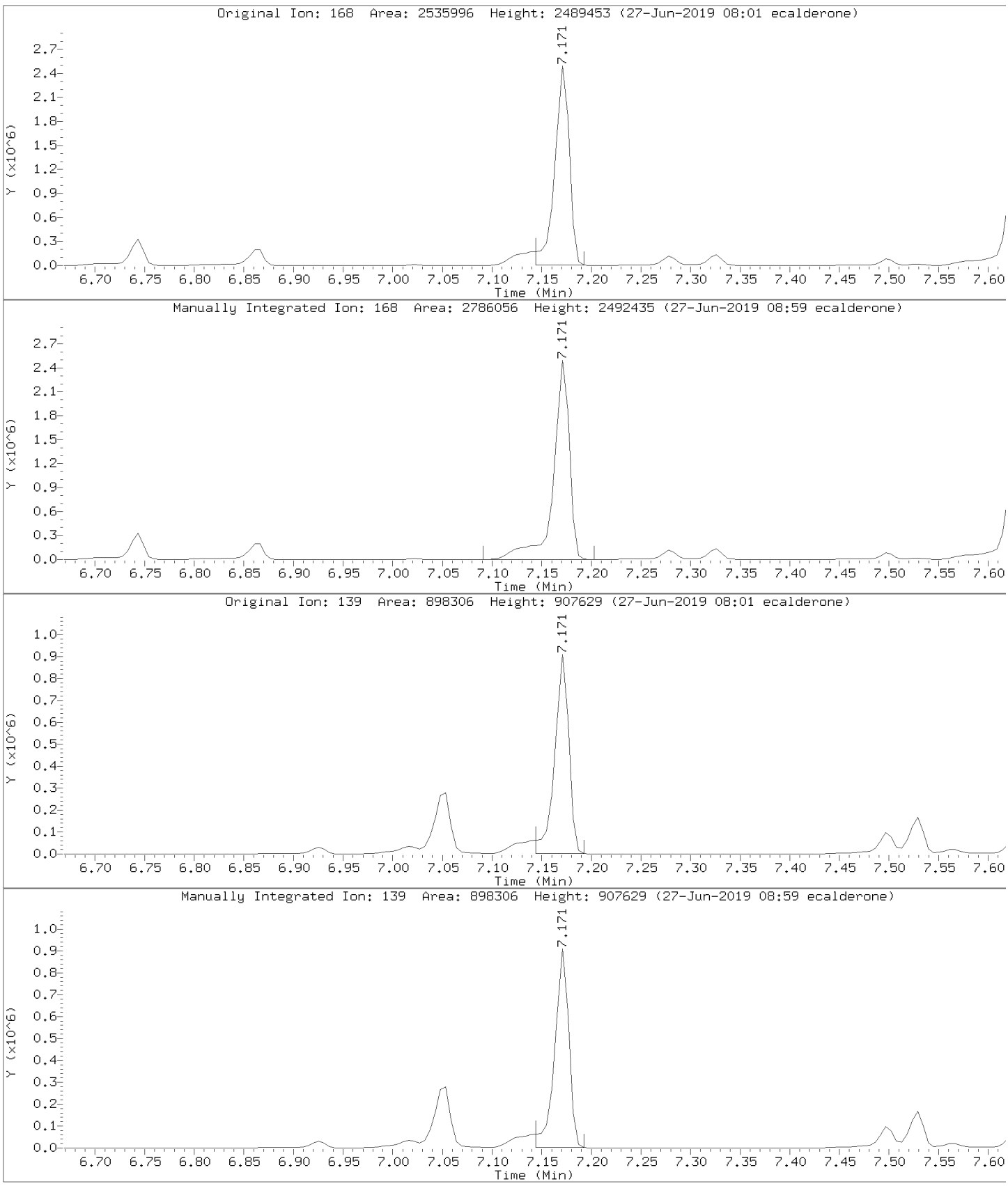
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Dibenzofuran Review Code: LT
CAS Number: 132-64-9



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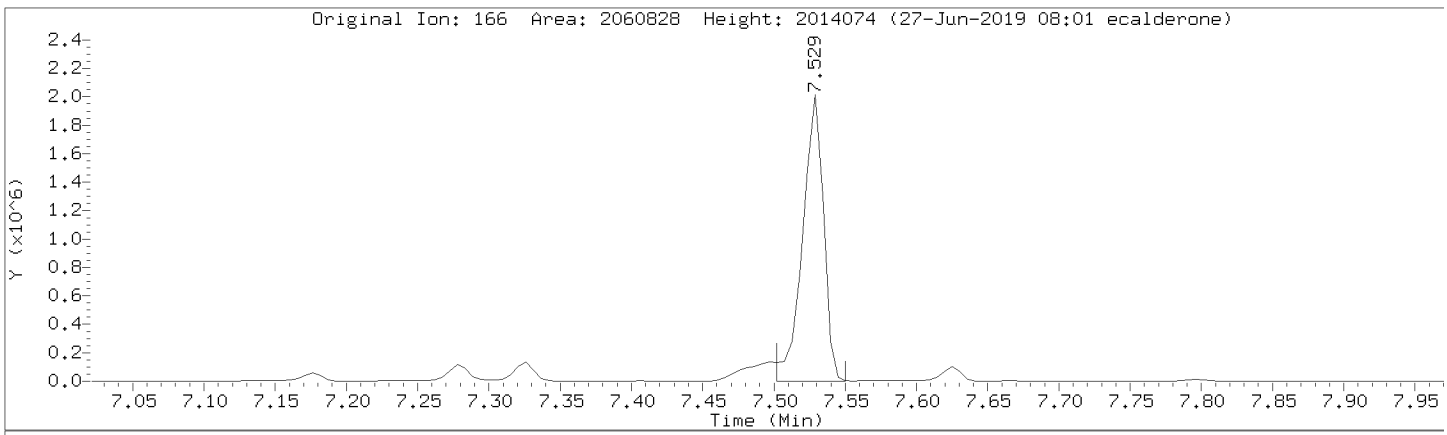
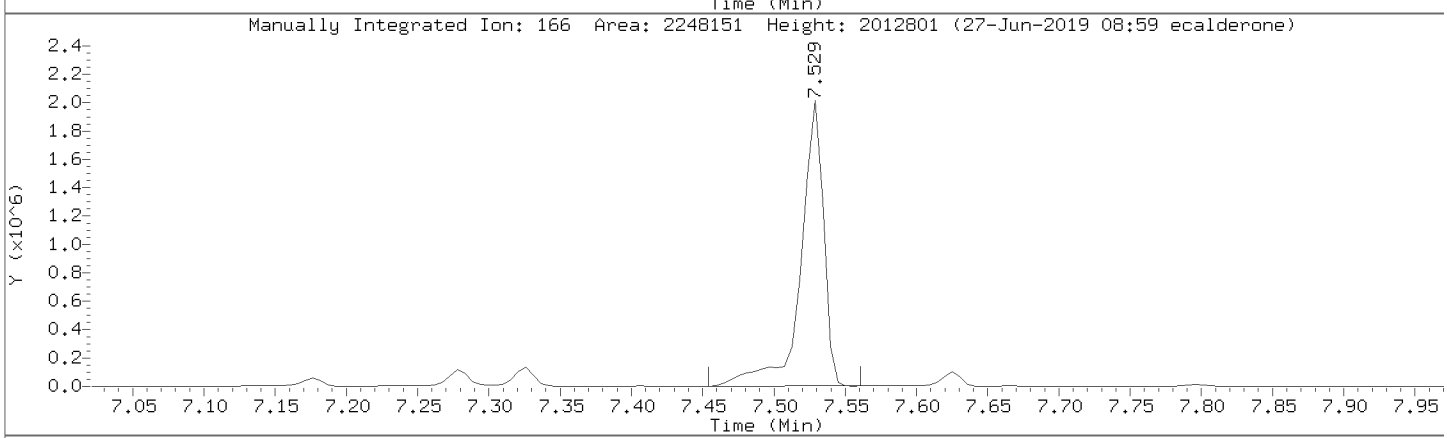
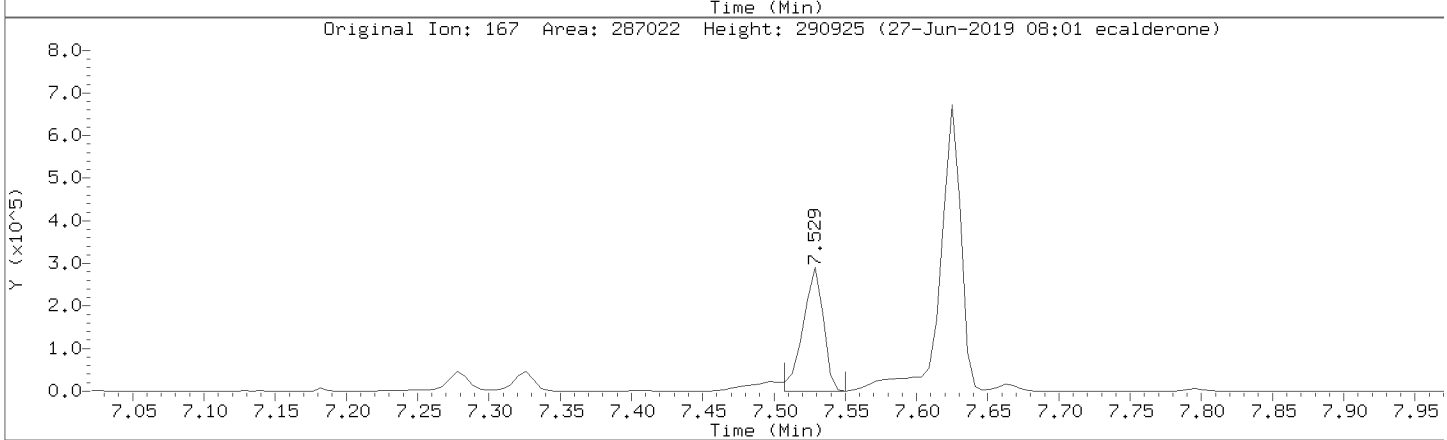
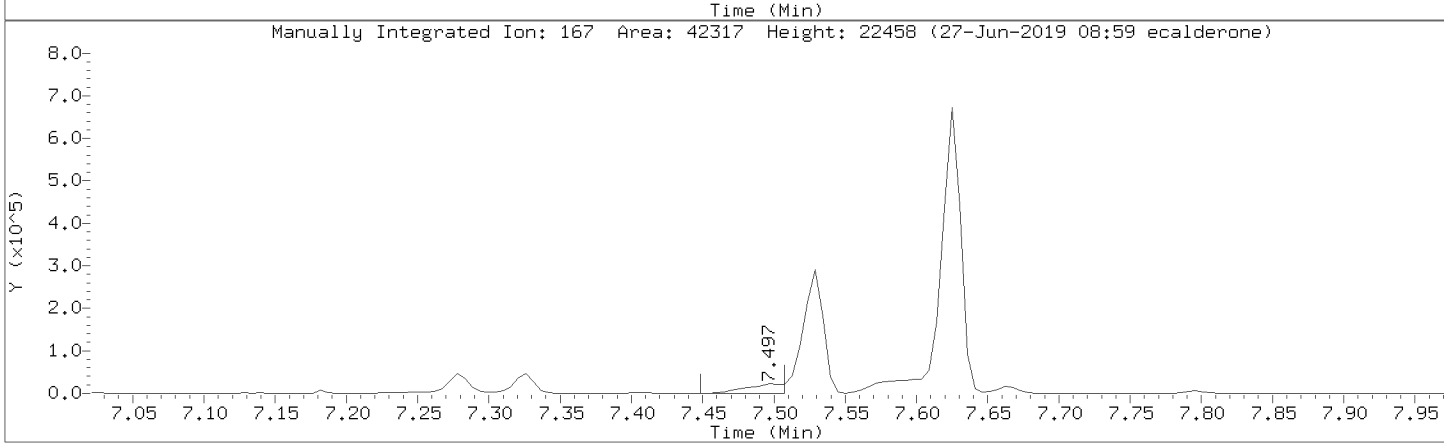
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Fluorene Review Code: LT
CAS Number: 86-73-7









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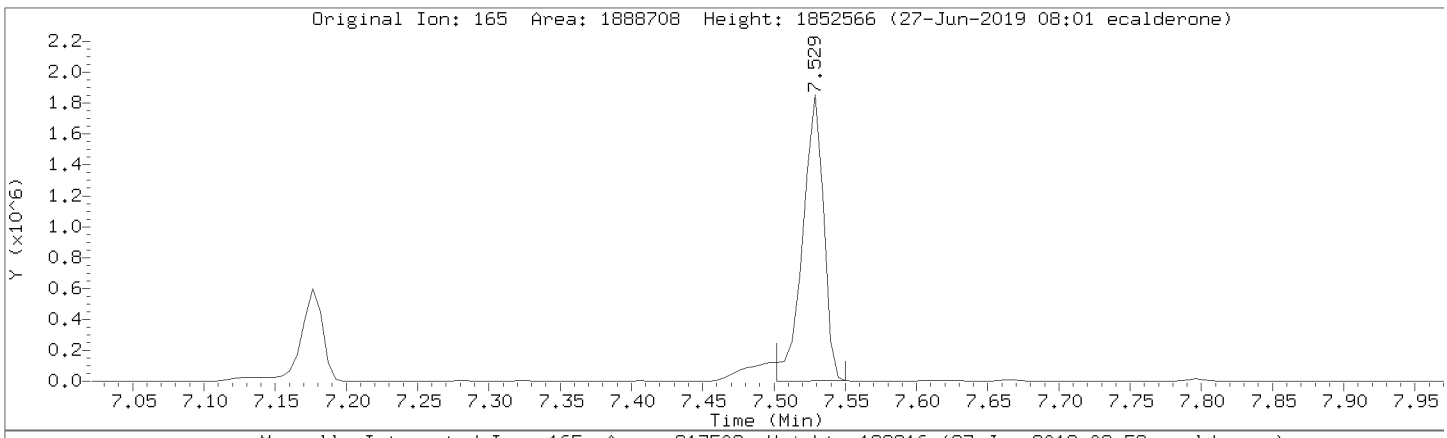
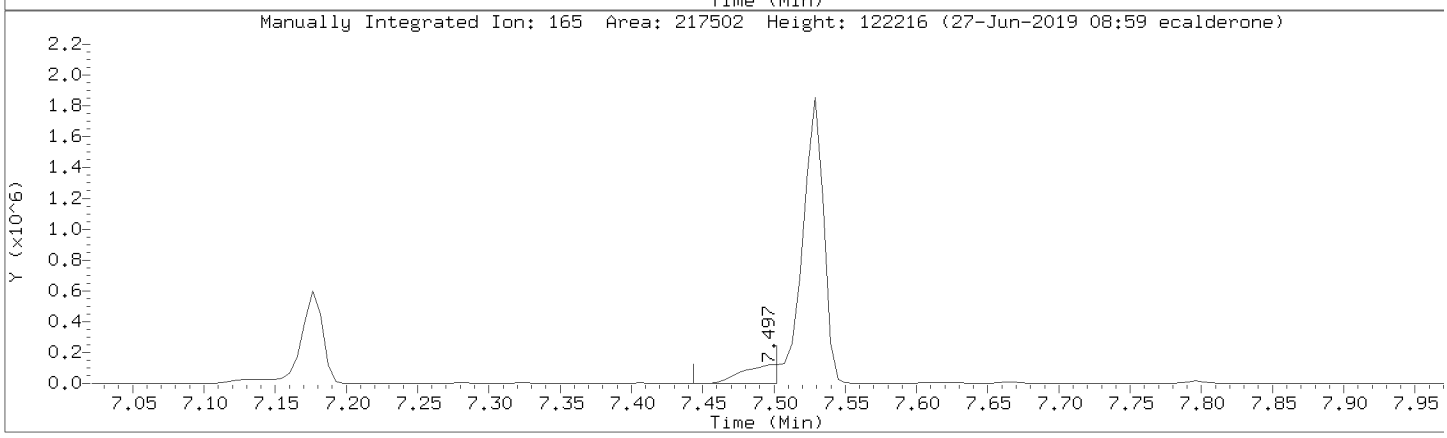
Lab Sample ID: CAL6





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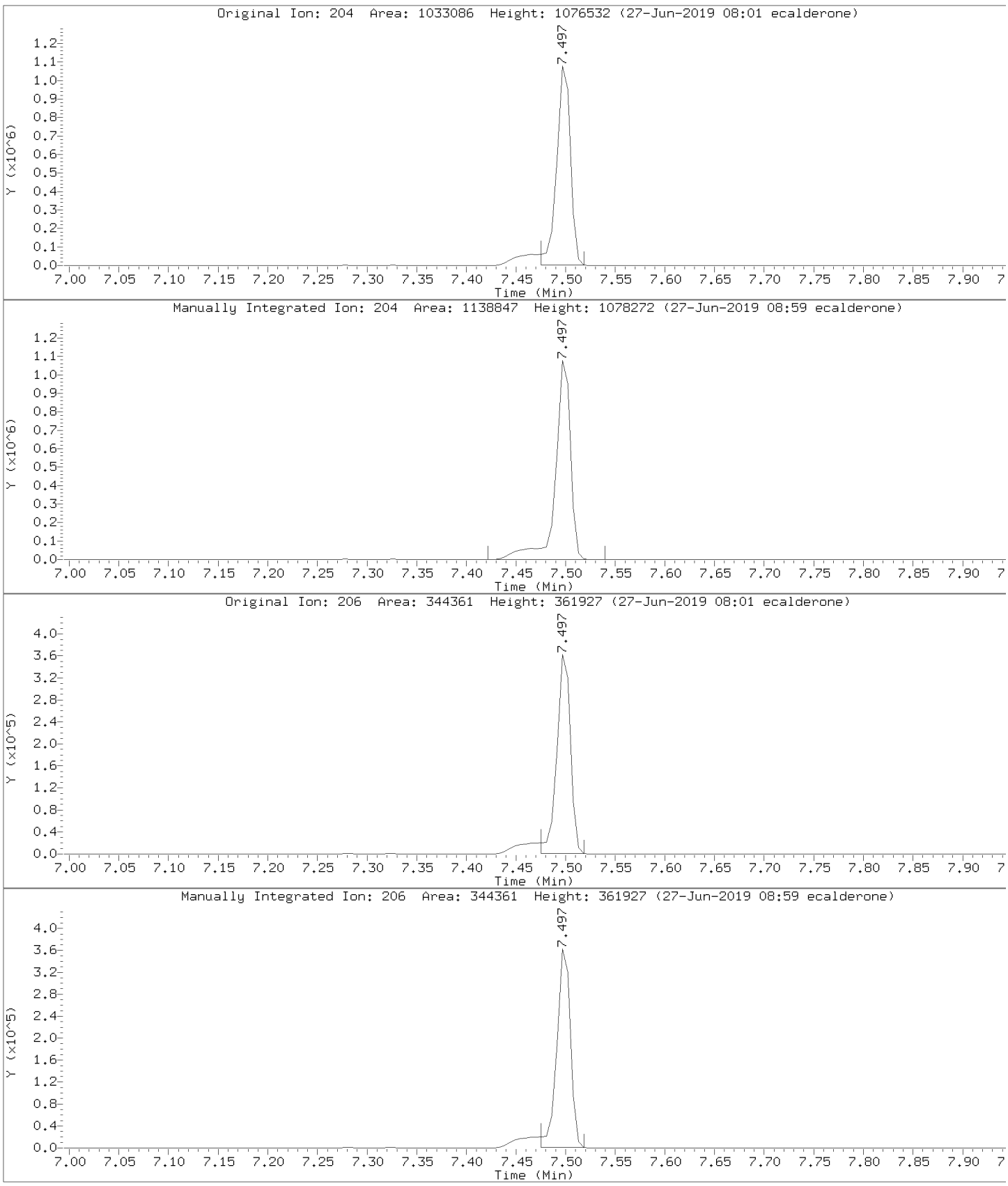
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Chlorophenylphenyl ether Review Code: LT
CAS Number: 7005-72-3



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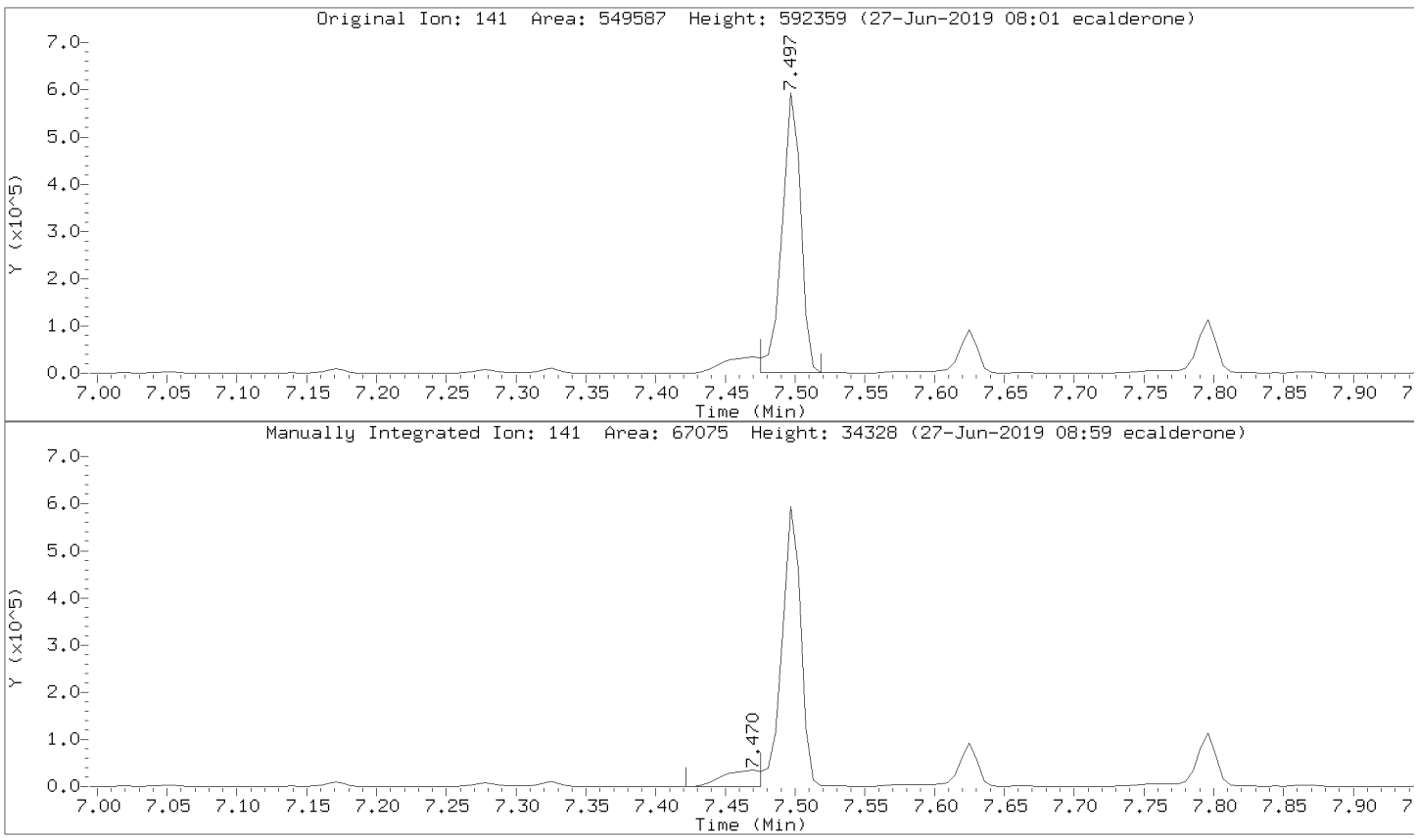

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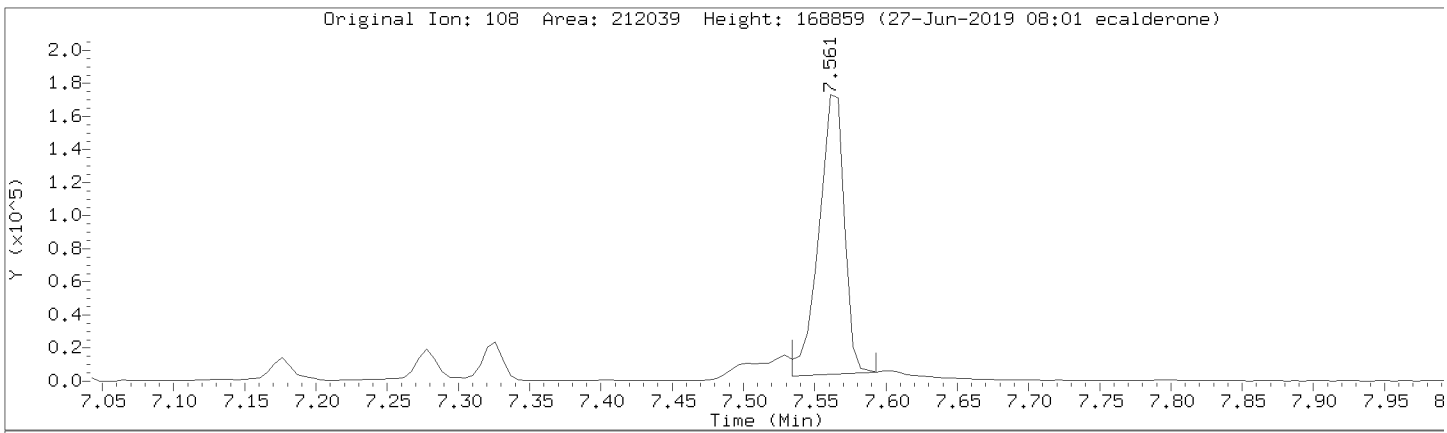
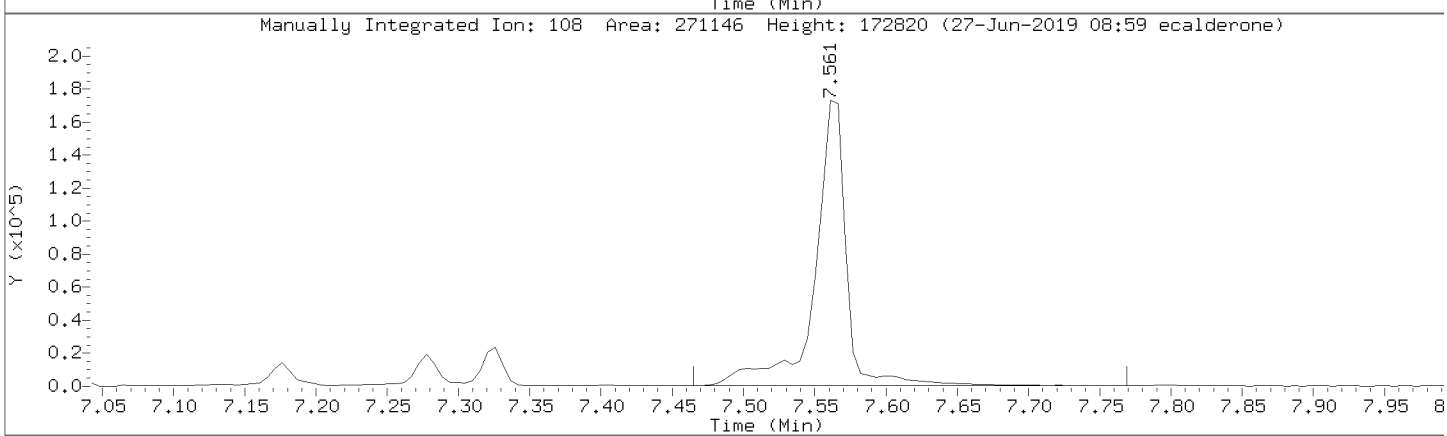
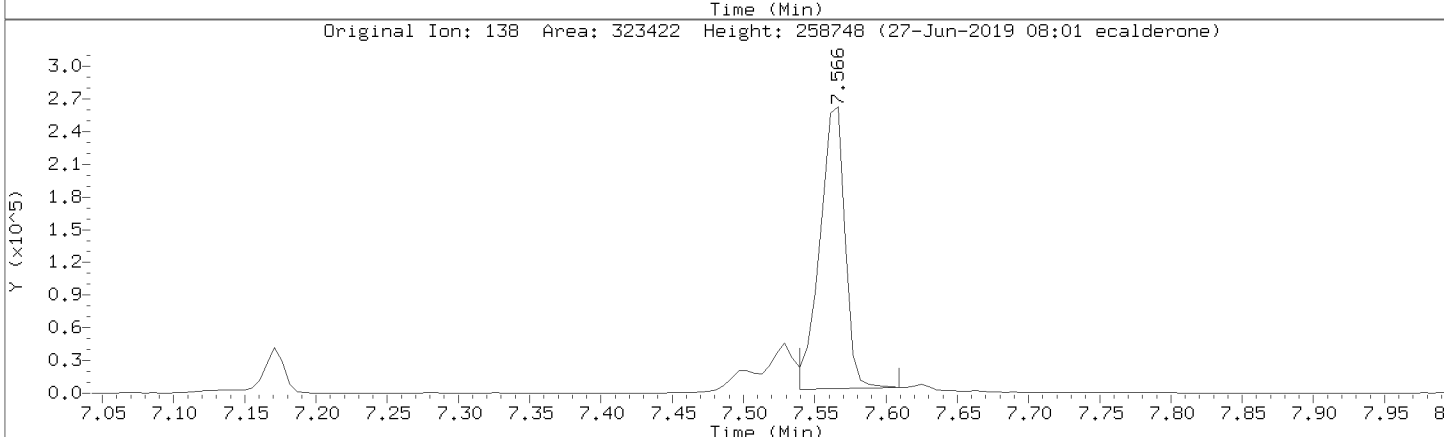
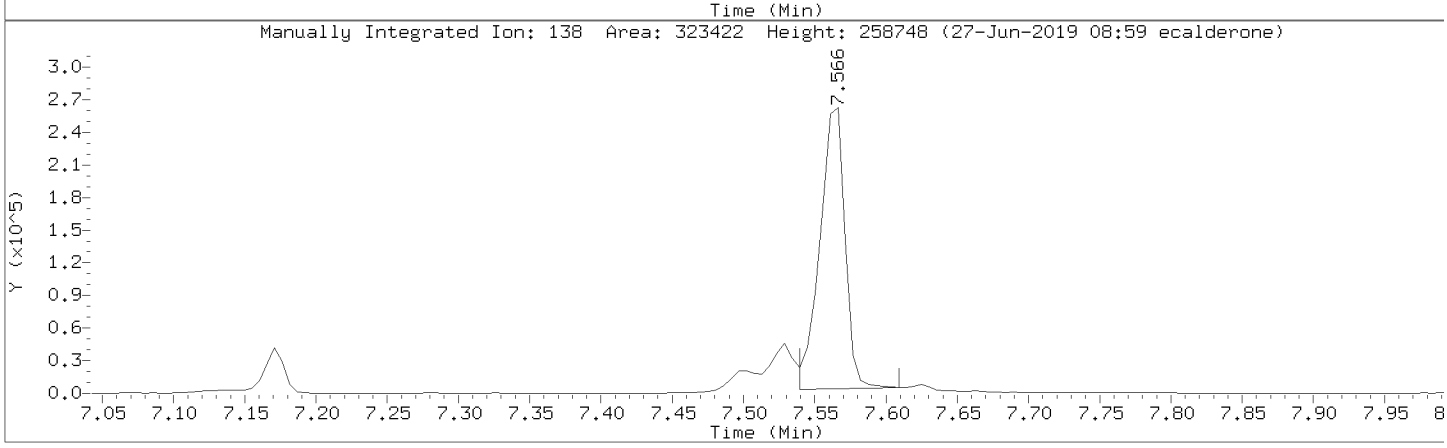
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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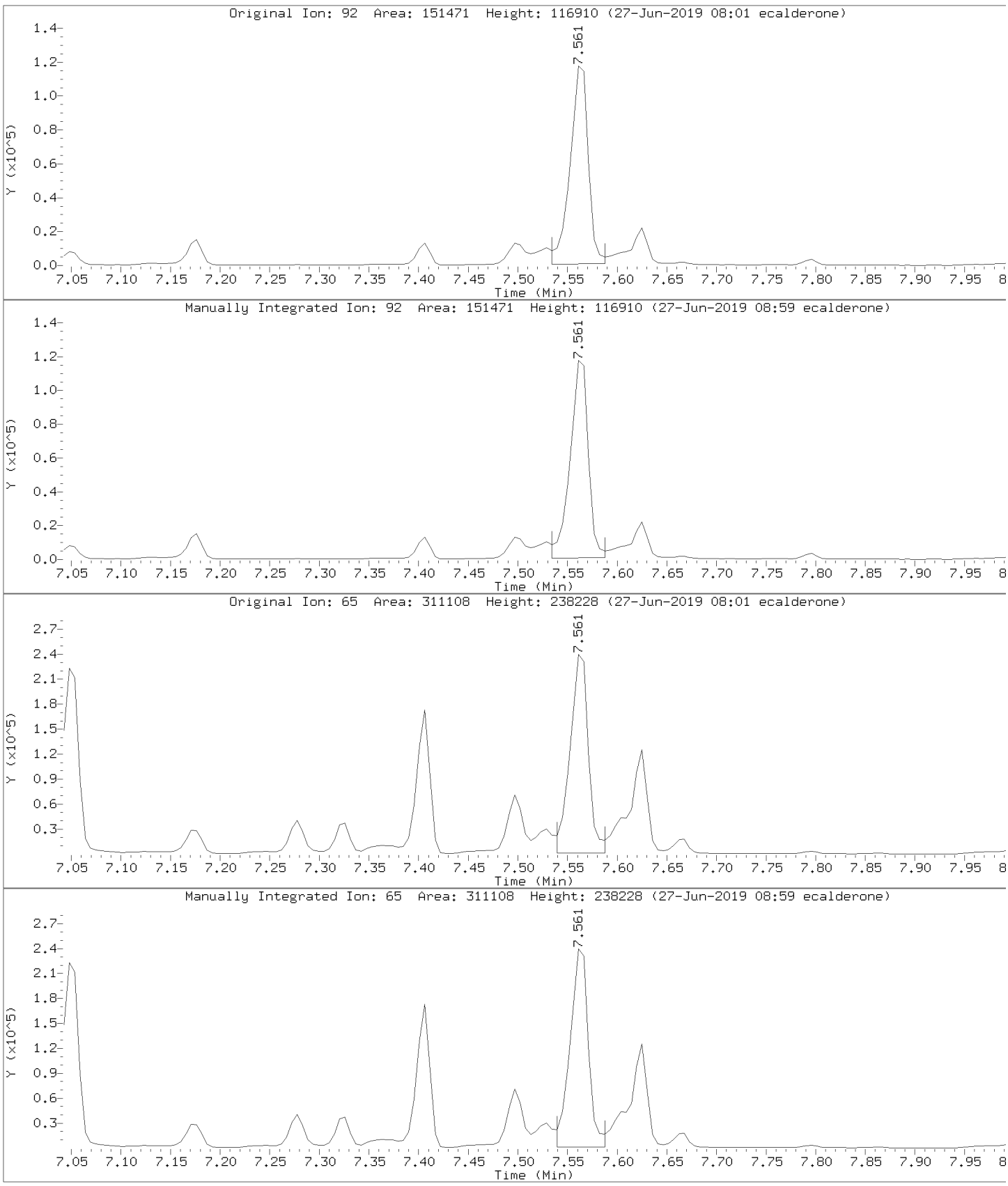
Instrument: 30mss1.i
Lab Sample ID: CAL6



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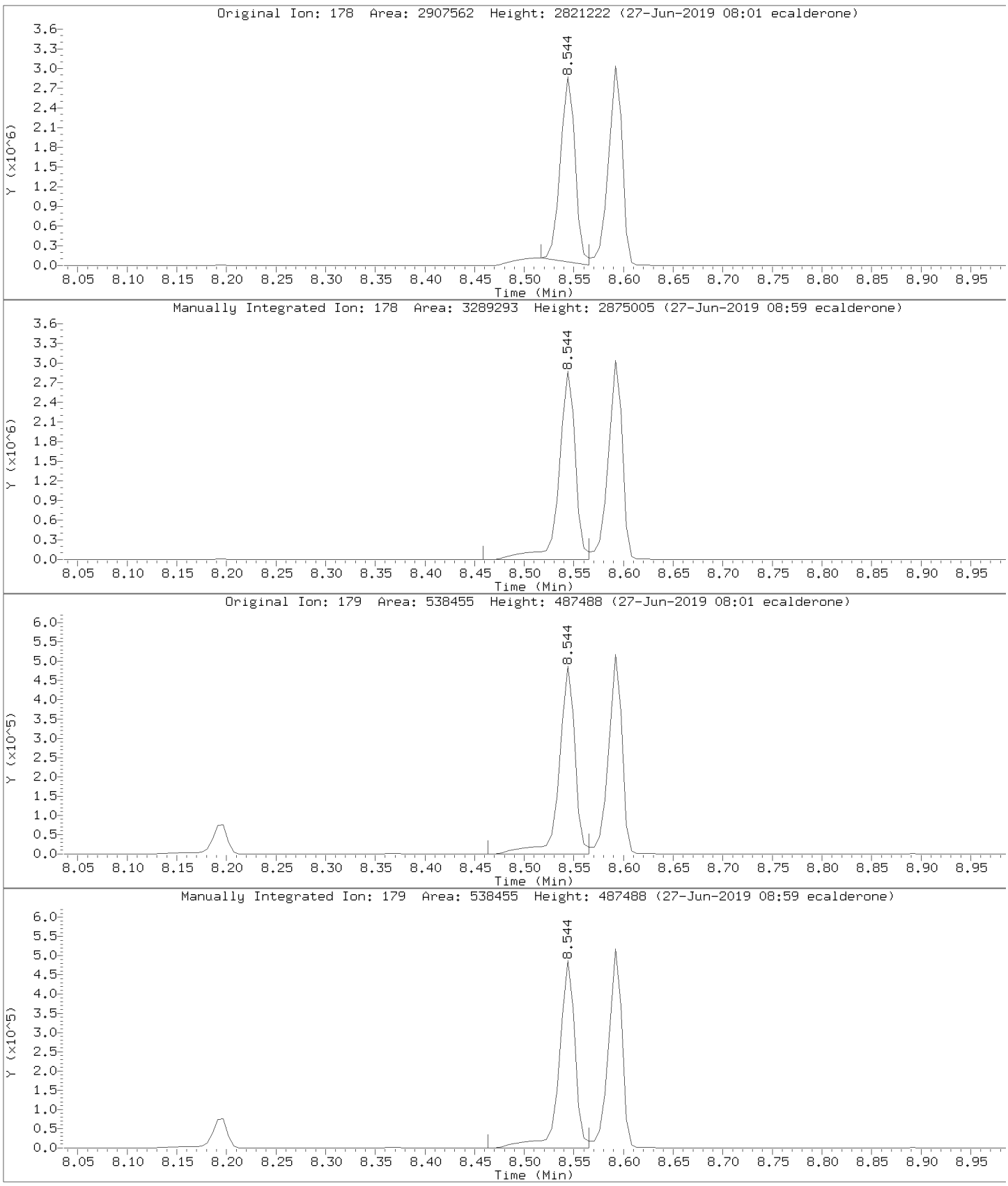
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Phenanthrene Review Code: LT
CAS Number: 85-01-8



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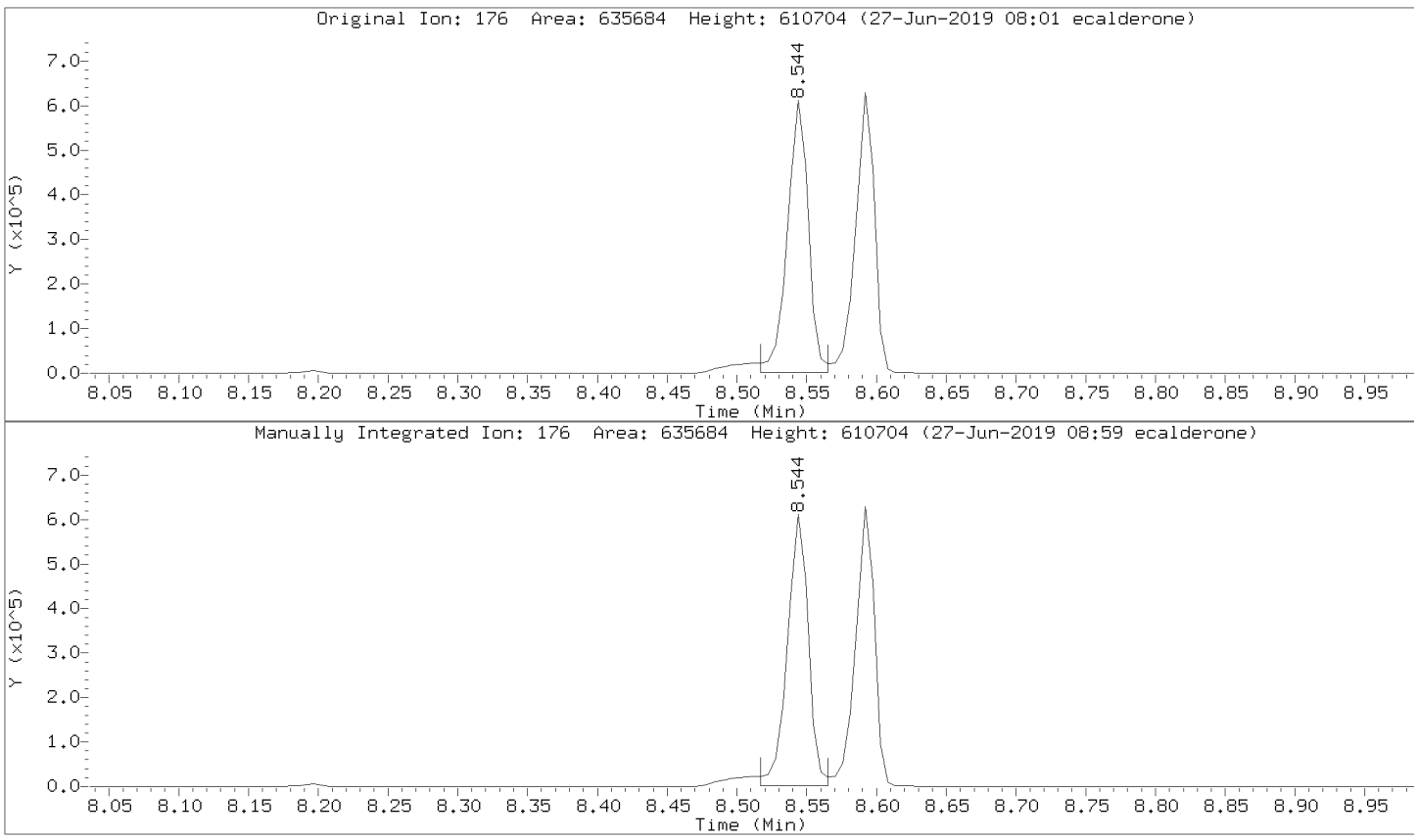
Instrument: 30mss1.i
Lab Sample ID: CAL6



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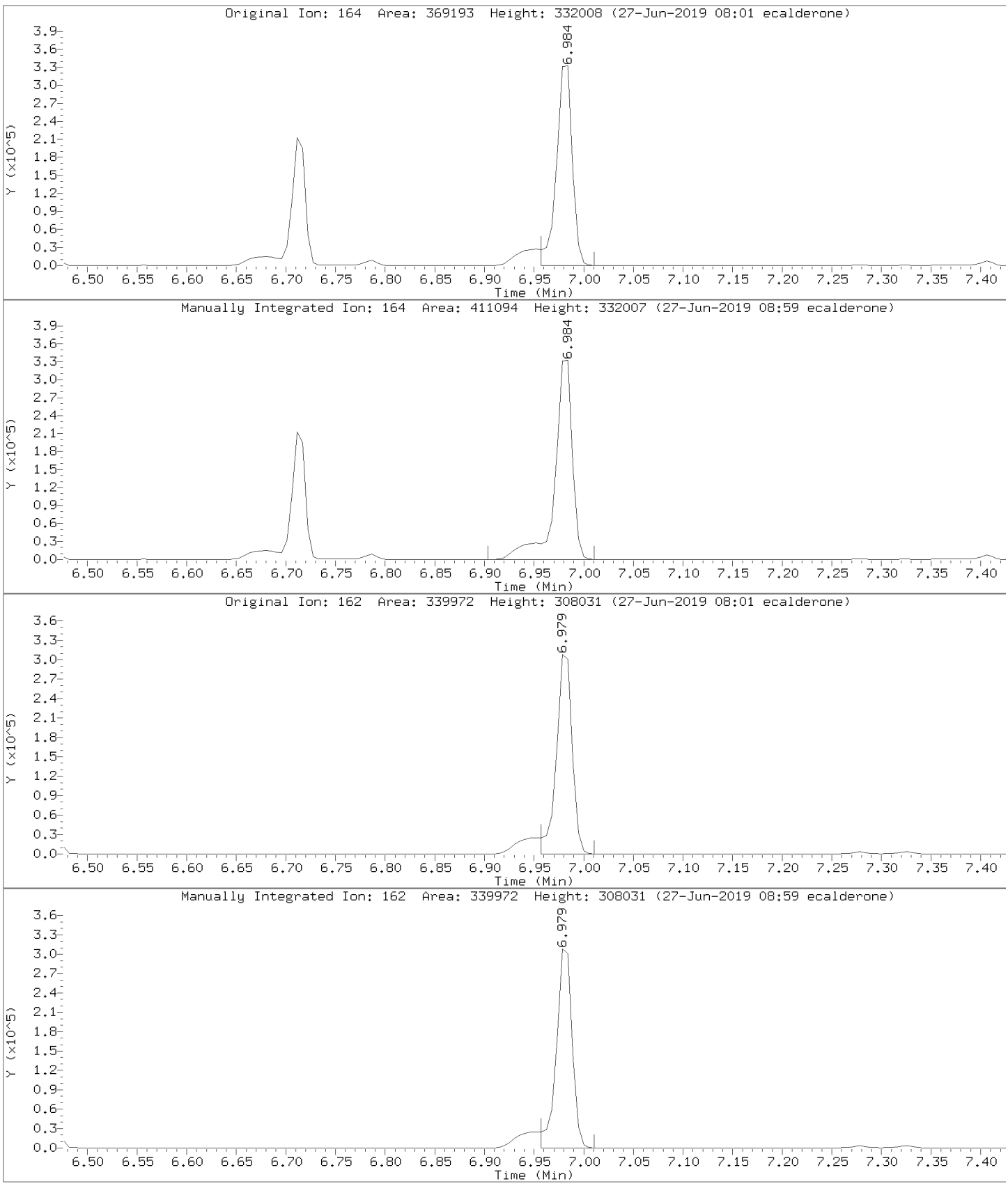
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Acenaphthene-d10 (IS) Review Code: LT
CAS Number: 15067-26-2



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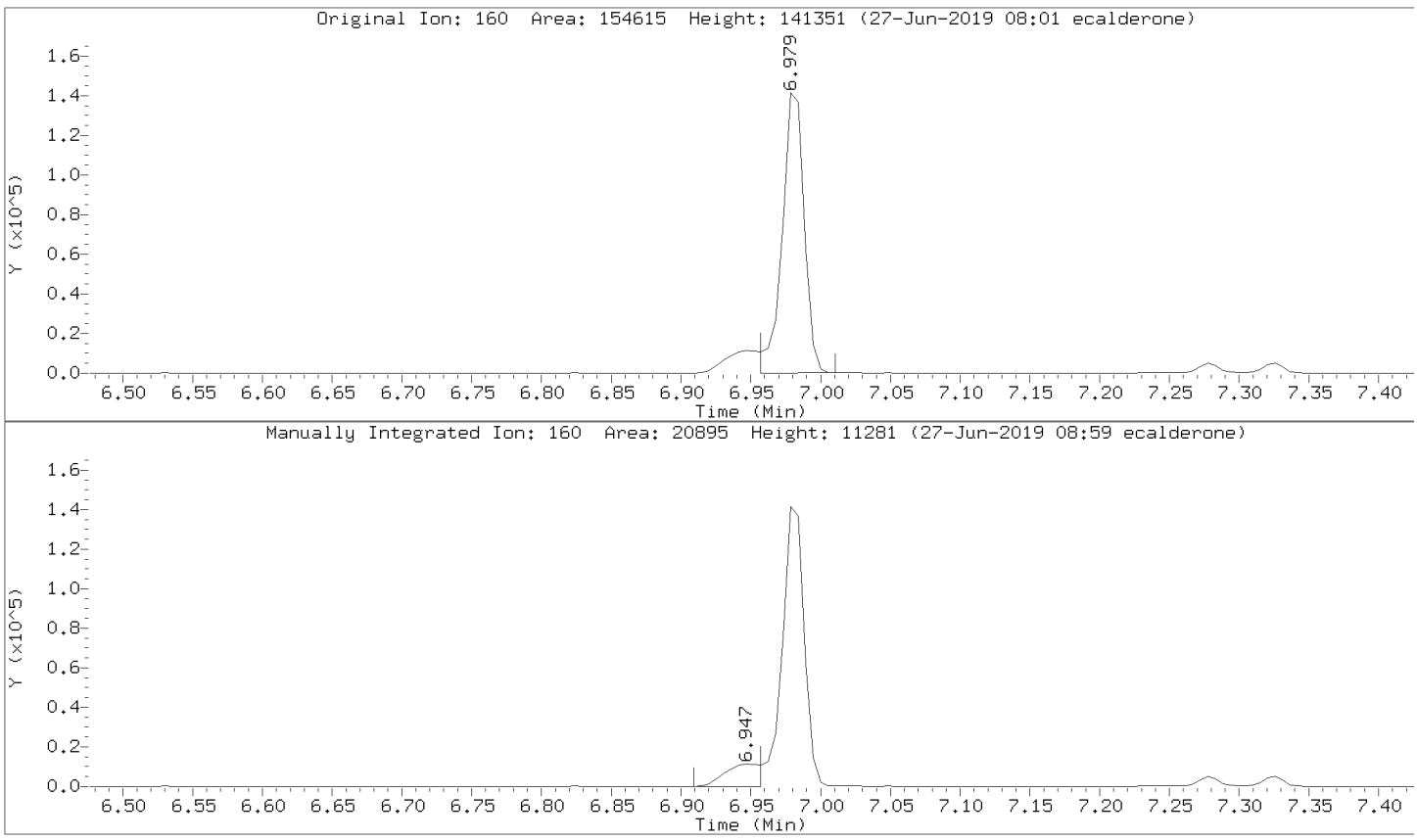
Lab Sample ID: CAL6



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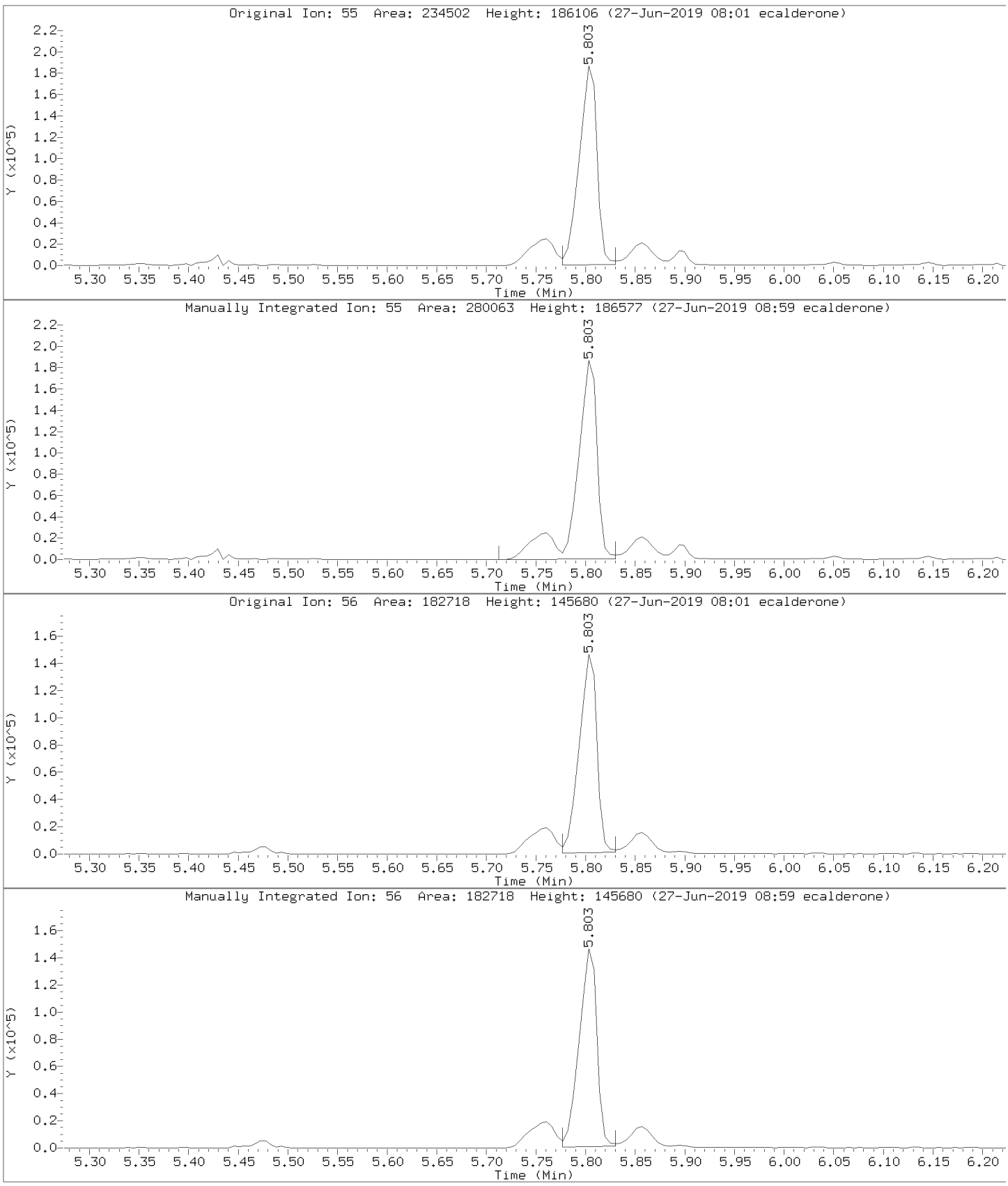
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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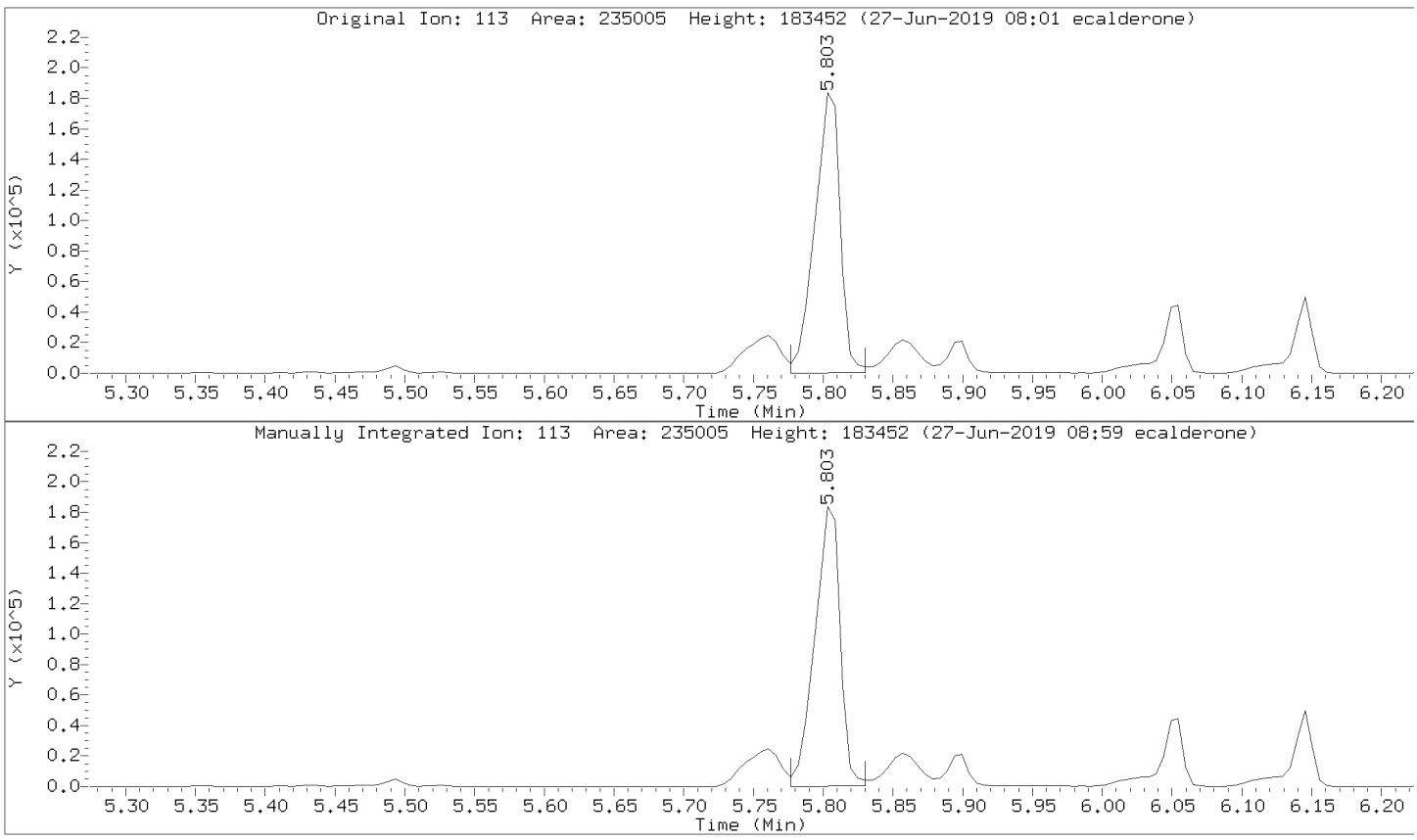
Instrument: 30mss1.i
Lab Sample ID: CAL6



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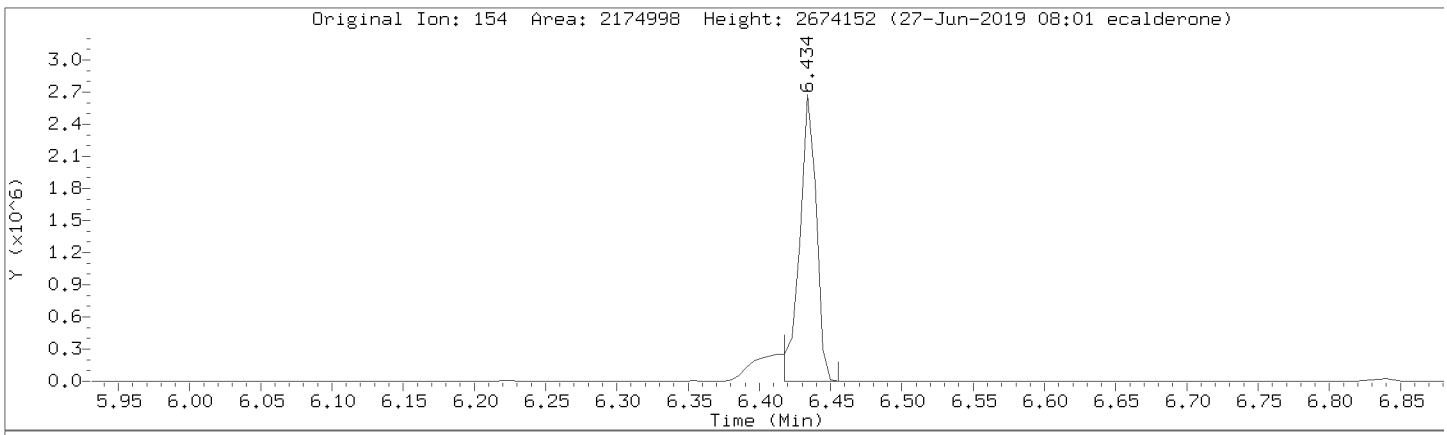
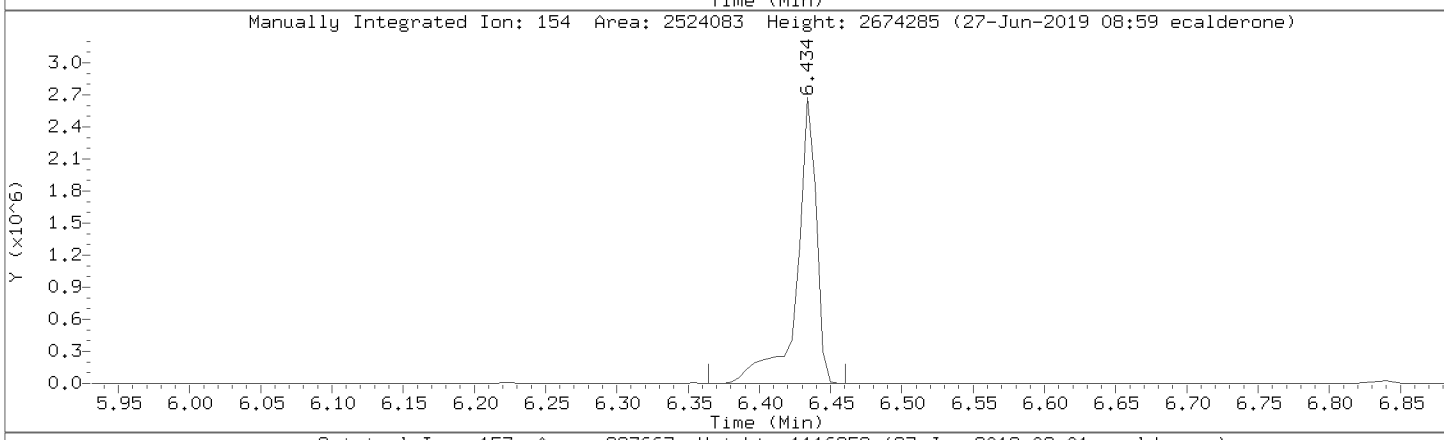
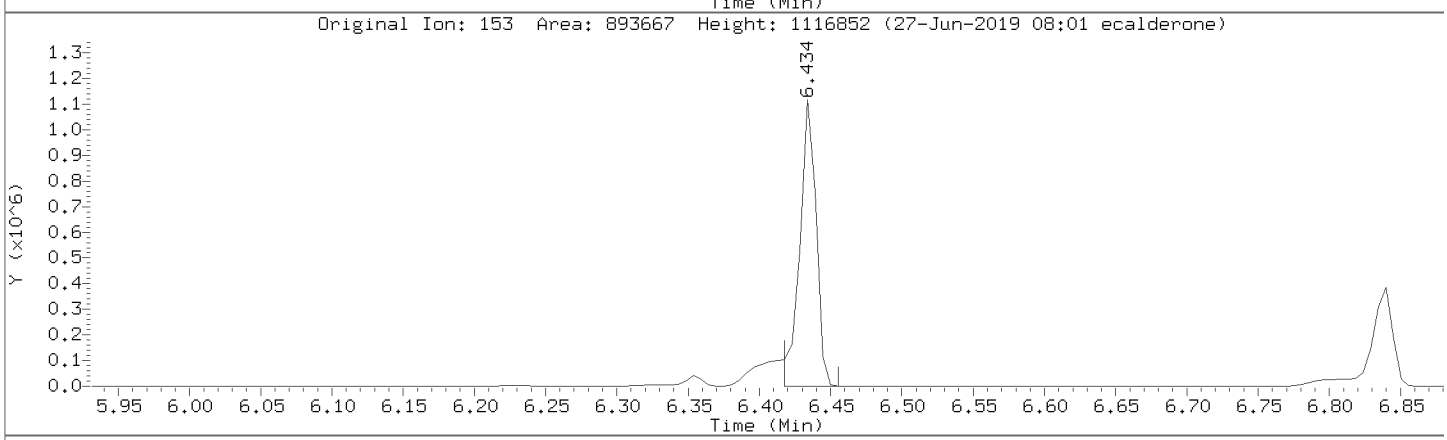
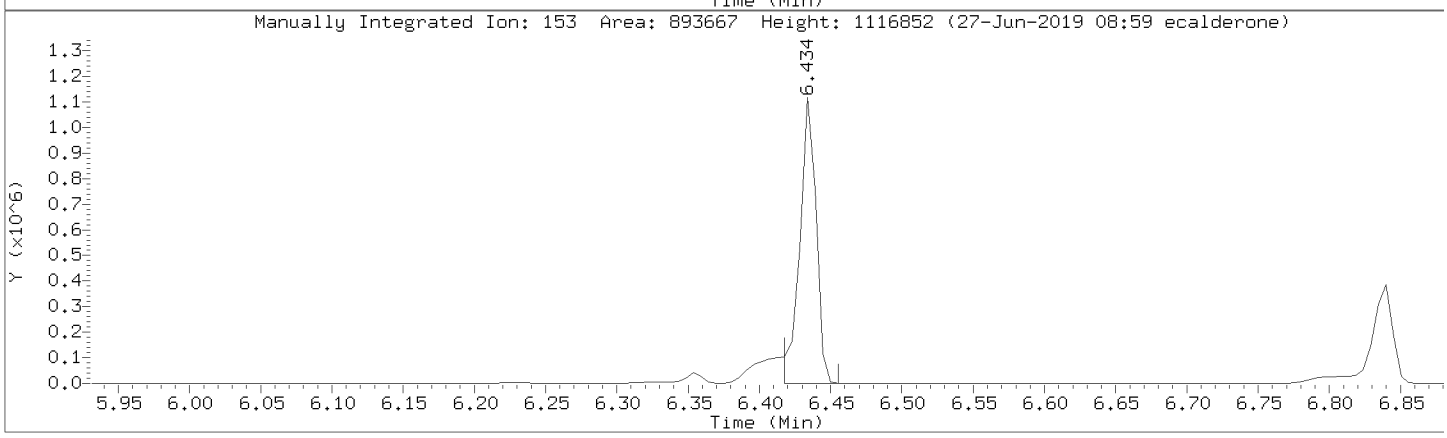
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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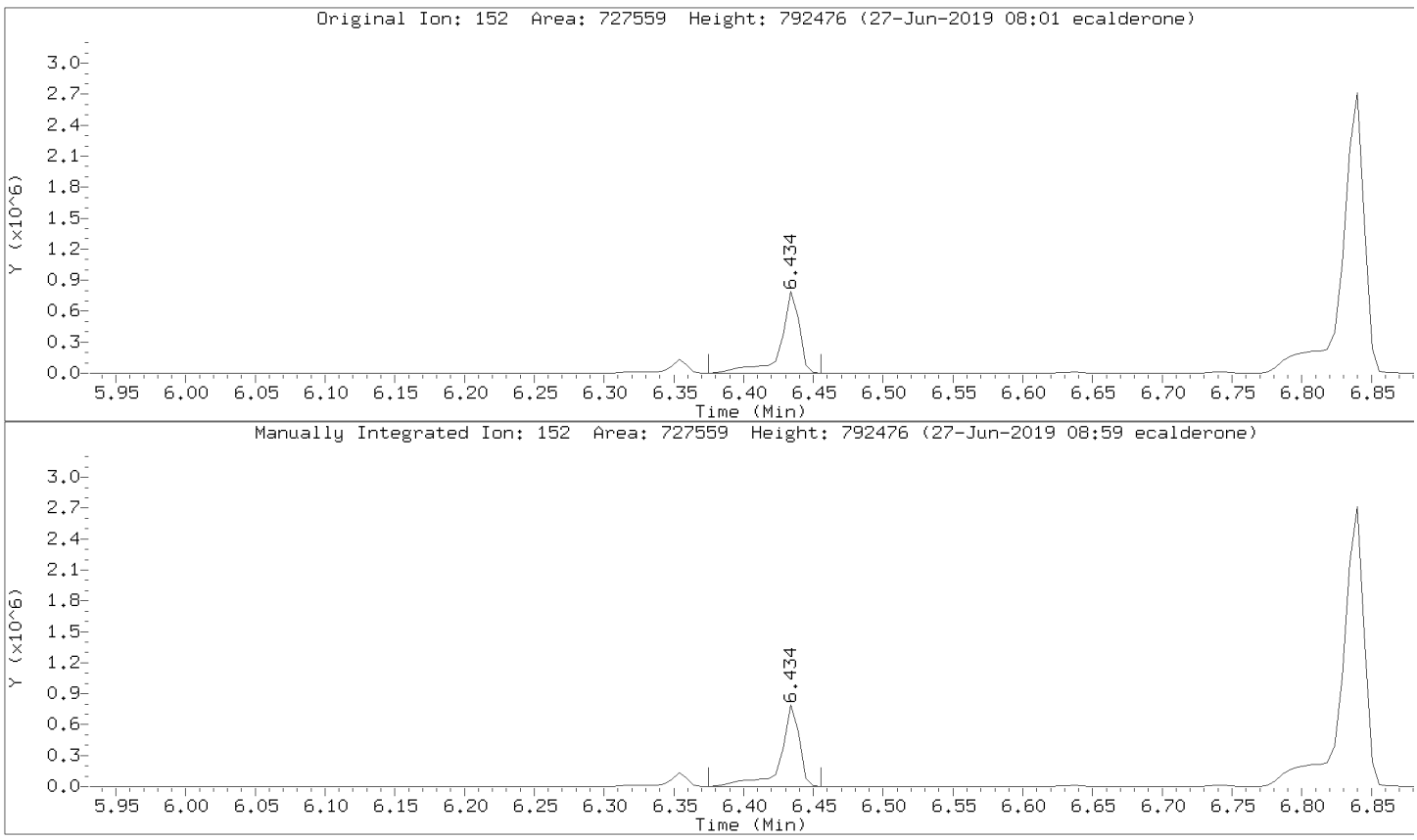
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6



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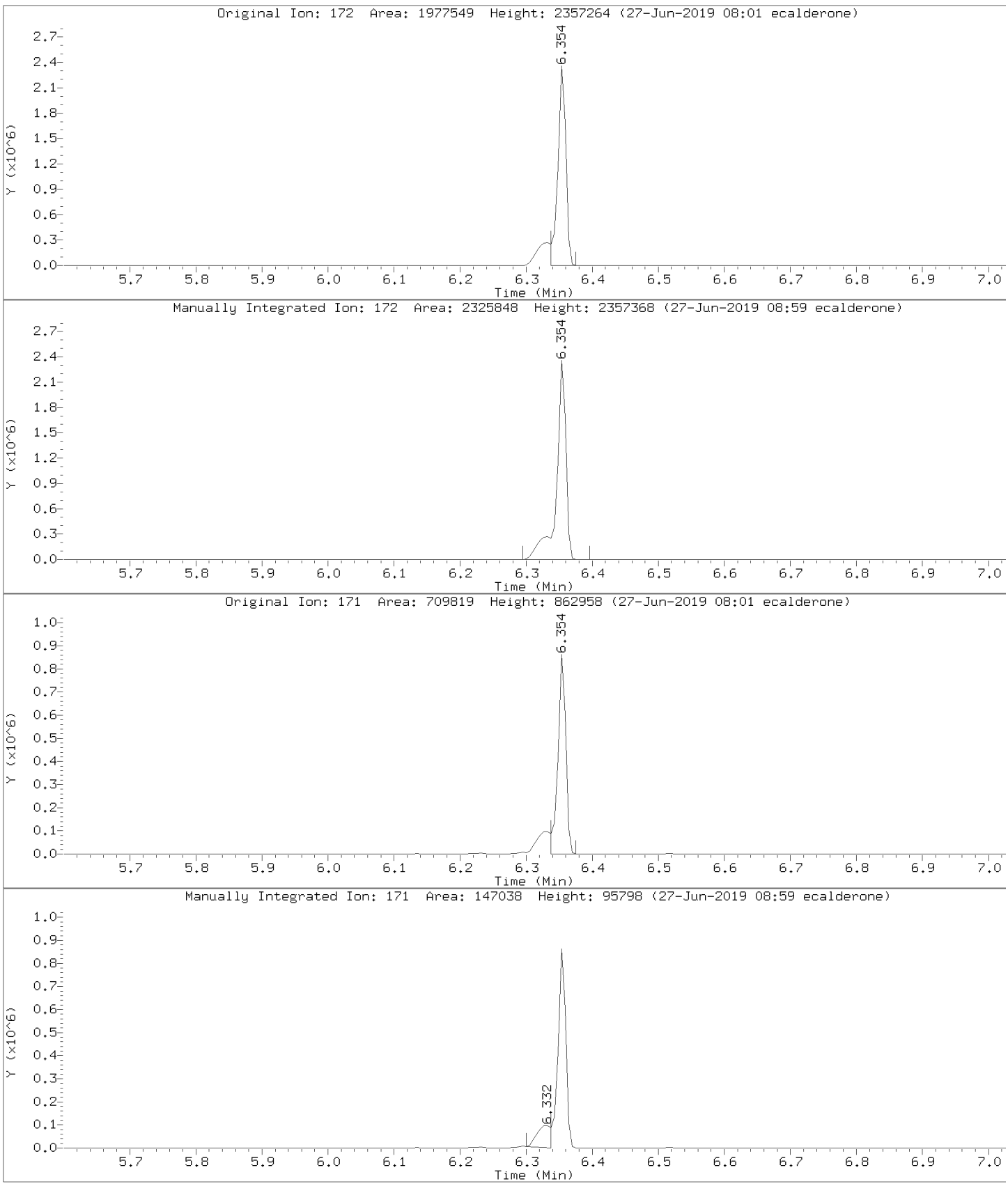
Injection Date: 26-JUN-2019 18:04
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8



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Injection Date: 26-JUN-2019 18:04
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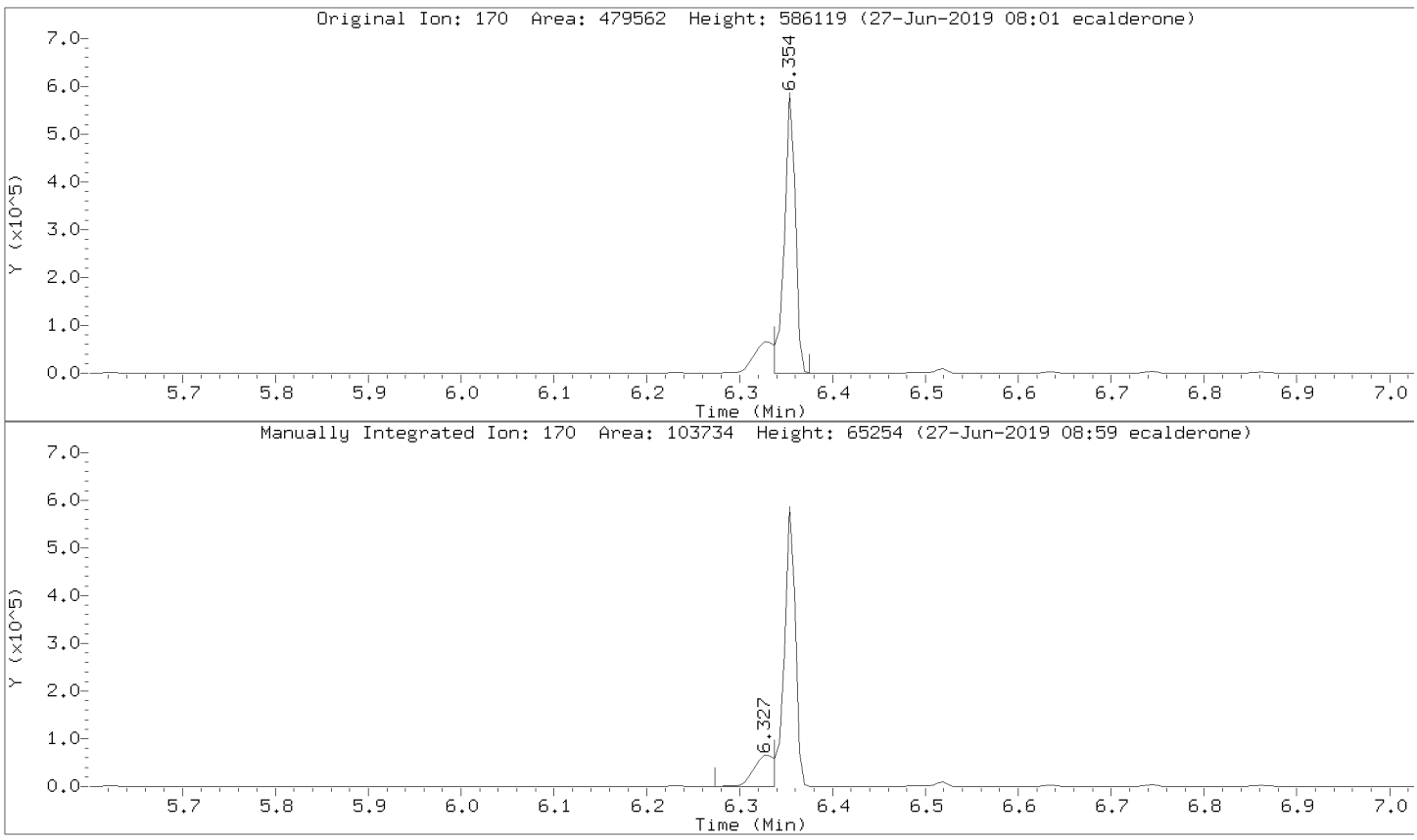
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y3.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 26-JUN-2019 18:28
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14757,91769:1
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1062619.b\8270062619.m
Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 18:28 Cal File: m10626y3.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.687	2.684	(0.603)	444634	12.0000	11.7	
	2 Pyridine	79	2.693	2.695	(0.604)	714167	12.0000	11.7	
$	3 2-Fluorophenol (S)	112	3.542	3.539	(0.795)	671881	12.0000	11.8	
$	4 Phenol-d6 (S)	99	4.167	4.159	(0.935)	839461	12.0000	11.9	
	5 Benzaldehyde	77	4.140	4.137	(0.929)	557785	12.0000	11.8	
	6 Phenol	94	4.172	4.169	(0.936)	909729	12.0000	11.8	
	7 Aniline	66	4.236	4.228	(0.951)	362155	12.0000	12.2	
	8 bis(2-Chloroethyl)ether	63	4.258	4.250	(0.956)	521559	12.0000	11.8	
	9 2-Chlorophenol	128	4.322	4.319	(0.970)	783513	12.0000	11.9	
	10 1,3-Dichlorobenzene	146	4.434	4.431	(0.995)	884975	12.0000	11.9	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.456	4.458	(1.000)	196857	4.00000		
	12 1,4-Dichlorobenzene	146	4.472	4.469	(1.004)	950000	12.0000	11.6	
	13 Benzyl Alcohol	79	4.557	4.549	(1.023)	580288	12.0000	12.0	
	14 1,2-Dichlorobenzene	146	4.621	4.618	(1.037)	865180	12.0000	11.9	
	15 2-Methylphenol(o-Cresol)	108	4.632	4.629	(1.040)	708664	12.0000	11.9	
	16 bis(2-Chloroisopropyl)ether	45	4.669	4.666	(1.048)	780759	12.0000	11.6	
	17 3&4-Methylphenol(m&p Cresol)	108	4.744	4.736	(1.065)	719054	12.0000	11.9	
	18 N-Nitroso-di-n-propylamine	70	4.787	4.778	(1.074)	558444	12.0000	11.9	
	19 Acetophenone	105	4.781	4.773	(1.073)	1008274	12.0000	11.8	
	20 Hexachloroethane	117	4.862	4.864	(1.091)	324730	12.0000	11.9	
$	21 Nitrobenzene-d5 (S)	128	4.904	4.901	(0.896)	374174	12.0000	12.1	
	22 Nitrobenzene	77	4.920	4.917	(0.899)	755606	12.0000	11.9	
	23 Isophorone	82	5.097	5.094	(0.931)	1405321	12.0000	11.9	
	24 2,4-Dimethylphenol	107	5.166	5.158	(0.943)	747143	12.0000	12.0	
	25 2-Nitrophenol	139	5.171	5.168	(0.944)	412019	12.0000	12.6	
	26 Benzoic acid	105	5.235	5.206	(0.956)	361547	12.0000	12.9(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.246	5.243	(0.958)	873925	12.0000	11.8	
	28 2,4-Dichlorophenol	162	5.353	5.345	(0.978)	655247	12.0000	12.2	
	29 1,2,4-Trichlorobenzene	180	5.433	5.430	(0.992)	746696	12.0000	12.0	
*	30 Naphthalene-d8 (IS)	136	5.476	5.473	(1.000)	764870	4.00000		
	31 Naphthalene	128	5.492	5.489	(1.003)	2332665	12.0000	11.8	
	32 4-Chloroaniline	65	5.524	5.521	(1.009)	234021	12.0000	12.0	
	33 Hexachloro-1,3-butadiene	225	5.620	5.622	(1.026)	428956	12.0000	12.1	
	34 Caprolactam	55	5.796	5.772	(1.059)	215530	12.0000	11.6(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.893	5.890	(1.076)	598612	12.0000	11.9	
	36	2-Methylnaphthalene	142	6.053	6.050	(1.105)	1655689	12.0000	11.9	
	37	1-Methylnaphthalene	142	6.144	6.141	(1.122)	1570352	12.0000	11.9	
	38	Hexachlorocyclopentadiene	237	6.234	6.231	(0.893)	468618	12.0000	13.3	
	39	1,2,4,5-Tetrachlorobenzene	216	6.224	6.221	(0.891)	778991	12.0000	12.8	
	40	2,4,6-Trichlorophenol	196	6.293	6.290	(0.901)	550607	12.0000	12.8	
	41	2,4,5-Trichlorophenol	196	6.325	6.322	(0.906)	421316	12.0000	13.1	
$	42	2-Fluorobiphenyl (S)	172	6.352	6.349	(0.910)	1786277	12.0000	12.7	
	43	Biphenyl (Diphenyl)	154	6.432	6.429	(0.921)	1941930	12.0000	12.6(MH)	LT
	44	2-Chloronaphthalene	164	6.459	6.456	(0.925)	494155	12.0000	13.2(M)	LT
	45	2-Nitroaniline	138	6.550	6.541	(0.938)	465492	12.0000	13.4	
	46	Dimethylphthalate	163	6.710	6.702	(0.961)	1433318	12.0000	11.9	
	47	2,6-Dinitrotoluene	165	6.785	6.776	(0.972)	342912	12.0000	12.9	
	48	Acenaphthylene	152	6.838	6.830	(0.979)	2306004	12.0000	12.5	
	49	3-Nitroaniline	65	6.924	6.910	(0.992)	362988	12.0000	12.0	
*	50	Acenaphthene-d10 (IS)	164	6.982	6.974	(1.000)	390878	4.00000		
	51	2,4-Dinitrophenol	184	7.020	7.011	(1.005)	165353	12.0000	12.3	
	52	Acenaphthene	153	7.014	7.006	(1.005)	1524209	12.0000	12.8(M)	LT
	53	4-Nitrophenol	109	7.046	7.033	(1.009)	179198	12.0000	13.9	
	54	2,4-Dinitrotoluene	165	7.175	7.166	(1.028)	472612	12.0000	13.3	
	55	Dibenzofuran	168	7.169	7.166	(1.027)	1990660	12.0000	11.8	
	56	2,3,4,6-Tetrachlorophenol	232	7.324	7.321	(1.049)	386121	12.0000	13.5	
	57	Diethylphthalate	149	7.404	7.396	(1.060)	1493410	12.0000	12.4	
	58	4-Chlorophenylphenyl ether	204	7.495	7.492	(1.073)	806049	12.0000	12.2	
	59	Fluorene	166	7.527	7.519	(1.078)	1617436	12.0000	12.1	
	60	4-Nitroaniline	108	7.559	7.540	(1.083)	210339	12.0000	12.0(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	7.602	7.588	(0.893)	222744	12.0000	12.0	
	62	N-Nitrosodiphenylamine	169	7.623	7.615	(0.895)	1341378	12.0000	11.5	
	63	Azobenzene	77	7.666	7.658	(0.900)	1362124	12.0000	12.0	
	64	1,2-Diphenylhydrazine	77	7.666	7.658	(0.900)	1362124	12.0000	12.0	
$	65	2,4,6-Tribromophenol (S)	330	7.794	7.791	(0.915)	281547	12.0000	12.7	
	66	4-Bromophenylphenyl ether	248	8.013	8.005	(0.941)	489549	12.0000	11.8	
	67	Hexachlorobenzene	284	8.195	8.187	(0.962)	672736	12.0000	12.9	
	68	Atrazine	200	8.195	8.181	(0.962)	482785	12.0000	12.8	
	69	Pentachlorophenol	266	8.366	8.363	(0.982)	286153	12.0000	12.2	
*	70	Phenanthrene-d10 (IS)	188	8.516	8.513	(1.000)	670048	4.00000		
	71	Phenanthrene	178	8.542	8.534	(1.003)	2515242	12.0000	11.9(M)	LT
	72	Anthracene	178	8.590	8.582	(1.009)	2289070	12.0000	12.2	
	73	Carbazole	167	8.745	8.737	(1.027)	2008268	12.0000	12.1	
	74	Di-n-butylphthalate	149	9.125	9.116	(1.071)	2464201	12.0000	12.5	
	75	Fluoranthene	202	9.808	9.800	(1.152)	2499271	12.0000	12.3	
	76	Pyrene	202	10.049	10.040	(0.889)	2571214	12.0000	11.9	
$	77	Terphenyl-d14 (S)	244	10.182	10.179	(0.901)	2078305	12.0000	12.0	
	78	Butylbenzylphthalate	149	10.695	10.692	(0.947)	1115342	12.0000	12.7	
	79	3,3'-Dichlorobenzidine	252	11.240	11.237	(0.995)	909443	12.0000	12.6	
	80	bis(2-Ethylhexyl)phthalate	149	11.277	11.274	(0.998)	1688848	12.0000	13.0	
	81	Benzo(a)anthracene	228	11.283	11.274	(0.999)	2573889	12.0000	12.0	
*	82	Chrysene-d12 (IS)	240	11.299	11.296	(1.000)	701322	4.00000		
	83	Chrysene	228	11.326	11.317	(1.002)	2260430	12.0000	11.6	
	84	Di-n-octylphthalate	149	11.865	11.857	(0.935)	2312003	12.0000	11.6	
	85	Benzo(b)fluoranthene	252	12.330	12.322	(0.971)	2584717	12.0000	12.5	
	86	Benzo(k)fluoranthene	252	12.351	12.343	(0.973)	2560703	12.0000	11.5	
	87	Benzo(a)pyrene	252	12.645	12.637	(0.996)	2268452	12.0000	12.3	
*	88	Perylene-d12 (IS)	264	12.693	12.690	(1.000)	665253	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.884	13.865	(1.094)	2710292	12.0000	13.2	
90 Dibenz(a,h)anthracene	278	13.879	13.865	(1.093)	2283598	12.0000	13.2	
91 Benzo(g,h,i)perylene	276	14.232	14.213	(1.121)	2067548	12.0000	12.7	

QC Flag Legend

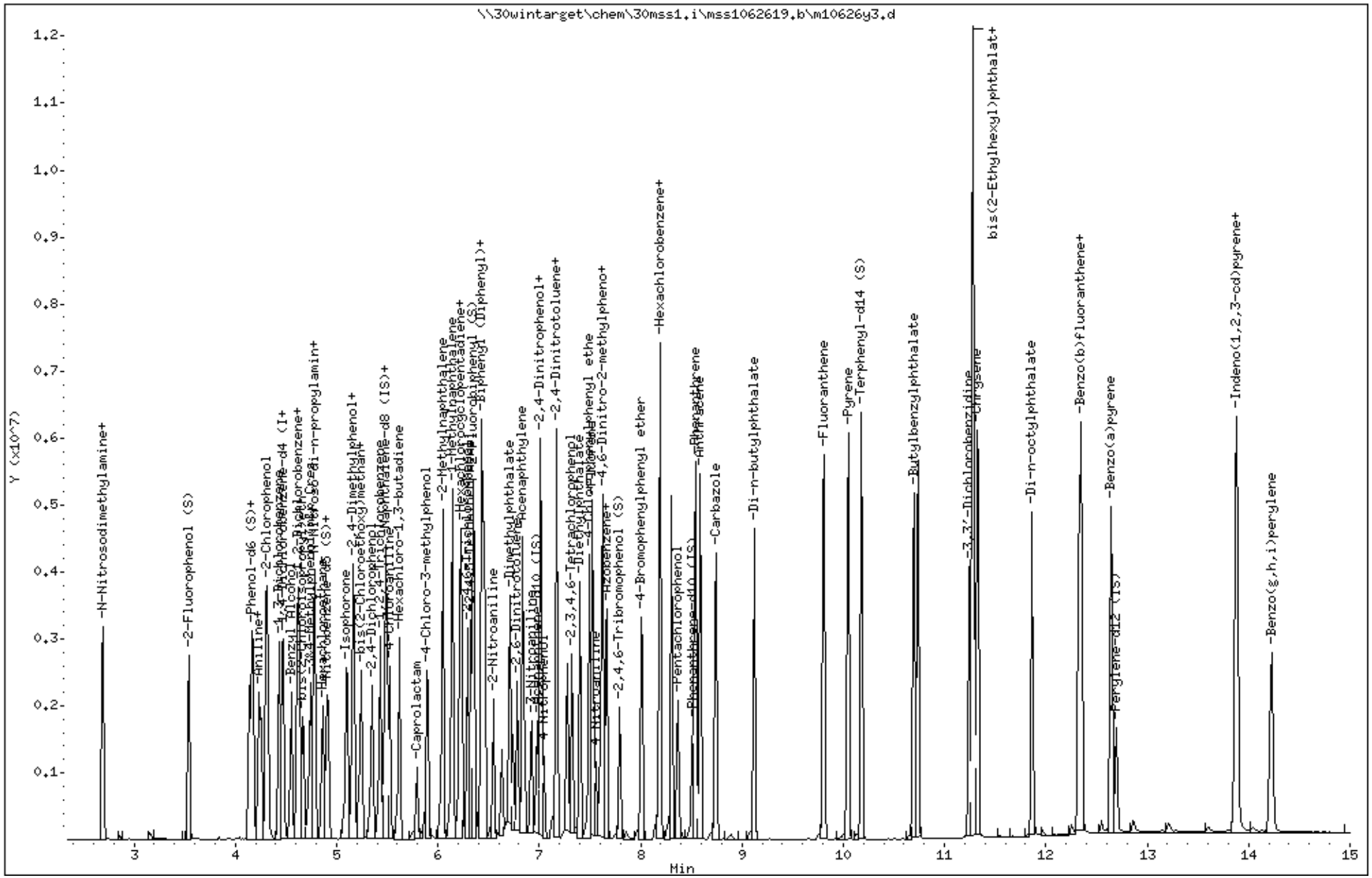
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

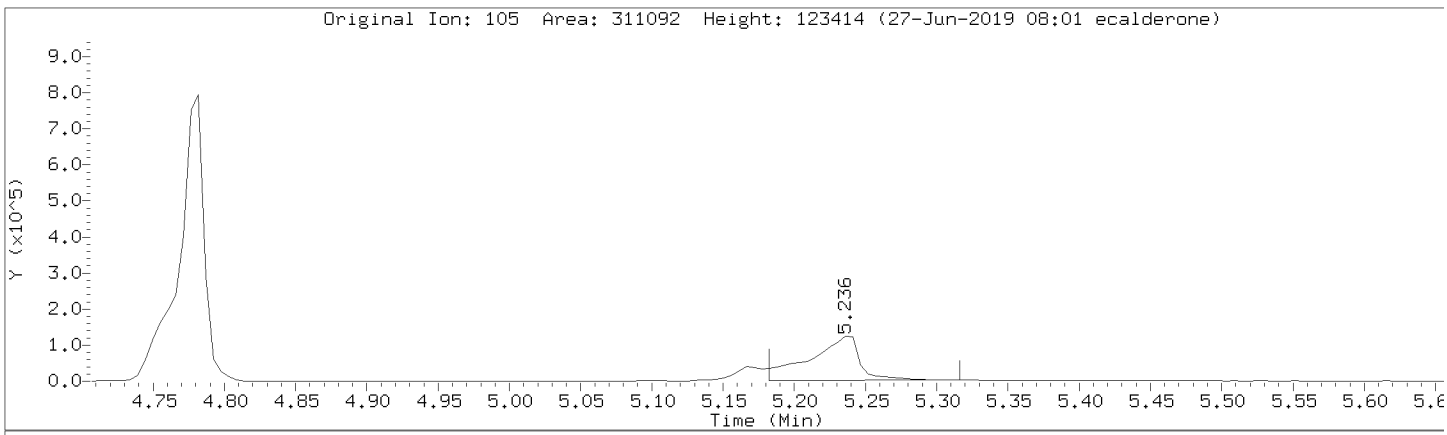
Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y3.d
Date : 26-JUN-2019 18:28
Client ID: CAL5
Sample Info: CAL5

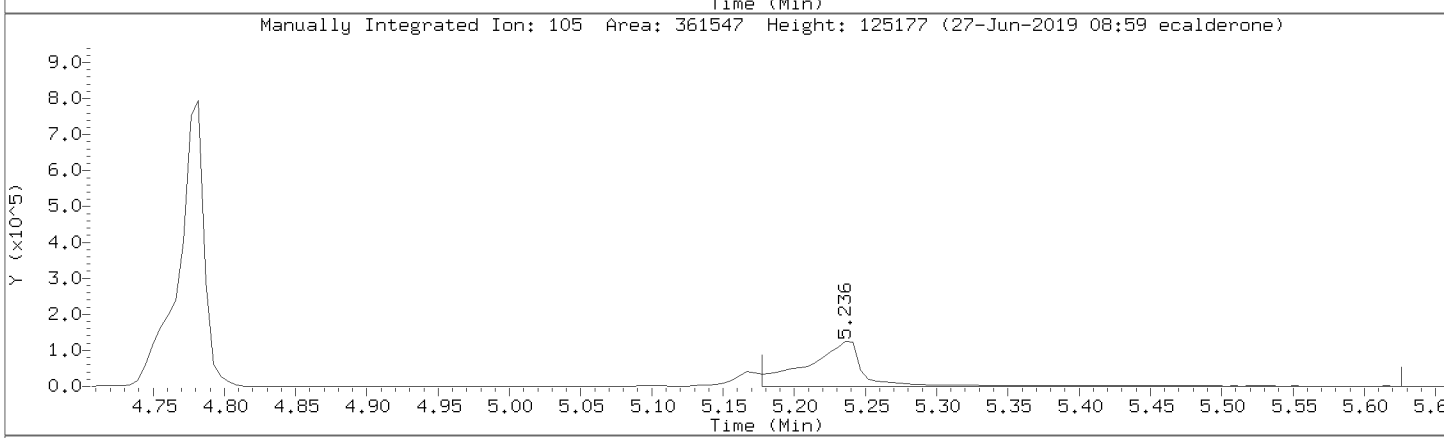
Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18

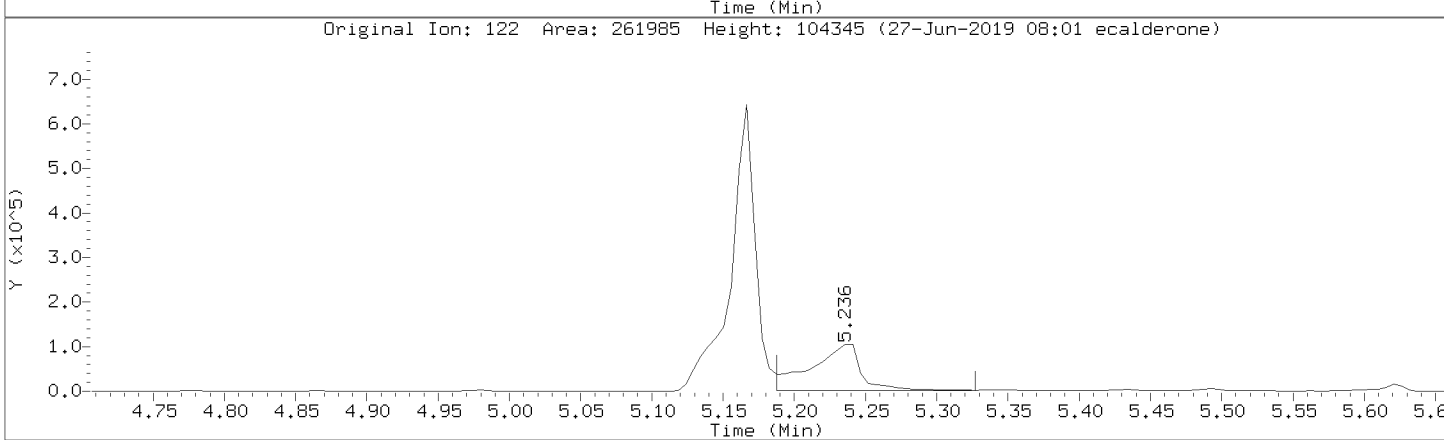


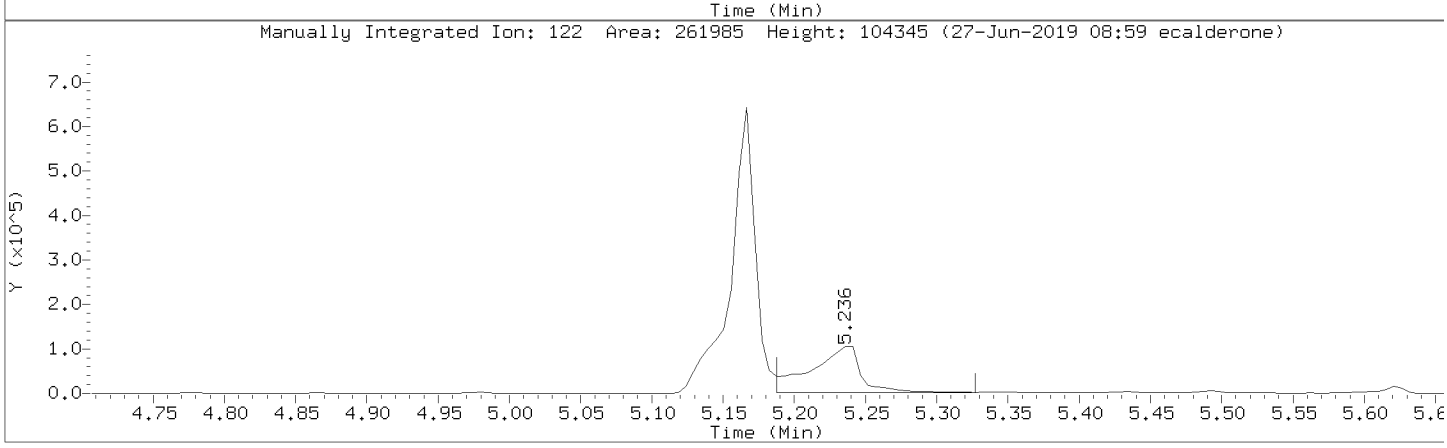
Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m10626y3.d
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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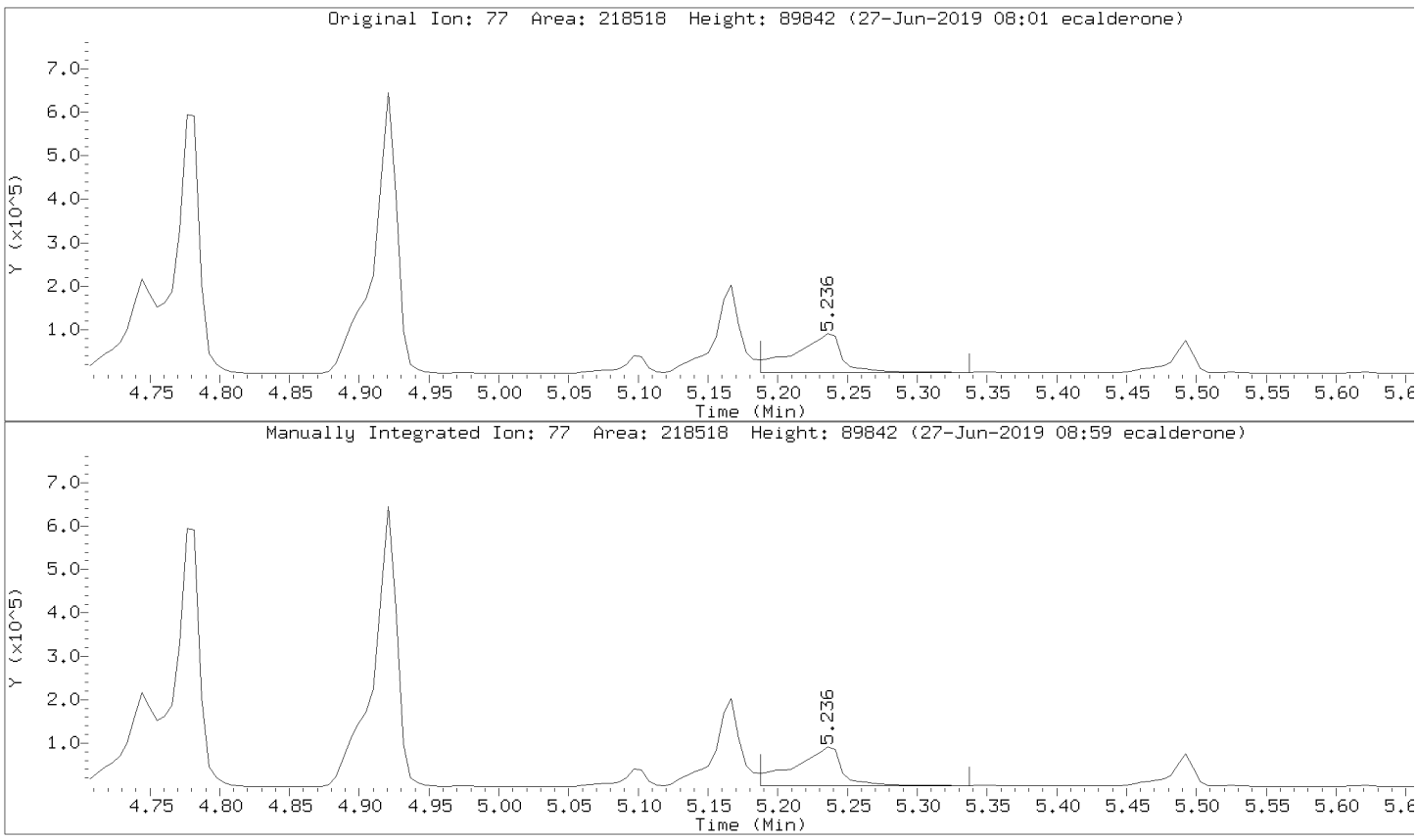
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5



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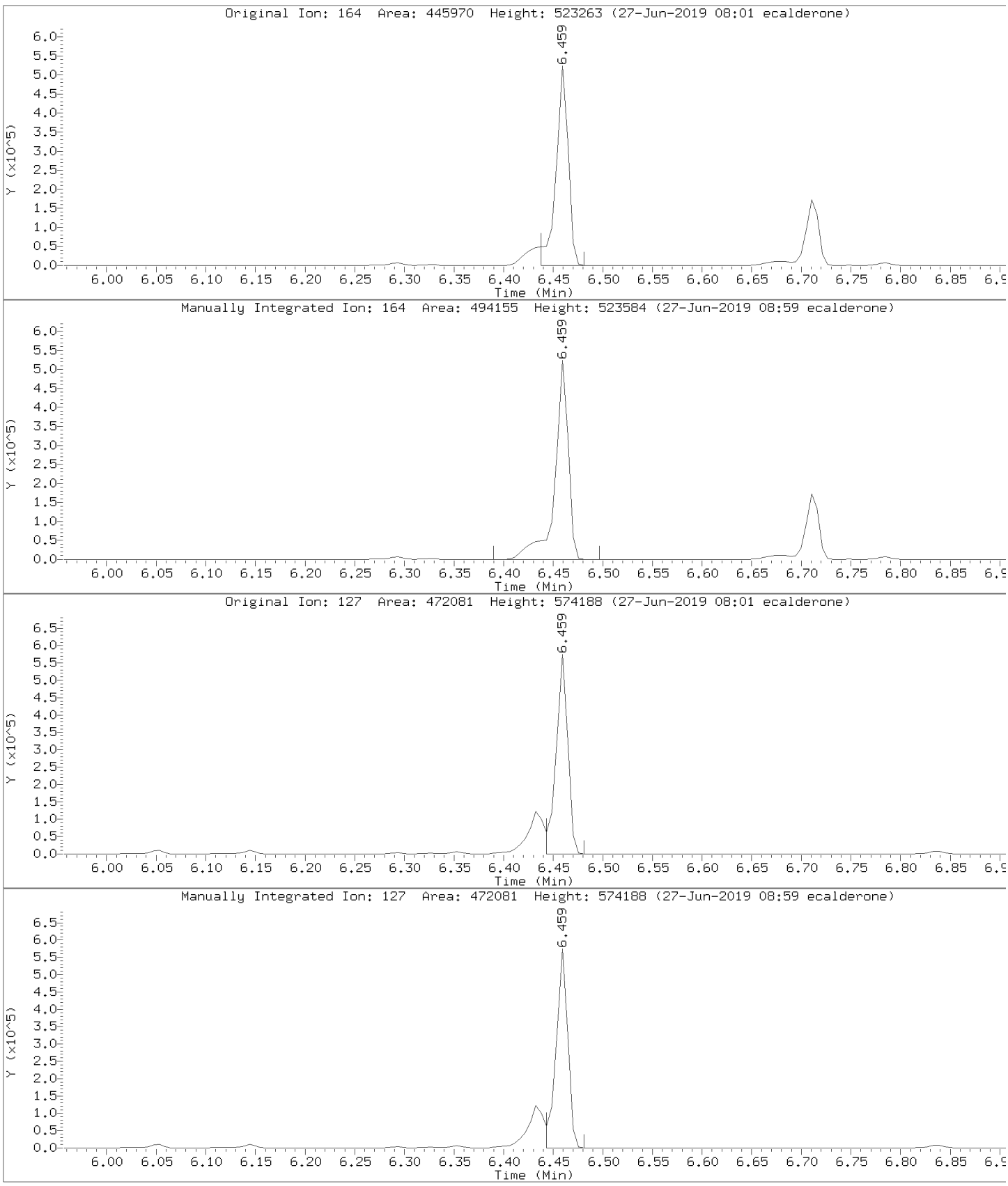
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 2-Chloronaphthalene Review Code: LT
CAS Number: 91-58-7



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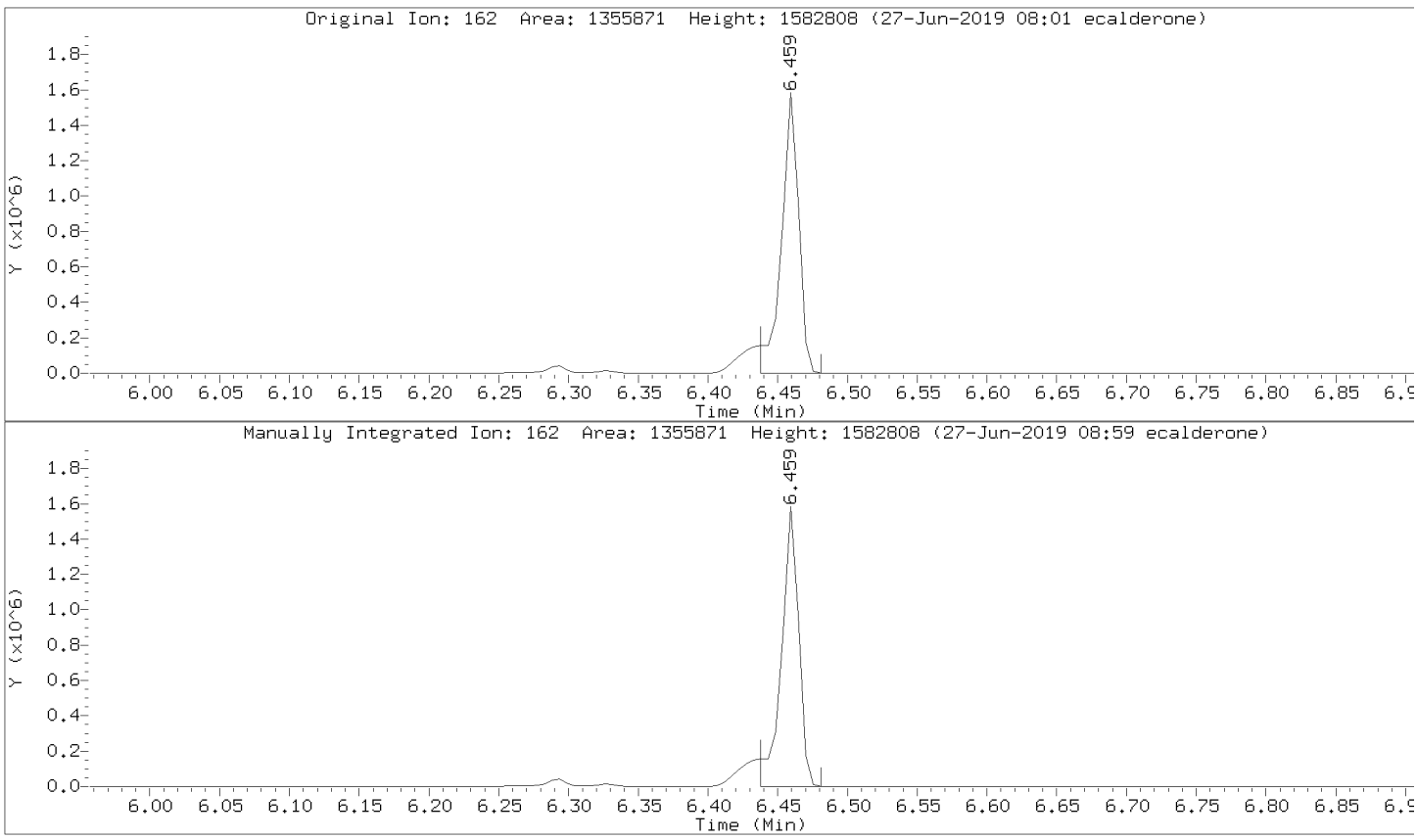
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5



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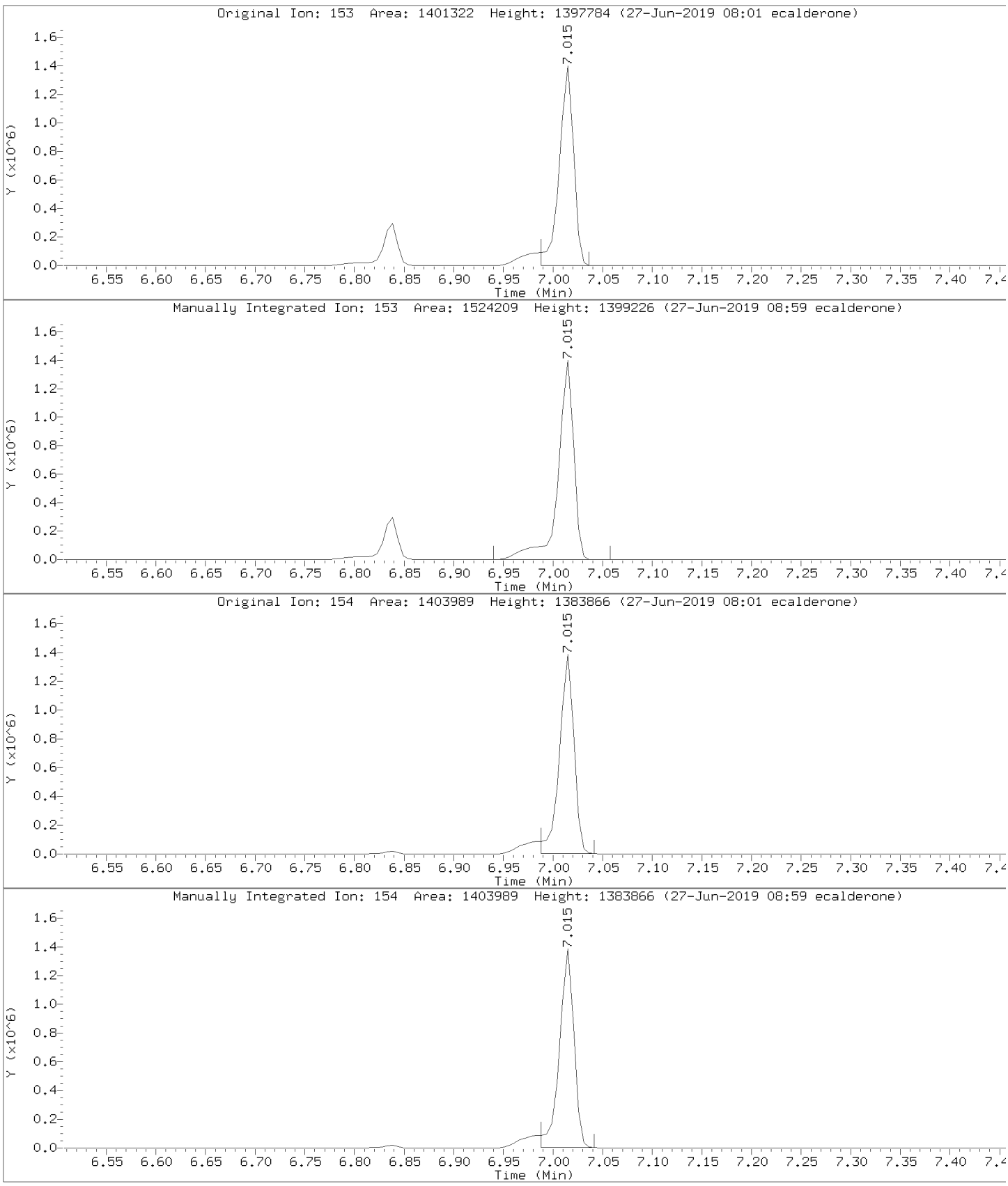
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9



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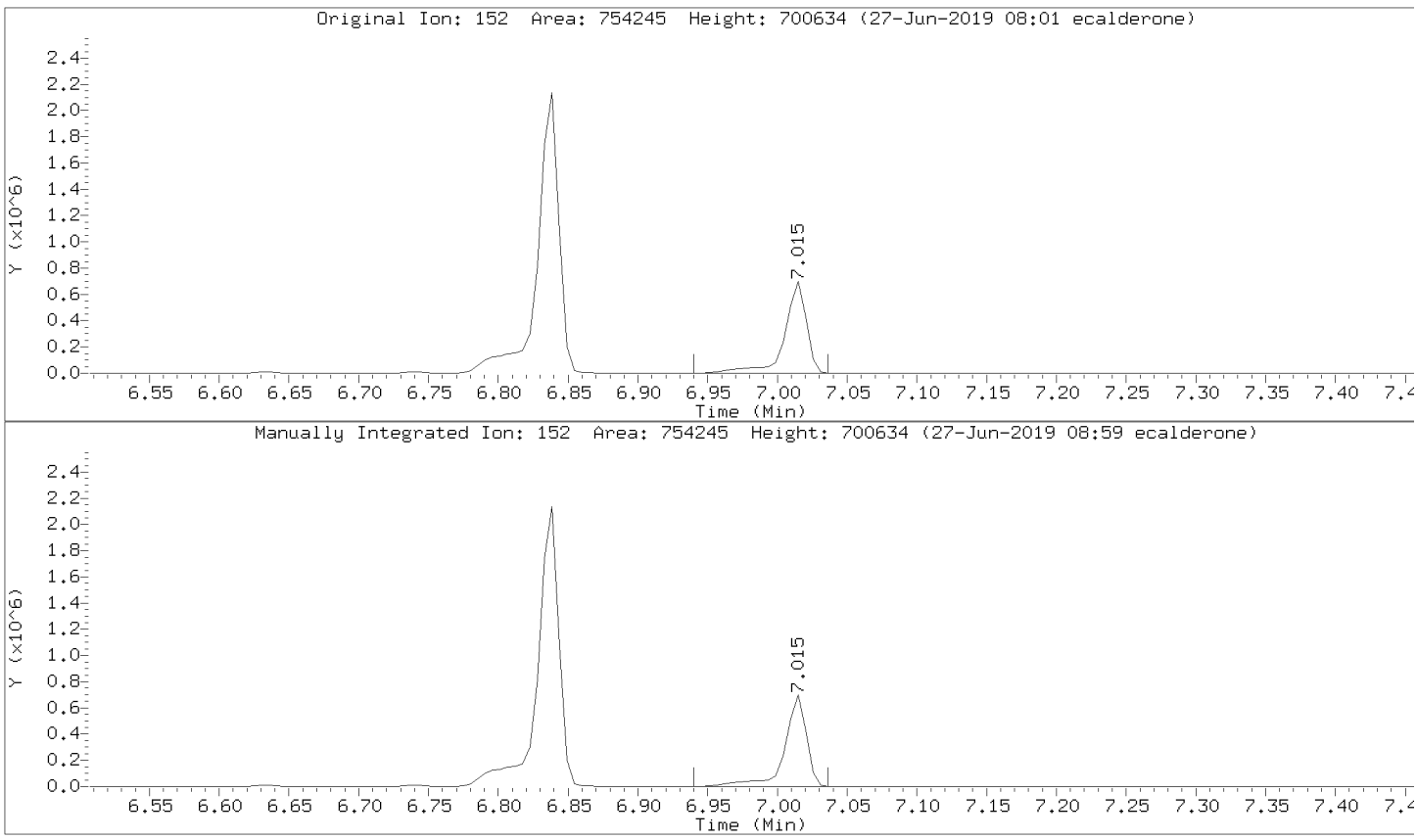
Lab Sample ID: CAL5



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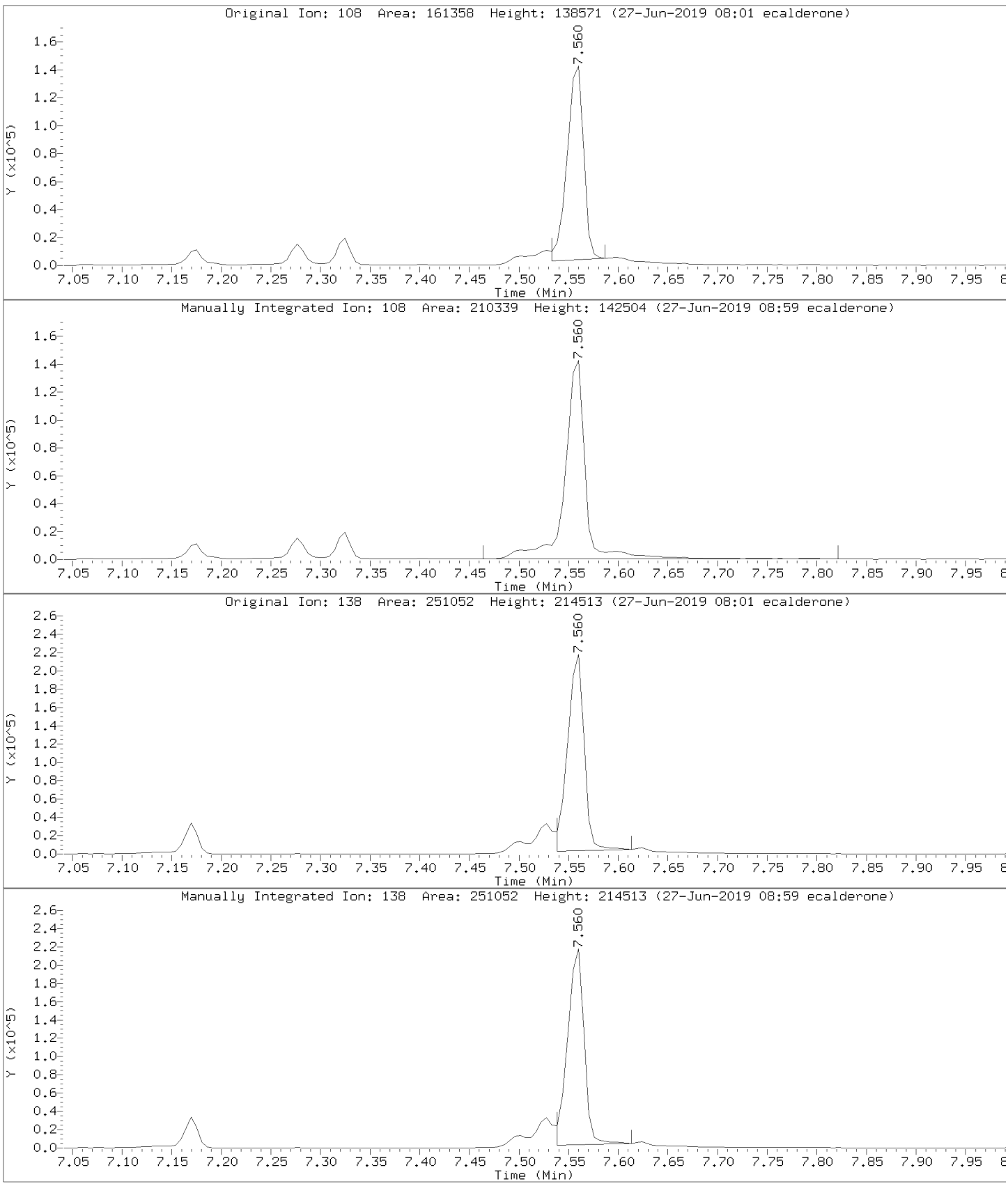
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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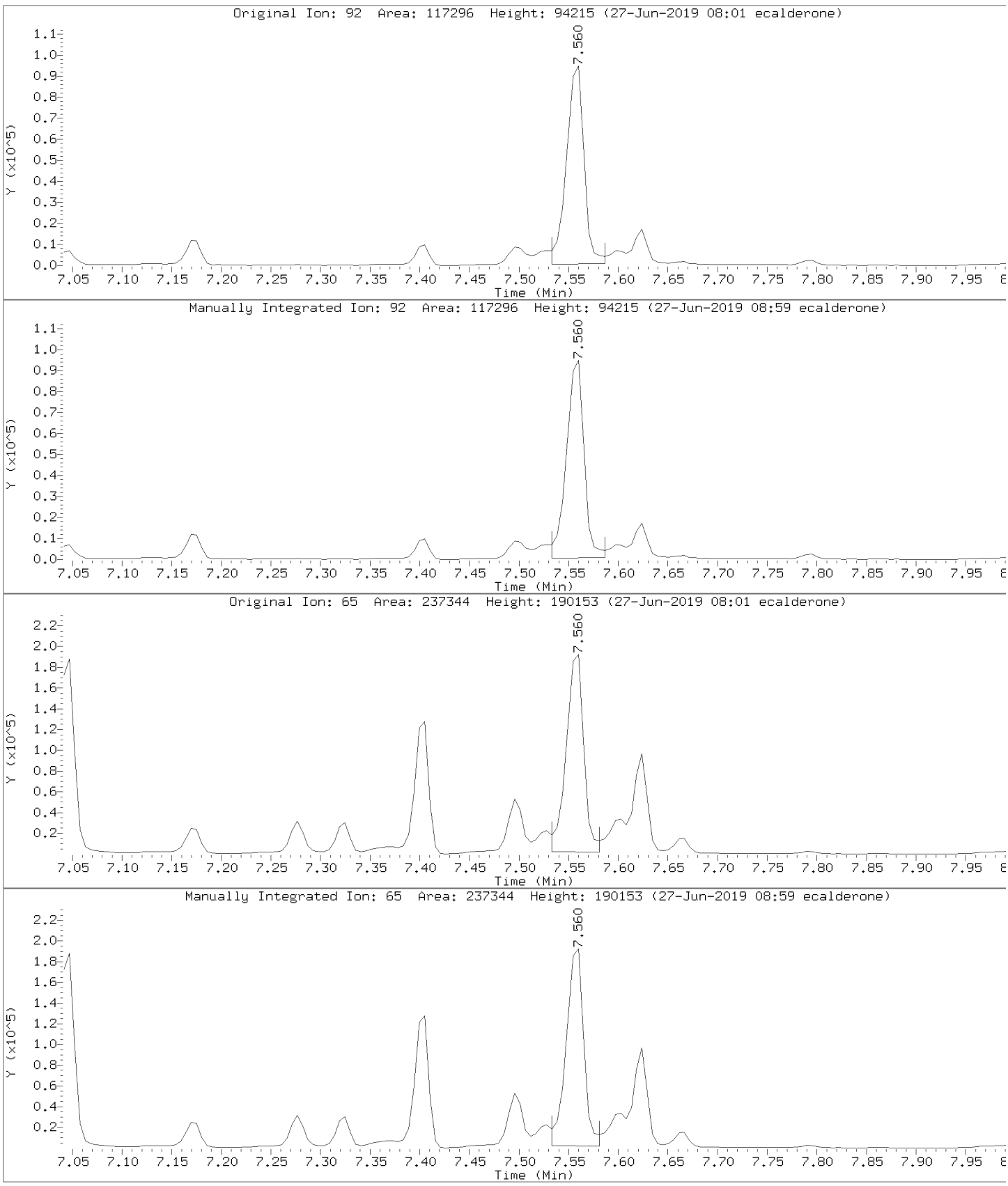
Lab Sample ID: CAL5



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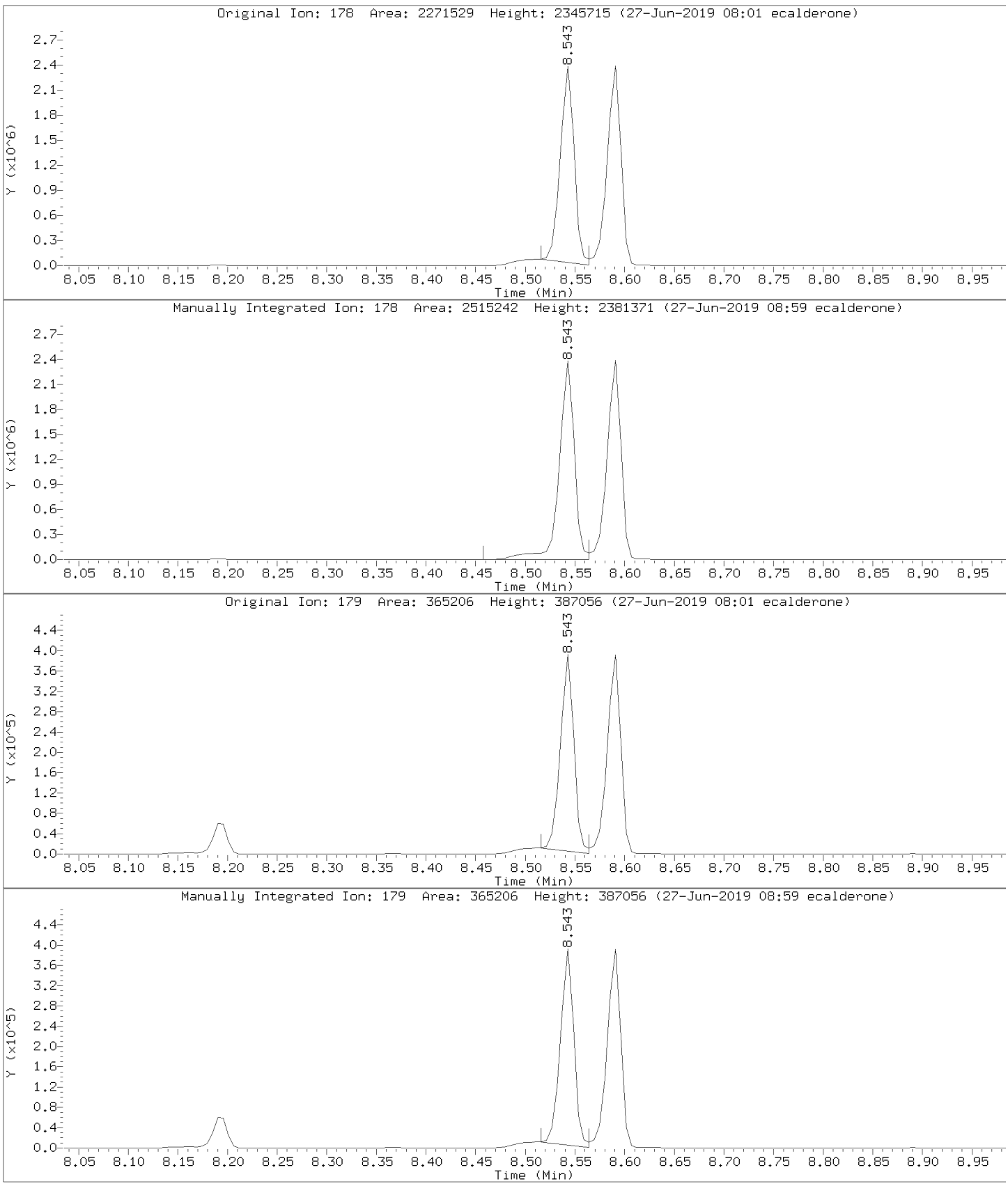
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Phenanthrene Review Code: LT
CAS Number: 85-01-8



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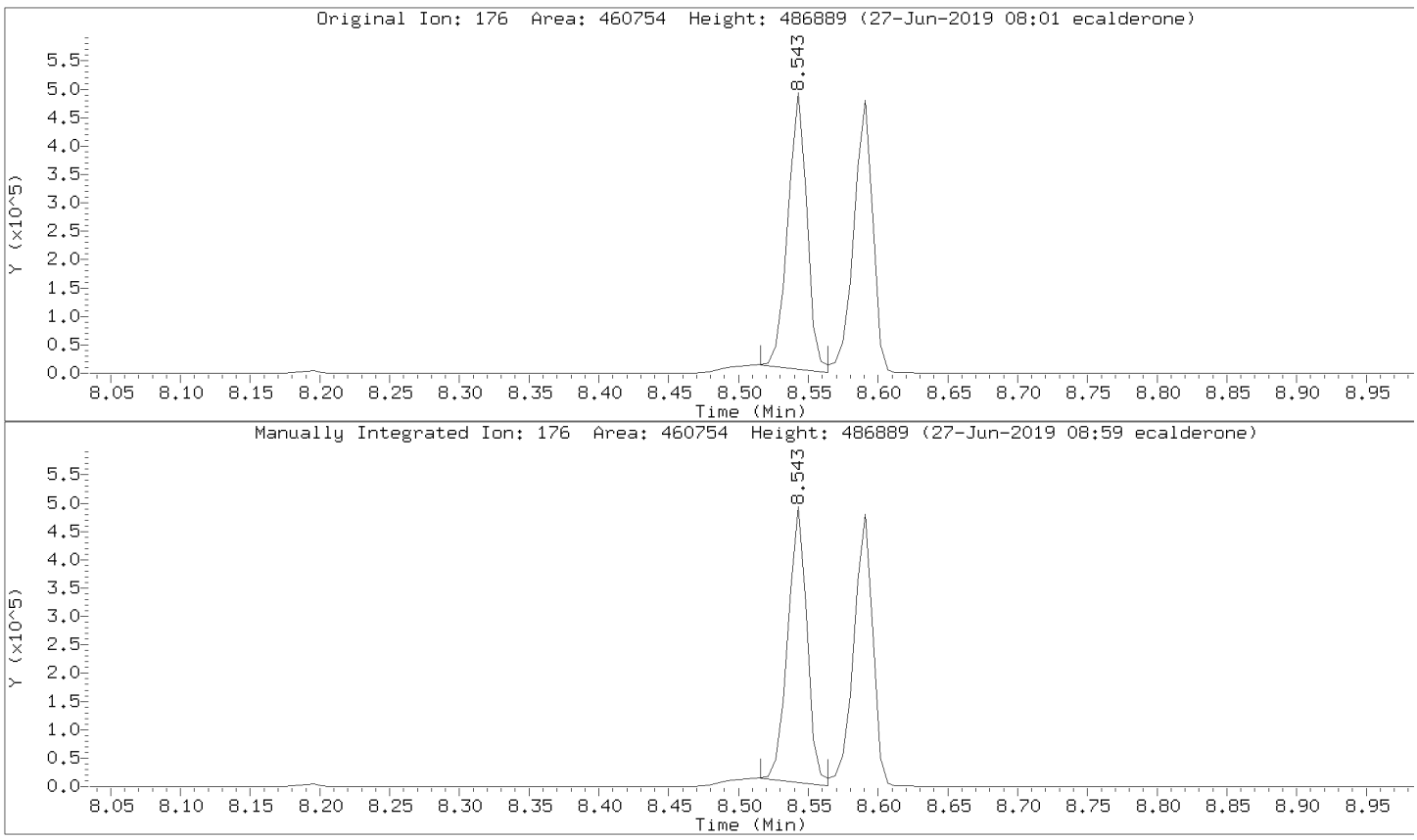
Instrument: 30mss1.i
Lab Sample ID: CAL5



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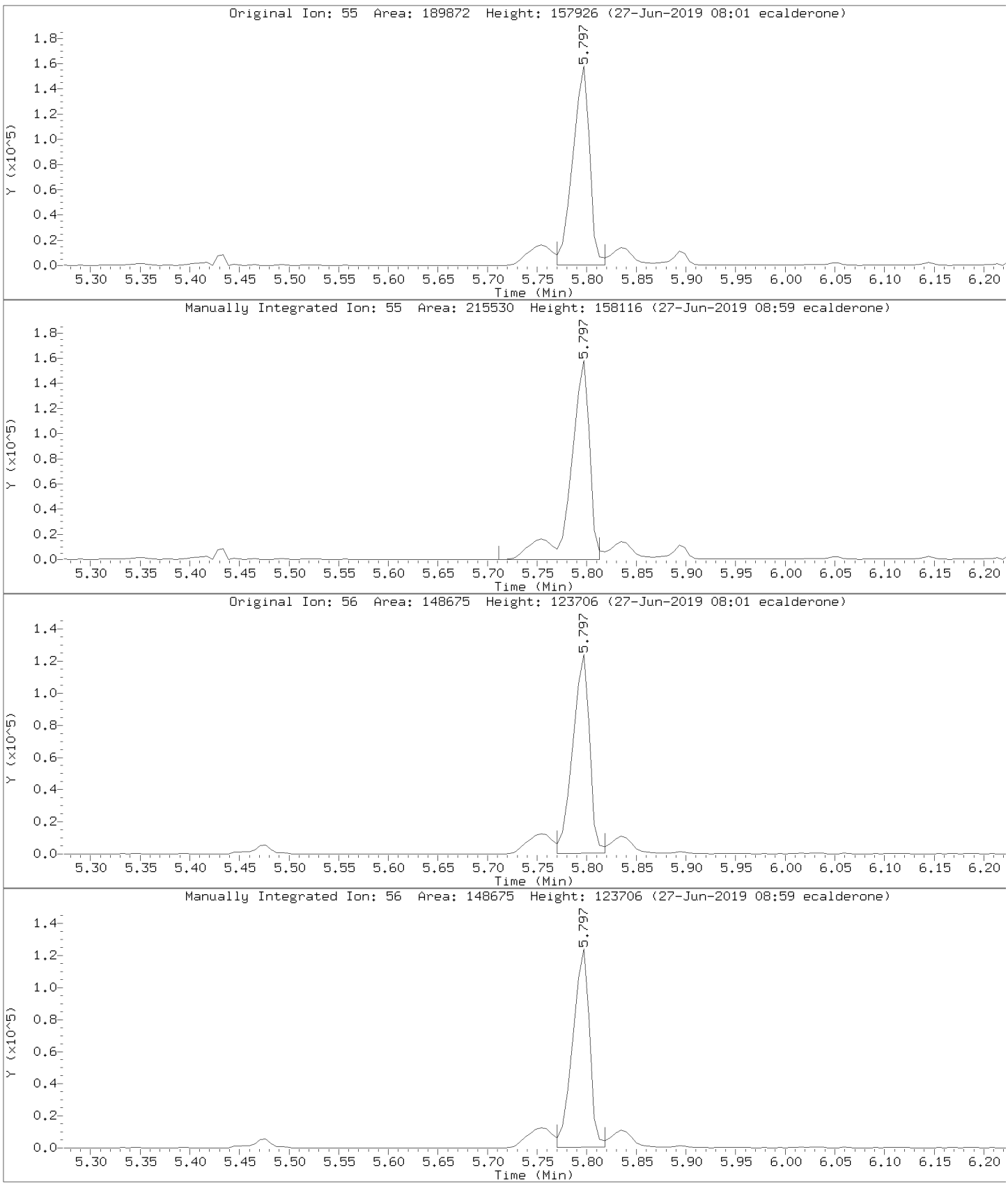
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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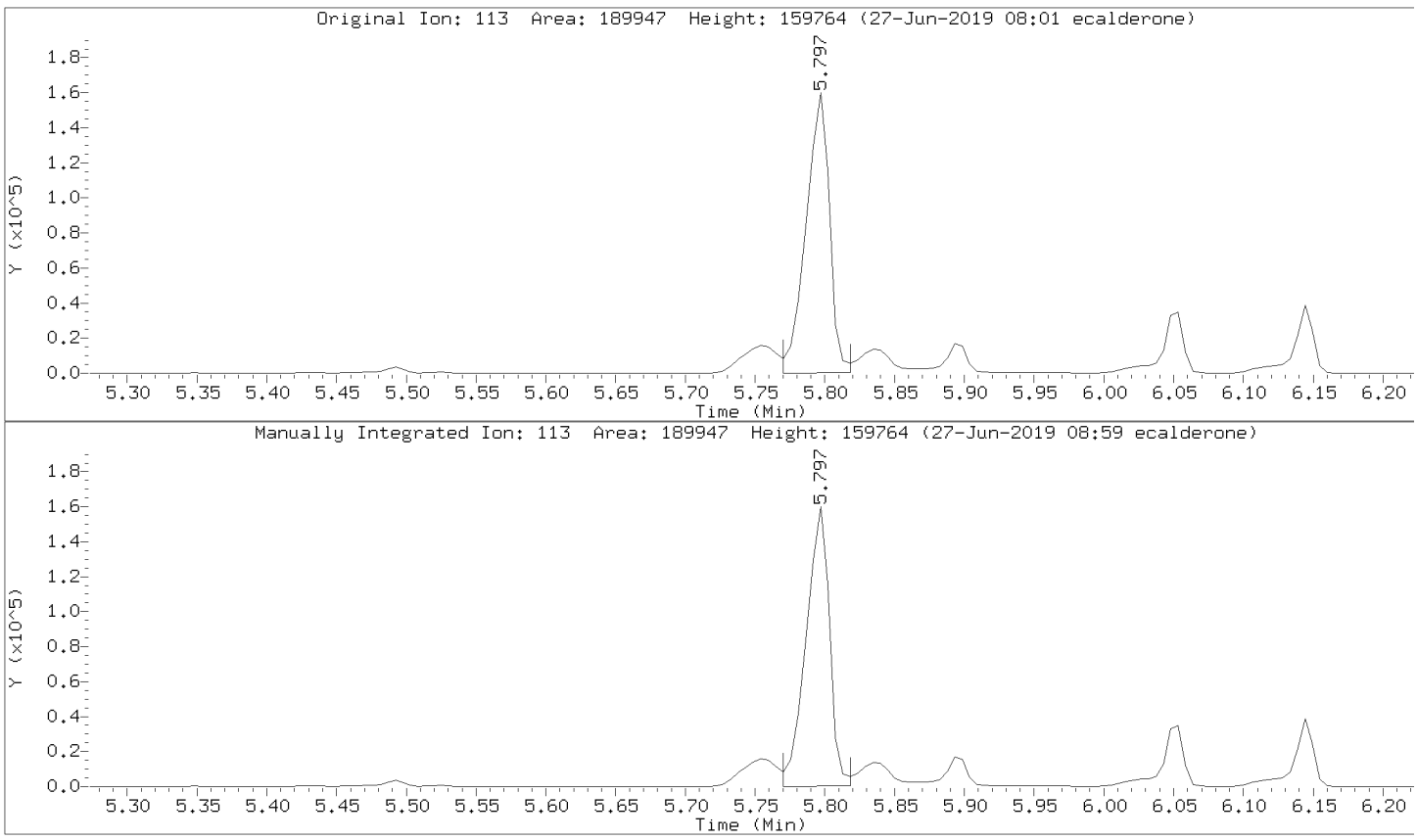
Lab Sample ID: CAL5



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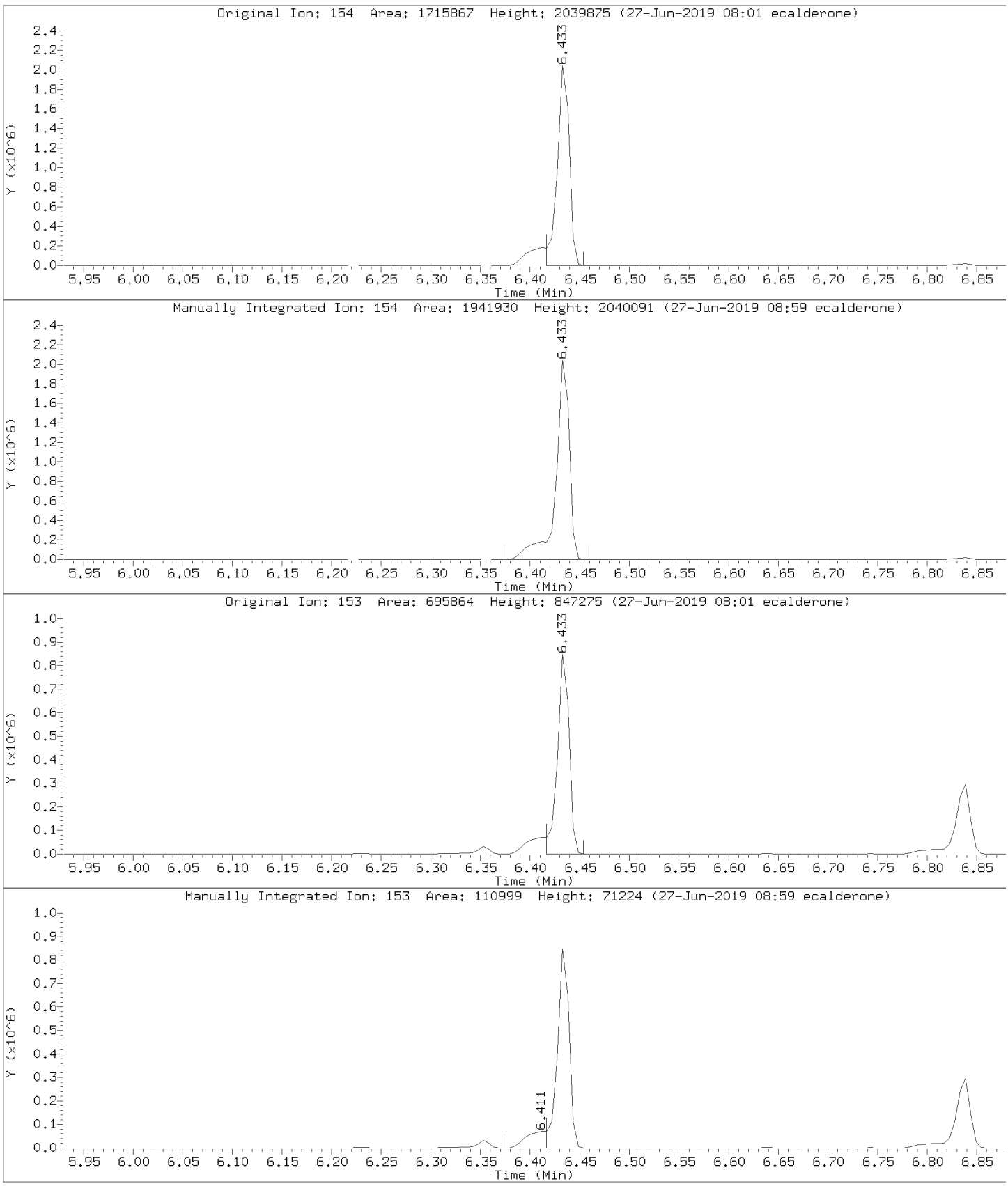
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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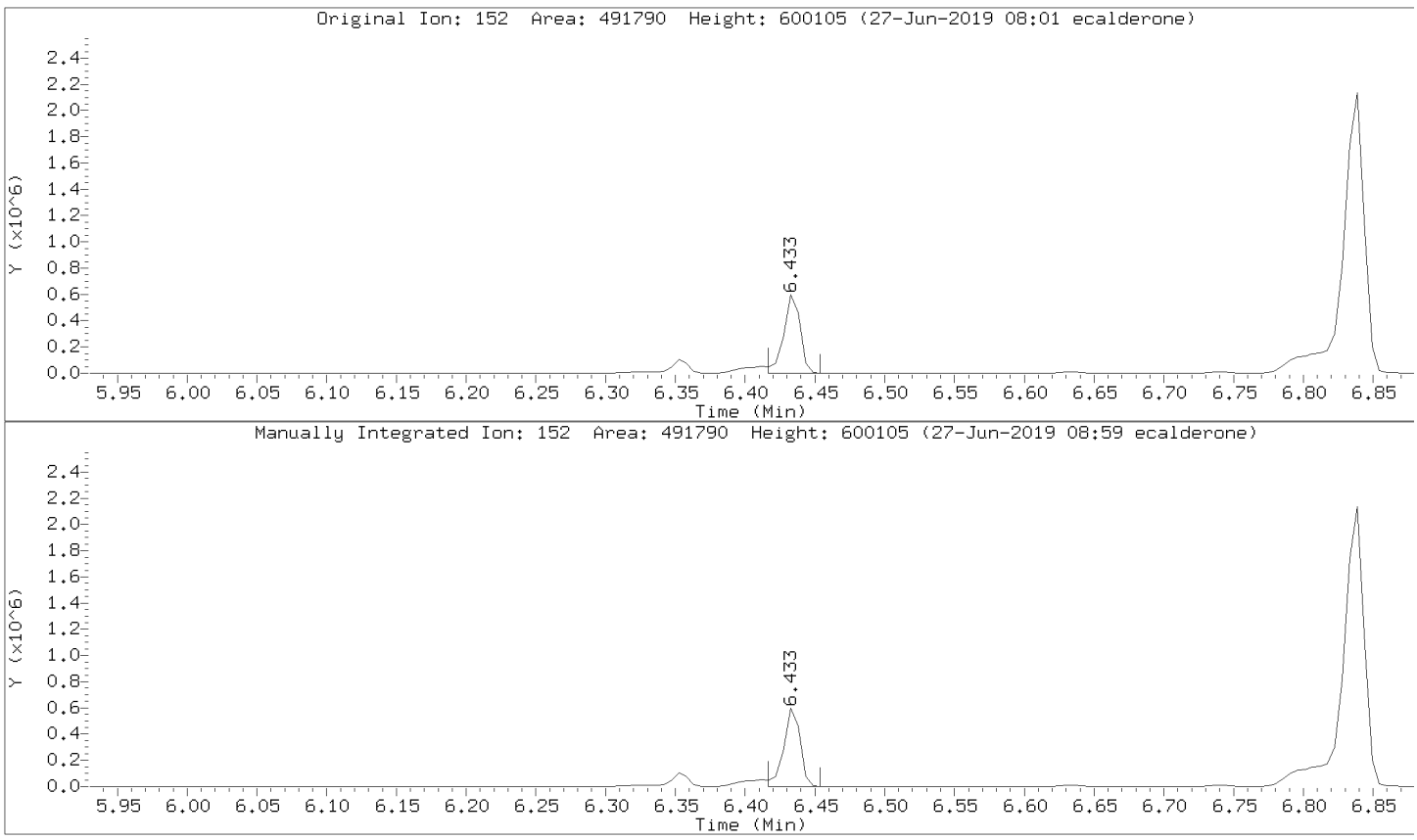
Injection Date: 26-JUN-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 26-JUN-2019 18:51
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal4
Misc Info : 14757,91770:1
Comment :
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Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 18:51 Cal File: m10626y4.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.693	2.684	(0.604)	314073	8.00000	7.90	
	2 Pyridine	79	2.698	2.695	(0.606)	503297	8.00000	7.86	
$	3 2-Fluorophenol (S)	112	3.543	3.539	(0.795)	475370	8.00000	7.99	
$	4 Phenol-d6 (S)	99	4.162	4.159	(0.934)	586450	8.00000	7.91	
	5 Benzaldehyde	77	4.141	4.137	(0.929)	396862	8.00000	8.02	
	6 Phenol	94	4.173	4.169	(0.936)	637256	8.00000	7.88	
	7 Aniline	66	4.232	4.228	(0.950)	254991	8.00000	8.17	
	8 bis(2-Chloroethyl)ether	63	4.253	4.250	(0.954)	367615	8.00000	7.90	
	9 2-Chlorophenol	128	4.317	4.319	(0.969)	550185	8.00000	7.94	
	10 1,3-Dichlorobenzene	146	4.435	4.431	(0.995)	602927	8.00000	7.74	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.456	4.458	(1.000)	206562	4.00000		
	12 1,4-Dichlorobenzene	146	4.467	4.469	(1.002)	693451	8.00000	8.10	
	13 Benzyl Alcohol	79	4.552	4.549	(1.022)	404482	8.00000	7.97	
	14 1,2-Dichlorobenzene	146	4.616	4.618	(1.036)	603257	8.00000	7.88	
	15 2-Methylphenol(o-Cresol)	108	4.627	4.629	(1.038)	492045	8.00000	7.88	
	16 bis(2-Chloroisopropyl)ether	45	4.670	4.666	(1.048)	551370	8.00000	7.81	
	17 3&4-Methylphenol(m&p Cresol)	108	4.739	4.736	(1.064)	502246	8.00000	7.93	
	18 N-Nitroso-di-n-propylamine	70	4.782	4.778	(1.073)	385557	8.00000	7.85(M)	LT
	19 Acetophenone	105	4.777	4.773	(1.072)	700517	8.00000	7.81	
	20 Hexachloroethane	117	4.862	4.864	(1.091)	229438	8.00000	8.00	
$	21 Nitrobenzene-d5 (S)	128	4.905	4.901	(0.896)	261649	8.00000	8.12	
	22 Nitrobenzene	77	4.915	4.917	(0.898)	527797	8.00000	7.98	
	23 Isophorone	82	5.097	5.094	(0.932)	978877	8.00000	7.96(M)	LT
	24 2,4-Dimethylphenol	107	5.161	5.158	(0.943)	513638	8.00000	7.94	
	25 2-Nitrophenol	139	5.172	5.168	(0.945)	280314	8.00000	8.26	
	26 Benzoic acid	105	5.225	5.206	(0.955)	232386	8.00000	7.95(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.241	5.243	(0.958)	606774	8.00000	7.91(M)	LT
	28 2,4-Dichlorophenol	162	5.348	5.345	(0.978)	453711	8.00000	8.10	
	29 1,2,4-Trichlorobenzene	180	5.434	5.430	(0.993)	514493	8.00000	7.95	
*	30 Naphthalene-d8 (IS)	136	5.471	5.473	(1.000)	795828	4.00000		
	31 Naphthalene	128	5.492	5.489	(1.004)	1635041	8.00000	7.92	
	32 4-Chloroaniline	65	5.524	5.521	(1.010)	167265	8.00000	8.01(M)	LT
	33 Hexachloro-1,3-butadiene	225	5.621	5.622	(1.027)	293428	8.00000	7.94	
	34 Caprolactam	55	5.786	5.772	(1.058)	164724	8.00000	8.52(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.893	5.890	(1.077)	416524	8.00000	7.98(MH)	LT
	36	2-Methylnaphthalene	142	6.048	6.050	(1.105)	1150996	8.00000	7.95(MH)	LT
	37	1-Methylnaphthalene	142	6.144	6.141	(1.123)	1086264	8.00000	7.90(M)	LT
	38	Hexachlorocyclopentadiene	237	6.230	6.231	(0.893)	310503	8.00000	8.55	
	39	1,2,4,5-Tetrachlorobenzene	216	6.219	6.221	(0.891)	529274	8.00000	8.46(MH)	LT
	40	2,4,6-Trichlorophenol	196	6.288	6.290	(0.901)	382013	8.00000	8.62(M)	LT
	41	2,4,5-Trichlorophenol	196	6.326	6.322	(0.907)	280158	8.00000	8.43	
$	42	2-Fluorobiphenyl (S)	172	6.353	6.349	(0.910)	1225348	8.00000	8.41(MH)	LT
	43	Biphenyl (Diphenyl)	154	6.433	6.429	(0.922)	1343128	8.00000	8.42(MH)	LT
	44	2-Chloronaphthalene	164	6.459	6.456	(0.926)	296244	8.00000	7.66(H)	
	45	2-Nitroaniline	138	6.545	6.541	(0.938)	300431	8.00000	8.36	
	46	Dimethylphthalate	163	6.710	6.702	(0.962)	1011011	8.00000	8.12	
	47	2,6-Dinitrotoluene	165	6.780	6.776	(0.972)	231051	8.00000	8.43	
	48	Acenaphthylene	152	6.833	6.830	(0.979)	1616976	8.00000	8.52(MH)	LT
	49	3-Nitroaniline	65	6.919	6.910	(0.992)	252960	8.00000	8.11	
*	50	Acenaphthene-d10 (IS)	164	6.978	6.974	(1.000)	403564	4.00000		
	51	2,4-Dinitrophenol	184	7.015	7.011	(1.005)	104589	8.00000	8.22	
	52	Acenaphthene	153	7.010	7.006	(1.005)	952508	8.00000	7.75(H)	
	53	4-Nitrophenol	109	7.042	7.033	(1.009)	123611	8.00000	9.29	
	54	2,4-Dinitrotoluene	165	7.170	7.166	(1.028)	315300	8.00000	8.62	
	55	Dibenzofuran	168	7.165	7.166	(1.027)	1483996	8.00000	8.54(MH)	LT
	56	2,3,4,6-Tetrachlorophenol	232	7.319	7.321	(1.049)	260468	8.00000	8.81	
	57	Diethylphthalate	149	7.400	7.396	(1.060)	1012011	8.00000	8.18	
	58	4-Chlorophenylphenyl ether	204	7.496	7.492	(1.074)	549765	8.00000	8.04	
	59	Fluorene	166	7.522	7.519	(1.078)	1099999	8.00000	7.97(H)	
	60	4-Nitroaniline	108	7.549	7.540	(1.082)	147794	8.00000	8.19(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	7.597	7.588	(0.892)	147764	8.00000	8.18	
	62	N-Nitrosodiphenylamine	169	7.619	7.615	(0.895)	913713	8.00000	7.54	
	63	Azobenzene	77	7.661	7.658	(0.900)	953482	8.00000	8.05	
	64	1,2-Diphenylhydrazine	77	7.661	7.658	(0.900)	953482	8.00000	8.05	
$	65	2,4,6-Tribromophenol (S)	330	7.795	7.791	(0.915)	187309	8.00000	8.09	
	66	4-Bromophenylphenyl ether	248	8.009	8.005	(0.940)	337156	8.00000	7.82	
	67	Hexachlorobenzene	284	8.190	8.187	(0.962)	420391	8.00000	7.74	
	68	Atrazine	200	8.190	8.181	(0.962)	331838	8.00000	8.41	
	69	Pentachlorophenol	266	8.366	8.363	(0.982)	176938	8.00000	7.78	
*	70	Phenanthrene-d10 (IS)	188	8.516	8.513	(1.000)	698565	4.00000		
	71	Phenanthrene	178	8.537	8.534	(1.002)	1670292	8.00000	7.57	
	72	Anthracene	178	8.586	8.582	(1.008)	1586303	8.00000	8.10	
	73	Carbazole	167	8.740	8.737	(1.026)	1369750	8.00000	7.93	
	74	Di-n-butylphthalate	149	9.120	9.116	(1.071)	1710285	8.00000	8.31	
	75	Fluoranthene	202	9.804	9.800	(1.151)	1702478	8.00000	8.04	
	76	Pyrene	202	10.049	10.040	(0.889)	1738449	8.00000	7.74	
$	77	Terphenyl-d14 (S)	244	10.183	10.179	(0.901)	1402225	8.00000	7.81	
	78	Butylbenzylphthalate	149	10.690	10.692	(0.946)	742213	8.00000	8.13	
	79	3,3'-Dichlorobenzidine	252	11.241	11.237	(0.995)	611248	8.00000	8.13	
	80	bis(2-Ethylhexyl)phthalate	149	11.278	11.274	(0.998)	1142357	8.00000	8.44	
	81	Benzo(a)anthracene	228	11.278	11.274	(0.998)	1799585	8.00000	8.03	
*	82	Chrysene-d12 (IS)	240	11.299	11.296	(1.000)	730412	4.00000		
	83	Chrysene	228	11.326	11.317	(1.002)	1604371	8.00000	7.91	
	84	Di-n-octylphthalate	149	11.860	11.857	(0.934)	1587355	8.00000	7.72	
	85	Benzo(b)fluoranthene	252	12.325	12.322	(0.971)	1678383	8.00000	7.65	
	86	Benzo(k)fluoranthene	252	12.346	12.343	(0.973)	1916414	8.00000	8.12	
	87	Benzo(a)pyrene	252	12.640	12.637	(0.996)	1562677	8.00000	8.03	
*	88	Perylene-d12 (IS)	264	12.694	12.690	(1.000)	704581	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.880	13.865	(1.093)	1763968	8.00000	8.09	
90 Dibenz(a,h)anthracene	278	13.874	13.865	(1.093)	1492442	8.00000	8.17	
91 Benzo(g,h,i)perylene	276	14.221	14.213	(1.120)	1373420	8.00000	7.98	

QC Flag Legend

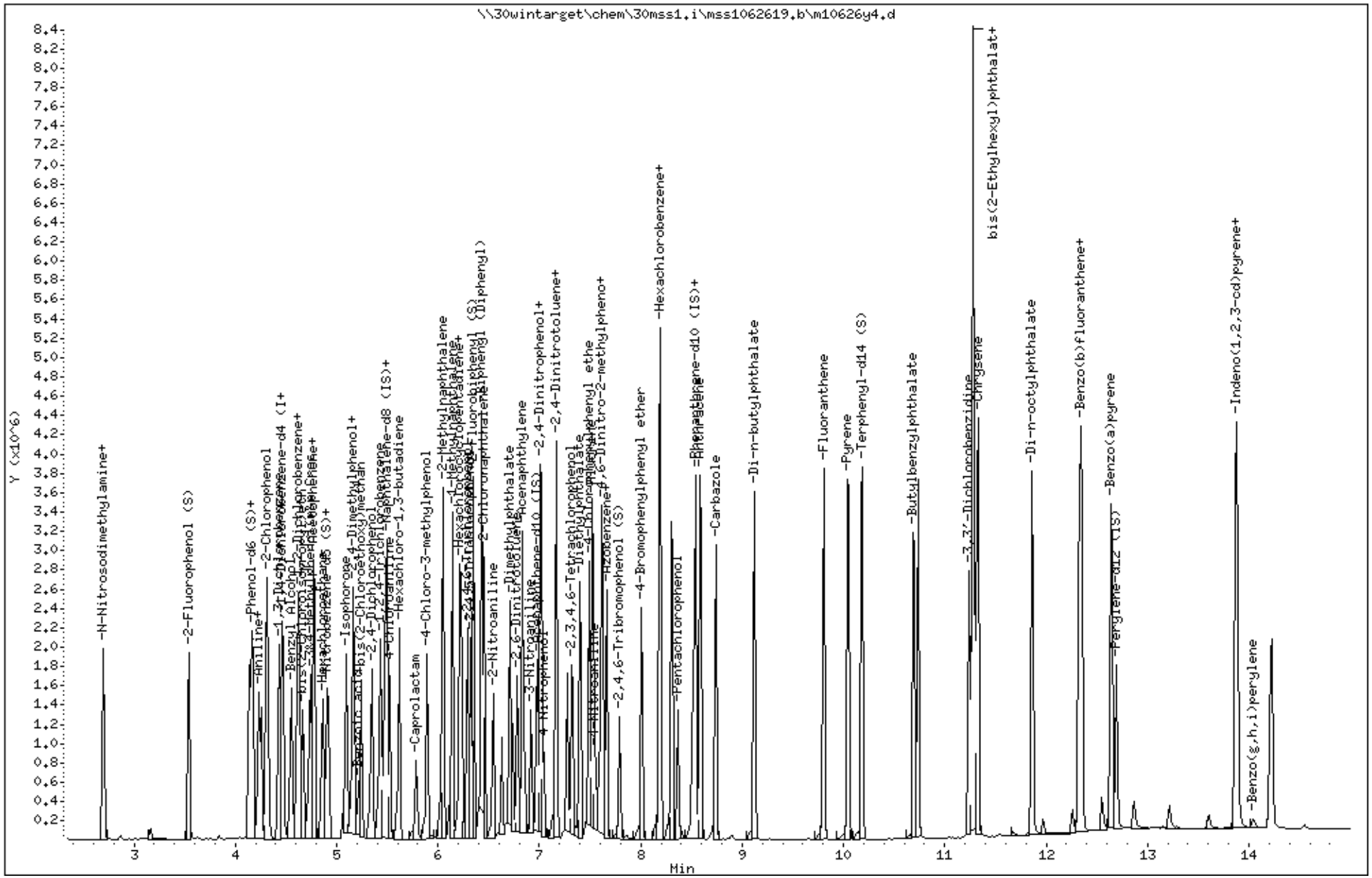
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

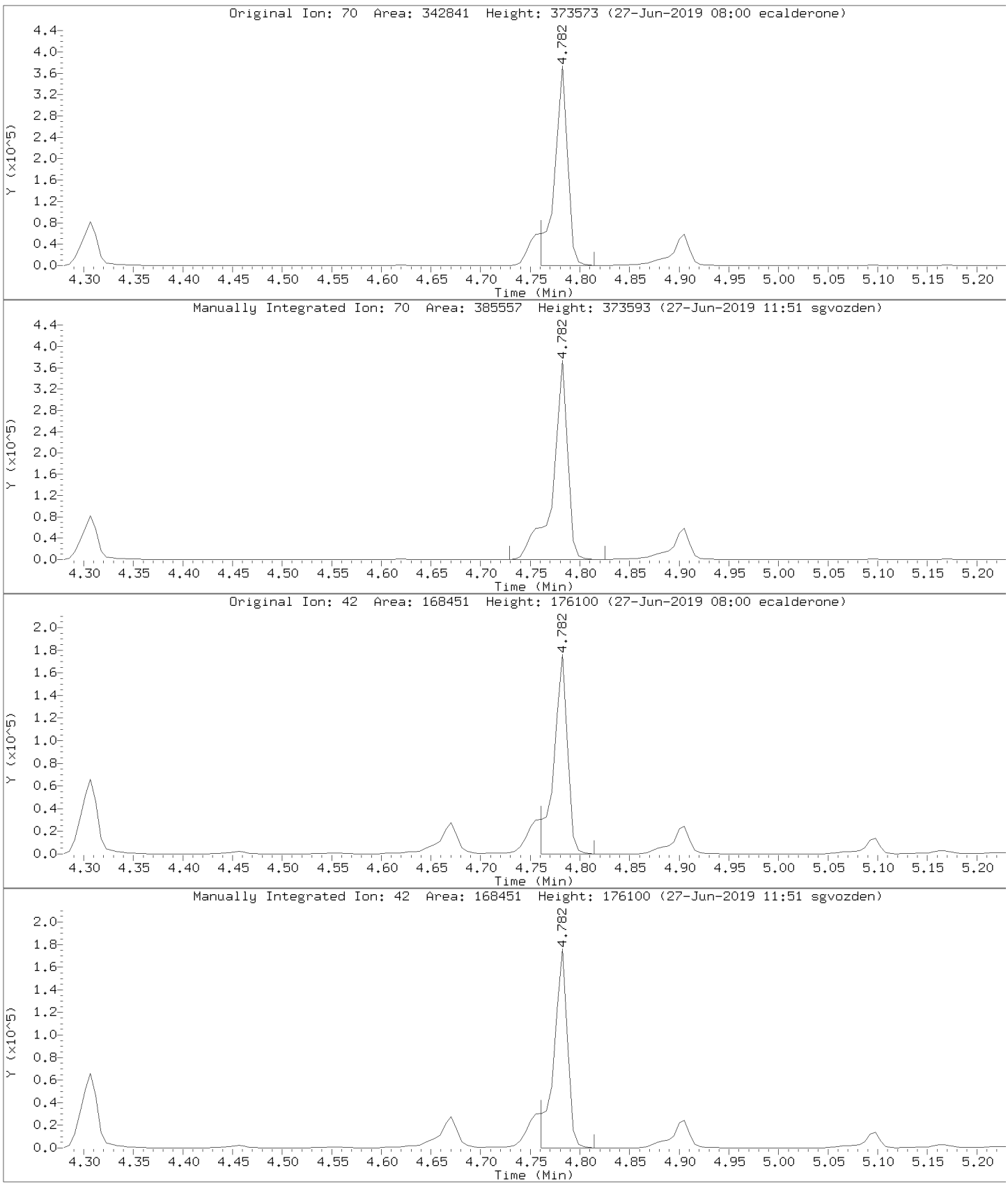
Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y4.d
Date : 26-JUN-2019 18:51
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m10626y4.d
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: N-Nitroso-di-n-propylamine Review Code: LT
CAS Number: 621-64-7



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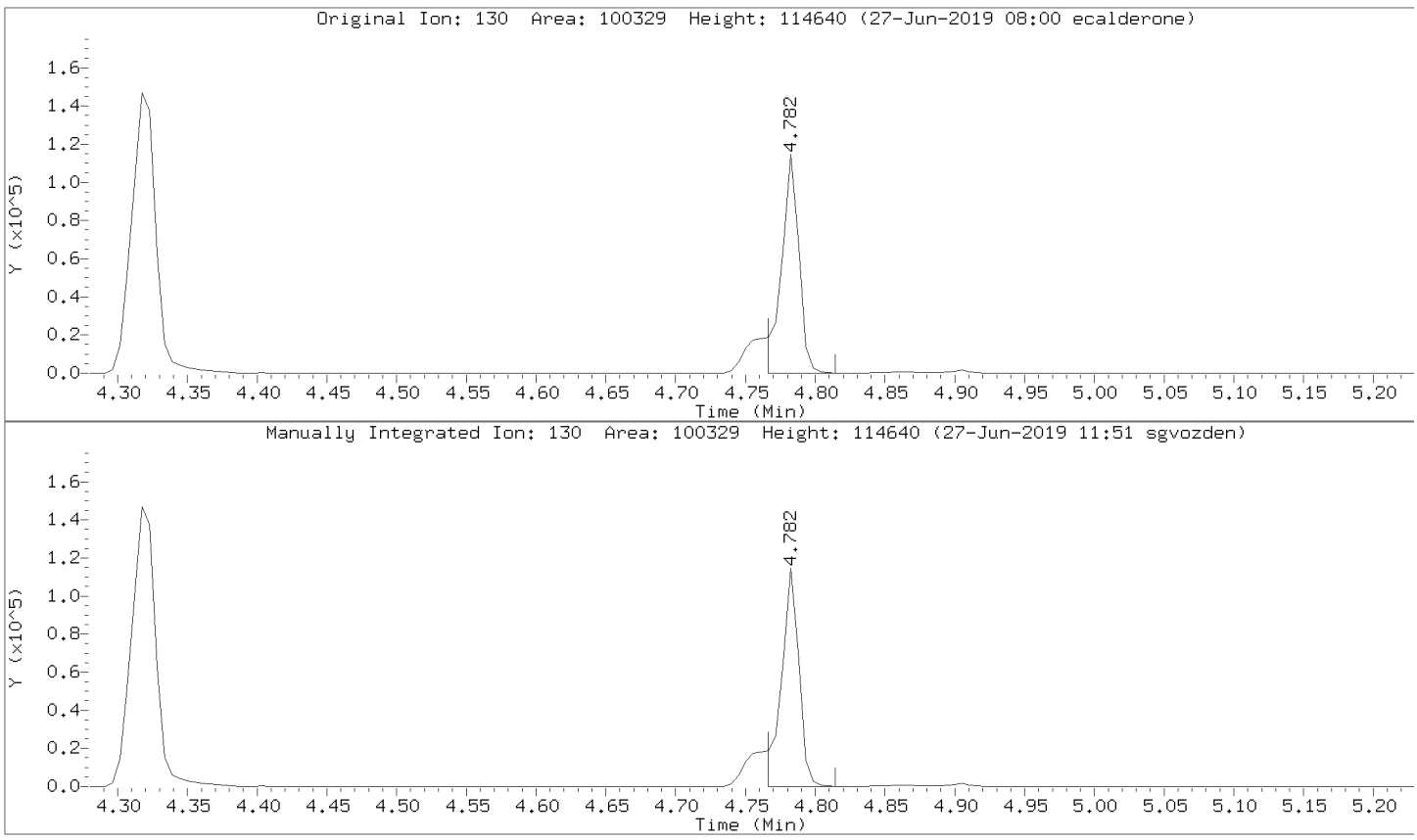
Instrument: 30mss1.i
Lab Sample ID: CAL4



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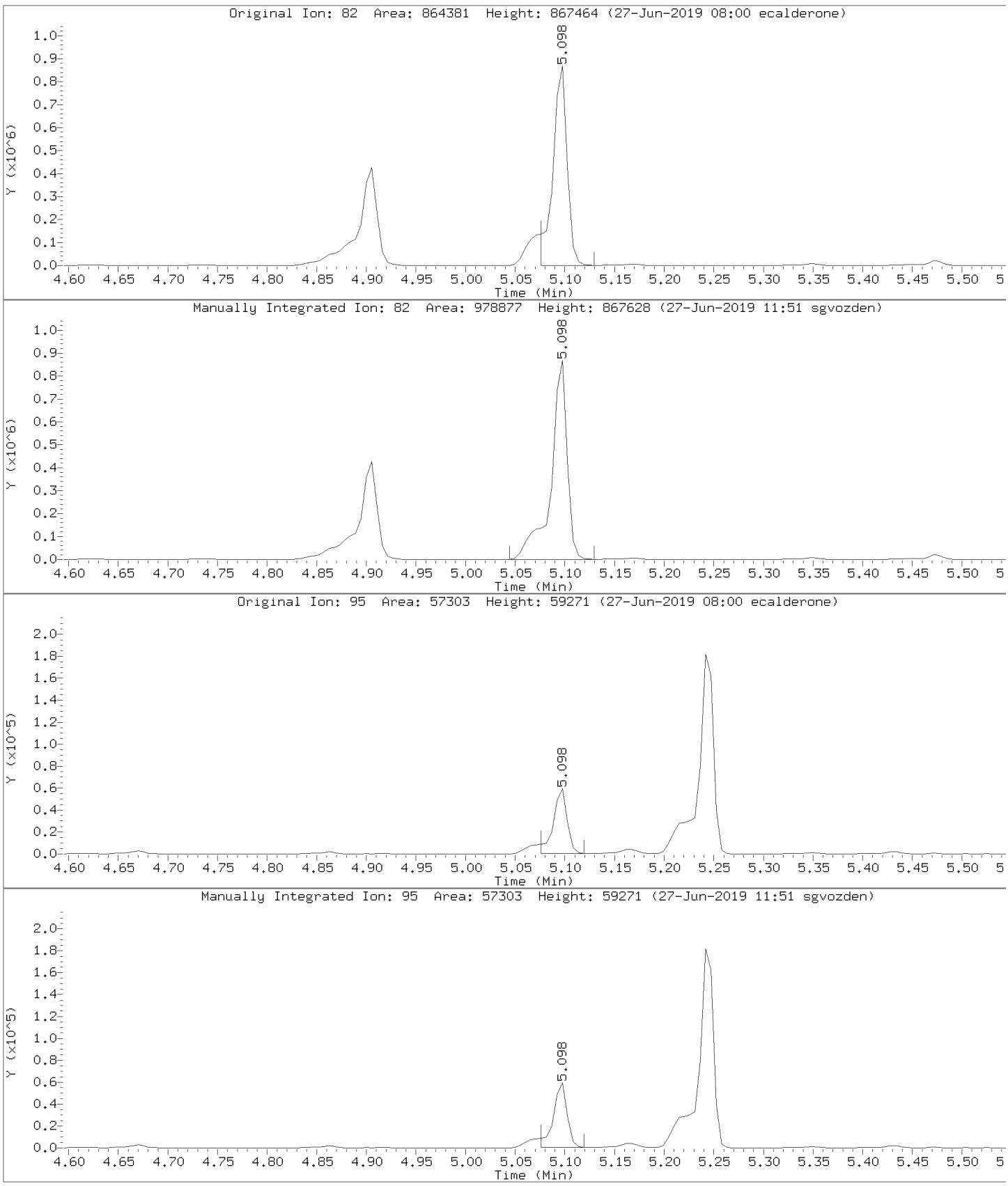
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Isophorone Review Code: LT
CAS Number: 78-59-1



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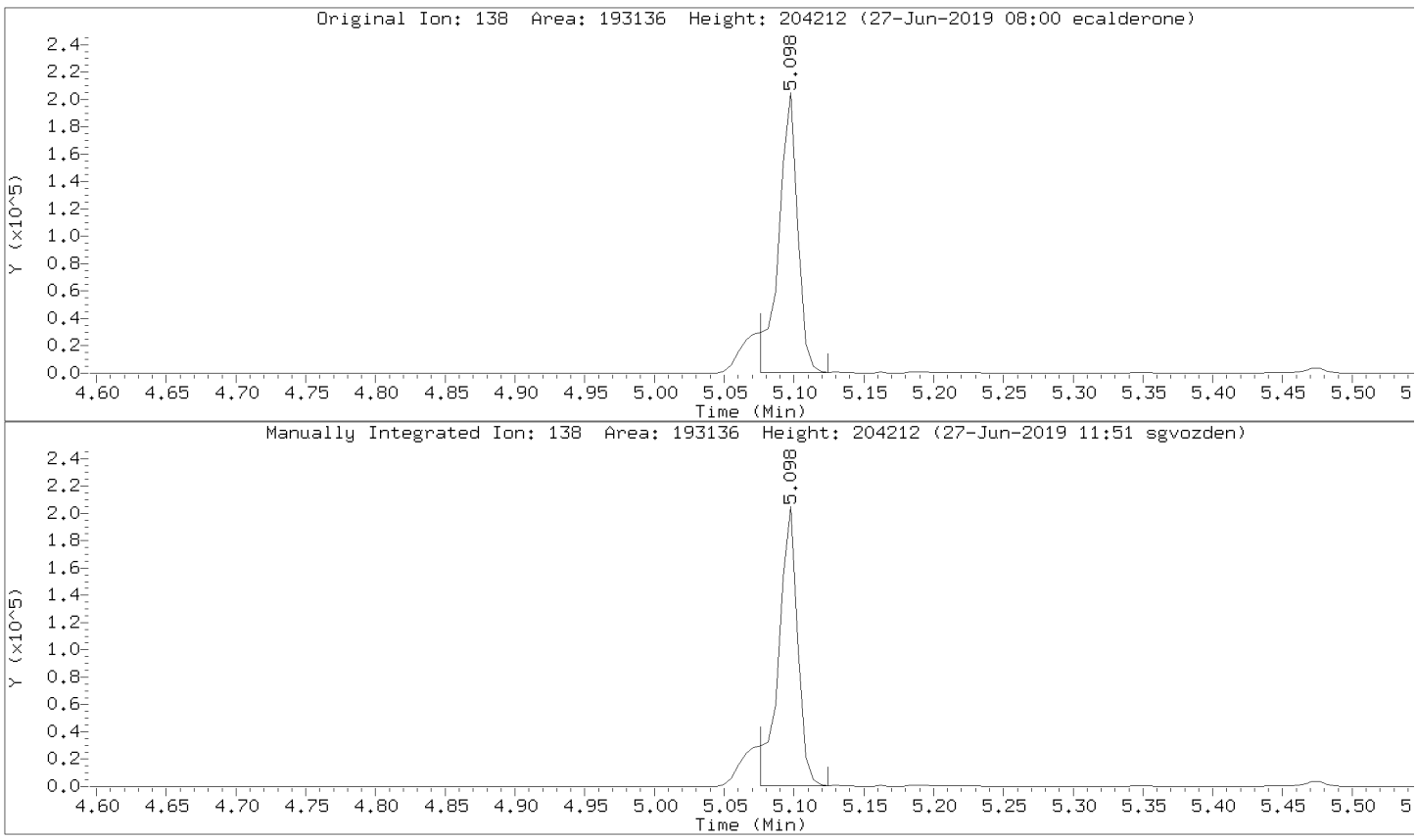
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4



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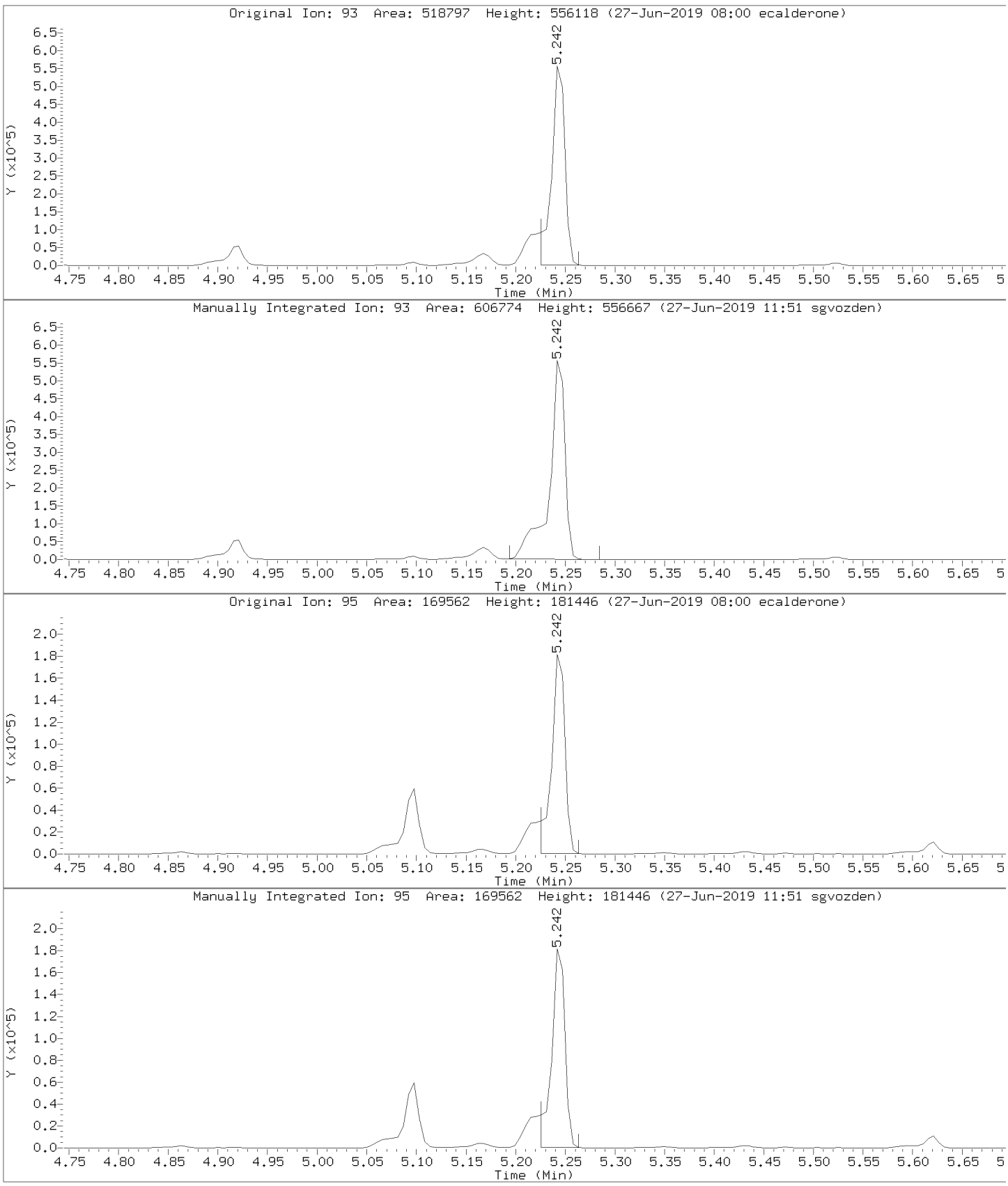
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: bis(2-Chloroethoxy)methane Review Code: LT
CAS Number: 111-91-1



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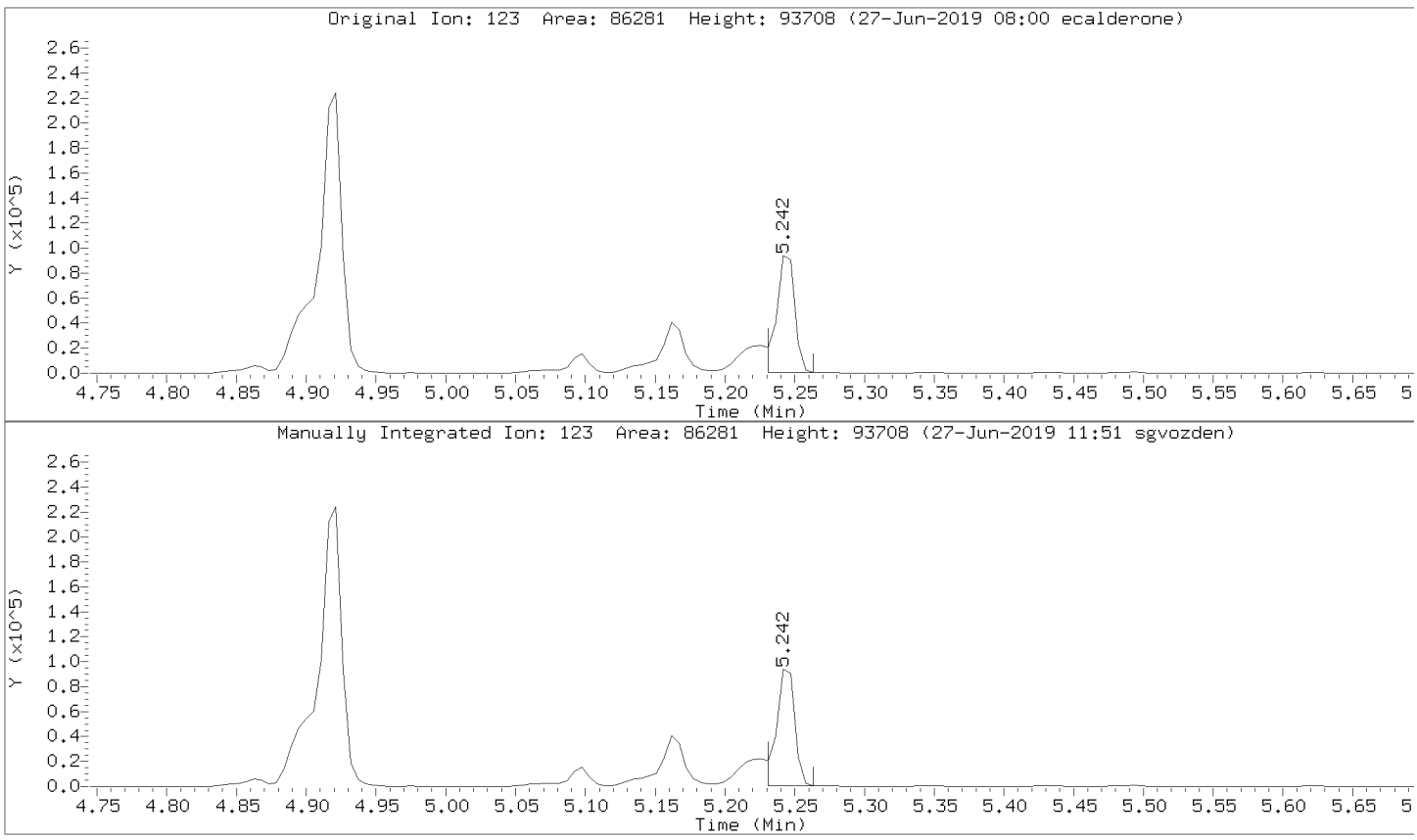
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4



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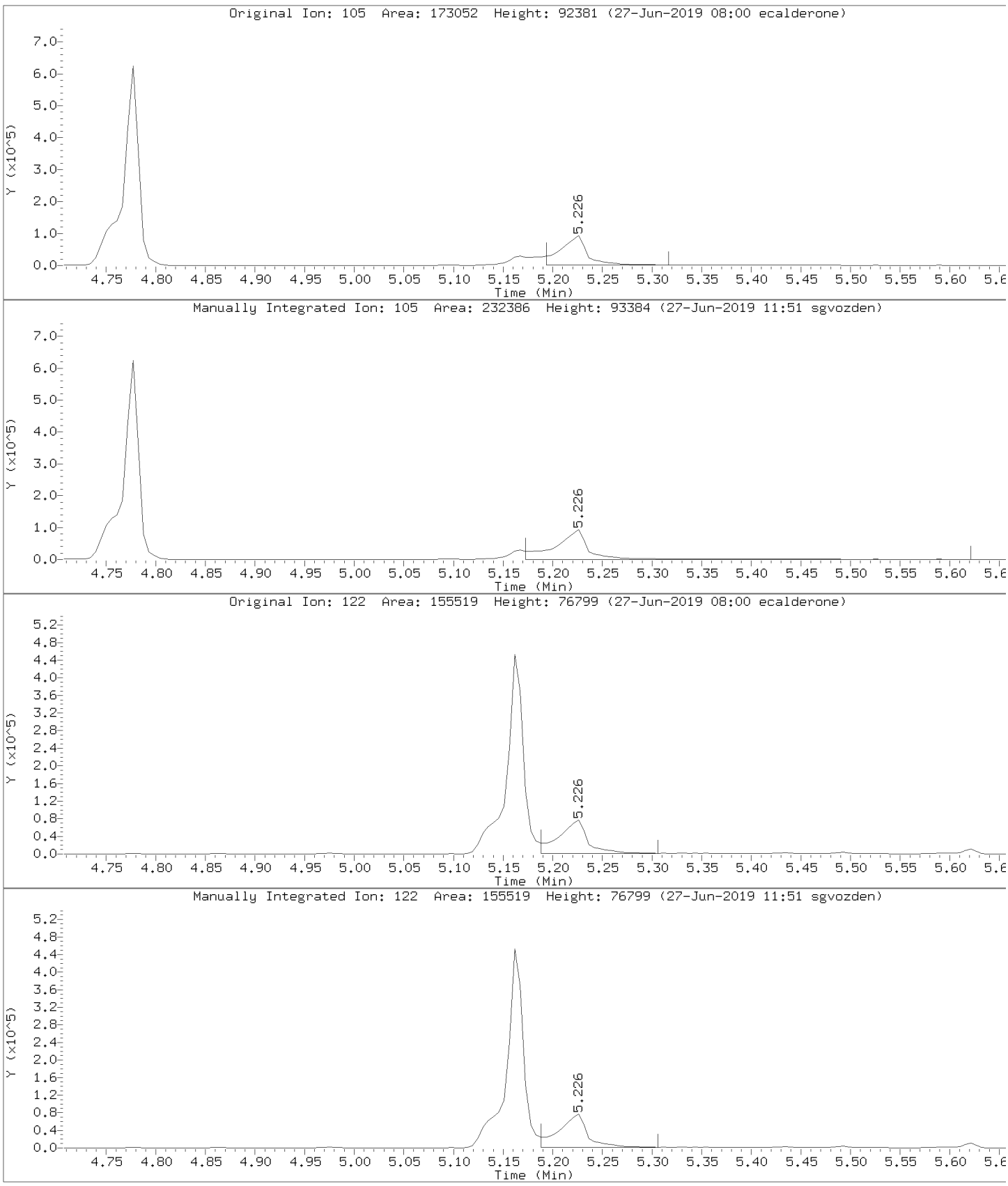
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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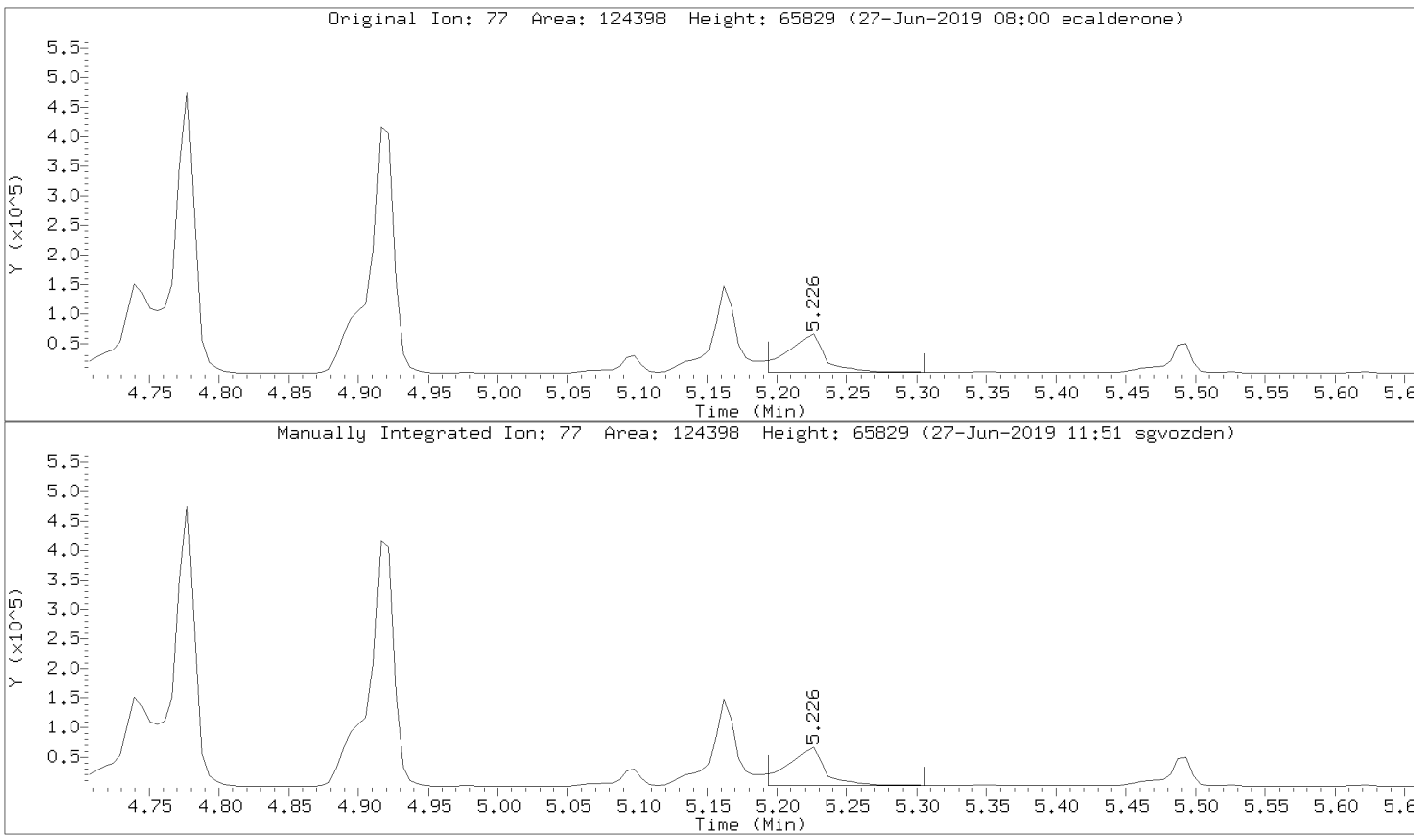
Lab Sample ID: CAL4



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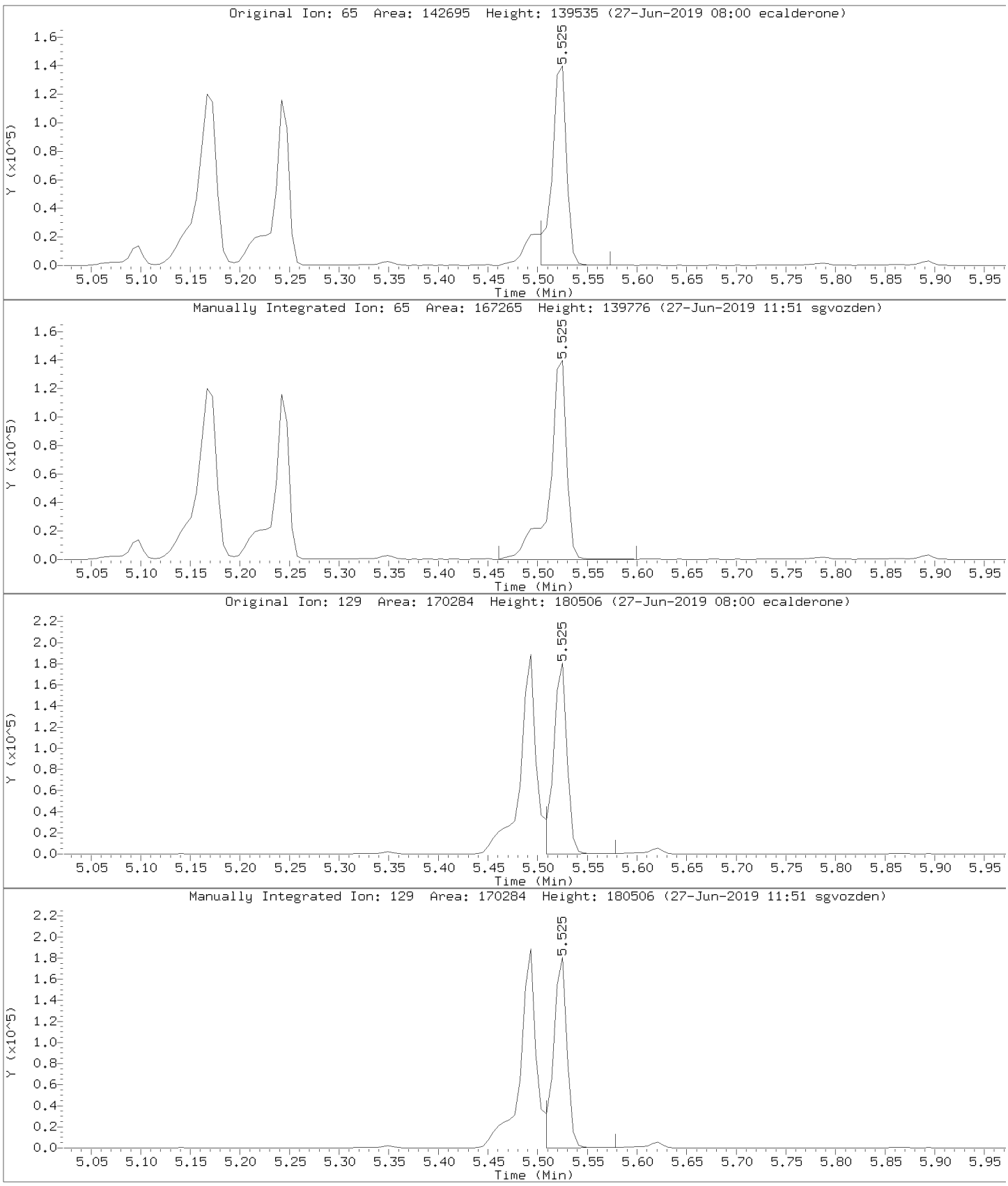
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Chloroaniline Review Code: LT
CAS Number: 106-47-8



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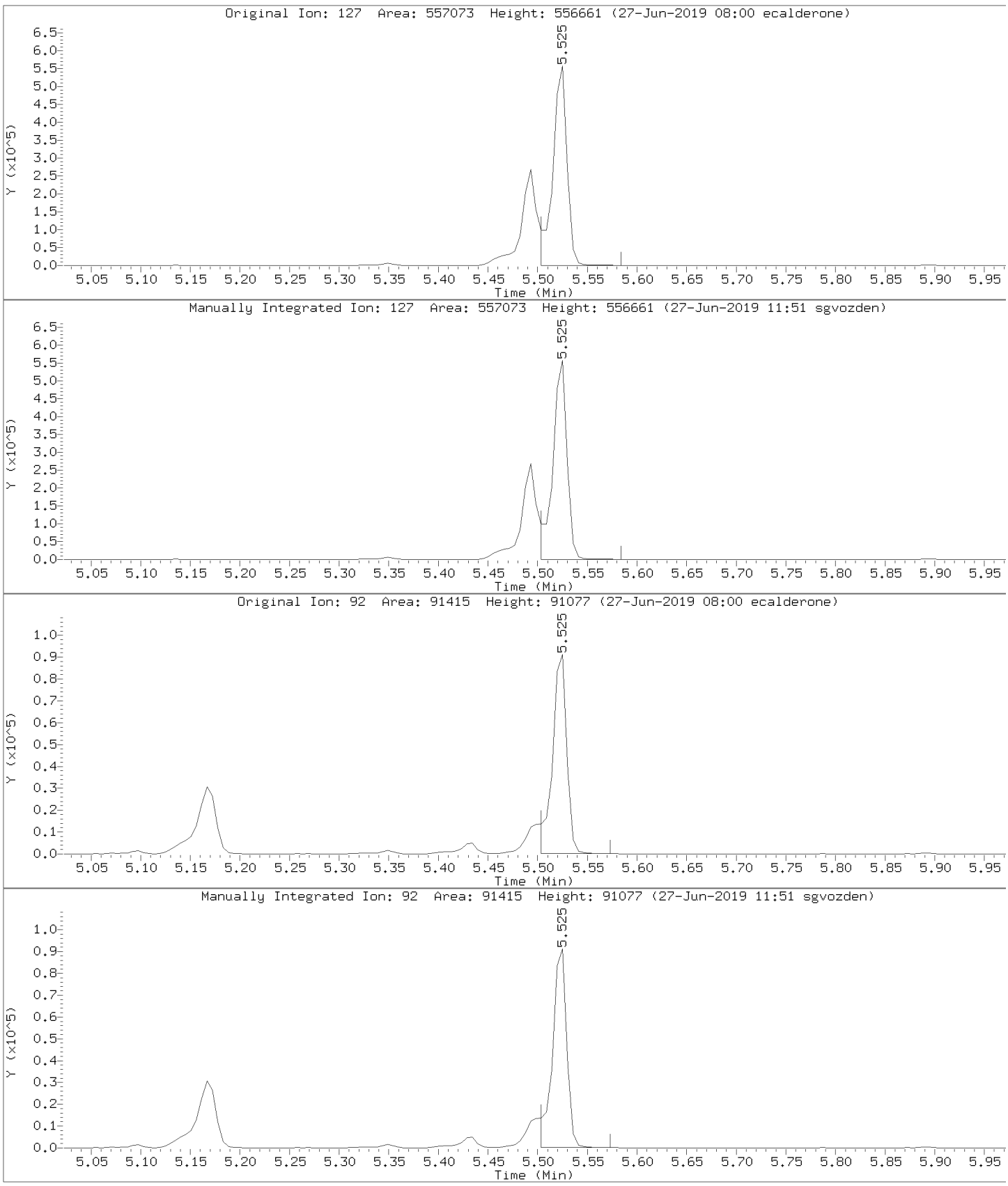
Instrument: 30mss1.i
Lab Sample ID: CAL4



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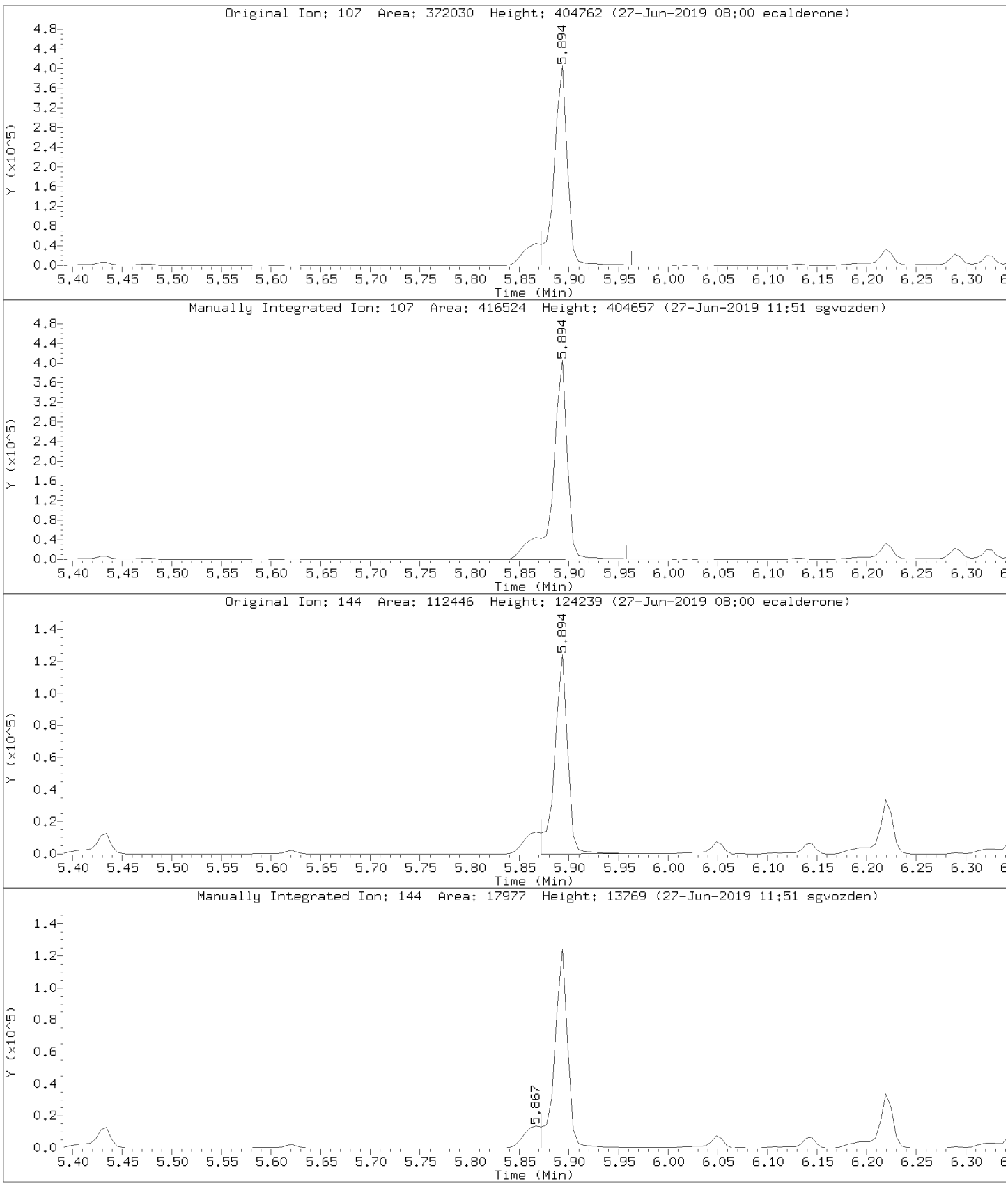
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Chloro-3-methylphenol Review Code: LT
CAS Number: 59-50-7



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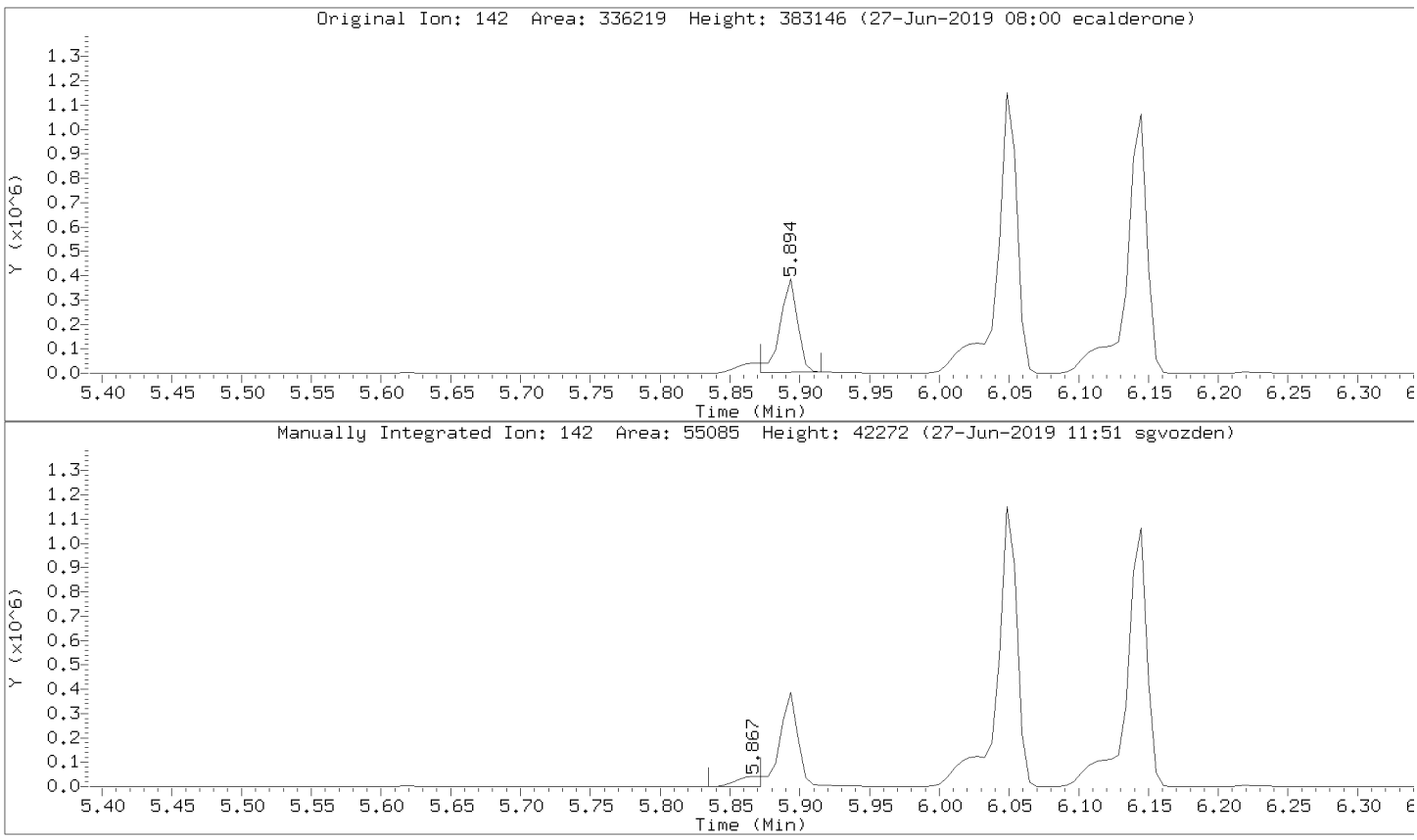
Lab Sample ID: CAL4



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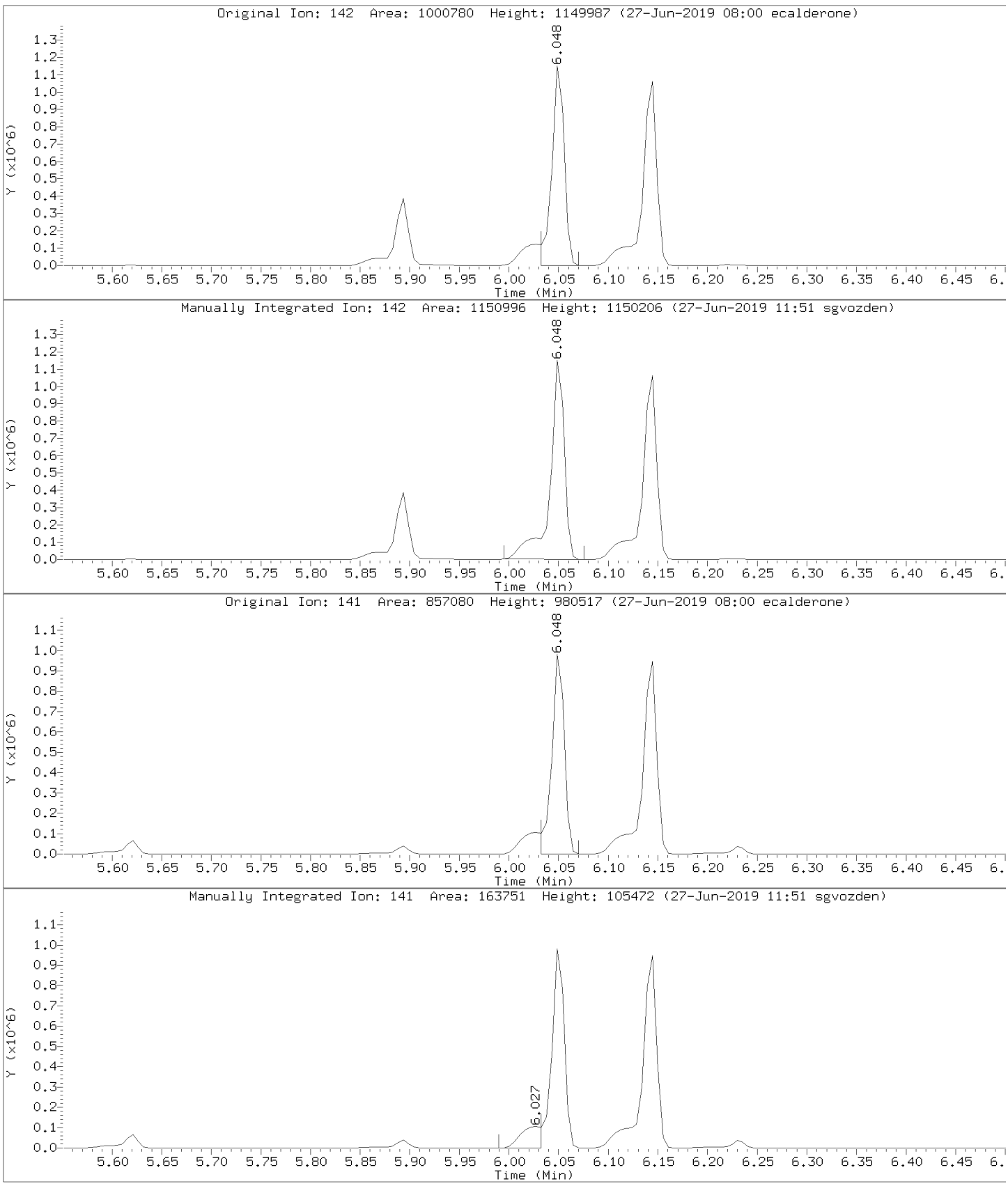
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 2-Methylnaphthalene Review Code: LT
CAS Number: 91-57-6



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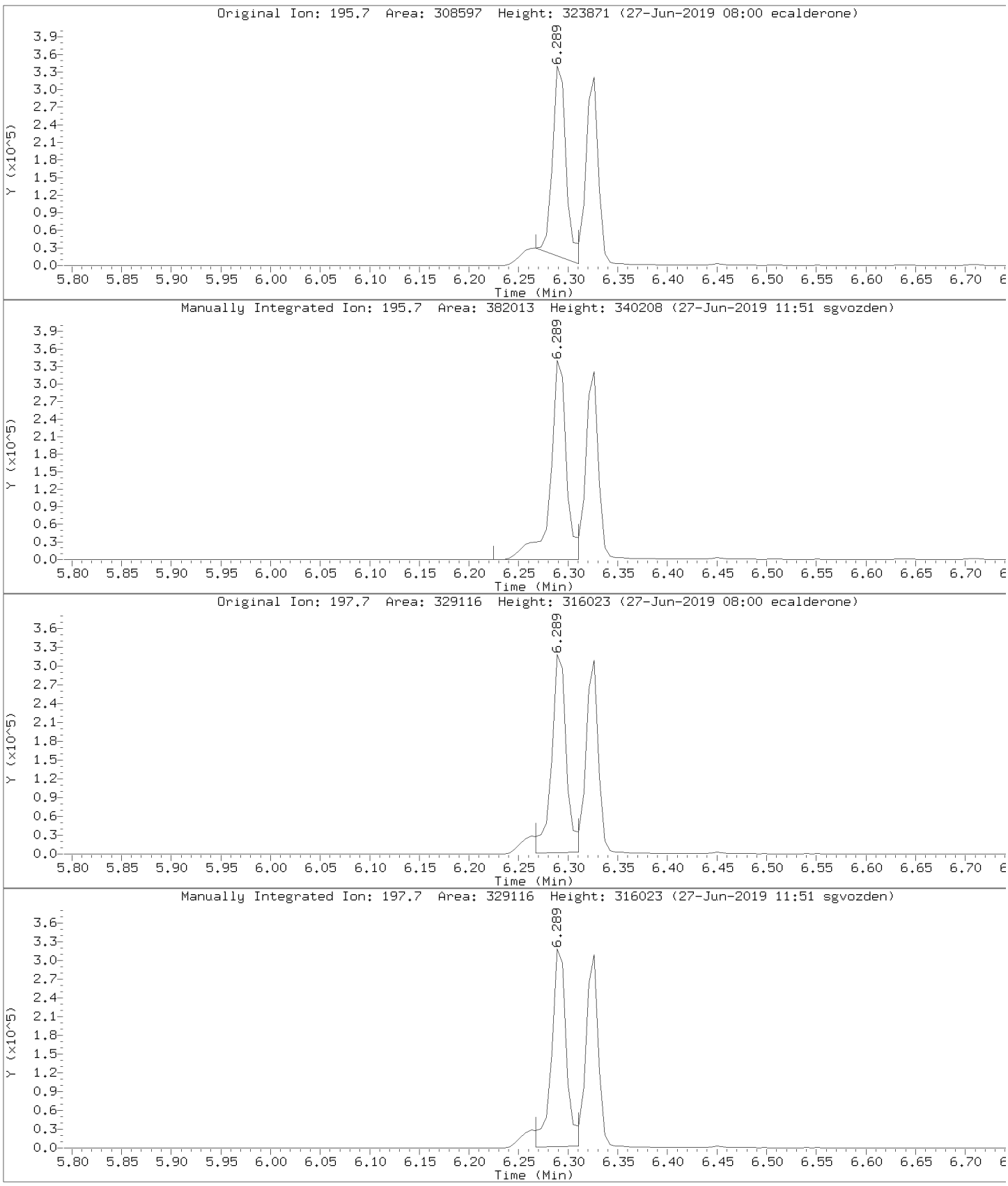
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 2,4,6-Trichlorophenol Review Code: LT
CAS Number: 88-06-2



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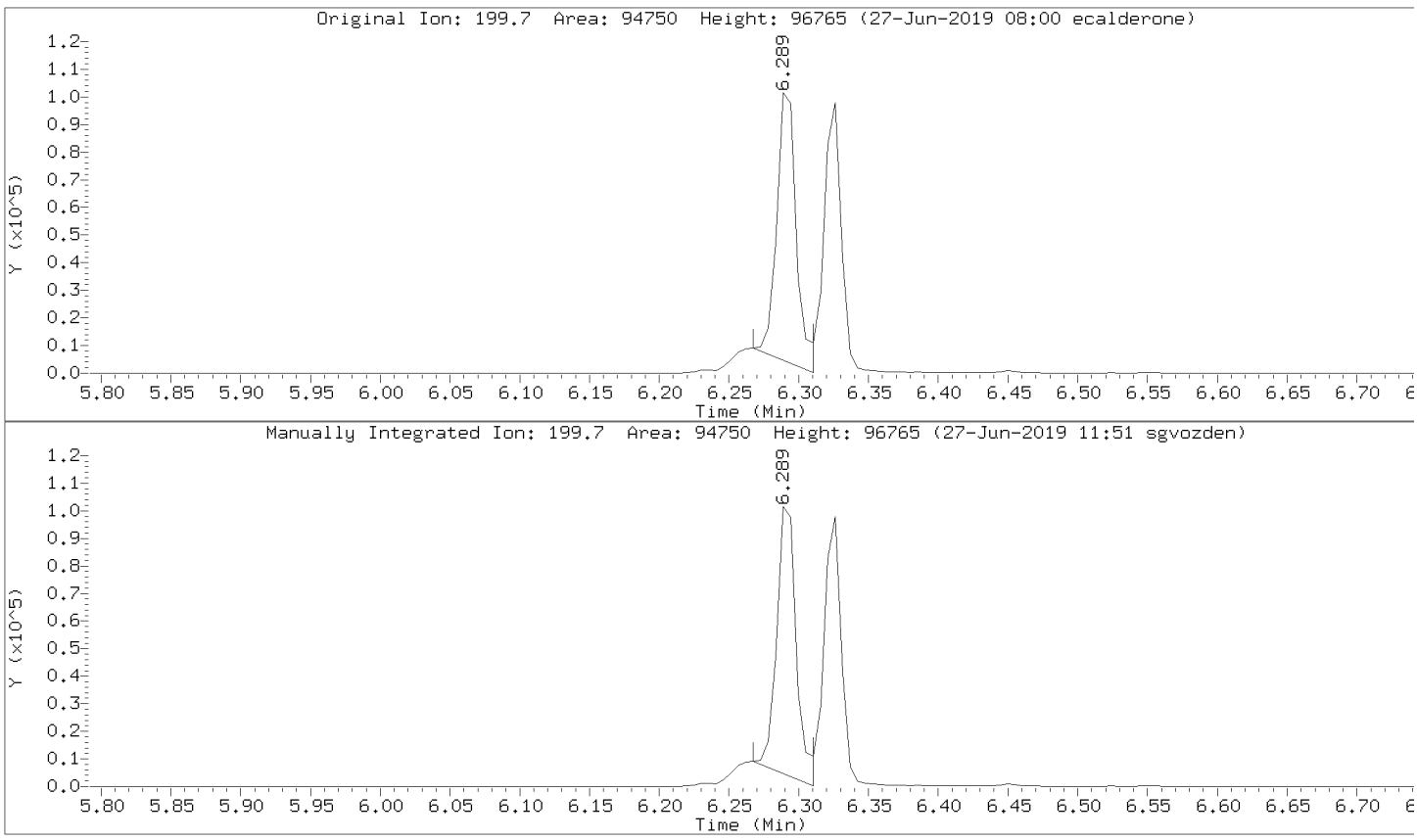
Lab Sample ID: CAL4



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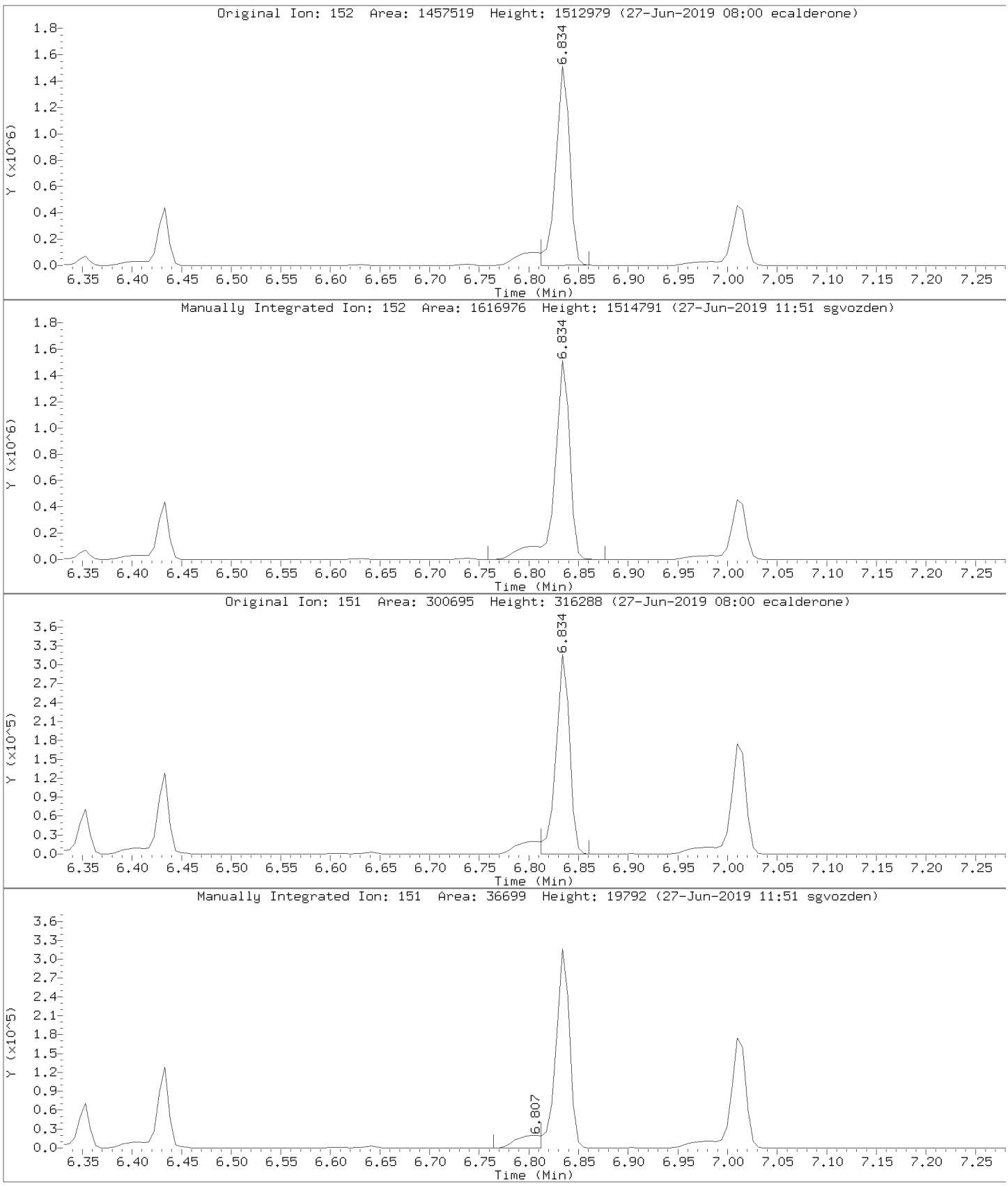
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Acenaphthylene Review Code: LT
CAS Number: 208-96-8



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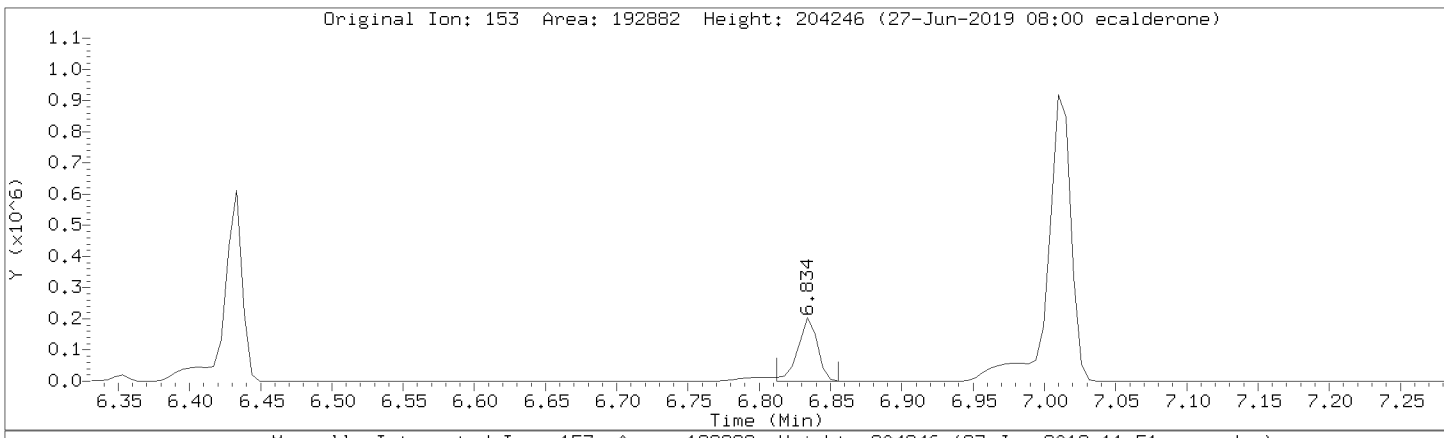
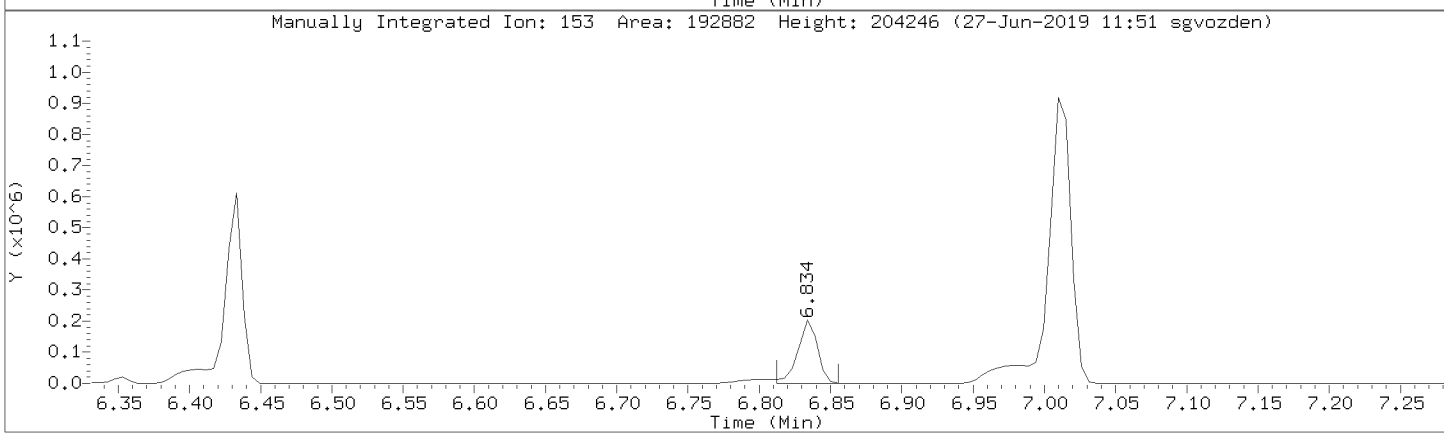
Instrument: 30mss1.i
Lab Sample ID: CAL4





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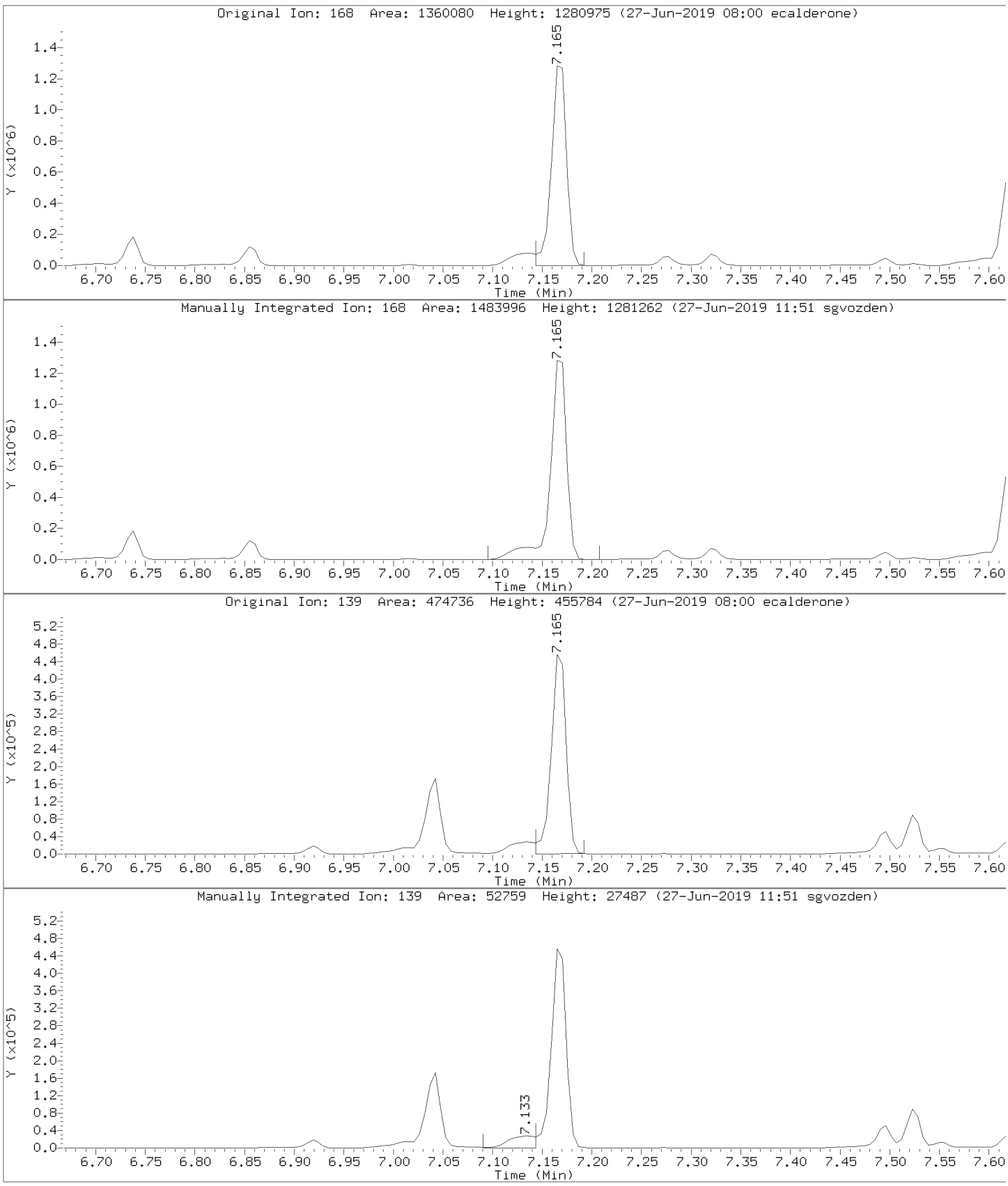
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Dibenzofuran Review Code: LT
CAS Number: 132-64-9



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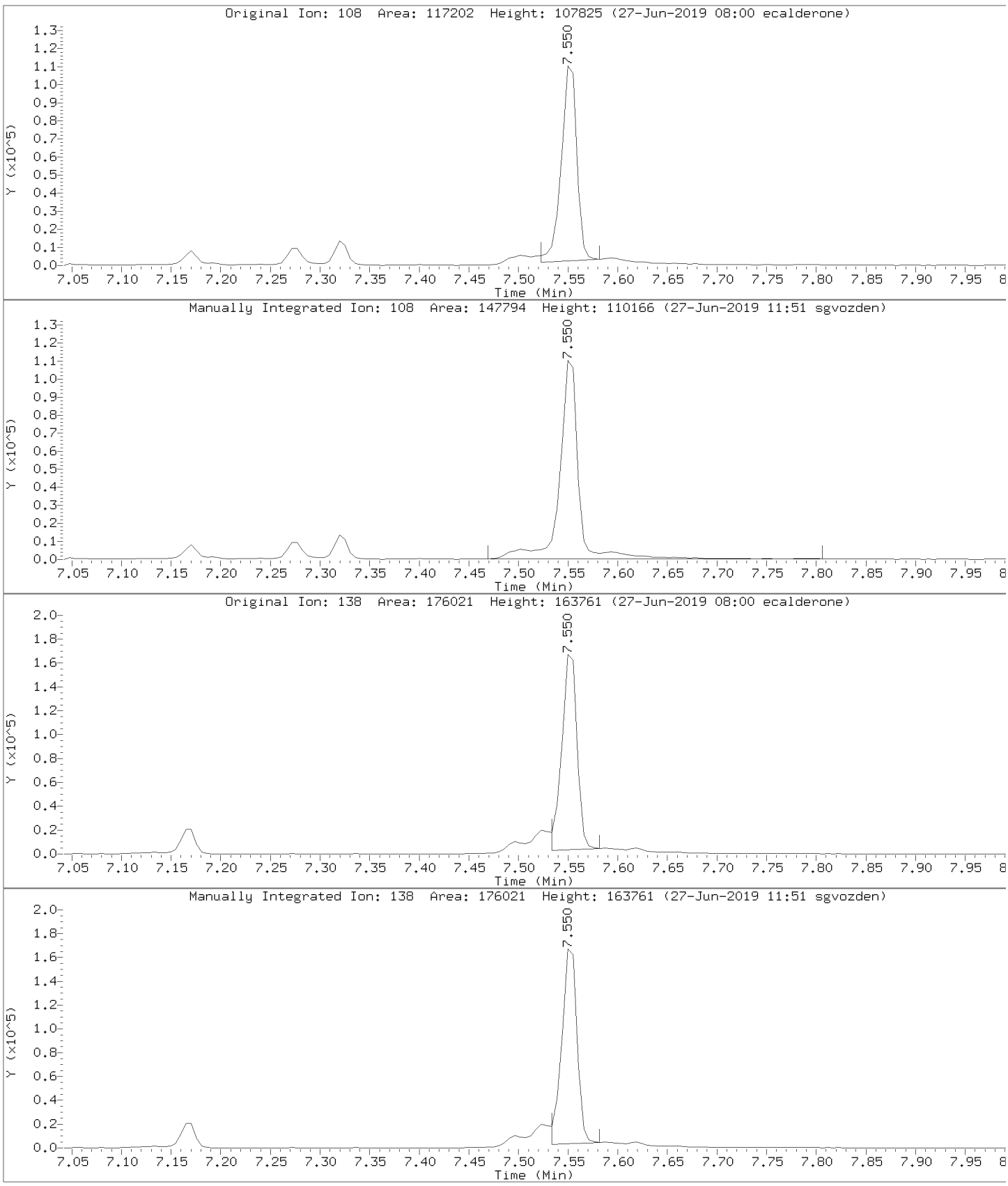
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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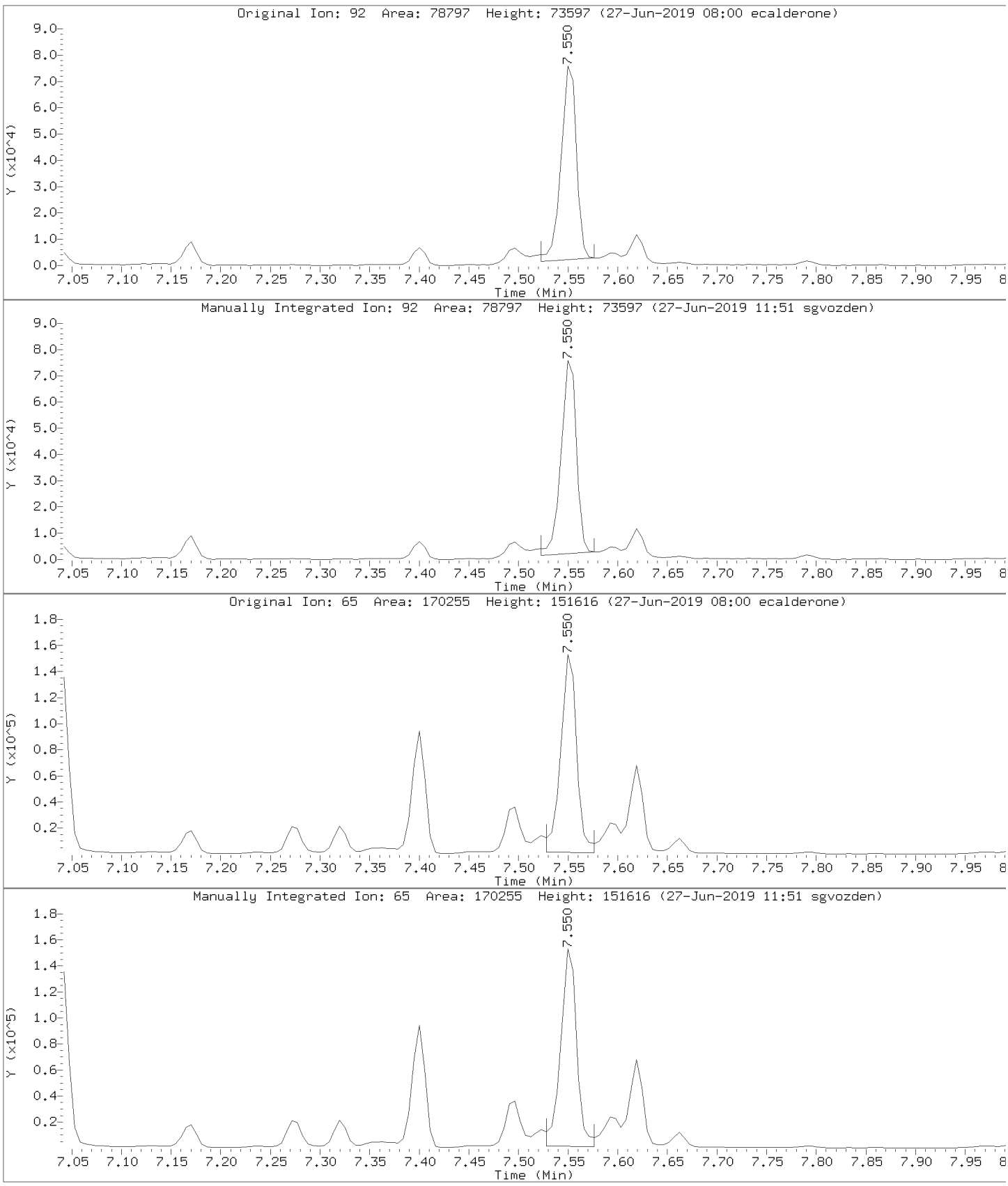

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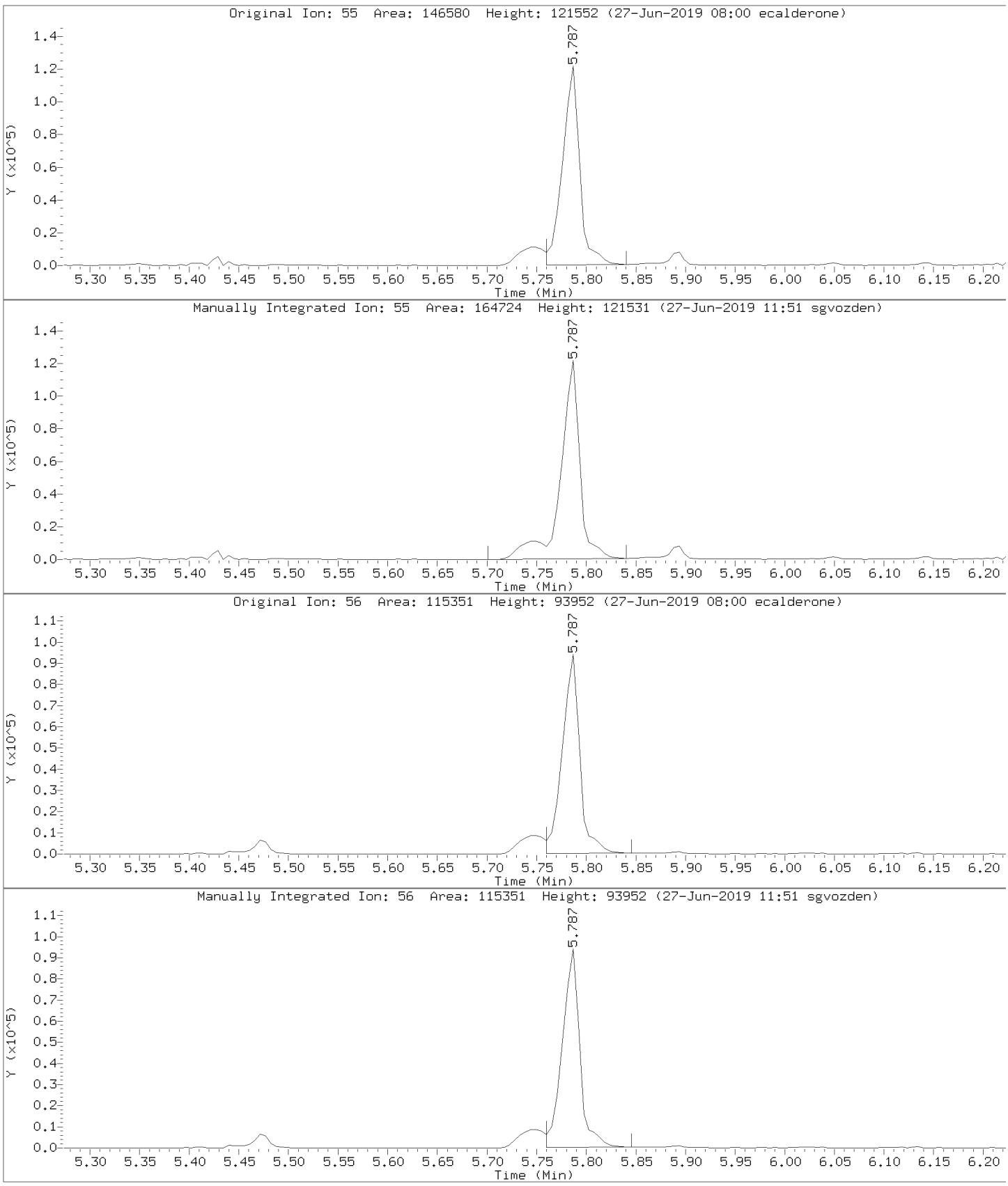
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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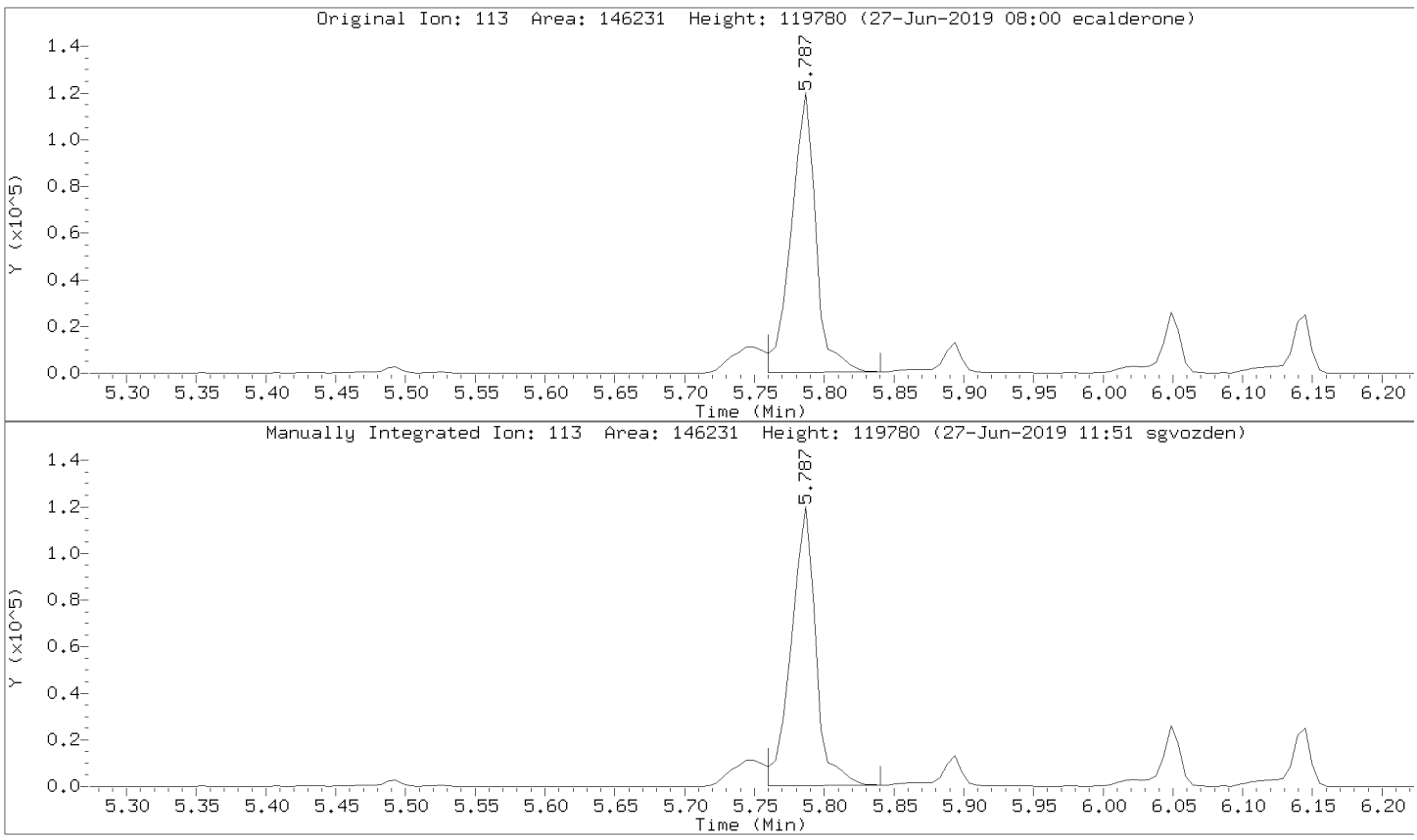

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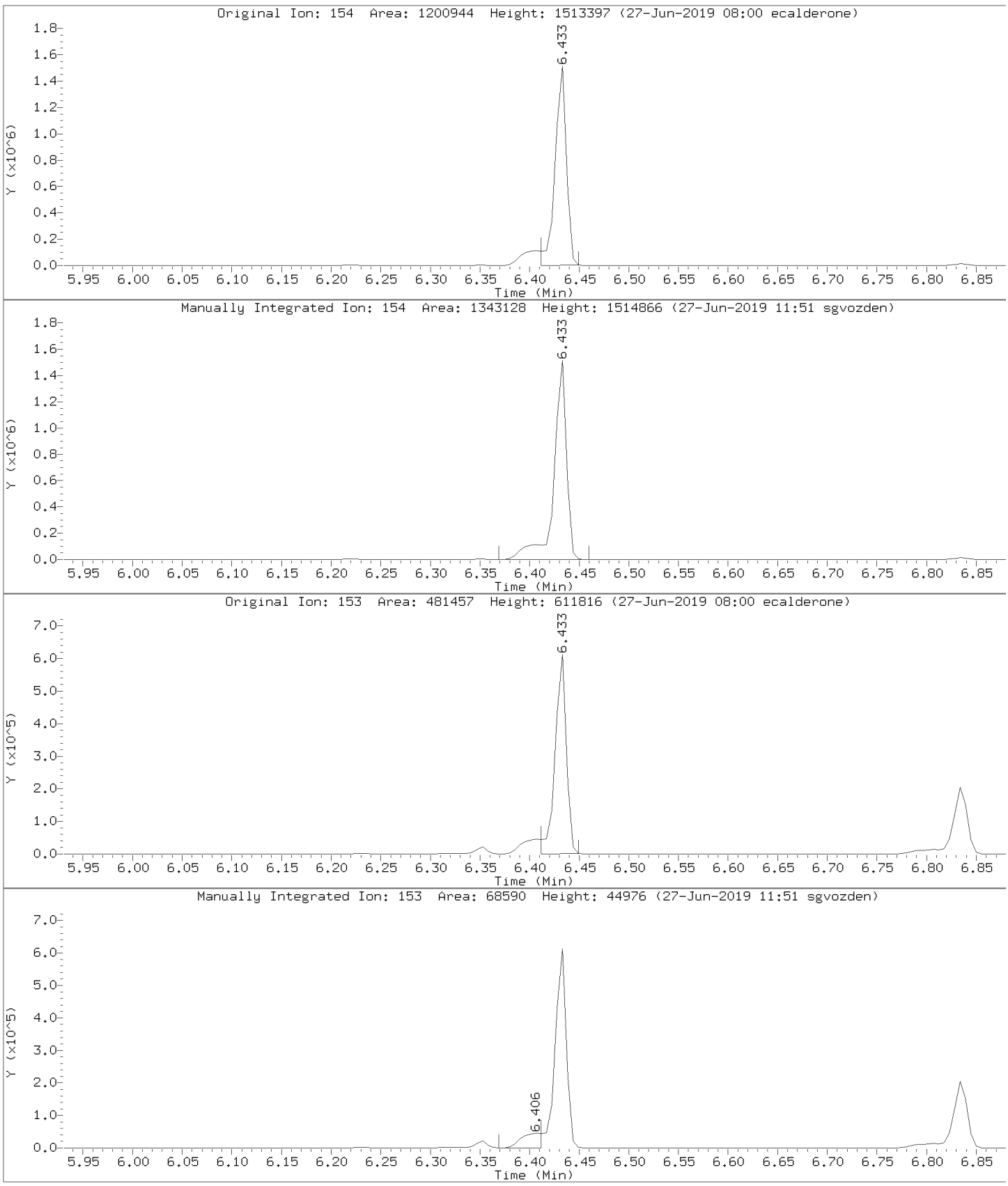
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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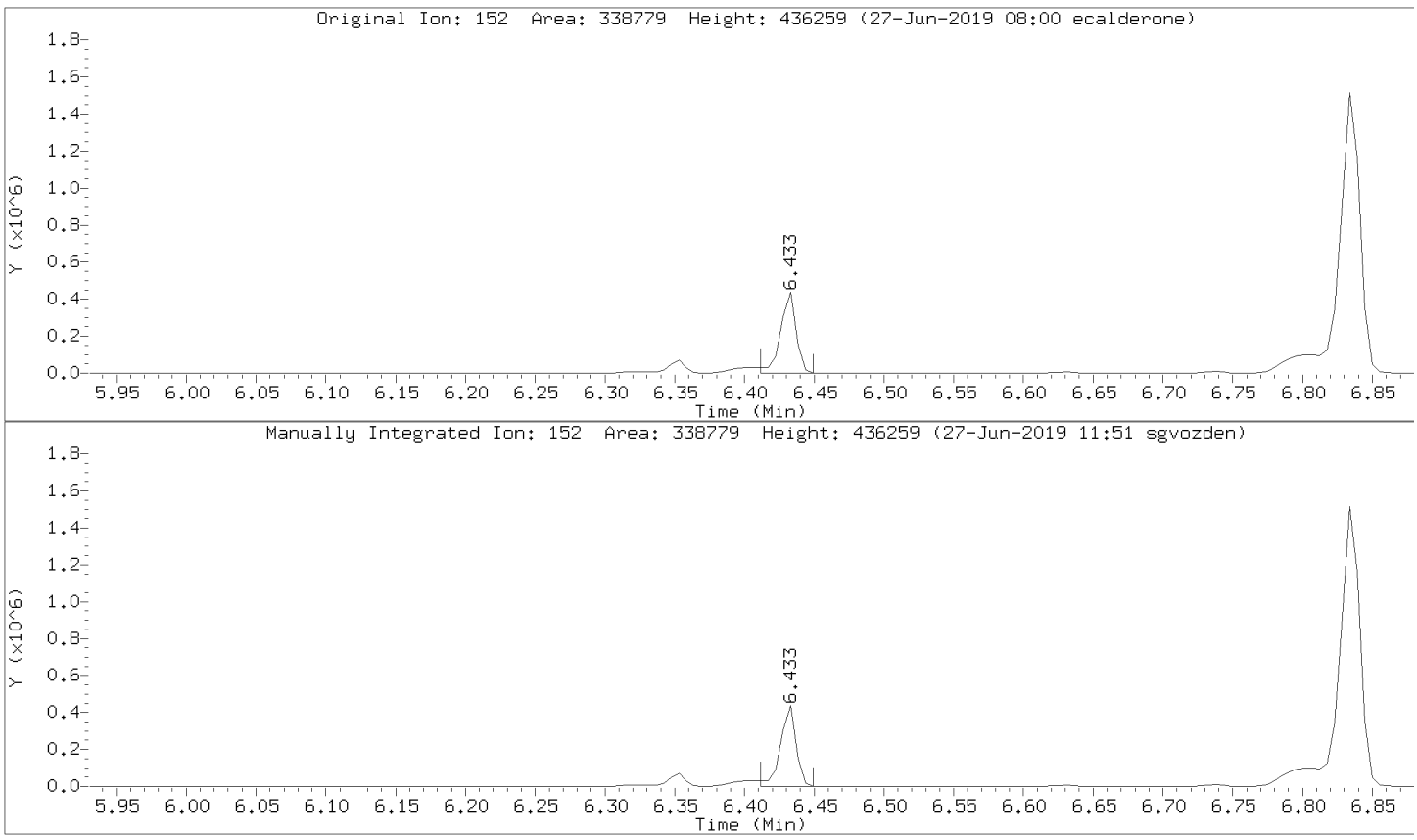
Instrument: 30mss1.i
Lab Sample ID: CAL4



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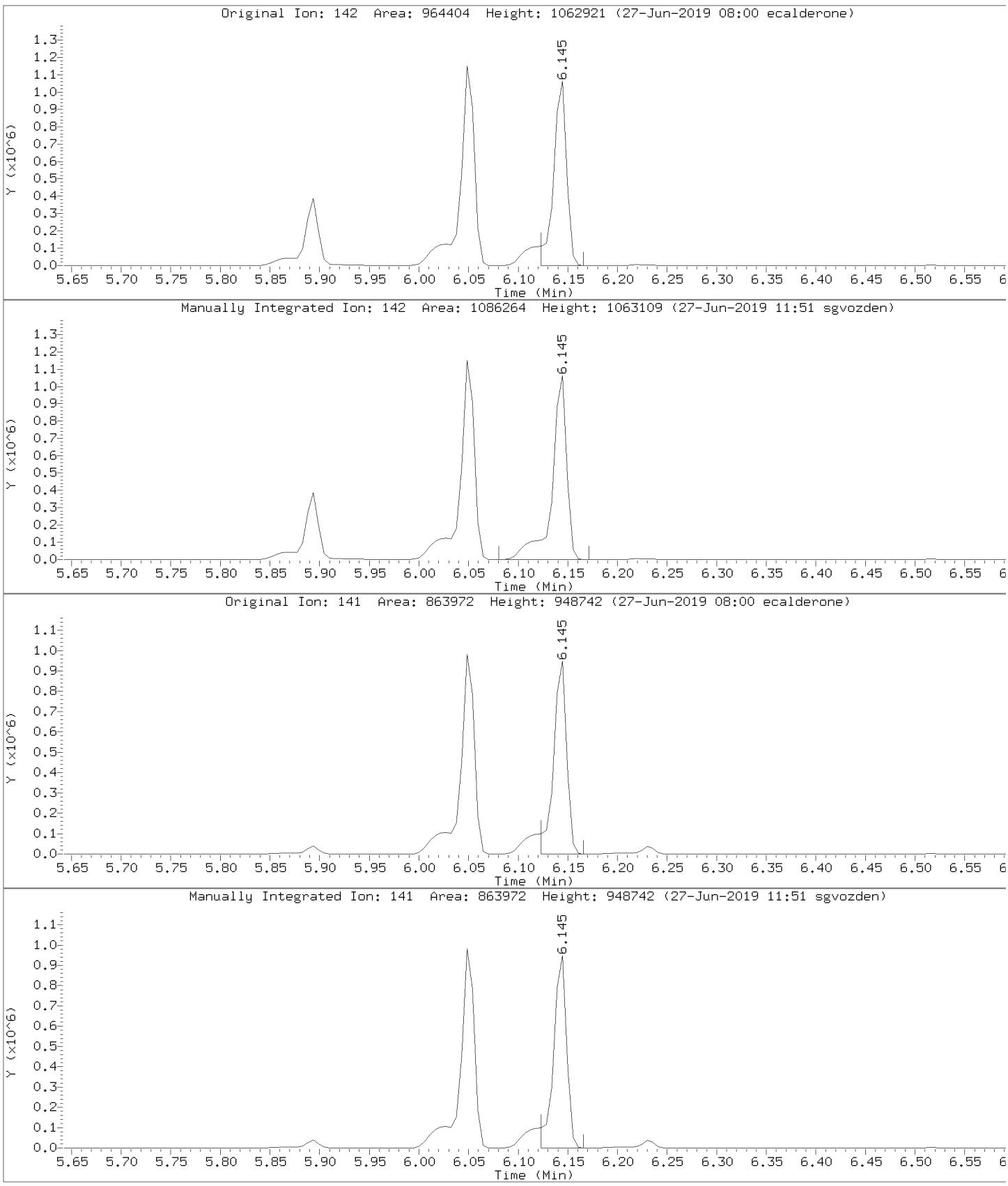
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: LT
CAS Number: 90-12-0



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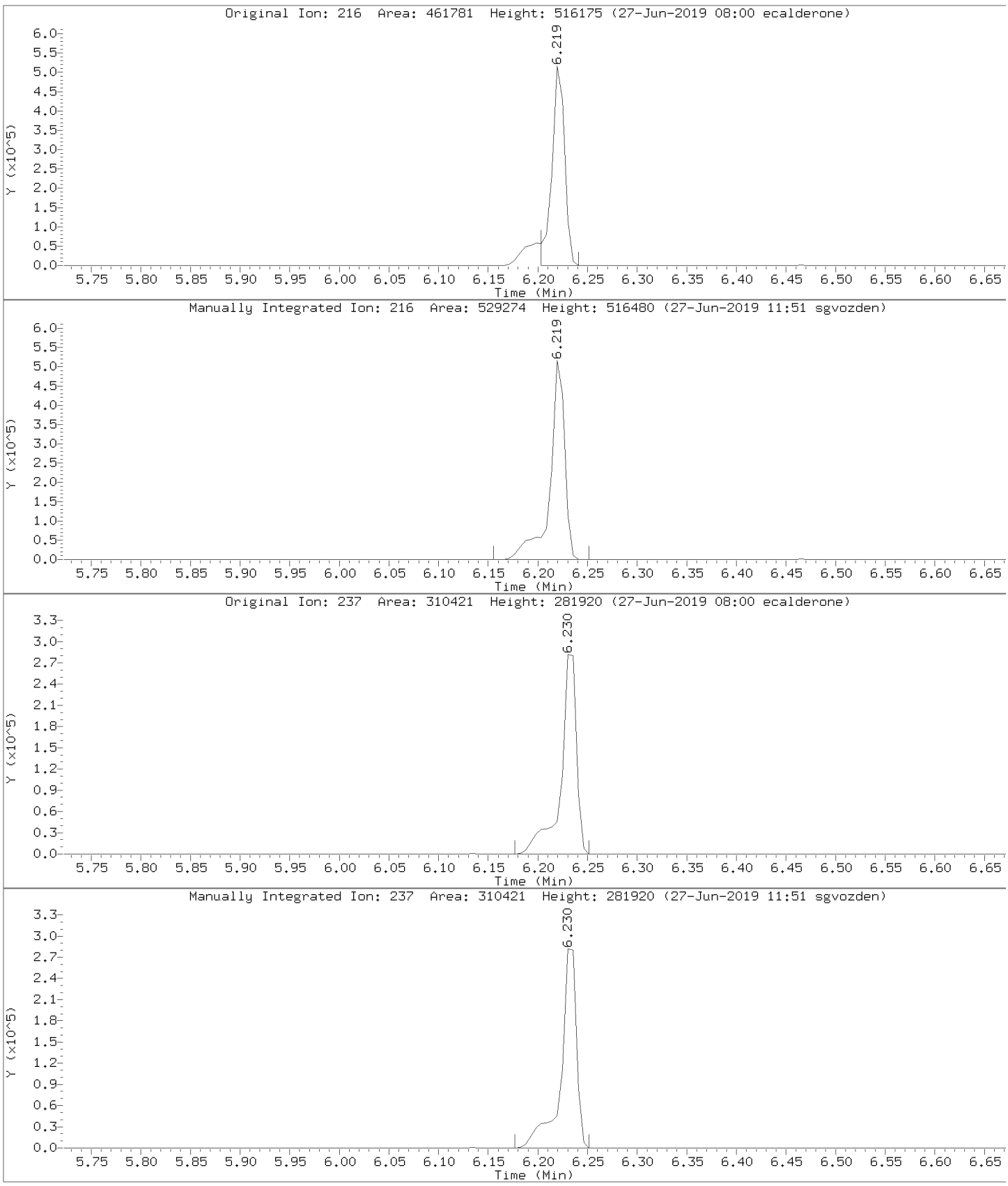
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 1,2,4,5-Tetrachlorobenzene Review Code: LT
CAS Number: 95-94-3



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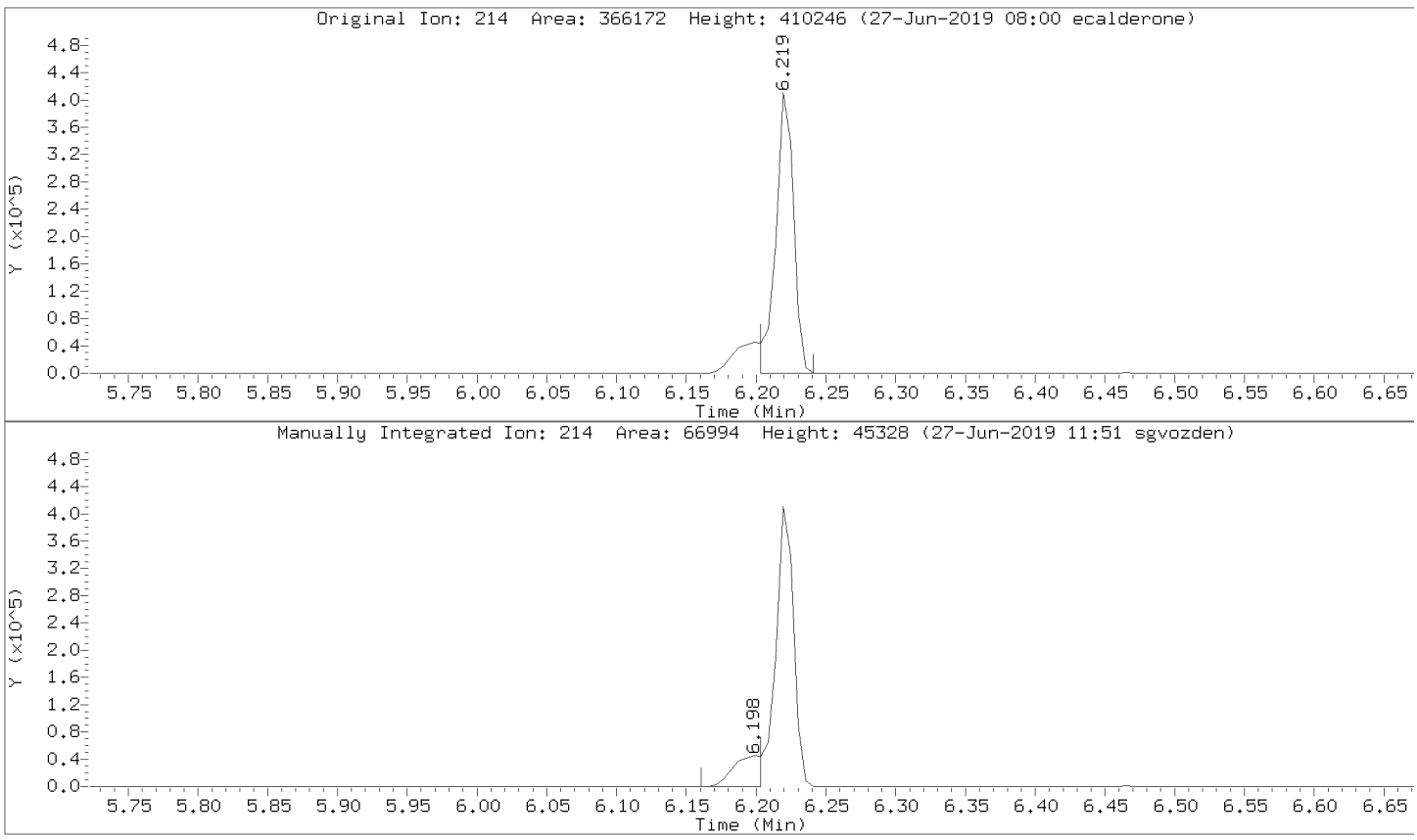
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4



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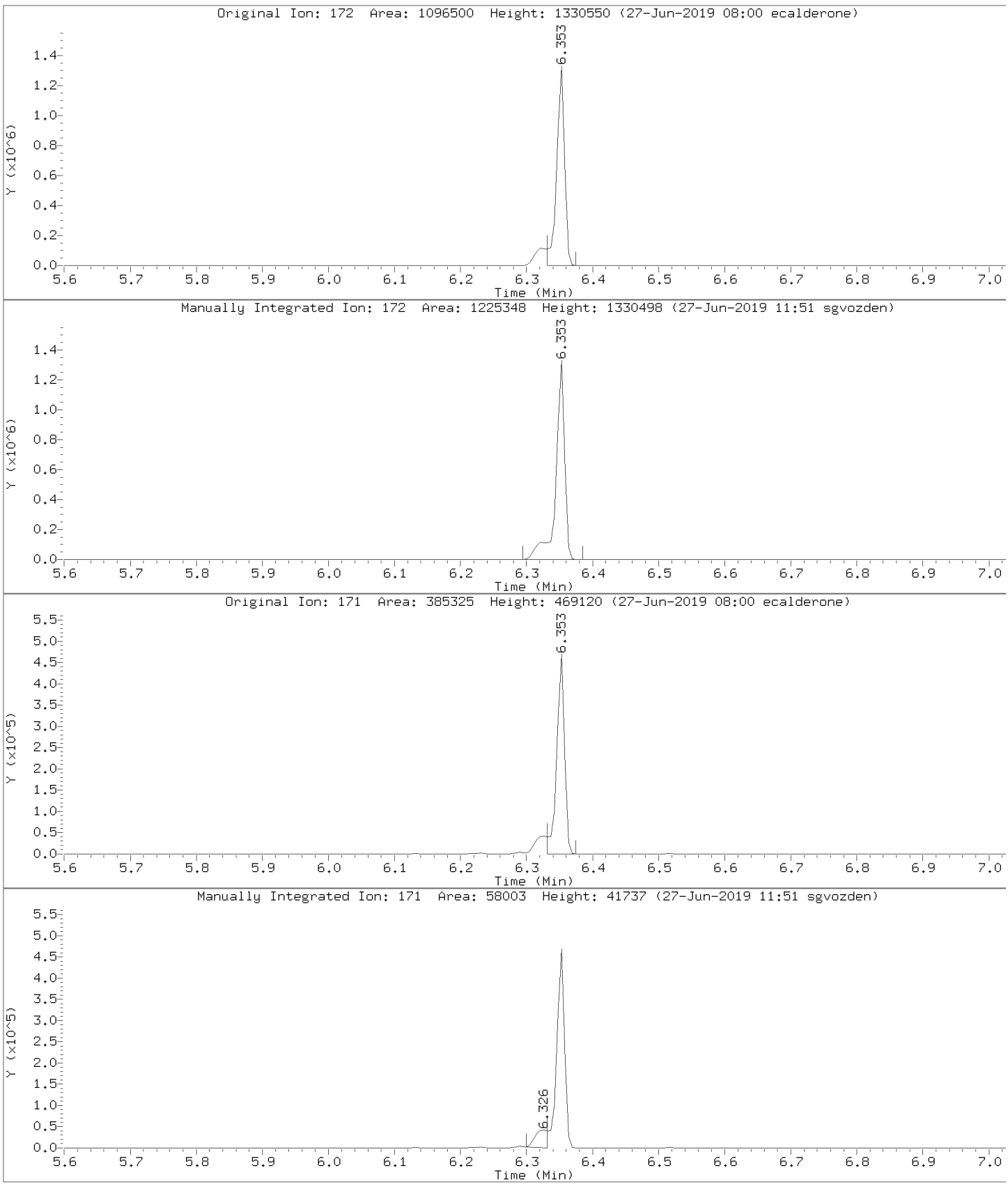
Injection Date: 26-JUN-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8



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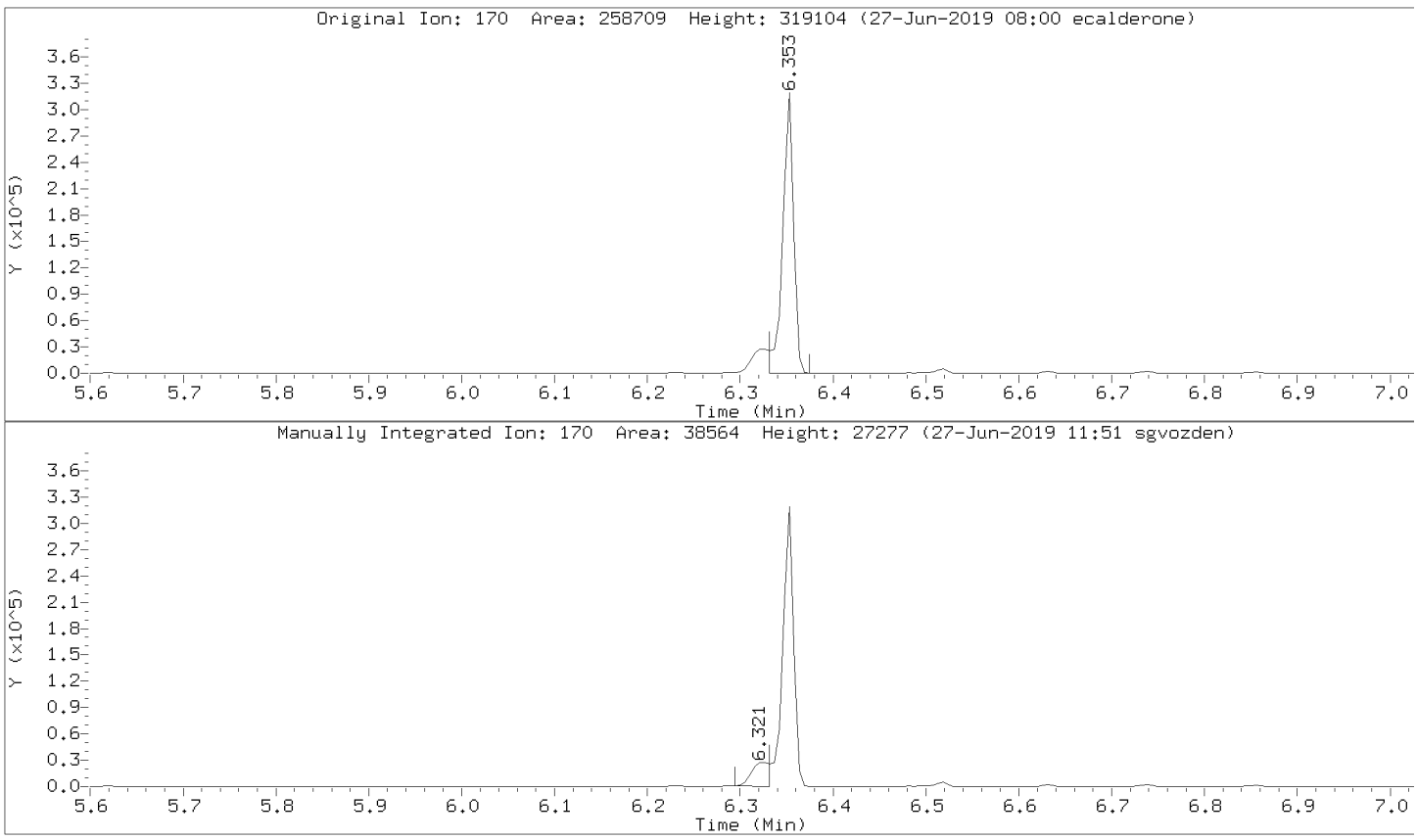
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y5.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 26-JUN-2019 19:15
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal3
Misc Info : 14757,91771:1
Comment :
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Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 19:15 Cal File: m10626y5.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.684	2.684	(0.602)	153452	4.00000	3.90	
	2 Pyridine	79	2.695	2.695	(0.605)	251368	4.00000	3.97	
$	3 2-Fluorophenol (S)	112	3.539	3.539	(0.794)	233432	4.00000	3.97	
$	4 Phenol-d6 (S)	99	4.159	4.159	(0.933)	289509	4.00000	3.95	
	5 Benzaldehyde	77	4.137	4.137	(0.928)	197400	4.00000	4.04	
	6 Phenol	94	4.169	4.169	(0.935)	316181	4.00000	3.95	
	7 Aniline	66	4.228	4.228	(0.948)	125859	4.00000	4.08	
	8 bis(2-Chloroethyl)ether	63	4.250	4.250	(0.953)	181005	4.00000	3.94	
	9 2-Chlorophenol	128	4.319	4.319	(0.969)	269546	4.00000	3.94	
	10 1,3-Dichlorobenzene	146	4.431	4.431	(0.994)	301456	4.00000	3.92	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.458	4.458	(1.000)	204143	4.00000		
	12 1,4-Dichlorobenzene	146	4.469	4.469	(1.002)	332655	4.00000	3.93	
	13 Benzyl Alcohol	79	4.549	4.549	(1.020)	198216	4.00000	3.95	
	14 1,2-Dichlorobenzene	146	4.618	4.618	(1.036)	294620	4.00000	3.90	
	15 2-Methylphenol(o-Cresol)	108	4.629	4.629	(1.038)	241661	4.00000	3.91	
	16 bis(2-Chloroisopropyl)ether	45	4.666	4.666	(1.047)	278973	4.00000	4.00	
	17 3&4-Methylphenol(m&p Cresol)	108	4.736	4.736	(1.062)	247190	4.00000	3.95	
	18 N-Nitroso-di-n-propylamine	70	4.778	4.778	(1.072)	191698	4.00000	3.95	
	19 Acetophenone	105	4.773	4.773	(1.071)	350695	4.00000	3.96	
	20 Hexachloroethane	117	4.864	4.864	(1.091)	110845	4.00000	3.91	
$	21 Nitrobenzene-d5 (S)	128	4.901	4.901	(0.896)	127494	4.00000	3.92	
	22 Nitrobenzene	77	4.917	4.917	(0.898)	262536	4.00000	3.94	
	23 Isophorone	82	5.094	5.094	(0.931)	491821	4.00000	3.97	
	24 2,4-Dimethylphenol	107	5.158	5.158	(0.942)	252868	4.00000	3.88	
	25 2-Nitrophenol	139	5.168	5.168	(0.944)	132084	4.00000	3.86	
	26 Benzoic acid	105	5.206	5.206	(0.951)	83735	4.00000	2.84(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.243	5.243	(0.958)	303025	4.00000	3.92	
	28 2,4-Dichlorophenol	162	5.345	5.345	(0.977)	217371	4.00000	3.85	
	29 1,2,4-Trichlorobenzene	180	5.430	5.430	(0.992)	253233	4.00000	3.88	
*	30 Naphthalene-d8 (IS)	136	5.473	5.473	(1.000)	802297	4.00000		
	31 Naphthalene	128	5.489	5.489	(1.003)	819689	4.00000	3.94	
	32 4-Chloroaniline	65	5.521	5.521	(1.009)	82608	4.00000	3.85(M)	LT
	33 Hexachloro-1,3-butadiene	225	5.622	5.622	(1.027)	144147	4.00000	3.87	
	34 Caprolactam	55	5.772	5.772	(1.055)	79490	4.00000	4.08	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.890	5.890	(1.076)	205379	4.00000	3.90	
	36 2-Methylnaphthalene	142	6.050	6.050	(1.105)	567475	4.00000	3.89	
	37 1-Methylnaphthalene	142	6.141	6.141	(1.122)	540913	4.00000	3.90	
	38 Hexachlorocyclopentadiene	237	6.231	6.231	(0.894)	135243	4.00000	3.40	
	39 1,2,4,5-Tetrachlorobenzene	216	6.221	6.221	(0.892)	256034	4.00000	3.73	
	40 2,4,6-Trichlorophenol	196	6.290	6.290	(0.902)	175248	4.00000	3.61	
	41 2,4,5-Trichlorophenol	196	6.322	6.322	(0.907)	137711	4.00000	3.78	
$	42 2-Fluorobiphenyl (S)	172	6.349	6.349	(0.910)	605002	4.00000	3.79(M)	LT
	43 Biphenyl (Diphenyl)	154	6.429	6.429	(0.922)	658228	4.00000	3.76	
	44 2-Chloronaphthalene	164	6.456	6.456	(0.926)	162461	4.00000	3.83	
	45 2-Nitroaniline	138	6.541	6.541	(0.938)	149235	4.00000	3.79	
	46 Dimethylphthalate	163	6.702	6.702	(0.961)	507059	4.00000	3.72	
	47 2,6-Dinitrotoluene	165	6.776	6.776	(0.972)	112054	4.00000	3.73	
	48 Acenaphthylene	152	6.830	6.830	(0.979)	790831	4.00000	3.80	
	49 3-Nitroaniline	65	6.910	6.910	(0.991)	136186	4.00000	3.98	
*	50 Acenaphthene-d10 (IS)	164	6.974	6.974	(1.000)	442358	4.00000		
	51 2,4-Dinitrophenol	184	7.011	7.011	(1.005)	38008	4.00000	3.59	
	52 Acenaphthene	153	7.006	7.006	(1.005)	510873	4.00000	3.79	
	53 4-Nitrophenol	109	7.033	7.033	(1.008)	57025	4.00000	3.91	
	54 2,4-Dinitrotoluene	165	7.166	7.166	(1.028)	152614	4.00000	3.81	
	55 Dibenzofuran	168	7.166	7.166	(1.028)	720590	4.00000	3.78	
	56 2,3,4,6-Tetrachlorophenol	232	7.321	7.321	(1.050)	117983	4.00000	3.64	
	57 Diethylphthalate	149	7.396	7.396	(1.061)	497324	4.00000	3.67	
	58 4-Chlorophenylphenyl ether	204	7.492	7.492	(1.074)	269203	4.00000	3.59	
	59 Fluorene	166	7.519	7.519	(1.078)	577372	4.00000	3.82	
	60 4-Nitroaniline	108	7.540	7.540	(1.081)	75877	4.00000	3.84(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.588	7.588	(0.891)	62550	4.00000	4.01	
	62 N-Nitrosodiphenylamine	169	7.615	7.615	(0.895)	480891	4.00000	4.08	
	63 Azobenzene	77	7.658	7.658	(0.900)	471642	4.00000	4.10	
	64 1,2-Diphenylhydrazine	77	7.658	7.658	(0.900)	471642	4.00000	4.10	
$	65 2,4,6-Tribromophenol (S)	330	7.791	7.791	(0.915)	88035	4.00000	3.91(M)	LT
	66 4-Bromophenylphenyl ether	248	8.005	8.005	(0.940)	169933	4.00000	4.05(M)	LT
	67 Hexachlorobenzene	284	8.187	8.187	(0.962)	205153	4.00000	3.88(MH)	LT
	68 Atrazine	200	8.181	8.181	(0.961)	147862	4.00000	3.85	
	69 Pentachlorophenol	266	8.363	8.363	(0.982)	76033	4.00000	3.98(M)	LT
*	70 Phenanthrene-d10 (IS)	188	8.513	8.513	(1.000)	679361	4.00000		
	71 Phenanthrene	178	8.534	8.534	(1.002)	837943	4.00000	3.90(M)	LT
	72 Anthracene	178	8.582	8.582	(1.008)	754580	4.00000	3.96	
	73 Carbazole	167	8.737	8.737	(1.026)	653916	4.00000	3.89	
	74 Di-n-butylphthalate	149	9.116	9.116	(1.071)	803429	4.00000	4.01	
	75 Fluoranthene	202	9.800	9.800	(1.151)	796421	4.00000	3.87	
	76 Pyrene	202	10.040	10.040	(0.889)	818756	4.00000	4.02	
$	77 Terphenyl-d14 (S)	244	10.179	10.179	(0.901)	635201	4.00000	3.90	
	78 Butylbenzylphthalate	149	10.692	10.692	(0.947)	323500	4.00000	3.91	
	79 3,3'-Dichlorobenzidine	252	11.237	11.237	(0.995)	258160	4.00000	3.78	
	80 bis(2-Ethylhexyl)phthalate	149	11.274	11.274	(0.998)	491283	4.00000	4.00	
	81 Benzo(a)anthracene	228	11.274	11.274	(0.998)	801607	4.00000	3.94	
*	82 Chrysene-d12 (IS)	240	11.296	11.296	(1.000)	662596	4.00000		
	83 Chrysene	228	11.317	11.317	(1.002)	722339	4.00000	3.93	
	84 Di-n-octylphthalate	149	11.857	11.857	(0.934)	683179	4.00000	3.79	
	85 Benzo(b)fluoranthene	252	12.322	12.322	(0.971)	817355	4.00000	3.89	
	86 Benzo(k)fluoranthene	252	12.343	12.343	(0.973)	834473	4.00000	3.70	
	87 Benzo(a)pyrene	252	12.637	12.637	(0.996)	698046	4.00000	3.75	
*	88 Perylene-d12 (IS)	264	12.690	12.690	(1.000)	674120	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.865	13.865	(1.093)	786952	4.00000	3.77	
90 Dibenz(a,h)anthracene	278	13.865	13.865	(1.093)	655563	4.00000	3.75	
91 Benzo(g,h,i)perylene	276	14.213	14.213	(1.120)	630272	4.00000	3.83	

QC Flag Legend

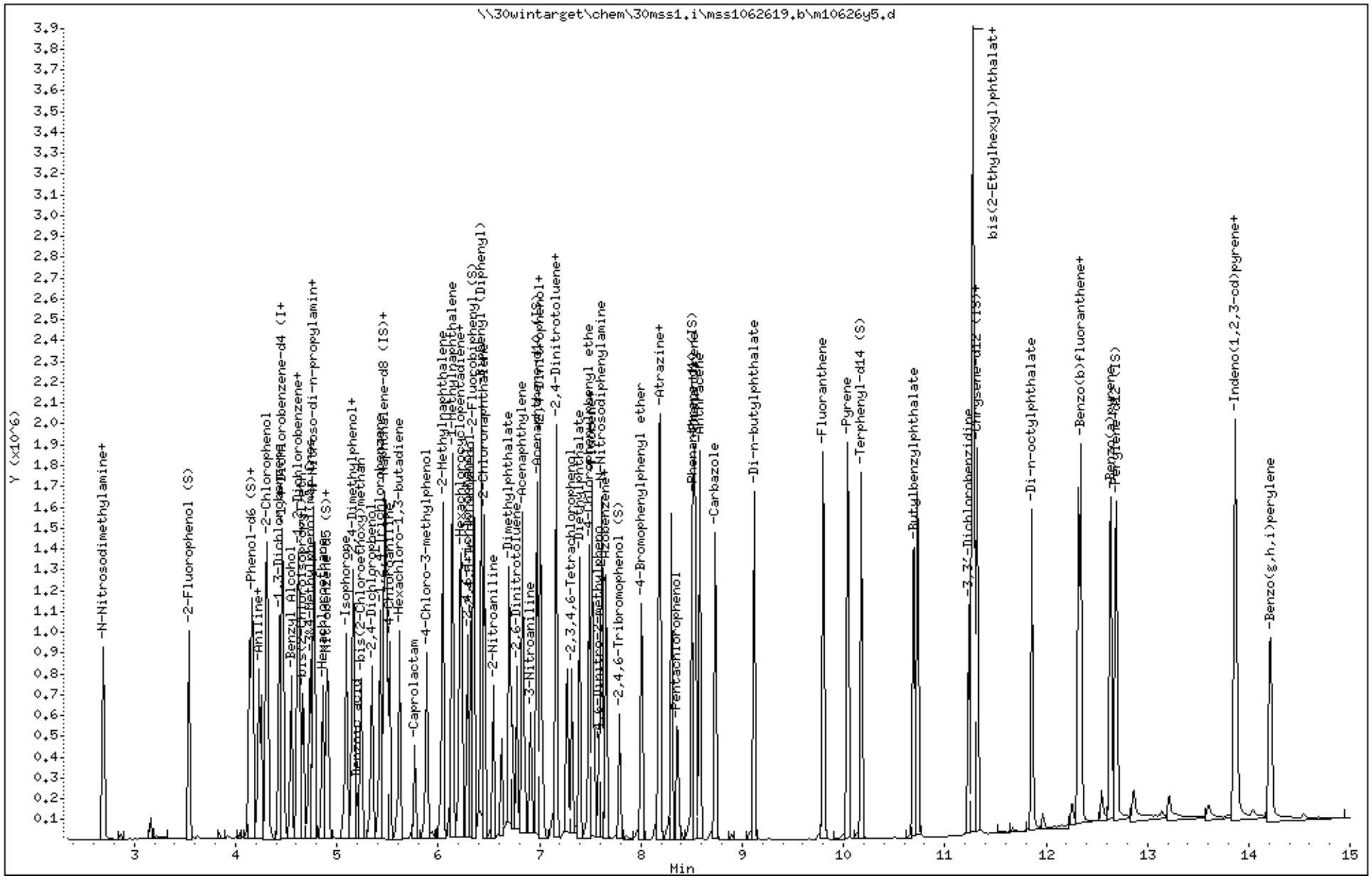
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y5.d
Date : 26-JUN-2019 19:15
Client ID: CAL3
Sample Info: CAL3

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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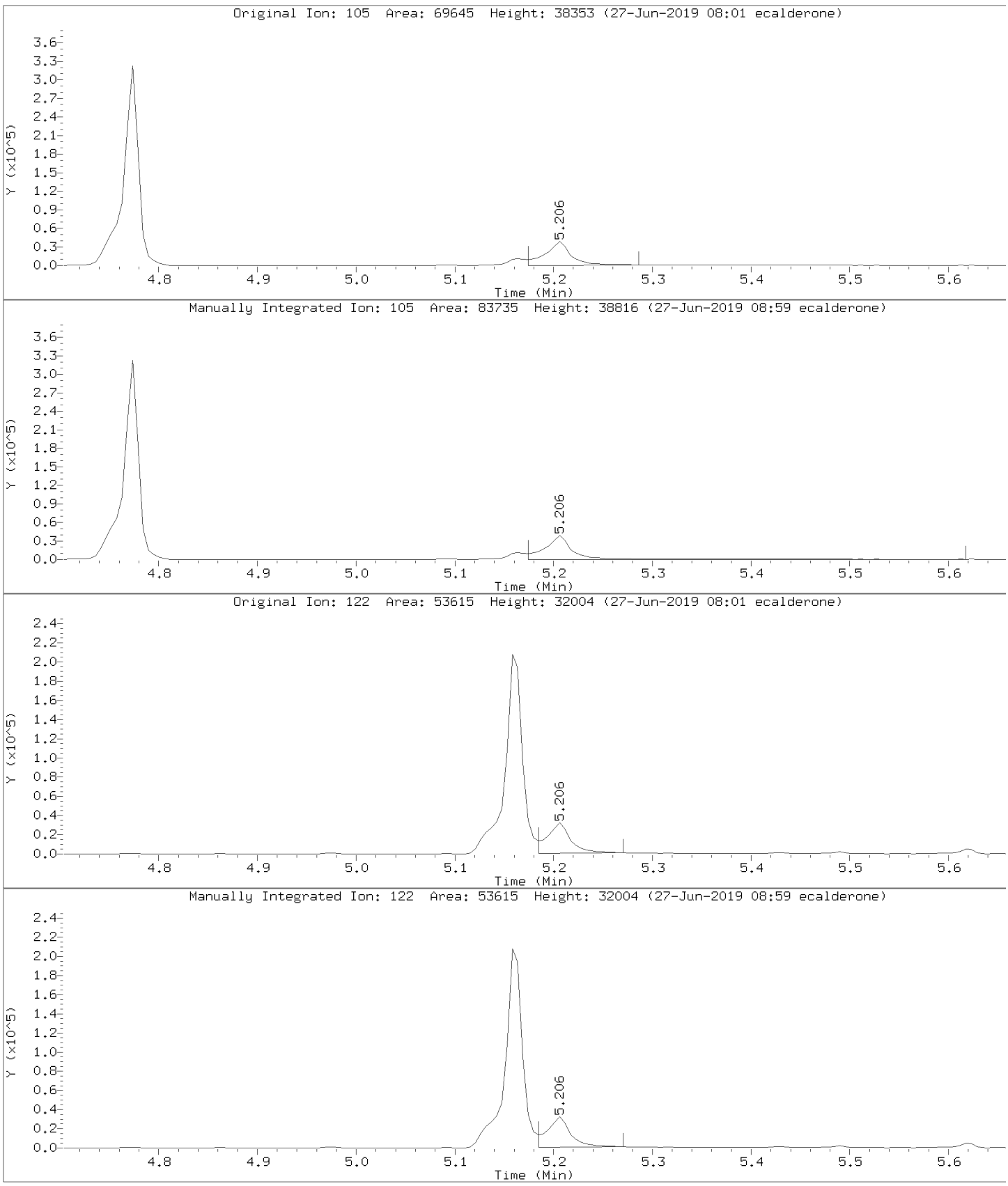
Injection Date: 26-JUN-2019 19:15
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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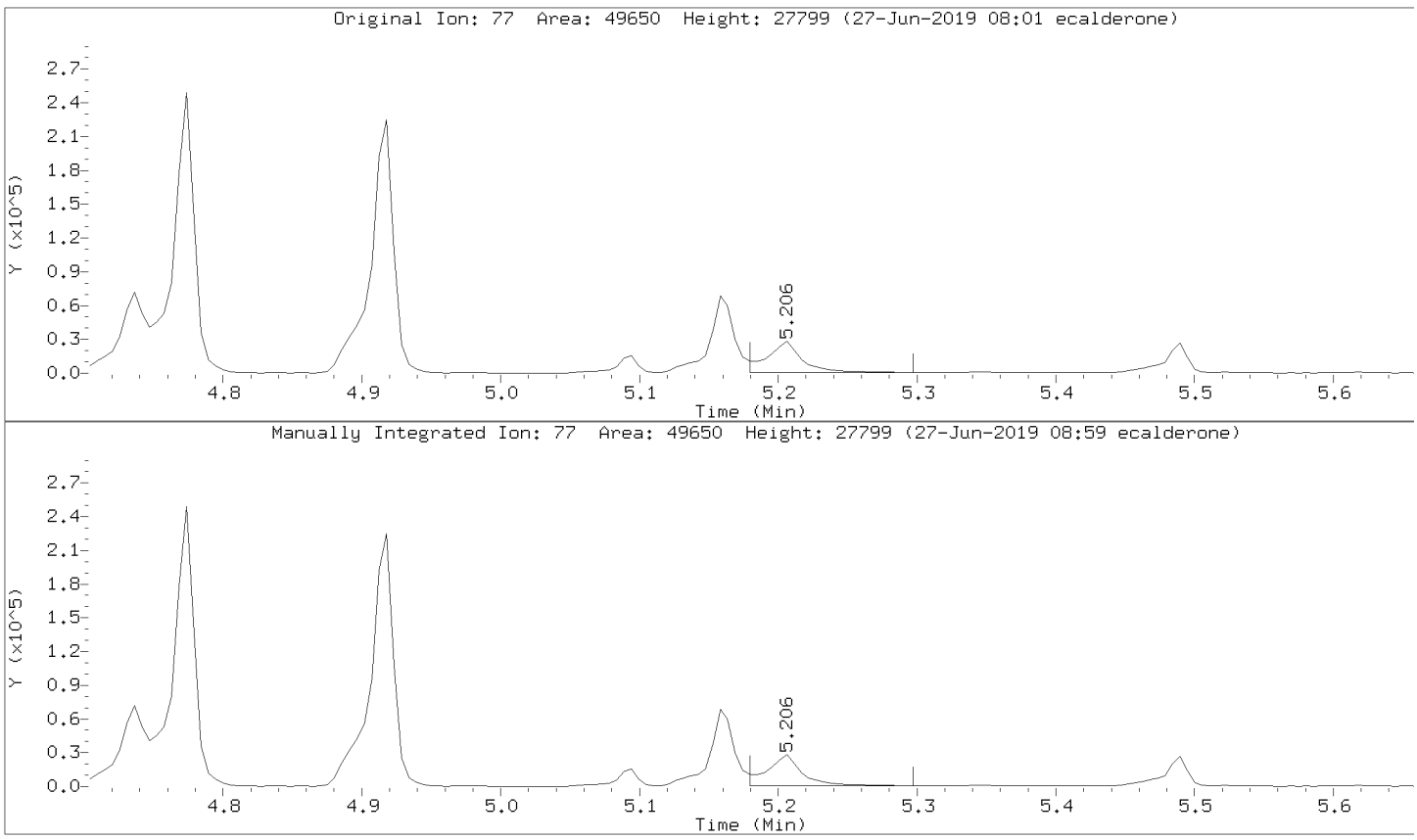
Lab Sample ID: CAL3



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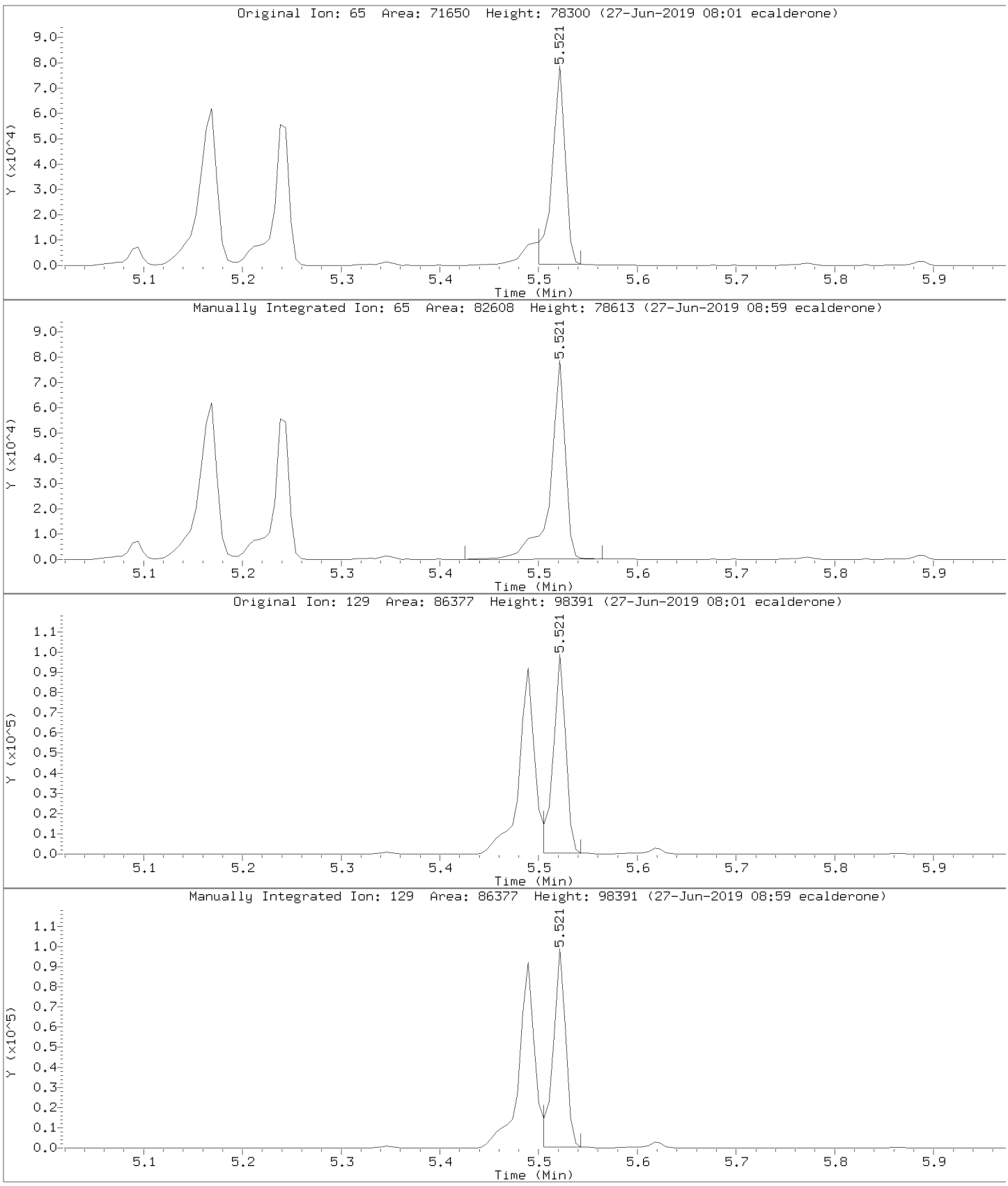
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Chloroaniline Review Code: LT
CAS Number: 106-47-8



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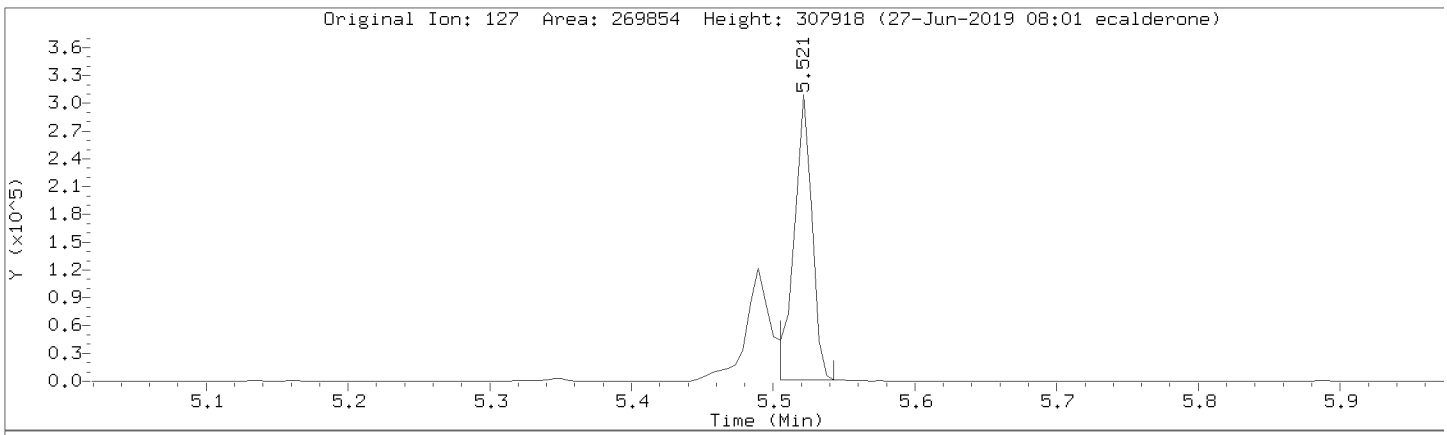
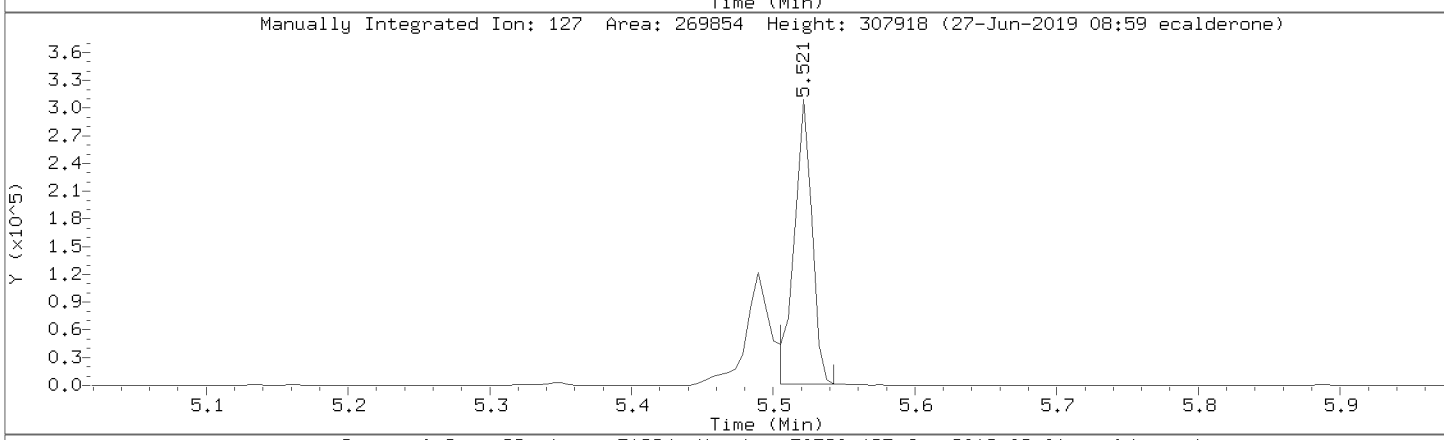
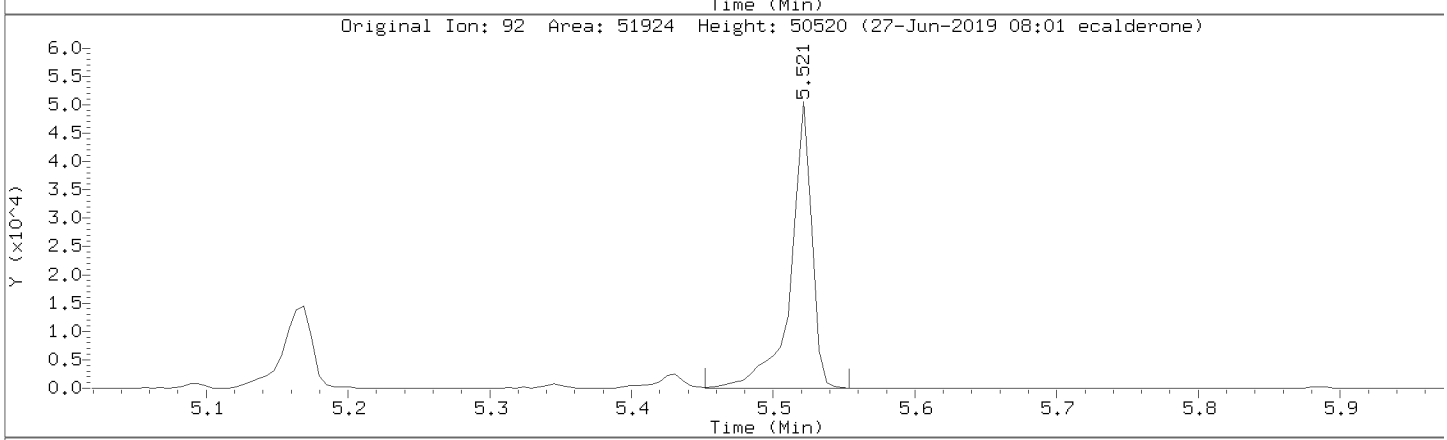
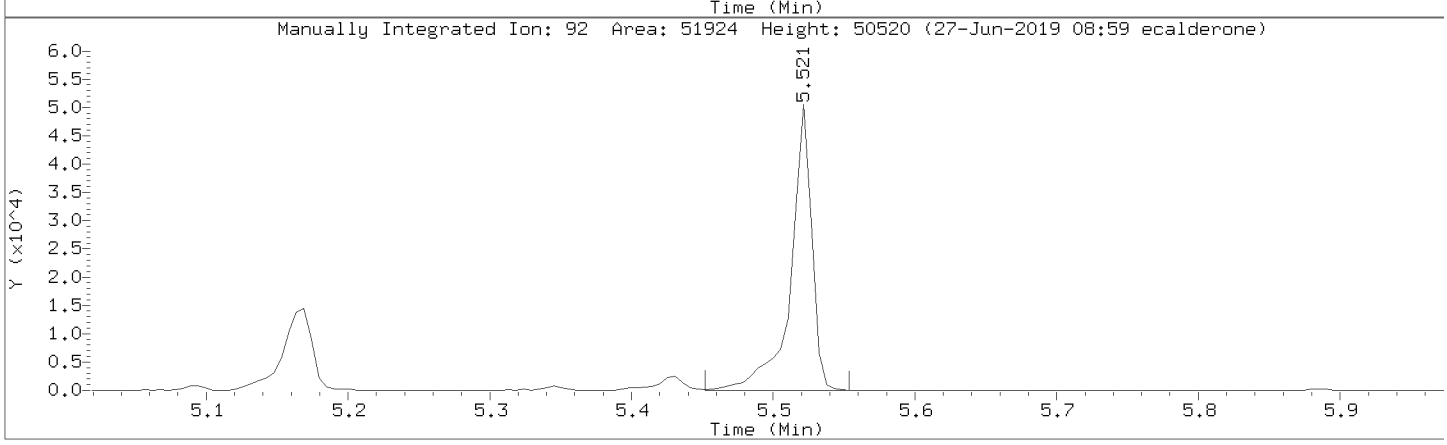
Lab Sample ID: CAL3









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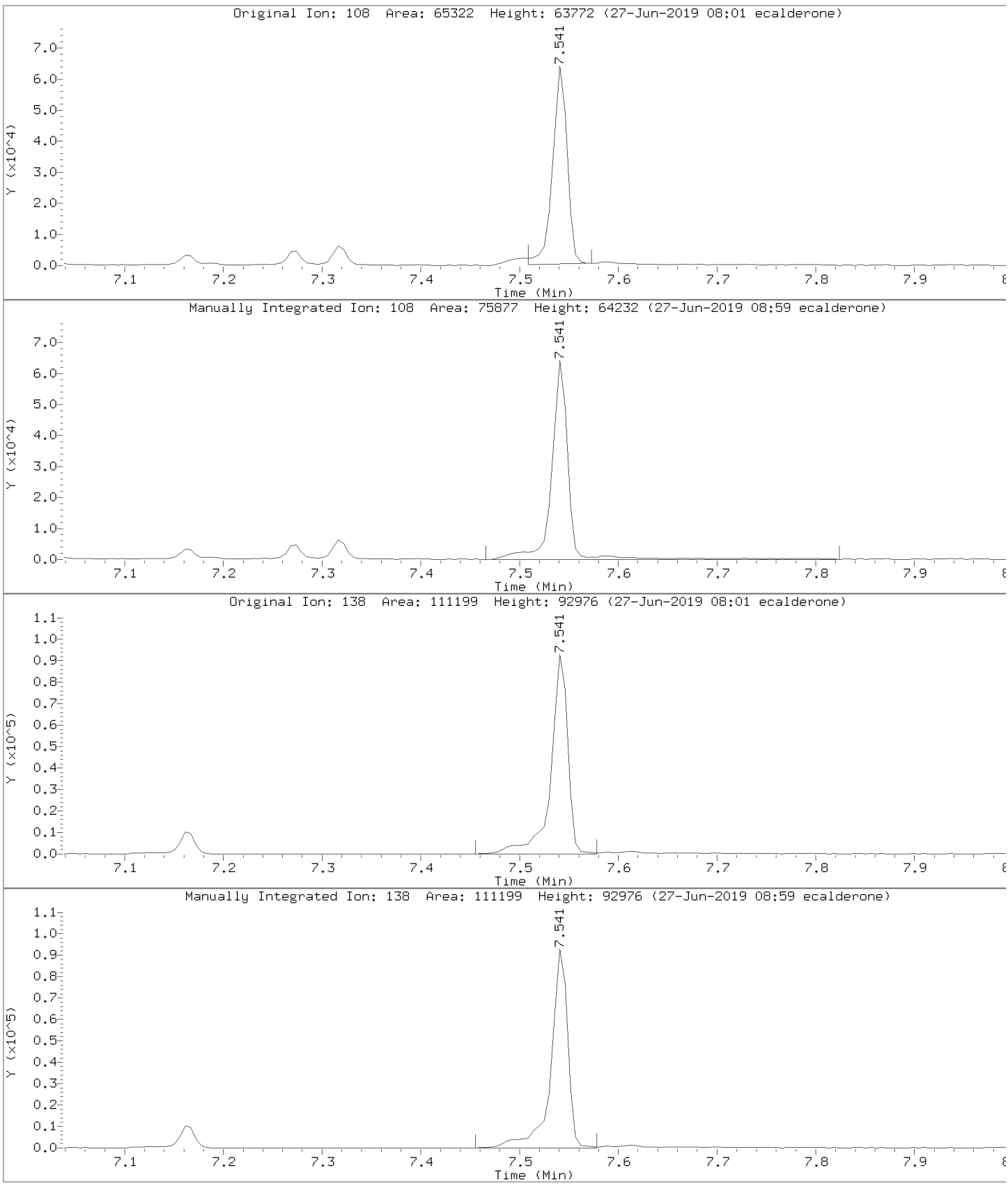
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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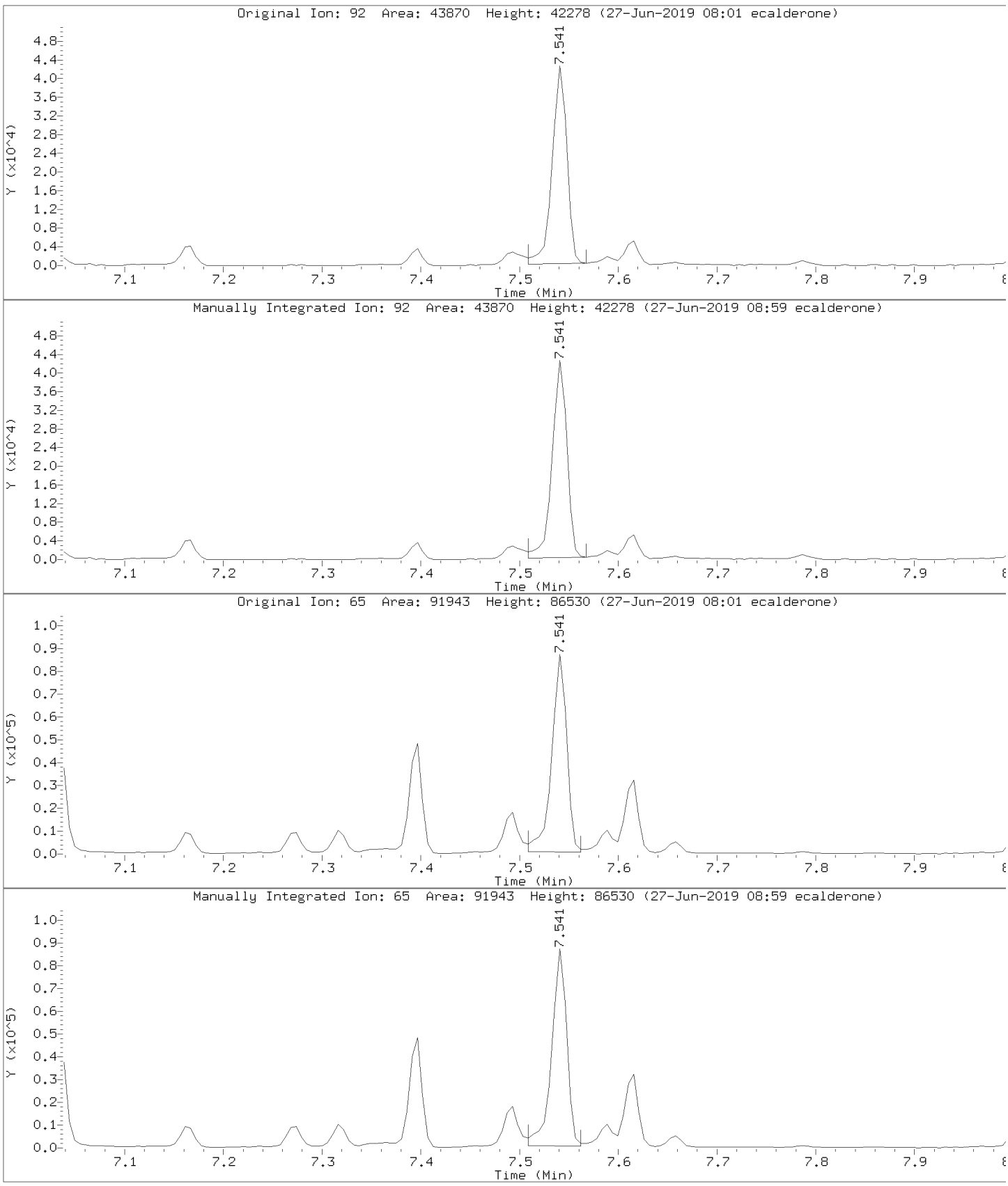
Lab Sample ID: CAL3



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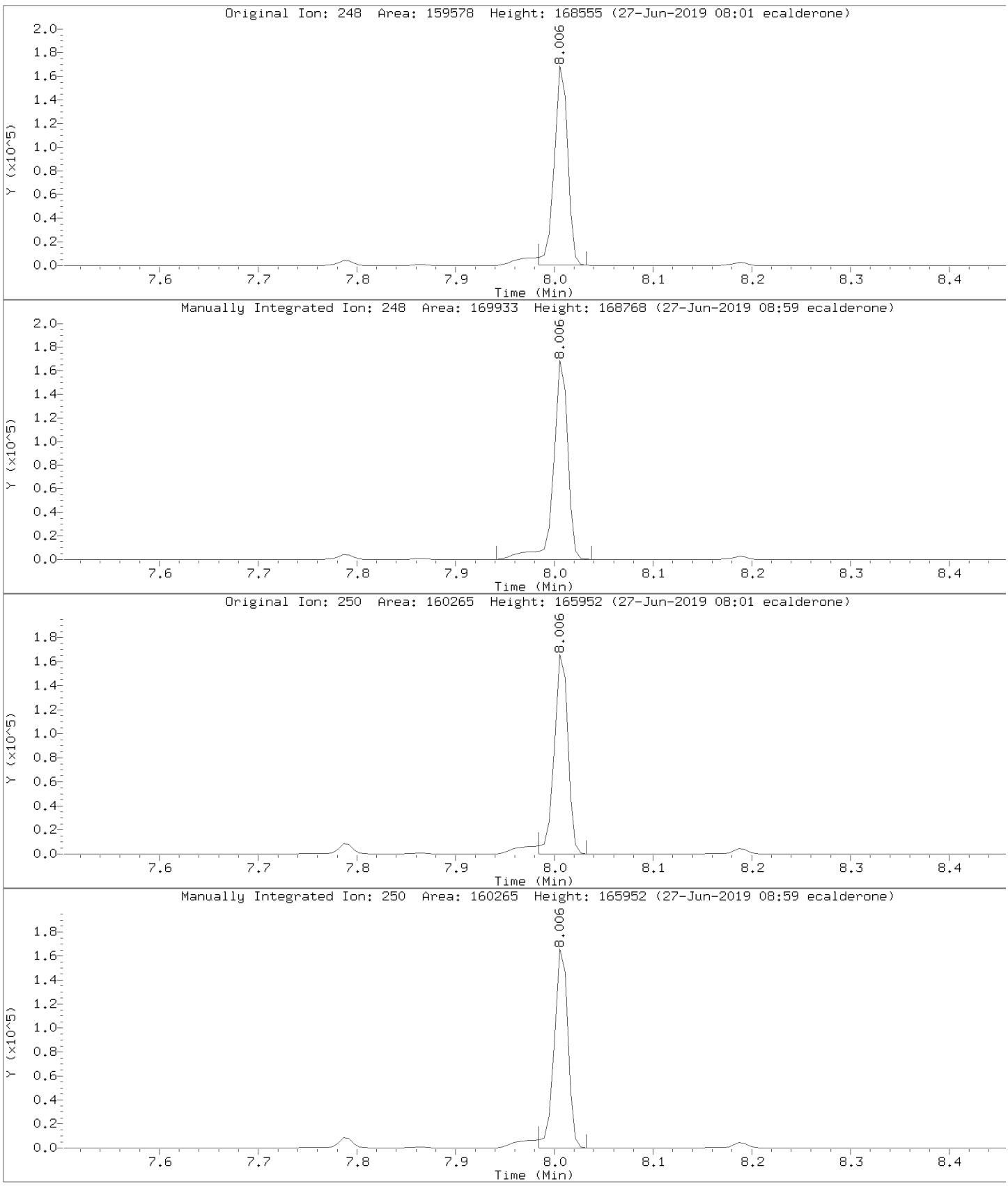
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Bromophenylphenyl ether Review Code: LT
CAS Number: 101-55-3



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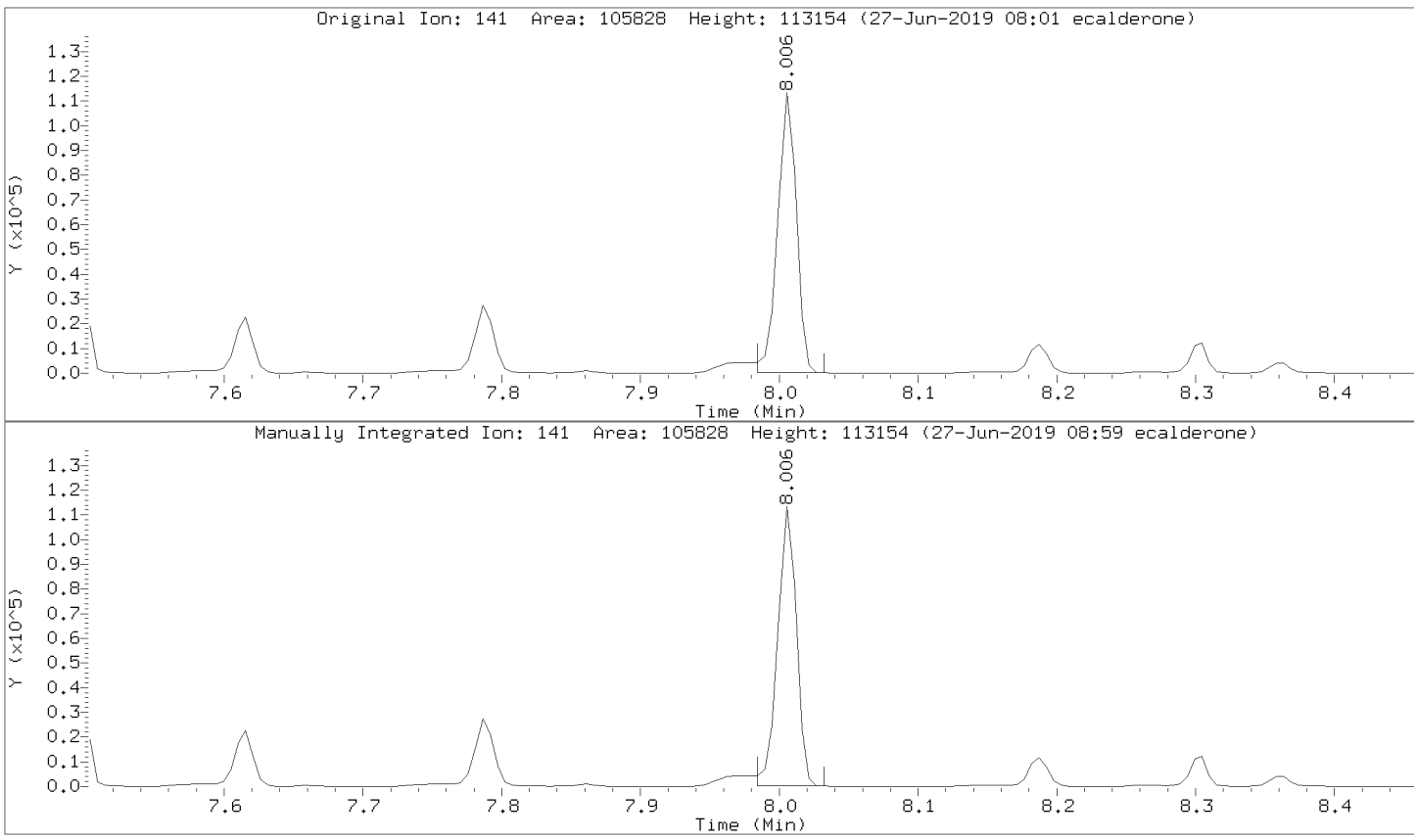
Lab Sample ID: CAL3



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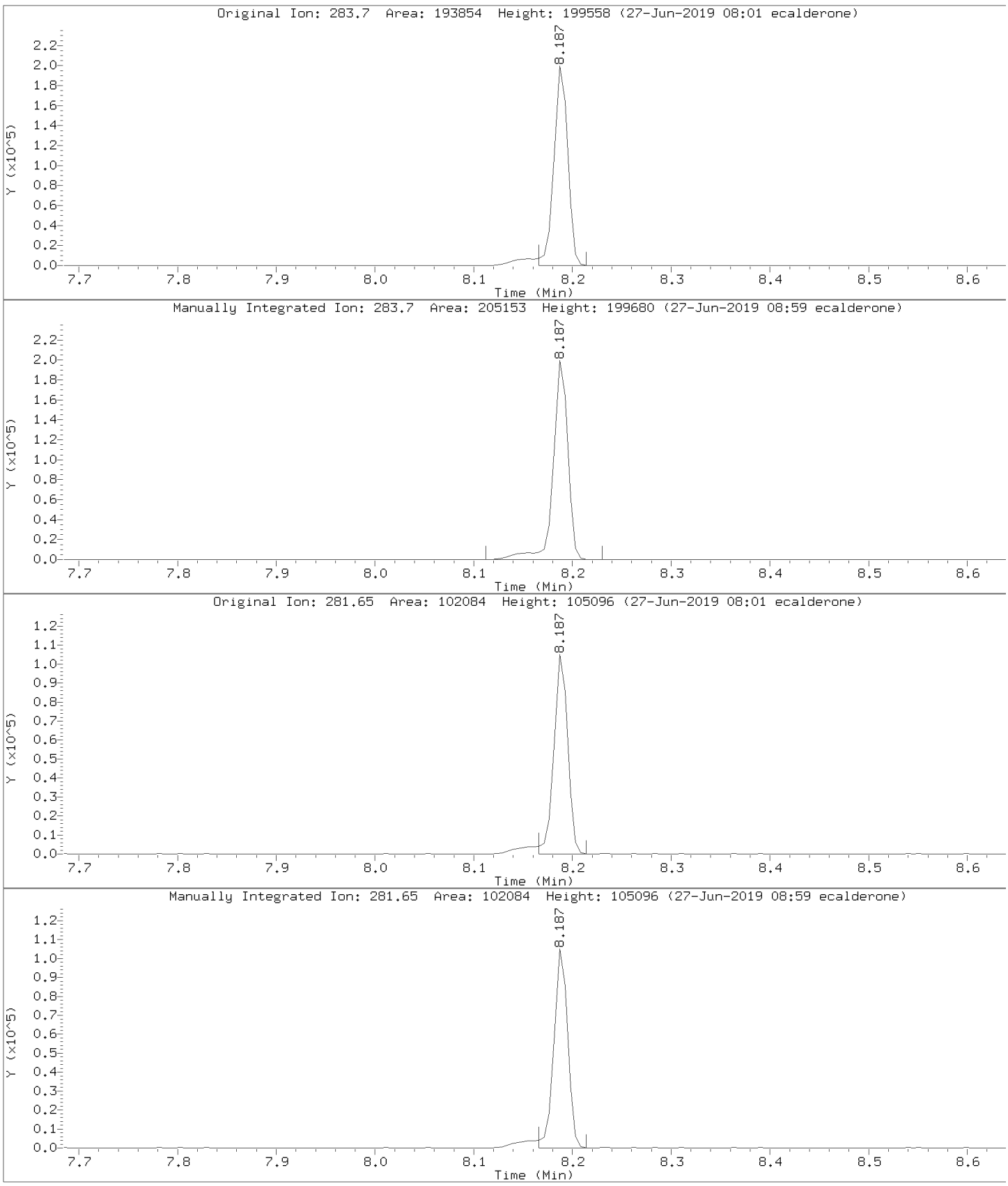
Injection Date: 26-JUN-2019 19:15
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Hexachlorobenzene Review Code: LT
CAS Number: 118-74-1



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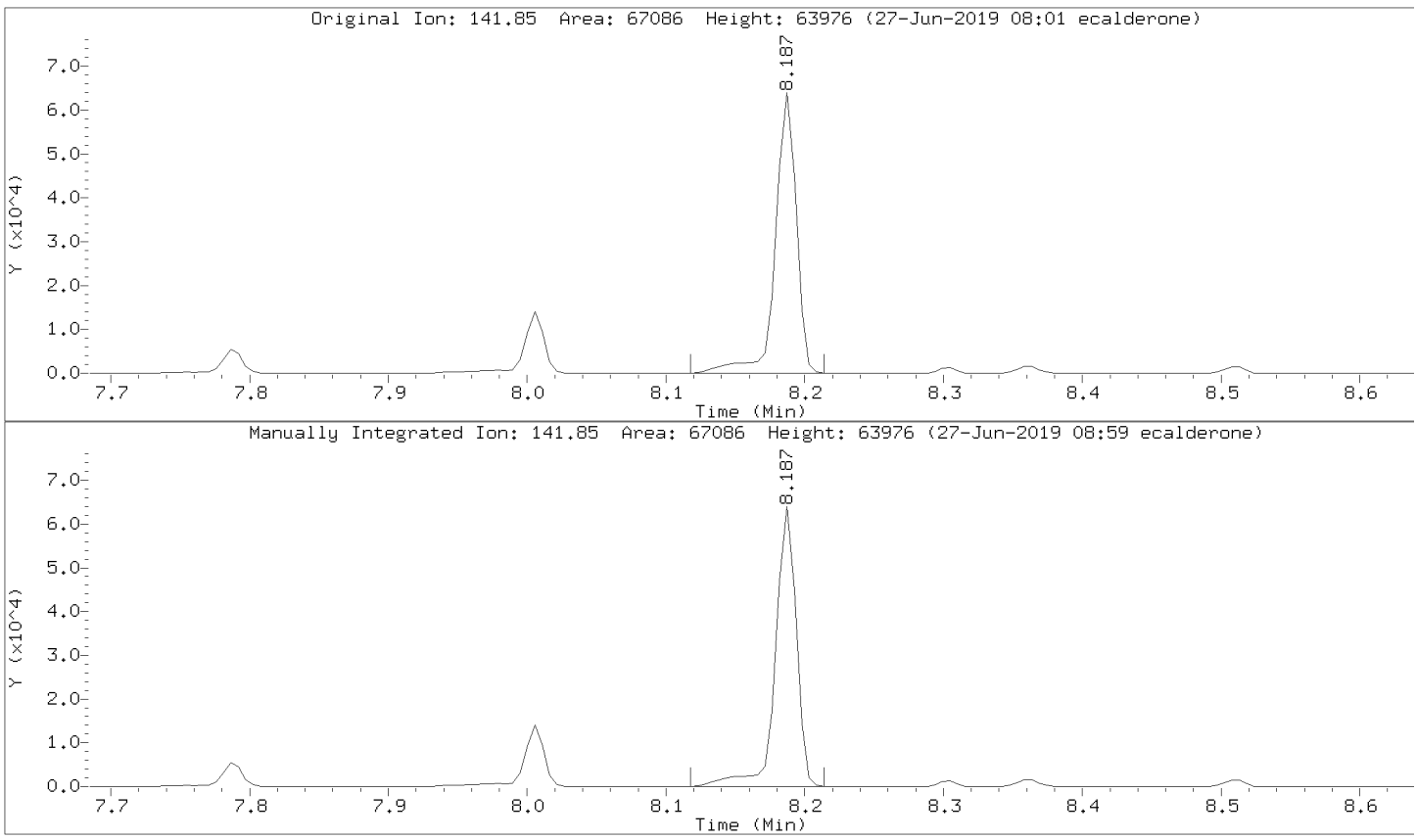

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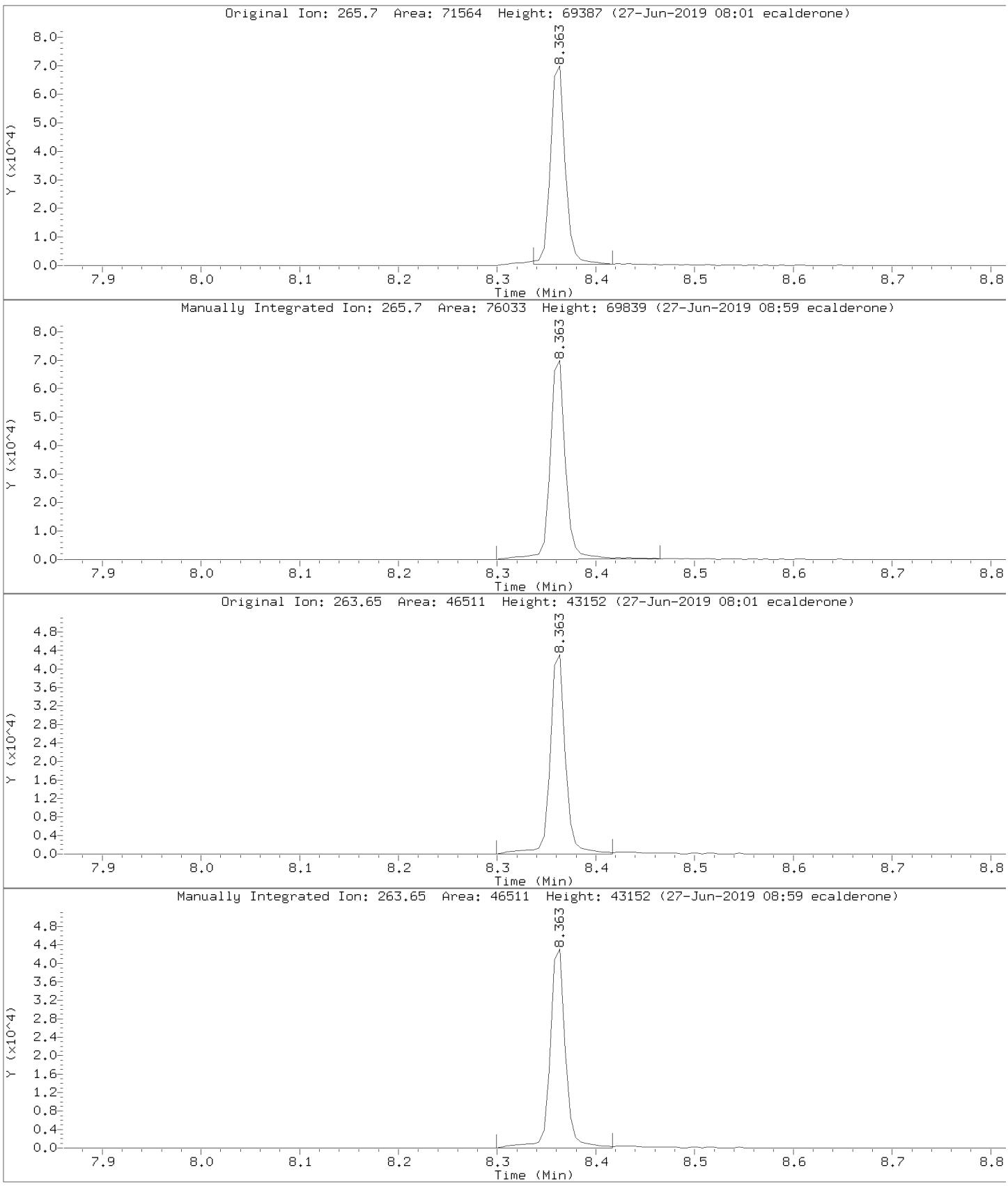
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5



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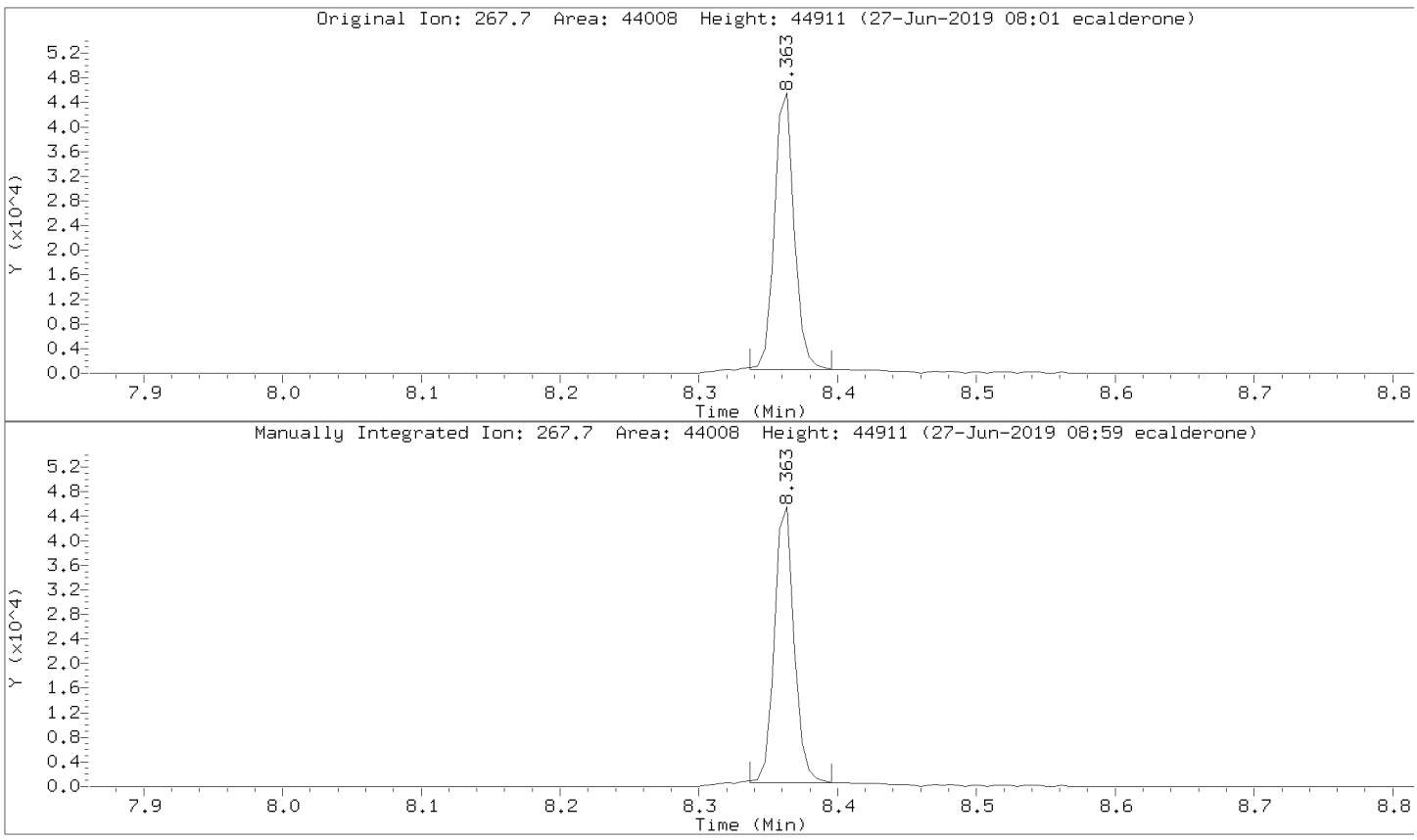
Lab Sample ID: CAL3



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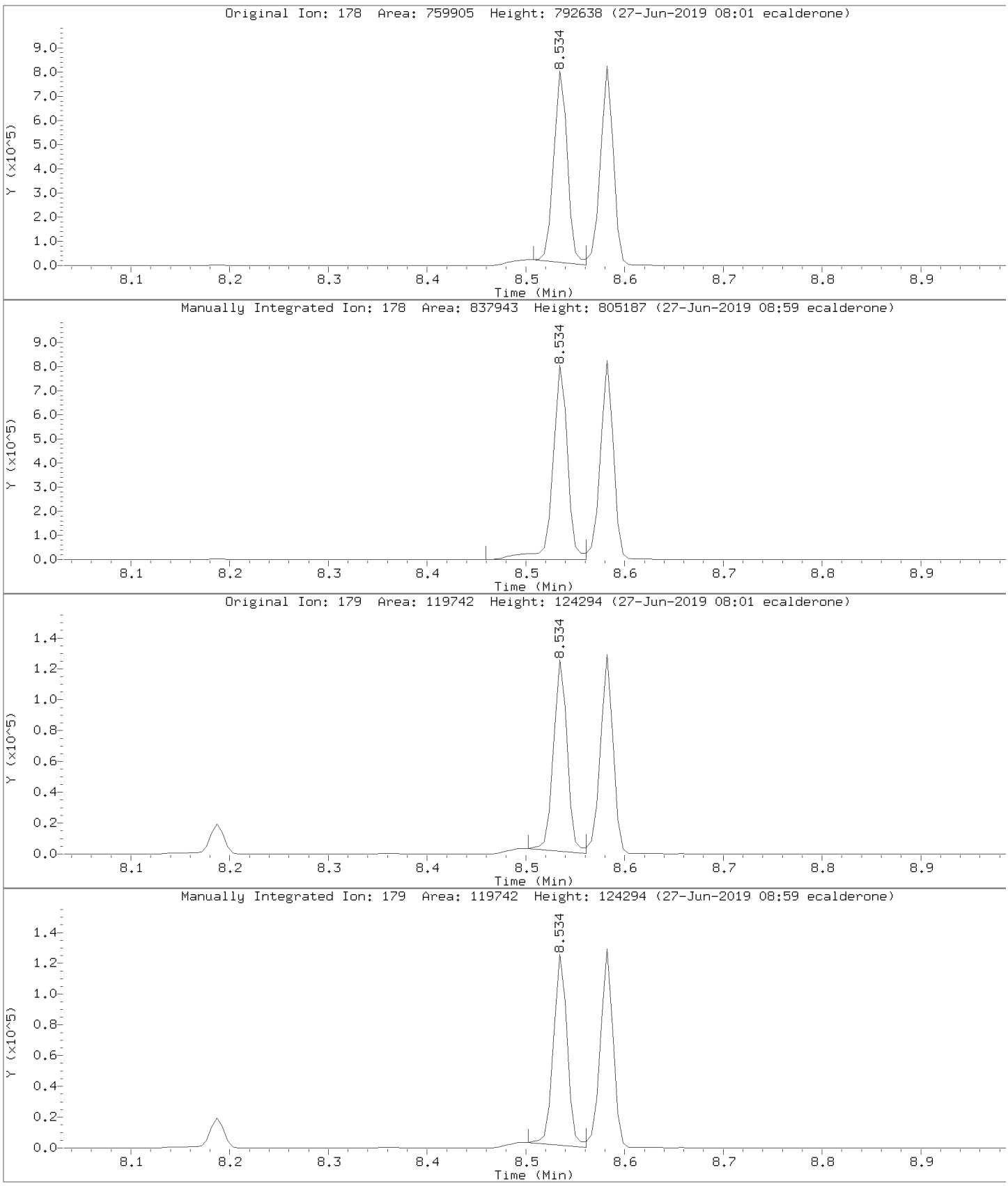
Injection Date: 26-JUN-2019 19:15
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Phenanthrene Review Code: LT
CAS Number: 85-01-8



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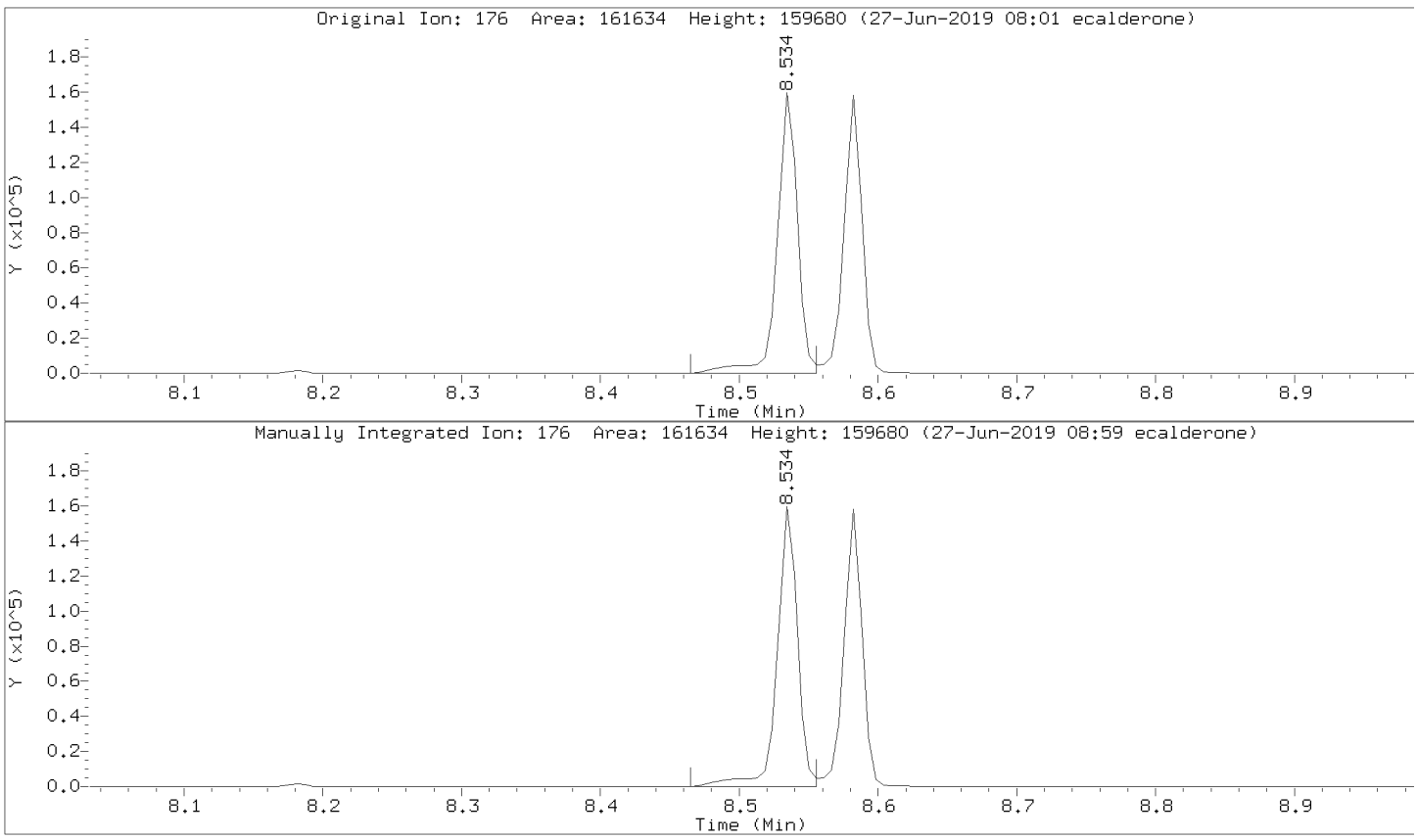

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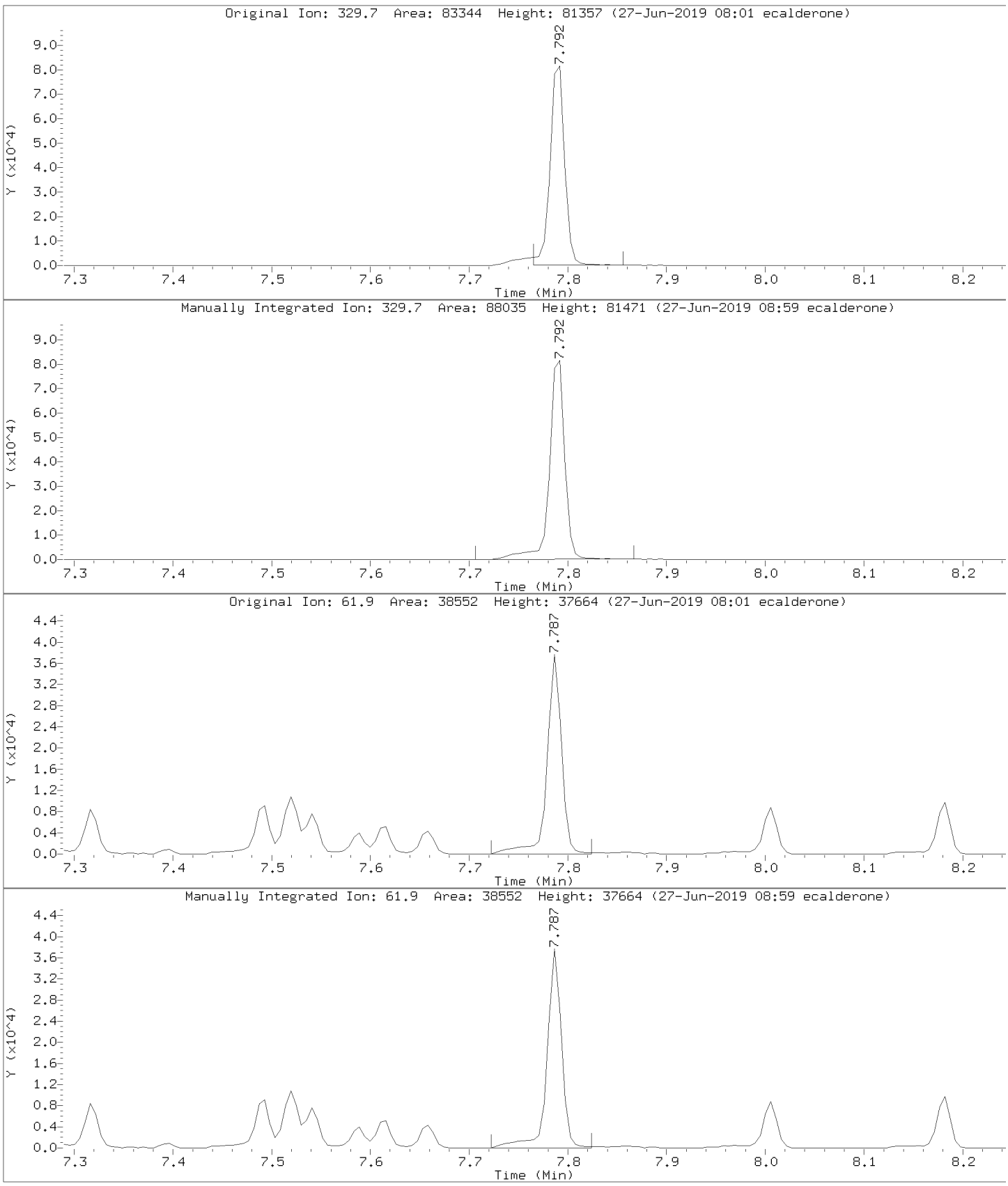
Lab Sample ID: CAL3

Compound: 2,4,6-Tribromophenol (S) Review Code: LT
CAS Number: 118-79-6



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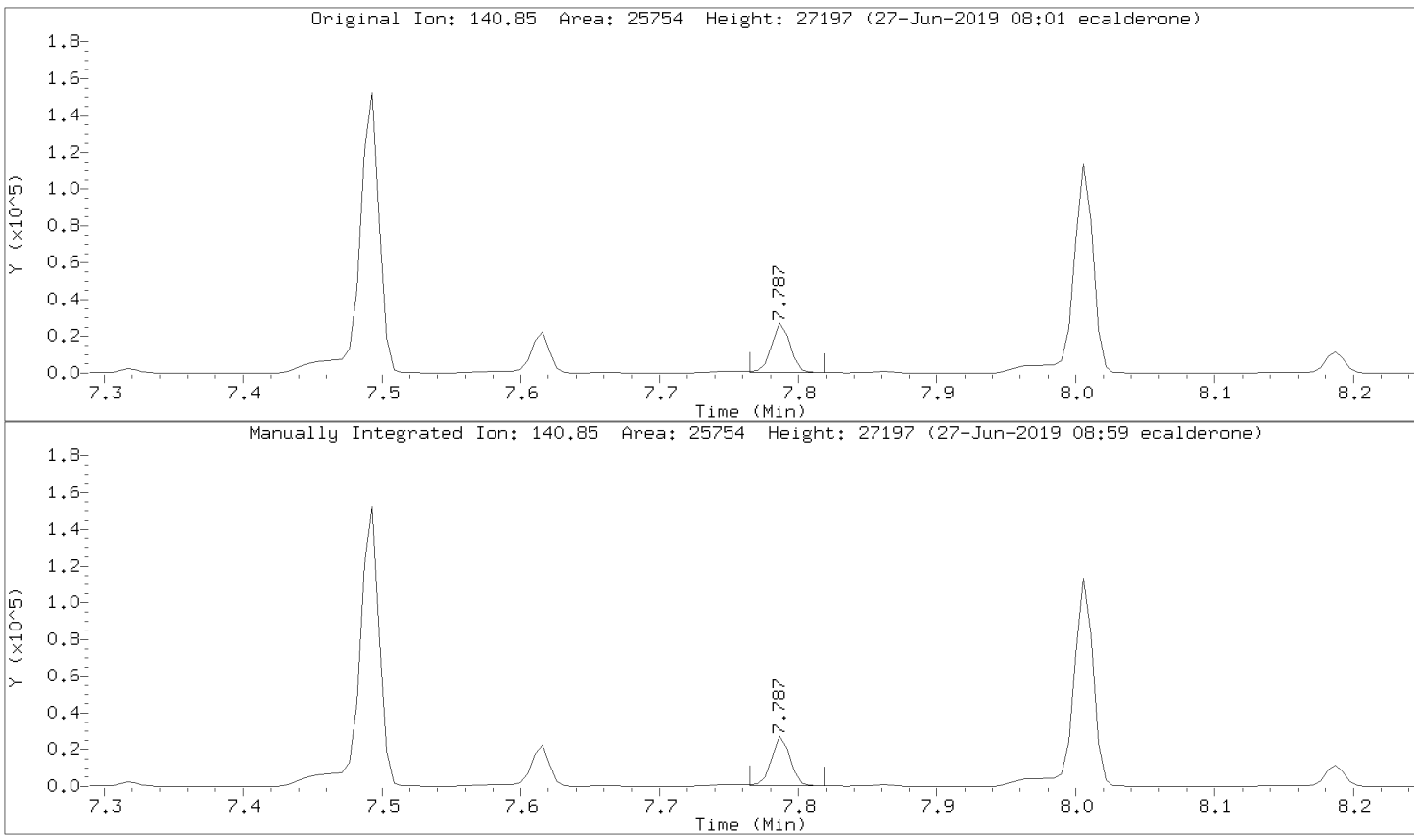
Instrument: 30mss1.i
Lab Sample ID: CAL3



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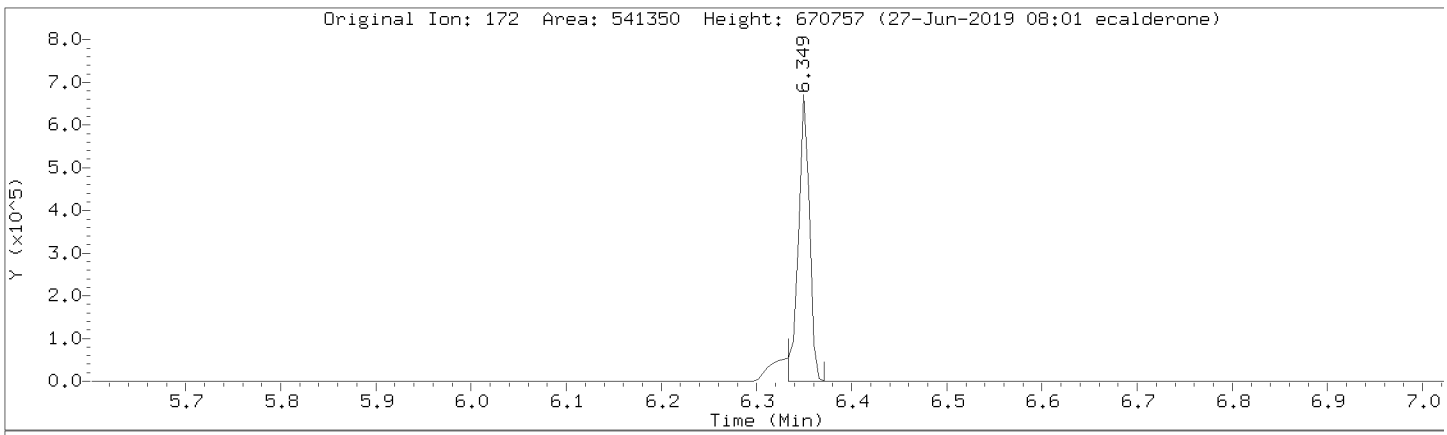
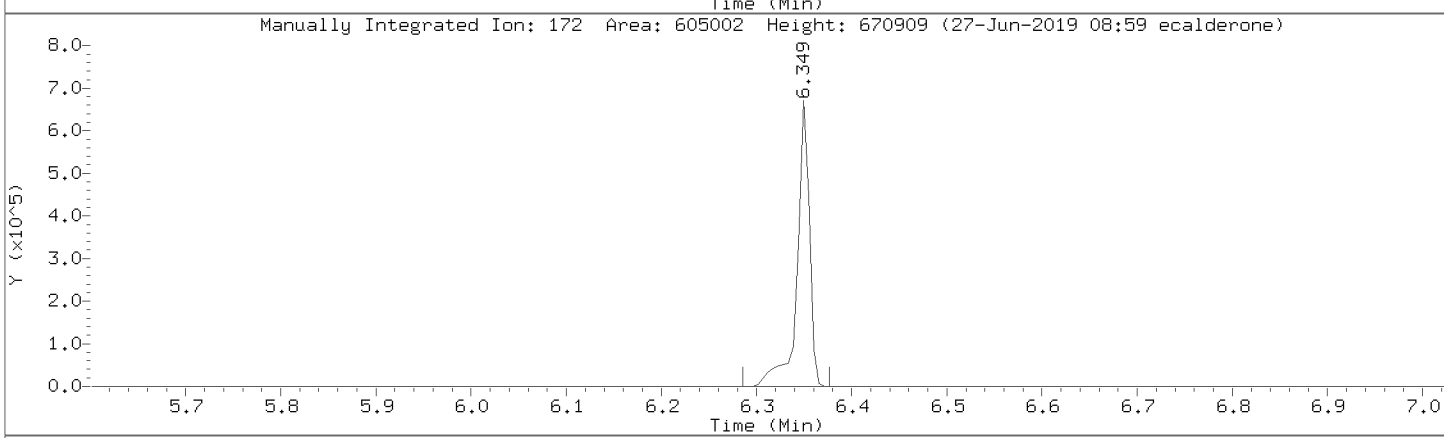
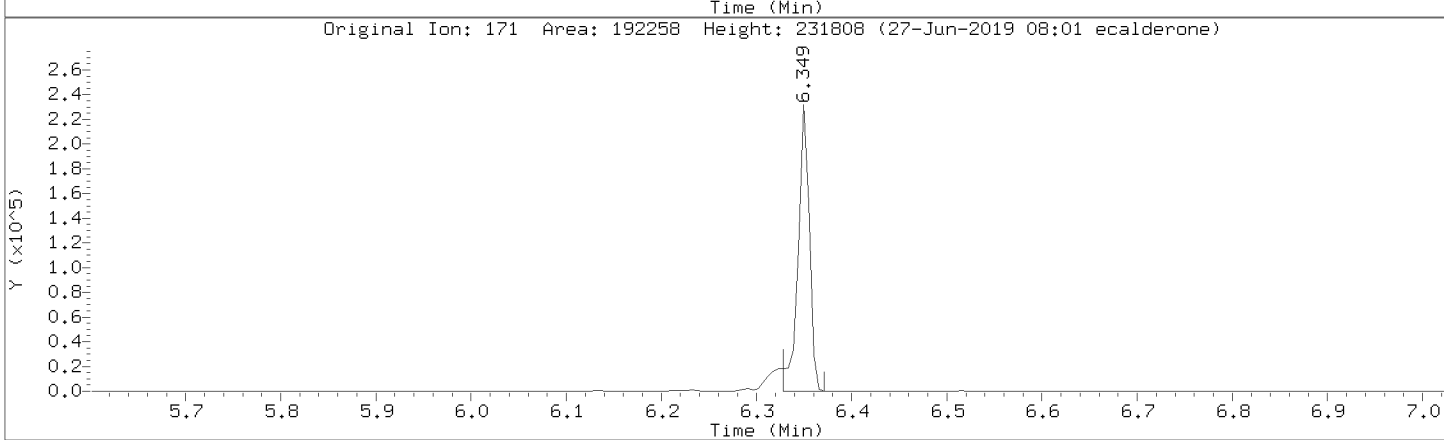
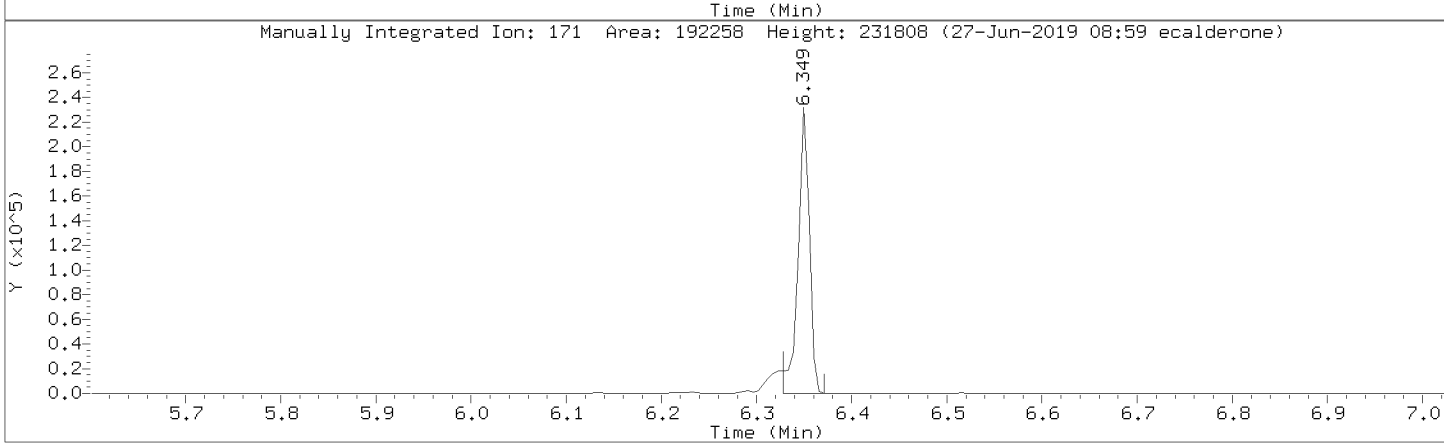
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8









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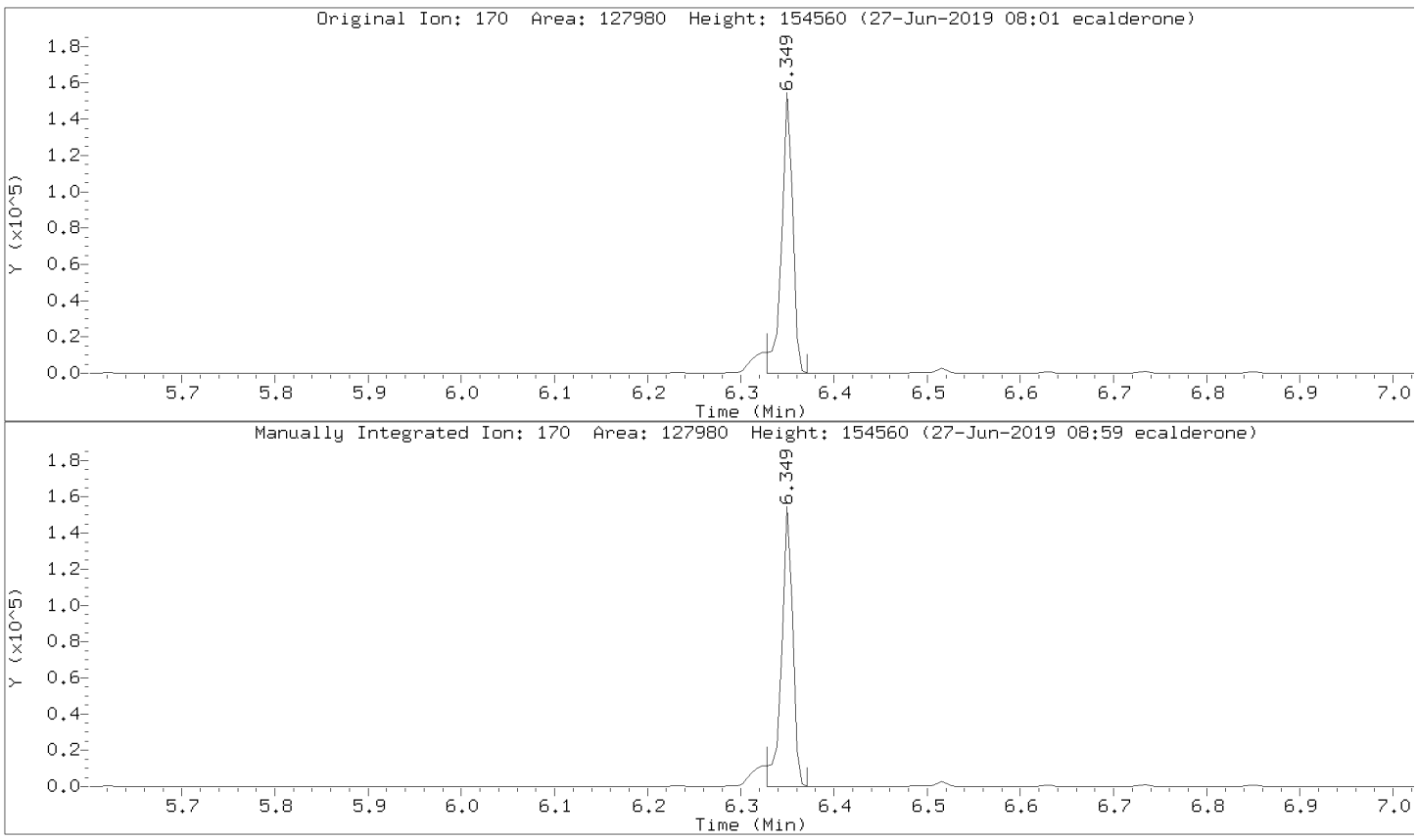
Lab Sample ID: CAL3



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y6.d
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Inj Date : 26-JUN-2019 19:38
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14757,91772:1
Comment   :
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Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 19:38 Cal File: m10626y6.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.676	2.684	(0.601)	76063	2.00000	2.05	
	2 Pyridine	79	2.692	2.695	(0.604)	122057	2.00000	2.04	
$	3 2-Fluorophenol (S)	112	3.536	3.539	(0.794)	112534	2.00000	2.03	
$	4 Phenol-d6 (S)	99	4.156	4.159	(0.933)	139374	2.00000	2.02	
	5 Benzaldehyde	77	4.135	4.137	(0.928)	96671	2.00000	2.10	
	6 Phenol	94	4.167	4.169	(0.935)	154663	2.00000	2.05	
	7 Aniline	66	4.226	4.228	(0.948)	56597	2.00000	1.94	
	8 bis(2-Chloroethyl)ether	63	4.247	4.250	(0.953)	89969	2.00000	2.07	
	9 2-Chlorophenol	128	4.316	4.319	(0.969)	130397	2.00000	2.02	
	10 1,3-Dichlorobenzene	146	4.429	4.431	(0.994)	148972	2.00000	2.05	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.455	4.458	(1.000)	192534	4.00000		
	12 1,4-Dichlorobenzene	146	4.466	4.469	(1.002)	162973	2.00000	2.04	
	13 Benzyl Alcohol	79	4.551	4.549	(1.022)	96558	2.00000	2.04	
	14 1,2-Dichlorobenzene	146	4.616	4.618	(1.036)	145568	2.00000	2.04	
	15 2-Methylphenol(o-Cresol)	108	4.626	4.629	(1.038)	117190	2.00000	2.01	
	16 bis(2-Chloroisopropyl)ether	45	4.664	4.666	(1.047)	139624	2.00000	2.12	
	17 3&4-Methylphenol(m&p Cresol)	108	4.733	4.736	(1.062)	118917	2.00000	2.01	
	18 N-Nitroso-di-n-propylamine	70	4.776	4.778	(1.072)	94635	2.00000	2.07	
	19 Acetophenone	105	4.770	4.773	(1.071)	173109	2.00000	2.07	
	20 Hexachloroethane	117	4.861	4.864	(1.091)	54161	2.00000	2.02	
$	21 Nitrobenzene-d5 (S)	128	4.899	4.901	(0.896)	61150	2.00000	1.97	
	22 Nitrobenzene	77	4.915	4.917	(0.898)	128675	2.00000	2.02	
	23 Isophorone	82	5.091	5.094	(0.931)	238818	2.00000	2.02	
	24 2,4-Dimethylphenol	107	5.160	5.158	(0.943)	124272	2.00000	1.99	
	25 2-Nitrophenol	139	5.166	5.168	(0.944)	60191	2.00000	1.84	
	26 Benzoic acid	105	5.192	5.206	(0.949)	27819	2.00000	0.988(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.241	5.243	(0.958)	148314	2.00000	2.01	
	28 2,4-Dichlorophenol	162	5.347	5.345	(0.978)	104816	2.00000	1.94	
	29 1,2,4-Trichlorobenzene	180	5.428	5.430	(0.992)	123784	2.00000	1.98	
*	30 Naphthalene-d8 (IS)	136	5.470	5.473	(1.000)	766848	4.00000		
	31 Naphthalene	128	5.486	5.489	(1.003)	404937	2.00000	2.04	
	32 4-Chloroaniline	65	5.518	5.521	(1.009)	41886	2.00000	2.05	
	33 Hexachloro-1,3-butadiene	225	5.620	5.622	(1.027)	70183	2.00000	1.97	
	34 Caprolactam	55	5.764	5.772	(1.054)	37548	2.00000	2.01	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.887	5.890	(1.076)	97658	2.00000	1.94	
	36 2-Methylnaphthalene	142	6.047	6.050	(1.105)	277908	2.00000	1.99	
	37 1-Methylnaphthalene	142	6.138	6.141	(1.122)	265535	2.00000	2.00	
	38 Hexachlorocyclopentadiene	237	6.229	6.231	(0.893)	63016	2.00000	1.64	
	39 1,2,4,5-Tetrachlorobenzene	216	6.218	6.221	(0.891)	123165	2.00000	1.86	
	40 2,4,6-Trichlorophenol	196	6.288	6.290	(0.901)	83603	2.00000	1.78	
	41 2,4,5-Trichlorophenol	196	6.320	6.322	(0.906)	65797	2.00000	1.87	
$	42 2-Fluorobiphenyl (S)	172	6.346	6.349	(0.910)	294502	2.00000	1.91	
	43 Biphenyl (Diphenyl)	154	6.427	6.429	(0.921)	324455	2.00000	1.92	
	44 2-Chloronaphthalene	164	6.453	6.456	(0.925)	79875	2.00000	1.95	
	45 2-Nitroaniline	138	6.544	6.541	(0.938)	69359	2.00000	1.82	
	46 Dimethylphthalate	163	6.699	6.702	(0.960)	267720	2.00000	2.03(M)	LT
	47 2,6-Dinitrotoluene	165	6.774	6.776	(0.971)	57217	2.00000	1.97(MH)	LT
	48 Acenaphthylene	152	6.827	6.830	(0.979)	384491	2.00000	1.91	
	49 3-Nitroaniline	65	6.913	6.910	(0.991)	62127	2.00000	1.88	
*	50 Acenaphthene-d10 (IS)	164	6.977	6.974	(1.000)	427759	4.00000		
	51 2,4-Dinitrophenol	184	7.009	7.011	(1.005)	15659	2.00000	2.19	
	52 Acenaphthene	153	7.009	7.006	(1.005)	251489	2.00000	1.93	
	53 4-Nitrophenol	109	7.030	7.033	(1.008)	24965	2.00000	1.77	
	54 2,4-Dinitrotoluene	165	7.164	7.166	(1.027)	69401	2.00000	1.79	
	55 Dibenzofuran	168	7.164	7.166	(1.027)	355560	2.00000	1.93	
	56 2,3,4,6-Tetrachlorophenol	232	7.319	7.321	(1.049)	56244	2.00000	1.80	
	57 Diethylphthalate	149	7.393	7.396	(1.060)	260490	2.00000	1.98(MH)	LT
	58 4-Chlorophenylphenyl ether	204	7.490	7.492	(1.073)	138861	2.00000	1.92(M)	LT
	59 Fluorene	166	7.522	7.519	(1.078)	279666	2.00000	1.91	
	60 4-Nitroaniline	108	7.538	7.540	(1.080)	38063	2.00000	1.99	
	61 4,6-Dinitro-2-methylphenol	198	7.586	7.588	(0.891)	24589	2.00000	1.91(M)	LT
	62 N-Nitrosodiphenylamine	169	7.612	7.615	(0.895)	219251	2.00000	1.90	
	63 Azobenzene	77	7.655	7.658	(0.900)	233083	2.00000	2.07	
	64 1,2-Diphenylhydrazine	77	7.655	7.658	(0.900)	233083	2.00000	2.07	
$	65 2,4,6-Tribromophenol (S)	330	7.789	7.791	(0.915)	39970	2.00000	1.82	
	66 4-Bromophenylphenyl ether	248	8.008	8.005	(0.941)	81655	2.00000	1.99(MH)	LT
	67 Hexachlorobenzene	284	8.189	8.187	(0.962)	97399	2.00000	1.89(M)	LT
	68 Atrazine	200	8.179	8.181	(0.961)	68942	2.00000	1.84	
	69 Pentachlorophenol	266	8.360	8.363	(0.982)	28589	2.00000	2.07	
*	70 Phenanthrene-d10 (IS)	188	8.510	8.513	(1.000)	663838	4.00000		
	71 Phenanthrene	178	8.531	8.534	(1.002)	424036	2.00000	2.02	
	72 Anthracene	178	8.579	8.582	(1.008)	369291	2.00000	1.98	
	73 Carbazole	167	8.734	8.737	(1.026)	334308	2.00000	2.04	
	74 Di-n-butylphthalate	149	9.119	9.116	(1.072)	375111	2.00000	1.92	
	75 Fluoranthene	202	9.803	9.800	(1.152)	379235	2.00000	1.88	
	76 Pyrene	202	10.043	10.040	(0.889)	387797	2.00000	2.04	
$	77 Terphenyl-d14 (S)	244	10.177	10.179	(0.901)	297486	2.00000	1.96	
	78 Butylbenzylphthalate	149	10.690	10.692	(0.947)	137636	2.00000	1.79	
	79 3,3'-Dichlorobenzidine	252	11.234	11.237	(0.995)	108061	2.00000	1.70	
	80 bis(2-Ethylhexyl)phthalate	149	11.272	11.274	(0.998)	209443	2.00000	1.83	
	81 Benzo(a)anthracene	228	11.272	11.274	(0.998)	368558	2.00000	1.95	
*	82 Chrysene-d12 (IS)	240	11.293	11.296	(1.000)	616528	4.00000		
	83 Chrysene	228	11.320	11.317	(1.002)	345099	2.00000	2.02	
	84 Di-n-octylphthalate	149	11.854	11.857	(0.934)	286713	2.00000	2.02	
	85 Benzo(b)fluoranthene	252	12.319	12.322	(0.971)	397246	2.00000	2.01	
	86 Benzo(k)fluoranthene	252	12.340	12.343	(0.973)	385292	2.00000	1.81	
	87 Benzo(a)pyrene	252	12.634	12.637	(0.996)	315546	2.00000	1.80	
*	88 Perylene-d12 (IS)	264	12.688	12.690	(1.000)	635295	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.863	13.865	(1.093)	353231	2.00000	1.80	
90 Dibenz(a,h)anthracene	278	13.857	13.865	(1.092)	291390	2.00000	1.77	
91 Benzo(g,h,i)perylene	276	14.205	14.213	(1.120)	288472	2.00000	1.86	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y6.d
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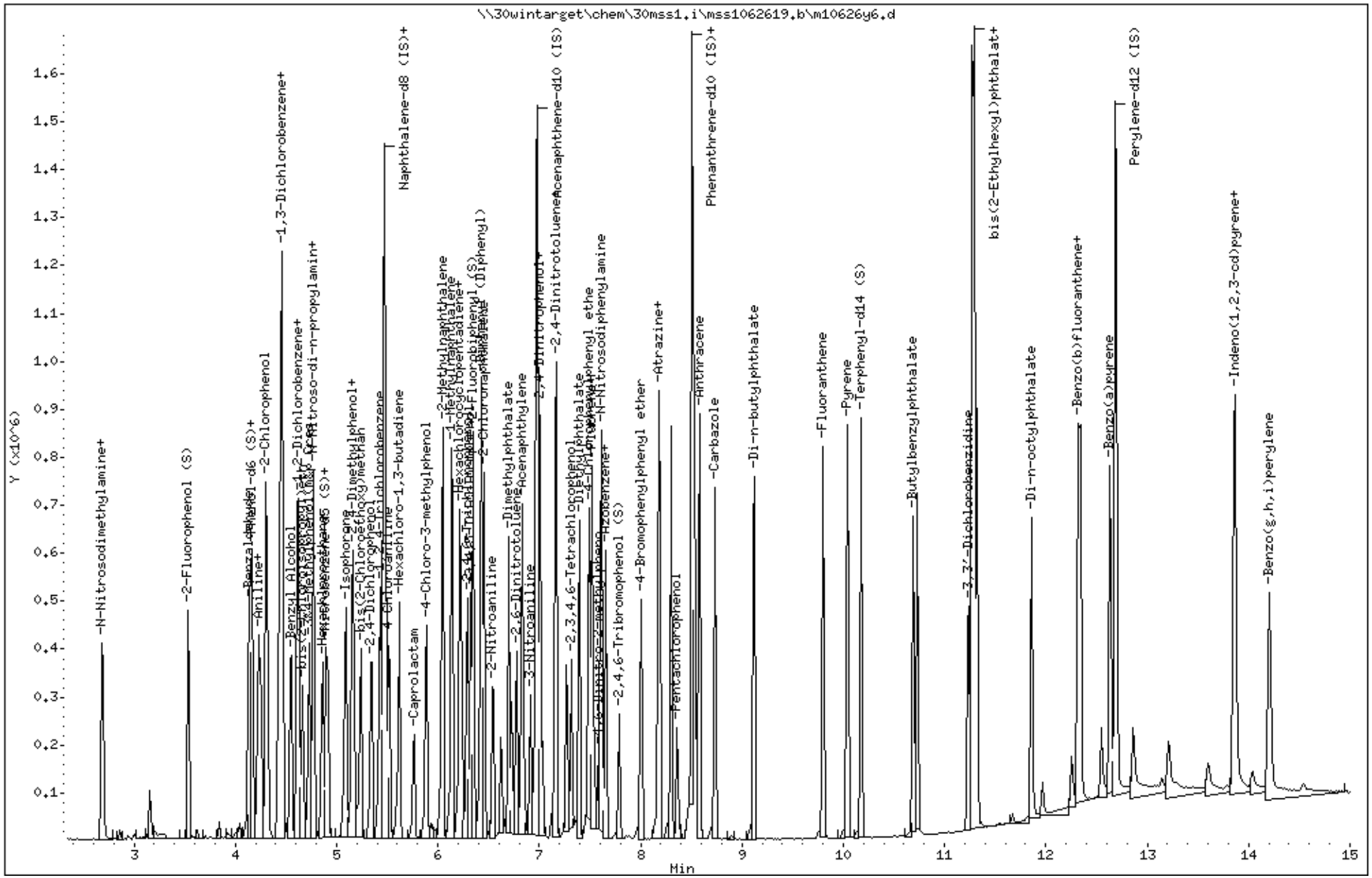
Client ID: CAL2
Sample Info: CAL2

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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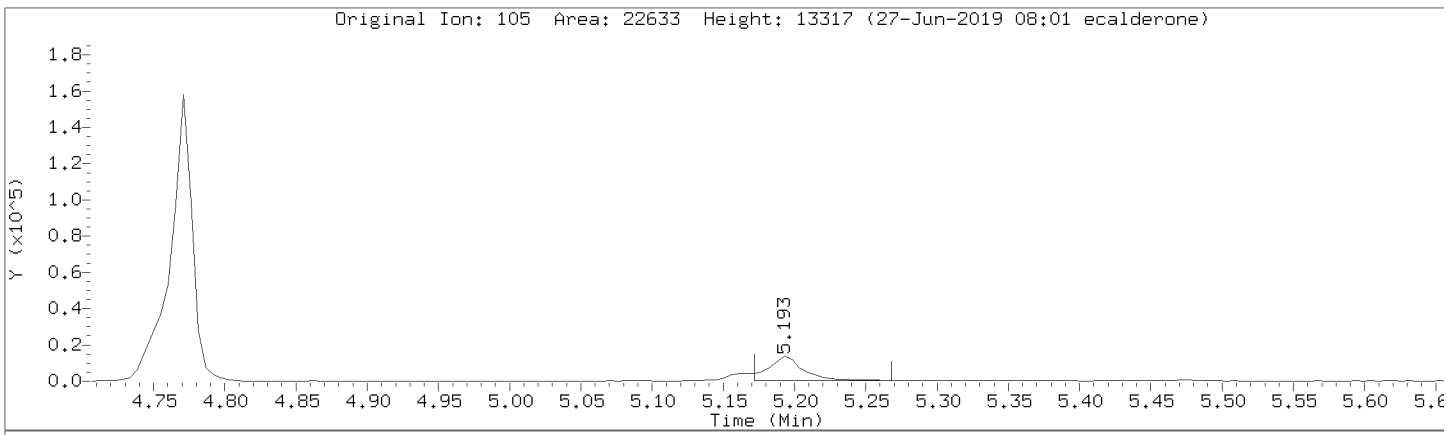
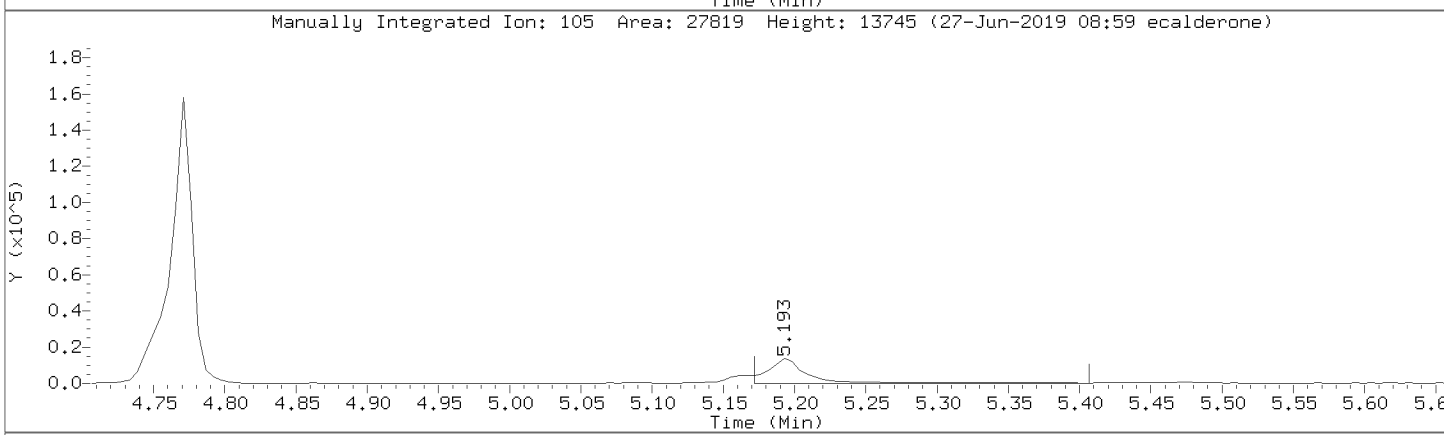
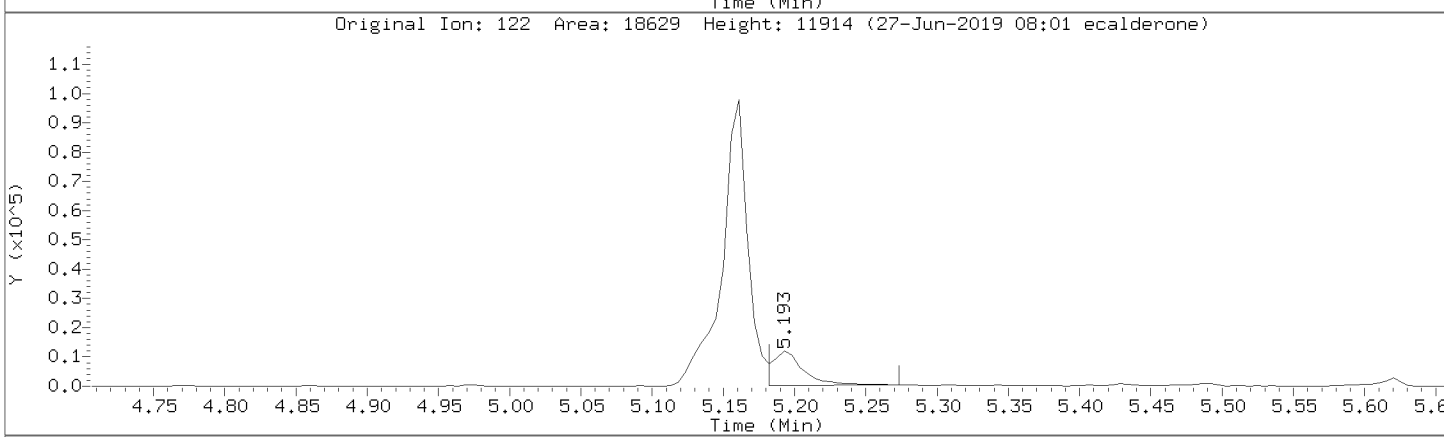
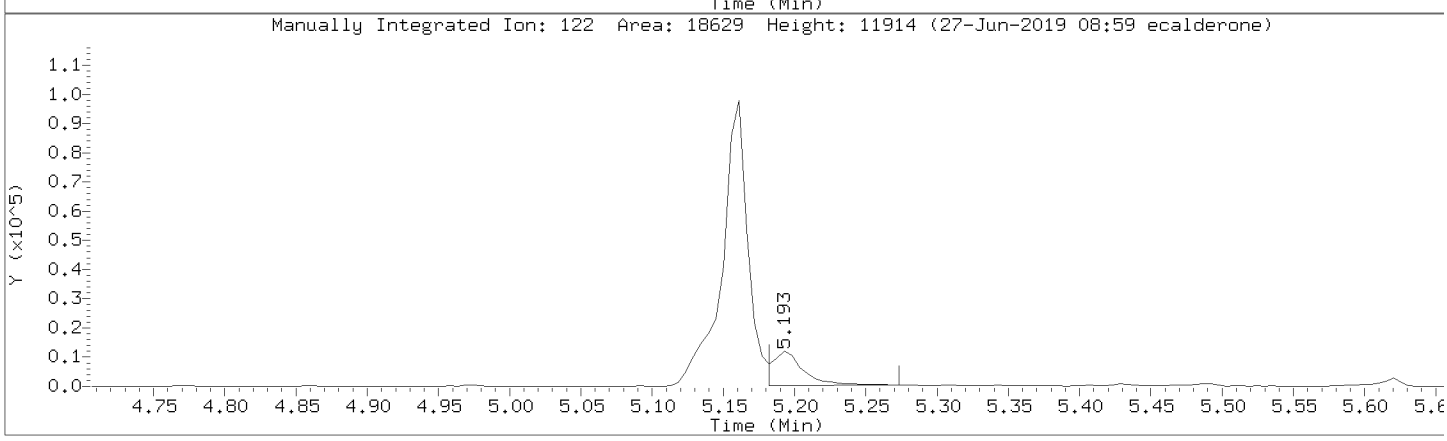
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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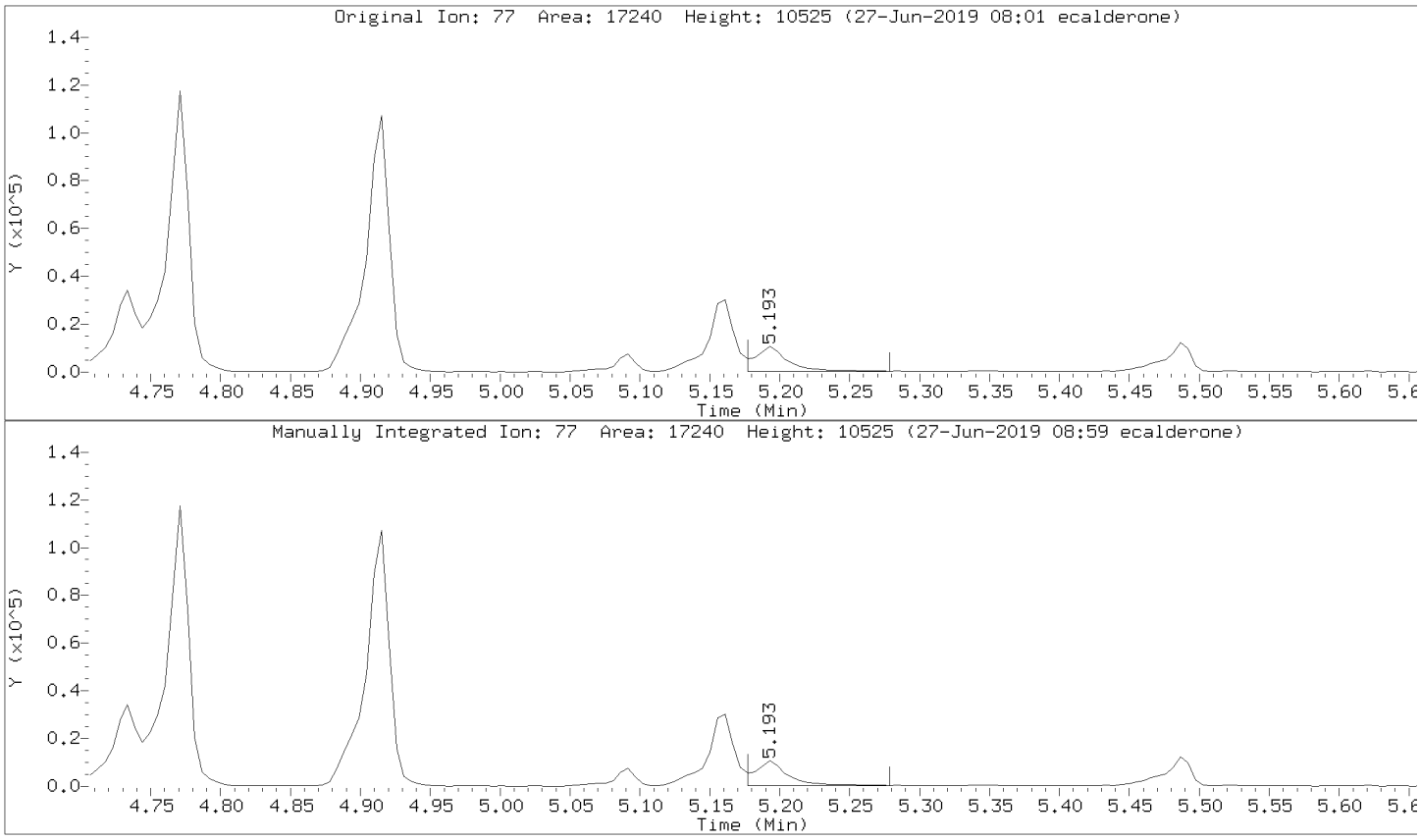

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Lab Sample ID: CAL2

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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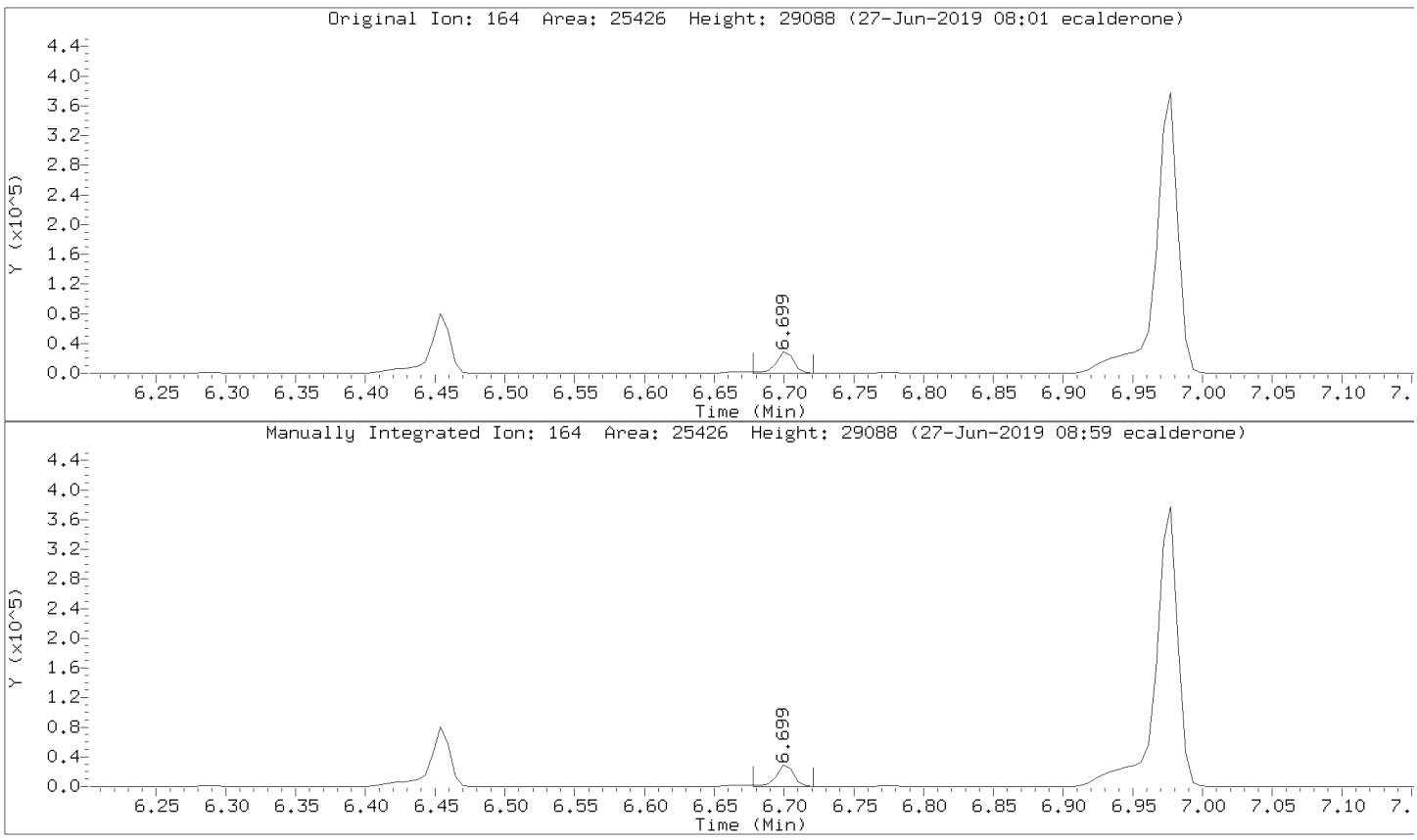
Instrument: 30mss1.i
Lab Sample ID: CAL2



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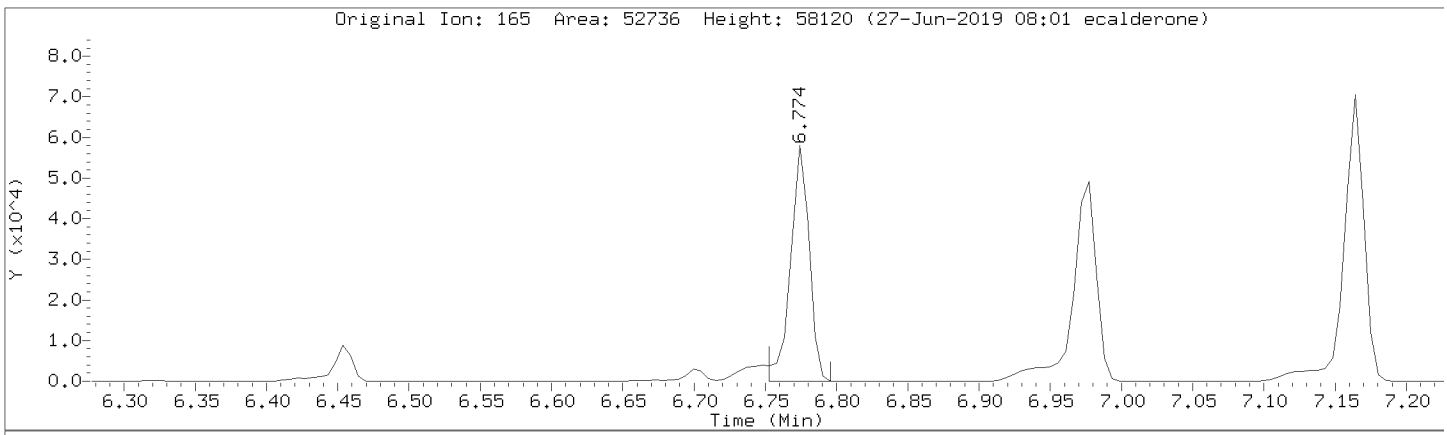
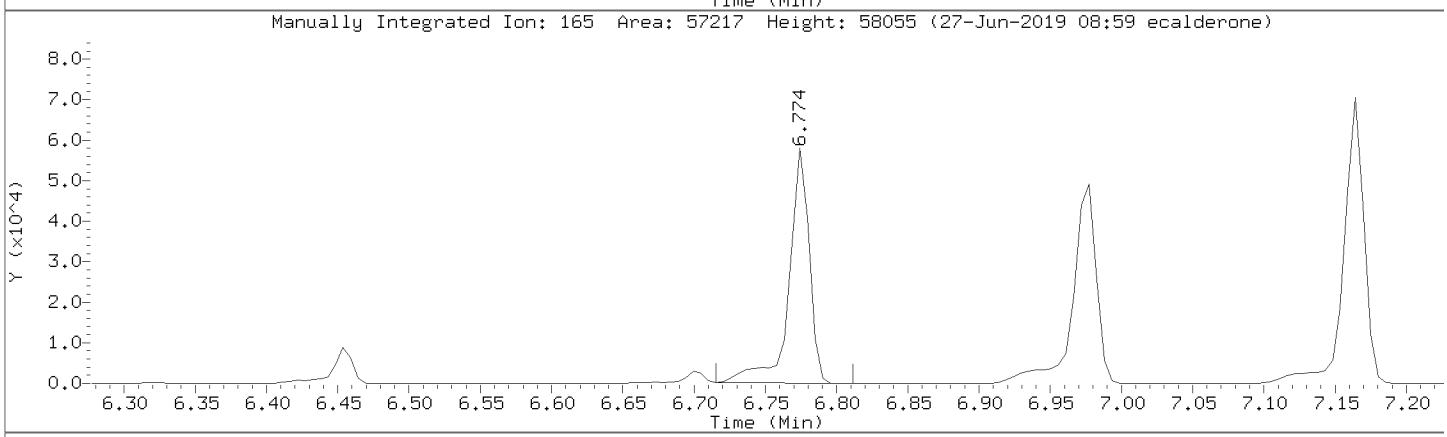
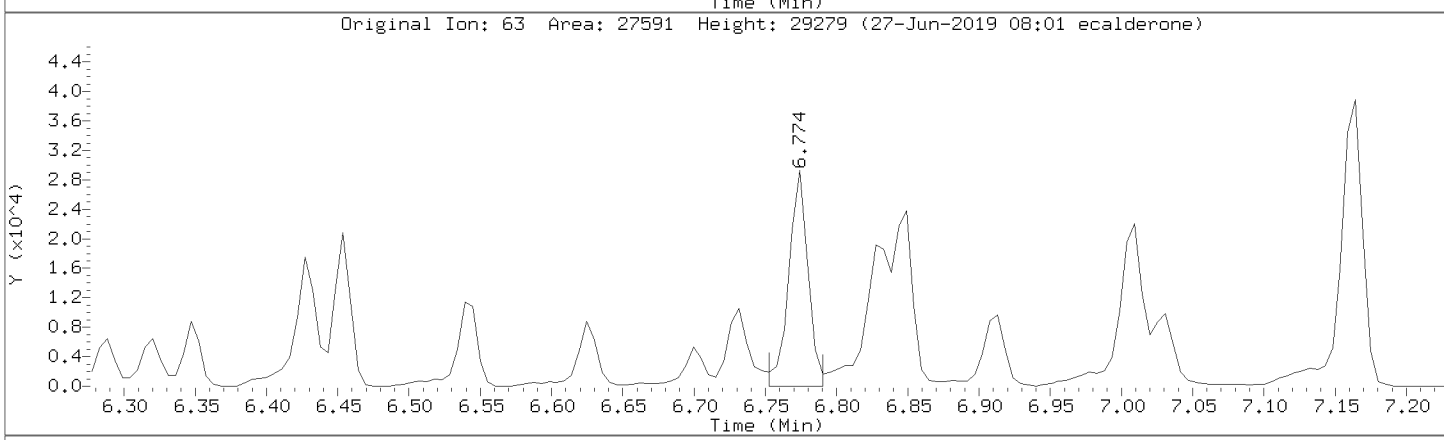
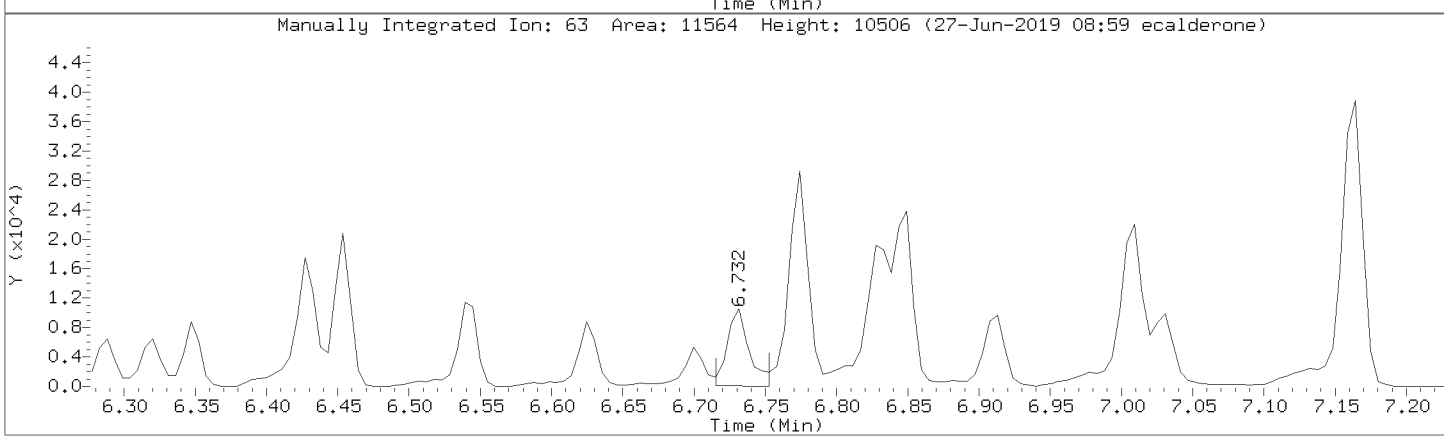
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2,6-Dinitrotoluene Review Code: LT
CAS Number: 606-20-2









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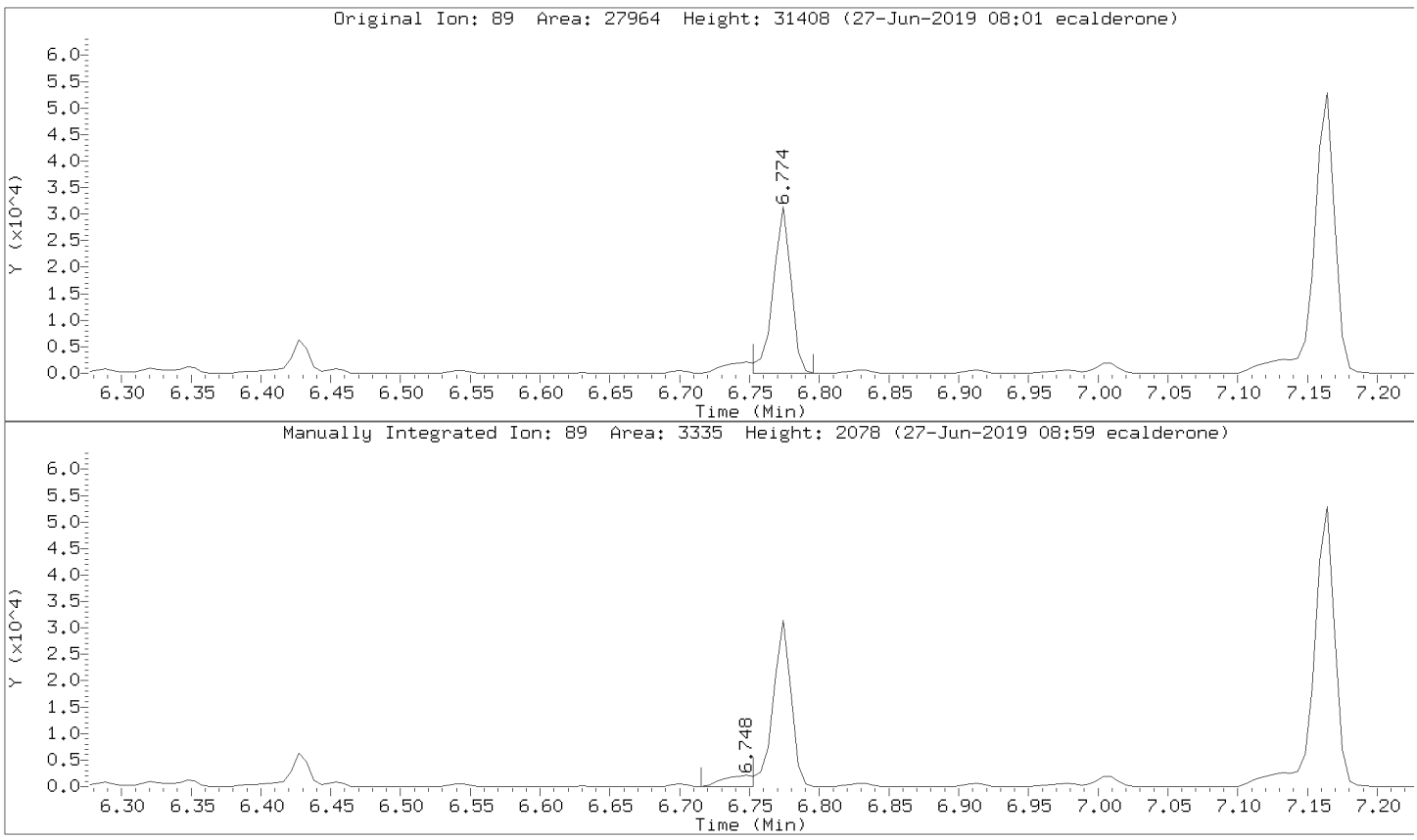

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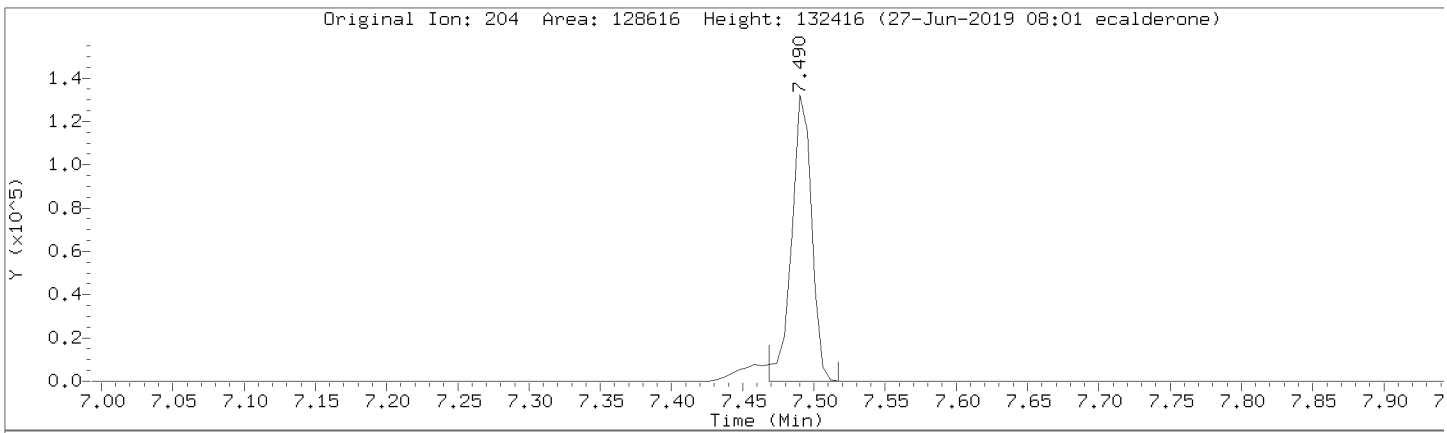
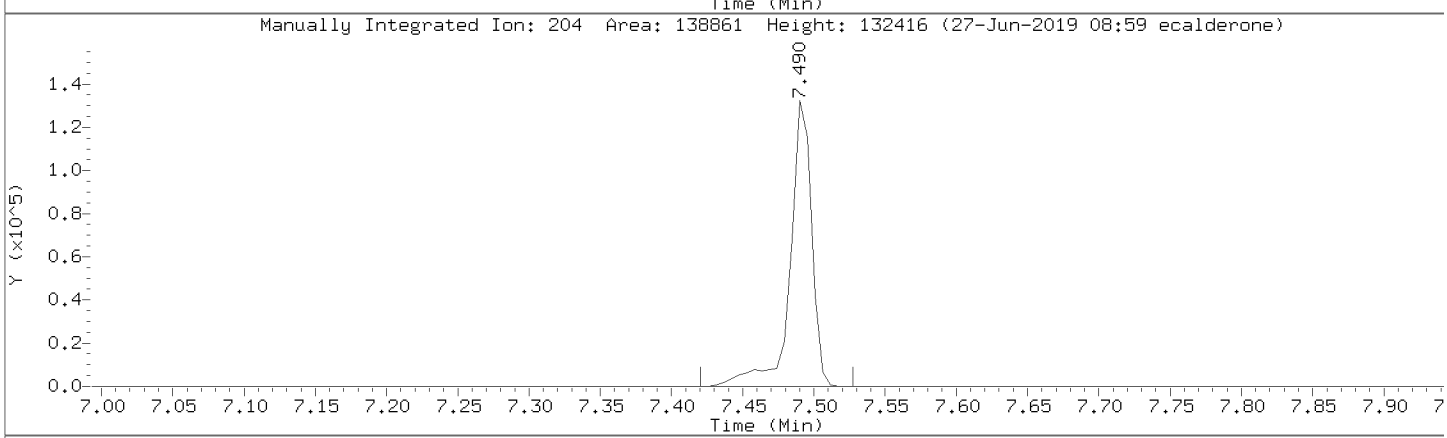
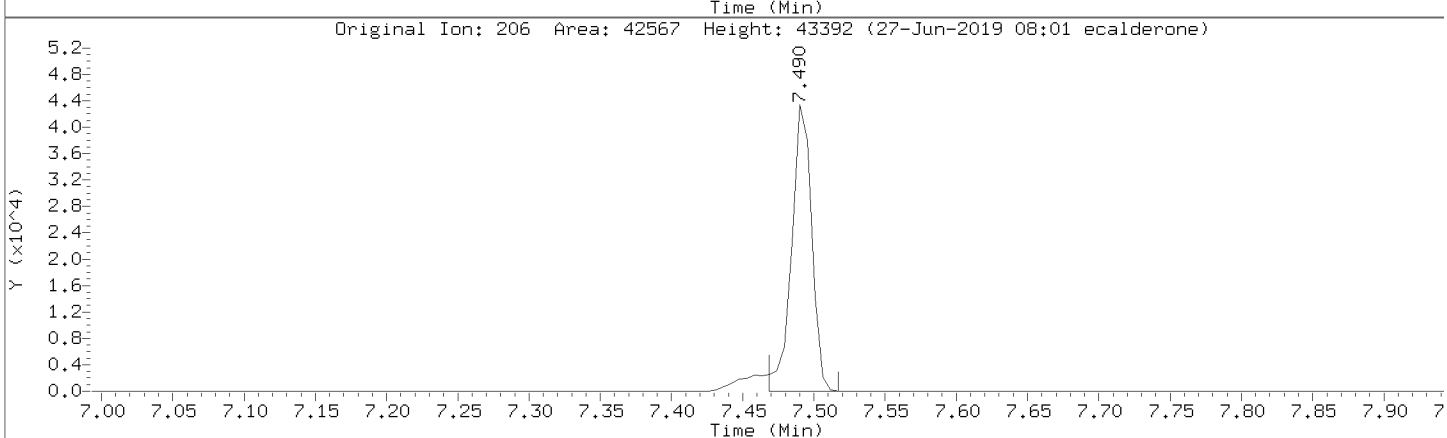
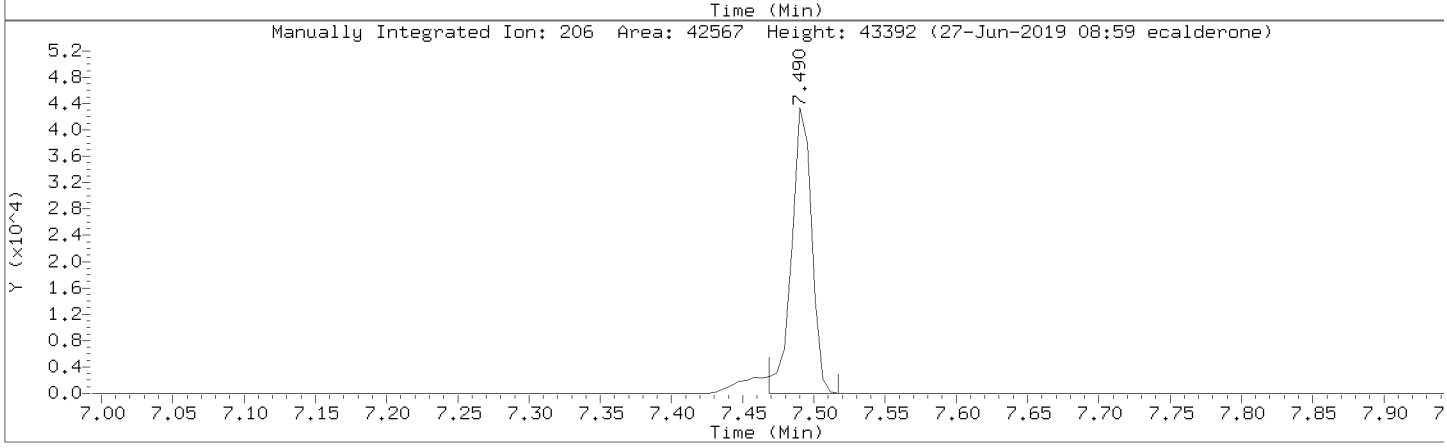
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Chlorophenylphenyl ether Review Code: LT
CAS Number: 7005-72-3









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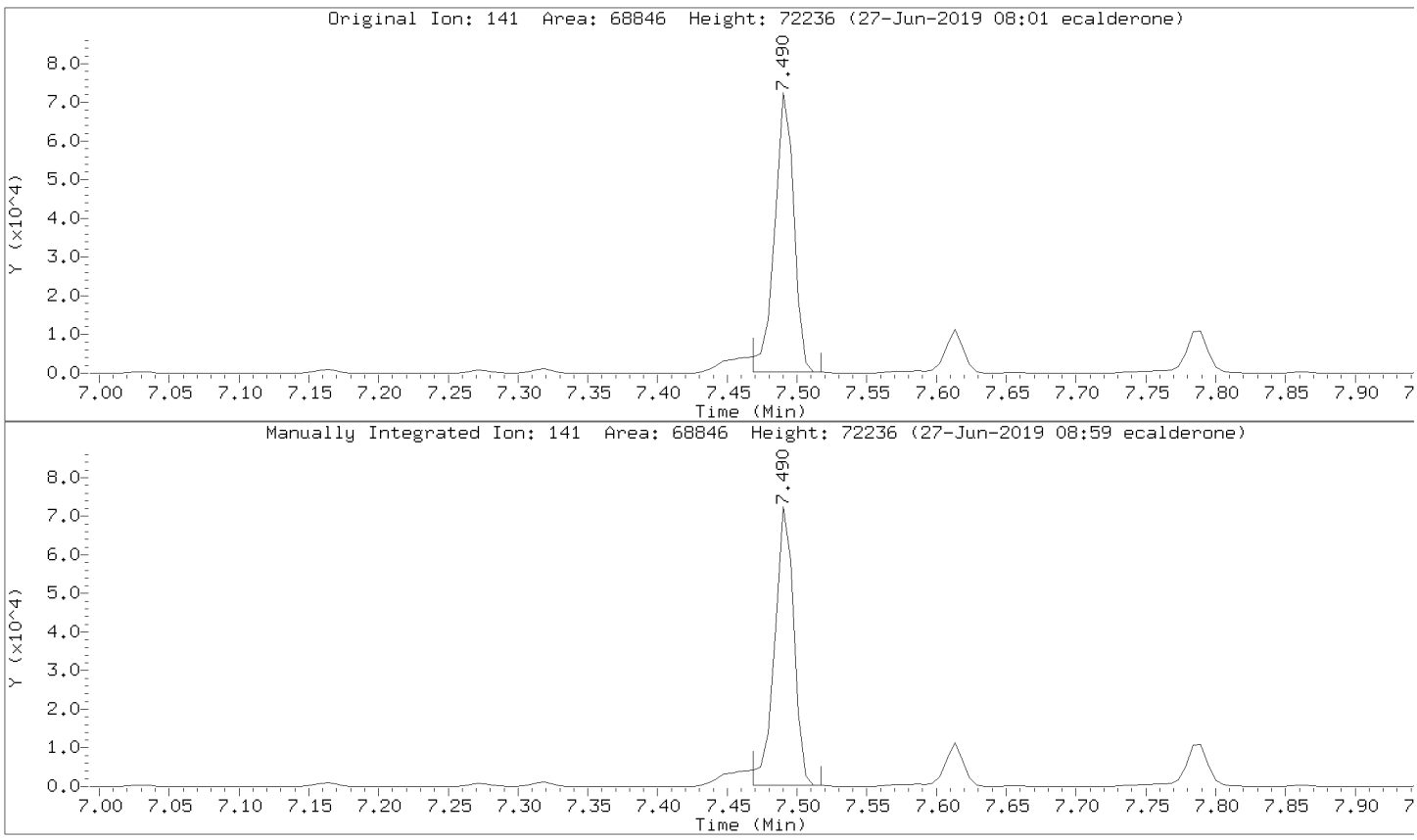
Lab Sample ID: CAL2



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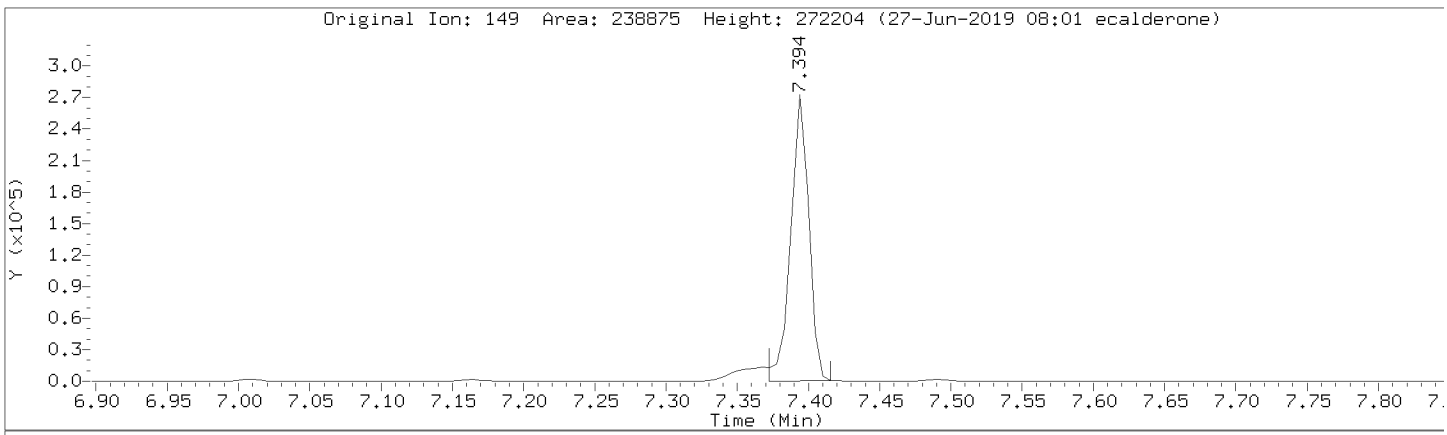
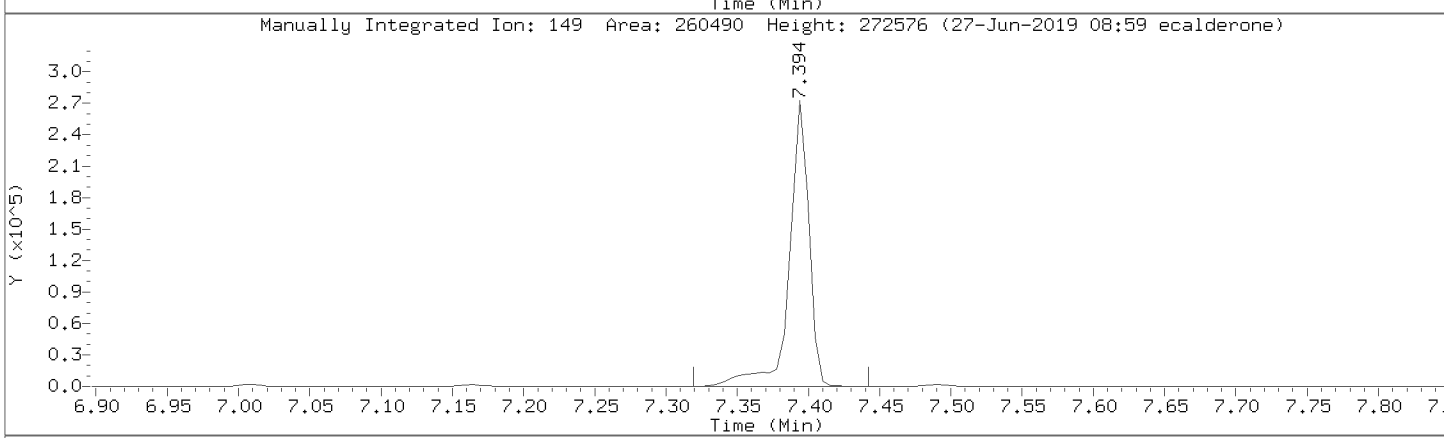
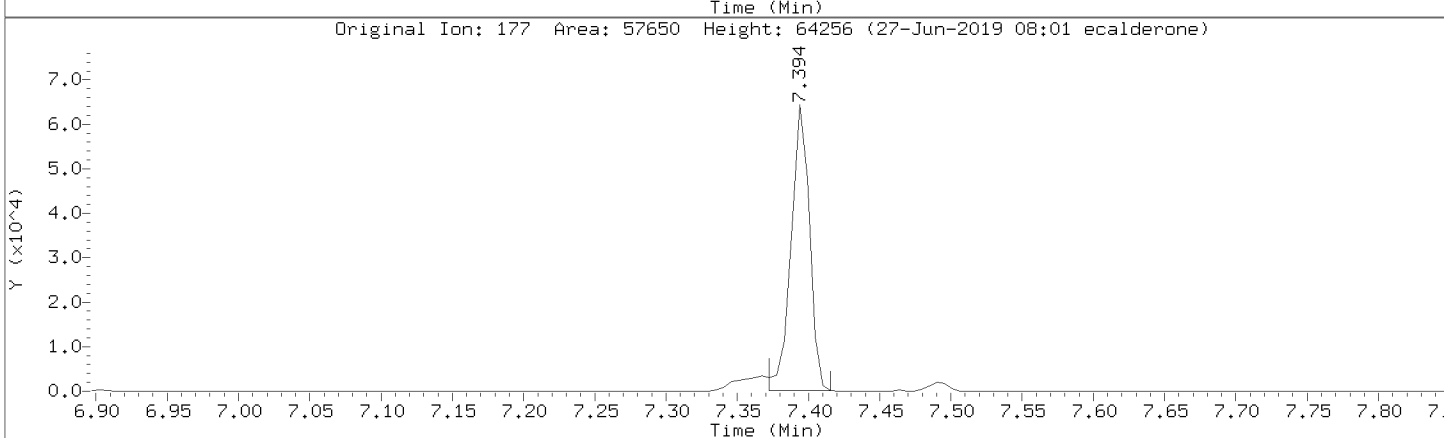
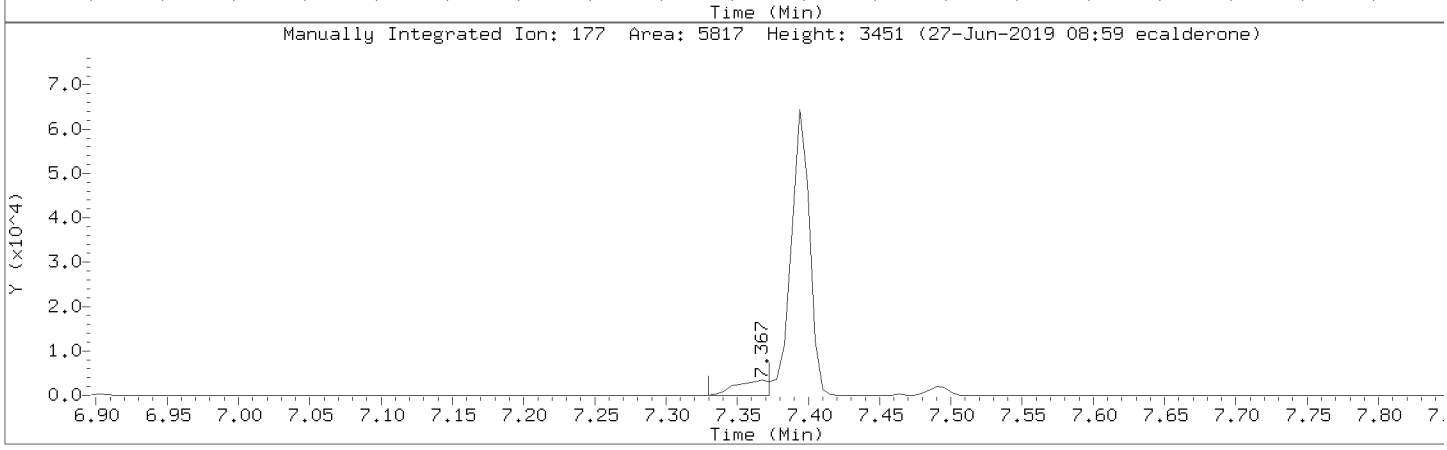
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2









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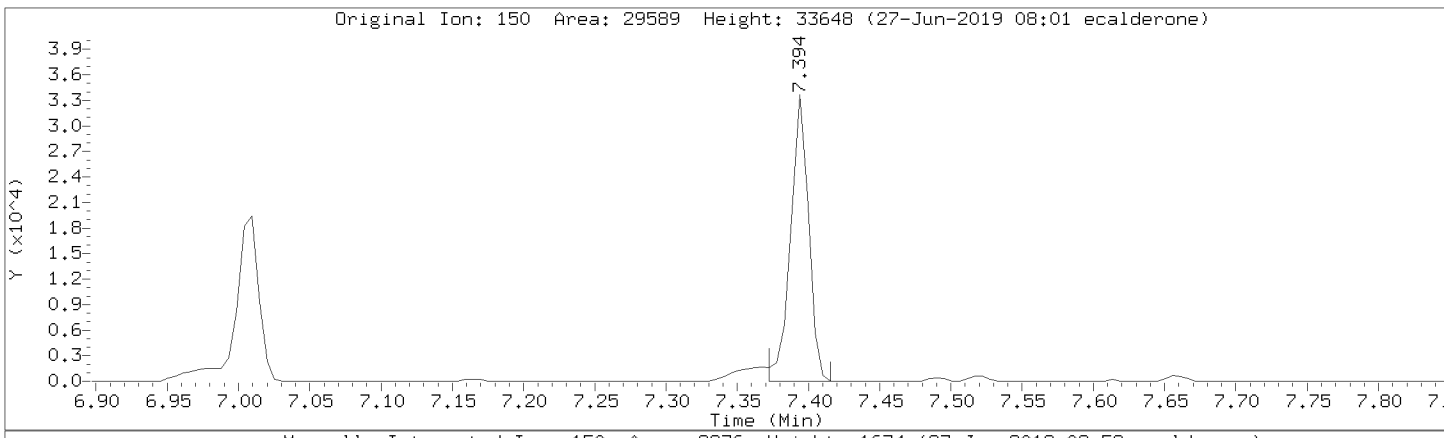
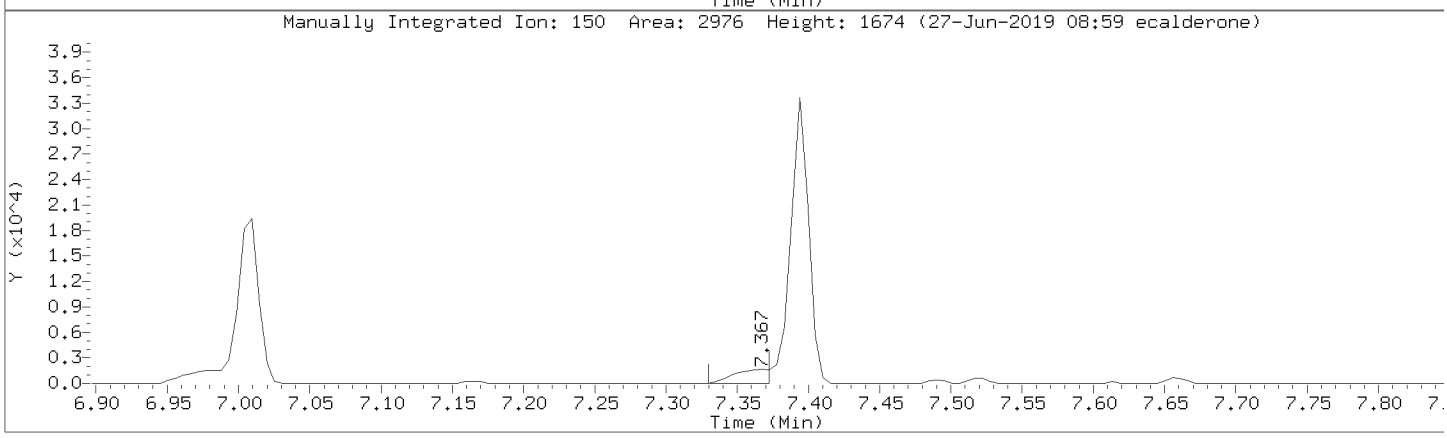
Instrument: 30mss1.i
Lab Sample ID: CAL2





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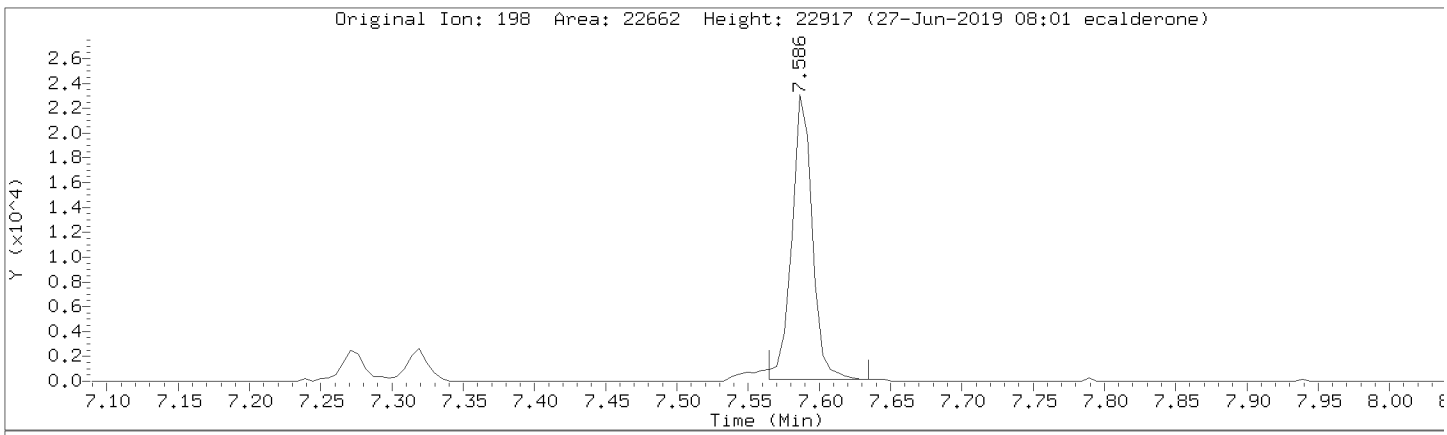
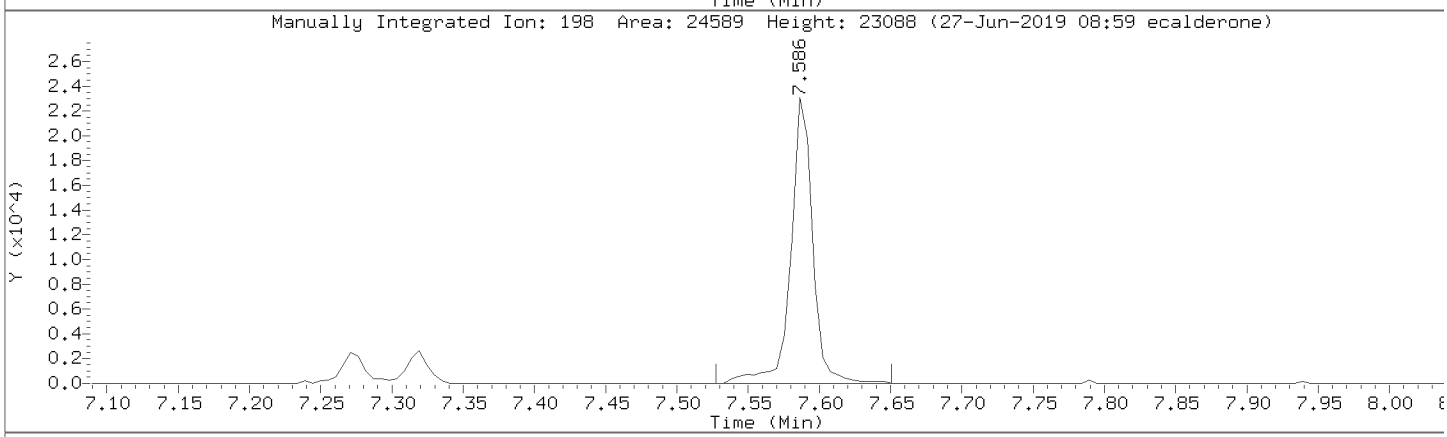
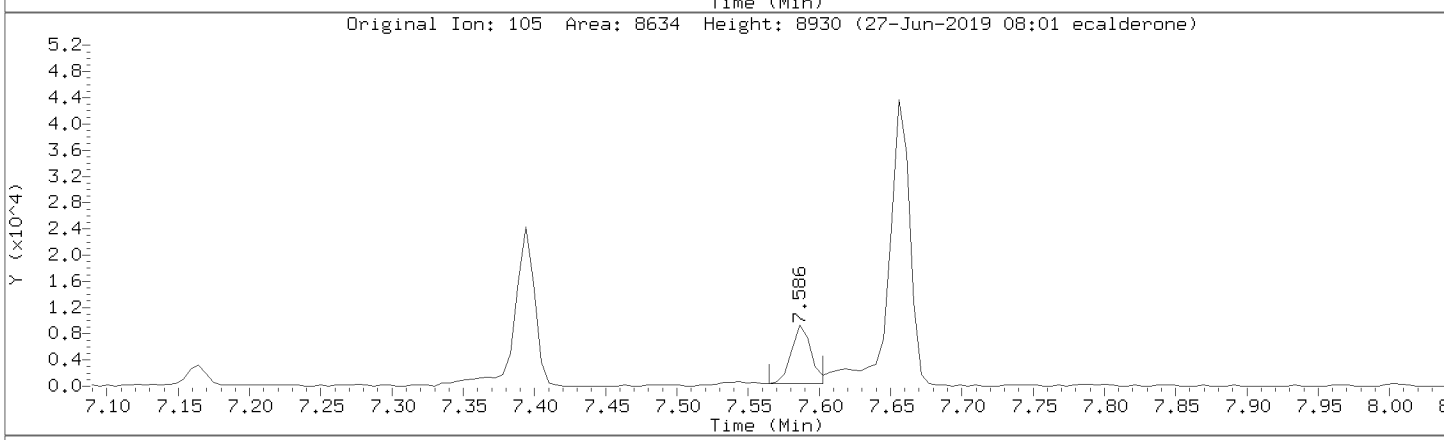
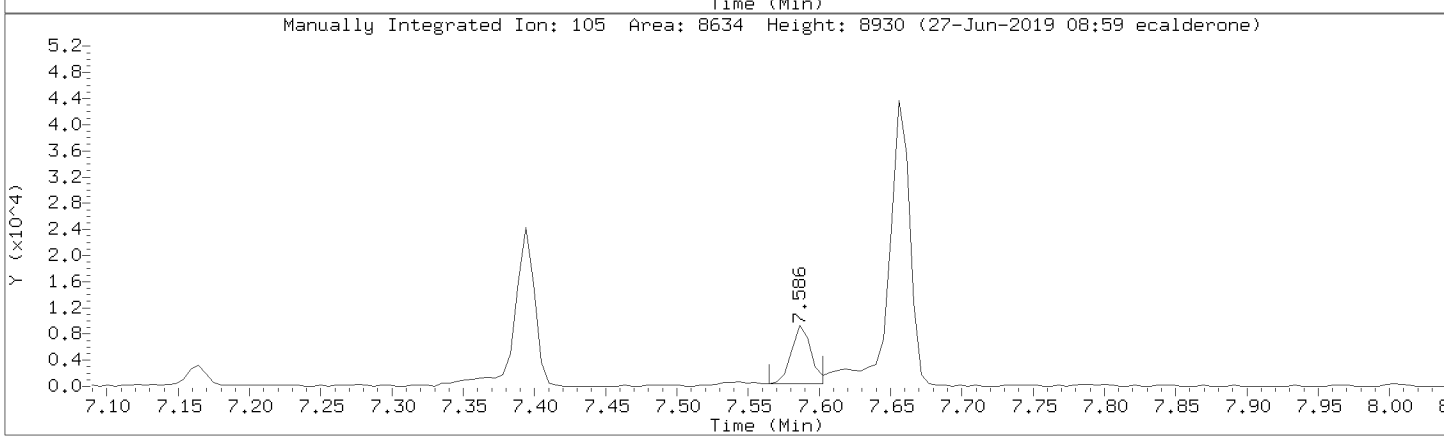
Injection Date: 26-JUN-2019 19:38
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4,6-Dinitro-2-methylphenol Review Code: LT
CAS Number: 534-52-1









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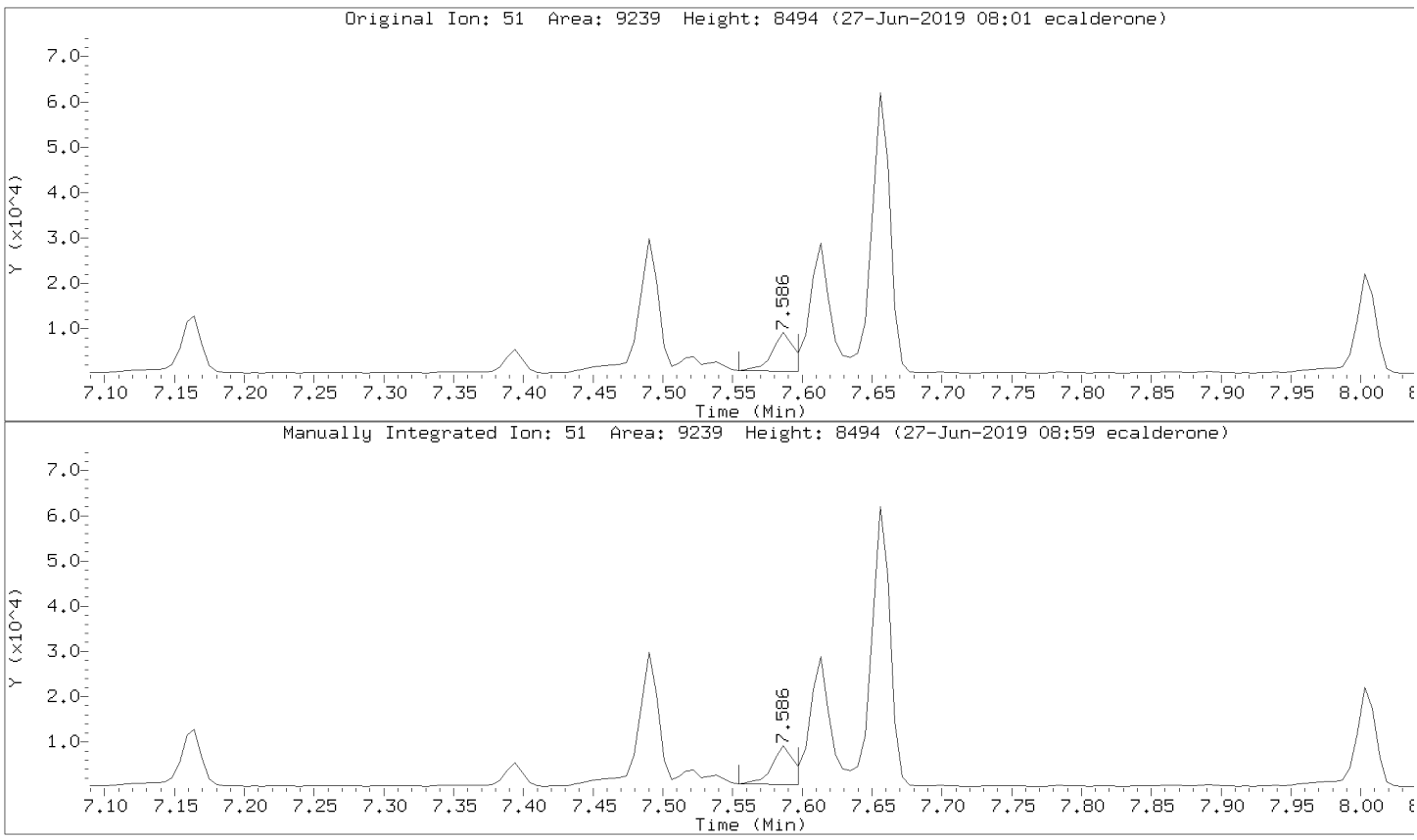
Instrument: 30mss1.i
Lab Sample ID: CAL2



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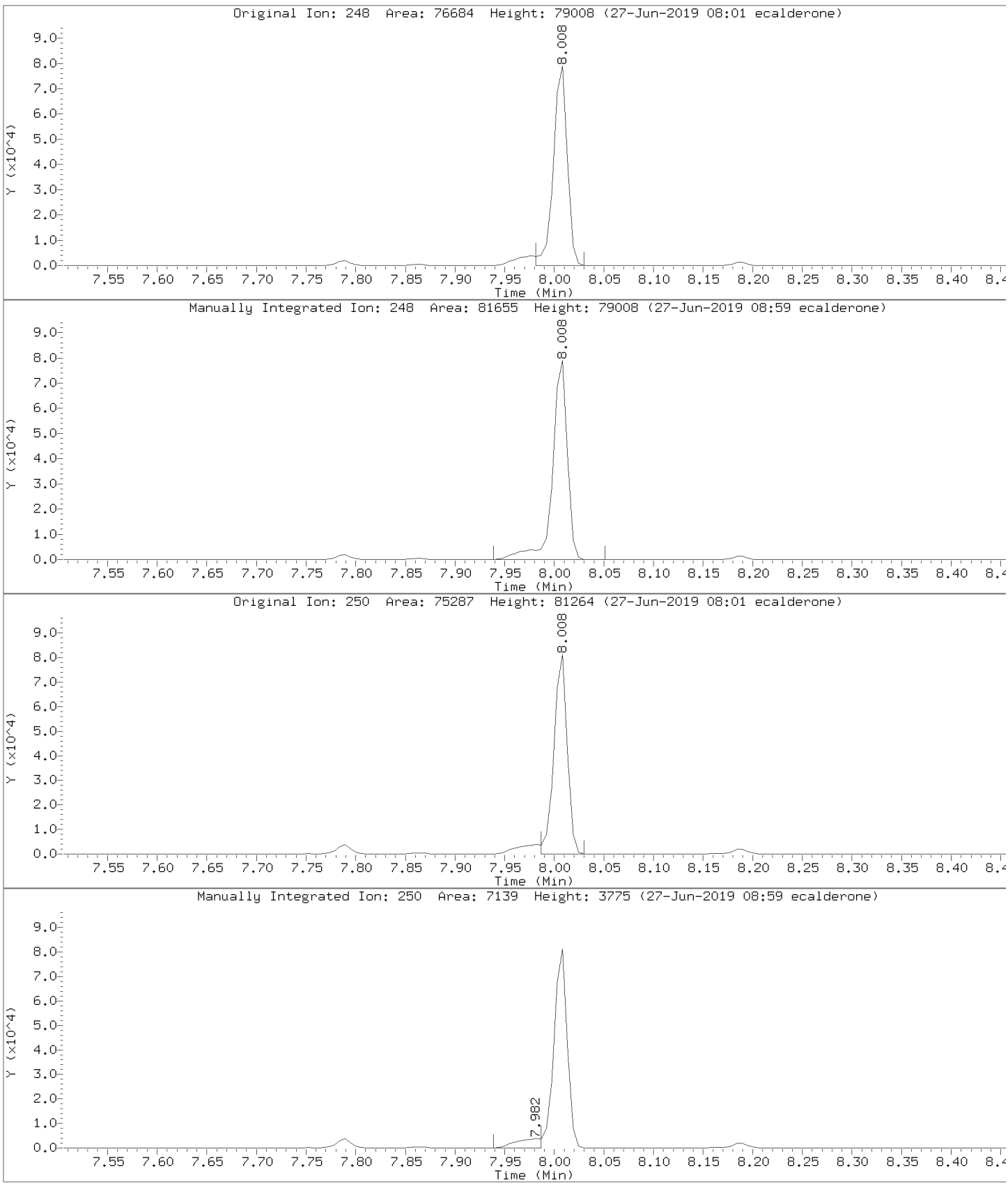
Injection Date: 26-JUN-2019 19:38
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Bromophenylphenyl ether Review Code: LT
CAS Number: 101-55-3



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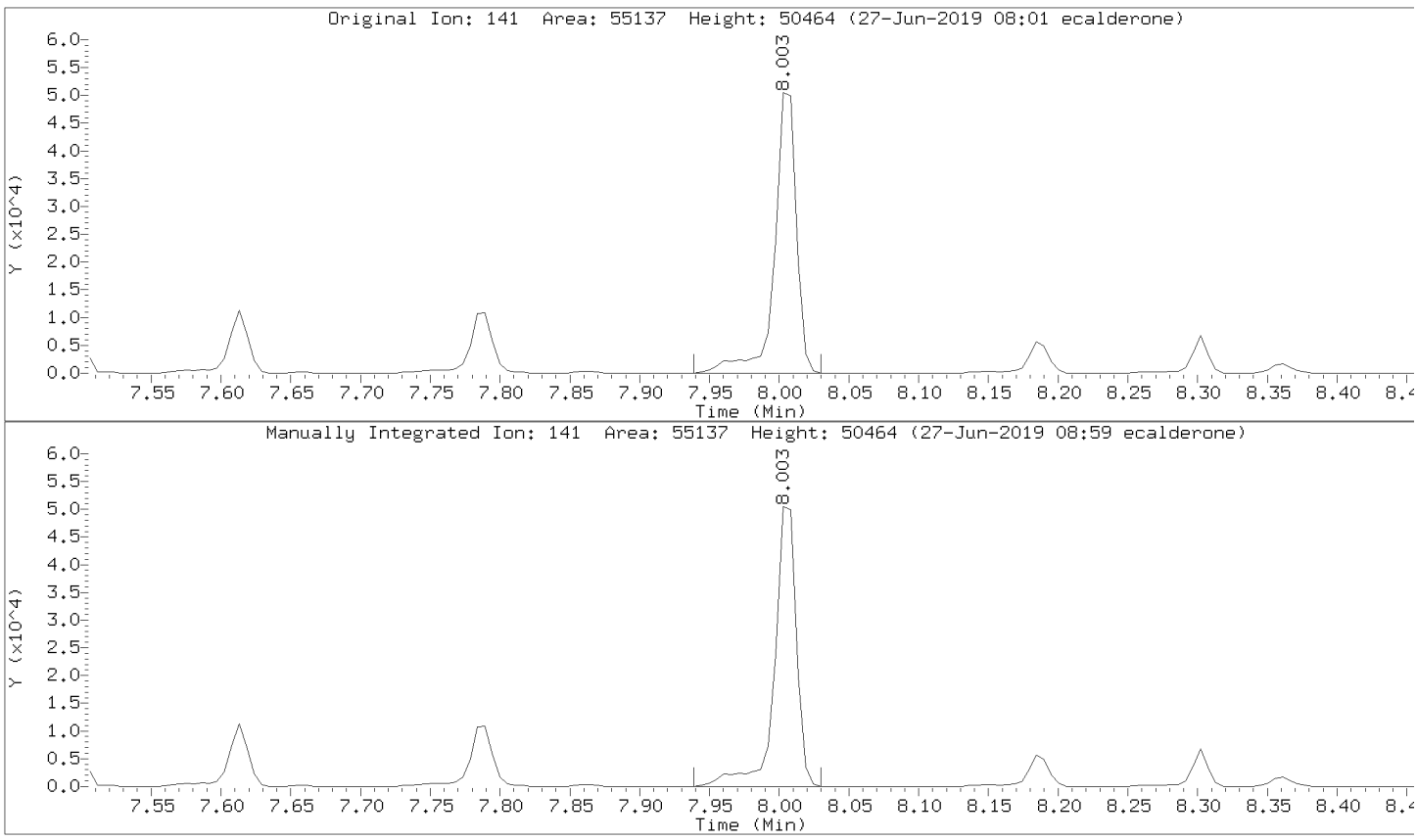
Injection Date: 26-JUN-2019 19:38
Instrument: 30mss1.i
Lab Sample ID: CAL2



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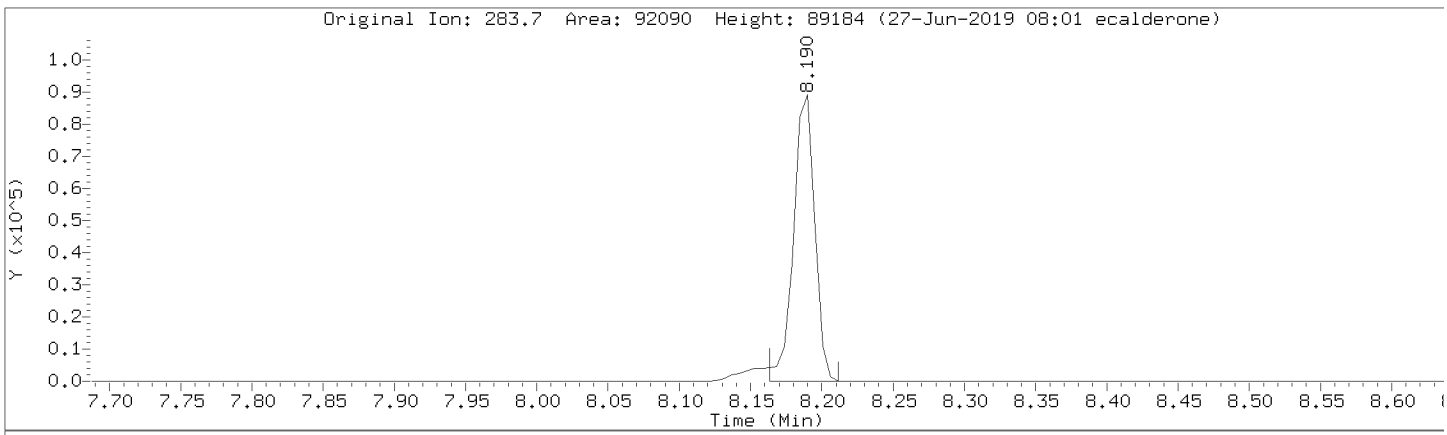
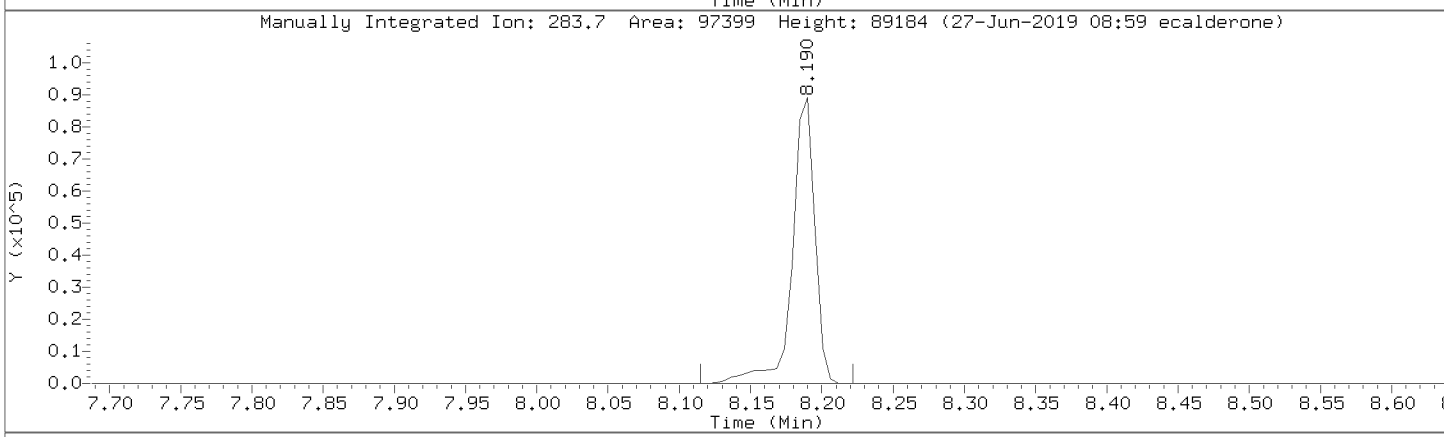
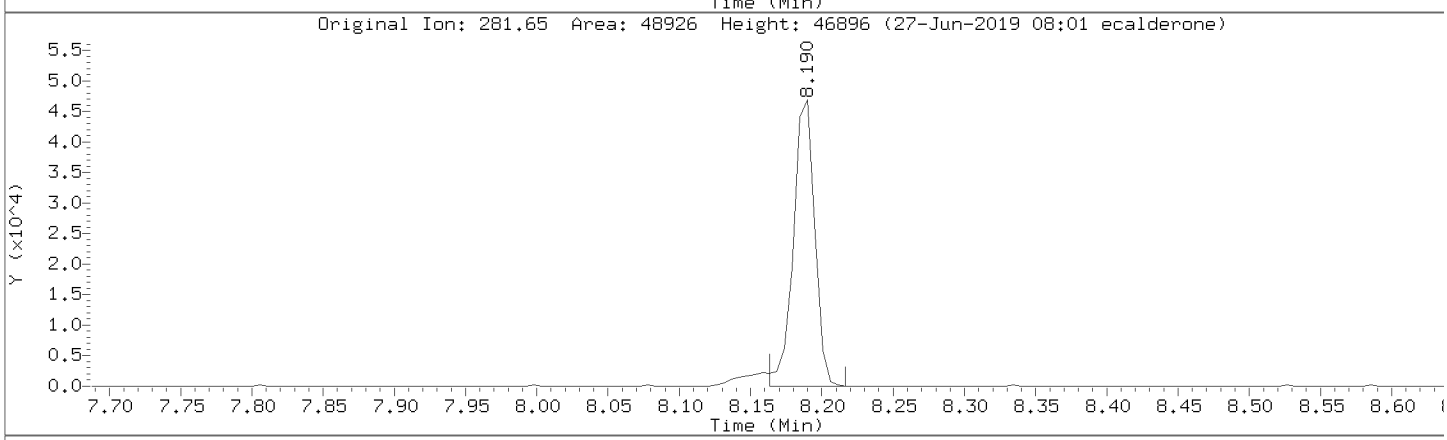
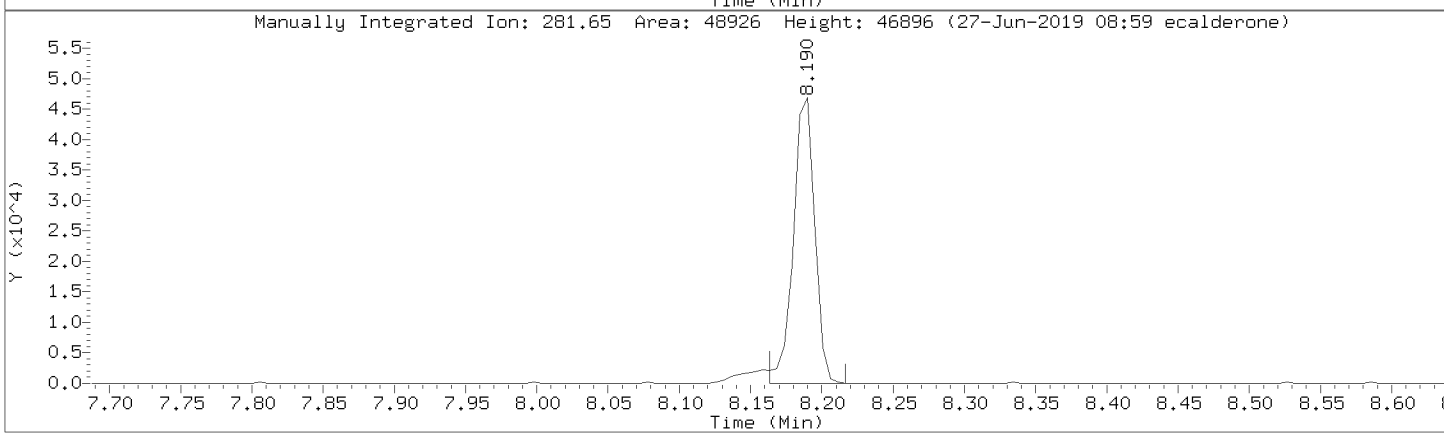
Injection Date: 26-JUN-2019 19:38
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Hexachlorobenzene Review Code: LT
CAS Number: 118-74-1









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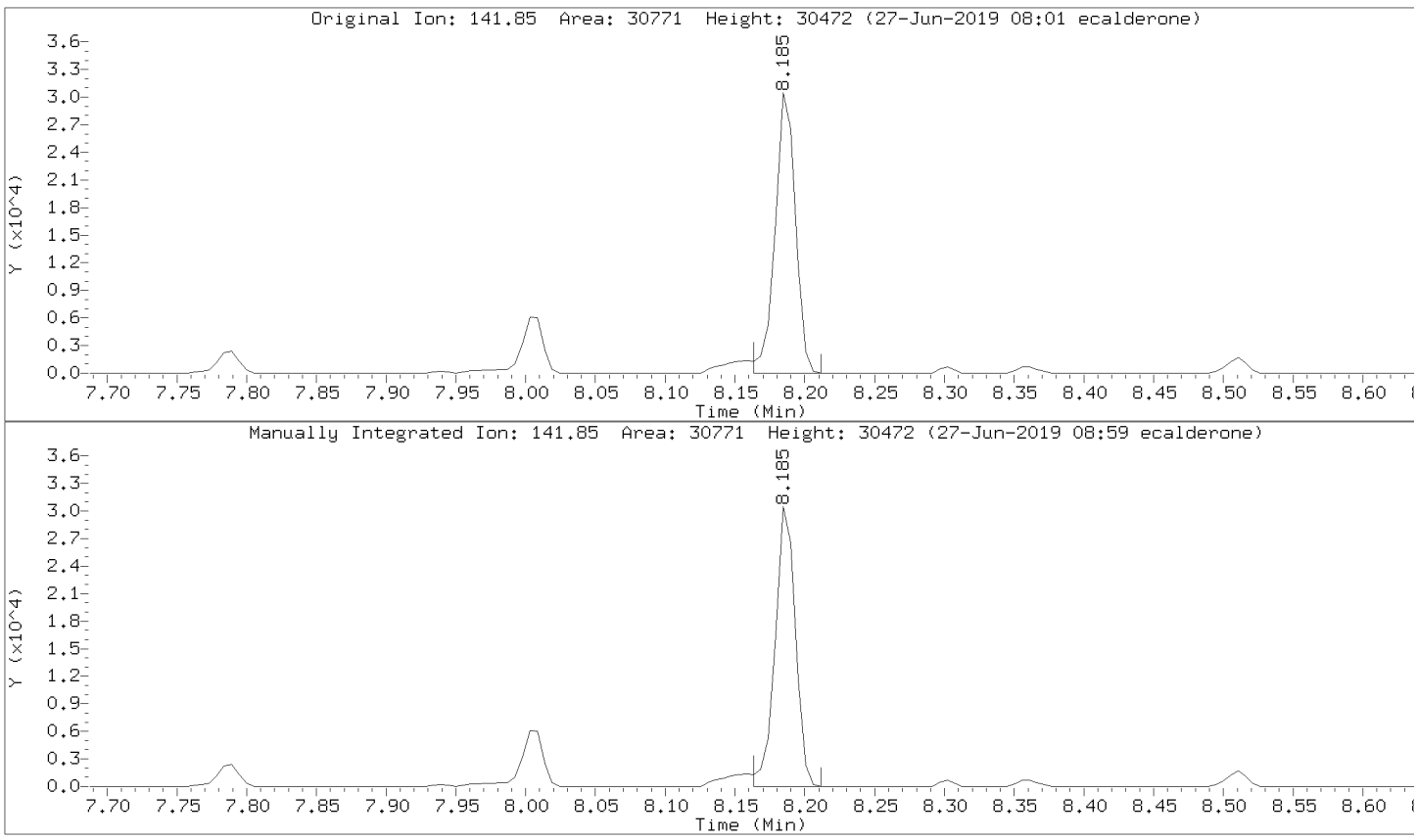
Injection Date: 26-JUN-2019 19:38
Instrument: 30mss1.i
Lab Sample ID: CAL2



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y7.d
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Inj Date : 26-JUN-2019 20:02
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14757,91773:1
Comment :
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Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 20:02 Cal File: m10626y7.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.687	2.684	(0.603)	39774	1.00000	1.05	
	2 Pyridine	79	2.697	2.695	(0.606)	64460	1.00000	1.06	
$	3 2-Fluorophenol (S)	112	3.541	3.539	(0.795)	58844	1.00000	1.04	
$	4 Phenol-d6 (S)	99	4.156	4.159	(0.933)	73682	1.00000	1.05	
	5 Benzaldehyde	77	4.134	4.137	(0.928)	51359	1.00000	1.09	
	6 Phenol	94	4.166	4.169	(0.935)	82099	1.00000	1.07	
	7 Aniline	66	4.225	4.228	(0.948)	29241	1.00000	0.988	
	8 bis(2-Chloroethyl)ether	63	4.247	4.250	(0.953)	48651	1.00000	1.10	
	9 2-Chlorophenol	128	4.316	4.319	(0.969)	67954	1.00000	1.03	
	10 1,3-Dichlorobenzene	146	4.428	4.431	(0.994)	77778	1.00000	1.05	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.455	4.458	(1.000)	195876	4.00000		
	12 1,4-Dichlorobenzene	146	4.466	4.469	(1.002)	85503	1.00000	1.05	
	13 Benzyl Alcohol	79	4.546	4.549	(1.020)	50555	1.00000	1.05	
	14 1,2-Dichlorobenzene	146	4.615	4.618	(1.036)	76320	1.00000	1.05	
	15 2-Methylphenol(o-Cresol)	108	4.626	4.629	(1.038)	61957	1.00000	1.04	
	16 bis(2-Chloroisopropyl)ether	45	4.663	4.666	(1.047)	73580	1.00000	1.10	
	17 3&4-Methylphenol(m&p Cresol)	108	4.733	4.736	(1.062)	63334	1.00000	1.05	
	18 N-Nitroso-di-n-propylamine	70	4.775	4.778	(1.072)	48418	1.00000	1.04	
	19 Acetophenone	105	4.770	4.773	(1.071)	90244	1.00000	1.06	
	20 Hexachloroethane	117	4.861	4.864	(1.091)	28359	1.00000	1.04	
$	21 Nitrobenzene-d5 (S)	128	4.898	4.901	(0.895)	30783	1.00000	0.993	
	22 Nitrobenzene	77	4.914	4.917	(0.898)	66981	1.00000	1.05	
	23 Isophorone	82	5.091	5.094	(0.931)	123522	1.00000	1.04	
	24 2,4-Dimethylphenol	107	5.155	5.158	(0.942)	63917	1.00000	1.03	
	25 2-Nitrophenol	139	5.165	5.168	(0.944)	29034	1.00000	0.889	
	26 Benzoic acid	105	5.187	5.206	(0.948)	11049	1.00000	0.393(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.240	5.243	(0.958)	79931	1.00000	1.08	
	28 2,4-Dichlorophenol	162	5.342	5.345	(0.977)	54480	1.00000	1.01	
	29 1,2,4-Trichlorobenzene	180	5.427	5.430	(0.992)	64684	1.00000	1.04	
*	30 Naphthalene-d8 (IS)	136	5.470	5.473	(1.000)	765879	4.00000		
	31 Naphthalene	128	5.486	5.489	(1.003)	215034	1.00000	1.08	
	32 4-Chloroaniline	65	5.518	5.521	(1.009)	21115	1.00000	1.06	
	33 Hexachloro-1,3-butadiene	225	5.619	5.622	(1.027)	36032	1.00000	1.01	
	34 Caprolactam	55	5.758	5.772	(1.053)	19180	1.00000	1.03	

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.881	5.890	(1.075)	51542	1.00000	1.02	
36	2-Methylnaphthalene	142	6.047	6.050	(1.105)	146907	1.00000	1.05	
37	1-Methylnaphthalene	142	6.138	6.141	(1.122)	141411	1.00000	1.07	
38	Hexachlorocyclopentadiene	237	6.228	6.231	(0.893)	34156	1.00000	0.895	
39	1,2,4,5-Tetrachlorobenzene	216	6.218	6.221	(0.892)	65359	1.00000	0.993	
40	2,4,6-Trichlorophenol	196	6.287	6.290	(0.902)	44466	1.00000	0.954	
41	2,4,5-Trichlorophenol	196	6.319	6.322	(0.906)	33414	1.00000	0.957	
$ 42	2-Fluorobiphenyl (S)	172	6.346	6.349	(0.910)	158009	1.00000	1.03	
43	Biphenyl (Diphenyl)	154	6.426	6.429	(0.922)	175392	1.00000	1.04	
44	2-Chloronaphthalene	164	6.453	6.456	(0.926)	42774	1.00000	1.05	
45	2-Nitroaniline	138	6.538	6.541	(0.938)	34352	1.00000	0.910	
46	Dimethylphthalate	163	6.699	6.702	(0.961)	144063	1.00000	1.10	
47	2,6-Dinitrotoluene	165	6.773	6.776	(0.972)	29587	1.00000	1.03	
48	Acenaphthylene	152	6.827	6.830	(0.979)	205008	1.00000	1.03	
49	3-Nitroaniline	65	6.907	6.910	(0.991)	33386	1.00000	1.02	
* 50	Acenaphthene-d10 (IS)	164	6.971	6.974	(1.000)	424232	4.00000		
51	2,4-Dinitrophenol	184	7.008	7.011	(1.005)	7364	1.00000	1.64(M)	NI
52	Acenaphthene	153	7.003	7.006	(1.005)	135375	1.00000	1.05	
53	4-Nitrophenol	109	7.030	7.033	(1.008)	12985	1.00000	0.929	
54	2,4-Dinitrotoluene	165	7.163	7.166	(1.028)	34150	1.00000	0.888	
55	Dibenzofuran	168	7.163	7.166	(1.028)	192827	1.00000	1.06	
56	2,3,4,6-Tetrachlorophenol	232	7.318	7.321	(1.050)	27489	1.00000	0.884	
57	Diethylphthalate	149	7.393	7.396	(1.061)	138379	1.00000	1.06	
58	4-Chlorophenylphenyl ether	204	7.489	7.492	(1.074)	75099	1.00000	1.04	
59	Fluorene	166	7.516	7.519	(1.078)	152891	1.00000	1.05	
60	4-Nitroaniline	108	7.537	7.540	(1.081)	20016	1.00000	1.05	
61	4,6-Dinitro-2-methylphenol	198	7.585	7.588	(0.891)	11301	1.00000	1.05	
62	N-Nitrosodiphenylamine	169	7.612	7.615	(0.895)	129256	1.00000	1.01	
63	Azobenzene	77	7.655	7.658	(0.900)	128326	1.00000	1.02	
64	1,2-Diphenylhydrazine	77	7.655	7.658	(0.900)	128326	1.00000	1.02	
$ 65	2,4,6-Tribromophenol (S)	330	7.788	7.791	(0.915)	20566	1.00000	0.840(M)	LT
66	4-Bromophenylphenyl ether	248	8.007	8.005	(0.941)	43859	1.00000	0.962(MH)	LT
67	Hexachlorobenzene	284	8.189	8.187	(0.962)	52712	1.00000	0.918	
68	Atrazine	200	8.178	8.181	(0.961)	35919	1.00000	0.861	
69	Pentachlorophenol	266	8.360	8.363	(0.982)	14690	1.00000	1.41	
* 70	Phenanthrene-d10 (IS)	188	8.510	8.513	(1.000)	738597	4.00000		
71	Phenanthrene	178	8.531	8.534	(1.002)	241681	1.00000	1.04	
72	Anthracene	178	8.579	8.582	(1.008)	204369	1.00000	0.987	
73	Carbazole	167	8.734	8.737	(1.026)	194223	1.00000	1.06	
74	Di-n-butylphthalate	149	9.119	9.116	(1.072)	194812	1.00000	0.895	
75	Fluoranthene	202	9.802	9.800	(1.152)	228121	1.00000	1.02	
76	Pyrene	202	10.043	10.040	(0.889)	223892	1.00000	0.927	
$ 77	Terphenyl-d14 (S)	244	10.176	10.179	(0.901)	185947	1.00000	0.964	
78	Butylbenzylphthalate	149	10.689	10.692	(0.947)	79910	1.00000	0.814	
79	3,3'-Dichlorobenzidine	252	11.234	11.237	(0.995)	68178	1.00000	0.843	
80	bis(2-Ethylhexyl)phthalate	149	11.271	11.274	(0.998)	111687	1.00000	0.768	
81	Benzo(a)anthracene	228	11.271	11.274	(0.998)	237315	1.00000	0.985	
* 82	Chrysene-d12 (IS)	240	11.293	11.296	(1.000)	785175	4.00000		
83	Chrysene	228	11.314	11.317	(1.002)	226813	1.00000	1.04	
84	Di-n-octylphthalate	149	11.859	11.857	(0.935)	159724	1.00000	1.25	
85	Benzo(b)fluoranthene	252	12.318	12.322	(0.971)	218745	1.00000	0.907	
86	Benzo(k)fluoranthene	252	12.335	12.343	(0.972)	284100	1.00000	1.10	
87	Benzo(a)pyrene	252	12.634	12.637	(0.996)	200863	1.00000	0.940	
* 88	Perylene-d12 (IS)	264	12.687	12.690	(1.000)	774024	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.862	13.865	(1.093)	226562	1.00000	0.946	
90 Dibenz(a,h)anthracene	278	13.857	13.865	(1.092)	186363	1.00000	0.929	
91 Benzo(g,h,i)perylene	276	14.204	14.213	(1.120)	189548	1.00000	1.00	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y7.d
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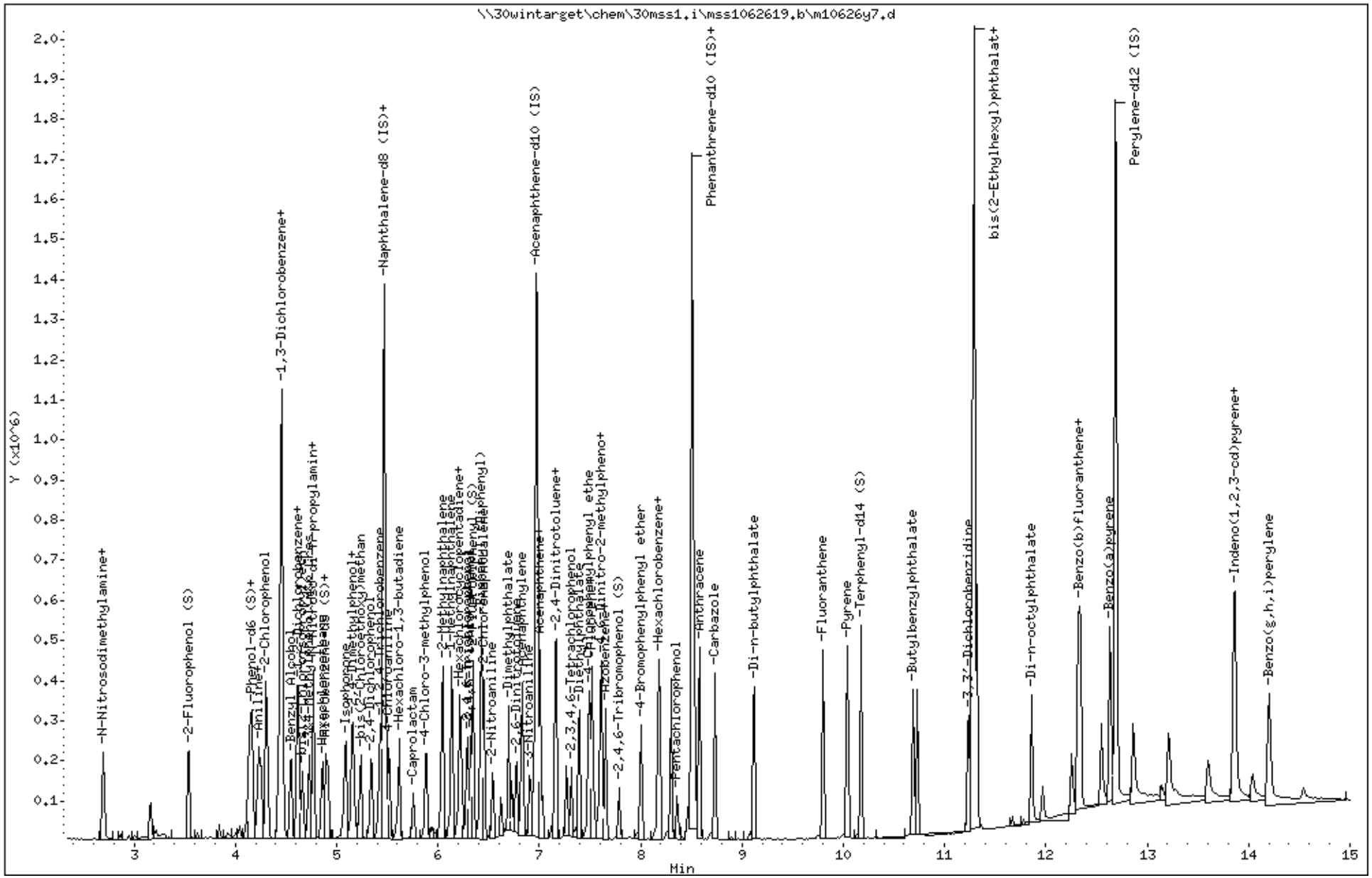
Client ID: CAL1
Sample Info: CAL1

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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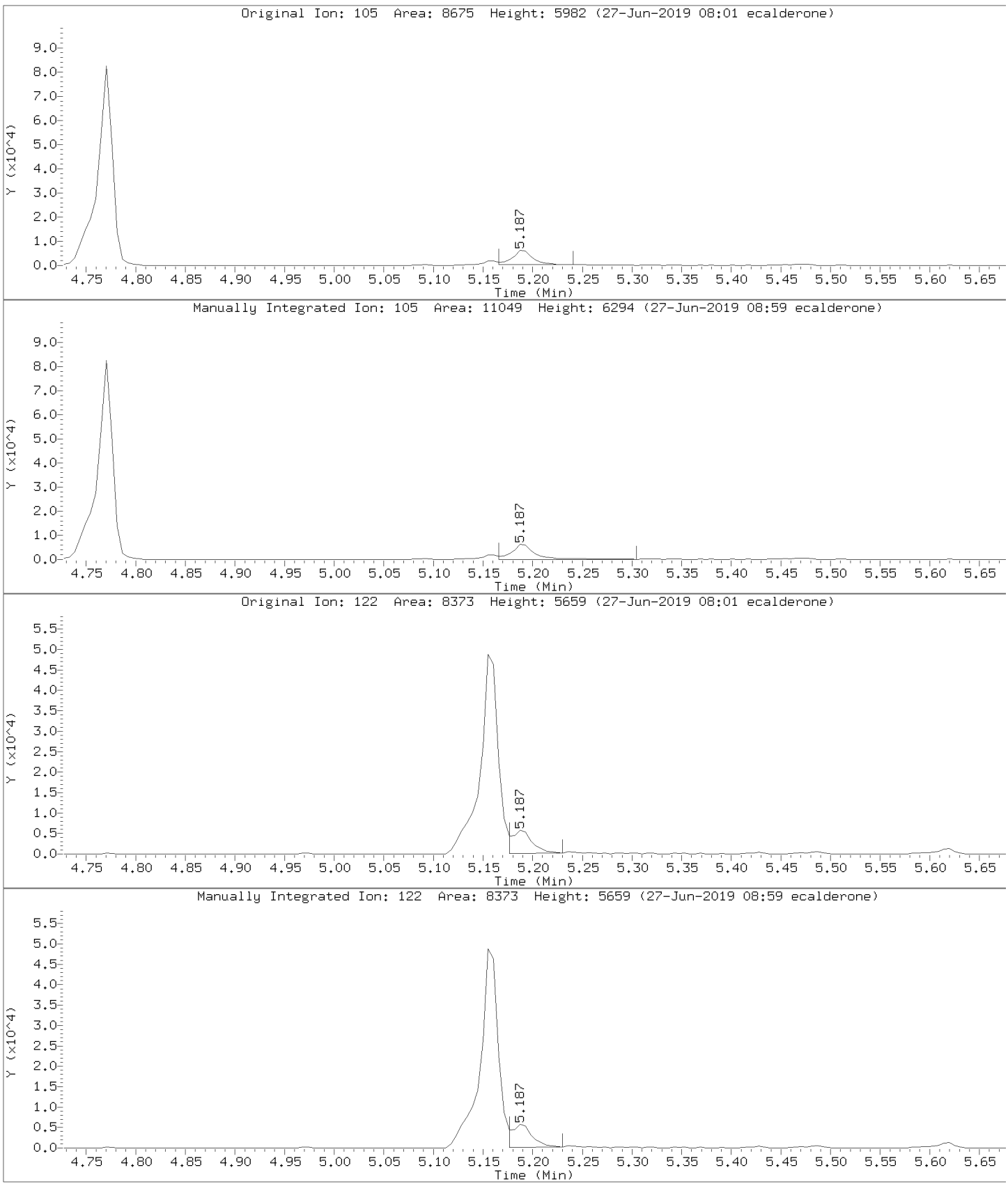
Injection Date: 26-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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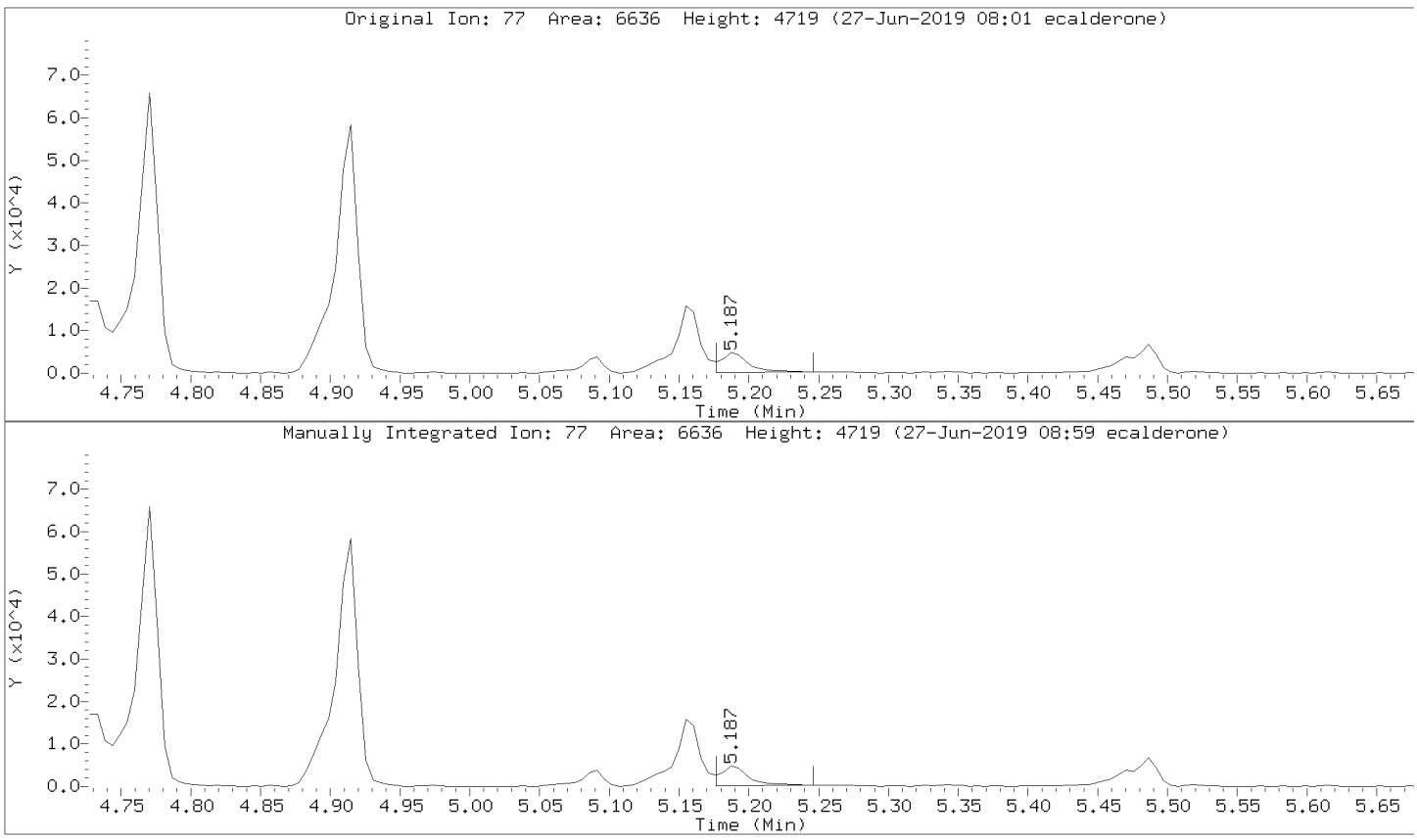
Lab Sample ID: CAL1



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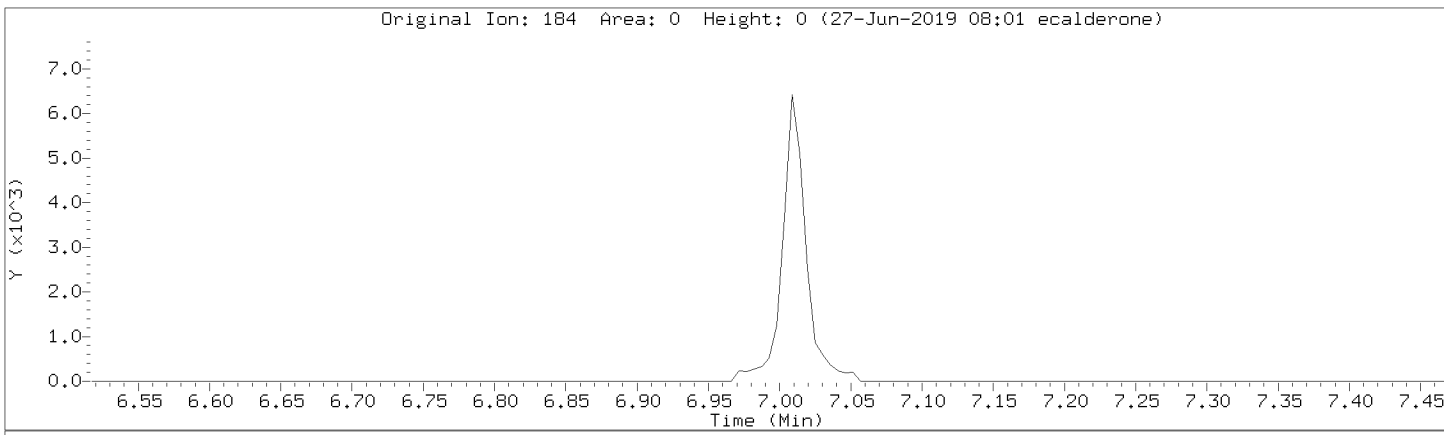
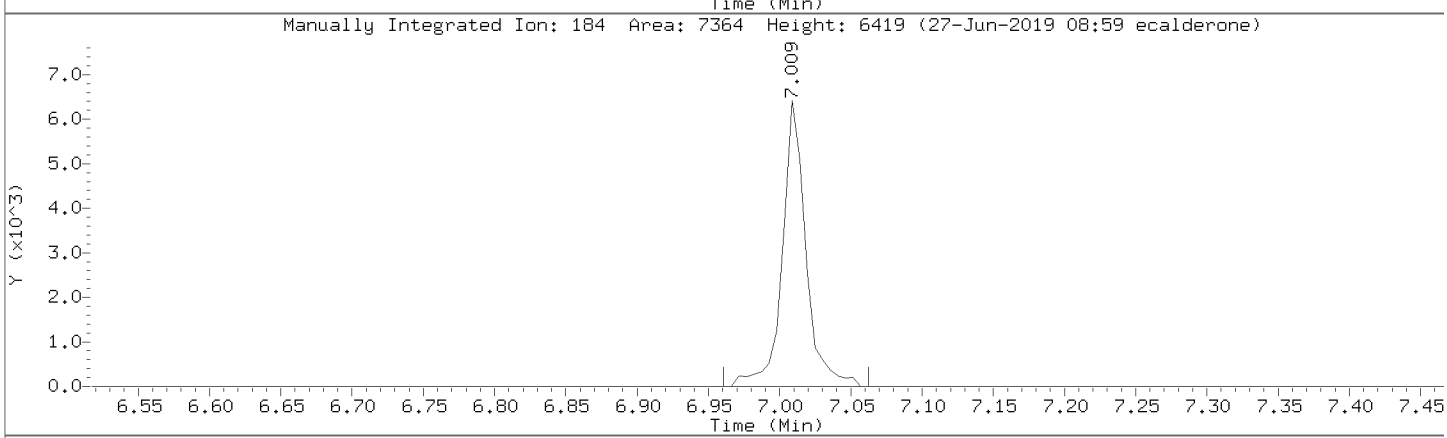
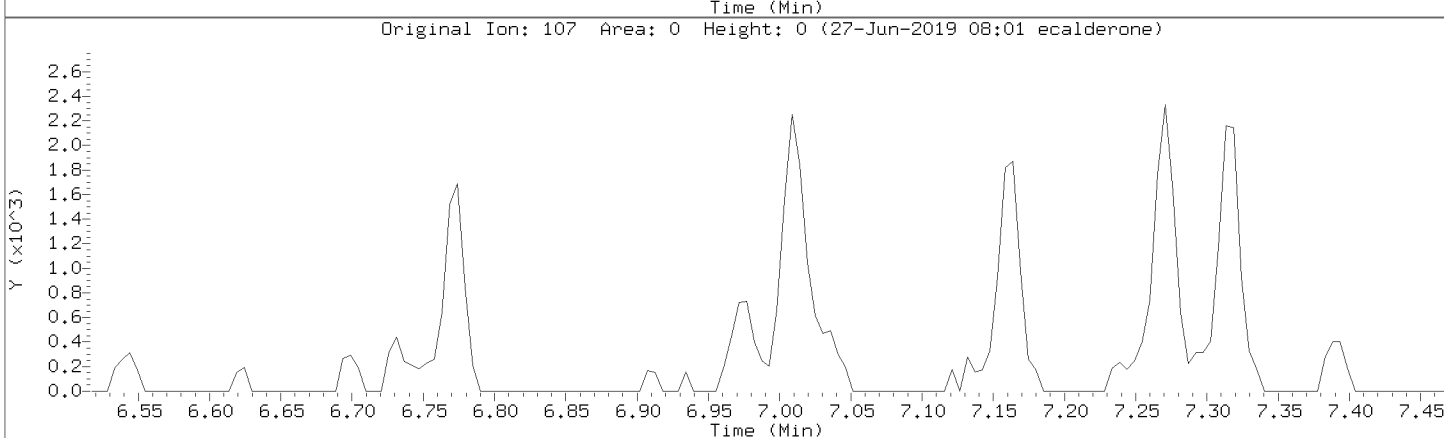
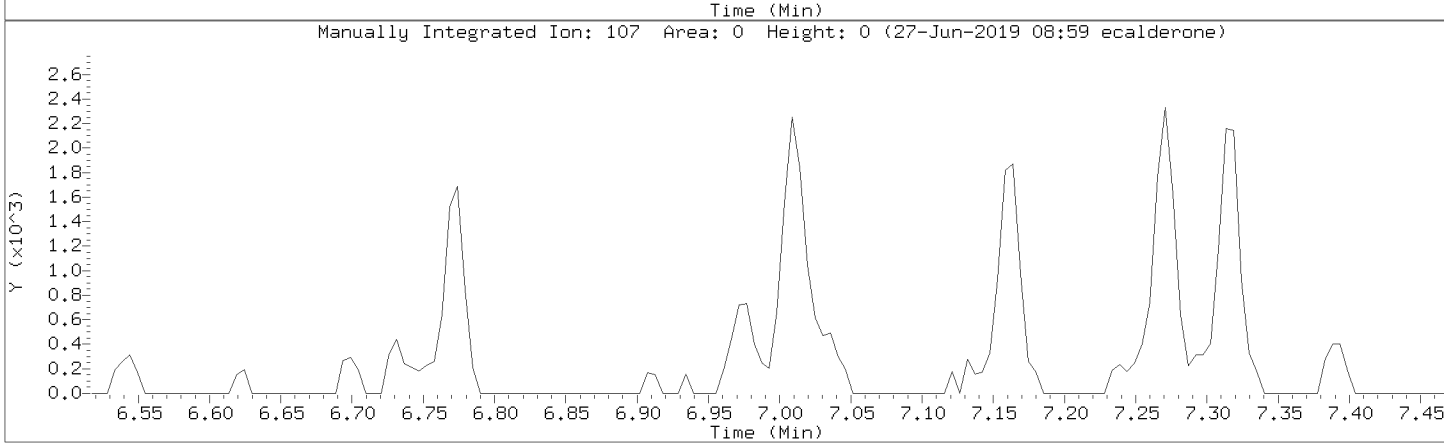
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5









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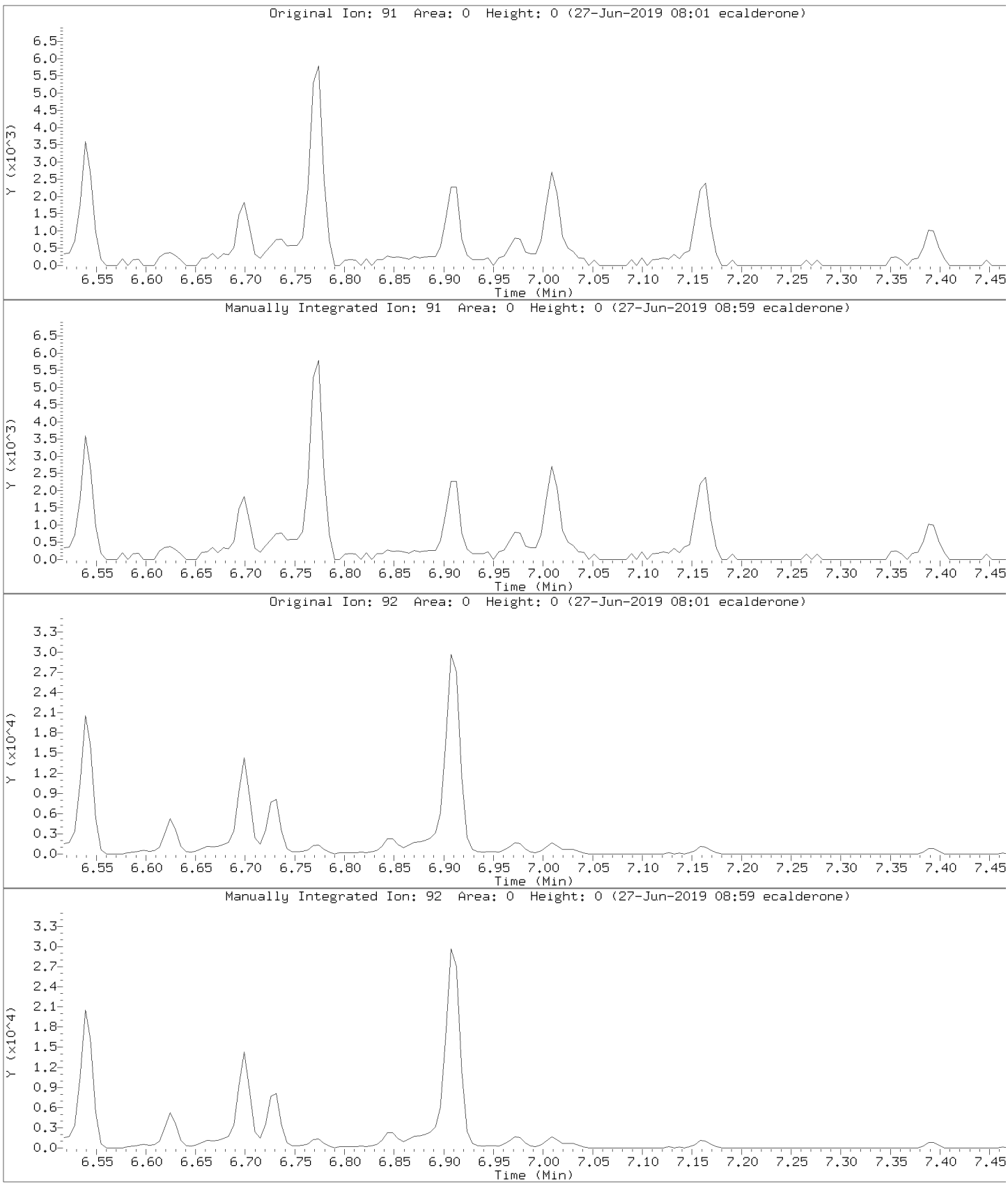
Instrument: 30mss1.i
Lab Sample ID: CAL1



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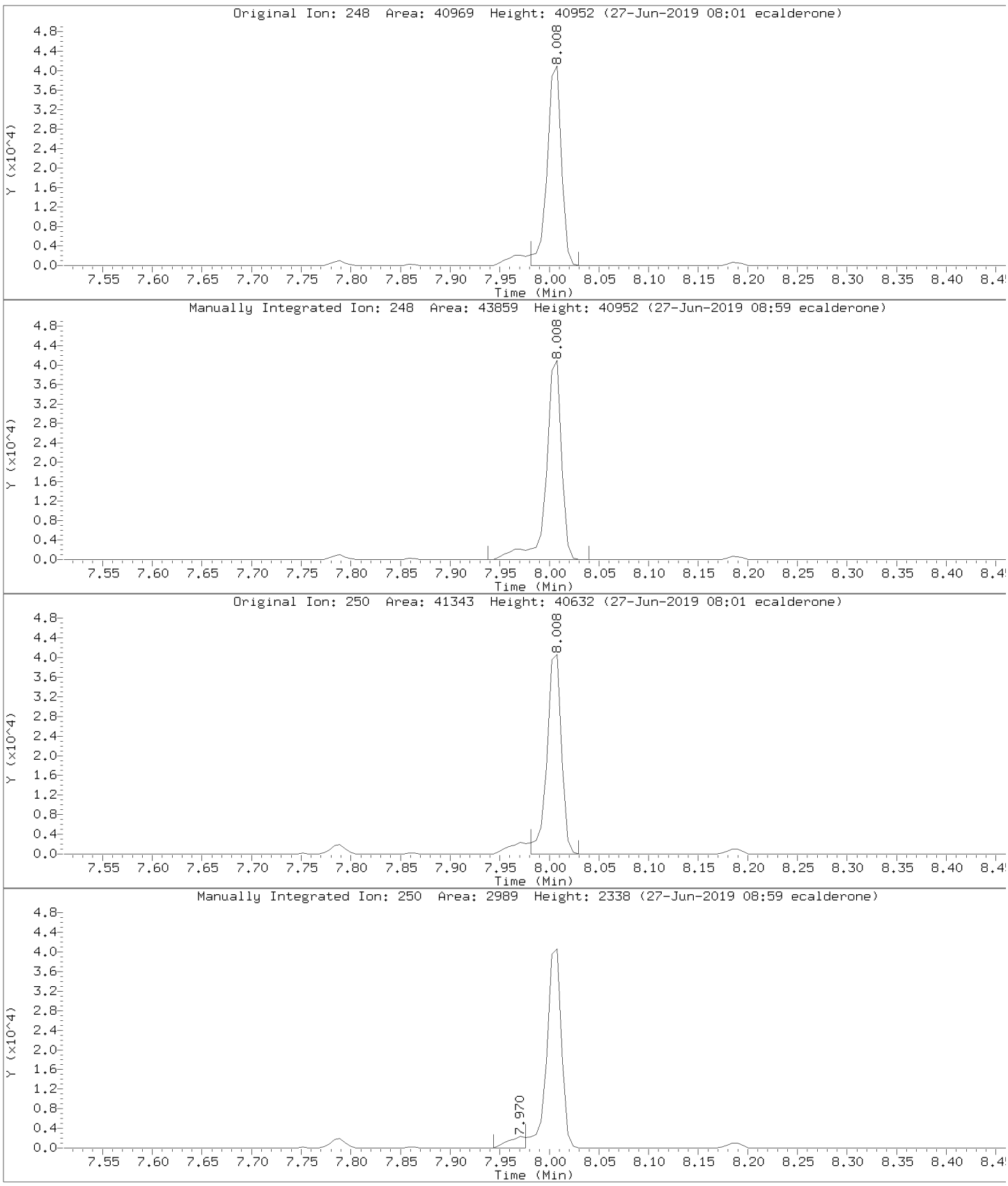
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Bromophenylphenyl ether Review Code: LT
CAS Number: 101-55-3



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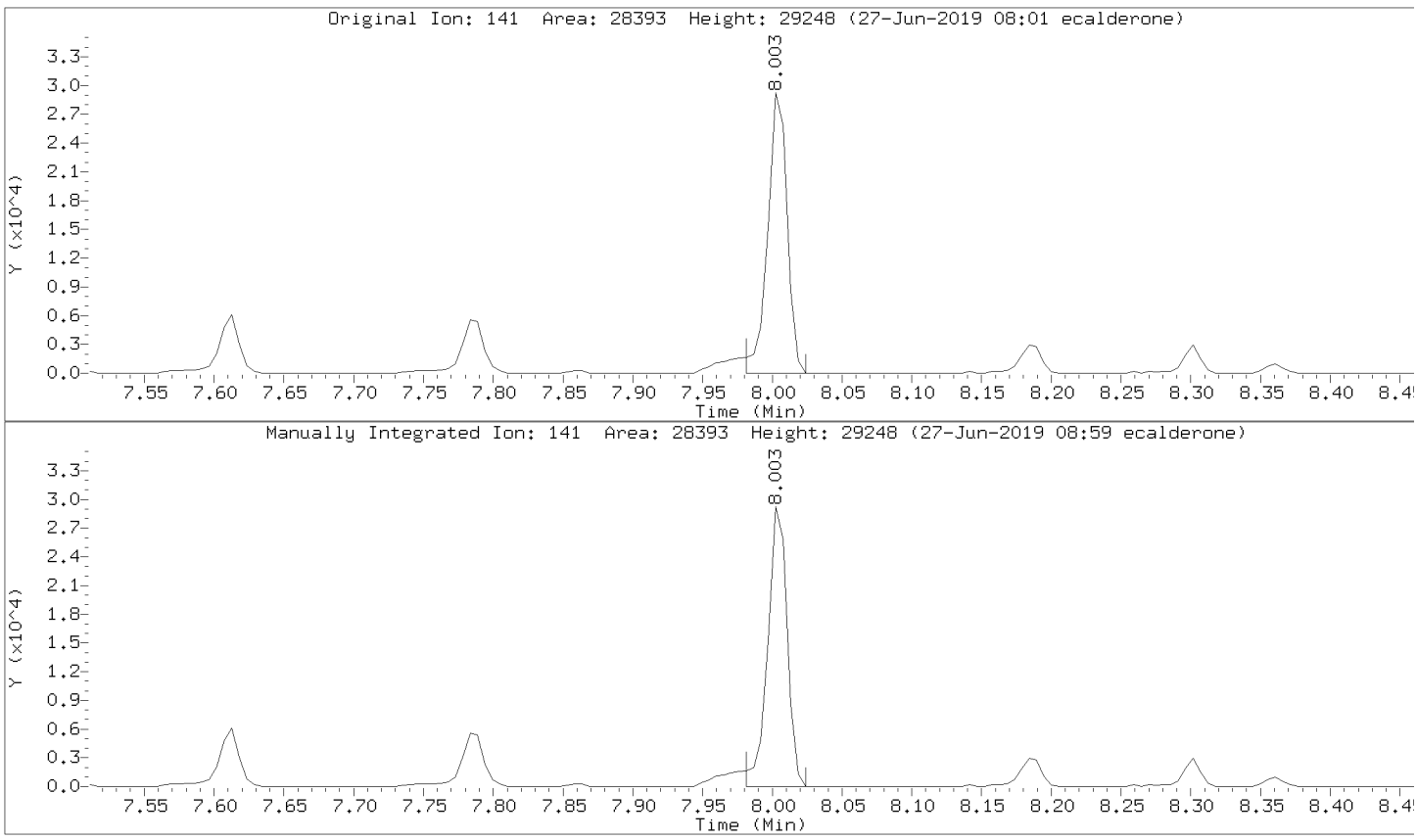
Instrument: 30mss1.i
Lab Sample ID: CAL1



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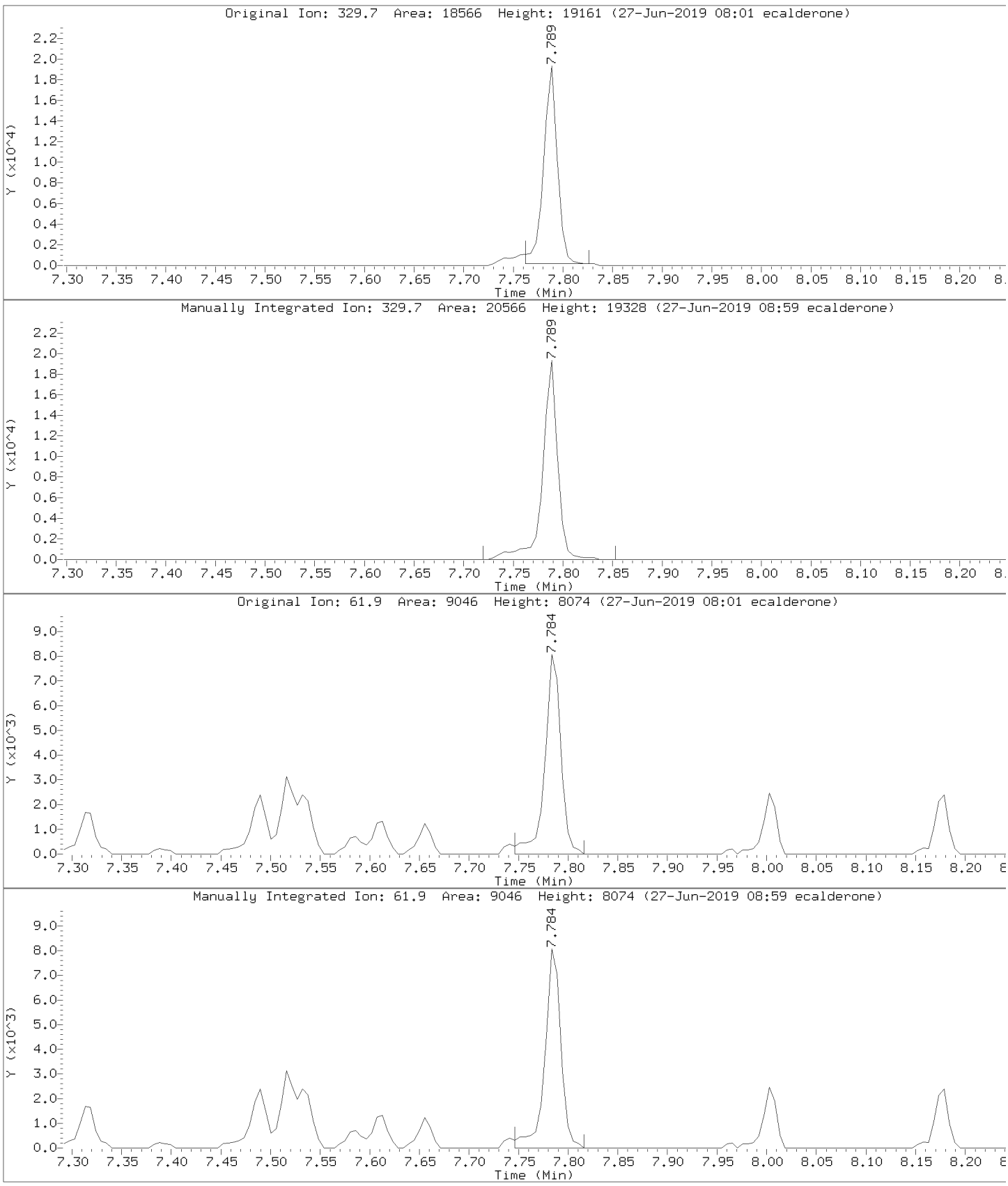
Injection Date: 26-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4,6-Tribromophenol (S) Review Code: LT
CAS Number: 118-79-6



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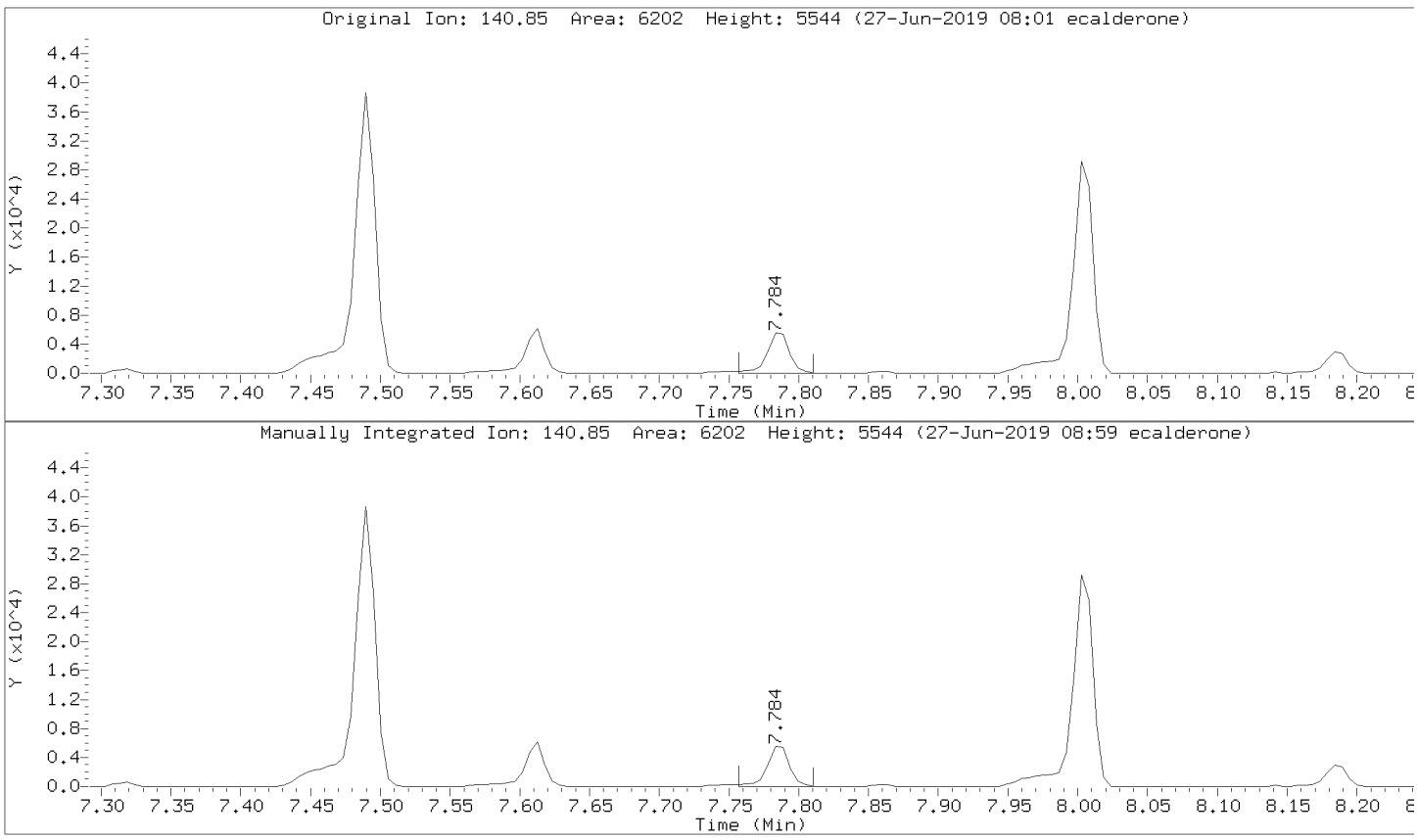
Injection Date: 26-JUN-2019 20:02
Instrument: 30mss1.i
Lab Sample ID: CAL1



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x1.d
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Inj Date : 01-JUL-2019 13:44 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal1, 91773:1
Misc Info : 14771,
Comment :
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Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 13:44 Cal File: m40701x1.d
Als bottle: 13 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.366	2.372	(0.568)	17602	1.00000	1.15	
	2 Pyridine	79	2.377	2.377	(0.571)	28832	1.00000	1.09	
$	3 2-Fluorophenol (S)	112	3.254	3.254	(0.782)	23676	1.00000	0.973	
$	4 Phenol-d6 (S)	99	3.880	3.880	(0.932)	31505	1.00000	1.07	
	5 Benzaldehyde	77	3.848	3.848	(0.924)	22518	1.00000	1.11	
	6 Phenol	94	3.885	3.891	(0.933)	33788	1.00000	1.10	
	7 Aniline	66	3.939	3.944	(0.946)	12178	1.00000	0.959	
	8 bis(2-Chloroethyl)ether	63	3.966	3.971	(0.952)	18343	1.00000	1.12	
	9 2-Chlorophenol	128	4.025	4.025	(0.967)	28235	1.00000	1.10	
	10 1,3-Dichlorobenzene	146	4.137	4.137	(0.994)	29031	1.00000	1.04	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	75609	4.00000		
	12 1,4-Dichlorobenzene	146	4.174	4.174	(1.003)	35201	1.00000	1.12	
	13 Benzyl Alcohol	79	4.260	4.265	(1.023)	20465	1.00000	1.04	
	14 1,2-Dichlorobenzene	146	4.319	4.324	(1.037)	30205	1.00000	1.11	
	15 2-Methylphenol(o-Cresol)	108	4.340	4.345	(1.042)	25679	1.00000	1.10	
	16 bis(2-Chloroisopropyl)ether	45	4.378	4.383	(1.051)	29578	1.00000	1.12	
	17 3&4-Methylphenol(m&p Cresol)	108	4.447	4.452	(1.068)	26183	1.00000	1.08	
	18 N-Nitroso-di-n-propylamine	70	4.485	4.490	(1.077)	18530	1.00000	1.09	
	19 Acetophenone	105	4.479	4.479	(1.076)	36520	1.00000	1.12	
	20 Hexachloroethane	117	4.559	4.565	(1.095)	11205	1.00000	1.04	
$	21 Nitrobenzene-d5 (S)	128	4.602	4.608	(0.890)	12161	1.00000	1.01	
	22 Nitrobenzene	77	4.618	4.618	(0.893)	26742	1.00000	1.09	
	23 Isophorone	82	4.795	4.795	(0.928)	48483	1.00000	1.09	
	24 2,4-Dimethylphenol	107	4.870	4.870	(0.942)	26299	1.00000	1.10	
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	10673	1.00000	0.841	
	26 Benzoic acid	105	4.902	4.918	(0.948)	2554	1.00000	0.262(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.950	4.950	(0.958)	32178	1.00000	1.13	
	28 2,4-Dichlorophenol	162	5.046	5.046	(0.976)	20656	1.00000	1.02	
	29 1,2,4-Trichlorobenzene	180	5.126	5.126	(0.992)	26047	1.00000	1.10	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	294438	4.00000		
	31 Naphthalene	128	5.185	5.185	(1.003)	83111	1.00000	1.12	
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	7727	1.00000	1.06	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	13958	1.00000	1.08	
	34 Caprolactam	55	5.453	5.469	(1.055)	7169	1.00000	0.884	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.592	5.592	(1.082)	20219	1.00000	1.02	
	36	2-Methylnaphthalene	142	5.741	5.741	(1.111)	54912	1.00000	1.12	
	37	1-Methylnaphthalene	142	5.832	5.832	(1.128)	52280	1.00000	1.13	
	38	Hexachlorocyclopentadiene	237	5.923	5.923	(0.894)	11127	1.00000	0.915	
	39	1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	24914	1.00000	1.13	
	40	2,4,6-Trichlorophenol	196	5.982	5.982	(0.903)	14966	1.00000	0.987	
	41	2,4,5-Trichlorophenol	196	6.014	6.014	(0.908)	13802	1.00000	0.995	
$	42	2-Fluorobiphenyl (S)	172	6.046	6.046	(0.913)	58827	1.00000	1.16	
	43	Biphenyl (Diphenyl)	154	6.121	6.121	(0.924)	63929	1.00000	1.15	
	44	2-Chloronaphthalene	164	6.143	6.143	(0.927)	16292	1.00000	1.15	
	45	2-Nitroaniline	138	6.234	6.234	(0.941)	12964	1.00000	0.913	
	46	Dimethylphthalate	163	6.394	6.394	(0.965)	54109	1.00000	1.17	
	47	2,6-Dinitrotoluene	165	6.458	6.458	(0.975)	11526	1.00000	1.01	
	48	Acenaphthylene	152	6.496	6.496	(0.981)	74478	1.00000	1.12	
	49	3-Nitroaniline	65	6.571	6.576	(0.992)	13449	1.00000	1.10	
*	50	Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	154076	4.00000		
	51	2,4-Dinitrophenol	184	6.661	6.661	(1.006)	1656	1.00000	0.342(M)	NI
	52	Acenaphthene	153	6.651	6.651	(1.004)	49851	1.00000	1.17	
	53	4-Nitrophenol	109	6.688	6.688	(1.010)	4709	1.00000	0.935	
	54	2,4-Dinitrotoluene	165	6.800	6.800	(1.027)	12882	1.00000	0.908	
	55	Dibenzofuran	168	6.790	6.790	(1.025)	68214	1.00000	1.15	
	56	2,3,4,6-Tetrachlorophenol	232	6.940	6.940	(1.048)	10516	1.00000	0.891	
	57	Diethylphthalate	149	7.025	7.030	(1.061)	51445	1.00000	1.08	
	58	4-Chlorophenylphenyl ether	204	7.116	7.116	(1.074)	27150	1.00000	1.13	
	59	Fluorene	166	7.137	7.137	(1.077)	53472	1.00000	1.10	
	60	4-Nitroaniline	108	7.159	7.164	(1.081)	7240	1.00000	1.19	
	61	4,6-Dinitro-2-methylphenol	198	7.212	7.212	(0.888)	3905	1.00000	0.531	
	62	N-Nitrosodiphenylamine	169	7.239	7.239	(0.891)	46041	1.00000	1.14	
	63	Azobenzene	77	7.277	7.282	(0.896)	48111	1.00000	1.14	
	64	1,2-Diphenylhydrazine	77	7.277	7.282	(0.896)	48111	1.00000	1.14	
$	65	2,4,6-Tribromophenol (S)	330	7.405	7.405	(0.912)	6295	1.00000	0.818	
	66	4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	14965	1.00000	1.05	
	67	Hexachlorobenzene	284	7.801	7.801	(0.960)	17835	1.00000	1.12	
	68	Atrazine	200	7.811	7.817	(0.962)	12879	1.00000	0.982	
	69	Pentachlorophenol	266	7.977	7.977	(0.982)	4110	1.00000	0.484	
*	70	Phenanthrene-d10 (IS)	188	8.122	8.122	(1.000)	251519	4.00000		
	71	Phenanthrene	178	8.143	8.148	(1.003)	78651	1.00000	1.16	
	72	Anthracene	178	8.191	8.196	(1.009)	72684	1.00000	1.09	
	73	Carbazole	167	8.352	8.352	(1.028)	65839	1.00000	1.10	
	74	Di-n-butylphthalate	149	8.758	8.758	(1.078)	70483	1.00000	0.965	
	75	Fluoranthene	202	9.411	9.411	(1.159)	73793	1.00000	1.04	
	76	Pyrene	202	9.651	9.651	(0.885)	78909	1.00000	1.10	
$	77	Terphenyl-d14 (S)	244	9.801	9.801	(0.899)	61344	1.00000	1.10	
	78	Butylbenzylphthalate	149	10.325	10.325	(0.947)	24179	1.00000	0.804	
	79	3,3'-Dichlorobenzidine	252	10.855	10.855	(0.996)	21382	1.00000	0.816	
	80	bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	36973	1.00000	0.882	
	81	Benzo(a)anthracene	228	10.882	10.881	(0.998)	73493	1.00000	1.04	
*	82	Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	243056	4.00000		
	83	Chrysene	228	10.924	10.930	(1.002)	78263	1.00000	1.16	
	84	Di-n-octylphthalate	149	11.502	11.497	(0.938)	42094	1.00000	0.650	
	85	Benzo(b)fluoranthene	252	11.919	11.919	(0.973)	73837	1.00000	0.975	
	86	Benzo(k)fluoranthene	252	11.941	11.941	(0.974)	85359	1.00000	1.10	
	87	Benzo(a)pyrene	252	12.208	12.208	(0.996)	66337	1.00000	0.987	
*	88	Perylene-d12 (IS)	264	12.256	12.256	(1.000)	249536	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.262	13.262	(1.082)	66386	1.00000	1.06	
90 Dibenz(a,h)anthracene	278	13.256	13.256	(1.082)	55422	1.00000	1.06	
91 Benzo(g,h,i)perylene	276	13.545	13.545	(1.105)	55497	1.00000	1.08	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

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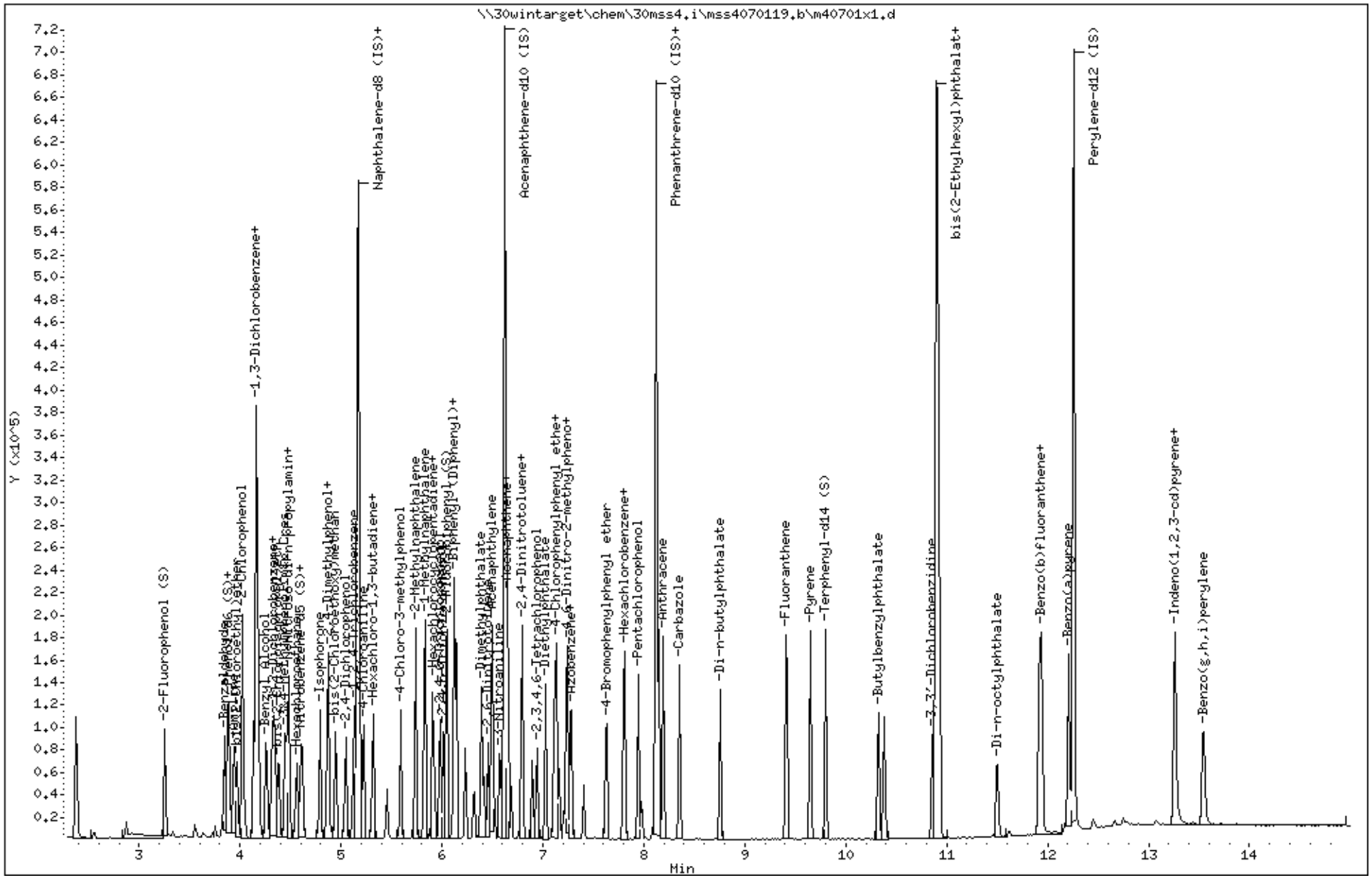
Client ID: CAL1
Sample Info: CAL1, 91773:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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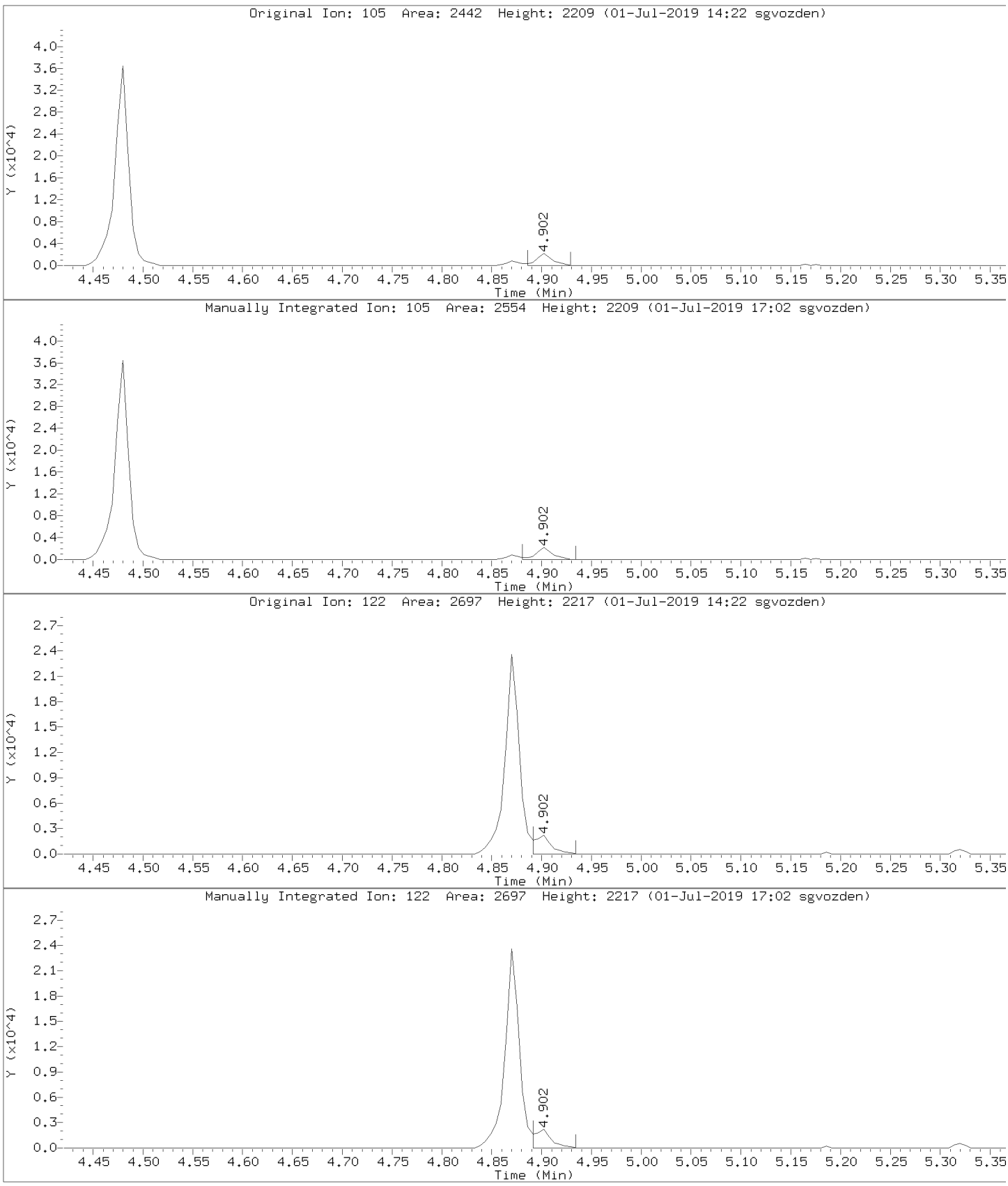
Instrument: 30mss4.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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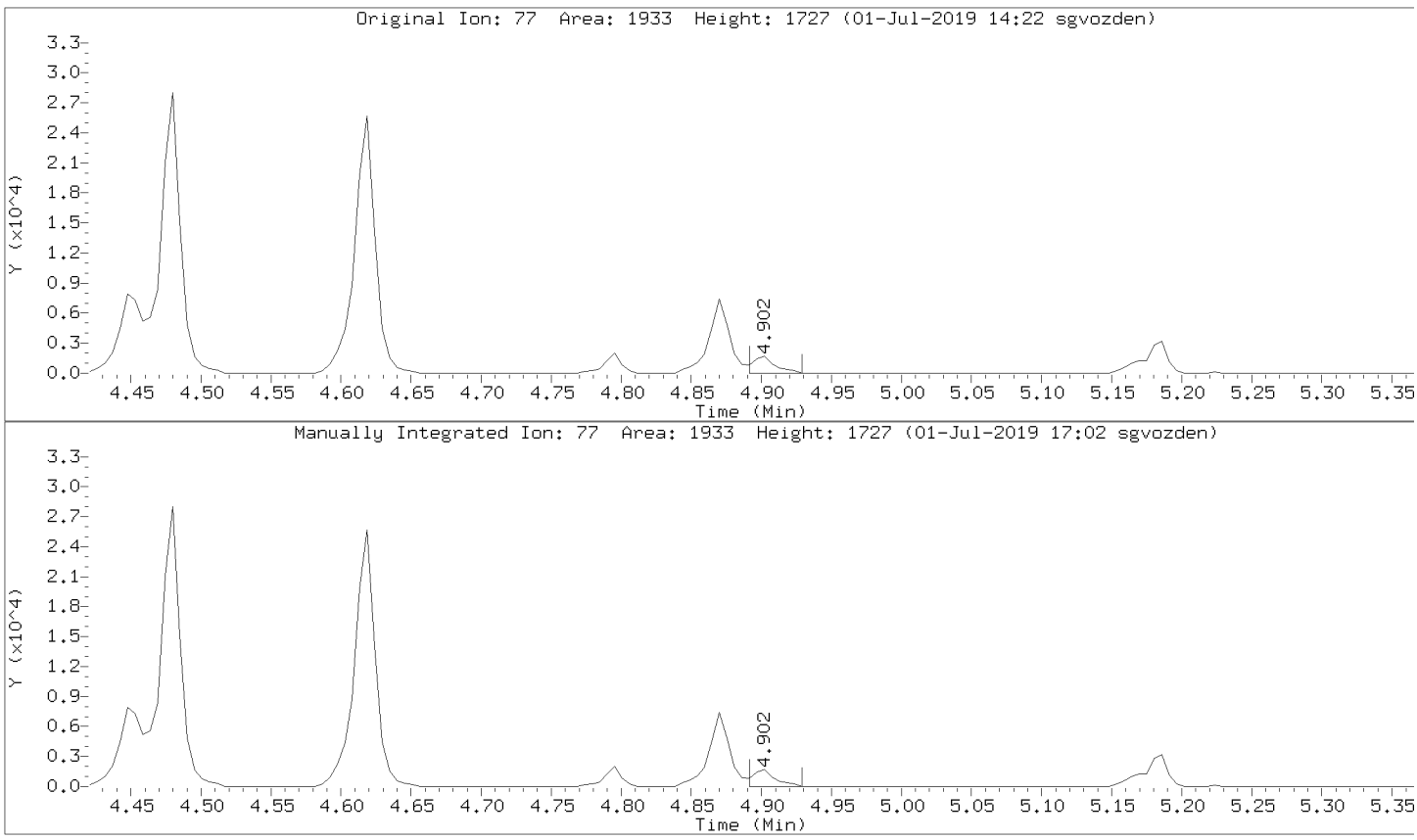

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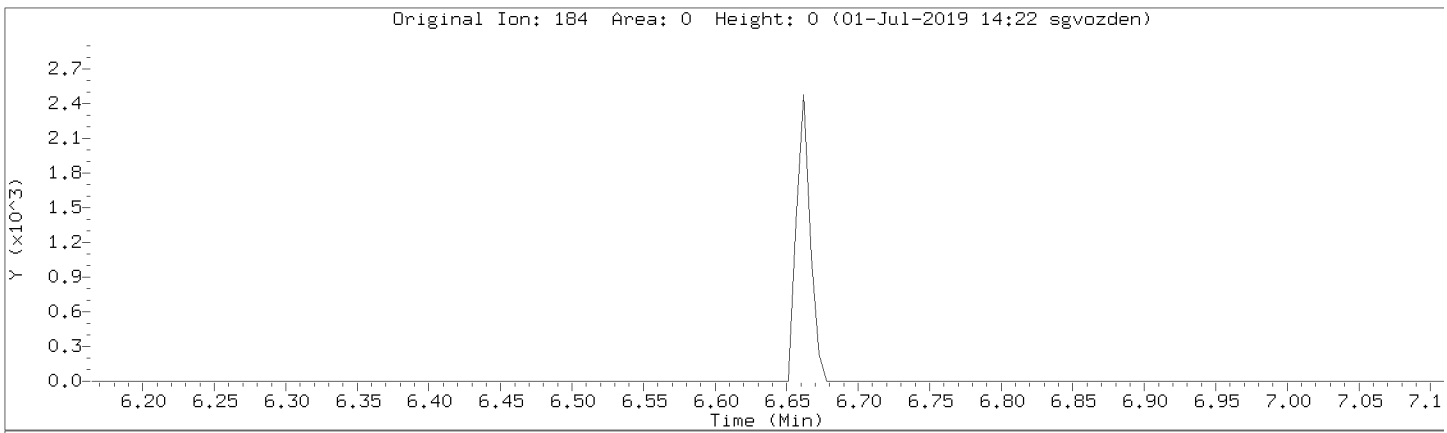
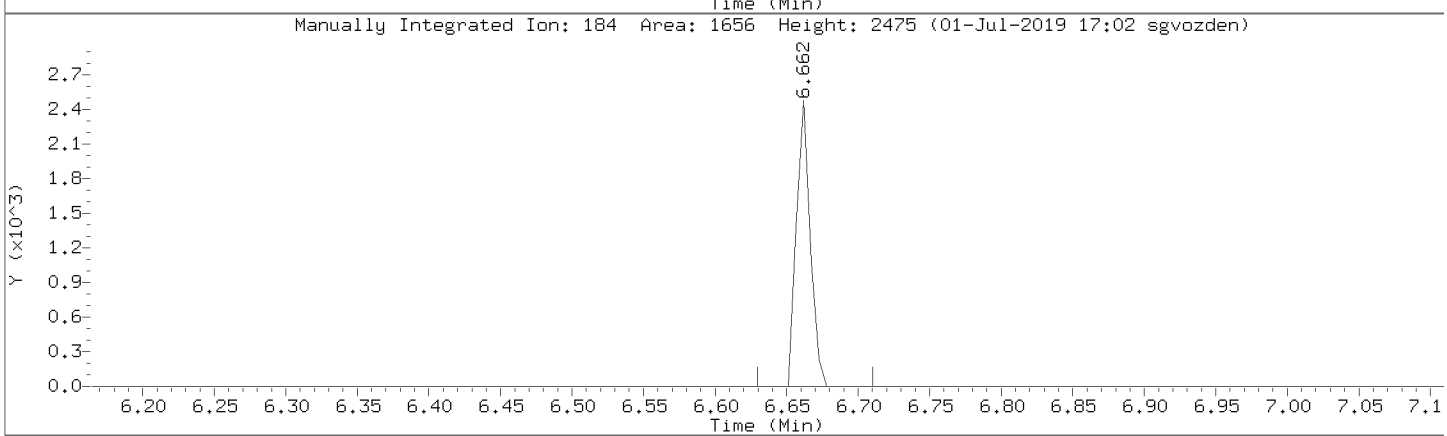
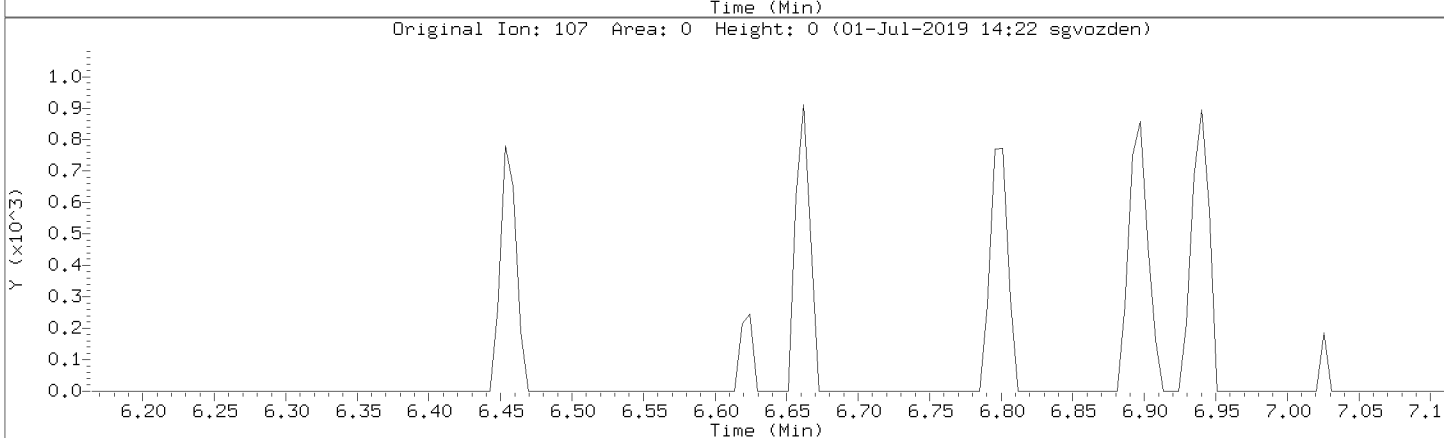
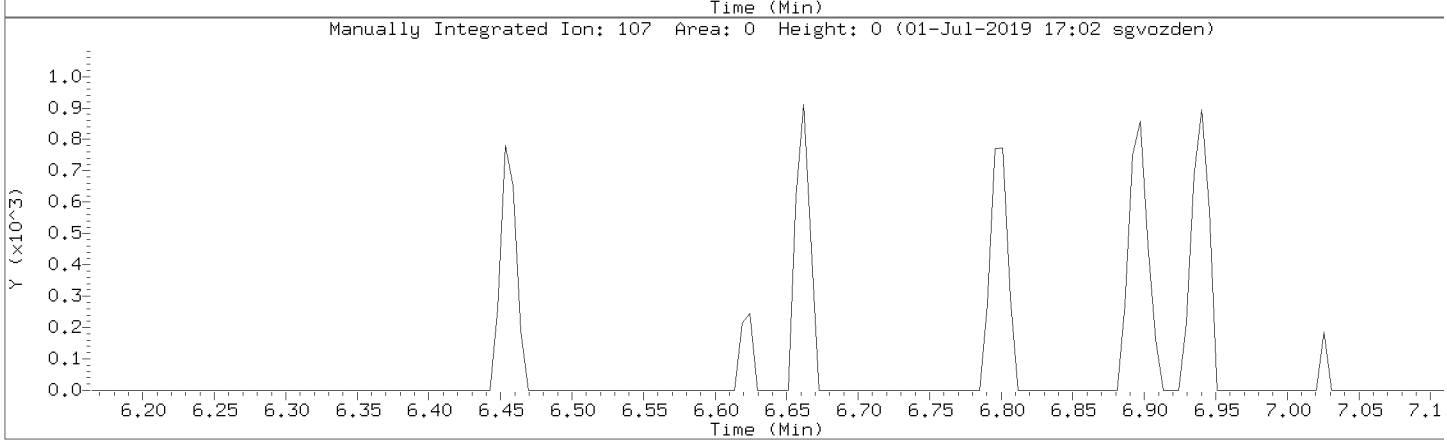
Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5









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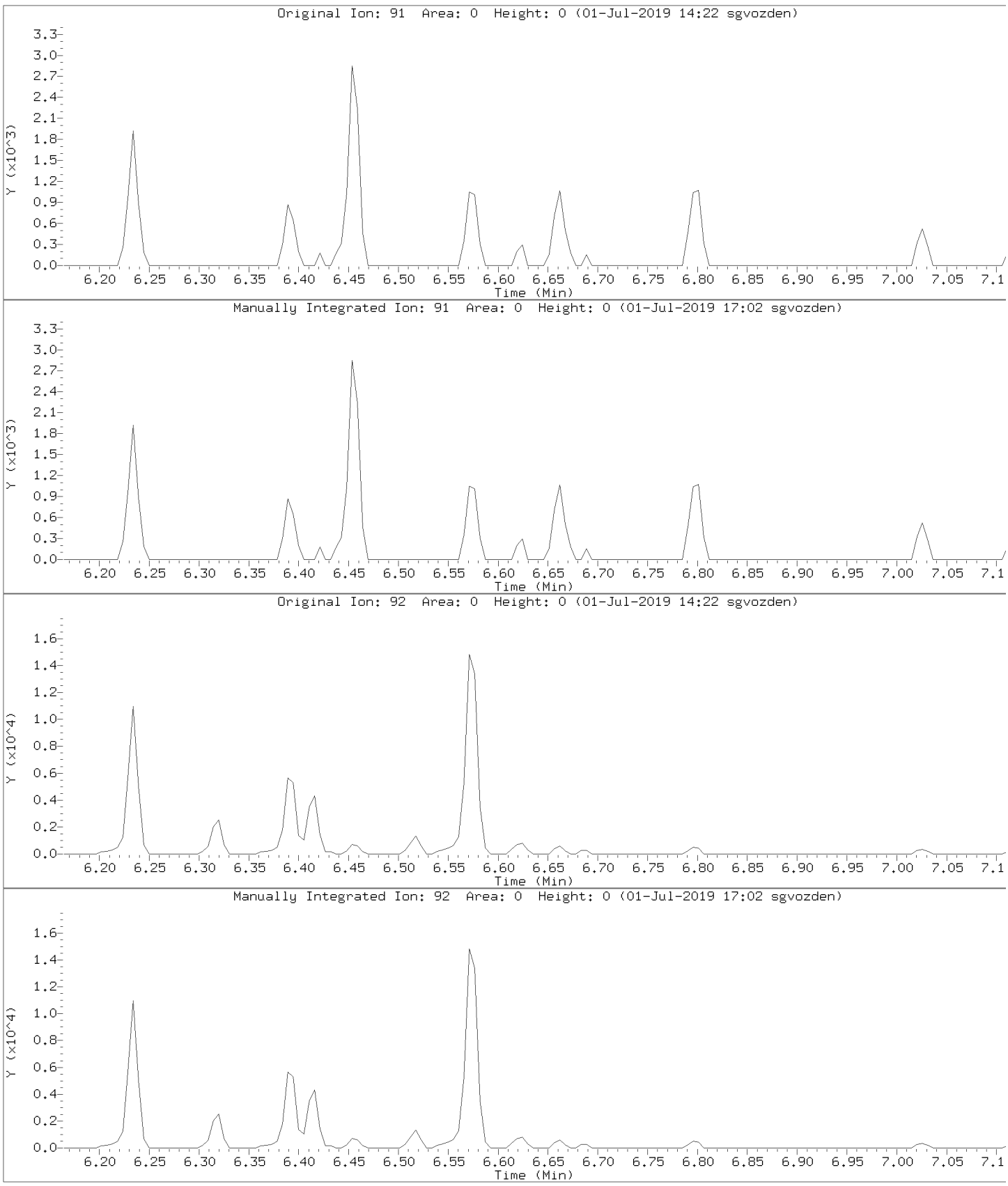
Instrument: 30mss4.i
Lab Sample ID: CAL1



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x2.d
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Inj Date : 01-JUL-2019 14:06 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal2, 91772:1
Misc Info : 14771,
Comment :
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Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 14:06 Cal File: m40701x2.d
Als bottle: 14 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.367	2.372	(0.568)	34147	2.00000	2.01	
	2 Pyridine	79	2.377	2.377	(0.571)	57029	2.00000	2.00	
$	3 2-Fluorophenol (S)	112	3.255	3.254	(0.782)	48248	2.00000	1.95	
$	4 Phenol-d6 (S)	99	3.880	3.880	(0.932)	62445	2.00000	1.98	
	5 Benzaldehyde	77	3.848	3.848	(0.924)	43445	2.00000	1.96	
	6 Phenol	94	3.891	3.891	(0.934)	65770	2.00000	1.98	
	7 Aniline	66	3.939	3.944	(0.946)	25388	2.00000	1.98	
	8 bis(2-Chloroethyl)ether	63	3.966	3.971	(0.952)	35107	2.00000	1.96	
	9 2-Chlorophenol	128	4.025	4.025	(0.967)	55070	2.00000	1.98	
	10 1,3-Dichlorobenzene	146	4.137	4.137	(0.994)	59862	2.00000	2.04	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	78031	4.00000		
	12 1,4-Dichlorobenzene	146	4.175	4.174	(1.003)	64541	2.00000	1.88	
	13 Benzyl Alcohol	79	4.265	4.265	(1.024)	40755	2.00000	1.97	
	14 1,2-Dichlorobenzene	146	4.319	4.324	(1.037)	58160	2.00000	1.96	
	15 2-Methylphenol(o-Cresol)	108	4.340	4.345	(1.042)	49827	2.00000	1.97	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	57640	2.00000	1.99	
	17 3&4-Methylphenol(m&p Cresol)	108	4.453	4.452	(1.069)	51009	2.00000	1.96	
	18 N-Nitroso-di-n-propylamine	70	4.485	4.490	(1.077)	36208	2.00000	1.98	
	19 Acetophenone	105	4.479	4.479	(1.076)	71670	2.00000	2.01	
	20 Hexachloroethane	117	4.560	4.565	(1.095)	22102	2.00000	1.95	
$	21 Nitrobenzene-d5 (S)	128	4.602	4.608	(0.890)	24252	2.00000	1.92	
	22 Nitrobenzene	77	4.618	4.618	(0.893)	52314	2.00000	1.95	
	23 Isophorone	82	4.795	4.795	(0.928)	95647	2.00000	1.97	
	24 2,4-Dimethylphenol	107	4.870	4.870	(0.942)	51396	2.00000	1.96	
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	23496	2.00000	1.93	
	26 Benzoic acid	105	4.907	4.918	(0.949)	8403	2.00000	1.31(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.950	4.950	(0.958)	61787	2.00000	1.95	
	28 2,4-Dichlorophenol	162	5.046	5.046	(0.976)	41310	2.00000	1.94	
	29 1,2,4-Trichlorobenzene	180	5.127	5.126	(0.992)	50575	2.00000	1.95	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	307047	4.00000		
	31 Naphthalene	128	5.185	5.185	(1.003)	161531	2.00000	1.97	
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	15304	2.00000	1.96	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	27488	2.00000	1.96	
	34 Caprolactam	55	5.458	5.469	(1.056)	15520	2.00000	1.95	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.592	5.592	(1.082)	40440	2.00000	1.93	
	36 2-Methylnaphthalene	142	5.742	5.741	(1.111)	105569	2.00000	1.95	
	37 1-Methylnaphthalene	142	5.833	5.832	(1.128)	101698	2.00000	1.98	
	38 Hexachlorocyclopentadiene	237	5.924	5.923	(0.894)	24241	2.00000	1.97	
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	48320	2.00000	1.95	
	40 2,4,6-Trichlorophenol	196	5.982	5.982	(0.903)	31266	2.00000	1.97	
	41 2,4,5-Trichlorophenol	196	6.014	6.014	(0.908)	28080	2.00000	1.92	
$	42 2-Fluorobiphenyl (S)	172	6.047	6.046	(0.913)	114780	2.00000	1.98	
	43 Biphenyl (Diphenyl)	154	6.121	6.121	(0.924)	123742	2.00000	1.96	
	44 2-Chloronaphthalene	164	6.143	6.143	(0.927)	31443	2.00000	1.96	
	45 2-Nitroaniline	138	6.234	6.234	(0.941)	28167	2.00000	1.96	
	46 Dimethylphthalate	163	6.394	6.394	(0.965)	105248	2.00000	1.98	
	47 2,6-Dinitrotoluene	165	6.453	6.458	(0.974)	23993	2.00000	1.99	
	48 Acenaphthylene	152	6.496	6.496	(0.981)	148053	2.00000	1.99	
	49 3-Nitroaniline	65	6.571	6.576	(0.992)	26773	2.00000	1.98	
*	50 Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	162627	4.00000		
	51 2,4-Dinitrophenol	184	6.662	6.661	(1.006)	5913	2.00000	1.72(M)	NI
	52 Acenaphthene	153	6.651	6.651	(1.004)	97133	2.00000	1.99	
	53 4-Nitrophenol	109	6.688	6.688	(1.010)	10503	2.00000	2.04	
	54 2,4-Dinitrotoluene	165	6.801	6.800	(1.027)	28840	2.00000	2.02	
	55 Dibenzofuran	168	6.790	6.790	(1.025)	135933	2.00000	2.02	
	56 2,3,4,6-Tetrachlorophenol	232	6.940	6.940	(1.048)	23200	2.00000	1.97	
	57 Diethylphthalate	149	7.025	7.030	(1.061)	103671	2.00000	1.98	
	58 4-Chlorophenylphenyl ether	204	7.116	7.116	(1.074)	54846	2.00000	2.03	
	59 Fluorene	166	7.138	7.137	(1.077)	107188	2.00000	1.99	
	60 4-Nitroaniline	108	7.159	7.164	(1.081)	15217	2.00000	2.16(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.207	7.212	(0.887)	11275	2.00000	1.83	
	62 N-Nitrosodiphenylamine	169	7.239	7.239	(0.891)	92492	2.00000	1.96	
	63 Azobenzene	77	7.277	7.282	(0.896)	97268	2.00000	1.97	
	64 1,2-Diphenylhydrazine	77	7.277	7.282	(0.896)	97268	2.00000	1.97	
$	65 2,4,6-Tribromophenol (S)	330	7.405	7.405	(0.912)	14641	2.00000	1.92	
	66 4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	31324	2.00000	1.97	
	67 Hexachlorobenzene	284	7.801	7.801	(0.960)	35830	2.00000	1.94	
	68 Atrazine	200	7.812	7.817	(0.962)	27042	2.00000	1.90	
	69 Pentachlorophenol	266	7.977	7.977	(0.982)	13352	2.00000	1.94	
*	70 Phenanthrene-d10 (IS)	188	8.122	8.122	(1.000)	274609	4.00000		
	71 Phenanthrene	178	8.143	8.148	(1.003)	158114	2.00000	1.98	
	72 Anthracene	178	8.191	8.196	(1.009)	147798	2.00000	1.94	
	73 Carbazole	167	8.352	8.352	(1.028)	136504	2.00000	1.99	
	74 Di-n-butylphthalate	149	8.753	8.758	(1.078)	152240	2.00000	1.94	
	75 Fluoranthene	202	9.411	9.411	(1.159)	157223	2.00000	1.99	
	76 Pyrene	202	9.652	9.651	(0.885)	163531	2.00000	1.98	
$	77 Terphenyl-d14 (S)	244	9.801	9.801	(0.899)	129065	2.00000	2.00	
	78 Butylbenzylphthalate	149	10.325	10.325	(0.947)	57408	2.00000	1.93	
	79 3,3'-Dichlorobenzidine	252	10.855	10.855	(0.996)	51134	2.00000	1.96	
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	84912	2.00000	1.96	
	81 Benzo(a)anthracene	228	10.882	10.881	(0.998)	156247	2.00000	1.97	
*	82 Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	266643	4.00000		
	83 Chrysene	228	10.925	10.930	(1.002)	156817	2.00000	1.96	
	84 Di-n-octylphthalate	149	11.497	11.497	(0.938)	104382	2.00000	1.89	
	85 Benzo(b)fluoranthene	252	11.919	11.919	(0.973)	155836	2.00000	2.02	
	86 Benzo(k)fluoranthene	252	11.935	11.941	(0.974)	164568	2.00000	1.95	
	87 Benzo(a)pyrene	252	12.208	12.208	(0.996)	131326	2.00000	1.90	
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	257963	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.257	13.262	(1.082)	129990	2.00000	1.94	
90 Dibenz(a,h)anthracene	278	13.257	13.256	(1.082)	107193	2.00000	1.92	
91 Benzo(g,h,i)perylene	276	13.540	13.545	(1.105)	105984	2.00000	1.92	

QC Flag Legend

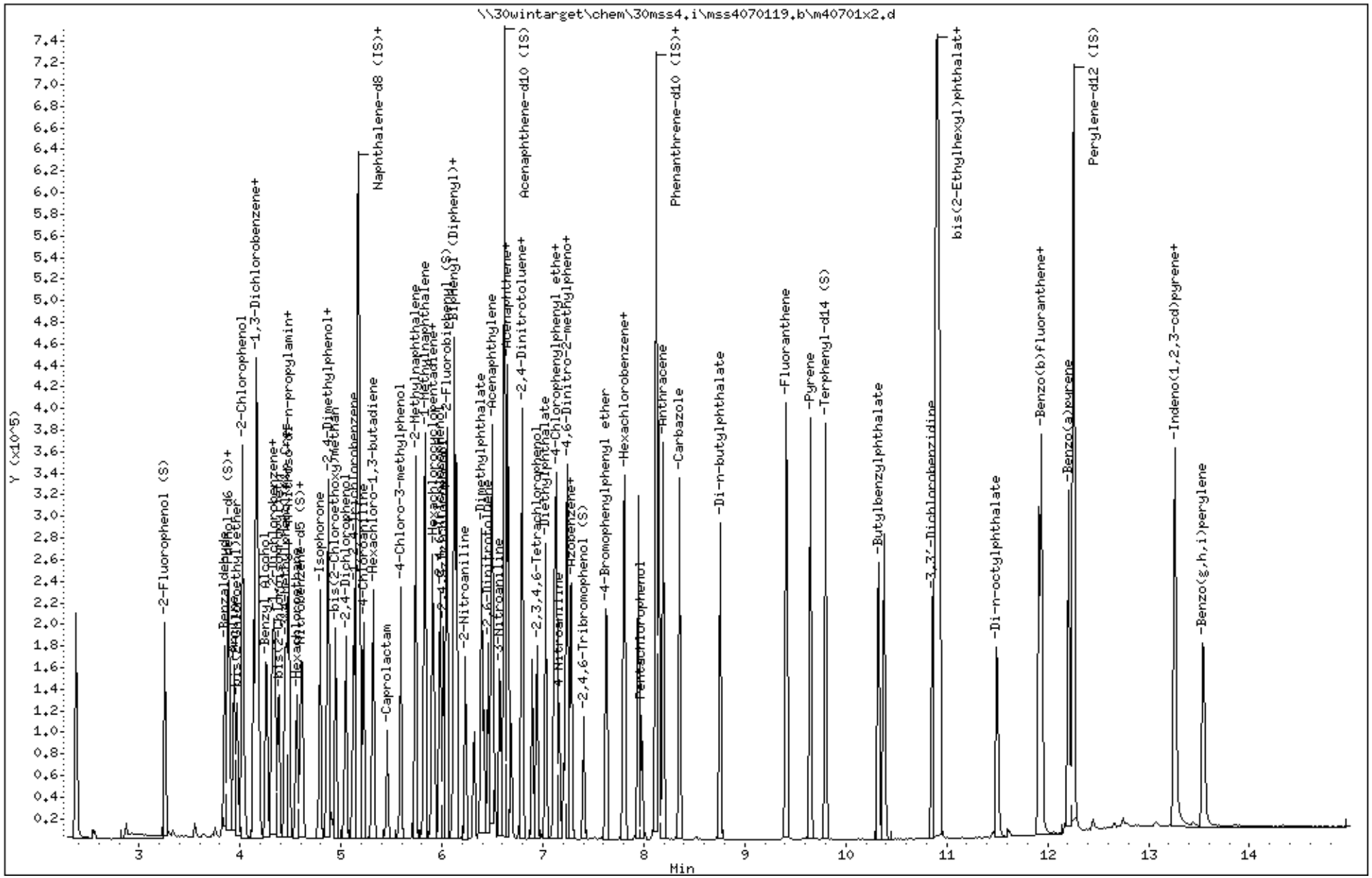
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x2.d
Date : 01-JUL-2019 14:06
Client ID: CAL2
Sample Info: CAL2, 91772:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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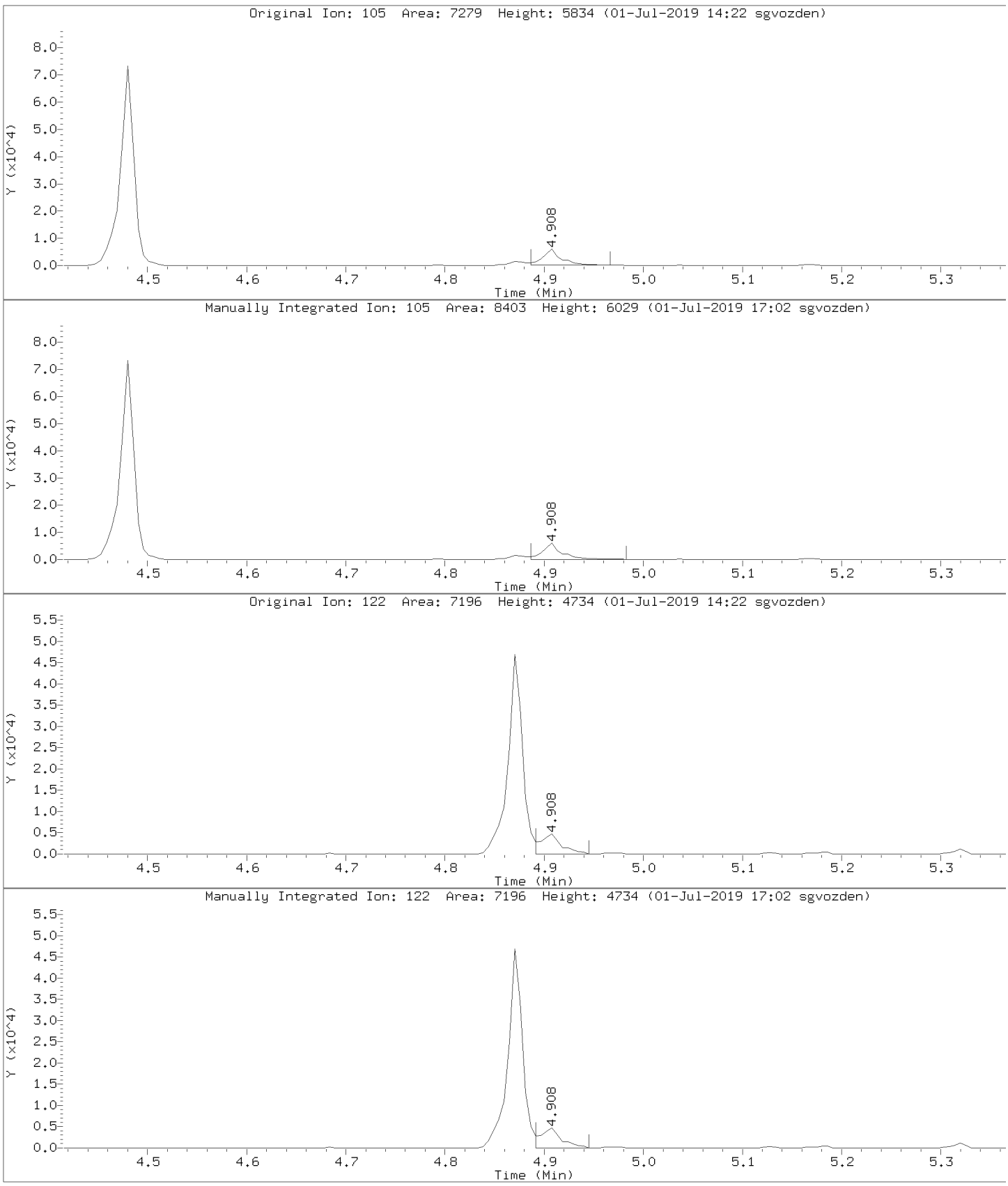
Injection Date: 01-JUL-2019 14:06
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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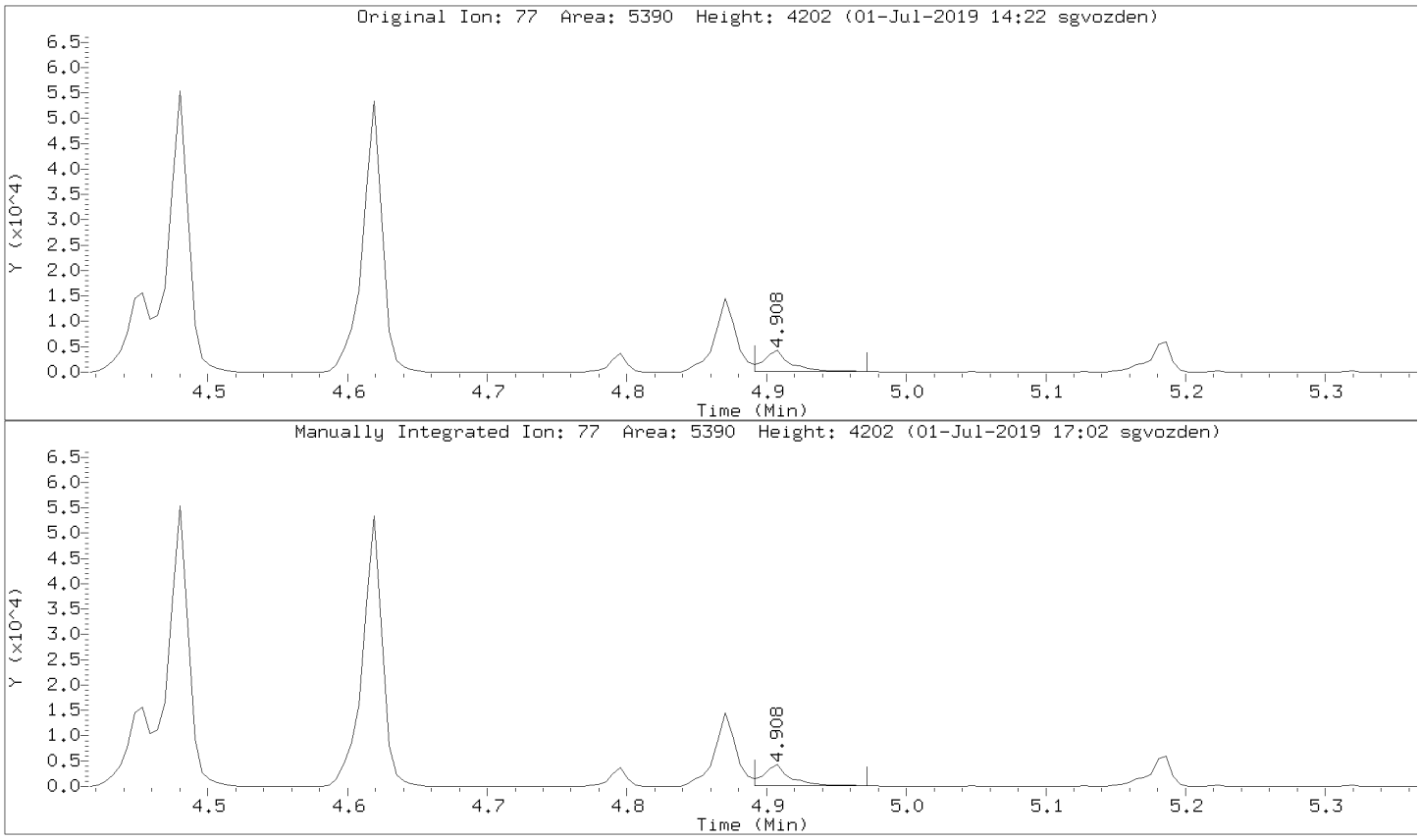

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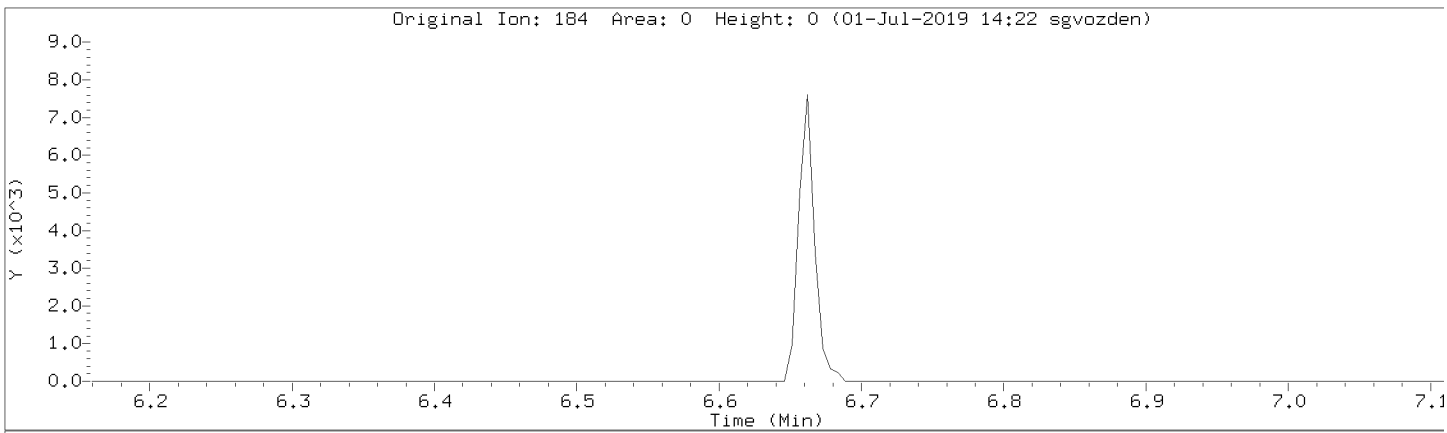
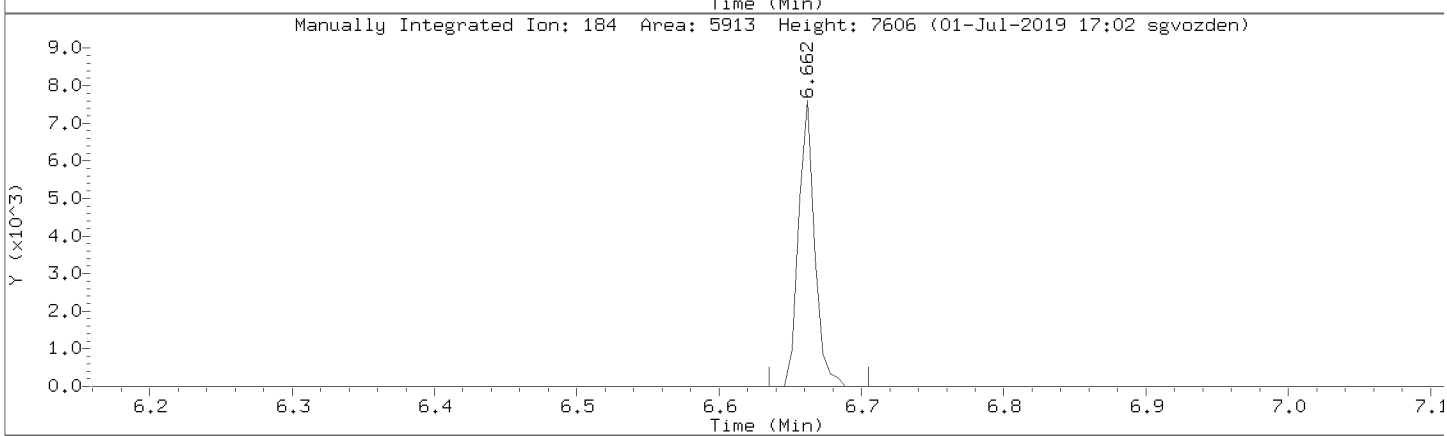
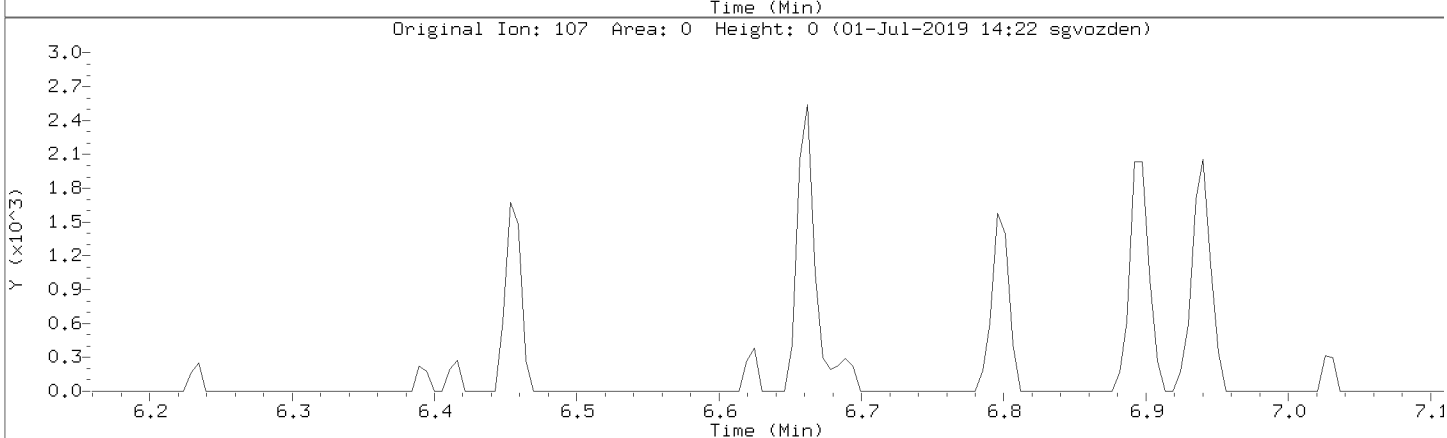
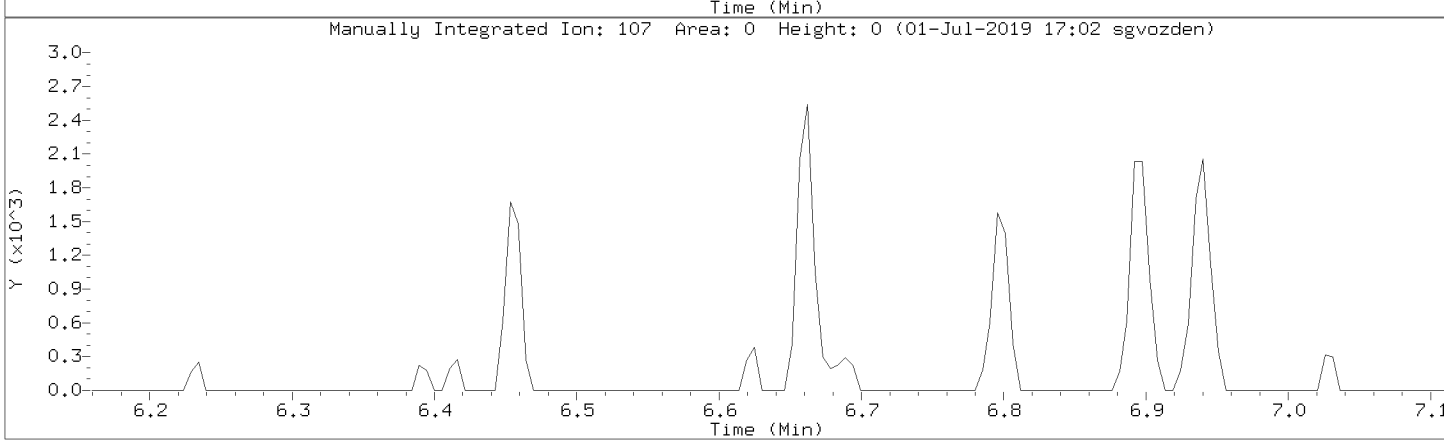
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5









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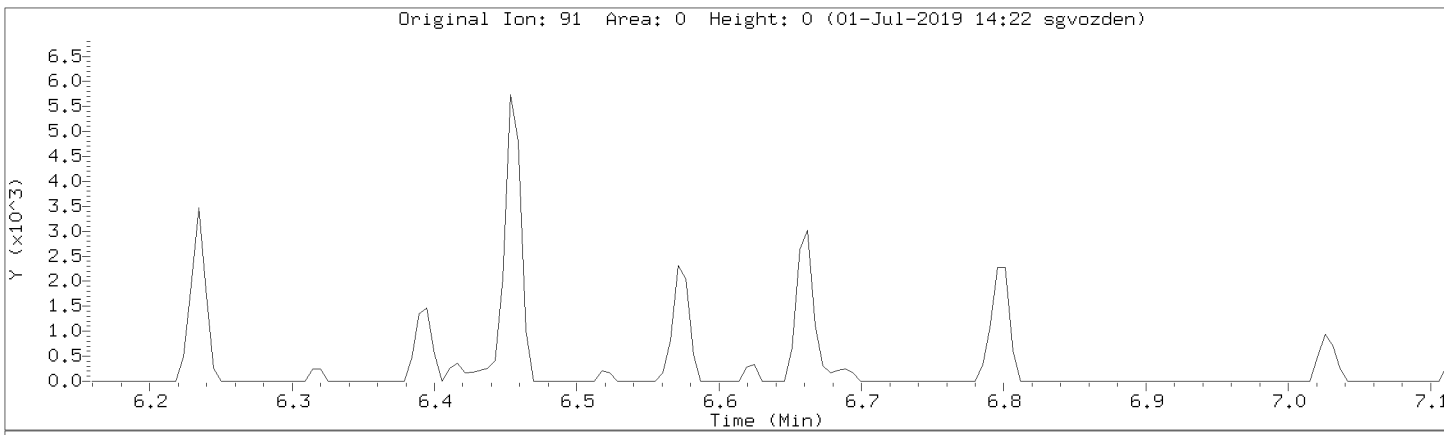
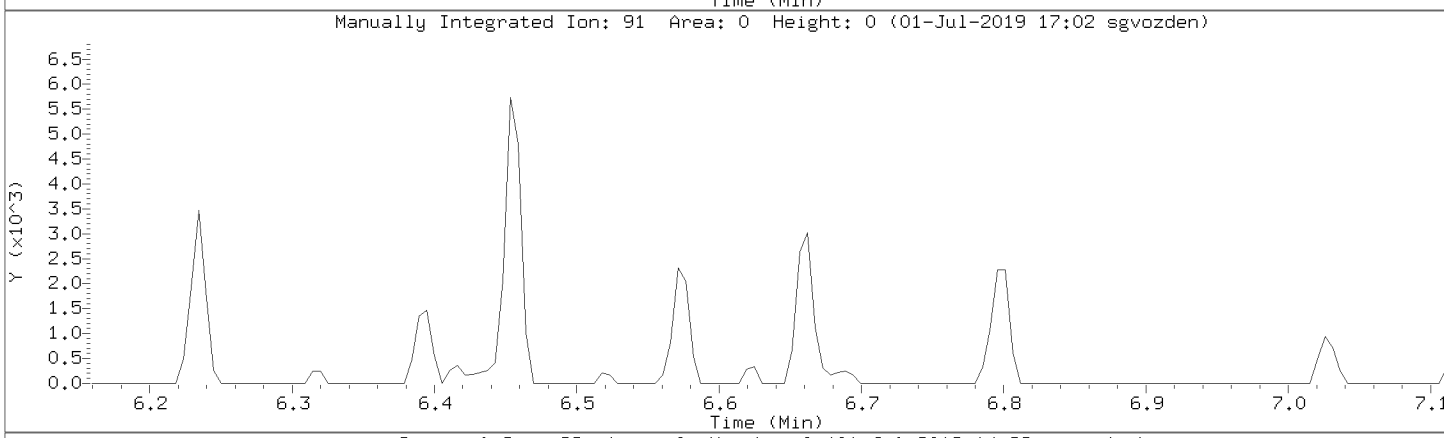
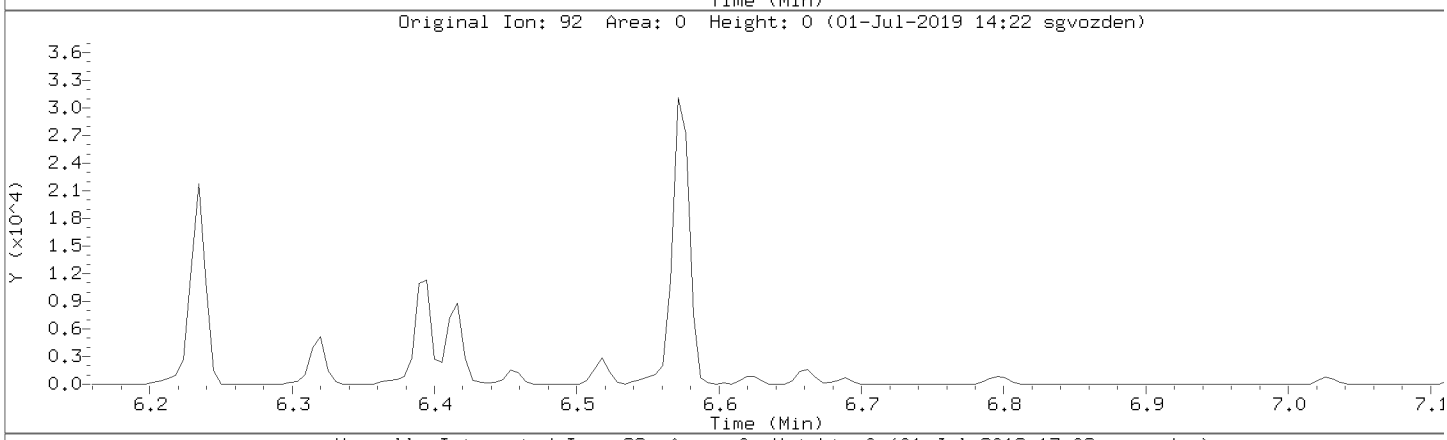
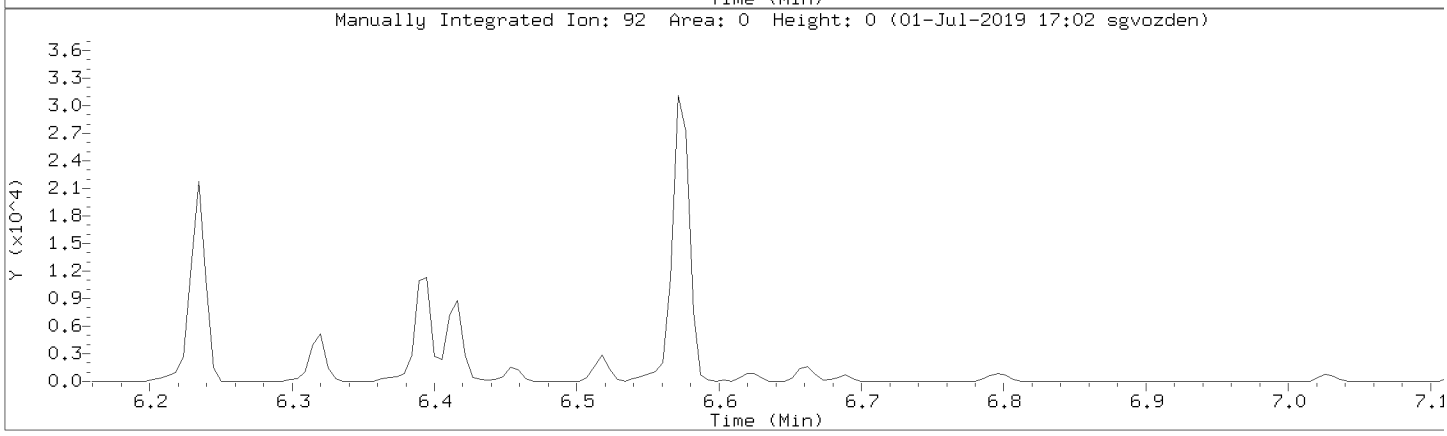
Lab Sample ID: CAL2









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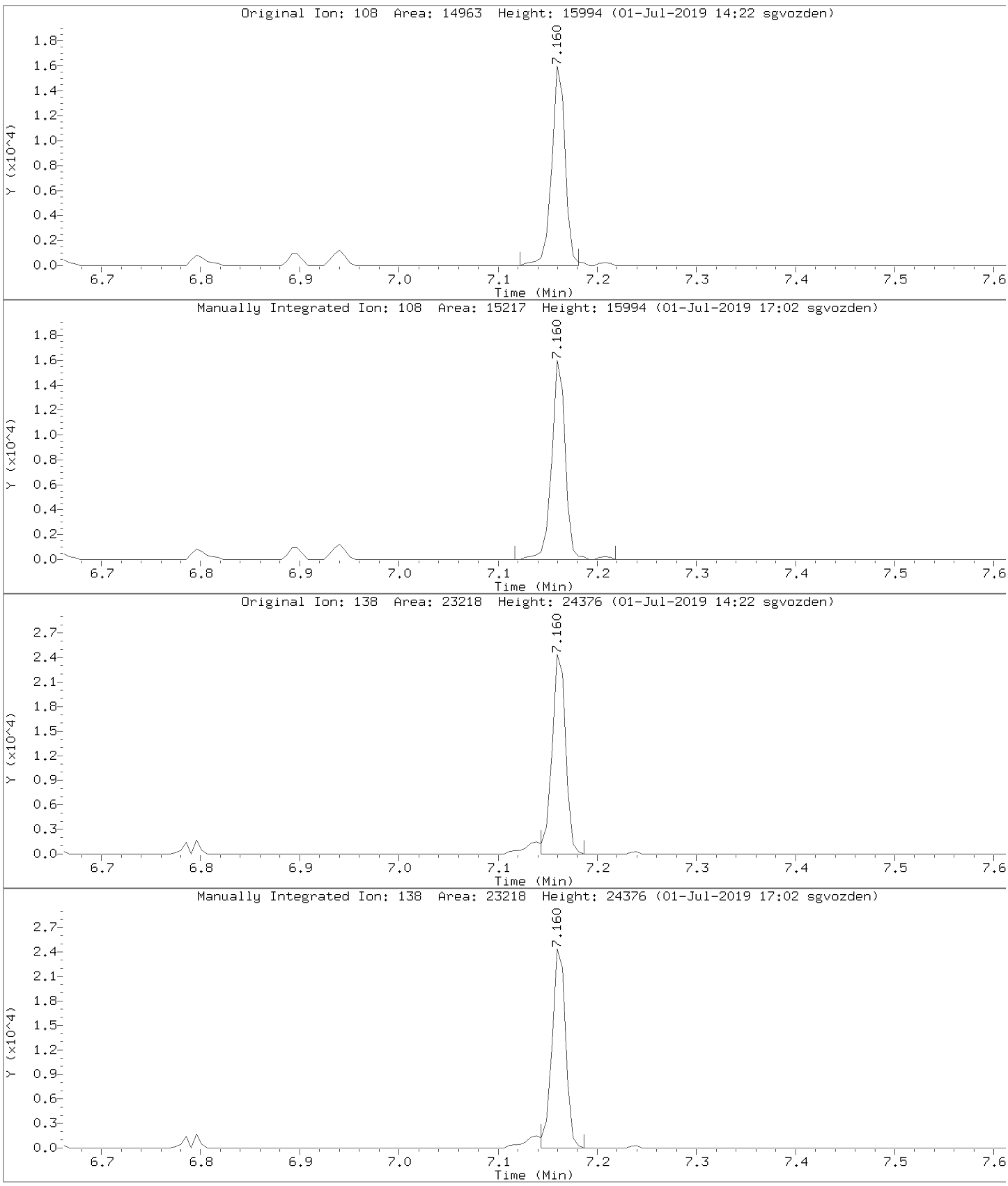
Injection Date: 01-JUL-2019 14:06
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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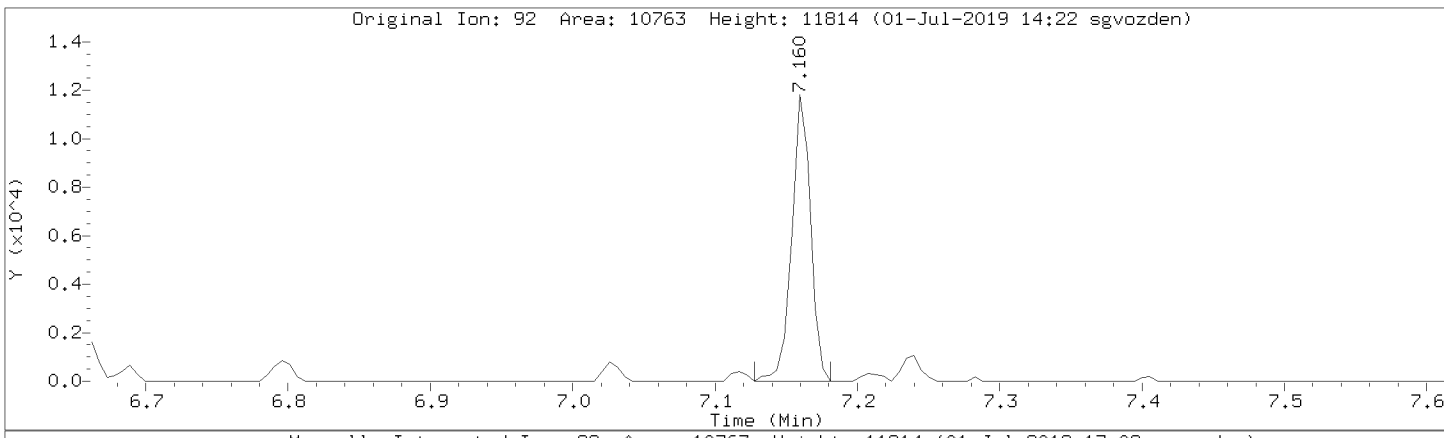
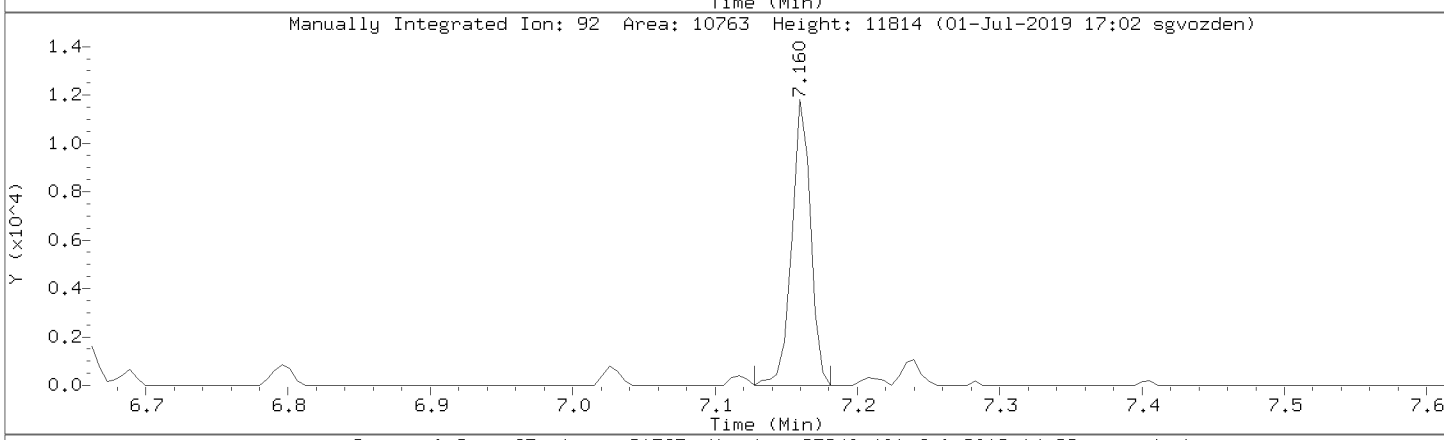
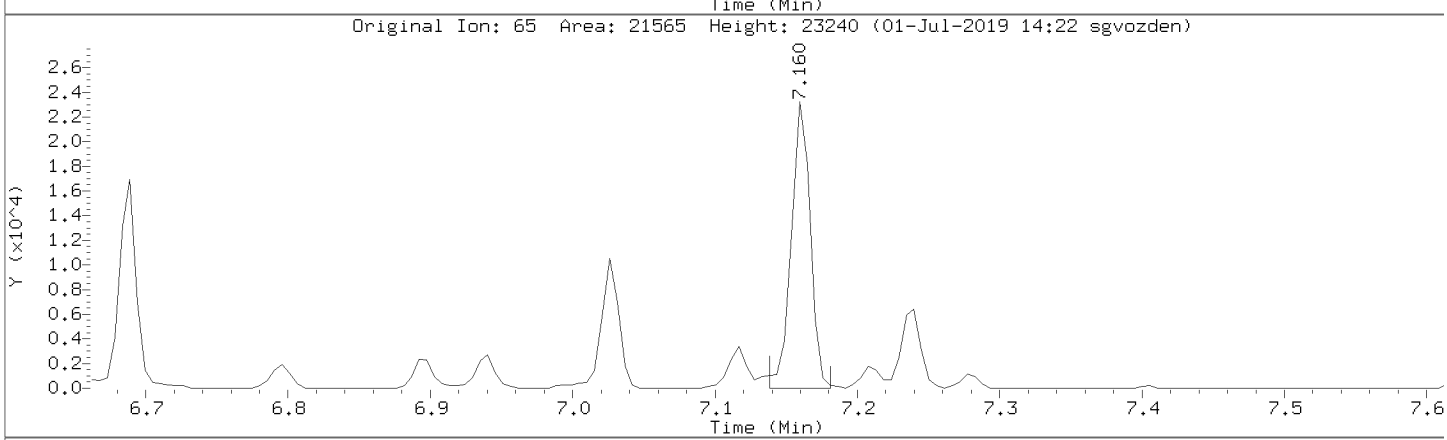
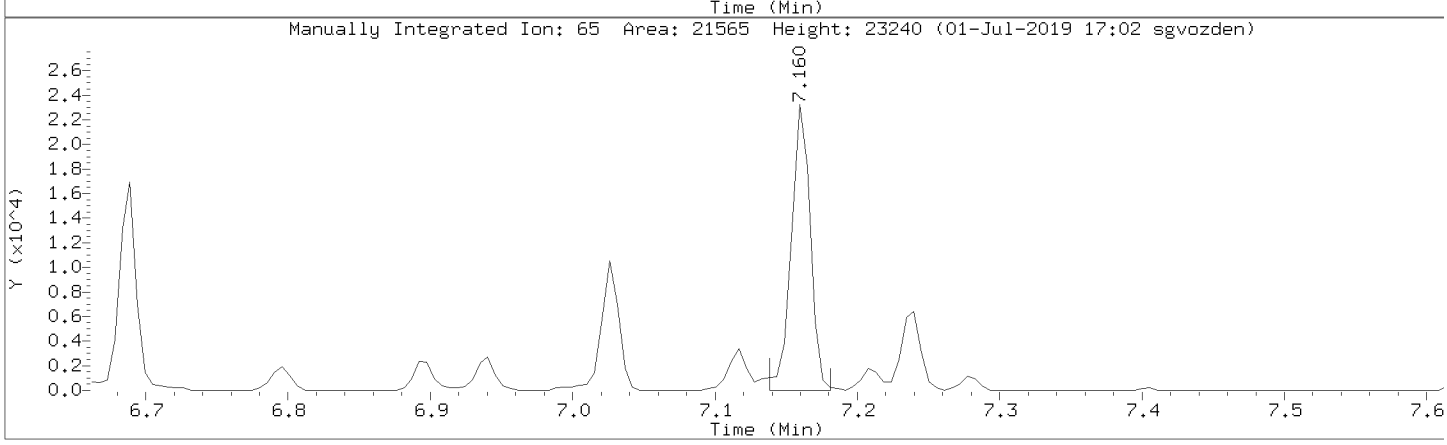
Lab Sample ID: CAL2









Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 01-JUL-2019 14:28 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal3, 91771:1
Misc Info : 14771,
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Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 14:28 Cal File: m40701x3.d
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.372	2.372	(0.570)	65546	4.00000	3.86	
	2 Pyridine	79	2.377	2.377	(0.571)	112418	4.00000	3.95	
$	3 2-Fluorophenol (S)	112	3.254	3.254	(0.782)	99383	4.00000	4.06	
$	4 Phenol-d6 (S)	99	3.880	3.880	(0.932)	121551	4.00000	3.88	
	5 Benzaldehyde	77	3.848	3.848	(0.924)	84873	4.00000	3.87	
	6 Phenol	94	3.891	3.891	(0.934)	126601	4.00000	3.83	
	7 Aniline	66	3.944	3.944	(0.947)	51332	4.00000	4.02	
	8 bis(2-Chloroethyl)ether	63	3.971	3.971	(0.954)	67948	4.00000	3.83	
	9 2-Chlorophenol	128	4.025	4.025	(0.967)	107420	4.00000	3.88	
	10 1,3-Dichlorobenzene	146	4.137	4.137	(0.994)	114951	4.00000	3.90	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	77856	4.00000		
	12 1,4-Dichlorobenzene	146	4.174	4.174	(1.003)	128560	4.00000	3.83	
	13 Benzyl Alcohol	79	4.265	4.265	(1.024)	79835	4.00000	3.89	
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	112104	4.00000	3.82	
	15 2-Methylphenol(o-Cresol)	108	4.345	4.345	(1.044)	97420	4.00000	3.88	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	110512	4.00000	3.83	
	17 3&4-Methylphenol(m&p Cresol)	108	4.452	4.452	(1.069)	100194	4.00000	3.89	
	18 N-Nitroso-di-n-propylamine	70	4.490	4.490	(1.078)	70828	4.00000	3.89	
	19 Acetophenone	105	4.479	4.479	(1.076)	136860	4.00000	3.84	
	20 Hexachloroethane	117	4.565	4.565	(1.096)	43594	4.00000	3.89	
$	21 Nitrobenzene-d5 (S)	128	4.608	4.608	(0.891)	47643	4.00000	3.90	
	22 Nitrobenzene	77	4.618	4.618	(0.893)	100181	4.00000	3.85	
	23 Isophorone	82	4.795	4.795	(0.928)	186181	4.00000	3.94	
	24 2,4-Dimethylphenol	107	4.870	4.870	(0.942)	98416	4.00000	3.86	
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	49353	4.00000	4.19	
	26 Benzoic acid	105	4.918	4.918	(0.951)	24257	4.00000	4.37(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.950	4.950	(0.958)	118783	4.00000	3.87	
	28 2,4-Dichlorophenol	162	5.046	5.046	(0.976)	81154	4.00000	3.92	
	29 1,2,4-Trichlorobenzene	180	5.126	5.126	(0.992)	96743	4.00000	3.84	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	300576	4.00000		
	31 Naphthalene	128	5.185	5.185	(1.003)	307408	4.00000	3.85	
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	28807	4.00000	3.79	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	53370	4.00000	3.91	
	34 Caprolactam	55	5.469	5.469	(1.058)	29967	4.00000	3.88	

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.592	5.592	(1.082)	78669	4.00000	3.88	
	36 2-Methylnaphthalene	142	5.741	5.741	(1.111)	202007	4.00000	3.84	
	37 1-Methylnaphthalene	142	5.832	5.832	(1.128)	193025	4.00000	3.85	
	38 Hexachlorocyclopentadiene	237	5.923	5.923	(0.894)	45462	4.00000	3.91	
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	91983	4.00000	3.94	
	40 2,4,6-Trichlorophenol	196	5.982	5.982	(0.903)	60762	4.00000	4.05	
	41 2,4,5-Trichlorophenol	196	6.014	6.014	(0.908)	53893	4.00000	3.94	
$	42 2-Fluorobiphenyl (S)	172	6.046	6.046	(0.913)	215692	4.00000	3.94	
	43 Biphenyl (Diphenyl)	154	6.121	6.121	(0.924)	232978	4.00000	3.91	
	44 2-Chloronaphthalene	164	6.143	6.143	(0.927)	59184	4.00000	3.91	
	45 2-Nitroaniline	138	6.234	6.234	(0.941)	54164	4.00000	4.00	
	46 Dimethylphthalate	163	6.394	6.394	(0.965)	201040	4.00000	4.00	
	47 2,6-Dinitrotoluene	165	6.458	6.458	(0.975)	44774	4.00000	3.91	
	48 Acenaphthylene	152	6.496	6.496	(0.981)	274890	4.00000	3.90	
	49 3-Nitroaniline	65	6.576	6.576	(0.993)	48815	4.00000	3.81	
*	50 Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	154425	4.00000		
	51 2,4-Dinitrophenol	184	6.661	6.661	(1.006)	14023	4.00000	4.51	
	52 Acenaphthene	153	6.651	6.651	(1.004)	179533	4.00000	3.88	
	53 4-Nitrophenol	109	6.688	6.688	(1.010)	19475	4.00000	3.96	
	54 2,4-Dinitrotoluene	165	6.800	6.800	(1.027)	53222	4.00000	3.91	
	55 Dibenzofuran	168	6.790	6.790	(1.025)	244249	4.00000	3.81	
	56 2,3,4,6-Tetrachlorophenol	232	6.940	6.940	(1.048)	43576	4.00000	3.92	
	57 Diethylphthalate	149	7.030	7.030	(1.061)	194432	4.00000	3.93	
	58 4-Chlorophenylphenyl ether	204	7.116	7.116	(1.074)	101103	4.00000	3.92	
	59 Fluorene	166	7.137	7.137	(1.077)	196528	4.00000	3.85	
	60 4-Nitroaniline	108	7.164	7.164	(1.082)	23840	4.00000	3.48(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.212	7.212	(0.888)	22939	4.00000	4.26	
	62 N-Nitrosodiphenylamine	169	7.239	7.239	(0.891)	165046	4.00000	3.90	
	63 Azobenzene	77	7.282	7.282	(0.897)	172841	4.00000	3.90	
	64 1,2-Diphenylhydrazine	77	7.282	7.282	(0.897)	172841	4.00000	3.90	
$	65 2,4,6-Tribromophenol (S)	330	7.405	7.405	(0.912)	28485	4.00000	4.20	
	66 4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	56214	4.00000	3.94	
	67 Hexachlorobenzene	284	7.801	7.801	(0.960)	64291	4.00000	3.91	
	68 Atrazine	200	7.817	7.817	(0.962)	51703	4.00000	4.10	
	69 Pentachlorophenol	266	7.977	7.977	(0.982)	28541	4.00000	4.65	
*	70 Phenanthrene-d10 (IS)	188	8.122	8.122	(1.000)	247594	4.00000		
	71 Phenanthrene	178	8.148	8.148	(1.003)	276604	4.00000	3.85	
	72 Anthracene	178	8.196	8.196	(1.009)	264672	4.00000	3.90	
	73 Carbazole	167	8.352	8.352	(1.028)	240343	4.00000	3.90	
	74 Di-n-butylphthalate	149	8.758	8.758	(1.078)	299628	4.00000	4.28	
	75 Fluoranthene	202	9.411	9.411	(1.159)	295491	4.00000	4.15	
	76 Pyrene	202	9.651	9.651	(0.885)	305147	4.00000	3.89	
$	77 Terphenyl-d14 (S)	244	9.801	9.801	(0.899)	241825	4.00000	3.94	
	78 Butylbenzylphthalate	149	10.325	10.325	(0.947)	118934	4.00000	4.24	
	79 3,3'-Dichlorobenzidine	252	10.855	10.855	(0.996)	105164	4.00000	4.25	
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	175168	4.00000	4.27	
	81 Benzo(a)anthracene	228	10.881	10.881	(0.998)	303031	4.00000	4.03	
*	82 Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	254336	4.00000		
	83 Chrysene	228	10.930	10.930	(1.002)	292768	4.00000	3.87	
	84 Di-n-octylphthalate	149	11.497	11.497	(0.938)	239217	4.00000	4.52	
	85 Benzo(b)fluoranthene	252	11.919	11.919	(0.973)	291034	4.00000	3.84	
	86 Benzo(k)fluoranthene	252	11.941	11.941	(0.974)	338138	4.00000	4.14	
	87 Benzo(a)pyrene	252	12.208	12.208	(0.996)	258887	4.00000	3.90	
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	252025	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.262	13.262	(1.082)	242185	4.00000	3.74	
90 Dibenz(a,h)anthracene	278	13.256	13.256	(1.082)	198235	4.00000	3.69	
91 Benzo(g,h,i)perylene	276	13.545	13.545	(1.105)	193765	4.00000	3.64	

QC Flag Legend

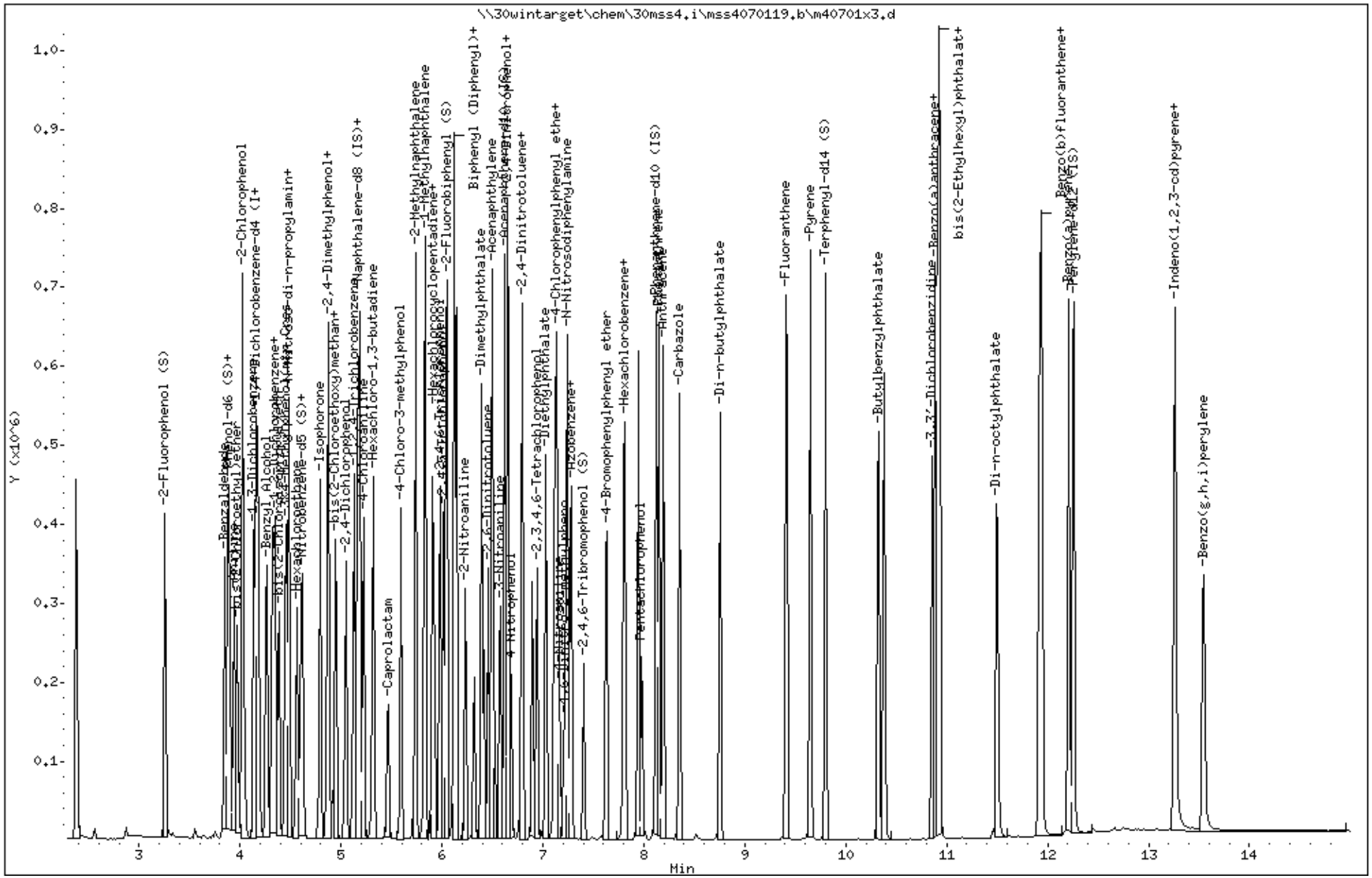
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x3.d
Date : 01-JUL-2019 14:28
Client ID: CAL3
Sample Info: CAL3, 91771:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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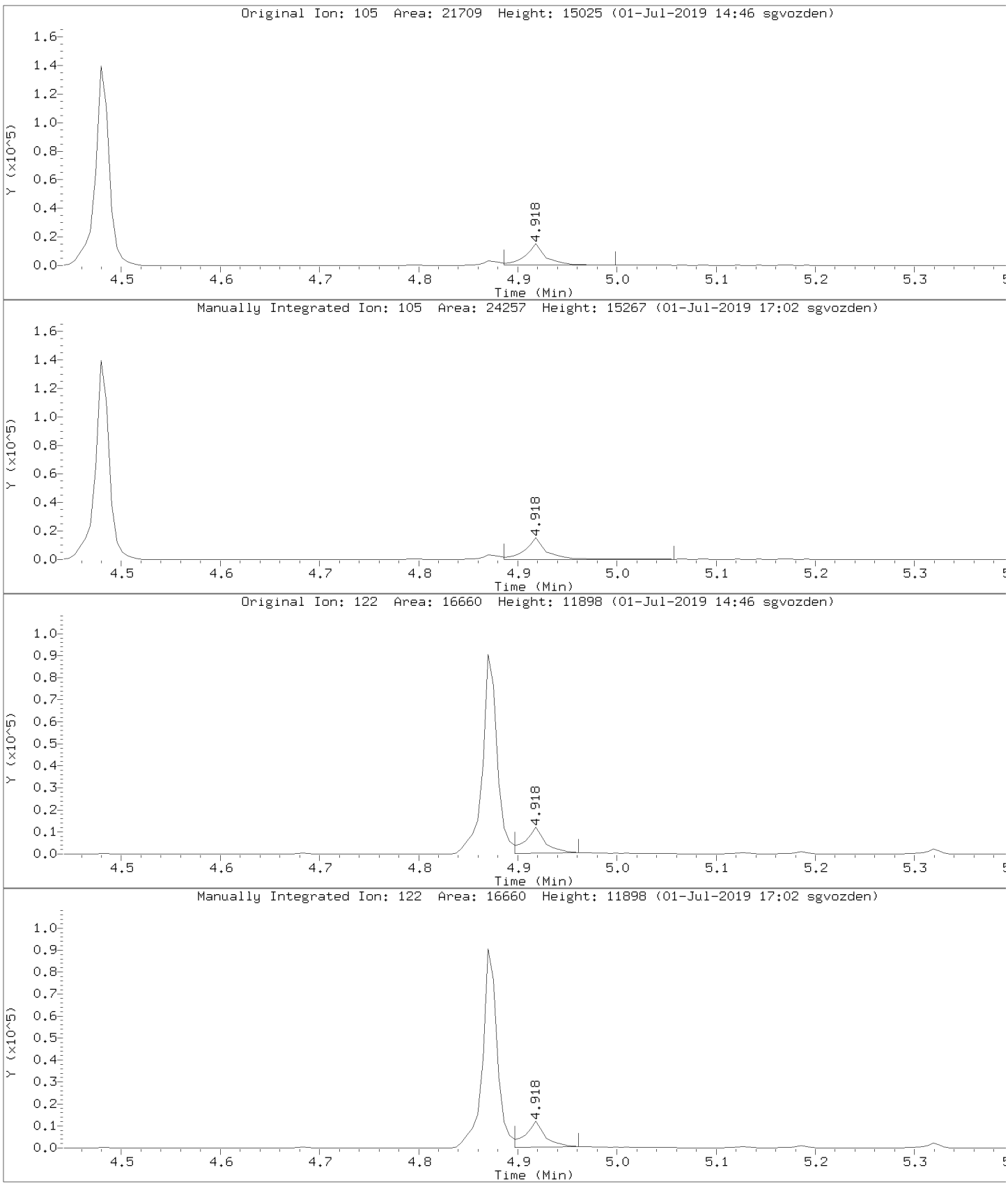
Injection Date: 01-JUL-2019 14:28
Instrument: 30mss4.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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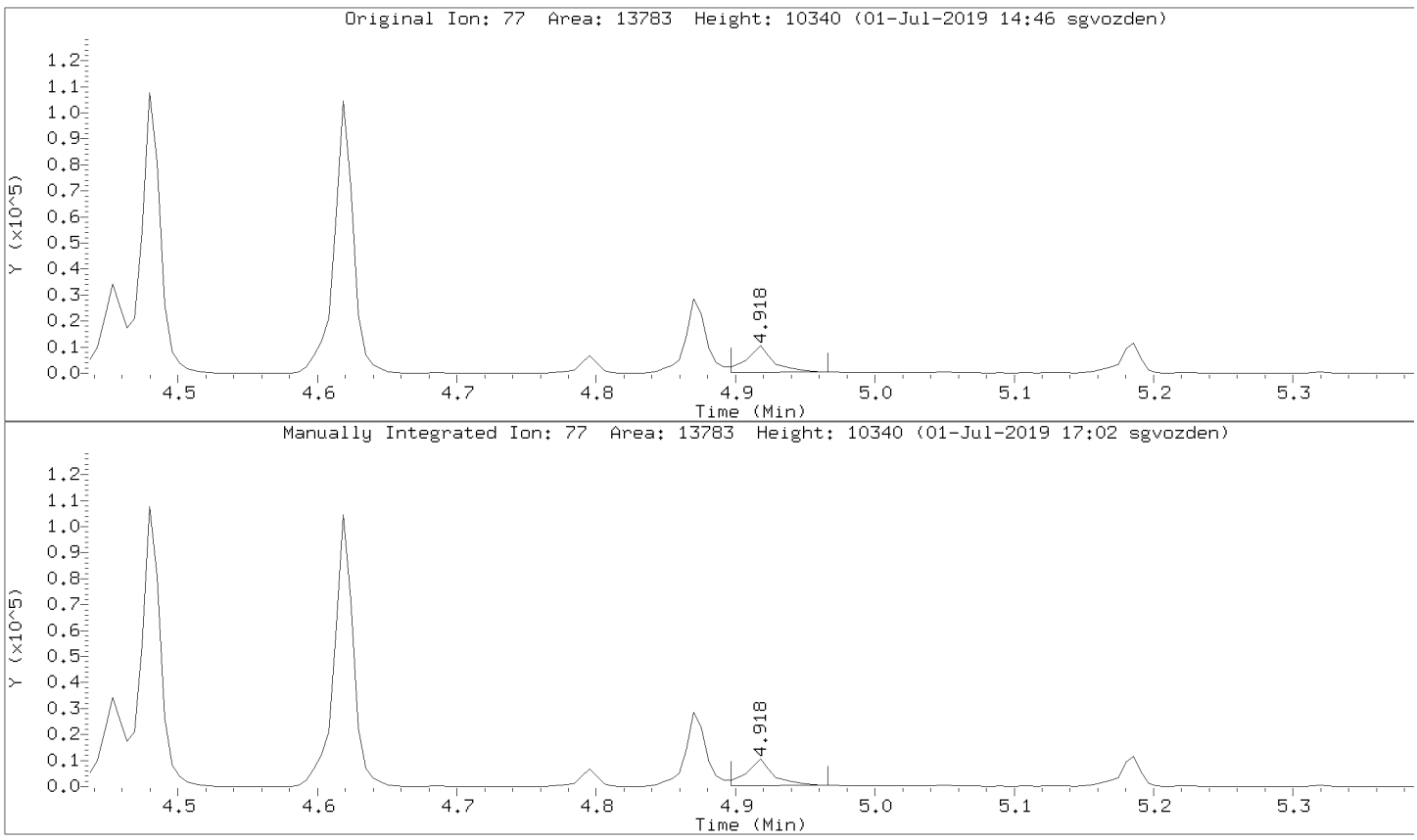
Instrument: 30mss4.i
Lab Sample ID: CAL3



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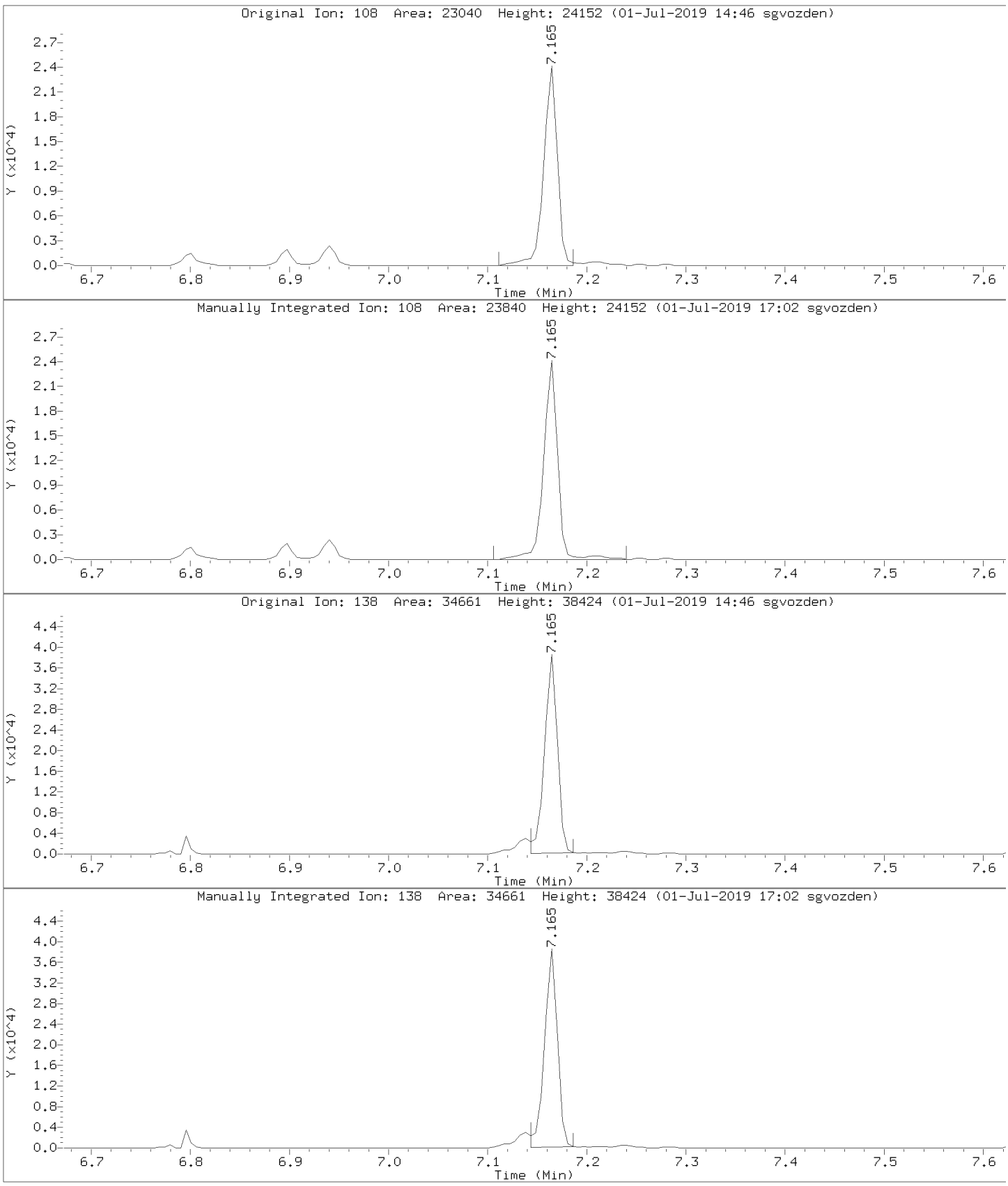
Injection Date: 01-JUL-2019 14:28
Instrument: 30mss4.i
Lab Sample ID: CAL3

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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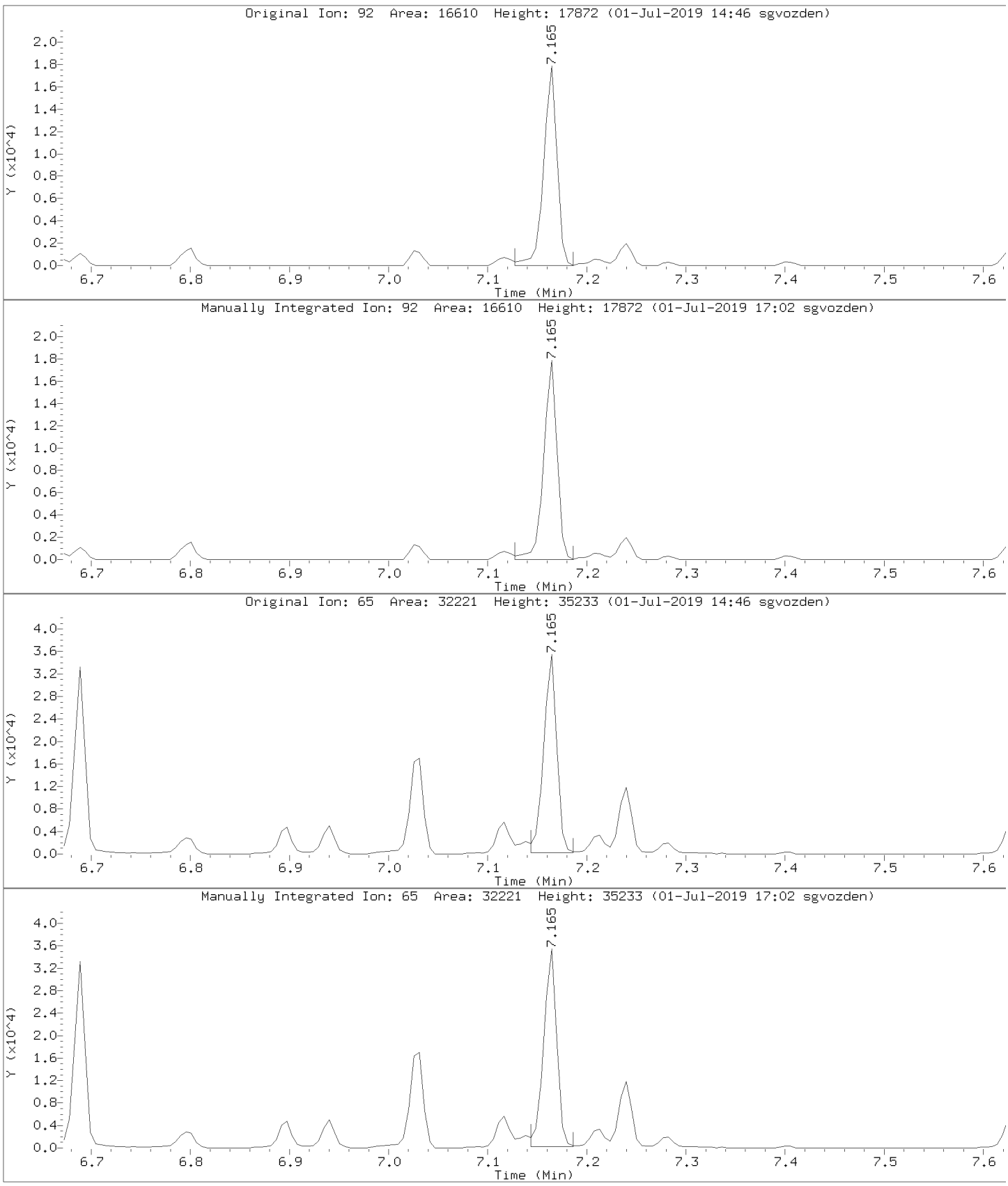
Injection Date: 01-JUL-2019 14:28
Instrument: 30mss4.i
Lab Sample ID: CAL3



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Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x4.d
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Inj Date : 01-JUL-2019 14:50 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal4, 91770:1
Misc Info : 14771,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4070119.b\8270070119.m
Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 14:50 Cal File: m40701x4.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	1 N-Nitrosodimethylamine	74	2.377	2.372	(0.571)	126804	8.00000			
	2 Pyridine	79	2.377	2.377	(0.571)	218759	8.00000			
$	3 2-Fluorophenol (S)	112	3.255	3.254	(0.782)	201188	8.00000			
$	4 Phenol-d6 (S)	99	3.886	3.880	(0.933)	243576	8.00000			
	5 Benzaldehyde	77	3.848	3.848	(0.924)	167864	8.00000			
	6 Phenol	94	3.896	3.891	(0.936)	254014	8.00000			
	7 Aniline	66	3.945	3.944	(0.947)	104910	8.00000			
	8 bis(2-Chloroethyl)ether	63	3.971	3.971	(0.954)	134939	8.00000			
	9 2-Chlorophenol	128	4.030	4.025	(0.968)	213025	8.00000			
	10 1,3-Dichlorobenzene	146	4.137	4.137	(0.994)	229847	8.00000			
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	78121	4.00000			
	12 1,4-Dichlorobenzene	146	4.175	4.174	(1.003)	258708	8.00000			
	13 Benzyl Alcohol	79	4.265	4.265	(1.024)	162286	8.00000			
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	225017	8.00000			
	15 2-Methylphenol(o-Cresol)	108	4.346	4.345	(1.044)	192698	8.00000			
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	219169	8.00000			
	17 3&4-Methylphenol(m&p Cresol)	108	4.458	4.452	(1.071)	199470	8.00000			
	18 N-Nitroso-di-n-propylamine	70	4.490	4.490	(1.078)	140179	8.00000			
	19 Acetophenone	105	4.485	4.479	(1.077)	269089	8.00000			
	20 Hexachloroethane	117	4.565	4.565	(1.096)	88970	8.00000			
$	21 Nitrobenzene-d5 (S)	128	4.608	4.608	(0.891)	99384	8.00000			
	22 Nitrobenzene	77	4.624	4.618	(0.894)	202402	8.00000			
	23 Isophorone	82	4.795	4.795	(0.928)	367215	8.00000			
	24 2,4-Dimethylphenol	107	4.875	4.870	(0.943)	197554	8.00000			
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	104483	8.00000			
	26 Benzoic acid	105	4.939	4.918	(0.956)	80210	8.00000		(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.950	4.950	(0.958)	234298	8.00000			
	28 2,4-Dichlorophenol	162	5.052	5.046	(0.977)	166982	8.00000			
	29 1,2,4-Trichlorobenzene	180	5.132	5.126	(0.993)	194862	8.00000			
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	302984	4.00000			
	31 Naphthalene	128	5.185	5.185	(1.003)	610130	8.00000			
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	59779	8.00000			
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	106413	8.00000			
	34 Caprolactam	55	5.480	5.469	(1.060)	66752	8.00000		(M)	LT

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.597	5.592	(1.083)	163985	8.00000		
	36 2-Methylnaphthalene	142	5.742	5.741	(1.111)	403536	8.00000		
	37 1-Methylnaphthalene	142	5.833	5.832	(1.128)	381170	8.00000		
	38 Hexachlorocyclopentadiene	237	5.924	5.923	(0.894)	102943	8.00000		
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	186859	8.00000		
	40 2,4,6-Trichlorophenol	196	5.982	5.982	(0.903)	128311	8.00000		
	41 2,4,5-Trichlorophenol	196	6.014	6.014	(0.908)	117396	8.00000		
$	42 2-Fluorobiphenyl (S)	172	6.047	6.046	(0.913)	429980	8.00000		
	43 Biphenyl (Diphenyl)	154	6.121	6.121	(0.924)	471813	8.00000		
	44 2-Chloronaphthalene	164	6.143	6.143	(0.927)	119653	8.00000		
	45 2-Nitroaniline	138	6.239	6.234	(0.942)	120225	8.00000		
	46 Dimethylphthalate	163	6.400	6.394	(0.966)	392658	8.00000		
	47 2,6-Dinitrotoluene	165	6.458	6.458	(0.975)	96198	8.00000		
	48 Acenaphthylene	152	6.496	6.496	(0.981)	562641	8.00000		
	49 3-Nitroaniline	65	6.581	6.576	(0.994)	103296	8.00000		
*	50 Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	163048	4.00000		
	51 2,4-Dinitrophenol	184	6.667	6.661	(1.006)	40989	8.00000		
	52 Acenaphthene	153	6.656	6.651	(1.005)	361206	8.00000		
	53 4-Nitrophenol	109	6.694	6.688	(1.010)	42647	8.00000		
	54 2,4-Dinitrotoluene	165	6.806	6.800	(1.027)	120094	8.00000		
	55 Dibenzofuran	168	6.795	6.790	(1.026)	500455	8.00000		
	56 2,3,4,6-Tetrachlorophenol	232	6.945	6.940	(1.048)	99921	8.00000		
	57 Diethylphthalate	149	7.031	7.030	(1.061)	403650	8.00000		
	58 4-Chlorophenylphenyl ether	204	7.116	7.116	(1.074)	202923	8.00000		
	59 Fluorene	166	7.138	7.137	(1.077)	410674	8.00000		
	60 4-Nitroaniline	108	7.170	7.164	(1.082)	51425	8.00000	(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.218	7.212	(0.889)	63344	8.00000		
	62 N-Nitrosodiphenylamine	169	7.245	7.239	(0.892)	348895	8.00000		
	63 Azobenzene	77	7.282	7.282	(0.897)	364945	8.00000		
	64 1,2-Diphenylhydrazine	77	7.282	7.282	(0.897)	364945	8.00000		
$	65 2,4,6-Tribromophenol (S)	330	7.410	7.405	(0.912)	66243	8.00000		
	66 4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	122414	8.00000		
	67 Hexachlorobenzene	284	7.806	7.801	(0.961)	136958	8.00000		
	68 Atrazine	200	7.817	7.817	(0.962)	112942	8.00000		
	69 Pentachlorophenol	266	7.983	7.977	(0.983)	73068	8.00000		
*	70 Phenanthrene-d10 (IS)	188	8.122	8.122	(1.000)	270746	4.00000		
	71 Phenanthrene	178	8.149	8.148	(1.003)	585559	8.00000		
	72 Anthracene	178	8.197	8.196	(1.009)	572229	8.00000		
	73 Carbazole	167	8.357	8.352	(1.029)	513217	8.00000		
	74 Di-n-butylphthalate	149	8.758	8.758	(1.078)	628798	8.00000		
	75 Fluoranthene	202	9.416	9.411	(1.159)	611812	8.00000		
	76 Pyrene	202	9.652	9.651	(0.885)	630185	8.00000		
$	77 Terphenyl-d14 (S)	244	9.801	9.801	(0.899)	492960	8.00000		
	78 Butylbenzylphthalate	149	10.325	10.325	(0.947)	265024	8.00000		
	79 3,3'-Dichlorobenzidine	252	10.855	10.855	(0.996)	230694	8.00000		
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	369171	8.00000		
	81 Benzo(a)anthracene	228	10.887	10.881	(0.999)	623920	8.00000		
*	82 Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	267621	4.00000		
	83 Chrysene	228	10.930	10.930	(1.002)	593351	8.00000		
	84 Di-n-octylphthalate	149	11.502	11.497	(0.938)	548540	8.00000		
	85 Benzo(b)fluoranthene	252	11.925	11.919	(0.973)	641701	8.00000		
	86 Benzo(k)fluoranthene	252	11.946	11.941	(0.975)	658158	8.00000		
	87 Benzo(a)pyrene	252	12.214	12.208	(0.997)	569712	8.00000		
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	264409	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.267	13.262	(1.082)	532781	8.00000		
90 Dibenz(a,h)anthracene	278	13.267	13.256	(1.082)	443226	8.00000		
91 Benzo(g,h,i)perylene	276	13.556	13.545	(1.106)	435965	8.00000		

QC Flag Legend

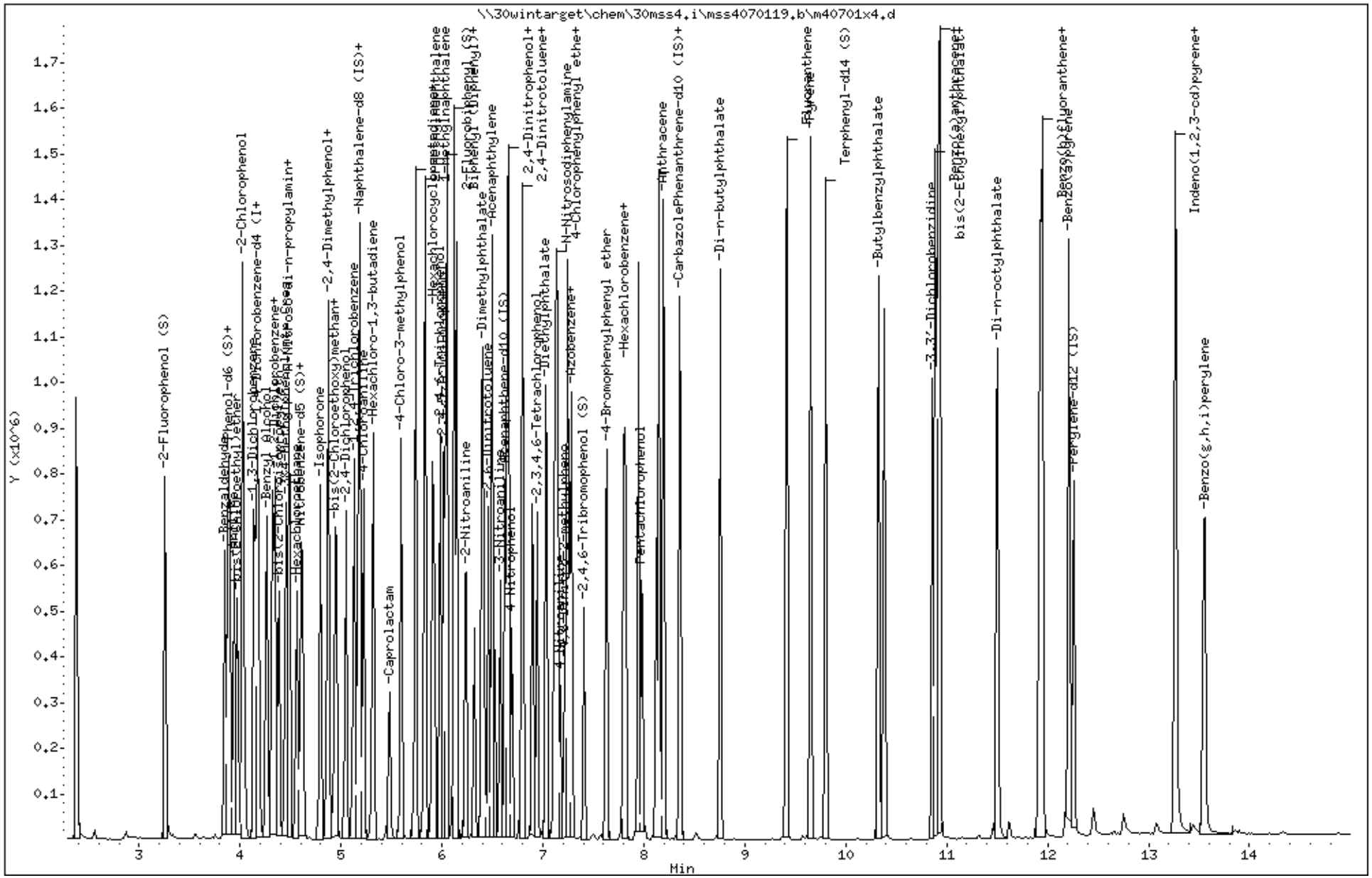
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x4.d
Date : 01-JUL-2019 14:50
Client ID: CAL4
Sample Info: CAL4, 91770:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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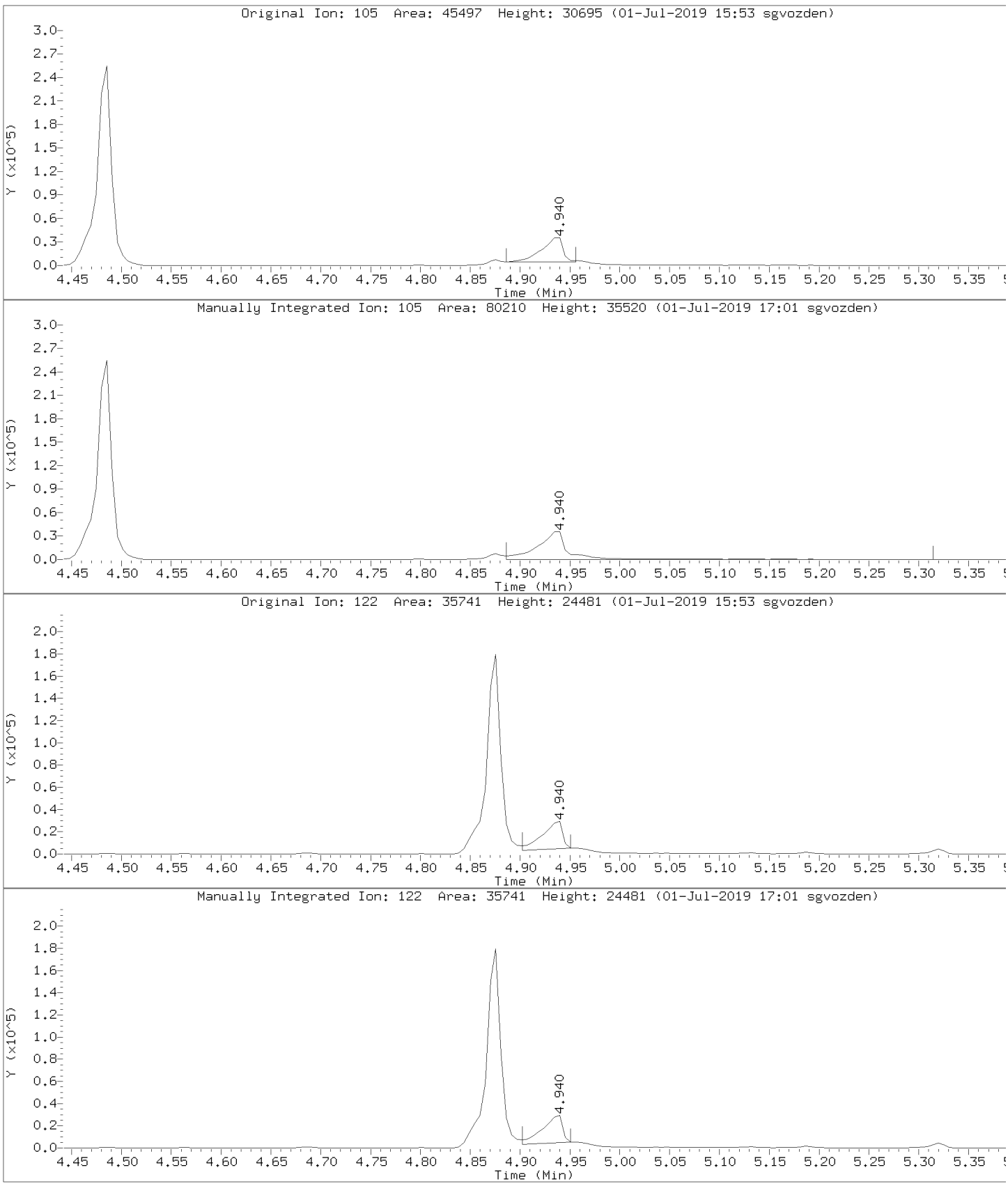
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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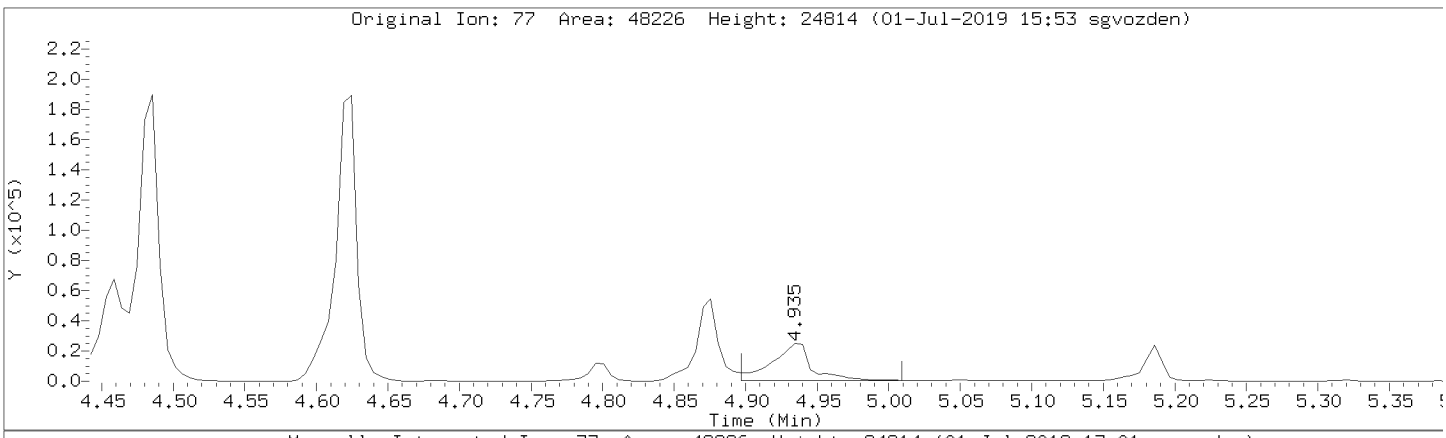

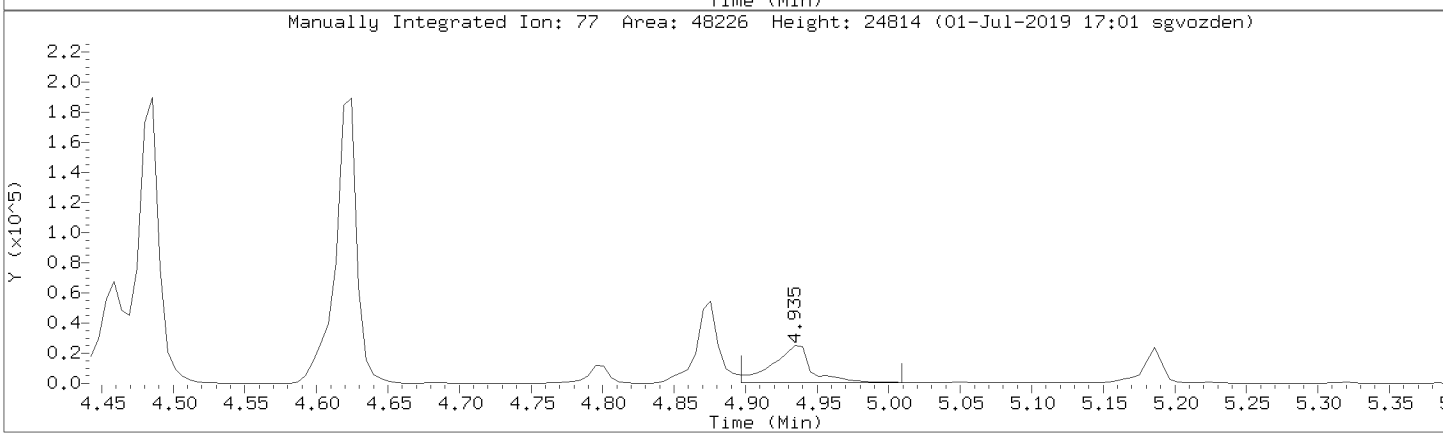

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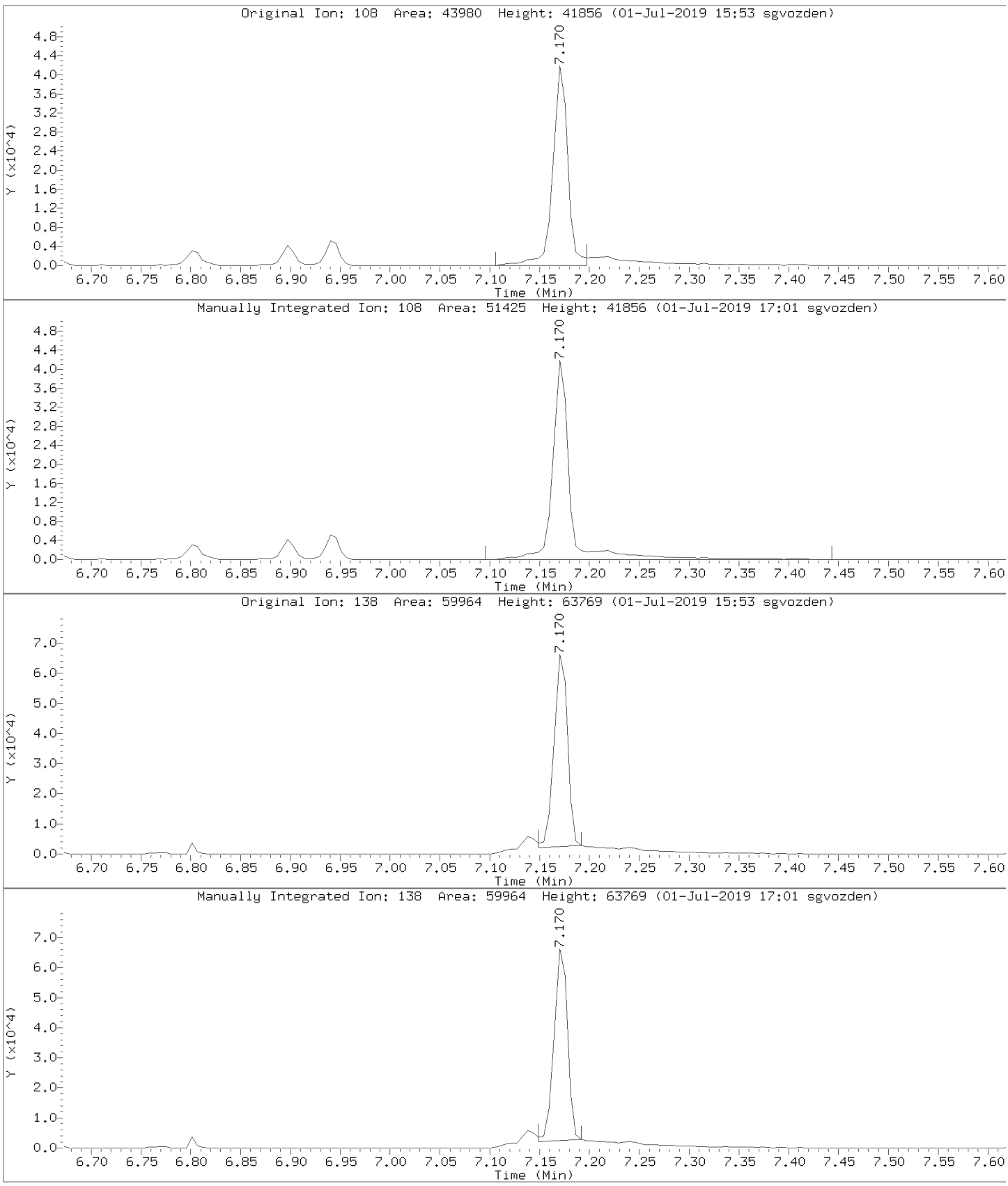
Injection Date: 01-JUL-2019 14:50
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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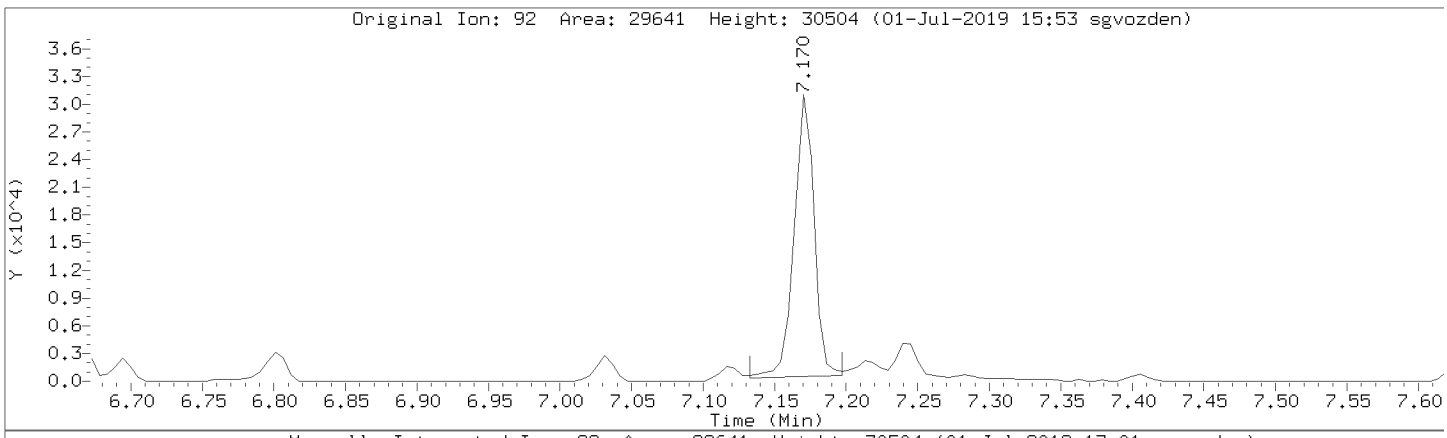
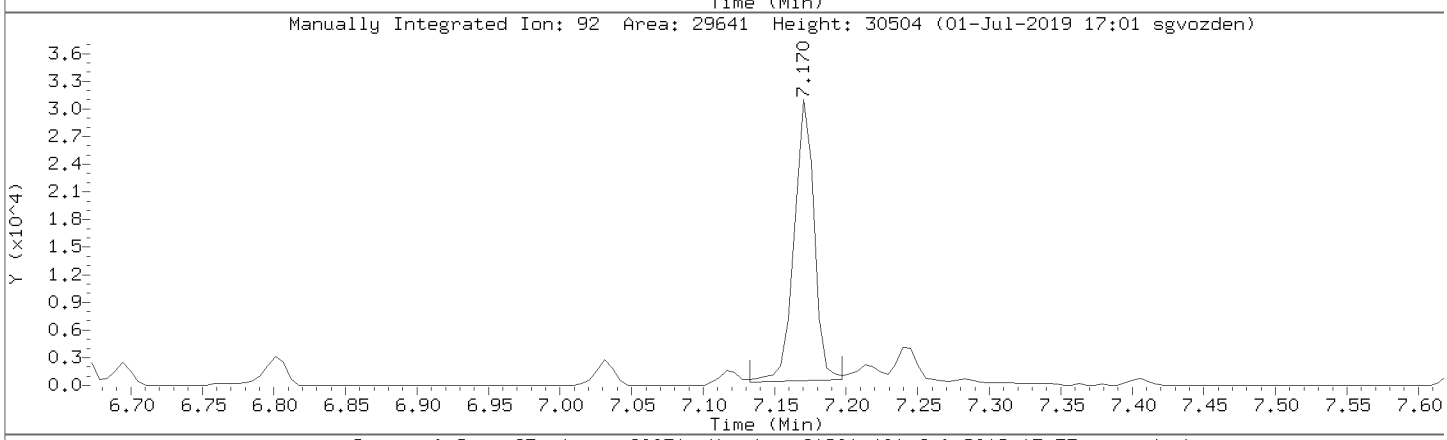
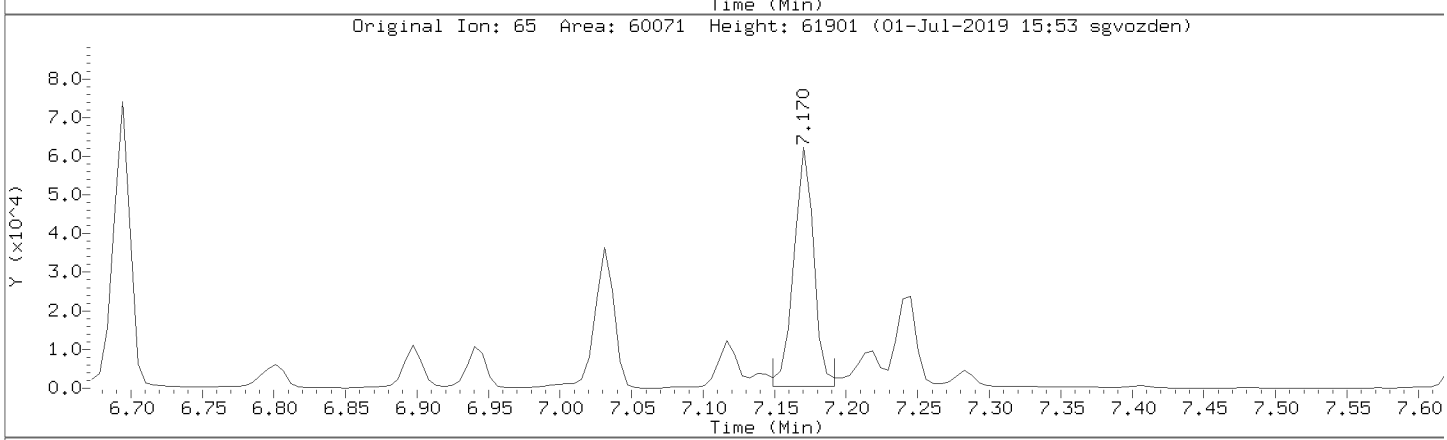
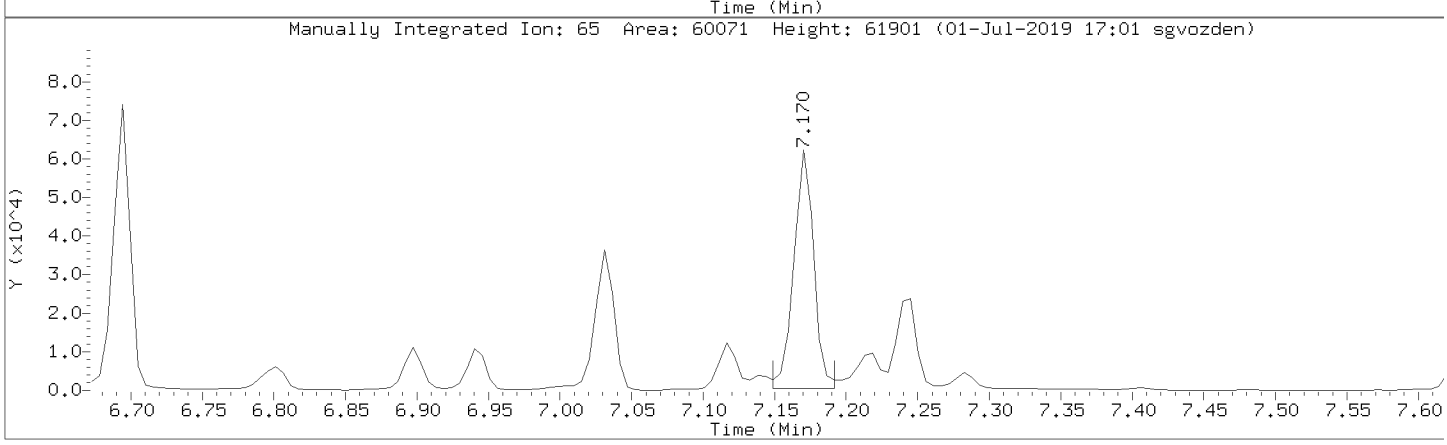
Instrument: 30mss4.i
Lab Sample ID: CAL4









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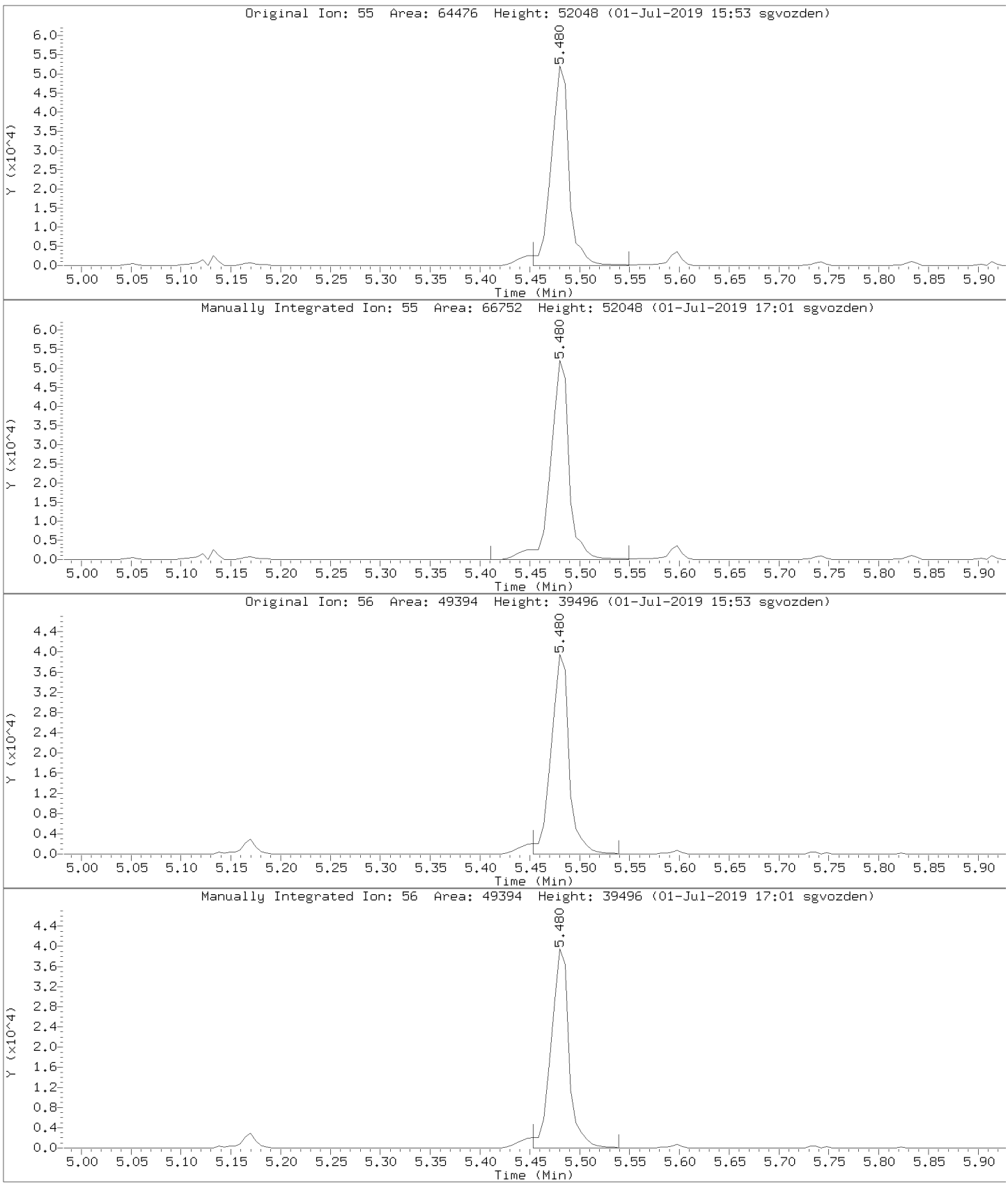
Injection Date: 01-JUL-2019 14:50
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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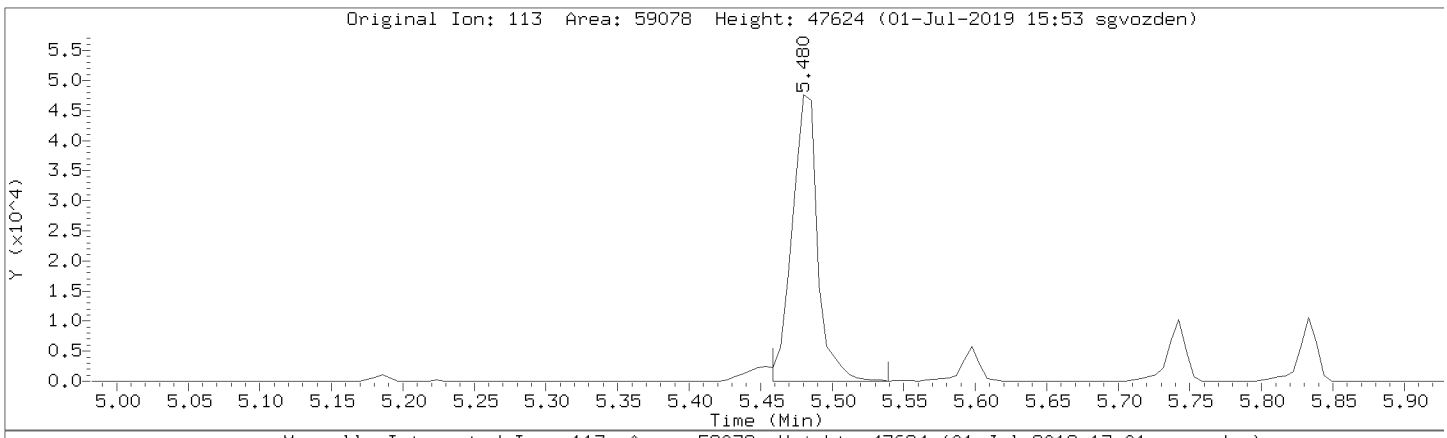
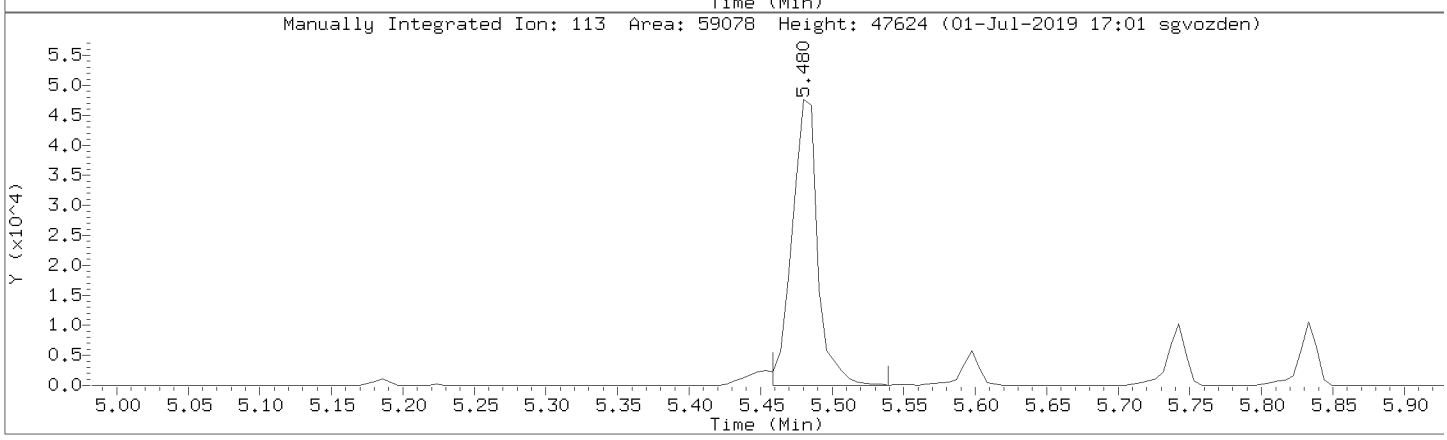
Lab Sample ID: CAL4





Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x5.d
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Inj Date : 01-JUL-2019 15:12 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal5, 91769:1
Misc Info : 14771,
Comment   :
Method   : \\30wintarget\chem\30mss4.i\mss4070119.b\8270070119.m
Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:12 Cal File: m40701x5.d
Als bottle: 17 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.377	2.372	(0.571)	184209	12.0000	11.1	
	2 Pyridine	79	2.377	2.377	(0.571)	307184	12.0000	11.0	
$	3 2-Fluorophenol (S)	112	3.254	3.254	(0.782)	280131	12.0000	11.6	
$	4 Phenol-d6 (S)	99	3.886	3.880	(0.933)	355138	12.0000	11.6	
	5 Benzaldehyde	77	3.854	3.848	(0.925)	237838	12.0000	11.1	
	6 Phenol	94	3.896	3.891	(0.936)	365038	12.0000	11.3	
	7 Aniline	66	3.944	3.944	(0.947)	154070	12.0000	12.2	
	8 bis(2-Chloroethyl)ether	63	3.971	3.971	(0.954)	208278	12.0000	12.1	
	9 2-Chlorophenol	128	4.030	4.025	(0.968)	302193	12.0000	11.2	
	10 1,3-Dichlorobenzene	146	4.142	4.137	(0.995)	338582	12.0000	11.8	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	76591	4.00000		
	12 1,4-Dichlorobenzene	146	4.174	4.174	(1.003)	356734	12.0000	10.9	
	13 Benzyl Alcohol	79	4.265	4.265	(1.024)	241066	12.0000	12.0	
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	325708	12.0000	11.4	
	15 2-Methylphenol(o-Cresol)	108	4.346	4.345	(1.044)	282554	12.0000	11.5	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	315659	12.0000	11.2	
	17 3&4-Methylphenol(m&p Cresol)	108	4.458	4.452	(1.071)	295298	12.0000	11.7	
	18 N-Nitroso-di-n-propylamine	70	4.495	4.490	(1.080)	201668	12.0000	11.3	
	19 Acetophenone	105	4.485	4.479	(1.077)	390895	12.0000	11.3	
	20 Hexachloroethane	117	4.565	4.565	(1.096)	130020	12.0000	11.9	
$	21 Nitrobenzene-d5 (S)	128	4.608	4.608	(0.891)	150008	12.0000	12.2	
	22 Nitrobenzene	77	4.624	4.618	(0.894)	293146	12.0000	11.2	
	23 Isophorone	82	4.800	4.795	(0.929)	535577	12.0000	11.2	
	24 2,4-Dimethylphenol	107	4.875	4.870	(0.943)	283479	12.0000	11.1	
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	162111	12.0000	13.4	
	26 Benzoic acid	105	4.950	4.918	(0.958)	153573	12.0000	26.7(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	4.955	4.950	(0.959)	336848	12.0000	10.9	
	28 2,4-Dichlorophenol	162	5.052	5.046	(0.977)	253868	12.0000	12.2	
	29 1,2,4-Trichlorobenzene	180	5.132	5.126	(0.993)	287539	12.0000	11.4	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	304410	4.00000		
	31 Naphthalene	128	5.185	5.185	(1.003)	879833	12.0000	11.0	
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	87850	12.0000	11.6	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	156388	12.0000	11.4	
	34 Caprolactam	55	5.496	5.469	(1.063)	103647	12.0000	13.3(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.603	5.592	(1.084)	243341	12.0000	11.9	
	36 2-Methylnaphthalene	142	5.742	5.741	(1.111)	593512	12.0000	11.2	
	37 1-Methylnaphthalene	142	5.833	5.832	(1.128)	558358	12.0000	11.1	
	38 Hexachlorocyclopentadiene	237	5.923	5.923	(0.894)	169249	12.0000	13.6	
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	275764	12.0000	11.0	
	40 2,4,6-Trichlorophenol	196	5.988	5.982	(0.904)	199192	12.0000	12.3	
	41 2,4,5-Trichlorophenol	196	6.020	6.014	(0.909)	176324	12.0000	12.0	
$	42 2-Fluorobiphenyl (S)	172	6.046	6.046	(0.913)	635318	12.0000	10.8	
	43 Biphenyl (Diphenyl)	154	6.127	6.121	(0.925)	685051	12.0000	10.7	
	44 2-Chloronaphthalene	164	6.148	6.143	(0.928)	177598	12.0000	10.9	
	45 2-Nitroaniline	138	6.239	6.234	(0.942)	185233	12.0000	12.7	
	46 Dimethylphthalate	163	6.399	6.394	(0.966)	578668	12.0000	10.7	
	47 2,6-Dinitrotoluene	165	6.464	6.458	(0.976)	147231	12.0000	12.0	
	48 Acenaphthylene	152	6.501	6.496	(0.981)	829229	12.0000	11.0	
	49 3-Nitroaniline	65	6.581	6.576	(0.994)	150840	12.0000	11.0	
*	50 Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	166529	4.00000		
	51 2,4-Dinitrophenol	184	6.667	6.661	(1.006)	72529	12.0000	21.0(A)	
	52 Acenaphthene	153	6.656	6.651	(1.005)	531021	12.0000	10.7	
	53 4-Nitrophenol	109	6.699	6.688	(1.011)	73289	12.0000	13.8	
	54 2,4-Dinitrotoluene	165	6.806	6.800	(1.027)	184562	12.0000	12.6	
	55 Dibenzofuran	168	6.795	6.790	(1.026)	738961	12.0000	10.8	
	56 2,3,4,6-Tetrachlorophenol	232	6.945	6.940	(1.048)	152937	12.0000	12.8	
	57 Diethylphthalate	149	7.036	7.030	(1.062)	578026	12.0000	10.9	
	58 4-Chlorophenylphenyl ether	204	7.122	7.116	(1.075)	303524	12.0000	11.0	
	59 Fluorene	166	7.143	7.137	(1.078)	610128	12.0000	11.2	
	60 4-Nitroaniline	108	7.180	7.164	(1.084)	78845	12.0000	11.0(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.223	7.212	(0.889)	103649	12.0000	17.2	
	62 N-Nitrosodiphenylamine	169	7.245	7.239	(0.891)	494490	12.0000	10.7	
	63 Azobenzene	77	7.287	7.282	(0.897)	523759	12.0000	10.8	
	64 1,2-Diphenylhydrazine	77	7.287	7.282	(0.897)	523759	12.0000	10.8	
$	65 2,4,6-Tribromophenol (S)	330	7.410	7.405	(0.912)	102801	12.0000	13.6	
	66 4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	186273	12.0000	11.9	
	67 Hexachlorobenzene	284	7.806	7.801	(0.961)	204087	12.0000	11.3	
	68 Atrazine	200	7.822	7.817	(0.962)	170336	12.0000	12.2	
	69 Pentachlorophenol	266	7.983	7.977	(0.982)	117296	12.0000	16.7(A)	
*	70 Phenanthrene-d10 (IS)	188	8.127	8.122	(1.000)	272760	4.00000		
	71 Phenanthrene	178	8.154	8.148	(1.003)	848535	12.0000	10.8	
	72 Anthracene	178	8.202	8.196	(1.009)	824913	12.0000	11.1	
	73 Carbazole	167	8.362	8.352	(1.029)	731750	12.0000	10.8	
	74 Di-n-butylphthalate	149	8.758	8.758	(1.078)	928847	12.0000	11.8	
	75 Fluoranthene	202	9.416	9.411	(1.159)	894187	12.0000	11.3	
	76 Pyrene	202	9.657	9.651	(0.886)	919039	12.0000	11.6	
$	77 Terphenyl-d14 (S)	244	9.807	9.801	(0.899)	706842	12.0000	11.4	
	78 Butylbenzylphthalate	149	10.325	10.325	(0.947)	389457	12.0000	13.4	
	79 3,3'-Dichlorobenzidine	252	10.860	10.855	(0.996)	328779	12.0000	12.9	
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	530405	12.0000	12.5	
	81 Benzo(a)anthracene	228	10.887	10.881	(0.999)	885550	12.0000	11.6	
*	82 Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	258732	4.00000		
	83 Chrysene	228	10.935	10.930	(1.003)	823980	12.0000	10.8	
	84 Di-n-octylphthalate	149	11.502	11.497	(0.938)	793250	12.0000	14.9	
	85 Benzo(b)fluoranthene	252	11.925	11.919	(0.973)	845054	12.0000	11.6	
	86 Benzo(k)fluoranthene	252	11.946	11.941	(0.975)	930948	12.0000	11.6	
	87 Benzo(a)pyrene	252	12.213	12.208	(0.997)	775456	12.0000	12.1	
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	245249	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.267	13.262	(1.082)	702299	12.0000	11.3	
90 Dibenz(a,h)anthracene	278	13.267	13.256	(1.082)	581098	12.0000	11.3	
91 Benzo(g,h,i)perylene	276	13.556	13.545	(1.106)	554218	12.0000	10.9	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x5.d
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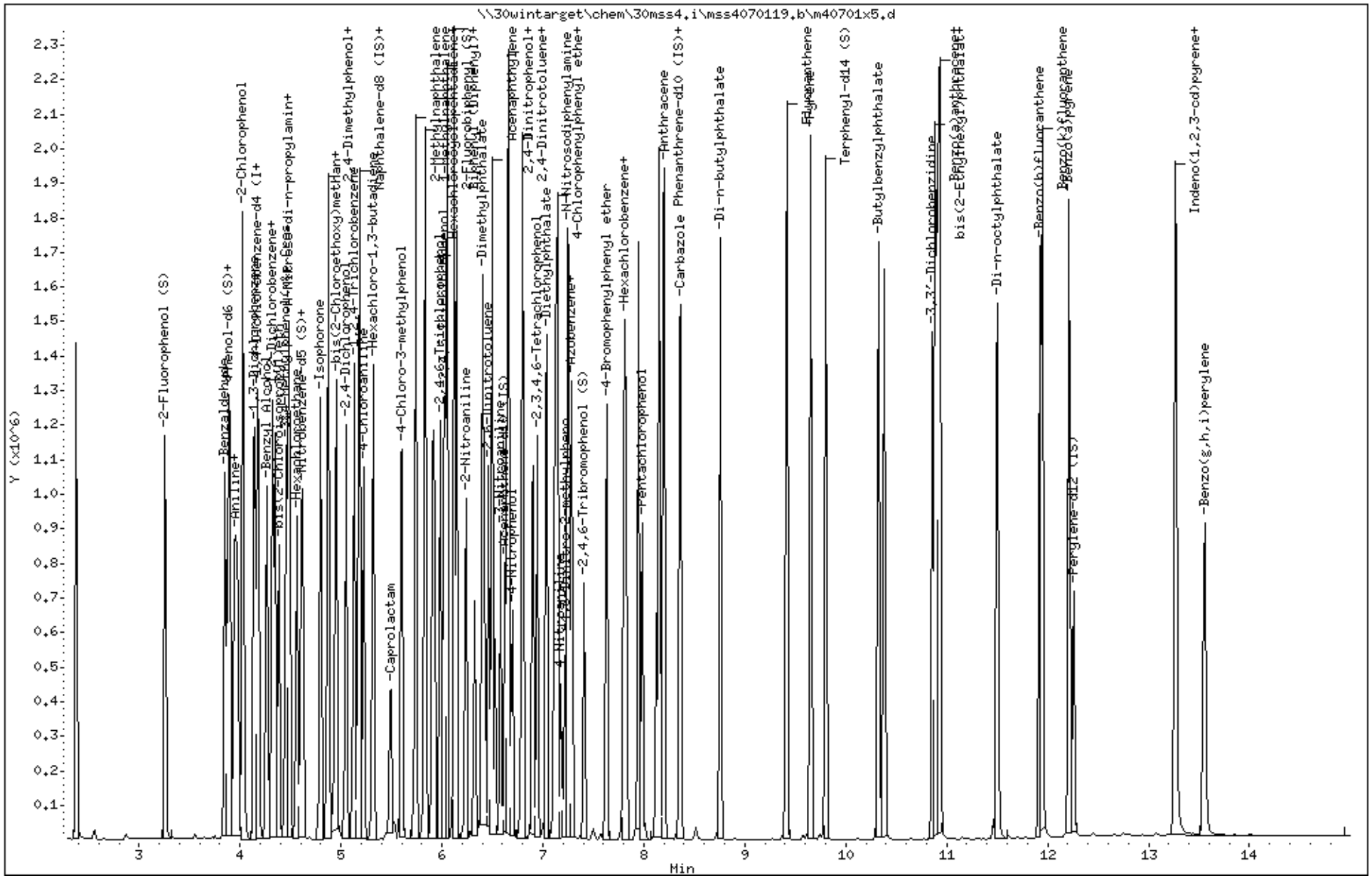
Client ID: CAL5
Sample Info: CAL5, 91769:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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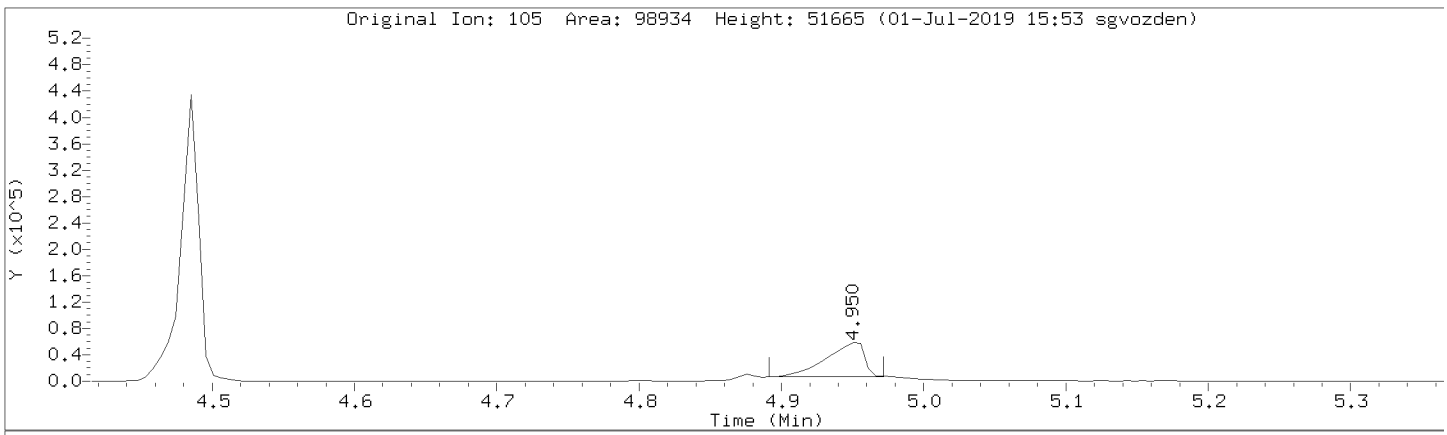
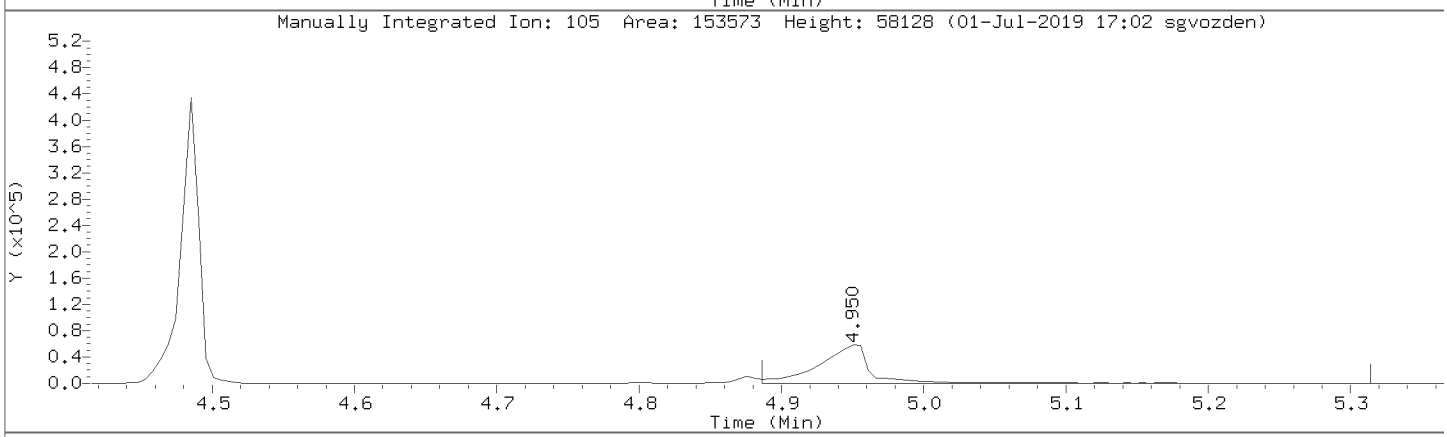
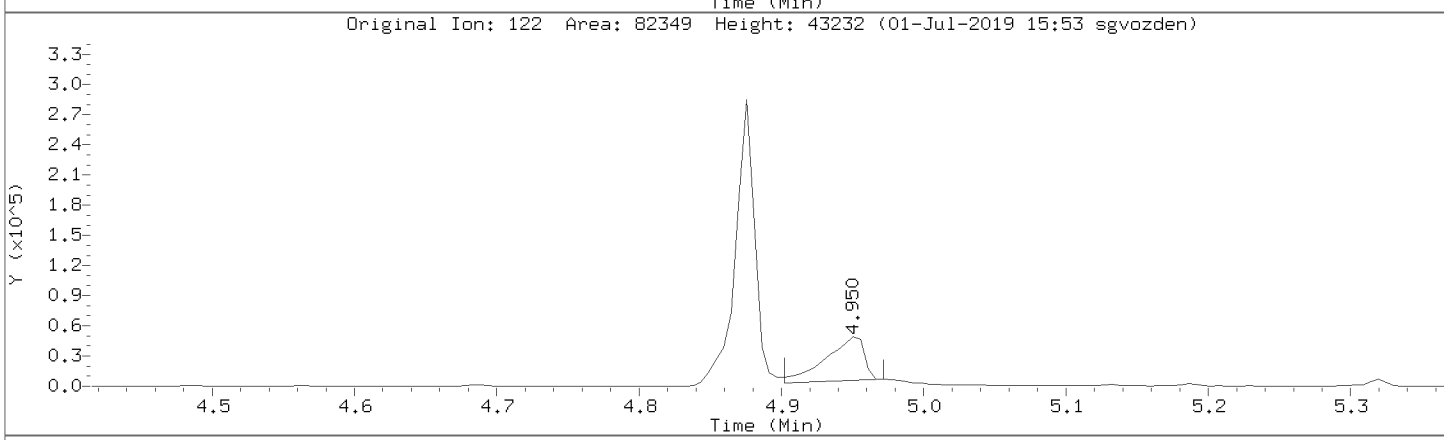
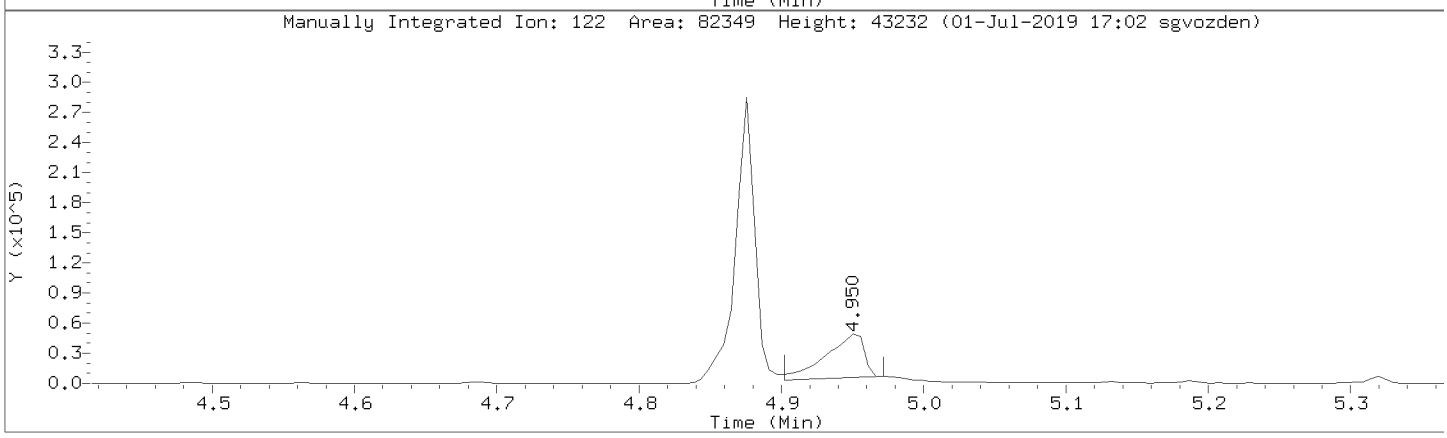
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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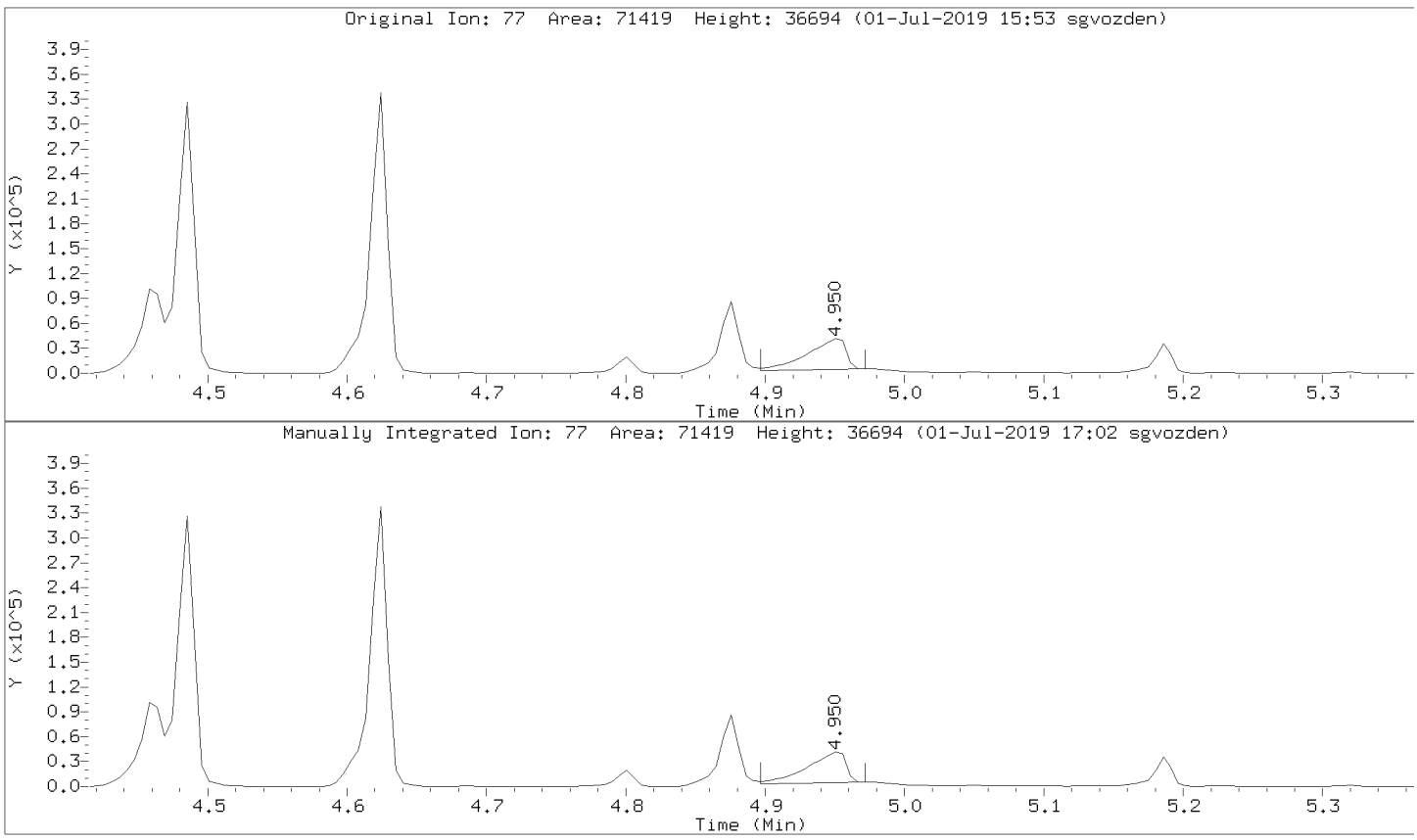
Lab Sample ID: CAL5



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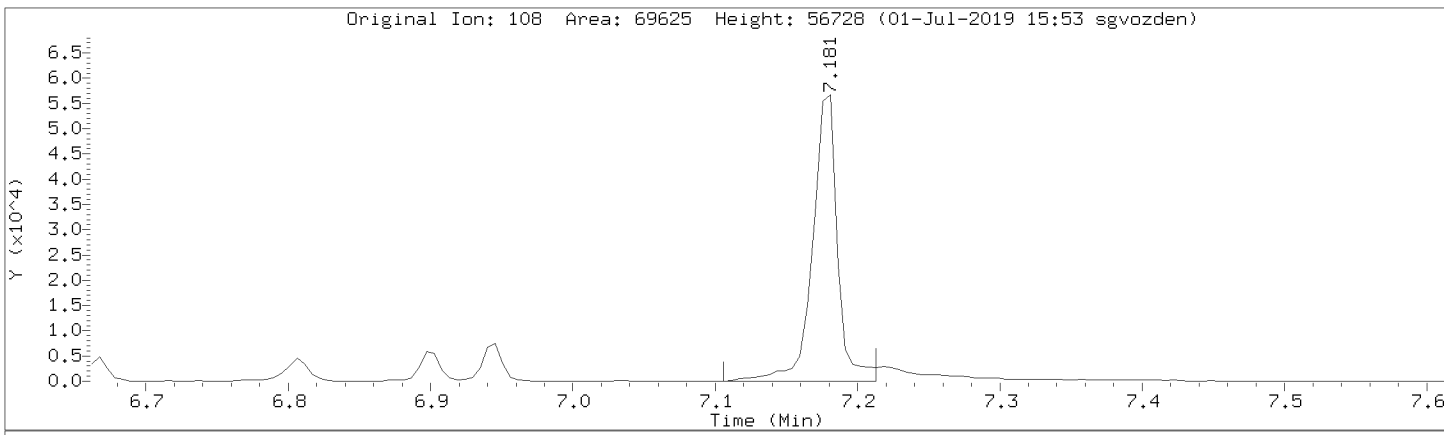
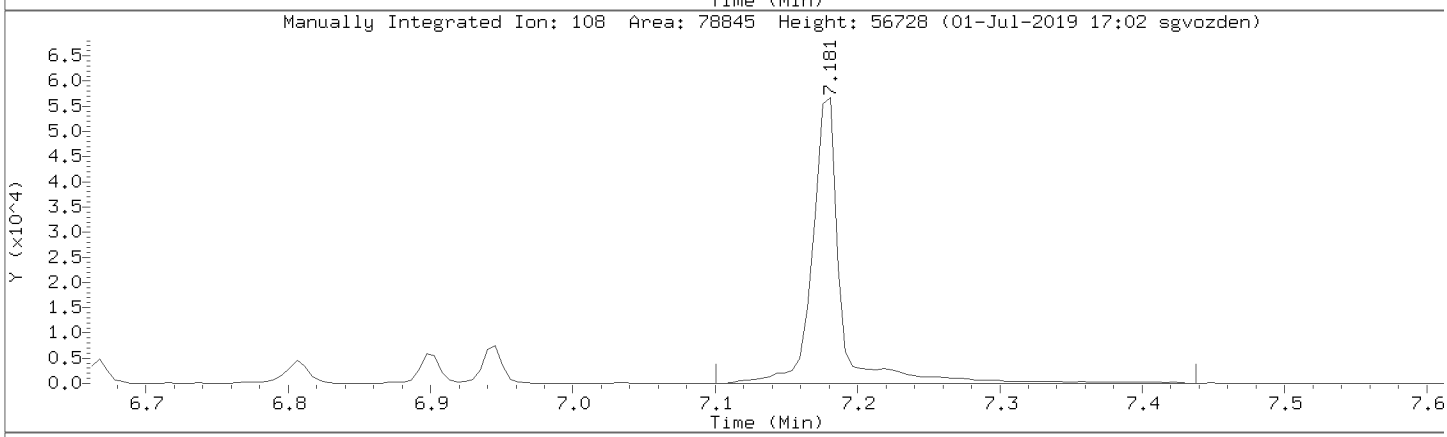
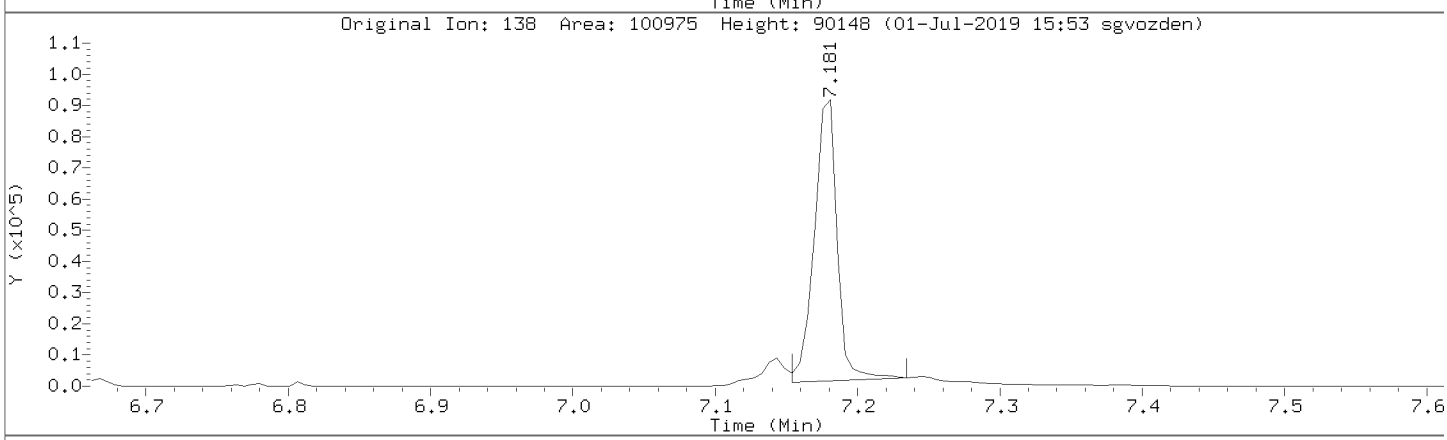
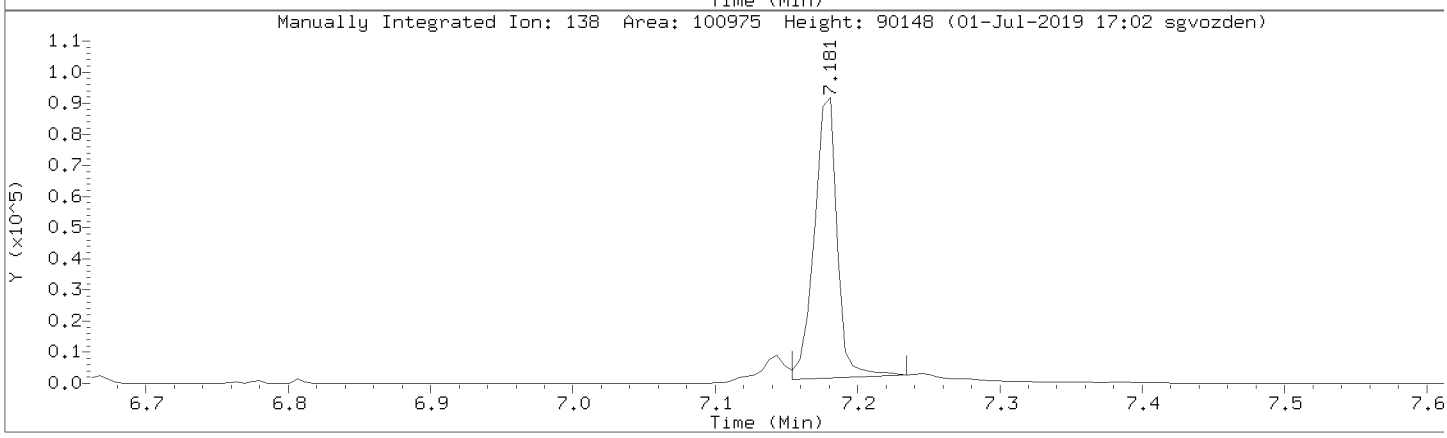
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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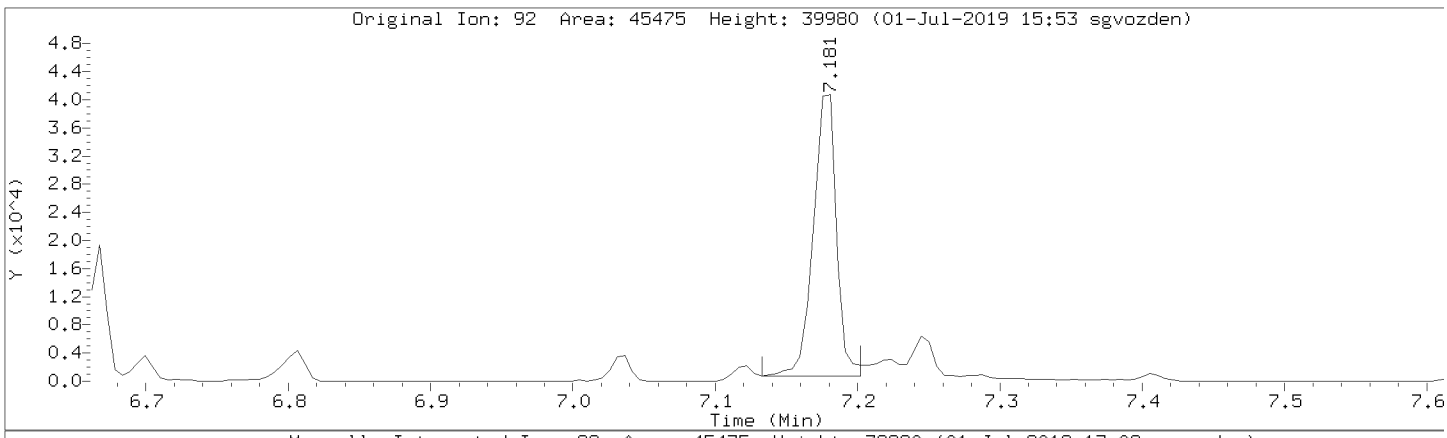
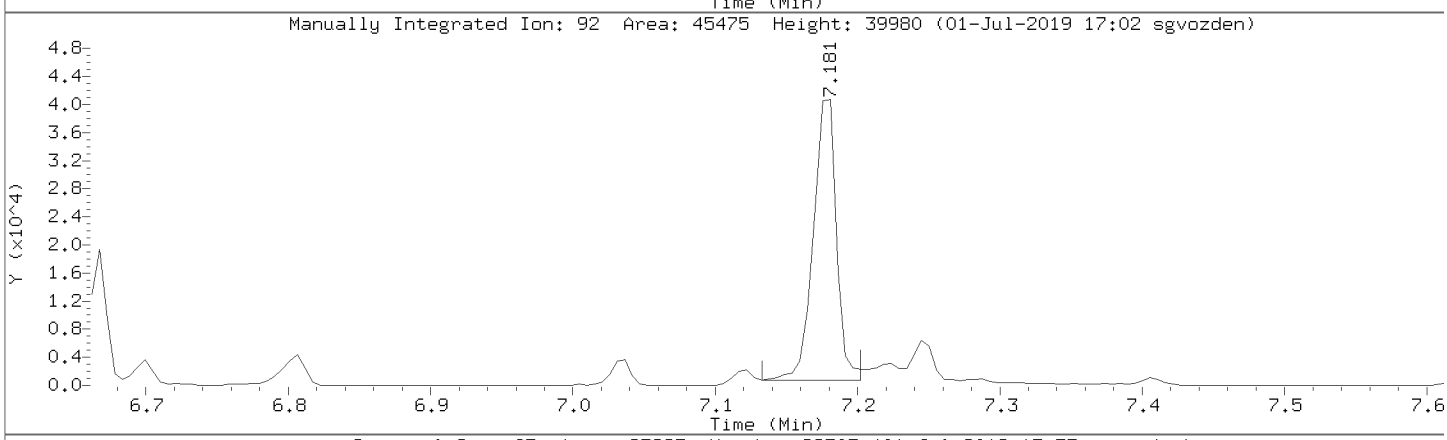
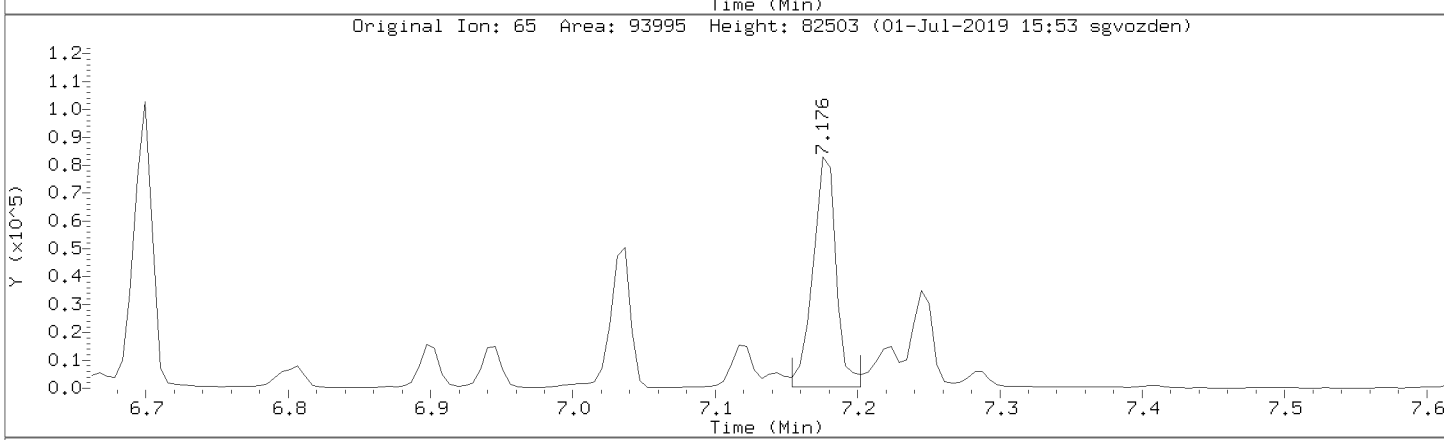
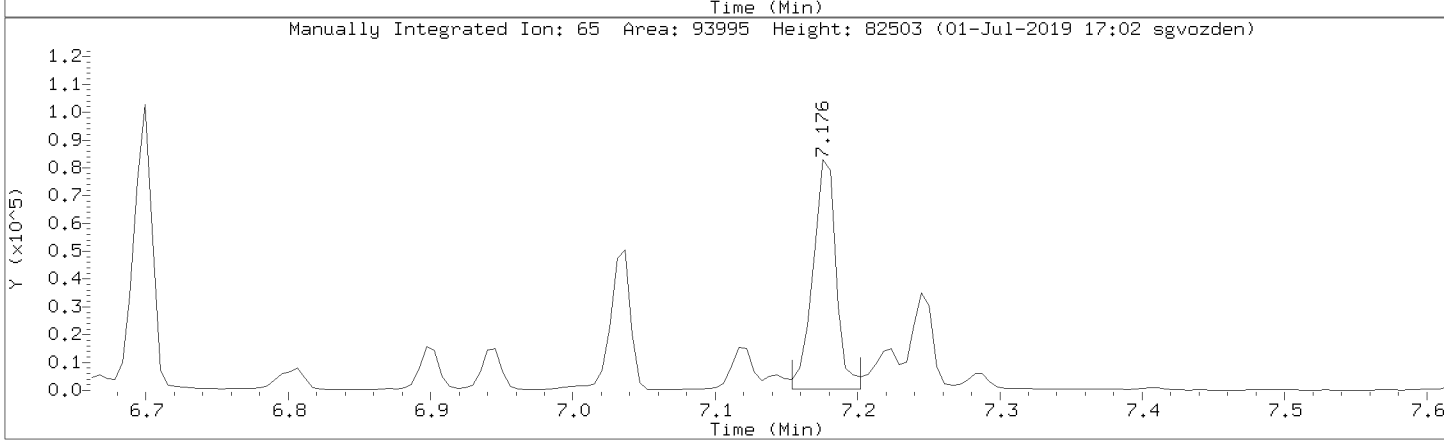
Lab Sample ID: CAL5









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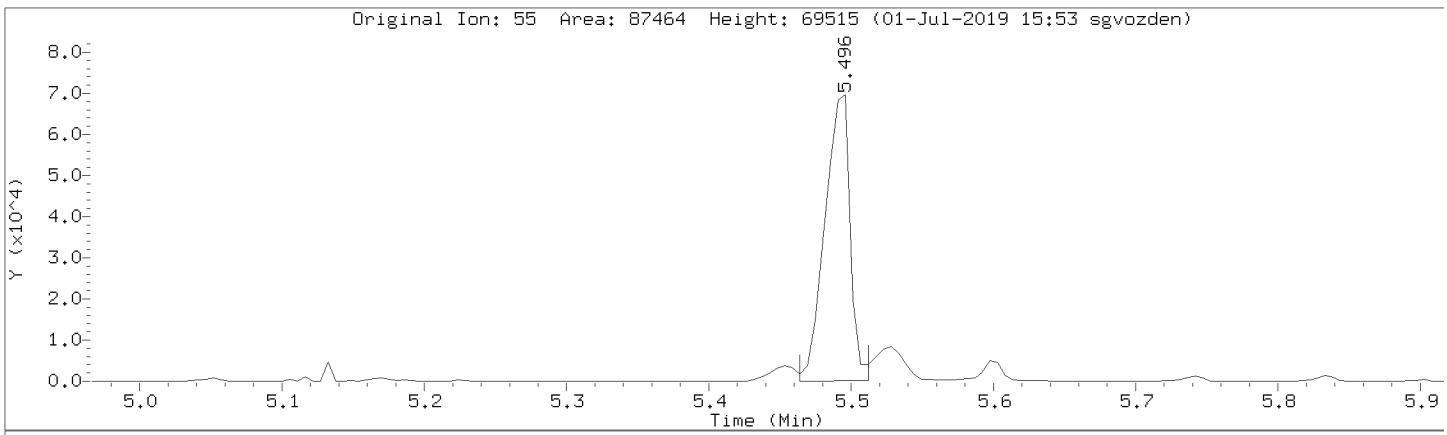
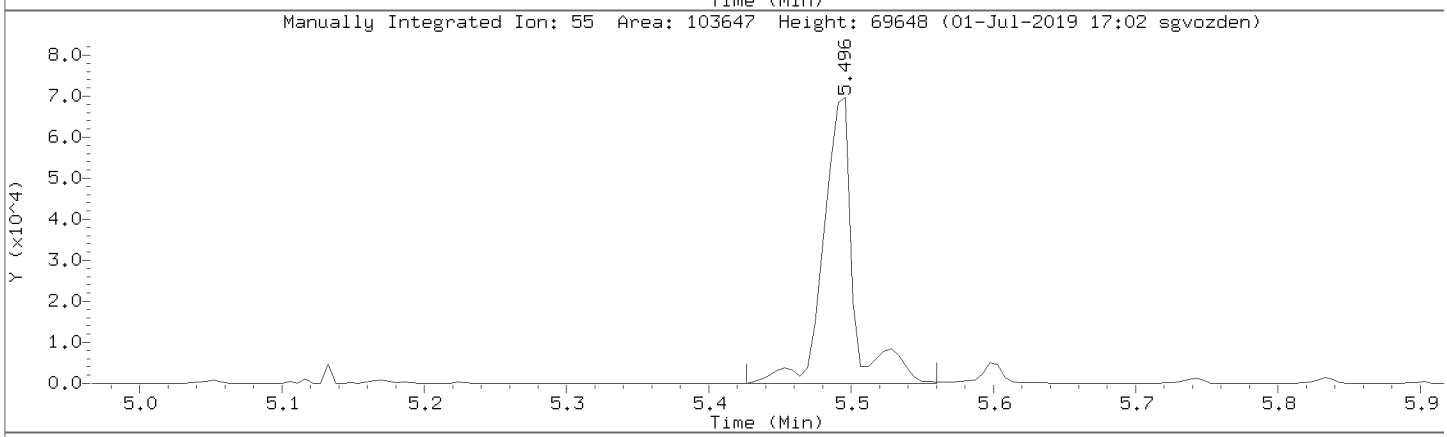
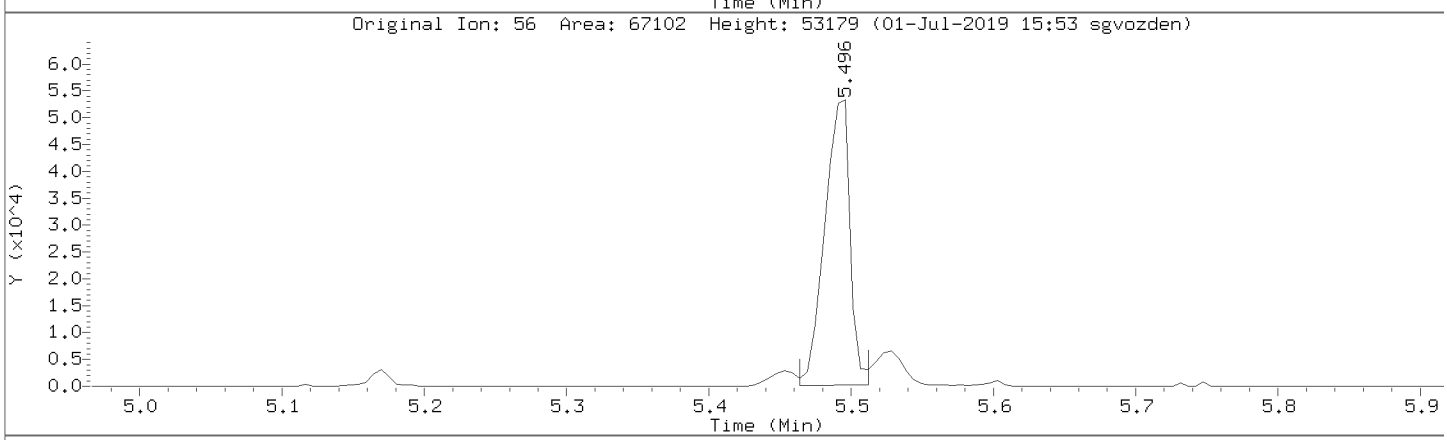
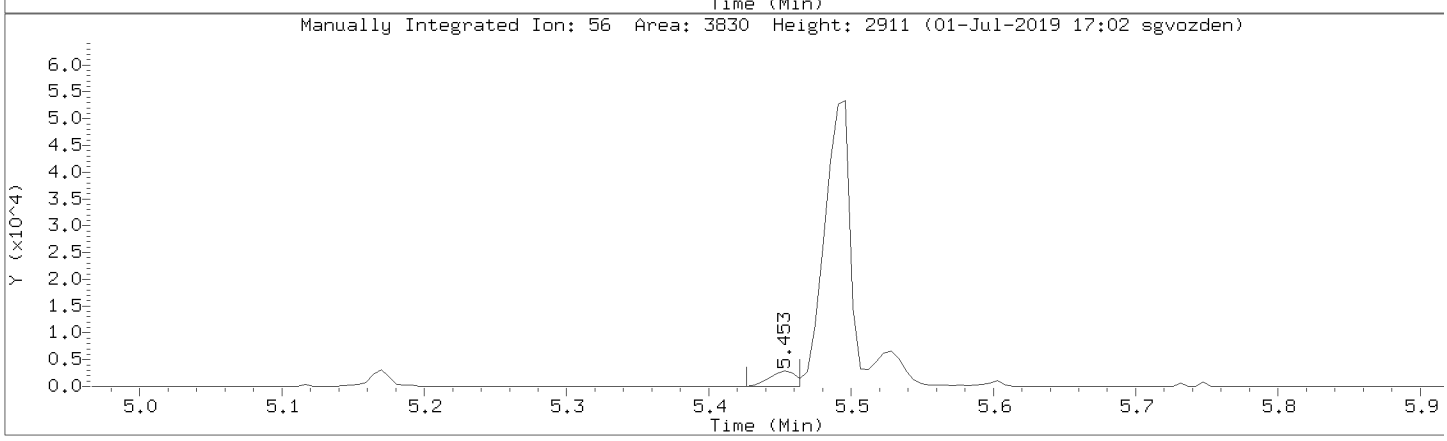
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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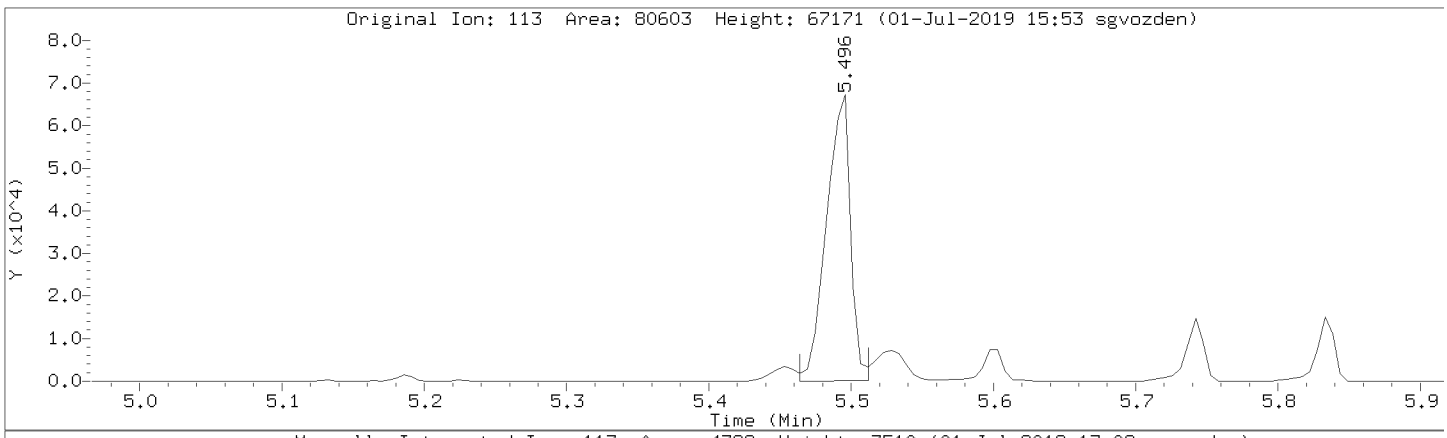
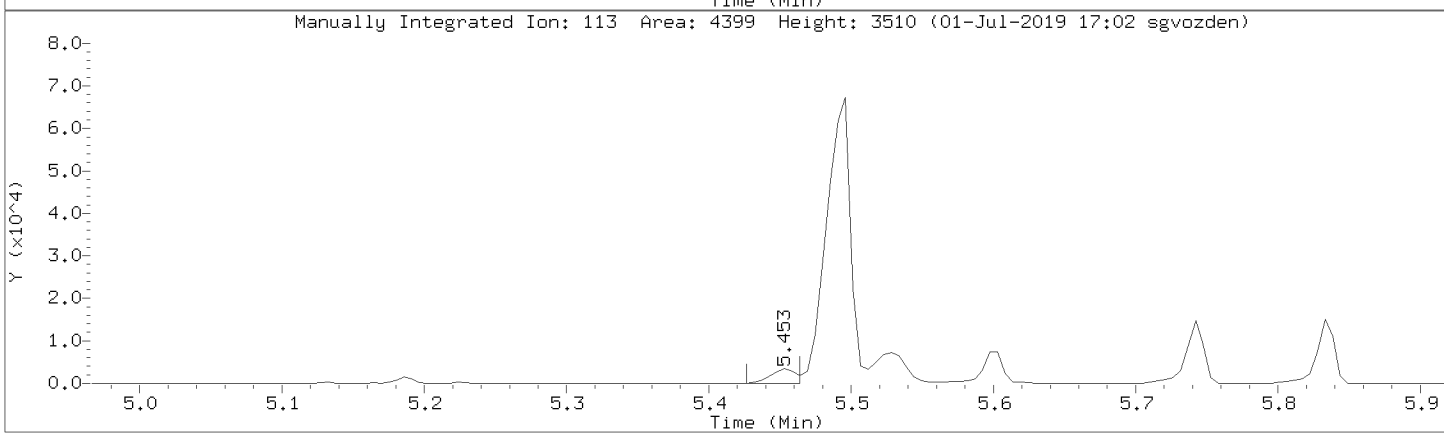
Instrument: 30mss4.i
Lab Sample ID: CAL5





Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x6.d
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Inj Date : 01-JUL-2019 15:34 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal6, 91768:1
Misc Info : 14771,
Comment :
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Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:34 Cal File: m40701x6.d
Als bottle: 18 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.377	2.372	(0.571)	238442	16.0000	14.5	
	2 Pyridine	79	2.377	2.377	(0.571)	408555	16.0000	14.8	
$	3 2-Fluorophenol (S)	112	3.254	3.254	(0.782)	381962	16.0000	15.8	
$	4 Phenol-d6 (S)	99	3.891	3.880	(0.934)	467714	16.0000	15.3	
	5 Benzaldehyde	77	3.853	3.848	(0.925)	317267	16.0000	14.9	
	6 Phenol	94	3.902	3.891	(0.937)	472753	16.0000	14.7	
	7 Aniline	66	3.950	3.944	(0.949)	205343	16.0000	16.1	
	8 bis(2-Chloroethyl)ether	63	3.976	3.971	(0.955)	272031	16.0000	15.6	
	9 2-Chlorophenol	128	4.030	4.025	(0.968)	394494	16.0000	14.7	
	10 1,3-Dichlorobenzene	146	4.142	4.137	(0.995)	452898	16.0000	15.7	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	77200	4.00000		
	12 1,4-Dichlorobenzene	146	4.180	4.174	(1.004)	478283	16.0000	14.8	
	13 Benzyl Alcohol	79	4.271	4.265	(1.026)	321494	16.0000	15.9	
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	436659	16.0000	15.3	
	15 2-Methylphenol(o-Cresol)	108	4.346	4.345	(1.044)	376786	16.0000	15.4	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	414921	16.0000	14.8	
	17 3&4-Methylphenol(m&p Cresol)	108	4.463	4.452	(1.072)	391167	16.0000	15.5	
	18 N-Nitroso-di-n-propylamine	70	4.501	4.490	(1.081)	267090	16.0000	15.1	
	19 Acetophenone	105	4.485	4.479	(1.077)	509518	16.0000	14.7	
	20 Hexachloroethane	117	4.565	4.565	(1.096)	174085	16.0000	15.8	
$	21 Nitrobenzene-d5 (S)	128	4.613	4.608	(0.892)	201108	16.0000	16.1	
	22 Nitrobenzene	77	4.624	4.618	(0.894)	388357	16.0000	14.9	
	23 Isophorone	82	4.800	4.795	(0.929)	708069	16.0000	14.9	
	24 2,4-Dimethylphenol	107	4.875	4.870	(0.943)	365273	16.0000	14.3	
	25 2-Nitrophenol	139	4.875	4.870	(0.943)	205763	16.0000	16.5	
	26 Benzoic acid	105	4.966	4.918	(0.961)	229008	16.0000	31.6(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	4.955	4.950	(0.959)	439676	16.0000	14.4	
	28 2,4-Dichlorophenol	162	5.052	5.046	(0.977)	341887	16.0000	16.2	
	29 1,2,4-Trichlorobenzene	180	5.132	5.126	(0.993)	382714	16.0000	15.2	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	307701	4.00000		
	31 Naphthalene	128	5.191	5.185	(1.004)	1146173	16.0000	14.4	
	32 4-Chloroaniline	65	5.228	5.223	(1.011)	115689	16.0000	15.2	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	210279	16.0000	15.3	
	34 Caprolactam	55	5.506	5.469	(1.065)	139267	16.0000	17.3(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.602	5.592	(1.084)	327903	16.0000	15.9	
	36 2-Methylnaphthalene	142	5.742	5.741	(1.111)	770381	16.0000	14.6	
	37 1-Methylnaphthalene	142	5.838	5.832	(1.129)	727641	16.0000	14.5	
	38 Hexachlorocyclopentadiene	237	5.929	5.923	(0.895)	232311	16.0000	18.1	
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	364818	16.0000	14.8	
	40 2,4,6-Trichlorophenol	196	5.988	5.982	(0.904)	266940	16.0000	16.3	
	41 2,4,5-Trichlorophenol	196	6.020	6.014	(0.909)	241277	16.0000	16.4	
$	42 2-Fluorobiphenyl (S)	172	6.046	6.046	(0.913)	833984	16.0000	14.4	
	43 Biphenyl (Diphenyl)	154	6.127	6.121	(0.925)	891266	16.0000	14.2	
	44 2-Chloronaphthalene	164	6.148	6.143	(0.928)	233891	16.0000	14.6	
	45 2-Nitroaniline	138	6.239	6.234	(0.942)	253644	16.0000	17.1	
	46 Dimethylphthalate	163	6.405	6.394	(0.967)	755257	16.0000	14.2	
	47 2,6-Dinitrotoluene	165	6.464	6.458	(0.976)	193461	16.0000	15.7	
	48 Acenaphthylene	152	6.501	6.496	(0.981)	1091815	16.0000	14.7	
	49 3-Nitroaniline	65	6.587	6.576	(0.994)	196051	16.0000	14.6	
*	50 Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	166949	4.00000		
	51 2,4-Dinitrophenol	184	6.672	6.661	(1.007)	105757	16.0000	26.5(A)	
	52 Acenaphthene	153	6.656	6.651	(1.005)	698164	16.0000	14.4	
	53 4-Nitrophenol	109	6.704	6.688	(1.012)	93278	16.0000	17.0	
	54 2,4-Dinitrotoluene	165	6.811	6.800	(1.028)	250477	16.0000	16.9	
	55 Dibenzofuran	168	6.795	6.790	(1.026)	978608	16.0000	14.6	
	56 2,3,4,6-Tetrachlorophenol	232	6.945	6.940	(1.048)	205618	16.0000	17.0	
	57 Diethylphthalate	149	7.036	7.030	(1.062)	769400	16.0000	14.7	
	58 4-Chlorophenylphenyl ether	204	7.121	7.116	(1.075)	411484	16.0000	15.1	
	59 Fluorene	166	7.143	7.137	(1.078)	798991	16.0000	14.8	
	60 4-Nitroaniline	108	7.186	7.164	(1.085)	108050	16.0000	15.3(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.228	7.212	(0.889)	150086	16.0000	22.8(A)	
	62 N-Nitrosodiphenylamine	169	7.250	7.239	(0.892)	658058	16.0000	14.5	
	63 Azobenzene	77	7.287	7.282	(0.897)	680940	16.0000	14.3	
	64 1,2-Diphenylhydrazine	77	7.287	7.282	(0.897)	680940	16.0000	14.3	
$	65 2,4,6-Tribromophenol (S)	330	7.410	7.405	(0.912)	142338	16.0000	18.2	
	66 4-Bromophenylphenyl ether	248	7.635	7.630	(0.939)	249297	16.0000	15.9	
	67 Hexachlorobenzene	284	7.806	7.801	(0.961)	275284	16.0000	15.4	
	68 Atrazine	200	7.828	7.817	(0.963)	223765	16.0000	15.9	
	69 Pentachlorophenol	266	7.988	7.977	(0.983)	162865	16.0000	21.4(A)	
*	70 Phenanthrene-d10 (IS)	188	8.127	8.122	(1.000)	273948	4.00000		
	71 Phenanthrene	178	8.154	8.148	(1.003)	1069249	16.0000	13.8	
	72 Anthracene	178	8.202	8.196	(1.009)	1098707	16.0000	14.9	
	73 Carbazole	167	8.362	8.352	(1.029)	958928	16.0000	14.4	
	74 Di-n-butylphthalate	149	8.758	8.758	(1.078)	1197007	16.0000	15.2	
	75 Fluoranthene	202	9.421	9.411	(1.159)	1147346	16.0000	14.6	
	76 Pyrene	202	9.657	9.651	(0.885)	1190862	16.0000	15.6	
$	77 Terphenyl-d14 (S)	244	9.806	9.801	(0.899)	941719	16.0000	15.8	
	78 Butylbenzylphthalate	149	10.325	10.325	(0.947)	510233	16.0000	17.7	
	79 3,3'-Dichlorobenzidine	252	10.860	10.855	(0.996)	437404	16.0000	17.4	
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	696145	16.0000	16.8	
	81 Benzo(a)anthracene	228	10.892	10.881	(0.999)	1175957	16.0000	15.9	
*	82 Chrysene-d12 (IS)	240	10.908	10.903	(1.000)	250987	4.00000		
	83 Chrysene	228	10.935	10.930	(1.002)	1041963	16.0000	14.4	
	84 Di-n-octylphthalate	149	11.502	11.497	(0.938)	1063060	16.0000	19.0	
	85 Benzo(b)fluoranthene	252	11.930	11.919	(0.973)	1256063	16.0000	17.3	
	86 Benzo(k)fluoranthene	252	11.951	11.941	(0.975)	1141117	16.0000	14.3	
	87 Benzo(a)pyrene	252	12.219	12.208	(0.997)	1038665	16.0000	16.1	
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	245602	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.272	13.262	(1.083)	995117	16.0000	16.2	
90 Dibenz(a,h)anthracene	278	13.272	13.256	(1.083)	802605	16.0000	15.8	
91 Benzo(g,h,i)perylene	276	13.561	13.545	(1.106)	799161	16.0000	16.0	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x6.d
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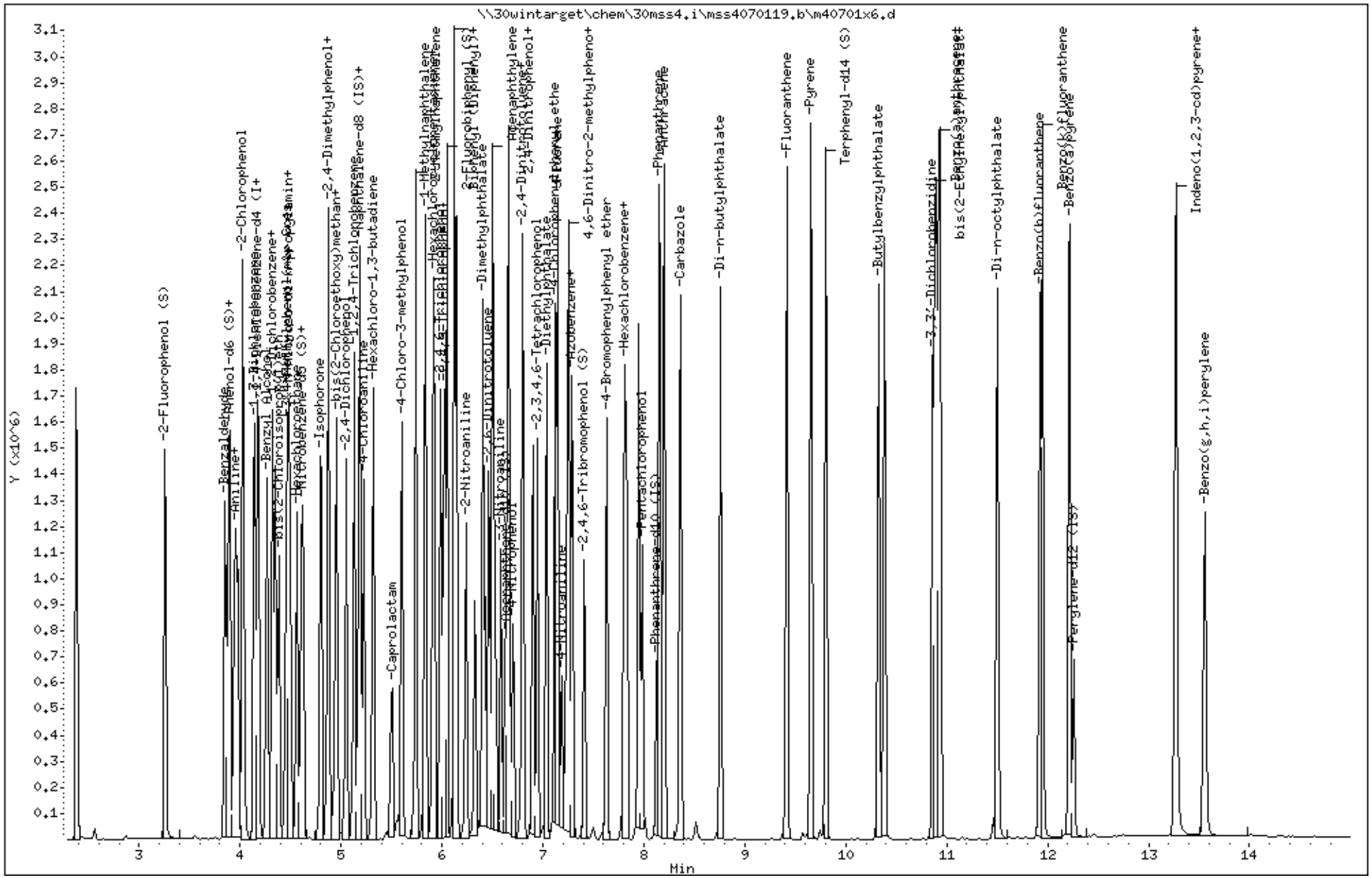
Client ID: CAL6
Sample Info: CAL6, 91768:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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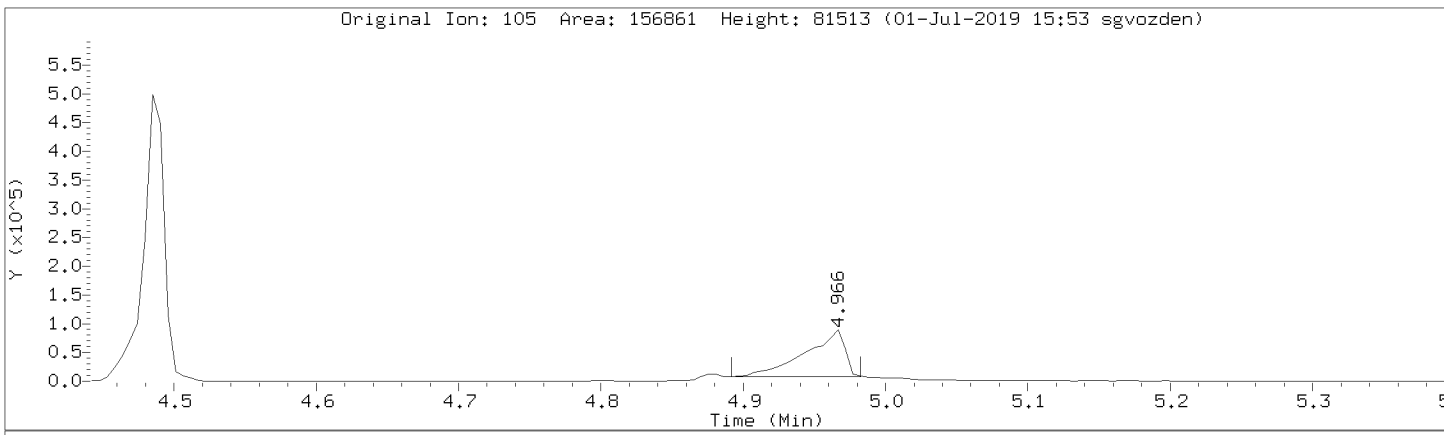
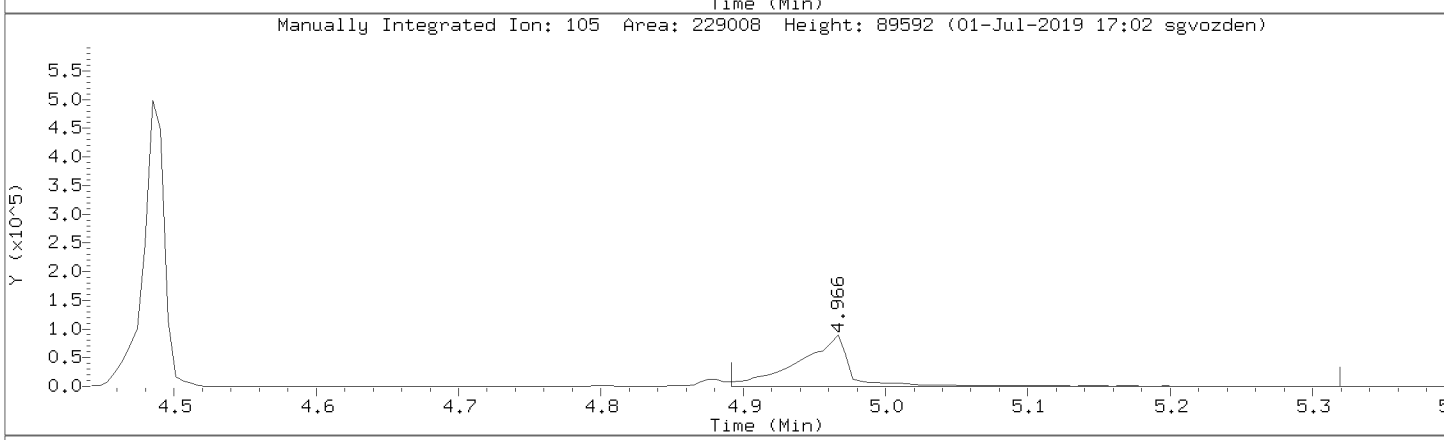
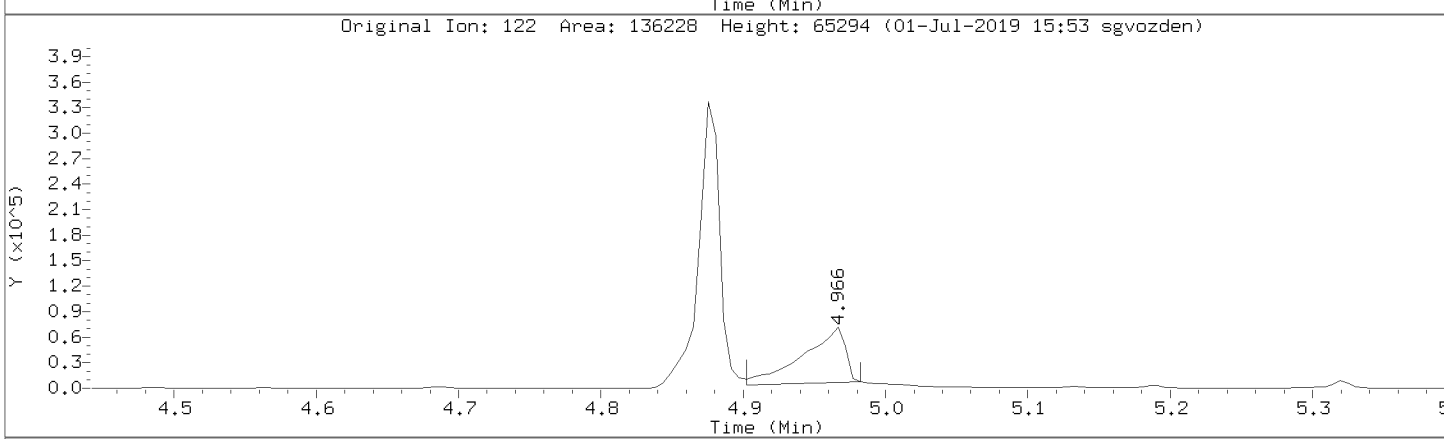
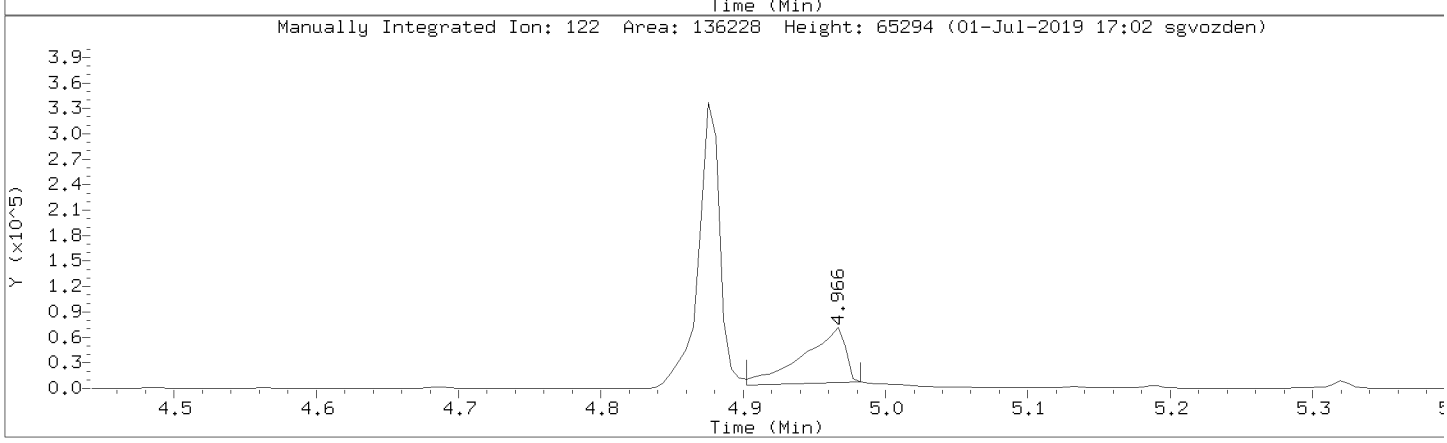
Injection Date: 01-JUL-2019 15:34
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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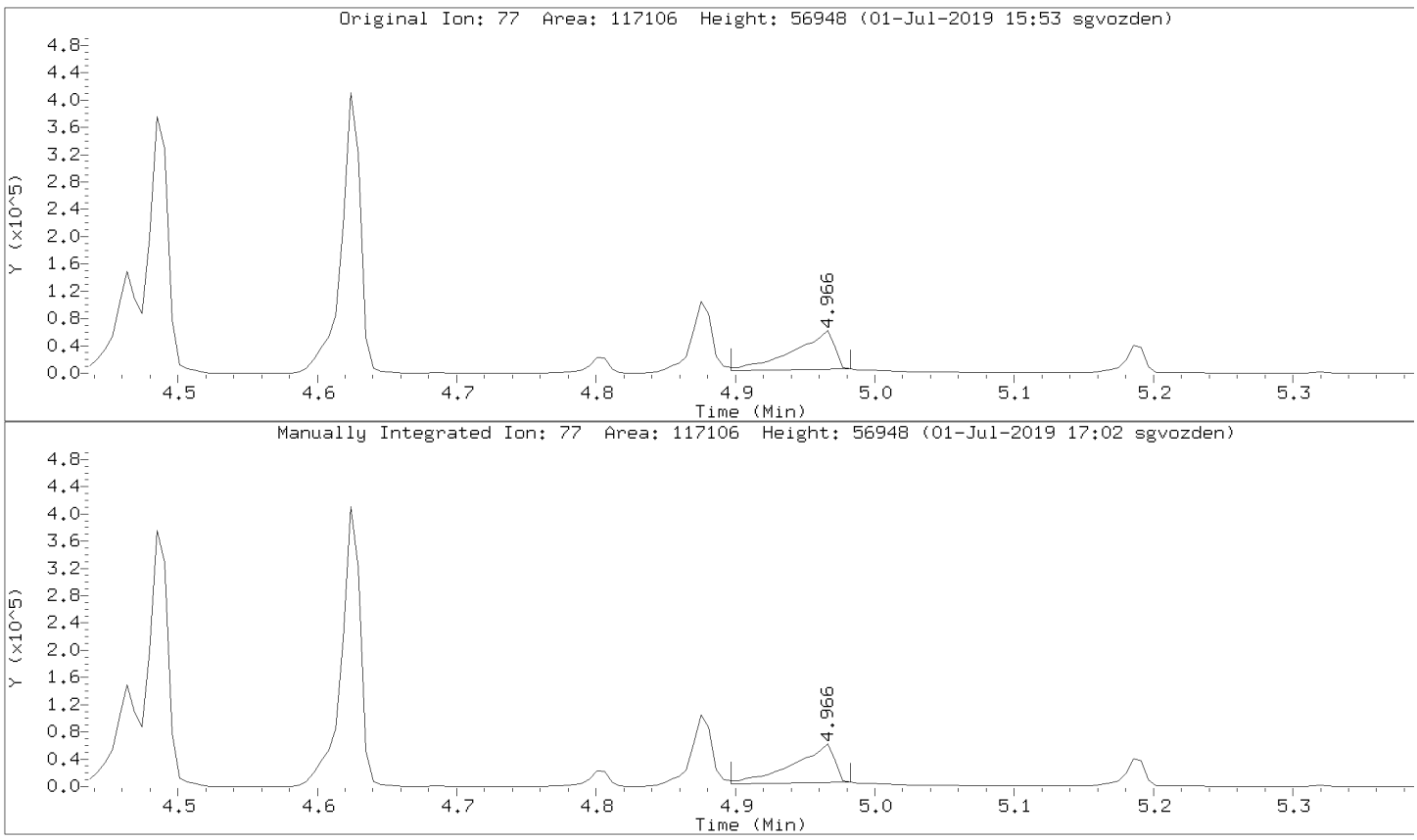
Instrument: 30mss4.i
Lab Sample ID: CAL6



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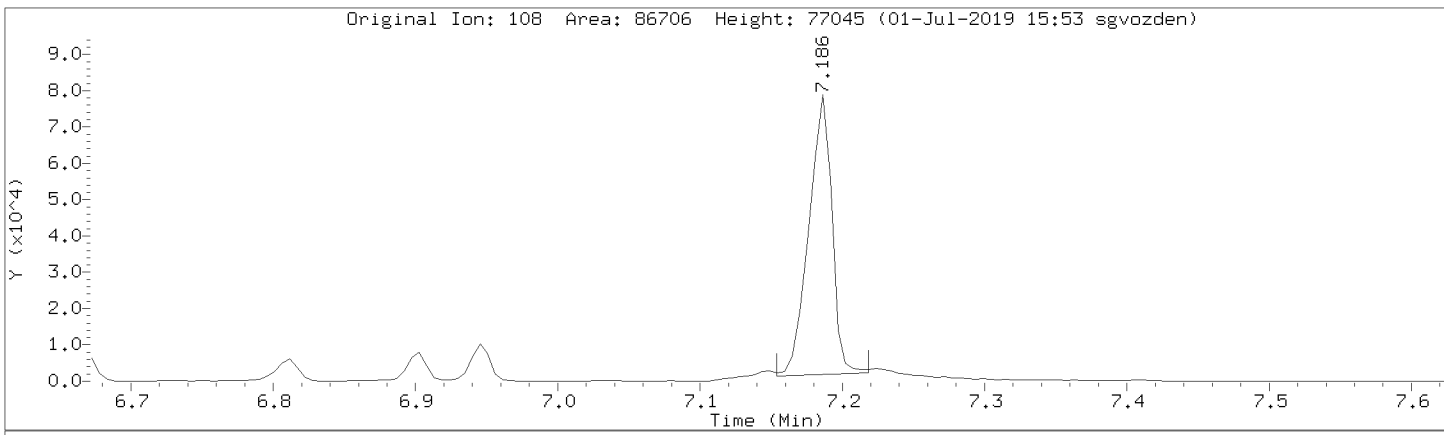
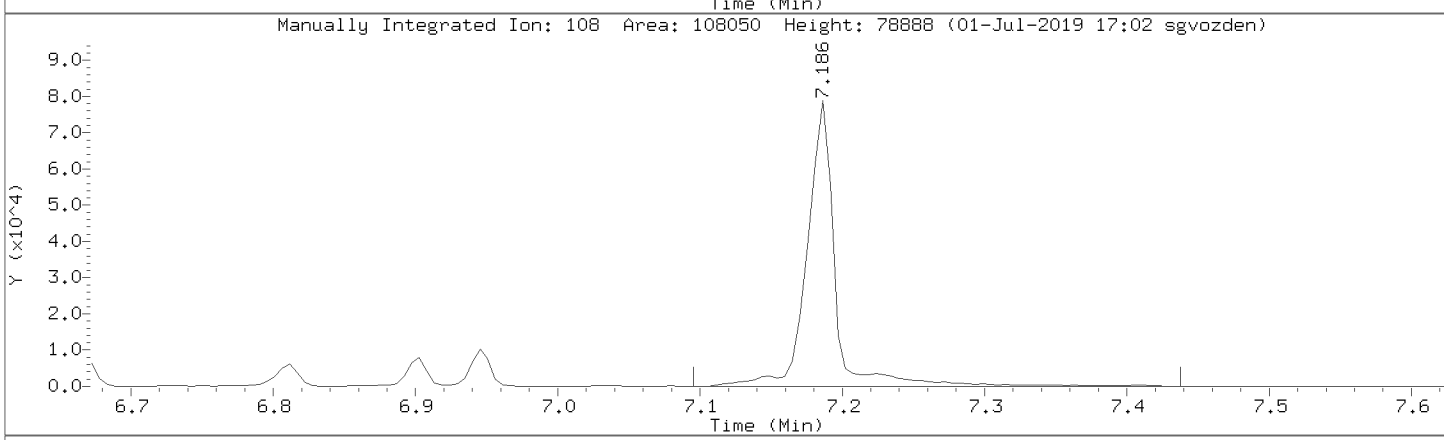
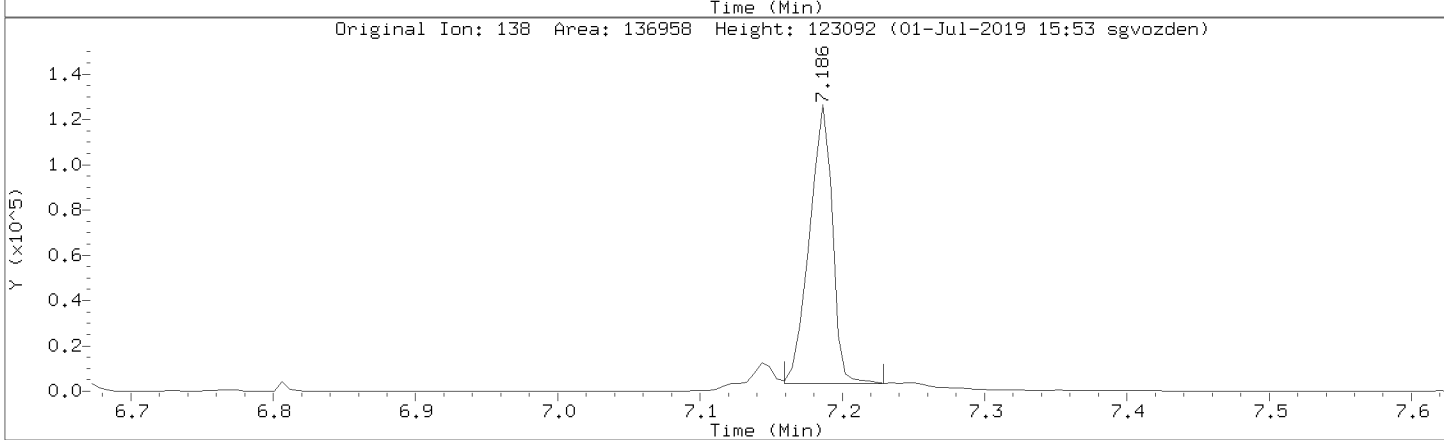
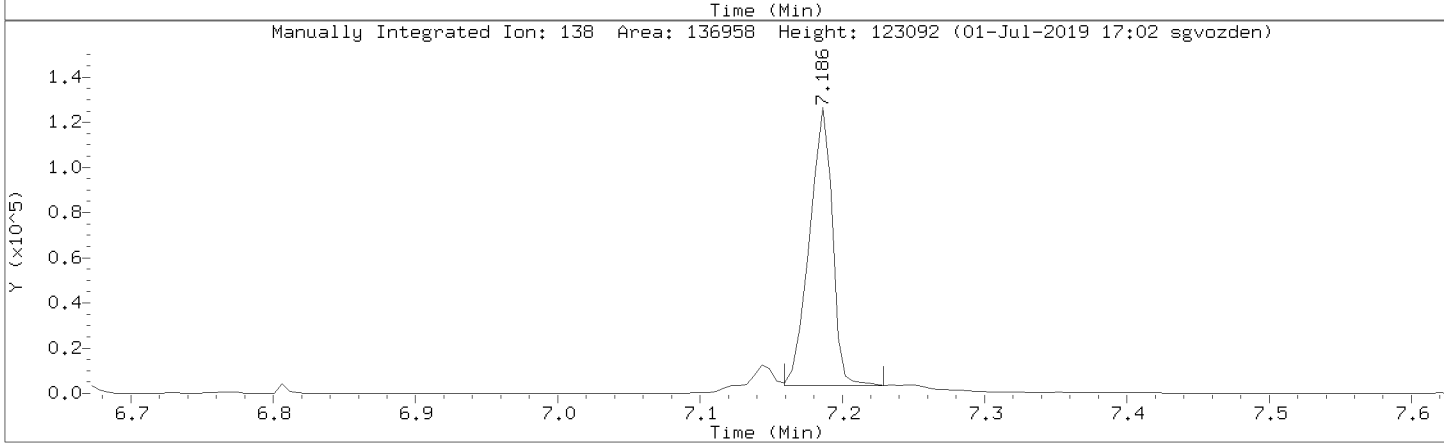
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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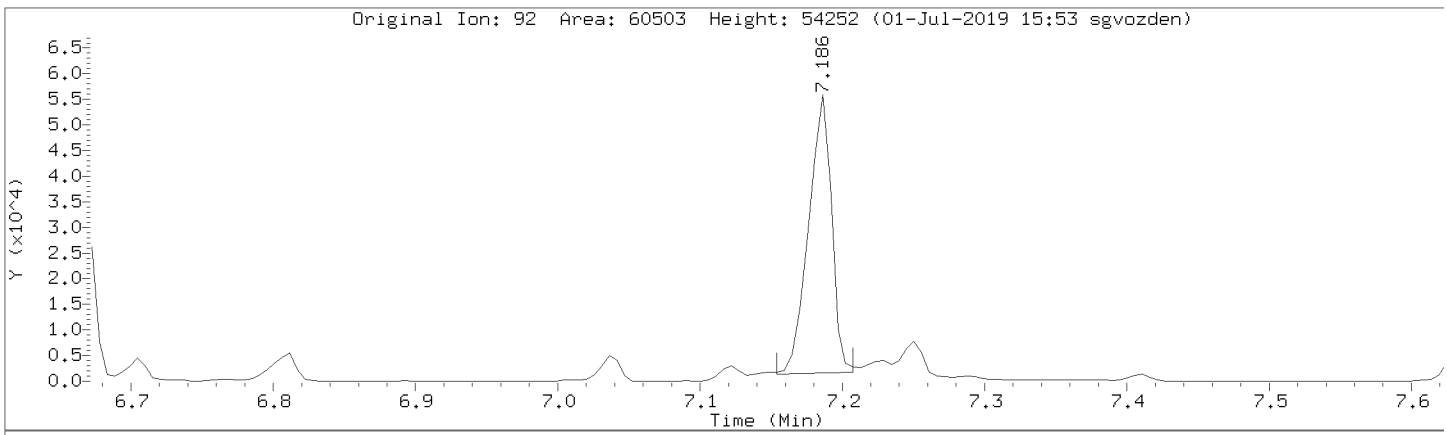

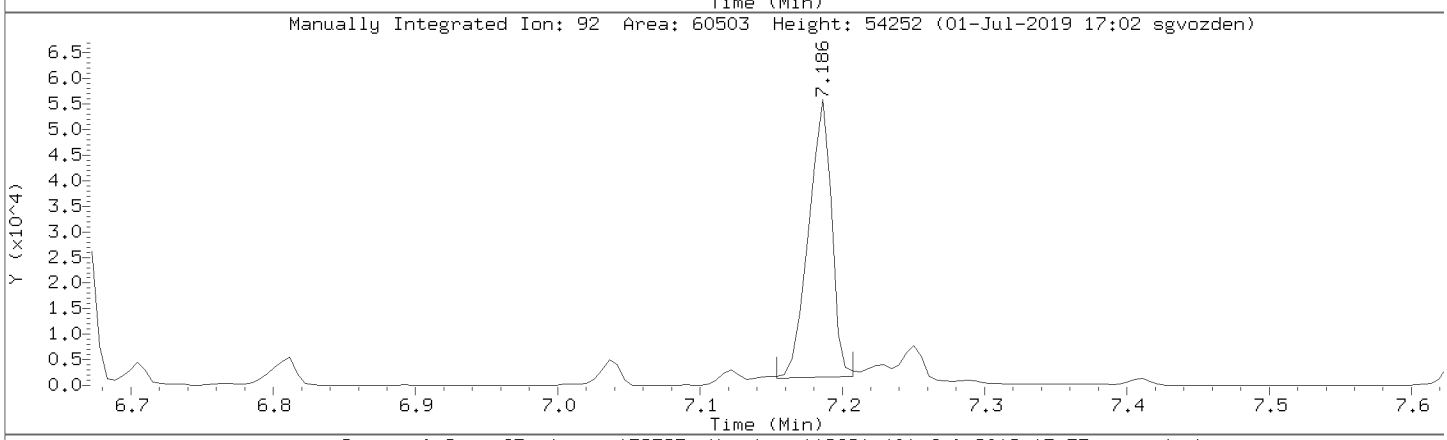

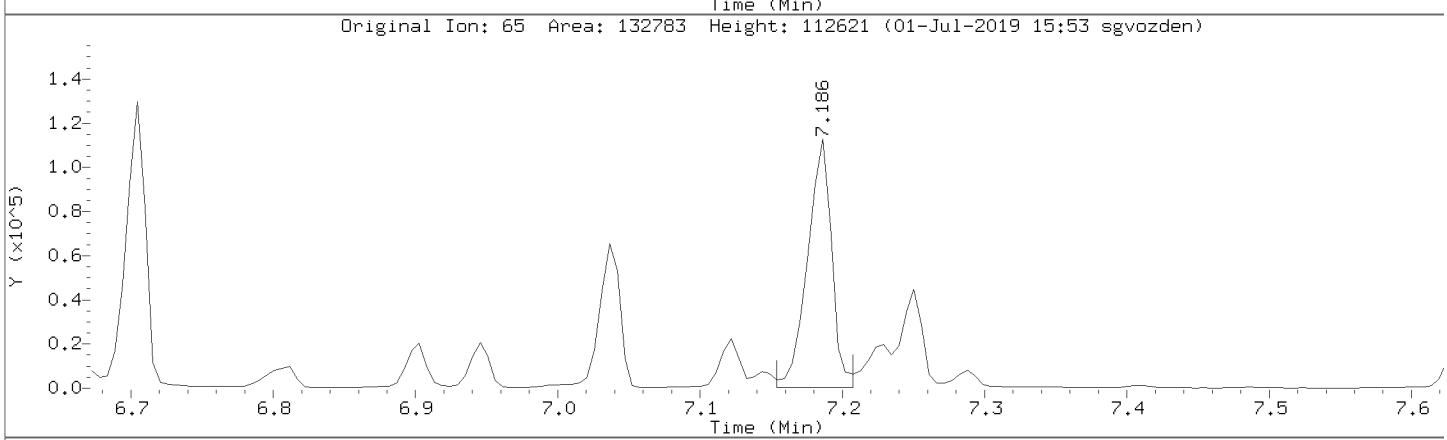

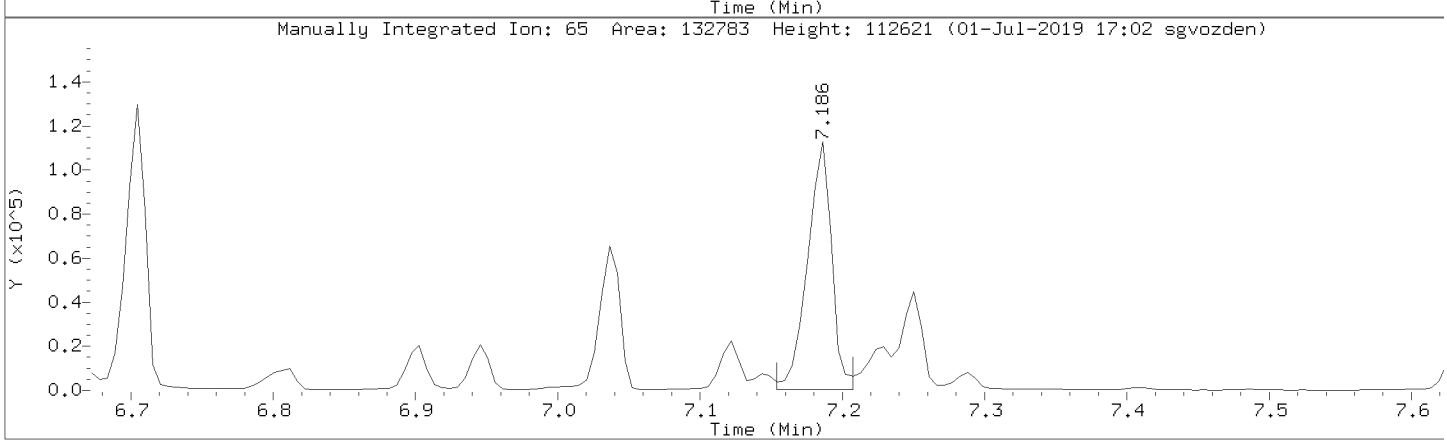

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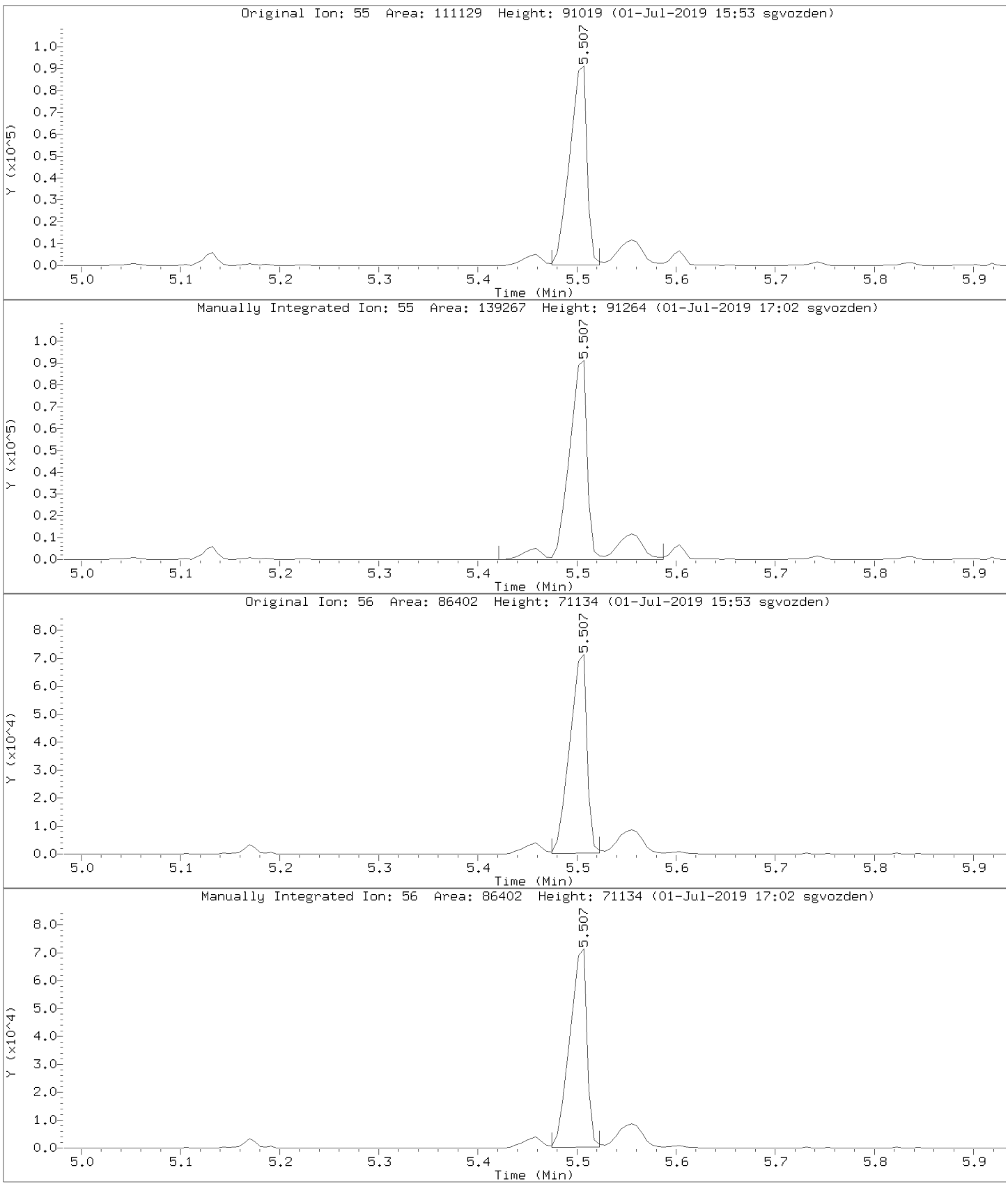
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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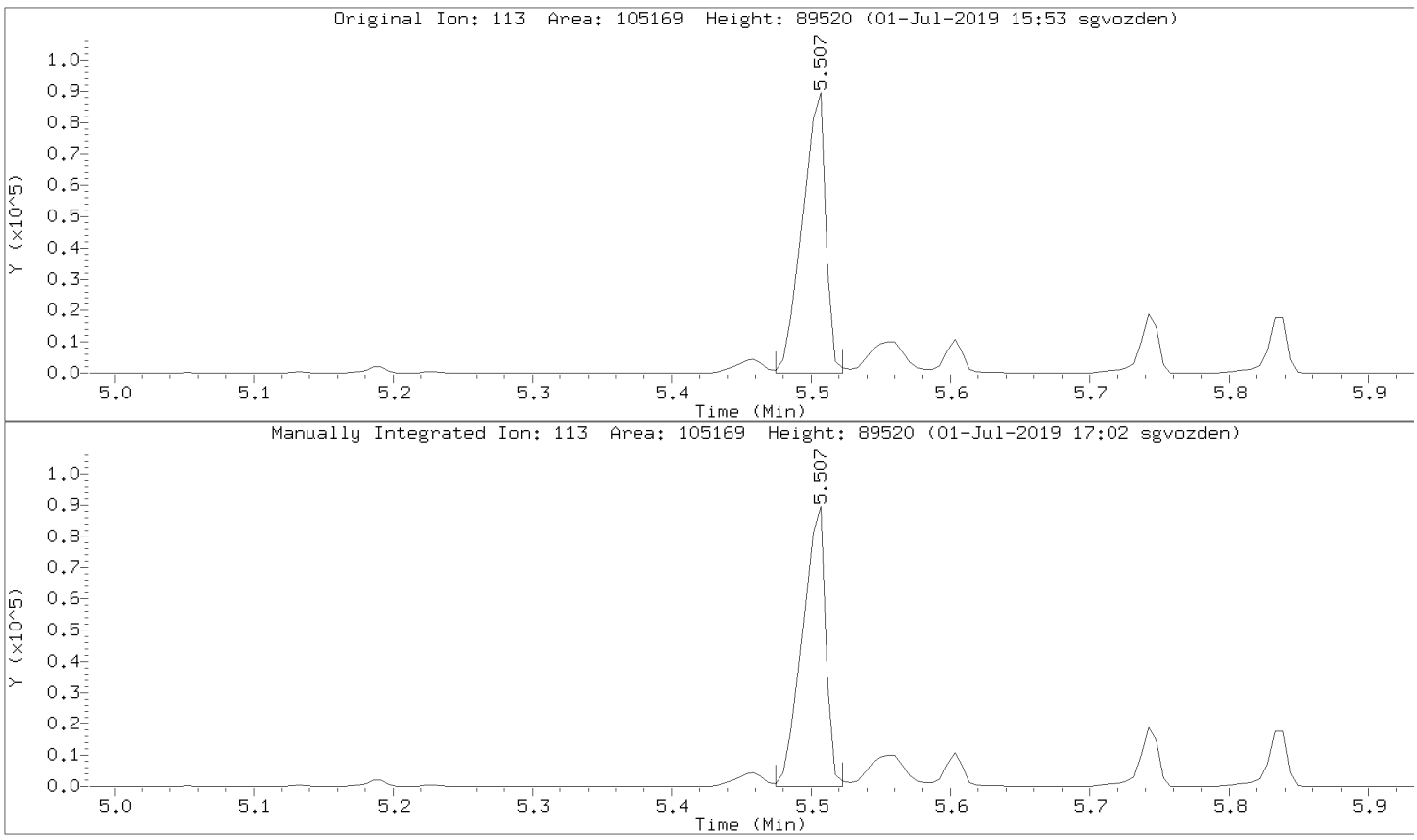
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x7.d
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Inj Date : 01-JUL-2019 15:56 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal7, 91767:1
Misc Info : 14771,
Comment :
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Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:56 Cal File: m40701x7.d
Als bottle: 19 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.377	2.372	(0.571)	274572	20.0000	18.0	
	2 Pyridine	79	2.372	2.377	(0.570)	471140	20.0000	18.3	
$	3 2-Fluorophenol (S)	112	3.255	3.254	(0.782)	446823	20.0000	19.6	
$	4 Phenol-d6 (S)	99	3.891	3.880	(0.934)	544914	20.0000	19.0	
	5 Benzaldehyde	77	3.854	3.848	(0.925)	366473	20.0000	18.5	
	6 Phenol	94	3.902	3.891	(0.937)	556126	20.0000	18.6	
	7 Aniline	66	3.950	3.944	(0.949)	241186	20.0000	20.1(A)	
	8 bis(2-Chloroethyl)ether	63	3.977	3.971	(0.955)	315248	20.0000	19.3	
	9 2-Chlorophenol	128	4.035	4.025	(0.969)	453915	20.0000	18.2	
	10 1,3-Dichlorobenzene	146	4.142	4.137	(0.995)	528608	20.0000	19.5	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	72717	4.00000		
	12 1,4-Dichlorobenzene	146	4.180	4.174	(1.004)	556790	20.0000	18.5	
	13 Benzyl Alcohol	79	4.271	4.265	(1.026)	377140	20.0000	19.8	
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	512082	20.0000	19.2	
	15 2-Methylphenol(o-Cresol)	108	4.351	4.345	(1.045)	437095	20.0000	19.0	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	480642	20.0000	18.5	
	17 3&4-Methylphenol(m&p Cresol)	108	4.463	4.452	(1.072)	457559	20.0000	19.3	
	18 N-Nitroso-di-n-propylamine	70	4.501	4.490	(1.081)	309059	20.0000	18.7	
	19 Acetophenone	105	4.490	4.479	(1.078)	588466	20.0000	18.3	
	20 Hexachloroethane	117	4.565	4.565	(1.096)	203872	20.0000	19.7	
$	21 Nitrobenzene-d5 (S)	128	4.613	4.608	(0.892)	237450	20.0000	20.0(A)	
	22 Nitrobenzene	77	4.629	4.618	(0.895)	451700	20.0000	18.4	
	23 Isophorone	82	4.806	4.795	(0.930)	817676	20.0000	18.3	
	24 2,4-Dimethylphenol	107	4.881	4.870	(0.944)	419962	20.0000	17.6	
	25 2-Nitrophenol	139	4.875	4.870	(0.943)	236612	20.0000	19.8	
	26 Benzoic acid	105	4.977	4.918	(0.963)	286844	20.0000	35.8(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	4.955	4.950	(0.959)	509239	20.0000	17.8	
	28 2,4-Dichlorophenol	162	5.057	5.046	(0.978)	400124	20.0000	19.9	
	29 1,2,4-Trichlorobenzene	180	5.132	5.126	(0.993)	445701	20.0000	18.7	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	292667	4.00000		
	31 Naphthalene	128	5.191	5.185	(1.004)	1319461	20.0000	17.7	
	32 4-Chloroaniline	65	5.228	5.223	(1.011)	133608	20.0000	18.6	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	244624	20.0000	18.8	
	34 Caprolactam	55	5.512	5.469	(1.066)	165286	20.0000	21.3(AM)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.603	5.592	(1.084)	386435	20.0000	19.8	
	36 2-Methylnaphthalene	142	5.747	5.741	(1.112)	888322	20.0000	18.0	
	37 1-Methylnaphthalene	142	5.838	5.832	(1.129)	832926	20.0000	17.8	
	38 Hexachlorocyclopentadiene	237	5.929	5.923	(0.894)	265488	20.0000	21.2(A)	
	39 1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.892)	425065	20.0000	18.2	
	40 2,4,6-Trichlorophenol	196	5.988	5.982	(0.903)	309047	20.0000	19.7	
	41 2,4,5-Trichlorophenol	196	6.020	6.014	(0.908)	287327	20.0000	20.3(A)	
$	42 2-Fluorobiphenyl (S)	172	6.052	6.046	(0.913)	960880	20.0000	17.7	
	43 Biphenyl (Diphenyl)	154	6.127	6.121	(0.924)	986091	20.0000	16.8	
	44 2-Chloronaphthalene	164	6.148	6.143	(0.927)	259432	20.0000	17.2	
	45 2-Nitroaniline	138	6.244	6.234	(0.942)	299866	20.0000	21.0(A)	
	46 Dimethylphthalate	163	6.405	6.394	(0.966)	886015	20.0000	17.8	
	47 2,6-Dinitrotoluene	165	6.469	6.458	(0.976)	226520	20.0000	19.3	
	48 Acenaphthylene	152	6.501	6.496	(0.981)	1267664	20.0000	18.1	
	49 3-Nitroaniline	65	6.587	6.576	(0.994)	232741	20.0000	18.4	
*	50 Acenaphthene-d10 (IS)	164	6.630	6.624	(1.000)	159549	4.00000		
	51 2,4-Dinitrophenol	184	6.672	6.661	(1.006)	129884	20.0000	30.7(A)	
	52 Acenaphthene	153	6.656	6.651	(1.004)	806518	20.0000	17.7	
	53 4-Nitrophenol	109	6.710	6.688	(1.012)	106169	20.0000	20.1(A)	
	54 2,4-Dinitrotoluene	165	6.811	6.800	(1.027)	295895	20.0000	20.7(A)	
	55 Dibenzofuran	168	6.801	6.790	(1.026)	1119255	20.0000	17.7	
	56 2,3,4,6-Tetrachlorophenol	232	6.950	6.940	(1.048)	246705	20.0000	21.1(A)	
	57 Diethylphthalate	149	7.041	7.030	(1.062)	886354	20.0000	18.0	
	58 4-Chlorophenylphenyl ether	204	7.122	7.116	(1.074)	462835	20.0000	17.9	
	59 Fluorene	166	7.143	7.137	(1.077)	903312	20.0000	17.7	
	60 4-Nitroaniline	108	7.191	7.164	(1.085)	127363	20.0000	19.0(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.234	7.212	(0.890)	179282	20.0000	26.9(A)	
	62 N-Nitrosodiphenylamine	169	7.250	7.239	(0.892)	769368	20.0000	18.2	
	63 Azobenzene	77	7.287	7.282	(0.897)	786809	20.0000	17.7	
	64 1,2-Diphenylhydrazine	77	7.287	7.282	(0.897)	786809	20.0000	17.7	
$	65 2,4,6-Tribromophenol (S)	330	7.416	7.405	(0.912)	163479	20.0000	21.6(A)	
	66 4-Bromophenylphenyl ether	248	7.635	7.630	(0.939)	286020	20.0000	19.2	
	67 Hexachlorobenzene	284	7.806	7.801	(0.961)	323350	20.0000	19.2	
	68 Atrazine	200	7.833	7.817	(0.964)	262903	20.0000	19.8	
	69 Pentachlorophenol	266	7.988	7.977	(0.983)	191868	20.0000	25.2(A)	
*	70 Phenanthrene-d10 (IS)	188	8.127	8.122	(1.000)	259329	4.00000		
	71 Phenanthrene	178	8.159	8.148	(1.004)	1247842	20.0000	17.5	
	72 Anthracene	178	8.207	8.196	(1.010)	1280774	20.0000	18.6	
	73 Carbazole	167	8.368	8.352	(1.030)	1072417	20.0000	17.3	
	74 Di-n-butylphthalate	149	8.764	8.758	(1.078)	1388402	20.0000	18.8	
	75 Fluoranthene	202	9.422	9.411	(1.159)	1357714	20.0000	18.5	
	76 Pyrene	202	9.657	9.651	(0.885)	1394650	20.0000	19.3	
$	77 Terphenyl-d14 (S)	244	9.807	9.801	(0.899)	1095882	20.0000	19.4	
	78 Butylbenzylphthalate	149	10.331	10.325	(0.947)	601606	20.0000	21.7(A)	
	79 3,3'-Dichlorobenzidine	252	10.866	10.855	(0.996)	518334	20.0000	21.4(A)	
	80 bis(2-Ethylhexyl)phthalate	149	10.919	10.919	(1.001)	795884	20.0000	20.1(A)	
	81 Benzo(a)anthracene	228	10.892	10.881	(0.999)	1366409	20.0000	19.6	
*	82 Chrysene-d12 (IS)	240	10.908	10.903	(1.000)	237902	4.00000		
	83 Chrysene	228	10.941	10.930	(1.003)	1197464	20.0000	17.7	
	84 Di-n-octylphthalate	149	11.502	11.497	(0.938)	1220235	20.0000	23.0(A)	
	85 Benzo(b)fluoranthene	252	11.930	11.919	(0.973)	1402483	20.0000	20.7(A)	
	86 Benzo(k)fluoranthene	252	11.951	11.941	(0.975)	1309022	20.0000	18.1(H)	WP
	87 Benzo(a)pyrene	252	12.219	12.208	(0.997)	1186352	20.0000	20.0	
*	88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	226142	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.273	13.262	(1.083)	1083822	20.0000	19.1	
90 Dibenz(a,h)anthracene	278	13.273	13.256	(1.083)	887682	20.0000	19.0	
91 Benzo(g,h,i)perylene	276	13.561	13.545	(1.106)	873479	20.0000	19.0	

QC Flag Legend

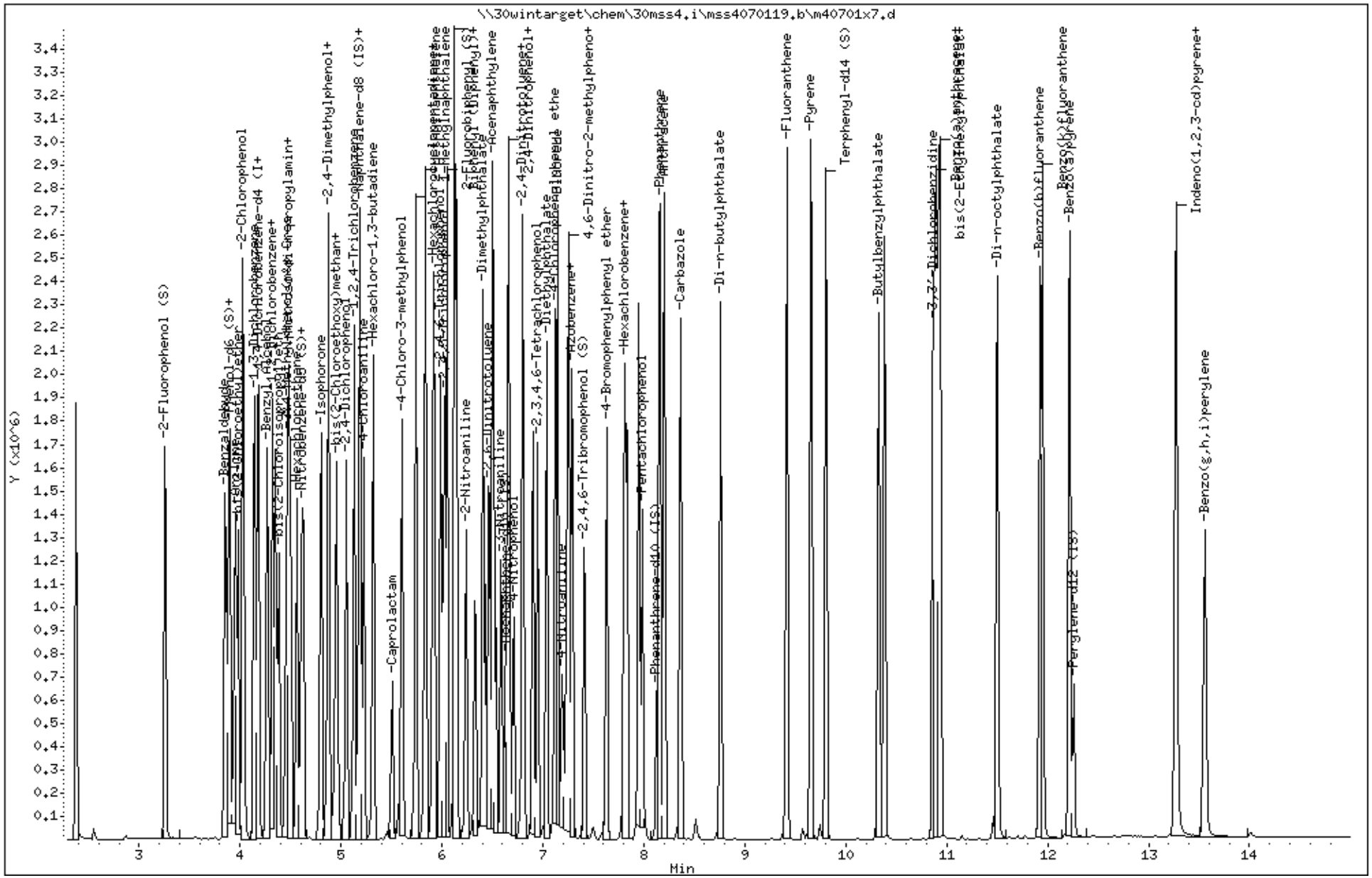
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

   :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x7.d
Date : 01-JUL-2019 15:56
Client ID: CAL7
Sample Info: CAL7, 91767:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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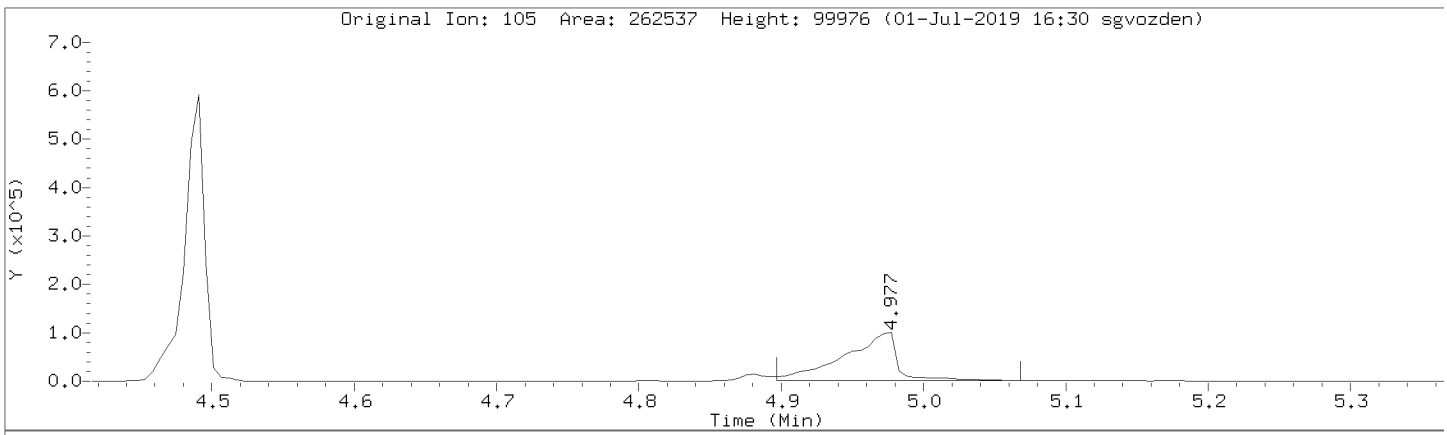
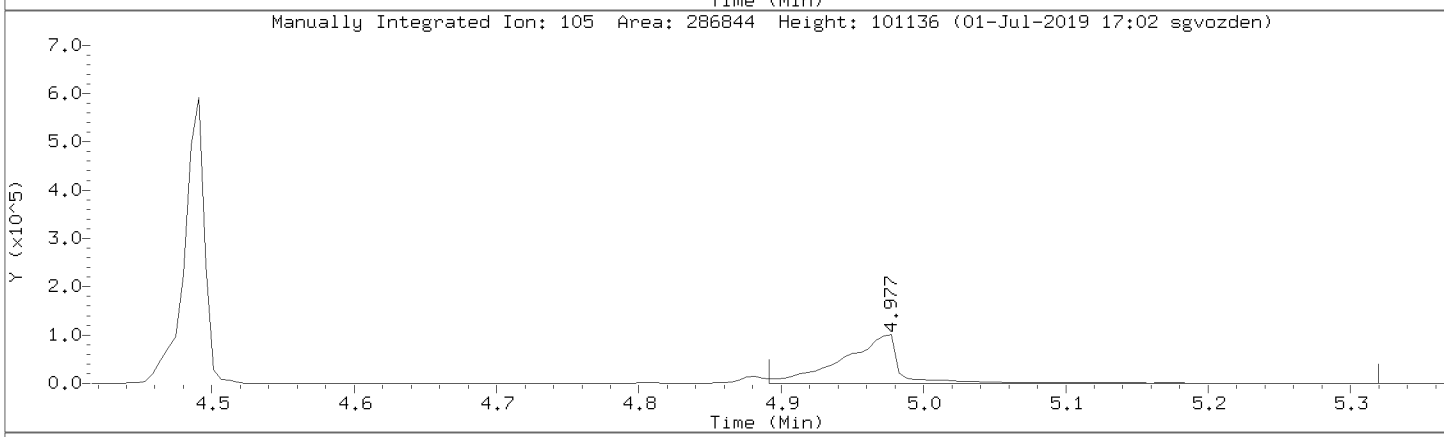
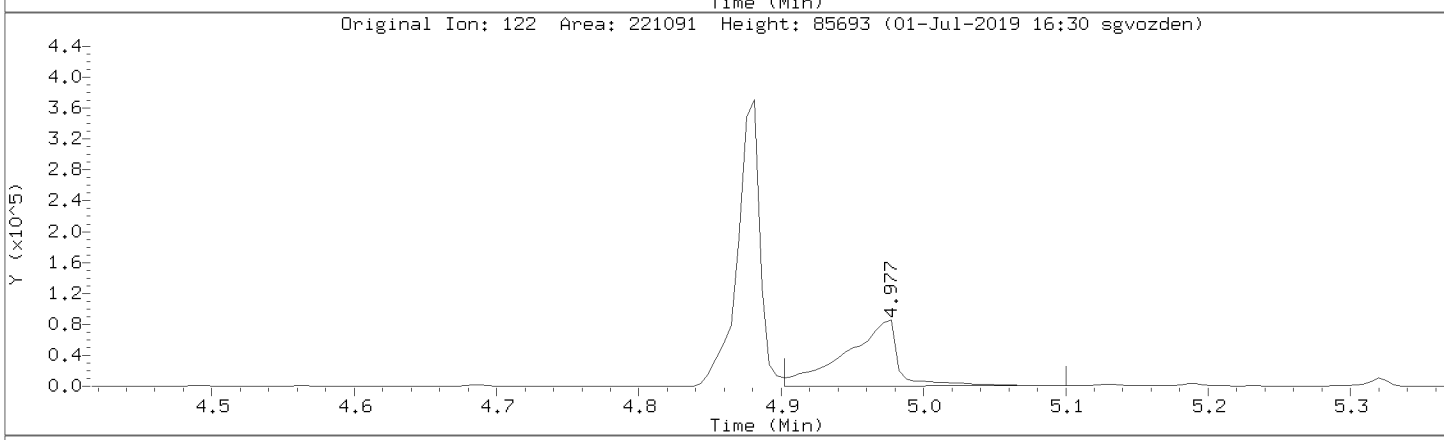
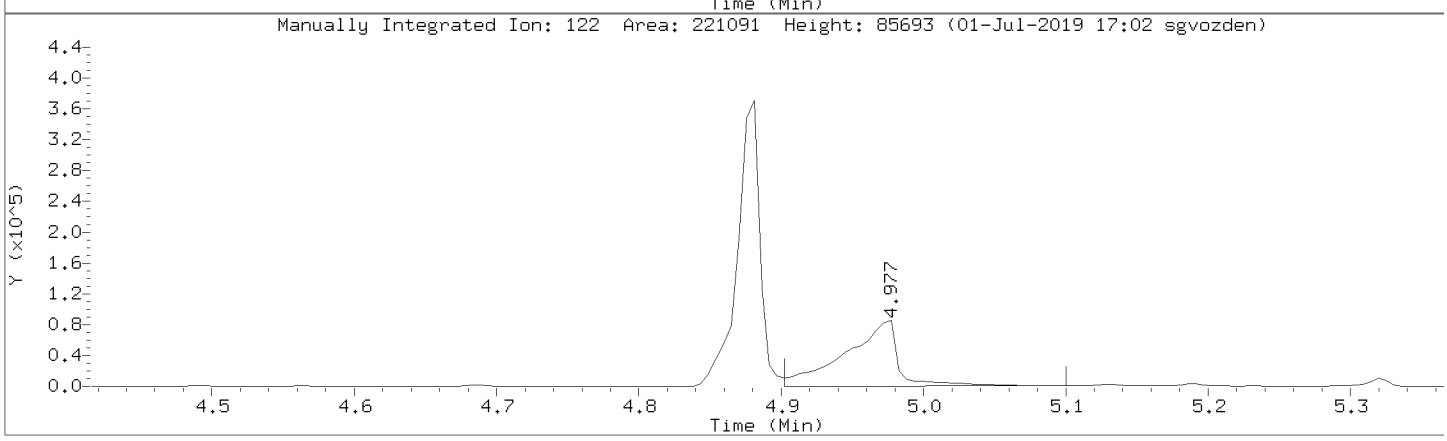
Injection Date: 01-JUL-2019 15:56
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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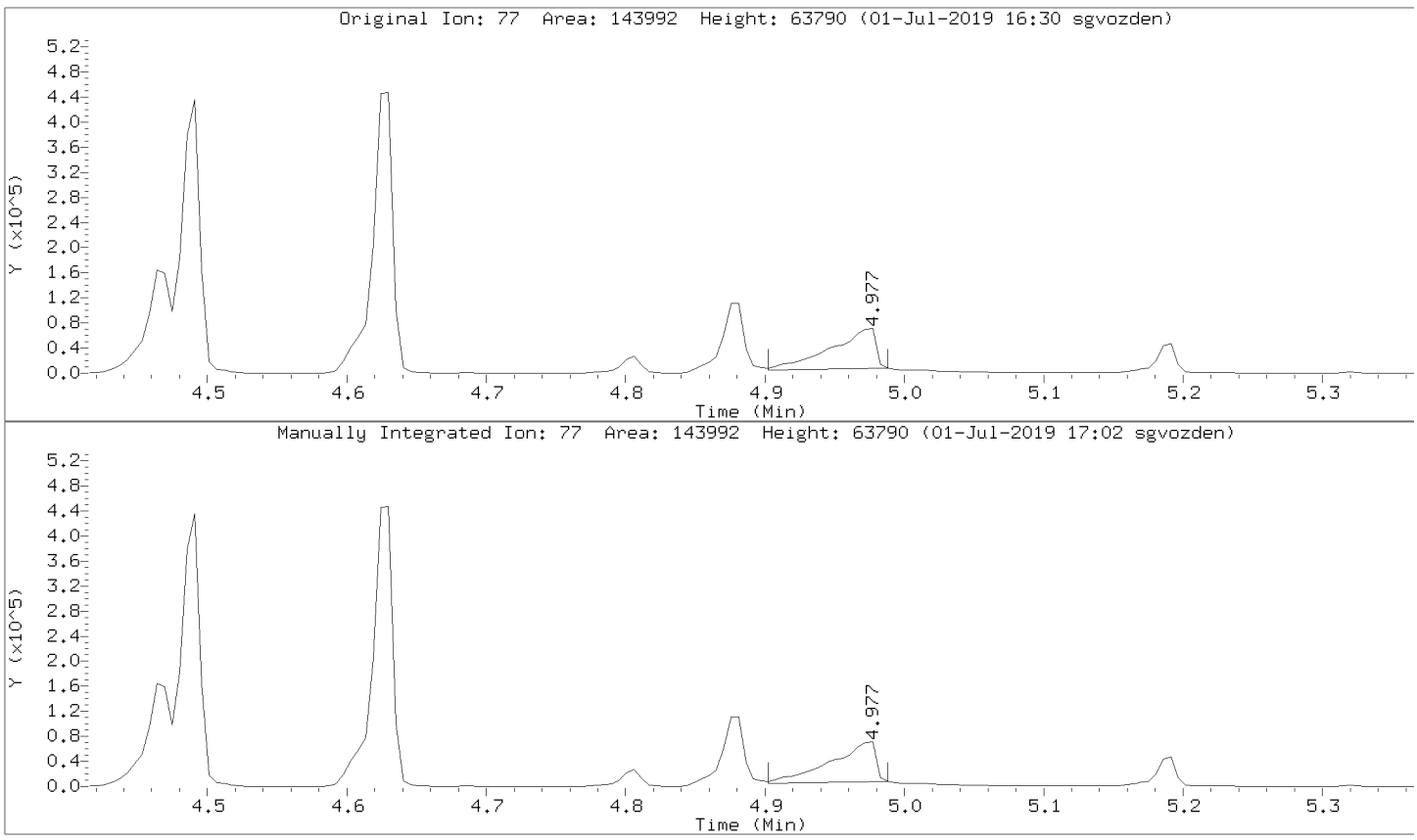
Injection Date: 01-JUL-2019 15:56
Instrument: 30mss4.i
Lab Sample ID: CAL7



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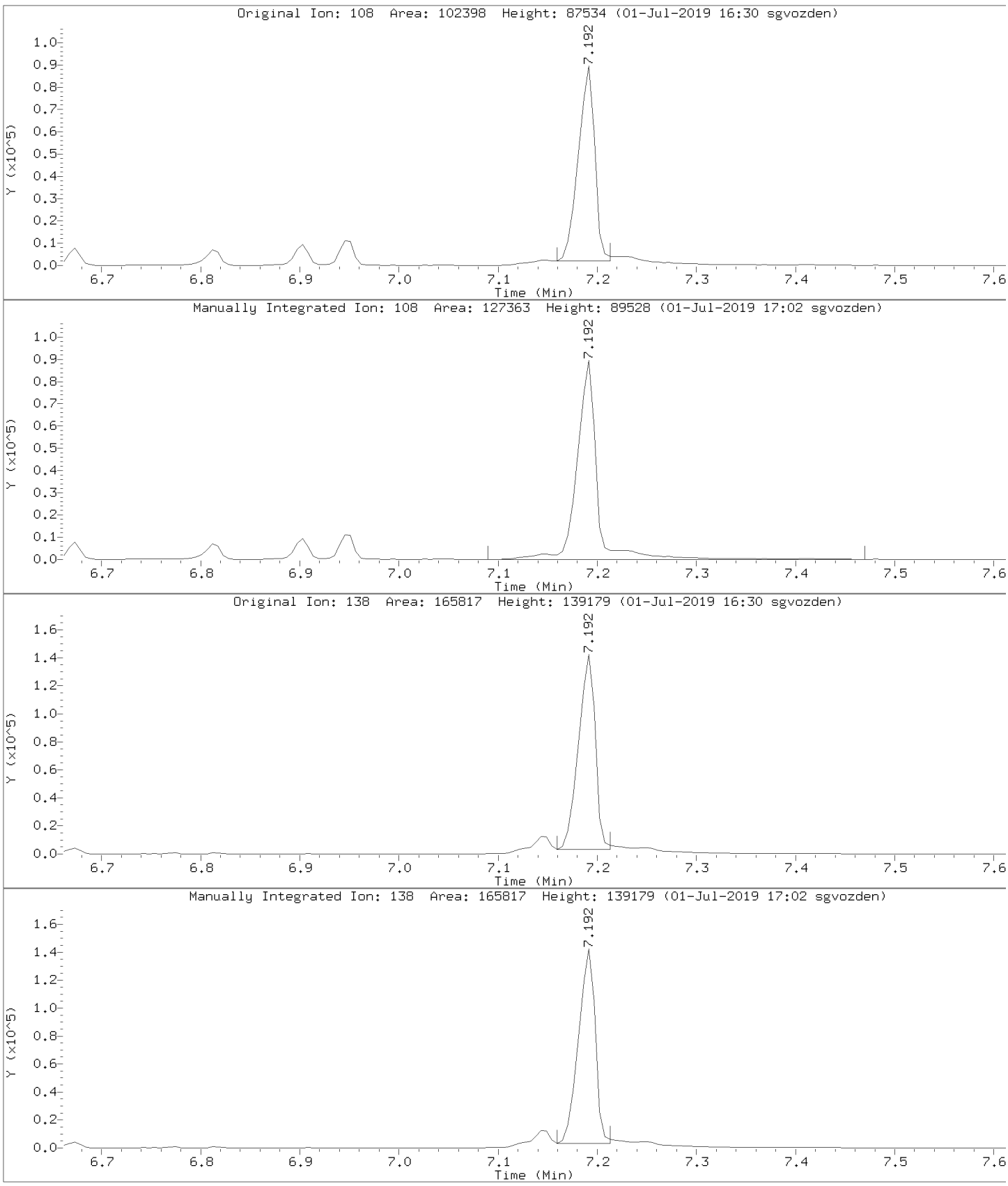
Injection Date: 01-JUL-2019 15:56
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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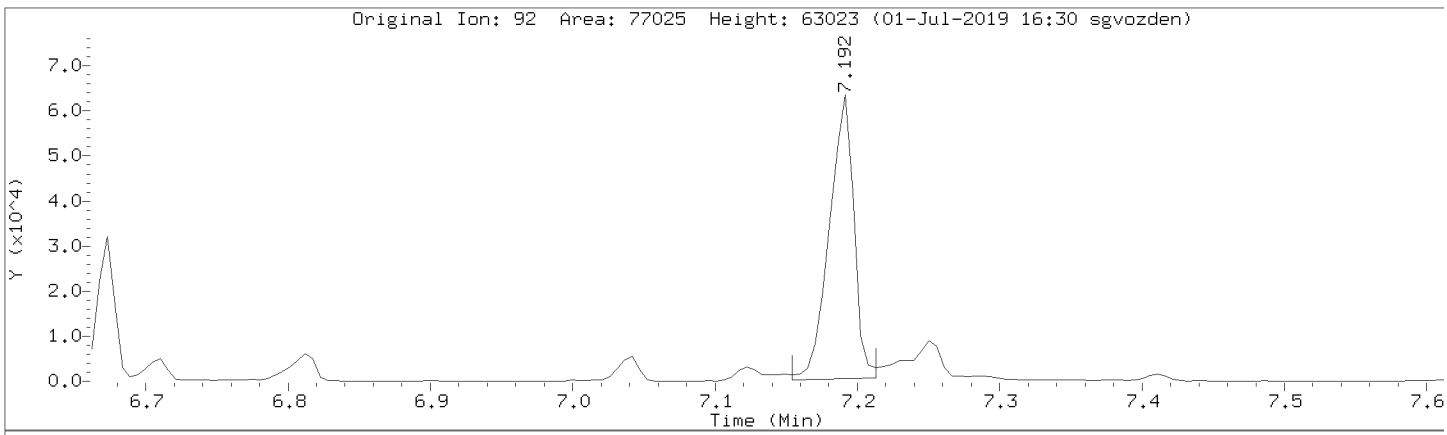
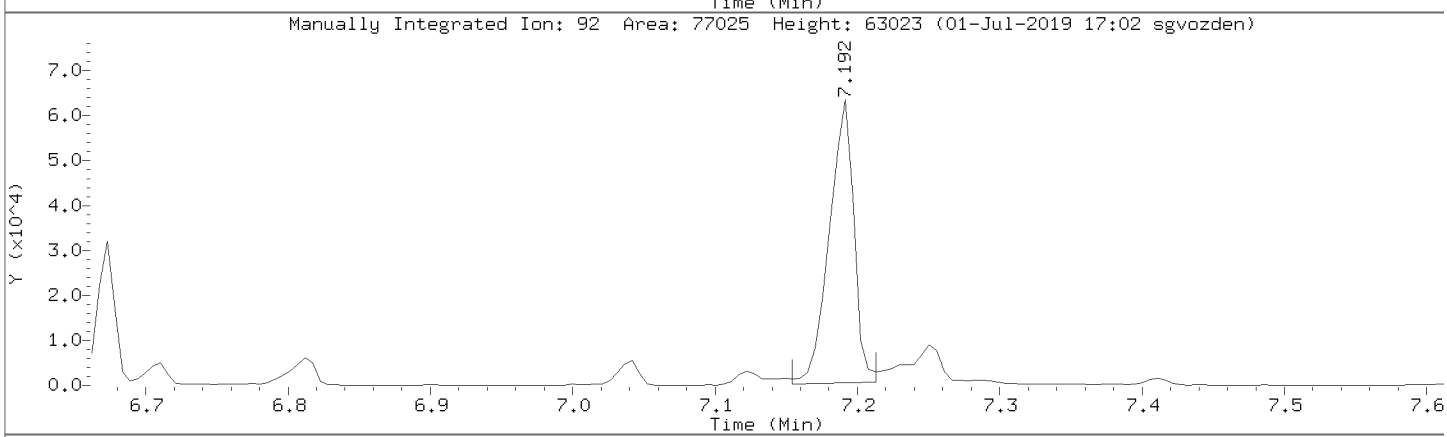
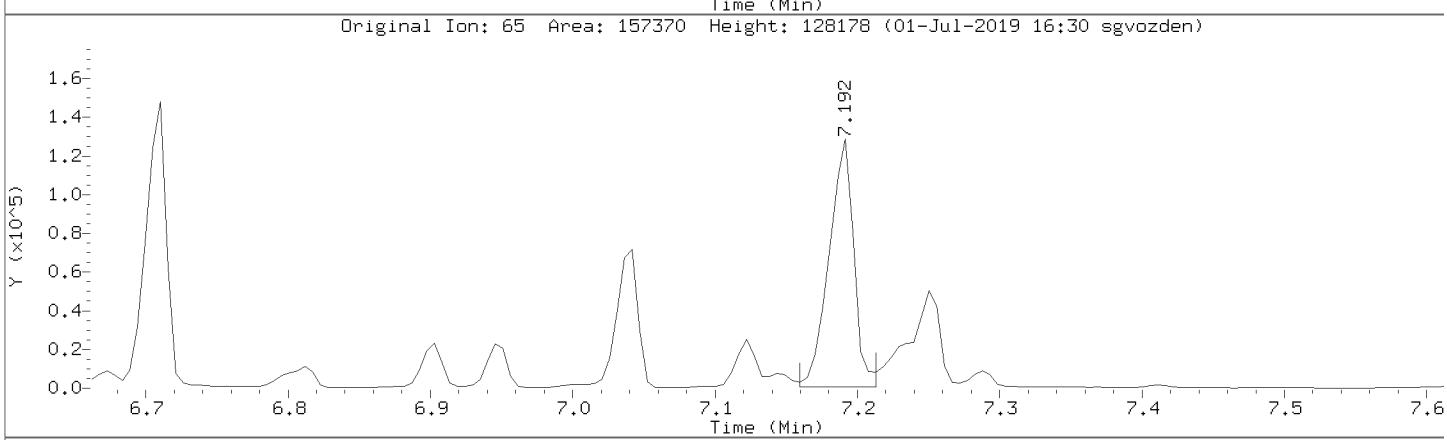
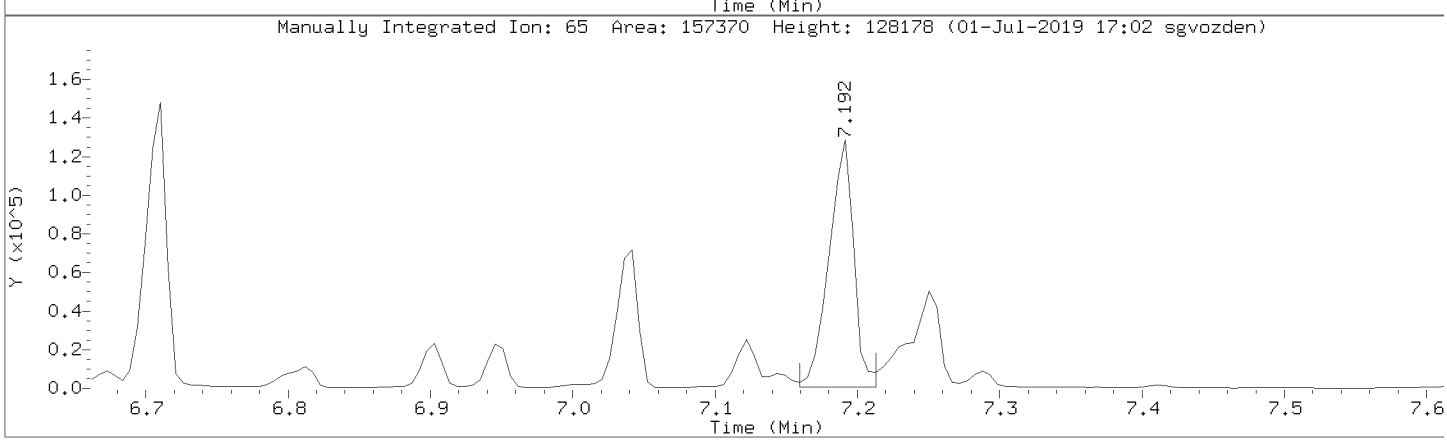
Lab Sample ID: CAL7









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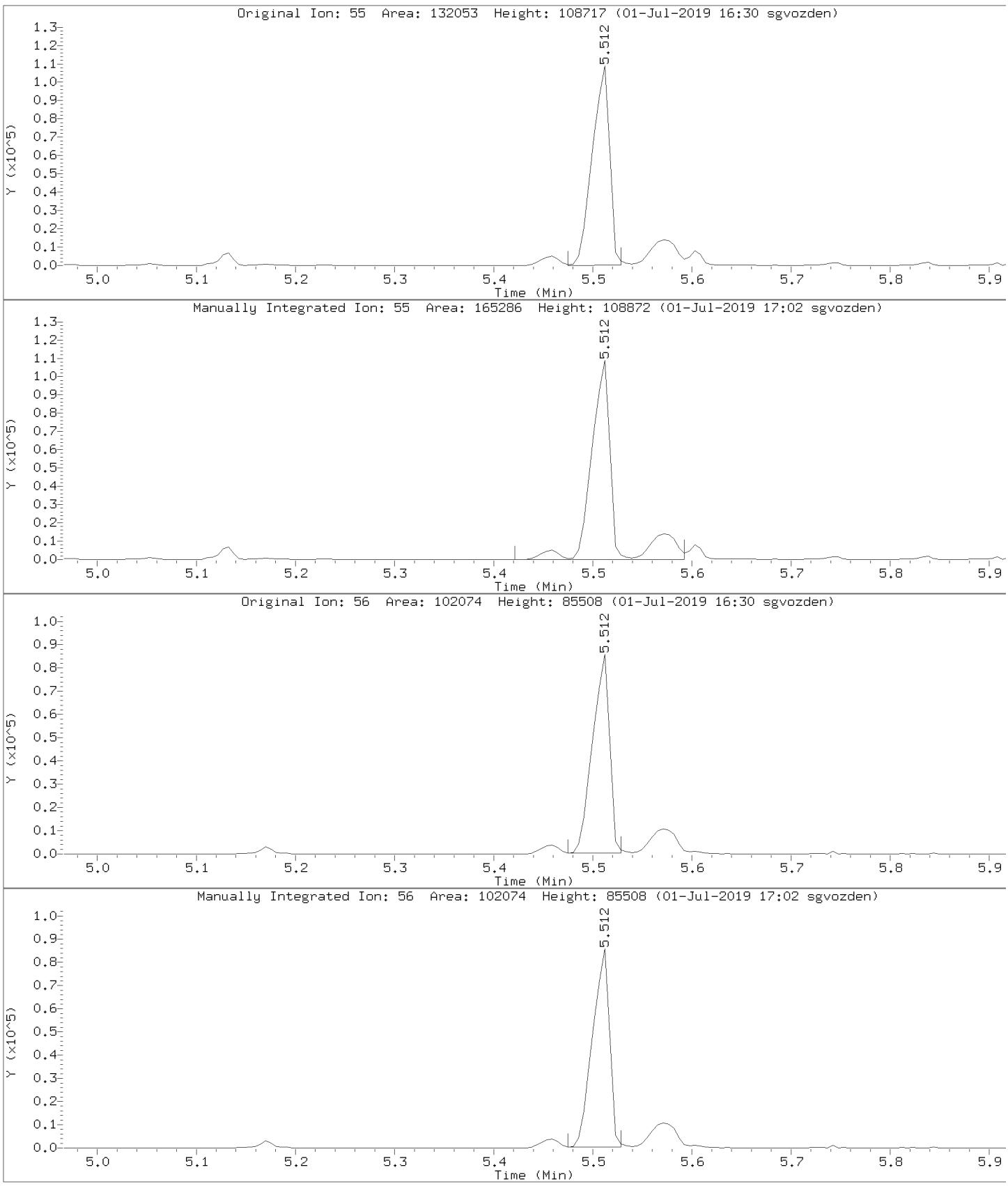
Injection Date: 01-JUL-2019 15:56
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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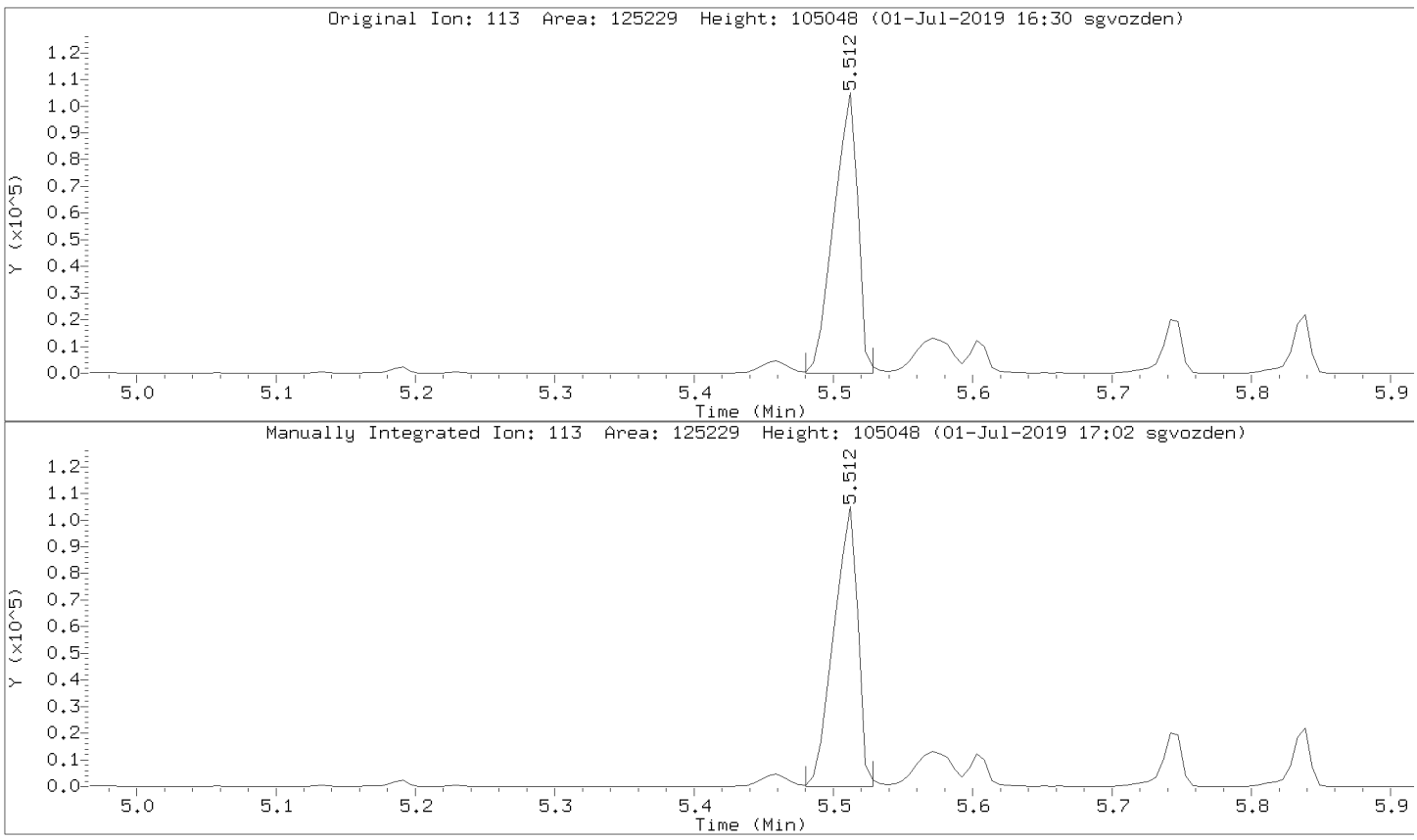
Instrument: 30mss4.i
Lab Sample ID: CAL7



SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11204222ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/26/2019 Time: 20:25

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 06/26/2019 06/26/2019

Lab File ID: MSS1062619.B\M10626Y8.D Init. Calib. Time(s): 17:41 20:02

SDG No.: 30300161

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.65815	1.66515	0.0500	0.4225	20.0000
2,4-Dinitrotoluene	Averaged	0.36250	0.40360	0.0500	11.3361	20.0000
Hexachloro-1,3-butadiene	Averaged	0.18568	0.19592	0.0500	5.5164	20.0000
Hexachlorobenzene	Averaged	0.31096	0.33265	0.0500	6.9771	20.0000
Hexachloroethane	Averaged	0.55553	0.57840	0.0500	4.1176	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.20988	1.29344	0.0500	6.9061	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.22707	2.72979	0.0500	11.2322	20.0000
Nitrobenzene	Averaged	0.33229	0.35185	0.0500	5.8860	20.0000
Pentachlorophenol	Averaged	0.12704	0.14937	0.0500	17.5811	20.0000
Pyridine	Averaged	1.24044	1.30462	0.0500	5.1739	20.0000
2,4,5-Trichlorophenol	Quadratic	8	9.407005	0.0500	17.5876	20.0000
2,4,6-Trichlorophenol	Averaged	0.43943	0.48028	0.0500	9.2977	20.0000
2-Fluorobiphenyl (S)	Averaged	1.44365	1.44327	0.0500	-0.0267	20.0000
2-Fluorophenol (S)	Averaged	1.15235	1.26761	0.0500	10.0018	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16194	0.17705	0.0500	9.3296	20.0000
Phenol-d6 (S)	Averaged	1.43620	1.53830	0.0500	7.1093	20.0000
Terphenyl-d14 (S)	Averaged	0.98291	1.01304	0.0500	3.0649	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.13257	0.15272	0.0500	15.2007	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11178279ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/01/2019 Time: 16:19

Instrument ID: 30MSS4 GC Column: Col 1 Init. Calib. Date(s): 07/01/2019 07/01/2019

Lab File ID: MSS4070119.B\M40701X8.D Init. Calib. Time(s): 13:44 15:56

SDG No.: 30300161

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.63662	1.63599	0.0500	-0.0386	20.0000
2,4-Dinitrotoluene	Averaged	0.35964	0.40204	0.0500	11.7907	20.0000
Hexachloro-1,3-butadiene	Averaged	0.17587	0.18507	0.0500	5.2297	20.0000
Hexachlorobenzene	Averaged	0.25817	0.28187	0.0500	9.1786	20.0000
Hexachloroethane	Averaged	0.56843	0.59114	0.0500	3.9964	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.25318	1.33383	0.0500	6.4354	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.29522	2.70929	0.0500	4.5882	20.0000
Nitrobenzene	Averaged	0.33094	0.35432	0.0500	7.0653	20.0000
Pentachlorophenol	Averaged	0.13123	0.15526	0.0500	18.3075	20.0000
Pyridine	Averaged	1.39812	1.47784	0.0500	5.7023	20.0000
2,4,5-Trichlorophenol	Averaged	0.35529	0.41648	0.0500	17.2214	20.0000
2,4,6-Trichlorophenol	Averaged	0.39226	0.44631	0.0500	13.7779	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33988	1.47835	0.0500	10.3350	20.0000
2-Fluorophenol (S)	Averaged	1.24834	1.41942	0.0500	13.7045	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16223	0.17748	0.0500	9.4027	20.0000
Phenol-d6 (S)	Averaged	1.56377	1.67540	0.0500	7.1387	20.0000
Terphenyl-d14 (S)	Averaged	0.94563	0.94826	0.0500	0.2788	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.11796	0.13346	0.0500	13.1350	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 26-JUN-2019 20:25
Operator : EAC Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14757,91774:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1062619.b\8270062619.m
Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 20:02 Cal File: m10626y7.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.688	2.684	(0.603)	307709	8.00000	8.30	
	2 Pyridine	79	2.693	2.695	(0.604)	502125	8.00000	8.41	
$	3 2-Fluorophenol (S)	112	3.543	3.539	(0.795)	487879	8.00000	8.80	
$	4 Phenol-d6 (S)	99	4.162	4.159	(0.934)	592065	8.00000	8.57	
	5 Benzaldehyde	77	4.141	4.137	(0.929)	385253	8.00000	8.36	
	6 Phenol	94	4.173	4.169	(0.936)	638958	8.00000	8.48	
	7 Aniline	66	4.232	4.228	(0.950)	273070	8.00000	9.39	
	8 bis(2-Chloroethyl)ether	63	4.253	4.250	(0.954)	372336	8.00000	8.59	
	9 2-Chlorophenol	128	4.317	4.319	(0.969)	545475	8.00000	8.45	
	10 1,3-Dichlorobenzene	146	4.435	4.431	(0.995)	569341	8.00000	7.85	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.456	4.458	(1.000)	192441	4.00000		
	12 1,4-Dichlorobenzene	146	4.467	4.469	(1.002)	640888	8.00000	8.03	
	13 Benzyl Alcohol	79	4.552	4.549	(1.022)	406310	8.00000	8.59	
	14 1,2-Dichlorobenzene	146	4.616	4.618	(1.036)	594061	8.00000	8.33	
	15 2-Methylphenol(o-Cresol)	108	4.627	4.629	(1.038)	497822	8.00000	8.55	
	16 bis(2-Chloroisopropyl)ether	45	4.670	4.666	(1.048)	541609	8.00000	8.24	
	17 3&4-Methylphenol(m&p Cresol)	108	4.739	4.736	(1.064)	1050646	16.0000	17.8	
	18 N-Nitroso-di-n-propylamine	70	4.782	4.778	(1.073)	385482	8.00000	8.42	
	19 Acetophenone	105	4.777	4.773	(1.072)	727115	8.00000	8.70	
	20 Hexachloroethane	117	4.862	4.864	(1.091)	222617	8.00000	8.33	
$	21 Nitrobenzene-d5 (S)	128	4.905	4.901	(0.896)	266006	8.00000	8.75	
	22 Nitrobenzene	77	4.921	4.917	(0.899)	528627	8.00000	8.47	
	23 Isophorone	82	5.097	5.094	(0.932)	1016080	8.00000	8.76	
	24 2,4-Dimethylphenol	107	5.161	5.158	(0.943)	532758	8.00000	8.73	
	25 2-Nitrophenol	139	5.172	5.168	(0.945)	288855	8.00000	9.02	
	26 Benzoic acid	105	5.225	5.206	(0.955)	223248	8.00000	8.09(M)	LT
	27 bis(2-Chloroethoxy)methane	93	5.241	5.243	(0.958)	611264	8.00000	8.44	
	28 2,4-Dichlorophenol	162	5.348	5.345	(0.978)	459125	8.00000	8.68	
	29 1,2,4-Trichlorobenzene	180	5.434	5.430	(0.993)	514736	8.00000	8.42	
*	30 Naphthalene-d8 (IS)	136	5.471	5.473	(1.000)	751210	4.00000		
	31 Naphthalene	128	5.492	5.489	(1.004)	1641894	8.00000	8.43	
	32 4-Chloroaniline	65	5.524	5.521	(1.010)	178877	8.00000	9.18	
	33 Hexachloro-1,3-butadiene	225	5.621	5.622	(1.027)	294352	8.00000	8.44	
	34 Caprolactam	55	5.786	5.772	(1.058)	168078	8.00000	9.20(M)	LT

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.893	5.890	(1.077)	423678	8.00000	8.60	
	36 2-Methylnaphthalene	142	6.048	6.050	(1.105)	1177449	8.00000	8.61	
	37 1-Methylnaphthalene	142	6.144	6.141	(1.123)	1079401	8.00000	8.31	
	38 Hexachlorocyclopentadiene	237	6.230	6.231	(0.893)	351679	8.00000	9.44	
	39 1,2,4,5-Tetrachlorobenzene	216	6.219	6.221	(0.891)	545782	8.00000	8.93	
	40 2,4,6-Trichlorophenol	196	6.288	6.290	(0.901)	378377	8.00000	8.74	
	41 2,4,5-Trichlorophenol	196	6.326	6.322	(0.907)	322308	8.00000	9.41	
$	42 2-Fluorobiphenyl (S)	172	6.352	6.349	(0.910)	1137034	8.00000	8.00	
	43 Biphenyl (Diphenyl)	154	6.433	6.429	(0.922)	1256554	8.00000	8.07	
	44 2-Chloronaphthalene	164	6.459	6.456	(0.926)	341448	8.00000	9.04	
	45 2-Nitroaniline	138	6.545	6.541	(0.938)	323232	8.00000	9.22	
	46 Dimethylphthalate	163	6.705	6.702	(0.961)	1059753	8.00000	8.72	
	47 2,6-Dinitrotoluene	165	6.780	6.776	(0.972)	239435	8.00000	8.95	
	48 Acenaphthylene	152	6.833	6.830	(0.979)	1650727	8.00000	8.91	
	49 3-Nitroaniline	65	6.919	6.910	(0.992)	258701	8.00000	8.50	
*	50 Acenaphthene-d10 (IS)	164	6.977	6.974	(1.000)	393909	4.00000		
	51 2,4-Dinitrophenol	184	7.015	7.011	(1.005)	107983	8.00000	8.60	
	52 Acenaphthene	153	7.010	7.006	(1.005)	983294	8.00000	8.20	
	53 4-Nitrophenol	109	7.036	7.033	(1.008)	129483	8.00000	8.72	
	54 2,4-Dinitrotoluene	165	7.170	7.166	(1.028)	317960	8.00000	8.91	
	55 Dibenzofuran	168	7.170	7.166	(1.028)	1517046	8.00000	8.95	
	56 2,3,4,6-Tetrachlorophenol	232	7.319	7.321	(1.049)	273760	8.00000	9.49	
	57 Diethylphthalate	149	7.400	7.396	(1.060)	1046204	8.00000	8.66	
	58 4-Chlorophenylphenyl ether	204	7.496	7.492	(1.074)	566828	8.00000	8.49	
	59 Fluorene	166	7.522	7.519	(1.078)	1148501	8.00000	8.52	
	60 4-Nitroaniline	108	7.549	7.540	(1.082)	159851	8.00000	9.07(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.592	7.588	(0.891)	160879	8.00000	9.35	
	62 N-Nitrosodiphenylamine	169	7.619	7.615	(0.895)	956475	8.00000	8.32	
	63 Azobenzene	77	7.661	7.658	(0.900)	1011902	8.00000	9.02	
	64 1,2-Diphenylhydrazine	77	7.661	7.658	(0.900)	1011902	8.00000	9.02	
$	65 2,4,6-Tribromophenol (S)	330	7.790	7.791	(0.915)	202248	8.00000	9.22	
	66 4-Bromophenylphenyl ether	248	8.009	8.005	(0.940)	349259	8.00000	8.54	
	67 Hexachlorobenzene	284	8.190	8.187	(0.962)	440530	8.00000	8.56	
	68 Atrazine	200	8.190	8.181	(0.962)	339060	8.00000	9.07	
	69 Pentachlorophenol	266	8.366	8.363	(0.982)	197816	8.00000	9.41	
*	70 Phenanthrene-d10 (IS)	188	8.516	8.513	(1.000)	662148	4.00000		
	71 Phenanthrene	178	8.543	8.534	(1.003)	1759475	8.00000	8.41(M)	LT
	72 Anthracene	178	8.585	8.582	(1.008)	1625801	8.00000	8.76	
	73 Carbazole	167	8.740	8.737	(1.026)	1281766	8.00000	7.83	
	74 Di-n-butylphthalate	149	9.120	9.116	(1.071)	1735166	8.00000	8.89	
	75 Fluoranthene	202	9.803	9.800	(1.151)	1766630	8.00000	8.80	
	76 Pyrene	202	10.049	10.040	(0.889)	1815774	8.00000	8.80	
$	77 Terphenyl-d14 (S)	244	10.183	10.179	(0.901)	1359795	8.00000	8.24	
	78 Butylbenzylphthalate	149	10.690	10.692	(0.946)	754820	8.00000	9.00	
	79 3,3'-Dichlorobenzidine	252	11.241	11.237	(0.995)	519259	8.00000	7.52	
	80 bis(2-Ethylhexyl)phthalate	149	11.278	11.274	(0.998)	1145497	8.00000	9.21	
	81 Benzo(a)anthracene	228	11.278	11.274	(0.998)	1773445	8.00000	8.61	
*	82 Chrysene-d12 (IS)	240	11.299	11.296	(1.000)	671149	4.00000		
	83 Chrysene	228	11.326	11.317	(1.002)	1584658	8.00000	8.50	
	84 Di-n-octylphthalate	149	11.860	11.857	(0.934)	1554124	8.00000	8.92	
	85 Benzo(b)fluoranthene	252	12.325	12.322	(0.971)	1728361	8.00000	8.52	
	86 Benzo(k)fluoranthene	252	12.346	12.343	(0.973)	1855133	8.00000	8.51	
	87 Benzo(a)pyrene	252	12.640	12.637	(0.996)	1468687	8.00000	8.16	
*	88 Perylene-d12 (IS)	264	12.694	12.690	(1.000)	651212	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.874	13.865	(1.093)	1821017	8.00000	9.04	
90 Dibenz(a,h)anthracene	278	13.874	13.865	(1.093)	1525307	8.00000	9.04	
91 Benzo(g,h,i)perylene	276	14.221	14.213	(1.120)	1407497	8.00000	8.85	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

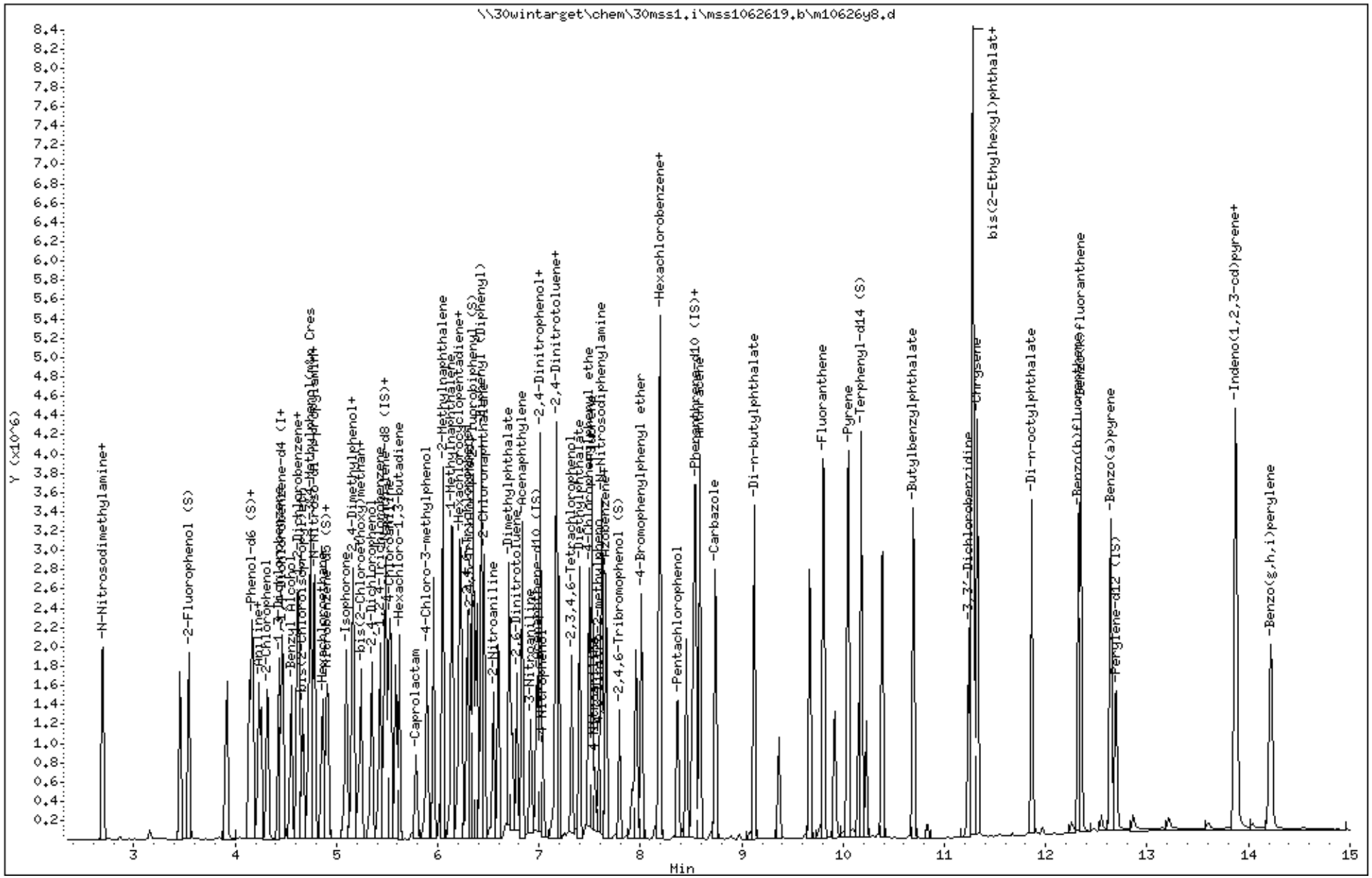
:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626y8.d
Date : 26-JUN-2019 20:25
Client ID: ICV
Sample Info: ICV

Instrument: 30mss1.i

Operator: EAC

Column phase: RTX-5MS
Column diameter: 0.18



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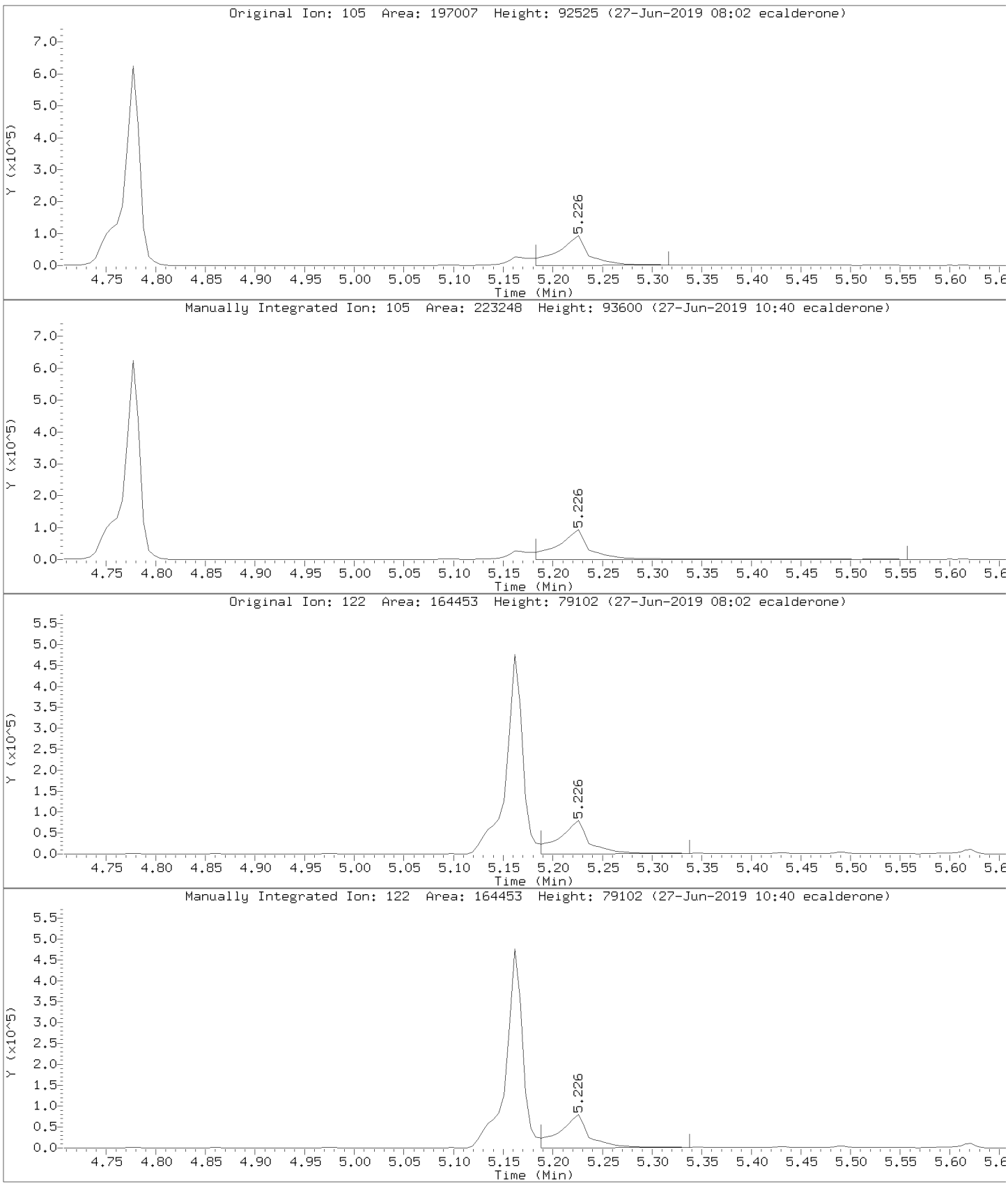
Injection Date: 26-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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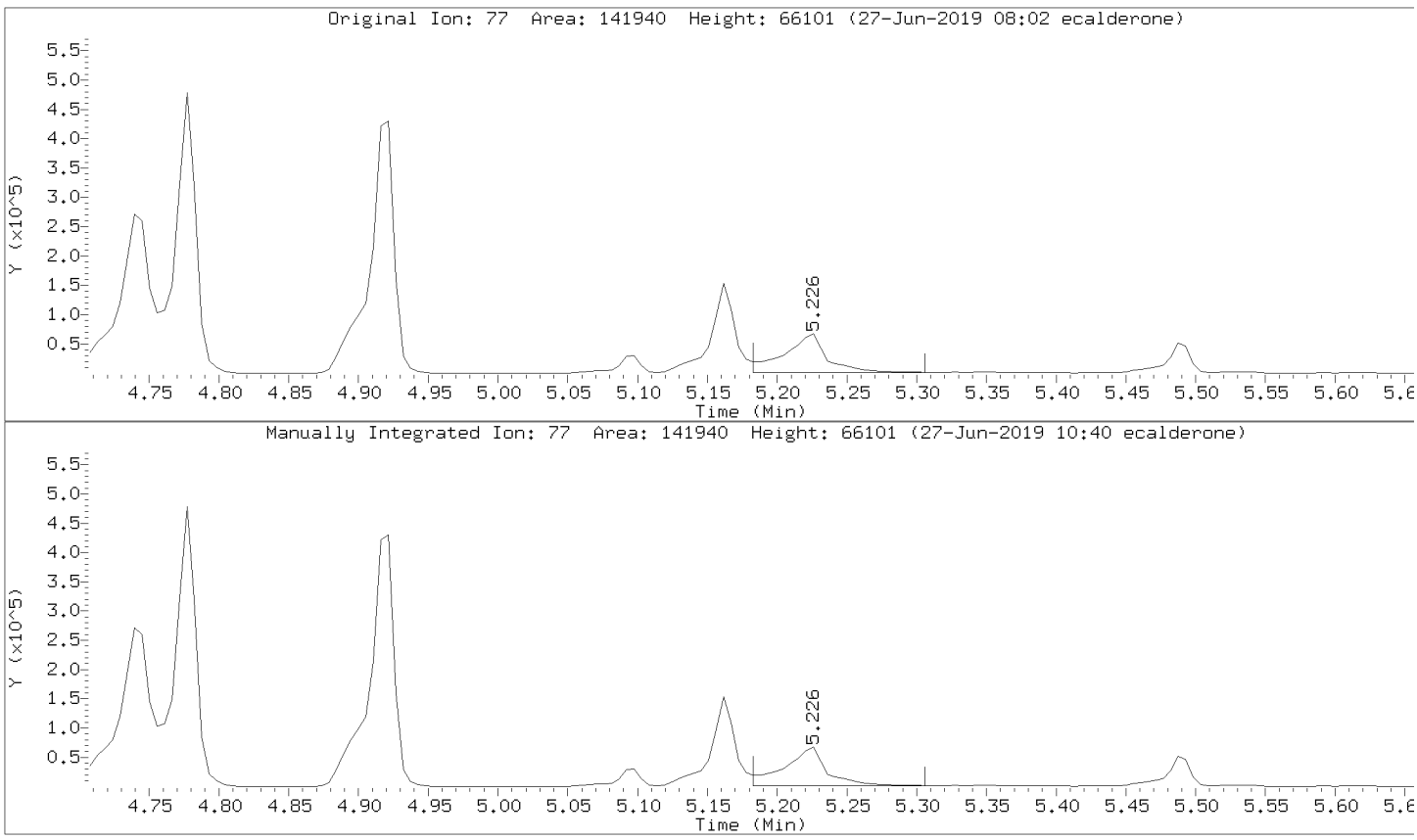

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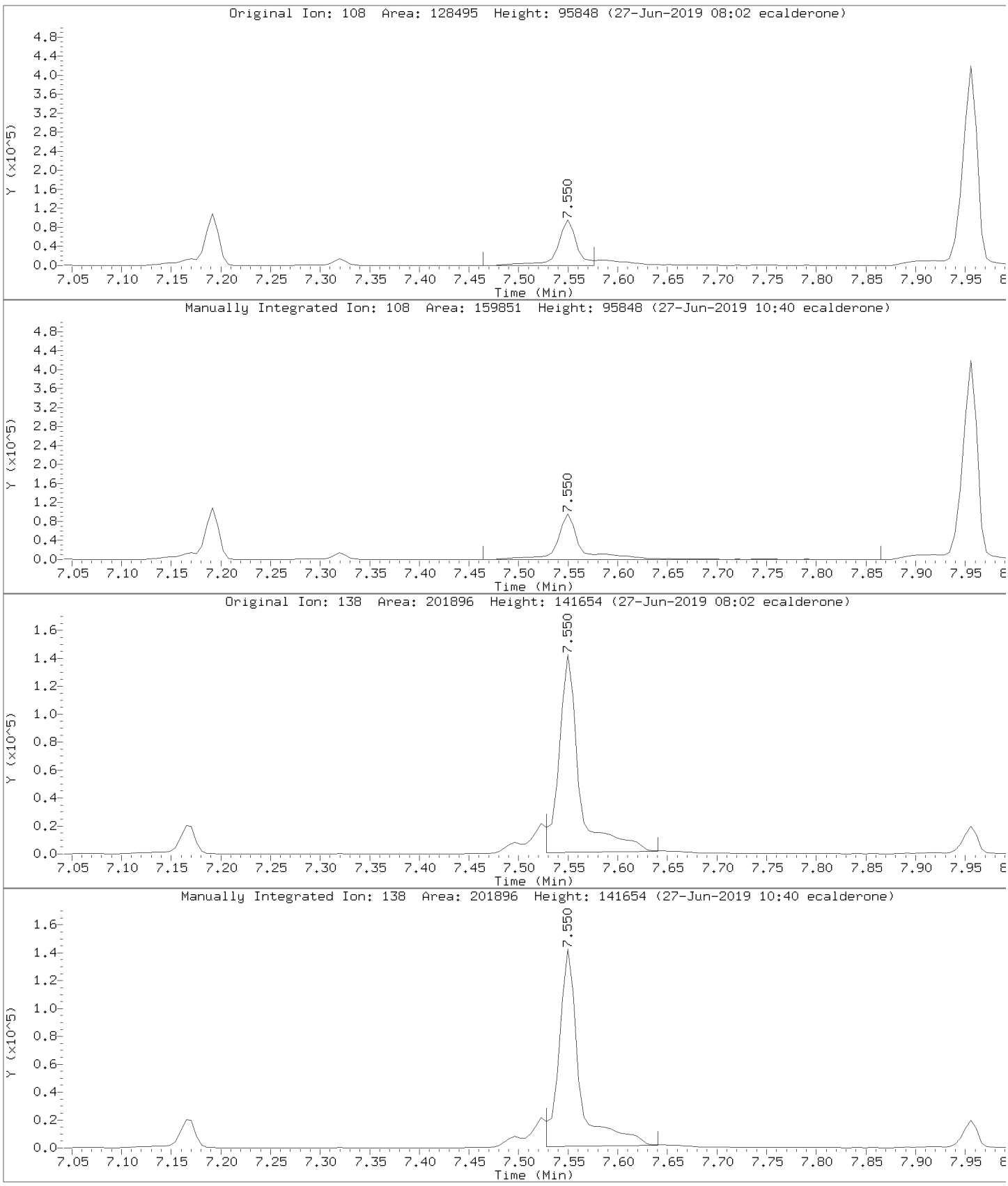
Injection Date: 26-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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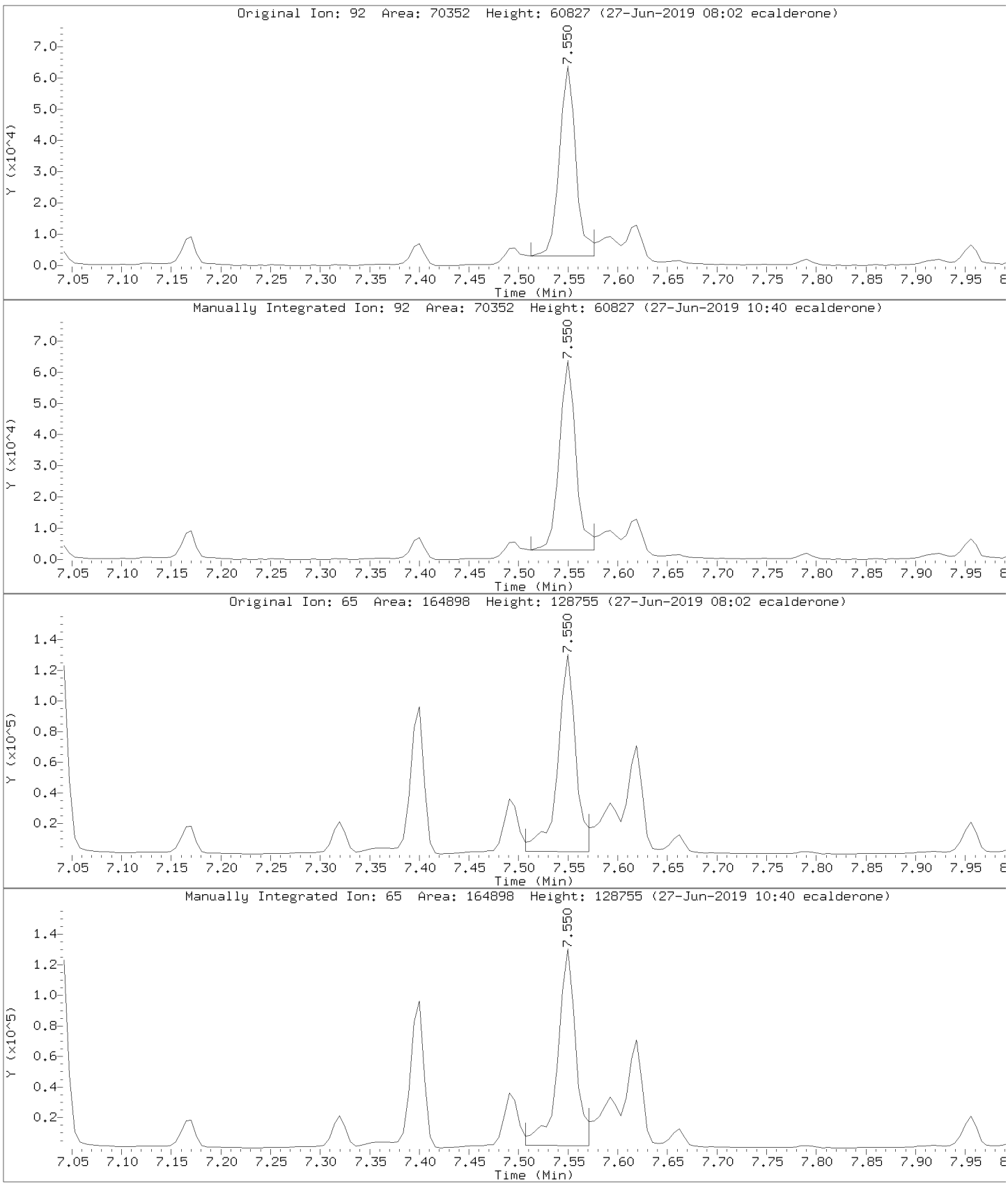
Lab Sample ID: ICV



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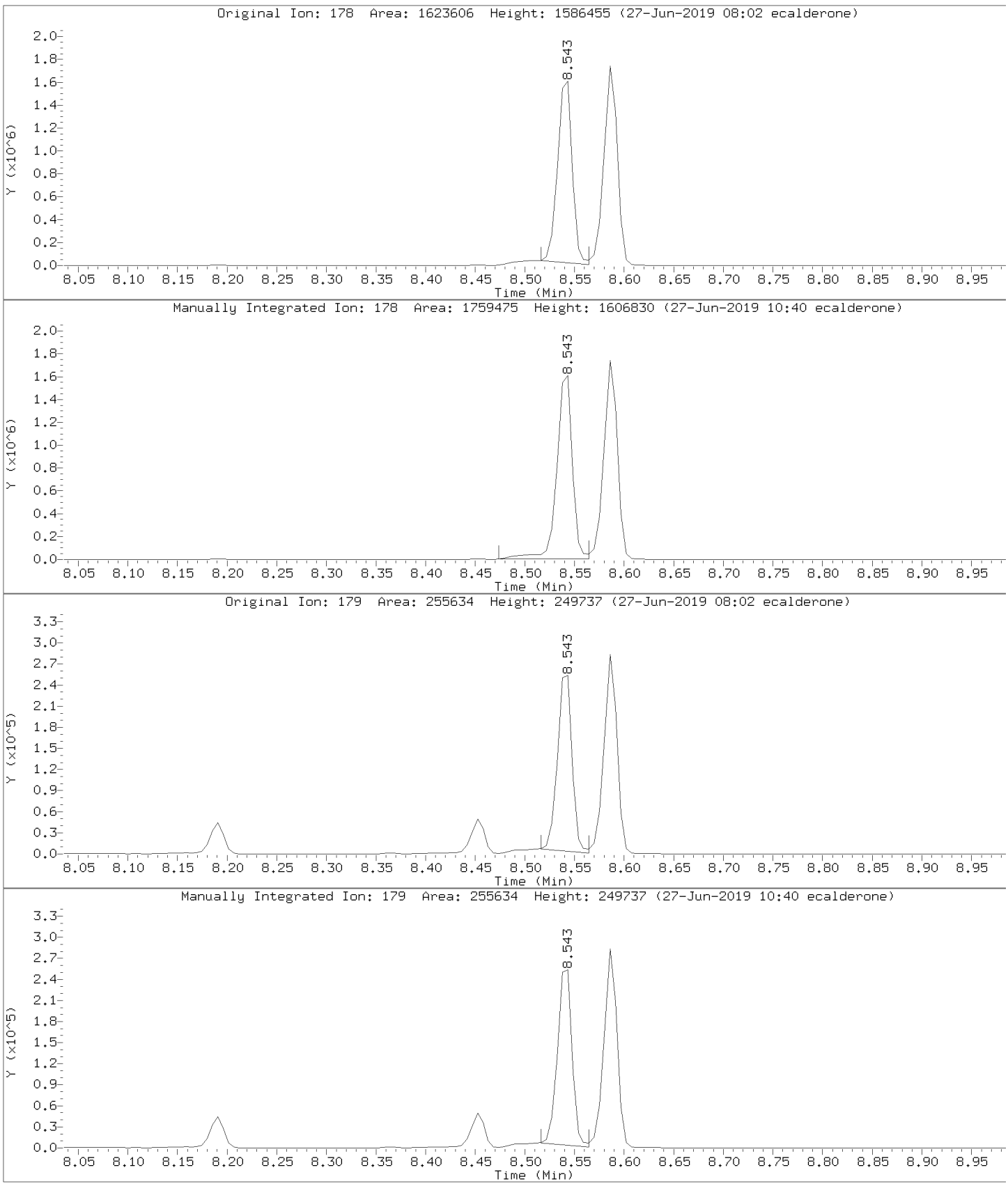
Injection Date: 26-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Phenanthrene Review Code: LT
CAS Number: 85-01-8



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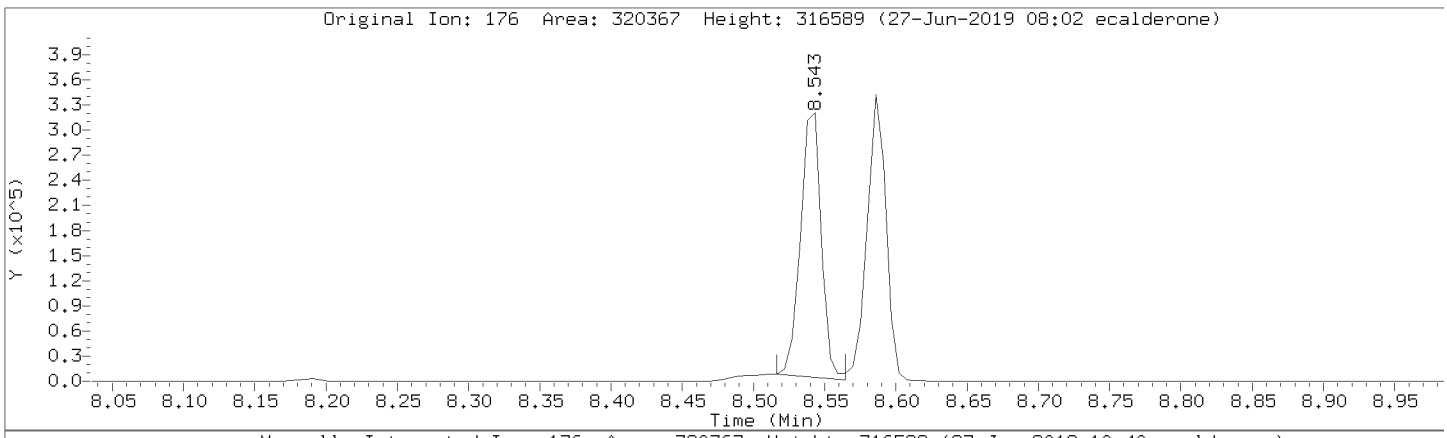

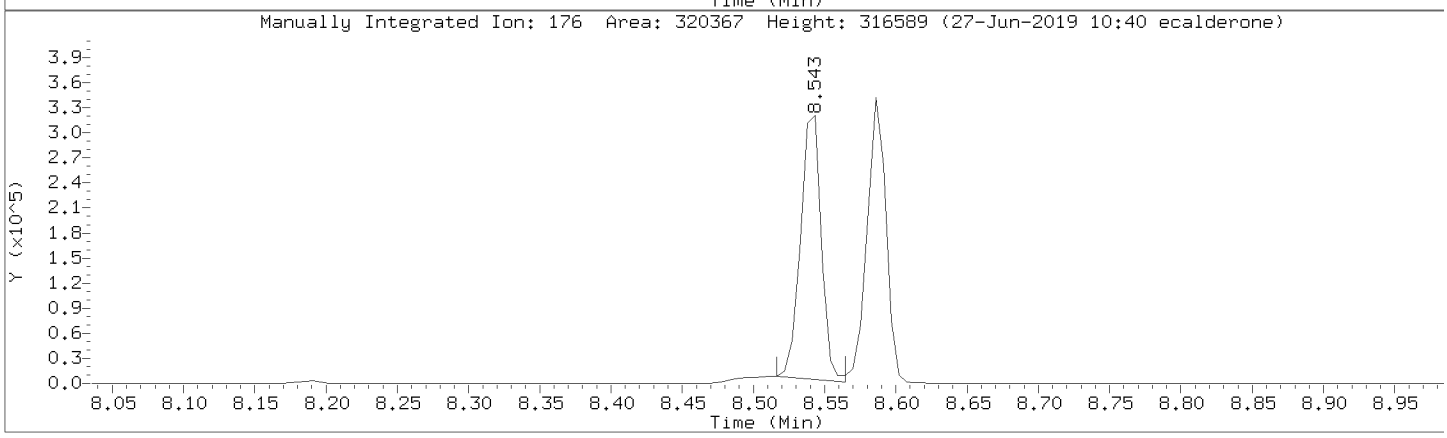

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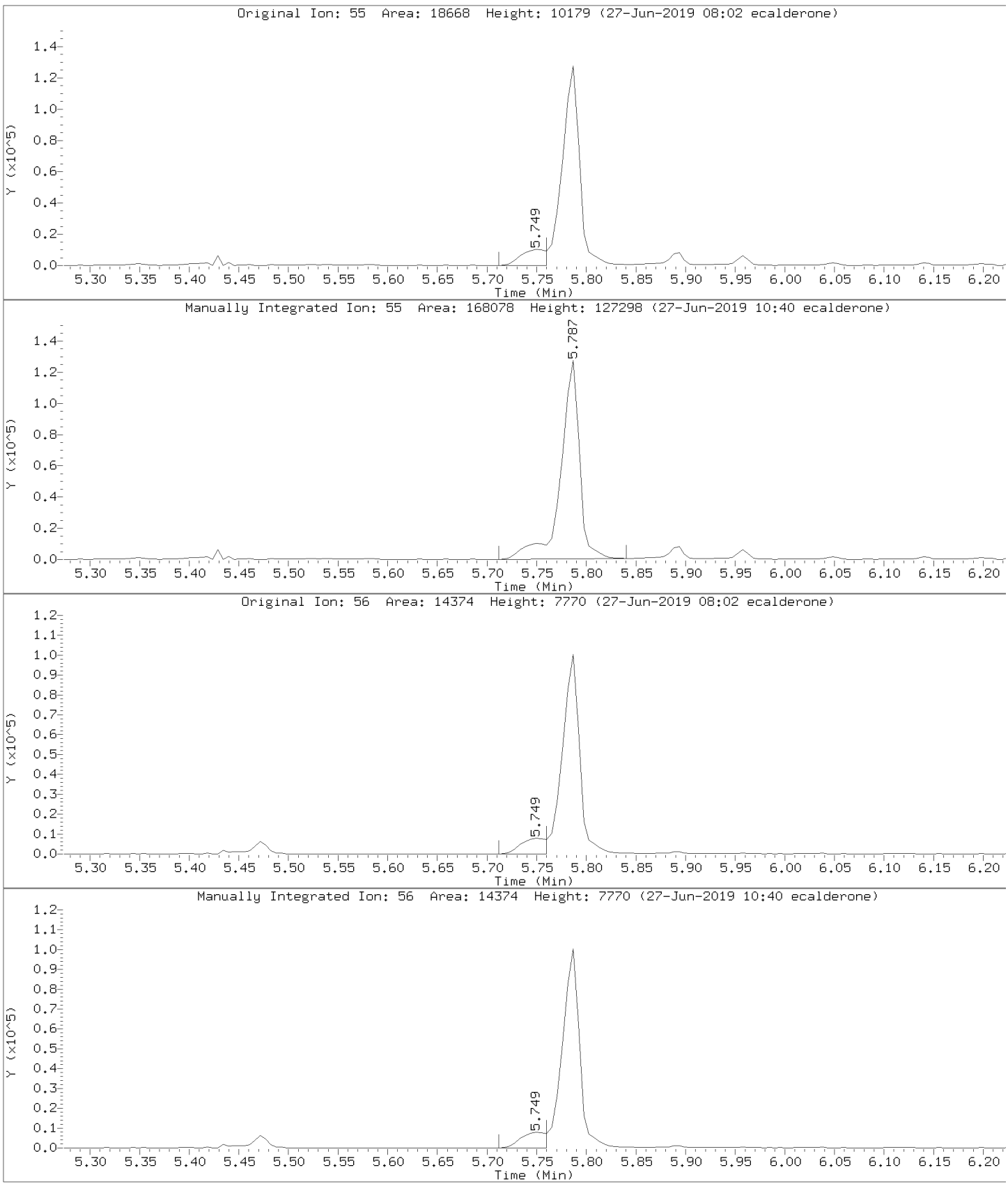
Injection Date: 26-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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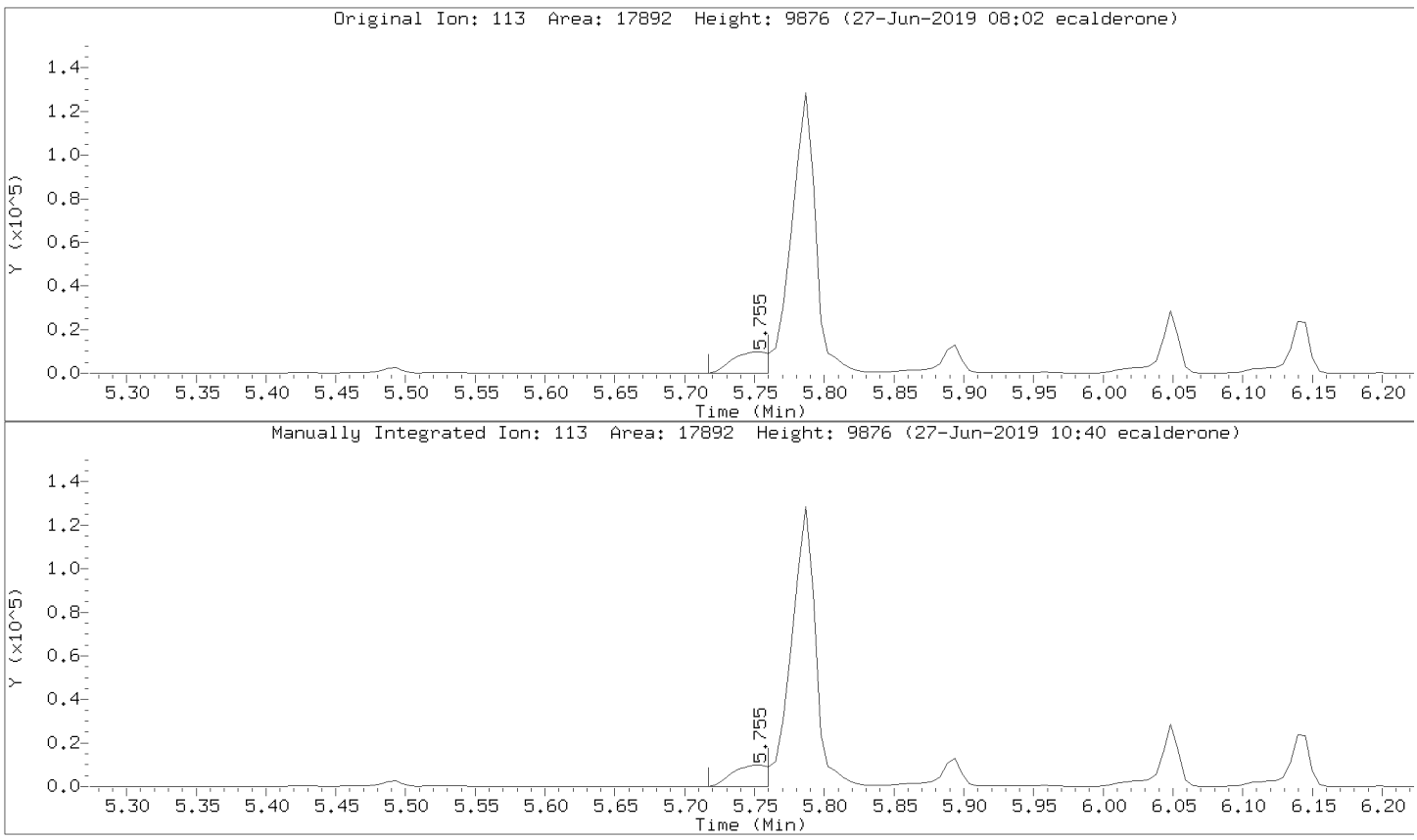
Injection Date: 26-JUN-2019 20:25
Instrument: 30mss1.i
Lab Sample ID: ICV



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 01-JUL-2019 16:19 MS Autotune Date: 26-JUN-2019 15:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : icv, 91774:1
Misc Info : 14771,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4070119.b\8270070119.m
Meth Date : 02-Jul-2019 10:14 sgvozden Quant Type: ISTD
Cal Date : 01-JUL-2019 15:56 Cal File: m40701x7.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.372	2.372	(0.570)	130529	8.00000	8.46	
	2 Pyridine	79	2.377	2.377	(0.571)	220518	8.00000	8.46	
$	3 2-Fluorophenol (S)	112	3.254	3.254	(0.782)	211800	8.00000	9.10	
$	4 Phenol-d6 (S)	99	3.886	3.880	(0.933)	249997	8.00000	8.57	
	5 Benzaldehyde	77	3.848	3.848	(0.924)	159768	8.00000	7.95	
	6 Phenol	94	3.896	3.891	(0.936)	257823	8.00000	8.51	
	7 Aniline	66	3.944	3.944	(0.947)	112651	8.00000	9.14	
	8 bis(2-Chloroethyl)ether	63	3.971	3.971	(0.954)	137121	8.00000	8.22	
	9 2-Chlorophenol	128	4.030	4.025	(0.968)	227040	8.00000	8.98	
	10 1,3-Dichlorobenzene	146	4.137	4.137	(0.994)	220459	8.00000	7.95	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.164	4.164	(1.000)	74608	4.00000		
	12 1,4-Dichlorobenzene	146	4.174	4.174	(1.003)	244116	8.00000	8.00	
	13 Benzyl Alcohol	79	4.265	4.265	(1.024)	169624	8.00000	8.70	
	14 1,2-Dichlorobenzene	146	4.324	4.324	(1.039)	227750	8.00000	8.37	
	15 2-Methylphenol(o-Cresol)	108	4.346	4.345	(1.044)	199029	8.00000	8.51	
	16 bis(2-Chloroisopropyl)ether	45	4.383	4.383	(1.053)	217199	8.00000	8.23	
	17 3&4-Methylphenol(m&p Cresol)	108	4.458	4.452	(1.071)	404270	16.0000	16.7	
	18 N-Nitroso-di-n-propylamine	70	4.495	4.490	(1.080)	142328	8.00000	8.47	
	19 Acetophenone	105	4.485	4.479	(1.077)	282295	8.00000	8.67	
	20 Hexachloroethane	117	4.565	4.565	(1.096)	88208	8.00000	8.32	
$	21 Nitrobenzene-d5 (S)	128	4.608	4.608	(0.891)	104140	8.00000	8.75	
	22 Nitrobenzene	77	4.624	4.618	(0.894)	207899	8.00000	8.56	
	23 Isophorone	82	4.800	4.795	(0.929)	388893	8.00000	8.78	
	24 2,4-Dimethylphenol	107	4.875	4.870	(0.943)	206162	8.00000	8.78	
	25 2-Nitrophenol	139	4.870	4.870	(0.942)	110140	8.00000	9.21	
	26 Benzoic acid	105	4.939	4.918	(0.956)	97797	8.00000	9.02(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.950	4.950	(0.958)	239605	8.00000	8.48	
	28 2,4-Dichlorophenol	162	5.052	5.046	(0.977)	173791	8.00000	8.62	
	29 1,2,4-Trichlorobenzene	180	5.132	5.126	(0.993)	198287	8.00000	8.38	
*	30 Naphthalene-d8 (IS)	136	5.169	5.169	(1.000)	293377	4.00000		
	31 Naphthalene	128	5.185	5.185	(1.003)	621356	8.00000	8.46	
	32 4-Chloroaniline	65	5.223	5.223	(1.010)	63576	8.00000	8.91	
	33 Hexachloro-1,3-butadiene	225	5.319	5.319	(1.029)	108590	8.00000	8.42	

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
34	Caprolactam	55	5.479	5.469	(1.060)	68603	8.00000	8.75(M)	LT
35	4-Chloro-3-methylphenol	107	5.597	5.592	(1.083)	167923	8.00000	8.58	
36	2-Methylnaphthalene	142	5.742	5.741	(1.111)	412631	8.00000	8.46	
37	1-Methylnaphthalene	142	5.832	5.832	(1.128)	380382	8.00000	8.22	
38	Hexachlorocyclopentadiene	237	5.923	5.923	(0.894)	113653	8.00000	9.65	
39	1,2,4,5-Tetrachlorobenzene	216	5.913	5.913	(0.893)	193988	8.00000	9.03	
40	2,4,6-Trichlorophenol	196	5.982	5.982	(0.903)	132809	8.00000	9.10	
41	2,4,5-Trichlorophenol	196	6.014	6.014	(0.908)	123933	8.00000	9.38	
$ 42	2-Fluorobiphenyl (S)	172	6.046	6.046	(0.913)	439917	8.00000	8.83	
43	Biphenyl (Diphenyl)	154	6.121	6.121	(0.924)	459022	8.00000	8.57	
44	2-Chloronaphthalene	164	6.143	6.143	(0.927)	120708	8.00000	8.77	
45	2-Nitroaniline	138	6.239	6.234	(0.942)	122232	8.00000	9.10	
46	Dimethylphthalate	163	6.394	6.394	(0.965)	412010	8.00000	9.01(M)	LT
47	2,6-Dinitrotoluene	165	6.458	6.458	(0.975)	97571	8.00000	8.97	
48	Acenaphthylene	152	6.496	6.496	(0.981)	571517	8.00000	8.86	
49	3-Nitroaniline	65	6.576	6.576	(0.993)	97214	8.00000	8.32	
* 50	Acenaphthene-d10 (IS)	164	6.624	6.624	(1.000)	148786	4.00000		
51	2,4-Dinitrophenol	184	6.662	6.661	(1.006)	41669	8.00000	8.48	
52	Acenaphthene	153	6.651	6.651	(1.004)	364761	8.00000	8.71	
53	4-Nitrophenol	109	6.694	6.688	(1.010)	41228	8.00000	8.36	
54	2,4-Dinitrotoluene	165	6.801	6.800	(1.027)	119636	8.00000	8.94	
55	Dibenzofuran	168	6.790	6.790	(1.025)	499076	8.00000	8.61	
56	2,3,4,6-Tetrachlorophenol	232	6.940	6.940	(1.048)	97360	8.00000	8.85	
57	Diethylphthalate	149	7.031	7.030	(1.061)	401675	8.00000	8.86	
58	4-Chlorophenylphenyl ether	204	7.116	7.116	(1.074)	200929	8.00000	8.48	
59	Fluorene	166	7.138	7.137	(1.077)	404410	8.00000	8.66	
60	4-Nitroaniline	108	7.170	7.164	(1.082)	52150	8.00000	8.41(M)	LT
61	4,6-Dinitro-2-methylphenol	198	7.212	7.212	(0.888)	63462	8.00000	8.63	
62	N-Nitrosodiphenylamine	169	7.245	7.239	(0.892)	333587	8.00000	8.46	
63	Azobenzene	77	7.282	7.282	(0.897)	365607	8.00000	8.88	
64	1,2-Diphenylhydrazine	77	7.282	7.282	(0.897)	365607	8.00000	8.88	
$ 65	2,4,6-Tribromophenol (S)	330	7.405	7.405	(0.912)	65236	8.00000	9.05	
66	4-Bromophenylphenyl ether	248	7.630	7.630	(0.939)	120620	8.00000	8.66	
67	Hexachlorobenzene	284	7.806	7.801	(0.961)	137782	8.00000	8.73	
68	Atrazine	200	7.817	7.817	(0.962)	108848	8.00000	8.69	
69	Pentachlorophenol	266	7.977	7.977	(0.982)	75894	8.00000	9.46	
* 70	Phenanthrene-d10 (IS)	188	8.122	8.122	(1.000)	244411	4.00000		
71	Phenanthrene	178	8.148	8.148	(1.003)	565345	8.00000	8.55	
72	Anthracene	178	8.197	8.196	(1.009)	554559	8.00000	8.64	
73	Carbazole	167	8.357	8.352	(1.029)	446710	8.00000	7.80	
74	Di-n-butylphthalate	149	8.758	8.758	(1.078)	613148	8.00000	8.89	
75	Fluoranthene	202	9.416	9.411	(1.159)	599025	8.00000	8.76	
76	Pyrene	202	9.651	9.651	(0.885)	611645	8.00000	8.53	
$ 77	Terphenyl-d14 (S)	244	9.801	9.801	(0.899)	451049	8.00000	8.02	
78	Butylbenzylphthalate	149	10.325	10.325	(0.947)	272726	8.00000	9.71	
79	3,3'-Dichlorobenzidine	252	10.855	10.855	(0.996)	200686	8.00000	8.22	
80	bis(2-Ethylhexyl)phthalate	149	10.914	10.919	(1.001)	366875	8.00000	9.25	
81	Benzo(a)anthracene	228	10.882	10.881	(0.998)	587039	8.00000	8.43	
* 82	Chrysene-d12 (IS)	240	10.903	10.903	(1.000)	237829	4.00000		
83	Chrysene	228	10.930	10.930	(1.002)	563585	8.00000	8.47	
84	Di-n-octylphthalate	149	11.497	11.497	(0.938)	510213	8.00000	9.66	
85	Benzo(b)fluoranthene	252	11.919	11.919	(0.973)	556483	8.00000	8.39(H)	WP
86	Benzo(k)fluoranthene	252	11.941	11.941	(0.974)	653715	8.00000	9.42	
87	Benzo(a)pyrene	252	12.208	12.208	(0.996)	487164	8.00000	8.42	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	12.256	12.256	(1.000)	220427	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	13.262	13.262	(1.082)	468571	8.00000	8.54	
90 Dibenz(a,h)anthracene	278	13.262	13.256	(1.082)	376180	8.00000	8.33	
91 Benzo(g,h,i)perylene	276	13.545	13.545	(1.105)	365094	8.00000	8.22	

QC Flag Legend

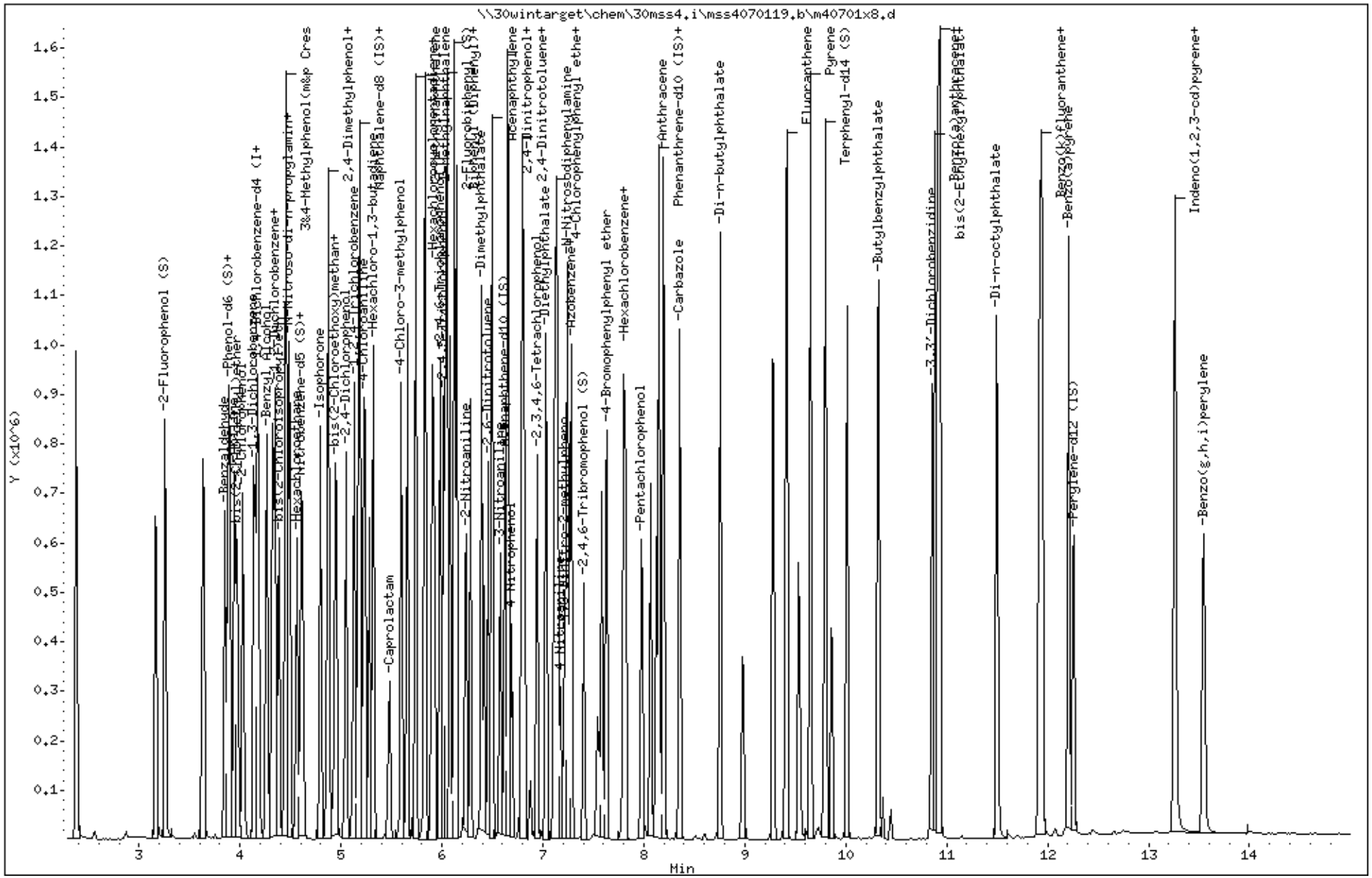
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

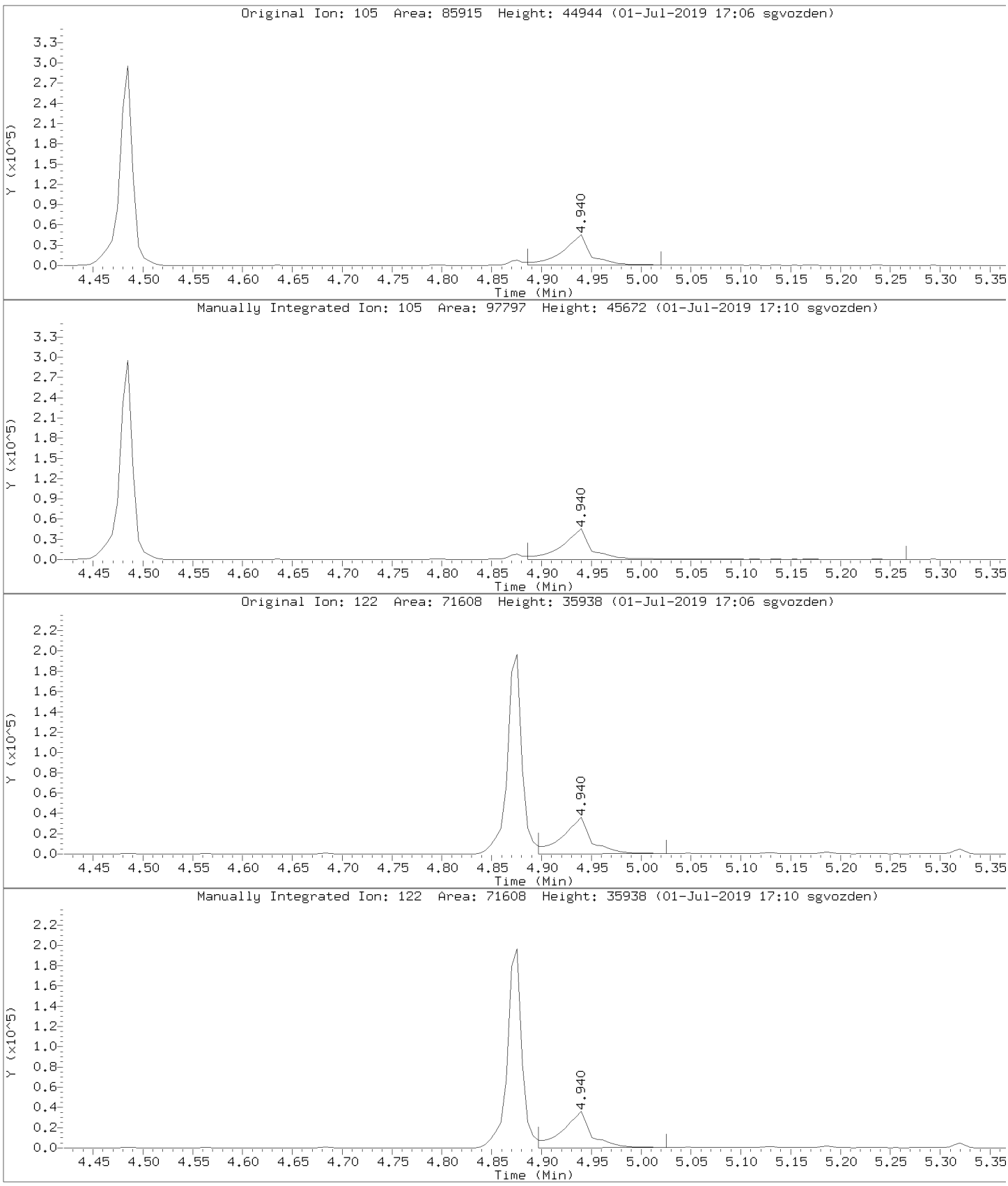
Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701x8.d
Date : 01-JUL-2019 16:19
Client ID: ICV
Sample Info: ICV, 91774:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18

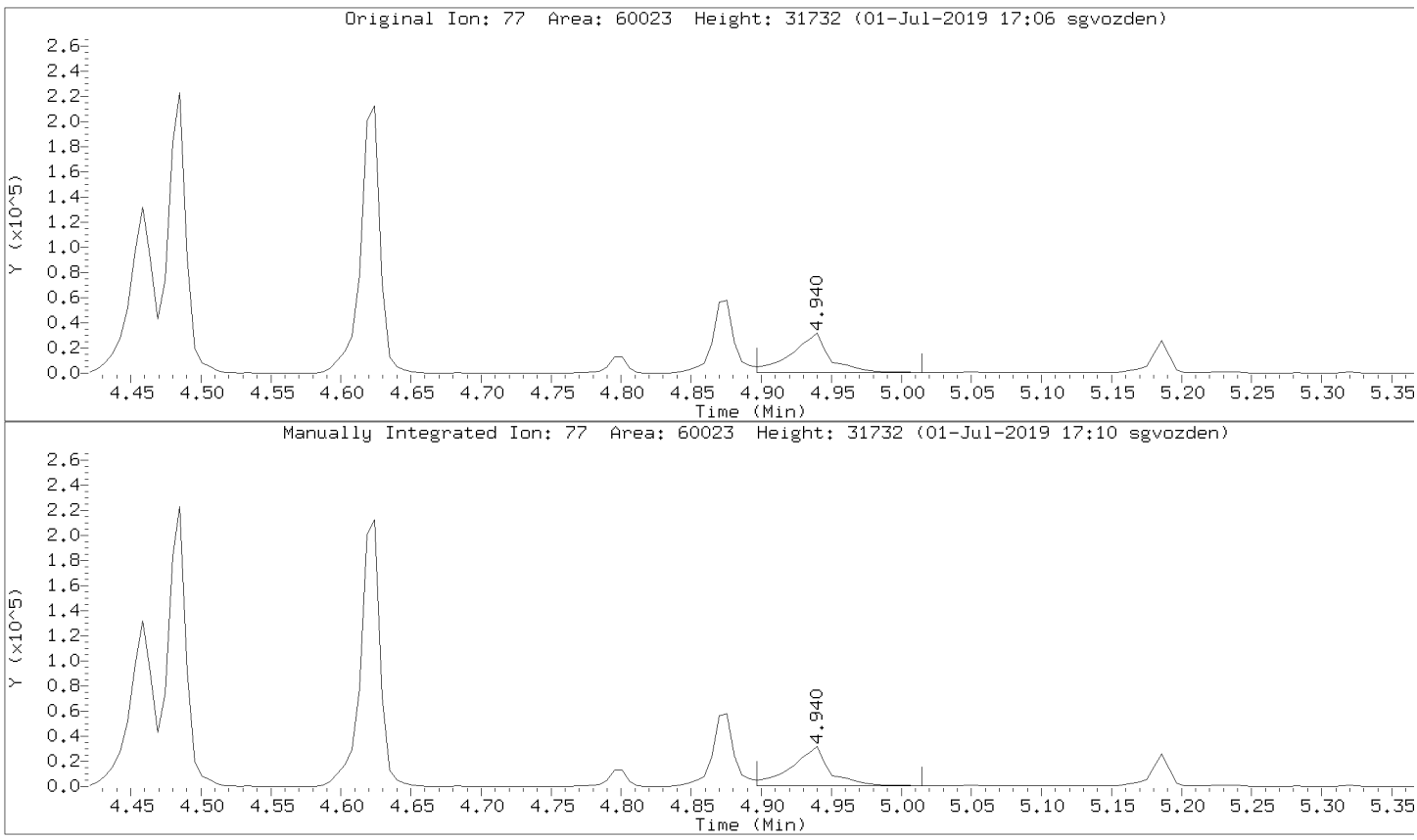


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

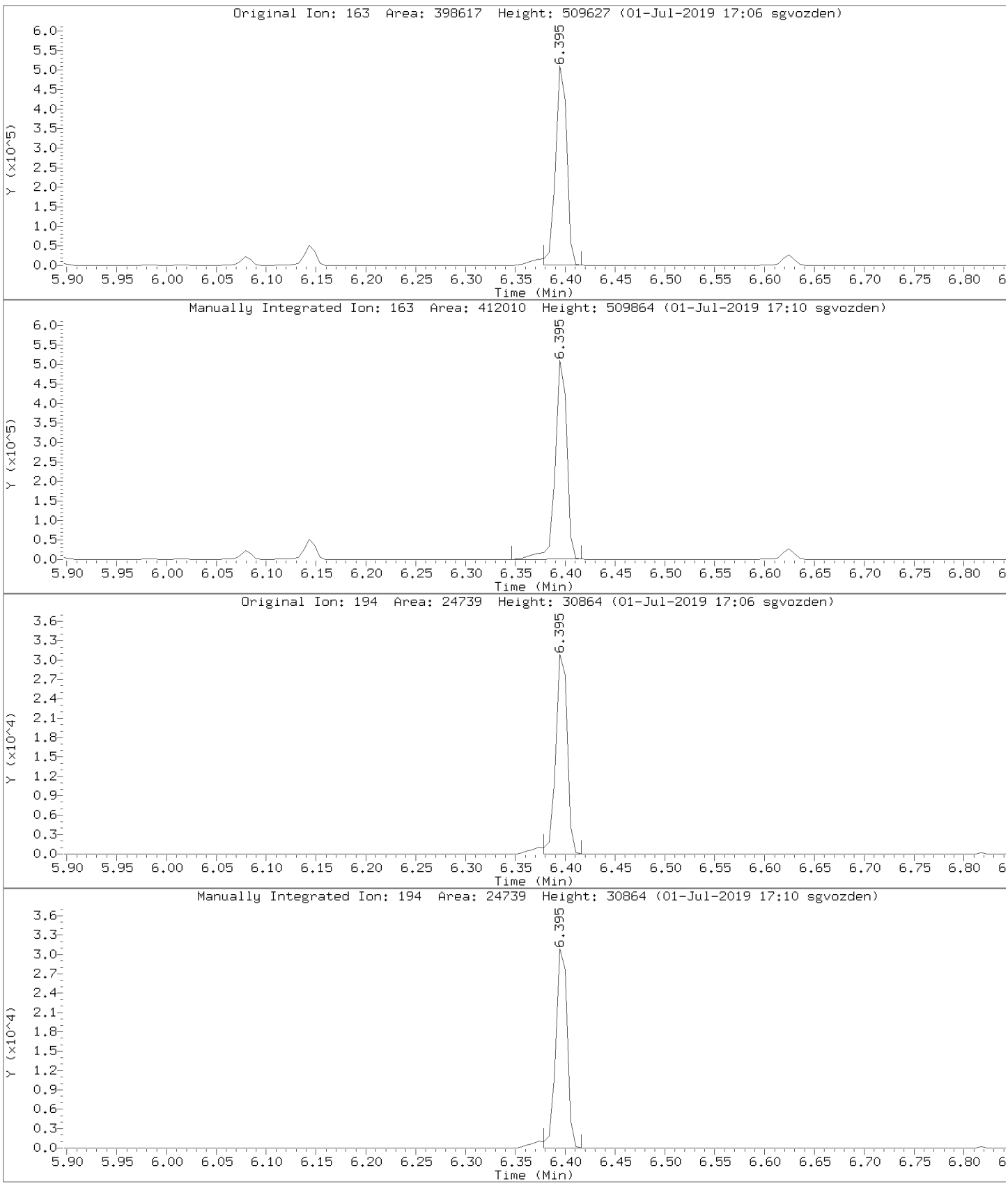


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

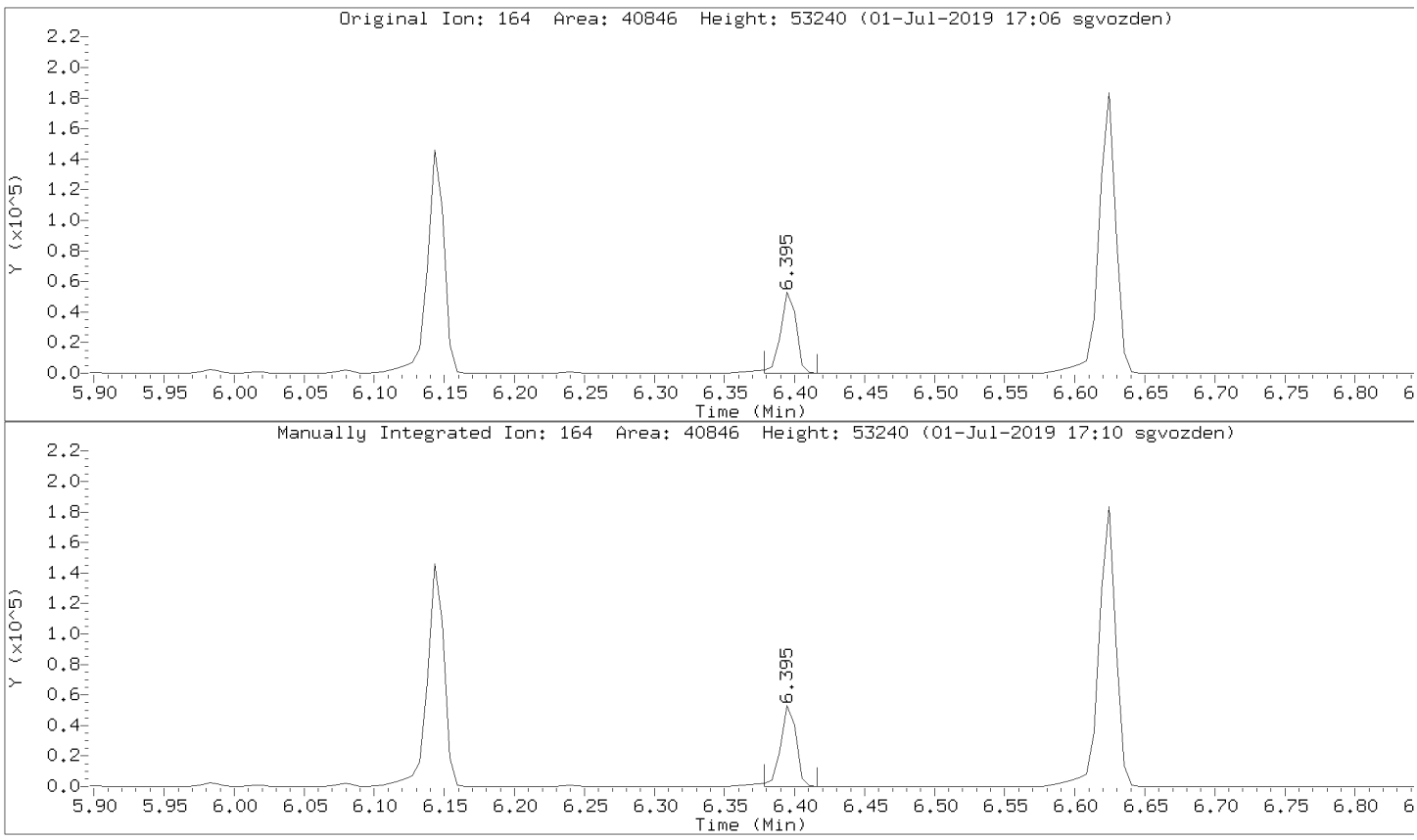


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3

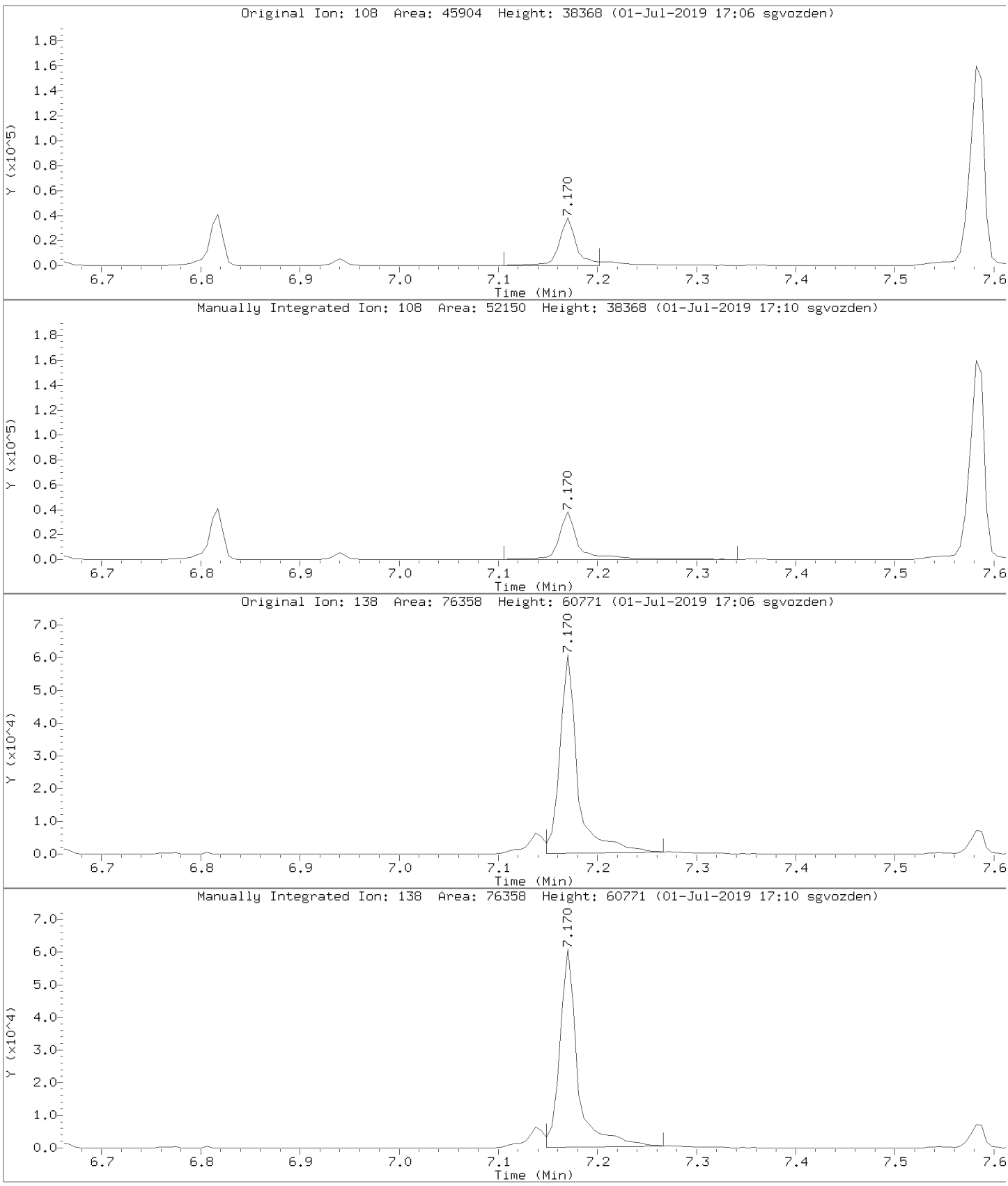


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

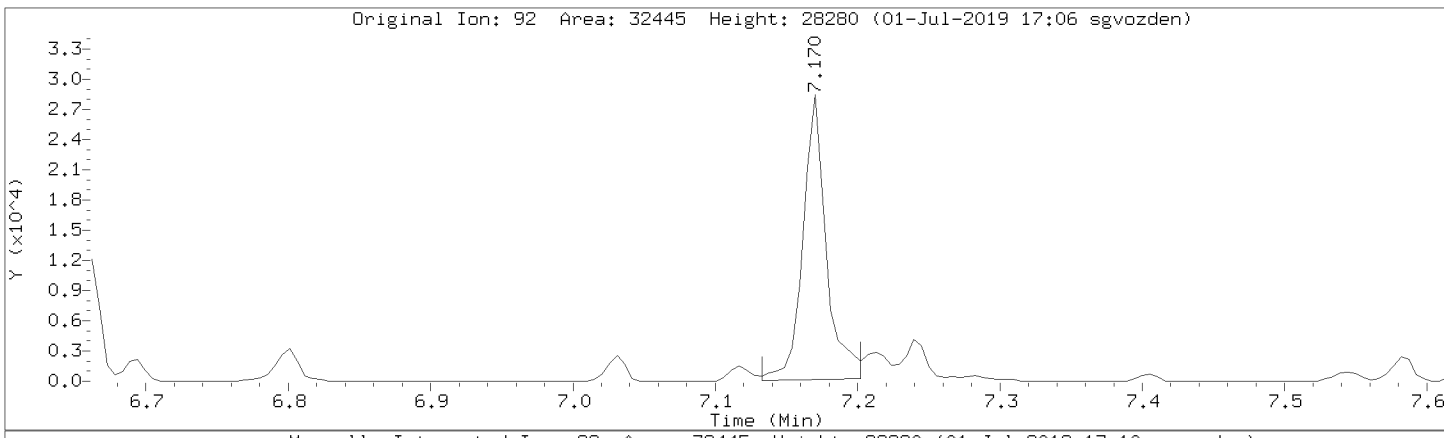


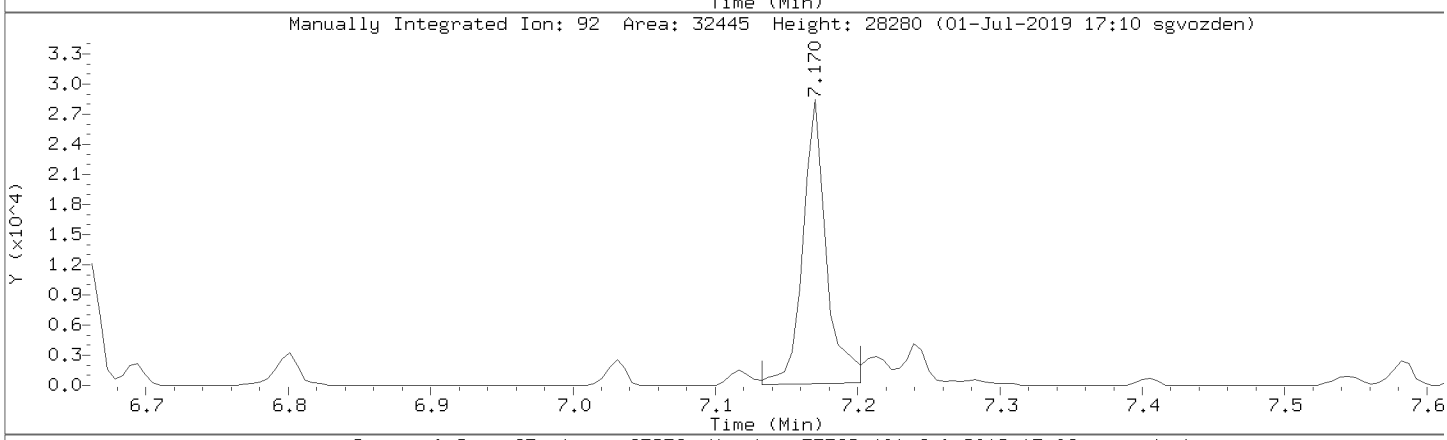
Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

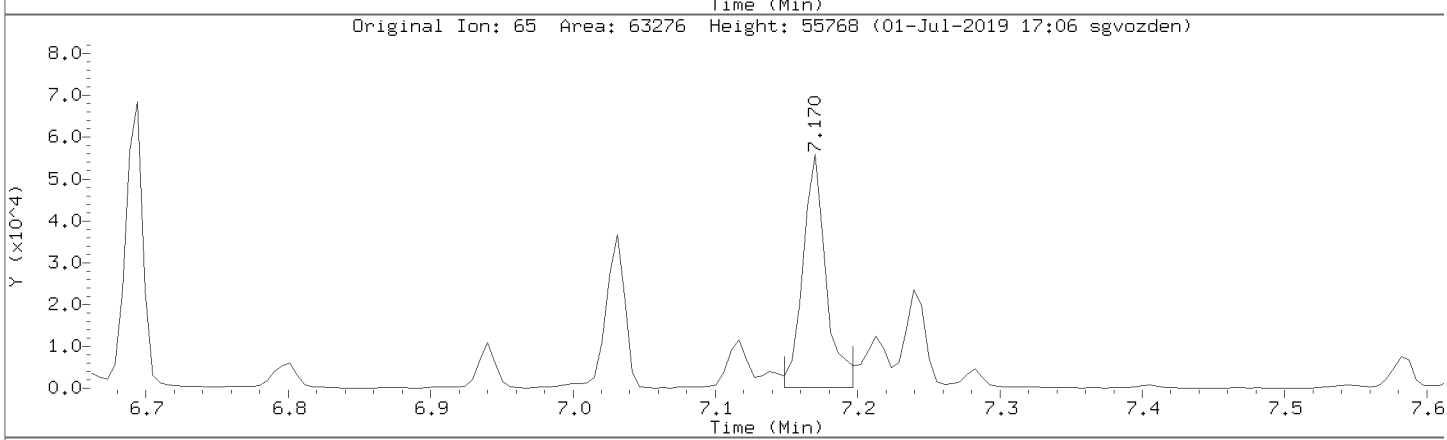
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6

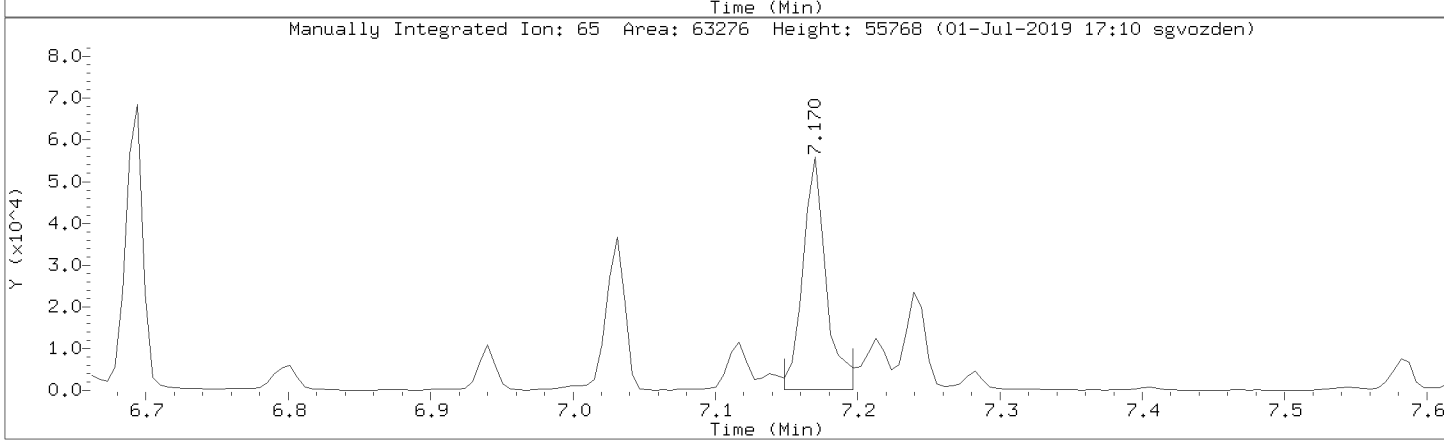


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV



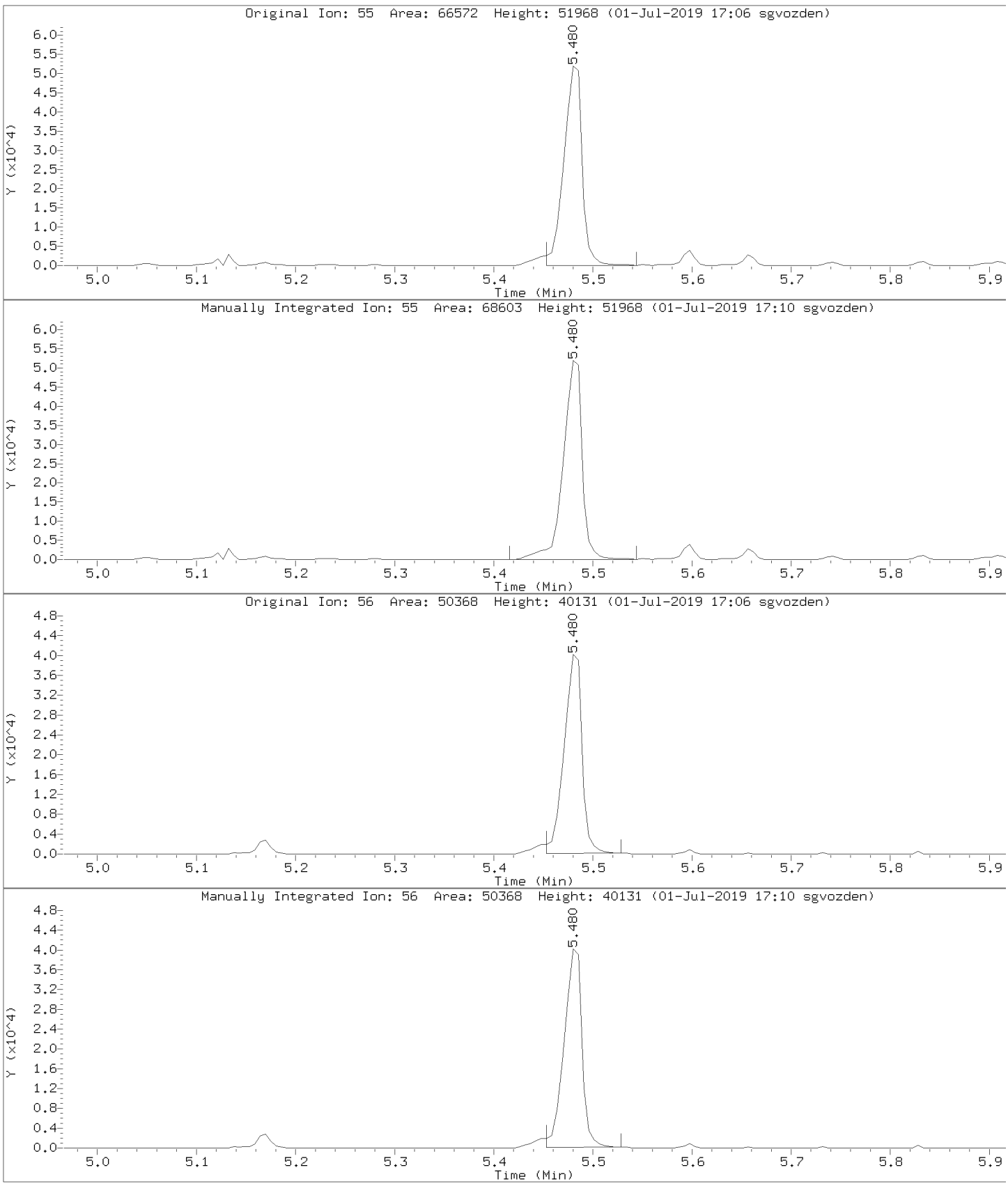




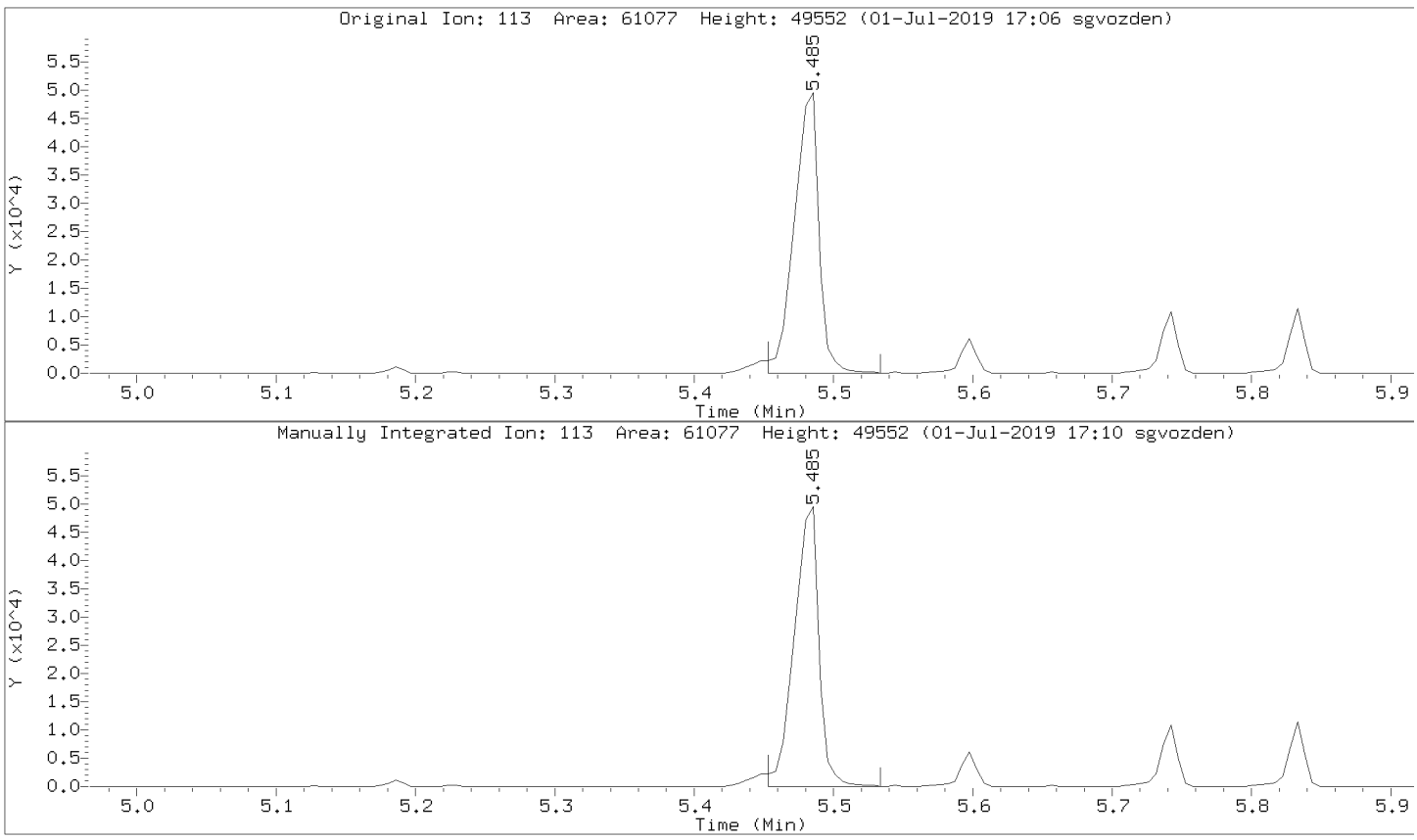


Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



Data File: \\30wintarget\chem\30mss4.i\mss4070119.b/m40701x8.d
Injection Date: 01-JUL-2019 16:19
Instrument: 30mss4.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626t2.d

Page 1

Date : 26-JUN-2019 16:37

Client ID: DFTPP

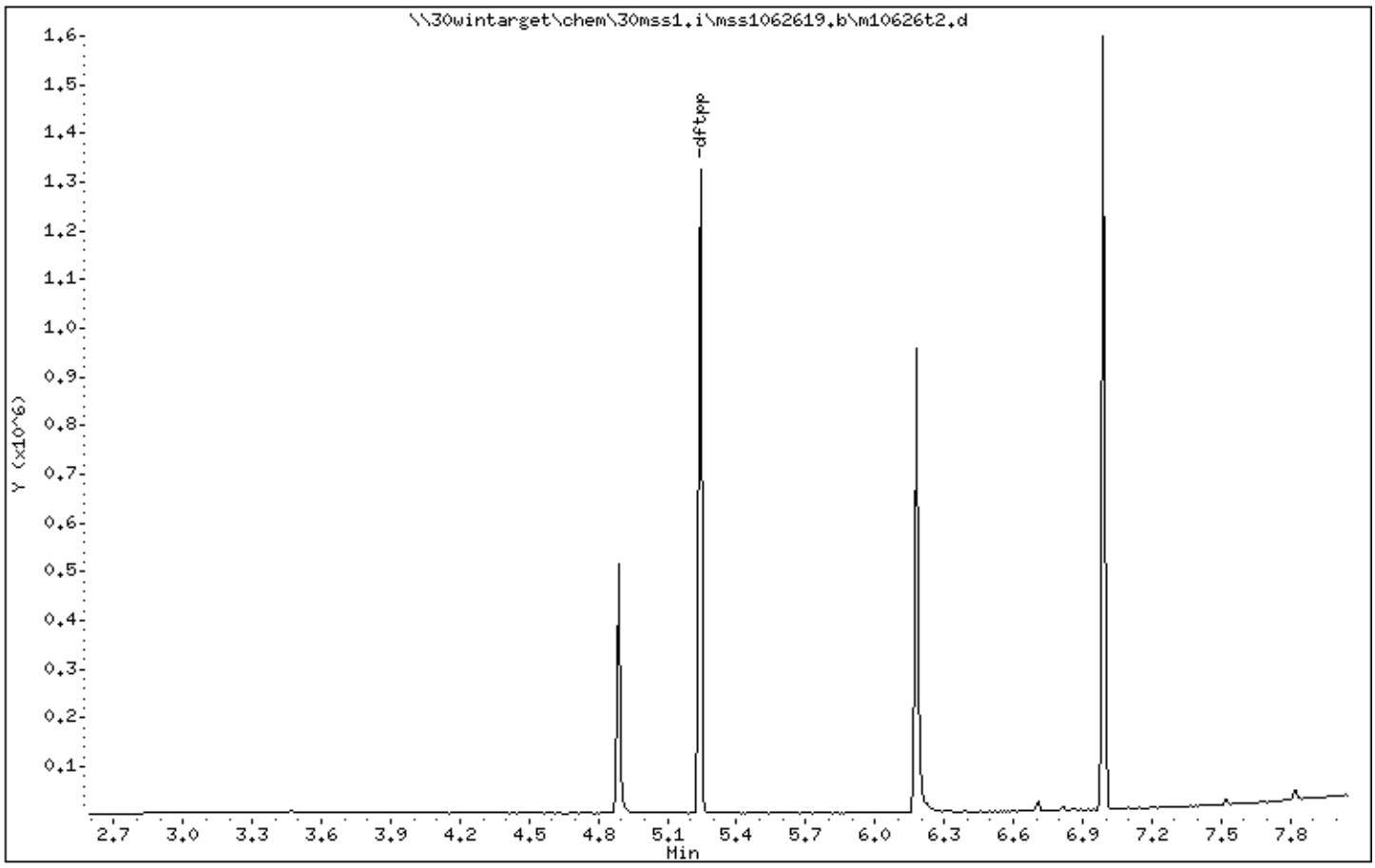
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m10626t2.d

Date : 26-JUN-2019 16:37

Client ID: DFTPP

Instrument: 30mss1.i

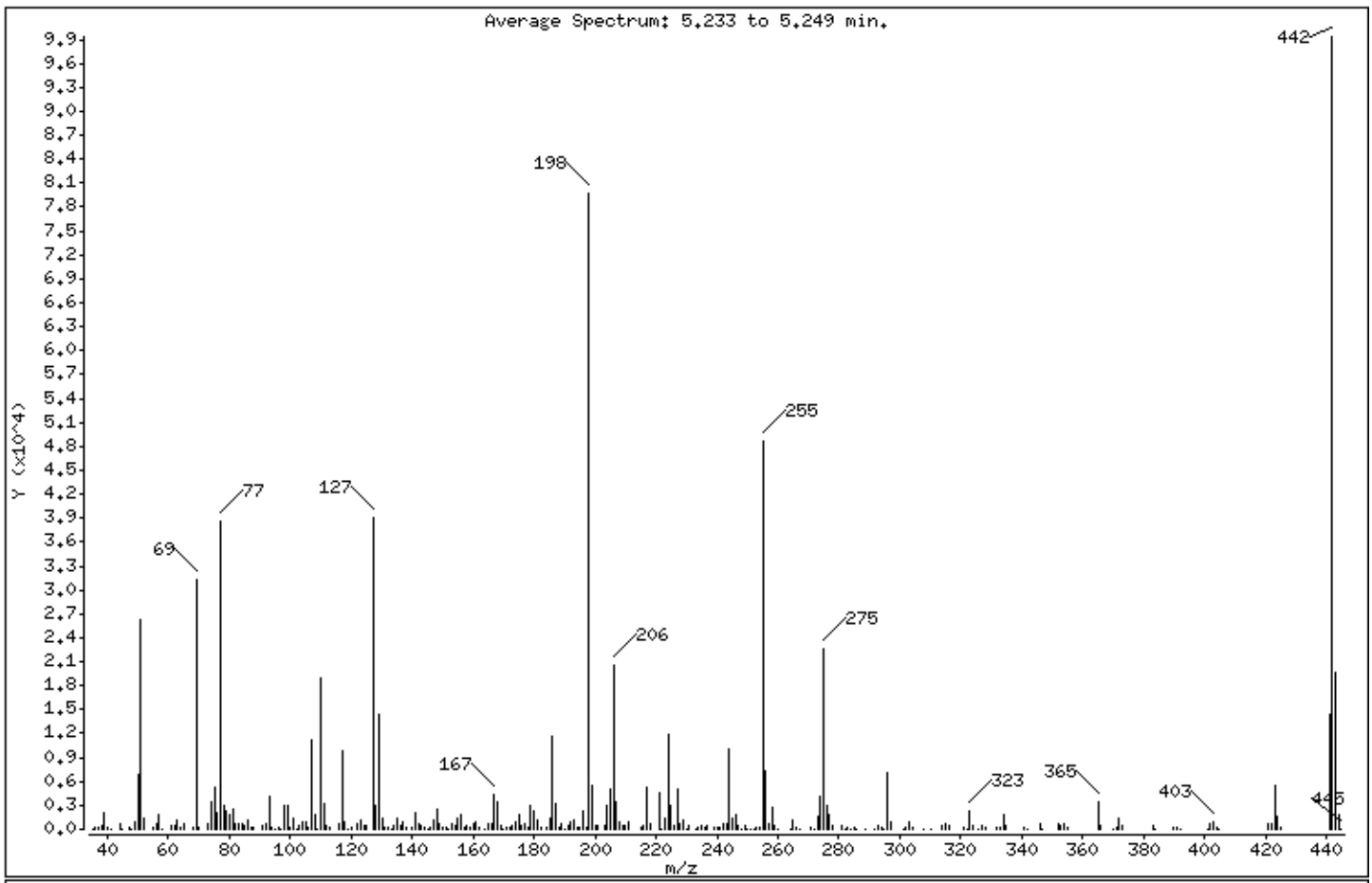
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.91
68	Less than 2.00% of mass 69	0.30 (0.78)
69	Mass 69 relative abundance	39.24
70	Less than 2.00% of mass 69	0.16 (0.42)
127	40.00 - 60.00% of mass 198	49.12
197	Less than 1.00% of mass 198	0.18
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	28.25
365	Greater than 1.00% of mass 198	4.31
441	Present, but less than mass 443	17.94
442	Greater than 40.00% of mass 198	124.66
443	17.00 - 23.00% of mass 442	24.75 (19.85)

Date : 26-JUN-2019 16:37

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10626t2.d
Spectrum: Average Spectrum: 5.233 to 5.249 min.
Location of Maximum: 442.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	46	120.00	151	195.00	116	281.00	348
36.00	200	122.00	763	196.00	2300	282.00	87
37.00	185	123.00	1218	197.00	140	283.00	262
38.00	375	124.00	537	198.00	79704	284.00	110
39.00	2151	125.00	503	199.00	5520	285.00	325
40.00	327	127.00	39152	200.00	463	286.00	38
41.00	57	128.00	2946	201.00	381	289.00	55
44.00	715	129.00	14348	203.00	500	292.00	61
45.00	96	130.00	1337	204.00	3070	293.00	440
47.00	196	131.00	278	205.00	5123	294.00	132
48.00	46	132.00	116	206.00	20448	295.00	94
49.00	802	133.00	101	207.00	3354	296.00	7057
50.00	6962	134.00	498	208.00	837	297.00	993
51.00	26232	135.00	1415	209.00	360	301.00	45
52.00	1455	136.00	551	210.00	398	302.00	124
55.00	200	137.00	835	211.00	901	303.00	802
56.00	733	138.00	122	215.00	168	304.00	182
57.00	1834	140.00	144	216.00	482	308.00	60
58.00	42	141.00	1957	217.00	5351	310.00	55
61.00	375	142.00	694	218.00	725	314.00	356
62.00	452	143.00	461	221.00	4567	315.00	769
63.00	1179	144.00	136	222.00	54	316.00	439
64.00	169	145.00	54	223.00	1271	321.00	227
65.00	648	146.00	248	224.00	11911	322.00	97
68.00	243	147.00	1126	225.00	2988	323.00	2259
69.00	31272	148.00	2452	226.00	359	324.00	365
70.00	130	149.00	727	227.00	5051	326.00	48
73.00	608	150.00	170	228.00	743	327.00	424
74.00	3387	151.00	194	229.00	1061	328.00	253
75.00	5227	152.00	106	230.00	110	332.00	133
76.00	2004	153.00	588	231.00	434	333.00	211
77.00	38528	154.00	443	233.00	84	334.00	1736
78.00	2895	155.00	1275	234.00	296	335.00	362
79.00	2259	156.00	1745	235.00	360	341.00	312
80.00	1793	157.00	295	236.00	227	342.00	41

Date : 26-JUN-2019 16:37

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10626t2.d
Spectrum: Average Spectrum: 5.233 to 5.249 min.
Location of Maximum: 442.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	2604	158.00	385	237.00	557	346.00	575
82.00	661	159.00	273	239.00	208	347.00	57
83.00	685	160.00	648	240.00	123	352.00	677
84.00	724	161.00	954	241.00	261	353.00	526
85.00	515	162.00	232	242.00	711	354.00	712
86.00	1136	164.00	91	243.00	722	355.00	236
87.00	338	165.00	743	244.00	10142	365.00	3435
88.00	209	166.00	611	245.00	1296	366.00	506
91.00	570	167.00	4436	246.00	1807	370.00	48
92.00	648	168.00	3526	247.00	371	371.00	191
93.00	4001	169.00	527	248.00	38	372.00	1363
94.00	253	170.00	107	249.00	373	373.00	352
95.00	78	171.00	177	250.00	45	383.00	379
96.00	247	172.00	277	251.00	47	384.00	57
97.00	50	173.00	497	252.00	39	390.00	198
98.00	2945	174.00	859	253.00	221	391.00	189
99.00	2932	175.00	1736	254.00	126	392.00	44
100.00	238	176.00	521	255.00	48680	401.00	46
101.00	1448	177.00	771	256.00	7314	402.00	608
102.00	44	178.00	218	257.00	615	403.00	893
103.00	424	179.00	2973	258.00	2820	404.00	299
104.00	872	180.00	2290	259.00	441	405.00	44
105.00	828	181.00	1050	260.00	47	421.00	768
106.00	320	182.00	161	264.00	56	422.00	714
107.00	11125	184.00	208	265.00	1249	423.00	5478
108.00	1848	185.00	1444	266.00	216	424.00	1610
109.00	99	186.00	11554	267.00	42	425.00	218
110.00	18944	187.00	3189	271.00	116	441.00	14296
111.00	3117	188.00	331	272.00	68	442.00	99352
112.00	371	189.00	731	273.00	1495	443.00	19720
113.00	116	190.00	96	274.00	4201	444.00	1780
116.00	581	191.00	441	275.00	22512	445.00	42
117.00	9821	192.00	1014	276.00	3072		
118.00	800	193.00	1211	277.00	1891		
119.00	94	194.00	244	278.00	365		

Date : 26-JUN-2019 16:37

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10626t2.d
Spectrum: Average Spectrum: 5.233 to 5.249 min.
Location of Maximum: 442.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y

Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701t1.d

Date : 01-JUL-2019 09:26

Client ID: TUNE

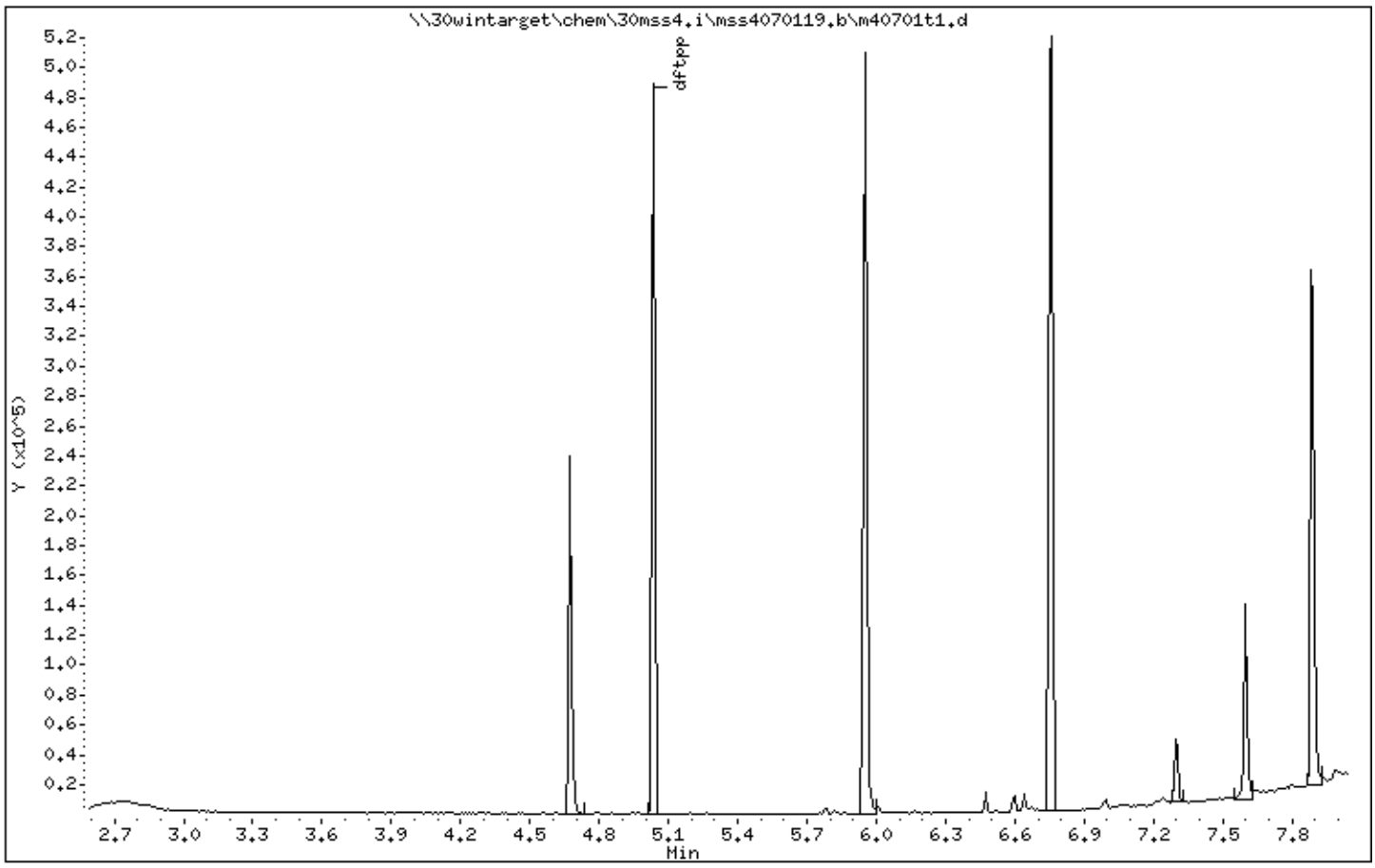
Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4070119.b\m40701t1.d

Date : 01-JUL-2019 09:26

Client ID: TUNE

Instrument: 30mss4.i

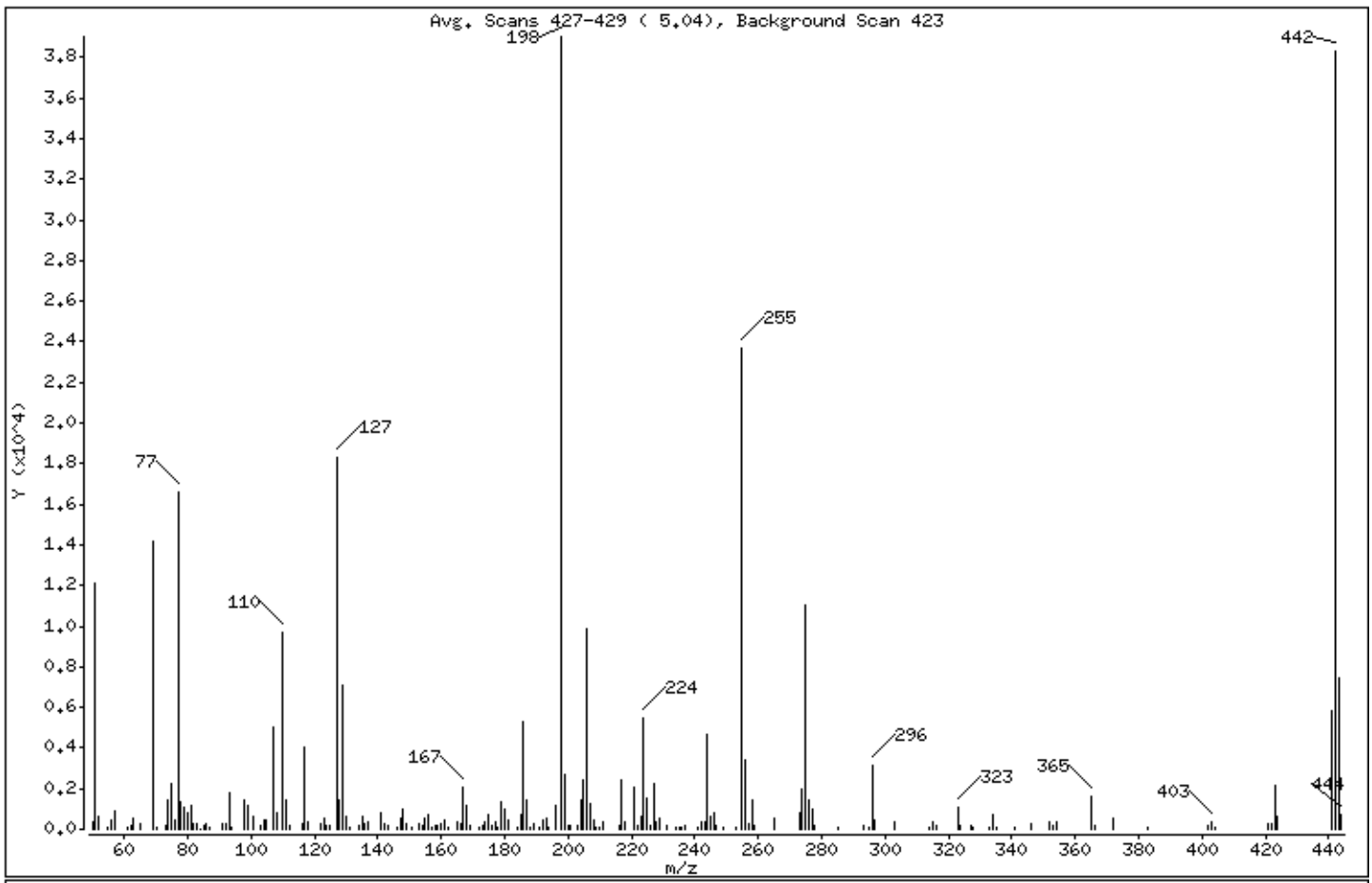
Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	31.06
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	36.38
70	Less than 2.00% of mass 69	0.13 (0.36)
127	40.00 - 60.00% of mass 198	46.83
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 30.00% of mass 198	28.22
365	Greater than 1.00% of mass 198	4.14
441	Present, but less than mass 443	14.99
442	Greater than 40.00% of mass 198	98.26
443	17.00 - 23.00% of mass 442	18.97 (19.31)

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

Date : 01-JUL-2019 09:26

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40701t1.d
Spectrum: Avg. Scans 427-429 (5.04), Background Scan 423
Location of Maximum: 198.00
Number of points: 189

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	398	125.00	183	189.00	288	258.00	1448
51.00	12117	127.00	18272	191.00	134	259.00	161
52.00	632	128.00	1423	192.00	450	265.00	571
55.00	101	129.00	7044	193.00	523	273.00	764
56.00	411	130.00	619	194.00	53	274.00	1986
57.00	937	131.00	58	196.00	1197	275.00	11011
61.00	132	134.00	171	198.00	39016	276.00	1453
62.00	151	135.00	611	199.00	2688	277.00	964
63.00	563	136.00	258	200.00	172	278.00	152
65.00	237	137.00	325	201.00	161	285.00	102
69.00	14195	141.00	790	203.00	217	293.00	152
70.00	51	142.00	248	204.00	1420	295.00	63
73.00	189	143.00	195	205.00	2383	296.00	3179
74.00	1444	146.00	75	206.00	9890	297.00	434
75.00	2222	147.00	510	207.00	1288	303.00	369
76.00	492	148.00	1031	208.00	411	314.00	89
77.00	16624	149.00	264	209.00	64	315.00	382
78.00	1330	151.00	57	210.00	129	316.00	151
79.00	1036	153.00	302	211.00	384	323.00	1060
80.00	818	154.00	152	216.00	202	324.00	152
81.00	1169	155.00	524	217.00	2463	327.00	151
82.00	282	156.00	761	218.00	319	328.00	59
83.00	301	157.00	96	221.00	2062	333.00	55
84.00	27	158.00	135	222.00	136	334.00	705
85.00	190	159.00	140	223.00	594	335.00	78
86.00	269	160.00	247	224.00	5513	341.00	64
87.00	134	161.00	406	225.00	1488	346.00	274
91.00	238	162.00	62	226.00	158	352.00	369
92.00	249	165.00	361	227.00	2274	353.00	157
93.00	1827	166.00	248	228.00	325	354.00	341
94.00	118	167.00	2040	229.00	512	365.00	1615
98.00	1398	168.00	1168	231.00	147	366.00	187
99.00	1205	169.00	165	234.00	70	372.00	577
101.00	639	172.00	79	235.00	132	383.00	116
103.00	184	173.00	184	236.00	71	402.00	222

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/25/2019 10:20
Matrix: Water SDG No.: 30300161
Date Extracted: 06/26/2019 11:45
Lab Sample ID: 1696432
Date Analyzed: 06/26/2019 21:34
Lab File ID: MSS1062619.B\M1062603.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m1062603.d
Lab Smp Id: 1696432 Client Smp ID: LB for HBN 348888 [
Inj Date : 26-JUN-2019 21:34
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1696432
Misc Info : 14753
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1062619.b\8270062619.m
Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 20:02 Cal File: m10626y7.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)		REVIEW C
	2 Pyridine	79	Compound Not Detected.							
$	3 2-Fluorophenol (S)	112	3.540	3.539	(0.795)	374890	6.66103	666		
$	4 Phenol-d6 (S)	99	4.160	4.159	(0.934)	452912	6.45686	646		
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.453	4.458	(1.000)	195361	4.00000			
	12 1,4-Dichlorobenzene	146	Compound Not Detected.							
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.							
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.							
	20 Hexachloroethane	117	Compound Not Detected.							
$	21 Nitrobenzene-d5 (S)	128	4.897	4.901	(0.895)	126609	4.17612	418		
	22 Nitrobenzene	77	Compound Not Detected.							
*	30 Naphthalene-d8 (IS)	136	5.468	5.473	(1.000)	748840	4.00000			
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.							
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.							
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.							
$	42 2-Fluorobiphenyl (S)	172	6.350	6.349	(0.911)	489739	3.24608	325	(MH)	LT
*	50 Acenaphthene-d10 (IS)	164	6.970	6.974	(1.000)	418025	4.00000		(MH)	LT
	54 2,4-Dinitrotoluene	165	Compound Not Detected.							(D)
$	65 2,4,6-Tribromophenol (S)	330	7.787	7.791	(0.915)	144185	6.22487	622		
	67 Hexachlorobenzene	284	Compound Not Detected.							
	69 Pentachlorophenol	266	Compound Not Detected.							
*	70 Phenanthrene-d10 (IS)	188	8.508	8.513	(1.000)	698885	4.00000			

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
$ 77 Terphenyl-d14 (S)	244	10.175	10.179	(0.901)	540842	3.10772	311	
* 82 Chrysene-d12 (IS)	240	11.291	11.296	(1.000)	708232	4.00000		
* 88 Perylene-d12 (IS)	264	12.686	12.690	(1.000)	716055	4.00000		

QC Flag Legend

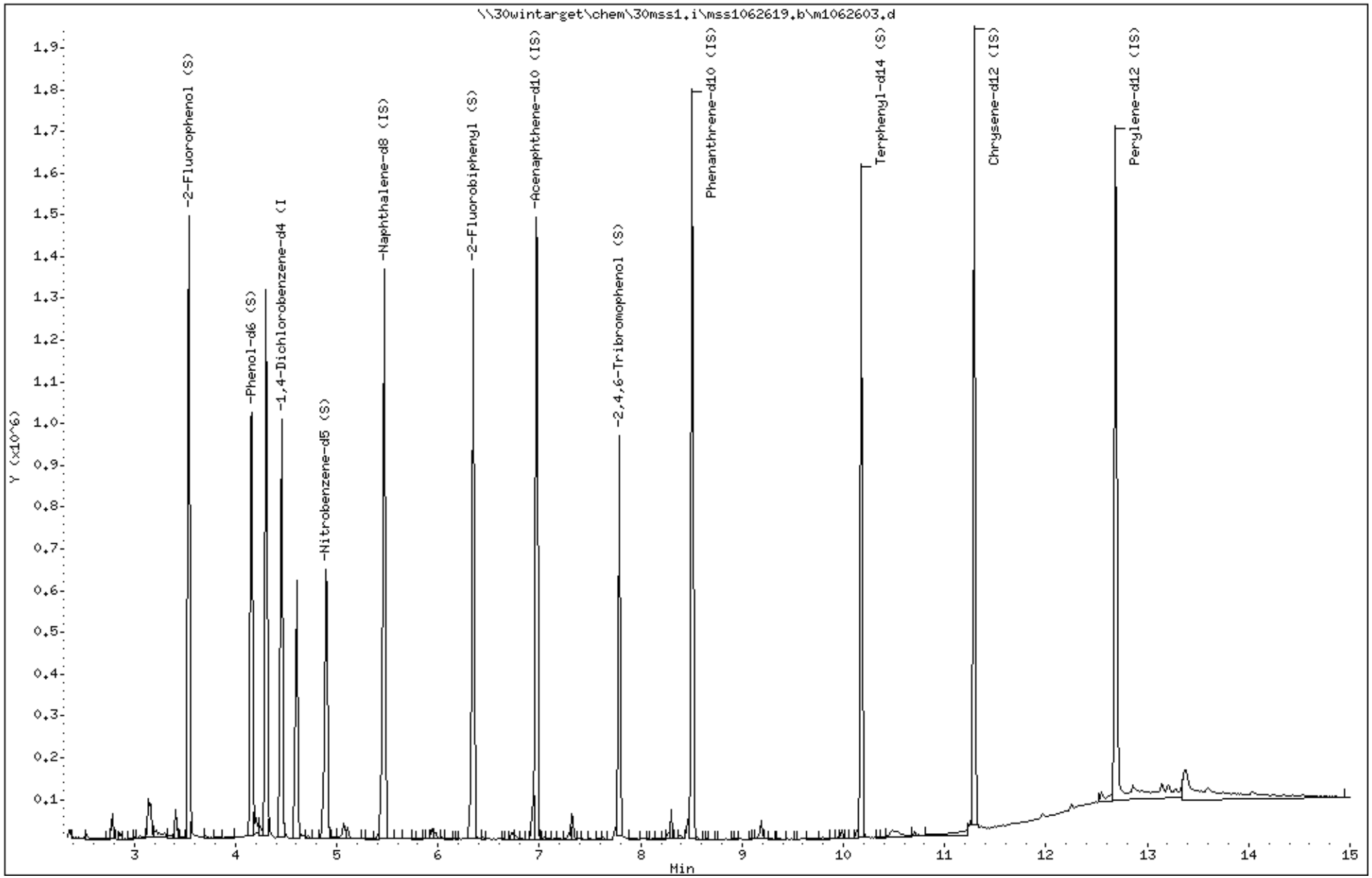
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

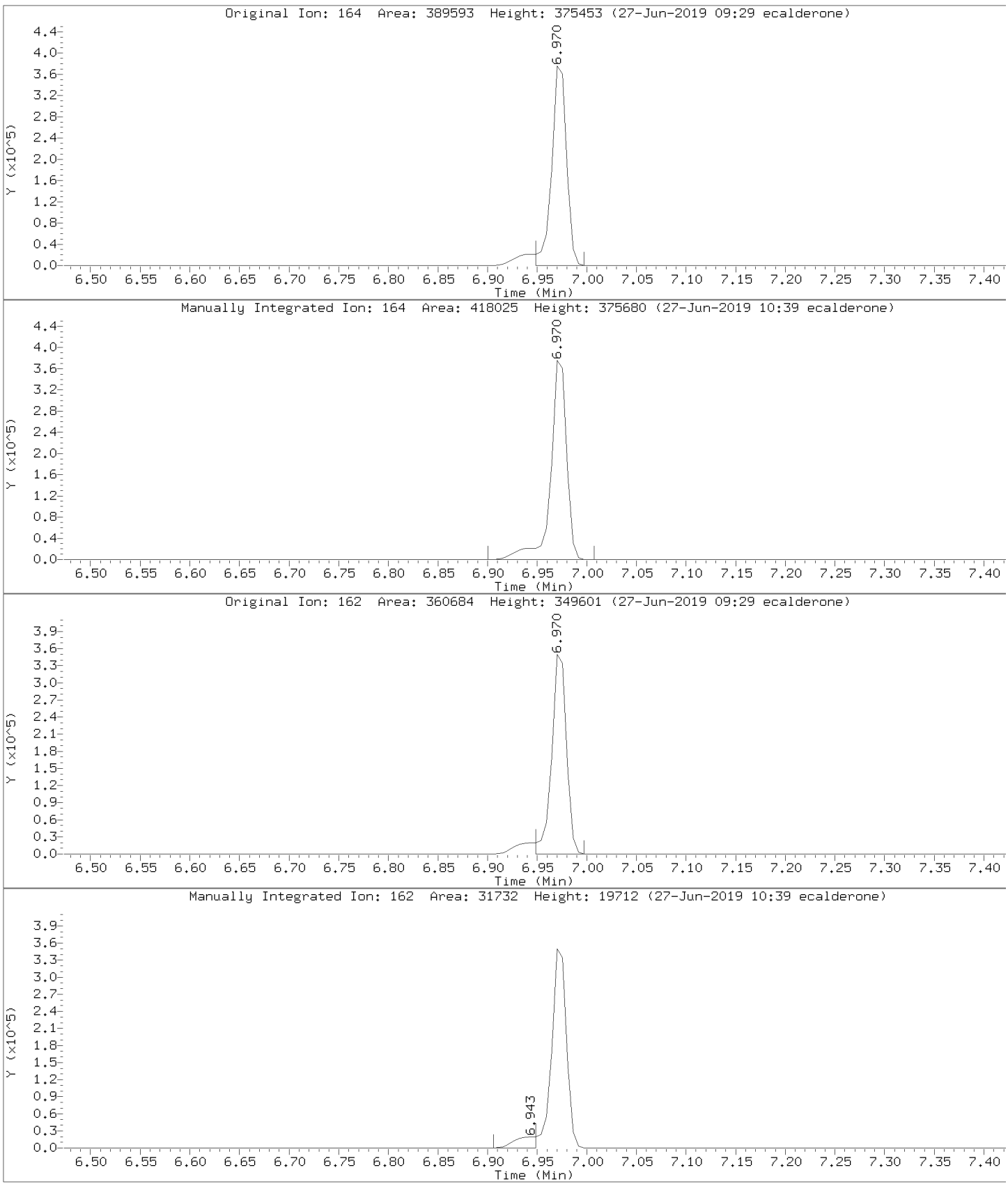
Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062603.d
Date : 26-JUN-2019 21:34
Client ID: LB for HBN 348888 [
Sample Info: 1696432
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18

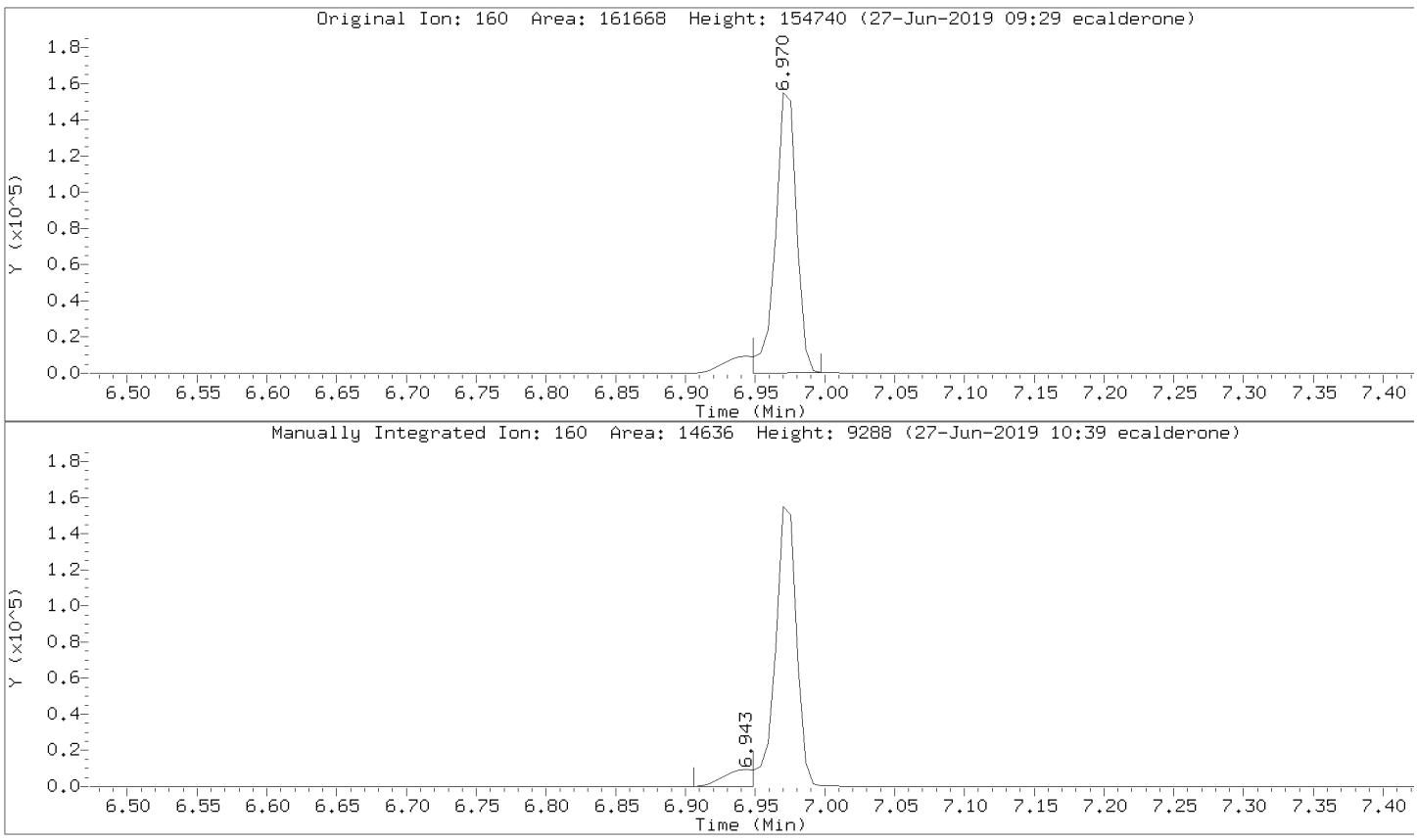


Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m1062603.d
Injection Date: 26-JUN-2019 21:34
Instrument: 30mss1.i
Lab Sample ID: 1696432

Compound: Acenaphthene-d10 (IS) Review Code: LT
CAS Number: 15067-26-2

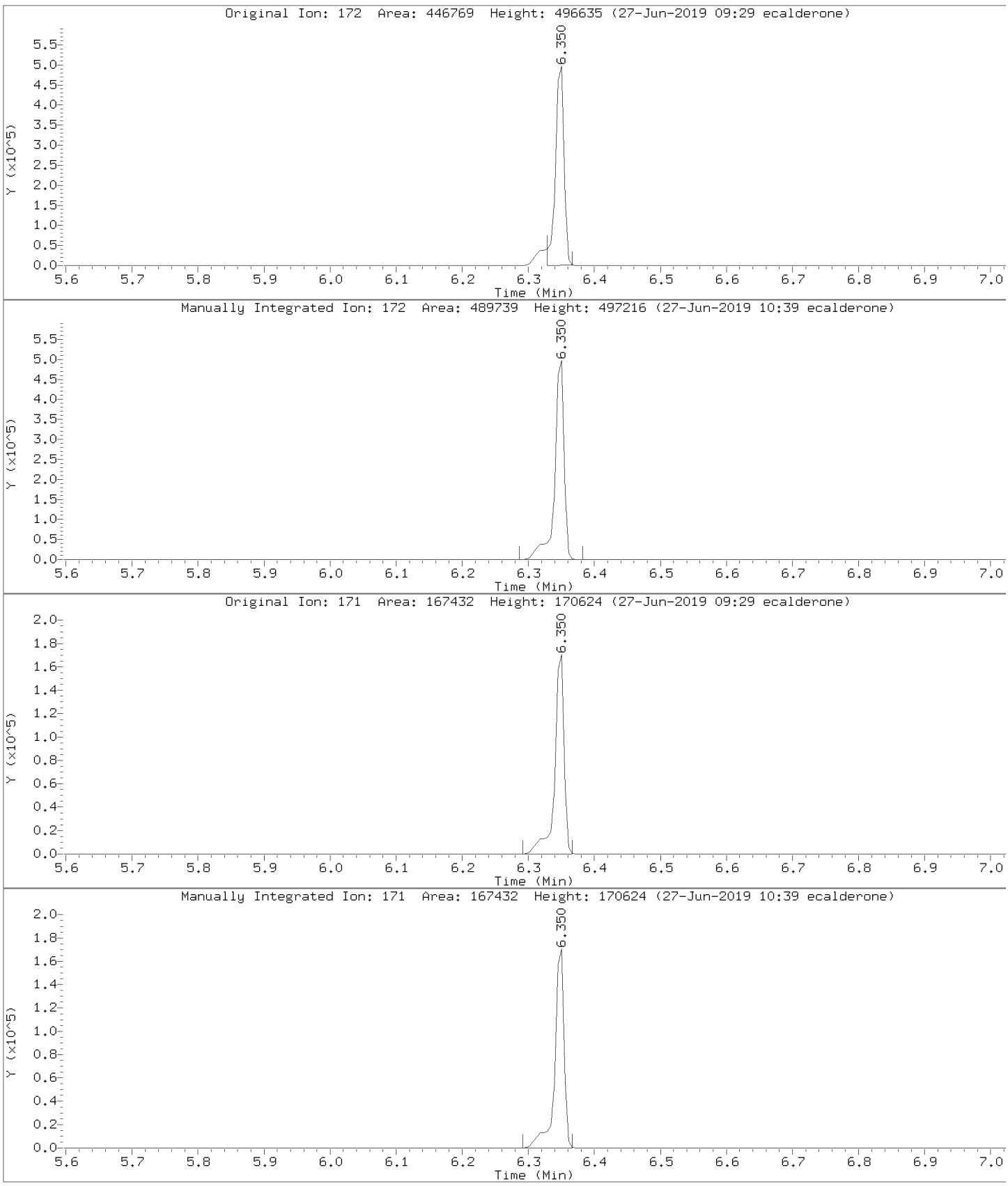


Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m1062603.d
Injection Date: 26-JUN-2019 21:34
Instrument: 30mss1.i
Lab Sample ID: 1696432

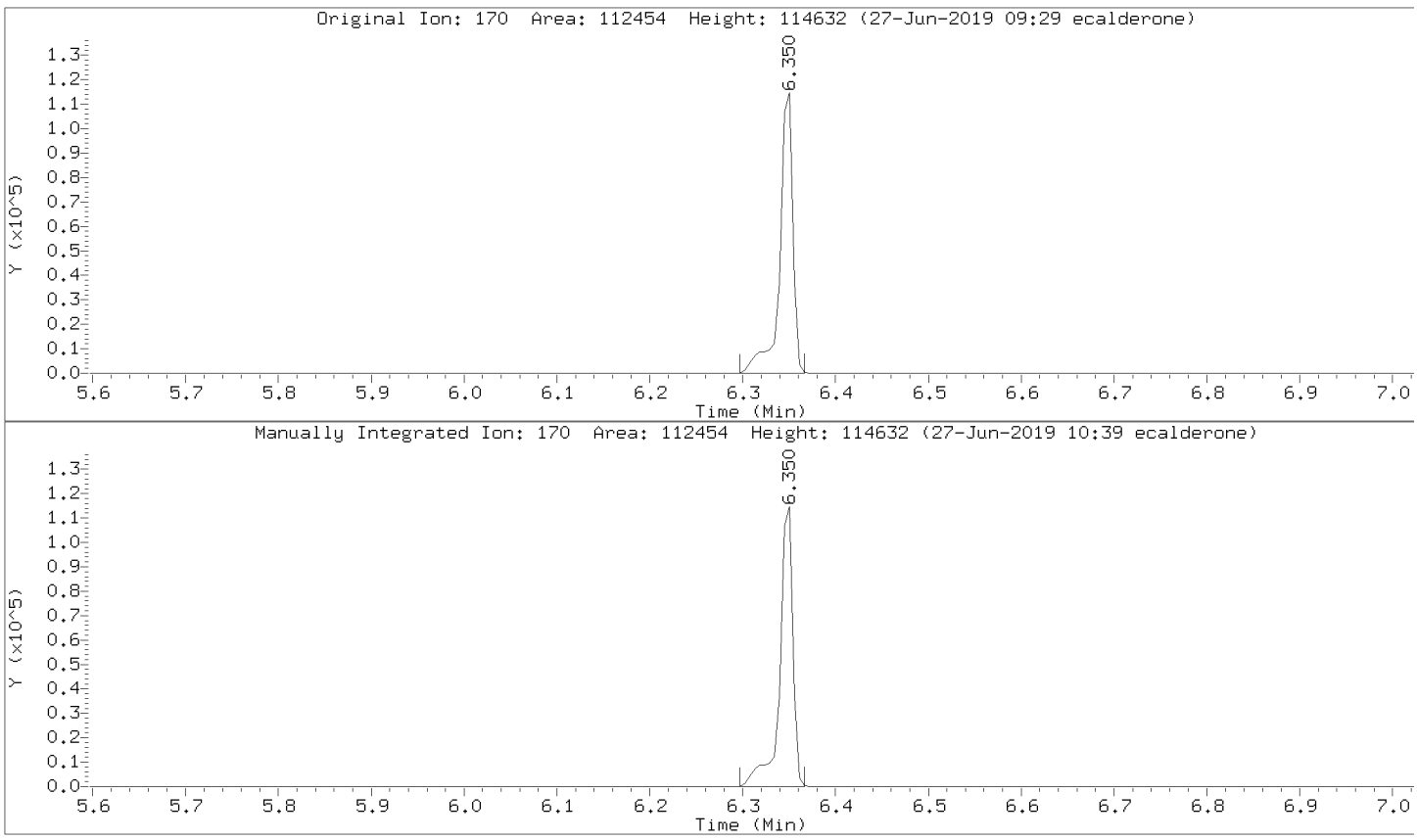


Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m1062603.d
Injection Date: 26-JUN-2019 21:34
Instrument: 30mss1.i
Lab Sample ID: 1696432

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8



Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m1062603.d
Injection Date: 26-JUN-2019 21:34
Instrument: 30mss1.i
Lab Sample ID: 1696432



SAMPLE NO.

LCS

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Water SDG No.: 30300161
Date Extracted: 06/26/2019 11:45
Lab Sample ID: 1697478
Date Analyzed: 06/26/2019 21:58
Lab File ID: MSS1062619.B\M1062604.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	235	J
121-14-2	2,4-Dinitrotoluene	338	
87-68-3	Hexachloro-1,3-butadiene	221	
118-74-1	Hexachlorobenzene	257	
67-72-1	Hexachloroethane	229	
95-48-7	2-Methylphenol(o-Cresol)	426	J
	3&4-Methylphenol(m&p Cresol)	889	J
98-95-3	Nitrobenzene	438	
87-86-5	Pentachlorophenol	368	J
110-86-1	Pyridine	202	J
95-95-4	2,4,5-Trichlorophenol	388	J
88-06-2	2,4,6-Trichlorophenol	420	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d
Lab Smp Id: 1697478 Client Smp ID: MBLCS
Inj Date : 26-JUN-2019 21:58
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1697478
Misc Info : 14753
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1062619.b\8270062619.m
Meth Date : 27-Jun-2019 13:19 sgvozden Quant Type: ISTD
Cal Date : 26-JUN-2019 20:02 Cal File: m10626y7.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	2.688	2.695	(0.604)	120597	2.02383	202	
$	3 2-Fluorophenol (S)	112	3.537	3.539	(0.795)	367347	6.63597	664	
$	4 Phenol-d6 (S)	99	4.157	4.159	(0.934)	443877	6.43370	643	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.451	4.458	(1.000)	192153	4.00000		
	12 1,4-Dichlorobenzene	146	4.467	4.469	(1.004)	187491	2.35380	235	
	15 2-Methylphenol(o-Cresol)	108	4.622	4.629	(1.038)	247749	4.26266	426	
	17 3&4-Methylphenol(m&p Cresol)	108	4.728	4.736	(1.062)	524249	8.89370	889	
	20 Hexachloroethane	117	4.857	4.864	(1.091)	61128	2.29059	229	
$	21 Nitrobenzene-d5 (S)	128	4.899	4.901	(0.896)	125856	4.20490	420	
	22 Nitrobenzene	77	4.915	4.917	(0.898)	268970	4.37954	438	
*	30 Naphthalene-d8 (IS)	136	5.471	5.473	(1.000)	739292	4.00000		
	33 Hexachloro-1,3-butadiene	225	5.615	5.622	(1.026)	75940	2.21288	221	
	40 2,4,6-Trichlorophenol	196	6.288	6.290	(0.902)	189220	4.19699	420	
	41 2,4,5-Trichlorophenol	196	6.315	6.322	(0.906)	135045	3.87630	388	
$	42 2-Fluorobiphenyl (S)	172	6.347	6.349	(0.910)	418011	2.82217	282	
*	50 Acenaphthene-d10 (IS)	164	6.972	6.974	(1.000)	410394	4.00000		
	54 2,4-Dinitrotoluene	165	7.164	7.166	(1.028)	125764	3.38146	338	
$	65 2,4,6-Tribromophenol (S)	330	7.789	7.791	(0.916)	141664	5.88643	589	
	67 Hexachlorobenzene	284	8.185	8.187	(0.962)	145157	2.57143	257	
	69 Pentachlorophenol	266	8.361	8.363	(0.983)	84900	3.68133	368	
*	70 Phenanthrene-d10 (IS)	188	8.505	8.513	(1.000)	726146	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
$ 77 Terphenyl-d14 (S)	244	10.177	10.179	(0.902)	657889	3.54314	354	
* 82 Chrysene-d12 (IS)	240	11.289	11.296	(1.000)	755633	4.00000		
* 88 Perylene-d12 (IS)	264	12.688	12.690	(1.000)	776891	4.00000		

Review Codes Legend

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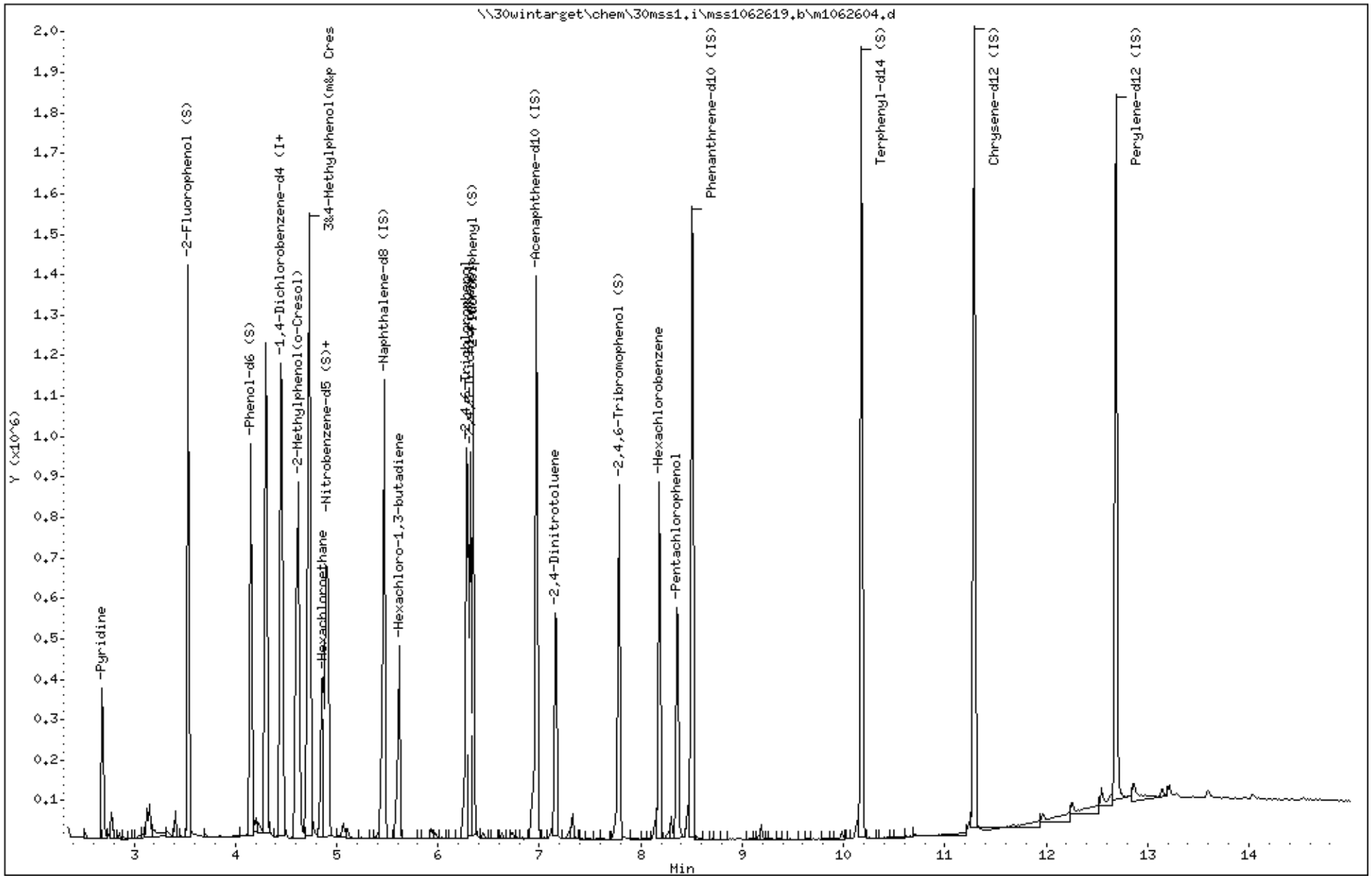
Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d
Date : 26-JUN-2019 21:58
Client ID: MBLCS
Instrument: 30mss1.i
Sample Info: 1697478
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

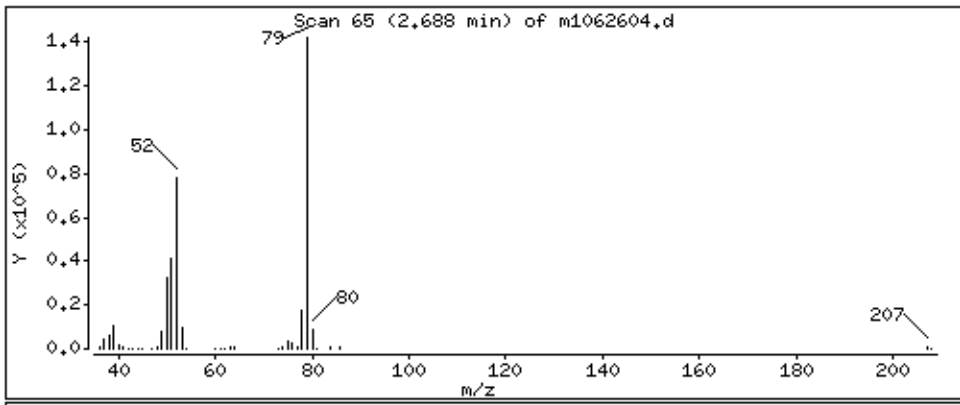
Operator: EAC

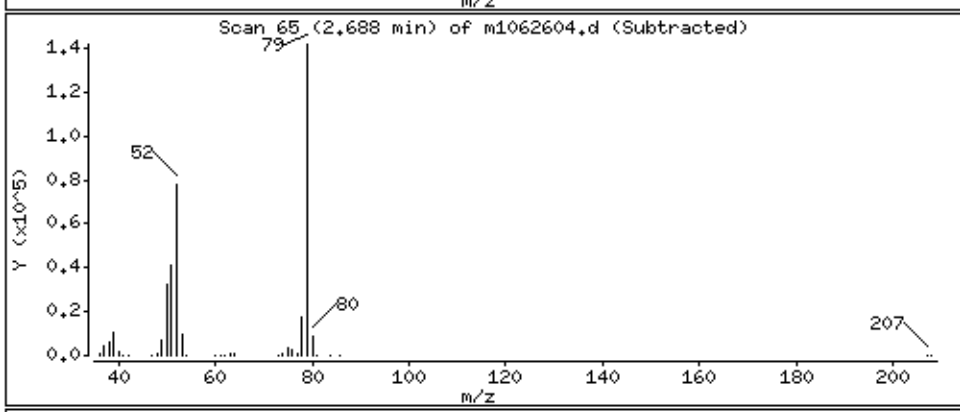
Column phase: RTX-5MS

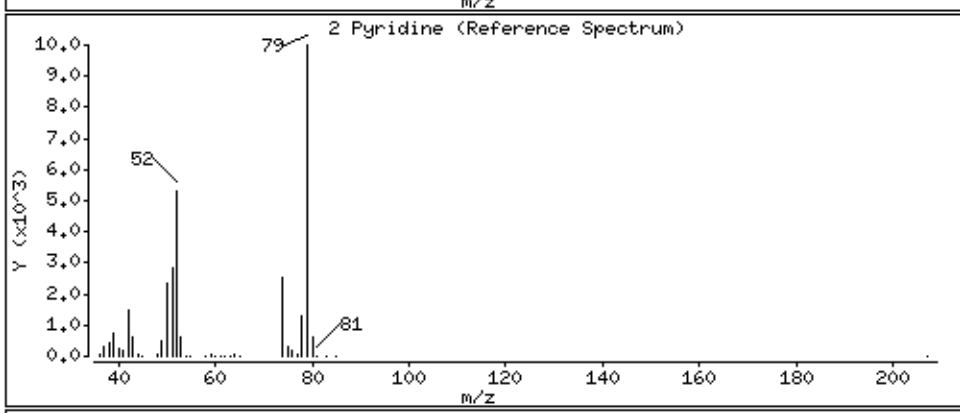
Column diameter: 0.18

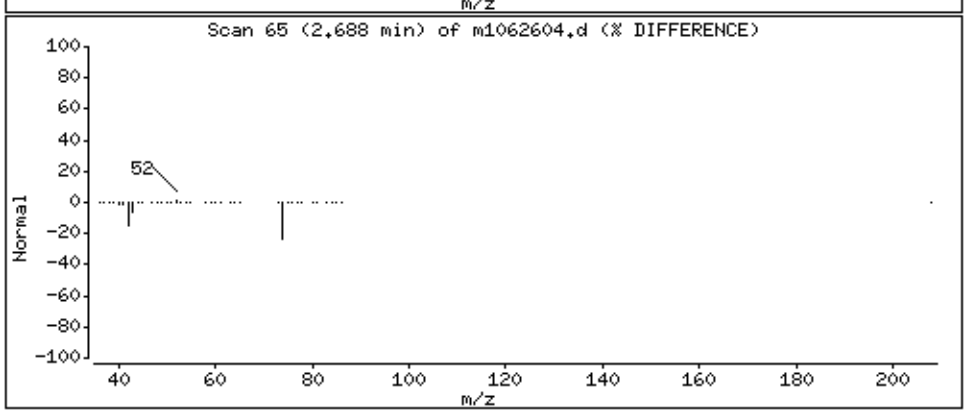
2 Pyridine

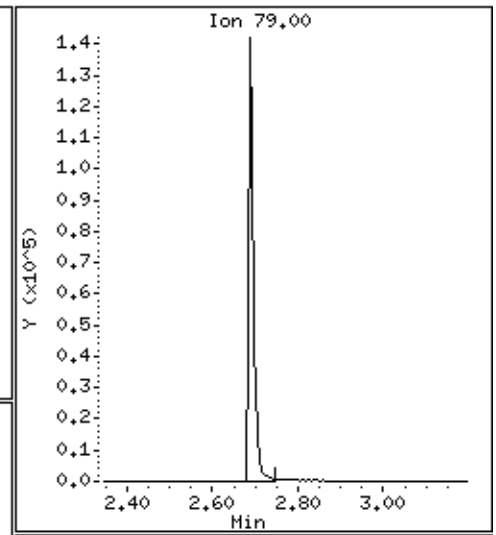
Concentration: 202 ug/L

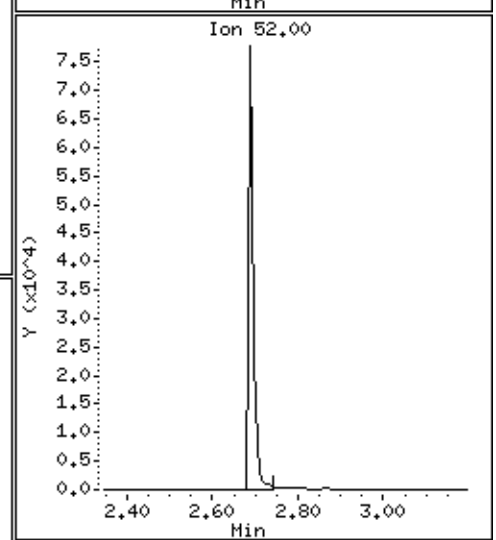












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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

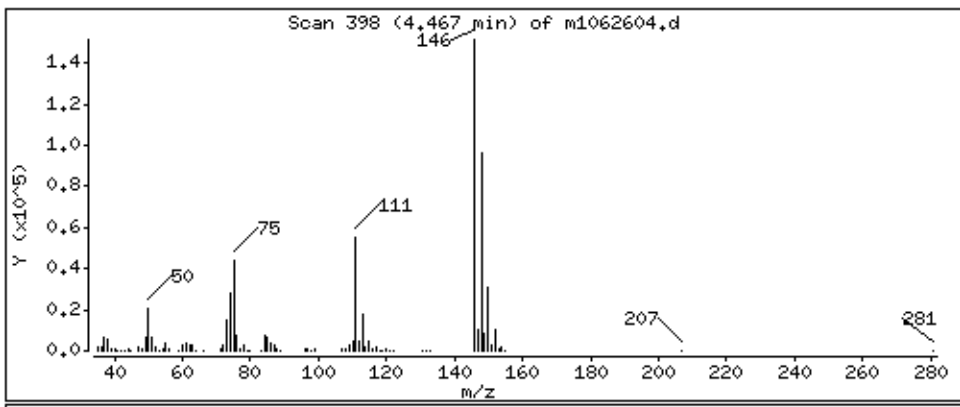
Operator: EAC

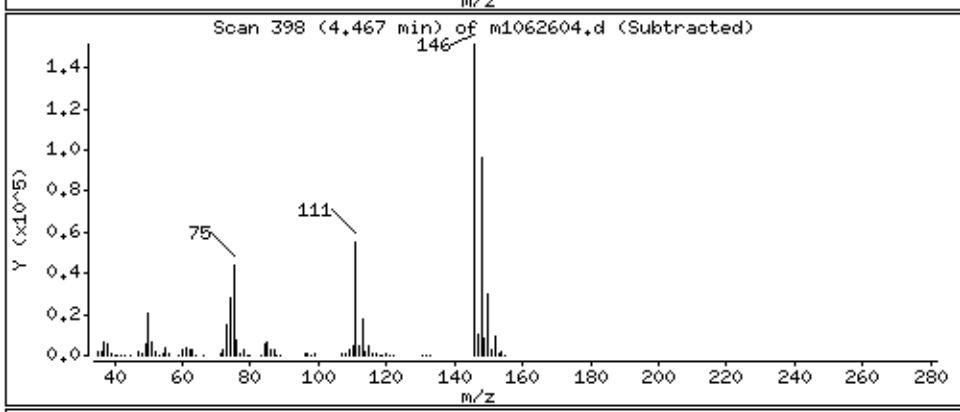
Column phase: RTX-5MS

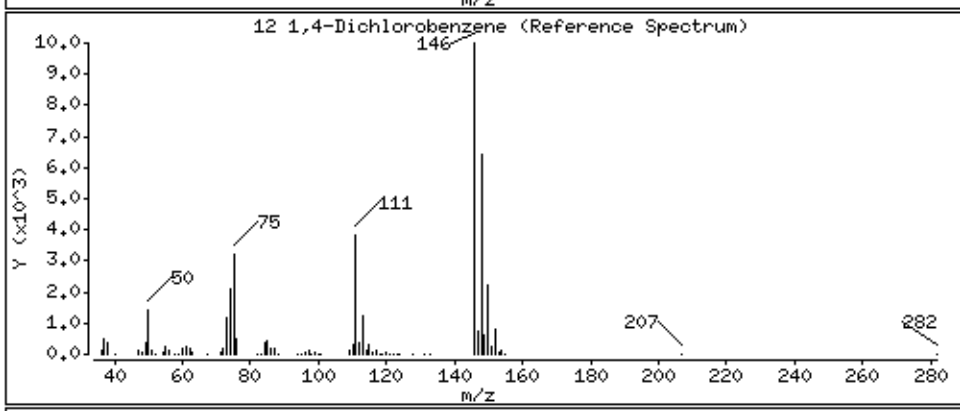
Column diameter: 0.18

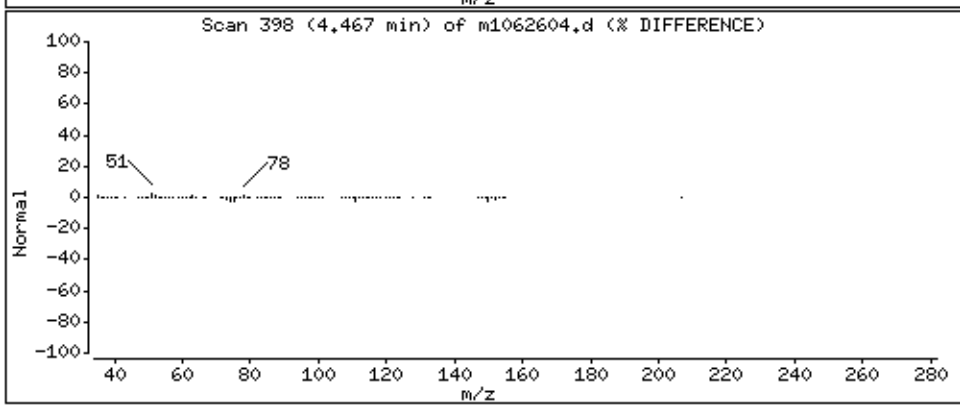
12 1,4-Dichlorobenzene

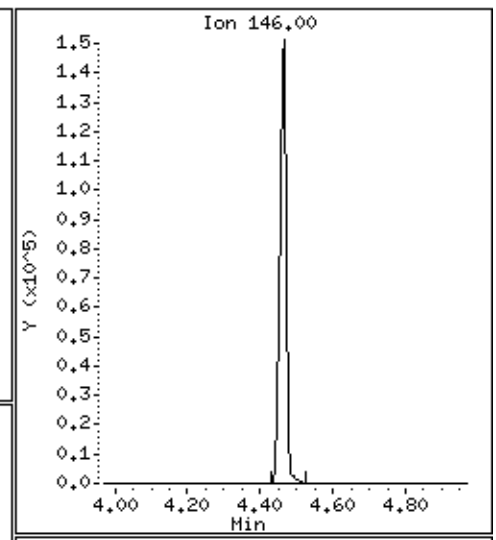
Concentration: 235 ug/L

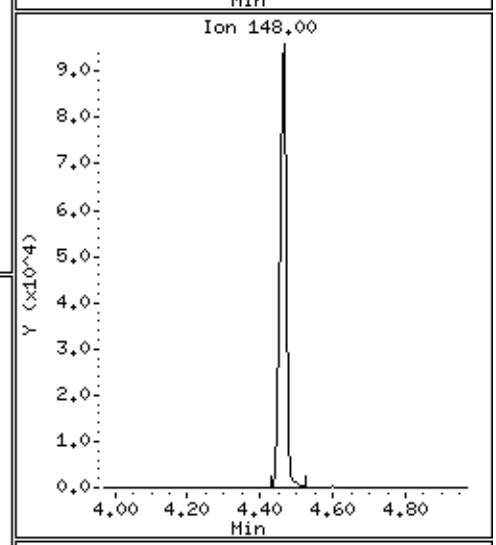


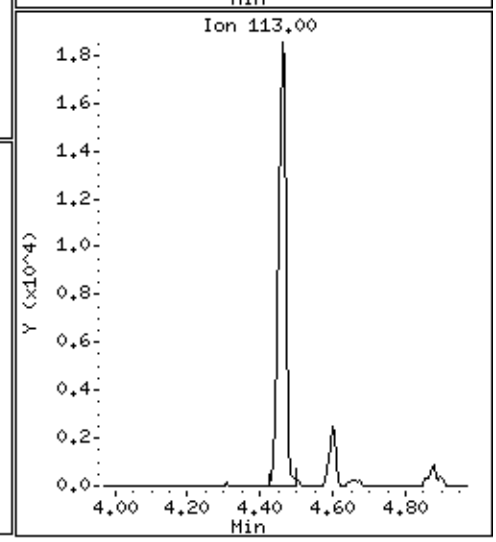












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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

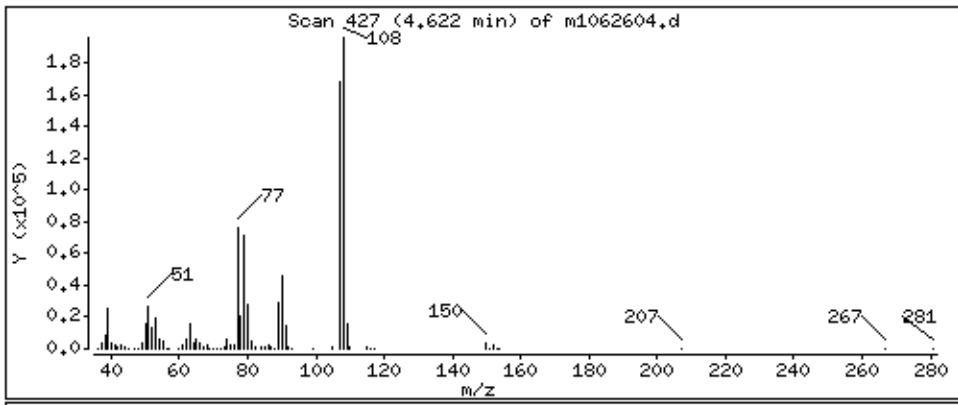
Operator: EAC

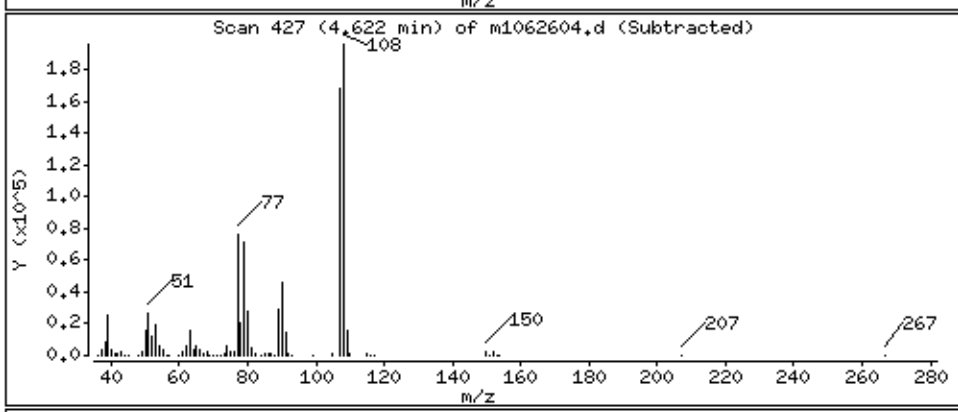
Column phase: RTX-5MS

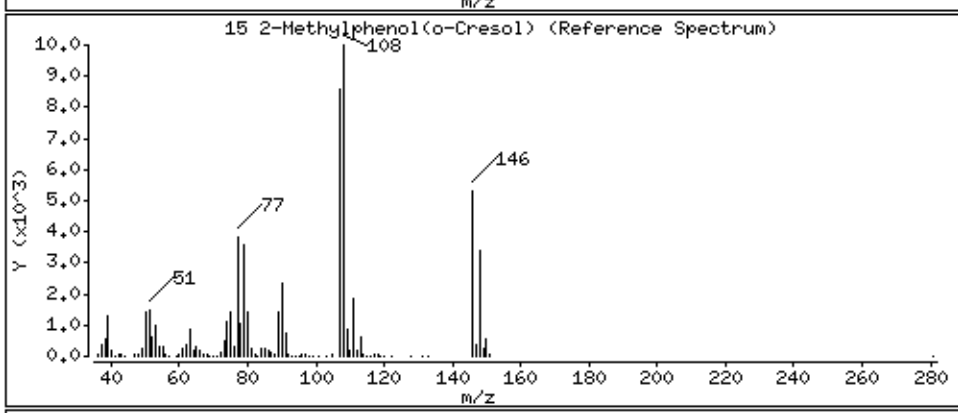
Column diameter: 0.18

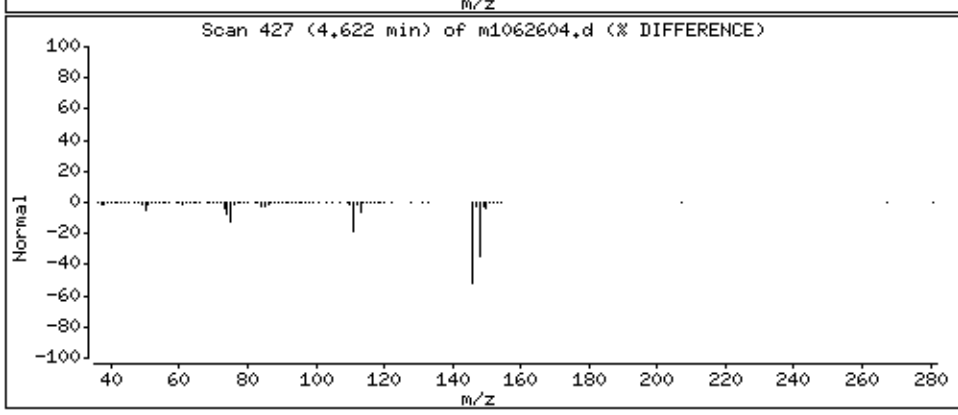
15 2-Methylphenol(o-Cresol)

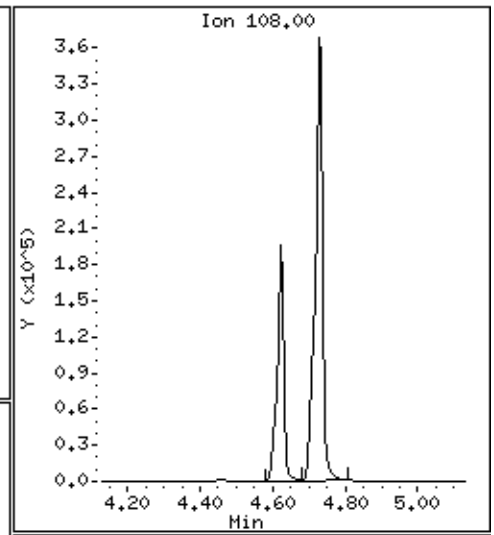
Concentration: 426 ug/L

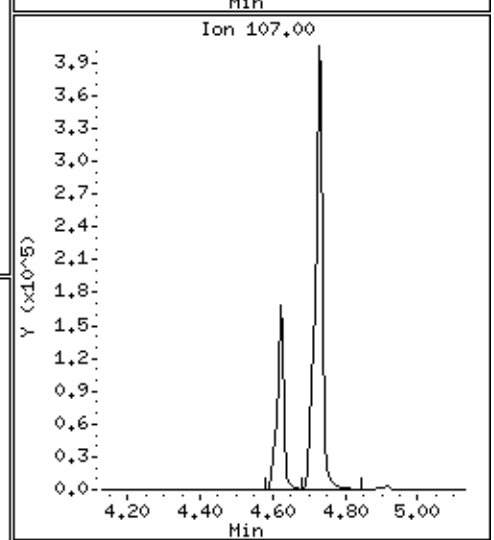


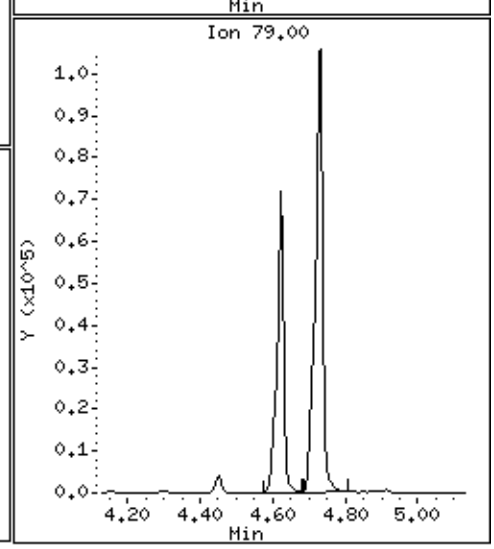












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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

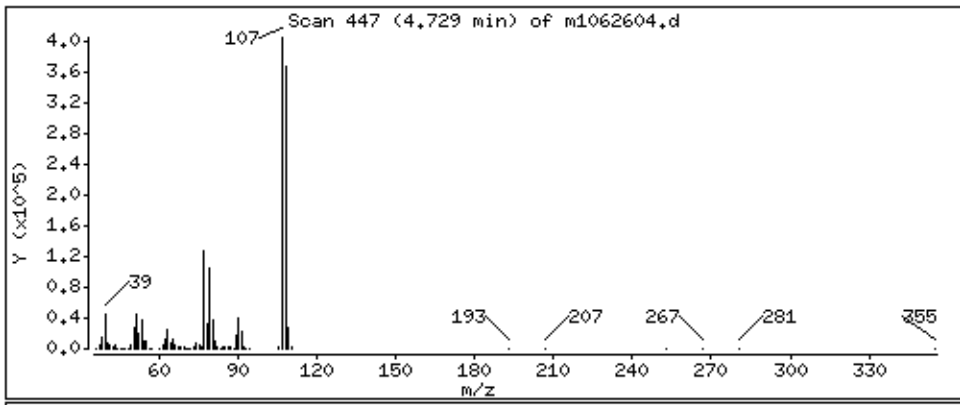
Operator: EAC

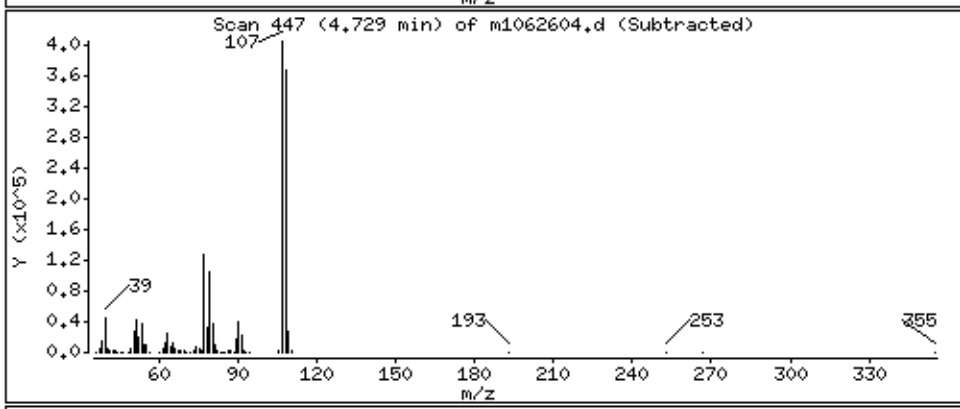
Column phase: RTX-5MS

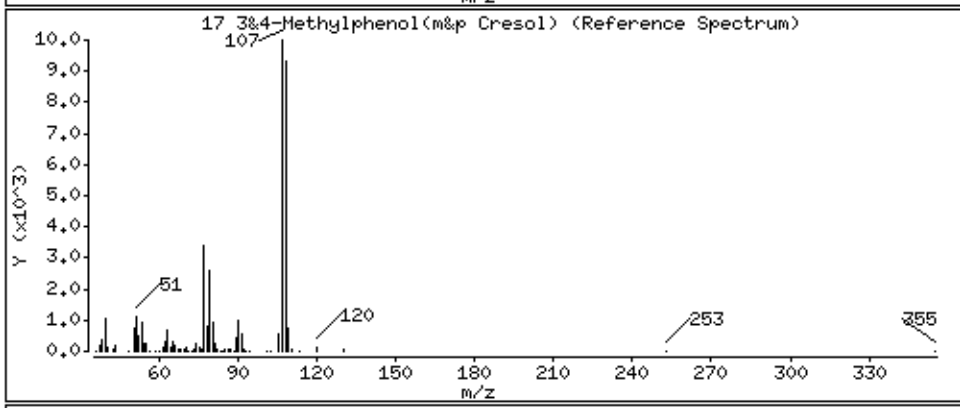
Column diameter: 0.18

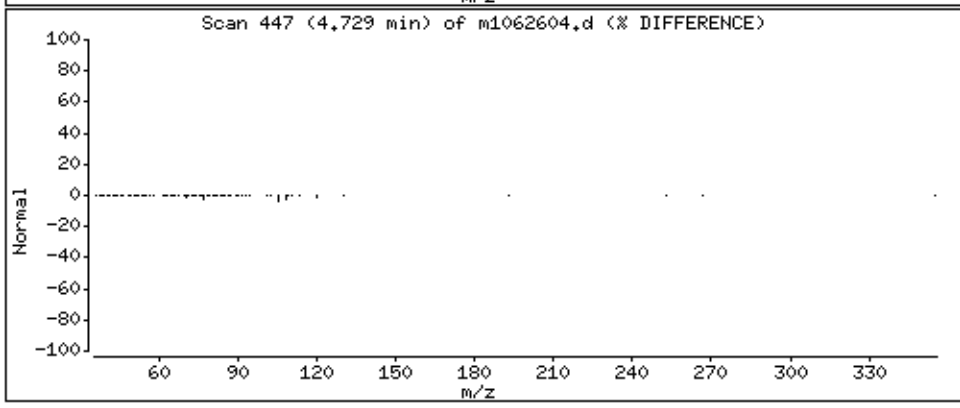
17 3&4-Methylphenol(m&p Cresol)

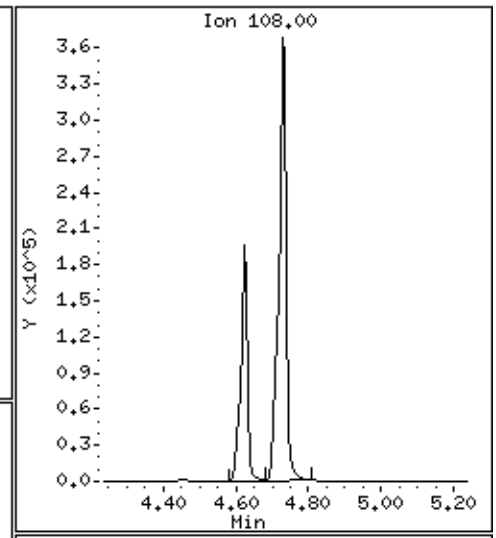
Concentration: 889 ug/L

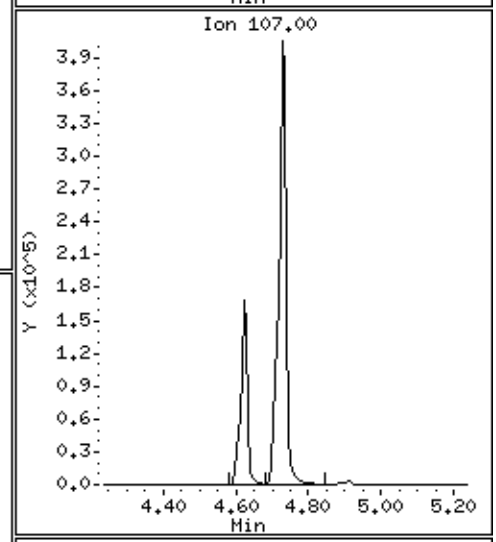


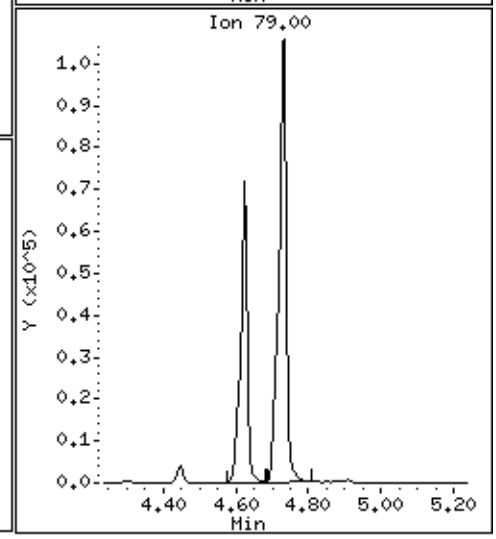












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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

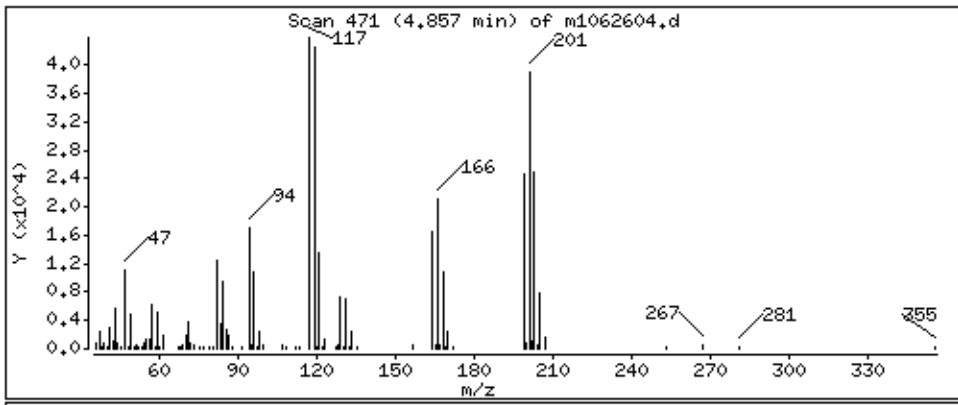
Operator: EAC

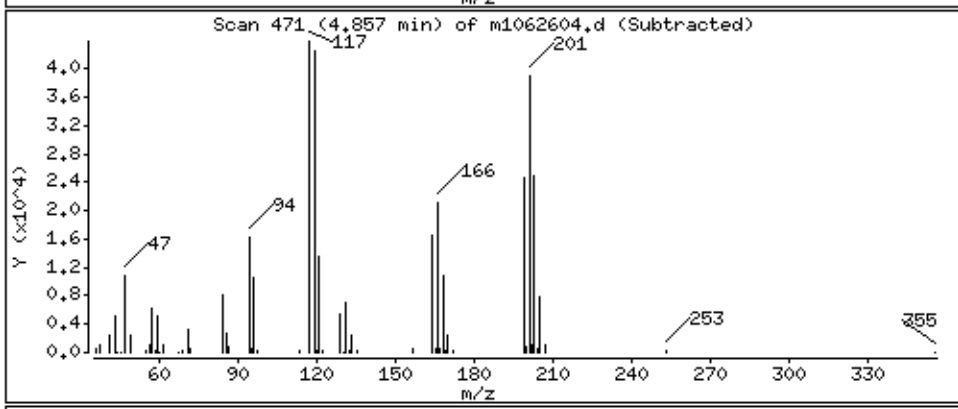
Column phase: RTX-5MS

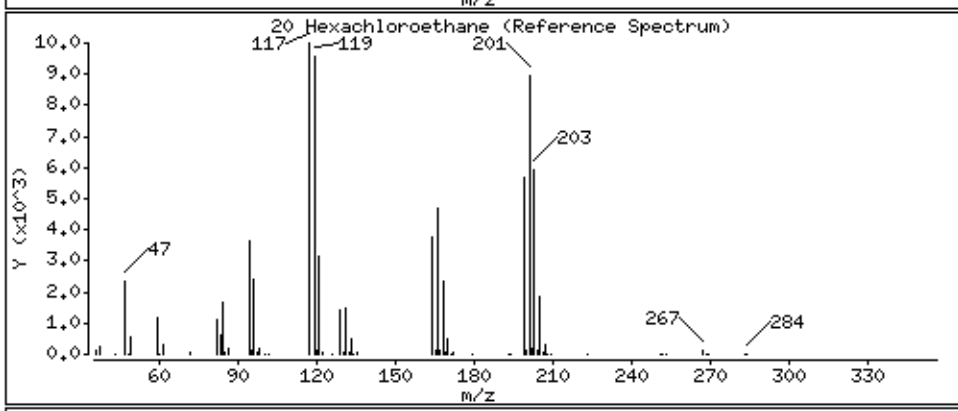
Column diameter: 0.18

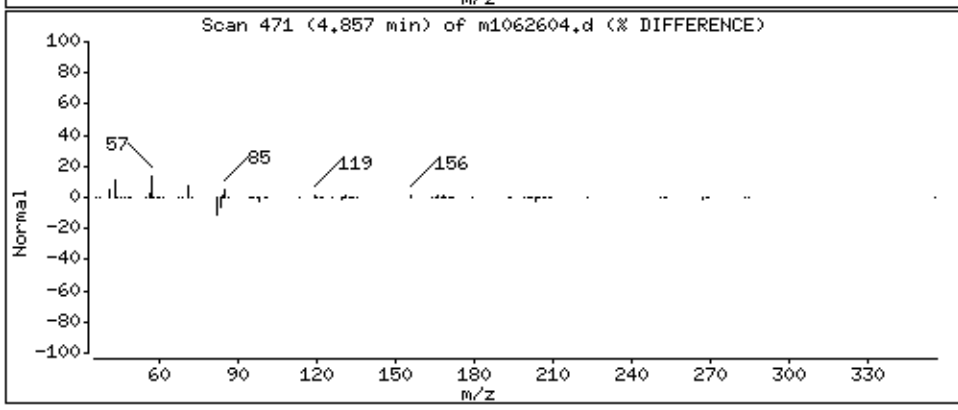
20 Hexachloroethane

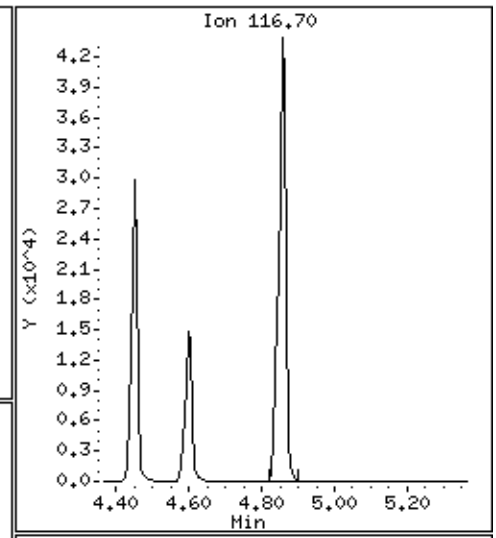
Concentration: 229 ug/L

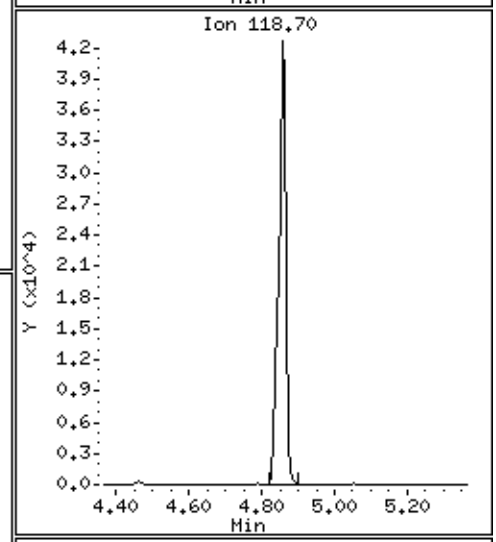


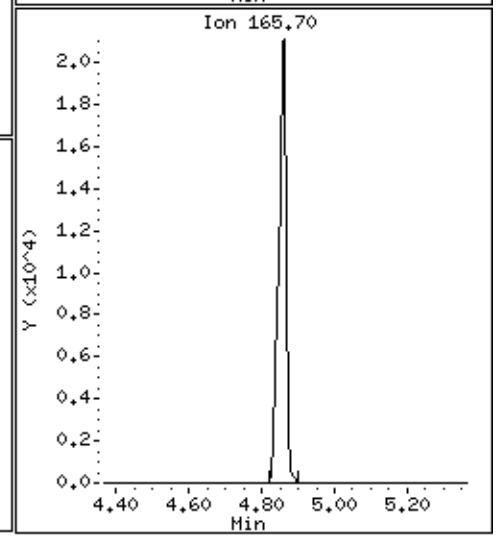












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Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

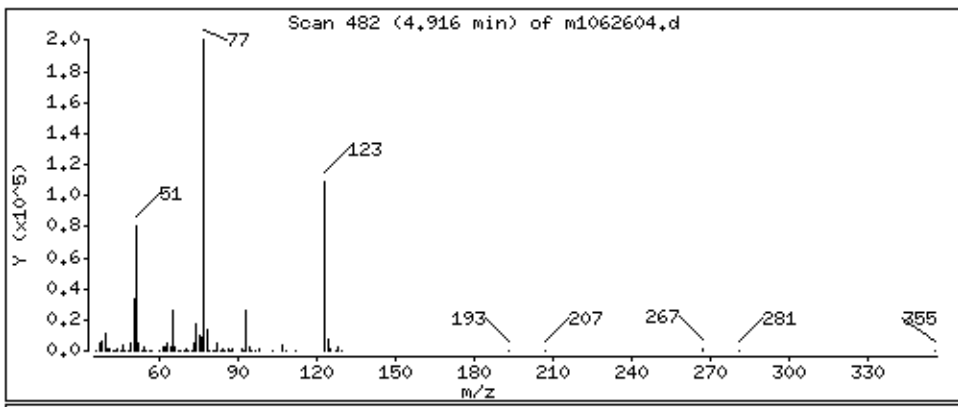
Operator: EAC

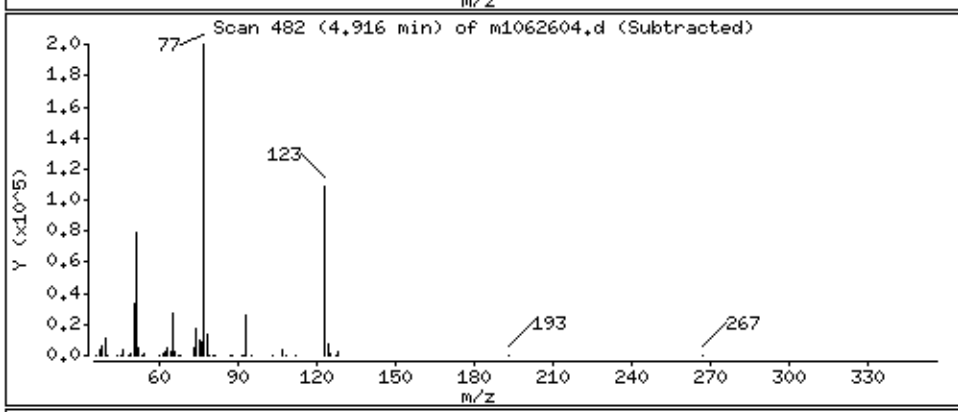
Column phase: RTX-5MS

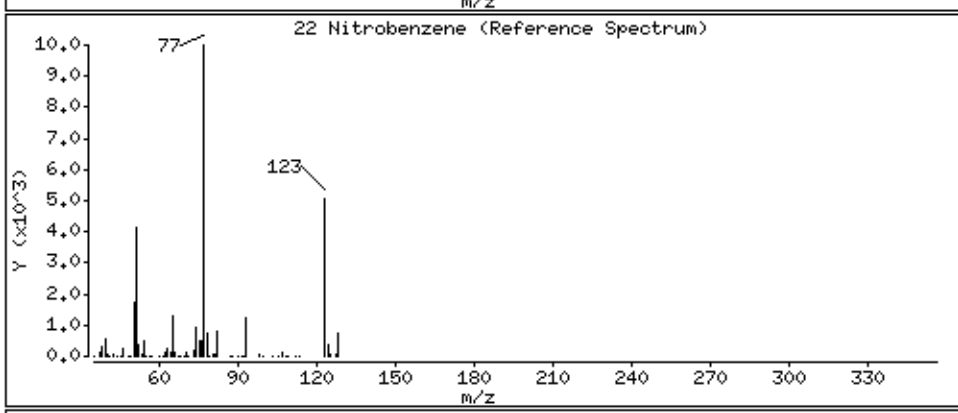
Column diameter: 0.18

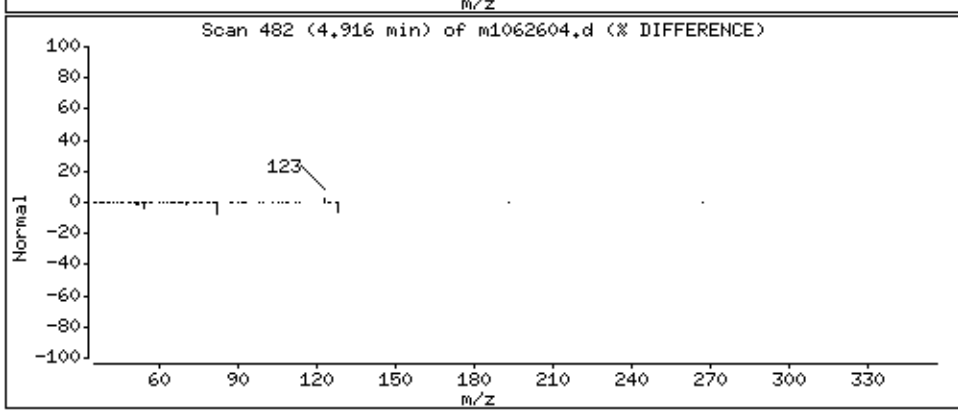
22 Nitrobenzene

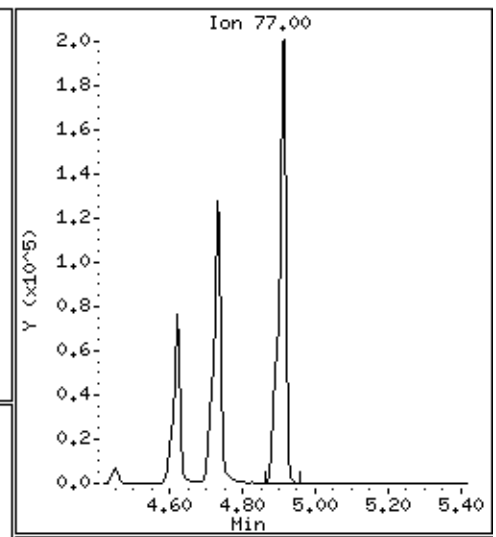
Concentration: 438 ug/L

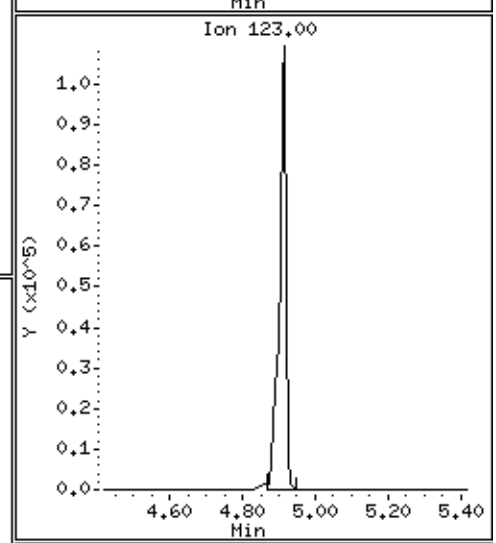


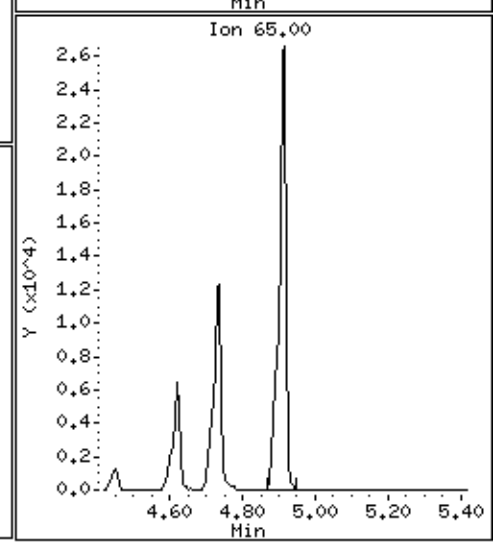












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

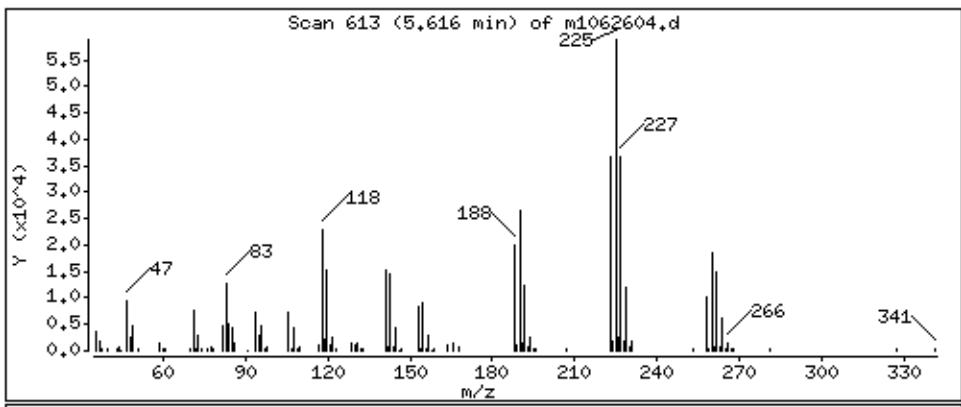
Operator: EAC

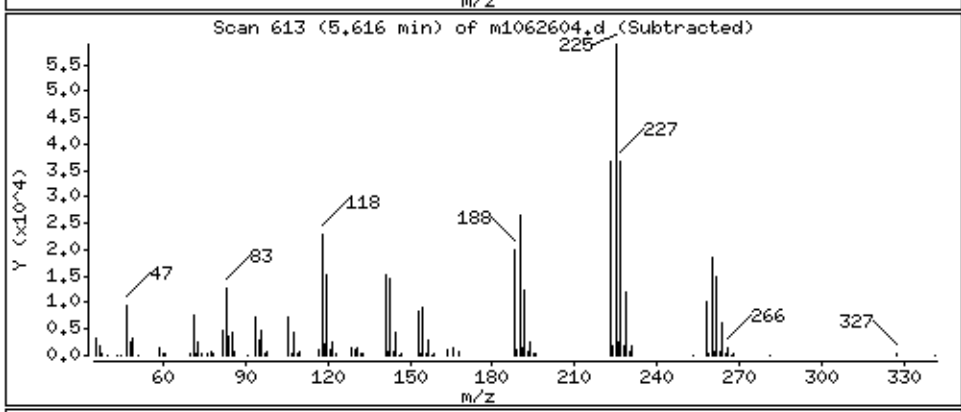
Column phase: RTX-5MS

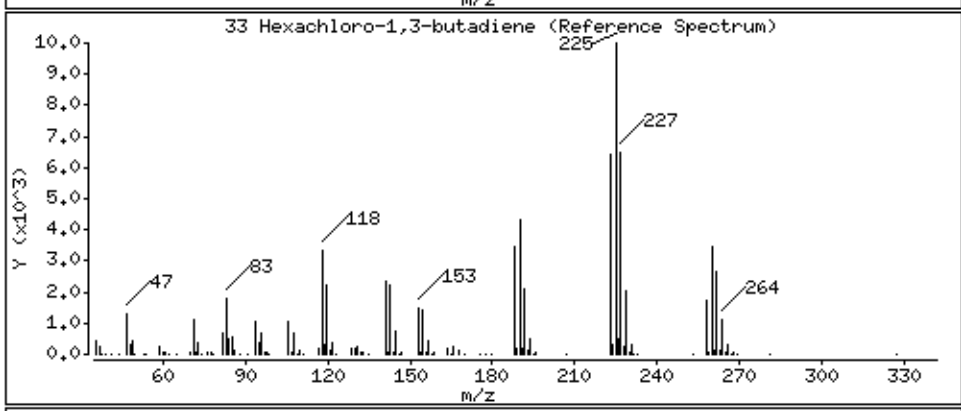
Column diameter: 0.18

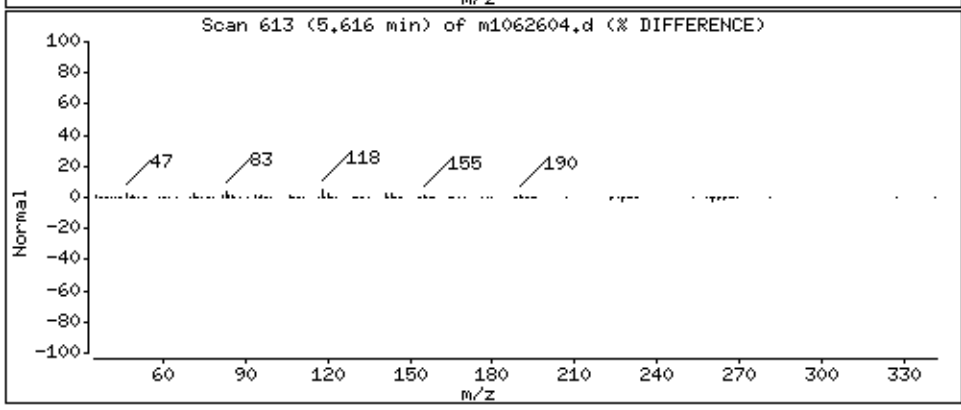
33 Hexachloro-1,3-butadiene

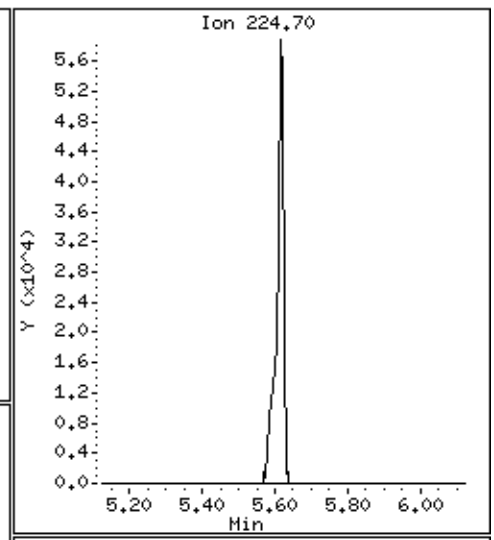
Concentration: 221 ug/L

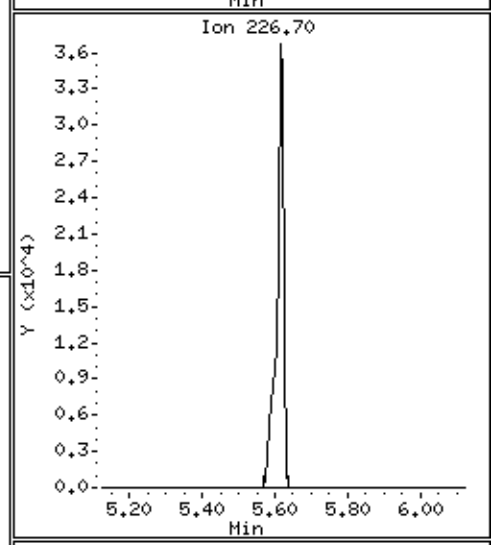


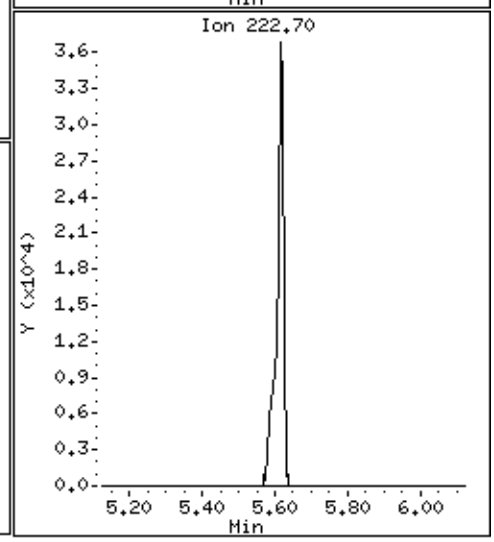












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

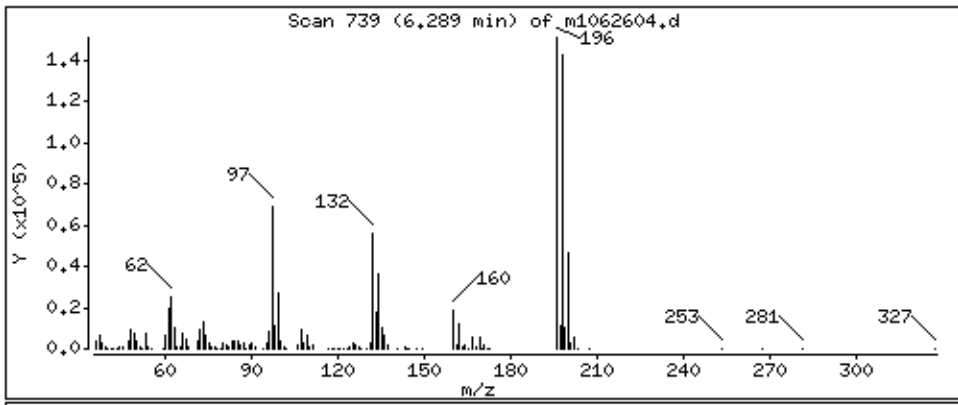
Operator: EAC

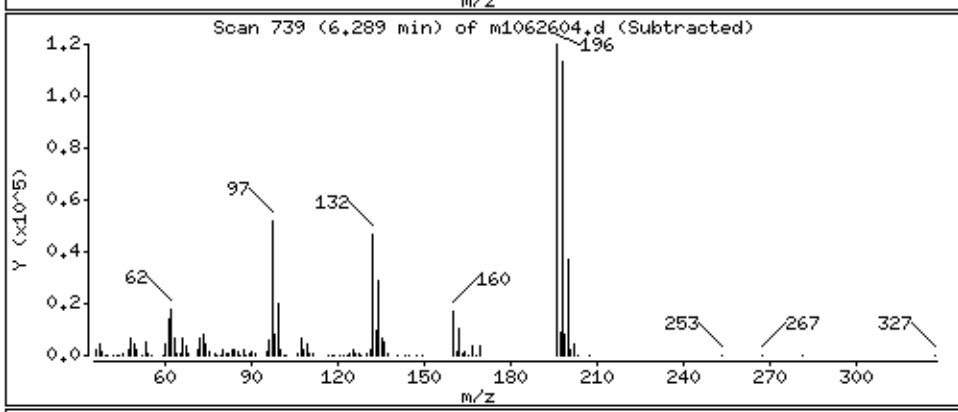
Column phase: RTX-5MS

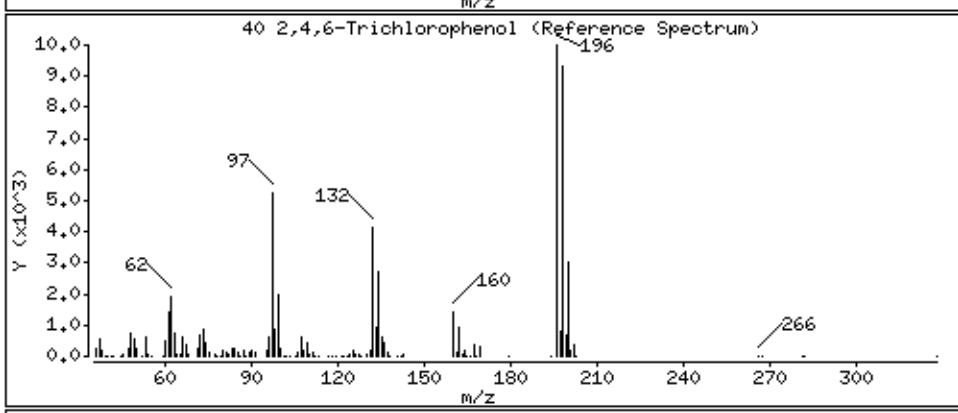
Column diameter: 0.18

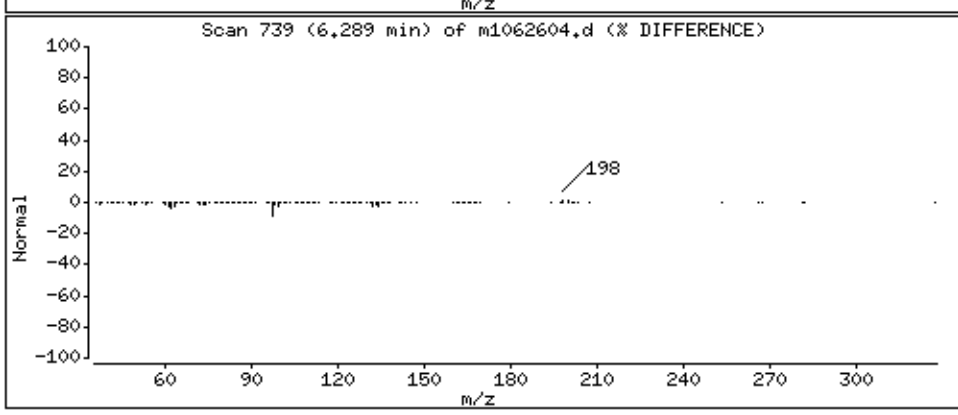
40 2,4,6-Trichlorophenol

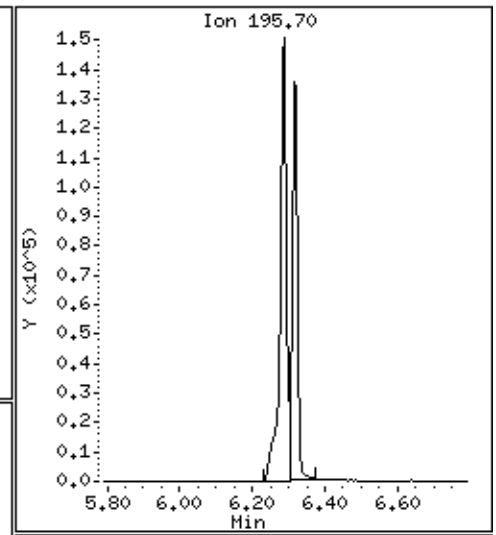
Concentration: 420 ug/L

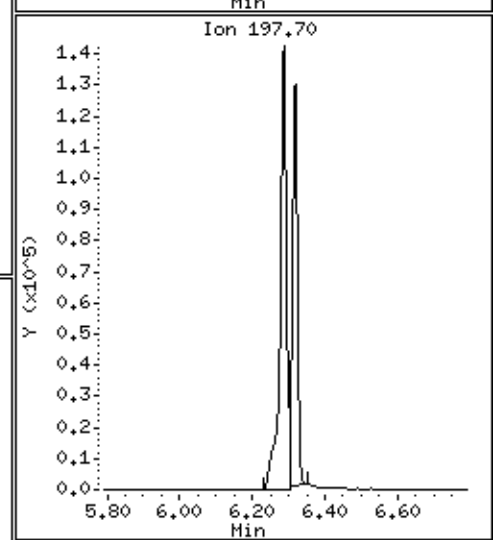


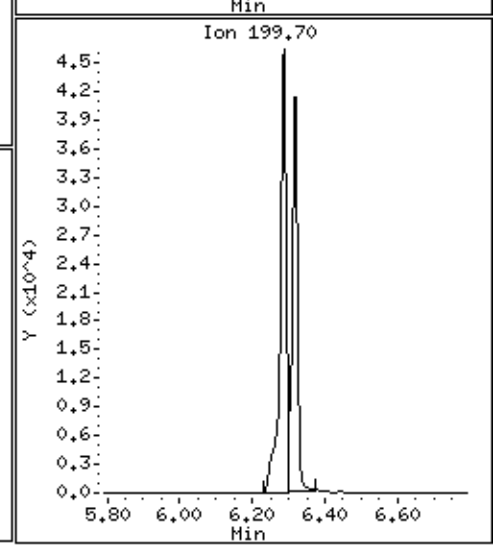












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

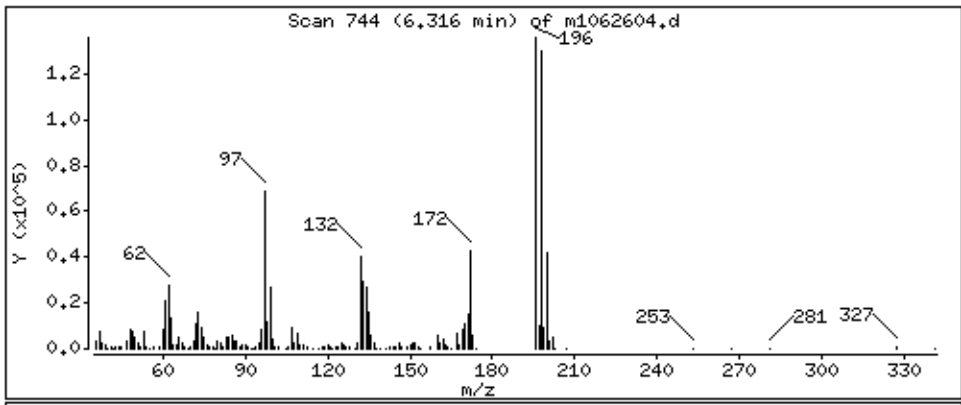
Operator: EAC

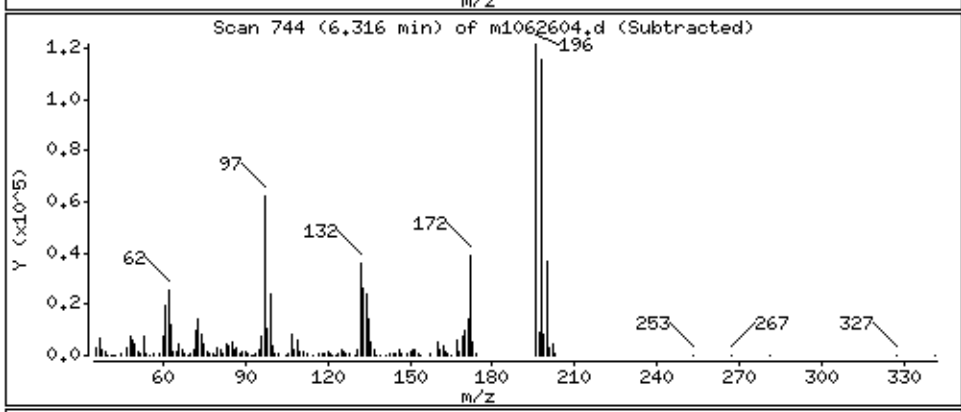
Column phase: RTX-5MS

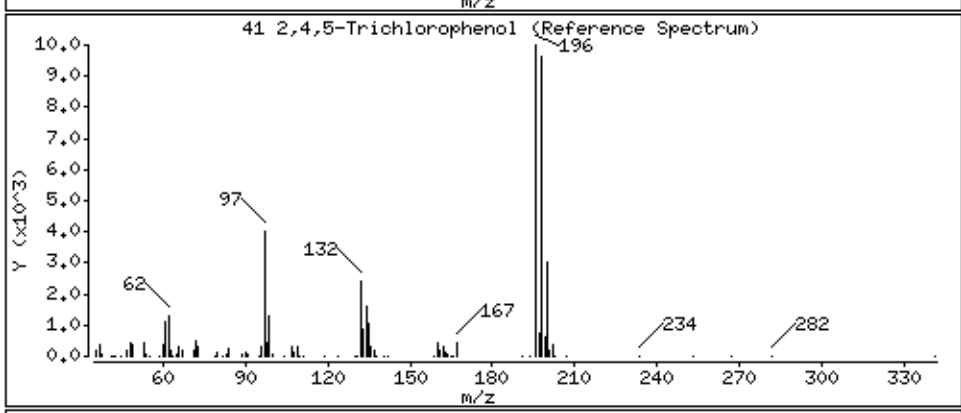
Column diameter: 0.18

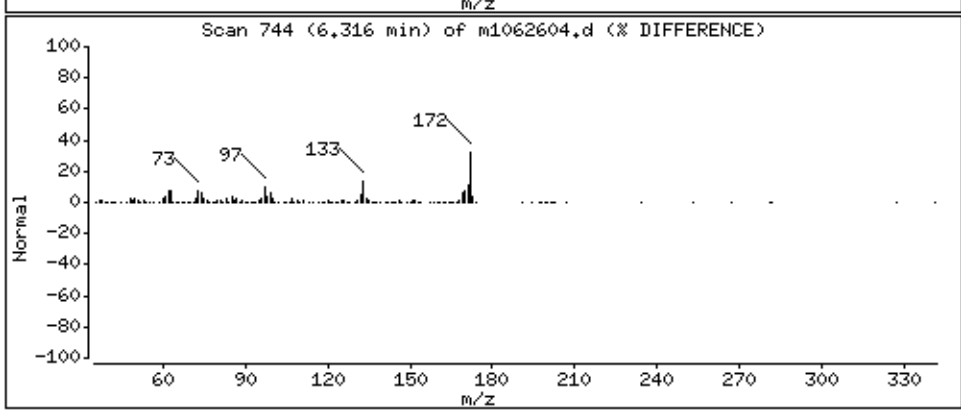
41 2,4,5-Trichlorophenol

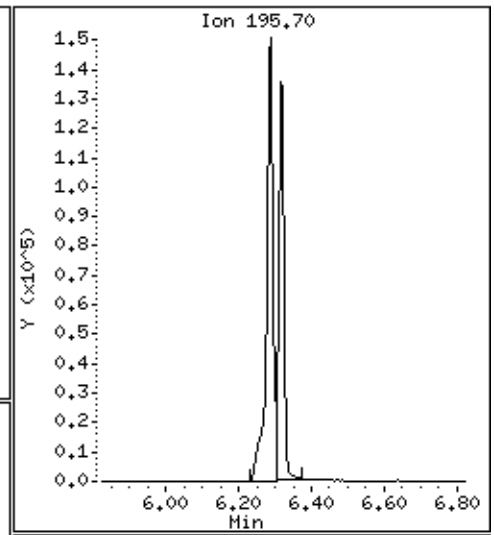
Concentration: 388 ug/L

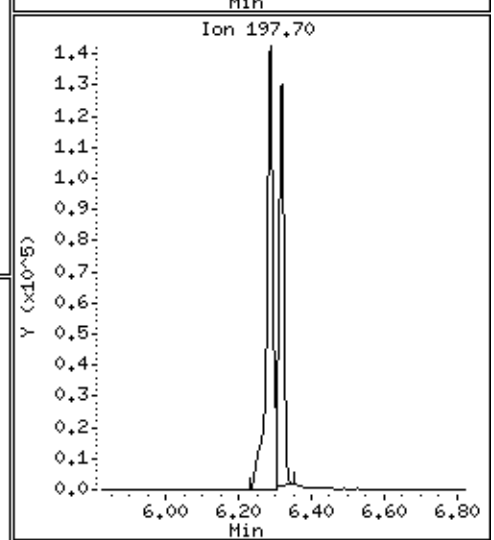


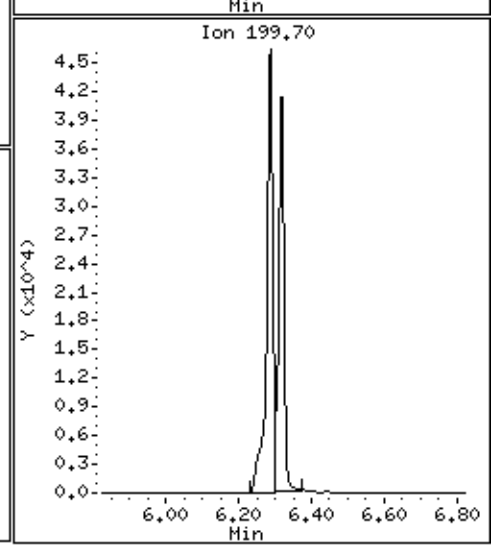












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

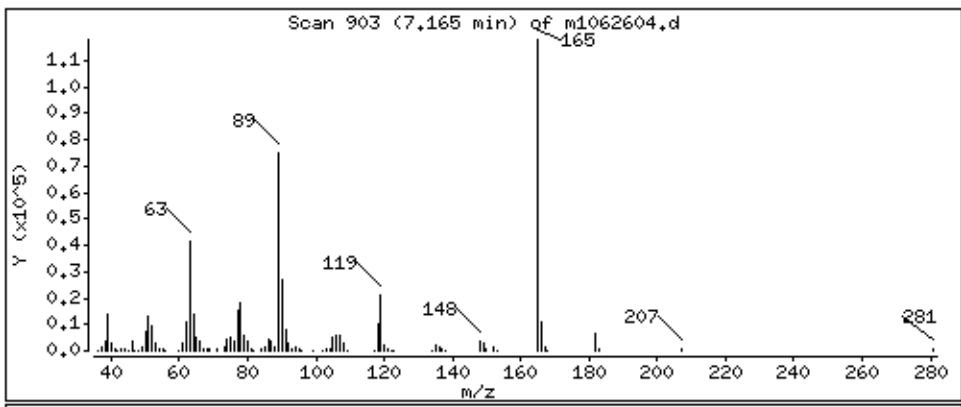
Operator: EAC

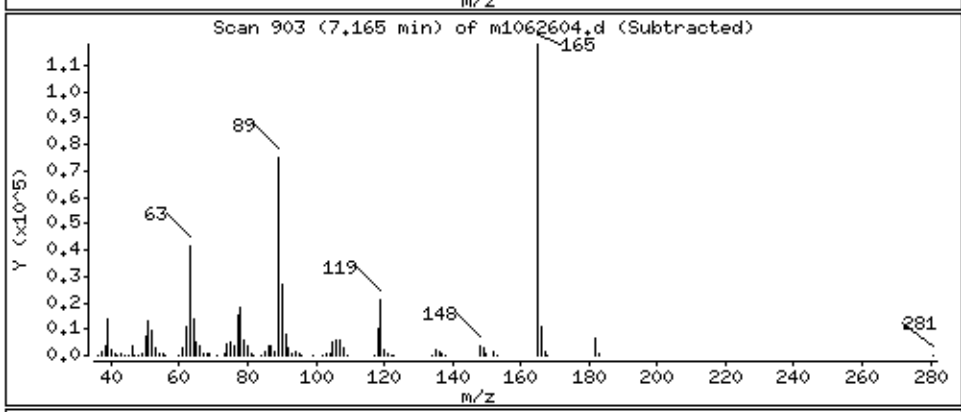
Column phase: RTX-5MS

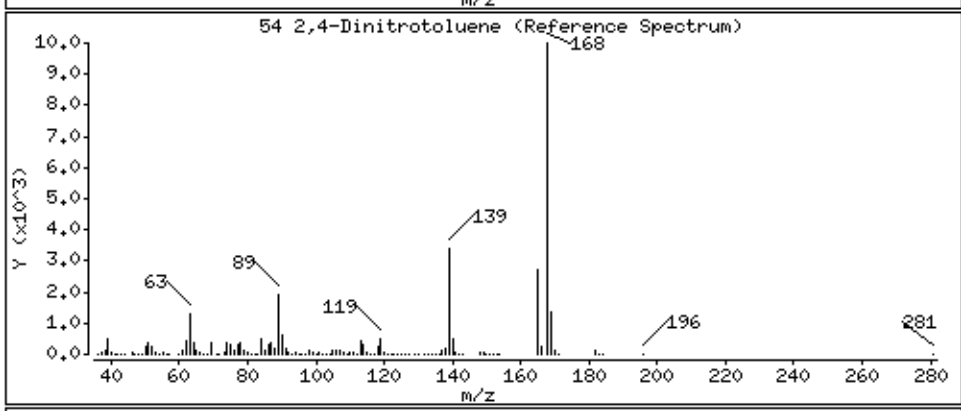
Column diameter: 0.18

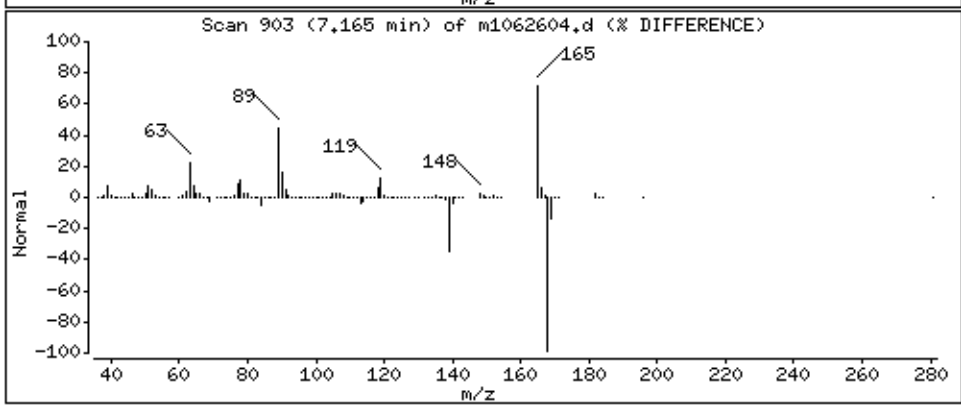
54 2,4-Dinitrotoluene

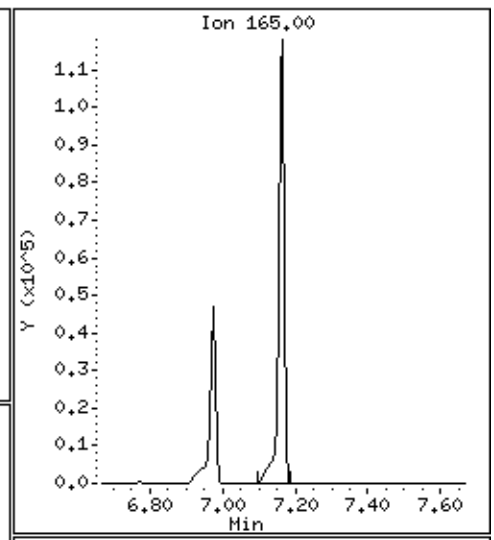
Concentration: 338 ug/L

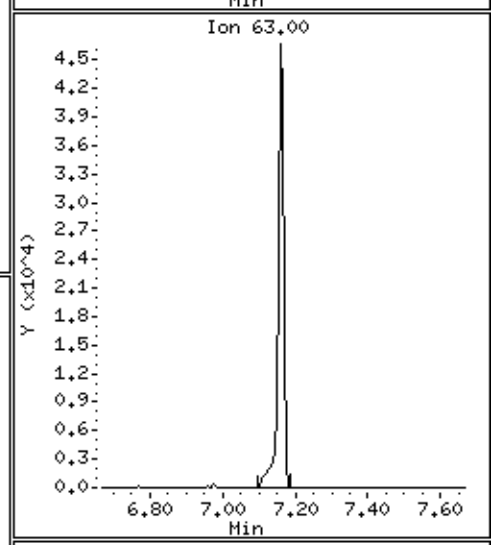


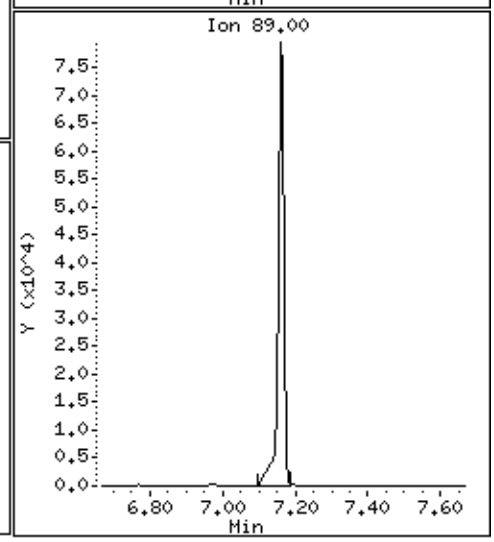












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

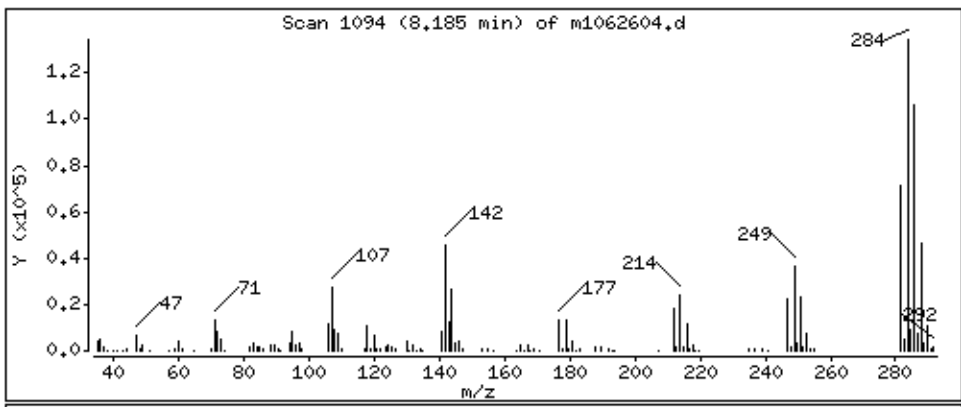
Operator: EAC

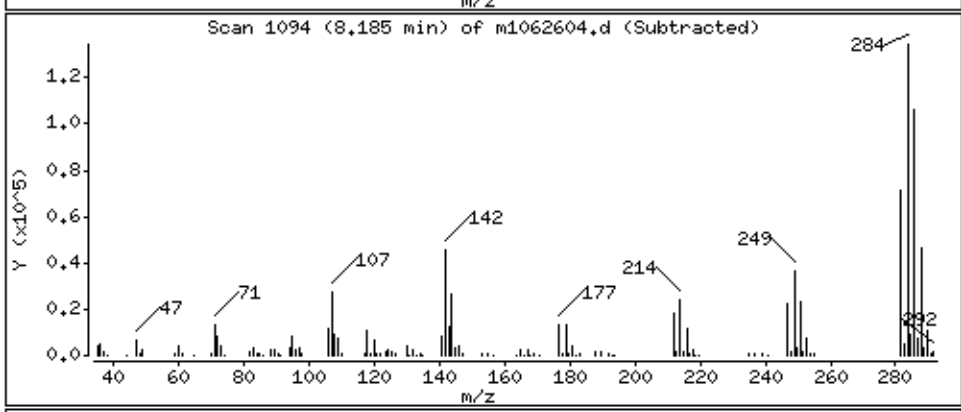
Column phase: RTX-5MS

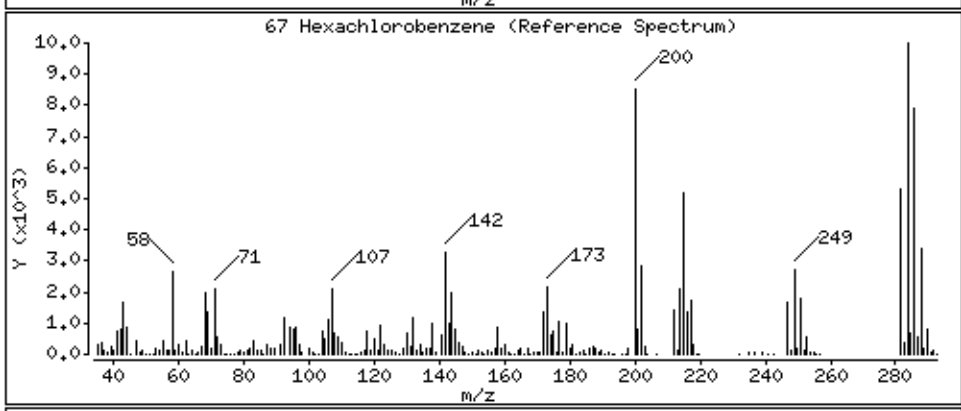
Column diameter: 0.18

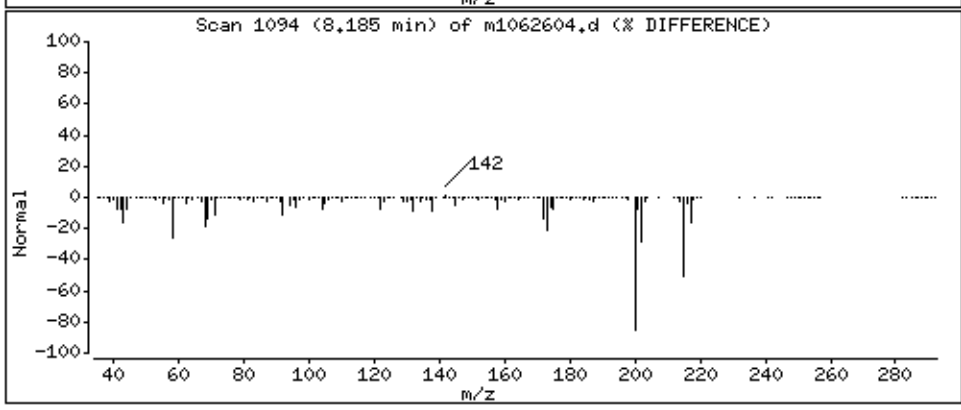
67 Hexachlorobenzene

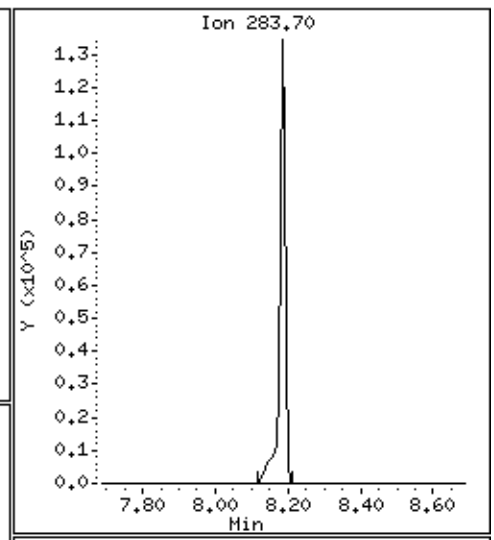
Concentration: 257 ug/L

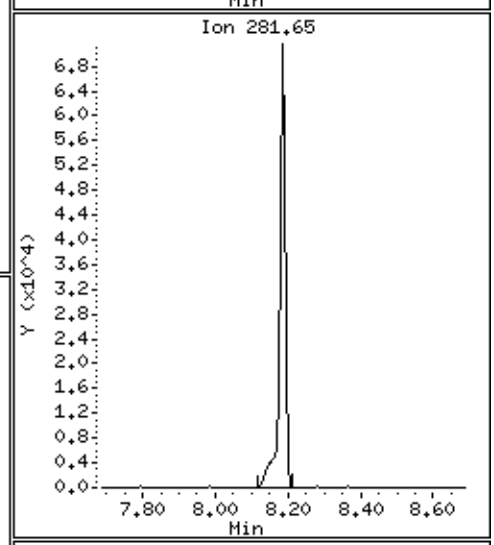


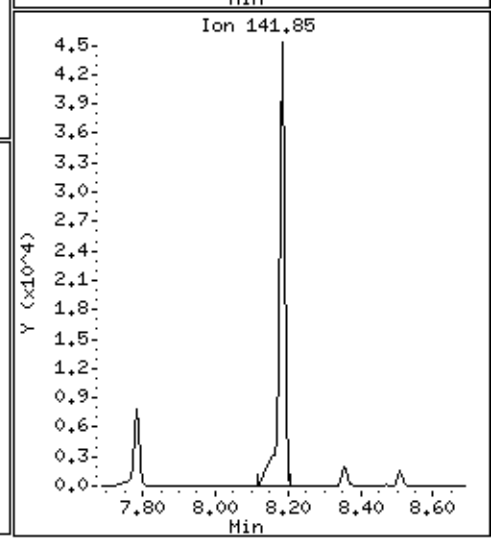












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b\m1062604.d

Date : 26-JUN-2019 21:58

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1697478

Volume Injected (uL): 1.0

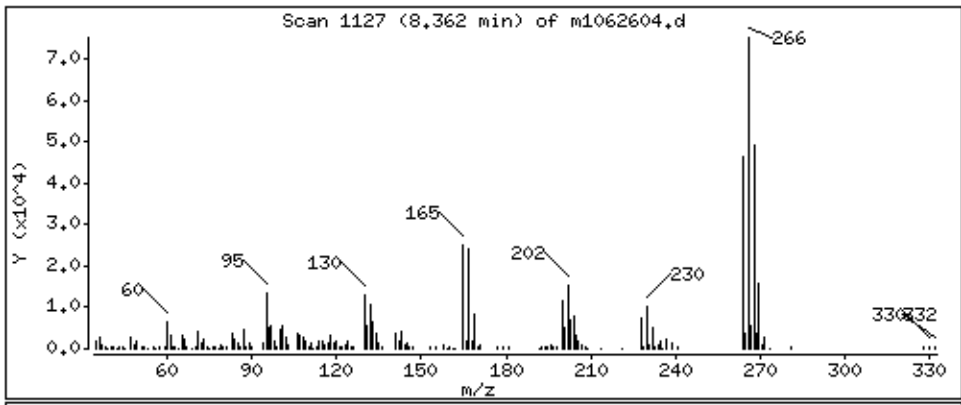
Operator: EAC

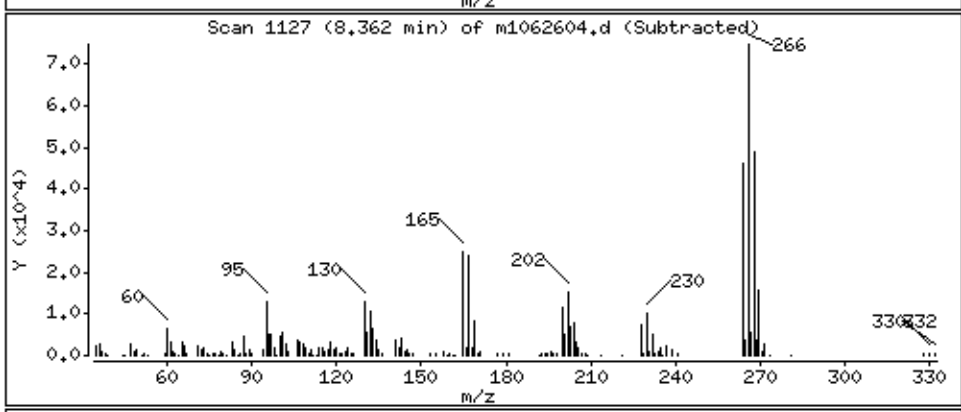
Column phase: RTX-5MS

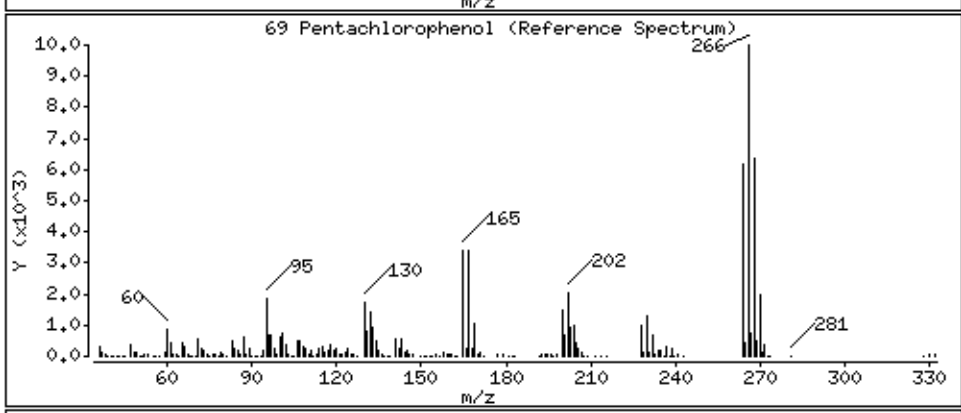
Column diameter: 0.18

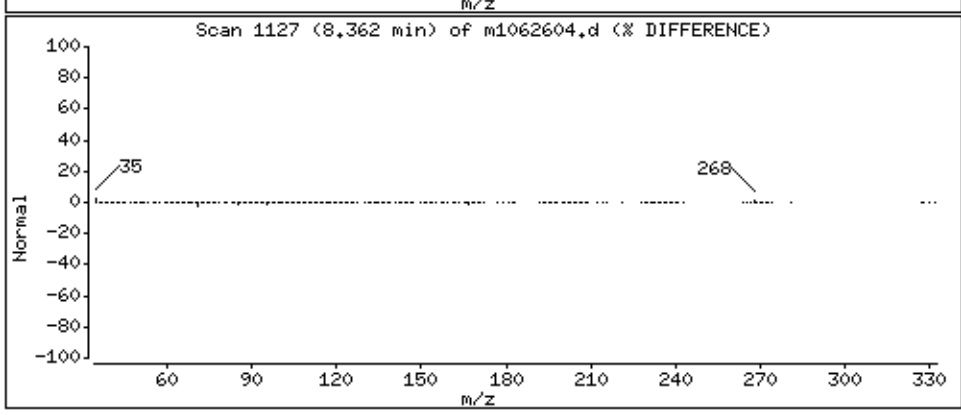
69 Pentachlorophenol

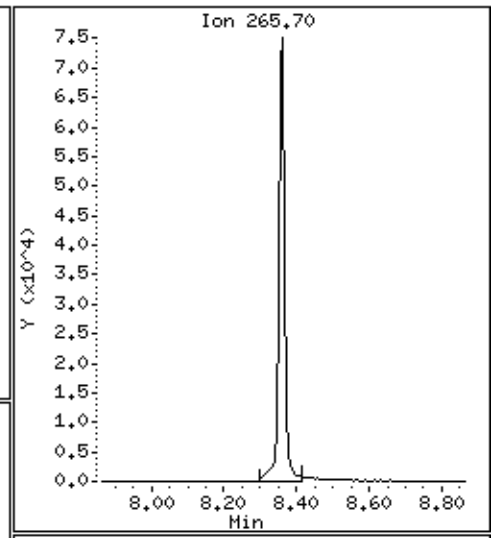
Concentration: 368 ug/L

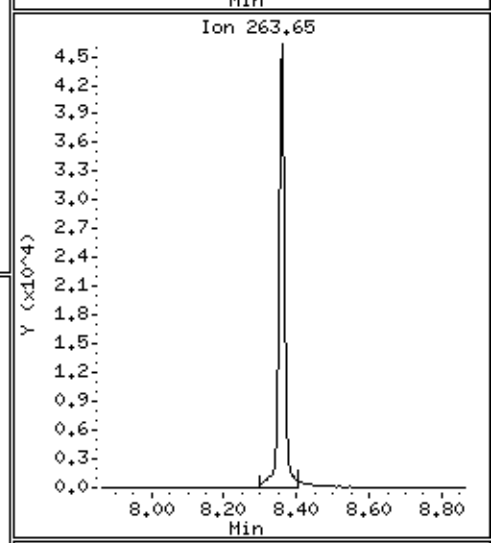


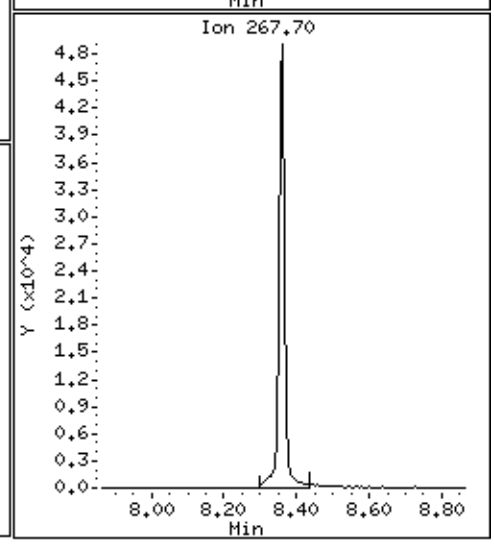












Data File: \\30wintarget\chem\30mss1.i\mss1062619.b/m1062604.d
Injection Date: 26-JUN-2019 21:58
Instrument: 30mss1.i
Lab Sample ID: 1697478
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: TCLP 8691/348888; 8692/348889

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	06/25/2019 12:17:08:970	Tumbler Start Temp. (C)	20.8
Tumbler End Temp. (C)	22	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 90433	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1696432**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
TCLP	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
TCLP	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
TCLP	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
TCLP	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
TCLP	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
TCLP	PS	**30300768001**	Y		H	30TBL5	HP001	Other	Y	Y	7.63	1.43	5	100
TCLP	PS	**30300762002**	Y		I	30TBL5	HP001	Other	Y	Y	8.4	1.6	5	100
TCLP	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100
TCLP	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
TCLP	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
TCLP	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
TCLP	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	LB	**1696433**	Y		B	30TBL5	HP001		Y	Y	4.88		0	0
1311MET_L	LB	**1696434**	Y		1	30TBL5	HP001		Y	Y	4.88		0	100
1311MET_L	PS	**30300500001**	Y		C	30TBL5	HP001	Other	Y	Y	7.43	1.49	5	100
1311MET_L	PS	**30300096001**	Y		D	30TBL5	HP001	Other	Y	Y	6.8	1.46	5	100
1311MET_L	PS	**30300161001**	Y		E	30TBL5	HP001	Other	Y	Y	9.51	1.52	5	100
1311MET_L	PS	**30300161002**	Y		F	30TBL5	HP001	Other	Y	Y	9.4	1.49	5	100
1311MET_L	PS	**30300192001**	Y		G	30TBL5	HP001	Other	Y	Y	8.18	1.41	5	100
1311MET_L	PS	**30300510001**	Y		J	30TBL5	HP001	Other	Y	Y	7.09	1.62	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30300616001**	Y		K	30TBL5	HP001	Other	Y	Y	8.31	1.54	5	100
1311MET_L	PS	**30300616002**	Y		L	30TBL5	HP001	Other	Y	Y	9.42	1.63	5	100
1311MET_L	PS	**30300616003**	Y		M	30TBL5	HP001	Other	Y	Y	9.52	1.62	5	100
1311MET_L	PS	**30310254001**	Y		N	30TBL5	HP001	Other	Y	Y	8.77	1.59	5	100
1311MET_L	PS	**30300200001**	Y		2	30TBL5	HP001	Other	Y	Y	9.66	1.57	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1696432**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146				
TCLP	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146				
TCLP	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146		476.2	478.3	2.1
TCLP	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146				
TCLP	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146				
TCLP	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146				
TCLP	PS	**30300768001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.75	06/26/2019 09:44:35:146				
TCLP	PS	**30300762002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.17	06/26/2019 09:44:52:223				
TCLP	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146				
TCLP	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146				
TCLP	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146				
TCLP	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146				
1311MET_L	LB	**1696433**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.80	06/26/2019 10:33:35:146	Y			
1311MET_L	LB	**1696434**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.84	06/26/2019 10:03:35:146	Y			
1311MET_L	PS	**30300500001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.85	06/26/2019 09:35:35:146	Y			
1311MET_L	PS	**30300096001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:35:35:146	Y	476.2	478.3	2.1
1311MET_L	PS	**30300161001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.34	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300161002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.39	06/26/2019 09:40:35:146	Y			
1311MET_L	PS	**30300192001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.78	06/26/2019 09:44:35:146	Y			
1311MET_L	PS	**30300510001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	4.96	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.99	06/26/2019 09:50:35:146	Y			
1311MET_L	PS	**30300616002**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.40	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300616003**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.96	06/26/2019 10:00:35:146	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30310254001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	6.28	06/26/2019 10:00:35:146	Y			
1311MET_L	PS	**30300200001**	89048 ()	TCLP 1	91823 ()	72915 ()	06/25/2019 15:54:28	06/26/2019 07:59:40	5.97	06/26/2019 10:19:35:146	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1696432**								2000	
TCLP	PS	**30300500001**								2000	sand
TCLP	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
TCLP	PS	**30300161001**								2000	dirt
TCLP	PS	**30300161002**								2000	clay
TCLP	PS	**30300192001**								2000	sand
TCLP	PS	**30300768001**								2000	water
TCLP	PS	**30300762002**								2000	dirt
TCLP	PS	**30300510001**								2000	fabric
TCLP	PS	**30300616001**								2000	rock
TCLP	PS	**30300616002**								2000	rock
TCLP	PS	**30300616003**								2000	rock
TCLP	PS	**30310254001**								2000	rock
1311MET_L	LB	**1696433**								2000	
1311MET_L	LB	**1696434**								2000	
1311MET_L	PS	**30300500001**								2000	sand
1311MET_L	PS	**30300096001**	556	553.9	494.7	1045.6	550.9	3.0	0.54	60.00	water
1311MET_L	PS	**30300161001**								2000	dirt

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30300161002**								2000	clay
1311MET_L	PS	**30300192001**								2000	sand
1311MET_L	PS	**30300510001**								2000	fabric
1311MET_L	PS	**30300616001**								2000	rock
1311MET_L	PS	**30300616002**								2000	rock
1311MET_L	PS	**30300616003**								2000	rock
1311MET_L	PS	**30310254001**								2000	rock
1311MET_L	PS	**30300200001**								2000	rock

Prep Log Report

Batch Information: OEXT 38500/349113 TCLP BNA-SPE

Template Version: F-PA-O-007-Rev.00 (5May2016)

Prep Method	EPA 3535A	Analysis Method	EPA 8270D	Extracted By	JPD	Extracted Date/Time	06/26/2019 11:45:00:460
Extraction End Date/Time	06/26/2019 14:08:19:805	Acceptance Range:	pH: 4-5	Witnessed By		Concentrated By	JPD
Concentrated By Date	06/26/2019 13:41:24:267	Conc. Method	SPE	Methylene Chloride	90645	Methanol	91004
1:1 H2SO4	85991	10N Sodium Hydroxide	None Added	SPE Cartridge	87233	Sodium Sulfate	88419
Gravity Filters	89368	Syringe ID 1	SYR033	Reviewed By	BBR	Reviewed By Date	06/27/2019 00:50
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	LB	**1696432**		100	No	10		91863 (1)	
8270DSPE_P	LCS	**1697478**		100	No	10		91863 (1)	90624 (.5)
8270DSPE_P	PS	**30300096001**		100	Yes	10		91863 (1)	
8270DSPE_P	PS	**30310254001**		100	Yes	10		91863 (1)	
8270DSPE_P	MS	**1697479**		100	Yes	10		91863 (1)	90624 (.5)
8270DSPE_P	MSD	**1697480**		100	Yes	10		91863 (1)	90624 (.5)
8270DSPE_P	PS	**30300161001**		100	Yes	10		91863 (1)	
8270DSPE_P	PS	**30300161002**		100	Yes	10		91863 (1)	
8270DSPE_P	PS	**30300192001**		100	No	10		91863 (1)	
8270DSPE_P	PS	**30300510001**		100	No	10		91863 (1)	
8270DSPE_P	PS	**30300616001**		100	Yes	10		91863 (1)	
8270DSPE_P	PS	**30300616002**		100	Yes	10		91863 (1)	
8270DSPE_P	PS	**30300616003**		100	Yes	10		91863 (1)	

Standard Notes:

90624: OEXT TCLP BNA spike 100 ppm in

91863: OEXT 8270 BNA surrogate 50/75

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium — Method: 625 & 8270D
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 91364:10 — Surr. lot: See Extraction Logs
Tune std: 79378 — Cal. std: 91770, 92038

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10626t1.d	DFTPP	N/14741	DFTPP	1	625tune	6/26/19	12:45	EAC	
1/m10626s1.d	CCV	N/14741		1	8270062419	6/26/19	13:06	EAC	
1/m10626x1.d	CAL1	N/BENZIDINE	CALIB_1	1	benzidine062619	6/26/19	13:30	EAC	
1/m10626x11.d	CAL1	N/BENZIDINE	CCALIB_1	1	benzidine062619	6/26/19	13:30	EAC	
1/m10626x2.d	CAL2	N/BENZIDINE	CALIB_2	1	benzidine062619	6/26/19	13:54	EAC	
1/m10626x3.d	CAL3	N/BENZIDINE	CALIB_3	1	benzidine062619	6/26/19	14:17	EAC	
1/m10626x4.d	CAL4	N/BENZIDINE	CALIB_4	1	benzidine062619	6/26/19	14:41	EAC	
1/m10626x5.d	CAL5	N/BENZIDINE	CALIB_5	1	benzidine062619	6/26/19	15:04	EAC	
1/m10626x6.d	CAL6	N/BENZIDINE	CALIB_6	1	benzidine062619	6/26/19	15:28	EAC	
1/m10626x7.d	CAL7	N/BENZIDINE	CALIB_7	1	benzidine062619	6/26/19	15:51	EAC	
1/m10626x8.d	ICV	N/BENZIDINE	CCALIB_4	1	benzidine062619	6/26/19	16:15	EAC	
1/m10626t2.d	DFTPP	N/14741	DFTPP	1	625tune	6/26/19	16:37	EAC	
1/m10626s2.d	CCV	N/14741		1	8270062419	6/26/19	16:53	EAC	
1/m10626s3.d	CCV	N/benzidine	CCALIB_4	1	benzidine062619	6/26/19	17:17	EAC	
1/m10626y1.d	CAL7	N/14757	CALIB_7	1	8270062619	6/26/19	17:41	EAC	
1/m10626y2.d	CAL6	N/14757	CALIB_6	1	8270062619	6/26/19	18:04	EAC	
1/m10626y3.d	CAL5	N/14757	CALIB_5	1	8270062619	6/26/19	18:28	EAC	
1/m10626y4.d	CAL4	N/14757	CALIB_4	1	8270062619	6/26/19	18:51	EAC	
1/m10626y5.d	CAL3	N/14757	CALIB_3	1	8270062619	6/26/19	19:15	EAC	
1/m10626y511.d	CAL3	N/14757	CCALIB_3	1	8270062619	6/26/19	19:15	EAC	
1/m10626y6.d	CAL2	N/14757	CALIB_2	1	8270062619	6/26/19	19:38	EAC	
1/m10626y611.d	CAL2	N/14757	CCALIB_2	1	8270062619	6/26/19	19:38	EAC	
1/m10626y7.d	CAL1	N/14757	CALIB_1	1	8270062619	6/26/19	20:02	EAC	
1/m10626y711.d	CAL1	N/14757	CCALIB_1	1	8270062619	6/26/19	20:02	EAC	
1/m10626y8.d	ICV	N/14757	CCALIB_8	1	8270062619	6/26/19	20:25	EAC	
1/m1062601.d	1695545	S/14743	BLANK	1	8270062619	6/26/19	20:48	EAC	
1/m1062602.d	1695546	S/14743	LCS	1	8270062619	6/26/19	21:11	EAC	
1/m1062603.d	1696432	L/14753	BLANK	1	8270062619	6/26/19	21:34	EAC	
1/m1062604.d	1697478	L/14753	LCS	1	8270062619	6/26/19	21:58	EAC	
1/m1062605.d	30300020001	S/14721	SAMPLE	1	8270062619	6/26/19	22:21	EAC	
1/m1062605benzidine.d	30300020001	S/14721	SAMPLE	1	benzidine062619	6/26/19	22:21	EAC	
1/m1062606.d	30300020002	S/14721	SAMPLE	1	8270062619	6/26/19	22:44	EAC	
1/m1062606benzidine.d	30300020002	S/14721	SAMPLE	1	benzidine062619	6/26/19	22:44	EAC	

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [X] Replaced/Cleaned gold seal
- [X] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [ ] Other minor parts replaced _____
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: SJG 6-27-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1062619.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:47 06/27/2019

Reviewed By/Date: 7/1/19 Page: 1 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium Method: see Page 1
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Tune std: _____ Cal. std: _____

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1062607.d	30300020003	S/14721	SAMPLE	1	8270062619	6/26/19	23:07	EAC	
1/m1062608.d	30300020004	S/14721	SAMPLE	1	8270062619	6/26/19	23:30	EAC	
1/m1062609.d	30299399001	L/14700	SAMPLE	1	8270062619	6/26/19	23:53	EAC	
1/m1062609benzidine.d	30299399001	L/14700	SAMPLE	1	benzidine062619	6/26/19	23:53	EAC	IS ↑ Narrate
1/m1062610.d	30299399002	L/14700	SAMPLE	1	8270062619	6/27/19	00:15	EAC	
1/m1062610benzidine.d	30299399002	L/14700	SAMPLE	1	benzidine062619	6/27/19	00:15	EAC	
1/m1062611.d	30299399003	L/14700	SAMPLE	1	8270062619	6/27/19	00:38	SJG	
1/m1062612.d	30299399004	L/14700	SAMPLE	1	8270062619	6/27/19	01:01	SJG	
1/m1062613.d	1697480	S/14753	MSD	1	8270062619	6/27/19	01:24	SJG	
1/m1062614.d	1697479	S/14753	MS	1	8270062619	6/27/19	01:47	SJG	
1/m1062615.d	30310254001	S/14753	SAMPLE	1	8270062619	6/27/19	02:09	SJG	
1/m1062616.d	30300741001	S/14743	SAMPLE	1	8270062619	6/27/19	02:32	SJG	
1/m1062617.d	1695824	S/14743	MS	1	8270062619	6/27/19	02:55	SJG	
1/m1062618.d	1695825	S/14743	MSD	1	8270062619	6/27/19	03:17	SJG	
1/m1062619.d	30300741002	S/14743	SAMPLE	1	8270062619	6/27/19	03:40	SJG	
1/m1062620.d	30300741003	S/14743	SAMPLE	1	8270062619	6/27/19	04:02	SJG	
1/m1062621.d	1695567	L/14745	BLANK	1	8270062619	6/27/19	04:25	SJG	625
1/m1062621benzidine.d	1695567	L/14745	BLANK	1	benzidine062619	6/27/19	04:25	SJG	IS ↑ DNR
1/m1062622.d	1695568	L/14745	LCS	1	8270062619	6/27/19	04:48	SJG	
1/m1062622benzidine.d	1695568	L/14745	LCS	1	benzidine062619	6/27/19	04:48	SJG	IS ↑ DNR
1/m1062623.d	30300657001X10	L/14745	SAMPLE	10	8270062619	6/27/19	05:10	SJG	
1/m1062623benzidine.d	30300657001X10	L/14745	SAMPLE	10	benzidine062619	6/27/19	05:10	SJG	
1/m1062624.d	30300655001X10	L/14745	SAMPLE	10	8270062619	6/27/19	05:33	SJG	RR ST "DNR
1/m1062625.d	1695569X10	L/14745	MS	10	8270062619	6/27/19	05:55	SJG	
1/m1062626.d	1695570X10	L/14745	MSD	10	8270062619	6/27/19	06:18	SJG	
1/m1062627.d	30299841001X10	L/14733	SAMPLE	10	8270062619	6/27/19	06:41	SJG	
1/m1062627benzidine.d	30299841001X10	L/14733	SAMPLE	10	benzidine062619	6/27/19	06:41	SJG	
1/m1062628.d	RINSE	N/	SAMPLE	1	8270062619	6/27/19	07:04	SJG	
1/m1062629.d	RINSE	N/	SAMPLE	1	8270062619	6/27/19	07:27	SJG	
1/m1062630.d	RINSE	N/	SAMPLE	1	8270062619	6/27/19	07:50	SJG	
1/m1062631.d	30300655001	L/14745	SAMPLE	1	8270062619	6/27/19	09:59	SJG	
1/m1062631benzidine.d	30300655001	L/14745	SAMPLE	1	benzidine062619	6/27/19	09:59	SJG	
1/m1062632.d	1695569	L/14745	MS	1	8270062619	6/27/19	10:22	SJG	

File Path 1: \\30wintarget\chem\30mss1.i\mss1062619.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:20 06/27/2019

Reviewed By/Date: _____ Page: 2 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium Method:
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 91364:10 Surr. lot:
Tune std: _____ Cal. std: _____

See Page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1062632benzidine.d	1695569	L/14745	MS	1	benzidine062619	6/27/19	10:22	SJG	25
1/m1062633.d	1695570	L/14745	MSD	1	8270062619	6/27/19	10:46	SJG	
1/m1062633benzidine.d	1695570	L/14745	MSD	1	benzidine062619	6/27/19	10:46	SJG	

SJG
6-27-19

File Path 1: \\30wintarget\chem\30mss1.i\mss1062619.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:47 06/27/2019 Reviewed By/Date: 7/1/19 Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss4.i
Column RTX-5MS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 86312:10
Tune std: 79378

Method: 8270D & 625 Partial

Surr. lot: See Extraction Sheets
Cal. std: 91770

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m40701t1.d	TUNE, 79378:1	N/14756	DFTPP	1	625tune	7/01/19	09:26	SJG	
1/m40701s1.d	CCV, 91770:1	N/14756		1	8270062619	7/01/19	09:40	SJG	
1/m40701s2.d	CCV, 92038:1	N/Benzidine	CCALIB_4	1	benzidine062619	7/01/19	10:02	SJG	
1/m40701s3.d	CCV, 91770:1	N/14756		1	8270062619	7/01/19	10:24	SJG	
1/m40701y1.d	CAL7, 91767:1	N/14771	CALIB_7	1	8270070119	7/01/19	10:48	SJG	
1/m40701y2.d	CAL6, 91768:1	N/14771	CALIB_6	1	8270070119	7/01/19	11:09	SJG	
1/m40701y3.d	CAL5, 91769:1	N/14771	CALIB_5	1	8270070119	7/01/19	11:31	SJG	
1/m40701y4.d	CAL4, 91770:1	N/14771	CALIB_4	1	8270070119	7/01/19	11:53	SJG	
1/m40701y5.d	CAL3, 91771:1	N/14771	CALIB_3	1	8270070119	7/01/19	12:15	SJG	
1/m40701y6.d	CAL2, 91772:1	N/14771	CALIB_2	1	8270070119	7/01/19	12:37	SJG	
1/m40701y7.d	CAL1, 91773:1	N/14771	CALIB_1	1	8270070119	7/01/19	13:00	SJG	
1/m40701x1.d	CAL1, 91773:1	N/14771	CALIB_1	1	8270070119	7/01/19	13:44	SJG	
1/m40701x11.d	CAL1, 91773:1	N/14771	CCALIB_1	1	8270070119	7/01/19	13:44	SJG	
1/m40701x2.d	CAL2, 91772:1	N/14771	CALIB_2	1	8270070119	7/01/19	14:06	SJG	
1/m40701x21.d	CAL2, 91772:1	N/14771	CCALIB_2	1	8270070119	7/01/19	14:06	SJG	
1/m40701x3.d	CAL3, 91771:1	N/14771	CALIB_3	1	8270070119	7/01/19	14:28	SJG	
1/m40701x4.d	CAL4, 91770:1	N/14771	CALIB_4	1	8270070119	7/01/19	14:50	SJG	
1/m40701x5.d	CAL5, 91769:1	N/14771	CALIB_5	1	8270070119	7/01/19	15:12	SJG	
1/m40701x6.d	CAL6, 91768:1	N/14771	CALIB_6	1	8270070119	7/01/19	15:34	SJG	
1/m40701x7.d	CAL7, 91767:1	N/14771	CALIB_7	1	8270070119	7/01/19	15:56	SJG	
1/m40701x8.d	ICV, 91774:1	N/14771	CCALIB_8	1	8270070119	7/01/19	16:19	SJG	
1/m4070101.d	1700683,	L/14774	BLANK	1	8270070119	7/01/19	16:41	SJG	
1/m4070102.d	1700684,	L/14774	LCS	1	8270070119	7/01/19	17:03	SJG	
1/m4070103.d	30300161001,	S/14753	SAMPLE	1	8270070119	7/01/19	17:25	SJG	
1/m4070104.d	30300161002,	S/14753	SAMPLE	1	8270070119	7/01/19	17:47	SJG	
1/m4070105.d	30300192001,	S/14753	SAMPLE	1	8270070119	7/01/19	18:09	SJG	
1/m4070106.d	30300617001,	S/14774	SAMPLE	1	8270070119	7/01/19	18:31	SJG	
1/m4070107.d	1700685,	S/14774	MS	1	8270070119	7/01/19	18:53	SJG	
1/m4070108.d	1700686,	S/14774	MSD	1	8270070119	7/01/19	19:15	SJG	
1/m4070109.d	92434453001,	S/14774	SAMPLE	1	8270070119	7/01/19	19:37	SJG	
1/m4070110.d	92434453002,	S/14774	SAMPLE	1	8270070119	7/01/19	19:59	SJG	
1/m4070111.d	30300763001,	S/14774	SAMPLE	1	8270070119	7/01/19	20:20	SJG	
1/m4070112.d	30300510001,	S/14753	SAMPLE	1	8270070119	7/01/19	20:42	SJG	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced
X No maintenance performed today

Additional Comments:

Run Order Verified: SJG | 7-2-19

File Path 1: \\30wintarget\chem\30mss4.i\mss4070119.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:58 07/02/2019

Reviewed By/Date: 8/7/2/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss4.i
Column RTX-5MS 20m X 0.18mm Helium Method:
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 86312:10 Surr. lot:
Tune std: _____ Cal. std: _____

See Page 1

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m4070113.d	30300616001,	S/14753	SAMPLE	1	8270070119	7/01/19	21:04	SJG	
1/m4070114.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	21:26	SJG	
1/m4070115.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	21:48	SJG	
1/m4070116.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	22:09	SJG	
1/m4070117.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	22:31	SJG	
1/m4070118.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	22:53	SJG	
1/m4070119.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	23:14	SJG	
1/m4070120.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	23:36	SJG	
1/m4070121.d	RINSE	N/	SAMPLE	1	8270070119	7/01/19	23:58	SJG	
1/m4070122.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	00:19	SJG	
1/m4070123.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	00:41	SJG	
1/m4070124.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	01:03	SJG	
1/m4070125.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	01:25	SJG	
1/m4070126.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	01:46	SJG	
1/m4070127.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	02:08	SJG	
1/m4070128.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	02:30	SJG	
1/m4070129.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	02:51	SJG	
1/m4070130.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	03:13	SJG	
1/m4070131.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	03:34	SJG	
1/m4070132.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	03:56	SJG	
1/m4070133.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	04:18	SJG	
1/m4070134.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	04:40	SJG	
1/m4070135.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	05:02	SJG	
1/m4070136.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	05:23	SJG	
1/m4070137.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	05:45	SJG	
1/m4070138.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	06:06	SJG	
1/m4070139.d	RINSE	N/	SAMPLE	1	8270070119	7/02/19	06:28	SJG	

SJG
7-2-19

File Path 1: \\30wintarget\chem\30mss4.i\mss4070119.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:58 07/02/2019

Reviewed By/Date: 7/2/19 Page: 2 of 2

MSSV SIM - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2

LAB SAMPLE ID	SAMPLE NAME	2FBP	TD14
1692792	1692792BLANK	68	77
1692793	1692793LCS	75	83
1692794	1692794MS	78	89
1692795	1692795MSD	48	46*
30300161001	AOC 26-1	94	113*
30300161002	AOC 26-2	65	64

	QC LIMITS
(2FBP) = 2-Fluorobiphenyl (S)	(43-97)
(TD14) = Terphenyl-d14 (S)	(56-106)

* Values outside of QC Limits

MSSV SIM - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1692793LCS
Date Extracted: 06/19/2019
Date Analyzed (1): 06/20/2019
Instrument: 30MSS2
LCS Lot No: 85224
Lab File ID: MSS2062019.B\M206201904.D
SDG No.: 30300161

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Acenaphthene	0.13	0.10	77	48-101
Acenaphthylene	0.13	0.11	81	42-109
Anthracene	0.13	0.11	82	54-110
Benzo(a)anthracene	0.13	0.13	100	59-119
Benzo(a)pyrene	0.13	0.13	97	55-125
Benzo(b)fluoranthene	0.13	0.14	104	54-131
Benzo(g,h,i)perylene	0.13	0.13	99	54-122
Benzo(k)fluoranthene	0.13	0.12	90	57-123
Chrysene	0.13	0.12	94	62-111
Dibenz(a,h)anthracene	0.13	0.13	98	60-124
Fluoranthene	0.13	0.12	91	60-116
Fluorene	0.13	0.11	80	49-110
Indeno(1,2,3-cd)pyrene	0.13	0.13	97	59-122
Naphthalene	0.13	0.10	76	42-97
Phenanthrene	0.13	0.11	81	52-107
Pyrene	0.13	0.12	91	60-117

Spike Recovery: 0 out of 16 outside limits.

MSSV SIM - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1692794MS

Date Extracted: 06/19/2019

Date Analyzed (1): 06/20/2019

Instrument: 30MSS2

Lab File ID: MSS2062019.B\M206201929.D

Parent Sample ID: AOC 26-1

SDG No.: 30300161

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Acenaphthene	0.14	ND	0.15	77	23-129
Acenaphthylene	0.14	0.099	0.21	76	26-144
Anthracene	0.14	0.24	0.30	43	10-166
Benzo(a)anthracene	0.14	0.73	0.64	-63	10-175
Benzo(a)pyrene	0.14	0.78	0.67	-73	10-175
Benzo(b)fluoranthene	0.14	1.3	1.1	-137	10-175
Benzo(g,h,i)perylene	0.14	0.27	0.26	-5	10-171
Benzo(k)fluoranthene	0.14	0.44	0.46	17	10-160
Chrysene	0.14	0.73	0.61	-82	10-175
Dibenz(a,h)anthracene	0.14	0.10	0.15	32	10-149
Fluoranthene	0.14	1.3	1.0	-213	10-175
Fluorene	0.14	ND	0.17	73	31-136
Indeno(1,2,3-cd)pyrene	0.14	0.26	0.27	6	10-151
Naphthalene	0.14	0.10	0.19	58	10-149
Phenanthrene	0.14	0.55	0.47	-55	10-175
Pyrene	0.14	1.2	0.93	-155	10-175

Spike Recovery: 9 out of 16 outside limits.

MSSV SIM - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS2 Matrix Spike Duplicate - Sample No: 1692795MSD

Lab File ID (2): MSS2062019.B\M206201931.D Date Analyzed (2): 06/20/2019

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Acenaphthene	0.14	0.085	33	55	0-20	23-129
Acenaphthylene	0.14	0.13	23	45	0-20	26-144
Anthracene	0.14	0.18	-46	53	0-20	10-166
Benzo(a)anthracene	0.14	0.40	-230	46	0-20	10-175
Benzo(a)pyrene	0.14	0.38	-278	56	0-20	10-175
Benzo(b)fluoranthene	0.14	0.67	-463	52	0-20	10-175
Benzo(g,h,i)perylene	0.14	0.13	-97	67	0-20	10-171
Benzo(k)fluoranthene	0.14	0.32	-85	38	0-20	10-160
Chrysene	0.14	0.39	-234	44	0-20	10-175
Dibenz(a,h)anthracene	0.14	0.074	-21	68	0-20	10-149
Fluoranthene	0.14	0.65	-470	45	0-20	10-175
Fluorene	0.14	0.10	25	50	0-20	31-136
Indeno(1,2,3-cd)pyrene	0.14	0.14	-86	65	0-20	10-151
Naphthalene	0.14	0.12	13	41	0-20	10-149
Phenanthrene	0.14	0.30	-171	44	0-20	10-175
Pyrene	0.14	0.56	-412	50	0-20	10-175

RPD: 16 out of 16 outside limits.

Spike Recovery: 14 out of 16 outside limits.

07/09/2019 8:48

SAMPLE NO.

1692792BLANK

MSSV SIM - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2 Matrix: Solid Lab Sample ID: 1692792

Lab File ID: MSS2062019.B\M206201903.D Date Analyzed: 06/20/2019 Time: 11:15

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1692793LCS	1692793	MSS2062019.B\M206201904.	06/20/2019 11:32
AOC 26-1	30300161001	MSS2062019.B\M206201927.	06/20/2019 18:26
1692794MS	1692794	MSS2062019.B\M206201929.	06/20/2019 19:01
1692795MSD	1692795	MSS2062019.B\M206201931.	06/20/2019 19:37
AOC 26-2	30300161002	MSS2062019.B\M206201932.	06/20/2019 19:55
AOC 26-2	30300161002	MSS2062019.B\M206201933.	06/20/2019 20:13

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2061719.B\M2061719T1.D DFTPP Injection Date: 06/17/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 12:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.25	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	45.35	
70	Less than 2.00% of mass 69	0.12	(0.26)[1]
127	10.00 - 80.00% of mass 198	53.52	
197	Less than 2.00% of mass 198	0.14	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.99	
275	10.00 - 60.00% of mass 198	27.69	
365	Greater than 1.00% of mass 198	5.98	
441	Present, but less than mass 443	15.64	
442	50.00 - 110.00% of mass 198	99.44	
443	15.00 - 24.00% of mass 442	19.65	(19.76)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11097240CAL1	11097240CAL1	MSS2061719.B\M2061719Z1.D	06/17/2019	12:43
11097245CAL2	11097245CAL2	MSS2061719.B\M2061719Z2.D	06/17/2019	13:01
11097241CAL3	11097241CAL3	MSS2061719.B\M2061719Z3.D	06/17/2019	13:18
11097243CAL4	11097243CAL4	MSS2061719.B\M2061719Z4.D	06/17/2019	13:36
11097242CAL5	11097242CAL5	MSS2061719.B\M2061719Z5.D	06/17/2019	13:54
11097244CAL6	11097244CAL6	MSS2061719.B\M2061719Z6.D	06/17/2019	14:12
11097246ICV	11097246ICV	MSS2061719.B\M2061719Z7.D	06/17/2019	14:30

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2062019.B\M2062019T1.D DFTPP Injection Date: 06/20/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 10:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	39.30	
68	Less than 2.00% of mass 69	0.33	(0.67)[1]
69	Mass 69 relative abundance	49.35	
70	Less than 2.00% of mass 69	0.58	(1.17)[1]
127	10.00 - 80.00% of mass 198	57.93	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.62	
275	10.00 - 60.00% of mass 198	28.24	
365	Greater than 1.00% of mass 198	6.26	
441	Present, but less than mass 443	14.47	
442	50.00 - 110.00% of mass 198	91.43	
443	15.00 - 24.00% of mass 442	17.05	(18.64)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11203575CCV	11203575CCV	MSS2062019.B\M2062019S1.D	06/20/2019	10:19
1692792BLANK	1692792BLANK	MSS2062019.B\M206201903.D	06/20/2019	11:15
1692793LCS	1692793LCS	MSS2062019.B\M206201904.D	06/20/2019	11:32
AOC 26-1	30300161001	MSS2062019.B\M206201927.D	06/20/2019	18:26
1692794MS	1692794MS	MSS2062019.B\M206201929.D	06/20/2019	19:01
1692795MSD	1692795MSD	MSS2062019.B\M206201931.D	06/20/2019	19:37
AOC 26-2	30300161002	MSS2062019.B\M206201932.D	06/20/2019	19:55
AOC 26-2	30300161002	MSS2062019.B\M206201933.D	06/20/2019	20:13

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11203575CCV Date Analyzed: 06/20/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 10:19

Lab File ID: MSS2062019.B\M2062019S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		270417	4.62	444468	7.929	487489	3.499	475367	5.646
UPPER LIMIT		540834	5.12	888936	8.429	974978	3.999	950734	6.146
LOWER LIMIT		135208.5	4.12	222234	7.429	243744.5	2.999	237683.5	5.146
LAB SAMPLE ID	SAMPLE NO.								
1692792	1692792BLANK	315594	4.619	492929	7.929	564282	3.499	544055	5.646
1692793	1692793LCS	373919	4.619	576418	7.929	665900	3.498	646941	5.642
1692794	1692794MS	354627	4.623	597070	7.935	619470	3.504	633486	5.651
1692795	1692795MSD	401384	4.623	643007	7.938	682522	3.499	710326	5.651
30300161001	AOC 26-1	363466	4.623	623801	7.935	629348	3.504	639700	5.646
30300161002	AOC 26-2	429191	4.623	710952	7.958	734350	3.498	769440	5.655
30300161002 DL 10	AOC 26-2	381746	4.623	567002	7.941	653062	3.504	651134	5.651

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Sample ID : 11203575CCV Date Analyzed: 06/20/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 10:19

Lab File ID: MSS2062019.B\M2062019S1.D

		AREA PYL	RT
12 HOUR STD		518475	9.209
UPPER LIMIT		1036950	9.709
LOWER LIMIT		259237.5	8.709
LAB SAMPLE ID	SAMPLE NO.		
1692792	1692792BLANK	503567	9.209
1692793	1692793LCS	595658	9.209
1692794	1692794MS	486628	9.219
1692795	1692795MSD	415856	9.219
30300161001	AOC 26-1	554394	9.219
30300161002	AOC 26-2	347368	9.243
30300161002 DL 10	AOC 26-2	343270	9.223

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 26-1

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 30300161001
Date Analyzed: 06/20/2019 18:26
Lab File ID: MSS2062019.B\M206201927.D
Initial wt/vol: 15.17 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	ND	U
208-96-8	Acenaphthylene	0.099	
120-12-7	Anthracene	0.24	
56-55-3	Benzo(a)anthracene	0.73	
50-32-8	Benzo(a)pyrene	0.78	
205-99-2	Benzo(b)fluoranthene	1.3	
191-24-2	Benzo(g,h,i)perylene	0.27	
207-08-9	Benzo(k)fluoranthene	0.44	
218-01-9	Chrysene	0.73	
53-70-3	Dibenz(a,h)anthracene	0.10	
206-44-0	Fluoranthene	1.3	
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.26	
91-20-3	Naphthalene	0.10	
85-01-8	Phenanthrene	0.55	
129-00-0	Pyrene	1.2	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d
Lab Smp Id: 30300161001 Client Smp ID: AOC 26-1
Inj Date : 20-JUN-2019 18:26
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30300161001x10,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 29
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.170	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.504	3.498	(1.000)	629348	4.00000		
	8 Naphthalene	128	3.515	3.510	(1.003)	20796	0.14663	96.6	
	9 2-Methylnaphthalene	142	3.955	3.949	(1.129)	9244	0.09807	64.6	
	10 1-Methylnaphthalene	142	4.018	4.012	(1.147)	6668	0.06594	43.5	
$	6 2-Fluorobiphenyl (S)	172	4.183	4.178	(0.905)	57061	0.47034	31.0(R)	
	11 Acenaphthylene	152	4.533	4.530	(0.981)	19854	0.13866	91.4	
*	2 Acenaphthene-d10 (IS)	164	4.622	4.619	(1.000)	363466	4.00000		
	12 Acenaphthene	153	4.642	4.639	(1.004)	4888	0.05227	34.4	
	13 Fluorene	166	4.982	4.979	(1.078)	9832	0.08958	59.0	
*	3 Phenanthrene-d10 (IS)	188	5.646	5.646	(1.000)	639700	4.00000		
	14 Phenanthrene	178	5.664	5.659	(1.003)	117783	0.76280	503	
	15 Anthracene	178	5.705	5.700	(1.010)	53080	0.33731	222	
	16 Fluoranthene	202	6.629	6.625	(1.174)	327668	1.85399	1220	
	17 Pyrene	202	6.832	6.828	(1.210)	292411	1.60915	1060	
$	7 Terphenyl-d14 (S)	244	6.954	6.950	(1.232)	76658	0.56452	37.2(R)	
	18 Benzo(a)anthracene	228	7.923	7.917	(0.999)	175226	1.02653	677	
*	4 Chrysene-d12 (IS)	240	7.935	7.929	(1.000)	623801	4.00000		
	19 Chrysene	228	7.958	7.952	(1.003)	178057	1.01841	671	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.894	8.884	(0.965)	269472	1.86257	1230(Q)	
21 Benzo(k)fluoranthene	252	8.914	8.909	(0.967)	106620	0.61338	404(QM)	WP
22 Benzo(a)pyrene	252	9.169	9.164	(0.995)	149750	1.08803	717	
* 5 Perylene-d12 (IS)	264	9.218	9.209	(1.000)	554394	4.00000		
23 Dibenz(a,h)anthracene	278	10.043	10.039	(1.089)	21658	0.14520	95.7(Q)	
24 Indeno(1,2,3-cd)pyrene	276	10.039	10.034	(1.089)	66259	0.36758	242	
25 Benzo[g,h,i]perylene	276	10.255	10.245	(1.112)	56320	0.37948	250	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Pace Analytical Services, Inc.

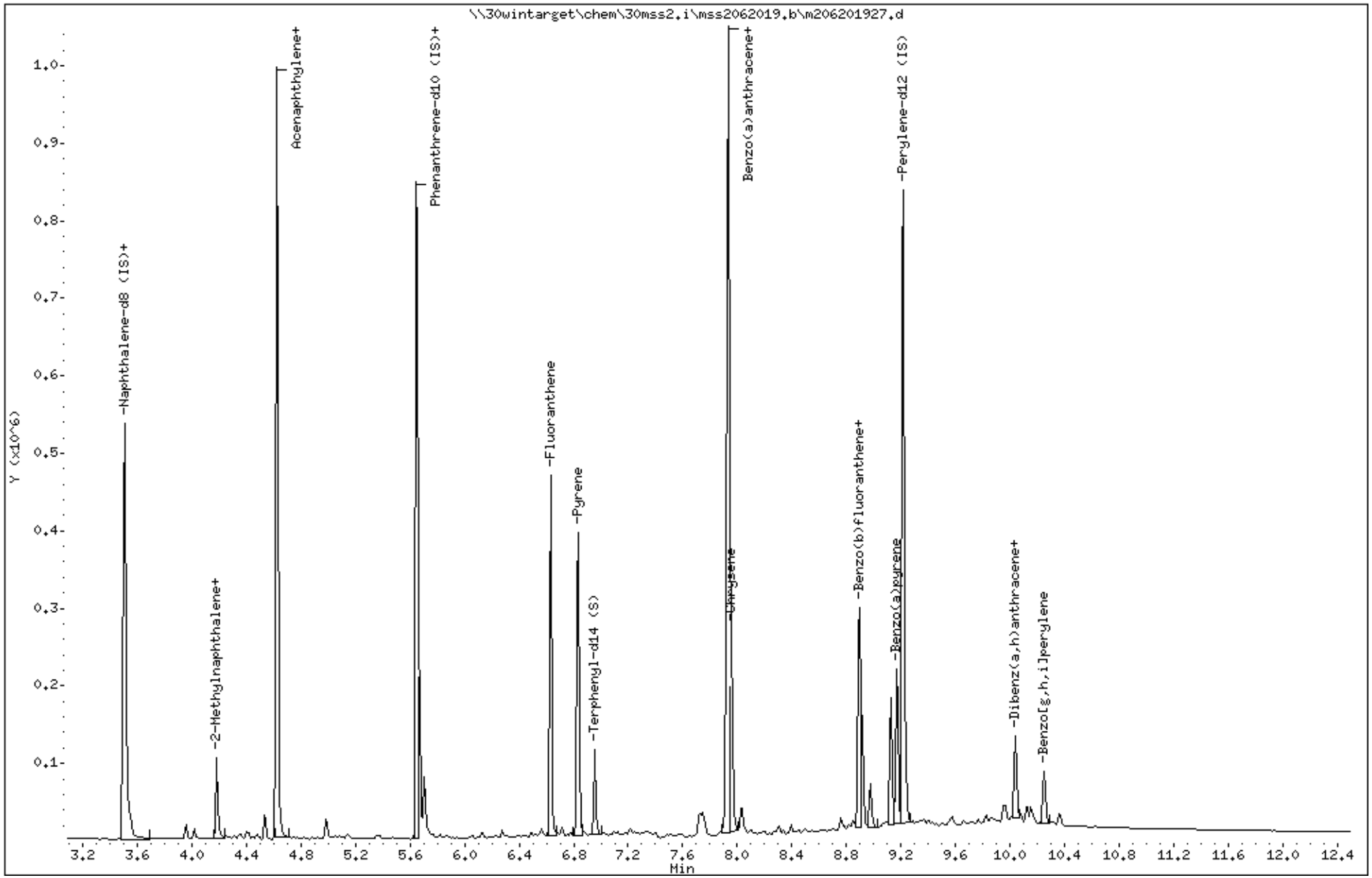
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30300161
Lab Smp Id: 30300161001
Client Smp ID: AOC 26-1
Sample Location:
Sample Point:
Sample Date: 17-JUN-2019
Date Received: 18-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14727,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0989	U
91-20-3	Naphthalene	96.6	
91-57-6	2-Methylnaphthalene	64.6	
90-12-0	1-Methylnaphthalene	43.5	
208-96-8	Acenaphthylene	91.4	
83-32-9	Acenaphthene	34.4	
86-73-7	Fluorene	59.0	
85-01-8	Phenanthrene	503	
120-12-7	Anthracene	222	
206-44-0	Fluoranthene	1220	
129-00-0	Pyrene	1060	
56-55-3	Benzo(a)anthracene	677	
218-01-9	Chrysene	671	
205-99-2	Benzo(b)fluoranthene	1230	
207-08-9	Benzo(k)fluoranthene	404	
50-32-8	Benzo(a)pyrene	717	
53-70-3	Dibenz(a,h)anthracene	95.7	
193-39-5	Indeno(1,2,3-cd)pyrene	242	
191-24-2	Benzo[g,h,i]perylene	250	
321-60-8	2-Fluorobiphenyl (S)	31.0	
1718-51-0	Terphenyl-d14 (S)	37.2	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d
Date : 20-JUN-2019 18:26
Client ID: AOC 26-1
Sample Info: 30300161001x10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

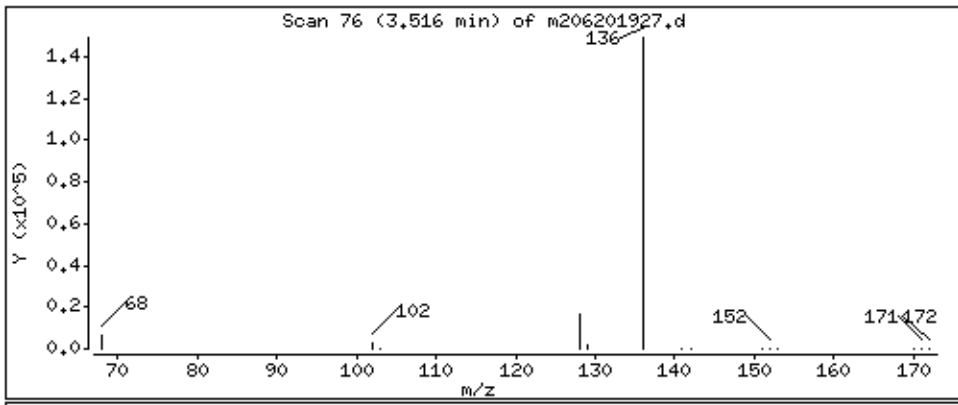
Operator: AJC

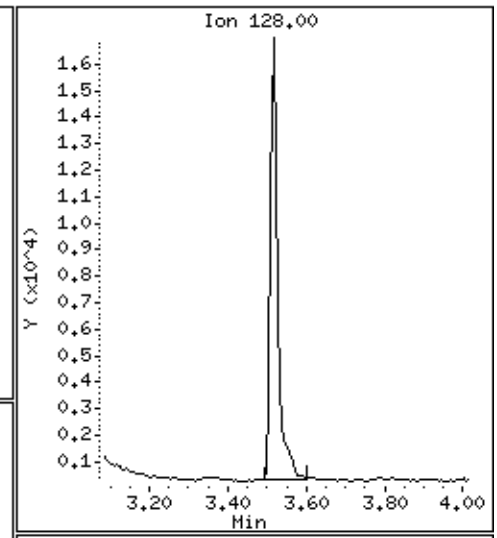
Column phase: RTX-5MS

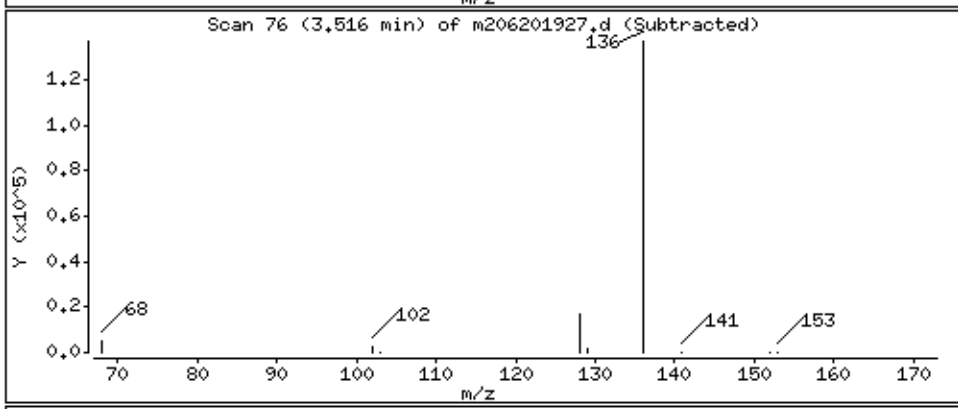
Column diameter: 0.25

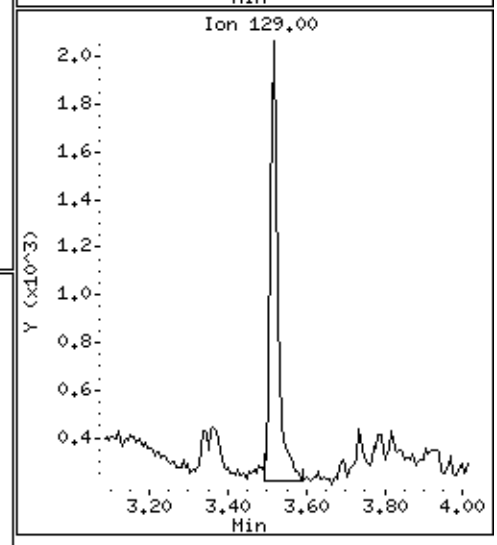
8 Naphthalene

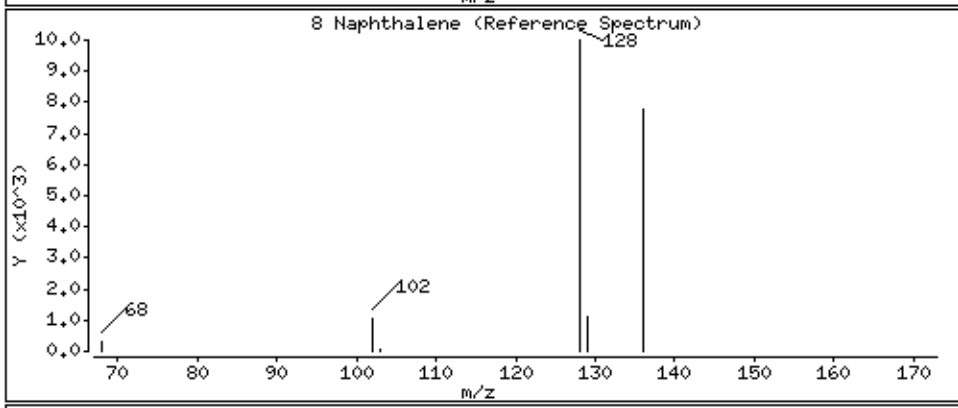
Concentration: 96.6 ug/Kg

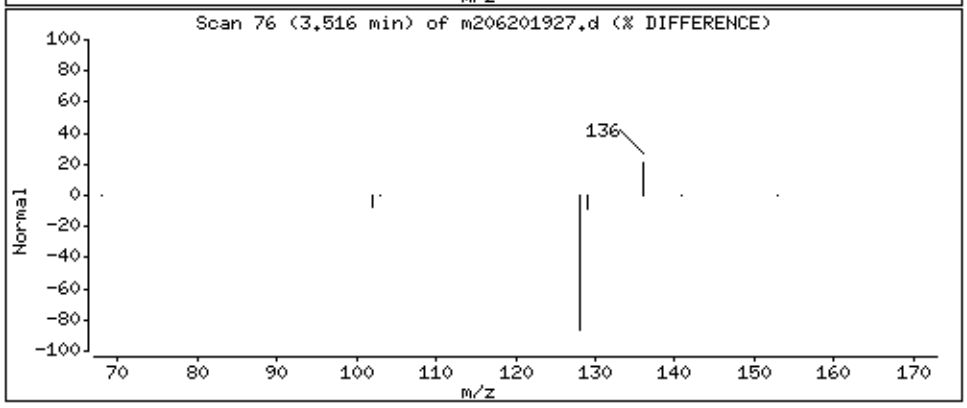












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

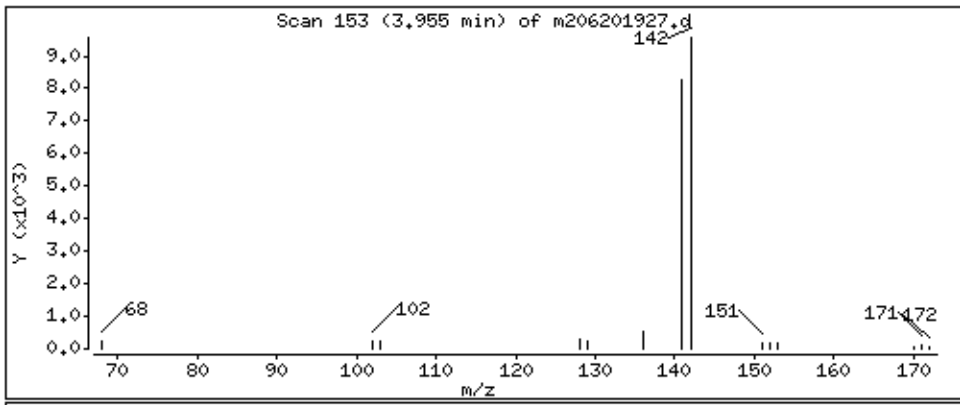
Operator: AJC

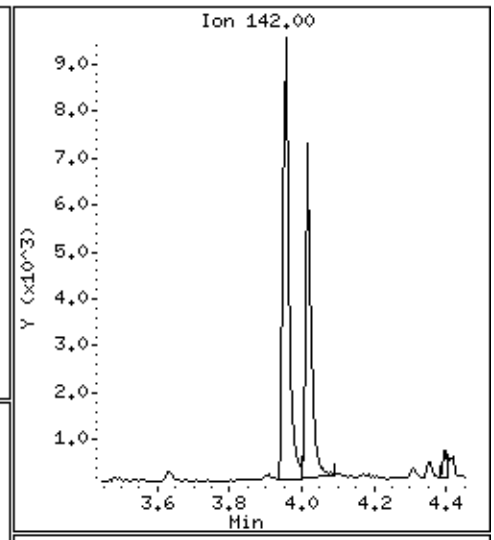
Column phase: RTX-5MS

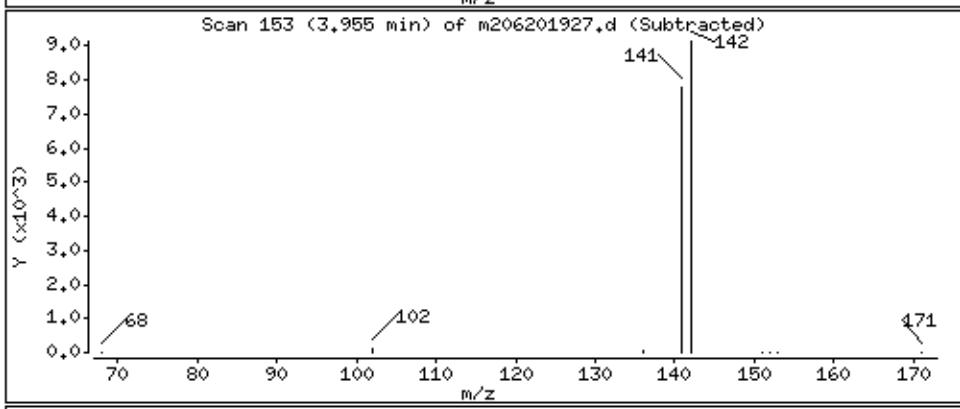
Column diameter: 0.25

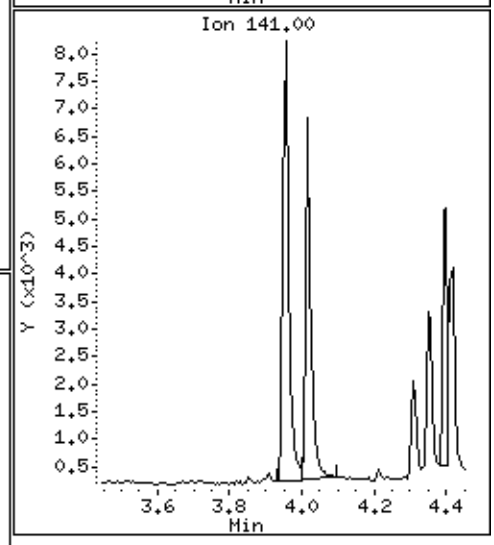
9 2-Methylnaphthalene

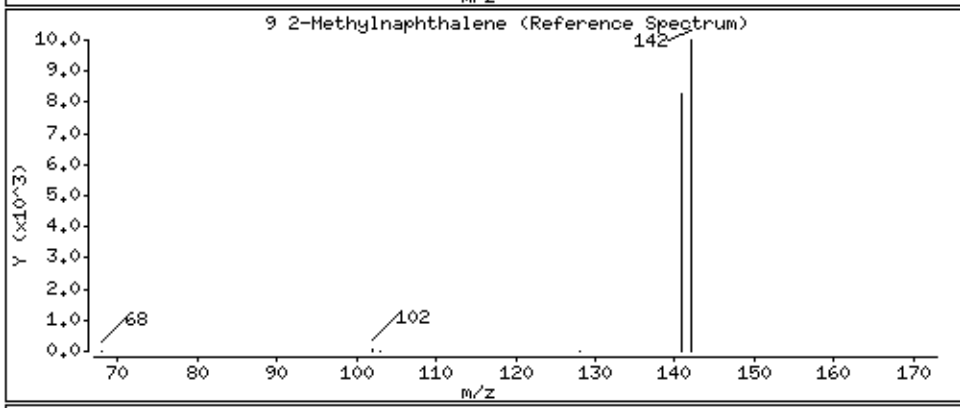
Concentration: 64.6 ug/Kg

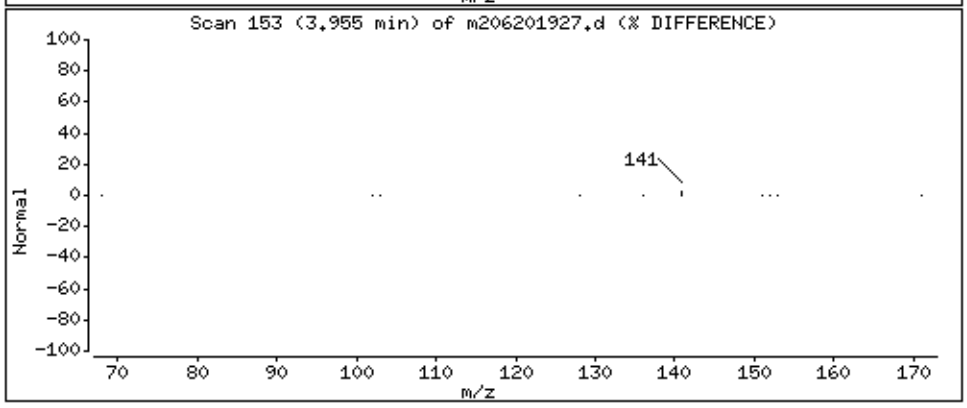












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

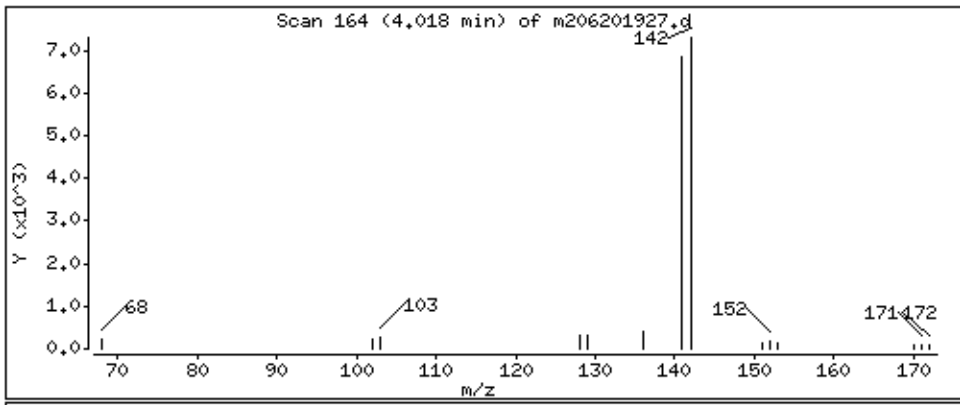
Operator: AJC

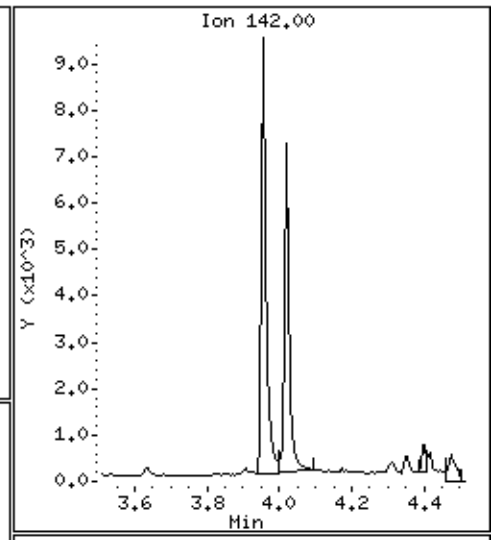
Column phase: RTX-5MS

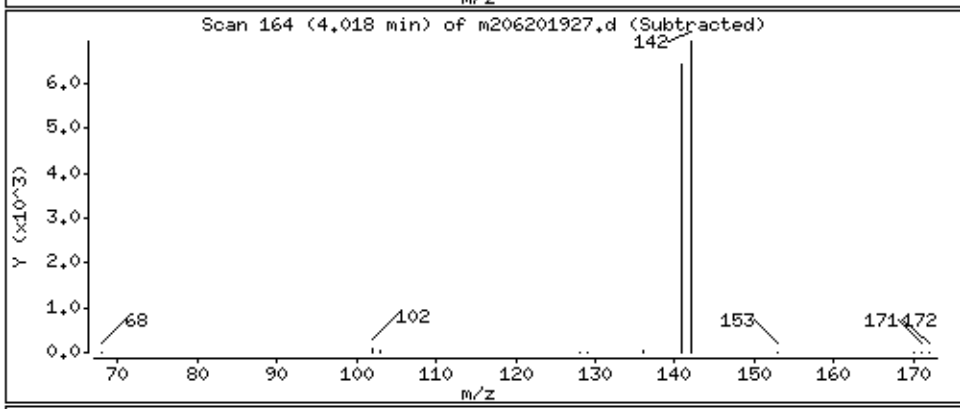
Column diameter: 0.25

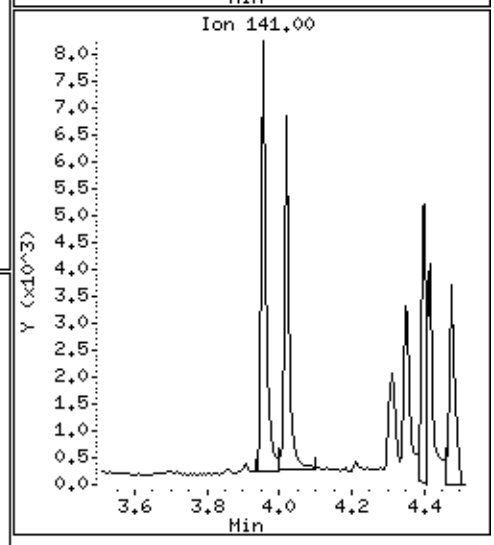
10 1-Methylnaphthalene

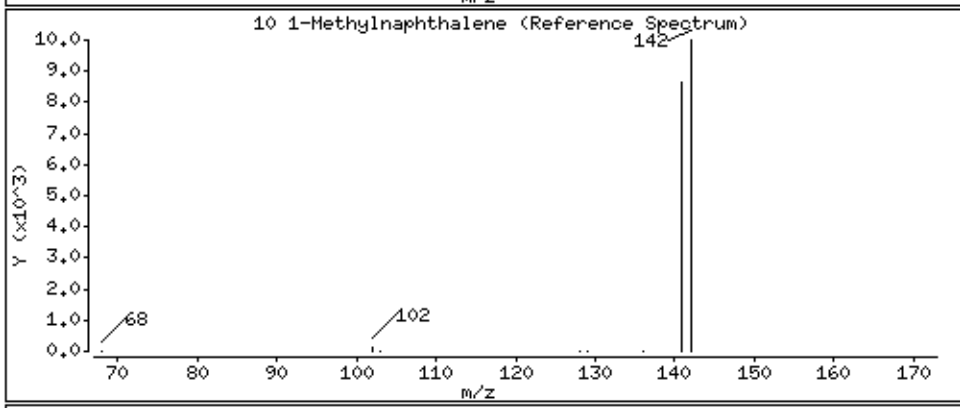
Concentration: 43.5 ug/Kg

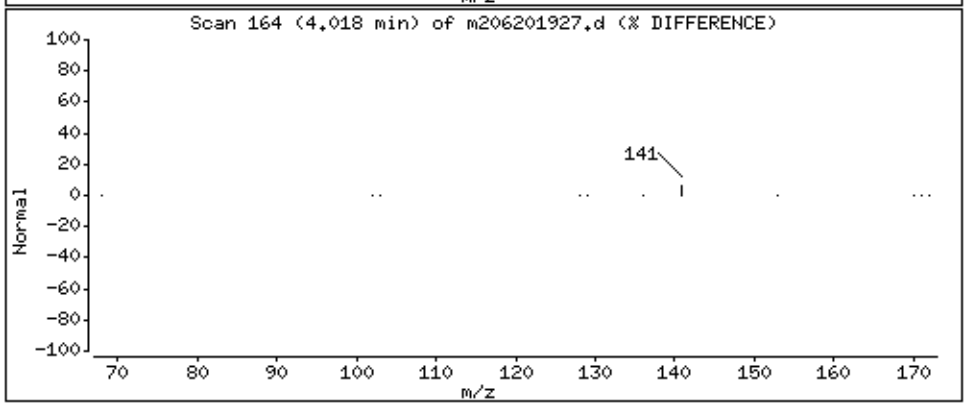












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

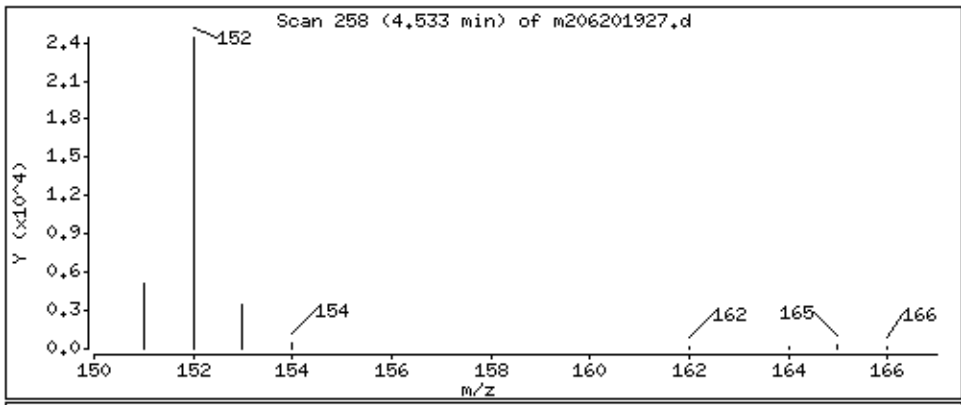
Operator: AJC

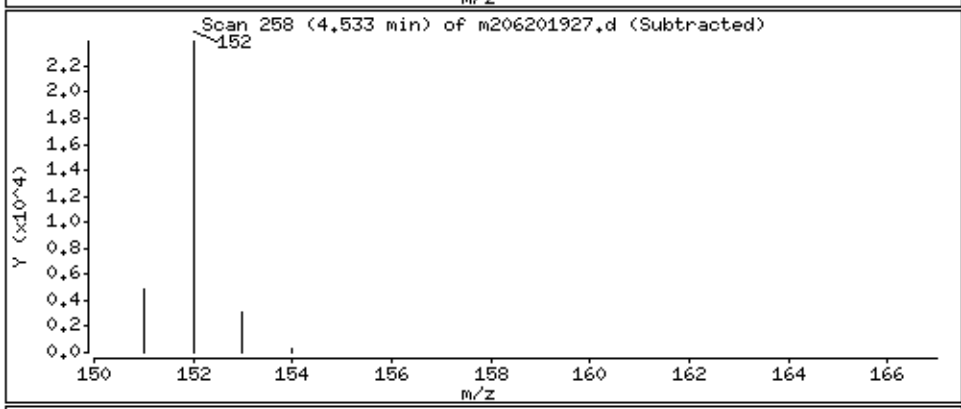
Column phase: RTX-5MS

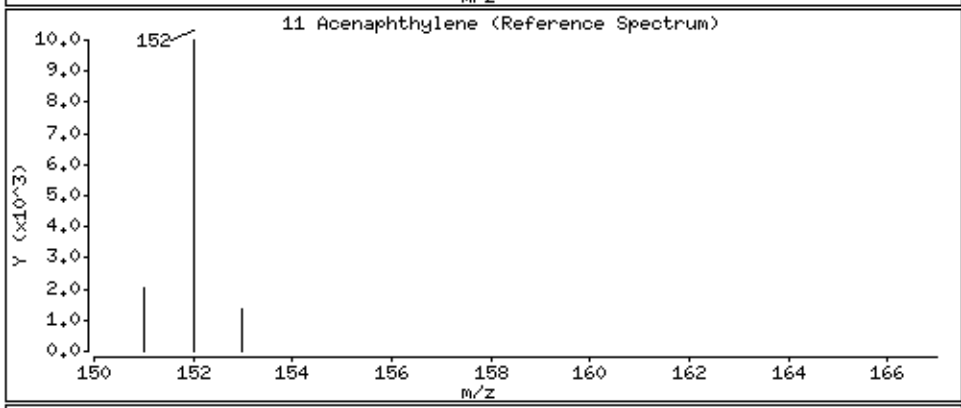
Column diameter: 0.25

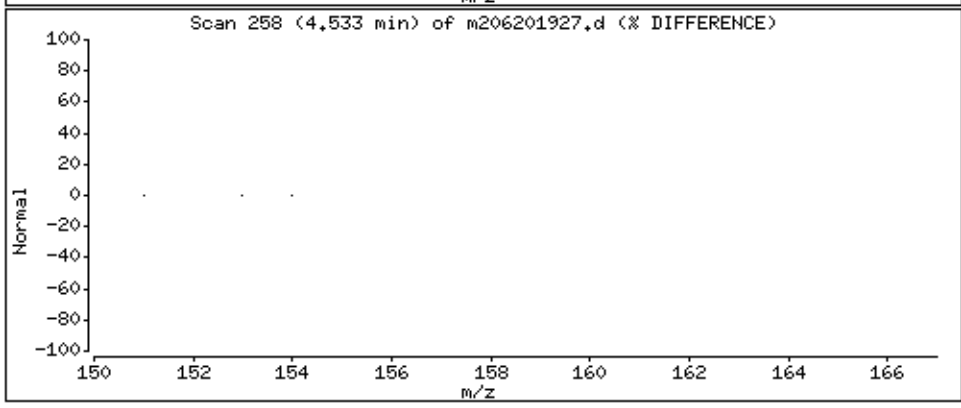
11 Acenaphthylene

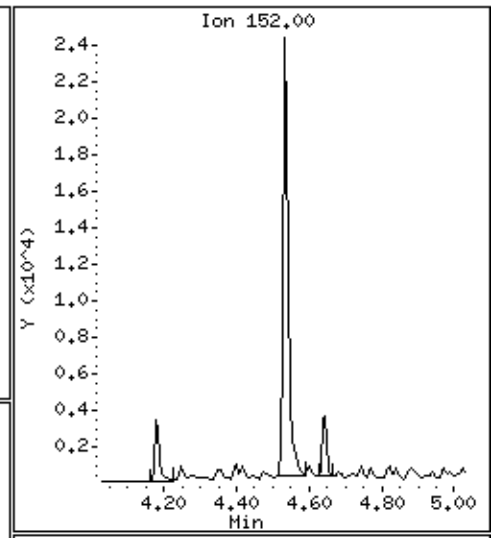
Concentration: 91.4 ug/Kg

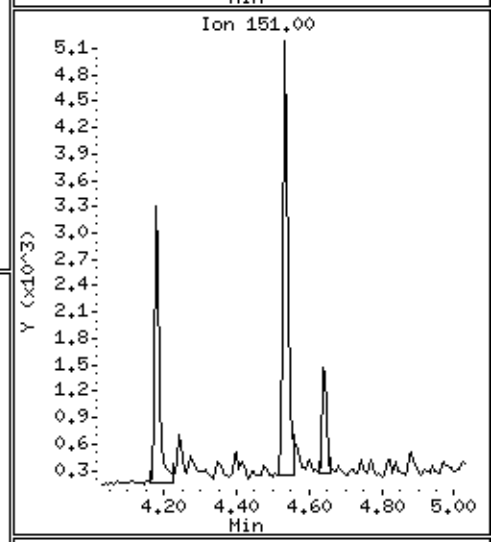


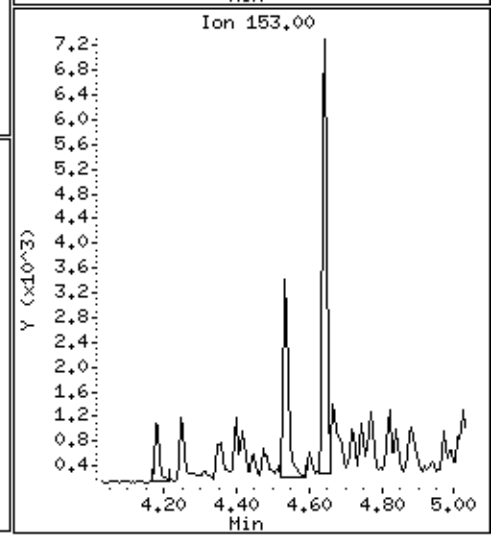












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

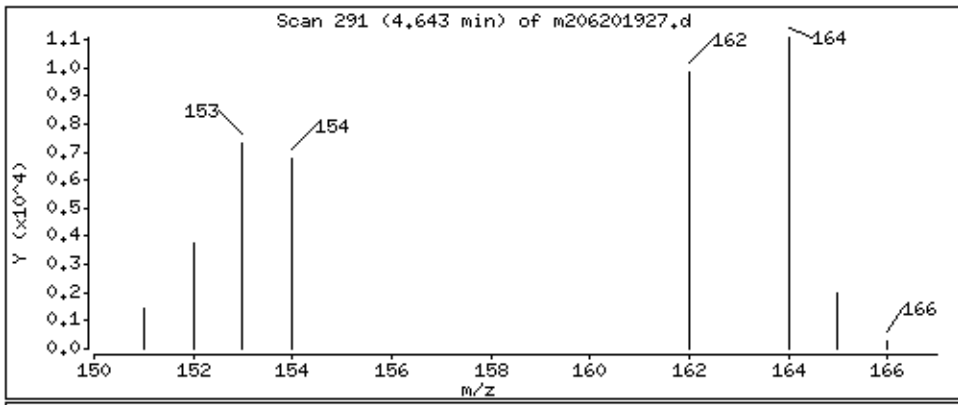
Operator: AJC

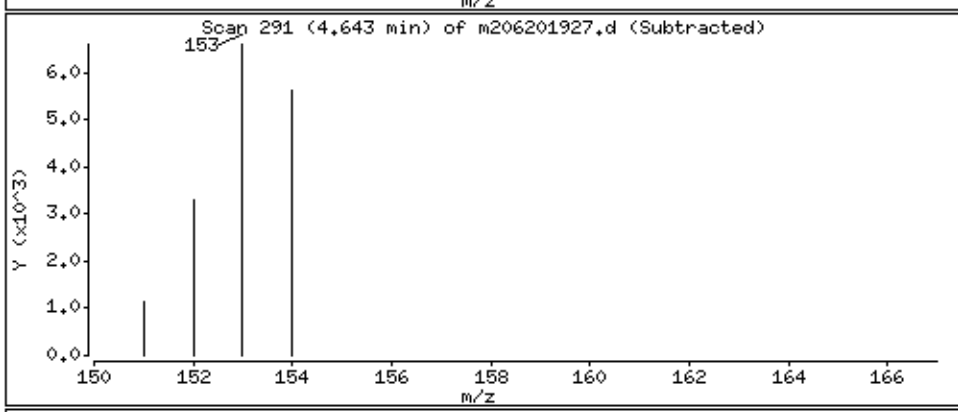
Column phase: RTX-5MS

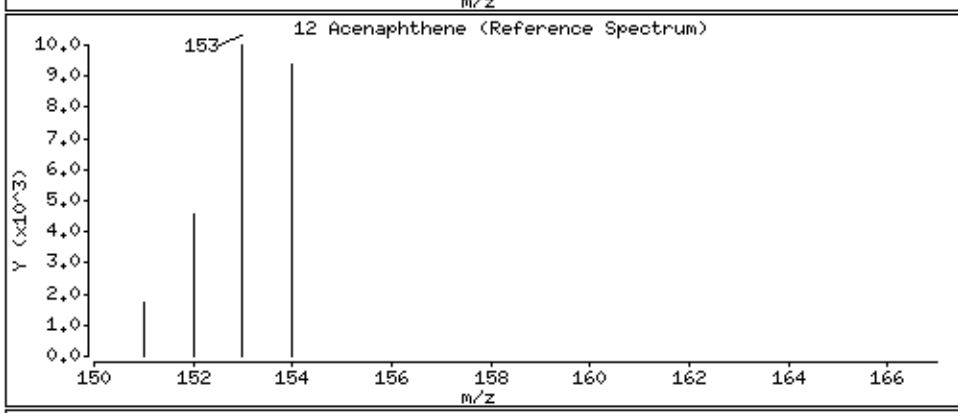
Column diameter: 0.25

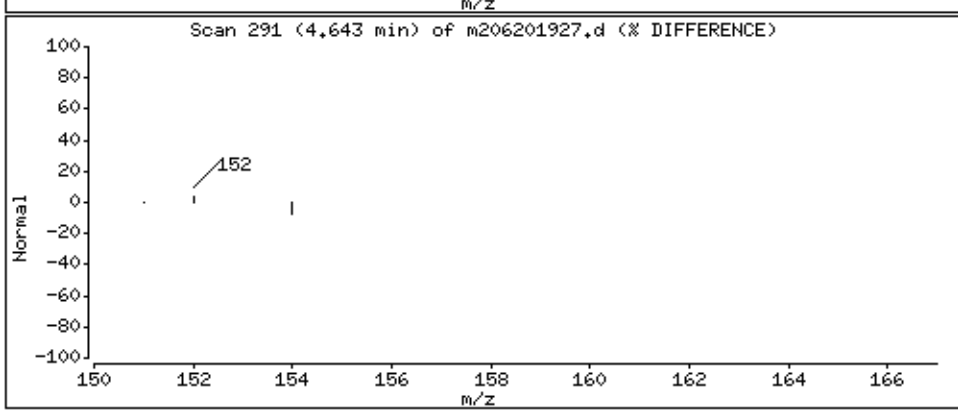
12 Acenaphthene

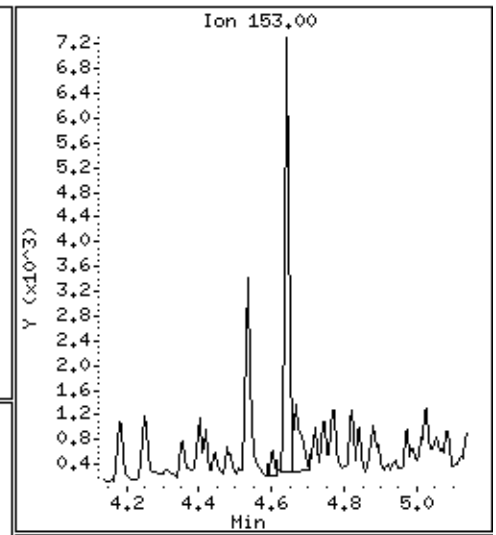
Concentration: 34.4 ug/Kg

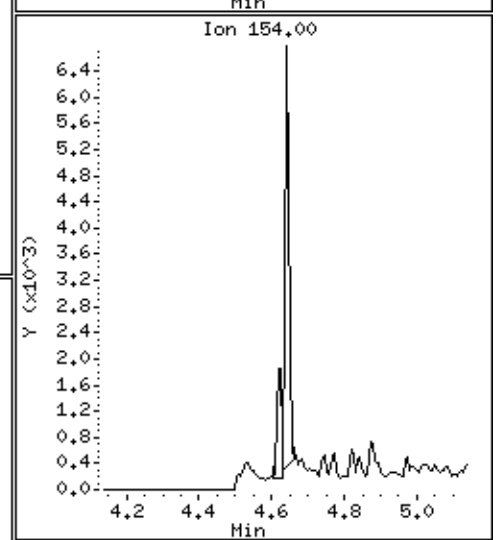


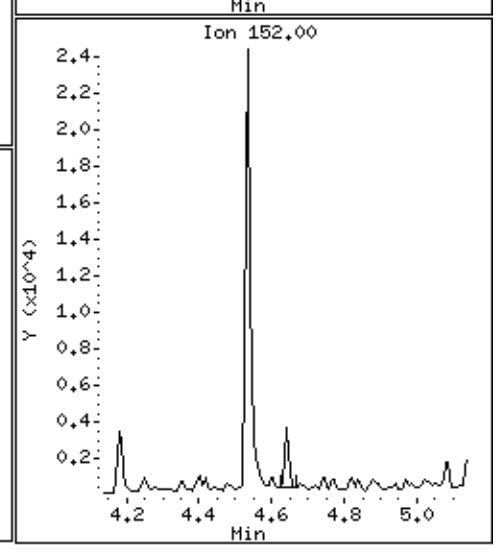












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

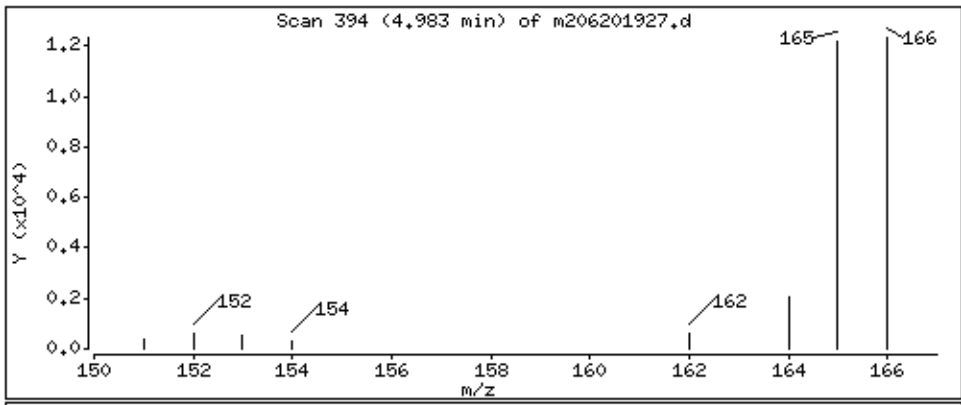
Operator: AJC

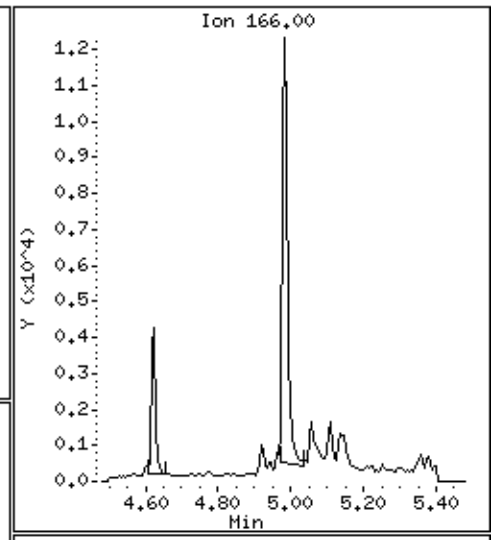
Column phase: RTX-5MS

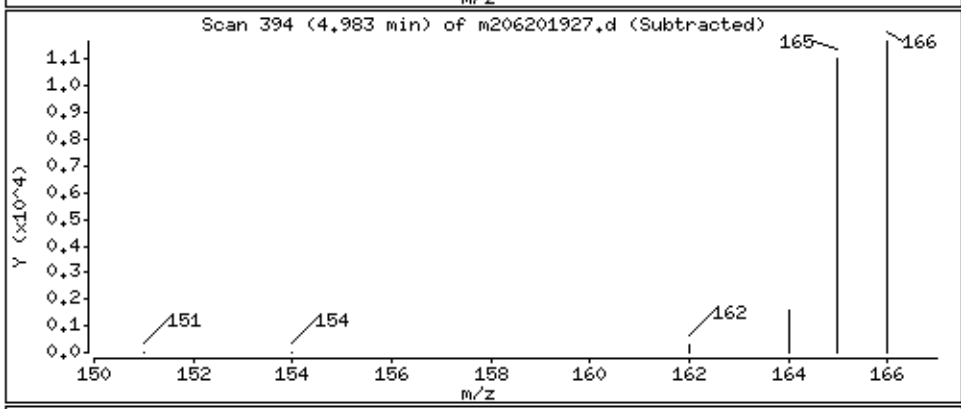
Column diameter: 0.25

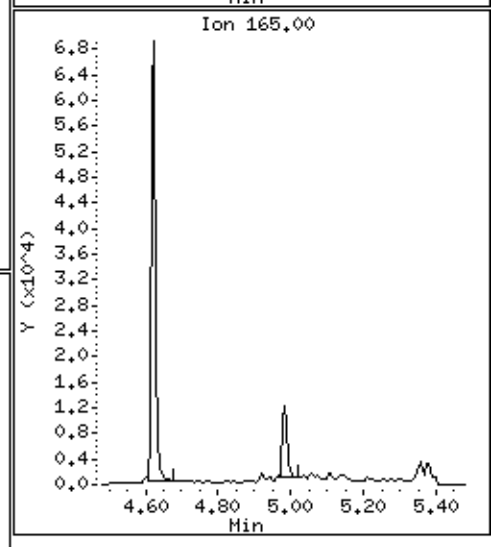
13 Fluorene

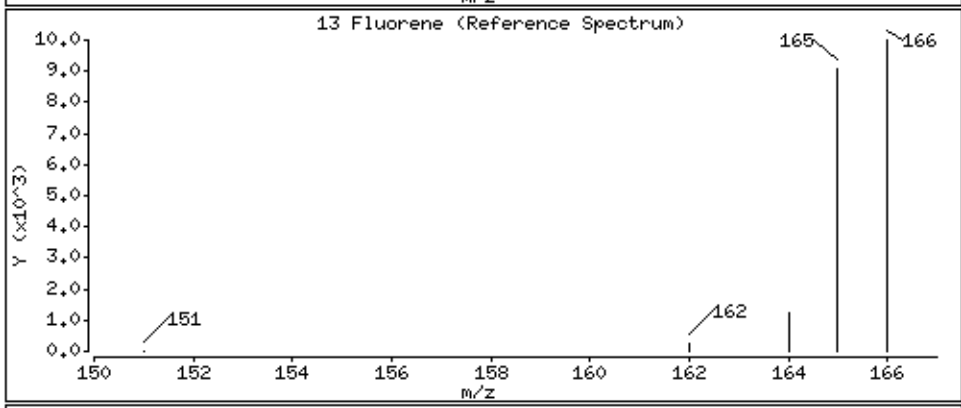
Concentration: 59.0 ug/Kg

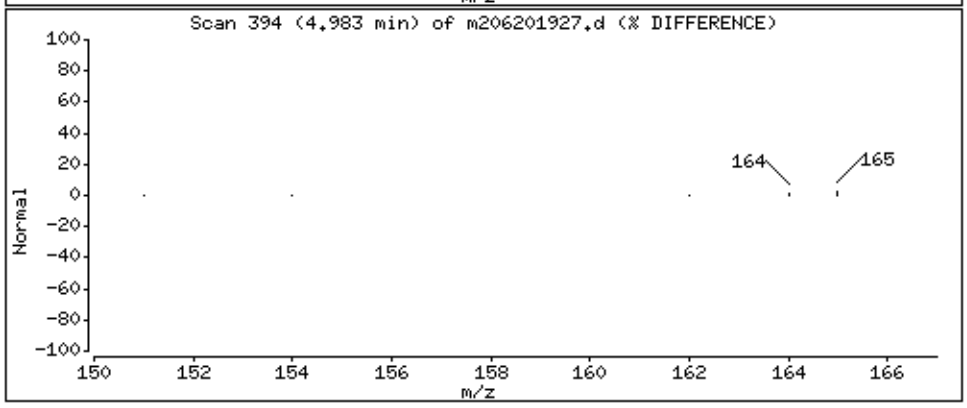












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

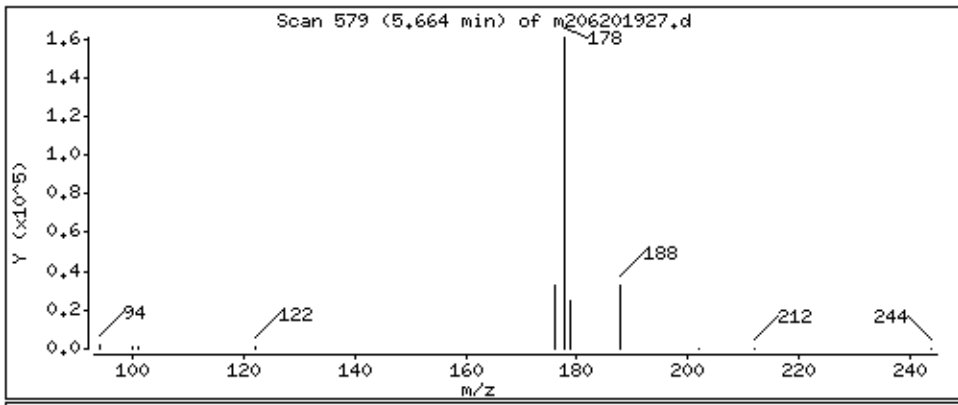
Operator: AJC

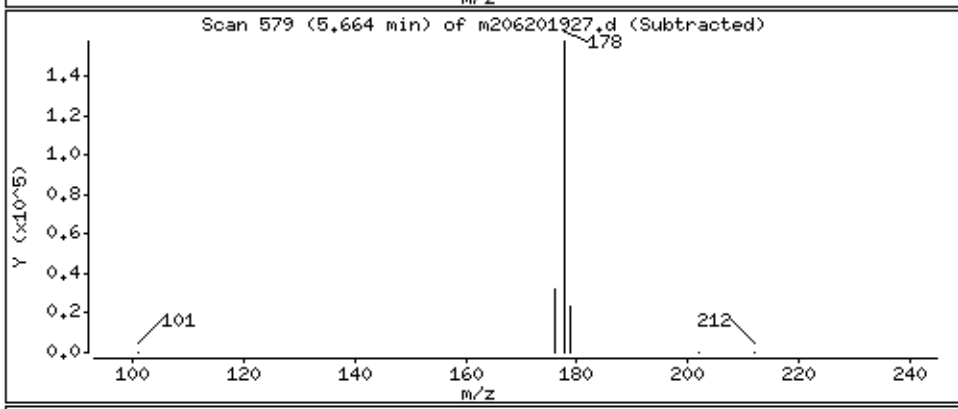
Column phase: RTX-5MS

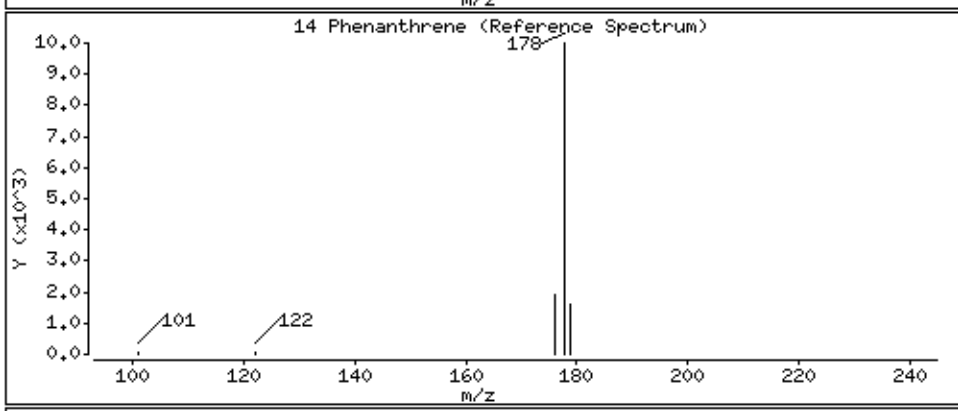
Column diameter: 0.25

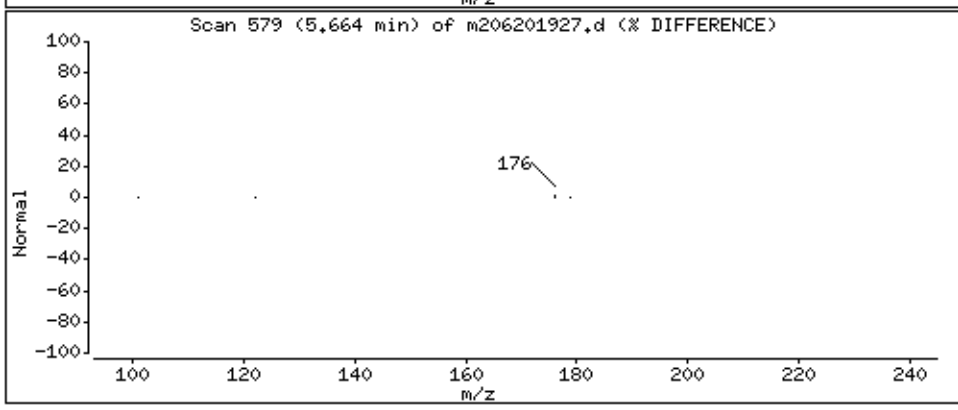
14 Phenanthrene

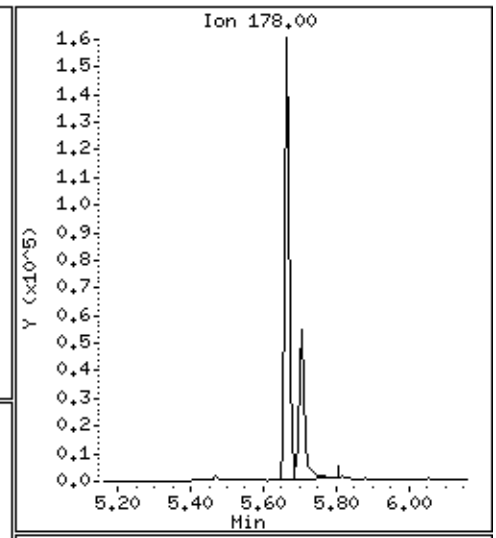
Concentration: 503 ug/Kg

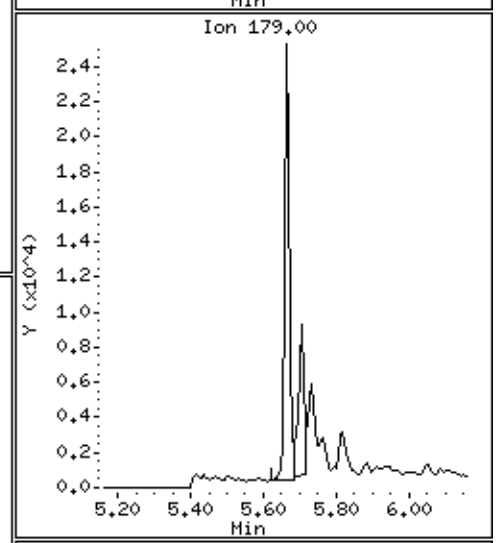


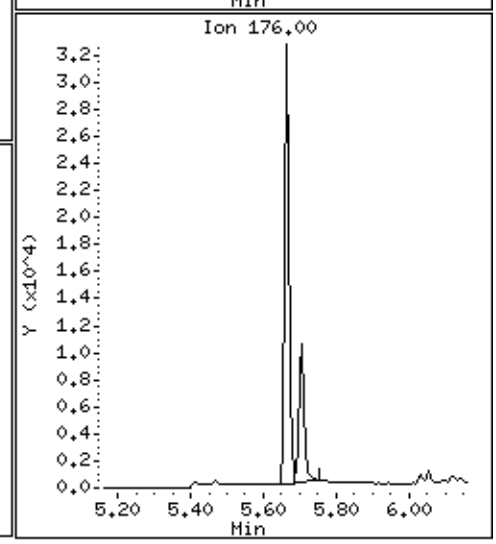












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

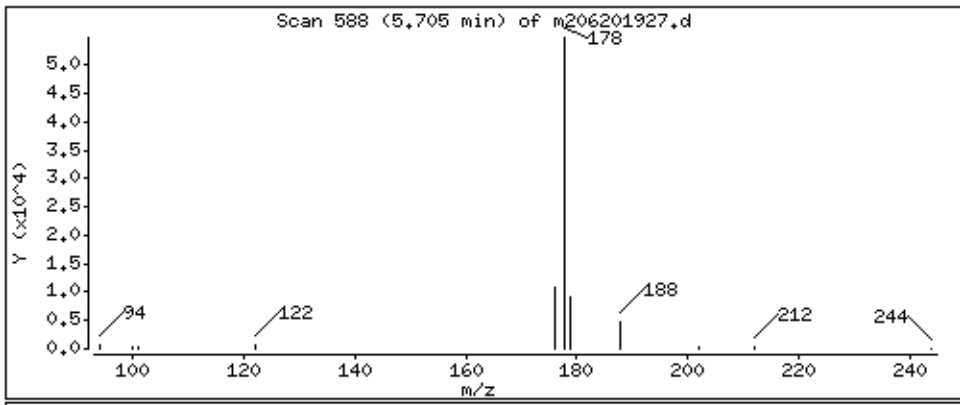
Operator: AJC

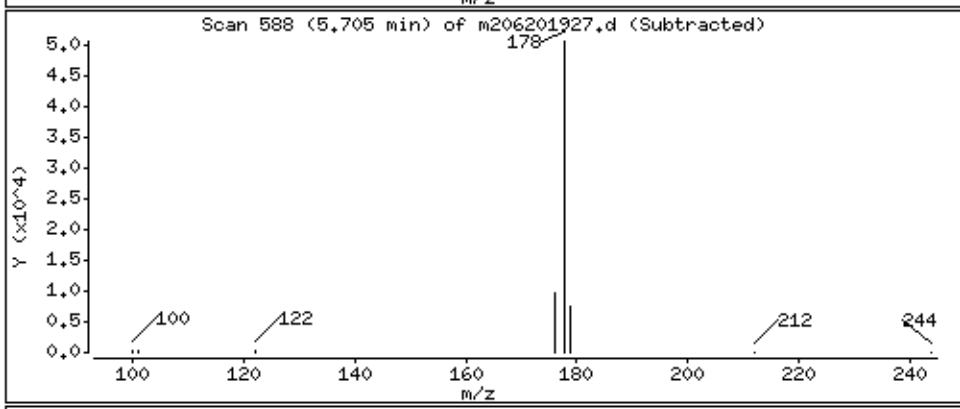
Column phase: RTX-5MS

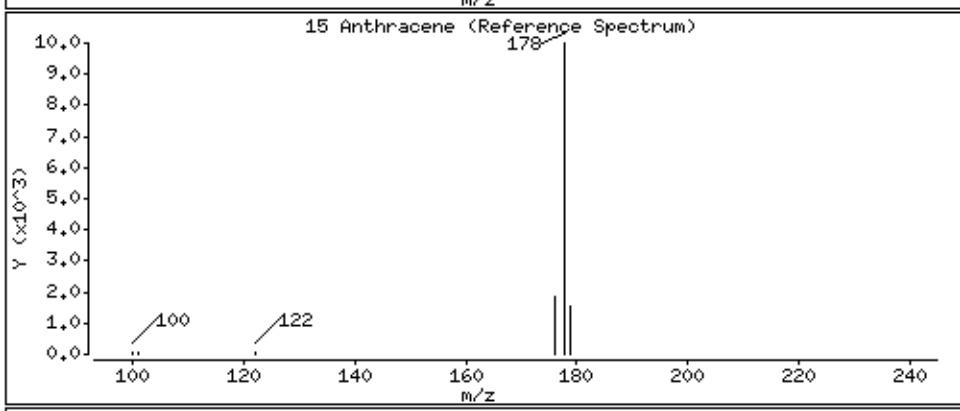
Column diameter: 0.25

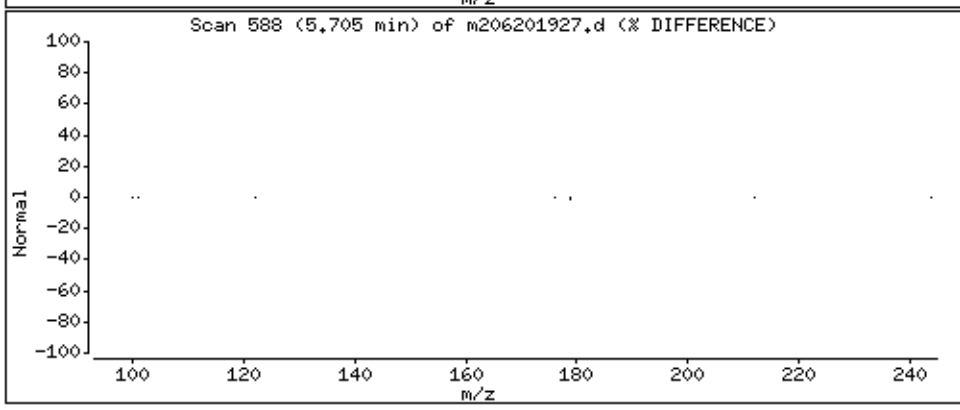
15 Anthracene

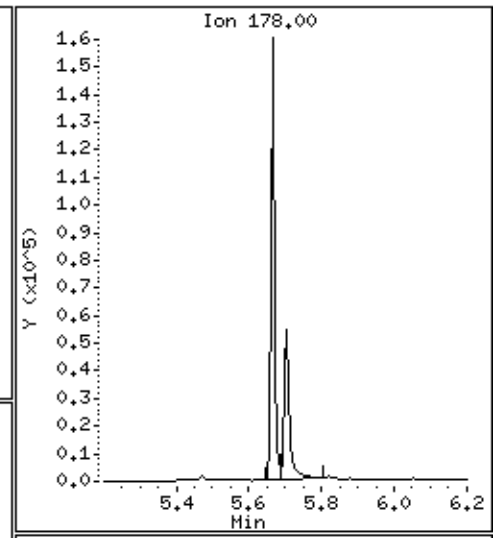
Concentration: 222 ug/Kg

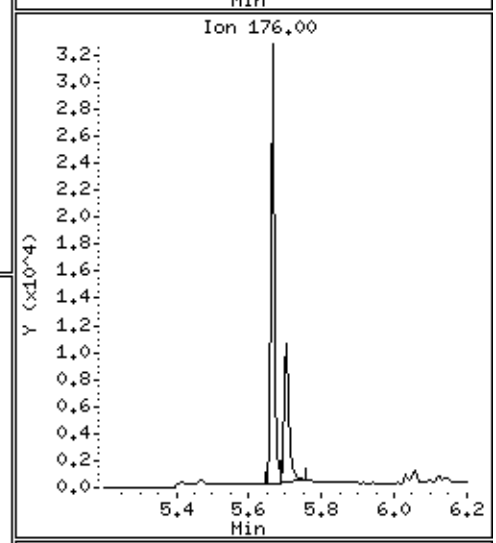


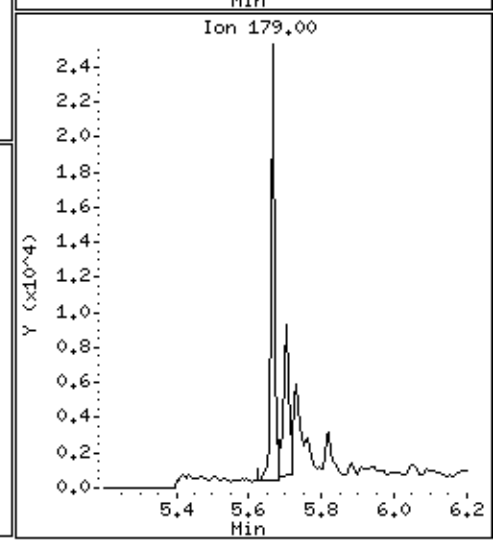












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

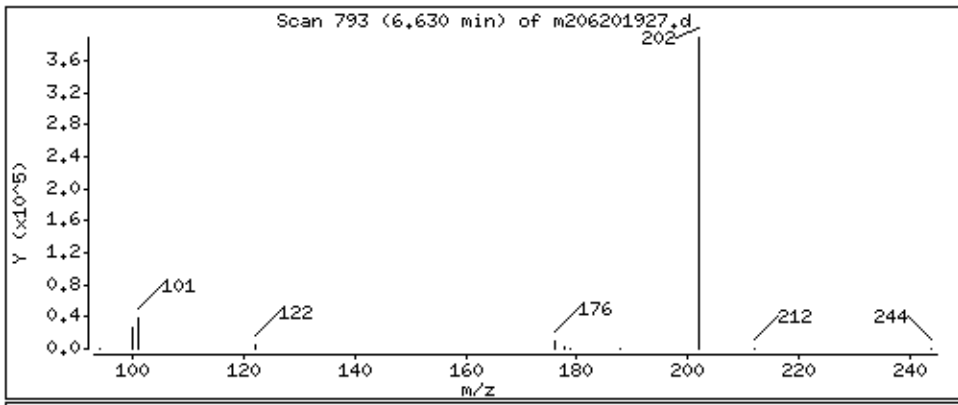
Operator: AJC

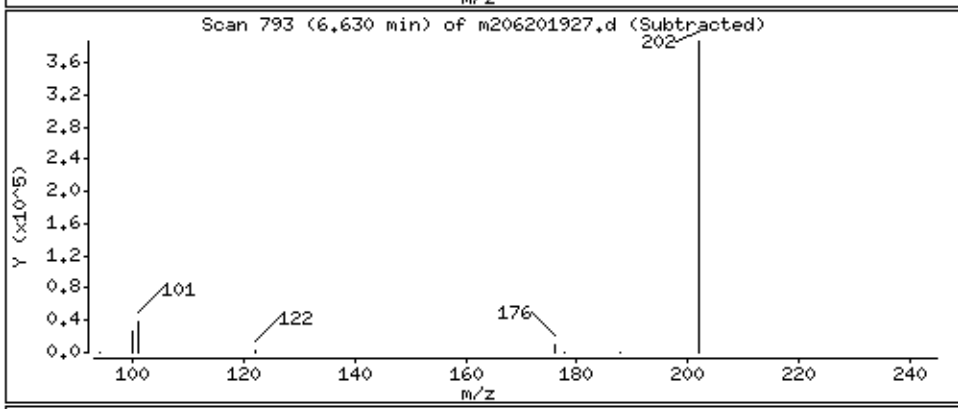
Column phase: RTX-5MS

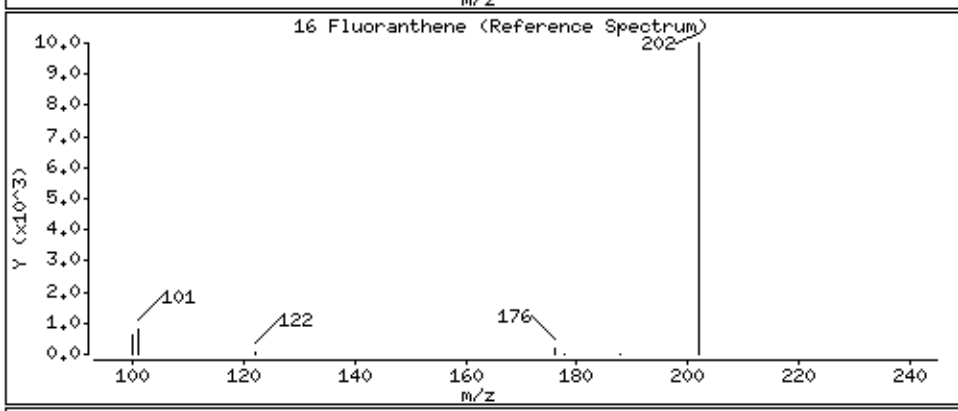
Column diameter: 0.25

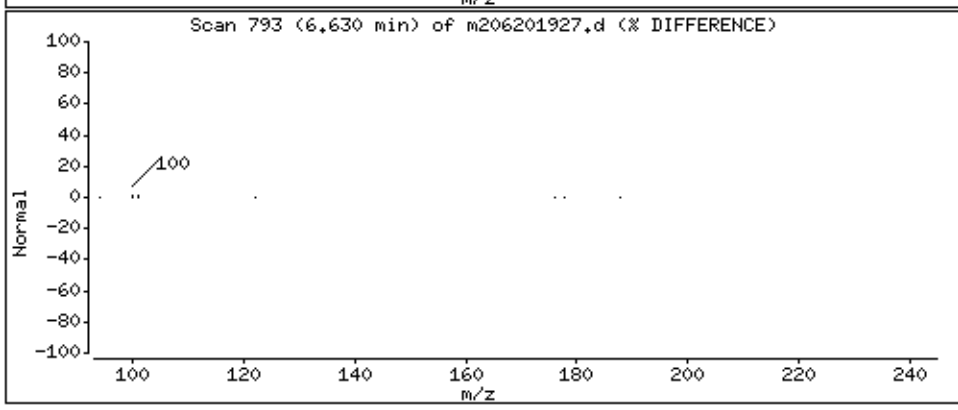
16 Fluoranthene

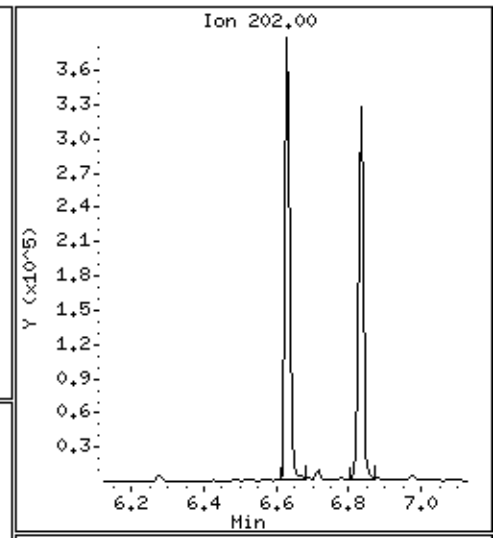
Concentration: 1220 ug/Kg

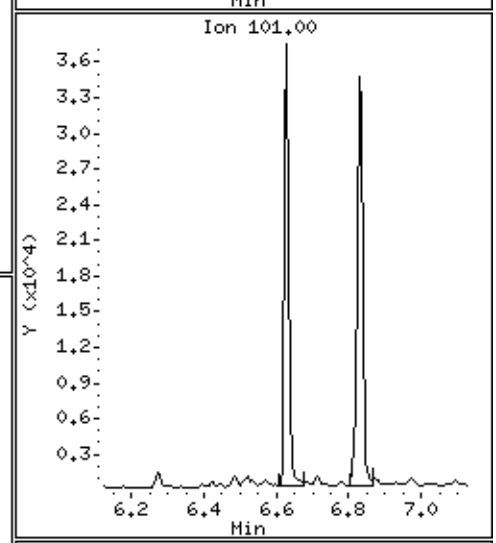


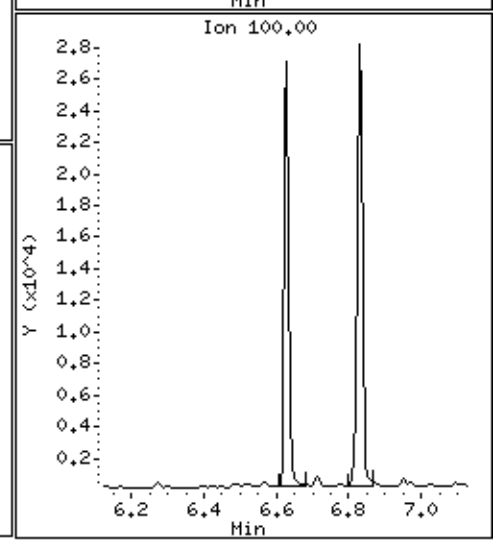












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

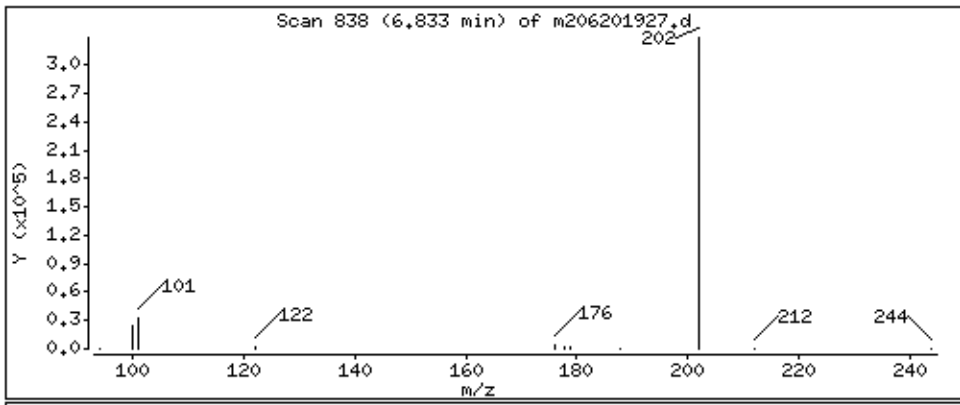
Operator: AJC

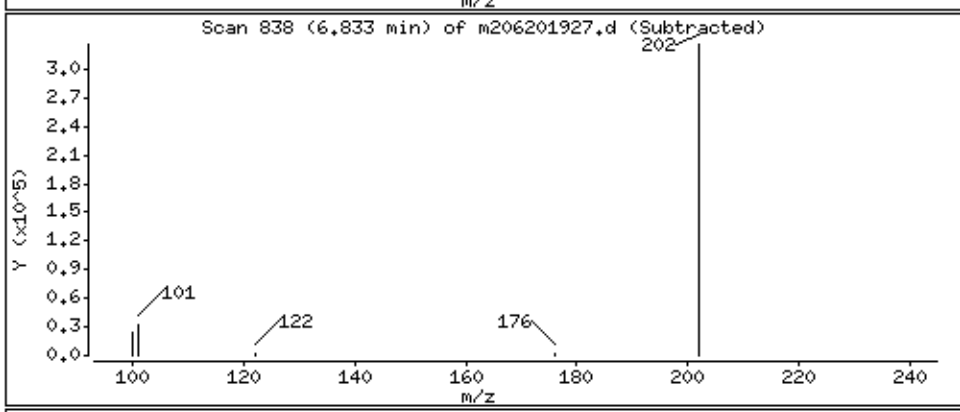
Column phase: RTX-5MS

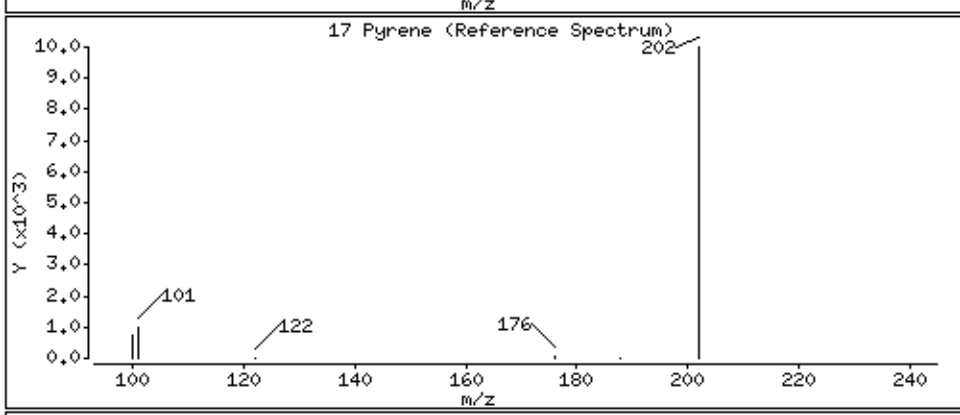
Column diameter: 0.25

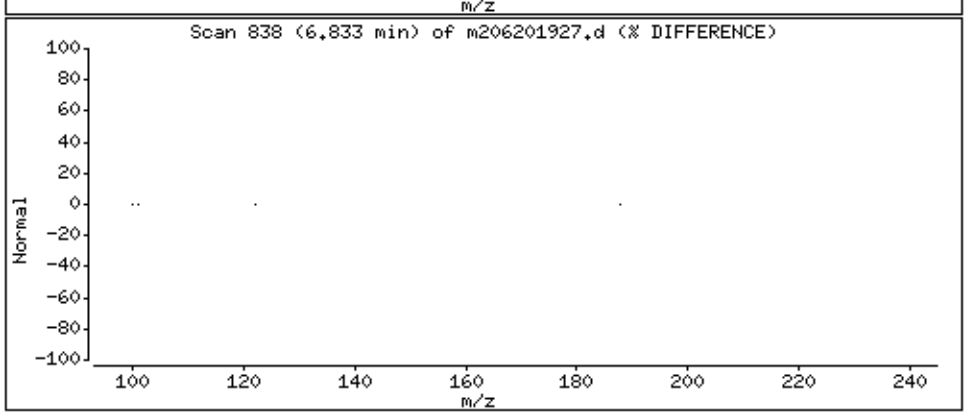
17 Pyrene

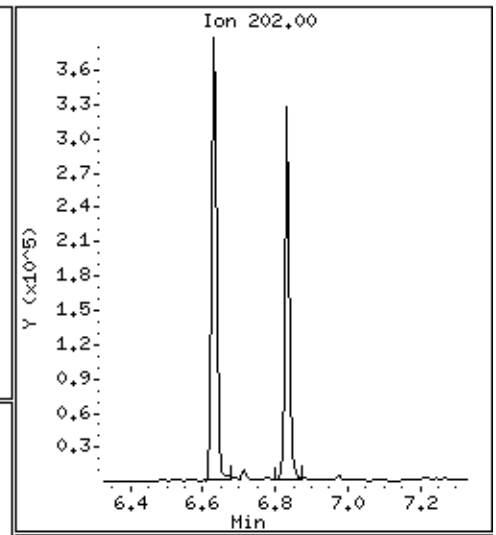
Concentration: 1060 ug/Kg

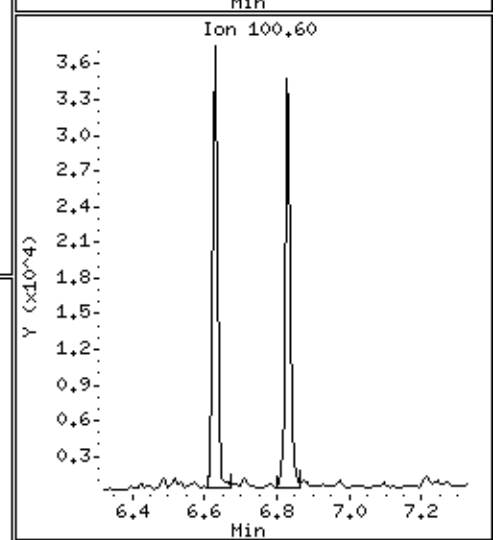












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

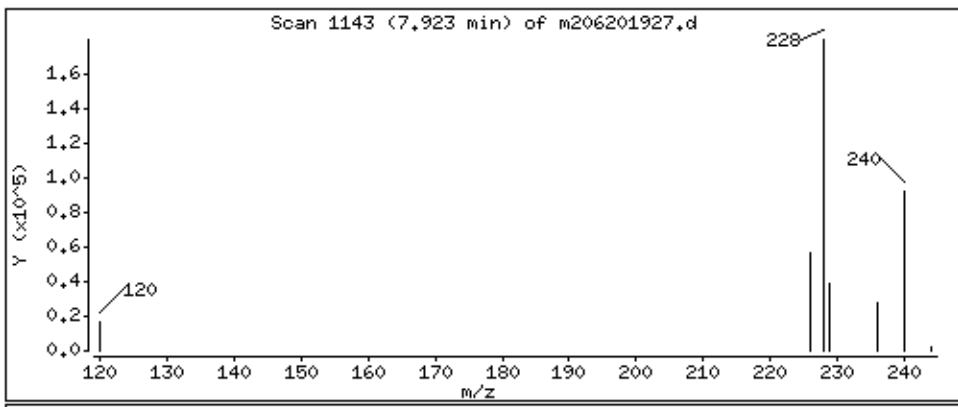
Operator: AJC

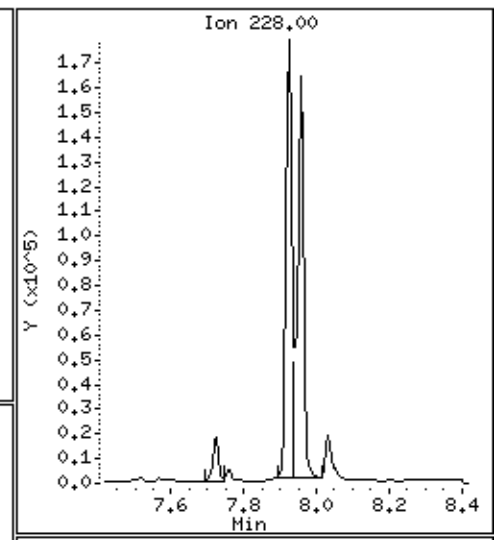
Column phase: RTX-5MS

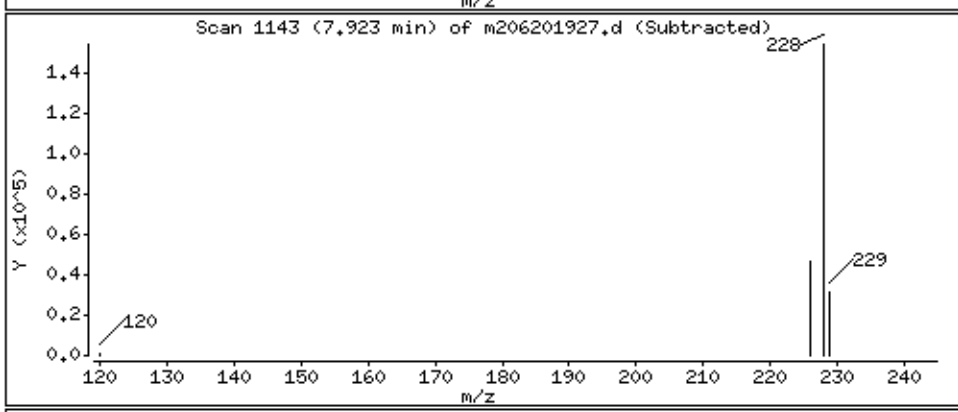
Column diameter: 0.25

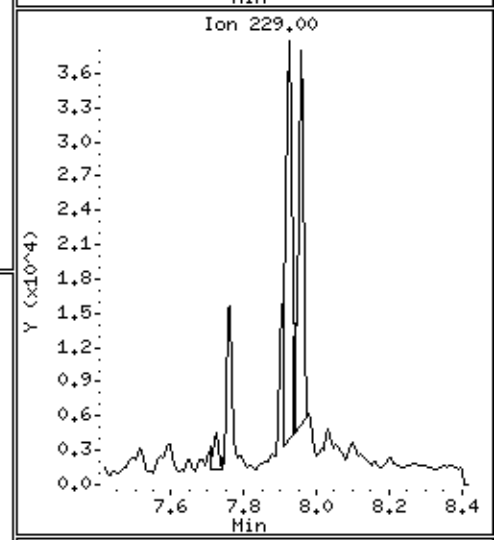
18 Benzo(a)anthracene

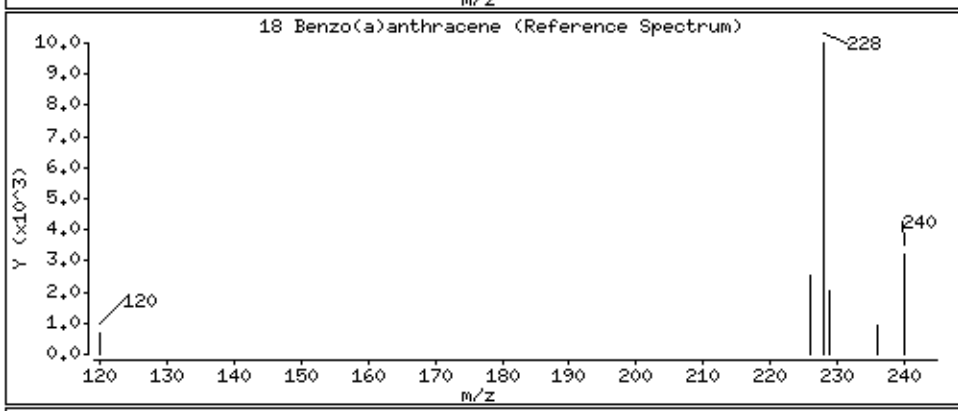
Concentration: 677 ug/Kg

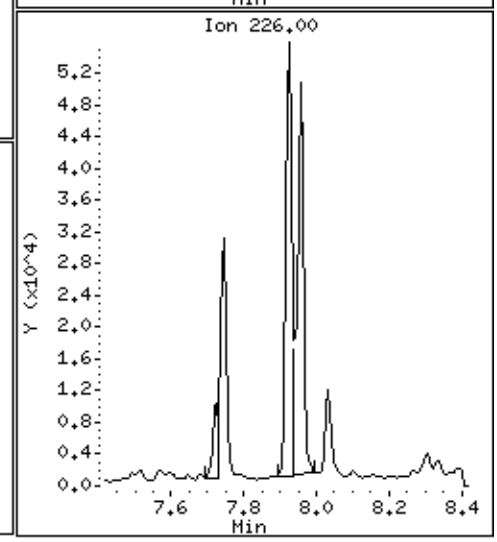


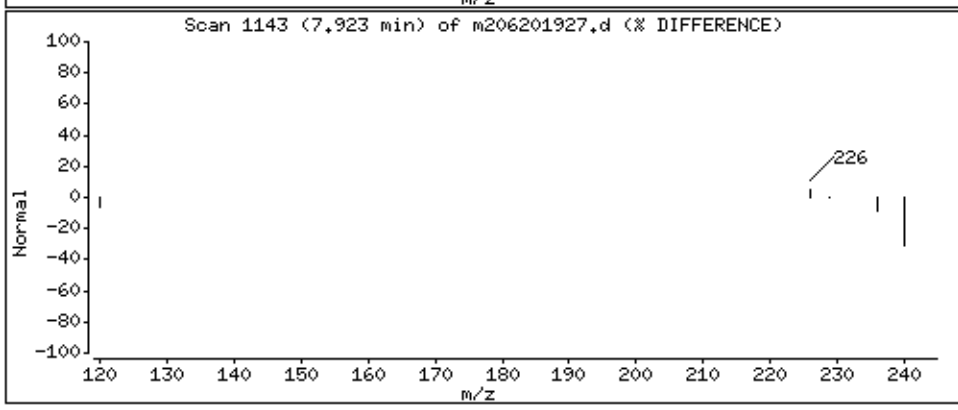












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Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

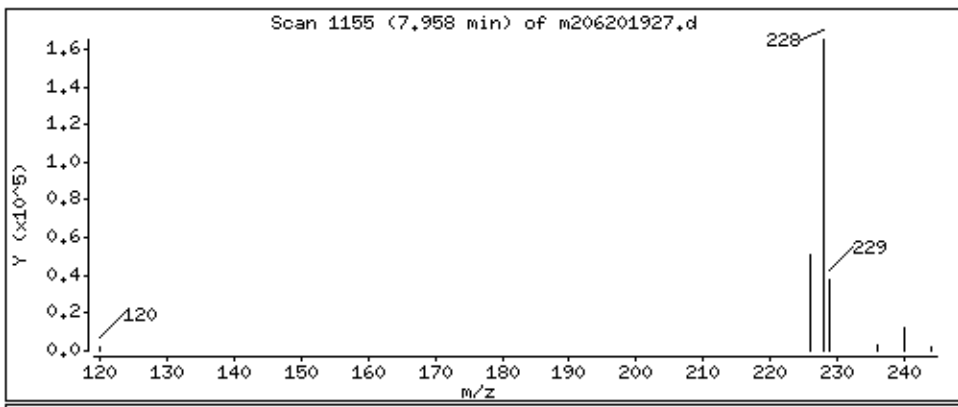
Operator: AJC

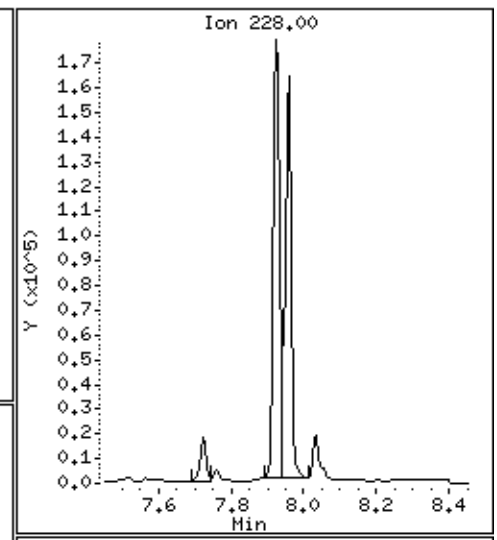
Column phase: RTX-5MS

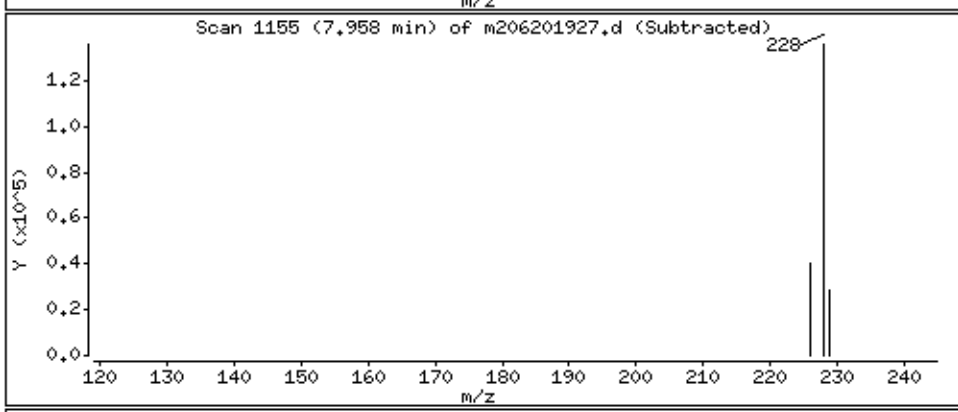
Column diameter: 0.25

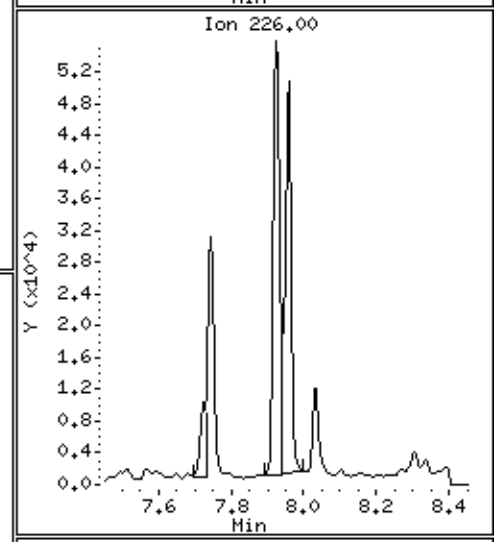
19 Chrysene

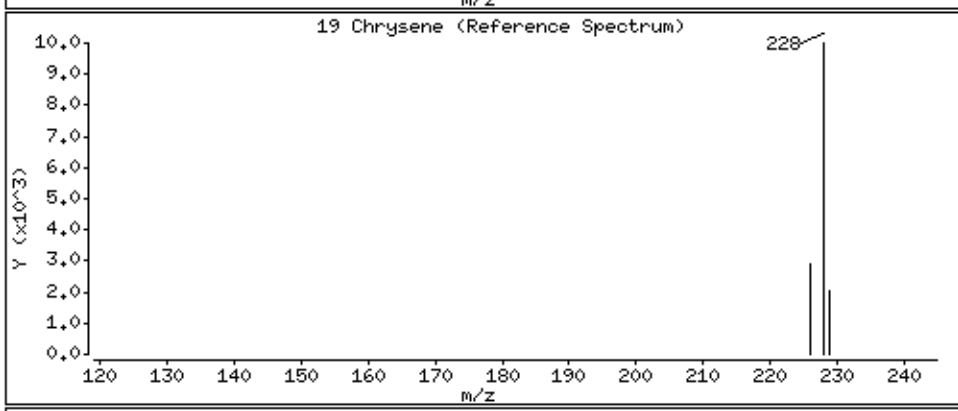
Concentration: 671 ug/Kg

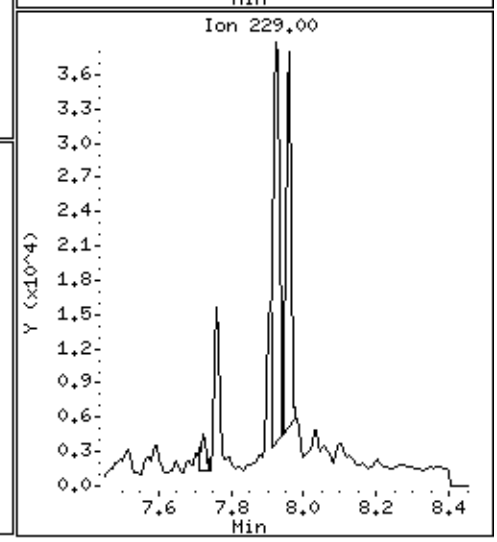


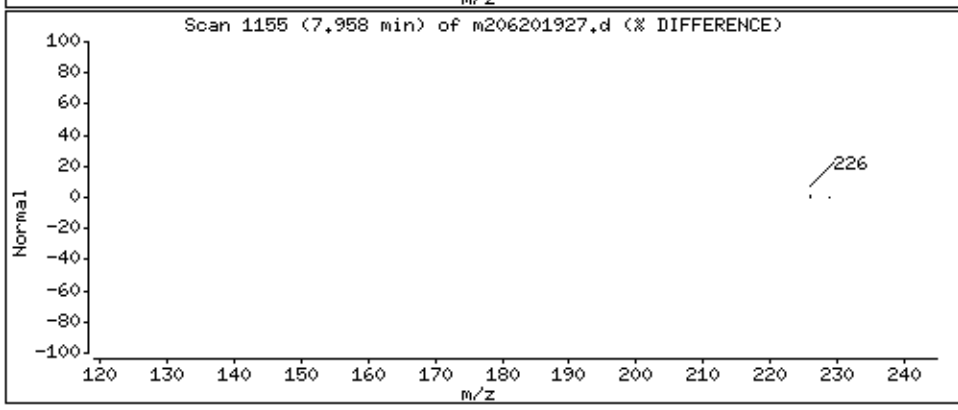












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

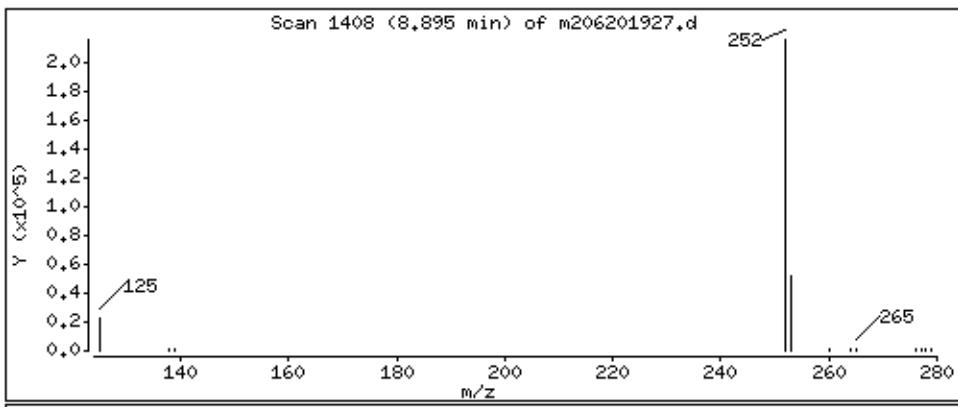
Client ID: AOC 26-1 Instrument: 30mss2.i

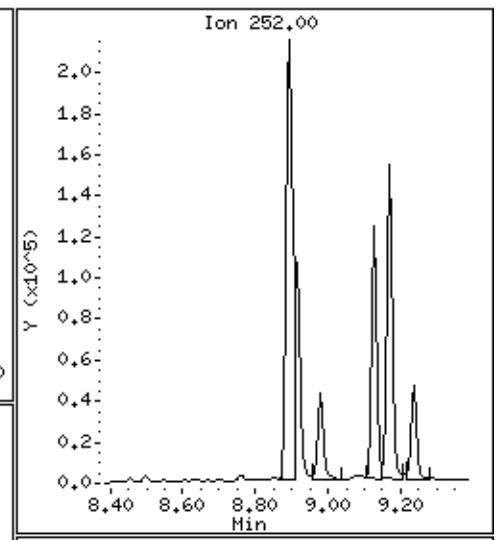
Sample Info: 30300161001x10,

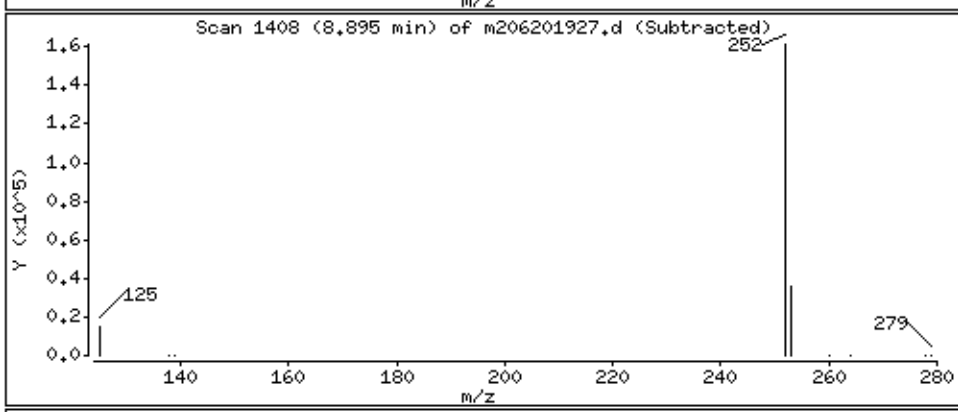
Volume Injected (uL): 1.0 Operator: AJC

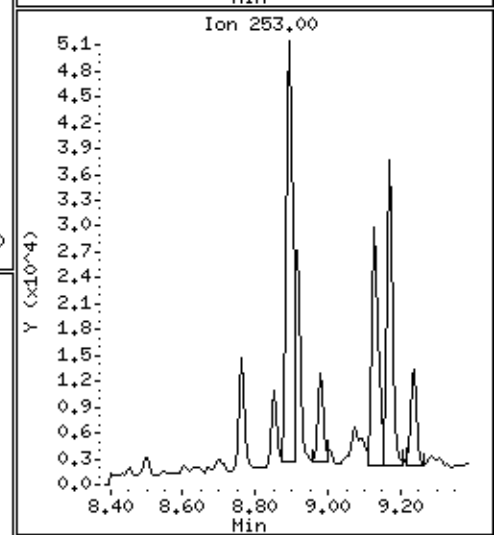
Column phase: RTX-5MS Column diameter: 0.25

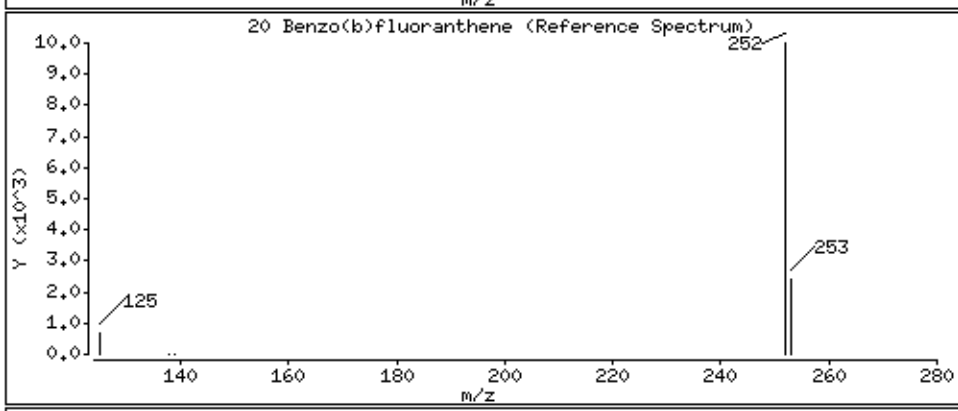
20 Benzo(b)fluoranthene Concentration: 1230 ug/Kg

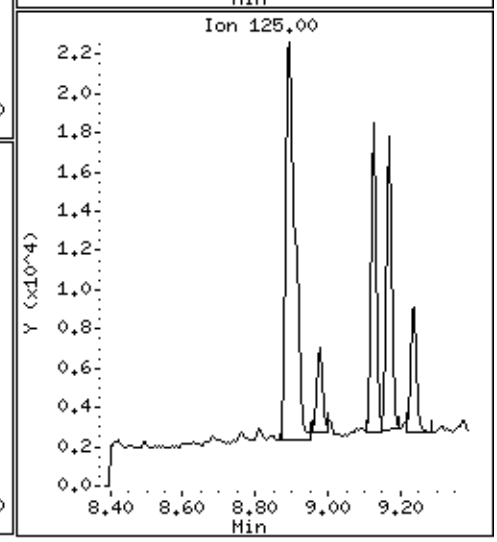


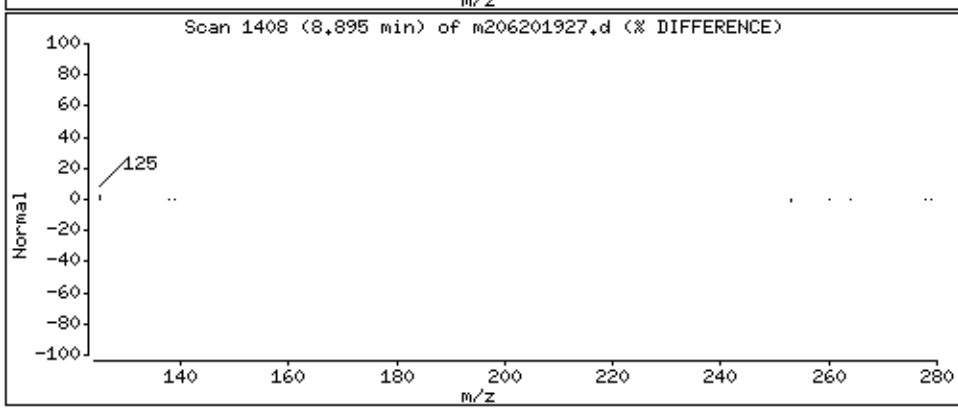












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

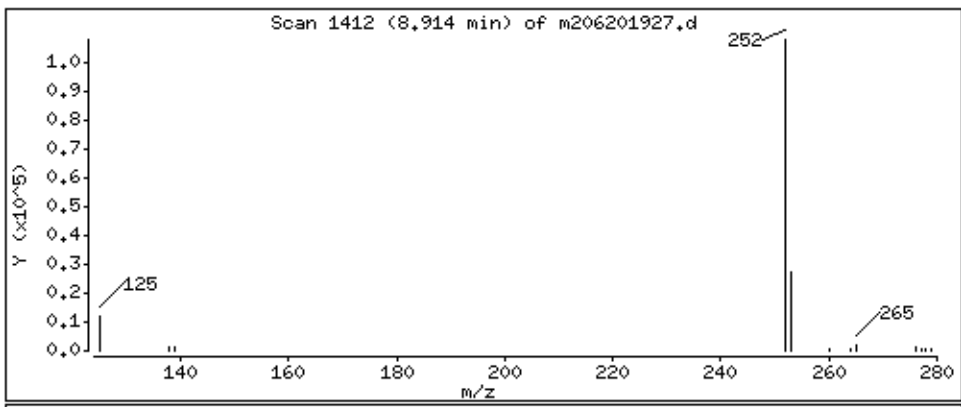
Operator: AJC

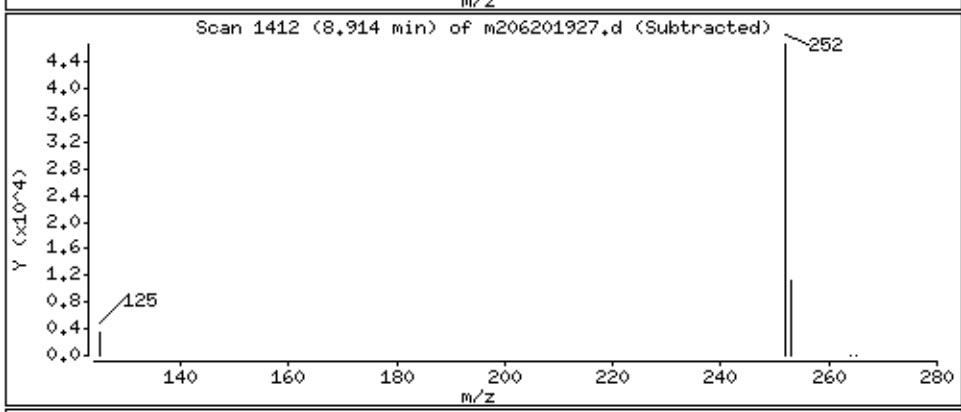
Column phase: RTX-5MS

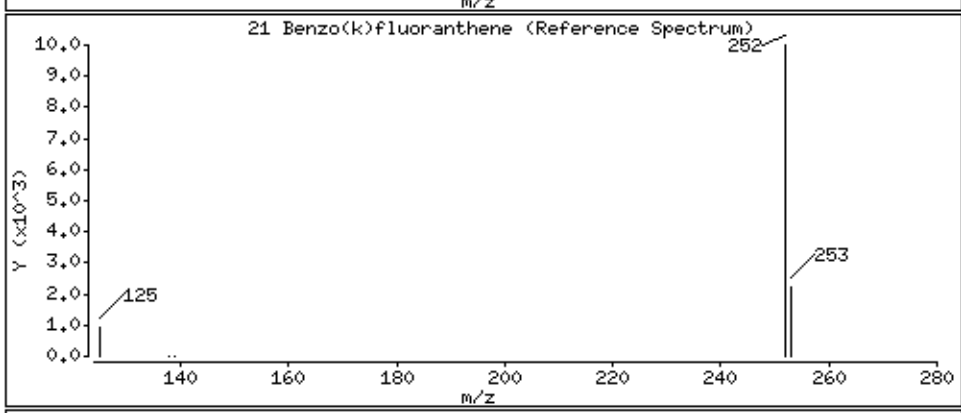
Column diameter: 0.25

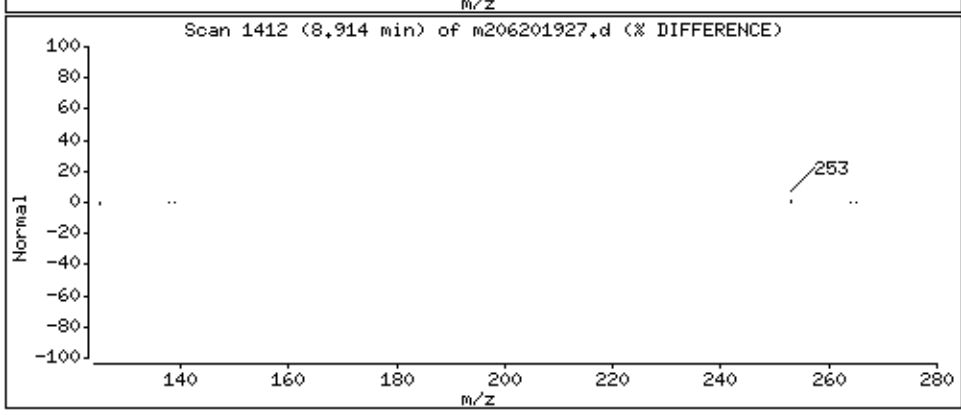
21 Benzo(k)fluoranthene

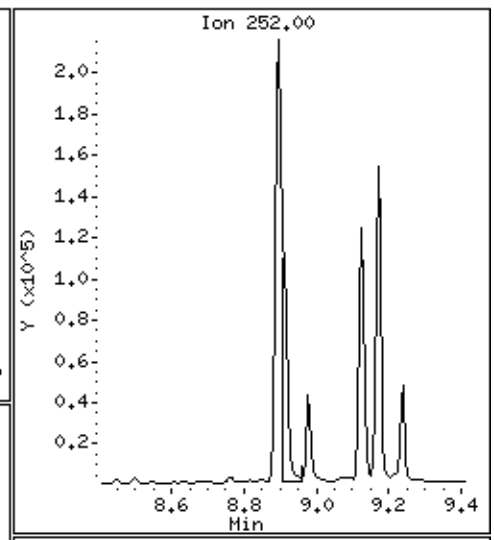
Concentration: 404 ug/Kg

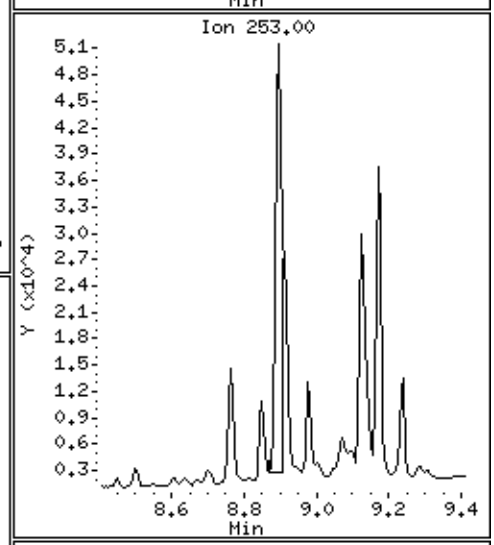


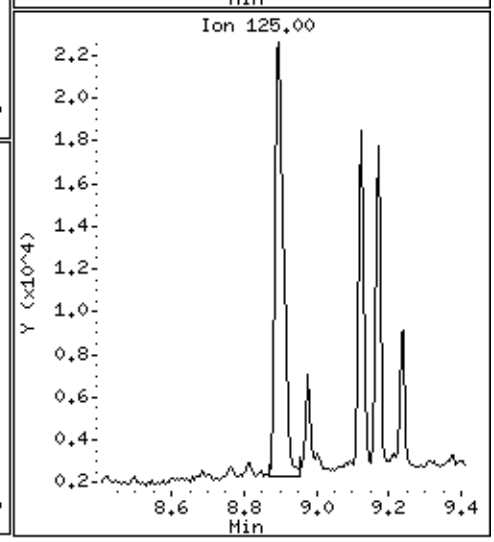












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

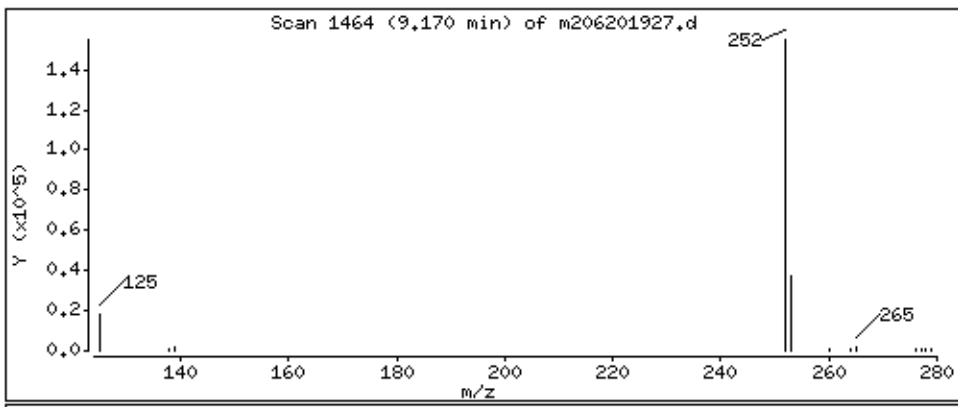
Operator: AJC

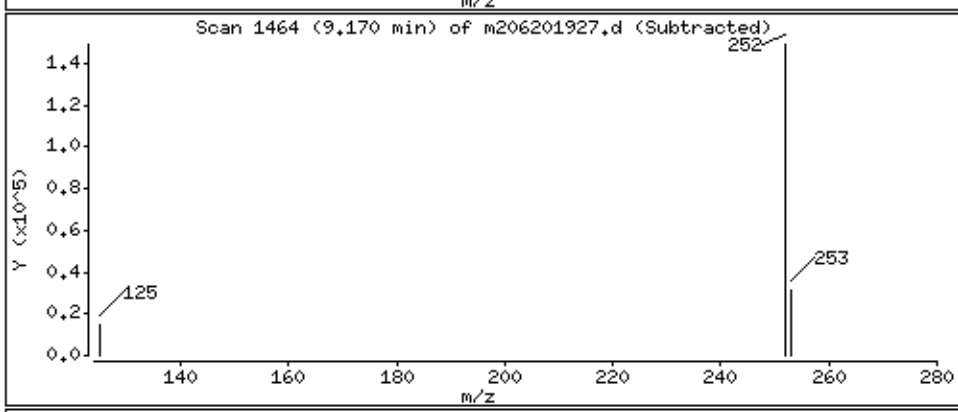
Column phase: RTX-5MS

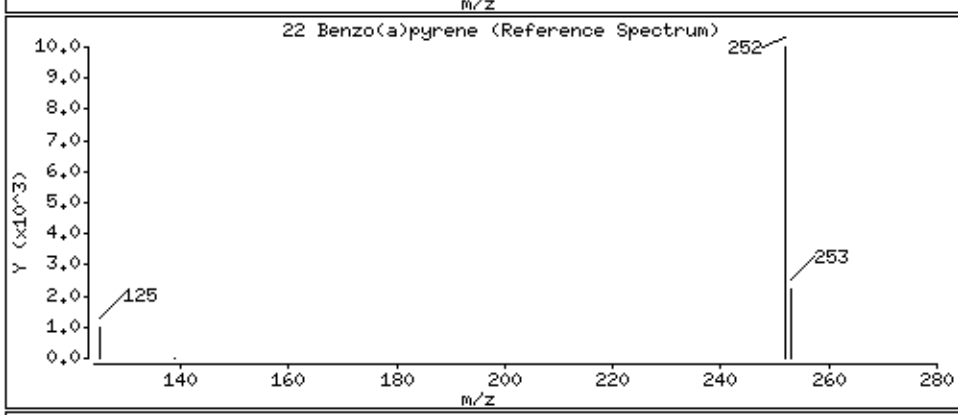
Column diameter: 0.25

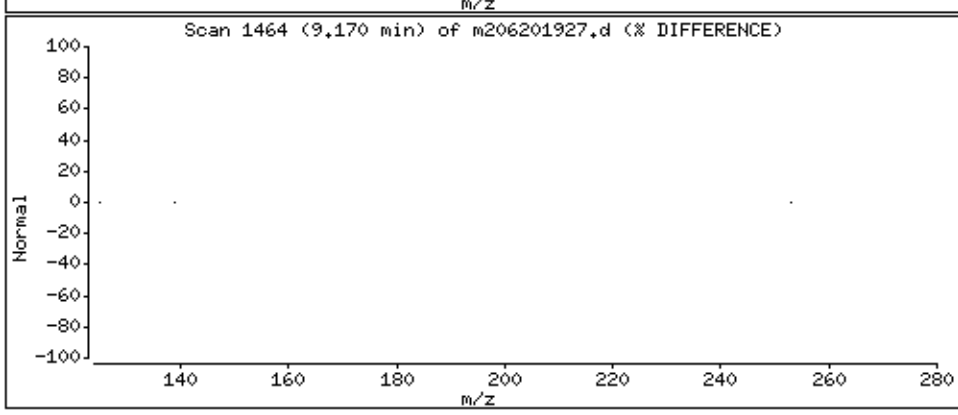
22 Benzo(a)pyrene

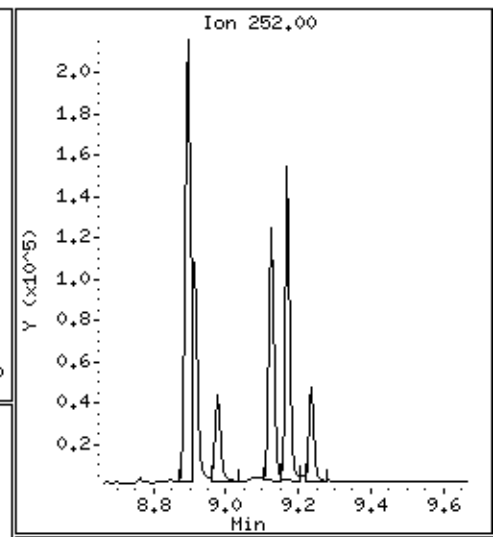
Concentration: 717 ug/Kg

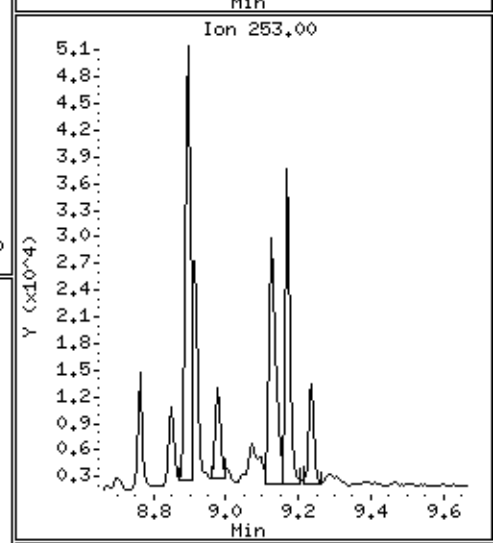


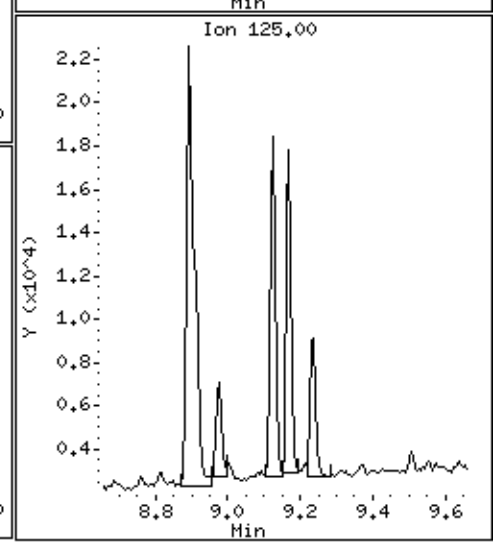












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

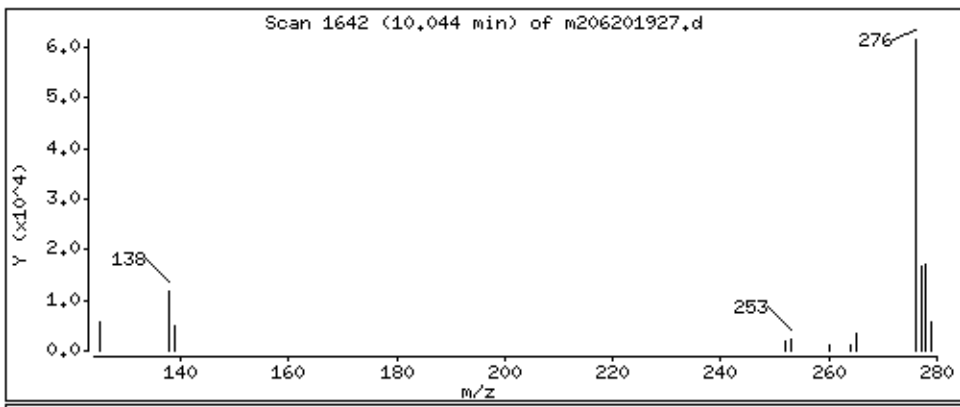
Operator: AJC

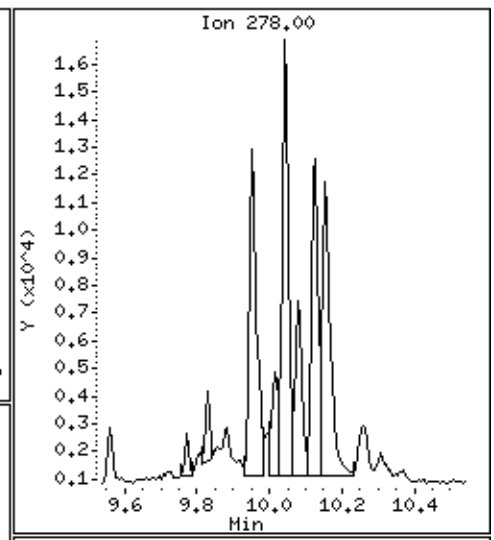
Column phase: RTX-5MS

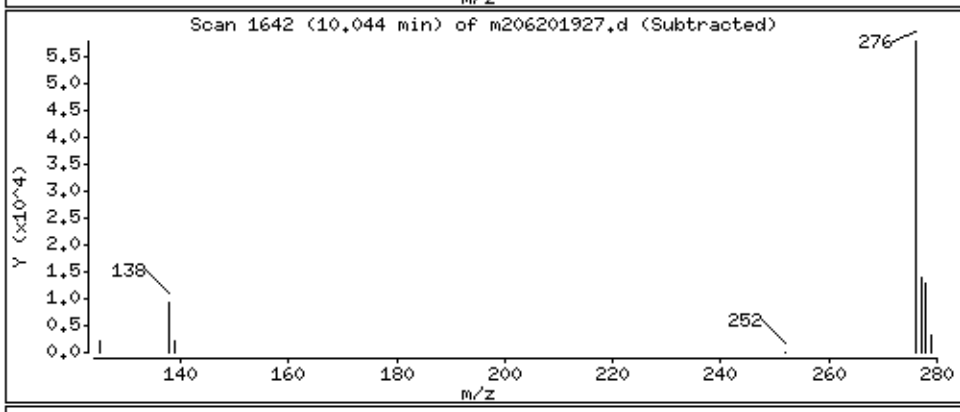
Column diameter: 0.25

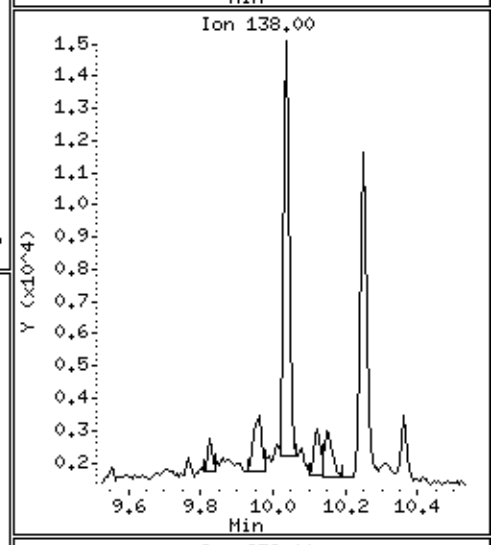
23 Dibenz(a,h)anthracene

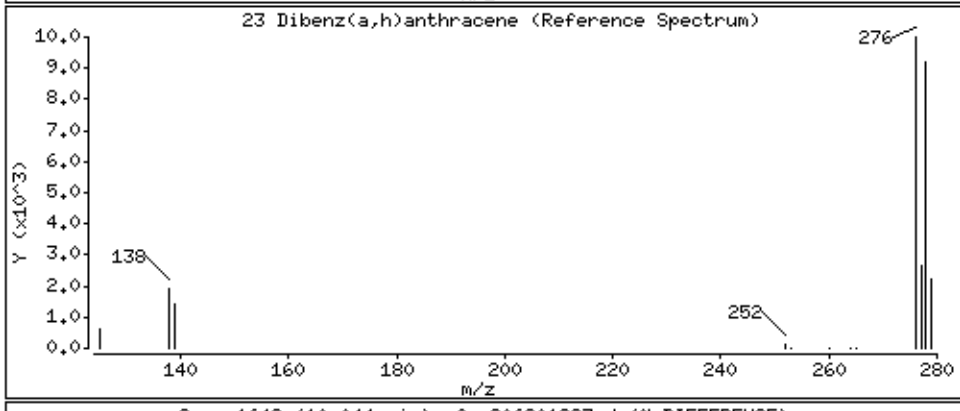
Concentration: 95.7 ug/Kg

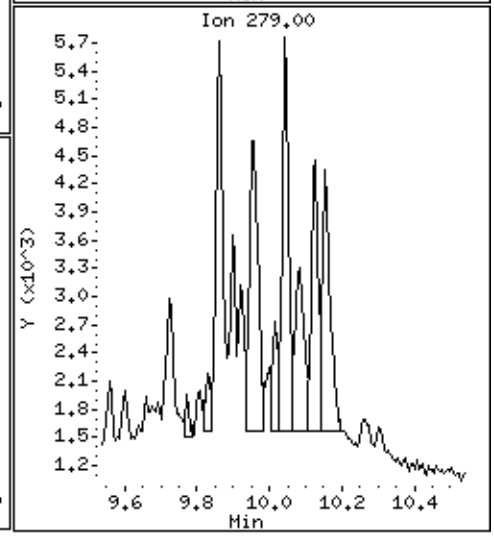


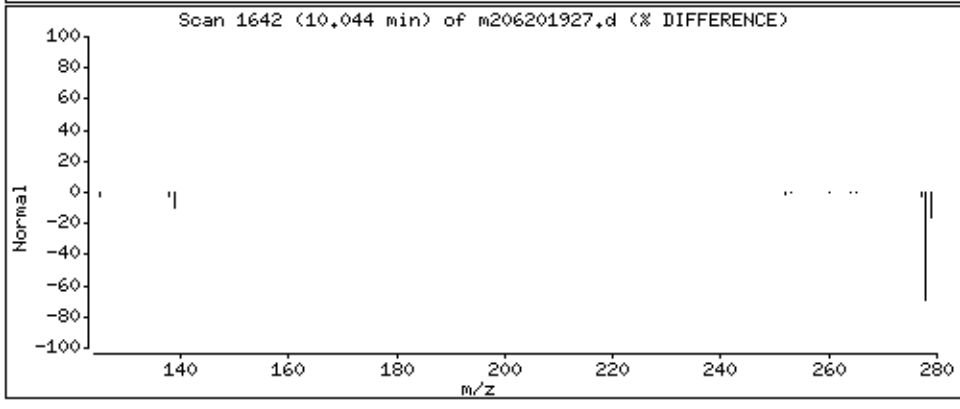












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

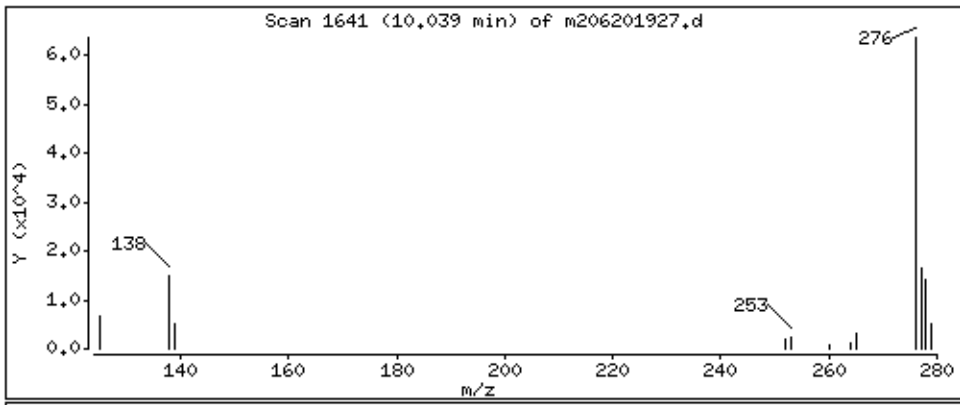
Operator: AJC

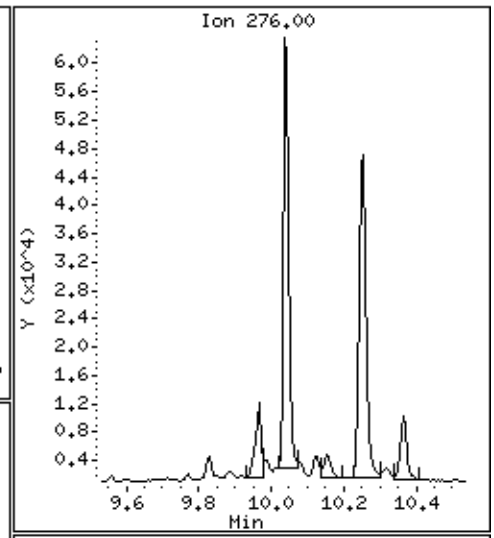
Column phase: RTX-5MS

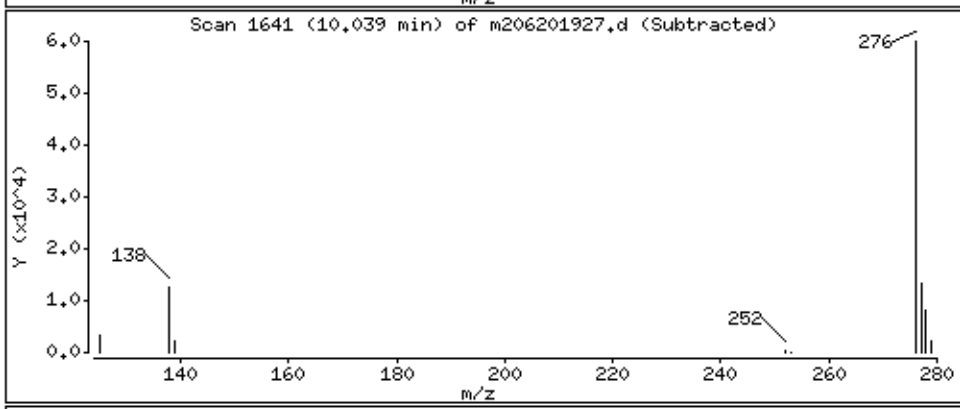
Column diameter: 0.25

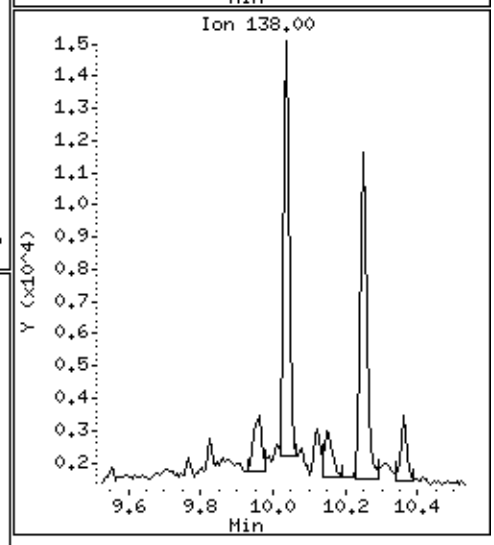
24 Indeno(1,2,3-cd)pyrene

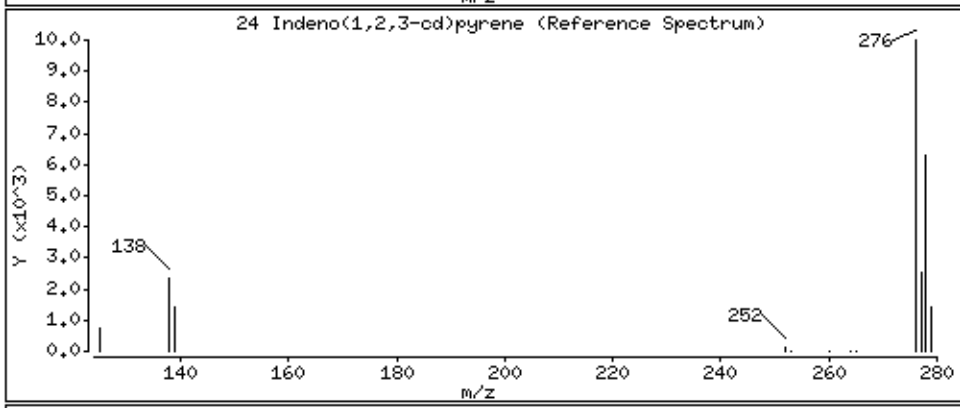
Concentration: 242 ug/Kg

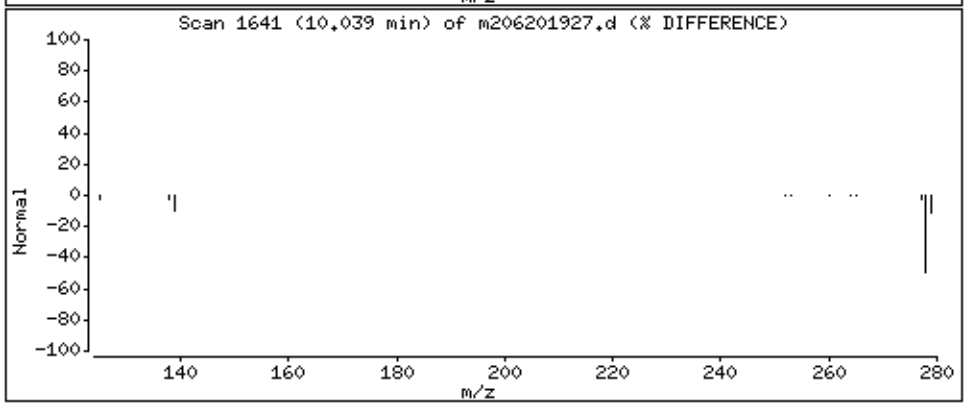












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201927.d

Date : 20-JUN-2019 18:26

Client ID: AOC 26-1

Instrument: 30mss2.i

Sample Info: 30300161001x10,

Volume Injected (uL): 1.0

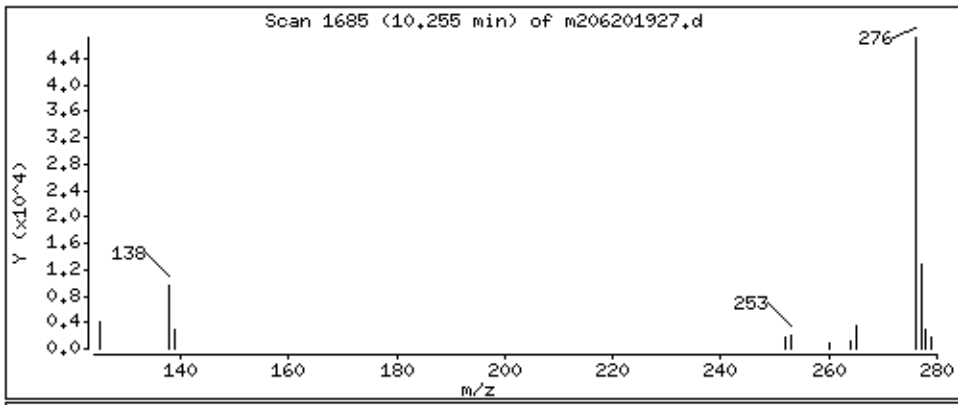
Operator: AJC

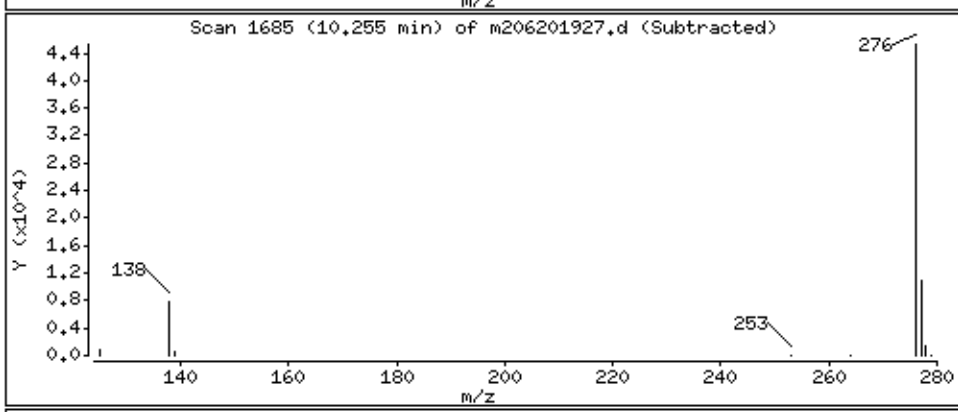
Column phase: RTX-5MS

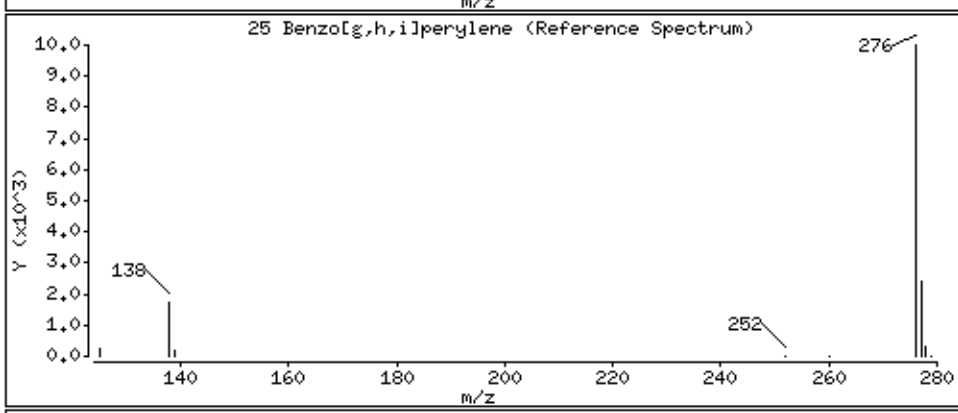
Column diameter: 0.25

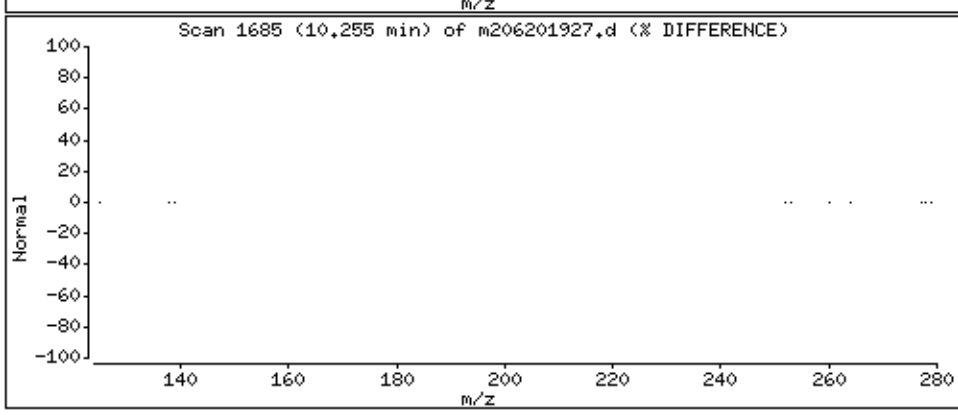
25 Benzo[g,h,i]perylene

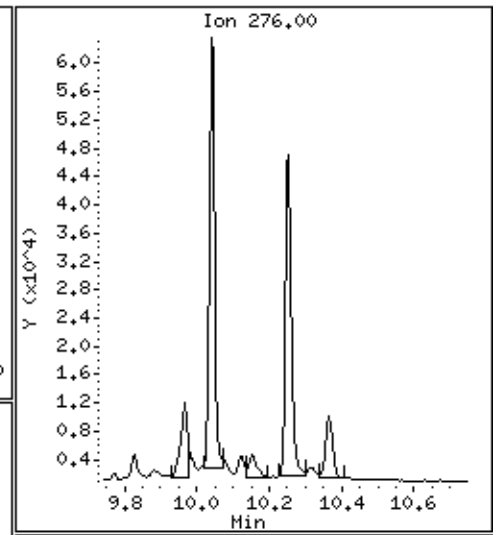
Concentration: 250 ug/Kg

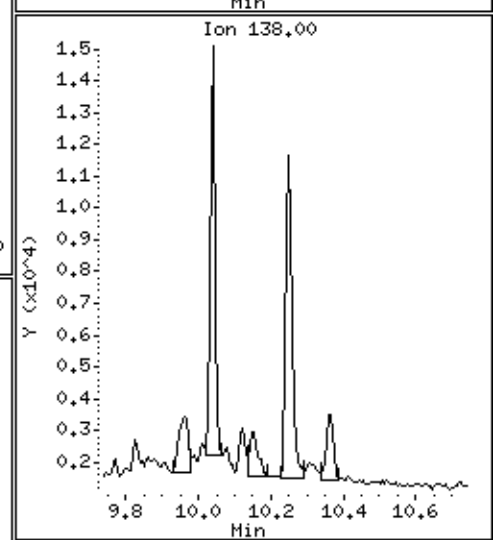


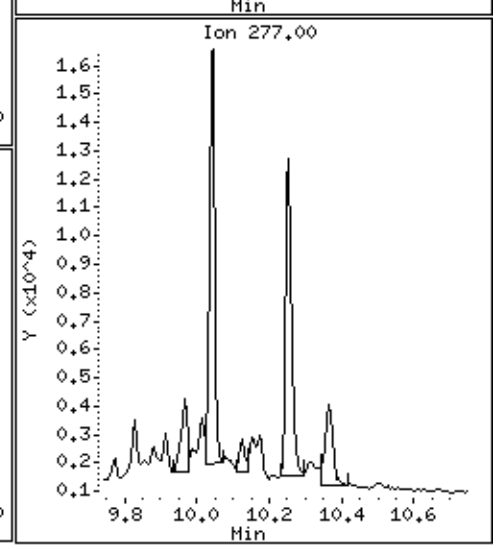






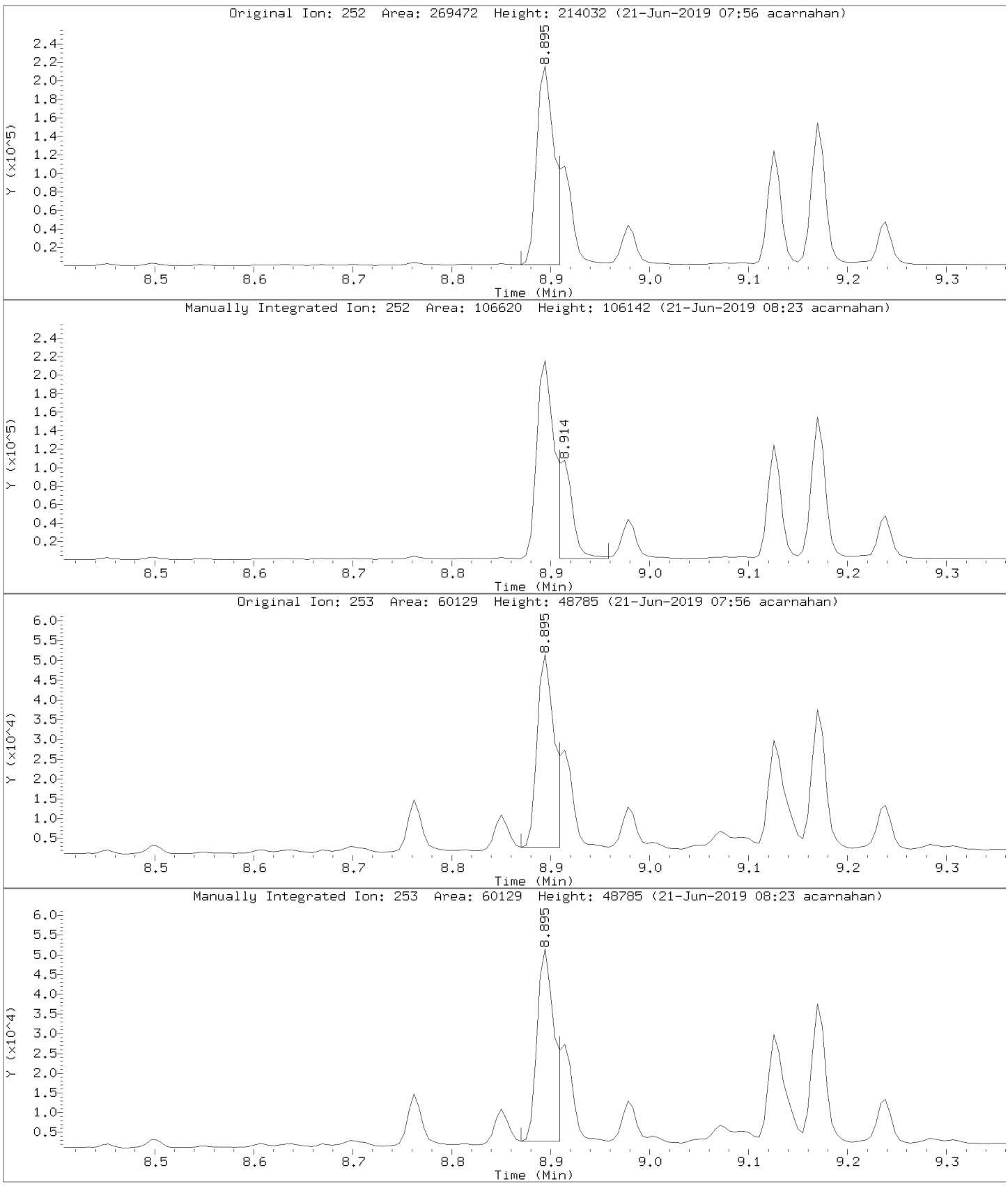




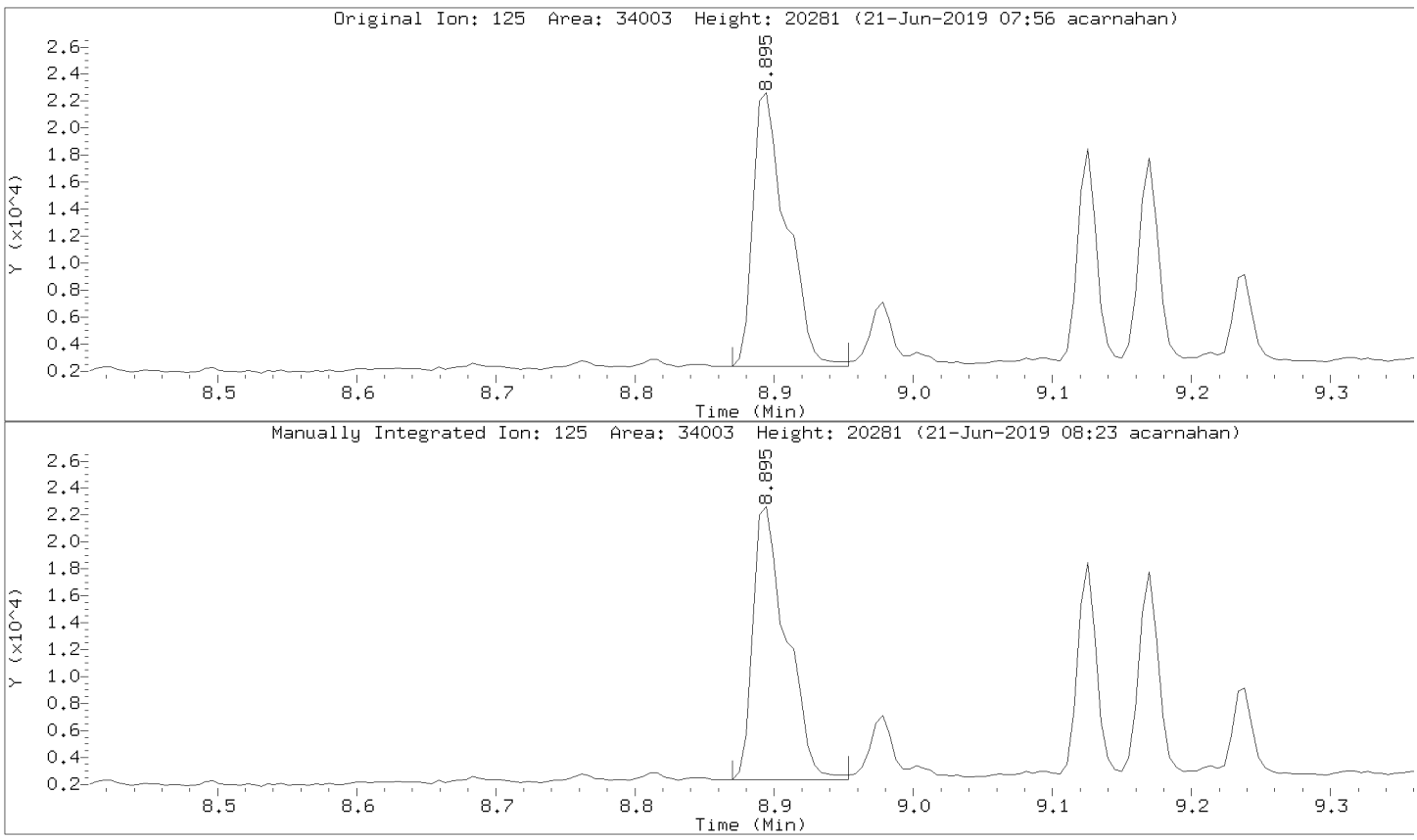


Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201927.d
Injection Date: 20-JUN-2019 18:26
Instrument: 30mss2.i
Lab Sample ID: 30300161001

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201927.d
Injection Date: 20-JUN-2019 18:26
Instrument: 30mss2.i
Lab Sample ID: 30300161001



SAMPLE NO.

AOC 26-2

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 30300161002
Date Analyzed: 06/20/2019 19:55
Lab File ID: MSS2062019.B\M206201932.D
Initial wt/vol: 15.1 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture: 6.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.28	
208-96-8	Acenaphthylene	0.092	
120-12-7	Anthracene	0.77	
191-24-2	Benzo(g,h,i)perylene	0.51	
207-08-9	Benzo(k)fluoranthene	0.76	
218-01-9	Chrysene	1.4	
53-70-3	Dibenz(a,h)anthracene	0.24	
86-73-7	Fluorene	0.39	
193-39-5	Indeno(1,2,3-cd)pyrene	0.48	
91-20-3	Naphthalene	0.20	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 20-JUN-2019 19:55
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30300161002,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.498	3.498	(1.000)	734350	4.00000		
	8 Naphthalene	128	3.515	3.510	(1.005)	475088	2.87077	190	
	9 2-Methylnaphthalene	142	3.955	3.949	(1.131)	191435	1.74052	115	
	10 1-Methylnaphthalene	142	4.018	4.012	(1.149)	135309	1.14672	75.9	
$	6 2-Fluorobiphenyl (S)	172	4.183	4.178	(0.905)	462690	3.22983	214	
	11 Acenaphthylene	152	4.533	4.530	(0.981)	218345	1.29142	85.5	
*	2 Acenaphthene-d10 (IS)	164	4.622	4.619	(1.000)	429191	4.00000		
	12 Acenaphthene	153	4.642	4.639	(1.004)	428427	3.87959	257	
	13 Fluorene	166	4.982	4.979	(1.078)	708212	5.46441	362	
*	3 Phenanthrene-d10 (IS)	188	5.655	5.646	(1.000)	769440	4.00000		
	14 Phenanthrene	178	5.682	5.659	(1.005)	7243450	39.0008	2580(AQ)	
	15 Anthracene	178	5.713	5.700	(1.010)	2037785	10.7660	713(Q)	
	16 Fluoranthene	202	6.656	6.625	(1.177)	9939146	46.7547	3100(AQ)	
	17 Pyrene	202	6.859	6.828	(1.213)	8327028	38.0974	2520(AQ)	
$	7 Terphenyl-d14 (S)	244	6.963	6.950	(1.231)	520814	3.18867	211(QR)	
	18 Benzo(a)anthracene	228	7.949	7.917	(0.999)	4639768	23.8492	1580(AQ)	
*	4 Chrysene-d12 (IS)	240	7.958	7.929	(1.000)	710952	4.00000		
	19 Chrysene	228	7.987	7.952	(1.004)	3984196	19.9945	1320	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.923	8.884	(0.965)	3583007	39.5253	2620(AQ)	
21 Benzo(k)fluoranthene	252	8.938	8.909	(0.967)	1170217	10.7445	712(QM)	WP
22 Benzo(a)pyrene	252	9.198	9.164	(0.995)	1874518	21.7366	1440(AQ)	
* 5 Perylene-d12 (IS)	264	9.243	9.209	(1.000)	347368	4.00000		
23 Dibenz(a,h)anthracene	278	10.073	10.039	(1.090)	310518	3.32255	220(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.073	10.034	(1.090)	761160	6.73933	446	
25 Benzo[g,h,i]perylene	276	10.289	10.245	(1.113)	665495	7.15653	474(Q)	

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

    :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Pace Analytical Services, Inc.

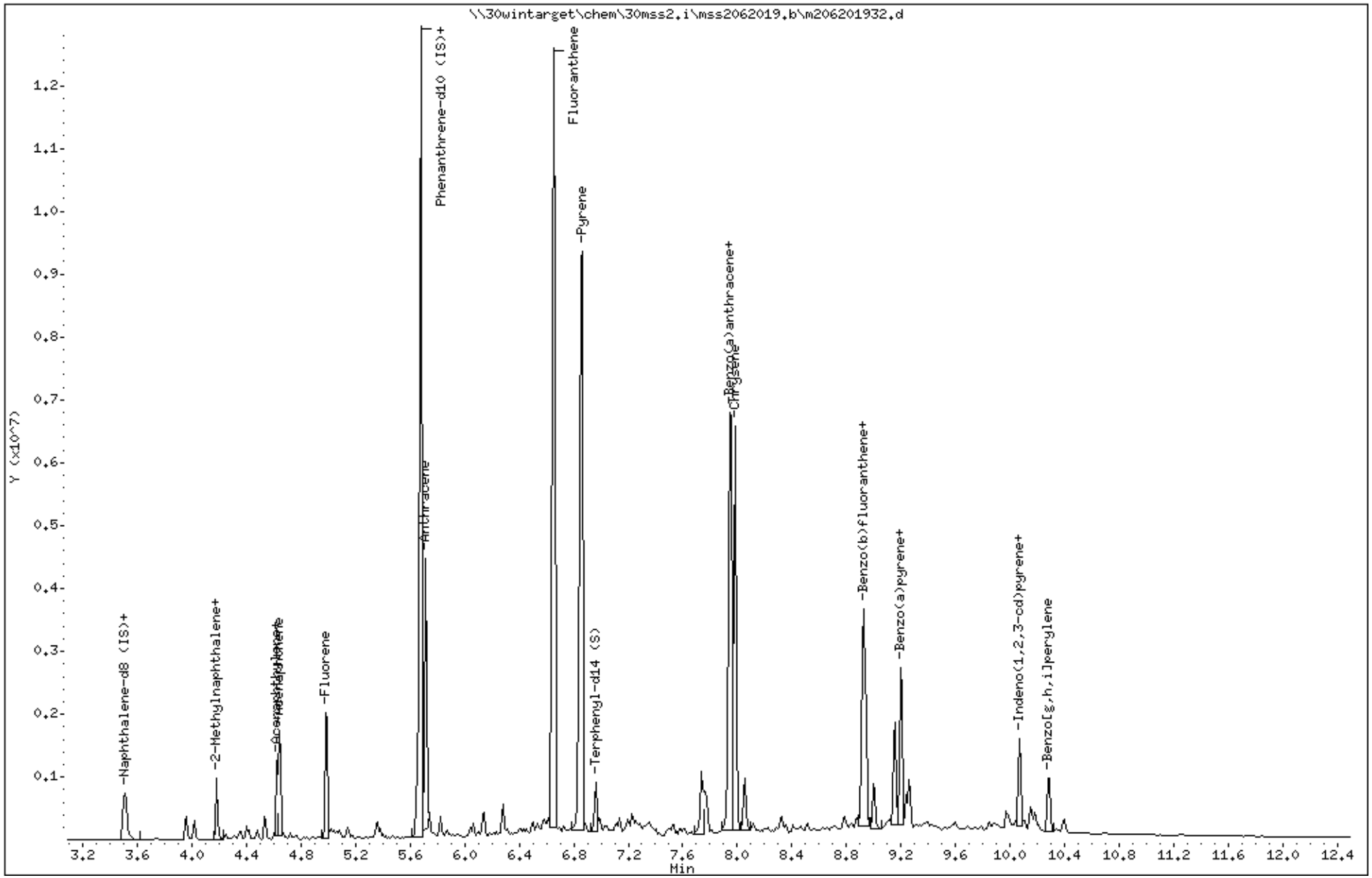
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30300161
Lab Smp Id: 30300161002
Client Smp ID: AOC 26-2
Sample Location:
Sample Point:
Sample Date: 17-JUN-2019
Date Received: 18-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14727,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00993	U
91-20-3	Naphthalene	190	
91-57-6	2-Methylnaphthalene	115	
90-12-0	1-Methylnaphthalene	75.9	
208-96-8	Acenaphthylene	85.5	
83-32-9	Acenaphthene	257	
86-73-7	Fluorene	362	
85-01-8	Phenanthrene	2580	E
120-12-7	Anthracene	713	
206-44-0	Fluoranthene	3100	E
129-00-0	Pyrene	2520	E
56-55-3	Benzo(a)anthracene	1580	E
218-01-9	Chrysene	1320	
205-99-2	Benzo(b)fluoranthene	2620	E
207-08-9	Benzo(k)fluoranthene	712	
50-32-8	Benzo(a)pyrene	1440	E
53-70-3	Dibenz(a,h)anthracene	220	
193-39-5	Indeno(1,2,3-cd)pyrene	446	
191-24-2	Benzo[g,h,i]perylene	474	
321-60-8	2-Fluorobiphenyl (S)	214	
1718-51-0	Terphenyl-d14 (S)	211	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d
Date : 20-JUN-2019 19:55
Client ID: AOC 26-2
Sample Info: 30300161002,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

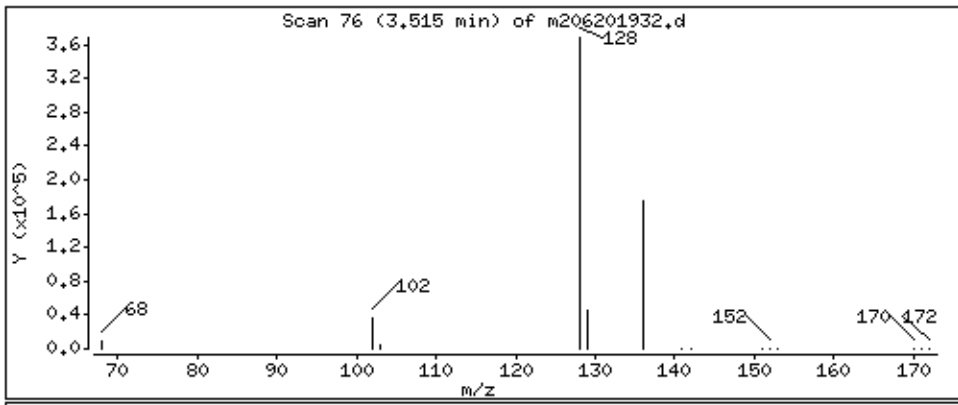
Operator: AJC

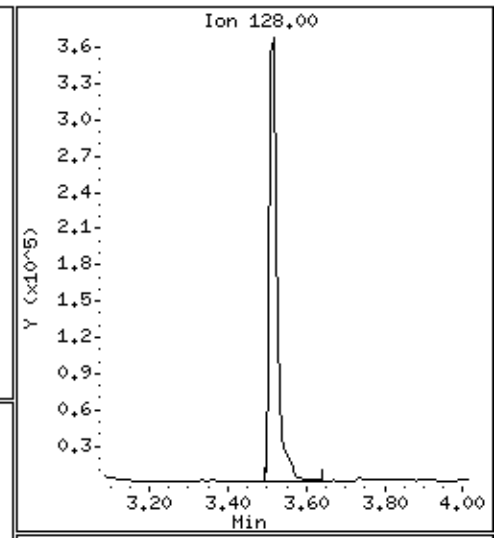
Column phase: RTX-5MS

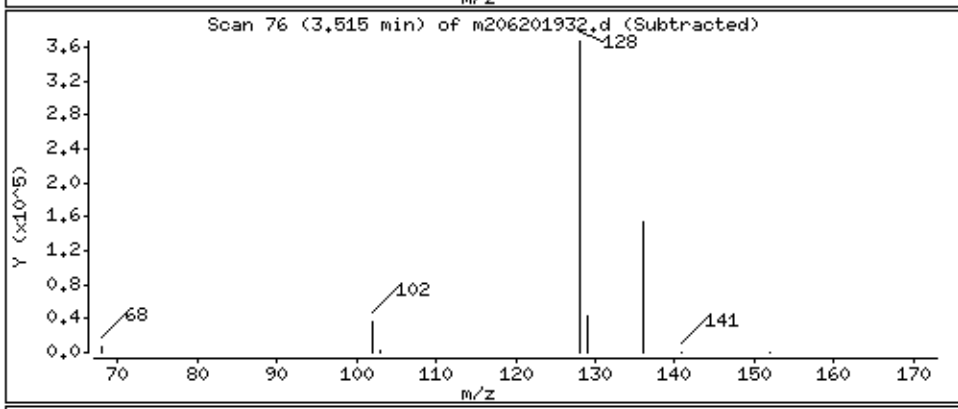
Column diameter: 0.25

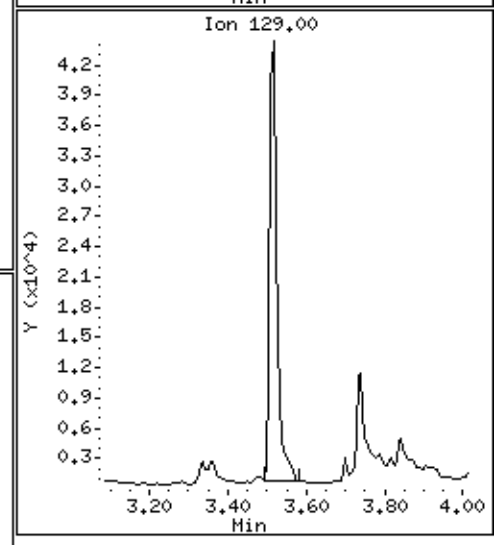
8 Naphthalene

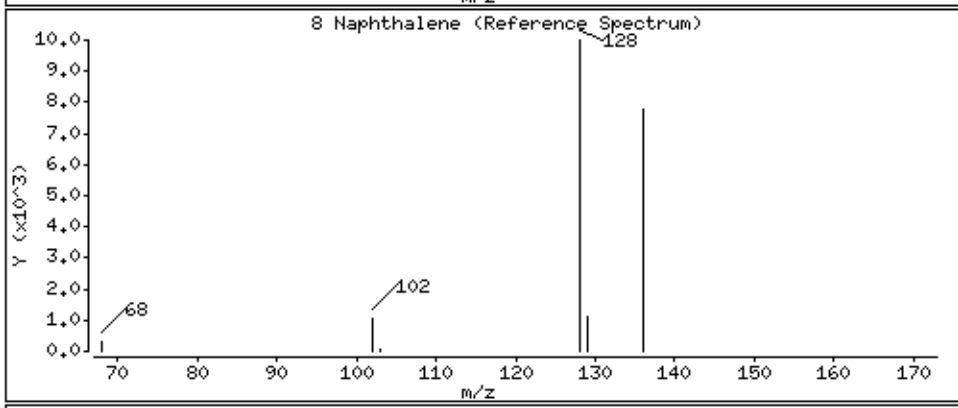
Concentration: 190 ug/Kg

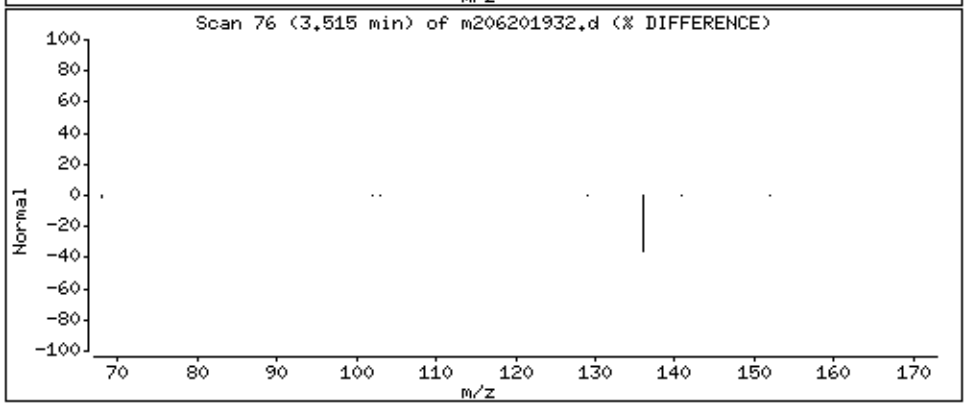












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

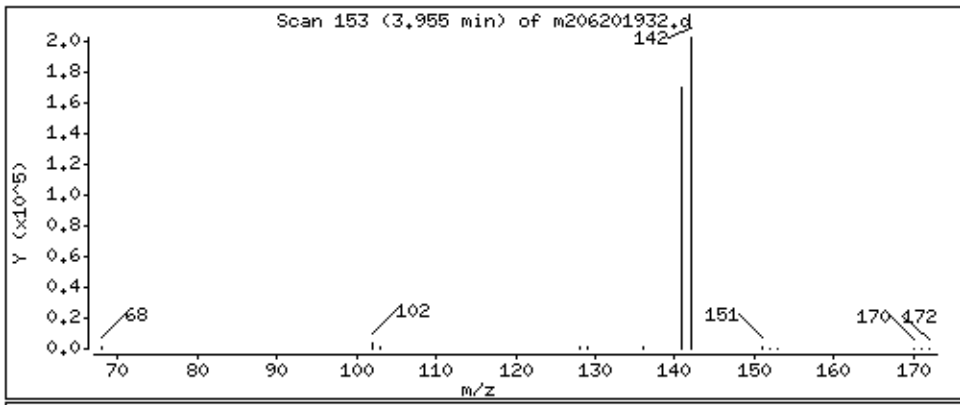
Operator: AJC

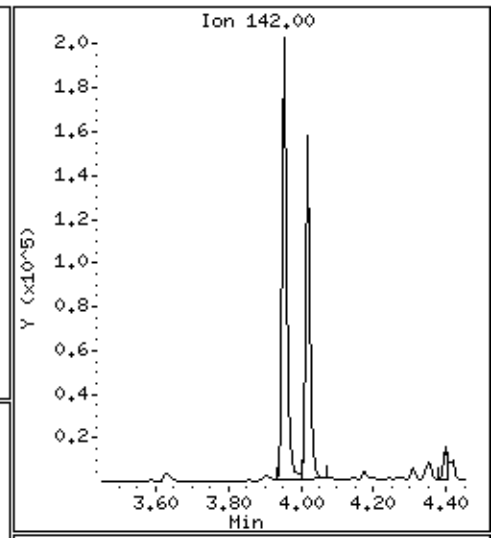
Column phase: RTX-5MS

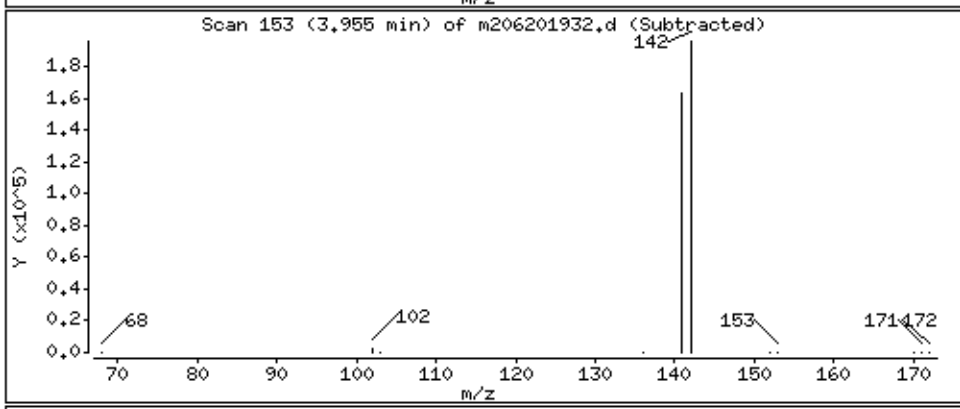
Column diameter: 0.25

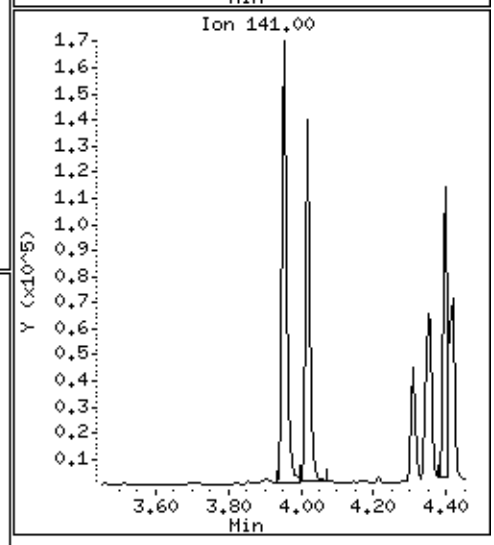
9 2-Methylnaphthalene

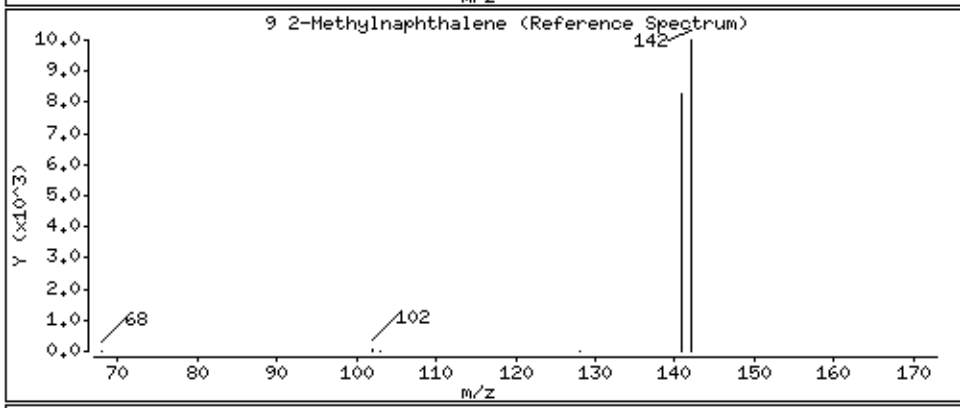
Concentration: 115 ug/Kg

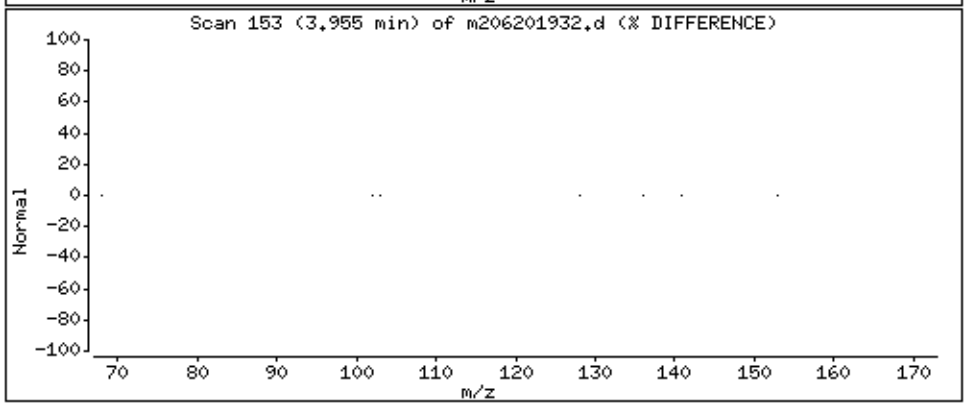












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

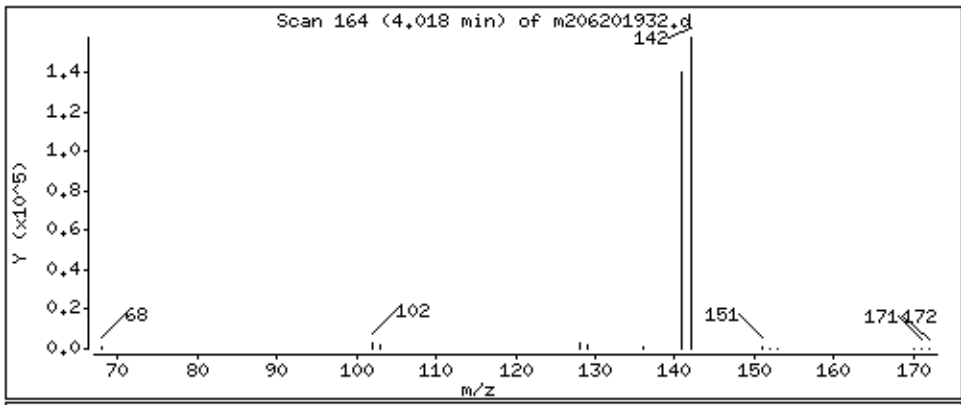
Operator: AJC

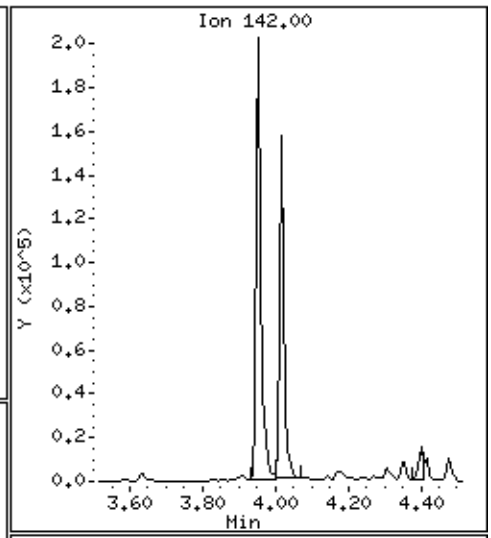
Column phase: RTX-5MS

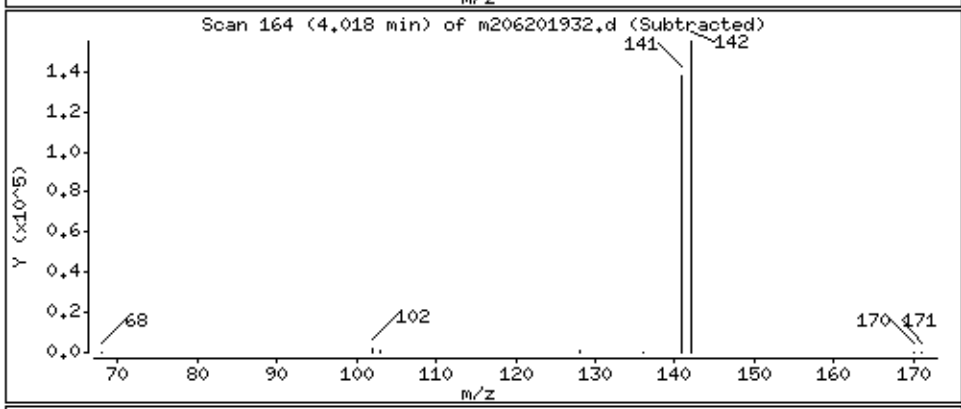
Column diameter: 0.25

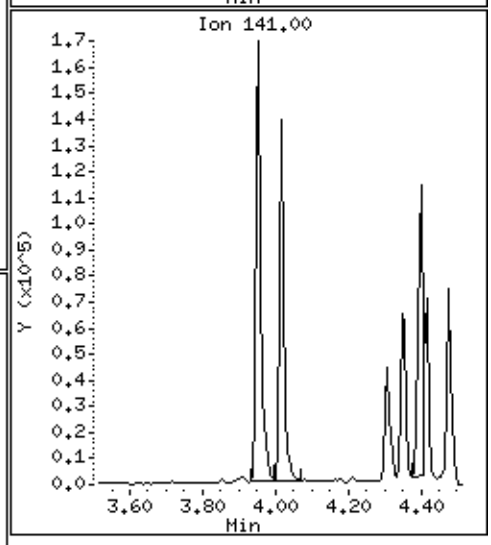
10 1-Methylnaphthalene

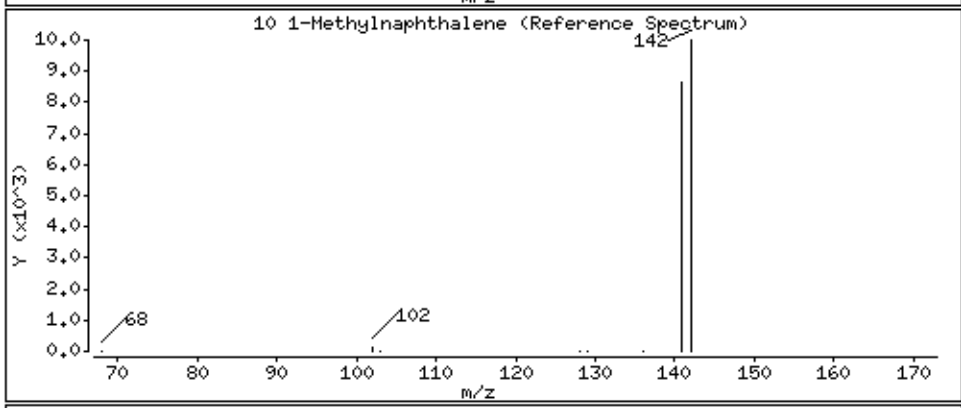
Concentration: 75.9 ug/Kg

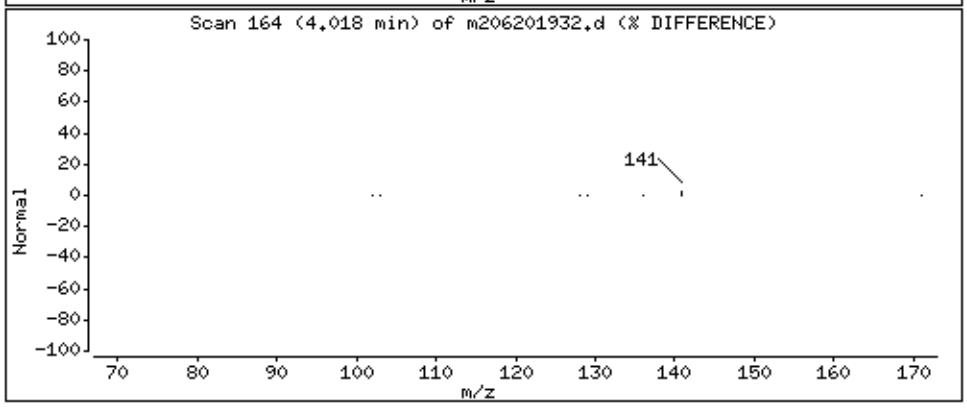












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

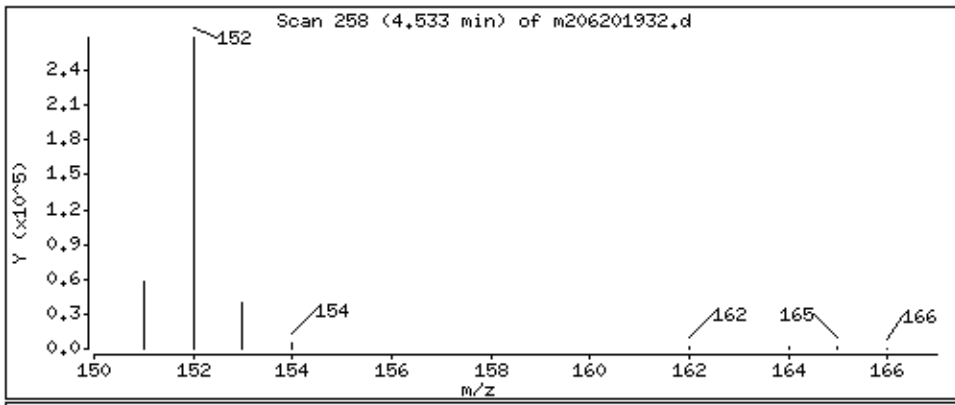
Operator: AJC

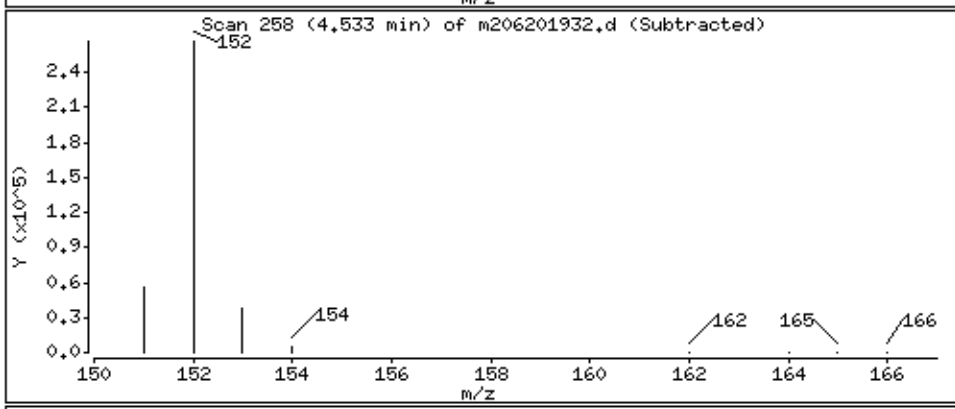
Column phase: RTX-5MS

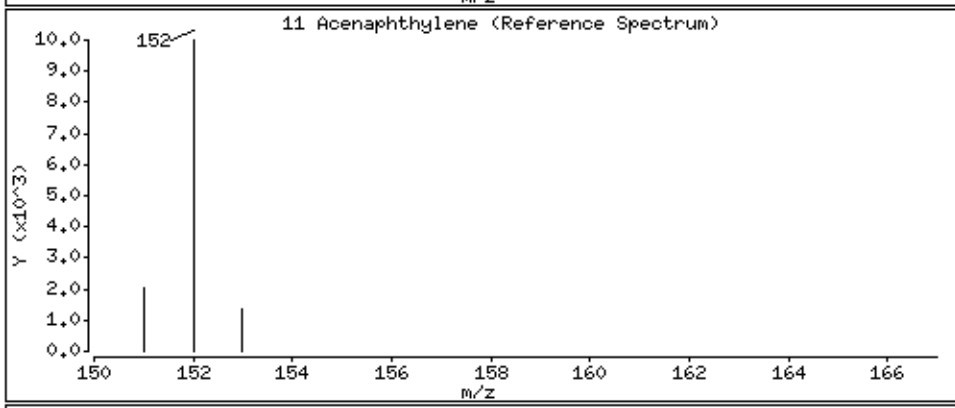
Column diameter: 0.25

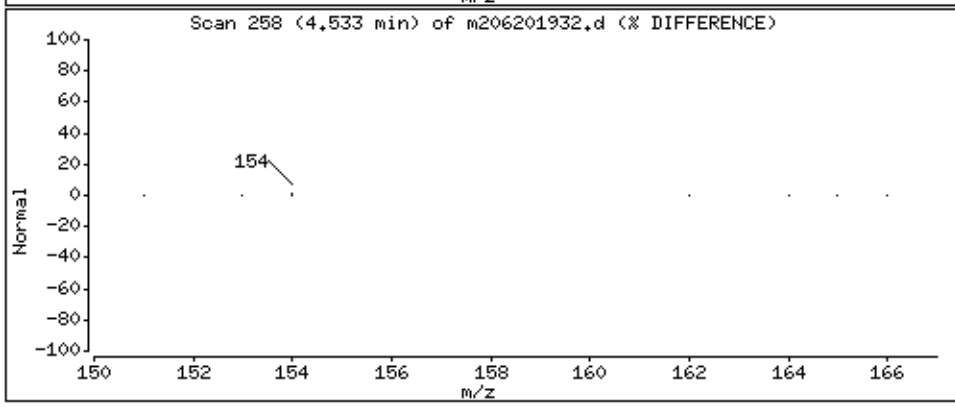
11 Acenaphthylene

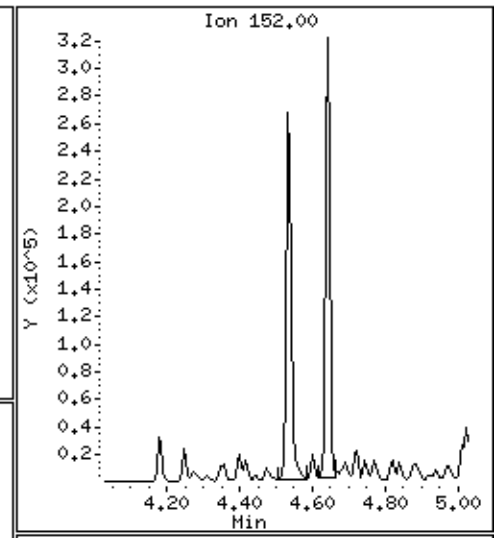
Concentration: 85.5 ug/Kg

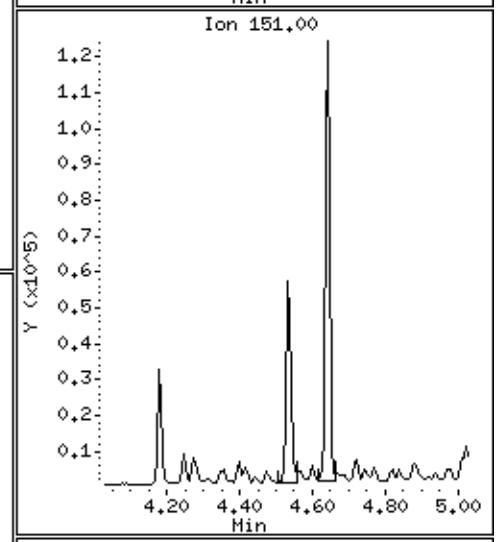


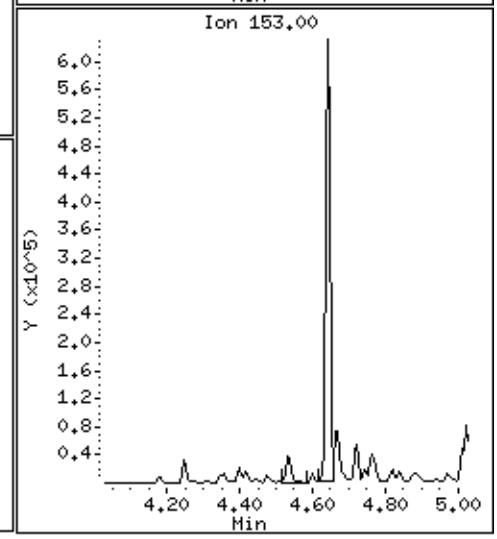












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

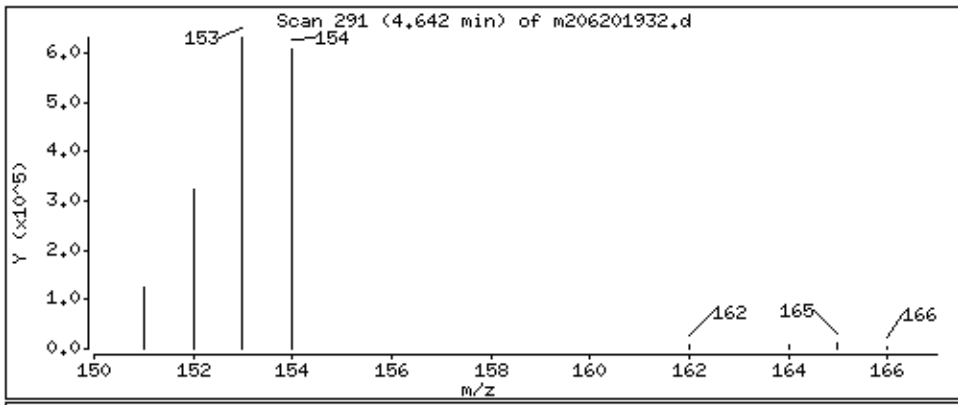
Operator: AJC

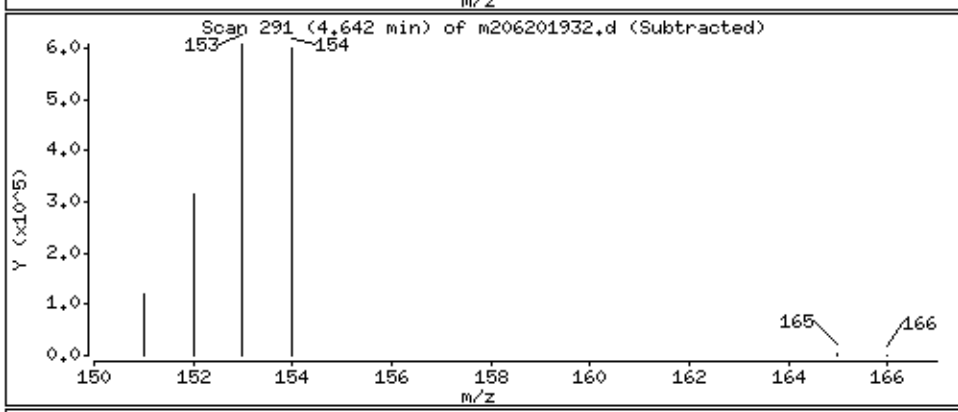
Column phase: RTX-5MS

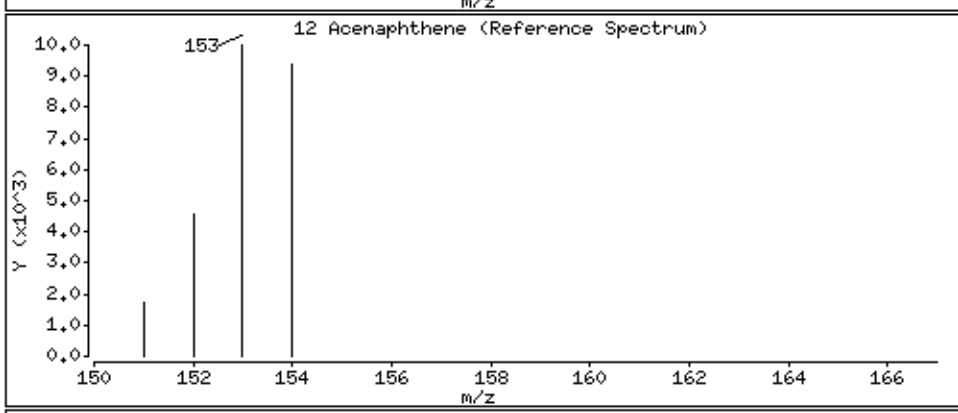
Column diameter: 0.25

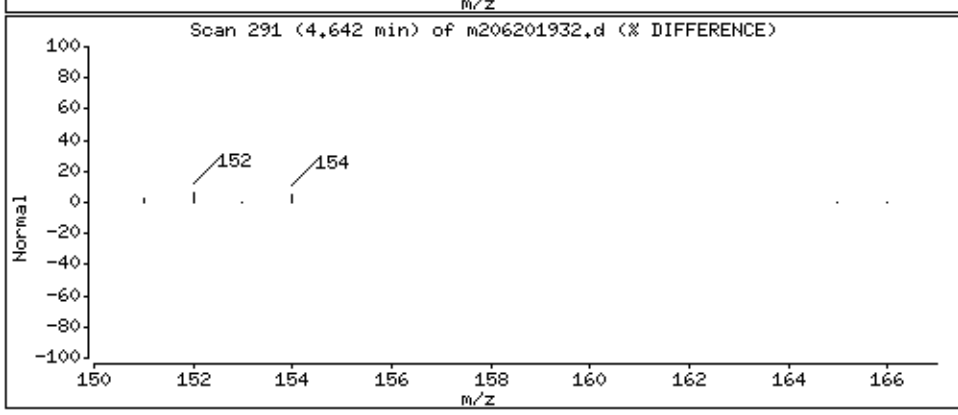
12 Acenaphthene

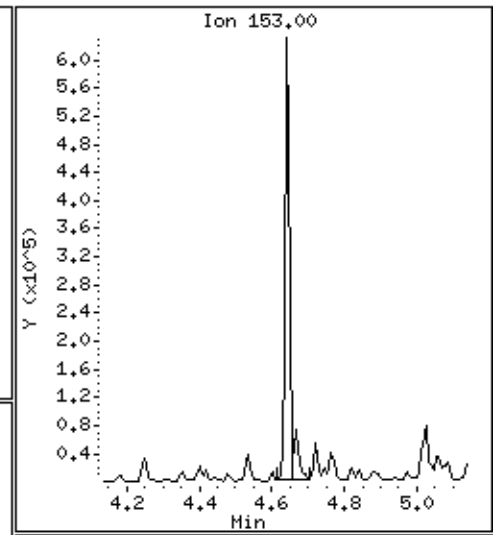
Concentration: 257 ug/Kg

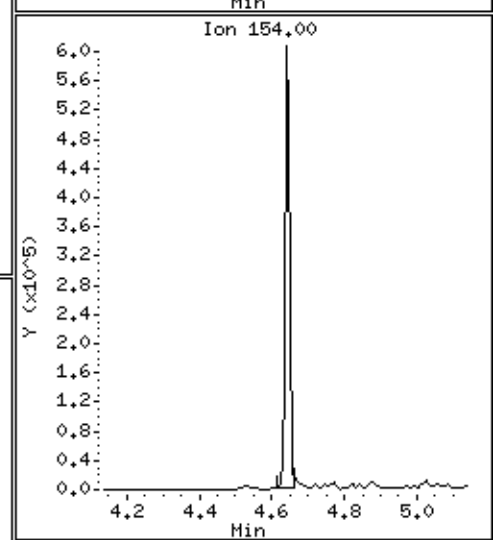


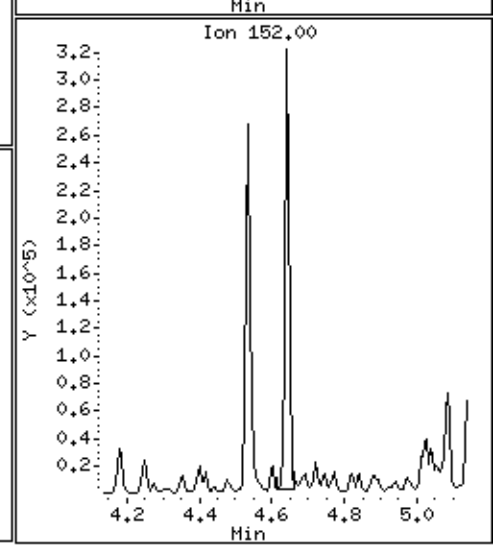












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

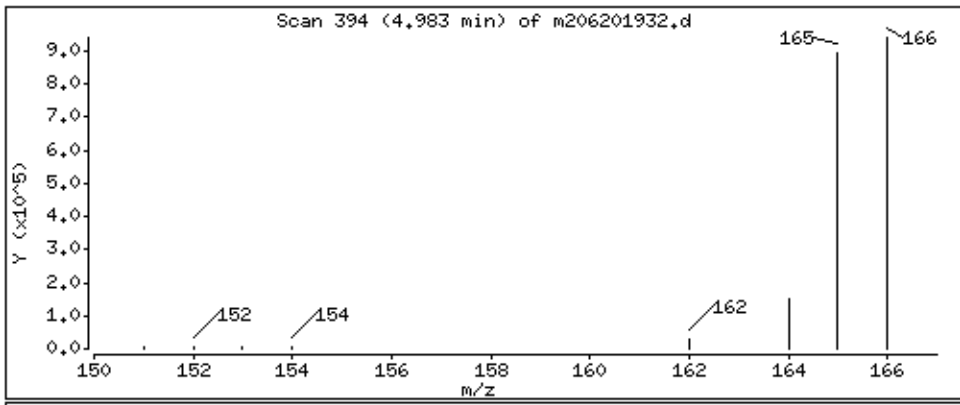
Operator: AJC

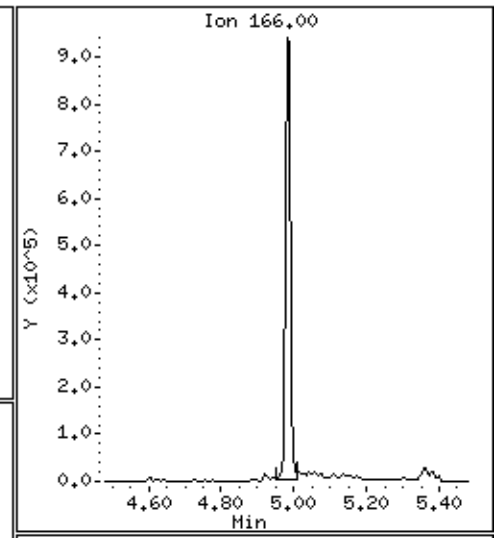
Column phase: RTX-5MS

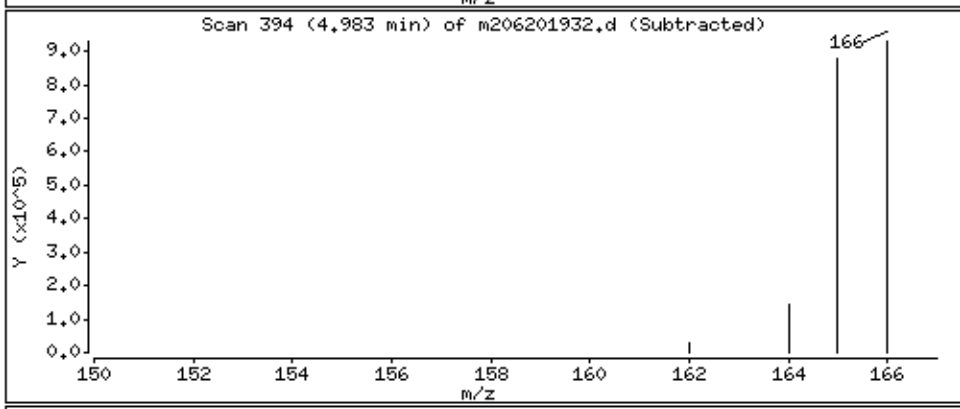
Column diameter: 0.25

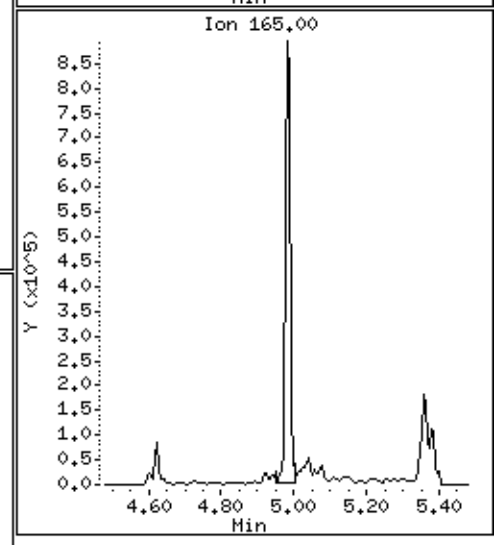
13 Fluorene

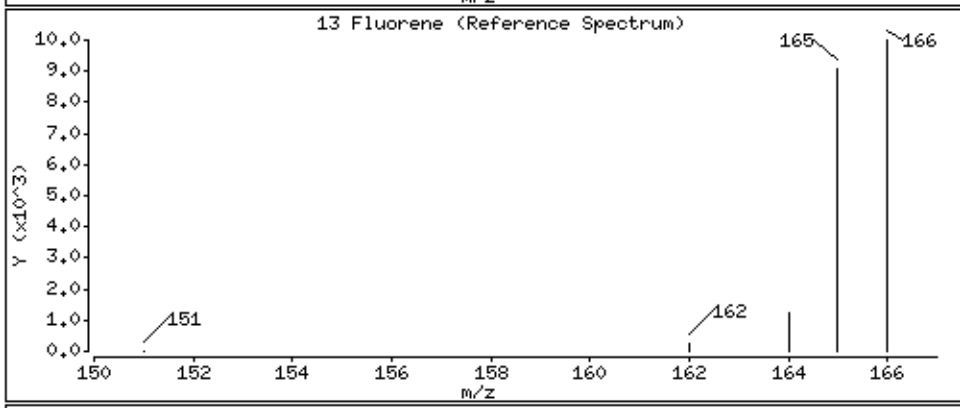
Concentration: 362 ug/Kg

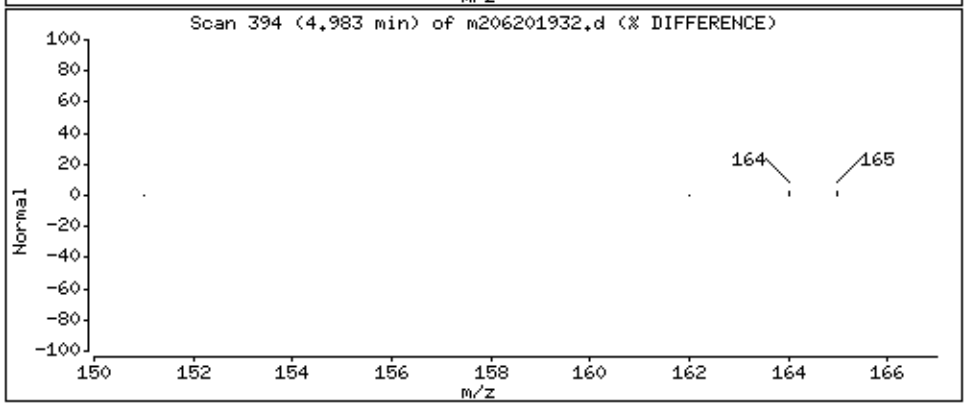












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

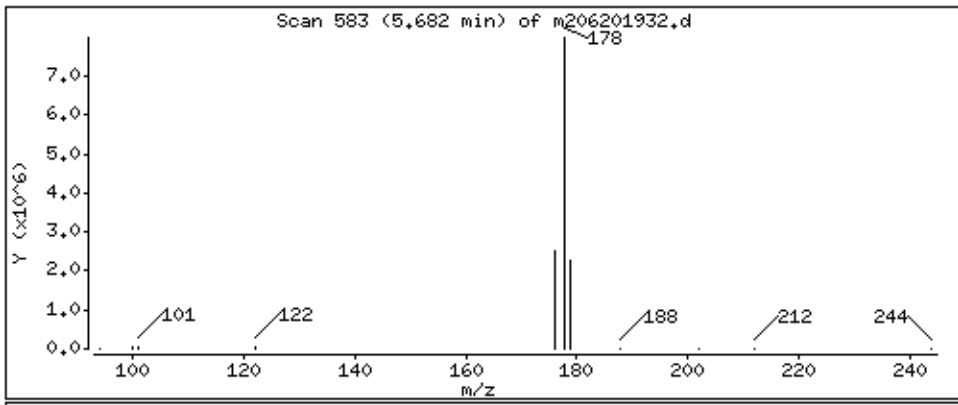
Operator: AJC

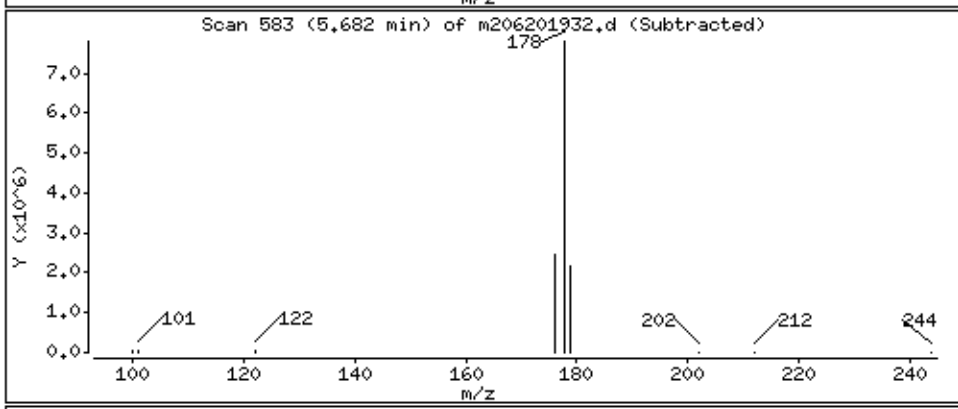
Column phase: RTX-5MS

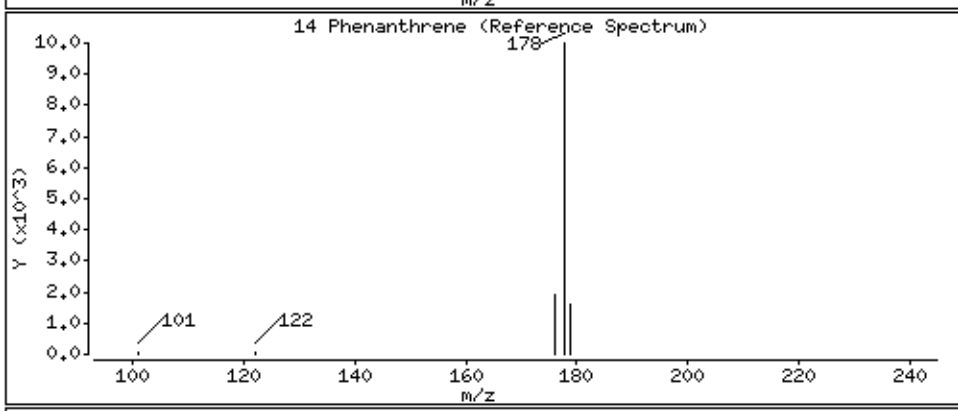
Column diameter: 0.25

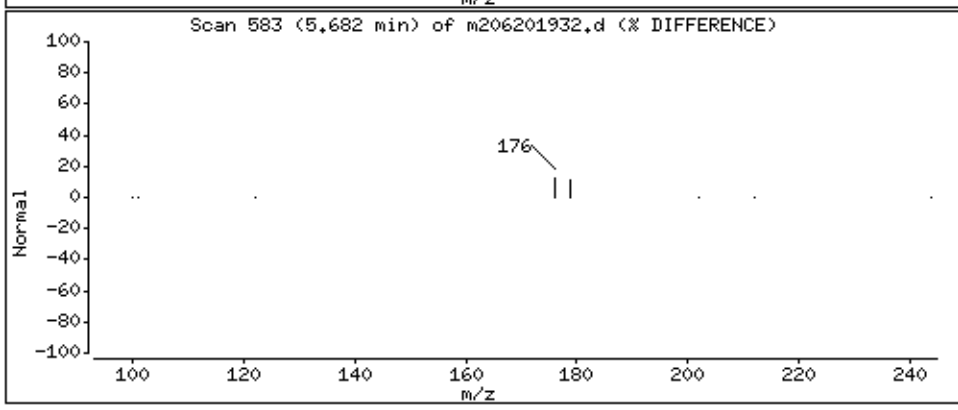
14 Phenanthrene

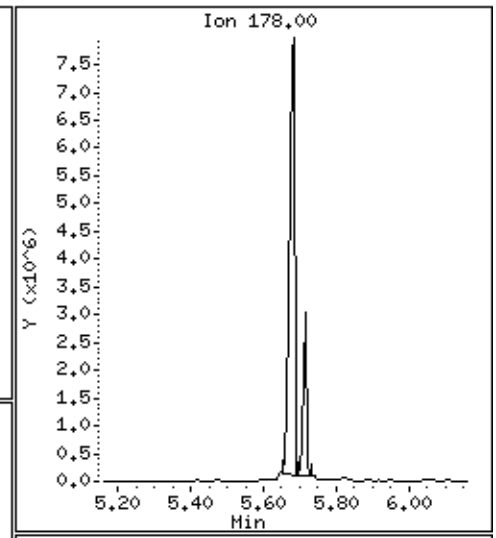
Concentration: 2580 ug/Kg

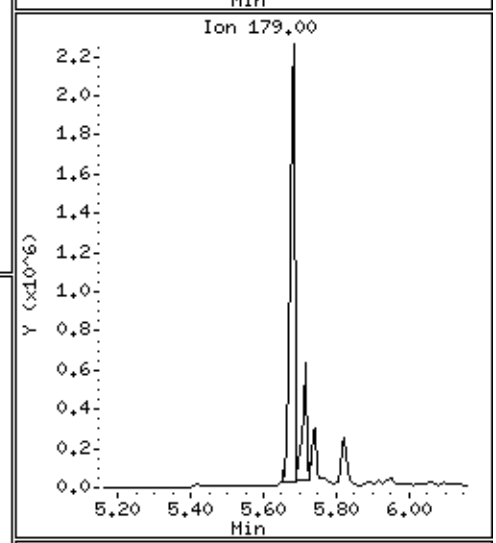


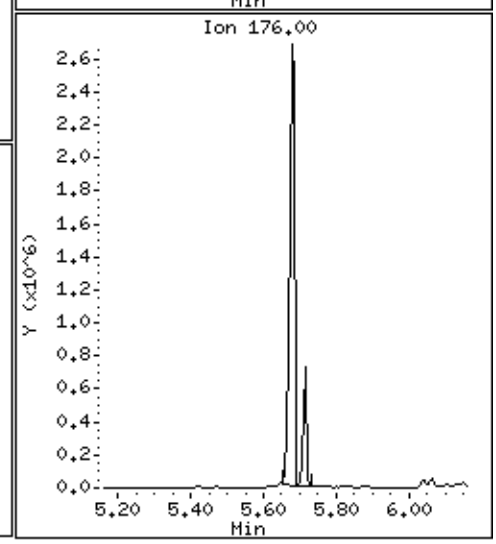












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

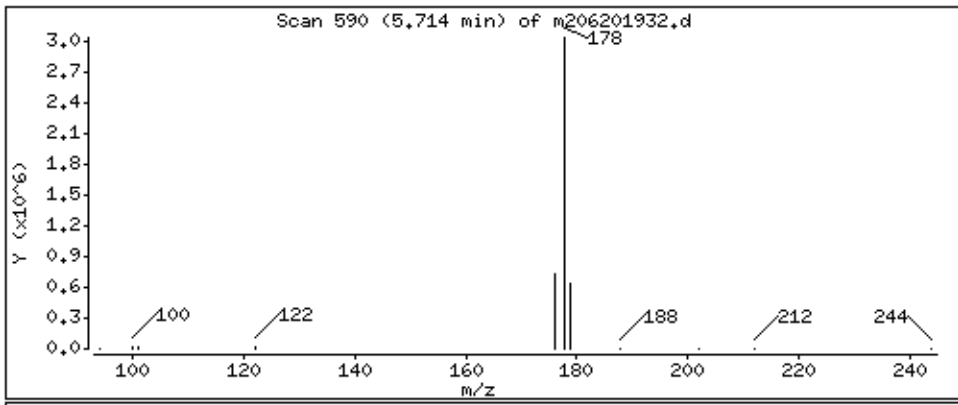
Operator: AJC

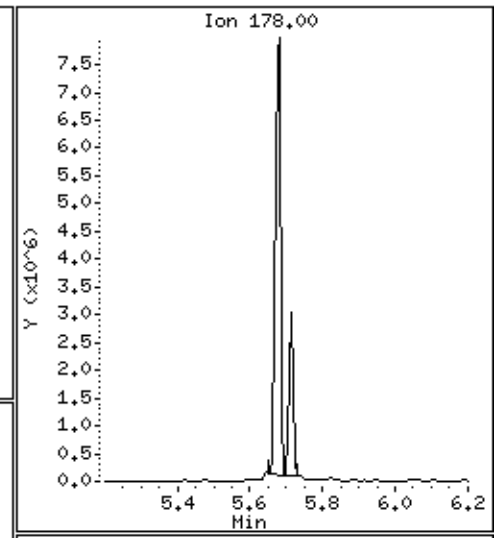
Column phase: RTX-5MS

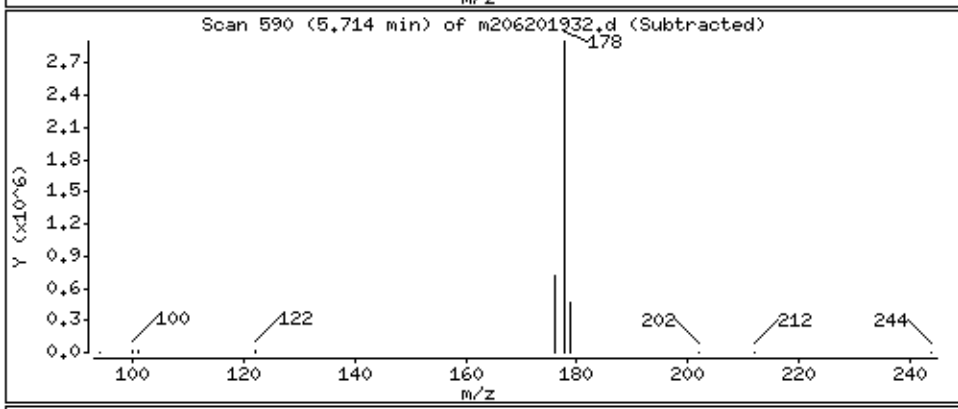
Column diameter: 0.25

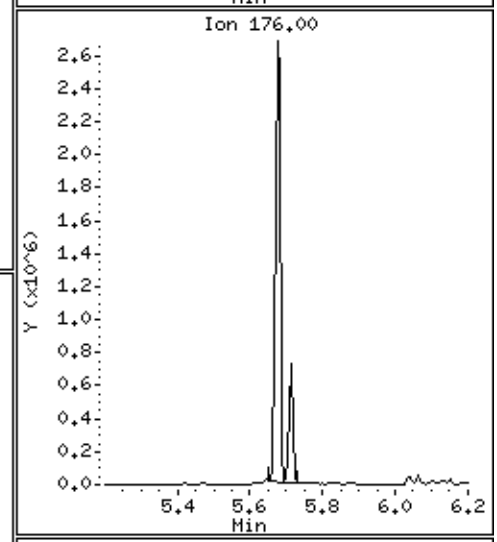
15 Anthracene

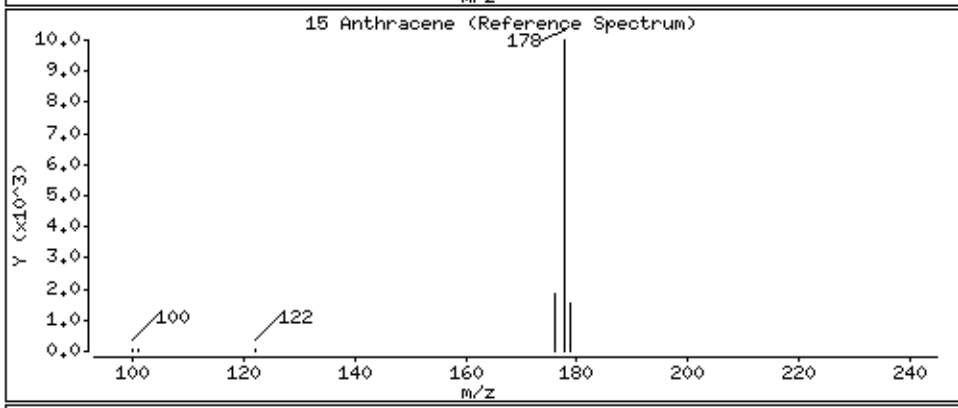
Concentration: 713 ug/Kg

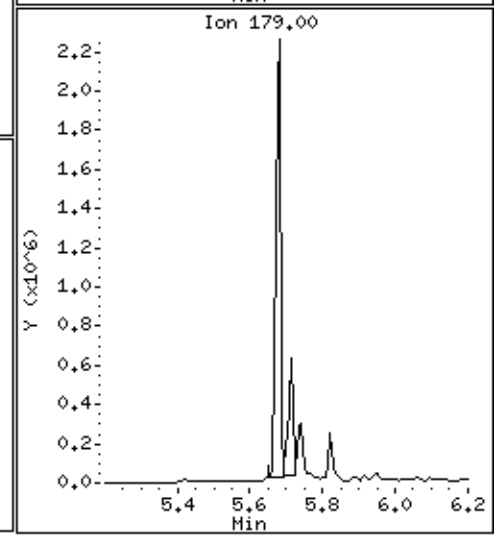


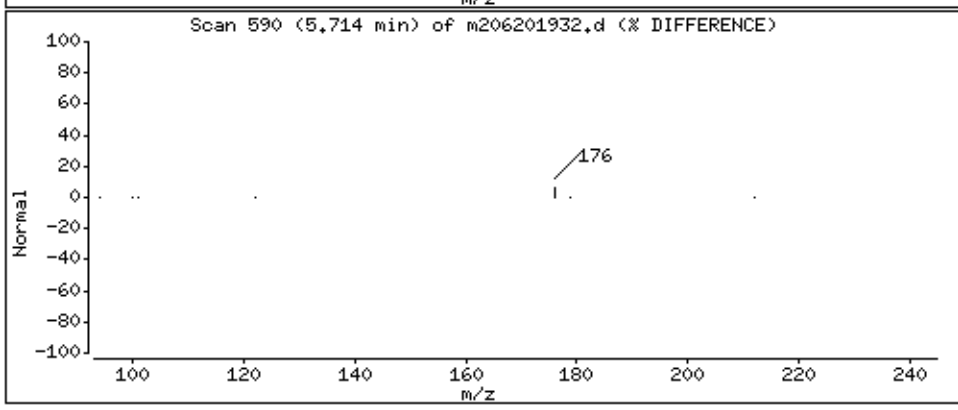












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

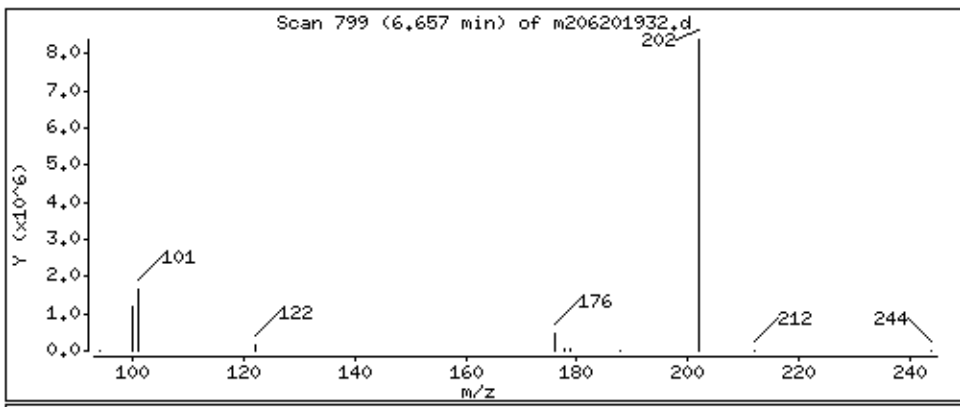
Operator: AJC

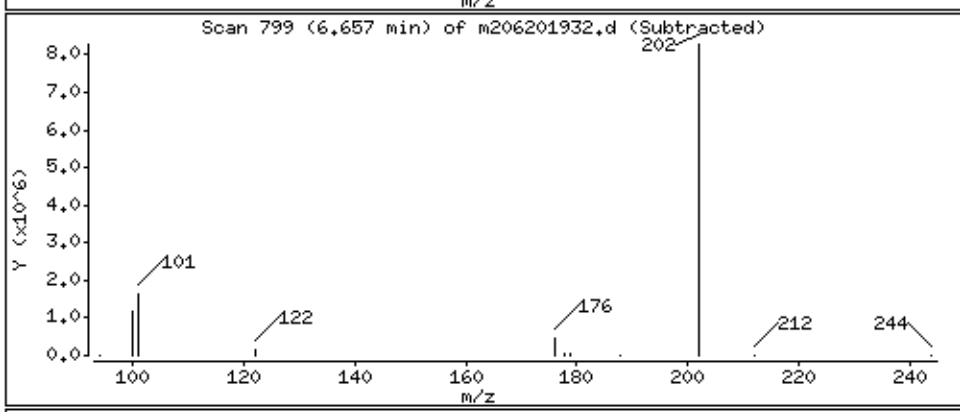
Column phase: RTX-5MS

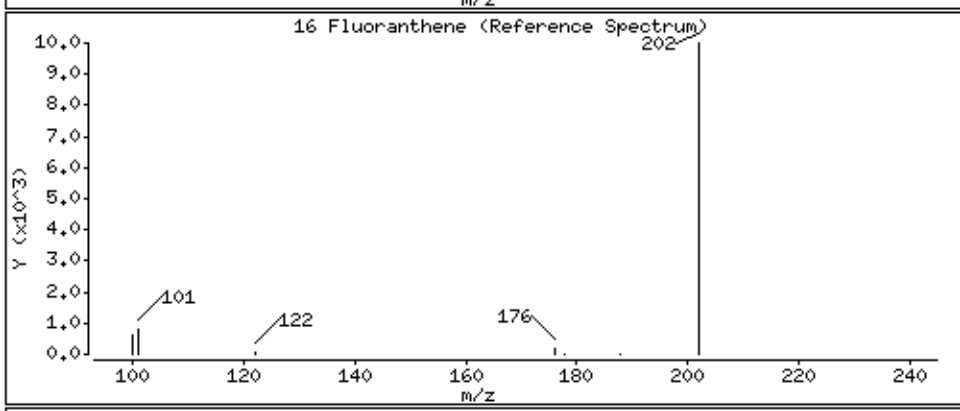
Column diameter: 0.25

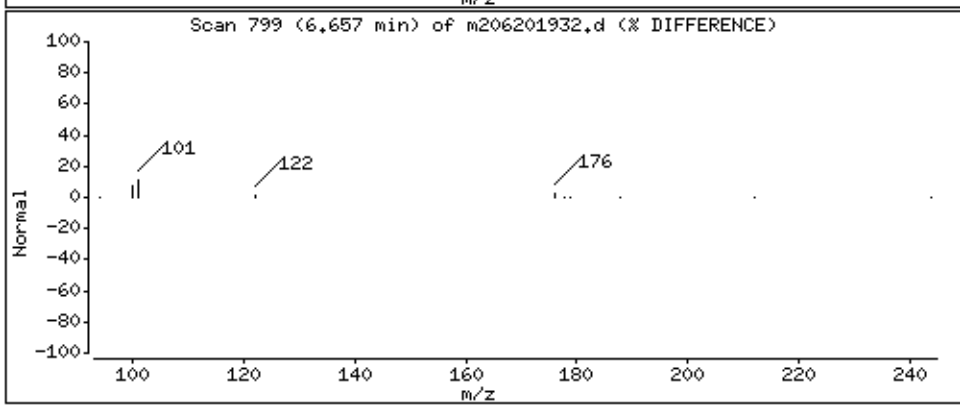
16 Fluoranthene

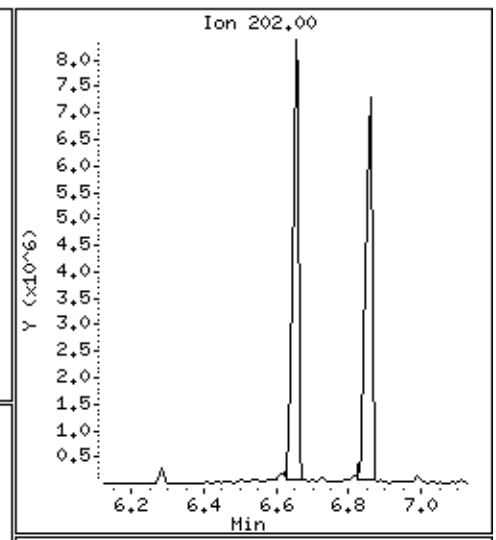
Concentration: 3100 ug/Kg

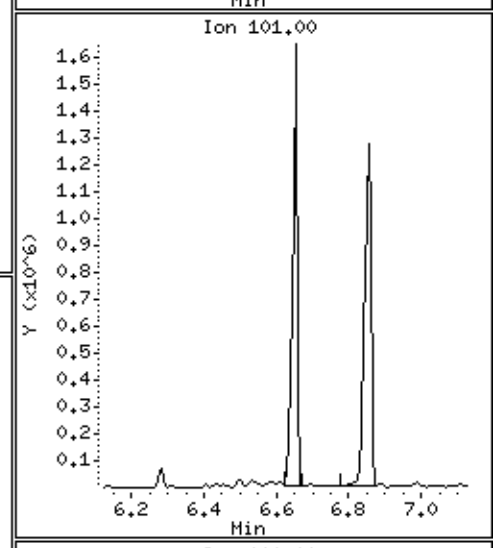


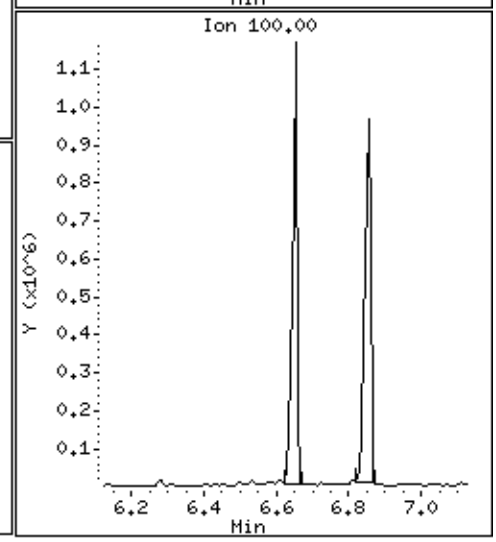












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

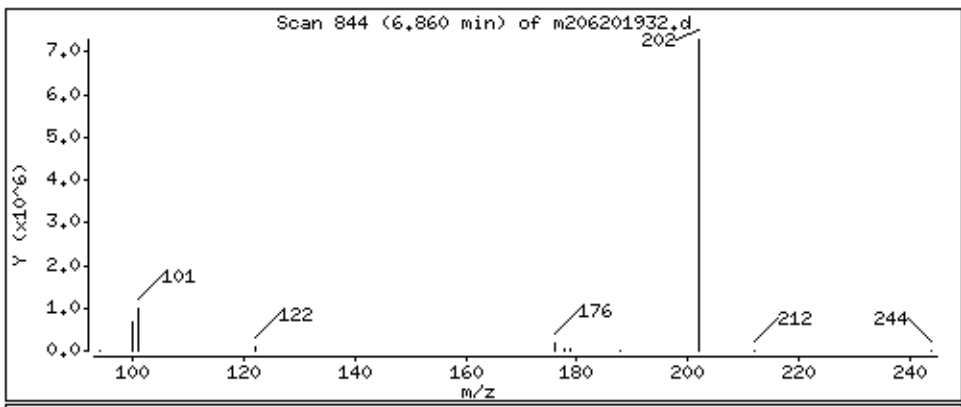
Operator: AJC

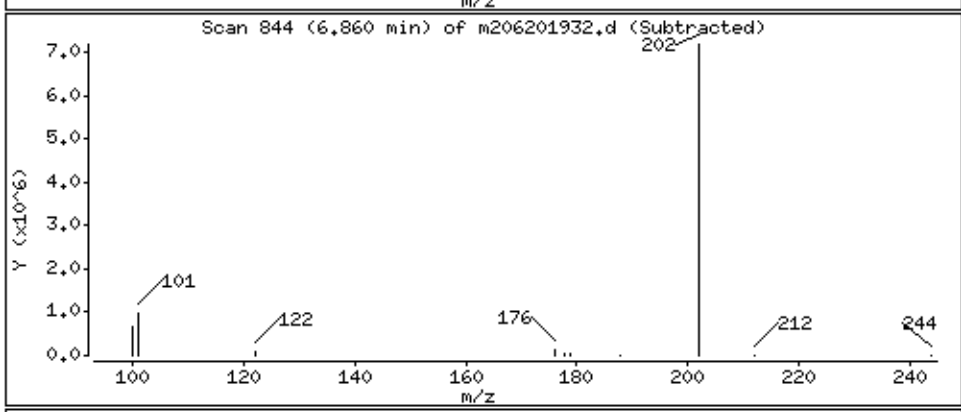
Column phase: RTX-5MS

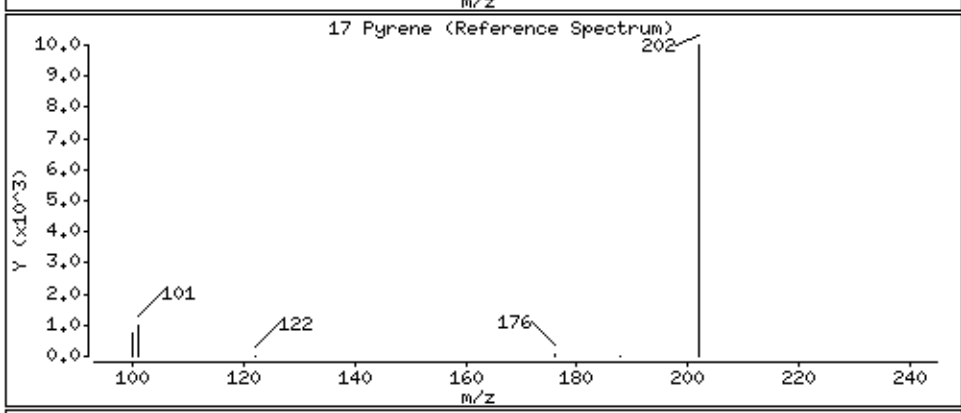
Column diameter: 0.25

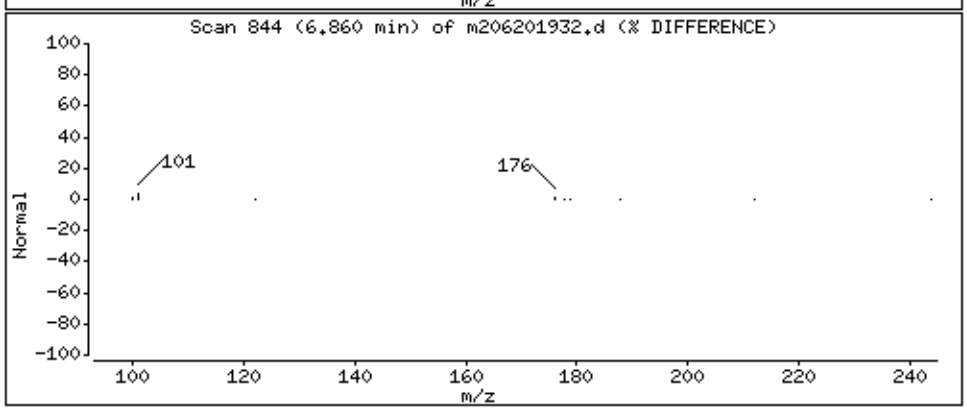
17 Pyrene

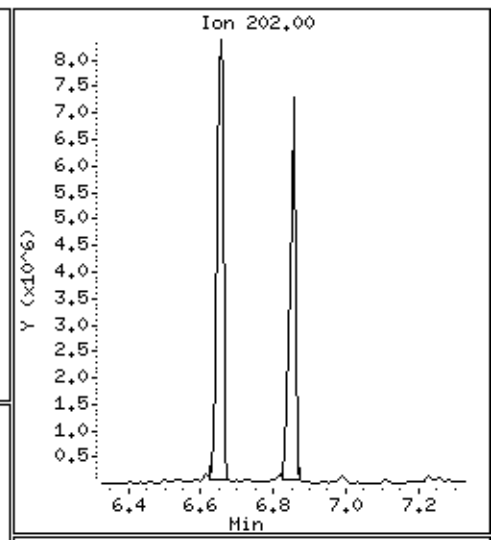
Concentration: 2520 ug/Kg

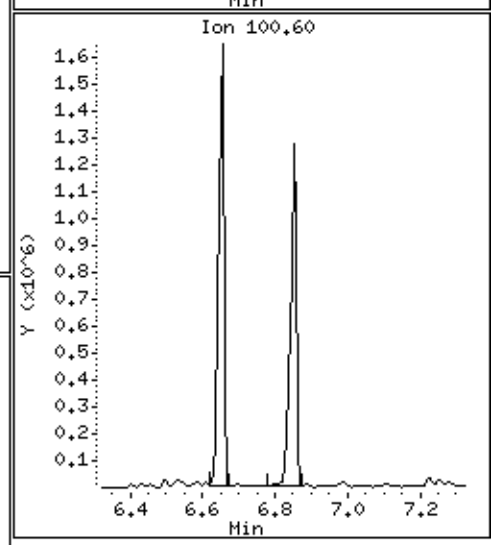












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

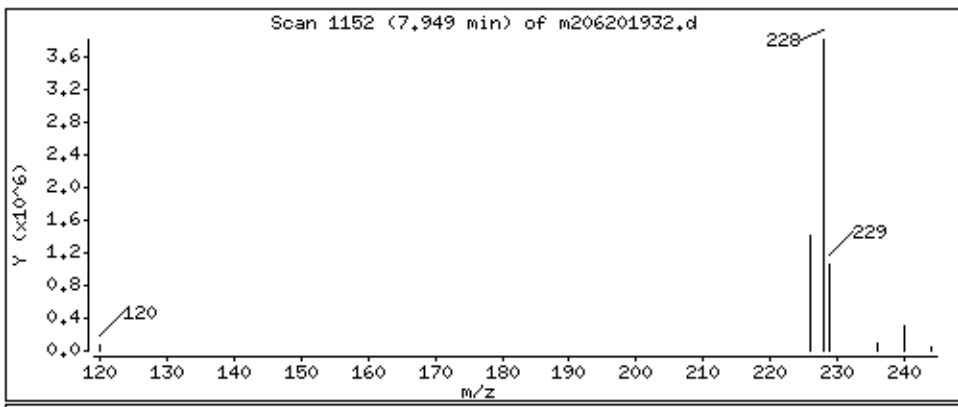
Operator: AJC

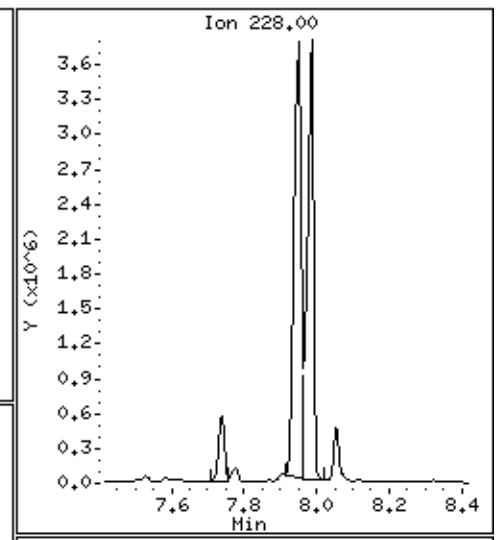
Column phase: RTX-5MS

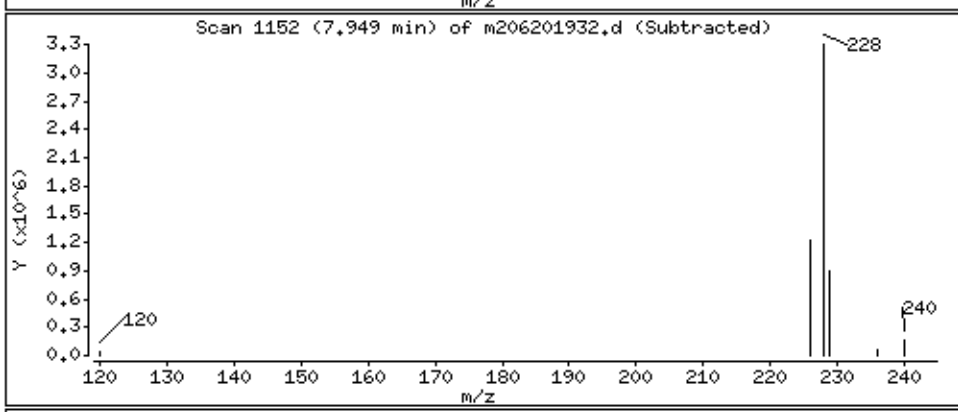
Column diameter: 0.25

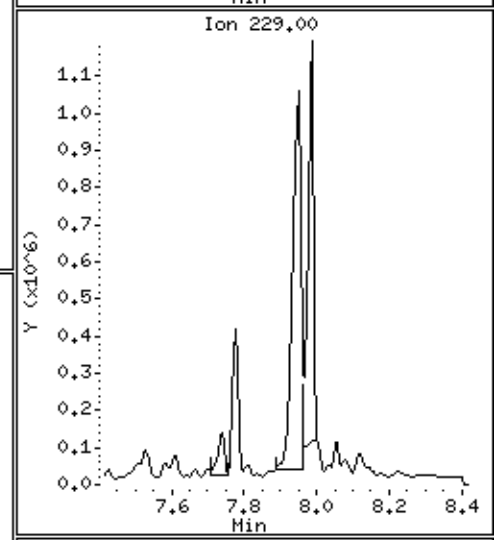
18 Benzo(a)anthracene

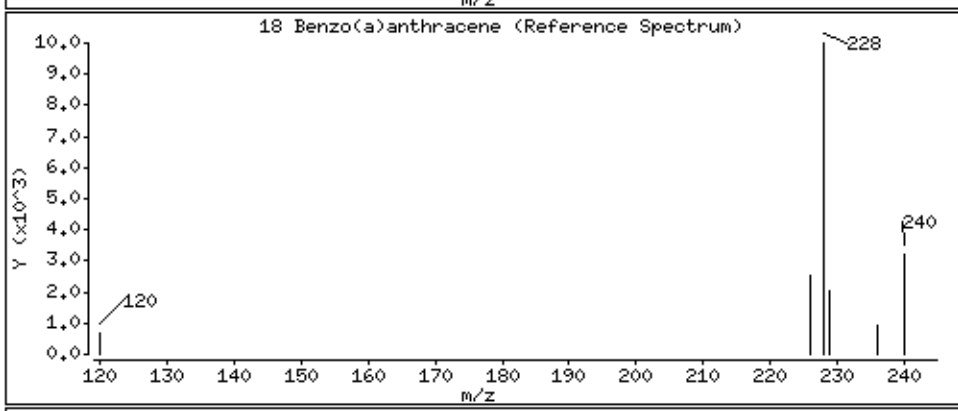
Concentration: 1580 ug/Kg

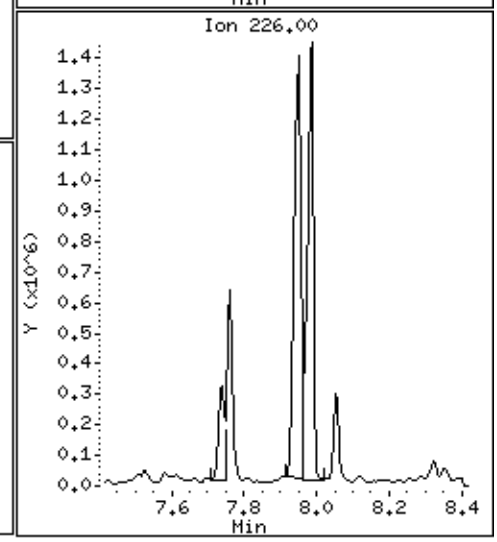


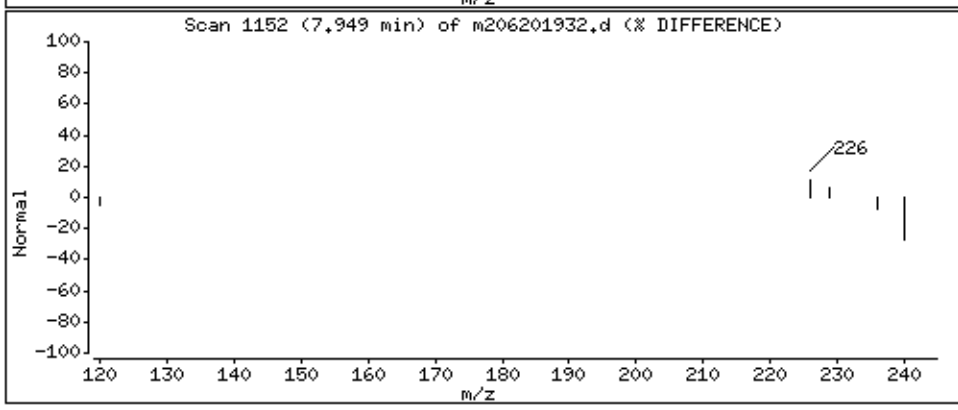












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

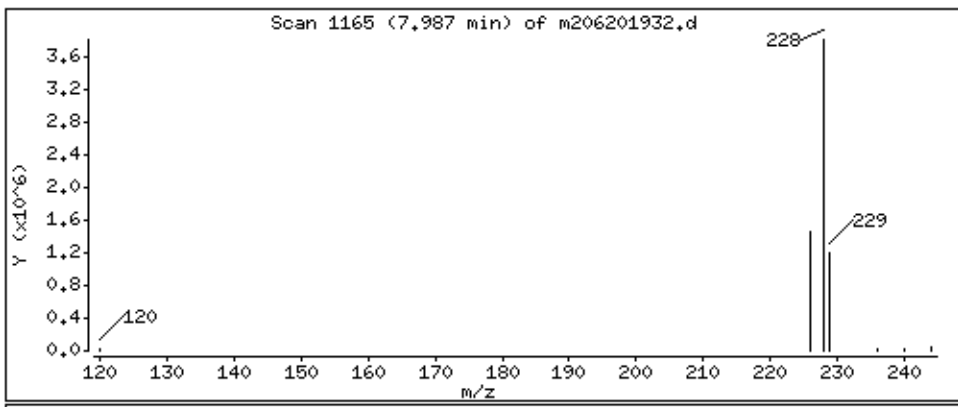
Operator: AJC

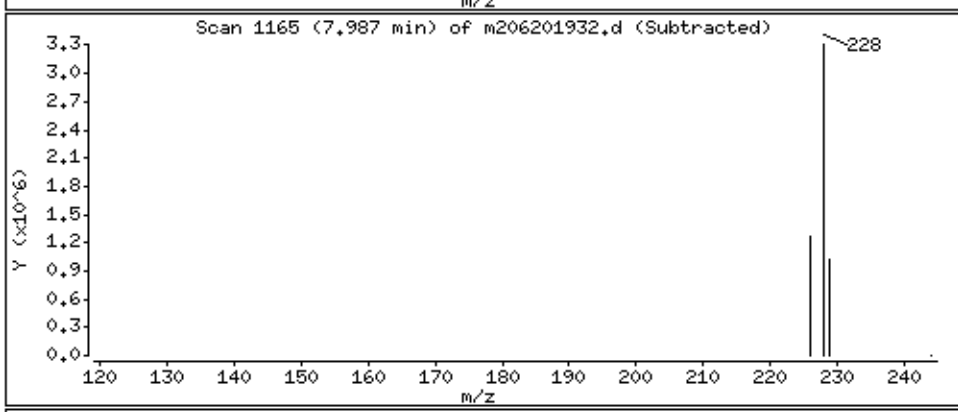
Column phase: RTX-5MS

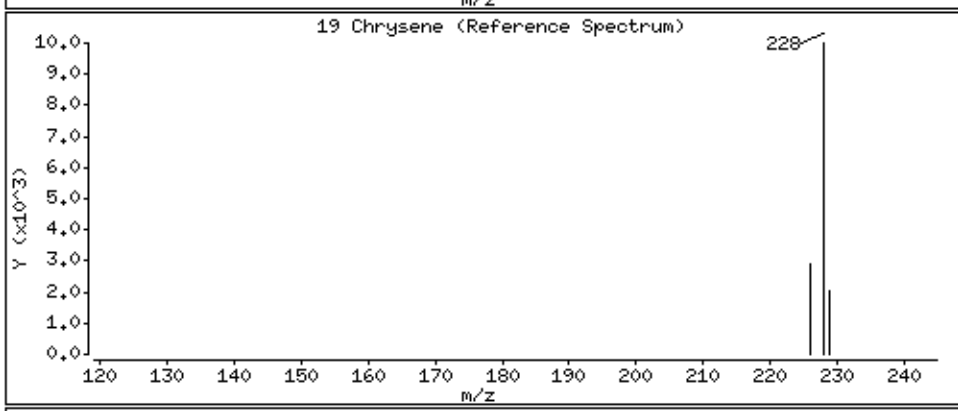
Column diameter: 0.25

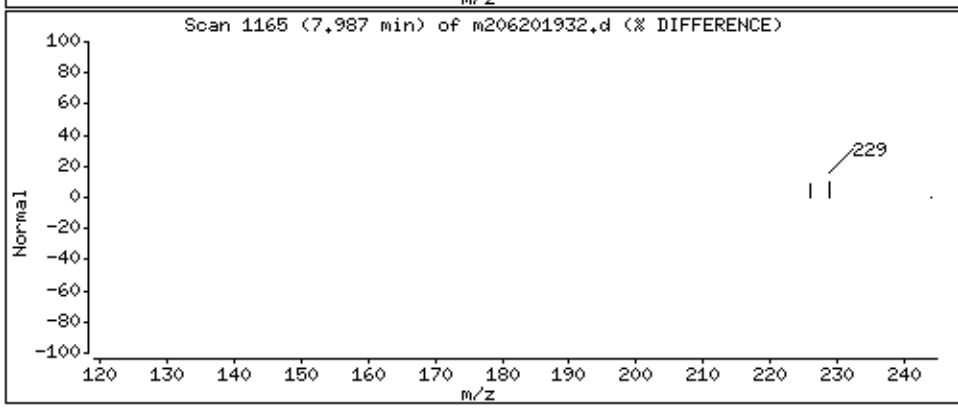
19 Chrysene

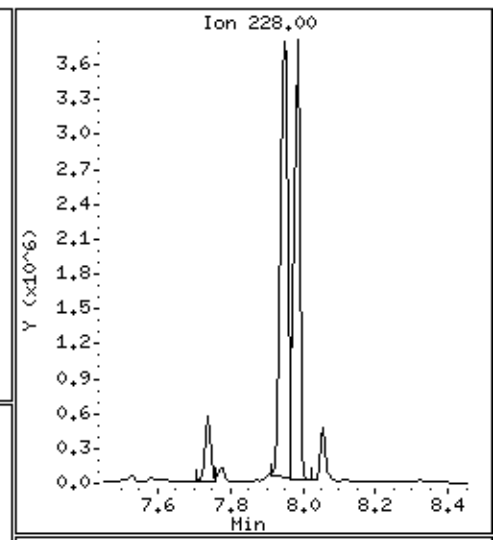
Concentration: 1320 ug/Kg

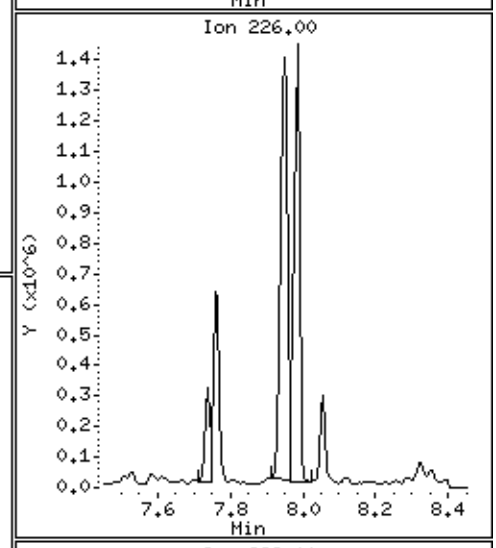


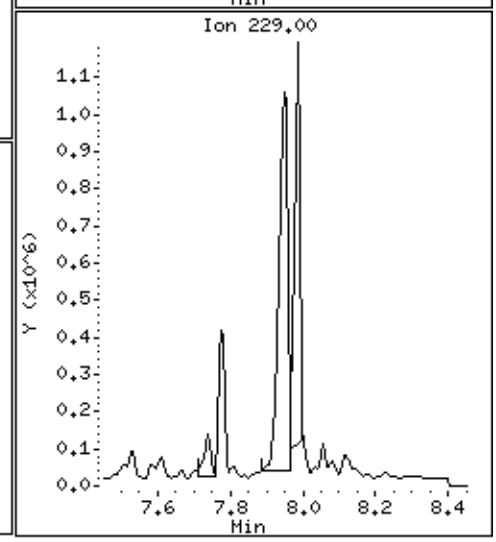












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

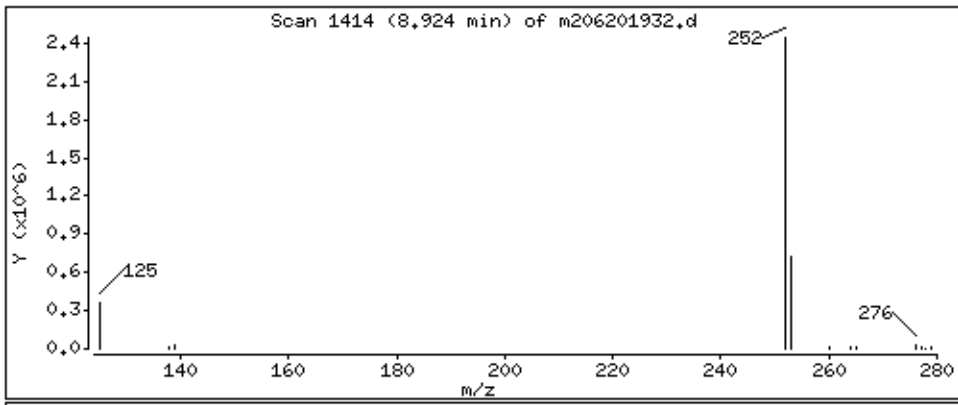
Operator: AJC

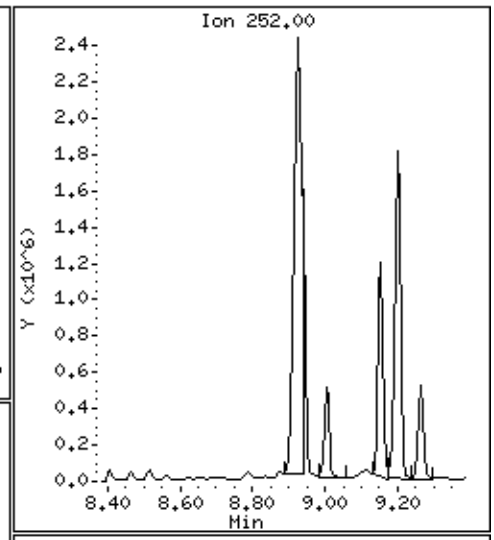
Column phase: RTX-5MS

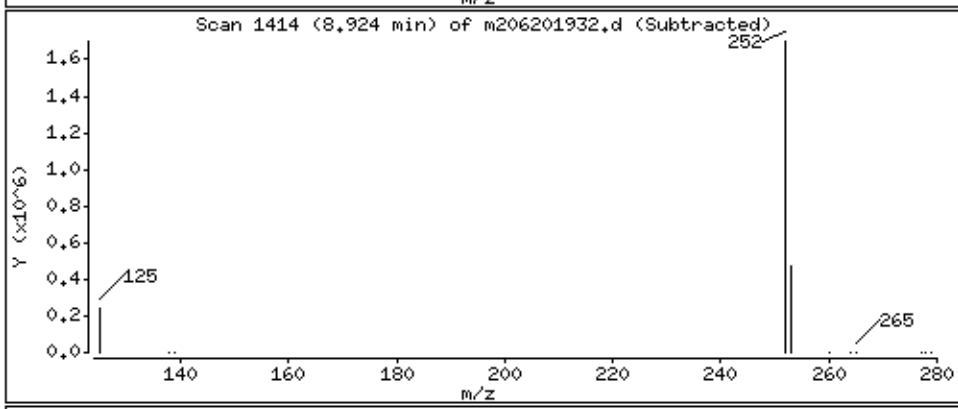
Column diameter: 0.25

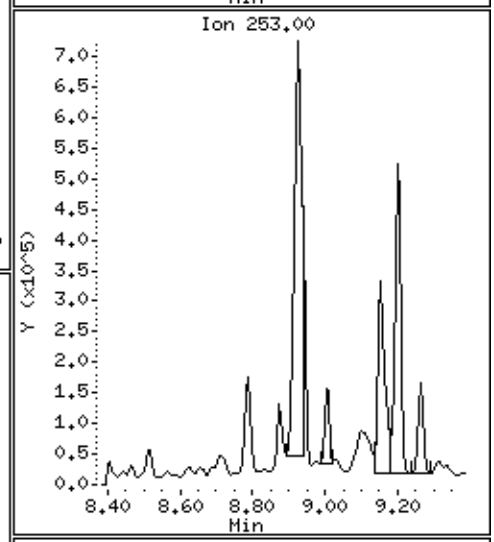
20 Benzo(b)fluoranthene

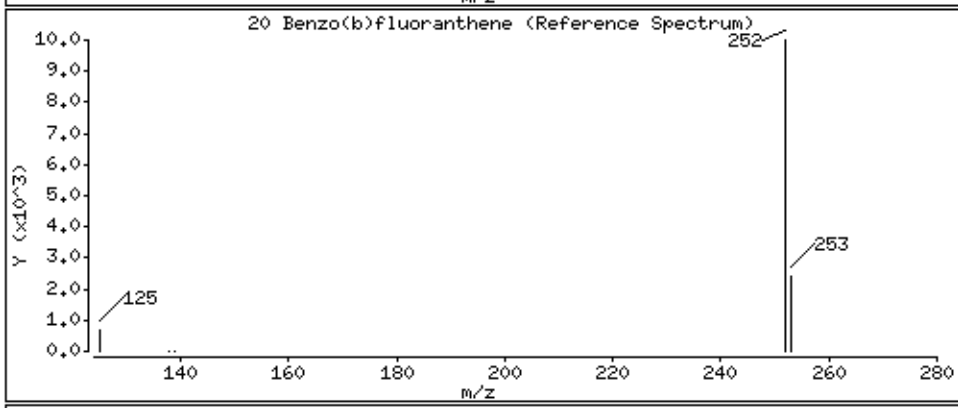
Concentration: 2620 ug/Kg

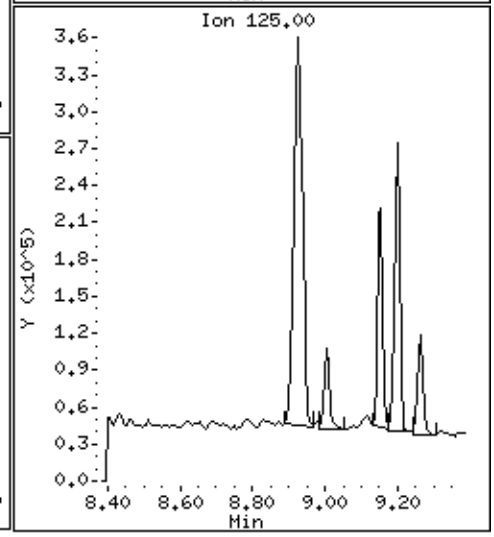


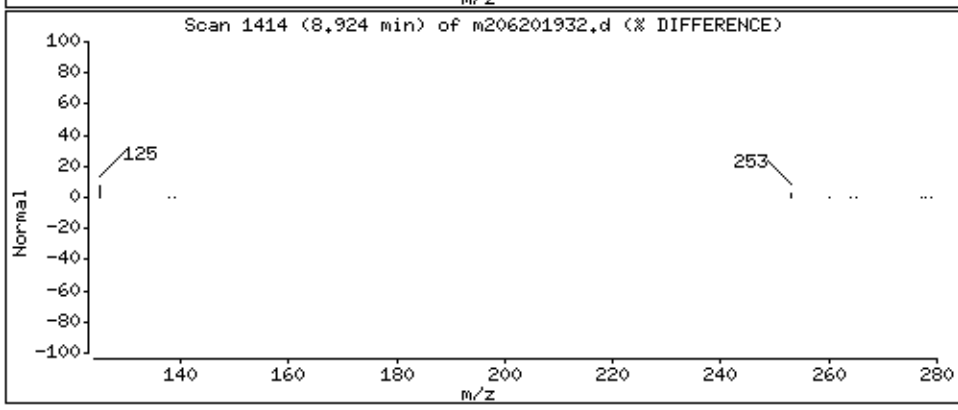












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Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

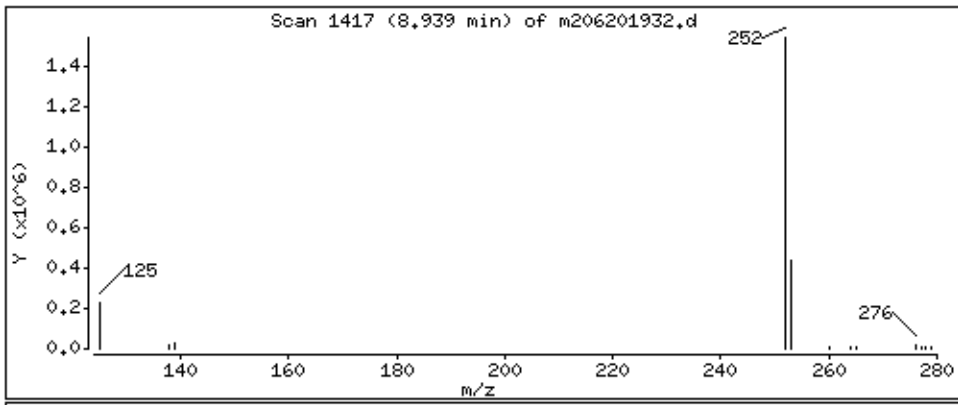
Operator: AJC

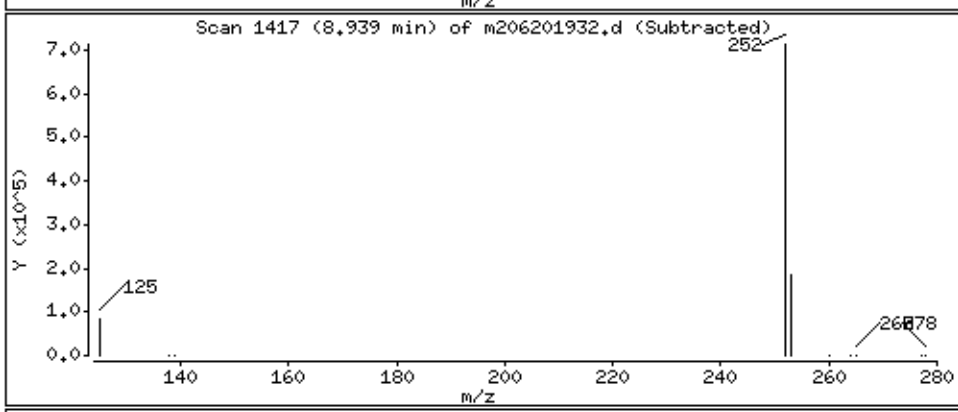
Column phase: RTX-5MS

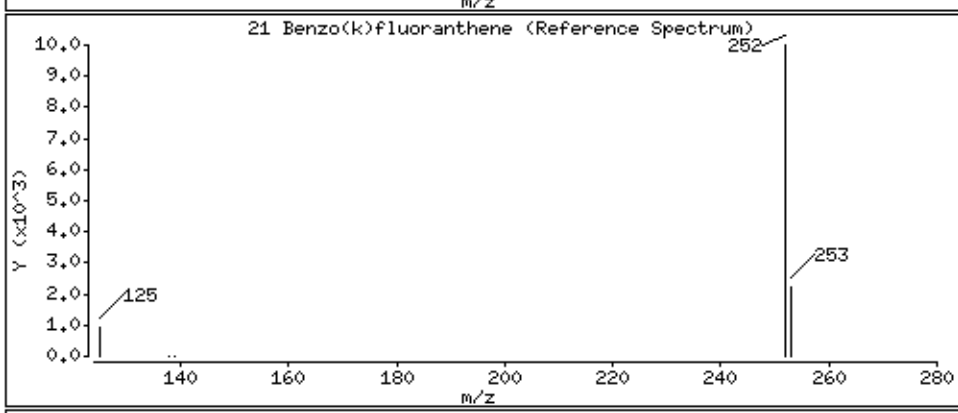
Column diameter: 0.25

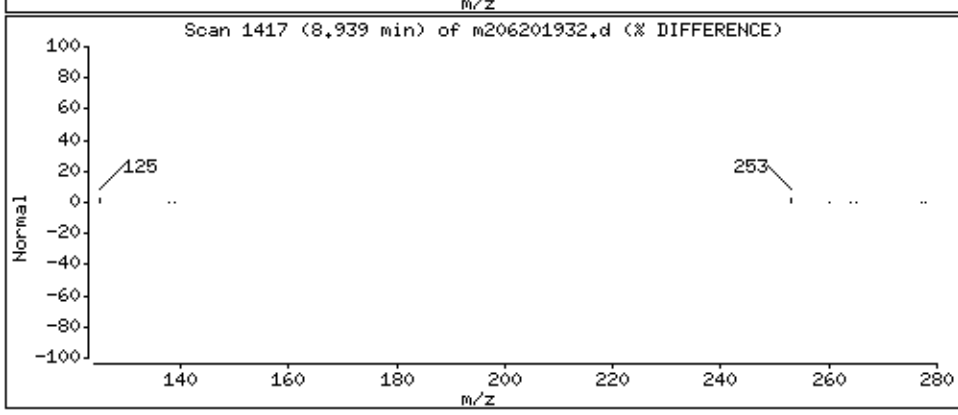
21 Benzo(k)fluoranthene

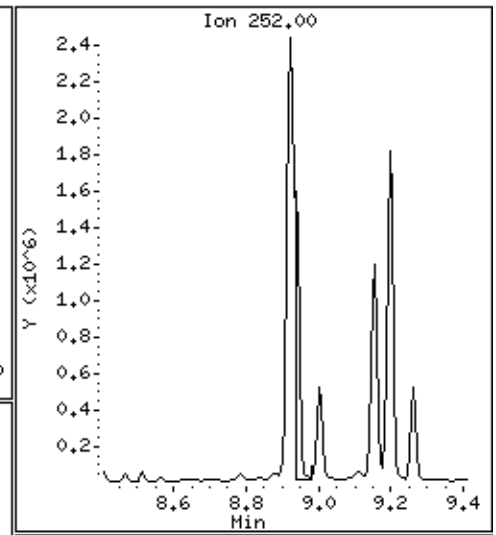
Concentration: 712 ug/Kg

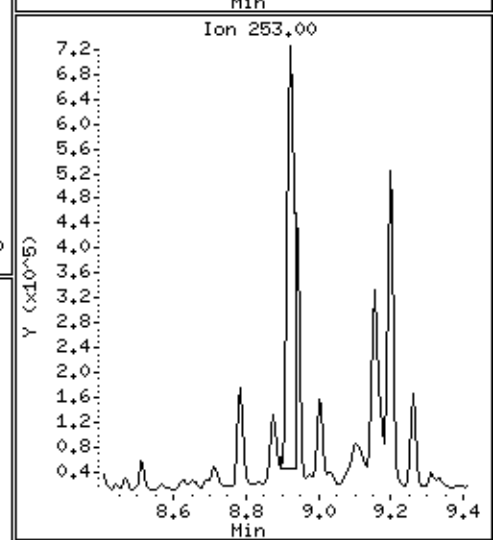


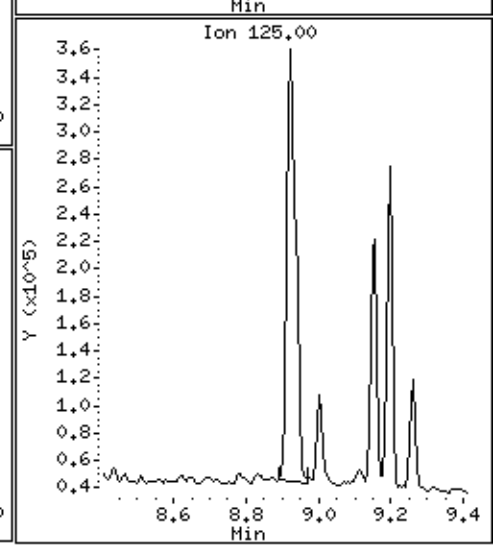












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

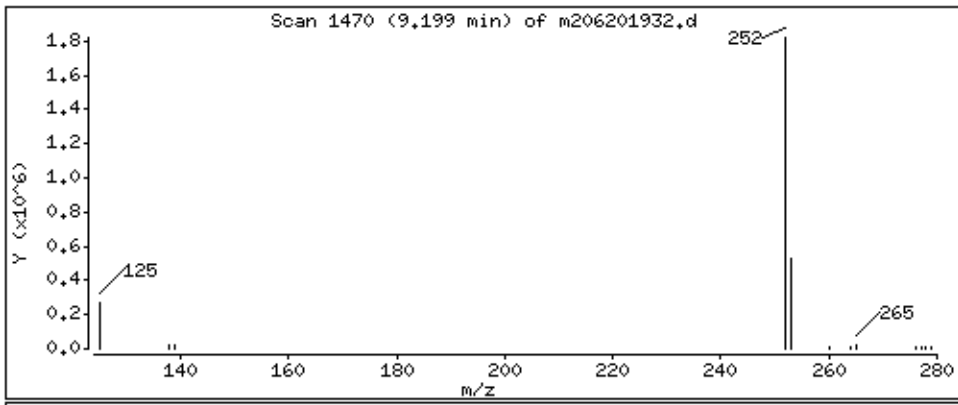
Operator: AJC

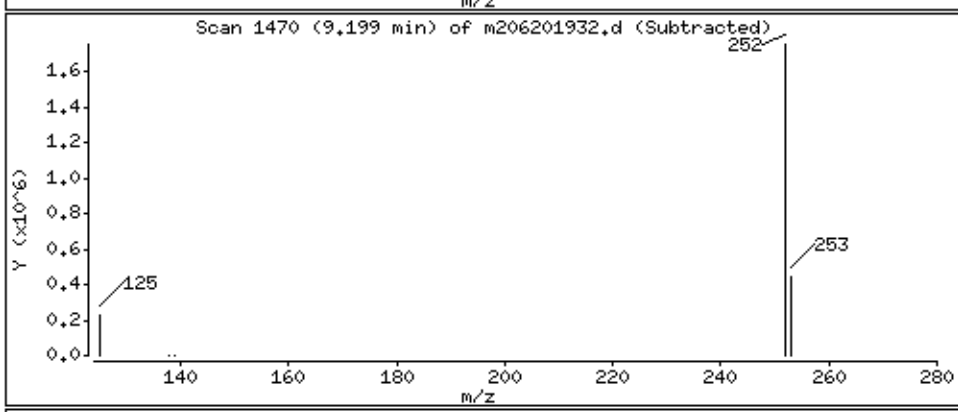
Column phase: RTX-5MS

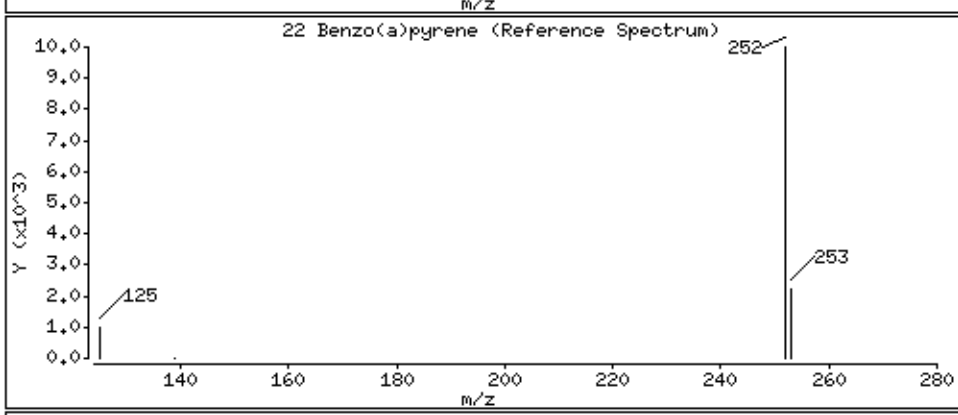
Column diameter: 0.25

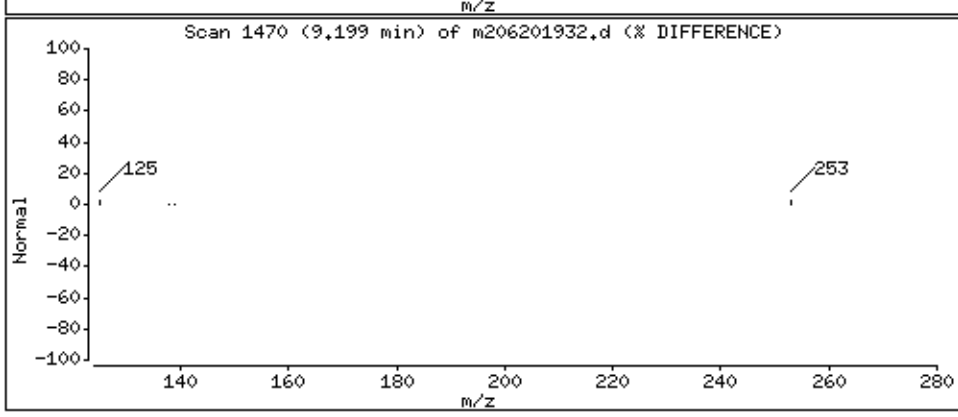
22 Benzo(a)pyrene

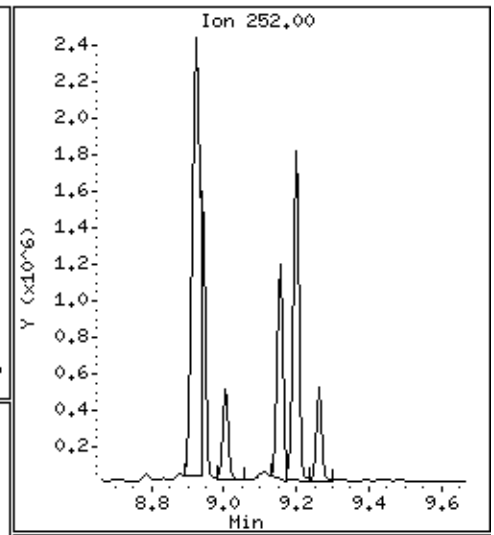
Concentration: 1440 ug/Kg

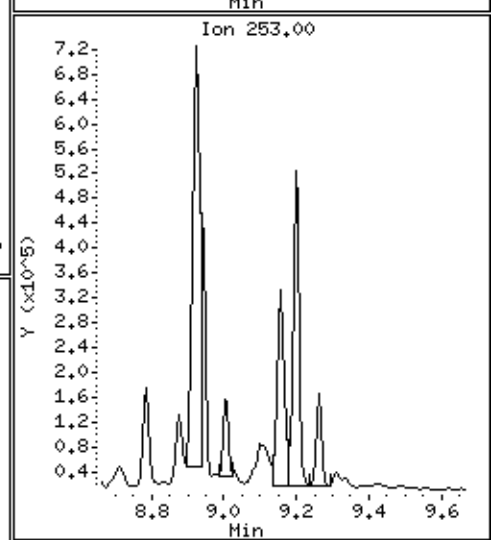


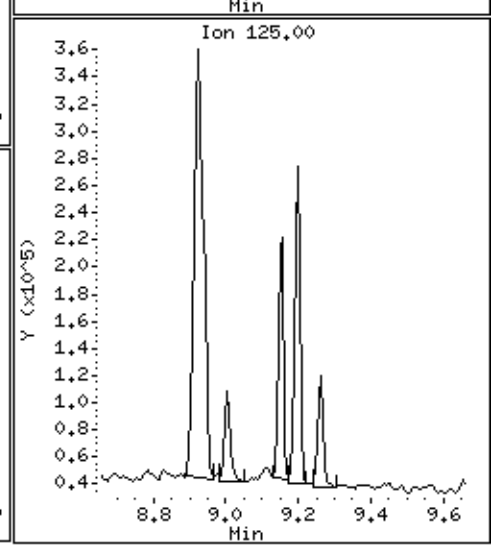












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

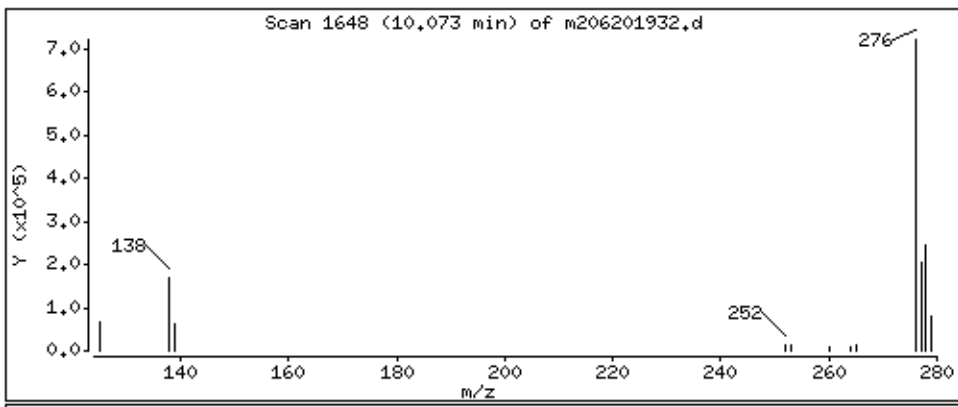
Operator: AJC

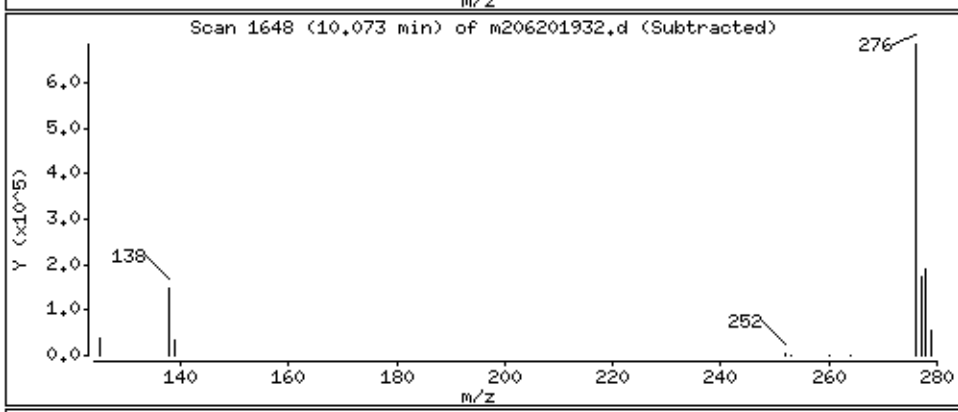
Column phase: RTX-5MS

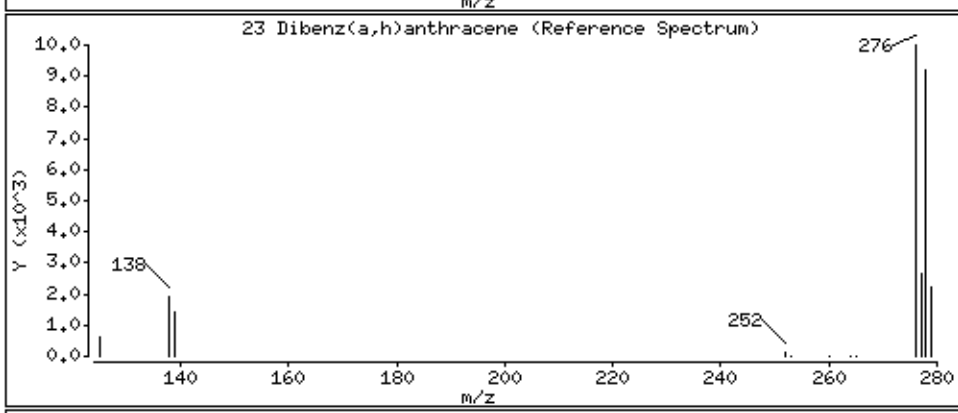
Column diameter: 0.25

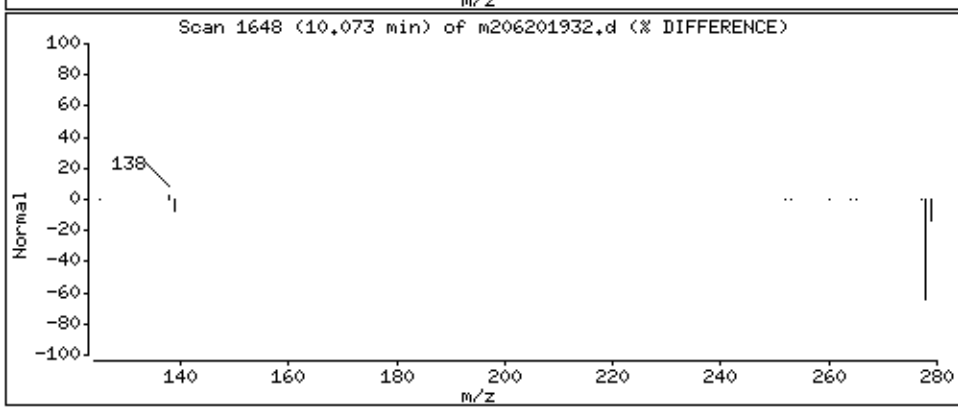
23 Dibenz(a,h)anthracene

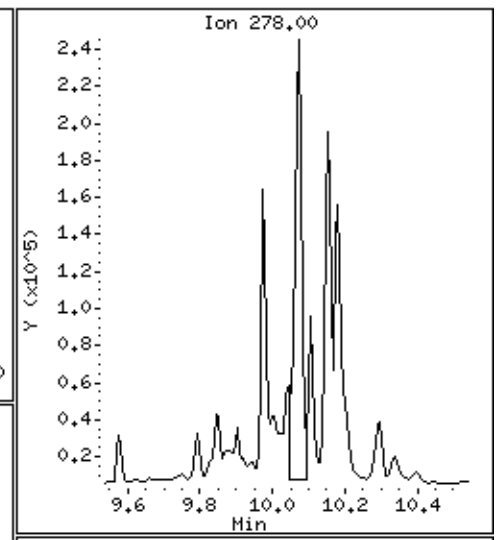
Concentration: 220 ug/Kg

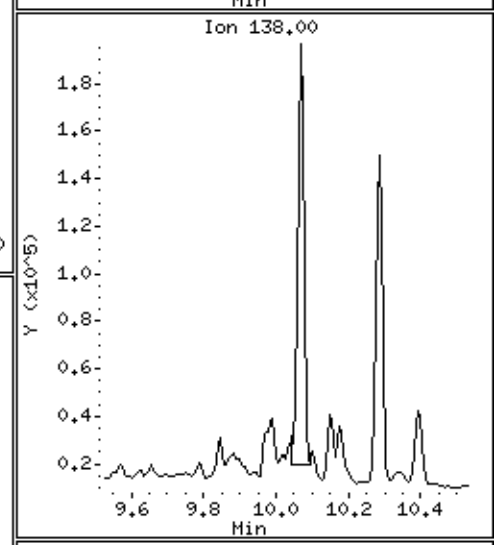


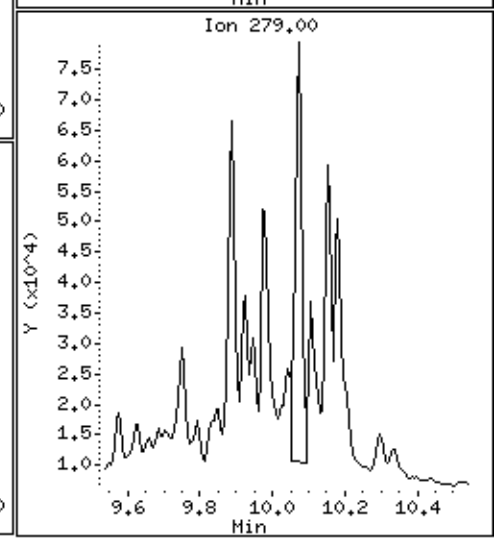












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

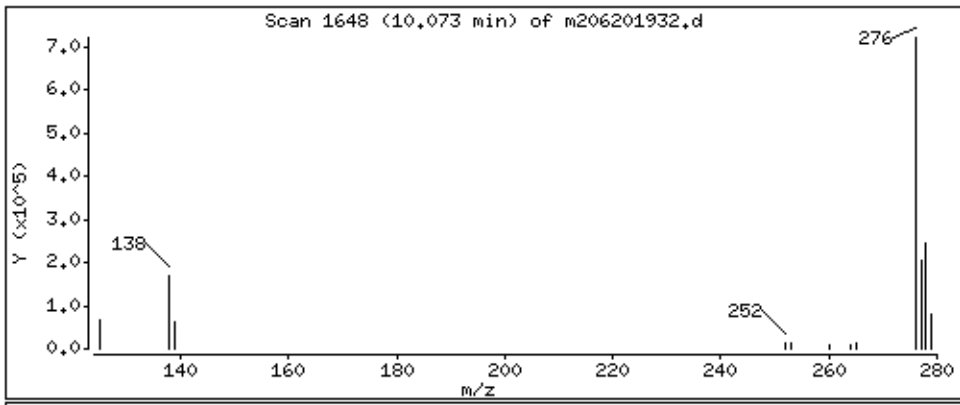
Operator: AJC

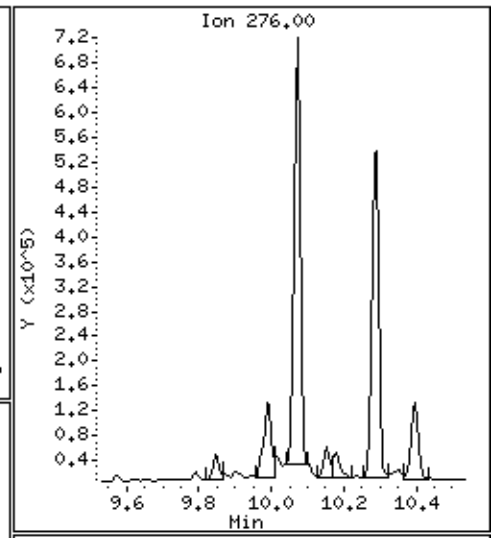
Column phase: RTX-5MS

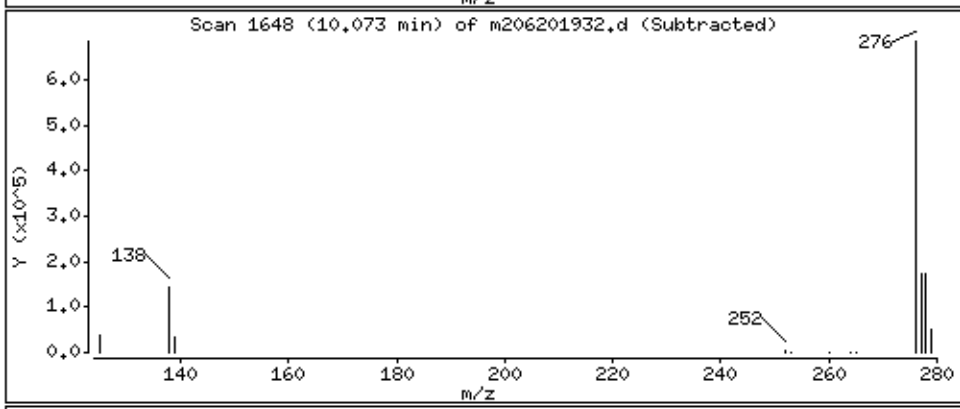
Column diameter: 0.25

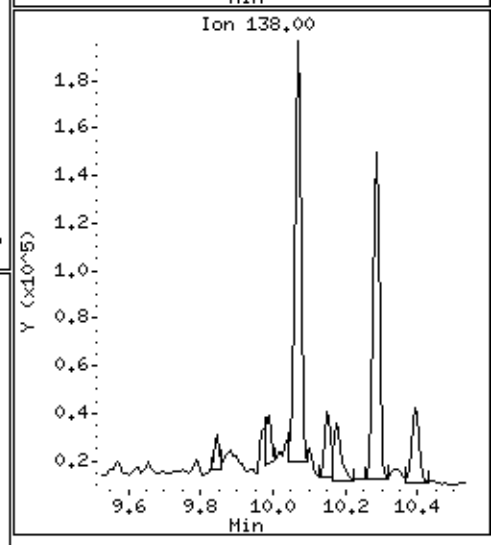
24 Indeno(1,2,3-cd)pyrene

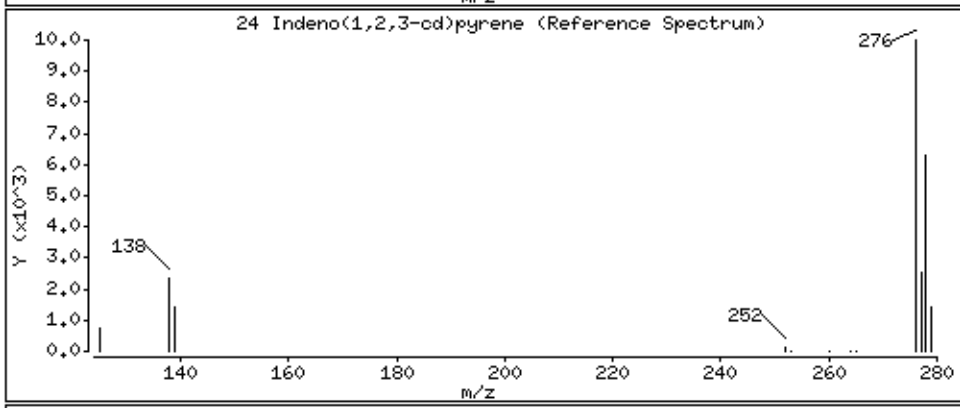
Concentration: 446 ug/Kg

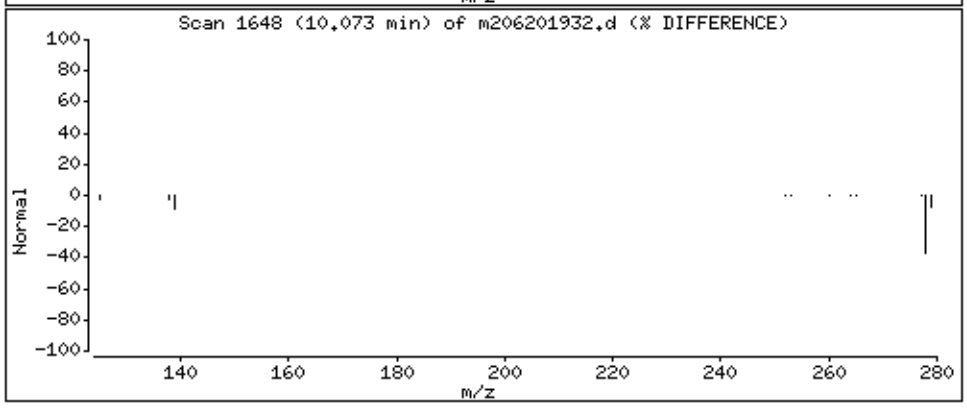












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201932.d

Date : 20-JUN-2019 19:55

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002,

Volume Injected (uL): 1.0

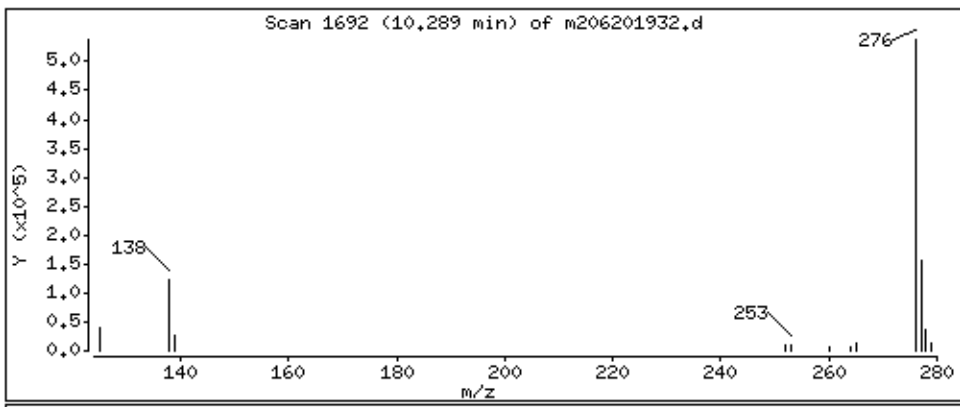
Operator: AJC

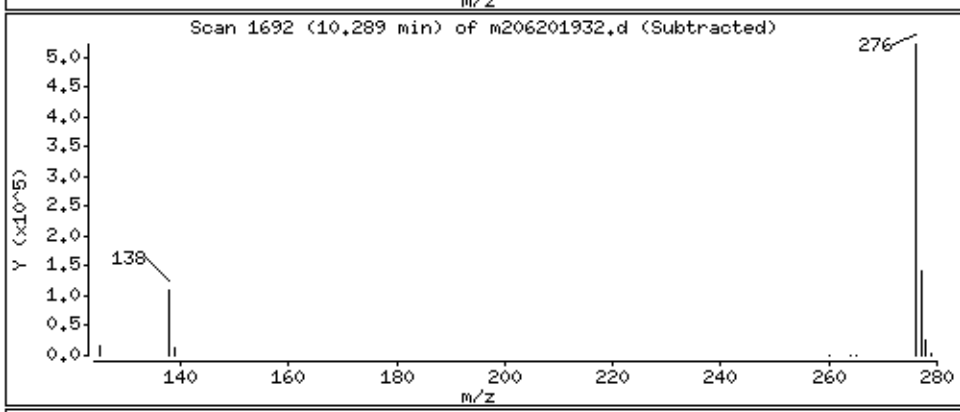
Column phase: RTX-5MS

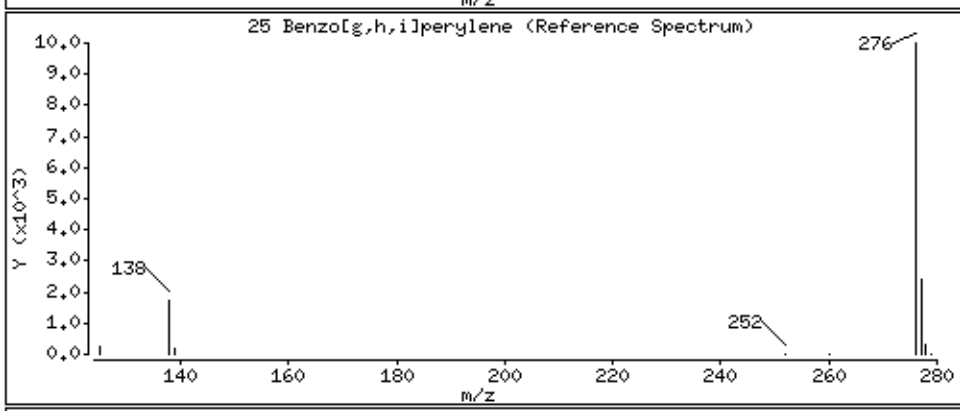
Column diameter: 0.25

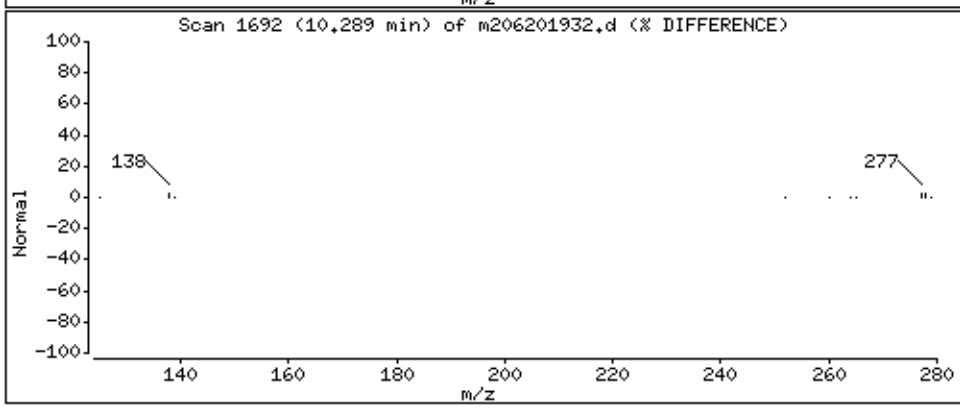
25 Benzo[g,h,i]perylene

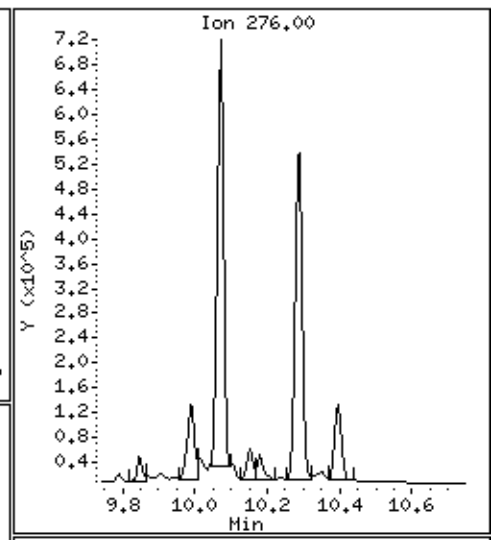
Concentration: 474 ug/Kg

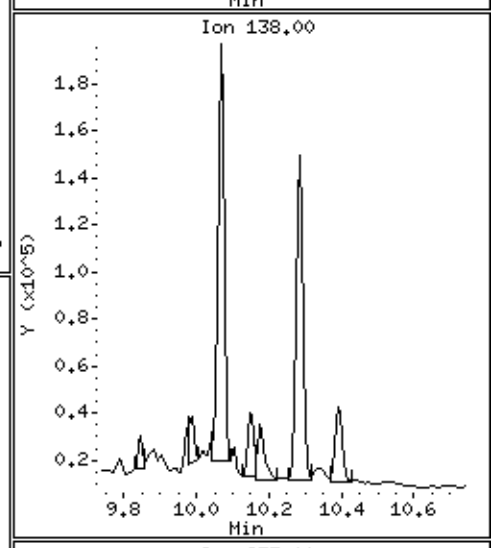


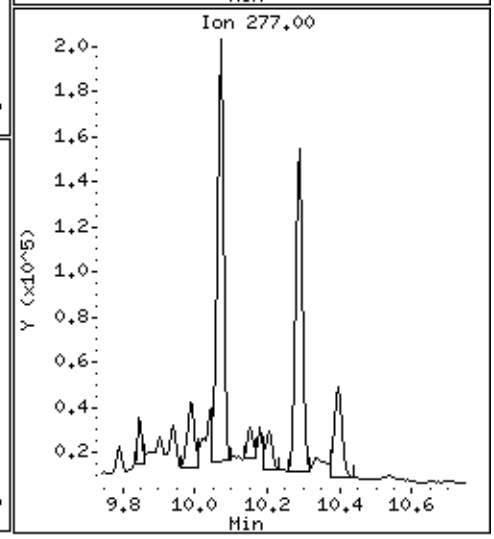






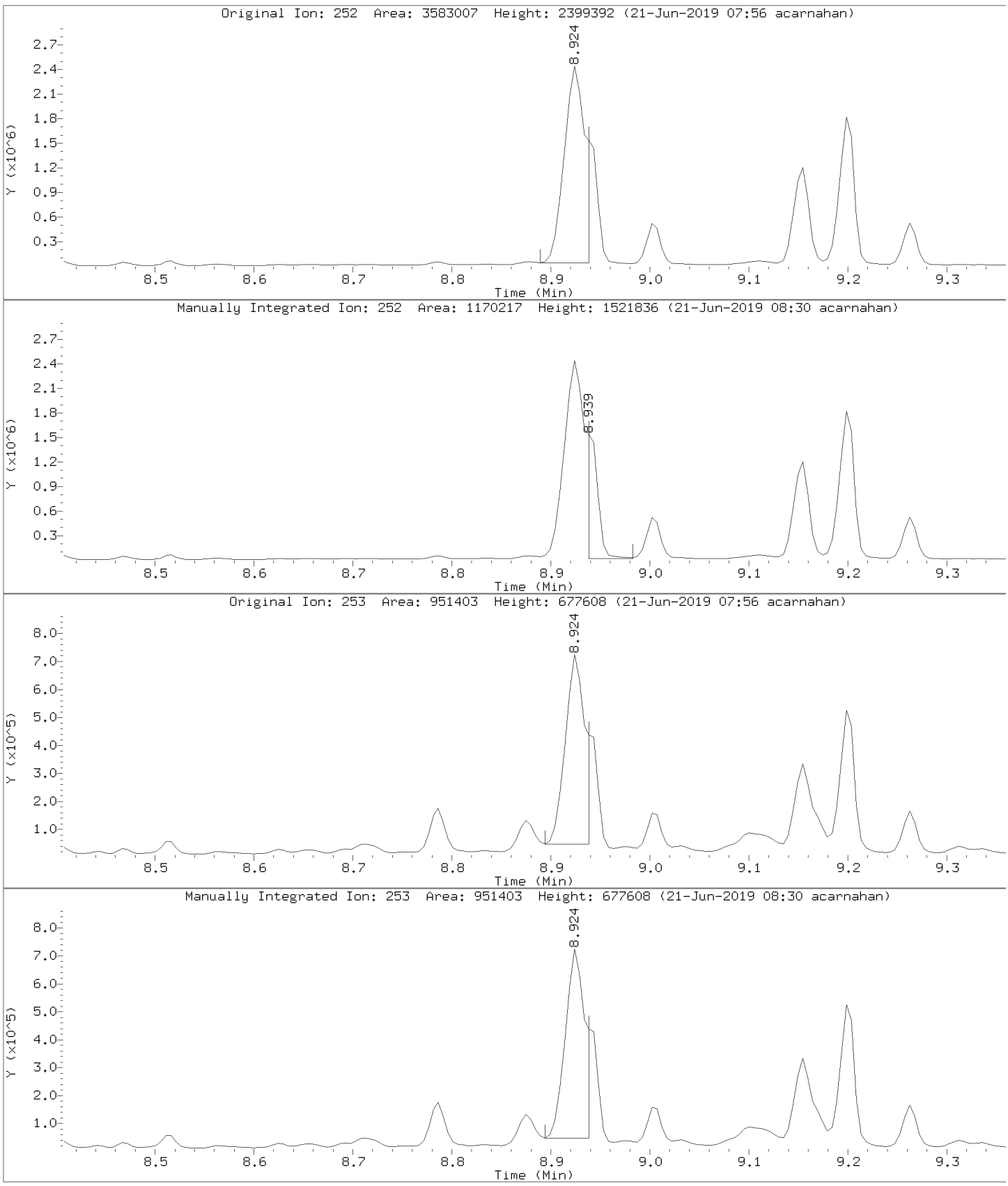




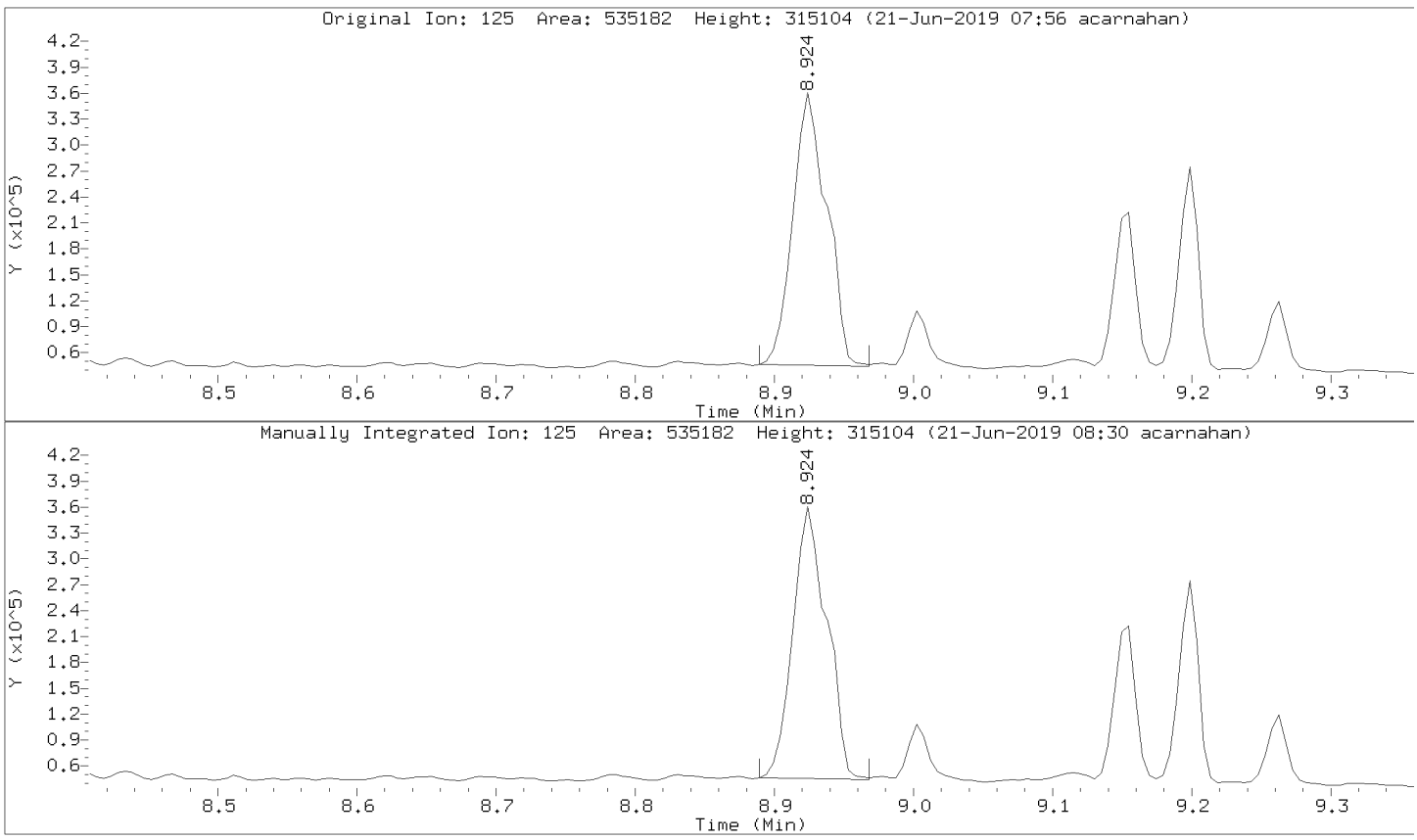


Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201932.d
Injection Date: 20-JUN-2019 19:55
Instrument: 30mss2.i
Lab Sample ID: 30300161002

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9

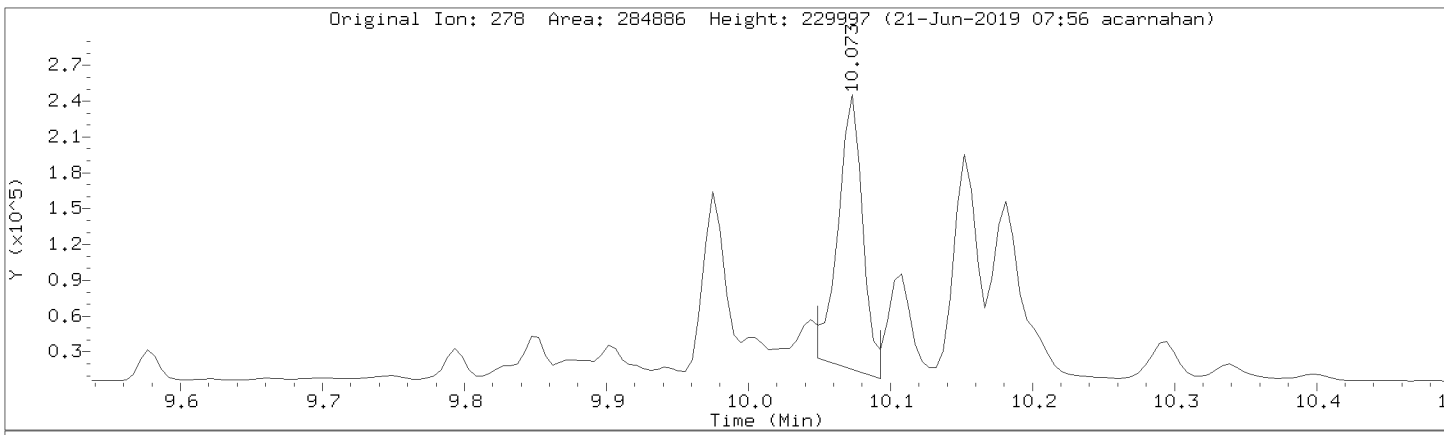


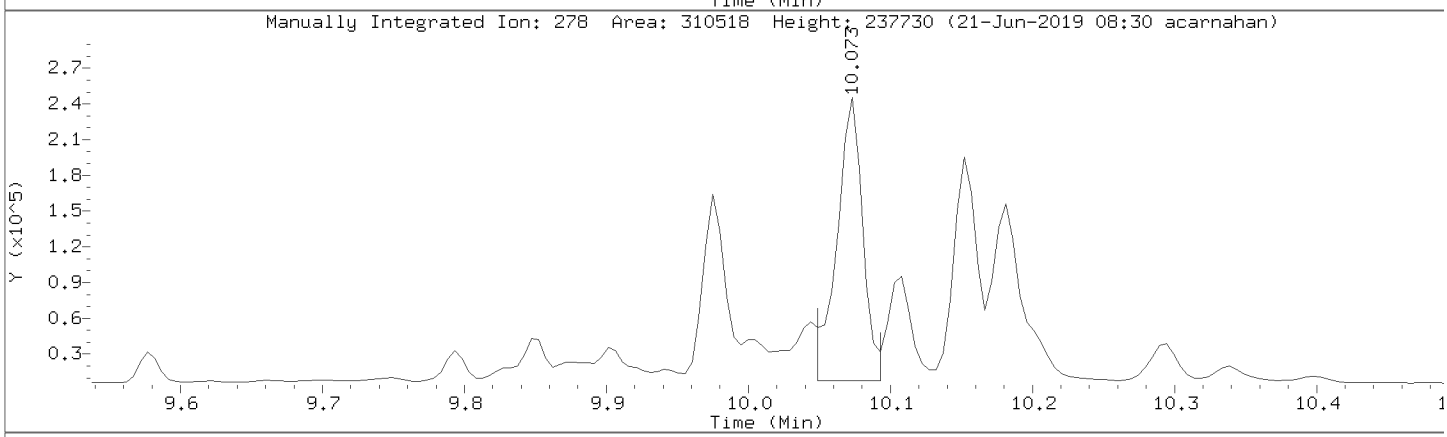
Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201932.d
Injection Date: 20-JUN-2019 19:55
Instrument: 30mss2.i
Lab Sample ID: 30300161002

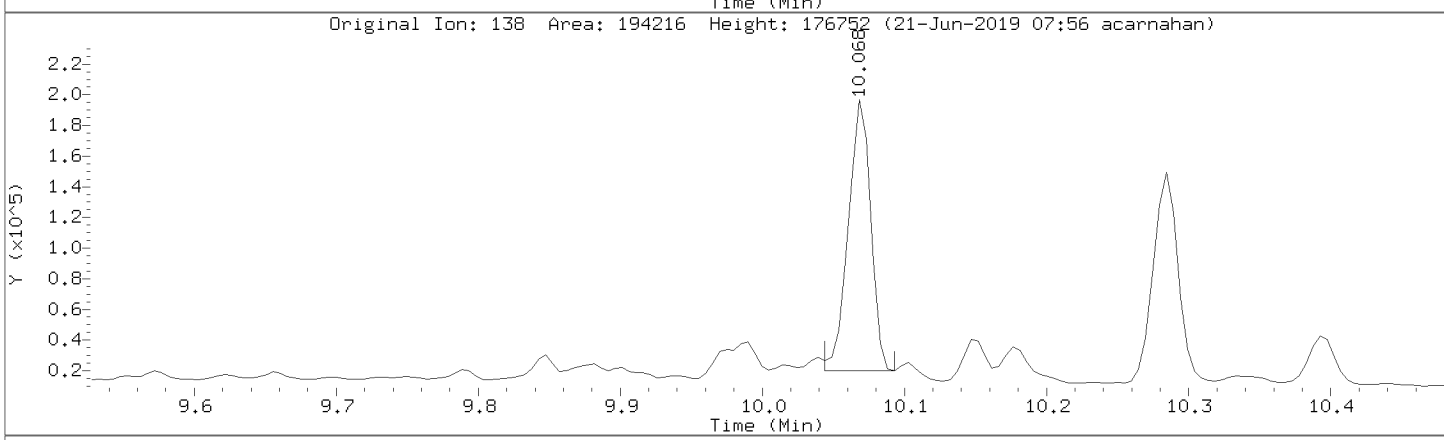


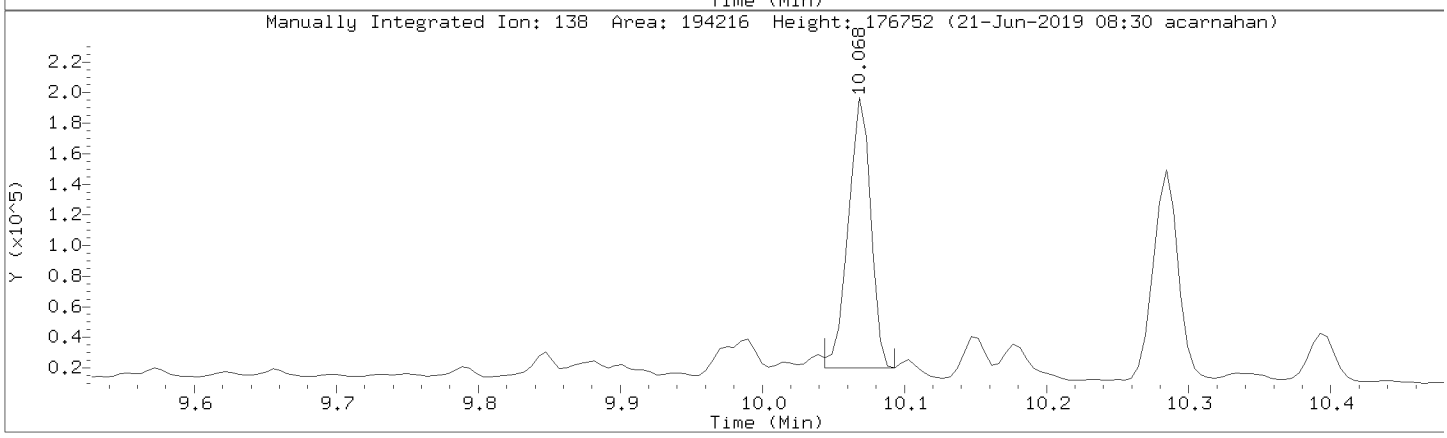
Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201932.d
Injection Date: 20-JUN-2019 19:55
Instrument: 30mss2.i
Lab Sample ID: 30300161002

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3

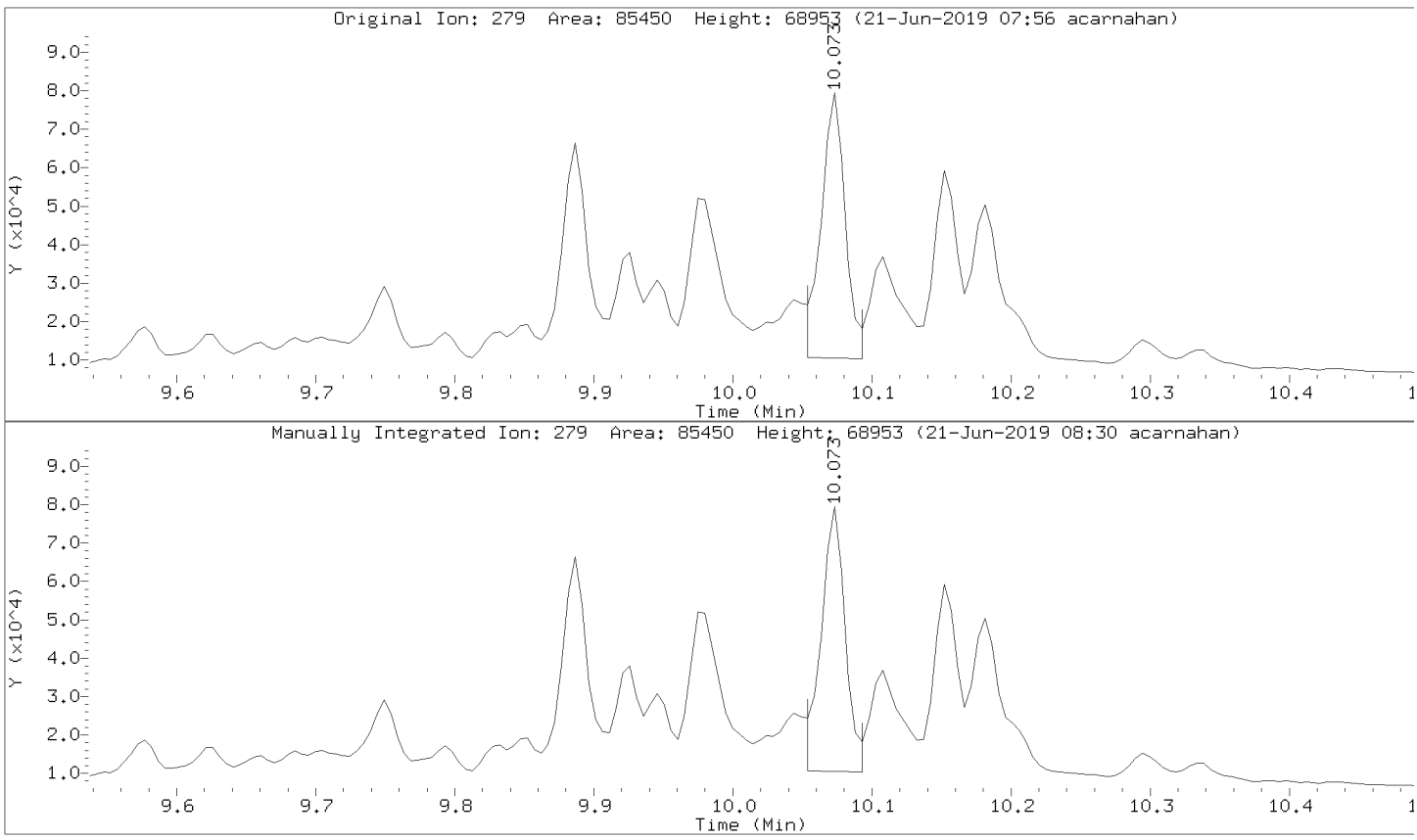








Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201932.d
Injection Date: 20-JUN-2019 19:55
Instrument: 30mss2.i
Lab Sample ID: 30300161002



SAMPLE NO.

AOC 26-2

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 30300161002
Date Analyzed: 06/20/2019 20:13
Lab File ID: MSS2062019.B\M206201933.D
Initial wt/vol: 15.1 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 6.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
56-55-3	Benzo(a)anthracene	2.2	
50-32-8	Benzo(a)pyrene	1.8	
205-99-2	Benzo(b)fluoranthene	2.8	
206-44-0	Fluoranthene	4.1	
85-01-8	Phenanthrene	3.3	
129-00-0	Pyrene	3.3	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 20-JUN-2019 20:13
Operator : AJC Inst ID: 30mss2.i
Smp Info : 30300161002x10,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 35
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.504	3.498	(1.000)	653062	4.00000		
	8 Naphthalene	128	3.515	3.510	(1.003)	45756	0.31090	206	
	9 2-Methylnaphthalene	142	3.955	3.949	(1.129)	16612	0.16984	112	
	10 1-Methylnaphthalene	142	4.018	4.012	(1.147)	13152	0.12533	83.0	
$	6 2-Fluorobiphenyl (S)	172	4.183	4.178	(0.905)	45116	0.35408	23.4(R)	
	11 Acenaphthylene	152	4.533	4.530	(0.981)	22152	0.14730	97.6	
*	2 Acenaphthene-d10 (IS)	164	4.622	4.619	(1.000)	381746	4.00000		
	12 Acenaphthene	153	4.642	4.639	(1.004)	41636	0.42389	281	
	13 Fluorene	166	4.986	4.979	(1.079)	73675	0.63911	423	
*	3 Phenanthrene-d10 (IS)	188	5.650	5.646	(1.000)	651134	4.00000		
	14 Phenanthrene	178	5.668	5.659	(1.003)	734942	4.67612	3100	
	15 Anthracene	178	5.709	5.700	(1.010)	252808	1.57830	1040	
	16 Fluoranthene	202	6.638	6.625	(1.175)	1025684	5.70156	3780	
	17 Pyrene	202	6.837	6.828	(1.210)	854521	4.61990	3060	
$	7 Terphenyl-d14 (S)	244	6.959	6.950	(1.232)	55921	0.40458	26.8(R)	
	18 Benzo(a)anthracene	228	7.932	7.917	(0.999)	482680	3.11094	2060	
*	4 Chrysene-d12 (IS)	240	7.940	7.929	(1.000)	567002	4.00000		
	19 Chrysene	228	7.964	7.952	(1.003)	420073	2.64333	1750	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.904	8.884	(0.965)	352832	3.93867	2610(Q)	
21 Benzo(k)fluoranthene	252	8.918	8.909	(0.967)	194522	1.80736	1200(QM)	WP
22 Benzo(a)pyrene	252	9.179	9.164	(0.995)	213536	2.50569	1660	
* 5 Perylene-d12 (IS)	264	9.223	9.209	(1.000)	343270	4.00000		
23 Dibenz(a,h)anthracene	278	10.053	10.039	(1.090)	32414	0.35097	232(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.048	10.034	(1.089)	90135	0.80758	535	
25 Benzo[g,h,i]perylene	276	10.264	10.245	(1.113)	79655	0.86681	574	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

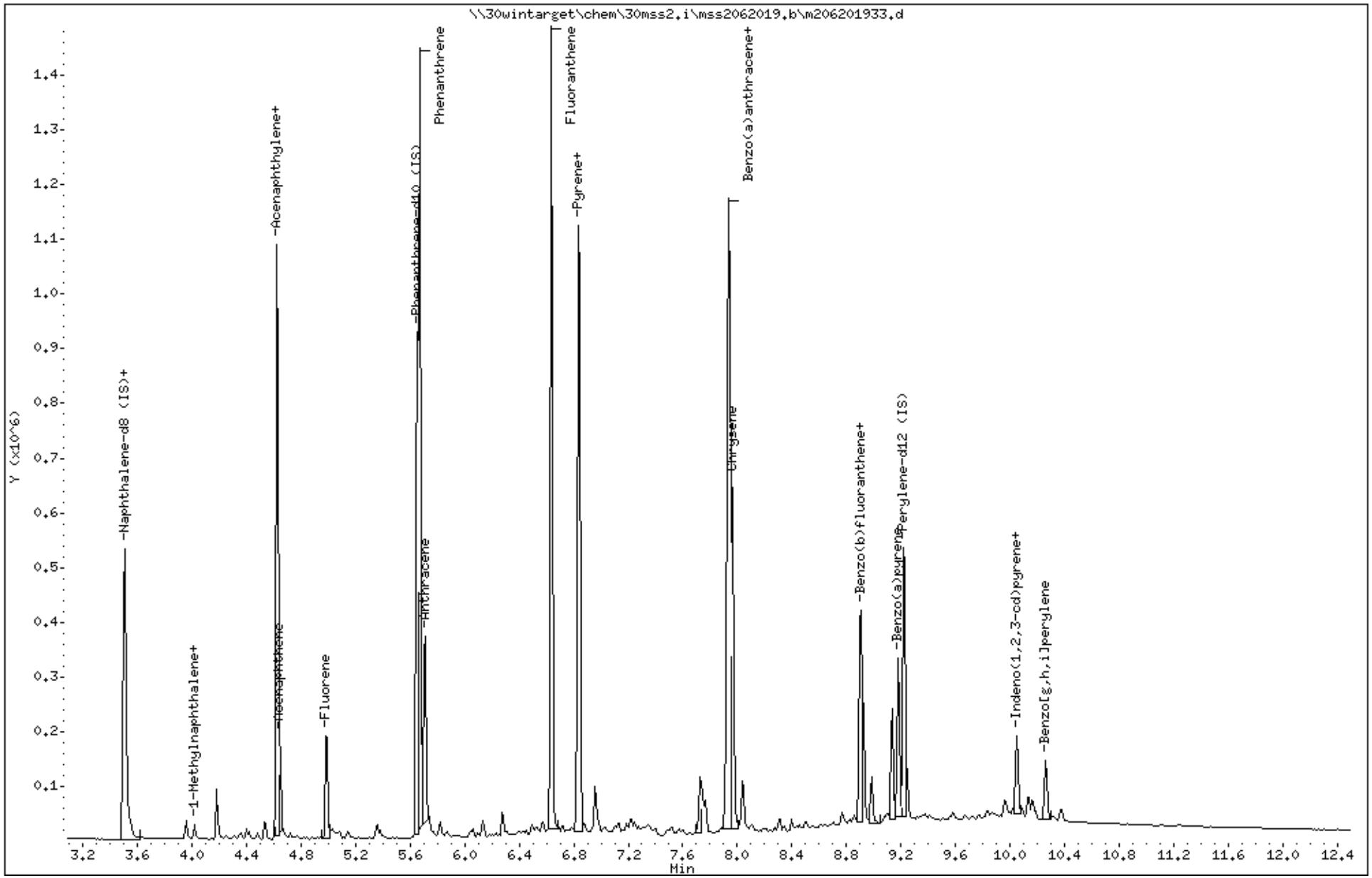
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30300161
Lab Smp Id: 30300161002
Client Smp ID: AOC 26-2
Sample Location:
Sample Point:
Sample Date: 17-JUN-2019
Date Received: 18-JUN-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: AJC
Misc Info: 14727,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0993	U
91-20-3	Naphthalene	206	
91-57-6	2-Methylnaphthalene	112	
90-12-0	1-Methylnaphthalene	83.0	
208-96-8	Acenaphthylene	97.6	
83-32-9	Acenaphthene	281	
86-73-7	Fluorene	423	
85-01-8	Phenanthrene	3100	
120-12-7	Anthracene	1040	
206-44-0	Fluoranthene	3780	
129-00-0	Pyrene	3060	
56-55-3	Benzo(a)anthracene	2060	
218-01-9	Chrysene	1750	
205-99-2	Benzo(b)fluoranthene	2610	
207-08-9	Benzo(k)fluoranthene	1200	
50-32-8	Benzo(a)pyrene	1660	
53-70-3	Dibenz(a,h)anthracene	232	
193-39-5	Indeno(1,2,3-cd)pyrene	535	
191-24-2	Benzo[g,h,i]perylene	574	
321-60-8	2-Fluorobiphenyl (S)	23.4	
1718-51-0	Terphenyl-d14 (S)	26.8	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d
Date : 20-JUN-2019 20:13
Client ID: AOC 26-2
Sample Info: 30300161002x10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25



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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

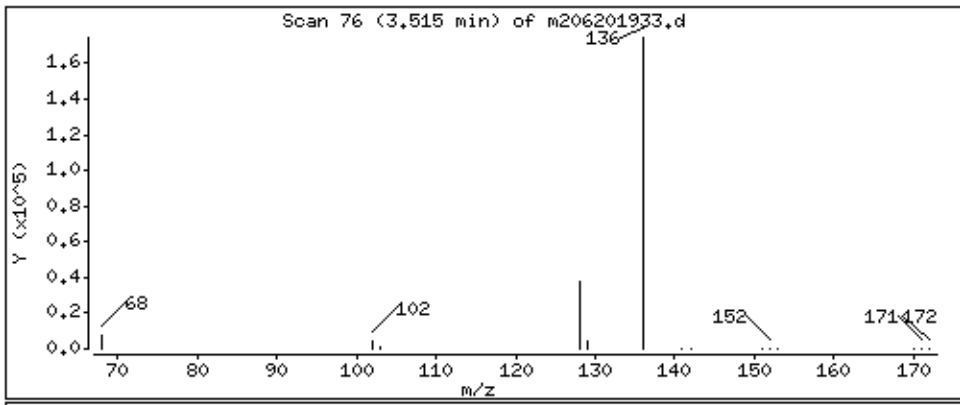
Operator: AJC

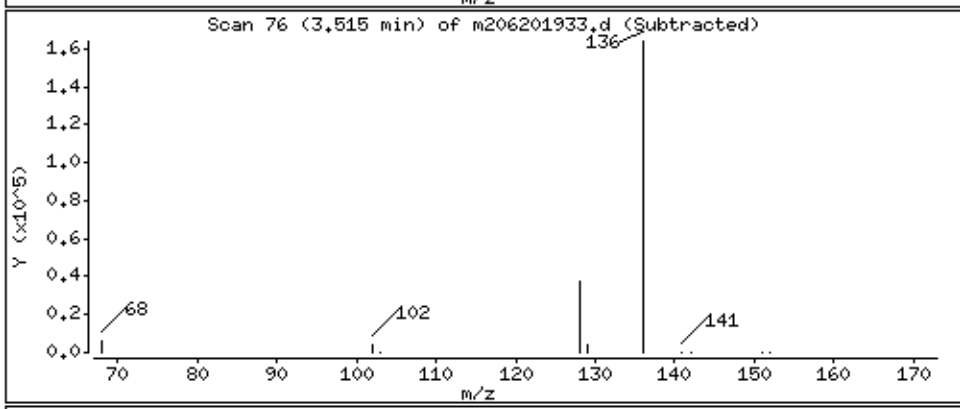
Column phase: RTX-5MS

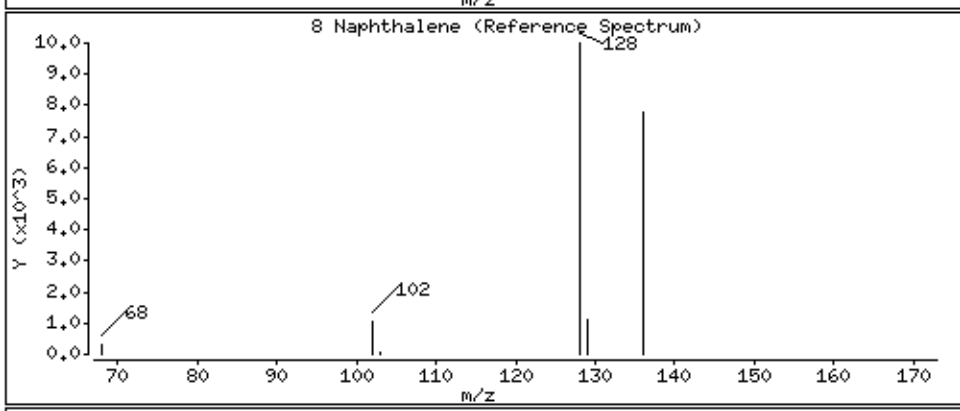
Column diameter: 0.25

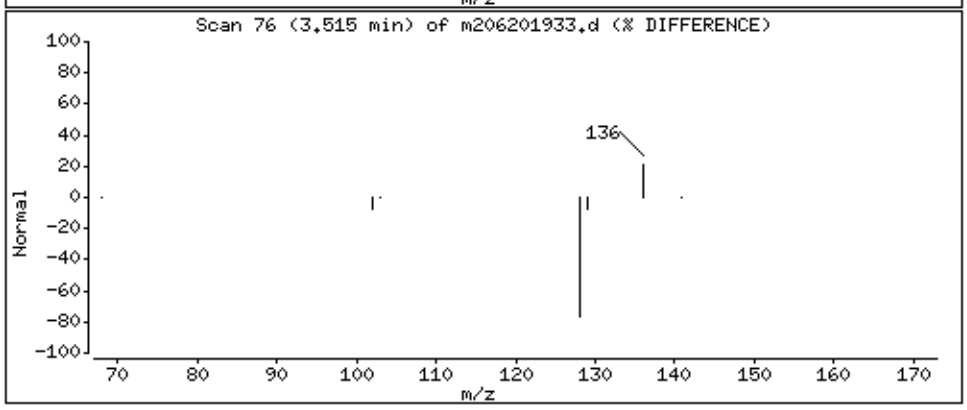
8 Naphthalene

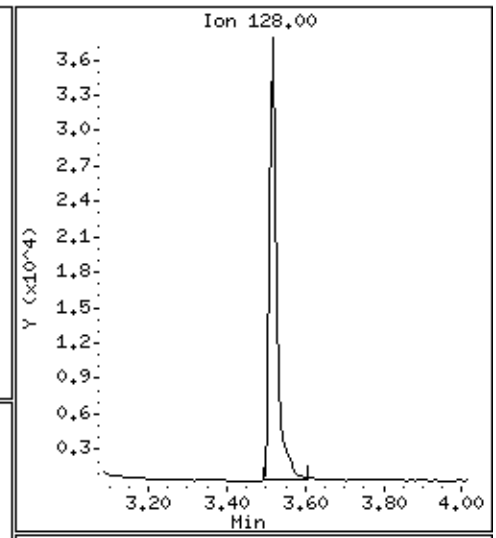
Concentration: 206 ug/Kg

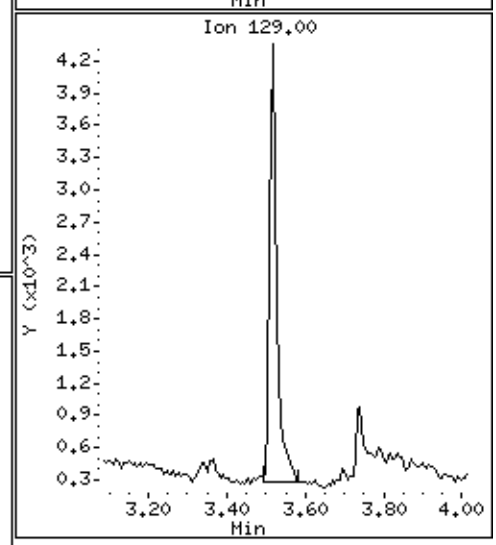












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

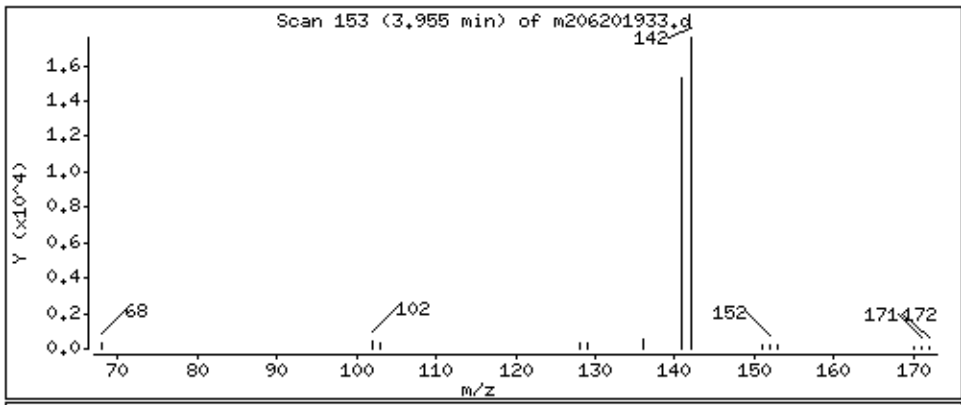
Operator: AJC

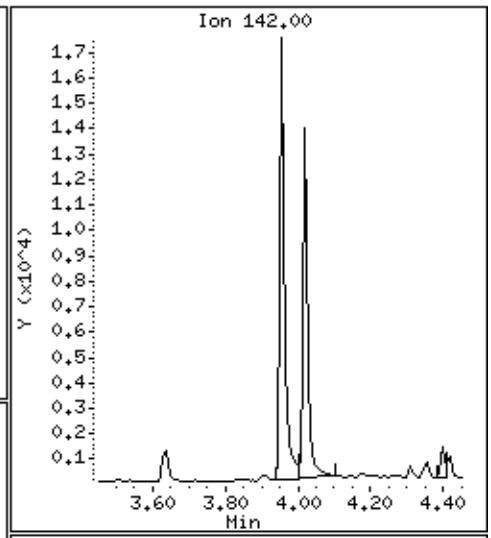
Column phase: RTX-5MS

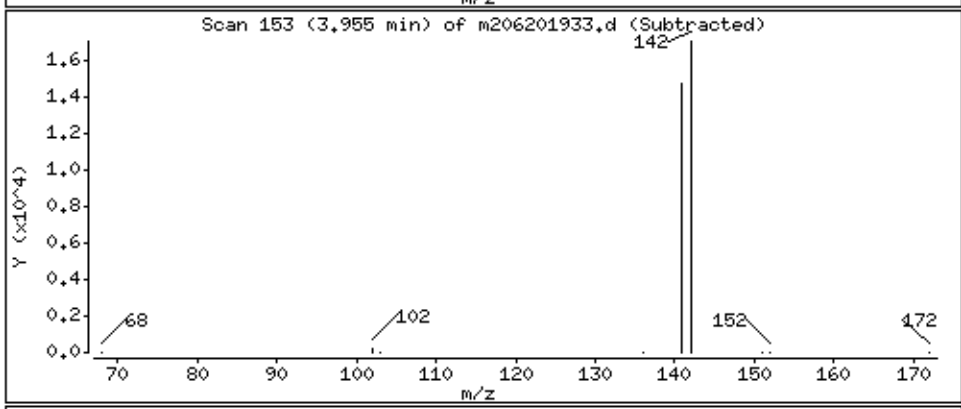
Column diameter: 0.25

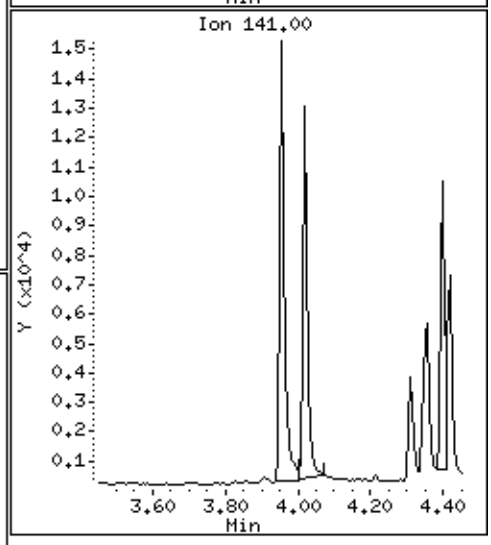
9 2-Methylnaphthalene

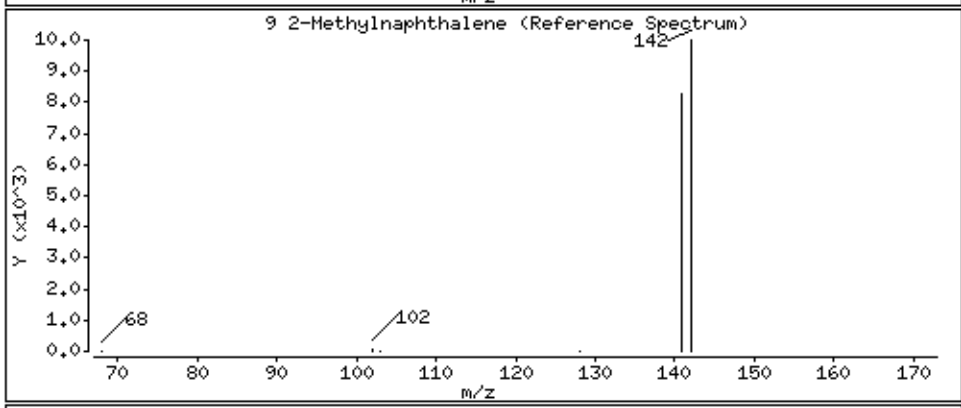
Concentration: 112 ug/Kg

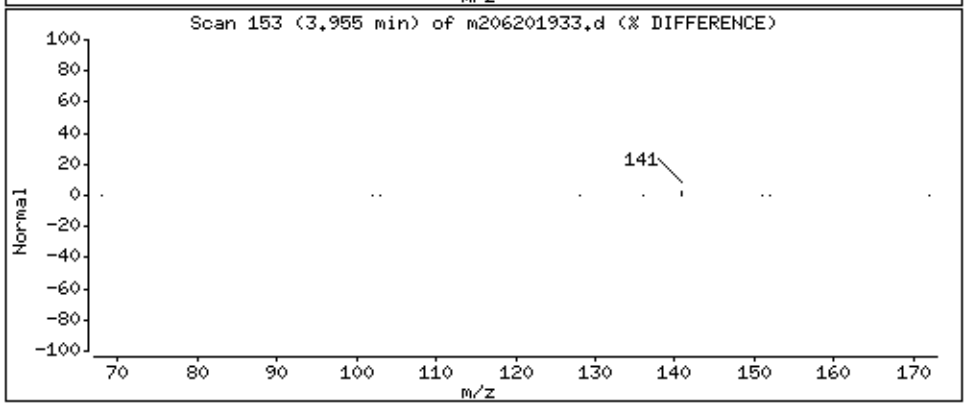












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

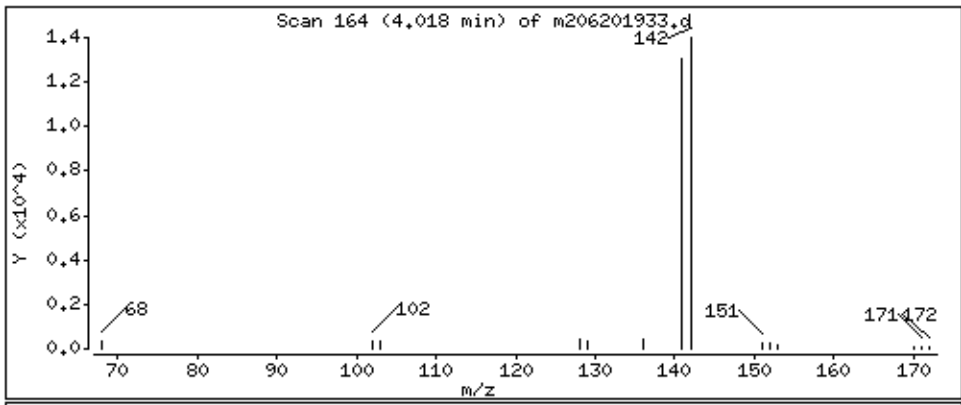
Operator: AJC

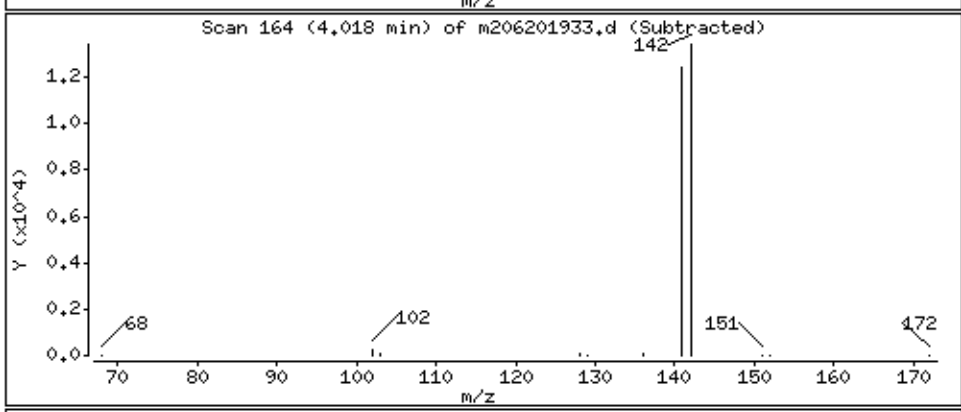
Column phase: RTX-5MS

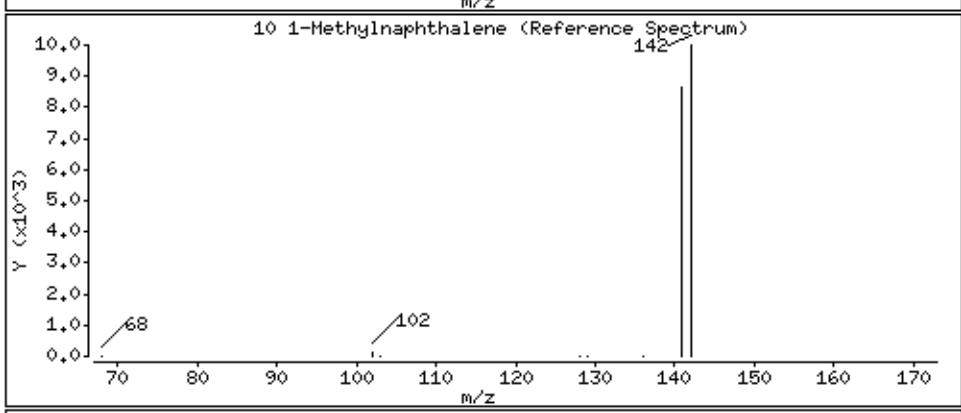
Column diameter: 0.25

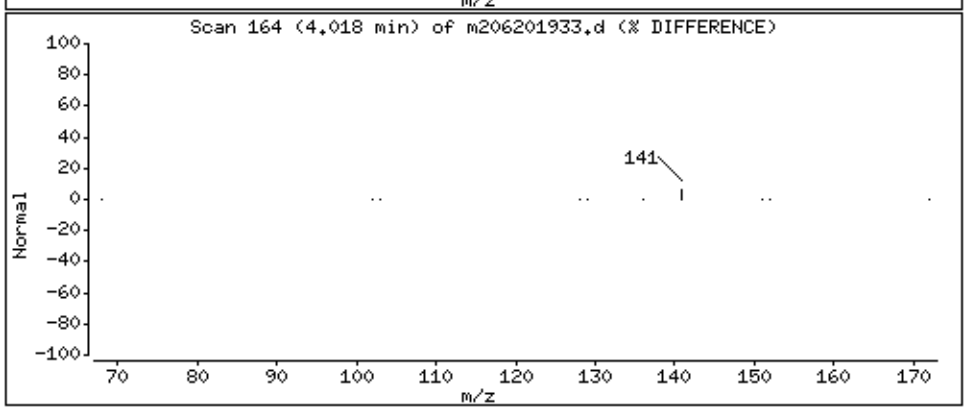
10 1-Methylnaphthalene

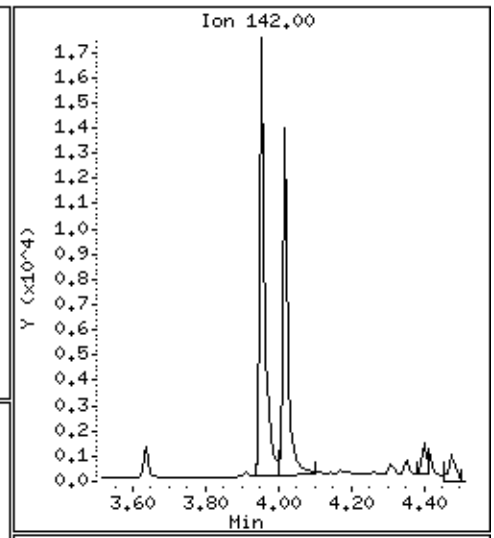
Concentration: 83.0 ug/Kg

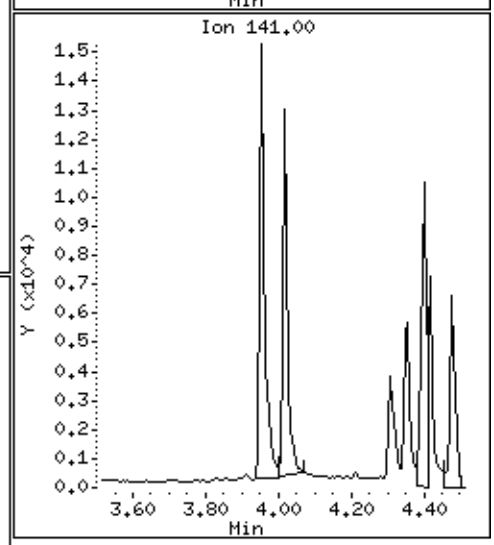












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

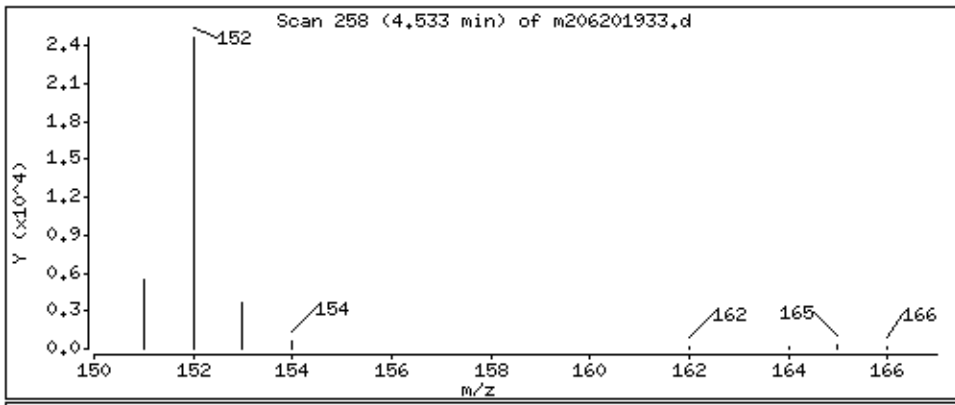
Operator: AJC

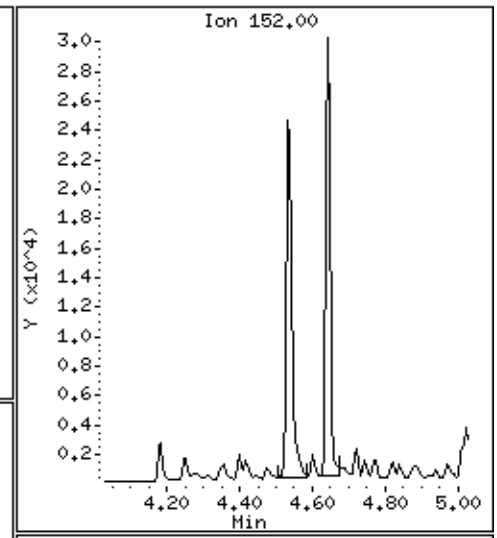
Column phase: RTX-5MS

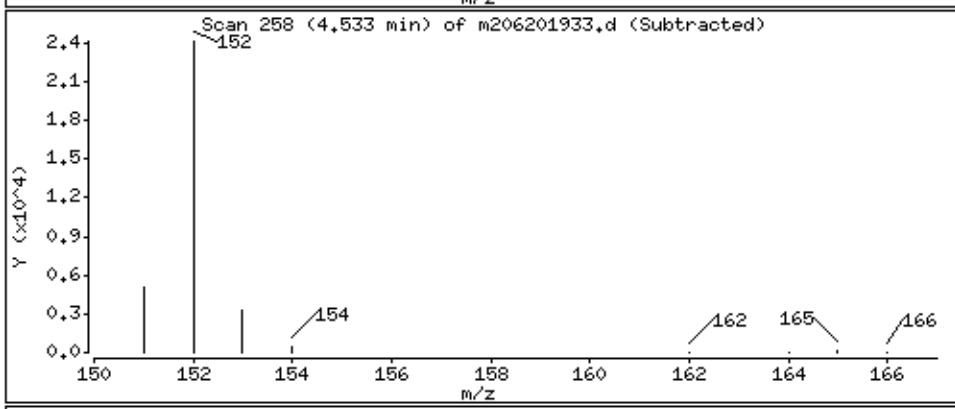
Column diameter: 0.25

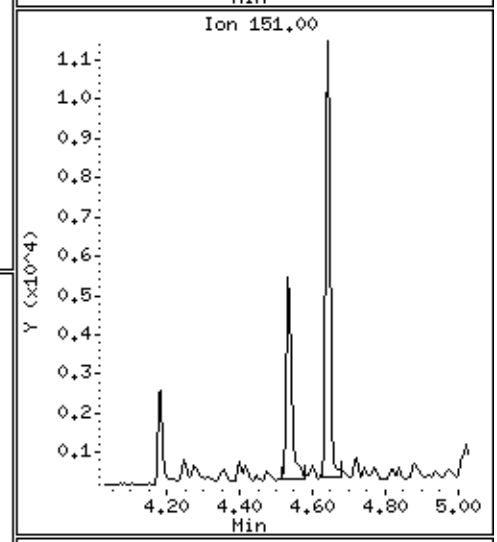
11 Acenaphthylene

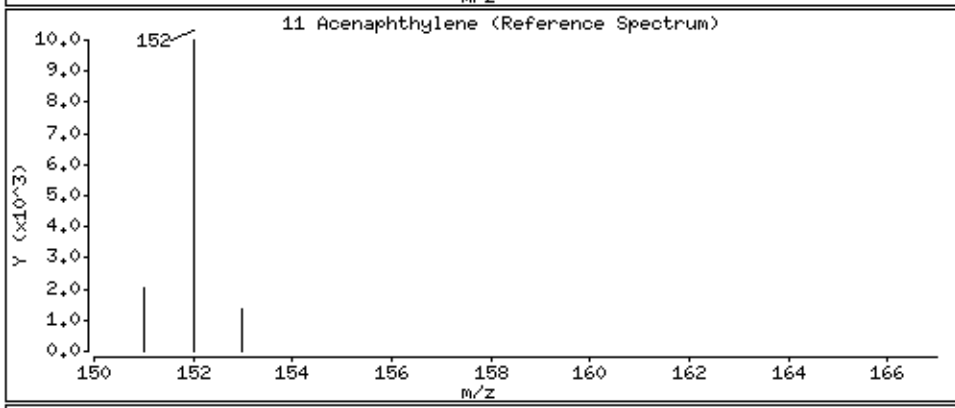
Concentration: 97.6 ug/Kg

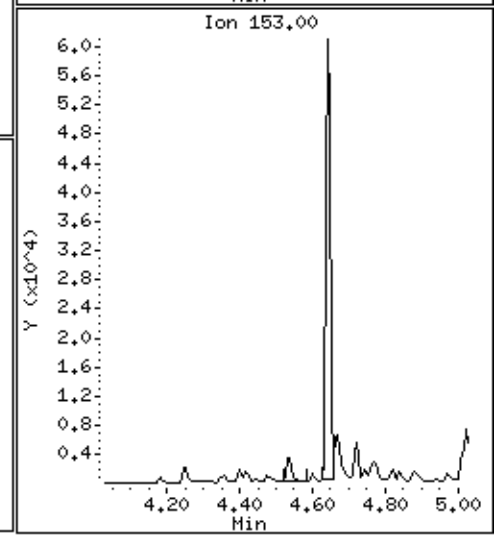


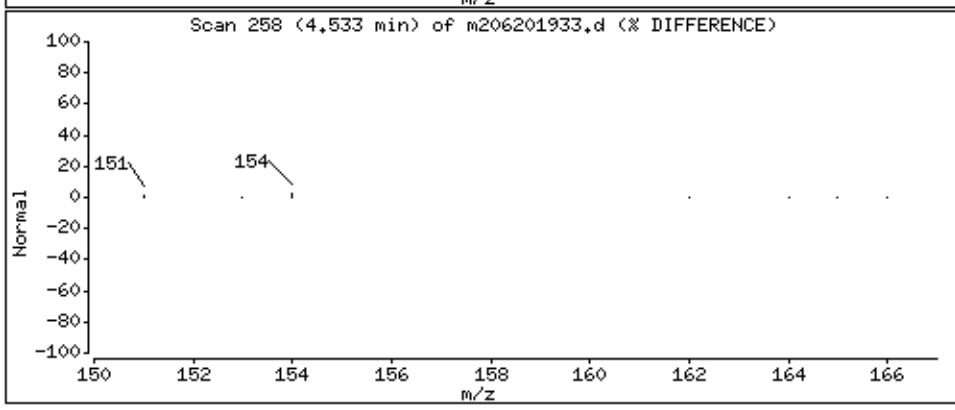












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

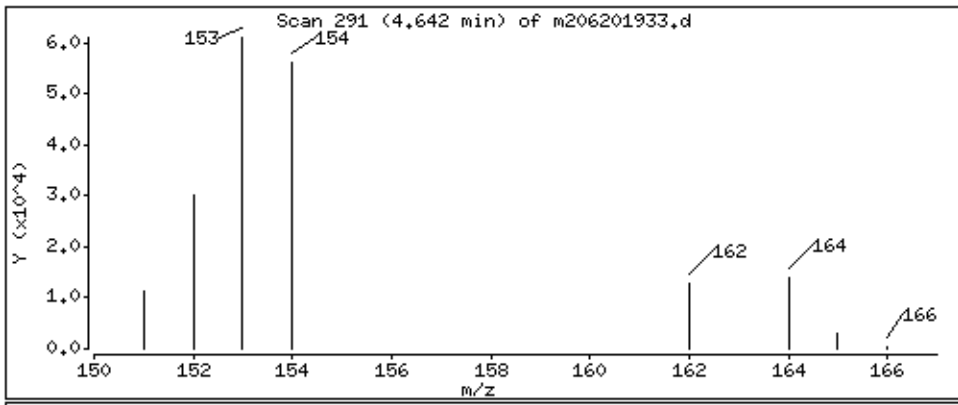
Operator: AJC

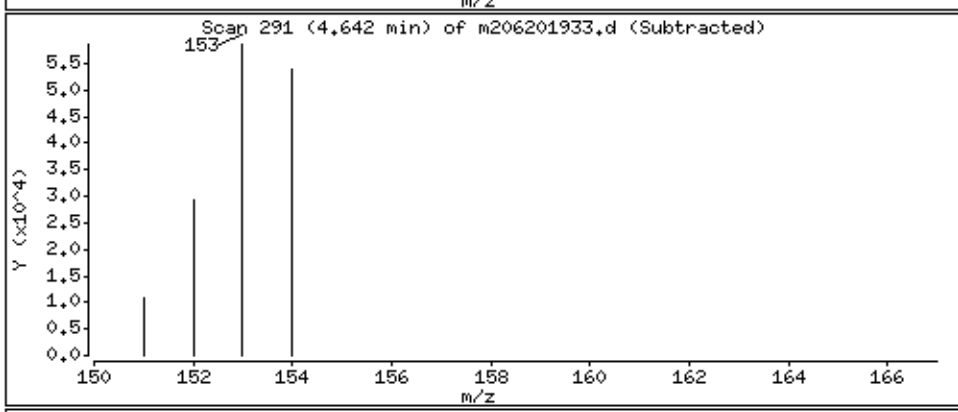
Column phase: RTX-5MS

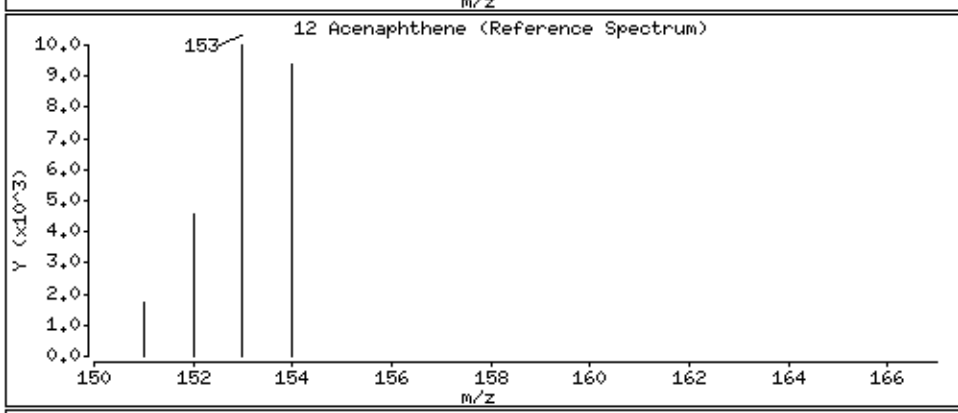
Column diameter: 0.25

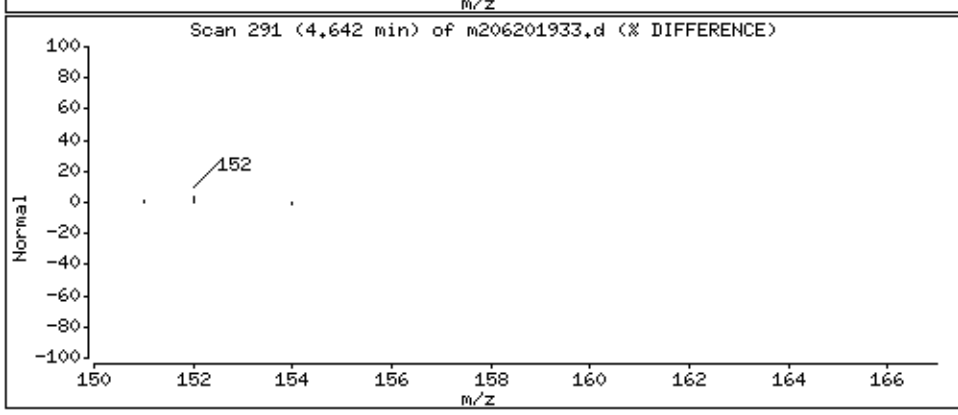
12 Acenaphthene

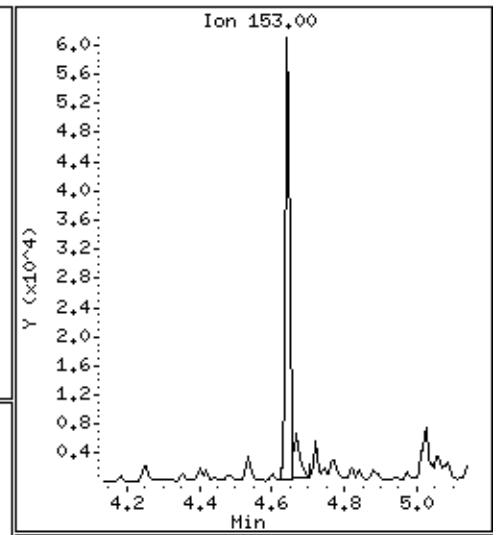
Concentration: 281 ug/Kg

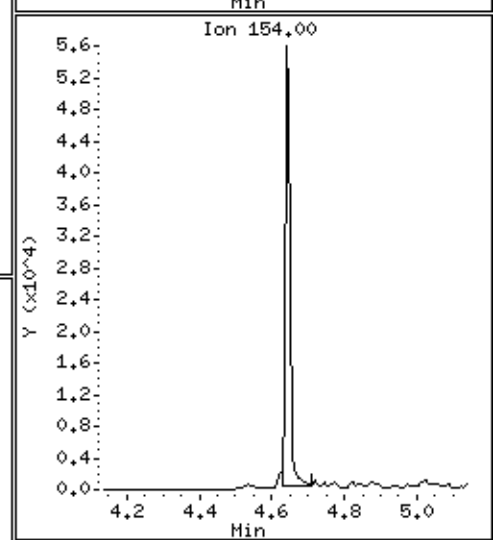


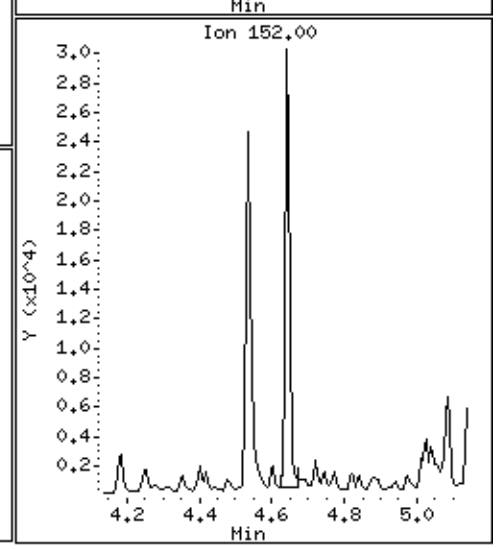












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

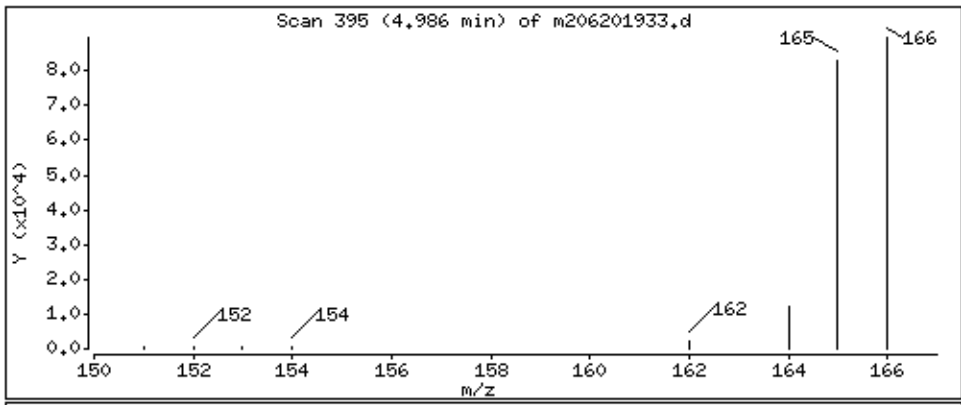
Operator: AJC

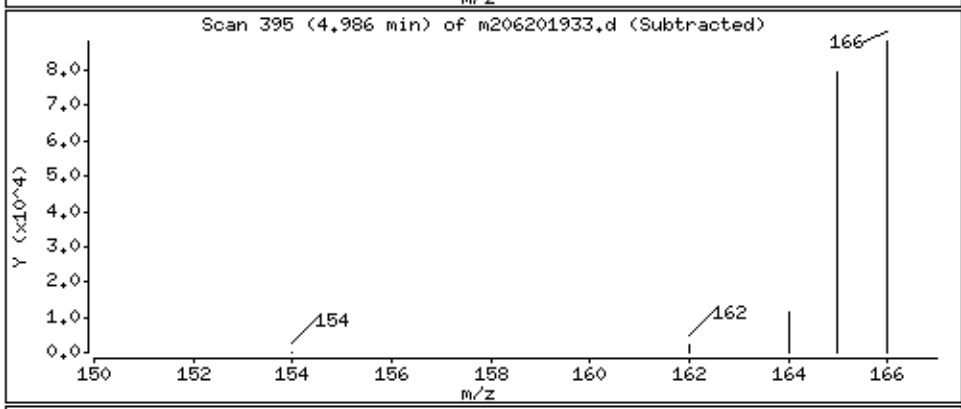
Column phase: RTX-5MS

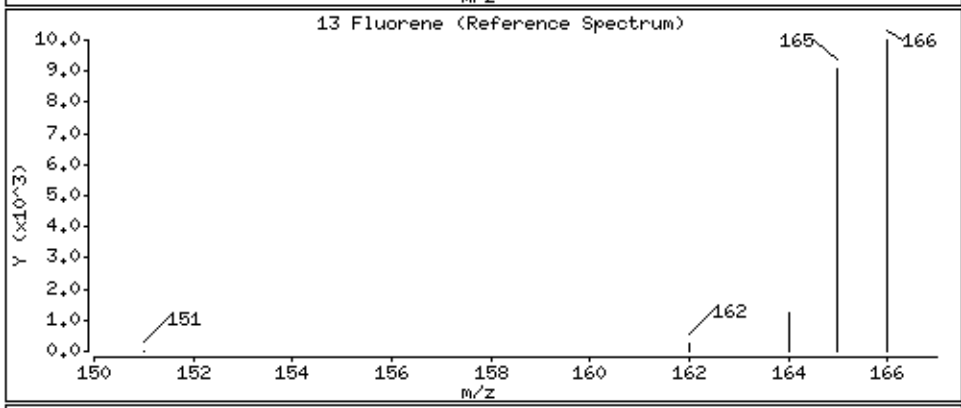
Column diameter: 0.25

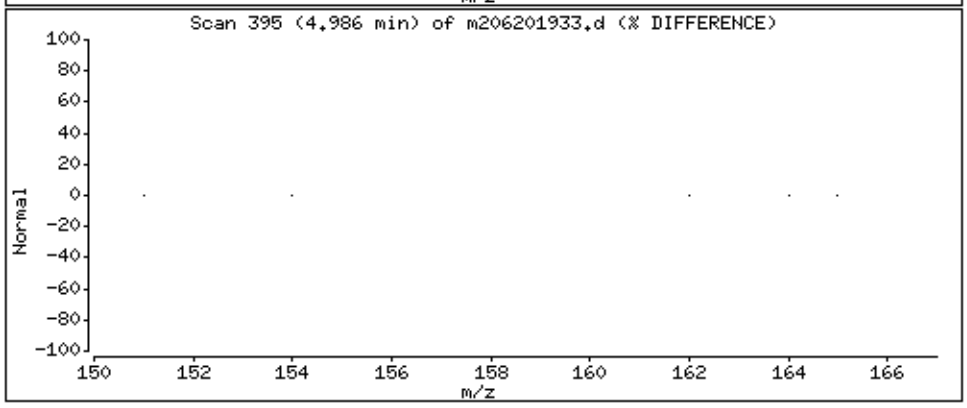
13 Fluorene

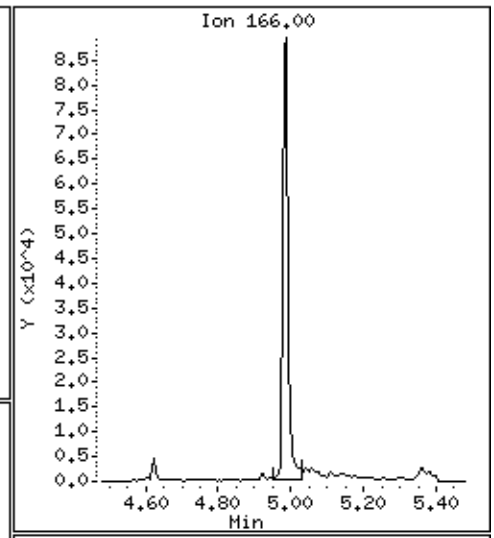
Concentration: 423 ug/Kg

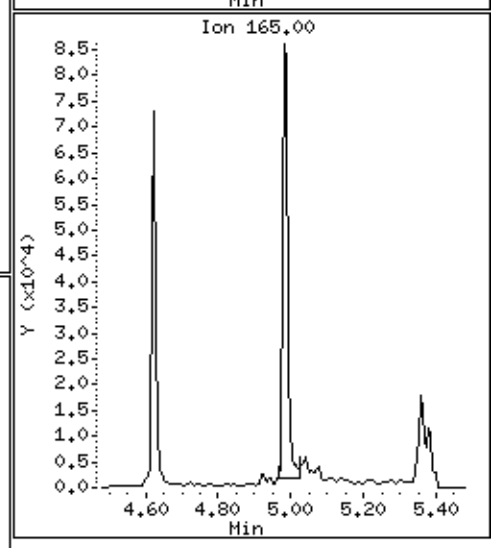












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

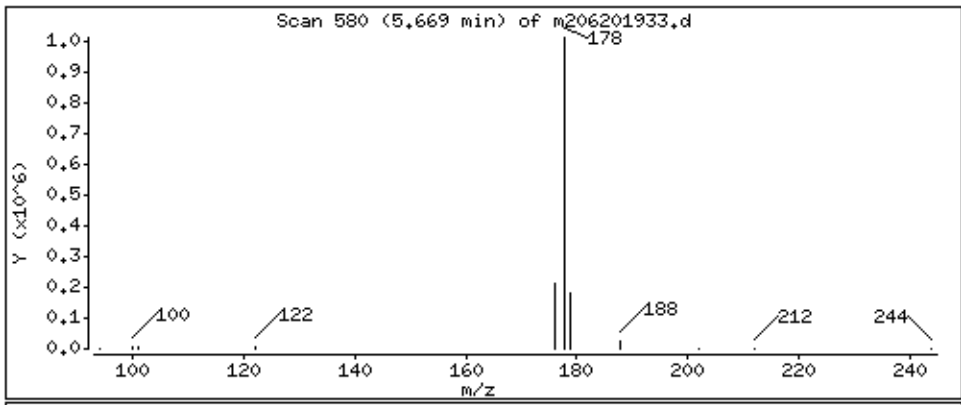
Operator: AJC

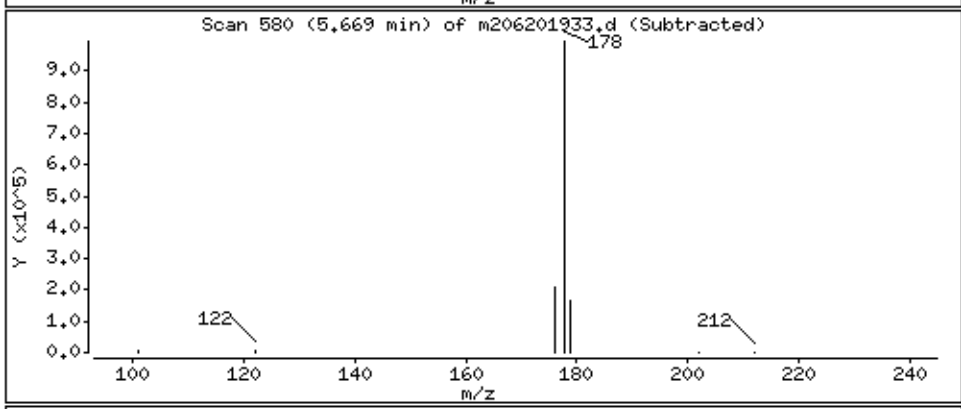
Column phase: RTX-5MS

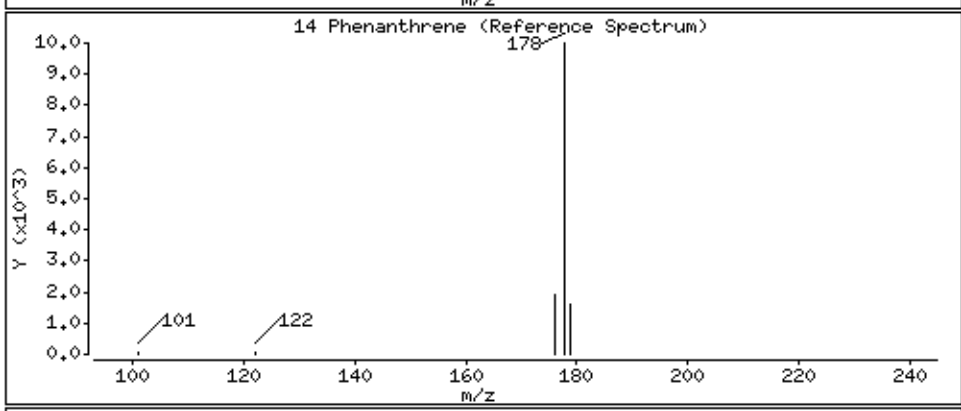
Column diameter: 0.25

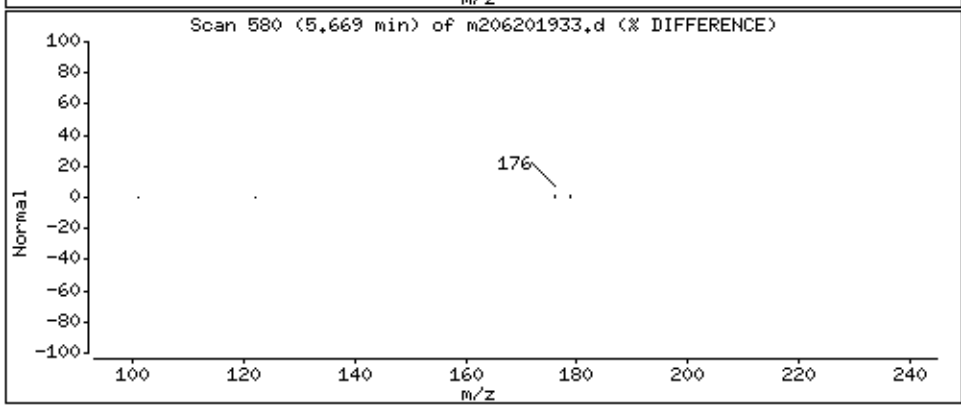
14 Phenanthrene

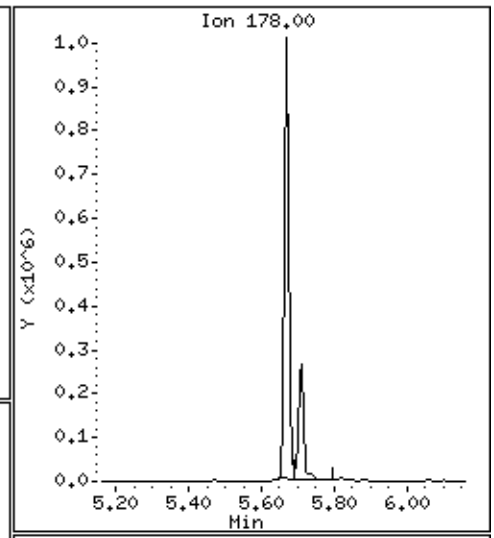
Concentration: 3100 ug/Kg

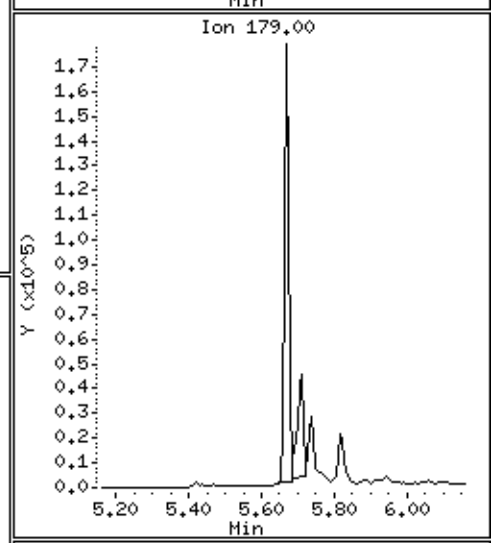


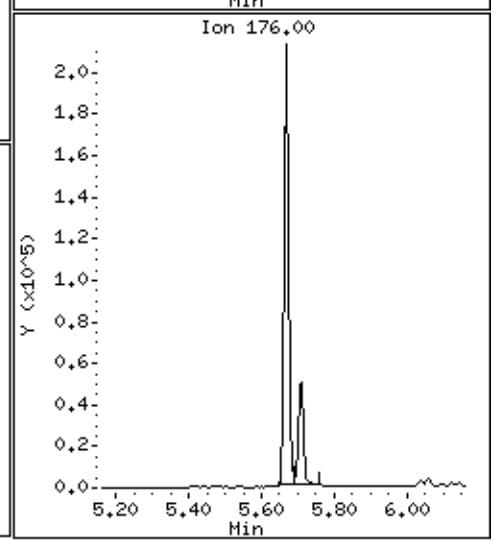












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

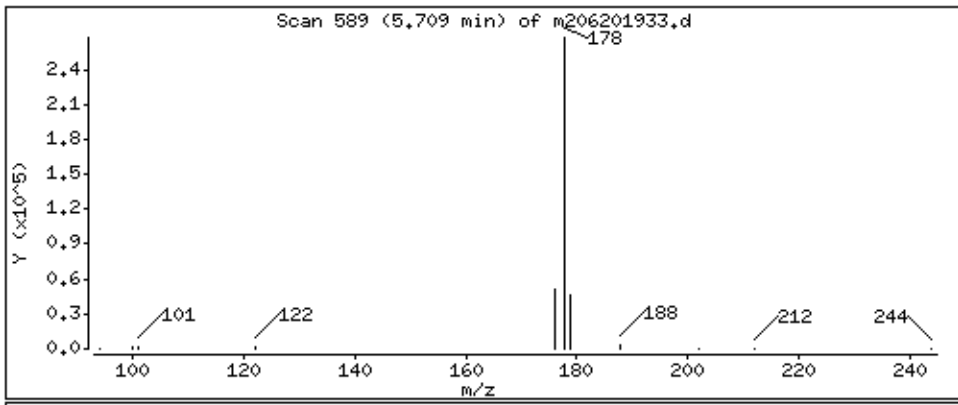
Operator: AJC

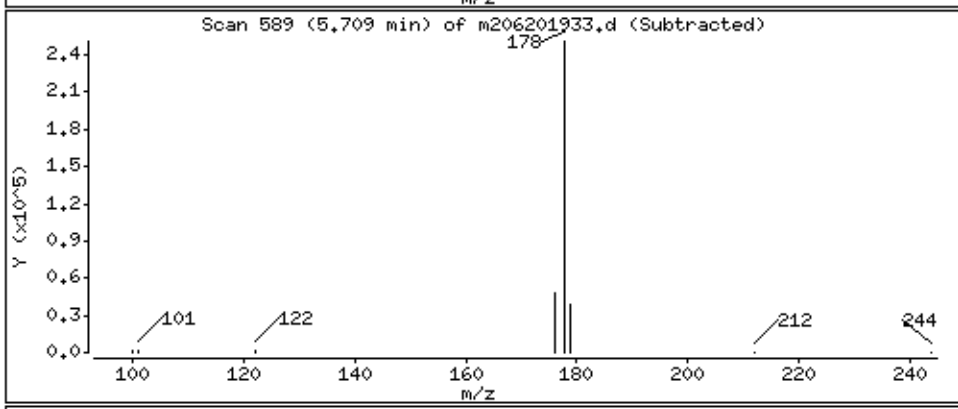
Column phase: RTX-5MS

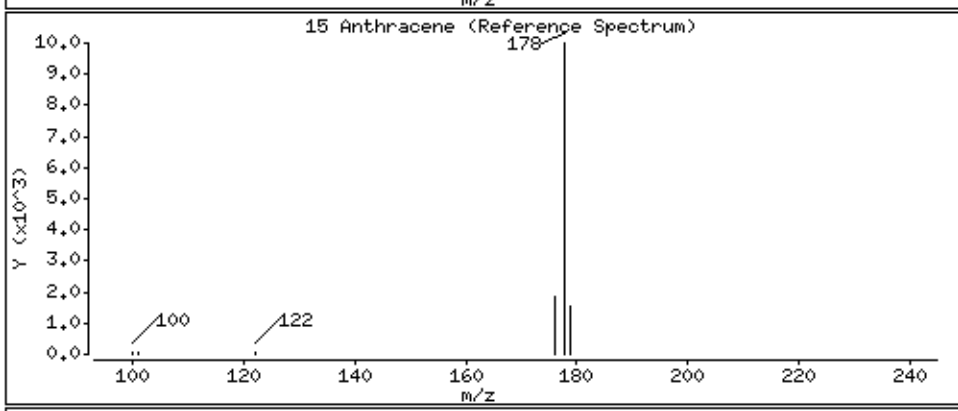
Column diameter: 0.25

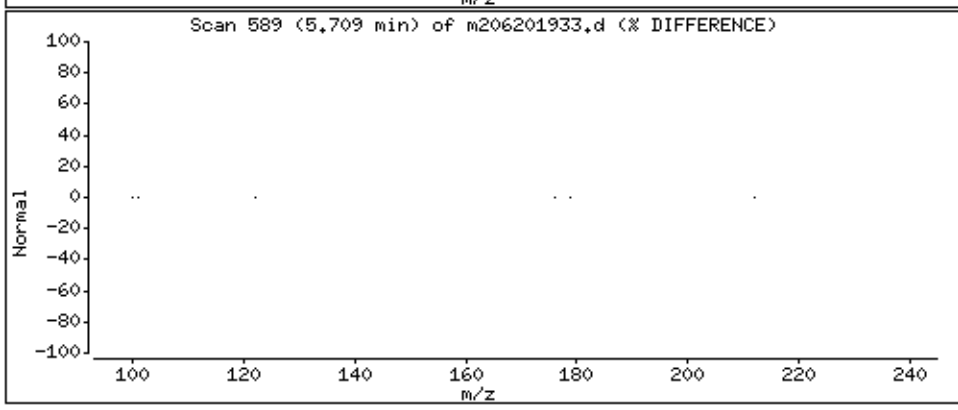
15 Anthracene

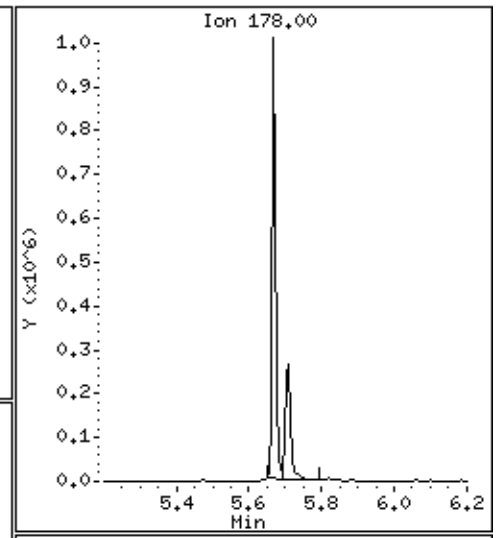
Concentration: 1040 ug/Kg

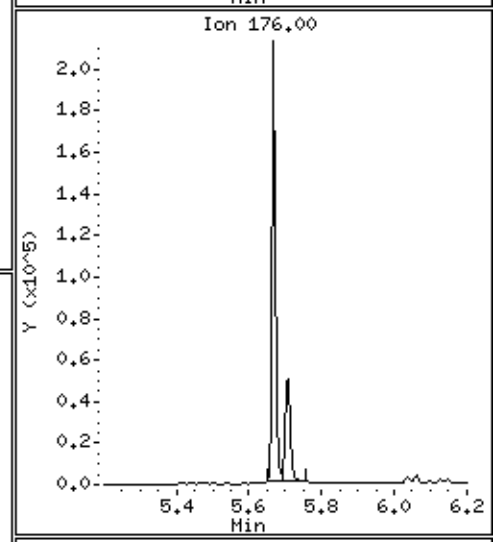


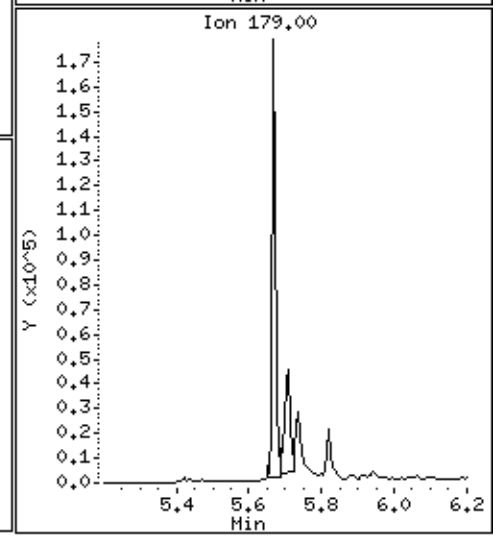












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

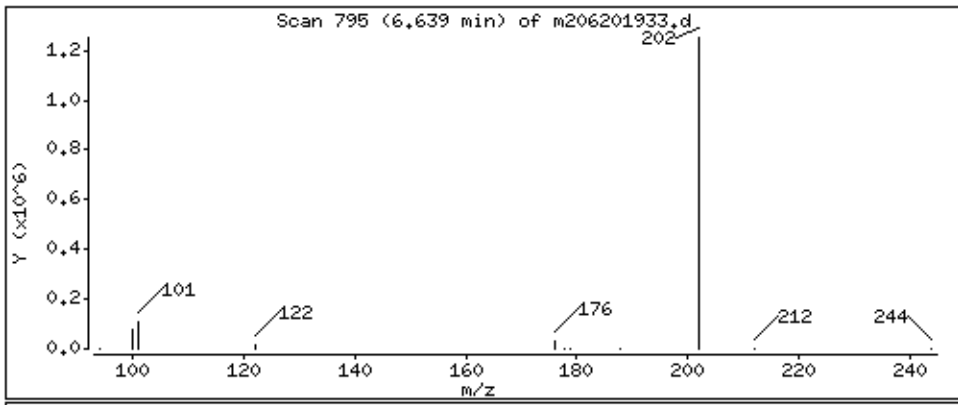
Operator: AJC

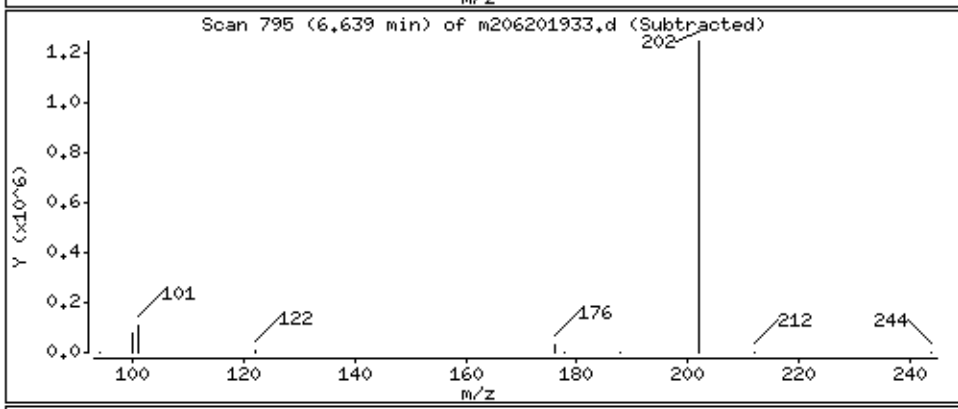
Column phase: RTX-5MS

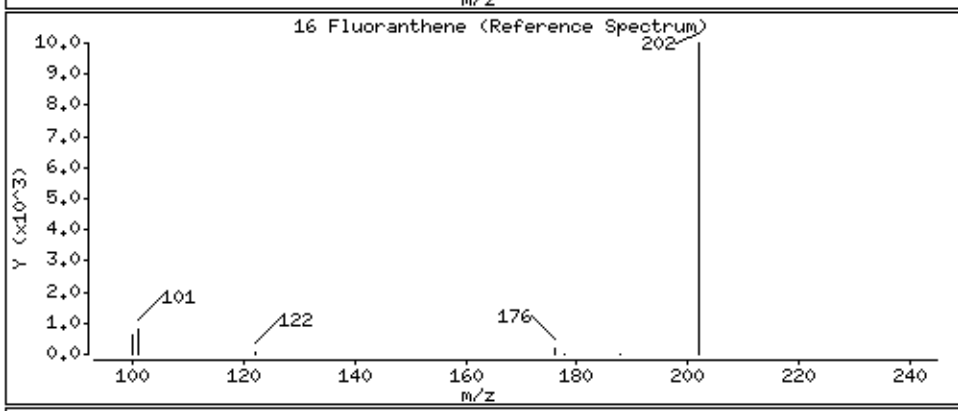
Column diameter: 0.25

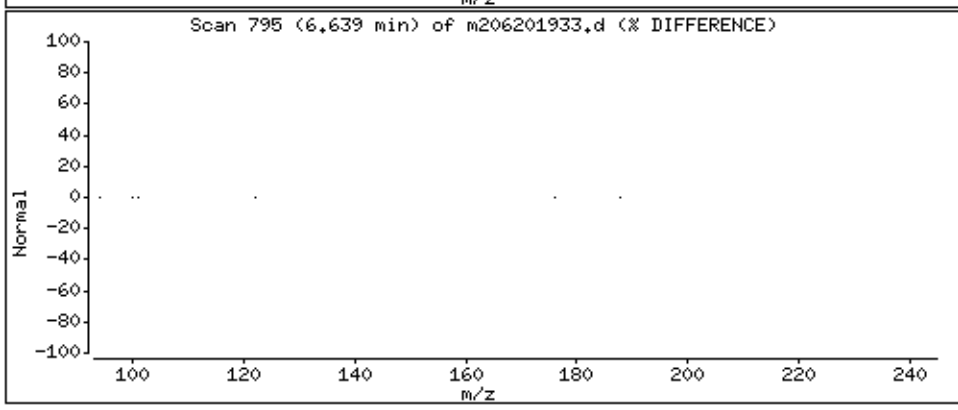
16 Fluoranthene

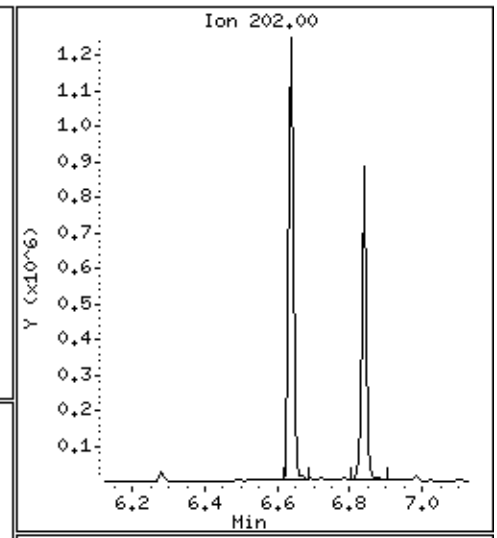
Concentration: 3780 ug/Kg

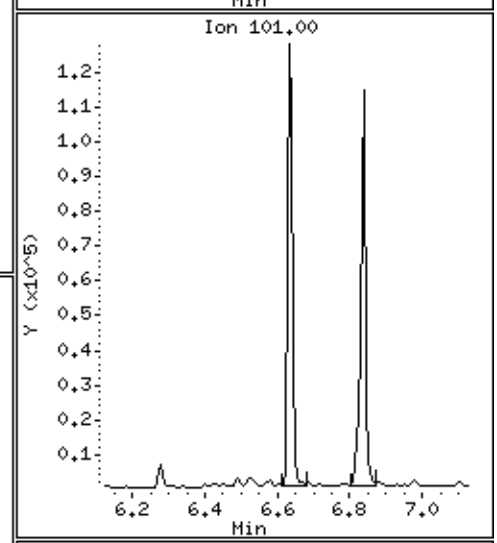


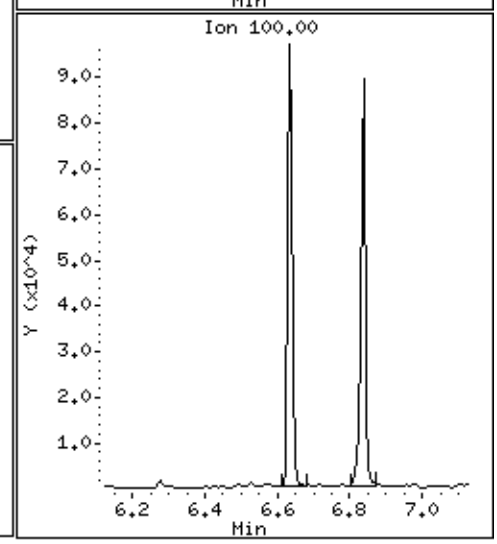












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

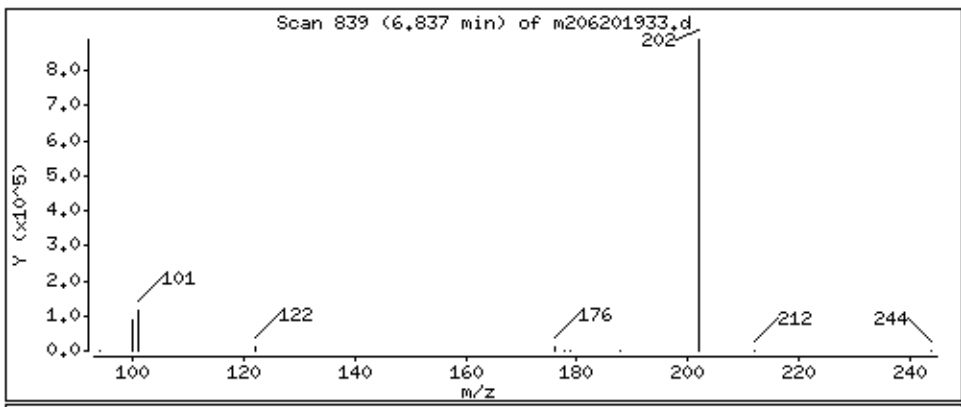
Operator: AJC

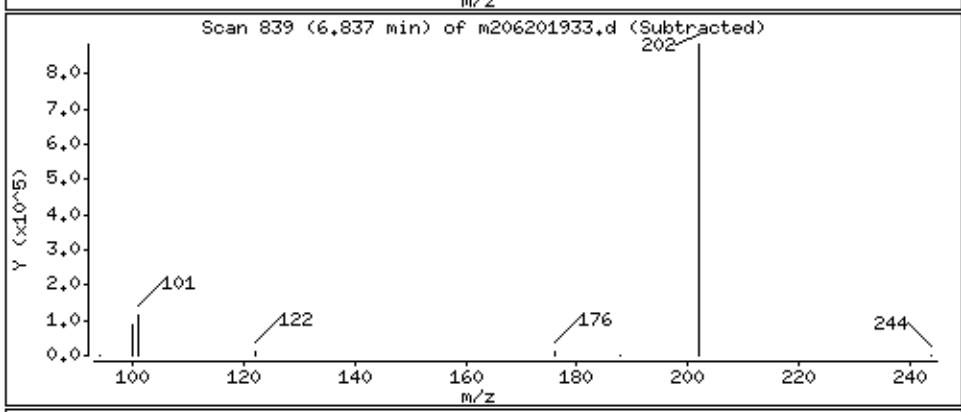
Column phase: RTX-5MS

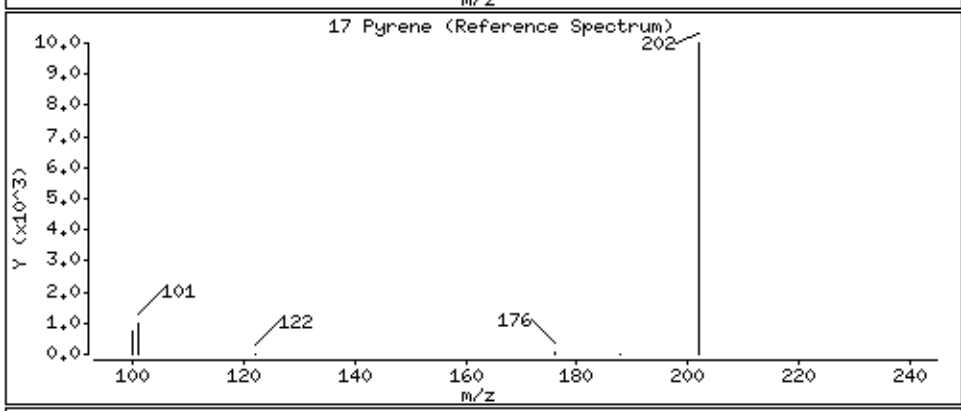
Column diameter: 0.25

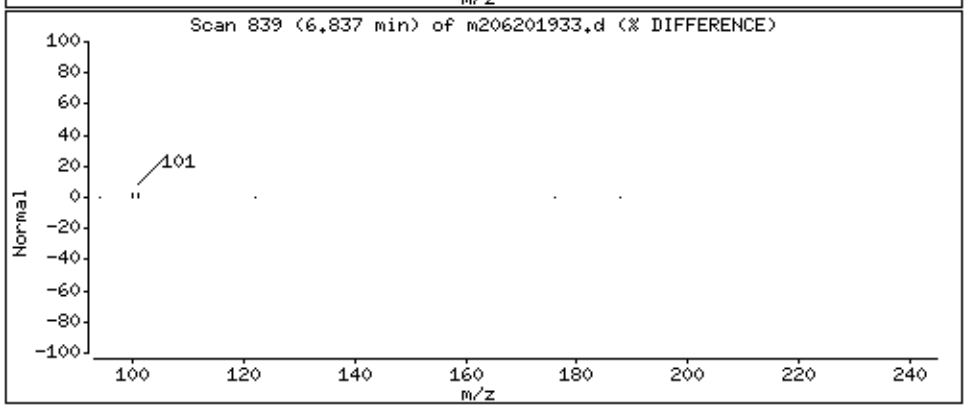
17 Pyrene

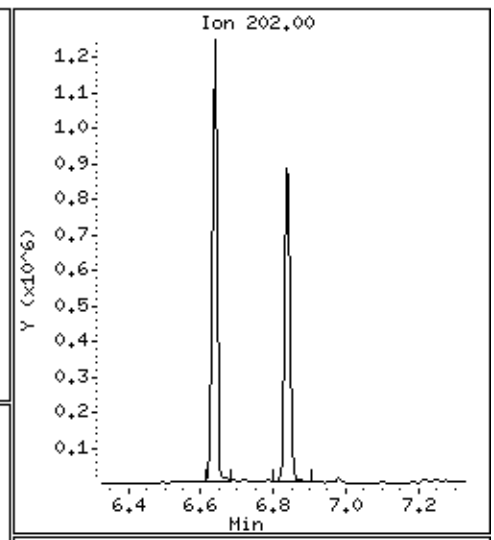
Concentration: 3060 ug/Kg

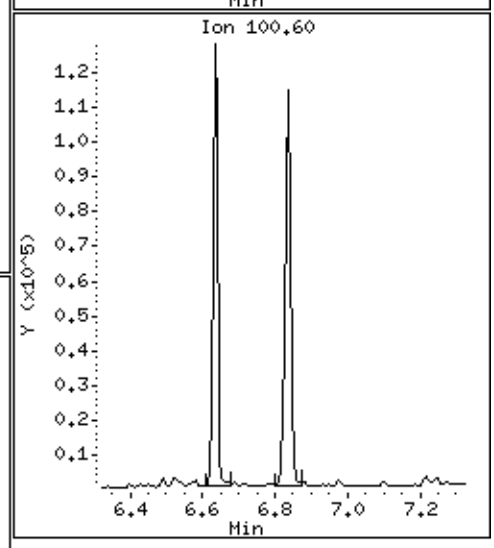












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

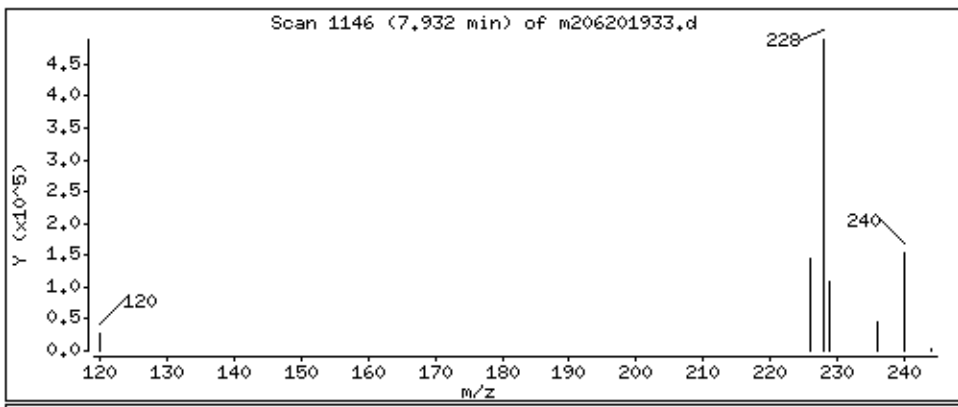
Operator: AJC

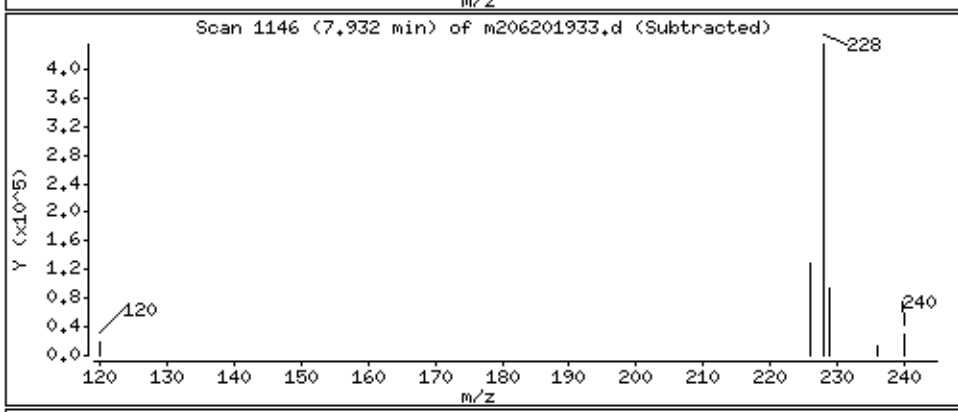
Column phase: RTX-5MS

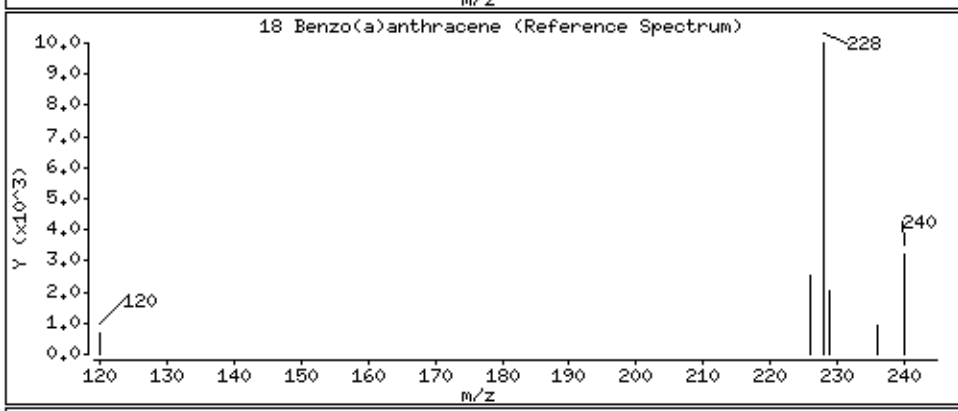
Column diameter: 0.25

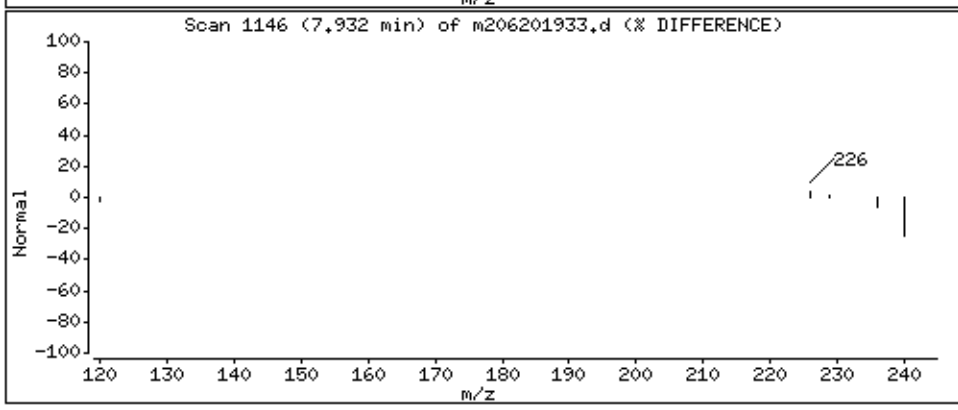
18 Benzo(a)anthracene

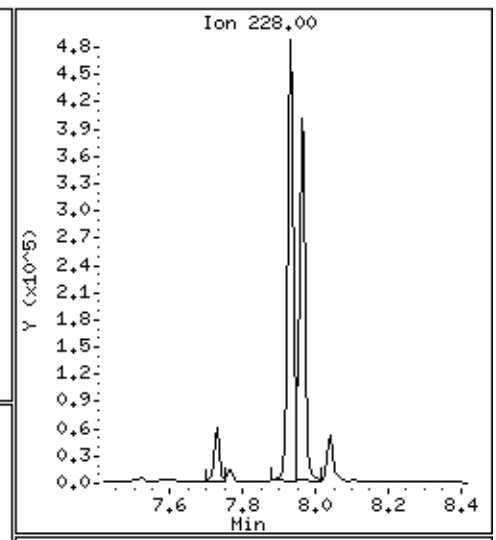
Concentration: 2060 ug/Kg

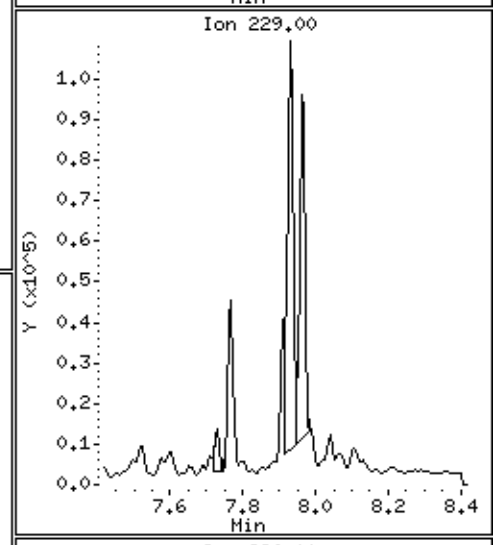


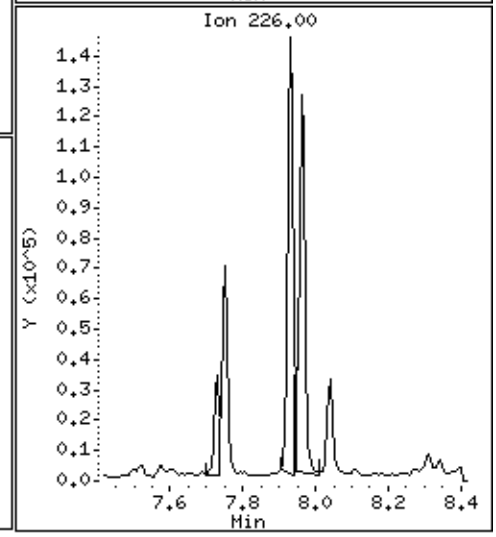












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

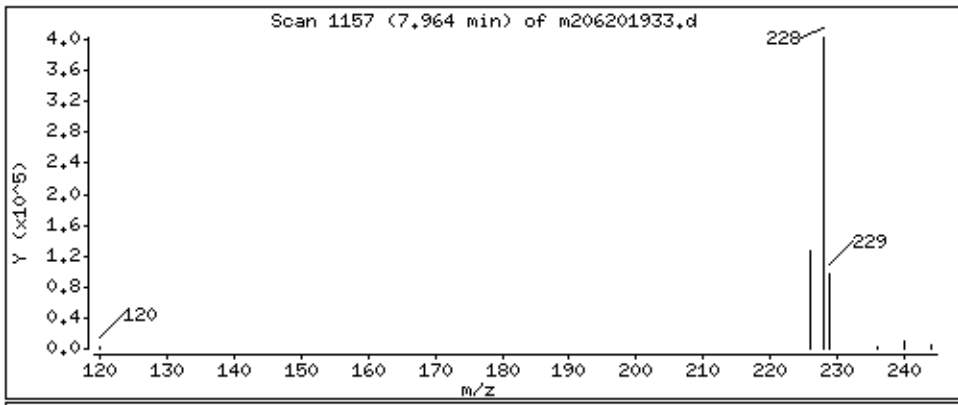
Operator: AJC

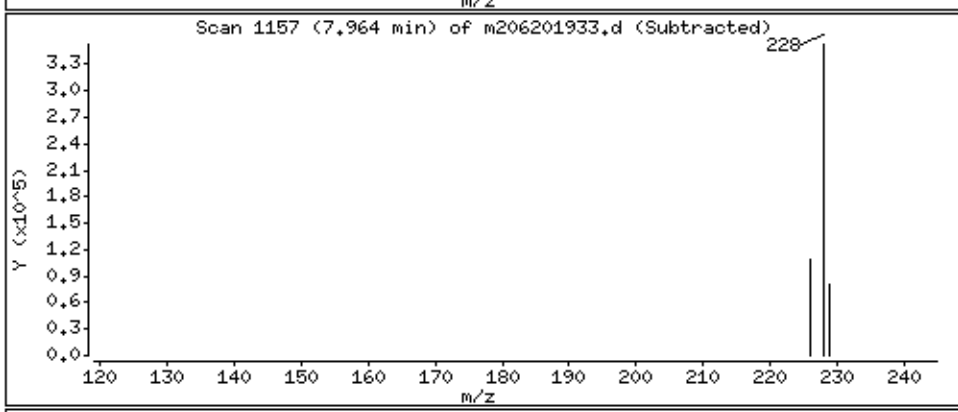
Column phase: RTX-5MS

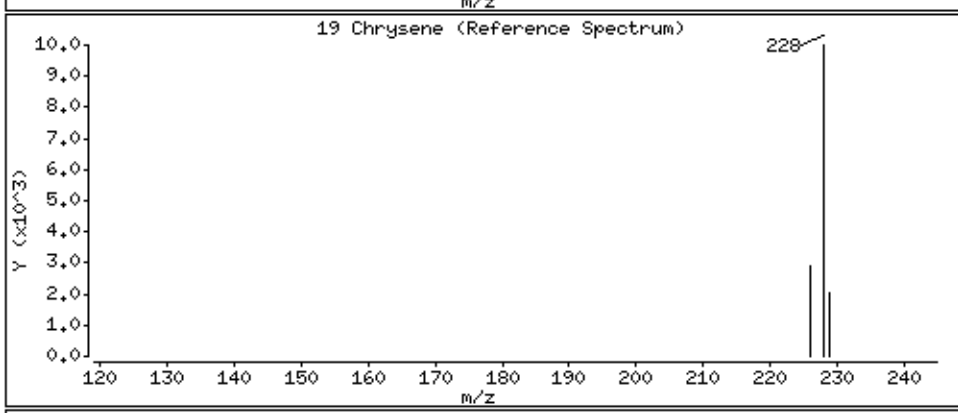
Column diameter: 0.25

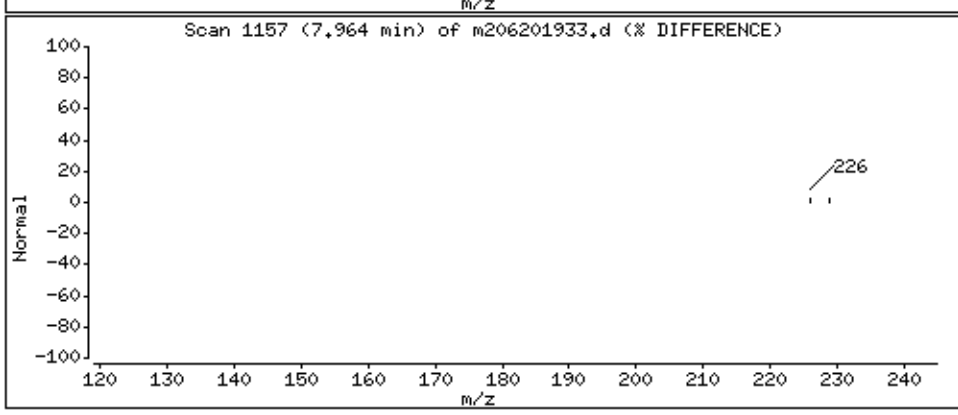
19 Chrysene

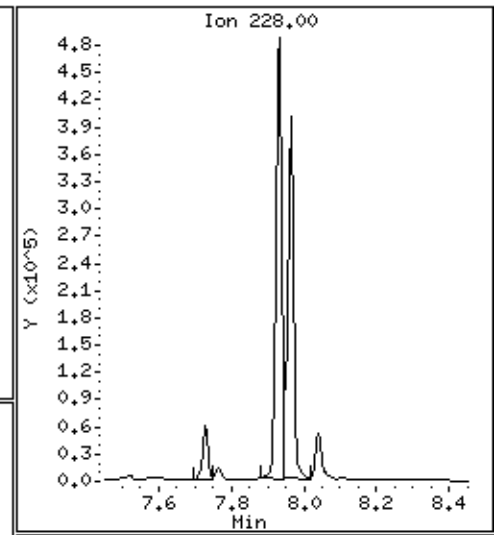
Concentration: 1750 ug/Kg

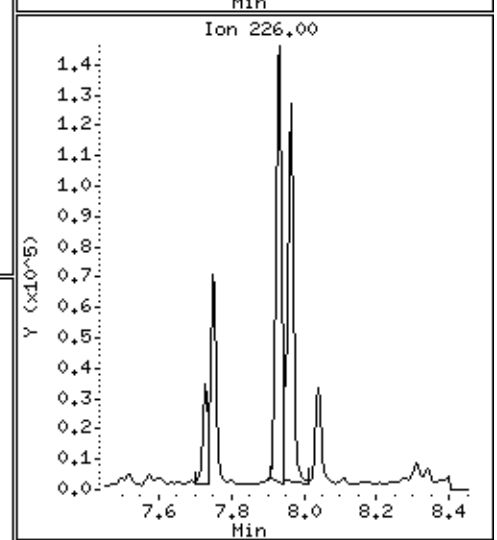


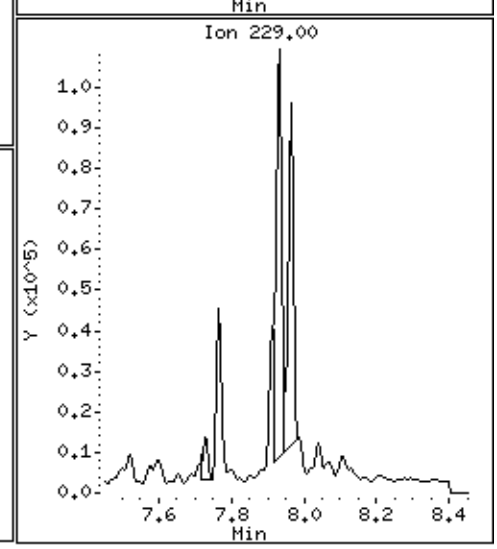












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Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

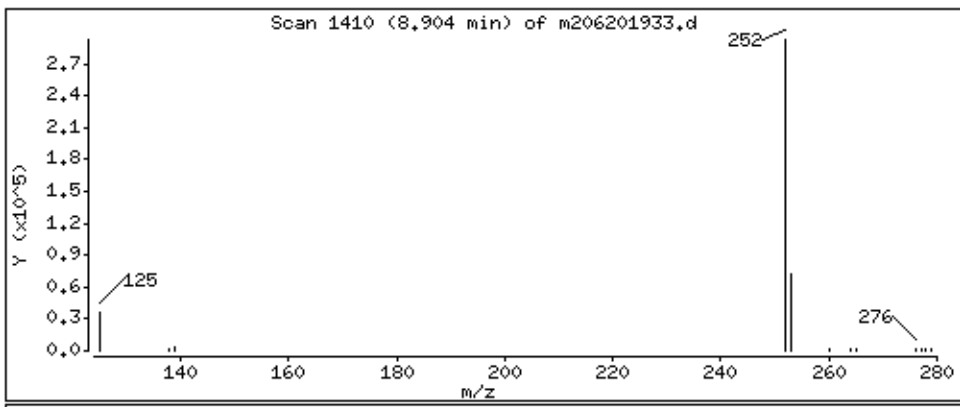
Operator: AJC

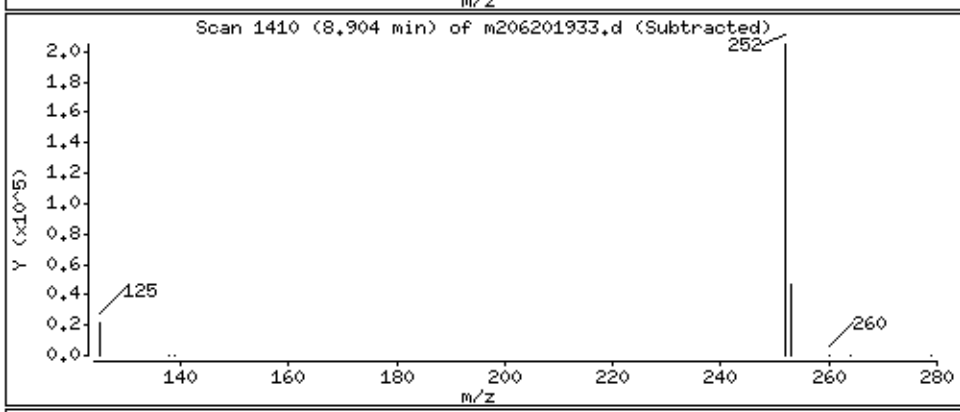
Column phase: RTX-5MS

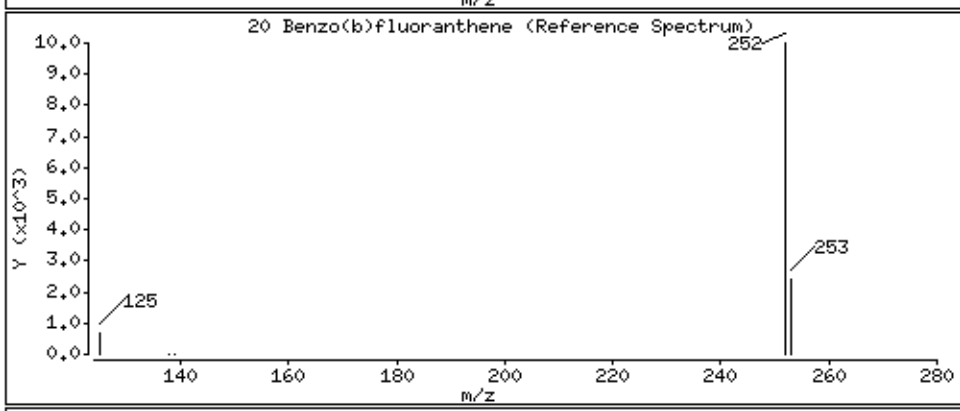
Column diameter: 0.25

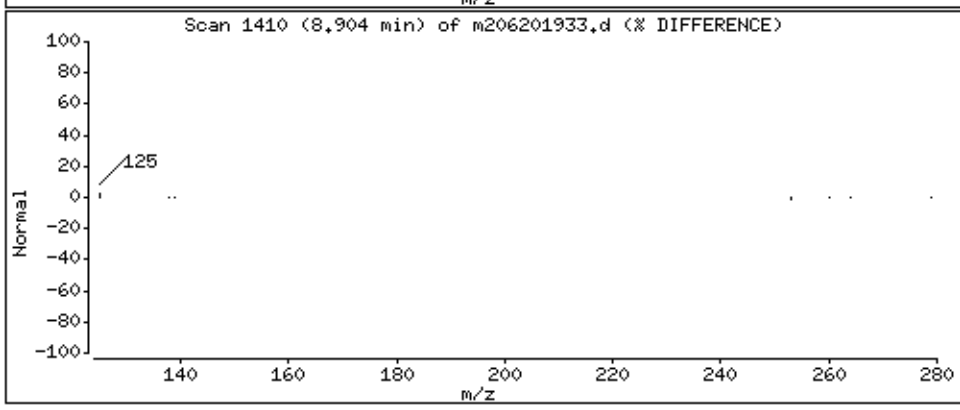
20 Benzo(b)fluoranthene

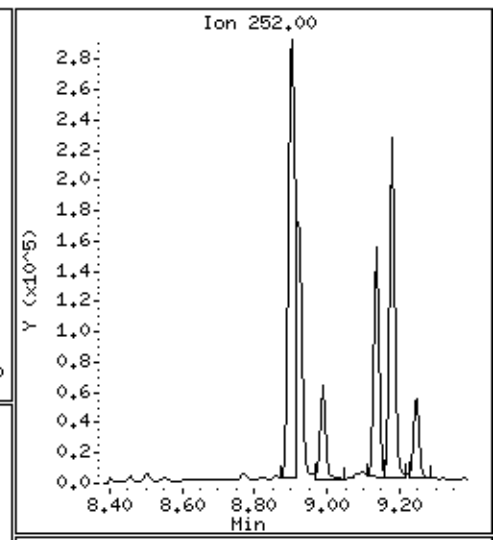
Concentration: 2610 ug/Kg

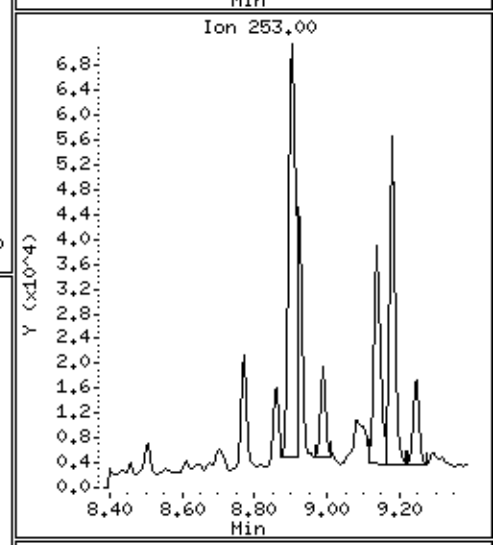


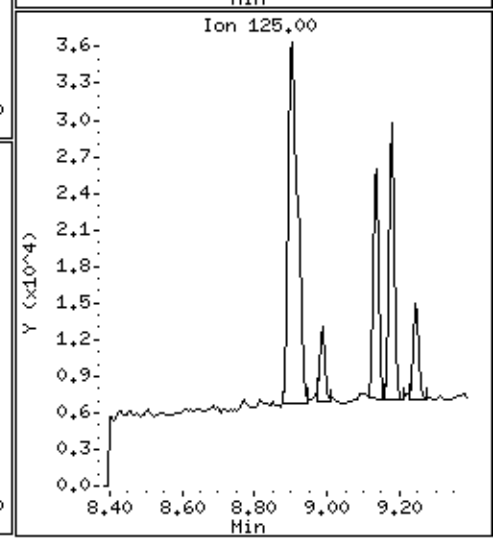












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

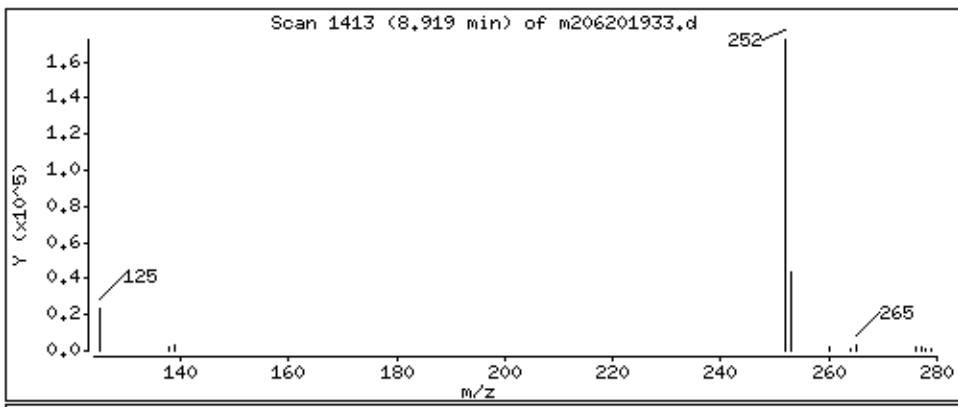
Operator: AJC

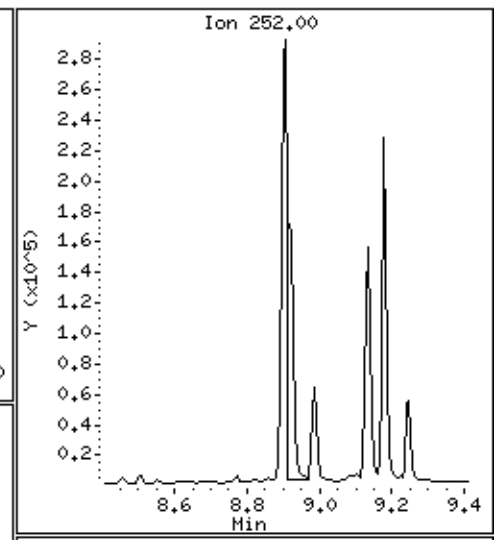
Column phase: RTX-5MS

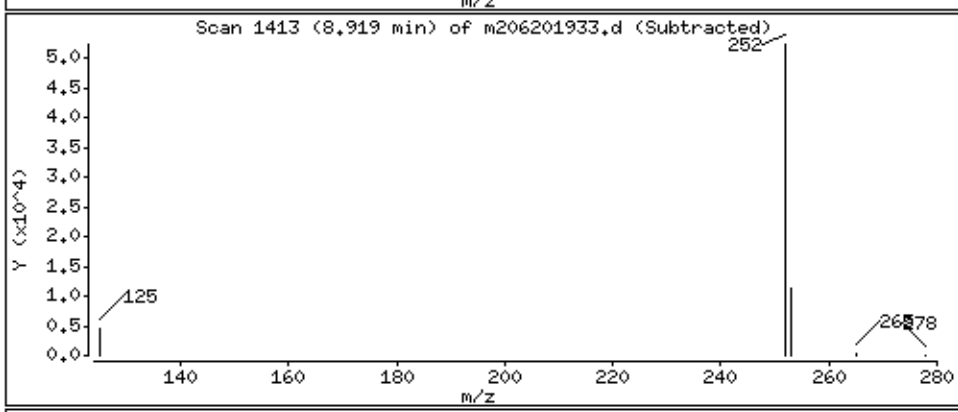
Column diameter: 0.25

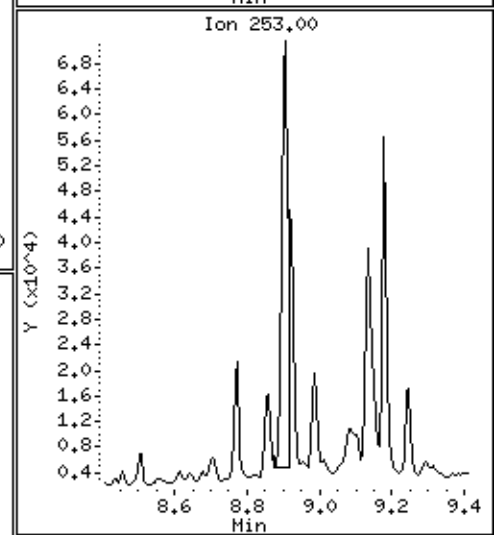
21 Benzo(k)fluoranthene

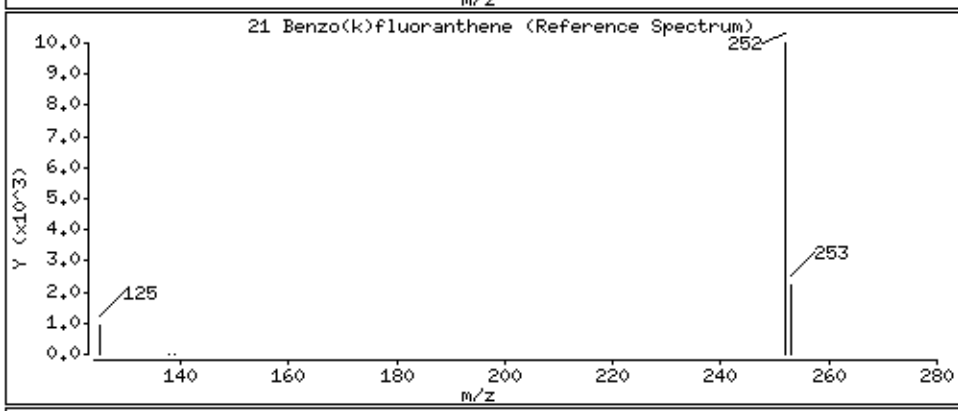
Concentration: 1200 ug/Kg

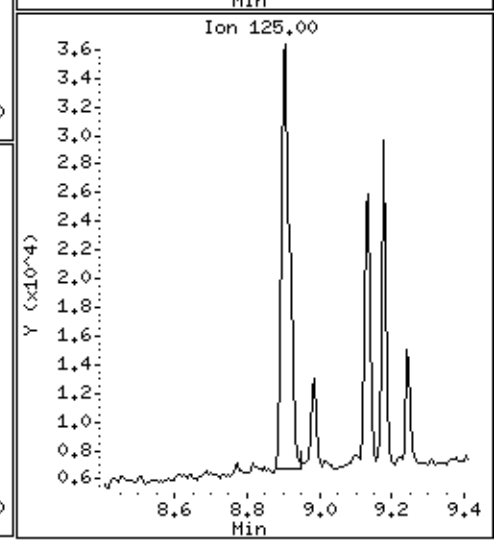


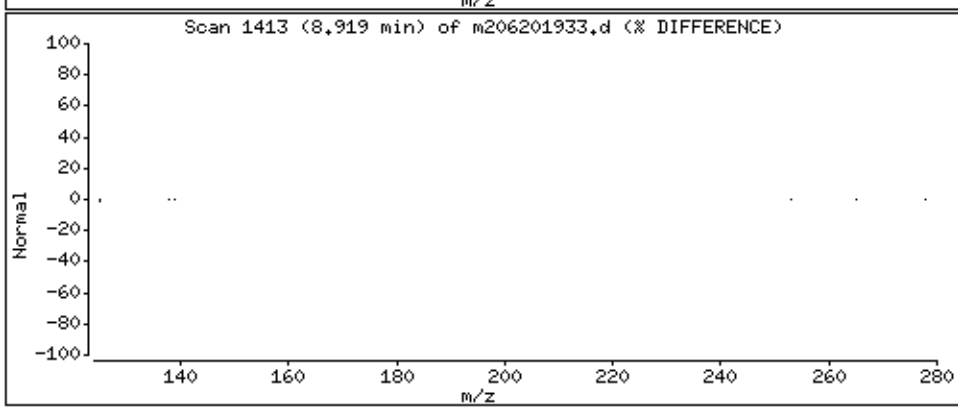












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

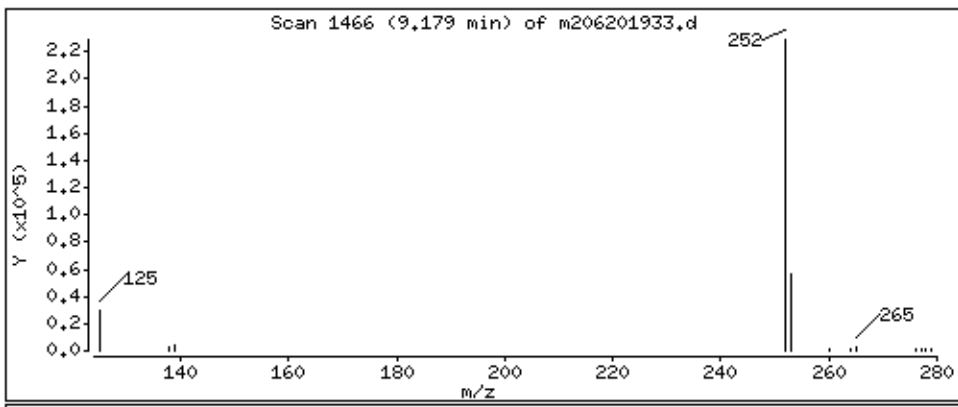
Operator: AJC

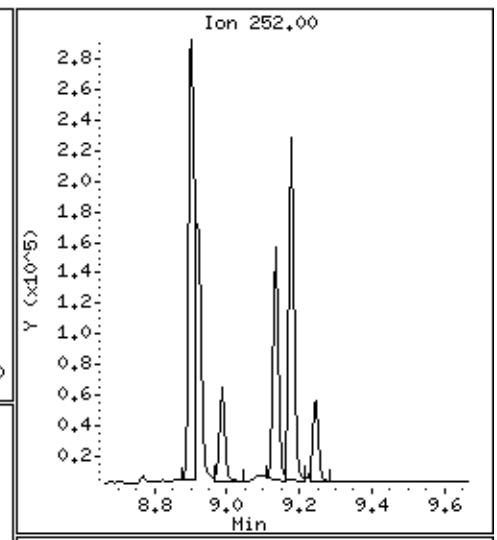
Column phase: RTX-5MS

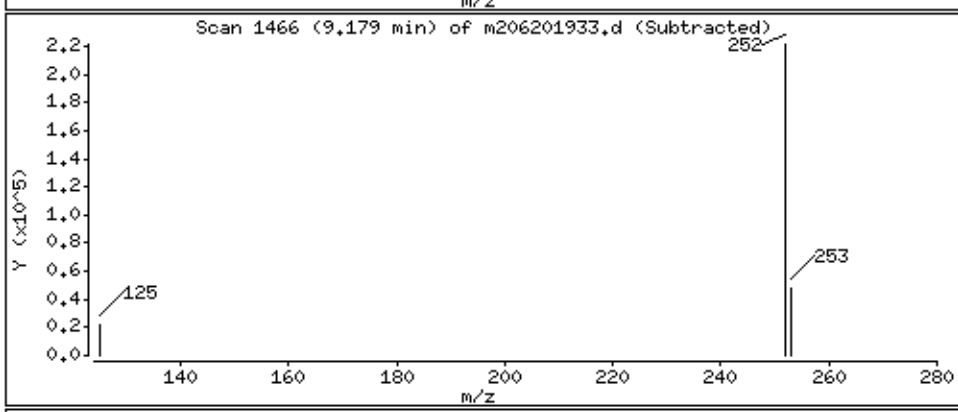
Column diameter: 0.25

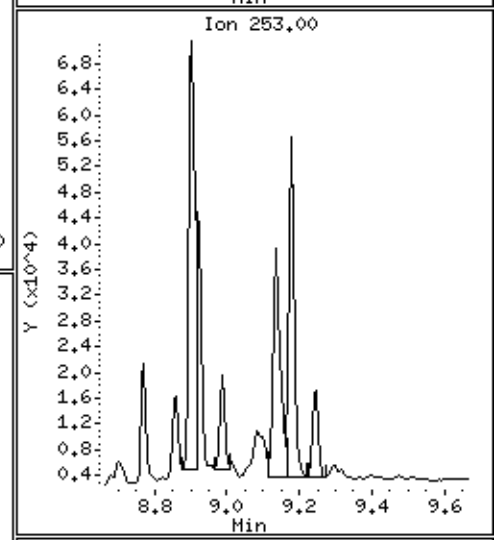
22 Benzo(a)pyrene

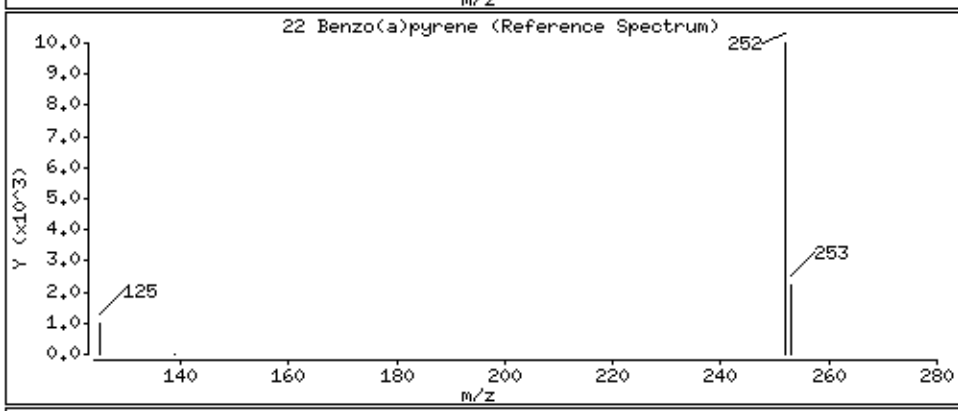
Concentration: 1660 ug/Kg

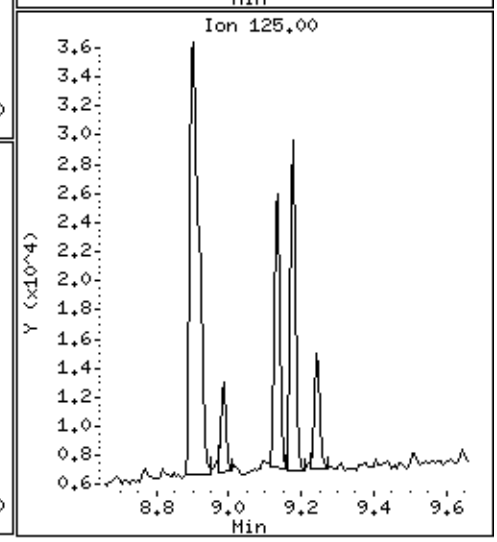


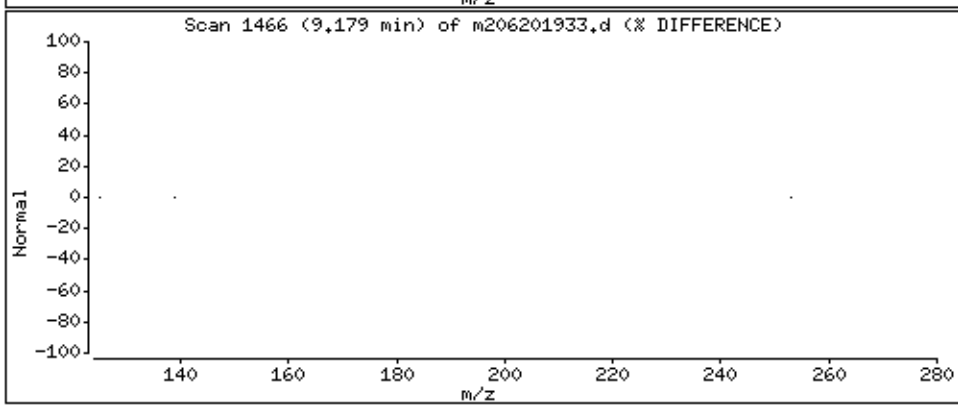












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

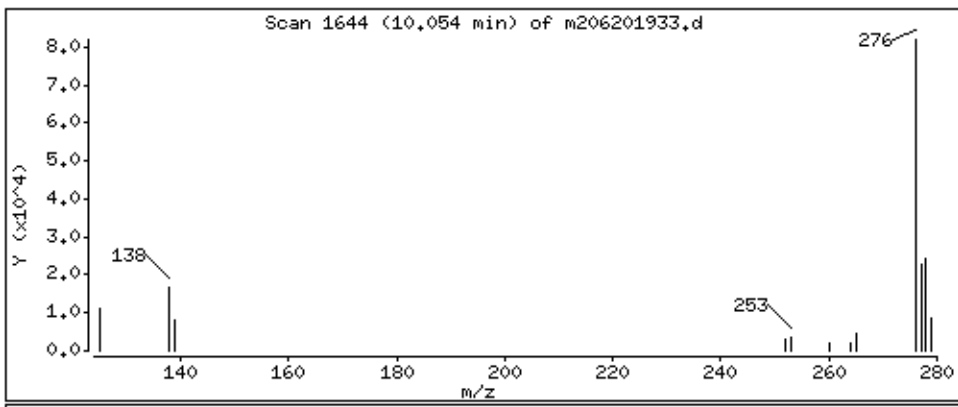
Operator: AJC

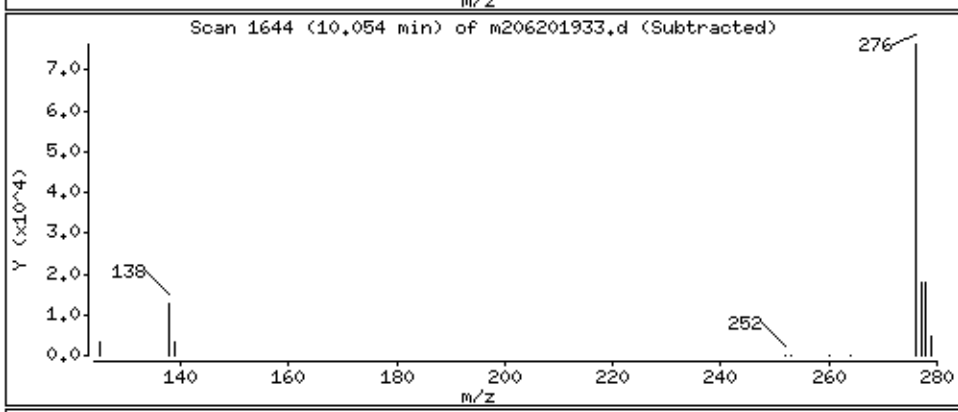
Column phase: RTX-5MS

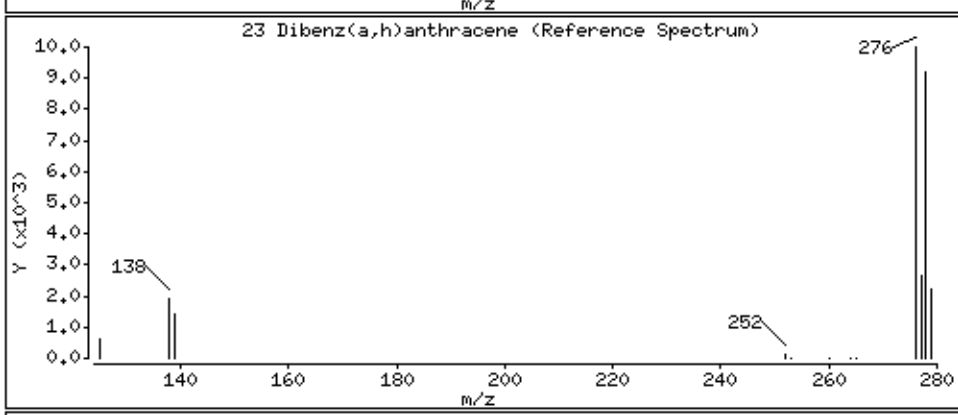
Column diameter: 0.25

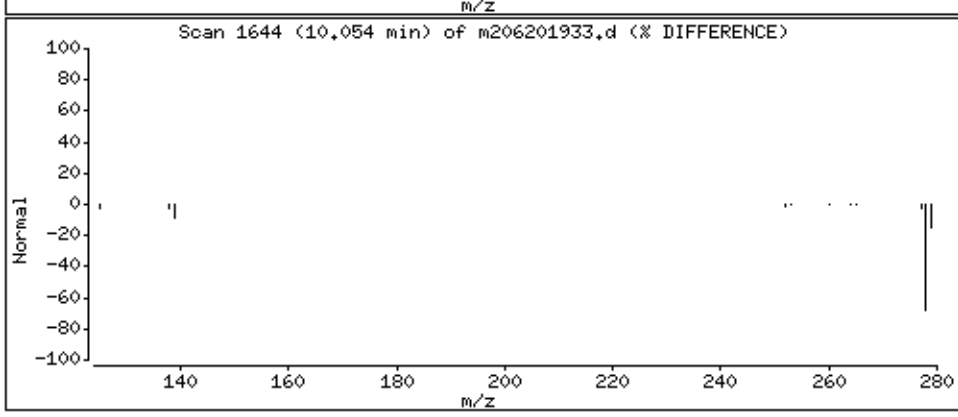
23 Dibenz(a,h)anthracene

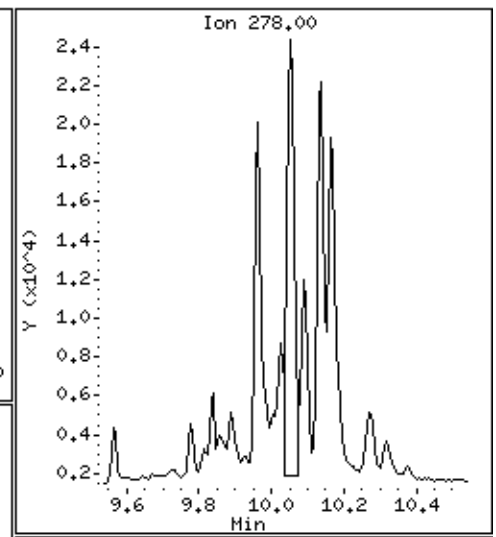
Concentration: 232 ug/Kg

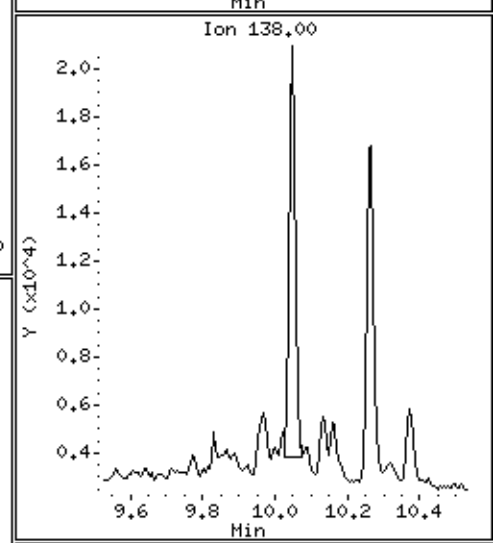


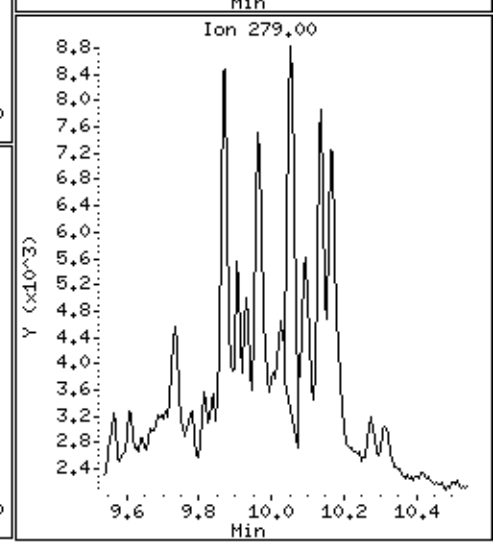












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

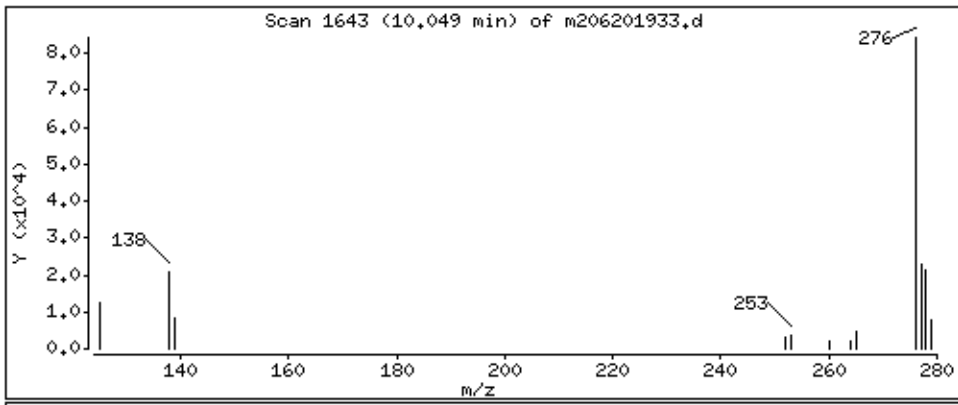
Operator: AJC

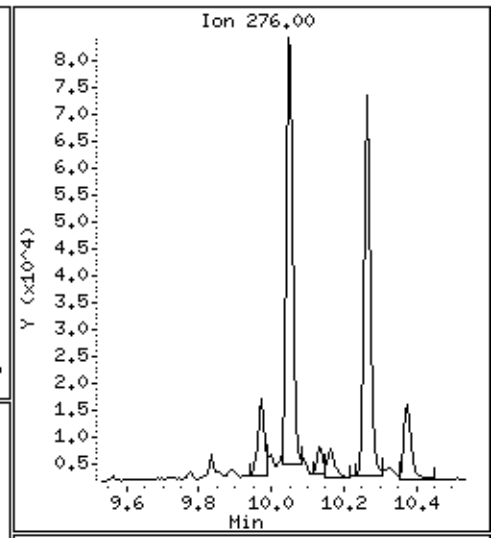
Column phase: RTX-5MS

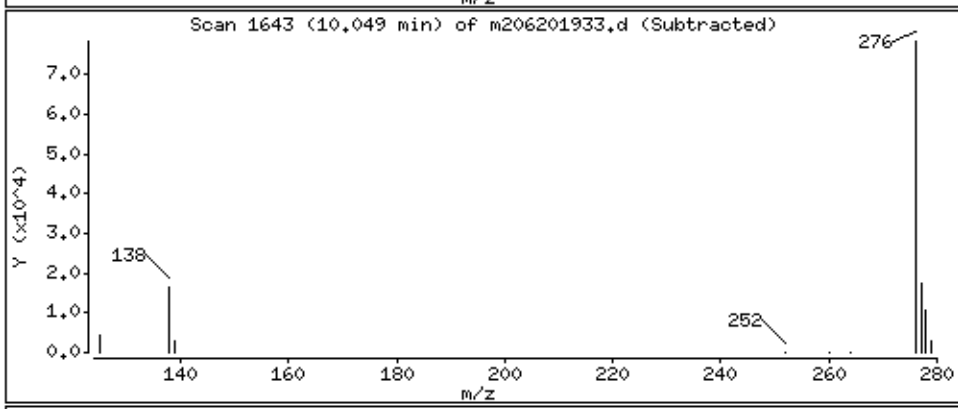
Column diameter: 0.25

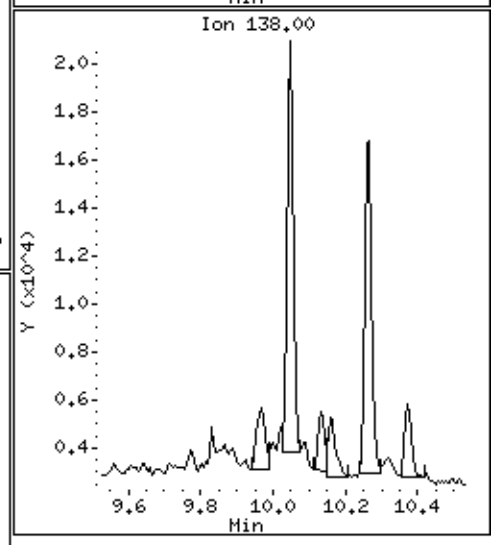
24 Indeno(1,2,3-cd)pyrene

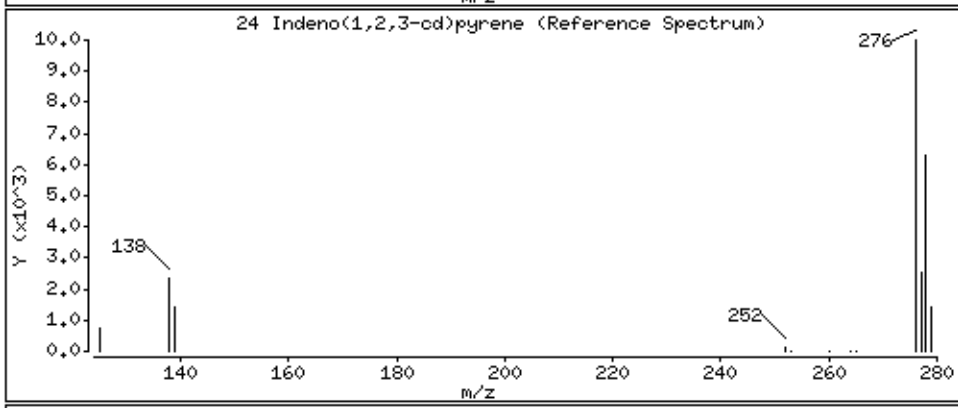
Concentration: 535 ug/Kg

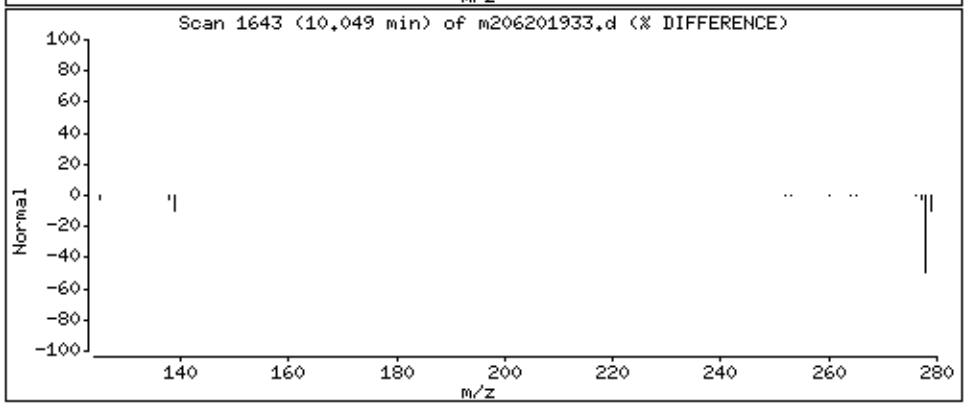












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201933.d

Date : 20-JUN-2019 20:13

Client ID: AOC 26-2

Instrument: 30mss2.i

Sample Info: 30300161002x10,

Volume Injected (uL): 1.0

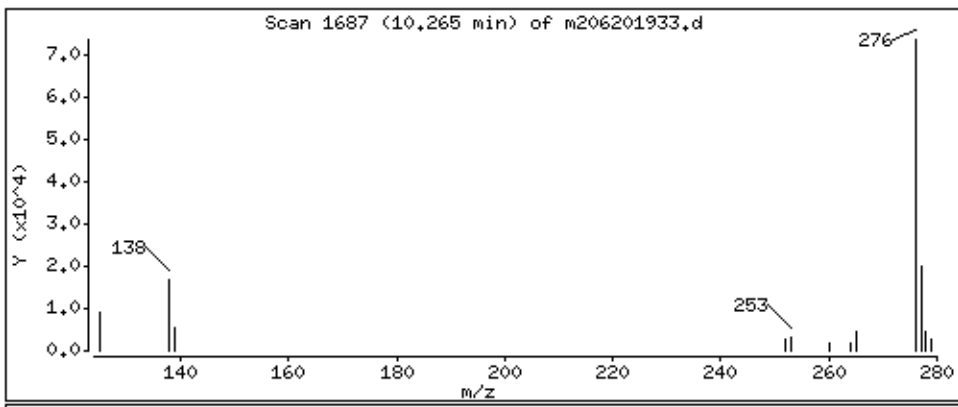
Operator: AJC

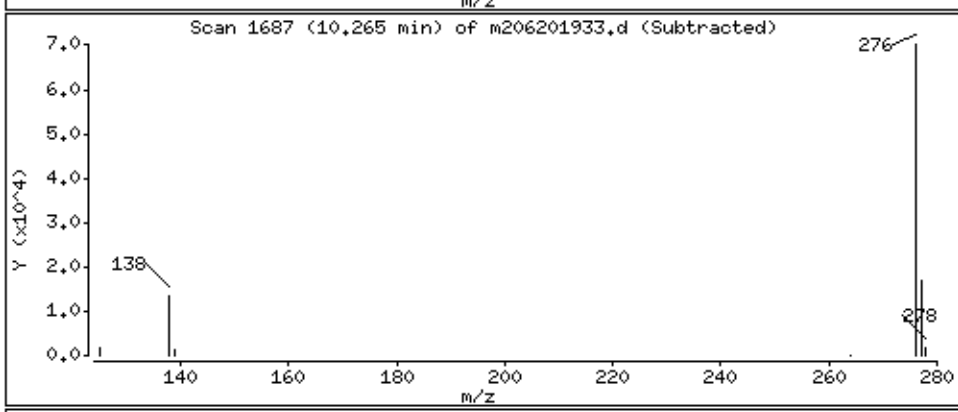
Column phase: RTX-5MS

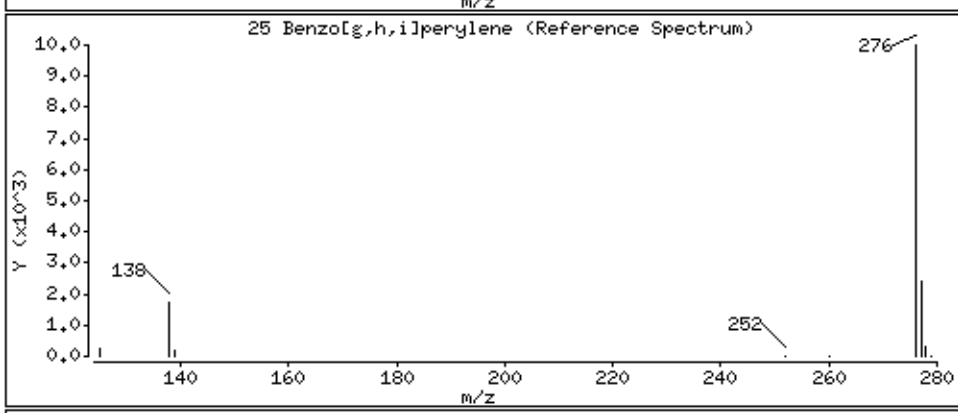
Column diameter: 0.25

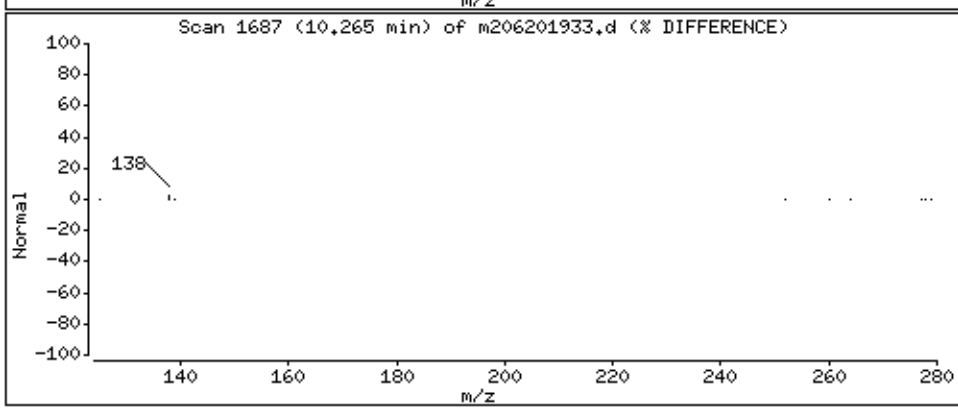
25 Benzo[g,h,i]perylene

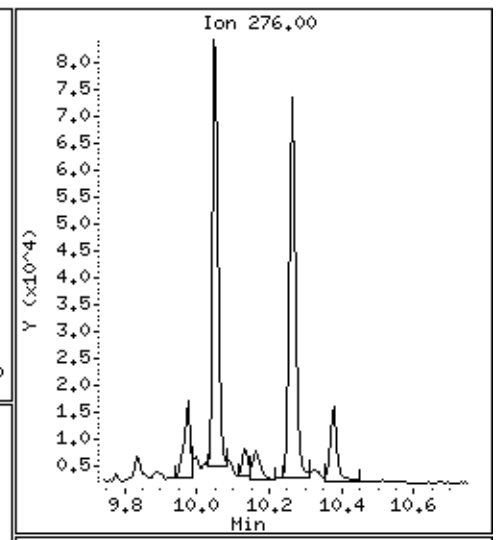
Concentration: 574 ug/Kg

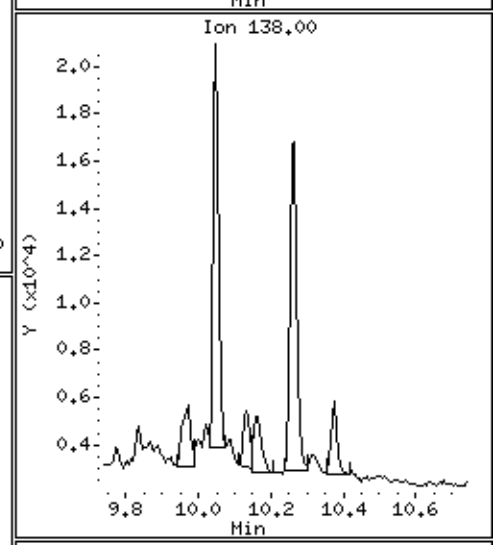


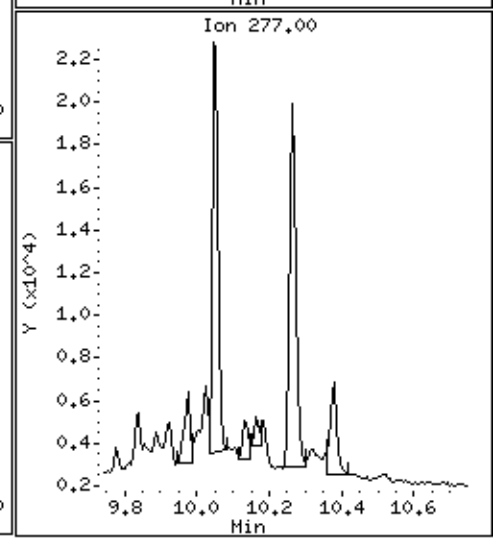






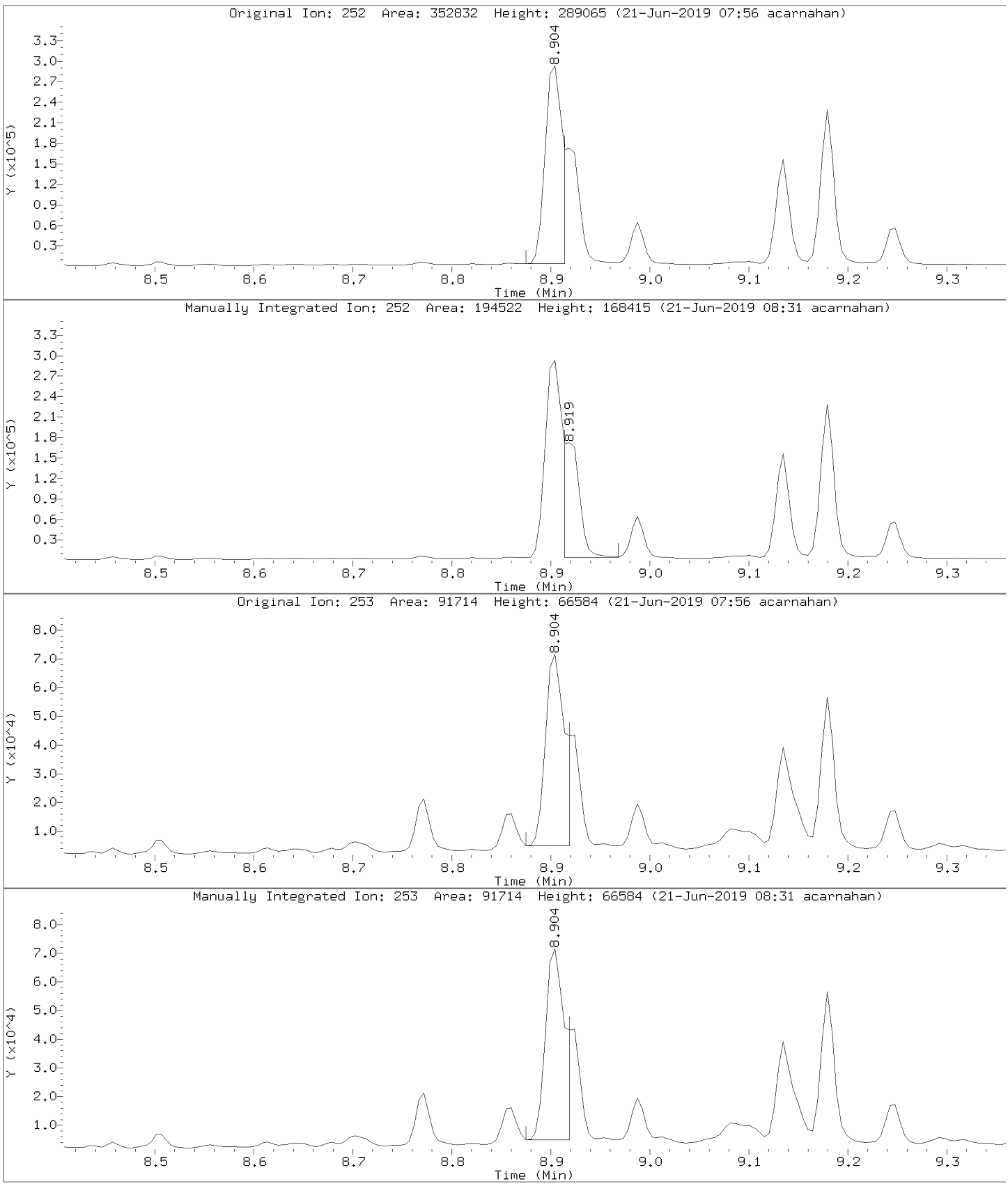




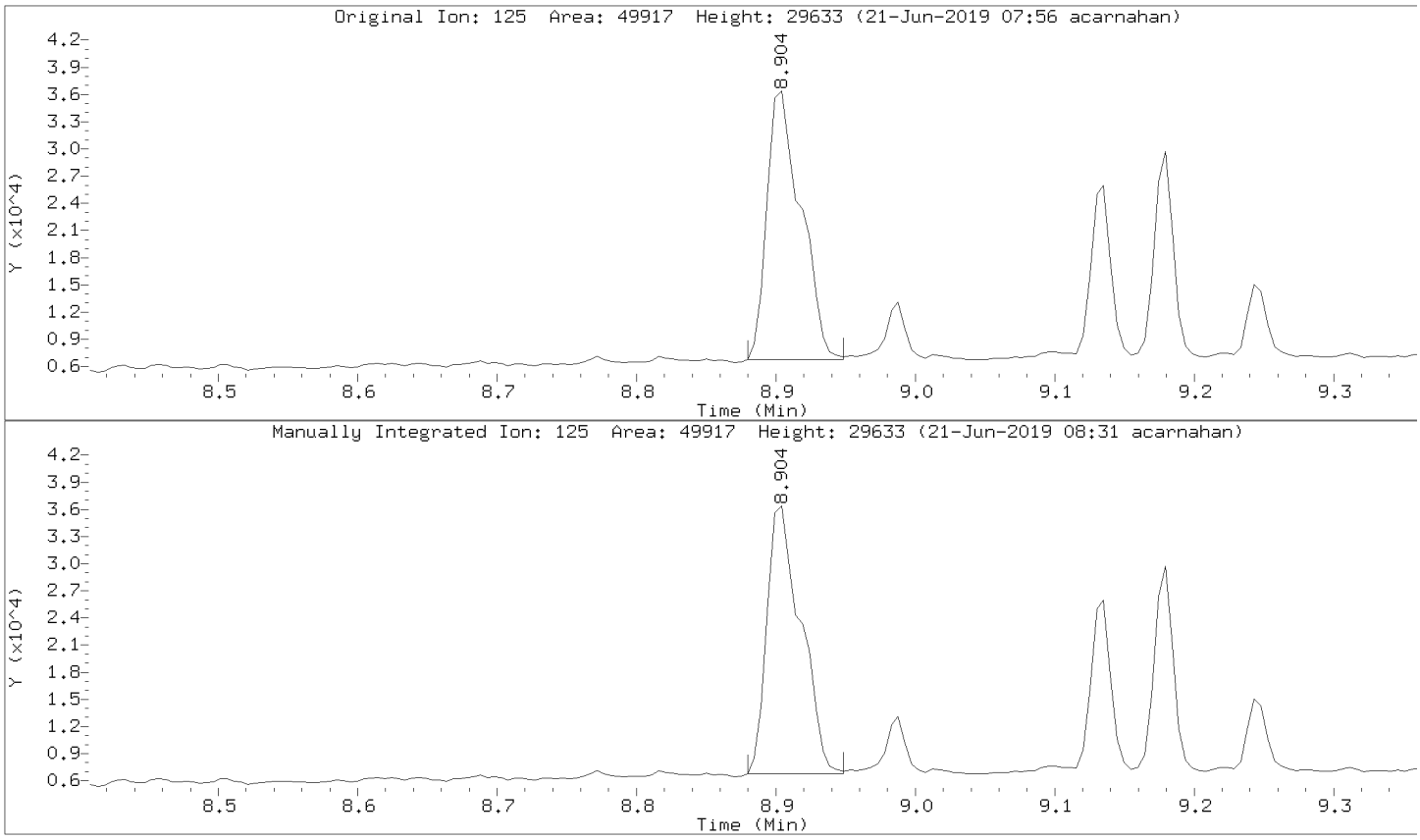


Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201933.d
Injection Date: 20-JUN-2019 20:13
Instrument: 30mss2.i
Lab Sample ID: 30300161002

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9

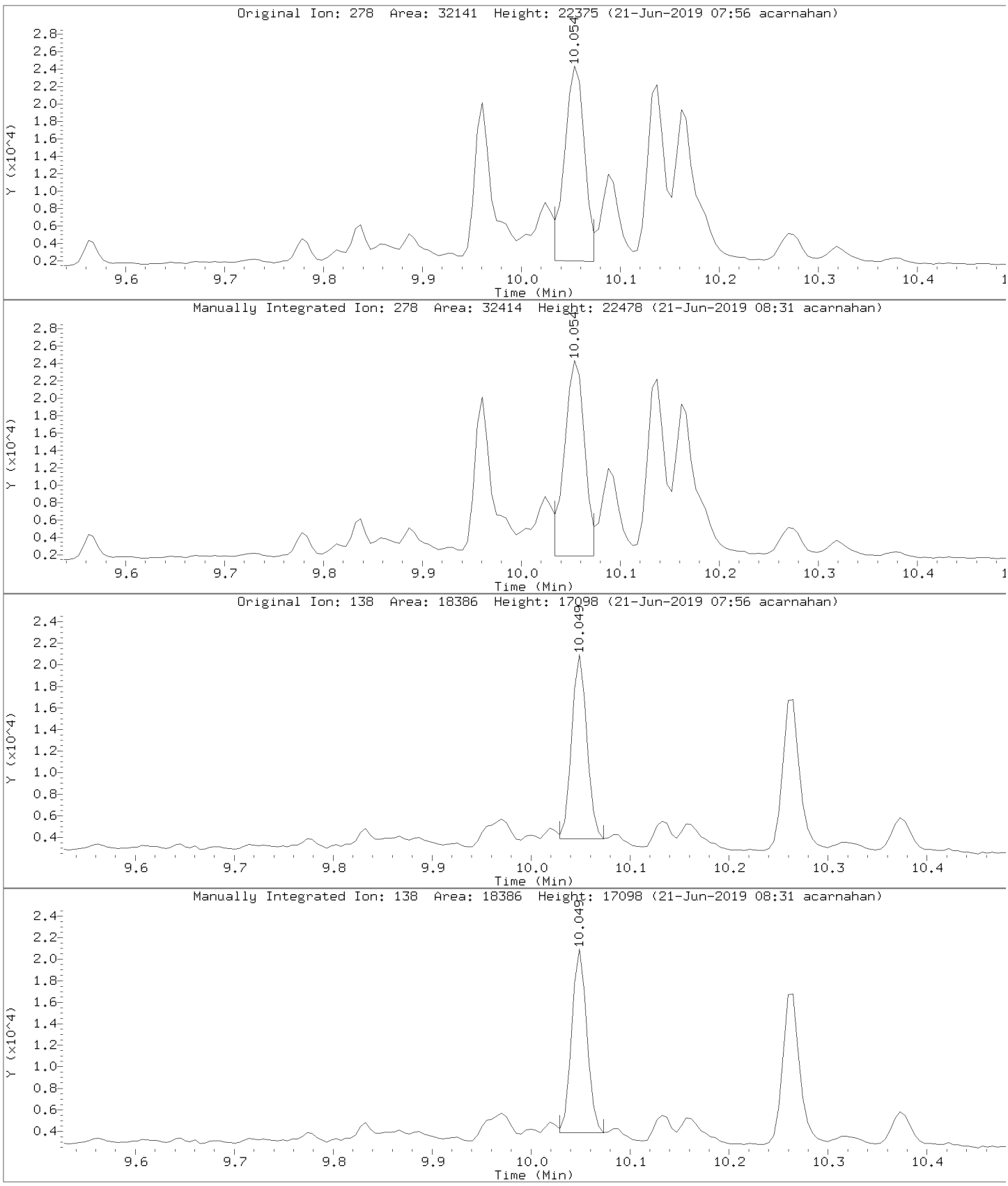


Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201933.d
Injection Date: 20-JUN-2019 20:13
Instrument: 30mss2.i
Lab Sample ID: 30300161002



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201933.d
Injection Date: 20-JUN-2019 20:13
Instrument: 30mss2.i
Lab Sample ID: 30300161002

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3



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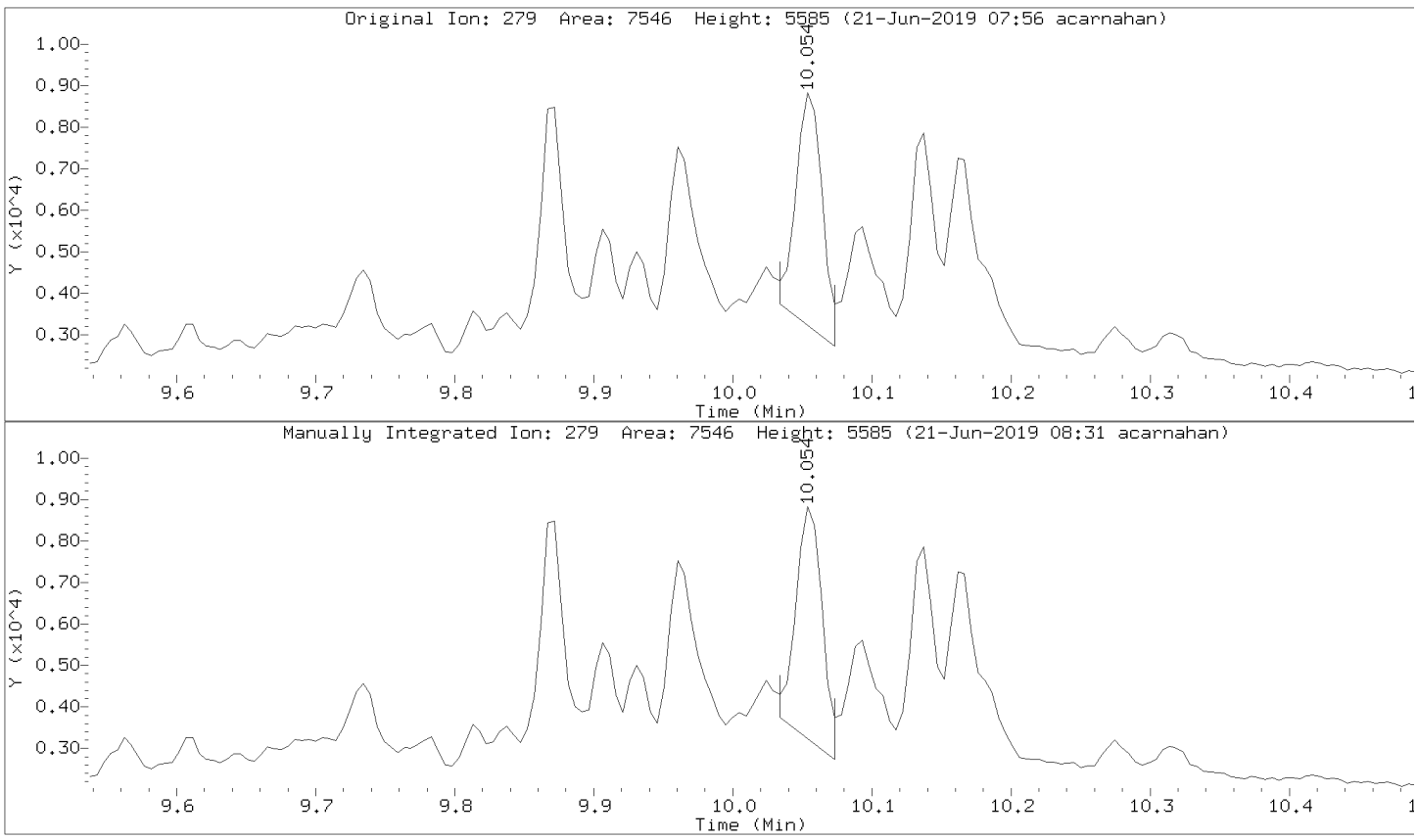
Injection Date: 20-JUN-2019 20:13
Instrument: 30mss2.i
Lab Sample ID: 30300161002



MSSV SIM - FORM VI SVOA-1

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthene	Averaged	0.96268	1.11616	1.10258	1.06718	1.03824	0.88837
Acenaphthylene	Averaged	1.43989	1.65342	1.68303	1.69637	1.64011	1.34165
Anthracene	Averaged	0.90610	1.02881	1.05799	1.06905	1.02342	0.81856
Benzo(a)anthracene	Averaged	1.12160	1.15347	1.11954	1.14109	1.12720	0.90450
Benzo(a)pyrene	Averaged	0.89486	1.00170	1.00290	1.07499	1.06891	0.91490
Benzo(b)fluoranthene	Averaged	0.96240	0.99435	1.04494	1.10958	1.18984	0.96206
Benzo(g,h,i)perylene	Averaged	1.02678	1.14288	1.09729	1.11629	1.06836	0.97326
Benzo(k)fluoranthene	Averaged	1.25456	1.42202	1.35999	1.30675	1.16856	1.01301
Chrysene	Averaged	1.11889	1.25636	1.22042	1.16755	1.09409	0.86936
Dibenz(a,h)anthracene	Averaged	1.00665	1.12149	1.07754	1.11562	1.09084	1.04496
Fluoranthene	Averaged	1.02402	1.16677	1.16379	1.19410	1.16234	0.91970
Fluorene	Averaged	1.06996	1.29593	1.29433	1.28178	1.26279	1.04257
Indeno(1,2,3-cd)pyrene	Averaged	1.22581	1.36267	1.30915	1.34564	1.30992	1.25015
Naphthalene	Averaged	0.85313	0.98207	0.96429	0.95073	0.91642	0.74194
Phenanthrene	Averaged	0.91669	1.03963	1.03416	1.01879	0.98227	0.80153
Pyrene	Averaged	1.06432	1.22050	1.20610	1.22118	1.17405	0.93143
2-Fluorobiphenyl (S)	Averaged	1.16635	1.40340	1.47961	1.45886	1.37872	1.12378
Terphenyl-d14 (S)	Averaged	0.79034	0.91685	0.90265	0.90620	0.87792	0.70065

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV SIM - FORM VI SVOA-2

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acenaphthene	Averaged	8.55106		0.00000000	1.02920	
Acenaphthylene	Averaged	9.39113		0.00000000	1.57574	
Anthracene	Averaged	10.13326		0.00000000	0.98399	
Benzo(a)anthracene	Averaged	8.58778		0.00000000	1.09457	
Benzo(a)pyrene	Averaged	7.58809		0.00000000	0.99304	
Benzo(b)fluoranthene	Averaged	8.71805			1.04386	
Benzo(g,h,i)perylene	Averaged	5.82051		0.00000000	1.07081	
Benzo(k)fluoranthene	Averaged	11.69830		0.00000000	1.25415	
Chrysene	Averaged	12.25789		0.00000000	1.12111	
Dibenz(a,h)anthracene	Averaged	4.07890		0.00000000	1.07618	
Fluoranthene	Averaged	9.86211		0.00000000	1.10512	
Fluorene	Averaged	9.79942		0.00000000	1.20790	
Indeno(1,2,3-cd)pyrene	Averaged	4.09476		0.00000000	1.30056	
Naphthalene	Averaged	10.03077		0.00000000	0.90143	
Phenanthrene	Averaged	9.56014		0.00000000	0.96551	
Pyrene	Averaged	10.24402		0.00000000	1.13626	
2-Fluorobiphenyl (S)	Averaged	11.40340		0.00000000	1.33512	
Terphenyl-d14 (S)	Averaged	10.13636			0.84910	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 17-JUN-2019 12:43
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal1, 89118:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 12:43 Cal File: m2061719z1.d
Als bottle: 94 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	710510	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	15154	0.10000	0.0910	
9 2-Methylnaphthalene	142	4.041	4.041	(1.129)	9023	0.10000	0.0848	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	10451	0.10000	0.0885(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	11568	0.10000	0.0847	
11 Acenaphthylene	152	4.619	4.619	(0.981)	14281	0.10000	0.0890	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396724	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	9548	0.10000	0.0906	
13 Fluorene	166	5.075	5.075	(1.078)	10612	0.10000	0.0866	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	721512	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	16535	0.10000	0.0917(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	16344	0.10000	0.0892	
16 Fluoranthene	202	6.747	6.742	(1.173)	18471	0.10000	0.0900	
17 Pyrene	202	6.950	6.945	(1.209)	19198	0.10000	0.0903	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	14256	0.10000	0.0899	
18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	19022	0.10000	0.0989	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	678388	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	18976	0.10000	0.0947(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	17640	0.10000	0.0936	
21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	22995	0.10000	0.0948(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	16402	0.10000	0.0901	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	733165	4.00000		
23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	18451	0.10000	0.0932	
24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	22468	0.10000	0.0935	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	18820	0.10000	0.0937	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

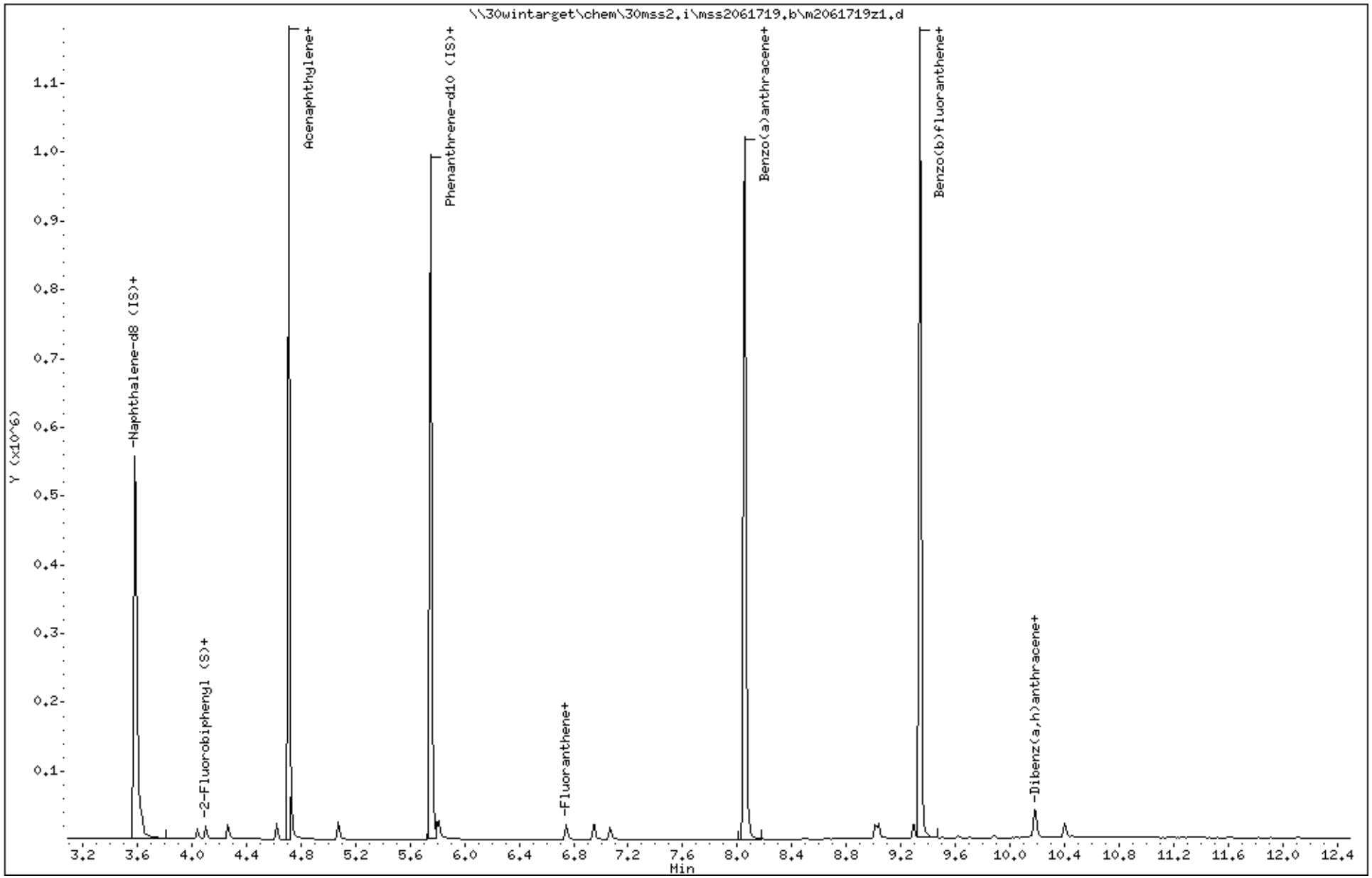
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.0910	
91-57-6	2-Methylnaphthalene	0.0848	
90-12-0	1-Methylnaphthalene	0.0885	
208-96-8	Acenaphthylene	0.0890	
83-32-9	Acenaphthene	0.0906	
86-73-7	Fluorene	0.0866	
85-01-8	Phenanthrene	0.0917	
120-12-7	Anthracene	0.0892	
206-44-0	Fluoranthene	0.0900	
129-00-0	Pyrene	0.0903	
56-55-3	Benzo(a)anthracene	0.0989	
218-01-9	Chrysene	0.0947	
205-99-2	Benzo(b)fluoranthene	0.0936	
207-08-9	Benzo(k)fluoranthene	0.0948	
50-32-8	Benzo(a)pyrene	0.0901	
53-70-3	Dibenz(a,h)anthracene	0.0932	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0935	
191-24-2	Benzo[g,h,i]perylene	0.0937	
321-60-8	2-Fluorobiphenyl (S)	0.0847	
1718-51-0	Terphenyl-d14 (S)	0.0899	

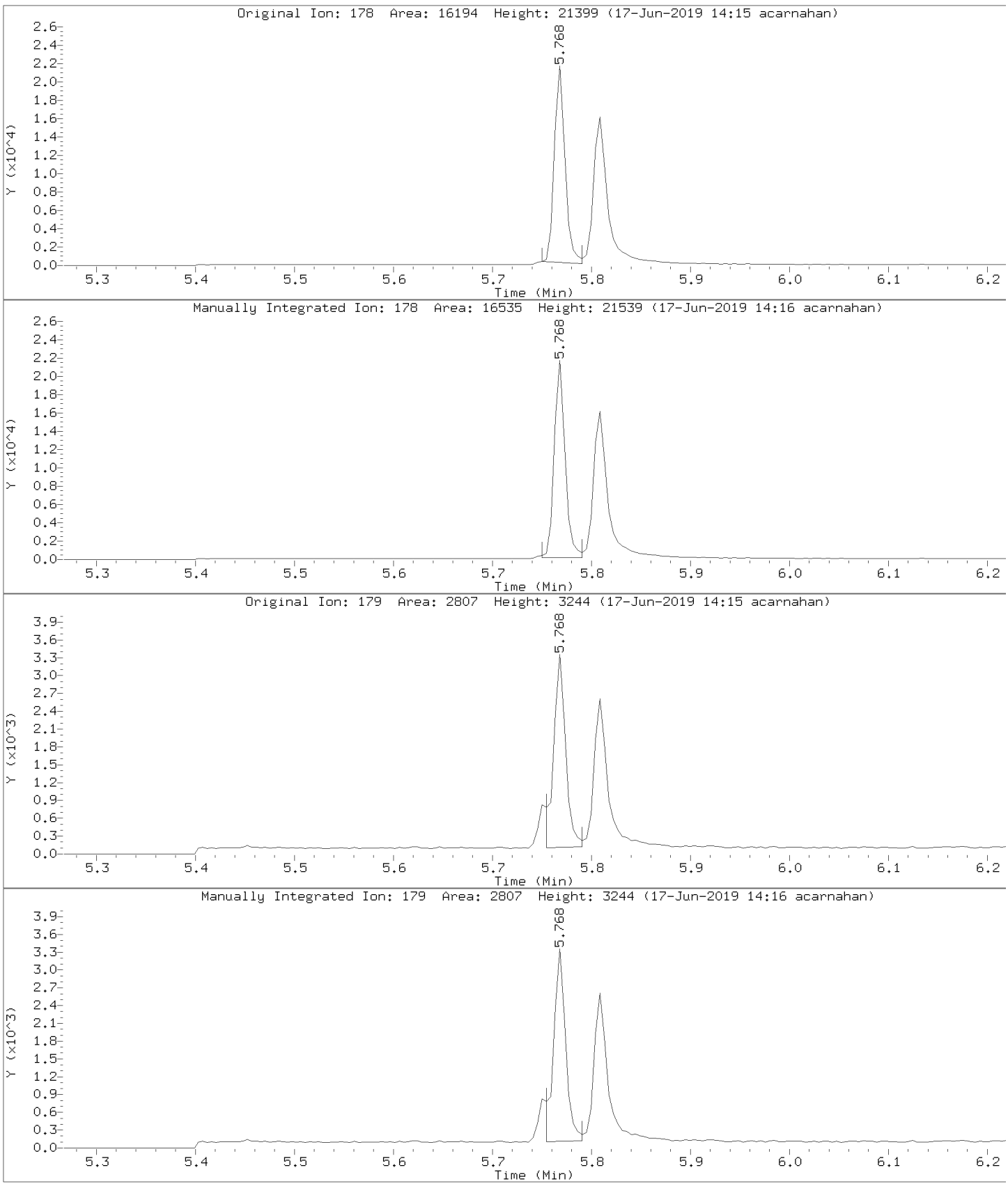
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Date : 17-JUN-2019 12:43
Client ID: CAL1
Sample Info: CAL1, 89118:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

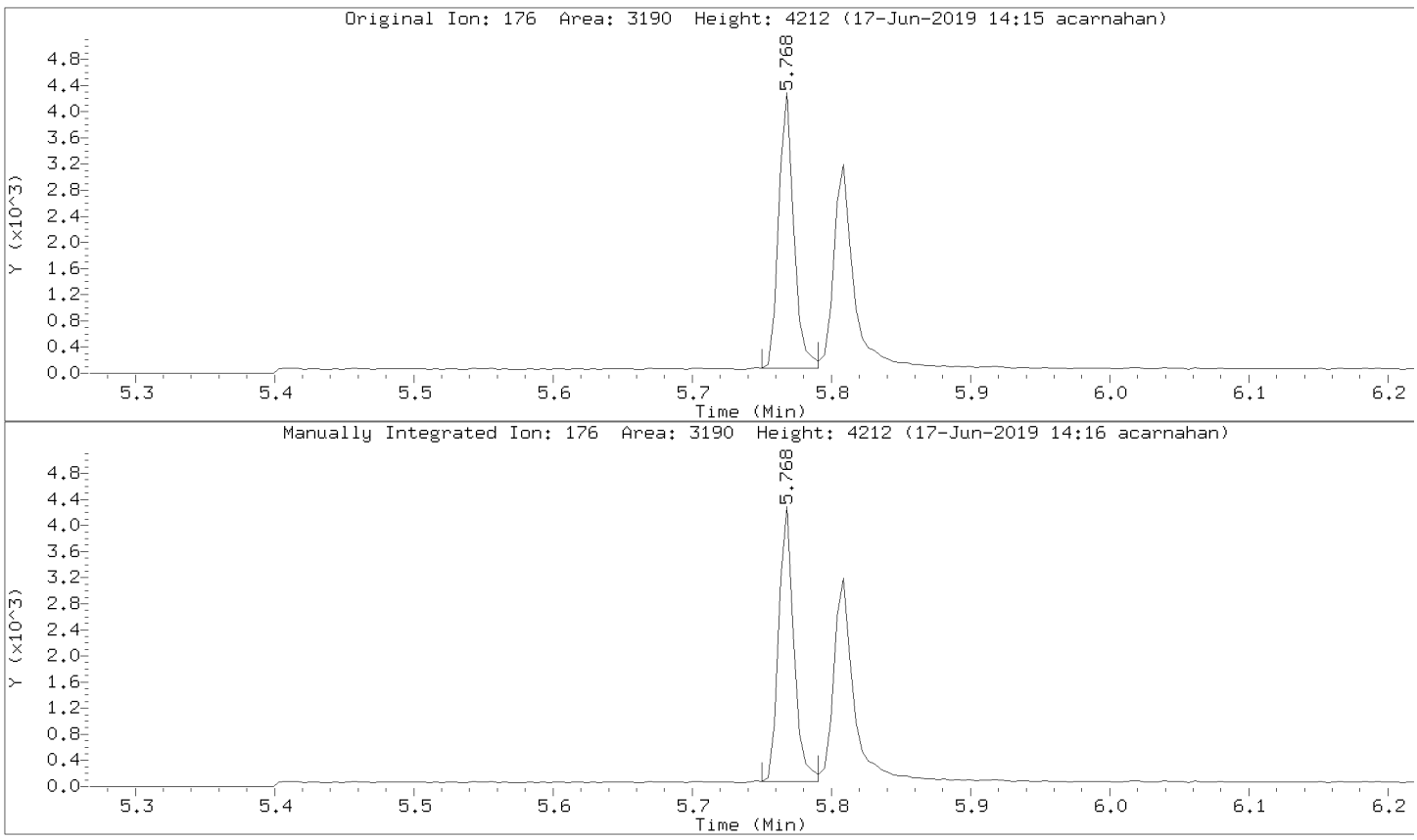


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

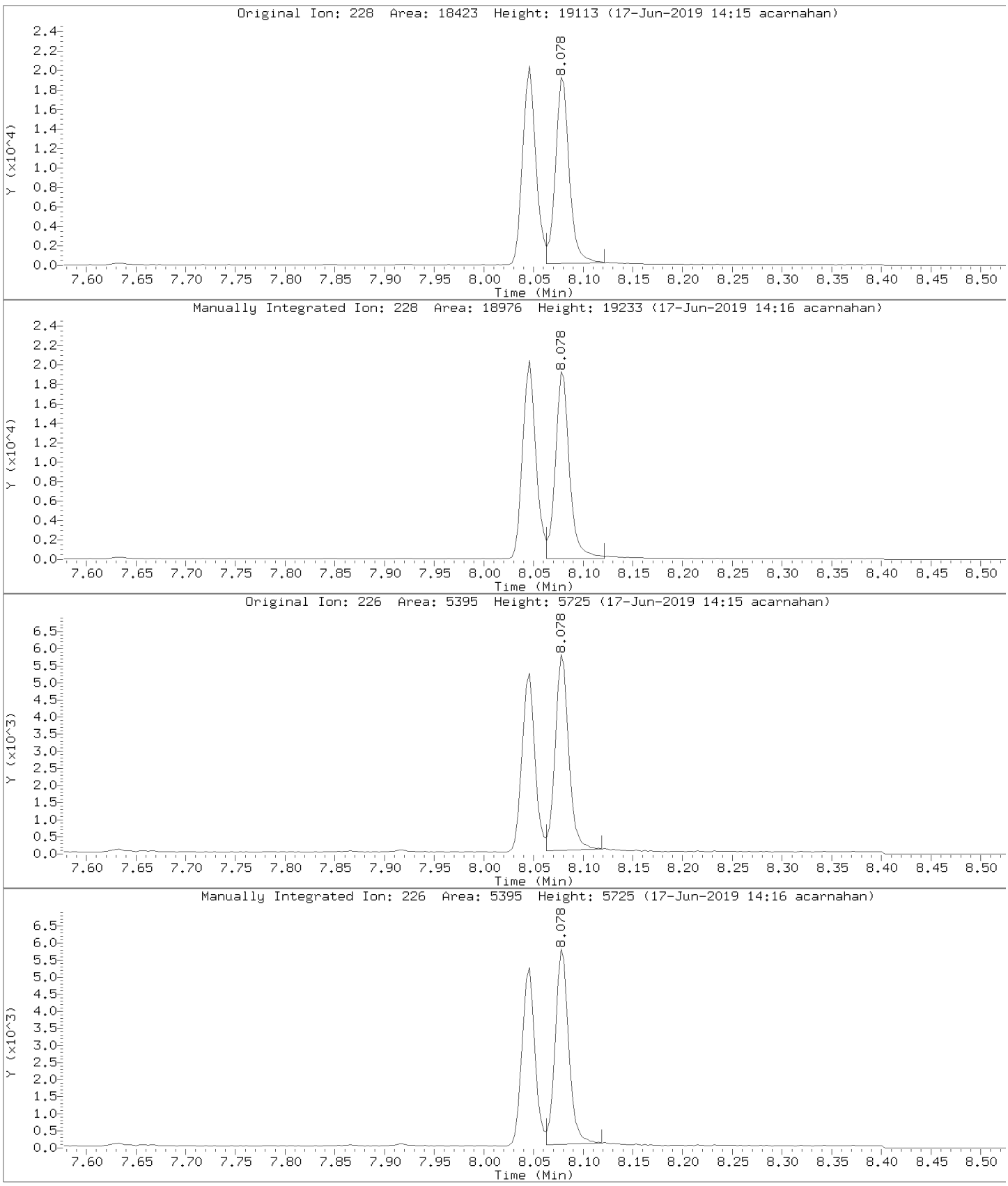


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

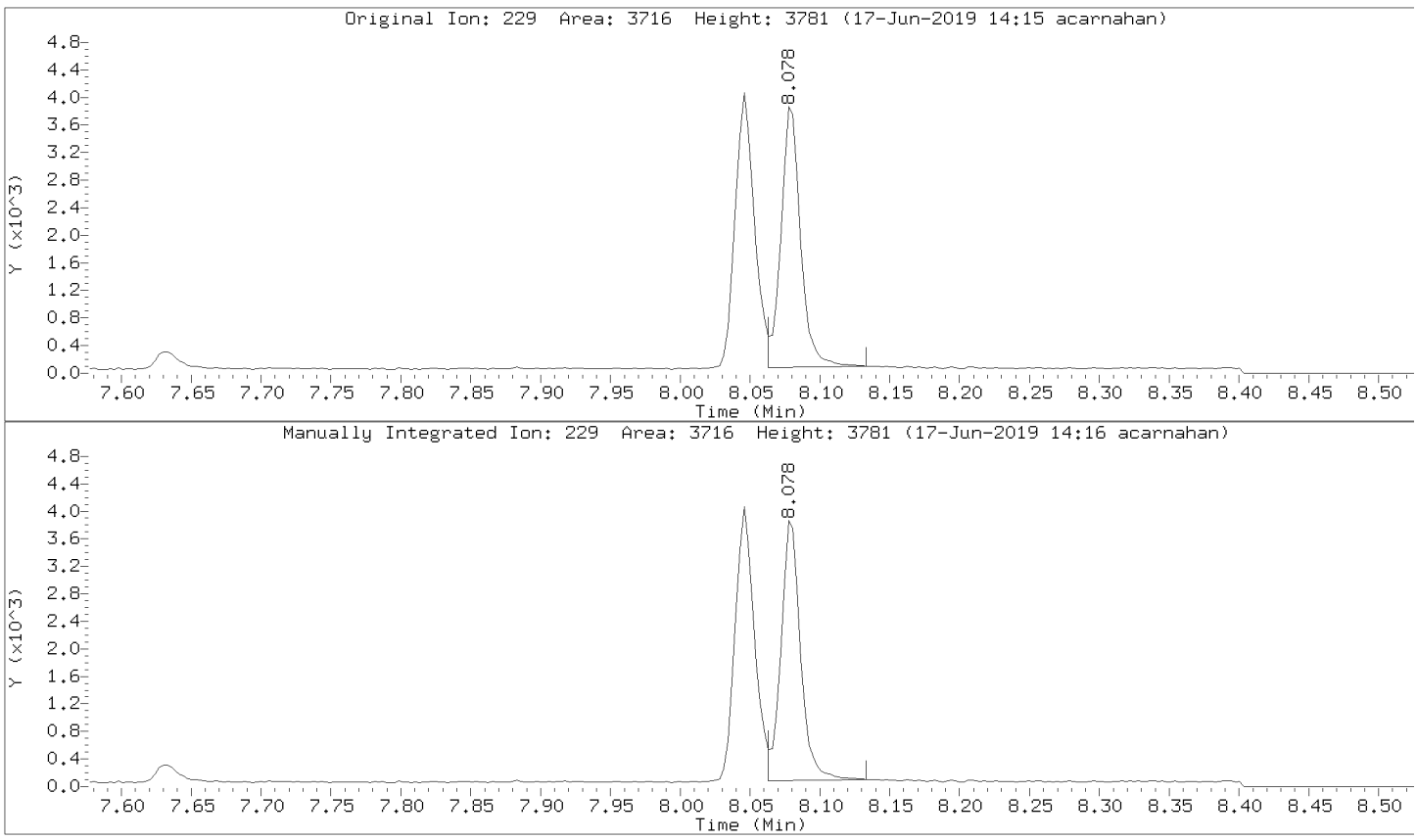


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

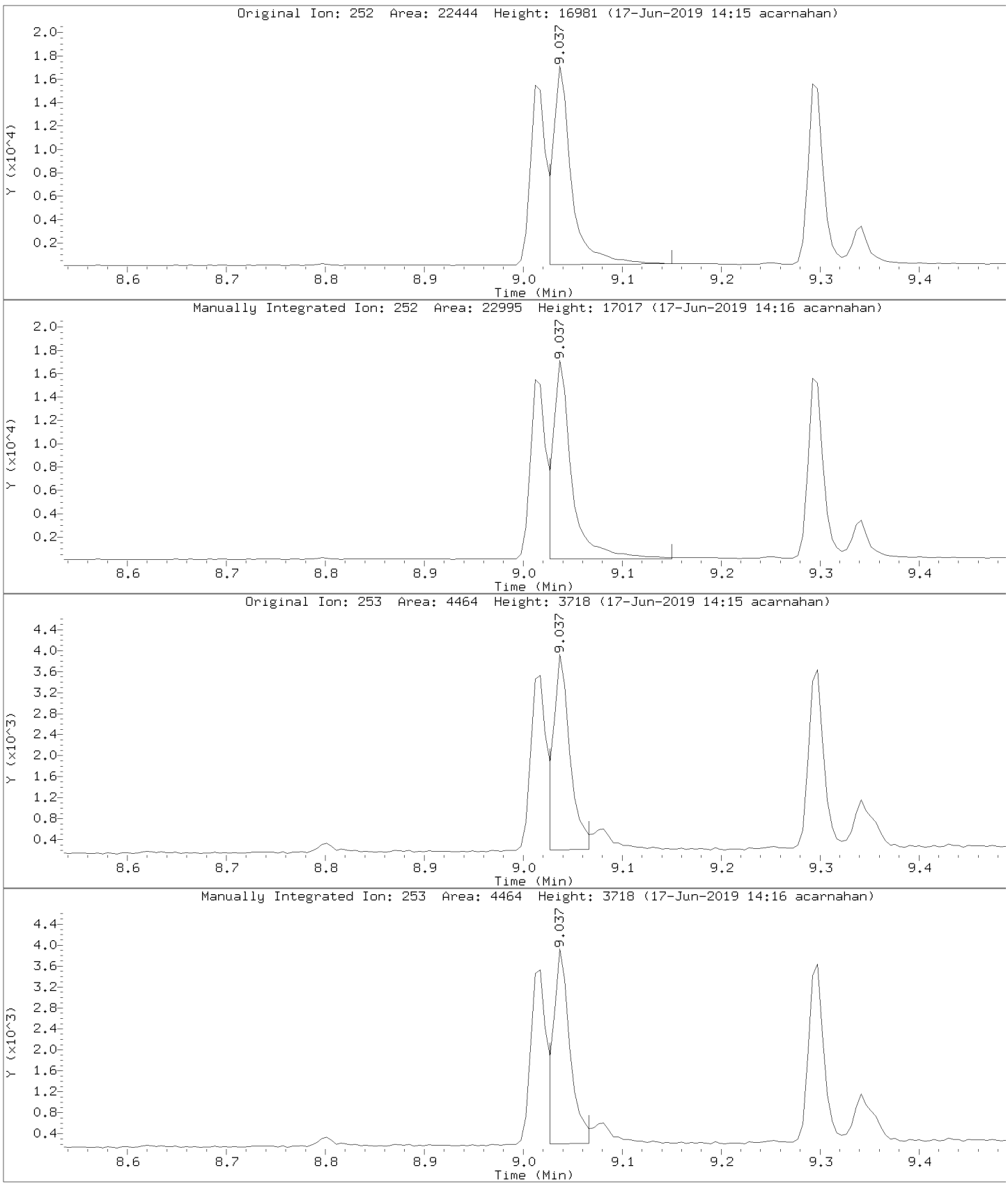


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

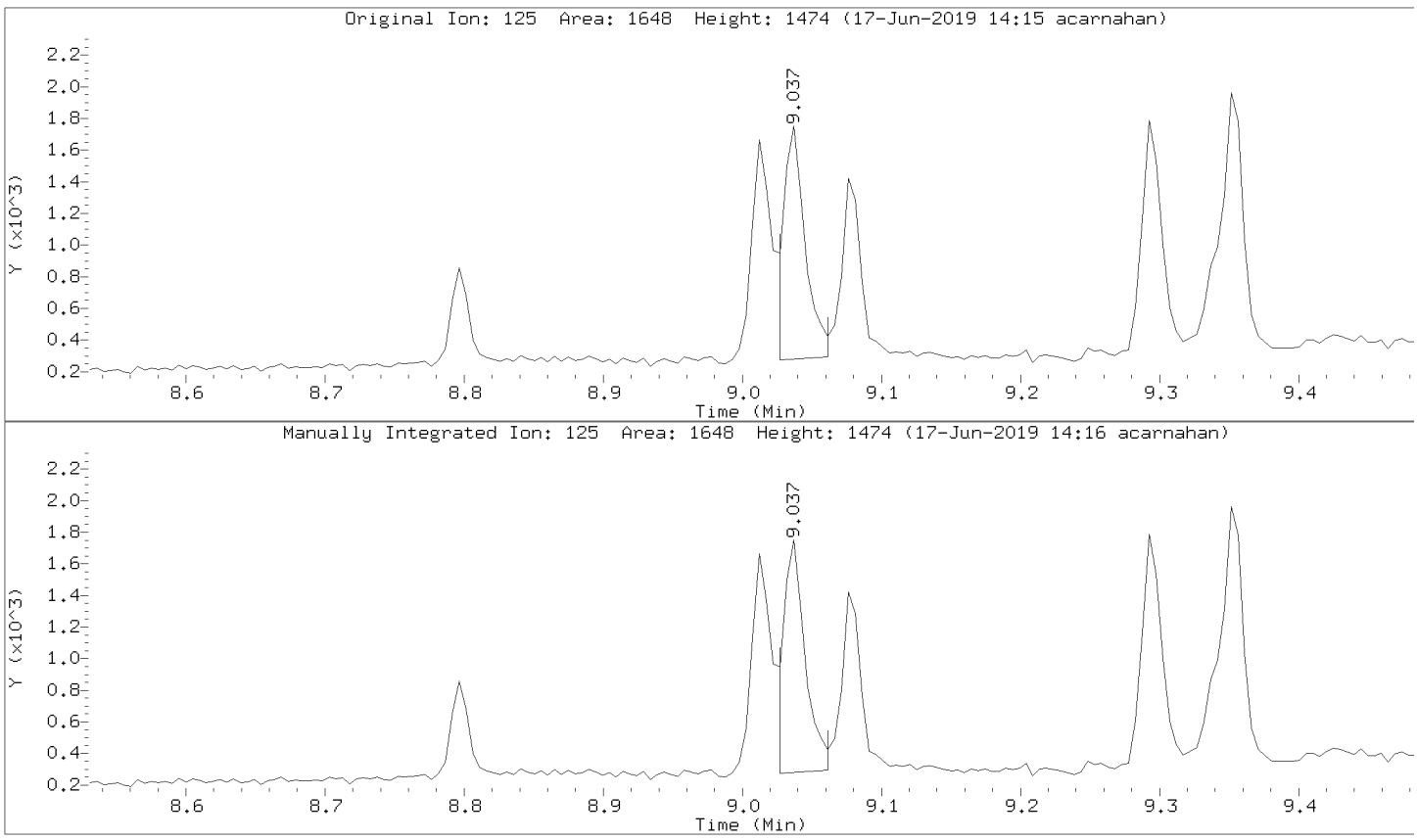


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

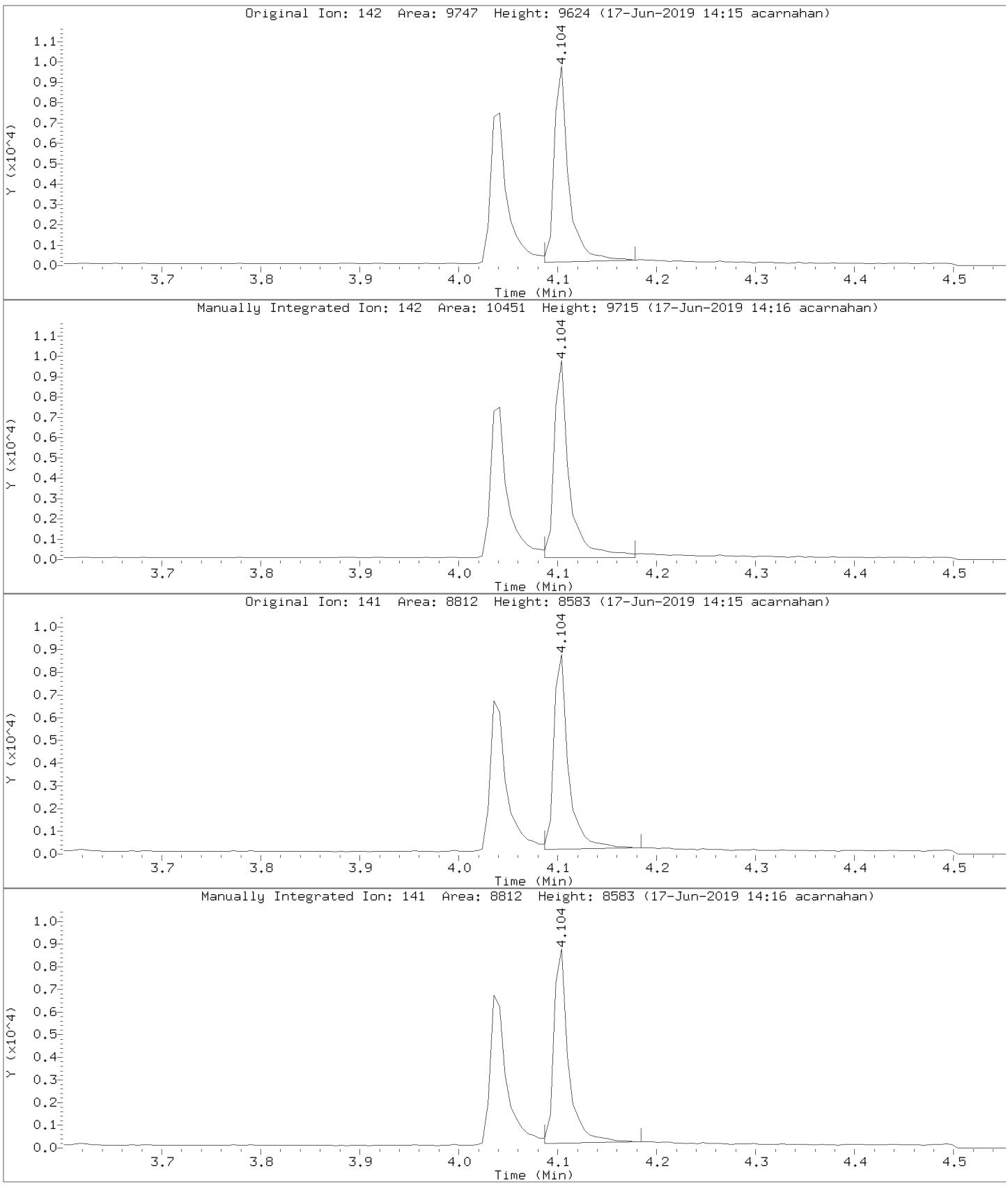


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 17-JUN-2019 13:01
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal2, 89119:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:01 Cal File: m2061719z2.d
Als bottle: 95 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	769170	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	37769	0.20000	0.209	
9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	23528	0.20000	0.204	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	28113	0.20000	0.216(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	30468	0.20000	0.204	
11 Acenaphthylene	152	4.619	4.619	(0.981)	35896	0.20000	0.204	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	434204	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	24232	0.20000	0.210	
13 Fluorene	166	5.075	5.075	(1.078)	28135	0.20000	0.210	
* 3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	797229	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	41441	0.20000	0.208(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	41010	0.20000	0.203	
16 Fluoranthene	202	6.742	6.742	(1.173)	46509	0.20000	0.205	
17 Pyrene	202	6.945	6.945	(1.208)	48651	0.20000	0.207	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	36547	0.20000	0.209	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	43913	0.20000	0.203	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	761404	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	47830	0.20000	0.212(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	41137	0.20000	0.193	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	58830	0.20000	0.214(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	41441	0.20000	0.202	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	827417	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	46397	0.20000	0.208	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	56375	0.20000	0.208	
25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.113)	47282	0.20000	0.208	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

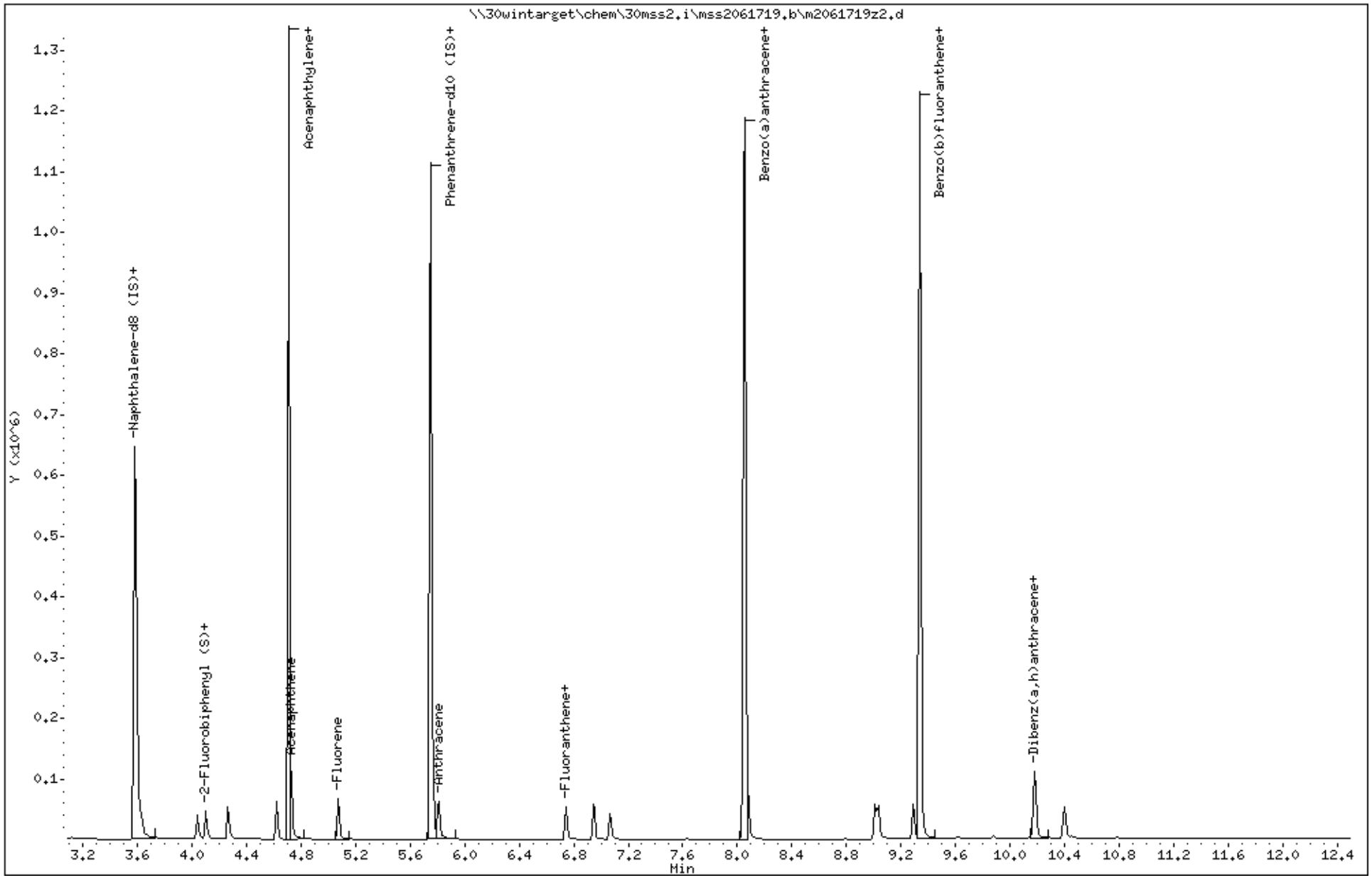
Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.209	
91-57-6	2-Methylnaphthalene	0.204	
90-12-0	1-Methylnaphthalene	0.216	
208-96-8	Acenaphthylene	0.204	
83-32-9	Acenaphthene	0.210	
86-73-7	Fluorene	0.210	
85-01-8	Phenanthrene	0.208	
120-12-7	Anthracene	0.203	
206-44-0	Fluoranthene	0.205	
129-00-0	Pyrene	0.207	
56-55-3	Benzo(a)anthracene	0.203	
218-01-9	Chrysene	0.212	
205-99-2	Benzo(b)fluoranthene	0.193	
207-08-9	Benzo(k)fluoranthene	0.214	
50-32-8	Benzo(a)pyrene	0.202	
53-70-3	Dibenz(a,h)anthracene	0.208	
193-39-5	Indeno(1,2,3-cd)pyrene	0.208	
191-24-2	Benzo[g,h,i]perylene	0.208	
321-60-8	2-Fluorobiphenyl (S)	0.204	
1718-51-0	Terphenyl-d14 (S)	0.209	

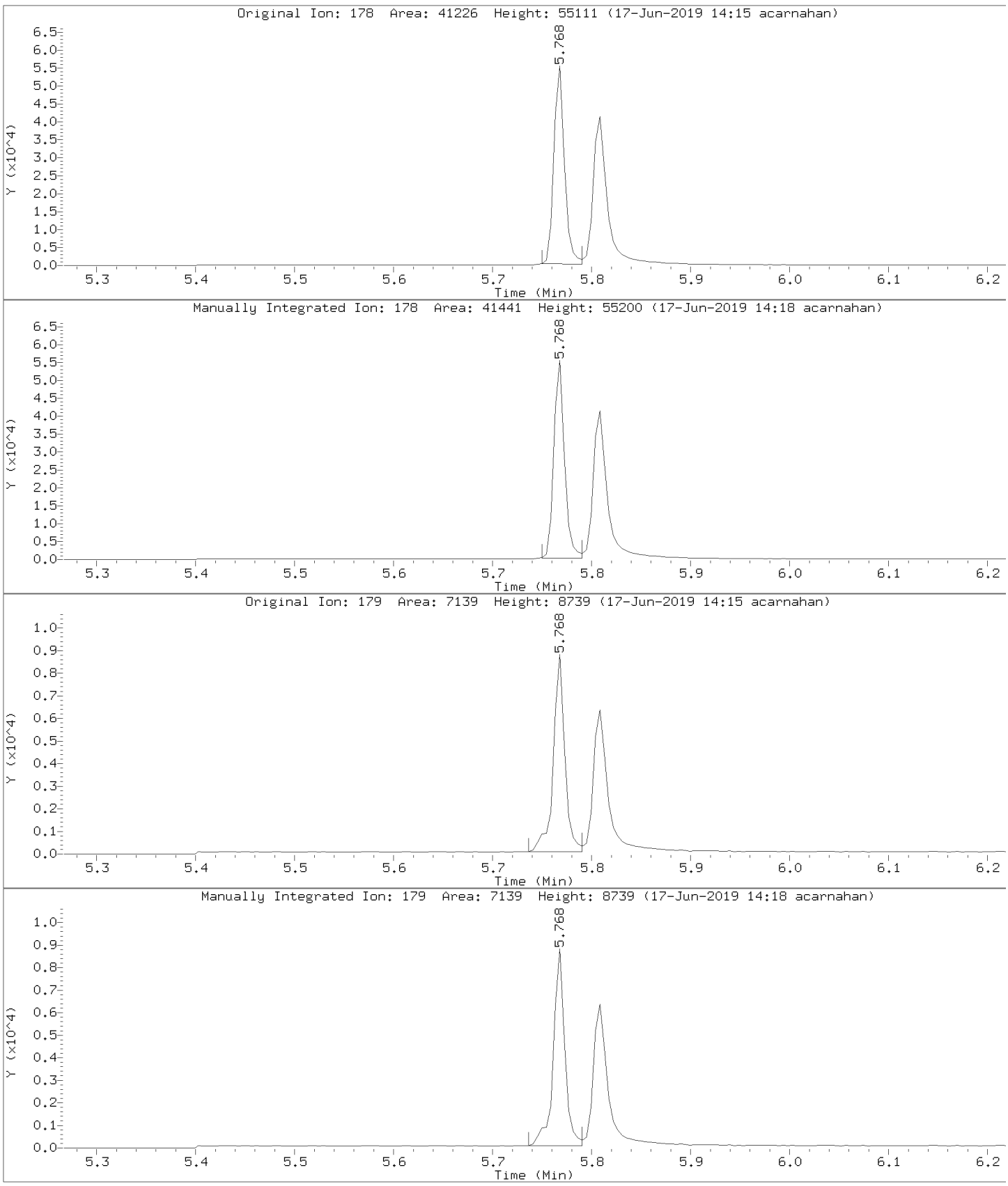
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Date : 17-JUN-2019 13:01
Client ID: CAL2
Sample Info: CAL2, 89119:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

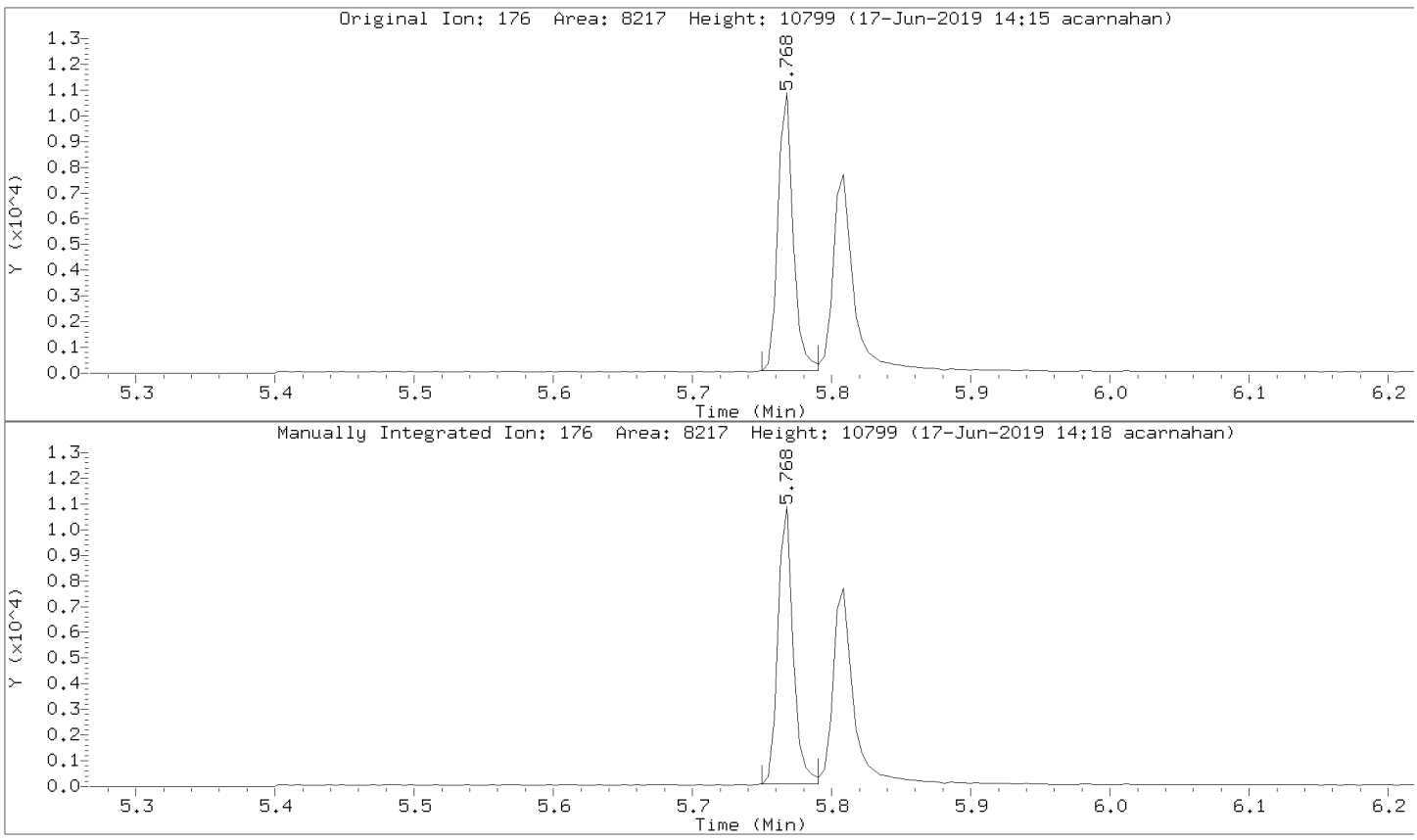


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

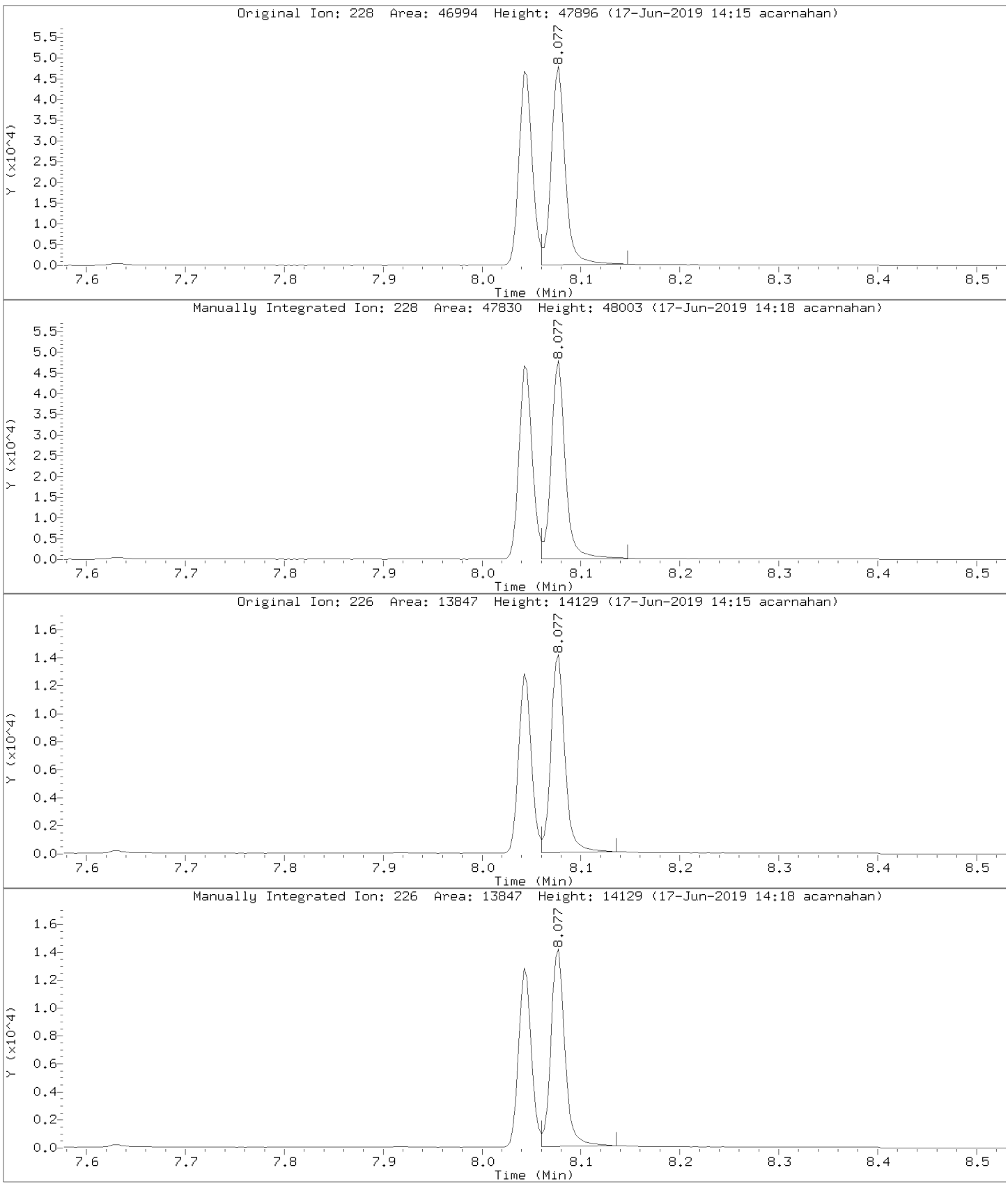


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

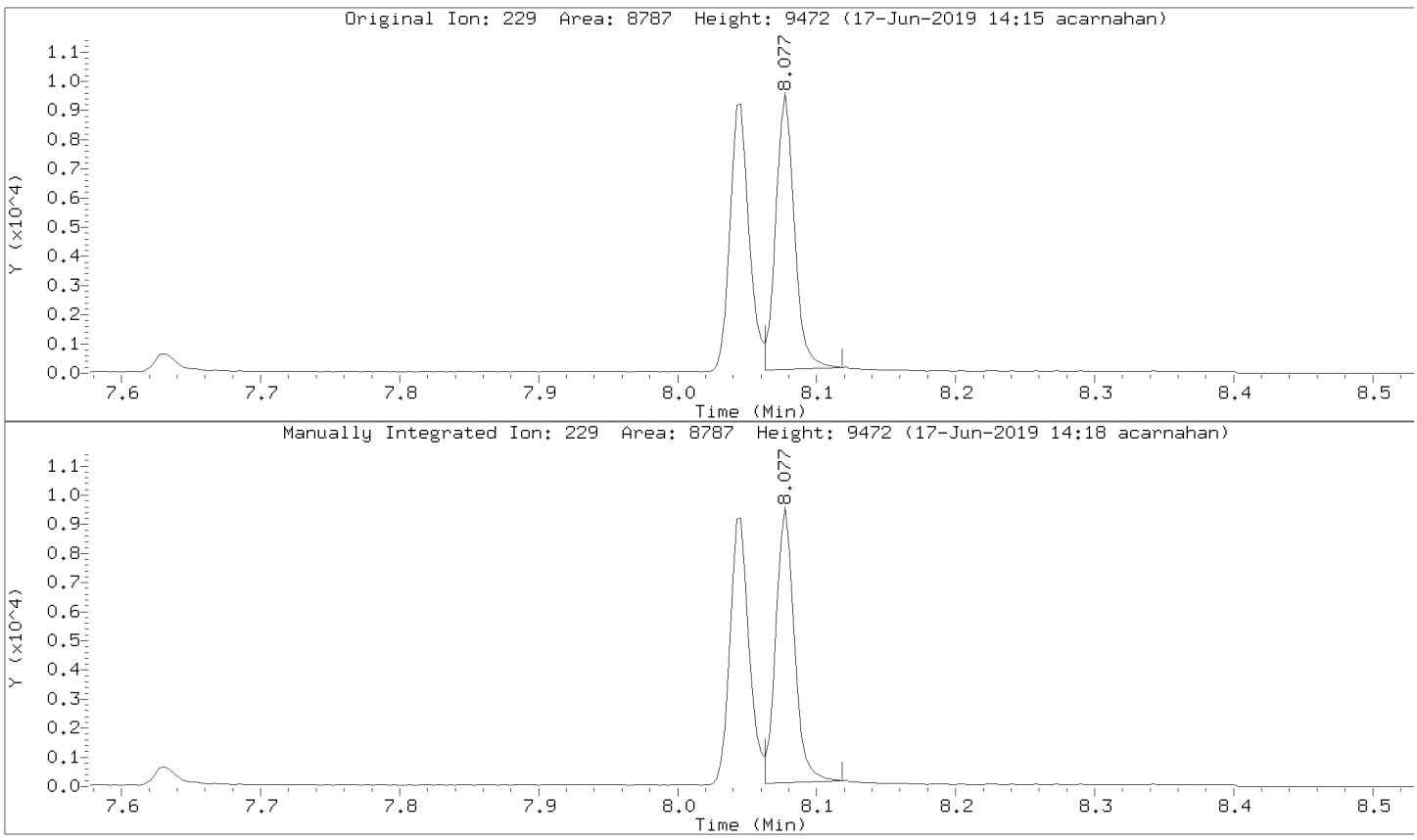


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

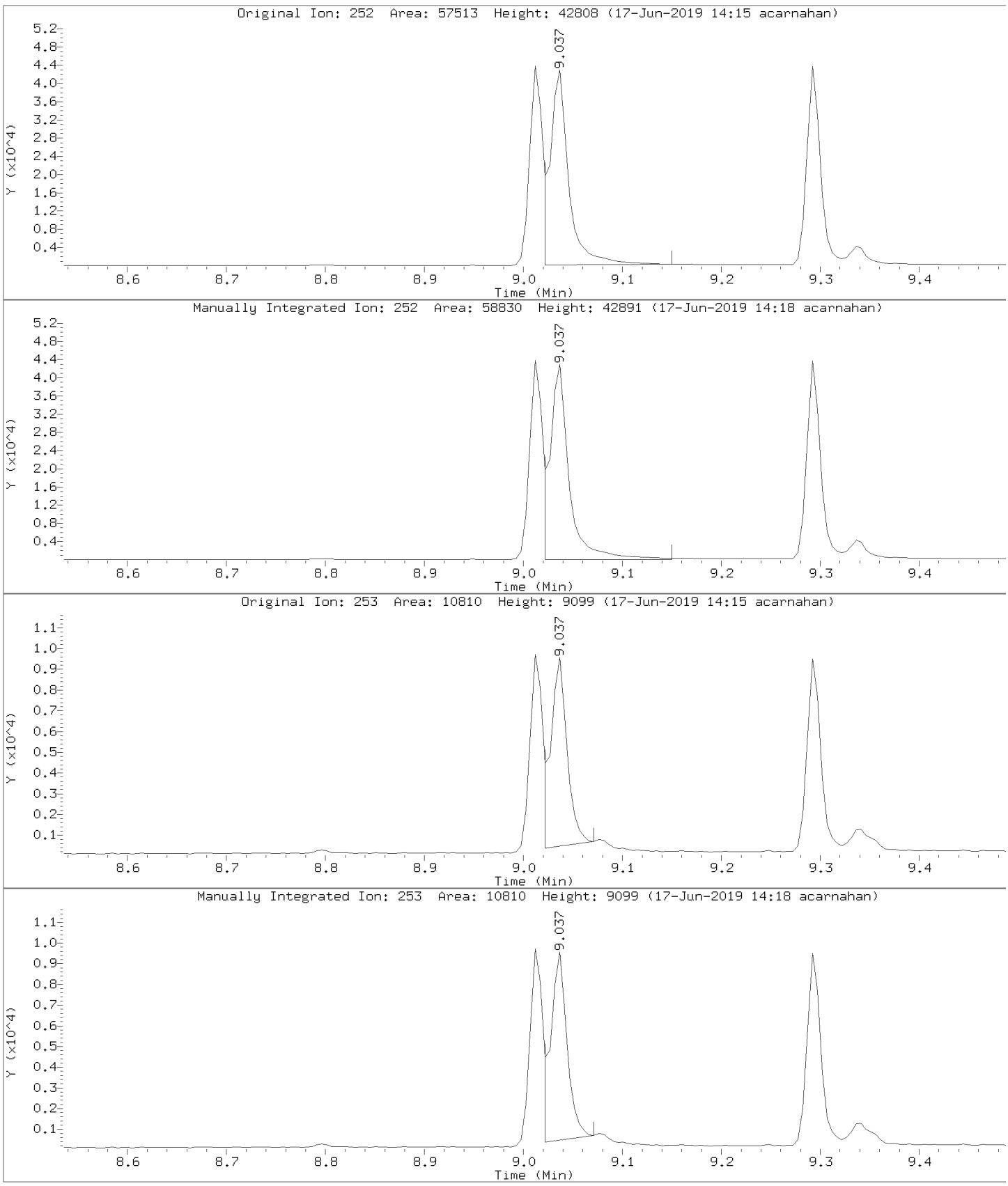


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

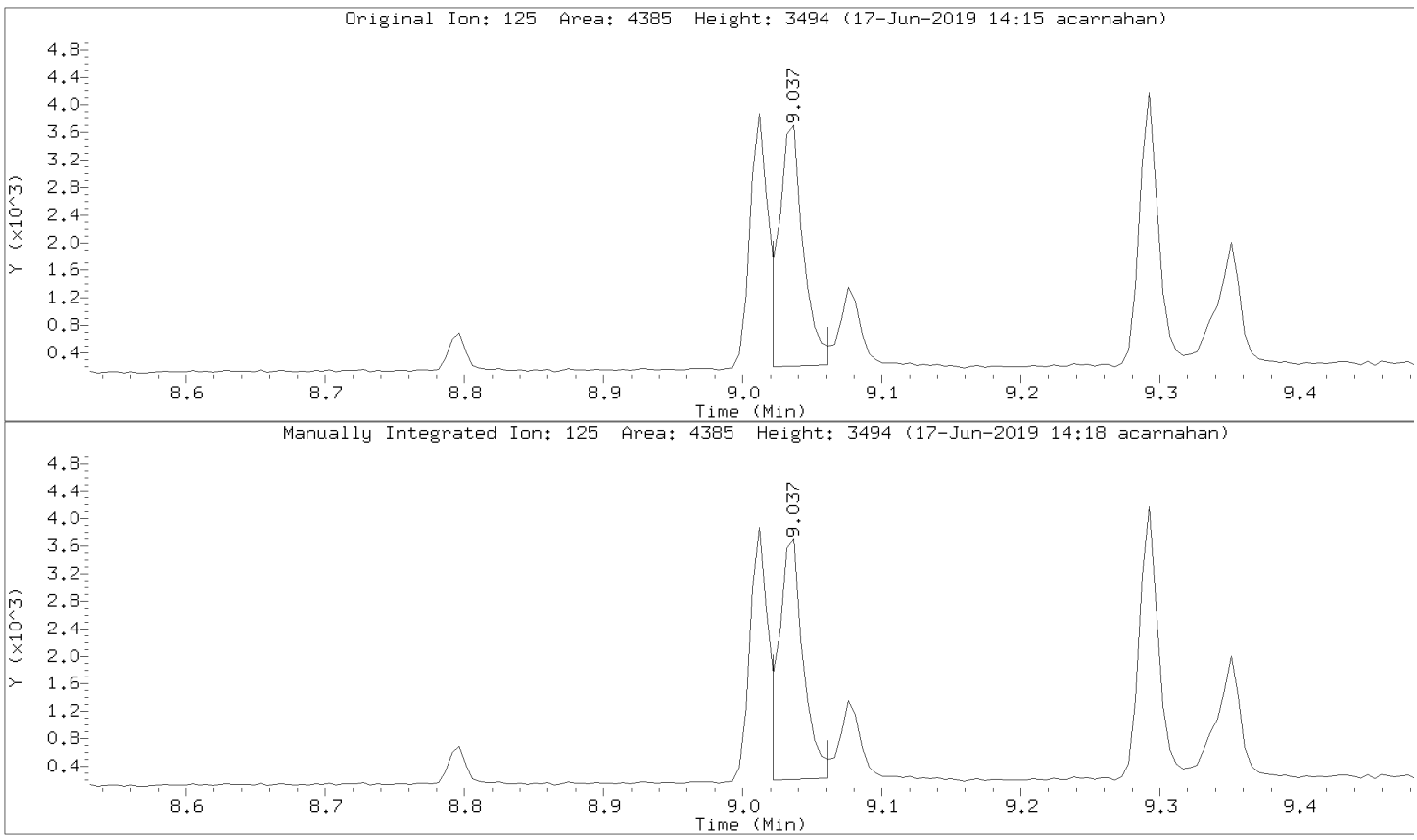


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

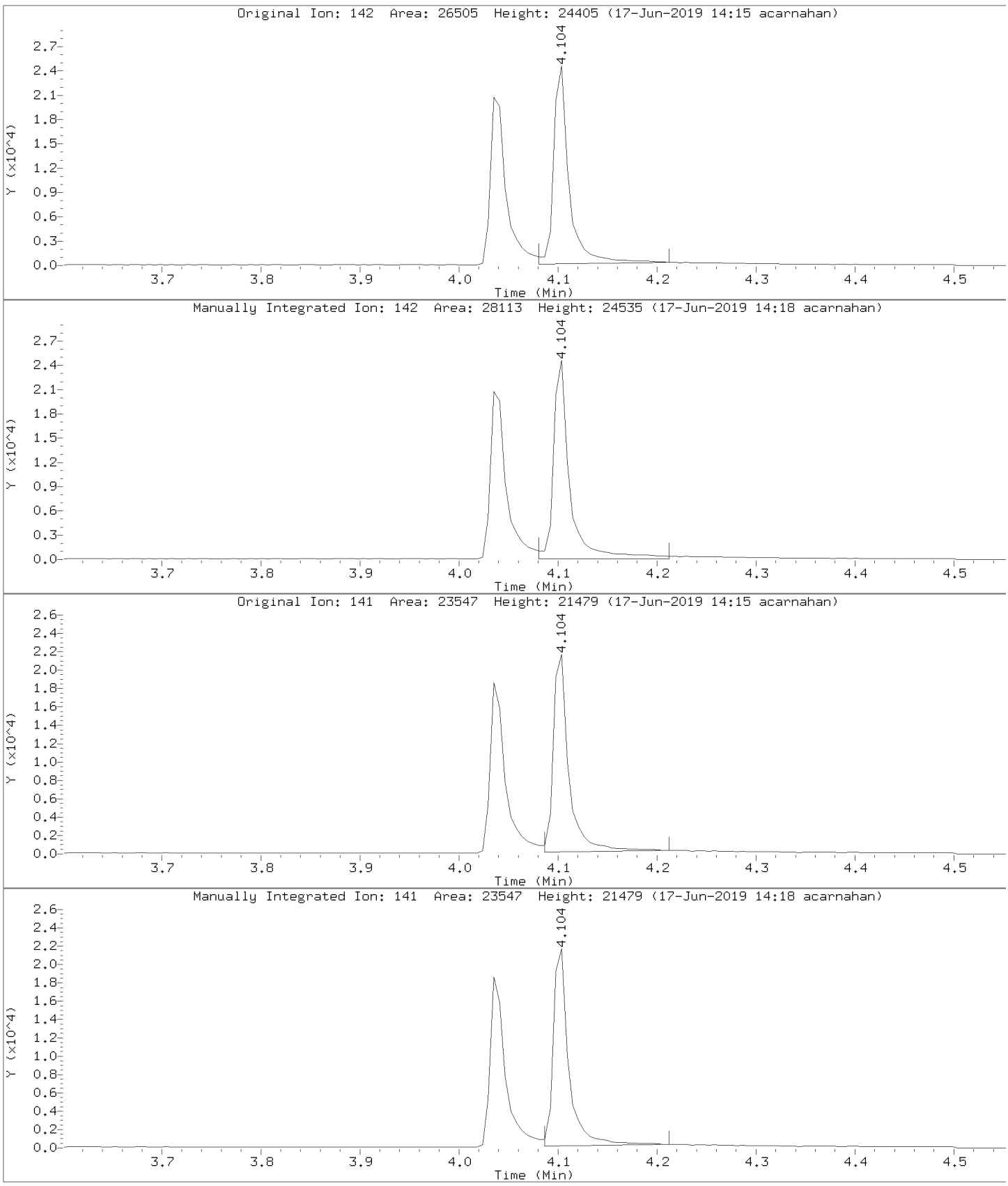


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 17-JUN-2019 13:18
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal3, 89120:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:18 Cal File: m2061719z3.d
Als bottle: 96 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	696850	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.005)	83996	0.50000	0.514	
	9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	53961	0.50000	0.517	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	63386	0.50000	0.536(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	72424	0.50000	0.537	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	82381	0.50000	0.520	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	391584	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	53969	0.50000	0.519	
	13 Fluorene	166	5.075	5.075	(1.078)	63355	0.50000	0.524	
*	3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	710720	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	91875	0.50000	0.516(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	93992	0.50000	0.521	
	16 Fluoranthene	202	6.742	6.742	(1.173)	103391	0.50000	0.512	
	17 Pyrene	202	6.945	6.945	(1.208)	107150	0.50000	0.512	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	80191	0.50000	0.513	
	18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	93220	0.50000	0.494	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	666129	4.00000		
	19 Chrysene	228	8.074	8.077	(1.003)	101620	0.50000	0.512(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	93337	0.50000	0.508	
	21 Benzo(k)fluoranthene	252	9.036	9.037	(0.968)	121479	0.50000	0.509(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	89582	0.50000	0.505	
*	5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	714585	4.00000		
	23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	96249	0.50000	0.499	
	24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	116937	0.50000	0.499	
	25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.114)	98013	0.50000	0.501	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

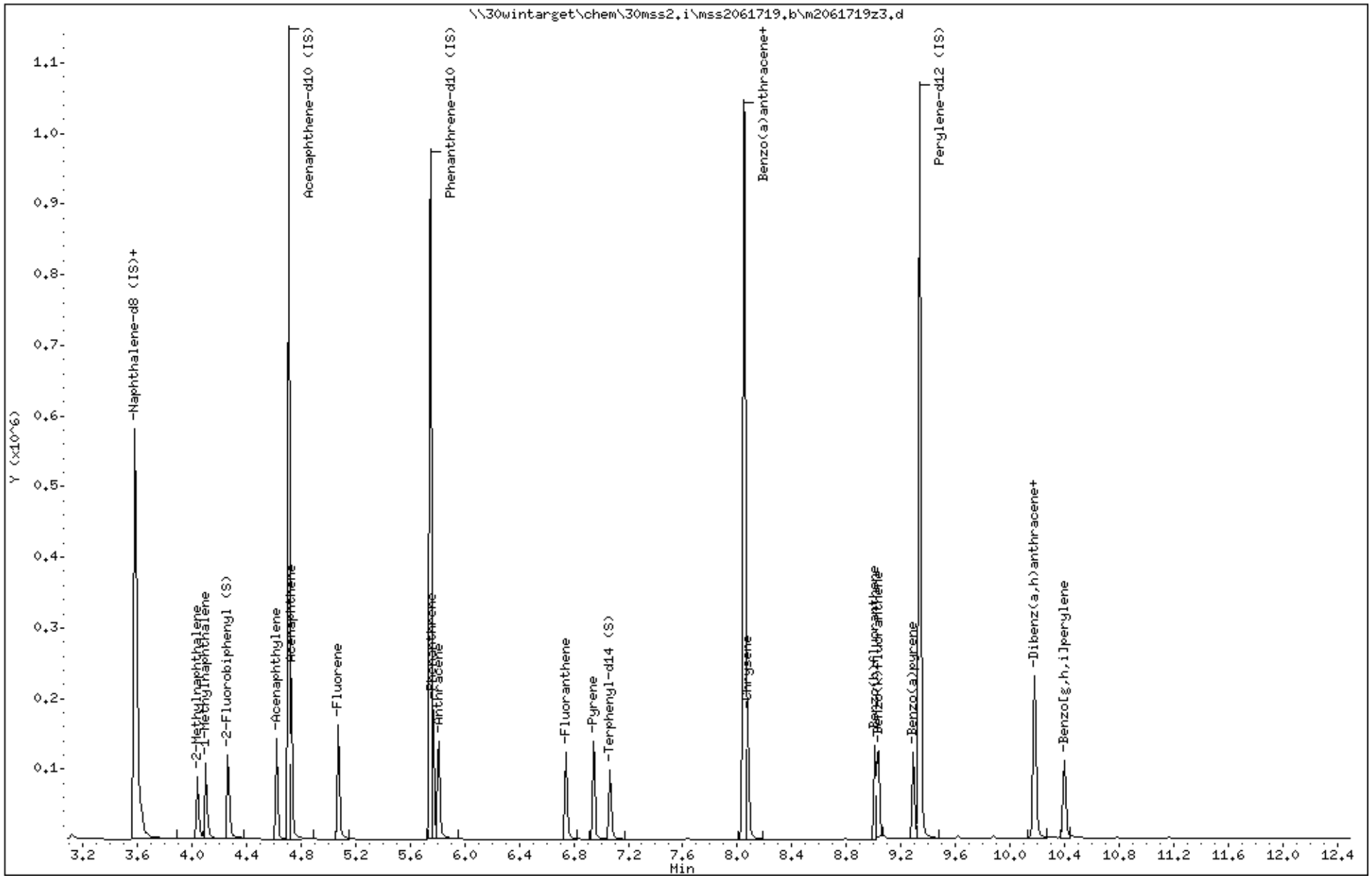
Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.514	
91-57-6	2-Methylnaphthalene	0.517	
90-12-0	1-Methylnaphthalene	0.536	
208-96-8	Acenaphthylene	0.520	
83-32-9	Acenaphthene	0.519	
86-73-7	Fluorene	0.524	
85-01-8	Phenanthrene	0.516	
120-12-7	Anthracene	0.521	
206-44-0	Fluoranthene	0.512	
129-00-0	Pyrene	0.512	
56-55-3	Benzo(a)anthracene	0.494	
218-01-9	Chrysene	0.512	
205-99-2	Benzo(b)fluoranthene	0.508	
207-08-9	Benzo(k)fluoranthene	0.509	
50-32-8	Benzo(a)pyrene	0.505	
53-70-3	Dibenz(a,h)anthracene	0.499	
193-39-5	Indeno(1,2,3-cd)pyrene	0.499	
191-24-2	Benzo[g,h,i]perylene	0.501	
321-60-8	2-Fluorobiphenyl (S)	0.537	
1718-51-0	Terphenyl-d14 (S)	0.513	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Date : 17-JUN-2019 13:18
Client ID: CAL3
Sample Info: CAL3, 89120:1

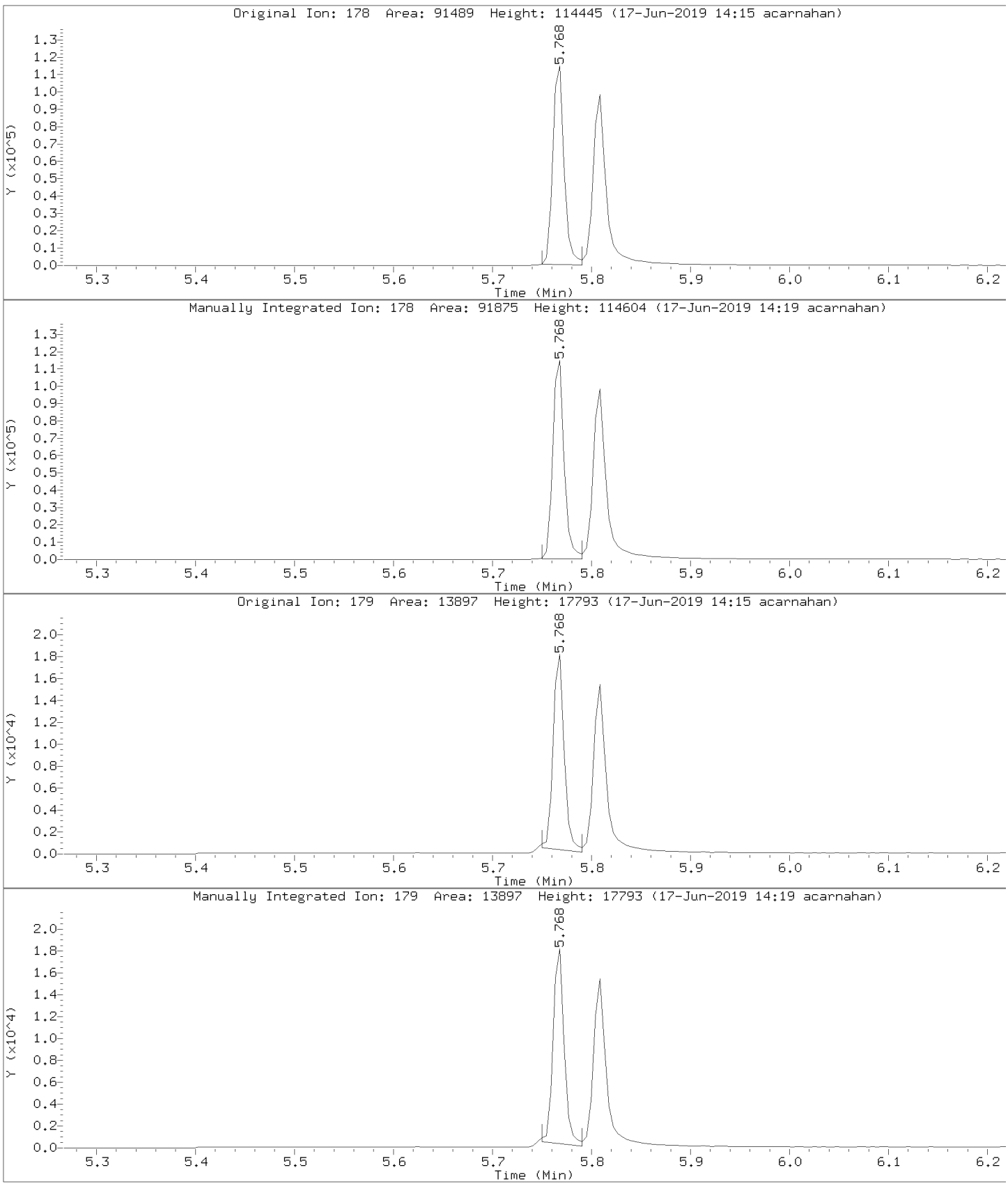
Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

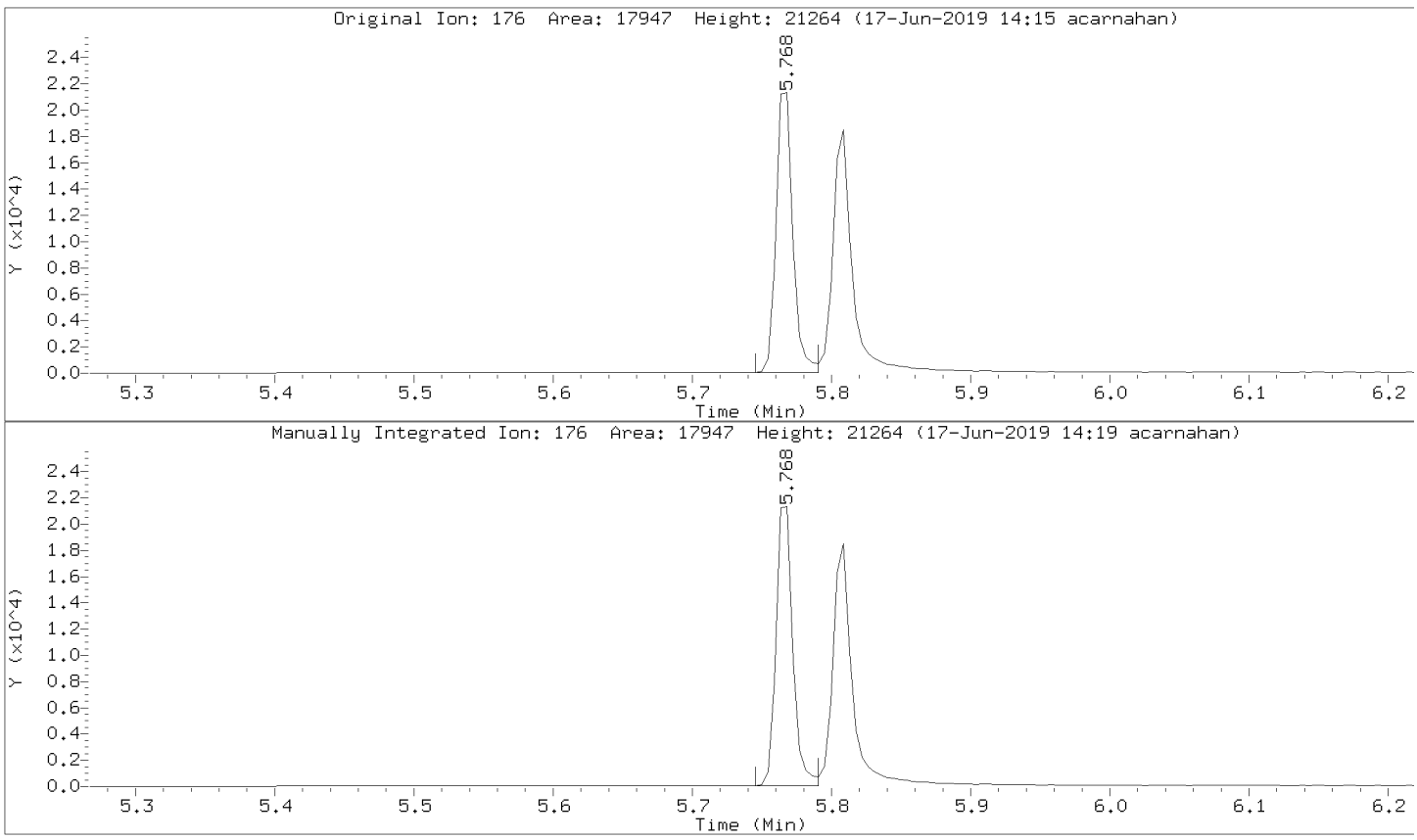


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

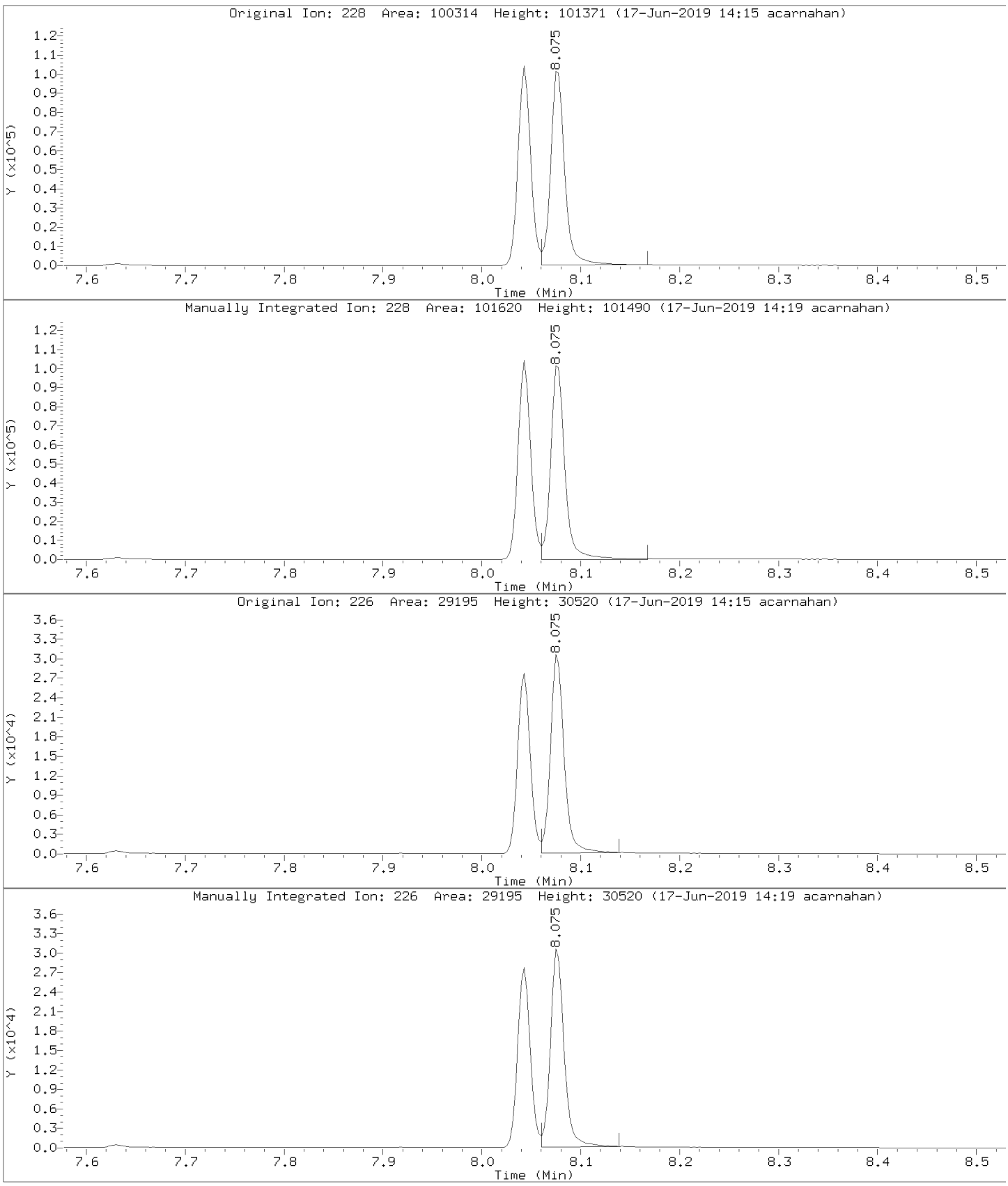


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

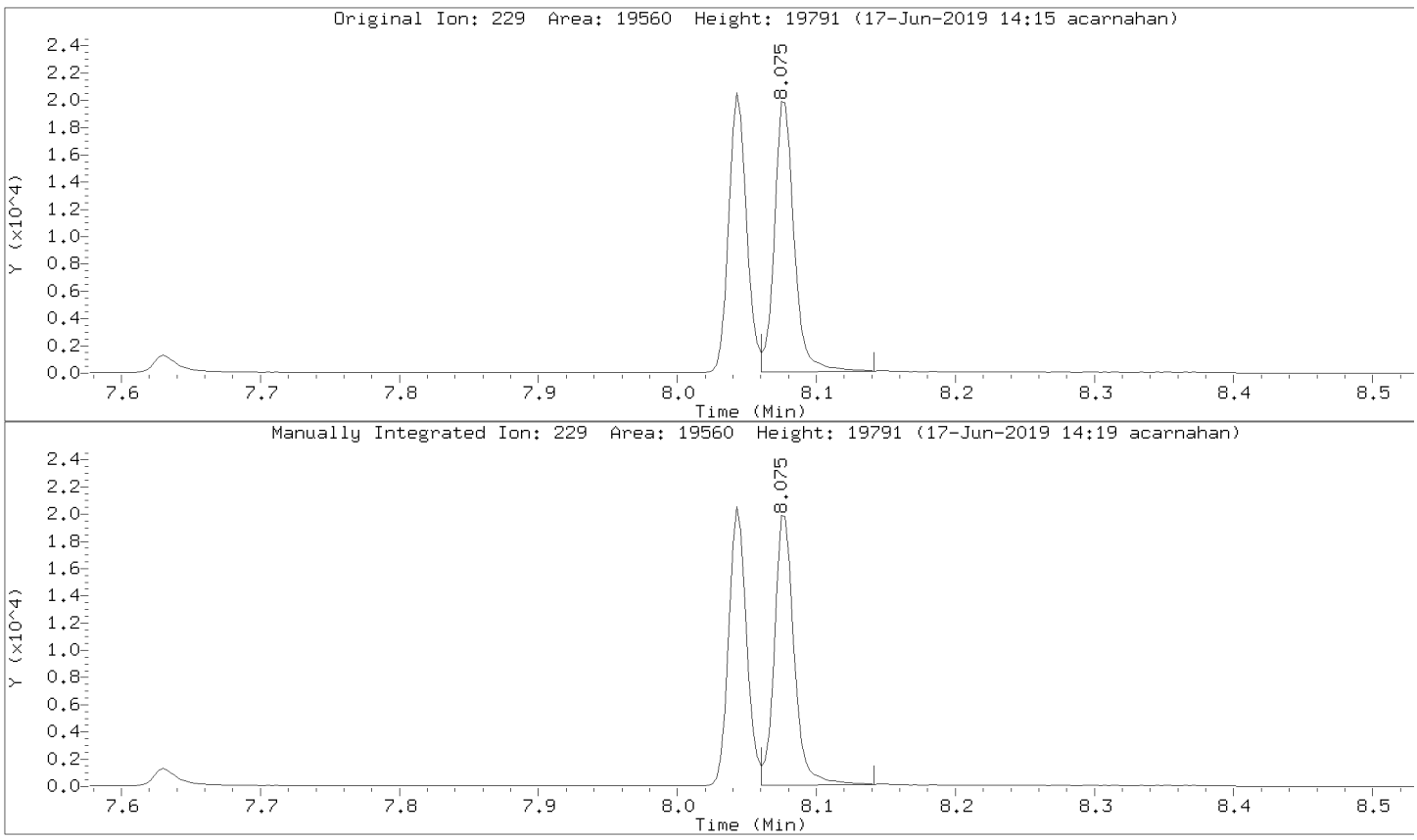


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

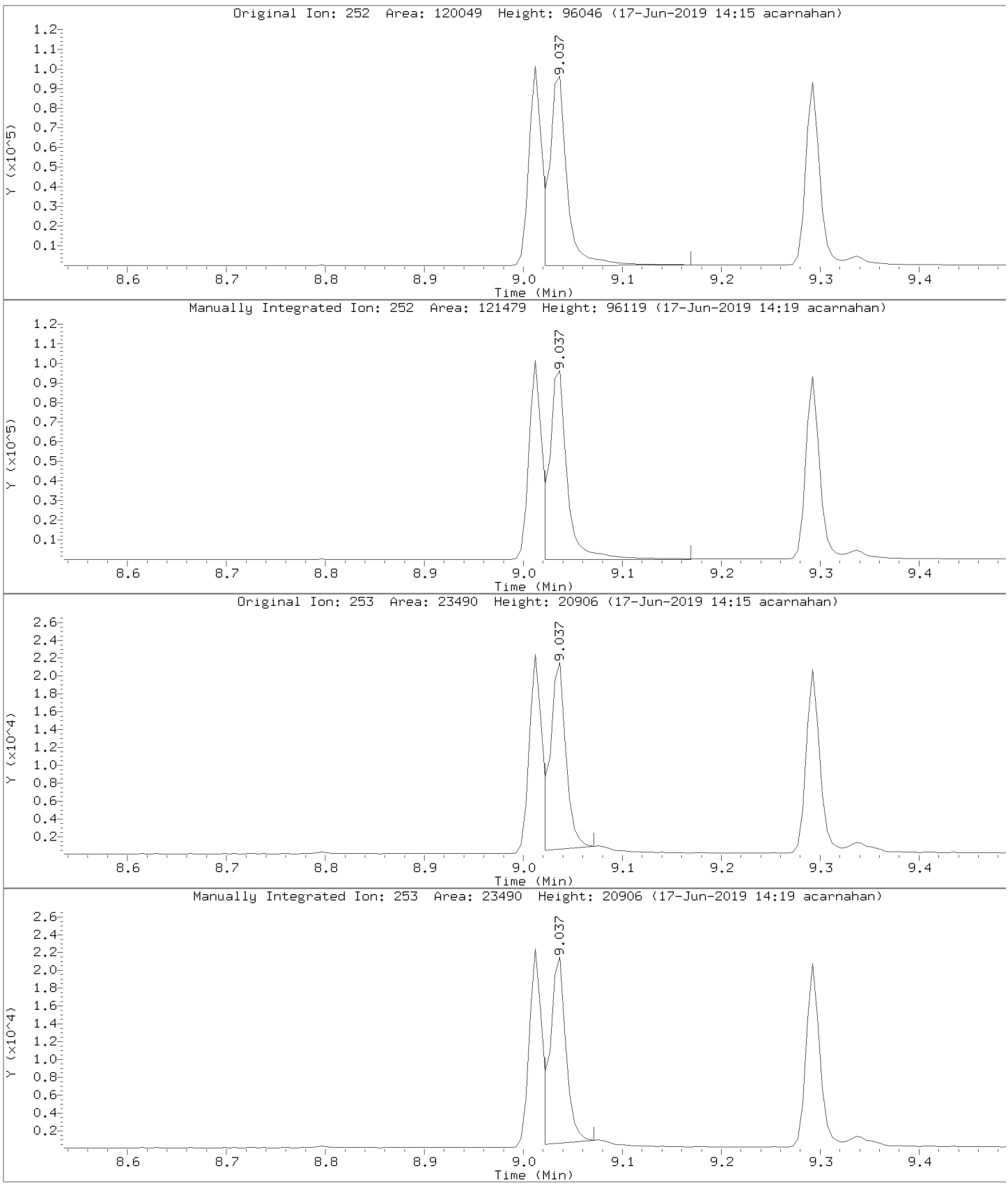


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

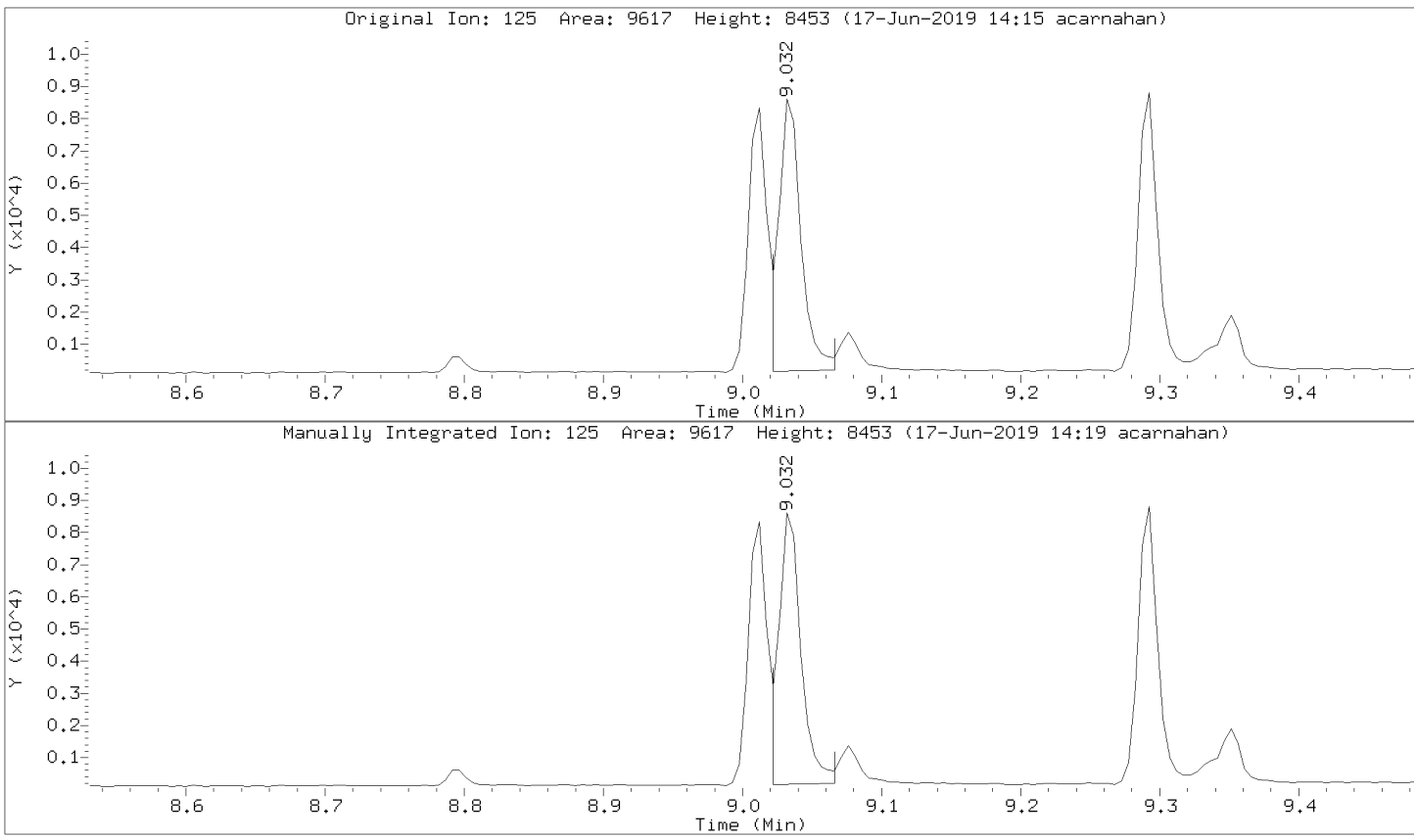


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

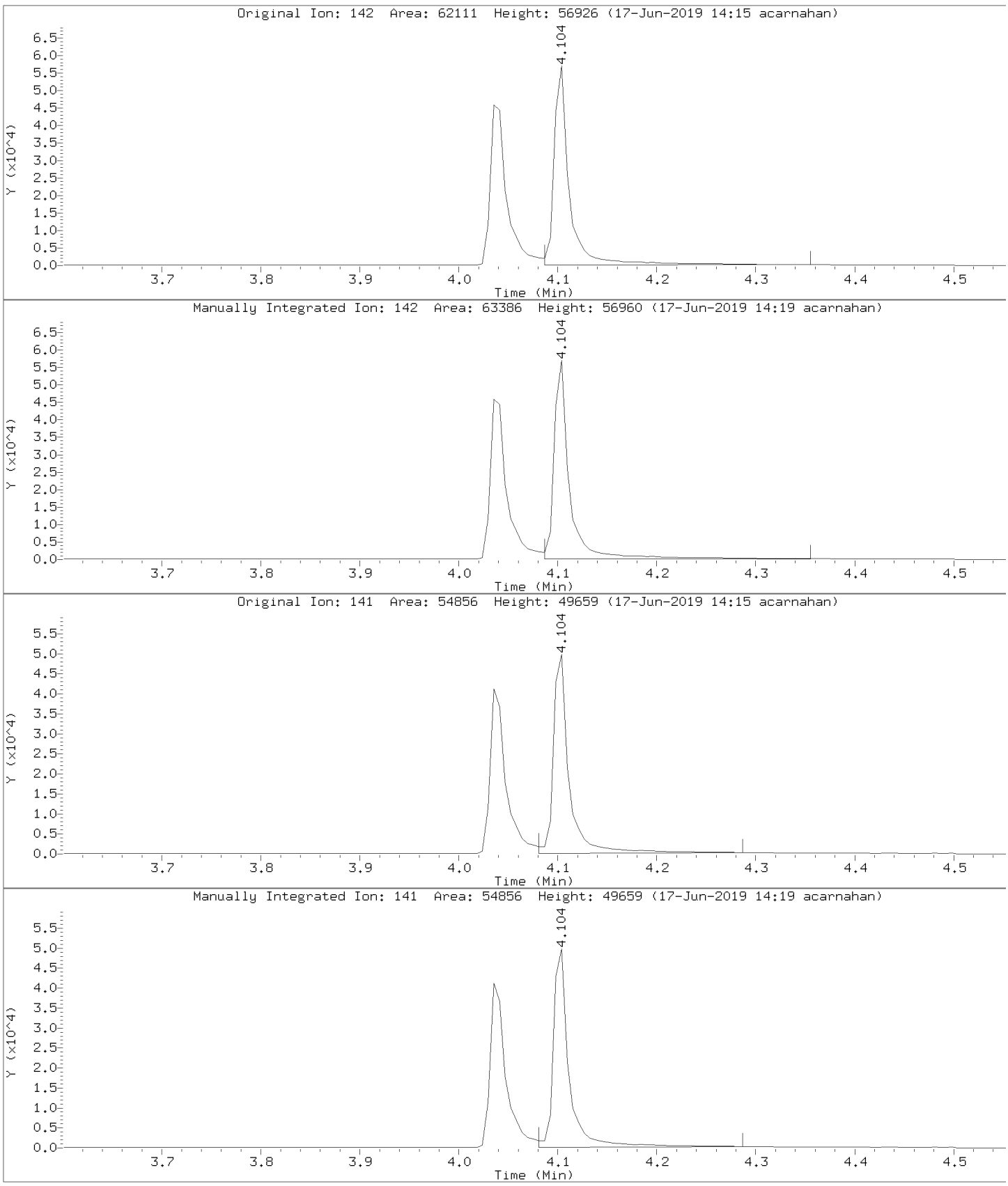


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 17-JUN-2019 13:36
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal4, 89121:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:36 Cal File: m2061719z4.d
Als bottle: 97 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	714427	4.00000		
8 Naphthalene	128	3.595	3.595	(1.003)	339612	2.00000	2.00	
9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	234251	2.00000	2.00	
10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	238685	2.00000	2.00(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	288982	2.00000	2.00	
11 Acenaphthylene	152	4.619	4.619	(0.981)	336030	2.00000	2.00	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396176	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	211395	2.00000	2.00	
13 Fluorene	166	5.072	5.075	(1.077)	253906	2.00000	2.00	
* 3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	704632	4.00000		
14 Phenanthrene	178	5.767	5.768	(1.003)	358937	2.00000	2.00(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	376643	2.00000	2.00	
16 Fluoranthene	202	6.742	6.742	(1.173)	420702	2.00000	2.00	
17 Pyrene	202	6.945	6.945	(1.208)	430243	2.00000	2.00	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	319268	2.00000	2.00	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	370572	2.00000	2.00	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	649506	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	379165	2.00000	2.00(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	391201	2.00000	2.00	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	460714	2.00000	2.00(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	379006	2.00000	2.00	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	705131	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	393328	2.00000	2.00	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	474427	2.00000	2.00	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	393564	2.00000	2.00	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

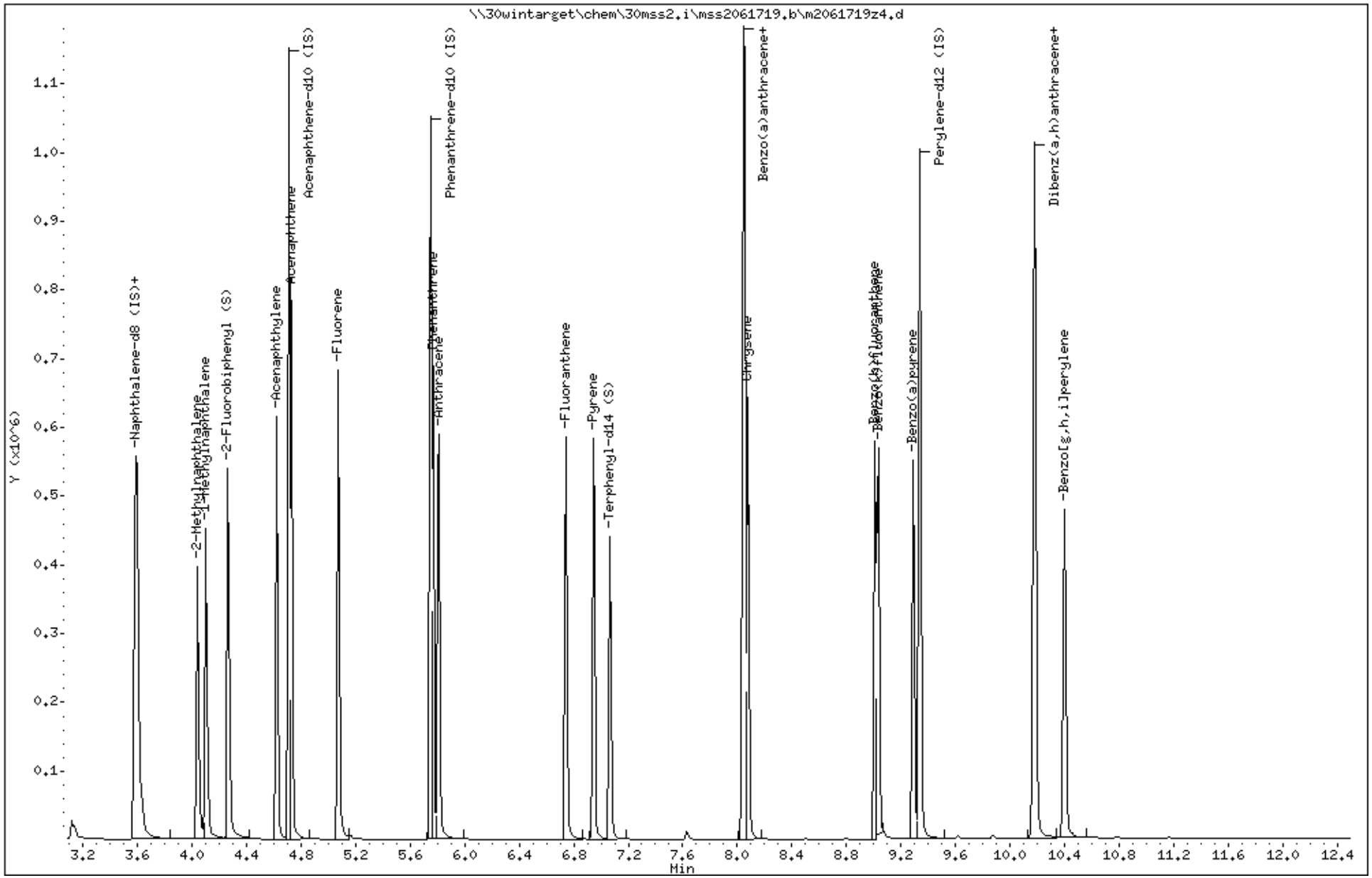
Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	2.00	
91-57-6	2-Methylnaphthalene	2.00	
90-12-0	1-Methylnaphthalene	2.00	
208-96-8	Acenaphthylene	2.00	
83-32-9	Acenaphthene	2.00	
86-73-7	Fluorene	2.00	
85-01-8	Phenanthrene	2.00	
120-12-7	Anthracene	2.00	
206-44-0	Fluoranthene	2.00	
129-00-0	Pyrene	2.00	
56-55-3	Benzo(a)anthracene	2.00	
218-01-9	Chrysene	2.00	
205-99-2	Benzo(b)fluoranthene	2.00	
207-08-9	Benzo(k)fluoranthene	2.00	
50-32-8	Benzo(a)pyrene	2.00	
53-70-3	Dibenz(a,h)anthracene	2.00	
193-39-5	Indeno(1,2,3-cd)pyrene	2.00	
191-24-2	Benzo[g,h,i]perylene	2.00	
321-60-8	2-Fluorobiphenyl (S)	2.00	
1718-51-0	Terphenyl-d14 (S)	2.00	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Date : 17-JUN-2019 13:36
Client ID: CAL4
Sample Info: CAL4, 89121:1

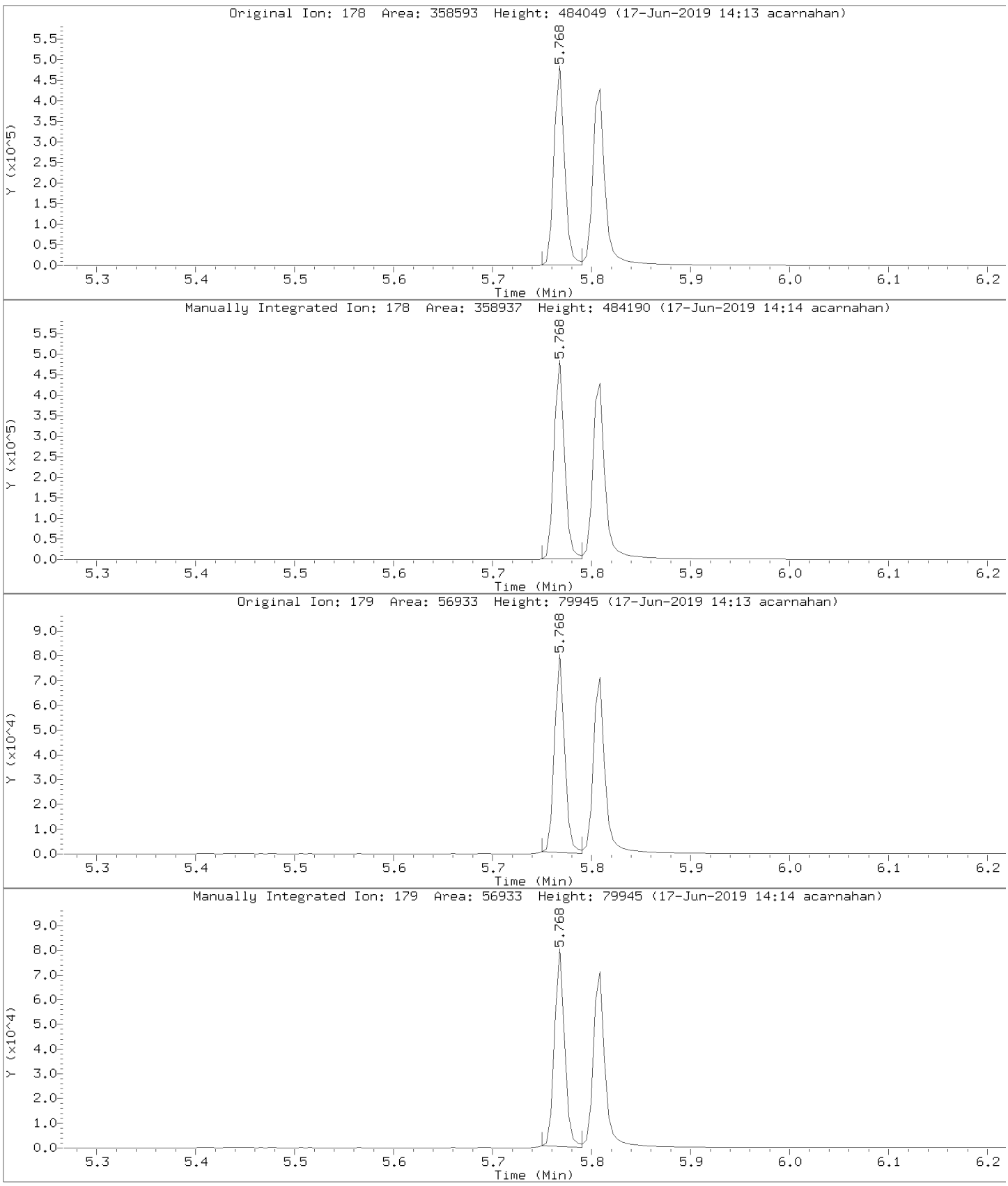
Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

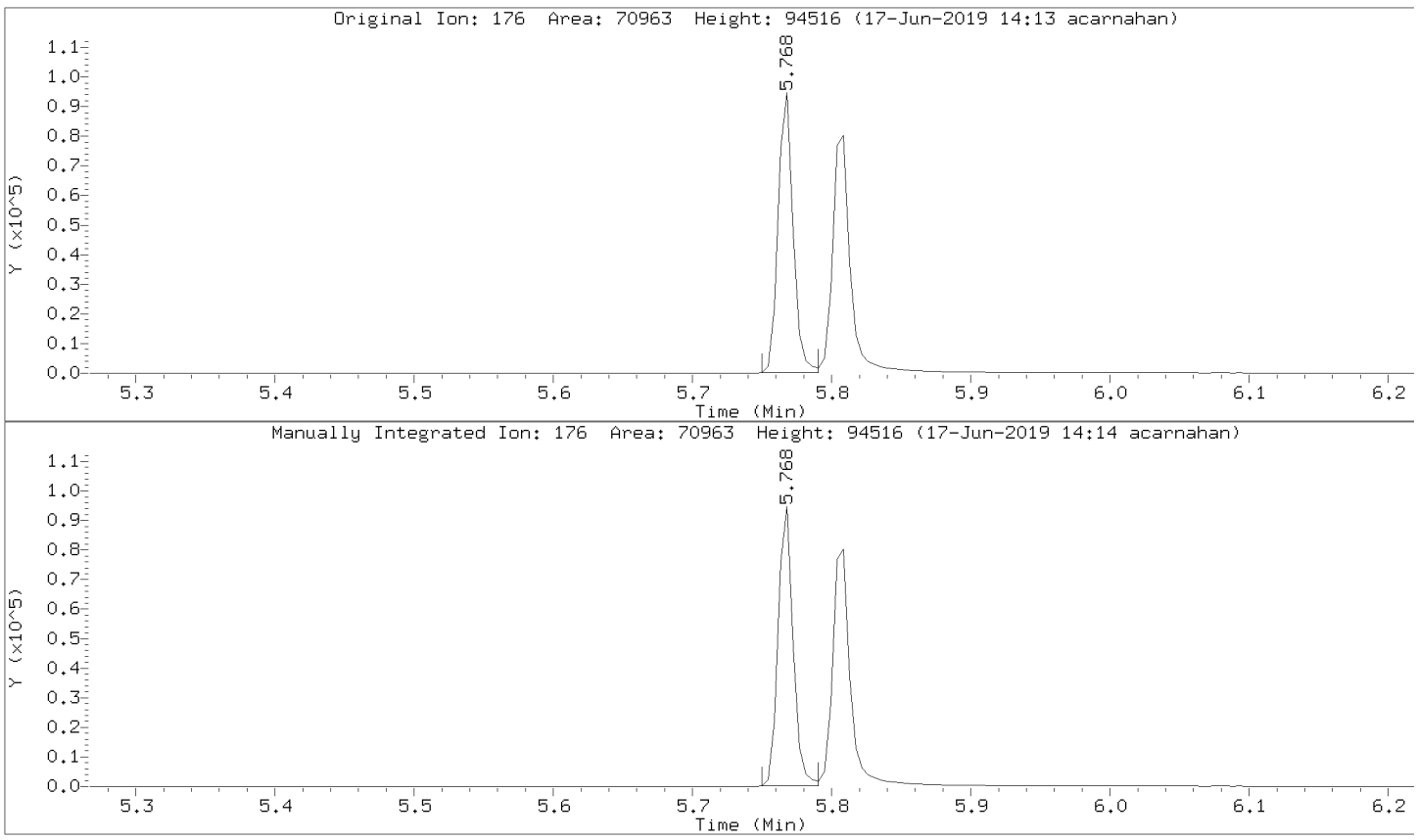


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

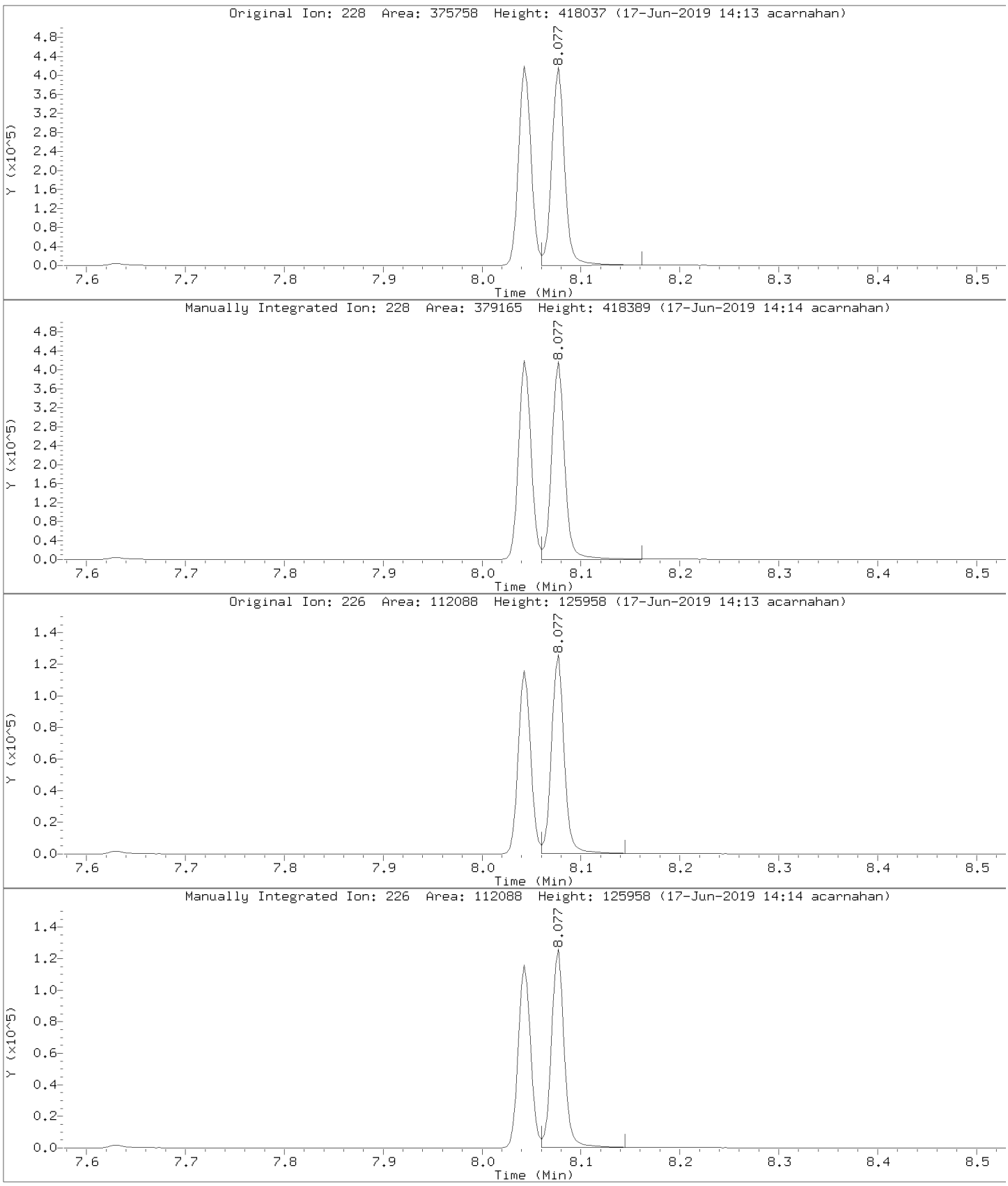


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

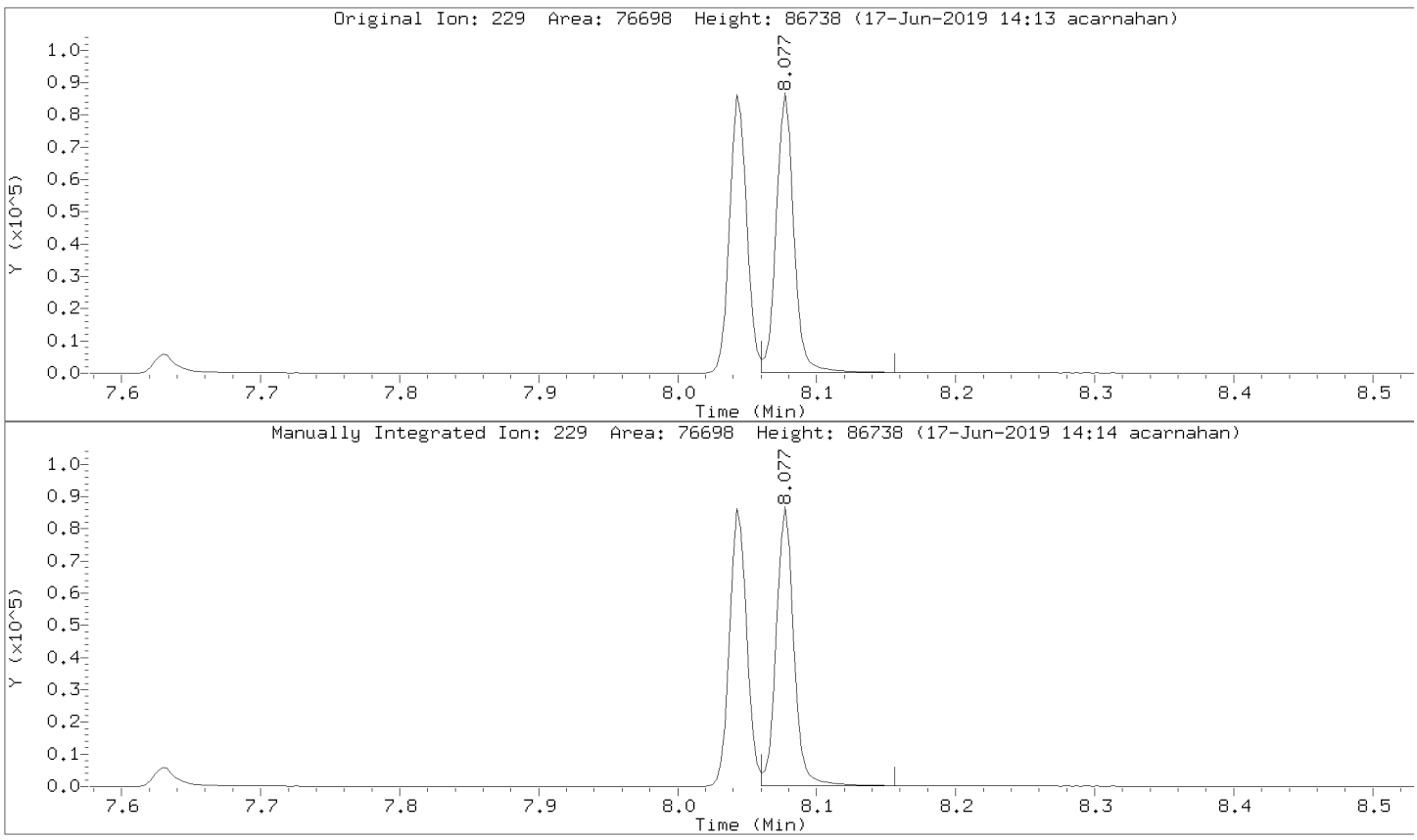


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

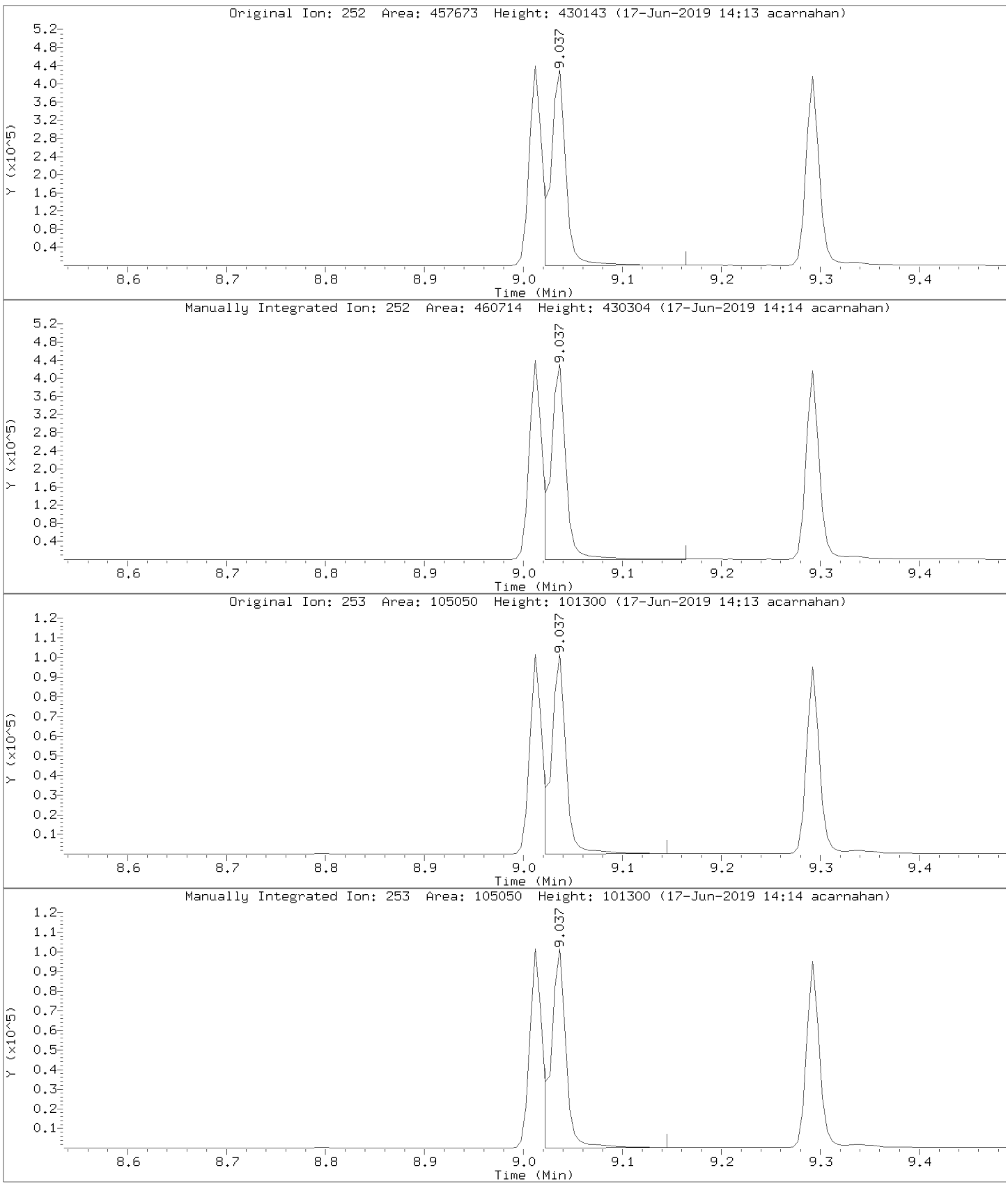


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

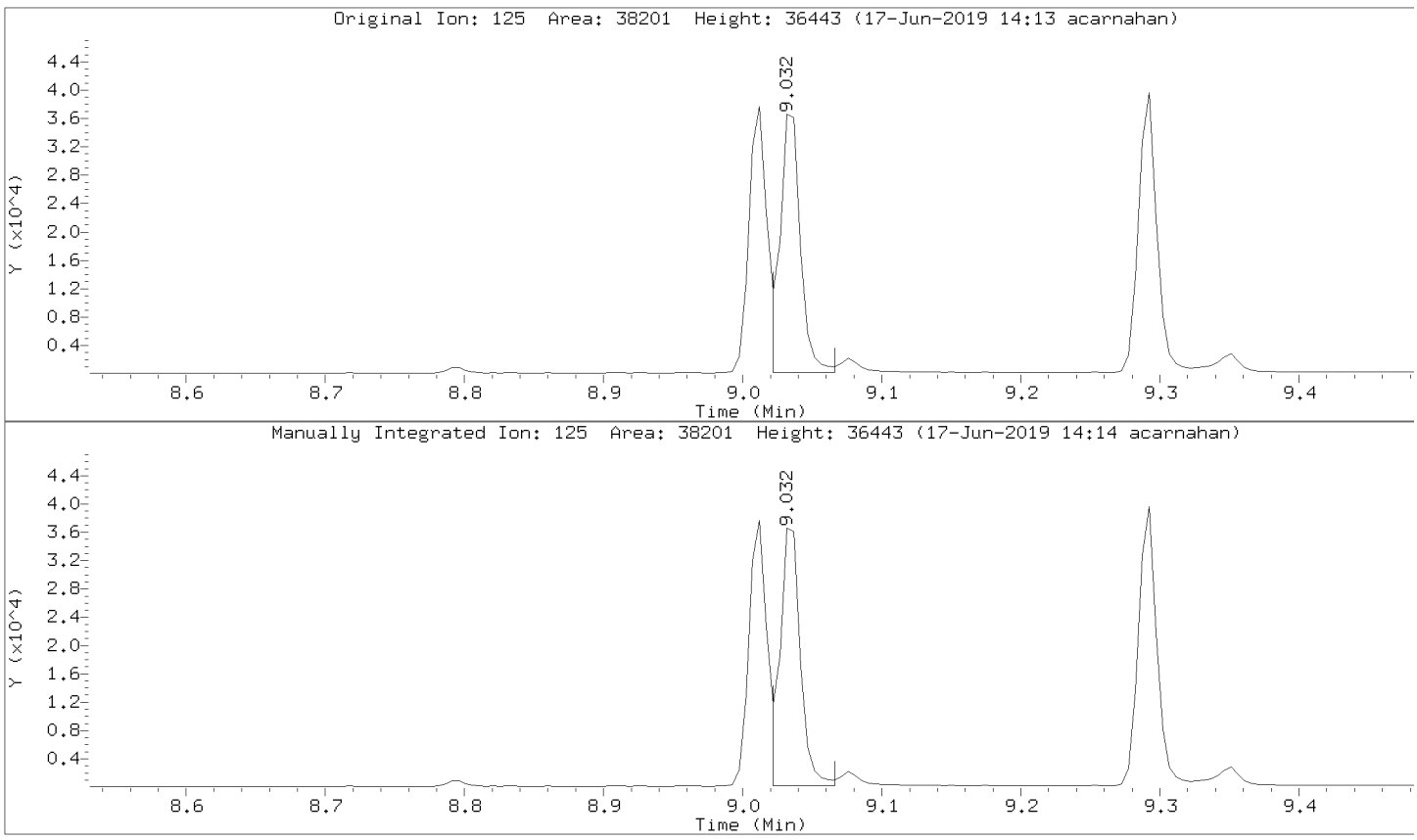


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

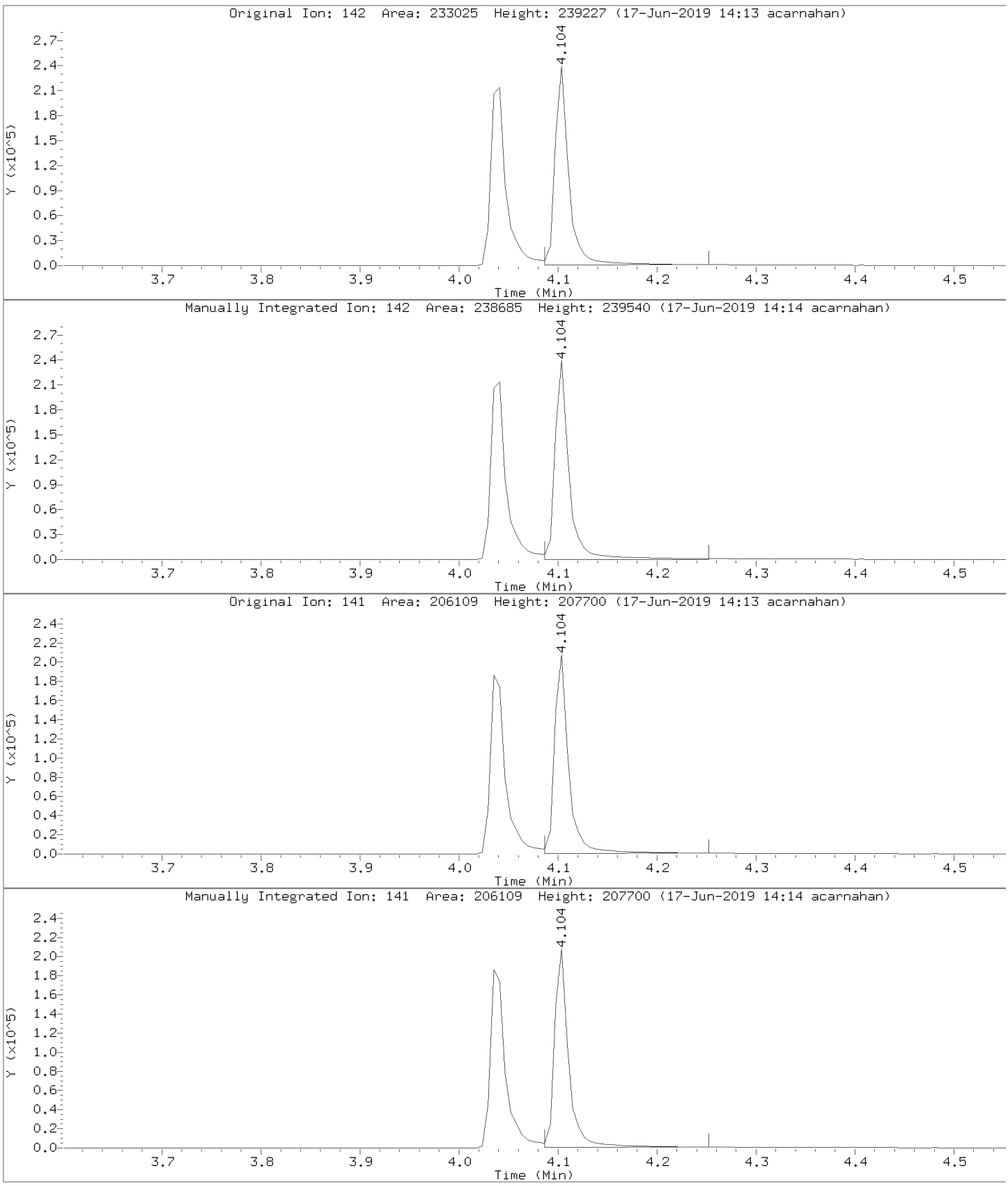


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 17-JUN-2019 13:54
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal5, 89122:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:54 Cal File: m2061719z5.d
Als bottle: 98 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	818407	4.00000		
8 Naphthalene	128	3.595	3.595	(1.003)	937509	5.00000	5.08	
9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	669817	5.00000	5.46	
10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	646947	5.00000	4.92(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	785082	5.00000	5.16	
11 Acenaphthylene	152	4.619	4.619	(0.981)	933922	5.00000	5.20	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	455542	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	591201	5.00000	5.04	
13 Fluorene	166	5.075	5.075	(1.078)	719066	5.00000	5.23	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	827312	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	1015809	5.00000	5.09(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	1058358	5.00000	5.20	
16 Fluoranthene	202	6.742	6.742	(1.173)	1202021	5.00000	5.26	
17 Pyrene	202	6.950	6.945	(1.209)	1214128	5.00000	5.17	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	907889	5.00000	5.17	
18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	1111827	5.00000	5.15	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	789090	4.00000		
19 Chrysene	228	8.080	8.077	(1.003)	1079172	5.00000	4.88(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	1240647	5.00000	5.70	
21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	1218460	5.00000	4.66(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	1114559	5.00000	5.37	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	834161	4.00000		
23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	1137424	5.00000	5.07	
24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	1365851	5.00000	5.04	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	1113977	5.00000	4.99	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

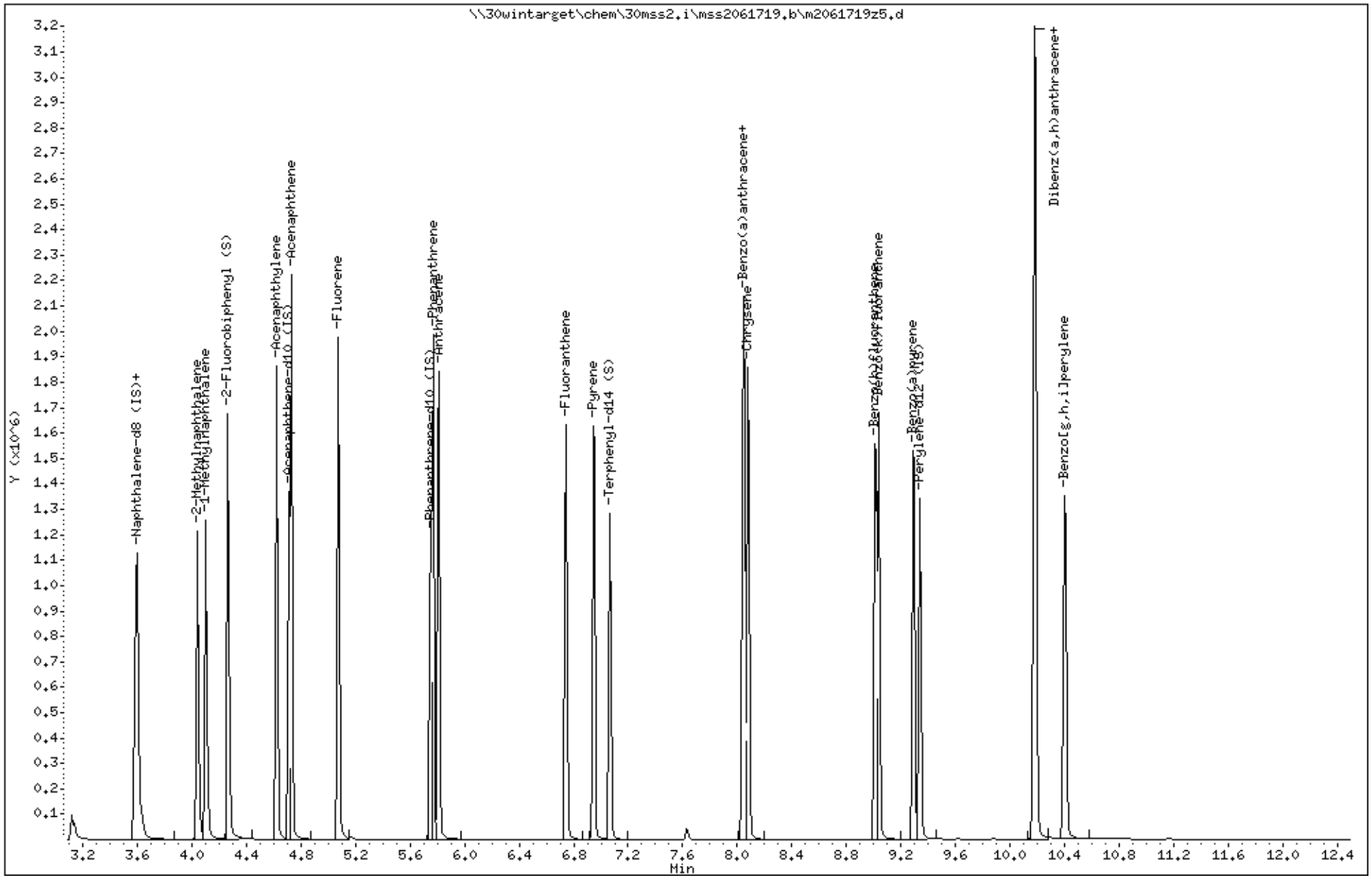
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	5.08	
91-57-6	2-Methylnaphthalene	5.46	
90-12-0	1-Methylnaphthalene	4.92	
208-96-8	Acenaphthylene	5.20	
83-32-9	Acenaphthene	5.04	
86-73-7	Fluorene	5.23	
85-01-8	Phenanthrene	5.09	
120-12-7	Anthracene	5.20	
206-44-0	Fluoranthene	5.26	
129-00-0	Pyrene	5.17	
56-55-3	Benzo(a)anthracene	5.15	
218-01-9	Chrysene	4.88	
205-99-2	Benzo(b)fluoranthene	5.70	
207-08-9	Benzo(k)fluoranthene	4.66	
50-32-8	Benzo(a)pyrene	5.37	
53-70-3	Dibenz(a,h)anthracene	5.07	
193-39-5	Indeno(1,2,3-cd)pyrene	5.04	
191-24-2	Benzo[g,h,i]perylene	4.99	
321-60-8	2-Fluorobiphenyl (S)	5.16	
1718-51-0	Terphenyl-d14 (S)	5.17	

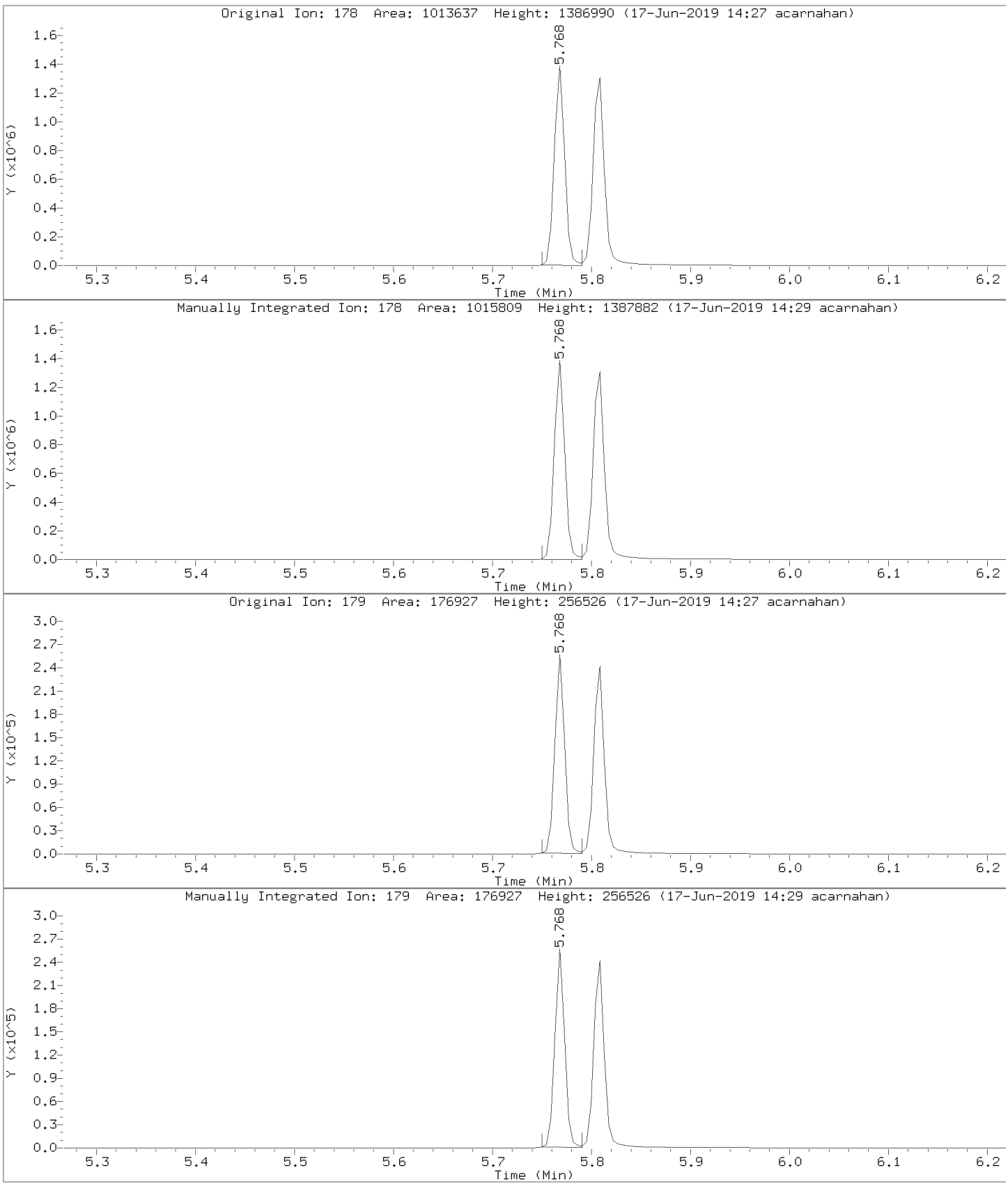
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Date : 17-JUN-2019 13:54
Client ID: CAL5
Sample Info: CAL5, 89122:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

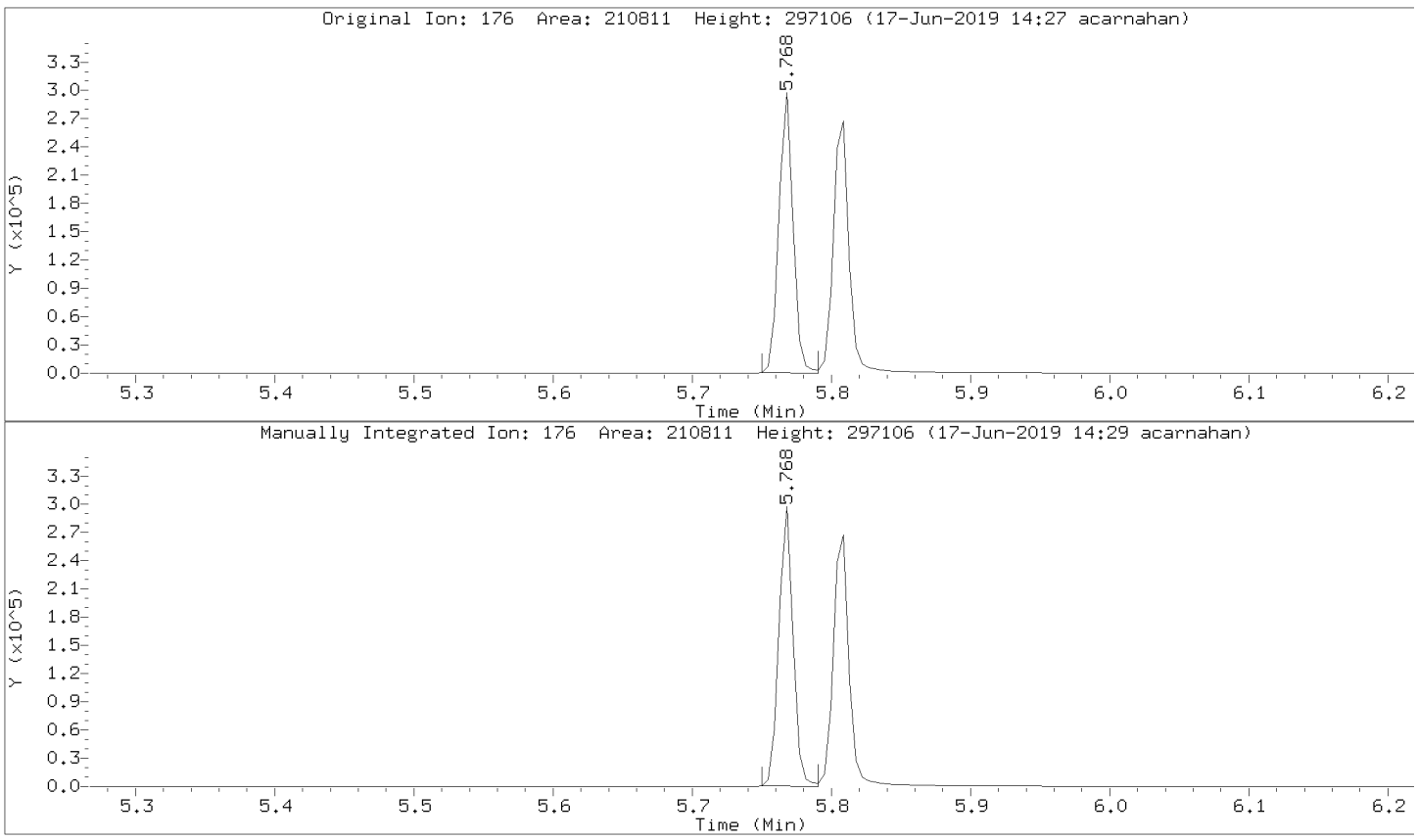


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

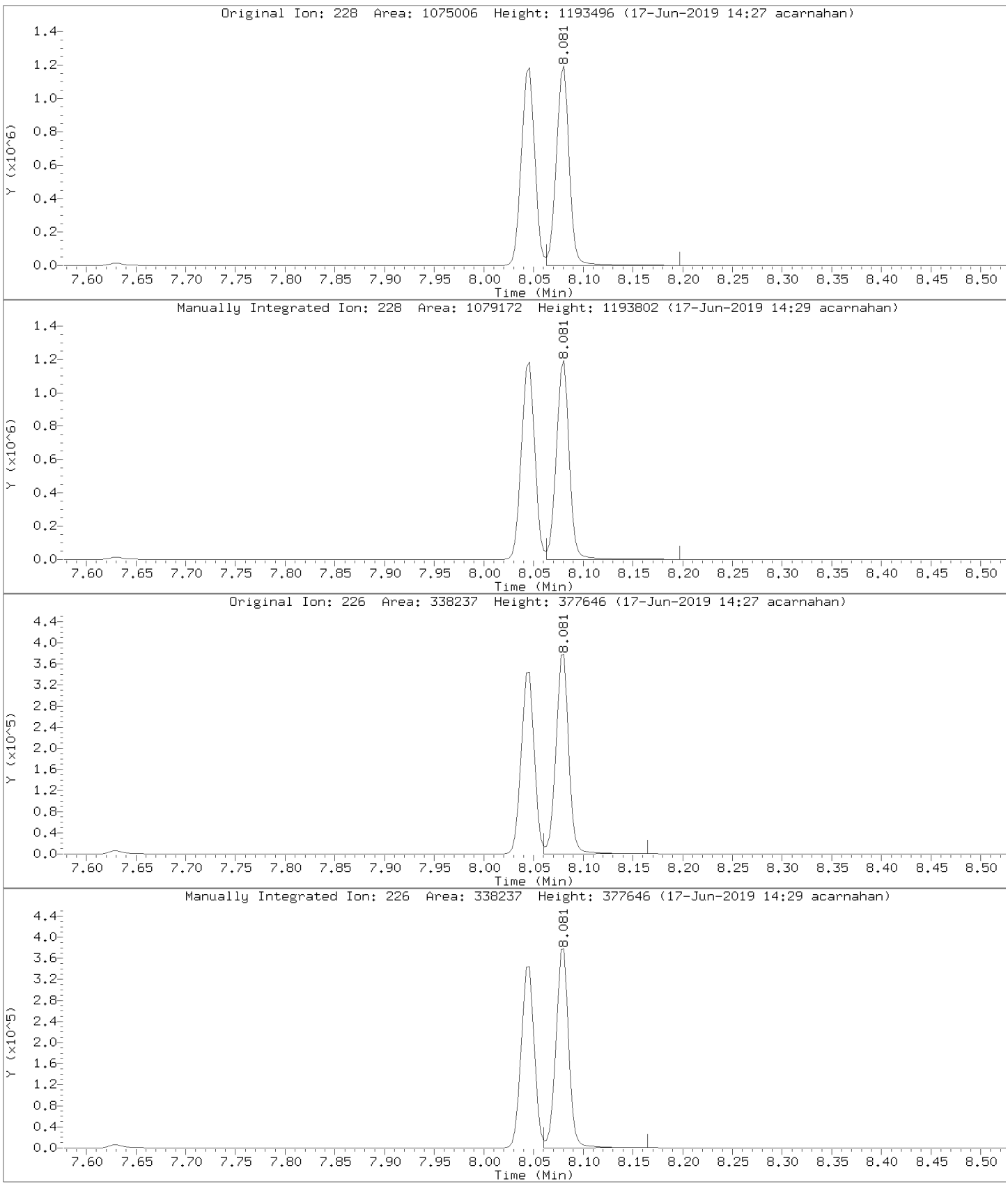


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

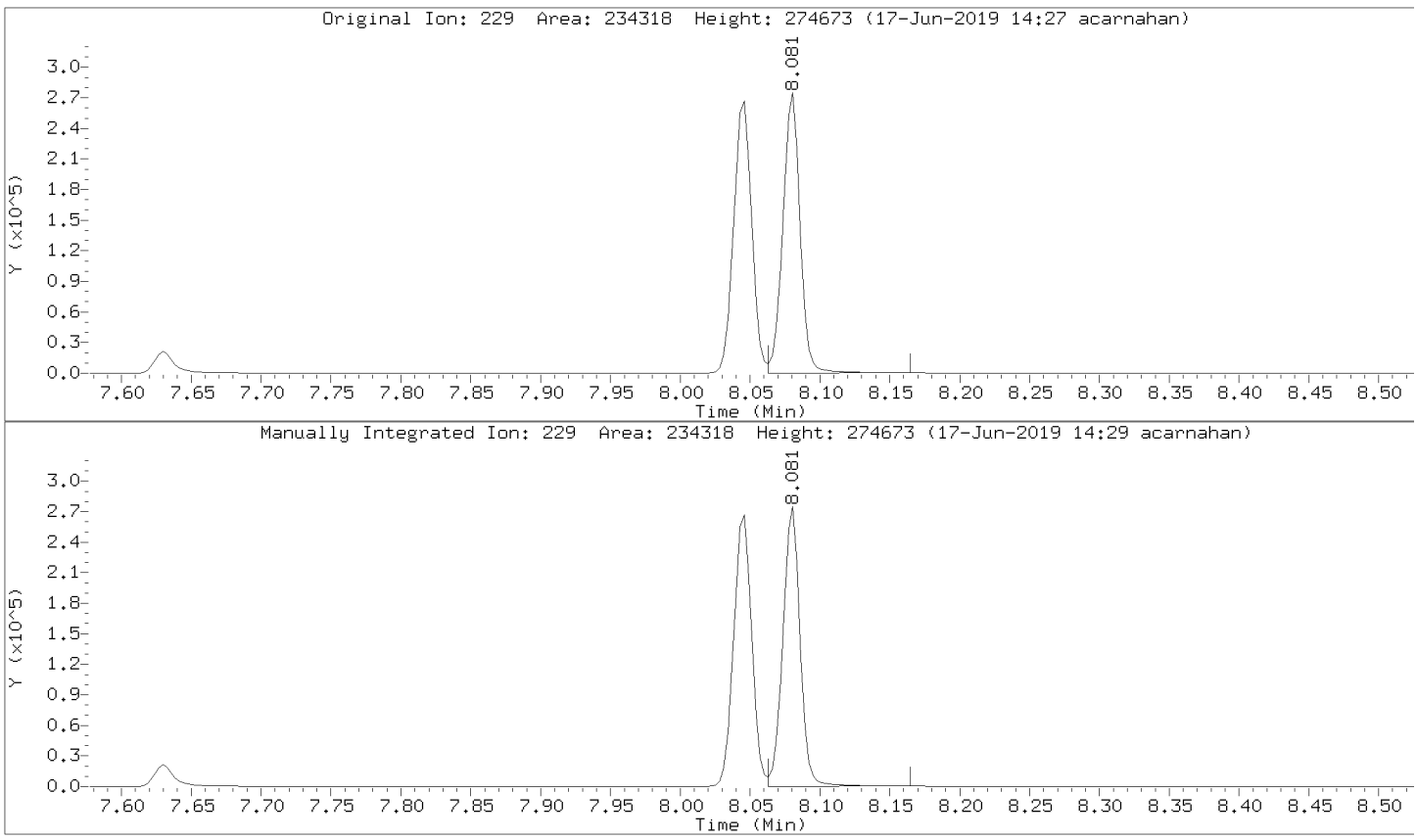


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5



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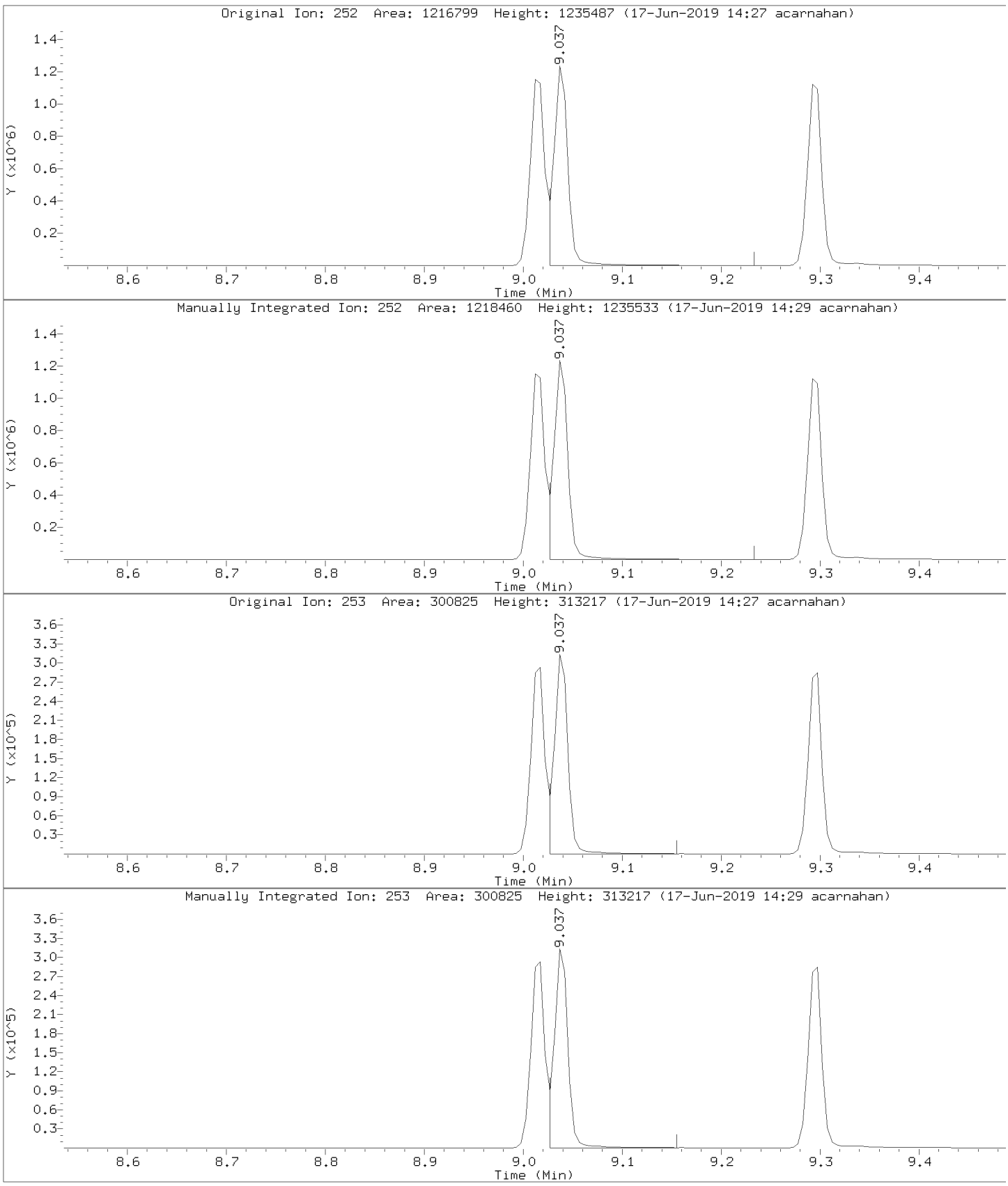
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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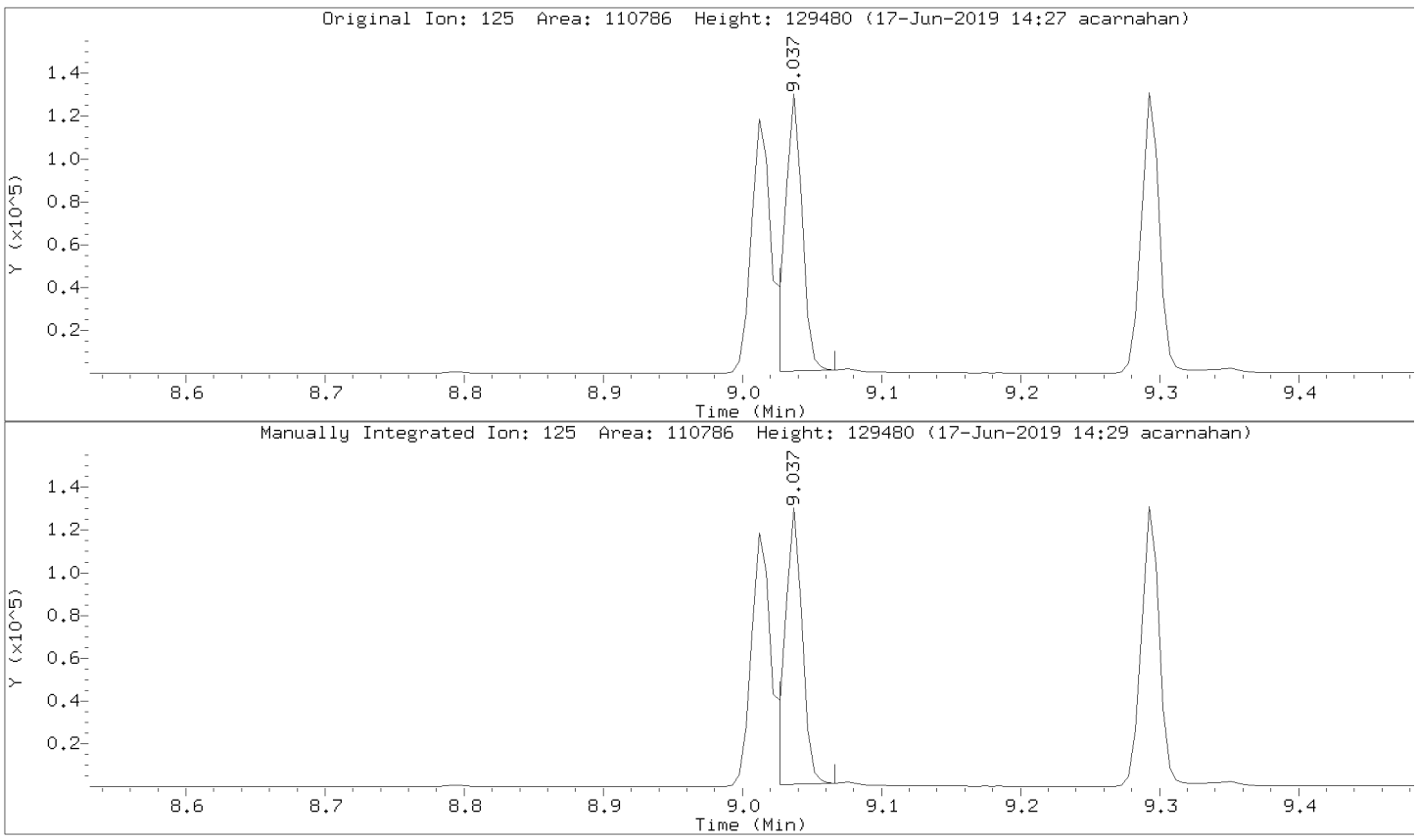
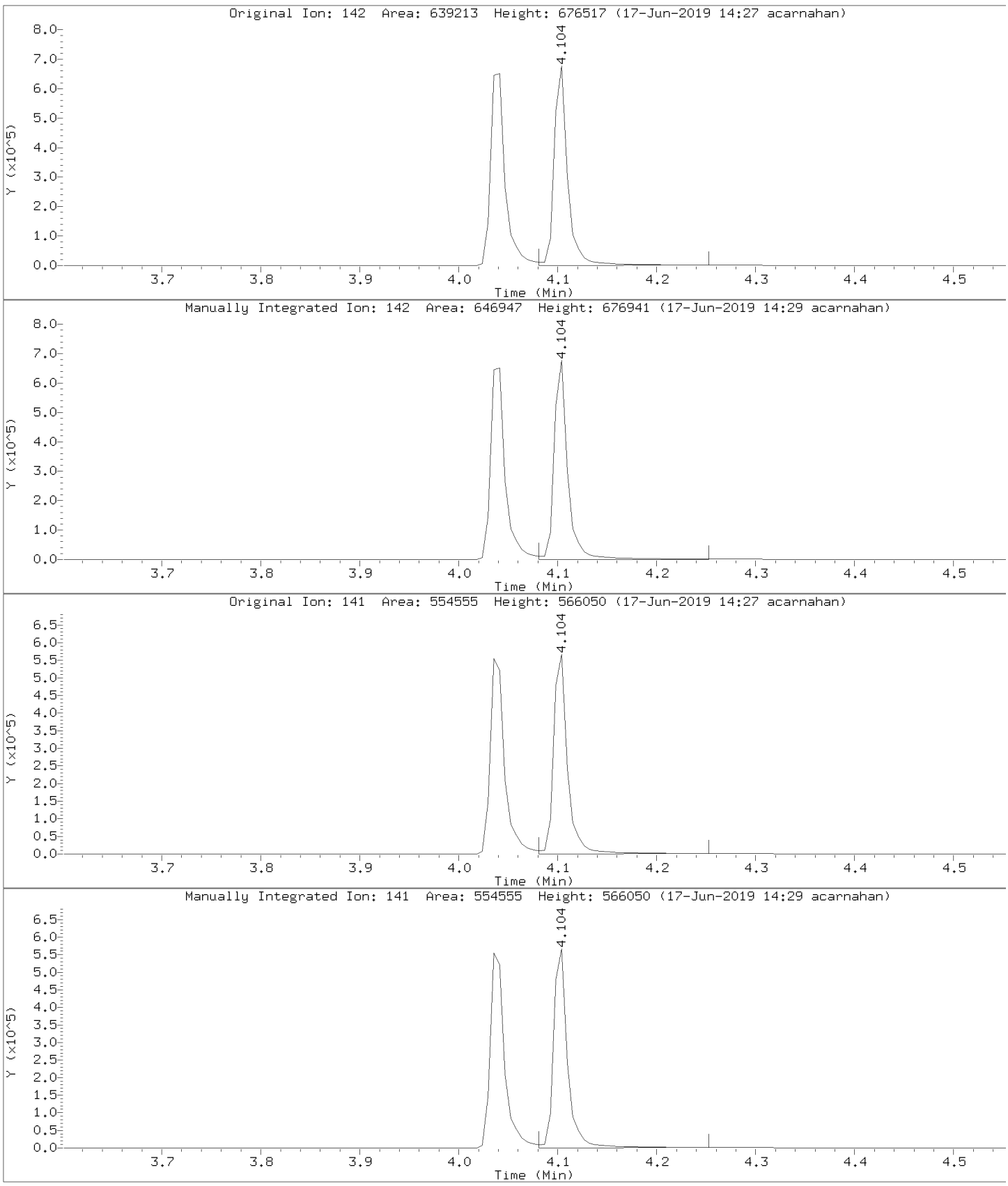
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 17-JUN-2019 14:12
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal6, 89123:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 99 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.583	3.584	(1.000)	673304	4.00000		
	8 Naphthalene	128	3.601	3.595	(1.005)	2497756	20.0000	16.5	
	9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	1834204	20.0000	18.2	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	1712672	20.0000	15.8(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.269	4.263	(0.906)	2062538	20.0000	16.8	
	11 Acenaphthylene	152	4.622	4.619	(0.981)	2462414	20.0000	17.0	
*	2 Acenaphthene-d10 (IS)	164	4.711	4.708	(1.000)	367072	4.00000		
	12 Acenaphthene	153	4.731	4.728	(1.004)	1630483	20.0000	17.3	
	13 Fluorene	166	5.075	5.075	(1.077)	1913488	20.0000	17.3	
*	3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	657442	4.00000		
	14 Phenanthrene	178	5.772	5.768	(1.004)	2634790	20.0000	16.6(M)	BA
	15 Anthracene	178	5.813	5.808	(1.011)	2690768	20.0000	16.6	
	16 Fluoranthene	202	6.747	6.742	(1.173)	3023255	20.0000	16.6(Q)	
	17 Pyrene	202	6.954	6.945	(1.210)	3061817	20.0000	16.4(Q)	
$	7 Terphenyl-d14 (S)	244	7.071	7.067	(1.230)	2303179	20.0000	16.5(Q)	
	18 Benzo(a)anthracene	228	8.048	8.042	(0.999)	2854630	20.0000	16.5	
*	4 Chrysene-d12 (IS)	240	8.060	8.054	(1.000)	631206	4.00000		
	19 Chrysene	228	8.086	8.077	(1.003)	2743717	20.0000	15.5(M)	BA
	20 Benzo(b)fluoranthene	252	9.022	9.012	(0.966)	3015463	20.0000	18.4	
	21 Benzo(k)fluoranthene	252	9.046	9.037	(0.968)	3175149	20.0000	16.2(QM)	BA
	22 Benzo(a)pyrene	252	9.302	9.292	(0.996)	2867657	20.0000	18.4(QM)	GT
*	5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	626877	4.00000		
	23 Dibenz(a,h)anthracene	278	10.196	10.181	(1.091)	3275300	20.0000	19.4	
	24 Indeno(1,2,3-cd)pyrene	276	10.196	10.176	(1.091)	3918466	20.0000	19.2	
	25 Benzo[g,h,i]perylene	276	10.417	10.402	(1.115)	3050587	20.0000	18.2	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Pace Analytical Services, Inc.

TARGET COMPOUNDS

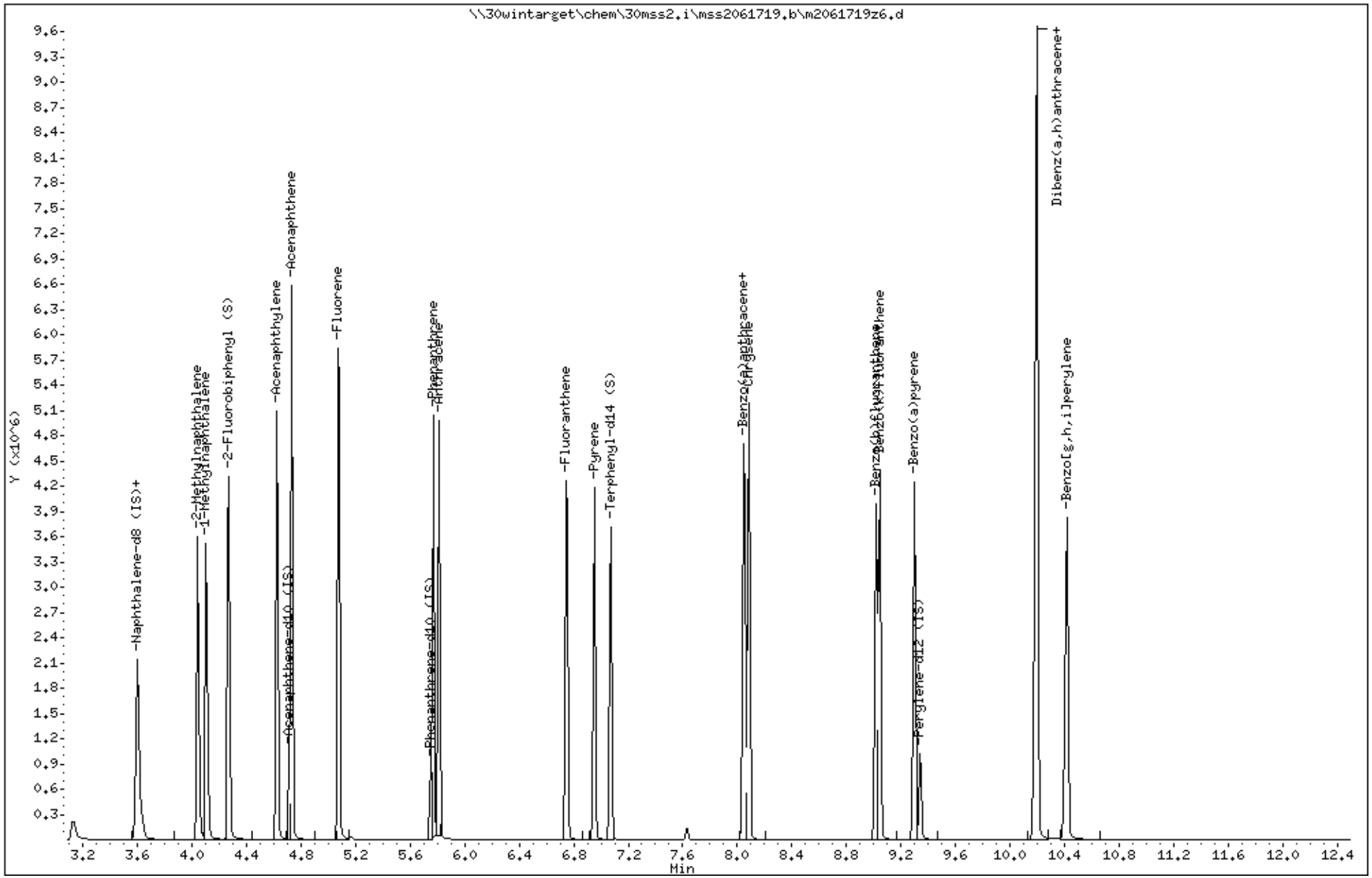
Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	16.5	
91-57-6	2-Methylnaphthalene	18.2	
90-12-0	1-Methylnaphthalene	15.8	
208-96-8	Acenaphthylene	17.0	
83-32-9	Acenaphthene	17.3	
86-73-7	Fluorene	17.3	
85-01-8	Phenanthrene	16.6	
120-12-7	Anthracene	16.6	
206-44-0	Fluoranthene	16.6	
129-00-0	Pyrene	16.4	
56-55-3	Benzo(a)anthracene	16.5	
218-01-9	Chrysene	15.5	
205-99-2	Benzo(b)fluoranthene	18.4	
207-08-9	Benzo(k)fluoranthene	16.2	
50-32-8	Benzo(a)pyrene	18.4	
53-70-3	Dibenz(a,h)anthracene	19.4	
193-39-5	Indeno(1,2,3-cd)pyrene	19.2	
191-24-2	Benzo[g,h,i]perylene	18.2	
321-60-8	2-Fluorobiphenyl (S)	16.8	
1718-51-0	Terphenyl-d14 (S)	16.5	

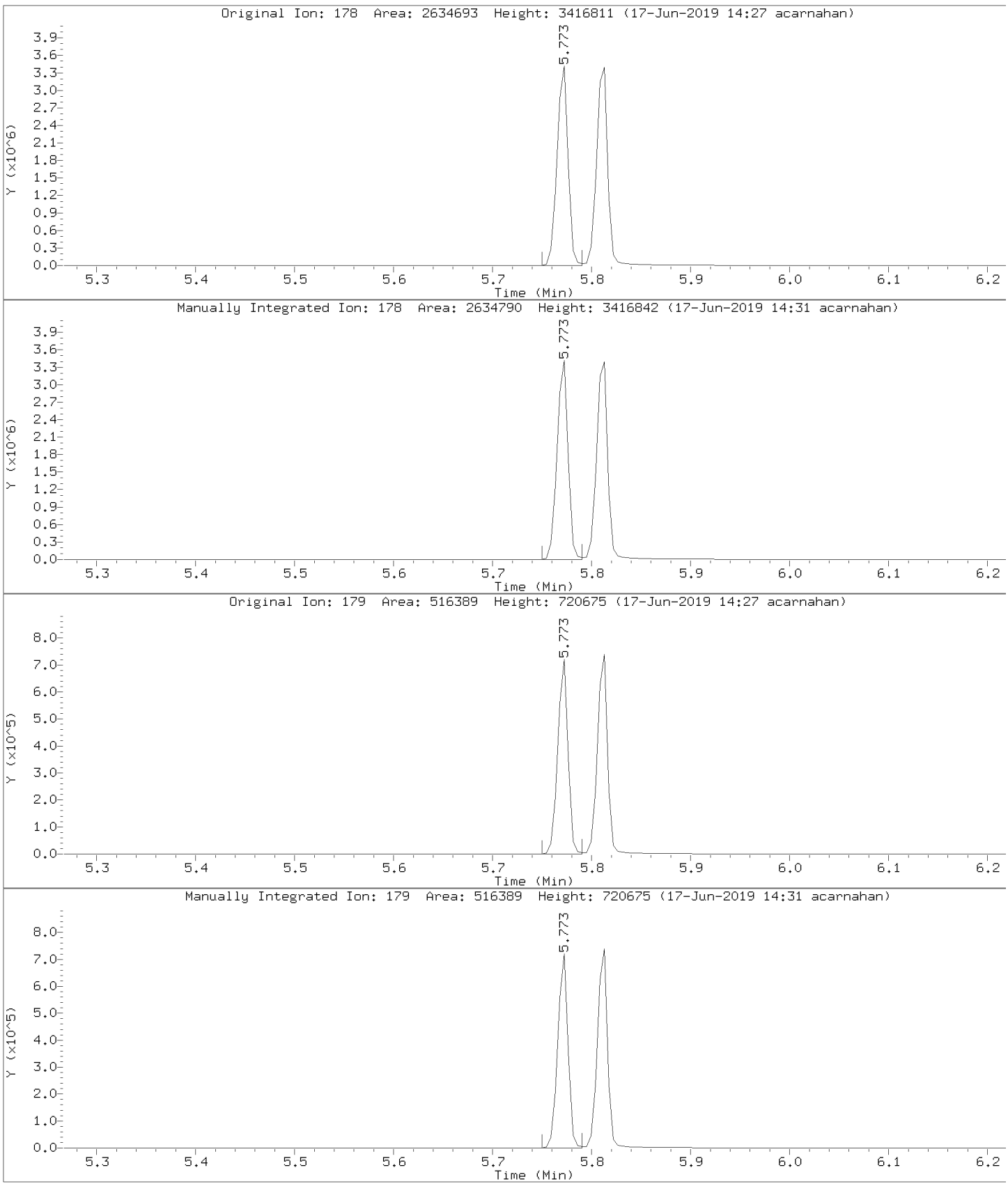
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Date : 17-JUN-2019 14:12
Client ID: CAL6
Sample Info: CAL6, 89123:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



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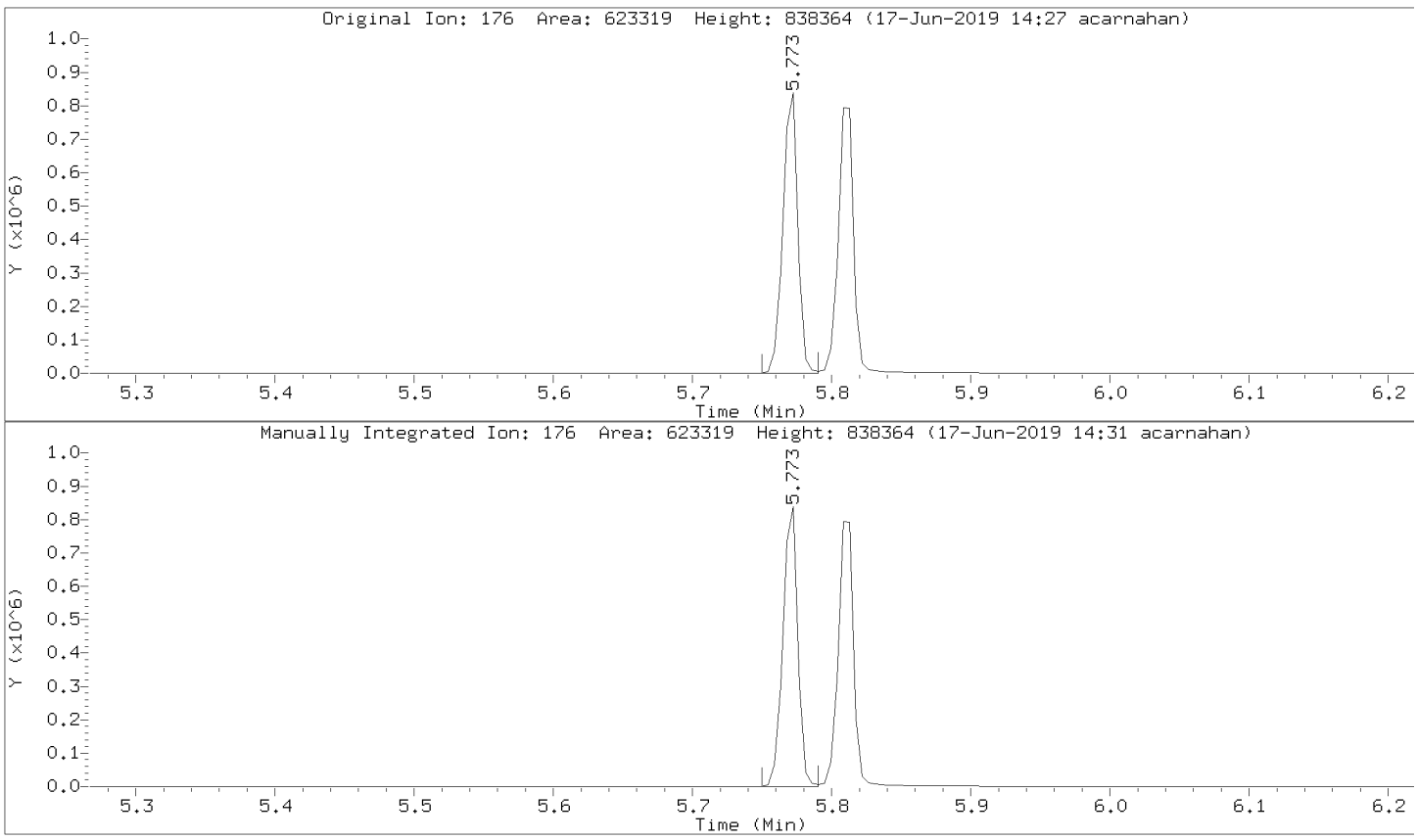
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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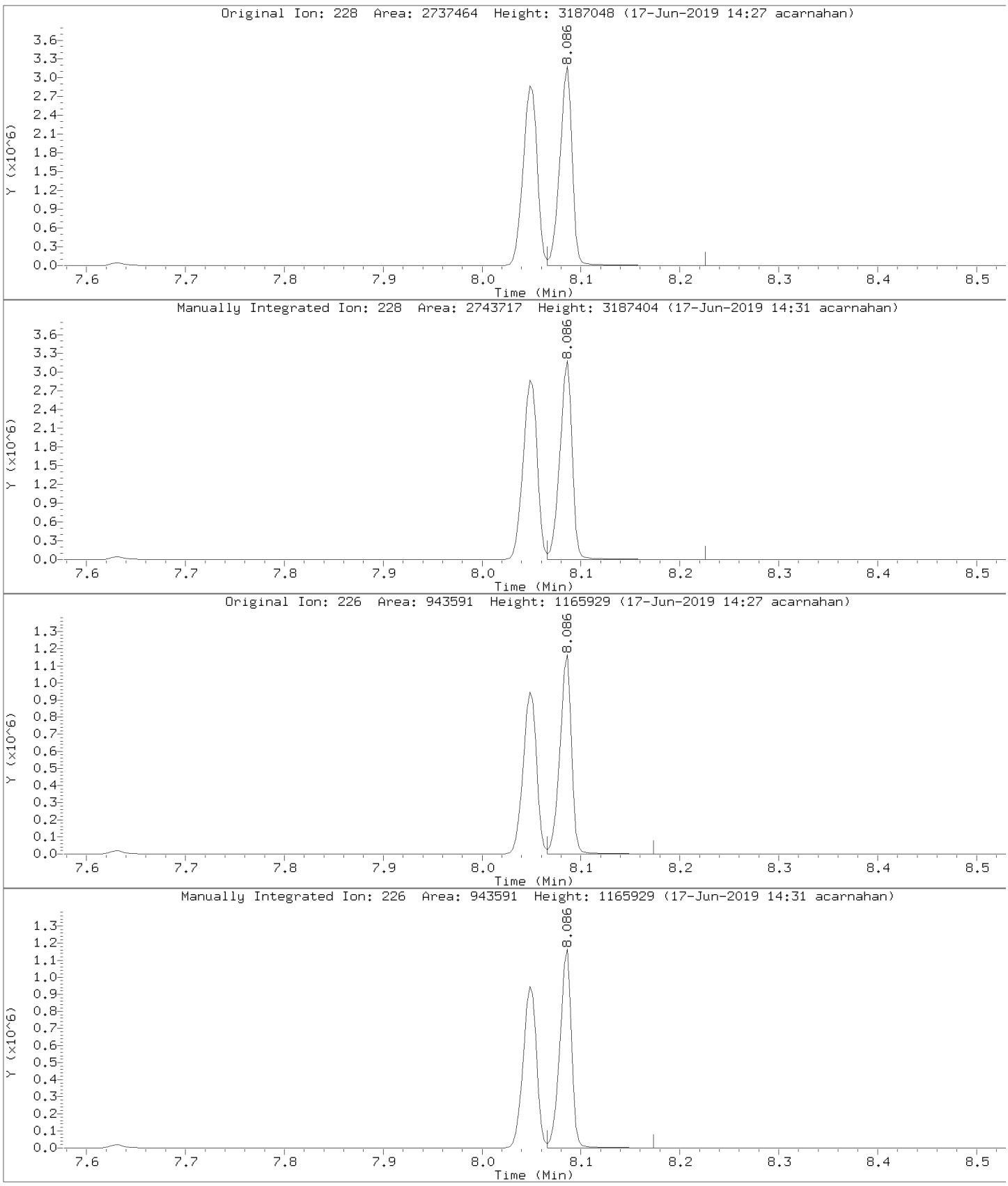
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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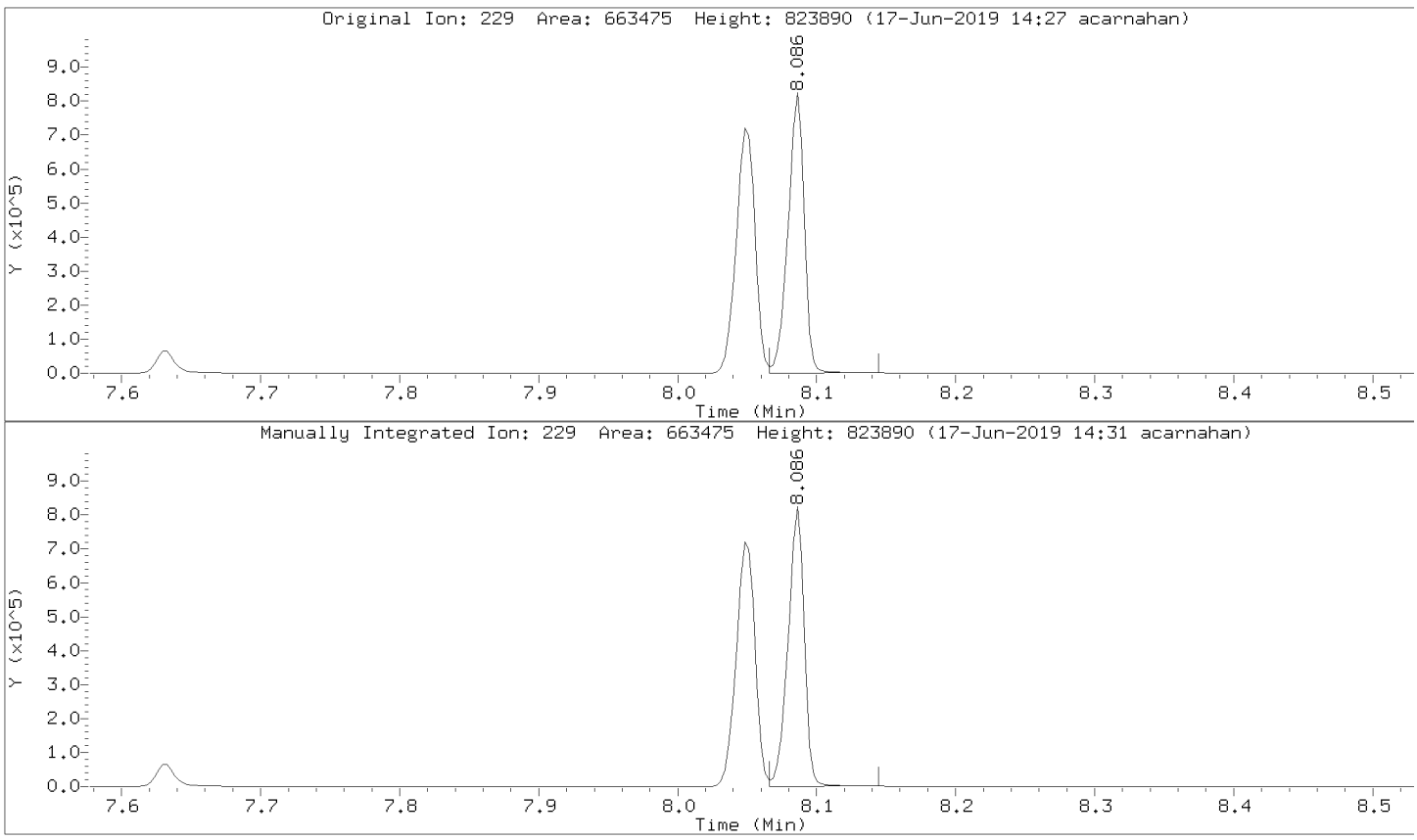
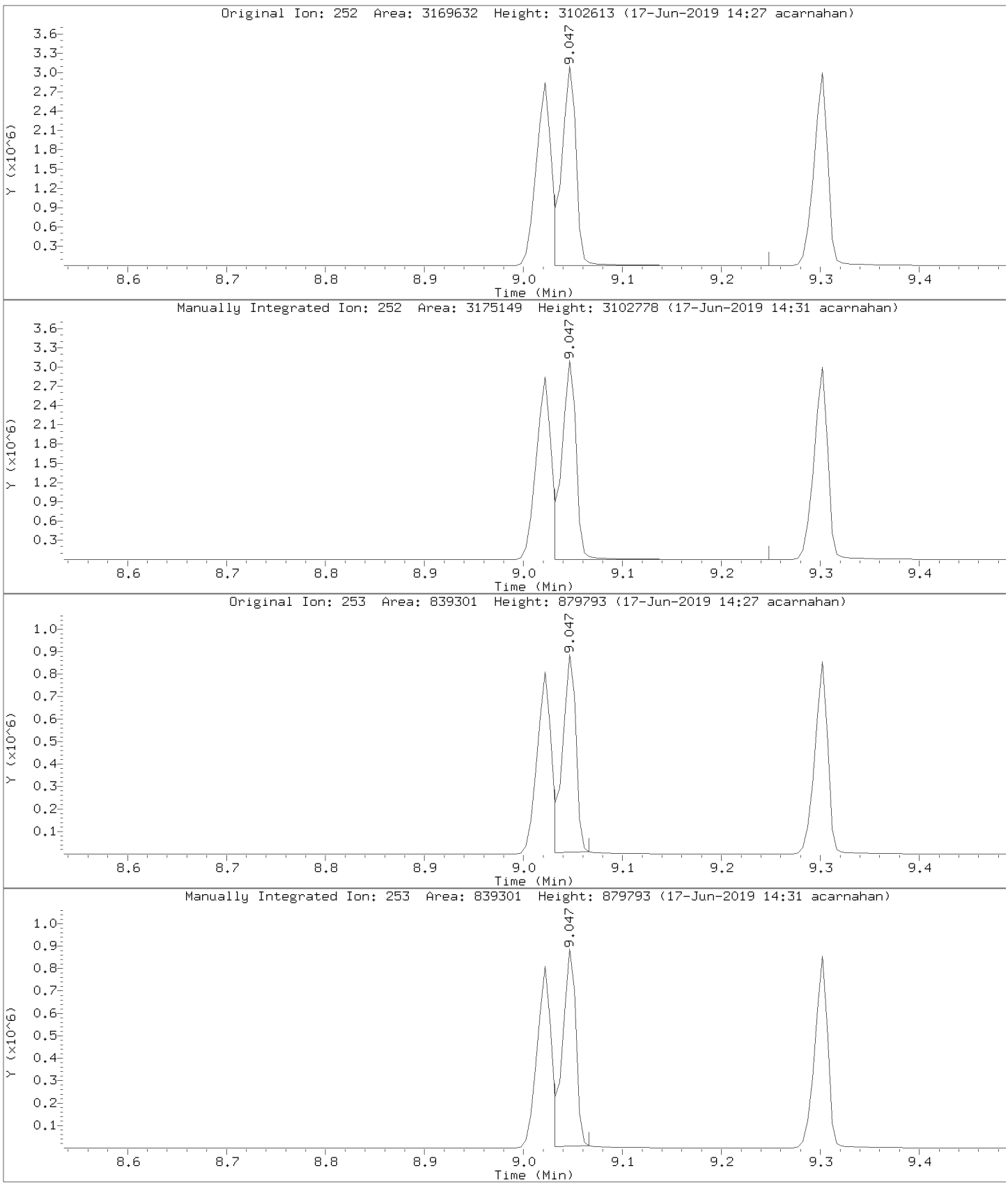
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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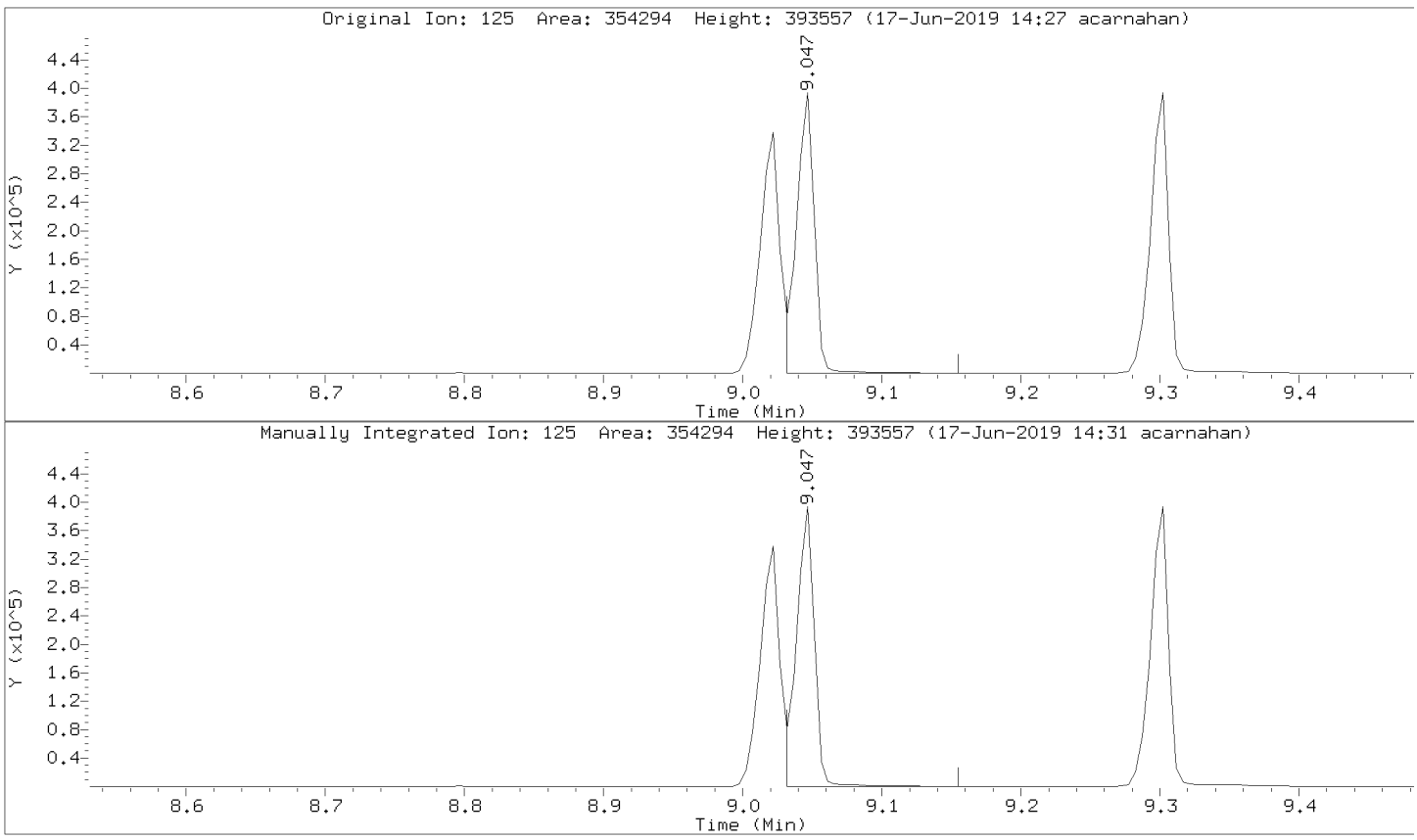
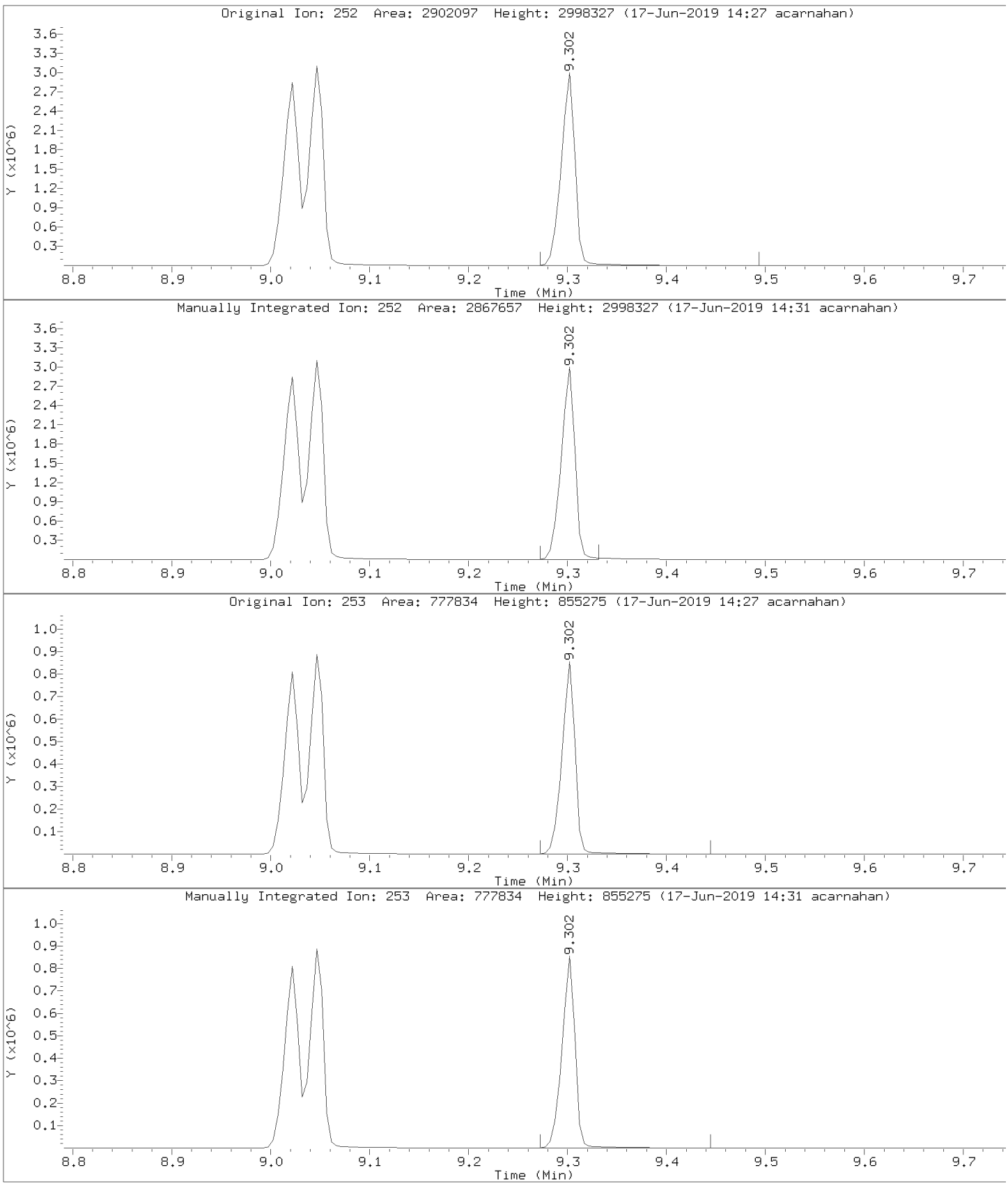
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

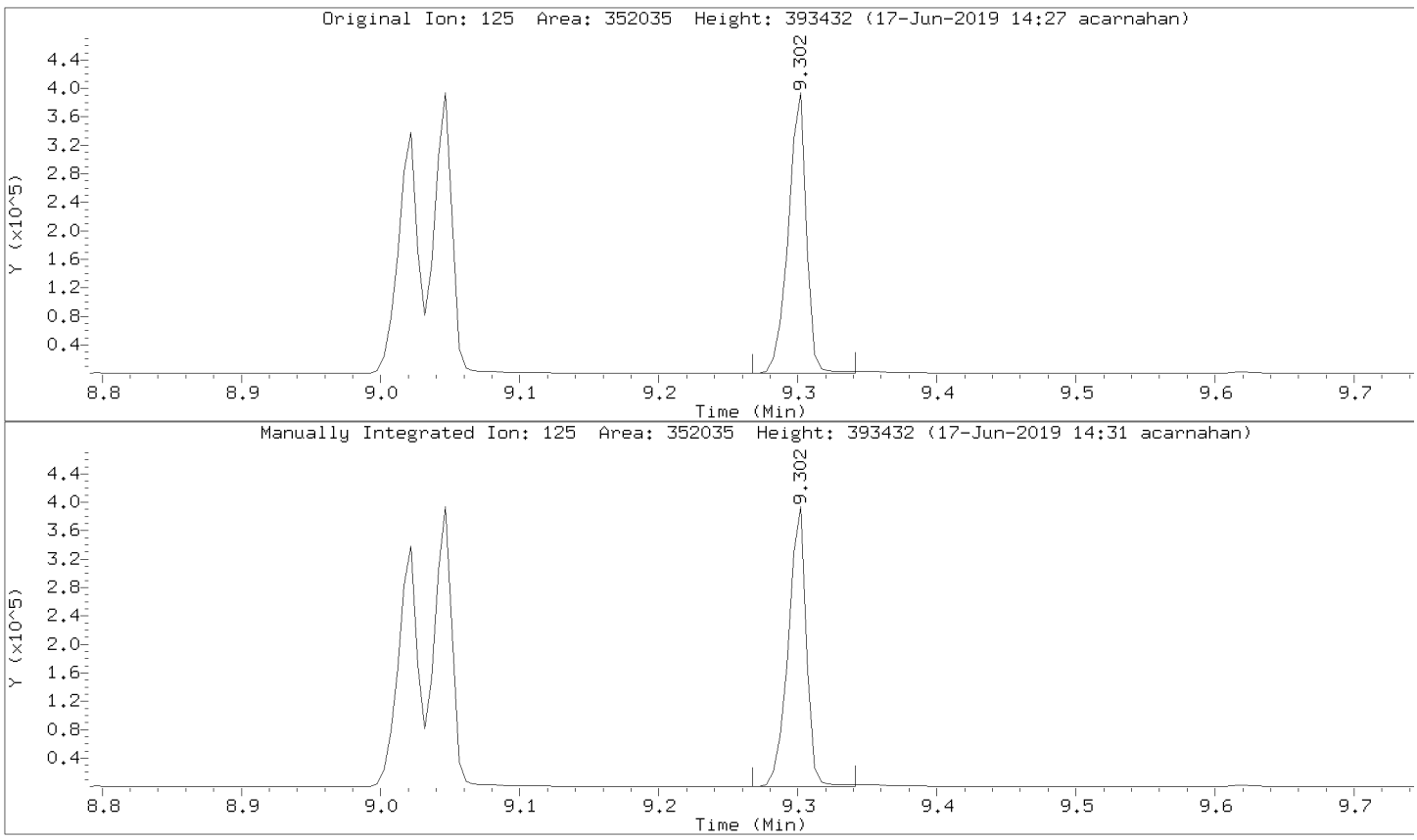


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

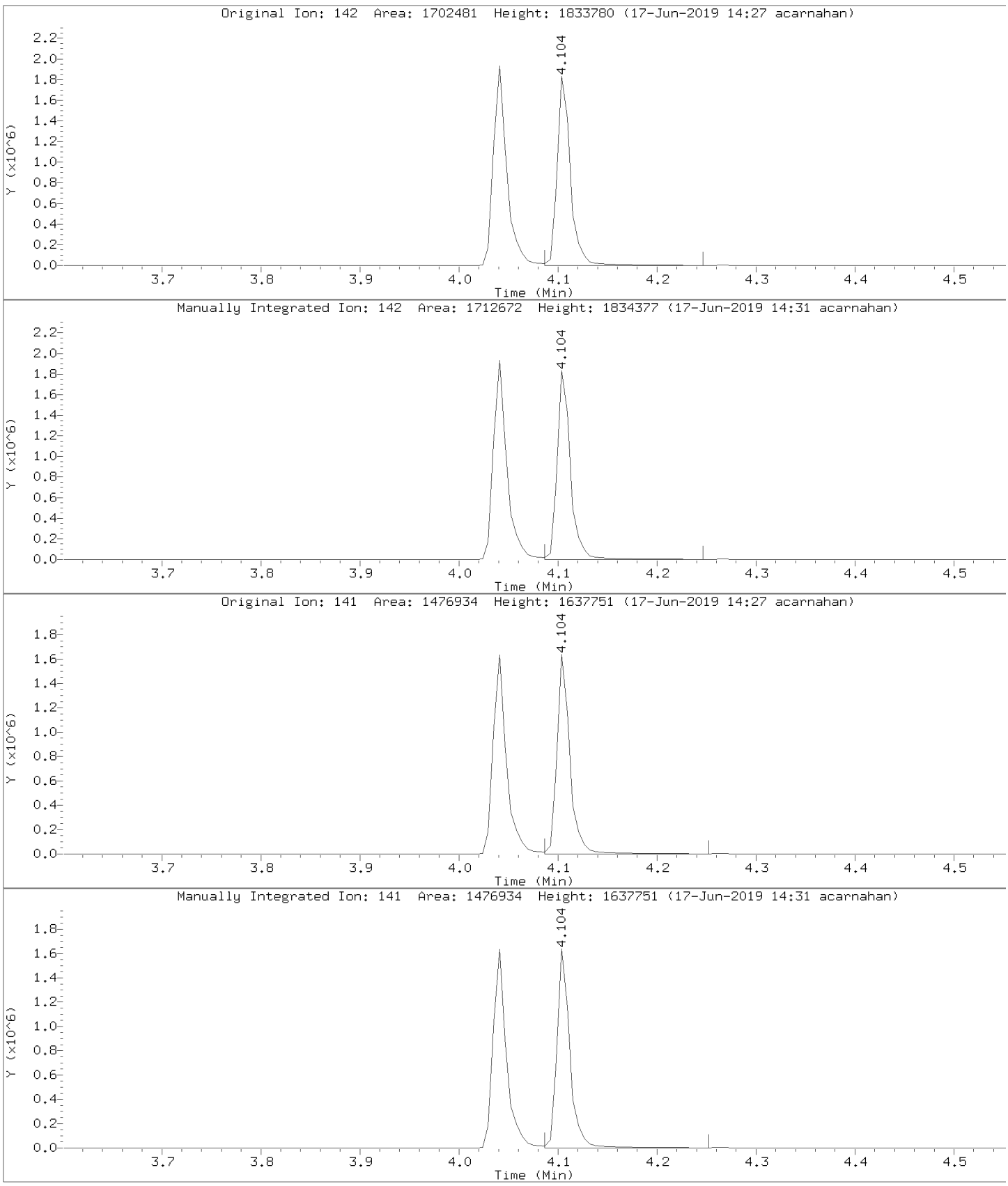


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM INITIAL CALIBRATION DATA

11097246ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 14:30

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2061719.B\M2061719Z7.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30300161

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.02920	1.12364	0.0500	9.1761	30.0000
Acenaphthylene	Averaged	1.57574	1.81745	0.0500	15.3394	30.0000
Anthracene	Averaged	0.98399	1.12216	0.0500	14.0423	30.0000
Benzo(a)anthracene	Averaged	1.09457	1.17869	0.0500	7.6851	30.0000
Benzo(a)pyrene	Averaged	0.99304	1.08308	0.0500	9.0669	30.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.16658	0.0500	11.7558	30.0000
Benzo(g,h,i)perylene	Averaged	1.07081	1.05507	0.0500	-1.4700	30.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.36880	0.0500	9.1421	30.0000
Chrysene	Averaged	1.12111	1.22040	0.0500	8.8559	30.0000
Dibenz(a,h)anthracene	Averaged	1.07618	1.07848	0.0500	0.2139	30.0000
Fluoranthene	Averaged	1.10512	1.22182	0.0500	10.5600	30.0000
Fluorene	Averaged	1.20790	1.37048	0.0500	13.4606	30.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.30441	0.0500	0.2962	30.0000
Naphthalene	Averaged	0.90143	0.98406	0.0500	9.1668	30.0000
Phenanthrene	Averaged	0.96551	1.05249	0.0500	9.0086	30.0000
Pyrene	Averaged	1.13626	1.25544	0.0500	10.4882	30.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.50032	0.0500	12.3735	30.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.94632	0.0500	11.4503	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

11203575CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/20/2019 Time: 10:19

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2062019.B\M2062019S1.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30300161

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.02920	1.07296	0.9000	4.2515	20.0000
Acenaphthylene	Averaged	1.57574	1.63696	0.9000	3.8849	20.0000
Anthracene	Averaged	0.98399	1.03992	0.7000	5.6843	20.0000
Benzo(a)anthracene	Averaged	1.09457	1.14106	0.8000	4.2478	20.0000
Benzo(a)pyrene	Averaged	0.99304	1.09093	0.7000	9.8571	20.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.08663	0.7000	4.0974	20.0000
Benzo(g,h,i)perylene	Averaged	1.07081	1.12674	0.5000	5.2227	20.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.26811	0.7000	1.1134	20.0000
Chrysene	Averaged	1.12111	1.15334	0.7000	2.8745	20.0000
Dibenz(a,h)anthracene	Averaged	1.07618	1.18406	0.4000	10.0238	20.0000
Fluoranthene	Averaged	1.10512	1.19602	0.6000	8.2257	20.0000
Fluorene	Averaged	1.20790	1.25965	0.9000	4.2845	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.42660	0.5000	9.6914	20.0000
Naphthalene	Averaged	0.90143	0.95607	0.7000	6.0614	20.0000
Phenanthrene	Averaged	0.96551	1.01475	0.7000	5.1000	20.0000
Pyrene	Averaged	1.13626	1.22720	0.6000	8.0033	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.43079	0.7000	7.1657	20.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.92141	0.7000	8.5166	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 17-JUN-2019 14:30
Operator : AJC Inst ID: 30mss2.i
Smp Info : icv, 90346:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	630892	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.003)	310419	2.00000	2.18	
	9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	209295	2.00000	2.21	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	213209	2.00000	2.10(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	269858	2.00000	2.25	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	326900	2.00000	2.31	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	359734	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	202106	2.00000	2.18	
	13 Fluorene	166	5.075	5.075	(1.078)	246505	2.00000	2.27	
*	3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	654820	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	344596	2.00000	2.18(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	367407	2.00000	2.28	
	16 Fluoranthene	202	6.742	6.742	(1.173)	400036	2.00000	2.21	
	17 Pyrene	202	6.945	6.945	(1.208)	411043	2.00000	2.21	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	309836	2.00000	2.23	
	18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	363373	2.00000	2.15	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	616573	4.00000		
	19 Chrysene	228	8.077	8.077	(1.003)	376232	2.00000	2.18(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	381872	2.00000	2.24	
	21 Benzo(k)fluoranthene	252	9.037	9.037	(0.968)	448070	2.00000	2.18(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	354541	2.00000	2.18	
*	5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	654689	4.00000		
	23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	353036	2.00000	2.00	
	24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	426991	2.00000	2.00	
	25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	345371	2.00000	1.97	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 17-JUN-2019 14:30
Lab File ID: m2061719z7.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged		<-
8 Naphthalene	0.90143	0.98406	0.050	9.16682	20.00000	Aver		
9 2-Methylnaphthalene	0.59910	0.66349	0.050	10.74777	20.00000	Aver		
10 1-Methylnaphthalene	0.64273	0.67590	0.050	5.16069	20.00000	Aver	(M)	
$ 6 2-Fluorobiphenyl (S)	1.33512	1.50032	0.050	12.37345	20.00000	Aver		
11 Acenaphthylene	1.57574	1.81745	0.050	15.33940	20.00000	Aver		
12 Acenaphthene	1.02920	1.12364	0.050	9.17607	20.00000	Aver		
13 Fluorene	1.20790	1.37048	0.050	13.46059	20.00000	Aver		
14 Phenanthrene	0.96551	1.05249	0.050	9.00861	20.00000	Aver	(M)	
15 Anthracene	0.98399	1.12216	0.050	14.04225	20.00000	Aver		
16 Fluoranthene	1.10512	1.22182	0.050	10.55997	20.00000	Aver		
17 Pyrene	1.13626	1.25544	0.050	10.48818	20.00000	Aver		
$ 7 Terphenyl-d14 (S)	0.84910	0.94632	0.050	11.45027	20.00000	Aver		
18 Benzo(a)anthracene	1.09457	1.17869	0.050	7.68509	20.00000	Aver		
19 Chrysene	1.12111	1.22040	0.050	8.85593	20.00000	Aver	(M)	
20 Benzo(b)fluoranthene	1.04386	1.16658	0.050	11.75575	20.00000	Aver		
21 Benzo(k)fluoranthene	1.25415	1.36880	0.050	9.14207	20.00000	Aver	(M)	
22 Benzo(a)pyrene	0.99304	1.08308	0.050	9.06685	20.00000	Aver		
23 Dibenz(a,h)anthracene	1.07618	1.07848	0.050	0.21391	20.00000	Aver		
24 Indeno(1,2,3-cd)pyrene	1.30056	1.30441	0.050	0.29616	20.00000	Aver		
25 Benzo[g,h,i]perylene	1.07081	1.05507	0.050	-1.46997	20.00000	Aver		

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 8.97299
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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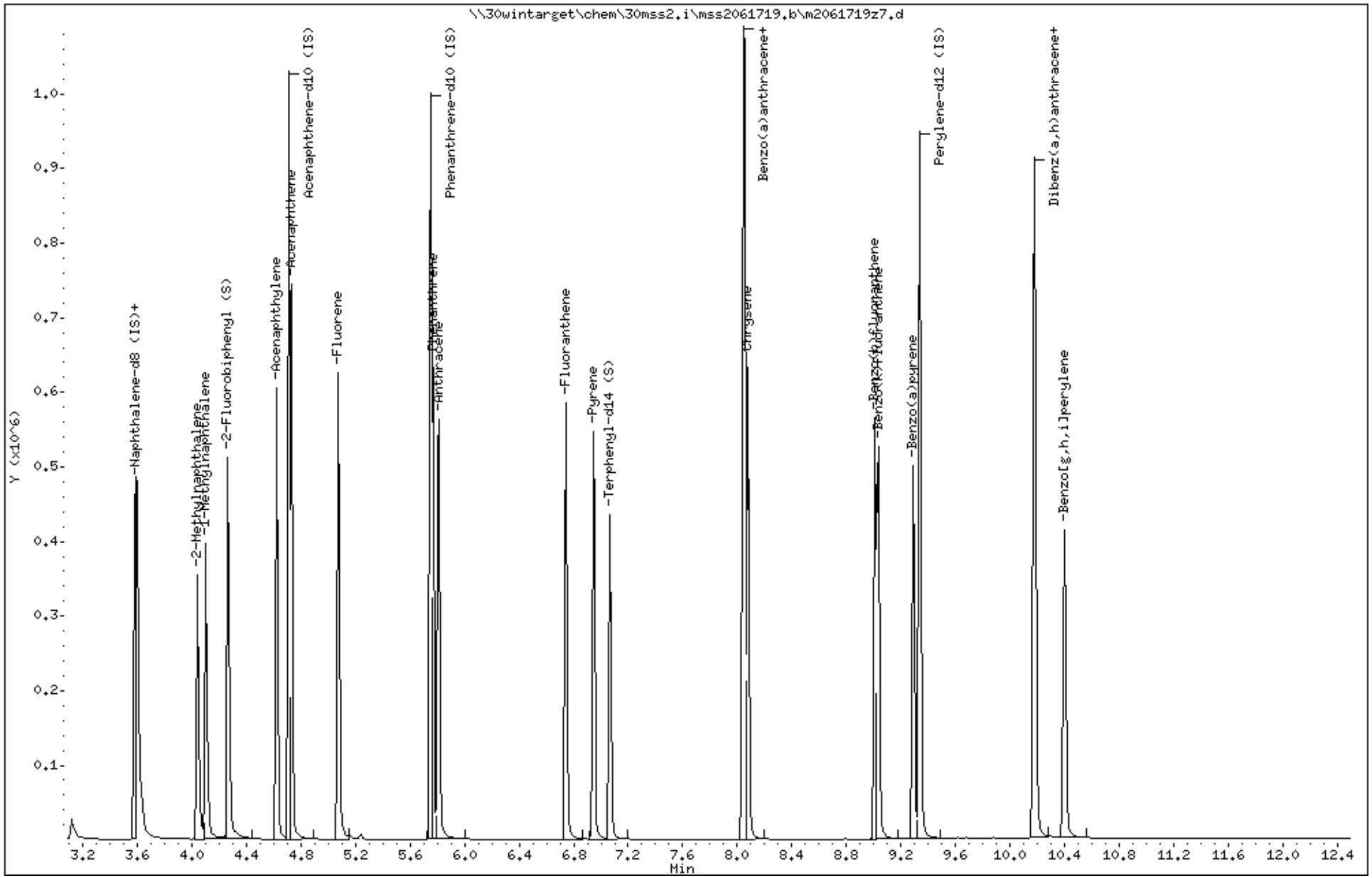
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Date : 17-JUN-2019 14:30
Client ID: ICV
Sample Info: ICV, 90346:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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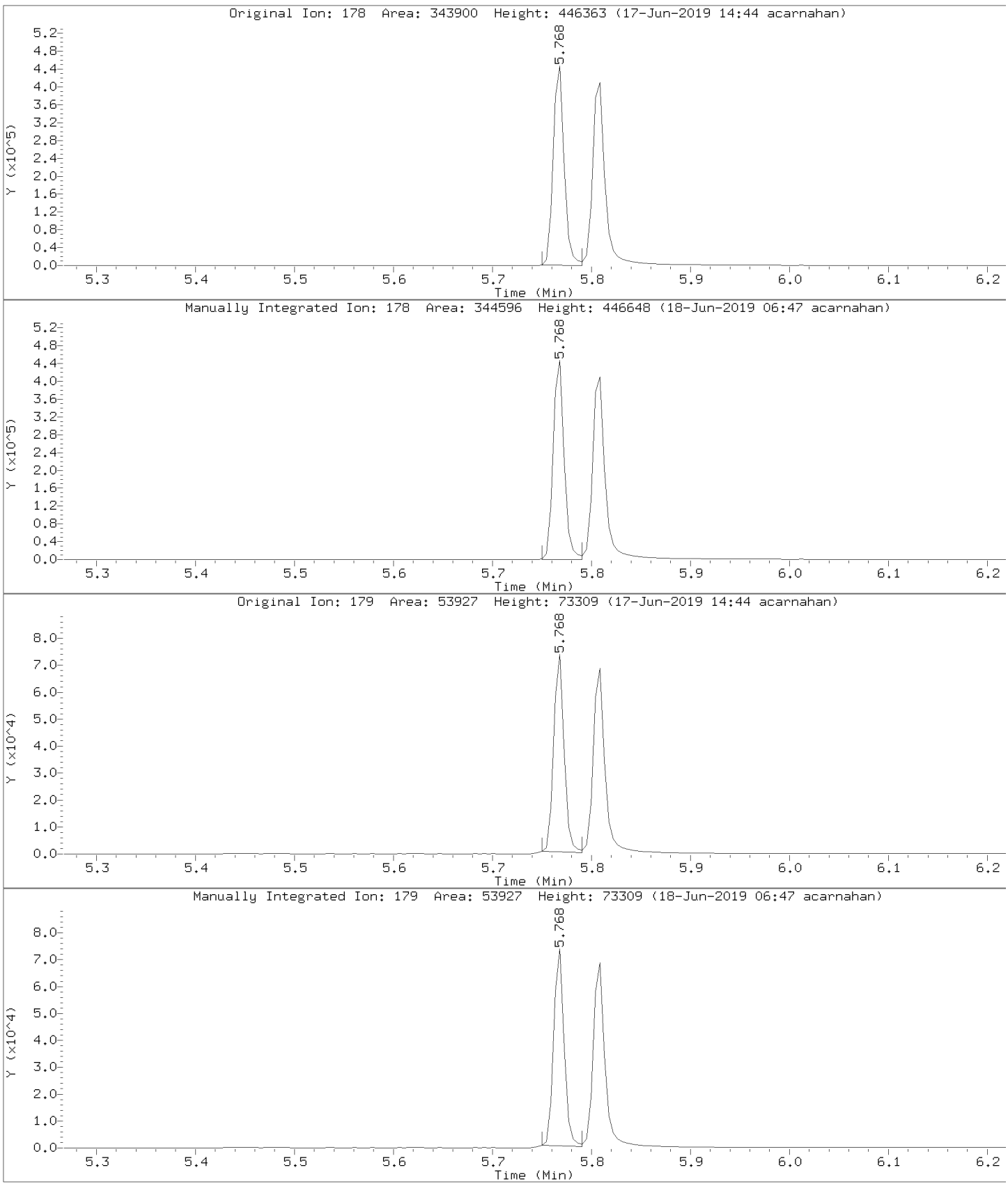
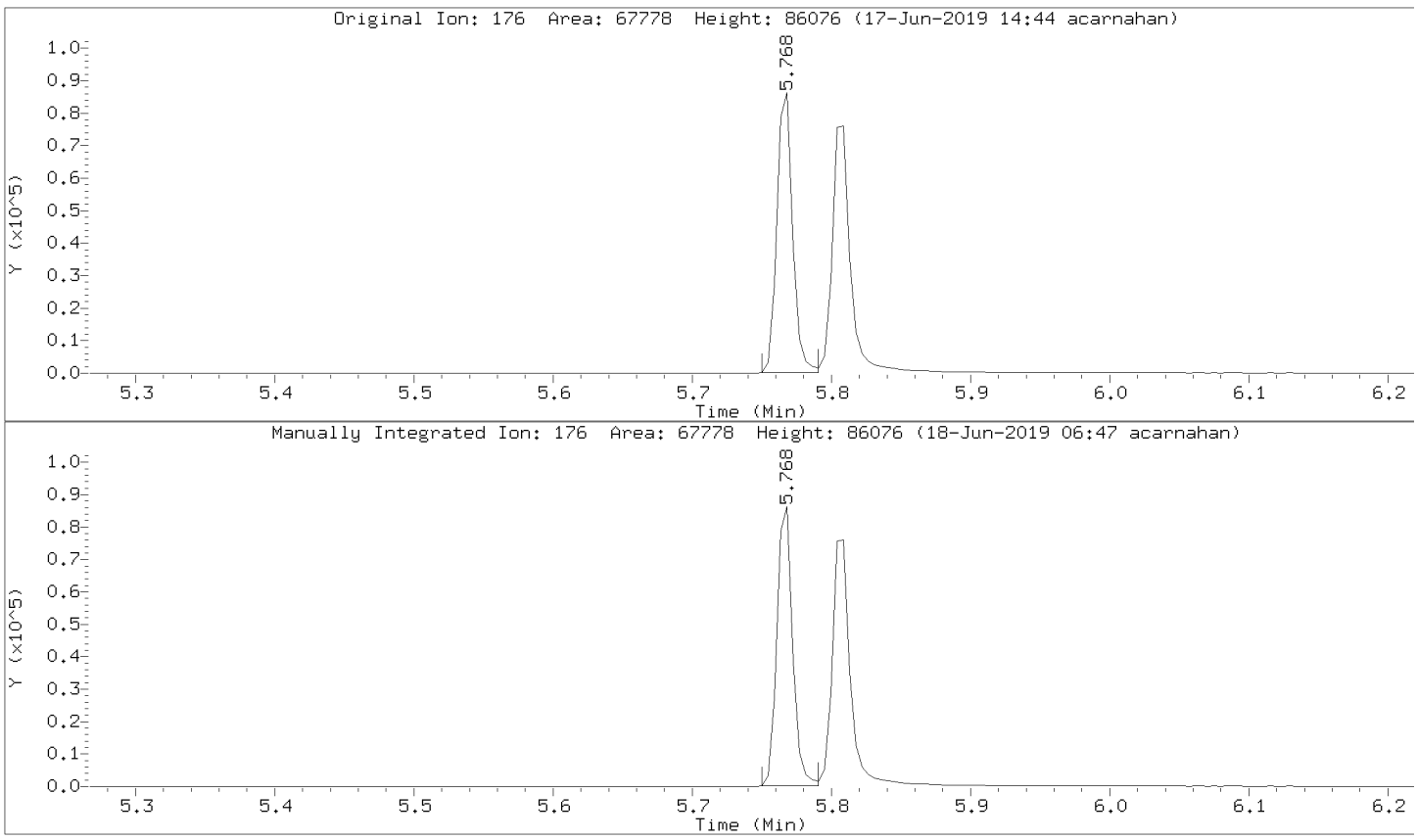
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



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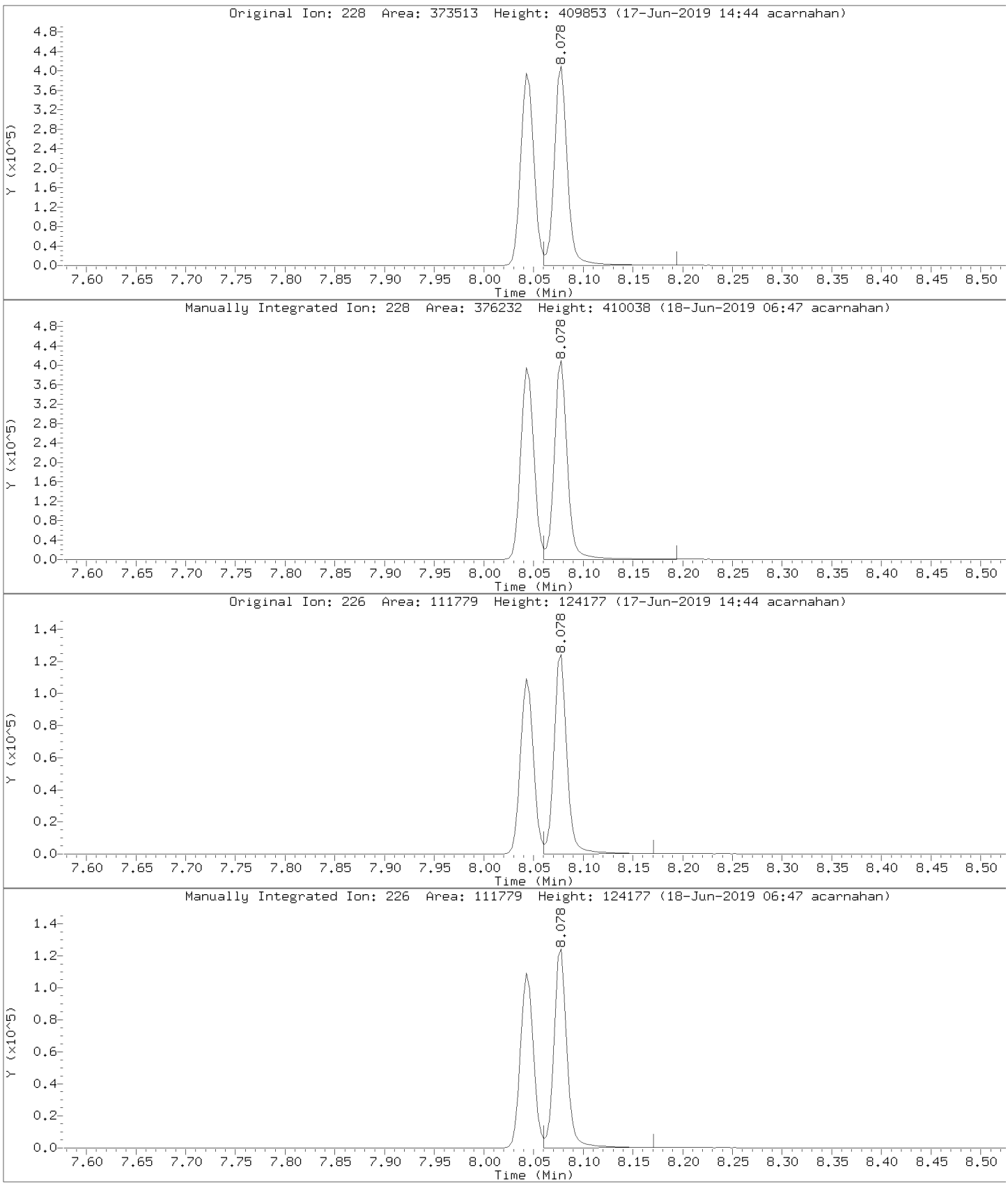
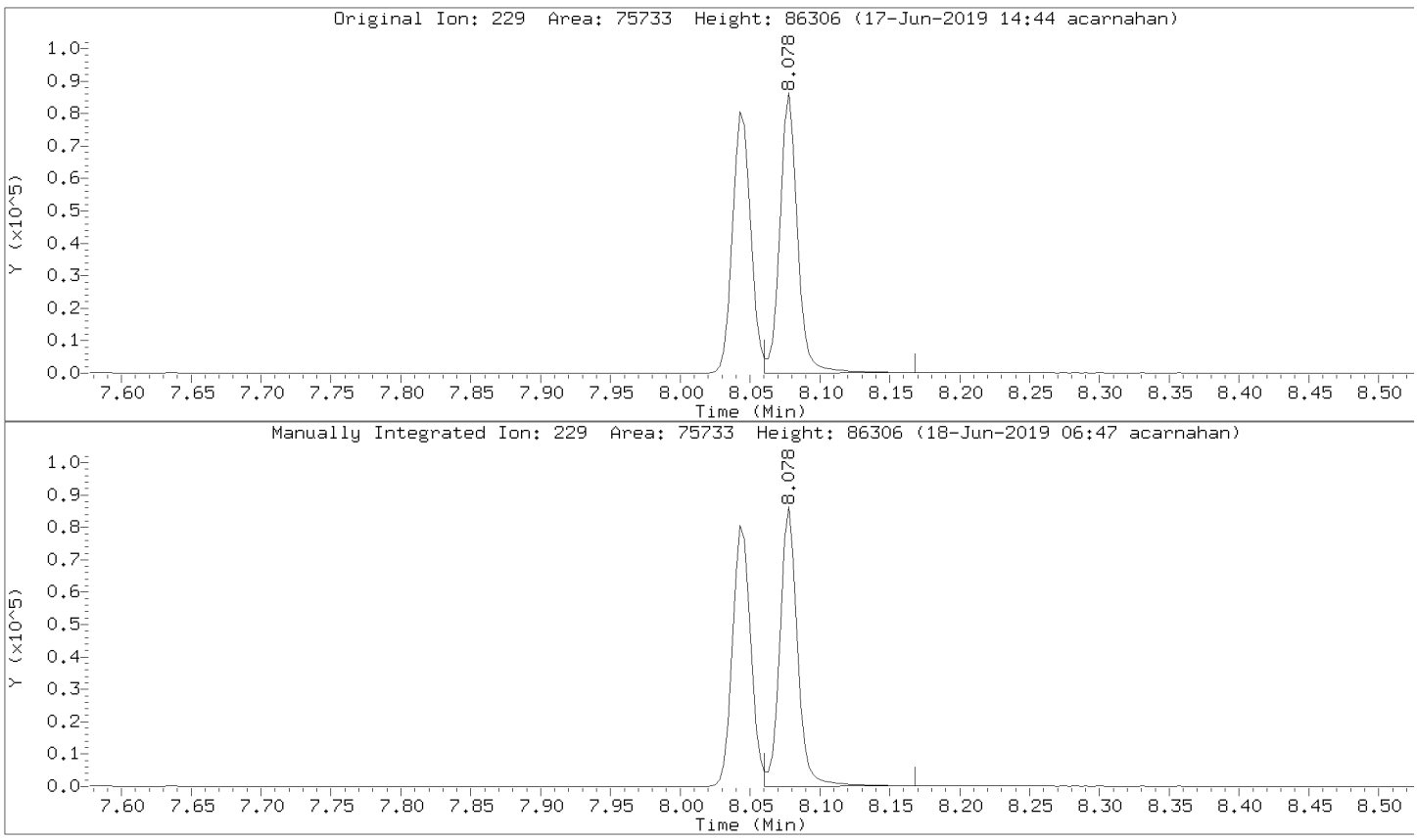
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



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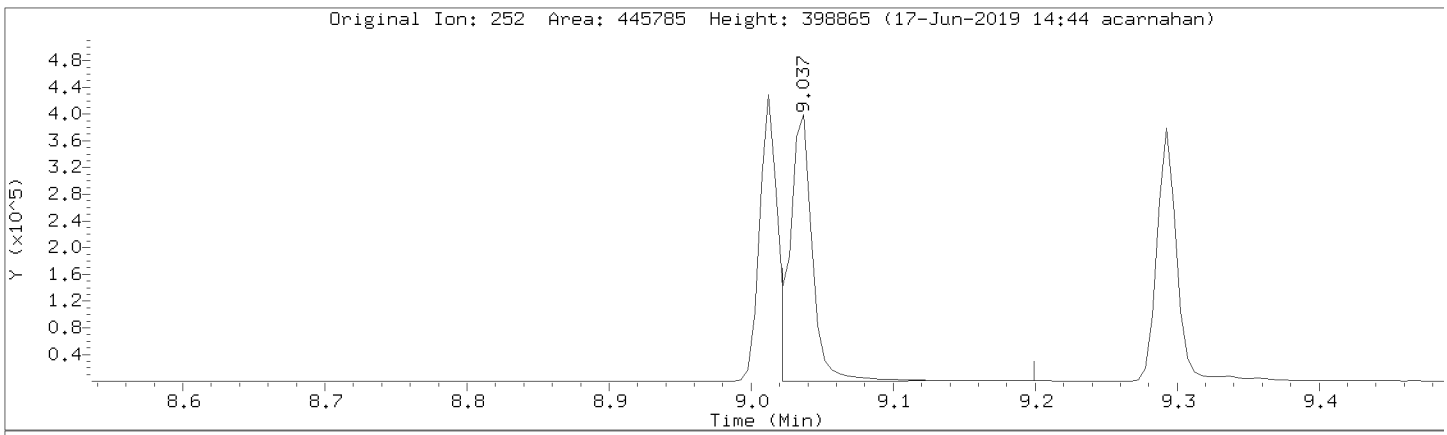
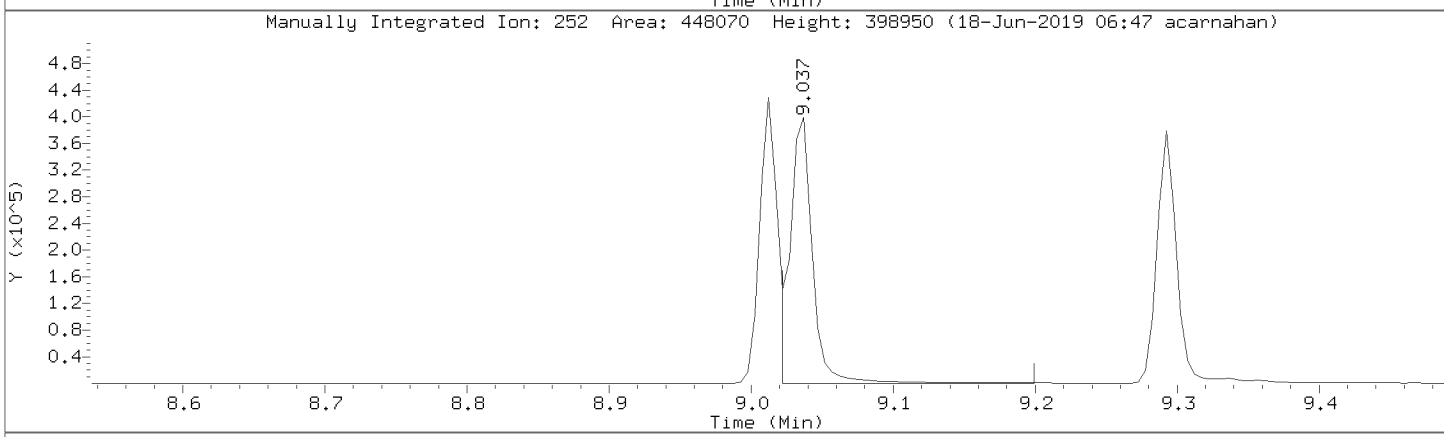
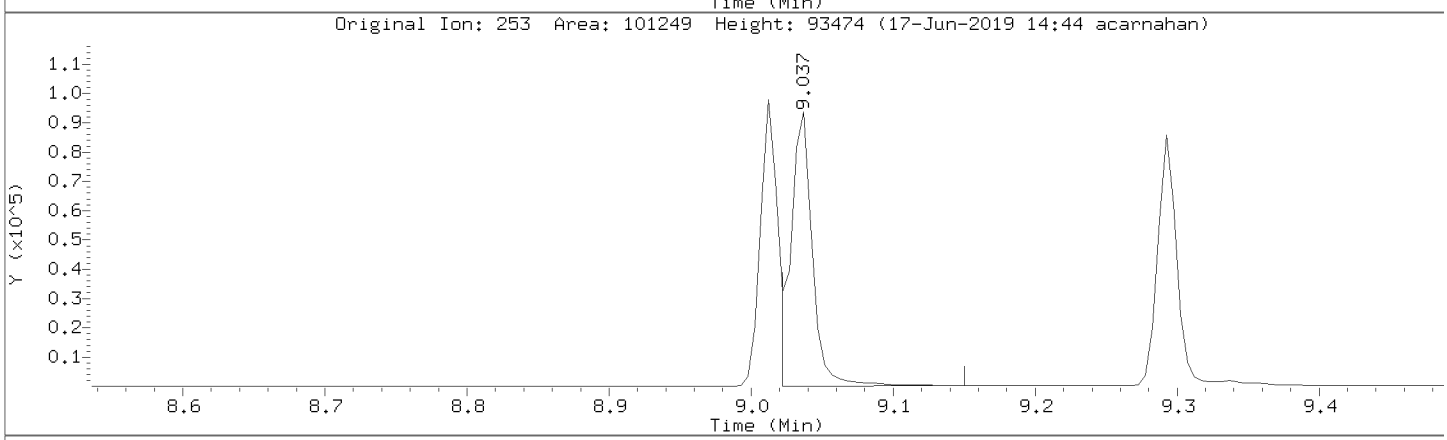
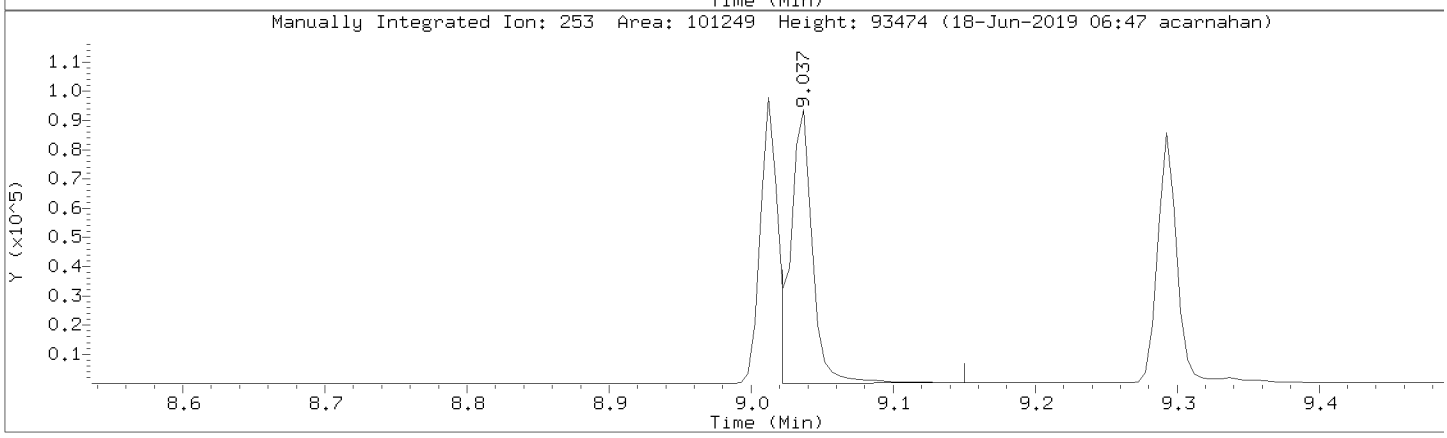
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

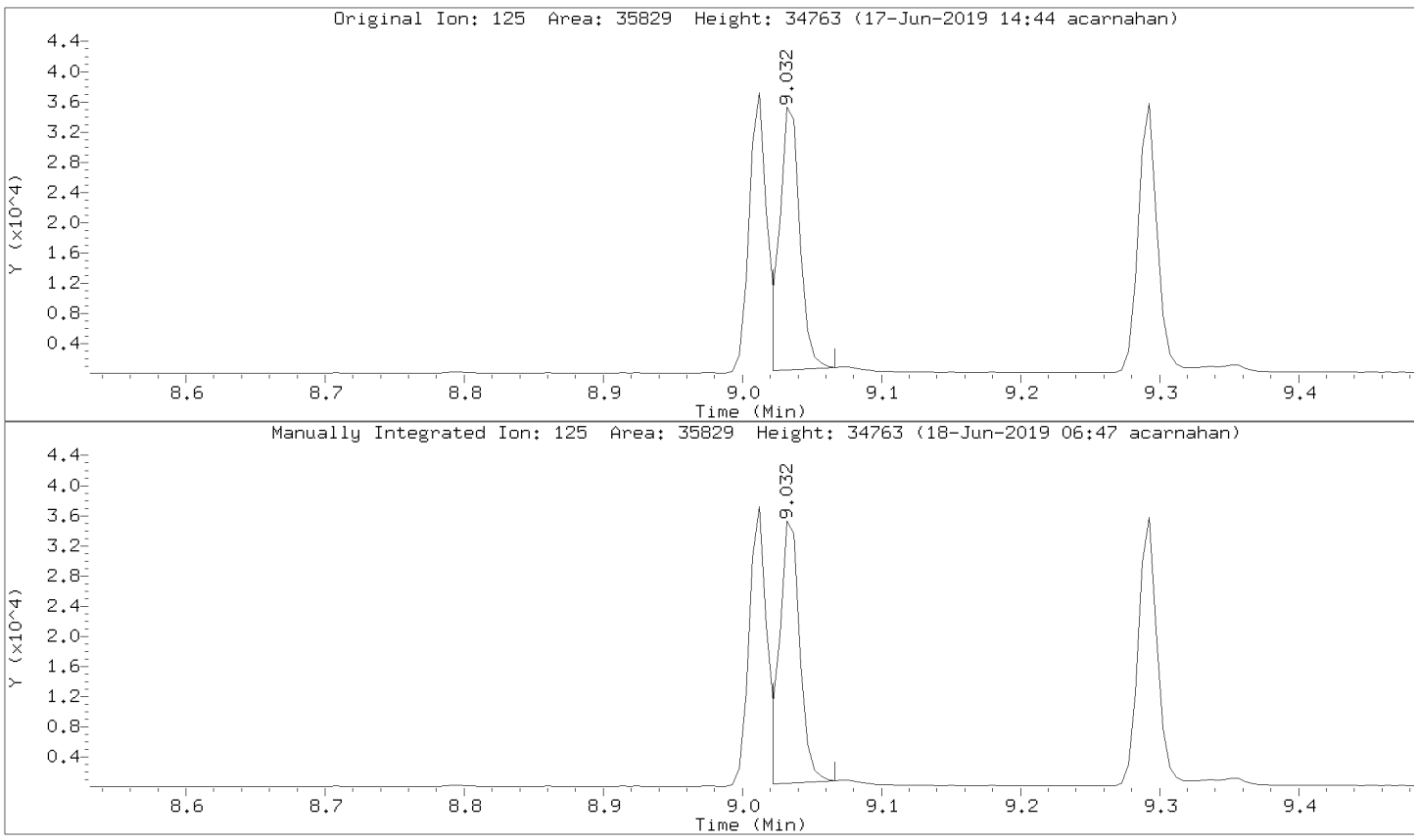






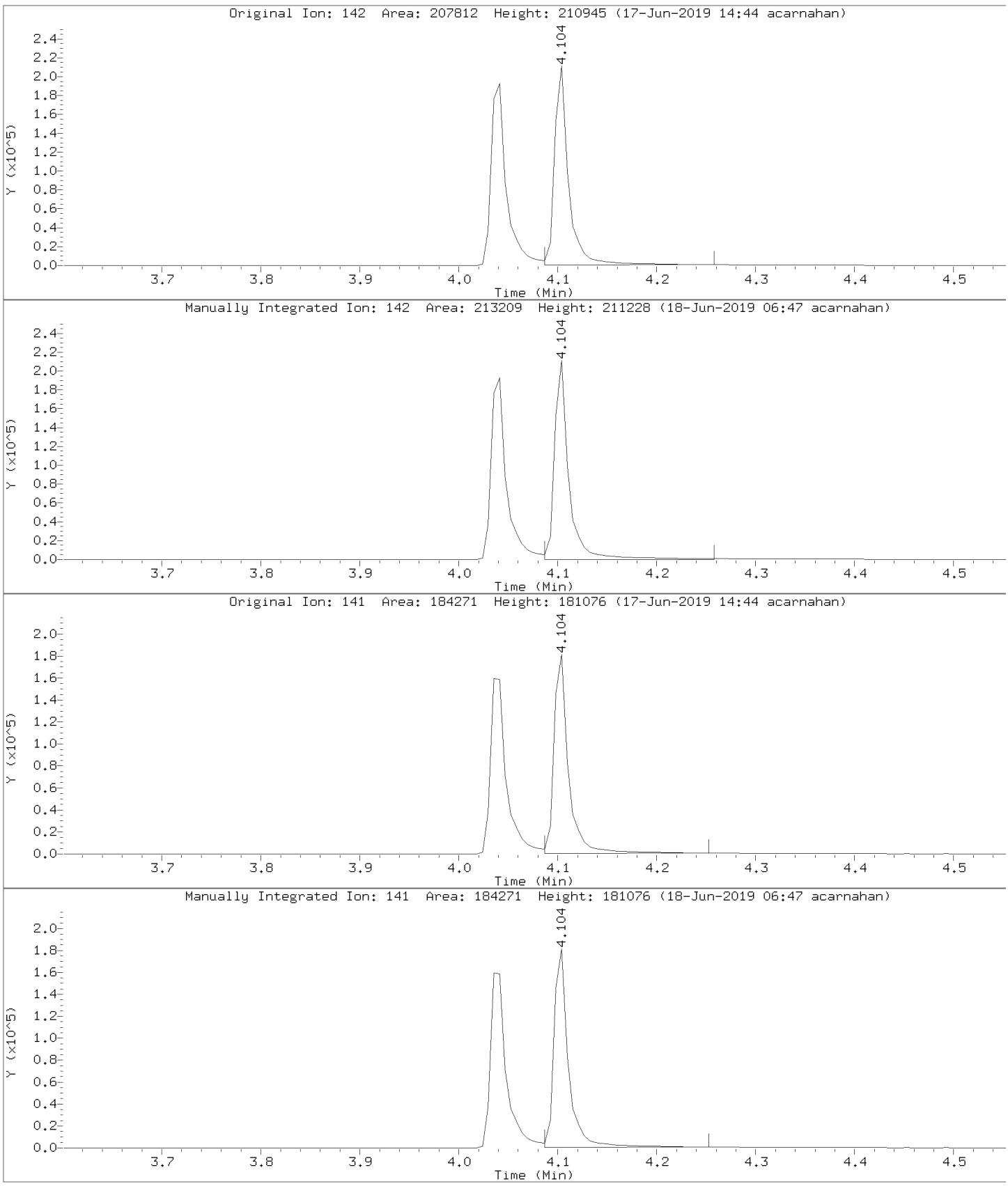


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m2062019s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 20-JUN-2019 10:19
Operator : AJC Inst ID: 30mss2.i
Smp Info : ccv, 89121:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.498	3.498	(1.000)	487489	4.00000		
	8 Naphthalene	128	3.510	3.510	(1.003)	233037	2.00000	2.12	
	9 2-Methylnaphthalene	142	3.949	3.949	(1.129)	161359	2.00000	2.21	
	10 1-Methylnaphthalene	142	4.012	4.012	(1.147)	157630	2.00000	2.01	
$	6 2-Fluorobiphenyl (S)	172	4.178	4.178	(0.904)	193455	2.00000	2.14	
	11 Acenaphthylene	152	4.530	4.530	(0.981)	221331	2.00000	2.08	
*	2 Acenaphthene-d10 (IS)	164	4.619	4.619	(1.000)	270417	4.00000		
	12 Acenaphthene	153	4.639	4.639	(1.004)	145073	2.00000	2.08	
	13 Fluorene	166	4.979	4.979	(1.078)	170315	2.00000	2.08	
*	3 Phenanthrene-d10 (IS)	188	5.646	5.646	(1.000)	475367	4.00000		
	14 Phenanthrene	178	5.659	5.659	(1.002)	241190	2.00000	2.10	
	15 Anthracene	178	5.700	5.700	(1.010)	247172	2.00000	2.11	
	16 Fluoranthene	202	6.625	6.625	(1.173)	284275	2.00000	2.16	
	17 Pyrene	202	6.828	6.828	(1.209)	291686	2.00000	2.16	
$	7 Terphenyl-d14 (S)	244	6.950	6.950	(1.231)	219005	2.00000	2.17	
	18 Benzo(a)anthracene	228	7.917	7.917	(0.999)	253583	2.00000	2.08	
*	4 Chrysene-d12 (IS)	240	7.929	7.929	(1.000)	444468	4.00000		
	19 Chrysene	228	7.952	7.952	(1.003)	256311	2.00000	2.06	
	20 Benzo(b)fluoranthene	252	8.884	8.884	(0.965)	281696	2.00000	2.08	
	21 Benzo(k)fluoranthene	252	8.909	8.909	(0.967)	328742	2.00000	2.02	
	22 Benzo(a)pyrene	252	9.164	9.164	(0.995)	282810	2.00000	2.20	
*	5 Perylene-d12 (IS)	264	9.209	9.209	(1.000)	518475	4.00000		
	23 Dibenz(a,h)anthracene	278	10.039	10.039	(1.090)	306952	2.00000	2.20	
	24 Indeno(1,2,3-cd)pyrene	276	10.034	10.034	(1.090)	369828	2.00000	2.19	
	25 Benzo[g,h,i]perylene	276	10.245	10.245	(1.113)	292092	2.00000	2.10	

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 20-JUN-2019 10:19
Lab File ID: m2062019s1.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged		<-
8 Naphthalene	0.90143	0.95607	0.050	6.06142	20.00000	Aver		
9 2-Methylnaphthalene	0.59910	0.66200	0.050	10.49930	20.00000	Aver		
10 1-Methylnaphthalene	0.64273	0.64670	0.050	0.61830	20.00000	Aver		
$ 6 2-Fluorobiphenyl (S)	1.33512	1.43079	0.050	7.16572	20.00000	Aver		
11 Acenaphthylene	1.57574	1.63696	0.050	3.88492	20.00000	Aver		
12 Acenaphthene	1.02920	1.07296	0.050	4.25150	20.00000	Aver		
13 Fluorene	1.20790	1.25965	0.050	4.28449	20.00000	Aver		
14 Phenanthrene	0.96551	1.01475	0.050	5.10002	20.00000	Aver		
15 Anthracene	0.98399	1.03992	0.050	5.68431	20.00000	Aver		
16 Fluoranthene	1.10512	1.19602	0.050	8.22570	20.00000	Aver		
17 Pyrene	1.13626	1.22720	0.050	8.00330	20.00000	Aver		
$ 7 Terphenyl-d14 (S)	0.84910	0.92141	0.050	8.51660	20.00000	Aver		
18 Benzo(a)anthracene	1.09457	1.14106	0.050	4.24784	20.00000	Aver		
19 Chrysene	1.12111	1.15334	0.050	2.87447	20.00000	Aver		
20 Benzo(b)fluoranthene	1.04386	1.08663	0.050	4.09742	20.00000	Aver		
21 Benzo(k)fluoranthene	1.25415	1.26811	0.050	1.11341	20.00000	Aver		
22 Benzo(a)pyrene	0.99304	1.09093	0.050	9.85714	20.00000	Aver		
23 Dibenz(a,h)anthracene	1.07618	1.18406	0.050	10.02382	20.00000	Aver		
24 Indeno(1,2,3-cd)pyrene	1.30056	1.42660	0.050	9.69140	20.00000	Aver		
25 Benzo[g,h,i]perylene	1.07081	1.12674	0.050	5.22274	20.00000	Aver		

Average %D / Drift Results.

Calculated Average %D/Drift = 5.97119
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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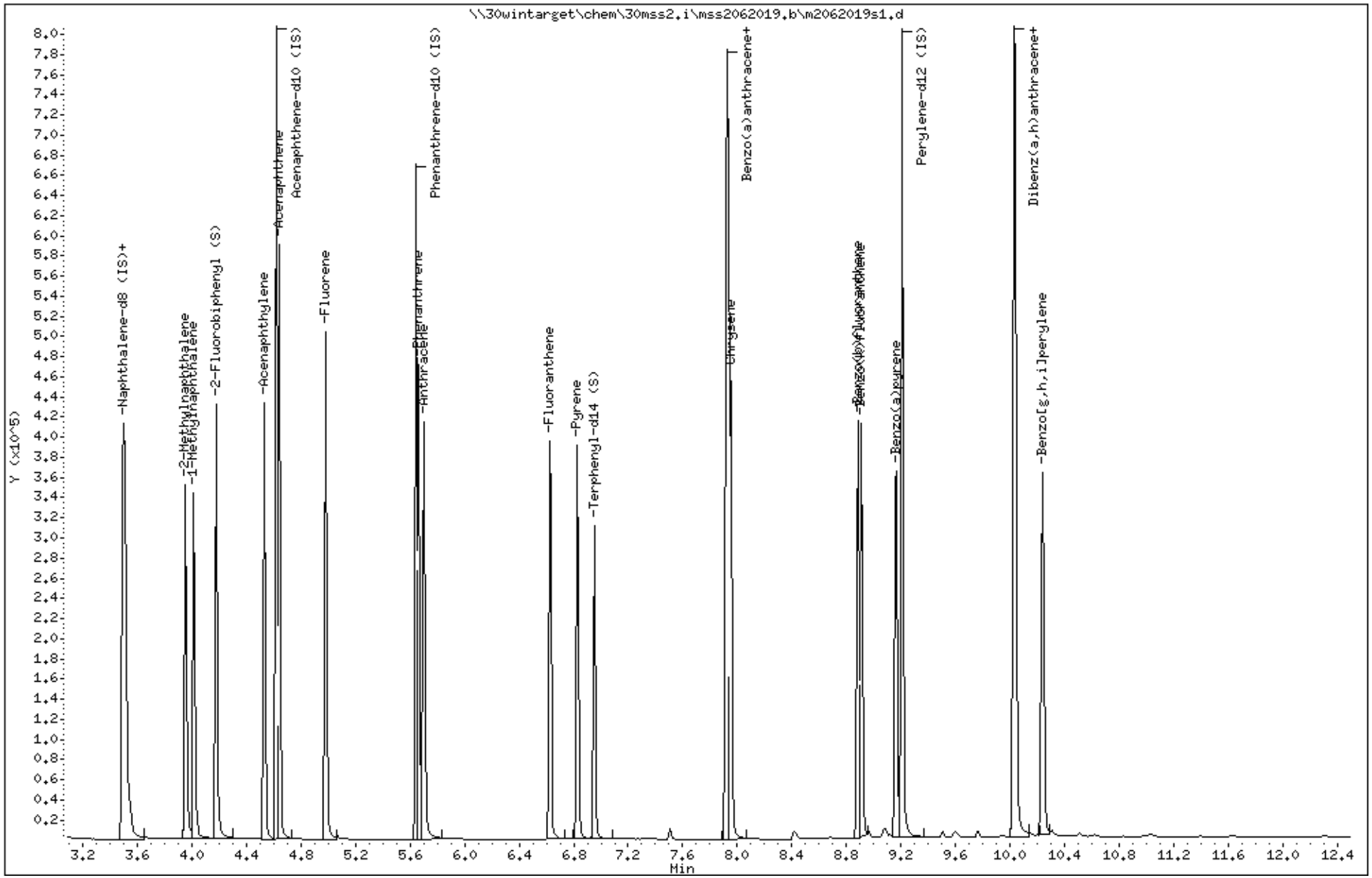
Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m2062019s1.d
Date : 20-JUN-2019 10:19
Client ID: CCV
Sample Info: CCV, 89121:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m2062019s1.d
Injection Date: 20-JUN-2019 10:19
Instrument: 30mss2.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

Date : 17-JUN-2019 12:09

Client ID: TUNE

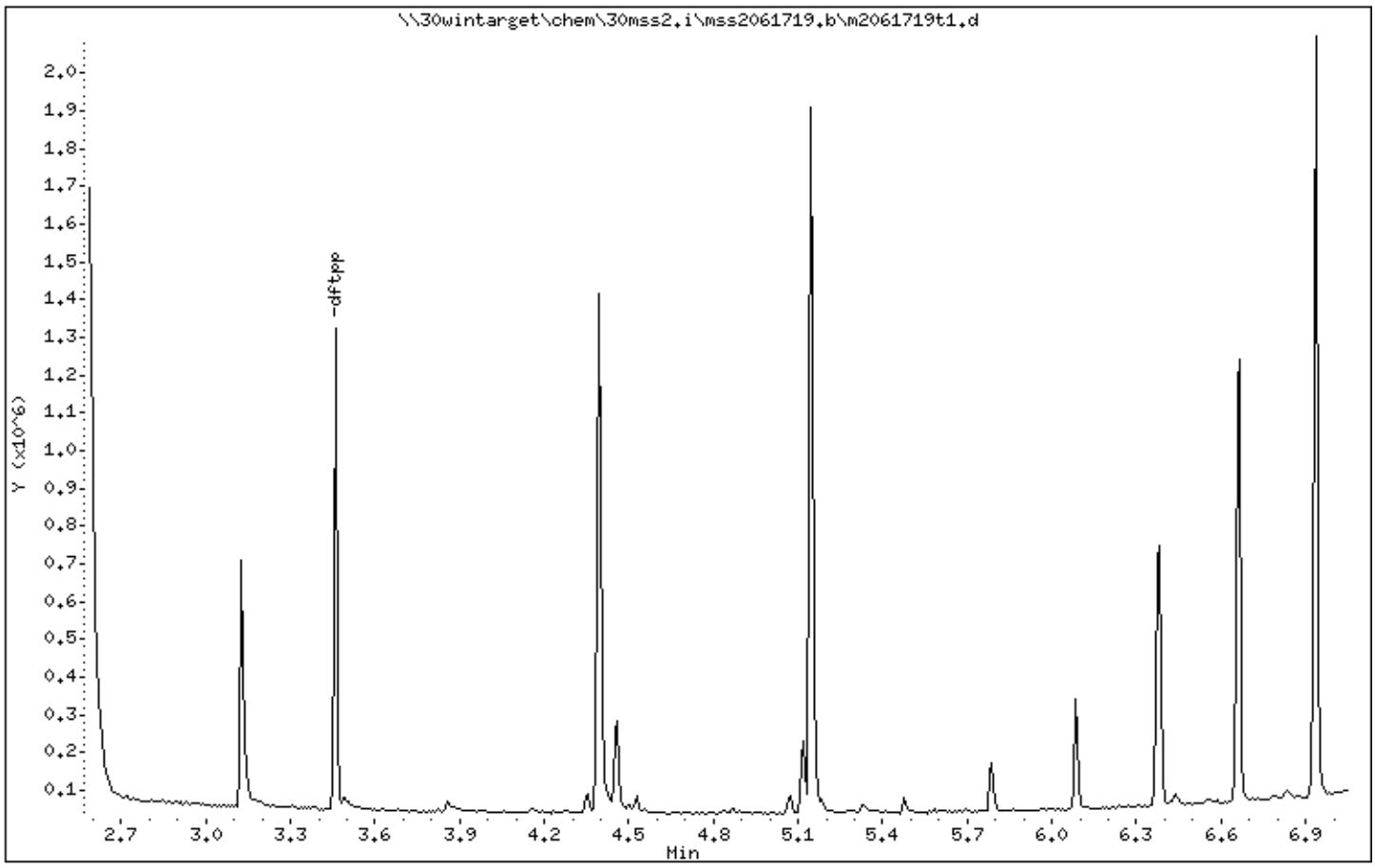
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

Date : 17-JUN-2019 12:09

Client ID: TUNE

Instrument: 30mss2.i

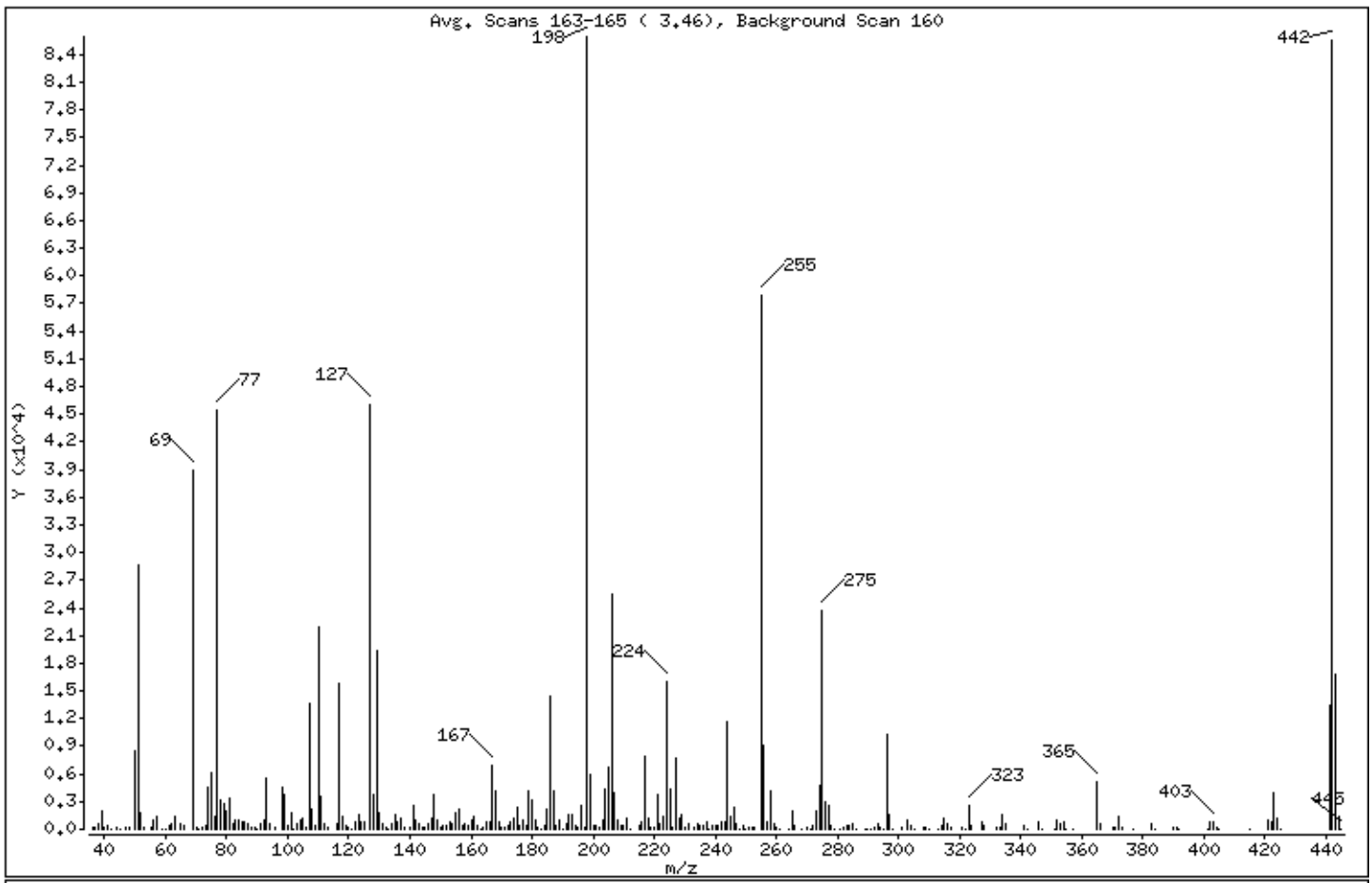
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.25
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.35
70	Less than 2.00% of mass 69	0.12 (0.26)
127	10.00 - 80.00% of mass 198	53.52
197	Less than 2.00% of mass 198	0.14
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	27.69
365	Greater than 1.00% of mass 198	5.98
441	Present, but less than mass 443	15.64
442	50.00 - 110.00% of mass 198	99.44
443	15.00 - 24.00% of mass 442	19.65 (19.76)

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	272	123.00	1571	200.00	435	284.00	327
37.00	177	124.00	869	201.00	322	285.00	534
38.00	499	125.00	765	202.00	229	286.00	54
39.00	1992	127.00	45992	203.00	916	289.00	61
40.00	134	128.00	3781	204.00	4348	290.00	84
41.00	380	129.00	19288	205.00	6622	291.00	51
42.00	95	130.00	1707	206.00	25496	292.00	120
44.00	130	131.00	687	207.00	3886	293.00	564
45.00	61	132.00	152	208.00	919	294.00	158
47.00	110	133.00	27	209.00	389	295.00	58
48.00	209	134.00	565	210.00	489	296.00	10288
50.00	8576	135.00	1606	211.00	1177	297.00	1624
51.00	28576	136.00	851	212.00	94	298.00	61
52.00	1724	137.00	1110	215.00	341	301.00	127
53.00	99	138.00	221	216.00	764	303.00	1001
55.00	267	140.00	288	217.00	7820	304.00	347
56.00	954	141.00	2624	218.00	1157	305.00	55
57.00	1315	142.00	898	219.00	130	308.00	123
59.00	76	143.00	641	220.00	161	309.00	107
60.00	64	144.00	293	221.00	3714	310.00	56
61.00	433	145.00	186	222.00	595	313.00	70
62.00	664	146.00	678	223.00	1442	314.00	482
63.00	1416	147.00	1092	224.00	16023	315.00	1221
65.00	614	148.00	3745	225.00	4257	316.00	593
66.00	367	149.00	990	226.00	203	317.00	100
69.00	38968	150.00	192	227.00	7730	321.00	267
70.00	102	151.00	481	228.00	1150	322.00	58
71.00	67	152.00	307	229.00	1508	323.00	2509
72.00	119	153.00	818	230.00	278	324.00	420
73.00	347	154.00	657	231.00	563	327.00	699
74.00	4470	155.00	1768	233.00	150	328.00	314
75.00	6128	156.00	2185	234.00	562	332.00	188
76.00	1298	157.00	432	235.00	477	333.00	245
77.00	45384	158.00	605	236.00	346	334.00	1634
78.00	3098	159.00	448	237.00	762	335.00	533

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	2773	160.00	939	238.00	58	341.00	405
80.00	1918	161.00	1367	239.00	337	342.00	58
81.00	3280	162.00	320	240.00	338	346.00	774
82.00	622	163.00	71	241.00	334	347.00	88
83.00	1026	164.00	185	242.00	855	351.00	55
84.00	899	165.00	711	243.00	718	352.00	969
85.00	772	166.00	882	244.00	11678	353.00	595
86.00	754	167.00	6895	245.00	1419	354.00	730
87.00	532	168.00	4055	246.00	2405	355.00	35
88.00	145	169.00	738	247.00	650	357.00	57
89.00	270	170.00	267	248.00	56	365.00	5136
90.00	63	171.00	237	249.00	467	366.00	662
91.00	604	172.00	394	250.00	74	370.00	162
92.00	988	173.00	758	251.00	149	371.00	233
93.00	5561	174.00	1174	252.00	159	372.00	1448
94.00	502	175.00	2400	253.00	176	373.00	287
96.00	199	176.00	302	255.00	57936	377.00	76
98.00	4630	177.00	992	256.00	8997	383.00	501
99.00	3729	178.00	365	257.00	854	384.00	67
100.00	344	179.00	4089	258.00	4209	390.00	118
101.00	1857	180.00	3083	259.00	682	391.00	165
102.00	92	181.00	956	260.00	237	392.00	94
103.00	537	182.00	294	261.00	78	401.00	51
104.00	1040	183.00	88	264.00	88	402.00	766
105.00	1201	184.00	393	265.00	1996	403.00	775
106.00	174	185.00	2213	266.00	471	404.00	258
107.00	13681	186.00	14339	268.00	70	405.00	50
108.00	2081	187.00	4209	270.00	114	415.00	52
109.00	385	188.00	429	271.00	73	421.00	932
110.00	22000	189.00	1082	272.00	310	422.00	696
111.00	3615	190.00	58	273.00	1920	423.00	3936
112.00	503	191.00	642	274.00	4756	424.00	1144
113.00	101	192.00	1664	275.00	23792	425.00	82
116.00	517	193.00	1669	276.00	2870	441.00	13441
117.00	15850	194.00	469	277.00	2663	442.00	85456

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1303	195.00	159	278.00	441	443.00	16888
119.00	360	196.00	2596	279.00	63	444.00	1438
120.00	209	197.00	118	281.00	95	445.00	64
121.00	48	198.00	85936	282.00	114		
122.00	863	199.00	6011	283.00	343		

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m2062019t1.d

Date : 20-JUN-2019 10:06

Client ID: TUNE

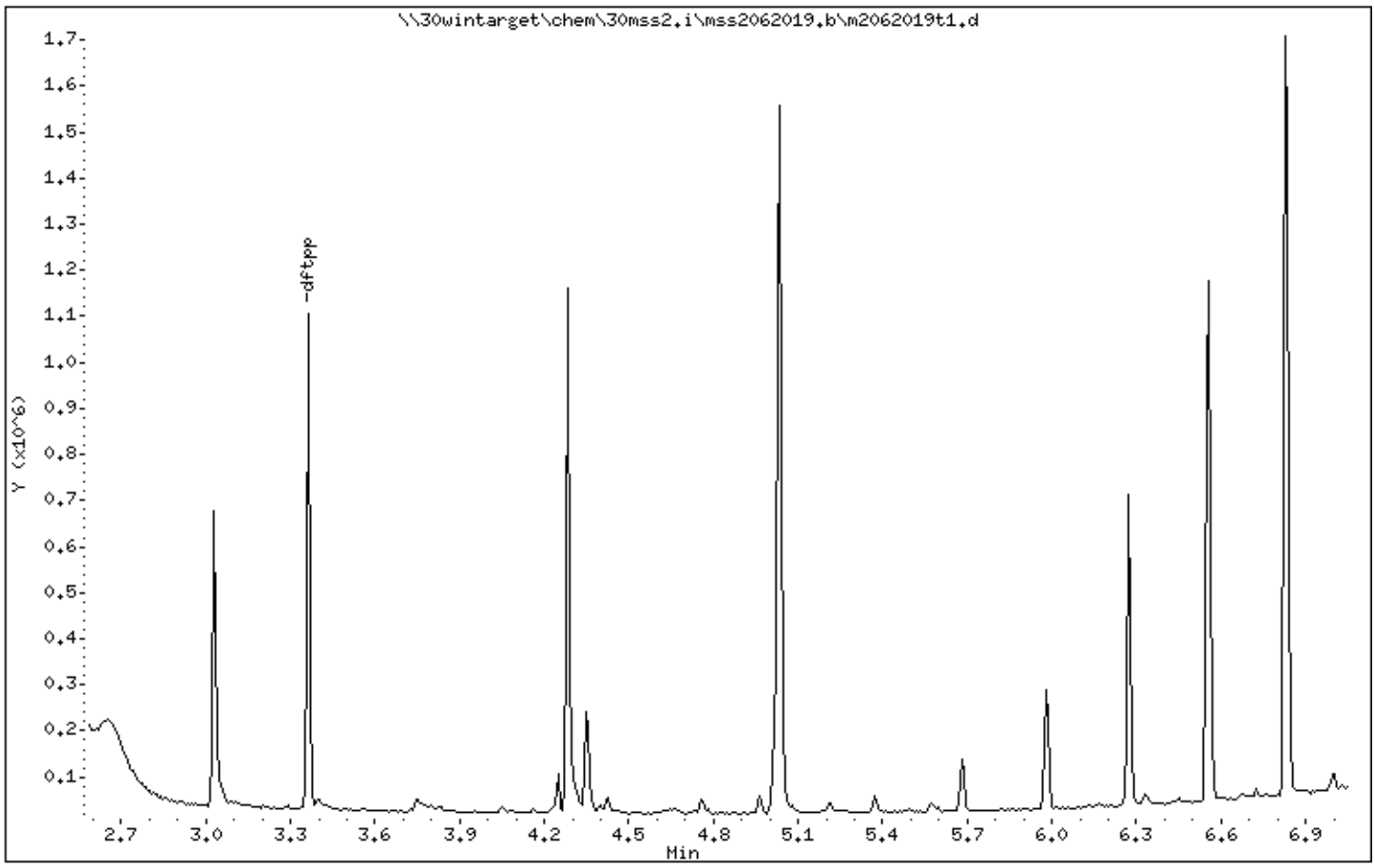
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m2062019t1.d

Date : 20-JUN-2019 10:06

Client ID: TUNE

Instrument: 30mss2.i

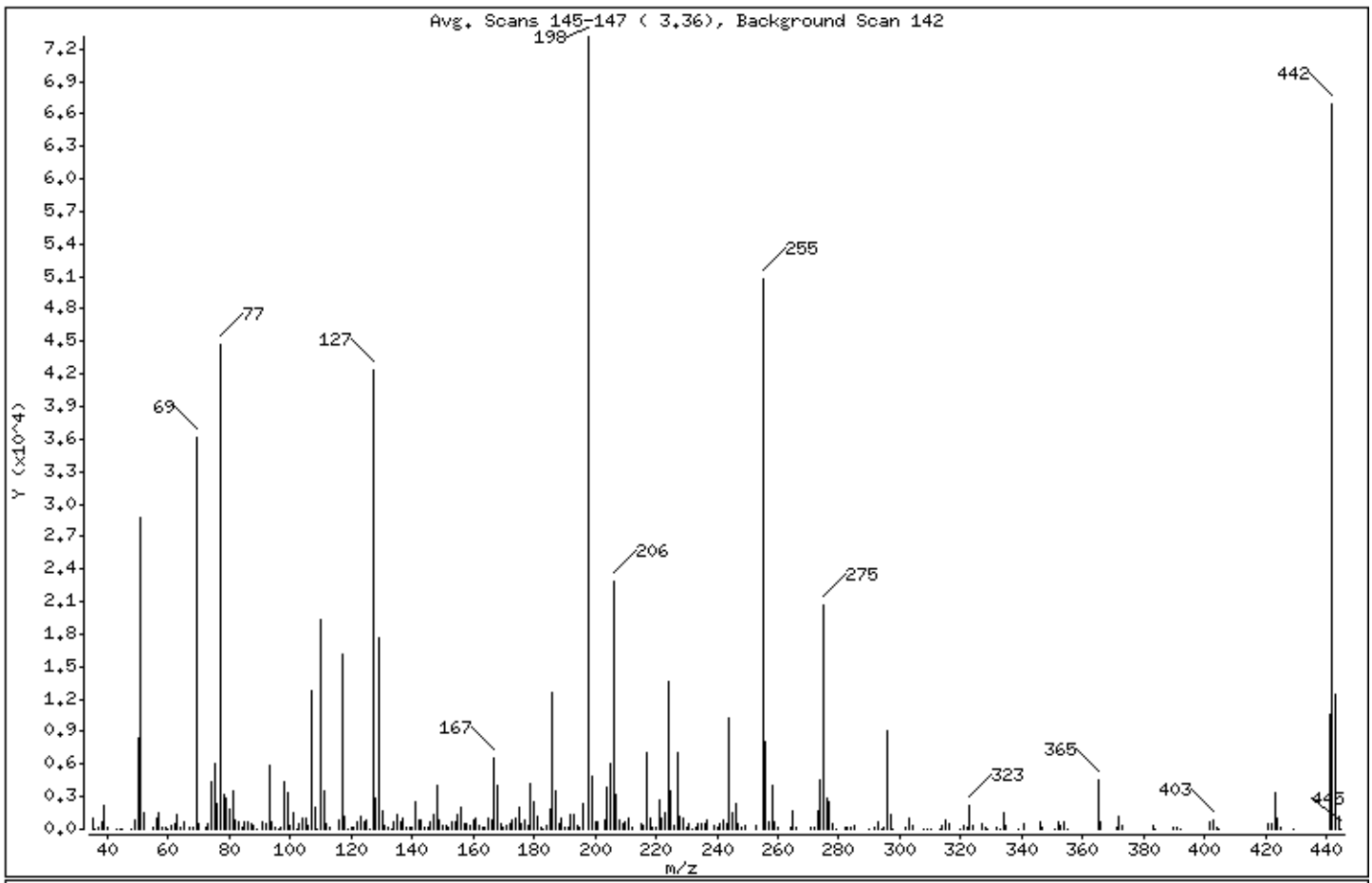
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	39.30
68	Less than 2.00% of mass 69	0.33 (0.67)
69	Mass 69 relative abundance	49.35
70	Less than 2.00% of mass 69	0.58 (1.17)
127	10.00 - 80.00% of mass 198	57.93
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 60.00% of mass 198	28.24
365	Greater than 1.00% of mass 198	6.26
441	Present, but less than mass 443	14.47
442	50.00 - 110.00% of mass 198	91.43
443	15.00 - 24.00% of mass 442	17.05 (18.64)

Date : 20-JUN-2019 10:06

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2062019t1.d
Spectrum: Avg. Scans 145-147 (3.36), Background Scan 142
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	981	118.00	1177	190.00	249	278.00	574
36.00	24	119.00	34	191.00	251	279.00	71
37.00	188	120.00	185	192.00	1403	282.00	100
38.00	618	121.00	148	193.00	1385	283.00	183
39.00	2142	122.00	740	194.00	362	284.00	196
40.00	115	123.00	1228	195.00	188	285.00	290
43.00	28	124.00	629	196.00	2299	290.00	81
44.00	84	125.00	913	198.00	73120	292.00	124
45.00	82	126.00	65	199.00	4838	293.00	589
48.00	64	127.00	42360	200.00	621	294.00	65
49.00	760	128.00	2875	201.00	719	295.00	182
50.00	8352	129.00	17584	203.00	854	296.00	9004
51.00	28736	130.00	1652	204.00	3896	297.00	1399
52.00	1524	131.00	400	205.00	5972	298.00	59
55.00	179	132.00	139	206.00	22912	302.00	115
56.00	1003	133.00	34	207.00	3157	303.00	987
57.00	1583	134.00	679	208.00	858	304.00	284
58.00	251	135.00	1340	209.00	515	308.00	82
59.00	158	136.00	620	210.00	590	309.00	56
60.00	52	137.00	1020	211.00	1049	310.00	57
61.00	381	138.00	108	212.00	160	313.00	82
62.00	488	139.00	105	215.00	449	314.00	404
63.00	1422	140.00	240	216.00	412	315.00	868
64.00	155	141.00	2497	217.00	7127	316.00	519
65.00	648	142.00	855	218.00	996	320.00	55
67.00	110	143.00	824	219.00	151	321.00	291
68.00	242	144.00	102	220.00	215	322.00	136
69.00	36088	145.00	194	221.00	2756	323.00	2190
70.00	421	146.00	621	222.00	1021	324.00	323
72.00	148	147.00	1404	223.00	1490	327.00	581
73.00	541	148.00	4093	224.00	13685	328.00	214
74.00	4399	149.00	874	225.00	3592	329.00	55
75.00	6035	150.00	284	226.00	308	332.00	182
76.00	2393	151.00	320	227.00	7111	333.00	72
77.00	44712	152.00	165	228.00	1133	334.00	1547

Date : 20-JUN-2019 10:06

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2062019t1.d
Spectrum: Avg. Scans 145-147 (3.36), Background Scan 142
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	3275	153.00	607	229.00	1088	335.00	384
79.00	2842	154.00	606	230.00	156	339.00	66
80.00	1900	155.00	1426	231.00	462	341.00	471
81.00	3556	156.00	1973	232.00	72	346.00	690
82.00	860	157.00	515	233.00	146	347.00	155
83.00	634	158.00	538	234.00	513	351.00	66
84.00	88	159.00	335	235.00	505	352.00	750
85.00	637	160.00	841	236.00	518	353.00	374
86.00	727	161.00	1069	237.00	868	354.00	687
87.00	476	162.00	410	239.00	289	355.00	63
88.00	400	163.00	250	240.00	127	365.00	4575
89.00	62	164.00	120	241.00	443	366.00	730
91.00	671	165.00	1016	242.00	883	371.00	176
92.00	507	166.00	860	243.00	500	372.00	1228
93.00	5821	167.00	6506	244.00	10179	373.00	350
94.00	629	168.00	4088	245.00	1445	383.00	319
95.00	136	169.00	552	246.00	2360	384.00	55
96.00	18	170.00	180	247.00	584	390.00	134
97.00	210	171.00	263	248.00	120	391.00	109
98.00	4447	172.00	545	249.00	404	392.00	72
99.00	3420	173.00	782	253.00	342	402.00	686
100.00	308	174.00	1008	255.00	50720	403.00	822
101.00	1530	175.00	2028	256.00	8095	404.00	190
102.00	77	176.00	517	257.00	743	405.00	53
103.00	558	177.00	911	258.00	3961	421.00	528
104.00	959	178.00	417	259.00	728	422.00	531
105.00	999	179.00	4163	260.00	158	423.00	3376
106.00	257	180.00	2586	264.00	98	424.00	950
107.00	12830	181.00	1205	265.00	1744	425.00	229
108.00	1942	182.00	218	266.00	128	429.00	60
109.00	80	183.00	58	271.00	148	441.00	10582
110.00	19328	184.00	281	272.00	178	442.00	66856
111.00	3570	185.00	1858	273.00	1648	443.00	12464
112.00	492	186.00	12679	274.00	4585	444.00	1102
113.00	240	187.00	3550	275.00	20648	445.00	56

Date : 20-JUN-2019 10:06

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2062019t1.d
Spectrum: Avg. Scans 145-147 (3.36), Background Scan 142
Location of Maximum: 198.00
Number of points: 286

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	784	188.00	455	276.00	2814		
117.00	16127	189.00	955	277.00	2492		

SAMPLE NO.

BLANK

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 1692792
Date Analyzed: 06/20/2019 11:15
Lab File ID: MSS2062019.B\M206201903.D
Initial wt/vol: 15.04 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	ND	U
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	ND	U
129-00-0	Pyrene	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201903.d
Lab Smp Id: 1692792 Client Smp ID: MB
Inj Date : 20-JUN-2019 11:15
Operator : AJC Inst ID: 30mss2.i
Smp Info : 1692792,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.498	3.498	(1.000)	564282	4.00000		
	8 Naphthalene	128	3.509	3.510	(1.003)	389	0.00306	0.203(Q)	
	9 2-Methylnaphthalene	142	3.949	3.949	(1.129)	351	0.00415	0.276	
	10 1-Methylnaphthalene	142	4.012	4.012	(1.147)	304	0.00335	0.223(Q)	
$	6 2-Fluorobiphenyl (S)	172	4.178	4.178	(0.904)	358573	3.40399	226	
	11 Acenaphthylene	152	Compound Not Detected.						(D)
*	2 Acenaphthene-d10 (IS)	164	4.619	4.619	(1.000)	315594	4.00000		
	12 Acenaphthene	153	Compound Not Detected.						
	13 Fluorene	166	Compound Not Detected.						(D)
*	3 Phenanthrene-d10 (IS)	188	5.646	5.646	(1.000)	544055	4.00000		
	14 Phenanthrene	178	5.659	5.659	(1.002)	588	0.00448	0.298(Q)	
	15 Anthracene	178	Compound Not Detected.						(D)
	16 Fluoranthene	202	Compound Not Detected.						(D)
	17 Pyrene	202	6.828	6.828	(1.209)	495	0.00320	0.213(Q)	
$	7 Terphenyl-d14 (S)	244	6.950	6.950	(1.231)	443503	3.84021	255	
	18 Benzo(a)anthracene	228	Compound Not Detected.						(D)
*	4 Chrysene-d12 (IS)	240	7.929	7.929	(1.000)	492929	4.00000		
	19 Chrysene	228	7.952	7.952	(1.003)	341	0.00247	0.164	
	20 Benzo(b)fluoranthene	252	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
21 Benzo(k)fluoranthene	252	Compound Not Detected.						(D)
22 Benzo(a)pyrene	252	9.159	9.164	(0.995)	266	0.00213	0.141(Q)	
* 5 Perylene-d12 (IS)	264	9.208	9.209	(1.000)	503567	4.00000		
23 Dibenz(a,h)anthracene	278	10.039	10.039	(1.090)	90	7e-004	0.0442(Q)	
24 Indeno(1,2,3-cd)pyrene	276	10.034	10.034	(1.090)	250	0.00153	0.102(Q)	
25 Benzo[g,h,i]perylene	276	10.245	10.245	(1.113)	298	0.00221	0.147(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Pace Analytical Services, Inc.

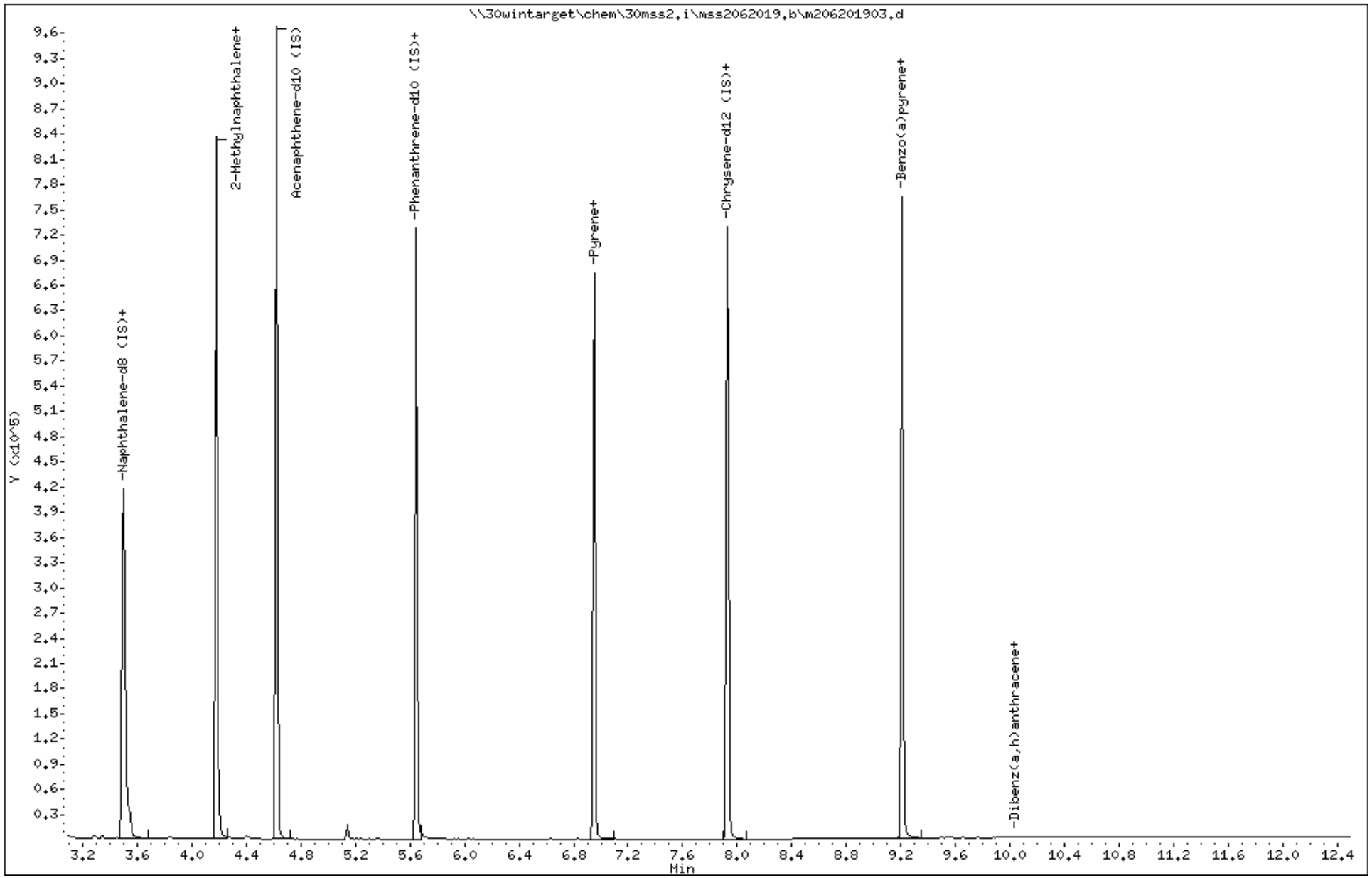
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1692792
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14727,

Client SDG: mss2062019.b
Client Smp ID: MB
Sample Point:
Date Received: 19-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00997	U
91-20-3	Naphthalene	0.203	
91-57-6	2-Methylnaphthalene	0.276	
90-12-0	1-Methylnaphthalene	0.223	
208-96-8	Acenaphthylene	0.00997	U
83-32-9	Acenaphthene	0.00997	U
86-73-7	Fluorene	0.00997	U
85-01-8	Phenanthrene	0.298	
120-12-7	Anthracene	0.00997	U
206-44-0	Fluoranthene	0.00997	U
129-00-0	Pyrene	0.213	
56-55-3	Benzo(a)anthracene	0.00997	U
218-01-9	Chrysene	0.164	
205-99-2	Benzo(b)fluoranthene	0.00997	U
207-08-9	Benzo(k)fluoranthene	0.00997	U
50-32-8	Benzo(a)pyrene	0.141	
53-70-3	Dibenz(a,h)anthracene	0.0442	
193-39-5	Indeno(1,2,3-cd)pyrene	0.102	
191-24-2	Benzo[g,h,i]perylene	0.147	
321-60-8	2-Fluorobiphenyl (S)	226	
1718-51-0	Terphenyl-d14 (S)	255	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201903.d
Date : 20-JUN-2019 11:15
Client ID: MB
Instrument: 30mss2.i
Sample Info: 1692792,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201903.d

Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

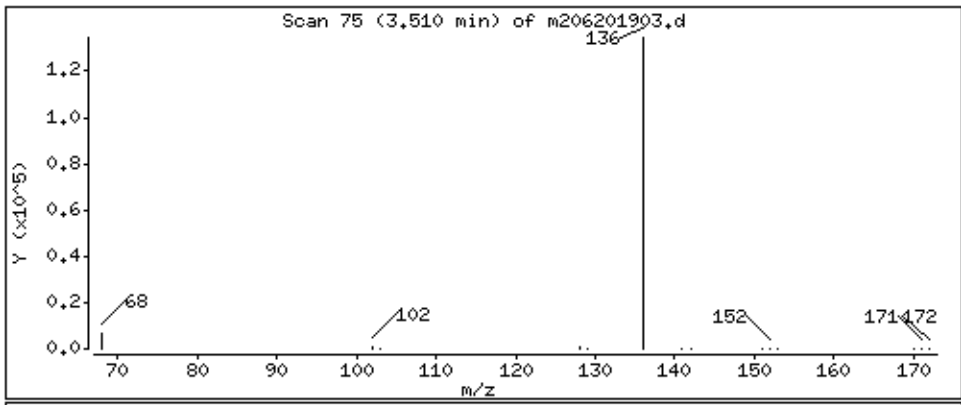
Operator: AJC

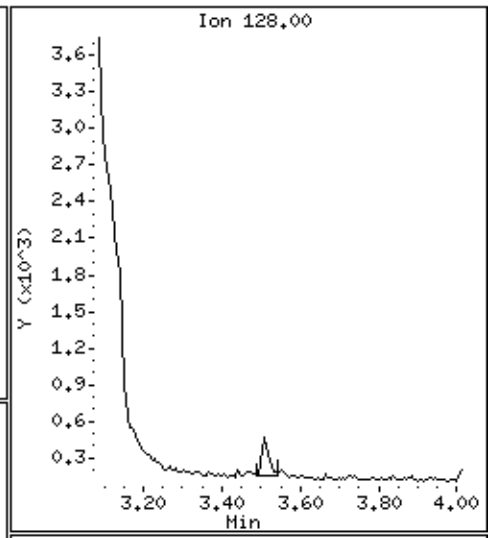
Column phase: RTX-5MS

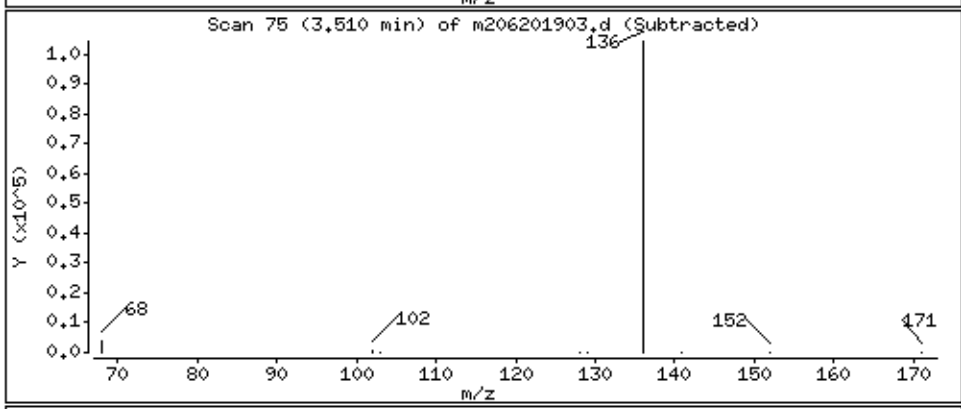
Column diameter: 0.25

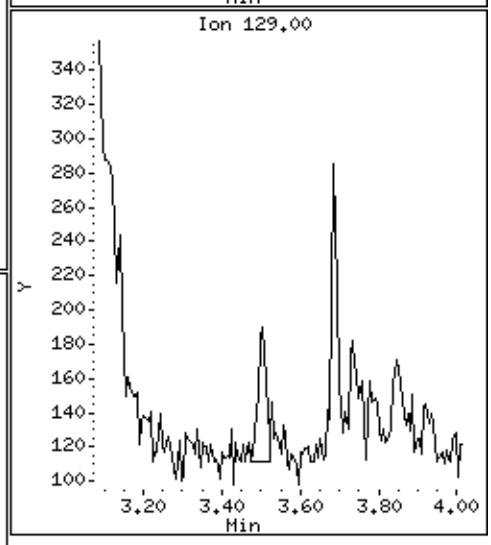
8 Naphthalene

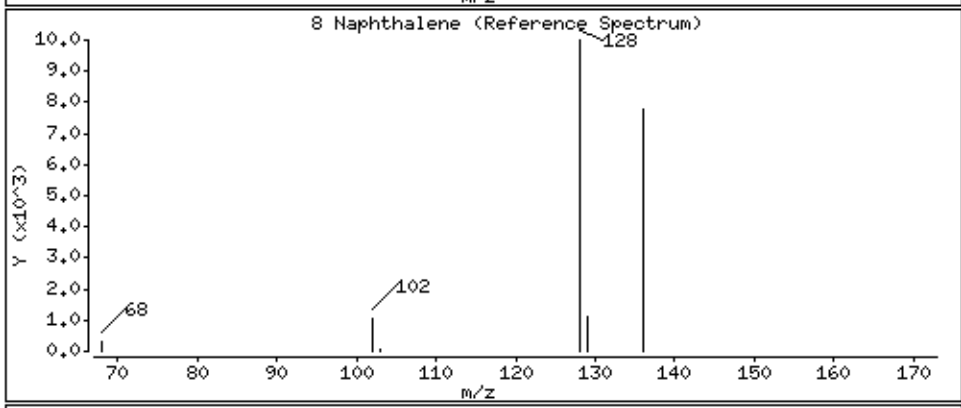
Concentration: 0.203 ug/Kg

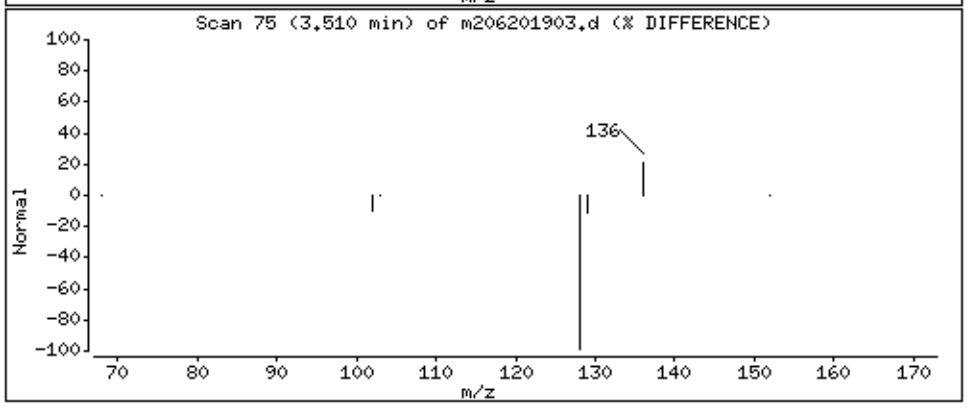












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201903.d

Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

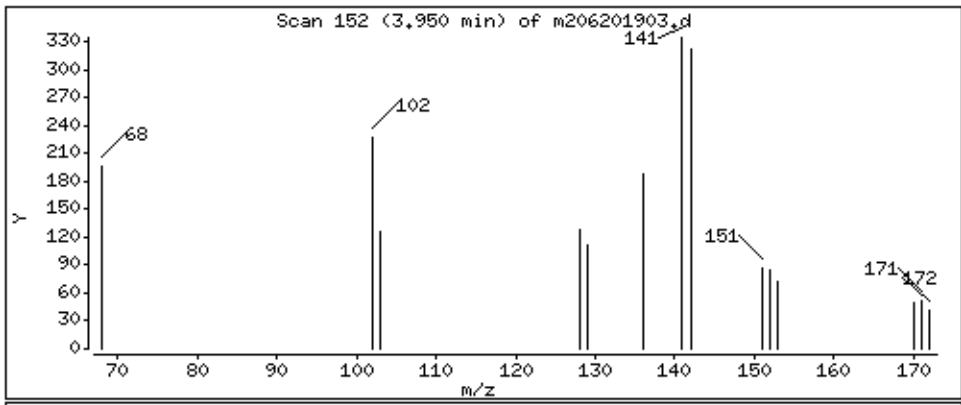
Operator: AJC

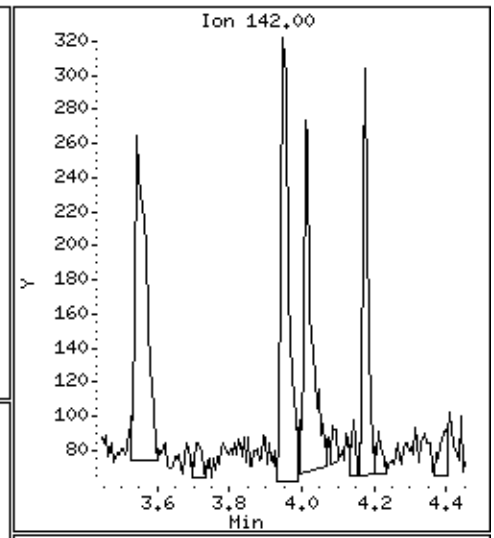
Column phase: RTX-5MS

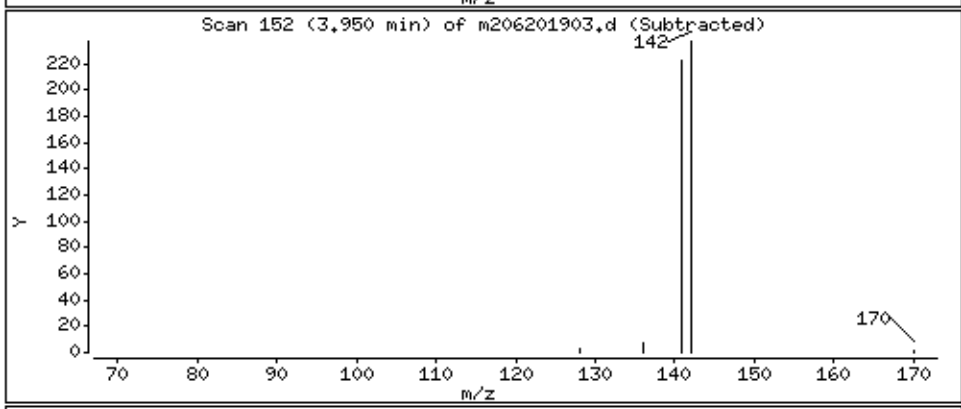
Column diameter: 0.25

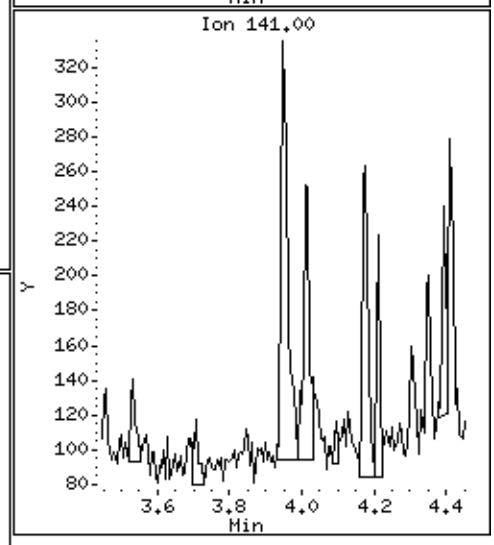
9 2-Methylnaphthalene

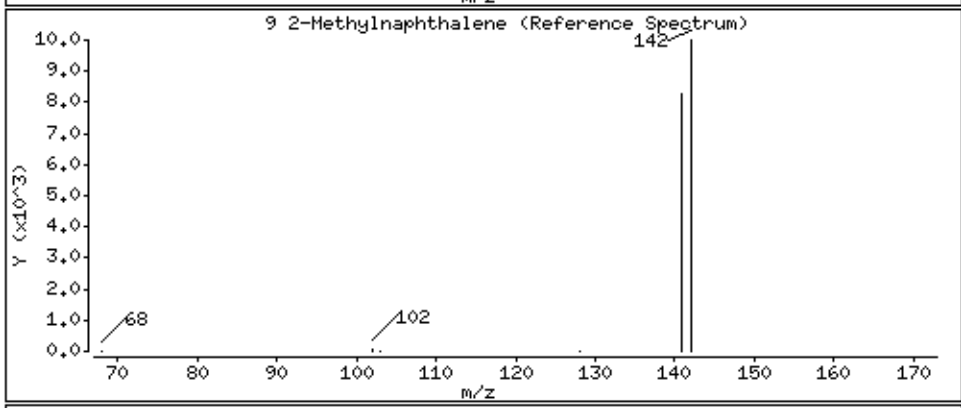
Concentration: 0.276 ug/Kg

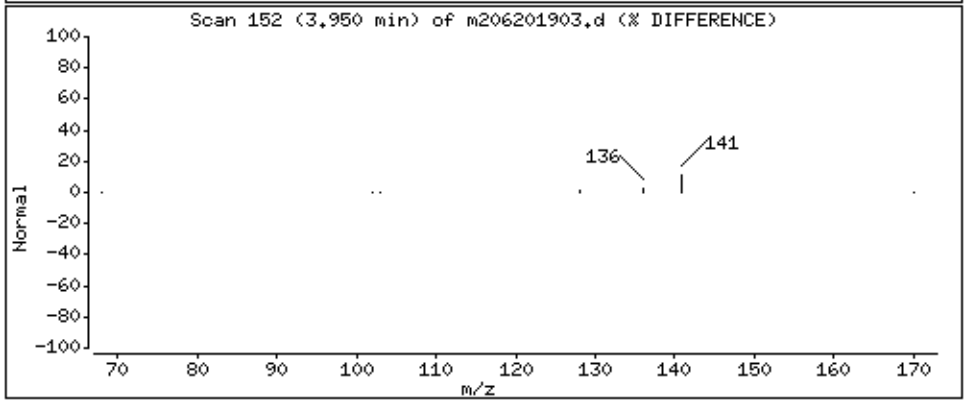












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

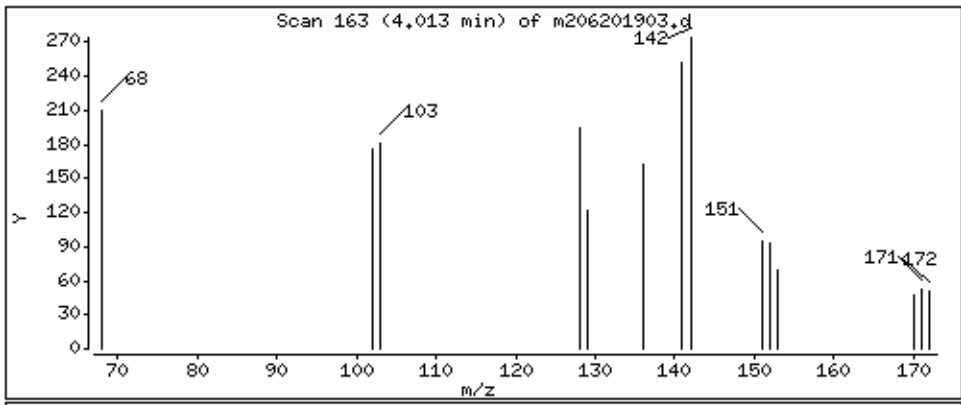
Operator: AJC

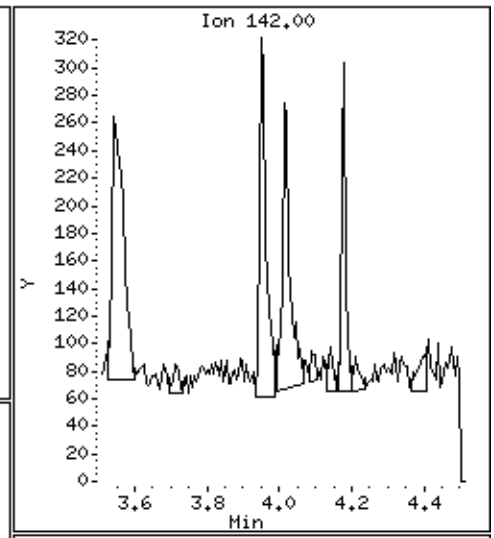
Column phase: RTX-5MS

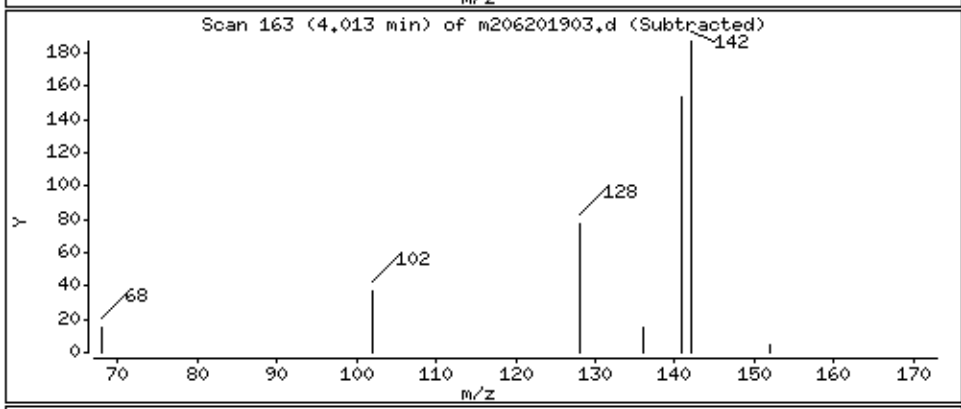
Column diameter: 0.25

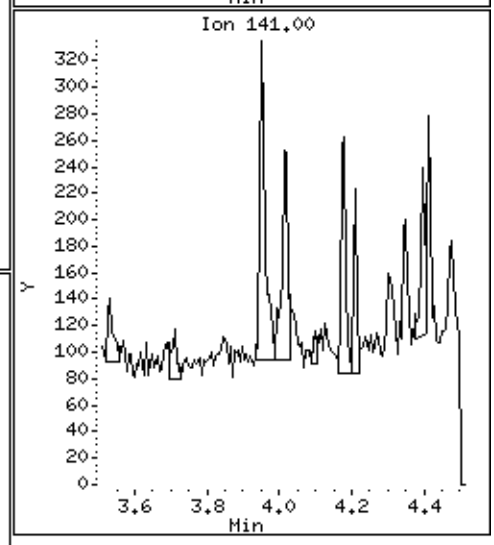
10 1-Methylnaphthalene

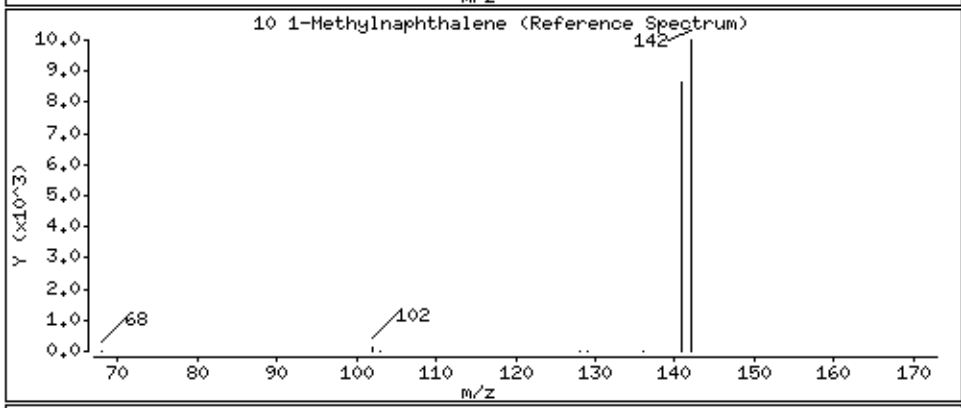
Concentration: 0.223 ug/Kg

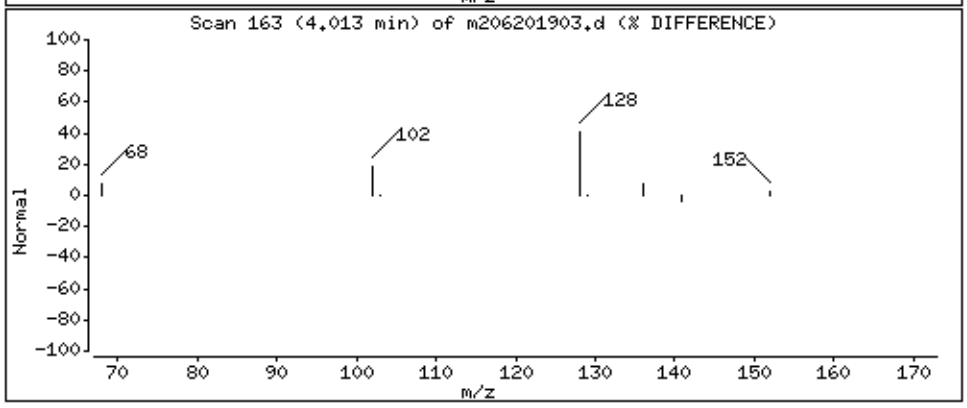












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

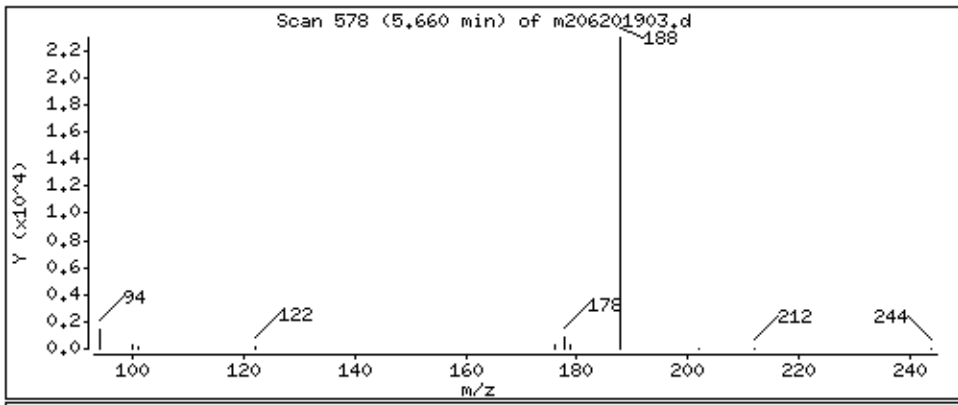
Operator: AJC

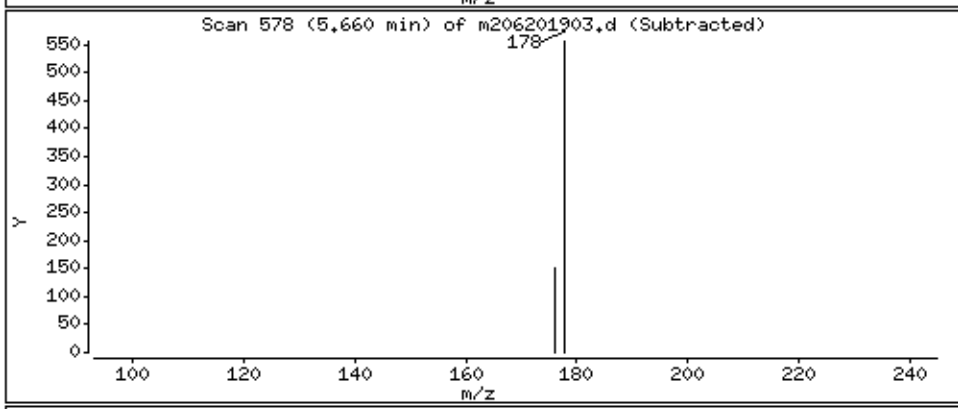
Column phase: RTX-5MS

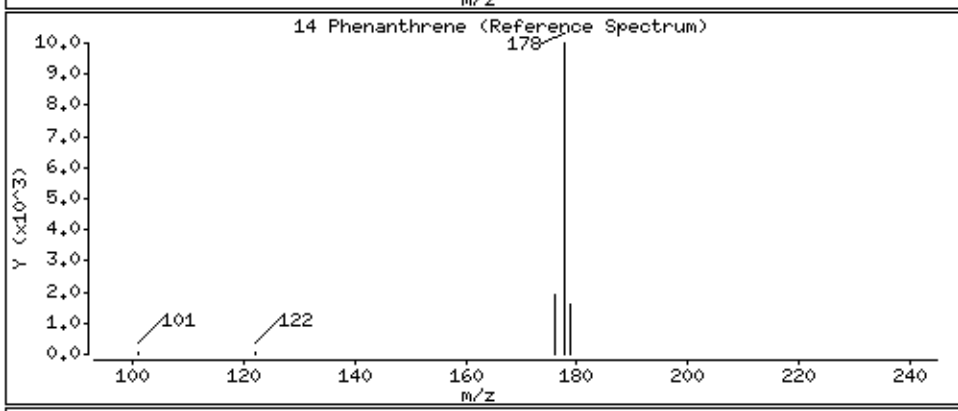
Column diameter: 0.25

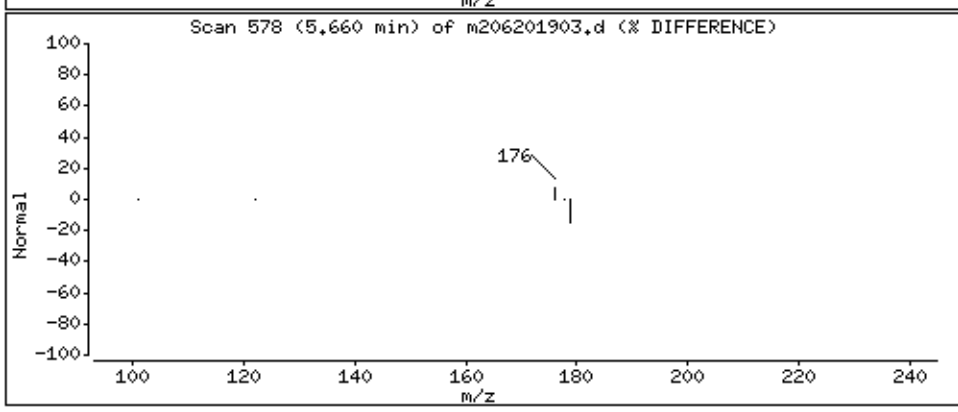
14 Phenanthrene

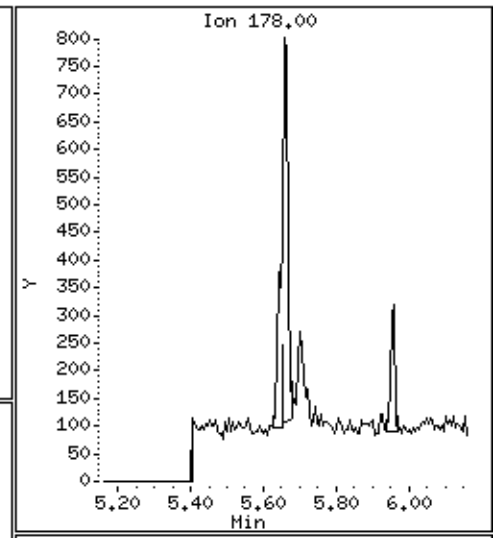
Concentration: 0.298 ug/Kg

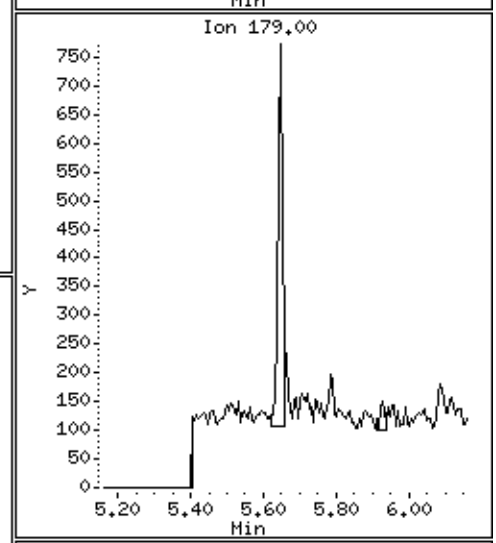


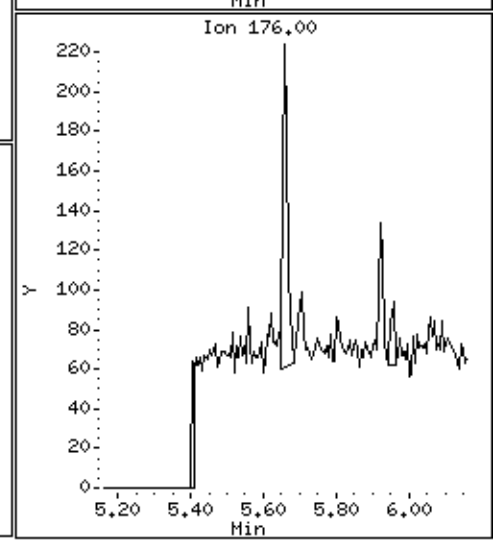












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

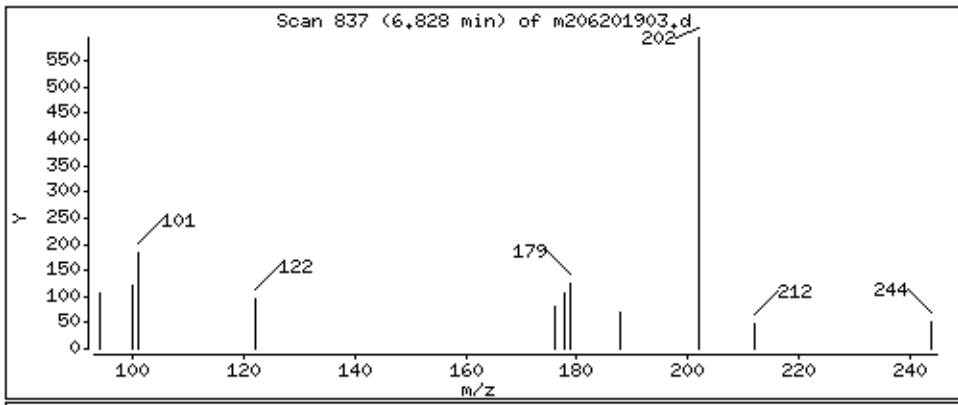
Operator: AJC

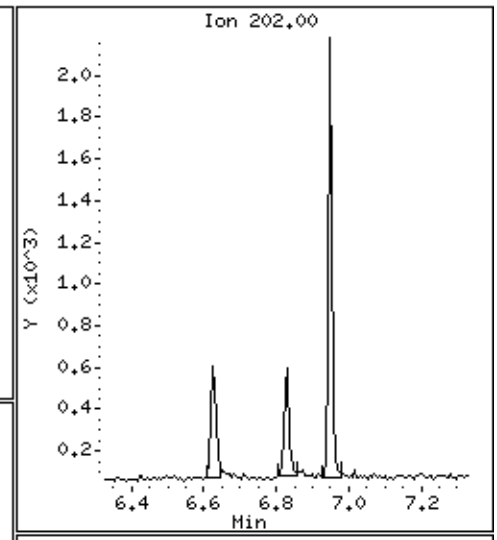
Column phase: RTX-5MS

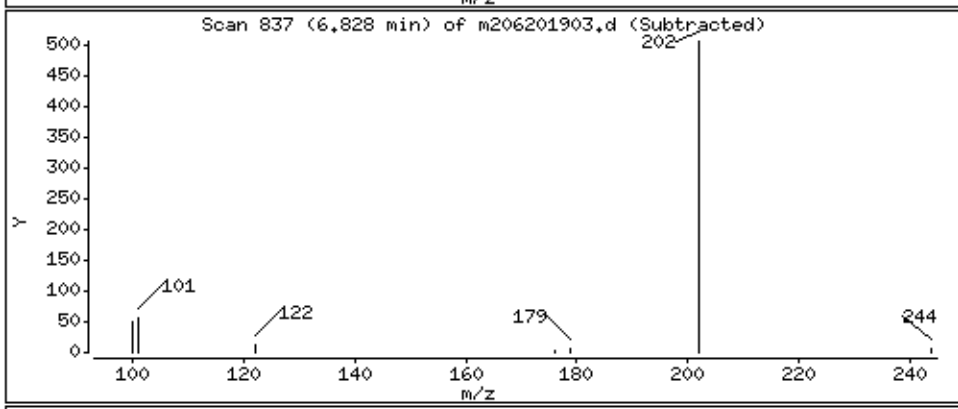
Column diameter: 0.25

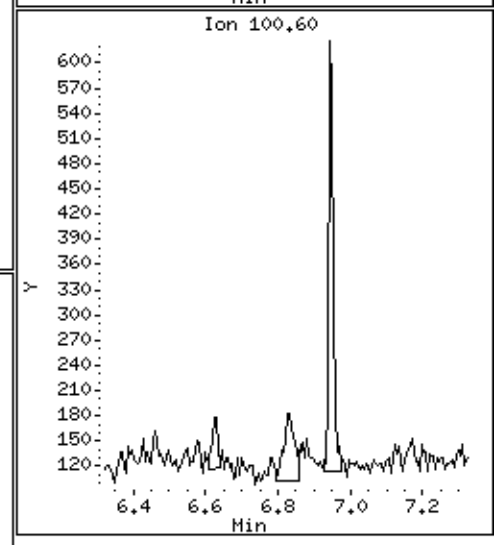
17 Pyrene

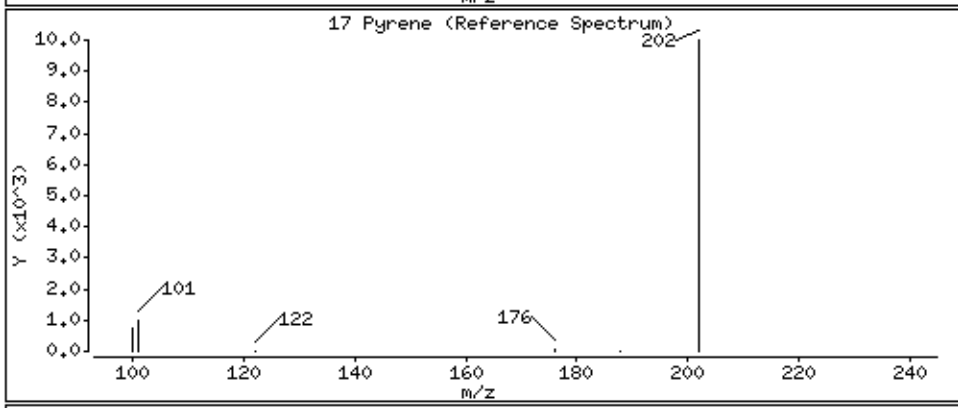
Concentration: 0.213 ug/Kg

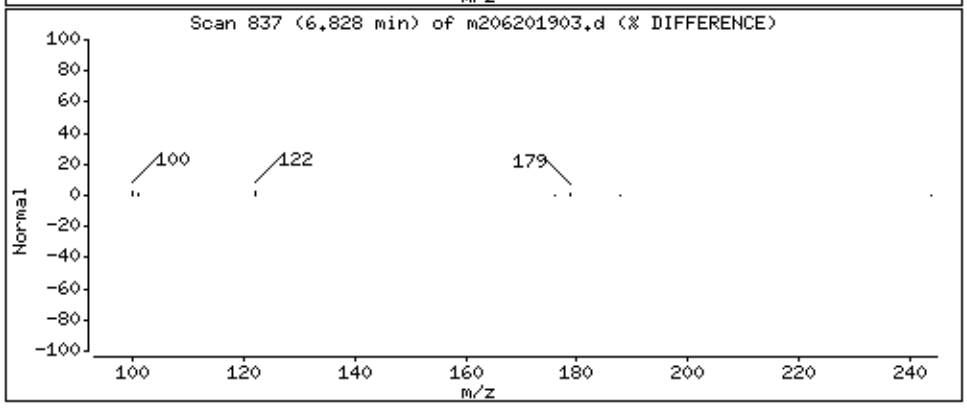












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

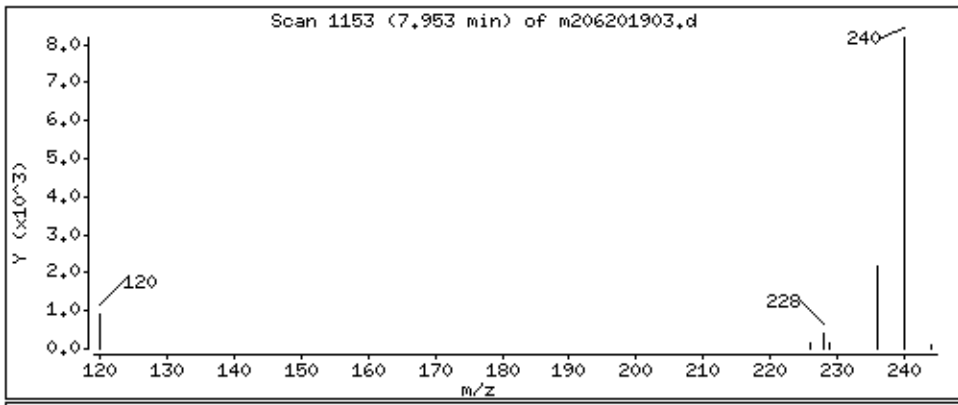
Operator: AJC

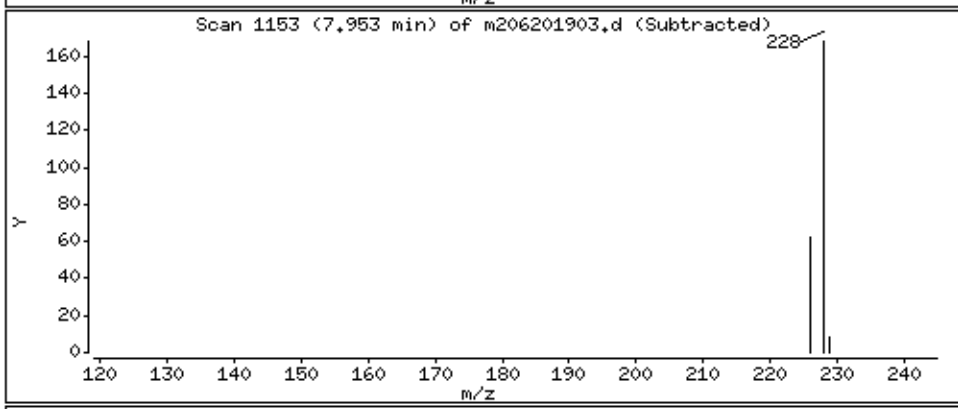
Column phase: RTX-5MS

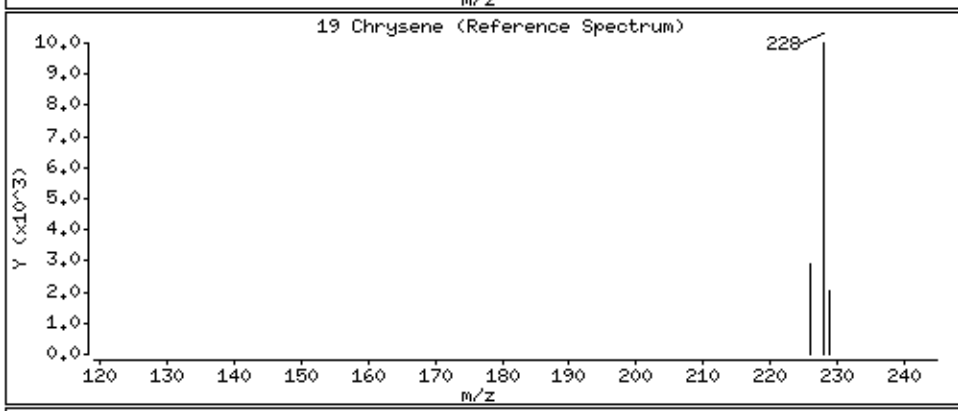
Column diameter: 0.25

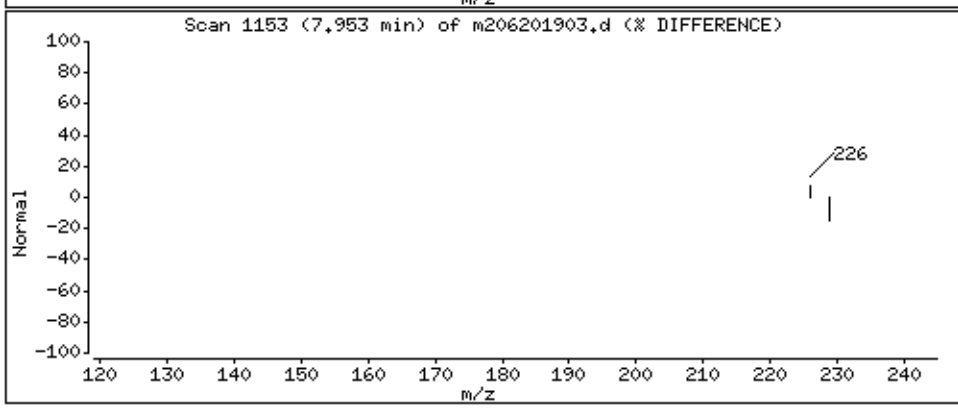
19 Chrysene

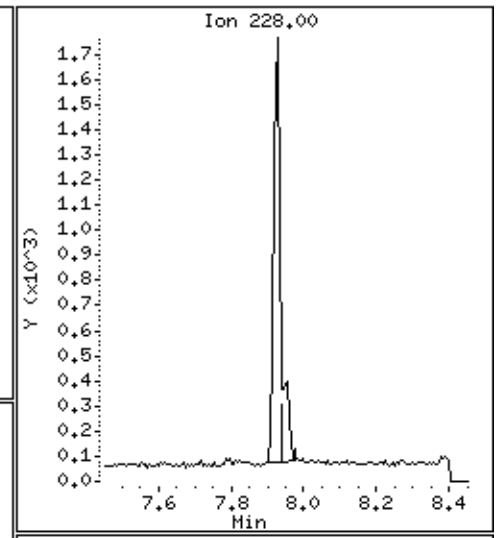
Concentration: 0.164 ug/Kg

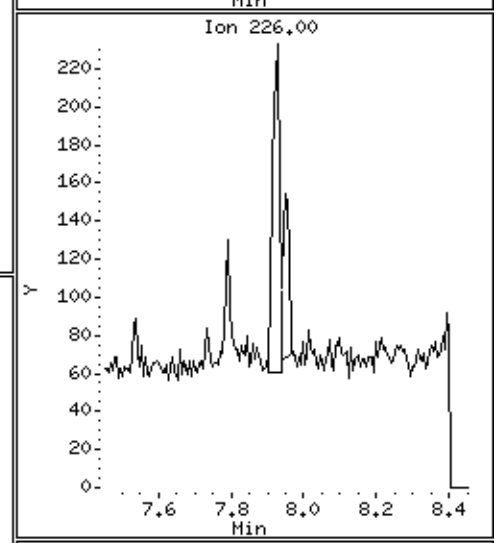


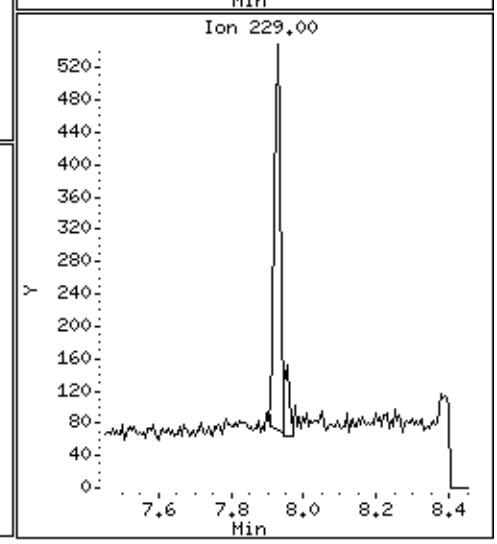












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

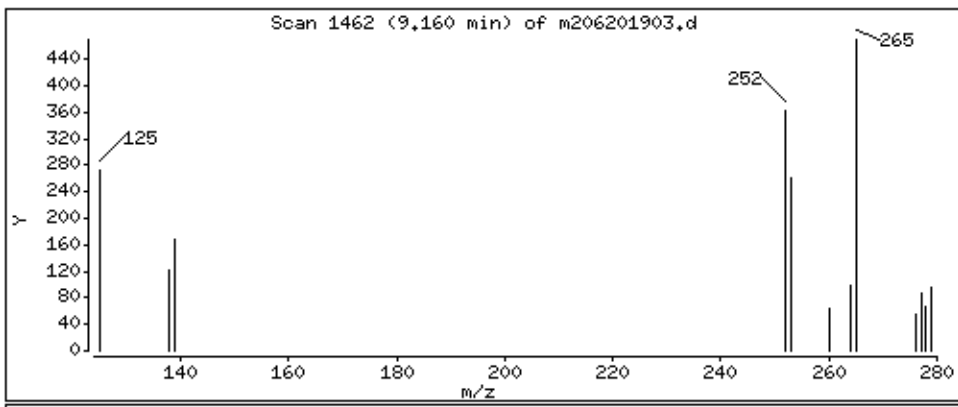
Operator: AJC

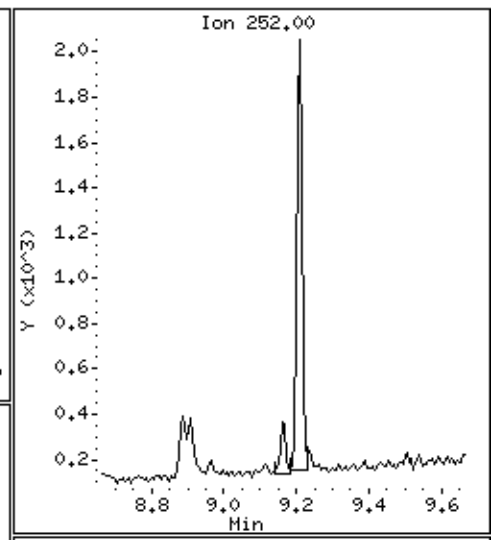
Column phase: RTX-5MS

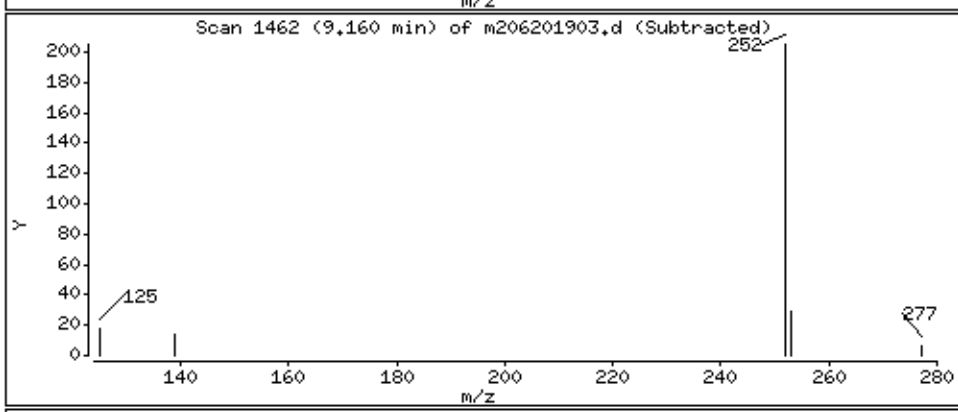
Column diameter: 0.25

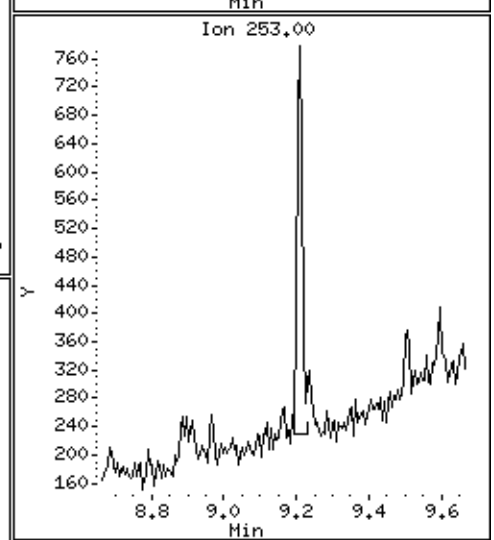
22 Benzo(a)pyrene

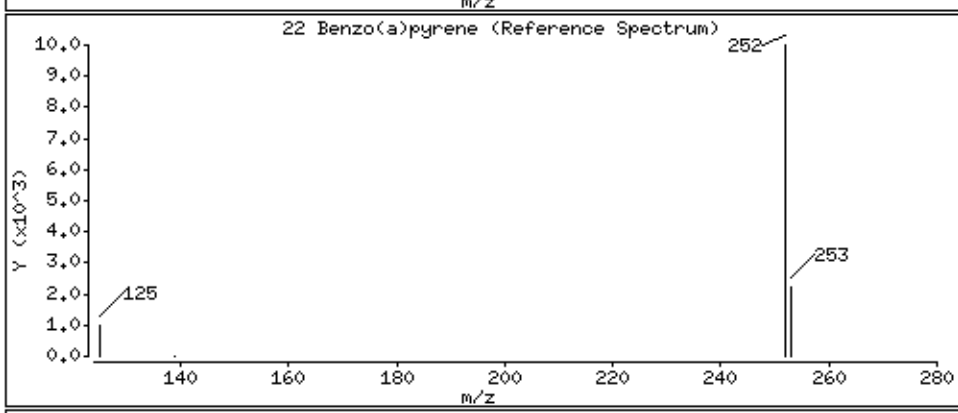
Concentration: 0.141 ug/Kg

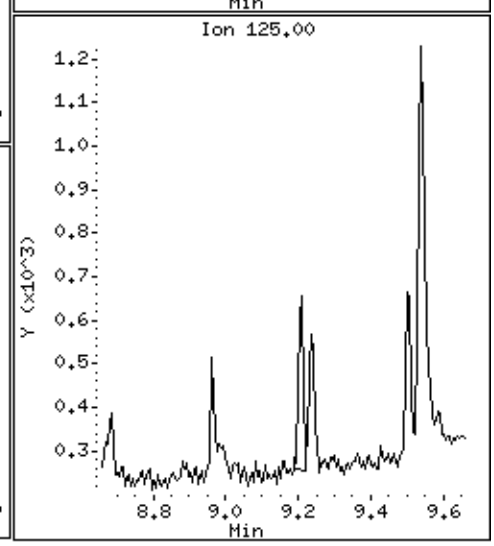


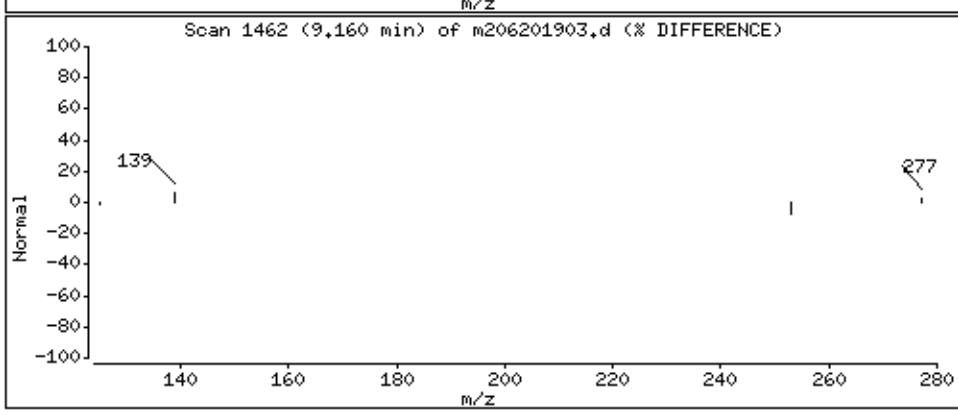












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

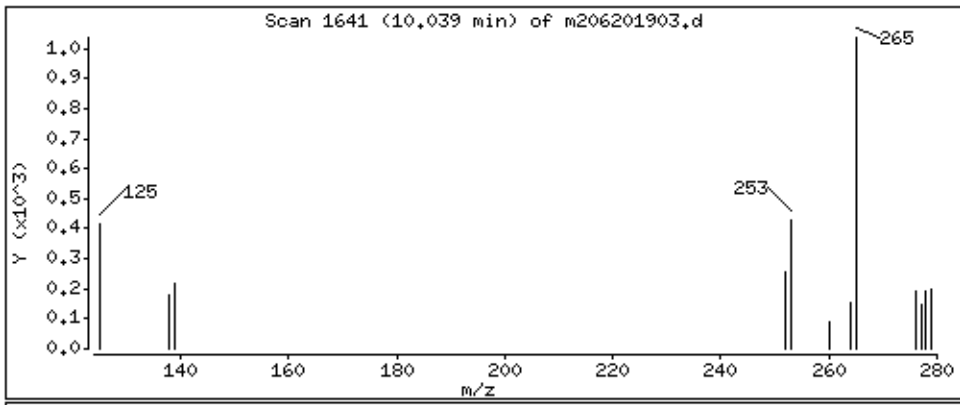
Operator: AJC

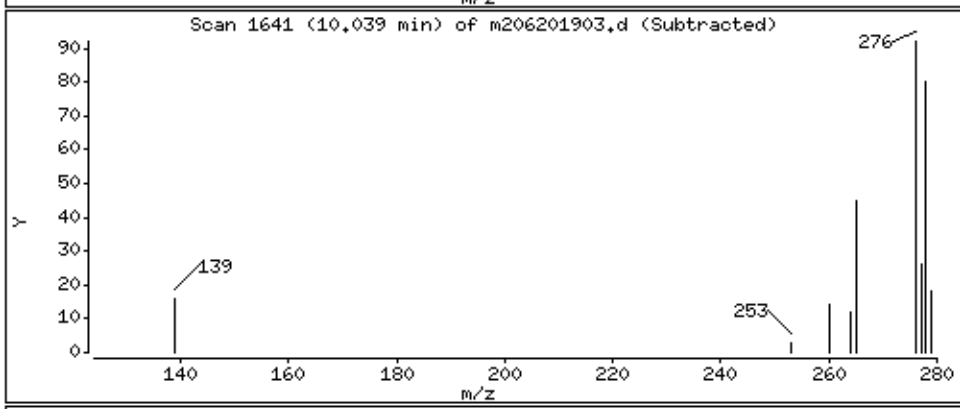
Column phase: RTX-5MS

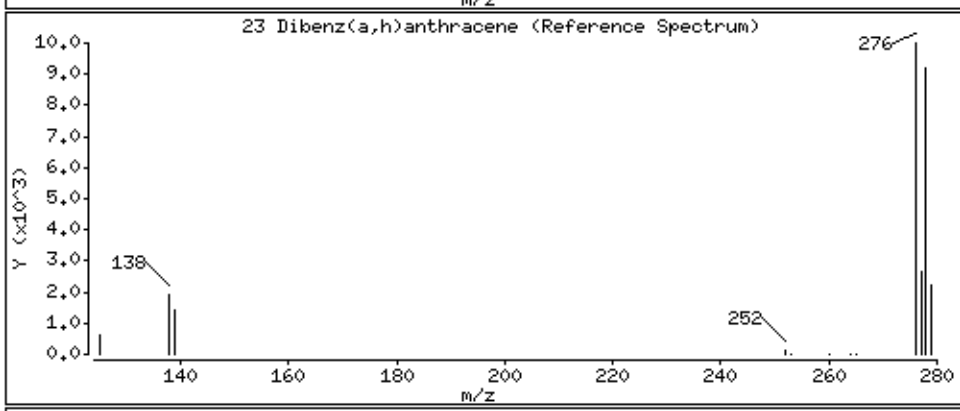
Column diameter: 0.25

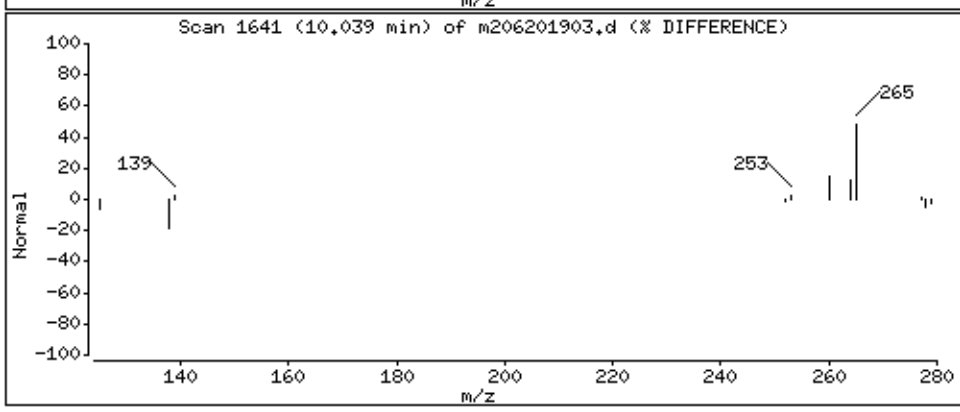
23 Dibenz(a,h)anthracene

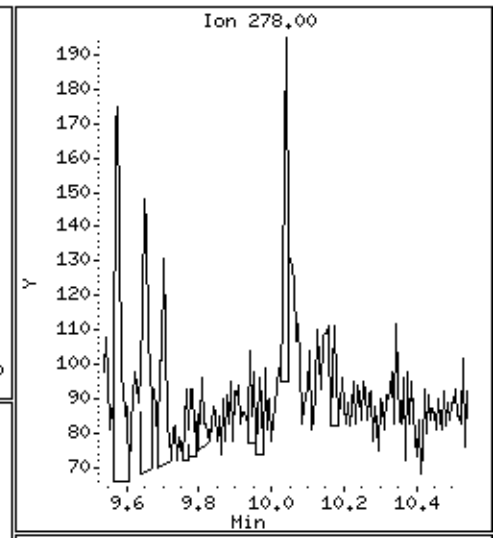
Concentration: 0.0442 ug/Kg

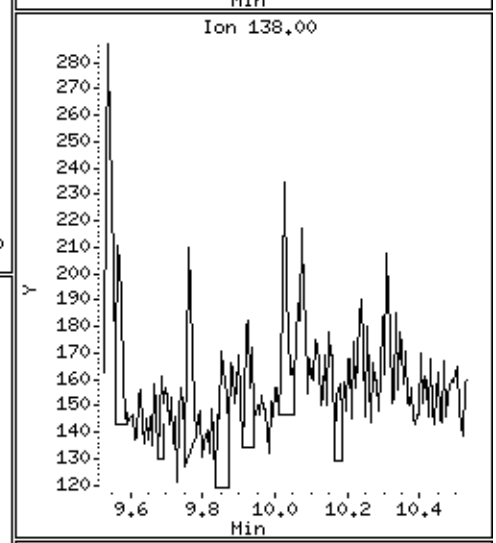


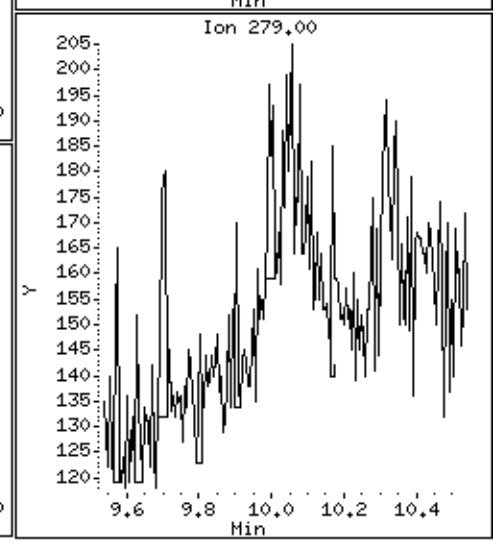












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Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

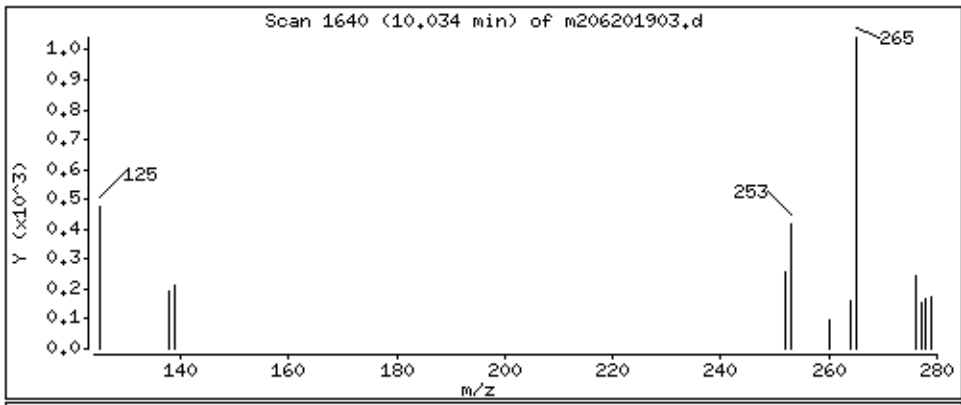
Operator: AJC

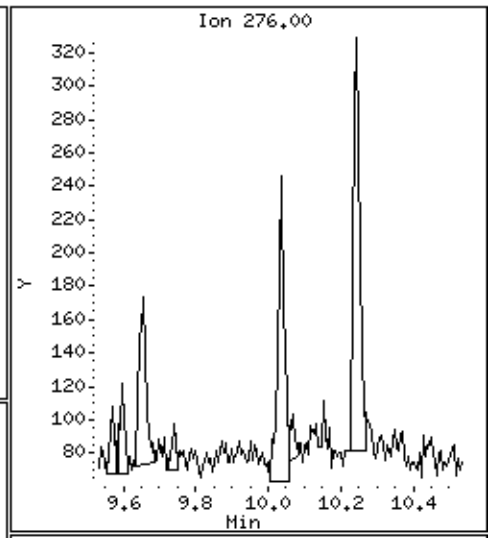
Column phase: RTX-5MS

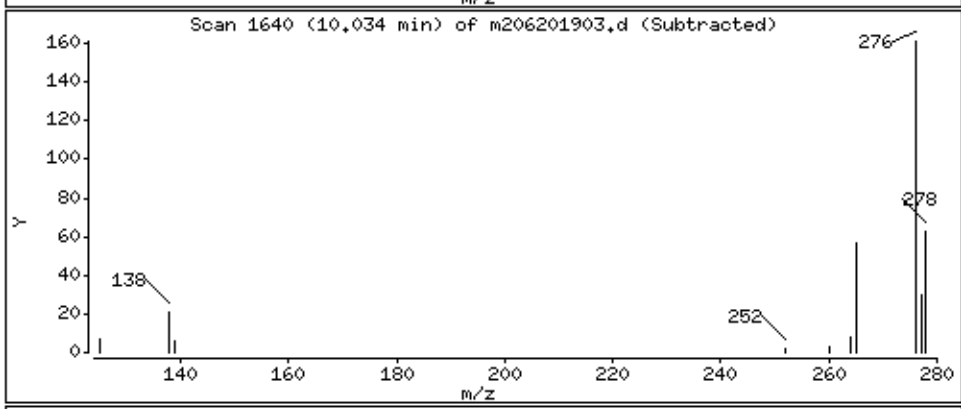
Column diameter: 0.25

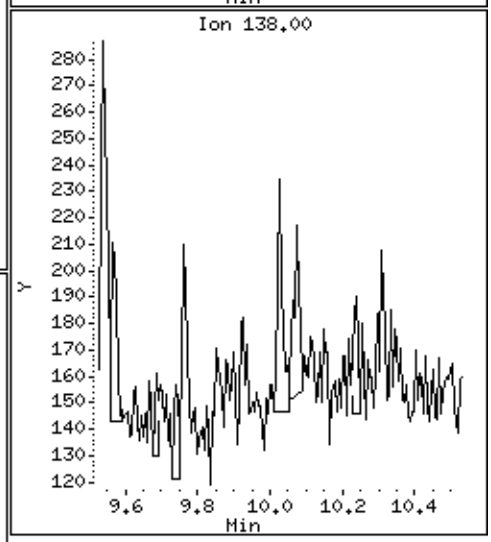
24 Indeno(1,2,3-cd)pyrene

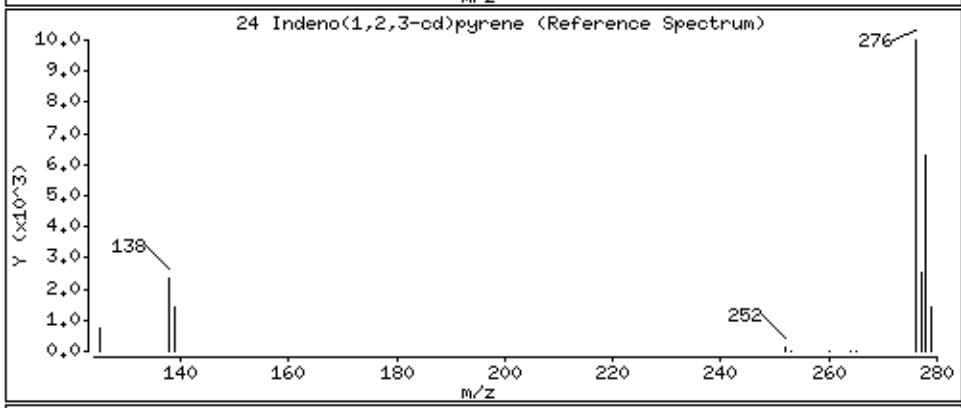
Concentration: 0.102 ug/Kg

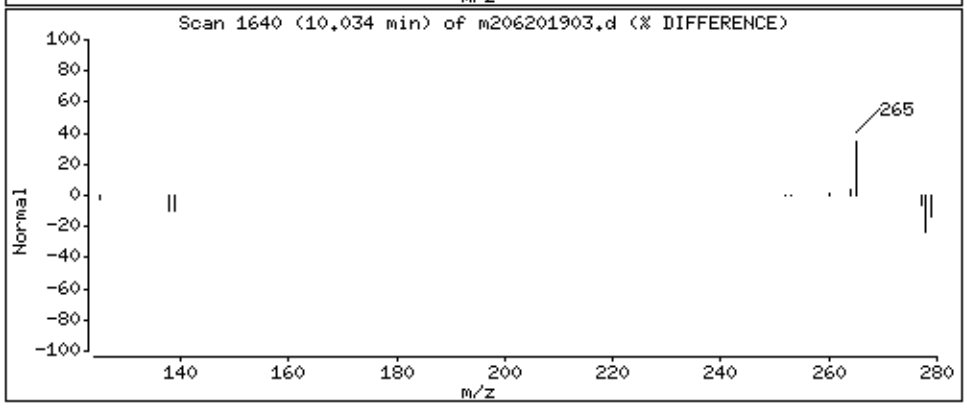












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201903.d

Date : 20-JUN-2019 11:15

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1692792,

Volume Injected (uL): 1.0

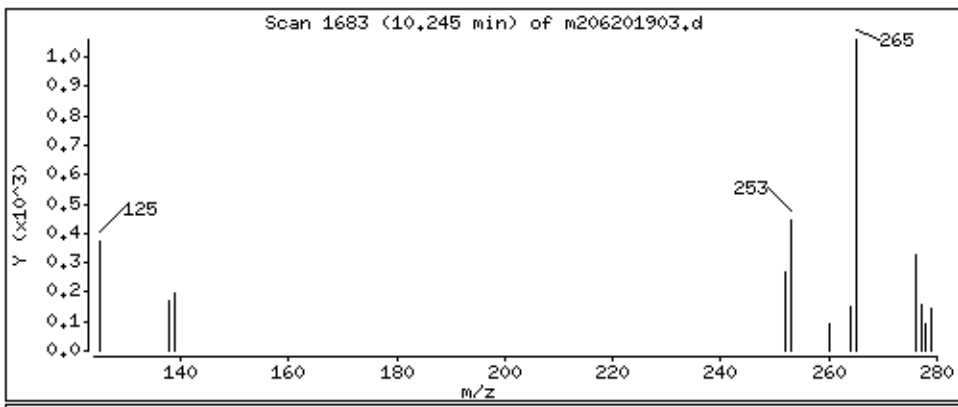
Operator: AJC

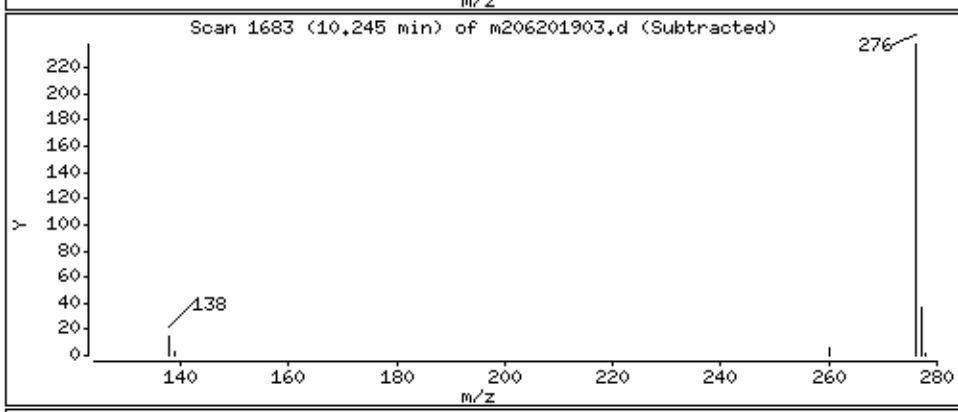
Column phase: RTX-5MS

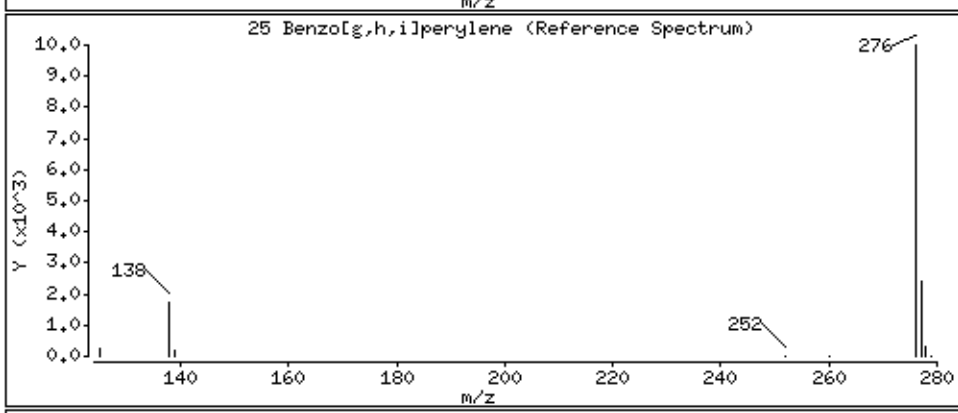
Column diameter: 0.25

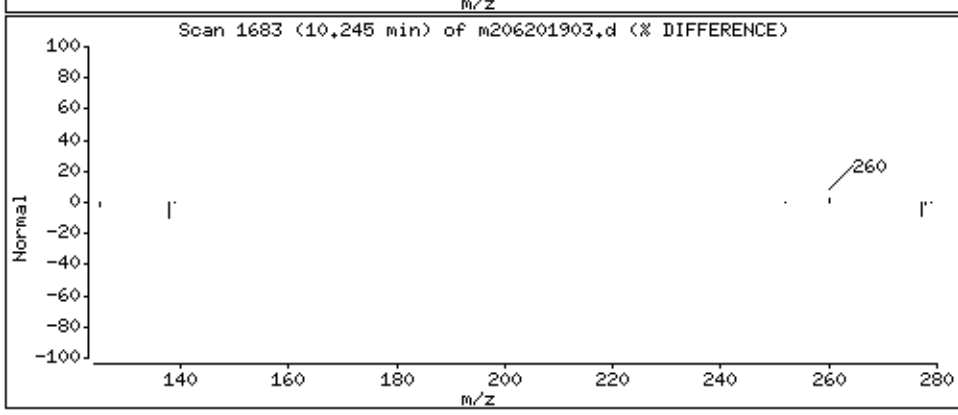
25 Benzo[g,h,i]perylene

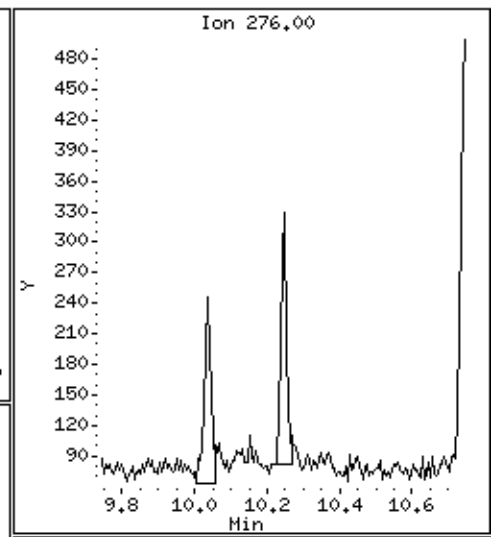
Concentration: 0.147 ug/Kg

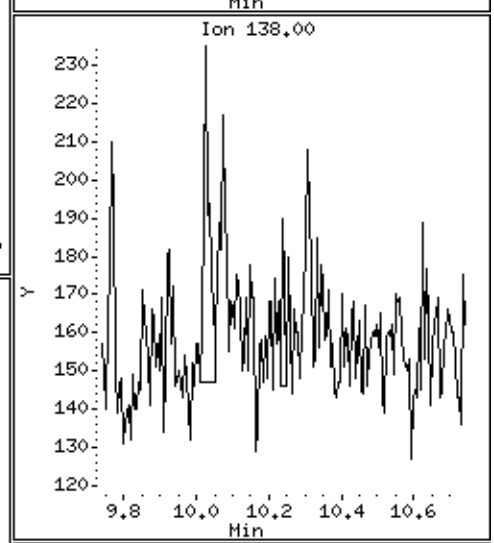


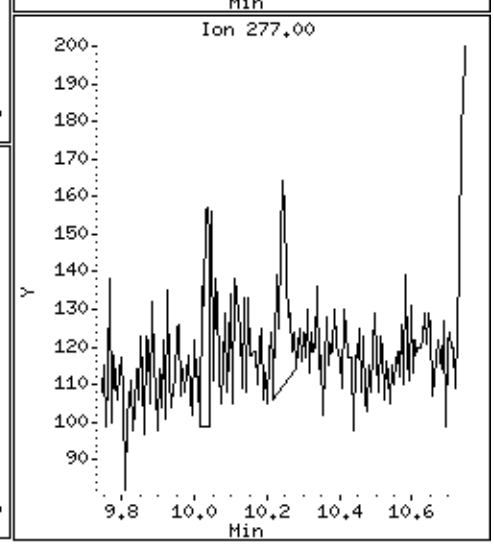












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Injection Date: 20-JUN-2019 11:15
Instrument: 30mss2.i
Lab Sample ID: 1692792
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 1692793
Date Analyzed: 06/20/2019 11:32
Lab File ID: MSS2062019.B\M206201904.D
Initial wt/vol: 15.04 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.10	
208-96-8	Acenaphthylene	0.11	
120-12-7	Anthracene	0.11	
56-55-3	Benzo(a)anthracene	0.13	
50-32-8	Benzo(a)pyrene	0.13	
205-99-2	Benzo(b)fluoranthene	0.14	
191-24-2	Benzo(g,h,i)perylene	0.13	
207-08-9	Benzo(k)fluoranthene	0.12	
218-01-9	Chrysene	0.12	
53-70-3	Dibenz(a,h)anthracene	0.13	
206-44-0	Fluoranthene	0.12	
86-73-7	Fluorene	0.11	
193-39-5	Indeno(1,2,3-cd)pyrene	0.13	
91-20-3	Naphthalene	0.10	
85-01-8	Phenanthrene	0.11	
129-00-0	Pyrene	0.12	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d
Lab Smp Id: 1692793 Client Smp ID: MBLCS
Inj Date : 20-JUN-2019 11:32
Operator : AJC Inst ID: 30mss2.i
Smp Info : 1692793,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.498	3.498	(1.000)	665900	4.00000		
	8 Naphthalene	128	3.509	3.510	(1.003)	226763	1.51109	100	
	9 2-Methylnaphthalene	142	3.949	3.949	(1.129)	161953	1.62383	108	
	10 1-Methylnaphthalene	142	4.012	4.012	(1.147)	155663	1.45482	96.7	
$	6 2-Fluorobiphenyl (S)	172	4.178	4.178	(0.904)	470395	3.76899	250	
	11 Acenaphthylene	152	4.530	4.530	(0.981)	239527	1.62611	108	
*	2 Acenaphthene-d10 (IS)	164	4.619	4.619	(1.000)	373919	4.00000		
	12 Acenaphthene	153	4.639	4.639	(1.004)	147285	1.53088	102	
	13 Fluorene	166	4.979	4.979	(1.078)	180951	1.60256	106	
*	3 Phenanthrene-d10 (IS)	188	5.641	5.646	(1.000)	646941	4.00000		
	14 Phenanthrene	178	5.659	5.659	(1.003)	253214	1.62153	108	
	15 Anthracene	178	5.700	5.700	(1.010)	261874	1.64550	109	
	16 Fluoranthene	202	6.625	6.625	(1.174)	324824	1.81733	121	
	17 Pyrene	202	6.828	6.828	(1.210)	332873	1.81132	120	
$	7 Terphenyl-d14 (S)	244	6.950	6.950	(1.232)	573086	4.17308	277	
	18 Benzo(a)anthracene	228	7.914	7.917	(0.998)	316653	2.00754	133	
*	4 Chrysene-d12 (IS)	240	7.929	7.929	(1.000)	576418	4.00000		
	19 Chrysene	228	7.949	7.952	(1.003)	302700	1.87364	124	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.879	8.884	(0.964)	324267	2.08604	139	
21 Benzo(k)fluoranthene	252	8.904	8.909	(0.967)	334828	1.79282	119	
22 Benzo(a)pyrene	252	9.159	9.164	(0.995)	286163	1.93512	129	
* 5 Perylene-d12 (IS)	264	9.208	9.209	(1.000)	595658	4.00000		
23 Dibenz(a,h)anthracene	278	10.038	10.039	(1.090)	313696	1.95743	130	
24 Indeno(1,2,3-cd)pyrene	276	10.034	10.034	(1.090)	375192	1.93726	129	
25 Benzo[g,h,i]perylene	276	10.240	10.245	(1.112)	315181	1.97656	131	

Review Codes Legend

:

Pace Analytical Services, Inc.

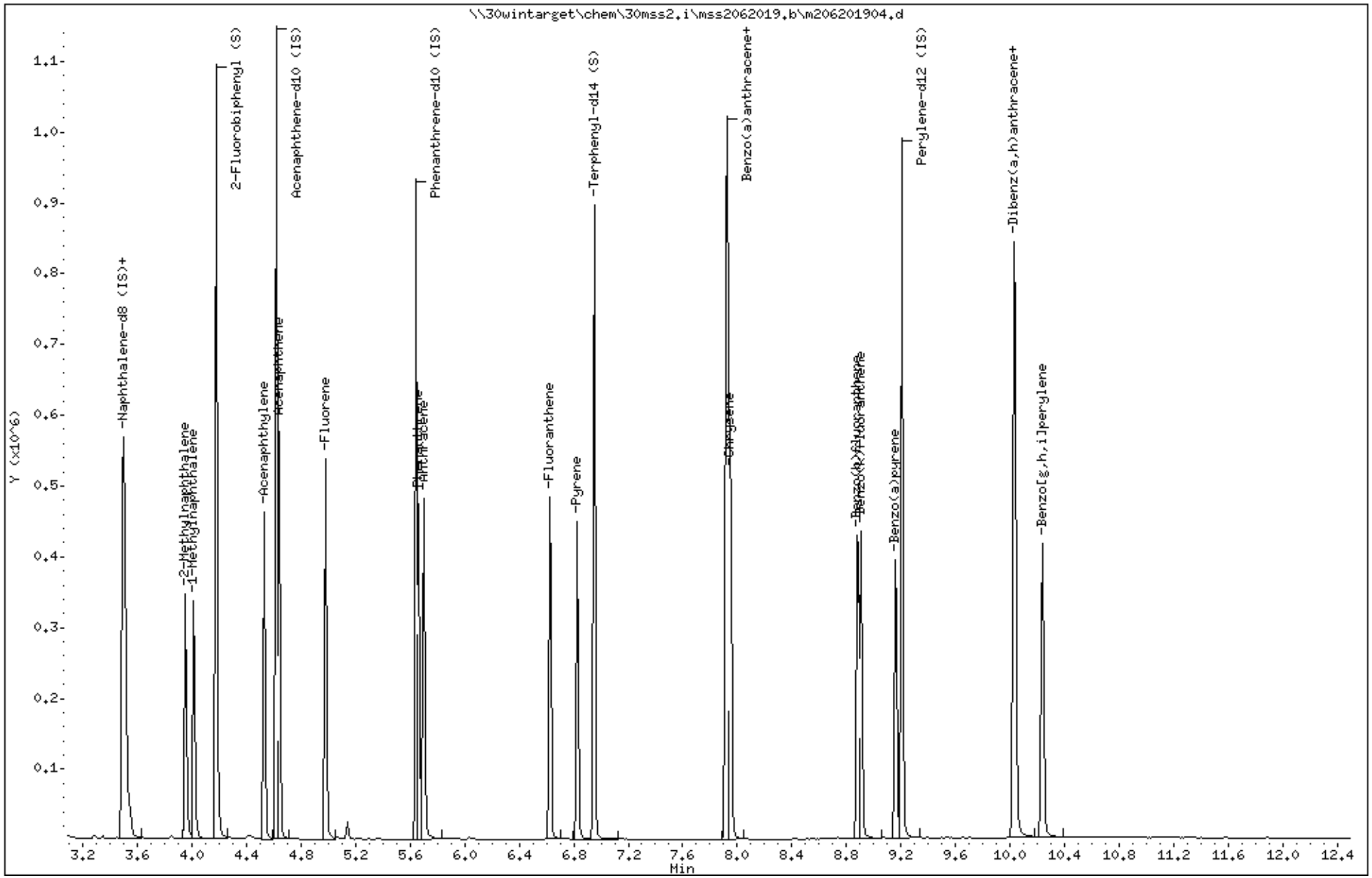
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1692793
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14727,

Client SDG: mss2062019.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 19-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00997	U
91-20-3	Naphthalene	100	
91-57-6	2-Methylnaphthalene	108	
90-12-0	1-Methylnaphthalene	96.7	
208-96-8	Acenaphthylene	108	
83-32-9	Acenaphthene	102	
86-73-7	Fluorene	106	
85-01-8	Phenanthrene	108	
120-12-7	Anthracene	109	
206-44-0	Fluoranthene	121	
129-00-0	Pyrene	120	
56-55-3	Benzo(a)anthracene	133	
218-01-9	Chrysene	124	
205-99-2	Benzo(b)fluoranthene	139	
207-08-9	Benzo(k)fluoranthene	119	
50-32-8	Benzo(a)pyrene	129	
53-70-3	Dibenz(a,h)anthracene	130	
193-39-5	Indeno(1,2,3-cd)pyrene	129	
191-24-2	Benzo[g,h,i]perylene	131	
321-60-8	2-Fluorobiphenyl (S)	250	
1718-51-0	Terphenyl-d14 (S)	277	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d
Date : 20-JUN-2019 11:32
Client ID: MBLCS
Instrument: 30mss2.i
Sample Info: 1692793,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

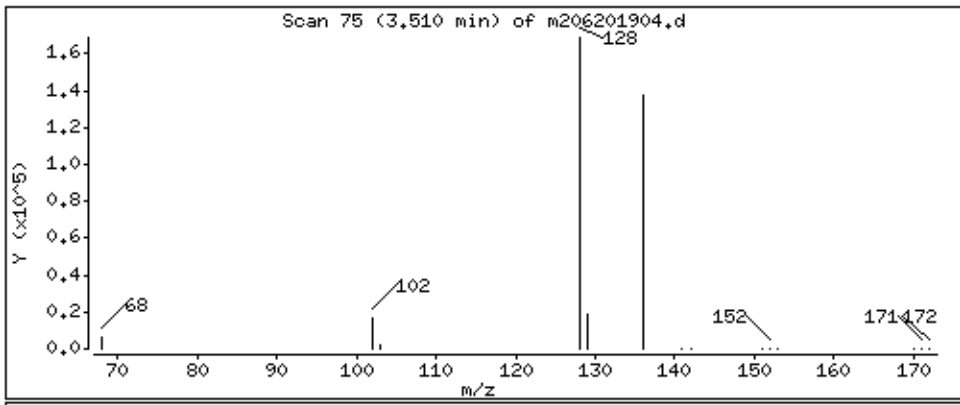
Operator: AJC

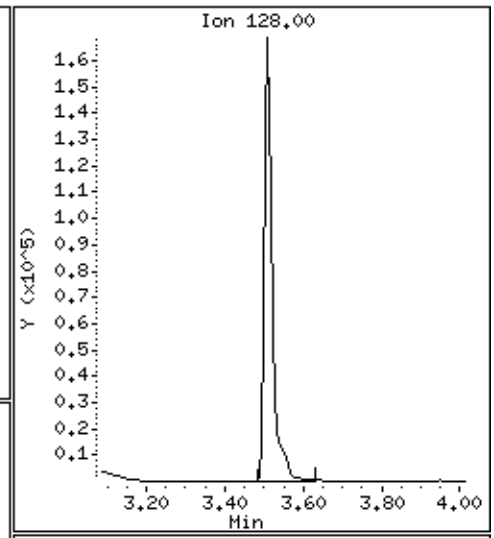
Column phase: RTX-5MS

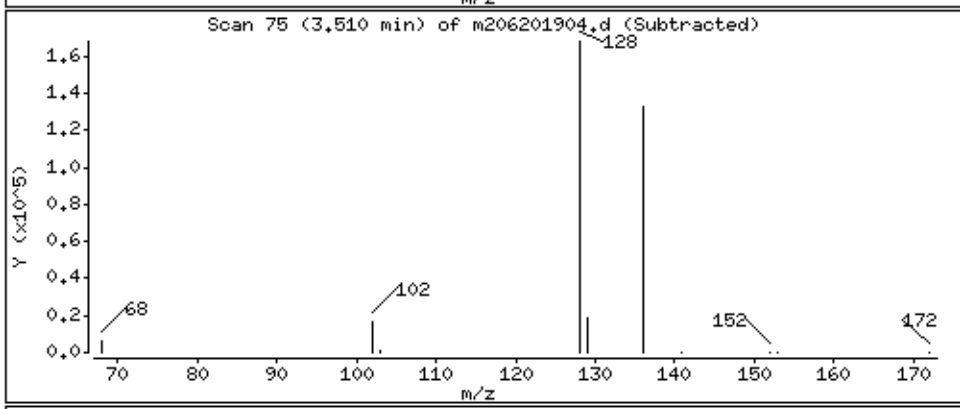
Column diameter: 0.25

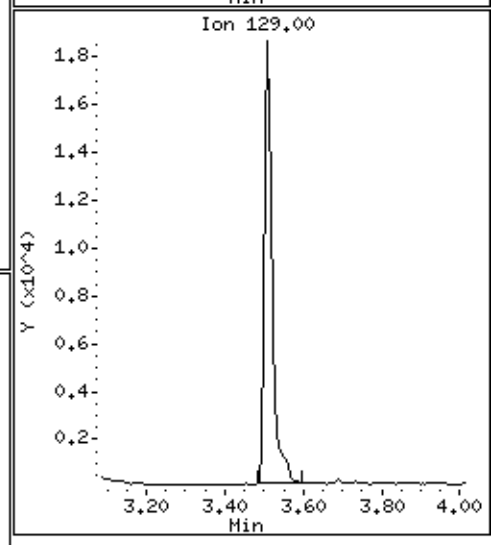
8 Naphthalene

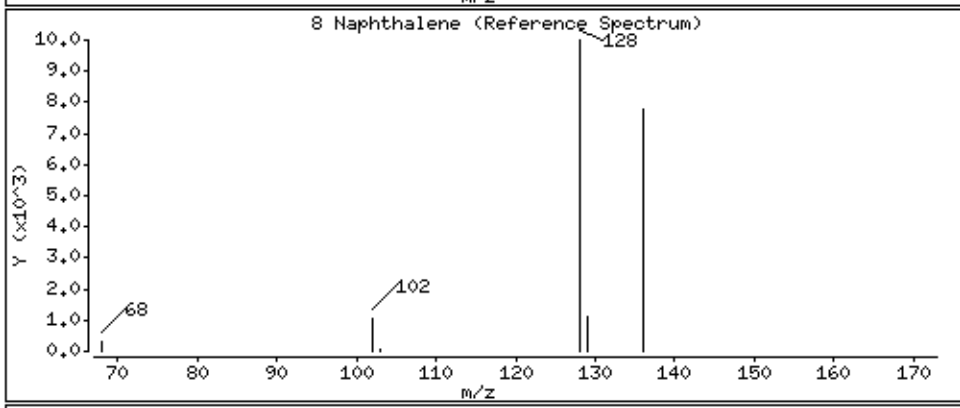
Concentration: 100 ug/Kg

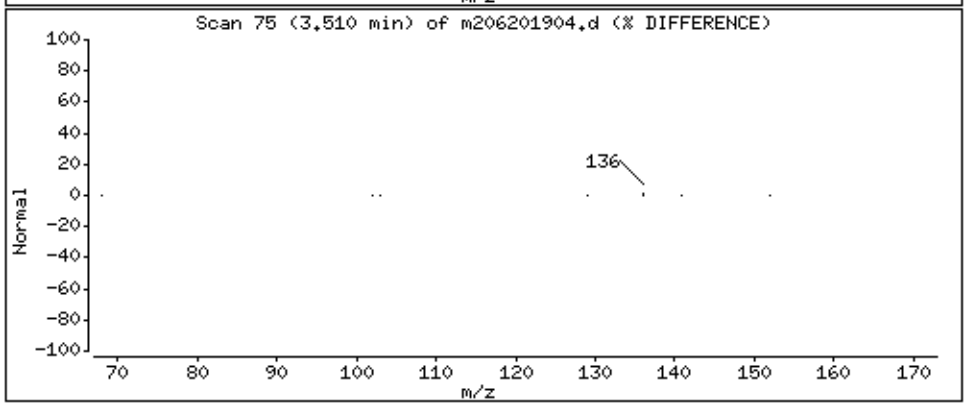












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

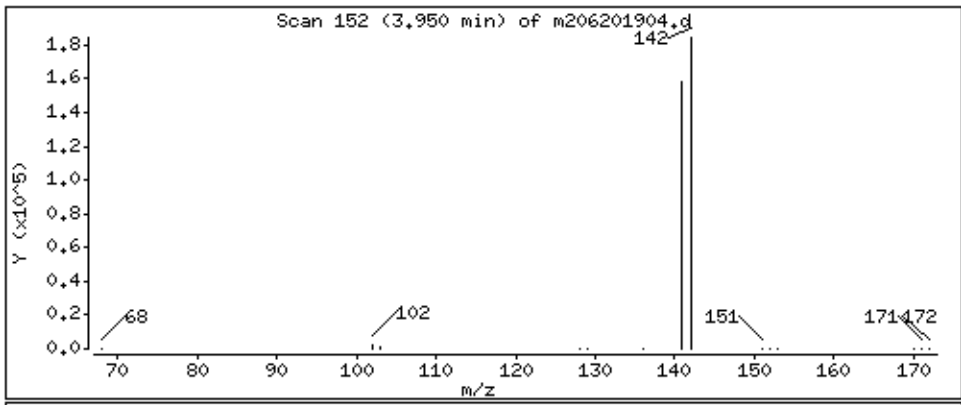
Operator: AJC

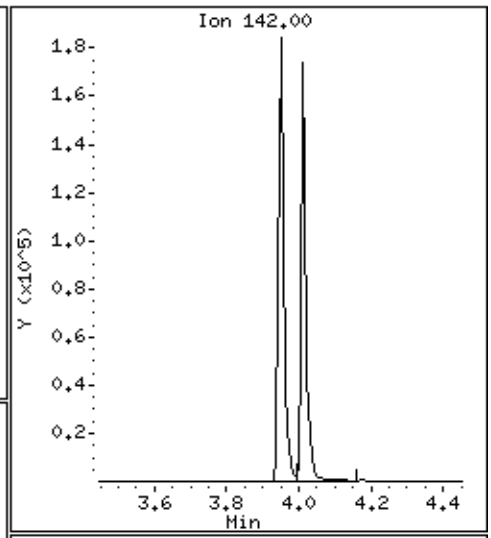
Column phase: RTX-5MS

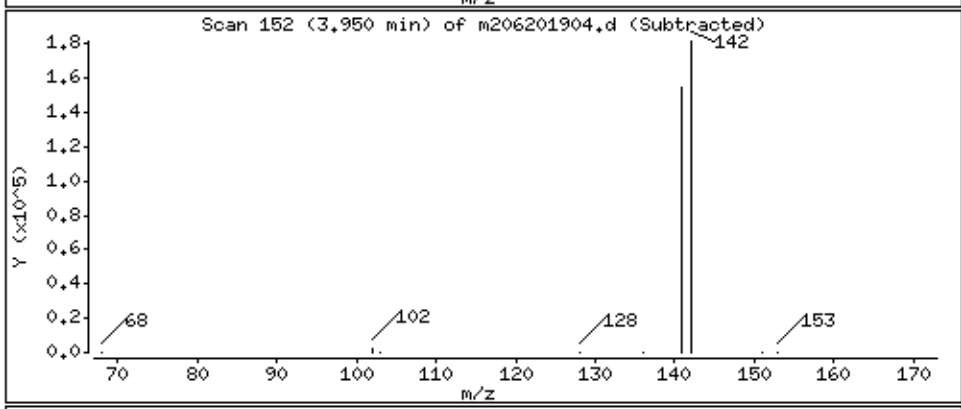
Column diameter: 0.25

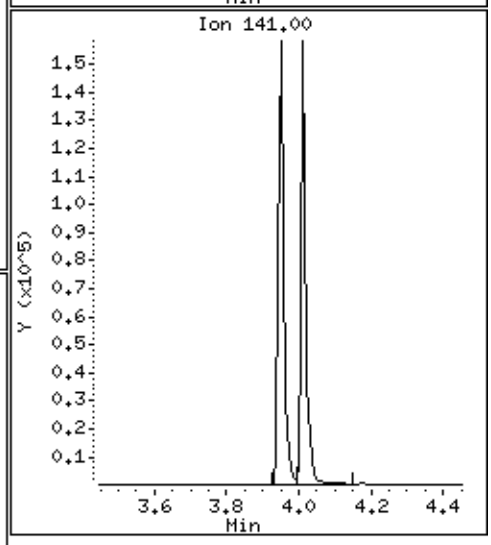
9 2-Methylnaphthalene

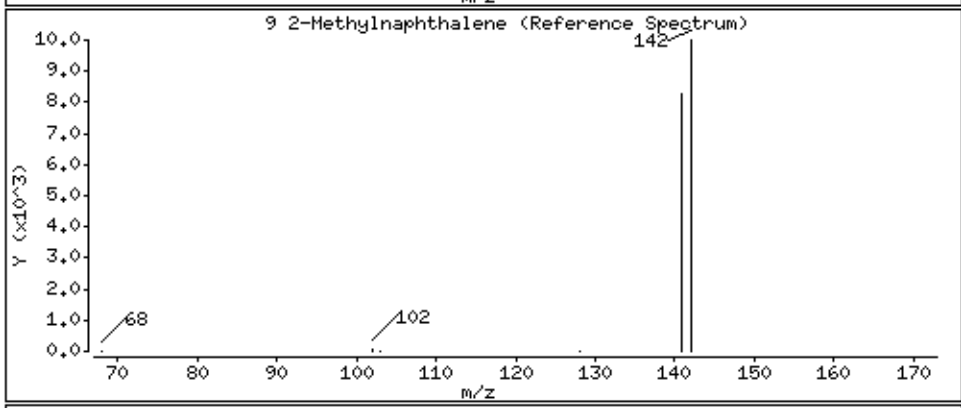
Concentration: 108 ug/Kg

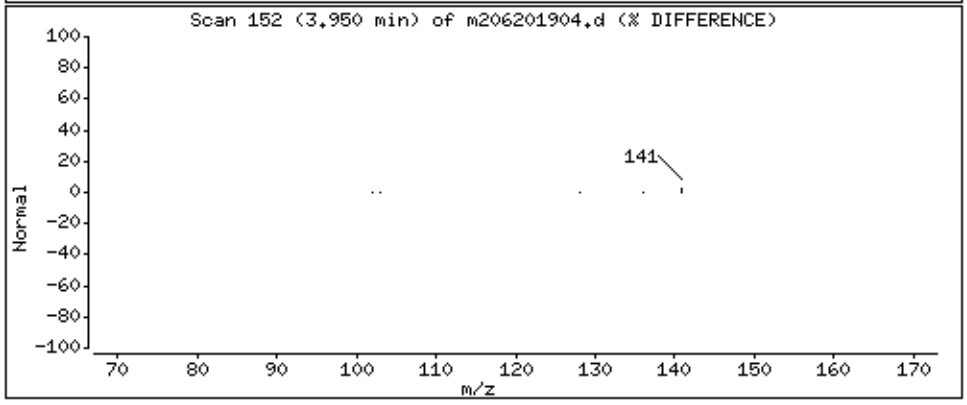












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

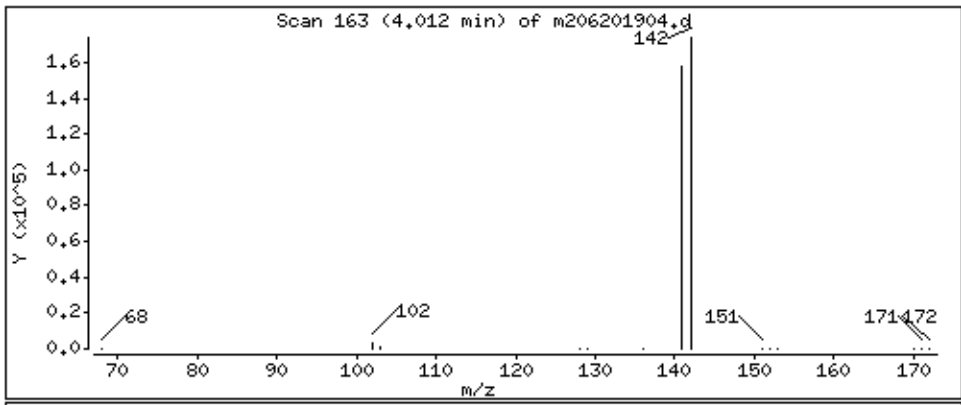
Operator: AJC

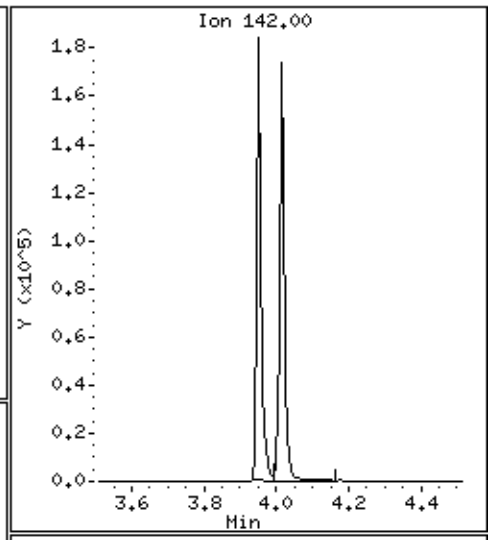
Column phase: RTX-5MS

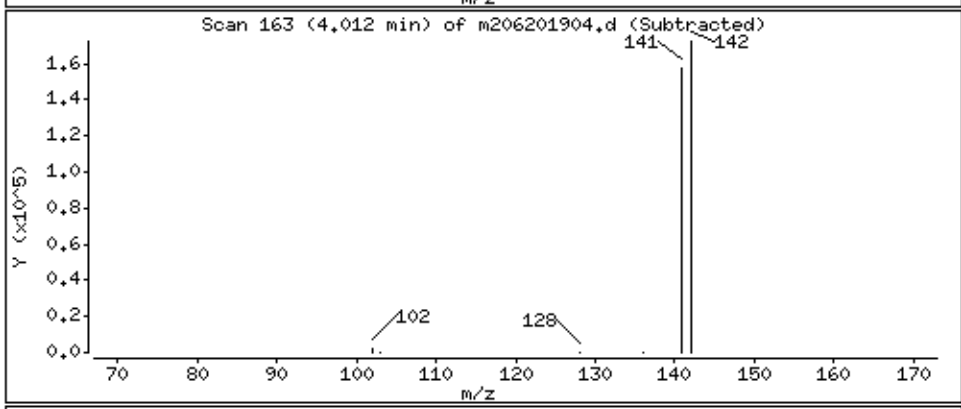
Column diameter: 0.25

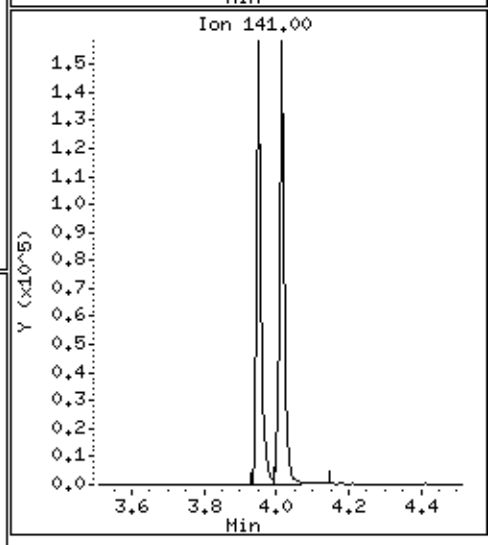
10 1-Methylnaphthalene

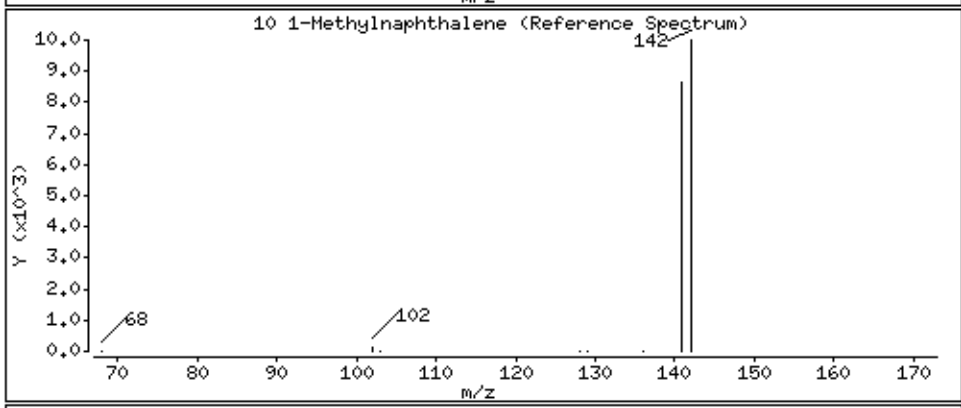
Concentration: 96.7 ug/Kg

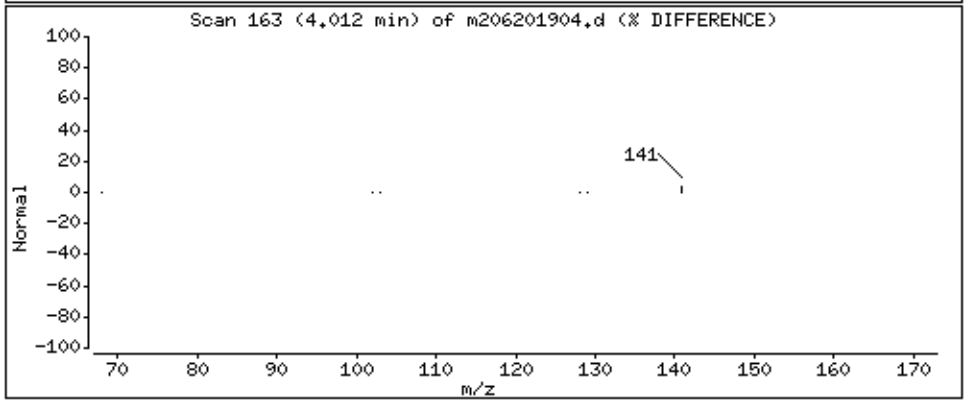












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

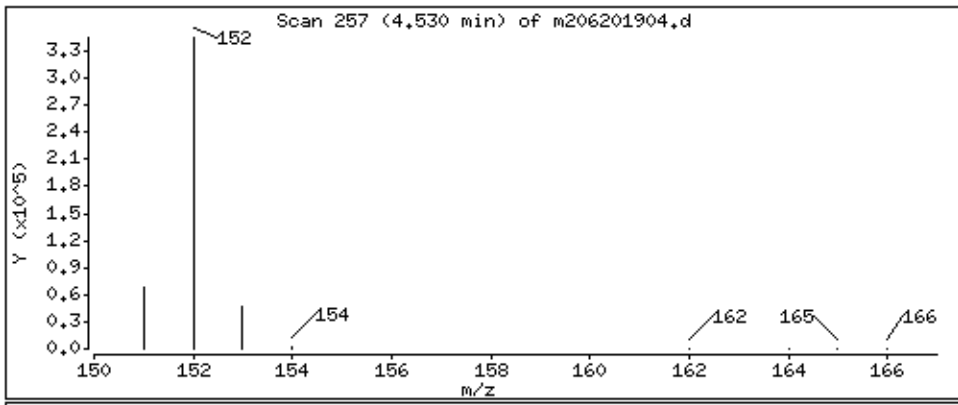
Operator: AJC

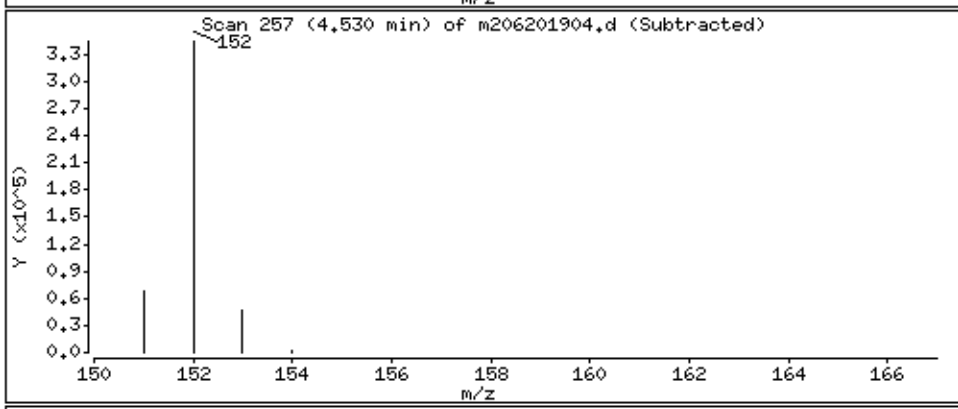
Column phase: RTX-5MS

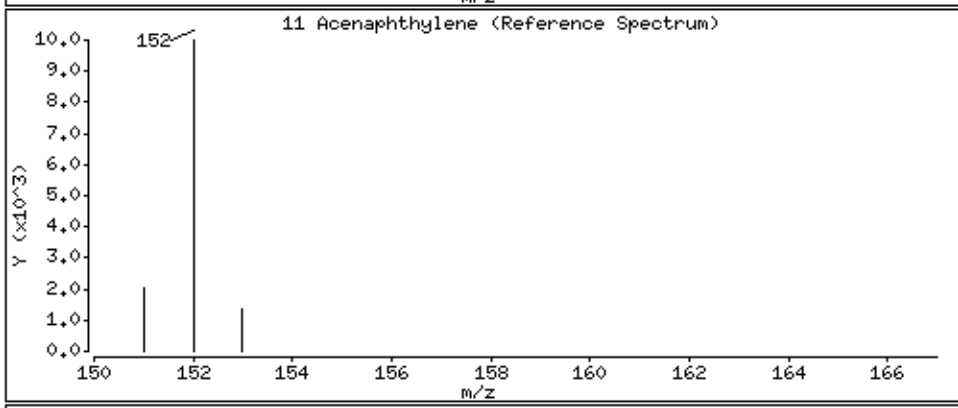
Column diameter: 0.25

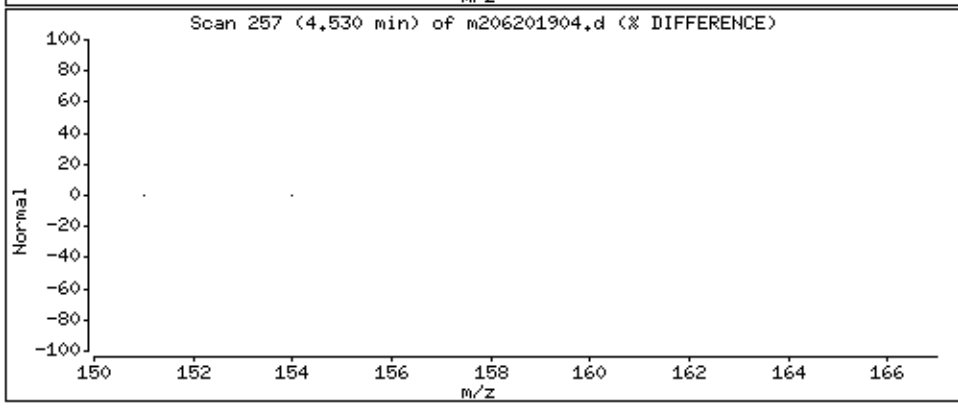
11 Acenaphthylene

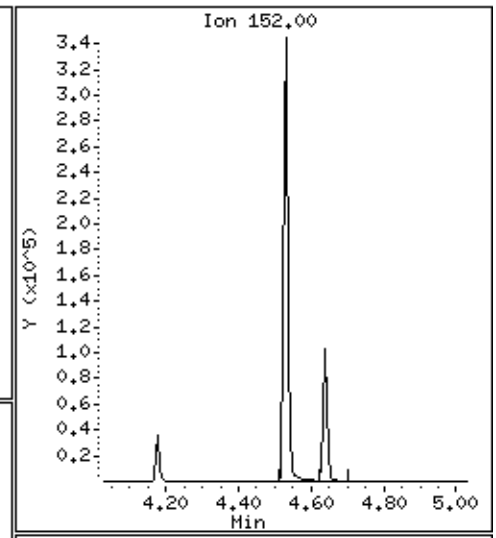
Concentration: 108 ug/Kg

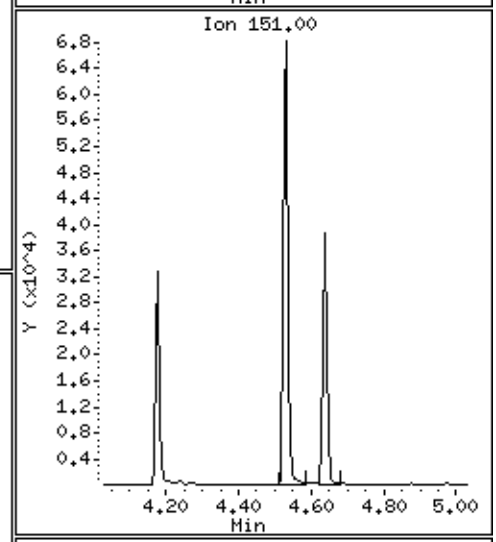


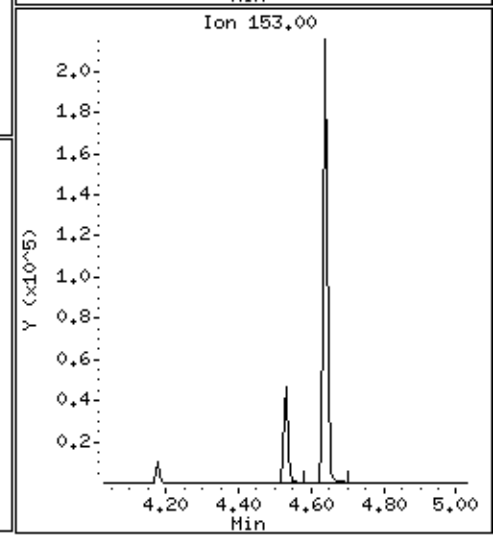












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

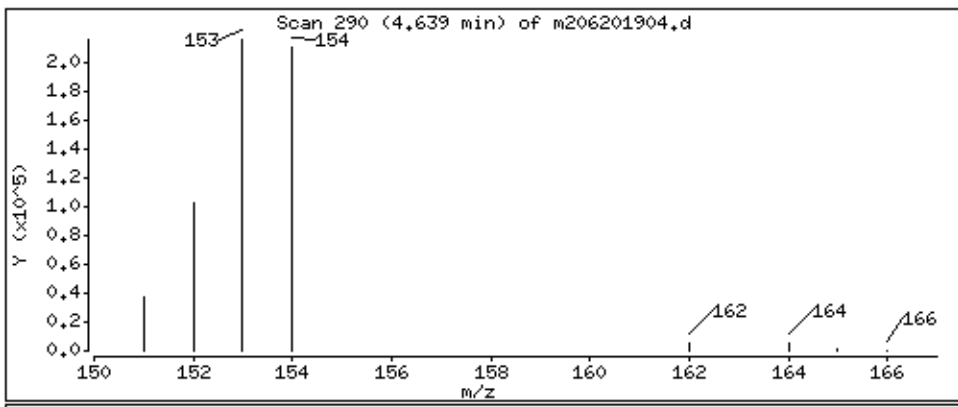
Operator: AJC

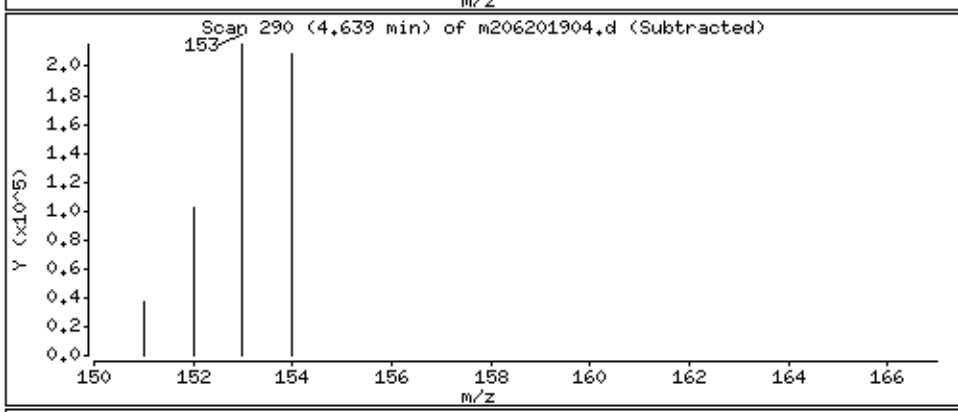
Column phase: RTX-5MS

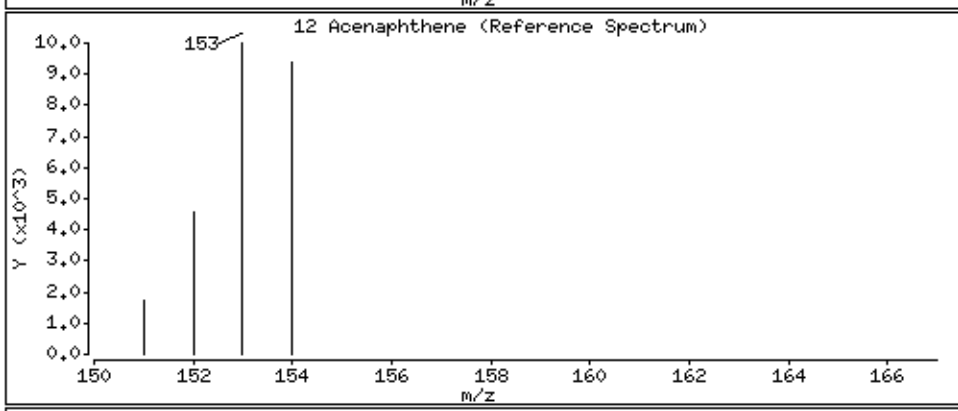
Column diameter: 0.25

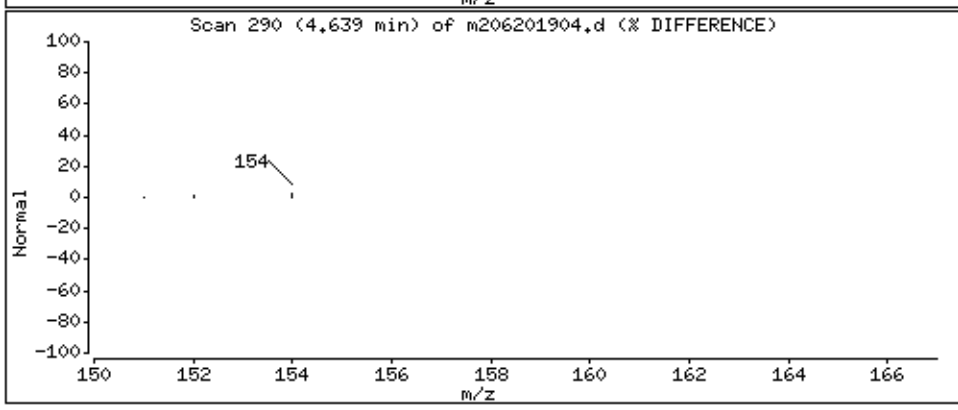
12 Acenaphthene

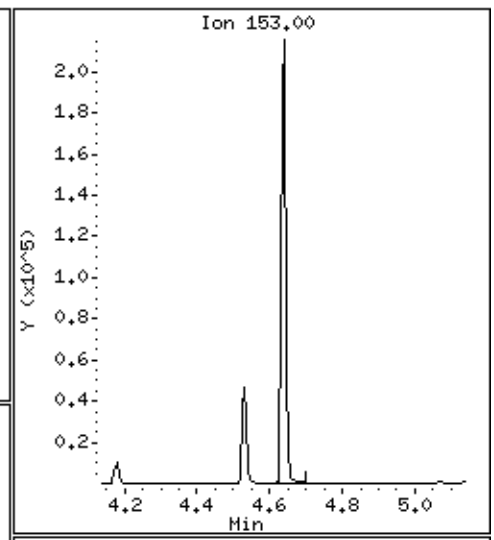
Concentration: 102 ug/Kg

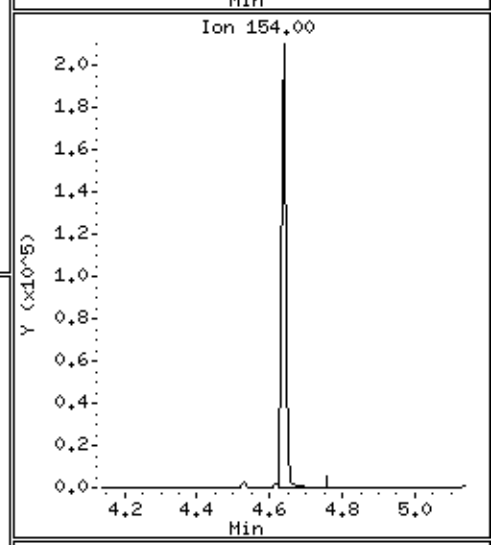


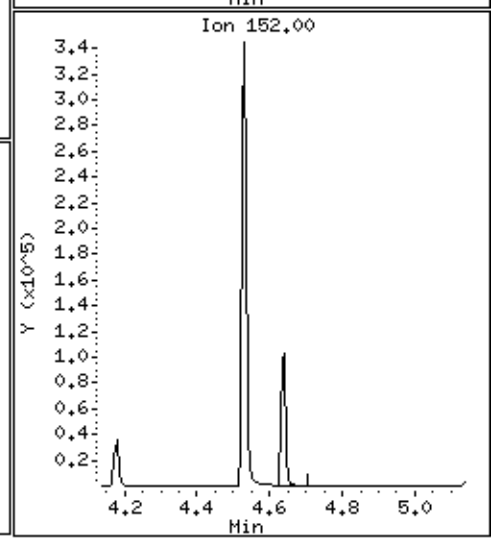












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

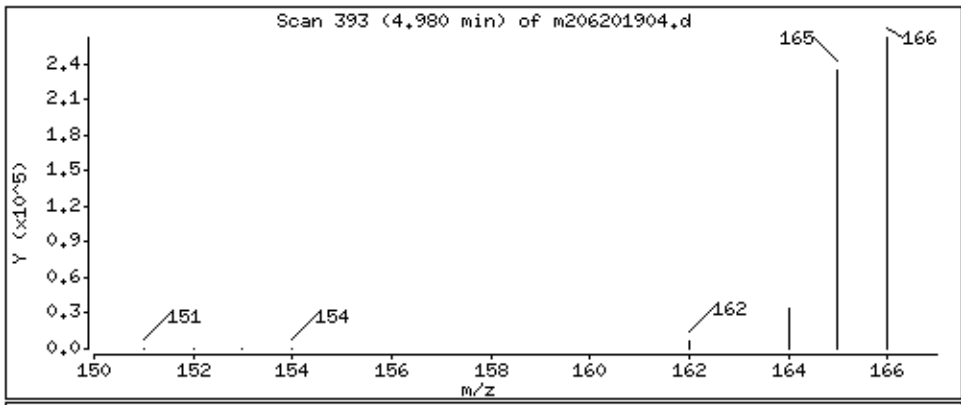
Operator: AJC

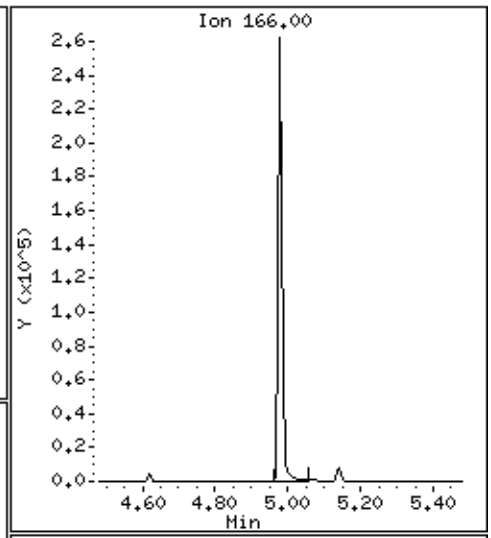
Column phase: RTX-5MS

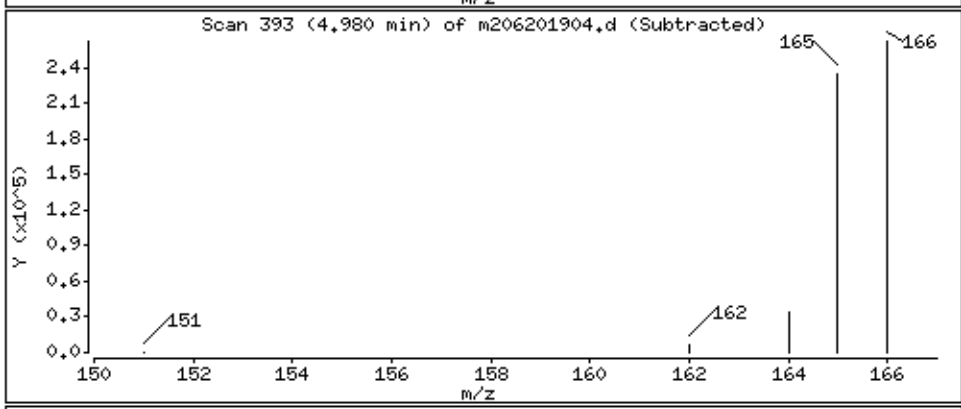
Column diameter: 0.25

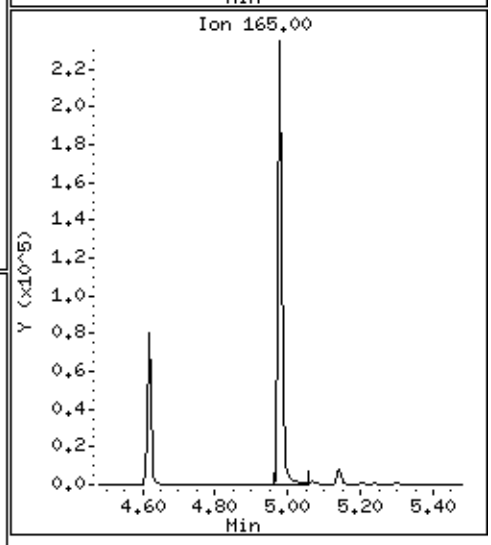
13 Fluorene

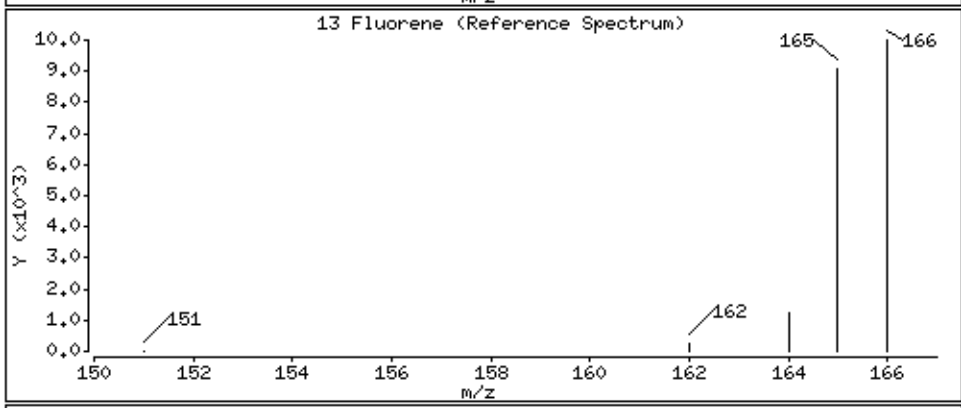
Concentration: 106 ug/Kg

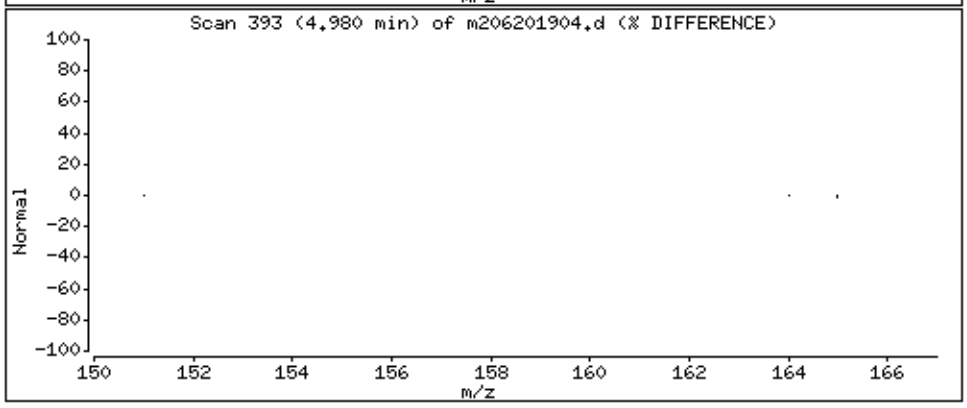












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

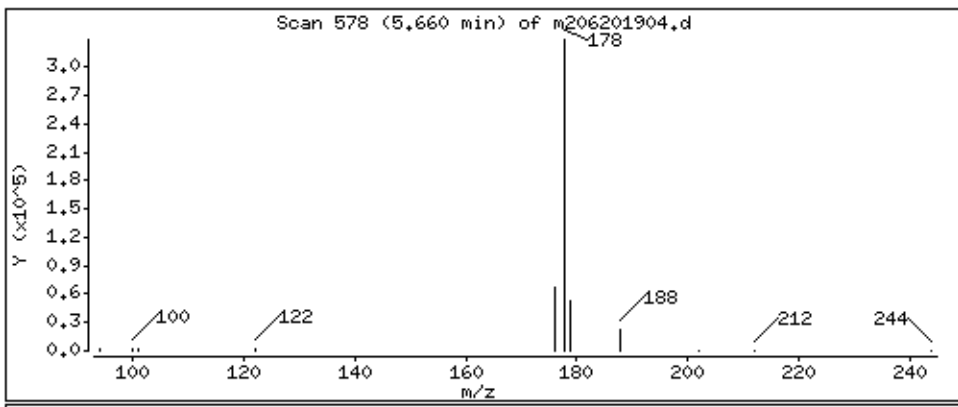
Operator: AJC

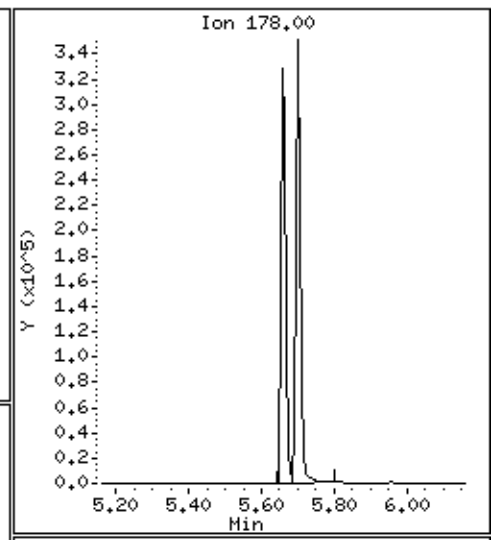
Column phase: RTX-5MS

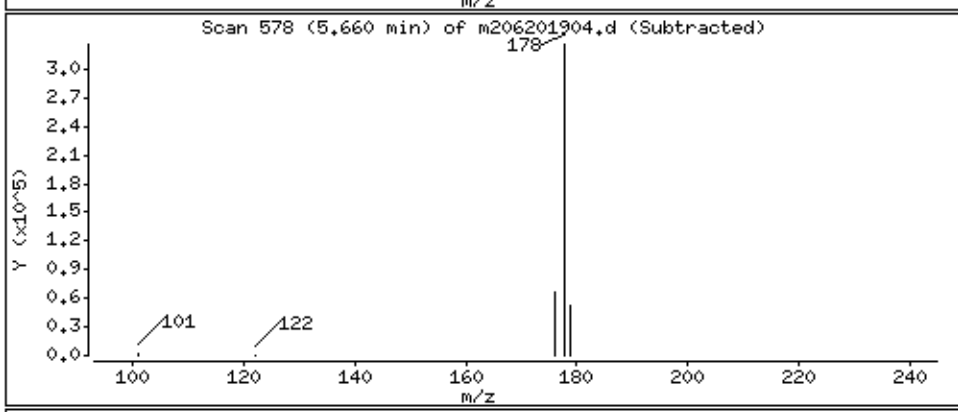
Column diameter: 0.25

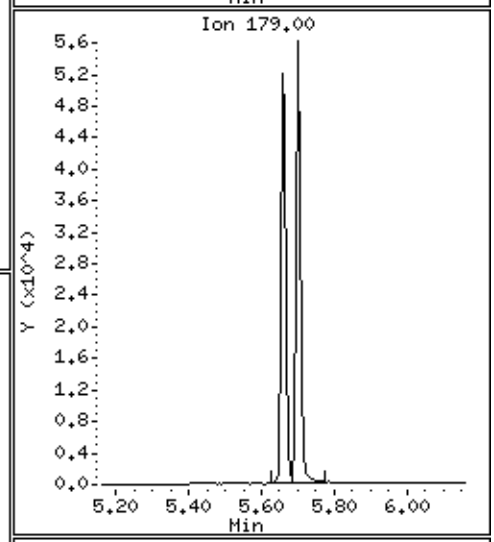
14 Phenanthrene

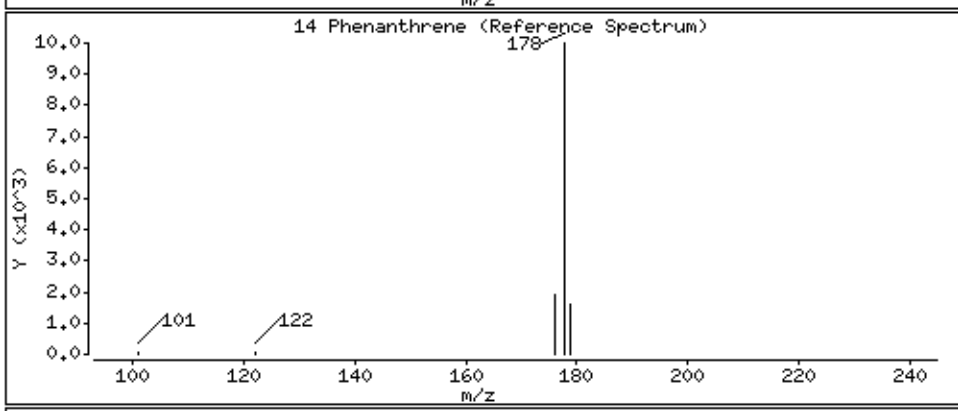
Concentration: 108 ug/Kg

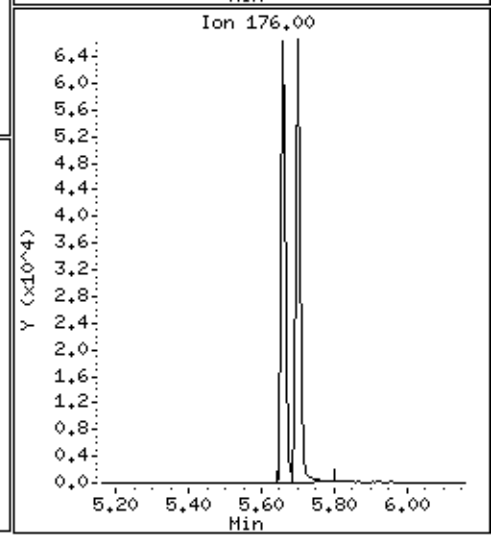


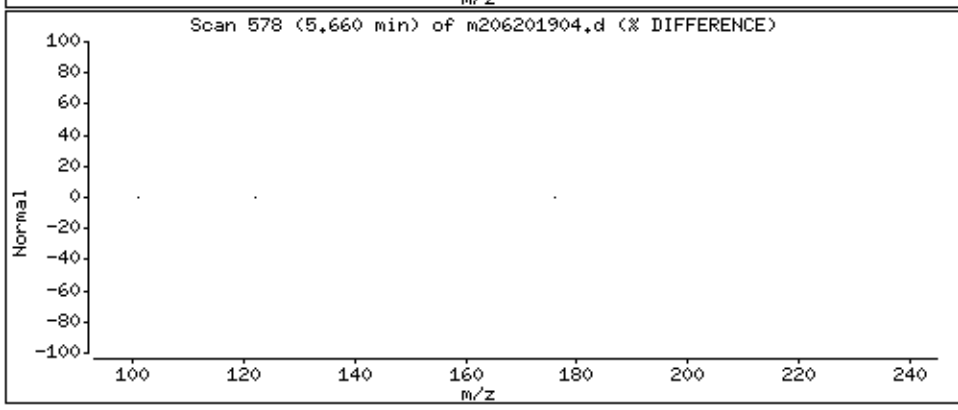












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

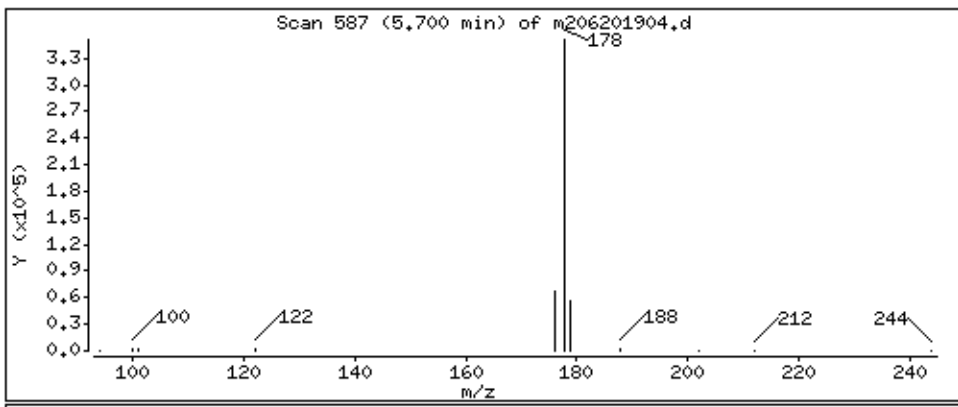
Operator: AJC

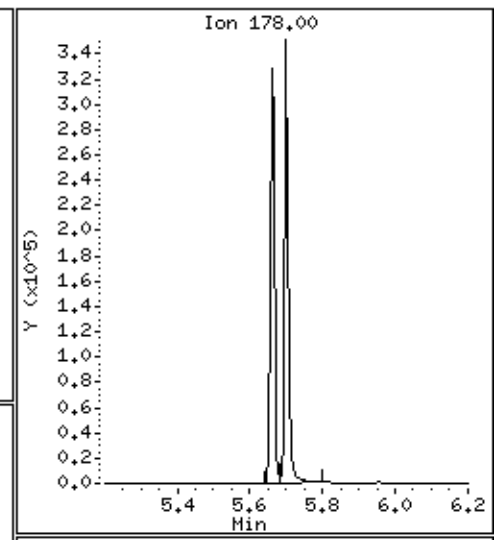
Column phase: RTX-5MS

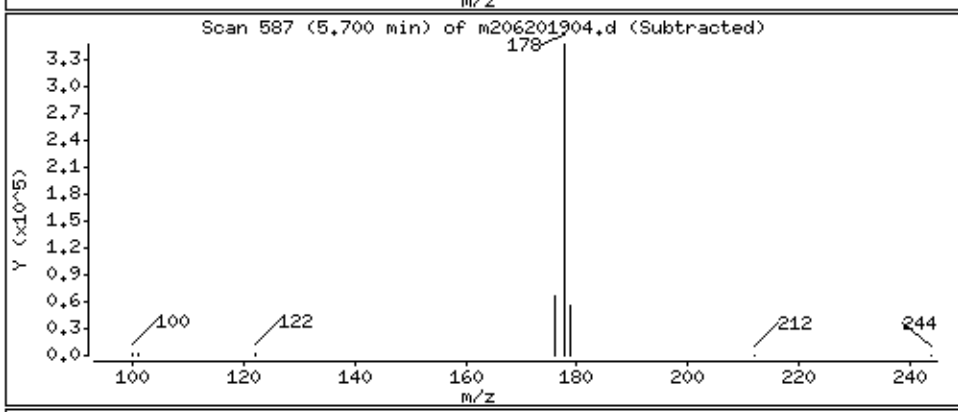
Column diameter: 0.25

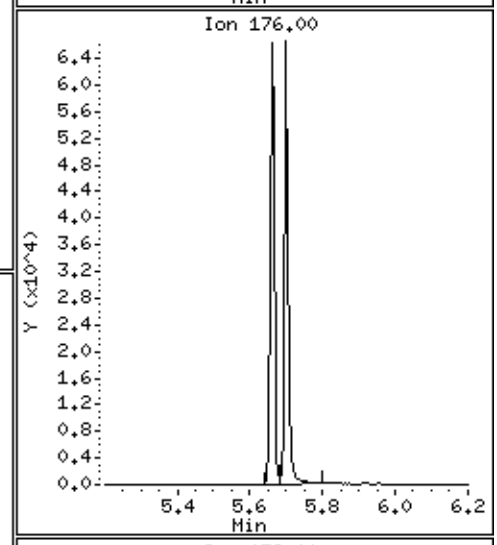
15 Anthracene

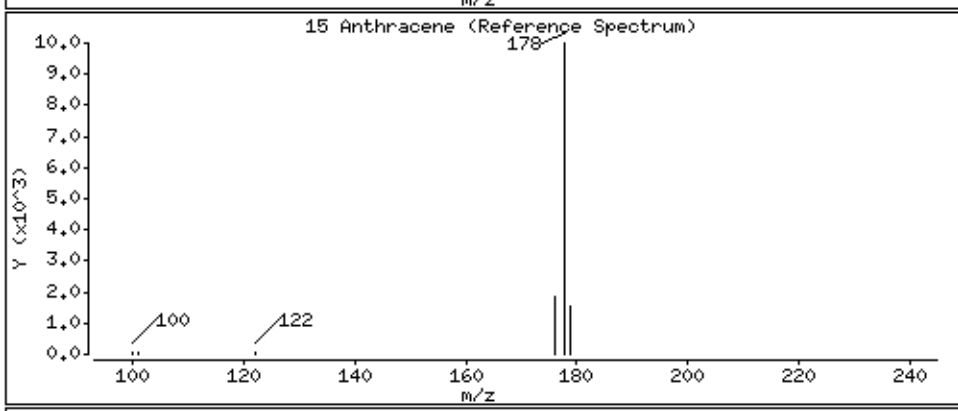
Concentration: 109 ug/Kg

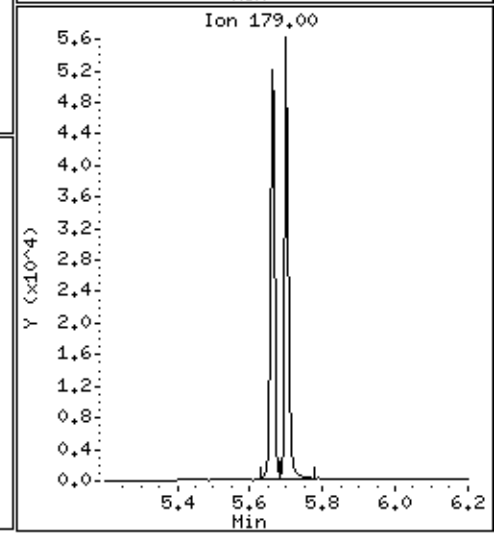


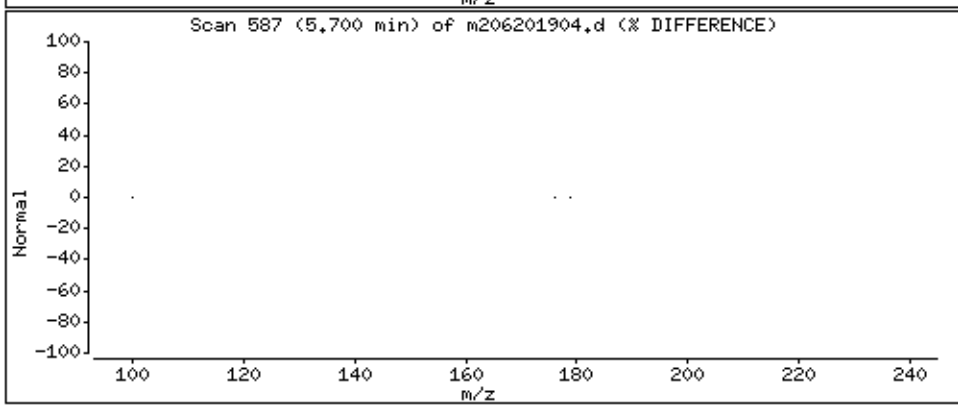












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

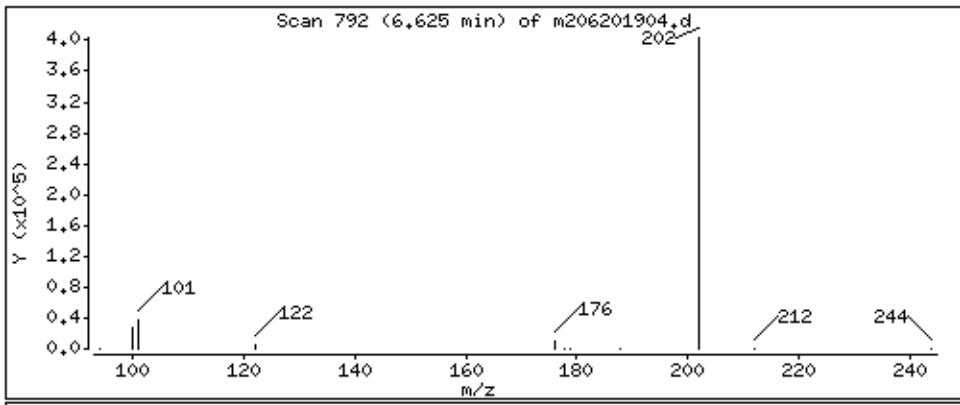
Operator: AJC

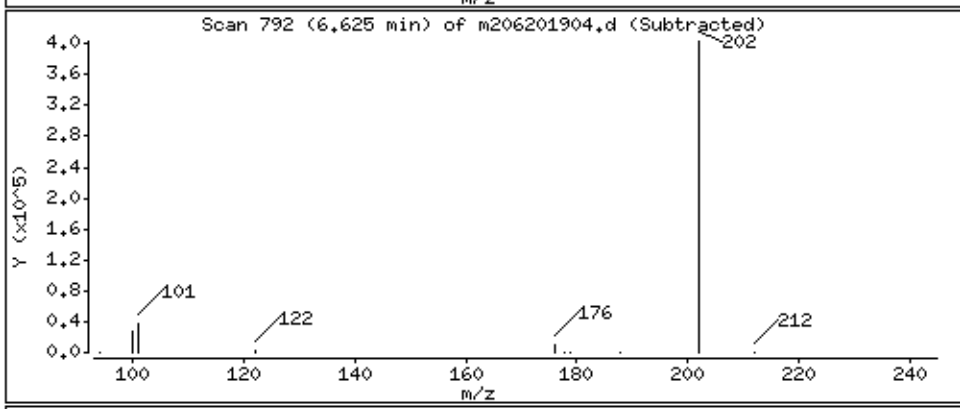
Column phase: RTX-5MS

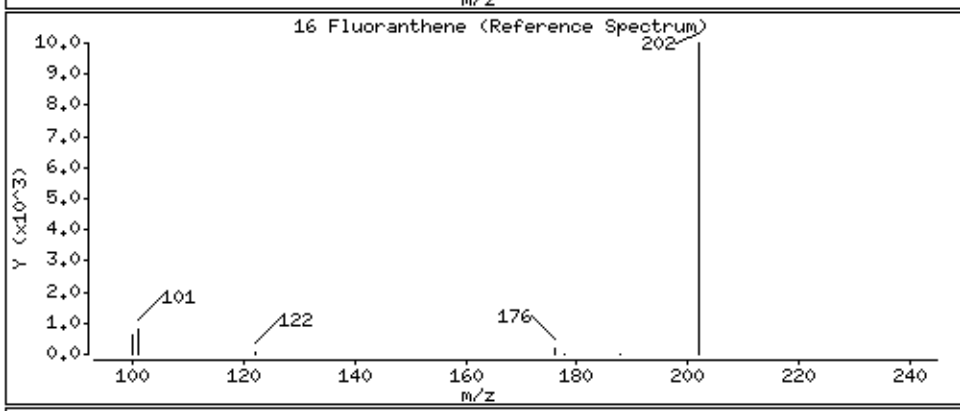
Column diameter: 0.25

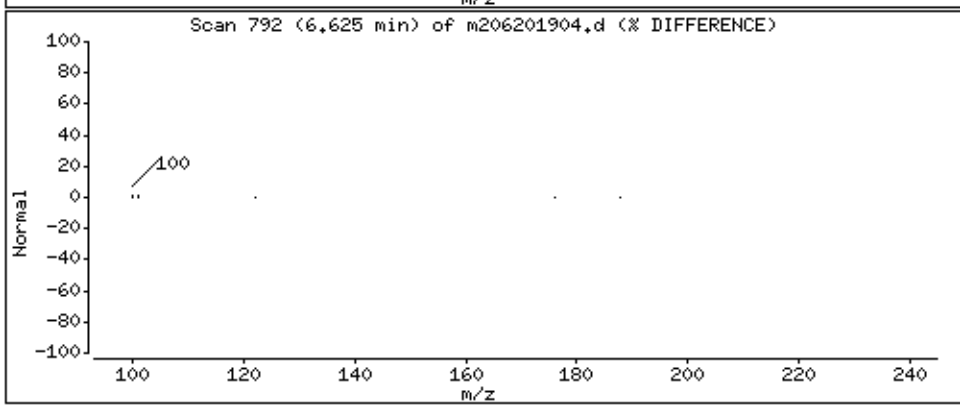
16 Fluoranthene

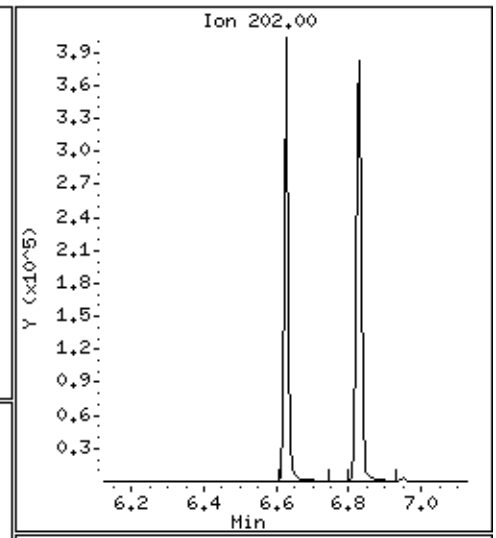
Concentration: 121 ug/Kg

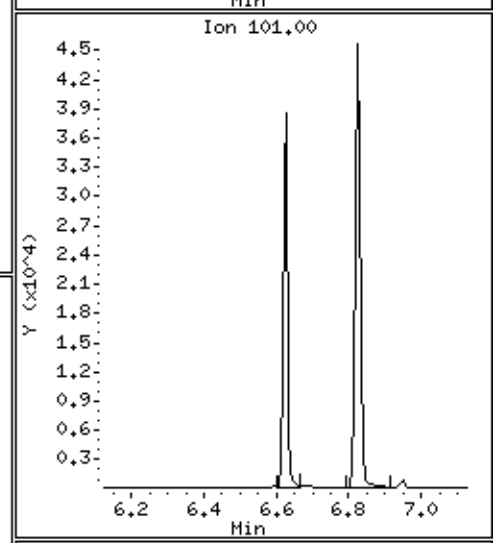


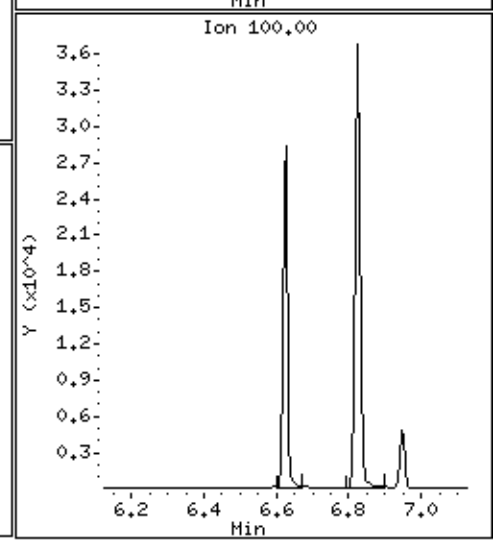












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

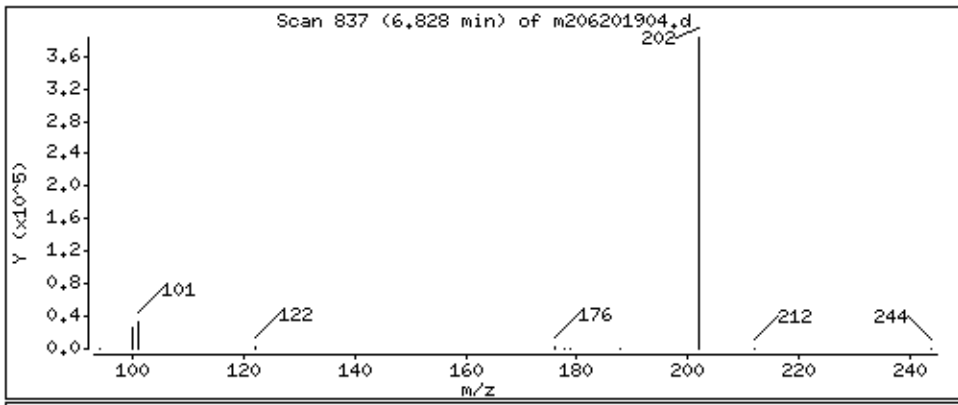
Operator: AJC

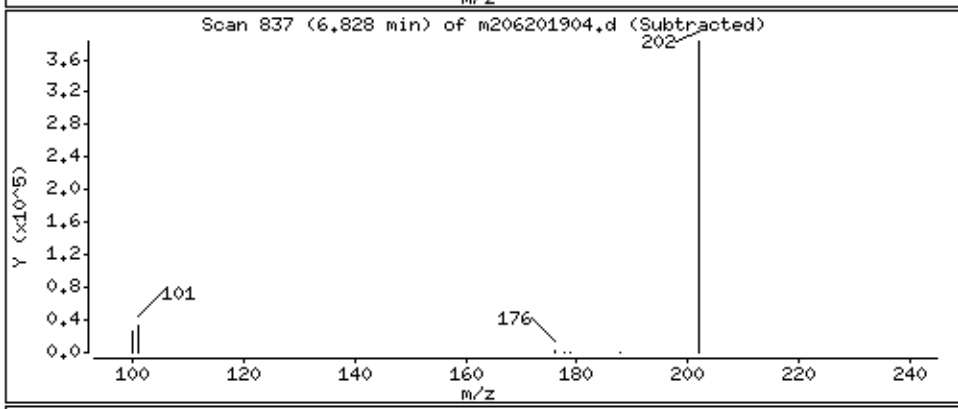
Column phase: RTX-5MS

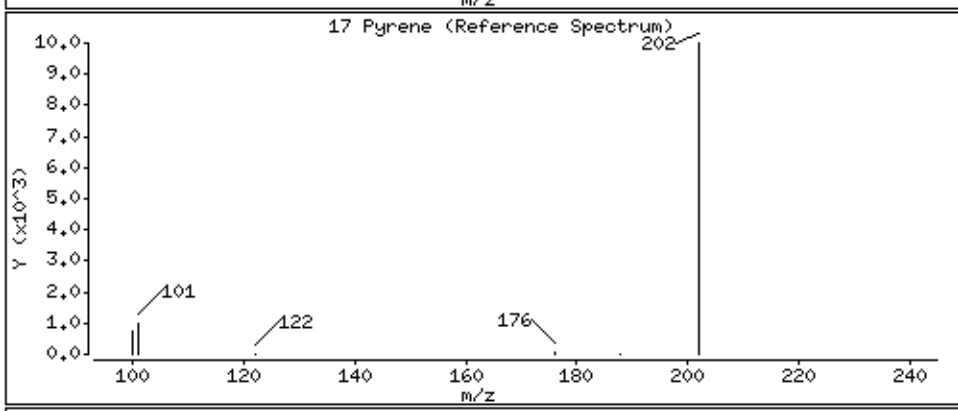
Column diameter: 0.25

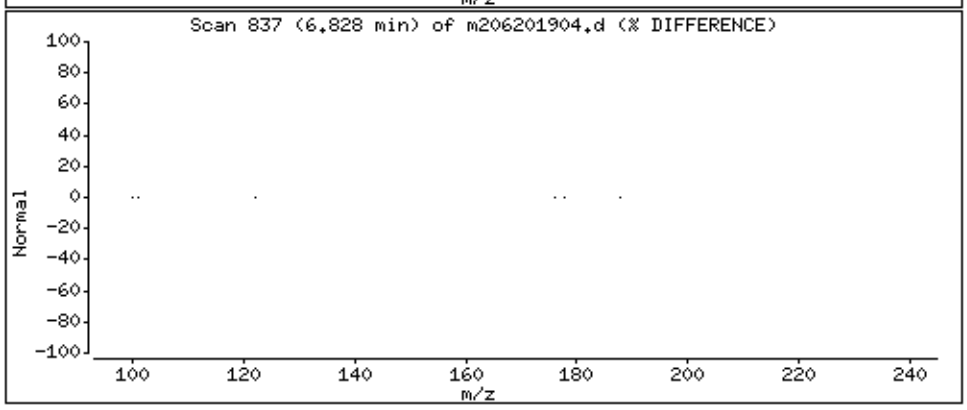
17 Pyrene

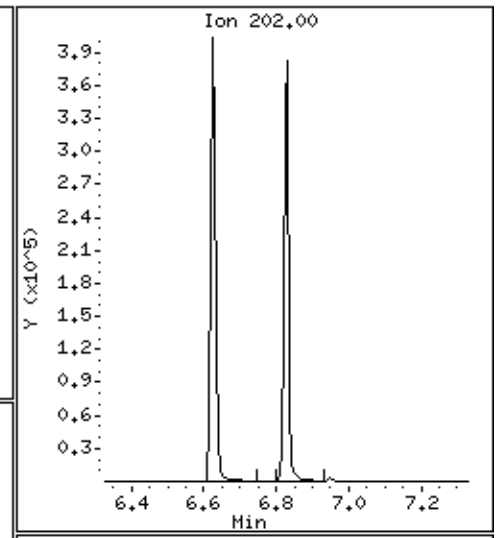
Concentration: 120 ug/Kg

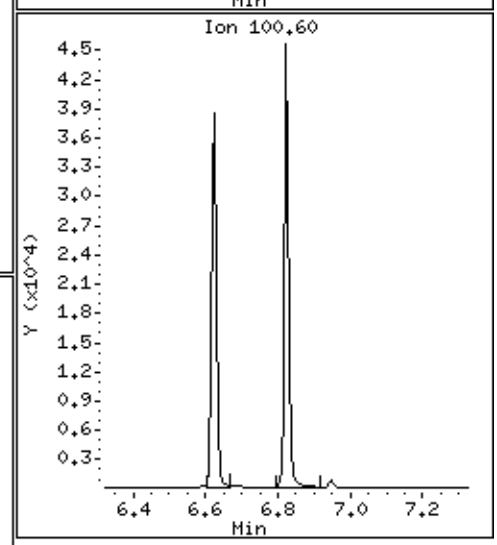












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

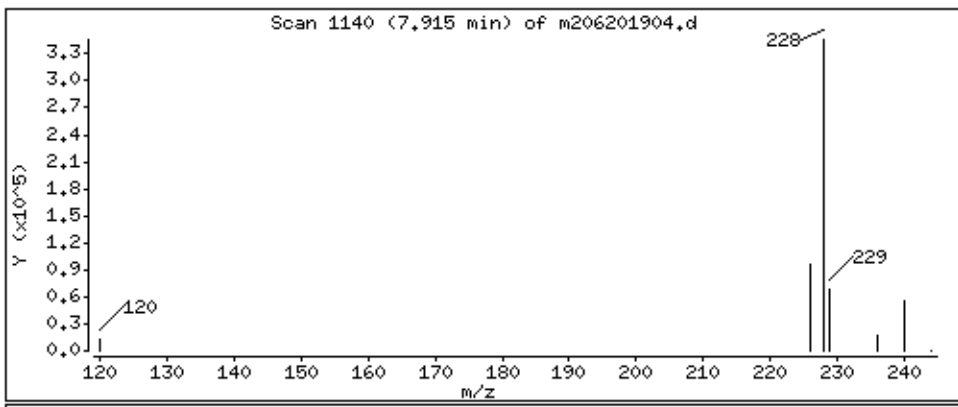
Operator: AJC

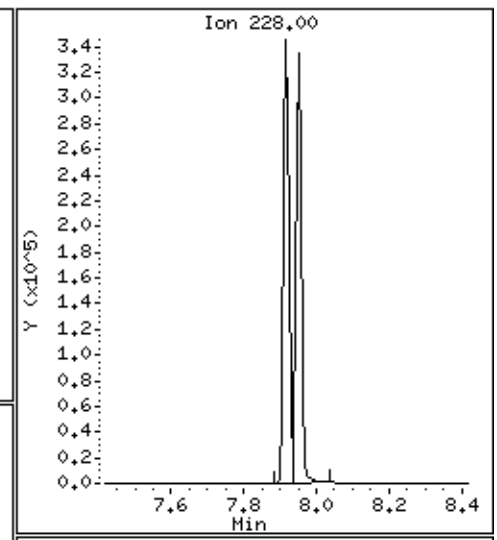
Column phase: RTX-5MS

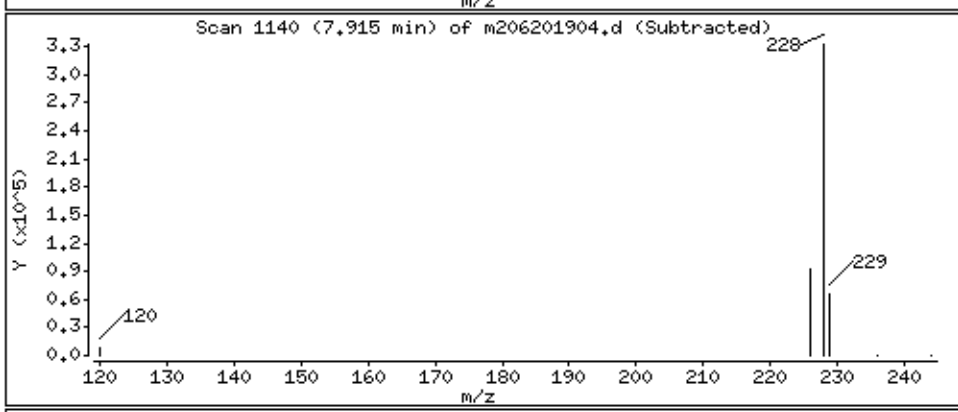
Column diameter: 0.25

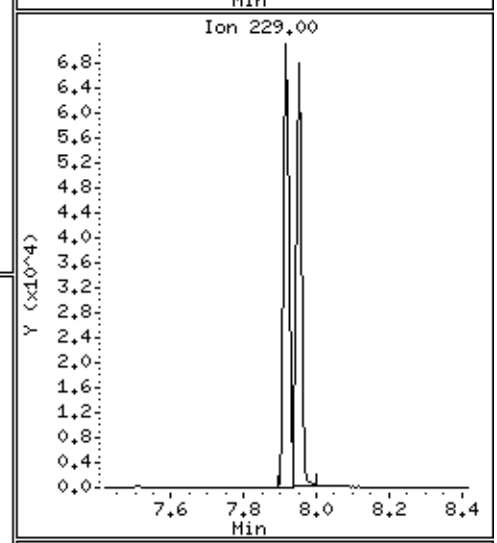
18 Benzo(a)anthracene

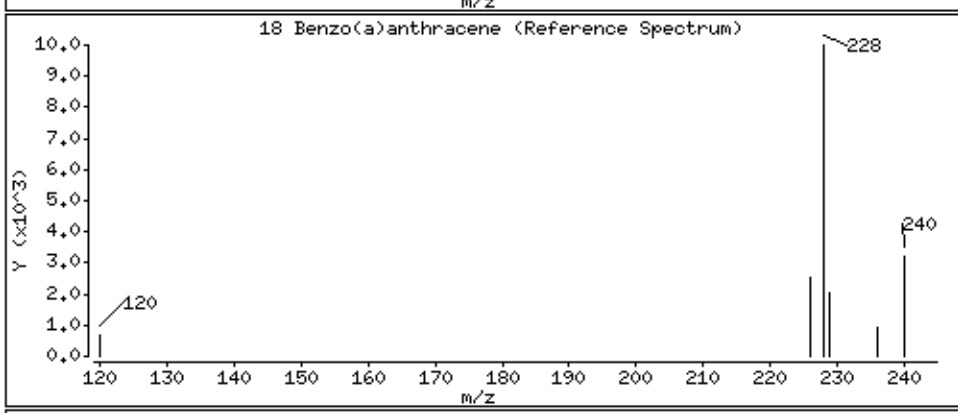
Concentration: 133 ug/Kg

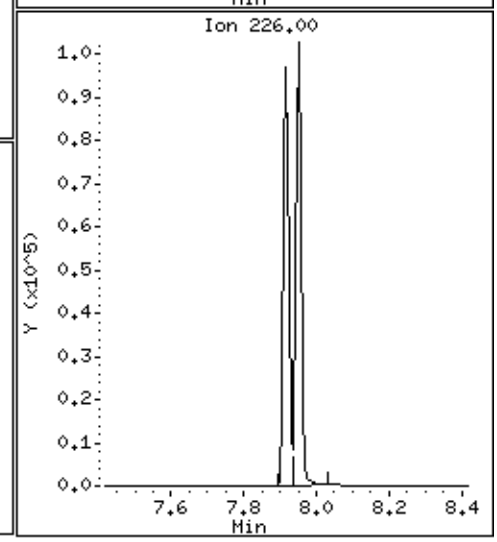


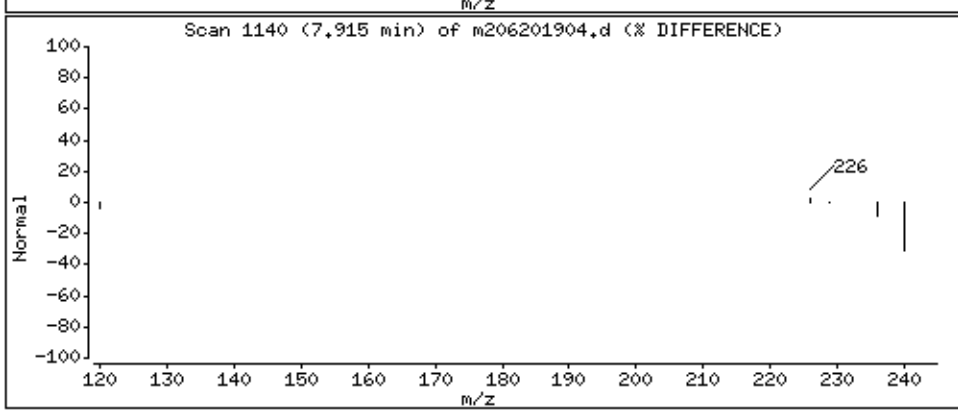












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

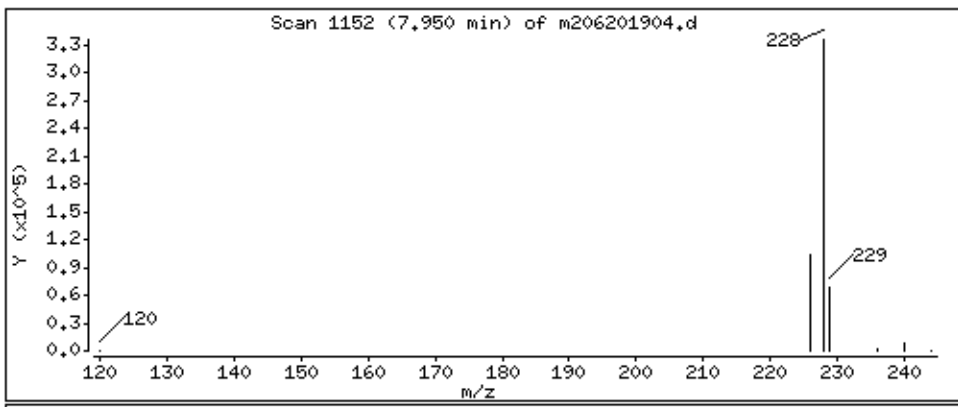
Operator: AJC

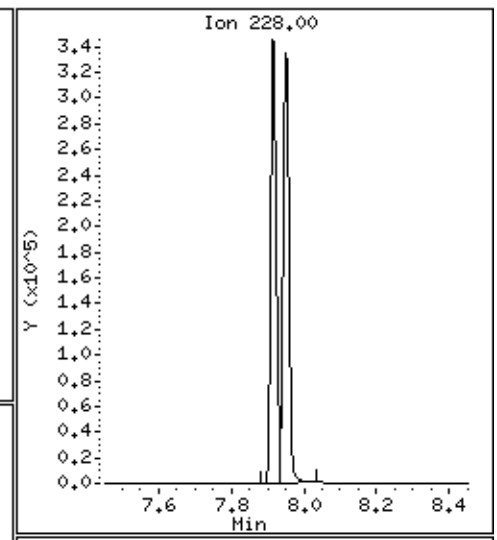
Column phase: RTX-5MS

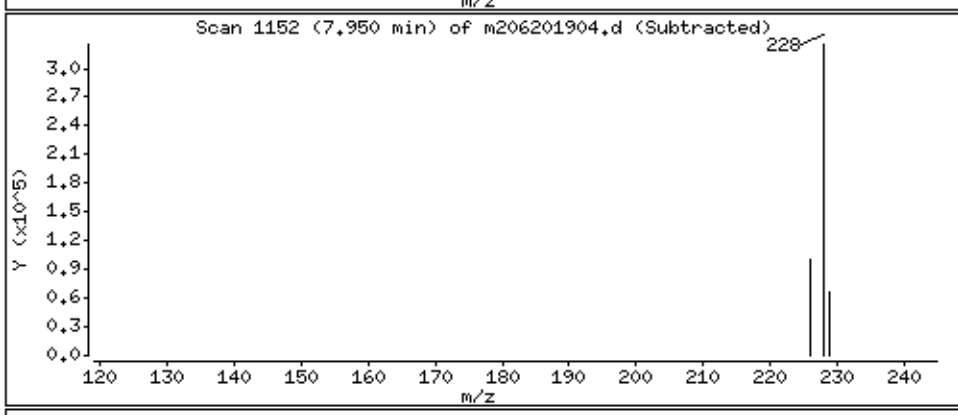
Column diameter: 0.25

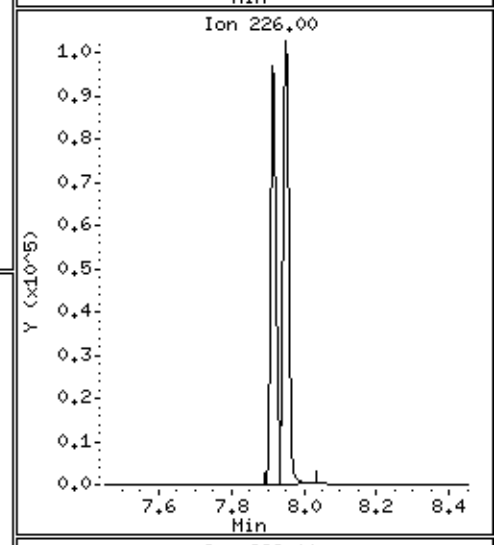
19 Chrysene

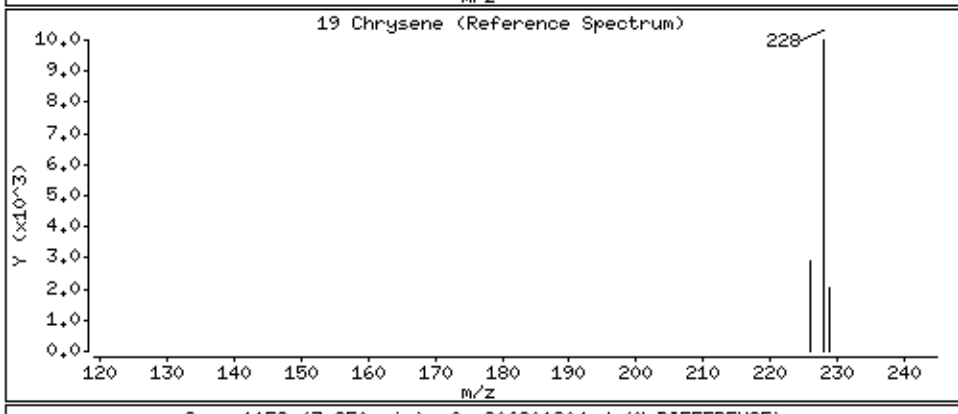
Concentration: 124 ug/Kg

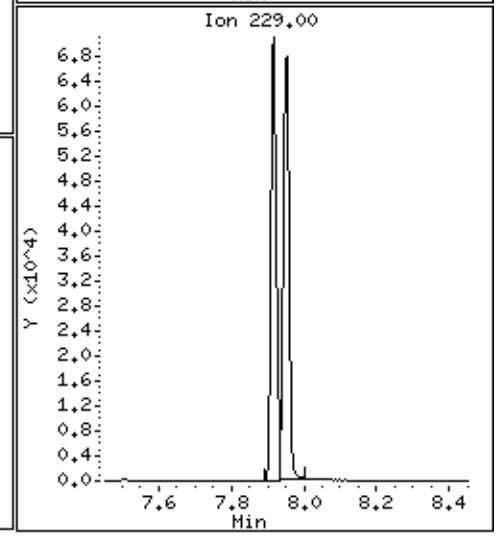


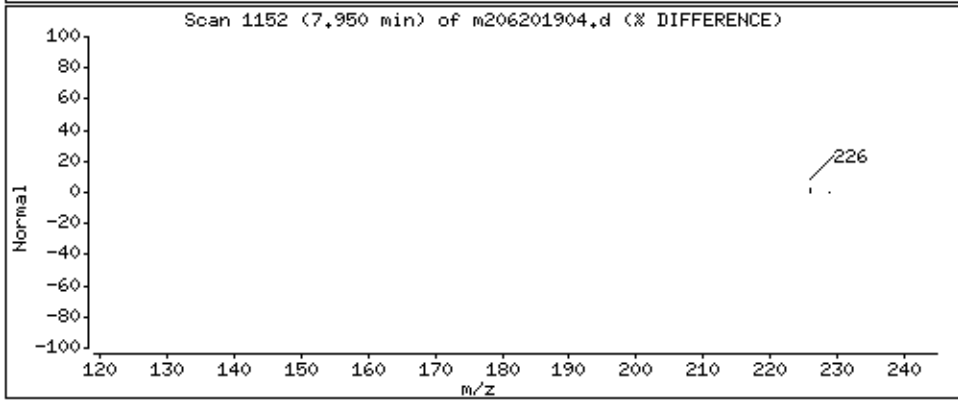












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

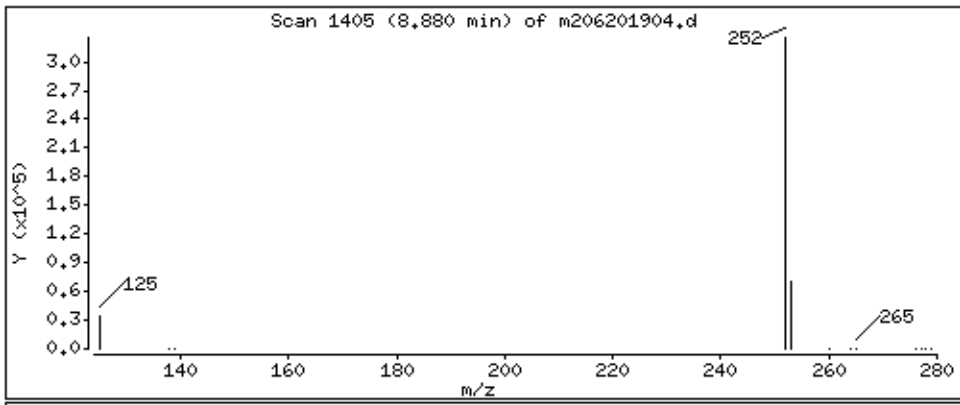
Operator: AJC

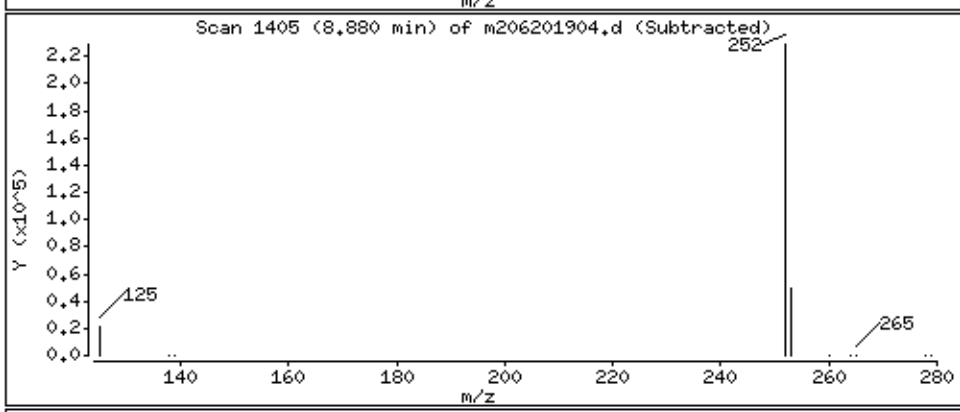
Column phase: RTX-5MS

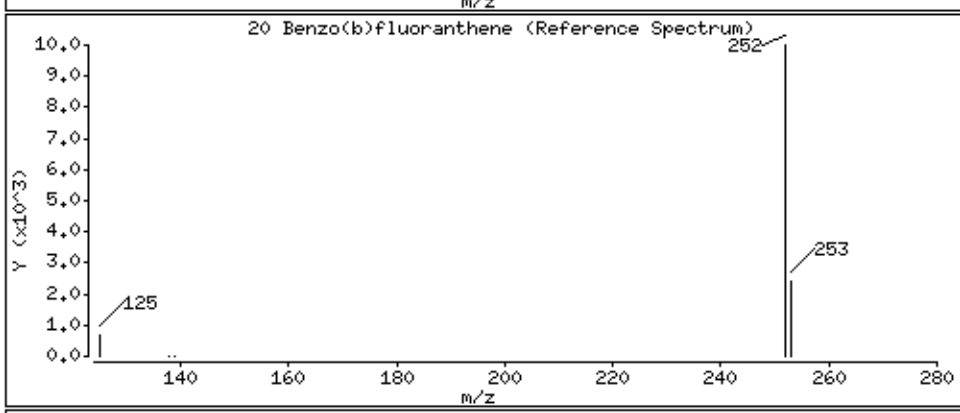
Column diameter: 0.25

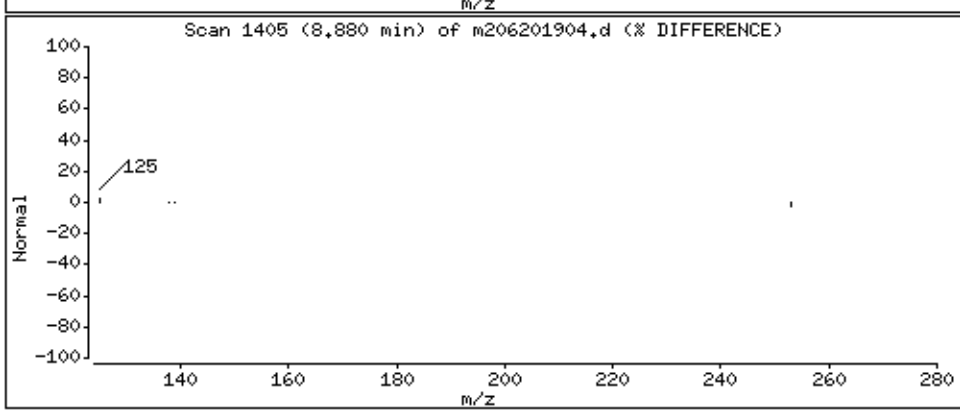
20 Benzo(b)fluoranthene

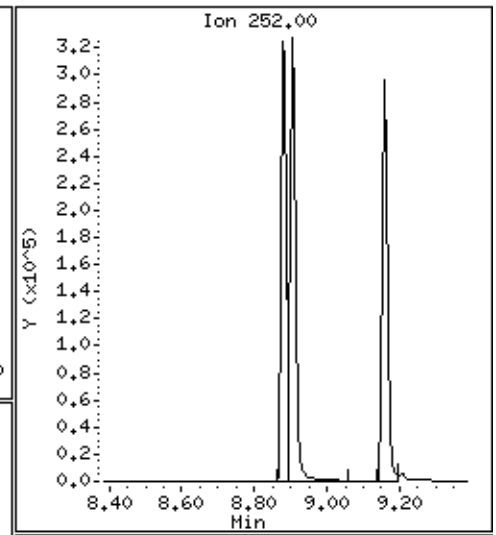
Concentration: 139 ug/Kg

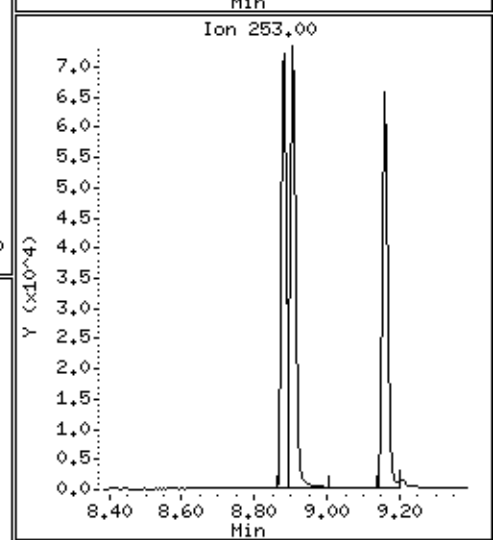


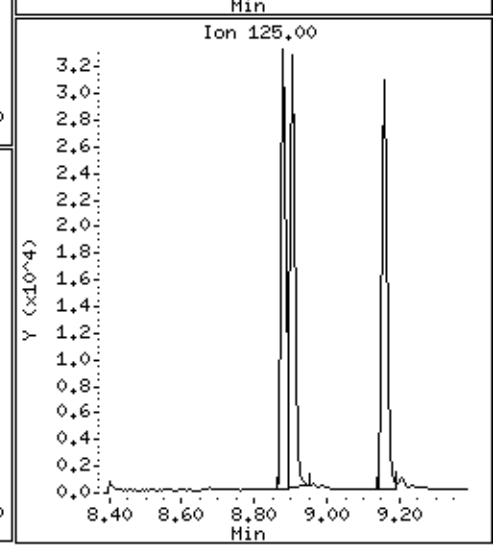












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Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

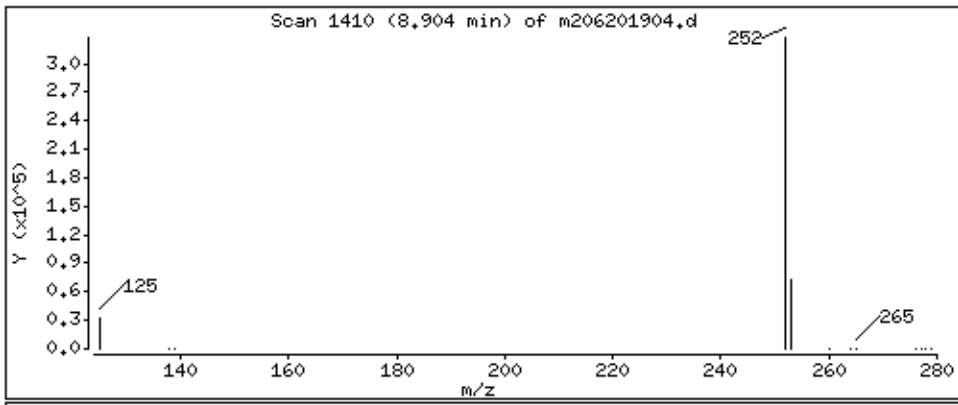
Operator: AJC

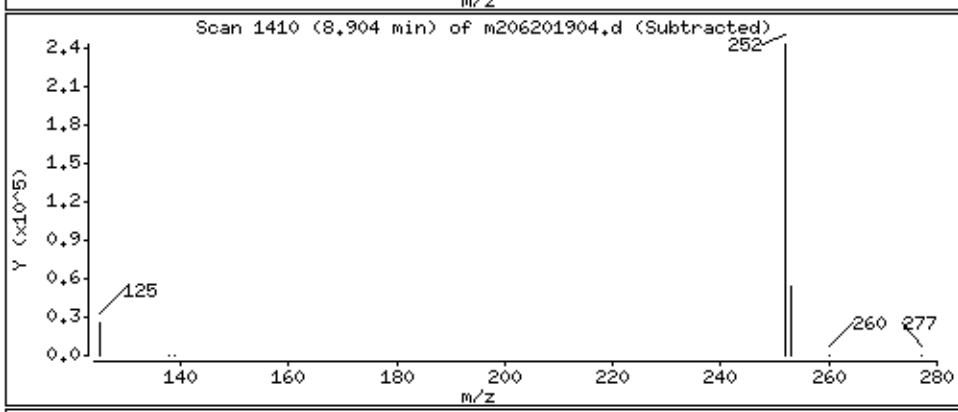
Column phase: RTX-5MS

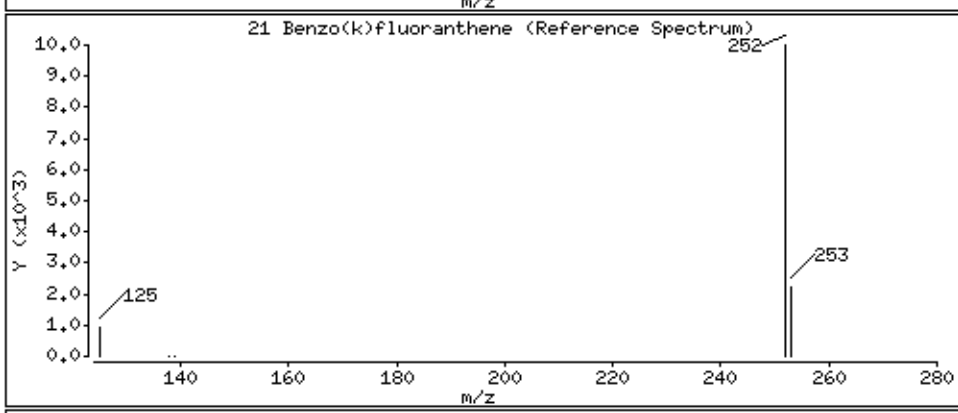
Column diameter: 0.25

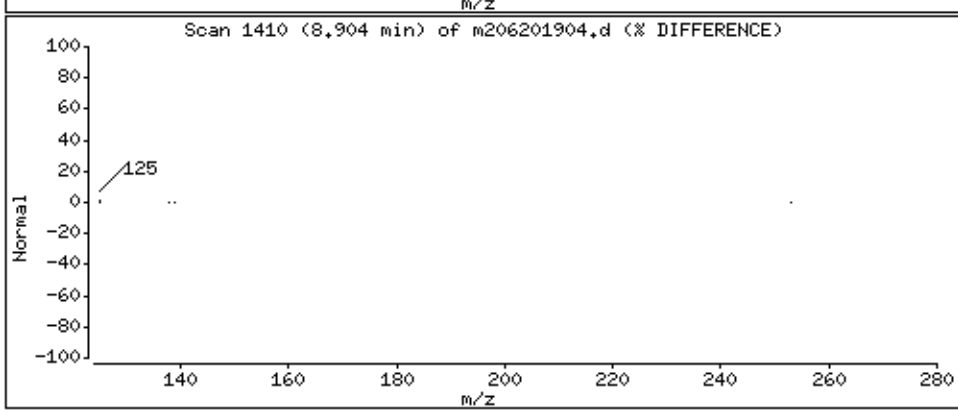
21 Benzo(k)fluoranthene

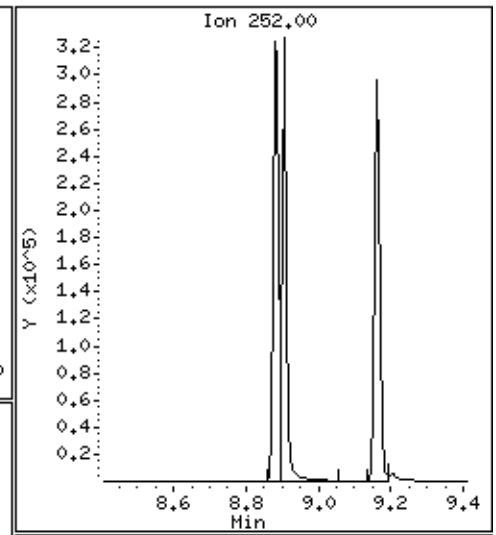
Concentration: 119 ug/Kg

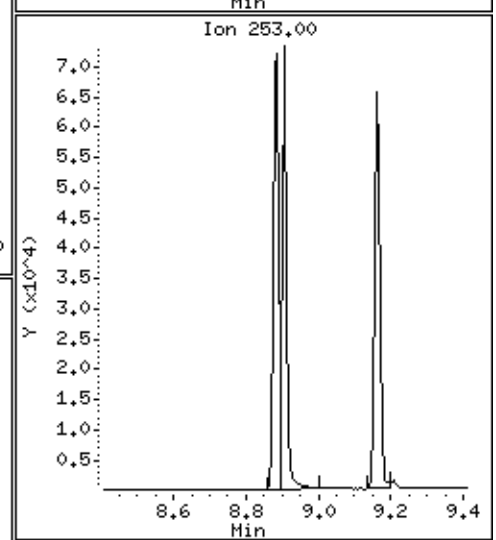


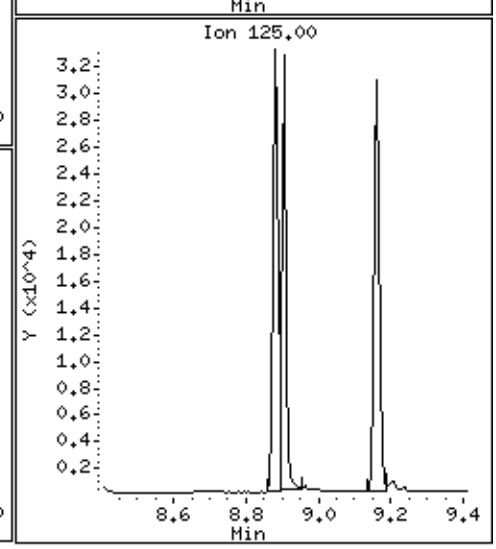












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

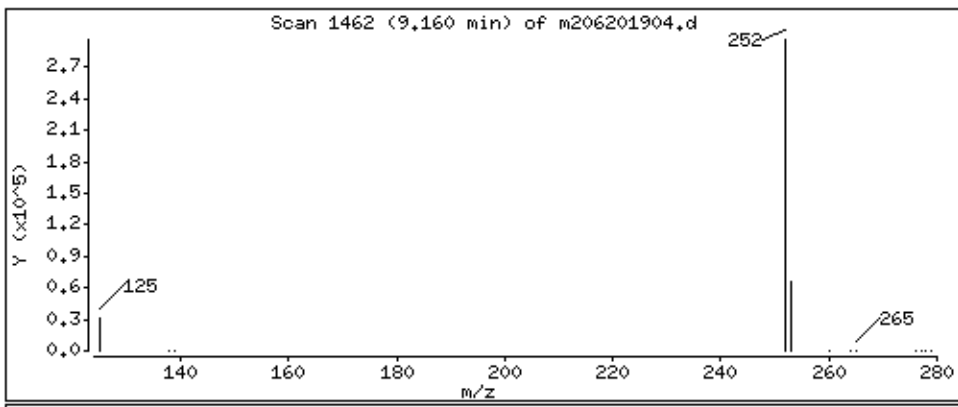
Operator: AJC

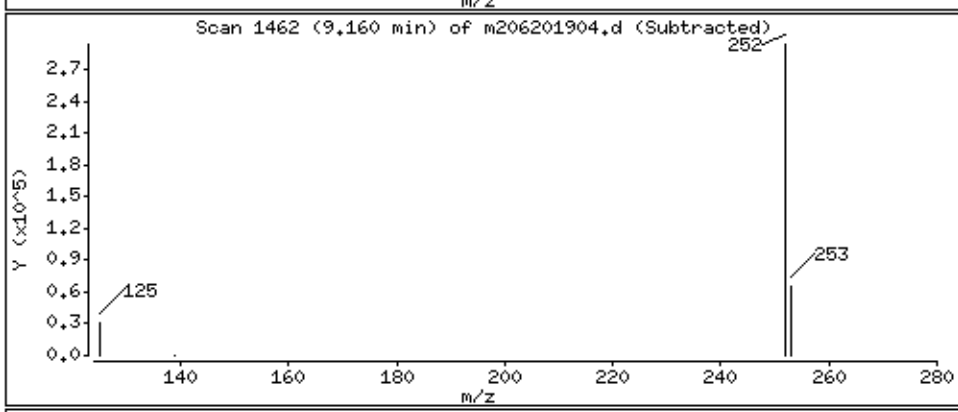
Column phase: RTX-5MS

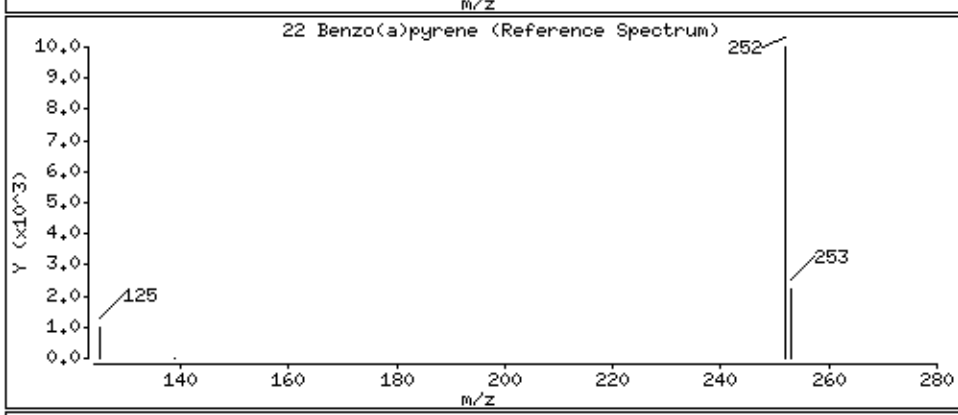
Column diameter: 0.25

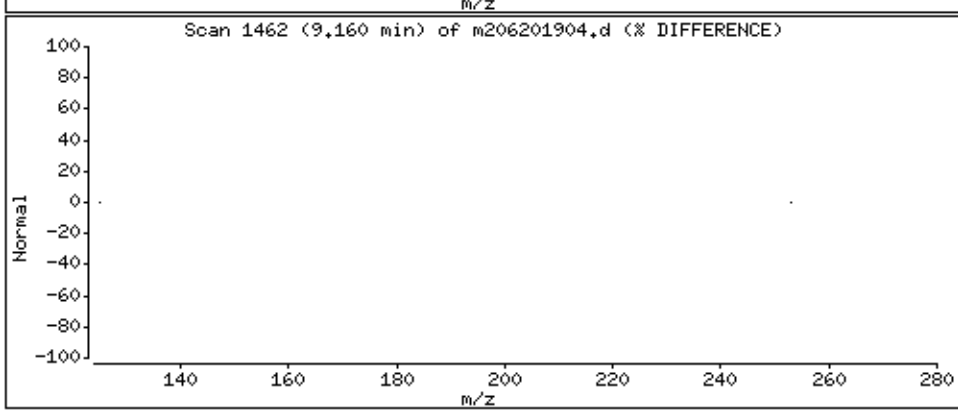
22 Benzo(a)pyrene

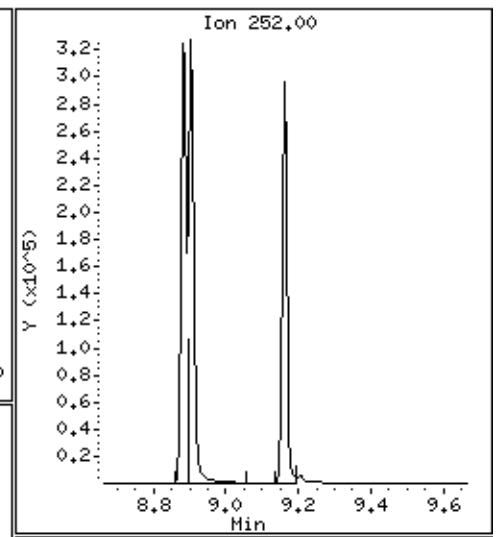
Concentration: 129 ug/Kg

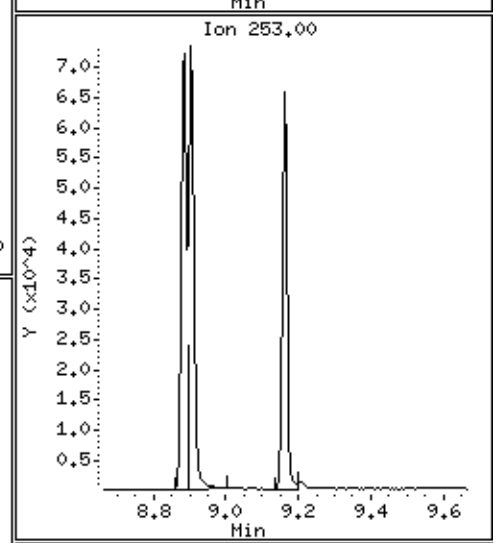


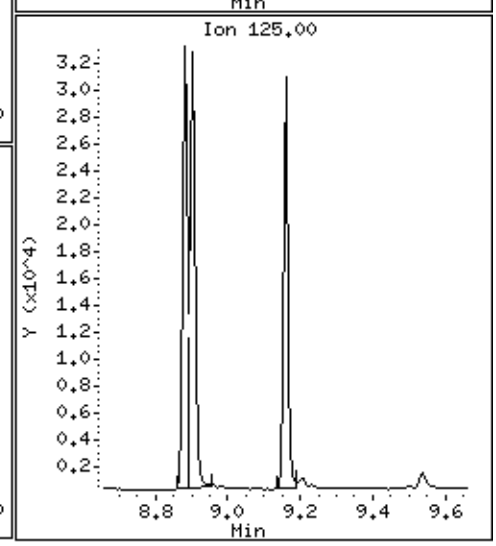












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

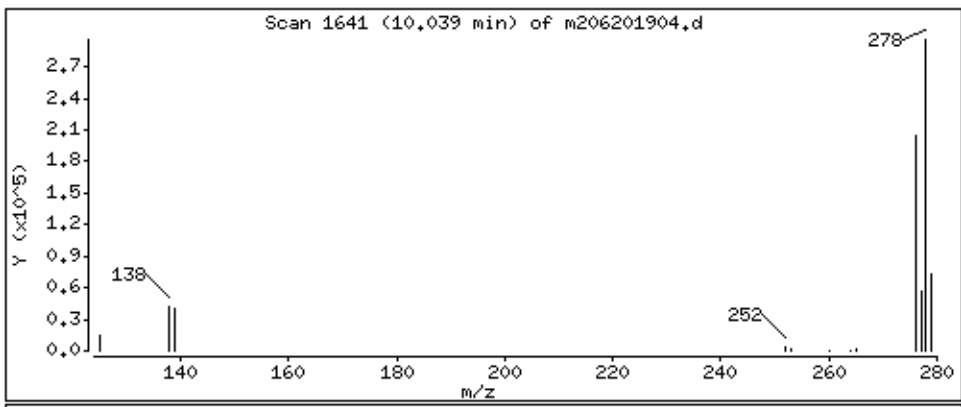
Operator: AJC

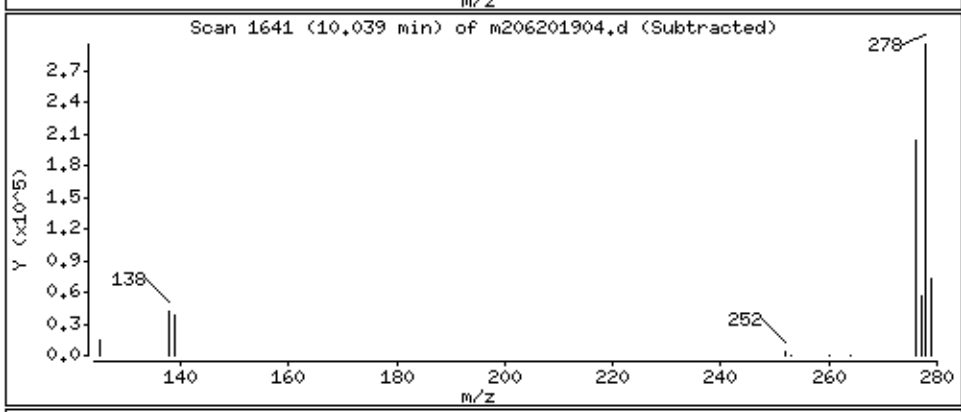
Column phase: RTX-5MS

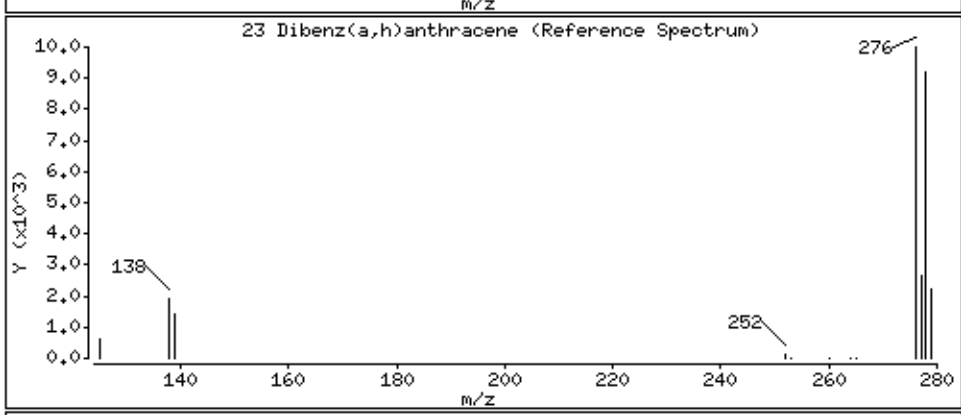
Column diameter: 0.25

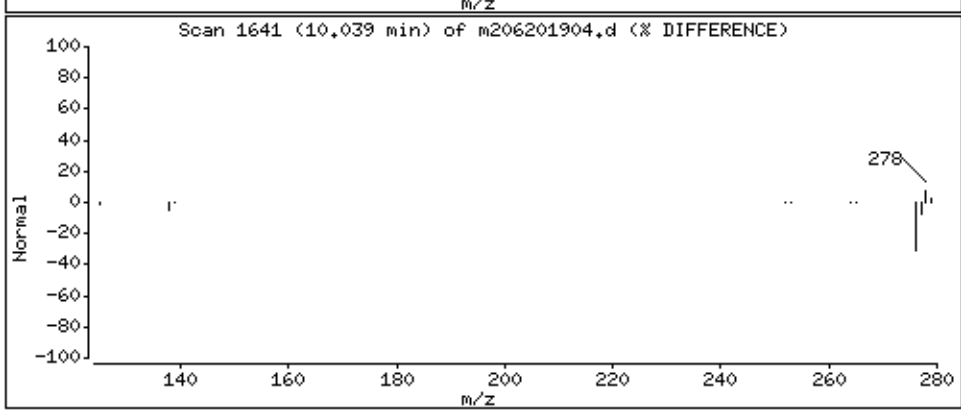
23 Dibenz(a,h)anthracene

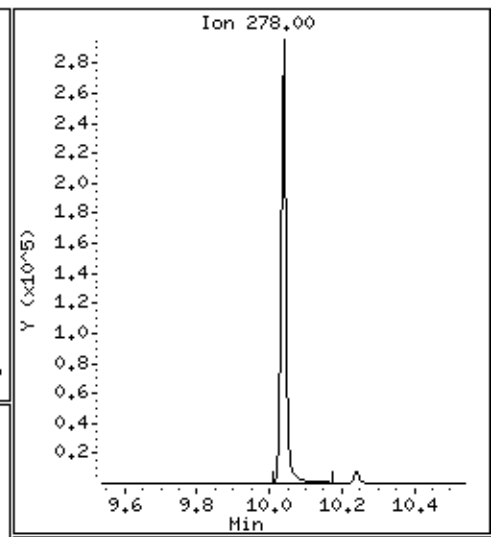
Concentration: 130 ug/Kg

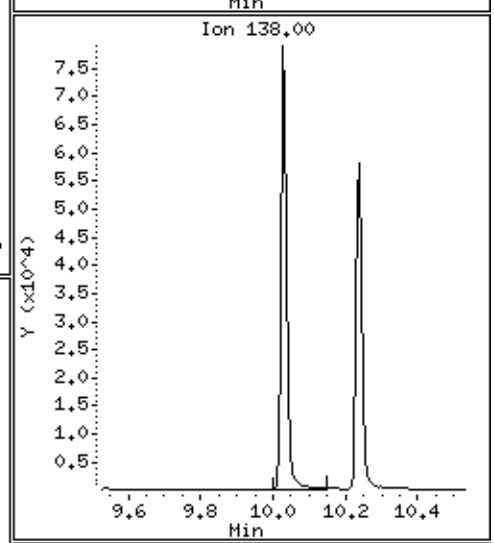


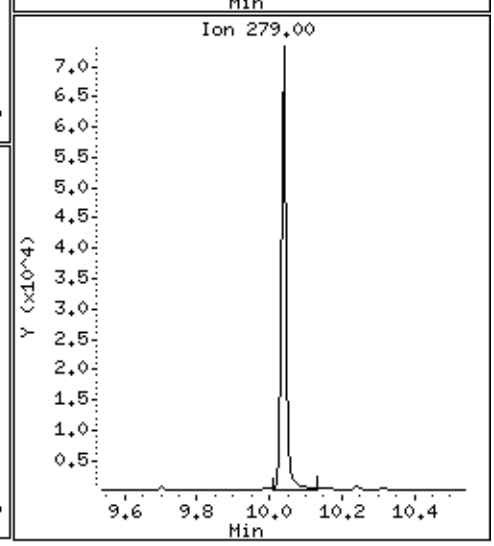












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

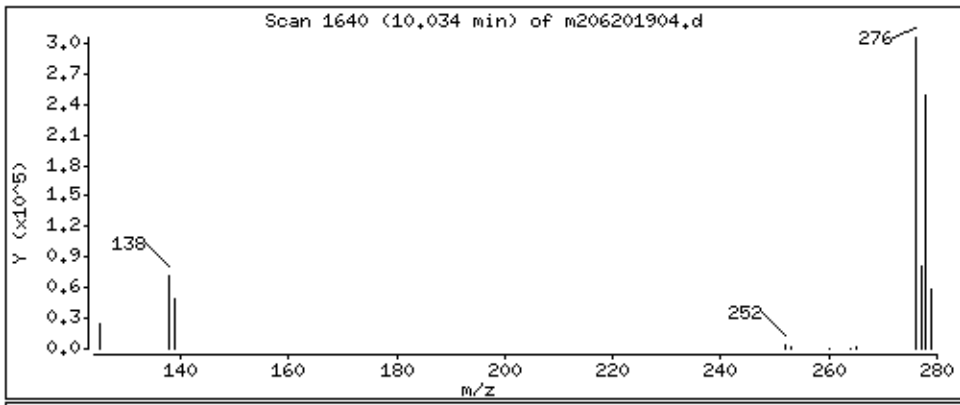
Operator: AJC

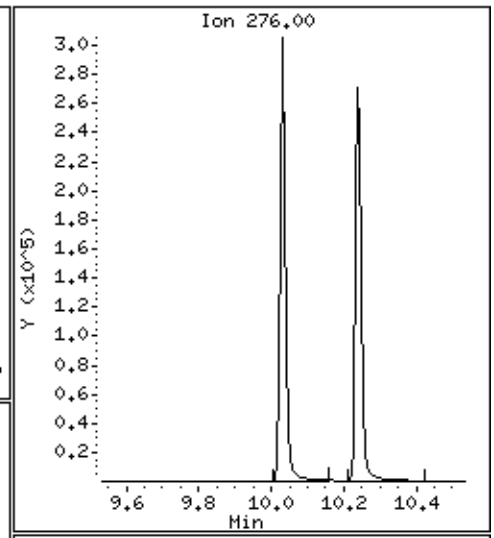
Column phase: RTX-5MS

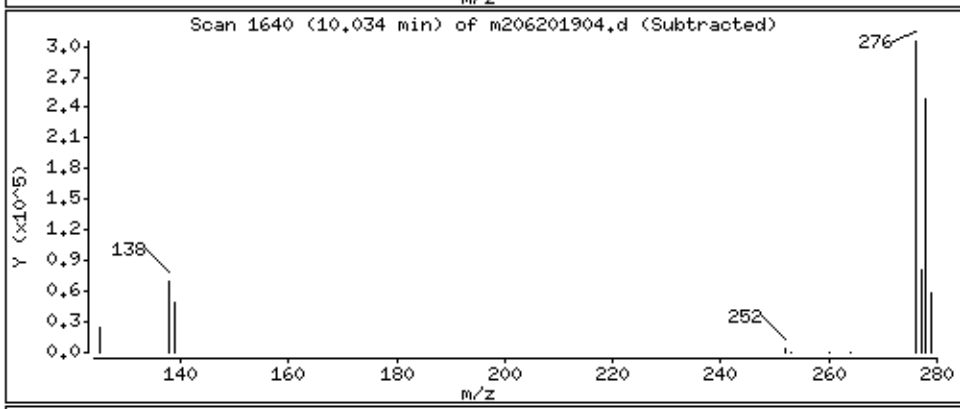
Column diameter: 0.25

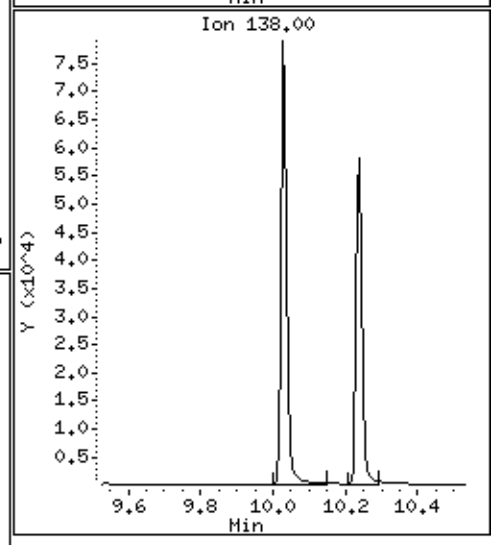
24 Indeno(1,2,3-cd)pyrene

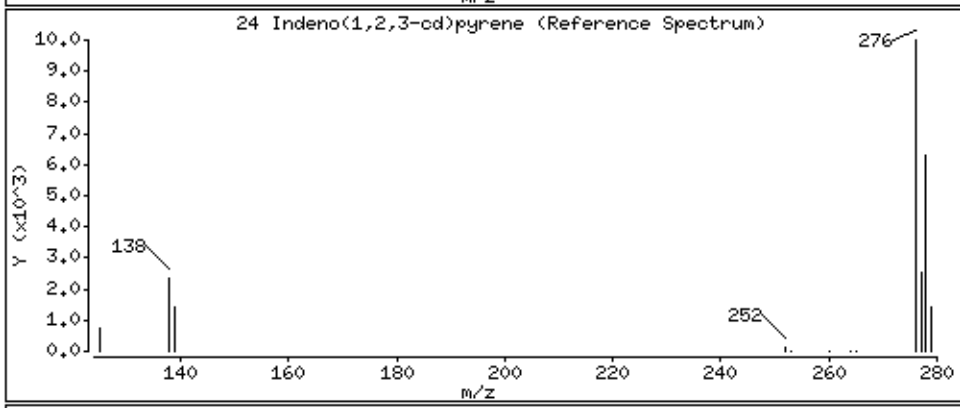
Concentration: 129 ug/Kg

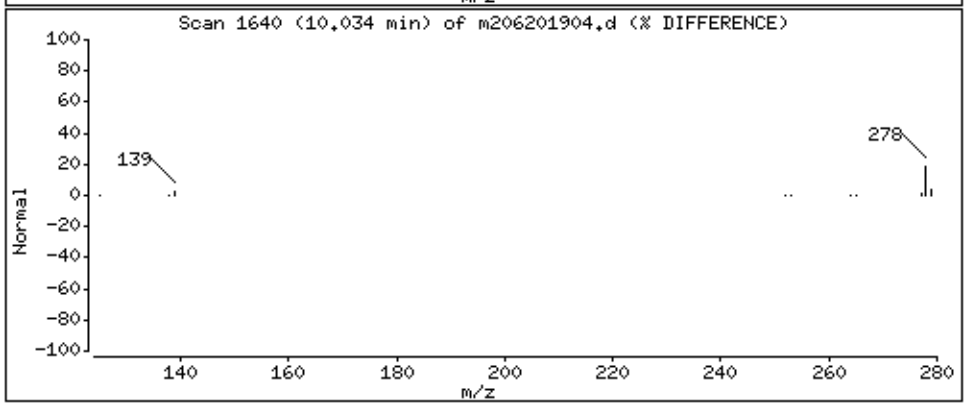












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201904.d

Date : 20-JUN-2019 11:32

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1692793,

Volume Injected (uL): 1.0

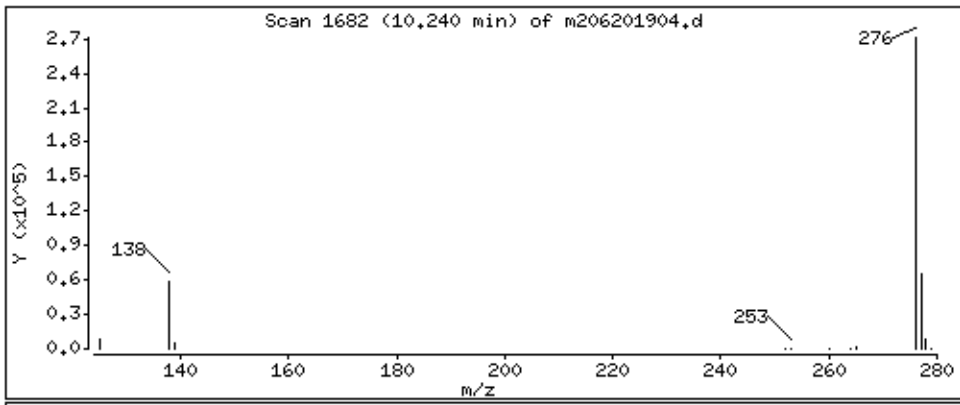
Operator: AJC

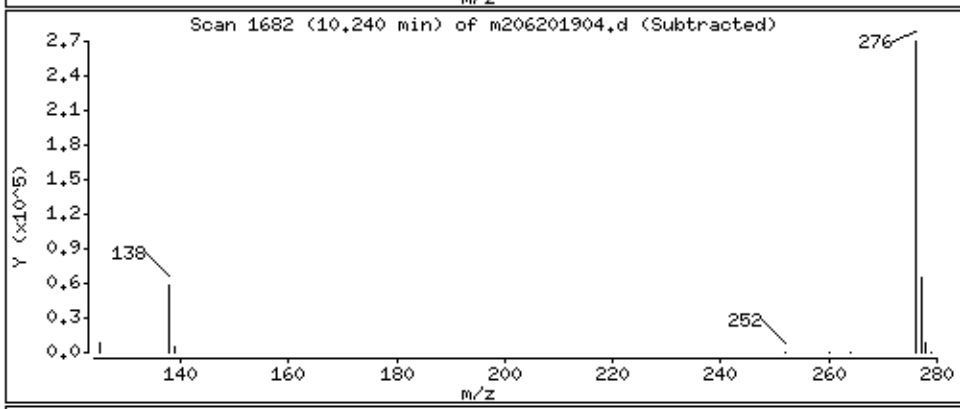
Column phase: RTX-5MS

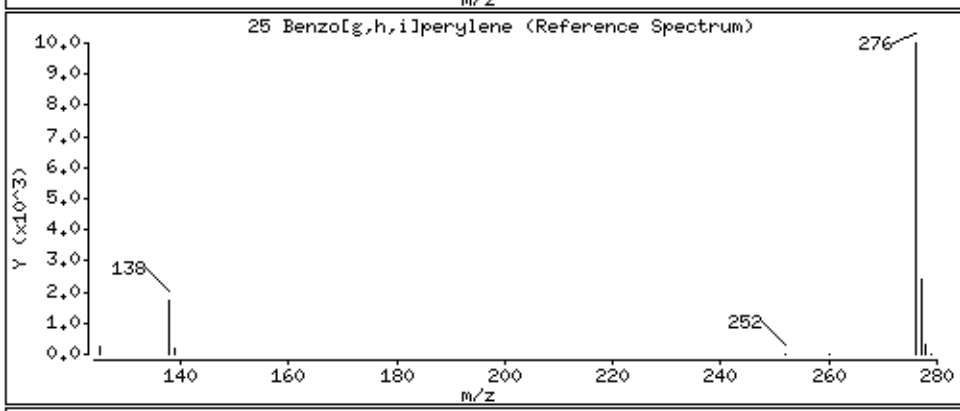
Column diameter: 0.25

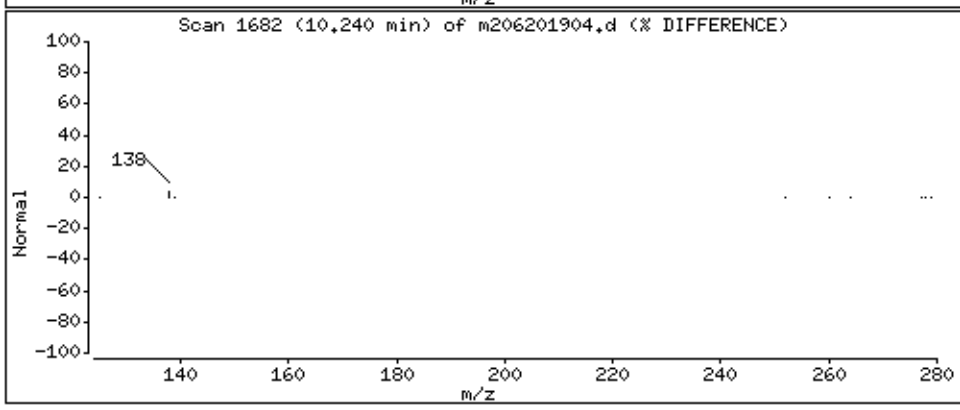
25 Benzo[g,h,i]perylene

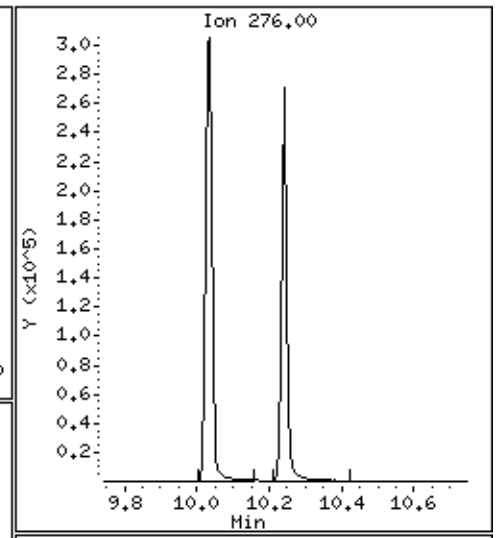
Concentration: 131 ug/Kg

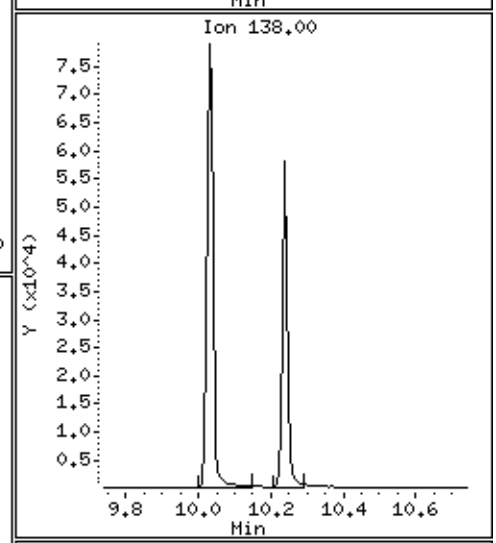


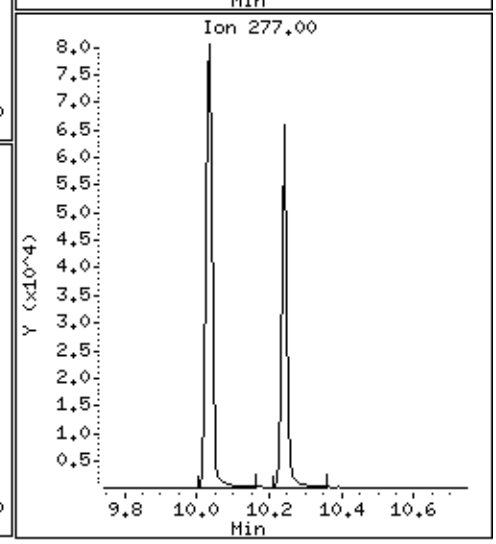












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201904.d
Injection Date: 20-JUN-2019 11:32
Instrument: 30mss2.i
Lab Sample ID: 1692793
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 1692794
Date Analyzed: 06/20/2019 19:01
Lab File ID: MSS2062019.B\M206201929.D
Initial wt/vol: 15.09 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.15	
208-96-8	Acenaphthylene	0.21	
120-12-7	Anthracene	0.30	
56-55-3	Benzo(a)anthracene	0.64	
50-32-8	Benzo(a)pyrene	0.67	
205-99-2	Benzo(b)fluoranthene	1.1	
191-24-2	Benzo(g,h,i)perylene	0.26	
207-08-9	Benzo(k)fluoranthene	0.46	
218-01-9	Chrysene	0.61	
53-70-3	Dibenz(a,h)anthracene	0.15	
206-44-0	Fluoranthene	1.0	
86-73-7	Fluorene	0.17	
193-39-5	Indeno(1,2,3-cd)pyrene	0.27	
91-20-3	Naphthalene	0.19	
85-01-8	Phenanthrene	0.47	
129-00-0	Pyrene	0.93	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d
Lab Smp Id: 1692794 Client Smp ID: AOC 26-1MS
Inj Date : 20-JUN-2019 19:01
Operator : AJC Inst ID: 30mss2.i
Smp Info : 1692794x10,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 31 QC Sample: MS
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.090	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.504	3.498	(1.000)	619470	4.00000		
	8 Naphthalene	128	3.515	3.510	(1.003)	36535	0.26171	173(R)	
	9 2-Methylnaphthalene	142	3.955	3.949	(1.129)	21417	0.23083	153(R)	
	10 1-Methylnaphthalene	142	4.018	4.012	(1.147)	19814	0.19906	132	
$	6 2-Fluorobiphenyl (S)	172	4.183	4.178	(0.905)	45973	0.38839	25.7(R)	
	11 Acenaphthylene	152	4.533	4.530	(0.981)	40556	0.29031	192(R)	
*	2 Acenaphthene-d10 (IS)	164	4.622	4.619	(1.000)	354627	4.00000		
	12 Acenaphthene	153	4.642	4.639	(1.004)	18845	0.20653	137	
	13 Fluorene	166	4.982	4.979	(1.078)	25103	0.23441	155(R)	
*	3 Phenanthrene-d10 (IS)	188	5.650	5.646	(1.000)	633486	4.00000		
	14 Phenanthrene	178	5.664	5.659	(1.002)	99300	0.64940	430(R)	
	15 Anthracene	178	5.704	5.700	(1.010)	65636	0.42119	279(R)	
	16 Fluoranthene	202	6.629	6.625	(1.173)	248380	1.41916	940(R)	
	17 Pyrene	202	6.832	6.828	(1.209)	232202	1.29036	855(R)	
$	7 Terphenyl-d14 (S)	244	6.954	6.950	(1.231)	59513	0.44256	29.3(R)	
	18 Benzo(a)anthracene	228	7.923	7.917	(0.999)	146099	0.89421	592	
*	4 Chrysene-d12 (IS)	240	7.934	7.929	(1.000)	597070	4.00000		
	19 Chrysene	228	7.958	7.952	(1.003)	141920	0.84807	562(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.894	8.884	(0.965)	200512	1.57892	1050	
21 Benzo(k)fluoranthene	252	8.914	8.909	(0.967)	98401	0.64493	427(Q)	
22 Benzo(a)pyrene	252	9.169	9.164	(0.995)	113149	0.93658	621	
* 5 Perylene-d12 (IS)	264	9.218	9.209	(1.000)	486628	4.00000		
23 Dibenz(a,h)anthracene	278	10.048	10.039	(1.090)	27286	0.20841	138(Q)	
24 Indeno(1,2,3-cd)pyrene	276	10.043	10.034	(1.090)	59805	0.37798	250	
25 Benzo[g,h,i]perylene	276	10.254	10.245	(1.112)	47944	0.36803	244(R)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

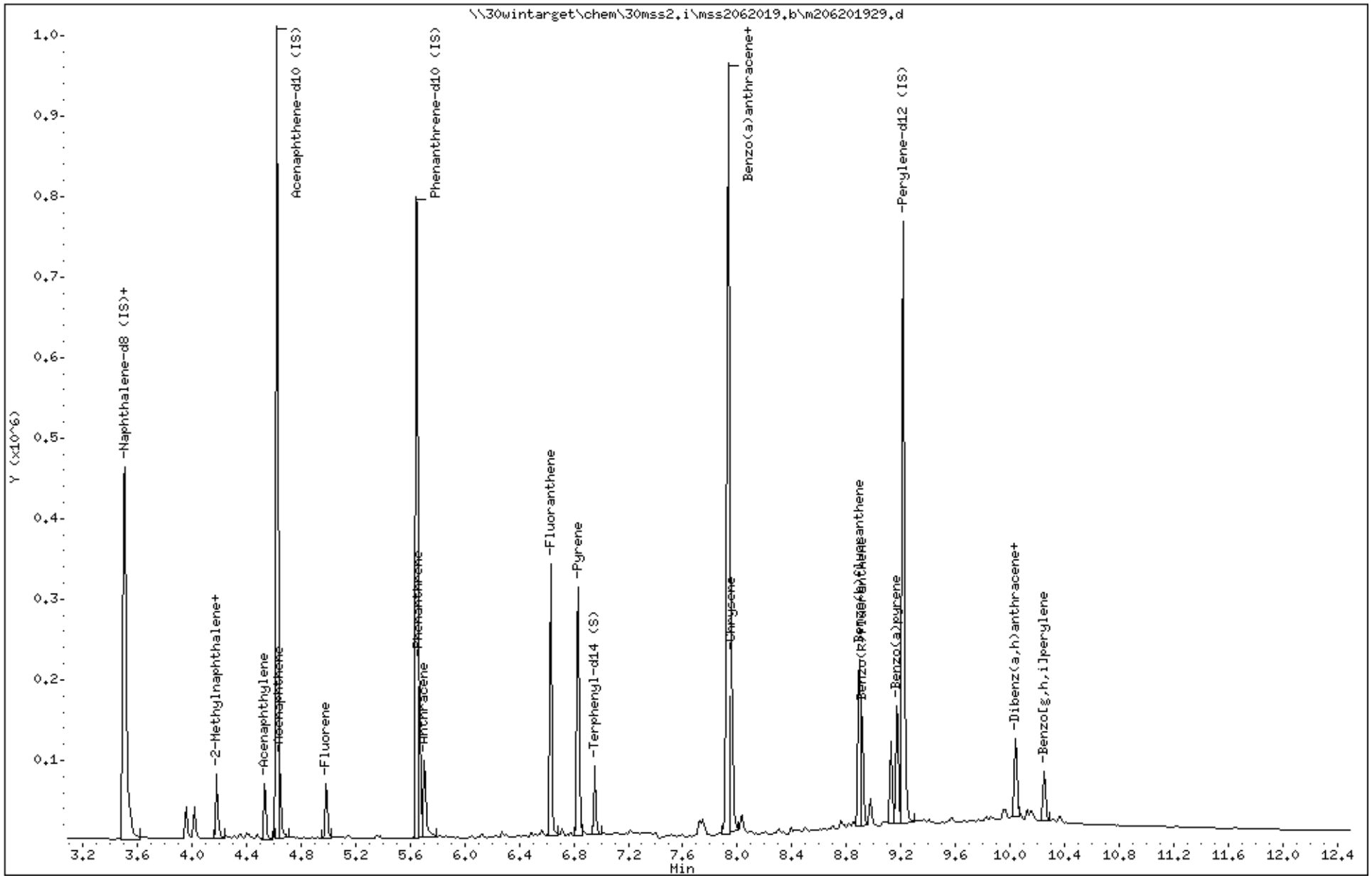
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1692794
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14727,

Client SDG: mss2062019.b
Client Smp ID: AOC 26-1MS
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ISTD
Level: LOW
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0994	U
91-20-3	Naphthalene	173	
91-57-6	2-Methylnaphthalene	153	
90-12-0	1-Methylnaphthalene	132	
208-96-8	Acenaphthylene	192	
83-32-9	Acenaphthene	137	
86-73-7	Fluorene	155	
85-01-8	Phenanthrene	430	
120-12-7	Anthracene	279	
206-44-0	Fluoranthene	940	
129-00-0	Pyrene	855	
56-55-3	Benzo(a)anthracene	592	
218-01-9	Chrysene	562	
205-99-2	Benzo(b)fluoranthene	1050	
207-08-9	Benzo(k)fluoranthene	427	
50-32-8	Benzo(a)pyrene	621	
53-70-3	Dibenz(a,h)anthracene	138	
193-39-5	Indeno(1,2,3-cd)pyrene	250	
191-24-2	Benzo[g,h,i]perylene	244	
321-60-8	2-Fluorobiphenyl (S)	25.7	
1718-51-0	Terphenyl-d14 (S)	29.3	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d
Date : 20-JUN-2019 19:01
Client ID: AOC 26-1MS
Instrument: 30mss2.i
Sample Info: 1692794x10,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

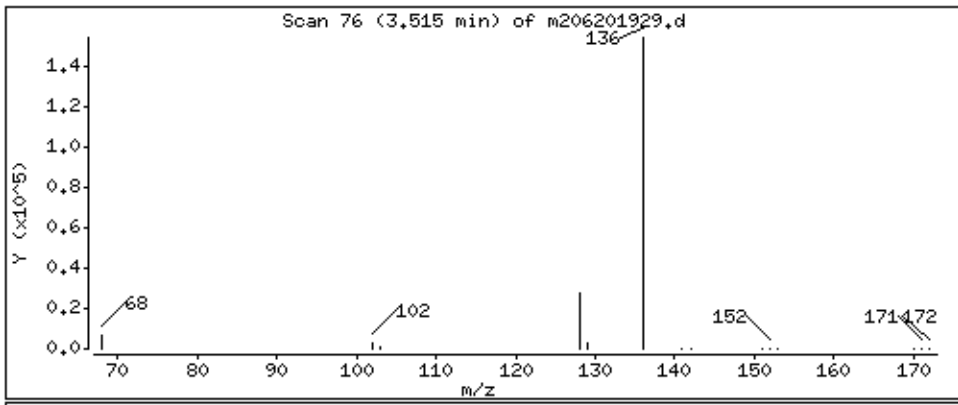
Operator: AJC

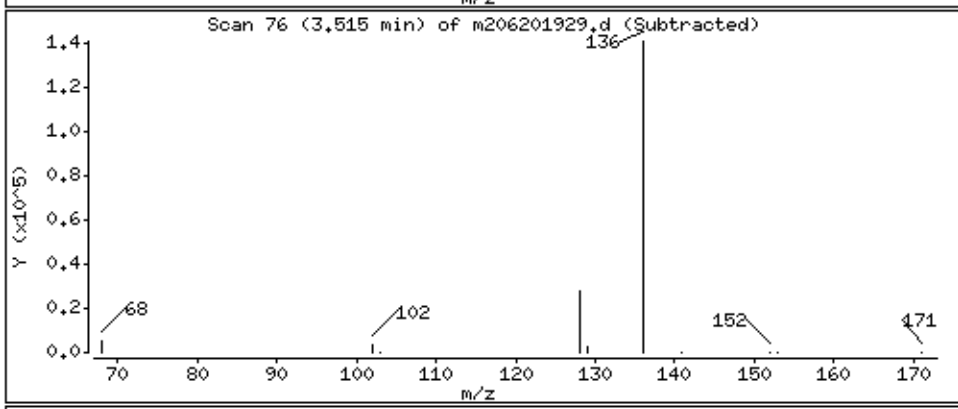
Column phase: RTX-5MS

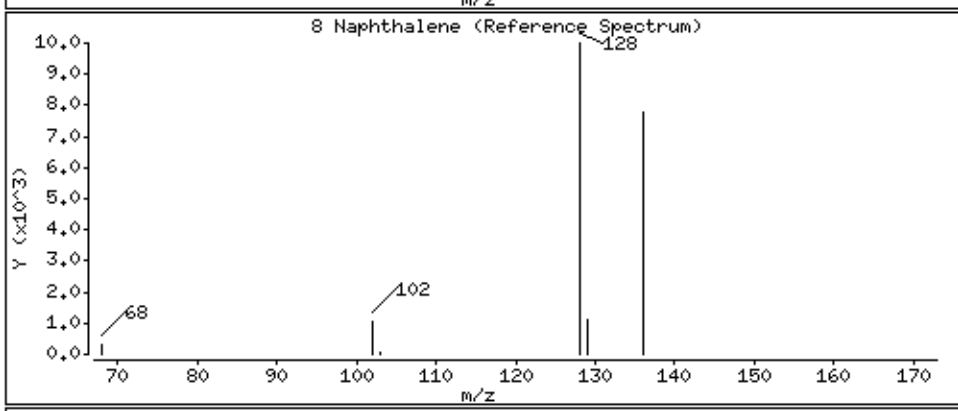
Column diameter: 0.25

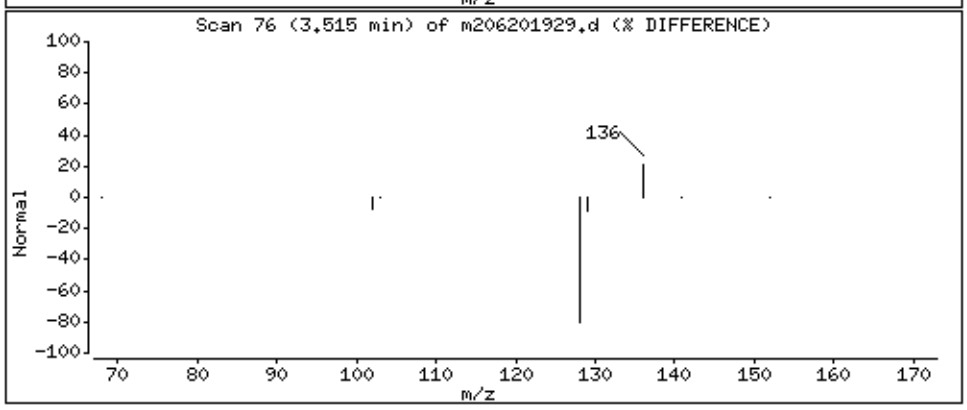
8 Naphthalene

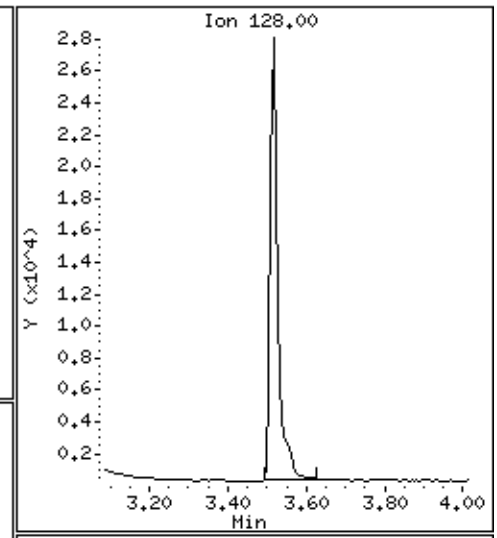
Concentration: 173 ug/Kg

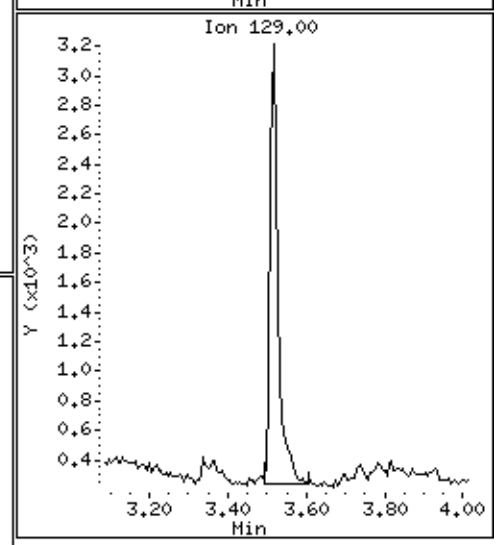












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

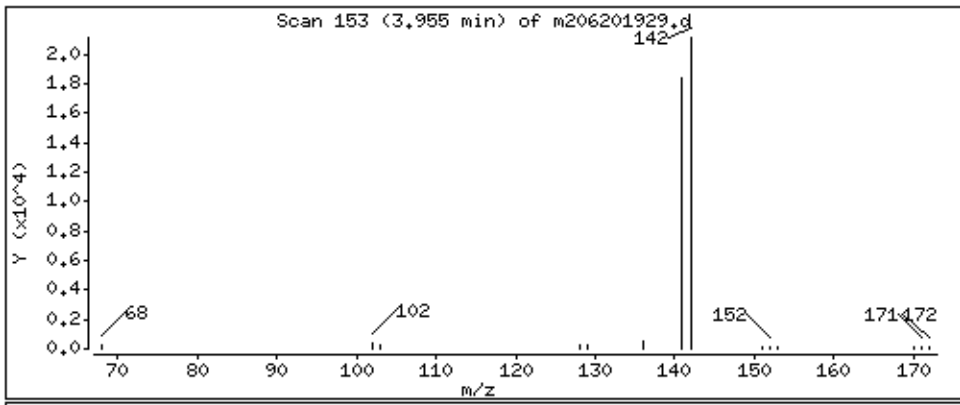
Operator: AJC

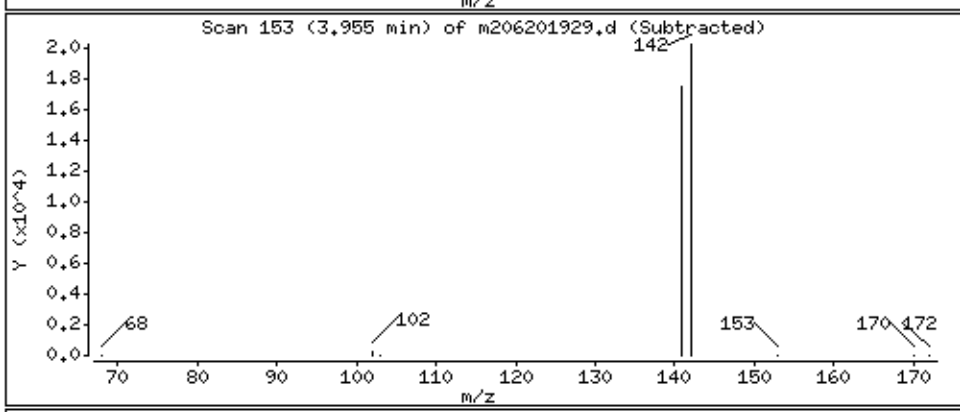
Column phase: RTX-5MS

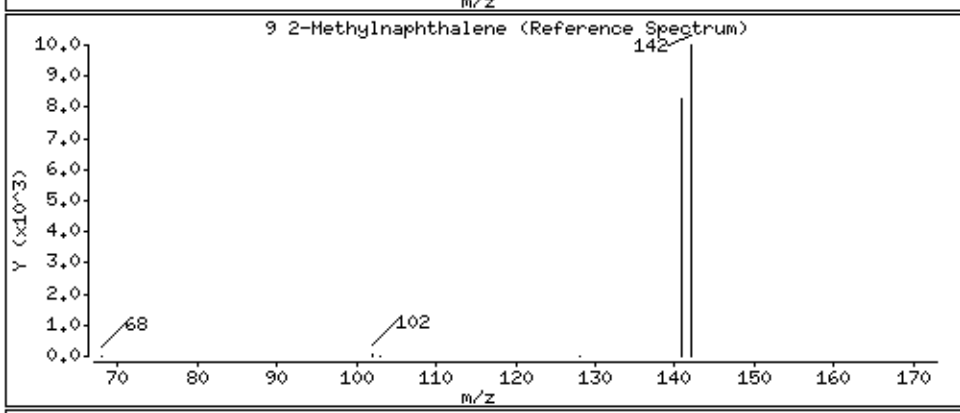
Column diameter: 0.25

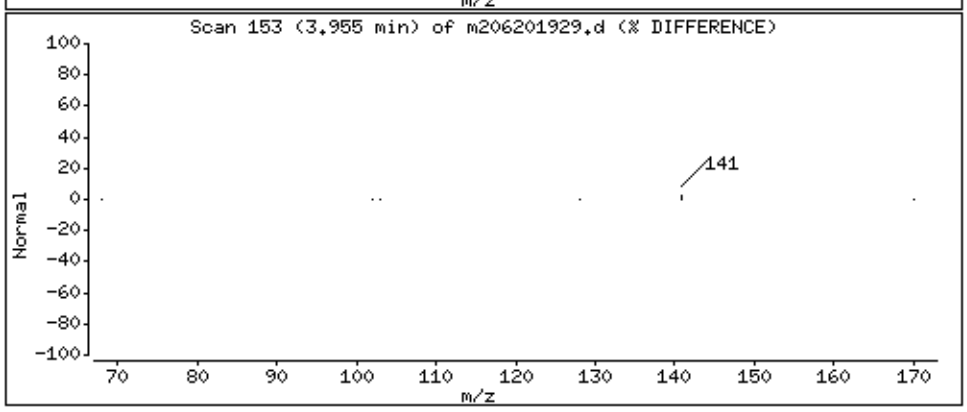
9 2-Methylnaphthalene

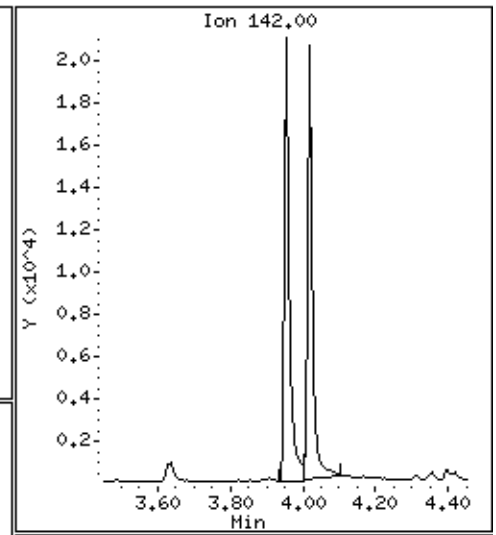
Concentration: 153 ug/Kg

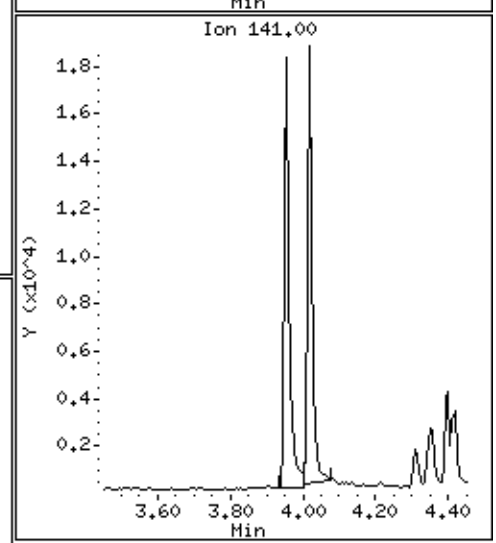












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

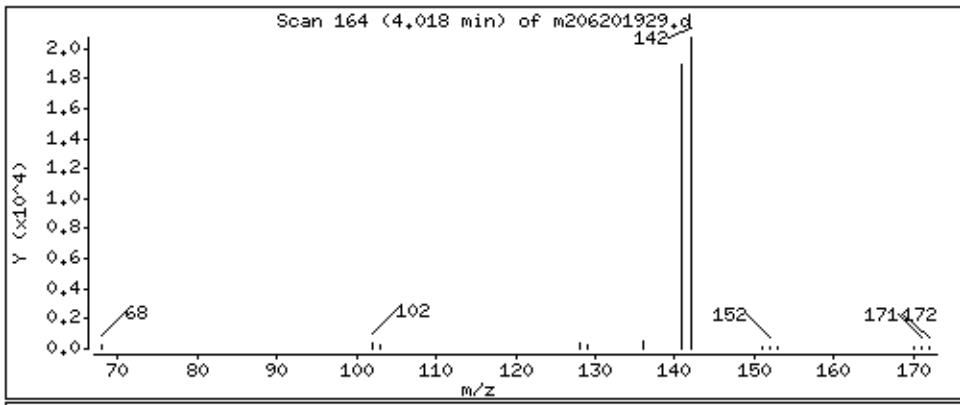
Operator: AJC

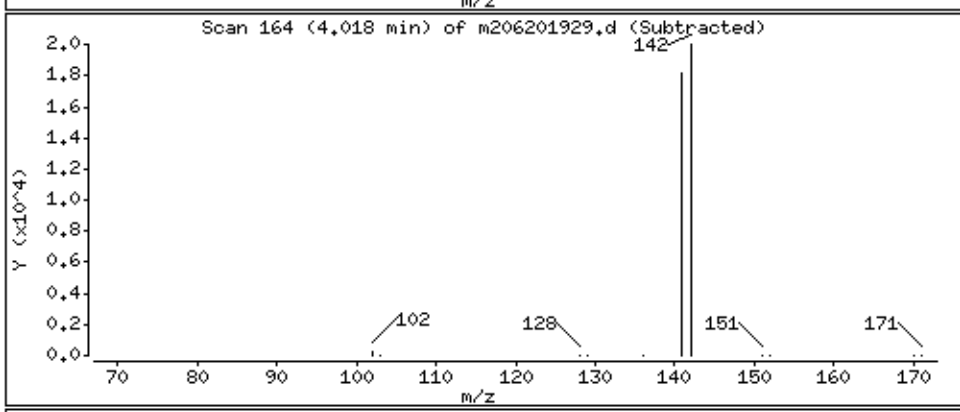
Column phase: RTX-5MS

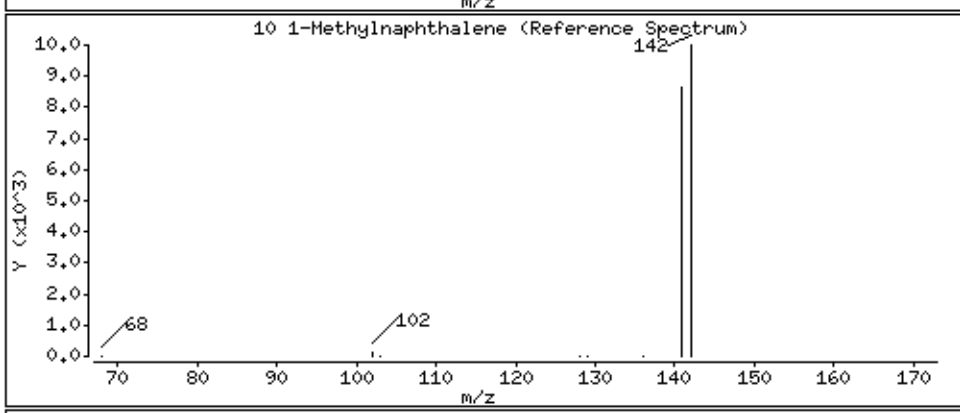
Column diameter: 0.25

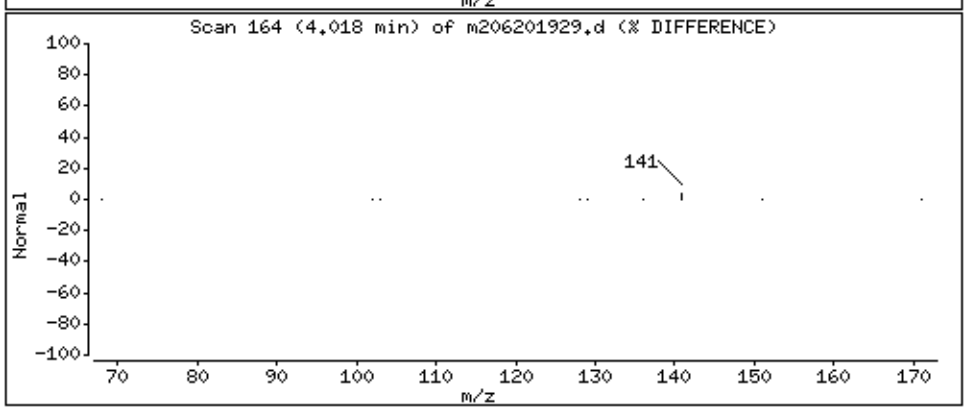
10 1-Methylnaphthalene

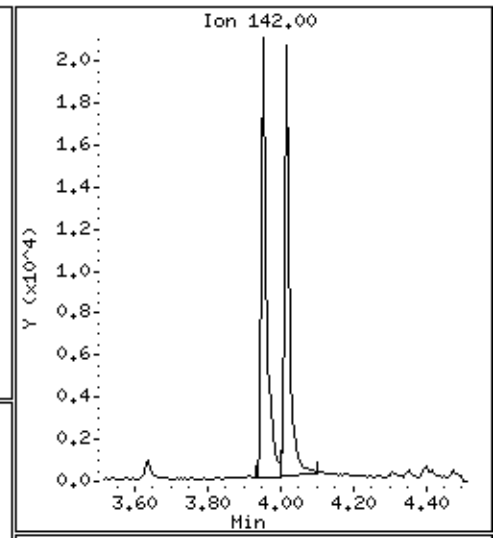
Concentration: 132 ug/Kg

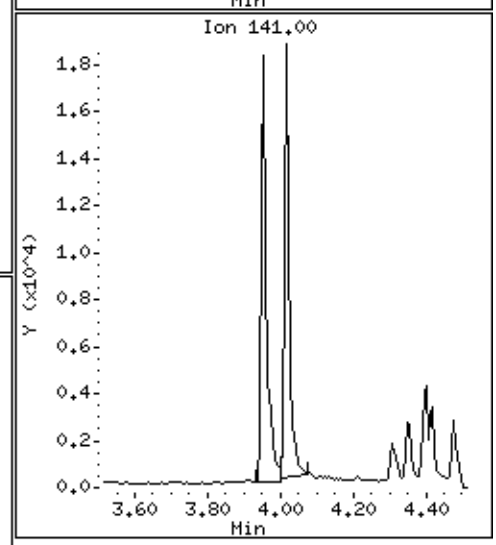












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

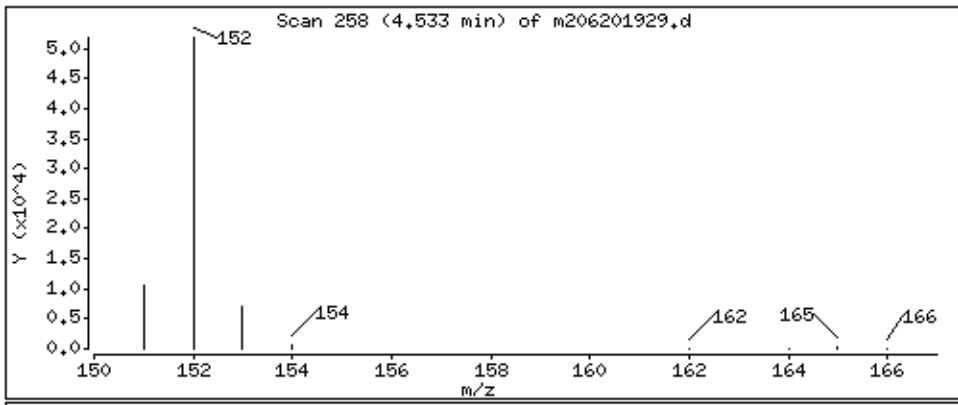
Operator: AJC

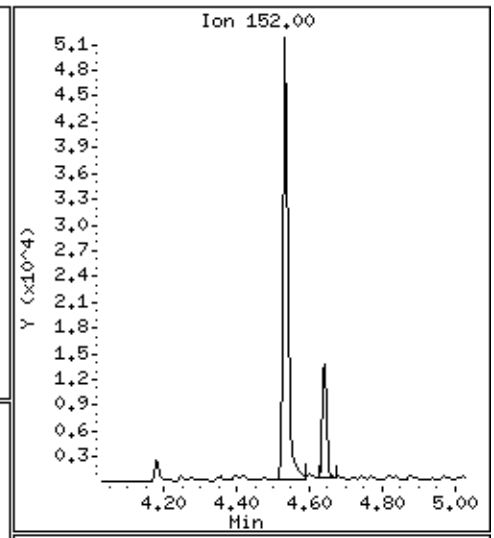
Column phase: RTX-5MS

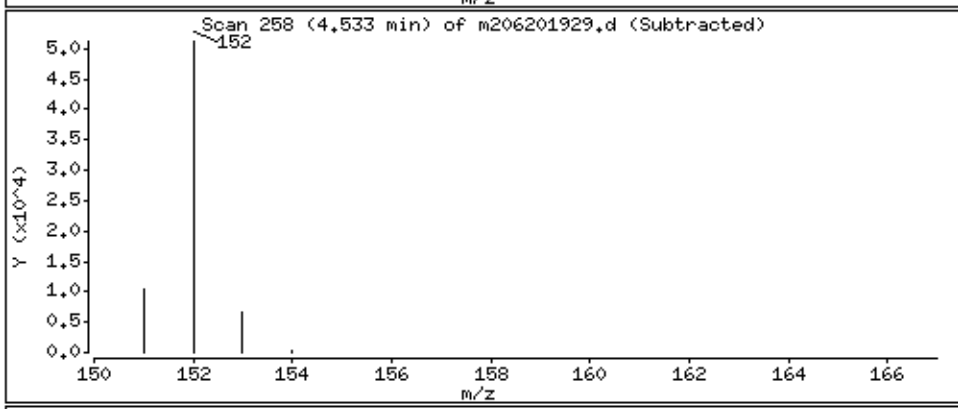
Column diameter: 0.25

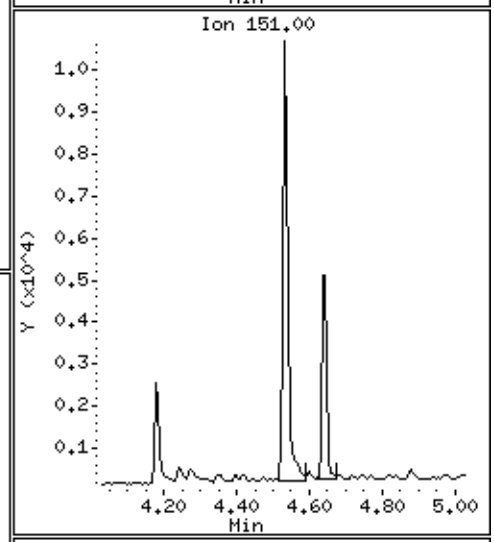
11 Acenaphthylene

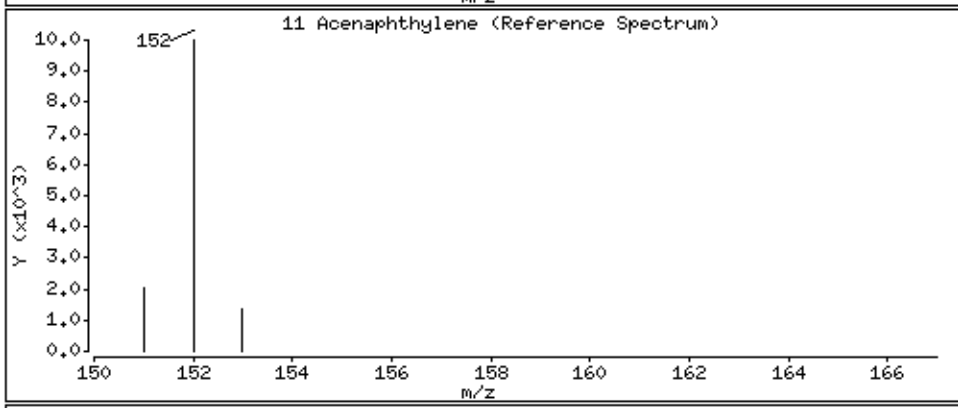
Concentration: 192 ug/Kg

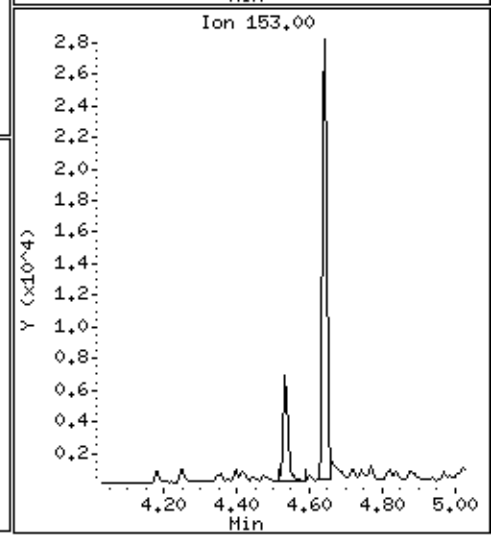


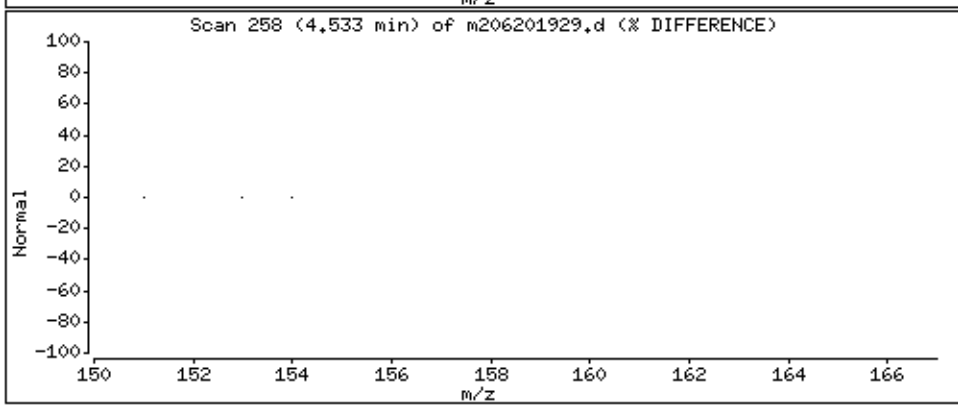












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

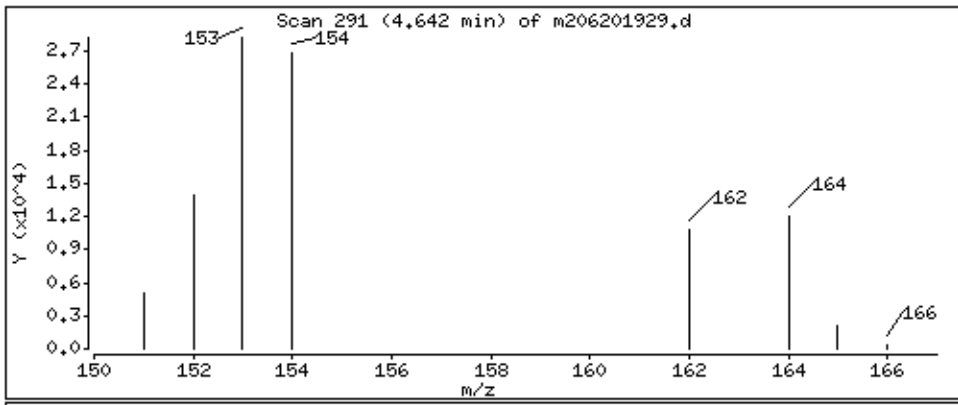
Operator: AJC

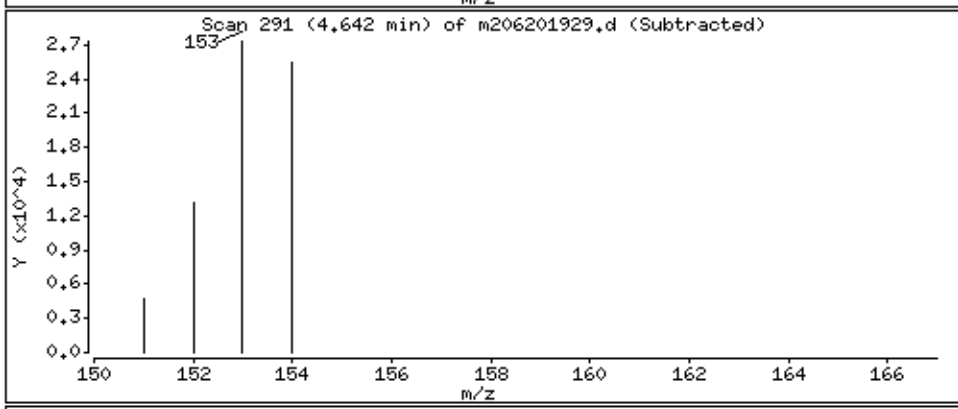
Column phase: RTX-5MS

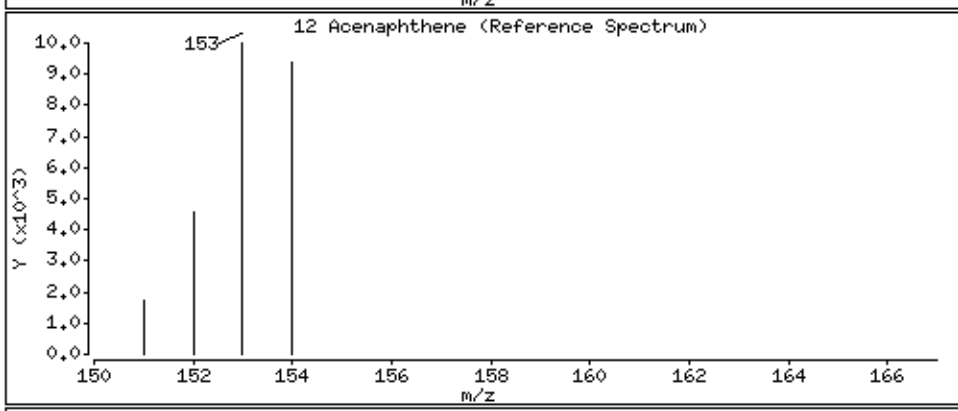
Column diameter: 0.25

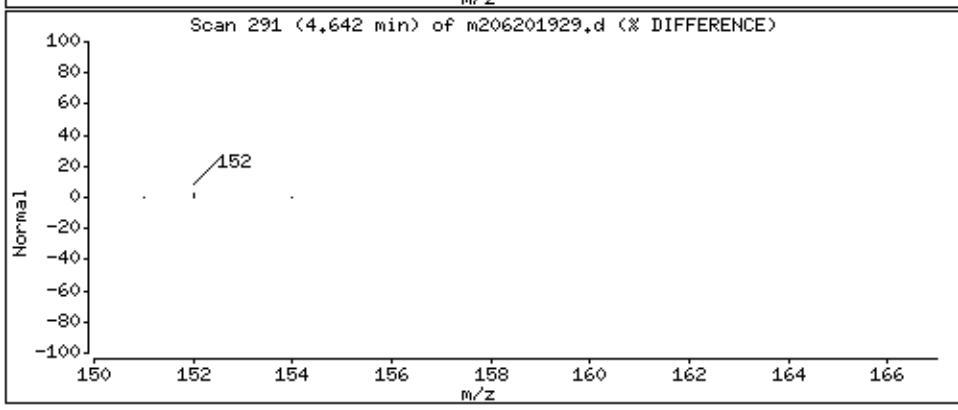
12 Acenaphthene

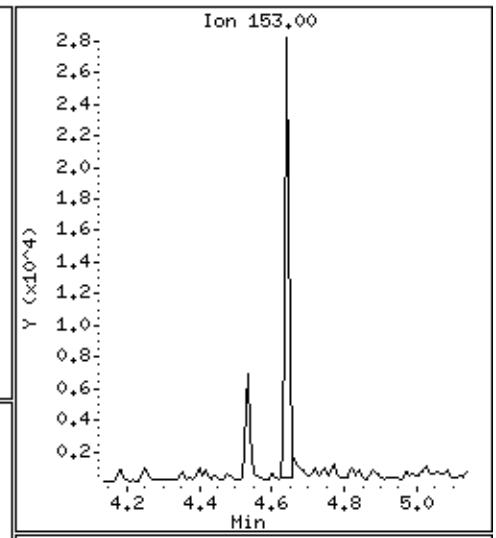
Concentration: 137 ug/Kg

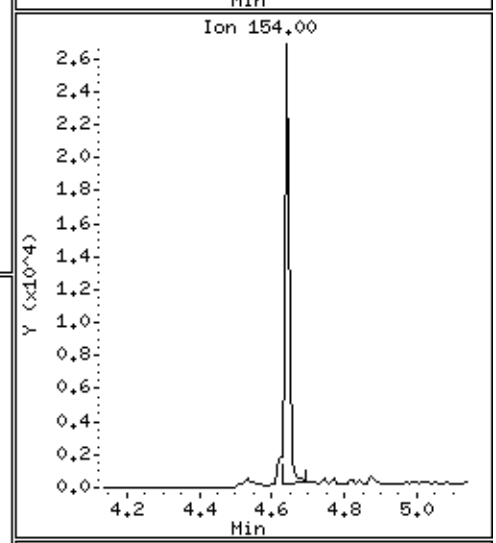


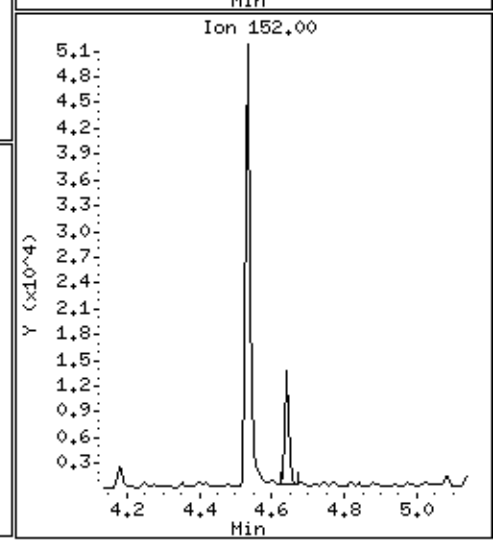












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

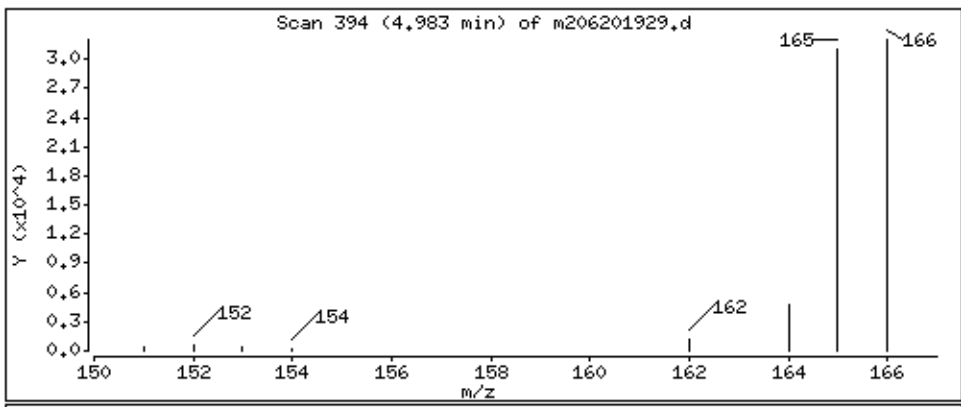
Operator: AJC

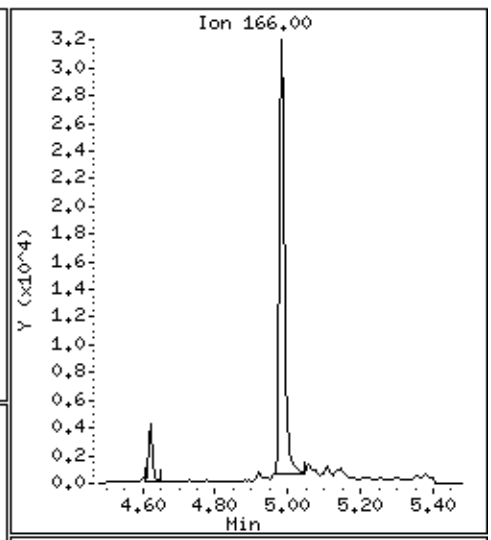
Column phase: RTX-5MS

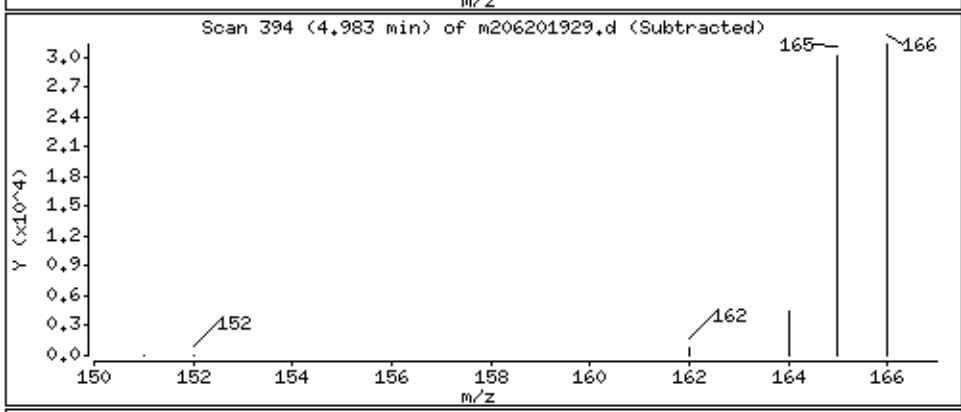
Column diameter: 0.25

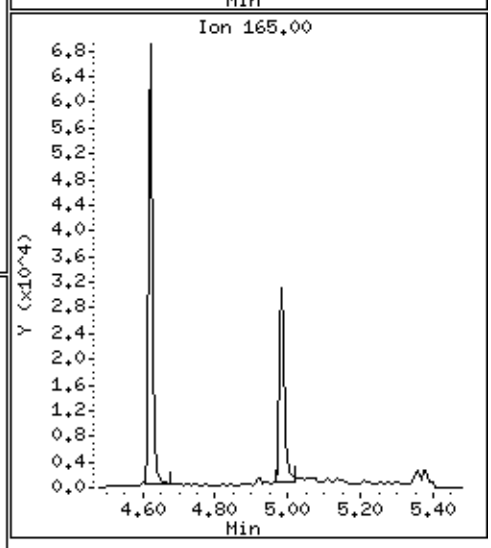
13 Fluorene

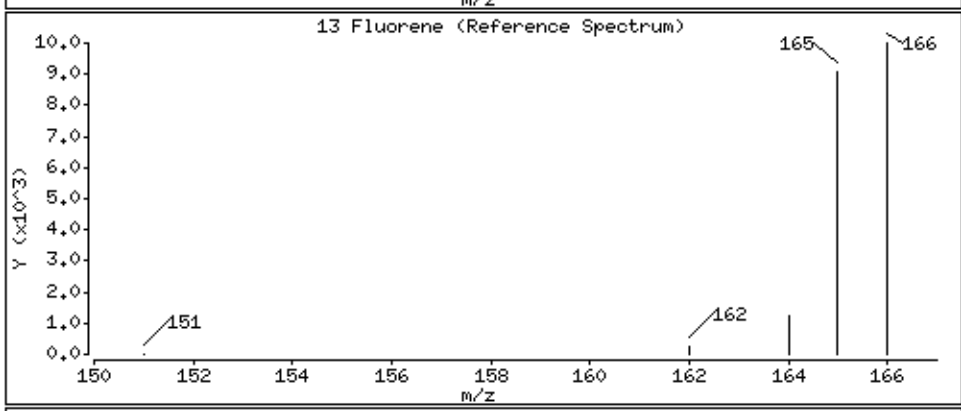
Concentration: 155 ug/Kg

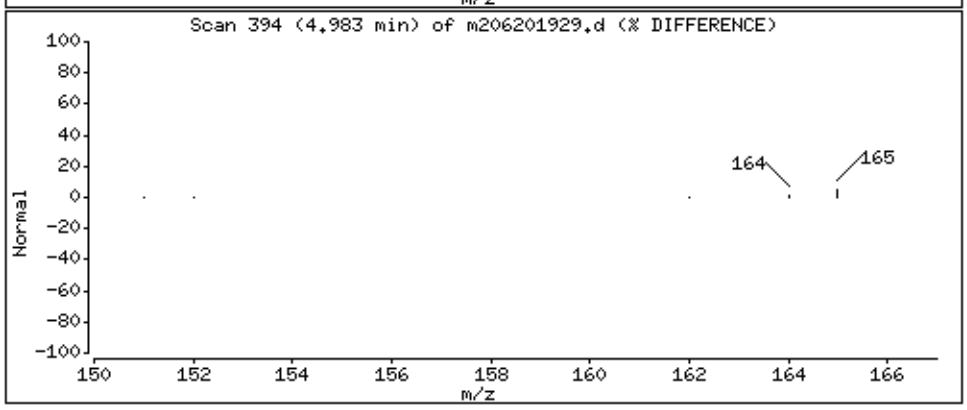












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

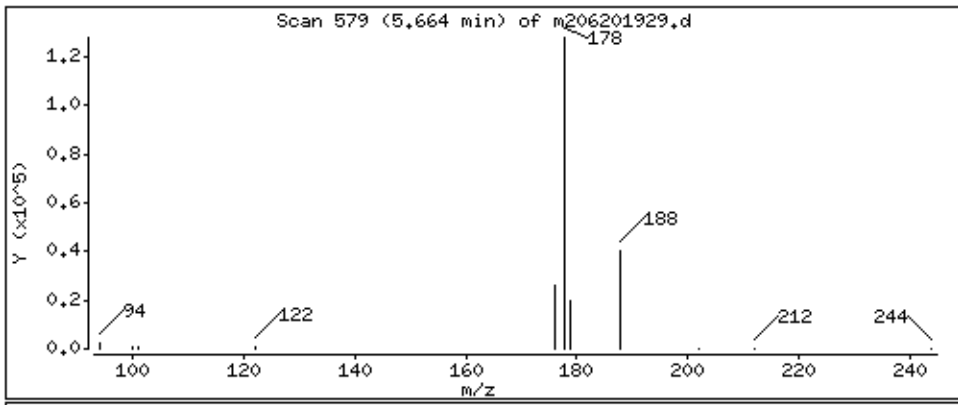
Operator: AJC

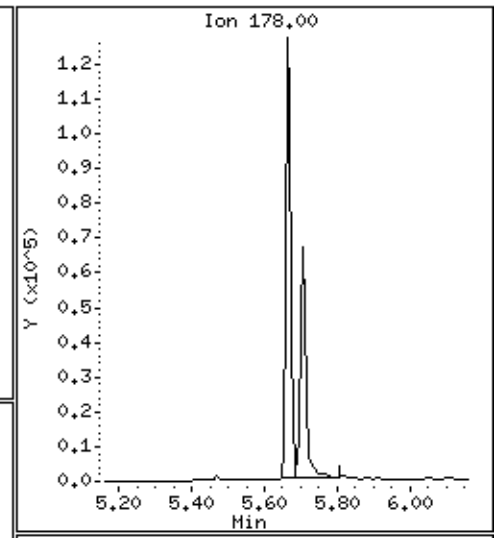
Column phase: RTX-5MS

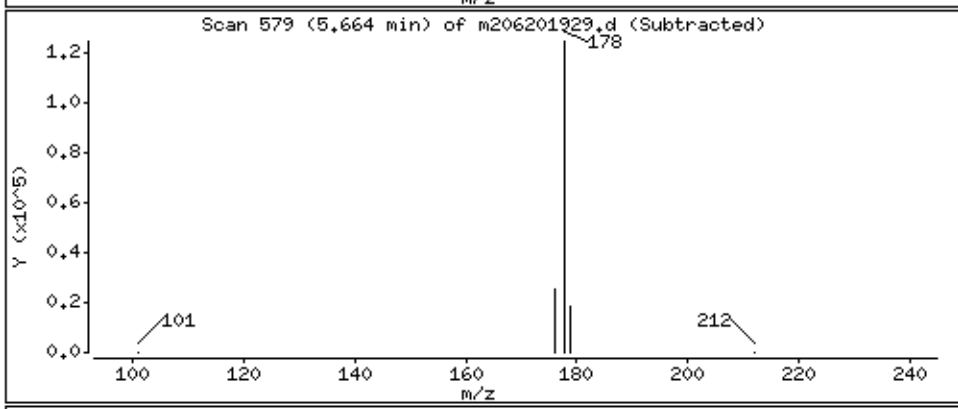
Column diameter: 0.25

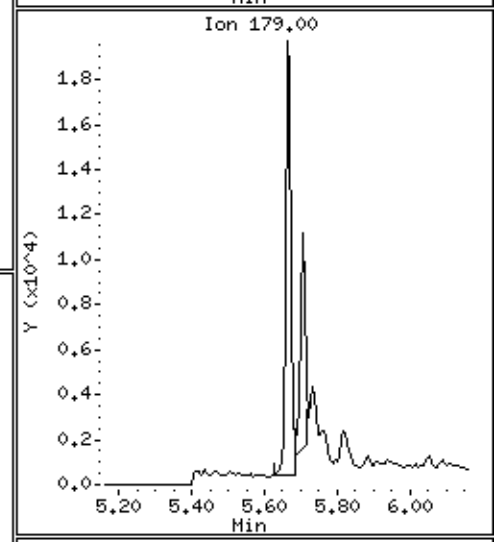
14 Phenanthrene

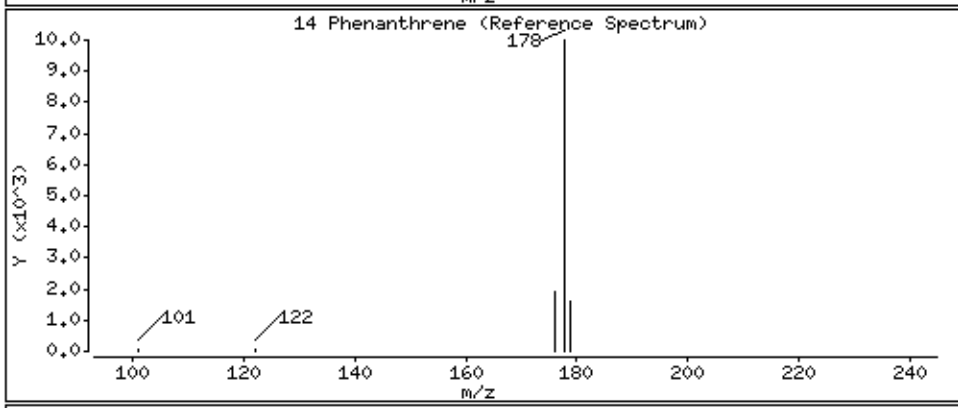
Concentration: 430 ug/Kg

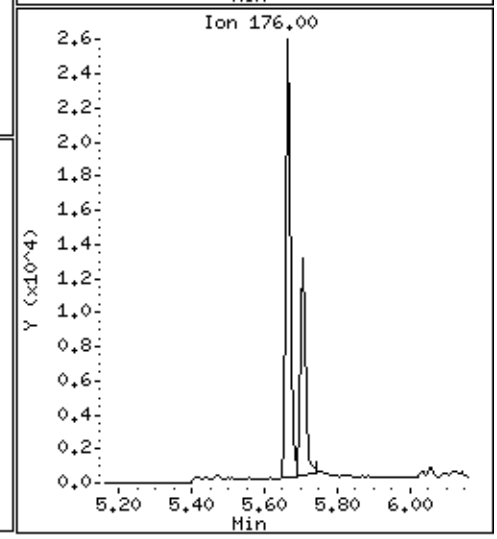


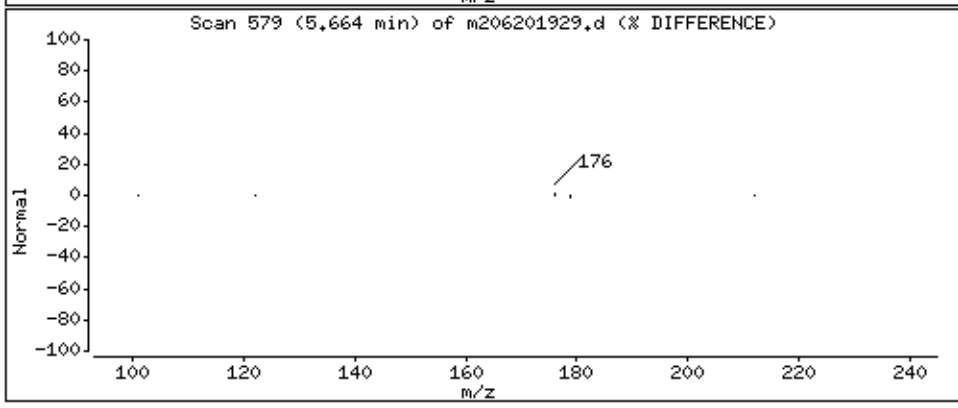












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

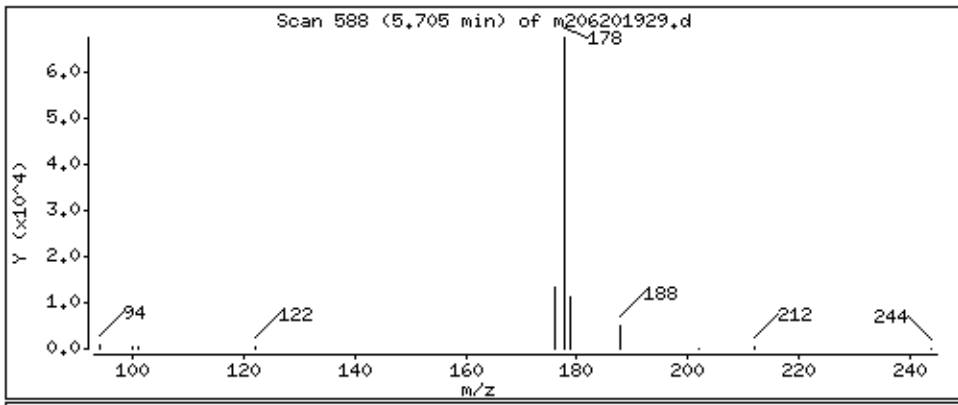
Operator: AJC

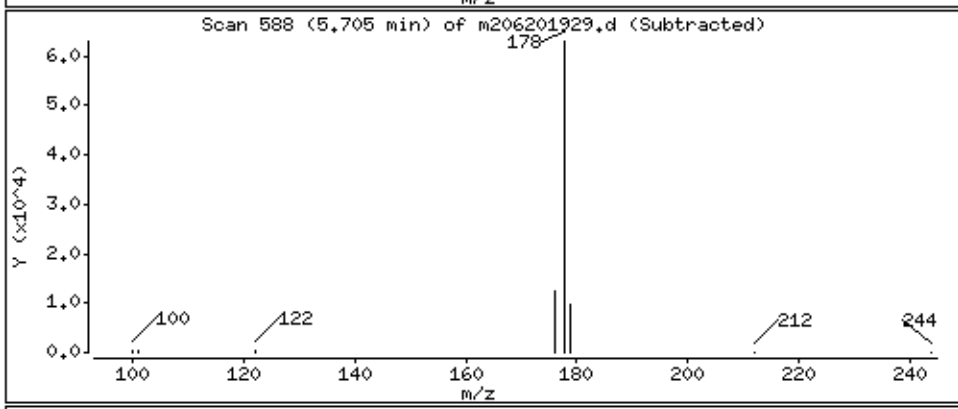
Column phase: RTX-5MS

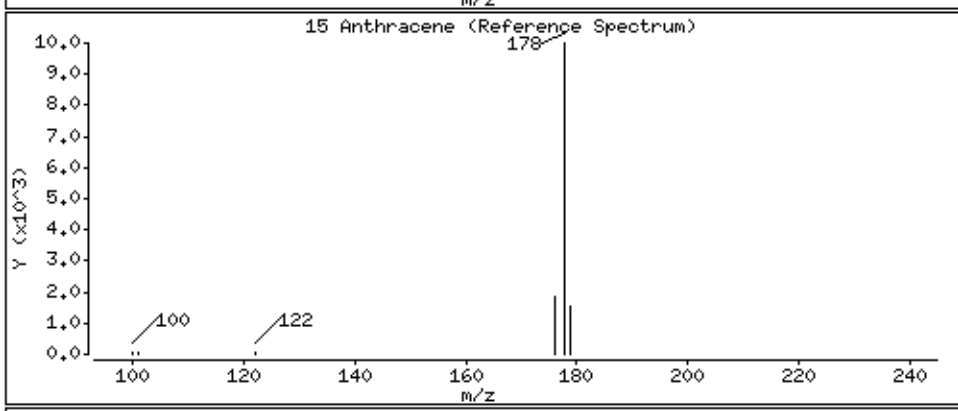
Column diameter: 0.25

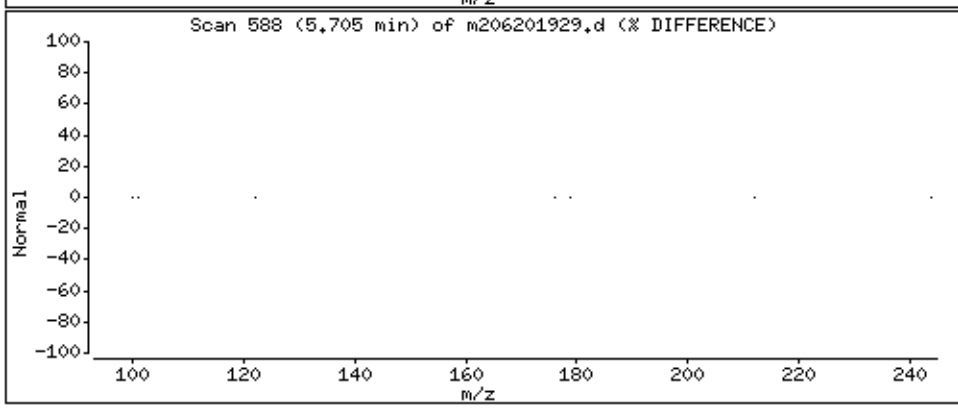
15 Anthracene

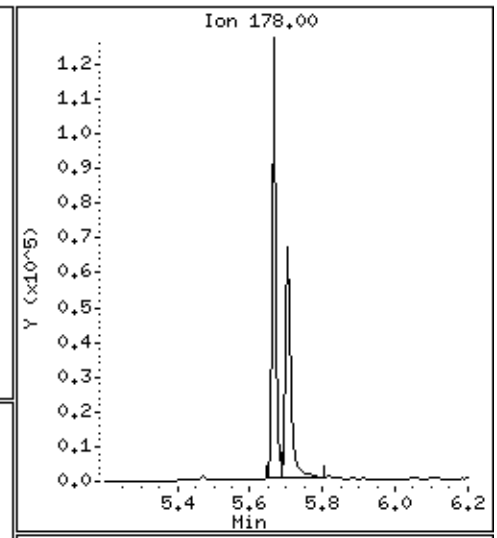
Concentration: 279 ug/Kg

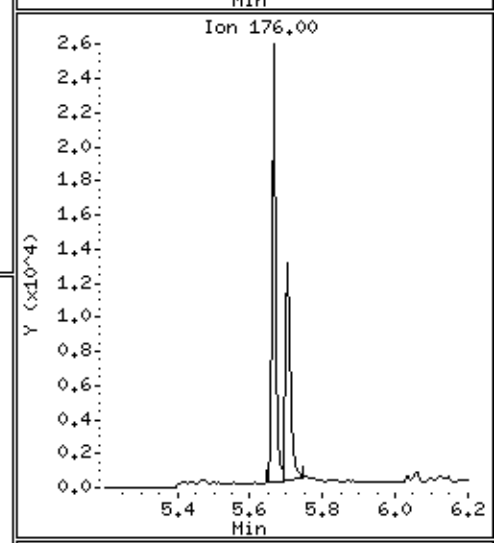


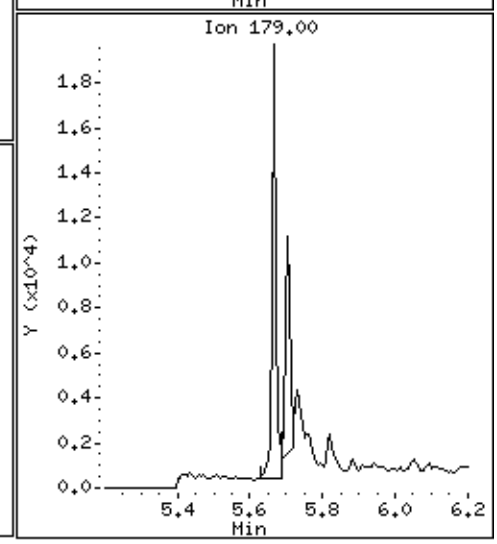












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

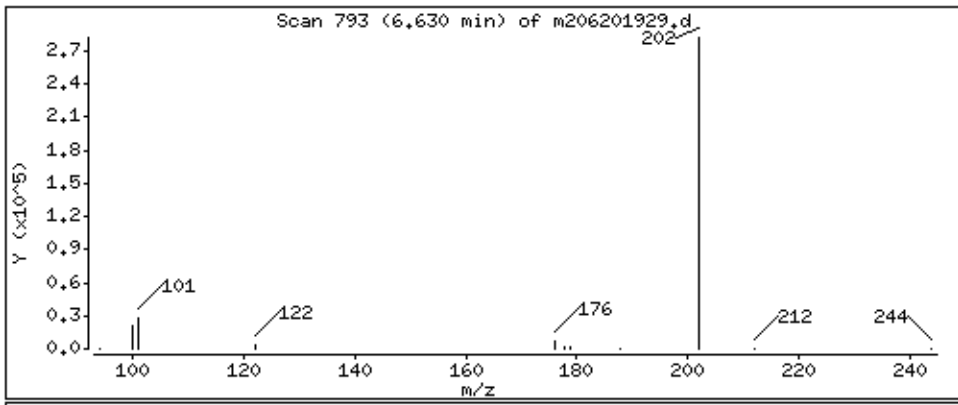
Operator: AJC

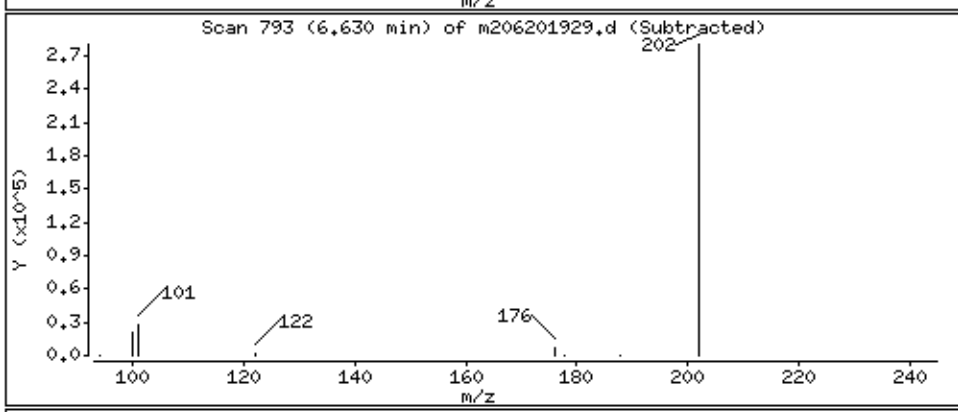
Column phase: RTX-5MS

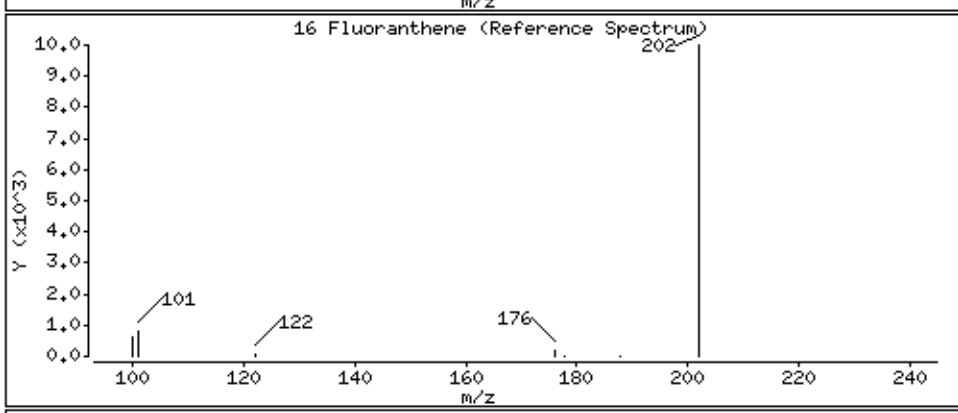
Column diameter: 0.25

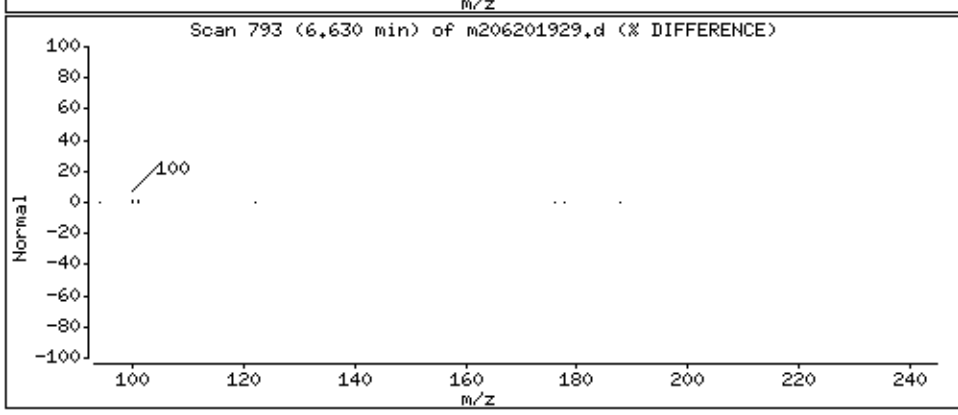
16 Fluoranthene

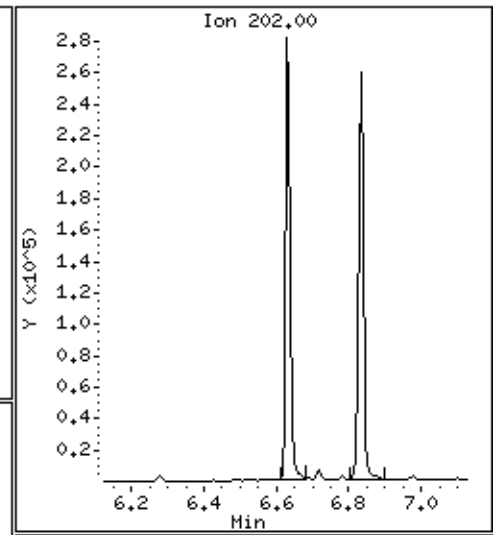
Concentration: 940 ug/Kg

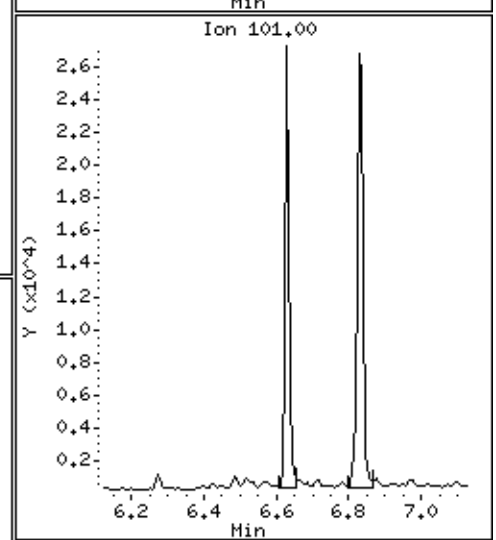


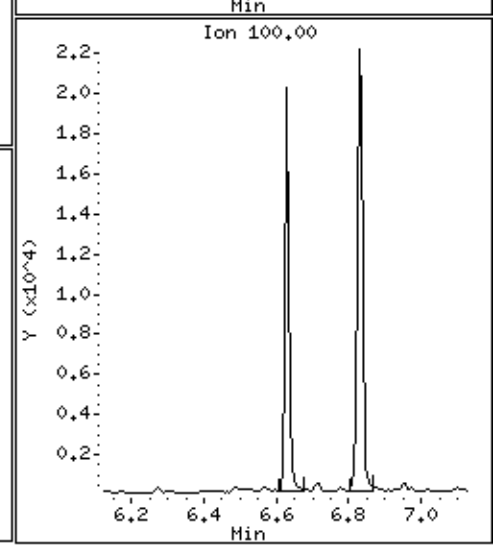












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

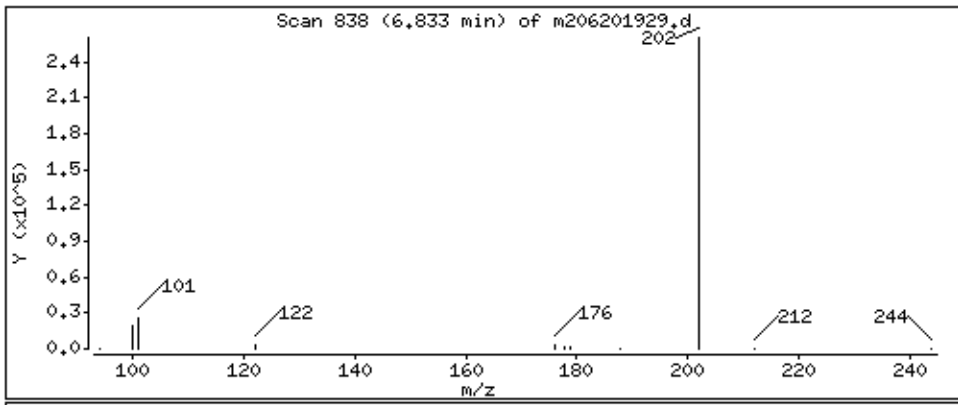
Operator: AJC

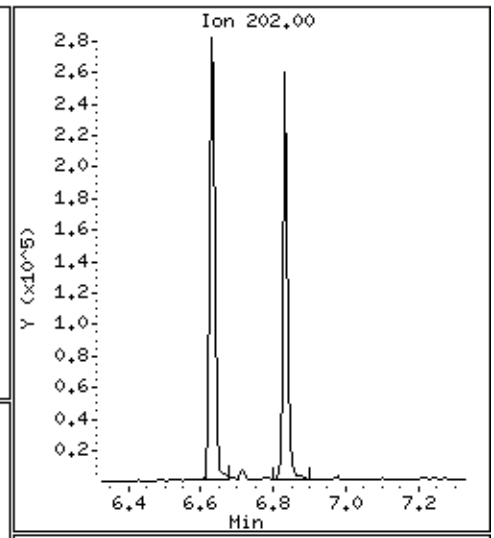
Column phase: RTX-5MS

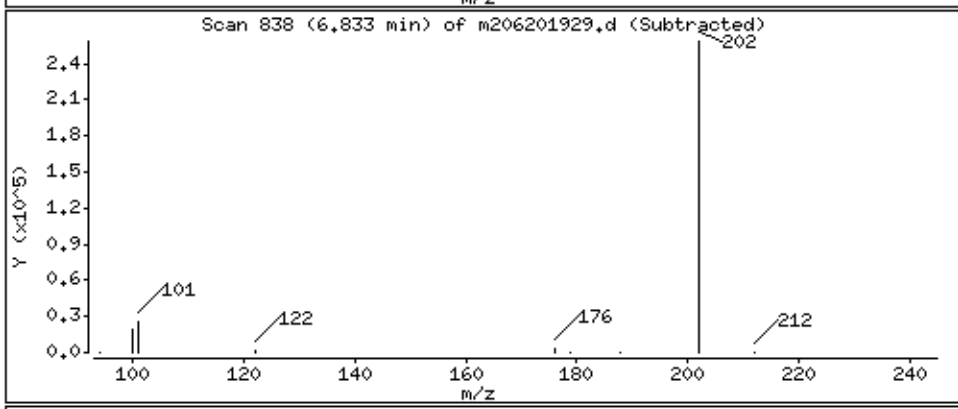
Column diameter: 0.25

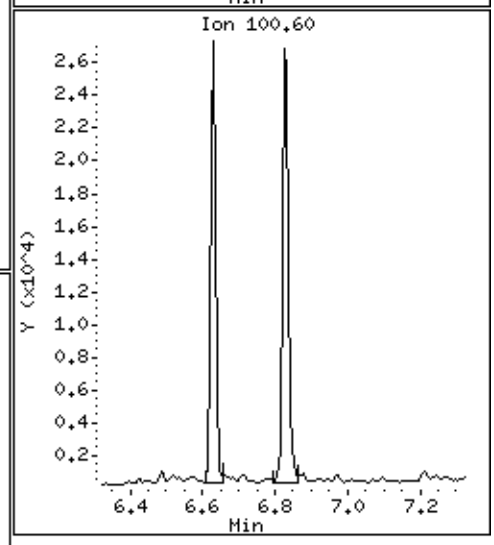
17 Pyrene

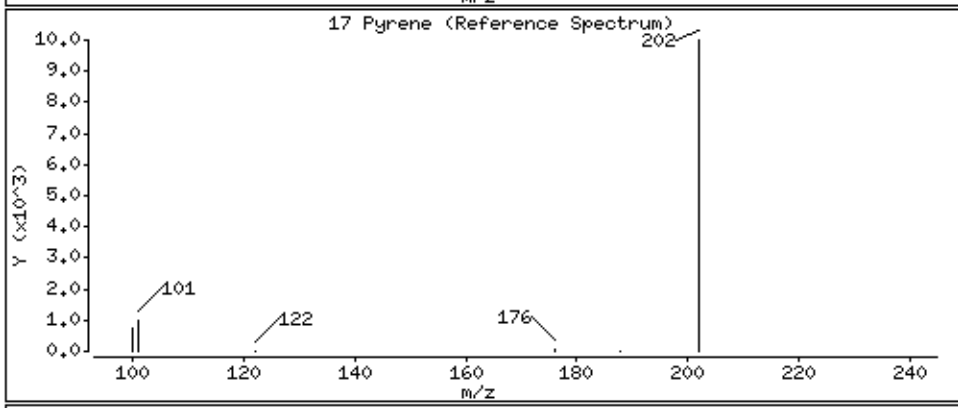
Concentration: 855 ug/Kg

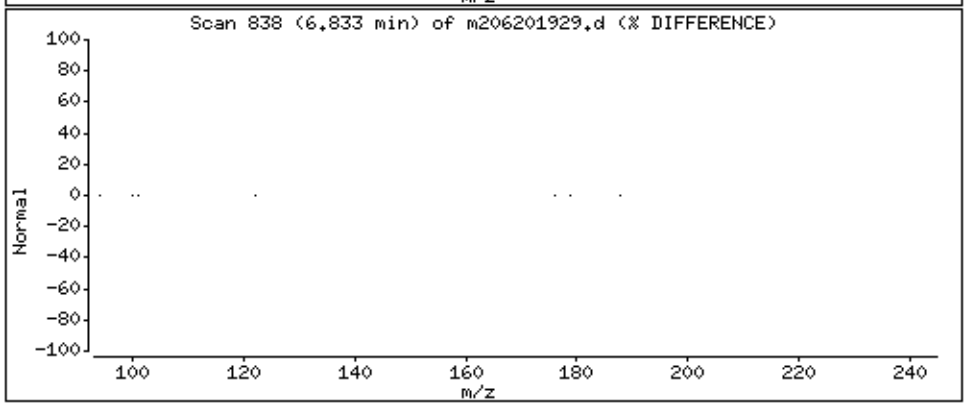












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

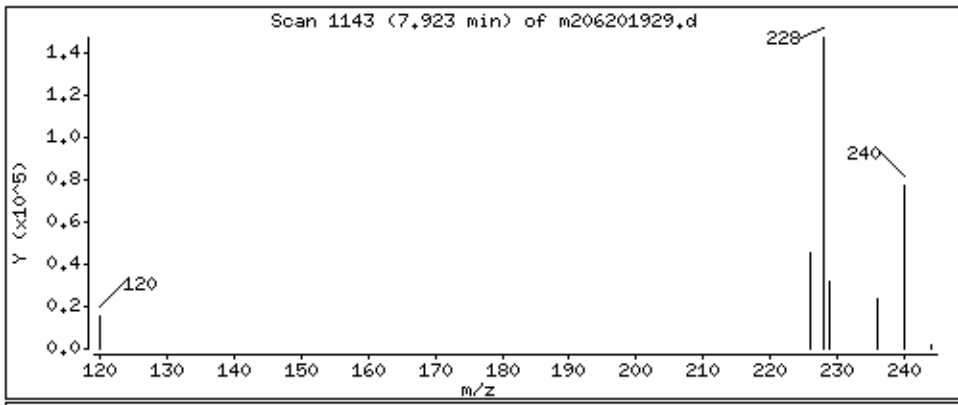
Operator: AJC

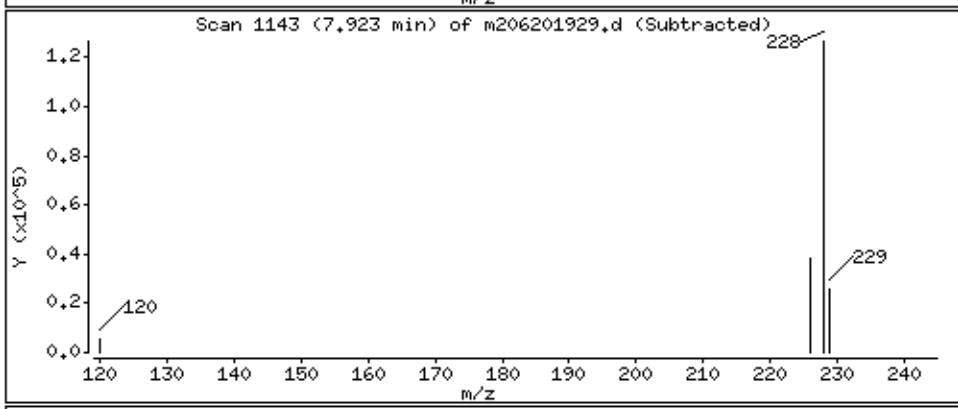
Column phase: RTX-5MS

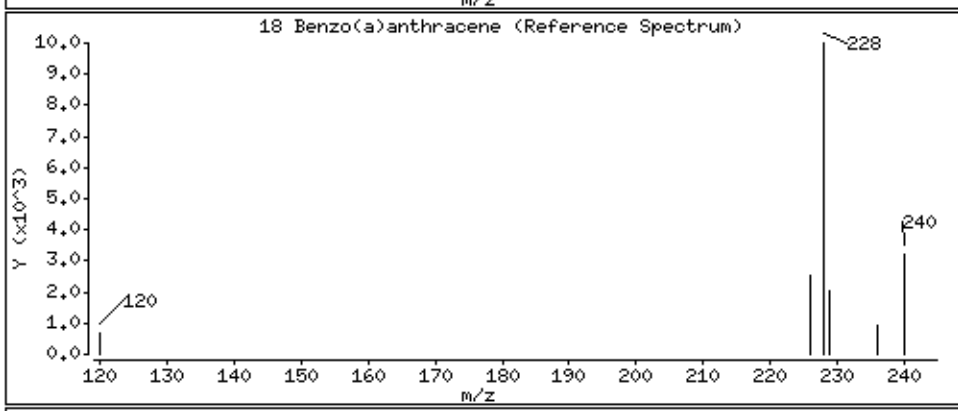
Column diameter: 0.25

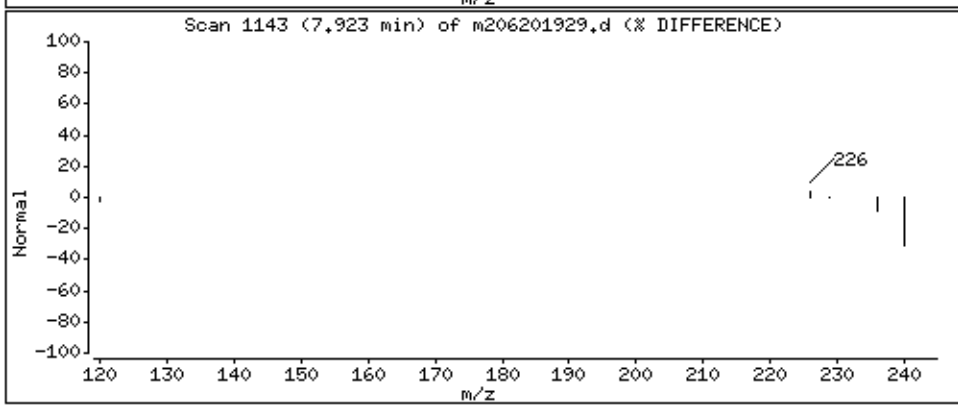
18 Benzo(a)anthracene

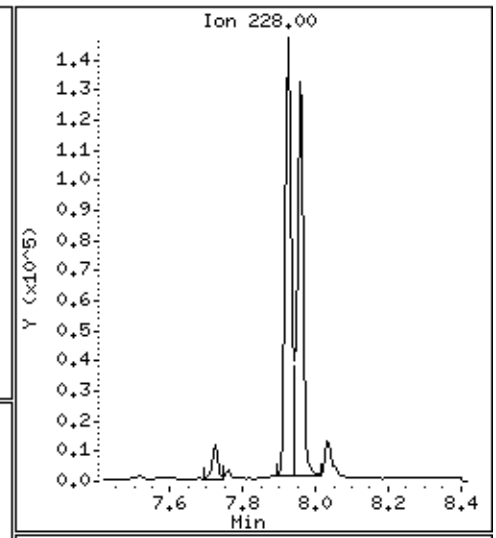
Concentration: 592 ug/Kg

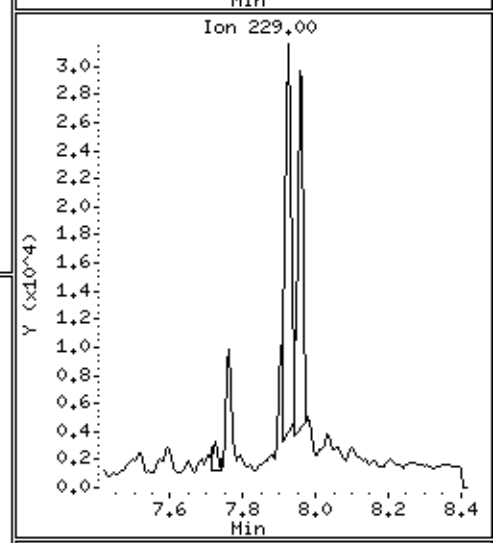


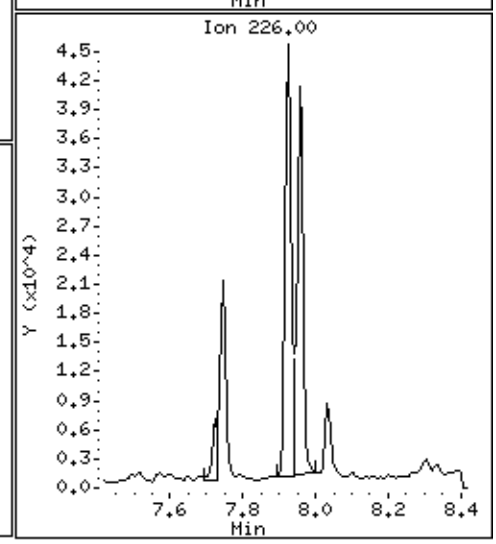












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

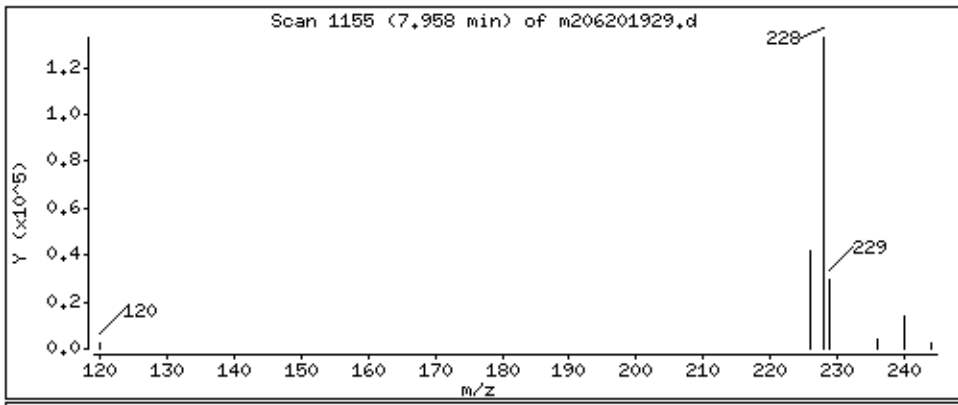
Operator: AJC

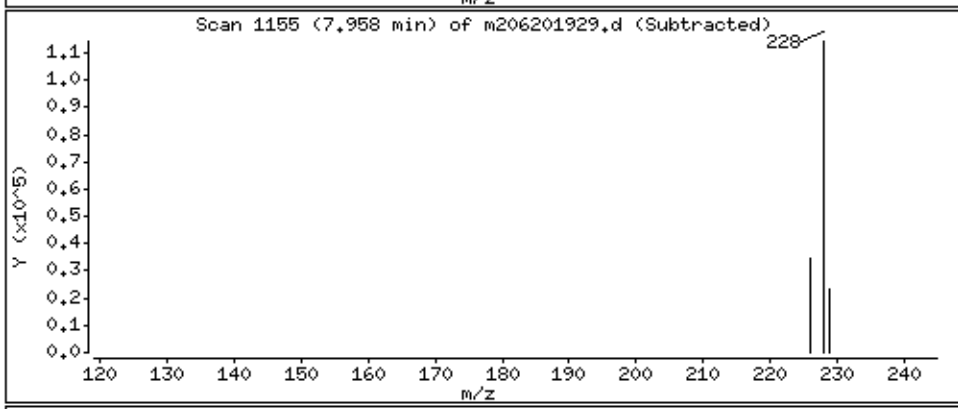
Column phase: RTX-5MS

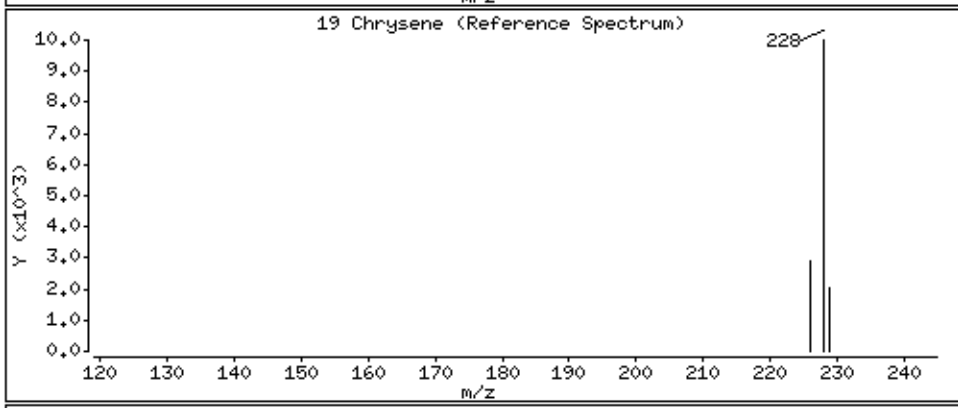
Column diameter: 0.25

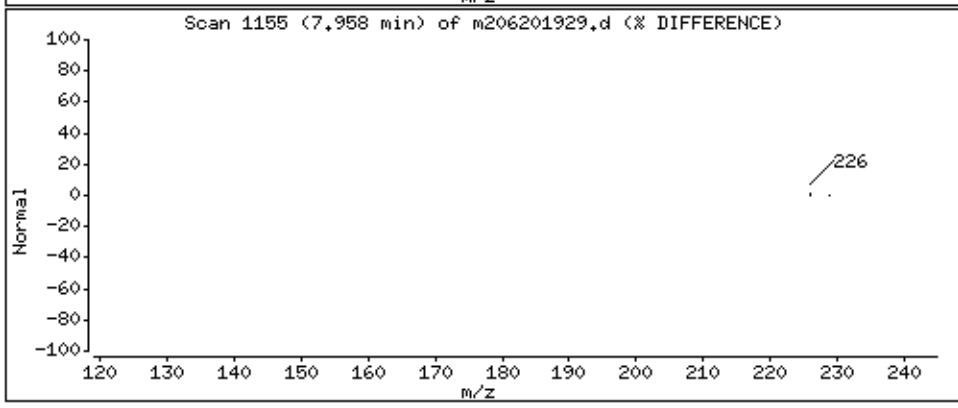
19 Chrysene

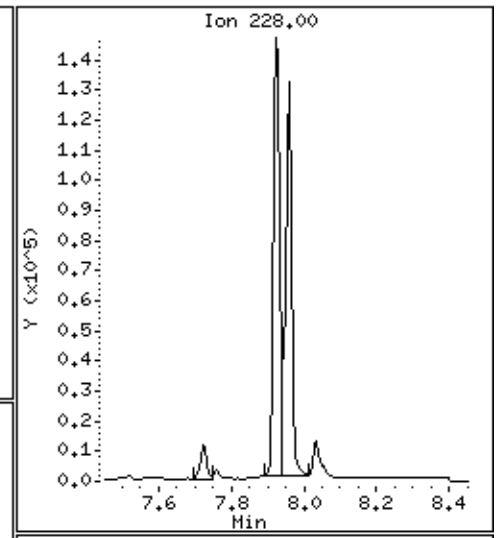
Concentration: 562 ug/Kg

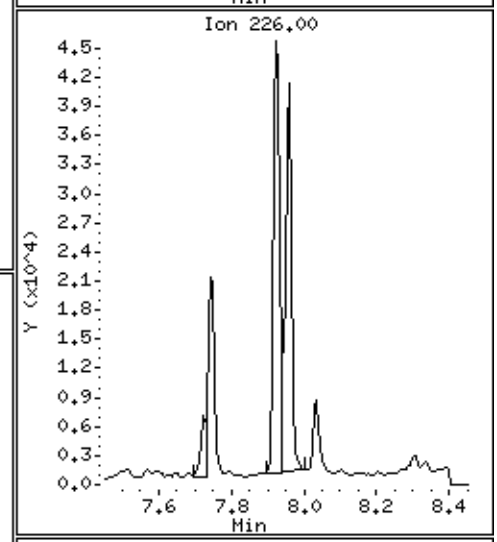


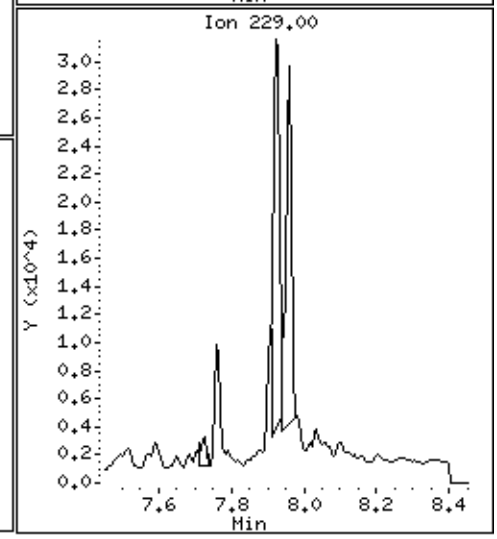












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

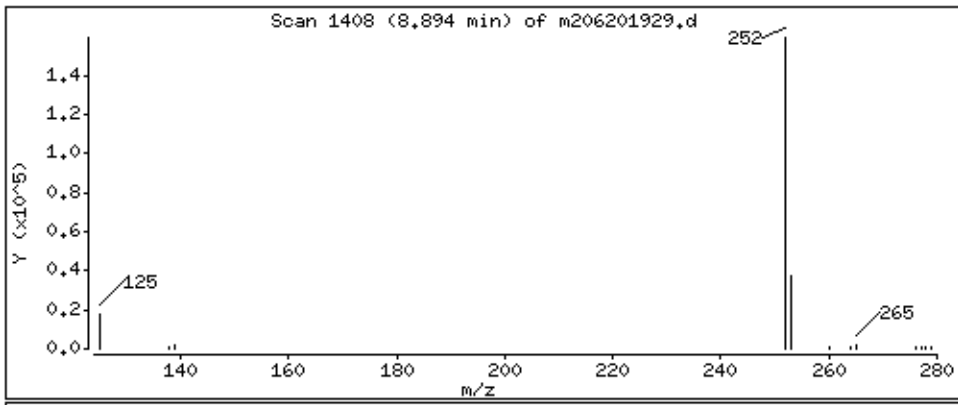
Operator: AJC

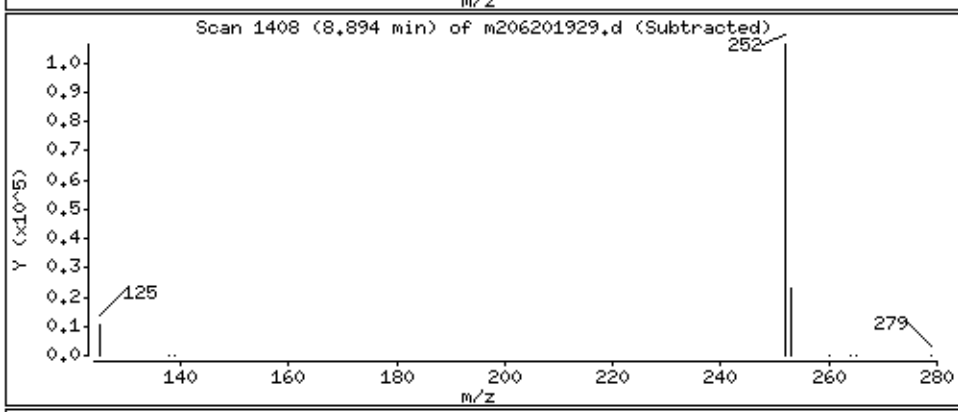
Column phase: RTX-5MS

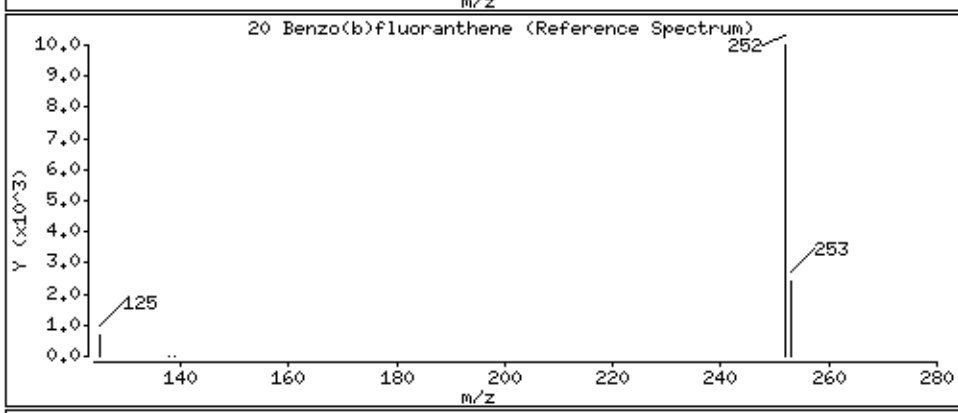
Column diameter: 0.25

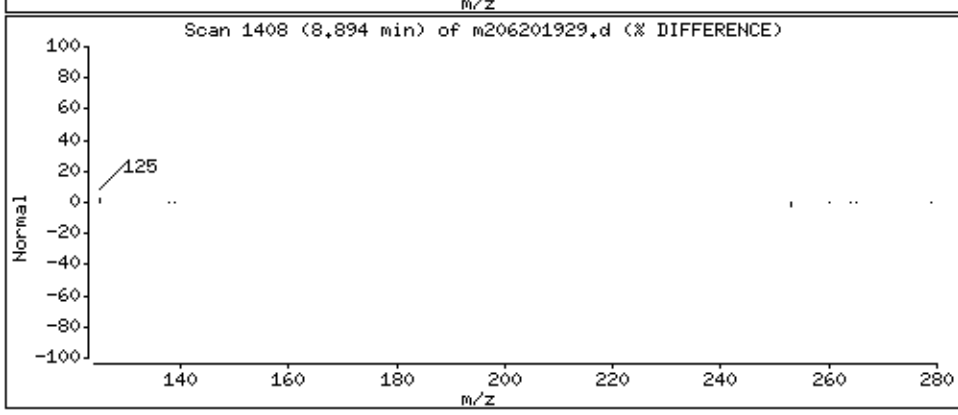
20 Benzo(b)fluoranthene

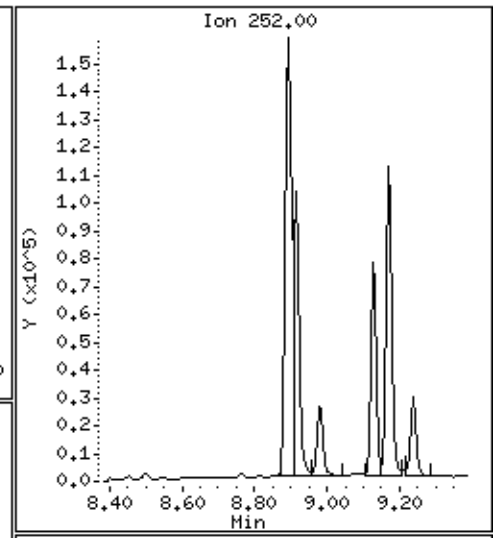
Concentration: 1050 ug/Kg

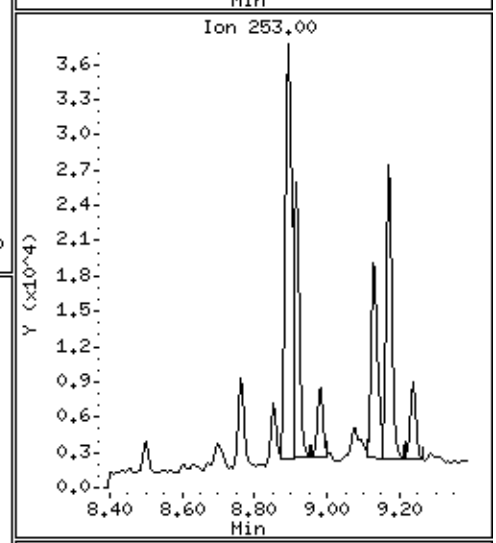


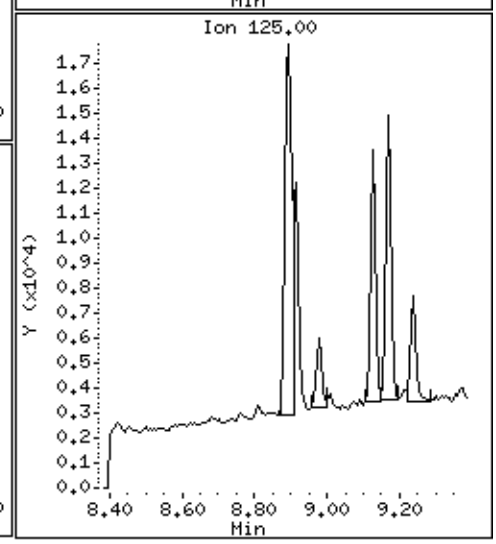












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Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

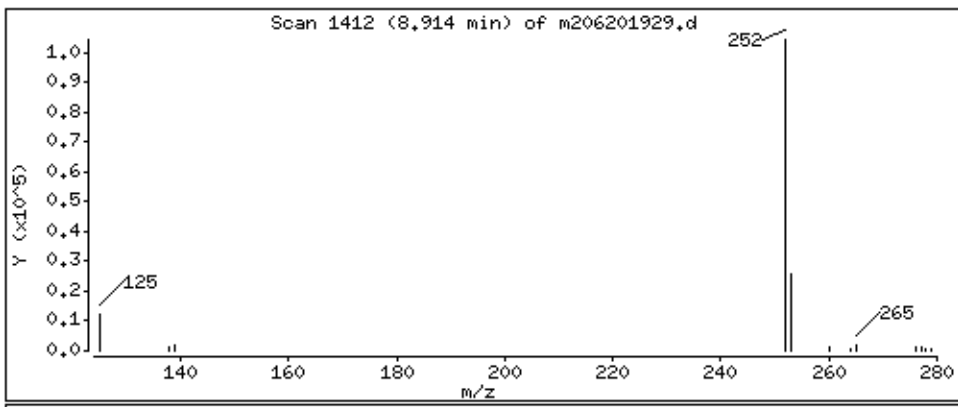
Operator: AJC

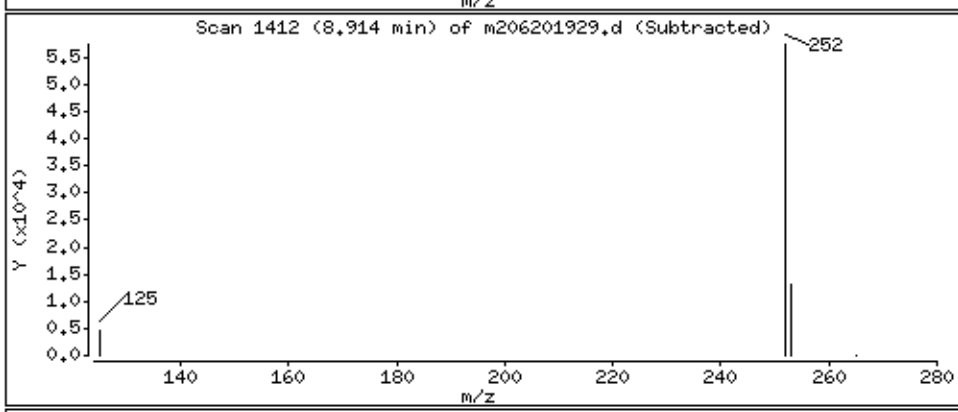
Column phase: RTX-5MS

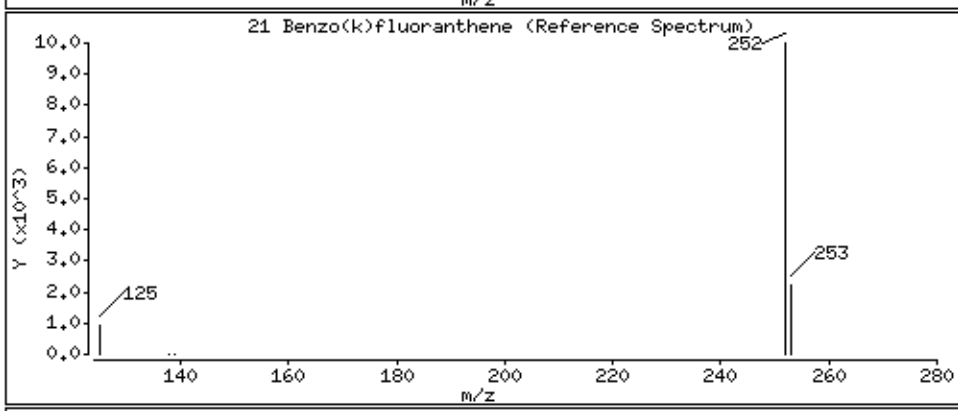
Column diameter: 0.25

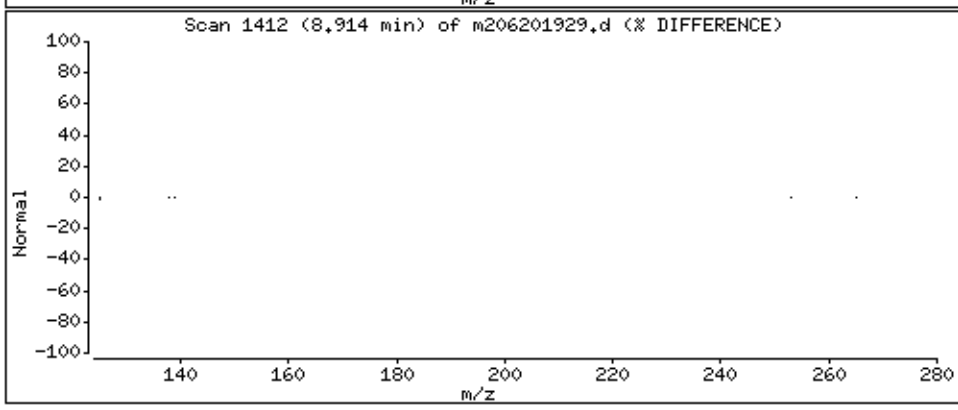
21 Benzo(k)fluoranthene

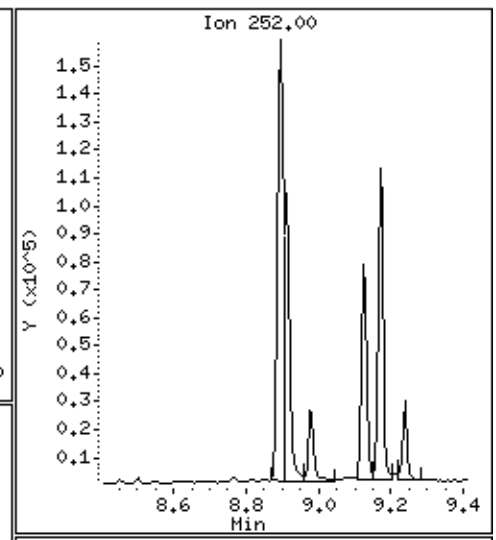
Concentration: 427 ug/Kg

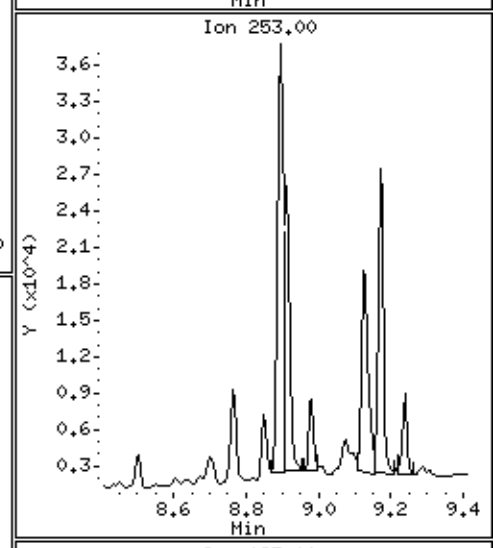


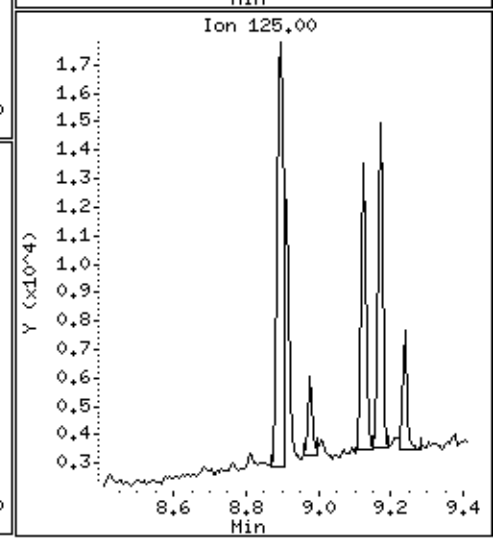












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

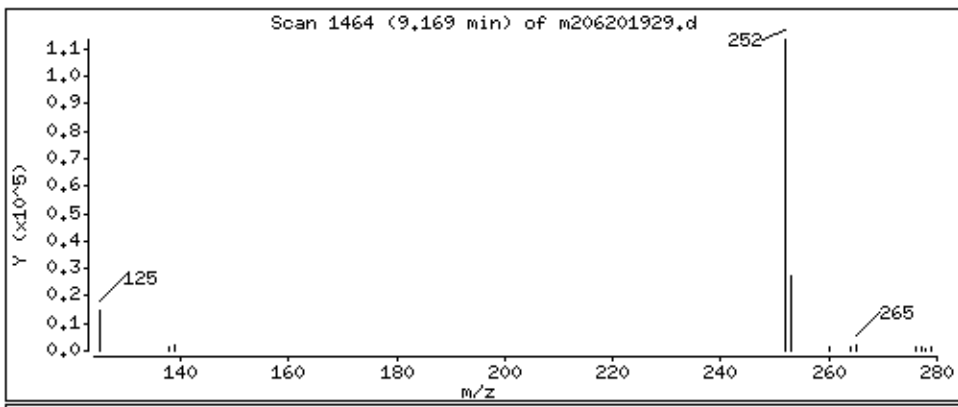
Operator: AJC

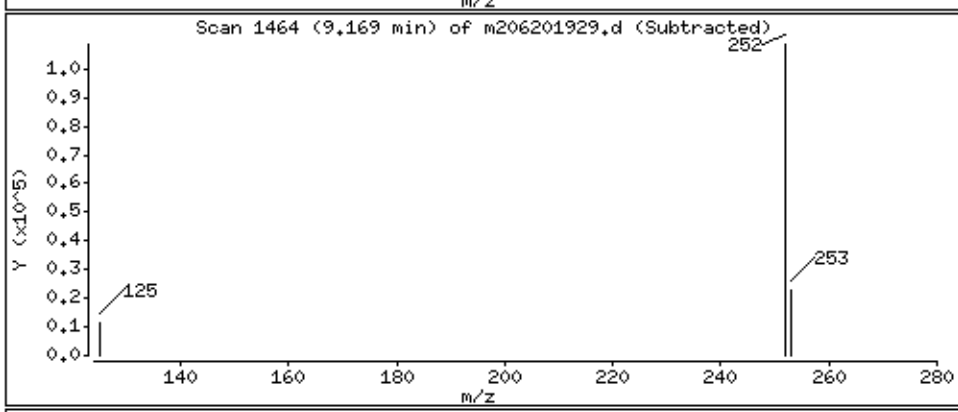
Column phase: RTX-5MS

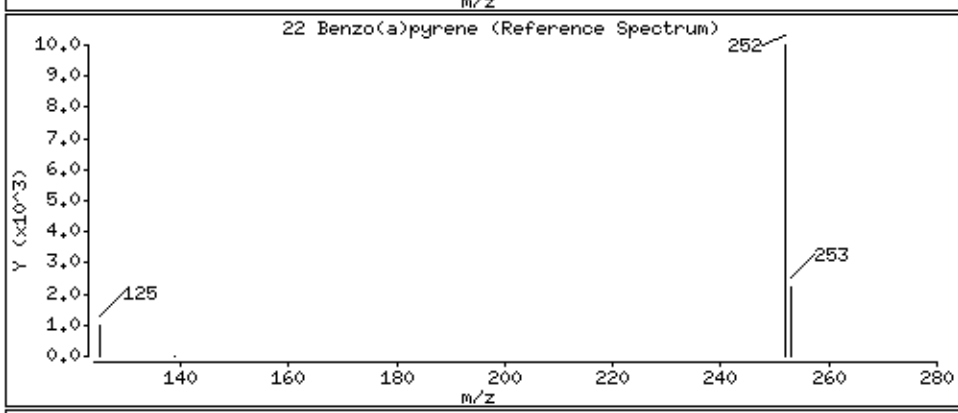
Column diameter: 0.25

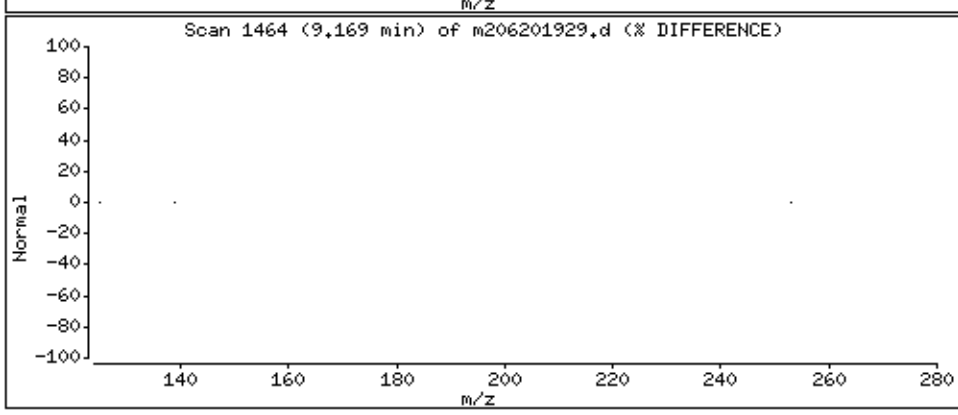
22 Benzo(a)pyrene

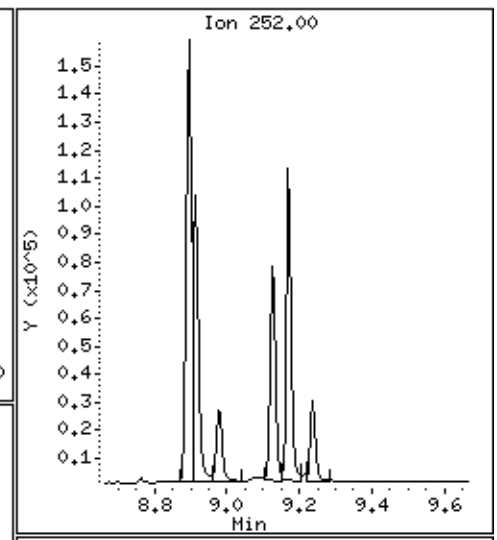
Concentration: 621 ug/Kg

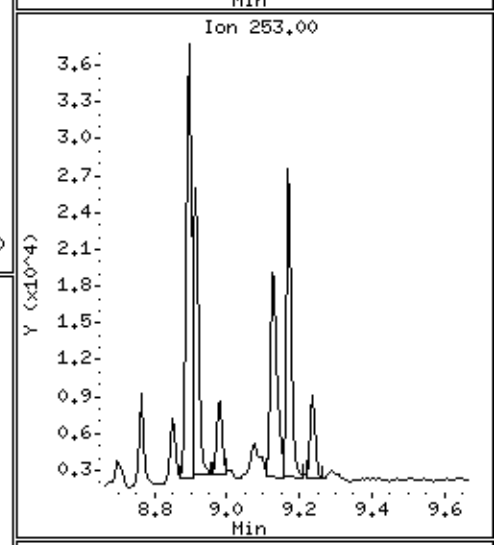


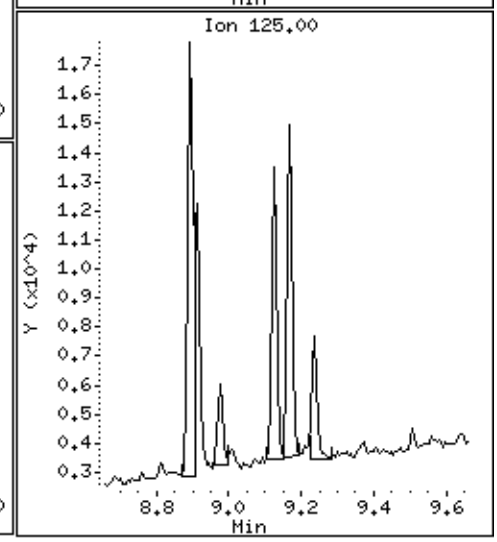












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

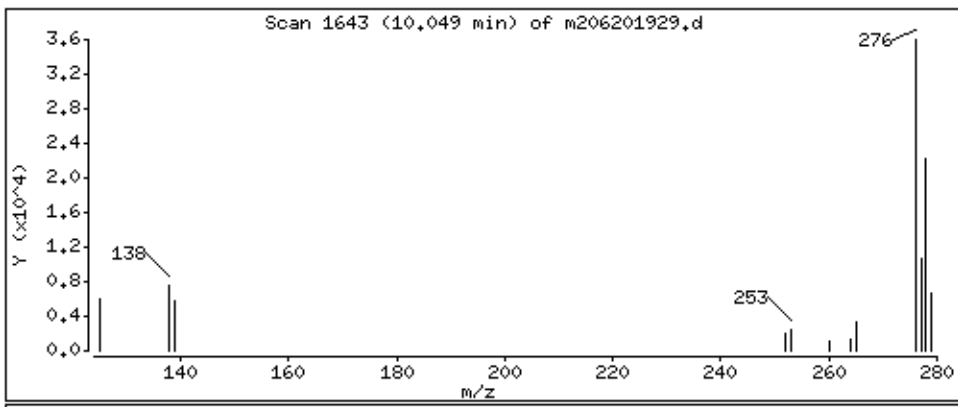
Operator: AJC

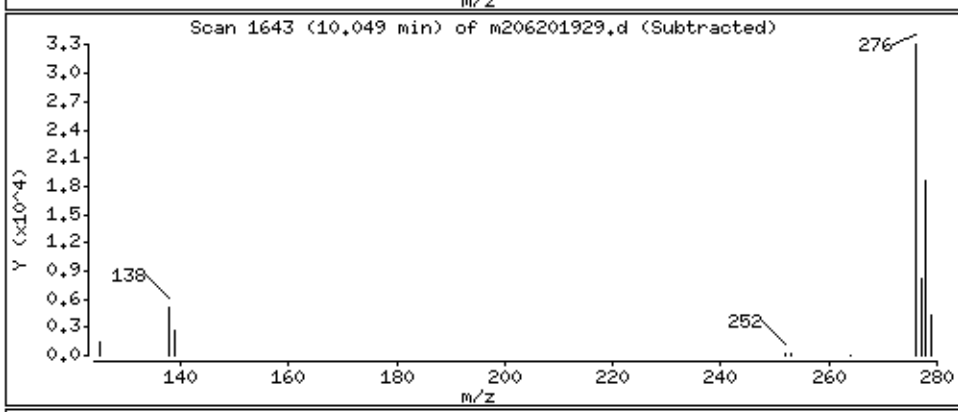
Column phase: RTX-5MS

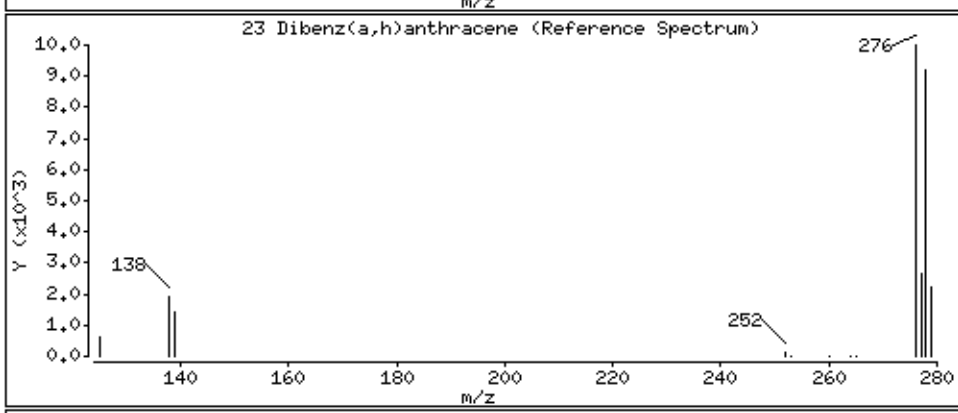
Column diameter: 0.25

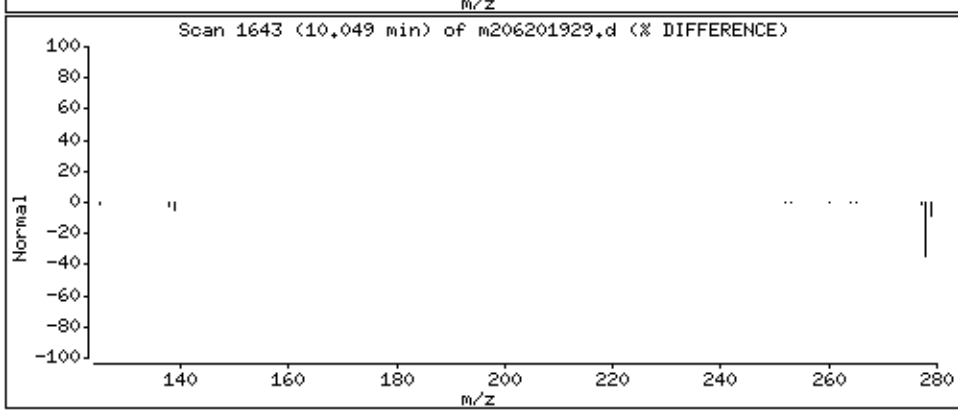
23 Dibenz(a,h)anthracene

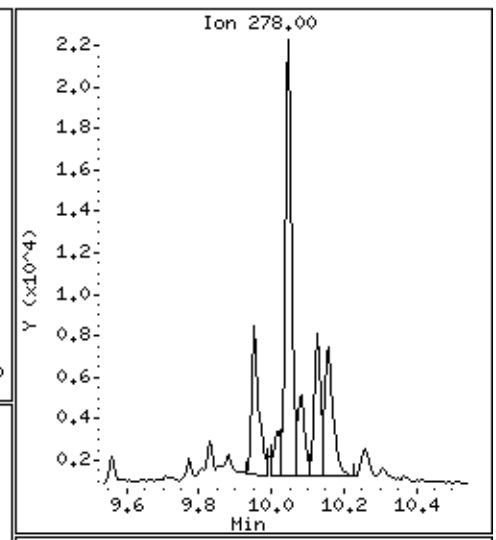
Concentration: 138 ug/Kg

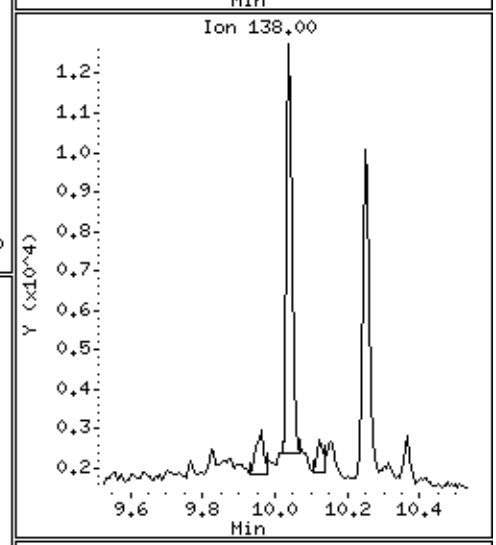


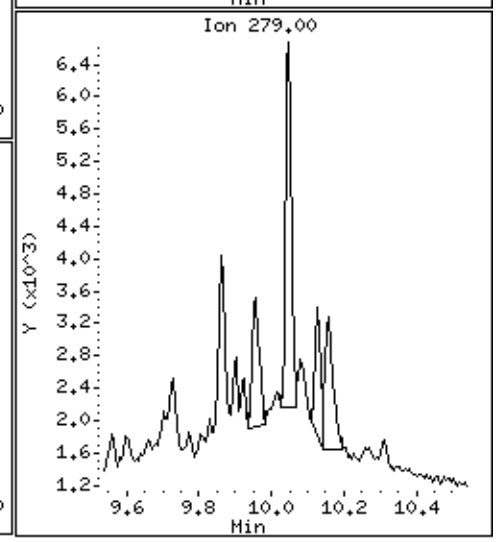












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

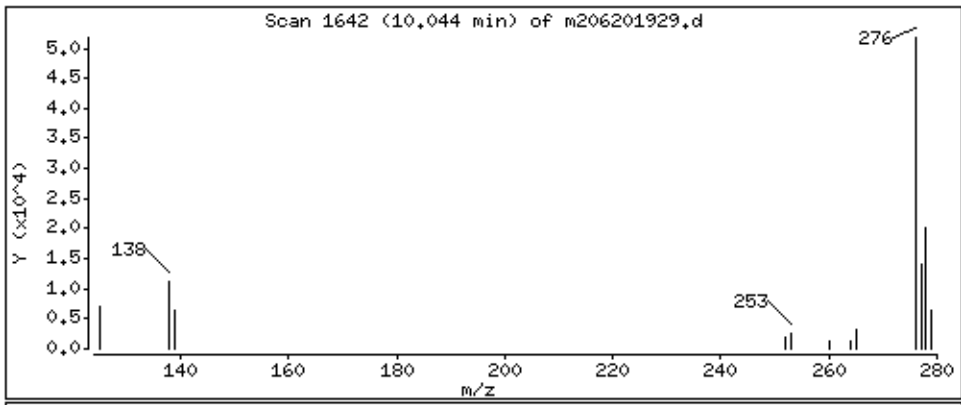
Operator: AJC

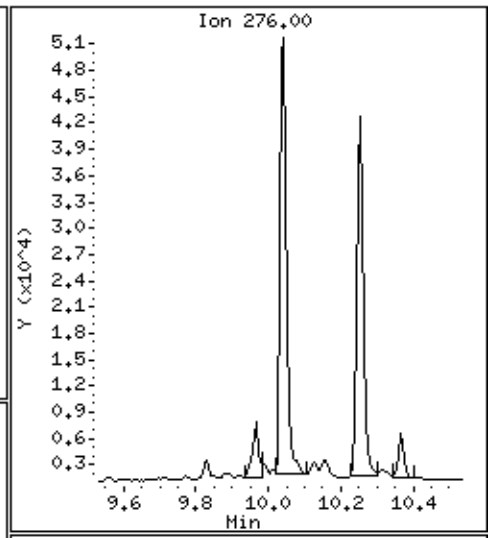
Column phase: RTX-5MS

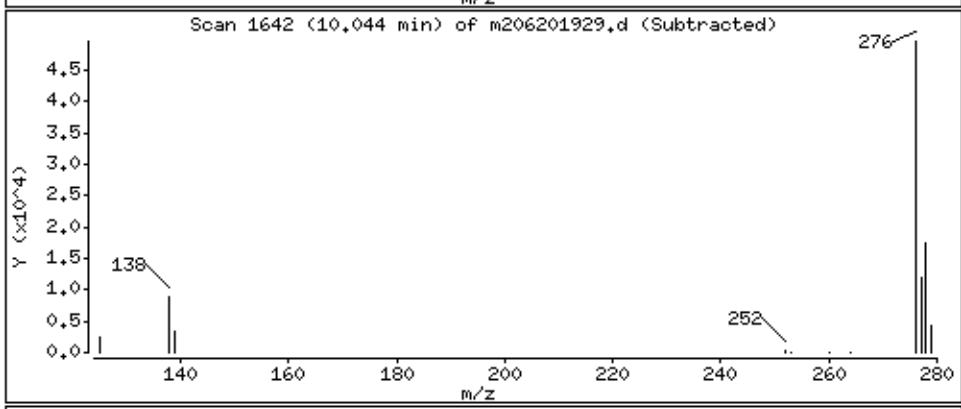
Column diameter: 0.25

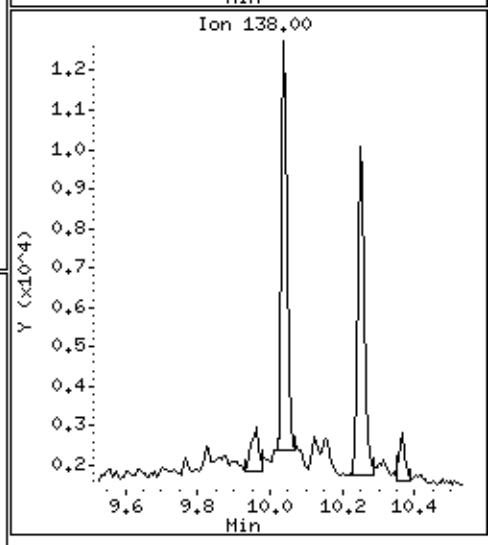
24 Indeno(1,2,3-cd)pyrene

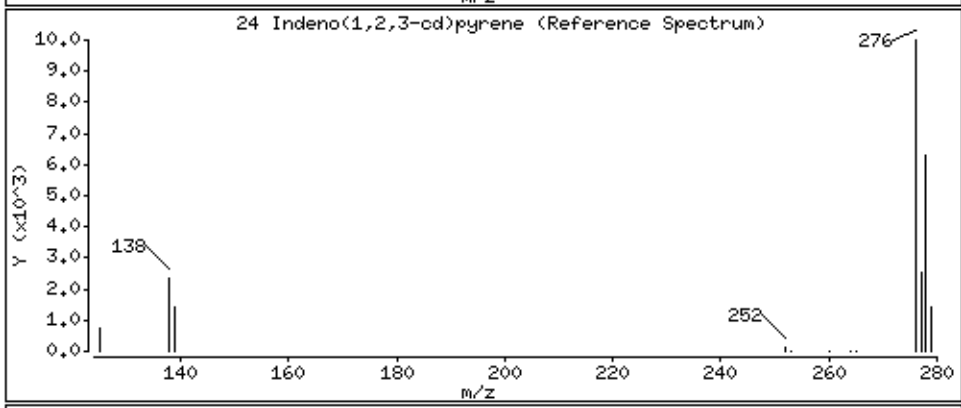
Concentration: 250 ug/Kg

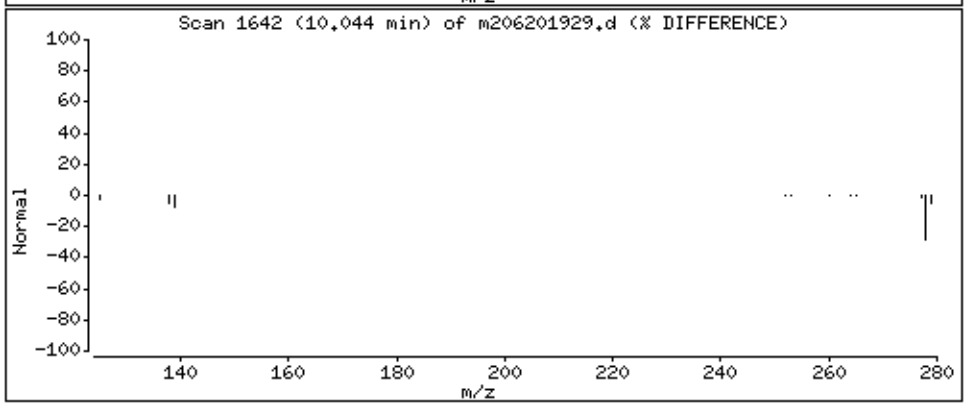












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201929.d

Date : 20-JUN-2019 19:01

Client ID: AOC 26-1MS

Instrument: 30mss2.i

Sample Info: 1692794x10,

Volume Injected (uL): 1.0

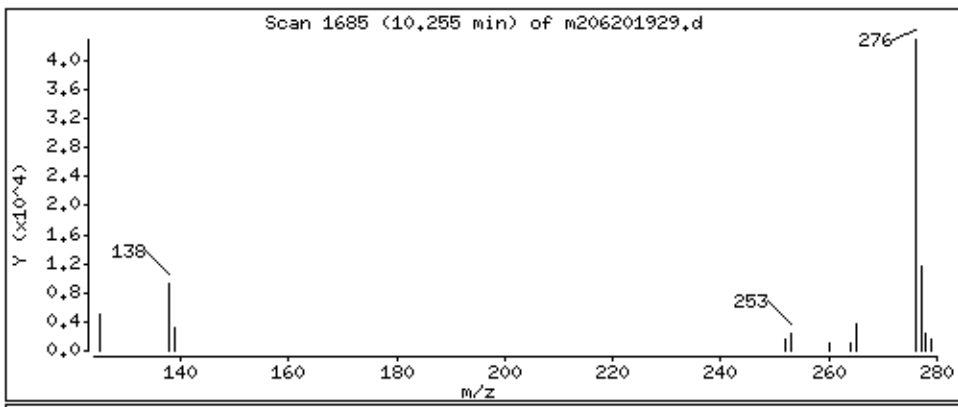
Operator: AJC

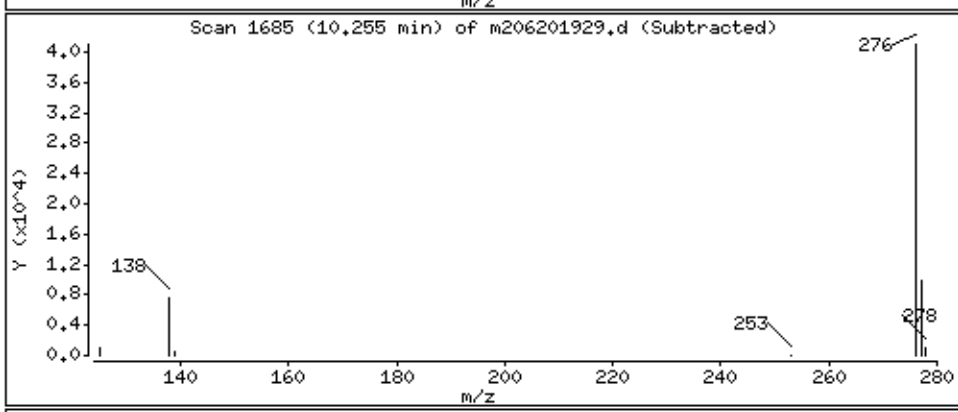
Column phase: RTX-5MS

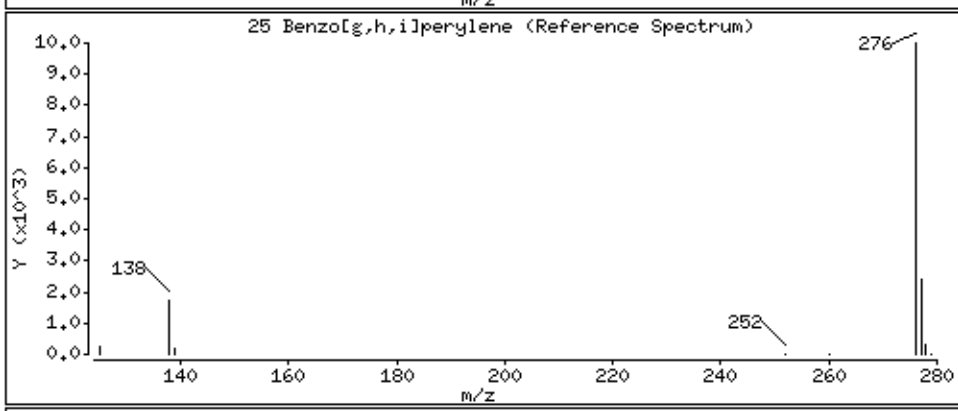
Column diameter: 0.25

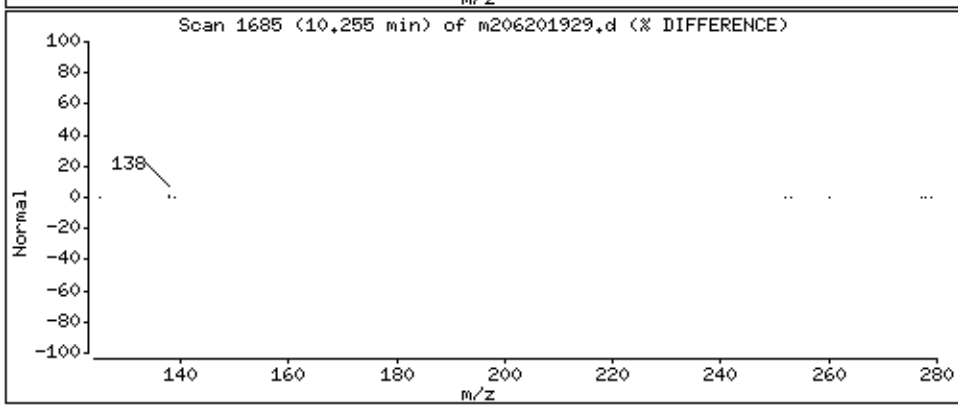
25 Benzo[g,h,i]perylene

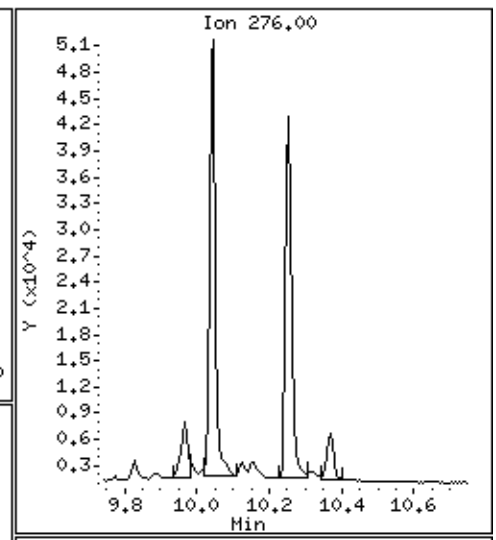
Concentration: 244 ug/Kg

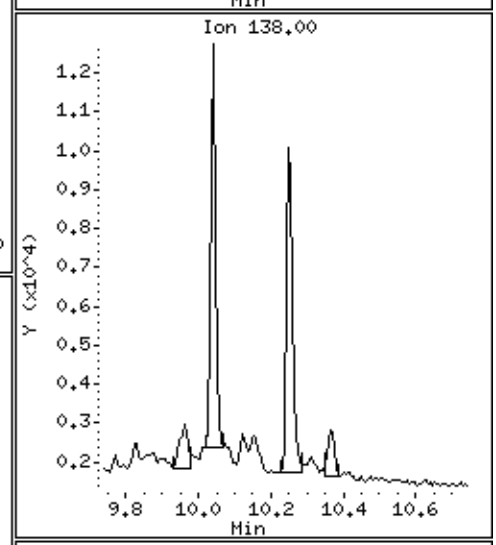


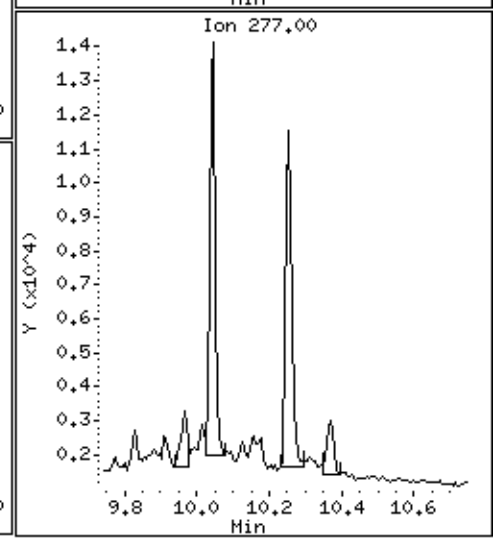












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201929.d
Injection Date: 20-JUN-2019 19:01
Instrument: 30mss2.i
Lab Sample ID: 1692794
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/19/2019 19:27
Lab Sample ID: 1692795
Date Analyzed: 06/20/2019 19:37
Lab File ID: MSS2062019.B\M206201931.D
Initial wt/vol: 15.05 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.085	
208-96-8	Acenaphthylene	0.13	
120-12-7	Anthracene	0.18	
56-55-3	Benzo(a)anthracene	0.40	
50-32-8	Benzo(a)pyrene	0.38	
205-99-2	Benzo(b)fluoranthene	0.67	
191-24-2	Benzo(g,h,i)perylene	0.13	
207-08-9	Benzo(k)fluoranthene	0.32	
218-01-9	Chrysene	0.39	
53-70-3	Dibenz(a,h)anthracene	0.074	
206-44-0	Fluoranthene	0.65	
86-73-7	Fluorene	0.10	
193-39-5	Indeno(1,2,3-cd)pyrene	0.14	
91-20-3	Naphthalene	0.12	
85-01-8	Phenanthrene	0.30	
129-00-0	Pyrene	0.56	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d
Lab Smp Id: 162795
Inj Date : 20-JUN-2019 19:37
Operator : AJC Inst ID: 30mss2.i
Smp Info : 162795x10,
Misc Info : 14727,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2062019.b\m2061719pahcd.m
Meth Date : 20-Jun-2019 10:34 acarnahan Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 33
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.498	3.498	(1.000)	682522	4.00000		
	8 Naphthalene	128	3.515	3.510	(1.005)	26368	0.17143	1.71	
	9 2-Methylnaphthalene	142	3.955	3.949	(1.131)	14464	0.14149	1.41	
	10 1-Methylnaphthalene	142	4.018	4.012	(1.149)	13692	0.12485	1.25	
$	6 2-Fluorobiphenyl (S)	172	4.183	4.178	(0.905)	32162	0.24006	0.240(R)	
	11 Acenaphthylene	152	4.533	4.530	(0.981)	28900	0.18277	1.83	
*	2 Acenaphthene-d10 (IS)	164	4.622	4.619	(1.000)	401384	4.00000		
	12 Acenaphthene	153	4.642	4.639	(1.004)	12162	0.11776	1.18	
	13 Fluorene	166	4.983	4.979	(1.078)	16915	0.13955	1.40	
*	3 Phenanthrene-d10 (IS)	188	5.650	5.646	(1.000)	710326	4.00000		
	14 Phenanthrene	178	5.668	5.659	(1.003)	71070	0.41451	4.14	
	15 Anthracene	178	5.705	5.700	(1.010)	42473	0.24307	2.43(Q)	
	16 Fluoranthene	202	6.634	6.625	(1.174)	176409	0.89890	8.99	
	17 Pyrene	202	6.832	6.828	(1.209)	156002	0.77313	7.73	
$	7 Terphenyl-d14 (S)	244	6.954	6.950	(1.231)	34936	0.23169	0.232(R)	
	18 Benzo(a)anthracene	228	7.926	7.917	(0.999)	98386	0.55916	5.59	
*	4 Chrysene-d12 (IS)	240	7.938	7.929	(1.000)	643007	4.00000		
	19 Chrysene	228	7.961	7.952	(1.003)	97598	0.54155	5.42	
	20 Benzo(b)fluoranthene	252	8.894	8.884	(0.965)	100128	0.92263	9.23(Q)	
	21 Benzo(k)fluoranthene	252	8.914	8.909	(0.967)	57244	0.43903	4.39(Q)	
	22 Benzo(a)pyrene	252	9.174	9.164	(0.995)	54139	0.52440	5.24	
*	5 Perylene-d12 (IS)	264	9.218	9.209	(1.000)	415856	4.00000		
	23 Dibenz(a,h)anthracene	278	10.048	10.039	(1.090)	11519	0.10295	1.03(Q)	
	24 Indeno(1,2,3-cd)pyrene	276	10.043	10.034	(1.089)	25957	0.19197	1.92	
	25 Benzo[g,h,i]perylene	276	10.260	10.245	(1.113)	20405	0.18329	1.83	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

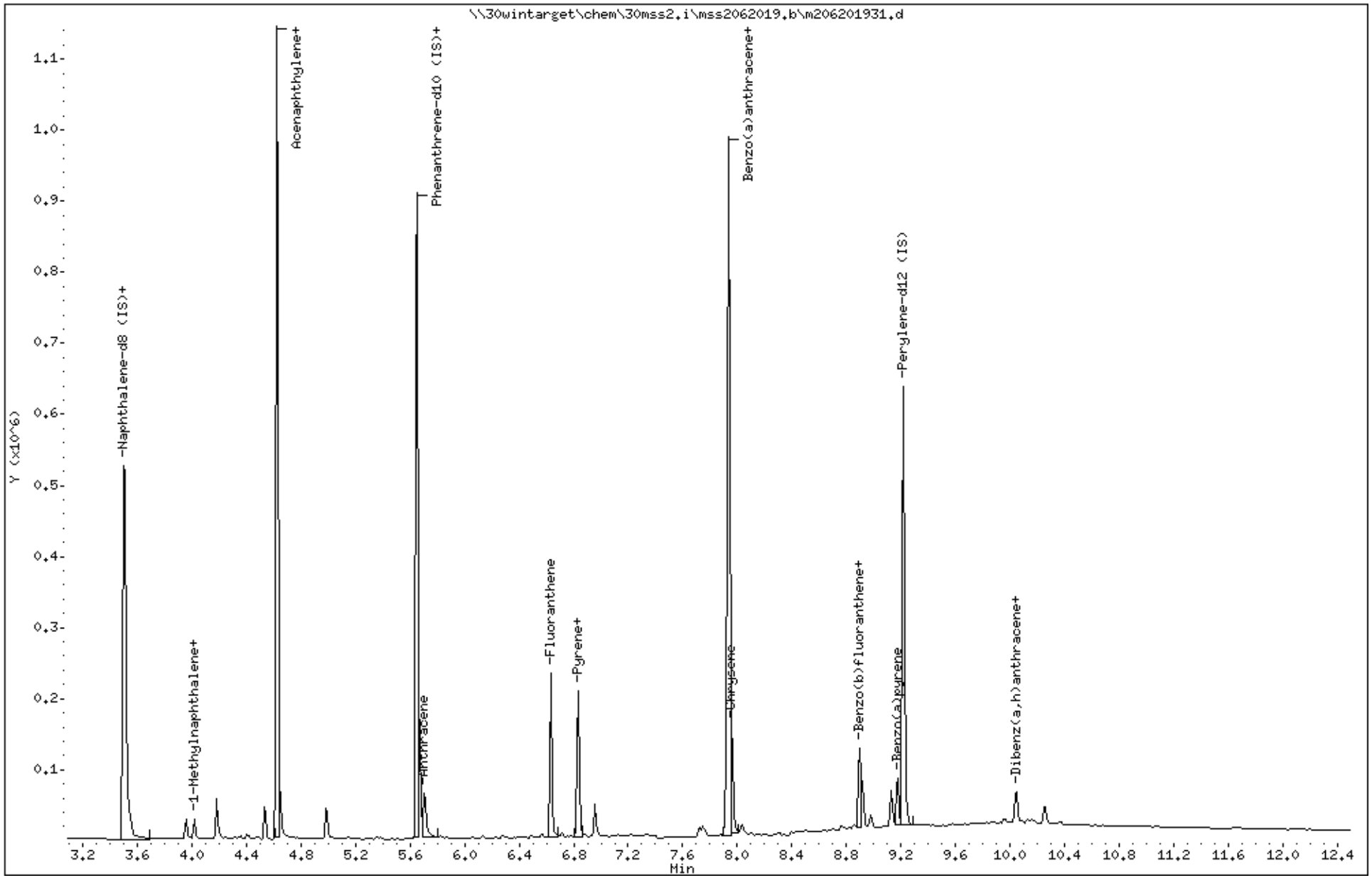
TARGET COMPOUNDS

Client Name:
Client SDG: 30MSS2-mss2062019
Lab Smp Id: 162795
Sample Location:
Sample Point:
Sample Date:
Date Received:
Sample Matrix: None
Quant Type: ISTD
Analysis Type: SV
Level:
Data Type: MS DATA
Operator: AJC
Misc Info: 14727,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	1.71	
91-57-6	2-Methylnaphthalene	1.41	
90-12-0	1-Methylnaphthalene	1.25	
208-96-8	Acenaphthylene	1.83	
83-32-9	Acenaphthene	1.18	
86-73-7	Fluorene	1.40	
85-01-8	Phenanthrene	4.14	
120-12-7	Anthracene	2.43	
206-44-0	Fluoranthene	8.99	
129-00-0	Pyrene	7.73	
56-55-3	Benzo(a)anthracene	5.59	
218-01-9	Chrysene	5.42	
205-99-2	Benzo(b)fluoranthene	9.23	
207-08-9	Benzo(k)fluoranthene	4.39	
50-32-8	Benzo(a)pyrene	5.24	
53-70-3	Dibenz(a,h)anthracene	1.03	
193-39-5	Indeno(1,2,3-cd)pyrene	1.92	
191-24-2	Benzo[g,h,i]perylene	1.83	
321-60-8	2-Fluorobiphenyl (S)	0.240	
1718-51-0	Terphenyl-d14 (S)	0.232	

Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d
Date : 20-JUN-2019 19:37
Client ID:
Sample Info: 162795x10,

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

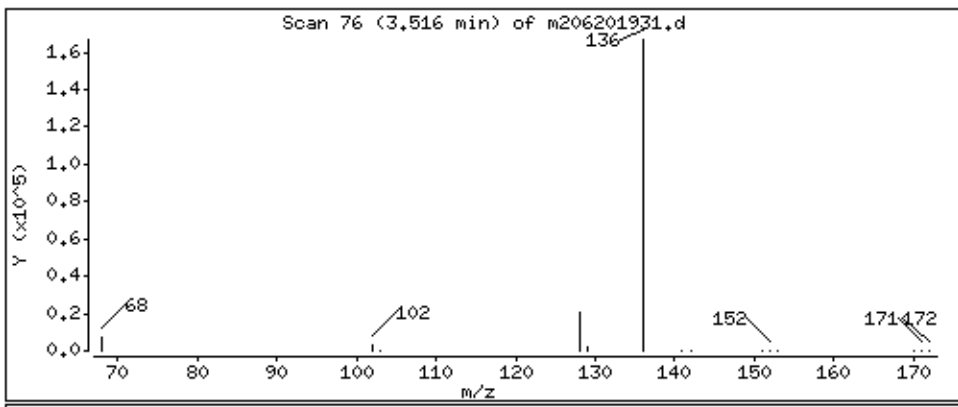
Operator: AJC

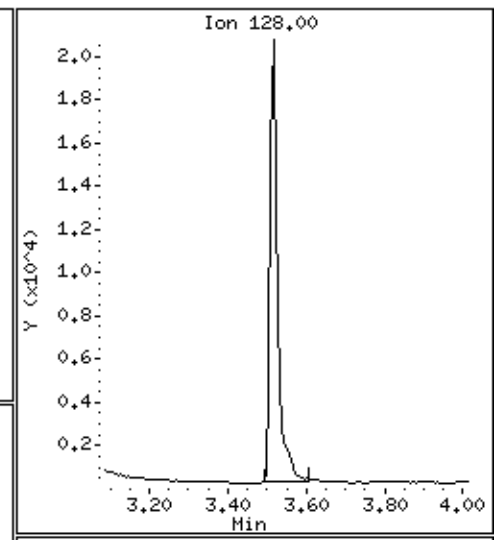
Column phase: RTX-5MS

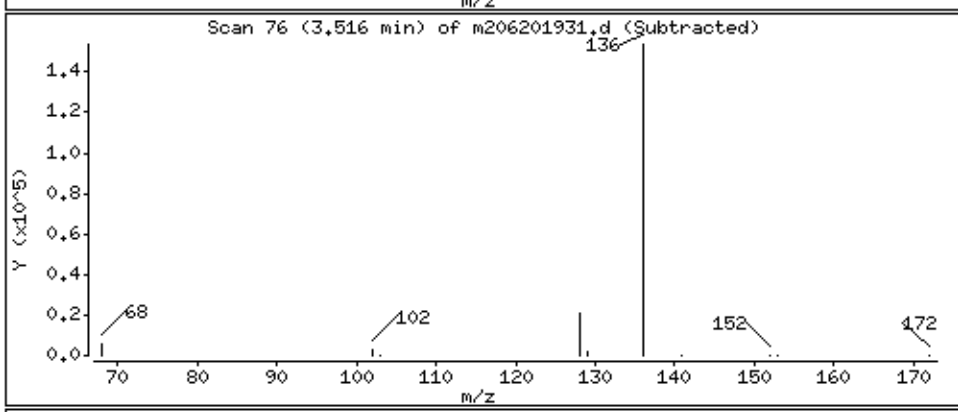
Column diameter: 0.25

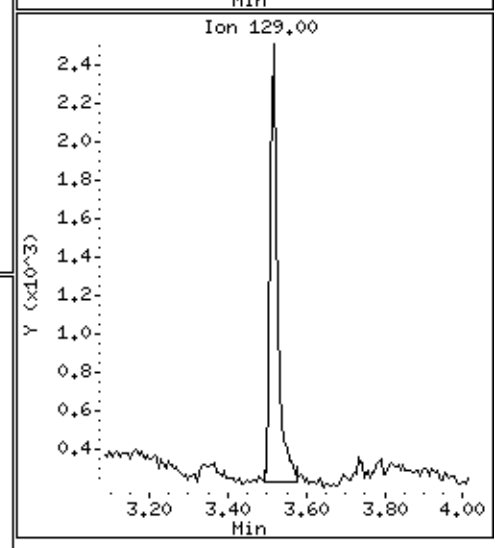
8 Naphthalene

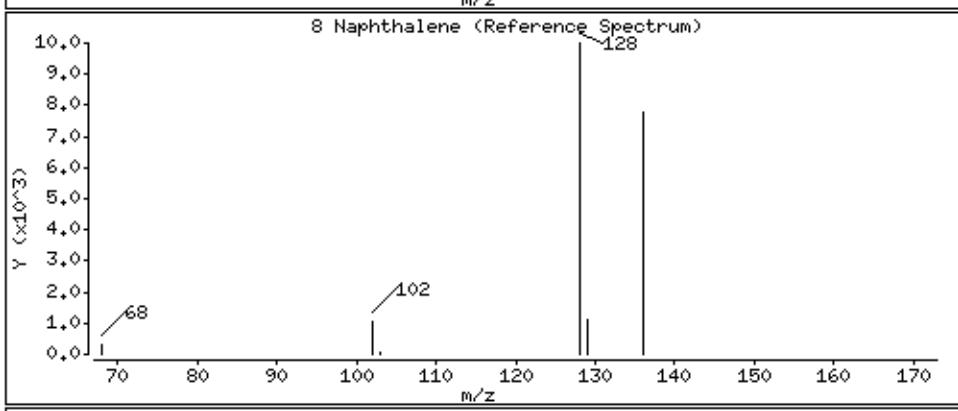
Concentration: 1.71 ug/ml

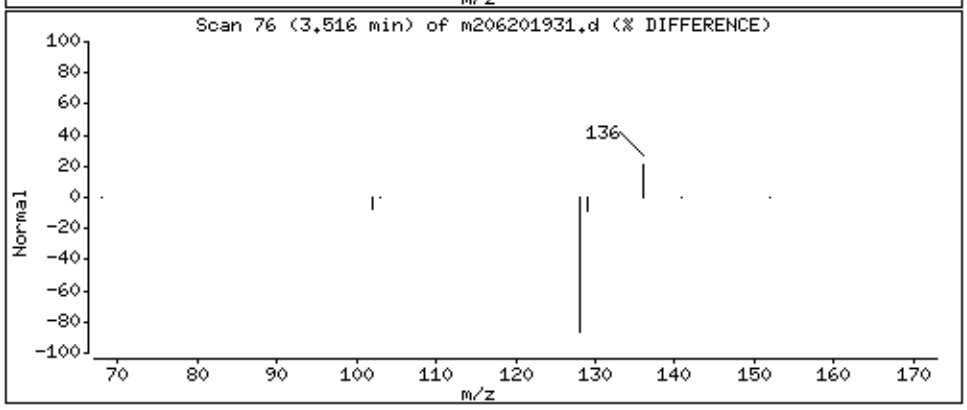












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

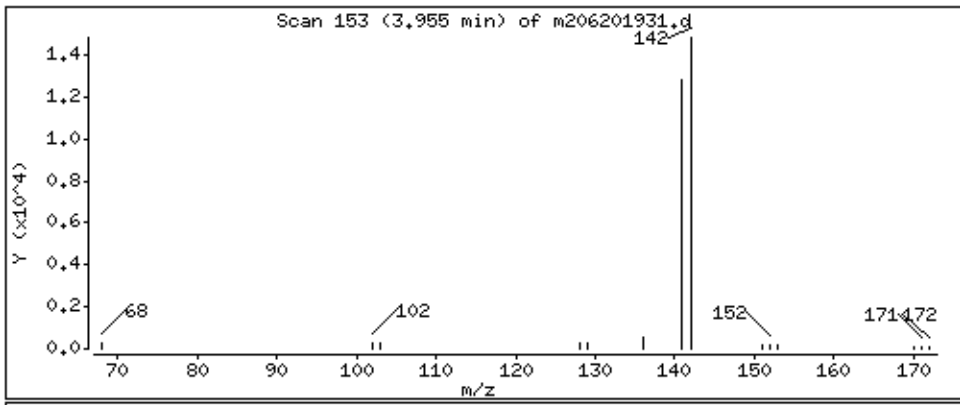
Operator: AJC

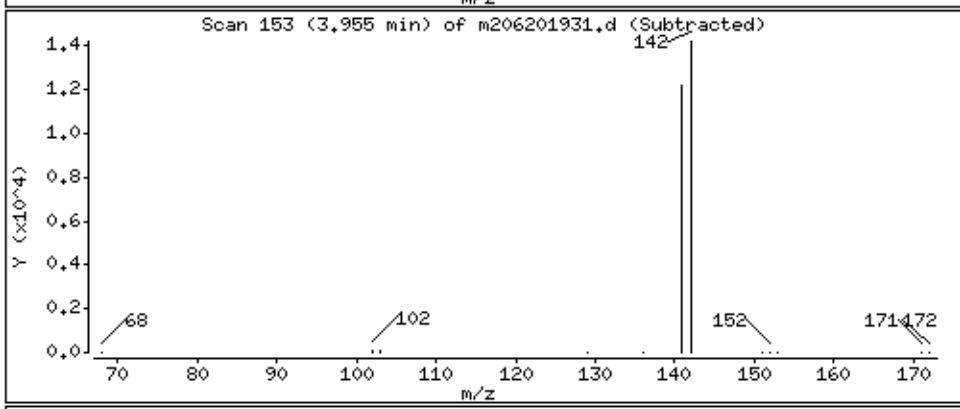
Column phase: RTX-5MS

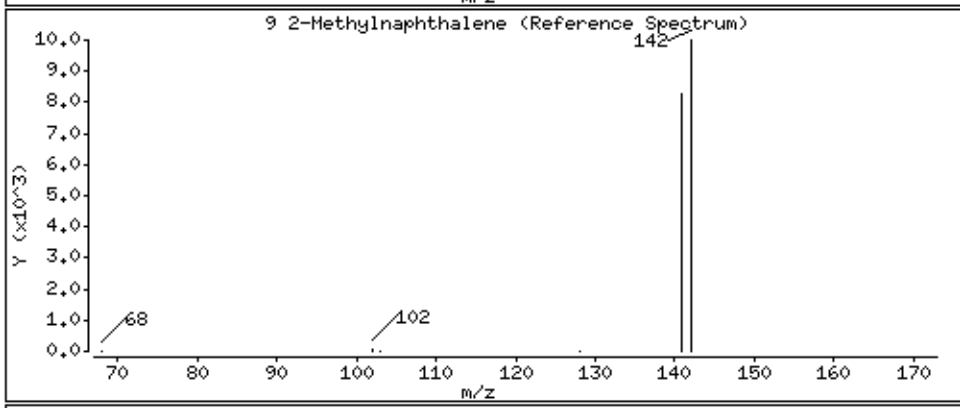
Column diameter: 0.25

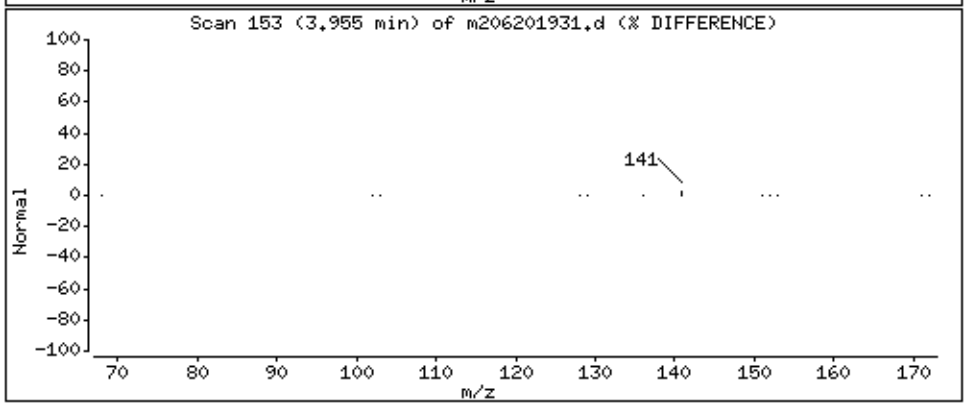
9 2-Methylnaphthalene

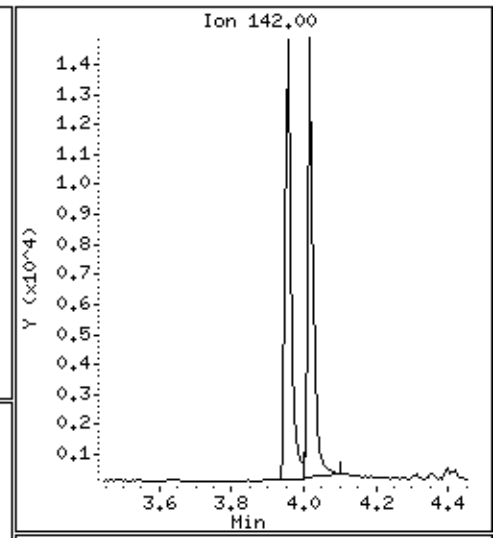
Concentration: 1.41 ug/ml

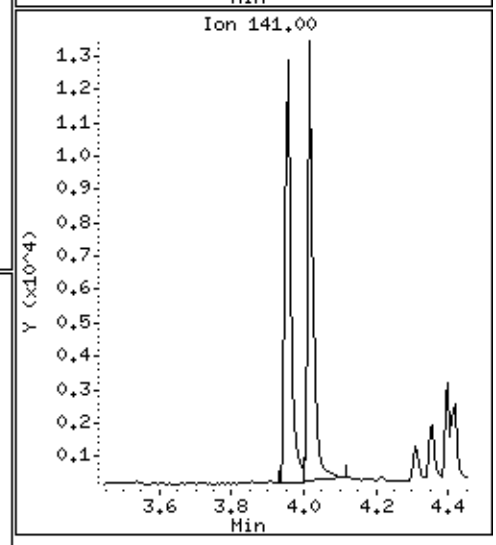












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

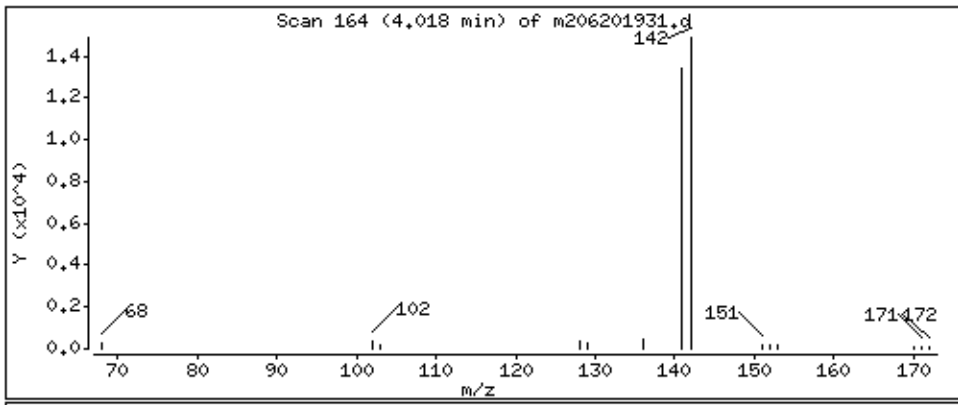
Operator: AJC

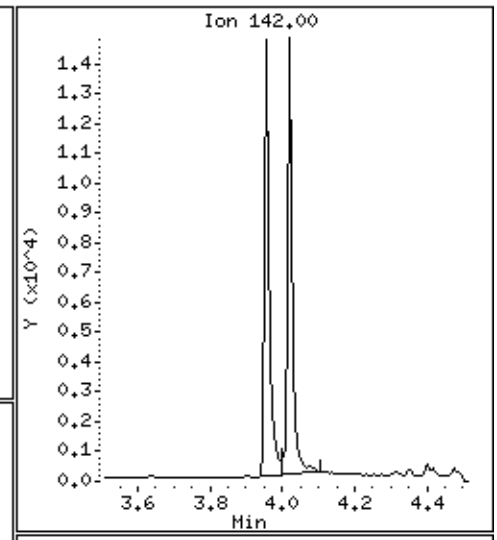
Column phase: RTX-5MS

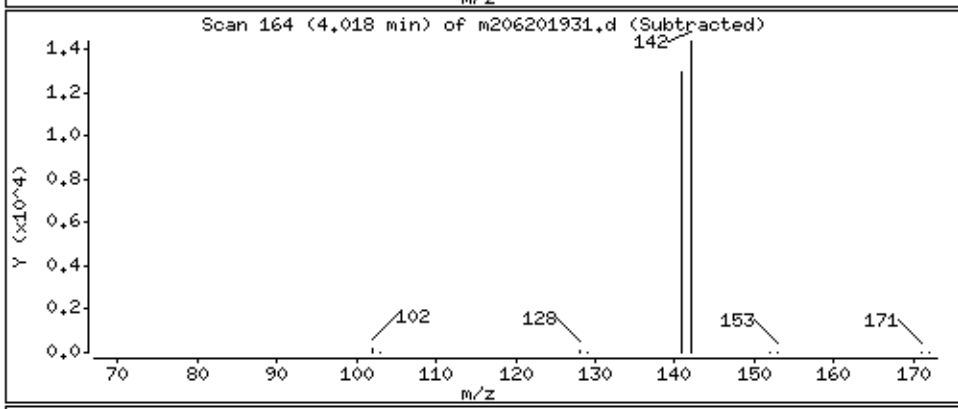
Column diameter: 0.25

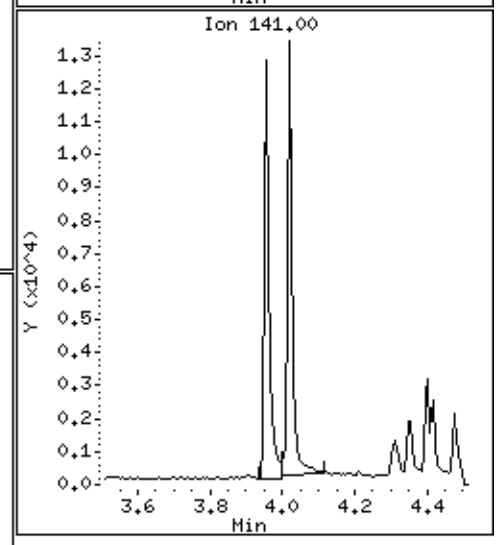
10 1-Methylnaphthalene

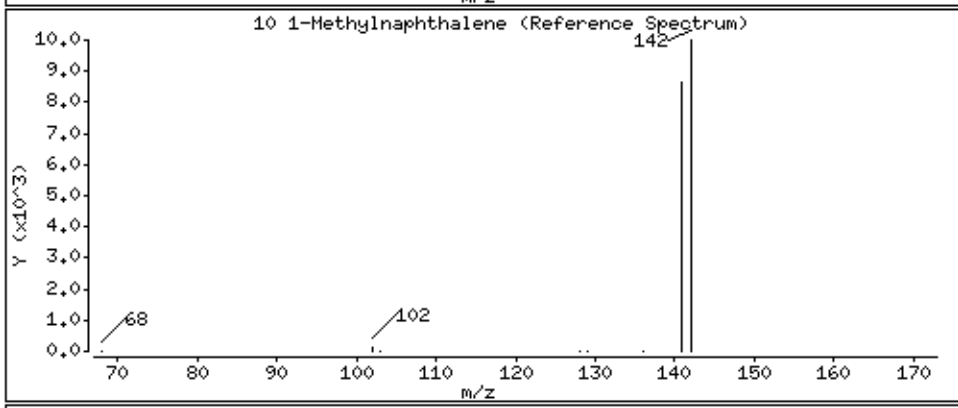
Concentration: 1.25 ug/ml

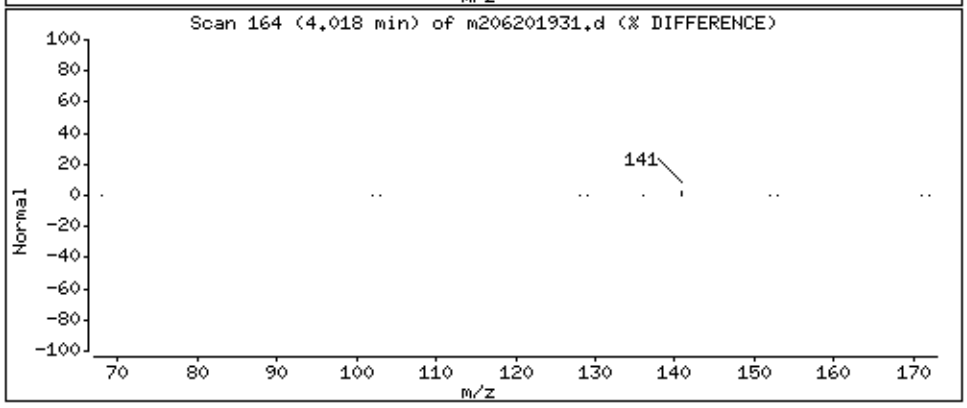












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

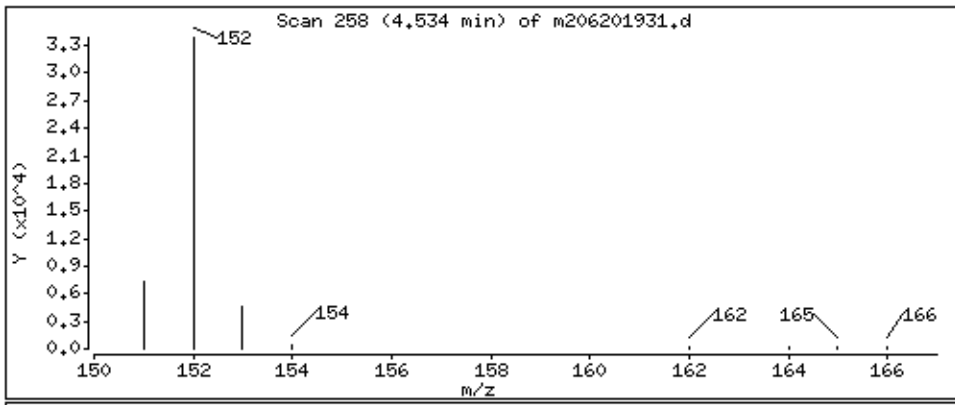
Operator: AJC

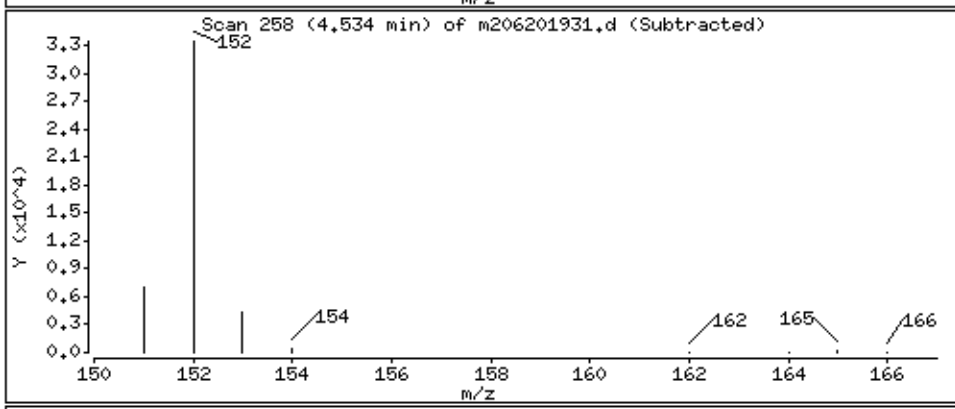
Column phase: RTX-5MS

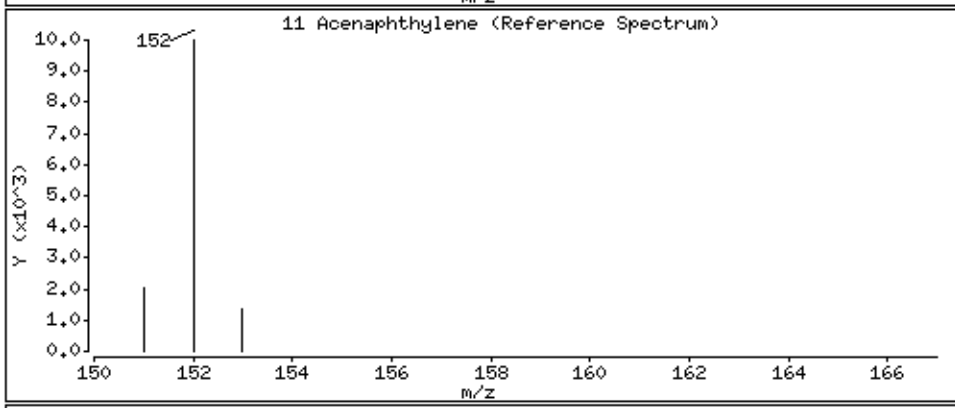
Column diameter: 0.25

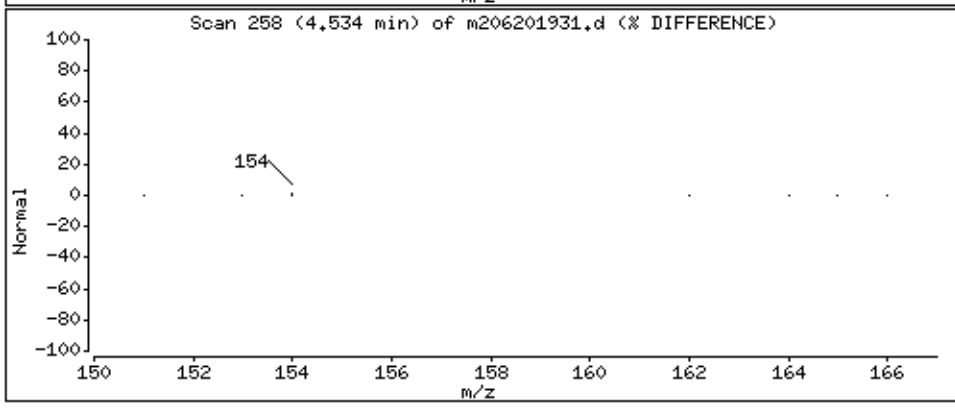
11 Acenaphthylene

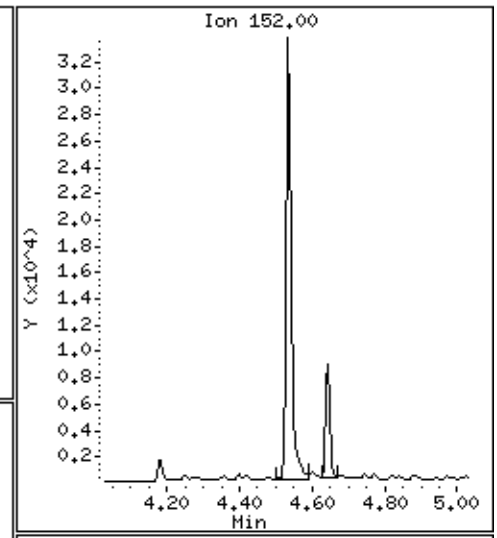
Concentration: 1.83 ug/ml

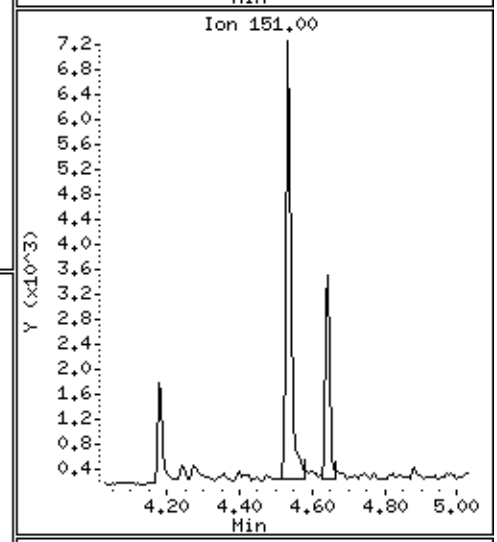


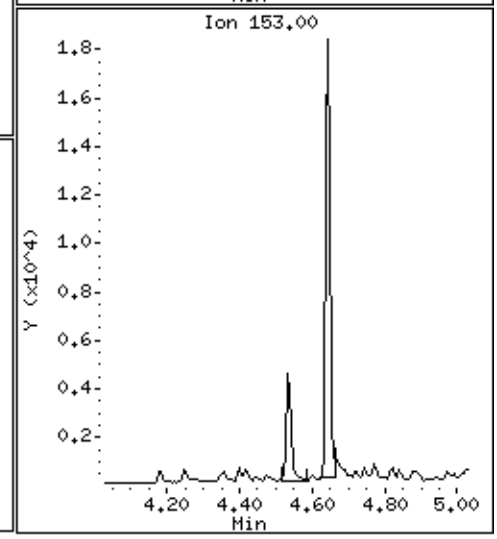












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

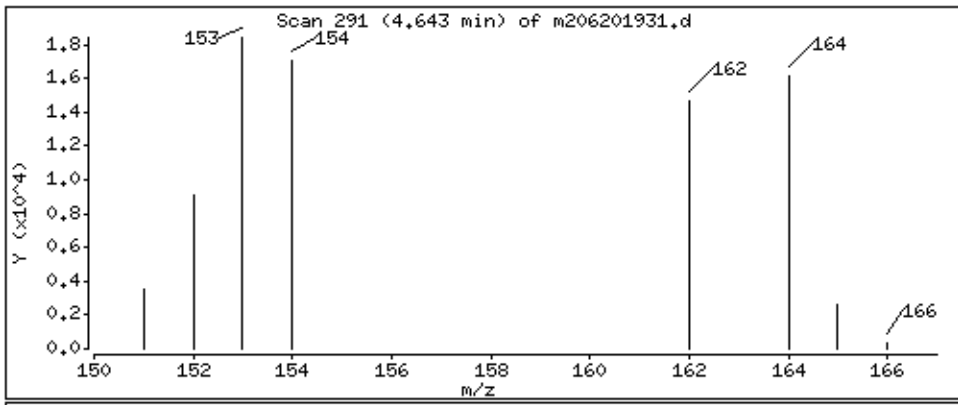
Operator: AJC

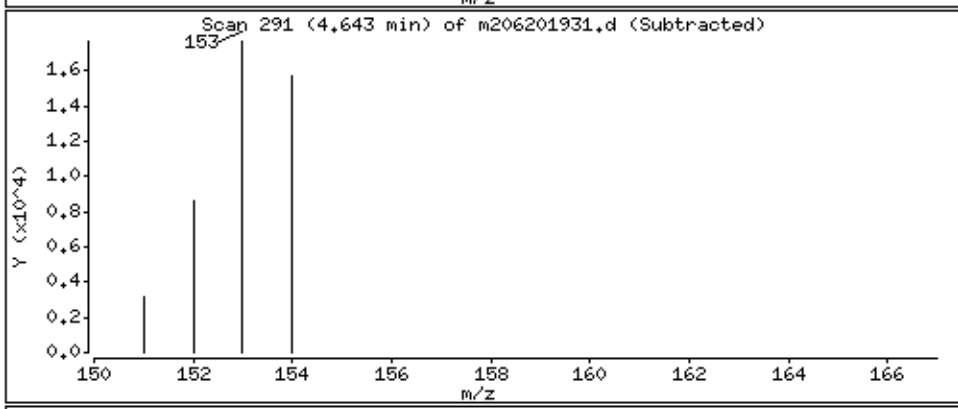
Column phase: RTX-5MS

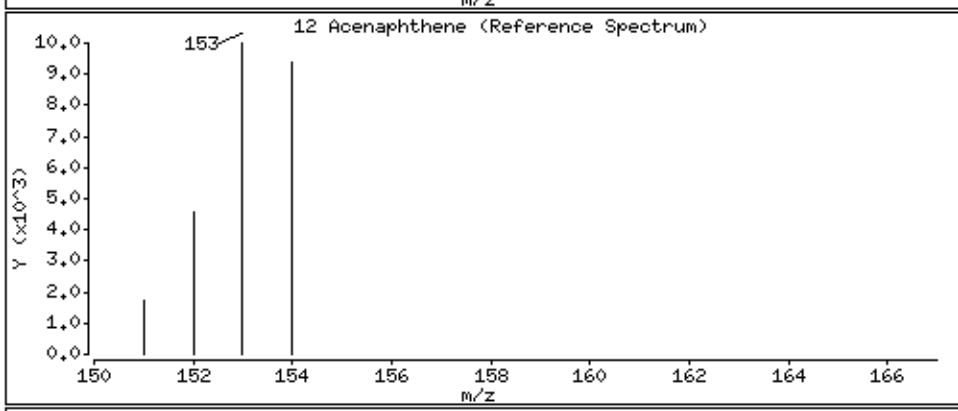
Column diameter: 0.25

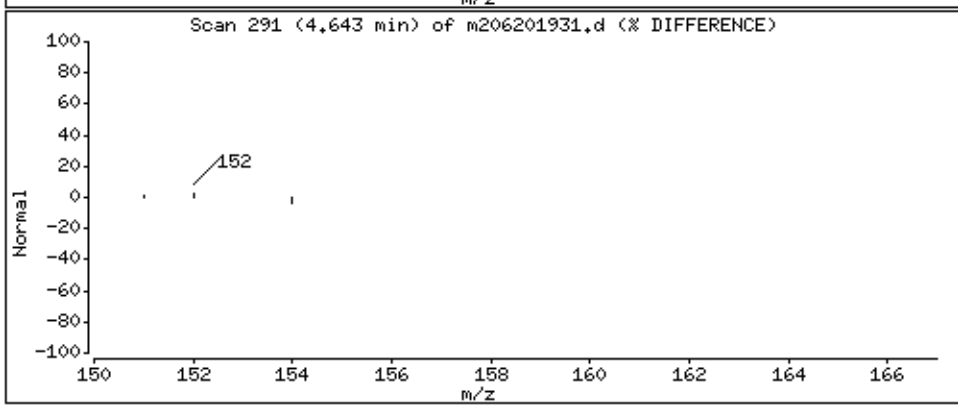
12 Acenaphthene

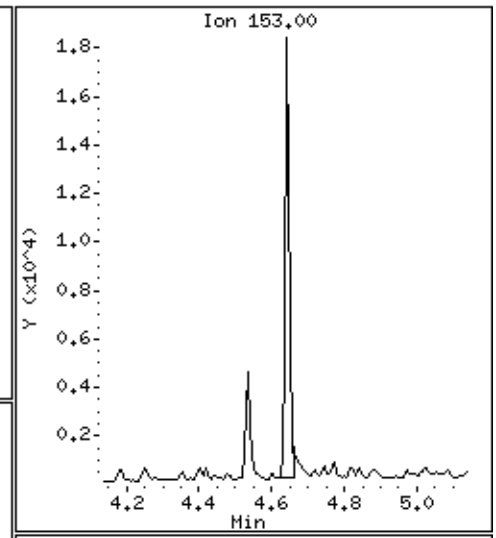
Concentration: 1.18 ug/ml

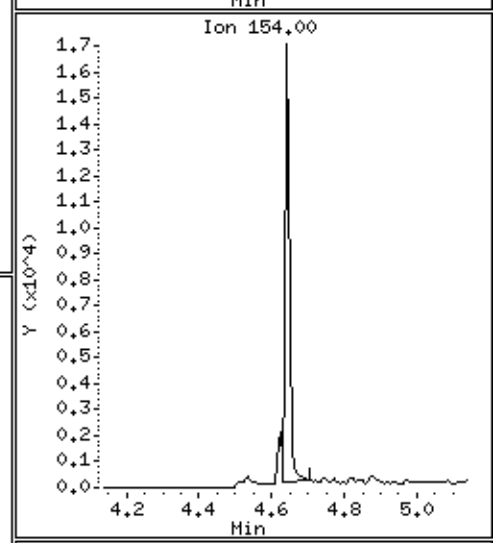


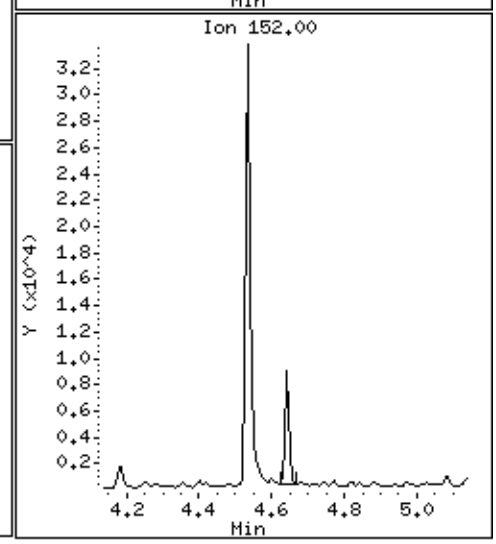












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

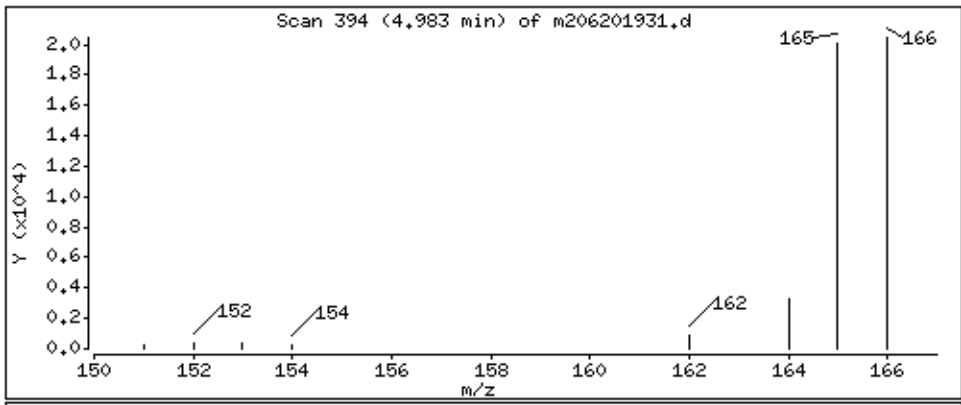
Operator: AJC

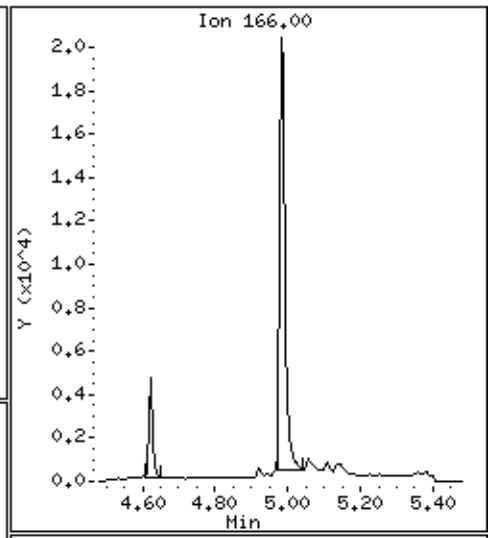
Column phase: RTX-5MS

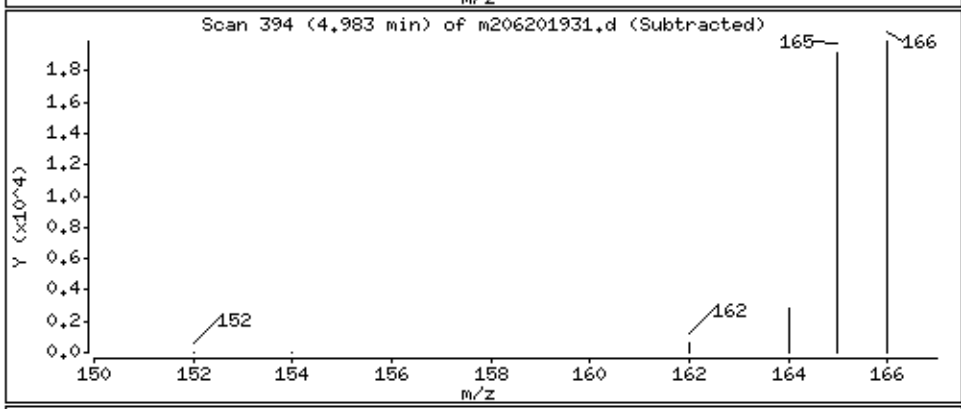
Column diameter: 0.25

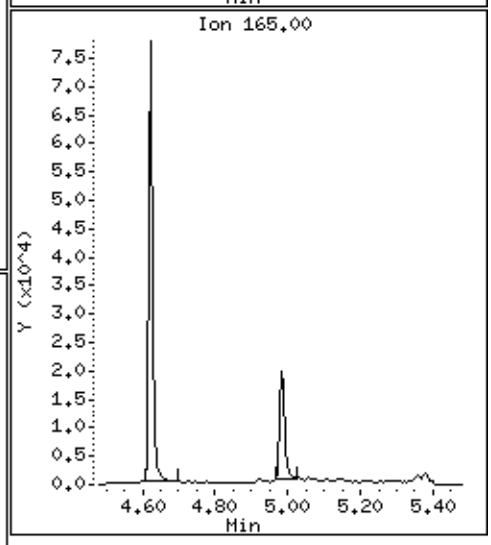
13 Fluorene

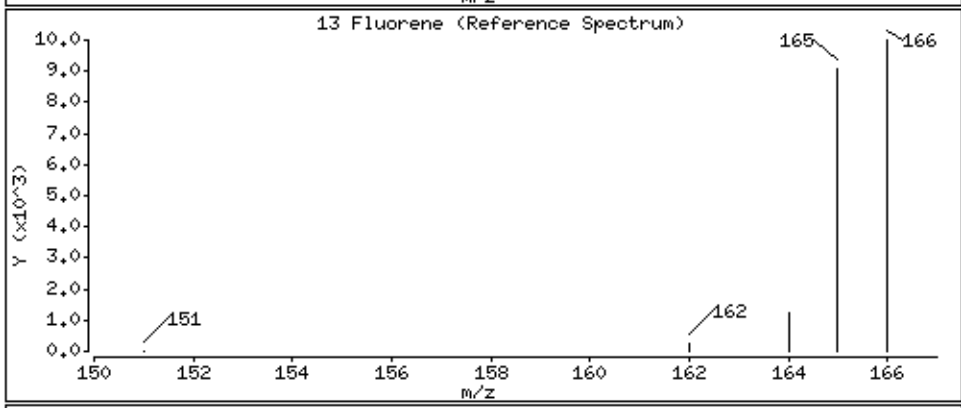
Concentration: 1.40 ug/ml

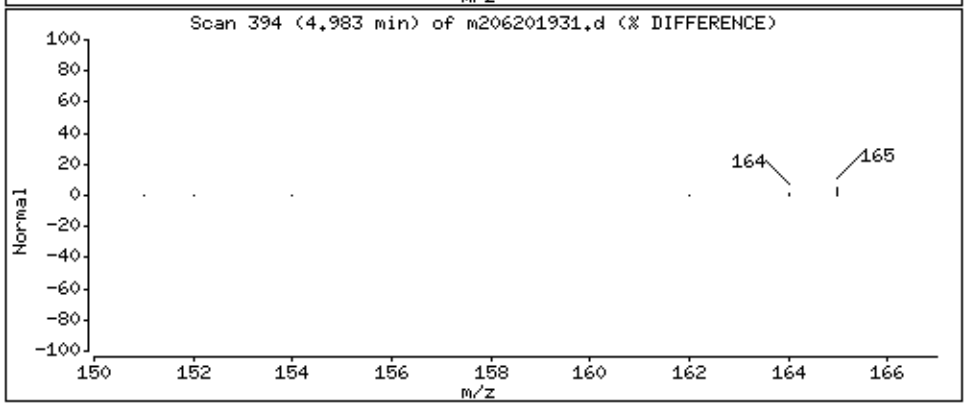












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

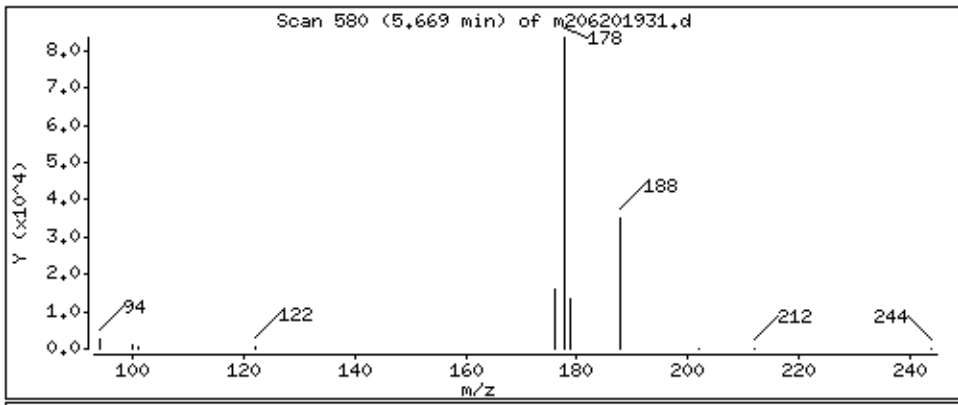
Operator: AJC

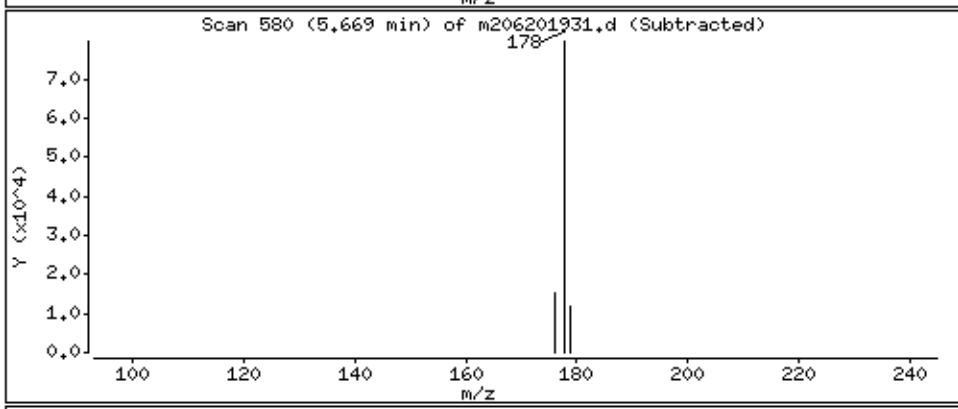
Column phase: RTX-5MS

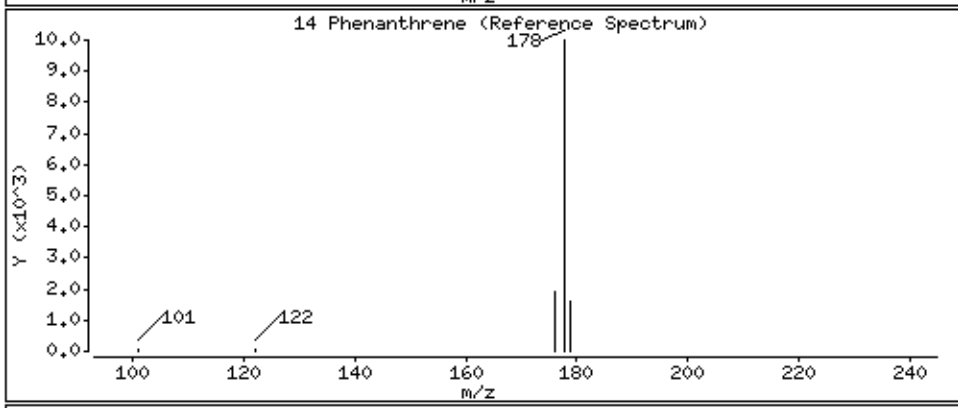
Column diameter: 0.25

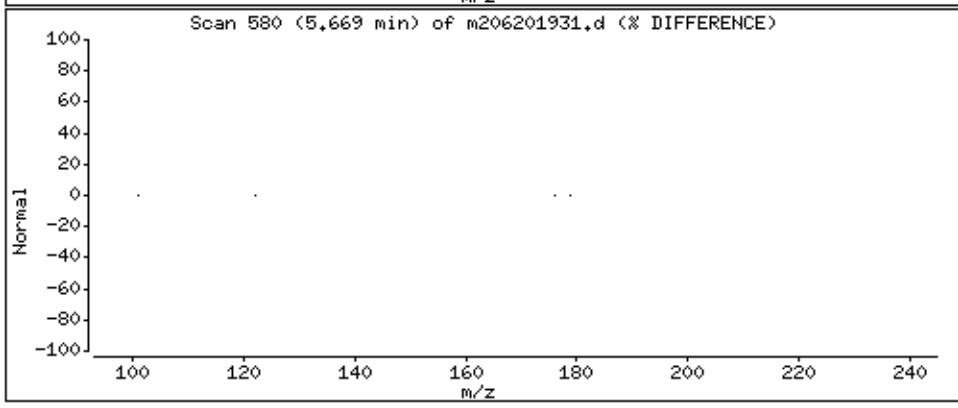
14 Phenanthrene

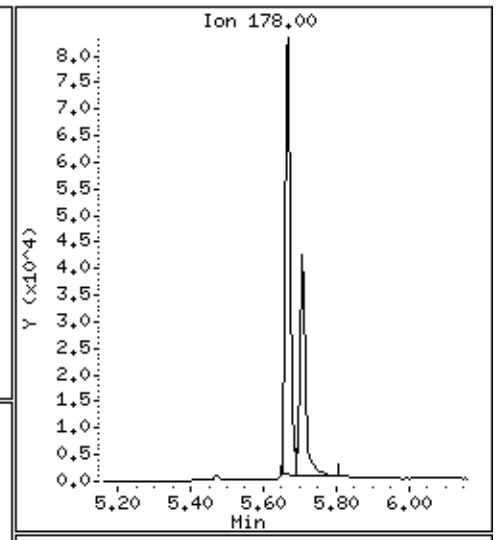
Concentration: 4.14 ug/ml

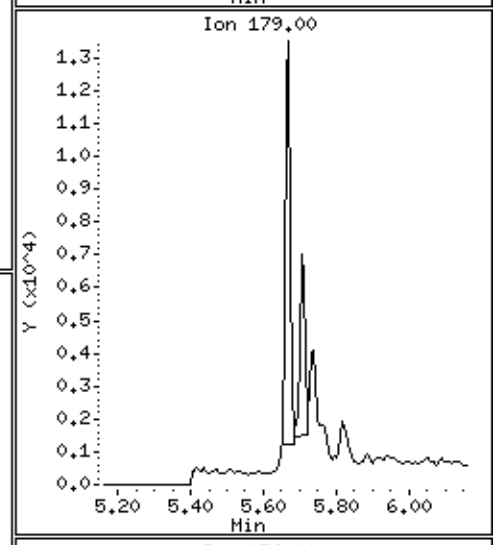


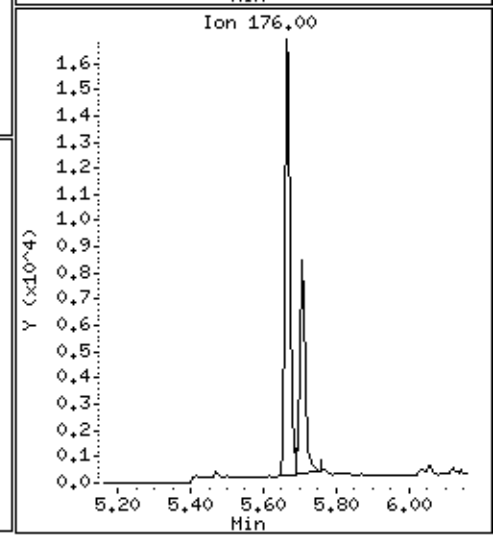












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

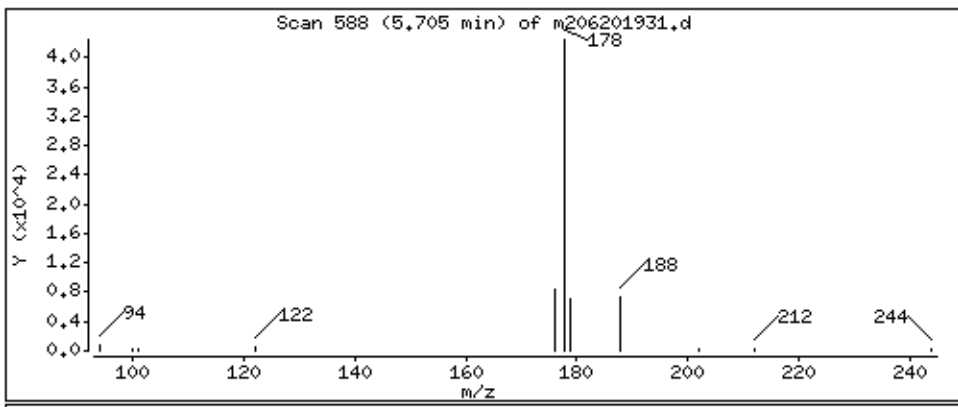
Operator: AJC

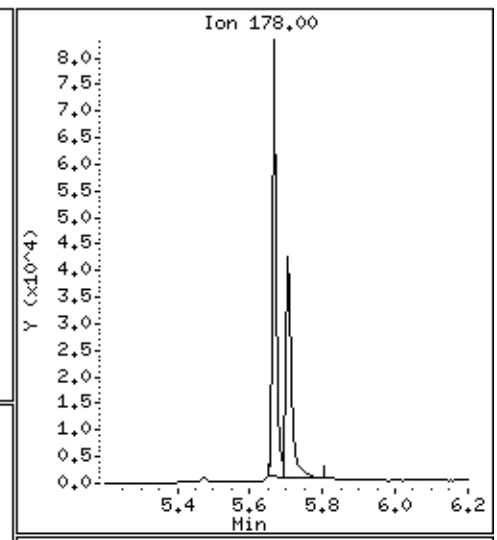
Column phase: RTX-5MS

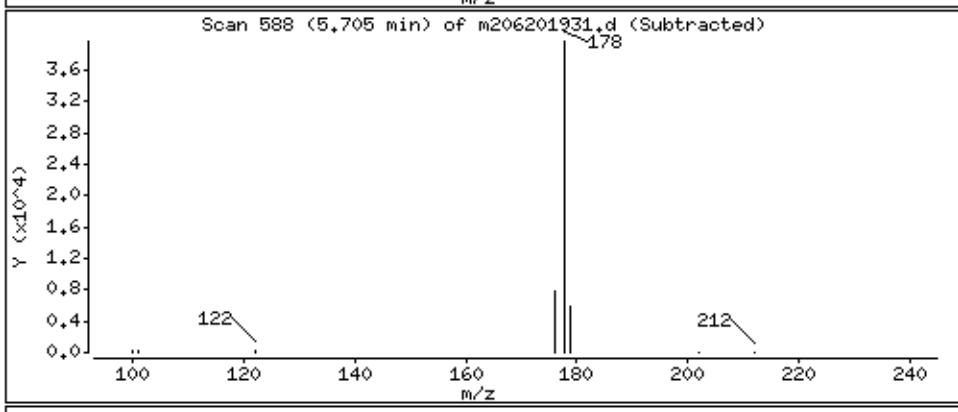
Column diameter: 0.25

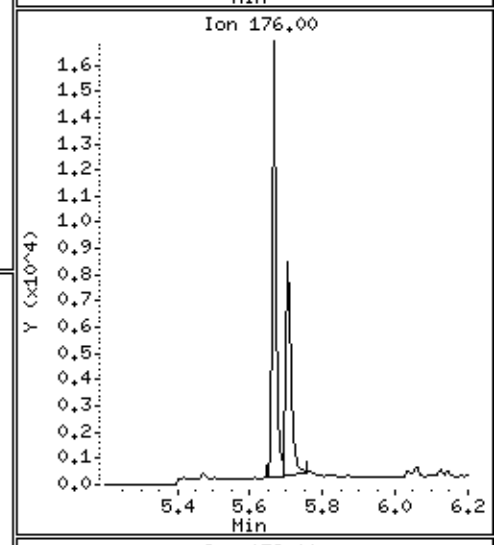
15 Anthracene

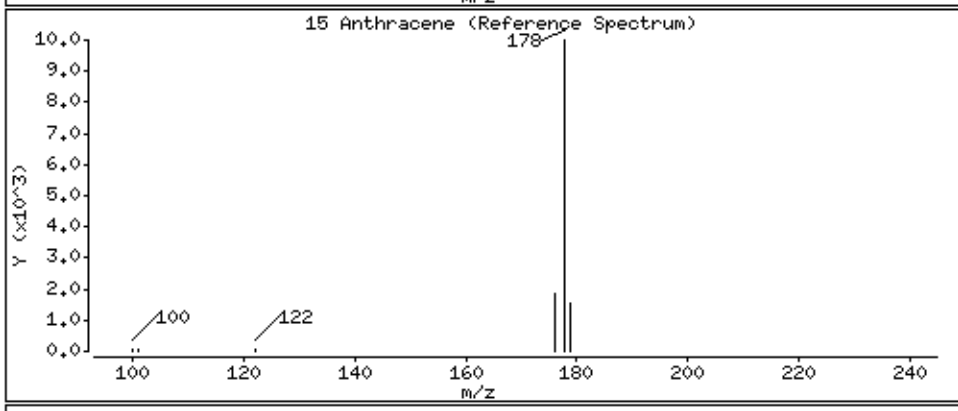
Concentration: 2.43 ug/ml

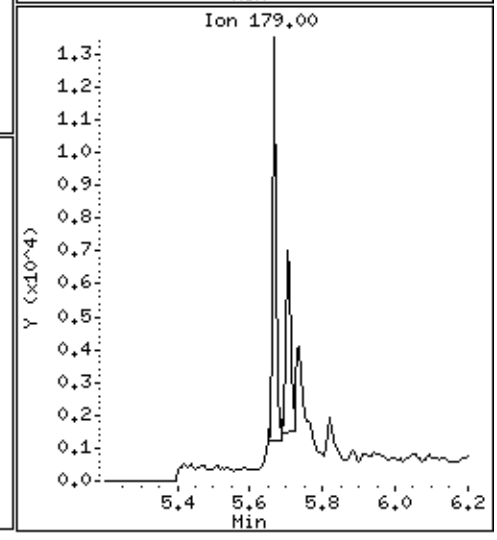


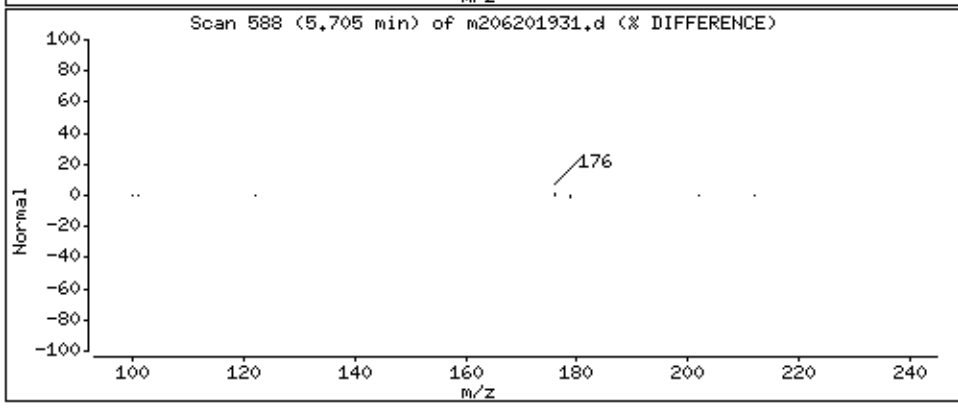












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

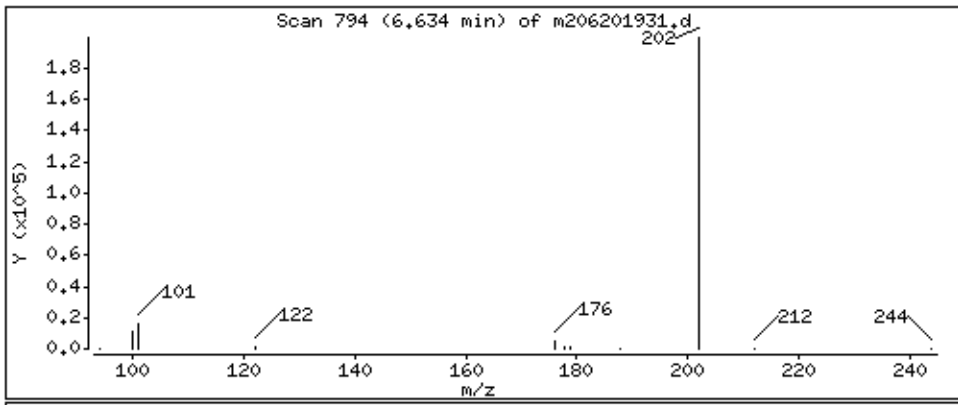
Operator: AJC

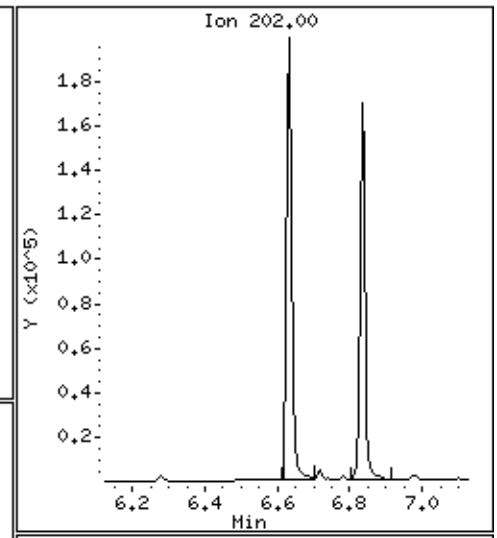
Column phase: RTX-5MS

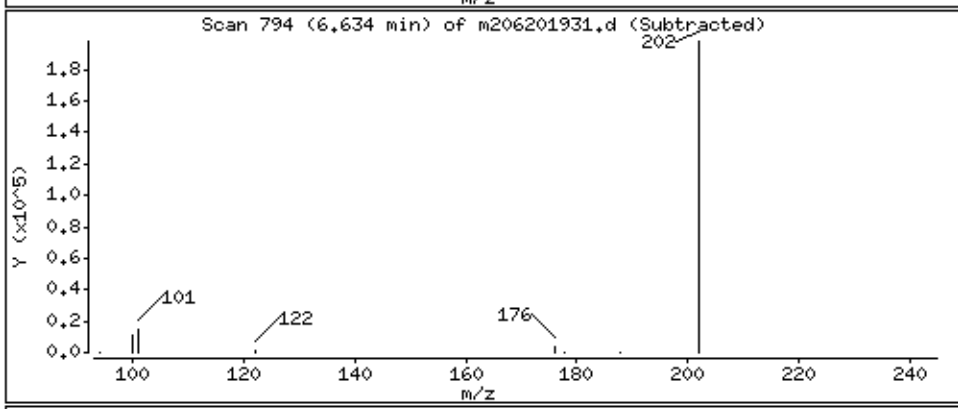
Column diameter: 0.25

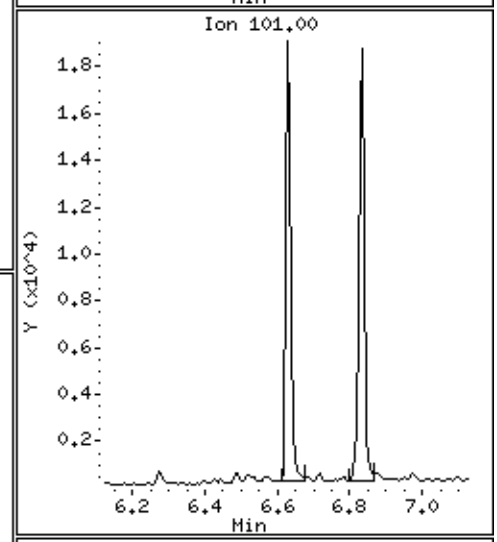
16 Fluoranthene

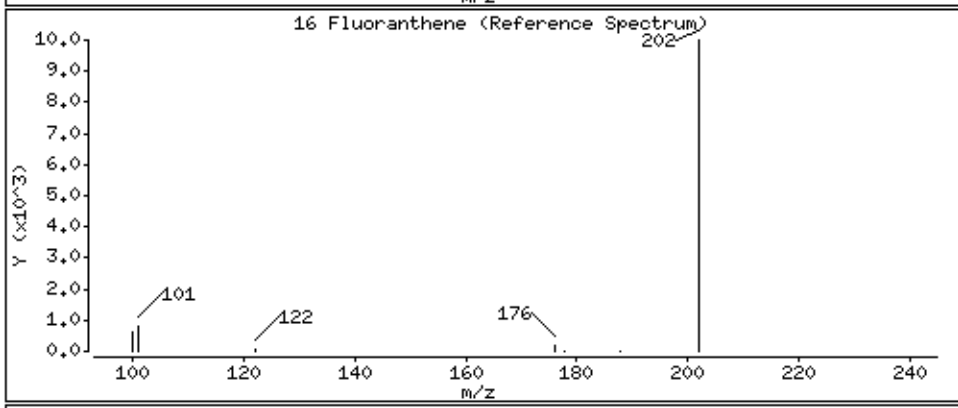
Concentration: 8.99 ug/ml

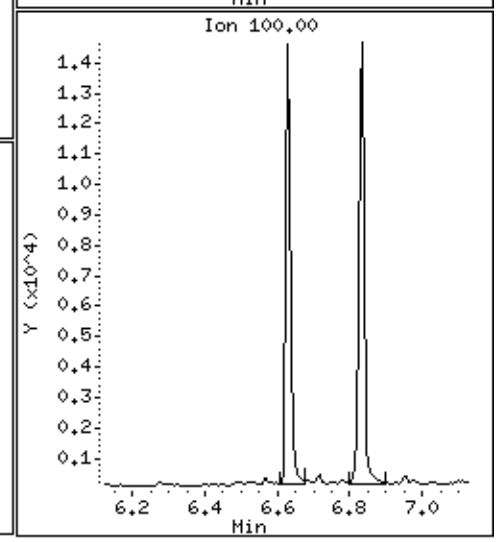


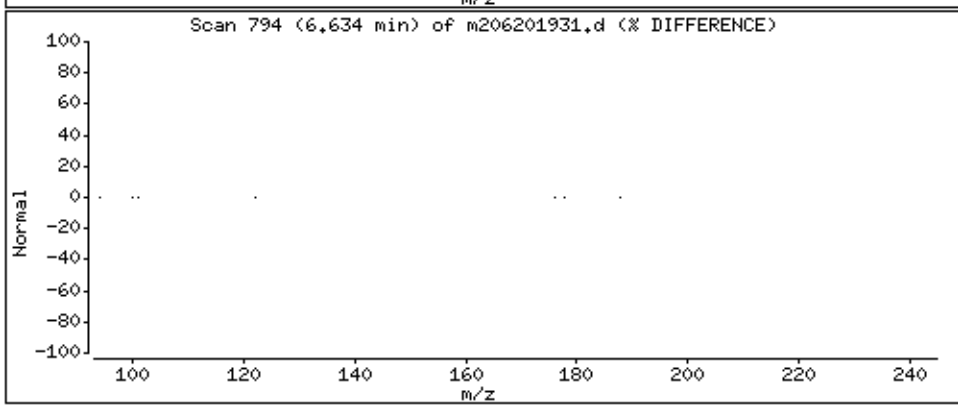












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

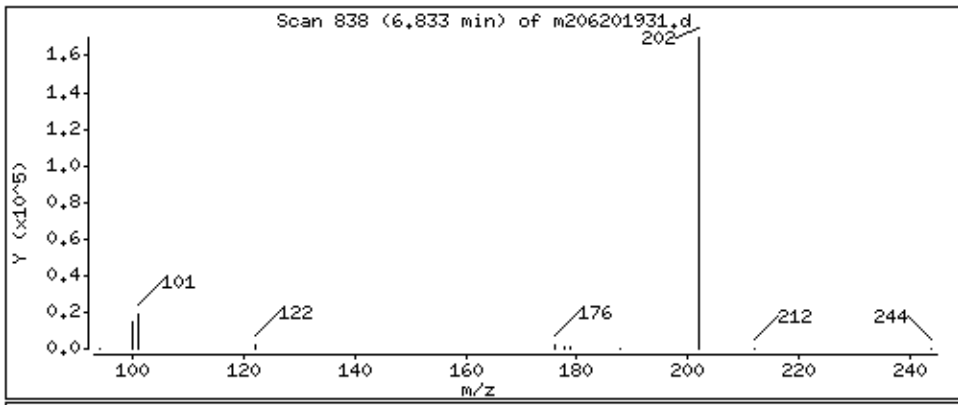
Operator: AJC

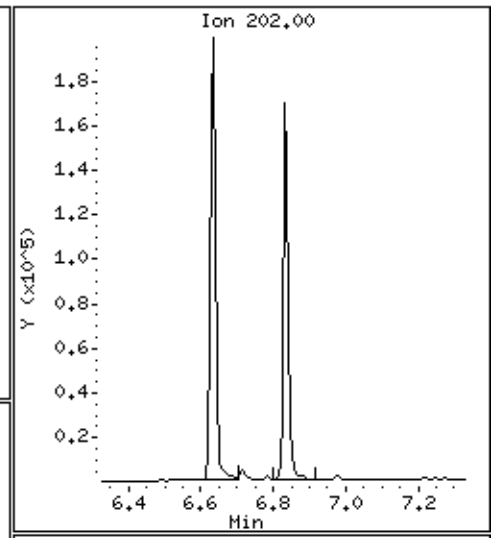
Column phase: RTX-5MS

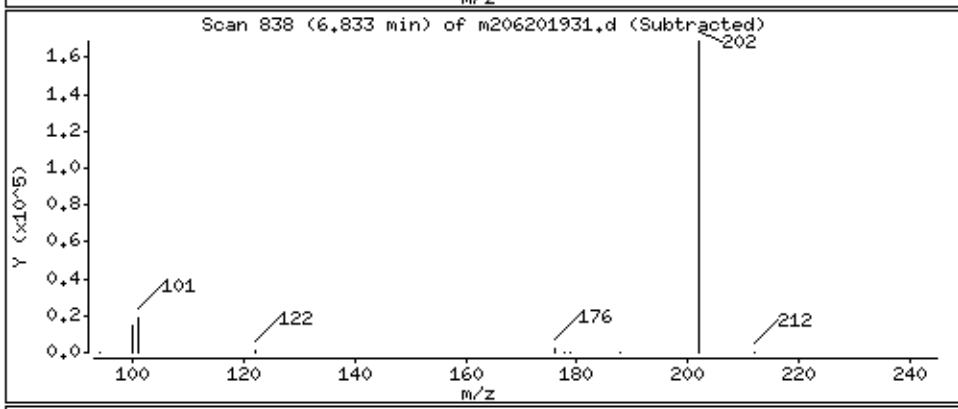
Column diameter: 0.25

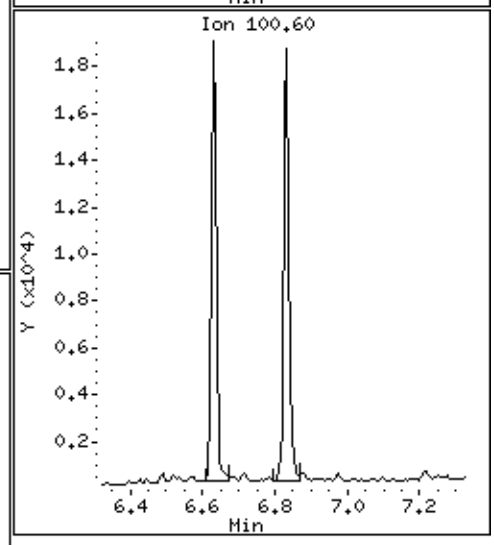
17 Pyrene

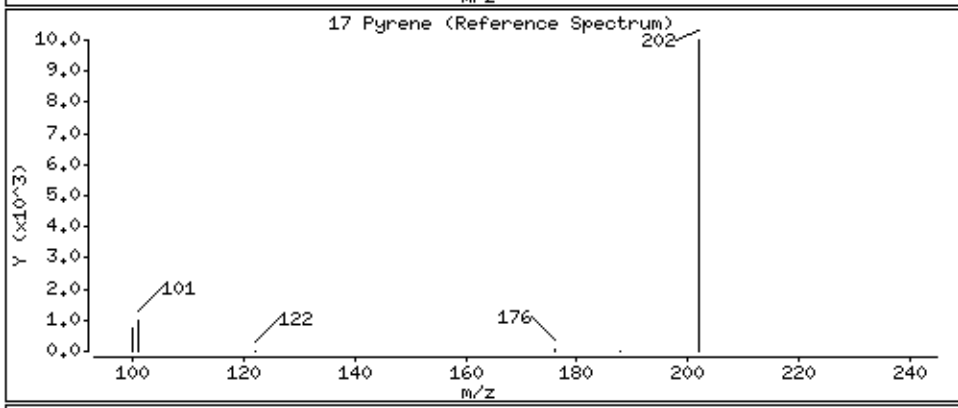
Concentration: 7.73 ug/ml

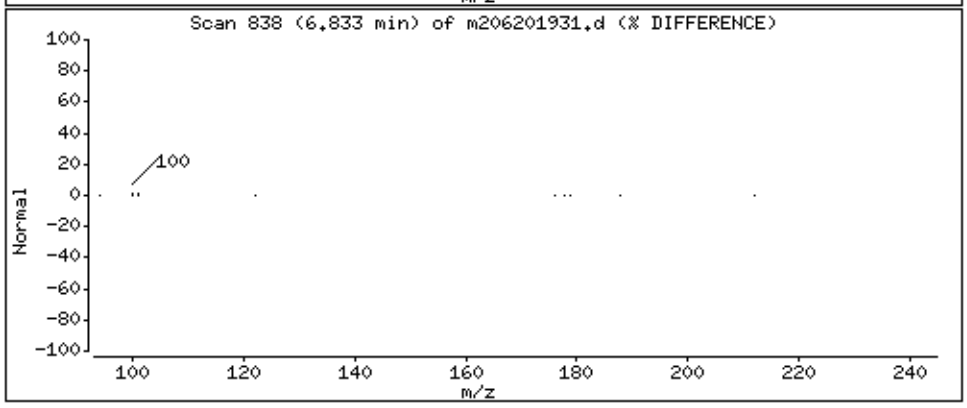












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

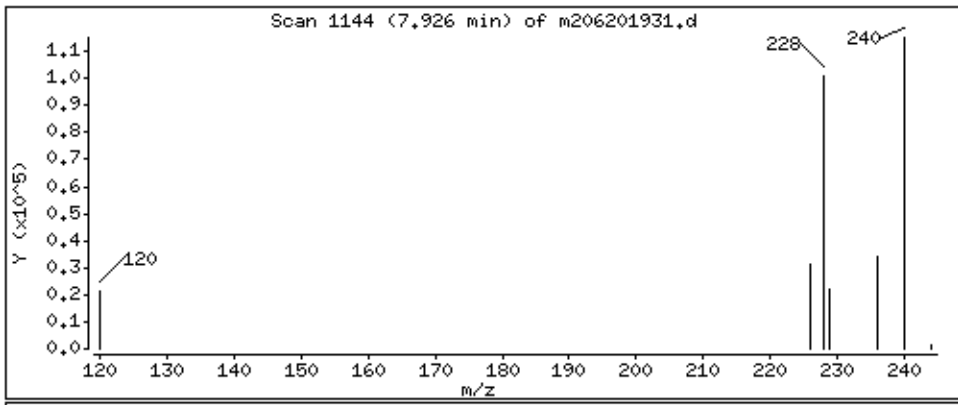
Operator: AJC

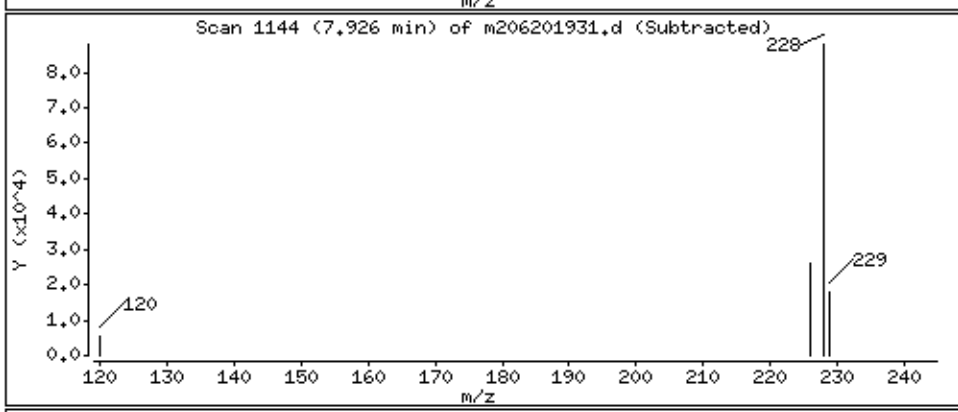
Column phase: RTX-5MS

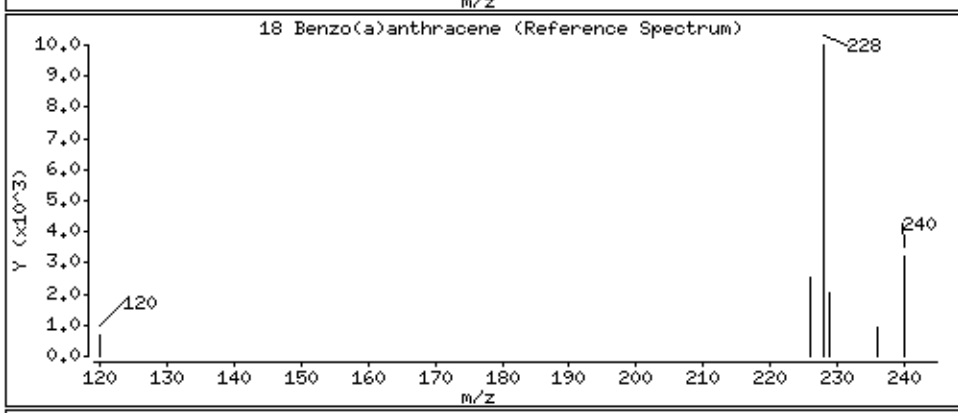
Column diameter: 0.25

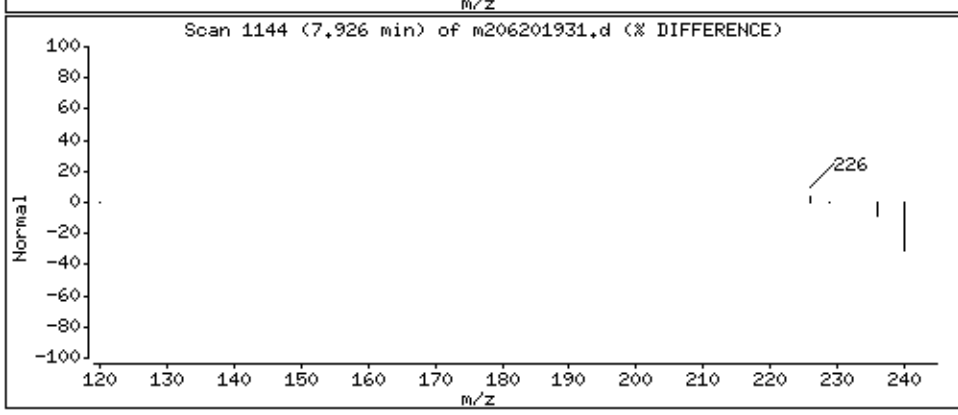
18 Benzo(a)anthracene

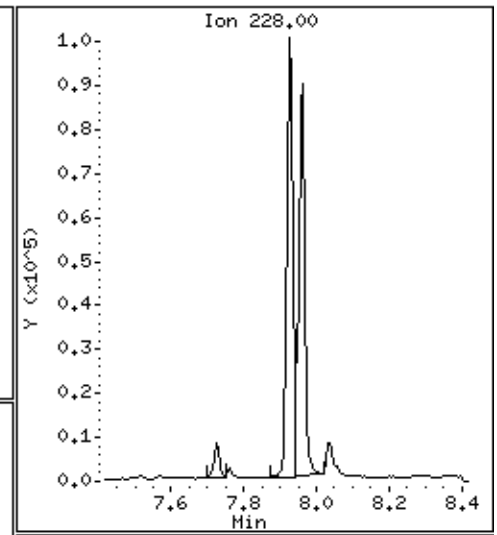
Concentration: 5.59 ug/ml

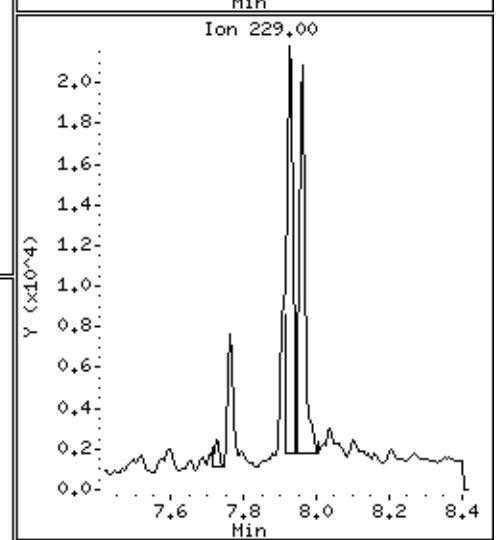


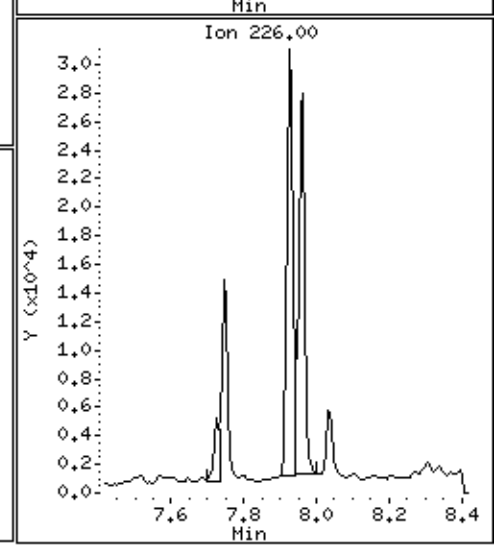












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

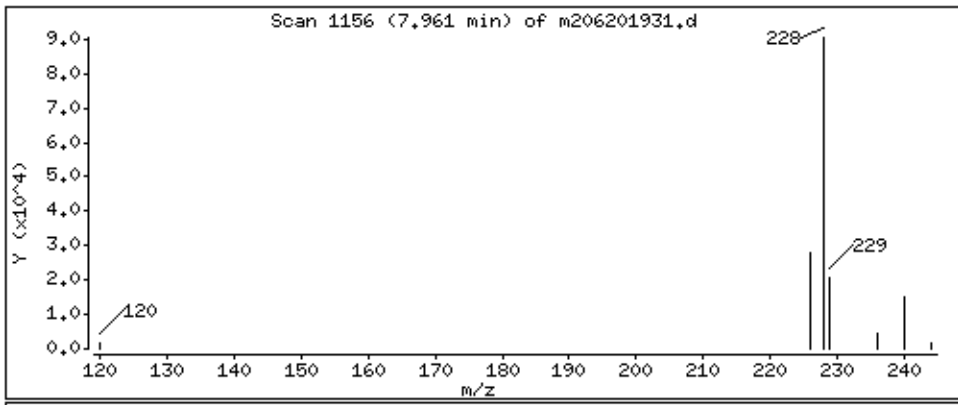
Operator: AJC

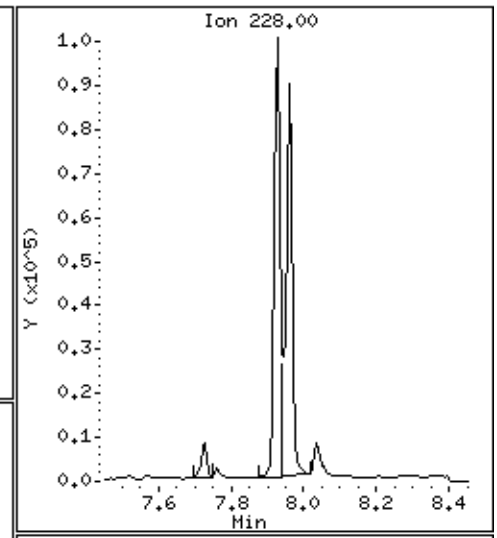
Column phase: RTX-5MS

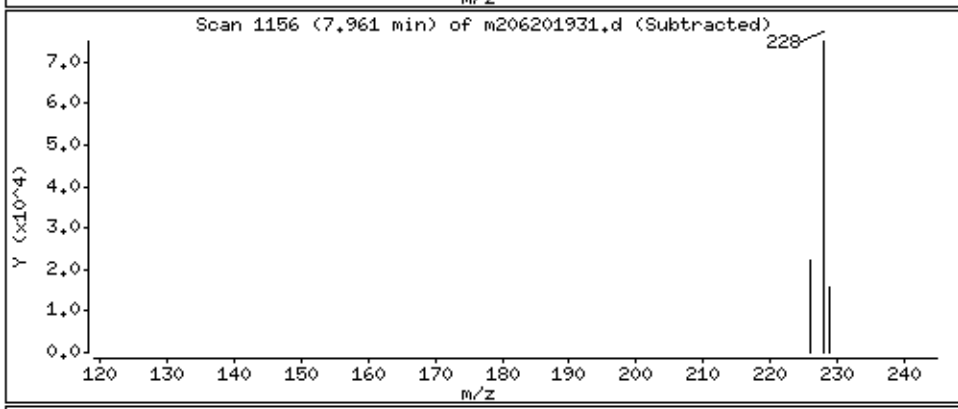
Column diameter: 0.25

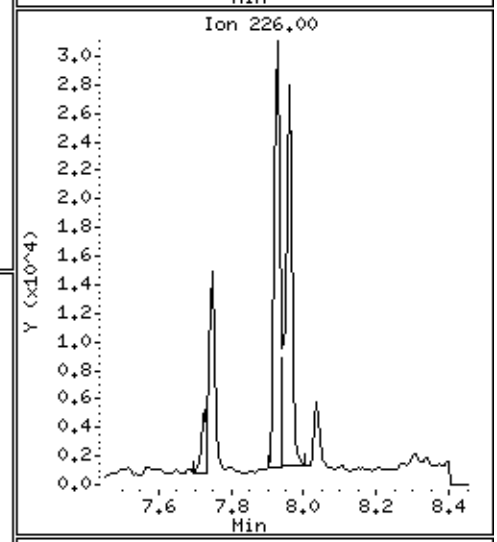
19 Chrysene

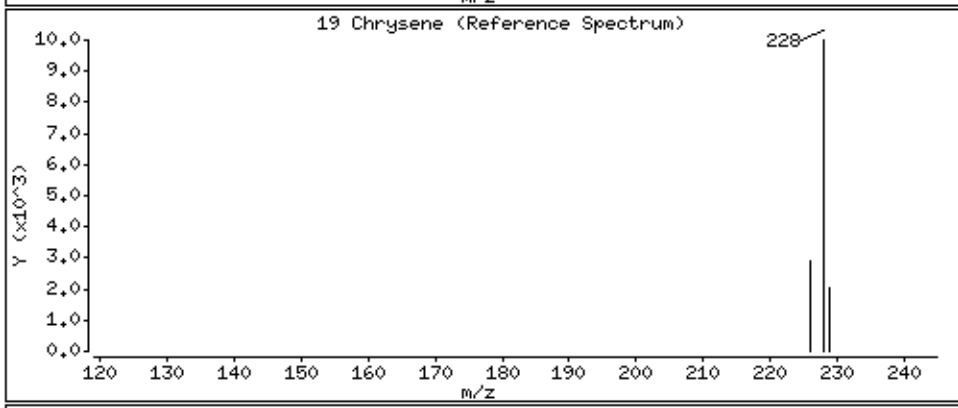
Concentration: 5.42 ug/ml

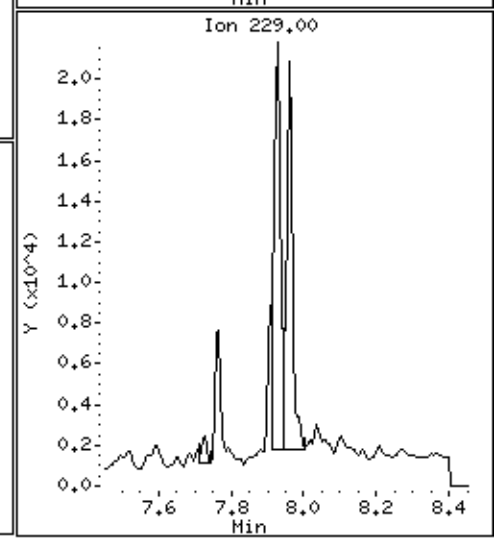


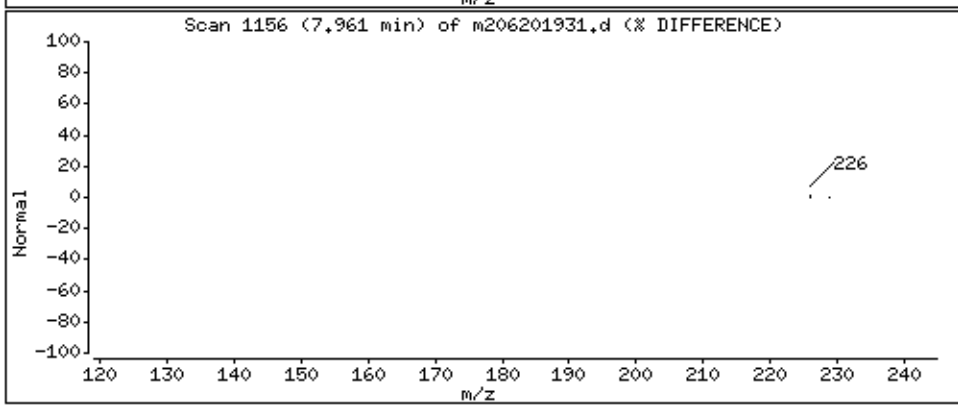












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

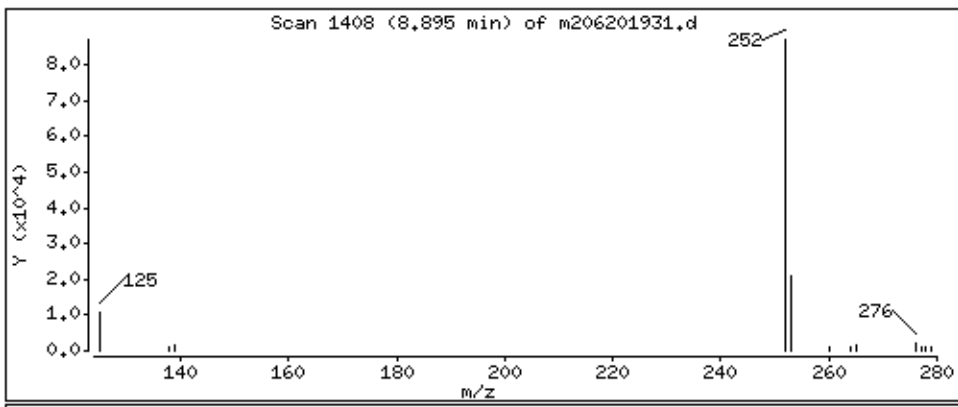
Operator: AJC

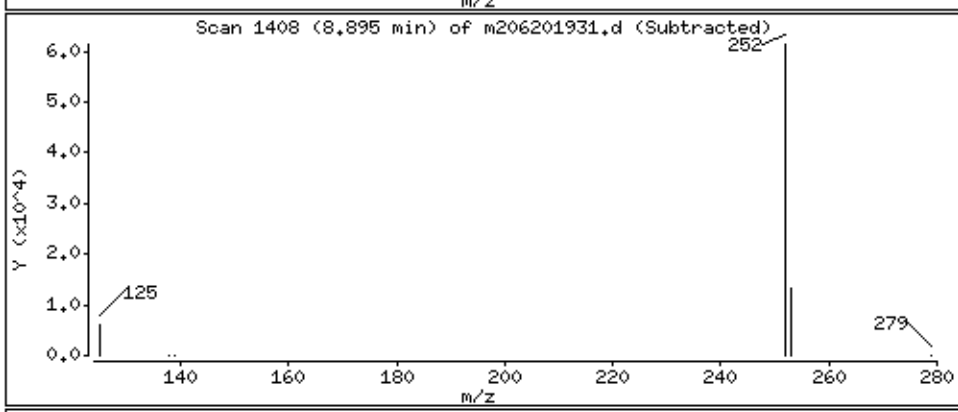
Column phase: RTX-5MS

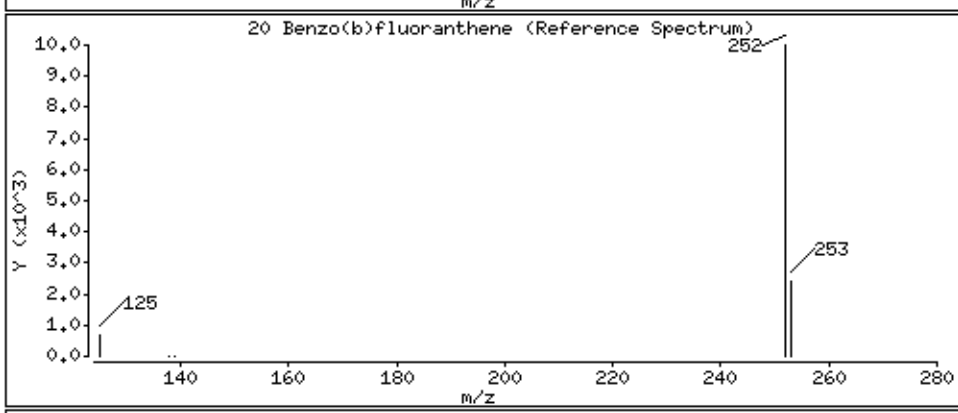
Column diameter: 0.25

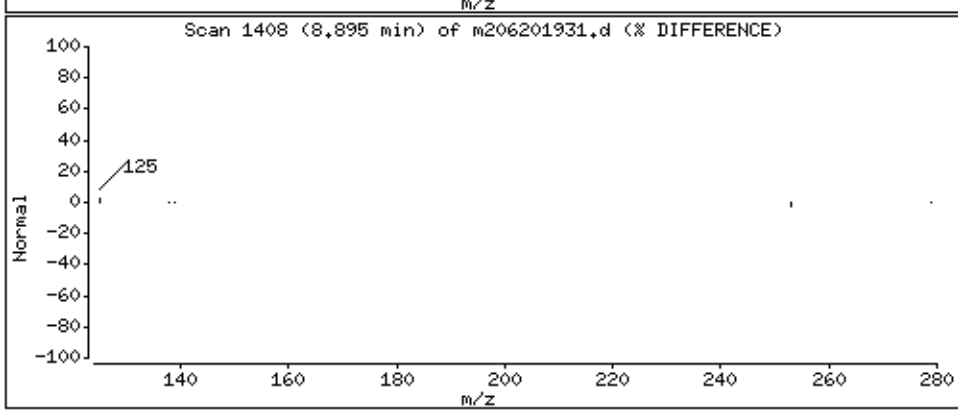
20 Benzo(b)fluoranthene

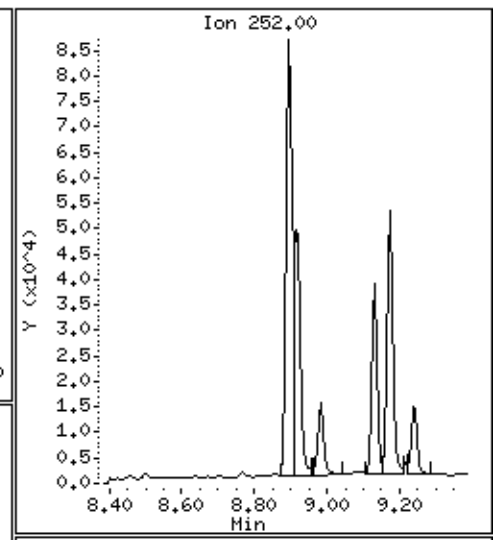
Concentration: 9.23 ug/ml

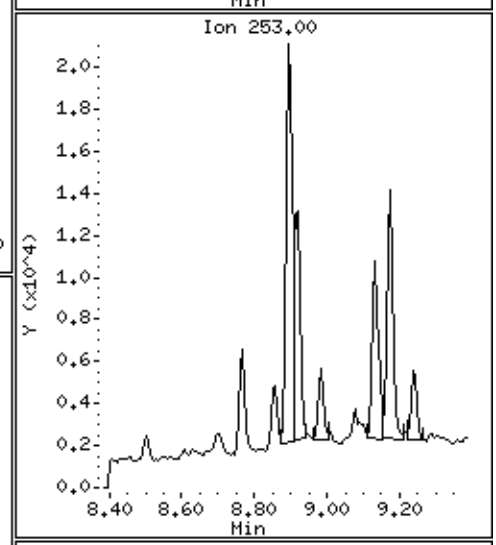


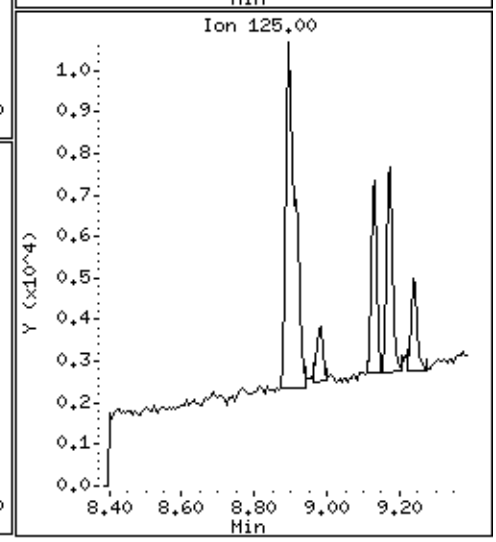












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Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

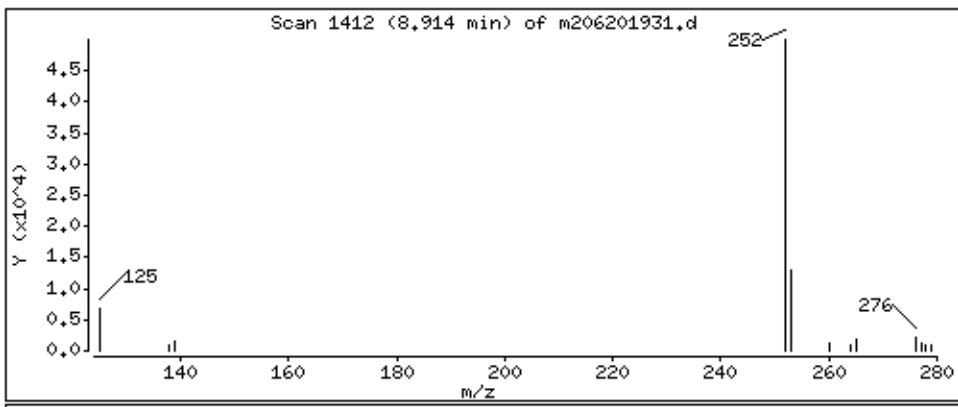
Operator: AJC

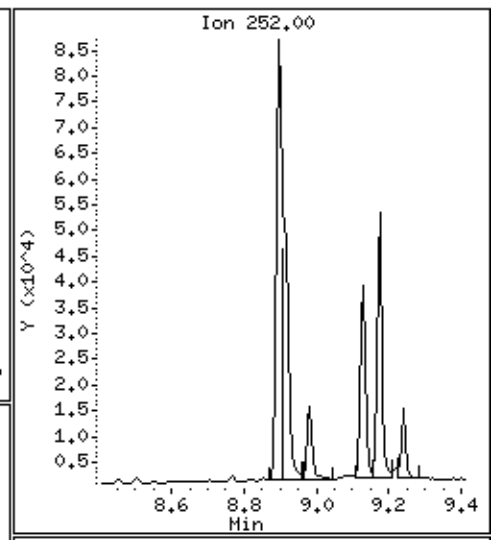
Column phase: RTX-5MS

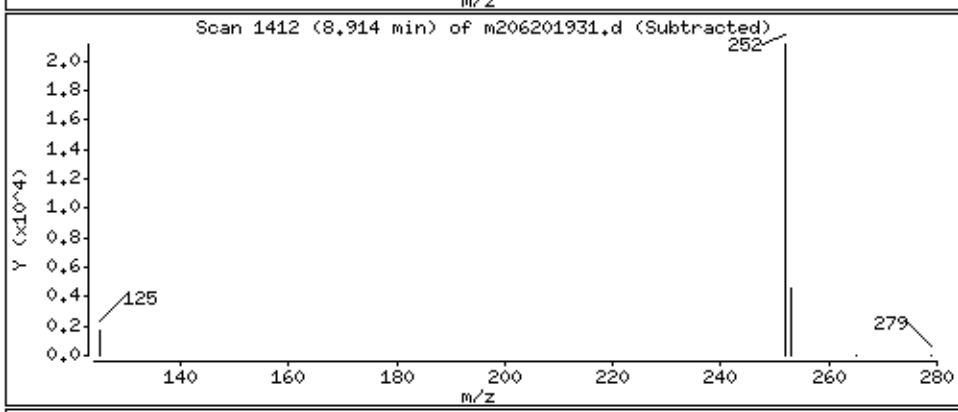
Column diameter: 0.25

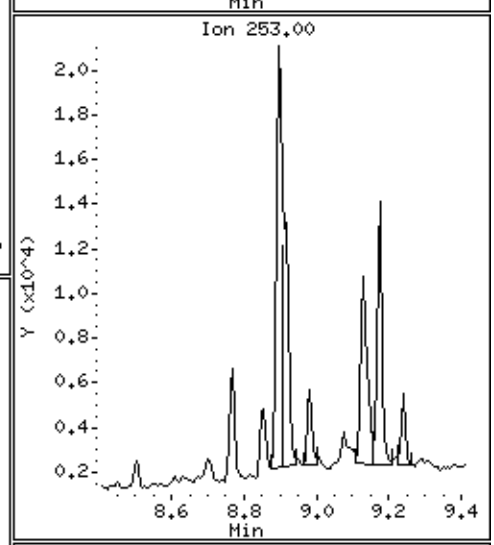
21 Benzo(k)fluoranthene

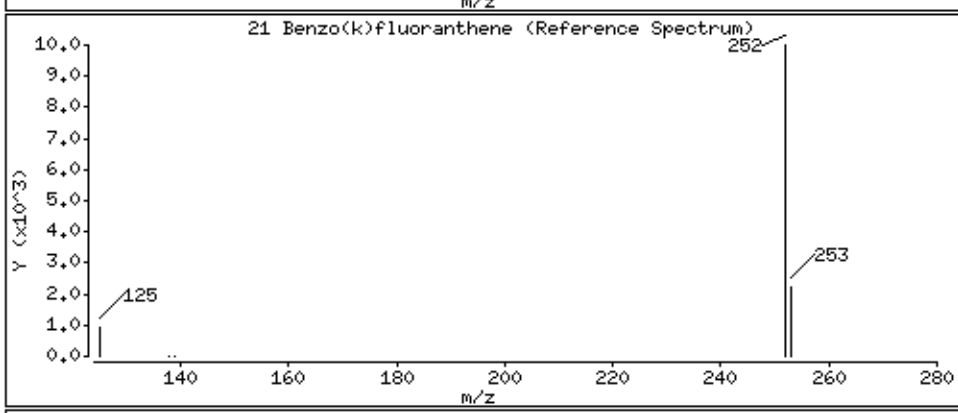
Concentration: 4.39 ug/ml

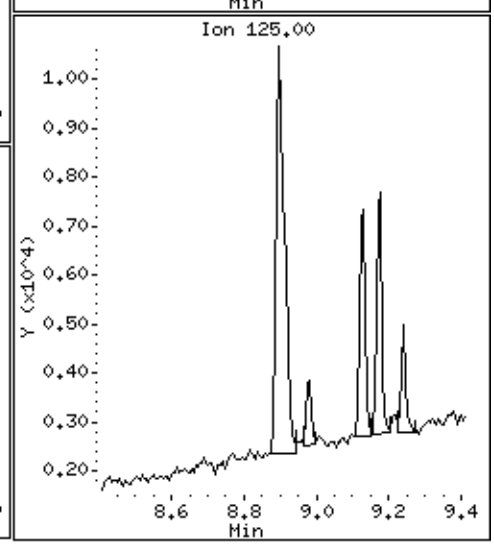


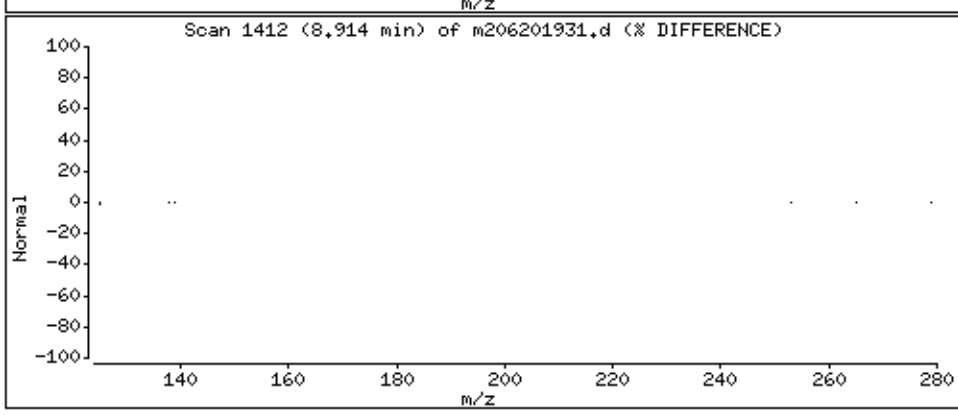












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

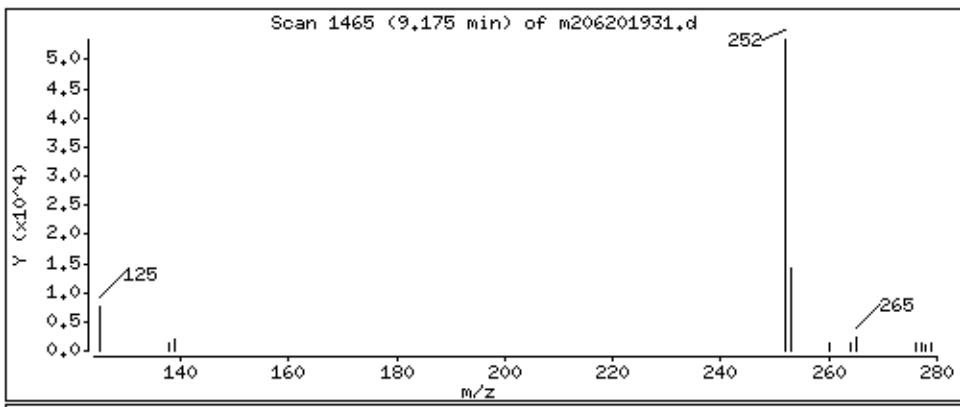
Operator: AJC

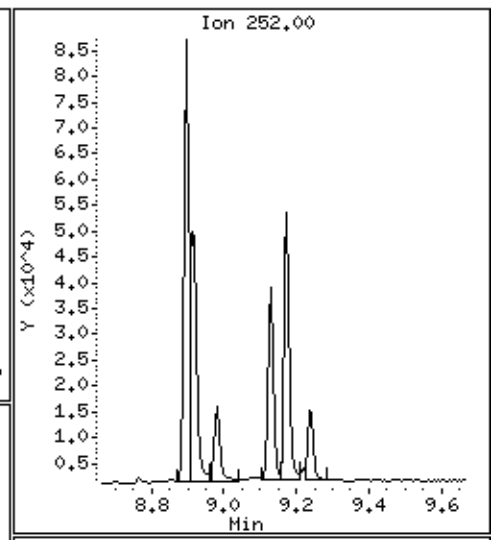
Column phase: RTX-5MS

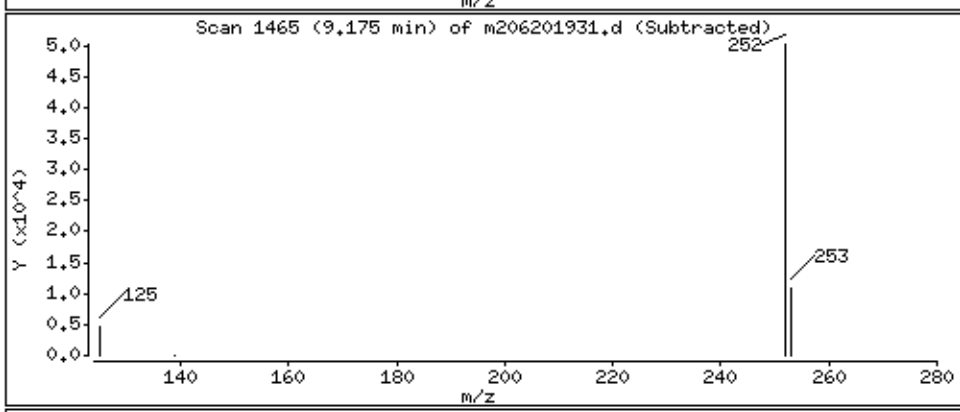
Column diameter: 0.25

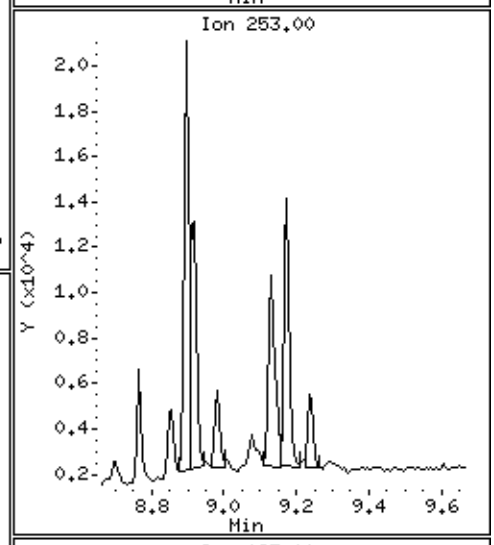
22 Benzo(a)pyrene

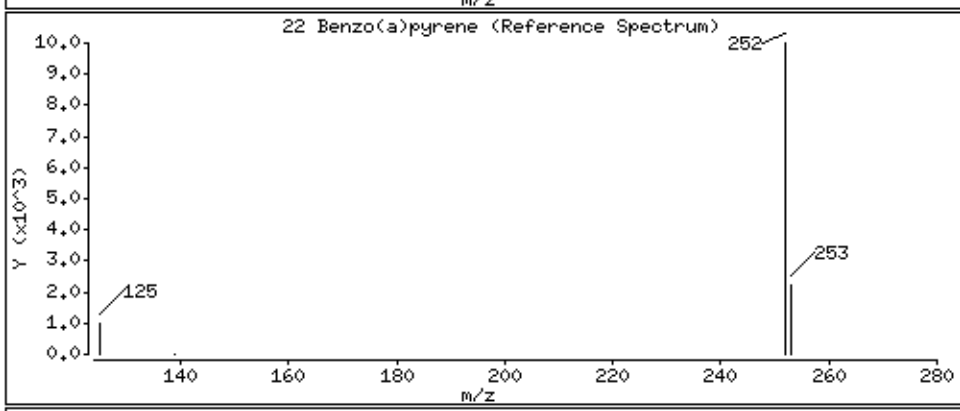
Concentration: 5.24 ug/ml

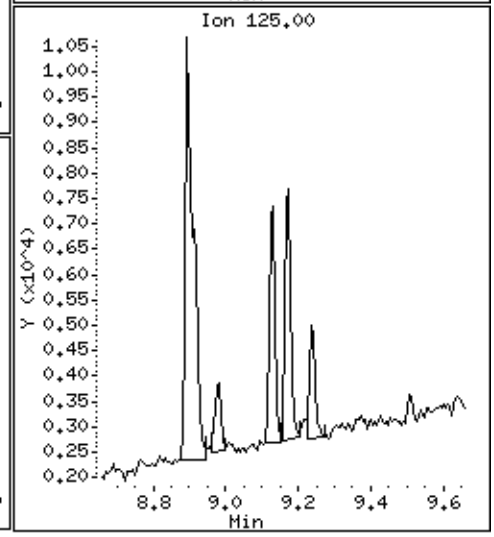


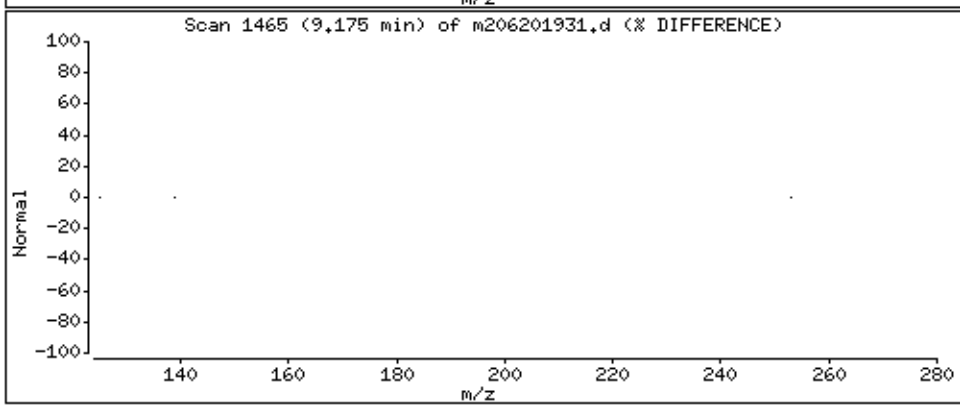












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

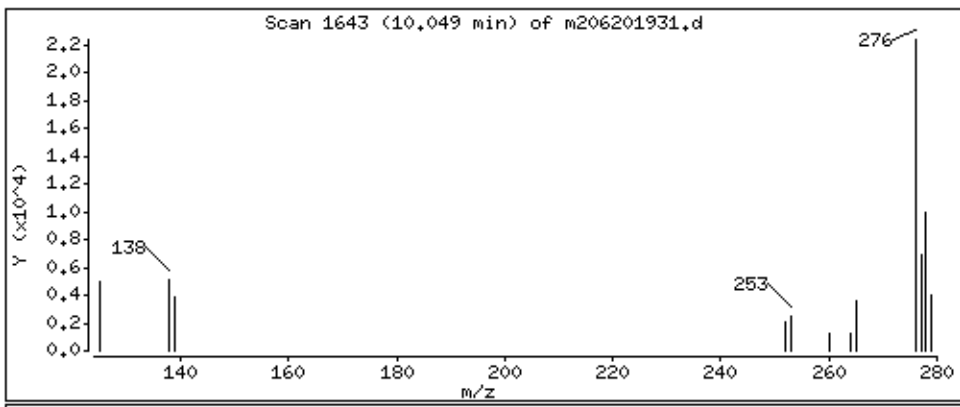
Operator: AJC

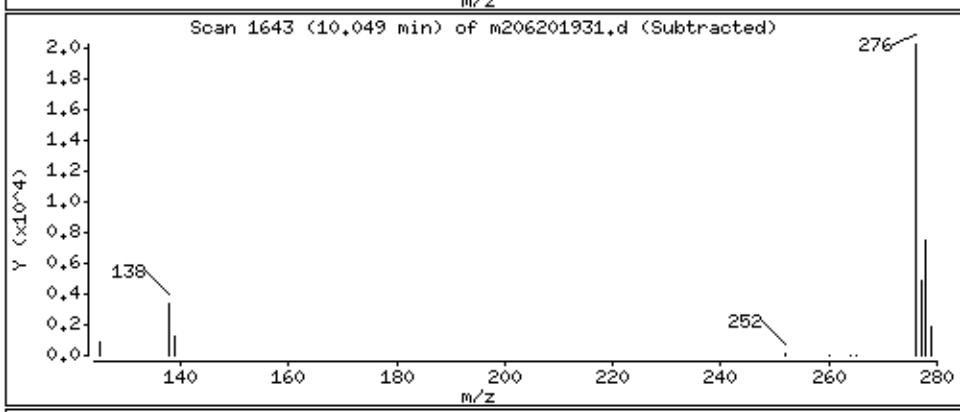
Column phase: RTX-5MS

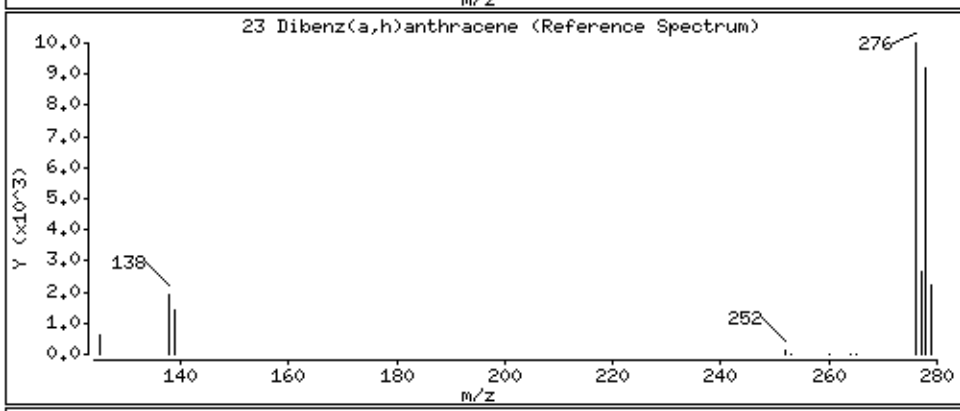
Column diameter: 0.25

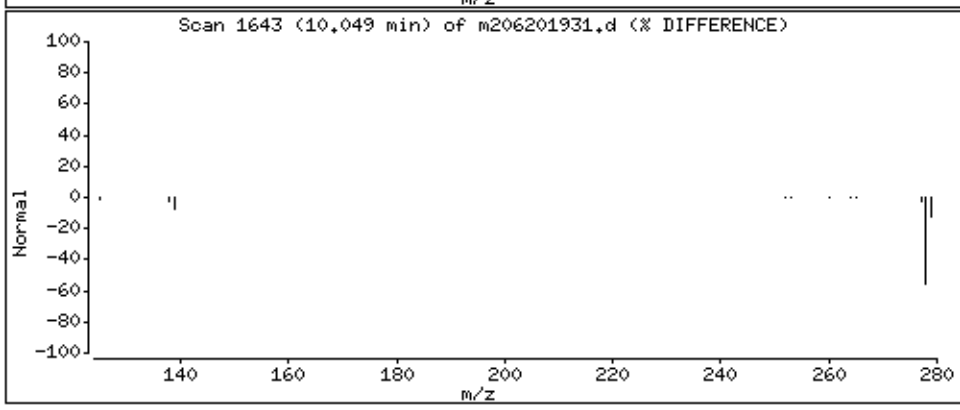
23 Dibenz(a,h)anthracene

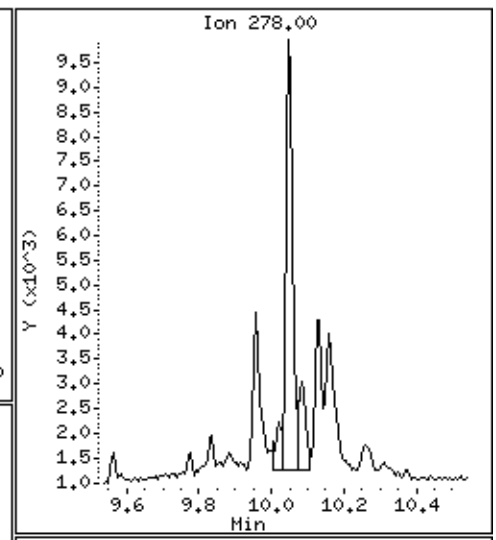
Concentration: 1.03 ug/ml

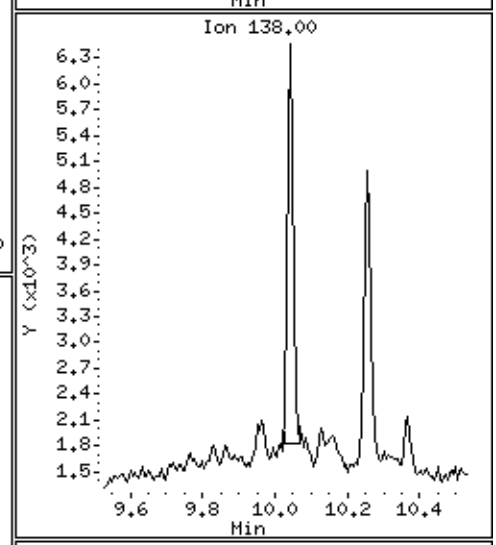


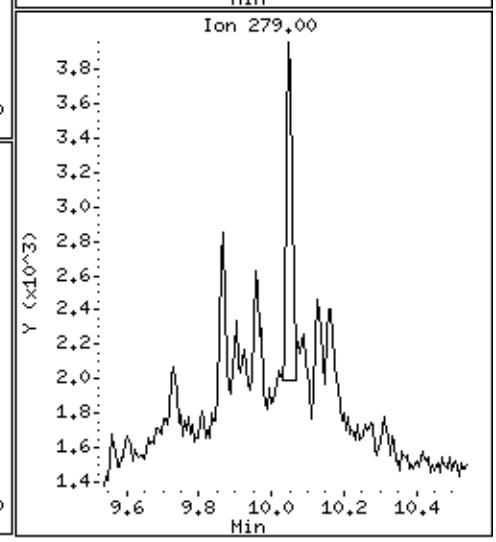












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

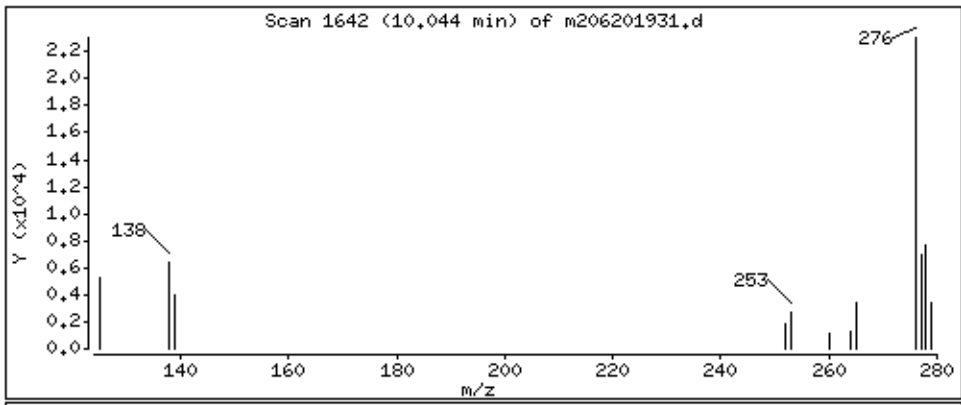
Operator: AJC

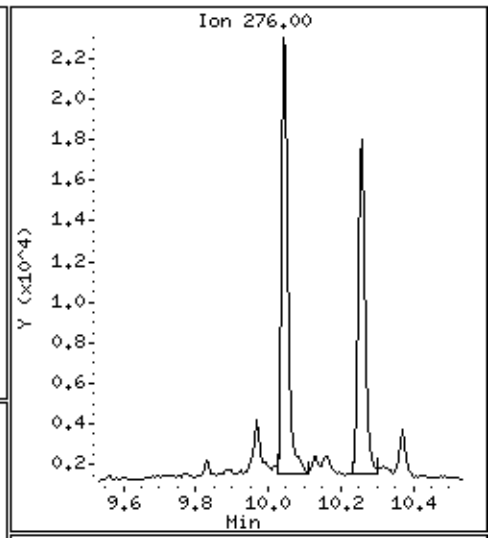
Column phase: RTX-5MS

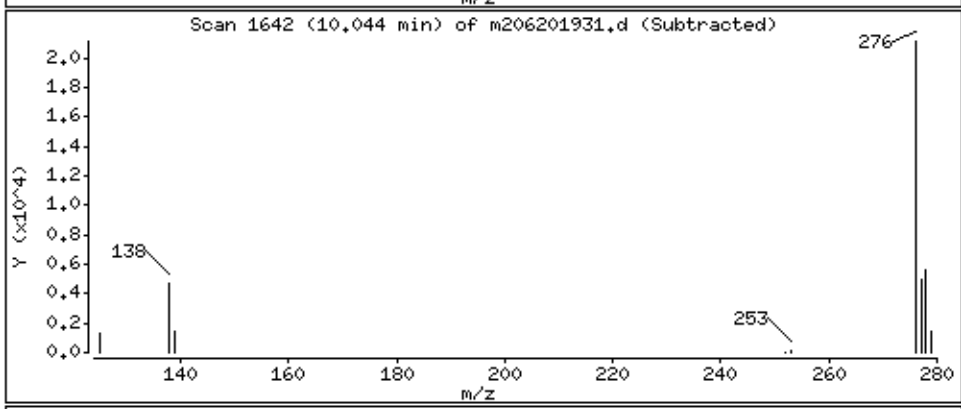
Column diameter: 0.25

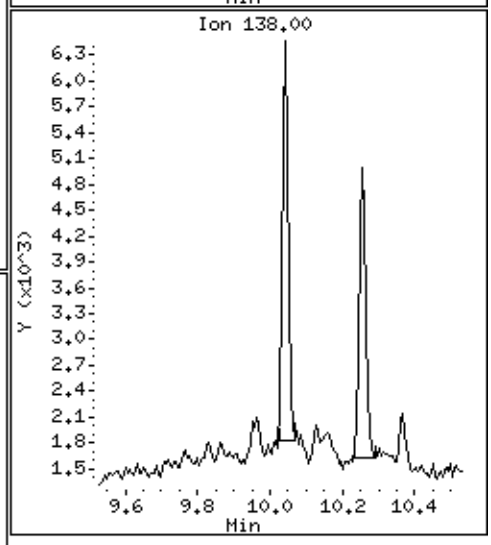
24 Indeno(1,2,3-cd)pyrene

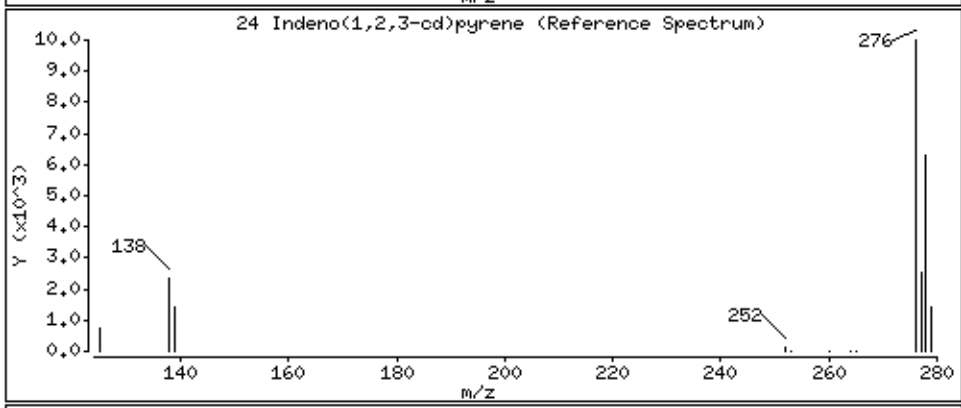
Concentration: 1.92 ug/ml

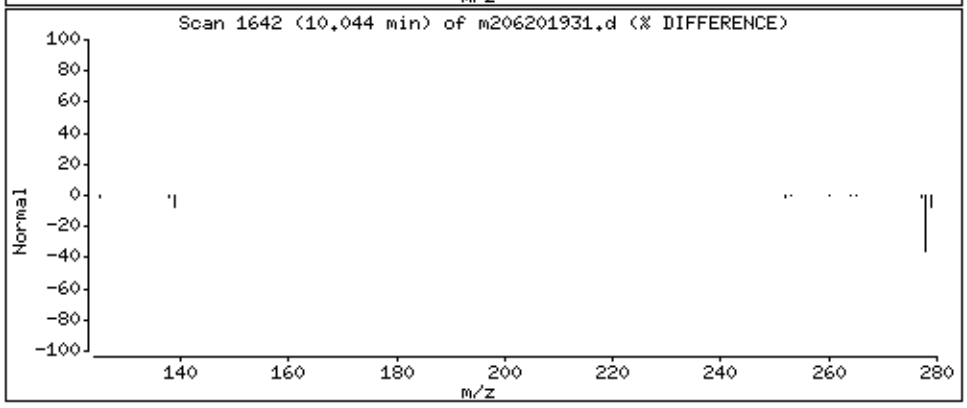












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b\m206201931.d

Date : 20-JUN-2019 19:37

Client ID:

Instrument: 30mss2.i

Sample Info: 162795x10,

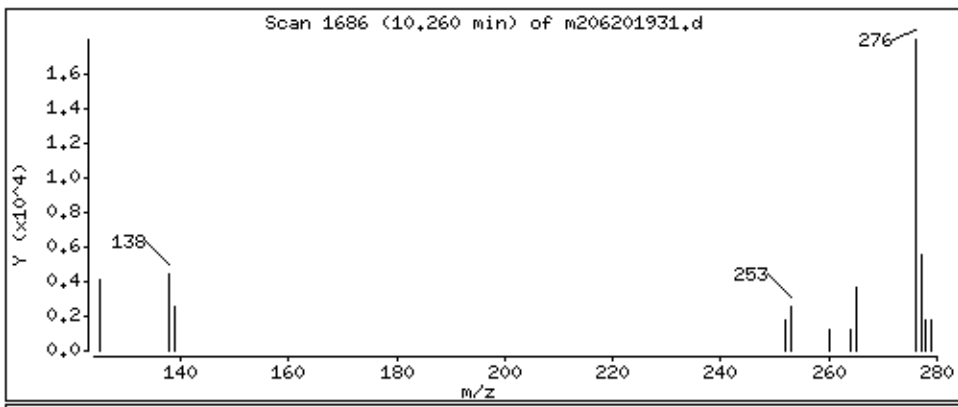
Operator: AJC

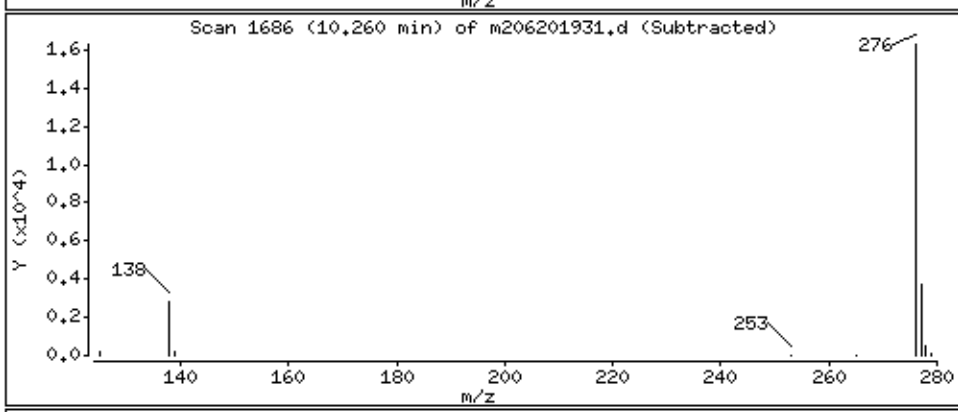
Column phase: RTX-5MS

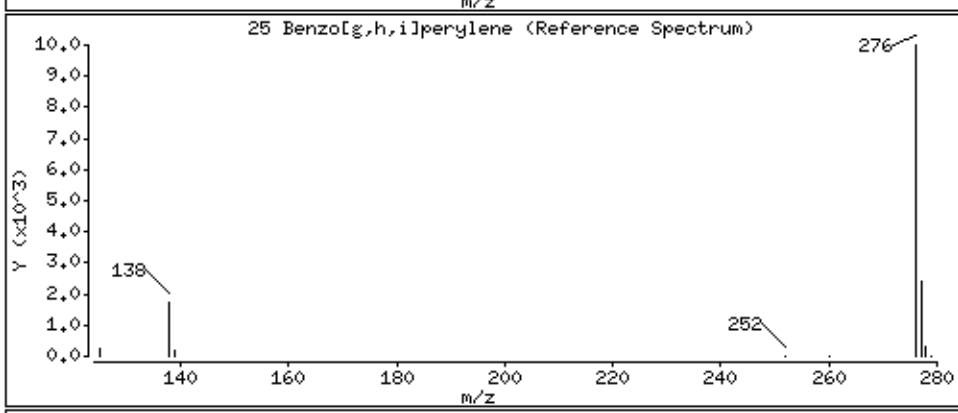
Column diameter: 0.25

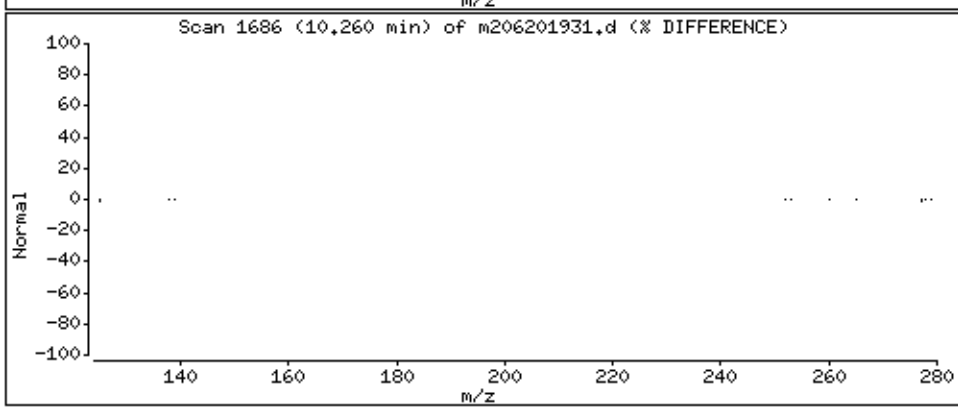
25 Benzo[g,h,i]perylene

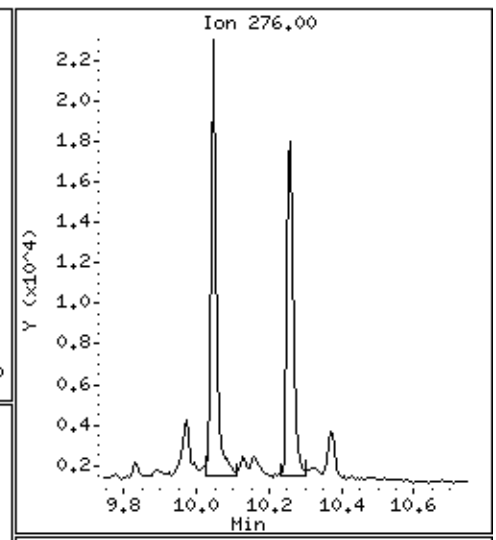
Concentration: 1.83 ug/ml

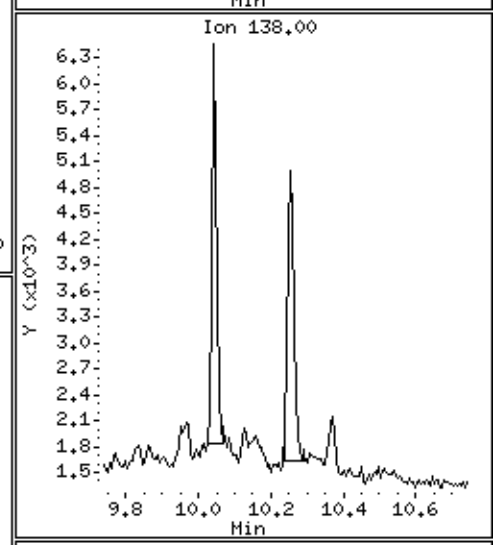


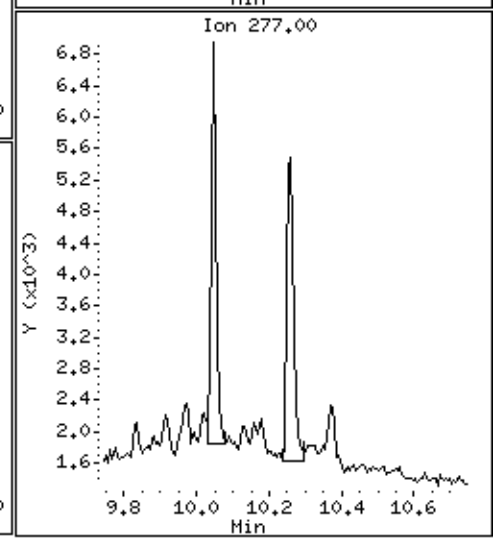












Data File: \\30wintarget\chem\30mss2.i\mss2062019.b/m206201931.d
Injection Date: 20-JUN-2019 19:37
Instrument: 30mss2.i
Lab Sample ID: 162795
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: OEXT 38440/ 348126 PAH-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D by SIM
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	06/19/2019 19:27:55:705	Extraction End Date/Time	06/19/2019 23:41:10:504
Witnessed By		Spiked By	BBR	Spiked By Date	06/19/2019 19:53:10:903	Concentrated By	BBR
Concentrated By Date	06/19/2019 21:29:35:325	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR029
Syringe ID 2	NA	Methylene Chloride	90645	1:1 MeCl/Acetone	90577	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	90972	Gravity Filters	90158	Reviewed By	JPH
Reviewed By Date	06/24/2019 16:25	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	SIM-SPK (mL)	SIM-SS (mL)
8270DSJ_P	BLANK	**1692792**		TVAP006	15.04	1			86555 (.5)
8270DSJ_P	LCS	**1692793**		TVAP006	15.04	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30299991001**		TVAP006	1.05	1	1*		86555 (.5)
8270DSJ_P	PS	**30300161001**		TVAP006	15.17	1			86555 (.5)
8270DSJ_P	MS	**1692794**		TVAP006	15.09	1		85224 (1)	86555 (.5)
8270DSJ_P	MSD	**1692795**		TVAP006	15.05	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30300161002**		TVAP005	15.1	1			86555 (.5)
8270DSJ_P	PS	**30300199001**		TVAP005	15.41	1			86555 (.5)

Sample Notes:

1*: Low Density Matrix

Standard Notes:

85224: OEXT PAH SIM spike 2 ppm

86555: BNA LL Surrogate 10/15ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2061719r1.d	RT TEST	N/		1	m2053119pahcd	6/17/19	11:48	AJC	
1/m2061719t1.d	TUNE, 79378:1	N/14644	DFTPP	1	8270dsw846tun	6/17/19	12:09	AJC	
1/m2061719s1.d	CCV, 89121:1	N/14644		1	m2053119pahcd	6/17/19	12:21	AJC	
1/m2061719z1.d	CAL1, 89118:1	N/14711	CALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z111.d	CAL1, 89118:1	N/14711	CCALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z2.d	CAL2, 89119:1	N/14711	CALIB_2	1	m2061719pahcd	6/17/19	13:01	AJC	
1/m2061719z3.d	CAL3, 89120:1	N/14711	CALIB_3	1	m2061719pahcd	6/17/19	13:18	AJC	
1/m2061719z4.d	CAL4, 89121:1	N/14711	CALIB_4	1	m2061719pahcd	6/17/19	13:36	AJC	
1/m2061719z5.d	CAL5, 89122:1	N/14711	CALIB_5	1	m2061719pahcd	6/17/19	13:54	AJC	
1/m2061719z6.d	CAL6, 89123:1	N/14711	CALIB_6	1	m2061719pahcd	6/17/19	14:12	AJC	
1/m2061719z7.d	ICV, 90346:1	N/14711	CCALIB_4	1	m2061719pahcd	6/17/19	14:30	AJC	
1/m206171901.d	1690509,	S/14709	BLANK	1	m2061719pahcd	6/17/19	14:49	AJC	
1/m206171902.d	1690510,	S/14709	LCS	1	m2061719pahcd	6/17/19	15:07	AJC	
1/m206171903.d	1689804,	L/14710	BLANK	1	m2061719pahcd	6/17/19	15:25	AJC	
1/m206171904.d	1689805,	L/14710	LCS	1	m2061719pahcd	6/17/19	15:42	AJC	
1/m206171905.d	30299839002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:00	AJC	Btk
1/m206171906.d	1690511,	S/14709	MS	1	m2061719pahcd	6/17/19	16:18	AJC	
1/m206171907.d	1690512,	S/14709	MSD	1	m2061719pahcd	6/17/19	16:36	AJC	
1/m206171908.d	30299839003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:54	AJC	
1/m206171909.d	30299839005,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:12	AJC	Btk
1/m206171910.d	30299839006,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	17:30	AJC	
1/m206171911.d	30299754001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:48	AJC	
1/m206171912.d	30299754002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:05	AJC	
1/m206171913.d	30299808001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:23	AJC	
1/m206171914.d	30299808001x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	18:41	AJC	not needed
1/m206171915.d	30299808002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:59	AJC	
1/m206171916.d	30299808002x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:17	AJC	not needed
1/m206171917.d	30299808003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	19:35	AJC	
1/m206171918.d	30299808003x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:53	AJC	not needed
1/m206171919.d	30298911002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:11	AJC	
1/m206171920.d	30299467001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:29	AJC	
1/m206171921.d	30299467002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:46	AJC	
1/m206171922.d	30299467003,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:04	AJC	Btk

Check Maintenance Items Performed:

- K Changed septum
- K Cleaned liner
- K Replaced/Cleaned gold seal
- K Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: KSL 6/19/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m206171923.d	30299467004,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:22	AJC	not used need dilutions
1/m206171924.d	30299898001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:40	AJC	
1/m206171925.d	30299465001x10,	S/14705	SAMPLE	10	m2061719pahcd	6/17/19	21:58	AJC	
1/m206171926.d	30299465001x100,	S/14705	SAMPLE	100	m2061719pahcd	6/17/19	22:16	AJC	not used Isour

6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: 6/18/19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 91364
Tune std: 79378

Method: 8270Dsm
Dcm 80877
Surr. lot:
Cal. std: 89121

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2062019t1.d	TUNE, 79378:1	N/14711	DFTPP	1	8270dsw846tun	6/20/19	10:06	AJC	
1/m2062019s1.d	CCV, 89121:1	N/14711	CCALIB_4	1	m2061719pahcd	6/20/19	10:19	AJC	
1/m206201901.d	1691610,	L/14726	BLANK	1	m2061719pahcd	6/20/19	10:39	AJC	
1/m206201902.d	1691611,	L/14726	LCS	1	m2061719pahcd	6/20/19	10:57	AJC	
1/m206201903.d	1692792,	S/14727	BLANK	1	m2061719pahcd	6/20/19	11:15	AJC	
1/m206201904.d	1692793,	S/14727	LCS	1	m2061719pahcd	6/20/19	11:32	AJC	
1/m206201905.d	30299503001,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	11:50	AJC	
1/m206201906.d	30299503002,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	12:08	AJC	
1/m206201907.d	30299503003,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	12:26	AJC	not used need dilution
1/m206201908.d	30299503004,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	12:44	AJC	
1/m206201909.d	30299503005,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	13:02	AJC	
1/m206201910.d	30299503006,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	13:20	AJC	~~need dilution~~ AJC 6219
1/m206201911.d	30299503007,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	13:38	AJC	
1/m206201912.d	30299503008,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	13:56	AJC	
1/m206201913.d	30299503009,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	14:14	AJC	~~need dilution~~ AJC 6219
1/m206201914.d	30299503010,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	14:32	AJC	
1/m206201915.d	30299503011,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	14:50	AJC	
1/m206201916.d	30299503012,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	15:08	AJC	
1/m206201917.d	30299503013,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	15:26	AJC	Bfb
1/m206201918.d	30299503014,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	15:44	AJC	
1/m206201919.d	30299503015,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	16:02	AJC	
1/m206201920.d	30299503016,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	16:20	AJC	
1/m206201921.d	30299503017,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	16:38	AJC	
1/m206201922.d	30299503018,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	16:56	AJC	need dilution 1 5 out 2 ↑ not used
1/m206201923.d	30299503019,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	17:14	AJC	need dilution 1 5 out 2↑ not used
1/m206201924.d	30299503020,	L/14726	SAMPLE	1	m2061719pahcd	6/20/19	17:32	AJC	
1/m206201925.d	30299991001,	N/14727	SAMPLE	1	m2061719pahcd	6/20/19	17:50	AJC	
1/m206201926.d	30300161001,	S/14727	SAMPLE	1	m2061719pahcd	6/20/19	18:08	AJC	not used
1/m206201927.d	30300161001x10,	S/14727	SAMPLE	10	m2061719pahcd	6/20/19	18:26	AJC	
1/m206201928.d	1692794,	S/14727	MS	1	m2061719pahcd	6/20/19	18:43	AJC	not used
1/m206201929.d	1692794x10,	S/14727	MS	10	m2061719pahcd	6/20/19	19:01	AJC	
1/m206201930.d	1692795,	S/14727	MSD	1	m2061719pahcd	6/20/19	19:19	AJC	not used 1 5 out 3 4 ↑
1/m206201931.d	162795x10,	N/14727	SAMPLE	10	m2061719pahcd	6/20/19	19:37	AJC	

9 AJC 6219

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6219

File Path 1: \\30wintarget\chem\30mss2.i\mss2062019.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:05 06/21/2019

Reviewed By/Date: JMW 6-21-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i

Column RXI-5MS 20m X 0.18mm He

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 91364

Tune std: 79378

Method: 8270D sim

DCm 80877

Surr. lot: ~~8921~~ 89121

Cal. std: AJC 6-21-19

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m206201932.d	30300161002,	S/14727	SAMPLE	1	m2061719pahcd	6/20/19	19:55	AJC	
1/m206201933.d	30300161002x10,	S/14727	SAMPLE	10	m2061719pahcd	6/20/19	20:13	AJC	
1/m206201934.d	30300199001,	S/14727	SAMPLE	1	m2061719pahcd	6/20/19	20:31	AJC	not used
1/m206201935.d	30300199001x10,	S/14727	SAMPLE	10	m2061719pahcd	6/20/19	20:49	AJC	

AJC 6-21-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2062019.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 08:05 06/21/2019

Reviewed By/Date: TAW 6-21-19

Page: 2 of 2

PCB - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1691736	1691736BLANK	83	71
1691737	1691737LCS	88	75
30300161001	AOC 26-1	92	69
30300161002	AOC 26-2	109	88

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(38-139)
(TCMX) = Tetrachloro-m-xylene (S)	(34-114)

* Values outside of QC Limits

PCB - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1691737LCS
Date Extracted: 06/18/2019
Date Analyzed (1): 06/21/2019
Instrument: 30GCSD
LCS Lot No: 88418
Lab File ID: D062119-1.B\D061719000059.D
SDG No.: 30300161

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	0.17	0.13	78	61-105
PCB-1260 (Aroclor 1260)	0.17	0.14	82	70-100

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1691738MS
Date Extracted: 06/18/2019
Date Analyzed (1): 06/21/2019
Instrument: 30GCSD
Lab File ID: D062119-1.B\D061719000075.D
Parent Sample ID: 30300125001
SDG No.: 30300161

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	0.52	0.52 U	9.0	1750	24-137
PCB-1260 (Aroclor 1260)	0.52	0.52 U	5.2	997	19-156

Spike Recovery: 2 out of 2 outside limits.

PCB - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSD Matrix Spike Duplicate - Sample No: 1691739MSD

Lab File ID (2): D062119-1.B\D061719000076.D Date Analyzed (2): 06/21/2019

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
PCB-1016 (Aroclor 1016)	0.52	8.2	1590	9	0-25	24-137
PCB-1260 (Aroclor 1260)	0.52	4.2	804	21	0-25	19-156

RPD: 0 out of 2 outside limits.

Spike Recovery: 2 out of 2 outside limits.

SAMPLE NO.

1691736BLANK

PCB - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30300161 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD Matrix: Solid Lab Sample ID: 1691736

Lab File ID (1): D062119-1.B\D061719000058.D Date Analyzed (1): 06/21/2019 Time (1):19:54

Lab File ID (2): D062119-2.B\D061719000058.D Date Analyzed (2): 06/21/2019 Time (2):19:54

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1691737LCS	1691737	D062119-1.B\D061719000059.D	06/21/2019 20:03
1691737LCS	1691737	D062119-2.B\D061719000059.D	06/21/2019 20:03
AOC 26-1	30300161001	D062119-1.B\D061719000079.D	06/21/2019 22:53
AOC 26-2	30300161002	D070119-1.B\D070119000025.D	07/01/2019 17:11
AOC 26-2	30300161002	D070119-2.B\D070119000025.D	07/01/2019 17:11

SAMPLE NO.

AOC 26-1

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid
SDG No.: 30300161
Date Extracted: 06/18/2019 19:03
Lab Sample ID: 30300161001
Date Analyzed: 06/21/2019 22:53
Lab File ID: D062119-1.B\D061719000079.D
Initial wt/vol: 15.4 g
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSD
Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000079.d
Lab Smp Id: 30300161001 Client Smp ID: AOC 26-1
Inj Date : 21-JUN-2019 22:53
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161001,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 79
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	597701	862700	1.443	62.331		
0.870	9125	3055	0.335	0.220		
0.959	2484	1182	0.476	0.085		
1.056	230	306	1.331	0.022		
1.168	364	302	0.829	0.021		
1.214	69916	63557	0.909	4.585	$ 10 Tetrachloro-m-xylene (S)	BA
1.342	77	129	1.668	0.009		
1.380	1158	947	0.818	0.068		
1.410	320	281	0.879	0.020		
1.455	217	160	0.737	0.011		
1.480	466	333	0.715	0.024		
1.610	78	122	1.564	0.008		
1.656	59	93	1.584	0.006		
1.697	4635	3924	0.847	0.283		
1.796	460	355	0.772	0.025		
1.830	596	487	0.817	0.035		
1.877	867	775	0.894	0.055		
1.931	106	147	1.385	0.010		
1.972	75	105	1.394	0.007		
1.993	837	783	0.935	0.056		
2.028	310	457	1.472	0.032		
2.063	458	390	0.852	0.028		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.103	899	700	0.779	0.050		
2.188	196	281	1.433	0.020		
2.211	196	190	0.972	0.013		
2.249	827	660	0.798	0.047		
2.282	628	443	0.706	0.031		
2.315	613	411	0.670	0.029		
2.347	146	226	1.544	0.016		
2.373	89	147	1.660	0.010		
2.409	277	309	1.117	0.022		
2.431	5463	5044	0.923	0.363		
2.472	182	265	1.455	0.019		
2.512	244	251	1.028	0.018		
2.546	218	220	1.011	0.015		
2.582	356	358	1.005	0.025		
2.617	587	608	1.035	0.043		
2.644	9704	7664	0.790	0.552		
2.697	22	70	3.149	0.005		
2.727	668	463	0.693	0.033		
2.789	6037	3885	0.644	0.280		
2.851	1071	721	0.673	0.052		
2.889	518	507	0.978	0.036		
2.925	373	512	1.372	0.036		
2.959	979	757	0.774	0.054		
2.984	582	640	1.099	0.046		
3.009	1485	1325	0.892	0.095		
3.025	2485	1926	0.775	0.138		
3.051	1283	869	0.678	0.062		
3.093	332	426	1.282	0.030		
3.124	1217	925	0.760	0.066		
3.129	606	935	1.544	0.067		
3.153	3604	2222	0.616	0.160		
3.228	2178	1228	0.564	0.088		
3.291	1235	766	0.620	0.055		
3.338	1001	816	0.815	0.058		
3.364	196	296	1.510	0.021		
3.396	186	263	1.416	0.018		
3.418	29	82	2.856	0.005		
3.423	25	79	3.147	0.005		
3.444	155	207	1.339	0.014		
3.474	586	583	0.995	0.042		
3.480	275	622	2.259	0.044		
3.534	26526	23785	0.897	1.716		
3.589	1174	916	0.780	0.066		
3.637	8074	6491	0.804	0.468		
3.724	9884	7343	0.743	0.529		
3.776	13	59	4.595	0.004		
3.804	4753	4114	0.866	0.296		
3.836	5108	4148	0.812	0.299		
3.854	3164	2952	0.933	0.212		
3.878	2961	2239	0.756	0.161		
3.907	832	1118	1.344	0.080		
3.943	4866	2963	0.609	0.213		
3.963	3025	3349	1.107	0.241		
4.037	14227	10625	0.747	0.766		
4.096	1313	920	0.701	0.066		
4.125	696	751	1.079	0.054		
4.144	787	1073	1.363	0.077		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.177	632	834	1.320	0.060		
4.200	137	320	2.330	0.023		
4.245	19465	14363	0.738	1.036		
4.304	1313	1137	0.866	0.082		
4.338	2101	1620	0.771	0.116		
4.380	1314	1234	0.939	0.089		
4.398	1383	1381	0.999	0.099		
4.416	167	931	5.589	0.067		
4.421	832	977	1.174	0.070		
4.438	654	905	1.383	0.065		
4.446	230	899	3.915	0.064		
4.451	838	944	1.127	0.068		
4.500	62080	54463	0.877	3.929	$ 11 Decachlorobiphenyl (S)	BA
4.587	23650	9785	0.414	0.706		
4.634	1720	1826	1.062	0.131		
4.648	442	1593	3.604	0.114		
4.680	16725	13257	0.793	0.956		
4.709	4960	3746	0.755	0.270		
4.746	21005	16108	0.767	1.162		
4.776	5422	3822	0.705	0.275		
4.864	10376	4554	0.439	0.328		
4.883	3678	4369	1.188	0.315		
4.924	4213	3525	0.837	0.254		
4.967	12929	6153	0.476	0.443		
5.032	22041	9652	0.438	0.696		
5.114	688	785	1.142	0.056		
5.140	377	663	1.759	0.047		
5.156	880	1123	1.276	0.081		
5.159	364	1152	3.163	0.083		
5.165	1199	1149	0.958	0.082		
5.197	20	89	4.419	0.006		
5.212	166	326	1.969	0.023		
5.240	1422	1384	0.973	0.099		
5.247	692	1582	2.287	0.114		
5.252	547	1637	2.990	0.118		
5.271	4283	2339	0.546	0.168		
5.300	4646	2473	0.532	0.178		
5.344	936	1302	1.391	0.093		
5.346	603	1335	2.215	0.096		
5.370	327	1045	3.193	0.075		
5.375	663	1107	1.669	0.079		
5.383	166	1053	6.327	0.075		
5.403	1947	2419	1.242	0.174		
5.406	2920	2470	0.846	0.178		
5.447	2224	2056	0.924	0.148		
5.453	1296	2088	1.612	0.150		
5.470	272	1707	6.280	0.123		
5.490	3288	2918	0.887	0.210		
5.496	1249	2866	2.295	0.206		
5.526	1051	1191	1.133	0.085		
5.546	338	1004	2.969	0.072		
5.565	1714	1745	1.018	0.125		
5.582	6053	2997	0.495	0.216		
5.614	466	1385	2.971	0.099		
5.619	472	1414	2.994	0.102		
5.652	17695	7937	0.449	0.572		
5.717	13026	6322	0.485	0.456		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.746	3728	4560	1.223	0.329		
5.775	2772	4202	1.516	0.303		
5.778	7523	4236	0.563	0.305		
5.856	66304	25791	0.389	1.860		
5.934	598	2317	3.874	0.167		
5.963	5757	3627	0.630	0.261		
6.002	890	2494	2.804	0.179		
6.005	449	2515	5.605	0.181		
6.011	1112	2553	2.296	0.184		
6.029	707	2376	3.362	0.171		
6.040	1043	2423	2.324	0.174		
6.046	1200	2560	2.134	0.184		
6.050	512	2584	5.046	0.186		
6.052	2956	2632	0.891	0.189		
6.073	784	2316	2.955	0.167		
6.078	1214	2370	1.952	0.170		
6.098	835	2106	2.522	0.151		
6.108	1003	2025	2.019	0.146		
6.115	358	2005	5.605	0.144		
6.118	489	2079	4.252	0.150		
6.149	15902	6082	0.382	0.438		
6.188	2193	2400	1.095	0.173		
6.224	3506	2930	0.836	0.211		
6.228	2509	2959	1.180	0.213		
6.243	862	2553	2.962	0.184		
6.249	834	2641	3.168	0.190		
6.254	691	2694	3.897	0.194		
6.257	697	2703	3.877	0.195		
6.307	558	1432	2.567	0.103		
6.344	12752	4146	0.325	0.299		
6.412	159	897	5.648	0.064		
6.416	288	918	3.182	0.066		
6.426	541	1095	2.025	0.079		
6.429	250	1165	4.655	0.084		
6.435	1489	1258	0.845	0.090		
6.493	196	526	2.686	0.037		
	1259649	1385969		100.000		

Total unknown % height = 91.5

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000079.d
Lab Smp Id: 30300161001 Client Smp ID: AOC 26-1
Inj Date : 21-JUN-2019 22:53
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161001,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 79
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Operator disabled compound identification. BA

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
Operator disabled compound identification.									BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.214	1.213	0.001	69916	0.13747	0.0446			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.500	4.503	-0.003	62080	0.18495	0.0600			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

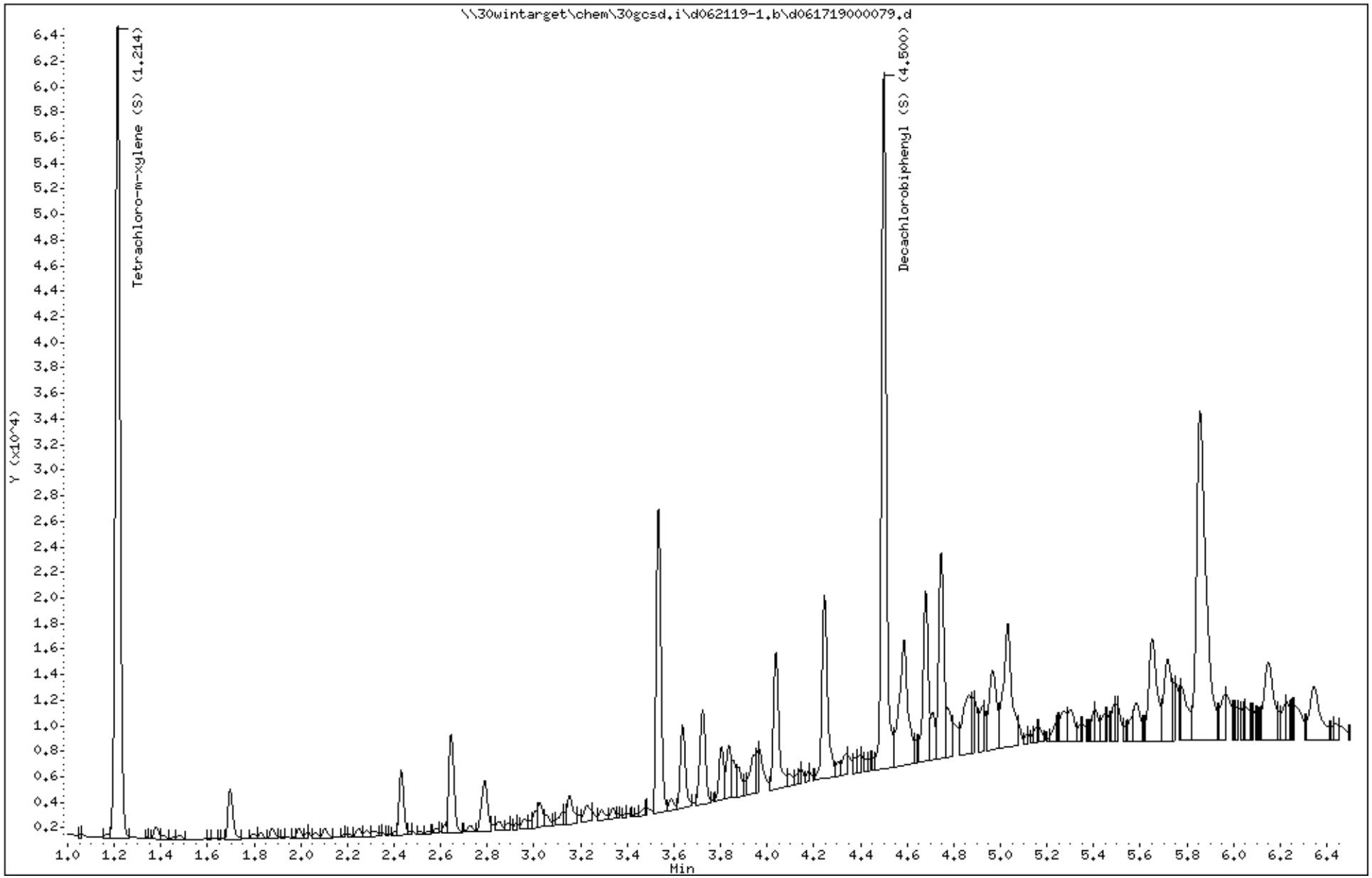
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30300161001
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

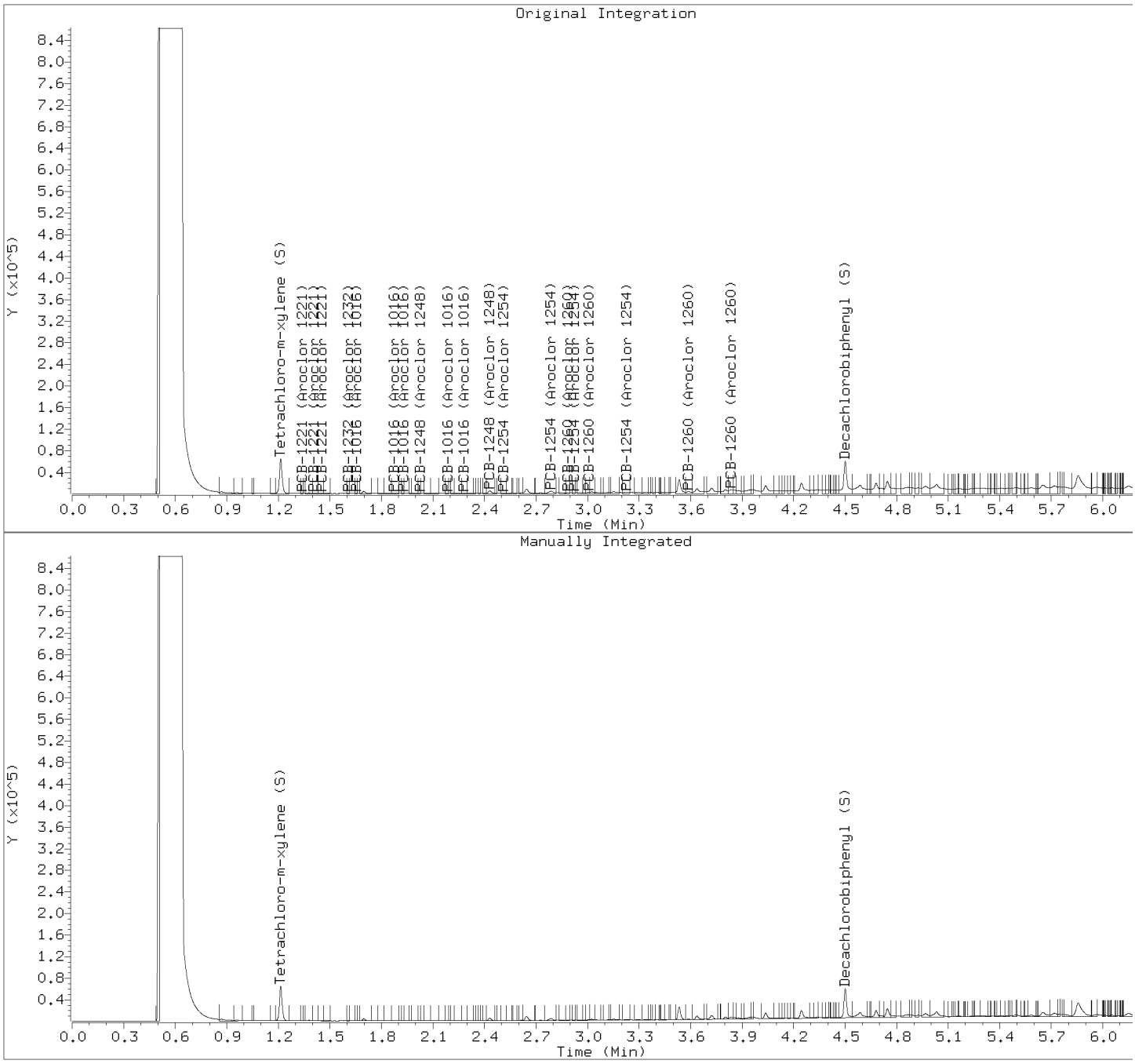
Client SDG: 30300161
Client Smp ID: AOC 26-1
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0446	J
2051-24-3	Decachlorobiphenyl (S)	0.0600	J

Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000079.d
Date : 21-JUN-2019 22:53
Client ID: AOC 26-1
Instrument: 30gcsd.i
Sample Info: 30300161001,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b/d061719000079.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 21-JUN-2019 22:53 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30300161001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	443	0
PCB-1016 (Aroclor 1016)	2318	0
PCB-1016 (Aroclor 1016)	634	0
PCB-1016 (Aroclor 1016)	917	0
PCB-1016 (Aroclor 1016)	1959	0
PCB-1221 (Aroclor 1221)	474	0
PCB-1221 (Aroclor 1221)	1179	0
PCB-1221 (Aroclor 1221)	1128	0
PCB-1232 (Aroclor 1232)	1128	0
PCB-1232 (Aroclor 1232)	452	0
PCB-1232 (Aroclor 1232)	2318	0
PCB-1232 (Aroclor 1232)	634	0
PCB-1232 (Aroclor 1232)	917	0
PCB-1242 (Aroclor 1242)	1128	0

PCB-1242 (Aroclor 1242)	452	0
PCB-1242 (Aroclor 1242)	2318	0
PCB-1242 (Aroclor 1242)	634	0
PCB-1242 (Aroclor 1242)	917	0
PCB-1248 (Aroclor 1248)	2318	0
PCB-1248 (Aroclor 1248)	881	0
PCB-1248 (Aroclor 1248)	917	0
PCB-1248 (Aroclor 1248)	1959	0
PCB-1248 (Aroclor 1248)	7840	0
PCB-1254 (Aroclor 1254)	7840	0
PCB-1254 (Aroclor 1254)	1921	0
PCB-1254 (Aroclor 1254)	10375	0
PCB-1254 (Aroclor 1254)	1505	0
PCB-1254 (Aroclor 1254)	6884	0
PCB-1260 (Aroclor 1260)	10375	0
PCB-1260 (Aroclor 1260)	2074	0
PCB-1260 (Aroclor 1260)	3531	0
PCB-1260 (Aroclor 1260)	7467	0
PCB-1260 (Aroclor 1260)	11287	0
Tetrachloro-m-xylene (S)	72582	69916
Decachlorobiphenyl (S)	90278	62080

SAMPLE NO.

AOC 26-2

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 06/18/2019 09:30
Matrix: Solid SDG No.: 30300161
Date Extracted: 06/18/2019 19:03
Lab Sample ID: 30300161002
Date Analyzed: 07/01/2019 17:11
Lab File ID: D070119-2.B\D070119000025.D
Initial wt/vol: 15.34 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 6.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	0.50	
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000025.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:11
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161002x10,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 25
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.340	Weigth of sample extracted (g)
M	6.947	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	81552	32730	0.401	17.794		
0.897	1225	829	0.677	0.448		
0.966	1028	850	0.826	0.460		
1.144	292	256	0.876	0.138		
1.212	9029	7713	0.854	4.174	$ 10 Tetrachloro-m-xylene (S)	BA
1.695	1344	1065	0.792	0.576		
2.036	582	532	0.914	0.287		
2.188	245	242	0.989	0.130		
2.402	250	315	1.260	0.170		
2.428	7740	6436	0.832	3.483	6 PCB-1254 (Aroclor 1254)	BA
2.472	1046	956	0.914	0.517		
2.510	1955	1902	0.973	1.029	6 PCB-1254 (Aroclor 1254)	BA
2.544	992	940	0.947	0.508		
2.593	793	742	0.936	0.401		
2.645	2860	1889	0.660	1.022		
2.676	809	752	0.930	0.407		
2.728	1208	1199	0.992	0.648		
2.765	447	601	1.345	0.325		
2.791	7313	6123	0.837	3.314	6 PCB-1254 (Aroclor 1254)	BA
2.830	793	628	0.791	0.339		
2.885	2570	2131	0.829	1.153		
2.924	1432	1393	0.973	0.753	6 PCB-1254 (Aroclor 1254)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	569	547	0.962	0.296		
2.995	3281	2528	0.771	1.368		
3.105	580	838	1.446	0.453		
3.119	1821	1649	0.906	0.892		
3.152	1644	1322	0.804	0.715		
3.190	788	699	0.887	0.378		
3.227	5846	4265	0.730	2.308	6 PCB-1254 (Aroclor 1254)	BA
3.286	855	638	0.746	0.345		
3.339	269	223	0.830	0.120		
3.368	352	290	0.823	0.156		
3.439	417	427	1.025	0.231		
3.460	1445	1344	0.930	0.727		
3.499	271	268	0.988	0.145		
3.534	13047	10482	0.803	5.673		
3.585	1663	1315	0.791	0.711		
3.638	3691	3005	0.814	1.626		
3.724	3511	2498	0.712	1.352		
3.804	1439	1201	0.835	0.650		
3.833	2622	1740	0.664	0.941		
3.853	946	876	0.926	0.474		
3.945	528	599	1.134	0.324		
3.960	511	636	1.246	0.344		
4.007	56	75	1.338	0.040		
4.039	3112	2395	0.770	1.296		
4.078	310	339	1.093	0.183		
4.095	167	332	1.993	0.179		
4.120	32	136	4.293	0.073		
4.153	560	490	0.875	0.265		
4.180	85	131	1.550	0.070		
4.248	6047	4286	0.709	2.319		
4.308	313	288	0.920	0.155		
4.339	469	353	0.753	0.191		
4.385	109	129	1.187	0.069		
4.392	27	111	4.107	0.060		
4.401	71	117	1.638	0.063		
4.423	76	122	1.596	0.066		
4.501	7319	6205	0.848	3.358	$ 11 Decachlorobiphenyl (S)	BA
4.554	210	325	1.551	0.175		
4.590	4023	2027	0.504	1.097		
4.639	215	256	1.193	0.138		
4.658	60	209	3.471	0.113		
4.683	2649	2044	0.771	1.106		
4.713	544	623	1.146	0.337		
4.748	3506	2788	0.795	1.508		
4.815	73	134	1.846	0.072		
4.828	7	47	6.912	0.025		
4.853	392	468	1.195	0.253		
4.874	80	370	4.642	0.200		
4.891	146	421	2.874	0.227		
4.895	152	435	2.856	0.235		
4.911	88	344	3.915	0.186		
4.930	327	464	1.418	0.251		
4.936	81	457	5.662	0.247		
4.942	144	455	3.157	0.246		
4.946	136	458	3.365	0.247		
4.961	582	676	1.161	0.365		
4.972	305	646	2.118	0.349		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.020	1269	1093	0.861	0.591		
5.036	3745	1860	0.497	1.006		
5.071	330	933	2.829	0.504		
5.078	393	902	2.296	0.488		
5.093	288	858	2.983	0.464		
5.103	163	821	5.039	0.444		
5.125	259	736	2.846	0.398		
5.133	250	700	2.797	0.378		
5.147	218	693	3.182	0.375		
5.151	150	687	4.593	0.371		
5.155	179	701	3.919	0.379		
5.172	447	653	1.462	0.353		
5.202	138	465	3.377	0.251		
5.210	238	468	1.965	0.253		
5.217	158	471	2.978	0.254		
5.223	169	483	2.855	0.261		
5.229	182	488	2.688	0.264		
5.240	110	464	4.227	0.251		
5.243	104	479	4.596	0.259		
5.248	278	509	1.834	0.275		
5.254	211	507	2.408	0.274		
5.271	568	593	1.044	0.320		
5.298	87	441	5.058	0.238		
5.307	415	496	1.196	0.268		
5.341	67	271	4.073	0.146		
5.348	99	274	2.768	0.148		
5.388	6	36	6.261	0.019		
5.407	181	296	1.640	0.160		
5.440	61	166	2.740	0.089		
5.451	152	257	1.686	0.139		
5.478	19	127	6.520	0.068		
5.483	39	168	4.342	0.090		
5.502	444	408	0.919	0.220		
5.537	50	108	2.152	0.058		
5.570	583	560	0.961	0.303		
5.587	780	732	0.938	0.396		
5.631	59	241	4.058	0.130		
5.656	3075	1343	0.437	0.726		
5.702	75	424	5.651	0.229		
5.728	1411	1044	0.740	0.565		
5.766	84	604	7.208	0.326		
5.772	254	672	2.644	0.363		
5.782	659	812	1.233	0.439		
5.827	97	261	2.692	0.141		
5.832	43	285	6.579	0.154		
5.862	8648	3174	0.367	1.717		
5.942	353	531	1.506	0.287		
5.950	186	571	3.065	0.309		
5.953	127	588	4.625	0.318		
5.956	146	629	4.301	0.340		
5.965	399	694	1.737	0.375		
5.971	442	696	1.573	0.376		
6.008	115	452	3.915	0.244		
6.013	195	482	2.472	0.260		
6.019	92	467	5.063	0.252		
6.025	231	476	2.060	0.257		
6.030	109	469	4.285	0.253		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.036	184	475	2.578	0.257		
6.043	261	478	1.832	0.258		
6.049	84	476	5.661	0.257		
6.060	146	468	3.211	0.253		
6.070	59	428	7.267	0.231		
6.079	96	440	4.601	0.238		
6.087	122	445	3.655	0.240		
6.092	166	449	2.712	0.243		
6.108	99	415	4.203	0.224		
6.117	197	400	2.027	0.216		
6.123	194	415	2.140	0.224		
6.155	1079	892	0.827	0.482		
6.158	340	911	2.682	0.493		
6.205	183	547	2.985	0.296		
6.216	212	564	2.663	0.305		
6.226	264	580	2.200	0.313		
6.239	113	570	5.056	0.308		
6.283	369	440	1.193	0.238		
6.298	261	354	1.358	0.191		
6.317	65	305	4.684	0.165		
6.323	157	335	2.139	0.181		
6.328	45	330	7.324	0.178		
6.348	530	538	1.015	0.291		
6.393	108	293	2.710	0.158		
6.403	67	266	3.998	0.143		
6.411	125	262	2.100	0.141		
6.417	97	252	2.607	0.136		
6.424	93	255	2.747	0.138		
6.430	107	245	2.299	0.132		
6.443	47	222	4.756	0.120		
6.482	13	60	4.792	0.032		
6.491	34	61	1.776	0.033		
	239611	184760		100.000		

Total unknown % height = 81.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000025.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:11
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161002x10,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 25
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.340	Weigth of sample extracted (g)
M	6.947	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL			
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1	PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			

Peaks not detected for Quant. or Qual. signal(s).

2	PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			

Peaks not detected for Quant. or Qual. signal(s).

3	PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.428	2.425	0.003	7739	0.42681	1.50	80.00- 120.00	100.00(aM)	BA
2.509	2.509	0.000	1955	0.09900	0.347	69.31- 103.97	25.26	BA
2.790	2.791	-0.001	7312	0.23245	0.814	167.74- 251.61	94.48	BA
2.924	2.924	0.000	1431	0.07059	0.247	9.03- 13.54	18.50	BA
3.226	3.226	0.000	5846	0.21480	0.752	278.88- 418.31	75.53	BA
Average of Peak Concentrations =					0.731			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.213	-0.002	9029	0.01775	0.00622		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.501	4.503	-0.002	7319	0.02181	0.00764		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

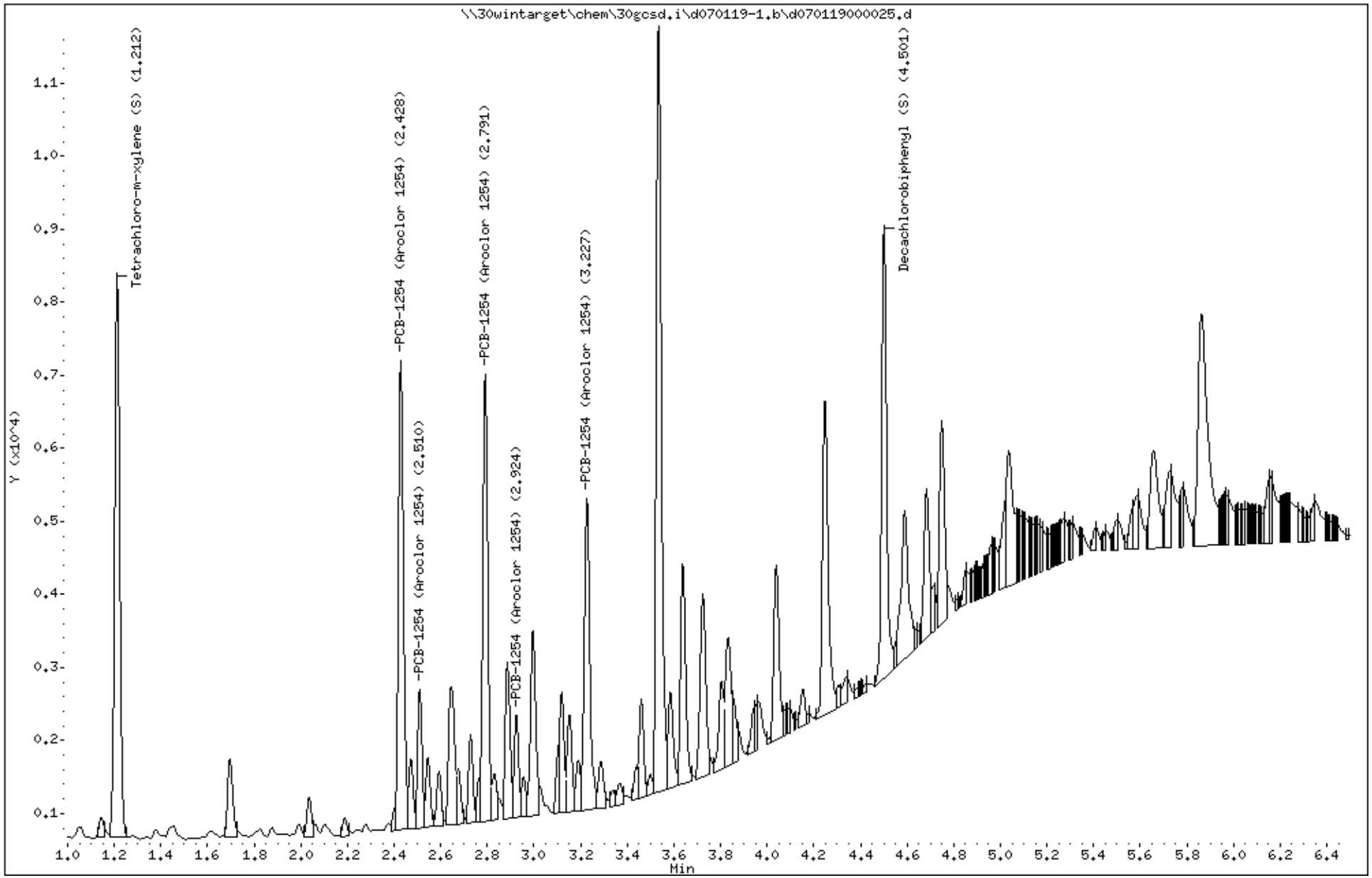
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30300161002
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

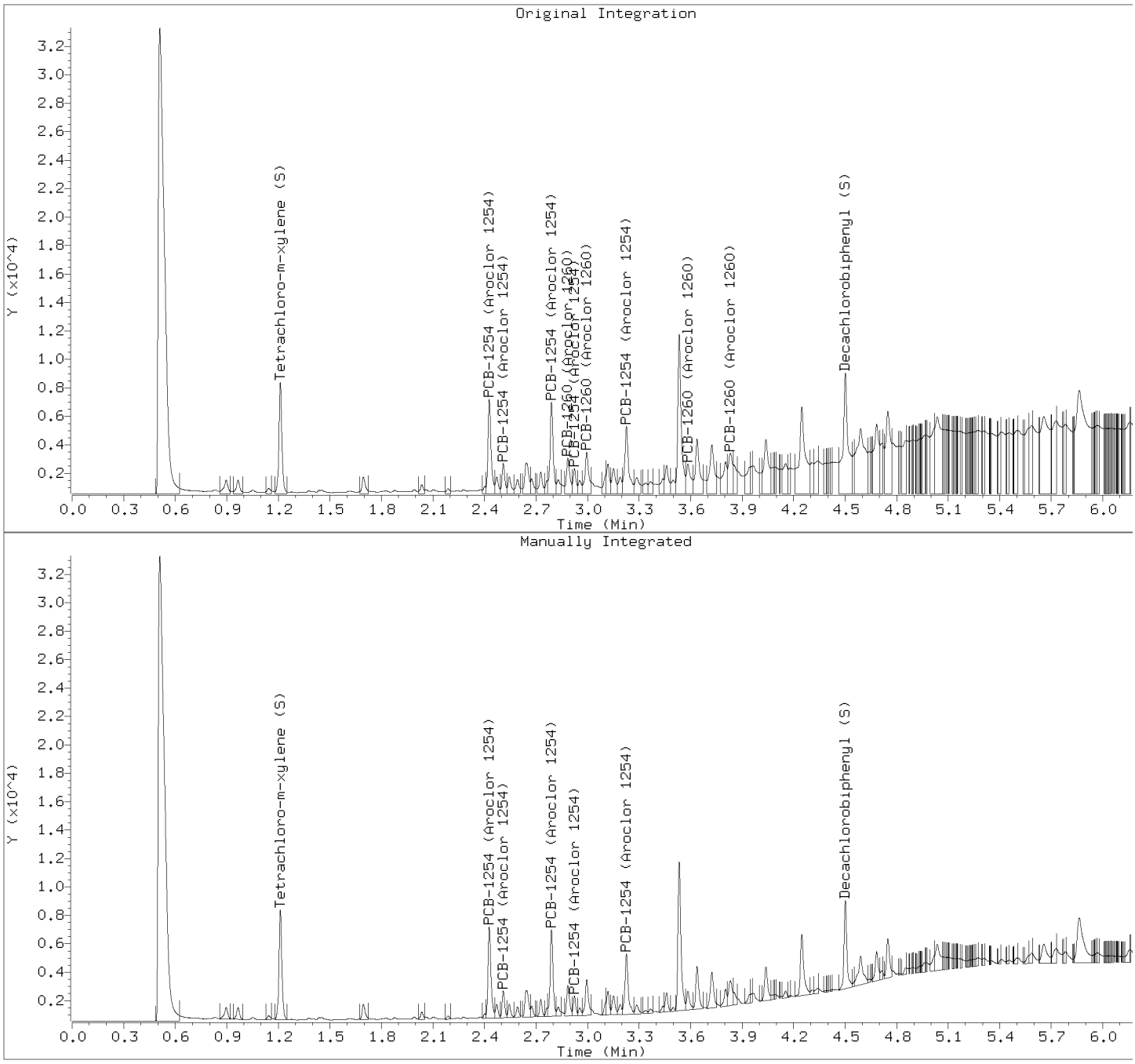
Client SDG: 30300161
Client Smp ID: AOC 26-2
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	355	U
11104-28-2	PCB-1221 (Aroclor 1221)	720	U
11141-16-5	PCB-1232 (Aroclor 1232)	355	U
53469-21-9	PCB-1242 (Aroclor 1242)	355	U
12672-29-6	PCB-1248 (Aroclor 1248)	355	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.428	1.50	J
	Peak found at 2.510	0.347	J
	Peak found at 2.791	0.814	J
	Peak found at 2.924	0.247	J
	Peak found at 3.227	0.752	J
	Average of Peak Amounts =	0.732	J
11096-82-5	PCB-1260 (Aroclor 1260)	355	U
877-09-8	Tetrachloro-m-xylene (S)	0.00622	J
2051-24-3	Decachlorobiphenyl (S)	0.00764	J

Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000025.d
Date : 01-JUL-2019 17:11
Client ID: AOC 26-2
Instrument: 30gcsd.i
Sample Info: 30300161002X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b/d070119000025.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 01-JUL-2019 17:11 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30300161002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	8358	7739
PCB-1254 (Aroclor 1254)	2481	1955
PCB-1254 (Aroclor 1254)	8276	7312
PCB-1254 (Aroclor 1254)	2164	1431
PCB-1254 (Aroclor 1254)	7755	5846
PCB-1260 (Aroclor 1260)	8276	0
PCB-1260 (Aroclor 1260)	3493	0
PCB-1260 (Aroclor 1260)	4486	0
PCB-1260 (Aroclor 1260)	3737	0
PCB-1260 (Aroclor 1260)	4871	0
Tetrachloro-m-xylene (S)	9480	9029
Decachlorobiphenyl (S)	17907	7319

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000025.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:11
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161002x10,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 25
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.340	Weigth of sample extracted (g)
M	6.947	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	73533	38681	0.526	25.165		
1.155	985	800	0.812	0.518		
1.253	950	840	0.884	0.544		
1.420	347	290	0.835	0.188		
1.585	8014	7428	0.927	4.816	$ 10 Tetrachloro-m-xylene (S)	BA
1.975	1244	956	0.768	0.619		
2.434	567	452	0.797	0.293		
2.558	192	184	0.956	0.119		
2.699	5209	4255	0.817	2.758		
2.813	2147	1863	0.868	1.207	6 PCB-1254 (Aroclor 1254)	BA
2.861	408	424	1.039	0.274		
2.920	261	408	1.566	0.264		
2.939	1184	1575	1.330	1.021		
2.954	2895	2214	0.765	1.435	6 PCB-1254 (Aroclor 1254)	BA
2.991	1874	1110	0.592	0.719		
3.047	89	149	1.678	0.096		
3.082	425	610	1.436	0.395		
3.099	1834	1533	0.836	0.994		
3.135	1191	1091	0.916	0.707		
3.167	787	580	0.737	0.376		
3.195	3577	3439	0.961	2.229	6 PCB-1254 (Aroclor 1254)	BA
3.242	342	395	1.156	0.256		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.260	708	454	0.641	0.294		
3.304	2083	1851	0.889	1.200		
3.336	314	304	0.967	0.197		
3.366	440	380	0.864	0.246		
3.388	1546	1402	0.907	0.909	6 PCB-1254 (Aroclor 1254)	BA
3.433	403	368	0.913	0.238		
3.475	1877	1933	1.030	1.253		
3.497	1957	1738	0.888	1.126		
3.556	1356	1079	0.796	0.699		
3.596	240	340	1.414	0.220		
3.624	637	467	0.733	0.302		
3.657	4060	3724	0.917	2.414	6 PCB-1254 (Aroclor 1254)	BA
3.683	784	797	1.017	0.516		
3.718	384	370	0.965	0.239		
3.755	134	219	1.632	0.142		
3.794	46	51	1.099	0.033		
3.843	13615	10548	0.775	6.839		
3.933	3664	2620	0.715	1.698		
3.974	189	207	1.094	0.134		
4.023	3331	1831	0.550	1.187		
4.055	1829	1183	0.647	0.767		
4.144	1512	1010	0.668	0.654		
4.187	944	866	0.917	0.561		
4.220	143	365	2.551	0.236		
4.243	1120	831	0.742	0.538		
4.280	3938	2372	0.602	1.538		
4.335	6	30	4.934	0.019		
4.367	491	380	0.774	0.246		
4.407	209	296	1.417	0.191		
4.432	15	63	4.223	0.040		
4.450	94	126	1.343	0.081		
4.455	42	142	3.378	0.092		
4.462	68	151	2.227	0.097		
4.496	245	307	1.254	0.199		
4.519	5410	3878	0.717	2.514		
4.561	52	294	5.654	0.190		
4.567	101	309	3.054	0.200		
4.588	683	455	0.666	0.295		
4.613	992	632	0.637	0.409		
4.660	18	106	5.882	0.068		
4.666	59	122	2.059	0.079		
4.678	18	110	5.972	0.071		
4.687	33	98	2.981	0.063		
4.693	39	108	2.740	0.070		
4.703	75	154	2.044	0.099		
4.714	188	202	1.075	0.130		
4.728	32	139	4.309	0.090		
4.751	501	542	1.082	0.351		
4.772	50	215	4.295	0.139		
4.779	182	222	1.223	0.143		
4.805	80	104	1.300	0.067		
4.820	9	46	4.894	0.029		
4.840	210	261	1.243	0.169		
4.854	60	154	2.578	0.099		
4.879	3283	2432	0.741	1.576		
4.955	7027	5915	0.842	3.835	$ 11 Decachlorobiphenyl (S)	BA
4.973	1560	1833	1.175	1.188		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.013	2160	1498	0.694	0.971		
5.048	613	641	1.045	0.415		
5.091	42	108	2.561	0.070		
5.101	24	130	5.439	0.084		
5.121	624	393	0.630	0.254		
5.151	53	215	4.039	0.139		
5.160	146	243	1.665	0.157		
5.166	73	273	3.766	0.177		
5.180	131	319	2.437	0.206		
5.189	151	374	2.475	0.242		
5.194	183	397	2.169	0.257		
5.207	166	336	2.024	0.217		
5.245	102	299	2.937	0.193		
5.251	123	350	2.852	0.226		
5.276	1109	1095	0.987	0.710		
5.323	364	749	2.057	0.485		
5.327	203	799	3.929	0.518		
5.381	207	479	2.315	0.310		
5.387	94	481	5.092	0.311		
5.397	213	494	2.318	0.320		
5.424	110	378	3.445	0.245		
5.445	157	294	1.877	0.190		
5.475	92	211	2.301	0.136		
5.484	59	205	3.470	0.132		
5.504	95	237	2.507	0.153		
5.511	73	240	3.285	0.155		
5.518	58	211	3.642	0.136		
5.527	51	186	3.644	0.120		
5.533	63	194	3.100	0.125		
5.537	38	200	5.283	0.129		
5.543	82	223	2.712	0.144		
5.548	63	263	4.205	0.170		
5.555	244	336	1.375	0.217		
5.593	19	123	6.400	0.079		
5.610	31	118	3.762	0.076		
5.615	25	126	4.961	0.081		
5.624	61	135	2.228	0.087		
5.644	13	64	5.120	0.041		
5.661	28	77	2.723	0.049		
5.666	25	87	3.539	0.056		
5.675	18	98	5.475	0.063		
5.683	53	105	1.971	0.068		
5.698	15	83	5.446	0.053		
5.712	36	96	2.692	0.062		
5.716	58	130	2.257	0.084		
5.738	45	137	3.027	0.088		
5.743	37	150	4.087	0.097		
5.747	36	163	4.485	0.105		
5.764	253	306	1.209	0.198		
5.769	107	323	3.033	0.209		
5.821	42	98	2.328	0.063		
5.833	21	89	4.198	0.057		
5.841	13	87	6.786	0.056		
5.869	714	479	0.671	0.310		
5.911	10	52	5.400	0.033		
5.930	102	178	1.737	0.115		
5.936	83	260	3.127	0.168		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.940	80	308	3.856	0.199		
5.946	121	359	2.968	0.232		
5.951	249	384	1.544	0.248		
6.000	14	87	6.012	0.056		
6.035	924	650	0.704	0.421		
6.086	854	621	0.727	0.402		
6.145	65	176	2.709	0.114		
6.160	32	142	4.399	0.092		
6.184	18	96	5.339	0.062		
6.199	110	214	1.951	0.138		
6.209	155	309	1.996	0.200		
6.212	148	338	2.285	0.219		
6.219	128	332	2.599	0.215		
6.225	64	327	5.150	0.212		
6.257	60	214	3.572	0.138		
6.261	62	254	4.129	0.164		
6.276	349	453	1.297	0.293		
6.311	6800	2613	0.384	1.694		
6.369	165	479	2.906	0.310		
6.381	292	391	1.341	0.253		
6.394	166	331	1.996	0.214		
6.414	156	311	1.998	0.201		
6.421	106	303	2.850	0.196		
6.430	96	309	3.232	0.200		
6.436	89	303	3.405	0.196		
6.441	108	317	2.937	0.205		
6.456	62	287	4.626	0.186		
6.478	57	250	4.391	0.162		
6.486	97	239	2.467	0.154		
	198576	154225		100.000		

Total unknown % height = 83.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000025.d
Lab Smp Id: 30300161002 Client Smp ID: AOC 26-2
Inj Date : 01-JUL-2019 17:11
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30300161002x10,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 25
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.340	Weigth of sample extracted (g)
M	6.947	% Moisture
Cpnd Variable		Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.812	2.816	-0.004	2146	0.14587	0.511	80.00- 120.00	100.00(aM)	BA
2.953	2.958	-0.005	2895	0.12609	0.442	124.85- 187.28	134.90	BA
3.194	3.198	-0.004	3576	0.14740	0.516	131.92- 197.88	166.64	BA
3.388	3.392	-0.004	1546	0.08296	0.290	101.34- 152.01	72.04	BA
3.657	3.660	-0.003	4060	0.21359	0.748	103.36- 155.04	189.19	BA
Average of Peak Concentrations =					0.502			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.584	1.586	-0.002	8013	0.01764	0.00618		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.955	4.956	-0.001	7027	0.02213	0.00775		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

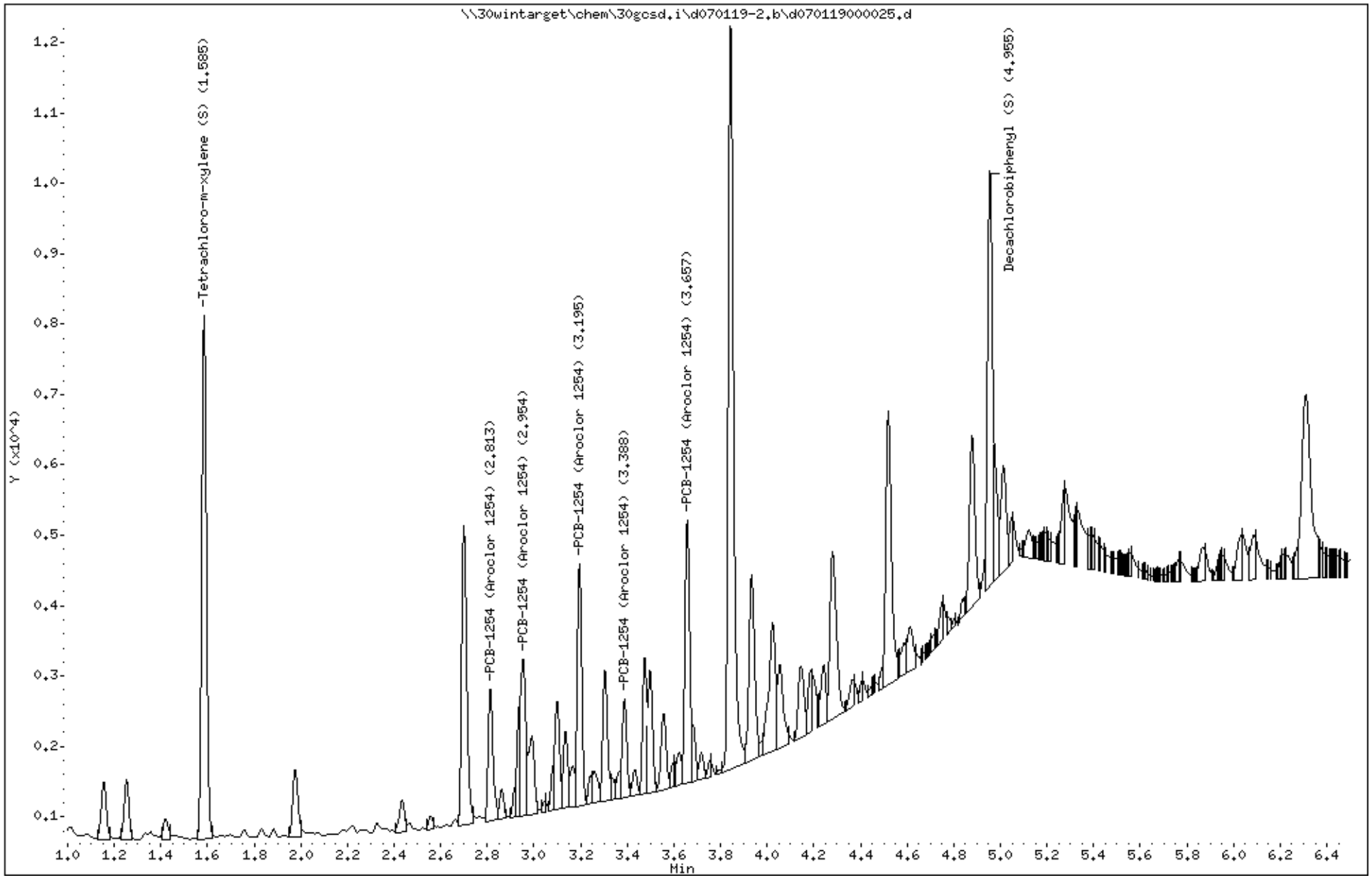
Client Name: WSP Environment & E
Lab Smp Id: 30300161002
Sample Location:
Sample Date: 17-JUN-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

Client SDG: 30300161
Client Smp ID: AOC 26-2
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

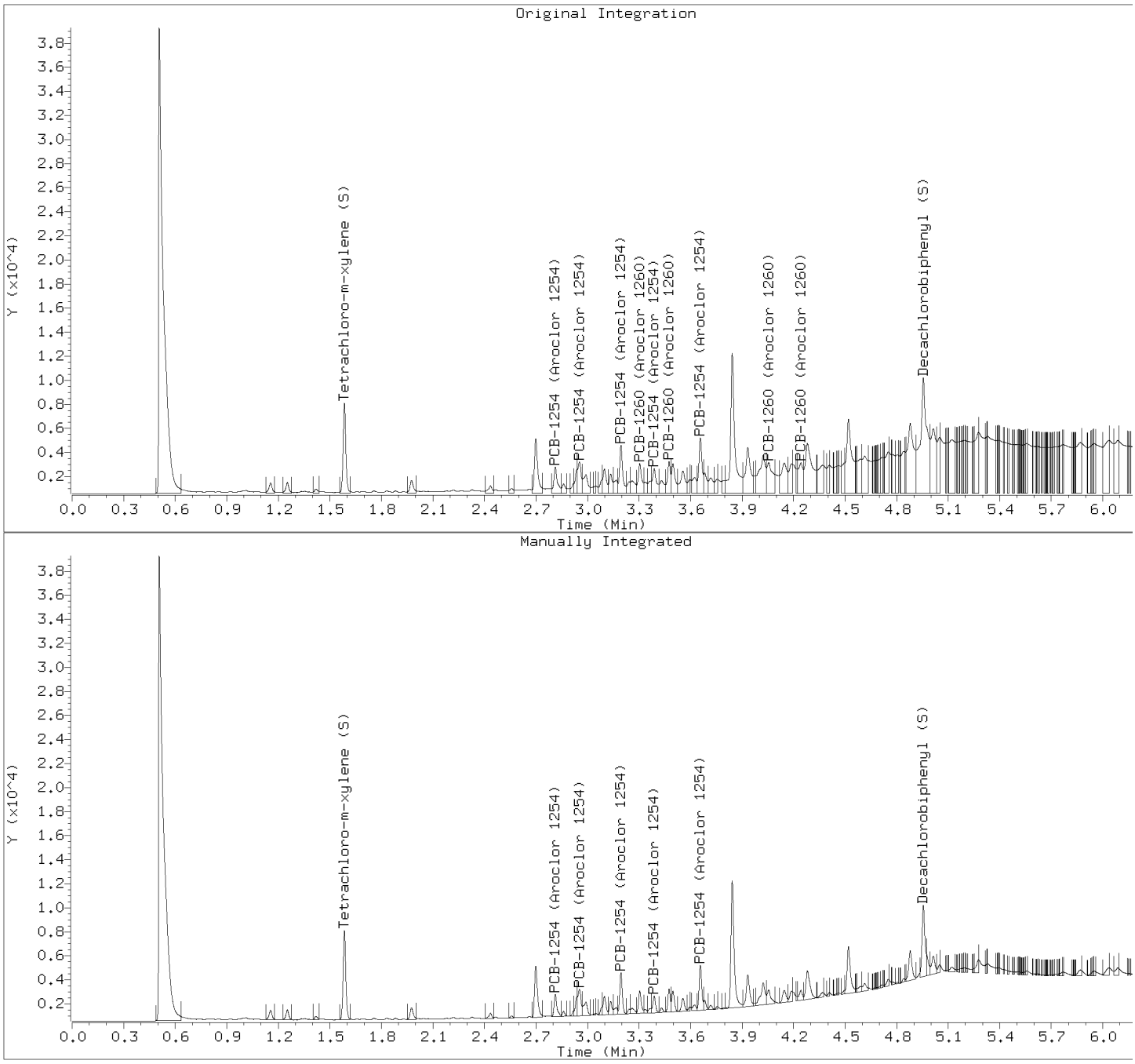
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	355	U
11104-28-2	PCB-1221 (Aroclor 1221)	720	U
11141-16-5	PCB-1232 (Aroclor 1232)	355	U
53469-21-9	PCB-1242 (Aroclor 1242)	355	U
12672-29-6	PCB-1248 (Aroclor 1248)	355	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.813	0.511	J
	Peak found at 2.954	0.442	J
	Peak found at 3.195	0.516	J
	Peak found at 3.388	0.290	J
	Peak found at 3.657	0.748	J
	Average of Peak Amounts =	0.501	J
11096-82-5	PCB-1260 (Aroclor 1260)	355	U
877-09-8	Tetrachloro-m-xylene (S)	0.00618	J
2051-24-3	Decachlorobiphenyl (S)	0.00775	J

Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000025.d
Date : 01-JUL-2019 17:11
Client ID: AOC 26-2
Sample Info: 30300161002X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b/d070119000025.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 01-JUL-2019 17:11 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30300161002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	3288	2146
PCB-1254 (Aroclor 1254)	3610	2895
PCB-1254 (Aroclor 1254)	5174	3576
PCB-1254 (Aroclor 1254)	3271	1546
PCB-1254 (Aroclor 1254)	6060	4060
PCB-1260 (Aroclor 1260)	3667	0
PCB-1260 (Aroclor 1260)	3264	0
PCB-1260 (Aroclor 1260)	6060	0
PCB-1260 (Aroclor 1260)	5887	0
PCB-1260 (Aroclor 1260)	4885	0
Tetrachloro-m-xylene (S)	8345	8013
Decachlorobiphenyl (S)	26921	7027

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	22540.0000	22230.0000	21392.0000	19192.0000	18984.0000	18890.0000
Aroclor 1016	2	Averaged	43500.0000	43750.0000	43260.0000	39226.0000	39092.0000	39181.0000
Aroclor 1016	3	Averaged	17140.0000	17250.0000	17860.0000	15984.0000	15840.0000	15863.0000
Aroclor 1016	4	Averaged	13880.0000	13740.0000	13392.0000	11948.0000	11832.0000	11847.0000
Aroclor 1016	5	Averaged	11480.0000	11670.0000	11500.0000	10462.0000	10352.0000	10413.0000
Aroclor 1260	1	Averaged	20240.0000	19880.0000	19216.0000	17454.0000	17265.3333	17209.0000
Aroclor 1260	2	Averaged	25840.0000	25620.0000	24580.0000	22258.0000	21990.6666	22006.0000
Aroclor 1260	3	Averaged	32320.0000	31990.0000	30820.0000	27894.0000	27562.6666	27470.0000
Aroclor 1260	4	Averaged	52780.0000	52700.0000	52052.0000	47812.0000	47833.3333	48049.0000
Aroclor 1260	5	Averaged	37860.0000	38060.0000	37704.0000	34632.0000	34656.0000	34551.0000
Decachlorobiphenyl		Averaged	349700.000	346600.000	343440.000	321030.000	325840.000	327295.000
Tetrachloro-m-xylene		Averaged	527100.000	528550.000	527200.000	484540.000	489013.333	495225.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	8.30			20538.00	
Aroclor 1016	2	Averaged	5.76			41334.83	
Aroclor 1016	3	Averaged	5.22			16656.16	
Aroclor 1016	4	Averaged	7.80			12773.16	
Aroclor 1016	5	Averaged	5.73			10979.50	
Aroclor 1260	1	Averaged	7.51			18544.05	
Aroclor 1260	2	Averaged	7.75			23715.77	
Aroclor 1260	3	Averaged	7.70			29676.11	
Aroclor 1260	4	Averaged	5.06			50204.38	
Aroclor 1260	5	Averaged	4.93			36243.83	
Decachlorobiphenyl		Averaged	3.66			335650.83	
Tetrachloro-m-xylene		Averaged	4.15			508604.72	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	12380.0000	12280.0000	11732.0000	10726.0000	10609.3333	10632.0000
Aroclor 1016	2	Averaged	22240.0000	22580.0000	22892.0000	21028.0000	21001.3333	21107.0000
Aroclor 1016	3	Averaged	10820.0000	11370.0000	11380.0000	10476.0000	10508.0000	10544.0000
Aroclor 1016	4	Averaged	10860.0000	10590.0000	10408.0000	9400.00000	9325.33333	9299.00000
Aroclor 1016	5	Averaged	10460.0000	10510.0000	10324.0000	9384.00000	9380.00000	9352.00000
Aroclor 1260	1	Averaged	21400.0000	21340.0000	21336.0000	19330.0000	19288.0000	19228.0000
Aroclor 1260	2	Averaged	25740.0000	25610.0000	25440.0000	23134.0000	23177.3333	23036.0000
Aroclor 1260	3	Averaged	28140.0000	28770.0000	31652.0000	29034.0000	29032.0000	29124.0000
Aroclor 1260	4	Averaged	43820.0000	44440.0000	44696.0000	41430.0000	41808.0000	41957.0000
Aroclor 1260	5	Averaged	26460.0000	26700.0000	26908.0000	25068.0000	24990.6666	25092.0000
Decachlorobiphenyl		Averaged	329300.000	325400.000	325900.000	305140.000	308640.000	310400.000
Tetrachloro-m-xylene		Averaged	472800.000	469600.000	469140.000	433280.000	438260.000	441975.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.35			11393.22	
Aroclor 1016	2	Averaged	3.94			21808.05	
Aroclor 1016	3	Averaged	3.91			10849.66	
Aroclor 1016	4	Averaged	7.16			9980.38	
Aroclor 1016	5	Averaged	5.89			9901.66	
Aroclor 1260	1	Averaged	5.60			20320.33	
Aroclor 1260	2	Averaged	5.59			24356.22	
Aroclor 1260	3	Averaged	4.13			29292.00	
Aroclor 1260	4	Averaged	3.38			43025.16	
Aroclor 1260	5	Averaged	3.51			25869.77	
Decachlorobiphenyl		Averaged	3.31		0.00	317463.33	
Tetrachloro-m-xylene		Averaged	3.99		0.00	454175.83	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.631	1.631	1.631	1.631	1.632	1.632
Aroclor 1016	2	1.878	1.878	1.878	1.878	1.879	1.879
Aroclor 1016	3	1.932	1.932	1.932	1.932	1.933	1.932
Aroclor 1016	4	2.188	2.188	2.188	2.188	2.189	2.189
Aroclor 1016	5	2.277	2.277	2.277	2.277	2.278	2.278
Aroclor 1260	1	2.798	2.797	2.797	2.797	2.798	2.798
Aroclor 1260	2	2.885	2.885	2.885	2.885	2.886	2.886
Aroclor 1260	3	2.995	2.994	2.995	2.995	2.995	2.995
Aroclor 1260	4	3.584	3.583	3.584	3.583	3.584	3.585
Aroclor 1260	5	3.827	3.826	3.826	3.826	3.826	3.827
Decachlorobiphenyl		4.501	4.5	4.501	4.5	4.501	4.501
Tetrachloro-m-xylene		1.21	1.21	1.21	1.21	1.212	1.211

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.631	1.601	1.661
Aroclor 1016	2	1.878	1.848	1.908
Aroclor 1016	3	1.932	1.902	1.962
Aroclor 1016	4	2.188	2.158	2.218
Aroclor 1016	5	2.277	2.247	2.307
Aroclor 1260	1	2.797	2.767	2.827
Aroclor 1260	2	2.885	2.855	2.915
Aroclor 1260	3	2.995	2.965	3.025
Aroclor 1260	4	3.584	3.554	3.614
Aroclor 1260	5	3.826	3.796	3.856
Decachlorobiphenyl		4.501	4.471	4.531
Tetrachloro-m-xylene		1.21	1.18	1.24

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.963	1.964	1.963	1.964	1.964	1.964
Aroclor 1016	2	2.286	2.286	2.286	2.286	2.287	2.286
Aroclor 1016	3	2.374	2.374	2.374	2.374	2.375	2.374
Aroclor 1016	4	2.47	2.47	2.47	2.47	2.471	2.471
Aroclor 1016	5	2.56	2.56	2.56	2.56	2.561	2.561
Aroclor 1260	1	3.309	3.309	3.309	3.308	3.309	3.309
Aroclor 1260	2	3.479	3.479	3.478	3.479	3.479	3.479
Aroclor 1260	3	3.663	3.663	3.662	3.662	3.663	3.663
Aroclor 1260	4	4.06	4.059	4.06	4.059	4.06	4.06
Aroclor 1260	5	4.247	4.247	4.247	4.247	4.248	4.248
Decachlorobiphenyl		4.959	4.959	4.96	4.959	4.959	4.961
Tetrachloro-m-xylene		1.586	1.586	1.586	1.587	1.587	1.587

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.963	1.933	1.993
Aroclor 1016	2	2.286	2.256	2.316
Aroclor 1016	3	2.374	2.344	2.404
Aroclor 1016	4	2.47	2.44	2.5
Aroclor 1016	5	2.56	2.53	2.59
Aroclor 1260	1	3.309	3.279	3.339
Aroclor 1260	2	3.478	3.448	3.508
Aroclor 1260	3	3.662	3.632	3.692
Aroclor 1260	4	4.06	4.03	4.09
Aroclor 1260	5	4.247	4.217	4.277
Decachlorobiphenyl		4.96	4.93	4.99
Tetrachloro-m-xylene		1.586	1.556	1.616

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-1.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.344	1.314	1.374	6424.00000
Aroclor 1221	.25	2	1.4	1.37	1.43	3800.00000
Aroclor 1221	.25	3	1.44	1.41	1.47	13644.0000
Decachlorobiphenyl (S)	.05		4.499	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-1.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.44	1.41	1.47	11544.0000
Aroclor 1232	.25	2	1.631	1.601	1.661	9880.00000
Aroclor 1232	.25	3	1.878	1.848	1.908	18436.0000
Aroclor 1232	.25	4	1.932	1.902	1.962	7344.00000
Aroclor 1232	.25	5	2.188	2.158	2.218	5264.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-1.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.44	1.41	1.47	7464.00000
Aroclor 1242	.25	2	1.631	1.601	1.661	15736.0000
Aroclor 1242	.25	3	1.878	1.848	1.908	31628.0000
Aroclor 1242	.25	4	1.932	1.902	1.962	12420.0000
Aroclor 1242	.25	5	2.188	2.158	2.218	9852.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-1.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	1.877	1.847	1.907	23488.0000
Aroclor 1248	.25	2	2.035	2.005	2.065	15488.0000
Aroclor 1248	.25	3	2.188	2.158	2.218	15912.0000
Aroclor 1248	.25	4	2.277	2.247	2.307	13976.0000
Aroclor 1248	.25	5	2.428	2.398	2.458	22740.0000
Decachlorobiphenyl (S)	.05		4.501	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-1.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.425	2.395	2.455	18132.0000
Aroclor 1254	.25	2	2.509	2.479	2.539	19748.0000
Aroclor 1254	.25	3	2.791	2.761	2.821	31456.0000
Aroclor 1254	.25	4	2.924	2.894	2.954	20272.0000
Aroclor 1254	.25	5	3.226	3.196	3.256	27216.0000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-2.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.67	1.64	1.7	5224.00000
Aroclor 1221	.25	2	1.712	1.682	1.742	3332.00000
Aroclor 1221	.25	3	1.761	1.731	1.791	12984.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-2.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.761	1.731	1.791	10988.0000
Aroclor 1232	.25	2	1.963	1.933	1.993	5164.00000
Aroclor 1232	.25	3	2.286	2.256	2.316	9684.00000
Aroclor 1232	.25	4	2.374	2.344	2.404	4784.00000
Aroclor 1232	.25	5	2.56	2.53	2.59	4028.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-2.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.761	1.731	1.791	7560.00000
Aroclor 1242	.25	2	1.963	1.933	1.993	8744.00000
Aroclor 1242	.25	3	2.286	2.256	2.316	16784.0000
Aroclor 1242	.25	4	2.374	2.344	2.404	8376.00000
Aroclor 1242	.25	5	2.56	2.53	2.59	7736.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.586	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-2.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	2.285	2.255	2.315	12308.0000
Aroclor 1248	.25	2	2.438	2.408	2.468	11556.0000
Aroclor 1248	.25	3	2.56	2.53	2.59	13084.0000
Aroclor 1248	.25	4	2.666	2.636	2.696	10252.0000
Aroclor 1248	.25	5	2.834	2.804	2.864	20392.0000
Decachlorobiphenyl (S)	.05		4.958	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30300161

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-2.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.816	2.786	2.846	14712.0000
Aroclor 1254	.25	2	2.958	2.928	2.988	22960.0000
Aroclor 1254	.25	3	3.198	3.168	3.228	24260.0000
Aroclor 1254	.25	4	3.392	3.362	3.422	18636.0000
Aroclor 1254	.25	5	3.66	3.63	3.69	19008.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.570	1203	768	0.638	1.611		
1.028	1158	867	0.749	1.819		
1.210	25243	21163	0.838	44.428	$ 10 Tetrachloro-m-xylene (S)	
1.267	572	404	0.706	0.847		
1.344	1607	1382	0.860	2.900	2 PCB-1221 (Aroclor 1221)	
1.375	317	327	1.030	0.686		
1.400	950	874	0.920	1.834	2 PCB-1221 (Aroclor 1221)	
1.440	3412	2903	0.851	6.092	2 PCB-1221 (Aroclor 1221)	
1.633	290	409	1.413	0.858		
1.693	510	501	0.982	1.051		
1.827	198	198	0.998	0.415		
1.879	442	357	0.808	0.749		
1.932	201	185	0.918	0.388		
3.369	1370	1113	0.812	2.335		
4.248	55	68	1.234	0.142		
4.343	73	117	1.608	0.245		
4.500	16180	15900	0.983	33.371	$ 11 Decachlorobiphenyl (S)	
5.557	6	20	3.425	0.041		
5.725	13	44	3.390	0.092		
6.494	11	46	4.028	0.096		
	53812	47646		100.000		

Total unknown % height = 11.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.344	1.344	0.000	1606	0.25000	0.250	80.00- 120.00	100.00	
1.400	1.400	0.000	950	0.25000	0.250	47.32- 70.98	59.12	
1.440	1.440	0.000	3411	0.25000	0.250	169.91- 254.87	212.30	
Average of Peak Amounts =					0.25000			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25242	0.05000	0.0500			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.499	4.501	-0.002	16180	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

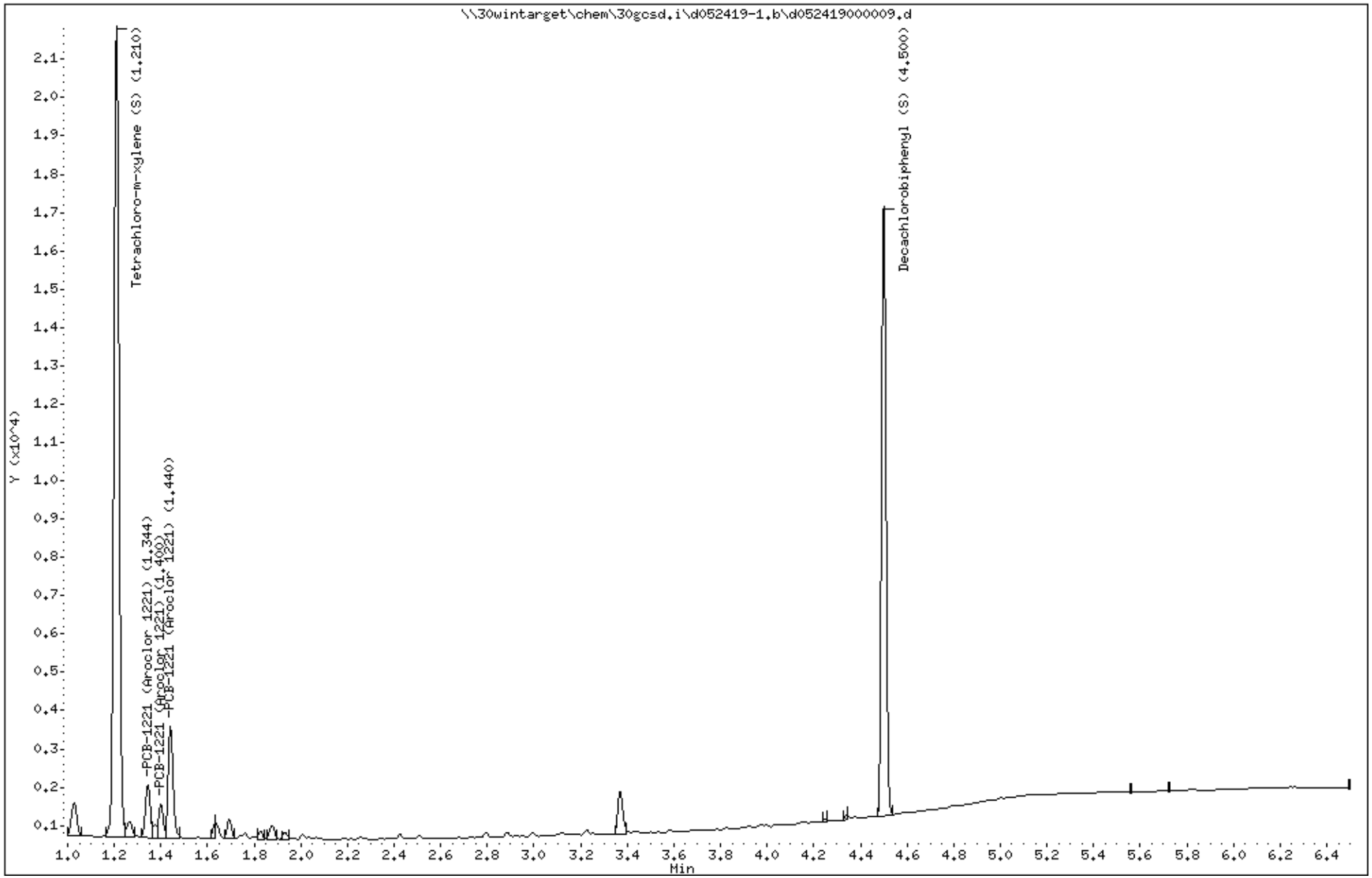
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

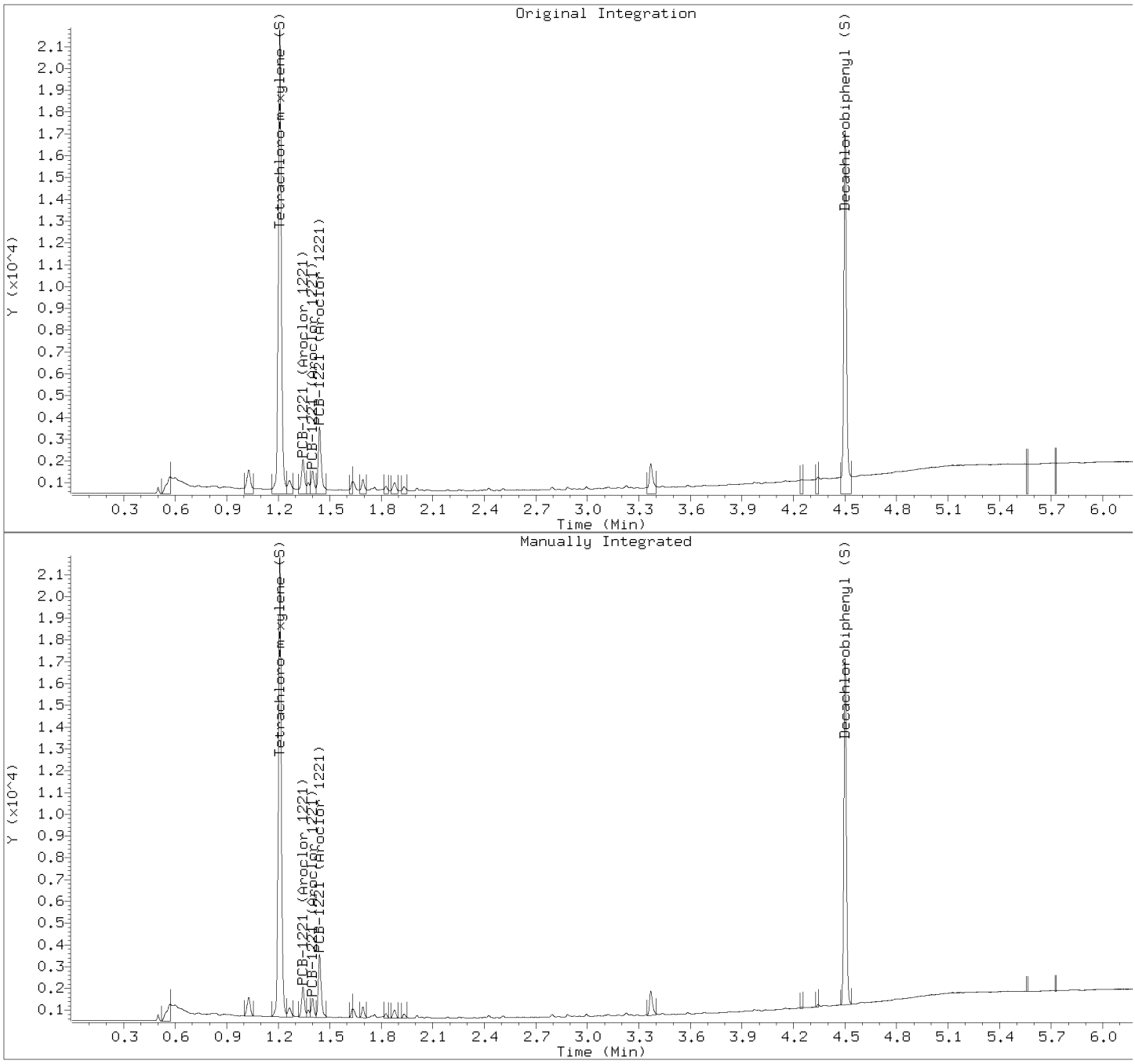
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11104-28-2	PCB-1221 (Aroclor 1221)		
	Peak found at 1.344	0.250	
	Peak found at 1.400	0.250	
	Peak found at 1.440	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0500	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	2088	1606
PCB-1221 (Aroclor 1221)	1298	950
PCB-1221 (Aroclor 1221)	3973	3411
Tetrachloro-m-xylene (S)	26230	25242
Decachlorobiphenyl (S)	18966	16180

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	930	1271	1.367	2.497		
0.568	790	576	0.729	1.131		
0.591	848	789	0.930	1.550		
0.625	622	713	1.147	1.401		
0.655	595	685	1.152	1.346		
0.729	917	598	0.652	1.175		
1.076	94	119	1.261	0.233		
1.255	1060	855	0.807	1.680		
1.474	339	308	0.909	0.605		
1.527	453	408	0.900	0.801		
1.556	154	195	1.266	0.383		
1.586	22320	21120	0.946	41.532	$ 10 Tetrachloro-m-xylene (S)	
1.670	1307	954	0.730	1.874	2 PCB-1221 (Aroclor 1221)	
1.713	833	801	0.961	1.574	2 PCB-1221 (Aroclor 1221)	
1.761	3246	3023	0.931	5.940	2 PCB-1221 (Aroclor 1221)	
1.811	124	126	1.017	0.247		
1.965	169	169	1.002	0.332		
2.018	166	173	1.045	0.339		
2.076	552	503	0.911	0.988		
2.225	135	218	1.613	0.428		
2.268	104	179	1.715	0.351		
2.287	234	248	1.059	0.487		
2.307	179	184	1.026	0.361		
2.817	46	74	1.611	0.145		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.959	64	87	1.351	0.170		
3.309	50	86	1.704	0.169		
3.478	42	83	1.968	0.163		
3.662	46	77	1.691	0.151		
3.913	1159	904	0.780	1.776		
4.314	10	29	2.912	0.056		
4.491	44	81	1.820	0.159		
4.601	13	44	3.326	0.086		
4.754	18	51	2.875	0.100		
4.794	11	41	3.612	0.080		
4.808	83	119	1.437	0.233		
4.959	15365	14265	0.928	28.033	$ 11 Decachlorobiphenyl (S)	
5.105	30	61	2.012	0.119		
5.119	20	62	3.134	0.121		
5.160	7	25	3.602	0.049		
5.400	11	34	3.047	0.066		
5.588	6	31	5.228	0.060		
5.615	4	18	4.176	0.035		
5.672	4	20	5.141	0.039		
5.743	4	19	5.191	0.037		
5.808	7	26	3.969	0.051		
5.826	23	54	2.360	0.106		
5.833	13	57	4.439	0.112		
5.896	1	8	6.015	0.015		
5.958	3	16	5.128	0.031		
5.970	3	19	5.556	0.037		
5.974	7	22	3.343	0.043		
6.129	13	34	2.640	0.066		
6.139	7	32	4.378	0.062		
6.185	9	44	5.029	0.086		
6.292	14	43	2.992	0.084		
6.332	9	39	4.230	0.076		
6.379	4	17	4.156	0.033		
6.410	10	22	2.196	0.043		
6.427	5	27	5.066	0.053		
	53338	50886		100.000		

Total unknown % height = 21.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.670	1.670	0.000	1306	0.25000	0.250	80.00- 120.00	100.00	(a)
1.712	1.712	0.000	833	0.25000	0.250	51.03- 76.54	63.76	
1.761	1.761	0.000	3246	0.25000	0.250	198.84- 298.25	248.48	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22319	0.05000	0.0496			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	15364	0.05000	0.0489			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

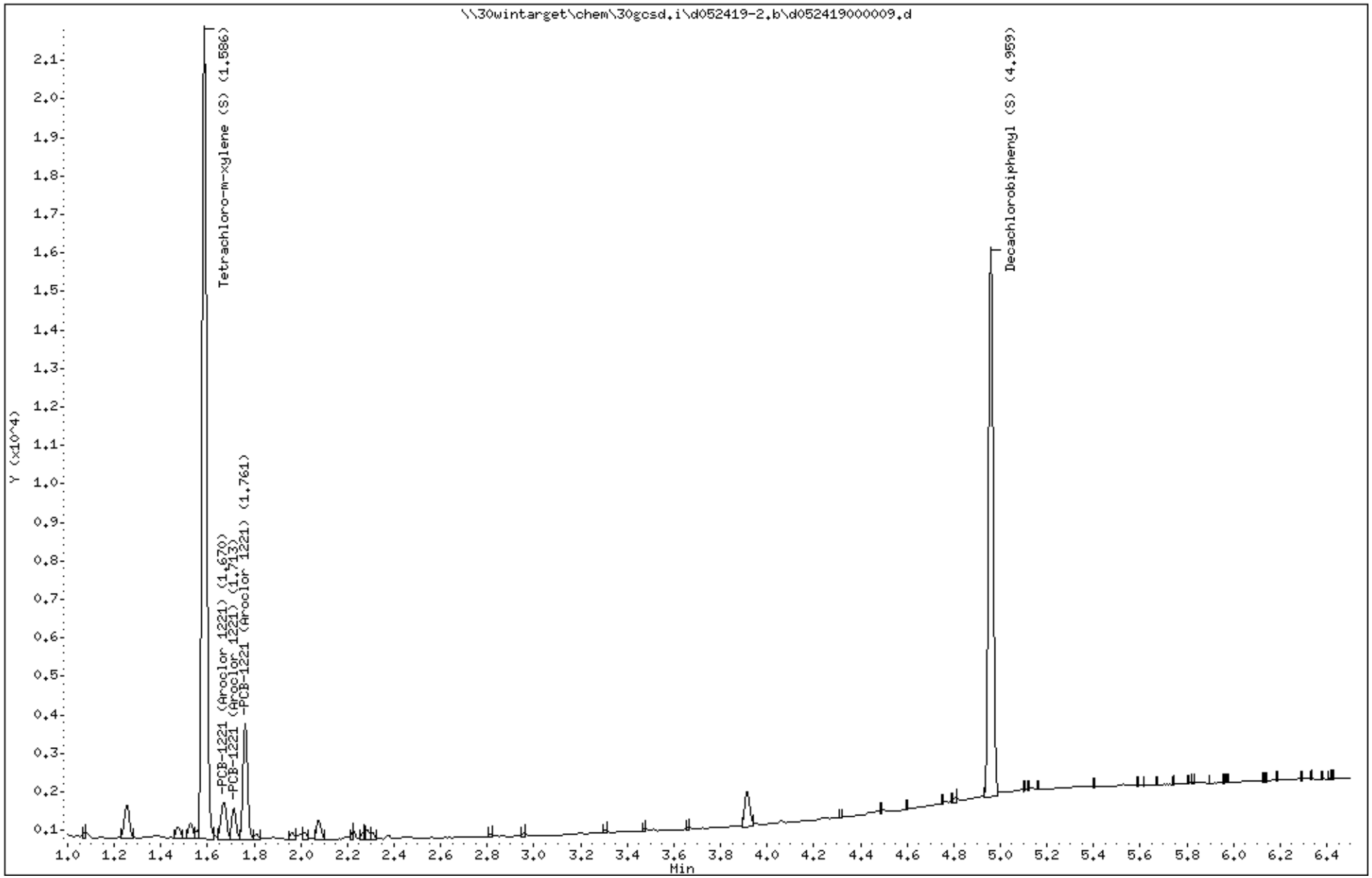
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

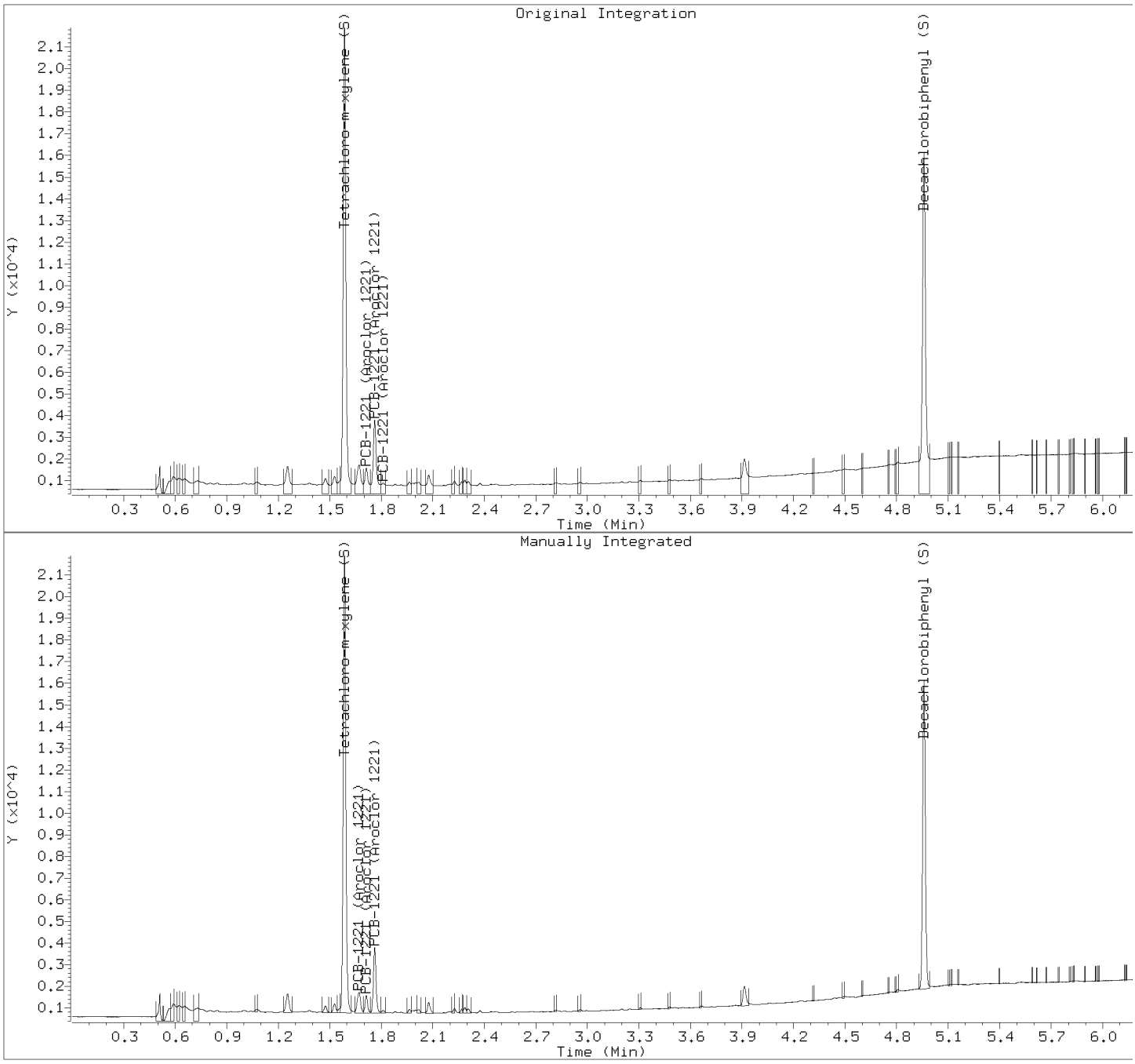
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11104-28-2	PCB-1221 (Aroclor 1221)		J
	Peak found at 1.670	0.250	J
	Peak found at 1.713	0.250	J
	Peak found at 1.761	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0489	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87759:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	1792	1306
PCB-1221 (Aroclor 1221)	4594	833
PCB-1221 (Aroclor 1221)	693	3246
Tetrachloro-m-xylene (S)	23804	22319
Decachlorobiphenyl (S)	20789	15364

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	20125	7843	0.390	10.304		
1.028	809	545	0.674	0.716		
1.209	25188	21207	0.842	27.884	$ 10 Tetrachloro-m-xylene (S)	
1.266	471	341	0.723	0.448		
1.344	1077	926	0.860	1.216		
1.399	742	690	0.930	0.906		
1.440	2887	2487	0.862	3.267	3 PCB-1232 (Aroclor 1232)	
1.631	2470	1847	0.748	2.426	3 PCB-1232 (Aroclor 1232)	
1.693	644	484	0.752	0.635		
1.745	589	717	1.218	0.942		
1.760	963	952	0.989	1.250		
1.806	422	460	1.091	0.604		
1.824	400	389	0.973	0.511		
1.878	4610	3531	0.766	4.639	3 PCB-1232 (Aroclor 1232)	
1.932	1837	1712	0.932	2.249	3 PCB-1232 (Aroclor 1232)	
2.008	1092	1208	1.106	1.587		
2.035	1232	1136	0.922	1.492		
2.062	854	936	1.095	1.229		
2.077	901	887	0.985	1.165		
2.188	1317	1413	1.073	1.856	3 PCB-1232 (Aroclor 1232)	
2.212	523	559	1.068	0.734		
2.239	386	446	1.156	0.585		
2.255	403	461	1.144	0.605		
2.277	1188	1159	0.976	1.522		
2.345	382	371	0.972	0.487		
2.375	757	821	1.085	1.078		
2.401	1308	1406	1.075	1.847		
2.429	1512	1536	1.016	2.018		
2.509	306	297	0.969	0.390		
2.560	828	762	0.920	1.001		
2.580	790	691	0.875	0.907		
2.791	397	410	1.032	0.538		
2.924	252	272	1.078	0.357		
3.147	248	264	1.067	0.346		
3.370	1075	878	0.817	1.153		
3.973	78	130	1.662	0.170		
4.037	64	109	1.705	0.143		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.342	38	76	1.999	0.099		
4.500	15691	15466	0.986	20.320	$ 11 Decachlorobiphenyl (S)	
4.812	43	65	1.527	0.085		
4.861	59	111	1.886	0.145		
5.175	25	64	2.607	0.084		
5.312	4	17	4.048	0.022		
6.022	5	19	3.862	0.024		
6.104	2	11	5.189	0.014		
	94993	76112		100.000		

Total unknown % height = 37.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.440	1.440	0.000	2886	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	2470	0.25000	0.250	68.47- 102.70	85.58	
1.878	1.878	0.000	4609	0.25000	0.250	127.76- 191.64	159.70	
1.932	1.932	0.000	1836	0.25000	0.250	50.89- 76.34	63.64	
2.188	2.188	0.000	1316	0.25000	0.250	36.48- 54.72	45.62	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25188	0.05000	0.0499			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15691	0.05000	0.0474			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

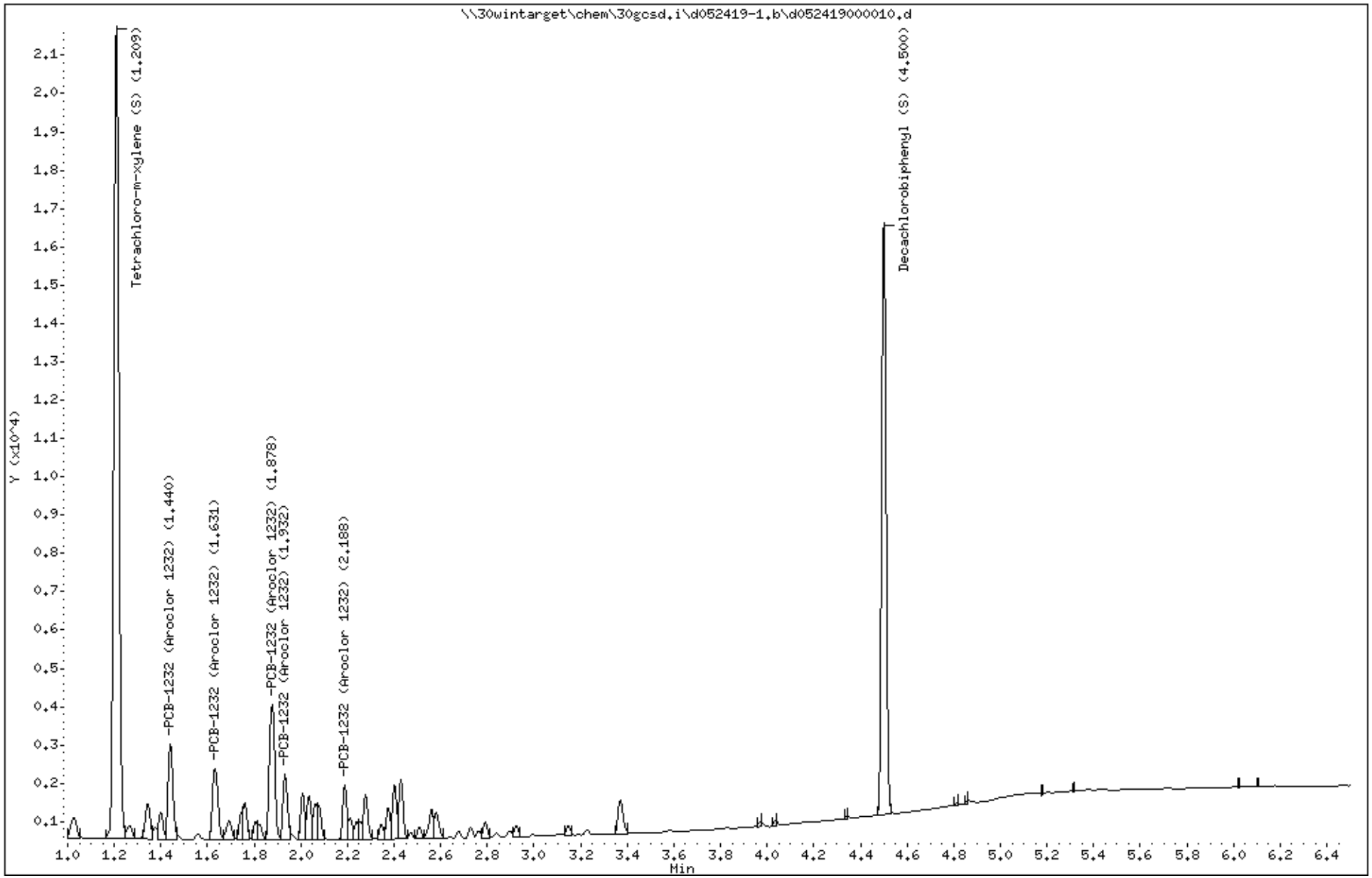
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

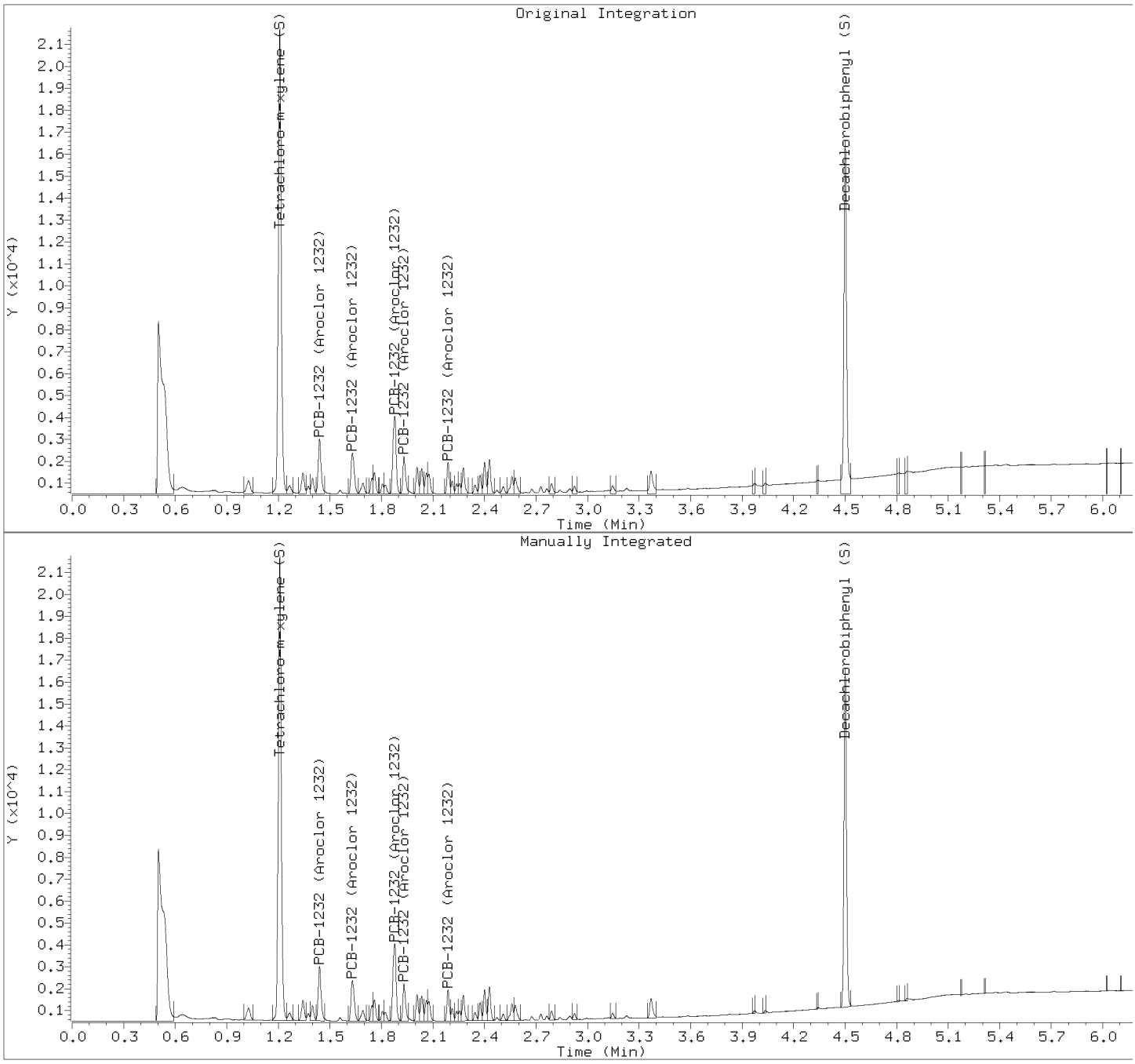
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11141-16-5	PCB-1232 (Aroclor 1232)		
	Peak found at 1.440	0.250	
	Peak found at 1.631	0.250	
	Peak found at 1.878	0.250	
	Peak found at 1.932	0.250	
	Peak found at 2.188	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0499	
2051-24-3	Decachlorobiphenyl (S)	0.0474	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	2894	2886
PCB-1232 (Aroclor 1232)	2445	2470
PCB-1232 (Aroclor 1232)	4582	4609
PCB-1232 (Aroclor 1232)	1816	1836
PCB-1232 (Aroclor 1232)	1303	1316
Tetrachloro-m-xylene (S)	25279	25188
Decachlorobiphenyl (S)	17912	15691

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	14746	21069	1.429	24.274		
0.561	8655	3518	0.406	4.053		
1.254	664	513	0.773	0.591		
1.527	369	332	0.899	0.382		
1.585	22405	21075	0.941	24.307	$ 10 Tetrachloro-m-xylene (S)	
1.669	937	664	0.709	0.765		
1.712	651	626	0.961	0.721		
1.761	2747	2583	0.940	2.975	3 PCB-1232 (Aroclor 1232)	
1.963	1291	1344	1.041	1.548	3 PCB-1232 (Aroclor 1232)	
1.983	830	785	0.946	0.904		
2.075	1571	1091	0.695	1.256		
2.200	377	390	1.036	0.449		
2.223	372	361	0.971	0.415		
2.268	1696	1935	1.141	2.229		
2.286	2421	2469	1.020	2.844	3 PCB-1232 (Aroclor 1232)	
2.306	1587	1559	0.983	1.796		
2.375	1196	1121	0.937	1.291	3 PCB-1232 (Aroclor 1232)	
2.438	849	865	1.019	0.996		
2.470	1008	1025	1.017	1.180		
2.499	377	356	0.945	0.410		
2.561	1007	1031	1.023	1.187	3 PCB-1232 (Aroclor 1232)	
2.590	566	500	0.884	0.576		
2.616	360	372	1.035	0.428		
2.668	1274	777	0.610	0.895		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.835	1885	1254	0.665	1.444		
2.864	1157	1157	1.000	1.333		
2.953	911	826	0.906	0.951		
2.986	670	559	0.834	0.644		
3.199	313	311	0.993	0.358		
3.393	232	230	0.992	0.264		
3.563	183	195	1.068	0.224		
3.914	846	685	0.809	0.789		
4.438	69	101	1.468	0.116		
4.491	65	99	1.534	0.114		
4.809	67	78	1.172	0.089		
4.959	14837	13952	0.940	16.074	$ 11 Decachlorobiphenyl (S)	
5.070	4	19	4.241	0.021		
5.077	6	22	3.566	0.025		
5.099	2	13	5.328	0.014		
5.293	40	99	2.496	0.114		
5.298	43	122	2.851	0.140		
5.407	25	63	2.571	0.072		
5.546	18	44	2.431	0.050		
5.637	12	53	4.369	0.061		
5.698	35	58	1.657	0.066		
5.842	26	80	3.033	0.092		
5.891	23	67	2.949	0.077		
5.898	21	85	3.965	0.097		
6.074	11	34	3.134	0.039		
6.186	20	55	2.691	0.063		
6.254	11	38	3.612	0.043		
6.284	12	32	2.710	0.036		
6.351	8	31	3.865	0.035		
6.390	8	28	3.665	0.032		
6.419	8	23	2.879	0.026		
6.484	6	22	3.723	0.025		
	89528	86796		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.761	1.761	0.000	2747	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	1291	0.25000	0.250	37.60- 56.40	47.00	
2.286	2.286	0.000	2421	0.25000	0.250	70.51- 105.76	88.13	
2.374	2.374	0.000	1196	0.25000	0.250	34.83- 52.25	43.54	
2.560	2.560	0.000	1007	0.25000	0.250	29.33- 43.99	36.67	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22405	0.05000	0.0497			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14837	0.05000	0.0475			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

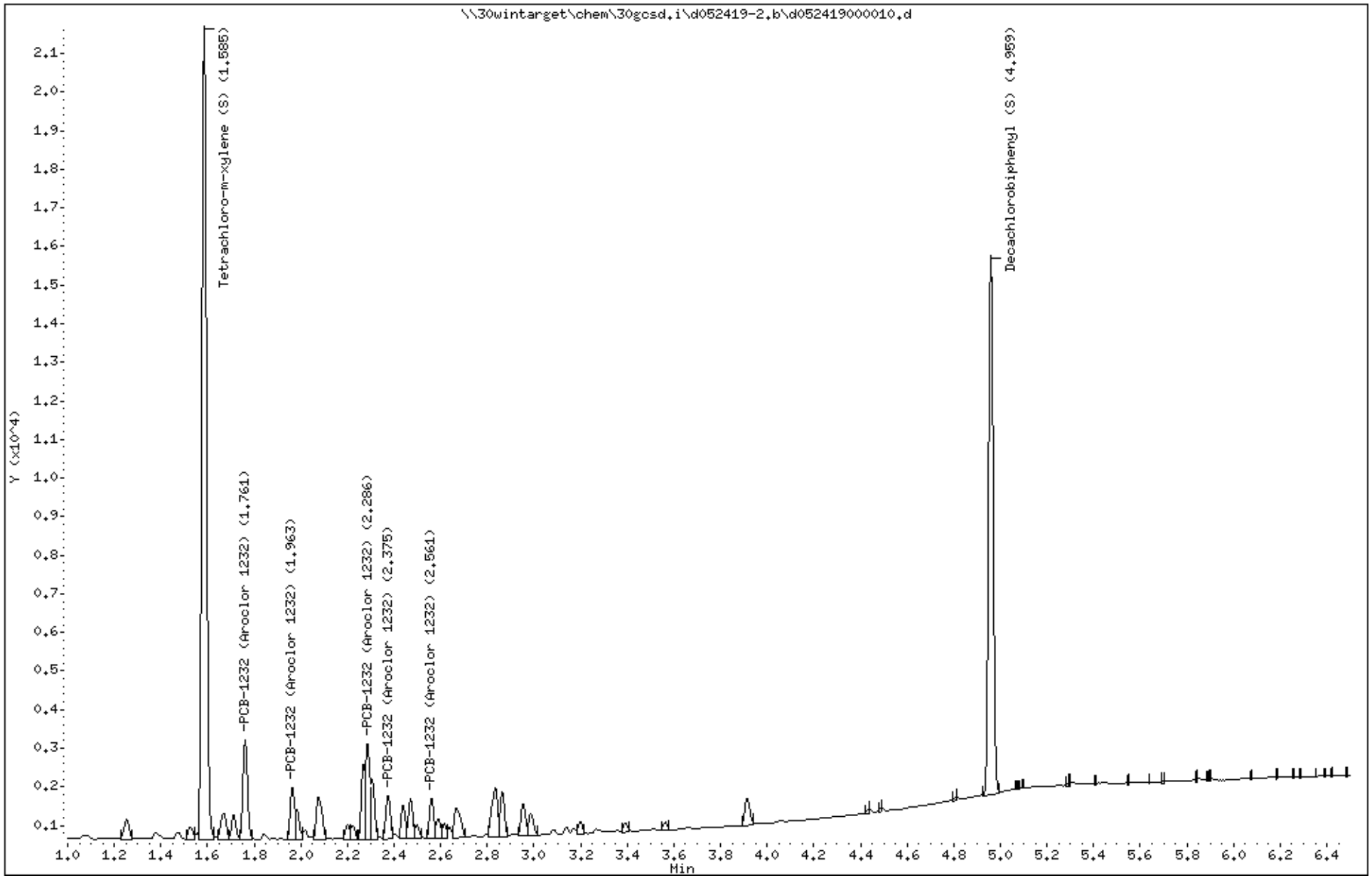
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

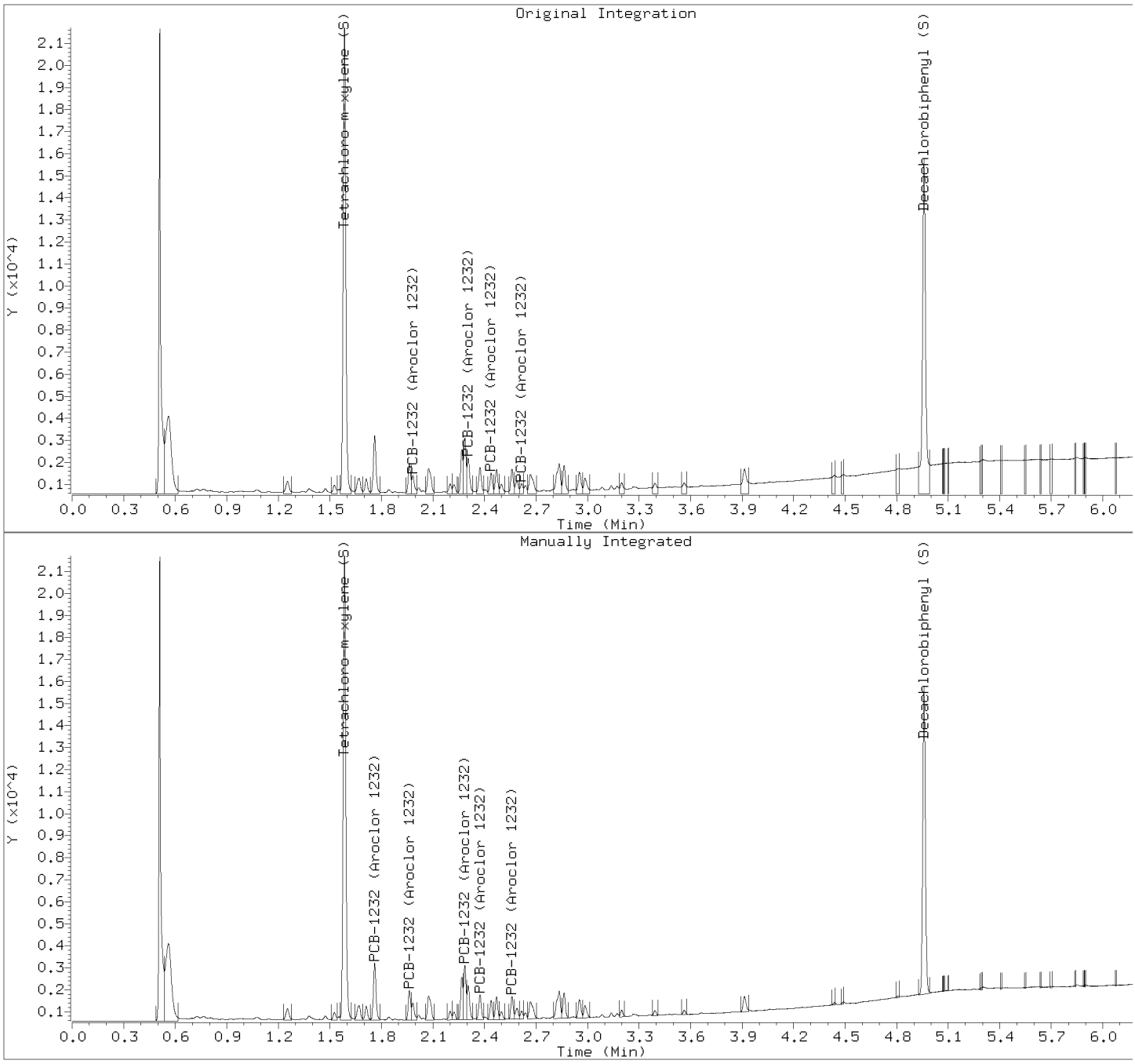
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11141-16-5	PCB-1232 (Aroclor 1232)		J
	Peak found at 1.761	0.250	J
	Peak found at 1.963	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0497	J
2051-24-3	Decachlorobiphenyl (S)	0.0475	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87760:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	0	2747
PCB-1232 (Aroclor 1232)	895	1291
PCB-1232 (Aroclor 1232)	1690	2421
PCB-1232 (Aroclor 1232)	977	1196
PCB-1232 (Aroclor 1232)	476	1007
Tetrachloro-m-xylene (S)	22563	22405
Decachlorobiphenyl (S)	19679	14837

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	888	1019	1.148	1.099		
0.542	3967	1653	0.417	1.783		
1.210	25115	21526	0.857	23.252	$ 10 Tetrachloro-m-xylene (S)	
1.344	482	372	0.772	0.401		
1.376	327	313	0.957	0.337		
1.400	396	377	0.952	0.406		
1.441	1866	1715	0.919	1.850	4 PCB-1242 (Aroclor 1242)	
1.632	3934	3022	0.768	3.261	4 PCB-1242 (Aroclor 1242)	
1.694	662	397	0.600	0.428		
1.745	993	1222	1.231	1.318		
1.760	1615	1594	0.987	1.720		
1.807	682	747	1.096	0.806		
1.826	848	790	0.932	0.852		
1.879	7907	6059	0.766	6.538	4 PCB-1242 (Aroclor 1242)	
1.933	3105	2897	0.933	3.126	4 PCB-1242 (Aroclor 1242)	
2.008	1829	2054	1.123	2.216		
2.036	2351	2205	0.938	2.379		
2.063	1580	1769	1.120	1.909		
2.077	1763	1705	0.967	1.839		
2.189	2463	2663	1.081	2.873	4 PCB-1242 (Aroclor 1242)	
2.213	975	1038	1.064	1.120		
2.239	728	832	1.143	0.897		
2.255	642	746	1.162	0.805		
2.278	2289	2243	0.980	2.420		
2.346	718	694	0.967	0.748		
2.375	1480	1611	1.089	1.738		
2.402	2512	2709	1.078	2.923		
2.429	2940	2945	1.002	3.178		
2.473	291	316	1.084	0.341		
2.510	678	658	0.970	0.710		
2.560	1663	1457	0.876	1.572		
2.581	1611	1355	0.841	1.462		
2.676	366	388	1.061	0.418		
2.728	605	637	1.052	0.687		
2.763	384	424	1.104	0.457		
2.791	882	936	1.061	1.010		
2.898	401	370	0.923	0.399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.924	672	726	1.080	0.783		
3.147	634	655	1.033	0.706		
3.228	297	279	0.940	0.301		
3.369	1107	913	0.825	0.985		
3.973	80	139	1.735	0.150		
4.038	61	97	1.583	0.104		
4.344	83	130	1.571	0.140		
4.500	16201	15974	0.986	17.238	$ 11 Decachlorobiphenyl (S)	
4.815	69	85	1.225	0.091		
4.862	94	147	1.563	0.158		
5.242	35	62	1.790	0.066		
	101271	92665		100.000		

Total unknown % height = 41.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)						CAS #: 53469-21-9		
1.440	1.440	0.000	1866	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	3934	0.25000	0.250	168.66- 252.99	210.80	
1.878	1.878	0.000	7907	0.25000	0.250	338.99- 508.49	423.71	
1.932	1.932	0.000	3105	0.25000	0.250	133.12- 199.68	166.40	
2.188	2.188	0.000	2463	0.25000	0.250	105.59- 158.39	131.98	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25115	0.05000	0.0498			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	16201	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

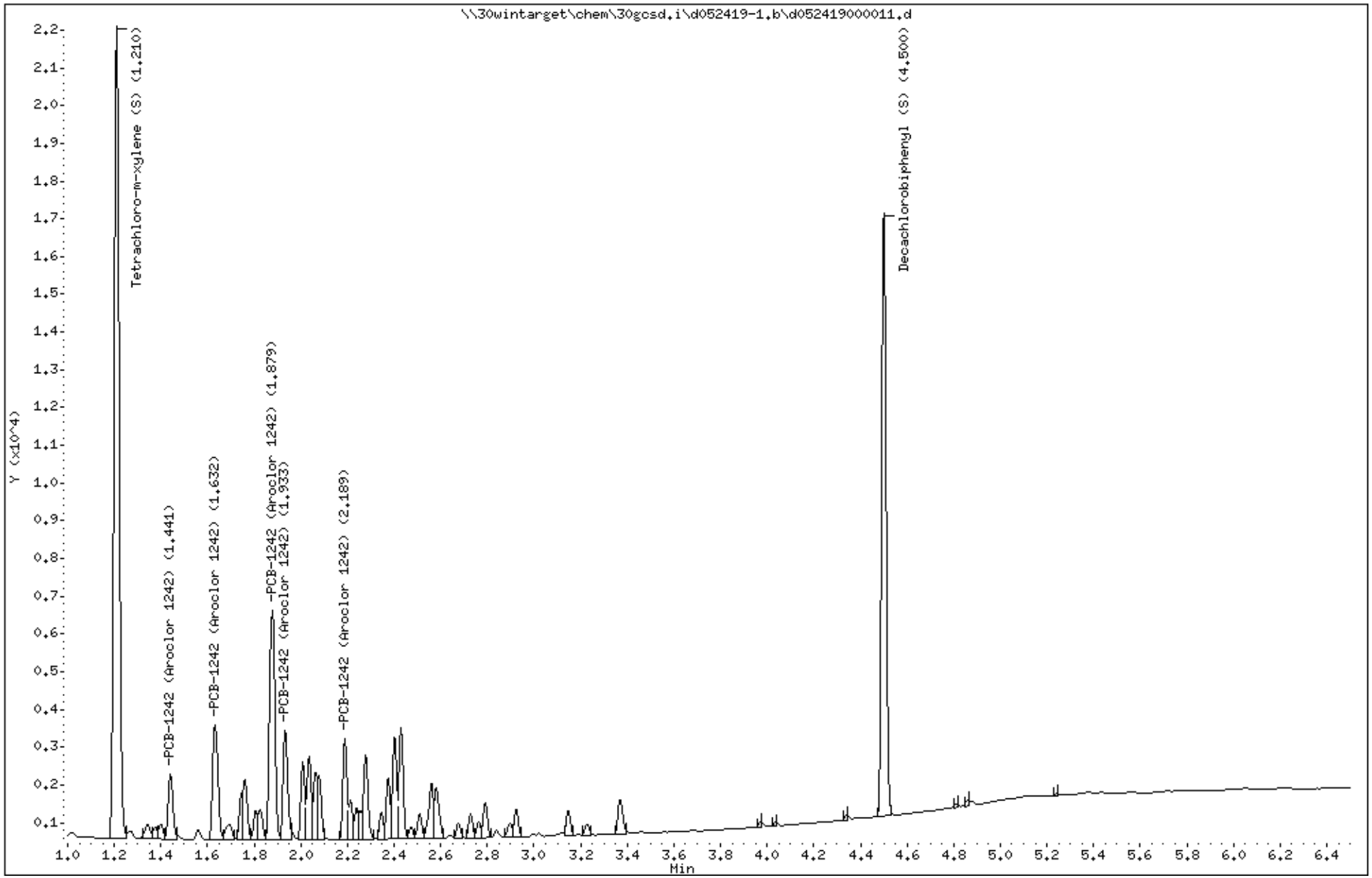
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

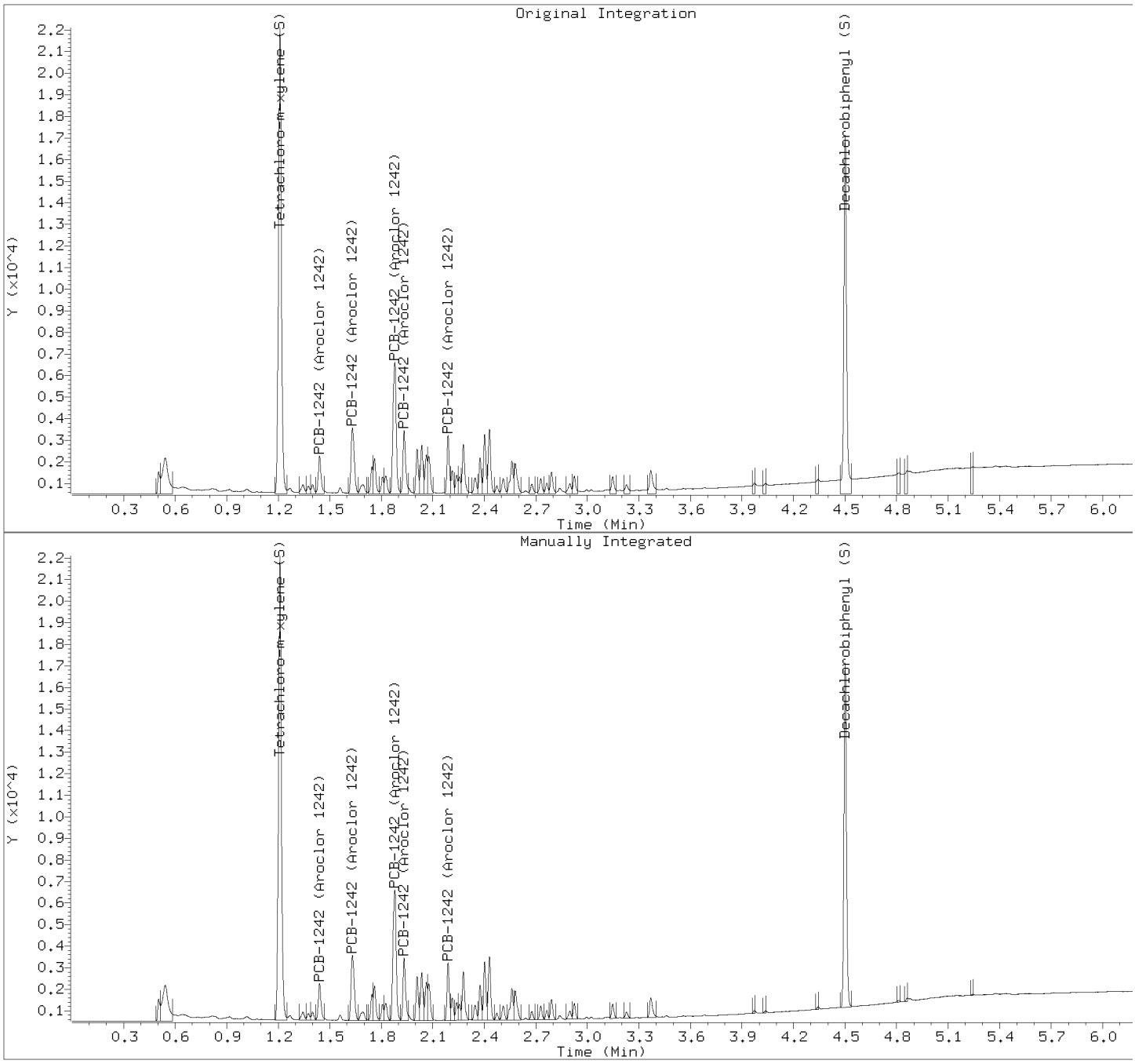
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
53469-21-9	PCB-1242 (Aroclor 1242)		
	Peak found at 1.441	0.250	
	Peak found at 1.632	0.250	
	Peak found at 1.879	0.250	
	Peak found at 1.933	0.250	
	Peak found at 2.189	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0498	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	1944	1866
PCB-1242 (Aroclor 1242)	4007	3934
PCB-1242 (Aroclor 1242)	7984	7907
PCB-1242 (Aroclor 1242)	3160	3105
PCB-1242 (Aroclor 1242)	2499	2463
Tetrachloro-m-xylene (S)	25294	25115
Decachlorobiphenyl (S)	18530	16201

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	1852	3928	2.120	4.544		
0.565	3768	1764	0.468	2.040		
1.586	22524	21344	0.948	24.730	$ 10 Tetrachloro-m-xylene (S)	
1.713	356	335	0.941	0.387		
1.762	1891	1795	0.949	2.076	4 PCB-1242 (Aroclor 1242)	
1.964	2187	2301	1.052	2.661	4 PCB-1242 (Aroclor 1242)	
1.984	1316	1328	1.009	1.536		
2.019	286	285	0.996	0.329		
2.076	2352	1514	0.644	1.751		
2.201	608	637	1.047	0.736		
2.225	866	816	0.942	0.943		
2.269	2958	3429	1.159	3.966		
2.286	4197	4259	1.015	4.927	4 PCB-1242 (Aroclor 1242)	
2.306	2716	2634	0.970	3.047		
2.375	2094	1934	0.924	2.237	4 PCB-1242 (Aroclor 1242)	
2.439	1649	1689	1.024	1.953		
2.471	1938	1966	1.014	2.274		
2.499	738	674	0.913	0.779		
2.561	1934	1991	1.029	2.303	4 PCB-1242 (Aroclor 1242)	
2.590	1072	957	0.893	1.107		
2.617	676	703	1.039	0.813		
2.639	535	545	1.018	0.630		
2.667	2420	1515	0.626	1.752		
2.835	3753	2447	0.652	2.830		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.864	2278	2280	1.001	2.637		
2.954	1870	1662	0.889	1.922		
2.987	1403	1114	0.794	1.288		
3.086	320	304	0.950	0.351		
3.139	452	449	0.993	0.519		
3.173	373	346	0.927	0.400		
3.199	741	733	0.989	0.847		
3.268	233	244	1.048	0.282		
3.393	608	583	0.959	0.674		
3.563	511	511	0.999	0.591		
3.661	81	133	1.636	0.153		
3.914	859	703	0.819	0.813		
4.439	78	101	1.287	0.116		
4.490	42	81	1.914	0.093		
4.809	109	117	1.072	0.135		
4.960	15347	14225	0.927	16.456	$ 11 Decachlorobiphenyl (S)	
5.116	8	26	3.202	0.030		
5.250	60	70	1.165	0.080		
5.298	88	143	1.617	0.165		
5.438	19	51	2.727	0.058		
5.554	13	49	3.687	0.056		
5.564	20	57	2.830	0.065		
5.600	20	78	3.881	0.090		
5.684	26	91	3.515	0.105		
5.823	36	152	4.274	0.175		
5.846	151	242	1.607	0.279		
5.892	64	208	3.267	0.240		
5.940	42	121	2.866	0.139		
6.008	24	105	4.303	0.121		
6.058	38	88	2.313	0.101		
6.067	28	85	3.040	0.098		
6.103	30	67	2.260	0.077		
6.209	14	63	4.605	0.072		
6.215	18	57	3.120	0.065		
6.228	22	62	2.821	0.071		
6.245	29	63	2.207	0.072		
6.257	15	57	3.810	0.065		
6.395	5	26	5.000	0.030		
6.421	7	29	3.973	0.033		
6.427	7	29	4.252	0.033		
6.454	6	28	4.930	0.032		
6.487	5	18	3.333	0.020		
	90787	86441		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
1.761	1.761	0.000	1890	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	2186	0.25000	0.250	92.53- 138.79	115.68	
2.286	2.286	0.000	4196	0.25000	0.250	177.61- 266.41	221.99	
2.374	2.374	0.000	2094	0.25000	0.250	88.63- 132.95	110.77	
2.560	2.560	0.000	1934	0.25000	0.250	81.86- 122.79	102.32	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	22523	0.05000	0.0499			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15346	0.05000	0.0488			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

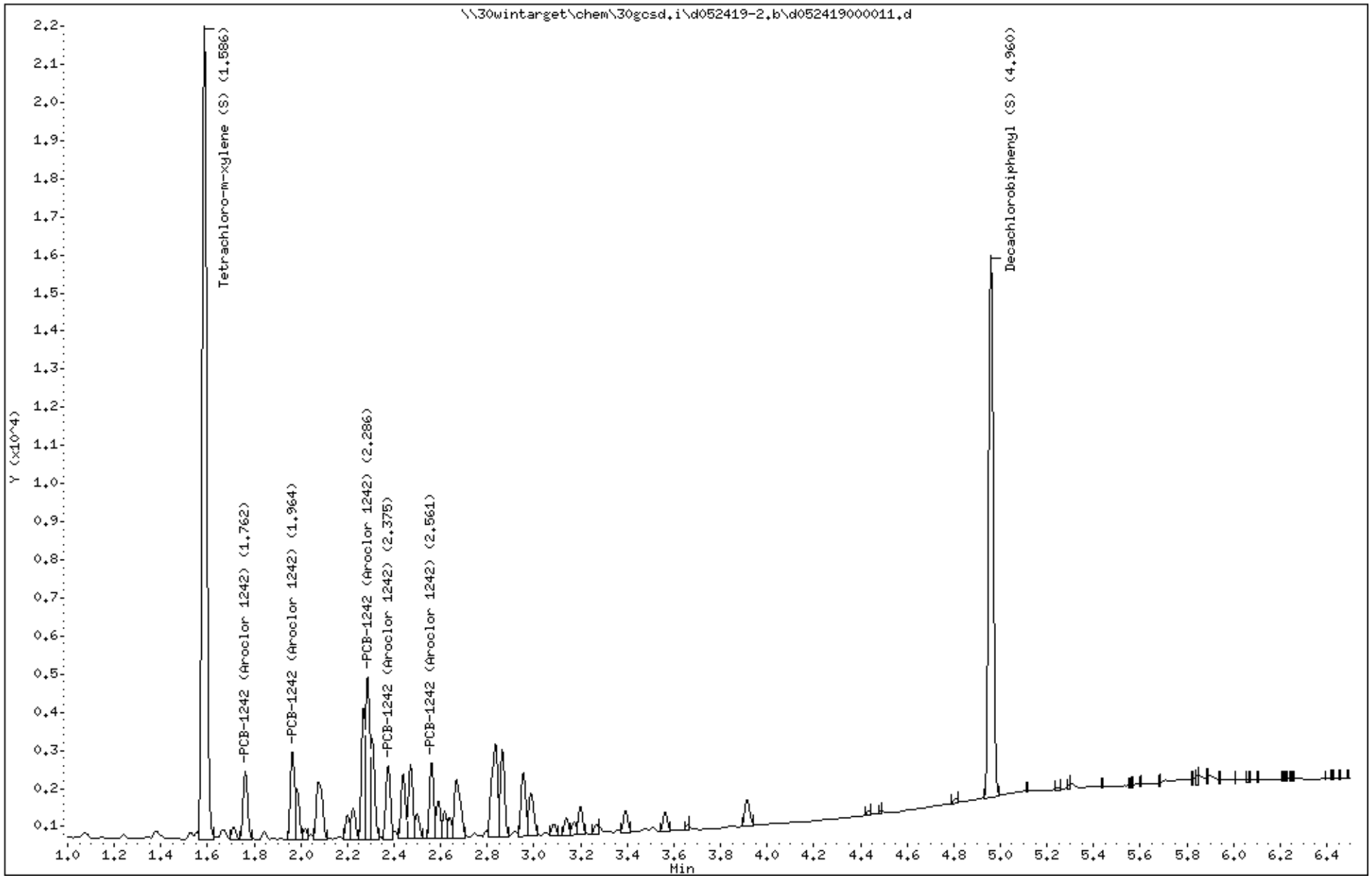
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
53469-21-9	PCB-1242 (Aroclor 1242)		J
	Peak found at 1.762	0.250	J
	Peak found at 1.964	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0499	J
2051-24-3	Decachlorobiphenyl (S)	0.0488	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



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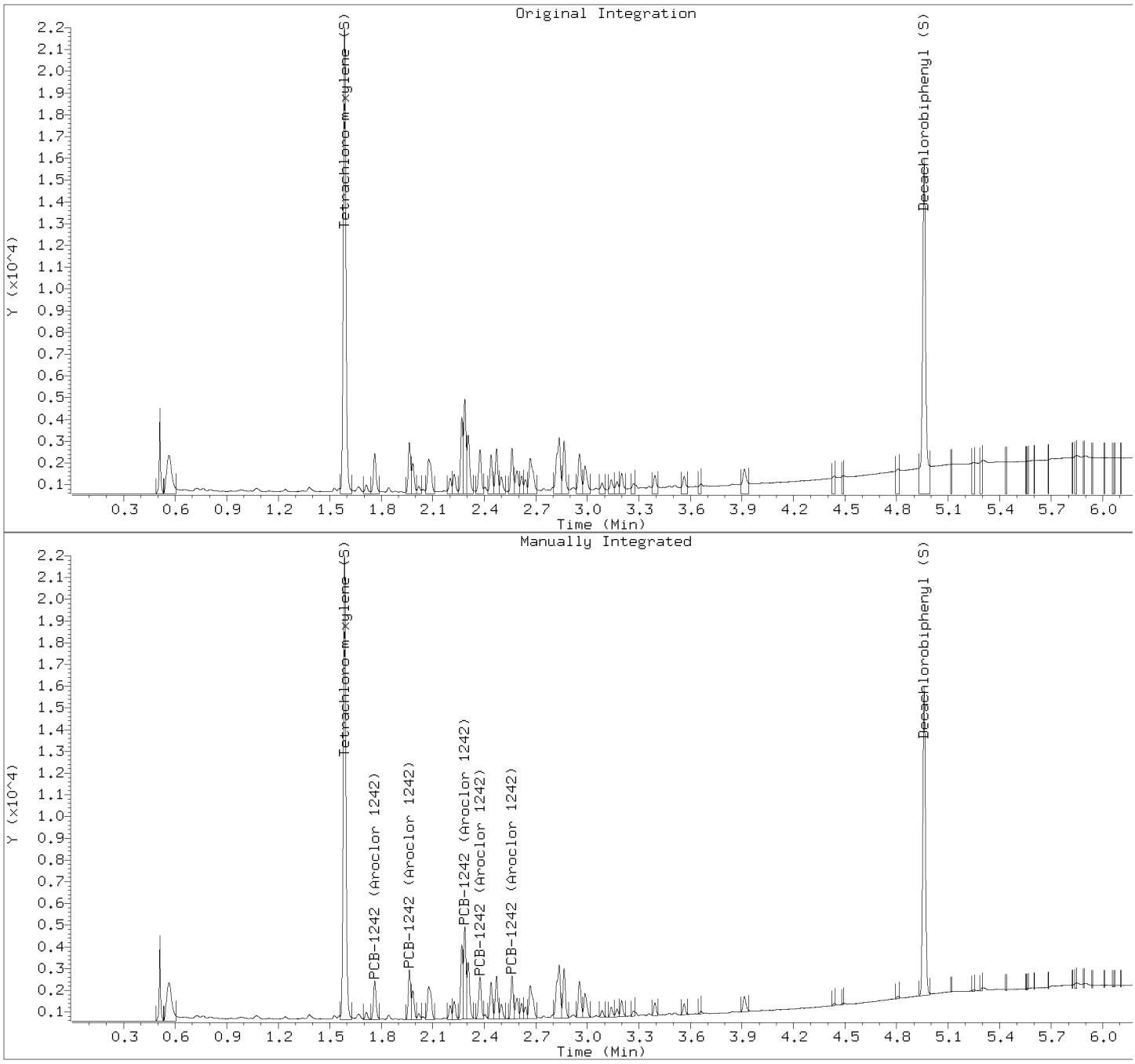
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	0	1890
PCB-1242 (Aroclor 1242)	0	2186
PCB-1242 (Aroclor 1242)	0	4196
PCB-1242 (Aroclor 1242)	0	2094
PCB-1242 (Aroclor 1242)	0	1934
Tetrachloro-m-xylene (S)	22784	22523
Decachlorobiphenyl (S)	19977	15346

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.547	410	285	0.696	0.272		
0.591	1961	869	0.443	0.831		
1.209	25304	21596	0.853	20.687	$ 10 Tetrachloro-m-xylene (S)	
1.375	330	314	0.953	0.300		
1.630	2043	1645	0.805	1.574		
1.745	604	688	1.140	0.658		
1.759	623	648	1.041	0.620		
1.877	5873	4432	0.755	4.241	5 PCB-1248 (Aroclor 1248)	
1.932	1842	1857	1.008	1.777		
2.008	1026	1159	1.130	1.109		
2.035	3872	3728	0.963	3.567	5 PCB-1248 (Aroclor 1248)	
2.062	2562	2771	1.082	2.651		
2.077	2603	2553	0.981	2.443		
2.188	3978	4280	1.076	4.096	5 PCB-1248 (Aroclor 1248)	
2.212	1465	1554	1.061	1.487		
2.238	1603	1404	0.876	1.343		
2.278	3494	3512	1.005	3.361	5 PCB-1248 (Aroclor 1248)	
2.345	1118	1064	0.951	1.018		
2.375	2668	2892	1.084	2.767		
2.401	4715	5070	1.075	4.852		
2.429	5685	5656	0.995	5.412	5 PCB-1248 (Aroclor 1248)	
2.473	720	754	1.047	0.721		
2.510	1507	1530	1.015	1.464		
2.546	715	1228	1.718	1.175		
2.560	2540	2575	1.014	2.464		
2.580	3063	2362	0.771	2.260		
2.676	899	932	1.037	0.891		
2.728	1487	1548	1.041	1.481		
2.763	940	1040	1.106	0.995		
2.791	2374	2440	1.028	2.335		
2.839	390	304	0.780	0.290		
2.898	1054	914	0.867	0.874		
2.924	1708	1784	1.044	1.707		
2.995	254	262	1.030	0.250		
3.147	1608	1676	1.042	1.603		
3.227	586	503	0.858	0.481		
3.369	1557	1267	0.814	1.212		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.584	218	231	1.061	0.221		
3.826	120	195	1.623	0.186		
4.152	48	83	1.731	0.079		
4.501	14933	14702	0.985	14.069	$ 11 Decachlorobiphenyl (S)	
4.814	46	73	1.584	0.069		
4.863	84	112	1.340	0.107		
	110629	104492		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
1.877	1.877	0.000	5872	0.25000	0.250	80.00- 120.00	100.00	
2.035	2.035	0.000	3872	0.25000	0.250	52.75- 79.13	65.94	
2.188	2.188	0.000	3978	0.25000	0.250	54.20- 81.29	67.75	
2.277	2.277	0.000	3494	0.25000	0.250	47.60- 71.40	59.50	
2.428	2.428	0.000	5685	0.25000	0.250	77.45- 116.18	96.81	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25304	0.05000	0.0501			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	14932	0.05000	0.0455			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

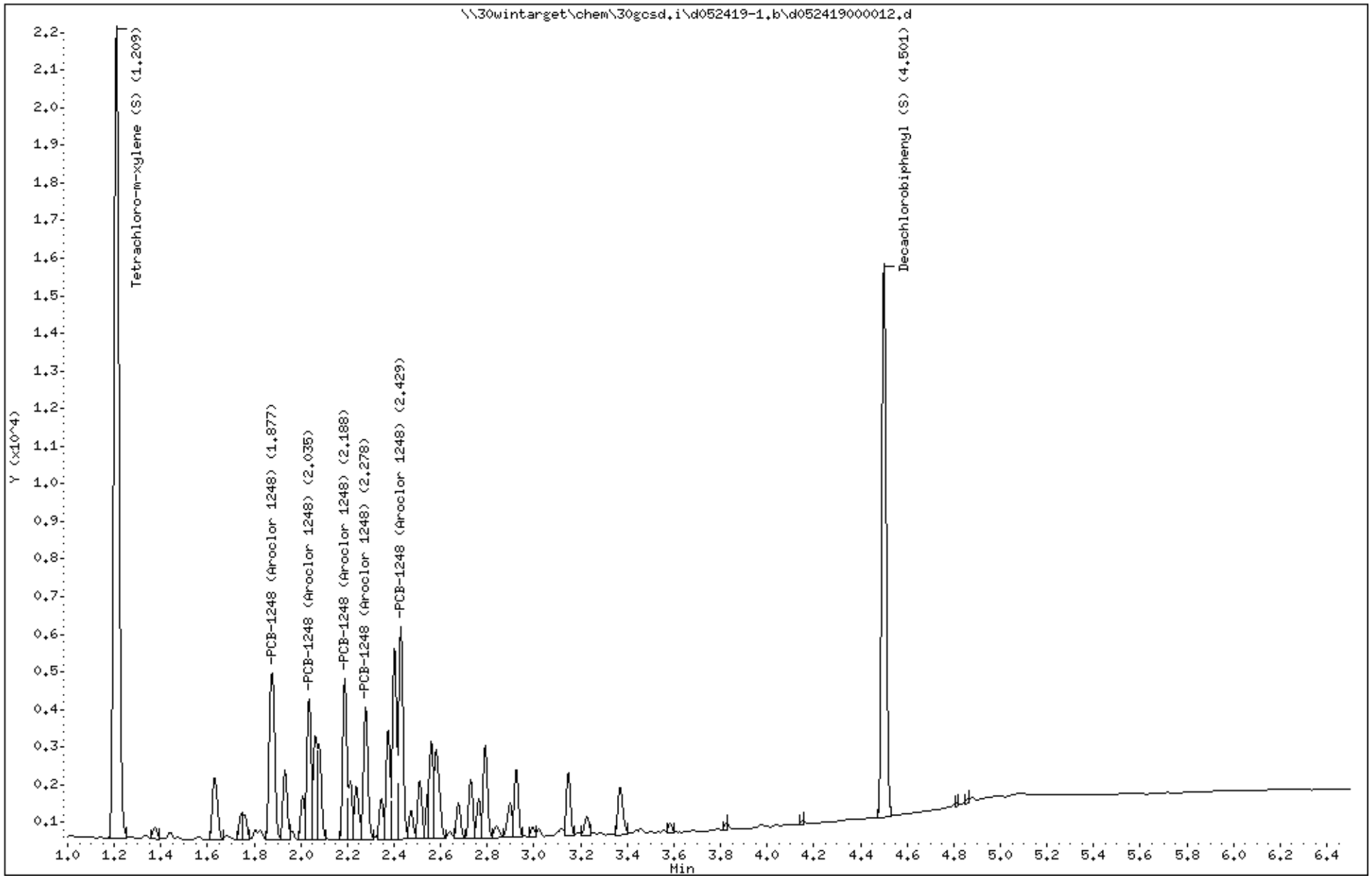
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

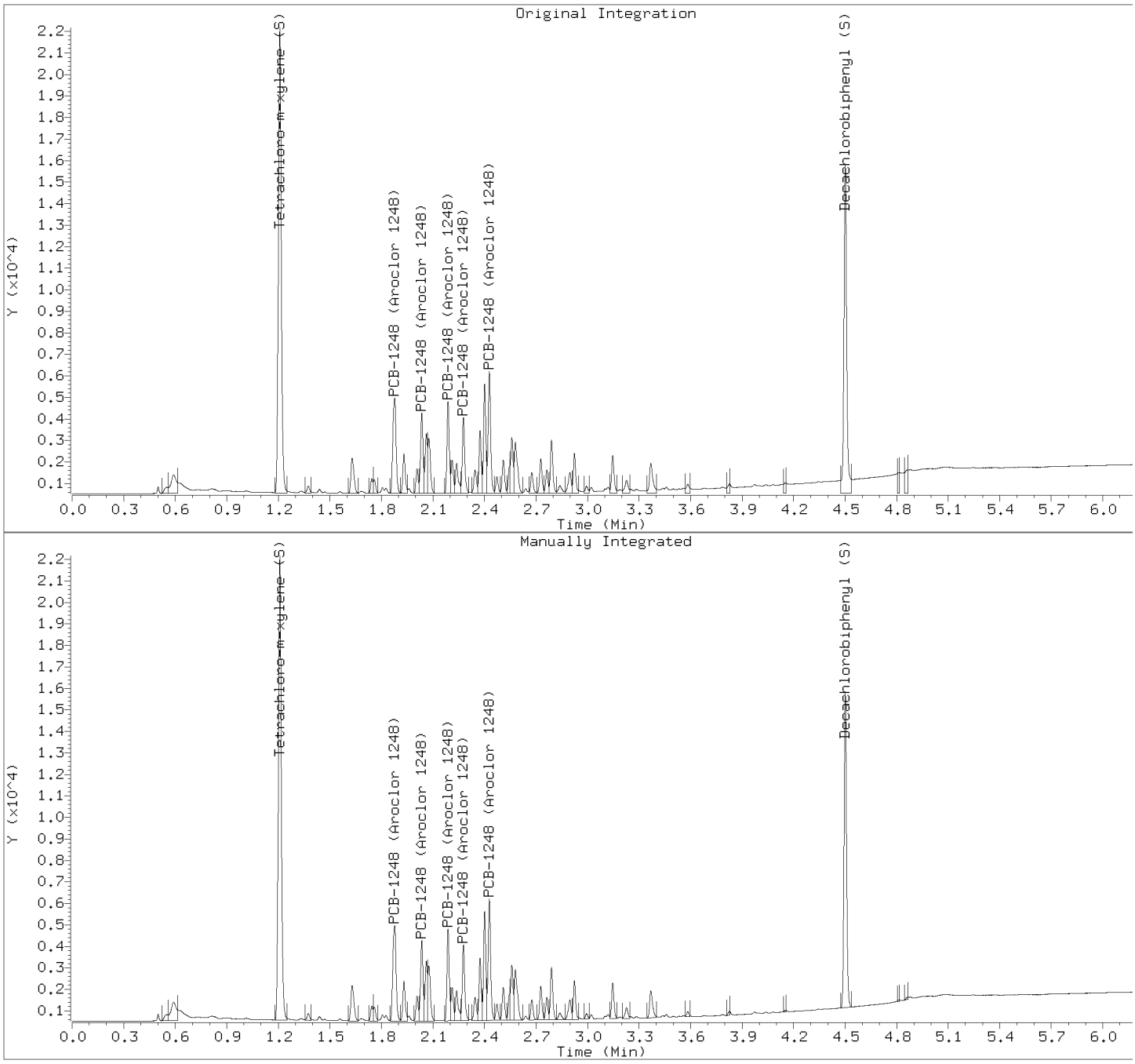
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12672-29-6	PCB-1248 (Aroclor 1248)		
	Peak found at 1.877	0.250	
	Peak found at 2.035	0.250	
	Peak found at 2.188	0.250	
	Peak found at 2.278	0.250	
	Peak found at 2.429	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0501	
2051-24-3	Decachlorobiphenyl (S)	0.0455	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	5857	5872
PCB-1248 (Aroclor 1248)	3850	3872
PCB-1248 (Aroclor 1248)	3962	3978
PCB-1248 (Aroclor 1248)	3506	3494
PCB-1248 (Aroclor 1248)	5722	5685
Tetrachloro-m-xylene (S)	25444	25304
Decachlorobiphenyl (S)	17105	14932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1037	1478	1.426	1.516		
0.566	599	506	0.844	0.519		
0.622	2352	967	0.411	0.991		
0.731	810	520	0.642	0.533		
1.073	437	412	0.943	0.422		
1.554	106	120	1.132	0.123		
1.586	22644	21310	0.941	21.891	$ 10 Tetrachloro-m-xylene (S)	
1.759	422	413	0.980	0.423		
1.964	1242	1288	1.037	1.321		
1.984	503	537	1.068	0.550		
2.086	1028	667	0.649	0.684		
2.200	221	228	1.033	0.233		
2.226	267	258	0.967	0.264		
2.268	2429	2724	1.122	2.794		
2.285	3077	3079	1.001	3.158	5 PCB-1248 (Aroclor 1248)	CO
2.305	1406	1362	0.968	1.397		
2.373	1495	1298	0.868	1.331		
2.404	254	256	1.007	0.262		
2.439	2890	2979	1.031	3.055	5 PCB-1248 (Aroclor 1248)	CO
2.471	2921	2975	1.018	3.051		
2.499	1241	1169	0.942	1.199		
2.560	3272	3401	1.039	3.488	5 PCB-1248 (Aroclor 1248)	CO
2.590	1462	1370	0.937	1.405		
2.616	1135	1167	1.028	1.197		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.638	638	671	1.052	0.688		
2.666	2564	2457	0.958	2.520	5 PCB-1248 (Aroclor 1248)	CO
2.682	377	1053	2.794	1.080		
2.798	144	234	1.624	0.240		
2.823	2237	3262	1.458	3.346		
2.835	5098	4585	0.899	4.703	5 PCB-1248 (Aroclor 1248)	CO
2.864	4276	4244	0.993	4.353		
2.922	278	263	0.945	0.269		
2.954	3760	3287	0.874	3.371		
2.987	2726	1999	0.733	2.050		
3.051	125	169	1.354	0.173		
3.085	771	744	0.965	0.763		
3.138	1142	1107	0.969	1.135		
3.172	934	878	0.940	0.900		
3.199	1971	1962	0.996	2.012		
3.268	821	598	0.729	0.613		
3.308	172	178	1.036	0.182		
3.357	119	197	1.662	0.202		
3.392	1463	1426	0.975	1.462		
3.478	227	214	0.943	0.219		
3.505	115	156	1.362	0.160		
3.563	1359	1348	0.992	1.382		
3.661	355	328	0.925	0.336		
3.845	84	115	1.363	0.117		
3.913	1239	992	0.800	1.017		
4.060	123	181	1.468	0.185		
4.247	90	130	1.441	0.133		
4.494	52	69	1.334	0.070		
4.617	50	86	1.709	0.088		
4.803	6	24	4.068	0.024		
4.959	14059	13126	0.934	13.464	$ 11 Decachlorobiphenyl (S)	
5.246	14	56	3.886	0.057		
5.298	55	102	1.841	0.104		
5.366	8	37	4.695	0.037		
5.489	13	44	3.364	0.045		
5.677	9	37	4.322	0.037		
5.711	15	64	4.148	0.065		
5.728	14	49	3.518	0.050		
5.767	9	43	4.694	0.044		
5.810	12	34	2.916	0.034		
5.833	12	45	3.886	0.046		
5.839	15	51	3.488	0.052		
5.891	24	69	2.844	0.070		
5.899	41	83	2.025	0.085		
6.162	9	42	4.924	0.043		
6.184	11	46	4.144	0.047		
6.233	20	50	2.498	0.051		
6.361	5	27	5.895	0.027		
6.404	5	21	4.303	0.021		
6.427	7	21	3.211	0.021		
	100918	97488		100.000		

Total unknown % height = 47.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
2.285	2.285	0.000	3077	0.25000	0.250	80.00- 120.00	100.00(aM)	CO
2.438	2.438	0.000	2889	0.25000	0.250	75.11- 112.67	93.92	CO
2.560	2.560	0.000	3271	0.25000	0.250	85.04- 127.57	106.33	CO
2.666	2.666	0.000	2563	0.25000	0.250	66.64- 99.95	83.31	CO
2.834	2.834	0.000	5098	0.25000	0.250	132.54- 198.82	165.68	CO
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22643	0.05000	0.0502			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.958	4.960	-0.002	14059	0.05000	0.0454		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
:

Pace Analytical Services, Inc.

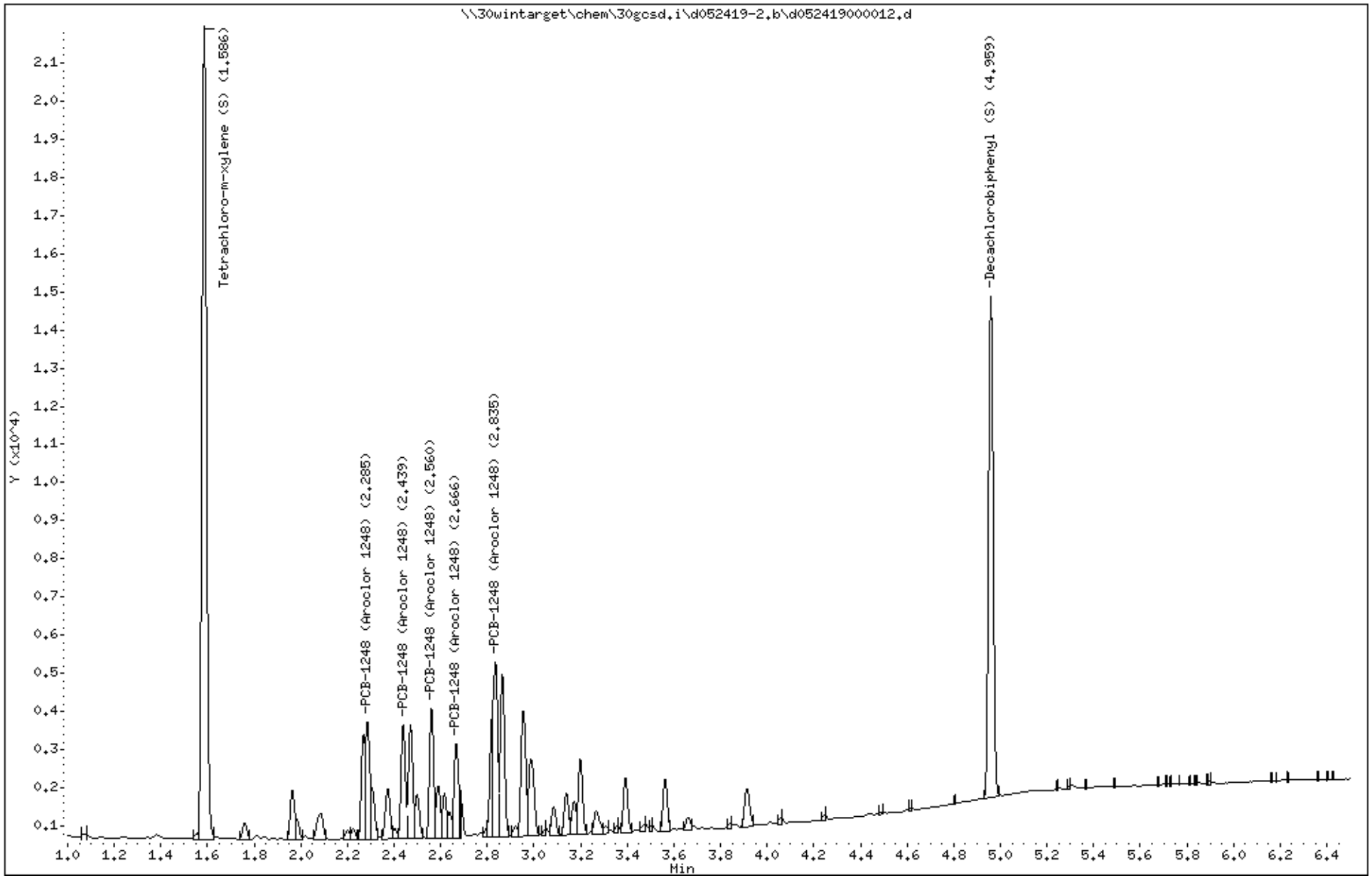
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

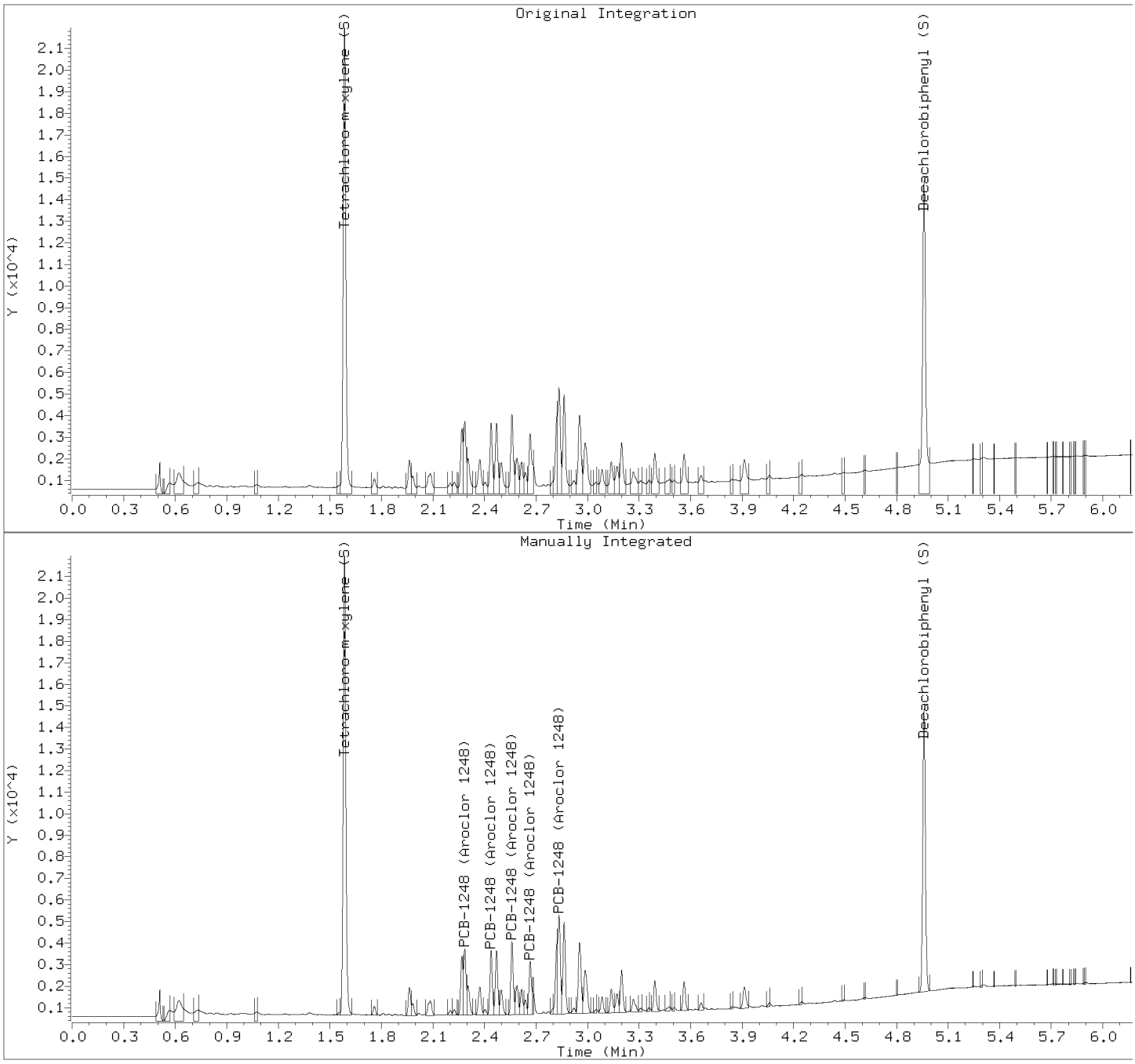
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12672-29-6	PCB-1248 (Aroclor 1248)		J
	Peak found at 2.285	0.250	J
	Peak found at 2.439	0.250	J
	Peak found at 2.560	0.250	J
	Peak found at 2.666	0.250	J
	Peak found at 2.835	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0502	
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86156:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	0	3077
PCB-1248 (Aroclor 1248)	0	2889
PCB-1248 (Aroclor 1248)	0	3271
PCB-1248 (Aroclor 1248)	0	2563
PCB-1248 (Aroclor 1248)	0	5098
Tetrachloro-m-xylene (S)	23722	22643
Decachlorobiphenyl (S)	18977	14059

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	489	461	0.942	0.405		
0.714	8162	4394	0.538	3.868		
1.021	285	217	0.761	0.191		
1.210	23752	20379	0.858	17.965	$ 10 Tetrachloro-m-xylene (S)	
1.314	813	677	0.833	0.596		
2.036	2429	2585	1.064	2.276		
2.062	911	778	0.854	0.685		
2.188	1434	1519	1.059	1.337		
2.278	529	568	1.073	0.500		
2.375	619	683	1.103	0.601		
2.402	2084	2328	1.117	2.049		
2.426	4533	4510	0.995	3.970	6 PCB-1254 (Aroclor 1254)	
2.473	1615	1715	1.062	1.510		
2.510	4937	5186	1.050	4.566	6 PCB-1254 (Aroclor 1254)	
2.545	2421	2257	0.932	1.987		
2.594	1826	1716	0.940	1.510		
2.639	369	388	1.051	0.341		
2.677	1826	1912	1.047	1.683		
2.729	3904	4052	1.038	3.567		
2.763	1190	1309	1.100	1.152		
2.792	7865	7801	0.992	6.868	6 PCB-1254 (Aroclor 1254)	
2.830	744	756	1.016	0.665		
2.852	340	303	0.890	0.266		
2.887	3770	2864	0.760	2.521		
2.924	5069	5258	1.037	4.629	6 PCB-1254 (Aroclor 1254)	
2.955	607	634	1.045	0.558		
2.995	3354	3095	0.923	2.725		
3.103	929	1210	1.302	1.065		
3.120	2124	2106	0.992	1.854		
3.148	3435	3276	0.954	2.884		
3.191	849	793	0.934	0.698		
3.227	6804	5419	0.796	4.771	6 PCB-1254 (Aroclor 1254)	
3.284	650	623	0.958	0.548		
3.369	1759	1478	0.840	1.301		
3.438	274	336	1.228	0.295		
3.460	1686	1660	0.985	1.461		
3.500	194	198	1.023	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.533	211	234	1.108	0.206		
3.558	958	1019	1.063	0.897		
3.584	945	758	0.802	0.667		
3.826	740	716	0.968	0.630		
3.973	268	265	0.987	0.233		
4.037	37	65	1.772	0.057		
4.500	15002	14730	0.982	12.969	$ 11 Decachlorobiphenyl (S)	
4.813	62	94	1.527	0.082		
4.862	99	144	1.450	0.126		
5.242	77	86	1.113	0.075		
5.666	5	19	3.740	0.016		
	122986	113574		100.000		

Total unknown % height = 44.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.425	2.425	0.000	4533	0.25000	0.250	80.00- 120.00	100.00	
2.509	2.509	0.000	4937	0.25000	0.250	87.13- 130.69	108.91	
2.791	2.791	0.000	7864	0.25000	0.250	138.79- 208.18	173.49	
2.924	2.924	0.000	5068	0.25000	0.250	89.44- 134.16	111.82	
3.226	3.226	0.000	6804	0.25000	0.250	120.08- 180.12	150.10	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	23751	0.05000	0.0475			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15001	0.05000	0.0457			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

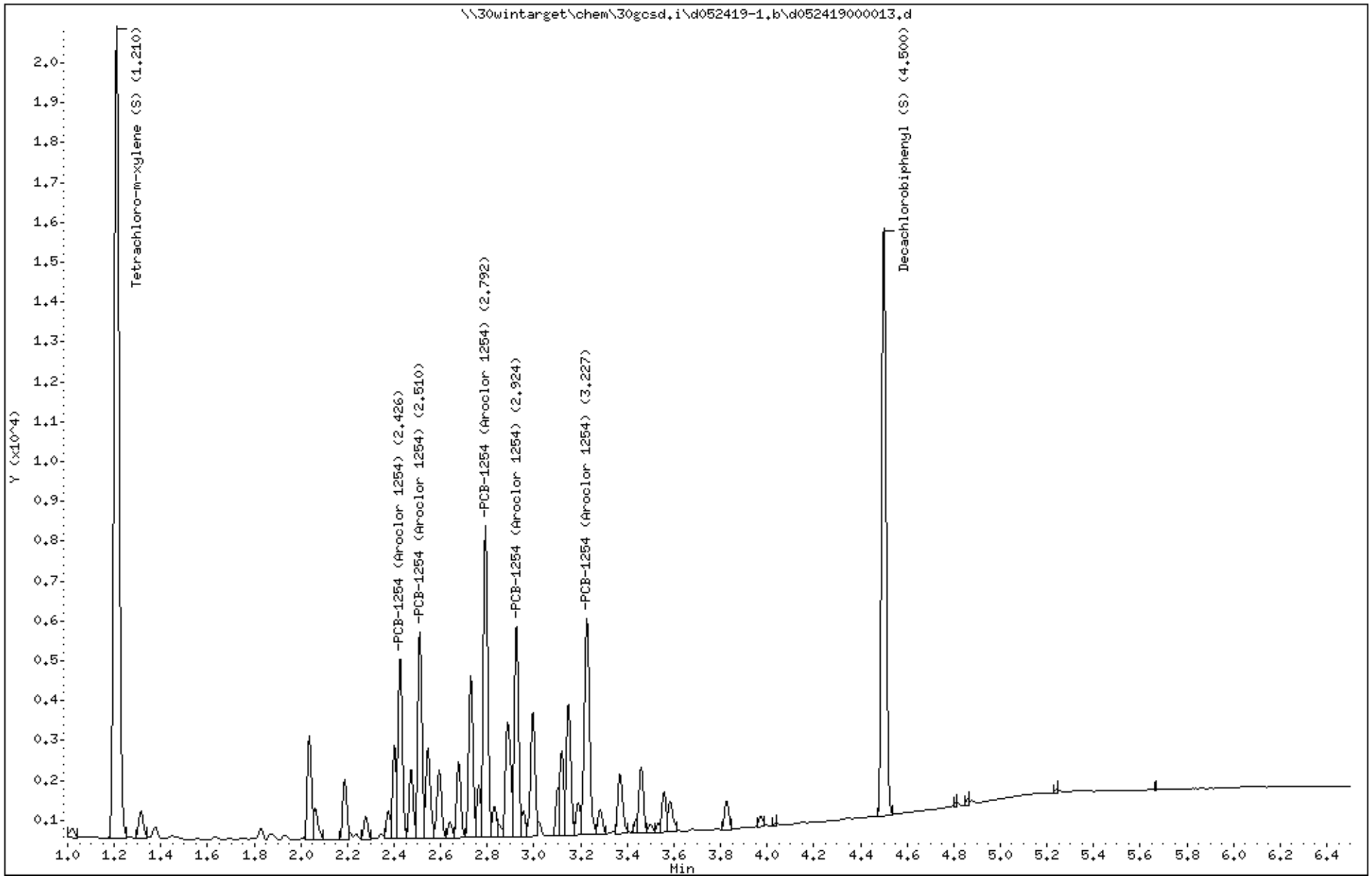
Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11097-69-1	PCB-1254 (Aroclor 1254)		
	Peak found at 2.426	0.250	
	Peak found at 2.510	0.250	
	Peak found at 2.792	0.250	
	Peak found at 2.924	0.250	
	Peak found at 3.227	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0475	
2051-24-3	Decachlorobiphenyl (S)	0.0457	

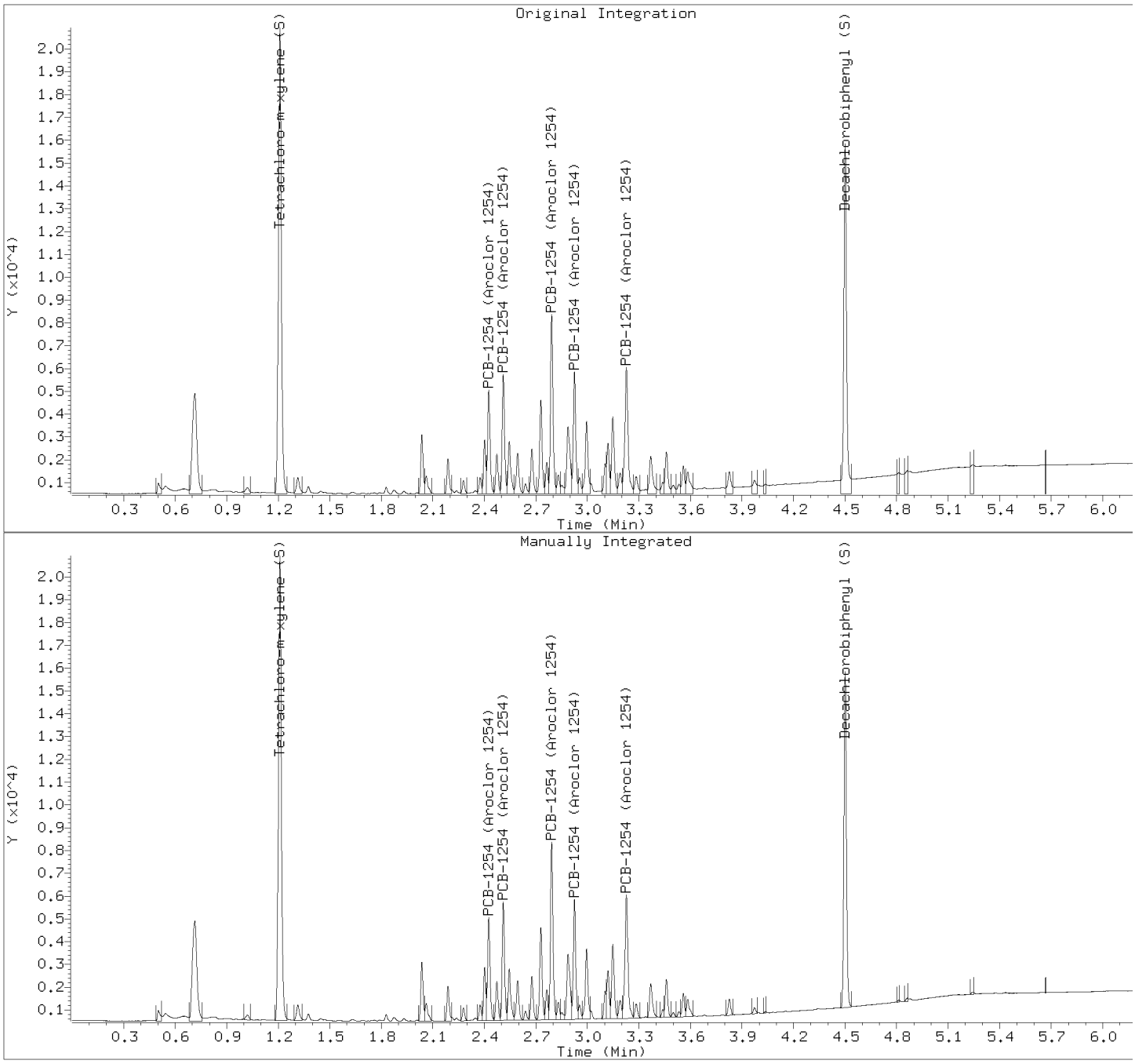
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32

Column phase: DB-CLP1



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	4578	4533
PCB-1254 (Aroclor 1254)	5002	4937
PCB-1254 (Aroclor 1254)	8012	7864
PCB-1254 (Aroclor 1254)	5215	5068
PCB-1254 (Aroclor 1254)	7278	6804
Tetrachloro-m-xylene (S)	23868	23751
Decachlorobiphenyl (S)	17224	15001

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	1164	1715	1.474	1.697		
0.565	444	358	0.806	0.354		
0.827	7649	4268	0.558	4.225		
1.249	181	204	1.130	0.201		
1.586	22006	20206	0.918	20.034	$ 10 Tetrachloro-m-xylene (S)	
1.759	291	293	1.006	0.290		
2.227	300	303	1.011	0.299		
2.439	2119	2167	1.023	2.145		
2.471	646	636	0.984	0.629		
2.561	1221	1245	1.020	1.232		
2.666	475	470	0.990	0.465		
2.817	3678	3626	0.986	3.589	6 PCB-1254 (Aroclor 1254)	
2.835	1933	2141	1.107	2.119		
2.865	1134	1119	0.986	1.107		
2.922	850	875	1.029	0.866		
2.959	5741	5239	0.913	5.186	6 PCB-1254 (Aroclor 1254)	
2.996	1983	1873	0.945	1.854		
3.051	384	329	0.856	0.325		
3.085	1567	1535	0.980	1.519		
3.139	3176	3105	0.978	3.073		
3.172	1572	1261	0.802	1.248		
3.199	6066	6090	1.004	6.028	6 PCB-1254 (Aroclor 1254)	
3.247	474	551	1.161	0.545		
3.266	1387	1035	0.746	1.024		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.308	2472	2083	0.843	2.062		
3.358	432	406	0.940	0.401		
3.392	4660	4537	0.974	4.491	6 PCB-1254 (Aroclor 1254)	
3.436	559	506	0.906	0.500		
3.479	2580	2455	0.952	2.430		
3.503	1726	1658	0.961	1.641		
3.562	3359	3014	0.897	2.983		
3.599	444	436	0.981	0.431		
3.628	664	535	0.805	0.529		
3.661	4753	4405	0.927	4.360	6 PCB-1254 (Aroclor 1254)	
3.686	1200	1214	1.012	1.201		
3.721	108	167	1.540	0.165		
3.758	86	144	1.673	0.142		
3.844	1446	1362	0.942	1.348		
3.914	1326	1009	0.761	0.998		
3.951	92	144	1.564	0.142		
4.015	861	845	0.981	0.836		
4.042	128	177	1.385	0.175		
4.060	624	581	0.931	0.575		
4.246	497	491	0.988	0.486		
4.437	173	179	1.036	0.177		
4.808	44	58	1.332	0.057		
4.929	5	17	3.184	0.016		
4.959	14086	13364	0.949	13.229	$ 11 Decachlorobiphenyl (S)	
5.069	7	21	3.070	0.020		
5.084	5	19	3.682	0.018		
5.237	4	21	4.839	0.020		
5.299	89	128	1.433	0.126		
5.626	7	32	4.469	0.031		
5.697	29	71	2.442	0.070		
5.701	34	85	2.468	0.084		
5.846	23	70	3.101	0.069		
5.893	65	110	1.682	0.108		
6.033	8	26	3.148	0.025		
	109038	101014		100.000		

Total unknown % height = 43.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.816	2.816	0.000	3678	0.25000	0.250	80.00- 120.00	100.00	(a)
2.958	2.958	0.000	5740	0.25000	0.250	124.85- 187.28	156.08	
3.198	3.198	0.000	6065	0.25000	0.250	131.92- 197.88	164.91	
3.392	3.392	0.000	4659	0.25000	0.250	101.34- 152.01	126.69	
3.660	3.660	0.000	4752	0.25000	0.250	103.36- 155.04	129.22	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22005	0.05000	0.0490			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14085	0.05000	0.0454			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

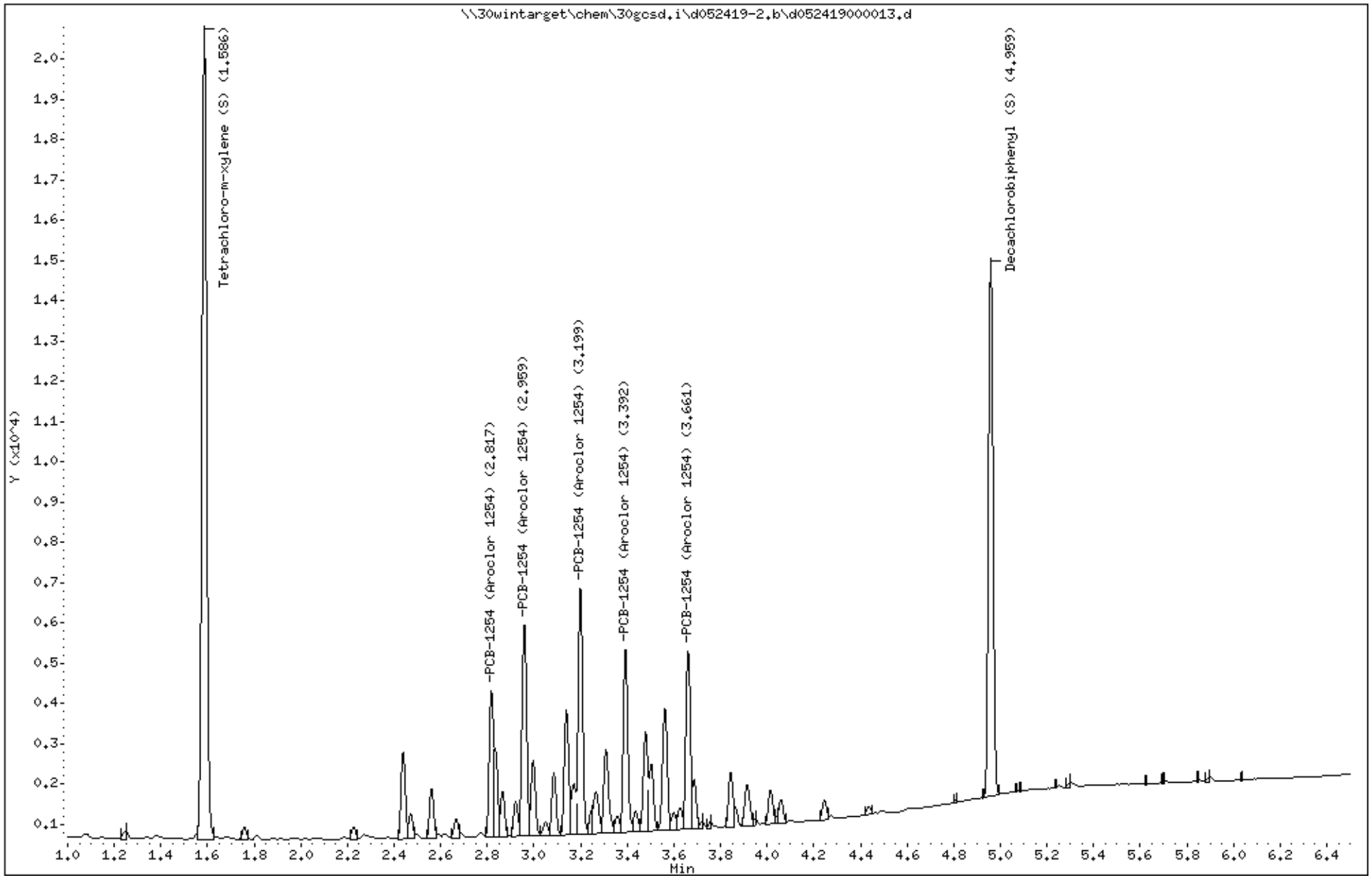
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

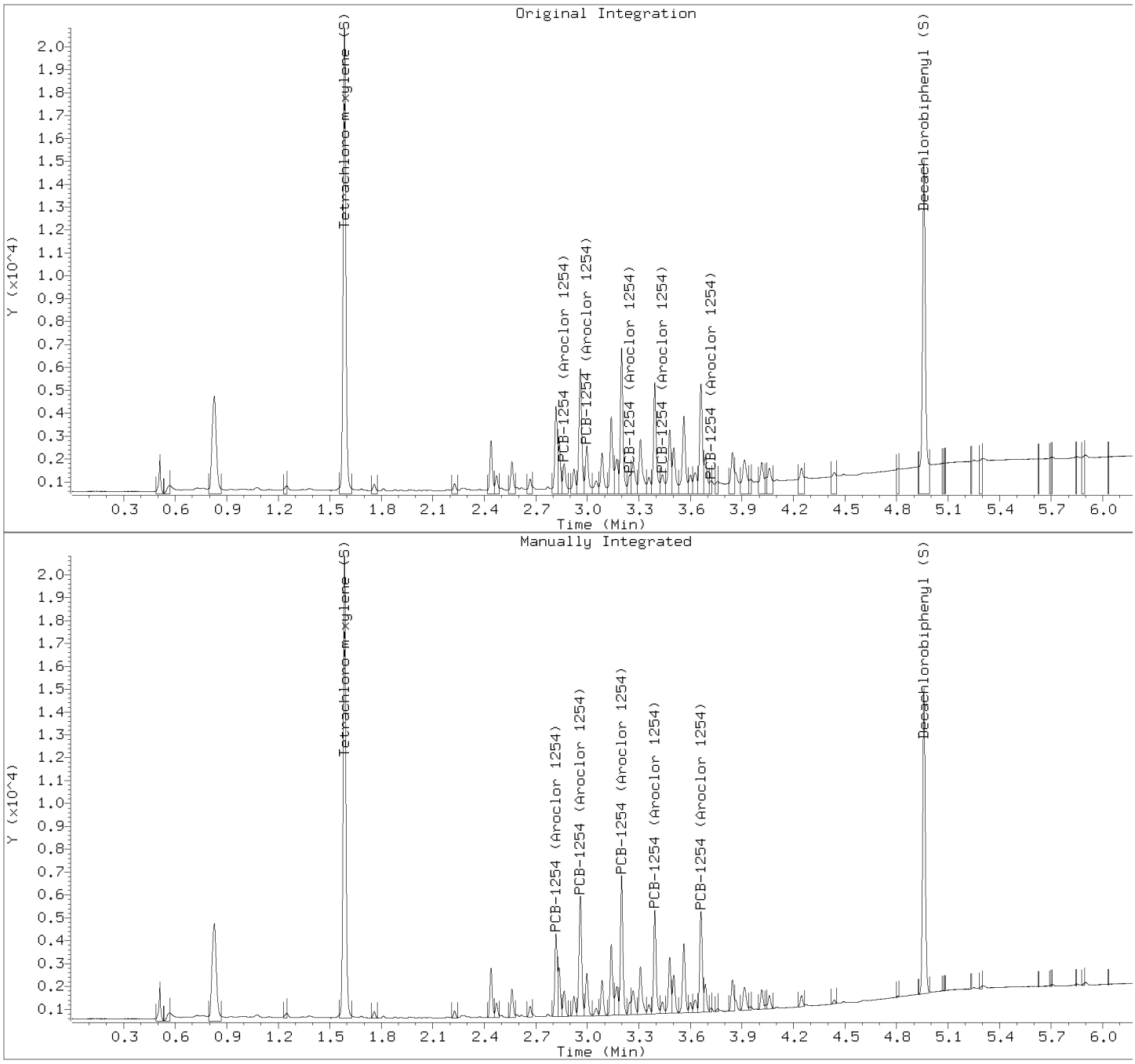
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.250	J
	Peak found at 2.959	0.250	J
	Peak found at 3.199	0.250	J
	Peak found at 3.392	0.250	J
	Peak found at 3.661	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0490	J
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	1571	3678
PCB-1254 (Aroclor 1254)	2610	5740
PCB-1254 (Aroclor 1254)	856	6065
PCB-1254 (Aroclor 1254)	1174	4659
PCB-1254 (Aroclor 1254)	461	4752
Tetrachloro-m-xylene (S)	22568	22005
Decachlorobiphenyl (S)	18623	14085

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	163989	77594	0.473	10.304		
0.837	1101	563	0.511	0.074		
1.212	99045	89696	0.906	11.946	$ 10 Tetrachloro-m-xylene (S)	
1.269	1347	988	0.734	0.131		
1.346	1767	1653	0.935	0.219		
1.377	1210	1227	1.014	0.162		
1.401	1865	1808	0.969	0.240		
1.442	9228	8406	0.911	1.116		
1.561	1227	1227	1.000	0.162		
1.632	18891	14503	0.768	1.926	1 PCB-1016 (Aroclor 1016)	
1.684	1037	1607	1.550	0.213		
1.694	2195	1812	0.826	0.240		
1.746	4850	5957	1.228	0.791		
1.761	7815	7709	0.986	1.023		
1.807	3320	3706	1.116	0.492		
1.823	2515	2601	1.034	0.345		
1.879	39182	30016	0.766	3.986	1 PCB-1016 (Aroclor 1016)	
1.933	15863	14197	0.895	1.885	1 PCB-1016 (Aroclor 1016)	
2.009	9085	10037	1.105	1.332		
2.036	11482	10735	0.935	1.425		
2.063	7459	8446	1.132	1.121		
2.078	8737	8070	0.924	1.071		
2.189	11848	12683	1.071	1.684	1 PCB-1016 (Aroclor 1016)	
2.213	4656	4939	1.061	0.655		
2.239	3692	3980	1.078	0.528		
2.255	1844	2434	1.320	0.323		
2.279	10413	10338	0.993	1.372	1 PCB-1016 (Aroclor 1016)	
2.346	2819	2803	0.994	0.372		
2.376	1617	1713	1.060	0.227		
2.402	2060	2315	1.124	0.307		
2.426	7917	7713	0.974	1.024		
2.473	1070	1132	1.058	0.150		
2.510	6862	7215	1.051	0.958		
2.594	567	441	0.778	0.058		
2.729	1046	1106	1.057	0.146		
2.798	17210	15294	0.889	2.031	7 PCB-1260 (Aroclor 1260)	
2.831	6293	6226	0.989	0.826		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	22006	22517	1.023	2.990	7 PCB-1260 (Aroclor 1260)	
2.924	1021	1052	1.030	0.139		
2.955	3598	3783	1.051	0.502		
2.996	27471	27628	1.006	3.669	7 PCB-1260 (Aroclor 1260)	
3.103	11008	12423	1.129	1.649		
3.122	14586	13517	0.927	1.795		
3.191	8268	6270	0.758	0.832		
3.228	29959	22713	0.758	3.016		
3.255	20426	20197	0.989	2.682		
3.289	11424	11438	1.001	1.519		
3.379	4271	3995	0.935	0.530		
3.440	22050	20396	0.925	2.708		
3.501	11106	11068	0.997	1.469		
3.535	8849	8475	0.958	1.125		
3.559	1841	2288	1.243	0.303		
3.586	48049	48506	1.010	6.441	7 PCB-1260 (Aroclor 1260)	
3.621	992	1027	1.036	0.136		
3.680	1684	1672	0.993	0.222		
3.759	642	695	1.082	0.092		
3.787	9403	9634	1.025	1.279		
3.828	34551	32963	0.954	4.377	7 PCB-1260 (Aroclor 1260)	
3.974	1729	1724	0.997	0.228		
4.037	405	437	1.079	0.058		
4.080	4865	4917	1.011	0.653		
4.154	11552	11199	0.969	1.487		
4.344	3935	3938	1.001	0.522		
4.393	54	96	1.788	0.012		
4.502	65460	65368	0.999	8.681	$ 11 Decachlorobiphenyl (S)	
4.815	145	149	1.026	0.019		
	874471	752975		100.000		

Total unknown % height = 49.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	18890	1.00000	0.920	80.00- 120.00	100.00	
1.879	1.878	0.001	39181	1.00000	0.948	162.66- 243.99	207.41	
1.932	1.932	0.000	15863	1.00000	0.952	63.55- 95.32	83.97	
2.189	2.188	0.001	11847	1.00000	0.927	49.13- 73.70	62.72	
2.278	2.277	0.001	10413	1.00000	0.948	42.04- 63.06	55.12	
Average of Peak Amounts =					0.93900			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	17209	1.00000	0.928	80.00- 120.00	100.00	
2.886	2.885	0.001	22006	1.00000	0.928	101.69- 152.53	127.87	
2.995	2.995	0.000	27470	1.00000	0.926	125.91- 188.87	159.62	
3.585	3.584	0.001	48049	1.00000	0.957	212.47- 318.70	279.20	
3.827	3.826	0.001	34551	1.00000	0.953	152.61- 228.91	200.77	
Average of Peak Amounts =					0.93840			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.211	1.210	0.001	99045	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	65459	0.20000	0.195			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

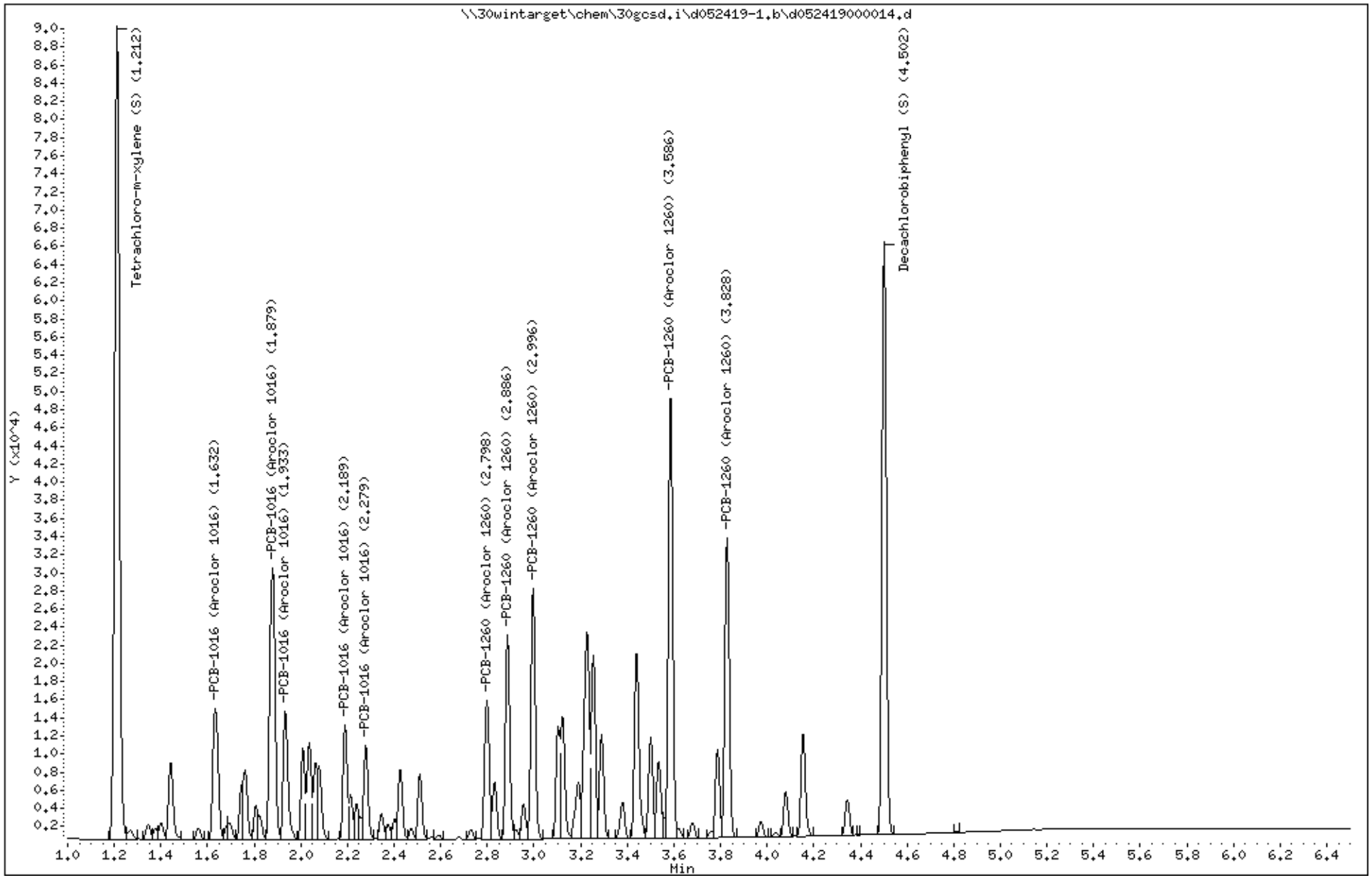
Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

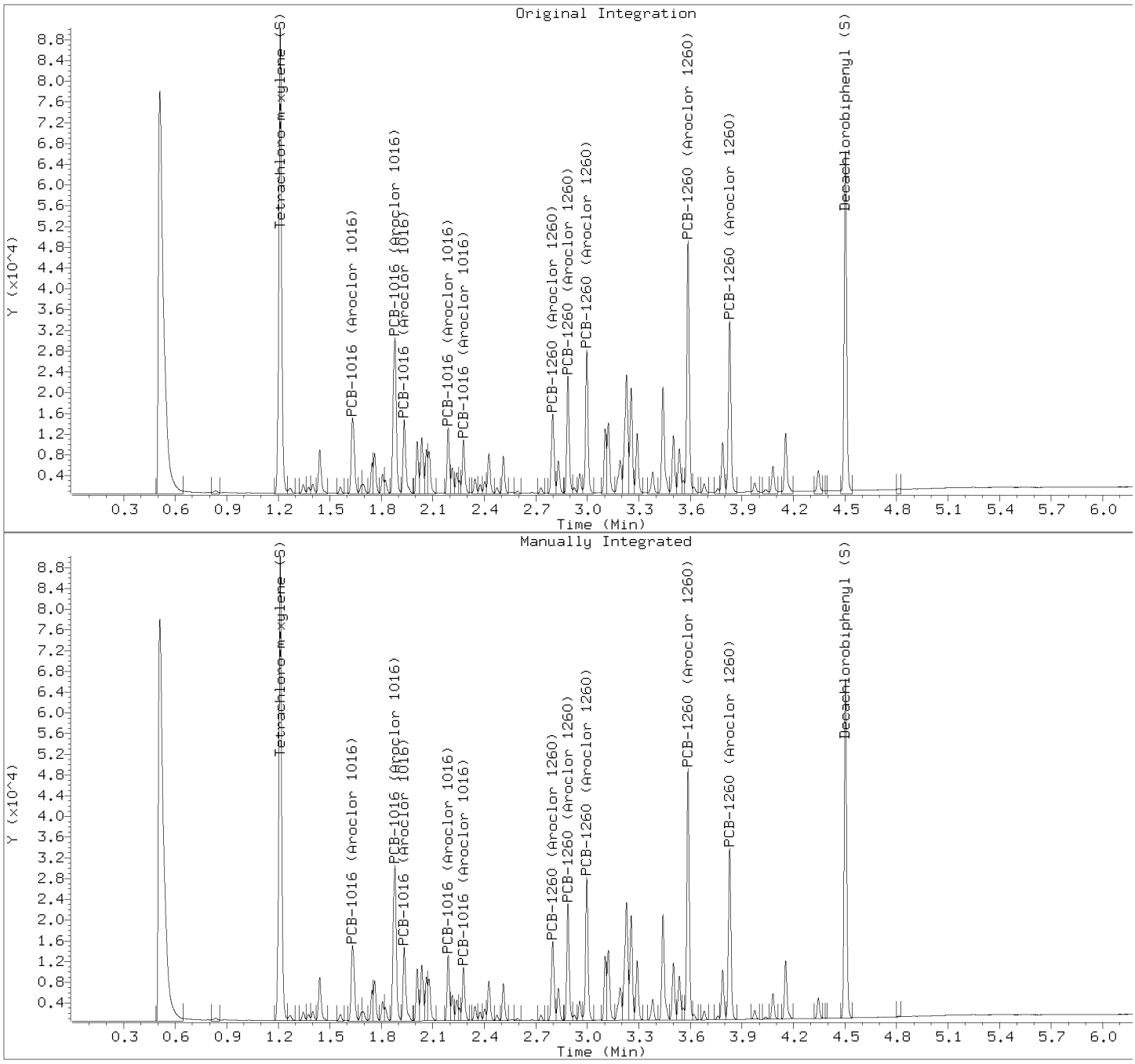
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.920	
	Peak found at 1.879	0.948	
	Peak found at 1.933	0.952	
	Peak found at 2.189	0.927	
	Peak found at 2.279	0.948	
	Average of Peak Amounts =	0.939	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.928	
	Peak found at 2.886	0.928	
	Peak found at 2.996	0.926	
	Peak found at 3.586	0.957	
	Peak found at 3.828	0.953	
	Average of Peak Amounts =	0.938	
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.195	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Sample Info: CAL6A, 87260:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	19009	18890
PCB-1016 (Aroclor 1016)	39317	39181
PCB-1016 (Aroclor 1016)	16020	15863
PCB-1016 (Aroclor 1016)	11911	11847
PCB-1016 (Aroclor 1016)	10527	10413
PCB-1260 (Aroclor 1260)	17378	17209
PCB-1260 (Aroclor 1260)	22259	22006
PCB-1260 (Aroclor 1260)	27877	27470
PCB-1260 (Aroclor 1260)	48628	48049
PCB-1260 (Aroclor 1260)	35616	34551
Tetrachloro-m-xylene (S)	99385	99045
Decachlorobiphenyl (S)	67924	65459

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	149851	90841	0.606	13.260		
0.649	2822	1416	0.502	0.205		
1.084	845	493	0.583	0.071		
1.528	951	877	0.923	0.127		
1.588	88396	86158	0.975	12.534	$ 10 Tetrachloro-m-xylene (S)	
1.668	1009	1195	1.185	0.173		
1.713	1695	1633	0.963	0.237		
1.763	8974	8653	0.964	1.258		
1.844	1111	1097	0.988	0.159		
1.964	10633	11154	1.049	1.622	1 PCB-1016 (Aroclor 1016)	
1.984	6311	6483	1.027	0.943		
2.019	1352	1366	1.011	0.198		
2.042	574	601	1.046	0.087		
2.076	11562	7468	0.646	1.086		
2.165	289	296	1.024	0.043		
2.201	2853	3143	1.102	0.457		
2.222	2279	2183	0.958	0.317		
2.269	14717	16943	1.151	2.464		
2.287	21107	21659	1.026	3.150	1 PCB-1016 (Aroclor 1016)	
2.306	13407	13101	0.977	1.905		
2.375	10544	9846	0.934	1.432	1 PCB-1016 (Aroclor 1016)	
2.404	988	1017	1.029	0.147		
2.439	7970	8304	1.042	1.208		
2.471	9299	9543	1.026	1.388	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	3713	3349	0.902	0.487		
2.561	9353	9634	1.030	1.401	1 PCB-1016 (Aroclor 1016)	
2.590	5197	4643	0.893	0.675		
2.617	3280	3350	1.021	0.487		
2.639	2522	2607	1.034	0.379		
2.667	10392	6925	0.666	1.007		
2.744	294	290	0.986	0.042		
2.818	8781	6460	0.736	0.939		
2.865	1455	1444	0.992	0.210		
2.922	658	673	1.023	0.097		
2.960	6563	6266	0.955	0.911		
3.139	761	891	1.171	0.129		
3.161	3301	3188	0.966	0.463		
3.199	2799	2830	1.011	0.411		
3.247	12512	9901	0.791	1.440		
3.277	2380	2630	1.105	0.382		
3.310	19229	19103	0.993	2.779	7 PCB-1260 (Aroclor 1260)	
3.391	1904	1768	0.928	0.257		
3.437	3126	3060	0.979	0.445		
3.479	23036	23099	1.003	3.360	7 PCB-1260 (Aroclor 1260)	
3.503	6549	6557	1.001	0.953		
3.557	15922	10892	0.684	1.584		
3.587	2209	2167	0.981	0.315		
3.631	2322	2097	0.903	0.305		
3.663	29125	22702	0.779	3.302	7 PCB-1260 (Aroclor 1260)	
3.722	17668	16726	0.947	2.433		
3.758	9485	9200	0.970	1.338		
3.840	3823	4234	1.107	0.615		
3.863	18296	17394	0.951	2.530		
3.897	990	1080	1.091	0.157		
3.923	8757	8535	0.975	1.241		
3.952	5402	4964	0.919	0.722		
3.981	455	478	1.051	0.069		
4.015	4872	4533	0.930	0.659		
4.061	41958	40037	0.954	5.824	7 PCB-1260 (Aroclor 1260)	
4.102	2242	2140	0.954	0.311		
4.248	25092	22192	0.884	3.228	7 PCB-1260 (Aroclor 1260)	
4.274	3303	4163	1.260	0.605		
4.296	11338	9552	0.842	1.389		
4.437	1030	983	0.954	0.143		
4.462	576	567	0.985	0.082		
4.497	4722	4354	0.922	0.633		
4.618	9821	9357	0.953	1.361		
4.660	566	524	0.926	0.076		
4.809	3678	3463	0.941	0.503		
4.909	16	48	3.015	0.006		
4.961	62081	60118	0.968	8.745	$ 11 Decachlorobiphenyl (S)	
5.251	127	144	1.132	0.020		
5.415	18	65	3.569	0.009		
5.494	26	52	1.990	0.007		
5.693	12	42	3.443	0.006		
5.700	14	47	3.431	0.006		
5.727	18	45	2.481	0.006		
5.943	5	22	4.135	0.003		
5.997	12	34	2.921	0.004		
6.051	9	26	2.975	0.003		
6.096	8	34	4.342	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.239	11	43	3.843	0.006		
6.257	9	38	4.199	0.005		
6.299	8	39	4.987	0.005		
6.319	7	33	4.694	0.004		
6.347	5	27	5.019	0.003		
6.351	6	31	4.829	0.004		
6.376	7	28	4.223	0.004		
	783395	687388		100.000		

Total unknown % height = 51.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	10632	1.00000	0.933	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	21107	1.00000	0.968	152.31- 228.47	198.51	
2.374	2.374	0.000	10544	1.00000	0.972	75.27- 112.91	99.17	
2.471	2.470	0.001	9299	1.00000	0.932	68.58- 102.86	87.46	
2.561	2.560	0.001	9352	1.00000	0.944	68.26- 102.40	87.96	
Average of Peak Amounts =					0.94980			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	19228	1.00000	0.946	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	23036	1.00000	0.946	88.62- 132.94	119.80	
3.663	3.662	0.001	29124	1.00000	0.994	120.10- 180.15	151.46	
4.060	4.060	0.000	41957	1.00000	0.975	171.60- 257.41	218.20	
4.248	4.247	0.001	25092	1.00000	0.970	103.64- 155.46	130.49	
Average of Peak Amounts =					0.96620			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	88395	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.961	4.960	0.001	62080	0.20000	0.196			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

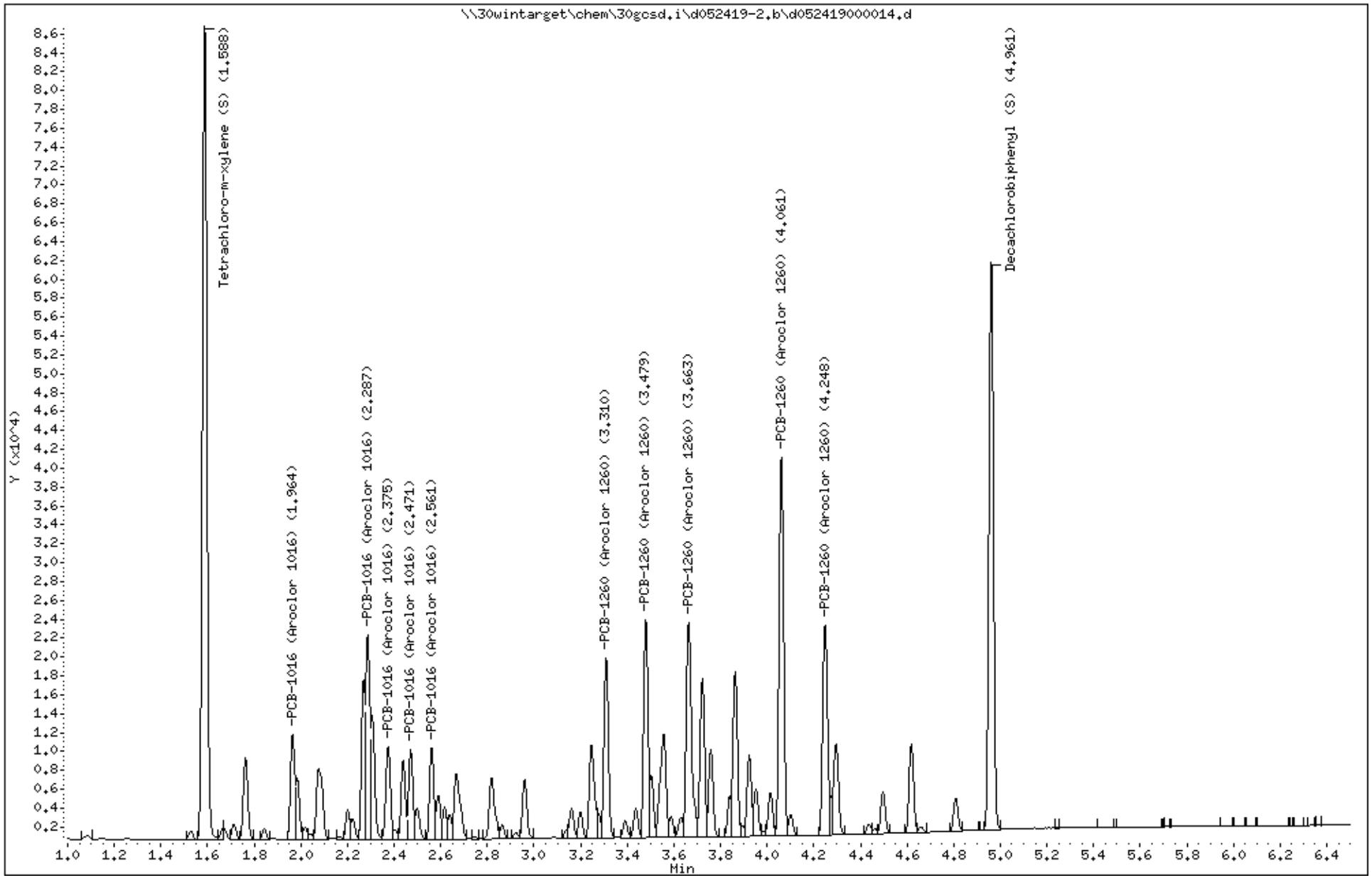
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

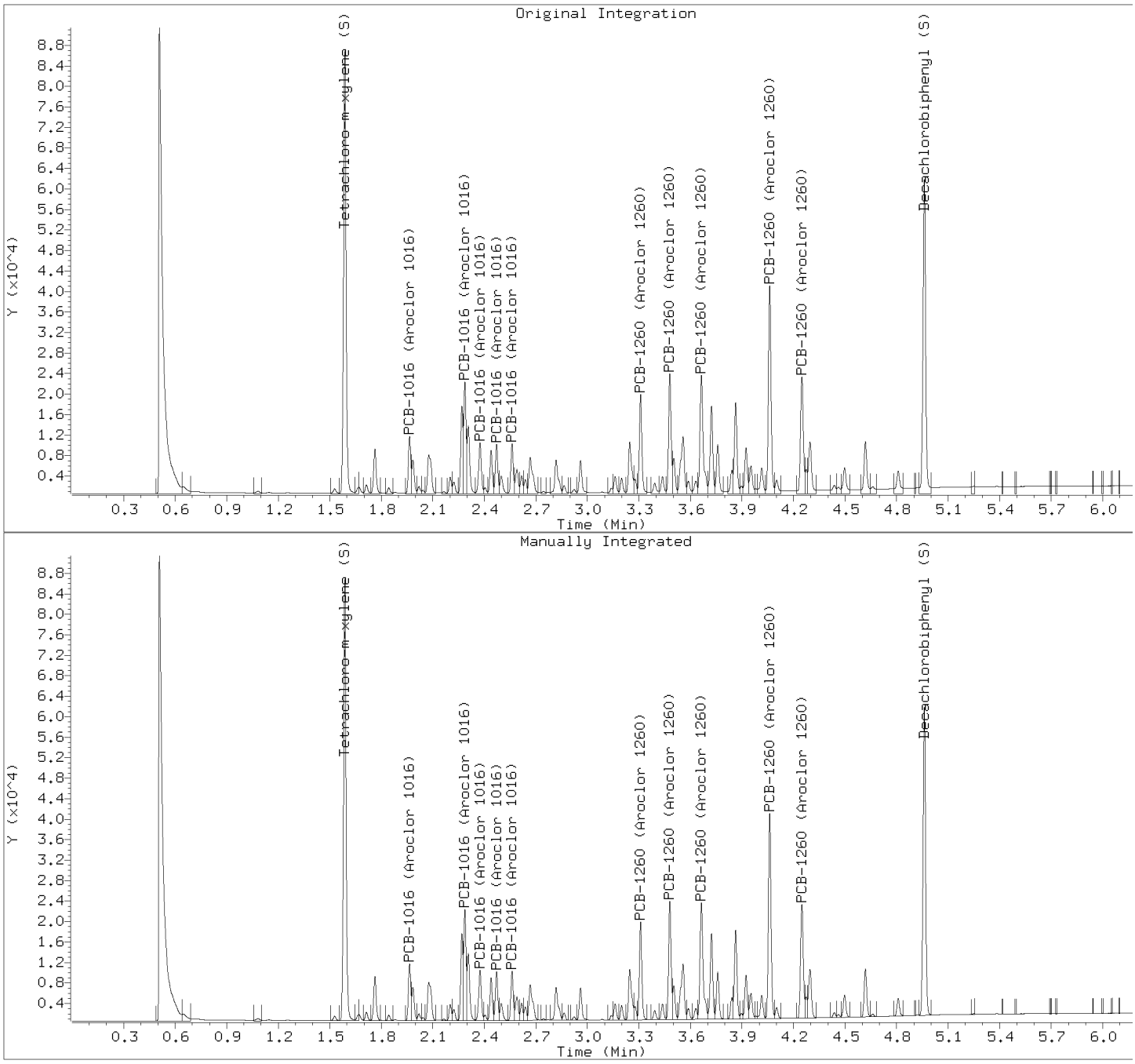
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.933	J
	Peak found at 2.287	0.968	J
	Peak found at 2.375	0.972	J
	Peak found at 2.471	0.932	J
	Peak found at 2.561	0.944	J
	Average of Peak Amounts =	0.950	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.310	0.946	J
	Peak found at 3.479	0.946	J
	Peak found at 3.663	0.994	J
	Peak found at 4.061	0.975	J
	Peak found at 4.248	0.970	J
	Average of Peak Amounts =	0.966	J
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.196	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Instrument: 30gcsd.i
Sample Info: CAL6A, 87260:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10758	10632
PCB-1016 (Aroclor 1016)	21025	21107
PCB-1016 (Aroclor 1016)	10868	10544
PCB-1016 (Aroclor 1016)	9511	9299
PCB-1016 (Aroclor 1016)	9646	9352
PCB-1260 (Aroclor 1260)	20026	19228
PCB-1260 (Aroclor 1260)	23650	23036
PCB-1260 (Aroclor 1260)	30352	29124
PCB-1260 (Aroclor 1260)	43504	41957
PCB-1260 (Aroclor 1260)	26725	25092
Tetrachloro-m-xylene (S)	88860	88395
Decachlorobiphenyl (S)	66819	62080

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	124890	55990	0.448	9.951		
0.838	796	485	0.609	0.086		
1.212	73352	67144	0.915	11.964	$ 10 Tetrachloro-m-xylene (S)	
1.269	1008	753	0.747	0.133		
1.346	1348	1284	0.953	0.228		
1.377	906	925	1.021	0.164		
1.401	1395	1373	0.985	0.244		
1.442	6790	6443	0.949	1.145		
1.561	909	927	1.019	0.164		
1.632	14239	11025	0.774	1.959	1 PCB-1016 (Aroclor 1016)	
1.685	808	1197	1.481	0.212		
1.694	1579	1358	0.860	0.241		
1.746	3638	4512	1.240	0.801		
1.761	5885	5863	0.996	1.042		
1.807	2448	2780	1.135	0.494		
1.823	1734	1879	1.084	0.333		
1.879	29319	22726	0.775	4.039	1 PCB-1016 (Aroclor 1016)	
1.933	11880	10655	0.897	1.893	1 PCB-1016 (Aroclor 1016)	
2.009	6798	7627	1.122	1.355		
2.036	8633	8100	0.938	1.439		
2.063	5698	6339	1.113	1.126		
2.078	6418	6130	0.955	1.089		
2.189	8874	9626	1.085	1.710	1 PCB-1016 (Aroclor 1016)	
2.213	3467	3773	1.088	0.670		
2.239	2728	2983	1.094	0.530		
2.255	1398	1825	1.306	0.324		
2.278	7765	7667	0.987	1.362	1 PCB-1016 (Aroclor 1016)	
2.345	2070	2047	0.989	0.363		
2.375	1181	1268	1.074	0.225		
2.402	1534	1748	1.140	0.310		
2.426	5909	5854	0.991	1.040		
2.473	778	842	1.082	0.149		
2.510	5144	5457	1.061	0.969		
2.594	401	322	0.803	0.057		
2.729	765	819	1.070	0.145		
2.798	12950	11669	0.901	2.073	7 PCB-1260 (Aroclor 1260)	
2.831	4691	4729	1.008	0.840		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	16494	17146	1.040	3.047	7 PCB-1260 (Aroclor 1260)	
2.924	741	772	1.042	0.137		
2.955	2687	2808	1.045	0.499		
2.995	20673	20619	0.997	3.664	7 PCB-1260 (Aroclor 1260)	
3.103	8216	9306	1.133	1.653		
3.121	11043	10096	0.914	1.794		
3.190	6092	4532	0.744	0.805		
3.227	22720	17189	0.757	3.054		
3.254	15319	15148	0.989	2.692		
3.289	8586	8517	0.992	1.513		
3.379	3180	3014	0.948	0.535		
3.439	16194	14815	0.915	2.633		
3.500	8372	8286	0.990	1.472		
3.533	6682	6393	0.957	1.136		
3.557	1394	1717	1.231	0.305		
3.585	35876	35949	1.002	6.389	7 PCB-1260 (Aroclor 1260)	
3.619	748	773	1.033	0.137		
3.678	1251	1255	1.003	0.223		
3.757	493	532	1.078	0.094		
3.786	7116	7261	1.020	1.290		
3.827	25993	24671	0.949	4.384	7 PCB-1260 (Aroclor 1260)	
3.973	1367	1321	0.966	0.234		
4.036	369	363	0.984	0.064		
4.078	3714	3754	1.011	0.667		
4.153	8615	8183	0.950	1.454		
4.343	2947	2931	0.994	0.520		
4.501	48876	49059	1.004	8.719	$ 11 Decachlorobiphenyl (S)	
4.814	72	101	1.409	0.017		
	655956	562655		100.000		

Total unknown % height = 48.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	14238	0.75000	0.693	80.00- 120.00	100.00	
1.879	1.878	0.001	29319	0.75000	0.709	162.66- 243.99	205.91	
1.933	1.932	0.001	11880	0.75000	0.713	63.55- 95.32	83.44	
2.189	2.188	0.001	8874	0.75000	0.695	49.13- 73.70	62.32	
2.278	2.277	0.001	7764	0.75000	0.707	42.04- 63.06	54.53	
Average of Peak Amounts =					0.70340			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	12949	0.75000	0.698	80.00- 120.00	100.00	
2.886	2.885	0.001	16493	0.75000	0.695	101.69- 152.53	127.37	
2.995	2.995	0.000	20672	0.75000	0.696	125.91- 188.87	159.64	
3.584	3.584	0.000	35875	0.75000	0.714	212.47- 318.70	277.04	
3.826	3.826	0.000	25992	0.75000	0.717	152.61- 228.91	200.72	
Average of Peak Amounts =					0.70400			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.212	1.210	0.002	73352	0.15000	0.144			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	48876	0.15000	0.146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

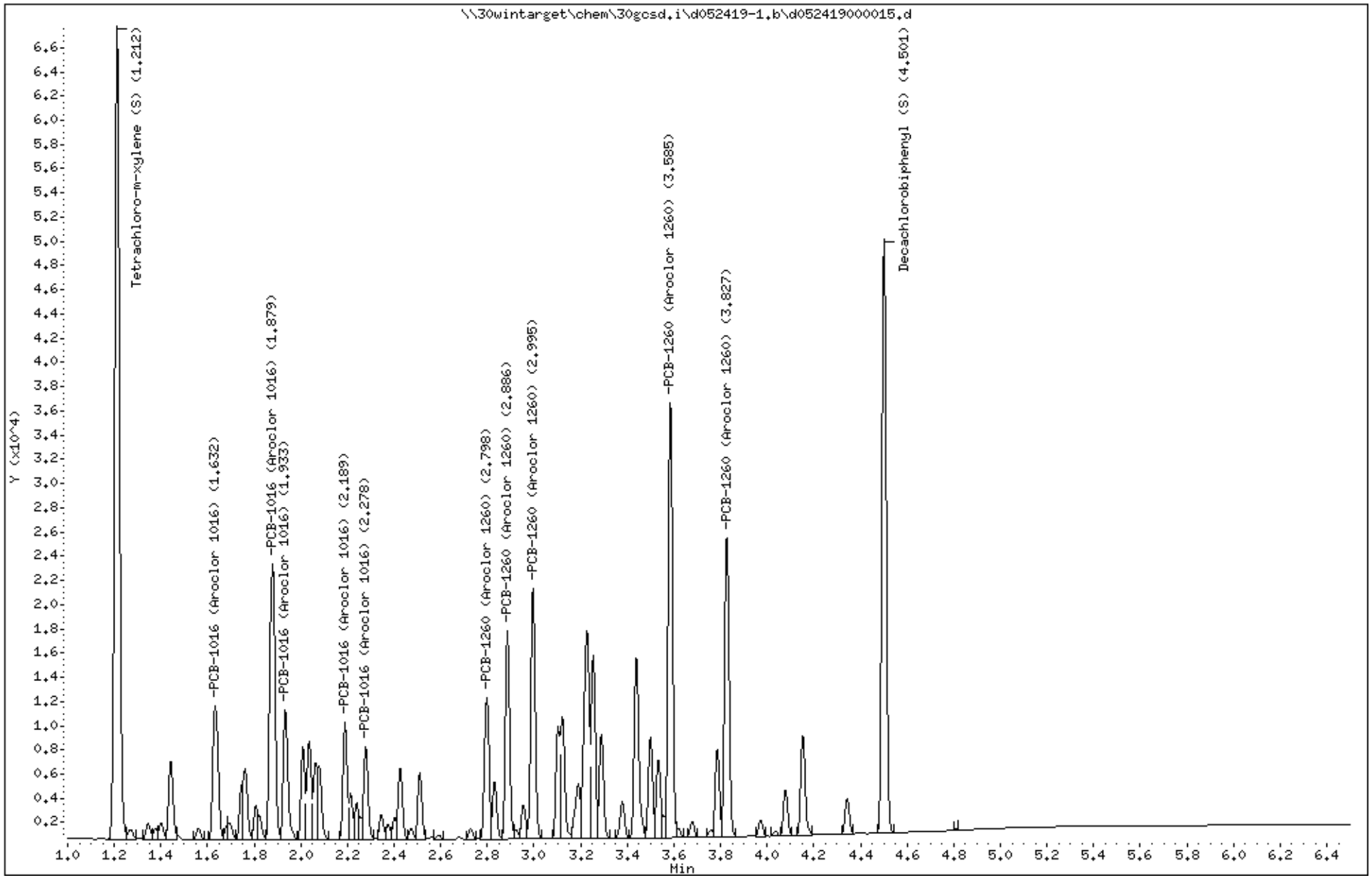
Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

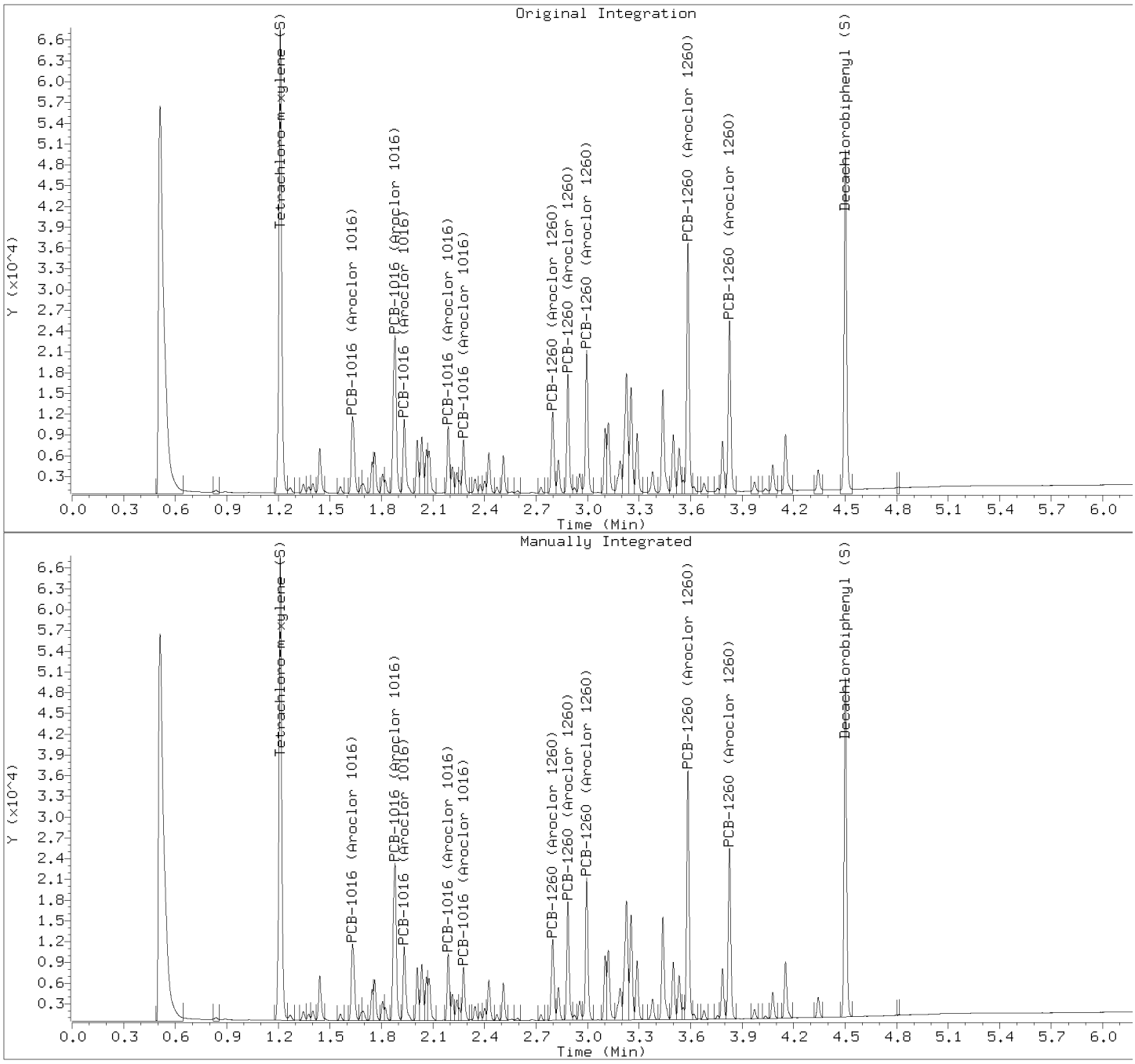
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.693	
	Peak found at 1.879	0.709	
	Peak found at 1.933	0.713	
	Peak found at 2.189	0.695	
	Peak found at 2.278	0.707	
	Average of Peak Amounts =	0.703	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.698	
	Peak found at 2.886	0.695	
	Peak found at 2.995	0.696	
	Peak found at 3.585	0.714	
	Peak found at 3.827	0.717	
	Average of Peak Amounts =	0.704	
877-09-8	Tetrachloro-m-xylene (S)	0.144	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Sample Info: CAL5A, 88856:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	14486	14238
PCB-1016 (Aroclor 1016)	29588	29319
PCB-1016 (Aroclor 1016)	12194	11880
PCB-1016 (Aroclor 1016)	9020	8874
PCB-1016 (Aroclor 1016)	7980	7764
PCB-1260 (Aroclor 1260)	13214	12949
PCB-1260 (Aroclor 1260)	16845	16493
PCB-1260 (Aroclor 1260)	21180	20672
PCB-1260 (Aroclor 1260)	36496	35875
PCB-1260 (Aroclor 1260)	27021	25992
Tetrachloro-m-xylene (S)	73821	73352
Decachlorobiphenyl (S)	51341	48876

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	114218	65304	0.572	12.804		
0.650	2510	1202	0.479	0.234		
1.084	734	427	0.582	0.083		
1.529	722	666	0.923	0.130		
1.588	65739	65002	0.989	12.702	$ 10 Tetrachloro-m-xylene (S)	
1.669	1346	896	0.666	0.175		
1.714	1284	1252	0.975	0.244		
1.763	6745	6578	0.975	1.285		
1.844	825	826	1.002	0.161		
1.965	7957	8509	1.069	1.662	1 PCB-1016 (Aroclor 1016)	
1.985	4783	4913	1.027	0.960		
2.019	1003	1022	1.019	0.199		
2.043	410	440	1.074	0.085		
2.076	8639	5590	0.647	1.092		
2.165	201	220	1.096	0.042		
2.201	2146	2347	1.094	0.458		
2.222	1467	1522	1.037	0.297		
2.269	11031	12633	1.145	2.468		
2.287	15752	16204	1.029	3.166	1 PCB-1016 (Aroclor 1016)	
2.307	10098	9870	0.977	1.928		
2.375	7882	7417	0.941	1.449	1 PCB-1016 (Aroclor 1016)	
2.405	725	756	1.042	0.147		
2.439	5999	6244	1.041	1.220		
2.471	6994	7201	1.030	1.407	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	2726	2507	0.920	0.489		
2.561	7035	7267	1.033	1.420	1 PCB-1016 (Aroclor 1016)	
2.590	3865	3499	0.905	0.683		
2.617	2433	2488	1.023	0.486		
2.639	1890	1980	1.048	0.386		
2.667	7766	5195	0.669	1.015		
2.744	221	216	0.975	0.042		
2.818	6590	4928	0.748	0.962		
2.864	1089	1092	1.003	0.213		
2.922	491	512	1.042	0.100		
2.960	4910	4738	0.965	0.925		
3.139	582	668	1.147	0.130		
3.161	2472	2429	0.983	0.474		
3.199	2122	2122	1.000	0.414		
3.246	9390	7380	0.786	1.442		
3.277	1796	2016	1.122	0.393		
3.309	14466	14176	0.980	2.770	7 PCB-1260 (Aroclor 1260)	
3.392	1423	1327	0.933	0.259		
3.437	2372	2292	0.966	0.447		
3.479	17384	17210	0.990	3.362	7 PCB-1260 (Aroclor 1260)	
3.503	5133	5091	0.992	0.994		
3.556	11923	8241	0.691	1.610		
3.587	1680	1585	0.944	0.309		
3.631	1744	1608	0.922	0.314		
3.663	21775	16839	0.773	3.290	7 PCB-1260 (Aroclor 1260)	
3.722	13250	12501	0.943	2.442		
3.758	7099	6979	0.983	1.363		
3.840	2853	3139	1.100	0.613		
3.863	13744	13045	0.949	2.549		
3.897	729	793	1.088	0.154		
3.923	6570	6448	0.981	1.260		
3.952	4024	3768	0.936	0.736		
3.981	340	352	1.035	0.068		
4.014	3635	3408	0.938	0.665		
4.060	31357	29815	0.951	5.826	7 PCB-1260 (Aroclor 1260)	
4.101	1677	1565	0.933	0.305		
4.248	18743	17066	0.911	3.334	7 PCB-1260 (Aroclor 1260)	
4.274	2410	3136	1.301	0.612		
4.295	8545	7010	0.820	1.369		
4.437	746	718	0.962	0.140		
4.462	409	411	1.005	0.080		
4.496	3524	3244	0.921	0.633		
4.618	7393	7044	0.953	1.376		
4.661	434	402	0.927	0.078		
4.808	2780	2613	0.940	0.510		
4.908	19	45	2.330	0.008		
4.960	46297	43353	0.936	8.471	$ 11 Decachlorobiphenyl (S)	
5.109	10	33	3.337	0.006		
5.245	49	106	2.153	0.020		
5.296	25	65	2.644	0.012		
5.378	25	80	3.172	0.015		
5.503	19	46	2.429	0.008		
5.607	13	34	2.652	0.006		
5.627	8	31	3.744	0.006		
5.978	2	10	5.208	0.001		
6.195	9	23	2.447	0.004		
6.347	6	16	2.544	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	589229	511746		100.000		

Total unknown % height = 51.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	7957	0.75000	0.698	80.00- 120.00	100.00(a)	
2.287	2.286	0.001	15751	0.75000	0.722	152.31- 228.47	197.96	
2.375	2.374	0.001	7881	0.75000	0.726	75.27- 112.91	99.05	
2.471	2.470	0.001	6994	0.75000	0.701	68.58- 102.86	87.90	
2.561	2.560	0.001	7035	0.75000	0.710	68.26- 102.40	88.41	
Average of Peak Amounts =					0.71140			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	14466	0.75000	0.712	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	17383	0.75000	0.714	88.62- 132.94	120.17	
3.663	3.662	0.001	21774	0.75000	0.743	120.10- 180.15	150.52	
4.060	4.060	0.000	31356	0.75000	0.729	171.60- 257.41	216.76	
4.248	4.247	0.001	18743	0.75000	0.724	103.64- 155.46	129.56	
Average of Peak Amounts =					0.72440			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	65739	0.15000	0.145			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	46296	0.15000	0.146			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

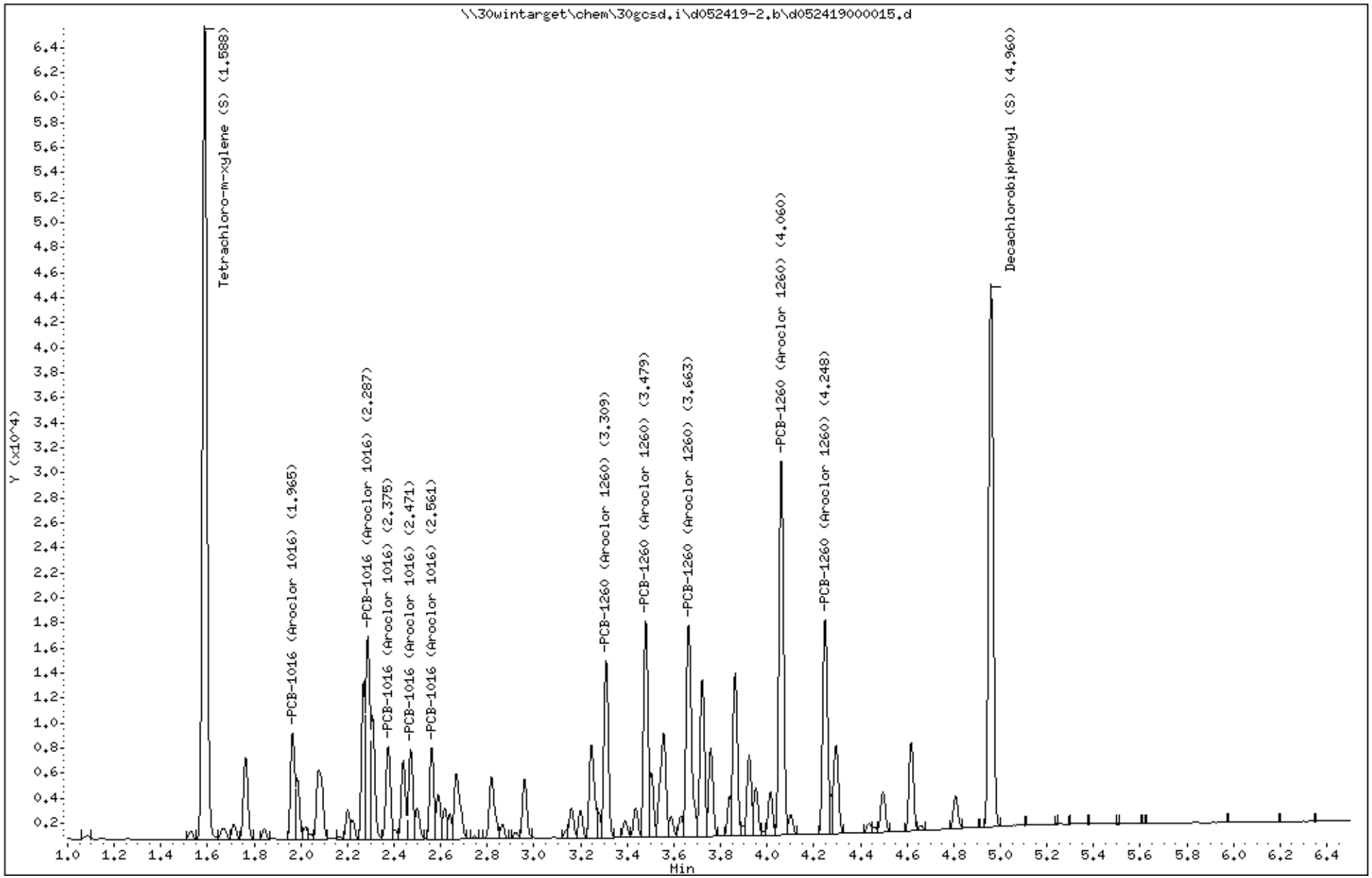
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

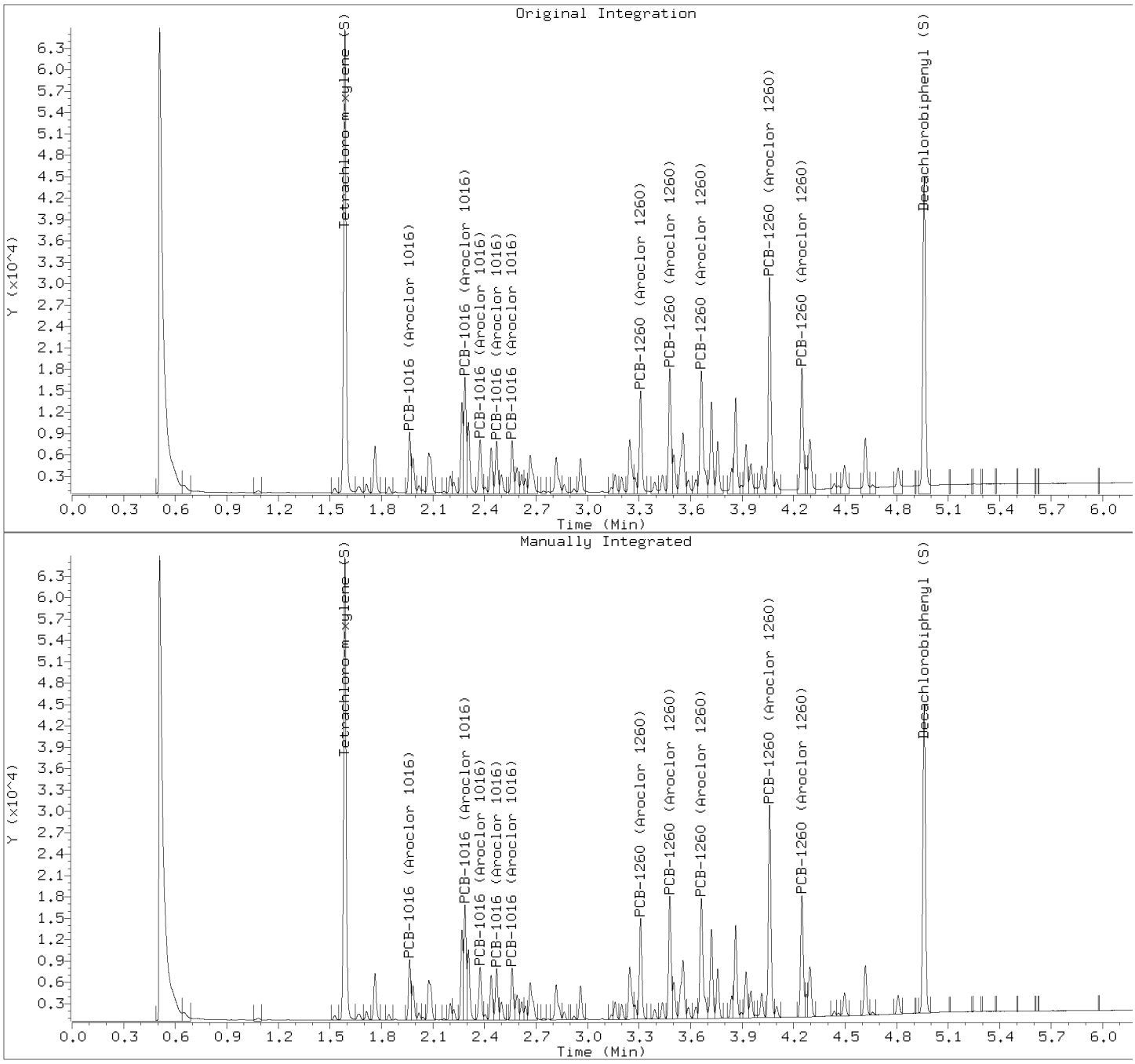
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.698	J
	Peak found at 2.287	0.722	J
	Peak found at 2.375	0.726	J
	Peak found at 2.471	0.701	J
	Peak found at 2.561	0.710	J
	Average of Peak Amounts =	0.711	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.712	J
	Peak found at 3.479	0.714	J
	Peak found at 3.663	0.743	J
	Peak found at 4.060	0.729	J
	Peak found at 4.248	0.724	J
	Average of Peak Amounts =	0.724	J
877-09-8	Tetrachloro-m-xylene (S)	0.145	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Instrument: 30gcsd.i
Sample Info: CAL5A, 88856:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8169	7957
PCB-1016 (Aroclor 1016)	15765	15751
PCB-1016 (Aroclor 1016)	8282	7881
PCB-1016 (Aroclor 1016)	7261	6994
PCB-1016 (Aroclor 1016)	7379	7035
PCB-1260 (Aroclor 1260)	15309	14466
PCB-1260 (Aroclor 1260)	18034	17383
PCB-1260 (Aroclor 1260)	23023	21774
PCB-1260 (Aroclor 1260)	32901	31356
PCB-1260 (Aroclor 1260)	20253	18743
Tetrachloro-m-xylene (S)	66379	65739
Decachlorobiphenyl (S)	51016	46296

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	75763	32966	0.435	8.921		
1.211	48455	42969	0.887	11.660	$ 10 Tetrachloro-m-xylene (S)	
1.269	678	504	0.743	0.136		
1.345	919	844	0.918	0.228		
1.376	592	603	1.019	0.163		
1.401	946	909	0.961	0.245		
1.441	4578	4287	0.936	1.160		
1.561	614	622	1.013	0.168		
1.632	9596	7333	0.764	1.984	1 PCB-1016 (Aroclor 1016)	
1.684	568	803	1.413	0.217		
1.694	1038	901	0.868	0.243		
1.746	2449	2986	1.219	0.808		
1.761	3945	3925	0.995	1.062		
1.807	1682	1855	1.103	0.502		
1.823	1125	1251	1.112	0.338		
1.879	19614	14933	0.761	4.041	1 PCB-1016 (Aroclor 1016)	
1.932	7993	7153	0.895	1.935	1 PCB-1016 (Aroclor 1016)	
2.009	4529	5069	1.119	1.371		
2.036	5856	5416	0.925	1.465		
2.062	3801	4273	1.124	1.156		
2.077	4393	4112	0.936	1.112		
2.189	5974	6480	1.085	1.753	1 PCB-1016 (Aroclor 1016)	
2.213	2358	2493	1.057	0.674		
2.239	1842	2020	1.097	0.546		
2.254	950	1235	1.301	0.334		
2.278	5231	5196	0.993	1.406	1 PCB-1016 (Aroclor 1016)	
2.345	1418	1428	1.007	0.386		
2.375	798	845	1.059	0.228		
2.401	1035	1181	1.141	0.319		
2.425	3994	3930	0.984	1.063		
2.473	532	576	1.084	0.155		
2.510	3489	3694	1.059	0.999		
2.729	509	560	1.099	0.151		
2.798	8727	7755	0.889	2.098	7 PCB-1260 (Aroclor 1260)	
2.830	3164	3173	1.003	0.858		
2.885	11129	11445	1.028	3.097	7 PCB-1260 (Aroclor 1260)	
2.924	512	521	1.017	0.140		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	1826	1922	1.053	0.520		
2.995	13948	14016	1.005	3.793	7 PCB-1260 (Aroclor 1260)	
3.103	5448	6210	1.140	1.680		
3.121	7441	6879	0.925	1.861		
3.190	4254	3180	0.748	0.860		
3.227	15419	11631	0.754	3.147		
3.254	10354	10307	0.995	2.789		
3.289	5787	5754	0.994	1.557		
3.378	2163	2010	0.929	0.543		
3.439	11320	10452	0.923	2.828		
3.500	5662	5563	0.983	1.505		
3.533	4498	4323	0.961	1.169		
3.557	913	1145	1.254	0.309		
3.584	23907	24026	1.005	6.501	7 PCB-1260 (Aroclor 1260)	
3.620	494	517	1.046	0.139		
3.679	839	850	1.013	0.230		
3.758	325	359	1.103	0.097		
3.786	4778	4853	1.016	1.313		
3.827	17316	16137	0.932	4.367	7 PCB-1260 (Aroclor 1260)	
3.973	937	900	0.960	0.243		
4.037	269	251	0.934	0.067		
4.078	2492	2459	0.987	0.665		
4.153	5882	5594	0.951	1.513		
4.343	1967	1945	0.989	0.526		
4.501	32103	31909	0.994	8.635	$ 11 Decachlorobiphenyl (S)	
4.815	58	81	1.403	0.021		
	431196	369519		100.000		

Total unknown % height = 48.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	9596	0.50000	0.467	80.00- 120.00	100.00	
1.878	1.878	0.000	19613	0.50000	0.474	162.66- 243.99	204.39	
1.932	1.932	0.000	7992	0.50000	0.480	63.55- 95.32	83.29	
2.188	2.188	0.000	5974	0.50000	0.468	49.13- 73.70	62.26	
2.277	2.277	0.000	5231	0.50000	0.476	42.04- 63.06	54.51	
Average of Peak Amounts =					0.47300			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	8727	0.50000	0.471	80.00- 120.00	100.00	
2.885	2.885	0.000	11129	0.50000	0.469	101.69- 152.53	127.52	
2.995	2.995	0.000	13947	0.50000	0.470	125.91- 188.87	159.82	
3.583	3.584	-0.001	23906	0.50000	0.476	212.47- 318.70	273.93	
3.826	3.826	0.000	17316	0.50000	0.478	152.61- 228.91	198.42	
Average of Peak Amounts =					0.47280			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	48454	0.10000	0.0953			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	32103	0.10000	0.0956			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

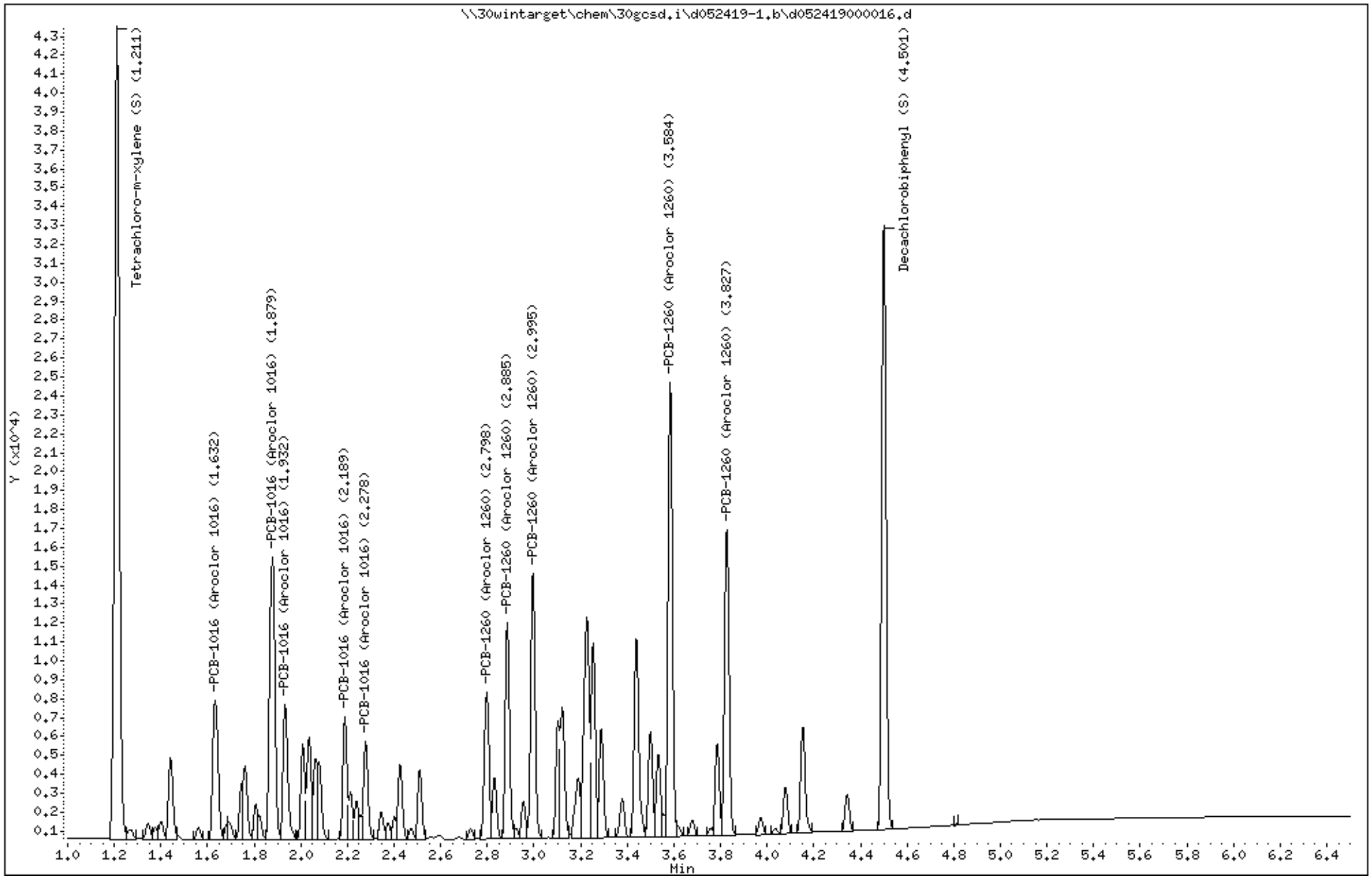
Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

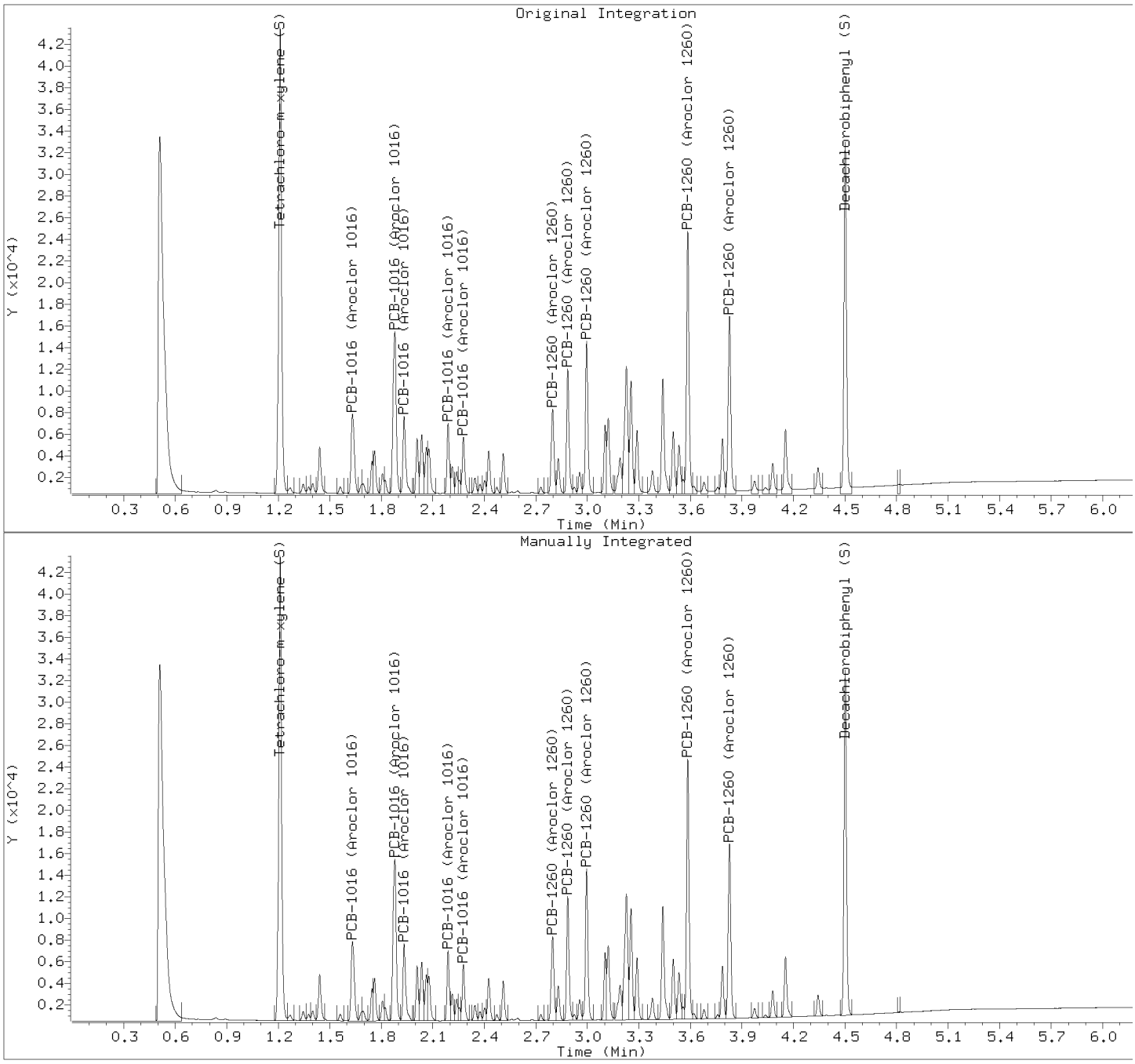
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.467	
	Peak found at 1.879	0.474	
	Peak found at 1.932	0.480	
	Peak found at 2.189	0.468	
	Peak found at 2.278	0.476	
	Average of Peak Amounts =	0.473	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.471	
	Peak found at 2.885	0.469	
	Peak found at 2.995	0.470	
	Peak found at 3.584	0.476	
	Peak found at 3.827	0.478	
	Average of Peak Amounts =	0.473	
877-09-8	Tetrachloro-m-xylene (S)	0.0953	
2051-24-3	Decachlorobiphenyl (S)	0.0956	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Sample Info: CAL4A, 88855:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	9633	9596
PCB-1016 (Aroclor 1016)	19667	19613
PCB-1016 (Aroclor 1016)	8054	7992
PCB-1016 (Aroclor 1016)	6002	5974
PCB-1016 (Aroclor 1016)	5283	5231
PCB-1260 (Aroclor 1260)	8853	8727
PCB-1260 (Aroclor 1260)	11312	11129
PCB-1260 (Aroclor 1260)	14232	13947
PCB-1260 (Aroclor 1260)	24394	23906
PCB-1260 (Aroclor 1260)	18143	17316
Tetrachloro-m-xylene (S)	48625	48454
Decachlorobiphenyl (S)	34248	32103

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	69759	39591	0.568	11.836		
0.649	1454	741	0.510	0.221		
1.085	410	262	0.639	0.078		
1.528	484	442	0.914	0.132		
1.587	43329	41735	0.963	12.513	$ 10 Tetrachloro-m-xylene (S)	
1.667	459	592	1.290	0.176		
1.713	855	827	0.967	0.247		
1.763	4499	4349	0.967	1.300		
1.844	546	546	1.000	0.163		
1.964	5363	5665	1.056	1.693	1 PCB-1016 (Aroclor 1016)	
1.984	3162	3255	1.030	0.973		
2.019	673	683	1.015	0.204		
2.042	270	292	1.080	0.087		
2.077	5775	3750	0.649	1.121		
2.202	1447	1551	1.072	0.463		
2.222	945	991	1.049	0.296		
2.269	7263	8396	1.156	2.510		
2.287	10514	10655	1.013	3.185	1 PCB-1016 (Aroclor 1016)	
2.307	6761	6604	0.977	1.974		
2.375	5238	4900	0.935	1.464	1 PCB-1016 (Aroclor 1016)	
2.404	487	506	1.039	0.151		
2.439	4017	4162	1.036	1.244		
2.471	4701	4761	1.013	1.423	1 PCB-1016 (Aroclor 1016)	
2.500	1820	1658	0.911	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.561	4692	4853	1.034	1.450	1 PCB-1016 (Aroclor 1016)	
2.590	2608	2329	0.893	0.696		
2.617	1626	1675	1.030	0.500		
2.638	1258	1303	1.036	0.389		
2.667	5178	3417	0.660	1.021		
2.818	4396	3270	0.744	0.977		
2.864	713	727	1.020	0.217		
2.922	326	335	1.027	0.100		
2.960	3258	3146	0.966	0.940		
3.139	391	461	1.178	0.137		
3.161	1686	1600	0.949	0.478		
3.199	1421	1409	0.991	0.421		
3.246	6272	4938	0.787	1.476		
3.278	1206	1323	1.097	0.395		
3.309	9665	9547	0.988	2.854	7 PCB-1260 (Aroclor 1260)	
3.391	979	889	0.908	0.265		
3.437	1583	1530	0.966	0.457		
3.479	11568	11638	1.006	3.479	7 PCB-1260 (Aroclor 1260)	
3.503	3562	3429	0.963	1.025		
3.556	7929	5512	0.695	1.647		
3.587	1120	1067	0.953	0.318		
3.631	1160	1068	0.920	0.319		
3.663	14518	11294	0.778	3.376	7 PCB-1260 (Aroclor 1260)	
3.722	8846	8381	0.947	2.505		
3.758	4729	4558	0.964	1.362		
3.840	1918	2060	1.074	0.615		
3.863	9126	8593	0.942	2.568		
3.897	506	541	1.070	0.161		
3.923	4396	4272	0.972	1.277		
3.951	2705	2519	0.931	0.753		
3.981	214	240	1.122	0.071		
4.014	2420	2246	0.928	0.671		
4.060	20715	20032	0.967	5.988	7 PCB-1260 (Aroclor 1260)	
4.101	1108	1036	0.935	0.309		
4.248	12535	11233	0.896	3.358	7 PCB-1260 (Aroclor 1260)	
4.273	1551	2073	1.336	0.619		
4.295	5654	4653	0.823	1.391		
4.436	491	476	0.970	0.142		
4.462	257	266	1.035	0.079		
4.496	2331	2145	0.920	0.641		
4.617	4895	4718	0.964	1.410		
4.660	272	261	0.958	0.078		
4.808	1856	1737	0.936	0.519		
4.960	30515	28490	0.934	8.517	$ 11 Decachlorobiphenyl (S)	
5.053	20	70	3.455	0.020		
5.180	10	30	2.927	0.008		
5.249	34	59	1.749	0.017		
5.550	10	29	2.906	0.008		
5.800	6	16	2.560	0.004		
5.808	4	14	3.878	0.004		
5.992	2	11	4.583	0.003		
6.134	5	24	4.388	0.007		
6.174	8	33	4.044	0.009		
	384484	334490		100.000		

Total unknown % height = 50.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	5363	0.50000	0.471	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	10514	0.50000	0.482	152.31- 228.47	196.04	
2.374	2.374	0.000	5238	0.50000	0.483	75.27- 112.91	97.67	
2.470	2.470	0.000	4700	0.50000	0.471	68.58- 102.86	87.65	
2.560	2.560	0.000	4692	0.50000	0.474	68.26- 102.40	87.49	
Average of Peak Amounts =					0.47620			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.308	3.309	-0.001	9665	0.50000	0.476	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	11567	0.50000	0.475	88.62- 132.94	119.68	
3.662	3.662	0.000	14517	0.50000	0.496	120.10- 180.15	150.20	
4.059	4.060	-0.001	20715	0.50000	0.481	171.60- 257.41	214.33	
4.247	4.247	0.000	12534	0.50000	0.484	103.64- 155.46	129.69	
Average of Peak Amounts =					0.48240			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	43328	0.10000	0.0954			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	30514	0.10000	0.0961			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

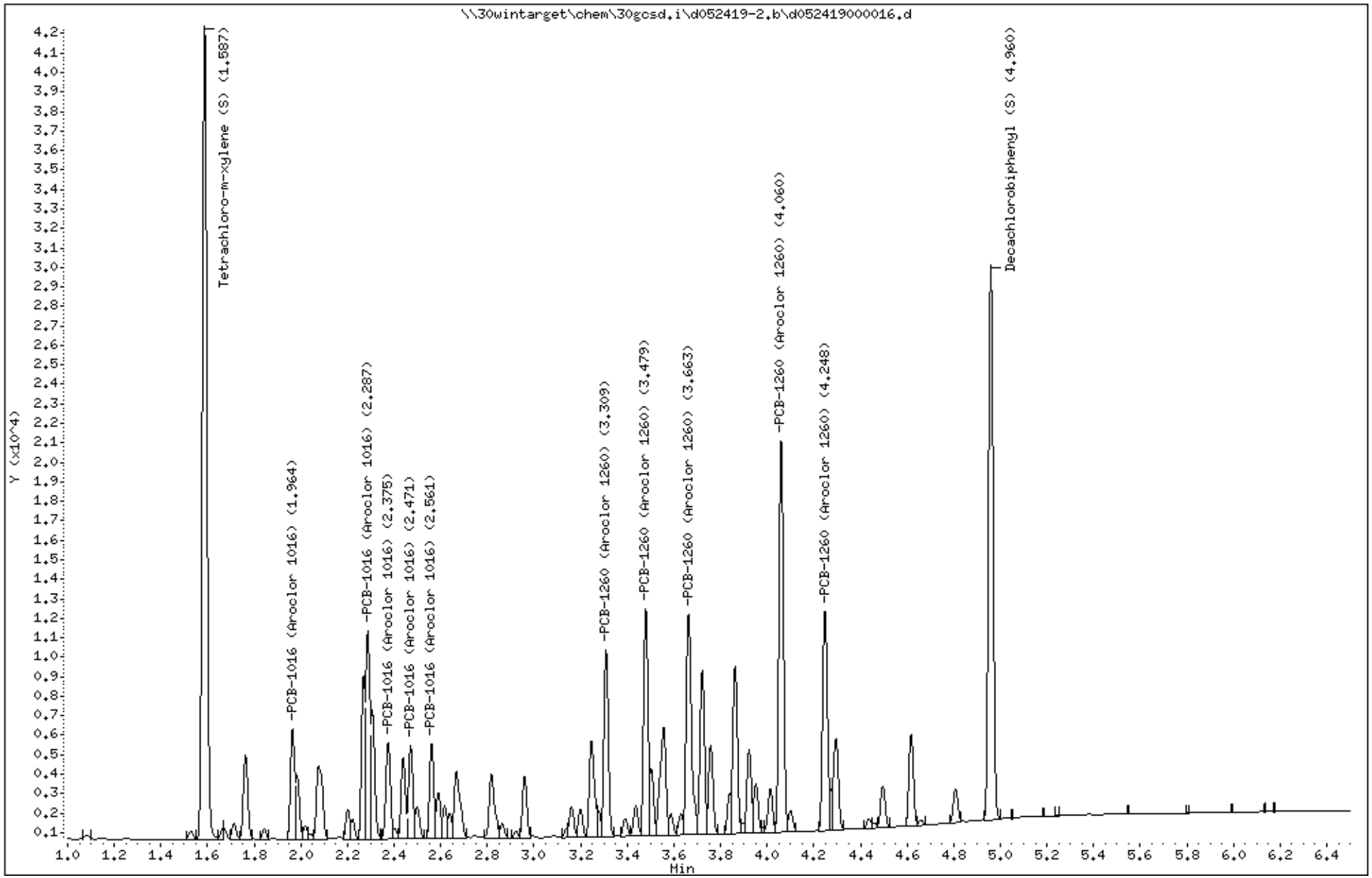
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.471	J
	Peak found at 2.287	0.482	J
	Peak found at 2.375	0.483	J
	Peak found at 2.471	0.471	J
	Peak found at 2.561	0.474	J
	Average of Peak Amounts =	0.476	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.476	J
	Peak found at 3.479	0.475	J
	Peak found at 3.663	0.496	J
	Peak found at 4.060	0.481	J
	Peak found at 4.248	0.484	J
	Average of Peak Amounts =	0.482	J
877-09-8	Tetrachloro-m-xylene (S)	0.0954	
2051-24-3	Decachlorobiphenyl (S)	0.0961	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Instrument: 30gcsd.i
Sample Info: CAL4A, 88855:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



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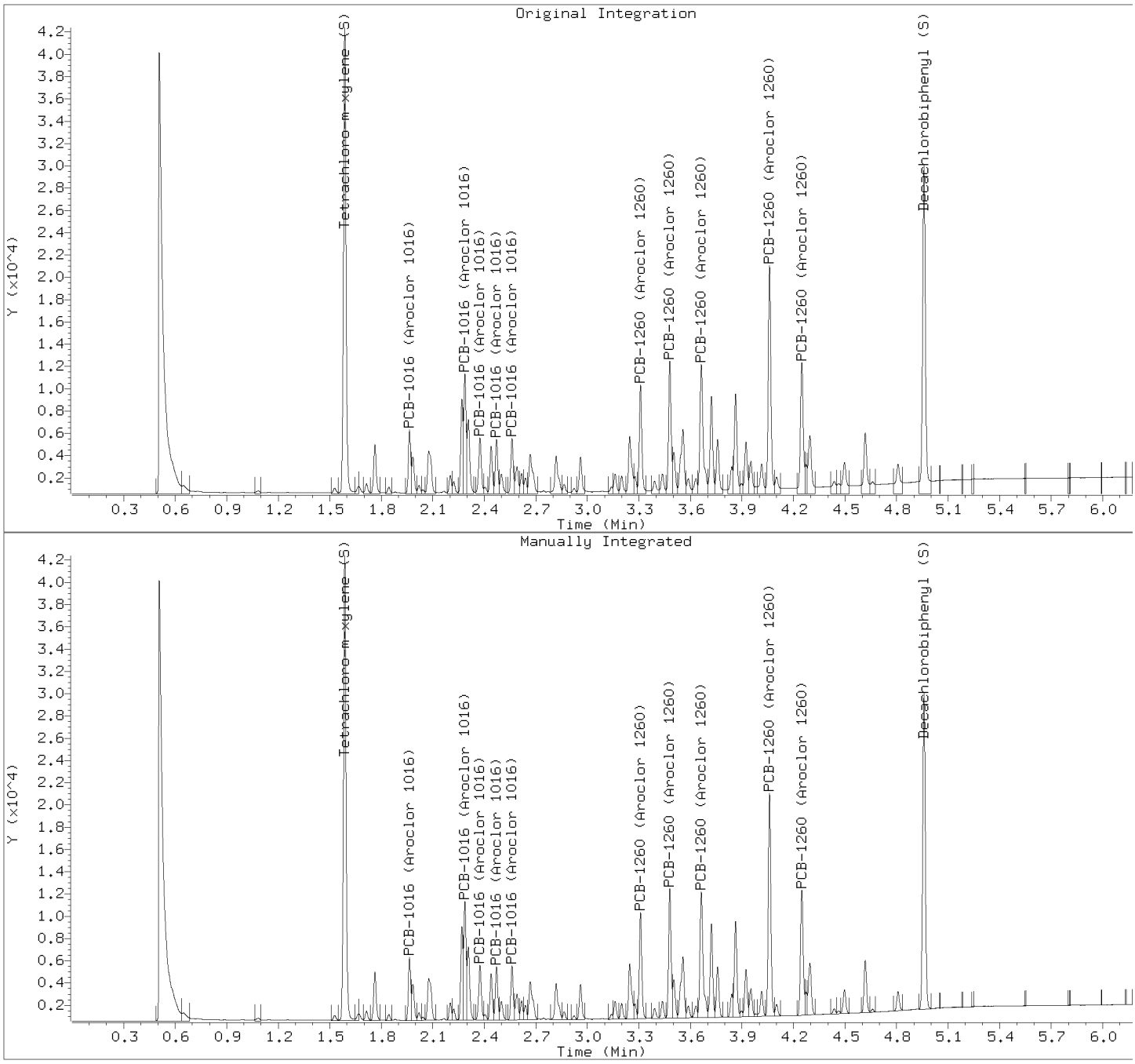
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5458	5363
PCB-1016 (Aroclor 1016)	10510	10514
PCB-1016 (Aroclor 1016)	5484	5238
PCB-1016 (Aroclor 1016)	4877	4700
PCB-1016 (Aroclor 1016)	4922	4692
PCB-1260 (Aroclor 1260)	10289	9665
PCB-1260 (Aroclor 1260)	12108	11567
PCB-1260 (Aroclor 1260)	15587	14517
PCB-1260 (Aroclor 1260)	22087	20715
PCB-1260 (Aroclor 1260)	13972	12534
Tetrachloro-m-xylene (S)	43665	43328
Decachlorobiphenyl (S)	34931	30514

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	37809	15680	0.415	7.881		
1.210	26361	23522	0.892	11.848	$ 10 Tetrachloro-m-xylene (S)	RT
1.269	368	279	0.759	0.140		
1.345	496	469	0.946	0.235		
1.401	529	510	0.965	0.256		
1.441	2529	2351	0.930	1.181		
1.631	5348	4118	0.770	2.069	1 PCB-1016 (Aroclor 1016)	RT
1.693	921	528	0.573	0.265		
1.745	1353	1662	1.228	0.835		
1.761	2215	2185	0.986	1.098		
1.807	913	1035	1.134	0.520		
1.825	945	886	0.938	0.445		
1.879	10816	8305	0.768	4.174	1 PCB-1016 (Aroclor 1016)	RT
1.933	4465	3961	0.887	1.990	1 PCB-1016 (Aroclor 1016)	RT
2.009	2518	2798	1.111	1.406		
2.036	3250	3056	0.940	1.536		
2.062	2186	2412	1.103	1.212		
2.077	2437	2297	0.942	1.154		
2.189	3349	3625	1.082	1.822	1 PCB-1016 (Aroclor 1016)	RT
2.213	1310	1411	1.077	0.709		
2.239	1066	1139	1.069	0.572		
2.255	529	692	1.309	0.347		
2.278	2876	2864	0.996	1.439	1 PCB-1016 (Aroclor 1016)	RT
2.345	789	794	1.006	0.399		
2.375	439	477	1.086	0.239		
2.402	566	641	1.132	0.322		
2.426	2197	2186	0.995	1.098		
2.510	1917	2027	1.057	1.018		
2.798	4804	4253	0.885	2.137	7 PCB-1260 (Aroclor 1260)	RT
2.831	1717	1750	1.019	0.879		
2.886	6145	6397	1.041	3.215	7 PCB-1260 (Aroclor 1260)	RT
2.924	266	281	1.056	0.141		
2.955	1004	1063	1.059	0.534		
2.995	7705	7690	0.998	3.865	7 PCB-1260 (Aroclor 1260)	RT
3.103	3017	3411	1.131	1.714		
3.121	4072	3759	0.923	1.889		
3.190	2384	1751	0.734	0.880		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.227	8392	6321	0.753	3.177		
3.254	5691	5642	0.991	2.835		
3.289	3195	3167	0.991	1.591		
3.379	1212	1098	0.906	0.551		
3.439	6270	5788	0.923	2.909		
3.500	3143	3100	0.986	1.558		
3.533	2415	2327	0.964	1.169		
3.557	500	618	1.236	0.310		
3.584	13013	13118	1.008	6.593	7 PCB-1260 (Aroclor 1260)	RT
3.620	262	279	1.065	0.140		
3.679	453	468	1.032	0.235		
3.757	176	197	1.117	0.099		
3.786	2612	2639	1.010	1.326		
3.827	9426	8673	0.920	4.359	7 PCB-1260 (Aroclor 1260)	RT
3.972	500	496	0.991	0.249		
4.036	95	147	1.545	0.073		
4.079	1377	1352	0.982	0.679		
4.153	3194	3109	0.973	1.562		
4.343	1050	1069	1.018	0.537		
4.501	17173	17078	0.994	8.584	$ 11 Decachlorobiphenyl (S)	RT
	231763	198951		100.000		

Total unknown % height = 47.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.631	1.631	0.000	5348	0.25000	0.260	80.00- 120.00	100.00	(M)	RT
1.878	1.878	0.000	10815	0.25000	0.262	162.66- 243.99	202.22		RT
1.932	1.932	0.000	4465	0.25000	0.268	63.55- 95.32	83.49		RT
2.188	2.188	0.000	3348	0.25000	0.262	49.13- 73.70	62.60		RT
2.277	2.277	0.000	2875	0.25000	0.262	42.04- 63.06	53.76		RT
Average of Peak Amounts =					0.26280				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.797	0.000	4804	0.25000	0.259	80.00- 120.00	100.00	(M)	RT
2.885	2.885	0.000	6145	0.25000	0.259	101.69- 152.53	127.91		RT
2.995	2.995	0.000	7705	0.25000	0.260	125.91- 188.87	160.38		RT
3.584	3.584	0.000	13013	0.25000	0.259	212.47- 318.70	270.86		RT
3.826	3.826	0.000	9426	0.25000	0.260	152.61- 228.91	196.20		RT
Average of Peak Amounts =					0.25940				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.210	0.000	26360	0.05000	0.0518			(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.501	4.501	0.000	17172	0.05000	0.0512			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

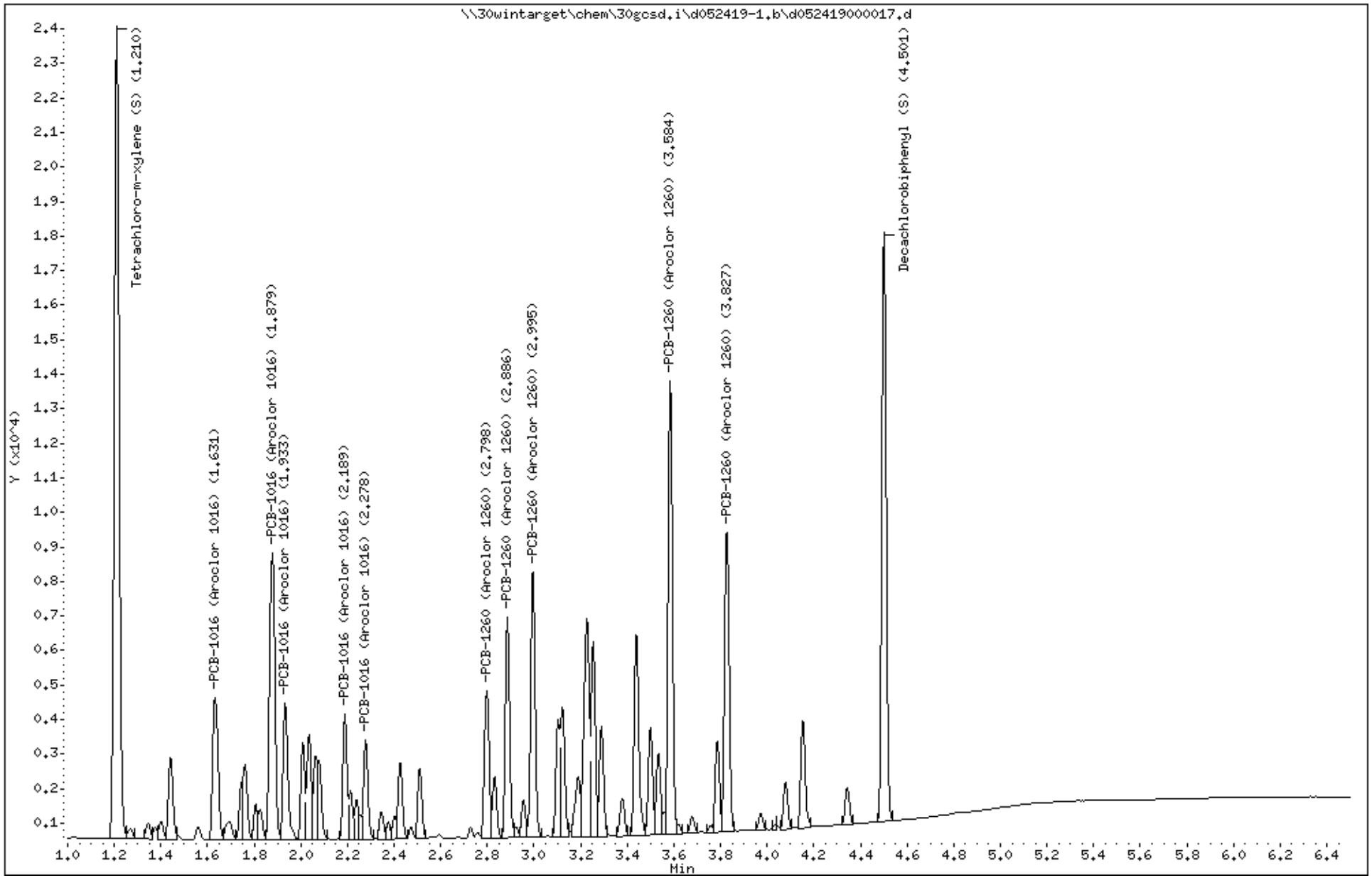
Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

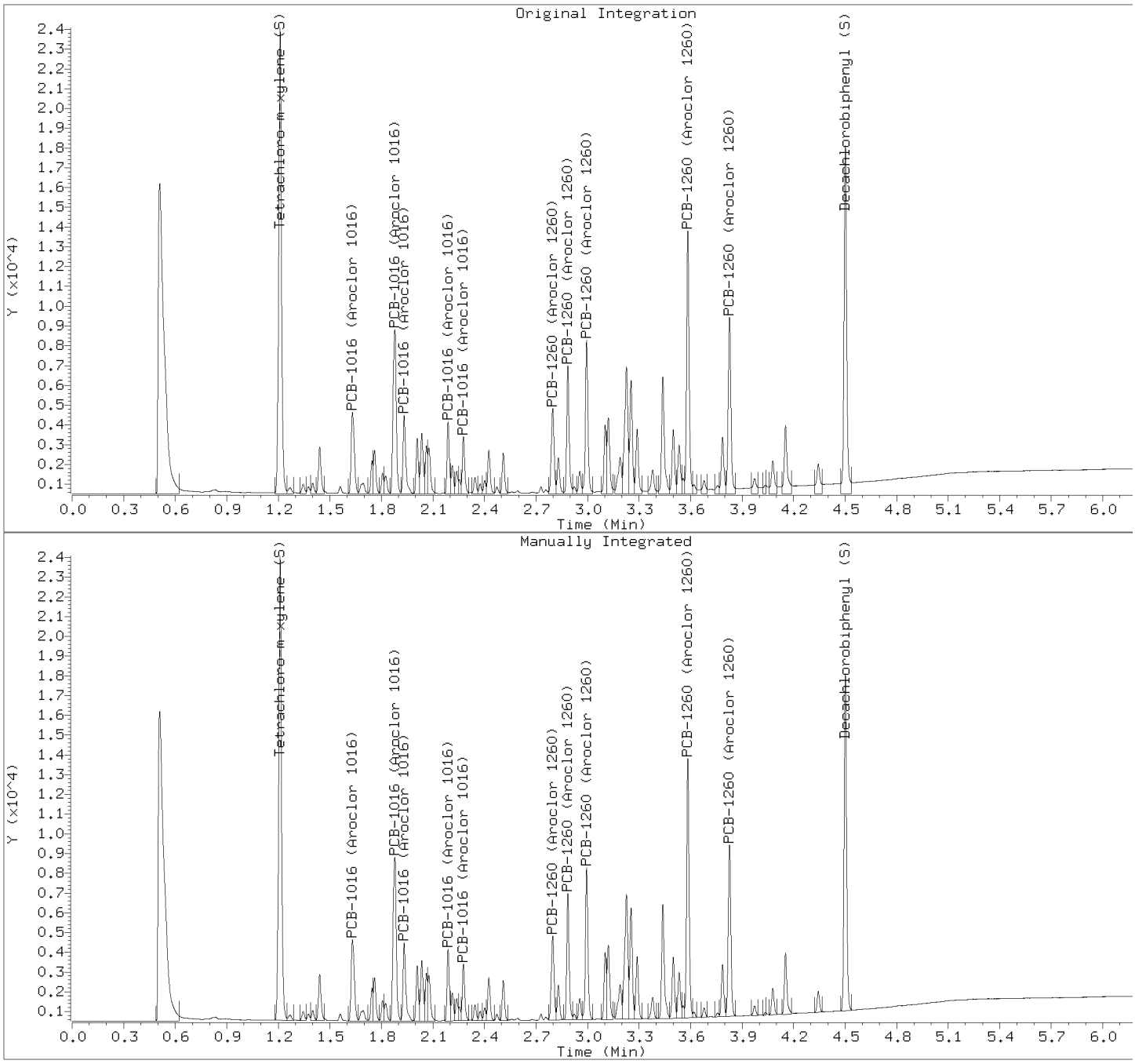
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.631	0.260	
	Peak found at 1.879	0.262	
	Peak found at 1.933	0.268	
	Peak found at 2.189	0.262	
	Peak found at 2.278	0.262	
	Average of Peak Amounts =	0.263	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.259	
	Peak found at 2.886	0.259	
	Peak found at 2.995	0.260	
	Peak found at 3.584	0.259	
	Peak found at 3.827	0.260	
	Average of Peak Amounts =	0.259	
877-09-8	Tetrachloro-m-xylene (S)	0.0518	
2051-24-3	Decachlorobiphenyl (S)	0.0512	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Sample Info: CAL3A, 88854:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5340	5348
PCB-1016 (Aroclor 1016)	10807	10815
PCB-1016 (Aroclor 1016)	4455	4465
PCB-1016 (Aroclor 1016)	3342	3348
PCB-1016 (Aroclor 1016)	2895	2875
PCB-1260 (Aroclor 1260)	4934	4804
PCB-1260 (Aroclor 1260)	6324	6145
PCB-1260 (Aroclor 1260)	7944	7705
PCB-1260 (Aroclor 1260)	13461	13013
PCB-1260 (Aroclor 1260)	10168	9426
Tetrachloro-m-xylene (S)	26476	26360
Decachlorobiphenyl (S)	19084	17172

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	35242	19909	0.565	11.087		
1.528	280	249	0.888	0.138		
1.586	23458	22708	0.968	12.680	$ 10 Tetrachloro-m-xylene (S)	RT
1.713	473	456	0.965	0.253		
1.762	2470	2400	0.972	1.336		
1.843	297	304	1.024	0.169		
1.964	2934	3126	1.065	1.740	1 PCB-1016 (Aroclor 1016)	RT
1.984	1796	1807	1.006	1.006		
2.019	374	377	1.007	0.209		
2.076	3188	2051	0.643	1.142		
2.201	774	847	1.095	0.471		
2.224	898	848	0.945	0.472		
2.268	4040	4695	1.162	2.614		
2.286	5723	5864	1.025	3.265	1 PCB-1016 (Aroclor 1016)	RT
2.306	3665	3630	0.991	2.021		
2.375	2846	2654	0.933	1.478	1 PCB-1016 (Aroclor 1016)	RT
2.404	265	274	1.033	0.152		
2.439	2246	2336	1.040	1.300		
2.471	2603	2658	1.021	1.480	1 PCB-1016 (Aroclor 1016)	RT
2.499	1007	930	0.924	0.517		
2.561	2582	2684	1.040	1.494	1 PCB-1016 (Aroclor 1016)	RT
2.589	1425	1281	0.899	0.713		
2.617	881	921	1.045	0.512		
2.639	687	716	1.043	0.398		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.667	2825	1897	0.672	1.056		
2.818	2441	1786	0.732	0.994		
2.864	396	401	1.013	0.223		
2.960	1803	1741	0.966	0.969		
3.138	232	261	1.126	0.145		
3.161	943	899	0.953	0.500		
3.199	795	781	0.982	0.434		
3.246	3441	2692	0.782	1.499		
3.277	665	735	1.106	0.409		
3.309	5335	5251	0.984	2.924	7 PCB-1260 (Aroclor 1260)	RT
3.391	540	494	0.914	0.275		
3.436	893	856	0.958	0.476		
3.479	6361	6449	1.014	3.591	7 PCB-1260 (Aroclor 1260)	RT
3.502	1884	1861	0.988	1.036		
3.556	4326	2998	0.693	1.669		
3.587	618	591	0.956	0.329		
3.631	647	581	0.898	0.323		
3.663	7914	6204	0.784	3.455	7 PCB-1260 (Aroclor 1260)	RT
3.721	4843	4626	0.955	2.576		
3.757	2568	2482	0.967	1.382		
3.839	1035	1098	1.061	0.611		
3.862	4961	4737	0.955	2.638		
3.897	274	296	1.080	0.164		
3.922	2387	2337	0.979	1.301		
3.952	1467	1327	0.905	0.739		
4.014	1268	1187	0.936	0.661		
4.060	11174	10647	0.953	5.929	7 PCB-1260 (Aroclor 1260)	RT
4.101	597	560	0.937	0.311		
4.248	6727	6099	0.907	3.396	7 PCB-1260 (Aroclor 1260)	RT
4.273	879	1104	1.256	0.614		
4.296	3021	2540	0.841	1.414		
4.437	155	250	1.616	0.139		
4.462	88	137	1.551	0.076		
4.497	1243	1157	0.931	0.644		
4.618	2663	2576	0.967	1.434		
4.660	136	157	1.153	0.087		
4.809	1011	937	0.927	0.521		
4.960	16295	15018	0.922	8.363	$ 11 Decachlorobiphenyl (S)	RT
5.729	5	18	3.797	0.010		
5.764	5	19	4.185	0.010		
5.983	4	17	4.696	0.009		
6.069	8	31	3.865	0.017		
	205024	179560		100.000		

Total unknown % height = 50.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	2933	0.25000	0.257	80.00- 120.00	100.00(aM)	RT
2.286	2.286	0.000	5723	0.25000	0.262	152.31- 228.47	195.07	RT
2.374	2.374	0.000	2845	0.25000	0.262	75.27- 112.91	96.97	RT
2.470	2.470	0.000	2602	0.25000	0.261	68.58- 102.86	88.69	RT
2.560	2.560	0.000	2581	0.25000	0.261	68.26- 102.40	87.97	RT
Average of Peak Amounts =					0.26060			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	5334	0.25000	0.262	80.00- 120.00	100.00(aM)	RT
3.478	3.478	0.000	6360	0.25000	0.261	88.62- 132.94	119.22	RT
3.662	3.662	0.000	7913	0.25000	0.270	120.10- 180.15	148.33	RT
4.060	4.060	0.000	11174	0.25000	0.260	171.60- 257.41	209.45	RT
4.247	4.247	0.000	6727	0.25000	0.260	103.64- 155.46	126.09	RT
Average of Peak Amounts =					0.26260			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	23457	0.05000	0.0516		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16295	0.05000	0.0513		(M)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

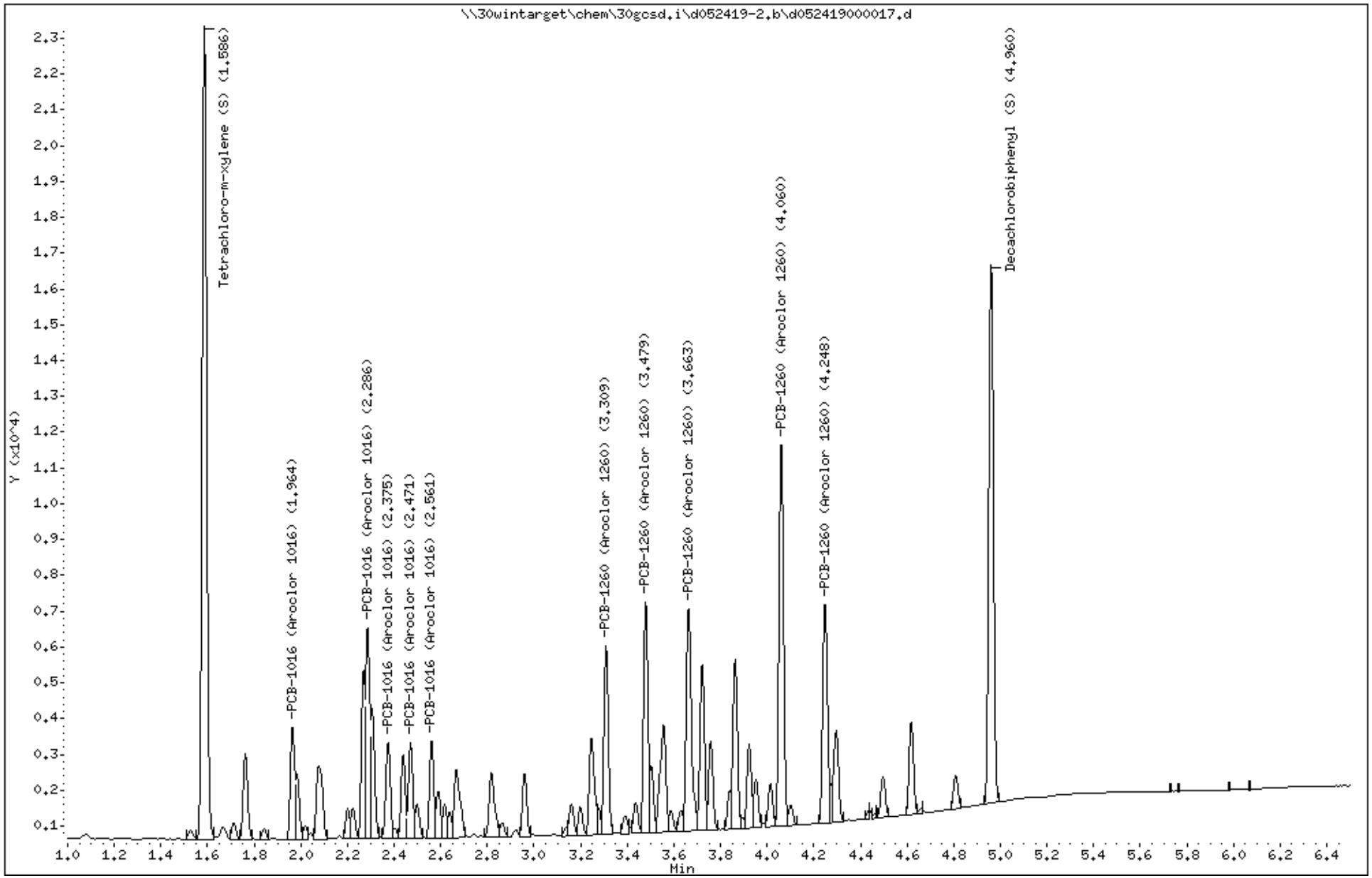
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

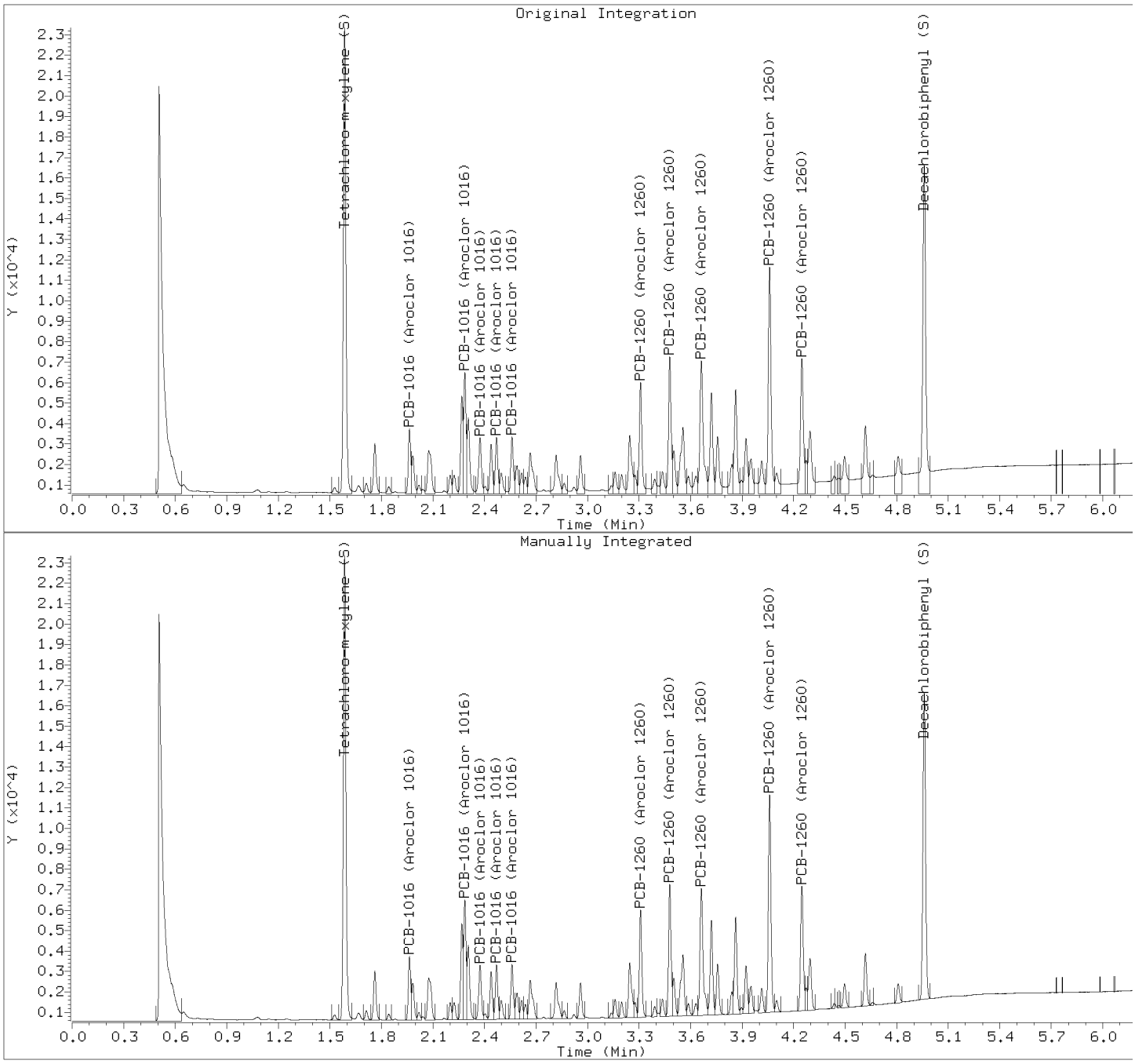
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.257	J
	Peak found at 2.286	0.262	J
	Peak found at 2.375	0.262	J
	Peak found at 2.471	0.261	J
	Peak found at 2.561	0.261	J
	Average of Peak Amounts =	0.261	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.262	J
	Peak found at 3.479	0.261	J
	Peak found at 3.663	0.270	J
	Peak found at 4.060	0.260	J
	Peak found at 4.248	0.260	J
	Average of Peak Amounts =	0.263	J
877-09-8	Tetrachloro-m-xylene (S)	0.0516	
2051-24-3	Decachlorobiphenyl (S)	0.0513	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Instrument: 30gcsd.i
Sample Info: CAL3A, 88854:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3009	2933
PCB-1016 (Aroclor 1016)	5753	5723
PCB-1016 (Aroclor 1016)	3054	2845
PCB-1016 (Aroclor 1016)	2756	2602
PCB-1016 (Aroclor 1016)	2779	2581
PCB-1260 (Aroclor 1260)	5883	5334
PCB-1260 (Aroclor 1260)	6861	6360
PCB-1260 (Aroclor 1260)	8895	7913
PCB-1260 (Aroclor 1260)	12486	11174
PCB-1260 (Aroclor 1260)	8067	6727
Tetrachloro-m-xylene (S)	23677	23457
Decachlorobiphenyl (S)	20662	16295

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	16733	6708	0.401	8.553		
1.211	10571	9451	0.894	12.072	$ 10 Tetrachloro-m-xylene (S)	
1.441	1046	982	0.939	1.252		
1.632	2224	1709	0.768	2.179	1 PCB-1016 (Aroclor 1016)	
1.746	554	680	1.227	0.867		
1.761	901	894	0.992	1.139		
1.807	368	423	1.150	0.539		
1.879	4376	3380	0.772	4.309	1 PCB-1016 (Aroclor 1016)	
1.932	1725	1634	0.947	2.083	1 PCB-1016 (Aroclor 1016)	
2.008	1007	1131	1.123	1.442		
2.036	1356	1260	0.929	1.606		
2.062	887	1002	1.130	1.277		
2.078	988	957	0.969	1.220		
2.188	1375	1478	1.075	1.884	1 PCB-1016 (Aroclor 1016)	
2.213	537	583	1.086	0.743		
2.239	425	463	1.089	0.590		
2.278	1167	1178	1.009	1.502	1 PCB-1016 (Aroclor 1016)	
2.425	901	914	1.014	1.165		
2.510	793	857	1.080	1.092		
2.797	1988	1762	0.886	2.246	7 PCB-1260 (Aroclor 1260)	
2.831	703	716	1.018	0.912		
2.885	2563	2622	1.023	3.343	7 PCB-1260 (Aroclor 1260)	
2.955	426	451	1.058	0.575		
2.995	3200	3162	0.988	4.031	7 PCB-1260 (Aroclor 1260)	
3.103	1224	1408	1.150	1.795		
3.122	1695	1581	0.932	2.015		
3.190	983	731	0.744	0.932		
3.227	3413	2567	0.752	3.273		
3.253	2331	2359	1.012	3.008		
3.289	1290	1278	0.990	1.629		
3.378	466	438	0.940	0.558		
3.439	2527	2297	0.909	2.928		
3.500	1281	1266	0.988	1.614		
3.533	996	965	0.969	1.230		
3.584	5271	5313	1.008	6.774	7 PCB-1260 (Aroclor 1260)	
3.786	1068	1078	1.009	1.374		
3.827	3806	3600	0.946	4.590	7 PCB-1260 (Aroclor 1260)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.973	200	202	1.009	0.257		
4.079	539	546	1.014	0.696		
4.153	1227	1221	0.995	1.556		
4.343	429	429	1.001	0.547		
4.501	6933	6747	0.973	8.603	$ 11 Decachlorobiphenyl (S)	
	92494	78423		100.000		

Total unknown % height = 46.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	2223	0.10000	0.108	80.00- 120.00	100.00	
1.878	1.878	0.000	4375	0.10000	0.106	162.66- 243.99	196.76	
1.932	1.932	0.000	1725	0.10000	0.104	63.55- 95.32	77.58	
2.188	2.188	0.000	1374	0.10000	0.108	49.13- 73.70	61.82	
2.277	2.277	0.000	1167	0.10000	0.106	42.04- 63.06	52.50	
Average of Peak Amounts =					0.10640			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	1988	0.10000	0.107	80.00- 120.00	100.00	
2.885	2.885	0.000	2562	0.10000	0.108	101.69- 152.53	128.89	
2.994	2.995	-0.001	3199	0.10000	0.108	125.91- 188.87	160.94	
3.583	3.584	-0.001	5270	0.10000	0.105	212.47- 318.70	265.09	
3.826	3.826	0.000	3806	0.10000	0.105	152.61- 228.91	191.43	
Average of Peak Amounts =					0.10660			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	10571	0.02000	0.0208			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	6932	0.02000	0.0206			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

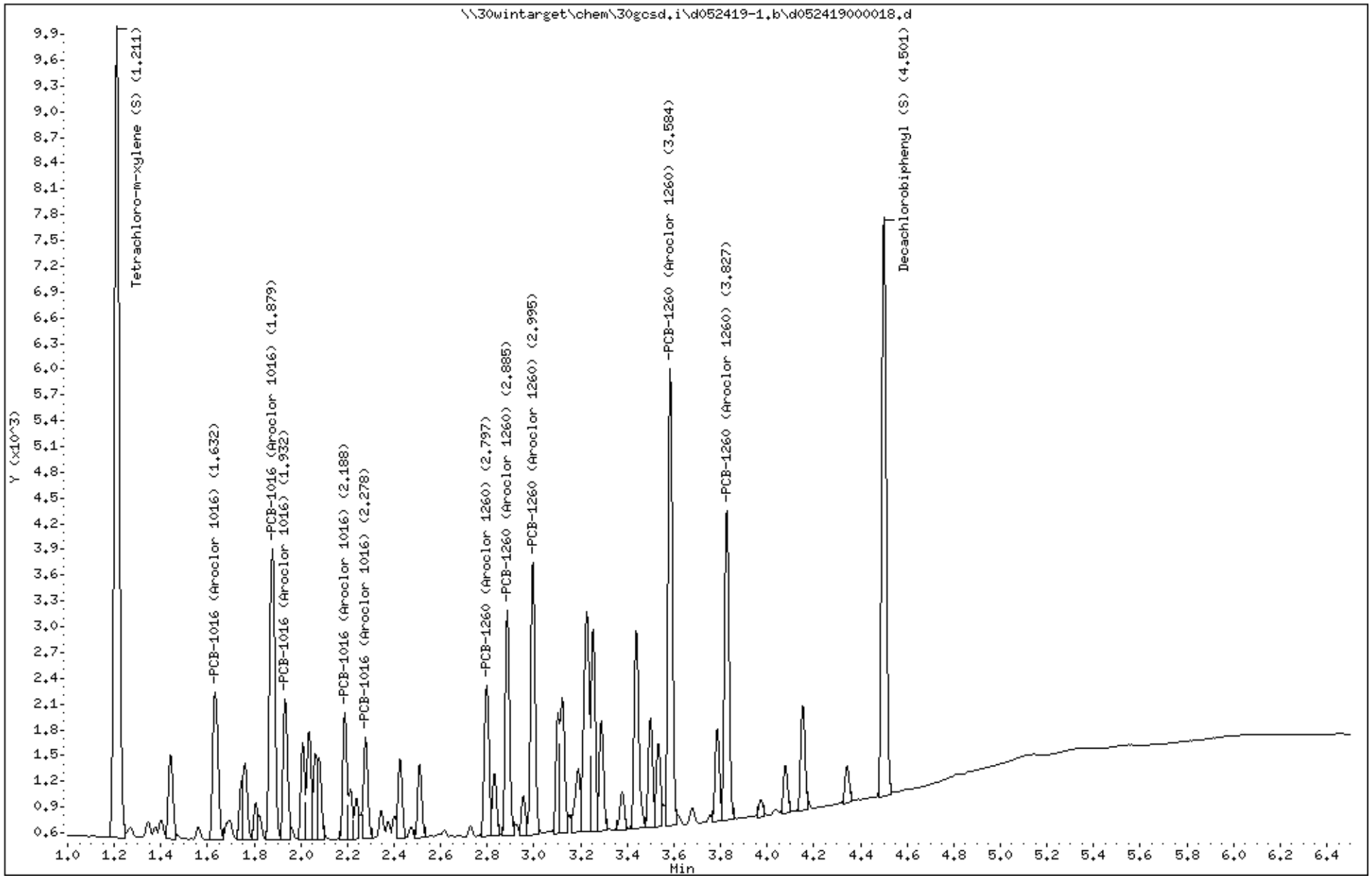
Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

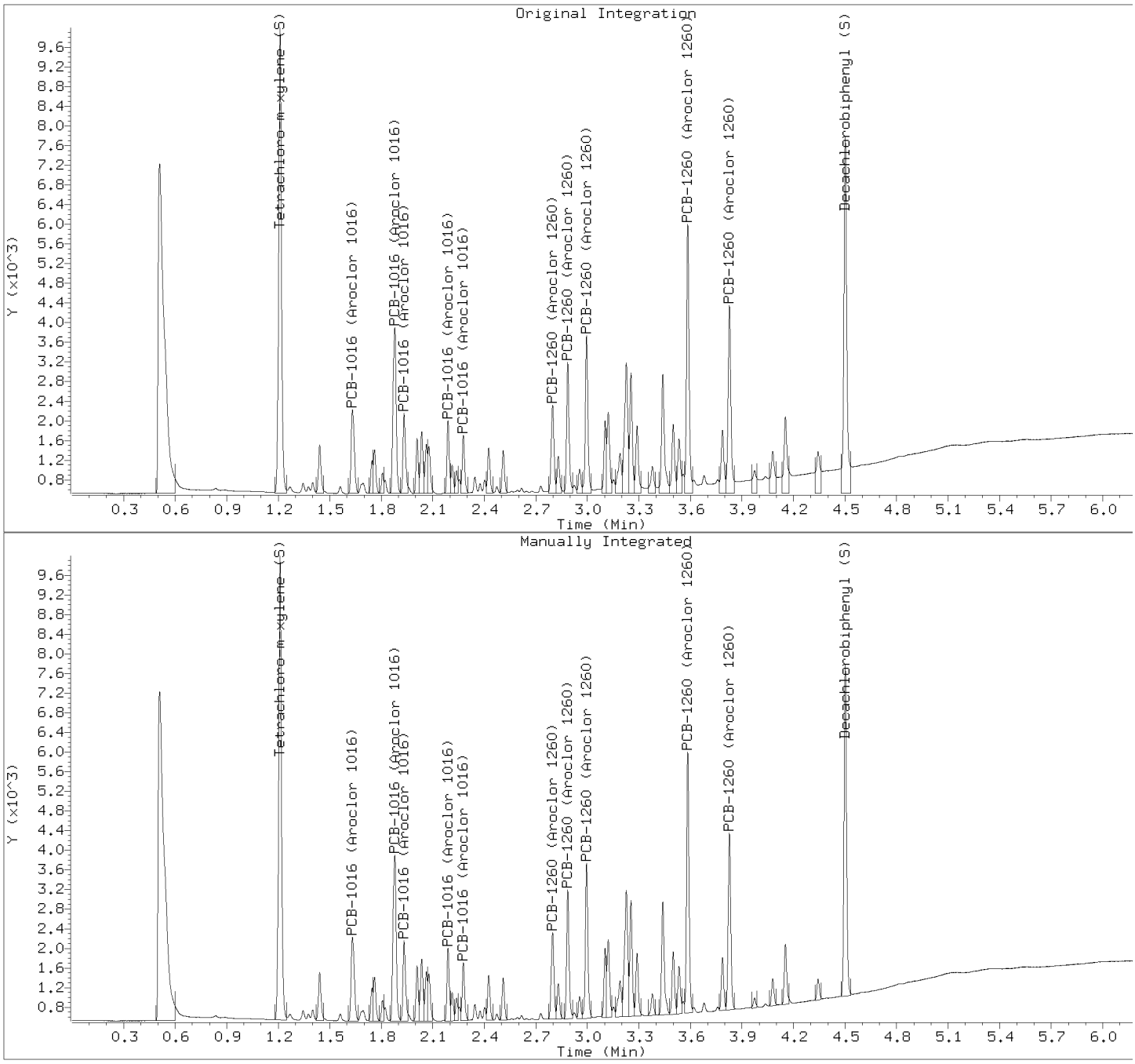
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.108	
	Peak found at 1.879	0.106	
	Peak found at 1.932	0.104	
	Peak found at 2.188	0.108	
	Peak found at 2.278	0.106	
	Average of Peak Amounts =	0.106	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.797	0.107	
	Peak found at 2.885	0.108	
	Peak found at 2.995	0.108	
	Peak found at 3.584	0.105	
	Peak found at 3.827	0.105	
	Average of Peak Amounts =	0.107	
877-09-8	Tetrachloro-m-xylene (S)	0.0208	
2051-24-3	Decachlorobiphenyl (S)	0.0206	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Sample Info: CAL2A, 88853:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2206	2223
PCB-1016 (Aroclor 1016)	4356	4375
PCB-1016 (Aroclor 1016)	1710	1725
PCB-1016 (Aroclor 1016)	1367	1374
PCB-1016 (Aroclor 1016)	1173	1167
PCB-1260 (Aroclor 1260)	2078	1988
PCB-1260 (Aroclor 1260)	2682	2562
PCB-1260 (Aroclor 1260)	3365	3199
PCB-1260 (Aroclor 1260)	5719	5270
PCB-1260 (Aroclor 1260)	4468	3806
Tetrachloro-m-xylene (S)	10649	10571
Decachlorobiphenyl (S)	8661	6932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	12555	9011	0.718	12.185		
0.565	1251	1243	0.994	1.680		
0.583	2098	1129	0.538	1.526		
1.587	9393	9098	0.969	12.330	$ 10 Tetrachloro-m-xylene (S)	
1.762	1000	973	0.973	1.315		
1.964	1229	1297	1.055	1.753	1 PCB-1016 (Aroclor 1016)	
1.984	714	737	1.032	0.996		
2.076	807	841	1.043	1.137		
2.201	317	344	1.087	0.465		
2.269	1623	1874	1.155	2.534		
2.286	2259	2342	1.037	3.167	1 PCB-1016 (Aroclor 1016)	
2.306	1489	1437	0.965	1.943		
2.375	1137	1074	0.944	1.452	1 PCB-1016 (Aroclor 1016)	
2.439	918	949	1.033	1.283		
2.470	1060	1080	1.019	1.460	1 PCB-1016 (Aroclor 1016)	
2.499	402	378	0.940	0.511		
2.561	1052	1094	1.040	1.479	1 PCB-1016 (Aroclor 1016)	
2.590	574	512	0.893	0.692		
2.617	355	370	1.042	0.500		
2.639	275	283	1.029	0.382		
2.667	880	762	0.866	1.030		
2.818	785	712	0.907	0.962		
2.960	772	734	0.951	0.992		
3.161	369	356	0.964	0.481		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.199	296	311	1.051	0.420		
3.246	1376	1078	0.784	1.457		
3.277	243	283	1.162	0.382		
3.309	2135	2112	0.989	2.856	7 PCB-1260 (Aroclor 1260)	
3.392	207	199	0.961	0.269		
3.437	332	333	1.002	0.450		
3.480	2562	2542	0.992	3.437	7 PCB-1260 (Aroclor 1260)	
3.503	832	838	1.007	1.133		
3.556	1686	1145	0.679	1.548		
3.588	225	217	0.964	0.293		
3.632	149	223	1.497	0.301		
3.663	2877	2427	0.843	3.282	7 PCB-1260 (Aroclor 1260)	
3.722	1928	1864	0.967	2.520		
3.758	1009	1011	1.002	1.367		
3.840	396	432	1.091	0.584		
3.863	1979	1853	0.936	2.505		
3.897	102	117	1.142	0.158		
3.923	961	952	0.990	1.287		
3.952	569	531	0.933	0.718		
4.014	486	466	0.959	0.630		
4.060	4445	4204	0.946	5.685	7 PCB-1260 (Aroclor 1260)	
4.102	147	227	1.542	0.306		
4.248	2671	2363	0.885	3.195	7 PCB-1260 (Aroclor 1260)	
4.273	349	449	1.288	0.607		
4.296	1207	1022	0.847	1.382		
4.437	71	106	1.502	0.143		
4.497	488	456	0.934	0.616		
4.618	1058	1021	0.965	1.380		
4.658	37	56	1.524	0.075		
4.809	380	368	0.967	0.497		
4.960	6509	6069	0.932	8.207	$ 11 Decachlorobiphenyl (S)	
5.279	6	21	3.333	0.028		
6.139	5	20	4.348	0.027		
	81035	73946		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	1228	0.10000	0.108	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	2258	0.10000	0.104	152.31- 228.47	183.79	
2.374	2.374	0.000	1137	0.10000	0.105	75.27- 112.91	92.56	
2.470	2.470	0.000	1059	0.10000	0.106	68.58- 102.86	86.23	
2.560	2.560	0.000	1051	0.10000	0.106	68.26- 102.40	85.59	
Average of Peak Amounts =					0.10580			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	2134	0.10000	0.105	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	2561	0.10000	0.105	88.62- 132.94	120.00	
3.663	3.662	0.001	2877	0.10000	0.0982	120.10- 180.15	134.78	
4.059	4.060	-0.001	4444	0.10000	0.103	171.60- 257.41	208.19	
4.247	4.247	0.000	2670	0.10000	0.103	103.64- 155.46	125.11	
Average of Peak Amounts =					0.10284			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	9392	0.02000	0.0207		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	6508	0.02000	0.0205		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

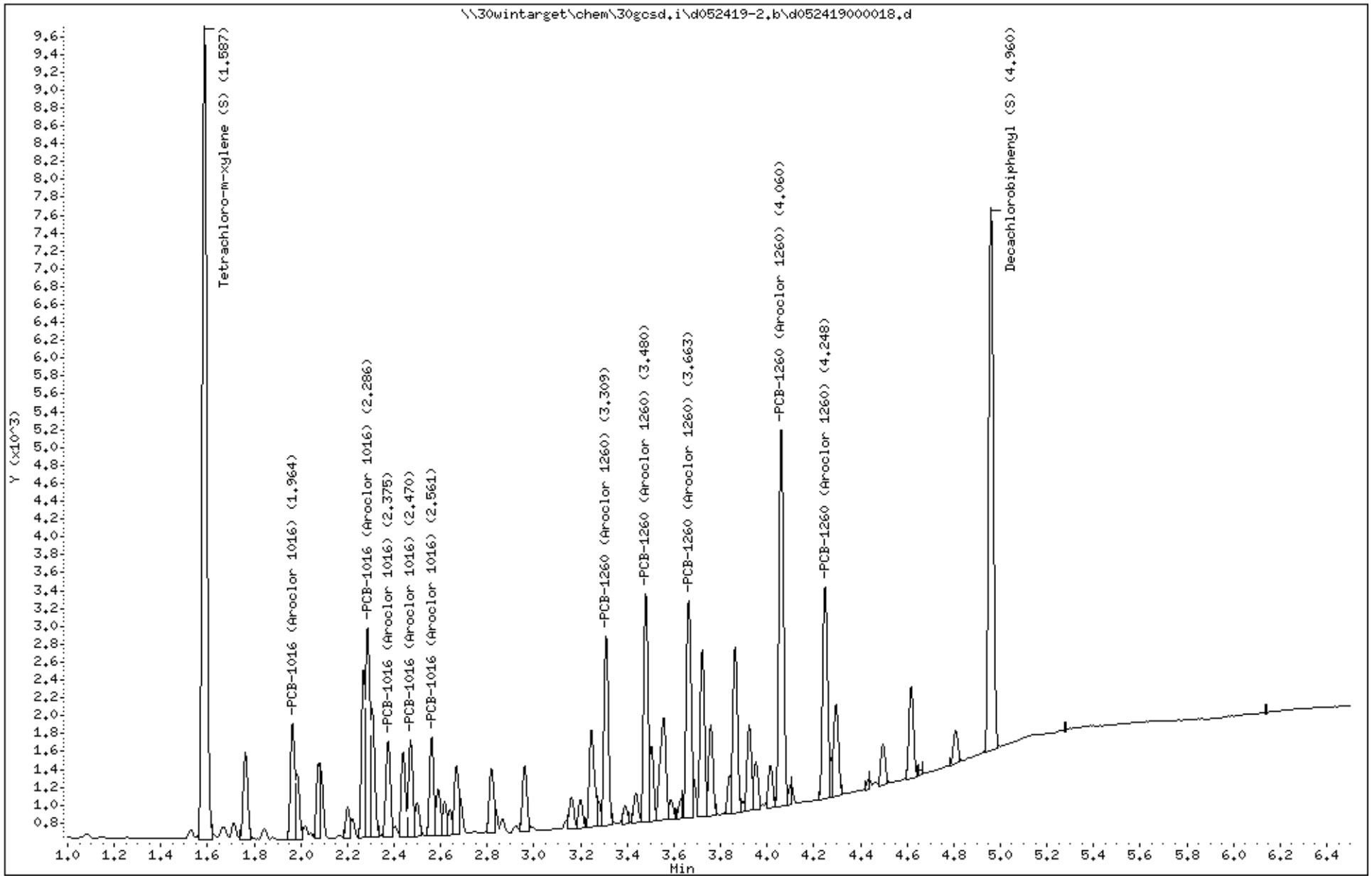
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

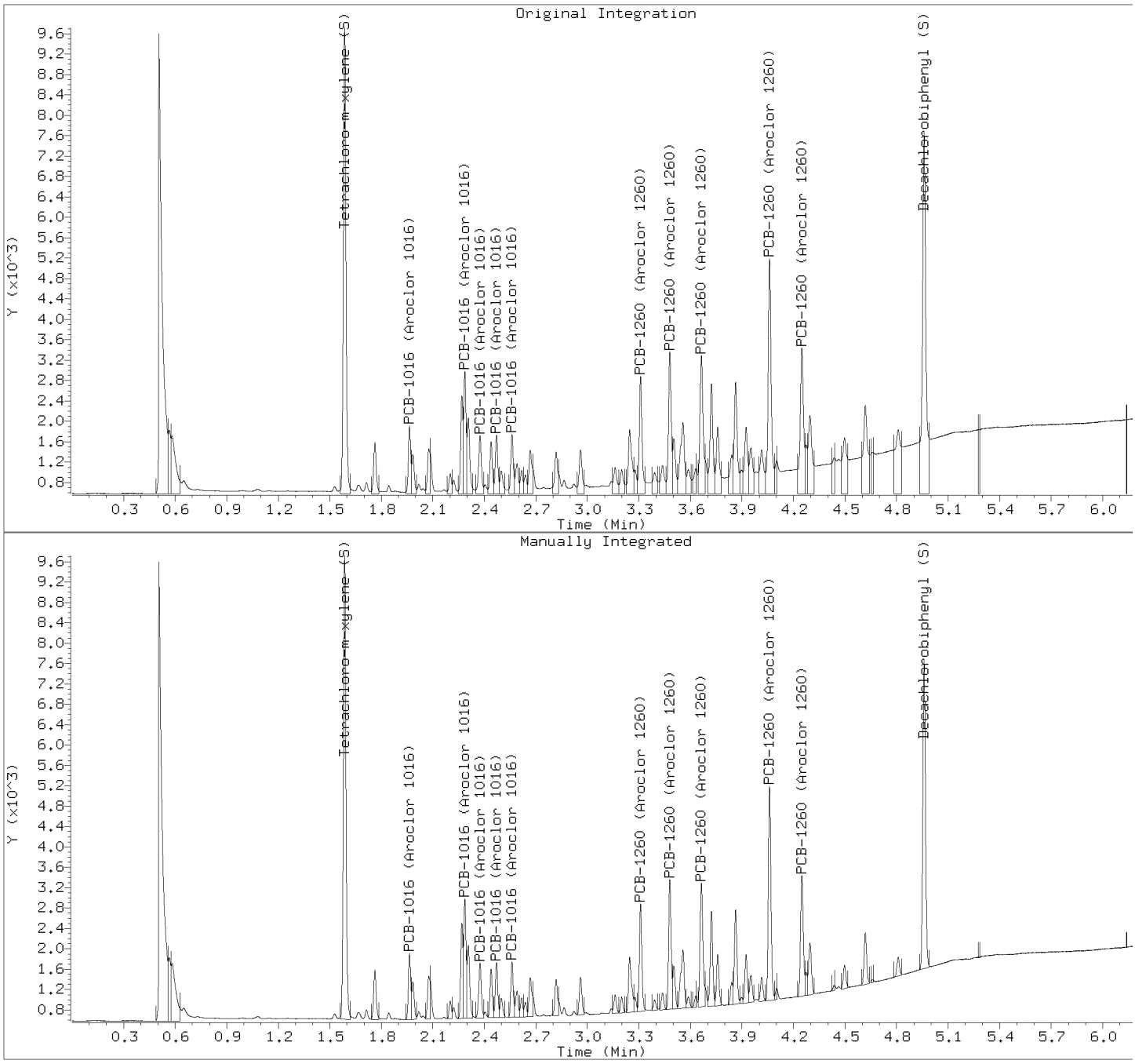
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.108	J
	Peak found at 2.286	0.104	J
	Peak found at 2.375	0.105	J
	Peak found at 2.470	0.106	J
	Peak found at 2.561	0.106	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.105	J
	Peak found at 3.480	0.105	J
	Peak found at 3.663	0.0982	J
	Peak found at 4.060	0.103	J
	Peak found at 4.248	0.103	J
	Average of Peak Amounts =	0.103	J
877-09-8	Tetrachloro-m-xylene (S)	0.0207	J
2051-24-3	Decachlorobiphenyl (S)	0.0205	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Instrument: 30gcsd.i
Sample Info: CAL2A, 88853:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1279	1228
PCB-1016 (Aroclor 1016)	2300	2258
PCB-1016 (Aroclor 1016)	1288	1137
PCB-1016 (Aroclor 1016)	1178	1059
PCB-1016 (Aroclor 1016)	1198	1051
PCB-1260 (Aroclor 1260)	2628	2134
PCB-1260 (Aroclor 1260)	3065	2561
PCB-1260 (Aroclor 1260)	3541	2877
PCB-1260 (Aroclor 1260)	5705	4444
PCB-1260 (Aroclor 1260)	3935	2670
Tetrachloro-m-xylene (S)	9501	9392
Decachlorobiphenyl (S)	9842	6508

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	9429	3422	0.363	8.960		
1.210	5272	4675	0.887	12.257	$ 10 Tetrachloro-m-xylene (S)	
1.441	524	497	0.948	1.301		
1.632	1128	871	0.772	2.280	1 PCB-1016 (Aroclor 1016)	
1.760	446	450	1.009	1.178		
1.879	2175	1662	0.764	4.351	1 PCB-1016 (Aroclor 1016)	
1.932	858	829	0.966	2.170	1 PCB-1016 (Aroclor 1016)	
2.008	500	560	1.119	1.466		
2.036	685	647	0.945	1.694		
2.063	462	509	1.102	1.332		
2.078	488	490	1.004	1.283		
2.189	695	751	1.081	1.966	1 PCB-1016 (Aroclor 1016)	
2.278	574	583	1.015	1.526	1 PCB-1016 (Aroclor 1016)	
2.426	452	460	1.017	1.204		
2.510	405	438	1.082	1.146		
2.798	1012	896	0.885	2.346	7 PCB-1260 (Aroclor 1260)	
2.831	354	364	1.030	0.953		
2.886	1293	1347	1.042	3.527	7 PCB-1260 (Aroclor 1260)	
2.955	214	224	1.044	0.586		
2.996	1617	1612	0.997	4.220	7 PCB-1260 (Aroclor 1260)	
3.103	602	681	1.131	1.783		
3.122	865	801	0.926	2.097		
3.190	501	366	0.731	0.958		
3.227	1708	1298	0.760	3.398		
3.254	1191	1181	0.992	3.092		
3.289	654	658	1.007	1.722		
3.379	219	216	0.985	0.565		
3.439	1183	1134	0.959	2.969		
3.500	640	633	0.989	1.657		
3.534	490	476	0.972	1.246		
3.584	2640	2633	0.998	6.894	7 PCB-1260 (Aroclor 1260)	
3.786	538	549	1.020	1.437		
3.827	1894	1813	0.957	4.747	7 PCB-1260 (Aroclor 1260)	
4.080	257	268	1.043	0.701		
4.153	606	615	1.016	1.610		
4.343	134	219	1.640	0.573		
4.501	3497	3363	0.962	8.805	$ 11 Decachlorobiphenyl (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	46199	38191		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	1127	0.05000	0.0549	80.00- 120.00	100.00	
1.878	1.878	0.000	2175	0.05000	0.0526	162.66- 243.99	192.87	
1.932	1.932	0.000	857	0.05000	0.0514	63.55- 95.32	76.07	
2.188	2.188	0.000	694	0.05000	0.0543	49.13- 73.70	61.59	
2.277	2.277	0.000	574	0.05000	0.0523	42.04- 63.06	50.92	
Average of Peak Amounts =				0.05310				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.798	2.797	0.001	1012	0.05000	0.0546	80.00- 120.00	100.00	
2.885	2.885	0.000	1292	0.05000	0.0545	101.69- 152.53	127.74	
2.995	2.995	0.000	1616	0.05000	0.0544	125.91- 188.87	159.77	
3.584	3.584	0.000	2639	0.05000	0.0526	212.47- 318.70	260.81	
3.827	3.826	0.001	1893	0.05000	0.0522	152.61- 228.91	187.11	
Average of Peak Amounts =				0.05366				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	5271	0.01000	0.0104			
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.501	4.501	0.000	3497	0.01000	0.0104			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

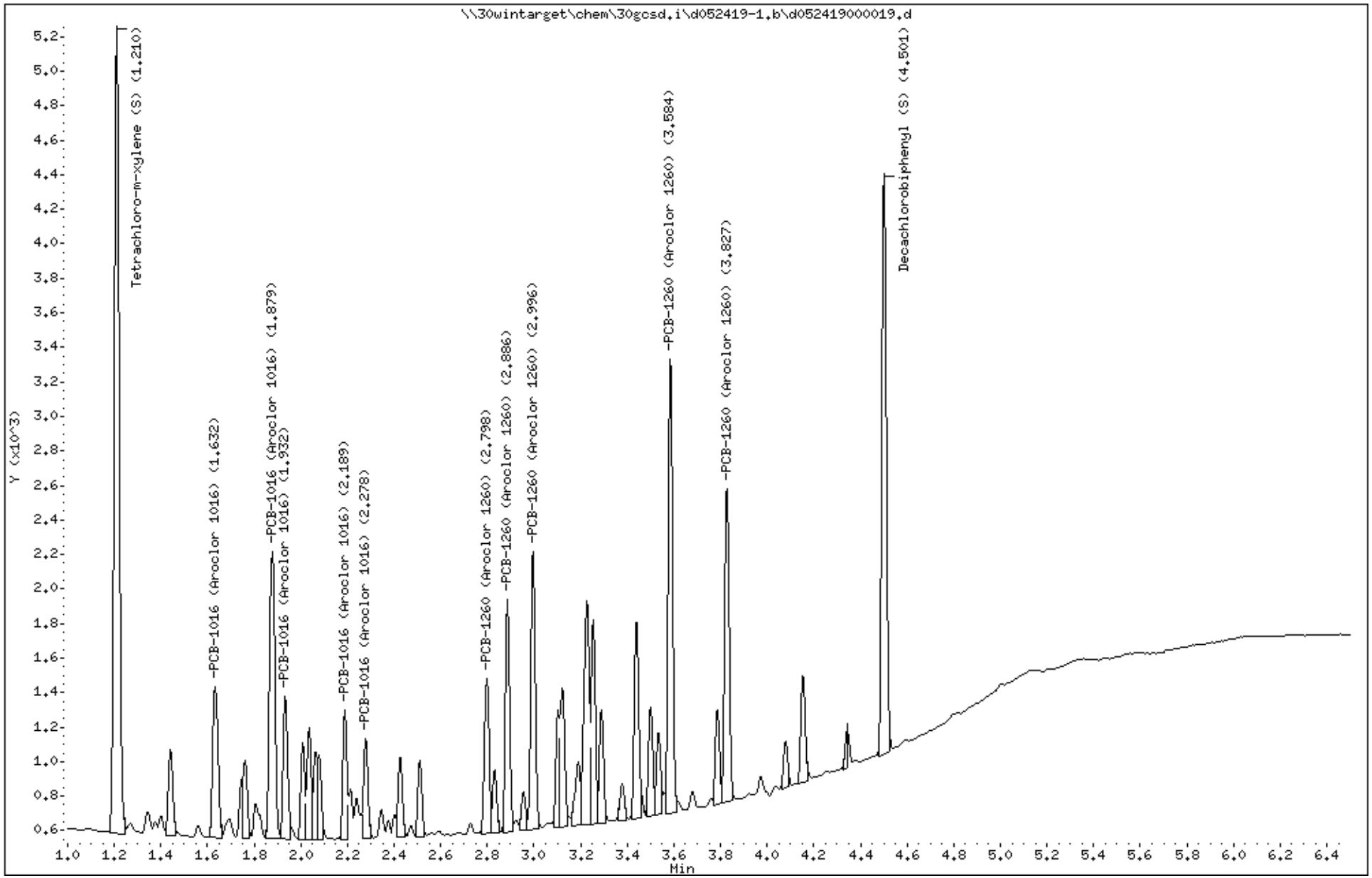
Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

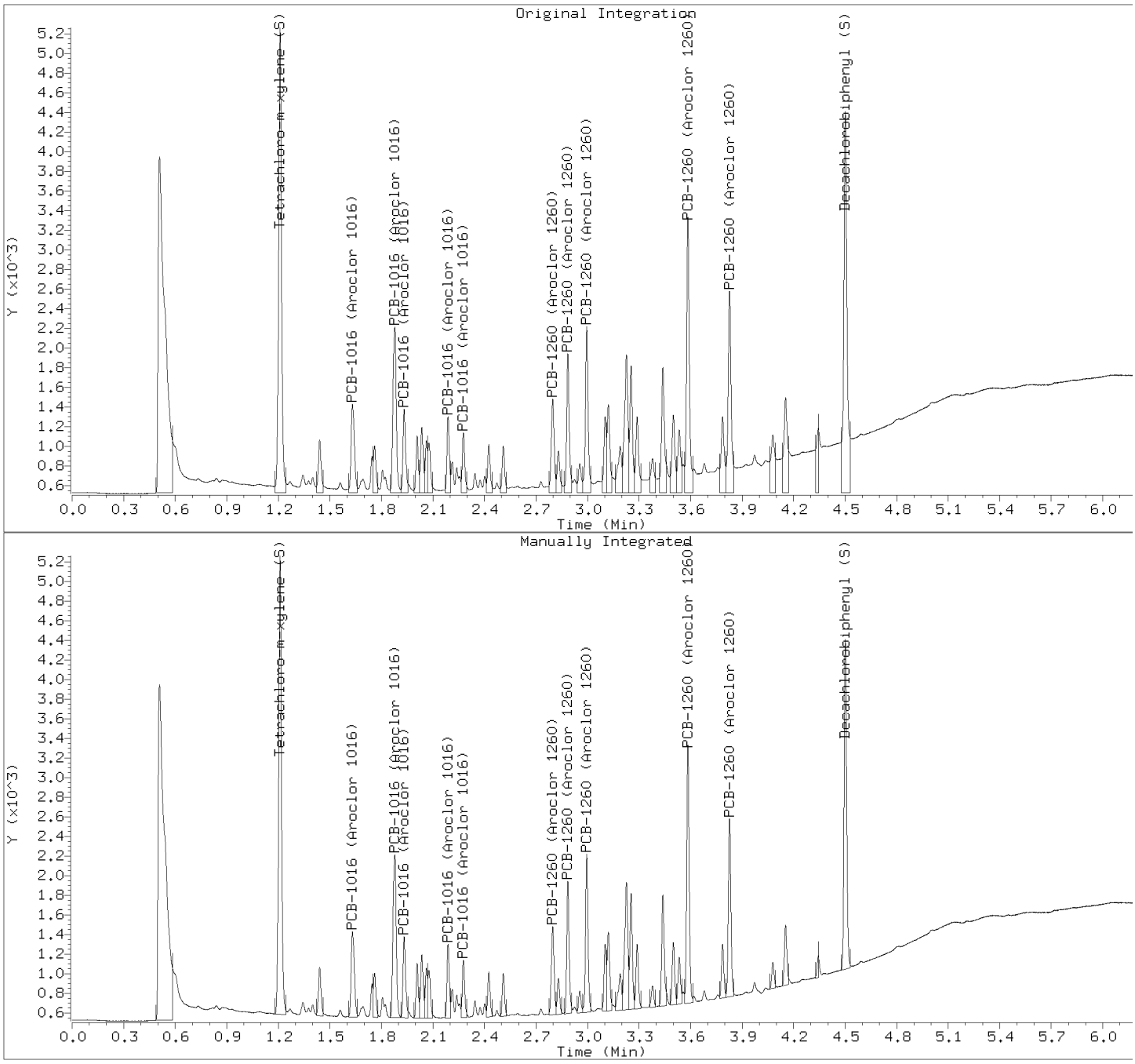
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.0549	
	Peak found at 1.879	0.0526	
	Peak found at 1.932	0.0514	
	Peak found at 2.189	0.0543	
	Peak found at 2.278	0.0523	
	Average of Peak Amounts =	0.0531	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.0546	
	Peak found at 2.886	0.0545	
	Peak found at 2.996	0.0544	
	Peak found at 3.584	0.0526	
	Peak found at 3.827	0.0522	
	Average of Peak Amounts =	0.0537	
877-09-8	Tetrachloro-m-xylene (S)	0.0104	
2051-24-3	Decachlorobiphenyl (S)	0.0104	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Sample Info: CAL1A, 88852:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1224	1127
PCB-1016 (Aroclor 1016)	2273	2175
PCB-1016 (Aroclor 1016)	919	857
PCB-1016 (Aroclor 1016)	737	694
PCB-1016 (Aroclor 1016)	629	574
PCB-1260 (Aroclor 1260)	1157	1012
PCB-1260 (Aroclor 1260)	1470	1292
PCB-1260 (Aroclor 1260)	1854	1616
PCB-1260 (Aroclor 1260)	3155	2639
PCB-1260 (Aroclor 1260)	2569	1893
Tetrachloro-m-xylene (S)	5489	5271
Decachlorobiphenyl (S)	5094	3497

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	6542	5060	0.773	13.893		
0.567	981	915	0.932	2.507		
0.585	1777	1034	0.582	2.834		
1.586	4728	4498	0.951	12.328	$ 10 Tetrachloro-m-xylene (S)	
1.762	486	485	0.998	1.329		
1.964	619	647	1.045	1.773	1 PCB-1016 (Aroclor 1016)	
1.984	360	373	1.036	1.022		
2.076	378	426	1.128	1.167		
2.268	797	925	1.160	2.535		
2.287	1112	1156	1.039	3.168	1 PCB-1016 (Aroclor 1016)	
2.306	723	717	0.991	1.965		
2.375	542	519	0.958	1.422	1 PCB-1016 (Aroclor 1016)	
2.439	457	475	1.039	1.301		
2.470	544	549	1.010	1.504	1 PCB-1016 (Aroclor 1016)	
2.560	524	550	1.050	1.507	1 PCB-1016 (Aroclor 1016)	
2.590	280	252	0.899	0.690		
2.667	406	373	0.920	1.022		
2.817	383	365	0.952	1.000		
2.960	355	355	1.001	0.973		
3.162	171	174	1.020	0.476		
3.246	672	537	0.799	1.471		
3.309	1071	1058	0.988	2.899	7 PCB-1260 (Aroclor 1260)	
3.479	1287	1252	0.972	3.431	7 PCB-1260 (Aroclor 1260)	
3.503	365	376	1.030	1.030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.556	840	563	0.671	1.543		
3.632	111	108	0.976	0.296		
3.663	1408	1212	0.861	3.322	7 PCB-1260 (Aroclor 1260)	
3.722	953	906	0.951	2.483		
3.758	496	493	0.993	1.351		
3.840	201	213	1.061	0.583		
3.863	976	935	0.958	2.562		
3.923	473	459	0.970	1.258		
3.951	287	273	0.951	0.748		
4.014	235	227	0.966	0.622		
4.060	2192	2097	0.957	5.747	7 PCB-1260 (Aroclor 1260)	
4.103	87	106	1.218	0.290		
4.248	1324	1190	0.899	3.261	7 PCB-1260 (Aroclor 1260)	
4.295	596	499	0.837	1.367		
4.437	30	54	1.784	0.148		
4.497	254	234	0.921	0.641		
4.618	508	496	0.977	1.359		
4.809	195	190	0.972	0.520		
4.960	3293	3051	0.926	8.362	$ 11 Decachlorobiphenyl (S)	
5.291	7	25	3.765	0.068		
5.663	11	28	2.593	0.076		
5.787	2	8	4.494	0.021		
5.934	3	3	1.163	0.008		
6.188	7	21	2.846	0.057		
6.234	8	22	2.764	0.060		
	40055	36484		100.000		

Total unknown % height = 51.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	619	0.05000	0.0543	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	1112	0.05000	0.0510	152.31- 228.47	179.71	
2.374	2.374	0.000	541	0.05000	0.0499	75.27- 112.91	87.51	
2.470	2.470	0.000	543	0.05000	0.0544	68.58- 102.86	87.83	
2.560	2.560	0.000	523	0.05000	0.0528	68.26- 102.40	84.60	
Average of Peak Amounts =					0.05248			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	1070	0.05000	0.0526	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	1287	0.05000	0.0528	88.62- 132.94	120.24	
3.663	3.662	0.001	1407	0.05000	0.0480	120.10- 180.15	131.46	
4.060	4.060	0.000	2191	0.05000	0.0509	171.60- 257.41	204.67	
4.247	4.247	0.000	1323	0.05000	0.0511	103.64- 155.46	123.61	
Average of Peak Amounts =					0.05108			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	4728	0.01000	0.0104		(a)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	3293	0.01000	0.0104		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

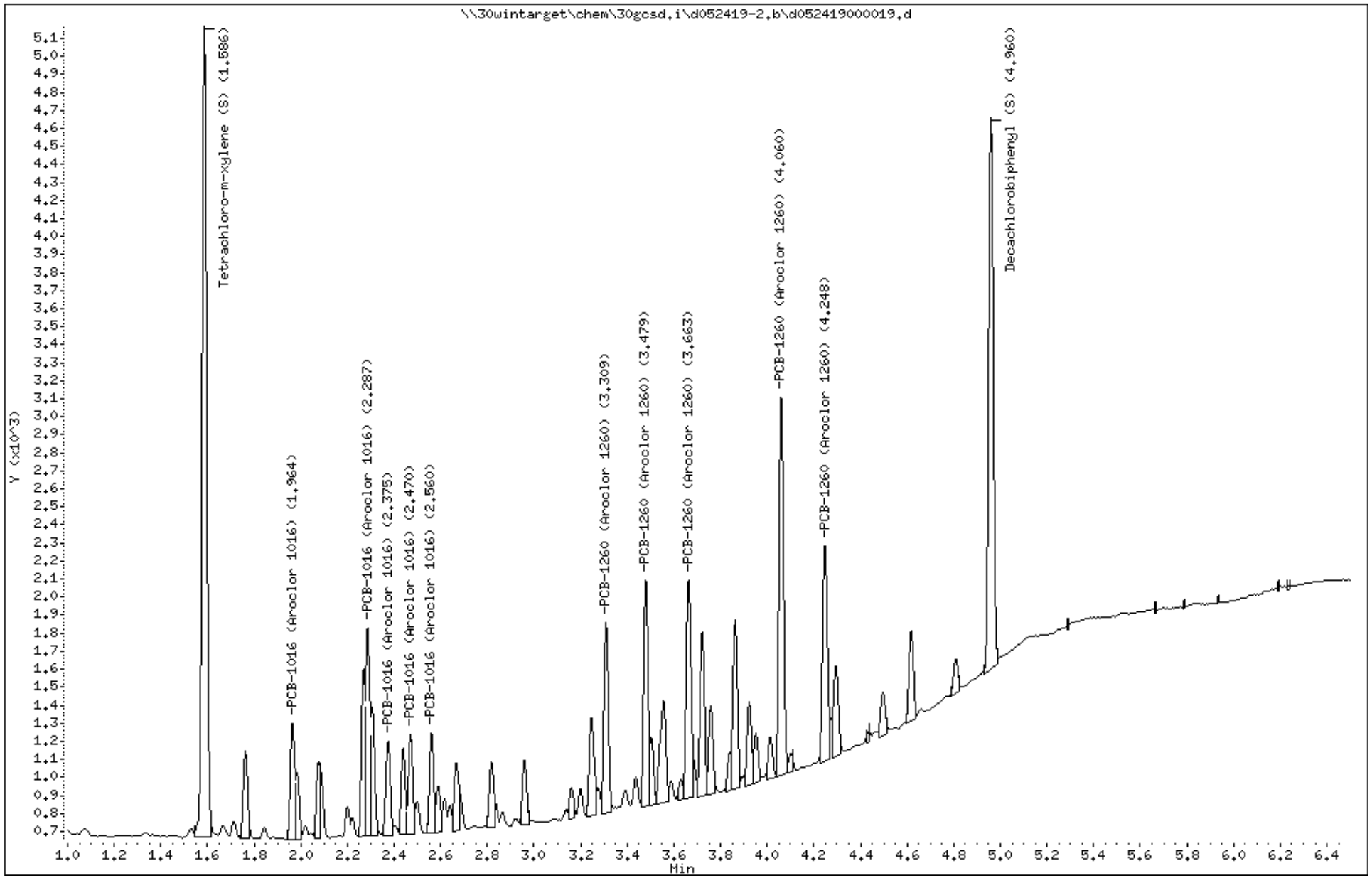
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

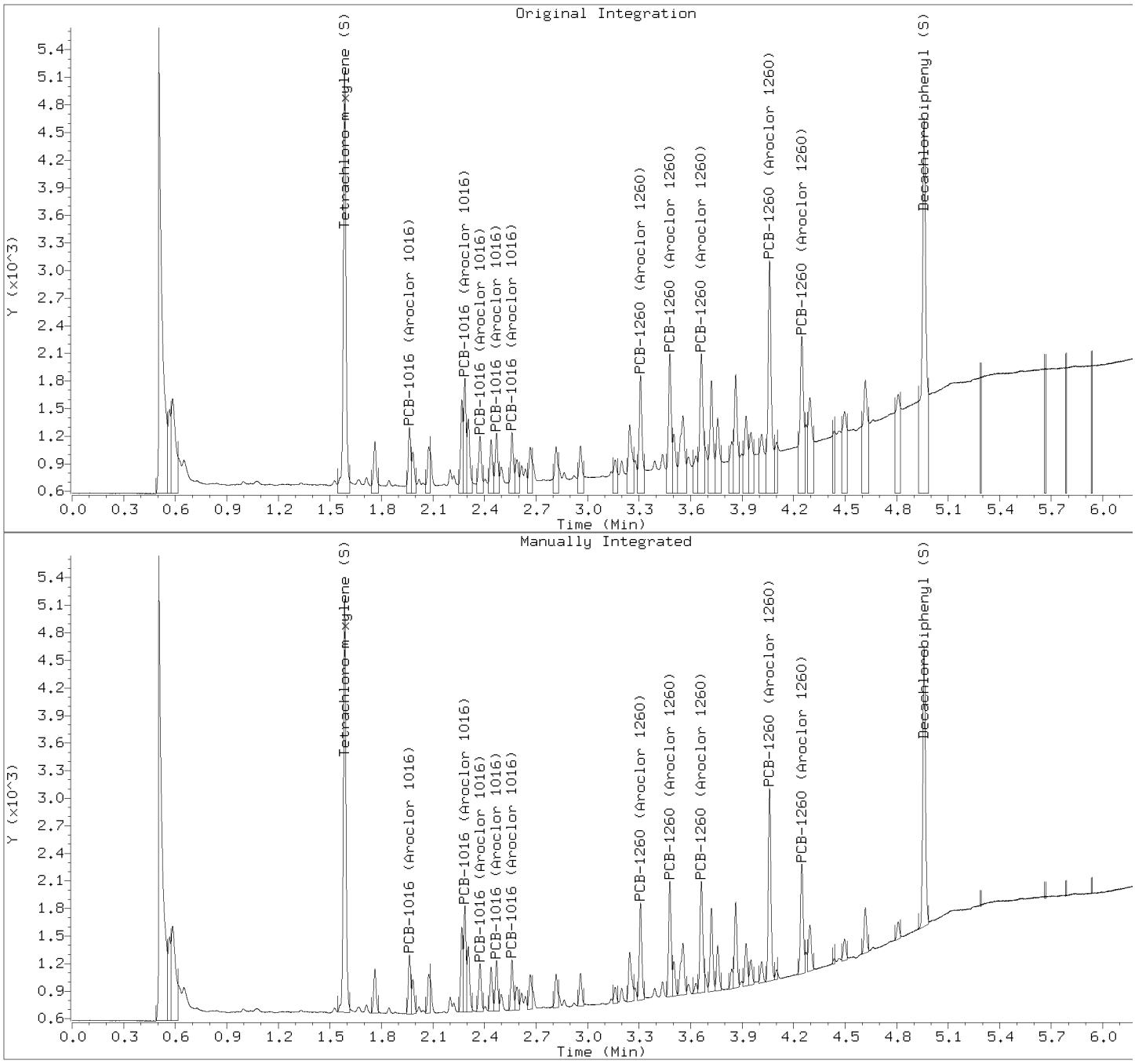
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.0543	J
	Peak found at 2.287	0.0510	J
	Peak found at 2.375	0.0499	J
	Peak found at 2.470	0.0544	J
	Peak found at 2.560	0.0528	J
	Average of Peak Amounts =	0.0525	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.0526	J
	Peak found at 3.479	0.0528	J
	Peak found at 3.663	0.0480	J
	Peak found at 4.060	0.0509	J
	Peak found at 4.248	0.0511	J
	Average of Peak Amounts =	0.0511	J
877-09-8	Tetrachloro-m-xylene (S)	0.0104	J
2051-24-3	Decachlorobiphenyl (S)	0.0104	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Instrument: 30gcsd.i
Sample Info: CAL1A, 88852:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	750	619
PCB-1016 (Aroclor 1016)	1222	1112
PCB-1016 (Aroclor 1016)	777	541
PCB-1016 (Aroclor 1016)	749	543
PCB-1016 (Aroclor 1016)	750	523
PCB-1260 (Aroclor 1260)	1629	1070
PCB-1260 (Aroclor 1260)	1847	1287
PCB-1260 (Aroclor 1260)	2144	1407
PCB-1260 (Aroclor 1260)	3520	2191
PCB-1260 (Aroclor 1260)	2605	1323
Tetrachloro-m-xylene (S)	5104	4728
Decachlorobiphenyl (S)	6898	3293

SAMPLE NO.

10982565ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-1.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.631	1.601	1.661	20538.0000	21604.0000	5.1904
Aroclor 1016	2	Averaged	1.878	1.848	1.908	41334.8333	44156.0000	6.8252
Aroclor 1016	3	Averaged	1.931	1.902	1.962	16656.1666	17236.0000	3.4812
Aroclor 1016	4	Averaged	2.187	2.158	2.218	12773.1666	13440.0000	5.2206
Aroclor 1016	5	Averaged	2.277	2.247	2.307	10979.5000	10340.0000	-5.8245
Aroclor 1260	1	Averaged	2.796	2.767	2.827	18544.0555	20096.0000	8.3690
Aroclor 1260	2	Averaged	2.884	2.855	2.915	23715.7777	23532.0000	-0.7749
Aroclor 1260	3	Averaged	2.994	2.965	3.025	29676.1111	29232.0000	-1.4965
Aroclor 1260	4	Averaged	3.583	3.554	3.614	50204.3888	49736.0000	-0.9330
Aroclor 1260	5	Averaged	3.826	3.796	3.856	36243.8333	37228.0000	2.7154
Decachlorobiphenyl		Averaged	4.5	4.471	4.531	335650.833	344620.000	13.7909
Tetrachloro-m-xylene		Averaged	1.21	1.18	1.24	508604.722	531440.000	4.8280

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

07/08/2019 2:30

SAMPLE NO.

10982548ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-2.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.963	1.933	1.993	11393.2222	11928.0000	4.6938
Aroclor 1016	2	Averaged	2.286	2.256	2.316	21808.0555	23348.0000	7.0614
Aroclor 1016	3	Averaged	2.374	2.344	2.404	10849.6666	11568.0000	6.6208
Aroclor 1016	4	Averaged	2.47	2.44	2.5	9980.38889	10672.0000	6.9297
Aroclor 1016	5	Averaged	2.56	2.53	2.59	9901.66667	10468.0000	5.7196
Aroclor 1260	1	Averaged	3.309	3.279	3.339	20320.3333	20036.0000	-1.3993
Aroclor 1260	2	Averaged	3.479	3.448	3.508	24356.2222	23864.0000	-2.0209
Aroclor 1260	3	Averaged	3.662	3.632	3.692	29292.0000	28836.0000	-1.5567
Aroclor 1260	4	Averaged	4.06	4.03	4.09	43025.1666	42548.0000	-1.1090
Aroclor 1260	5	Averaged	4.248	4.217	4.277	25869.7777	26776.0000	3.5030
Decachlorobiphenyl		Averaged	4.96	4.93	4.99	317463.333	326040.000	26.1248
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	474220.000	5.3381

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11130597CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/21/2019 Time: 19:46

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D062119-1.B\D061719000057.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.632	1.603	1.663	20538.0000	22112.0000	7.6638
Aroclor 1016	2	Averaged	1.879	1.851	1.911	41334.8333	44116.0000	6.7284
Aroclor 1016	3	Averaged	1.933	1.904	1.964	16656.1666	18248.0000	9.5570
Aroclor 1016	4	Averaged	2.189	2.16	2.22	12773.1666	13324.0000	4.3124
Aroclor 1016	5	Averaged	2.278	2.249	2.309	10979.5000	11676.0000	6.3436
Aroclor 1260	1	Averaged	2.797	2.769	2.829	18544.0555	18792.0000	1.3371
Aroclor 1260	2	Averaged	2.885	2.857	2.917	23715.7777	24028.0000	1.3165
Aroclor 1260	3	Averaged	2.995	2.967	3.027	29676.1111	29372.0000	-1.0248
Aroclor 1260	4	Averaged	3.584	3.557	3.617	50204.3888	50128.0000	-0.1522
Aroclor 1260	5	Averaged	3.827	3.799	3.859	36243.8333	36080.0000	-0.4520
Decachlorobiphenyl		Averaged	4.499	4.473	4.533	335650.833	337220.000	0.4675
Tetrachloro-m-xylene		Averaged	1.212	1.183	1.243	508604.722	550200.000	8.1783

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

07/08/2019 2:30

SAMPLE NO.

11130598CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/21/2019 Time: 19:46

Instrument ID: 30GCSD GC Column: Col 2 Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D062119-2.B\D061719000057.D Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.961	1.932	1.992	11393.2222	12108.0000	6.2737
Aroclor 1016	2	Averaged	2.283	2.254	2.314	21808.0555	23316.0000	6.9146
Aroclor 1016	3	Averaged	2.371	2.342	2.402	10849.6666	11468.0000	5.6991
Aroclor 1016	4	Averaged	2.467	2.438	2.498	9980.38889	10492.0000	5.1262
Aroclor 1016	5	Averaged	2.557	2.528	2.588	9901.66667	10276.0000	3.7805
Aroclor 1260	1	Averaged	3.304	3.275	3.335	20320.3333	20612.0000	1.4353
Aroclor 1260	2	Averaged	3.474	3.445	3.505	24356.2222	24284.0000	-0.2965
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	30396.0000	3.7689
Aroclor 1260	4	Averaged	4.055	4.026	4.086	43025.1666	42992.0000	-0.0771
Aroclor 1260	5	Averaged	4.242	4.214	4.274	25869.7777	25828.0000	-0.1615
Decachlorobiphenyl		Averaged	4.952	4.926	4.986	317463.333	314620.000	-0.8956
Tetrachloro-m-xylene		Averaged	1.585	1.555	1.615	454175.833	488000.000	7.4474

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

07/08/2019 2:30

SAMPLE NO.

11130601CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/21/2019 Time: 23:19

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D062119-1.B\D061719000082.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.632	1.603	1.663	20538.0000	19612.0000	-4.5087
Aroclor 1016	2	Averaged	1.88	1.851	1.911	41334.8333	39696.0000	-3.9648
Aroclor 1016	3	Averaged	1.933	1.904	1.964	16656.1666	15776.0000	-5.2843
Aroclor 1016	4	Averaged	2.189	2.16	2.22	12773.1666	11536.0000	-9.6857
Aroclor 1016	5	Averaged	2.278	2.249	2.309	10979.5000	9844.00000	-10.3420
Aroclor 1260	1	Averaged	2.798	2.769	2.829	18544.0555	16824.0000	-9.2755
Aroclor 1260	2	Averaged	2.886	2.857	2.917	23715.7777	21604.0000	-8.9045
Aroclor 1260	3	Averaged	2.996	2.967	3.027	29676.1111	25832.0000	-12.9536
Aroclor 1260	4	Averaged	3.584	3.557	3.617	50204.3888	45304.0000	-9.7609
Aroclor 1260	5	Averaged	3.826	3.799	3.859	36243.8333	35604.0000	-1.7654
Decachlorobiphenyl		Averaged	4.499	4.473	4.533	335650.833	344760.000	2.7139
Tetrachloro-m-xylene		Averaged	1.213	1.183	1.243	508604.722	529100.000	4.0297

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

07/08/2019 2:30

SAMPLE NO.

11130599CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 06/21/2019 Time: 23:19

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D062119-2.B\D061719000082.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.961	1.932	1.992	11393.2222	11060.0000	-2.9247
Aroclor 1016	2	Averaged	2.284	2.254	2.314	21808.0555	21680.0000	-0.5872
Aroclor 1016	3	Averaged	2.371	2.342	2.402	10849.6666	10548.0000	-2.7804
Aroclor 1016	4	Averaged	2.467	2.438	2.498	9980.38889	9272.00000	-7.0978
Aroclor 1016	5	Averaged	2.557	2.528	2.588	9901.66667	8756.00000	-11.5704
Aroclor 1260	1	Averaged	3.304	3.275	3.335	20320.3333	17820.0000	-12.3046
Aroclor 1260	2	Averaged	3.475	3.445	3.505	24356.2222	22492.0000	-7.6540
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	27488.0000	-6.1587
Aroclor 1260	4	Averaged	4.055	4.026	4.086	43025.1666	42072.0000	-2.2154
Aroclor 1260	5	Averaged	4.242	4.214	4.274	25869.7777	25384.0000	-1.8778
Decachlorobiphenyl		Averaged	4.951	4.926	4.986	317463.333	346240.000	9.0646
Tetrachloro-m-xylene		Averaged	1.585	1.555	1.615	454175.833	470840.000	3.6691

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11174376CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/01/2019 Time: 14:38

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D070119-1.B\D070119000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.632	1.602	1.662	20538.0000	20372.0000	-0.8083
Aroclor 1016	2	Averaged	1.879	1.849	1.909	41334.8333	40204.0000	-2.7358
Aroclor 1016	3	Averaged	1.933	1.903	1.963	16656.1666	16780.0000	0.7435
Aroclor 1016	4	Averaged	2.189	2.159	2.219	12773.1666	12100.0000	-5.2702
Aroclor 1016	5	Averaged	2.278	2.248	2.308	10979.5000	10620.0000	-3.2743
Aroclor 1260	1	Averaged	2.798	2.768	2.828	18544.0555	16696.0000	-9.9658
Aroclor 1260	2	Averaged	2.886	2.856	2.916	23715.7777	21048.0000	-11.2490
Aroclor 1260	3	Averaged	2.996	2.966	3.026	29676.1111	25808.0000	-13.0344
Aroclor 1260	4	Averaged	3.586	3.556	3.616	50204.3888	41712.0000	-16.9156
Aroclor 1260	5	Averaged	3.829	3.799	3.859	36243.8333	29448.0000	-18.7503
Decachlorobiphenyl		Averaged	4.503	4.473	4.533	335650.833	286720.000	-14.5779
Tetrachloro-m-xylene		Averaged	1.213	1.183	1.243	508604.722	507500.000	-0.2172

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11174375CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/01/2019 Time: 14:38

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D070119-2.B\D070119000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.962	1.932	1.992	11393.2222	10980.0000	-3.6269
Aroclor 1016	2	Averaged	2.284	2.254	2.314	21808.0555	20748.0000	-4.8608
Aroclor 1016	3	Averaged	2.372	2.342	2.402	10849.6666	10332.0000	-4.7713
Aroclor 1016	4	Averaged	2.468	2.438	2.498	9980.38889	9364.00000	-6.1760
Aroclor 1016	5	Averaged	2.557	2.527	2.587	9901.66667	9148.00000	-7.6115
Aroclor 1260	1	Averaged	3.305	3.275	3.335	20320.3333	17456.0000	-14.0959
Aroclor 1260	2	Averaged	3.475	3.445	3.505	24356.2222	20784.0000	-14.6666
Aroclor 1260	3	Averaged	3.659	3.629	3.689	29292.0000	25348.0000	-13.4644
Aroclor 1260	4	Averaged	4.057	4.027	4.087	43025.1666	37044.0000	-13.9016
Aroclor 1260	5	Averaged	4.245	4.215	4.275	25869.7777	22208.0000	-14.1547
Decachlorobiphenyl		Averaged	4.956	4.926	4.986	317463.333	287400.000	-9.4699
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	442640.000	-2.5399

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11174526CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/01/2019 Time: 17:45

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D070119-1.B\D070119000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.633	1.602	1.662	20538.0000	20504.0000	-0.1655
Aroclor 1016	2	Averaged	1.879	1.849	1.909	41334.8333	40908.0000	-1.0326
Aroclor 1016	3	Averaged	1.932	1.903	1.963	16656.1666	16816.0000	0.9596
Aroclor 1016	4	Averaged	2.188	2.159	2.219	12773.1666	12108.0000	-5.2075
Aroclor 1016	5	Averaged	2.277	2.248	2.308	10979.5000	10688.0000	-2.6549
Aroclor 1260	1	Averaged	2.796	2.768	2.828	18544.0555	17388.0000	-6.2341
Aroclor 1260	2	Averaged	2.885	2.856	2.916	23715.7777	22016.0000	-7.1673
Aroclor 1260	3	Averaged	2.995	2.966	3.026	29676.1111	27440.0000	-7.5351
Aroclor 1260	4	Averaged	3.585	3.556	3.616	50204.3888	45260.0000	-9.8485
Aroclor 1260	5	Averaged	3.827	3.799	3.859	36243.8333	32408.0000	-10.5834
Decachlorobiphenyl		Averaged	4.501	4.473	4.533	335650.833	299920.000	-10.6452
Tetrachloro-m-xylene		Averaged	1.212	1.183	1.243	508604.722	515500.000	1.3557

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11174527CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/01/2019 Time: 17:45

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D070119-2.B\D070119000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30300161

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.961	1.932	1.992	11393.2222	11252.0000	-1.2395
Aroclor 1016	2	Averaged	2.282	2.254	2.314	21808.0555	21584.0000	-1.0274
Aroclor 1016	3	Averaged	2.371	2.342	2.402	10849.6666	10572.0000	-2.5592
Aroclor 1016	4	Averaged	2.466	2.438	2.498	9980.38889	9652.00000	-3.2903
Aroclor 1016	5	Averaged	2.556	2.527	2.587	9901.66667	9452.00000	-4.5413
Aroclor 1260	1	Averaged	3.304	3.275	3.335	20320.3333	18844.0000	-7.2653
Aroclor 1260	2	Averaged	3.474	3.445	3.505	24356.2222	22564.0000	-7.3584
Aroclor 1260	3	Averaged	3.658	3.629	3.689	29292.0000	27672.0000	-5.5305
Aroclor 1260	4	Averaged	4.055	4.027	4.087	43025.1666	39124.0000	-9.0672
Aroclor 1260	5	Averaged	4.243	4.215	4.275	25869.7777	23444.0000	-9.3769
Decachlorobiphenyl		Averaged	4.955	4.926	4.986	317463.333	285820.000	-9.9676
Tetrachloro-m-xylene		Averaged	1.585	1.556	1.616	454175.833	453820.000	-0.0783

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	10408	4009	0.385	2.152		
0.836	550	302	0.549	0.162		
1.210	26573	23583	0.887	12.692	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	344	262	0.761	0.140		
1.345	451	425	0.942	0.228		
1.400	483	471	0.975	0.252		
1.441	2399	2234	0.931	1.199		
1.632	5401	4154	0.769	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.693	564	496	0.880	0.266		
1.745	1366	1691	1.238	0.907		
1.760	2228	2203	0.989	1.182		
1.806	933	1053	1.129	0.565		
1.823	748	767	1.026	0.411		
1.878	11040	8493	0.769	4.560	1 PCB-1016 (Aroclor 1016)	BA
1.932	4310	4048	0.939	2.173	1 PCB-1016 (Aroclor 1016)	BA
2.008	2532	2834	1.119	1.521		
2.035	3429	3192	0.931	1.713		
2.062	2232	2481	1.111	1.332		
2.077	2421	2348	0.970	1.260		
2.188	3360	3631	1.081	1.949	1 PCB-1016 (Aroclor 1016)	BA
2.212	1294	1374	1.062	0.737		
2.238	988	1047	1.060	0.562		
2.278	2586	2572	0.995	1.381	1 PCB-1016 (Aroclor 1016)	BA
2.345	633	654	1.033	0.351		
2.374	395	432	1.094	0.231		
2.401	599	688	1.149	0.369		
2.425	2325	2310	0.993	1.240		
2.472	392	427	1.089	0.229		
2.510	2230	2325	1.043	1.248		
2.728	611	642	1.050	0.344		
2.796	5024	4347	0.865	2.334	7 PCB-1260 (Aroclor 1260)	BA
2.830	1719	1691	0.984	0.907		
2.885	5883	5982	1.017	3.211	7 PCB-1260 (Aroclor 1260)	BA
2.923	700	714	1.020	0.383		
2.954	1011	1047	1.035	0.562		
2.995	7309	7167	0.981	3.848	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.102	2838	3226	1.137	1.732		
3.121	4001	3738	0.934	2.007		
3.189	2317	1745	0.753	0.936		
3.227	8318	6392	0.768	3.432		
3.253	5447	5442	0.999	2.922		
3.288	3066	3057	0.997	1.641		
3.378	1187	1074	0.905	0.576		
3.439	6083	5407	0.889	2.903		
3.500	2929	2843	0.971	1.526		
3.533	2272	2228	0.981	1.196		
3.557	620	717	1.157	0.384		
3.584	12435	12505	1.006	6.714	7 PCB-1260 (Aroclor 1260)	BA
3.619	244	268	1.098	0.143		
3.679	487	500	1.028	0.268		
3.758	187	208	1.114	0.111		
3.785	2820	2892	1.026	1.552		
3.827	9308	8646	0.929	4.642	7 PCB-1260 (Aroclor 1260)	BA
3.973	350	353	1.010	0.189		
4.037	36	120	3.363	0.064		
4.079	1362	1393	1.023	0.747		
4.153	3518	3396	0.965	1.823		
4.344	864	879	1.017	0.471		
4.501	17232	17116	0.993	9.190	$ 11 Decachlorobiphenyl (S)	BA
	203390	186241		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	5401	0.25000	0.263	80.00- 120.00	100.00(M)	BA
1.878	1.878	0.000	11039	0.25000	0.267	162.66- 243.99	204.40	BA
1.931	1.932	-0.001	4309	0.25000	0.259	63.55- 95.32	79.79	BA
2.187	2.188	-0.001	3360	0.25000	0.263	49.13- 73.70	62.22	BA
2.277	2.277	0.000	2585	0.25000	0.235	42.04- 63.06	47.87	BA
		Average of Peak Amounts =			0.25740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.797	-0.001	5024	0.25000	0.271	80.00- 120.00	100.00(M)	BA
2.884	2.885	-0.001	5883	0.25000	0.248	101.69- 152.53	117.10	BA
2.994	2.995	-0.001	7308	0.25000	0.246	125.91- 188.87	145.46	BA
3.583	3.584	-0.001	12434	0.25000	0.248	212.47- 318.70	247.49	BA
3.826	3.826	0.000	9307	0.25000	0.257	152.61- 228.91	185.26	BA
		Average of Peak Amounts =			0.25400			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	26572	0.05000	0.0522		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.501	-0.001	17231	0.05000	0.0513		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21536	0.010	4.85929	20.00000	Aver	(M)
(2)	41335	44144	0.010	6.79612	20.00000	Aver	(M)
(3)	16656	17228	0.010	3.43316	20.00000	Aver	(M)
(4)	12773	13456	0.010	5.34584	20.00000	Aver	(M)
(5)	10980	10404	0.010	-5.24159	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20368	0.010	9.83574	20.00000	Aver	(M)
(2)	23716	23980	0.010	1.11412	20.00000	Aver	(M)
(3)	29676	29996	0.010	1.07793	20.00000	Aver	(M)
(4)	50204	51380	0.010	2.34165	20.00000	Aver	(M)
(5)	36244	40068	0.010	10.55122	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	533160	0.010	4.82797	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	381940	0.010	13.79087	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.33939
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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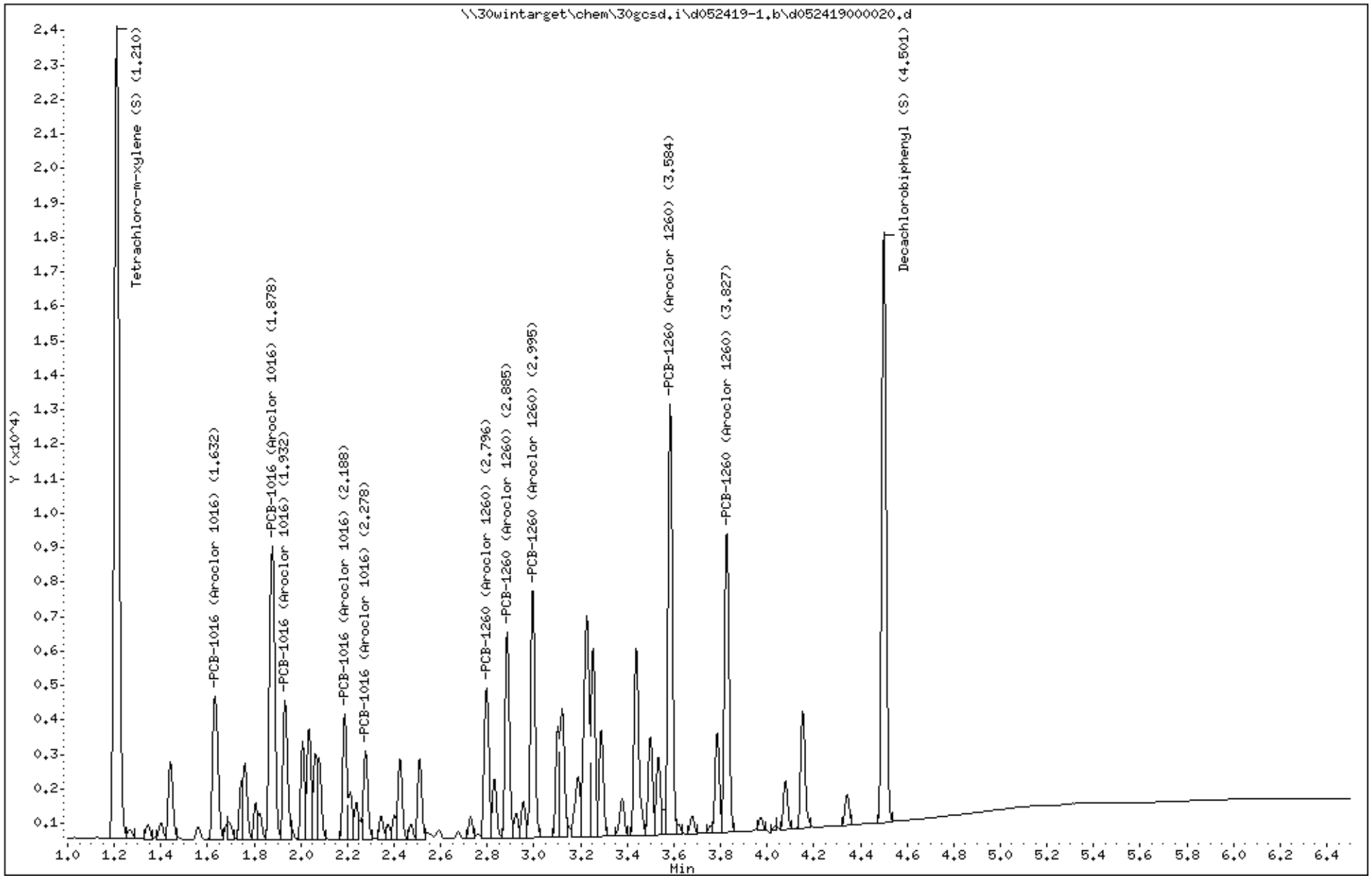
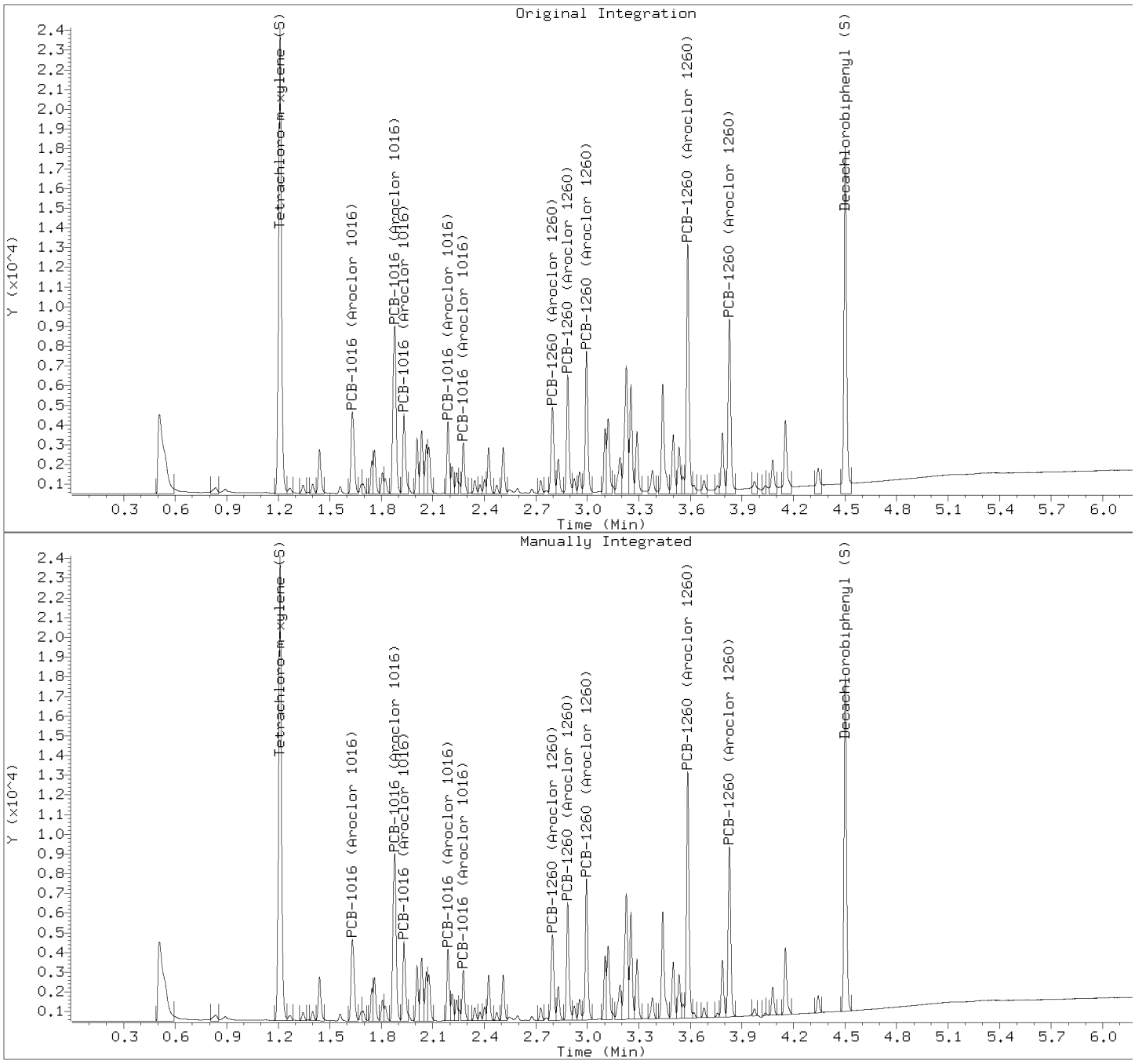
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Sample Info: ICV, 85333:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5384	5401
PCB-1016 (Aroclor 1016)	11036	11039
PCB-1016 (Aroclor 1016)	4307	4309
PCB-1016 (Aroclor 1016)	3364	3360
PCB-1016 (Aroclor 1016)	2601	2585
PCB-1260 (Aroclor 1260)	5092	5024
PCB-1260 (Aroclor 1260)	5995	5883
PCB-1260 (Aroclor 1260)	7499	7308
PCB-1260 (Aroclor 1260)	12845	12434
PCB-1260 (Aroclor 1260)	10017	9307
Tetrachloro-m-xylene (S)	26658	26572
Decachlorobiphenyl (S)	19097	17231

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7506	5663	0.754	3.403		
0.567	1001	888	0.887	0.533		
0.583	1293	830	0.642	0.498		
1.084	490	306	0.625	0.183		
1.587	23711	23008	0.970	13.864	$ 10 Tetrachloro-m-xylene (S)	BA
1.713	427	423	0.991	0.254		
1.762	2107	2062	0.979	1.239		
1.844	299	302	1.011	0.181		
1.964	2982	3217	1.079	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.984	1804	1824	1.011	1.096		
2.019	367	375	1.021	0.225		
2.076	3211	2053	0.639	1.234		
2.201	789	869	1.101	0.522		
2.222	669	652	0.975	0.391		
2.269	4131	4766	1.154	2.864		
2.287	5838	5985	1.025	3.597	1 PCB-1016 (Aroclor 1016)	BA
2.306	3730	3665	0.983	2.202		
2.375	2892	2731	0.944	1.641	1 PCB-1016 (Aroclor 1016)	BA
2.404	270	284	1.051	0.170		
2.439	2379	2464	1.036	1.481		
2.470	2668	2714	1.017	1.631	1 PCB-1016 (Aroclor 1016)	BA
2.499	985	940	0.954	0.565		
2.561	2618	2705	1.033	1.625	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.590	1406	1262	0.898	0.758		
2.617	824	867	1.052	0.521		
2.638	623	655	1.052	0.393		
2.667	2404	1700	0.707	1.021		
2.817	2471	1871	0.757	1.124		
2.865	407	419	1.028	0.251		
2.922	248	258	1.038	0.155		
2.959	2140	2042	0.954	1.227		
3.086	162	164	1.015	0.098		
3.139	454	498	1.096	0.299		
3.160	942	865	0.918	0.519		
3.199	1209	1215	1.005	0.730		
3.246	3223	2461	0.764	1.479		
3.277	621	701	1.128	0.421		
3.309	5010	4937	0.985	2.967	7 PCB-1260 (Aroclor 1260)	BA
3.392	874	833	0.953	0.500		
3.436	857	841	0.981	0.505		
3.479	5967	5953	0.998	3.578	7 PCB-1260 (Aroclor 1260)	BA
3.503	1838	1812	0.986	1.089		
3.557	4166	2837	0.681	1.705		
3.587	601	543	0.904	0.326		
3.631	668	587	0.879	0.352		
3.662	7210	6095	0.845	3.663	7 PCB-1260 (Aroclor 1260)	BA
3.722	4629	4373	0.945	2.628		
3.758	2440	2351	0.964	1.413		
3.841	1113	1212	1.089	0.728		
3.863	4749	4380	0.922	2.632		
3.897	309	327	1.059	0.196		
3.923	2214	2198	0.993	1.321		
3.952	1419	1300	0.916	0.781		
4.014	1364	1241	0.910	0.745		
4.060	10638	10114	0.951	6.079	7 PCB-1260 (Aroclor 1260)	BA
4.101	616	586	0.951	0.352		
4.249	6695	5905	0.882	3.549	7 PCB-1260 (Aroclor 1260)	BA
4.274	811	1103	1.360	0.662		
4.296	3285	2731	0.831	1.641		
4.438	103	151	1.467	0.090		
4.464	108	147	1.363	0.088		
4.497	1332	1222	0.917	0.734		
4.589	13	6	0.462	0.003		
4.618	2928	2811	0.960	1.689		
4.661	181	173	0.957	0.103		
4.810	815	772	0.947	0.464		
4.961	16302	15071	0.924	9.058	$ 11 Decachlorobiphenyl (S)	BA
5.307	10	24	2.434	0.014		
5.867	2	2	1.266	0.001		
6.462	7	27	3.982	0.016		
	178574	166369		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.963	1.963	0.000	2982	0.25000	0.262	80.00- 120.00	100.00	(aM)	BA
2.286	2.286	0.000	5837	0.25000	0.268	152.31- 228.47	195.74		BA
2.374	2.374	0.000	2892	0.25000	0.266	75.27- 112.91	96.97		BA
2.470	2.470	0.000	2668	0.25000	0.267	68.58- 102.86	89.47		BA
2.560	2.560	0.000	2617	0.25000	0.264	68.26- 102.40	87.78		BA
Average of Peak Amounts =					0.26540				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.309	3.309	0.000	5009	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
3.479	3.478	0.001	5966	0.25000	0.245	88.62- 132.94	119.11		BA
3.662	3.662	0.000	7209	0.25000	0.246	120.10- 180.15	143.92		BA
4.060	4.060	0.000	10637	0.25000	0.247	171.60- 257.41	212.36		BA
4.248	4.247	0.001	6694	0.25000	0.259	103.64- 155.46	133.66		BA
Average of Peak Amounts =					0.24860				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.586	0.000	23711	0.05000	0.0522			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16302	0.05000	0.0514		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
1 PCB-1016 (Aroclor 1016)(1)	11393	12188	0.010	6.97588	20.00000	Aver	(aM)	
(2)	21808	23452	0.010	7.53824	20.00000	Aver	(aM)	
(3)	10850	12364	0.010	13.95742	20.00000	Aver	(aM)	
(4)	9980	11280	0.010	13.02165	20.00000	Aver	(aM)	
(5)	9902	11244	0.010	13.55664	20.00000	Aver	(aM)	
7 PCB-1260 (Aroclor 1260)(1)	20320	22268	0.010	9.58482	20.00000	Aver	(aM)	
(2)	24356	25920	0.010	6.42044	20.00000	Aver	(aM)	
(3)	29292	31588	0.010	7.83832	20.00000	Aver	(aM)	
(4)	43025	47496	0.010	10.39121	20.00000	Aver	(aM)	
(5)	25870	31948	0.010	23.49546	20.00000	Aver	(aM)	<-
$ 10 Tetrachloro-m-xylene (S)	454176	478420	0.010	5.33806	20.00000	Aver	(M)	
$ 11 Decachlorobiphenyl (S)	317463	400400	0.010	26.12480	20.00000	Aver	(M)	<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.84432
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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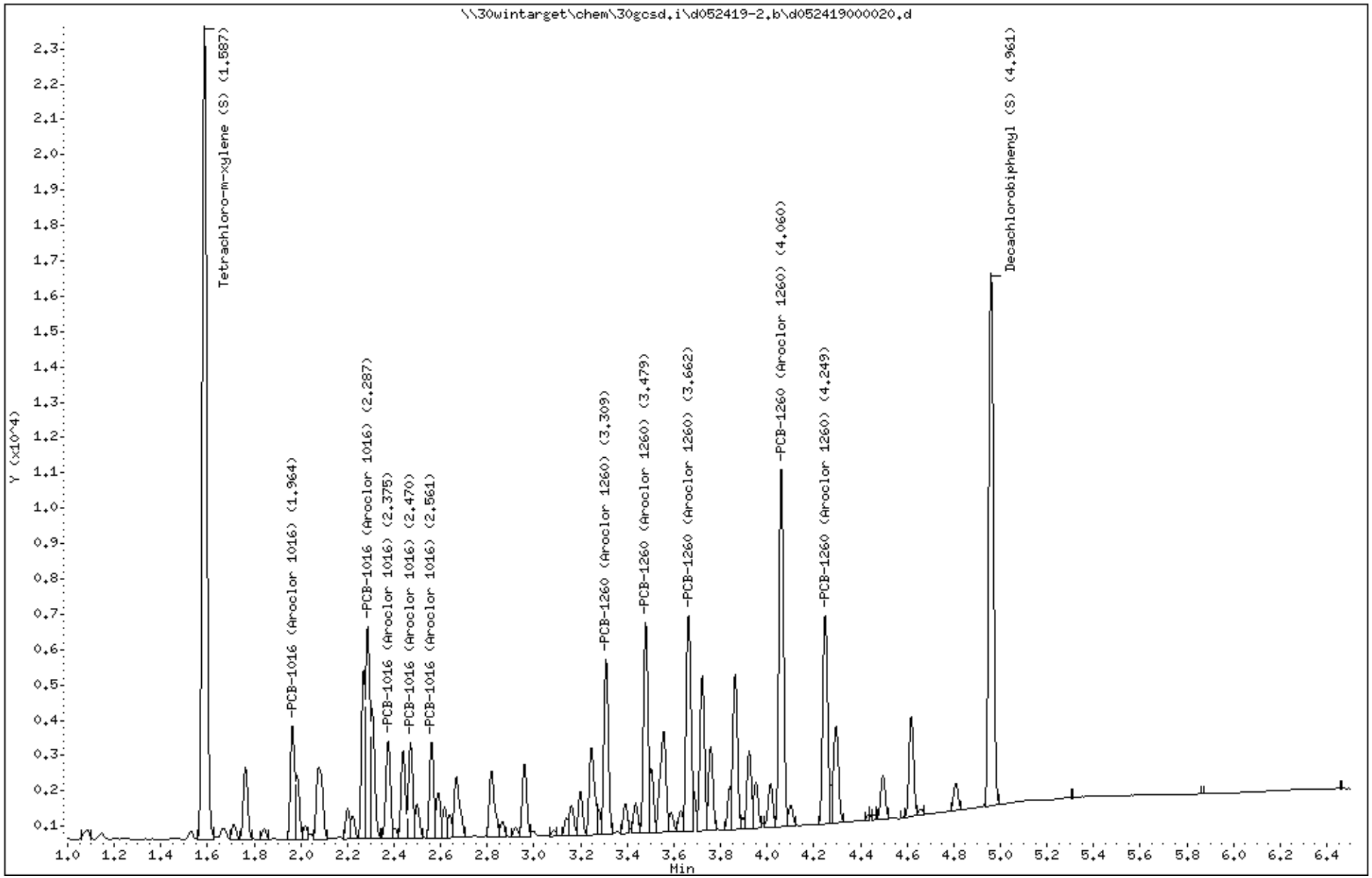
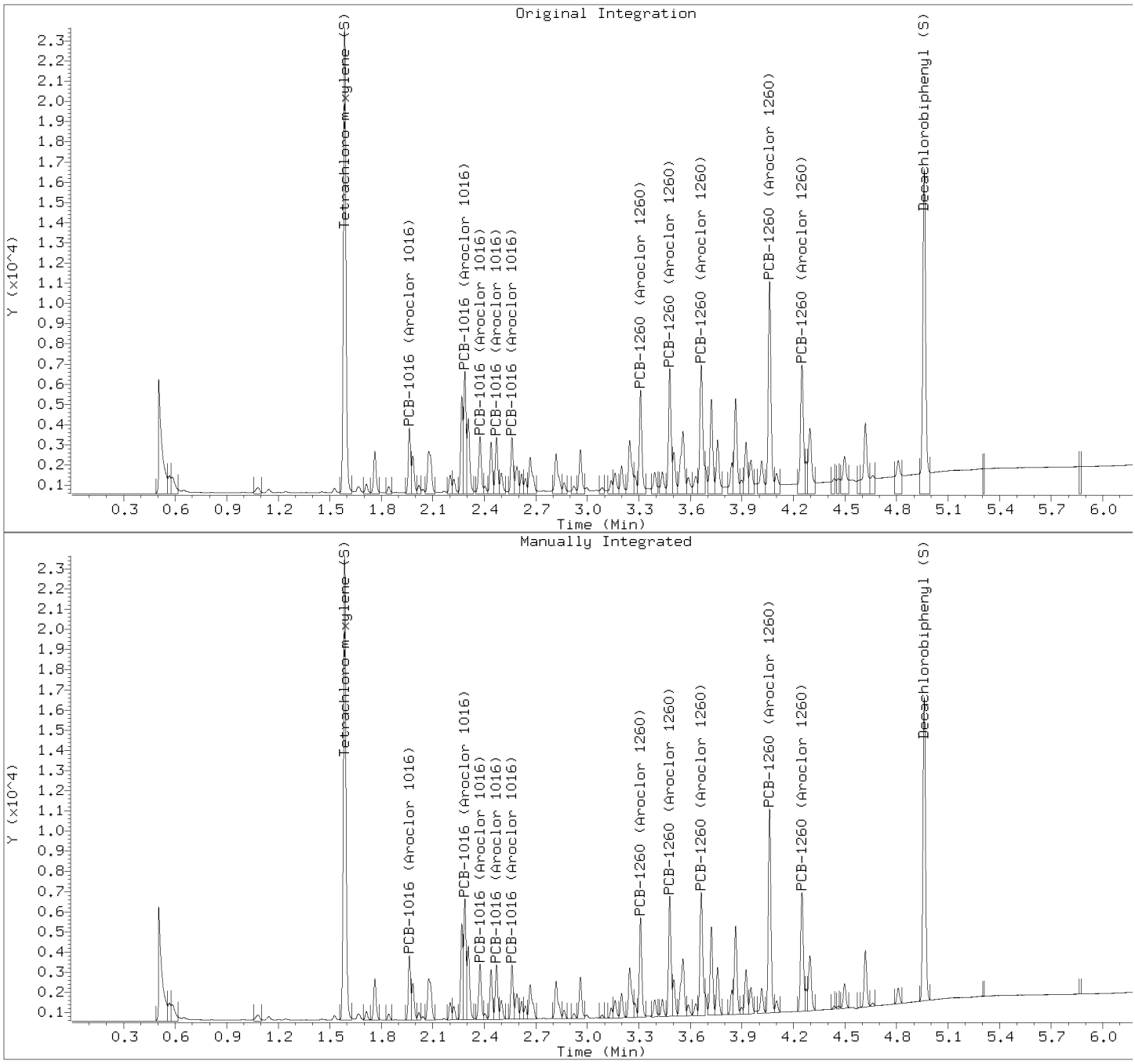
Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3047	2982
PCB-1016 (Aroclor 1016)	5863	5837
PCB-1016 (Aroclor 1016)	3091	2892
PCB-1016 (Aroclor 1016)	2820	2668
PCB-1016 (Aroclor 1016)	2811	2617
PCB-1260 (Aroclor 1260)	5567	5009
PCB-1260 (Aroclor 1260)	6480	5966
PCB-1260 (Aroclor 1260)	7897	7209
PCB-1260 (Aroclor 1260)	11874	10637
PCB-1260 (Aroclor 1260)	7987	6694
Tetrachloro-m-xylene (S)	23921	23711
Decachlorobiphenyl (S)	20020	16302

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 19:46
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	7695	4012	0.521	2.112		
0.539	1056	3118	2.953	1.641		
1.212	27511	24084	0.875	12.740	$ 10 Tetrachloro-m-xylene (S)	BA
1.347	541	484	0.895	0.254		
1.378	347	343	0.989	0.180		
1.402	566	528	0.934	0.278		
1.442	2619	2373	0.906	1.249		
1.561	351	350	0.997	0.184		
1.633	5529	4135	0.748	2.177	1 PCB-1016 (Aroclor 1016)	BA
1.696	633	502	0.794	0.264		
1.746	1347	1656	1.230	0.871		
1.761	2324	2183	0.939	1.149		
1.808	918	1008	1.098	0.530		
1.825	814	782	0.961	0.411		
1.880	11029	8171	0.741	4.302	1 PCB-1016 (Aroclor 1016)	BA
1.933	4562	3863	0.847	2.033	1 PCB-1016 (Aroclor 1016)	BA
2.009	2522	2677	1.061	1.409		
2.037	3316	2984	0.900	1.571		
2.063	2137	2376	1.112	1.251		
2.078	2518	2299	0.913	1.210		
2.189	3332	3467	1.041	1.825	1 PCB-1016 (Aroclor 1016)	BA
2.214	1324	1350	1.020	0.710		
2.240	1052	1075	1.022	0.566		
2.256	464	636	1.371	0.334		
2.279	2919	2767	0.948	1.456	1 PCB-1016 (Aroclor 1016)	BA
2.346	788	757	0.961	0.398		
2.376	439	445	1.015	0.234		
2.403	548	607	1.108	0.319		
2.427	2212	2067	0.934	1.088		
2.474	288	299	1.037	0.157		
2.511	1901	1924	1.012	1.013		
2.730	268	282	1.050	0.148		
2.798	4699	4072	0.867	2.143	7 PCB-1260 (Aroclor 1260)	BA
2.831	1691	1664	0.984	0.876		
2.886	6008	5969	0.994	3.142	7 PCB-1260 (Aroclor 1260)	BA
2.925	267	265	0.992	0.139		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.956	977	991	1.014	0.521		
2.996	7344	7177	0.977	3.778	7 PCB-1260 (Aroclor 1260)	BA
3.104	2777	3166	1.140	1.666		
3.122	3992	3618	0.906	1.904		
3.190	2220	1624	0.732	0.855		
3.227	7995	5922	0.741	3.118		
3.254	5473	5395	0.986	2.840		
3.289	3005	2941	0.979	1.548		
3.379	1078	1002	0.929	0.527		
3.440	5869	5304	0.904	2.792		
3.500	2894	2812	0.972	1.480		
3.534	2251	2119	0.941	1.115		
3.559	430	540	1.256	0.284		
3.585	12533	12354	0.986	6.504	7 PCB-1260 (Aroclor 1260)	BA
3.620	242	258	1.068	0.135		
3.679	427	429	1.005	0.225		
3.758	166	182	1.095	0.095		
3.786	2466	2417	0.980	1.272		
3.827	9021	8379	0.929	4.411	7 PCB-1260 (Aroclor 1260)	BA
3.973	449	433	0.965	0.227		
4.037	42	96	2.299	0.050		
4.079	1239	1239	1.000	0.652		
4.154	3000	2811	0.937	1.480		
4.344	991	989	0.998	0.520		
4.500	16861	16409	0.973	8.639	$ 11 Decachlorobiphenyl (S)	BA
4.792	17	19	1.104	0.010		
4.808	17	47	2.763	0.024		
4.836	6	21	3.621	0.011		
4.882	6	26	4.088	0.013		
4.994	9	34	3.753	0.017		
5.044	14	47	3.355	0.024		
5.062	12	53	4.319	0.027		
5.093	22	57	2.579	0.030		
5.097	16	60	3.752	0.031		
5.165	2	12	6.186	0.006		
5.174	3	13	3.824	0.006		
5.180	2	15	6.410	0.007		
5.194	4	20	4.975	0.010		
5.202	4	23	5.867	0.012		
5.222	18	33	1.882	0.017		
5.236	16	48	2.987	0.025		
5.264	13	53	4.083	0.027		
5.288	15	59	3.826	0.031		
5.309	27	67	2.440	0.035		
5.323	18	69	3.779	0.036		
5.329	20	76	3.748	0.040		
5.335	19	80	4.147	0.042		
5.341	28	84	3.002	0.044		
5.347	18	90	4.956	0.047		
5.354	33	89	2.697	0.046		
5.362	27	95	3.457	0.050		
5.397	33	107	3.227	0.056		
5.410	36	109	3.017	0.057		
5.418	40	118	2.938	0.062		
5.429	71	122	1.716	0.064		
5.434	26	124	4.780	0.065		
5.440	28	122	4.408	0.064		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.450	33	120	3.686	0.063		
5.494	17	91	5.285	0.047		
5.533	17	52	3.131	0.027		
5.572	7	24	3.261	0.012		
5.583	13	51	3.991	0.026		
5.605	29	94	3.270	0.049		
5.634	58	141	2.439	0.074		
5.649	34	157	4.677	0.082		
5.667	89	179	2.002	0.094		
5.675	46	182	3.989	0.095		
5.691	83	196	2.356	0.103		
5.696	80	194	2.421	0.102		
5.715	44	206	4.698	0.108		
5.728	54	211	3.937	0.111		
5.750	106	230	2.175	0.121		
5.759	89	227	2.558	0.119		
5.785	68	235	3.433	0.123		
5.891	41	194	4.780	0.102		
5.944	66	168	2.535	0.088		
5.965	48	157	3.249	0.082		
6.017	34	133	3.880	0.070		
6.128	14	55	3.846	0.028		
6.149	11	49	4.446	0.025		
6.161	10	43	4.241	0.022		
6.251	5	27	4.945	0.014		
6.254	11	31	2.783	0.016		
6.280	6	27	4.737	0.014		
6.304	9	37	4.075	0.019		
6.322	6	39	6.341	0.020		
6.389	20	47	2.345	0.024		
6.397	10	46	4.742	0.024		
6.429	15	54	3.497	0.028		
6.497	13	58	4.325	0.030		
	202085	189928		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 19:46
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.632	1.633	-0.001	5528	0.25000	0.269	80.00- 120.00	100.00(M)	BA
1.879	1.881	-0.002	11029	0.25000	0.267	161.93- 242.89	199.51	BA
1.933	1.934	-0.001	4562	0.25000	0.274	64.35- 96.53	82.53	BA
2.189	2.190	-0.001	3331	0.25000	0.261	47.06- 70.59	60.27	BA
2.278	2.279	-0.001	2919	0.25000	0.266	40.16- 60.23	52.81	BA
Average of Peak Amounts =					0.26740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.797	2.799	-0.002	4698	0.25000	0.253	80.00- 120.00	100.00(M)	BA
2.885	2.887	-0.002	6007	0.25000	0.253	102.73- 154.09	127.86	BA
2.995	2.997	-0.002	7343	0.25000	0.247	122.83- 184.25	156.30	BA
3.584	3.587	-0.003	12532	0.25000	0.250	215.43- 323.14	266.75	BA
3.827	3.829	-0.002	9020	0.25000	0.249	169.30- 253.95	192.02	BA
Average of Peak Amounts =					0.25040			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.213	-0.001	27510	0.05000	0.0541		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.499	4.503	-0.004	16861	0.05000	0.0502		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 21-JUN-2019 19:46
Lab File ID: d061719000057.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	22112	0.010	7.66384	20.00000	Aver	(M)
(2)	41335	44116	0.010	6.72838	20.00000	Aver	(M)
(3)	16656	18248	0.010	9.55702	20.00000	Aver	(M)
(4)	12773	13324	0.010	4.31243	20.00000	Aver	(M)
(5)	10980	11676	0.010	6.34364	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	18792	0.010	1.33706	20.00000	Aver	(M)
(2)	23716	24028	0.010	1.31652	20.00000	Aver	(M)
(3)	29676	29372	0.010	-1.02477	20.00000	Aver	(M)
(4)	50204	50128	0.010	-0.15216	20.00000	Aver	(M)
(5)	36244	36080	0.010	-0.45203	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	550200	0.010	8.17831	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	337220	0.010	0.46750	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.

Calculated Average %D/Drift = 6.93241
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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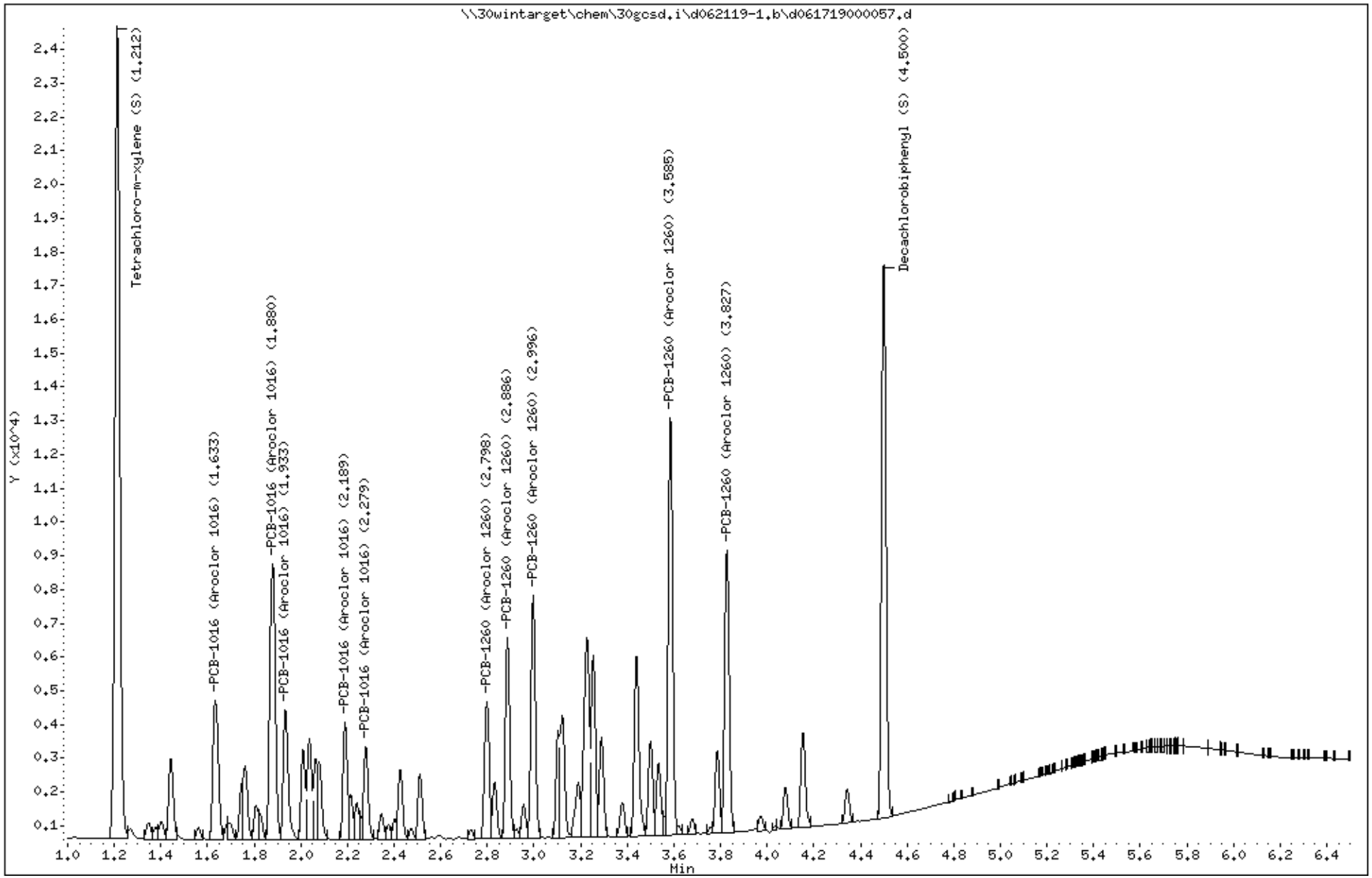
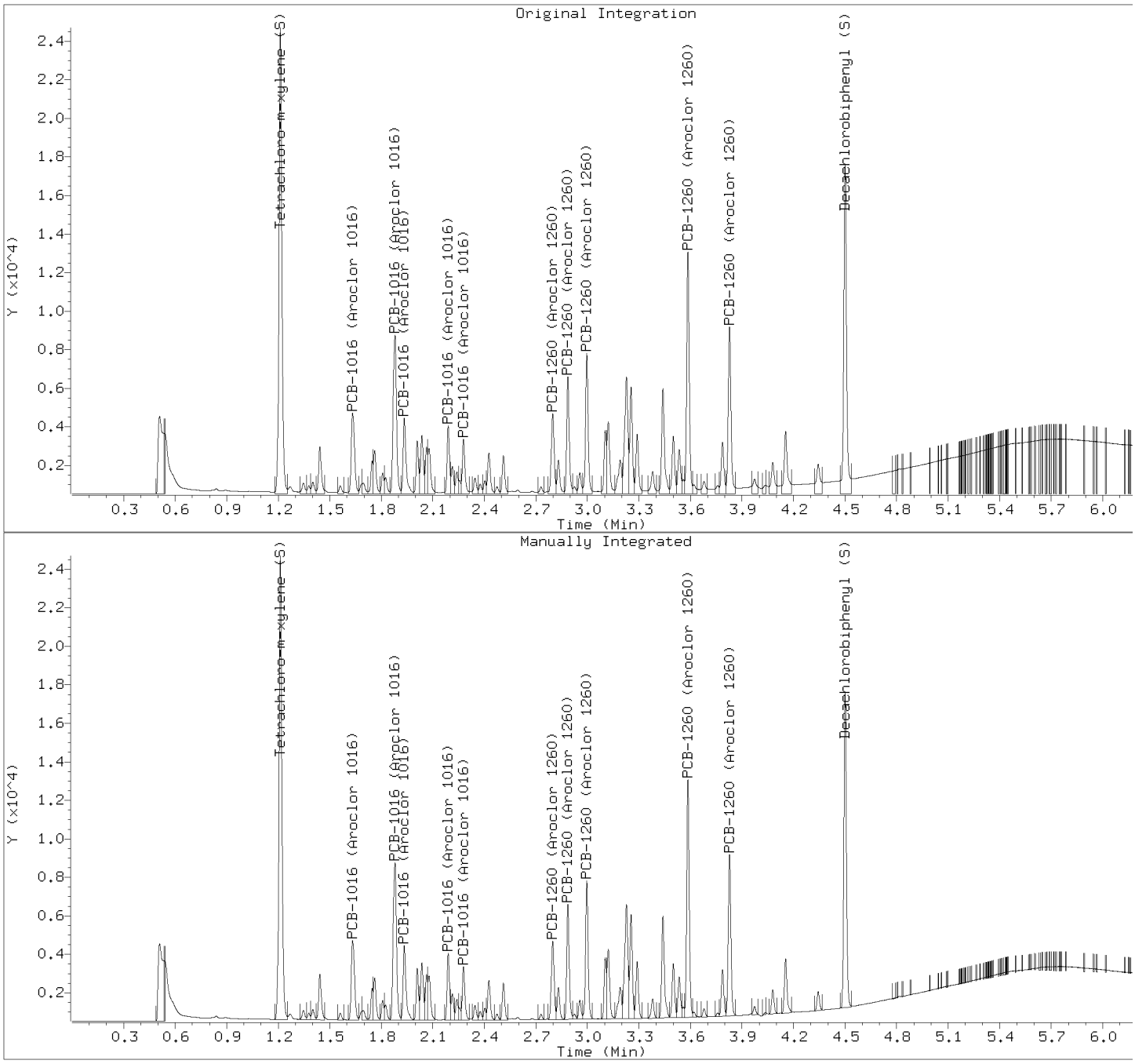
Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000057.d
Date : 21-JUN-2019 19:46
Client ID: CCV
Sample Info: CCV, 91625:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b/d061719000057.d (ManInt: AR1660.sub Orig: AR1660.sub)
Injection Date: 21-JUN-2019 19:46 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5696	5528
PCB-1016 (Aroclor 1016)	11206	11029
PCB-1016 (Aroclor 1016)	4767	4562
PCB-1016 (Aroclor 1016)	3426	3331
PCB-1016 (Aroclor 1016)	3056	2919
PCB-1260 (Aroclor 1260)	4900	4698
PCB-1260 (Aroclor 1260)	6263	6007
PCB-1260 (Aroclor 1260)	7671	7343
PCB-1260 (Aroclor 1260)	13068	12532
PCB-1260 (Aroclor 1260)	9853	9020
Tetrachloro-m-xylene (S)	27837	27510
Decachlorobiphenyl (S)	19444	16861

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 19:46
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7970	5447	0.683	3.188		
0.568	2141	1919	0.896	1.123		
0.584	3934	1895	0.482	1.109		
0.649	976	526	0.539	0.307		
1.527	292	264	0.905	0.154		
1.585	24401	23315	0.956	13.730	$ 10 Tetrachloro-m-xylene (S)	BA
1.667	294	339	1.154	0.198		
1.712	505	474	0.939	0.277		
1.760	2566	2420	0.943	1.416		
1.841	314	312	0.993	0.182		
1.962	3028	3161	1.044	1.850	1 PCB-1016 (Aroclor 1016)	BA
1.981	1852	1832	0.989	1.072		
2.016	381	380	0.999	0.222		
2.074	3258	2037	0.625	1.192		
2.198	794	845	1.065	0.494		
2.220	651	645	0.991	0.377		
2.266	3996	4569	1.143	2.674		
2.284	5829	5759	0.988	3.371	1 PCB-1016 (Aroclor 1016)	BA
2.303	3789	3579	0.945	2.095		
2.372	2867	2599	0.907	1.521	1 PCB-1016 (Aroclor 1016)	BA
2.401	270	283	1.048	0.165		
2.436	2259	2288	1.013	1.339		
2.468	2624	2595	0.989	1.519	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.495	1000	913	0.913	0.534		
2.558	2570	2598	1.011	1.520	1 PCB-1016 (Aroclor 1016)	BA
2.587	1415	1250	0.883	0.731		
2.614	885	892	1.008	0.522		
2.635	681	683	1.002	0.399		
2.664	2790	1826	0.655	1.068		
2.814	2344	1740	0.742	1.018		
2.861	382	374	0.980	0.218		
2.919	176	176	0.999	0.103		
2.956	1744	1683	0.965	0.985		
3.135	217	246	1.133	0.144		
3.157	926	855	0.924	0.500		
3.196	767	739	0.964	0.432		
3.242	3335	2556	0.767	1.496		
3.273	619	688	1.112	0.402		
3.305	5153	4996	0.969	2.924	7 PCB-1260 (Aroclor 1260)	BA
3.387	477	449	0.942	0.262		
3.433	805	789	0.980	0.461		
3.475	6072	6060	0.998	3.547	7 PCB-1260 (Aroclor 1260)	BA
3.498	1717	1730	1.008	1.012		
3.552	4108	2772	0.675	1.622		
3.583	566	544	0.961	0.318		
3.627	588	536	0.911	0.313		
3.659	7599	5916	0.778	3.463	7 PCB-1260 (Aroclor 1260)	BA
3.717	4622	4362	0.944	2.553		
3.753	2435	2342	0.962	1.371		
3.835	946	1043	1.103	0.610		
3.858	4821	4473	0.928	2.618		
3.891	169	283	1.677	0.165		
3.918	2283	2214	0.970	1.296		
3.946	1393	1277	0.917	0.747		
4.010	1193	1112	0.932	0.650		
4.055	10748	10208	0.950	5.976	7 PCB-1260 (Aroclor 1260)	BA
4.097	563	520	0.924	0.304		
4.243	6458	5857	0.907	3.428	7 PCB-1260 (Aroclor 1260)	BA
4.269	805	1045	1.297	0.611		
4.290	2958	2399	0.811	1.404		
4.431	297	262	0.883	0.153		
4.458	124	170	1.366	0.099		
4.491	1300	1133	0.872	0.663		
4.583	55	66	1.202	0.038		
4.612	2695	2460	0.913	1.440		
4.655	131	168	1.287	0.098		
4.803	933	861	0.923	0.504		
4.861	6	24	4.364	0.014		
4.885	8	33	4.242	0.019		
4.912	12	36	2.946	0.021		
4.921	9	38	4.260	0.022		
4.953	15732	14860	0.945	8.699	$ 11 Decachlorobiphenyl (S)	BA
5.002	59	68	1.160	0.039		
5.020	33	68	2.059	0.039		
5.045	32	77	2.394	0.045		
5.053	40	81	2.041	0.047		
5.066	27	77	2.865	0.045		
5.076	26	85	3.262	0.049		
5.120	12	64	5.333	0.037		
5.147	17	47	2.689	0.027		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.154	23	49	2.157	0.028		
5.161	6	32	5.735	0.018		
5.170	11	33	3.005	0.019		
5.182	9	30	3.333	0.017		
5.234	5	28	5.234	0.016		
5.239	9	39	4.248	0.022		
5.255	6	32	5.405	0.018		
5.279	14	48	3.493	0.028		
5.289	10	54	5.325	0.031		
5.302	18	67	3.811	0.039		
5.315	20	59	2.928	0.034		
5.337	18	60	3.384	0.035		
5.353	18	67	3.718	0.039		
5.360	15	62	4.082	0.036		
5.366	22	76	3.504	0.044		
5.371	18	79	4.293	0.046		
5.384	22	75	3.357	0.043		
5.397	19	71	3.671	0.041		
5.402	25	74	3.004	0.043		
5.408	19	76	4.099	0.044		
5.417	21	81	3.921	0.047		
5.431	18	88	4.994	0.051		
5.445	29	91	3.095	0.053		
5.455	18	93	5.248	0.054		
5.473	23	101	4.477	0.059		
5.506	34	104	3.062	0.060		
5.509	21	110	5.319	0.064		
5.525	21	111	5.276	0.064		
5.532	25	110	4.446	0.064		
5.557	36	101	2.824	0.059		
5.575	29	91	3.113	0.053		
5.585	31	87	2.852	0.050		
5.601	19	76	4.017	0.044		
5.627	14	48	3.483	0.028		
5.637	15	45	3.000	0.026		
5.645	11	37	3.401	0.021		
5.649	9	32	3.721	0.018		
5.659	4	27	7.181	0.015		
5.706	7	30	4.451	0.017		
5.711	13	35	2.640	0.020		
5.719	6	30	4.777	0.017		
5.742	10	46	4.733	0.026		
5.752	10	56	5.528	0.032		
5.769	17	57	3.450	0.033		
5.782	17	57	3.302	0.033		
5.788	19	60	3.235	0.035		
5.798	20	68	3.427	0.039		
5.807	12	65	5.250	0.038		
5.820	11	69	6.233	0.040		
5.829	17	74	4.384	0.043		
5.836	31	71	2.322	0.041		
5.860	11	63	5.960	0.036		
5.869	27	73	2.720	0.042		
5.880	27	72	2.683	0.042		
5.894	18	68	3.872	0.039		
5.913	14	65	4.676	0.038		
5.957	24	59	2.429	0.034		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.962	15	55	3.576	0.032		
5.984	10	48	4.933	0.028		
6.013	11	59	5.443	0.034		
6.034	23	46	2.043	0.026		
6.045	9	49	5.263	0.028		
6.067	12	46	3.853	0.026		
6.079	14	42	3.066	0.024		
6.087	20	43	2.145	0.025		
6.100	9	42	4.795	0.024		
6.141	8	38	4.786	0.022		
6.196	10	44	4.632	0.025		
6.222	11	46	4.331	0.026		
6.275	10	44	4.288	0.025		
6.311	8	38	4.786	0.022		
6.350	9	36	3.974	0.021		
6.380	8	30	3.555	0.017		
6.387	8	29	3.630	0.016		
6.442	10	25	2.541	0.014		
6.452	6	30	4.870	0.017		
6.467	9	34	3.877	0.019		
6.473	3	23	6.706	0.013		
	184080	170816		100.000		

Total unknown % height = 48.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 19:46
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.961	1.962	-0.001	3027	0.25000	0.266	80.00- 120.00	100.00	(aM)	BA
2.283	2.284	-0.001	5829	0.25000	0.267	156.82- 235.23	192.57		BA
2.371	2.372	-0.001	2867	0.25000	0.264	76.30- 114.44	94.71		BA
2.467	2.468	-0.001	2623	0.25000	0.263	67.07- 100.60	86.65		BA
2.557	2.558	-0.001	2569	0.25000	0.259	63.33- 95.00	84.89		BA
Average of Peak Amounts =					0.26380				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.304	3.305	-0.001	5153	0.25000	0.254	80.00- 120.00	100.00	(aM)	BA
3.474	3.475	-0.001	6071	0.25000	0.249	100.97- 151.46	117.81		BA
3.658	3.659	-0.001	7599	0.25000	0.259	123.40- 185.10	147.47		BA
4.055	4.056	-0.001	10748	0.25000	0.250	188.88- 283.31	208.58		BA
4.242	4.244	-0.002	6457	0.25000	0.250	113.96- 170.94	125.32		BA
Average of Peak Amounts =					0.25240				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.585	1.585	0.000	24400	0.05000	0.0537			(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.952	4.956	-0.004	15731	0.05000	0.0496		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 21-JUN-2019 19:46
Lab File ID: d061719000057.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	12108	0.010	6.27371	20.00000	Aver	(aM)
(2)	21808	23316	0.010	6.91462	20.00000	Aver	(aM)
(3)	10850	11468	0.010	5.69910	20.00000	Aver	(aM)
(4)	9980	10492	0.010	5.12616	20.00000	Aver	(aM)
(5)	9902	10276	0.010	3.78051	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	20612	0.010	1.43534	20.00000	Aver	(aM)
(2)	24356	24284	0.010	-0.29652	20.00000	Aver	(aM)
(3)	29292	30396	0.010	3.76895	20.00000	Aver	(aM)
(4)	43025	42992	0.010	-0.07709	20.00000	Aver	(aM)
(5)	25870	25828	0.010	-0.16149	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	488000	0.010	7.44737	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	314620	0.010	-0.89564	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.65872
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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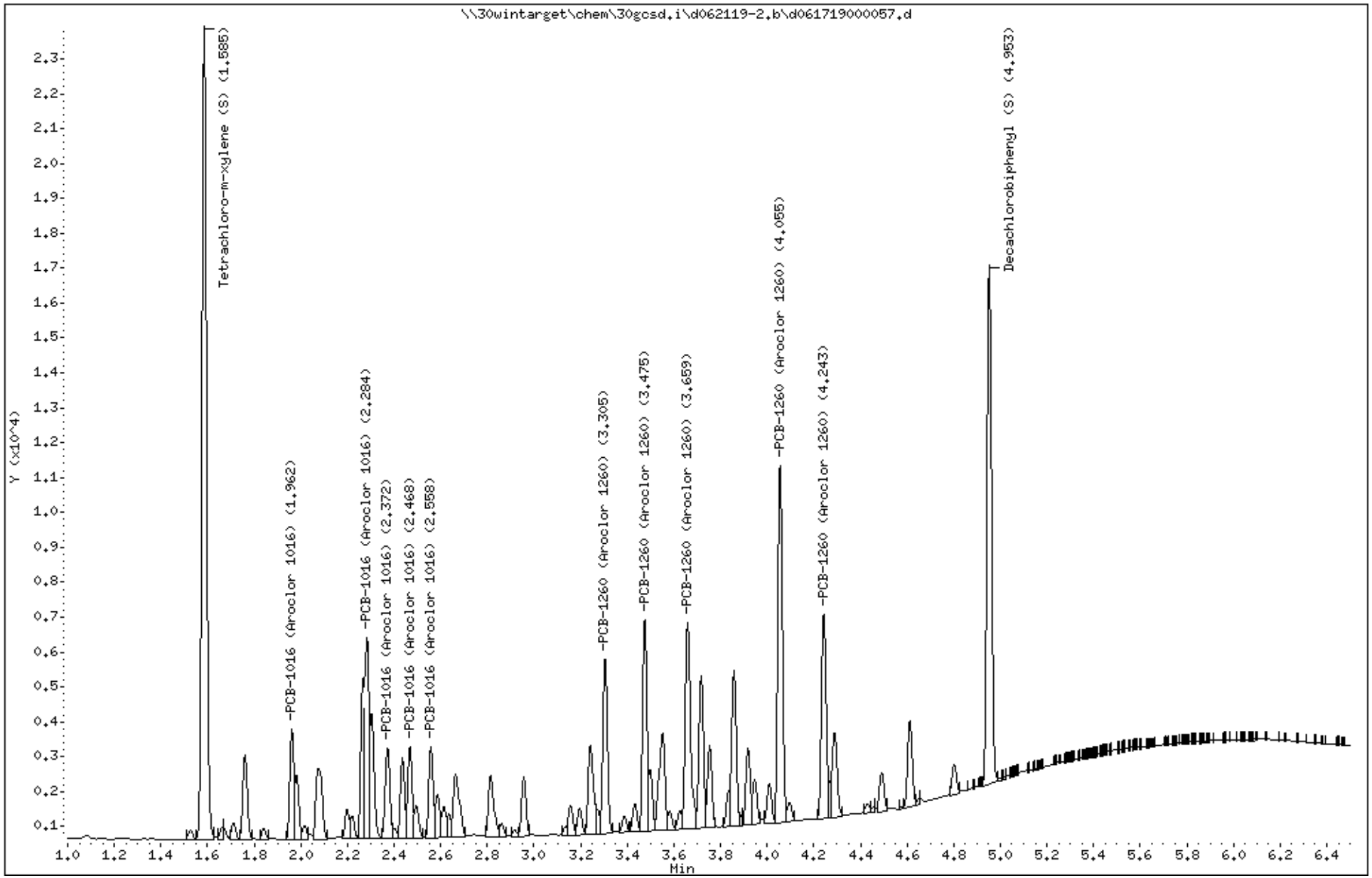
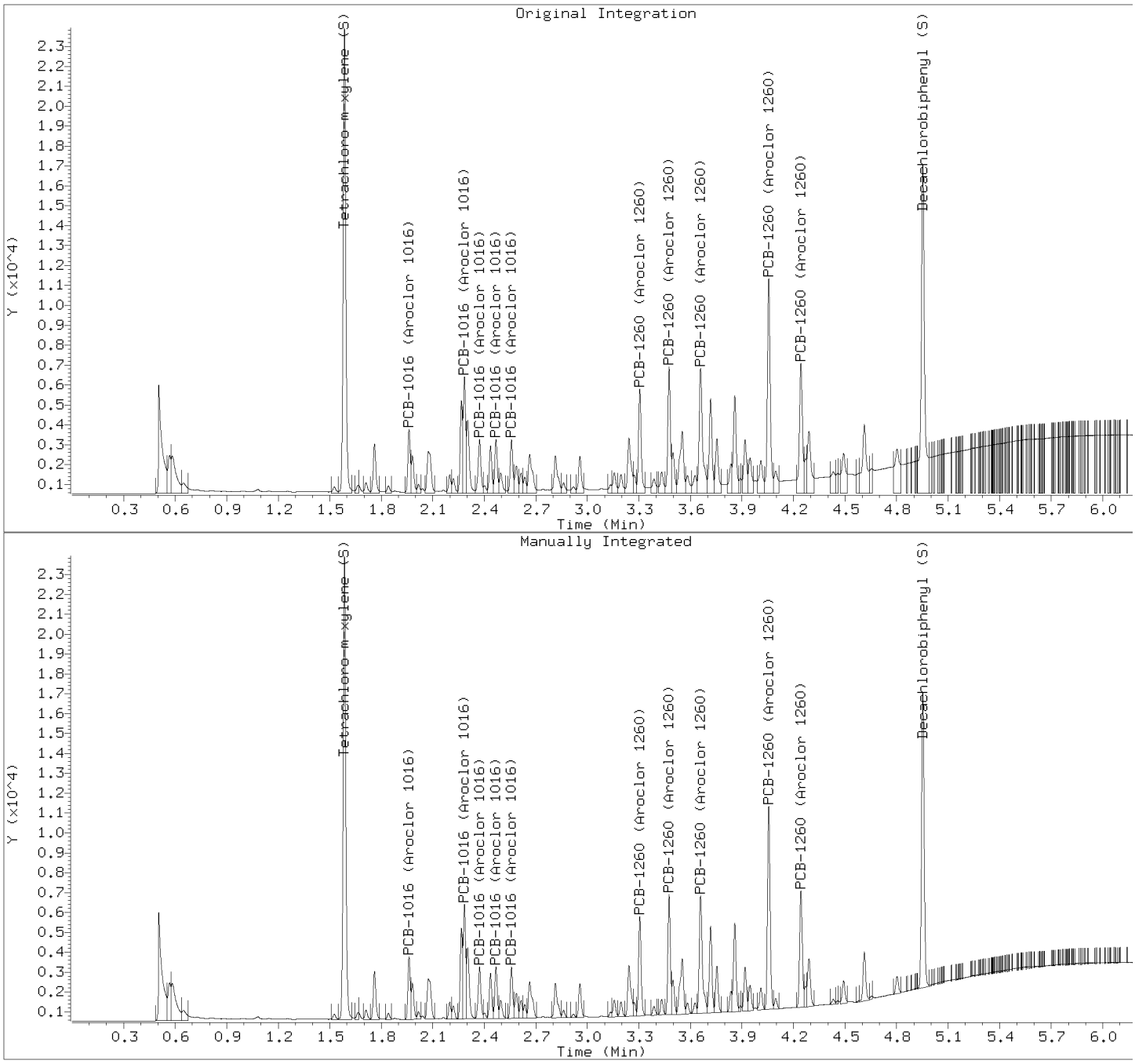
Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000057.d
Date : 21-JUN-2019 19:46
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 91625:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b/d061719000057.d (ManInt: AR1660.sub Orig: AR1660.sub)
Injection Date: 21-JUN-2019 19:46 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3161	3027
PCB-1016 (Aroclor 1016)	5899	5829
PCB-1016 (Aroclor 1016)	3169	2867
PCB-1016 (Aroclor 1016)	2842	2623
PCB-1016 (Aroclor 1016)	2840	2569
PCB-1260 (Aroclor 1260)	5886	5153
PCB-1260 (Aroclor 1260)	6765	6071
PCB-1260 (Aroclor 1260)	8918	7599
PCB-1260 (Aroclor 1260)	12497	10748
PCB-1260 (Aroclor 1260)	8264	6457
Tetrachloro-m-xylene (S)	24750	24400
Decachlorobiphenyl (S)	22416	15731

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000082.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 23:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	5311	3821	0.719	0.987		
0.531	2120	3143	1.482	0.812		
0.541	7286	3144	0.432	0.812		
1.213	26456	23566	0.891	6.238	$ 10 Tetrachloro-m-xylene (S)	BA
1.271	347	271	0.780	0.070		
1.347	472	438	0.928	0.113		
1.379	316	309	0.979	0.079		
1.403	509	481	0.945	0.124		
1.443	2425	2245	0.926	0.580		
1.562	296	299	1.010	0.077		
1.633	4904	3740	0.763	0.966	1 PCB-1016 (Aroclor 1016)	BA
1.696	790	448	0.567	0.115		
1.746	1158	1447	1.250	0.374		
1.762	2016	1931	0.958	0.499		
1.808	766	861	1.124	0.222		
1.826	792	751	0.948	0.194		
1.880	9924	7547	0.760	1.951	1 PCB-1016 (Aroclor 1016)	BA
1.934	3945	3448	0.874	0.891	1 PCB-1016 (Aroclor 1016)	BA
2.010	2185	2371	1.085	0.612		
2.037	2813	2631	0.935	0.680		
2.064	1883	2071	1.100	0.535		
2.078	2116	1978	0.935	0.511		
2.190	2884	3087	1.070	0.798	1 PCB-1016 (Aroclor 1016)	BA
2.214	1094	1157	1.058	0.299		
2.240	849	895	1.054	0.231		
2.256	409	542	1.326	0.140		
2.279	2462	2376	0.965	0.614	1 PCB-1016 (Aroclor 1016)	BA
2.346	630	620	0.984	0.160		
2.376	351	360	1.027	0.093		
2.403	448	508	1.134	0.131		
2.427	1846	1783	0.966	0.460		
2.474	237	241	1.016	0.062		
2.511	1619	1686	1.042	0.435		
2.594	66	112	1.691	0.028		
2.730	160	256	1.603	0.066		
2.798	4207	3615	0.859	0.934	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.831	1628	1460	0.897	0.377		
2.886	5402	5253	0.972	1.358	7 PCB-1260 (Aroclor 1260)	BA
2.925	325	289	0.889	0.074		
2.955	855	837	0.979	0.216		
2.996	6458	6379	0.988	1.649	7 PCB-1260 (Aroclor 1260)	BA
3.103	2406	2747	1.142	0.710		
3.121	3457	3129	0.905	0.808		
3.191	1913	1375	0.719	0.355		
3.227	6972	5227	0.750	1.351		
3.254	4831	4735	0.980	1.224		
3.289	2693	2600	0.966	0.672		
3.379	963	861	0.894	0.222		
3.439	4930	4674	0.948	1.208		
3.500	2343	2388	1.019	0.617		
3.534	1934	1872	0.968	0.483		
3.559	414	501	1.209	0.129		
3.585	11326	11199	0.989	2.895	7 PCB-1260 (Aroclor 1260)	BA
3.622	356	335	0.940	0.086		
3.645	18	105	5.919	0.027		
3.678	398	377	0.948	0.097		
3.707	11	44	4.131	0.011		
3.718	52	82	1.576	0.021		
3.723	23	82	3.498	0.021		
3.733	34	79	2.353	0.020		
3.757	302	253	0.838	0.065		
3.786	2490	2273	0.913	0.587		
3.827	8902	7890	0.886	2.039	7 PCB-1260 (Aroclor 1260)	BA
3.868	95	255	2.679	0.065		
3.874	98	270	2.748	0.069		
3.883	128	291	2.270	0.075		
3.892	110	279	2.528	0.072		
3.900	141	296	2.094	0.076		
3.907	152	315	2.076	0.081		
3.921	47	296	6.344	0.076		
3.929	51	288	5.670	0.074		
3.953	466	375	0.804	0.096		
3.971	365	522	1.429	0.134		
3.996	68	161	2.351	0.041		
4.020	10	82	8.143	0.021		
4.030	61	127	2.086	0.032		
4.055	78	115	1.482	0.029		
4.078	1222	1118	0.915	0.289		
4.115	12	34	2.904	0.008		
4.153	2948	2699	0.915	0.697		
4.184	77	263	3.422	0.067		
4.189	86	265	3.086	0.068		
4.201	31	224	7.263	0.057		
4.212	189	261	1.378	0.067		
4.220	46	205	4.424	0.052		
4.231	73	192	2.624	0.049		
4.235	68	212	3.121	0.054		
4.240	54	212	3.945	0.054		
4.271	65	86	1.331	0.022		
4.301	124	176	1.422	0.045		
4.308	75	170	2.264	0.043		
4.343	1662	1150	0.692	0.297		
4.373	211	431	2.041	0.111		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.397	391	404	1.034	0.104		
4.404	110	358	3.244	0.092		
4.416	141	341	2.411	0.088		
4.438	114	269	2.369	0.069		
4.446	108	263	2.446	0.067		
4.457	172	328	1.911	0.084		
4.464	324	343	1.059	0.088		
4.500	17238	16260	0.943	4.203	$ 11 Decachlorobiphenyl (S)	BA
4.532	85	537	6.285	0.138		
4.539	103	526	5.106	0.135		
4.547	322	532	1.654	0.137		
4.562	656	649	0.989	0.167		
4.574	95	539	5.670	0.139		
4.588	475	586	1.233	0.151		
4.591	105	594	5.664	0.153		
4.597	284	603	2.126	0.155		
4.611	156	494	3.172	0.127		
4.618	273	509	1.866	0.131		
4.636	155	377	2.432	0.097		
4.639	102	371	3.627	0.095		
4.646	126	363	2.878	0.093		
4.657	50	236	4.748	0.061		
4.670	341	328	0.961	0.084		
4.719	455	402	0.884	0.103		
4.741	563	690	1.226	0.178		
4.744	247	704	2.848	0.182		
4.764	676	837	1.239	0.216		
4.767	494	898	1.817	0.232		
4.790	659	877	1.330	0.226		
4.798	269	851	3.163	0.220		
4.803	473	852	1.801	0.220		
4.809	461	840	1.822	0.217		
4.821	209	762	3.650	0.197		
4.838	865	1029	1.190	0.266		
4.855	1441	1351	0.938	0.349		
4.865	665	1338	2.011	0.345		
4.871	423	1334	3.154	0.344		
4.876	397	1328	3.343	0.343		
4.880	598	1338	2.238	0.345		
4.887	270	1237	4.581	0.319		
4.890	630	1253	1.989	0.323		
4.910	527	1120	2.126	0.289		
4.916	732	1169	1.597	0.302		
4.922	205	1146	5.600	0.296		
4.925	356	1152	3.233	0.297		
4.933	213	1083	5.086	0.279		
4.937	324	1090	3.367	0.281		
4.944	431	1087	2.524	0.281		
4.948	367	1092	2.972	0.282		
4.956	418	1133	2.713	0.292		
4.960	327	1203	3.681	0.311		
4.962	220	1234	5.619	0.319		
4.966	222	1240	5.593	0.320		
4.971	432	1302	3.012	0.336		
4.974	290	1332	4.594	0.344		
4.986	1725	1621	0.940	0.419		
5.024	4745	2170	0.457	0.561		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.046	1608	2502	1.556	0.646		
5.050	1596	2630	1.647	0.679		
5.058	552	2518	4.563	0.650		
5.063	711	2575	3.623	0.665		
5.068	1147	2624	2.288	0.678		
5.108	1363	1202	0.882	0.310		
5.129	335	747	2.229	0.193		
5.140	427	610	1.429	0.157		
5.170	18	65	3.571	0.016		
5.174	12	70	5.719	0.018		
5.182	47	136	2.883	0.035		
5.188	66	222	3.378	0.057		
5.194	141	372	2.646	0.096		
5.202	208	518	2.485	0.133		
5.207	230	610	2.655	0.157		
5.212	172	633	3.686	0.163		
5.216	126	647	5.119	0.167		
5.222	382	715	1.872	0.184		
5.232	238	731	3.073	0.188		
5.238	465	794	1.709	0.205		
5.254	175	739	4.219	0.191		
5.260	358	748	2.088	0.193		
5.269	239	722	3.020	0.186		
5.276	213	722	3.395	0.186		
5.288	568	872	1.536	0.225		
5.291	157	881	5.603	0.227		
5.300	553	1083	1.958	0.279		
5.304	652	1110	1.701	0.286		
5.328	1388	1369	0.986	0.353		
5.332	376	1350	3.590	0.349		
5.336	586	1366	2.330	0.353		
5.344	670	1309	1.953	0.338		
5.352	1314	1279	0.974	0.330		
5.403	103	442	4.284	0.114		
5.412	305	494	1.619	0.127		
5.417	101	526	5.226	0.135		
5.446	1651	1242	0.752	0.321		
5.457	1288	1445	1.122	0.373		
5.515	141	605	4.277	0.156		
5.526	195	597	3.056	0.154		
5.531	350	603	1.725	0.155		
5.558	17	92	5.293	0.023		
5.590	757	839	1.109	0.216		
5.604	974	1111	1.140	0.287		
5.611	385	1162	3.017	0.300		
5.624	1612	1359	0.843	0.351		
5.643	1072	1509	1.408	0.390		
5.647	589	1571	2.666	0.406		
5.656	607	1647	2.711	0.425		
5.659	301	1688	5.613	0.436		
5.665	1997	1835	0.919	0.474		
5.680	259	1627	6.284	0.420		
5.696	1751	2050	1.171	0.529		
5.698	417	2116	5.073	0.547		
5.703	645	2196	3.406	0.567		
5.707	566	2194	3.879	0.567		
5.710	348	2189	6.290	0.565		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.719	2167	2244	1.035	0.580		
5.735	970	2142	2.209	0.553		
5.789	367	1335	3.638	0.345		
5.794	406	1383	3.409	0.357		
5.799	820	1416	1.726	0.366		
5.817	309	1205	3.900	0.311		
5.823	670	1268	1.893	0.327		
5.828	409	1297	3.168	0.335		
5.833	836	1288	1.540	0.332		
5.856	319	966	3.025	0.249		
5.861	205	953	4.658	0.246		
5.867	278	945	3.401	0.244		
5.872	320	1021	3.195	0.263		
5.876	582	1074	1.847	0.277		
5.884	166	1049	6.313	0.271		
5.887	234	1080	4.620	0.279		
5.893	475	1185	2.495	0.306		
5.896	215	1202	5.600	0.310		
5.901	408	1212	2.969	0.313		
5.904	293	1238	4.228	0.320		
5.912	145	1216	8.378	0.314		
5.916	397	1274	3.213	0.329		
5.921	622	1267	2.037	0.327		
5.929	417	1247	2.991	0.322		
5.936	175	1261	7.223	0.326		
5.941	568	1326	2.334	0.342		
5.946	380	1369	3.604	0.353		
5.950	306	1406	4.588	0.363		
5.955	422	1415	3.352	0.365		
5.962	703	1504	2.138	0.388		
5.966	814	1524	1.872	0.394		
5.979	523	1481	2.834	0.382		
5.991	975	1339	1.373	0.346		
6.027	187	955	5.121	0.246		
6.031	377	1020	2.706	0.263		
6.040	496	1130	2.280	0.292		
6.048	586	1201	2.048	0.310		
6.058	441	1272	2.884	0.328		
6.065	830	1332	1.605	0.344		
6.088	184	932	5.066	0.240		
6.096	471	975	2.072	0.252		
6.103	475	1079	2.270	0.278		
6.108	307	1119	3.649	0.289		
6.132	2012	1640	0.815	0.423		
6.139	1271	1704	1.341	0.440		
6.181	329	833	2.532	0.215		
6.190	300	854	2.851	0.220		
6.196	258	889	3.442	0.229		
6.204	560	1092	1.951	0.282		
6.228	2060	1540	0.747	0.398		
6.235	462	1559	3.375	0.403		
6.239	564	1578	2.798	0.407		
6.248	600	1613	2.689	0.417		
6.256	821	1599	1.947	0.413		
6.275	901	1431	1.589	0.369		
6.289	510	1356	2.657	0.350		
6.297	217	1367	6.302	0.353		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.301	358	1393	3.892	0.360		
6.313	1201	1629	1.356	0.421		
6.318	789	1677	2.127	0.433		
6.326	685	1651	2.410	0.426		
6.370	268	921	3.433	0.238		
6.385	218	933	4.285	0.241		
6.389	249	978	3.925	0.252		
6.390	427	1031	2.414	0.266		
6.398	266	1038	3.896	0.268		
6.402	500	1060	2.120	0.274		
6.409	314	1062	3.379	0.274		
6.415	390	1106	2.839	0.285		
6.420	694	1146	1.650	0.296		
6.430	352	1124	3.189	0.290		
6.434	530	1108	2.089	0.286		
6.457	767	907	1.183	0.234		
6.473	184	676	3.680	0.174		
6.478	141	653	4.615	0.168		
6.484	351	702	1.998	0.181		
6.489	123	692	5.636	0.178		
	294043	386799		100.000		

Total unknown % height = 75.5

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000082.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 23:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.632	1.633	-0.001	4903	0.25000	0.239	80.00- 120.00	100.00(M)	BA
1.880	1.881	-0.001	9924	0.25000	0.240	161.93- 242.89	202.41	BA
1.933	1.934	-0.001	3944	0.25000	0.237	64.35- 96.53	80.44	BA
2.189	2.190	-0.001	2884	0.25000	0.226	47.06- 70.59	58.83	BA
2.278	2.279	-0.001	2461	0.25000	0.224	40.16- 60.23	50.21	BA
Average of Peak Amounts =					0.23320			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.798	2.799	-0.001	4206	0.25000	0.227	80.00- 120.00	100.00(M)	BA
2.886	2.887	-0.001	5401	0.25000	0.228	102.73- 154.09	128.41	BA
2.996	2.997	-0.001	6458	0.25000	0.218	122.83- 184.25	153.54	BA
3.584	3.587	-0.003	11326	0.25000	0.226	215.43- 323.14	269.28	BA
3.826	3.829	-0.003	8901	0.25000	0.246	169.30- 253.95	211.64	BA
Average of Peak Amounts =					0.22900			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.213	1.213	0.000	26455	0.05000	0.0520		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.499	4.503	-0.004	17238	0.05000	0.0514		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 21-JUN-2019 23:19
Lab File ID: d061719000082.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	19612	0.010	-4.50872	20.00000	Aver	(M)
(2)	41335	39696	0.010	-3.96478	20.00000	Aver	(M)
(3)	16656	15776	0.010	-5.28433	20.00000	Aver	(M)
(4)	12773	11536	0.010	-9.68567	20.00000	Aver	(M)
(5)	10980	9844	0.010	-10.34200	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	16824	0.010	-9.27551	20.00000	Aver	(M)
(2)	23716	21604	0.010	-8.90453	20.00000	Aver	(M)
(3)	29676	25832	0.010	-12.95355	20.00000	Aver	(M)
(4)	50204	45304	0.010	-9.76088	20.00000	Aver	(M)
(5)	36244	35604	0.010	-1.76536	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	529100	0.010	4.02971	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	344760	0.010	2.71388	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.93241
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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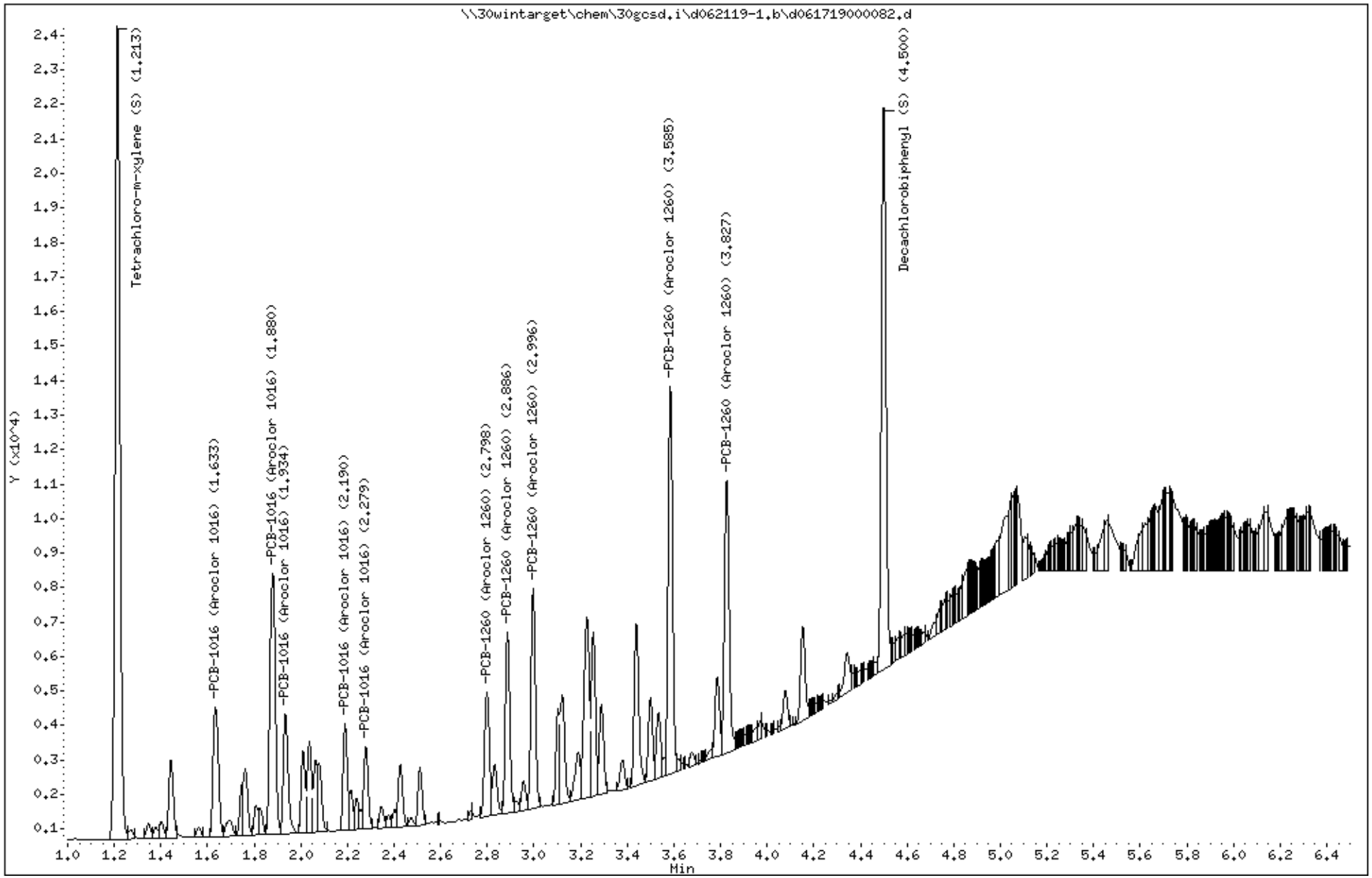
Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000082.d
Date : 21-JUN-2019 23:19
Client ID: CCV
Sample Info: CCV, 91625:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32

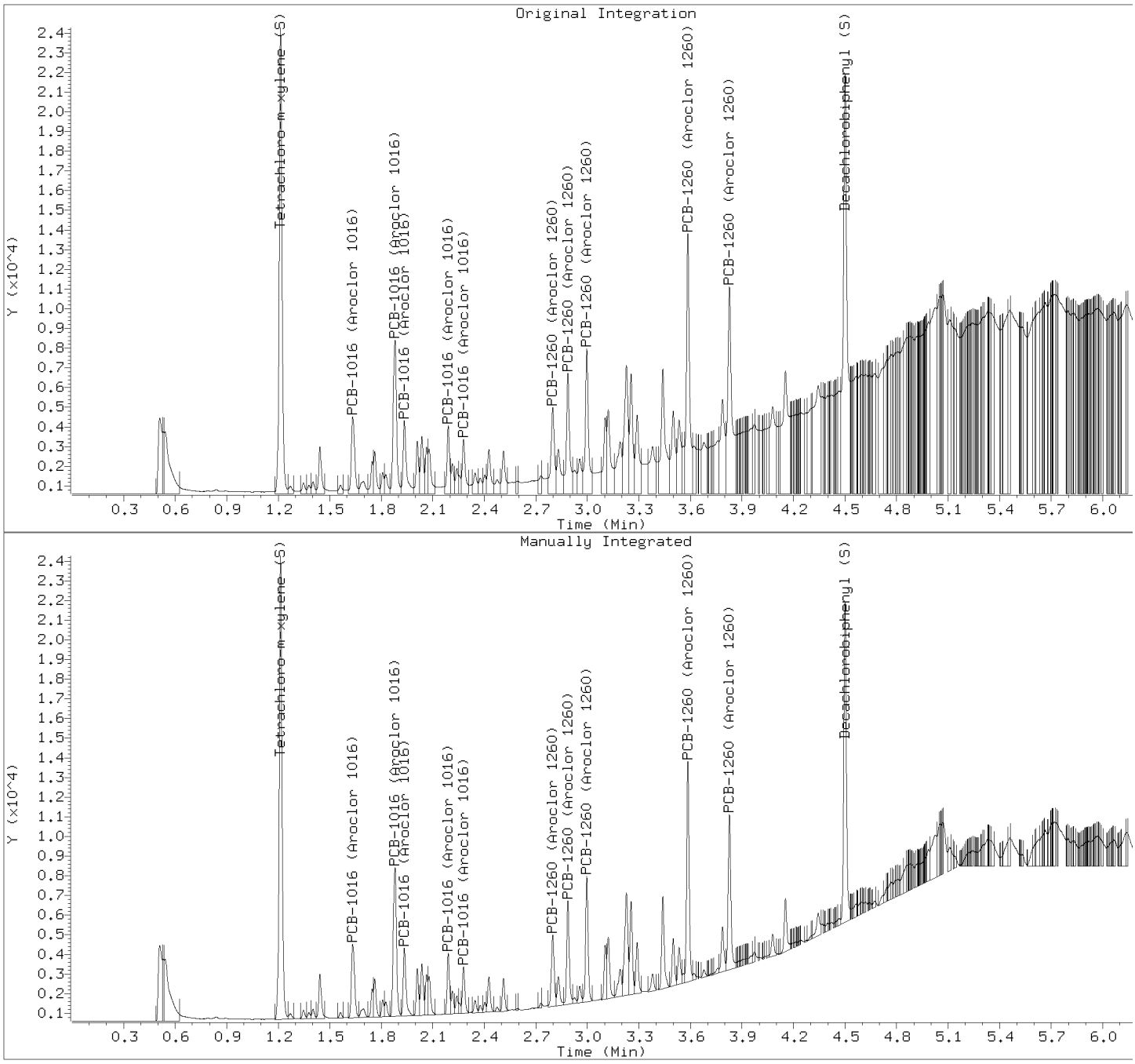


Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b/d061719000082.d (ManInt: AR1660.sub Orig: AR1660.sub)

Injection Date: 21-JUN-2019 23:19 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5466	4903
PCB-1016 (Aroclor 1016)	10829	9924
PCB-1016 (Aroclor 1016)	5076	3944
PCB-1016 (Aroclor 1016)	3610	2884
PCB-1016 (Aroclor 1016)	3488	2461
PCB-1260 (Aroclor 1260)	6292	4206
PCB-1260 (Aroclor 1260)	8150	5401
PCB-1260 (Aroclor 1260)	9868	6458
PCB-1260 (Aroclor 1260)	16887	11326
PCB-1260 (Aroclor 1260)	18032	8901
Tetrachloro-m-xylene (S)	26840	26455
Decachlorobiphenyl (S)	33930	17238

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000082.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 23:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	7905	5205	0.658	1.487		
0.568	2172	1964	0.904	0.561		
0.584	4166	2010	0.482	0.574		
1.527	264	243	0.922	0.069		
1.586	23543	22796	0.968	6.690	$ 10 Tetrachloro-m-xylene (S)	BA
1.667	269	306	1.139	0.087		
1.712	457	437	0.956	0.124		
1.761	2344	2285	0.975	0.653		
1.842	258	264	1.023	0.075		
1.962	2766	2886	1.044	0.824	1 PCB-1016 (Aroclor 1016)	BA
1.982	1618	1671	1.033	0.477		
2.017	338	338	1.001	0.096		
2.040	152	154	1.012	0.044		
2.074	2988	1871	0.626	0.534		
2.164	77	116	1.516	0.033		
2.199	773	795	1.028	0.227		
2.221	793	709	0.894	0.202		
2.266	3774	4322	1.145	1.235		
2.284	5421	5421	1.000	1.549	1 PCB-1016 (Aroclor 1016)	BA
2.304	3415	3325	0.974	0.950		
2.372	2638	2369	0.898	0.677	1 PCB-1016 (Aroclor 1016)	BA
2.401	255	255	0.998	0.072		
2.436	2004	2038	1.017	0.582		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.468	2318	2346	1.012	0.670	1 PCB-1016 (Aroclor 1016)	BA
2.496	898	819	0.912	0.234		
2.558	2189	2245	1.026	0.641	1 PCB-1016 (Aroclor 1016)	BA
2.587	1188	1070	0.901	0.305		
2.613	774	774	1.000	0.221		
2.635	689	668	0.969	0.190		
2.663	2850	1721	0.604	0.491		
2.742	149	207	1.385	0.059		
2.814	2561	1623	0.634	0.463		
2.861	503	421	0.838	0.120		
2.917	211	221	1.049	0.063		
2.956	1563	1500	0.960	0.428		
2.989	20	62	3.092	0.017		
3.080	30	58	1.924	0.016		
3.095	23	73	3.138	0.020		
3.104	25	82	3.328	0.023		
3.109	43	89	2.056	0.025		
3.133	253	252	0.996	0.072		
3.158	834	746	0.895	0.213		
3.196	748	662	0.885	0.189		
3.242	2960	2297	0.776	0.656		
3.273	484	569	1.176	0.162		
3.305	4455	4404	0.989	1.258	7 PCB-1260 (Aroclor 1260)	BA
3.343	4	19	5.053	0.005		
3.354	3	17	5.556	0.004		
3.369	4	18	5.143	0.005		
3.388	447	390	0.872	0.111		
3.433	787	714	0.907	0.204		
3.475	5624	5517	0.981	1.577	7 PCB-1260 (Aroclor 1260)	BA
3.499	1542	1599	1.037	0.457		
3.552	3690	2535	0.687	0.724		
3.582	488	472	0.967	0.134		
3.627	464	437	0.942	0.124		
3.658	6872	5452	0.793	1.558	7 PCB-1260 (Aroclor 1260)	BA
3.717	4283	4009	0.936	1.145		
3.754	2307	2163	0.938	0.618		
3.785	69	139	2.015	0.039		
3.792	75	121	1.614	0.034		
3.802	44	106	2.401	0.030		
3.810	44	107	2.445	0.030		
3.813	22	121	5.510	0.034		
3.835	1089	1105	1.015	0.315		
3.858	4800	4247	0.885	1.213		
3.895	694	733	1.057	0.209		
3.918	3262	2569	0.788	0.734		
3.947	2163	1591	0.736	0.454		
3.987	161	360	2.239	0.102		
4.009	1628	1240	0.762	0.354		
4.055	10519	9766	0.928	2.791	7 PCB-1260 (Aroclor 1260)	BA
4.095	666	603	0.906	0.172		
4.123	27	80	2.967	0.022		
4.128	34	99	2.919	0.028		
4.133	35	117	3.301	0.033		
4.143	26	107	4.081	0.030		
4.150	35	107	3.057	0.030		
4.155	35	97	2.740	0.027		
4.167	8	52	6.357	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.174	10	39	3.839	0.011		
4.178	12	68	5.449	0.019		
4.183	28	92	3.236	0.026		
4.190	38	91	2.376	0.026		
4.199	25	85	3.439	0.024		
4.206	35	104	2.955	0.029		
4.210	34	114	3.309	0.032		
4.217	38	101	2.664	0.028		
4.243	6347	5670	0.893	1.620	7 PCB-1260 (Aroclor 1260)	BA
4.269	1044	1221	1.169	0.349		
4.290	3295	2448	0.743	0.699		
4.328	86	221	2.571	0.063		
4.333	68	244	3.571	0.069		
4.336	69	254	3.705	0.072		
4.340	93	259	2.780	0.074		
4.346	37	218	5.901	0.062		
4.354	28	149	5.341	0.042		
4.374	5	45	9.221	0.012		
4.386	49	110	2.226	0.031		
4.397	123	220	1.786	0.062		
4.401	81	248	3.053	0.070		
4.406	40	230	5.710	0.065		
4.409	57	250	4.423	0.071		
4.427	345	419	1.214	0.119		
4.432	129	439	3.399	0.125		
4.435	136	441	3.253	0.126		
4.445	59	371	6.335	0.106		
4.458	506	482	0.953	0.137		
4.491	1504	1228	0.817	0.351		
4.512	185	310	1.677	0.088		
4.530	29	157	5.403	0.044		
4.541	123	253	2.058	0.072		
4.547	114	311	2.730	0.088		
4.554	147	363	2.477	0.103		
4.558	116	375	3.219	0.107		
4.562	81	378	4.666	0.108		
4.582	784	499	0.636	0.142		
4.611	2981	2544	0.853	0.727		
4.643	89	181	2.042	0.051		
4.648	54	217	4.013	0.062		
4.650	76	254	3.336	0.072		
4.657	122	210	1.726	0.060		
4.685	115	242	2.107	0.069		
4.688	99	231	2.332	0.066		
4.695	61	185	3.026	0.052		
4.699	22	146	6.636	0.041		
4.710	95	202	2.127	0.057		
4.712	29	217	7.601	0.062		
4.716	60	230	3.849	0.065		
4.720	57	226	3.951	0.064		
4.726	66	232	3.530	0.066		
4.732	98	222	2.257	0.063		
4.748	110	190	1.725	0.054		
4.752	28	156	5.501	0.044		
4.755	25	158	6.282	0.045		
4.760	61	142	2.340	0.040		
4.768	3	27	9.818	0.007		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.774	3	18	5.357	0.005		
4.803	1192	1000	0.839	0.285		
4.829	58	254	4.413	0.072		
4.835	123	368	2.994	0.105		
4.842	187	436	2.336	0.124		
4.846	171	441	2.584	0.126		
4.860	539	485	0.900	0.138		
4.876	94	301	3.197	0.086		
4.882	144	368	2.558	0.105		
4.885	172	370	2.153	0.105		
4.893	126	298	2.361	0.085		
4.906	84	193	2.299	0.055		
4.915	118	282	2.384	0.080		
4.920	96	336	3.518	0.096		
4.926	145	428	2.958	0.122		
4.952	17312	15155	0.875	4.331	$ 11 Decachlorobiphenyl (S)	BA
4.985	235	588	2.502	0.168		
4.991	103	592	5.733	0.169		
4.998	301	721	2.394	0.206		
5.001	343	721	2.101	0.206		
5.009	127	655	5.150	0.187		
5.021	479	733	1.530	0.209		
5.024	367	767	2.088	0.219		
5.033	171	721	4.215	0.206		
5.038	287	779	2.714	0.222		
5.043	221	816	3.693	0.233		
5.054	633	1013	1.601	0.289		
5.058	522	1068	2.047	0.305		
5.065	870	1033	1.187	0.295		
5.083	392	561	1.432	0.160		
5.102	13	79	6.138	0.022		
5.106	57	128	2.249	0.036		
5.115	15	81	5.499	0.023		
5.123	39	109	2.818	0.031		
5.128	77	168	2.193	0.048		
5.134	75	171	2.269	0.048		
5.145	64	183	2.876	0.052		
5.148	37	230	6.235	0.065		
5.150	33	250	7.555	0.071		
5.152	58	287	4.915	0.082		
5.160	111	333	3.005	0.095		
5.171	478	551	1.154	0.157		
5.178	190	537	2.819	0.153		
5.186	82	435	5.277	0.124		
5.191	130	421	3.245	0.120		
5.217	22	122	5.466	0.034		
5.220	28	146	5.227	0.041		
5.224	32	160	5.016	0.045		
5.231	76	227	3.005	0.064		
5.238	125	316	2.535	0.090		
5.243	90	359	3.990	0.102		
5.249	153	379	2.470	0.108		
5.262	357	551	1.545	0.157		
5.264	67	564	8.479	0.161		
5.269	206	639	3.103	0.182		
5.274	478	664	1.389	0.189		
5.288	119	611	5.129	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.293	272	671	2.469	0.191		
5.300	365	710	1.946	0.202		
5.305	245	708	2.885	0.202		
5.330	173	505	2.919	0.144		
5.335	155	491	3.164	0.140		
5.339	194	522	2.695	0.149		
5.348	118	552	4.666	0.157		
5.352	140	607	4.333	0.173		
5.356	371	694	1.873	0.198		
5.363	92	663	7.232	0.189		
5.371	442	807	1.825	0.230		
5.375	150	861	5.746	0.246		
5.380	379	894	2.356	0.255		
5.386	117	850	7.286	0.242		
5.390	218	849	3.901	0.242		
5.394	242	885	3.652	0.252		
5.417	1615	1453	0.900	0.415		
5.425	965	1486	1.540	0.424		
5.431	496	1495	3.012	0.427		
5.437	785	1489	1.896	0.425		
5.444	570	1445	2.535	0.413		
5.456	578	1331	2.301	0.380		
5.470	295	1266	4.287	0.361		
5.482	896	1345	1.501	0.384		
5.492	384	1390	3.617	0.397		
5.498	490	1493	3.047	0.426		
5.503	486	1559	3.205	0.445		
5.505	318	1607	5.054	0.459		
5.511	534	1715	3.214	0.490		
5.514	828	1747	2.111	0.499		
5.520	1579	1680	1.064	0.480		
5.538	342	1431	4.189	0.409		
5.543	200	1440	7.195	0.411		
5.547	468	1484	3.169	0.424		
5.553	416	1501	3.607	0.429		
5.555	691	1528	2.210	0.436		
5.562	303	1532	5.059	0.437		
5.569	617	1567	2.539	0.447		
5.573	448	1628	3.636	0.465		
5.585	1070	1819	1.700	0.519		
5.588	485	1896	3.911	0.541		
5.591	463	1948	4.210	0.556		
5.597	870	2009	2.310	0.574		
5.601	833	2009	2.412	0.574		
5.639	485	1224	2.525	0.349		
5.647	753	1216	1.615	0.347		
5.662	419	1064	2.538	0.304		
5.669	411	1061	2.583	0.303		
5.675	303	1029	3.401	0.294		
5.683	419	1105	2.636	0.315		
5.691	856	1195	1.396	0.341		
5.697	304	1188	3.913	0.339		
5.707	505	1234	2.445	0.352		
5.710	225	1266	5.617	0.361		
5.713	231	1306	5.643	0.373		
5.717	408	1409	3.451	0.402		
5.723	579	1482	2.559	0.423		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.730	544	1559	2.864	0.445		
5.733	534	1584	2.968	0.452		
5.749	599	1460	2.438	0.417		
5.757	609	1410	2.317	0.403		
5.789	170	788	4.624	0.225		
5.793	173	794	4.597	0.226		
5.796	161	824	5.130	0.235		
5.799	166	861	5.173	0.246		
5.805	352	895	2.543	0.255		
5.812	174	879	5.041	0.251		
5.815	217	915	4.212	0.261		
5.821	375	960	2.559	0.274		
5.825	195	996	5.117	0.284		
5.841	185	941	5.078	0.268		
5.847	282	961	3.404	0.274		
5.853	521	1036	1.988	0.296		
5.867	819	1220	1.490	0.348		
5.873	528	1302	2.468	0.372		
5.876	179	1290	7.215	0.368		
5.879	341	1336	3.920	0.381		
5.885	651	1382	2.122	0.395		
5.889	413	1391	3.367	0.397		
5.895	859	1391	1.619	0.397		
5.909	615	1261	2.050	0.360		
5.925	401	1139	2.838	0.325		
5.931	485	1118	2.306	0.319		
5.937	197	1103	5.610	0.315		
5.941	266	1131	4.258	0.323		
5.946	369	1184	3.211	0.338		
5.952	837	1196	1.429	0.341		
5.967	311	1137	3.650	0.325		
5.985	613	927	1.513	0.264		
6.017	181	583	3.213	0.166		
6.024	352	602	1.711	0.172		
6.033	133	569	4.289	0.162		
6.036	104	598	5.737	0.170		
6.042	249	657	2.637	0.187		
6.055	437	746	1.707	0.213		
6.062	101	743	7.340	0.212		
6.086	230	597	2.591	0.170		
6.093	262	570	2.177	0.162		
6.101	172	549	3.191	0.156		
6.105	164	558	3.409	0.159		
6.112	210	574	2.733	0.164		
6.138	1002	981	0.979	0.280		
6.142	313	1086	3.475	0.310		
6.148	716	1147	1.603	0.327		
6.156	400	1127	2.820	0.322		
6.161	606	1109	1.830	0.317		
6.173	564	1028	1.823	0.293		
6.189	419	840	2.003	0.240		
6.198	200	787	3.926	0.224		
6.214	553	872	1.576	0.249		
6.219	483	931	1.928	0.266		
6.226	183	928	5.074	0.265		
6.230	227	956	4.214	0.273		
6.233	234	989	4.222	0.282		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.275	147	542	3.695	0.154		
6.284	130	530	4.068	0.151		
6.290	278	548	1.974	0.156		
6.296	85	544	6.406	0.155		
6.305	345	650	1.882	0.185		
6.309	199	681	3.416	0.194		
6.315	311	787	2.530	0.224		
6.319	189	796	4.216	0.227		
6.322	110	798	7.238	0.228		
6.326	393	843	2.145	0.240		
6.333	184	851	4.631	0.243		
6.339	345	876	2.542	0.250		
6.348	268	905	3.379	0.258		
6.351	269	927	3.446	0.264		
6.358	370	846	2.289	0.241		
6.376	358	738	2.064	0.210		
6.383	115	730	6.331	0.208		
6.389	288	788	2.733	0.225		
6.392	128	813	6.350	0.232		
6.397	266	846	3.179	0.241		
6.405	365	896	2.455	0.256		
6.410	211	892	4.227	0.254		
6.414	253	916	3.615	0.261		
6.420	281	953	3.396	0.272		
6.422	154	976	6.337	0.278		
6.426	218	1011	4.640	0.288		
6.429	465	1030	2.213	0.294		
6.440	490	989	2.017	0.282		
6.458	303	748	2.466	0.213		
6.466	396	699	1.763	0.199		
6.482	200	533	2.664	0.152		
6.490	122	450	3.686	0.128		
6.497	114	451	3.967	0.128		
	252665	349841		100.000		

Total unknown % height = 75.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000082.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 21-JUN-2019 23:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 91625:1
Misc Info : 15570,AR1660
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.961	1.962	-0.001	2765	0.25000	0.243	80.00- 120.00	100.00	(aM)	BA
2.284	2.284	0.000	5420	0.25000	0.248	156.82- 235.23	196.02		BA
2.371	2.372	-0.001	2637	0.25000	0.243	76.30- 114.44	95.37		BA
2.467	2.468	-0.001	2318	0.25000	0.232	67.07- 100.60	83.83		BA
2.557	2.558	-0.001	2189	0.25000	0.221	63.33- 95.00	79.17		BA
		Average of Peak Amounts =			0.23740				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.304	3.305	-0.001	4455	0.25000	0.219	80.00- 120.00	100.00	(aM)	BA
3.475	3.475	0.000	5623	0.25000	0.231	100.97- 151.46	126.22		BA
3.658	3.659	-0.001	6872	0.25000	0.235	123.40- 185.10	154.25		BA
4.055	4.056	-0.001	10518	0.25000	0.244	188.88- 283.31	236.09		BA
4.242	4.244	-0.002	6346	0.25000	0.245	113.96- 170.94	142.46		BA
		Average of Peak Amounts =			0.23480				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.585	1.585	0.000	23542	0.05000	0.0518			(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.951	4.956	-0.005	17312	0.05000	0.0545		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 21-JUN-2019 23:19
Lab File ID: d061719000082.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11060	0.010	-2.92474	20.00000	Aver	(aM)
(2)	21808	21680	0.010	-0.58719	20.00000	Aver	(aM)
(3)	10850	10548	0.010	-2.78042	20.00000	Aver	(aM)
(4)	9980	9272	0.010	-7.09781	20.00000	Aver	(aM)
(5)	9902	8756	0.010	-11.57044	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	17820	0.010	-12.30459	20.00000	Aver	(aM)
(2)	24356	22492	0.010	-7.65399	20.00000	Aver	(aM)
(3)	29292	27488	0.010	-6.15868	20.00000	Aver	(aM)
(4)	43025	42072	0.010	-2.21537	20.00000	Aver	(aM)
(5)	25870	25384	0.010	-1.87778	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	470840	0.010	3.66910	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	346240	0.010	9.06456	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.65872
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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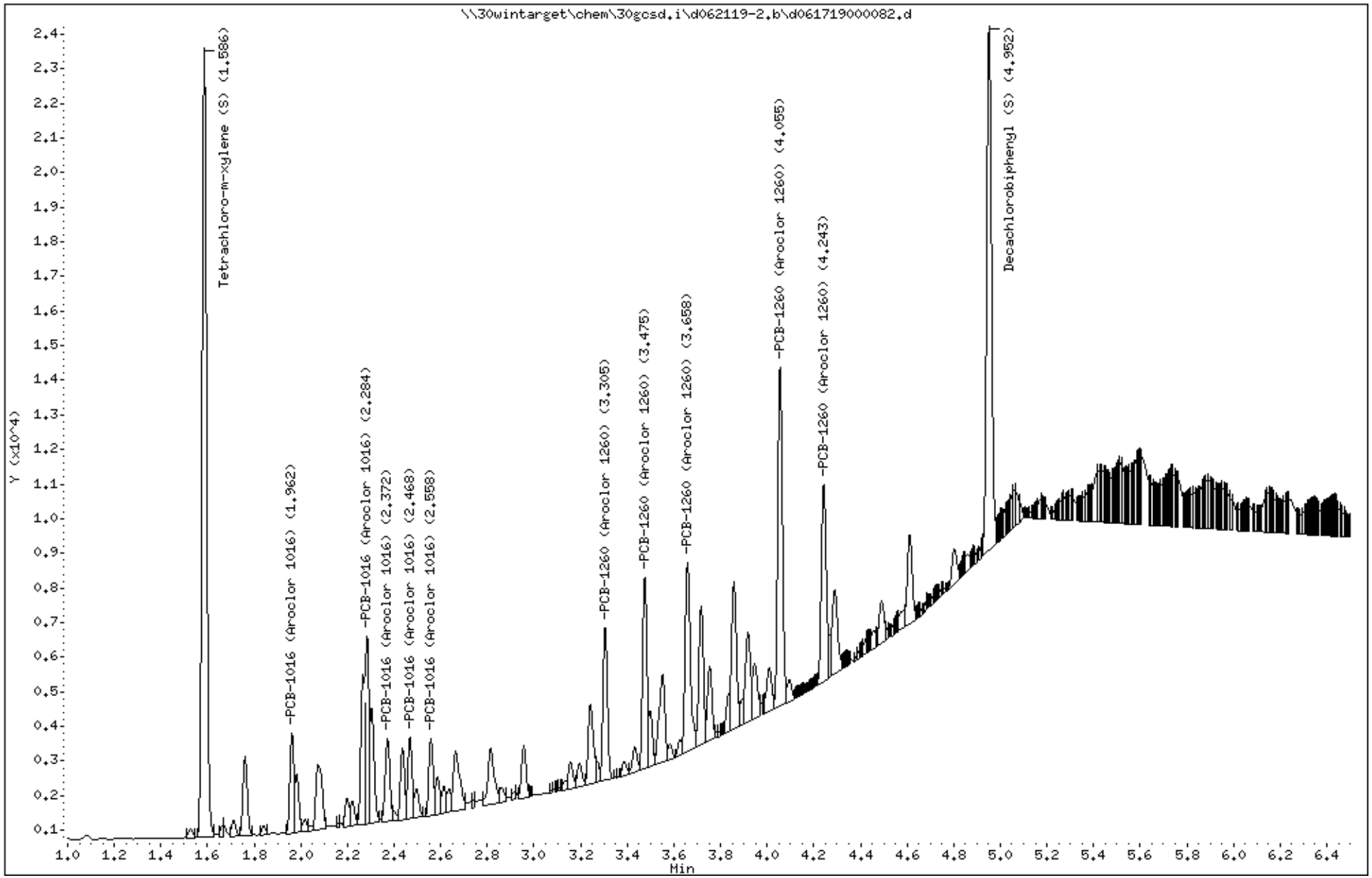
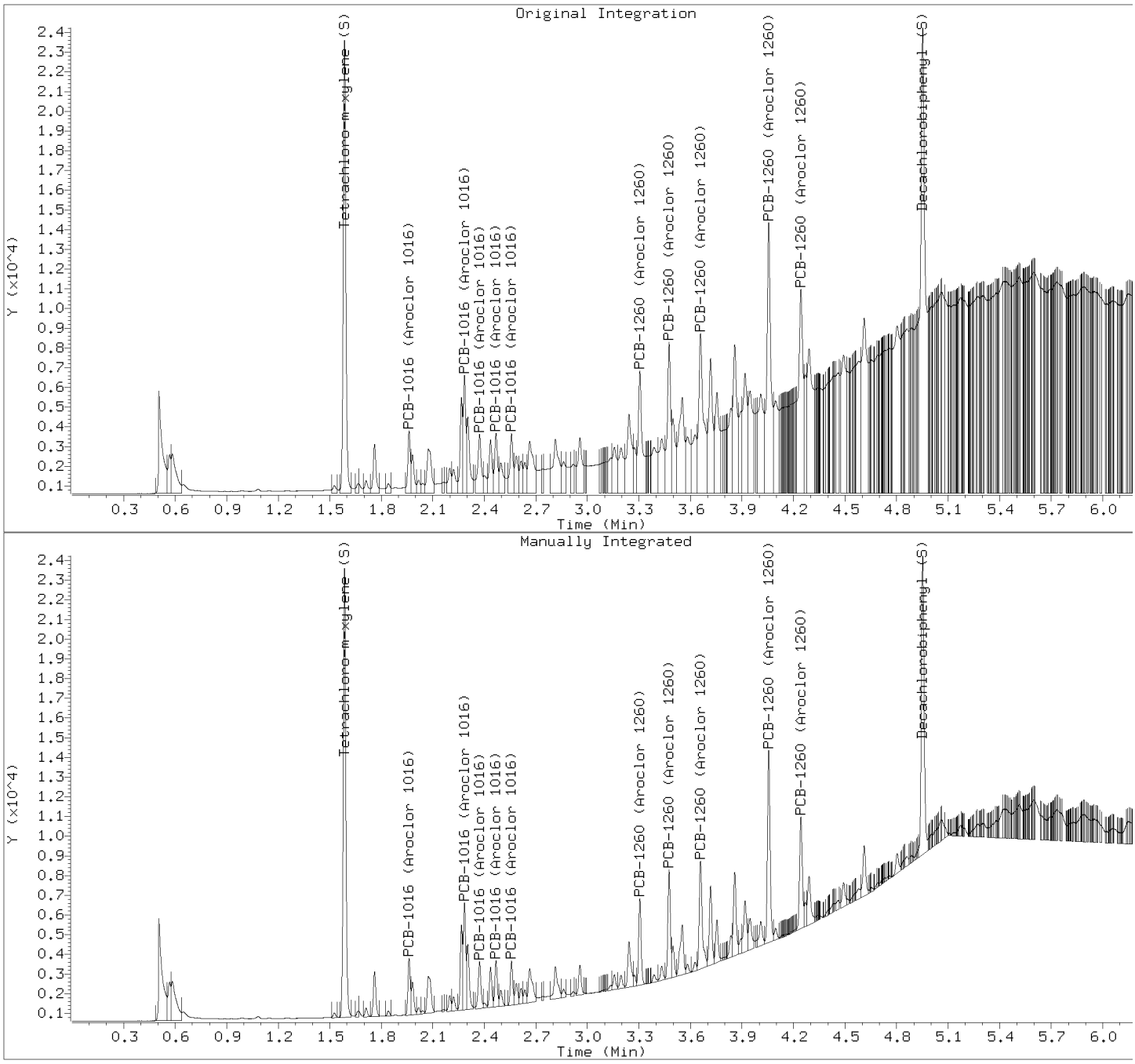
Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000082.d
Date : 21-JUN-2019 23:19
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 91625:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b/d061719000082.d (ManInt: AR1660.sub Orig: AR1660.sub)
Injection Date: 21-JUN-2019 23:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3343	2765
PCB-1016 (Aroclor 1016)	6101	5420
PCB-1016 (Aroclor 1016)	4410	2637
PCB-1016 (Aroclor 1016)	3677	2318
PCB-1016 (Aroclor 1016)	3900	2189
PCB-1260 (Aroclor 1260)	10507	4455
PCB-1260 (Aroclor 1260)	10464	5623
PCB-1260 (Aroclor 1260)	16314	6872
PCB-1260 (Aroclor 1260)	23060	10518
PCB-1260 (Aroclor 1260)	18366	6346
Tetrachloro-m-xylene (S)	24227	23542
Decachlorobiphenyl (S)	45742	17312

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 14:38
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	23620	8819	0.373	3.827		
1.213	25375	21210	0.836	9.318	$ 10 Tetrachloro-m-xylene (S)	RT
1.347	484	425	0.878	0.184		
1.402	515	468	0.909	0.203		
1.442	2435	2092	0.859	0.907		
1.561	328	315	0.959	0.136		
1.632	5093	3672	0.721	1.593	1 PCB-1016 (Aroclor 1016)	RT
1.696	559	438	0.784	0.190		
1.746	1172	1467	1.251	0.636		
1.761	2198	1969	0.896	0.854		
1.808	820	867	1.057	0.376		
1.825	748	704	0.941	0.305		
1.880	10052	7217	0.718	3.132	1 PCB-1016 (Aroclor 1016)	RT
1.934	4196	3372	0.804	1.463	1 PCB-1016 (Aroclor 1016)	RT
2.009	2240	2271	1.014	0.985		
2.036	3043	2668	0.877	1.157		
2.063	1957	2114	1.080	0.917		
2.077	2348	2109	0.898	0.915		
2.189	3025	3066	1.014	1.330	1 PCB-1016 (Aroclor 1016)	RT
2.213	1199	1209	1.008	0.524		
2.239	970	953	0.983	0.413		
2.278	2655	2415	0.910	1.048	1 PCB-1016 (Aroclor 1016)	RT
2.345	674	646	0.959	0.280		
2.376	357	364	1.020	0.157		
2.403	461	510	1.107	0.221		
2.426	1997	1828	0.915	0.793		
2.473	236	250	1.058	0.108		
2.511	1692	1693	1.000	0.734		
2.729	143	251	1.761	0.108		
2.759	119	165	1.386	0.071		
2.798	4175	3539	0.848	1.536	7 PCB-1260 (Aroclor 1260)	RT
2.831	1496	1399	0.935	0.607		
2.886	5263	5048	0.959	2.190	7 PCB-1260 (Aroclor 1260)	RT
2.925	154	237	1.542	0.102		
2.956	823	815	0.990	0.353		
2.997	6452	6026	0.934	2.615	7 PCB-1260 (Aroclor 1260)	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.104	2310	2588	1.120	1.123		
3.122	3348	3072	0.917	1.333		
3.191	1829	1309	0.716	0.568		
3.228	6686	5078	0.759	2.203		
3.255	4617	4400	0.953	1.909		
3.290	2479	2406	0.971	1.044		
3.380	877	792	0.903	0.343		
3.440	4894	4366	0.892	1.894		
3.501	2356	2252	0.956	0.977		
3.536	1781	1651	0.927	0.716		
3.560	337	419	1.244	0.181		
3.587	10428	10086	0.967	4.377	7 PCB-1260 (Aroclor 1260)	RT
3.622	134	227	1.689	0.098		
3.680	381	351	0.921	0.152		
3.761	140	143	1.020	0.062		
3.789	1929	1933	1.002	0.838		
3.829	7362	6777	0.921	2.941	7 PCB-1260 (Aroclor 1260)	RT
3.896	11	35	3.235	0.015		
3.976	461	383	0.830	0.166		
4.020	19	58	3.118	0.025		
4.040	158	164	1.040	0.071		
4.081	1116	1003	0.899	0.435		
4.156	2452	2276	0.928	0.987		
4.222	19	60	3.160	0.026		
4.278	10	39	3.892	0.016		
4.347	1076	860	0.799	0.373		
4.388	136	153	1.127	0.066		
4.397	89	164	1.835	0.071		
4.404	38	162	4.261	0.070		
4.427	49	168	3.429	0.072		
4.441	56	155	2.747	0.067		
4.472	54	134	2.479	0.058		
4.504	14336	13955	0.973	6.056	$ 11 Decachlorobiphenyl (S)	RT
4.551	34	73	2.177	0.031		
4.560	44	93	2.122	0.040		
4.569	37	116	3.167	0.050		
4.577	72	117	1.626	0.050		
4.590	34	114	3.335	0.049		
4.597	30	124	4.102	0.053		
4.607	25	122	4.803	0.052		
4.626	70	137	1.963	0.059		
4.644	122	188	1.538	0.081		
4.657	158	258	1.629	0.111		
4.685	609	451	0.740	0.195		
4.690	149	477	3.195	0.207		
4.702	358	519	1.450	0.225		
4.706	177	528	2.981	0.229		
4.718	186	562	3.017	0.243		
4.729	389	626	1.610	0.271		
4.737	331	652	1.972	0.282		
4.751	357	670	1.878	0.290		
4.776	331	624	1.883	0.270		
4.781	218	655	3.007	0.284		
4.796	622	725	1.167	0.314		
4.798	148	749	5.070	0.325		
4.832	1928	1139	0.591	0.494		
4.836	277	1166	4.210	0.506		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.874	330	1043	3.157	0.452		
4.880	351	1042	2.966	0.452		
4.891	603	1058	1.754	0.459		
4.948	5359	2044	0.381	0.887		
4.953	696	2067	2.969	0.897		
4.963	2044	2110	1.032	0.915		
4.981	896	1966	2.194	0.853		
5.029	418	1401	3.348	0.608		
5.033	365	1413	3.872	0.613		
5.039	536	1420	2.647	0.616		
5.042	229	1439	6.288	0.624		
5.053	1034	1519	1.469	0.659		
5.058	1028	1532	1.490	0.664		
5.096	192	1206	6.284	0.523		
5.103	265	1210	4.564	0.525		
5.111	615	1249	2.032	0.542		
5.117	327	1261	3.862	0.547		
5.121	225	1256	5.586	0.545		
5.125	252	1270	5.044	0.551		
5.130	384	1293	3.368	0.561		
5.143	1157	1396	1.207	0.605		
5.149	753	1403	1.863	0.608		
5.158	278	1398	5.032	0.606		
5.163	557	1407	2.525	0.610		
5.168	717	1397	1.949	0.606		
5.235	188	688	3.664	0.298		
5.243	154	653	4.227	0.283		
5.264	571	533	0.933	0.231		
5.285	117	430	3.672	0.186		
5.291	135	427	3.169	0.185		
5.295	127	427	3.367	0.185		
5.299	92	425	4.628	0.184		
5.303	119	433	3.625	0.187		
5.309	139	441	3.164	0.191		
5.312	135	457	3.380	0.198		
5.323	298	505	1.695	0.219		
5.331	358	519	1.449	0.225		
5.337	91	509	5.595	0.220		
5.348	168	505	3.002	0.219		
5.375	89	414	4.637	0.179		
5.379	90	419	4.643	0.181		
5.382	125	424	3.395	0.184		
5.389	149	420	2.827	0.182		
5.416	68	348	5.130	0.151		
5.424	125	347	2.780	0.150		
5.429	138	327	2.378	0.141		
5.440	125	250	1.999	0.108		
5.469	35	114	3.265	0.049		
5.476	46	97	2.112	0.042		
5.501	5	39	7.558	0.016		
5.507	19	57	3.014	0.024		
5.521	44	100	2.275	0.043		
5.531	61	126	2.066	0.054		
5.540	95	142	1.493	0.061		
5.548	21	140	6.554	0.060		
5.561	27	140	5.162	0.060		
5.569	43	161	3.781	0.069		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.576	36	157	4.323	0.068		
5.584	41	164	3.976	0.071		
5.595	58	167	2.884	0.072		
5.603	64	200	3.127	0.086		
5.608	65	217	3.339	0.094		
5.642	32	143	4.531	0.062		
5.649	74	140	1.898	0.060		
5.655	31	143	4.613	0.062		
5.664	56	126	2.266	0.054		
5.684	56	100	1.772	0.043		
5.701	32	80	2.480	0.034		
5.716	5	30	5.964	0.013		
5.732	4	20	5.128	0.008		
5.739	8	42	5.310	0.018		
5.745	16	57	3.503	0.024		
5.761	13	56	4.164	0.024		
5.773	31	92	2.928	0.039		
5.778	53	101	1.916	0.043		
5.788	34	105	3.116	0.045		
5.793	27	108	4.009	0.046		
5.799	34	105	3.107	0.045		
5.804	37	130	3.550	0.056		
5.810	58	158	2.731	0.068		
5.822	31	148	4.728	0.064		
5.835	63	164	2.604	0.071		
5.841	49	167	3.418	0.072		
5.844	47	190	4.081	0.082		
5.852	92	206	2.231	0.089		
5.861	88	222	2.525	0.096		
5.866	71	227	3.193	0.098		
5.870	56	248	4.435	0.107		
5.876	126	255	2.021	0.110		
5.908	69	209	3.045	0.090		
5.927	60	157	2.613	0.068		
5.933	25	163	6.536	0.070		
5.938	63	180	2.865	0.078		
5.941	44	189	4.309	0.082		
5.945	42	196	4.698	0.085		
5.955	98	196	2.007	0.085		
5.963	90	184	2.037	0.079		
5.971	83	190	2.291	0.082		
5.988	42	194	4.656	0.084		
5.996	86	216	2.504	0.093		
6.001	76	234	3.067	0.101		
6.021	108	255	2.367	0.110		
6.039	63	218	3.488	0.094		
6.043	85	233	2.728	0.101		
6.047	100	248	2.489	0.107		
6.056	97	249	2.560	0.108		
6.068	62	246	3.958	0.106		
6.073	87	252	2.909	0.109		
6.078	103	246	2.400	0.106		
6.085	56	239	4.300	0.103		
6.123	33	116	3.464	0.050		
6.129	30	118	3.974	0.051		
6.137	74	128	1.726	0.055		
6.161	20	95	4.703	0.041		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.170	36	90	2.477	0.039		
6.183	23	73	3.109	0.031		
6.206	11	74	6.667	0.032		
6.211	27	97	3.587	0.042		
6.217	43	116	2.709	0.050		
6.223	39	134	3.403	0.058		
6.231	23	150	6.510	0.065		
6.236	120	162	1.348	0.070		
6.249	21	127	6.091	0.055		
6.257	39	127	3.297	0.055		
6.265	37	156	4.191	0.067		
6.289	39	142	3.645	0.061		
6.293	44	158	3.554	0.068		
6.311	30	148	4.995	0.064		
6.319	129	177	1.374	0.076		
6.326	86	162	1.874	0.070		
6.351	28	99	3.531	0.042		
6.360	37	129	3.515	0.055		
6.367	110	172	1.560	0.074		
6.374	88	175	1.991	0.075		
6.382	35	164	4.741	0.071		
6.421	17	68	3.977	0.029		
6.444	11	41	3.717	0.017		
6.451	12	50	4.139	0.021		
6.466	9	61	6.510	0.026		
	225635	230403		100.000		

Total unknown % height = 62.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 14:38
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.632	1.632	0.000	5093	0.25000	0.248	80.00- 120.00	100.00(M)	RT
1.879	1.879	0.000	10051	0.25000	0.243	159.49- 239.23	197.35	RT
1.933	1.933	0.000	4195	0.25000	0.252	64.63- 96.94	82.37	RT
2.189	2.189	0.000	3025	0.25000	0.237	46.23- 69.34	59.40	RT
2.278	2.278	0.000	2655	0.25000	0.242	40.34- 60.51	52.13	RT
Average of Peak Amounts =					0.24440			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.798	2.798	0.000	4174	0.25000	0.225	80.00- 120.00	100.00(M)	RT
2.886	2.886	0.000	5262	0.25000	0.222	101.87- 152.81	126.07	RT
2.996	2.996	0.000	6452	0.25000	0.217	125.89- 188.83	154.58	RT
3.586	3.586	0.000	10428	0.25000	0.208	204.25- 306.37	249.83	RT
3.829	3.829	0.000	7362	0.25000	0.203	147.92- 221.87	176.38	RT
Average of Peak Amounts =					0.21500			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.213	1.213	0.000	25375	0.05000	0.0499		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.503	4.503	0.000	14336	0.05000	0.0427		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 01-JUL-2019 14:38
Lab File ID: d070119000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20372	0.010	-0.80826	20.00000	Aver	(M)
(2)	41335	40204	0.010	-2.73579	20.00000	Aver	(M)
(3)	16656	16780	0.010	0.74347	20.00000	Aver	(M)
(4)	12773	12100	0.010	-5.27016	20.00000	Aver	(M)
(5)	10980	10620	0.010	-3.27428	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	16696	0.010	-9.96576	20.00000	Aver	(M)
(2)	23716	21048	0.010	-11.24896	20.00000	Aver	(M)
(3)	29676	25808	0.010	-13.03443	20.00000	Aver	(M)
(4)	50204	41712	0.010	-16.91563	20.00000	Aver	(M)
(5)	36244	29448	0.010	-18.75032	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	507500	0.010	-0.21721	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	286720	0.010	-14.57790	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 7.54339
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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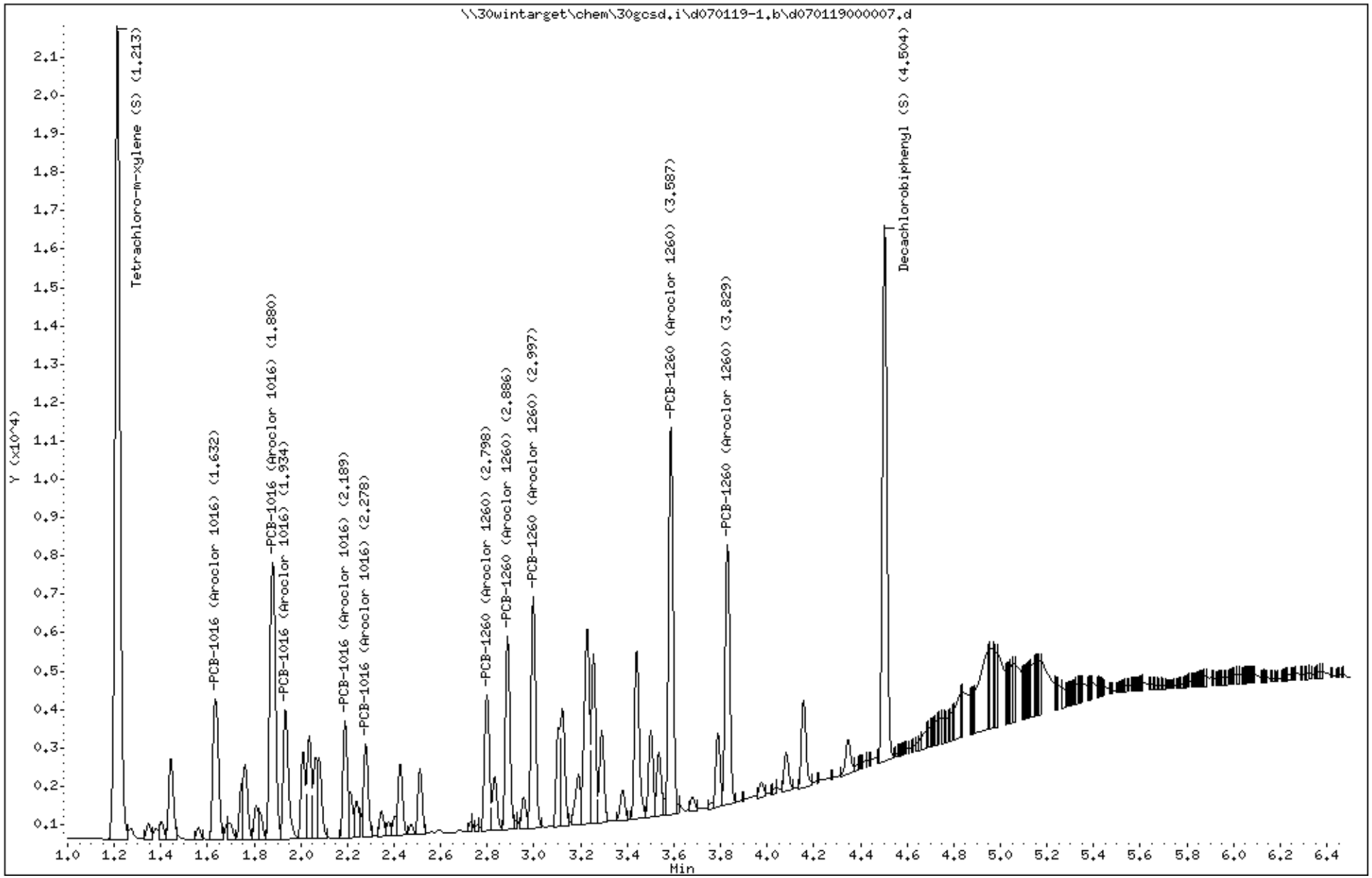
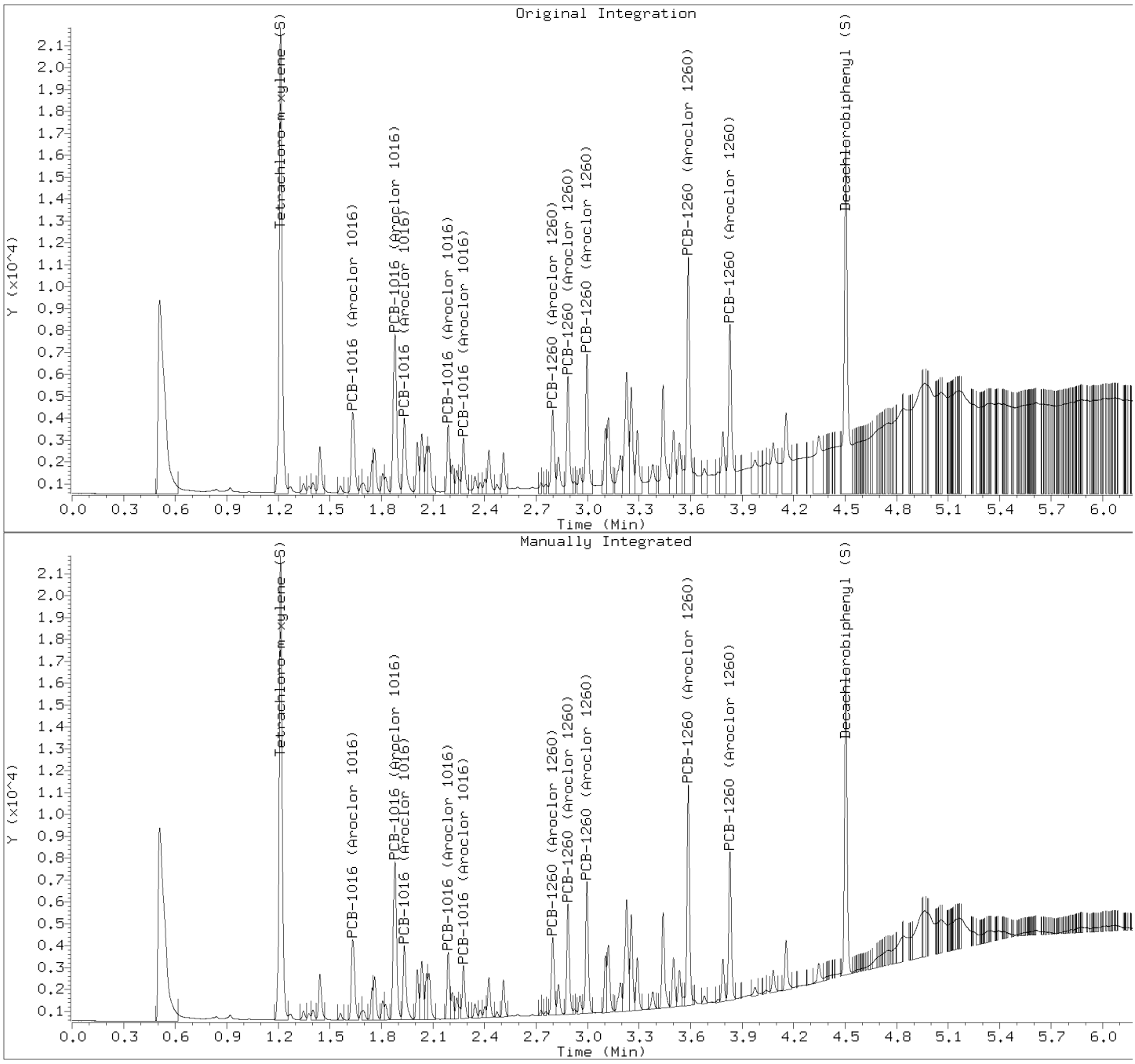
Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000007.d
Date : 01-JUL-2019 14:38
Client ID: CCV
Sample Info: CCV, 92515:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b/d070119000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 01-JUL-2019 14:38 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5237	5093
PCB-1016 (Aroclor 1016)	10260	10051
PCB-1016 (Aroclor 1016)	4453	4195
PCB-1016 (Aroclor 1016)	3201	3025
PCB-1016 (Aroclor 1016)	2963	2655
PCB-1260 (Aroclor 1260)	4888	4174
PCB-1260 (Aroclor 1260)	6209	5262
PCB-1260 (Aroclor 1260)	7692	6452
PCB-1260 (Aroclor 1260)	12483	10428
PCB-1260 (Aroclor 1260)	10399	7362
Tetrachloro-m-xylene (S)	25573	25375
Decachlorobiphenyl (S)	22392	14336

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 14:38
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	19376	10973	0.566	5.832		
1.586	22132	20368	0.920	10.947	$ 10 Tetrachloro-m-xylene (S)	RT
1.666	300	300	0.999	0.159		
1.713	442	404	0.913	0.214		
1.761	2314	2110	0.912	1.121		
1.962	2746	2758	1.005	1.465	1 PCB-1016 (Aroclor 1016)	RT
1.982	1675	1642	0.980	0.872		
2.017	338	330	0.976	0.175		
2.076	2924	1820	0.622	0.967		
2.199	680	721	1.061	0.383		
2.220	584	560	0.958	0.297		
2.267	3561	4037	1.134	2.145		
2.284	5188	5090	0.981	2.705	1 PCB-1016 (Aroclor 1016)	RT
2.303	3526	3197	0.907	1.699		
2.373	2583	2234	0.865	1.187	1 PCB-1016 (Aroclor 1016)	RT
2.401	236	253	1.072	0.134		
2.436	2016	2013	0.998	1.069		
2.468	2341	2283	0.975	1.213	1 PCB-1016 (Aroclor 1016)	RT
2.496	896	812	0.906	0.431		
2.558	2287	2291	1.002	1.217	1 PCB-1016 (Aroclor 1016)	RT
2.587	1239	1087	0.878	0.577		
2.614	769	769	1.000	0.408		
2.636	590	595	1.009	0.316		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.664	2425	1553	0.640	0.825		
2.814	2064	1485	0.720	0.789		
2.862	332	321	0.968	0.170		
2.918	156	153	0.982	0.081		
2.956	1539	1433	0.931	0.761		
3.136	197	223	1.133	0.118		
3.157	802	721	0.899	0.383		
3.196	653	620	0.949	0.329		
3.243	2789	2150	0.771	1.142		
3.273	499	558	1.119	0.296		
3.305	4365	4219	0.967	2.242	7 PCB-1260 (Aroclor 1260)	RT
3.389	406	375	0.924	0.199		
3.433	692	653	0.944	0.347		
3.476	5196	4998	0.962	2.656	7 PCB-1260 (Aroclor 1260)	RT
3.499	1435	1457	1.015	0.774		
3.553	3376	2304	0.683	1.224		
3.583	433	418	0.966	0.222		
3.627	466	428	0.918	0.227		
3.660	6337	4917	0.776	2.613	7 PCB-1260 (Aroclor 1260)	RT
3.718	3878	3637	0.938	1.933		
3.754	2070	1944	0.939	1.033		
3.837	752	837	1.113	0.444		
3.860	3954	3680	0.931	1.955		
3.892	119	202	1.692	0.107		
3.919	1876	1824	0.972	0.969		
3.948	1195	1032	0.864	0.548		
3.979	65	123	1.878	0.065		
4.011	1060	918	0.866	0.487		
4.057	9262	8623	0.931	4.583	7 PCB-1260 (Aroclor 1260)	RT
4.098	531	468	0.882	0.248		
4.161	7	22	3.343	0.011		
4.166	5	21	4.478	0.011		
4.183	6	20	3.356	0.010		
4.192	7	25	3.521	0.013		
4.200	6	32	5.195	0.017		
4.213	19	34	1.820	0.018		
4.245	5552	4977	0.896	2.645	7 PCB-1260 (Aroclor 1260)	RT
4.273	689	886	1.286	0.470		
4.293	2540	2018	0.795	1.072		
4.339	6	29	4.693	0.015		
4.347	8	35	4.227	0.018		
4.359	7	19	2.770	0.010		
4.368	13	34	2.718	0.018		
4.381	27	48	1.791	0.025		
4.385	12	46	3.710	0.024		
4.394	16	55	3.387	0.029		
4.407	33	50	1.526	0.026		
4.434	211	261	1.235	0.138		
4.460	148	201	1.359	0.106		
4.495	1142	957	0.838	0.508		
4.526	22	48	2.149	0.025		
4.533	13	36	2.719	0.019		
4.547	13	43	3.219	0.022		
4.561	8	28	3.398	0.014		
4.567	10	33	3.438	0.017		
4.572	9	38	4.167	0.020		
4.578	17	53	3.189	0.028		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.582	16	61	3.784	0.032		
4.616	2483	2155	0.868	1.145		
4.654	99	161	1.619	0.085		
4.658	107	169	1.576	0.089		
4.674	9	42	4.526	0.022		
4.681	10	31	3.206	0.016		
4.692	27	66	2.472	0.035		
4.696	23	77	3.286	0.040		
4.707	56	113	2.011	0.060		
4.715	61	130	2.130	0.069		
4.720	45	142	3.135	0.075		
4.723	31	149	4.842	0.079		
4.725	40	152	3.838	0.080		
4.731	36	145	4.037	0.077		
4.736	42	136	3.250	0.072		
4.744	52	134	2.589	0.071		
4.748	17	112	6.459	0.059		
4.752	31	109	3.512	0.057		
4.769	30	77	2.543	0.040		
4.785	8	35	4.268	0.018		
4.807	769	699	0.909	0.371		
4.830	5	31	5.894	0.016		
4.837	6	23	4.174	0.012		
4.848	21	47	2.222	0.024		
4.856	23	59	2.539	0.031		
4.863	24	63	2.636	0.033		
4.866	19	74	3.838	0.039		
4.870	18	66	3.729	0.035		
4.880	5	31	5.916	0.016		
4.888	1	15	19.231	0.007		
4.894	4	2	0.500	0.001		
4.899	4	2	0.524	0.001		
4.904	3	0	0.000	0.000		
4.909	1	11	8.527	0.005		
4.915	8	31	4.016	0.016		
4.921	14	51	3.527	0.027		
4.924	11	70	6.206	0.037		
4.957	14370	13019	0.906	6.919	$ 11 Decachlorobiphenyl (S)	RT
4.992	46	169	3.644	0.089		
5.000	30	113	3.802	0.060		
5.004	24	100	4.137	0.053		
5.007	16	102	6.472	0.054		
5.016	30	74	2.493	0.039		
5.025	10	47	4.767	0.024		
5.028	8	48	6.194	0.025		
5.035	13	49	3.707	0.026		
5.038	7	40	5.457	0.021		
5.047	37	113	3.096	0.060		
5.053	50	156	3.124	0.082		
5.057	58	206	3.529	0.109		
5.073	247	306	1.239	0.162		
5.077	68	324	4.757	0.172		
5.082	158	358	2.264	0.190		
5.087	73	378	5.177	0.200		
5.093	149	406	2.730	0.215		
5.098	131	418	3.202	0.222		
5.104	176	461	2.627	0.245		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.109	124	494	3.996	0.262		
5.115	210	555	2.639	0.294		
5.121	242	599	2.475	0.318		
5.126	256	618	2.414	0.328		
5.131	321	631	1.968	0.335		
5.139	288	609	2.114	0.323		
5.162	203	545	2.687	0.289		
5.176	236	544	2.307	0.289		
5.182	96	538	5.600	0.285		
5.275	26	67	2.583	0.035		
5.283	23	58	2.537	0.030		
5.290	10	64	6.107	0.034		
5.298	14	94	6.831	0.049		
5.308	47	135	2.885	0.071		
5.312	40	166	4.136	0.088		
5.316	65	198	3.024	0.105		
5.320	32	211	6.549	0.112		
5.326	91	249	2.733	0.132		
5.330	69	281	4.058	0.149		
5.334	63	297	4.710	0.157		
5.342	132	329	2.486	0.174		
5.352	217	377	1.739	0.200		
5.357	156	401	2.573	0.213		
5.364	211	446	2.109	0.237		
5.372	161	453	2.817	0.240		
5.383	169	484	2.869	0.257		
5.395	175	492	2.811	0.261		
5.402	208	535	2.575	0.284		
5.407	152	560	3.673	0.297		
5.416	287	649	2.262	0.344		
5.431	721	846	1.174	0.449		
5.434	138	873	6.348	0.463		
5.439	324	929	2.870	0.493		
5.442	206	948	4.611	0.503		
5.448	308	979	3.178	0.520		
5.455	540	1023	1.893	0.543		
5.464	586	1071	1.829	0.569		
5.468	618	1077	1.742	0.572		
5.480	497	1056	2.127	0.561		
5.495	308	976	3.174	0.518		
5.502	533	945	1.772	0.502		
5.512	463	899	1.944	0.477		
5.522	307	873	2.844	0.463		
5.550	211	760	3.608	0.403		
5.555	245	778	3.182	0.413		
5.560	265	793	2.994	0.421		
5.565	224	811	3.613	0.431		
5.573	472	873	1.849	0.463		
5.577	212	896	4.218	0.476		
5.585	479	949	1.979	0.504		
5.590	442	972	2.200	0.516		
5.596	424	979	2.309	0.520		
5.697	150	305	2.036	0.162		
5.708	122	287	2.348	0.152		
5.718	152	291	1.915	0.154		
5.733	107	240	2.243	0.127		
5.771	34	93	2.734	0.049		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.778	29	86	2.946	0.045		
5.785	37	92	2.469	0.048		
5.791	24	94	3.976	0.049		
5.802	67	114	1.708	0.060		
5.812	22	104	4.685	0.055		
5.841	15	59	3.887	0.031		
5.849	15	45	3.061	0.023		
5.874	11	51	4.595	0.027		
5.878	25	67	2.650	0.035		
5.885	19	68	3.568	0.036		
5.893	11	65	6.013	0.034		
5.935	23	61	2.657	0.032		
5.960	5	33	6.992	0.017		
5.974	8	34	4.048	0.018		
6.002	11	38	3.399	0.020		
6.009	4	25	6.083	0.013		
6.014	9	34	3.972	0.018		
6.021	7	31	4.288	0.016		
6.027	6	34	5.388	0.018		
6.045	6	39	6.977	0.020		
6.054	6	29	4.849	0.015		
6.061	10	30	3.006	0.015		
6.070	7	30	4.121	0.015		
6.087	8	33	4.354	0.017		
6.109	6	30	4.695	0.015		
6.123	7	30	4.121	0.015		
6.127	6	32	5.112	0.017		
6.133	6	35	5.993	0.018		
6.143	6	50	8.403	0.026		
6.156	9	46	4.995	0.024		
6.161	19	57	2.935	0.030		
6.171	10	45	4.509	0.023		
6.183	15	53	3.510	0.028		
6.196	19	60	3.115	0.031		
6.200	12	61	5.148	0.032		
6.213	14	75	5.342	0.039		
6.247	22	72	3.207	0.038		
6.251	12	65	5.372	0.034		
6.268	33	105	3.149	0.055		
6.287	10	66	6.627	0.035		
6.291	23	78	3.409	0.041		
6.299	18	64	3.492	0.034		
6.310	16	89	5.662	0.047		
6.314	25	94	3.717	0.049		
6.319	44	91	2.057	0.048		
6.325	18	85	4.757	0.045		
6.339	26	71	2.714	0.037		
6.358	17	67	3.918	0.035		
6.368	12	55	4.630	0.029		
6.378	21	69	3.327	0.036		
6.391	26	85	3.320	0.045		
6.396	32	82	2.581	0.043		
6.421	27	67	2.445	0.035		
6.429	20	67	3.417	0.035		
6.438	16	65	4.091	0.034		
6.448	15	68	4.524	0.036		
6.455	26	64	2.508	0.034		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.465	10	56	5.453	0.029		
6.475	7	38	5.191	0.020		
6.485	12	39	3.245	0.020		
6.491	15	46	3.146	0.024		
	182501	188147		100.000		

Total unknown % height = 59.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 14:38
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.962	1.962	0.000	2745	0.25000	0.241	80.00- 120.00	100.00	(aM)	RT
2.284	2.284	0.000	5187	0.25000	0.238	153.00- 229.50	188.96		RT
2.372	2.372	0.000	2583	0.25000	0.238	74.09- 111.14	94.10		RT
2.468	2.468	0.000	2341	0.25000	0.234	66.98- 100.47	85.28		RT
2.557	2.557	0.000	2287	0.25000	0.231	65.94- 98.91	83.32		RT
Average of Peak Amounts =					0.23640				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.305	3.305	0.000	4364	0.25000	0.215	80.00- 120.00	100.00	(aM)	RT
3.475	3.475	0.000	5196	0.25000	0.213	94.63- 141.94	119.07		RT
3.659	3.659	0.000	6337	0.25000	0.216	117.79- 176.69	145.21		RT
4.057	4.057	0.000	9261	0.25000	0.215	170.05- 255.07	212.21		RT
4.245	4.245	0.000	5552	0.25000	0.215	101.97- 152.96	127.22		RT
Average of Peak Amounts =					0.21480				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.586	1.586	0.000	22132	0.05000	0.0487			(aM)	RT

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.956	4.956	0.000	14370	0.05000	0.0453		(aM)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 01-JUL-2019 14:38
Lab File ID: d070119000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	10980	0.010	-3.62691	20.00000	Aver	(aM)
(2)	21808	20748	0.010	-4.86084	20.00000	Aver	(aM)
(3)	10850	10332	0.010	-4.77127	20.00000	Aver	(aM)
(4)	9980	9364	0.010	-6.17600	20.00000	Aver	(aM)
(5)	9902	9148	0.010	-7.61151	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	17456	0.010	-14.09590	20.00000	Aver	(aM)
(2)	24356	20784	0.010	-14.66657	20.00000	Aver	(aM)
(3)	29292	25348	0.010	-13.46443	20.00000	Aver	(aM)
(4)	43025	37044	0.010	-13.90155	20.00000	Aver	(aM)
(5)	25870	22208	0.010	-14.15465	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	442640	0.010	-2.53995	20.00000	Aver	(aM)
$ 11 Decachlorobiphenyl (S)	317463	287400	0.010	-9.46986	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.00115
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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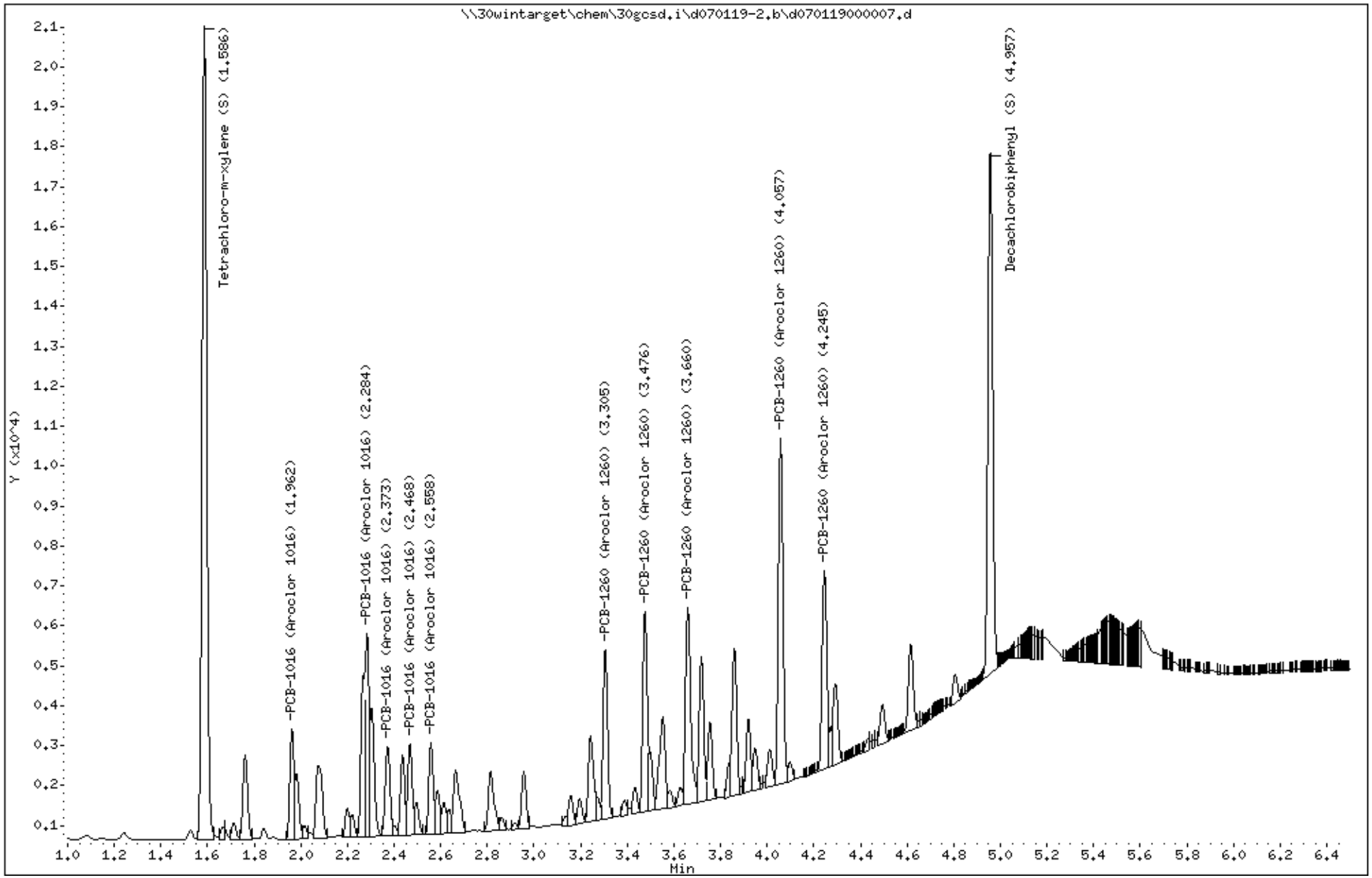
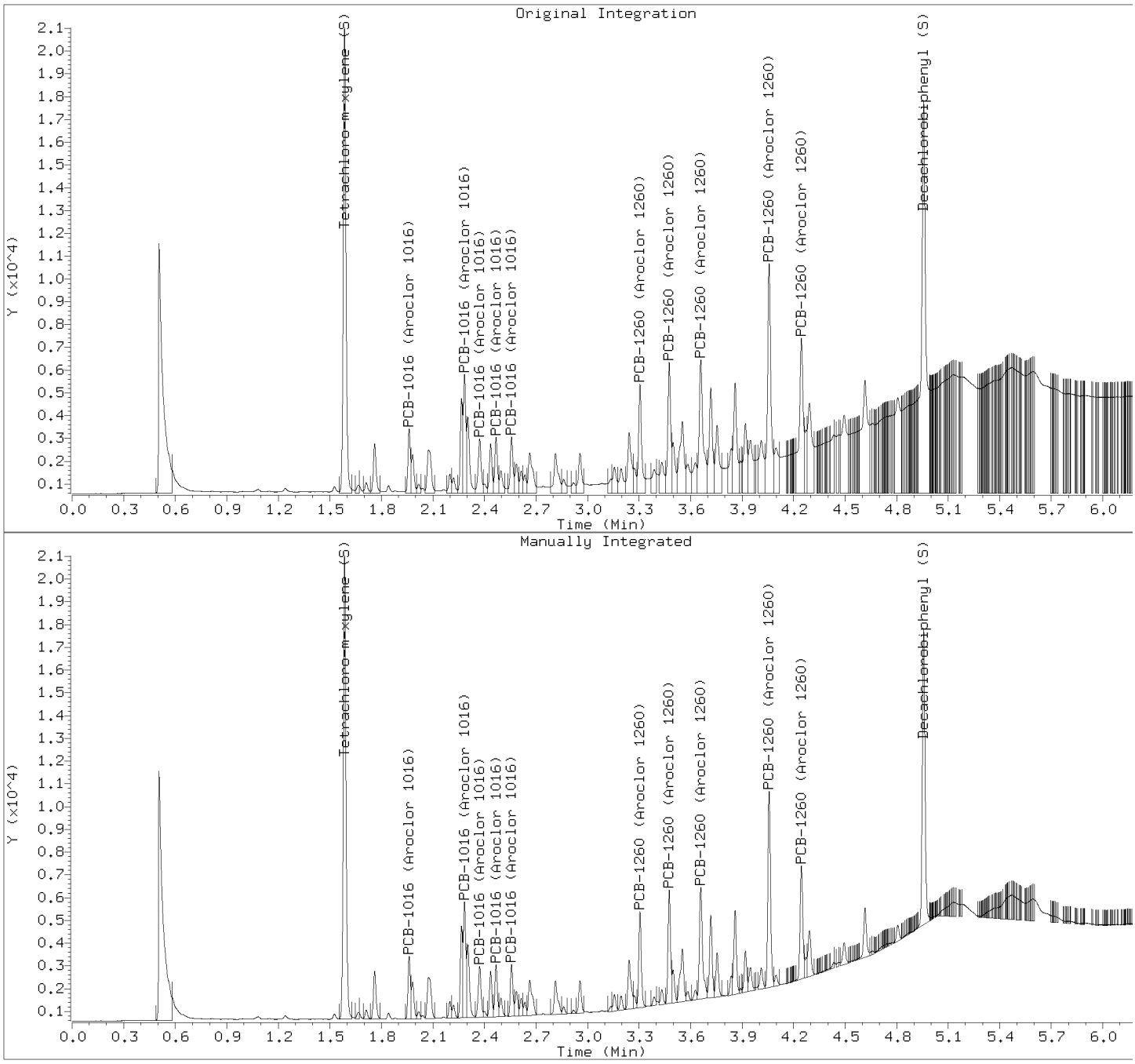
Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000007.d
Date : 01-JUL-2019 14:38
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 92515:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b/d070119000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 01-JUL-2019 14:38 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2855	2745
PCB-1016 (Aroclor 1016)	5296	5187
PCB-1016 (Aroclor 1016)	3004	2583
PCB-1016 (Aroclor 1016)	2653	2341
PCB-1016 (Aroclor 1016)	2702	2287
PCB-1260 (Aroclor 1260)	6069	4364
PCB-1260 (Aroclor 1260)	6889	5196
PCB-1260 (Aroclor 1260)	9666	6337
PCB-1260 (Aroclor 1260)	13821	9261
PCB-1260 (Aroclor 1260)	11038	5552
Tetrachloro-m-xylene (S)	22374	22132
Decachlorobiphenyl (S)	30973	14370

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 17:45
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	25459	8917	0.350	4.621		
1.212	25775	21541	0.836	11.256	$ 10 Tetrachloro-m-xylene (S)	BA
1.346	533	450	0.845	0.233		
1.379	340	314	0.924	0.162		
1.401	523	478	0.914	0.247		
1.441	2450	2144	0.875	1.111		
1.561	313	305	0.975	0.158		
1.633	5127	3730	0.728	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.694	806	445	0.552	0.230		
1.745	1179	1478	1.253	0.766		
1.760	2209	1984	0.898	1.028		
1.807	815	879	1.079	0.455		
1.823	760	718	0.944	0.372		
1.879	10228	7412	0.725	3.841	1 PCB-1016 (Aroclor 1016)	BA
1.932	4205	3420	0.813	1.772	1 PCB-1016 (Aroclor 1016)	BA
2.008	2262	2357	1.042	1.221		
2.035	3064	2684	0.876	1.391		
2.062	1899	2130	1.122	1.103		
2.077	2406	2095	0.871	1.085		
2.188	3027	3081	1.018	1.596	1 PCB-1016 (Aroclor 1016)	BA
2.212	1195	1207	1.010	0.625		
2.238	991	955	0.963	0.494		
2.254	373	562	1.506	0.291		
2.277	2673	2423	0.907	1.255	1 PCB-1016 (Aroclor 1016)	BA
2.344	686	650	0.948	0.336		
2.375	376	379	1.007	0.196		
2.402	482	526	1.092	0.272		
2.425	2043	1863	0.912	0.965		
2.472	253	263	1.041	0.136		
2.509	1738	1745	1.004	0.904		
2.729	275	273	0.994	0.141		
2.797	4347	3633	0.836	1.882	7 PCB-1260 (Aroclor 1260)	BA
2.830	1556	1450	0.932	0.751		
2.885	5505	5414	0.984	2.805	7 PCB-1260 (Aroclor 1260)	BA
2.924	281	271	0.966	0.140		
2.954	866	862	0.996	0.446		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.995	6860	6474	0.944	3.355	7 PCB-1260 (Aroclor 1260)	BA
3.103	2433	2806	1.153	1.454		
3.120	3679	3318	0.902	1.719		
3.190	2008	1446	0.720	0.749		
3.227	7323	5436	0.742	2.817		
3.254	5047	4733	0.938	2.453		
3.289	2730	2608	0.955	1.351		
3.379	988	890	0.901	0.461		
3.439	5318	4748	0.893	2.460		
3.499	2592	2528	0.975	1.310		
3.534	1980	1851	0.935	0.959		
3.559	347	466	1.342	0.241		
3.585	11316	11123	0.983	5.764	7 PCB-1260 (Aroclor 1260)	BA
3.622	197	213	1.082	0.110		
3.678	347	356	1.026	0.184		
3.759	139	151	1.084	0.078		
3.786	2161	2151	0.996	1.114		
3.827	8102	7503	0.926	3.888	7 PCB-1260 (Aroclor 1260)	BA
3.973	470	396	0.843	0.205		
4.037	90	112	1.243	0.058		
4.080	1056	1028	0.974	0.532		
4.154	2602	2418	0.929	1.253		
4.345	886	846	0.955	0.438		
4.389	12	33	2.679	0.017		
4.420	4	15	3.989	0.007		
4.429	3	11	3.806	0.005		
4.448	7	22	3.207	0.011		
4.502	14997	14472	0.965	7.500	$ 11 Decachlorobiphenyl (S)	BA
4.561	13	49	3.911	0.025		
4.574	16	43	2.651	0.022		
4.620	8	29	3.420	0.015		
4.636	8	23	2.785	0.011		
4.675	6	22	3.860	0.011		
4.688	4	26	5.856	0.013		
4.699	6	32	5.735	0.016		
4.705	6	34	5.629	0.017		
4.709	13	43	3.219	0.022		
4.766	8	44	5.584	0.022		
4.783	9	39	4.353	0.020		
4.799	5	32	5.993	0.016		
4.807	18	48	2.603	0.024		
4.838	7	23	3.295	0.011		
4.846	14	44	3.056	0.022		
4.849	13	54	4.060	0.027		
4.855	25	67	2.683	0.034		
4.884	129	132	1.027	0.068		
4.890	29	137	4.747	0.071		
4.897	57	149	2.595	0.077		
4.903	57	157	2.747	0.081		
4.911	77	167	2.174	0.086		
4.920	45	178	3.963	0.092		
4.928	77	202	2.625	0.104		
4.935	87	205	2.357	0.106		
4.940	61	209	3.432	0.108		
4.945	71	214	3.013	0.110		
4.952	47	219	4.694	0.113		
4.956	39	222	5.650	0.115		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.969	75	245	3.257	0.126		
4.981	51	256	5.069	0.132		
4.989	143	284	1.986	0.147		
4.999	99	301	3.029	0.156		
5.012	91	310	3.401	0.160		
5.035	240	375	1.562	0.194		
5.043	82	377	4.614	0.195		
5.051	140	400	2.848	0.207		
5.060	124	429	3.459	0.222		
5.064	129	437	3.375	0.226		
5.074	301	478	1.590	0.247		
5.082	154	489	3.176	0.253		
5.101	144	485	3.377	0.251		
5.114	173	488	2.821	0.252		
5.128	248	509	2.053	0.263		
5.134	173	519	3.000	0.268		
5.138	123	518	4.229	0.268		
5.149	298	522	1.752	0.270		
5.163	149	507	3.393	0.262		
5.179	143	481	3.366	0.249		
5.198	173	463	2.676	0.239		
5.203	91	462	5.078	0.239		
5.211	185	467	2.531	0.242		
5.223	130	471	3.634	0.244		
5.231	93	471	5.060	0.244		
5.243	209	481	2.306	0.249		
5.253	329	491	1.493	0.254		
5.259	87	490	5.610	0.253		
5.267	310	487	1.570	0.252		
5.336	100	322	3.234	0.166		
5.386	37	128	3.452	0.066		
5.425	4	29	6.546	0.015		
5.452	13	74	5.490	0.038		
5.463	12	76	6.507	0.039		
5.475	37	94	2.538	0.048		
5.508	35	79	2.235	0.040		
5.555	10	28	2.721	0.014		
5.567	5	22	4.015	0.011		
5.574	1	13	10.400	0.006		
5.604	5	28	6.009	0.014		
5.615	5	35	7.128	0.018		
5.626	4	32	7.273	0.016		
5.640	14	41	2.847	0.021		
5.659	20	58	2.935	0.030		
5.666	21	61	2.944	0.031		
5.671	13	67	5.095	0.034		
5.678	13	71	5.299	0.036		
5.689	45	98	2.186	0.050		
5.695	49	125	2.577	0.064		
5.703	61	151	2.475	0.078		
5.711	67	176	2.623	0.091		
5.716	61	204	3.352	0.105		
5.723	40	205	5.143	0.106		
5.728	58	220	3.765	0.114		
5.740	93	243	2.608	0.125		
5.744	60	255	4.280	0.132		
5.750	117	264	2.256	0.136		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.780	119	307	2.570	0.159		
5.796	150	305	2.039	0.158		
5.807	129	288	2.236	0.149		
5.828	148	257	1.732	0.133		
5.837	73	251	3.428	0.130		
5.842	94	254	2.715	0.131		
5.862	114	256	2.249	0.132		
5.869	39	248	6.402	0.128		
5.876	80	255	3.191	0.132		
5.889	56	240	4.289	0.124		
5.922	47	186	3.928	0.096		
5.980	83	186	2.242	0.096		
5.988	114	177	1.553	0.091		
6.007	86	154	1.782	0.079		
6.034	68	107	1.579	0.055		
6.044	28	105	3.804	0.054		
6.054	26	99	3.799	0.051		
6.064	18	93	5.138	0.048		
6.071	18	109	5.953	0.056		
6.085	31	121	3.958	0.062		
6.091	19	124	6.547	0.064		
6.100	29	144	4.896	0.074		
6.104	37	150	4.040	0.077		
6.119	51	176	3.436	0.091		
6.130	33	187	5.713	0.096		
6.141	46	197	4.309	0.102		
6.146	111	207	1.867	0.107		
6.165	71	187	2.633	0.096		
6.180	53	172	3.265	0.089		
6.193	45	166	3.729	0.086		
6.199	42	169	4.050	0.087		
6.227	76	195	2.552	0.101		
6.244	58	193	3.322	0.100		
6.264	72	150	2.076	0.077		
6.282	43	128	2.963	0.066		
6.319	27	118	4.319	0.061		
6.332	54	127	2.357	0.065		
6.348	42	116	2.749	0.060		
6.410	6	28	4.480	0.014		
6.421	3	20	7.905	0.010		
6.454	6	27	4.245	0.013		
6.479	5	26	5.078	0.013		
6.490	4	14	3.302	0.007		
	209810	192946		100.000		

Total unknown % height = 53.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 17:45
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m
Meth Date : 02-Jul-2019 09:03 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.633	1.632	0.001	5126	0.25000	0.250	80.00- 120.00	100.00(M)	BA
1.879	1.879	0.000	10227	0.25000	0.247	159.49- 239.23	199.51	BA
1.932	1.933	-0.001	4204	0.25000	0.252	64.63- 96.94	82.01	BA
2.188	2.189	-0.001	3027	0.25000	0.237	46.23- 69.34	59.05	BA
2.277	2.278	-0.001	2672	0.25000	0.243	40.34- 60.51	52.14	BA
		Average of Peak Amounts =			0.24580			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.798	-0.002	4347	0.25000	0.234	80.00- 120.00	100.00(M)	BA
2.885	2.886	-0.001	5504	0.25000	0.232	101.87- 152.81	126.62	BA
2.995	2.996	-0.001	6860	0.25000	0.231	125.89- 188.83	157.81	BA
3.585	3.586	-0.001	11315	0.25000	0.225	204.25- 306.37	260.29	BA
3.827	3.829	-0.002	8102	0.25000	0.224	147.92- 221.87	186.39	BA
		Average of Peak Amounts =			0.22920			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.213	-0.001	25775	0.05000	0.0507		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.501	4.503	-0.002	14996	0.05000	0.0447		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 01-JUL-2019 17:45
Lab File ID: d070119000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d070119-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20504	0.010	-0.16555	20.00000	Aver	(M)
(2)	41335	40908	0.010	-1.03262	20.00000	Aver	(M)
(3)	16656	16816	0.010	0.95960	20.00000	Aver	(M)
(4)	12773	12108	0.010	-5.20753	20.00000	Aver	(M)
(5)	10980	10688	0.010	-2.65495	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17388	0.010	-6.23410	20.00000	Aver	(M)
(2)	23716	22016	0.010	-7.16729	20.00000	Aver	(M)
(3)	29676	27440	0.010	-7.53505	20.00000	Aver	(M)
(4)	50204	45260	0.010	-9.84852	20.00000	Aver	(M)
(5)	36244	32408	0.010	-10.58341	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	515500	0.010	1.35572	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	299920	0.010	-10.64524	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 7.54339
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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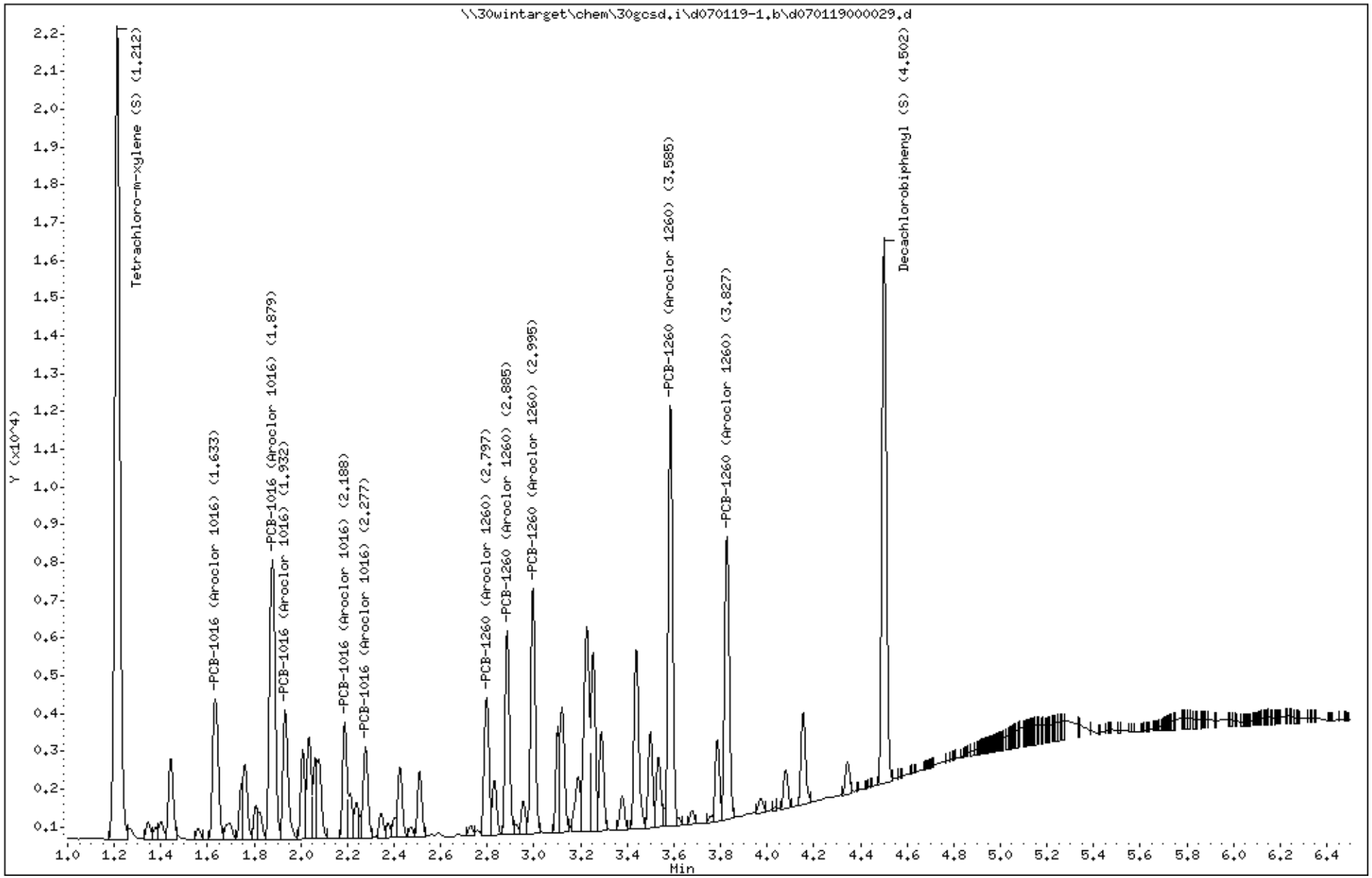
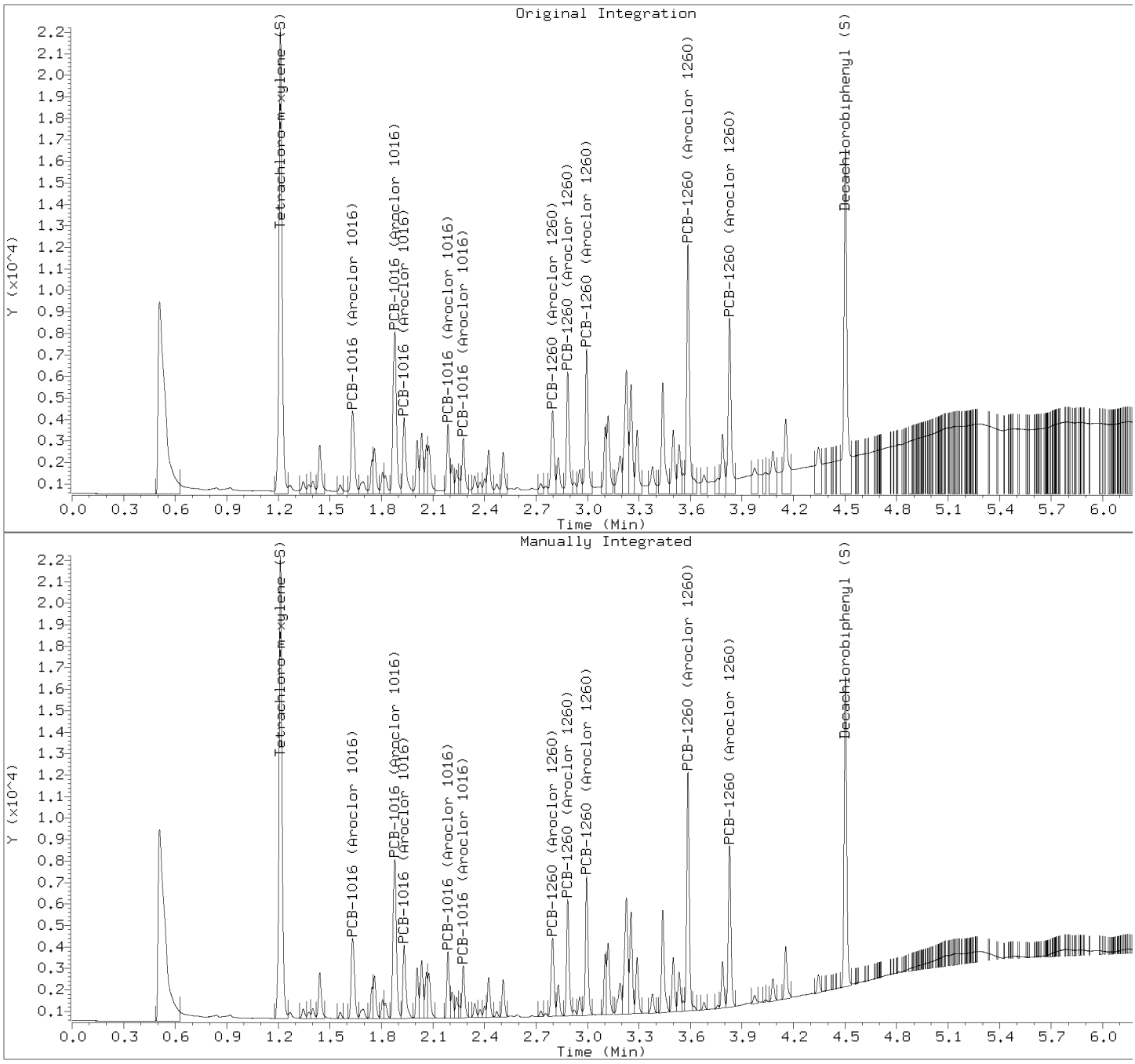
Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b\d070119000029.d
Date : 01-JUL-2019 17:45
Client ID: CCV
Sample Info: CCV, 92515:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-1.b/d070119000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 01-JUL-2019 17:45 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5525	5126
PCB-1016 (Aroclor 1016)	10681	10227
PCB-1016 (Aroclor 1016)	4735	4204
PCB-1016 (Aroclor 1016)	3318	3027
PCB-1016 (Aroclor 1016)	3090	2672
PCB-1260 (Aroclor 1260)	4925	4347
PCB-1260 (Aroclor 1260)	6238	5504
PCB-1260 (Aroclor 1260)	7790	6860
PCB-1260 (Aroclor 1260)	12680	11315
PCB-1260 (Aroclor 1260)	10237	8102
Tetrachloro-m-xylene (S)	26304	25775
Decachlorobiphenyl (S)	21040	14996

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 17:45
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	18028	11387	0.632	6.604		
0.584	2915	1357	0.466	0.787		
1.527	264	230	0.871	0.133		
1.585	22691	20958	0.924	12.258	$ 10 Tetrachloro-m-xylene (S)	BA
1.666	301	308	1.023	0.178		
1.711	466	421	0.903	0.244		
1.760	2380	2184	0.917	1.266		
1.841	279	273	0.978	0.158		
1.961	2814	2840	1.009	1.647	1 PCB-1016 (Aroclor 1016)	BA
1.981	1686	1674	0.993	0.970		
2.016	354	340	0.960	0.197		
2.074	1799	1859	1.033	1.078		
2.198	706	750	1.062	0.434		
2.220	608	588	0.967	0.341		
2.266	3624	4145	1.144	2.404		
2.283	5396	5243	0.972	3.040	1 PCB-1016 (Aroclor 1016)	BA
2.303	3546	3243	0.914	1.880		
2.371	2644	2306	0.872	1.337	1 PCB-1016 (Aroclor 1016)	BA
2.400	217	242	1.113	0.140		
2.435	2061	2075	1.007	1.203		
2.467	2413	2367	0.981	1.372	1 PCB-1016 (Aroclor 1016)	BA
2.495	914	825	0.903	0.478		
2.557	2363	2314	0.979	1.342	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.586	1275	1134	0.889	0.657		
2.613	813	789	0.970	0.457		
2.635	608	618	1.016	0.358		
2.663	2549	1625	0.637	0.942		
2.813	2183	1547	0.709	0.897		
2.860	355	347	0.977	0.201		
2.917	97	162	1.677	0.093		
2.955	1611	1541	0.956	0.893		
3.134	209	241	1.155	0.139		
3.156	856	767	0.896	0.444		
3.195	744	710	0.954	0.411		
3.241	3037	2326	0.766	1.349		
3.272	551	624	1.132	0.361		
3.304	4711	4555	0.967	2.641	7 PCB-1260 (Aroclor 1260)	BA
3.388	459	417	0.909	0.241		
3.431	776	734	0.946	0.425		
3.474	5641	5447	0.966	3.159	7 PCB-1260 (Aroclor 1260)	BA
3.497	1597	1597	1.000	0.926		
3.552	3730	2513	0.674	1.457		
3.583	489	471	0.964	0.273		
3.626	511	472	0.924	0.273		
3.659	6918	5357	0.774	3.107	7 PCB-1260 (Aroclor 1260)	BA
3.717	4151	3879	0.935	2.249		
3.754	2177	2119	0.973	1.229		
3.835	875	942	1.077	0.546		
3.858	4368	4027	0.922	2.335		
3.892	229	253	1.107	0.146		
3.918	2076	1980	0.954	1.148		
3.947	1263	1138	0.901	0.660		
4.010	1084	992	0.915	0.575		
4.056	9782	9101	0.930	5.278	7 PCB-1260 (Aroclor 1260)	BA
4.096	489	467	0.955	0.270		
4.244	5861	5242	0.894	3.040	7 PCB-1260 (Aroclor 1260)	BA
4.271	634	924	1.458	0.535		
4.291	2675	2151	0.804	1.247		
4.407	4	18	4.762	0.010		
4.431	156	217	1.392	0.125		
4.461	152	143	0.942	0.082		
4.492	1089	956	0.878	0.554		
4.546	1	6	8.824	0.003		
4.553	2	2	1.316	0.001		
4.572	1	5	6.494	0.002		
4.615	2298	2167	0.943	1.256		
4.657	127	134	1.053	0.077		
4.686	11	25	2.381	0.014		
4.694	10	26	2.650	0.015		
4.700	5	23	4.772	0.013		
4.707	5	22	4.435	0.012		
4.714	9	24	2.682	0.013		
4.735	2	13	6.989	0.007		
4.742	1	8	6.154	0.004		
4.760	14	15	1.076	0.008		
4.804	802	752	0.938	0.436		
4.842	6	20	3.521	0.011		
4.847	6	26	4.577	0.015		
4.854	10	35	3.586	0.020		
4.863	8	38	4.822	0.022		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.868	16	35	2.212	0.020		
4.875	8	33	4.242	0.019		
4.879	6	33	5.729	0.019		
4.886	10	34	3.549	0.019		
4.894	10	31	3.202	0.017		
4.898	7	34	4.985	0.019		
4.907	7	32	4.658	0.018		
4.912	9	38	4.139	0.022		
4.921	4	33	7.399	0.019		
4.955	14291	13126	0.918	7.613	$ 11 Decachlorobiphenyl (S)	BA
5.000	33	48	1.441	0.027		
5.005	9	48	5.252	0.027		
5.014	11	40	3.617	0.023		
5.019	11	44	3.915	0.025		
5.035	18	48	2.655	0.027		
5.044	20	52	2.569	0.030		
5.049	14	64	4.501	0.037		
5.054	22	70	3.220	0.040		
5.058	19	74	3.919	0.042		
5.064	26	85	3.252	0.049		
5.073	35	99	2.817	0.057		
5.080	36	101	2.785	0.058		
5.088	41	109	2.668	0.063		
5.093	38	137	3.564	0.079		
5.103	60	162	2.715	0.093		
5.109	66	186	2.820	0.107		
5.114	130	215	1.658	0.124		
5.129	69	223	3.255	0.129		
5.133	61	233	3.851	0.135		
5.140	59	216	3.649	0.125		
5.173	72	195	2.708	0.113		
5.195	36	156	4.307	0.090		
5.210	45	147	3.280	0.085		
5.220	42	135	3.248	0.078		
5.230	28	144	5.143	0.083		
5.236	43	163	3.785	0.094		
5.242	77	182	2.374	0.105		
5.249	58	203	3.499	0.117		
5.258	39	227	5.776	0.131		
5.266	83	239	2.891	0.138		
5.274	83	264	3.185	0.153		
5.279	48	274	5.682	0.158		
5.287	60	313	5.194	0.181		
5.300	135	342	2.533	0.198		
5.307	48	350	7.264	0.202		
5.325	112	382	3.410	0.221		
5.330	123	393	3.199	0.227		
5.341	75	424	5.687	0.245		
5.345	109	426	3.916	0.247		
5.354	95	440	4.614	0.255		
5.359	162	465	2.867	0.269		
5.372	251	490	1.950	0.284		
5.387	182	466	2.561	0.270		
5.394	122	437	3.596	0.253		
5.414	135	434	3.215	0.251		
5.427	110	431	3.909	0.249		
5.440	119	403	3.393	0.233		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.491	92	261	2.831	0.151		
5.525	103	214	2.070	0.124		
5.549	109	192	1.754	0.111		
5.593	61	178	2.913	0.103		
5.604	52	166	3.212	0.096		
5.635	26	125	4.858	0.072		
5.689	22	61	2.811	0.035		
5.694	12	59	4.766	0.034		
5.698	16	64	4.051	0.037		
5.712	18	64	3.478	0.037		
5.728	16	61	3.708	0.035		
5.752	36	75	2.080	0.043		
5.776	36	68	1.868	0.039		
5.796	13	48	3.704	0.027		
5.825	3	19	6.552	0.011		
5.837	5	22	4.231	0.012		
5.857	23	52	2.217	0.030		
5.867	14	54	3.753	0.031		
5.872	17	61	3.635	0.035		
5.886	39	81	2.053	0.046		
5.893	11	74	6.549	0.042		
5.901	11	73	6.759	0.042		
5.910	29	83	2.822	0.048		
5.916	12	71	6.094	0.041		
5.923	16	80	5.073	0.046		
5.935	20	82	4.069	0.047		
5.938	20	93	4.664	0.053		
5.942	26	93	3.537	0.053		
5.950	54	103	1.915	0.059		
5.958	29	111	3.822	0.064		
5.969	67	105	1.563	0.060		
5.981	30	101	3.344	0.058		
5.994	18	86	4.845	0.049		
6.032	12	62	5.340	0.035		
6.086	7	31	4.599	0.017		
6.093	13	31	2.468	0.017		
6.117	16	59	3.706	0.034		
6.122	18	66	3.652	0.038		
6.133	26	87	3.356	0.050		
6.170	28	105	3.721	0.060		
6.190	32	112	3.528	0.064		
6.208	20	130	6.667	0.075		
6.221	34	136	3.968	0.078		
6.225	33	144	4.317	0.083		
6.235	41	163	3.984	0.094		
6.242	90	181	2.004	0.104		
6.249	42	179	4.284	0.103		
6.257	91	191	2.101	0.110		
6.272	56	180	3.189	0.104		
6.278	68	186	2.731	0.107		
6.297	69	198	2.884	0.114		
6.315	63	219	3.478	0.127		
6.326	109	236	2.158	0.136		
6.344	103	266	2.580	0.154		
6.351	63	268	4.263	0.155		
6.365	49	277	5.646	0.160		
6.372	91	286	3.153	0.165		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.391	59	302	5.101	0.175		
6.435	72	306	4.237	0.177		
6.447	47	299	6.386	0.173		
6.460	152	312	2.057	0.180		
6.492	71	302	4.250	0.175		
	178840	172415		100.000		

Total unknown % height = 54.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 01-JUL-2019 17:45
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 92515:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m
Meth Date : 02-Jul-2019 09:06 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.961	1.962	-0.001	2813	0.25000	0.247	80.00- 120.00	100.00(aM)	BA
2.282	2.284	-0.002	5396	0.25000	0.247	153.00- 229.50	191.82	BA
2.371	2.372	-0.001	2643	0.25000	0.244	74.09- 111.14	93.96	BA
2.466	2.468	-0.002	2413	0.25000	0.242	66.98- 100.47	85.78	BA
2.556	2.557	-0.001	2363	0.25000	0.239	65.94- 98.91	84.01	BA
Average of Peak Amounts =					0.24380			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.304	3.305	-0.001	4711	0.25000	0.232	80.00- 120.00	100.00(aM)	BA
3.474	3.475	-0.001	5641	0.25000	0.232	94.63- 141.94	119.74	BA
3.658	3.659	-0.001	6918	0.25000	0.236	117.79- 176.69	146.85	BA
4.055	4.057	-0.002	9781	0.25000	0.227	170.05- 255.07	207.62	BA
4.243	4.245	-0.002	5861	0.25000	0.226	101.97- 152.96	124.41	BA
Average of Peak Amounts =					0.23060			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22691	0.05000	0.0500		(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.955	4.956	-0.001	14291	0.05000	0.0450		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 01-JUL-2019 17:45
Lab File ID: d070119000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d070119-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11252	0.010	-1.23953	20.00000	Aver	(aM)
(2)	21808	21584	0.010	-1.02740	20.00000	Aver	(aM)
(3)	10850	10572	0.010	-2.55922	20.00000	Aver	(aM)
(4)	9980	9652	0.010	-3.29034	20.00000	Aver	(aM)
(5)	9902	9452	0.010	-4.54132	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18844	0.010	-7.26530	20.00000	Aver	(aM)
(2)	24356	22564	0.010	-7.35838	20.00000	Aver	(aM)
(3)	29292	27672	0.010	-5.53052	20.00000	Aver	(aM)
(4)	43025	39124	0.010	-9.06717	20.00000	Aver	(aM)
(5)	25870	23444	0.010	-9.37688	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	453820	0.010	-0.07835	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	285820	0.010	-9.96756	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.00115
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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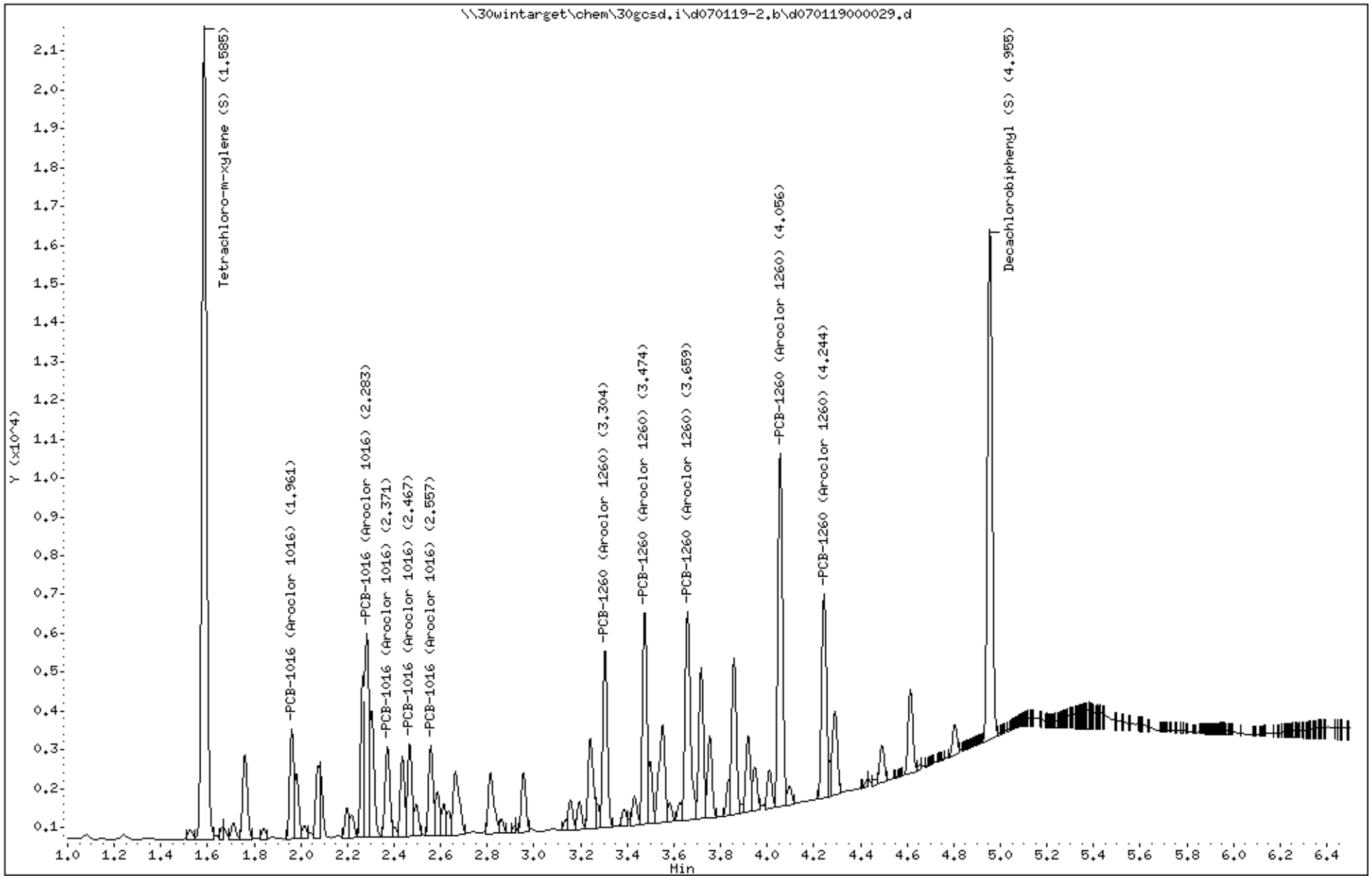
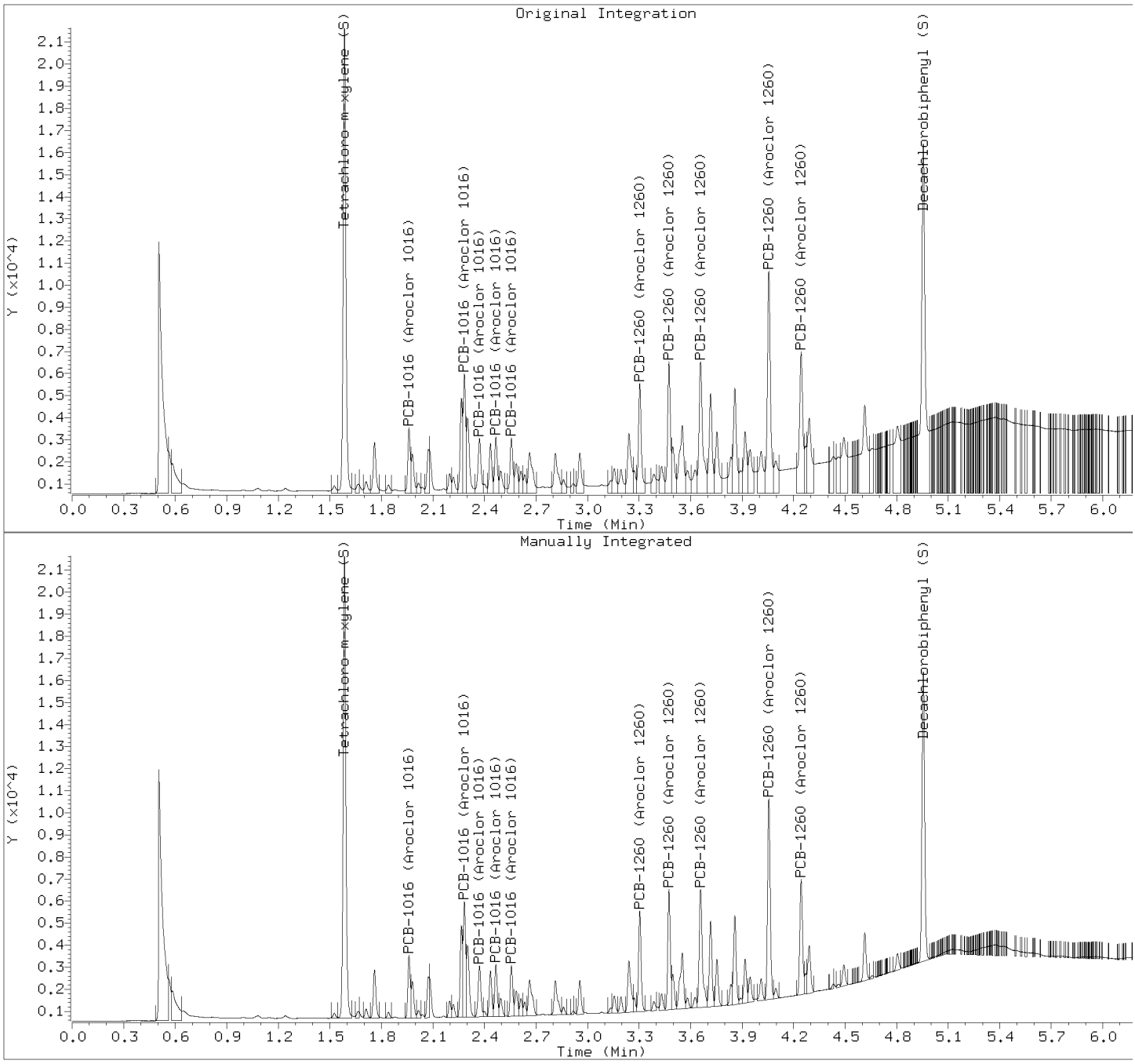
Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b\d070119000029.d
Date : 01-JUL-2019 17:45
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 92515:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d070119-2.b/d070119000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 01-JUL-2019 17:45 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3059	2813
PCB-1016 (Aroclor 1016)	5558	5396
PCB-1016 (Aroclor 1016)	3176	2643
PCB-1016 (Aroclor 1016)	2777	2413
PCB-1016 (Aroclor 1016)	2832	2363
PCB-1260 (Aroclor 1260)	5946	4711
PCB-1260 (Aroclor 1260)	6781	5641
PCB-1260 (Aroclor 1260)	9095	6918
PCB-1260 (Aroclor 1260)	12743	9781
PCB-1260 (Aroclor 1260)	9125	5861
Tetrachloro-m-xylene (S)	23260	22691
Decachlorobiphenyl (S)	25334	14291

SAMPLE NO.

BLANK

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30300161

Date Extracted: 06/18/2019 19:03 Lab Sample ID: 1691736

Date Analyzed: 06/21/2019 19:54 Lab File ID: D062119-2.B\D061719000058.D

Initial wt/vol: 15.07 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000058.d
Lab Smp Id: 1691736 Client Smp ID: MB
Inj Date : 21-JUN-2019 19:54
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691736,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	591315	862873	1.459	86.724		
0.817	1251	1029	0.823	0.103		
0.870	1673	979	0.585	0.098		
1.214	71966	64001	0.889	6.429	$ 10 Tetrachloro-m-xylene (S)	BA
1.379	1092	923	0.845	0.092		
1.479	273	244	0.895	0.024		
1.793	234	260	1.110	0.026		
1.830	503	448	0.890	0.045		
1.971	388	317	0.818	0.031		
3.974	172	170	0.990	0.017		
4.040	19	61	3.283	0.006		
4.343	392	367	0.936	0.036		
4.501	55668	55146	0.991	5.539	$ 11 Decachlorobiphenyl (S)	BA
4.696	20	25	1.265	0.002		
4.889	29	98	3.356	0.009		
4.900	92	126	1.364	0.012		
4.932	21	73	3.426	0.007		
4.939	35	74	2.085	0.007		
4.962	23	76	3.316	0.007		
4.991	22	78	3.581	0.007		
5.045	36	95	2.637	0.009		
5.072	32	95	2.945	0.009		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.084	44	97	2.211	0.009		
5.147	20	98	4.783	0.009		
5.170	67	96	1.433	0.009		
5.177	42	97	2.309	0.009		
5.191	27	102	3.764	0.010		
5.197	41	110	2.696	0.011		
5.246	44	138	3.143	0.013		
5.259	44	142	3.230	0.014		
5.270	54	149	2.775	0.014		
5.275	52	151	2.896	0.015		
5.308	75	178	2.364	0.017		
5.318	33	169	5.097	0.016		
5.323	57	172	3.031	0.017		
5.336	78	177	2.267	0.017		
5.349	76	182	2.385	0.018		
5.365	158	183	1.162	0.018		
5.370	73	189	2.604	0.018		
5.377	82	192	2.328	0.019		
5.390	71	190	2.679	0.019		
5.394	61	198	3.248	0.019		
5.407	67	205	3.082	0.020		
5.414	36	203	5.683	0.020		
5.420	81	210	2.584	0.021		
5.438	54	211	3.936	0.021		
5.452	87	212	2.436	0.021		
5.457	41	213	5.140	0.021		
5.476	60	196	3.271	0.019		
5.495	64	175	2.722	0.017		
5.504	94	155	1.644	0.015		
5.513	60	125	2.075	0.012		
5.534	12	80	6.568	0.008		
5.591	23	57	2.457	0.005		
5.596	12	62	5.219	0.006		
5.607	31	87	2.801	0.008		
5.623	23	111	4.824	0.011		
5.640	38	132	3.433	0.013		
5.644	35	139	3.938	0.013		
5.649	40	147	3.684	0.014		
5.679	27	158	5.756	0.015		
5.713	64	165	2.577	0.016		
5.737	86	163	1.904	0.016		
5.767	53	162	3.079	0.016		
5.772	71	159	2.233	0.015		
5.783	64	161	2.505	0.016		
5.845	32	139	4.290	0.013		
5.880	20	134	6.601	0.013		
5.889	35	141	4.053	0.014		
5.912	30	127	4.293	0.012		
5.940	36	125	3.462	0.012		
5.964	75	149	1.992	0.014		
5.987	72	131	1.807	0.013		
6.129	17	62	3.677	0.006		
6.155	14	54	3.787	0.005		
6.297	1	11	11.224	0.001		
6.322	4	18	5.099	0.001		
6.335	5	24	5.286	0.002		
6.389	3	14	4.795	0.001		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.409	1	9	9.890	0.000		
6.437	8	27	3.418	0.002		
6.445	9	20	2.296	0.002		
	728040	995441		100.000		

Total unknown % height = 88.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000058.d
Lab Smp Id: 1691736 Client Smp ID: MB
Inj Date : 21-JUN-2019 19:54
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691736,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.214	1.213	0.001	71965	0.14149	0.0469		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.503	-0.003	55667	0.16585	0.0550		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

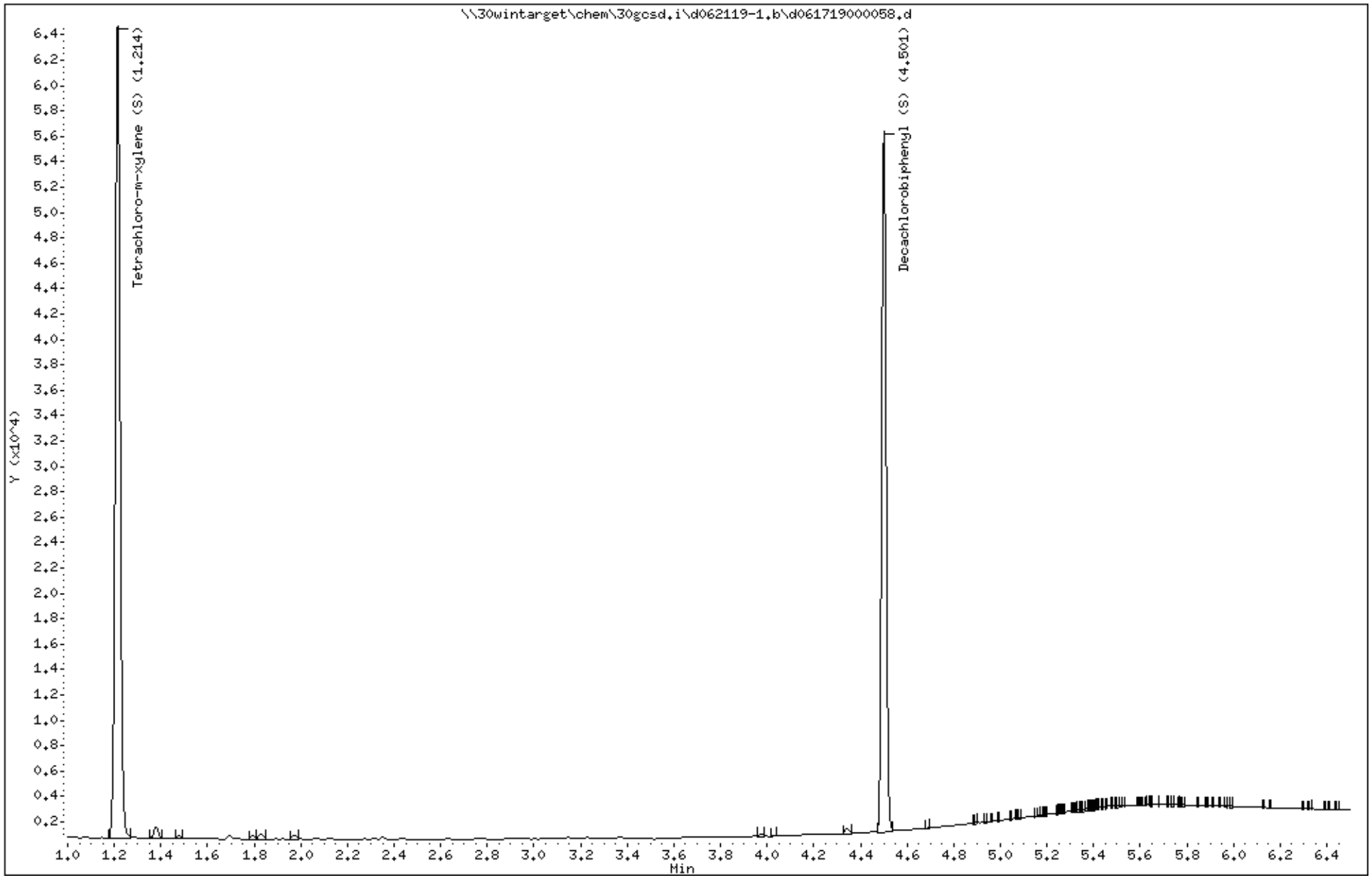
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1691736
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

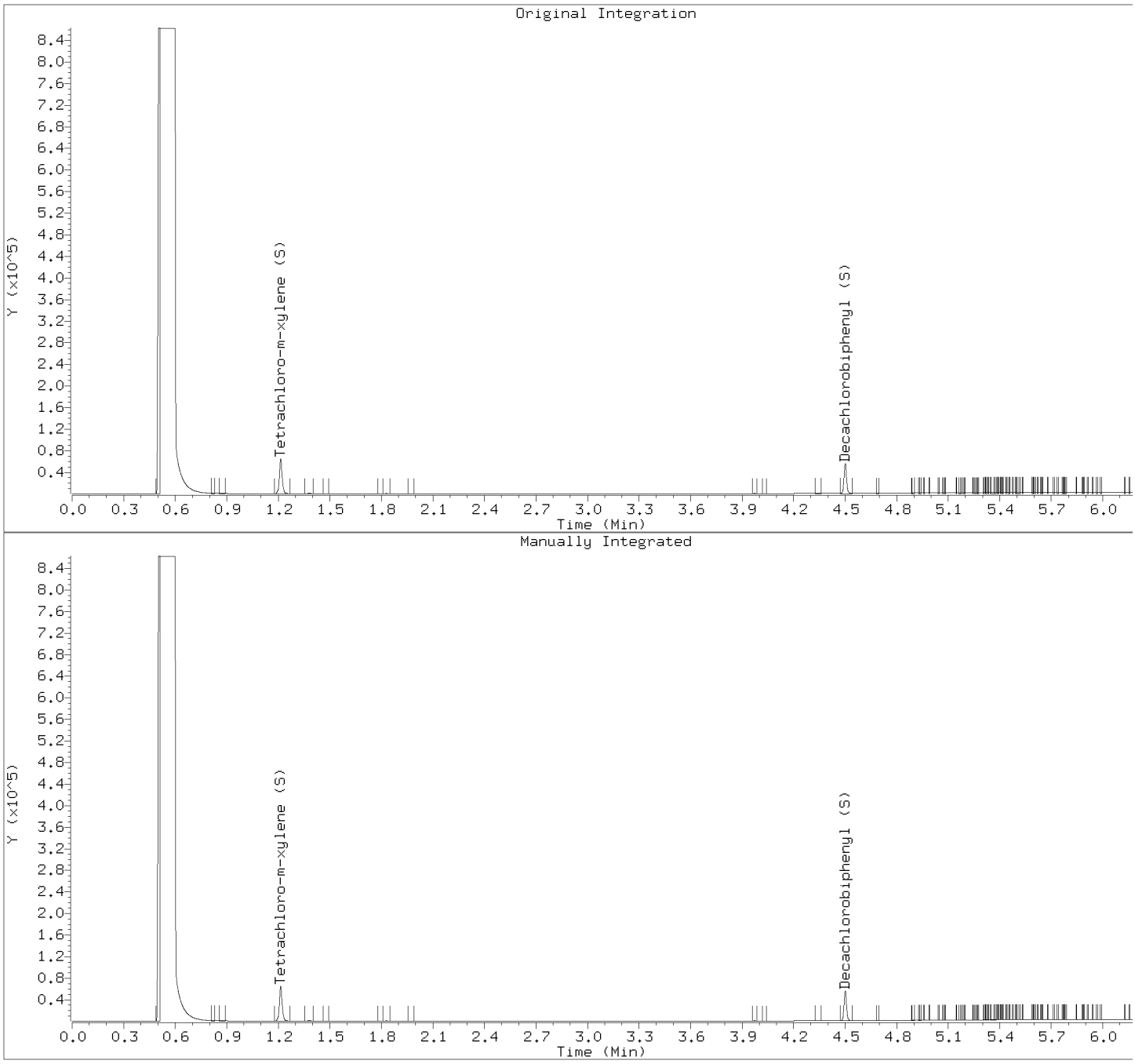
Client SDG: d062119-1.b
Client Smp ID: MB
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0469	J
2051-24-3	Decachlorobiphenyl (S)	0.0550	J

Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000058.d
Date : 21-JUN-2019 19:54
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1691736,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b/d061719000058.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 21-JUN-2019 19:54 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1691736



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	72864	71965
Decachlorobiphenyl (S)	58549	55667

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000058.d
Lab Smp Id: 1691736 Client Smp ID: MB
Inj Date : 21-JUN-2019 19:54
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691736,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	569825	862896	1.514	46.556		
0.606	498897	862397	1.729	46.477		
0.989	1901	824	0.433	0.044		
1.082	811	576	0.710	0.031		
1.587	64922	62694	0.966	3.378	$ 10 Tetrachloro-m-xylene (S)	BA
1.757	845	834	0.987	0.044		
2.051	282	241	0.853	0.012		
2.185	266	273	1.025	0.014		
2.223	366	376	1.028	0.020		
2.332	263	235	0.893	0.012		
3.909	106	139	1.310	0.007		
4.254	102	98	0.959	0.005		
4.432	248	271	1.091	0.014		
4.469	69	178	2.572	0.009		
4.483	192	231	1.202	0.012		
4.597	231	145	0.627	0.007		
4.721	26	82	3.183	0.004		
4.803	482	383	0.795	0.020		
4.862	28	93	3.343	0.005		
4.910	37	116	3.097	0.006		
4.923	43	132	3.103	0.007		
4.953	53056	49813	0.939	2.684	$ 11 Decachlorobiphenyl (S)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.013	34	118	3.421	0.006		
5.029	37	122	3.297	0.006		
5.041	39	121	3.065	0.006		
5.053	55	119	2.154	0.006		
5.097	46	119	2.578	0.006		
5.103	48	115	2.413	0.006		
5.115	31	117	3.757	0.006		
5.142	22	97	4.450	0.005		
5.155	38	85	2.252	0.004		
5.167	26	89	3.410	0.004		
5.178	16	78	4.803	0.004		
5.211	24	69	2.924	0.003		
5.241	20	66	3.284	0.003		
5.251	26	70	2.730	0.003		
5.257	18	68	3.702	0.003		
5.273	19	72	3.859	0.003		
5.283	27	72	2.653	0.003		
5.292	18	66	3.577	0.003		
5.306	13	61	4.614	0.003		
5.354	7	40	5.979	0.002		
5.361	18	54	3.024	0.002		
5.372	32	81	2.541	0.004		
5.414	10	36	3.622	0.001		
5.425	11	33	2.949	0.001		
5.433	10	37	3.656	0.001		
5.439	12	46	3.686	0.002		
5.451	12	40	3.478	0.002		
5.457	13	36	2.880	0.001		
5.477	6	24	4.027	0.001		
5.492	3	19	6.786	0.001		
5.522	4	21	5.497	0.001		
5.552	23	72	3.098	0.003		
5.557	18	76	4.260	0.004		
5.583	36	105	2.936	0.005		
5.590	44	116	2.610	0.006		
5.622	28	131	4.760	0.007		
5.660	64	155	2.439	0.008		
5.674	24	157	6.413	0.008		
5.682	55	173	3.131	0.009		
5.714	50	198	3.978	0.010		
5.728	71	203	2.859	0.010		
5.734	40	203	5.093	0.010		
5.751	52	220	4.232	0.011		
5.765	104	234	2.255	0.012		
5.771	49	230	4.660	0.012		
5.790	46	234	5.080	0.012		
5.797	67	243	3.626	0.013		
5.804	58	250	4.298	0.013		
5.811	90	261	2.900	0.014		
5.817	95	260	2.739	0.014		
5.837	41	266	6.425	0.014		
5.894	47	267	5.633	0.014		
5.924	58	270	4.636	0.014		
5.937	79	270	3.432	0.014		
5.948	187	269	1.438	0.014		
5.959	51	262	5.105	0.014		
5.970	169	274	1.620	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.980	79	273	3.466	0.014		
5.984	128	276	2.161	0.014		
6.002	42	266	6.342	0.014		
6.015	87	263	3.029	0.014		
6.030	55	258	4.682	0.013		
6.067	63	252	3.974	0.013		
6.095	39	249	6.368	0.013		
6.113	73	250	3.426	0.013		
6.137	56	238	4.220	0.012		
6.149	115	244	2.120	0.013		
6.156	54	233	4.280	0.012		
6.162	54	233	4.304	0.012		
6.215	102	215	2.100	0.011		
6.227	124	209	1.688	0.011		
6.250	88	201	2.297	0.010		
6.257	52	189	3.667	0.010		
6.269	90	191	2.118	0.010		
6.327	52	158	3.053	0.008		
6.357	64	134	2.078	0.007		
6.381	38	123	3.251	0.006		
6.413	22	119	5.464	0.006		
6.424	54	115	2.149	0.006		
6.445	23	100	4.398	0.005		
6.469	19	92	4.807	0.004		
	1196916	1855498		100.000		

Total unknown % height = 93.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000058.d
Lab Smp Id: 1691736 Client Smp ID: MB
Inj Date : 21-JUN-2019 19:54
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691736,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.585	0.001	64922	0.14294	0.0474		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.953	4.956	-0.003	53056	0.16712	0.0554		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

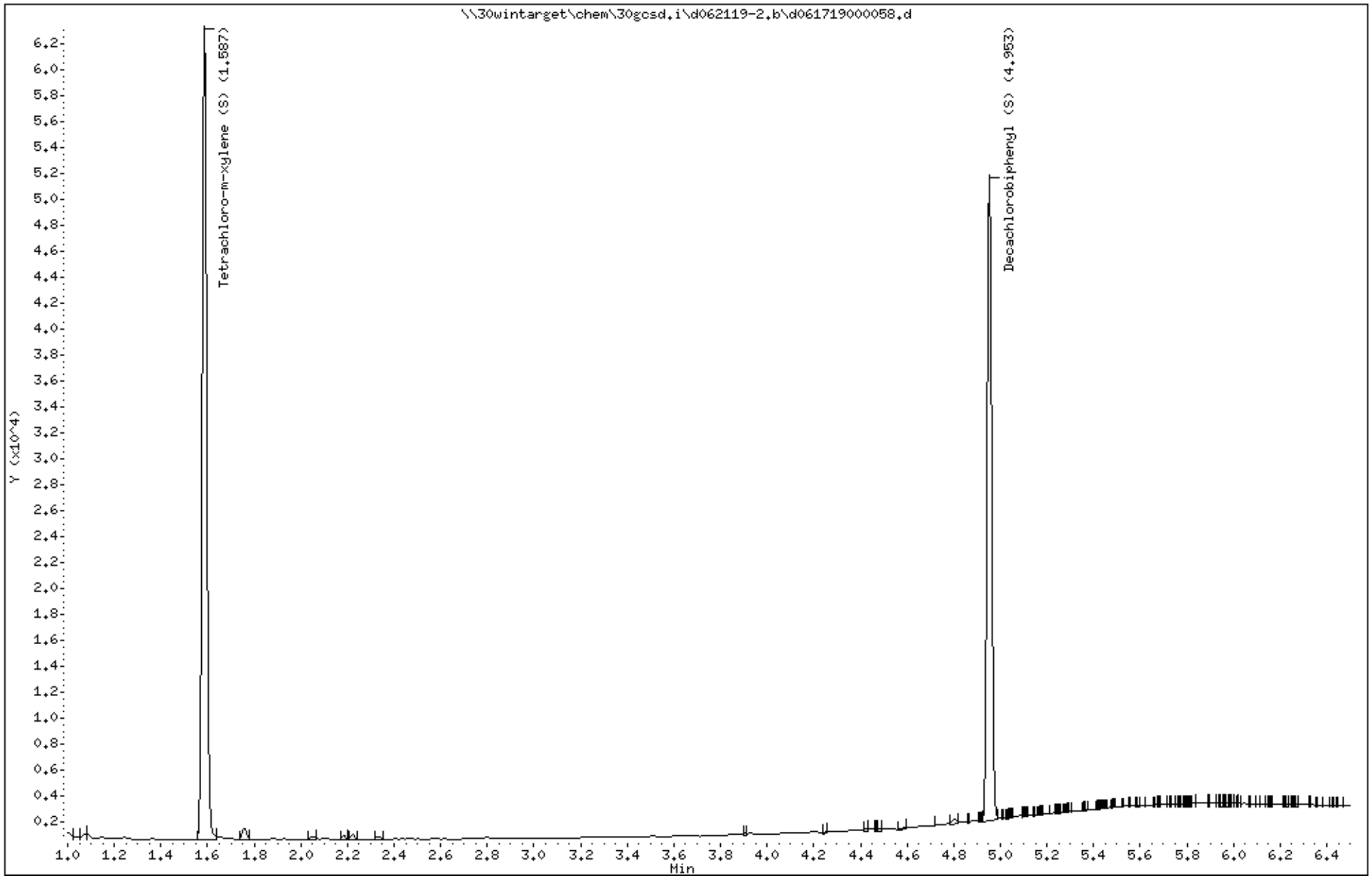
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1691736
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

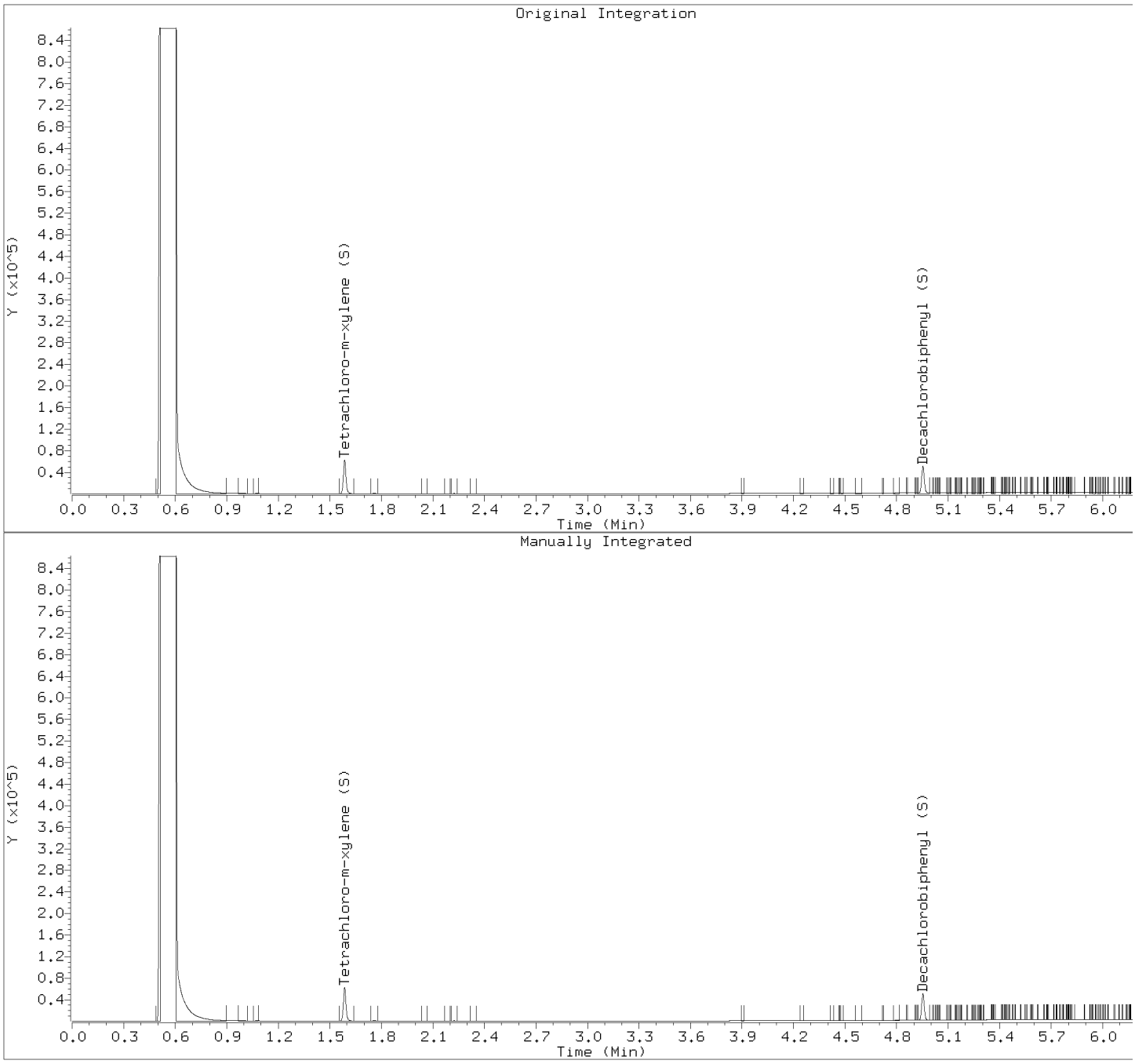
Client SDG: d062119-2.b
Client Smp ID: MB
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0474	J
2051-24-3	Decachlorobiphenyl (S)	0.0554	J

Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000058.d
Date : 21-JUN-2019 19:54
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1691736,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b/d061719000058.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 21-JUN-2019 19:54 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1691736



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	65515	64922
Decachlorobiphenyl (S)	59431	53056

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30300161

Date Extracted: 06/18/2019 19:03 Lab Sample ID: 1691737

Date Analyzed: 06/21/2019 20:03 Lab File ID: D062119-1.B\D061719000059.D

Initial wt/vol: 15.07 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	0.13	
11096-82-5	PCB-1260 (Aroclor 1260)	0.14	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000059.d
Lab Smp Id: 1691737 Client Smp ID: MBLCS
Inj Date : 21-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691737,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	602455	862856	1.432	41.551		
0.657	611409	862311	1.410	41.462		
0.869	10325	3284	0.318	0.157		
0.958	1757	959	0.546	0.046		
1.057	263	340	1.292	0.016		
1.215	76053	67651	0.890	3.252	$ 10 Tetrachloro-m-xylene (S)	BA
1.270	566	416	0.735	0.020		
1.348	662	607	0.916	0.029		
1.380	1041	960	0.922	0.046		
1.403	729	709	0.973	0.034		
1.444	3532	3263	0.924	0.156		
1.563	465	463	0.996	0.022		
1.634	7512	5811	0.774	0.279	1 PCB-1016 (Aroclor 1016)	BA
1.696	1203	708	0.588	0.034		
1.747	1855	2292	1.236	0.110		
1.762	2978	2898	0.973	0.139		
1.809	1560	1462	0.937	0.070		
1.826	1311	1261	0.962	0.060		
1.881	15999	12028	0.752	0.578	1 PCB-1016 (Aroclor 1016)	BA
1.934	6639	5607	0.845	0.269	1 PCB-1016 (Aroclor 1016)	BA
2.010	3712	3945	1.063	0.189		
2.037	4729	4378	0.926	0.210		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.064	2988	3340	1.118	0.160		
2.079	3558	3304	0.929	0.158		
2.190	4855	5095	1.049	0.244	1 PCB-1016 (Aroclor 1016)	BA
2.214	1929	2005	1.040	0.096		
2.240	1546	1634	1.057	0.078		
2.256	960	1203	1.253	0.057		
2.279	4576	4263	0.932	0.204	1 PCB-1016 (Aroclor 1016)	BA
2.347	1374	1263	0.919	0.060		
2.376	1180	1212	1.027	0.058		
2.403	1652	1787	1.082	0.085		
2.427	4583	4238	0.925	0.203		
2.474	623	641	1.029	0.030		
2.511	3391	3474	1.025	0.167		
2.594	420	332	0.790	0.015		
2.730	589	610	1.035	0.029		
2.798	7885	6809	0.864	0.327	7 PCB-1260 (Aroclor 1260)	BA
2.831	2736	2642	0.966	0.127		
2.886	9774	9784	1.001	0.470	7 PCB-1260 (Aroclor 1260)	BA
2.925	583	586	1.005	0.028		
2.956	1583	1620	1.024	0.077		
2.996	12005	11782	0.981	0.566	7 PCB-1260 (Aroclor 1260)	BA
3.103	4609	5331	1.157	0.256		
3.121	6853	6109	0.891	0.293		
3.191	3511	2622	0.747	0.126		
3.227	13595	10303	0.758	0.495		
3.254	8886	8710	0.980	0.418		
3.289	4788	4693	0.980	0.225		
3.379	1931	1689	0.875	0.081		
3.439	9532	8391	0.880	0.403		
3.499	4405	4527	1.028	0.217		
3.534	3196	3125	0.978	0.150		
3.559	818	993	1.213	0.047		
3.585	20324	19876	0.978	0.955	7 PCB-1260 (Aroclor 1260)	BA
3.620	362	395	1.091	0.018		
3.678	718	723	1.007	0.034		
3.758	285	299	1.048	0.014		
3.786	4319	4310	0.998	0.207		
3.827	14796	13715	0.927	0.659	7 PCB-1260 (Aroclor 1260)	BA
3.973	609	553	0.908	0.026		
4.037	36	179	4.904	0.008		
4.079	2004	1972	0.984	0.094		
4.153	5197	4945	0.952	0.237		
4.343	1456	1438	0.988	0.069		
4.501	59129	58862	0.995	2.830	$ 11 Decachlorobiphenyl (S)	BA
4.899	54	74	1.365	0.003		
4.985	9	34	3.644	0.001		
5.033	10	41	4.284	0.001		
5.210	7	27	4.128	0.001		
5.223	7	26	3.892	0.001		
5.232	8	32	4.156	0.001		
5.250	8	39	4.654	0.001		
5.266	13	45	3.399	0.002		
5.295	16	64	3.936	0.003		
5.305	58	116	1.987	0.005		
5.335	15	78	5.335	0.003		
5.353	23	77	3.418	0.003		
5.362	36	88	2.416	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.374	34	86	2.529	0.004		
5.391	59	97	1.643	0.004		
5.406	62	108	1.736	0.005		
5.416	78	113	1.458	0.005		
5.420	27	121	4.406	0.005		
5.431	73	123	1.686	0.005		
5.443	58	136	2.338	0.006		
5.453	41	142	3.466	0.006		
5.478	41	155	3.746	0.007		
5.484	36	155	4.256	0.007		
5.491	66	152	2.320	0.007		
5.496	45	151	3.381	0.007		
5.508	56	145	2.576	0.006		
5.520	40	126	3.148	0.006		
5.529	17	108	6.406	0.005		
5.540	27	88	3.264	0.004		
5.548	25	80	3.153	0.003		
5.558	13	63	4.933	0.003		
5.587	15	40	2.681	0.001		
5.597	12	36	2.946	0.001		
5.604	5	27	4.927	0.001		
5.615	11	28	2.476	0.001		
5.619	7	30	4.491	0.001		
5.640	4	25	6.944	0.001		
5.653	5	23	4.259	0.001		
5.741	12	28	2.273	0.001		
5.759	7	31	4.235	0.001		
5.801	7	36	5.195	0.001		
5.823	9	44	4.731	0.002		
5.848	6	36	6.417	0.001		
5.883	12	46	3.716	0.002		
5.925	20	49	2.490	0.002		
5.968	12	84	6.731	0.004		
5.978	24	90	3.794	0.004		
5.990	20	83	4.160	0.003		
6.027	12	68	5.867	0.003		
6.054	11	62	5.877	0.002		
6.159	13	54	4.042	0.002		
6.164	19	45	2.378	0.002		
6.185	9	41	4.659	0.001		
6.198	16	38	2.310	0.001		
6.206	13	31	2.377	0.001		
6.219	10	35	3.521	0.001		
6.226	9	36	3.939	0.001		
6.230	8	31	3.790	0.001		
6.257	10	38	3.893	0.001		
6.263	8	38	4.663	0.001		
6.324	3	21	7.420	0.001		
	1598299	2079757		100.000		

Total unknown % height = 89.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000059.d
Lab Smp Id: 1691737 Client Smp ID: MBLCS
Inj Date : 21-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691737,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-1.b\df8082.new608.052419.m
Meth Date : 24-Jun-2019 10:36 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.633	1.633	0.000	7512	0.36576	0.121	80.00- 120.00	100.00(aM)	BA
1.880	1.881	-0.001	15998	0.38703	0.128	161.93- 242.89	212.97	BA
1.934	1.934	0.000	6639	0.39859	0.132	64.35- 96.53	88.38	BA
2.189	2.190	-0.001	4855	0.38009	0.126	47.06- 70.59	64.63	BA
2.278	2.279	-0.001	4575	0.41669	0.138	40.16- 60.23	60.91	BA
		Average of Peak Concentrations =			0.129			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.799	-0.002	7884	0.42515	0.141	80.00- 120.00	100.00	(aM)	BA
2.885	2.887	-0.002	9773	0.41209	0.137	102.73- 154.09	123.96		BA
2.995	2.997	-0.002	12005	0.40453	0.134	122.83- 184.25	152.27		BA
3.584	3.587	-0.003	20324	0.40483	0.134	215.43- 323.14	257.79		BA
3.826	3.829	-0.003	14795	0.40821	0.135	169.30- 253.95	187.67		BA
Average of Peak Concentrations =					0.136				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.214	1.213	0.001	76053	0.14953	0.0496			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.500	4.503	-0.003	59128	0.17616	0.0584			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

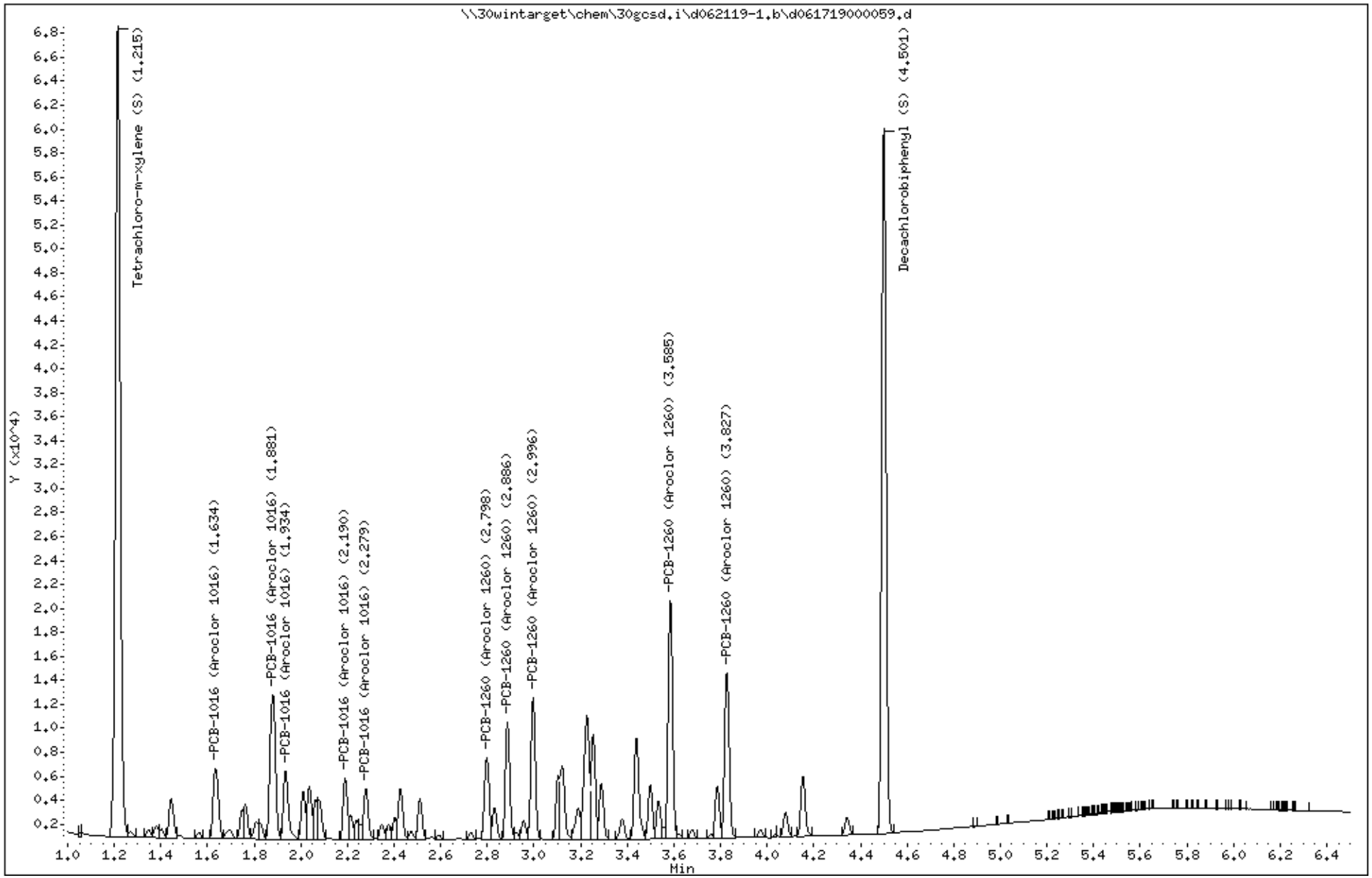
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1691737
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

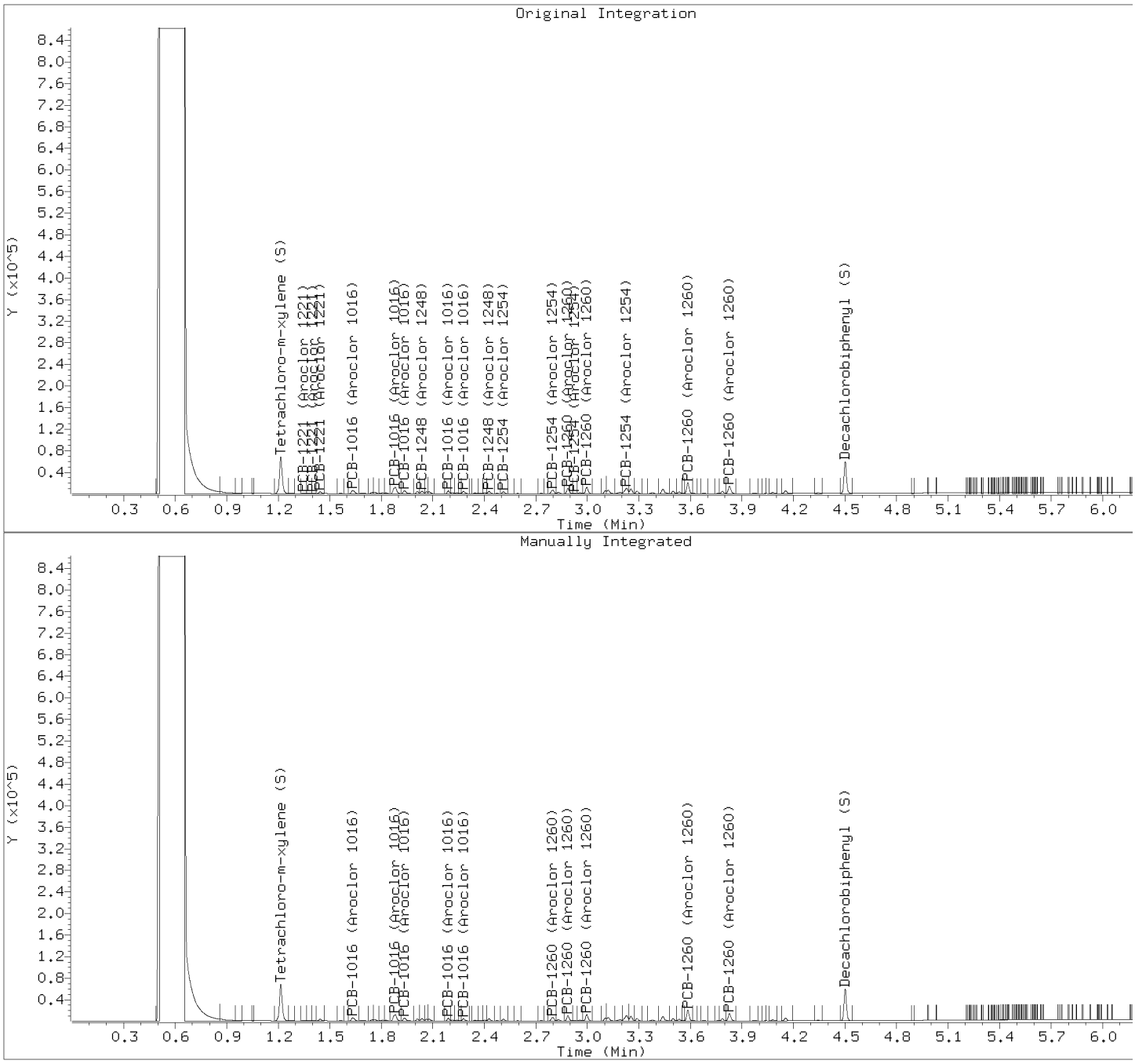
Client SDG: d062119-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.634	0.121	J
	Peak found at 1.881	0.128	J
	Peak found at 1.934	0.132	J
	Peak found at 2.190	0.126	J
	Peak found at 2.279	0.138	J
	Average of Peak Amounts =	0.129	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.798	0.141	J
	Peak found at 2.886	0.137	J
	Peak found at 2.996	0.134	J
	Peak found at 3.585	0.134	J
	Peak found at 3.827	0.135	J
	Average of Peak Amounts =	0.136	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0584	J

Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b\d061719000059.d
Date : 21-JUN-2019 20:03
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1691737,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-1.b/d061719000059.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 21-JUN-2019 20:03 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1691737



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8433	7512
PCB-1016 (Aroclor 1016)	16806	15998
PCB-1016 (Aroclor 1016)	7532	6639
PCB-1016 (Aroclor 1016)	5219	4855
PCB-1016 (Aroclor 1016)	5038	4575
PCB-1221 (Aroclor 1221)	1385	0
PCB-1221 (Aroclor 1221)	1270	0
PCB-1221 (Aroclor 1221)	4367	0
PCB-1232 (Aroclor 1232)	4367	0
PCB-1232 (Aroclor 1232)	8433	0
PCB-1232 (Aroclor 1232)	16806	0
PCB-1232 (Aroclor 1232)	7532	0
PCB-1232 (Aroclor 1232)	5219	0
PCB-1242 (Aroclor 1242)	4367	0

PCB-1242 (Aroclor 1242)	8433	0
PCB-1242 (Aroclor 1242)	16806	0
PCB-1242 (Aroclor 1242)	7532	0
PCB-1242 (Aroclor 1242)	5219	0
PCB-1248 (Aroclor 1248)	16806	0
PCB-1248 (Aroclor 1248)	5032	0
PCB-1248 (Aroclor 1248)	5219	0
PCB-1248 (Aroclor 1248)	5038	0
PCB-1248 (Aroclor 1248)	5029	0
PCB-1254 (Aroclor 1254)	5029	0
PCB-1254 (Aroclor 1254)	3839	0
PCB-1254 (Aroclor 1254)	8344	0
PCB-1254 (Aroclor 1254)	847	0
PCB-1254 (Aroclor 1254)	14003	0
PCB-1260 (Aroclor 1260)	8344	7884
PCB-1260 (Aroclor 1260)	10308	9773
PCB-1260 (Aroclor 1260)	12618	12005
PCB-1260 (Aroclor 1260)	21020	20324
PCB-1260 (Aroclor 1260)	15893	14795
Tetrachloro-m-xylene (S)	78016	76053
Decachlorobiphenyl (S)	62064	59128

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000059.d
Lab Smp Id: 1691737 Client Smp ID: MBLCS
Inj Date : 21-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691737,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	585265	862909	1.474	72.877		
0.985	2591	4192	1.618	0.353		
1.242	478	624	1.305	0.052		
1.528	399	349	0.874	0.029		
1.587	69736	67029	0.961	5.654	$ 10 Tetrachloro-m-xylene (S)	BA
1.664	513	556	1.085	0.046		
1.712	734	657	0.895	0.055		
1.761	4002	3777	0.944	0.318		
1.843	545	447	0.820	0.037		
1.963	4412	4535	1.028	0.382	1 PCB-1016 (Aroclor 1016)	BA
1.982	2630	2666	1.014	0.224		
2.017	562	550	0.979	0.046		
2.042	312	284	0.910	0.023		
2.074	4996	2991	0.599	0.252		
2.199	1480	1320	0.892	0.111		
2.221	1095	1094	0.999	0.092		
2.267	5859	6683	1.141	0.563		
2.284	8330	8276	0.994	0.698	1 PCB-1016 (Aroclor 1016)	BA
2.304	5696	5304	0.931	0.447		
2.373	4350	3924	0.902	0.331	1 PCB-1016 (Aroclor 1016)	BA
2.402	428	442	1.032	0.037		
2.436	3406	3456	1.015	0.291		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.468	3926	3932	1.001	0.331	1 PCB-1016 (Aroclor 1016)	BA
2.496	1460	1345	0.921	0.113		
2.558	3896	3997	1.026	0.337	1 PCB-1016 (Aroclor 1016)	BA
2.587	2150	1906	0.887	0.160		
2.614	1378	1376	0.999	0.116		
2.635	1024	1064	1.039	0.089		
2.664	4660	2885	0.619	0.243		
2.815	4213	3511	0.833	0.296		
2.861	1220	1205	0.988	0.101		
2.918	341	357	1.048	0.030		
2.956	3320	3155	0.950	0.266		
3.135	456	509	1.116	0.042		
3.156	1493	1407	0.942	0.118		
3.195	1527	1501	0.983	0.126		
3.242	5492	4379	0.797	0.369		
3.273	1054	1151	1.092	0.097		
3.305	8561	8385	0.979	0.707	7 PCB-1260 (Aroclor 1260)	BA
3.388	1041	944	0.906	0.079		
3.432	1353	1330	0.983	0.112		
3.475	10238	10272	1.003	0.866	7 PCB-1260 (Aroclor 1260)	BA
3.498	3011	3080	1.023	0.259		
3.552	6913	4730	0.684	0.399		
3.583	915	869	0.950	0.073		
3.627	1052	932	0.886	0.078		
3.659	13138	10098	0.769	0.851	7 PCB-1260 (Aroclor 1260)	BA
3.717	7411	7100	0.958	0.598		
3.754	3932	3877	0.986	0.327		
3.836	1639	1825	1.114	0.153		
3.858	7960	7318	0.919	0.617		
3.892	477	509	1.068	0.042		
3.918	3865	3666	0.948	0.309		
3.947	2269	2043	0.901	0.172		
3.976	111	197	1.769	0.016		
4.010	2046	1938	0.947	0.163		
4.055	17860	17016	0.953	1.435	7 PCB-1260 (Aroclor 1260)	BA
4.096	990	907	0.916	0.076		
4.244	10392	9486	0.913	0.800	7 PCB-1260 (Aroclor 1260)	BA
4.269	1192	1654	1.388	0.139		
4.290	5100	4207	0.825	0.354		
4.432	393	337	0.857	0.028		
4.458	337	288	0.854	0.024		
4.491	2273	1933	0.851	0.163		
4.612	4791	4338	0.905	0.365		
4.656	226	272	1.202	0.022		
4.690	24	58	2.395	0.004		
4.764	19	38	2.004	0.003		
4.802	1387	1274	0.919	0.107		
4.856	6	18	3.191	0.001		
4.870	9	30	3.226	0.002		
4.890	11	30	2.852	0.002		
4.904	10	34	3.276	0.002		
4.916	13	50	3.906	0.004		
4.922	13	57	4.542	0.004		
4.953	56354	53033	0.941	4.473	$ 11 Decachlorobiphenyl (S)	BA
5.028	21	40	1.867	0.003		
5.037	10	38	3.682	0.003		
5.044	15	42	2.807	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.053	28	54	1.895	0.004		
5.078	13	46	3.469	0.003		
5.085	21	41	1.909	0.003		
5.090	8	38	4.578	0.003		
5.118	4	27	6.459	0.002		
5.148	3	0	0.000	0.000		
5.174	7	28	4.000	0.002		
5.186	5	25	5.230	0.002		
5.195	4	23	5.556	0.001		
5.199	6	21	3.251	0.001		
5.217	16	29	1.793	0.002		
5.250	13	43	3.231	0.003		
5.275	11	61	5.486	0.005		
5.285	17	69	4.132	0.005		
5.298	19	66	3.485	0.005		
5.347	22	76	3.501	0.006		
5.360	14	73	5.344	0.006		
5.364	23	84	3.621	0.007		
5.370	34	108	3.152	0.009		
5.398	15	79	5.404	0.006		
5.412	17	76	4.497	0.006		
5.431	37	87	2.331	0.007		
5.436	40	98	2.440	0.008		
5.459	33	105	3.156	0.008		
5.485	46	103	2.223	0.008		
5.511	36	111	3.093	0.009		
5.526	48	119	2.501	0.010		
5.542	30	131	4.396	0.011		
5.550	39	134	3.463	0.011		
5.558	72	147	2.042	0.012		
5.570	46	153	3.296	0.012		
5.596	33	123	3.761	0.010		
5.619	16	94	5.923	0.007		
5.624	33	89	2.676	0.007		
5.636	31	76	2.420	0.006		
5.647	19	65	3.446	0.005		
5.652	25	67	2.724	0.005		
5.675	17	63	3.715	0.005		
5.682	21	62	2.934	0.005		
5.693	13	51	3.917	0.004		
5.698	18	55	3.020	0.004		
5.705	18	57	3.195	0.004		
5.715	7	46	6.571	0.003		
5.722	9	48	5.161	0.004		
5.751	4	28	6.422	0.002		
5.755	7	29	4.085	0.002		
5.813	19	42	2.241	0.003		
5.820	7	41	5.663	0.003		
5.831	25	50	1.990	0.004		
5.846	10	52	5.083	0.004		
5.850	28	58	2.099	0.004		
5.857	19	60	3.125	0.005		
5.874	11	68	6.148	0.005		
5.894	16	79	4.886	0.006		
5.897	34	82	2.440	0.006		
5.920	31	78	2.557	0.006		
5.946	30	76	2.493	0.006		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.955	16	74	4.602	0.006		
5.961	22	74	3.315	0.006		
5.966	16	70	4.353	0.005		
5.973	31	83	2.666	0.007		
5.982	18	78	4.290	0.006		
5.985	18	80	4.566	0.006		
6.011	31	66	2.103	0.005		
6.041	13	51	3.923	0.004		
6.065	12	44	3.557	0.003		
6.074	7	38	5.352	0.003		
6.116	11	25	2.304	0.002		
6.123	8	34	4.533	0.002		
6.140	10	46	4.772	0.003		
6.147	11	45	4.182	0.003		
6.162	16	47	3.017	0.003		
6.188	6	39	6.747	0.003		
6.202	15	44	3.001	0.003		
6.209	13	44	3.288	0.003		
6.214	12	46	3.840	0.003		
6.236	13	39	2.908	0.003		
6.251	13	48	3.715	0.004		
6.264	16	37	2.278	0.003		
6.273	9	41	4.566	0.003		
6.296	13	50	3.759	0.004		
6.366	14	42	2.985	0.003		
6.408	9	38	4.353	0.003		
6.422	9	51	5.809	0.004		
6.455	14	41	2.933	0.003		
6.467	7	33	4.874	0.002		
	924435	1185380		100.000		

Total unknown % height = 83.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000059.d
Lab Smp Id: 1691737 Client Smp ID: MBLCS
Inj Date : 21-JUN-2019 20:03
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1691737,
Misc Info : 15693,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d062119-2.b\dr8082.new608.052419.m
Meth Date : 24-Jun-2019 10:33 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 59 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.962	1.962	0.000	4412	0.38725	0.128	80.00- 120.00	100.00(aM)	BA
2.284	2.284	0.000	8329	0.38192	0.127	156.82- 235.23	188.80	BA
2.372	2.372	0.000	4349	0.40084	0.133	76.30- 114.44	98.58	BA
2.467	2.468	-0.001	3926	0.39337	0.130	67.07- 100.60	88.99	BA
2.557	2.558	-0.001	3895	0.39337	0.130	63.33- 95.00	88.30	BA
Average of Peak Concentrations =					0.130			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.304	3.305	-0.001	8560	0.42125	0.140	80.00- 120.00	100.00	(aM)	BA
3.475	3.475	0.000	10237	0.42030	0.139	100.97- 151.46	119.59		BA
3.658	3.659	-0.001	13137	0.44848	0.149	123.40- 185.10	153.47		BA
4.055	4.056	-0.001	17859	0.41508	0.138	188.88- 283.31	208.64		BA
4.243	4.244	-0.001	10391	0.40167	0.133	113.96- 170.94	121.40		BA
Average of Peak Concentrations =					0.140				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.587	1.585	0.002	69735	0.15354	0.0509			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.953	4.956	-0.003	56353	0.17751	0.0589			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

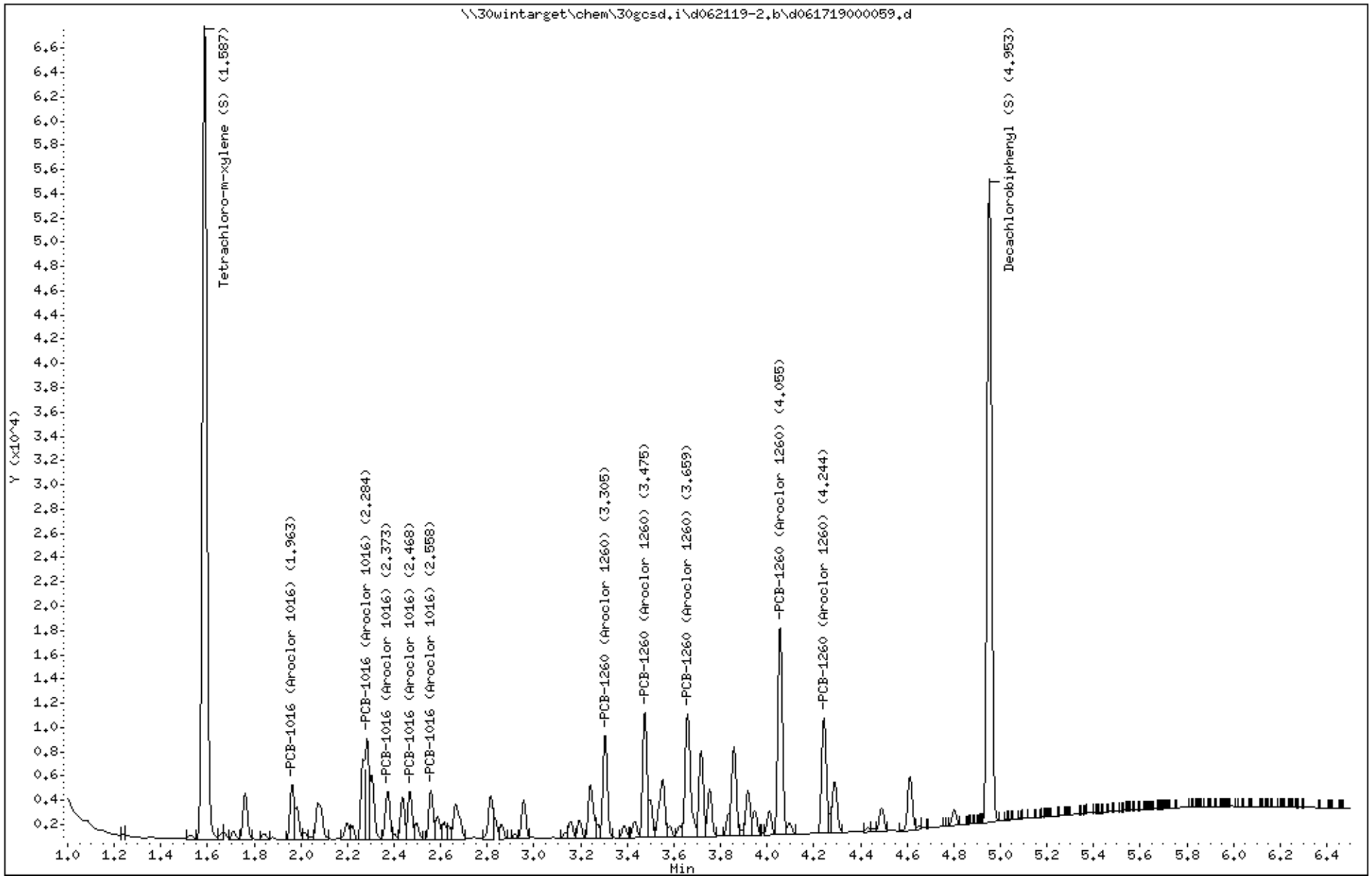
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1691737
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15693,

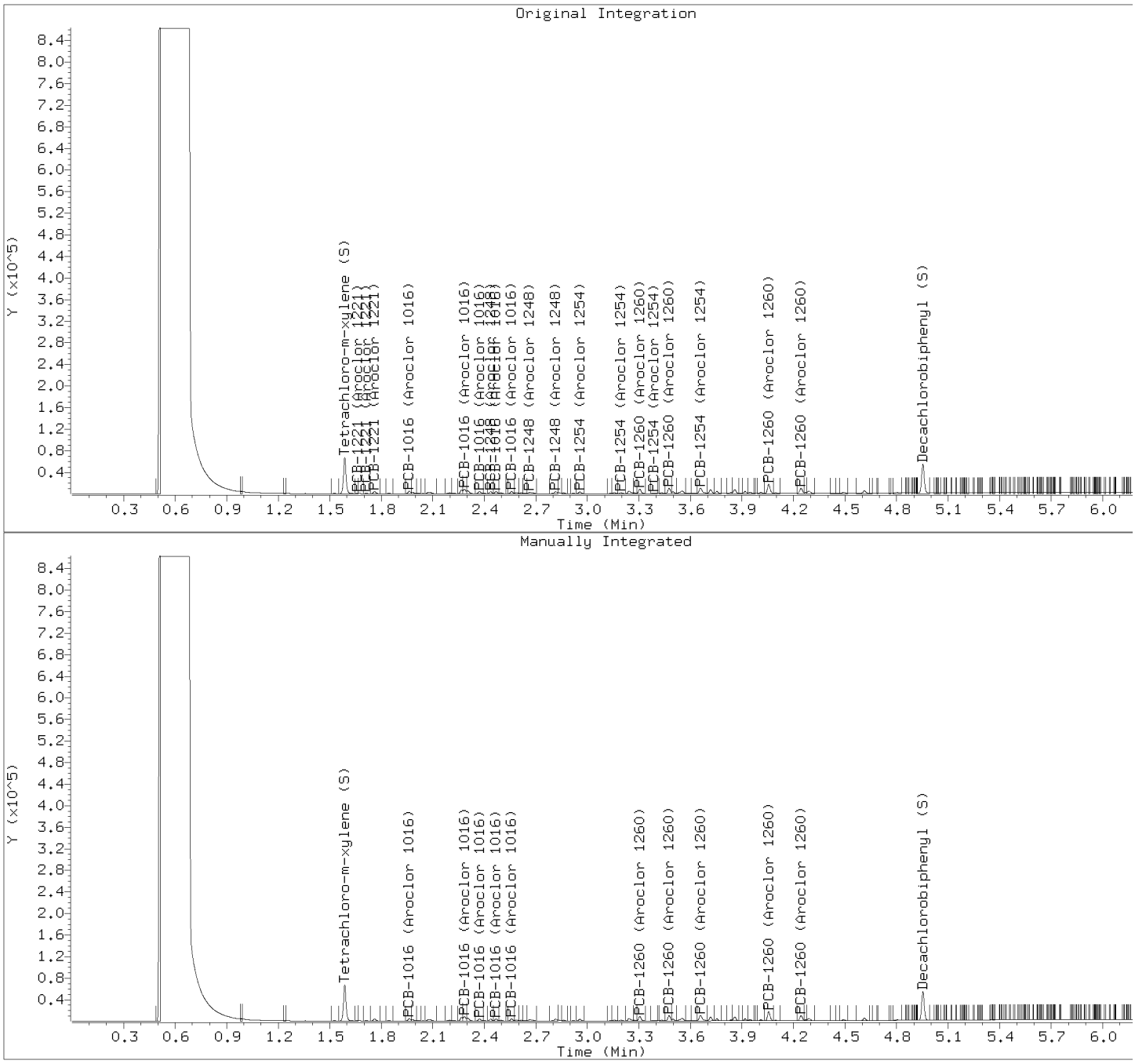
Client SDG: d062119-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 18-JUN-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.963	0.128	J
	Peak found at 2.284	0.127	J
	Peak found at 2.373	0.133	J
	Peak found at 2.468	0.130	J
	Peak found at 2.558	0.130	J
	Average of Peak Amounts =	0.130	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.305	0.140	J
	Peak found at 3.475	0.139	J
	Peak found at 3.659	0.149	J
	Peak found at 4.055	0.138	J
	Peak found at 4.243	0.133	J
	Average of Peak Amounts =	0.140	J
877-09-8	Tetrachloro-m-xylene (S)	0.0509	J
2051-24-3	Decachlorobiphenyl (S)	0.0589	J

Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b\d061719000059.d
Date : 21-JUN-2019 20:03
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1691737,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d062119-2.b/d061719000059.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 21-JUN-2019 20:03 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1691737



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	4799	4412
PCB-1016 (Aroclor 1016)	8496	8329
PCB-1016 (Aroclor 1016)	4930	4349
PCB-1016 (Aroclor 1016)	4331	3926
PCB-1016 (Aroclor 1016)	4395	3895
PCB-1221 (Aroclor 1221)	808	0
PCB-1221 (Aroclor 1221)	1287	0
PCB-1221 (Aroclor 1221)	4706	0
PCB-1232 (Aroclor 1232)	4706	0
PCB-1232 (Aroclor 1232)	4799	0
PCB-1232 (Aroclor 1232)	8496	0
PCB-1232 (Aroclor 1232)	4930	0
PCB-1232 (Aroclor 1232)	4395	0
PCB-1242 (Aroclor 1242)	4706	0

PCB-1242 (Aroclor 1242)	4799	0
PCB-1242 (Aroclor 1242)	8496	0
PCB-1242 (Aroclor 1242)	4930	0
PCB-1242 (Aroclor 1242)	4395	0
PCB-1248 (Aroclor 1248)	8496	0
PCB-1248 (Aroclor 1248)	3857	0
PCB-1248 (Aroclor 1248)	4395	0
PCB-1248 (Aroclor 1248)	5445	0
PCB-1248 (Aroclor 1248)	4934	0
PCB-1254 (Aroclor 1254)	4934	0
PCB-1254 (Aroclor 1254)	4059	0
PCB-1254 (Aroclor 1254)	2292	0
PCB-1254 (Aroclor 1254)	1904	0
PCB-1254 (Aroclor 1254)	14696	0
PCB-1260 (Aroclor 1260)	9555	8560
PCB-1260 (Aroclor 1260)	11078	10237
PCB-1260 (Aroclor 1260)	14696	13137
PCB-1260 (Aroclor 1260)	19772	17859
PCB-1260 (Aroclor 1260)	12250	10391
Tetrachloro-m-xylene (S)	71015	69735
Decachlorobiphenyl (S)	63262	56353

SAMPLE NO.

LCS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1691737 SDG No.: 30300161 Date(s) Analyzed: 06/21/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63365	0.13	0.44
	2	2.55765	130	
PCB-1260 (Aroclor 1260)	1	2.79765	0.14	2.5
	2	4.24332	140	

SAMPLE NO.

MS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1691738 SDG No.: 30300161 Date(s) Analyzed: 06/21/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63133	9.0	150
	2	2.55833	63600	
PCB-1260 (Aroclor 1260)	1	2.78367	24400	130
	2	4.224	5.2	

SAMPLE NO.

MSD

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1691739 SDG No.: 30300161 Date(s) Analyzed: 06/21/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63132	8.2	148
	2	2.55798	54800	
PCB-1260 (Aroclor 1260)	1	2.78298	23000	139
	2	4.22332	4.2	

SAMPLE NO.

AOC 26-2

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 30300161002 SDG No.: 30300161 Date(s) Analyzed: 07/01/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.428	0.73	37.3
	2	3.657	0.50	

Prep Log Report

Batch Information: OEXT 38336/ 347878 PCB-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8082A
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	06/18/2019 19:03:49:997	Extraction End Date/Time	06/18/2019 22:55:54:451
Witnessed By		Spiked By	BBR	Spiked By Date	06/18/2019 19:33:26:861	Concentrated By	BBR
Concentrated By Date	06/18/2019 21:37:06:337	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Dispenser ID 2	BTD011
Syringe ID 1	SYR029	Methylene Chloride	90645	1:1 MeCl/Acetone	90577	Hexane	52634
Ottawa Sand	87302	Hydromatrix	84270	Sodium Sulfate	88419	Gravity Filters	90158
Reviewed By	JPH	Reviewed By Date	06/19/2019 08:48	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	BLANK	**1691736**		TVAP006	15.07	5		87605 (1)	
8082ASM_P	LCS	**1691737**		TVAP006	15.07	5		87605 (1)	88418 (1)
8082ASM_P	PS	**30299331001**		TVAP006	5.13	5	1*	87605 (1)	
8082ASM_P	PS	**30299813001**		TVAP006	5.18	5	1*	87605 (1)	
8082ASM_P	PS	**30299884001**		TVAP006	15.21	5		87605 (1)	
8082ASM_P	PS	**30299885001**		TVAP006	15.24	5		87605 (1)	
8082ASM_P	PS	**30299887001**		TVAP005	15.04	5		87605 (1)	
8082ASM_P	PS	**30299888001**		TVAP005	15.12	5		87605 (1)	
8082ASM_P	PS	**30299889001**		TVAP005	15.05	5		87605 (1)	
8082ASM_P	PS	**30299890001**		TVAP005	15.04	5		87605 (1)	
8082ASM_P	PS	**30300011001**		TVAP005	15.01	5		87605 (1)	
8082ASM_P	PS	**30300011002**		TVAP005	5.34	5	1*	87605 (1)	
8082ASM_P	PS	**30300011003**		TVAP003	1.02	5	1*	87605 (1)	
8082ASM_P	PS	**30300125001**		TVAP003	5.29	5	1*	87605 (1)	
8082ASM_P	MS	**1691738**		TVAP003	5.3	5	1*	87605 (1)	88418 (1)
8082ASM_P	MSD	**1691739**		TVAP003	5.3	5	1*	87605 (1)	88418 (1)
8082ASM_P	PS	**30299826001**		TVAP003	2.02	5	1*	87605 (1)	
8082ASM_P	PS	**30300161001**		TVAP003	15.4	5		87605 (1)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	PS	**30300161002**		TVAP007	15.34	5		87605 (1)	

Sample Notes:

1*: Low Density Matrix

Standard Notes:

87605: OEXT Pesticide Surrogate 1 ppm

88418: oext AROCLOR 2.5 ppm spike methanol

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexane 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:00	CWB	
1/d052419000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:08	CWB	
1/d052419000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:17	CWB	
1/d052419000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:25	CWB	
1/d052419000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:34	CWB	
1/d052419000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:42	CWB	
1/d052419000007.d	CAL3S, 86571:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:51	CWB	
1/d052419000008.d	CAL3S, 86574:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:59	CWB	
1/d052419000009.d	CAL3S, 87759:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:08	CWB	
1/d052419000010.d	CAL3S, 87760:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:16	CWB	
1/d052419000011.d	CAL3S, 86155:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:25	CWB	
1/d052419000012.d	CAL3S, 86156:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:33	CWB	
1/d052419000013.d	CAL3S, 86172:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:42	CWB	
1/d052419000014.d	CAL6A, 87260:1	N/15570	CALIB_6	1	df8082.new608.052419	5/24/19	14:50	CWB	
1/d052419000015.d	CAL5A, 88856:1	N/15570	CALIB_5	1	df8082.new608.052419	5/24/19	14:59	CWB	
1/d052419000016.d	CAL4A, 88855:1	N/15570	CALIB_4	1	df8082.new608.052419	5/24/19	15:07	CWB	
1/d052419000017.d	CAL3A, 88854:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	15:16	CWB	
1/d052419000018.d	CAL2A, 88853:1	N/15570	CALIB_2	1	df8082.new608.052419	5/24/19	15:25	CWB	
1/d052419000019.d	CAL1A, 88852:1	N/15570	CALIB_1	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000019llc.d	CAL1A, 88852:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000020.d	ICV, 85333:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:42	CWB	
1/d052419000021.d	1672979,	L/15564	BLANK	1	df8082.new608.052419	5/24/19	15:50	CWB	
1/d052419000022.d	1672980,	L/15564	LCS	1	df8082.new608.052419	5/24/19	15:59	CWB	
1/d052419000023.d	30294592008,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:07	CWB	
1/d052419000024.d	30294597001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:16	CWB	
1/d052419000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:24	CWB	
1/d052419000026.d	30294597002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:33	CWB	
1/d052419000027.d	30294597003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:41	CWB	
1/d052419000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:50	CWB	
1/d052419000029.d	30294598004,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:58	CWB	
1/d052419000030.d	30294598005,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:07	CWB	
1/d052419000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:15	CWB	
1/d052419000032.d	30295167003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:24	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000033.d	30294501001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:32	CWB	
1/d052419000034.d	1672981,	L/15564	MS	1	df8082.new608.052419	5/24/19	17:41	CWB	
1/d052419000035.d	1672982,	L/15564	MSD	1	df8082.new608.052419	5/24/19	17:49	CWB	
1/d052419000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:58	CWB	
1/d052419000037.d	30294838001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:06	CWB	
1/d052419000038.d	30295070001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:15	CWB	
1/d052419000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:23	CWB	
1/d052419000040.d	30295070002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:32	CWB	
1/d052419000041.d	30295070003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:40	CWB	
1/d052419000042.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:49	CWB	
1/d052419000043.d	30296109004X5,	L/15567	SAMPLE	5	df8082.new608.052419	5/24/19	18:57	CWB	
1/d052419000044.d	30296109006X10,	L/15567	SAMPLE	10	df8082.new608.052419	5/24/19	19:06	CWB	
1/d052419000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	19:14	CWB	
1/d052419000046.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	19:23	CWB	
1/d052419000047.d	1672973,	L/15563	BLANK	1	df8082.new608.052419	5/24/19	19:31	CWB	
1/d052419000048.d	1672974,	L/15563	LCS	1	df8082.new608.052419	5/24/19	19:40	CWB	
1/d052419000049.d	30294501003,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:48	CWB	
1/d052419000050.d	30295057002,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:57	CWB	
1/d052419000051.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:05	CWB	
1/d052419000052.d	1672975,	L/15563	MS	1	df8082.new608.052419	5/24/19	20:14	CWB	
1/d052419000053.d	1672976,	L/15563	MSD	1	df8082.new608.052419	5/24/19	20:22	CWB	
1/d052419000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:31	CWB	
1/d052419000055.d	1671804,	L/15549	BLANK	1	df8082.new608.052419	5/24/19	20:39	CWB	
1/d052419000056.d	1671805,	L/15549	LCS	1	df8082.new608.052419	5/24/19	20:48	CWB	
1/d052419000057.d	30294948001,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	20:56	CWB	
1/d052419000058.d	30294948002,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:05	CWB	
1/d052419000059.d	30294948003,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:13	CWB	
1/d052419000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:22	CWB	
1/d052419000061.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	21:30	CWB	
1/d052419000062.d	30295597001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:39	CWB	
1/d052419000063.d	30295596001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:47	CWB	
1/d052419000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:56	CWB	
1/d052419000065.d	30295167001X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:04	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJG 5-28-19 Page: 2 of 3

* all sample intakes were acid cleaned *

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000066.d	30295167002X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:13	CWB	
1/d052419000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:21	CWB	
1/d052419000068.d	30295167005X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:30	CWB	
1/d052419000069.d	30295167006X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:38	CWB	
1/d052419000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:47	CWB	
1/d052419000071.d	30295167007X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:55	CWB	
1/d052419000072.d	30295167008X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:04	CWB	
1/d052419000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:12	CWB	
1/d052419000074.d	30295167009X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:21	CWB	
1/d052419000075.d	30295167010X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:29	CWB	
1/d052419000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:38	CWB	
1/d052419000077.d	30295167011X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:46	CWB	
1/d052419000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:55	CWB	
1/d052419000079.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/25/19	00:04	CWB	
1/d052419000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/25/19	00:12	CWB	

CWB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

SJC 5-28-19

Reviewed By/Date: _____ Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Tune std: NA Cal. std: NA

1:1 H_2SO_4 79621
hexane) 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061719000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/21/19	11:49	CWB	
1/d061719000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/21/19	11:58	CWB	
1/d061719000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/21/19	12:06	CWB	
1/d061719000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/21/19	12:15	CWB	
1/d061719000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	6/21/19	12:23	CWB	
1/d061719000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	6/21/19	12:32	CWB	
1/d061719000007.d	CCV, 91625:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/21/19	12:40	TAW	
1/d061719000008.d	30296793022x100,	S/15680	SAMPLE	100	df8082.new608.052419	6/21/19	12:49	TAW	
1/d061719000009.d	30296793025x50,	S/15680	SAMPLE	50	df8082.new608.052419	6/21/19	12:57	TAW	
1/d061719000010.d	30296793031x100,	S/15680	SAMPLE	100	df8082.new608.052419	6/21/19	13:06	TAW	
1/d061719000011.d	30297322021x20,	S/15680	SAMPLE	20	df8082.new608.052419	6/21/19	13:14	TAW	
1/d061719000012.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	13:23	TAW	
1/d061719000013.d	30297322025x50,	S/15680	SAMPLE	50	df8082.new608.052419	6/21/19	13:31	TAW	
1/d061719000014.d	30297322027x20,	S/15680	SAMPLE	20	df8082.new608.052419	6/21/19	13:40	TAW	
1/d061719000015.d	30297322029x100,	S/15680	SAMPLE	100	df8082.new608.052419	6/21/19	13:48	TAW	
1/d061719000016.d	30297322031x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	13:57	TAW	
1/d061719000017.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	14:05	TAW	
1/d061719000018.d	30297322033x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	14:14	TAW	
1/d061719000019.d	30297322037x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	14:23	TAW	
1/d061719000020.d	30297322039x100,	S/15680	SAMPLE	100	df8082.new608.052419	6/21/19	14:31	TAW	
1/d061719000021.d	30297322041x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	14:40	TAW	
1/d061719000022.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	14:48	TAW	
1/d061719000023.d	30297322043x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	14:57	TAW	
1/d061719000024.d	30297322046x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	15:05	TAW	
1/d061719000025.d	30297322048x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	15:14	TAW	
1/d061719000026.d	30297322061x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	15:22	TAW	
1/d061719000027.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	15:31	CWB	
1/d061719000028.d	30297322074x10,	S/15680	SAMPLE	10	df8082.new608.052419	6/21/19	15:39	CWB	
1/d061719000029.d	30297322062x100,	S/15688	SAMPLE	100	df8082.new608.052419	6/21/19	15:48	CWB	
1/d061719000030.d	30297322064x100,	S/15688	SAMPLE	100	df8082.new608.052419	6/21/19	15:56	CWB	
1/d061719000031.d	30297322066x50,	S/15688	SAMPLE	50	df8082.new608.052419	6/21/19	16:05	CWB	
1/d061719000032.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	16:13	CWB	
1/d061719000033.d	CCV, 91625:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/21/19	16:22	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CWB 6-24-19 * all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d062119-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:05 06/24/2019

Reviewed By/Date: TAW 6-24-19 Page: 1 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexane) 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061719000034.d	30297322068x10,	S/15688	SAMPLE	10	df8082.new608.052419	6/21/19	16:30	CWB	
1/d061719000035.d	30299837002x10,	S/15688	SAMPLE	10	df8082.new608.052419	6/21/19	16:39	CWB	
1/d061719000036.d	1693333,	S/15701	BLANK	1	df8082.new608.052419	6/21/19	16:47	CWB	
1/d061719000037.d	1693334,	S/15701	LCS	1	df8082.new608.052419	6/21/19	16:56	CWB	
1/d061719000038.d	30300484001,	S/15701	SAMPLE	1	df8082.new608.052419	6/21/19	17:04	CWB	
1/d061719000039.d	30300484002,	S/15701	SAMPLE	1	df8082.new608.052419	6/21/19	17:13	CWB	
1/d061719000040.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	17:21	CWB	
1/d061719000041.d	30300484003,	S/15701	SAMPLE	1	df8082.new608.052419	6/21/19	17:30	CWB	
1/d061719000042.d	30300484004,	S/15701	SAMPLE	1	df8082.new608.052419	6/21/19	17:38	CWB	
1/d061719000043.d	1693335,	S/15701	MS	1	df8082.new608.052419	6/21/19	17:47	CWB	
1/d061719000044.d	1693336,	S/15701	MSD	1	df8082.new608.052419	6/21/19	17:55	CWB	
1/d061719000045.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	18:04	CWB	
1/d061719000046.d	1692831,	L/15706	BLANK	1	df8082.new608.052419	6/21/19	18:12	CWB	
1/d061719000047.d	1692832,	L/15706	LCS	1	df8082.new608.052419	6/21/19	18:21	CWB	
1/d061719000048.d	30299901001,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	18:29	CWB	
1/d061719000049.d	30299903001,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	18:38	CWB	
1/d061719000050.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	18:46	CWB	
1/d061719000051.d	30299941001,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	18:55	CWB	
1/d061719000052.d	30299941002,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	19:03	CWB	
1/d061719000053.d	30299941003,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	19:12	CWB	
1/d061719000054.d	30299941004,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	19:20	CWB	
1/d061719000055.d	30299941005,	L/15706	SAMPLE	1	df8082.new608.052419	6/21/19	19:29	CWB	
1/d061719000056.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	19:37	CWB	
1/d061719000057.d	CCV, 91625:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/21/19	19:46	CWB	
1/d061719000058.d	1691736,	S/15693	BLANK	1	df8082.new608.052419	6/21/19	19:54	CWB	
1/d061719000059.d	1691737,	S/15693	LCS	1	df8082.new608.052419	6/21/19	20:03	CWB	
1/d061719000060.d	30299331001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	20:11	CWB	
1/d061719000061.d	30299813001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	20:20	CWB	
1/d061719000062.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	20:28	CWB	
1/d061719000063.d	30299884001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	20:37	CWB	
1/d061719000064.d	30299885001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	20:45	CWB	
1/d061719000065.d	30299887001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	20:54	CWB	
1/d061719000066.d	30299888001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	21:02	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d062119-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:05 06/24/2019

Reviewed By/Date: TJW 6-24-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexane) 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d061719000067.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	21:11	CWB	
1/d061719000068.d	30299889001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	21:19	CWB	
1/d061719000069.d	30299890001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	21:28	CWB	
1/d061719000070.d	30300011001x10,	S/15693	SAMPLE	10	df8082.new608.052419	6/21/19	21:36	CWB	
1/d061719000071.d	30300011002x10,	S/15693	SAMPLE	10	df8082.new608.052419	6/21/19	21:45	CWB	
1/d061719000072.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	21:53	CWB	
1/d061719000073.d	30300011003,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	22:02	CWB	
1/d061719000074.d	30300125001x10,	S/15693	SAMPLE	10	df8082.new608.052419	6/21/19	22:10	CWB	
1/d061719000075.d	1691738x10,	S/15693	MS	10	df8082.new608.052419	6/21/19	22:19	CWB	
1/d061719000076.d	1691739x10,	S/15693	MSD	10	df8082.new608.052419	6/21/19	22:27	CWB	
1/d061719000077.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	22:36	CWB	
1/d061719000078.d	30299826001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	22:44	CWB	
1/d061719000079.d	30300161001,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	22:53	CWB	
1/d061719000080.d	30300161002,	S/15693	SAMPLE	1	df8082.new608.052419	6/21/19	23:01	CWB	
1/d061719000081.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	23:10	CWB	
1/d061719000082.d	CCV, 91625:1	N/15570	CCALIB_3	1	df8082.new608.052419	6/21/19	23:19	CWB	
1/d061719000083.d	HEXANE	N/	SAMPLE	1	df8082.new608.052419	6/21/19	23:27	CWB	

CWB 6-24-19

File Path 1: \\30wintarget\chem\30gcsd.i\d062119-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:05 06/24/2019

Reviewed By/Date: IAW 6-24-19 Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA
Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexanes 91618

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d070119000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/01/19	13:47	CWB	
1/d070119000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/01/19	13:55	CWB	
1/d070119000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/01/19	14:04	CWB	
1/d070119000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/01/19	14:12	CWB	
1/d070119000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/01/19	14:21	CWB	
1/d070119000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	14:29	CWB	
1/d070119000007.d	CCV, 92515:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/01/19	14:38	CWB	
1/d070119000008.d	1697778,	S/15736	BLANK	1	df8082.new608.052419	7/01/19	14:46	CWB	
1/d070119000009.d	1697779,	S/15736	LCS	1	df8082.new608.052419	7/01/19	14:55	CWB	
1/d070119000010.d	30310534001X50,	S/15736	SAMPLE	50	df8082.new608.052419	7/01/19	15:04	CWB	
1/d070119000011.d	30310534001X5,	S/15736	SAMPLE	5	df8082.new608.052419	7/01/19	15:12	CWB	
1/d070119000012.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	15:21	CWB	
1/d070119000013.d	30300883001,	S/15736	SAMPLE	1	df8082.new608.052419	7/01/19	15:29	CWB	
1/d070119000014.d	30300883002,	S/15736	SAMPLE	1	df8082.new608.052419	7/01/19	15:38	CWB	
1/d070119000015.d	30300883003,	S/15736	SAMPLE	1	df8082.new608.052419	7/01/19	15:46	CWB	
1/d070119000016.d	1697780,	S/15736	MS	1	df8082.new608.052419	7/01/19	15:55	CWB	
1/d070119000017.d	1697781,	S/15736	MSD	1	df8082.new608.052419	7/01/19	16:03	CWB	
1/d070119000018.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	16:12	CWB	
1/d070119000019.d	1697798,	S/15732	BLANK	1	df8082.new608.052419	7/01/19	16:20	CWB	
1/d070119000020.d	1697799,	S/15732	LCS	1	df8082.new608.052419	7/01/19	16:29	CWB	
1/d070119000021.d	30300616001,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	16:37	CWB	
1/d070119000022.d	1697800,	S/15732	MS	1	df8082.new608.052419	7/01/19	16:46	CWB	
1/d070119000023.d	1697801,	S/15732	MSD	1	df8082.new608.052419	7/01/19	16:54	CWB	
1/d070119000024.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	17:03	CWB	
1/d070119000025.d	30300161002X10,	S/15693	SAMPLE	10	df8082.new608.052419	7/01/19	17:11	CWB	
1/d070119000026.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	17:20	CWB	
1/d070119000027.d	30310131001X10,	L/15723	SAMPLE	10	df8082.new608.052419	7/01/19	17:28	CWB	
1/d070119000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	17:37	CWB	
1/d070119000029.d	CCV, 92515:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/01/19	17:45	CWB	
1/d070119000030.d	30300616002,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	17:54	CWB	
1/d070119000031.d	30300616003X10,	S/15732	SAMPLE	10	df8082.new608.052419	7/01/19	18:02	CWB	
1/d070119000032.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	18:11	CWB	
1/d070119000033.d	30300617001,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	18:19	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced
X No maintenance performed today

Additional Comments:

Run Order Verified: LnB 7-2-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d070119-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:35 07/02/2019

Reviewed By/Date: 7-2-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

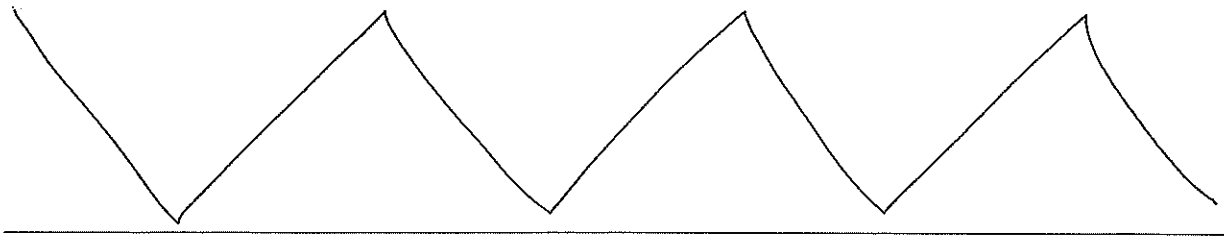
Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 91618 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d070119000034.d	30300617002,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	18:28	CWB	
1/d070119000035.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	18:36	CWB	
1/d070119000036.d	30300617003,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	18:45	CWB	
1/d070119000037.d	30300617004,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	18:53	CWB	
1/d070119000038.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	19:02	CWB	
1/d070119000039.d	30300617005,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	19:11	CWB	
1/d070119000040.d	30300788001,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	19:19	CWB	
1/d070119000041.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	19:28	CWB	
1/d070119000042.d	30300923001,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	19:36	CWB	
1/d070119000043.d	30300923002,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	19:45	CWB	
1/d070119000044.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	19:53	CWB	
1/d070119000045.d	30300923003X5,	S/15732	SAMPLE	5	df8082.new608.052419	7/01/19	20:02	CWB	
1/d070119000046.d	30310094001X10,	S/15732	SAMPLE	10	df8082.new608.052419	7/01/19	20:10	CWB	
1/d070119000047.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	20:19	CWB	
1/d070119000048.d	30310094002X10,	S/15732	SAMPLE	10	df8082.new608.052419	7/01/19	20:27	CWB	
1/d070119000049.d	30310094003X10,	S/15732	SAMPLE	10	df8082.new608.052419	7/01/19	20:36	CWB	
1/d070119000050.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	20:44	CWB	
1/d070119000051.d	30310094004,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	20:53	CWB	
1/d070119000052.d	30310094005,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	21:01	CWB	
1/d070119000053.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	21:09	CWB	
1/d070119000054.d	30310094006X10,	S/15732	SAMPLE	10	df8082.new608.052419	7/01/19	21:18	CWB	
1/d070119000055.d	30310073003,	S/15732	SAMPLE	1	df8082.new608.052419	7/01/19	21:26	CWB	
1/d070119000056.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	21:35	CWB	
1/d070119000057.d	30310225001X50,	S/15732	SAMPLE	50	df8082.new608.052419	7/01/19	21:43	CWB	
1/d070119000058.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	21:52	CWB	
1/d070119000059.d	CCV, 92515:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/01/19	22:01	CWB	
1/d070119000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/01/19	22:09	CWB	



CWB 7-2-19

File Path 1: \\30wintarget\chem\30gcsd.i\d070119-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:36 07/02/2019

Reviewed By/Date: JN 7-2-19

Prep Log Report

Batch Information: PMST 8646/349738

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	SHD	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 | Corr | Date/Time | Init	105.0 | 105.0 | 06/30/2019 14:37 | SHD	Oven Temp Out1 | Corr | Date/Time | Init	105.0 | 105.0 | 07/01/2019 07:46 | SHD
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30300161001**	Y			92.17	7.832	06/30/2019 12:48:49	12.24	1.06	13.19	12.24	M	
DRY WEIGHT	DUP	**1700599**	Y			90.89	9.111	06/30/2019 12:48:54	13.23	1.06	14.45	13.23	M	
DRY WEIGHT	PS	**30300161002**	Y			93.05	6.947	06/30/2019 12:48:59	16.98	1.04	18.17	16.98	M	
DRY WEIGHT	DUP	**1700600**	Y			93.45	6.548	06/30/2019 12:49:06	19.91	1.07	21.23	19.91	M	
DRY WEIGHT	PS	**30300192001**	Y			95.05	4.950	06/30/2019 12:49:14	16.22	1.05	17.01	16.22	M	
DRY WEIGHT	PS	**30300199001**	Y			43.59	56.41	06/30/2019 12:49:19	5.81	1.05	11.97	5.81	M	
DRY WEIGHT	PS	**30300271001**	Y			83.52	16.48	06/30/2019 12:49:27	11.47	1.03	13.53	11.47	M	
DRY WEIGHT	PS	**30300271002**	Y			81.10	18.90	06/30/2019 12:49:35	10.64	1.07	12.87	10.64	M	
DRY WEIGHT	PS	**30300271003**	Y			80.99	19.01	06/30/2019 12:49:41	11.16	1.06	13.53	11.16	M	
DRY WEIGHT	PS	**30300271004**	Y			83.51	16.49	06/30/2019 12:49:47	11.9	1.06	14.04	11.9	M	
DRY WEIGHT	PS	**30300271005**	Y			78.91	21.09	06/30/2019 12:49:58	11.95	1.06	14.86	11.95	M	
DRY WEIGHT	PS	**30300271006**	Y			84.49	15.51	06/30/2019 12:50:05	8.84	1.05	10.27	8.84	M	
DRY WEIGHT	PS	**30300500001**	Y			83.36	16.64	06/30/2019 12:50:12	17.52	1.04	20.81	17.52	M	
DRY WEIGHT	PS	**30300385001**	Y			87.94	12.06	06/30/2019 12:50:18	12.28	1.05	13.82	12.28	M	
DRY WEIGHT	PS	**30300385002**	Y			86.06	13.94	06/30/2019 12:50:25	12.85	1.06	14.76	12.85	M	
DRY WEIGHT	PS	**30300385003**	Y			87.42	12.58	06/30/2019 12:50:32	11.74	1.04	13.28	11.74	M	
DRY WEIGHT	PS	**5216609002**	Y			60.12	39.88	06/30/2019 12:50:38	11.75	1.06	18.84	11.75	M	
DRY WEIGHT	PS	**7093771003**	Y			88.95	11.05	06/30/2019 12:50:47	13.52	1.04	15.07	13.52	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**7093771005**	Y			65.89	34.11	06/30/2019 12:50:53	13.71	1.04	20.27	13.71	M	
DRY WEIGHT	PS	**7093771007**	Y			86.20	13.80	06/30/2019 12:51:04	21.99	1.06	25.34	21.99	M	
DRY WEIGHT	PS	**7093771009**	Y			81.81	18.19	06/30/2019 12:51:10	12.07	1.05	14.52	12.07	M	
DRY WEIGHT	PS	**7093771011**	Y			85.12	14.88	06/30/2019 12:51:14	13.42	1.06	15.58	13.42	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30313260

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Percent Moisture
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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 19, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

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SAMPLE SUMMARY

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30313260001	**AOC32 Lower-1**	Solid	07/10/19 08:05	07/11/19 09:30
30313260002	**AOC32 Lower-2**	Solid	07/10/19 08:20	07/11/19 09:30
30313260003	**AOC27**	Solid	07/10/19 11:00	07/11/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30313260001	**AOC32 Lower-1**	EPA 8081B	TAW	9	PASI-PA
		EPA 8082A	CWB	9	PASI-PA
		EPA 8151A	MJM	3	PASI-MV
		EPA 6010C	KAS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	DSC	18	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA
30313260002	**AOC32 Lower-2**	EPA 8081B	TAW	9	PASI-PA
		EPA 8082A	CWB	9	PASI-PA
		EPA 8151A	MJM	3	PASI-MV
		EPA 6010C	KAS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	DSC	18	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA
30313260003	**AOC27**	EPA 8082A	CWB	9	PASI-PA
		EPA 6010C	KAS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	DSC	18	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8081B**
Description: 8081B GCS Pesticides, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
2 samples were analyzed for EPA 8081B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 351917

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- AOC32 Lower-1 (Lab ID: 30313260001)
  - Decachlorobiphenyl (S)
- AOC32 Lower-2 (Lab ID: 30313260002)
  - Decachlorobiphenyl (S)
- LB (Lab ID: 1709291)
  - Decachlorobiphenyl (S)
- MS (Lab ID: 1710053)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 1710054)
  - Decachlorobiphenyl (S)

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 351379

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- MSD (Lab ID: 1707392)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 351379

C2: Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
- AOC27 (Lab ID: 30313260003)
  - PCB-1254 (Aroclor 1254)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8151A**
Description: 8151 Chlorinate Herbicide TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
2 samples were analyzed for EPA 8151A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 8151A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 351578

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30313516001

R1: RPD value was outside control limits.

- MSD (Lab ID: 1708426)
  - Acenaphthene
  - Acenaphthylene
  - Naphthalene

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3535A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 351816

S6: Surrogate recovery outside control limits. Data accepted based on valid recovery of applicable surrogates (no analytes associated with this surrogate)

- AOC27 (Lab ID: 30313260003)
  - Terphenyl-d14 (S)

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

- AOC27 (Lab ID: 30313260003)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 351816

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30312957001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 1709534)

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

QC Batch: 351816

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30312957001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- Hexachlorobenzene

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- AOC27 (Lab ID: 30313260003)
- AOC32 Lower-1 (Lab ID: 30313260001)
- AOC32 Lower-2 (Lab ID: 30313260002)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Method: **SM 4500S2F-2011**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 19, 2019

General Information:
3 samples were analyzed for SM 4500S2F-2011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-1 **Lab ID: 30313260001** Collected: 07/10/19 08:05 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides, TCLP	Analytical Method: EPA 8081B Preparation Method: EPA 3510C								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.33; Final pH: 5.38								
gamma-BHC (Lindane)	ND	ug/L	0.10	0.0024	1	07/16/19 09:09	07/17/19 16:12	58-89-9	
Chlordane (Technical)	ND	ug/L	1.0	0.040	1	07/16/19 09:09	07/17/19 16:12	57-74-9	
Endrin	ND	ug/L	0.20	0.0049	1	07/16/19 09:09	07/17/19 16:12	72-20-8	
Heptachlor	ND	ug/L	0.10	0.0021	1	07/16/19 09:09	07/17/19 16:12	76-44-8	
Heptachlor epoxide	ND	ug/L	0.10	0.0015	1	07/16/19 09:09	07/17/19 16:12	1024-57-3	
Methoxychlor	ND	ug/L	1.0	0.014	1	07/16/19 09:09	07/17/19 16:12	72-43-5	
Toxaphene	ND	ug/L	2.0	0.17	1	07/16/19 09:09	07/17/19 16:12	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	86	%.	24-108		1	07/16/19 09:09	07/17/19 16:12	2051-24-3	CH
Tetrachloro-m-xylene (S)	72	%.	44-93		1	07/16/19 09:09	07/17/19 16:12	877-09-8	
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.19	0.12	10	07/11/19 21:12	07/17/19 18:48	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.19	0.17	10	07/11/19 21:12	07/17/19 18:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.19	0.17	10	07/11/19 21:12	07/17/19 18:48	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.19	0.14	10	07/11/19 21:12	07/17/19 18:48	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.19	0.11	10	07/11/19 21:12	07/17/19 18:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.74**	mg/kg	0.19	0.10	10	07/11/19 21:12	07/17/19 18:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.19	0.11	10	07/11/19 21:12	07/17/19 18:48	11096-82-5	M6
Surrogates									
Tetrachloro-m-xylene (S)	80	%.	34-114		10	07/11/19 21:12	07/17/19 18:48	877-09-8	
Decachlorobiphenyl (S)	104	%.	38-139		10	07/11/19 21:12	07/17/19 18:48	2051-24-3	
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
	Leachate Method/Date: EPA 1311; 07/16/19 21:10								
2,4-D	ND	mg/L	0.0050	0.0000050	1	07/17/19 10:00	07/18/19 21:08	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	07/17/19 10:00	07/18/19 21:08	93-72-1	
Surrogates									
2,4-DCAA (S)	55	%	36-121		1	07/17/19 10:00	07/18/19 21:08	19719-28-9	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.33; Final pH: 5.38								
Arsenic	ND	mg/L	0.025	0.010	1	07/15/19 14:44	07/16/19 17:21	7440-38-2	
Barium	**0.78**	mg/L	0.050	0.0034	1	07/15/19 14:44	07/16/19 17:21	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	07/15/19 14:44	07/16/19 17:21	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	07/15/19 14:44	07/16/19 17:21	7440-47-3	
Lead	ND	mg/L	0.050	0.049	2	07/15/19 14:44	07/16/19 17:45	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	07/15/19 14:44	07/16/19 17:21	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	07/15/19 14:44	07/16/19 17:21	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.33; Final pH: 5.38								
Mercury	ND	ug/L	1.0	0.030	1	07/15/19 17:05	07/15/19 21:39	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-1 **Lab ID: 30313260001** Collected: 07/10/19 08:05 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.32**	mg/kg	0.076	0.0068	10	07/12/19 18:34	07/15/19 11:05	83-32-9	
Acenaphthylene	**0.31**	mg/kg	0.076	0.0054	10	07/12/19 18:34	07/15/19 11:05	208-96-8	
Anthracene	**1.1**	mg/kg	0.076	0.0068	10	07/12/19 18:34	07/15/19 11:05	120-12-7	
Benzo(a)anthracene	**2.9**	mg/kg	0.076	0.0089	10	07/12/19 18:34	07/15/19 11:05	56-55-3	
Benzo(a)pyrene	**2.5**	mg/kg	0.076	0.0047	10	07/12/19 18:34	07/15/19 11:05	50-32-8	
Benzo(b)fluoranthene	**3.8**	mg/kg	0.076	0.0091	10	07/12/19 18:34	07/15/19 11:05	205-99-2	
Benzo(g,h,i)perylene	**1.2**	mg/kg	0.076	0.011	10	07/12/19 18:34	07/15/19 11:05	191-24-2	
Benzo(k)fluoranthene	**1.5**	mg/kg	0.076	0.013	10	07/12/19 18:34	07/15/19 11:05	207-08-9	
Chrysene	**2.8**	mg/kg	0.076	0.0039	10	07/12/19 18:34	07/15/19 11:05	218-01-9	
Dibenz(a,h)anthracene	**0.45**	mg/kg	0.076	0.017	10	07/12/19 18:34	07/15/19 11:05	53-70-3	
Fluoranthene	**5.4**	mg/kg	0.076	0.0057	10	07/12/19 18:34	07/15/19 11:05	206-44-0	
Fluorene	**0.29**	mg/kg	0.076	0.0070	10	07/12/19 18:34	07/15/19 11:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**1.1**	mg/kg	0.076	0.014	10	07/12/19 18:34	07/15/19 11:05	193-39-5	
Naphthalene	**0.32**	mg/kg	0.076	0.015	10	07/12/19 18:34	07/15/19 11:05	91-20-3	
Phenanthrene	**3.3**	mg/kg	0.076	0.0067	10	07/12/19 18:34	07/15/19 11:05	85-01-8	
Pyrene	**4.7**	mg/kg	0.076	0.0085	10	07/12/19 18:34	07/15/19 11:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%.	43-97		10	07/12/19 18:34	07/15/19 11:05	321-60-8	
Terphenyl-d14 (S)	61	%.	56-106		10	07/12/19 18:34	07/15/19 11:05	1718-51-0	
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.33; Final pH: 5.38								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	07/16/19 10:55	07/16/19 21:59	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	07/16/19 10:55	07/16/19 21:59	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	07/16/19 10:55	07/16/19 21:59	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	07/16/19 10:55	07/16/19 21:59	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	07/16/19 10:55	07/16/19 21:59	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	07/16/19 10:55	07/16/19 21:59	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	07/16/19 10:55	07/16/19 21:59		
Nitrobenzene	ND	ug/L	100	42.6	1	07/16/19 10:55	07/16/19 21:59	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	07/16/19 10:55	07/16/19 21:59	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	07/16/19 10:55	07/16/19 21:59	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	07/16/19 10:55	07/16/19 21:59	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	07/16/19 10:55	07/16/19 21:59	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	87	%.	61-105		1	07/16/19 10:55	07/16/19 21:59	4165-60-0	
2-Fluorobiphenyl (S)	74	%.	56-90		1	07/16/19 10:55	07/16/19 21:59	321-60-8	
Terphenyl-d14 (S)	49	%.	32-90		1	07/16/19 10:55	07/16/19 21:59	1718-51-0	
Phenol-d6 (S)	90	%.	64-101		1	07/16/19 10:55	07/16/19 21:59	13127-88-3	
2-Fluorophenol (S)	84	%.	61-116		1	07/16/19 10:55	07/16/19 21:59	367-12-4	
2,4,6-Tribromophenol (S)	86	%.	55-108		1	07/16/19 10:55	07/16/19 21:59	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/14/19 09:02								
Benzene	ND	ug/L	50.0	8.7	10		07/15/19 20:38	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/15/19 20:38	78-93-3	

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(724)850-5600

ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-1 **Lab ID: 30313260001** Collected: 07/10/19 08:05 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/14/19 09:02								
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/15/19 20:38	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/15/19 20:38	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/15/19 20:38	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/15/19 20:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/15/19 20:38	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/15/19 20:38	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/15/19 20:38	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/15/19 20:38	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	92	%.	70-130		10		07/15/19 20:38	17060-07-0	
Toluene-d8 (S)	97	%.	70-130		10		07/15/19 20:38	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	70-130		10		07/15/19 20:38	460-00-4	
Dibromofluoromethane (S)	104	%.	70-130		10		07/15/19 20:38	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.8**	%	0.10	0.10	1		07/17/19 15:00		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		07/17/19 12:50		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**9.6**	Std. Units	2.0	2.0	1		07/11/19 21:20		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.2	0.46	1	07/15/19 15:29	07/16/19 15:26		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	11.6	11.6	1	07/15/19 15:29	07/15/19 22:36		

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-2 **Lab ID: 30313260002** Collected: 07/10/19 08:20 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides, TCLP	Analytical Method: EPA 8081B Preparation Method: EPA 3510C								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.01; Final pH: 5.22								
gamma-BHC (Lindane)	ND	ug/L	0.10	0.0024	1	07/16/19 09:09	07/17/19 16:22	58-89-9	
Chlordane (Technical)	ND	ug/L	1.0	0.040	1	07/16/19 09:09	07/17/19 16:22	57-74-9	
Endrin	ND	ug/L	0.20	0.0049	1	07/16/19 09:09	07/17/19 16:22	72-20-8	
Heptachlor	ND	ug/L	0.10	0.0021	1	07/16/19 09:09	07/17/19 16:22	76-44-8	
Heptachlor epoxide	ND	ug/L	0.10	0.0015	1	07/16/19 09:09	07/17/19 16:22	1024-57-3	
Methoxychlor	ND	ug/L	1.0	0.014	1	07/16/19 09:09	07/17/19 16:22	72-43-5	
Toxaphene	ND	ug/L	2.0	0.17	1	07/16/19 09:09	07/17/19 16:22	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	86	%.	24-108		1	07/16/19 09:09	07/17/19 16:22	2051-24-3	CH
Tetrachloro-m-xylene (S)	71	%.	44-93		1	07/16/19 09:09	07/17/19 16:22	877-09-8	
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.19	0.12	10	07/11/19 21:12	07/17/19 19:22	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.19	0.17	10	07/11/19 21:12	07/17/19 19:22	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.19	0.18	10	07/11/19 21:12	07/17/19 19:22	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.19	0.14	10	07/11/19 21:12	07/17/19 19:22	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.19	0.11	10	07/11/19 21:12	07/17/19 19:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.55**	mg/kg	0.19	0.10	10	07/11/19 21:12	07/17/19 19:22	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.19	0.11	10	07/11/19 21:12	07/17/19 19:22	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	75	%.	34-114		10	07/11/19 21:12	07/17/19 19:22	877-09-8	
Decachlorobiphenyl (S)	94	%.	38-139		10	07/11/19 21:12	07/17/19 19:22	2051-24-3	
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
	Leachate Method/Date: EPA 1311; 07/16/19 21:10								
2,4-D	ND	mg/L	0.0050	0.0000050	1	07/17/19 10:00	07/18/19 21:42	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	0.0000030	1	07/17/19 10:00	07/18/19 21:42	93-72-1	
Surrogates									
2,4-DCAA (S)	58	%	36-121		1	07/17/19 10:00	07/18/19 21:42	19719-28-9	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.01; Final pH: 5.22								
Arsenic	ND	mg/L	0.025	0.010	1	07/15/19 14:44	07/16/19 17:12	7440-38-2	
Barium	**0.72**	mg/L	0.050	0.0034	1	07/15/19 14:44	07/16/19 17:12	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	07/15/19 14:44	07/16/19 17:12	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	07/15/19 14:44	07/16/19 17:12	7440-47-3	
Lead	ND	mg/L	0.050	0.049	2	07/15/19 14:44	07/16/19 17:37	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	07/15/19 14:44	07/16/19 17:12	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	07/15/19 14:44	07/16/19 17:12	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.01; Final pH: 5.22								
Mercury	ND	ug/L	1.0	0.030	1	07/15/19 17:05	07/15/19 21:34	7439-97-6	

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-2 **Lab ID: 30313260002** Collected: 07/10/19 08:20 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.31**	mg/kg	0.077	0.0070	10	07/12/19 18:34	07/15/19 11:23	83-32-9	
Acenaphthylene	**0.51**	mg/kg	0.077	0.0055	10	07/12/19 18:34	07/15/19 11:23	208-96-8	
Anthracene	**1.2**	mg/kg	0.077	0.0070	10	07/12/19 18:34	07/15/19 11:23	120-12-7	
Benzo(a)anthracene	**3.9**	mg/kg	0.077	0.0090	10	07/12/19 18:34	07/15/19 11:23	56-55-3	
Benzo(a)pyrene	**3.4**	mg/kg	0.077	0.0048	10	07/12/19 18:34	07/15/19 11:23	50-32-8	
Benzo(b)fluoranthene	**5.5**	mg/kg	0.077	0.0092	10	07/12/19 18:34	07/15/19 11:23	205-99-2	
Benzo(g,h,i)perylene	**1.7**	mg/kg	0.077	0.012	10	07/12/19 18:34	07/15/19 11:23	191-24-2	
Benzo(k)fluoranthene	**1.6**	mg/kg	0.077	0.013	10	07/12/19 18:34	07/15/19 11:23	207-08-9	
Chrysene	**3.6**	mg/kg	0.077	0.0040	10	07/12/19 18:34	07/15/19 11:23	218-01-9	
Dibenz(a,h)anthracene	**0.67**	mg/kg	0.077	0.017	10	07/12/19 18:34	07/15/19 11:23	53-70-3	
Fluoranthene	**6.7**	mg/kg	0.077	0.0058	10	07/12/19 18:34	07/15/19 11:23	206-44-0	
Fluorene	**0.32**	mg/kg	0.077	0.0071	10	07/12/19 18:34	07/15/19 11:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**1.6**	mg/kg	0.077	0.015	10	07/12/19 18:34	07/15/19 11:23	193-39-5	
Naphthalene	**0.55**	mg/kg	0.077	0.015	10	07/12/19 18:34	07/15/19 11:23	91-20-3	
Phenanthrene	**3.4**	mg/kg	0.077	0.0068	10	07/12/19 18:34	07/15/19 11:23	85-01-8	
Pyrene	**5.9**	mg/kg	0.077	0.0086	10	07/12/19 18:34	07/15/19 11:23	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	79	%.	43-97		10	07/12/19 18:34	07/15/19 11:23	321-60-8	
Terphenyl-d14 (S)	81	%.	56-106		10	07/12/19 18:34	07/15/19 11:23	1718-51-0	
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.01; Final pH: 5.22								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	07/16/19 10:55	07/16/19 22:21	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	07/16/19 10:55	07/16/19 22:21	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	07/16/19 10:55	07/16/19 22:21	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	07/16/19 10:55	07/16/19 22:21	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	07/16/19 10:55	07/16/19 22:21	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	07/16/19 10:55	07/16/19 22:21	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	07/16/19 10:55	07/16/19 22:21		
Nitrobenzene	ND	ug/L	100	42.6	1	07/16/19 10:55	07/16/19 22:21	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	07/16/19 10:55	07/16/19 22:21	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	07/16/19 10:55	07/16/19 22:21	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	07/16/19 10:55	07/16/19 22:21	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	07/16/19 10:55	07/16/19 22:21	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	80	%.	61-105		1	07/16/19 10:55	07/16/19 22:21	4165-60-0	
2-Fluorobiphenyl (S)	72	%.	56-90		1	07/16/19 10:55	07/16/19 22:21	321-60-8	
Terphenyl-d14 (S)	52	%.	32-90		1	07/16/19 10:55	07/16/19 22:21	1718-51-0	
Phenol-d6 (S)	82	%.	64-101		1	07/16/19 10:55	07/16/19 22:21	13127-88-3	
2-Fluorophenol (S)	80	%.	61-116		1	07/16/19 10:55	07/16/19 22:21	367-12-4	
2,4,6-Tribromophenol (S)	81	%.	55-108		1	07/16/19 10:55	07/16/19 22:21	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/14/19 09:02								
Benzene	ND	ug/L	50.0	8.7	10		07/15/19 21:43	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/15/19 21:43	78-93-3	

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC32 Lower-2 **Lab ID: 30313260002** Collected: 07/10/19 08:20 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/14/19 09:02								
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/15/19 21:43	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/15/19 21:43	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/15/19 21:43	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/15/19 21:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/15/19 21:43	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/15/19 21:43	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/15/19 21:43	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/15/19 21:43	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	90	%.	70-130		10		07/15/19 21:43	17060-07-0	
Toluene-d8 (S)	96	%.	70-130		10		07/15/19 21:43	2037-26-5	
4-Bromofluorobenzene (S)	102	%.	70-130		10		07/15/19 21:43	460-00-4	
Dibromofluoromethane (S)	106	%.	70-130		10		07/15/19 21:43	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.3**	%	0.10	0.10	1		07/17/19 15:00		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		07/17/19 13:17		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.0**	Std. Units	2.0	2.0	1		07/11/19 21:22		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.2	0.47	1	07/15/19 15:29	07/16/19 15:27		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	11.6	11.6	1	07/15/19 15:29	07/15/19 22:36		

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC27 **Lab ID: 30313260003** Collected: 07/10/19 11:00 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.017	0.011	1	07/11/19 21:12	07/17/19 19:31	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.017	0.015	1	07/11/19 21:12	07/17/19 19:31	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.017	0.016	1	07/11/19 21:12	07/17/19 19:31	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.017	0.013	1	07/11/19 21:12	07/17/19 19:31	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.017	0.010	1	07/11/19 21:12	07/17/19 19:31	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.060**	mg/kg	0.017	0.0093	1	07/11/19 21:12	07/17/19 19:31	11097-69-1	C2
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.017	0.0099	1	07/11/19 21:12	07/17/19 19:31	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	56	%.	34-114		1	07/11/19 21:12	07/17/19 19:31	877-09-8	
Decachlorobiphenyl (S)	70	%.	38-139		1	07/11/19 21:12	07/17/19 19:31	2051-24-3	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.12; Final pH: 6.59								
Arsenic	ND	mg/L	0.025	0.010	1	07/15/19 14:44	07/16/19 17:23	7440-38-2	
Barium	**1820**	mg/L	5.0	0.34	100	07/15/19 14:44	07/16/19 17:52	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	07/15/19 14:44	07/16/19 17:23	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	07/15/19 14:44	07/16/19 17:23	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	07/15/19 14:44	07/16/19 17:47	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	07/15/19 14:44	07/16/19 17:23	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	07/15/19 14:44	07/16/19 17:23	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.12; Final pH: 6.59								
Mercury	ND	ug/L	1.0	0.030	1	07/15/19 17:05	07/15/19 21:40	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.11**	mg/kg	0.070	0.0063	10	07/12/19 18:34	07/15/19 11:40	83-32-9	
Acenaphthylene	ND	mg/kg	0.070	0.0050	10	07/12/19 18:34	07/15/19 11:40	208-96-8	
Anthracene	**0.28**	mg/kg	0.070	0.0063	10	07/12/19 18:34	07/15/19 11:40	120-12-7	
Benzo(a)anthracene	**0.90**	mg/kg	0.070	0.0082	10	07/12/19 18:34	07/15/19 11:40	56-55-3	
Benzo(a)pyrene	**0.70**	mg/kg	0.070	0.0043	10	07/12/19 18:34	07/15/19 11:40	50-32-8	
Benzo(b)fluoranthene	**1.1**	mg/kg	0.070	0.0083	10	07/12/19 18:34	07/15/19 11:40	205-99-2	
Benzo(g,h,i)perylene	**0.38**	mg/kg	0.070	0.010	10	07/12/19 18:34	07/15/19 11:40	191-24-2	
Benzo(k)fluoranthene	**0.44**	mg/kg	0.070	0.012	10	07/12/19 18:34	07/15/19 11:40	207-08-9	
Chrysene	**0.84**	mg/kg	0.070	0.0036	10	07/12/19 18:34	07/15/19 11:40	218-01-9	
Dibenz(a,h)anthracene	**0.13**	mg/kg	0.070	0.015	10	07/12/19 18:34	07/15/19 11:40	53-70-3	
Fluoranthene	**1.8**	mg/kg	0.070	0.0053	10	07/12/19 18:34	07/15/19 11:40	206-44-0	
Fluorene	**0.095**	mg/kg	0.070	0.0064	10	07/12/19 18:34	07/15/19 11:40	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.34**	mg/kg	0.070	0.013	10	07/12/19 18:34	07/15/19 11:40	193-39-5	
Naphthalene	ND	mg/kg	0.070	0.013	10	07/12/19 18:34	07/15/19 11:40	91-20-3	
Phenanthrene	**1.2**	mg/kg	0.070	0.0061	10	07/12/19 18:34	07/15/19 11:40	85-01-8	
Pyrene	**1.4**	mg/kg	0.070	0.0078	10	07/12/19 18:34	07/15/19 11:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	70	%.	43-97		10	07/12/19 18:34	07/15/19 11:40	321-60-8	
Terphenyl-d14 (S)	79	%.	56-106		10	07/12/19 18:34	07/15/19 11:40	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC27 **Lab ID: 30313260003** Collected: 07/10/19 11:00 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A								
	Leachate Method/Date: EPA 1311; 07/14/19 08:59 Initial pH: 8.12; Final pH: 6.59								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	07/16/19 10:55	07/16/19 22:44	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	07/16/19 10:55	07/16/19 22:44	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	07/16/19 10:55	07/16/19 22:44	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	07/16/19 10:55	07/16/19 22:44	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	07/16/19 10:55	07/16/19 22:44	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	07/16/19 10:55	07/16/19 22:44	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	07/16/19 10:55	07/16/19 22:44		
Nitrobenzene	ND	ug/L	100	42.6	1	07/16/19 10:55	07/16/19 22:44	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	07/16/19 10:55	07/16/19 22:44	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	07/16/19 10:55	07/16/19 22:44	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	07/16/19 10:55	07/16/19 22:44	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	07/16/19 10:55	07/16/19 22:44	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	82	%.	61-105		1	07/16/19 10:55	07/16/19 22:44	4165-60-0	
2-Fluorobiphenyl (S)	72	%.	56-90		1	07/16/19 10:55	07/16/19 22:44	321-60-8	
Terphenyl-d14 (S)	12	%.	32-90		1	07/16/19 10:55	07/16/19 22:44	1718-51-0	S6, SR
Phenol-d6 (S)	83	%.	64-101		1	07/16/19 10:55	07/16/19 22:44	13127-88-3	
2-Fluorophenol (S)	80	%.	61-116		1	07/16/19 10:55	07/16/19 22:44	367-12-4	
2,4,6-Tribromophenol (S)	81	%.	55-108		1	07/16/19 10:55	07/16/19 22:44	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/14/19 09:02								
Benzene	ND	ug/L	50.0	8.7	10		07/15/19 22:05	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/15/19 22:05	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/15/19 22:05	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/15/19 22:05	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/15/19 22:05	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/15/19 22:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/15/19 22:05	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/15/19 22:05	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/15/19 22:05	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/15/19 22:05	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	85	%.	70-130		10		07/15/19 22:05	17060-07-0	
Toluene-d8 (S)	94	%.	70-130		10		07/15/19 22:05	2037-26-5	
4-Bromofluorobenzene (S)	106	%.	70-130		10		07/15/19 22:05	460-00-4	
Dibromofluoromethane (S)	110	%.	70-130		10		07/15/19 22:05	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.3**	%	0.10	0.10	1		07/17/19 15:00		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		07/17/19 13:15		

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Sample: AOC27 **Lab ID: 30313260003** Collected: 07/10/19 11:00 Received: 07/11/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**7.7**	Std. Units	2.0	2.0	1		07/11/19 21:22		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.0	0.42	1	07/15/19 15:29	07/16/19 15:28		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.4	10.4	1	07/15/19 15:29	07/15/19 22:36		

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351834 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1709615 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	07/15/19 21:29	

METHOD BLANK: 1708468 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	07/15/19 21:32	

LABORATORY CONTROL SAMPLE: 1709616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	.89J	89	80-120	

MATRIX SPIKE SAMPLE: 1709618

Parameter	Units	30313260002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.3	93	75-125	

MATRIX SPIKE SAMPLE: 1709620

Parameter	Units	30313438003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	97	75-125	

SAMPLE DUPLICATE: 1709617

Parameter	Units	30313260002 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 1709619

Parameter	Units	30313438003 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351804 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1709512 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	07/16/19 17:06	
Barium	mg/L	ND	0.050	0.0034	07/16/19 17:06	
Cadmium	mg/L	ND	0.015	0.0017	07/16/19 17:06	
Chromium	mg/L	ND	0.025	0.0017	07/16/19 17:06	
Lead	mg/L	ND	0.025	0.025	07/16/19 17:06	
Selenium	mg/L	ND	0.040	0.027	07/16/19 17:06	
Silver	mg/L	ND	0.030	0.0072	07/16/19 17:06	

METHOD BLANK: 1708468 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	07/16/19 17:10	
Barium	mg/L	ND	0.050	0.0034	07/16/19 17:10	
Cadmium	mg/L	ND	0.015	0.0017	07/16/19 17:10	
Chromium	mg/L	ND	0.025	0.0017	07/16/19 17:10	
Lead	mg/L	ND	0.025	0.025	07/16/19 17:10	
Selenium	mg/L	ND	0.040	0.027	07/16/19 17:10	
Silver	mg/L	ND	0.030	0.0072	07/16/19 17:10	

LABORATORY CONTROL SAMPLE: 1709513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.44	87	80-120	
Barium	mg/L	0.5	0.49	98	80-120	
Cadmium	mg/L	0.5	0.47	94	80-120	
Chromium	mg/L	0.5	0.48	95	80-120	
Lead	mg/L	0.5	0.47	94	80-120	
Selenium	mg/L	0.5	0.46	92	80-120	
Silver	mg/L	0.25	0.25	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709515 1709516

Parameter	Units	30313260002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.51	0.52	102	103	75-125	2	20	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709515 1709516

Parameter	Units	30313260002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.72	0.5	0.5	1.2	1.2	103	99	75-125	1	20	
Cadmium	mg/L	ND	0.5	0.5	0.52	0.53	104	105	75-125	1	20	
Chromium	mg/L	ND	0.5	0.5	0.47	0.47	94	95	75-125	0	20	
Lead	mg/L	ND	0.5	0.5	0.52	0.52	103	103	75-125	1	20	
Selenium	mg/L	ND	0.5	0.5	0.54	0.55	107	108	75-125	1	20	
Silver	mg/L	ND	0.25	0.25	0.28	0.27	111	108	75-125	3	20	

SAMPLE DUPLICATE: 1709514

Parameter	Units	30313260002 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	0.72	0.70	3	20	
Cadmium	mg/L	ND	.0032J		20	
Chromium	mg/L	ND	.0095J		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351744 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1708492 Matrix: Solid
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	07/15/19 18:27	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	07/15/19 18:27	
2-Butanone (MEK)	ug/L	ND	100	9.1	07/15/19 18:27	
Benzene	ug/L	ND	50.0	8.7	07/15/19 18:27	
Carbon tetrachloride	ug/L	ND	50.0	17.2	07/15/19 18:27	
Chlorobenzene	ug/L	ND	50.0	7.8	07/15/19 18:27	
Chloroform	ug/L	ND	50.0	15.0	07/15/19 18:27	
Tetrachloroethene	ug/L	ND	50.0	17.3	07/15/19 18:27	
Trichloroethene	ug/L	ND	50.0	14.7	07/15/19 18:27	
Vinyl chloride	ug/L	ND	50.0	21.5	07/15/19 18:27	
1,2-Dichloroethane-d4 (S)	%.	93	70-130		07/15/19 18:27	
4-Bromofluorobenzene (S)	%.	99	70-130		07/15/19 18:27	
Dibromofluoromethane (S)	%.	104	70-130		07/15/19 18:27	
Toluene-d8 (S)	%.	93	70-130		07/15/19 18:27	

LABORATORY CONTROL SAMPLE: 1709347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	17.3	87	45-124	
1,2-Dichloroethane	ug/L	20	16.6	83	57-110	
2-Butanone (MEK)	ug/L	20	13.8	69	46-117	
Benzene	ug/L	20	18.4	92	63-110	
Carbon tetrachloride	ug/L	20	17.3	87	59-114	
Chlorobenzene	ug/L	20	17.9	89	70-130	
Chloroform	ug/L	20	18.5	93	65-108	
Tetrachloroethene	ug/L	20	19.7	98	64-114	
Trichloroethene	ug/L	20	17.2	86	61-112	
Vinyl chloride	ug/L	20	16.2	81	54-142	
1,2-Dichloroethane-d4 (S)	%.			93	70-130	
4-Bromofluorobenzene (S)	%.			102	70-130	
Dibromofluoromethane (S)	%.			104	70-130	
Toluene-d8 (S)	%.			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709345 1709346

Parameter	Units	30313243001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	152	165	76	83	10-133	8	30	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709345 1709346

Parameter	Units	30313243001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	147	153	74	76	24-111	4	30	
2-Butanone (MEK)	ug/L	ND	200	200	121	149	61	74	10-175	21	30	
Benzene	ug/L	ND	200	200	165	176	82	88	15-121	7	30	
Carbon tetrachloride	ug/L	ND	200	200	159	177	80	89	20-125	11	30	
Chlorobenzene	ug/L	ND	200	200	180	190	83	88	10-122	5	30	
Chloroform	ug/L	ND	200	200	167	187	83	94	27-117	12	30	
Tetrachloroethene	ug/L	ND	200	200	177	197	89	98	13-125	10	30	
Trichloroethene	ug/L	ND	200	200	160	174	80	87	10-133	9	30	
Vinyl chloride	ug/L	ND	200	200	131	135	65	67	10-133	3	30	
1,2-Dichloroethane-d4 (S)	%.						92	92	70-130			
4-Bromofluorobenzene (S)	%.						96	95	70-130			
Dibromofluoromethane (S)	%.						105	107	70-130			
Toluene-d8 (S)	%.						95	95	70-130			

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351917 Analysis Method: EPA 8081B
QC Batch Method: EPA 3510C Analysis Description: 8081 GCS TCLP Pesticides
Associated Lab Samples: 30313260001, 30313260002

METHOD BLANK: 1708463 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlordane (Technical)	ug/L	ND	1.0	0.040	07/17/19 15:23	
Endrin	ug/L	ND	0.20	0.0049	07/17/19 15:23	
gamma-BHC (Lindane)	ug/L	ND	0.10	0.0024	07/17/19 15:23	
Heptachlor	ug/L	ND	0.10	0.0021	07/17/19 15:23	
Heptachlor epoxide	ug/L	ND	0.10	0.0015	07/17/19 15:23	
Methoxychlor	ug/L	ND	1.0	0.014	07/17/19 15:23	
Toxaphene	ug/L	ND	2.0	0.17	07/17/19 15:23	
Decachlorobiphenyl (S)	%.	86	24-108		07/17/19 15:23	
Tetrachloro-m-xylene (S)	%.	67	44-93		07/17/19 15:23	

METHOD BLANK: 1709291 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlordane (Technical)	ug/L	ND	1.0	0.040	07/17/19 17:30	
Endrin	ug/L	ND	0.20	0.0049	07/17/19 17:30	
gamma-BHC (Lindane)	ug/L	ND	0.10	0.0024	07/17/19 17:30	
Heptachlor	ug/L	ND	0.10	0.0021	07/17/19 17:30	
Heptachlor epoxide	ug/L	ND	0.10	0.0015	07/17/19 17:30	
Methoxychlor	ug/L	ND	1.0	0.014	07/17/19 17:30	
Toxaphene	ug/L	ND	2.0	0.17	07/17/19 17:30	
Decachlorobiphenyl (S)	%.	100	24-108		07/17/19 17:30	CH
Tetrachloro-m-xylene (S)	%.	82	44-93		07/17/19 17:30	

LABORATORY CONTROL SAMPLE: 1709956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin	ug/L	1.6	1.2	77	60-103	
gamma-BHC (Lindane)	ug/L	0.8	0.58	72	58-99	
Heptachlor	ug/L	0.8	0.51	64	51-104	
Heptachlor epoxide	ug/L	0.8	0.57	72	59-98	
Methoxychlor	ug/L	8	5.8	72	58-108	
Decachlorobiphenyl (S)	%.			87	24-108	
Tetrachloro-m-xylene (S)	%.			65	44-93	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1710053 1710054

Parameter	Units	30313438001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Endrin	ug/L	ND	2	2	1.7	1.7	83	84	33-142	1	25	
gamma-BHC (Lindane)	ug/L	ND	1	1	0.81	0.81	81	81	10-146	0	25	
Heptachlor	ug/L	ND	1	1	0.77	0.78	77	78	10-138	1	25	
Heptachlor epoxide	ug/L	ND	1	1	0.82	0.82	82	82	39-115	0	25	
Methoxychlor	ug/L	ND	10	10	8.4	8.2	84	82	10-158	2	25	
Decachlorobiphenyl (S)	%.						90	89	24-108			CH
Tetrachloro-m-xylene (S)	%.						72	71	44-93			

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351379 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1707389 Matrix: Solid
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.017	0.010	07/17/19 18:31	
PCB-1221 (Aroclor 1221)	mg/kg	ND	0.017	0.015	07/17/19 18:31	
PCB-1232 (Aroclor 1232)	mg/kg	ND	0.017	0.015	07/17/19 18:31	
PCB-1242 (Aroclor 1242)	mg/kg	ND	0.017	0.012	07/17/19 18:31	
PCB-1248 (Aroclor 1248)	mg/kg	ND	0.017	0.0096	07/17/19 18:31	
PCB-1254 (Aroclor 1254)	mg/kg	ND	0.017	0.0089	07/17/19 18:31	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.017	0.0095	07/17/19 18:31	
Decachlorobiphenyl (S)	%.	90	38-139		07/17/19 18:31	
Tetrachloro-m-xylene (S)	%.	80	34-114		07/17/19 18:31	

LABORATORY CONTROL SAMPLE: 1707390

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	0.17	0.13	77	61-105	
PCB-1260 (Aroclor 1260)	mg/kg	0.17	0.13	80	70-100	
Decachlorobiphenyl (S)	%.			84	38-139	
Tetrachloro-m-xylene (S)	%.			76	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1707391 1707392

Parameter	Units	30313260001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.19	0.19	0.20	0.24	107	126	24-137	16	25	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.19	0.19	0.68	0.85	359	447	19-156	22	25	M6
Decachlorobiphenyl (S)	%.						111	144	38-139			S4
Tetrachloro-m-xylene (S)	%.						84	99	34-114			

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 122170 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151 GCS Herbicides TCLP
Associated Lab Samples: 30313260001, 30313260002

METHOD BLANK: 581721 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.0025	0.0000030	07/18/19 20:34	
2,4-D	mg/L	ND	0.0050	0.0000050	07/18/19 20:34	
2,4-DCAA (S)	%	64	36-121		07/18/19 20:34	

LABORATORY CONTROL SAMPLE: 581836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	0.01	0.0053	53	44-157	
2,4-D	mg/L	0.03	0.017	58	47-152	
2,4-DCAA (S)	%			55	36-121	

MATRIX SPIKE SAMPLE: 581837

Parameter	Units	30313260001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.01	0.0065	65	48-113	
2,4-D	mg/L	ND	0.03	0.021	68	39-111	
2,4-DCAA (S)	%				71	36-121	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351578 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1708423 Matrix: Solid
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthene	mg/kg	ND	0.0067	0.00060	07/15/19 09:19	
Acenaphthylene	mg/kg	ND	0.0067	0.00048	07/15/19 09:19	
Anthracene	mg/kg	ND	0.0067	0.00061	07/15/19 09:19	
Benzo(a)anthracene	mg/kg	ND	0.0067	0.00078	07/15/19 09:19	
Benzo(a)pyrene	mg/kg	ND	0.0067	0.00042	07/15/19 09:19	
Benzo(b)fluoranthene	mg/kg	ND	0.0067	0.00080	07/15/19 09:19	
Benzo(g,h,i)perylene	mg/kg	ND	0.0067	0.0010	07/15/19 09:19	
Benzo(k)fluoranthene	mg/kg	ND	0.0067	0.0011	07/15/19 09:19	
Chrysene	mg/kg	ND	0.0067	0.00035	07/15/19 09:19	
Dibenz(a,h)anthracene	mg/kg	ND	0.0067	0.0015	07/15/19 09:19	
Fluoranthene	mg/kg	ND	0.0067	0.00051	07/15/19 09:19	
Fluorene	mg/kg	ND	0.0067	0.00062	07/15/19 09:19	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0067	0.0013	07/15/19 09:19	
Naphthalene	mg/kg	ND	0.0067	0.0013	07/15/19 09:19	
Phenanthrene	mg/kg	ND	0.0067	0.00059	07/15/19 09:19	
Pyrene	mg/kg	ND	0.0067	0.00075	07/15/19 09:19	
2-Fluorobiphenyl (S)	%.	74	43-97		07/15/19 09:19	
Terphenyl-d14 (S)	%.	87	56-106		07/15/19 09:19	

LABORATORY CONTROL SAMPLE: 1708424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	mg/kg	0.13	0.099	75	48-101	
Acenaphthylene	mg/kg	0.13	0.097	73	42-109	
Anthracene	mg/kg	0.13	0.11	84	54-110	
Benzo(a)anthracene	mg/kg	0.13	0.12	92	59-119	
Benzo(a)pyrene	mg/kg	0.13	0.12	89	55-125	
Benzo(b)fluoranthene	mg/kg	0.13	0.13	95	54-131	
Benzo(g,h,i)perylene	mg/kg	0.13	0.097	73	54-122	
Benzo(k)fluoranthene	mg/kg	0.13	0.12	91	57-123	
Chrysene	mg/kg	0.13	0.12	88	62-111	
Dibenz(a,h)anthracene	mg/kg	0.13	0.098	74	60-124	
Fluoranthene	mg/kg	0.13	0.12	90	60-116	
Fluorene	mg/kg	0.13	0.10	78	49-110	
Indeno(1,2,3-cd)pyrene	mg/kg	0.13	0.098	74	59-122	
Naphthalene	mg/kg	0.13	0.10	76	42-97	
Phenanthrene	mg/kg	0.13	0.11	81	52-107	
Pyrene	mg/kg	0.13	0.12	89	60-117	
2-Fluorobiphenyl (S)	%.			74	43-97	
Terphenyl-d14 (S)	%.			82	56-106	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1708425 1708426

Parameter	Units	30313516001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	mg/kg	0.17	0.15	0.15	0.22	0.28	38	72	23-129	21	20	R1
Acenaphthylene	mg/kg	0.42	0.15	0.15	0.47	0.37	28	-32	26-144	22	20	M6,R1
Anthracene	mg/kg	0.63	0.15	0.15	0.79	0.84	104	138	10-166	6	20	
Benzo(a)anthracene	mg/kg	2.2	0.15	0.15	2.7	2.7	362	346	10-175	1	20	M6
Benzo(a)pyrene	mg/kg	1.9	0.15	0.15	2.3	2.4	286	308	10-175	1	20	M6
Benzo(b)fluoranthene	mg/kg	2.9	0.15	0.15	3.5	3.5	360	390	10-175	1	20	M6
Benzo(g,h,i)perylene	mg/kg	0.85	0.15	0.15	1.0	1.0	122	126	10-171	1	20	
Benzo(k)fluoranthene	mg/kg	1.1	0.15	0.15	1.4	1.4	238	224	10-160	1	20	M6
Chrysene	mg/kg	2.1	0.15	0.15	2.5	2.6	224	315	10-175	5	20	M6
Dibenz(a,h)anthracene	mg/kg	0.34	0.15	0.15	0.48	0.50	94	106	10-149	4	20	
Fluoranthene	mg/kg	4.1	0.15	0.15	4.7	4.8	407	500	10-175	3	20	M6
Fluorene	mg/kg	0.17	0.15	0.15	0.24	0.28	47	76	31-136	17	20	
Indeno(1,2,3-cd)pyrene	mg/kg	0.85	0.15	0.15	0.97	1.1	77	161	10-151	12	20	M6
Naphthalene	mg/kg	0.59	0.15	0.15	0.41	0.33	-122	-173	10-149	21	20	M6,R1
Phenanthrene	mg/kg	1.8	0.15	0.15	2.0	2.2	120	260	10-175	10	20	M6
Pyrene	mg/kg	3.6	0.15	0.15	4.2	4.2	403	422	10-175	1	20	M6
2-Fluorobiphenyl (S)	%.						49	63	43-97			
Terphenyl-d14 (S)	%.						73	84	56-106			

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351816 Analysis Method: EPA 8270D
QC Batch Method: EPA 3535A Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1707039 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	07/16/19 17:27	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	07/16/19 17:27	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	07/16/19 17:27	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	07/16/19 17:27	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	07/16/19 17:27	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	07/16/19 17:27	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	07/16/19 17:27	
Hexachlorobenzene	ug/L	ND	100	22.8	07/16/19 17:27	
Hexachloroethane	ug/L	ND	200	55.5	07/16/19 17:27	
Nitrobenzene	ug/L	ND	100	42.6	07/16/19 17:27	
Pentachlorophenol	ug/L	ND	5000	25.6	07/16/19 17:27	
Pyridine	ug/L	ND	250	19.3	07/16/19 17:27	
2,4,6-Tribromophenol (S)	%.	86	55-108		07/16/19 17:27	
2-Fluorobiphenyl (S)	%.	76	56-90		07/16/19 17:27	
2-Fluorophenol (S)	%.	81	61-116		07/16/19 17:27	
Nitrobenzene-d5 (S)	%.	86	61-105		07/16/19 17:27	
Phenol-d6 (S)	%.	84	64-101		07/16/19 17:27	
Terphenyl-d14 (S)	%.	70	32-90		07/16/19 17:27	

METHOD BLANK: 1708463 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	07/16/19 17:50	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	07/16/19 17:50	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	07/16/19 17:50	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	07/16/19 17:50	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	07/16/19 17:50	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	07/16/19 17:50	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	07/16/19 17:50	
Hexachlorobenzene	ug/L	ND	100	22.8	07/16/19 17:50	
Hexachloroethane	ug/L	ND	200	55.5	07/16/19 17:50	
Nitrobenzene	ug/L	ND	100	42.6	07/16/19 17:50	
Pentachlorophenol	ug/L	ND	5000	25.6	07/16/19 17:50	
Pyridine	ug/L	ND	250	19.3	07/16/19 17:50	
2,4,6-Tribromophenol (S)	%.	94	55-108		07/16/19 17:50	
2-Fluorobiphenyl (S)	%.	74	56-90		07/16/19 17:50	
2-Fluorophenol (S)	%.	84	61-116		07/16/19 17:50	
Nitrobenzene-d5 (S)	%.	83	61-105		07/16/19 17:50	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

METHOD BLANK: 1708463 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phenol-d6 (S)	%.	83	64-101		07/16/19 17:50	
Terphenyl-d14 (S)	%.	73	32-90		07/16/19 17:50	

METHOD BLANK: 1709291 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	07/16/19 18:13	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	07/16/19 18:13	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	07/16/19 18:13	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	07/16/19 18:13	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	07/16/19 18:13	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	07/16/19 18:13	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	07/16/19 18:13	
Hexachlorobenzene	ug/L	ND	100	22.8	07/16/19 18:13	
Hexachloroethane	ug/L	ND	200	55.5	07/16/19 18:13	
Nitrobenzene	ug/L	ND	100	42.6	07/16/19 18:13	
Pentachlorophenol	ug/L	ND	5000	25.6	07/16/19 18:13	
Pyridine	ug/L	ND	250	19.3	07/16/19 18:13	
2,4,6-Tribromophenol (S)	%.	82	55-108		07/16/19 18:13	
2-Fluorobiphenyl (S)	%.	71	56-90		07/16/19 18:13	
2-Fluorophenol (S)	%.	82	61-116		07/16/19 18:13	
Nitrobenzene-d5 (S)	%.	81	61-105		07/16/19 18:13	
Phenol-d6 (S)	%.	83	64-101		07/16/19 18:13	
Terphenyl-d14 (S)	%.	72	32-90		07/16/19 18:13	

LABORATORY CONTROL SAMPLE: 1709532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	299J	60	38-85	
2,4,5-Trichlorophenol	ug/L	500	429J	86	60-110	
2,4,6-Trichlorophenol	ug/L	500	407	81	62-110	
2,4-Dinitrotoluene	ug/L	500	338	68	51-102	
2-Methylphenol(o-Cresol)	ug/L	500	472J	94	60-106	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	956J	96	64-106	
Hexachloro-1,3-butadiene	ug/L	500	304	61	27-97	
Hexachlorobenzene	ug/L	500	317	63	36-66	
Hexachloroethane	ug/L	500	337	67	37-89	
Nitrobenzene	ug/L	500	423	85	64-108	
Pentachlorophenol	ug/L	500	359J	72	47-107	
Pyridine	ug/L	500	146J	29	20-54	
2,4,6-Tribromophenol (S)	%.			86	55-108	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

LABORATORY CONTROL SAMPLE: 1709532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%.			76	56-90	
2-Fluorophenol (S)	%.			81	61-116	
Nitrobenzene-d5 (S)	%.			82	61-105	
Phenol-d6 (S)	%.			83	64-101	
Terphenyl-d14 (S)	%.			76	32-90	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1709533 1709534

Parameter	Units	30312957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	ND	500	500	356J	345J	71	69	51-85		20	
2,4,5-Trichlorophenol	ug/L	ND	500	500	454J	440J	91	88	65-108		20	
2,4,6-Trichlorophenol	ug/L	ND	500	500	424	427	85	85	61-110	1	20	
2,4-Dinitrotoluene	ug/L	ND	500	500	441	381	88	76	52-106	15	20	
2-Methylphenol(o-Cresol)	ug/L	ND	500	500	454J	499J	90	99	65-105		20	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	1000	1000	941J	1010J	94	101	69-106		20	
Hexachloro-1,3-butadiene	ug/L	ND	500	500	356	364	71	73	44-90	2	20	
Hexachlorobenzene	ug/L	ND	500	500	302	364	60	73	36-68	19	20	MH
Hexachloroethane	ug/L	ND	500	500	380	429	76	86	48-94	12	20	
Nitrobenzene	ug/L	ND	500	500	446	429	89	86	66-106	4	20	
Pentachlorophenol	ug/L	ND	500	500	522J	556J	104	111	49-120		20	
Pyridine	ug/L	ND	500	500	141J	129J	28	26	10-72		20	
2,4,6-Tribromophenol (S)	%.						94	101	55-108			
2-Fluorobiphenyl (S)	%.						76	78	56-90			
2-Fluorophenol (S)	%.						83	85	61-116			
Nitrobenzene-d5 (S)	%.						87	85	61-105			
Phenol-d6 (S)	%.						88	85	64-101			
Terphenyl-d14 (S)	%.						72	78	32-90			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 352261 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30313260001, 30313260002, 30313260003

SAMPLE DUPLICATE: 1711236

Parameter	Units	30311855001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.1	11.6	13	20	

SAMPLE DUPLICATE: 1711237

Parameter	Units	30311855002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.8	12.6	16	20	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 352186 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1711042 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		07/17/19 09:40	

SAMPLE DUPLICATE: 1711043

Parameter	Units	30312631001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351388 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30313260001, 30313260002, 30313260003

SAMPLE DUPLICATE: 1707441

Parameter	Units	30313199001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	12.2	12.2	0	10	H3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351382 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1707401 Matrix: Solid
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	1.0	0.40	07/16/19 15:21	

LABORATORY CONTROL SAMPLE: 1707402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.6	ND	0	0-8	

SAMPLE DUPLICATE: 1707403

Parameter	Units	30312987001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

QC Batch: 351376 Analysis Method: SM 4500S2F-2011
QC Batch Method: SW-846 7.3.4.2 Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30313260001, 30313260002, 30313260003

METHOD BLANK: 1707378 Matrix: Solid
Associated Lab Samples: 30313260001, 30313260002, 30313260003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	10.0	10.0	07/15/19 22:36	

LABORATORY CONTROL SAMPLE: 1707379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	199	43.7	22	0-52	

SAMPLE DUPLICATE: 1707380

Parameter	Units	30312987001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-MV	Pace Analytical Services - Long Island
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

C2	Relative percent difference between results from each column was greater than 40%. The lower of the two results was reported.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
S6	Surrogate recovery outside control limits. Data accepted based on valid recovery of applicable surrogates (no analytes associated with this surrogate)
SR	Surrogate recovery was below laboratory control limits. Results may be biased low.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT-Soil IRM
Pace Project No.: 30313260

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30313260001	**AOC32 Lower-1**	EPA 3510C	351917	EPA 8081B	352081
30313260002	**AOC32 Lower-2**	EPA 3510C	351917	EPA 8081B	352081
30313260001	**AOC32 Lower-1**	EPA 3546	351379	EPA 8082A	351415
30313260002	**AOC32 Lower-2**	EPA 3546	351379	EPA 8082A	351415
30313260003	**AOC27**	EPA 3546	351379	EPA 8082A	351415
30313260001	**AOC32 Lower-1**	EPA 8151A	122170	EPA 8151A	122517
30313260002	**AOC32 Lower-2**	EPA 8151A	122170	EPA 8151A	122517
30313260001	**AOC32 Lower-1**	EPA 3005A	351804	EPA 6010C	351868
30313260002	**AOC32 Lower-2**	EPA 3005A	351804	EPA 6010C	351868
30313260003	**AOC27**	EPA 3005A	351804	EPA 6010C	351868
30313260001	**AOC32 Lower-1**	EPA 7470A	351834	EPA 7470A	351870
30313260002	**AOC32 Lower-2**	EPA 7470A	351834	EPA 7470A	351870
30313260003	**AOC27**	EPA 7470A	351834	EPA 7470A	351870
30313260001	**AOC32 Lower-1**	EPA 3546	351578	EPA 8270D by SIM	351625
30313260002	**AOC32 Lower-2**	EPA 3546	351578	EPA 8270D by SIM	351625
30313260003	**AOC27**	EPA 3546	351578	EPA 8270D by SIM	351625
30313260001	**AOC32 Lower-1**	EPA 3535A	351816	EPA 8270D	352059
30313260002	**AOC32 Lower-2**	EPA 3535A	351816	EPA 8270D	352059
30313260003	**AOC27**	EPA 3535A	351816	EPA 8270D	352059
30313260001	**AOC32 Lower-1**	EPA 8260C	351744		
30313260002	**AOC32 Lower-2**	EPA 8260C	351744		
30313260003	**AOC27**	EPA 8260C	351744		
30313260001	**AOC32 Lower-1**	ASTM D2974-87	352261		
30313260002	**AOC32 Lower-2**	ASTM D2974-87	352261		
30313260003	**AOC27**	ASTM D2974-87	352261		
30313260001	**AOC32 Lower-1**	EPA 1010	352186		
30313260002	**AOC32 Lower-2**	EPA 1010	352186		
30313260003	**AOC27**	EPA 1010	352186		
30313260001	**AOC32 Lower-1**	EPA 9045D	351388		
30313260002	**AOC32 Lower-2**	EPA 9045D	351388		
30313260003	**AOC27**	EPA 9045D	351388		
30313260001	**AOC32 Lower-1**	SW-846 7.3.3.2	351382	EPA 9014	351878
30313260002	**AOC32 Lower-2**	SW-846 7.3.3.2	351382	EPA 9014	351878
30313260003	**AOC27**	SW-846 7.3.3.2	351382	EPA 9014	351878
30313260001	**AOC32 Lower-1**	SW-846 7.3.4.2	351376	SM 4500S2F-2011	351877
30313260002	**AOC32 Lower-2**	SW-846 7.3.4.2	351376	SM 4500S2F-2011	351877
30313260003	**AOC27**	SW-846 7.3.4.2	351376	SM 4500S2F-2011	351877

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Pace Analytical Services - 1638 Roseytown Rd, Suites 2,3,4, Greensburg, PA 15601

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 11 Stanwix Street, Suite 950, Pittsburgh, PA 15222

Project Name: Former EPT-Soil IRM

WSP USA Contact Name: Dave Rykaczewski

Project Location: Ithaca, NY

WSP USA Contact E-mail: Dave.Rykaczewski@wsp.com

Project Number & Task: 31401545.001

WSP USA Contact Phone: 412-375-0282

Sampler(s) Name(s): Dan Cummings

Sampler(s) Signature(s):

No. 008851

Laboratory Name & Location: Pace Analytical - Greensburg, PA

Laboratory Project Manager: Rachel Christner

Requested Turn-Around-Time: ~~Standard~~ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 ~~WD~~ Day

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs, TCLP SVOCs	TCLP Herbicides, TCLP Pesticides	Reactive Sulfide	Reactive Cyanide	Total PCBs	Total PAHs	% Solids (Moisture Content)	Ignitability/Flashpoint	Sample Comments
ACC32 Lower-1	S			7/10/19	0805	5	X	X	X	X	X	X	X	X	X	001
ACC32 Lower-2	S				0820	5	X	X	X	X	X	X	X	X	X	002
Bldg 15A Sewer/TP5	S					5	X	X		X	X	X	X	X	X	Discarded
ACC27	S			↓	1100	5	X	X		X	X	X	X	X	X	003

WO#: 30313260

30313260

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	7/10/19	1645	FedEx	7/10/19	1645		
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
				7-11-19	0930		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP

Project # 30313260

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label MJS
LIMS Login MJS

Tracking #: 773842110555

Custody Seal on Cooler/Box Present: ☑ yes ☐ no MJS7-1179 Seals intact: ☑ yes ☐ no

Thermometer Used 9 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.4 °C Correction Factor: 0.1 °C Final Temp: 5.5 °C

Temp should be above freezing to 6°C

pH paper Lot# N/A

Date and Initials of person examining contents: MJS 7-1179

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓	✓		4. MJS7-1179
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix: SL				
Samples Arrived within Hold Time:		✓		6. Encore kits received out of hold
Short Hold Time Analysis (<72hr remaining):	✓			7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed: MJS Date/time of preservation:
				Lot # of added preservative:
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:			✓	18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Chain of Custody

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: ☒ Yes ☐ No

Pace Analytical®
www.pacelabs.com

Workorder: 30313260 **Workorder Name:** Former EPT-Soil IRM
Owner Received Date: 7/11/2019 **Results Requested By:** 7/18/2019

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040

WO#:7097609
7097609

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	8151 TCLP Herbicides	LAB USE ONLY
1	AOC32 Lower-1	PS	7/10/2019 08:05	30313260001	Solid	1	X	
2	AOC32 Lower-2	PS	7/10/2019 08:20	30313260002	Solid	1	X	
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	7/12/19 [illegible]	[illegible] PACE	
2				
3				

Comments: Sample is TCLP extract

Cooler Temperature on Receipt 3.1 °C | **Custody Seal** Y or (N) | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Pace Analytical Services - 1638 Roseytown Rd, Suites 2,3,4, Greensburg, PA 15601

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 11 Stanwix Street, Suite 950, Pittsburgh, PA 15222

Project Name: Former EPT - Soil IRM

Project Location: Ithaca, NY

Project Number & Task: 31401545.001

Sampler(s) Name(s): Dan Cummings

Sampler(s) Signature(s): [signature]

WSP USA Contact Name: Dave Rykaczewski

WSP USA Contact E-mail: Dave.Rykaczewski@wsp.com

WSP USA Contact Phone: 412-375-0282

No. 008851

Laboratory Name & Location: Pace Analytical - Greensburg, PA

Laboratory Project Manager: Rachel Christner

Requested Turn-Around-Time: ~~Standard~~ pace ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 ~~WD~~ Day

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs, TCLP SVOCs	TCLP Herbicides, TCLP Pesticides	Reactive Sulfide	Reactive Cyanide	Total PCBs	Total PAHs	% Solids (Moisture Content)	Ignitability/Flashpoint		Sample Comments
ACC32 Lower-1	S			7/10/19	0805	5	X	X	X	X	X	X	X	X	X		001
ACC32 Lower-2	S				0820	5	X	X	X	X	X	X	X	X	X		002
Bldg 15A Sewer/TPs	S					5	X	X		X	X	X	X	X	X		Discarded
ACC27	S			↓	1100	5	X	X		X	X	X	X	X	X		003

WO#:7097609
PM: NML Due Date: 07/18/19
CLIENT: PACE-PA

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	7/10/19	1645	FedEx	7/10/19	1645		
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			[signature]	7-11-19	0920		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Face Analytical

Client Name: WSP

Project # 303132660

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label MJS
LIMS Login MJS

Tracking #: 773842110555

Custody Seal on Cooler/Box Present: ☑ yes ☒ no MJS 7-1179 Seals intact: ☑ yes ☐ no

Thermometer Used 9 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.4 °C Correction Factor: +0.1 °C Final Temp: 5.5 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# N/A — Date and Initials of person examining contents: MJS 7-1179
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓	✓		4. MJS 7-1179
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:		✓		6. Encore kits received out of hold
Short Hold Time Analysis (<72hr remaining):	✓			7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, (Non-aqueous matrix)			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed MJS — Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:			✓	18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: — Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-9 5April2019)

Sample Condition Upon Receipt

Pace Analytical

WO#: 7097609
PM: NML Due Date: 07/18/19
CLIENT: PACE-PA

Client Name: PACE-PA Projec

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 4942 9663 0664

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☑ Ziploc ☐ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.9 Cooler Temperature Corrected (°C): 3.1

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: DL 7/16/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☑N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐Yes	☐No	☑N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

AOC32 Lower-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	07/16/2019 17:21
7440-39-3	Barium	0.78		mg/L	1	07/16/2019 17:21
7440-43-9	Cadmium	ND	U	mg/L	1	07/16/2019 17:21
7440-47-3	Chromium	ND	U	mg/L	1	07/16/2019 17:21
7439-92-1	Lead	ND	U	mg/L	2	07/16/2019 17:45
7782-49-2	Selenium	ND	U	mg/L	1	07/16/2019 17:21
7440-22-4	Silver	ND	U	mg/L	1	07/16/2019 17:21

SAMPLE NO.

AOC32 Lower-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	07/16/2019 17:12
7440-39-3	Barium	0.72		mg/L	1	07/16/2019 17:12
7440-43-9	Cadmium	ND	U	mg/L	1	07/16/2019 17:12
7440-47-3	Chromium	ND	U	mg/L	1	07/16/2019 17:12
7439-92-1	Lead	ND	U	mg/L	2	07/16/2019 17:37
7782-49-2	Selenium	ND	U	mg/L	1	07/16/2019 17:12
7440-22-4	Silver	ND	U	mg/L	1	07/16/2019 17:12

SAMPLE NO.

AOC27

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	07/16/2019 17:23
7440-39-3	Barium	1820		mg/L	100	07/16/2019 17:52
7440-43-9	Cadmium	ND	U	mg/L	1	07/16/2019 17:23
7440-47-3	Chromium	ND	U	mg/L	1	07/16/2019 17:23
7439-92-1	Lead	ND	U	mg/L	5	07/16/2019 17:47
7782-49-2	Selenium	ND	U	mg/L	1	07/16/2019 17:23
7440-22-4	Silver	ND	U	mg/L	1	07/16/2019 17:23

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source: 92647

Continuing Calibration Verification Source: 92858

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	07/16/2019 14:30				07/16/2019 14:35			07/16/2019 15:06			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	2000	1940	96.8	90-110	1000	1000	100.5	1000	1030	103.2	90-110
Barium	2000	1990	99.4	90-110	1000	1020	102.0	1000	1040	104.5	90-110
Cadmium	2000	2000	100.0	90-110	1000	1010	101.3	1000	1050	104.6	90-110
Chromium	2000	1990	99.6	90-110	1000	1000	100.1	1000	1040	104.1	90-110
Lead	2000	2070	103.3	90-110	1000	997	99.7	1000	1020	102.5	90-110
Selenium	2000	2010	100.4	90-110	1000	1020	101.6	1000	1040	103.9	90-110
Silver	1000	1000	100.1	90-110	500	500	99.9	500	526	105.2	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 92858

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification									
	07/16/2019 16:53			07/16/2019 17:29			07/16/2019 17:55			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Arsenic	1000	963	96.3	1000	944	94.4	1000	963	96.3	90-110
Barium	1000	1000	100.0	1000	1020	102.2	1000	1040	104.0	90-110
Cadmium	1000	990	99.0	1000	967	96.7	1000	988	98.8	90-110
Chromium	1000	984	98.4	1000	964	96.4	1000	973	97.3	90-110
Lead	1000	987	98.7	1000	966	96.6	1000	985	98.5	90-110
Selenium	1000	983	98.3	1000	962	96.2	1000	984	98.4	90-110
Silver	500	495	99.0	500	483	96.6	500	493	98.5	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 92858

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification			
	07/16/2019 18:24			Control Limit
Analyte	True	Found	%R	
Arsenic	1000	954	95.4	90-110
Barium	1000	1030	102.6	90-110
Cadmium	1000	982	98.2	90-110
Chromium	1000	973	97.3	90-110
Lead	1000	982	98.2	90-110
Selenium	1000	974	97.4	90-110
Silver	500	491	98.1	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

CRDL Check Standard Source: 92277 Analysis Date/Time: 07/16/2019 14:42

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	5.8	115.7	70-130
Barium	10.0	10.5	105.1	70-130
Cadmium	3.0	3.0	100.9	70-130
Chromium	5.0	5.1	101.7	70-130
Lead	5.0	4.5	90.9	70-130
Selenium	8.0	8.7	108.3	70-130
Silver	6.0	6.2	102.6	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

CRDL Check Standard Source: 92277 Analysis Date/Time: 07/16/2019 17:02

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	6.0	119.9	70-130
Barium	10.0	10.4	104.4	70-130
Cadmium	3.0	3.1	103.9	70-130
Chromium	5.0	5.0	99.0	70-130
Lead	5.0	4.2	83.2	70-130
Selenium	8.0	9.7	121.7	70-130
Silver	6.0	6.2	102.8	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

CRDL Check Standard Source: 92277 Analysis Date/Time: 07/16/2019 18:06

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	5.0	100.2	70-130
Barium	10.0	10.9	109.1	70-130
Cadmium	3.0	3.1	101.9	70-130
Chromium	5.0	4.9	97.7	70-130
Lead	5.0	4.7	93.9	70-130
Selenium	8.0	9.6	119.5	70-130
Silver	6.0	5.9	98.2	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	07/16/2019 14:32	C	07/16/2019 15:08	C	07/16/2019 16:55	C	07/16/2019 17:31	C	1709512	C
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	ND	U
Barium	0.68	U	0.68	U	0.68	U	8.6	J	ND	U
Cadmium	0.34	U	0.34	U	0.34	U	0.34	U	ND	U
Chromium	0.35	U	0.35	U	0.35	U	0.35	U	ND	U
Lead	4.9	U	4.9	U	4.9	U	4.9	U	ND	U
Selenium	5.5	U	5.5	U	5.5	U	5.5	U	ND	U
Silver	1.4	U	1.4	U	1.4	U	1.4	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)						Leachate Blank	
		C	07/16/2019 17:57	C	07/16/2019 18:26	C		C	1708468	C
Arsenic			2.0	U	2.8	J			ND	U
Barium			2.3	J	0.68	U			ND	U
Cadmium			0.34	U	0.34	U			ND	U
Chromium			0.35	U	0.35	U			ND	U
Lead			4.9	U	4.9	U			ND	U
Selenium			5.5	U	5.5	U			ND	U
Silver			1.4	U	1.4	U			ND	U

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 07/16/2019 14:37

ICS Source: 92158,92279 Solution AB Run Date: 07/16/2019 14:40

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	51610	103.2	51900	103.8	80-120
Arsenic			2.426		2.543		
Barium		500	0.1749		509.3	101.9	80-120
Cadmium		1000	0.6065		1011	101.1	80-120
Calcium	50000	50000	51040	102.1	51280	102.6	80-120
Chromium		500	-0.1604		499.1	99.8	80-120
Iron	20000	20000	20200	101	20340	101.7	80-120
Lead		1000	-0.9773		987.1	98.7	80-120
Magnesium	50000	50000	50880	101.8	50830	101.7	80-120
Selenium			2.125		-0.6079		
Silver		1000	-0.0917		1035	103.5	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 07/16/2019 16:57

ICS Source: 92158,92279 Solution AB Run Date: 07/16/2019 17:00

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	50770	101.5	49730	99.5	80-120
Arsenic			0.6701		2.56		
Barium		500	-0.0666		499.9	100	80-120
Cadmium		1000	0.6768		986	98.6	80-120
Calcium	50000	50000	50550	101.1	49870	99.7	80-120
Chromium		500	-0.2598		479.5	95.9	80-120
Iron	20000	20000	19810	99.1	19450	97.3	80-120
Lead		1000	-0.3502		971.9	97.2	80-120
Magnesium	50000	50000	50430	100.9	49920	99.8	80-120
Selenium			-0.287		1.466		
Silver		1000	-0.5229		1014	101.4	80-120

FORM IV INORGANIC-3
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 07/16/2019 18:00

ICS Source: 92158,92279 Solution AB Run Date: 07/16/2019 18:03

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	51510	103	51630	103.3	80-120
Arsenic			2.541		2.104		
Barium		500	1.703		517.5	103.5	80-120
Cadmium		1000	0.5736		993.3	99.3	80-120
Calcium	50000	50000	51080	102.2	51480	103	80-120
Chromium		500	-0.1119		486.5	97.3	80-120
Iron	20000	20000	20060	100.3	20150	100.8	80-120
Lead		1000	-0.9919		982	98.2	80-120
Magnesium	50000	50000	50940	101.9	51330	102.7	80-120
Selenium			1.362		0.8236		
Silver		1000	-0.3921		1027	102.7	80-120

SAMPLE NO.

1709515MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC32 Lower-2

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.51	ND	0.50	102
Barium	mg/L	75-125	1.2	0.72	0.50	103
Cadmium	mg/L	75-125	0.52	ND	0.50	104
Chromium	mg/L	75-125	0.47	ND	0.50	94
Lead	mg/L	75-125	0.52	ND	0.50	103
Selenium	mg/L	75-125	0.54	ND	0.50	107
Silver	mg/L	75-125	0.28	ND	0.25	111

SAMPLE NO.

1709516MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC32 Lower-2

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.52	ND	0.50	103
Barium	mg/L	75-125	1.2	0.72	0.50	99
Cadmium	mg/L	75-125	0.53	ND	0.50	105
Chromium	mg/L	75-125	0.47	ND	0.50	95
Lead	mg/L	75-125	0.52	ND	0.50	103
Selenium	mg/L	75-125	0.55	ND	0.50	108
Silver	mg/L	75-125	0.27	ND	0.25	108

SAMPLE NO.

1709514DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	ND	
Barium	20	0.72	0.70	3
Cadmium	20	ND	0.0032J	
Chromium	20	ND	0.0095J	
Lead	20	ND	ND	
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1709516MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	0.51	0.52	2
Barium	20	1.2	1.2	1
Cadmium	20	0.52	0.53	1
Chromium	20	0.47	0.47	0
Lead	20	0.52	0.52	1
Selenium	20	0.54	0.55	1
Silver	20	0.28	0.27	3

SAMPLE NO.

1709513LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	mg/L	0.50	0.44	87	80	120
Barium	mg/L	0.50	0.49	98	80	120
Cadmium	mg/L	0.50	0.47	94	80	120
Chromium	mg/L	0.50	0.48	95	80	120
Lead	mg/L	0.50	0.47	94	80	120
Selenium	mg/L	0.50	0.46	92	80	120
Silver	mg/L	0.25	0.25	100	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: None Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Lead	5.0	4.9	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 3005A Instrument ID: 30ICP2

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Arsenic	0.025	0.010	11/14/2018
Barium	0.050	0.0034	11/14/2018
Cadmium	0.015	0.0017	11/14/2018
Chromium	0.025	0.0017	11/14/2018
Lead	0.025	0.025	11/14/2018
Selenium	0.040	0.027	11/14/2018
Silver	0.030	0.0072	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	7	V	-0.000010	0.000000	No
			Mn	0.000224	0.000000	No
			Cu	-0.000017	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.001213	0.000000	No
			Zr	0.006142	0.000000	No
			Fe	0.000009	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.335136	0.000000	No
			Zr	0.011123	0.000000	No
			Ca	0.000126	0.000000	No
			V	0.000716	0.000000	No
			Fe	-0.000080	0.000000	No
As 189.042 {478}	☒	8	Be	0.000082	0.000000	No
			Al	-0.000010	0.000000	No
			V	0.000009	0.000000	No
			Cr	-0.005878	0.000000	No
			Fe	-0.000008	0.000000	No
			Co	0.000030	0.000000	No
			Mo	0.000055	0.000000	No
			Tl	0.000011	0.000000	No
B 208.959 {461}	☒	4	Ti	0.000132	0.000000	No
			Mo	0.023149	0.000000	No
			Si	0.000180	0.000000	No
			V	0.002695	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	0.000136	0.000000	No
			Mo	-0.000019	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.006748	0.000000	No
Cd 228.802 {447}	☒	4	V	0.000070	0.000000	No
			Fe	0.000000	0.000000	No
			Ni	-0.000009	0.000000	No
			As	0.010303	0.000000	No
Co 228.616 {447}	☒	4	Ti	0.002208	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.004109	0.000000	No
			Ni	0.000111	0.000000	No
Cr 267.716 {126}	☒	2	Al	0.000006	0.000000	No
			Mn	0.000260	0.000000	No
Cu 324.754 {104}	☒	5	K	0.000004	0.000000	No
			V	-0.000071	0.000000	No
			Fe	-0.000155	0.000000	No
			Co	-0.000531	0.000000	No
			Mo	0.000478	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.002210	0.000000	No
			Mo	-0.000957	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000004	0.000000	No
Mo 202.030 {467}	☒	1	V	0.000400	0.000000	No
Na 818.326 { 41}	☒	1	Fe	0.001190	0.000000	No
Ni 231.604 {446}	☒	None				
P 177.495 {490}	☒	2	Ni	0.001261	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.003153	0.000000	No
Pb 220.353 {453}	☒	6	Al	0.000276	0.000000	No
			Si	0.000044	0.000000	No
			Mn	0.000090	0.000000	No
			Fe	0.000021	0.000000	No
			Cu	0.000517	0.000000	No
			Mo	-0.001816	0.000000	No
S 182.034 {485}	☒	8	Al	-0.000089	0.000000	No
			Mn	0.004470	0.000000	No
			Ti	-0.000441	0.000000	No
			V	-0.000354	0.000000	No
			Ni	-0.000410	0.000000	No
			Ca	0.000007	0.000000	No
			Fe	-0.000155	0.000000	No
			Mo	-0.007427	0.000000	No
Sb 206.833 {463}	☒	6	Al	-0.000007	0.000000	No
			Cr	0.024085	0.000000	No
			Fe	0.000007	0.000000	No
			Mo	-0.004113	0.000000	No
			Zr	-0.000778	0.000000	No
			Ti	0.001270	0.000000	No
Se 196.090 {472}	☒	3	Al	-0.000003	0.000000	No
			Mn	0.000486	0.000000	No
			Mo	0.000145	0.000000	No
Si 251.611 {134}	☒	2	V	0.052413	0.000000	No
			Mo	0.010972	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000015	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000218	0.000000	No
			Mo	0.000136	0.000000	No
			Ca	0.000007	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.001394	0.000000	No
			V	-0.012857	0.000000	No
			Cr	0.000322	0.000000	No
			Mn	0.001221	0.000000	No
			Fe	0.000008	0.000000	No
			Co	0.000561	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000258	0.000000	No
			Cr	-0.004547	0.000000	No
			Mn	-0.001050	0.000000	No
			Fe	-0.000004	0.000000	No
			Mo	-0.000036	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000244	0.000000	No
			Mn	0.000036	0.000000	No
			Fe	-0.000003	0.000000	No
			Co	0.000004	0.000000	No
			Ni	-0.000002	0.000000	No
			Mo	0.000153	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Instrument ID: 30ICP2 Effective Date: 11/21/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	50000
Lead	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 3005A Batch: MPRP 26206

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1708468	1708468LB	07/15/2019	50	50
1709512	1709512BLANK	07/15/2019	50	50
1709513	1709513LCS	07/15/2019	50	50
1709514	1709514DUP	07/15/2019	50	50
1709515	1709515MS	07/15/2019	50	50
1709516	1709516MSD	07/15/2019	50	50
30313260001	AOC32 Lower-1	07/15/2019	50	50
30313260002	AOC32 Lower-2	07/15/2019	50	50
30313260003	AOC27	07/15/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 07/16/2019 14:25 End Date: 07/16/2019 18:26

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Pb	Se
11244931CAL0	11244931CAL0	1	07/16/2019	14:25	X	X	X	X	X	X	X
11244932CAL1	11244932CAL1	1	07/16/2019	14:28	X	X	X	X	X	X	X
11244933ICV	11244933ICV	1	07/16/2019	14:30	X	X	X	X	X	X	X
11244934ICB	11244934ICB	1	07/16/2019	14:32	X	X	X	X	X	X	X
11244935CCV	11244935CCV	1	07/16/2019	14:35	X	X	X	X	X	X	X
11244936ICSA	11244936ICSA	1	07/16/2019	14:37	X	X	X	X	X	X	X
11244937ICSAB	11244937ICSAB	1	07/16/2019	14:40	X	X	X	X	X	X	X
11244938CRDL	11244938CRDL	1	07/16/2019	14:42	X	X	X	X	X	X	X
11244939CCV	11244939CCV	1	07/16/2019	15:06	X	X	X	X	X	X	X
11244940CCB	11244940CCB	1	07/16/2019	15:08	X	X	X	X	X	X	X
11244950CCV	11244950CCV	1	07/16/2019	16:53	X	X	X	X	X	X	X
11244951CCB	11244951CCB	1	07/16/2019	16:55	X	X	X	X	X	X	X
11244952ICSA	11244952ICSA	1	07/16/2019	16:57	X	X	X	X	X	X	X
11244953ICSAB	11244953ICSAB	1	07/16/2019	17:00	X	X	X	X	X	X	X
11244954CRDL	11244954CRDL	1	07/16/2019	17:02	X	X	X	X	X	X	X
1709512BLANK	1709512	1	07/16/2019	17:06	X	X	X	X	X	X	X
1709513LCS	1709513	1	07/16/2019	17:08	X	X	X	X	X	X	X
1708468LB	1708468	1	07/16/2019	17:10	X	X	X	X	X	X	X
AOC32 Lower-2	30313260002	1	07/16/2019	17:12	X	X	X	X	X		X
1709514DUP	1709514	1	07/16/2019	17:14	X	X	X	X	X		X
1709515MS	1709515	1	07/16/2019	17:17	X	X	X	X	X		X
1709516MSD	1709516	1	07/16/2019	17:19	X	X	X	X	X		X
AOC32 Lower-1	30313260001	1	07/16/2019	17:21	X	X	X	X	X		X
AOC27	30313260003	1	07/16/2019	17:23	X	X		X	X		X
11244955CCV	11244955CCV	1	07/16/2019	17:29	X	X	X	X	X	X	X
11244956CCB	11244956CCB	1	07/16/2019	17:31	X	X	X	X	X	X	X
AOC32 Lower-2	30313260002	2	07/16/2019	17:37						X	
1709514DUP	1709514	2	07/16/2019	17:39						X	
1709515MS	1709515	2	07/16/2019	17:41						X	
1709516MSD	1709516	2	07/16/2019	17:43						X	
AOC32 Lower-1	30313260001	2	07/16/2019	17:45						X	
AOC27	30313260003	5	07/16/2019	17:47						X	
AOC27	30313260003	100	07/16/2019	17:52			X				
11244957CCV	11244957CCV	1	07/16/2019	17:55	X	X	X	X	X	X	X
11244958CCB	11244958CCB	1	07/16/2019	17:57	X	X	X	X	X	X	X
11244959ICSA	11244959ICSA	1	07/16/2019	18:00	X	X	X	X	X	X	X
11244960ICSAB	11244960ICSAB	1	07/16/2019	18:03	X	X	X	X	X	X	X
11244961CRDL	11244961CRDL	1	07/16/2019	18:06	X	X	X	X	X	X	X
11244962CCV	11244962CCV	1	07/16/2019	18:24	X	X	X	X	X	X	X
11244963CCB	11244963CCB	1	07/16/2019	18:26	X	X	X	X	X	X	X

Sample Name: CAL0 Acquired: 7/16/2019 14:25:56 Type: Cal
Method: Pace-65002-2-CETAC1(v1764) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0005**	**-.0004**	**.0003**	**.0020**	**-.0003**	**.0019**
Stddev	.0000	.0000	.0000	.0001	.0003	.0000	.0004
%RSD	1.784	1.316	.3587	48.65	13.63	3.655	19.58
#1	-.0012	.0005	-.0004	.0002	.0018	-.0003	.0022
#2	-.0012	.0005	-.0004	.0003	.0021	-.0003	.0016

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**-.0008**	**.0001**	**.0006**	**.0001**	**3794.**	**.0012**
Stddev	.0004	.0001	.0000	.0000	.0001	6.	.0004
%RSD	273.9	6.400	3.593	.0228	74.85	.1656	30.66
#1	-.0004	-.0008	.0001	.0006	.0002	3789.	.0015
#2	.0001	-.0008	.0001	.0006	.0001	3798.	.0009

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**-.0001**	**.0001**	**.0004**	**-.0055**	**.0001**	**.0001**
Stddev	.0001	.0001	.0001	.0002	.0004	.0003	.0000
%RSD	16.37	68.96	35.19	55.09	6.898	265.1	6.015
#1	-.0004	-.0000	.0001	.0002	-.0058	.0003	.0001
#2	-.0003	-.0001	.0002	.0005	-.0052	-.0001	.0001

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**-.0001**	**-.0002**	**.0001**	**.0003**	**.0004**	**.0003**
Stddev	.0001	.0001	.0001	.0002	.0000	.0000	.0001
%RSD	34.60	81.16	42.56	120.2	15.22	1.606	45.96
#1	-.0002	-.0000	-.0002	.0002	.0003	.0004	.0004
#2	-.0004	-.0002	-.0001	.0000	.0003	.0004	.0002

Sample Name: CAL0 Acquired: 7/16/2019 14:25:56 Type: Cal
Method: Pace-65002-2-CETAC1(v1764) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**-.0006**	**.0001**	**6944.**	**101400.**	**26090.**	**.0016**
Stddev	.0000	.0001	.0000	11.	662.	16.	.0002
%RSD	10.61	16.72	1.123	.1551	.6529	.0597	14.47
#1	-.0003	-.0006	.0001	6937.	101900.	26110.	.0018
#2	-.0004	-.0005	.0001	6952.	100900.	26080.	.0014

Elem	Zr3391
Units	Cts/S
Avg	**-.0004**
Stddev	.0000
%RSD	5.600
#1	-.0004
#2	-.0003

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3793.8**	**6944.4**	**101400.**	**26094.**
Stddev	6.3	10.8	662.	16.
%RSD	.16556	.15511	.65289	.05966
#1	3789.4	6936.8	101860.	26105.
#2	3798.3	6952.0	100930.	26083.

Sample Name: CAL1 Acquired: 7/16/2019 14:28:21 Type: Cal
Method: Pace-65002-2-CETAC1(v1764) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1639	1.087	.1793	.7418	6.177	8.170	1.227	4.463
Stddev	.0018	.000	.0020	.0072	.031	.008	.002	.052
%RSD	1.125	.0336	1.101	.9732	.5079	.0928	.1676	1.158
#1	.1626	1.087	.1779	.7366	6.155	8.165	1.225	4.427
#2	.1652	1.087	.1807	.7469	6.199	8.175	1.228	4.500

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.533	.3958	.2566	.7421	3280.	.5219	1.111	.2030
Stddev	.048	.0025	.0008	.0008	5.	.0074	.007	.0003
%RSD	.8648	.6193	.2966	.1015	.1573	1.412	.6015	.1523
#1	5.499	.3940	.2560	.7426	3277.	.5167	1.107	.2032
#2	5.566	.3975	.2571	.7415	3284.	.5271	1.116	.2028

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.047	2.834	.0768	1.051	.1840	.9429	.8217	.2342
Stddev	.000	.024	.0002	.011	.0016	.0102	.0105	.0020
%RSD	.0166	.8558	.3235	1.081	.8493	1.078	1.277	.8583
#1	1.047	2.816	.0766	1.043	.1829	.9357	.8143	.2328
#2	1.046	2.851	.0770	1.059	.1851	.9500	.8292	.2356

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1488	.2425	.4319	9.871	.8915	.3678	.4906	6693.
Stddev	.0022	.0002	.0051	.040	.0065	.0040	.0050	4.
%RSD	1.476	.0810	1.186	.4023	.7252	1.099	1.012	.0648
#1	.1472	.2423	.4282	9.843	.8870	.3650	.4871	6696.
#2	.1503	.2426	.4355	9.899	.8961	.3707	.4942	6690.

Sample Name: CAL1 Acquired: 7/16/2019 14:28:21 Type: Cal
Method: Pace-65002-2-CETAC1(v1764) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**96860.**	**26150.**	**2.536**	**.4120**
Stddev	110.	128.	.028	.0001
%RSD	.1133	.4888	1.096	.0170
#1	96790.	26060.	2.516	.4119
#2	96940.	26240.	2.555	.4120

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3280.3**	**6693.3**	**96865.**	**26148.**
Stddev	5.2	4.3	110.	128.
%RSD	.15732	.06477	.11326	.48884
#1	3276.7	6696.4	96787.	26058.
#2	3284.0	6690.2	96942.	26238.

Sample Name: ICV Acquired: 7/16/2019 14:30:45 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1001.**	**19930.**	**1936.**	**2017.**	**1989.**	**1999.**	**20120.**	**2000.**	**1960.**
Stddev	13.	216.	14.	20.	33.	24.	192.	21.	20.
%RSD	1.254	1.081	.7286	.9686	1.645	1.183	.9522	1.049	1.022
#1	992.4	19780.	1927.	2003.	1966.	1983.	19980.	1985.	1946.
#2	1010.	20080.	1946.	2030.	2012.	2016.	20250.	2015.	1975.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1991.**	**1979.**	**20030.**	**85.62**	**20080.**	**2009.**	**19950.**	**1981.**	**2038.**
Stddev	22.	25.	187.	.29	477.	31.	137.	19.	22.
%RSD	1.087	1.243	.9343	.3366	2.375	1.559	.6864	.9475	1.092
#1	1975.	1961.	19900.	85.83	19740.	1987.	19850.	1968.	2023.
#2	2006.	1996.	20170.	85.42	20420.	2031.	20050.	1994.	2054.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20020.**	**1982.**	**2001.**	**2066.**	**20140.**	**1996.**	**2008.**	**9957.**	**1998.**
Stddev	315.	25.	22.	28.	237.	20.	13.	113.	27.
%RSD	1.574	1.282	1.116	1.340	1.179	.9777	.6481	1.135	1.329
#1	19800.	1964.	1985.	2047.	19970.	1982.	1998.	9877.	1979.
#2	20250.	2000.	2017.	2086.	20300.	2010.	2017.	10040.	2017.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 7/16/2019 14:30:45 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1991.	1953.	1955.	2013.	95.82	95.29	99.89	1985.	1979.
Stddev	17.	21.	31.	18.	.31	.25	.00	33.	25.
%RSD	.8508	1.055	1.567	.8920	.3191	.2614	.0026	1.657	1.278
#1	1979.	1939.	1933.	2000.	96.04	95.46	99.89	1962.	1961.
#2	2003.	1968.	1977.	2026.	95.60	95.11	99.89	2008.	1996.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3248.4	6654.1	96618.	26065.
Stddev	10.9	21.2	253.	1.
%RSD	.33656	.31914	.26141	.00263
#1	3256.1	6669.1	96796.	26065.
#2	3240.6	6639.1	96439.	26066.

Sample Name: ICB Acquired: 7/16/2019 14:32:50 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1289	5.518	.5823	1.686	.0939	.2435	-4.962	.1023	.1581
Stddev	.0416	4.183	.9181	.078	.0963	.0290	1.932	.1502	.0563
%RSD	32.25	75.81	157.7	4.619	102.5	11.89	38.93	146.8	35.63
#1	.0995	2.560	1.232	1.631	.1620	.2640	-6.328	.2084	.1183
#2	.1583	8.476	-.0668	1.741	.0258	.2230	-3.596	-.0039	.1979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0536	-.1631	2.509	99.35	.7118	-.2314	3.888	.0970	1.571
Stddev	.0313	.0875	1.902	.10	38.96	.0694	2.721	.0371	.021
%RSD	58.38	53.63	75.79	.1050	5474.	29.99	69.98	38.23	1.325
#1	.0757	-.2249	3.854	99.42	28.26	-.1823	5.813	.0707	1.585
#2	.0315	-.1012	1.164	99.27	-26.84	-.2804	1.964	.1232	1.556
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	184.8	.5212	.4057	.8414	-3.865	2.508	2.073	-.3567	-.3185
Stddev	94.6	.0187	.7941	.6092	.410	.649	1.591	1.284	.4459
%RSD	51.20	3.585	195.7	72.40	10.60	25.87	76.72	360.1	140.0
#1	117.9	.5080	.9672	.4107	-4.155	2.966	.9486	.5515	-.0032
#2	251.7	.5344	-.1558	1.272	-3.575	2.049	3.198	-1.265	-.6338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 7/16/2019 14:32:50 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2038	.3325	.6392	.2144	99.15	100.4	99.59	-.5992	.0682
Stddev	.0192	.0626	.7081	.2080	.12	.1	.19	.1747	.0586
%RSD	9.444	18.83	110.8	97.01	.1162	.0585	.1866	29.16	85.92
#1	.2174	.3768	.1385	.3615	99.23	100.3	99.46	-.4756	.0267
#2	.1902	.2883	1.140	.0673	99.06	100.4	99.72	-.7227	.1096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3769.0	6885.1	101780.	25987.
Stddev	4.0	8.0	60.	49.
%RSD	.10499	.11619	.05851	.18664
#1	3771.8	6890.8	101740.	25953.
#2	3766.2	6879.4	101820.	26021.

Sample Name: CCV Acquired: 7/16/2019 14:35:40 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.7**	**10070.**	**1005.**	**1022.**	**1020.**	**1015.**	**10180.**	**1013.**	**992.4**
Stddev	5.5	54.	2.	7.	7.	5.	5.	7.	5.8
%RSD	1.107	.5396	.2069	.7066	.6438	.5200	.0495	.6727	.5814
#1	495.8	10030.	1003.	1017.	1015.	1011.	10180.	1008.	988.3
#2	503.6	10110.	1006.	1027.	1024.	1019.	10180.	1018.	996.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1001.**	**1023.**	**10180.**	**89.90**	**10110.**	**1014.**	**10180.**	**1012.**	**979.0**
Stddev	10.	7.	30.	.08	89.	9.	70.	3.	7.1
%RSD	1.012	.7021	.2972	.0883	.8802	.8473	.6853	.3006	.7298
#1	993.4	1018.	10150.	89.84	10050.	1008.	10220.	1010.	974.0
#2	1008.	1028.	10200.	89.95	10170.	1020.	10130.	1014.	984.1
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10140.**	**1027.**	**1002.**	**996.6**	**9982.**	**999.0**	**1016.**	**5065.**	**1006.**
Stddev	162.	8.	5.	9.3	71.	8.8	4.	7.	2.
%RSD	1.596	.7316	.4554	.9381	.7078	.8770	.4226	.1448	.2449
#1	10020.	1022.	998.7	990.0	9932.	992.8	1013.	5070.	1004.
#2	10250.	1032.	1005.	1003.	10030.	1005.	1019.	5060.	1008.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 14:35:40 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1047.**	**978.9**	**1010.**	**1003.**	**97.57**	**97.66**	**100.4**	**1012.**	**1007.**
Stddev	7.	7.4	8.	5.	.10	.17	.7	6.	6.
%RSD	.6589	.7597	.7922	.4843	.1007	.1760	.6533	.5716	.6263
#1	1042.	973.6	1005.	999.8	97.50	97.79	99.95	1008.	1003.
#2	1052.	984.2	1016.	1007.	97.64	97.54	100.9	1016.	1012.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3410.6**	**6776.0**	**99027.**	**26203.**
Stddev	3.0	6.8	174.	171.
%RSD	.08828	.10071	.17601	.65332
#1	3408.5	6771.1	99151.	26082.
#2	3412.7	6780.8	98904.	26324.

Sample Name: ICSA Acquired: 7/16/2019 14:37:51 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0917**	**51610.**	**2.426**	**1.486**	**.1749**	**.0936**	**51040.**	**.6065**	**.1097**
Stddev	.0471	158.	1.015	.176	.0382	.0097	85.	.1115	.0498
%RSD	51.34	.3062	41.83	11.83	21.86	10.34	.1671	18.38	45.35
#1	-.0584	51500.	1.709	1.611	.2019	.1004	50980.	.5277	.1449
#2	-.1251	51720.	3.144	1.362	.1479	.0868	51100.	.6854	.0745
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1604**	**.2389**	**20200.**	**85.97**	**-2.081**	**.2009**	**50880.**	**-.2776**	**1.006**
Stddev	.0831	1.103	32.	.09	5.483	.5095	126.	.1524	.322
%RSD	51.83	461.6	.1577	.1048	263.5	253.6	.2481	54.89	31.99
#1	-.2192	-.5409	20180.	86.03	-5.958	-.1594	50970.	-.1699	1.233
#2	-.1016	1.019	20220.	85.90	1.796	.5611	50790.	-.3853	.7784
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**215.6**	**-.3726**	**.9504**	**-.9773**	**-3.017**	**1.121**	**2.125**	**-1.118**	**.5771**
Stddev	136.3	.0590	.5362	.7677	.950	1.057	1.102	4.536	.1154
%RSD	63.19	15.83	56.42	78.56	31.49	94.26	51.83	405.7	19.99
#1	119.3	-.3309	1.330	-1.520	-3.689	.3739	1.346	2.089	.6587
#2	312.0	-.4143	.5713	-.4344	-2.345	1.869	2.904	-4.326	.4956
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 7/16/2019 14:37:51 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1725**	**.6949**	**-.5674**	**.7638**	**95.01**	**95.29**	**99.17**	**-.7495**	**-1.081**
Stddev	.0334	.0361	.7571	.2017	.14	.23	.24	.0356	.078
%RSD	19.35	5.198	133.4	26.41	.1429	.2364	.2418	4.746	7.215
#1	-.1489	.7205	-.0320	.6212	95.11	95.45	99.00	-.7244	-1.026
#2	-.1961	.6694	-1.103	.9064	94.92	95.13	99.34	-.7747	-1.136
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3261.5**	**6598.1**	**96621.**	**25878.**
Stddev	3.4	9.4	228.	63.
%RSD	.10482	.14294	.23636	.24183
#1	3263.9	6604.7	96783.	25834.
#2	3259.1	6591.4	96460.	25922.

Sample Name: ICSAB Acquired: 7/16/2019 14:40:03 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1035.**	**51900.**	**2.543**	**-.4432**	**509.3**	**513.2**	**51280.**	**1011.**	**492.3**
Stddev	8.	264.	2.432	.0852	4.0	2.9	314.	10.	5.8
%RSD	.7905	.5079	95.67	19.22	.7847	.5728	.6127	1.002	1.188
#1	1029.	51720.	.8226	-.3829	506.5	511.1	51050.	1004.	488.2
#2	1041.	52090.	4.263	-.5034	512.1	515.3	51500.	1018.	496.4
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.1**	**509.3**	**20340.**	**86.24**	**-6.349**	**-.0283**	**50830.**	**495.2**	**.2462**
Stddev	4.0	2.4	104.	.35	5.771	.3215	171.	2.2	.2716
%RSD	.7921	.4779	.5089	.4089	90.89	1138.	.3362	.4431	110.3
#1	496.3	507.6	20270.	86.49	-2.268	-.2556	50710.	493.6	.0541
#2	501.9	511.0	20420.	85.99	-10.43	.1991	50950.	496.7	.4383
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**266.0**	**992.5**	**1.787**	**987.1**	**-8.045**	**-.0063**	**-.6079**	**-22.38**	**-.1351**
Stddev	7.3	8.8	.052	10.7	.505	2.618	.7162	.05	.3943
%RSD	2.760	.8916	2.898	1.082	6.278	41230.	117.8	.2290	291.8
#1	271.2	986.2	1.824	979.6	-7.688	-1.857	-.1014	-22.41	-.4140
#2	260.8	998.7	1.750	994.7	-8.402	1.845	-1.114	-22.34	.1437
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 7/16/2019 14:40:03 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2984**	**.4128**	**1.836**	**506.0**	**95.44**	**94.73**	**99.90**	**985.5**	**-.7281**
Stddev	.0287	.1009	1.409	2.7	.28	.01	.29	7.6	.0932
%RSD	9.611	24.45	76.73	.5367	.2956	.0119	.2863	.7753	12.80
#1	-.2781	.4842	2.833	504.1	95.64	94.72	99.70	980.1	-.7940
#2	-.3186	.3415	.8399	507.9	95.24	94.73	100.1	990.9	-.6622
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3271.9**	**6627.8**	**96049.**	**26068.**
Stddev	13.4	19.6	11.	75.
%RSD	.40885	.29558	.01189	.28635
#1	3281.3	6641.7	96040.	26016.
#2	3262.4	6614.0	96057.	26121.

Sample Name: CRDL Acquired: 7/16/2019 14:42:52 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.156**	**59.92**	**5.786**	**53.34**	**10.51**	**1.071**	**1055.**	**3.027**	**4.846**
Stddev	.181	7.33	.113	.81	.10	.010	4.	.113	.070
%RSD	2.934	12.23	1.954	1.512	.9907	.9738	.3456	3.743	1.450
#1	6.028	54.74	5.706	52.77	10.44	1.078	1058.	3.107	4.796
#2	6.283	65.10	5.866	53.91	10.59	1.064	1053.	2.947	4.895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.085**	**4.989**	**74.72**	**98.25**	**505.3**	**40.13**	**214.6**	**4.924**	**19.65**
Stddev	.038	2.210	.20	.09	7.2	.25	13.5	.070	.29
%RSD	.7496	44.30	.2653	.0865	1.424	.6333	6.309	1.413	1.481
#1	5.112	6.552	74.58	98.31	500.2	39.95	224.2	4.875	19.44
#2	5.058	3.427	74.86	98.19	510.4	40.31	205.0	4.973	19.85
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1207.**	**10.72**	**50.32**	**4.545**	**45.97**	**7.531**	**8.665**	**99.78**	**52.04**
Stddev	59.	.18	2.15	.581	1.48	.102	.052	.25	1.15
%RSD	4.875	1.656	4.275	12.77	3.214	1.360	.6049	.2508	2.206
#1	1166.	10.60	48.80	4.135	44.93	7.604	8.702	99.96	51.23
#2	1249.	10.85	51.84	4.956	47.02	7.459	8.628	99.61	52.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 7/16/2019 14:42:52 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.349**	**5.196**	**9.007**	**5.048**	**99.47**	**100.4**	**100.3**	**9.141**	**65.42**
Stddev	.023	.183	.194	.270	.01	.2	.8	.081	1.59
%RSD	.4341	3.516	2.148	5.342	.0138	.2078	.8097	.8824	2.429
#1	5.365	5.067	8.870	4.858	99.48	100.2	99.68	9.084	64.30
#2	5.332	5.325	9.144	5.239	99.46	100.5	100.8	9.198	66.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3727.5**	**6907.4**	**101770.**	**26161.**
Stddev	3.2	1.0	212.	212.
%RSD	.08647	.01379	.20783	.80967
#1	3729.8	6908.1	101620.	26012.
#2	3725.2	6906.7	101920.	26311.

Sample Name: CCV Acquired: 7/16/2019 15:06:57 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**526.0**	**10270.**	**1032.**	**1051.**	**1045.**	**1038.**	**10460.**	**1046.**	**1021.**
Stddev	1.5	163.	12.	15.	22.	18.	160.	12.	10.
%RSD	.2813	1.585	1.136	1.472	2.105	1.699	1.533	1.110	1.004
#1	524.9	10160.	1024.	1040.	1030.	1025.	10340.	1038.	1014.
#2	527.0	10390.	1041.	1062.	1061.	1050.	10570.	1054.	1028.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1041.**	**1046.**	**10410.**	**90.00**	**10500.**	**1033.**	**10450.**	**1040.**	**1006.**
Stddev	2.	22.	134.	.91	229.	24.	145.	16.	11.
%RSD	.2054	2.106	1.285	1.012	2.182	2.360	1.388	1.555	1.095
#1	1039.	1031.	10320.	90.64	10340.	1016.	10350.	1029.	998.4
#2	1042.	1062.	10510.	89.35	10660.	1051.	10550.	1052.	1014.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10540.**	**1059.**	**1036.**	**1025.**	**10290.**	**1035.**	**1039.**	**5188.**	**1038.**
Stddev	202.	12.	14.	9.	140.	17.	13.	93.	16.
%RSD	1.915	1.149	1.313	.9084	1.364	1.623	1.294	1.785	1.527
#1	10400.	1051.	1026.	1019.	10190.	1023.	1029.	5122.	1027.
#2	10680.	1068.	1045.	1032.	10390.	1046.	1048.	5253.	1049.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 15:06:57 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1070.**	**1022.**	**1043.**	**1044.**	**97.48**	**97.70**	**99.83**	**1038.**	**988.4**
Stddev	24.	3.	14.	5.	1.05	.18	.22	10.	32.0
%RSD	2.264	.2638	1.331	.4328	1.078	.1803	.2189	.9884	3.237
#1	1053.	1020.	1033.	1041.	98.22	97.58	99.67	1031.	965.8
#2	1087.	1023.	1053.	1047.	96.74	97.83	99.98	1046.	1011.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3414.3**	**6769.3**	**99067.**	**26049.**
Stddev	34.5	73.0	179.	57.
%RSD	1.0117	1.0779	.18030	.21895
#1	3438.7	6820.9	98941.	26009.
#2	3389.9	6717.7	99194.	26090.

Sample Name: CCB Acquired: 7/16/2019 15:08:59 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2098**	**9.373**	**-.2553**	**.9020**	**.2790**	**.2131**	**-3.530**	**.0620**	**.0388**
Stddev	.2005	6.947	1.568	.3782	.0509	.0239	4.162	.0088	.0366
%RSD	95.58	74.12	614.3	41.93	18.26	11.22	117.9	14.21	94.26
#1	.3516	14.28	-1.364	.6346	.3150	.2300	-.5868	.0557	.0129
#2	.0680	4.461	.8535	1.169	.2430	.1962	-6.473	.0682	.0647
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0677**	**.7007**	**8.028**	**100.3**	**4.020**	**-.6819**	**1.039**	**.1358**	**.7569**
Stddev	.0397	.2853	.782	.7	.068	.2835	11.67	.0266	.1972
%RSD	58.65	40.71	9.738	.7020	1.685	41.57	1123.	19.59	26.06
#1	-.0396	.9024	7.475	99.76	4.068	-.4815	9.290	.1546	.8963
#2	-.0958	.4990	8.580	100.8	3.972	-.8824	-7.212	.1170	.6174
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**153.3**	**.1715**	**.6770**	**-.2527**	**-4.553**	**-.5928**	**1.931**	**4.342**	**-.5445**
Stddev	143.7	.1067	.5139	.2969	1.072	1.300	1.111	.200	.3153
%RSD	93.72	62.19	75.91	117.5	23.55	219.2	57.53	4.616	57.91
#1	51.72	.2470	1.040	-.4626	-3.795	.3262	2.717	4.484	-.3215
#2	254.9	.0961	.3136	-.0427	-5.311	-1.512	1.146	4.201	-.7675
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/16/2019 15:08:59 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1393	.4825	.5443	.0281	100.0	100.6	100.5	-.7822	.2514
Stddev	.0339	.0658	.4173	.1162	.7	.1	.0	.0625	.1770
%RSD	24.37	13.64	76.66	413.2	.7137	.1147	.0285	7.986	70.40
#1	.1633	.4359	.8394	.1103	99.51	100.6	100.4	-.8264	.3765
#2	.1153	.5290	.2493	-.0540	100.5	100.5	100.5	-.7381	.1262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3803.5	6945.5	101960.	26215.
Stddev	26.7	49.6	117.	7.
%RSD	.70201	.71374	.11470	.02845
#1	3784.6	6910.5	102040.	26209.
#2	3822.4	6980.6	101870.	26220.

Sample Name: CCV Acquired: 7/16/2019 16:53:13 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495.2**	**9743.**	**962.7**	**1003.**	**999.9**	**974.8**	**9983.**	**990.3**	**963.4**
Stddev	7.3	88.	.2	4.	13.6	9.4	83.	4.1	.0
%RSD	1.472	.8993	.0228	.4021	1.364	.9630	.8282	.4156	.0007
#1	490.0	9681.	962.5	1000.	990.2	968.2	9924.	987.4	963.4
#2	500.3	9805.	962.8	1006.	1010.	981.4	10040.	993.2	963.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**983.6**	**999.1**	**9905.**	**94.35**	**9802.**	**961.0**	**10080.**	**971.3**	**953.5**
Stddev	10.8	8.5	48.	.13	165.	11.8	51.	7.5	.6
%RSD	1.101	.8459	.4804	.1388	1.684	1.224	.5090	.7702	.0656
#1	975.9	993.1	9871.	94.26	9685.	952.6	10050.	966.0	953.0
#2	991.2	1005.	9938.	94.45	9919.	969.3	10120.	976.6	953.9
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9890.**	**1025.**	**982.4**	**986.8**	**9733.**	**990.5**	**983.1**	**4985.**	**991.5**
Stddev	155.	3.	6.1	.7	40.	7.4	3.6	34.	.4
%RSD	1.564	.3335	.6257	.0749	.4110	.7511	.3646	.6774	.0441
#1	9780.	1023.	978.0	987.3	9705.	985.2	980.6	4961.	991.8
#2	9999.	1028.	986.7	986.2	9761.	995.7	985.7	5009.	991.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 16:53:13 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1037.	966.1	1004.	995.7	102.1	101.7	100.9	995.0	966.5
Stddev	15.	12.5	8.	11.5	.0	.3	.4	1.3	20.7
%RSD	1.439	1.291	.8451	1.154	.0373	.2933	.4169	.1297	2.146
#1	1026.	957.2	998.3	987.6	102.1	101.9	100.6	994.1	951.9
#2	1047.	974.9	1010.	1004.	102.1	101.5	101.2	995.9	981.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3579.6	7090.3	103110.	26318.
Stddev	5.0	2.6	302.	110.
%RSD	.13885	.03726	.29330	.41693
#1	3576.1	7092.2	103330.	26240.
#2	3583.1	7088.5	102900.	26395.

Sample Name: CCB Acquired: 7/16/2019 16:55:16 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.1912	10.44	.2004	.6085	.0296	.1038	-4.318	.0977	.0660
Stddev	.0627	4.50	.2024	.4277	.0341	.0126	.260	.1365	.0833
%RSD	32.78	43.08	101.0	70.29	115.2	12.16	6.021	139.7	126.3
#1	-.2355	13.63	.3435	.9109	.0538	.1127	-4.502	.0012	.1248
#2	-.1469	7.263	.0573	.3061	.0055	.0949	-4.134	.1943	.0071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1511	.2347	7.044	103.8	-2.121	-.5679	5.923	.3095	.7711
Stddev	.0642	.7855	.584	.3	12.31	.7458	7.722	.0536	.0096
%RSD	42.46	334.6	8.294	.2594	580.2	131.3	130.4	17.31	1.245
#1	.1965	-.3207	6.631	104.0	-10.82	-.0405	.4625	.3473	.7643
#2	.1058	.7902	7.457	103.6	6.581	-1.095	11.38	.2716	.7778
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	114.3	-.2323	.9706	-.3512	-1.674	1.797	1.139	3.446	-.3602
Stddev	.3	.4550	.7476	1.351	.675	1.236	.488	3.404	.8357
%RSD	.2357	195.8	77.02	384.7	40.32	68.81	42.86	98.78	232.0
#1	114.5	.0894	1.499	-1.307	-1.197	.9226	.7937	1.039	-.9511
#2	114.1	-.5541	.4420	.6043	-2.152	2.671	1.484	5.854	.2308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/16/2019 16:55:16 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0486	.4177	.0034	.0059	103.0	104.0	101.0	-.2886	.2735
Stddev	.0307	.0273	.1774	.0250	.0	.3	.8	.1117	.9056
%RSD	63.14	6.540	5235.	422.9	.0096	.2912	.7504	38.70	331.1
#1	.0702	.4371	-.1220	-.0118	103.0	104.2	100.5	-.2096	-.3668
#2	.0269	.3984	.1288	.0236	103.0	103.8	101.5	-.3676	.9139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3937.9	7154.9	105420.	26355.
Stddev	10.2	.7	307.	198.
%RSD	.25939	.00959	.29115	.75039
#1	3945.1	7154.4	105640.	26215.
#2	3930.6	7155.4	105210.	26495.

Sample Name: ICSA Acquired: 7/16/2019 16:57:56 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5229**	**50770.**	**.6701**	**.1977**	**-.0666**	**.0030**	**50550.**	**.6768**	**-.0211**
Stddev	.2169	110.	1.688	.0429	.1017	.0090	213.	.0546	.2394
%RSD	41.48	.2159	251.8	21.71	152.6	301.8	.4215	8.062	1137.
#1	-.6763	50690.	1.863	.2281	-.1385	-.0034	50400.	.6382	.1482
#2	-.3696	50840.	-.5232	.1674	.0053	.0094	50700.	.7154	-.1903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2598**	**.0544**	**19810.**	**89.24**	**-13.65**	**.2493**	**50430.**	**-.1671**	**.2134**
Stddev	.0248	1.204	29.	.10	.35	.0881	262.	.1156	.0522
%RSD	9.549	2214.	.1456	.1166	2.593	35.32	.5200	69.18	24.47
#1	-.2423	.9061	19790.	89.31	-13.40	.3116	50250.	-.0853	.1765
#2	-.2774	-.7973	19830.	89.17	-13.90	.1871	50620.	-.2488	.2503
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**183.0**	**-.4121**	**1.405**	**-.3502**	**-5.049**	**1.496**	**-.2870**	**4.174**	**.2521**
Stddev	74.3	.0249	.857	2.497	1.301	.442	1.386	1.560	.1240
%RSD	40.60	6.045	61.02	713.0	25.77	29.54	483.0	37.37	49.19
#1	130.5	-.3945	.7985	1.415	-4.129	1.183	-1.267	5.277	.1644
#2	235.6	-.4297	2.011	-2.116	-5.969	1.808	.6931	3.071	.3398
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 7/16/2019 16:57:56 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3231**	**.4242**	**-.8650**	**.4996**	**98.05**	**98.24**	**101.1**	**-.7489**	**-.3733**
Stddev	.0253	.2362	.6566	.0604	.17	.04	.1	.0555	.4157
%RSD	7.829	55.68	75.90	12.08	.1735	.0383	.0774	7.413	111.4
#1	-.3053	.5913	-1.329	.5423	98.17	98.26	101.0	-.7097	-.0793
#2	-.3410	.2572	-.4008	.4569	97.93	98.21	101.1	-.7882	-.6672
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3385.6**	**6809.0**	**99606.**	**26373.**
Stddev	3.9	11.8	38.	20.
%RSD	.11665	.17355	.03830	.07744
#1	3388.4	6817.3	99633.	26359.
#2	3382.8	6800.6	99579.	26388.

Sample Name: ICSAB Acquired: 7/16/2019 17:00:28 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1014.**	**49730.**	**2.560**	**-1.291**	**499.9**	**489.7**	**49870.**	**986.0**	**475.0**
Stddev	14.	289.	1.159	.025	5.7	3.8	366.	7.6	2.2
%RSD	1.348	.5817	45.28	1.905	1.136	.7748	.7346	.7745	.4534
#1	1004.	49520.	3.380	-1.273	495.8	487.0	49610.	980.6	473.5
#2	1024.	49930.	1.740	-1.308	503.9	492.3	50130.	991.4	476.5
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**479.5**	**494.6**	**19450.**	**88.74**	**.2896**	**-.2836**	**49920.**	**470.7**	**-.1684**
Stddev	5.4	4.7	93.	.21	16.24	.0021	117.	4.5	.2997
%RSD	1.130	.9548	.4779	.2375	5608.	.7342	.2351	.9466	178.0
#1	475.7	491.3	19380.	88.59	11.77	-.2822	49840.	467.6	-.3803
#2	483.4	498.0	19510.	88.89	-11.19	-.2851	50000.	473.9	.0435
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**244.9**	**986.3**	**1.376**	**971.9**	**-9.666**	**-.5150**	**1.466**	**-18.40**	**.3897**
Stddev	20.7	5.8	1.915	5.6	3.182	.1439	.831	.85	.1525
%RSD	8.452	.5921	139.1	.5797	32.92	27.95	56.73	4.623	39.13
#1	230.2	982.2	2.731	967.9	-7.416	-.6167	.8776	-17.80	.4975
#2	259.5	990.4	.0222	975.8	-11.92	-.4132	2.053	-19.00	.2819
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 7/16/2019 17:00:28 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.3033	.4397	.3765	496.8	97.62	97.85	100.5	963.6	-.1249
Stddev	.0271	.1404	1.043	4.8	.10	.24	.5	5.1	.6551
%RSD	8.921	31.93	276.9	.9625	.1062	.2489	.5099	.5259	524.7
#1	-.2842	.3404	1.114	493.4	97.55	98.02	100.1	960.0	-.5881
#2	-.3224	.5390	-.3608	500.2	97.69	97.68	100.8	967.2	.3384
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3366.6	6779.2	99216.	26213.
Stddev	8.0	7.2	247.	134.
%RSD	.23748	.10624	.24886	.50989
#1	3361.0	6774.1	99390.	26118.
#2	3372.3	6784.2	99041.	26307.

Sample Name: CRDL Acquired: 7/16/2019 17:02:52 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.168**	**62.93**	**5.993**	**51.50**	**10.44**	**1.075**	**1045.**	**3.116**	**4.594**
Stddev	.363	1.33	2.426	.39	.09	.002	5.	.138	.035
%RSD	5.881	2.121	40.49	.7597	.8870	.1463	.4749	4.415	.7541
#1	5.912	61.99	4.277	51.22	10.50	1.074	1042.	3.213	4.618
#2	6.425	63.87	7.709	51.78	10.37	1.077	1049.	3.018	4.569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.950**	**5.399**	**74.34**	**101.4**	**496.0**	**39.46**	**216.9**	**4.830**	**18.98**
Stddev	.070	2.057	1.34	.4	13.7	.28	2.2	.030	.10
%RSD	1.404	38.10	1.807	.4230	2.765	.7190	1.016	.6165	.5494
#1	4.901	3.944	75.29	101.7	505.7	39.26	218.4	4.809	18.90
#2	5.000	6.853	73.39	101.1	486.3	39.66	215.3	4.851	19.05
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1283.**	**10.63**	**48.04**	**4.162**	**43.34**	**7.450**	**9.735**	**102.4**	**51.32**
Stddev	59.	.19	.76	.688	1.57	.298	2.088	1.6	.39
%RSD	4.570	1.761	1.590	16.52	3.619	3.999	21.44	1.532	.7550
#1	1324.	10.76	47.50	3.676	42.23	7.661	11.21	101.3	51.05
#2	1241.	10.50	48.58	4.648	44.45	7.240	8.259	103.6	51.60
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 7/16/2019 17:02:52 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.409**	**5.053**	**8.553**	**5.031**	**102.0**	**103.4**	**101.8**	**9.046**	**66.55**
Stddev	.028	.181	.012	.061	.5	.2	.0	.085	.43
%RSD	.5248	3.574	.1423	1.221	.4579	.2087	.0018	.9371	.6443
#1	5.389	4.926	8.544	4.987	102.3	103.2	101.8	8.986	66.85
#2	5.430	5.181	8.561	5.074	101.7	103.6	101.8	9.106	66.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3848.2**	**7082.7**	**104840.**	**26563.**
Stddev	16.3	32.4	219.	.
%RSD	.42297	.45786	.20872	.00176
#1	3859.7	7105.6	104690.	26563.
#2	3836.7	7059.8	105000.	26562.

Sample Name: 1709512_26996 Acquired: 7/16/2019 17:06:09 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2088**	**3.266**	**.5094**	**.3381**	**2.967**	**-.0113**	**6.951**	**.9729**	**.0671**
Stddev	.2786	6.605	.5954	.1033	.031	.0105	.310	.0180	.0674
%RSD	133.4	202.2	116.9	30.57	1.044	92.66	4.458	1.845	100.3
#1	-.4058	7.937	.0884	.4111	2.989	-.0187	6.732	.9856	.0195
#2	-.0118	-1.404	.9305	.2650	2.945	-.0039	7.170	.9602	.1147

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0076**	**.6828**	**4.847**	**102.7**	**-17.52**	**-.4343**	**3.884**	**.0004**	**.0026**
Stddev	.1092	.7141	1.543	.4	4.70	.8838	3.629	.0446	.0170
%RSD	1441.	104.6	31.84	.4179	26.84	203.5	93.45	10130.	660.1
#1	.0848	1.188	3.756	103.0	-20.84	-1.059	1.318	.0319	.0146
#2	-.0696	.1779	5.938	102.4	-14.19	.1907	6.450	-.0311	-.0094

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**320.6**	**.3829**	**.1481**	**-.8440**	**-.2374**	**.3813**	**1.069**	**.0318**	**-.2309**
Stddev	109.7	.1573	.7564	.0669	1.039	1.072	.088	1.939	.0999
%RSD	34.22	41.09	510.8	7.930	437.7	281.2	8.220	6094.	43.26
#1	243.0	.4941	.6829	-.8913	.4973	1.140	1.132	1.403	-.3015
#2	398.2	.2716	-.3868	-.7966	-.9721	-.3770	1.007	-1.339	-.1603

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0212**	**.2249**	**.4129**	**.0948**	**102.2**	**104.3**	**102.6**	**2.090**	**.2057**
Stddev	.0087	.0890	.0666	.0306	.3	.4	.2	.086	.1305
%RSD	40.98	39.56	16.12	32.33	.2532	.3592	.1686	4.139	63.45
#1	.0150	.1619	.3658	.1164	102.4	104.6	102.5	2.028	.1134
#2	.0273	.2878	.4600	.0731	102.0	104.1	102.8	2.151	.2980

Sample Name: 1709512_26996 Acquired: 7/16/2019 17:06:09 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3895.2	7098.8	105770.	26783.
Stddev	16.3	18.0	380.	45.
%RSD	.41786	.25318	.35922	.16860
#1	3906.7	7111.5	106040.	26751.
#2	3883.7	7086.1	105510.	26815.

Sample Name: 1709513_26996 Acquired: 7/16/2019 17:08:20 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**249.0**	**4711.**	**435.8**	**489.0**	**491.9**	**481.3**	**4847.**	**468.2**	**431.7**
Stddev	2.1	37.	21.3	21.5	5.4	4.6	24.	20.5	19.6
%RSD	.8467	.7851	4.895	4.389	1.089	.9541	.4964	4.370	4.547
#1	247.6	4685.	450.9	504.2	488.1	478.1	4830.	482.7	445.5
#2	250.5	4737.	420.7	473.8	495.7	484.5	4864.	453.7	417.8

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**476.4**	**490.3**	**4821.**	**99.71**	**4693.**	**473.9**	**4783.**	**475.6**	**452.6**
Stddev	1.1	1.4	28.	4.62	42.	3.3	24.	3.8	20.6
%RSD	.2323	.2854	.5852	4.636	.8932	.6913	.5033	.7901	4.547
#1	475.6	489.3	4801.	96.44	4663.	471.6	4766.	473.0	467.2
#2	477.2	491.3	4840.	103.0	4722.	476.2	4800.	478.3	438.1

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4985.**	**479.8**	**459.4**	**469.9**	**4497.**	**489.3**	**459.7**	**2489.**	**486.0**
Stddev	17.	23.7	16.3	23.1	178.	21.8	19.7	21.	23.3
%RSD	.3340	4.943	3.544	4.924	3.965	4.457	4.289	.8458	4.800
#1	4973.	496.6	470.9	486.3	4623.	504.7	473.7	2474.	502.5
#2	4997.	463.0	447.9	453.6	4371.	473.9	445.8	2504.	469.5

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**512.8**	**476.1**	**459.5**	**483.1**	**104.5**	**102.0**	**102.2**	**462.9**	**501.6**
Stddev	4.3	2.0	15.9	1.4	4.8	.4	.6	21.4	3.0
%RSD	.8422	.4122	3.452	.2865	4.620	.3858	.6091	4.620	.5962
#1	509.8	474.7	470.7	482.1	101.1	101.7	101.8	478.0	499.5
#2	515.9	477.5	448.3	484.1	107.9	102.2	102.6	447.8	503.7

Sample Name: 1709513_26996 Acquired: 7/16/2019 17:08:20 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3782.7	7254.8	103370.	26670.
Stddev	175.4	335.2	399.	162.
%RSD	4.6360	4.6202	.38581	.60912
#1	3658.7	7017.8	103090.	26555.
#2	3906.7	7491.8	103650.	26785.

Sample Name: 1708468_26996 Acquired: 7/16/2019 17:10:21 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1980**	**20.71**	**1.683**	**35.98**	**12.00**	**.0588**	**248.4**
Stddev	.2430	6.57	.367	.48	.15	.0131	2.0
%RSD	122.7	31.72	21.79	1.320	1.264	22.31	.7900
#1	-.0262	25.36	1.424	36.32	11.89	.0495	247.0
#2	-.3699	16.07	1.943	35.65	12.11	.0680	249.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1471**	**-1.229**	**7.783**	**1.241**	**53.80**	**70.31**	**293.1**
Stddev	.0457	.121	.201	1.081	2.01	.11	43.9
%RSD	31.09	9.870	2.586	87.14	3.729	.1544	14.97
#1	.1148	-1.143	7.925	2.006	52.38	70.23	262.1
#2	.1795	-1.315	7.641	.4763	55.22	70.39	324.1

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0711**	**59.55**	**.6673**	**1.205**	**1406000.**	**.7941**	**40.25**
Stddev	.5874	.81	.1326	.049	14090.	.5707	2.37
%RSD	825.8	1.362	19.87	4.070	1.002	71.87	5.896
#1	.4865	58.98	.5735	1.240	1396000.	1.198	38.57
#2	-.3443	60.13	.7610	1.170	1416000.	.3905	41.93

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.483**	**29.46**	**.5486**	**4.387**	**147.2**	**1.044**	**1.915**
Stddev	1.130	.25	.7298	.651	3.0	.792	.021
%RSD	76.21	.8638	133.0	14.84	2.045	75.83	1.085
#1	-.6838	29.64	.0325	3.927	149.3	.4842	1.900
#2	-2.282	29.28	1.065	4.848	145.0	1.604	1.930

Sample Name: 1708468_26996 Acquired: 7/16/2019 17:10:21 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3581	-.6091	.0031	83.00	81.23	96.50	8.061
Stddev	.0378	.1938	.1374	.14	.54	.33	.119
%RSD	10.54	31.81	4393.	.1631	.6592	.3378	1.475
#1	.3848	-.4721	.1003	82.90	80.85	96.27	7.977
#2	.3314	-.7461	-.0941	83.09	81.61	96.73	8.145

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.9953
Stddev	.0129
%RSD	1.298
#1	.9862
#2	1.004

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.4	5763.5	82361.	25180.
Stddev	4.1	9.4	543.	85.
%RSD	.15444	.16305	.65915	.33785
#1	2664.5	5756.9	81977.	25120.
#2	2670.3	5770.2	82745.	25241.

Sample Name: 30313260002_26996 Acquired: 7/16/2019 17:12:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5300**	**22.54**	**3.634**	**52.48**	**720.1**	**-.0137**	**275900.**
Stddev	.0172	1.09	.799	.14	14.9	.0275	7355.
%RSD	3.247	4.844	21.98	.2688	2.076	201.5	2.666
#1	-.5421	23.31	3.069	52.38	730.7	-.0331	281100.
#2	-.5178	21.77	4.199	52.58	709.5	.0058	270700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.157**	**-.2280**	**1.109**	**7.030**	**18.00**	**66.61**	**4165.**
Stddev	.127	.1580	.150	.539	.30	.14	37.
%RSD	4.021	69.28	13.56	7.666	1.650	.2060	.8798
#1	3.247	-.3397	1.215	6.649	18.21	66.52	4191.
#2	3.067	-.1163	1.002	7.411	17.79	66.71	4140.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.307**	**24030.**	**704.9**	**.7697**	**1420000.**	**7.173**	**85.69**
Stddev	.124	734.	13.6	.0927	16890.	.845	.42
%RSD	1.486	3.055	1.929	12.04	1.189	11.78	.4957
#1	8.394	24550.	714.5	.7042	1432000.	6.575	85.99
#2	8.219	23510.	695.2	.8352	1408000.	7.770	85.39

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.614**	**593.8**	**-.3122**	**5.861**	**3224.**	**.6051**	**527.1**
Stddev	1.811	6.6	1.817	.365	79.	.7124	12.5
%RSD	50.12	1.103	582.1	6.237	2.439	117.7	2.371
#1	2.333	589.2	.9727	5.602	3280.	1.109	536.0
#2	4.895	598.5	-1.597	6.119	3169.	.1014	518.3

Sample Name: 30313260002_26996 Acquired: 7/16/2019 17:12:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0883	-2.919	.4180	80.01	80.20	94.27	386.3
Stddev	.0133	1.846	.0319	.16	.35	2.10	.8
%RSD	15.05	63.22	7.643	.1979	.4347	2.230	.2068
#1	-.0789	-1.614	.4406	79.90	80.45	92.78	385.8
#2	-.0977	-4.224	.3954	80.12	79.96	95.75	386.9

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.4429
Stddev	.6596
%RSD	148.9
#1	.9093
#2	-.0234

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2527.2	5556.3	81322.	24598.
Stddev	5.2	11.0	353.	549.
%RSD	.20604	.19789	.43466	2.2302
#1	2523.5	5548.5	81572.	24210.
#2	2530.9	5564.1	81072.	24986.

Sample Name: 1709514_26996 Acquired: 7/16/2019 17:14:50 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5081**	**24.99**	**4.536**	**52.64**	**702.2**	**-.0308**	**267800.**
Stddev	.0025	2.96	.978	.45	4.5	.0117	1188.
%RSD	.4994	11.86	21.56	.8558	.6338	38.10	.4436
#1	-.5063	22.89	3.845	52.32	699.0	-.0391	268600.
#2	-.5099	27.08	5.228	52.96	705.3	-.0225	266900.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.175**	**-.3368**	**9.472**	**7.261**	**77.62**	**66.71**	**4079.**
Stddev	.006	.0459	.214	1.578	.38	.07	82.
%RSD	.1823	13.63	2.262	21.73	.4867	.0996	2.012
#1	3.179	-.3692	9.320	6.145	77.36	66.66	4021.
#2	3.171	-.3043	9.623	8.376	77.89	66.75	4137.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.758**	**23590.**	**693.1**	**.3087**	**1394000.**	**7.927**	**84.69**
Stddev	.908	40.	.1	.2233	13670.	.276	.63
%RSD	10.37	.1714	.0115	72.33	.9807	3.479	.7403
#1	9.400	23610.	693.0	.1508	1384000.	7.732	84.24
#2	8.116	23560.	693.1	.4666	1403000.	8.122	85.13

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.252**	**595.4**	**.1677**	**5.995**	**3148.**	**2.210**	**514.4**
Stddev	1.409	.0	1.741	1.621	9.	.391	2.7
%RSD	33.14	.0070	1038.	27.04	.2947	17.69	.5245
#1	5.248	595.4	-1.063	4.849	3141.	2.486	512.5
#2	3.255	595.4	1.399	7.141	3154.	1.933	516.3

Sample Name: 1709514_26996 Acquired: 7/16/2019 17:14:50 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0139	-3.720	.4742	80.53	80.92	96.22	386.5
Stddev	.1644	1.767	.1649	.03	.18	.53	1.1
%RSD	1183.	47.49	34.78	.0430	.2282	.5515	.2763
#1	-.1023	-2.471	.3576	80.56	81.05	95.84	385.7
#2	.1301	-4.969	.5908	80.51	80.79	96.59	387.2

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.5049
Stddev	.1746
%RSD	34.59
#1	.6283
#2	.3814

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2530.7	5592.7	82049.	25107.
Stddev	2.5	2.4	187.	138.
%RSD	.09958	.04299	.22818	.55152
#1	2528.9	5594.4	82181.	25009.
#2	2532.5	5591.0	81917.	25205.

Sample Name: 1709515_26996 Acquired: 7/16/2019 17:17:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**277.0**	**5075.**	**511.6**	**565.9**	**1235.**	**488.0**	**285000.**
Stddev	2.8	50.	1.4	5.2	7.	1.9	1444.
%RSD	1.013	.9882	.2716	.9265	.6021	.3907	.5067
#1	275.0	5039.	510.6	562.2	1230.	486.7	286000.
#2	279.0	5110.	512.5	569.6	1240.	489.4	284000.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**521.1**	**482.4**	**472.7**	**519.0**	**4866.**	**65.28**	**9800.**
Stddev	3.5	1.5	1.8	1.8	16.	.24	192.
%RSD	.6794	.3186	.3896	.3488	.3320	.3704	1.954
#1	518.6	481.3	471.4	520.3	4855.	65.11	9665.
#2	523.6	483.5	474.0	517.7	4878.	65.46	9935.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**527.8**	**29420.**	**1184.**	**542.5**	**1456000.**	**461.7**	**637.1**
Stddev	5.6	5.	7.	4.1	19050.	2.9	1.6
%RSD	1.061	.0159	.5961	.7535	1.308	.6386	.2484
#1	523.9	29420.	1179.	539.6	1443000.	459.6	636.0
#2	531.8	29410.	1189.	545.4	1470000.	463.7	638.3

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**499.2**	**5931.**	**517.8**	**541.2**	**6071.**	**451.3**	**1056.**
Stddev	3.3	54.	2.6	3.3	21.	1.9	5.
%RSD	.6559	.9153	.5036	.6159	.3491	.4311	.4947
#1	496.8	5893.	516.0	538.9	6056.	449.9	1052.
#2	501.5	5970.	519.7	543.6	6085.	452.6	1060.

Sample Name: 1709515_26996 Acquired: 7/16/2019 17:17:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**483.0**	**428.0**	**504.4**	**80.03**	**79.88**	**94.48**	**868.2**
Stddev	2.6	4.8	2.5	.07	.07	.31	4.9
%RSD	.5447	1.124	.4977	.0822	.0909	.3270	.5672
#1	481.1	424.6	502.6	79.98	79.82	94.26	864.7
#2	484.8	431.4	506.2	80.07	79.93	94.70	871.7

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**504.0**
Stddev	4.2
%RSD	.8302
#1	501.1
#2	507.0

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2476.8**	**5557.3**	**80990.**	**24653.**
Stddev	9.2	4.6	74.	81.
%RSD	.37036	.08222	.09090	.32697
#1	2470.3	5554.1	80938.	24596.
#2	2483.2	5560.5	81042.	24710.

Sample Name: 1709516_26996 Acquired: 7/16/2019 17:19:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**269.2**	**4913.**	**519.9**	**560.4**	**1217.**	**489.9**	**278100.**
Stddev	2.4	47.	5.7	4.0	10.	3.4	1497.
%RSD	.8813	.9469	1.101	.7122	.8138	.6962	.5383
#1	267.5	4880.	515.8	557.5	1210.	487.5	277100.
#2	270.8	4946.	523.9	563.2	1224.	492.3	279200.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**526.6**	**487.3**	**473.9**	**520.4**	**4711.**	**65.53**	**9481.**
Stddev	3.5	4.9	2.1	3.0	40.	.06	194.
%RSD	.6612	1.015	.4534	.5783	.8414	.0911	2.048
#1	524.1	483.8	472.4	518.3	4683.	65.57	9344.
#2	529.0	490.8	475.4	522.5	4739.	65.48	9618.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**529.2**	**28630.**	**1165.**	**533.6**	**1413000.**	**472.6**	**635.3**
Stddev	4.2	180.	8.	2.4	15530.	1.2	6.5
%RSD	.7888	.6277	.7125	.4540	1.099	.2614	1.024
#1	526.3	28500.	1159.	531.9	1402000.	471.8	630.7
#2	532.2	28750.	1170.	535.3	1424000.	473.5	639.9

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.7**	**5780.**	**515.5**	**546.7**	**5924.**	**445.5**	**1045.**
Stddev	4.1	27.	1.9	5.4	14.	2.3	7.
%RSD	.8149	.4730	.3752	.9870	.2422	.5264	.6840
#1	503.8	5760.	514.1	542.9	5914.	443.9	1040.
#2	509.6	5799.	516.9	550.6	5934.	447.2	1050.

Sample Name: 1709516_26996 Acquired: 7/16/2019 17:19:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	471.0	436.6	504.8	80.10	80.94	95.26	868.6
Stddev	3.1	5.1	3.7	.06	.02	.17	4.9
%RSD	.6621	1.163	.7291	.0798	.0257	.1793	.5659
#1	468.7	433.0	502.2	80.06	80.93	95.14	865.2
#2	473.2	440.2	507.4	80.15	80.96	95.38	872.1

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	501.1
Stddev	5.0
%RSD	1.002
#1	497.5
#2	504.6

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2485.9	5562.7	82074.	24857.
Stddev	2.3	4.4	21.	45.
%RSD	.09107	.07984	.02570	.17931
#1	2487.5	5559.6	82059.	24826.
#2	2484.3	5565.9	82089.	24889.

Sample Name: 30313260001_26996 Acquired: 7/16/2019 17:21:22 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.8792**	**22.81**	**4.988**	**56.44**	**776.9**	**-.0193**	**365900.**
Stddev	.2304	7.53	.067	.68	7.0	.0268	3199.
%RSD	26.20	33.01	1.336	1.196	.8989	138.9	.8742
#1	-.7163	17.49	4.941	56.92	772.0	-.0003	363700.
#2	-1.042	28.14	5.035	55.96	781.9	-.0382	368200.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.081**	**-.3986**	**1.236**	**9.508**	**24.69**	**64.91**	**5122.**
Stddev	.034	.2447	.152	.526	.45	.28	53.
%RSD	.8399	61.39	12.28	5.530	1.831	.4330	1.028
#1	4.106	-.2256	1.129	9.880	24.37	64.72	5085.
#2	4.057	-.5717	1.344	9.136	25.01	65.11	5159.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.23**	**25060.**	**840.1**	**1.432**	**1441000.**	**10.45**	**80.65**
Stddev	.44	74.	1.9	.249	12780.	.82	.01
%RSD	3.632	.2972	.2216	17.39	.8870	7.843	.0137
#1	12.54	25000.	838.8	1.256	1432000.	11.03	80.65
#2	11.91	25110.	841.4	1.608	1450000.	9.866	80.66

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.18**	**832.7**	**-1.195**	**5.145**	**3788.**	**3.191**	**683.2**
Stddev	.90	4.4	2.015	1.256	17.	.409	6.8
%RSD	3.714	.5258	168.7	24.42	.4615	12.80	.9937
#1	24.82	835.8	-2.620	6.034	3776.	2.903	678.4
#2	23.55	829.6	.2304	4.257	3800.	3.480	688.0

Sample Name: 30313260001_26996 Acquired: 7/16/2019 17:21:22 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1455	-2.175	.5423	78.26	78.30	94.76	372.5
Stddev	.2256	3.220	.1372	.51	.06	.42	2.5
%RSD	155.1	148.1	25.30	.6483	.0744	.4381	.6754
#1	.3051	.1020	.4453	77.91	78.26	94.46	374.3
#2	-.0140	-4.452	.6394	78.62	78.35	95.05	370.8

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	1.107
Stddev	.031
%RSD	2.759
#1	1.086
#2	1.129

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2462.7	5435.0	79397.	24726.
Stddev	10.7	35.2	59.	108.
%RSD	.43298	.64830	.07437	.43807
#1	2455.2	5410.1	79355.	24650.
#2	2470.3	5459.9	79439.	24803.

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:23:39 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3984**	**1.800**	**1.940**	**145.7**	*****	**-.2568**	**691600.**
Stddev	.0758	.342	2.763	.1	-----	.0181	8323.
%RSD	19.02	19.01	142.4	.0910	-----	7.045	1.203
#1	.3448	2.041	3.893	145.8	-----	-.2440	685700.
#2	.4520	1.558	-.0138	145.6	-----	-.2696	697500.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-22.29**	**199.0**	**.4911**	**73.01**	**10.16**	**57.57**	**401600.**
Stddev	.25	3.0	.1877	.93	.37	.08	2575.
%RSD	1.109	1.517	38.23	1.275	3.621	.1473	.6412
#1	-22.47	201.1	.6239	72.35	10.42	57.51	399800.
#2	-22.12	196.9	.3584	73.67	9.897	57.63	403400.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**26.80**	**8768.**	**2255.**	**52.65**	**1827000.**	**125.0**	**33.44**
Stddev	.29	197.	37.	.15	36150.	.8	.05
%RSD	1.071	2.249	1.626	.2817	1.979	.6209	.1427
#1	26.60	8629.	2229.	52.54	1801000.	124.4	33.41
#2	27.00	8907.	2281.	52.75	1852000.	125.5	33.48

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.441**	**381.3**	**-6.234**	**6.867**	**6091.**	**2.815**	**3488.**
Stddev	3.904	4.1	1.724	1.932	97.	1.823	12.
%RSD	87.89	1.070	27.66	28.14	1.592	64.77	.3426
#1	-7.202	384.2	-7.454	5.501	6022.	1.526	3496.
#2	-1.681	378.4	-5.015	8.233	6160.	4.105	3479.

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:23:39 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.8108**	**-4.795**	**1.123**	**70.76**	**73.24**	**88.48**	**198.7**
Stddev	.0855	1.250	.306	.04	.30	1.01	2.2
%RSD	10.55	26.07	27.22	.0557	.4146	1.137	1.097
#1	-.8712	-3.911	.9072	70.79	73.45	89.19	200.2
#2	-.7503	-5.679	1.340	70.73	73.02	87.76	197.1

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**1.654**
Stddev	.046
%RSD	2.762
#1	1.622
#2	1.687

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2184.2**	**4913.7**	**74259.**	**23087.**
Stddev	3.2	2.7	308.	263.
%RSD	.14727	.05569	.41460	1.1371
#1	2181.9	4915.6	74476.	23273.
#2	2186.4	4911.7	74041.	22901.

Sample Name: CCV Acquired: 7/16/2019 17:29:15 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**482.8**	**9817.**	**943.8**	**981.6**	**1022.**	**982.0**	**10140.**	**966.8**	**941.2**
Stddev	2.9	32.	1.5	12.1	1.	3.2	81.	10.6	11.2
%RSD	.6083	.3275	.1564	1.234	.0553	.3216	.8019	1.093	1.188
#1	480.8	9840.	942.8	973.0	1022.	984.2	10200.	959.3	933.3
#2	484.9	9794.	944.9	990.2	1021.	979.8	10090.	974.2	949.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**964.5**	**1013.**	**9962.**	**94.11**	**9894.**	**969.4**	**10260.**	**975.7**	**932.4**
Stddev	2.1	.	52.	.55	1.	2.1	158.	7.7	10.9
%RSD	.2175	.0464	.5177	.5873	.0079	.2156	1.535	.7901	1.172
#1	963.0	1014.	9999.	94.50	9895.	967.9	10370.	981.1	924.7
#2	966.0	1013.	9926.	93.72	9894.	970.8	10150.	970.2	940.1
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10120.**	**1006.**	**962.1**	**966.2**	**9533.**	**971.4**	**962.0**	**5066.**	**977.0**
Stddev	39.	11.	9.9	17.1	139.	13.3	15.3	29.	10.4
%RSD	.3862	1.053	1.030	1.767	1.456	1.364	1.590	.5657	1.061
#1	10090.	998.6	955.1	954.1	9435.	962.1	951.2	5086.	969.6
#2	10150.	1014.	969.1	978.2	9631.	980.8	972.8	5045.	984.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 17:29:15 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1054.**	**948.7**	**989.6**	**983.5**	**101.8**	**101.4**	**99.63**	**985.6**	**1009.**
Stddev	1.	2.5	18.5	2.9	.3	.0	1.13	9.3	5.
%RSD	.0818	.2670	1.871	.2981	.3082	.0153	1.138	.9473	.4760
#1	1054.	946.9	976.5	981.4	102.0	101.4	98.83	979.0	1006.
#2	1053.	950.5	1003.	985.5	101.5	101.4	100.4	992.2	1012.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3570.5**	**7066.1**	**102780.**	**25998.**
Stddev	21.0	21.8	16.	296.
%RSD	.58733	.30822	.01534	1.1375
#1	3585.3	7081.5	102760.	25789.
#2	3555.7	7050.7	102790.	26207.

Sample Name: CCB Acquired: 7/16/2019 17:31:39 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1997**	**.2353**	**.5843**	**.7820**	**8.587**	**.1218**	**7.838**	**.0473**	**.0021**
Stddev	.2556	.7433	.6898	.0937	.088	.0189	3.999	.0105	.1189
%RSD	128.0	316.0	118.0	11.98	1.022	15.48	51.02	22.30	5550.
#1	-.0189	-.2903	.0966	.8483	8.649	.1352	10.67	.0398	-.0819
#2	-.3804	.7609	1.072	.7158	8.525	.1085	5.011	.0547	.0862
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0226**	**-.6011**	**-.5822**	**103.0**	**65.91**	**.0466**	**3.432**	**-.0216**	**.7060**
Stddev	.1454	.3521	.2322	.1	2.13	.9667	1.955	.0208	.0648
%RSD	642.3	58.57	39.88	.1182	3.231	2073.	56.97	96.27	9.177
#1	-.0802	-.3522	-.4181	103.0	67.42	-.6369	2.050	-.0363	.7519
#2	.1254	-.8501	-.7464	103.1	64.41	.7302	4.815	-.0069	.6602
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**169.2**	**-.1266**	**.7822**	**-.9393**	**-.0509**	**1.332**	**.4913**	**-1.429**	**-.3018**
Stddev	23.1	.1528	.6810	.7784	.7548	1.176	.7081	3.960	.1516
%RSD	13.64	120.7	87.06	82.87	1483.	88.30	144.1	277.1	50.22
#1	152.9	-.0186	1.264	-.3889	-.5847	.5004	-.0094	1.371	-.1946
#2	185.5	-.2347	.3007	-1.490	.4828	2.164	.9920	-4.229	-.4089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/16/2019 17:31:39 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0816	.2758	.9389	-.1315	102.6	103.6	100.0	-.2669	-.1134
Stddev	.0627	.0976	1.215	.1300	.0	.2	.9	.0609	.8015
%RSD	76.81	35.39	129.4	98.83	.0048	.1450	.8732	22.80	706.9
#1	.1259	.3448	.0798	-.0396	102.6	103.5	99.41	-.3100	.4533
#2	.0373	.2068	1.798	-.2234	102.6	103.7	100.6	-.2239	-.6801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3909.3	7123.7	105010.	26102.
Stddev	4.6	.3	152.	228.
%RSD	.11822	.00481	.14497	.87321
#1	3906.0	7123.5	104900.	25941.
#2	3912.5	7123.9	105120.	26263.

Sample Name: 30313260002_26996 Acquired: 7/16/2019 17:37:03 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7170**	**13.49**	**2.782**	**27.47**	**356.2**	**-.0097**	**140600.**	**1.644**
Stddev	.1625	6.18	.033	.03	2.1	.0342	284.	.136
%RSD	22.66	45.84	1.191	.1180	.5778	353.0	.2017	8.245
#1	-.6021	17.86	2.759	27.44	354.7	.0145	140400.	1.548
#2	-.8319	9.116	2.806	27.49	357.7	-.0339	140800.	1.740

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4683**	**.7419**	**3.500**	**7.624**	**72.80**	**2054.**	**3.255**	**12290.**
Stddev	.0796	.0690	.066	1.957	.14	14.	.433	30.
%RSD	16.99	9.304	1.870	25.66	.1975	.6779	13.29	.2407
#1	-.4120	.7908	3.547	6.240	72.90	2044.	3.561	12320.
#2	-.5245	.6931	3.454	9.007	72.70	2064.	2.949	12270.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**354.8**	**.5932**	**690200.**	**4.157**	**45.24**	**3.649**	**304.4**	**-.1208**
Stddev	.0	.0387	6730.	.429	1.24	.587	4.0	.0448
%RSD	.0133	6.531	.9751	10.33	2.736	16.10	1.312	37.06
#1	354.7	.5658	685400.	3.853	46.12	3.233	301.6	-.1525
#2	354.8	.6206	694900.	4.460	44.37	4.064	307.3	-.0892

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.783**	**1581.**	**1.327**	**256.7**	**.2021**	**-.3228**	**.3525**	**85.80**
Stddev	1.182	1.	.833	2.0	.0887	.7648	.0347	.39
%RSD	24.71	.0396	62.80	.7828	43.90	236.9	9.850	.4600
#1	3.947	1580.	1.916	255.3	.1393	.2180	.3280	86.07
#2	5.619	1581.	.7377	258.2	.2648	-.8636	.3771	85.52

Sample Name: 30313260002_26996 Acquired: 7/16/2019 17:37:03 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**85.29**	**96.40**	**202.9**	**.1094**
Stddev	.35	.52	2.4	.3068
%RSD	.4091	.5351	1.188	280.5
#1	85.54	96.04	201.2	.3264
#2	85.04	96.77	204.6	-.1076

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2761.8**	**5958.0**	**86479.**	**25155.**
Stddev	5.5	27.4	354.	135.
%RSD	.19750	.46001	.40910	.53509
#1	2765.7	5977.4	86729.	25060.
#2	2758.0	5938.6	86229.	25250.

Sample Name: 1709514_26996 Acquired: 7/16/2019 17:39:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7034**	**17.96**	**4.616**	**27.68**	**370.0**	**.0214**	**147100.**	**1.580**
Stddev	.1171	.28	.380	.10	2.2	.0084	231.	.032
%RSD	16.65	1.540	8.231	.3513	.5870	39.30	.1573	2.045
#1	-.6206	17.76	4.885	27.75	368.4	.0154	147300.	1.557
#2	-.7862	18.15	4.347	27.61	371.5	.0273	146900.	1.603

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4504**	**.6699**	**3.118**	**11.78**	**72.46**	**2116.**	**2.882**	**12780.**
Stddev	.0616	.0818	.803	1.66	.03	30.	.411	56.
%RSD	13.68	12.21	25.76	14.04	.0460	1.404	14.28	.4351
#1	-.4940	.6121	3.686	10.61	72.44	2095.	2.591	12820.
#2	-.4069	.7278	2.551	12.95	72.49	2137.	3.173	12750.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**367.9**	**.3712**	**723200.**	**4.013**	**43.84**	**4.087**	**307.4**	**.0560**
Stddev	.4	.0533	3753.	.442	.56	1.393	9.2	.5570
%RSD	.0977	14.35	.5190	11.03	1.277	34.09	3.005	995.6
#1	368.2	.3335	720500.	3.700	43.44	5.072	300.9	-.3379
#2	367.6	.4088	725800.	4.325	44.23	3.102	314.0	.4498

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.319**	**1656.**	**.9154**	**269.4**	**.0309**	**.6095**	**.1430**	**85.45**
Stddev	1.269	7.	.6013	1.3	.0672	2.236	.0106	.02
%RSD	54.74	.4028	65.69	.4731	217.3	366.9	7.388	.0278
#1	1.421	1661.	1.341	268.5	-.0166	-.9719	.1505	85.46
#2	3.216	1651.	.4902	270.3	.0785	2.191	.1356	85.43

Sample Name: 1709514_26996 Acquired: 7/16/2019 17:39:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**84.91**	**95.58**	**207.1**	**-.0529**
Stddev	.19	.89	2.1	.2672
%RSD	.2257	.9322	1.036	504.7
#1	84.77	94.95	205.6	-.2419
#2	85.04	96.21	208.7	.1360

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2749.2**	**5933.7**	**86094.**	**24942.**
Stddev	1.3	1.6	194.	233.
%RSD	.04599	.02777	.22565	.93225
#1	2748.3	5934.9	85957.	24777.
#2	2750.0	5932.5	86231.	25106.

Sample Name: 1709515_26996 Acquired: 7/16/2019 17:41:23 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**134.1**	**2561.**	**249.0**	**291.2**	**623.7**	**248.1**	**150100.**	**258.4**
Stddev	1.6	3.	9.9	4.8	3.3	.6	136.	2.5
%RSD	1.200	.1145	3.991	1.639	.5252	.2309	.0907	.9613
#1	133.0	2559.	242.0	287.8	621.4	247.7	150100.	256.6
#2	135.3	2563.	256.0	294.5	626.0	248.5	150000.	260.1

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**243.7**	**244.3**	**262.6**	**2503.**	**71.81**	**4844.**	**259.0**	**15480.**
Stddev	1.8	.8	1.0	2.	.06	60.	.7	119.
%RSD	.7402	.3229	.3668	.0746	.0851	1.236	.2603	.7703
#1	242.4	243.8	261.9	2501.	71.76	4801.	258.5	15570.
#2	245.0	244.9	263.2	2504.	71.85	4886.	259.5	15400.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**606.6**	**264.4**	**725900.**	**244.8**	**313.8**	**260.3**	**2999.**	**260.4**
Stddev	.7	2.8	5490.	1.8	1.9	.8	44.	2.3
%RSD	.1120	1.067	.7563	.7451	.5960	.3227	1.462	.8791
#1	607.1	262.4	722000.	243.5	312.5	259.7	2968.	258.8
#2	606.1	266.4	729800.	246.0	315.2	260.9	3030.	262.1

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**266.0**	**3101.**	**237.4**	**536.7**	**246.6**	**221.8**	**258.7**	**85.64**
Stddev	1.3	14.	1.8	2.0	1.9	5.8	2.3	.09
%RSD	.4802	.4361	.7373	.3766	.7891	2.636	.8918	.1006
#1	265.1	3110.	236.2	535.3	245.3	217.7	257.0	85.70
#2	266.9	3091.	238.7	538.2	248.0	226.0	260.3	85.58

Sample Name: 1709515_26996 Acquired: 7/16/2019 17:41:23 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**85.26**	**94.72**	**454.0**	**230.9**
Stddev	.08	1.10	5.3	2.5
%RSD	.0952	1.159	1.161	1.072
#1	85.32	93.94	450.3	229.1
#2	85.20	95.50	457.7	232.6

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2724.2**	**5947.1**	**86452.**	**24717.**
Stddev	2.3	6.0	82.	287.
%RSD	.08508	.10059	.09516	1.1593
#1	2722.6	5951.4	86510.	24514.
#2	2725.9	5942.9	86394.	24919.

Sample Name: 1709516_26996 Acquired: 7/16/2019 17:43:25 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**132.7**	**2510.**	**261.7**	**290.6**	**626.6**	**253.4**	**148300.**	**265.4**
Stddev	1.1	12.	4.7	1.9	1.9	1.1	558.	1.8
%RSD	.7942	.4920	1.780	.6585	.3013	.4222	.3758	.6763
#1	131.9	2502.	258.4	289.3	625.2	252.6	147900.	264.1
#2	133.4	2519.	265.0	292.0	627.9	254.1	148700.	266.7

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**250.7**	**248.4**	**268.0**	**2474.**	**71.10**	**4743.**	**264.6**	**15310.**
Stddev	1.0	.5	.8	8.	.10	83.	.5	29.
%RSD	.3983	.1813	.3069	.3392	.1390	1.739	.1985	.1872
#1	250.0	248.1	267.4	2468.	71.17	4685.	265.0	15290.
#2	251.5	248.7	268.6	2480.	71.03	4802.	264.2	15330.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**608.7**	**263.4**	**716900.**	**248.7**	**324.4**	**262.0**	**2964.**	**258.3**
Stddev	2.3	2.7	6200.	2.7	2.1	3.5	20.	.9
%RSD	.3860	1.022	.8649	1.096	.6466	1.329	.6829	.3592
#1	607.1	261.5	712500.	246.8	323.0	259.5	2950.	257.7
#2	610.4	265.3	721200.	250.7	325.9	264.5	2979.	259.0

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**276.9**	**3087.**	**235.9**	**540.8**	**244.9**	**218.7**	**263.4**	**84.69**
Stddev	4.3	2.	.4	1.3	1.6	4.4	1.7	.00
%RSD	1.560	.0574	.1660	.2352	.6433	2.025	.6297	.0053
#1	273.8	3088.	235.6	539.9	243.8	215.6	262.3	84.70
#2	279.9	3086.	236.2	541.7	246.0	221.8	264.6	84.69

Sample Name: 1709516_26996 Acquired: 7/16/2019 17:43:25 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**84.76**	**95.10**	**455.4**	**249.6**
Stddev	.01	.17	1.6	.1
%RSD	.0112	.1739	.3592	.0515
#1	84.77	95.22	454.2	249.7
#2	84.76	94.98	456.5	249.5

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2697.2**	**5881.6**	**85946.**	**24816.**
Stddev	3.7	.3	10.	43.
%RSD	.13900	.00529	.01120	.17386
#1	2699.9	5881.8	85953.	24846.
#2	2694.6	5881.3	85940.	24785.

Sample Name: 30313260001_26996 Acquired: 7/16/2019 17:45:27 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5708**	**11.12**	**3.959**	**29.02**	**388.2**	**.0038**	**190400.**	**1.953**
Stddev	.1891	2.41	.353	.51	4.0	.0024	565.	.003
%RSD	33.14	21.71	8.914	1.756	1.035	63.91	.2969	.1642
#1	-.7045	9.411	3.709	28.66	385.4	.0055	190000.	1.956
#2	-.4370	12.82	4.208	29.39	391.1	.0021	190800.	1.951

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3653**	**.8208**	**4.411**	**10.11**	**70.41**	**2435.**	**5.066**	**12900.**
Stddev	.2244	.0651	1.149	.12	.08	34.	.338	31.
%RSD	61.44	7.930	26.06	1.158	.1122	1.398	6.677	.2433
#1	-.5240	.7748	5.223	10.02	70.47	2411.	4.827	12880.
#2	-.2066	.8668	3.598	10.19	70.35	2459.	5.306	12920.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**429.3**	**1.016**	**711900.**	**5.279**	**39.37**	**9.579**	**414.7**	**-2.265**
Stddev	1.6	.294	7603.	.329	1.46	.037	5.6	.315
%RSD	.3653	28.90	1.068	6.225	3.718	.3911	1.341	13.89
#1	428.2	1.224	706500.	5.512	38.33	9.605	410.8	-2.042
#2	430.4	.8087	717300.	5.047	40.40	9.552	418.7	-2.487

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.128**	**1892.**	**1.440**	**341.3**	**.0907**	**-.8655**	**.2482**	**82.86**
Stddev	.379	1.	.520	4.2	.0621	1.643	.1577	.05
%RSD	17.79	.0787	36.13	1.230	68.50	189.8	63.54	.0619
#1	2.395	1891.	1.072	338.3	.1346	.2964	.1367	82.89
#2	1.860	1893.	1.808	344.2	.0468	-2.027	.3598	82.82

Sample Name: 30313260001_26996 Acquired: 7/16/2019 17:45:27 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**83.27**	**94.84**	**192.8**	**.8467**
Stddev	.20	.89	1.6	1.137
%RSD	.2359	.9435	.8235	134.3
#1	83.41	94.21	191.7	1.651
#2	83.14	95.47	193.9	.0427

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2671.2**	**5754.0**	**84437.**	**24747.**
Stddev	3.0	3.6	199.	234.
%RSD	.11224	.06194	.23592	.94353
#1	2673.3	5756.5	84577.	24582.
#2	2669.1	5751.5	84296.	24912.

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:47:37 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.7771	1.847	1.787	33.69	*****	-.0282	154600.	-4.988
Stddev	.0796	1.436	2.314	.02	-----	.0005	1887.	.108
%RSD	10.24	77.76	129.5	.0595	-----	1.872	1.220	2.170
#1	.8334	2.862	.1506	33.68	-----	-.0278	153300.	-5.064
#2	.7209	.8313	3.424	33.71	-----	-.0286	155900.	-4.911

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	38.39	.2221	16.07	.6220	70.86	87410.	3.871	1943.
Stddev	.44	.2977	.06	.3825	.17	2283.	.275	5.
%RSD	1.159	134.0	.3423	61.50	.2341	2.612	7.103	.2760
#1	38.70	.0116	16.03	.3515	70.74	85790.	3.676	1939.
#2	38.07	.4326	16.11	.8925	70.98	89020.	4.065	1946.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	487.8	10.36	369600.	29.39	9.890	-2.788	72.98	-.7671
Stddev	5.8	.01	8270.	.08	2.719	.561	.78	.9155
%RSD	1.187	.0698	2.237	.2690	27.49	20.11	1.075	119.3
#1	483.7	10.37	363800.	29.33	11.81	-2.391	73.54	-1.414
#2	491.9	10.36	375500.	29.44	7.968	-3.184	72.43	-.1197

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0430	1250.	.3180	758.0	-.2418	-.4102	-.1932	80.62
Stddev	3.247	6.	.0297	9.8	.2406	.9808	.1137	.02
%RSD	7545.	.5140	9.342	1.295	99.49	239.1	58.87	.0220
#1	-2.339	1245.	.3391	751.0	-.4119	-1.104	-.2737	80.61
#2	2.253	1254.	.2970	764.9	-.0717	.2833	-.1128	80.63

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:47:37 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**83.77**	**94.63**	**44.32**	**.4632**
Stddev	.03	.50	.29	.4446
%RSD	.0313	.5313	.6575	96.00
#1	83.76	94.27	44.53	.7776
#2	83.79	94.98	44.12	.1488

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2688.3**	**5598.5**	**84943.**	**24693.**
Stddev	6.3	1.2	27.	131.
%RSD	.23412	.02198	.03128	.53128
#1	2683.9	5597.6	84925.	24600.
#2	2692.8	5599.3	84962.	24785.

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:52:07 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X100

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1025**	**-.0396**	**.5479**	**1.539**	**18200.**	**-.0065**	**7449.**	**-.6151**	**1.912**
Stddev	.0596	1.750	.9850	.340	79.	.0150	21.	.1324	.002
%RSD	58.20	4421.	179.8	22.08	.4313	231.2	.2848	21.52	.1219
#1	-.0603	1.198	-.1486	1.299	18150.	-.0170	7434.	-.5214	1.910
#2	-.1446	-1.277	1.244	1.780	18260.	.0041	7464.	-.7087	1.913

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0696**	**1.058**	**-.9655**	**95.16**	**3970.**	**-.6485**	**97.11**	**23.55**	**.3229**
Stddev	.1793	.556	1.356	.27	157.	.5813	6.13	.08	.1357
%RSD	257.5	52.59	140.5	.2868	3.965	89.63	6.316	.3416	42.01
#1	-.1964	.6645	-.0065	95.36	3858.	-.2375	92.77	23.60	.2270
#2	.0572	1.451	-1.925	94.97	4081.	-1.060	101.4	23.49	.4188

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17870.**	**1.188**	**1.315**	**-.8336**	**2.941**	**2.311**	**.0683**	**55.51**	**-.5864**
Stddev	472.	.250	.899	1.223	1.658	.507	.1786	1.20	.8606
%RSD	2.639	21.05	68.32	146.8	56.38	21.93	261.6	2.169	146.7
#1	17540.	1.365	.6798	-1.699	4.113	1.953	-.0580	54.65	-1.195
#2	18210.	1.011	1.951	.0315	1.769	2.670	.1945	56.36	.0221

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**35.49**	**.1521**	**2.290**	**-.0776**	**98.48**	**99.71**	**100.1**	**1.458**	**.1325**
Stddev	.25	.1367	.436	.0847	.00	.09	.8	.117	.7003
%RSD	.7162	89.88	19.05	109.1	.0001	.0903	.7797	7.995	528.4
#1	35.31	.2488	1.981	-.1376	98.48	99.64	99.50	1.376	.6277
#2	35.66	.0554	2.598	-.0177	98.48	99.77	100.6	1.541	-.3627

Sample Name: 30313260003_26996 Acquired: 7/16/2019 17:52:07 Type: Unk
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X100

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3610.3	6838.5	101100.	26108.
Stddev	10.4	.0	91.	204.
%RSD	.28677	.00006	.09025	.77965
#1	3617.6	6838.5	101040.	25964.
#2	3603.0	6838.5	101160.	26252.

Sample Name: CCV Acquired: 7/16/2019 17:55:20 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**492.6**	**10080.**	**962.9**	**1013.**	**1040.**	**999.7**	**10280.**	**987.8**	**955.4**
Stddev	3.4	6.	9.7	13.	4.	.8	43.	11.1	7.6
%RSD	.6967	.0604	1.007	1.270	.3490	.0828	.4229	1.122	.7941
#1	490.2	10090.	956.0	1004.	1043.	1000.	10310.	980.0	950.1
#2	495.0	10080.	969.7	1022.	1037.	999.1	10250.	995.7	960.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**972.9**	**1041.**	**10170.**	**91.92**	**10180.**	**1003.**	**10320.**	**987.8**	**949.2**
Stddev	1.4	3.	22.	.12	32.	1.	75.	2.7	9.7
%RSD	.1475	.3321	.2180	.1279	.3156	.0516	.7307	.2750	1.021
#1	971.8	1043.	10180.	92.01	10150.	1003.	10380.	989.7	942.4
#2	973.9	1038.	10150.	91.84	10200.	1004.	10270.	985.9	956.1
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10260.**	**1030.**	**988.2**	**984.8**	**9767.**	**999.4**	**983.8**	**5111.**	**994.4**
Stddev	29.	8.	14.2	4.7	115.	13.7	11.2	55.	9.0
%RSD	.2794	.7346	1.436	.4771	1.180	1.374	1.138	1.072	.9063
#1	10280.	1024.	978.2	981.5	9686.	989.7	975.9	5150.	988.0
#2	10240.	1035.	998.3	988.1	9849.	1009.	991.8	5072.	1001.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 17:55:20 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1085.**	**963.9**	**1009.**	**1000.**	**99.05**	**99.50**	**99.09**	**994.7**	**1052.**
Stddev	4.	4.3	11.	5.	.28	.02	.70	7.7	6.
%RSD	.3263	.4425	1.129	.4771	.2796	.0180	.7053	.7784	.5883
#1	1088.	960.8	1001.	996.8	99.25	99.49	98.60	989.3	1056.
#2	1083.	966.9	1017.	1004.	98.85	99.51	99.59	1000.	1048.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3487.3**	**6878.5**	**100890.**	**25857.**
Stddev	4.5	19.2	18.	182.
%RSD	.12788	.27957	.01796	.70530
#1	3490.5	6892.1	100880.	25728.
#2	3484.2	6864.9	100900.	25986.

Sample Name: CCB Acquired: 7/16/2019 17:57:45 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0861**	**-.6215**	**.3720**	**.4995**	**2.263**	**.1419**	**-.7594**	**.0298**	**.0627**
Stddev	.0584	5.891	.0375	.5490	.006	.0036	.1075	.0436	.0173
%RSD	67.83	947.9	10.07	109.9	.2887	2.508	14.15	146.4	27.55
#1	-.0448	-4.787	.3455	.8877	2.258	.1444	-.6834	-.0011	.0505
#2	-.1274	3.544	.3985	.1114	2.267	.1394	-.8354	.0607	.0749
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1302**	**.6038**	**2.826**	**101.6**	**28.35**	**-.9692**	**5.506**	**-.0997**	**.7082**
Stddev	.0093	1.176	.709	.0	14.28	.9579	2.043	.1970	.2902
%RSD	7.159	194.8	25.07	.0391	50.37	98.83	37.10	197.5	40.98
#1	.1236	-.2277	2.325	101.6	38.45	-1.647	4.062	.0395	.9134
#2	.1368	1.435	3.327	101.6	18.25	-.2919	6.951	-.2390	.5030
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**340.0**	**.3562**	**-.3995**	**.1837**	**-4.284**	**1.736**	**.1451**	**-3.129**	**-.0060**
Stddev	76.0	.1856	.0166	1.387	1.452	.501	2.267	.996	.5130
%RSD	22.35	52.11	4.150	754.8	33.90	28.89	1563.	31.84	8484.
#1	393.7	.4874	-.3878	-.7969	-3.257	2.091	1.748	-3.834	.3567
#2	286.3	.2249	-.4112	1.164	-5.311	1.381	-1.458	-2.425	-.3688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/16/2019 17:57:45 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0596	.5095	.3142	-.0015	100.7	102.2	99.29	-.3167	.9572
Stddev	.0093	.0120	.8318	.0579	.4	.2	.62	.0013	.0629
%RSD	15.67	2.363	264.7	3975.	.3713	.1842	.6291	.4134	6.570
#1	.0530	.5009	.9024	-.0424	100.5	102.4	98.85	-.3177	.9127
#2	.0662	.5180	-.2739	.0395	101.0	102.1	99.74	-.3158	1.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3853.9	6994.1	103650.	25910.
Stddev	1.5	26.0	191.	163.
%RSD	.03907	.37132	.18420	.62908
#1	3852.8	6975.7	103780.	25795.
#2	3854.9	7012.4	103510.	26025.

Sample Name: ICSA Acquired: 7/16/2019 18:00:33 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3921**	**51510.**	**2.541**	**.2916**	**1.703**	**-.0026**	**51080.**	**.5736**	**.0689**
Stddev	.1153	102.	.400	.5101	.029	.0147	94.	.1071	.0227
%RSD	29.41	.1984	15.75	175.0	1.728	561.3	.1847	18.67	32.87
#1	-.4737	51580.	2.258	.6523	1.724	.0078	51020.	.6493	.0850
#2	-.3106	51440.	2.824	-.0691	1.682	-.0130	51150.	.4978	.0529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1119**	**.3454**	**20060.**	**87.70**	**10.45**	**.0623**	**50940.**	**-.4190**	**.1094**
Stddev	.0333	.3397	33.	.21	22.49	.9656	56.	.0414	.1279
%RSD	29.77	98.34	.1630	.2357	215.2	1550.	.1097	9.883	116.9
#1	-.1354	.1052	20090.	87.55	26.35	.7451	50900.	-.4483	.0190
#2	-.0883	.5856	20040.	87.84	-5.454	-.6205	50980.	-.3897	.1998
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**219.4**	**-.1983**	**1.209**	**-.9919**	**-.4001**	**-.6913**	**1.362**	**-3.573**	**.1427**
Stddev	46.4	.3270	.964	.5658	1.406	2.162	1.302	.281	.4024
%RSD	21.15	164.9	79.70	57.04	351.3	312.8	95.58	7.860	282.0
#1	186.6	.0329	1.891	-1.392	.5939	-2.220	.4416	-3.374	-.1418
#2	252.2	-.4296	.5278	-.5919	-1.394	.8375	2.283	-3.772	.4273
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 7/16/2019 18:00:33 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2708**	**.5048**	**-1.828**	**.4947**	**96.28**	**97.02**	**99.12**	**-.8055**	**-.2689**
Stddev	.0248	.1342	.061	.0661	.17	.22	.06	.0755	.1989
%RSD	9.143	26.58	3.334	13.37	.1767	.2244	.0617	9.368	73.97
#1	-.2533	.4099	-1.871	.4479	96.16	97.18	99.17	-.7521	-.4096
#2	-.2883	.5997	-1.785	.5415	96.40	96.87	99.08	-.8588	-.1283
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3327.0**	**6686.2**	**98379.**	**25865.**
Stddev	7.8	11.8	221.	16.
%RSD	.23570	.17666	.22441	.06166
#1	3321.5	6677.9	98535.	25876.
#2	3332.6	6694.6	98223.	25854.

Sample Name: ICSAB Acquired: 7/16/2019 18:03:04 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1027.**	**51630.**	**2.104**	**-1.373**	**517.5**	**503.2**	**51480.**	**993.3**	**477.8**
Stddev	9.	159.	.002	1.071	4.0	1.6	247.	2.1	2.7
%RSD	.8741	.3083	.1092	78.03	.7795	.3080	.4805	.2162	.5612
#1	1021.	51510.	2.102	-2.130	514.7	502.1	51310.	991.8	475.9
#2	1033.	51740.	2.105	-.6152	520.4	504.3	51660.	994.8	479.7
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**486.5**	**513.7**	**20150.**	**87.97**	**8.005**	**.0399**	**51330.**	**480.7**	**.1024**
Stddev	2.0	5.9	31.	.17	4.759	1.014	183.	1.2	.1913
%RSD	.4056	1.150	.1533	.1956	59.45	2542.	.3560	.2539	187.0
#1	485.1	509.5	20130.	87.85	4.640	.7568	51200.	479.9	-.0330
#2	487.9	517.9	20170.	88.09	11.37	-.6771	51460.	481.6	.2377
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**377.0**	**1001.**	**.2255**	**982.0**	**-6.243**	**-.2232**	**.8236**	**-22.02**	**.3356**
Stddev	116.3	1.	.6526	8.8	2.293	.1499	3.416	.03	.1561
%RSD	30.86	.0530	289.4	.8990	36.73	67.17	414.7	.1512	46.50
#1	294.8	1000.	.6870	975.7	-4.622	-.3292	3.239	-22.04	.2252
#2	459.3	1001.	-.2359	988.2	-7.865	-.1172	-1.592	-21.99	.4459
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 7/16/2019 18:03:04 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3355**	**.2860**	**1.655**	**505.1**	**96.85**	**97.25**	**99.36**	**974.0**	**-.6145**
Stddev	.0027	.0220	1.073	1.6	.43	.03	.15	6.2	.2827
%RSD	.7949	7.679	64.84	.3134	.4452	.0308	.1541	.6344	46.01
#1	-.3374	.3015	.8961	503.9	96.54	97.23	99.25	969.6	-.4146
#2	-.3336	.2705	2.413	506.2	97.15	97.27	99.47	978.3	-.8144
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3337.5**	**6725.4**	**98603.**	**25928.**
Stddev	6.5	29.9	30.	40.
%RSD	.19560	.44524	.03079	.15408
#1	3332.9	6704.2	98582.	25899.
#2	3342.1	6746.6	98625.	25956.

Sample Name: CRDL Acquired: 7/16/2019 18:06:31 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.891**	**57.09**	**5.009**	**51.86**	**10.91**	**1.042**	**1035.**	**3.056**	**4.649**
Stddev	.050	1.43	.084	.08	.01	.015	2.	.053	.050
%RSD	.8515	2.513	1.678	.1588	.1242	1.473	.2047	1.727	1.079
#1	5.927	56.08	5.069	51.80	10.90	1.031	1037.	3.019	4.613
#2	5.856	58.11	4.950	51.92	10.92	1.053	1034.	3.094	4.684
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.886**	**4.748**	**70.66**	**101.2**	**510.5**	**39.29**	**213.6**	**4.760**	**18.82**
Stddev	.138	.606	1.22	.1	18.2	.04	8.0	.088	.02
%RSD	2.816	12.76	1.724	.1092	3.567	.1027	3.729	1.854	.0810
#1	4.789	4.319	69.80	101.3	497.7	39.27	208.0	4.697	18.83
#2	4.984	5.176	71.52	101.1	523.4	39.32	219.3	4.822	18.81
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1290.**	**10.52**	**49.04**	**4.696**	**47.15**	**6.962**	**9.563**	**96.94**	**51.49**
Stddev	35.	.26	1.15	.126	.48	1.411	2.001	3.85	.10
%RSD	2.745	2.437	2.343	2.682	1.026	20.27	20.93	3.975	.1999
#1	1265.	10.34	49.85	4.607	47.49	7.960	10.98	99.67	51.42
#2	1315.	10.70	48.23	4.785	46.81	5.964	8.148	94.22	51.56
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 7/16/2019 18:06:31 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.412**	**5.192**	**9.971**	**4.939**	**101.9**	**103.3**	**100.7**	**8.953**	**67.24**
Stddev	.017	.165	.546	.183	.3	.1	.0	.161	.27
%RSD	.3073	3.176	5.472	3.704	.3039	.1239	.0195	1.803	.4073
#1	5.400	5.309	9.585	5.068	102.2	103.4	100.7	8.839	67.43
#2	5.423	5.075	10.36	4.809	101.7	103.2	100.7	9.067	67.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3838.3**	**7079.7**	**104740.**	**26274.**
Stddev	4.2	21.5	130.	5.
%RSD	.10921	.30395	.12391	.01953
#1	3841.3	7095.0	104830.	26277.
#2	3835.3	7064.5	104650.	26270.

Sample Name: CCV Acquired: 7/16/2019 18:24:28 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**490.7**	**10010.**	**954.1**	**1003.**	**1026.**	**993.8**	**10210.**	**981.6**	**948.8**
Stddev	3.1	1.	9.0	9.	4.	1.2	28.	8.3	7.0
%RSD	.6329	.0127	.9403	.9068	.4030	.1223	.2704	.8448	.7345
#1	488.5	10000.	947.7	996.1	1023.	992.9	10230.	975.7	943.9
#2	492.9	10010.	960.4	1009.	1029.	994.6	10190.	987.5	953.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**973.4**	**1032.**	**10090.**	**93.47**	**10070.**	**994.1**	**10230.**	**983.9**	**941.6**
Stddev	1.2	2.	29.	.00	51.	1.7	108.	2.2	8.7
%RSD	.1201	.1737	.2827	.0022	.5092	.1715	1.058	.2201	.9237
#1	972.6	1033.	10110.	93.46	10040.	992.9	10310.	985.5	935.4
#2	974.2	1031.	10070.	93.47	10110.	995.3	10160.	982.4	947.7
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10180.**	**1022.**	**971.8**	**981.8**	**9668.**	**995.3**	**974.1**	**5074.**	**986.8**
Stddev	95.	10.	9.9	12.4	114.	8.9	10.9	12.	6.0
%RSD	.9345	.9936	1.017	1.268	1.180	.8958	1.116	.2405	.6126
#1	10110.	1015.	964.9	973.0	9588.	989.0	966.4	5083.	982.6
#2	10240.	1030.	978.8	990.6	9749.	1002.	981.7	5066.	991.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/16/2019 18:24:28 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1074.**	**959.9**	**1005.**	**993.5**	**100.8**	**100.8**	**100.4**	**989.7**	**1039.**
Stddev	4.	4.2	16.	3.2	.1	.1	.8	8.4	2.
%RSD	.4156	.4391	1.614	.3203	.1062	.0878	.8247	.8479	.1895
#1	1071.	956.9	993.5	991.3	100.9	100.8	99.80	983.7	1038.
#2	1077.	962.8	1016.	995.8	100.7	100.7	101.0	995.6	1041.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3545.9**	**6998.5**	**102160.**	**26196.**
Stddev	.1	7.4	90.	216.
%RSD	.00216	.10618	.08780	.82469
#1	3545.8	7003.7	102220.	26043.
#2	3545.9	6993.2	102100.	26348.

Sample Name: CCB Acquired: 7/16/2019 18:26:30 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3241**	**4.144**	**2.832**	**.9937**	**.0001**	**.1603**	**-4.023**	**.0164**	**.0324**
Stddev	.0702	2.774	1.405	.3560	.0337	.0570	2.029	.0897	.0696
%RSD	21.67	66.94	49.62	35.83	41080.	35.56	50.44	548.4	214.8
#1	-.2744	2.183	3.825	1.245	.0239	.2006	-5.457	-.0471	.0816
#2	-.3737	6.106	1.838	.7420	-.0237	.1200	-2.588	.0798	-.0168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2512**	**-.1952**	**1.123**	**103.0**	**3.370**	**-.2982**	**5.018**	**.1380**	**.9413**
Stddev	.0339	.6779	1.940	.2	31.15	.0418	4.125	.0772	.1327
%RSD	13.51	347.2	172.8	.2243	924.4	14.01	82.20	55.95	14.10
#1	.2752	.2841	-.2491	102.8	25.40	-.3277	7.935	.1927	1.035
#2	.2272	-.6746	2.494	103.2	-18.66	-.2686	2.102	.0834	.8474
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**396.3**	**-.1467**	**1.180**	**-.0767**	**-3.255**	**2.476**	**.9246**	**-1.146**	**-.5190**
Stddev	66.3	.0481	.677	.2870	.955	1.115	.3516	.335	.2550
%RSD	16.72	32.80	57.42	374.4	29.35	45.04	38.02	29.25	49.12
#1	349.4	-.1808	.7008	.1263	-2.579	1.688	.6760	-.9091	-.6993
#2	443.2	-.1127	1.659	-.2796	-3.930	3.265	1.173	-1.383	-.3388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/16/2019 18:26:30 Type: QC
Method: Pace-65002-2-CETAC1(v1764) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1319	.5095	1.141	.1036	102.3	103.6	99.86	-.1947	.0820
Stddev	.0212	.0173	.514	.0169	.1	.2	.10	.0020	.5909
%RSD	16.05	3.393	45.01	16.34	.1030	.2056	.0956	1.036	720.2
#1	.1169	.5217	1.505	.1156	102.3	103.4	99.79	-.1932	.4999
#2	.1468	.4973	.7782	.0916	102.2	103.7	99.93	-.1961	-.3358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3907.4	7101.8	105010.	26058.
Stddev	8.8	7.3	216.	25.
%RSD	.22433	.10296	.20559	.09562
#1	3901.2	7107.0	104860.	26040.
#2	3913.6	7096.7	105160.	26075.

Prep Log Report

Batch Information: TCLP 8727/351589; 8728/351593

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/14/2019 08:59:35:873	Tumbler Start Temp. (C)	20.6
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1708463**	Y		M	30TBL5	HP001	Other			4.88		0	0
TCLP	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
TCLP	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
TCLP	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
TCLP	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
TCLP	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
TCLP	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
TCLP	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100
TCLP	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
TCLP	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
TCLP	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
TCLP	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
TCLP	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100
1311MET_L	LB	**1708468**	Y		M	30TBL5	HP001	Other	Y	Y	4.88	1.83	0	0
1311MET_L	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
1311MET_L	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
1311MET_L	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
1311MET_L	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
1311MET_L	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
1311MET_L	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
1311MET_L	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
1311MET_L	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
1311MET_L	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
1311MET_L	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
1311MET_L	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1708463**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359				
TCLP	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064		475.8	477	1.2
TCLP	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600				
TCLP	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31						
TCLP	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332				
TCLP	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370				
TCLP	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987				
TCLP	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523				
TCLP	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563				
TCLP	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467				
TCLP	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835				
TCLP	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179				
1311MET_L	LB	**1708468**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359	Y			
1311MET_L	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064	Y	475.8	477	1.2
1311MET_L	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600	Y			
1311MET_L	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31			Y			
1311MET_L	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332	Y			
1311MET_L	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370	Y			
1311MET_L	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987	Y			
1311MET_L	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523	Y			
1311MET_L	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998	Y			
1311MET_L	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563	Y			
1311MET_L	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835	Y			
1311MET_L	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1708463**								2000	
TCLP	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
TCLP	PS	**30312796002**								2000	wood dust
TCLP	PS	**30312590007**								2000	clay/rock
TCLP	PS	**30312957001**								2000	1*
TCLP	PS	**30313243001**								2000	clay
TCLP	PS	**30313260001**								2000	soil/rock
TCLP	PS	**30313260002**								2000	soil/rock
TCLP	PS	**30313260003**								2000	soil/rock
TCLP	PS	**30313438001**								2000	mud/rock
TCLP	PS	**30313438003**								2000	mud/rock
TCLP	PS	**30313438005**								2000	mud/rock
TCLP	PS	**30313438007**								2000	mud/rock
1311MET_L	LB	**1708468**								2000	
1311MET_L	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
1311MET_L	PS	**30312796002**								2000	wood dust
1311MET_L	PS	**30312590007**								2000	clay/rock
1311MET_L	PS	**30312957001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313243001**								2000	clay
1311MET_L	PS	**30313260001**								2000	soil/rock
1311MET_L	PS	**30313260002**								2000	soil/rock
1311MET_L	PS	**30313260003**								2000	soil/rock
1311MET_L	PS	**30313438001**								2000	mud/rock
1311MET_L	PS	**30313438003**								2000	mud/rock
1311MET_L	PS	**30313438005**								2000	mud/rock
1311MET_L	PS	**30313438007**								2000	mud/rock

Sample Notes:

1*: gel/rock/fabric

Prep Log Report

Batch Information: MPRP 351804-3005 B TCLP

Template Version: F-PA-I-001-Rev.00 (5May2016)

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	07/15/2019 14:44:01:040
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	96.7	Correction Factor (C)	-0.3
Corrected Temp. (C)	96.40	Therm. Position	3.3	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	07/15/2019 15:33:36:430
Digestion End Time	07/15/2019 20:33:35:321	Digestion Vessel	91657	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B ST_P	BLANK	**1709512**	Water	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	LCS	**1709513**	Water	Yes	50	91162 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30313260002**	Solid	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	DUP	**1709514**	Solid	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	MS	**1709515**	Solid	Yes	50	91162 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	MSD	**1709516**	Solid	Yes	50	91162 (1)	91031 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30313260001**	Solid	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	PS	**30313260003**	Solid	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	PS	**30313243001**	Solid	Yes	50	91162 (1)	91031 (2.5)	50					
3005B ST_P	LB	**1708468**	Water	Yes	50	91162 (1)	91031 (2.5)	50		EF 1G 7/14			

Standard Notes:

87420: 6010-SPK1 ICP

87421: 6010-SPK2 ICP

87422: 6010-SPK3 ICP

SAMPLE NO.

AOC32 Lower-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	07/15/2019 21:39

SAMPLE NO.

AOC32 Lower-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	07/15/2019 21:34

SAMPLE NO.

AOC27

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	07/15/2019 21:40

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source: 93675

Continuing Calibration Verification Source: 93673

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	07/15/2019 21:21				07/15/2019 21:23			07/15/2019 21:47			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	0.99	99.0	90-110	5.0	5.2	103.2	5.0	5.0	101.0	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

CRDL Check Standard Source: 92678,93670,93693 Analysis Date/Time: 07/15/2019 21:27

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.13	65.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	07/15/2019 21:25	C	07/15/2019 21:49	C		C		C	1709615	C
Mercury	-0.080	J	-0.080	J					ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1708468	C
Mercury									ND	U

SAMPLE NO.

1709618MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: AOC32 Lower-2

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.3	ND	2.5	93

SAMPLE NO.

1709620MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30313438003

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.4	ND	2.5	97

SAMPLE NO.

1709617DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1709619DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1709616LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	0.89J	89	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	1.0	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 7470A Batch: MERP 10940

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1708468	1708468LB	07/15/2019	25	25
1709615	1709615BLANK	07/15/2019	25	25
1709616	1709616LCS	07/15/2019	25	25
1709617	1709617DUP	07/15/2019	25	25
1709618	1709618MS	07/15/2019	25	25
1709619	1709619DUP	07/15/2019	25	25
1709620	1709620MS	07/15/2019	25	25
30313260001	AOC32 Lower-1	07/15/2019	25	25
30313260002	AOC32 Lower-2	07/15/2019	25	25
30313260003	AOC27	07/15/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 07/15/2019 21:07 End Date: 07/15/2019 22:02

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11238502CAL0	11238502CAL0	1	07/15/2019	21:07	X
11238503CAL1	11238503CAL1	1	07/15/2019	21:08	X
11238504CAL2	11238504CAL2	1	07/15/2019	21:10	X
11238505CAL3	11238505CAL3	1	07/15/2019	21:12	X
11238506CAL4	11238506CAL4	1	07/15/2019	21:13	X
11238507CAL5	11238507CAL5	1	07/15/2019	21:16	X
11238508ICV	11238508ICV	1	07/15/2019	21:21	X
11238509CCV	11238509CCV	1	07/15/2019	21:23	X
11238510ICB	11238510ICB	1	07/15/2019	21:25	X
11238511CRDL	11238511CRDL	1	07/15/2019	21:27	X
1709615BLANK	1709615	1	07/15/2019	21:29	X
1709616LCS	1709616	1	07/15/2019	21:30	X
1708468LB	1708468	1	07/15/2019	21:32	X
AOC32 Lower-2	30313260002	1	07/15/2019	21:34	X
1709617DUP	1709617	1	07/15/2019	21:35	X
1709618MS	1709618	1	07/15/2019	21:37	X
AOC32 Lower-1	30313260001	1	07/15/2019	21:39	X
AOC27	30313260003	1	07/15/2019	21:40	X
11238512CCV	11238512CCV	1	07/15/2019	21:47	X
11238513CCB	11238513CCB	1	07/15/2019	21:49	X
30313438003	30313438003	1	07/15/2019	21:59	X
1709619DUP	1709619	1	07/15/2019	22:01	X
1709620MS	1709620	1	07/15/2019	22:02	X

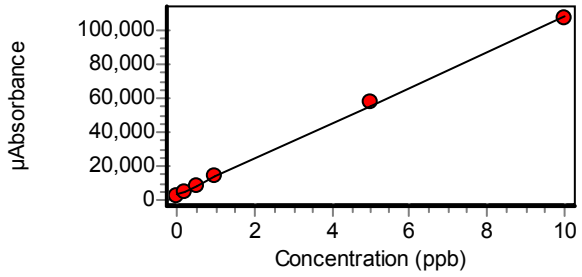
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg071519B.wsz
Date Started: 7/6/2016 3:55:19 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	07/15/19 09:07:19 pm	0.00	1788	1.41		1.00	1.00
											1.00	
	Replicates	1790.2	1812.9	1795.2	1752.9							
CAL1					STD	07/15/19 09:08:55 pm	0.20	3986	0.91		1.00	1.00
											1.00	
	Replicates	3946.2	3973.7	3991.0	4032.9							
CAL2					STD	07/15/19 09:10:32 pm	0.50	7640	1.32		1.00	1.00
											1.00	
	Replicates	7502.4	7691.2	7630.7	7734.8							
CAL3					STD	07/15/19 09:12:10 pm	1.00	14223	0.94		1.00	1.00
											1.00	
	Replicates	14042.1	14207.7	14299.8	14342.8							
CAL4					STD	07/15/19 09:13:48 pm	5.00	56952	0.68		1.00	1.00
											1.00	
	Replicates	56462.1	56828.0	57178.5	57339.2							
CAL5					STD	07/15/19 09:16:33 pm	10.00	107749	0.58		1.00	1.00
											1.00	
	Replicates	106927.9	107606.6	108144.8	108317.3							

Calibration

Equation: A = 2560.528 + 10597.280C
R2: 0.99946
SEE: 1101.2240
Flags:



ICV					ICV	07/15/19 09:21:33 pm	0.99	13014	0.87		1.00	1.00
	% Recovery	98.64									1.00	
	Replicates	12881.2	12958.9	13115.4	13099.4							
CCV					CCV	07/15/19 09:23:12 pm	5.16	57282	0.43		1.00	1.00
	% Recovery	103.28									1.00	
	Replicates	56927.2	57312.3	57421.3	57469.3							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
ICB					ICB	07/15/19 09:25:58 pm	-0.08	1736	2.40		1.00	1.00
											1.00	
	Replicates	1714.0	1794.1	1699.1	1738.6							
CRDL					CRDL	07/15/19 09:27:38 pm	0.13	3934	1.33		1.00	1.00
	% Recovery	64.79									1.00	
	Replicates	3874.5	3950.5	3997.2	3912.5							
1709615_12365					PBK	07/15/19 09:29:15 pm	-0.13	1216	3.37		1.00	1.00
											1.00	
	Replicates	1157.6	1216.1	1247.9	1240.6							
1709616_12365					LCS	07/15/19 09:30:53 pm	0.89	11949	0.28		1.00	1.00
	% Recovery	88.60									1.00	
	Replicates	11905.5	11969.2	11942.5	11980.5							
1708468_12365					MB	07/15/19 09:32:31 pm	-0.12	1250	4.39		1.00	1.00
											1.00	
	Replicates	1257.6	1261.4	1305.2	1173.9							
30313260002_12365					UNK	07/15/19 09:34:09 pm	-0.12	1298	5.26		1.00	1.00
											1.00	
	Replicates	1242.0	1238.4	1371.9	1341.1							
1709617_12365					DUP	07/15/19 09:35:47 pm	-0.12	1266	2.15		1.00	1.00
		RPD 0.00									1.00	
	Replicates	1289.0	1242.1	1289.4	1241.9							
1709618_12365					MSK	07/15/19 09:37:24 pm	2.32	27148	0.62		1.00	1.00
	% Recovery	97.57									1.00	
	Replicates	26910.8	27156.6	27220.1	27302.6							
30313260001_12365					UNK	07/15/19 09:39:02 pm	-0.14	1064	2.07		1.00	1.00
											1.00	
	Replicates	1045.8	1093.3	1068.3	1048.3							
30313260003_12365					UNK	07/15/19 09:40:40 pm	-0.11	1419	4.85		1.00	1.00
											1.00	
	Replicates	1346.5	1373.8	1483.5	1471.6							
30312796001_12365					UNK	07/15/19 09:42:19 pm	-0.11	1374	1.84		1.00	1.00
											1.00	
	Replicates	1381.5	1367.8	1403.1	1342.8							
30312796002_12365					UNK	07/15/19 09:43:58 pm	-0.14	1070	1.68		1.00	1.00
											1.00	
	Replicates	1051.0	1093.8	1070.0	1064.2							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV				CCV	07/15/19 09:47:02 pm	5.05	56097	0.40		1.00	1.00
% Recovery	101.04									1.00	
Replicates	55781.2	56097.3	56264.9	56244.1							
CCB				CCB	07/15/19 09:49:48 pm	-0.08	1707	2.79		1.00	1.00
										1.00	
Replicates	1725.3	1681.4	1764.3	1656.8							
30312957001_12365				UNK	07/15/19 09:51:26 pm	-0.12	1311	1.77		1.00	1.00
										1.00	
Replicates	1323.2	1280.0	1333.2	1307.9							
30313243001_12365				UNK	07/15/19 09:53:04 pm	-0.09	1583	1.98		1.00	1.00
										1.00	
Replicates	1585.8	1549.3	1571.7	1623.8							
30313438001_12365				UNK	07/15/19 09:54:42 pm	-0.13	1177	1.72		1.00	1.00
										1.00	
Replicates	1157.1	1203.8	1179.5	1166.8							
30313438005_12365				UNK	07/15/19 09:56:21 pm	-0.12	1277	1.67		1.00	1.00
										1.00	
Replicates	1263.4	1284.7	1256.4	1303.4							
30313438007_12365				UNK	07/15/19 09:58:00 pm	-0.13	1190	1.62		1.00	1.00
										1.00	
Replicates	1172.0	1216.7	1188.1	1181.2							
30313438003_12365				UNK	07/15/19 09:59:38 pm	-0.12	1275	1.10		1.00	1.00
										1.00	
Replicates	1280.3	1261.4	1291.9	1265.2							
1709619_12365				DUP	07/15/19 10:01:17 pm	-0.16	841	3.20		1.00	1.00
		RPD 0.00								1.00	
Replicates	808.7	867.5	828.6	857.5							
1709620_12365				MSK	07/15/19 10:02:56 pm	2.43	28282	0.74		1.00	1.00
% Recovery	101.94									1.00	
Replicates	27985.7	28281.1	28447.2	28415.9							
1709621_12366				PBK	07/15/19 10:04:35 pm	-0.11	1389	3.05		1.00	1.00
										1.00	
Replicates	1333.2	1435.0	1401.8	1387.6							
1709622_12366				LCS	07/15/19 10:08:04 pm	0.85	11553	0.43	L	1.00	1.00
% Recovery	84.85									1.00	
Replicates	11498.1	11534.7	11560.4	11617.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	07/15/19 10:10:07 pm	4.94	54951	0.57		1.00	1.00
	% Recovery	98.88									1.00	
	Replicates	54528.1	54914.0	55132.5	55231.3							
CCB					CCB	07/15/19 10:12:56 pm	-0.09	1605	1.25		1.00	1.00
											1.00	
	Replicates	1580.0	1598.2	1620.9	1622.0							
30313762001_12366					UNK	07/15/19 10:14:34 pm	-0.01	2479	2.52		1.00	1.00
											1.00	
	Replicates	2517.2	2385.1	2502.5	2509.3							
1709623_12366					DUP	07/15/19 10:16:13 pm	0.12	3882	2.27		1.00	1.00
			RPD 0.00								1.00	
	Replicates	3806.7	3829.0	3890.0	4003.7							
1709624_12366					MSK	07/15/19 10:17:52 pm	2.53	29392	0.60		1.00	1.00
	% Recovery	101.59									1.00	
	Replicates	29142.0	29409.1	29477.9	29540.7							
30313762002_12366					UNK	07/15/19 10:19:31 pm	-0.08	1747	1.38		1.00	1.00
											1.00	
	Replicates	1726.1	1752.7	1778.2	1729.7							
30313762003_12366					UNK	07/15/19 10:21:11 pm	-0.08	1713	3.54		1.00	1.00
											1.00	
	Replicates	1655.7	1695.2	1703.7	1798.9							
30313762004_12366					UNK	07/15/19 10:22:50 pm	-0.06	1936	0.50		1.00	1.00
											1.00	
	Replicates	1938.3	1921.2	1941.9	1940.9							
30313762006_12366					UNK	07/15/19 10:24:29 pm	-0.06	1902	3.44		1.00	1.00
											1.00	
	Replicates	1922.2	1891.0	1975.9	1819.0							
30313763001_12366					UNK	07/15/19 10:26:08 pm	-0.06	1876	1.98		1.00	1.00
											1.00	
	Replicates	1864.1	1829.1	1911.7	1898.7							
30313763003_12366					UNK	07/15/19 10:27:48 pm	-0.06	1937	2.49		1.00	1.00
											1.00	
	Replicates	1925.9	1977.7	1873.5	1970.9							
1709625_12367					PBK	07/15/19 10:33:23 pm	-0.08	1682	3.08		1.00	1.00
											1.00	
	Replicates	1606.9	1724.2	1697.2	1701.4							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	07/15/19 10:35:03 pm	5.11	56745	0.58		1.00	1.00
	% Recovery	102.26									1.00	
	Replicates	56278.8	56766.0	56911.0	57025.8							
CCB					CCB	07/15/19 10:37:59 pm	-0.09	1646	2.07		1.00	1.00
											1.00	
	Replicates	1617.2	1695.6	1635.6	1635.9							
1709626_12367					LCS	07/15/19 10:39:38 pm	0.89	11943	0.79		1.00	1.00
	% Recovery	88.54									1.00	
	Replicates	11812.0	11962.3	12037.0	11961.5							
30312949001_12367					UNK	07/15/19 10:41:17 pm	0.04	2971	1.54		1.00	1.00
											1.00	
	Replicates	2903.1	2991.1	2996.4	2995.1							
1709627_12367					DUP	07/15/19 10:42:57 pm	0.04	3013	1.06		1.00	1.00
			RPD 0.00								1.00	
	Replicates	2984.0	3003.0	3007.8	3058.5							
1709628_12367					MSK	07/15/19 10:44:37 pm	2.62	30308	0.52		1.00	1.00
	% Recovery	103.18									1.00	
	Replicates	30076.0	30354.3	30428.1	30371.8							
30313294001_12367					UNK	07/15/19 10:46:18 pm	0.20	4682	1.19		1.00	1.00
											1.00	
	Replicates	4627.9	4760.1	4668.6	4670.5							
30313461001_12367					UNK	07/15/19 10:47:57 pm	3.42	38845	0.55		1.00	1.00
											1.00	
	Replicates	38550.9	38856.4	38911.9	39059.6							
30313526001_12367					UNK	07/15/19 10:49:37 pm	-0.02	2339	1.75		1.00	1.00
											1.00	
	Replicates	2337.2	2375.3	2361.1	2282.4							
30313336001_12367					UNK	07/15/19 10:51:17 pm	-0.08	1765	1.92		1.00	1.00
											1.00	
	Replicates	1747.2	1784.4	1727.7	1802.0							
30313357001_12367					UNK	07/15/19 10:54:25 pm	-0.12	1247	2.51		1.00	1.00
											1.00	
	Replicates	1239.1	1234.4	1222.7	1293.2							
30313360001_12367					UNK	07/15/19 10:56:06 pm	-0.06	1947	1.08		1.00	1.00
											1.00	
	Replicates	1935.5	1968.4	1959.9	1923.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
											ODF	
CCV					CCV	07/15/19 10:57:45 pm	5.05	56083	0.62		1.00	1.00
	% Recovery	101.01									1.00	
	Replicates	55590.6	56080.0	56298.5	56363.0							
CCB					CCB	07/15/19 11:00:31 pm	-0.08	1661	2.34		1.00	1.00
											1.00	
	Replicates	1664.1	1663.7	1611.5	1706.5							
30313361001_12367					UNK	07/15/19 11:02:11 pm	-0.04	2105	1.98		1.00	1.00
											1.00	
	Replicates	2057.7	2101.6	2159.3	2100.0							
CCV					CCV	07/15/19 11:03:51 pm	5.05	56102	0.67		1.00	1.00
	% Recovery	101.05									1.00	
	Replicates	55608.4	56043.0	56278.5	56476.2							
CCB					CCB	07/15/19 11:06:33 pm	-0.08	1727	3.86		1.00	1.00
											1.00	
	Replicates	1679.3	1713.2	1824.6	1689.9							

Prep Log Report

Batch Information: TCLP 8727/351589; 8728/351593

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/14/2019 08:59:35:873	Tumbler Start Temp. (C)	20.6
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1708463**	Y		M	30TBL5	HP001	Other			4.88		0	0
TCLP	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
TCLP	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
TCLP	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
TCLP	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
TCLP	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
TCLP	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
TCLP	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100
TCLP	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
TCLP	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
TCLP	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
TCLP	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
TCLP	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100
1311MET_L	LB	**1708468**	Y		M	30TBL5	HP001	Other	Y	Y	4.88	1.83	0	0
1311MET_L	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
1311MET_L	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
1311MET_L	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
1311MET_L	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
1311MET_L	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
1311MET_L	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
1311MET_L	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
1311MET_L	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
1311MET_L	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
1311MET_L	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
1311MET_L	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1708463**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359				
TCLP	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064		475.8	477	1.2
TCLP	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600				
TCLP	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31						
TCLP	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332				
TCLP	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370				
TCLP	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987				
TCLP	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523				
TCLP	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563				
TCLP	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467				
TCLP	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835				
TCLP	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179				
1311MET_L	LB	**1708468**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359	Y			
1311MET_L	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064	Y	475.8	477	1.2
1311MET_L	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600	Y			
1311MET_L	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31			Y			
1311MET_L	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332	Y			
1311MET_L	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370	Y			
1311MET_L	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987	Y			
1311MET_L	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523	Y			
1311MET_L	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998	Y			
1311MET_L	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563	Y			
1311MET_L	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835	Y			
1311MET_L	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1708463**								2000	
TCLP	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
TCLP	PS	**30312796002**								2000	wood dust
TCLP	PS	**30312590007**								2000	clay/rock
TCLP	PS	**30312957001**								2000	1*
TCLP	PS	**30313243001**								2000	clay
TCLP	PS	**30313260001**								2000	soil/rock
TCLP	PS	**30313260002**								2000	soil/rock
TCLP	PS	**30313260003**								2000	soil/rock
TCLP	PS	**30313438001**								2000	mud/rock
TCLP	PS	**30313438003**								2000	mud/rock
TCLP	PS	**30313438005**								2000	mud/rock
TCLP	PS	**30313438007**								2000	mud/rock
1311MET_L	LB	**1708468**								2000	
1311MET_L	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
1311MET_L	PS	**30312796002**								2000	wood dust
1311MET_L	PS	**30312590007**								2000	clay/rock
1311MET_L	PS	**30312957001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313243001**								2000	clay
1311MET_L	PS	**30313260001**								2000	soil/rock
1311MET_L	PS	**30313260002**								2000	soil/rock
1311MET_L	PS	**30313260003**								2000	soil/rock
1311MET_L	PS	**30313438001**								2000	mud/rock
1311MET_L	PS	**30313438003**								2000	mud/rock
1311MET_L	PS	**30313438005**								2000	mud/rock
1311MET_L	PS	**30313438007**								2000	mud/rock

Sample Notes:

1*: gel/rock/fabric

Prep Log Report

Batch Information: MERP 351834-7470 TCLP

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	07/15/2019 17:05:17:011
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	94.3	Correction Factor (C)	-0.2
Corrected Temp. (C)	94.10	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	3.3	Digestion Start Time	07/15/2019 18:24:45:210
Digestion End Time	07/15/2019 20:24:47:406	Digestion Vessel	91657	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	BLANK	**1709615**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	LCS	**1709616**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313260002**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	DUP	**1709617**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	MS	**1709618**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			93325 (.25)
7470 ST_P	PS	**30313260001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313260003**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30312796001**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30312796002**	Y	Solid	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25		1*	
7470 ST_P	PS	**30312957001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313243001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313438001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313438005**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313438007**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313438003**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			
7470 ST_P	DUP	**1709619**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	MS	**1709620**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25			93325 (.25)
7470 ST_P	LB	**1708468**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	25		EF 1G 7/14	
HG WATER_Q	CAL0	**CAL0**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	CAL1	**CAL1**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	CAL2	**CAL2**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	CAL3	**CAL3**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	CAL4	**CAL4**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	CAL5	**CAL5**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			
HG WATER_Q	ICV	**ICV**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	92007 (3.75)	90456 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	BLANK	**1709615**		
7470 ST_P	LCS	**1709616**	90501 (.1)	
7470 ST_P	PS	**30313260002**		
7470 ST_P	DUP	**1709617**		
7470 ST_P	MS	**1709618**		
7470 ST_P	PS	**30313260001**		
7470 ST_P	PS	**30313260003**		
7470 ST_P	PS	**30312796001**		
7470 ST_P	PS	**30312796002**		
7470 ST_P	PS	**30312957001**		
7470 ST_P	PS	**30313243001**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	PS	**30313438001**		
7470 ST_P	PS	**30313438005**		
7470 ST_P	PS	**30313438007**		
7470 ST_P	PS	**30313438003**		
7470 ST_P	DUP	**1709619**		
7470 ST_P	MS	**1709620**		
7470 ST_P	LB	**1708468**		
HG WATER_Q	CAL0	**CAL0**		93669 (1)
HG WATER_Q	CAL1	**CAL1**		93670 (1)
HG WATER_Q	CAL2	**CAL2**		93671 (1)
HG WATER_Q	CAL3	**CAL3**		93672 (1)
HG WATER_Q	CAL4	**CAL4**		93673 (1)
HG WATER_Q	CAL5	**CAL5**		93674 (1)
HG WATER_Q	ICV	**ICV**		93675 (1)

Sample Notes:

1*: Sample will not hold Potassium Permaganate.

Standard Notes:

93669: CALO

93670: CAL1

93671: CAL2

93672: CAL3

93673: CAL4

93674: CAL5

93675: Hg ICV Source 2

SAMPLE NO.

AOC32 Lower-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260001 Percent Moisture: 13.8

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	07/16/2019 15:26
	Flashpoint	>200		deg F	1	07/17/2019 12:50
	Sulfide, Reactive	ND	U	mg/kg	1	07/15/2019 22:36
	pH in water at 25 degrees C	9.6		Std. Units	1	07/11/2019 21:20

SAMPLE NO.

AOC32 Lower-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260002 Percent Moisture: 14.3

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	07/16/2019 15:27
	Flashpoint	>200		deg F	1	07/17/2019 13:17
	Sulfide, Reactive	ND	U	mg/kg	1	07/15/2019 22:36
	pH in water at 25 degrees C	8.0		Std. Units	1	07/11/2019 21:22

SAMPLE NO.

AOC27

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260003 Percent Moisture: 4.3

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	07/16/2019 15:28
	Flashpoint	>200		deg F	1	07/17/2019 13:15
	Sulfide, Reactive	ND	U	mg/kg	1	07/15/2019 22:36
	pH in water at 25 degrees C	7.7		Std. Units	1	07/11/2019 21:22

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source: 68828

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	07/11/2019 14:30			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	4.0	4.0	99.8	98.75-101.25
pH in water at 25 degrees C		4.0		98.75-101.25

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source: 84019

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	07/11/2019 14:30			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	7.0	7.0	100.3	98.5-101.43
pH in water at 25 degrees C		7.0		98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification				Continuing Calibration Verification						
					07/11/2019 20:53			07/11/2019 21:17			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
pH at 25 Degrees C					7.0	7.0	100.1	7.0	7.0	100.3	98.5-101.43
pH in water at 25 degrees C					7.0	7.0	100.1	7.0	7.0	100.3	98.5-101.43

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification			
	07/11/2019 21:29			Control Limit
Analyte	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	100.3	98.5-101.43
pH in water at 25 degrees C	7.0	7.0	100.3	98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source: 93744

Continuing Calibration Verification Source: 93742

Concentration Units: mg/L Instrument ID: 30WTA5

	Initial Calibration Verification				Continuing Calibration Verification						
	07/16/2019 12:36				07/16/2019 12:38			07/16/2019 12:44			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Cyanide	0.1	0.094	94.4	90-110	0.2	0.20	100.6	0.2	0.20	100.9	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 93742

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification									
	07/16/2019 13:00			07/16/2019 13:13			07/16/2019 13:25			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.20	99.2	0.2	0.19	97.4	0.2	0.19	96.8	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 93742

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification									
	07/16/2019 13:36			07/16/2019 13:45			07/16/2019 13:59			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.19	95.8	0.2	0.19	96.0	0.2	0.19	94.8	90-110

FORM II INORGANIC-4

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 93742

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification						
	07/16/2019 15:19			07/16/2019 15:30			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.19	94.6	0.2	0.19	94.0	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Water Instrument ID: 30WET6

Method Blank Concentration Units: deg F

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1711042	C
Flashpoint									>200	

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WET0

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1707378	C
Sulfide, Reactive									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WTA5

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank (mg/L)		Continuing Calibration Blank (mg/L)						Method Blank	
	07/16/2019 12:37	C	07/16/2019 12:45	C	07/16/2019 13:01	C	07/16/2019 13:14	C	1707401	C
Cyanide	0.0016	U	0.0016	U	0.0016	U	0.0016	U		
Cyanide, Reactive									ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Instrument ID: 30WTA5

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)					
		C	07/16/2019 13:26	C	07/16/2019 13:37	C	07/16/2019 13:46	C
Cyanide			0.0016	U	0.0016	U	0.0016	U
Cyanide, Reactive								

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract : Former EPT-Soil IRM

Method Blank Matrix: Instrument ID: 30WTA5

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)					
		C	07/16/2019 14:00	C	07/16/2019 15:20	C	07/16/2019 15:31	C
Cyanide			0.0016	U	0.0016	U	0.0016	U
Cyanide, Reactive								

SAMPLE NO.

1707441DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: Std. Units

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
pH in water at 25 degrees C	10	12.2	12.2	0

SAMPLE NO.

1707403DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 0.4 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	ND	ND	

SAMPLE NO.

1707380DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 0.4 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	ND	ND	

SAMPLE NO.

1707402LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Cyanide, Reactive	mg/kg	99.6	ND	0	0	8

SAMPLE NO.

1707379LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Sulfide, Reactive	mg/kg	199	43.7	22	0	52

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: SW-846 7.3.4.2 Instrument ID: 30WET0

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Sulfide, Reactive	10.0	10.0	06/07/2019

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 9045D Instrument ID: 30WETG

Concentration Units: Std. Units

Analyte	PQL	MDL	MDL Date
pH in water at 25 degrees	2.0	2.0	11/06/2016

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: None Instrument ID: 30WTA5

Concentration Units: mg/L

Analyte	PQL	IDL	IDL Date
Cyanide	0.01	0.0016	01/01/2007

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: SW-846 7.3.3.2 Instrument ID: 30WTA5

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Cyanide, Reactive	1.0	0.40	11/06/2016

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 9045D Batch: WET 51073

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1707441	1707441DUP	07/11/2019	20.09	20
30313260001	AOC32 Lower-1	07/11/2019	20.01	20
30313260002	AOC32 Lower-2	07/11/2019	19.95	20
30313260003	AOC27	07/11/2019	19.93	20

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: SW-846 7.3.3.2 Batch: WETA 43250

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1707401	1707401BLANK	07/15/2019	10	50
1707402	1707402LCS	07/15/2019	10.04	50
1707403	1707403DUP	07/15/2019	10	50
30313260001	AOC32 Lower-1	07/15/2019	10.04	50
30313260002	AOC32 Lower-2	07/15/2019	10.02	50
30313260003	AOC27	07/15/2019	10.03	50

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: SW-846 7.3.4.2 Batch: WETA 43249

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1707378	1707378BLANK	07/15/2019	10	200
1707379	1707379LCS	07/15/2019	10.06	200
1707380	1707380DUP	07/15/2019	10	200
30313260001	AOC32 Lower-1	07/15/2019	10.04	200
30313260002	AOC32 Lower-2	07/15/2019	10.02	200
30313260003	AOC27	07/15/2019	10.03	200

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Preparation Method: EPA 1010 Batch: WET 51193

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1711042	1711042BLANK	07/17/2019	1	1
1711043	1711043DUP	07/17/2019	1	1
30313260001	AOC32 Lower-1	07/17/2019	1	1
30313260002	AOC32 Lower-2	07/17/2019	1	1
30313260003	AOC27	07/17/2019	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30WET6 Analysis Method: EPA 1010

Start Date: 07/17/2019 09:40 End Date: 07/17/2019 13:17

Sample Name	Lab Sample ID	D/F	Date	Time	flpt
1711042BLANK	1711042	1	07/17/2019	09:40	X
30312631001	30312631001	1	07/17/2019	09:50	X
1711043DUP	1711043	1	07/17/2019	10:03	X
AOC32 Lower-1	30313260001	1	07/17/2019	12:50	X
AOC27	30313260003	1	07/17/2019	13:15	X
AOC32 Lower-2	30313260002	1	07/17/2019	13:17	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30WET0 Analysis Method: SM 4500S2F-2011

Start Date: 07/15/2019 22:36 End Date: 07/15/2019 22:36

Sample Name	Lab Sample ID	D/F	Date	Time	rS
1707378BLANK	1707378	1	07/15/2019	22:36	X
1707379LCS	1707379	1	07/15/2019	22:36	X
1707380DUP	1707380	1	07/15/2019	22:36	X
30312987001	30312987001	1	07/15/2019	22:36	X
AOC27	30313260003	1	07/15/2019	22:36	X
AOC32 Lower-1	30313260001	1	07/15/2019	22:36	X
AOC32 Lower-2	30313260002	1	07/15/2019	22:36	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30WETG Analysis Method: EPA 9045D

Start Date: 07/11/2019 14:29 End Date: 07/11/2019 21:29

Sample Name	Lab Sample ID	D/F	Date	Time	pH 25	pH 25
11219687CAL1	11219687CAL1	1	07/11/2019	14:29	X	X
11219688CAL2	11219688CAL2	1	07/11/2019	14:30	X	X
11219689CAL3	11219689CAL3	1	07/11/2019	14:30	X	X
11219693CAL4	11219693CAL4	1	07/11/2019	14:30	X	X
11219691CAL5	11219691CAL5	1	07/11/2019	14:30	X	X
11219692ICVA	11219692ICVA	1	07/11/2019	14:30	X	X
11219690ICVB	11219690ICVB	1	07/11/2019	14:30	X	X
11223580CCV	11223580CCV	1	07/11/2019	20:53	X	X
11223582CCV	11223582CCV	1	07/11/2019	21:17	X	X
30313199001	30313199001	1	07/11/2019	21:19		X
1707441DUP	1707441	1	07/11/2019	21:20		X
AOC32 Lower-1	30313260001	1	07/11/2019	21:20		X
AOC32 Lower-2	30313260002	1	07/11/2019	21:22		X
AOC27	30313260003	1	07/11/2019	21:22		X
11223581CCV	11223581CCV	1	07/11/2019	21:29	X	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30WTA5 Analysis Method: EPA 9014

Start Date: 07/16/2019 12:29 End Date: 07/16/2019 15:38

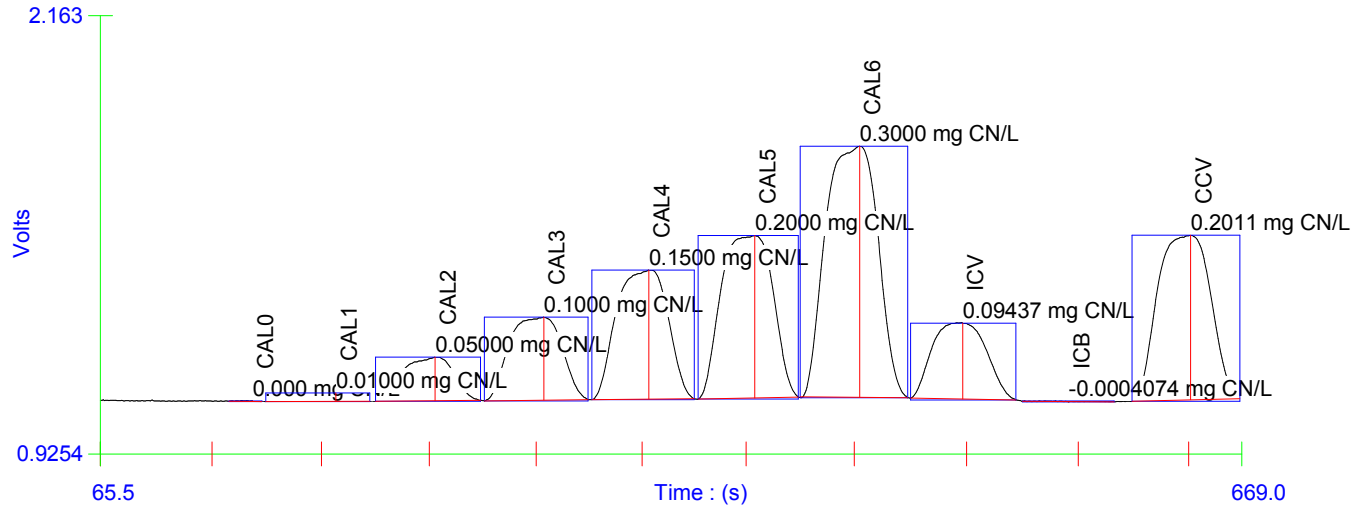
Sample Name	Lab Sample ID	D/F	Date	Time	CN	rCN
11242190CAL0	11242190CAL0	1	07/16/2019	12:29	X	
11242191CAL1	11242191CAL1	1	07/16/2019	12:30	X	
11242192CAL2	11242192CAL2	1	07/16/2019	12:31	X	
11242193CAL3	11242193CAL3	1	07/16/2019	12:32	X	
11242194CAL4	11242194CAL4	1	07/16/2019	12:33	X	
11242195CAL5	11242195CAL5	1	07/16/2019	12:34	X	
11242196CAL6	11242196CAL6	1	07/16/2019	12:35	X	
11242197ICV	11242197ICV	1	07/16/2019	12:36	X	
11242198ICB	11242198ICB	1	07/16/2019	12:37	X	
11242199CCV	11242199CCV	1	07/16/2019	12:38	X	
11242200CCV	11242200CCV	1	07/16/2019	12:44	X	
11242201CCB	11242201CCB	1	07/16/2019	12:45	X	
11242202CCV	11242202CCV	1	07/16/2019	13:00	X	
11242203CCB	11242203CCB	1	07/16/2019	13:01	X	
11242204CCV	11242204CCV	1	07/16/2019	13:13	X	
11242205CCB	11242205CCB	1	07/16/2019	13:14	X	
11242206CCV	11242206CCV	1	07/16/2019	13:25	X	
11242207CCB	11242207CCB	1	07/16/2019	13:26	X	
11242208CCV	11242208CCV	1	07/16/2019	13:36	X	
11242209CCB	11242209CCB	1	07/16/2019	13:37	X	
11242210CCV	11242210CCV	1	07/16/2019	13:45	X	
11242211CCB	11242211CCB	1	07/16/2019	13:46	X	
11242212CCV	11242212CCV	1	07/16/2019	13:59	X	
11242213CCB	11242213CCB	1	07/16/2019	14:00	X	
11243340CCV	11243340CCV	1	07/16/2019	15:19	X	
11243341CCB	11243341CCB	1	07/16/2019	15:20	X	
1707401BLANK	1707401	1	07/16/2019	15:21		X
1707402LCS	1707402	1	07/16/2019	15:22		X
AOC32 Lower-1	30313260001	1	07/16/2019	15:26		X
AOC32 Lower-2	30313260002	1	07/16/2019	15:27		X
AOC27	30313260003	1	07/16/2019	15:28		X
11243342CCV	11243342CCV	1	07/16/2019	15:30	X	
11243343CCB	11243343CCB	1	07/16/2019	15:31	X	
30312987001	30312987001	1	07/16/2019	15:37		X
1707403DUP	1707403	1	07/16/2019	15:38		X

Author: Cody Ray Date : 7/16/2019

Original Run Filename: OM_7-16-2019_12-28-27PM.OMN Created: 7/16/2019 12:28:27 PM
Original Run Author's Signature: [lachatuser]
Current Run Filename: OM_7-16-2019_12-28-27PM.OMN Last Modified: 7/16/2019 12:41:32 PM
Current Run Author's Signature: [lachatuser]
Description: 10-107-04-1-C

Sample	Channel 1 Cyanide Conc. (mg CN/L)	Area (V.s)	Height (V)	Detection Time	MDF
CAL0	0.000	0.01463	0.001806	7/16/2019@12:29:35 PM	
CAL1	0.01000	0.7864	0.02416	7/16/2019@12:30:34 PM	
CAL2	0.05000	3.809	0.1233	7/16/2019@12:31:32 PM	
CAL3	0.1000	7.514	0.2344	7/16/2019@12:32:30 PM	
CAL4	0.1500	11.42	0.3640	7/16/2019@12:33:26 PM	
CAL5	0.2000	14.54	0.4583	7/16/2019@12:34:22 PM	
CAL6	0.3000	22.58	0.7085	7/16/2019@12:35:17 PM	
ICV	0.09437	7.073	0.2142	7/16/2019@12:36:15 PM	
Known Conc:	0.1000				
Calibration:	Table/Fig. : 1				
ICB	-0.0004074	-0.002506	-0.0008256	7/16/2019@12:37:14 PM	
Known Conc:	0.000				
CCV	0.2011	15.04	0.4641	7/16/2019@12:38:13 PM	
Known Conc:	0.2000				
LCP1	0.06032	4.531	0.1330	7/16/2019@12:39:12 PM	1.00

Channel 1 (Cyanide) - Set: 1 / 2



Author: Cody Ray Date : 7/16/2019

Channel 1 (Cyanide) - Set: 2 / 2

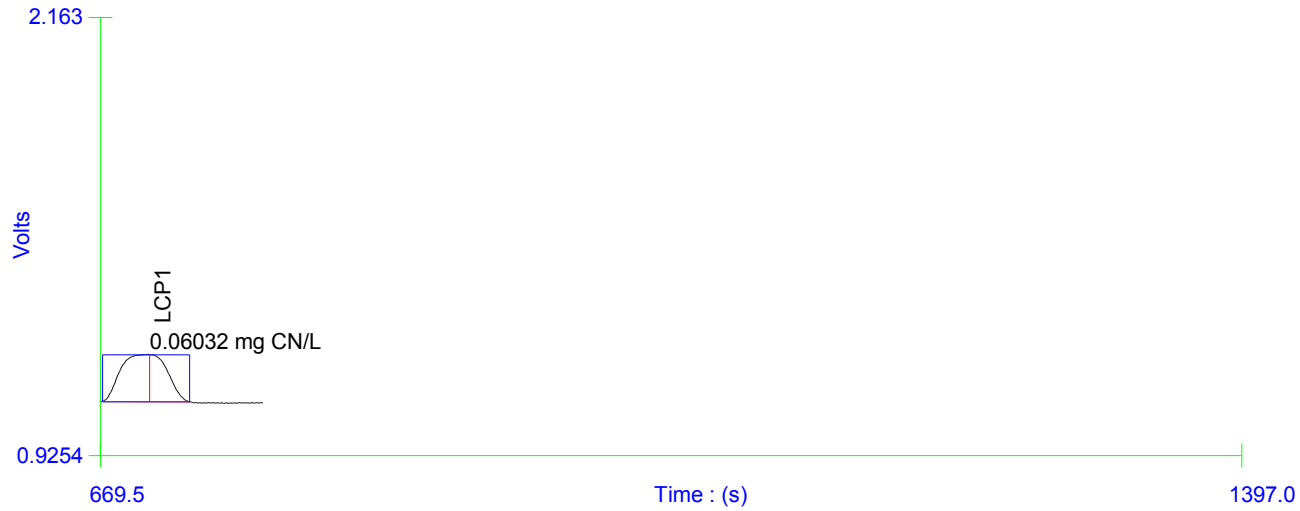
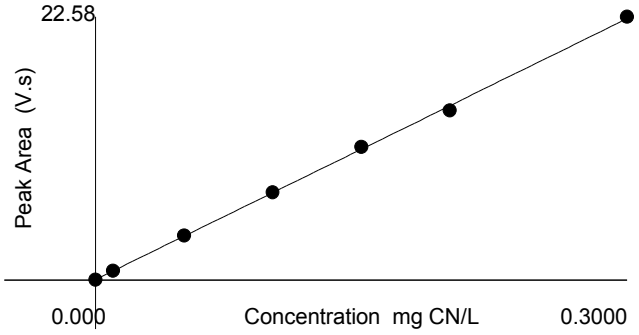


Table : 1 (Cyanide)

	Known Conc. (mg CN/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg CN/L)	Detection Date	Detection Time
1	0.3000	1	22.58	0.7085	0.0	-0.7	0.3021	7/16/2019	12:35:17 PM
2	0.2000	1	14.54	0.4583	0.0	2.8	0.1944	7/16/2019	12:34:22 PM
3	0.1500	1	11.42	0.3640	0.0	-1.8	0.1526	7/16/2019	12:33:26 PM
4	0.1000	1	7.514	0.2344	0.0	-0.3	0.1003	7/16/2019	12:32:30 PM
5	0.05000	1	3.809	0.1233	0.0	-1.2	0.05065	7/16/2019	12:31:32 PM
6	0.01000	1	0.7864	0.02416	0.0	-0.9	0.01016	7/16/2019	12:30:34 PM
7	0.000	1	0.01463	0.001806			-0.0001778	7/16/2019	12:29:35 PM

Figure : 1 (Cyanide)



Area = 74.61 * Conc + 0.03312
Conc = 0.01340 * Area - 0.0003738
Correlation Coefficient (r) = 0.99970

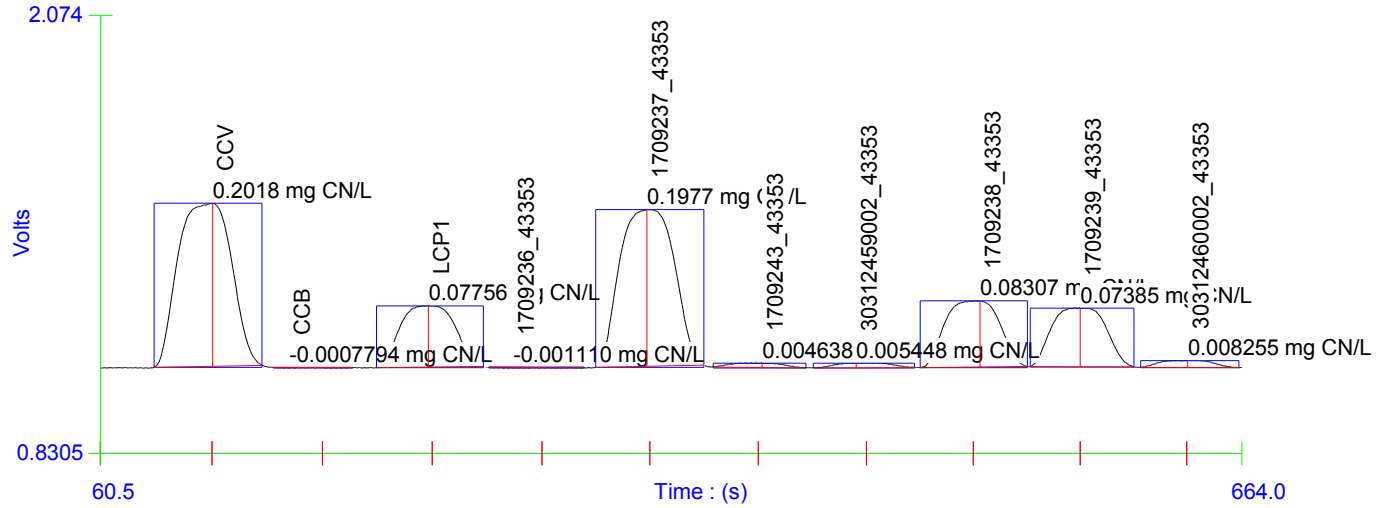
Weighting : None

Original Run Filename: OM_7-16-2019_12-43-21PM.OMN Created: 7/16/2019 12:43:21 PM
Original Run Author's Signature: [lachatuser]
Current Run Filename: OM_7-16-2019_12-43-21PM.OMN Last Modified: 7/16/2019 2:02:20 PM
Current Run Author's Signature: [lachatuser]
Description: 10-107-04-1-C

Sample	Channel 1 Cyanide			Detection Time	MDF
	Conc. (mg CN/L)	Area (V.s)	Height (V)		
CCV	0.2018	15.09	0.4630	7/16/2019@12:44:24 PM	
Known Conc:	0.2000				
CCB	-0.0007794	-0.03028	-0.001364	7/16/2019@12:45:23 PM	
Known Conc:	0.000				
LCP1	0.07756	5.818	0.1739	7/16/2019@12:46:22 PM	1.00
1709236_43353	-0.001110	-0.05495	-0.002405	7/16/2019@12:47:20 PM	1.00
1709237_43353	0.1977	14.79	0.4451	7/16/2019@12:48:18 PM	1.00
1709243_43353	0.004638	0.3741	0.01199	7/16/2019@12:49:15 PM	1.00
30312459002_43353	0.005448	0.4346	0.01308	7/16/2019@12:50:13 PM	1.00
1709238_43353	0.08307	6.229	0.1876	7/16/2019@12:51:10 PM	1.00
1709239_43353	0.07385	5.541	0.1668	7/16/2019@12:52:07 PM	1.00
30312460002_43353	0.008255	0.6442	0.01969	7/16/2019@12:53:03 PM	1.00
30312949001_43353	0.007821	0.6117	0.01976	7/16/2019@12:54:00 PM	1.00
30312959001_43353	0.005653	0.4499	0.01442	7/16/2019@12:54:56 PM	1.00
30312985001_43353	0.007932	0.6200	0.01948	7/16/2019@12:55:52 PM	1.00
30313251001_43353	0.7177	53.60	1.610	7/16/2019@12:56:48 PM	1.00
30313252001_43353	0.01308	1.005	0.03366	7/16/2019@12:57:43 PM	1.00
1709240_43353	0.009982	0.7731	0.02385	7/16/2019@12:58:39 PM	1.00
30313252002_43353	0.009661	0.7491	0.02227	7/16/2019@12:59:34 PM	1.00
CCV	0.1984	14.84	0.4557	7/16/2019@1:00:31 PM	
Known Conc:	0.2000				
CCB	-0.0005817	-0.01552	-0.001601	7/16/2019@1:01:31 PM	
Known Conc:	0.000				
30313252003_43353	0.01355	1.040	0.03102	7/16/2019@1:02:30 PM	1.00
1709244_43353	0.07982	5.986	0.1787	7/16/2019@1:03:27 PM	1.00
1709245_43353	0.07780	5.835	0.1765	7/16/2019@1:04:25 PM	1.00
30313252004_43353	0.1076	8.062	0.2429	7/16/2019@1:05:22 PM	1.00
30313252005_43353	0.01116	0.8610	0.02648	7/16/2019@1:06:19 PM	1.00
30313252006_43353	0.1239	9.279	0.2768	7/16/2019@1:07:16 PM	1.00
30313526002_43353	0.01847	1.407	0.04287	7/16/2019@1:08:12 PM	1.00
30313336001_43353	0.007782	0.6089	0.01854	7/16/2019@1:09:08 PM	1.00
30313570001_43353	0.01018	0.7877	0.02412	7/16/2019@1:10:04 PM	1.00
30313571001_43353	0.007163	0.5626	0.01731	7/16/2019@1:11:00 PM	1.00
30313572002_43353	0.004248	0.3450	0.01103	7/16/2019@1:11:56 PM	1.00
30313569001_43353	0.1568	11.73	0.3595	7/16/2019@1:12:51 PM	1.00
CCV	0.1948	14.57	0.4502	7/16/2019@1:13:48 PM	
Known Conc:	0.2000				
CCB	-0.0004661	-0.006889	0.001163	7/16/2019@1:14:47 PM	
Known Conc:	0.000				
30313251001_43353	0.1461	10.93	0.3371	7/16/2019@1:15:45 PM	5.00
LCP2	0.07242	5.434	0.1687	7/16/2019@1:16:41 PM	1.00
1709246_43354	0.0003765	0.05601	0.002982	7/16/2019@1:17:35 PM	1.00
30313252001_43354	0.007597	0.5951	0.01875	7/16/2019@1:18:30 PM	1.00
1709248_43354	0.008919	0.6937	0.02118	7/16/2019@1:19:26 PM	1.00
30313252002_43354	0.008683	0.6761	0.02068	7/16/2019@1:20:24 PM	1.00
30313252003_43354	0.01143	0.8816	0.02591	7/16/2019@1:21:21 PM	1.00
30313252004_43354	0.02738	2.072	0.06150	7/16/2019@1:22:19 PM	1.00
30313252005_43354	0.007442	0.5834	0.02059	7/16/2019@1:23:15 PM	1.00
30313252006_43354	0.02062	1.567	0.04567	7/16/2019@1:24:12 PM	1.00
CCV	0.1935	14.47	0.4307	7/16/2019@1:25:10 PM	
Known Conc:	0.2000				
CCB	-0.0005652	-0.01429	-0.001332	7/16/2019@1:26:09 PM	
Known Conc:	0.000				
LCP3	0.07414	5.563	0.1640	7/16/2019@1:27:07 PM	1.00
1710000_43355	-0.0001509	0.01664	0.002188	7/16/2019@1:28:04 PM	1.00
1710001_43355	0.2043	15.28	0.4577	7/16/2019@1:29:00 PM	1.00
30311491001_43355	0.01375	1.054	0.03397	7/16/2019@1:29:56 PM	1.00

30311491002_43355	0.01030	0.7969	0.02461	7/16/2019@1:30:51 PM	1.00
30313206001_43355	0.01187	0.9137	0.02826	7/16/2019@1:31:47 PM	1.00
1710002_43355	0.2537	18.96	0.5714	7/16/2019@1:32:42 PM	1.00
1710003_43355	0.09533	7.145	0.2177	7/16/2019@1:33:37 PM	1.00
30313362001_43355	0.003043	0.2551	0.008415	7/16/2019@1:34:31 PM	1.00
30313760001_43355	0.01157	0.8913	0.02615	7/16/2019@1:35:27 PM	1.00
CCV	0.1917	14.34	0.4259	7/16/2019@1:36:26 PM	
Known Conc:	0.2000				
CCB	-0.001197	-0.06144	-0.003413	7/16/2019@1:37:25 PM	
Known Conc:	0.000				
LCP4	0.07468	5.603	0.1654	7/16/2019@1:38:24 PM	1.00
1710005_43356	-0.0007824	-0.03050	-0.002003	7/16/2019@1:39:21 PM	1.00
1710006_43356	0.1787	13.37	0.3977	7/16/2019@1:40:18 PM	1.00
30313263001_43356	0.004926	0.3957	0.01356	7/16/2019@1:41:15 PM	1.00
1710007_43356	0.09221	6.911	0.2099	7/16/2019@1:42:12 PM	1.00
1710008_43356	0.09108	6.827	0.2075	7/16/2019@1:43:09 PM	1.00
30313263003_43356	0.004723	0.3805	0.01253	7/16/2019@1:44:05 PM	1.00
30313263005_43356	0.006113	0.4842	0.01543	7/16/2019@1:45:01 PM	1.00
CCV	0.1919	14.35	0.4373	7/16/2019@1:45:58 PM	
Known Conc:	0.2000				
CCB	-0.001019	-0.04814	-0.001482	7/16/2019@1:46:58 PM	
Known Conc:	0.000				
1710006_43356	0.2019	15.10	0.4546	7/16/2019@1:47:56 PM	1.00
LCP5	0.07137	5.356	0.1636	7/16/2019@1:48:53 PM	1.00
1710010_43357	-0.0005836	-0.01567	-0.001654	7/16/2019@1:49:48 PM	1.00
1710011_43357	0.1780	13.32	0.4104	7/16/2019@1:50:43 PM	1.00
30313553001_43357	-0.0003820	-0.0006099	-0.0005082	7/16/2019@1:51:39 PM	1.00
1710012_43357	0.002954	0.2485	0.007140	7/16/2019@1:52:33 PM	1.00
1710013_43357	0.001491	0.1392	0.005243	7/16/2019@1:53:28 PM	1.00
30313574001_43357	0.06507	4.886	0.1469	7/16/2019@1:54:25 PM	1.00
30313353001_43357	0.01524	1.166	0.03696	7/16/2019@1:55:23 PM	1.00
30313564001_43357	0.02682	2.030	0.06594	7/16/2019@1:56:20 PM	1.00
LCP5	0.07060	5.299	0.1640	7/16/2019@1:57:17 PM	1.00
1710011_43357	0.1996	14.93	0.5847	7/16/2019@1:58:12 PM	1.00
CCV	0.1896	14.18	0.4818	7/16/2019@1:59:09 PM	
Known Conc:	0.2000				
CCB	-0.0009023	-0.03946	-0.002082	7/16/2019@2:00:08 PM	
Known Conc:	0.000				

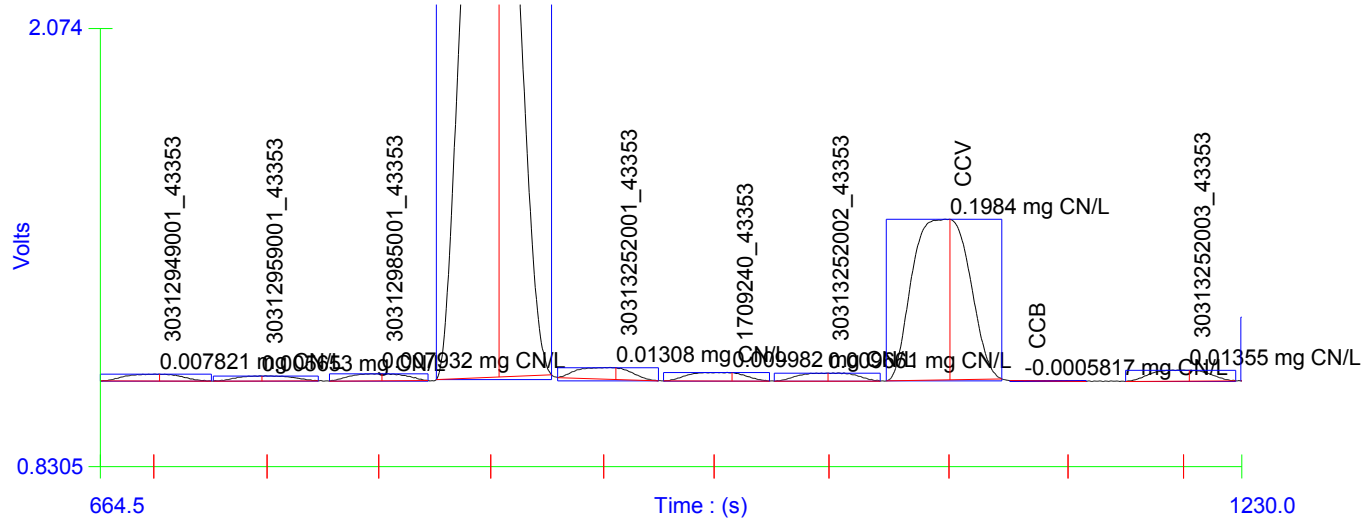
Channel 1 (Cyanide) - Set: 1 / 9



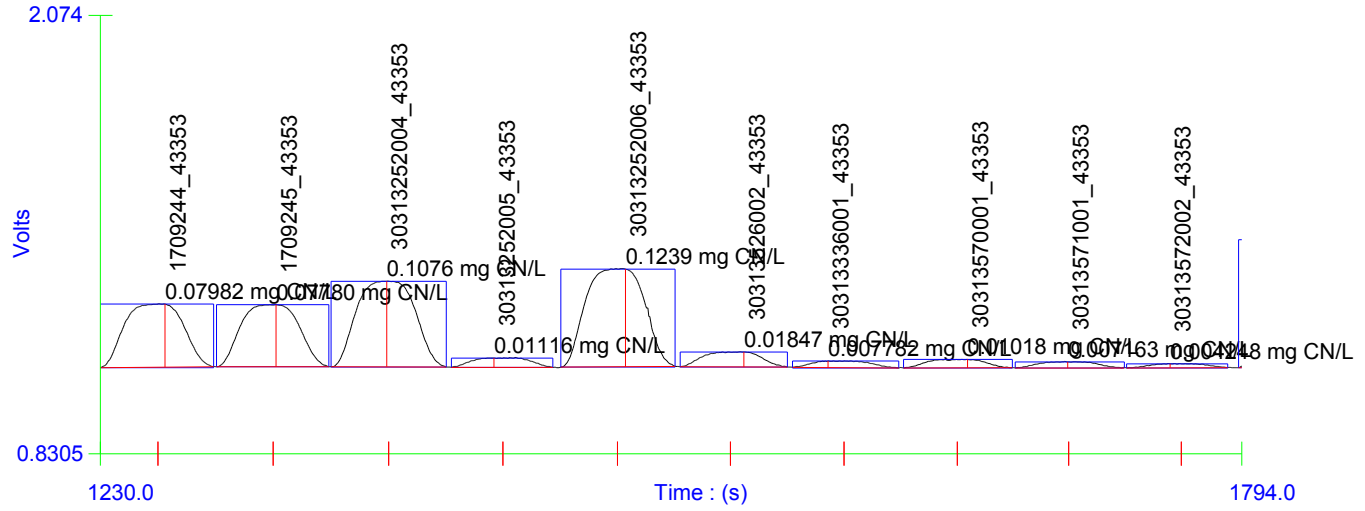
Author: Cody Ray

Date : 7/16/2019

Channel 1 (Cyanide) - Set: 2 / 9

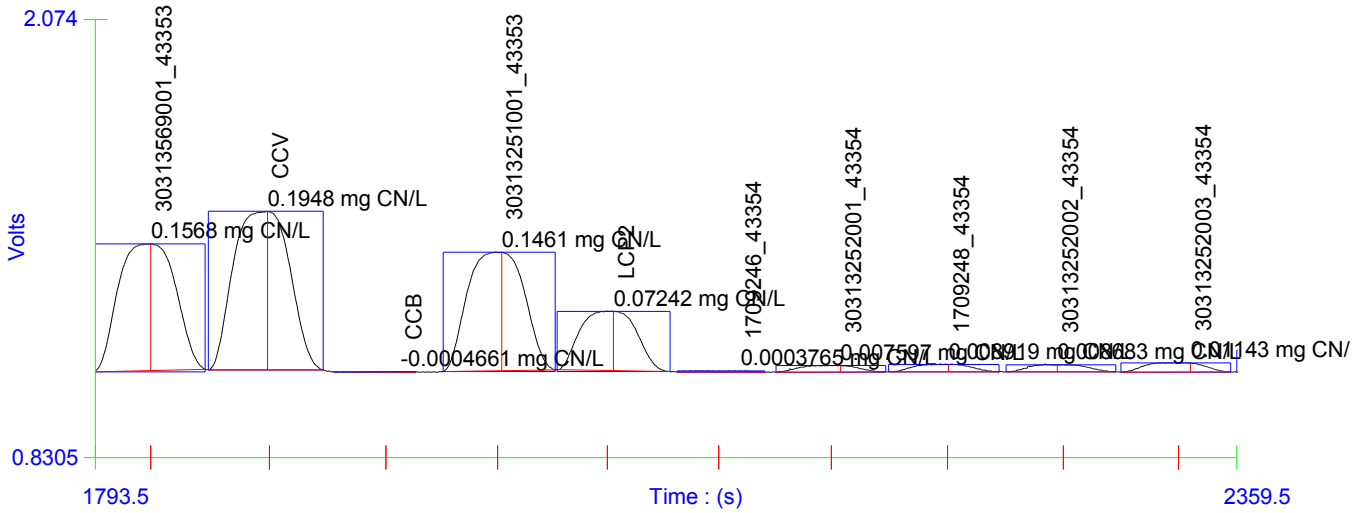


Channel 1 (Cyanide) - Set: 3 / 9

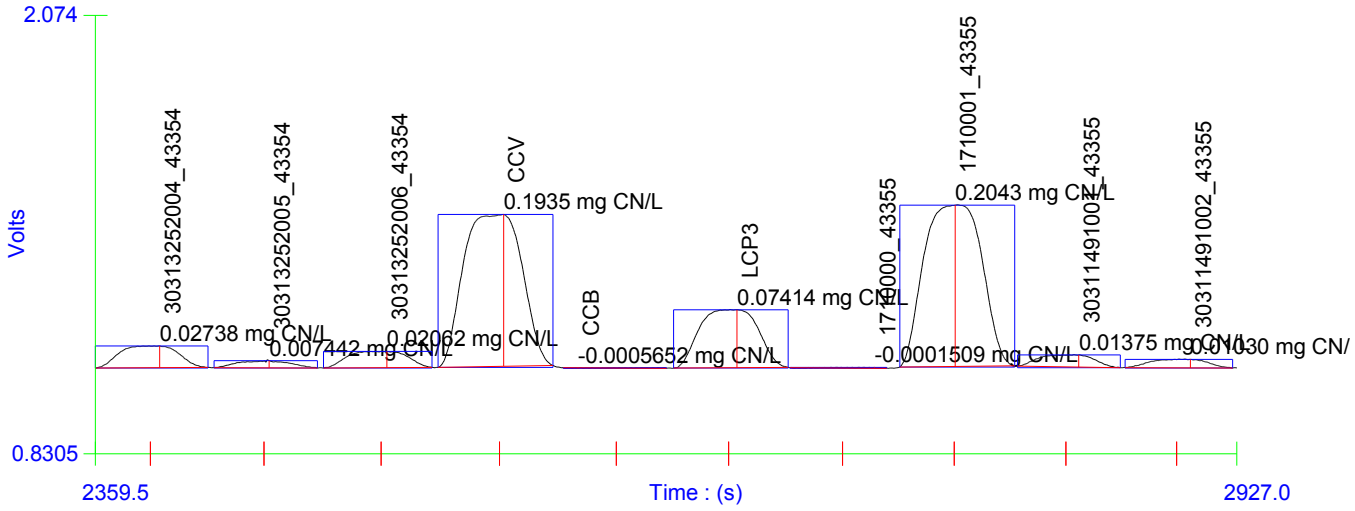


Author: Cody Ray Date : 7/16/2019

Channel 1 (Cyanide) - Set: 4 / 9



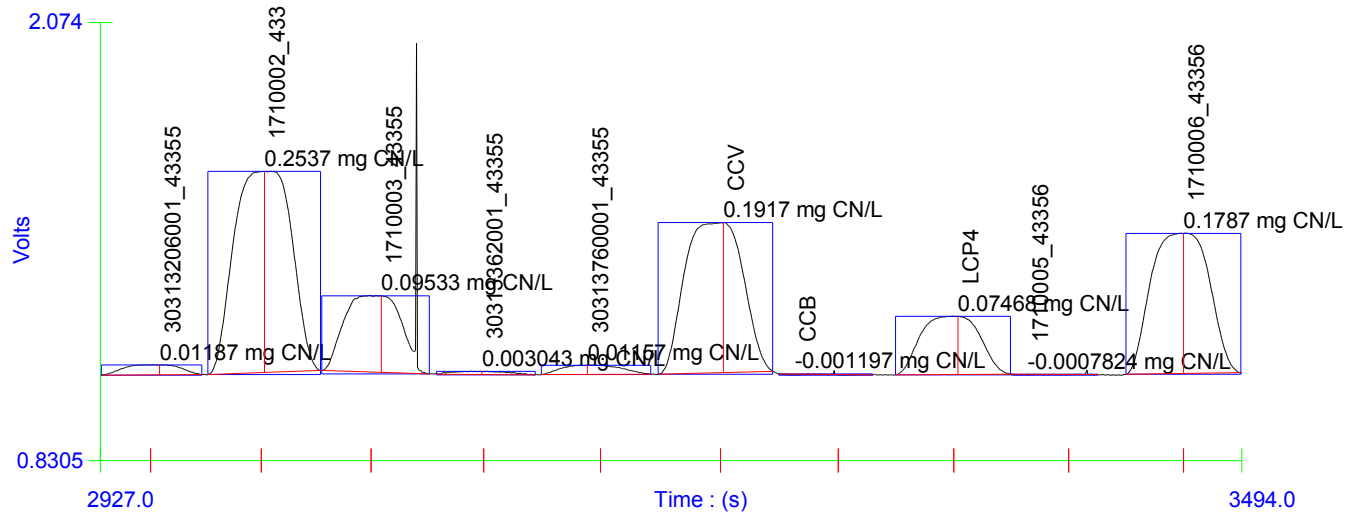
Channel 1 (Cyanide) - Set: 5 / 9



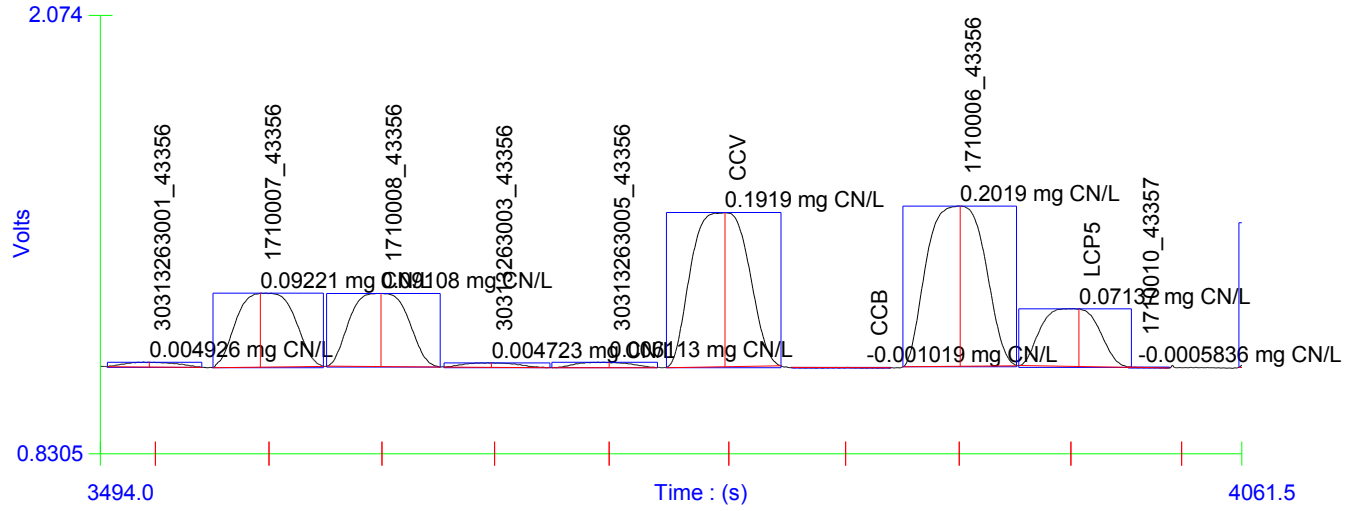
Author: Cody Ray

Date : 7/16/2019

Channel 1 (Cyanide) - Set: 6 / 9



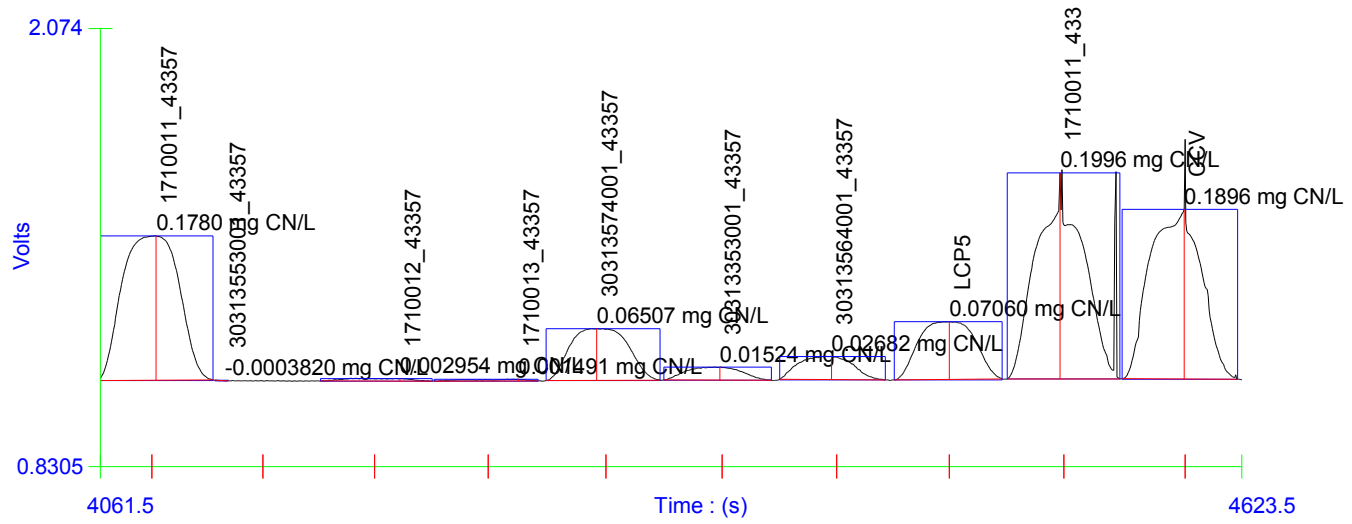
Channel 1 (Cyanide) - Set: 7 / 9



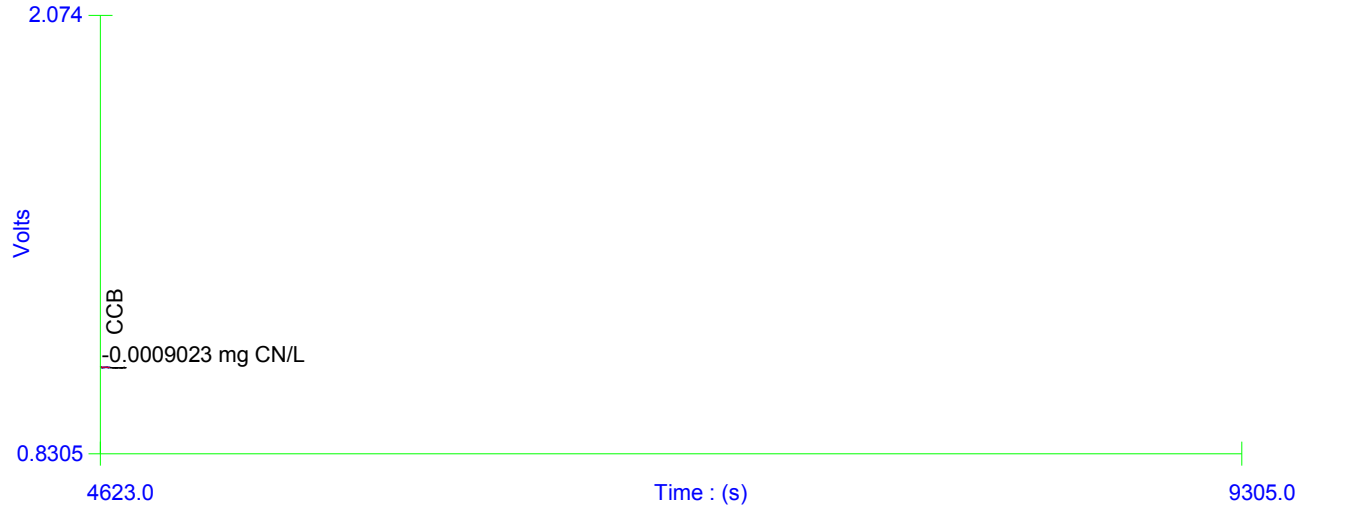
Author: Cody Ray

Date : 7/16/2019

Channel 1 (Cyanide) - Set: 8 / 9



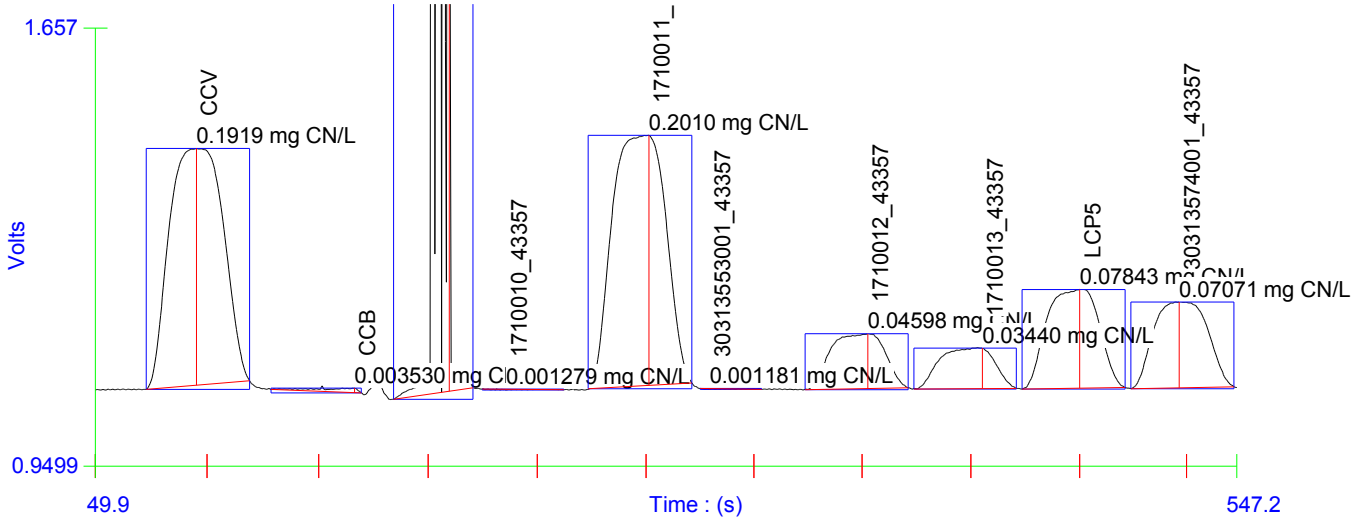
Channel 1 (Cyanide) - Set: 9 / 9



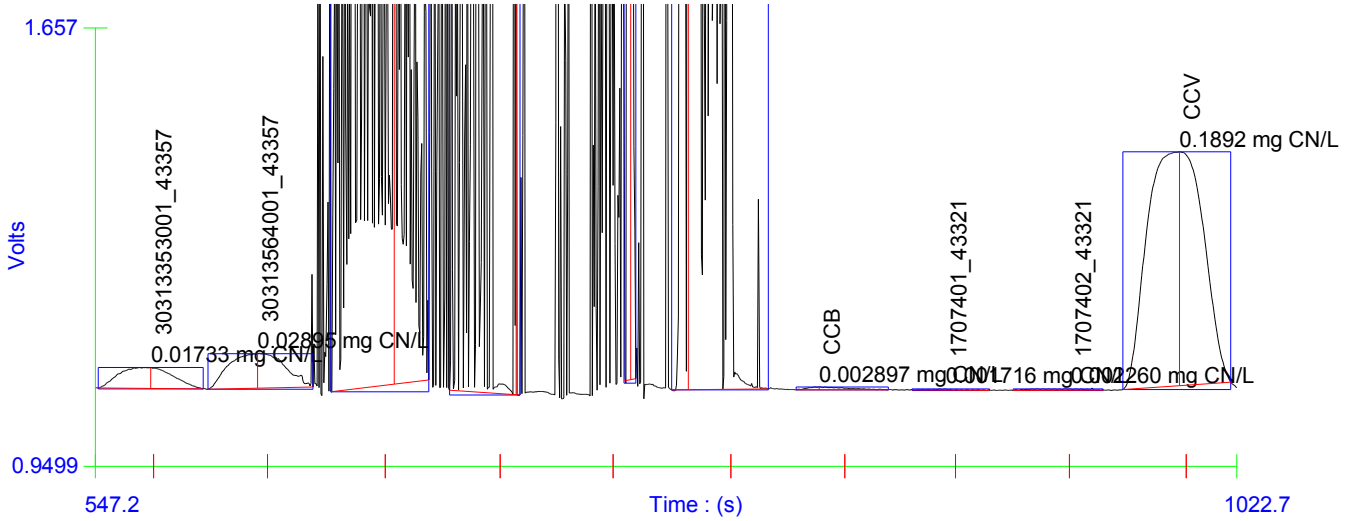
Original Run Filename: OM_7-16-2019_03-00-34PM.OMN Created: 7/16/2019 3:00:34 PM
Original Run Author's Signature: [lachatuser]
Current Run Filename: OM_7-16-2019_03-00-34PM.OMN Last Modified: 7/16/2019 3:44:16 PM
Current Run Author's Signature: [lachatuser]
Description: 10-107-04-1-C

Sample	Channel 1 Cyanide			Detection Time	MDF
	Conc. (mg CN/L)	Area (V.s)	Height (V)		
CCV	0.1919	10.40	0.3821	7/16/2019@3:01:37 PM	
Known Conc:	0.2000				
CCB	0.003530	0.1199	0.006999	7/16/2019@3:02:36 PM	
Known Conc:	0.000				
LCP5	0.06762	3.618	1.057	7/16/2019@3:03:35 PM	1.00
1710010_43357	0.001279	-0.002971	-0.001196	7/16/2019@3:04:33 PM	1.00
1710011_43357	0.2010	10.90	0.4038	7/16/2019@3:05:31 PM	1.00
30313553001_43357	0.001181	-0.008314	-0.001217	7/16/2019@3:06:28 PM	1.00
1710012_43357	0.04598	2.437	0.08870	7/16/2019@3:07:25 PM	1.00
1710013_43357	0.03440	1.805	0.06525	7/16/2019@3:08:23 PM	1.00
LCP5	0.07843	4.208	0.1593	7/16/2019@3:09:20 PM	1.00
30313574001_43357	0.07071	3.786	0.1382	7/16/2019@3:10:18 PM	1.00
30313353001_43357	0.01733	0.8729	0.03377	7/16/2019@3:11:14 PM	1.00
30313564001_43357	0.02895	1.507	0.05539	7/16/2019@3:12:11 PM	1.00
CCV	0.2046	11.10	0.9580	7/16/2019@3:13:08 PM	
Known Conc:	0.2000				
CCB	0.09119	4.904	1.957	7/16/2019@3:14:08 PM	
Known Conc:	0.000				
1707401_43321	0.1027	5.531	2.727	7/16/2019@3:15:06 PM	1.00
CCV	0.2096	11.37	1.119	7/16/2019@3:16:03 PM	
Known Conc:	0.2000				
CCB	0.002897	0.08534	0.004374	7/16/2019@3:17:02 PM	
Known Conc:	0.000				
1707401_43321	0.001716	0.02087	0.001795	7/16/2019@3:18:00 PM	1.00
1707402_43321	0.002260	0.05055	0.002405	7/16/2019@3:18:56 PM	1.00
CCV	0.1892	10.25	0.3773	7/16/2019@3:19:54 PM	
Known Conc:	0.2000				
CCB	0.001387	0.002903	0.0009006	7/16/2019@3:20:53 PM	
Known Conc:	0.000				
1707401_43321	0.001787	0.02476	0.001665	7/16/2019@3:21:51 PM	1.00
1707402_43321	0.002210	0.04782	0.004681	7/16/2019@3:22:47 PM	1.00
30313233001_43321	0.001406	0.003954	0.001437	7/16/2019@3:23:42 PM	1.00
30313234001_43321	0.001597	0.01436	0.001500	7/16/2019@3:24:38 PM	1.00
30312957001_43321	0.001494	0.008732	0.001311	7/16/2019@3:25:33 PM	1.00
30313260001_43321	0.002163	0.04527	0.002507	7/16/2019@3:26:28 PM	1.00
30313260002_43321	0.001906	0.03122	0.001959	7/16/2019@3:27:25 PM	1.00
30313260003_43321	0.001896	0.03069	0.002056	7/16/2019@3:28:23 PM	1.00
92435981001_43321	0.001930	0.03256	0.002313	7/16/2019@3:29:20 PM	1.00
CCV	0.1879	10.18	0.3738	7/16/2019@3:30:18 PM	
Known Conc:	0.2000				
CCB	0.001099	-0.01281	-0.001561	7/16/2019@3:31:18 PM	
Known Conc:	0.000				
30312995001_43321	0.001614	0.01531	0.001353	7/16/2019@3:32:16 PM	1.00
30312996001_43321	0.001840	0.02762	0.001859	7/16/2019@3:33:13 PM	1.00
30312996002_43321	0.001822	0.02665	0.001206	7/16/2019@3:34:10 PM	1.00
30312996003_43321	0.002273	0.05126	0.002861	7/16/2019@3:35:06 PM	1.00
30312996004_43321	0.002116	0.04269	0.002400	7/16/2019@3:36:03 PM	1.00
30312982001_43321	0.002509	0.06414	0.002798	7/16/2019@3:36:59 PM	1.00
30312987001_43321	0.002011	0.03699	0.002047	7/16/2019@3:37:54 PM	1.00
1707403_43321	0.001894	0.03059	0.001847	7/16/2019@3:38:50 PM	1.00
50229909001_43321	0.002172	0.04575	0.002359	7/16/2019@3:39:45 PM	1.00
30313542001_43321	0.002221	0.04844	0.002762	7/16/2019@3:40:41 PM	1.00
CCV	0.1883	10.21	0.3747	7/16/2019@3:41:38 PM	
Known Conc:	0.2000				
CCB	0.001528	0.01063	0.001210	7/16/2019@3:42:37 PM	
Known Conc:	0.000				

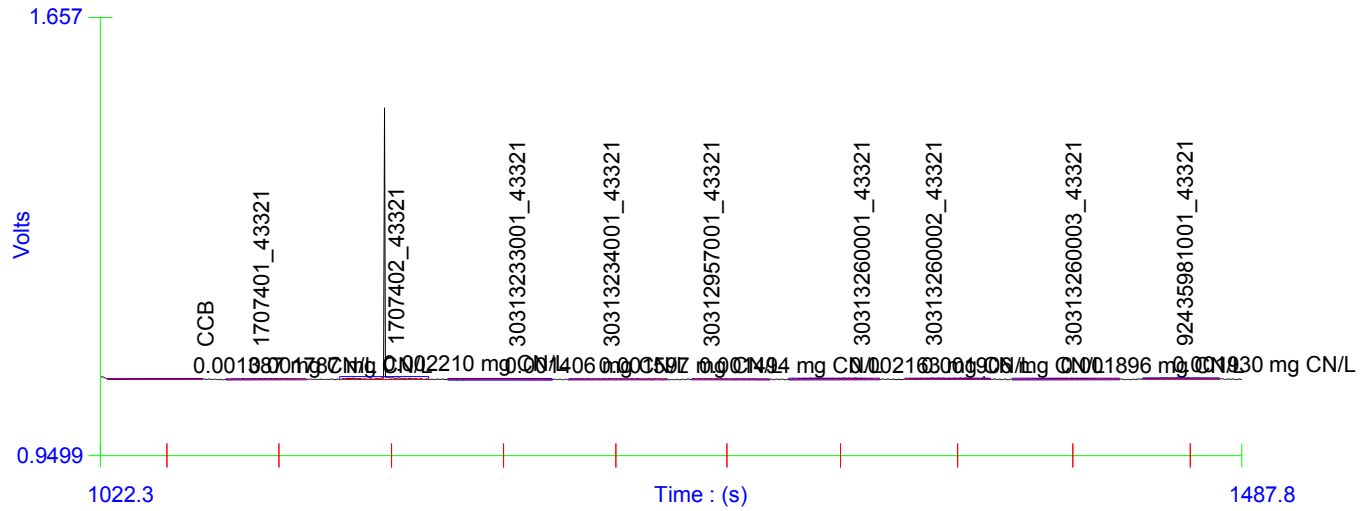
Channel 1 (Cyanide) - Set: 1 / 5



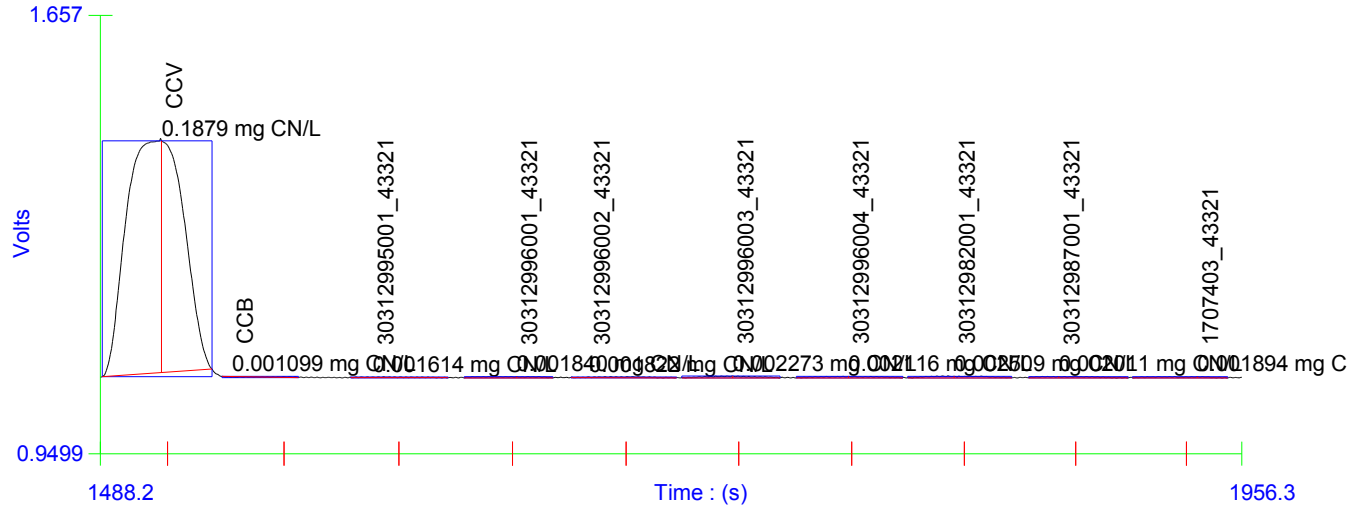
Channel 1 (Cyanide) - Set: 2 / 5



Channel 1 (Cyanide) - Set: 3 / 5



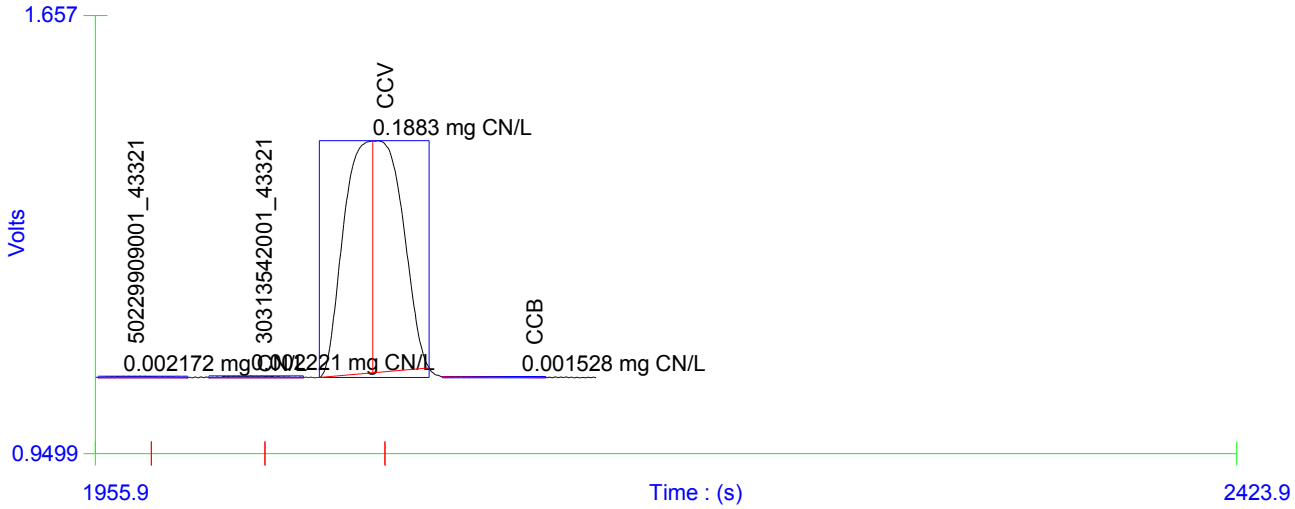
Channel 1 (Cyanide) - Set: 4 / 5



Author: Cody Ray, Paul Stanko

Date : 7/16/2019

Channel 1 (Cyanide) - Set: 5 / 5



Prep Log Report

Batch Information: WET 352186 flashpoint2

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	170327318	Correction Factor (F)	0	Barometric Pressure (in Hg)	28.91
Corrected Barometric Pressure Factor (F)	1.5412	Instrument	30WET6	Analyzed By	CMR	p-Xylene	93223
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	07/17/2019 16:58						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVA	**CCVA**	N	07/17/2019 08:45:01	Nonaqueous liquid	78.5	80.04	
1010 W	BLANK	**1711042**	Y	07/17/2019 09:40:35	Water	>200	>200	
1010 W	PS	**30312631002**	Y	07/17/2019 10:07:31	Solid	>200	>200	
1010 W	PS	**30311970001**	Y	07/17/2019 10:36:40	Water	>200	>200	
1010 W	PS	**30312106002**	Y	07/17/2019 11:08:14	Solid	>200	>200	
1010 W	PS	**30312796002**	Y	07/17/2019 11:40:38	Solid	>200	>200	
1010 W	PS	**30313035001**	Y	07/17/2019 12:11:02	Solid	>200	>200	
1010 W	PS	**30313260002**	Y	07/17/2019 13:17:52	Solid	>200	>200	
1010 W	PS	**30313756001**	Y	07/17/2019 14:48:52	Solid	>200	>200	
1010 W	PS	**10482944001**	Y	07/17/2019 15:17:37	Water	>200	>200	

Prep Log Report

Batch Information: WET 352186 flashpoint3

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	180063467	Correction Factor (F)	-0.1	Barometric Pressure (in Hg)	28.91
Corrected Barometric Pressure Factor (F)	1.5412	Instrument	30WET6	Analyzed By	CMR	p-Xylene	93223
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	07/17/2019 16:58						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVB	**CCVB**	N	07/17/2019 08:46:43	Water	77.2	78.64	
1010 W	BLANK	**1711042**	N	07/17/2019 09:37:12	Water	>200	>200	
1010 W	PS	**30312631001**	Y	07/17/2019 09:50:51	Solid	>200	>200	
1010 W	DUP	**1711043**	Y	07/17/2019 10:03:56	Solid	>200	>200	
1010 W	PS	**30311967001**	Y	07/17/2019 10:31:54	Water	>200	>200	
1010 W	PS	**30312106001**	Y	07/17/2019 11:08:31	Water	>200	>200	
1010 W	PS	**30312796001**	Y	07/17/2019 11:36:40	Water	>200	>200	
1010 W	PS	**30312447001**	Y	07/17/2019 12:06:26	Solid	>200	>200	
1010 W	PS	**30313260001**	Y	07/17/2019 12:50:38	Solid	>200	>200	
1010 W	PS	**30313260003**	Y	07/17/2019 13:15:03	Solid	>200	>200	
1010 W	OQS	**30312349001**	Y	07/17/2019 14:39:30	Water	>200	>200	
1010 W	PS	**30313326001**	Y	07/17/2019 14:57:28	Solid	>200	>200	
1010 W	PS	**30314122001**	Y	07/17/2019 15:22:36	Solid	>200	>200	
1010 W	PS	**30314122002**	Y	07/17/2019 16:02:35	Solid	>200	>200	
1010 W	PS	**30312286001**	Y	07/17/2019 16:31:43	Solid	>200	>200	

Prep Log Report

Batch Information: WET 351376/351382 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	07/15/2019 15:29:32:187	Instrument	30BA14
Date/Time On	07/15/2019 12:29:12:235	Date/Time Off	07/15/2019 15:28:56:908	Lead Acetate Solution	92567	Sulfuric Acid	89890
10N Sodium Hydroxide	91499	Reviewed By	BKH	Reviewed By Date	07/16/2019 13:51	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1707378**	10	200	No			
733C S_P	BLANK	**1707401**	10	50	No			
734S S2_P	LCS	**1707379**	10.06	200	No			91573 (2)
733C S_P	LCS	**1707402**	10.04	50	No		84021 (1)	
734S S2_P	PS	**30313233001**	10.02	200	No			
733C S_P	PS	**30313233001**	10.02	50	No			
734S S2_P	PS	**30313234001**	10	200	No			
733C S_P	PS	**30313234001**	10	50	No			
734S S2_P	PS	**30312957001**	10	200	No			
733C S_P	PS	**30312957001**	10	50	No			
734S S2_P	PS	**30313260001**	10.04	200	No			
733C S_P	PS	**30313260001**	10.04	50	No			
734S S2_P	PS	**30313260002**	10.02	200	No			
733C S_P	PS	**30313260002**	10.02	50	No			
734S S2_P	PS	**30313260003**	10.03	200	No			
733C S_P	PS	**30313260003**	10.03	50	No			
734S S2_P	PS	**92435981001**	10.04	200	No			
733C S_P	PS	**92435981001**	10.04	50	No			
734S S2_P	PS	**30312995001**	10.06	200	No			
733C S_P	PS	**30312995001**	10.06	50	No			
734S S2_P	PS	**30312996001**	10.02	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30312996001**	10.02	50	No			
734S S2_P	PS	**30312996002**	10.04	200	No			
733C S_P	PS	**30312996002**	10.04	50	No			
734S S2_P	PS	**30312996003**	10.07	200	No			
733C S_P	PS	**30312996003**	10.07	50	No			
734S S2_P	PS	**30312996004**	10	200	No			
733C S_P	PS	**30312996004**	10	50	No			
734S S2_P	PS	**30312982001**	10.07	200	No			
733C S_P	PS	**30312982001**	10.07	50	No			
734S S2_P	PS	**30312987001**	10.04	200	No			
733C S_P	PS	**30312987001**	10.04	50	No			
734S S2_P	DUP	**1707380**	10	200	No			
733C S_P	DUP	**1707403**	10	50	No			
734S S2_P	PS	**30313542001**	10	200	No			
733C S_P	PS	**30313542001**	10	50	No			
733C S_P	PS	**50229909001**	10	50	No			
734S S2_P	PS	**50229909001**	10	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 351877 Rx Sulfide

Template Version: F-PA-I-032-Rev.00 (05Nov2016)

Analysis Method	SM 4500S2F-2011	Analyzed By	PAS	Instrument	30WET0	1:1 HCl (mL)	92091 (2)
Starch Indicator Solution (mL)	84280 (1)	Reviewed By	BKH	Reviewed By Date	07/16/2019 13:50	Batch Notes	(PIP006)

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	BLANK	**1707378**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	LCS	**1707379**	Y	07/15/2019 22:36:41	200	88037 (5)	0	3.9	74724 (3.90)	2.20	19.8807	43.7375	
734S S2	PS	**30313233001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30313234001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30312957001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30313260001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30313260002**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30313260003**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	
734S S2	PS	**92435981001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30312995001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8807	0.0000	
734S S2	PS	**30312996001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**30312996002**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30312996003**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8610	0.0000	
734S S2	PS	**30312996004**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30312982001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8610	0.0000	
734S S2	PS	**30312987001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	DUP	**1707380**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**50229909001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30313542001**	Y	07/15/2019 22:36:41	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	

Prep Log Report

Batch Information: WET 351343 PH CURVE 07112019

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	PH CURVE	Daily Cal Slope	98.6	Cal Date/Time	07/11/2019 14:29:29:879	Analyzed By	ZMH
Instrument	30WETG	Reviewed By	BKH	Reviewed By Date	07/15/2019 15:48	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Notes	CAL-STD
WET pH_Q	CAL1	**CAL1**	Y		07/11/2019 14:29:59		2.18	2.18	2.18			91373 (1)
WET pH_Q	CAL2	**CAL2**	Y		07/11/2019 14:30:01		4.08	4.08	4.08			76233 (1)
WET pH_Q	CAL3	**CAL3**	Y		07/11/2019 14:30:03		6.92	6.92	6.92			80724 (1)
WET pH_Q	CAL4	**CAL4**	Y		07/11/2019 14:30:06		9.78	9.78	9.78			67950 (1)
WET pH_Q	CAL5	**CAL5**	Y		07/11/2019 14:30:07		12.89	12.89	12.89			80723 (1)
WET pH_Q	ICVA	**ICVA**	Y		07/11/2019 14:30:09		3.99	3.99	3.99			68828 (1)
WET pH_Q	ICVB	**ICVB**	Y		07/11/2019 14:30:10		7.02	7.02	7.02			84019 (1)

Standard Notes:

67950: WET pH 10.0 Buffer
68828: 2nd pH 4 buffer
76233: WET 1st pH 4.0
80723: WET pH 13.0 Buffer
80724: WET pH 7.0 Buffer / CCV
84019: WC29-186-7 ICVB
91373: WET pH 2.0 Buffer

Prep Log Report

Batch Information: WET 351400 351401 351388 351402 PH

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	SM 4500H+B-2011	Daily Cal Slope	98.6	Cal Date/Time	07/11/2019 17:19:17:985	Analyzed By	ZMH
Instrument	30WETG	Balance ID	30BA14	Shaker On ID | Date/Time | Init	07/11/2019 17:19:20:023 | 07/11/2019 17:19 | ZMH	Shaker Off Date/Time | Init	07/11/2019 17:24 | ZMH
Reviewed By	BKH	Reviewed By Date	07/15/2019 15:50	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		07/11/2019 20:53:33		7.01	6.98	7.01	20.1			80724 (1)
4500H+B	PS	**30313226002**	Y		07/11/2019 20:58:15	Water	11.61	11.61	11.61	20.1			
4500H+B	DUP	**1707485**	Y		07/11/2019 20:58:31	Water	11.61	11.61	11.61	20.3			
4500H+B	PS	**30313226001**	Y		07/11/2019 20:59:30	Water	10.06	10.09	10.06	19.5			
4500H+B	PS	**30313088001**	Y		07/11/2019 21:00:41	Water	8.64	8.68	8.64	18.9			
4500H+B	PS	**30313285001**	Y		07/11/2019 21:01:27	Water	9.38	9.36	9.38	18.2			
4500H+B	PS	**30313329001**	Y		07/11/2019 21:03:24	Water	7.63	7.66	7.63	17.6			
4500H+B	PS	**30313329002**	Y		07/11/2019 21:04:44	Water	7.87	7.85	7.87	16.6			
4500H+B	PS	**30313329003**	Y		07/11/2019 21:06:02	Water	7.42	7.46	7.42	16.7			
4500H+B	PS	**30313329004**	Y		07/11/2019 21:06:54	Water	7.38	7.42	7.38	17.1			
4500H+B	PS	**30313329005**	Y		07/11/2019 21:07:46	Water	7.94	7.92	7.94	16.9			
4500H+B	PS	**30313329006**	Y		07/11/2019 21:08:46	Water	7.66	7.64	7.66	16.4			
4500H+B	PS	**30313329007**	Y		07/11/2019 21:11:04	Water	7.18	7.2	7.18	17.5			
9040 W	PS	**30313233001**	Y		07/11/2019 21:12:09	Water	7.1	7.08	7.1	18.7			
9040 W	DUP	**1707486**	Y		07/11/2019 21:12:37	Water	7.14	7.12	7.14	19.1			
9040 W	PS	**30313234001**	Y		07/11/2019 21:12:46	Water	14	14	14	25		1*	
9040 W	PS	**30313347001**	Y		07/11/2019 21:14:14	Water	8.87	8.82	8.87	14.2			
9040 W	PS	**30313347002**	Y		07/11/2019 21:15:57	Water	8.45	8.47	8.45	15.4			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
9040 W	PS	**30313347003**	Y		07/11/2019 21:17:00	Water	8.46	8.48	8.46	19.1			
WET pH_Q	CCV	**CCV**	Y		07/11/2019 21:17:35		7.02	7.04	7.02	20.3			80724 (1)
9045D S	PS	**30313199001**	Y		07/11/2019 21:19:37	Solid	12.25	12.25	12.25	20.4	20.03		
9045D S	DUP	**1707441**	Y		07/11/2019 21:20:35	Solid	12.25	12.25	12.25	21.5	20.09		
9045D S	PS	**30313260001**	Y		07/11/2019 21:20:48	Solid	9.65	9.68	9.65	20.4	20.01		
9045D S	PS	**30313260002**	Y		07/11/2019 21:22:01	Solid	7.98	8.01	7.98	20.2	19.95		
9045D S	PS	**30313260003**	Y		07/11/2019 21:22:52	Solid	7.71	7.68	7.71	20.3	19.93		
9045 S	PS	**30313284001**	Y		07/11/2019 21:23:37	Solid	10.15	10.18	10.15	20.1	20.06		
9045 S	DUP	**1707509**	Y		07/11/2019 21:24:17	Solid	10.13	10.15	10.13	20.4	19.94		
9045 S	PS	**30313326001**	Y		07/11/2019 21:25:44	Solid	6.18	6.2	6.18	20.4	20.02		
9045 S	PS	**30313331001**	Y		07/11/2019 21:26:31	Solid	8.34	8.3	8.34	19.4	19.94		
9045 S	PS	**30313339001**	Y		07/11/2019 21:28:04	Solid	6.35	6.37	6.35	20.8	20.03		
9045 S	PS	**30313353001**	Y		07/11/2019 21:28:54	Solid	11.23	11.21	11.23	20.7	19.95		
WET pH_Q	CCV	**CCV**	Y		07/11/2019 21:29:52		7.02	7.05	7.02	20.5			80724 (1)

Sample Notes:

1*: USED PH STRIPS FOR ANALYSIS, PH > 13

Standard Notes:

80724: WET pH 7.0 Buffer / CCV

Prep Log Report

Batch Information: WET 351376/351382 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	07/15/2019 15:29:32:187	Instrument	30BA14
Date/Time On	07/15/2019 12:29:12:235	Date/Time Off	07/15/2019 15:28:56:908	Lead Acetate Solution	92567	Sulfuric Acid	89890
10N Sodium Hydroxide	91499	Reviewed By	BKH	Reviewed By Date	07/16/2019 13:51	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1707378**	10	200	No			
733C S_P	BLANK	**1707401**	10	50	No			
734S S2_P	LCS	**1707379**	10.06	200	No			91573 (2)
733C S_P	LCS	**1707402**	10.04	50	No		84021 (1)	
734S S2_P	PS	**30313233001**	10.02	200	No			
733C S_P	PS	**30313233001**	10.02	50	No			
734S S2_P	PS	**30313234001**	10	200	No			
733C S_P	PS	**30313234001**	10	50	No			
734S S2_P	PS	**30312957001**	10	200	No			
733C S_P	PS	**30312957001**	10	50	No			
734S S2_P	PS	**30313260001**	10.04	200	No			
733C S_P	PS	**30313260001**	10.04	50	No			
734S S2_P	PS	**30313260002**	10.02	200	No			
733C S_P	PS	**30313260002**	10.02	50	No			
734S S2_P	PS	**30313260003**	10.03	200	No			
733C S_P	PS	**30313260003**	10.03	50	No			
734S S2_P	PS	**92435981001**	10.04	200	No			
733C S_P	PS	**92435981001**	10.04	50	No			
734S S2_P	PS	**30312995001**	10.06	200	No			
733C S_P	PS	**30312995001**	10.06	50	No			
734S S2_P	PS	**30312996001**	10.02	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**30312996001**	10.02	50	No			
734S S2_P	PS	**30312996002**	10.04	200	No			
733C S_P	PS	**30312996002**	10.04	50	No			
734S S2_P	PS	**30312996003**	10.07	200	No			
733C S_P	PS	**30312996003**	10.07	50	No			
734S S2_P	PS	**30312996004**	10	200	No			
733C S_P	PS	**30312996004**	10	50	No			
734S S2_P	PS	**30312982001**	10.07	200	No			
733C S_P	PS	**30312982001**	10.07	50	No			
734S S2_P	PS	**30312987001**	10.04	200	No			
733C S_P	PS	**30312987001**	10.04	50	No			
734S S2_P	DUP	**1707380**	10	200	No			
733C S_P	DUP	**1707403**	10	50	No			
734S S2_P	PS	**30313542001**	10	200	No			
733C S_P	PS	**30313542001**	10	50	No			
733C S_P	PS	**50229909001**	10	50	No			
734S S2_P	PS	**50229909001**	10	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET

Template Version: F-PA-I-040-Rev.03 (03Apr2019)

Prep Method	SM 4500CNC-2011	Analysis Method	SM 4500CNE-2011	Prepared By	PAS	Prep Date Date/Time	07/16/2019 16:07:45:603
Instrument	30wta5	Chloramine-T Soln. (CN)	93734	NaOH Soln.	None Added	Pyridine-Barbituric Acid Reage	93124
Reviewed By	BKH	Reviewed By Date	07/16/2019 16:39	Batch Notes	Instrument Traceability		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
WETA CN_Q	CCV	**CCV**				No			93742 (1)
WETA CN_Q	CCB	**CCB**				No			93737 (1)
WETA CN_Q	CAL0	**CAL0**				No			93737 (1)
WETA CN_Q	CAL1	**CAL1**				No			93738 (1)
WETA CN_Q	CAL2	**CAL2**				No			93739 (1)
WETA CN_Q	CAL3	**CAL3**				No			93740 (1)
WETA CN_Q	CAL4	**CAL4**				No			93741 (1)
WETA CN_Q	CAL5	**CAL5**				No			93742 (1)
WETA CN_Q	CAL6	**CAL6**				No			93743 (1)
WETA CN_Q	ICB	**ICB**				No			93737 (1)
WETA CN_Q	ICV	**ICV**				No			93744 (1)
4500CNE W2	BLANK	**1709236**		6	6	No	Water		
4500CNE W2	BLANK	**1709243**		6	6	No	Water		
4500CNE W2	DUP	**1709240**		6	6	No	Water		
4500CNE W2	LCS	**1709237**		6	6	No	Water		
4500CNE W2	MS	**1709238**		6	6	No	Water		
4500CNE W2	MS	**1709244**		6	6	No	Water		
4500CNE W2	MSD	**1709239**		6	6	No	Water		
4500CNE W2	MSD	**1709245**		6	6	No	Water		
4500CNE W2	OQS	**30313526002**		6	6	No	Water		
4500CNE W2	PS	**30312459002**		6	6	No	Water		
4500CNE W2	PS	**30312460002**		6	6	No	Water		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
4500CNE W2	PS	**30312949001**		6	6	No	Water		
4500CNE W2	PS	**30312959001**		6	6	No	Water		
4500CNE W2	PS	**30312985001**		6	6	No	Water		
4500CNE W2	PS	**30313251001**		6	6	No	Water		
4500CNE W2	PS	**30313252001**		6	6	No	Water		
4500CNE W2	PS	**30313252002**		6	6	No	Water		
4500CNE W2	PS	**30313252003**		6	6	No	Water		
4500CNE W2	PS	**30313252004**		6	6	No	Water		
4500CNE W2	PS	**30313252005**		6	6	No	Water		
4500CNE W2	PS	**30313252006**		6	6	No	Water		
4500CNE W2	PS	**30313336001**		6	6	No	Water		
4500CNE W2	PS	**30313569001**		6	6	No	Water		
4500CNE W2	PS	**30313570001**		6	6	No	Water		
4500CNE W2	PS	**30313571001**		6	6	No	Water		
4500CNE W2	PS	**30313572002**		6	6	No	Water		
4500CNG W2	BLANK	**1709246**		6	6	No	Water		
4500CNG W2	DUP	**1709248**		6	6	No	Water		
4500CNG W2	PS	**30313252001**		6	6	No	Water		
4500CNG W2	PS	**30313252002**		6	6	No	Water		
4500CNG W2	PS	**30313252003**		6	6	No	Water		
4500CNG W2	PS	**30313252004**		6	6	No	Water		
4500CNG W2	PS	**30313252005**		6	6	No	Water		
4500CNG W2	PS	**30313252006**		6	6	No	Water		
9014CN S2	BLANK	**1710000**		.2	6	No	Solid		
9014CN S2	LCS	**1710001**		.2	6	No	Solid		
9014CN S2	MS	**1710002**		.2	6	No	Solid		
9014CN S2	MSD	**1710003**		.2	6	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
9014CN S2	PS	**30311491001**		.2	6	No	Solid		
9014CN S2	PS	**30311491002**		.2	6	No	Solid		
9014CN S2	PS	**30313206001**		.2	6	No	Solid		
9014CN S2	PS	**30313362001**		.2	6	No	Solid		
9014CN S2	PS	**30313760001**		.2	6	No	Solid		
9012BWMID2	BLANK	**1710005**		6	6	No	Water		
9012BWMID2	LCS	**1710006**		6	6	No	Water		
9012BWMID2	MS	**1710007**		6	6	No	Water		
9012BWMID2	MSD	**1710008**		6	6	No	Water		
9012BWMID2	PS	**30313263001**		6	6	No	Water		
9012BWMID2	PS	**30313263003**		6	6	No	Water		
9012BWMID2	PS	**30313263005**		6	6	No	Water		
9012BSMIDI	BLANK	**1710010**		.2	6	No	Solid		
9012BSMIDI	LCS	**1710011**		.2	6	No	Solid		
9012BSMIDI	MS	**1710012**		.2	6	No	Solid		
9012BSMIDI	MSD	**1710013**		.2	6	No	Solid		
9012BSMIDI	PS	**30313353001**		.2	6	No	Solid		
9012BSMIDI	PS	**30313553001**		.2	6	No	Solid		
9012BSMIDI	PS	**30313564001**		.2	6	No	Solid		
9012BSMIDI	PS	**30313574001**		.2	6	No	Solid		
733C S2	BLANK	**1707401**		10	50	No	Solid		
733C S2	DUP	**1707403**		10	50	No	Solid		
733C S2	LCS	**1707402**		10.04	50	No	Solid		
733C S2	PS	**92435981001**		10.04	50	No	Solid		
733C S2	PS	**30312957001**		10	50	No	Solid		
733C S2	PS	**30312982001**		10.07	50	No	Solid		
733C S2	PS	**30312987001**		10.04	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**30312995001**		10.06	50	No	Solid		
733C S2	PS	**30312996001**		10.02	50	No	Solid		
733C S2	PS	**30312996002**		10.04	50	No	Solid		
733C S2	PS	**30312996003**		10.07	50	No	Solid		
733C S2	PS	**30312996004**		10	50	No	Solid		
733C S2	PS	**30313233001**		10.02	50	No	Water		
733C S2	PS	**30313234001**		10	50	No	Water		
733C S2	PS	**50229909001**		10	50	No	Water		
733C S2	PS	**30313260001**		10.04	50	No	Solid		
733C S2	PS	**30313260002**		10.02	50	No	Solid		
733C S2	PS	**30313260003**		10.03	50	No	Solid		
733C S2	PS	**30313542001**		10	50	No	Solid		

Standard Notes:

93737: WET CN CAL0 **93738: WET-CN-CAL1** **93739: WET-CN-CAL2** **93740: WET-CN-CAL3**
93741: WET-CN-CAL4 **93742: WET-CN-CAL5** **93743: WET-CN-CAL6** **93744: CN ICV**

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MV5A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1708492	1708492LB	93	99	104	93
1709347	1709347LCS	93	102	104	97
30313260001	AOC32 Lower-1	92	99	104	97
30313260002	AOC32 Lower-2	90	102	106	96
30313260003	AOC27	85	106	110	94

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1709347LCS
Date Extracted: 07/15/2019
Date Analyzed (1): 07/15/2019
Instrument: 30MV5A
LCS Lot No: 93569
Lab File ID: 5190715.B\1.B\50715013-45365.D
SDG No.: 30313260

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	18.4	92	63-110
2-Butanone (MEK)	20.0	13.8	69	46-117
Carbon tetrachloride	20.0	17.3	87	59-114
Chlorobenzene	20.0	17.9	89	70-130
Chloroform	20.0	18.5	93	65-108
1,2-Dichloroethane	20.0	16.6	83	57-110
1,1-Dichloroethene	20.0	17.3	87	45-124
Tetrachloroethene	20.0	19.7	98	64-114
Trichloroethene	20.0	17.2	86	61-112
Vinyl chloride	20.0	16.2	81	54-142

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1709345MS
Date Extracted: 07/15/2019
Date Analyzed (1): 07/15/2019
Instrument: 30MV5A
Lab File ID: 5190715.B\1.B\50715030.D
Parent Sample ID: 30313243001
SDG No.: 30313260

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	152	76	10-133
1,2-Dichloroethane	200	ND	147	74	24-111
2-Butanone (MEK)	200	ND	121	61	10-175
Benzene	200	ND	165	82	15-121
Carbon tetrachloride	200	ND	159	80	20-125
Chlorobenzene	200	ND	180	83	10-122
Chloroform	200	ND	167	83	27-117
Tetrachloroethene	200	ND	177	89	13-125
Trichloroethene	200	ND	160	80	10-133
Vinyl chloride	200	ND	131	65	10-133

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV5A Matrix Spike Duplicate - Sample No: 1709346MSD

Lab File ID (2): 5190715.B\1.B\50715031.D Date Analyzed (2): 07/15/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	165	83	8	0-30	10-133
1,2-Dichloroethane	200	153	76	4	0-30	24-111
2-Butanone (MEK)	200	149	74	21	0-30	10-175
Benzene	200	176	88	7	0-30	15-121
Carbon tetrachloride	200	177	89	11	0-30	20-125
Chlorobenzene	200	190	88	5	0-30	10-122
Chloroform	200	187	94	12	0-30	27-117
Tetrachloroethene	200	197	98	10	0-30	13-125
Trichloroethene	200	174	87	9	0-30	10-133
Vinyl chloride	200	135	67	3	0-30	10-133

RPD: 0 out of 10 outside limits.

Spike Recovery: 0 out of 10 outside limits.

SAMPLE NO.

1708492LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MV5A Matrix: Solid Lab Sample ID: 1708492

Lab File ID: 5190715.B\1.B\50715023-45365.D Date Analyzed: 07/15/2019 Time: 18:27

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709347LCS	1709347	5190715.B\1.B\50715013-45365.D	07/15/2019 15:05
AOC32 Lower-1	30313260001	5190715.B\1.B\50715029.D	07/15/2019 20:38
AOC32 Lower-2	30313260002	5190715.B\1.B\50715032.D	07/15/2019 21:43
AOC27	30313260003	5190715.B\1.B\50715033.D	07/15/2019 22:05

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: 5190618.B\1.B\50618003.D BFB Injection Date 06/18/2019
Instrument ID: 30MV5A BFB Injection Time 09:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	21.25	
75	30.00 - 60.00% of mass 95	52.14	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.48	
173	Less than 2.00% of mass 174	0.94	(1.24)[1]
174	50.00 - 120.00% of mass 95	76.08	
175	5.00 - 9.00% of mass 174	5.41	(7.12)[1]
176	95.00 - 101.00% of mass 174	73.24	(96.27)[1]
177	5.00 - 9.00% of mass 176	4.85	(6.62)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11167106CAL1	11167106CAL1	5190618.B\1.B\50618005.D	06/18/2019	09:34
11146258CAL2	11146258CAL2	5190618.B\1.B\50618007.D	06/18/2019	10:01
11146246CAL3	11146246CAL3	5190618.B\1.B\50618009.D	06/18/2019	10:27
11146253CAL4	11146253CAL4	5190618.B\1.B\50618011.D	06/18/2019	10:54
11146260CAL5	11146260CAL5	5190618.B\1.B\50618013.D	06/18/2019	11:20
11146251CAL6	11146251CAL6	5190618.B\1.B\50618015.D	06/18/2019	11:47
11146255CAL7	11146255CAL7	5190618.B\1.B\50618017.D	06/18/2019	12:13
11146249CAL8	11146249CAL8	5190618.B\1.B\50618019.D	06/18/2019	12:40
11146257ICV	11146257ICV	5190618.B\1.B\50618023.D	06/18/2019	13:33

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: 5190715.B\1.B\50715003.D BFB Injection Date 07/15/2019
Instrument ID: 30MV5A BFB Injection Time 12:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	16.77	
75	30.00 - 60.00% of mass 95	47.83	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	7.27	
173	Less than 2.00% of mass 174	0.92	(1.05)[1]
174	50.00 - 120.00% of mass 95	87.77	
175	5.00 - 9.00% of mass 174	6.29	(7.16)[1]
176	95.00 - 101.00% of mass 174	85.71	(97.65)[1]
177	5.00 - 9.00% of mass 176	5.42	(6.33)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11318989CCV	11318989CCV	5190715.B\1.B\50715009.D	07/15/2019	14:12
1709347LCS	1709347LCS	5190715.B\1.B\50715013-45365.D	07/15/2019	15:05
1708492LB	1708492LB	5190715.B\1.B\50715023-45365.D	07/15/2019	18:27
AOC32 Lower-1	30313260001	5190715.B\1.B\50715029.D	07/15/2019	20:38
AOC32 Lower-2	30313260002	5190715.B\1.B\50715032.D	07/15/2019	21:43
AOC27	30313260003	5190715.B\1.B\50715033.D	07/15/2019	22:05

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Sample ID : 11318989CCV Date Analyzed: 07/15/2019

Instrument ID: 30MV5A GC Column: Col 1 Time Analyzed: 14:12

Lab File ID: 5190715.B\1.B\50715009.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		136516	5.766	63723	6.711	174494	4.277
UPPER LIMIT		273032	6.266	127446	7.211	348988	4.777
LOWER LIMIT		68258	5.266	31861.5	6.211	87247	3.777
LAB SAMPLE ID	SAMPLE NO.						
1708492	1708492LB	124444	5.766	54720	6.711	152264	4.28
1709347	1709347LCS	138368	5.763	62212	6.708	180450	4.277
30313260001	AOC32 Lower-1	123940	5.766	55333	6.711	155728	4.281
30313260002	AOC32 Lower-2	119560	5.766	50899	6.711	150825	4.284
30313260003	AOC27	125538	5.766	52239	6.711	154879	4.281

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC32 Lower-1

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/15/2019 20:38 Lab Sample ID: 30313260001

Date Analyzed: 07/15/2019 20:38 Lab File ID: 5190715.B\1.B\50715029.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Report Date: 16-Jul-2019 08:09

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 15-JUL-2019 20:38
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 30313260001x10
Misc Info : 45365
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.737	3.730	(0.873)	42524	31.2231	31.2	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.113	4.110	(0.961)	40305	27.4673	27.5	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.280	4.277	(1.000)	155728	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	153952	28.9661	29.0	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.766	5.766	(1.000)	123940	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	2116	0.44888	4.49(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	47640	29.5736	29.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	55333	30.0000		

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Report Date: 16-Jul-2019 08:09

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Report Date: 16-Jul-2019 08:09

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715029.d
Lab Smp Id: 30313260001
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

Calibration Date: 15-JUL-2019
Calibration Time: 14:12
Client Smp ID: AOC32 Lower-1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	174494	87247	348988	155728	-10.75
71 Chlorobenzene-d5	136516	68258	273032	123940	-9.21
94 1,4-Dichlorobenze	63723	31862	127446	55333	-13.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.08
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Report Date: 16-Jul-2019 08:09

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30313260
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30313260001
Client Smp ID: AOC32 Lower-1
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.2	104.08	0-130
$ 45 1,2-Dichloroethane	30.0	27.5	91.56	0-138
$ 58 Toluene-d8 (S)	30.0	29.0	96.55	0-124
$ 79 4-Bromofluorobenze	30.0	29.6	98.58	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Report Date: 16-Jul-2019 08:09

Pace Analytical Services, Inc.

TARGET COMPOUNDS

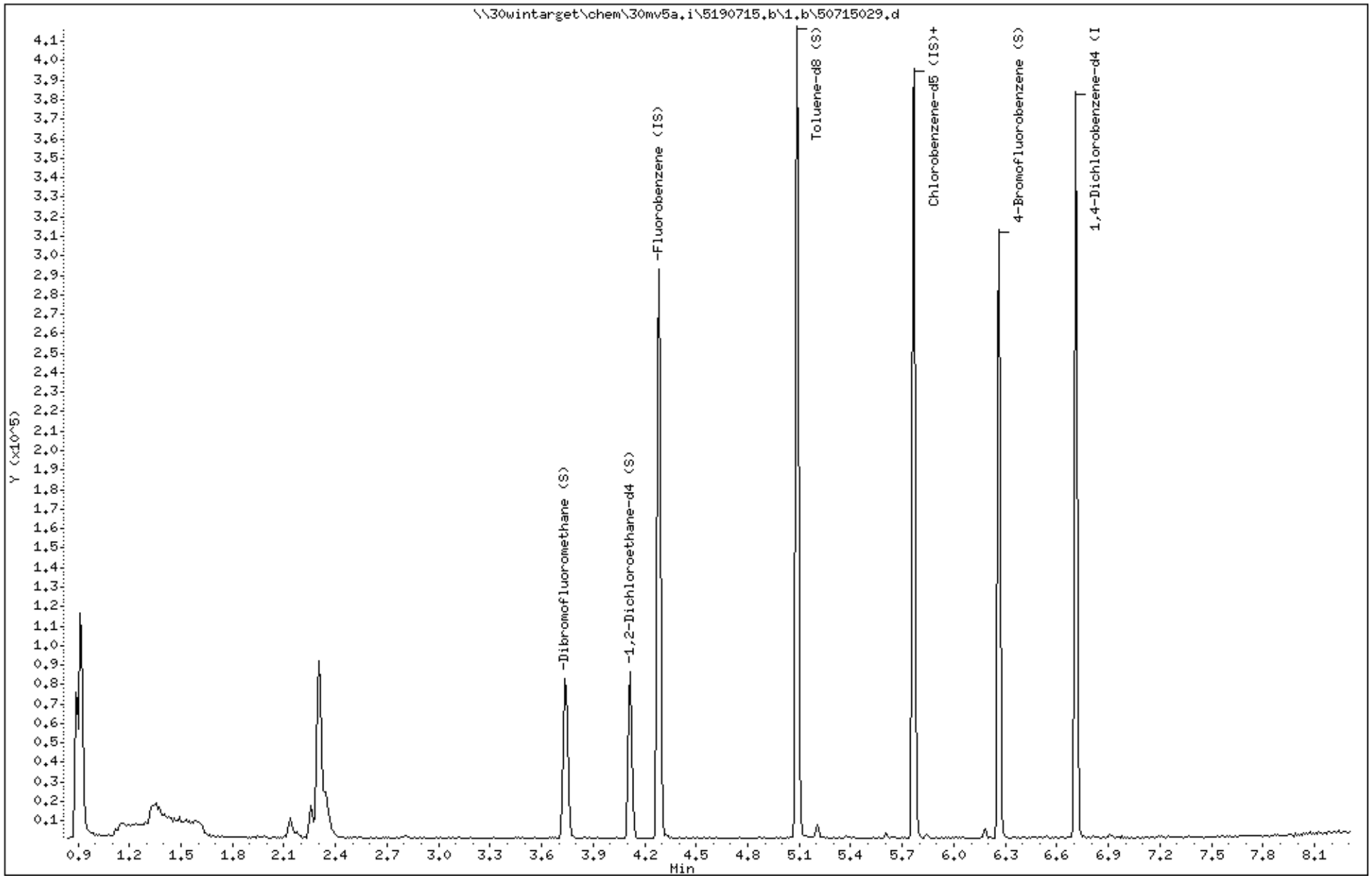
Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260001
Client Smp ID: AOC32 Lower-1
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45365

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	4.49	J
1868-53-7	Dibromofluoromethane (S)	31.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.5	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	29.6	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d
Date : 15-JUL-2019 20:38
Client ID: A0C32 Lower-1
Sample Info: 30313260001x10

Instrument: 30mv5a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715029.d

Date : 15-JUL-2019 20:38

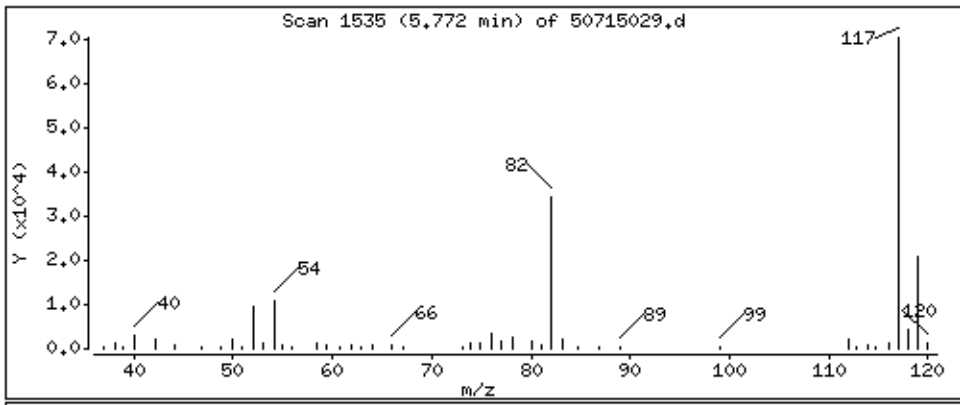
Client ID: AOC32 Lower-1 Instrument: 30mv5a.i

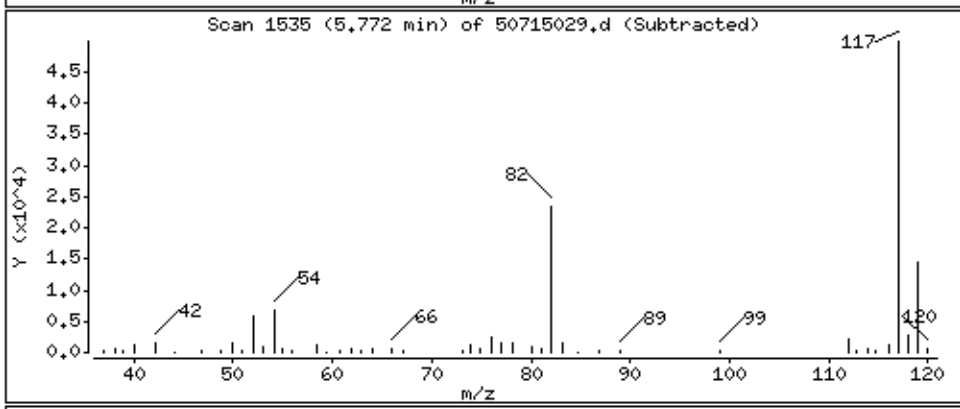
Sample Info: 30313260001x10

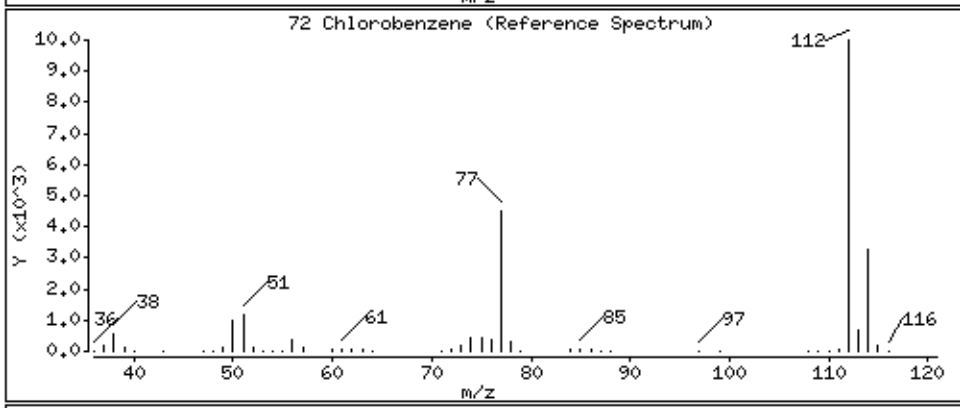
Operator: JEW

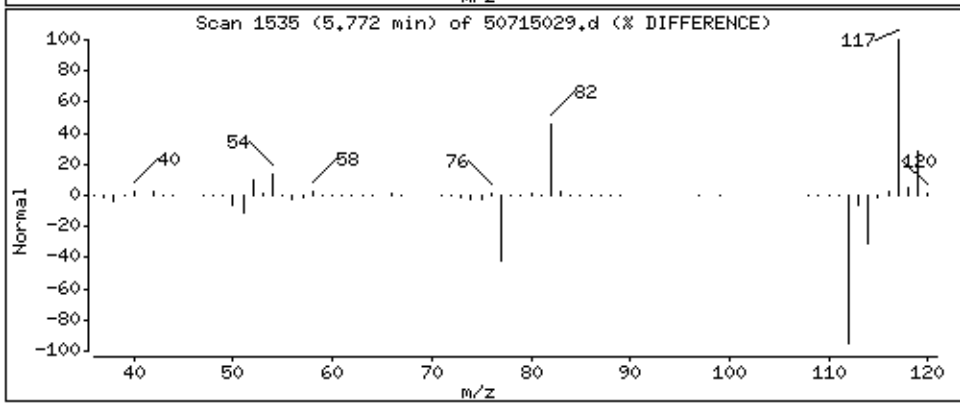
Column phase: RTX-VMS Column diameter: 0.18

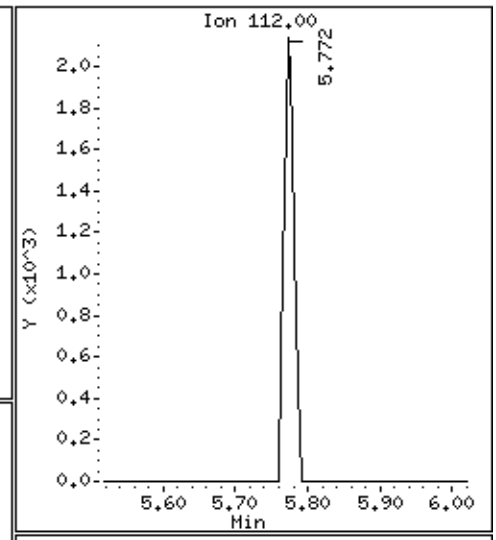
72 Chlorobenzene Concentration: 4.49 ug/kg

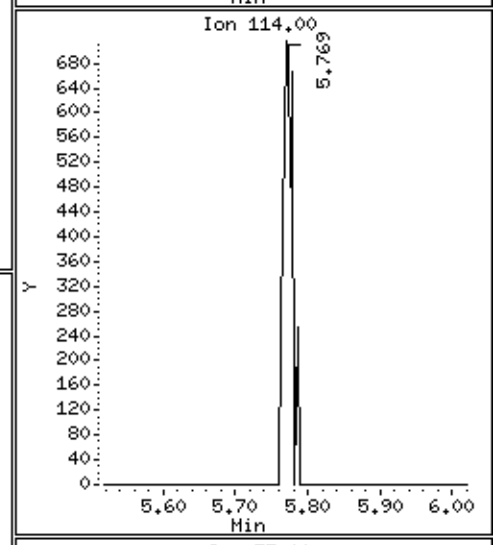


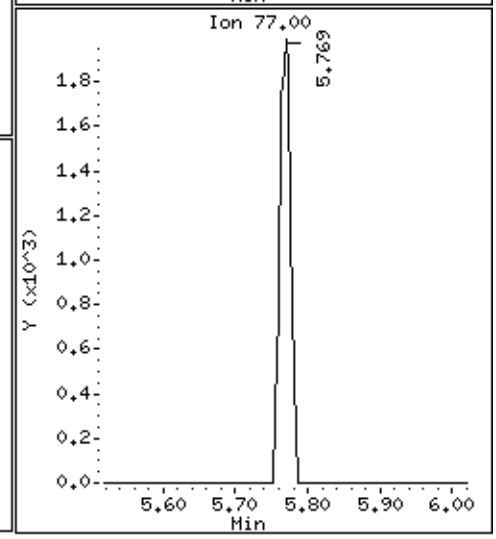












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715029.d
Injection Date: 15-JUL-2019 20:38
Instrument: 30mv5a.i
Lab Sample ID: 30313260001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC32 Lower-2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/15/2019 21:43 Lab Sample ID: 30313260002

Date Analyzed: 07/15/2019 21:43 Lab File ID: 5190715.B\1.B\50715032.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 15-JUL-2019 21:43
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 30313260002x10
Misc Info : 45365
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.736	3.730	(0.872)	41814	31.6998	31.7	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.113	4.110	(0.960)	38536	27.1155	27.1	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.283	4.277	(1.000)	150825	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	147902	28.8472	28.8	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	119560	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	4432	0.97463	9.75(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	45228	30.5222	30.5	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Report Date: 16-Jul-2019 07:46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	50899	30.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715032.d
Lab Smp Id: 30313260002
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

Calibration Date: 15-JUL-2019
Calibration Time: 14:12
Client Smp ID: AOC32 Lower-2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	174494	87247	348988	150825	-13.56
71 Chlorobenzene-d5	136516	68258	273032	119560	-12.42
94 1,4-Dichlorobenze	63723	31862	127446	50899	-20.12

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.15
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	-0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30313260
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30313260002
Client Smp ID: AOC32 Lower-2
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.7	105.67	0-130
$ 45 1,2-Dichloroethane	30.0	27.1	90.38	0-138
$ 58 Toluene-d8 (S)	30.0	28.8	96.16	0-124
$ 79 4-Bromofluorobenze	30.0	30.5	101.74	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

TARGET COMPOUNDS

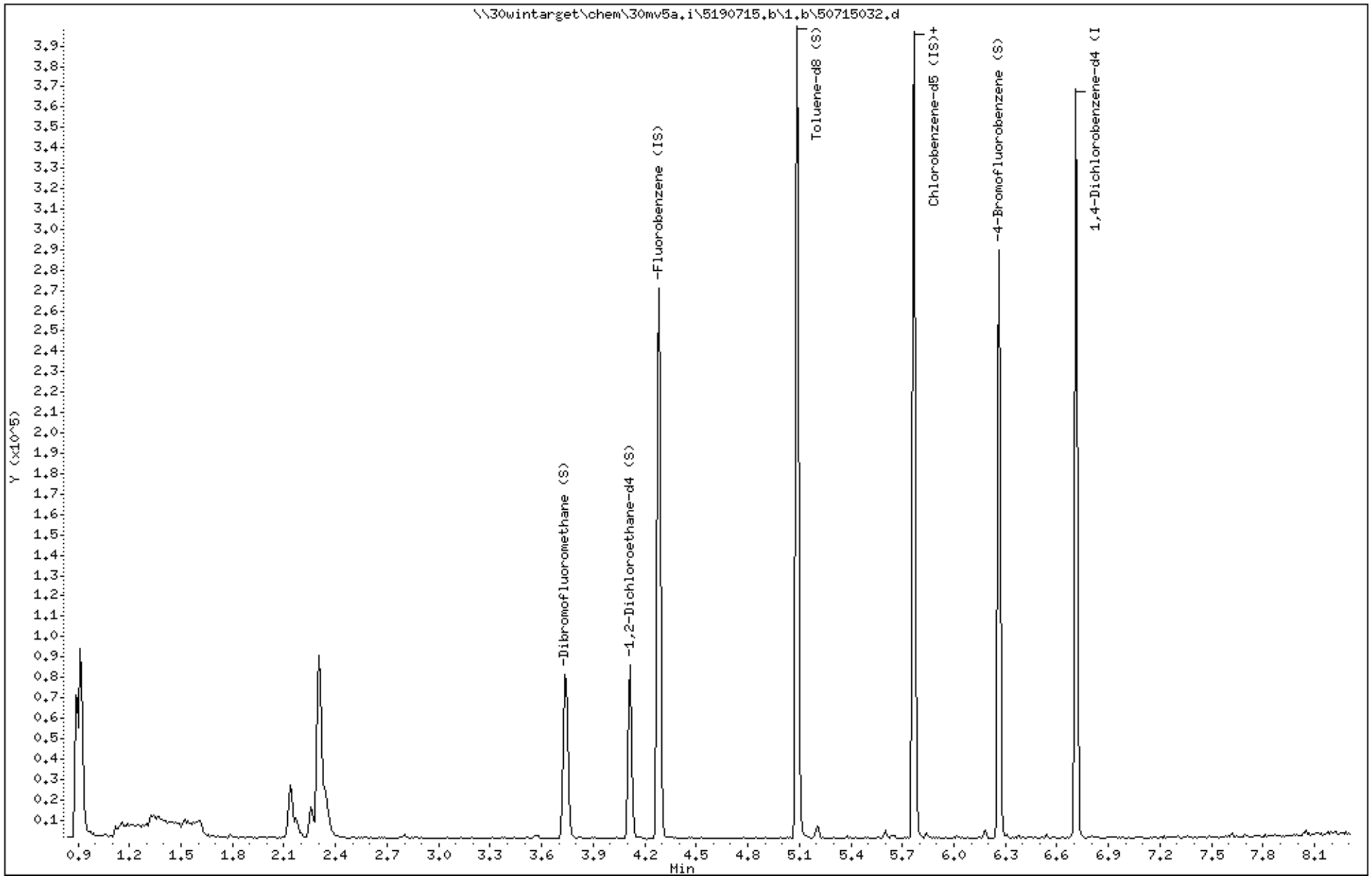
Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260002
Client Smp ID: AOC32 Lower-2
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45365

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	9.75	J
1868-53-7	Dibromofluoromethane (S)	31.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.1	
2037-26-5	Toluene-d8 (S)	28.8	
460-00-4	4-Bromofluorobenzene (S)	30.5	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d
Date : 15-JUL-2019 21:43
Client ID: A0C32 Lower-2
Sample Info: 30313260002x10

Instrument: 30mv5a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715032.d

Date : 15-JUL-2019 21:43

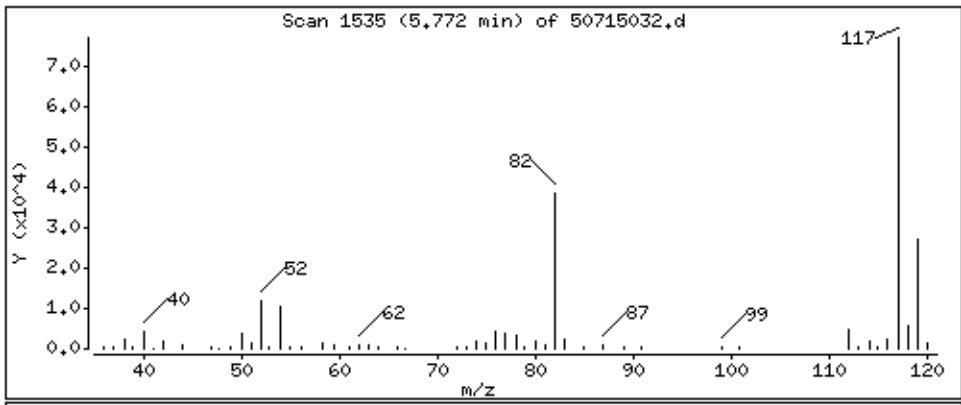
Client ID: AOC32 Lower-2 Instrument: 30mv5a.i

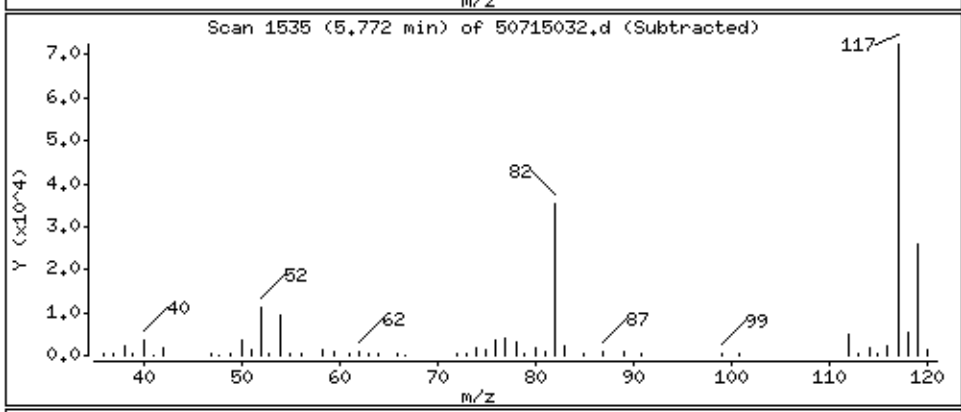
Sample Info: 30313260002x10

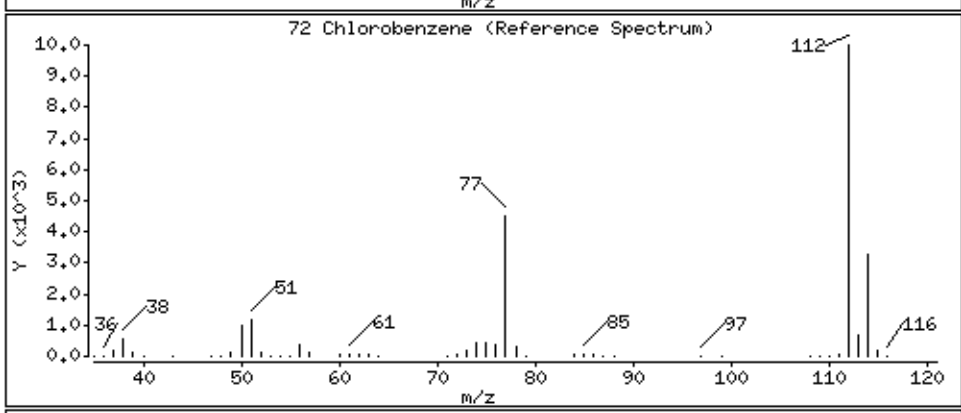
Operator: JEW

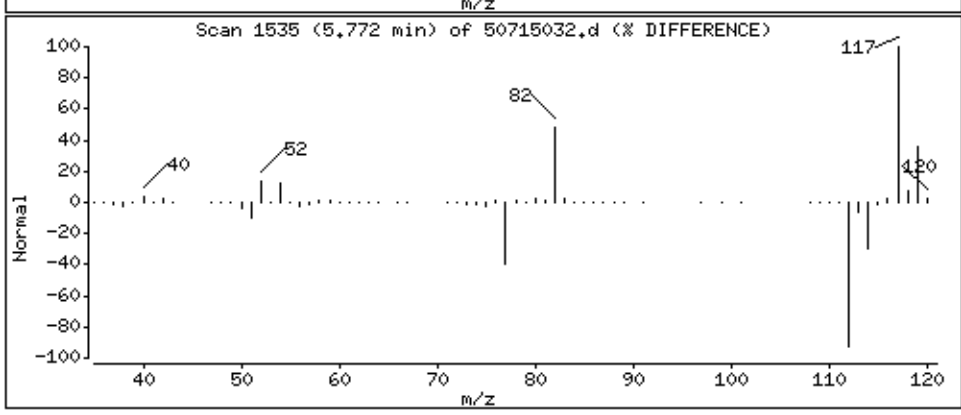
Column phase: RTX-VMS Column diameter: 0.18

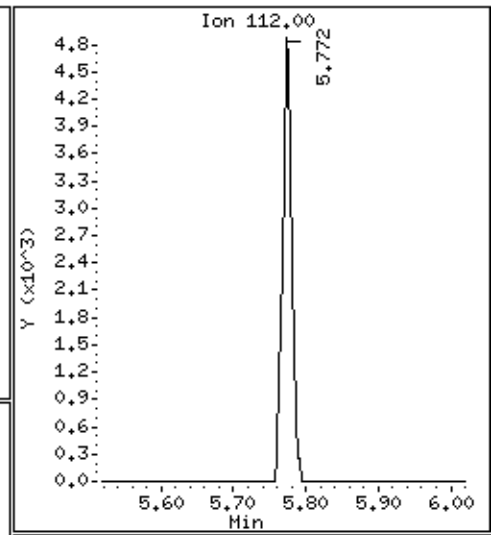
72 Chlorobenzene Concentration: 9.75 ug/kg

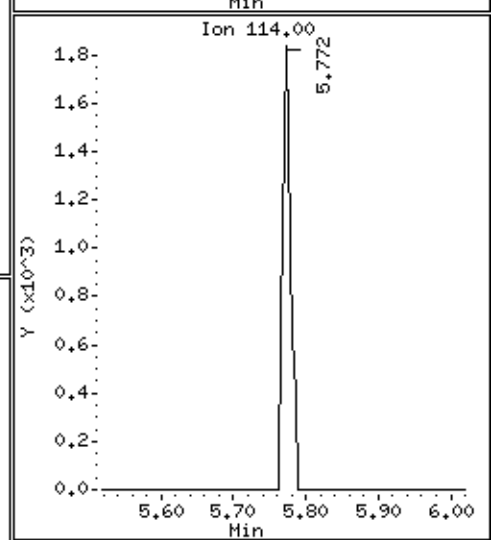


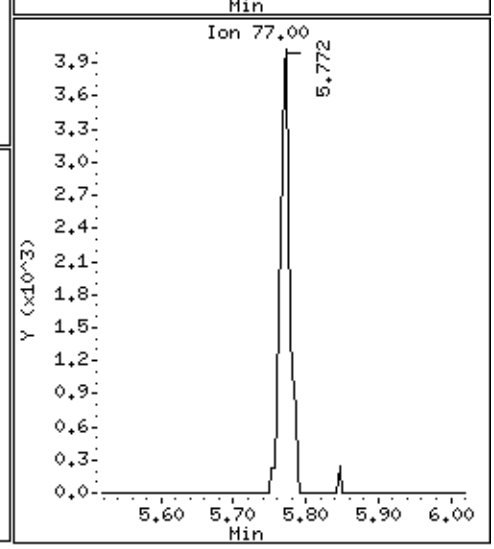












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Injection Date: 15-JUL-2019 21:43
Instrument: 30mv5a.i
Lab Sample ID: 30313260002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC27

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/15/2019 22:05 Lab Sample ID: 30313260003

Date Analyzed: 07/15/2019 22:05 Lab File ID: 5190715.B\1.B\50715033.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 15-JUL-2019 22:05
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 30313260003x10
Misc Info : 45365
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.737	3.730	(0.873)	44715	33.0118	33.0	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.116	4.110	(0.962)	37159	25.4622	25.5	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.280	4.277	(1.000)	154879	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	151399	28.1231	28.1	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	125538	30.0000		
	72 Chlorobenzene	112	5.775	5.769	(1.002)	12140	2.54254	25.4(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	48174	31.6764	31.7	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Report Date: 16-Jul-2019 07:46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	52239	30.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715033.d
Lab Smp Id: 30313260003
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

Calibration Date: 15-JUL-2019
Calibration Time: 14:12
Client Smp ID: AOC27
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	174494	87247	348988	154879	-11.24
71 Chlorobenzene-d5	136516	68258	273032	125538	-8.04
94 1,4-Dichlorobenze	63723	31862	127446	52239	-18.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.08
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30313260
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30313260003
Client Smp ID: AOC27
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	33.0	110.04	0-130
$ 45 1,2-Dichloroethane	30.0	25.5	84.87	0-138
$ 58 Toluene-d8 (S)	30.0	28.1	93.74	0-124
$ 79 4-Bromofluorobenze	30.0	31.7	105.59	0-124

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Report Date: 16-Jul-2019 07:46

Pace Analytical Services, Inc.

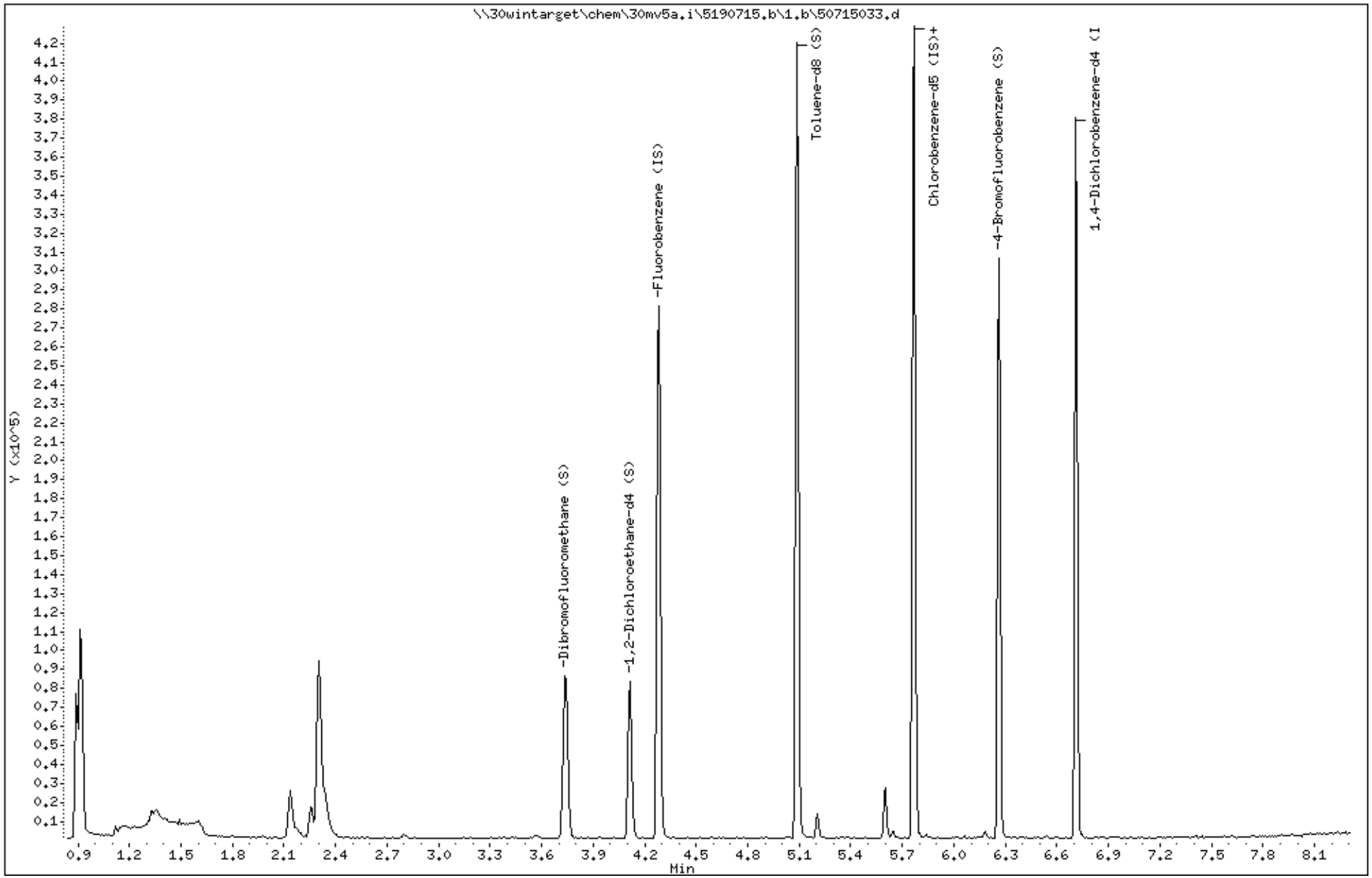
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260003
Client Smp ID: AOC27
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45365

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	25.4	J
1868-53-7	Dibromofluoromethane (S)	33.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	25.5	
2037-26-5	Toluene-d8 (S)	28.1	
460-00-4	4-Bromofluorobenzene (S)	31.7	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d
Date : 15-JUL-2019 22:05
Client ID: A0C27
Sample Info: 30313260003X10

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715033.d

Date : 15-JUL-2019 22:05

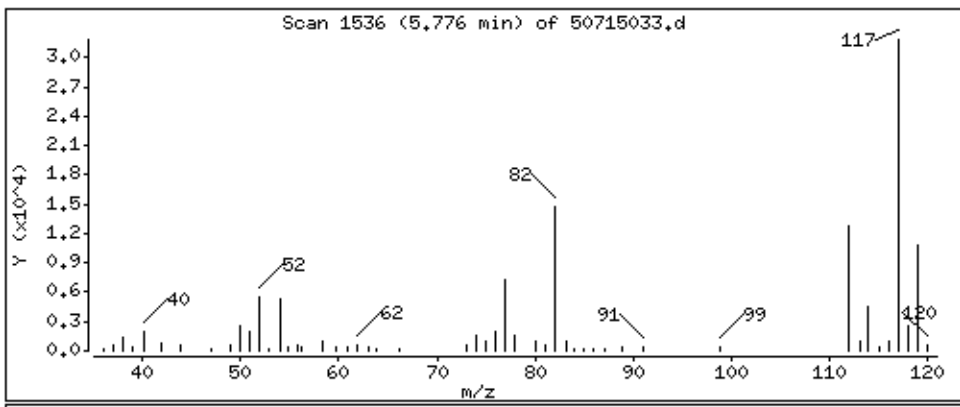
Client ID: A0C27 Instrument: 30mv5a.i

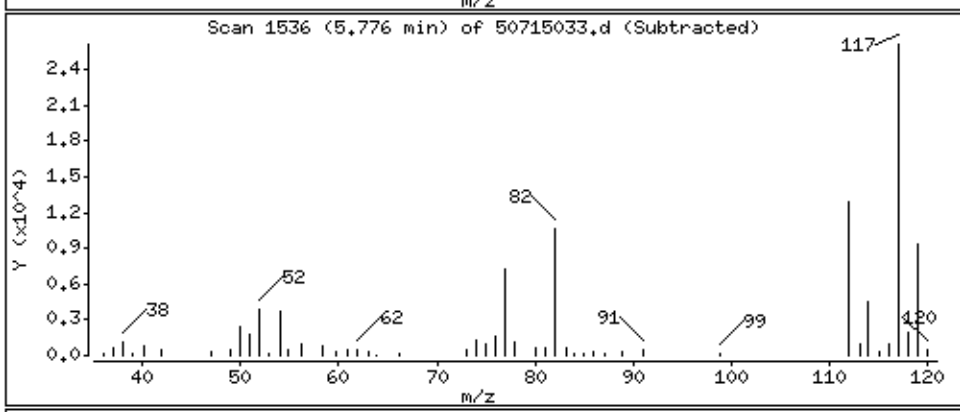
Sample Info: 30313260003X10

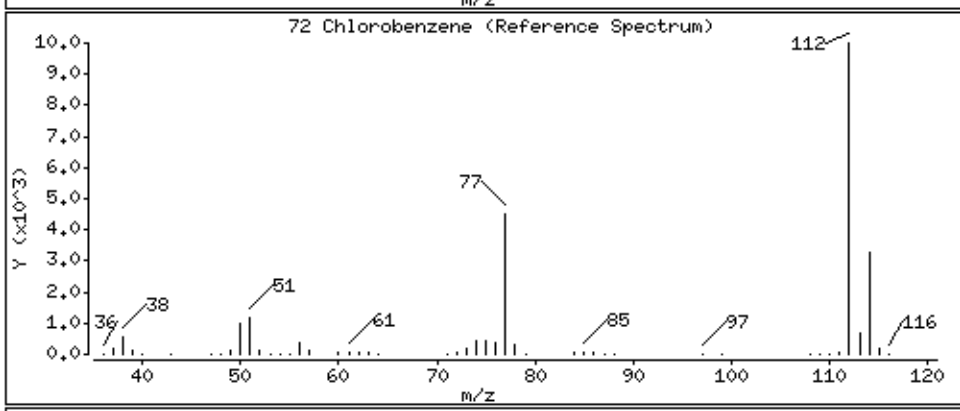
Operator: JEW

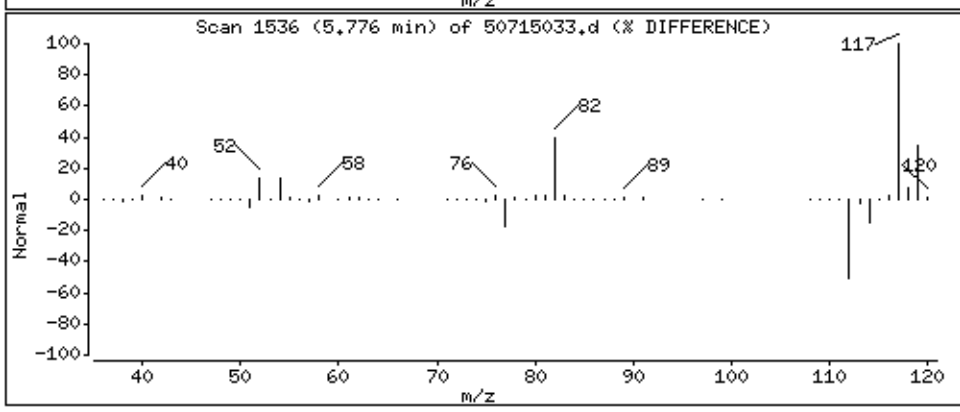
Column phase: RTX-VMS Column diameter: 0.18

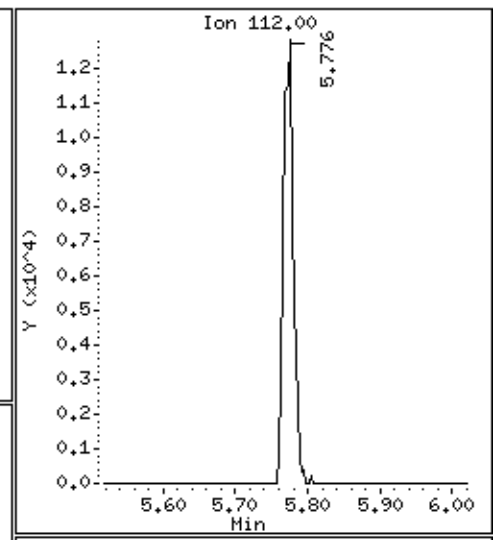
72 Chlorobenzene Concentration: 25.4 ug/kg

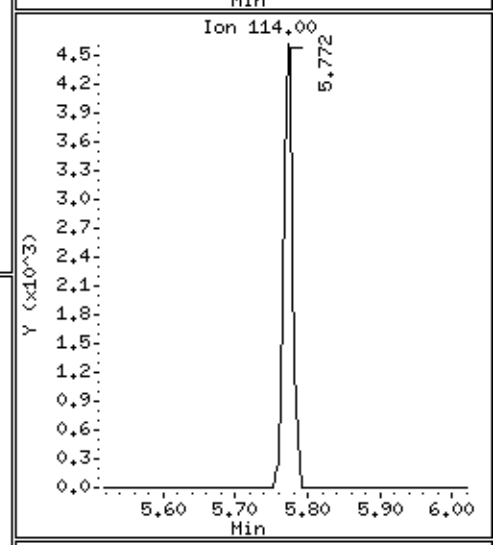


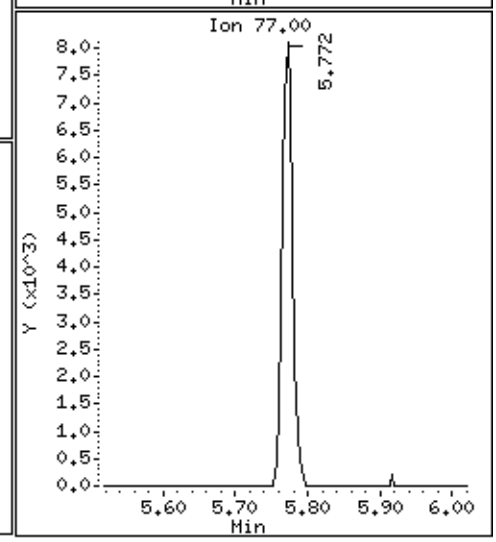












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715033.d
Injection Date: 15-JUL-2019 22:05
Instrument: 30mv5a.i
Lab Sample ID: 30313260003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Benzene	Averaged	0.81423	1.23559	1.19089	1.25463	1.24503	1.19880
2-Butanone (MEK)	Averaged		0.11600	0.12608	0.13736	0.13387	0.13325
Carbon tetrachloride	Averaged		0.39398	0.40408	0.43983	0.43548	0.43086
Chlorobenzene	Averaged		1.09161	1.14004	1.19445	1.19704	1.14450
Chloroform	Averaged		0.65919	0.62001	0.60705	0.60387	0.56337
1,2-Dichloroethane	Averaged		0.46332	0.41494	0.42591	0.42889	0.41941
1,1-Dichloroethene	Averaged		0.43469	0.41677	0.41799	0.40417	0.36722
Tetrachloroethene	Averaged		0.38227	0.40205	0.48083	0.45734	0.43541
Trichloroethene	Averaged		0.41732	0.46031	0.46596	0.46961	0.43682
Vinyl chloride	Averaged		0.37458	0.35095	0.32696	0.32322	0.30961
4-Bromofluorobenzene (S)	Averaged		0.88881	0.90079	0.85836	0.83817	0.81440
Dibromofluoromethane (S)	Averaged		0.26790	0.26660	0.27467	0.27238	0.27083
1,2-Dichloroethane-d4 (S)	Averaged		0.28191	0.27754	0.28224	0.28913	0.27455
Toluene-d8 (S)	Averaged		1.25629	1.31726	1.30282	1.26484	1.24165

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Benzene	Averaged	1.10553	1.11620
2-Butanone (MEK)	Averaged	0.13149	0.12089
Carbon tetrachloride	Averaged	0.38301	0.40044
Chlorobenzene	Averaged	1.07743	1.14214
Chloroform	Averaged	0.51654	0.47237
1,2-Dichloroethane	Averaged	0.41193	0.38749
1,1-Dichloroethene	Averaged	0.31954	0.30223
Tetrachloroethene	Averaged	0.40782	0.46497
Trichloroethene	Averaged	0.41119	0.46669
Vinyl chloride	Averaged	0.26767	0.27048
4-Bromofluorobenzene (S)	Averaged	0.88653	0.92662
Dibromofluoromethane (S)	Averaged	0.25944	0.22478
1,2-Dichloroethane-d4 (S)	Averaged	0.29876	0.27464
Toluene-d8 (S)	Averaged	1.29047	1.33208

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV5A GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/18/2019 06/18/2019 Calibration Time(s): 09:34 12:40

LAB FILE ID

CAL1 = 5190618.B\1.B\50618005.D CAL2 = 5190618.B\1.B\50618007.D CAL3 = 5190618.B\1.B\50618009.D

CAL4 = 5190618.B\1.B\50618011.D CAL5 = 5190618.B\1.B\50618013.D CAL6 = 5190618.B\1.B\50618015.D

CAL7 = 5190618.B\1.B\50618017.D CAL8 = 5190618.B\1.B\50618019.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Benzene	Averaged	12.65610			1.14511	
2-Butanone (MEK)	Averaged	6.02134			0.12842	
Carbon tetrachloride	Averaged	5.45701			0.41252	
Chlorobenzene	Averaged	3.99896			1.14103	
Chloroform	Averaged	11.18178			0.57749	
1,2-Dichloroethane	Averaged	5.40596			0.42170	
1,1-Dichloroethene	Averaged	13.67583			0.38037	
Tetrachloroethene	Averaged	8.47268			0.43296	
Trichloroethene	Averaged	5.55880			0.44684	
Vinyl chloride	Averaged	12.36517			0.31764	
4-Bromofluorobenzene (S)	Averaged	4.42004			0.87338	
Dibromofluoromethane (S)	Averaged	6.58933			0.26237	
1,2-Dichloroethane-d4 (S)	Averaged	3.09069			0.28268	
Toluene-d8 (S)	Averaged	2.59731			1.28649	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 18-JUN-2019 09:34
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal1, 91185:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 01-Jul-2019 08:18 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	945	2.50000	0.904(aQ)	
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	1.145	1.145	(0.268)	1366	2.50000	1.03(aQ)	
4 Bromomethane	94	1.325	1.325	(0.310)	2850	2.50000	3.06(Q)	
5 Chloroethane	64	1.380	1.380	(0.323)	1548	2.50000	1.82(aQ)	
6 Trichlorofluoromethane	101	1.467	1.467	(0.343)	3067	2.50000	1.59(a)	
7 Diethyl ether (Ethyl ether)	59	1.634	1.634	(0.382)	1900	2.50000	1.95(aQ)	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.759	1.759	(0.411)	2631	2.50000	1.65(a)	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.775	(0.415)	805	2.50000	1.08(a)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	3069	2.50000	1.11(aQ)	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	2.055	2.055	(0.481)	13999	12.5000	11.0(Q)	
15 Methylene Chloride	49	2.132	2.132	(0.499)	3438	2.50000	3.12(Q)	
16 Acetone	43	Compound Not Detected.						
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	2280	2.50000	1.40(aQ)	
18 Methyl acetate	74	2.254	2.254	(0.527)	496	2.50000	2.53	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	2.312	2.312	(0.541)	5043	2.50000	1.41(aQ)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.386	2.386	(0.558)	874	12.5000	5.84(Q)	
	22 Acetonitrile	41	Compound Not Detected.						
	23 Diisopropyl ether	45	2.618	2.618	(0.612)	7075	2.50000	2.06(a)	
	24 Chloroprene	53	2.705	2.705	(0.632)	777	2.50000	0.531(aQ)	
	25 1,1-Dichloroethane	63	2.727	2.727	(0.638)	1735	2.50000	0.801(aQ)	
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	2.939	2.939	(0.687)	3313	2.50000	0.920(aQ)	
	28 Vinyl acetate	43	2.965	2.965	(0.693)	2553	2.50000	0.926(aQ)	
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	1719	2.50000	1.04(aQ)	
	30 2,2-Dichloropropane	77	3.351	3.351	(0.783)	1353	2.50000	0.688(aQ)	
	31 Cyclohexane	56	3.450	3.450	(0.807)	1417	2.50000	0.866(aQ)	
	32 Bromochloromethane	130	3.467	3.467	(0.811)	970	2.50000	1.29(aQ)	
	33 Chloroform	83	3.553	3.553	(0.831)	2167	2.50000	0.897(aQ)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	1107	2.50000	0.641(aQ)	
	35 Ethyl acetate	43	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.711	3.711	(0.868)	858	2.50000	1.86(aQ)	
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	34689	30.0000	31.6	
	38 1,1,1-Trichloroethane	97	3.733	3.733	(0.873)	1648	2.50000	0.790(aQ)	
	39 2-Butanone (MEK)	43	3.865	3.865	(0.904)	1004	2.50000	1.87(aQM)	WP
	40 1,1-Dichloropropene	75	3.846	3.846	(0.899)	2303	2.50000	1.32(a)	
	41 Benzene	78	4.020	4.020	(0.940)	8518	2.50000	1.78(aQM)	NI
	42 Propionitrile	54	4.049	4.049	(0.947)	276	2.50000	2.21(aQ)	
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	4.106	4.106	(0.960)	7414	2.50000	2.03(aQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	35115	30.0000	29.7	
	46 Isobutanol	43	4.213	4.213	(0.985)	773	12.5000	16.0(QM)	WP
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	3445	2.50000	1.95(a)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	125537	30.0000		
	49 Methylcyclohexane	83	4.364	4.364	(1.020)	2956	2.50000	1.68(aQ)	
	50 Trichloroethene	95	4.373	4.373	(0.759)	2222	2.50000	1.55(a)	
	51 Dibromomethane	174	4.598	4.598	(1.075)	1684	2.50000	2.01(a)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	2305	2.50000	1.90(aQ)	
	53 Bromodichloromethane	83	4.688	4.688	(1.096)	3487	2.50000	2.05(a)	
	54 Methyl methacrylate	69	4.775	4.775	(1.117)	2272	2.50000	2.52(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	4.978	4.978	(1.164)	1100	2.50000	2.37(aQ)	
	57 cis-1,3-Dichloropropene	75	5.000	5.000	(1.169)	3916	2.50000	1.92(aQ)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	121235	30.0000	29.3	
	59 Toluene	91	5.110	5.110	(0.886)	9540	2.50000	1.74(a)	
	60 2-Nitropropane	43	5.216	5.216	(1.219)	4416	12.5000	11.0(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.283	(1.235)	2619	2.50000	2.16(aQ)	
	62 Tetrachloroethene	166	5.290	5.290	(0.917)	1935	2.50000	1.39(a)	
	63 trans-1,3-Dichloropropene	75	5.303	5.303	(0.920)	3560	2.50000	1.72(aQ)	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	2734	2.50000	2.50(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.931)	2594	2.50000	2.10(a)	
	66 Dibromochloromethane	129	5.450	5.450	(0.945)	2758	2.50000	1.92(a)	
	67 1,3-Dichloropropane	76	5.492	5.492	(0.953)	3966	2.50000	2.00(aQ)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.963)	2501	2.50000	2.06(a)	
	69 2-Hexanone	43	5.643	5.643	(0.979)	2131	2.50000	2.29(aQ)	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	3091	2.50000	1.62(aQM)	WP
*	71 Chlorobenzene-d5 (IS)	117	5.766	5.766	(1.000)	96358	30.0000		
	72 Chlorobenzene	112	5.769	5.769	(1.001)	6534	2.50000	1.78(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	2586	2.50000	1.87(aQ)	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	7804	5.00000	3.39	

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Report Date: 01-Jul-2019 08:21

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75	o-Xylene	106	6.016	6.016	(1.043)	3894	2.50000	1.71(a)	
	76	Styrene	104	Compound Not Detected.						
	77	Bromoform	173	6.058	6.058	(0.903)	1911	2.50000	2.14(a)	
	78	Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	9237	2.50000	1.90(aQ)	
$	79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	33651	30.0000	30.9	
	80	n-Propylbenzene	91	6.306	6.306	(0.940)	10989	2.50000	1.97(a)	
	81	Bromobenzene	77	6.309	6.309	(0.940)	5218	2.50000	2.35(a)	
	82	1,1,2,2-Tetrachloroethane	83	6.335	6.335	(0.944)	4203	2.50000	2.83	
	83	1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	7834	2.50000	2.00(a)	
	84	2-Chlorotoluene	126	6.380	6.380	(0.951)	2331	2.50000	1.91(a)	
	85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	1027	2.50000	2.38(a)	
	86	trans-1,4-Dichloro-2-butene	53	6.409	6.409	(0.955)	1022	2.50000	2.88(Q)	
	87	Cyclohexanone	55	6.421	6.421	(0.957)	1355	12.5000	19.6(Q)	
	88	4-Chlorotoluene	126	6.444	6.444	(0.960)	2331	2.50000	1.91(a)	
	89	tert-Butylbenzene	119	6.511	6.511	(0.970)	7397	2.50000	2.29(a)	
	90	1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	7739	2.50000	1.99(a)	
	91	sec-Butylbenzene	105	6.582	6.582	(0.981)	9248	2.50000	2.02(a)	
	92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	8371	2.50000	2.17(a)	
	93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	4244	2.50000	1.96(a)	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	37365	30.0000		
	95	1,4-Dichlorobenzene	146	6.714	6.714	(1.000)	4467	2.50000	2.06(aQ)	
	96	n-Butylbenzene	91	6.804	6.804	(1.014)	7048	2.50000	2.11(a)	
	97	1,2-Dichlorobenzene	146	6.891	6.891	(1.027)	3898	2.50000	1.90(a)	
$	161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	37771	30.0000	30.3	
	98	1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	479	2.50000	1.97(a)	
	99	1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	1245	2.50000	2.38(aQ)	
	101	1,2,4-Trichlorobenzene	180	7.486	7.486	(1.115)	2180	2.50000	2.23(a)	
	102	Naphthalene	128	Compound Not Detected.						
	103	1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	1825	2.50000	2.05(aM)	WP
	104	2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  NI: Indicates that the peak was not integrated at all by the
      computer software.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618005.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	125537	-12.63
71 Chlorobenzene-d5	102704	51352	205408	96358	-6.18
94 1,4-Dichlorobenze	44519	22260	89038	37365	-16.07

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.01
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	0.904	J
75-01-4	Vinyl chloride	1.03	J
74-83-9	Bromomethane	3.06	
75-00-3	Chloroethane	1.82	J
75-69-4	Trichlorofluoromethane	1.59	J
60-29-7	Diethyl ether (Ethyl ether)	1.95	J
75-35-4	1,1-Dichloroethene	1.65	J
76-13-1	1,1,2-Trichlorotrifluoroetha	1.08	J
75-15-0	Carbon disulfide	1.11	J
107-05-1	Allyl chloride	11.0	
75-09-2	Methylene Chloride	3.12	
156-60-5	trans-1,2-Dichloroethene	1.40	J
79-20-9	Methyl acetate	2.53	
1634-04-4	Methyl-tert-butyl ether	1.41	J
75-65-0	tert-Butyl Alcohol	5.84	
108-20-3	Diisopropyl ether	2.06	J
126-99-8	Chloroprene	0.531	J
75-34-3	1,1-Dichloroethane	0.801	J
637-92-3	Ethyl-tert-butyl ether	0.920	J
108-05-4	Vinyl acetate	0.926	J
156-59-2	cis-1,2-Dichloroethene	1.04	J
594-20-7	2,2-Dichloropropane	0.688	J
110-82-7	Cyclohexane	0.866	J
74-97-5	Bromochloromethane	1.29	J
67-66-3	Chloroform	0.897	J
56-23-5	Carbon tetrachloride	0.641	J
109-99-9	Tetrahydrofuran	1.86	J
71-55-6	1,1,1-Trichloroethane	0.790	J
78-93-3	2-Butanone (MEK)	1.87	J
563-58-6	1,1-Dichloropropene	1.32	J
71-43-2	Benzene	1.78	J
107-12-0	Propionitrile	2.21	J
994-05-8	tert-Amylmethyl ether	2.03	J
78-83-1	Isobutanol	16.0	
107-06-2	1,2-Dichloroethane	1.95	J
108-87-2	Methylcyclohexane	1.68	J
79-01-6	Trichloroethene	1.55	J
74-95-3	Dibromomethane	2.01	J
78-87-5	1,2-Dichloropropane	1.90	J
75-27-4	Bromodichloromethane	2.05	J
80-62-6	Methyl methacrylate	2.52	
110-75-8	2-Chloroethylvinyl ether	2.37	J

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
10061-01-5	cis-1,3-Dichloropropene	1.92	J
108-88-3	Toluene	1.74	J
79-46-9	2-Nitropropane	11.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.16	J
127-18-4	Tetrachloroethene	1.39	J
10061-02-6	trans-1,3-Dichloropropene	1.72	J
97-63-2	Ethyl methacrylate	2.50	
79-00-5	1,1,2-Trichloroethane	2.10	J
124-48-1	Dibromochloromethane	1.92	J
142-28-9	1,3-Dichloropropane	2.00	J
106-93-4	1,2-Dibromoethane (EDB)	2.06	J
591-78-6	2-Hexanone	2.29	J
100-41-4	Ethylbenzene	1.62	J
108-90-7	Chlorobenzene	1.78	J
630-20-6	1,1,1,2-Tetrachloroethane	1.87	J
7816-60-0	m&p-Xylene	3.39	
95-47-6	o-Xylene	1.71	J
75-25-2	Bromoform	2.14	J
98-82-8	Isopropylbenzene (Cumene)	1.90	J
103-65-1	n-Propylbenzene	1.97	J
108-86-1	Bromobenzene	2.35	J
79-34-5	1,1,2,2-Tetrachloroethane	2.83	
108-67-8	1,3,5-Trimethylbenzene	2.00	J
95-49-8	2-Chlorotoluene	1.91	J
96-18-4	1,2,3-Trichloropropane	2.38	J
110-57-6	trans-1,4-Dichloro-2-butene	2.88	
108-94-1	Cyclohexanone	19.6	
106-43-4	4-Chlorotoluene	1.91	J
98-06-6	tert-Butylbenzene	2.29	J
95-63-6	1,2,4-Trimethylbenzene	1.99	J
135-98-8	sec-Butylbenzene	2.02	J
99-87-6	p-Isopropyltoluene	2.17	J
541-73-1	1,3-Dichlorobenzene	1.96	J
106-46-7	1,4-Dichlorobenzene	2.06	J
104-51-8	n-Butylbenzene	2.11	J
95-50-1	1,2-Dichlorobenzene	1.90	J
96-12-8	1,2-Dibromo-3-chloropropane	1.97	J
87-68-3	Hexachloro-1,3-butadiene	2.38	J
120-82-1	1,2,4-Trichlorobenzene	2.23	J
87-61-6	1,2,3-Trichlorobenzene	2.05	J
1868-53-7	Dibromofluoromethane (S)	31.6	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Report Date: 01-Jul-2019 08:21

Pace Analytical Services, Inc.

TARGET COMPOUNDS

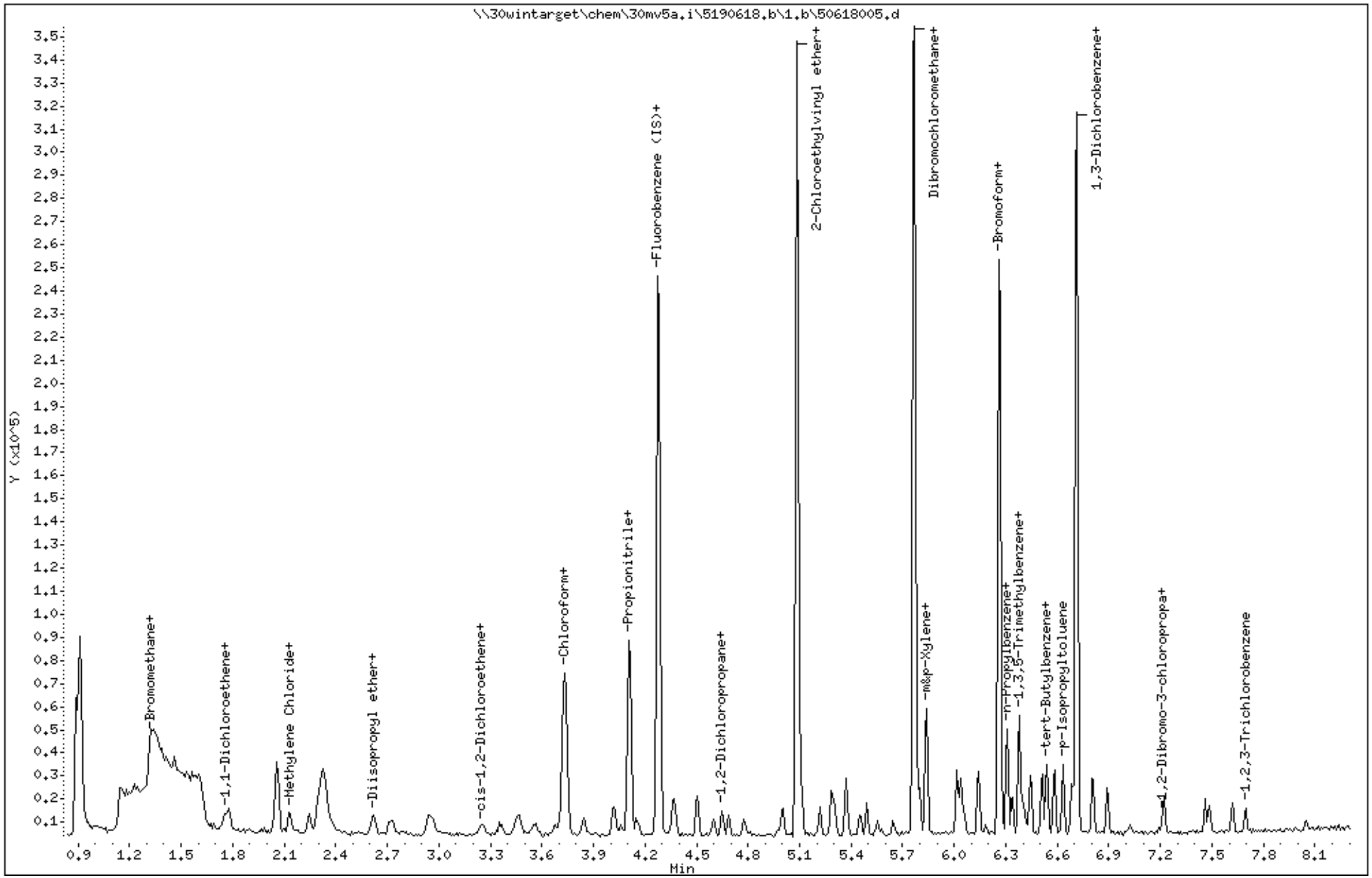
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
17060-07-0	1,2-Dichloroethane-d4 (S)	29.7	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	30.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.3	

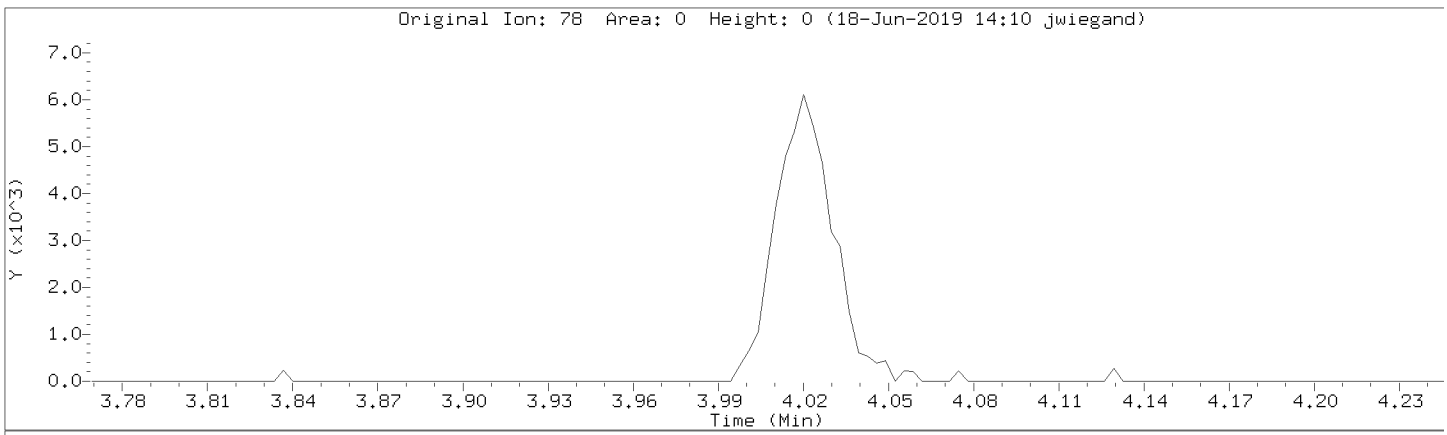
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618005.d
Date : 18-JUN-2019 09:34
Client ID: CAL1
Sample Info: CAL1, 91185:1

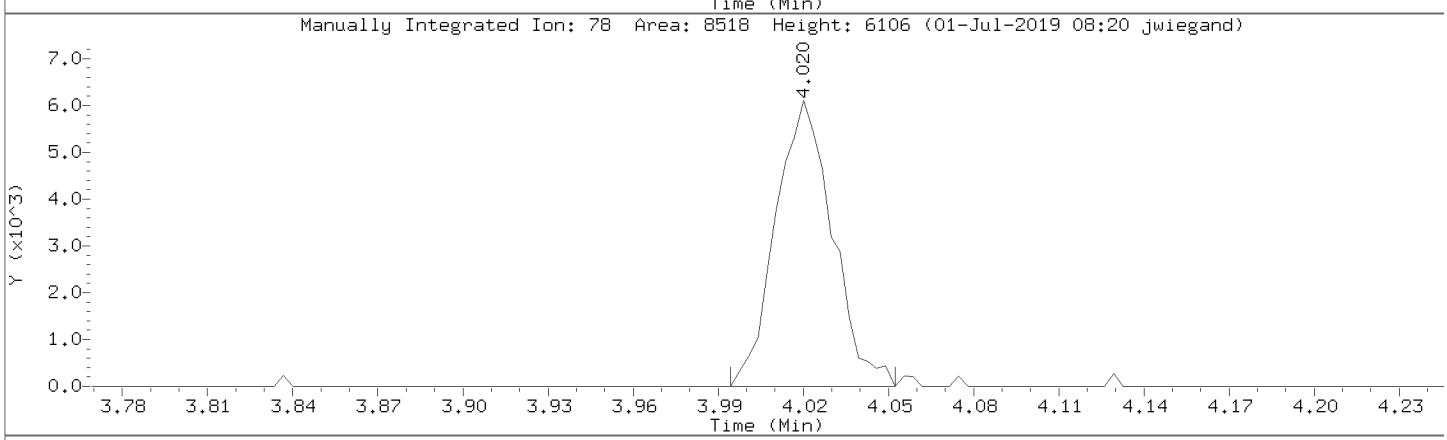
Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18

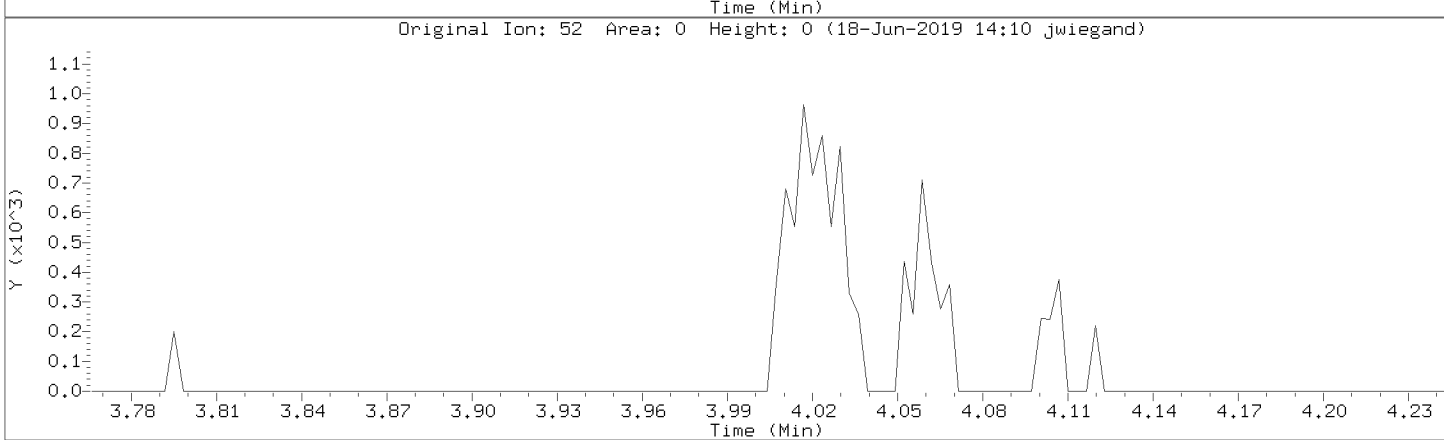


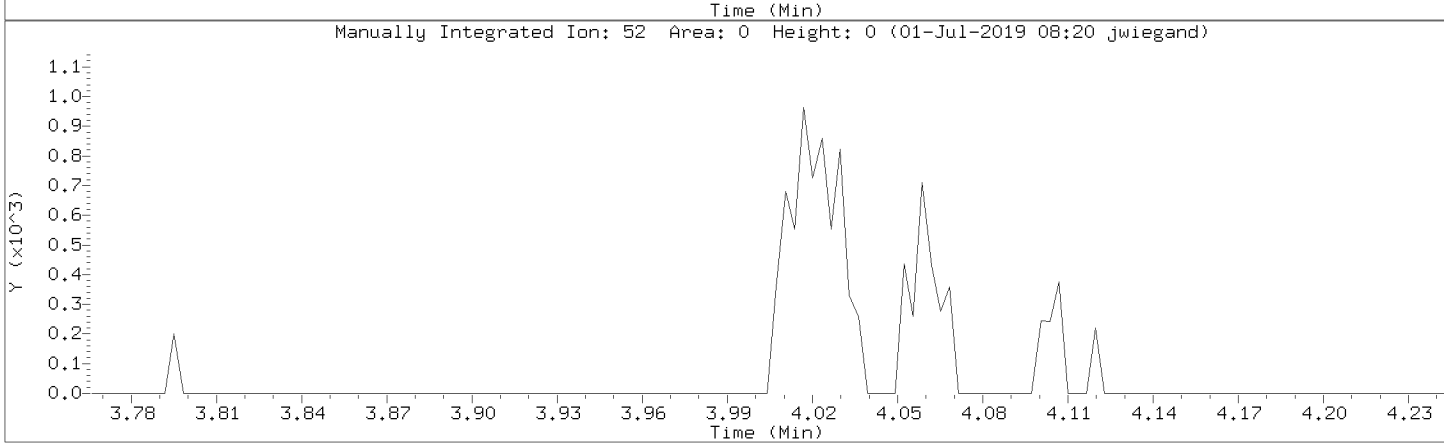
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618005.d
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Benzene Review Code: NI
CAS Number: 71-43-2









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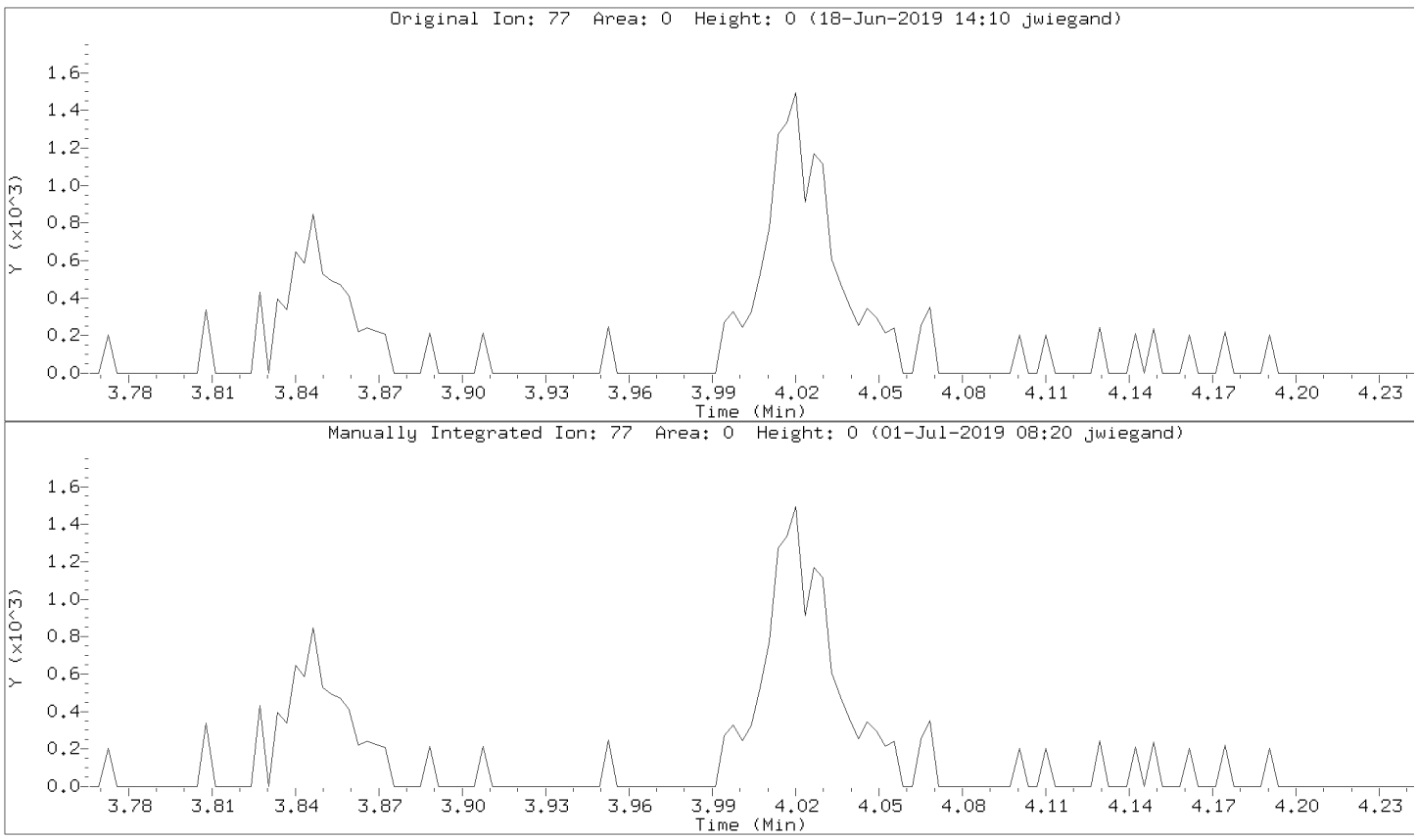
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1



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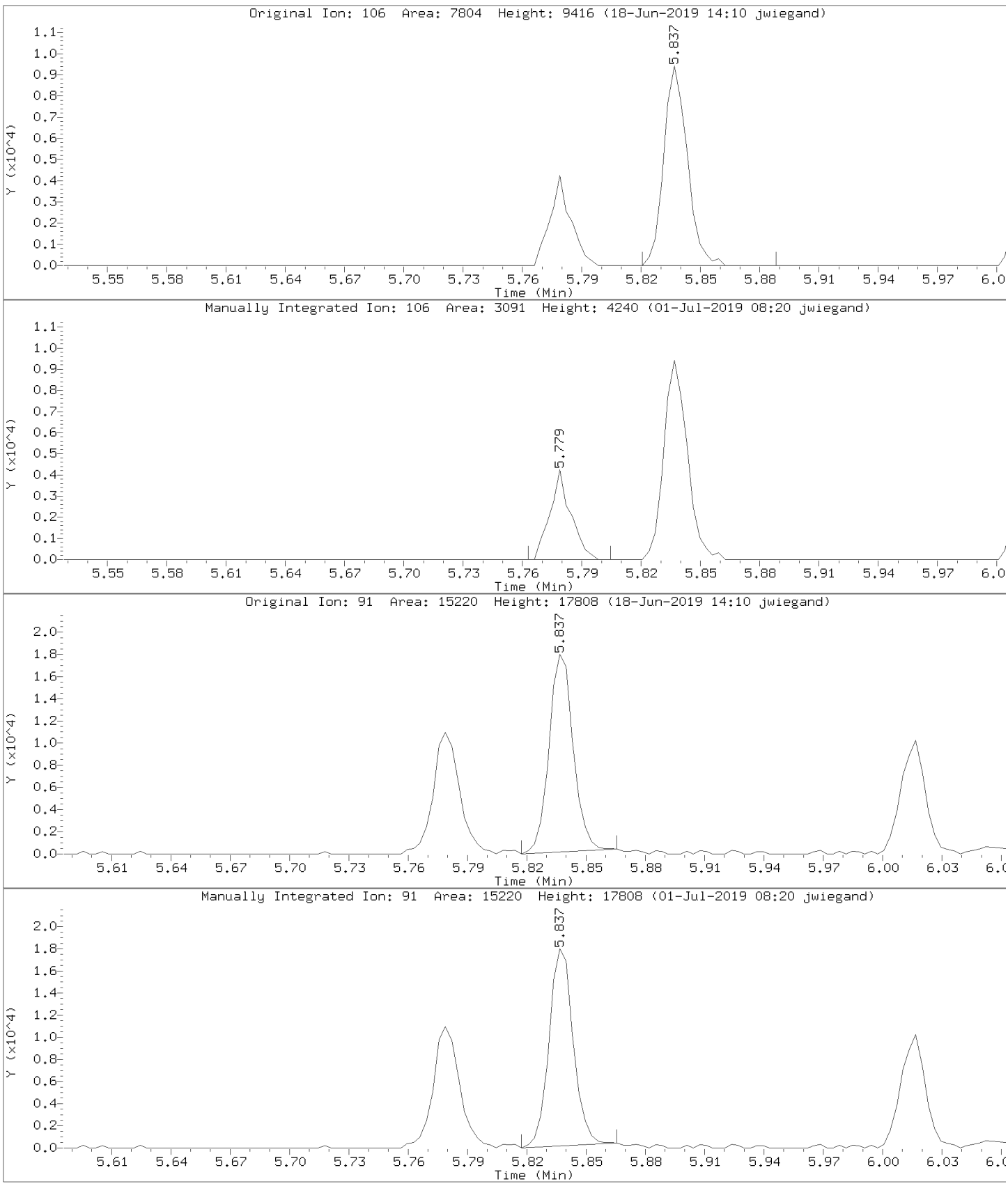
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Ethylbenzene Review Code: WP
CAS Number: 100-41-4



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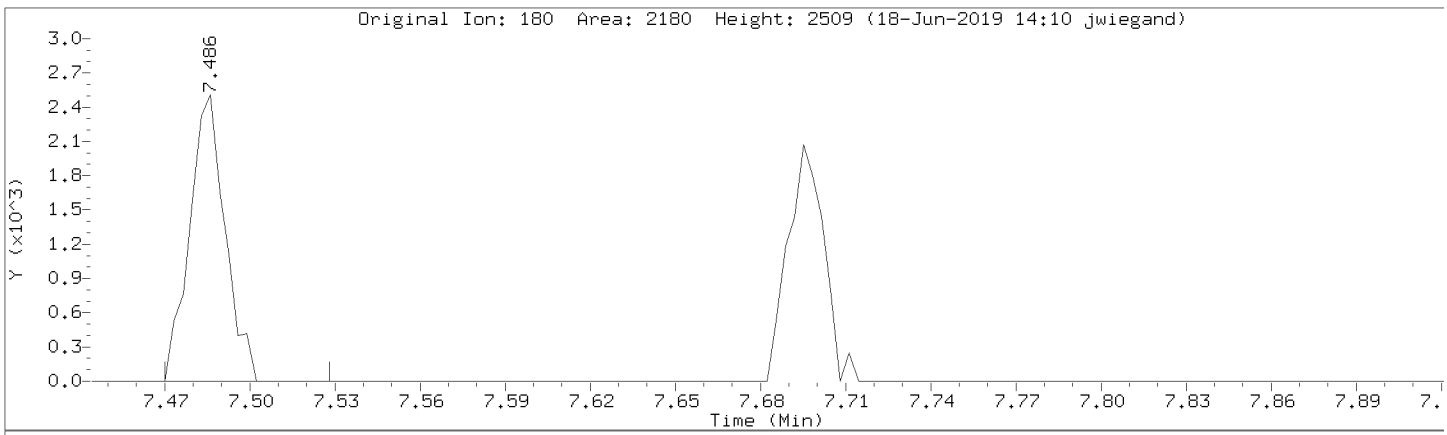
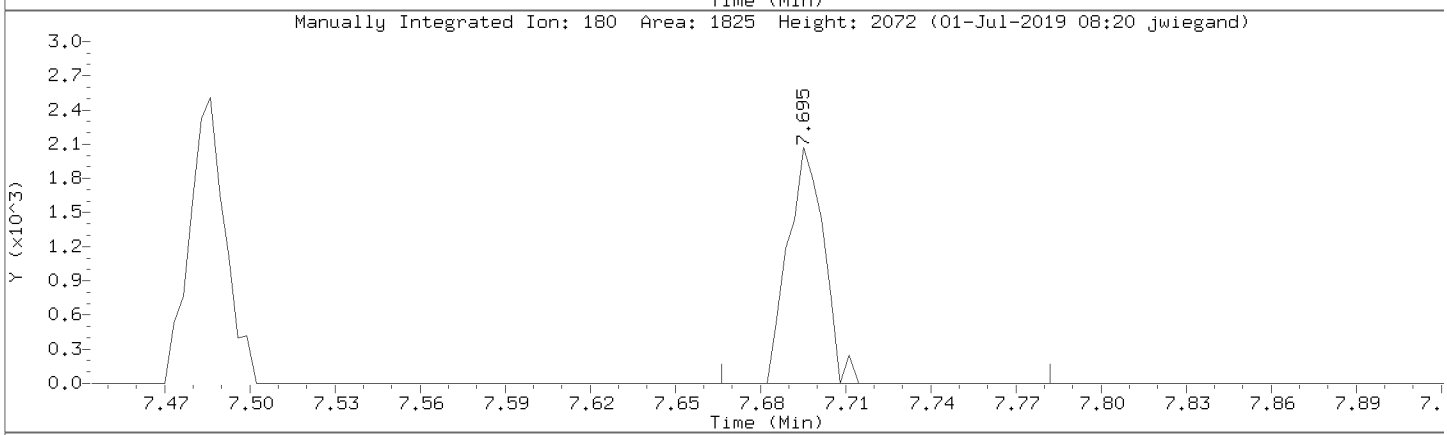
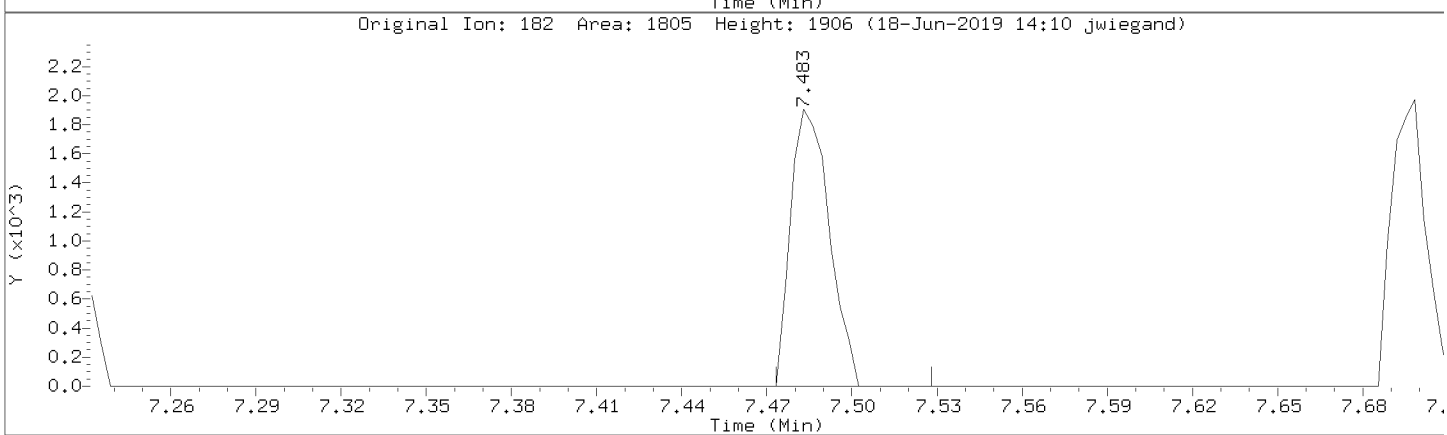
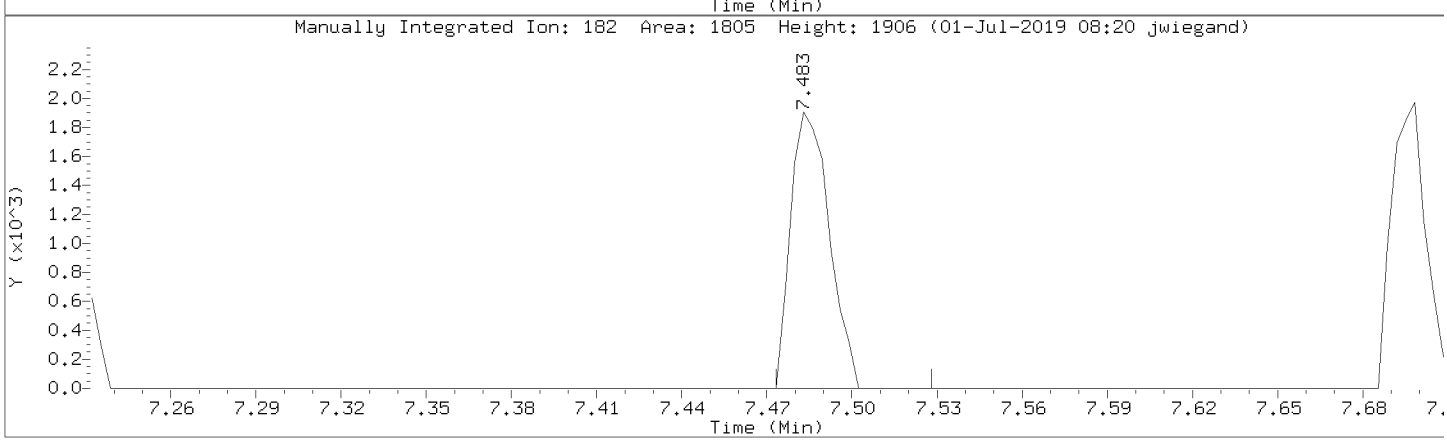
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 1,2,3-Trichlorobenzene Review Code: WP
CAS Number: 87-61-6









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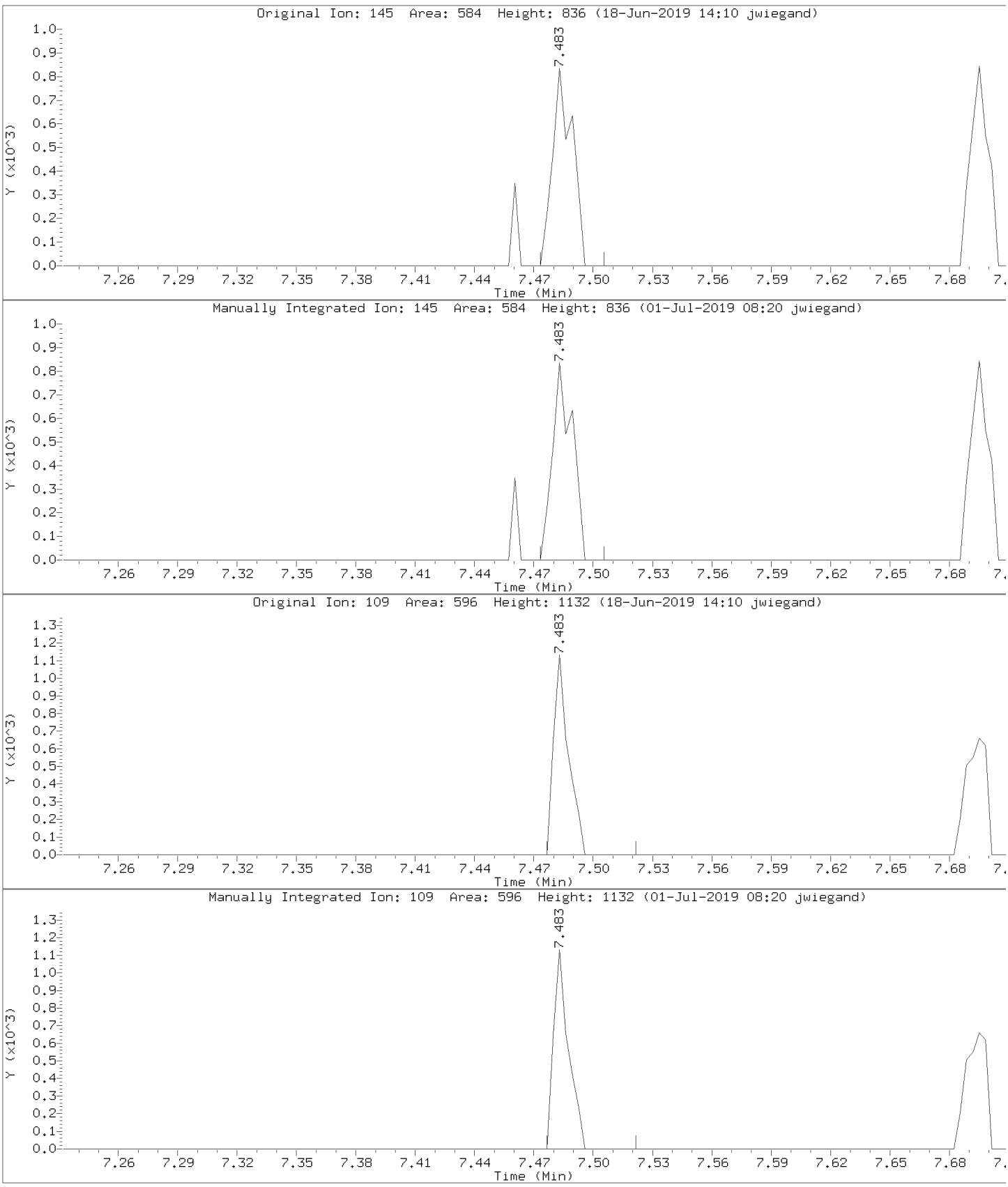
Instrument: 30mv5a.i
Lab Sample ID: CAL1



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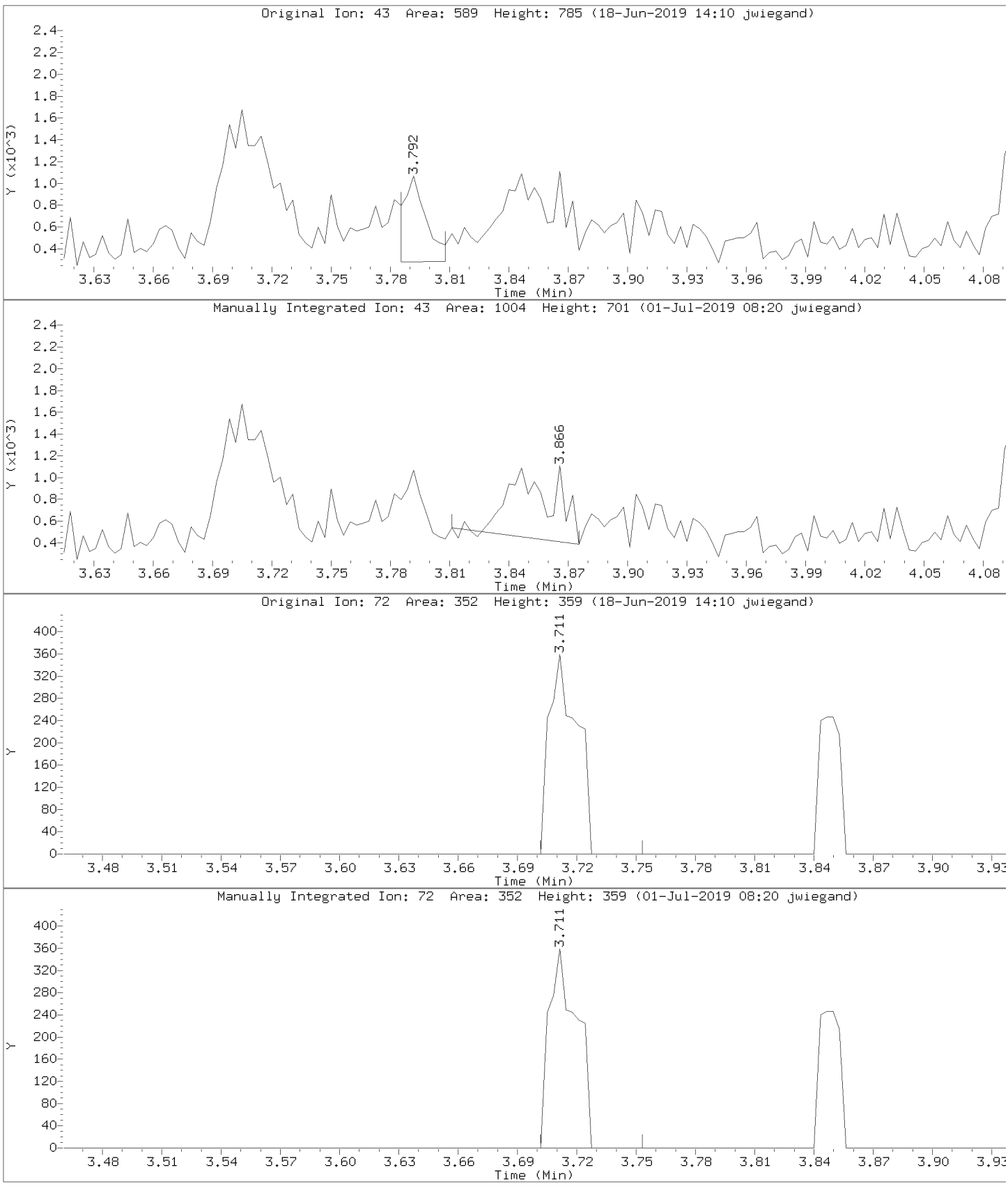
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 2-Butanone (MEK) Review Code: WP
CAS Number: 78-93-3



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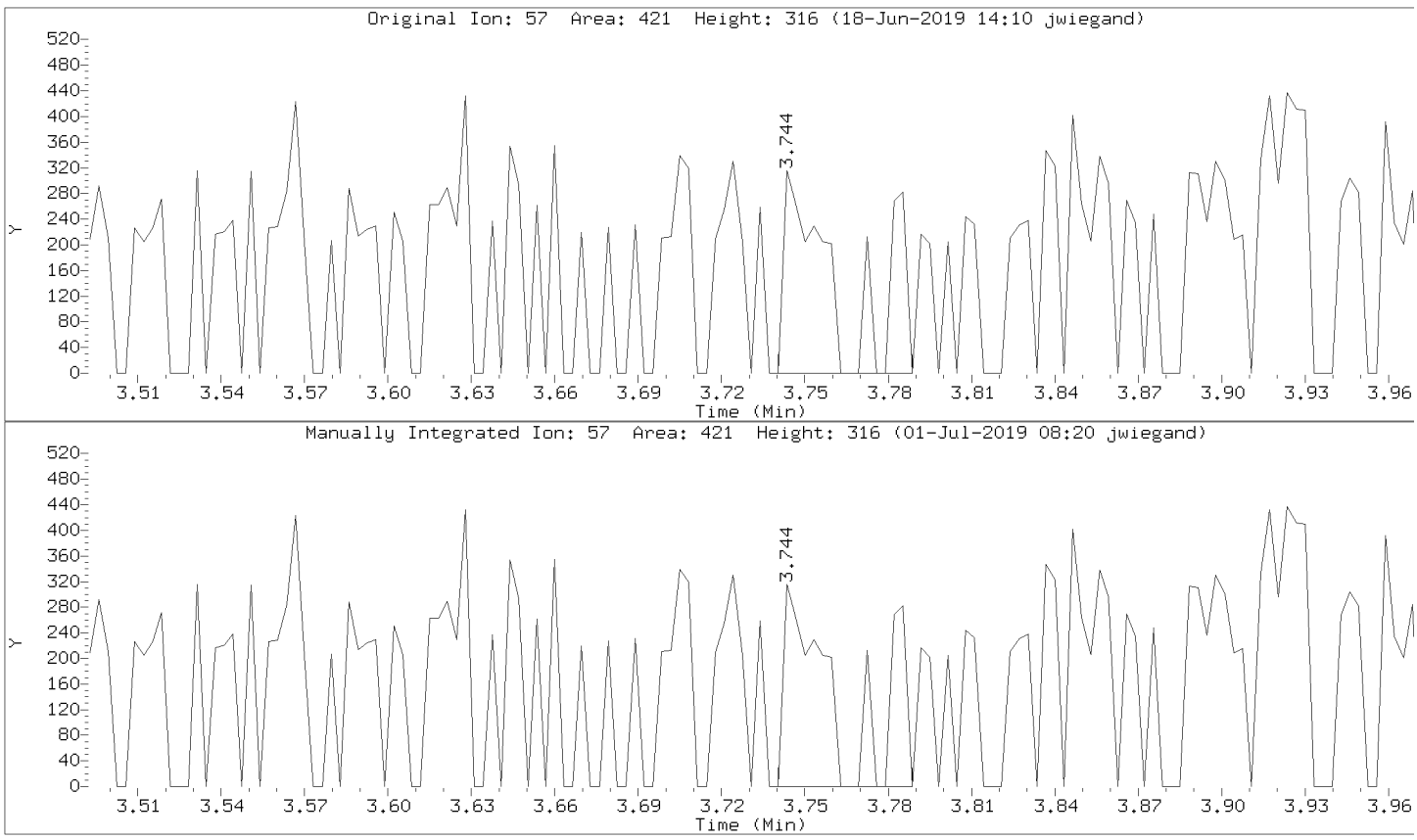
Lab Sample ID: CAL1



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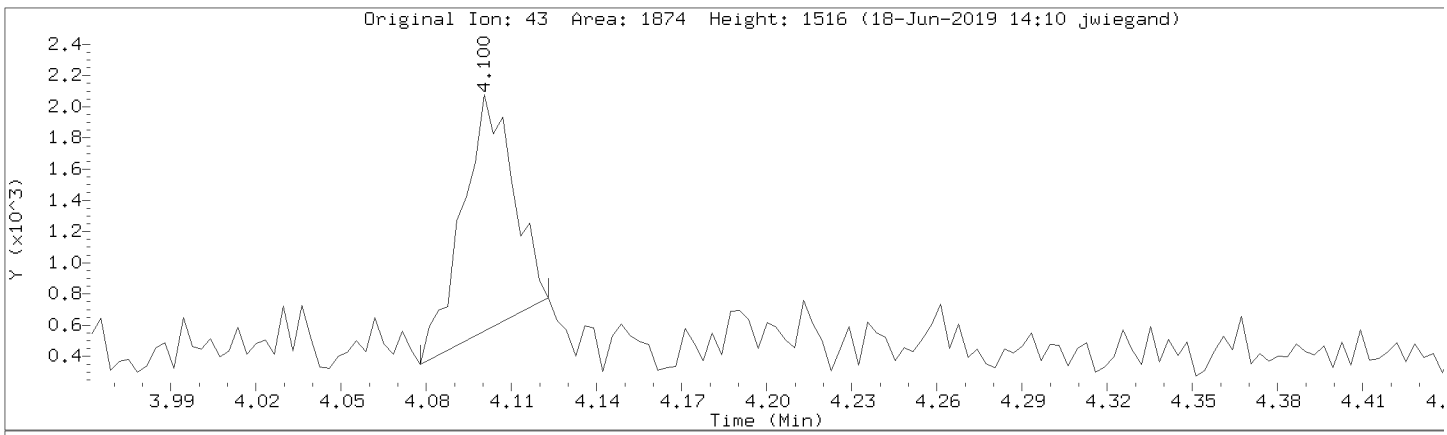
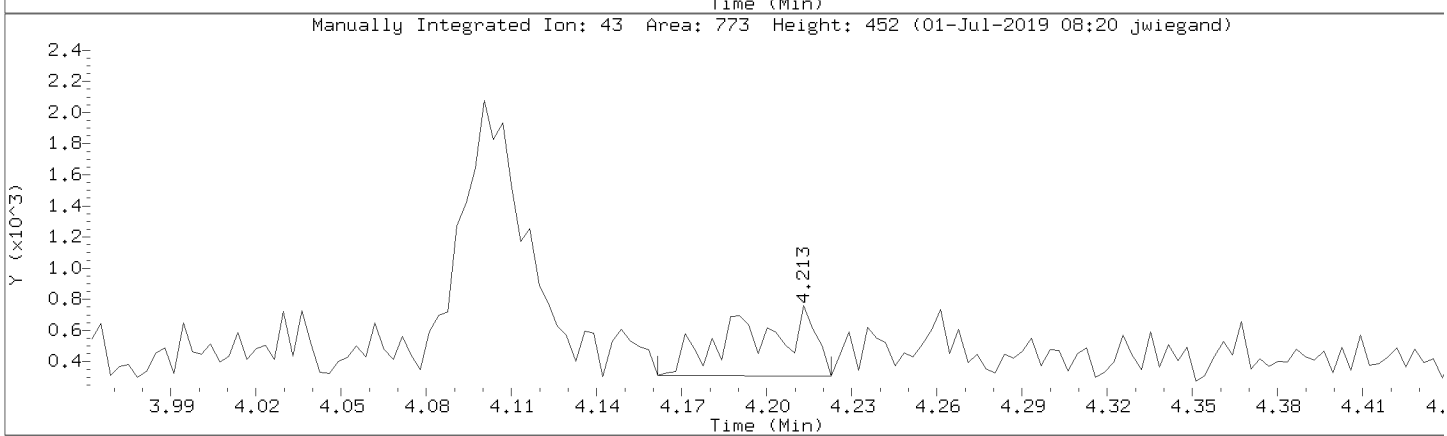
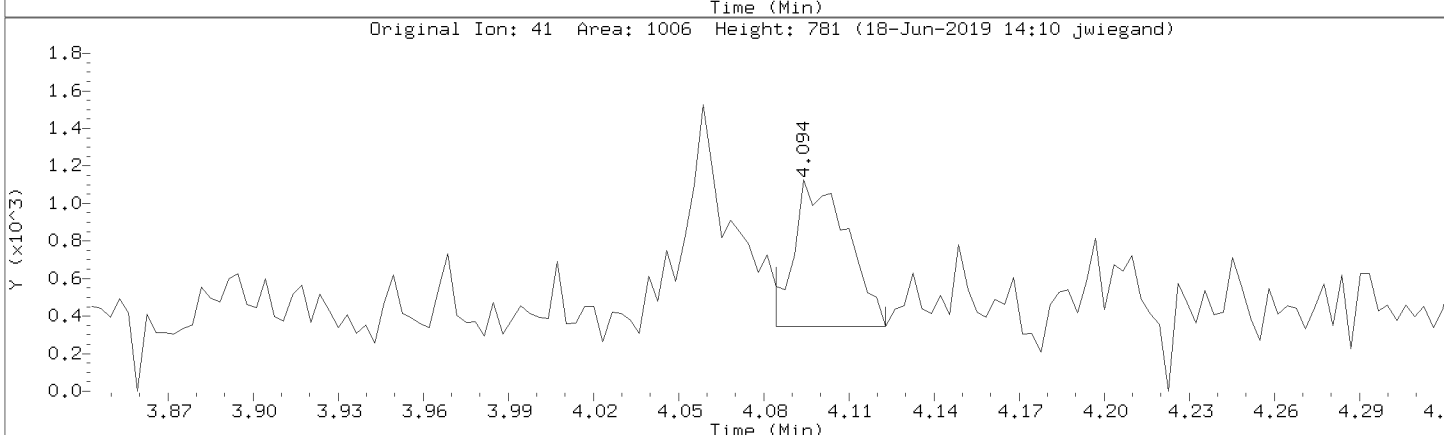
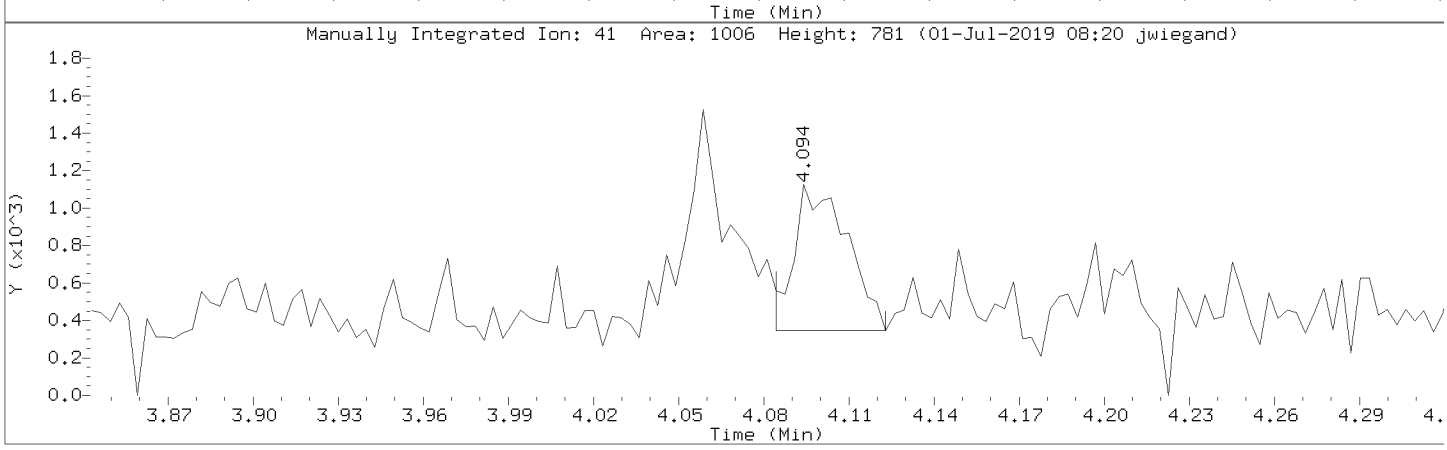
Injection Date: 18-JUN-2019 09:34
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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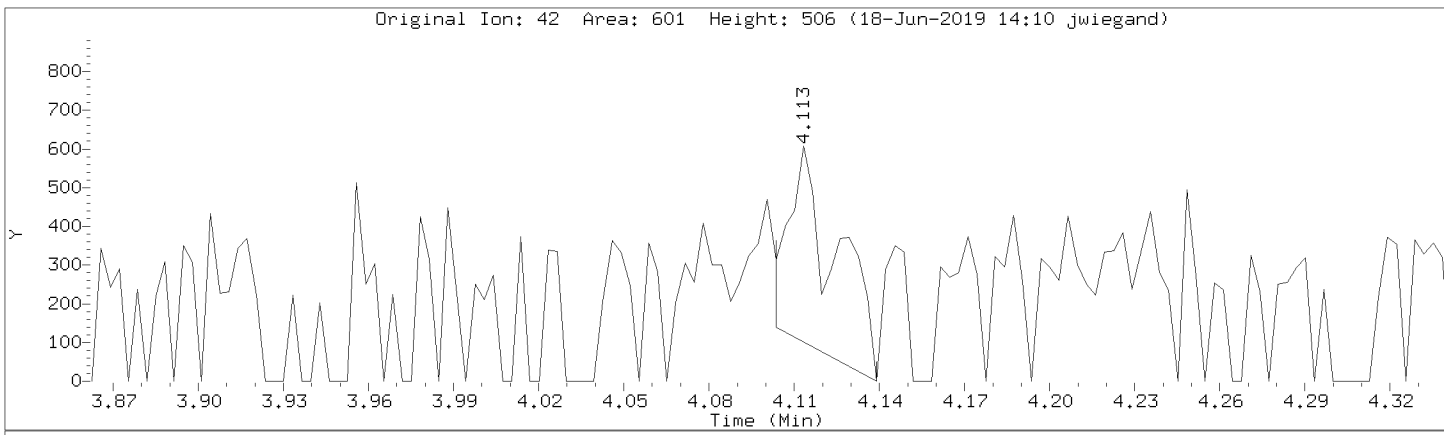
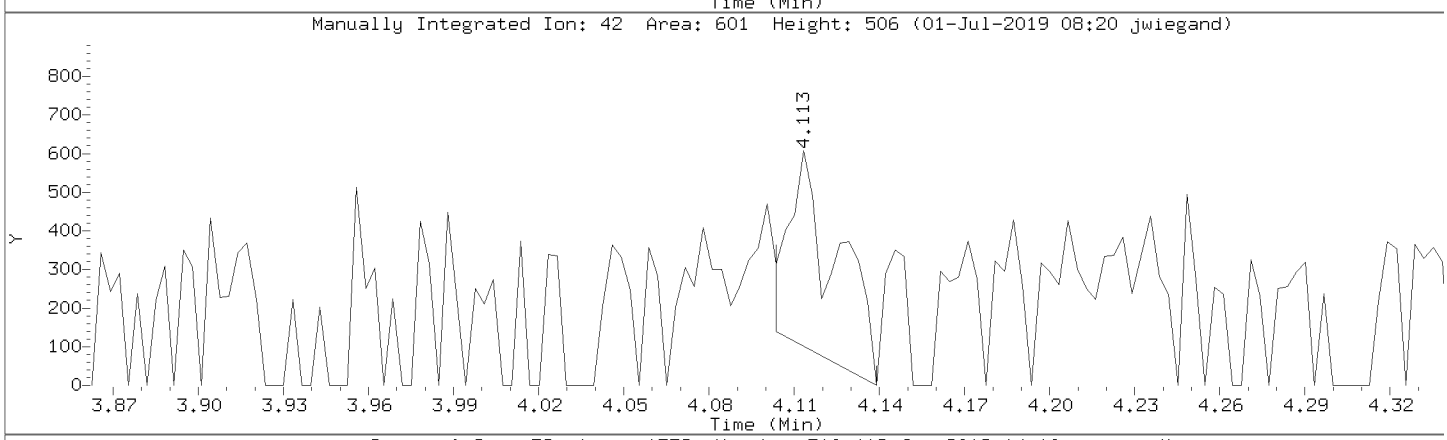
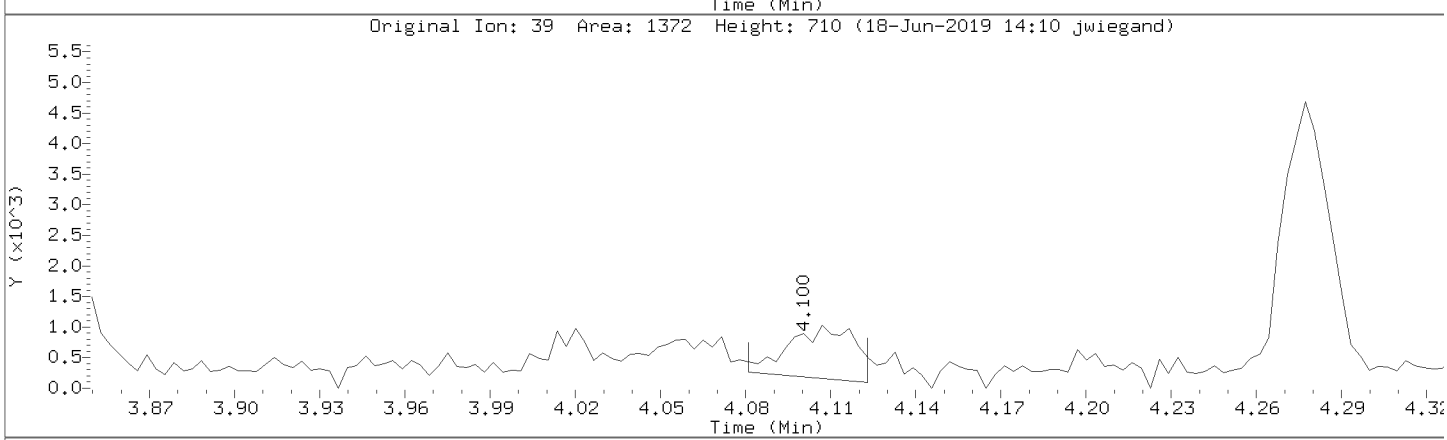
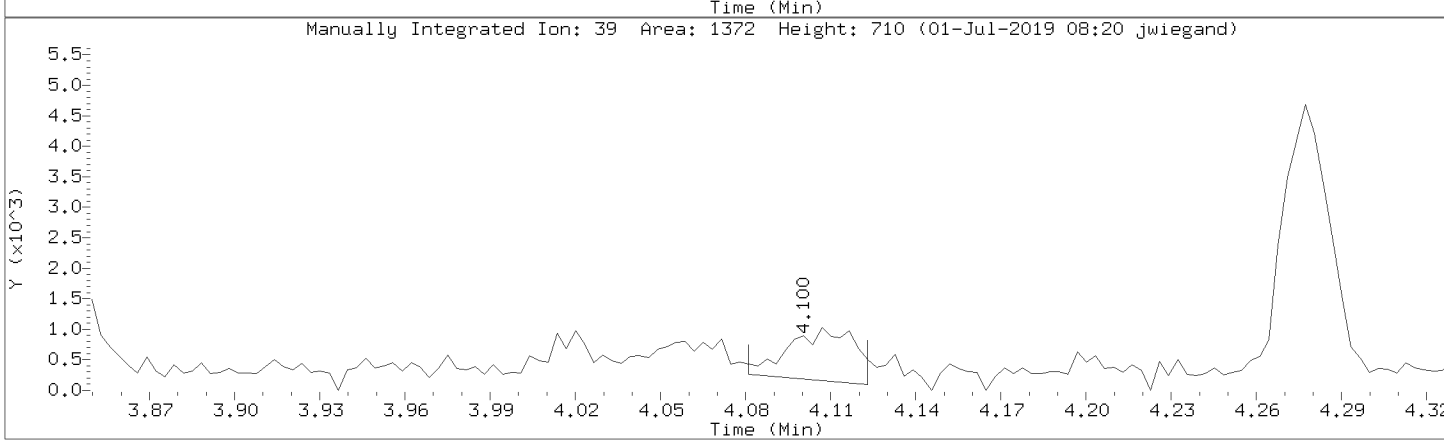
Lab Sample ID: CAL1









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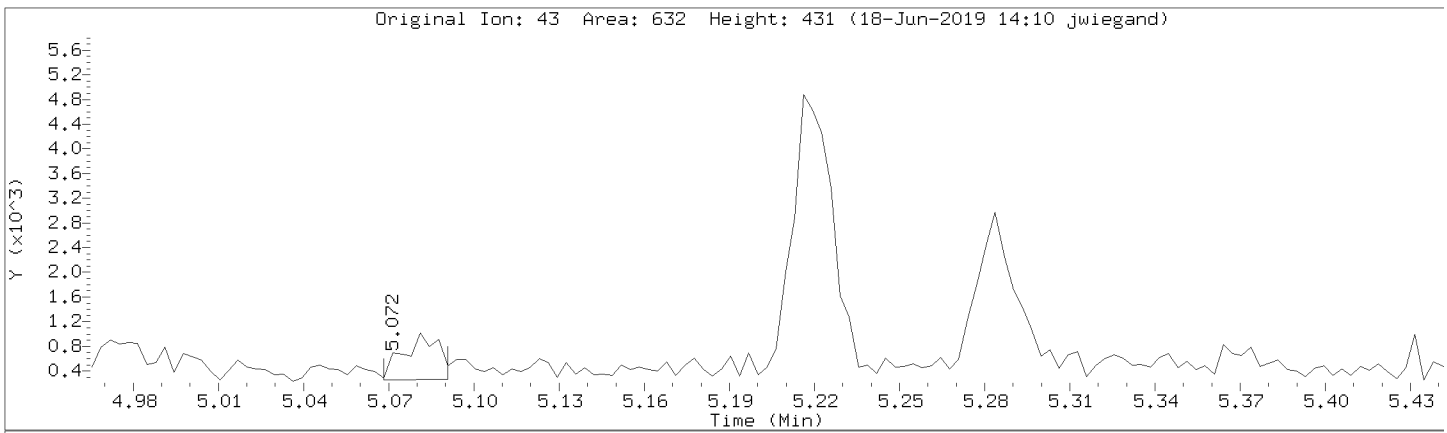
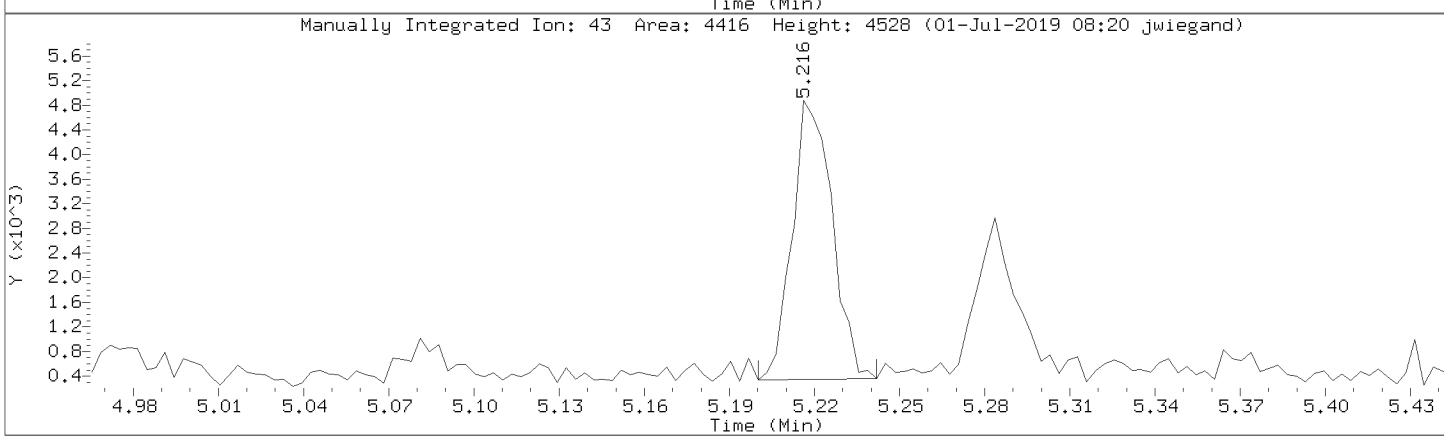
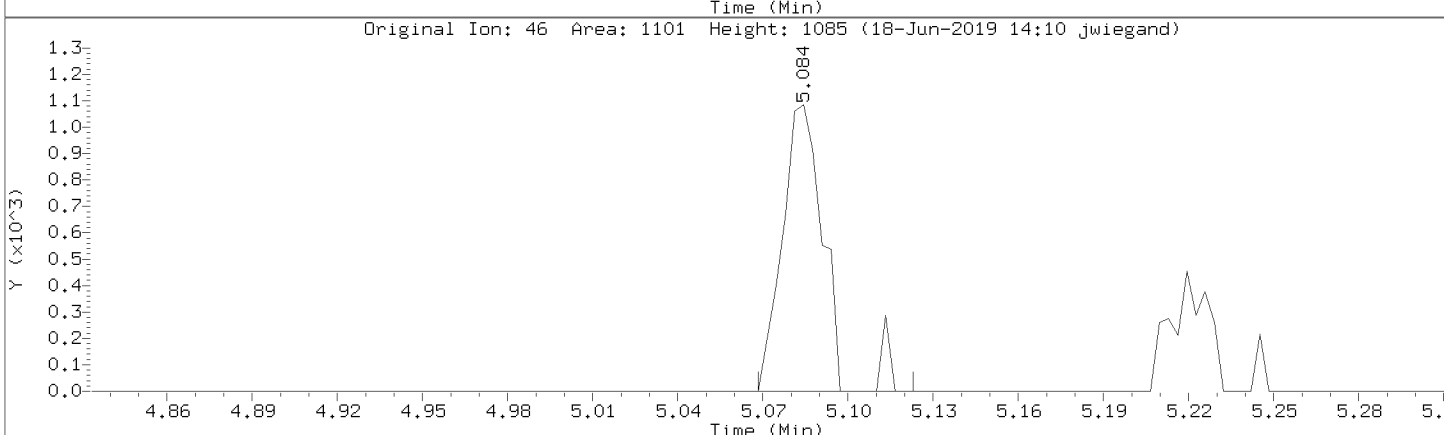
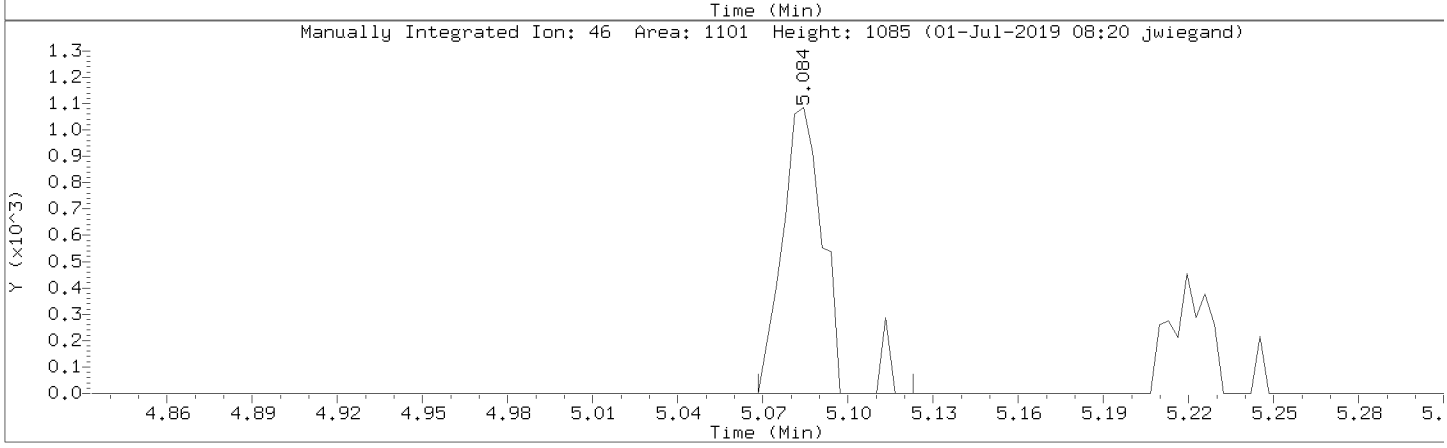
Instrument: 30mv5a.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9









Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
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Inj Date : 18-JUN-2019 10:01
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal2, 91186:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:01 Cal File: 50618007.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	5566	5.00000	5.09(QM)	LT
2 Chloromethane	50	1.142	1.142	(0.267)	5371	5.00000	6.41(QM)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	8189	5.00000	5.90(M)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	6864	5.00000	6.29(M)	NI
5 Chloroethane	64	1.386	1.380	(0.324)	5735	5.00000	6.46(M)	LT
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	11109	5.00000	5.52	
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	4983	5.00000	4.91	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	9503	5.00000	5.71	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	3378	5.00000	4.35(Q)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	15558	5.00000	5.41	
12 Iodomethane	142	1.856	1.856	(0.434)	683	5.00000	1.66(aQM)	NI
13 Acrolein	56	1.968	1.969	(0.460)	1139	5.00000	7.85(QM)	LT
14 Allyl chloride	41	2.055	2.056	(0.481)	42770	25.0000	31.4(Q)	
15 Methylene Chloride	49	2.129	2.133	(0.498)	8172	5.00000	6.85(Q)	
16 Acetone	43	2.164	2.165	(0.506)	2080	5.00000	6.79(QM)	NI
17 trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	9314	5.00000	5.47	
18 Methyl acetate	74	2.251	2.255	(0.526)	998	5.00000	4.88	
19 n-Hexane	86	2.296	2.297	(0.537)	1600	5.00000	5.77(Q)	
20 Methyl-tert-butyl ether	73	2.312	2.313	(0.541)	19929	5.00000	5.33(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	4088	25.0000	26.1(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	2030	25.0000	27.7(M)	WP
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	19675	5.00000	5.48	
	24 Chloroprene	53	2.708	2.705	(0.633)	7901	5.00000	5.16(QM)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	12374	5.00000	5.72(QM)	LT
	26 Acrylonitrile	53	2.785	2.785	(0.651)	1824	5.00000	5.24(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	20253	5.00000	5.38(QM)	LT
	28 Vinyl acetate	43	2.965	2.965	(0.693)	13635	5.00000	4.73(QM)	NI
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	9868	5.00000	5.70(QM)	LT
	30 2,2-Dichloropropane	77	3.360	3.351	(0.786)	11909	5.00000	5.80(QM)	LT
	31 Cyclohexane	56	3.457	3.451	(0.808)	8729	5.00000	5.11(QM)	LT
	32 Bromochloromethane	130	3.463	3.467	(0.810)	4385	5.00000	5.57(QM)	LT
	33 Chloroform	83	3.553	3.554	(0.831)	14411	5.00000	5.71(QM)	LT
	34 Carbon tetrachloride	117	3.682	3.679	(0.861)	8613	5.00000	4.78(QM)	LT
	35 Ethyl acetate	43	3.701	3.702	(0.865)	5913	5.00000	4.90(QM)	LT
	36 Tetrahydrofuran	42	3.711	3.711	(0.868)	3411	5.00000	6.68(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	35140	30.0000	30.6	
	38 1,1,1-Trichloroethane	97	3.737	3.734	(0.874)	11803	5.00000	5.42(QM)	LT
	39 2-Butanone (MEK)	43	3.846	3.866	(0.899)	2536	5.00000	4.52(QM)	LT
	40 1,1-Dichloropropene	75	3.843	3.846	(0.898)	9325	5.00000	5.13	
	41 Benzene	78	4.016	4.019	(0.939)	27012	5.00000	5.18	
	42 Propionitrile	54	4.042	4.049	(0.945)	618	5.00000	4.73(Q)	
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	3743	5.00000	5.31(Q)	
	44 tert-Amylmethyl ether	73	4.106	4.107	(0.960)	19819	5.00000	5.19(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	36978	30.0000	29.9	
	46 Isobutanol	43	4.183	4.099	(0.978)	872	25.0000	17.3(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	10129	5.00000	5.49(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	131170	30.0000		
	49 Methylcyclohexane	83	4.364	4.364	(1.020)	7531	5.00000	4.10(QM)	LT
	50 Trichloroethene	95	4.373	4.374	(0.759)	6738	5.00000	4.67	
	51 Dibromomethane	174	4.598	4.599	(1.075)	4103	5.00000	4.69	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	6794	5.00000	5.37(Q)	
	53 Bromodichloromethane	83	4.688	4.689	(1.096)	9447	5.00000	5.31	
	54 Methyl methacrylate	69	4.772	4.776	(1.116)	4974	5.00000	5.28	
	55 1,4-Dioxane (p-Dioxane)	88	4.807	4.808	(1.124)	231	50.0000	28.2(QM)	
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	2334	5.00000	4.82	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	10823	5.00000	5.08(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	121703	30.0000	29.3	
	59 Toluene	91	5.109	5.110	(0.886)	27105	5.00000	4.90	
	60 2-Nitropropane	43	5.216	5.216	(1.220)	11242	25.0000	26.8	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	6961	5.00000	5.48	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	6172	5.00000	4.41	
	63 trans-1,3-Dichloropropene	75	5.302	5.303	(0.920)	10314	5.00000	4.96	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	5553	5.00000	5.05	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	6277	5.00000	5.05	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	6797	5.00000	4.72	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	10061	5.00000	5.05	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	6317	5.00000	5.05	
	69 2-Hexanone	43	5.643	5.644	(0.979)	4922	5.00000	5.26(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	8598	5.00000	4.49	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	96875	30.0000		
	72 Chlorobenzene	112	5.769	5.769	(1.001)	17625	5.00000	4.78	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	6485	5.00000	4.65	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	20673	10.0000	8.94	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75	o-Xylene	106	6.013	6.017	(1.043)	10531	5.00000	4.60	
	76	Styrene	104	6.035	6.036	(1.047)	16659	5.00000	4.44(Q)	
	77	Bromoform	173	6.052	6.059	(0.902)	4402	5.00000	4.75	
	78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	23876	5.00000	4.73	
$	79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	34531	30.0000	30.5	
	80	n-Propylbenzene	91	6.302	6.306	(0.939)	25971	5.00000	4.49	
	81	Bromobenzene	77	6.306	6.309	(0.940)	11379	5.00000	4.92	
	82	1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	8578	5.00000	5.56	
	83	1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	19492	5.00000	4.80	
	84	2-Chlorotoluene	126	6.376	6.380	(0.950)	5962	5.00000	4.69	
	85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	2415	5.00000	5.39	
	86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	2280	5.00000	6.17(Q)	
	87	Cyclohexanone	55	6.418	6.422	(0.956)	2039	25.0000	28.3(Q)	
	88	4-Chlorotoluene	126	6.444	6.444	(0.960)	5888	5.00000	4.64	
	89	tert-Butylbenzene	119	6.511	6.512	(0.970)	15049	5.00000	4.48	
	90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	20525	5.00000	5.08	
	91	sec-Butylbenzene	105	6.579	6.583	(0.980)	21686	5.00000	4.55	
	92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	17494	5.00000	4.35	
	93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	10205	5.00000	4.52	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	38851	30.0000		
	95	1,4-Dichlorobenzene	146	6.714	6.715	(1.000)	10630	5.00000	4.71	
	96	n-Butylbenzene	91	6.804	6.805	(1.014)	14772	5.00000	4.26	
	97	1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	9993	5.00000	4.70	
$	161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	38851	30.0000	30.0	
	98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	1209	5.00000	4.79	
	99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	5448	5.00000	4.44	
	100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	2059	5.00000	3.73	
	101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	4404	5.00000	4.33	
	102	Naphthalene	128	7.617	7.618	(1.135)	10483	5.00000	4.00(Q)	
	103	1,2,3-Trichlorobenzene	180	7.698	7.695	(1.147)	3737	5.00000	4.04	
	104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	2326	5.00000	2.30(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  NI: Indicates that the peak was not integrated at all by the
      computer software.
   :
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618007.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	131170	-8.71
71 Chlorobenzene-d5	102704	51352	205408	96875	-5.68
94 1,4-Dichlorobenze	44519	22260	89038	38851	-12.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	5.09	
74-87-3	Chloromethane	6.41	
75-01-4	Vinyl chloride	5.90	
74-83-9	Bromomethane	6.29	
75-00-3	Chloroethane	6.46	
75-69-4	Trichlorofluoromethane	5.52	
60-29-7	Diethyl ether (Ethyl ether)	4.91	
75-35-4	1,1-Dichloroethene	5.71	
76-13-1	1,1,2-Trichlorotrifluoroetha	4.35	
75-15-0	Carbon disulfide	5.41	
74-88-4	Iodomethane	1.66	J
107-02-8	Acrolein	7.85	
107-05-1	Allyl chloride	31.4	
75-09-2	Methylene Chloride	6.85	
67-64-1	Acetone	6.79	
156-60-5	trans-1,2-Dichloroethene	5.47	
79-20-9	Methyl acetate	4.88	
110-54-3	n-Hexane	5.77	
1634-04-4	Methyl-tert-butyl ether	5.33	
75-65-0	tert-Butyl Alcohol	26.1	
75-05-8	Acetonitrile	27.7	
108-20-3	Diisopropyl ether	5.48	
126-99-8	Chloroprene	5.16	
75-34-3	1,1-Dichloroethane	5.72	
107-13-1	Acrylonitrile	5.24	
637-92-3	Ethyl-tert-butyl ether	5.38	
108-05-4	Vinyl acetate	4.73	
156-59-2	cis-1,2-Dichloroethene	5.70	
594-20-7	2,2-Dichloropropane	5.80	
110-82-7	Cyclohexane	5.11	
74-97-5	Bromochloromethane	5.57	
67-66-3	Chloroform	5.71	
56-23-5	Carbon tetrachloride	4.78	
141-78-6	Ethyl acetate	4.90	
109-99-9	Tetrahydrofuran	6.68	
71-55-6	1,1,1-Trichloroethane	5.42	
78-93-3	2-Butanone (MEK)	4.52	
563-58-6	1,1-Dichloropropene	5.13	
71-43-2	Benzene	5.18	
107-12-0	Propionitrile	4.73	
126-98-7	Methacrylonitrile	5.31	
994-05-8	tert-Amylmethyl ether	5.19	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	17.3	
107-06-2	1,2-Dichloroethane	5.49	
108-87-2	Methylcyclohexane	4.10	
79-01-6	Trichloroethene	4.67	
74-95-3	Dibromomethane	4.69	
78-87-5	1,2-Dichloropropane	5.37	
75-27-4	Bromodichloromethane	5.31	
80-62-6	Methyl methacrylate	5.28	
123-91-1	1,4-Dioxane (p-Dioxane)	28.2	
110-75-8	2-Chloroethylvinyl ether	4.82	
10061-01-5	cis-1,3-Dichloropropene	5.08	
108-88-3	Toluene	4.90	
79-46-9	2-Nitropropane	26.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.48	
127-18-4	Tetrachloroethene	4.41	
10061-02-6	trans-1,3-Dichloropropene	4.96	
97-63-2	Ethyl methacrylate	5.05	
79-00-5	1,1,2-Trichloroethane	5.05	
124-48-1	Dibromochloromethane	4.72	
142-28-9	1,3-Dichloropropane	5.05	
106-93-4	1,2-Dibromoethane (EDB)	5.05	
591-78-6	2-Hexanone	5.26	
100-41-4	Ethylbenzene	4.49	
108-90-7	Chlorobenzene	4.78	
630-20-6	1,1,1,2-Tetrachloroethane	4.65	
7816-60-0	m&p-Xylene	8.94	
95-47-6	o-Xylene	4.60	
100-42-5	Styrene	4.44	
75-25-2	Bromoform	4.75	
98-82-8	Isopropylbenzene (Cumene)	4.73	
103-65-1	n-Propylbenzene	4.49	
108-86-1	Bromobenzene	4.92	
79-34-5	1,1,2,2-Tetrachloroethane	5.56	
108-67-8	1,3,5-Trimethylbenzene	4.80	
95-49-8	2-Chlorotoluene	4.69	
96-18-4	1,2,3-Trichloropropane	5.39	
110-57-6	trans-1,4-Dichloro-2-butene	6.17	
108-94-1	Cyclohexanone	28.3	
106-43-4	4-Chlorotoluene	4.64	
98-06-6	tert-Butylbenzene	4.48	
95-63-6	1,2,4-Trimethylbenzene	5.08	
135-98-8	sec-Butylbenzene	4.55	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

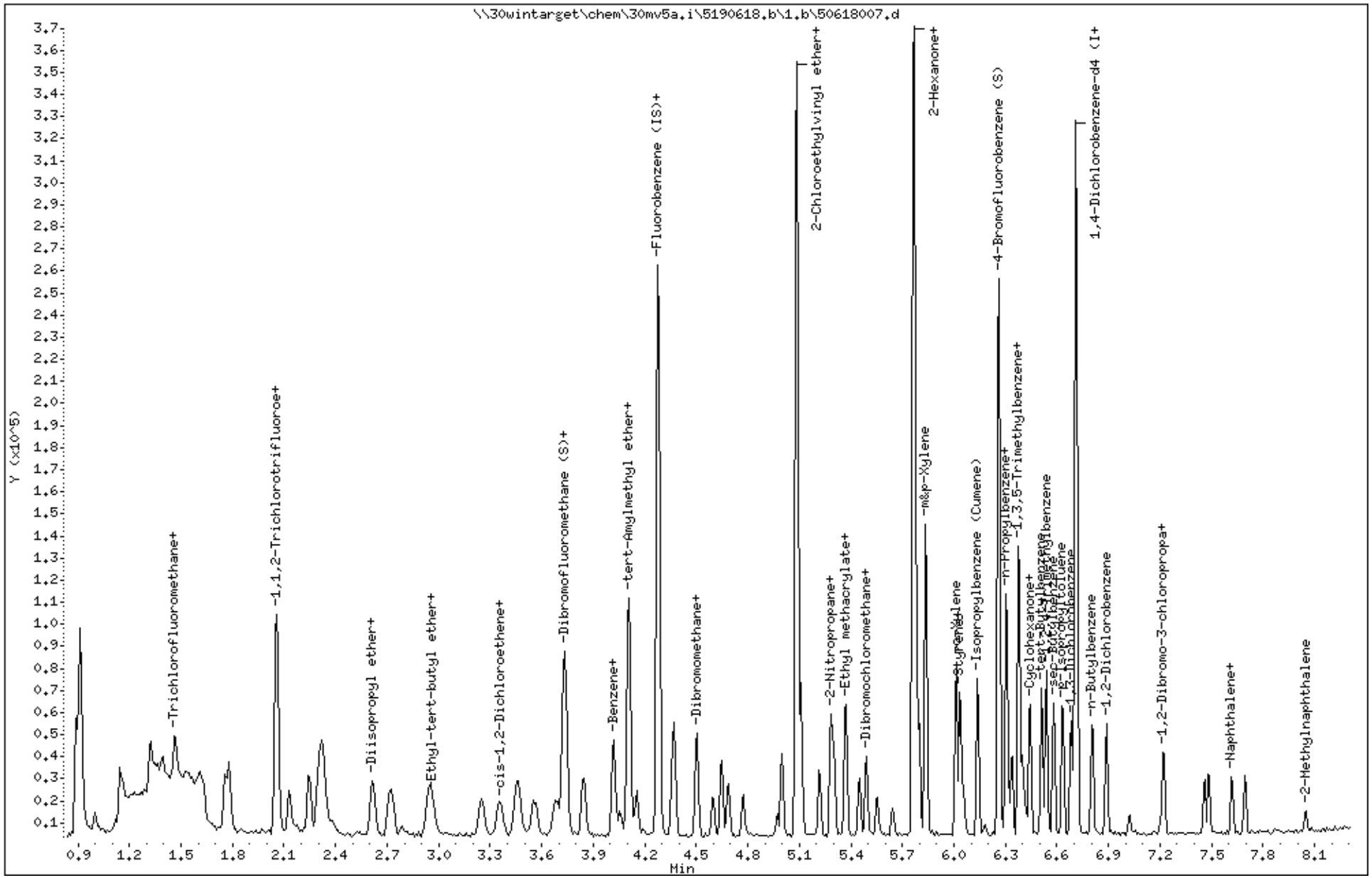
Client SDG: 30MV5A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	4.35	
541-73-1	1,3-Dichlorobenzene	4.52	
106-46-7	1,4-Dichlorobenzene	4.71	
104-51-8	n-Butylbenzene	4.26	
95-50-1	1,2-Dichlorobenzene	4.70	
96-12-8	1,2-Dibromo-3-chloropropane	4.79	
108-70-3	1,3,5-Trichlorobenzene	4.44	
87-68-3	Hexachloro-1,3-butadiene	3.73	
120-82-1	1,2,4-Trichlorobenzene	4.33	
91-20-3	Naphthalene	4.00	
87-61-6	1,2,3-Trichlorobenzene	4.04	
91-57-6	2-Methylnaphthalene	2.30	J
1868-53-7	Dibromofluoromethane (S)	30.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.9	
2037-26-5	Toluene-d8 (S)	29.3	
460-00-4	4-Bromofluorobenzene (S)	30.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618007.d
Date : 18-JUN-2019 10:01
Client ID: CAL2
Sample Info: CAL2, 91186:1

Instrument: 30mv5a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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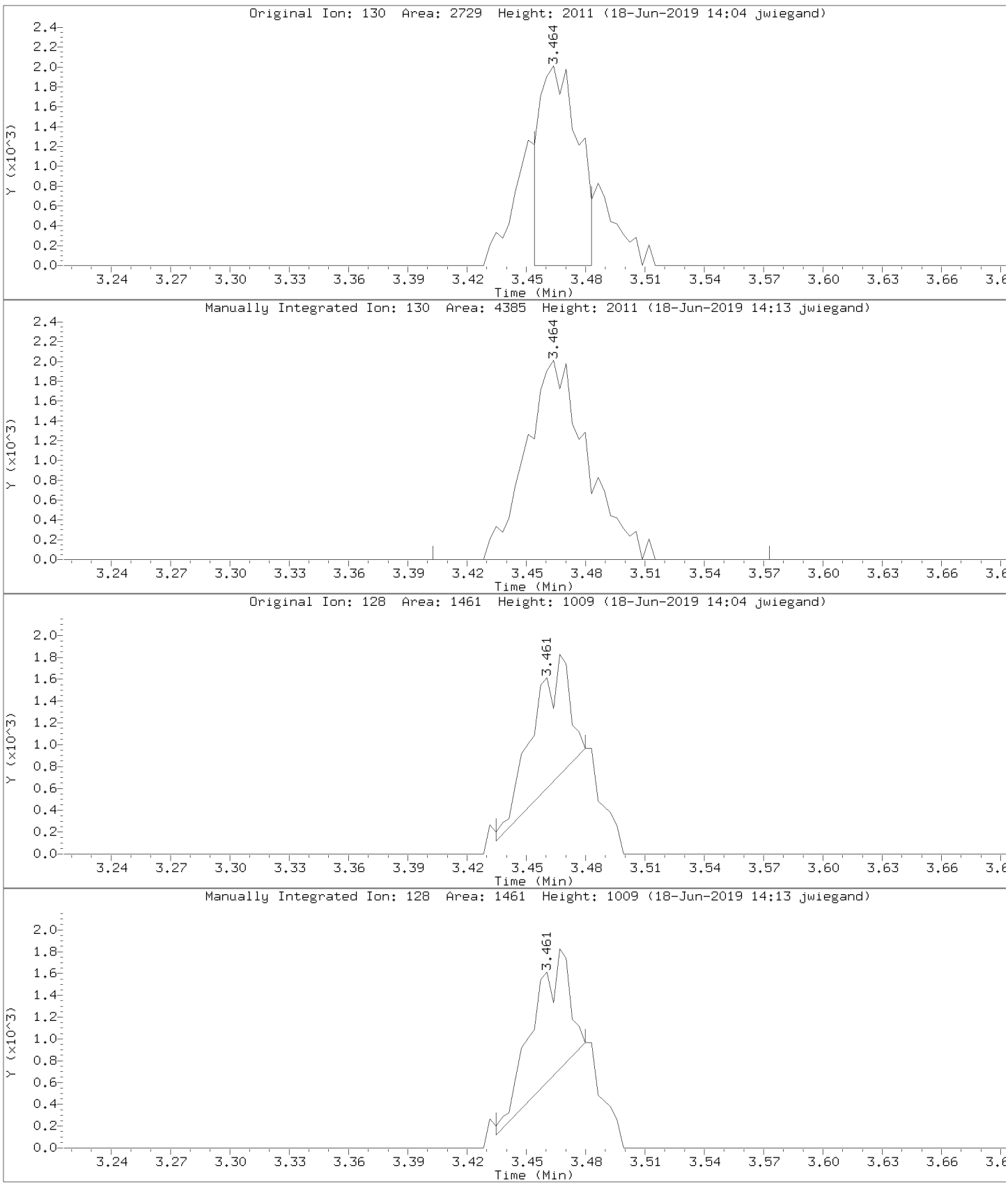
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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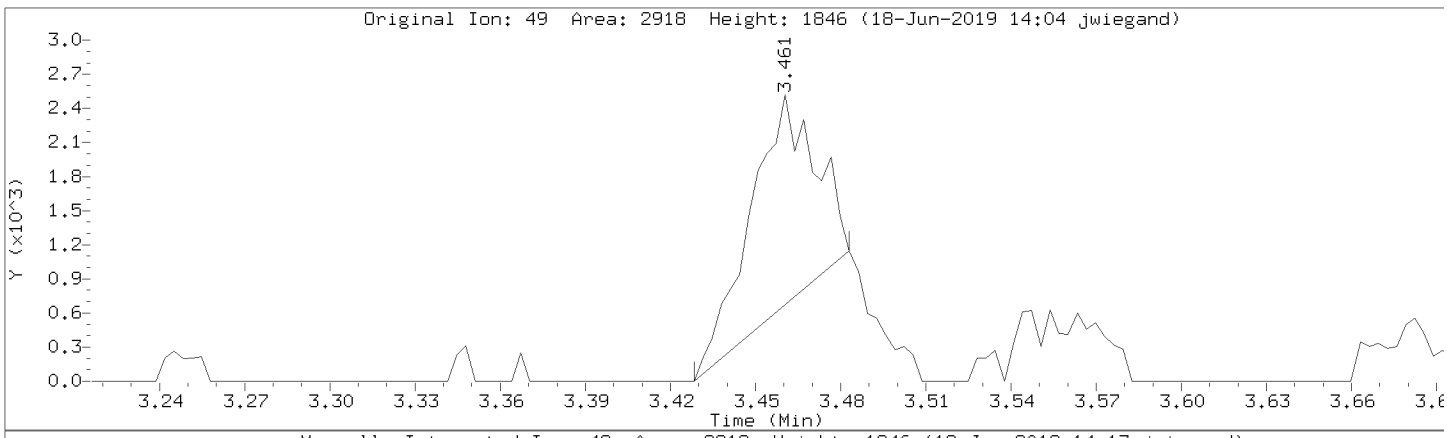
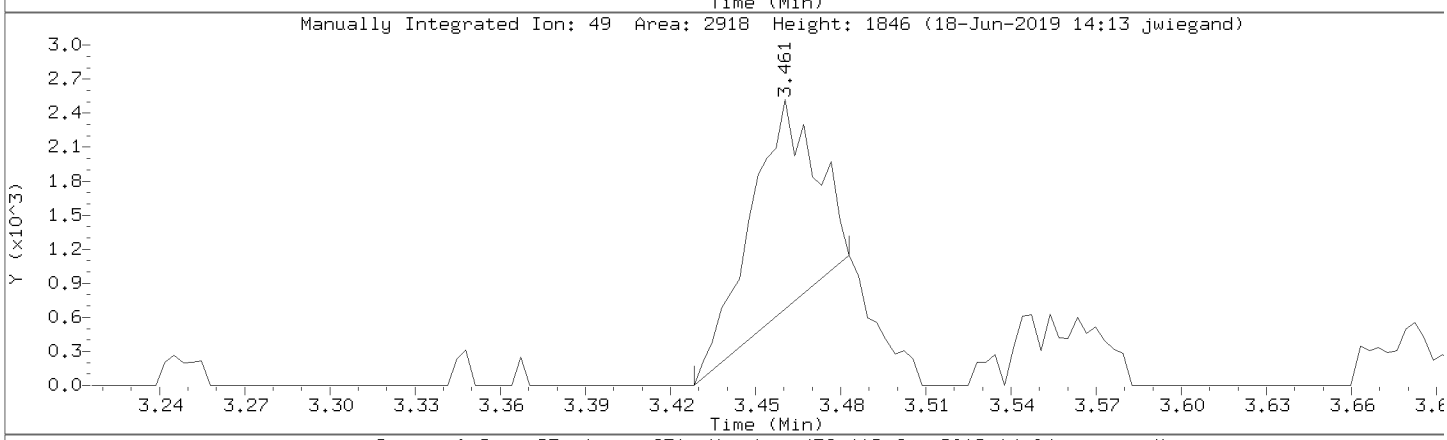
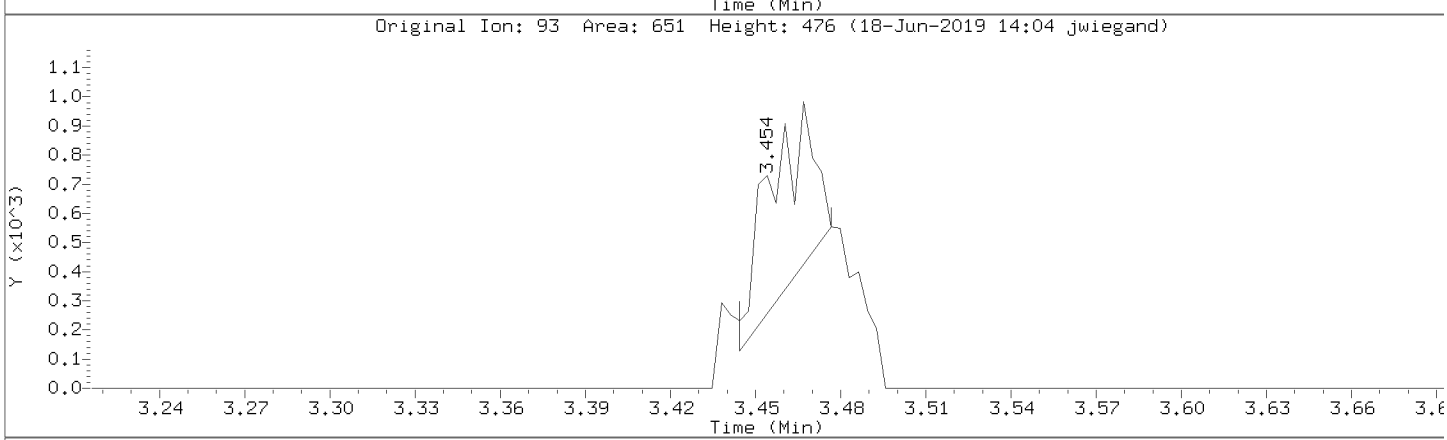
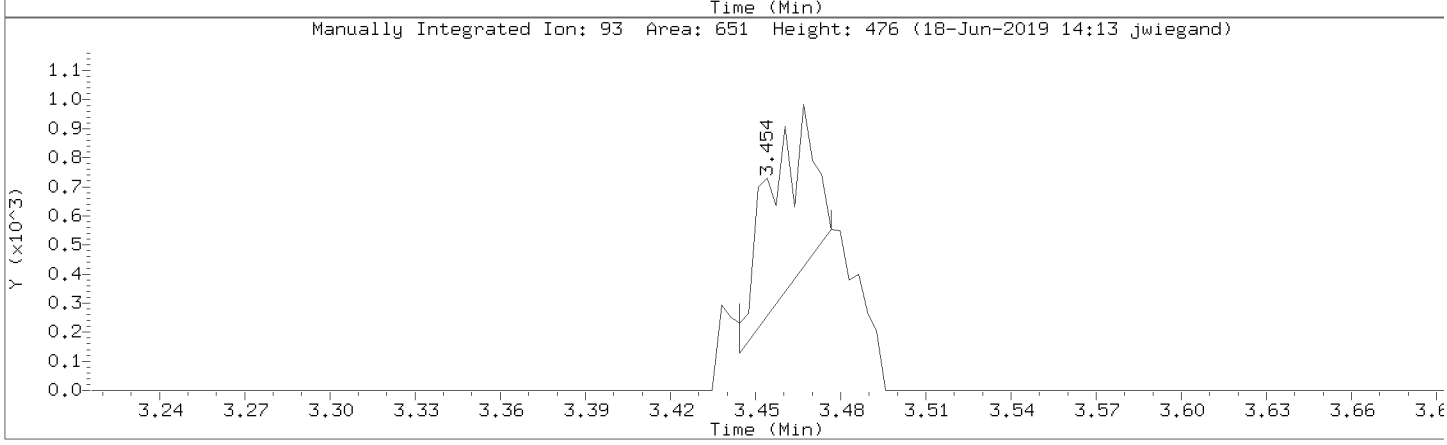
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2









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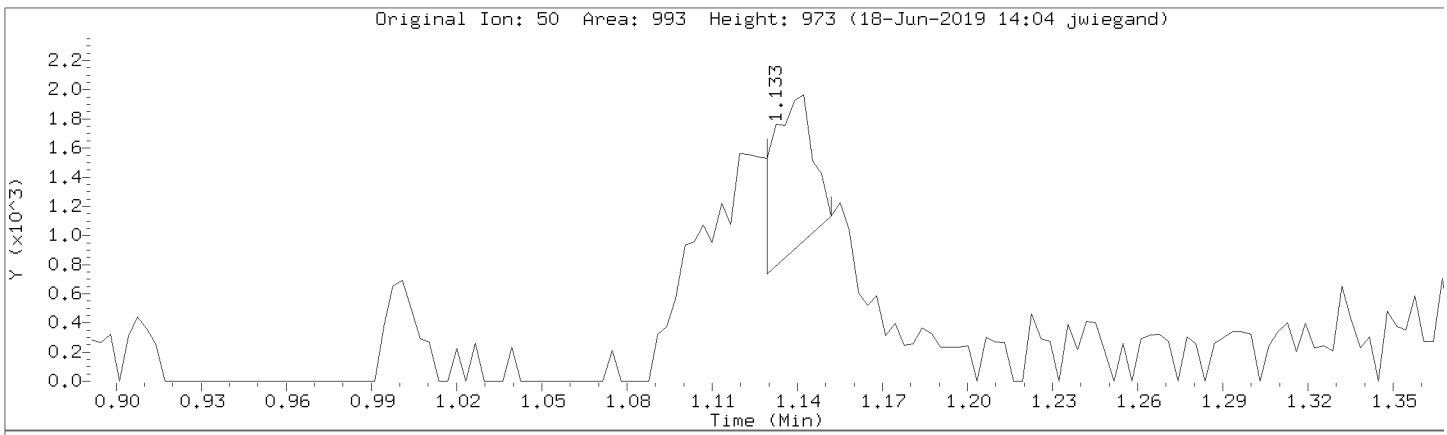
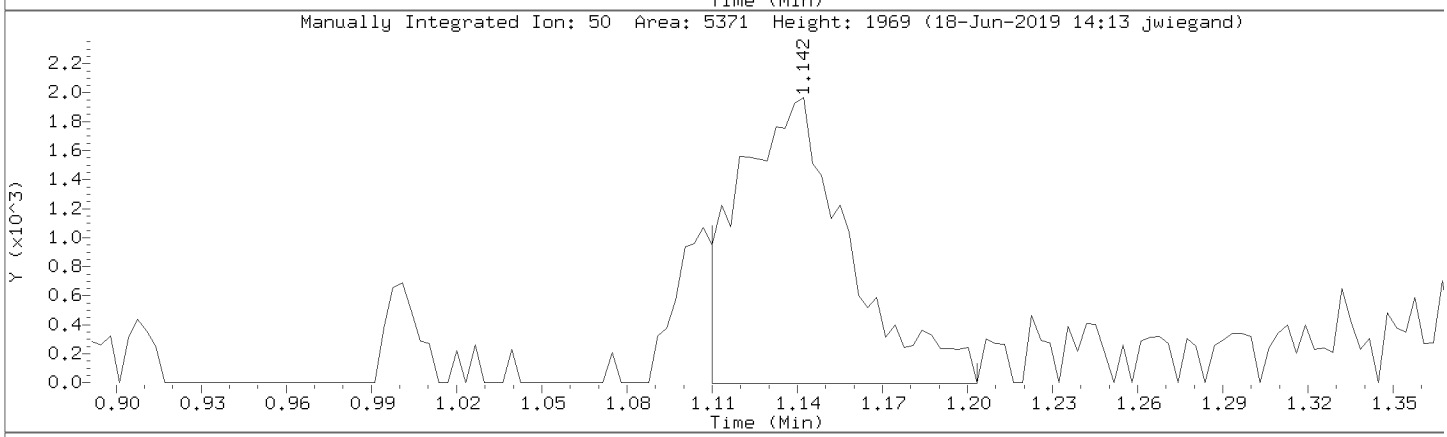
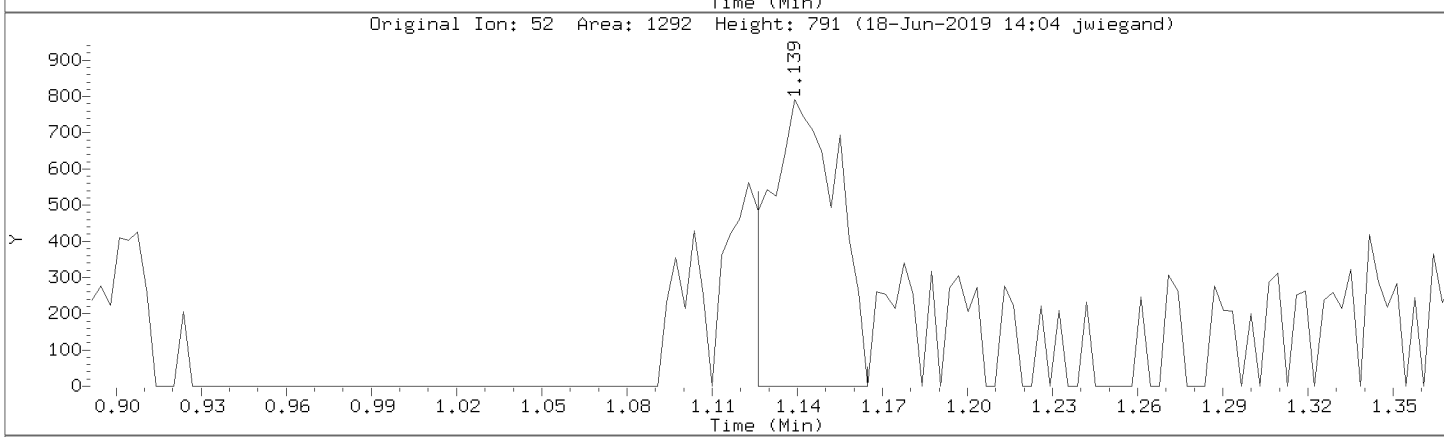
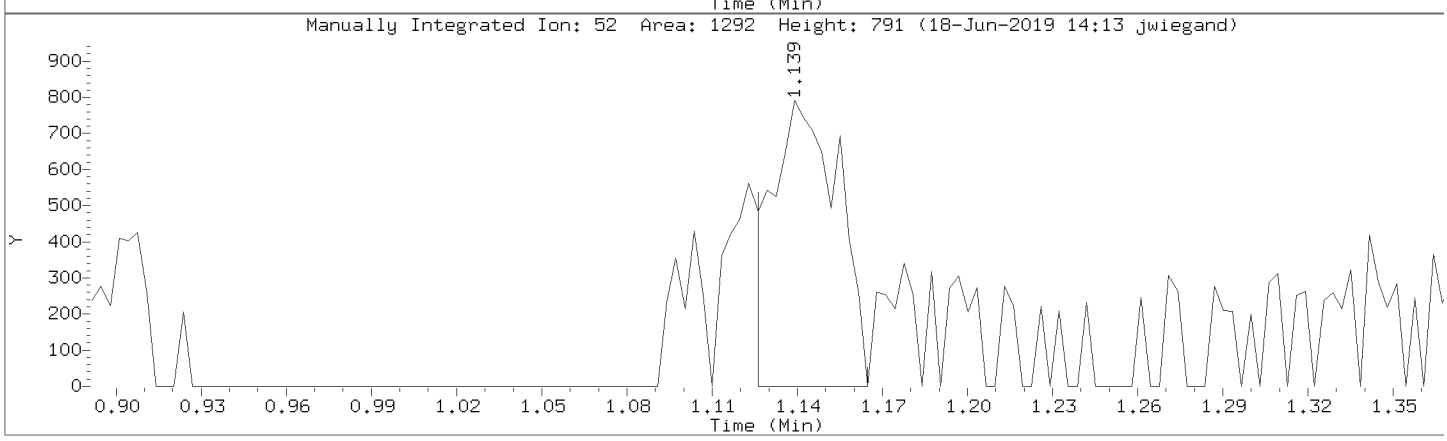
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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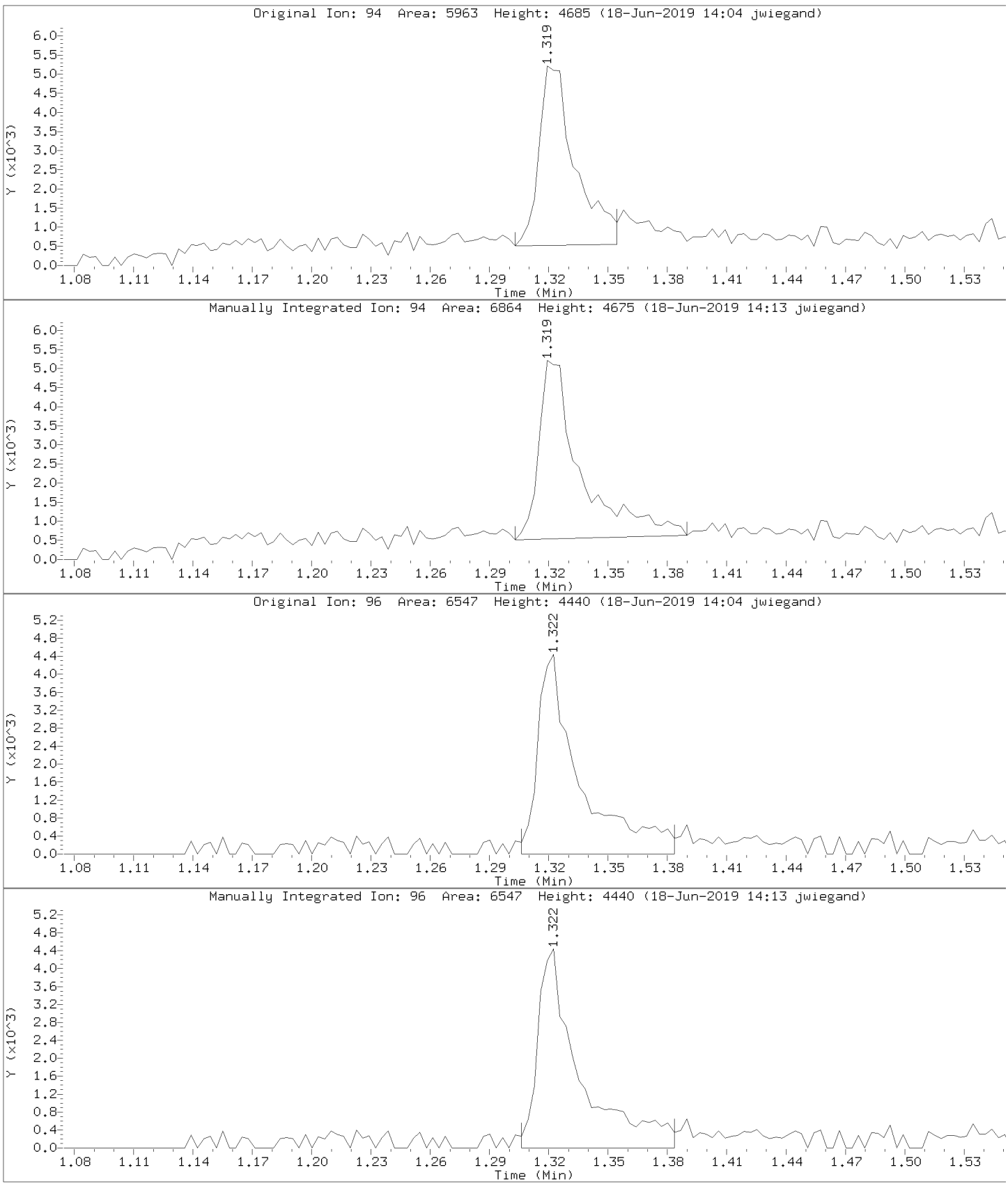
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Bromomethane Review Code: NI
CAS Number: 74-83-9



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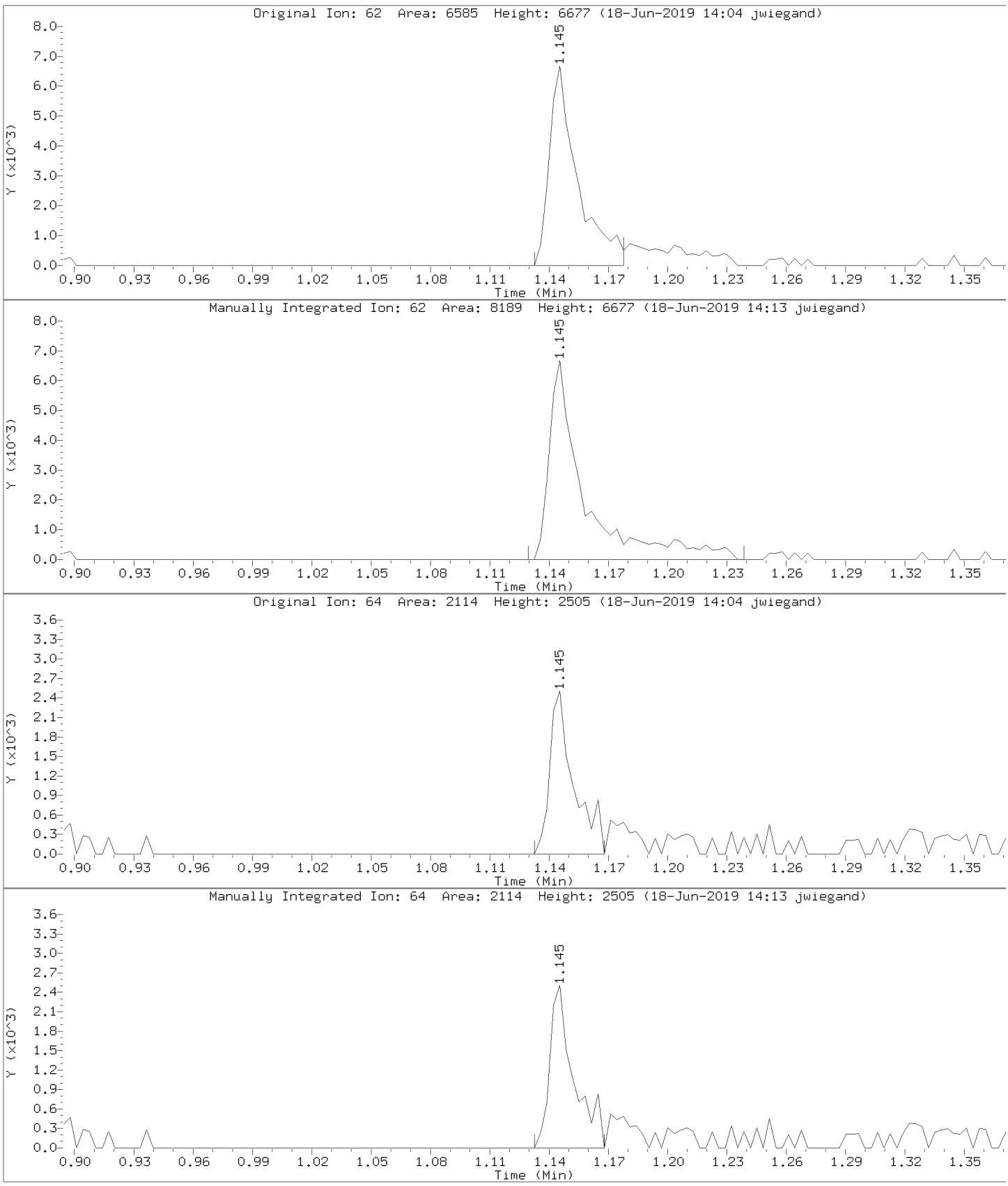
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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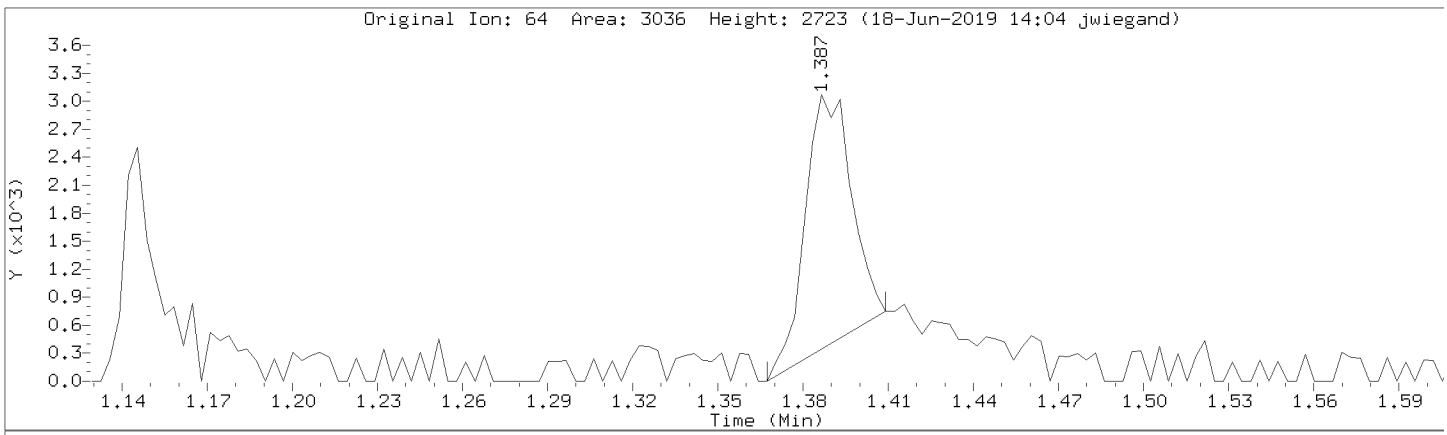
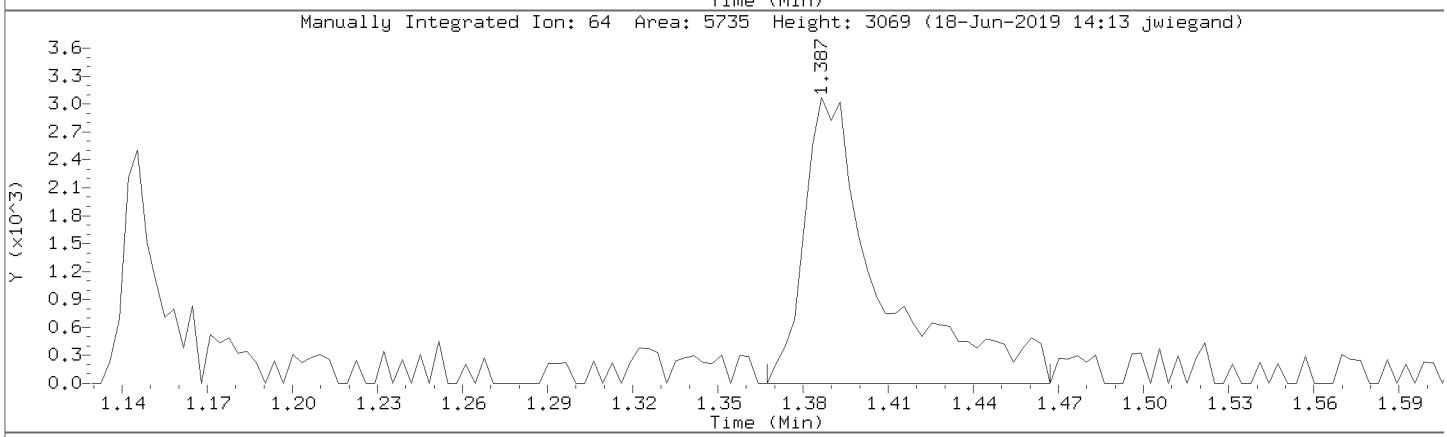
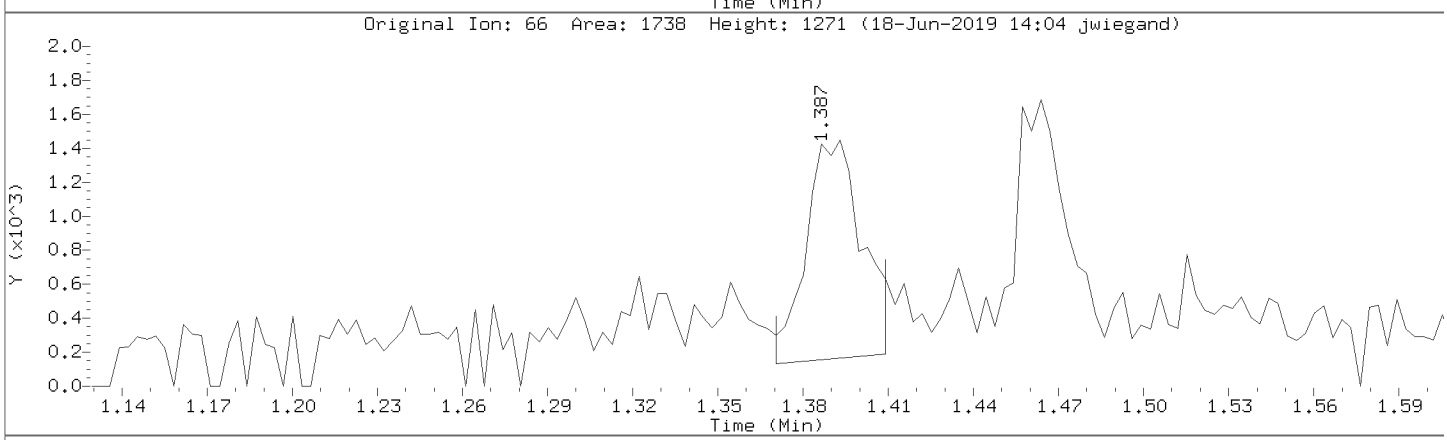
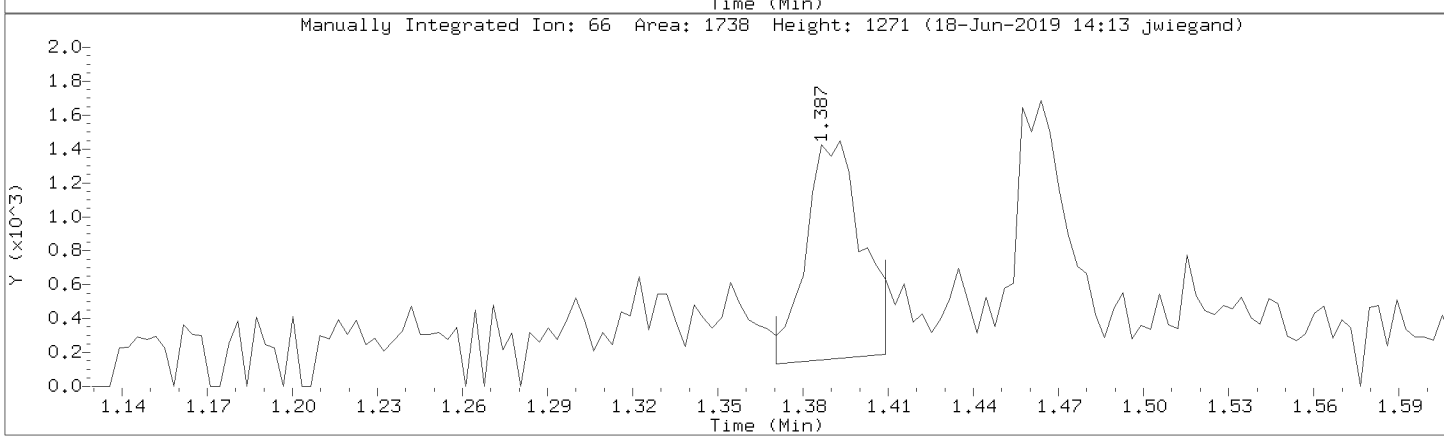
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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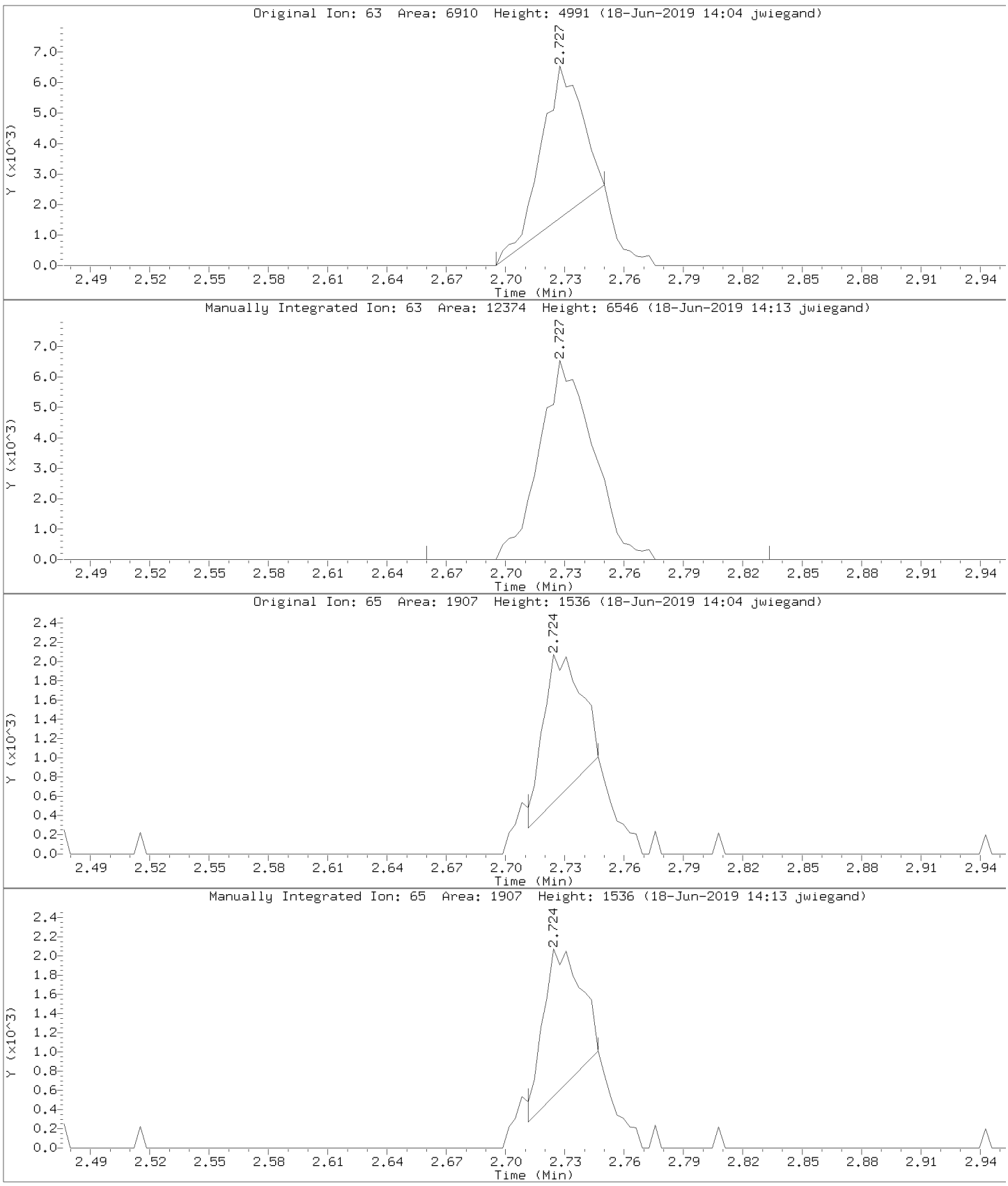
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 1,1-Dichloroethane Review Code: LT
CAS Number: 75-34-3



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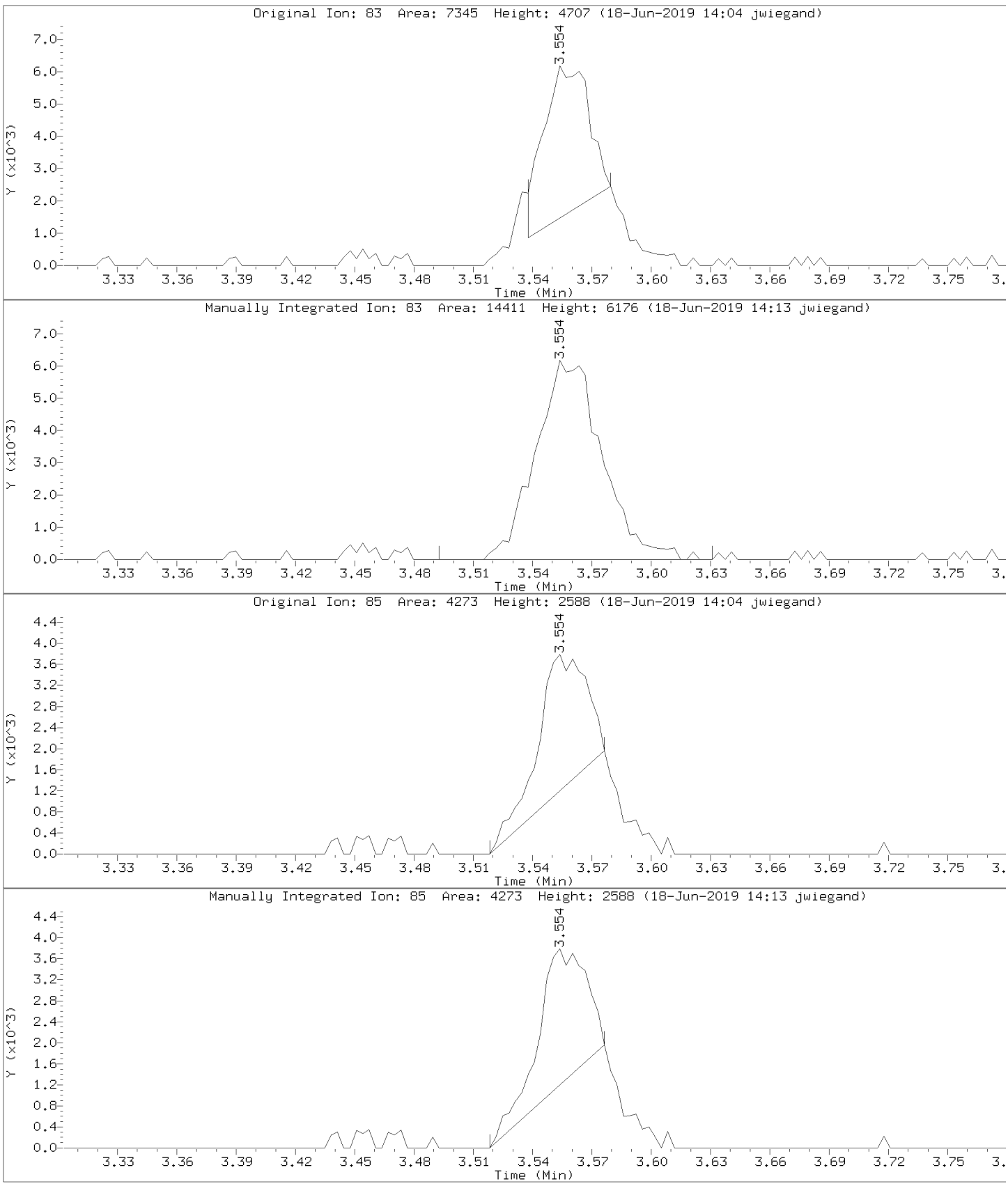
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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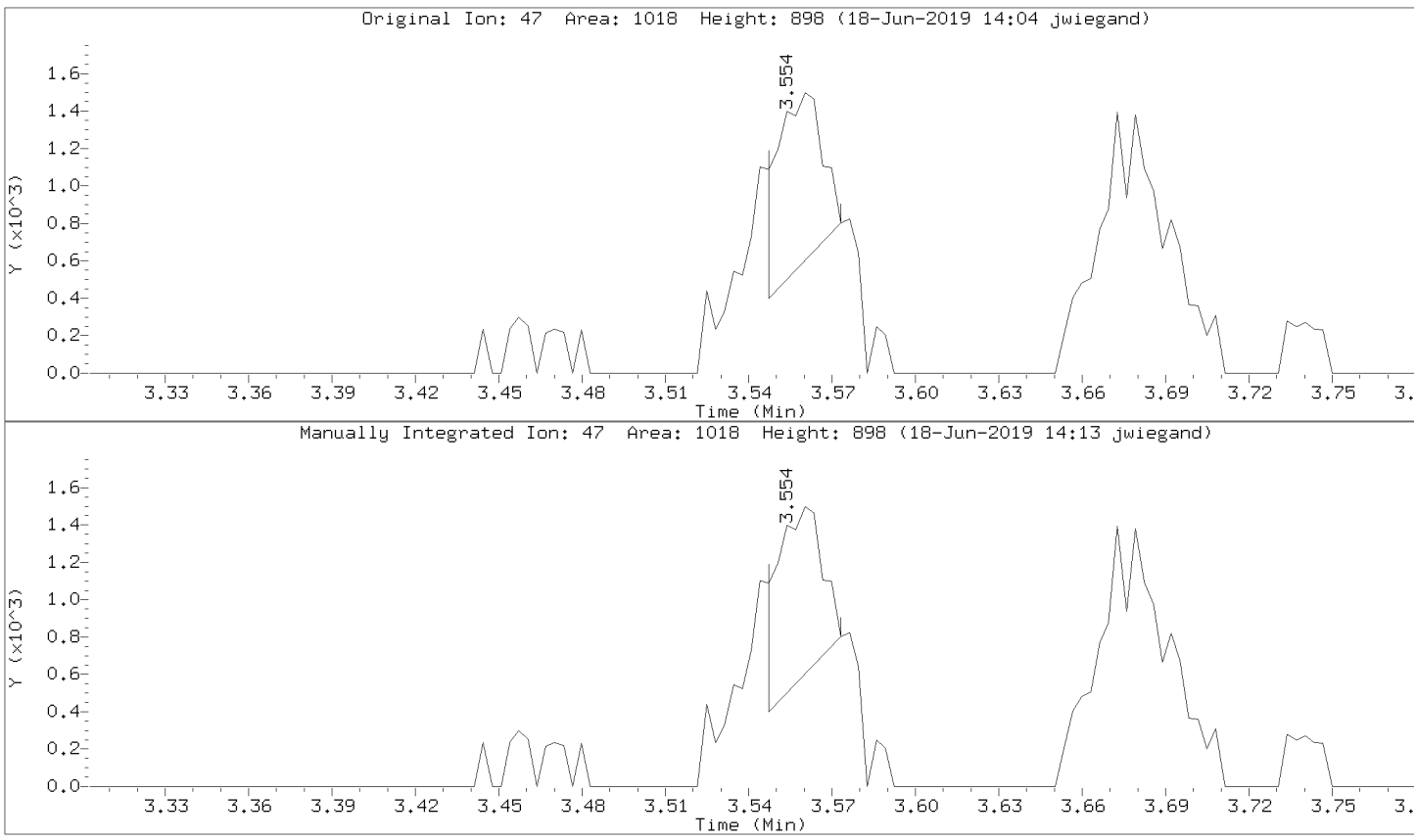
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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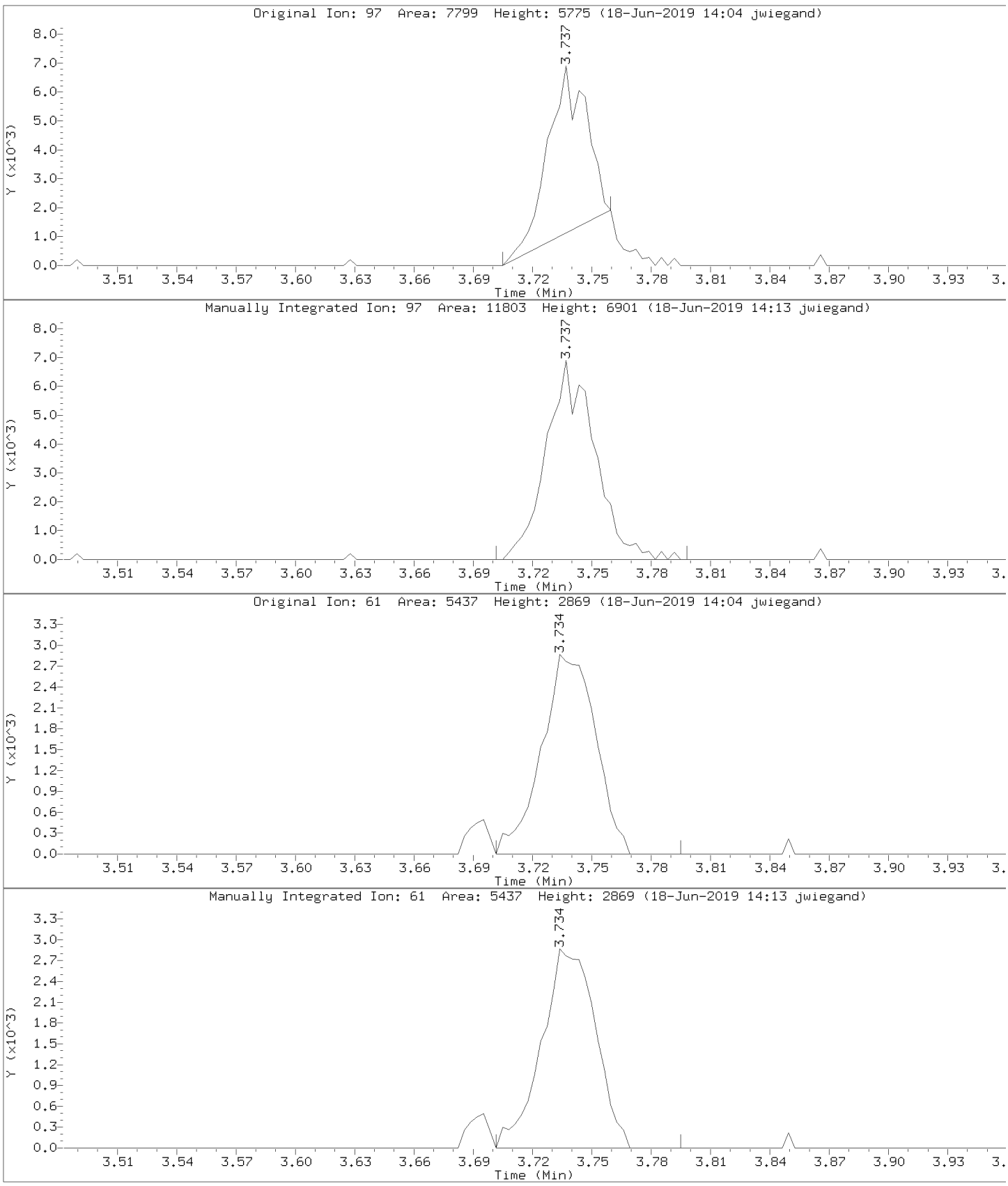
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 1,1,1-Trichloroethane Review Code: LT
CAS Number: 71-55-6



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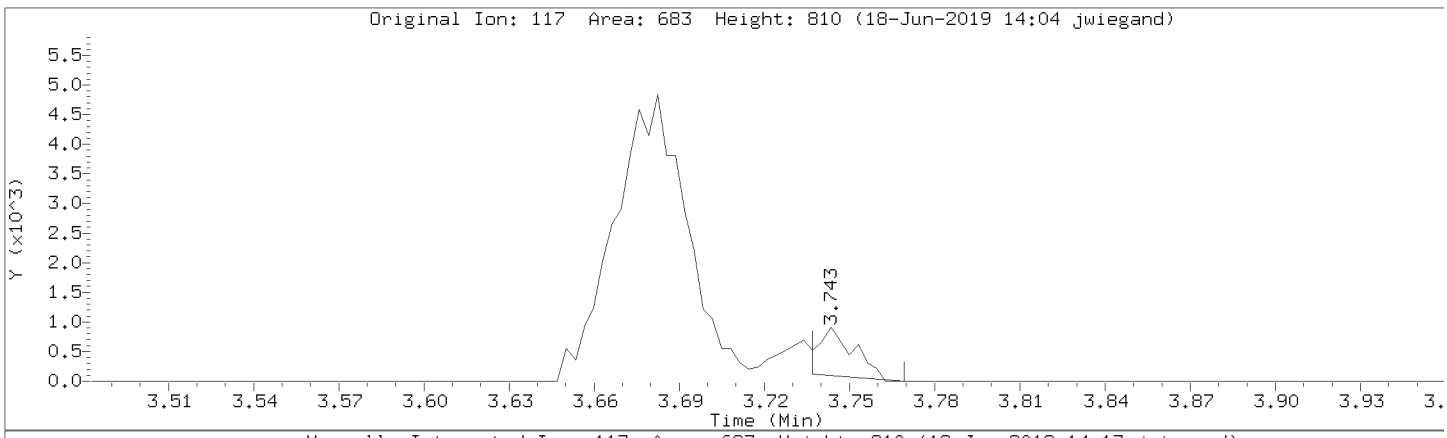
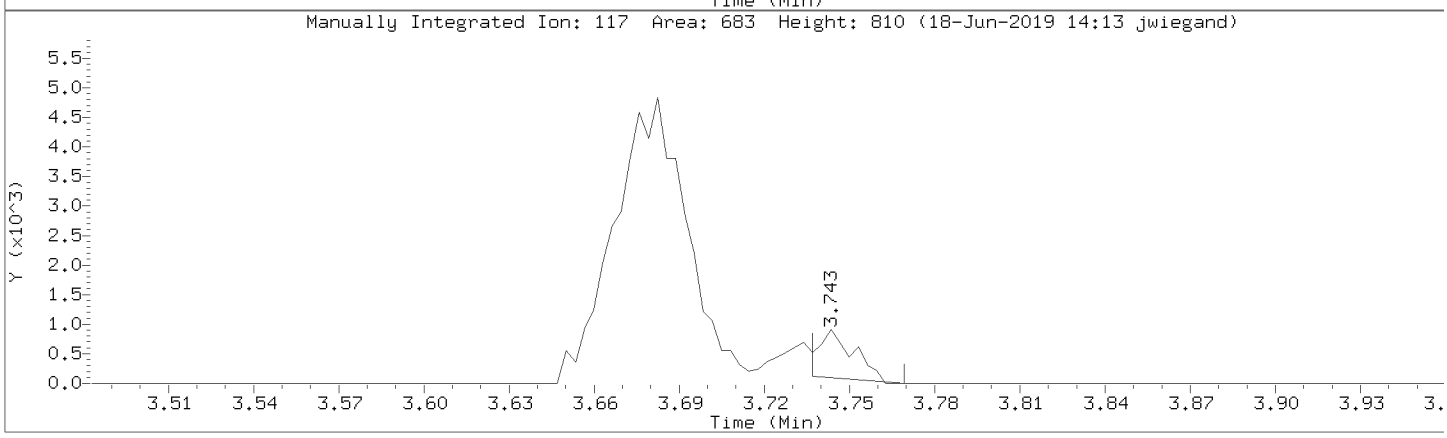
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2





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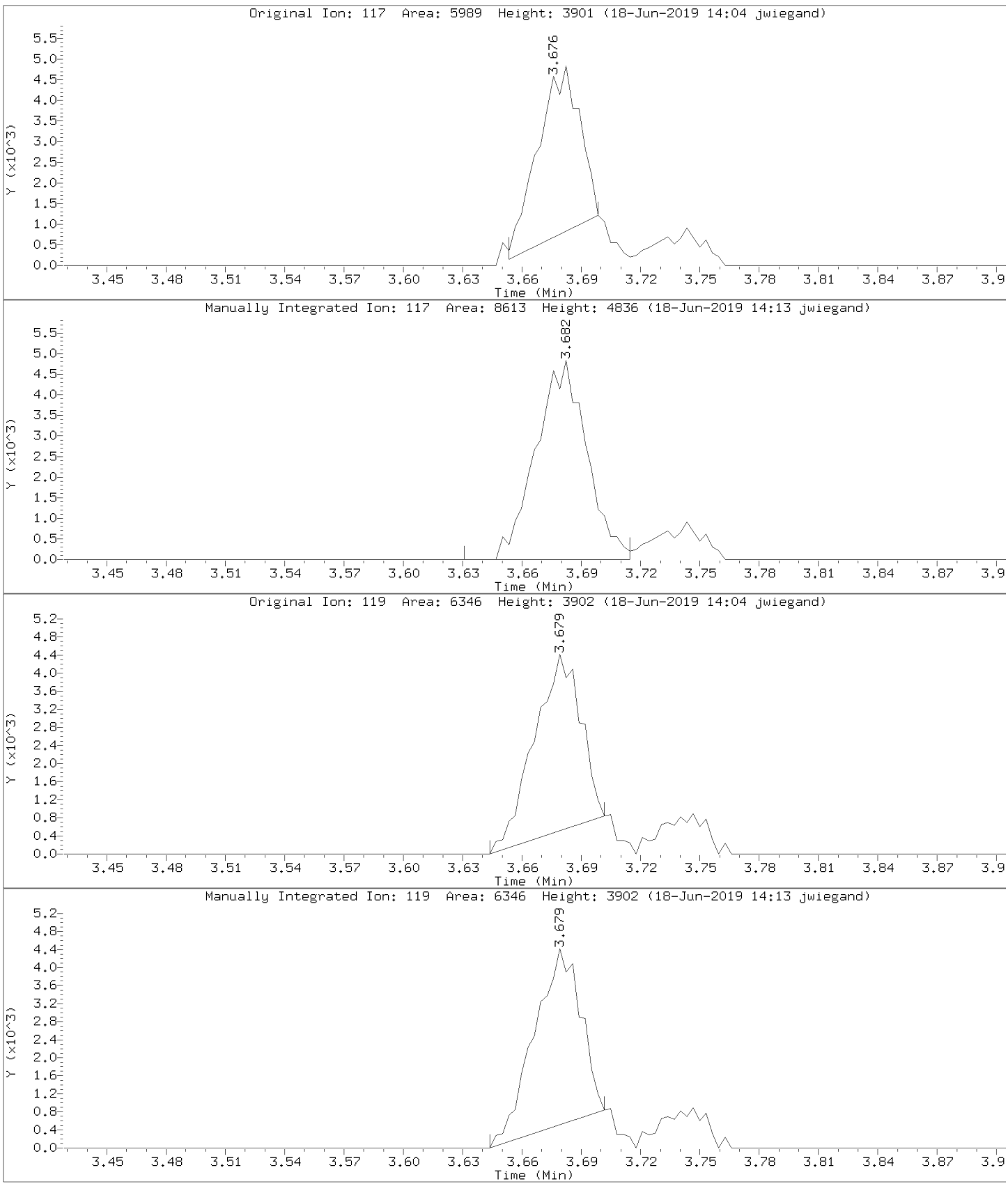
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Carbon tetrachloride Review Code: LT
CAS Number: 56-23-5



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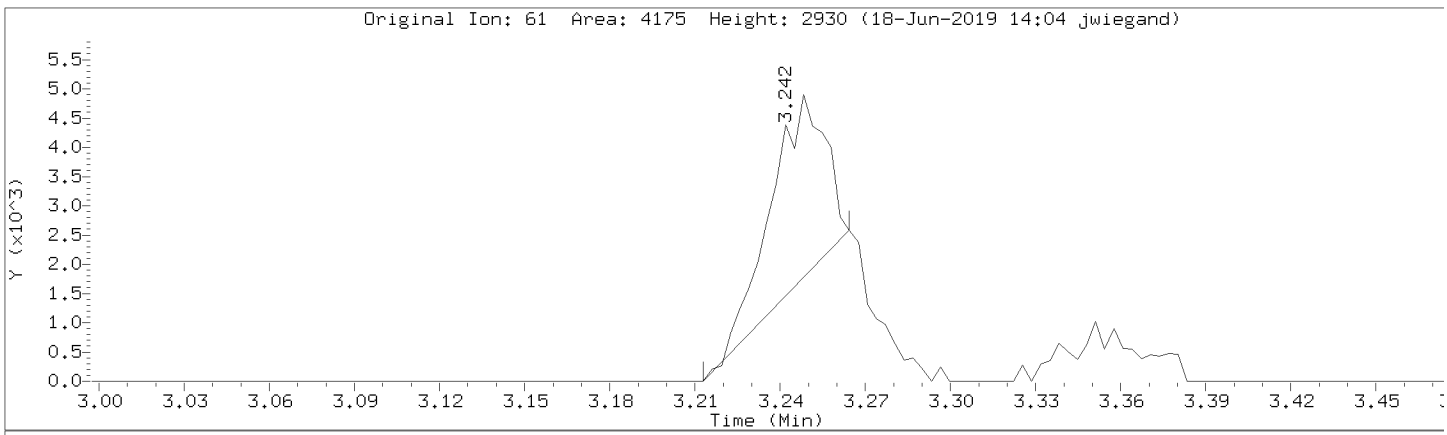
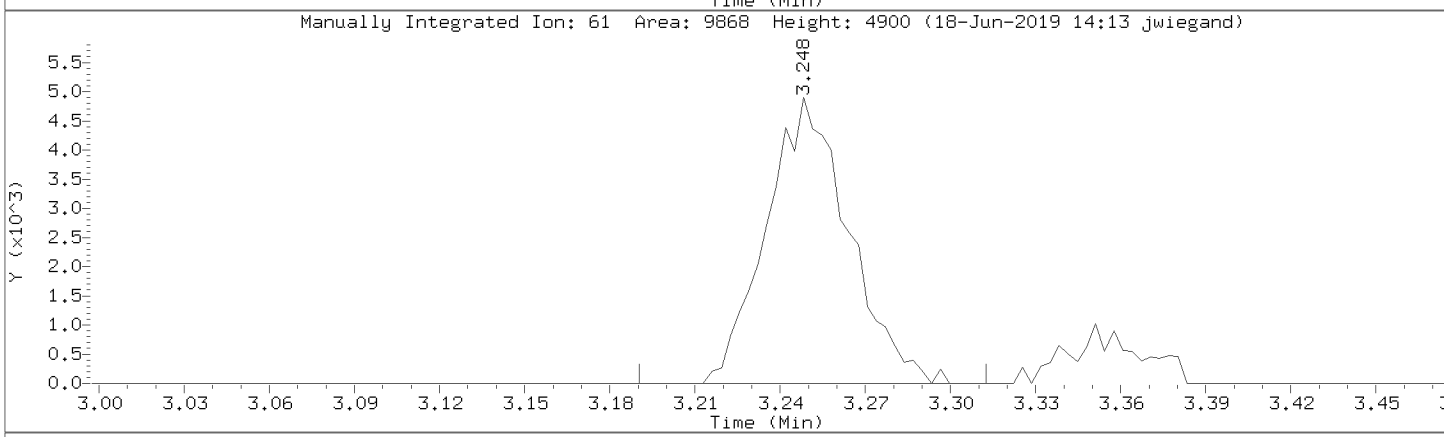
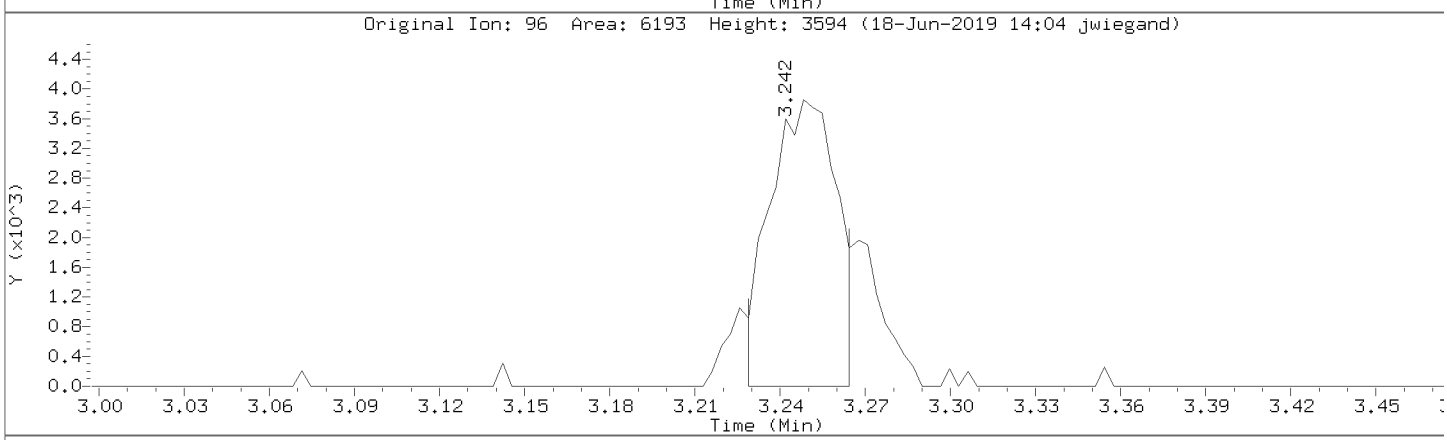
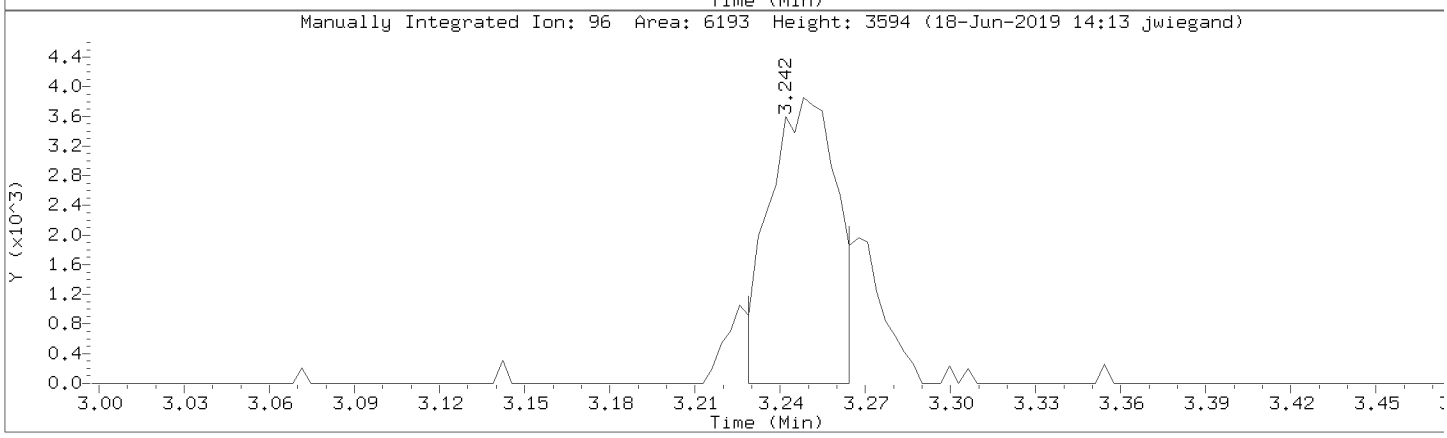
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2









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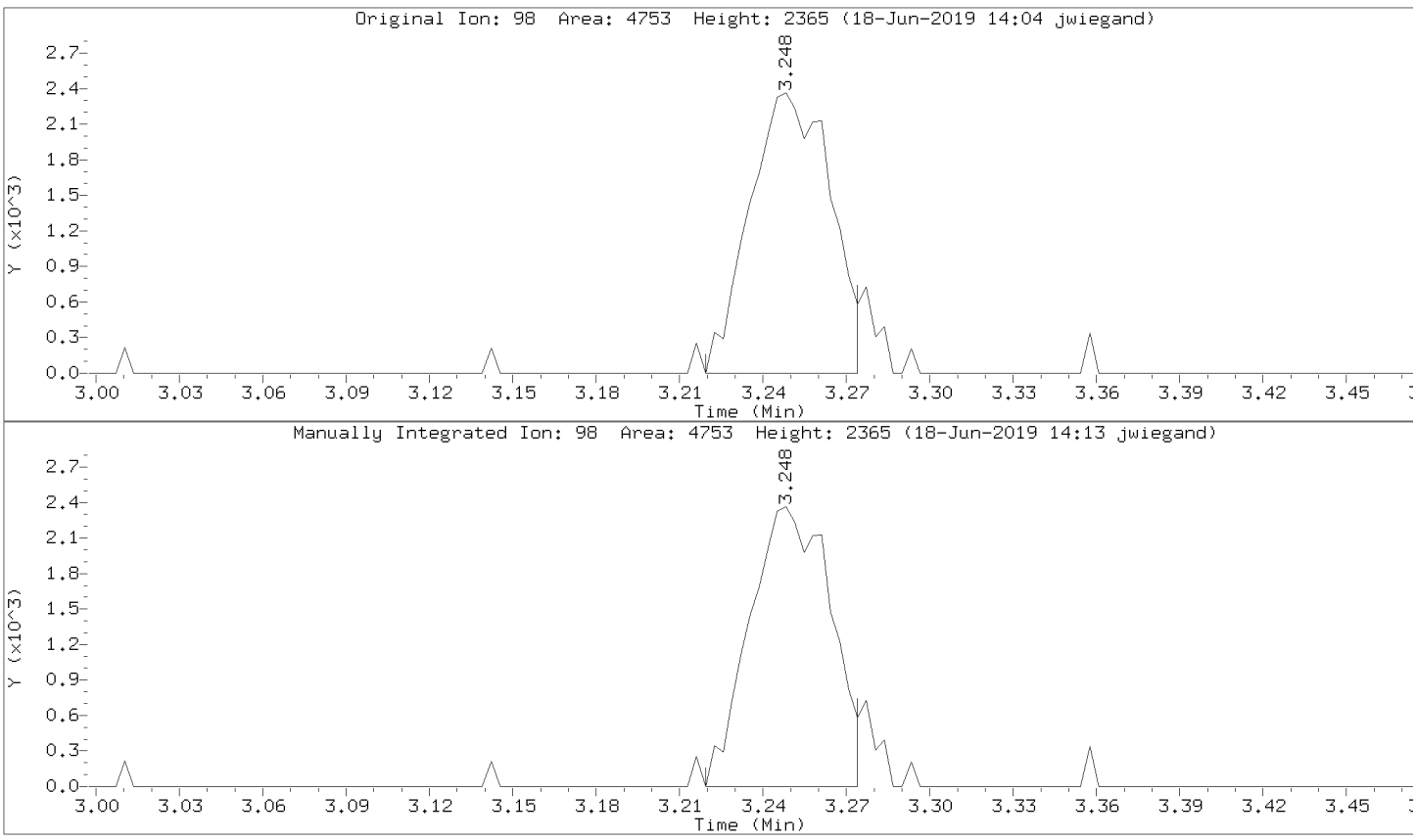
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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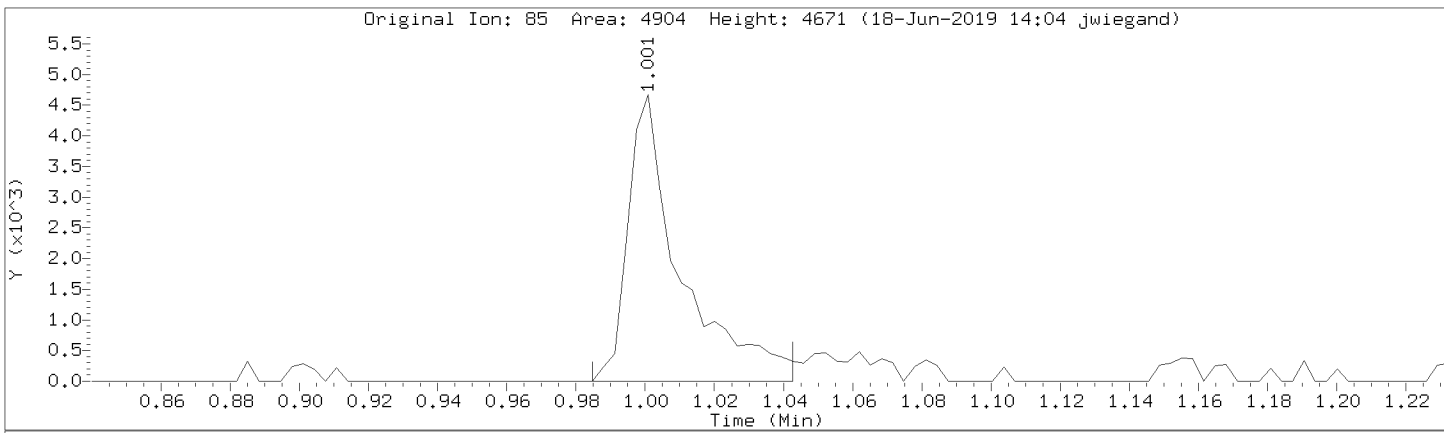
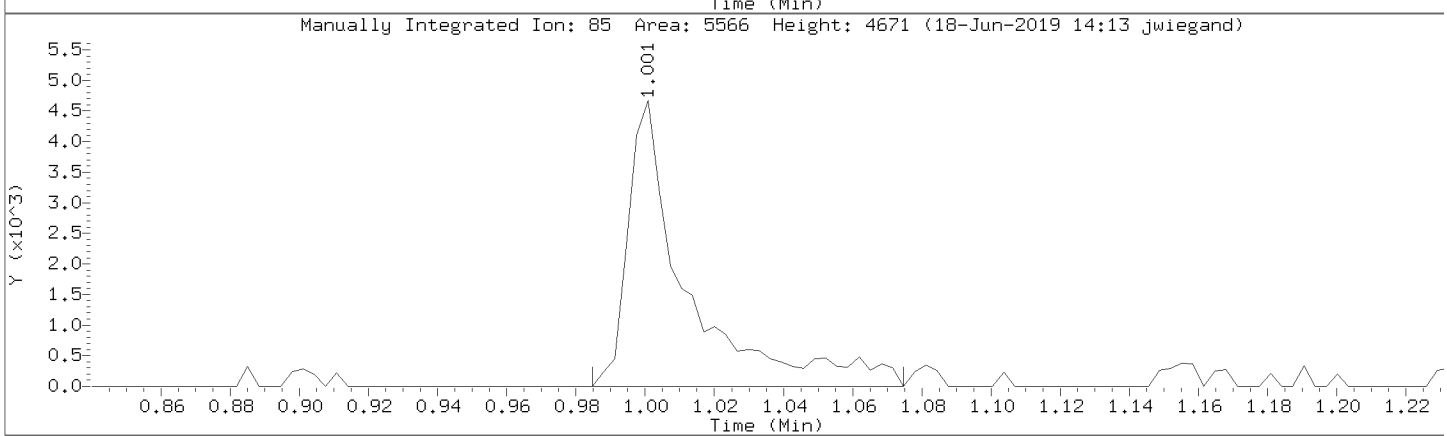
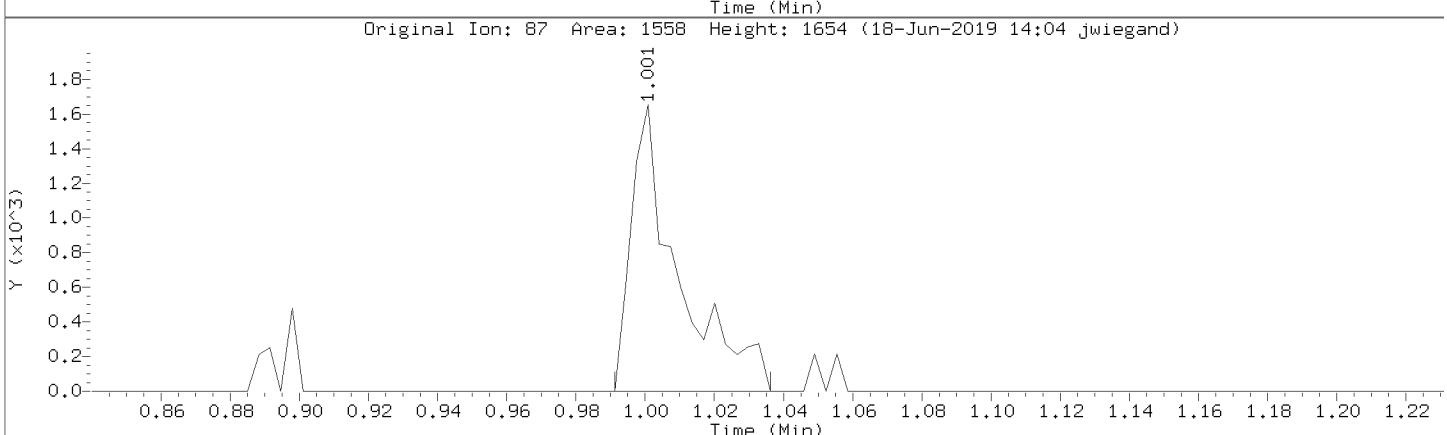
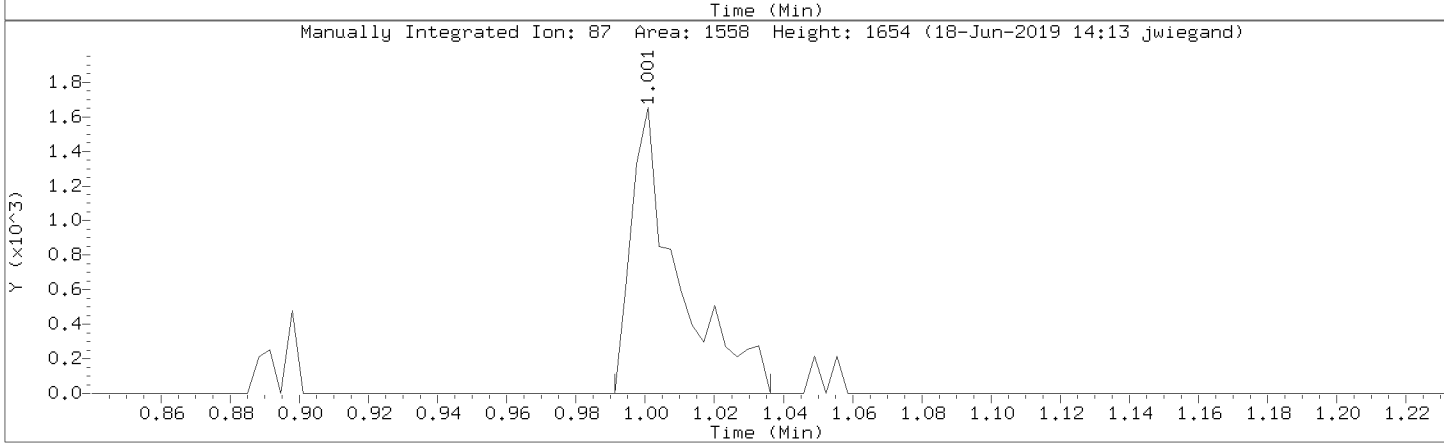
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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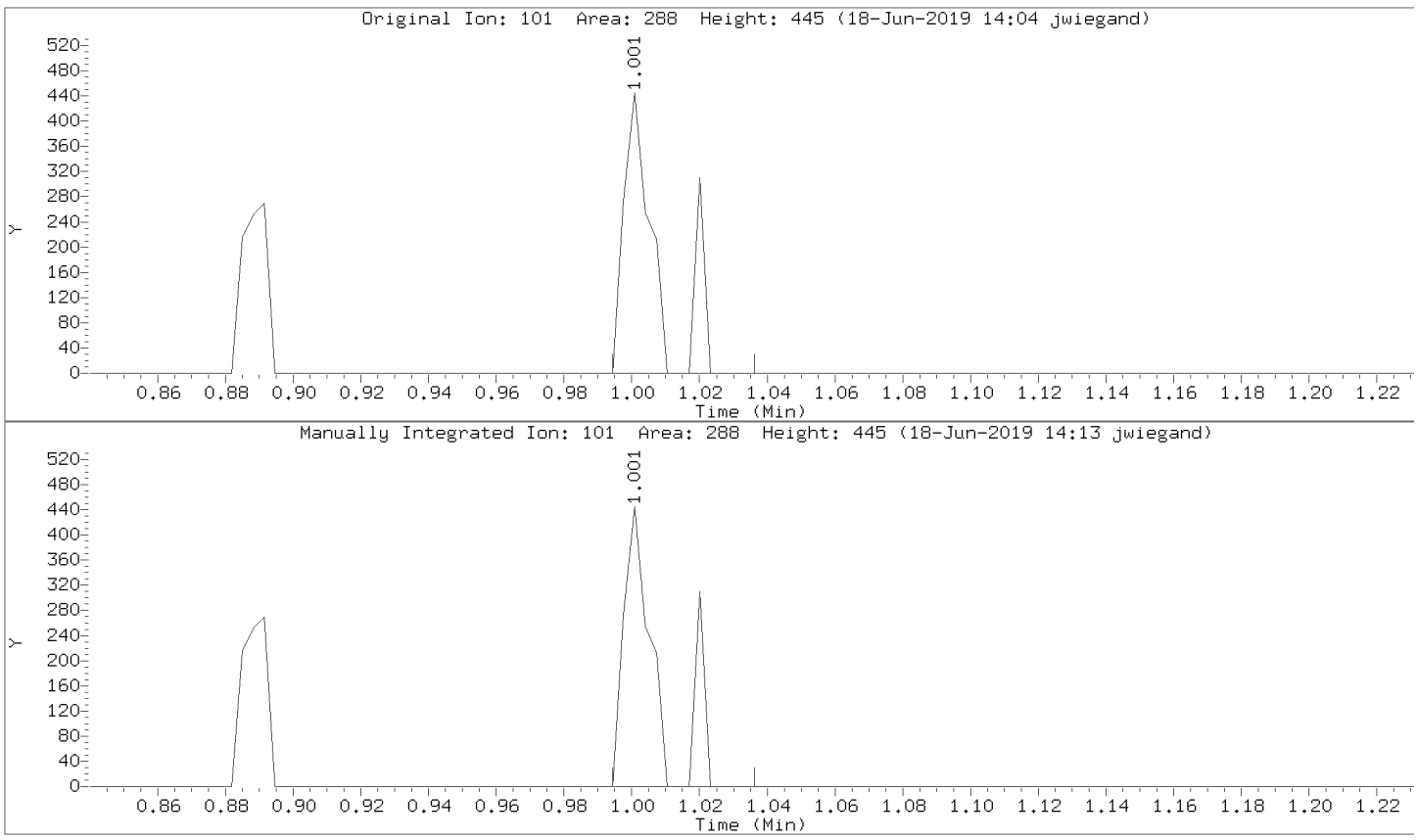
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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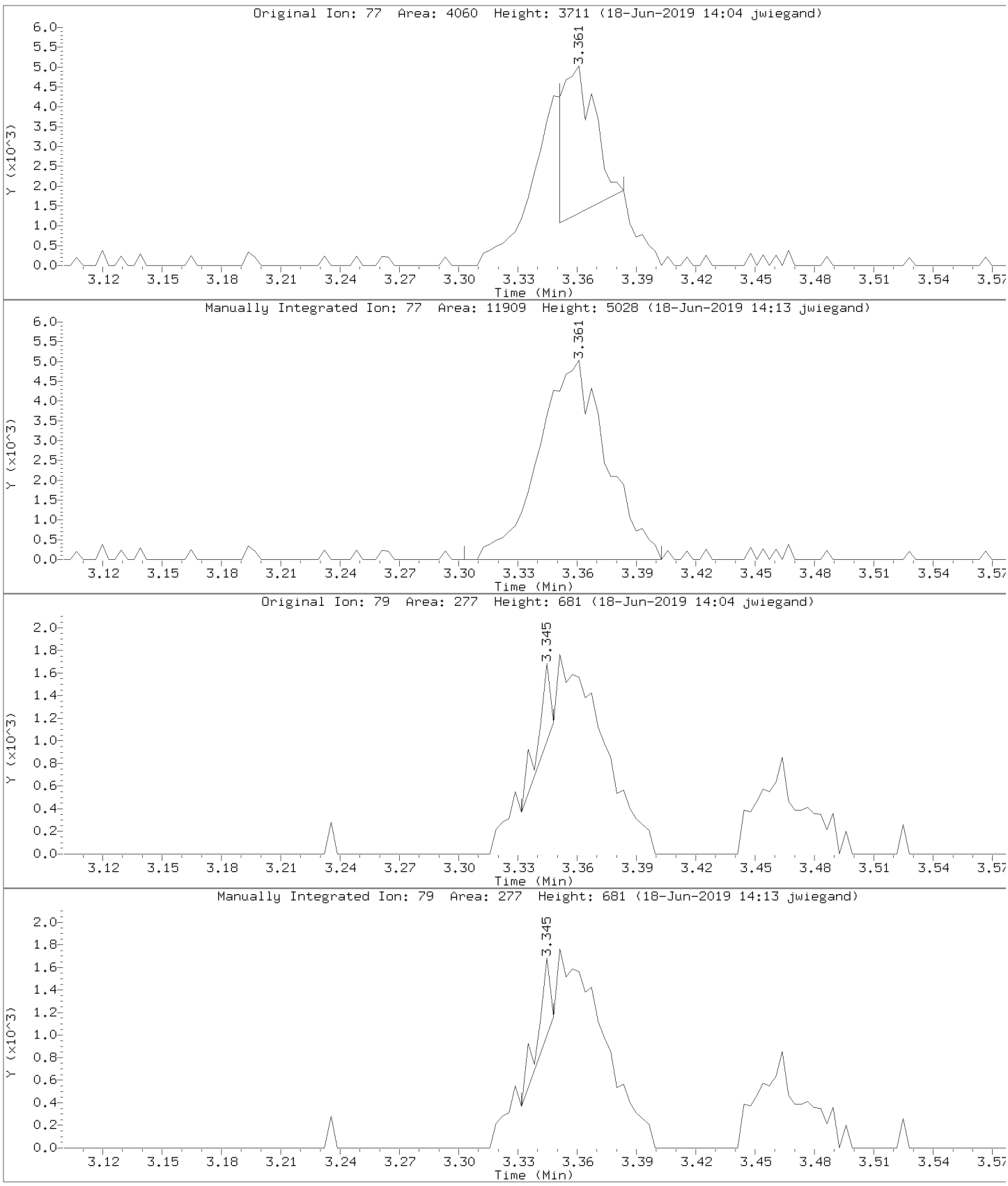
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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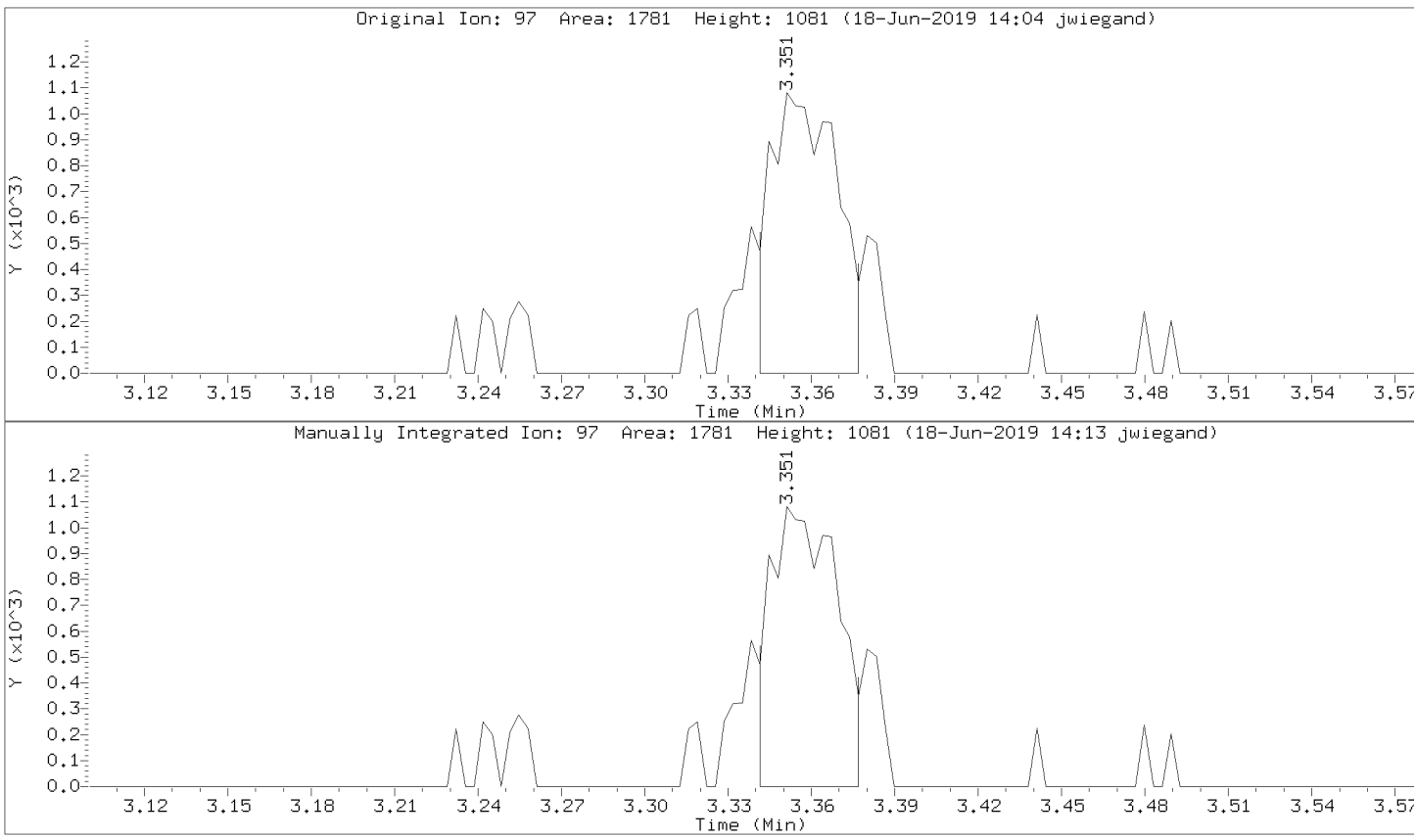
Lab Sample ID: CAL2



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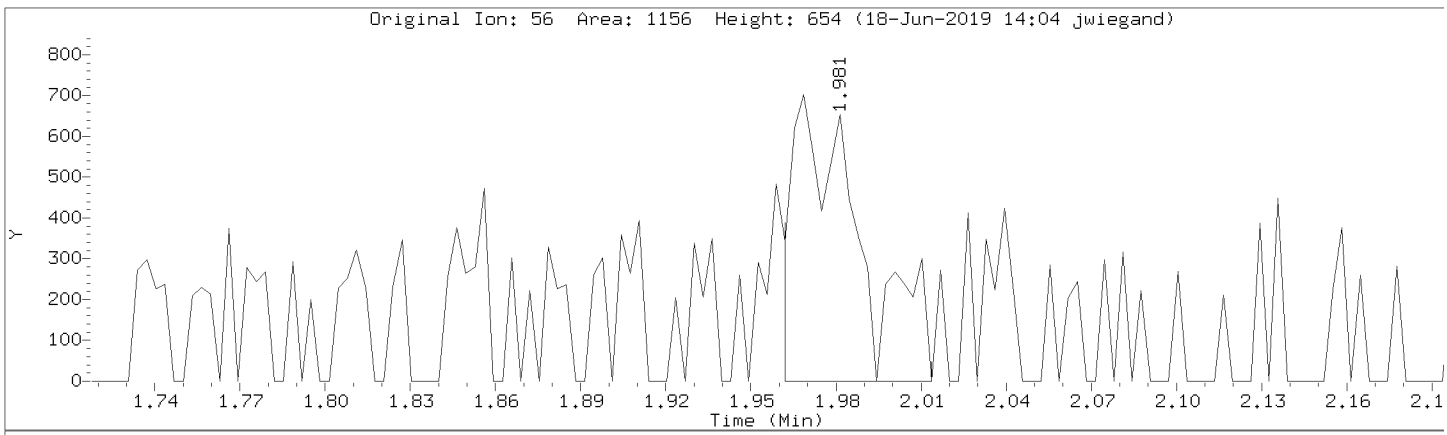
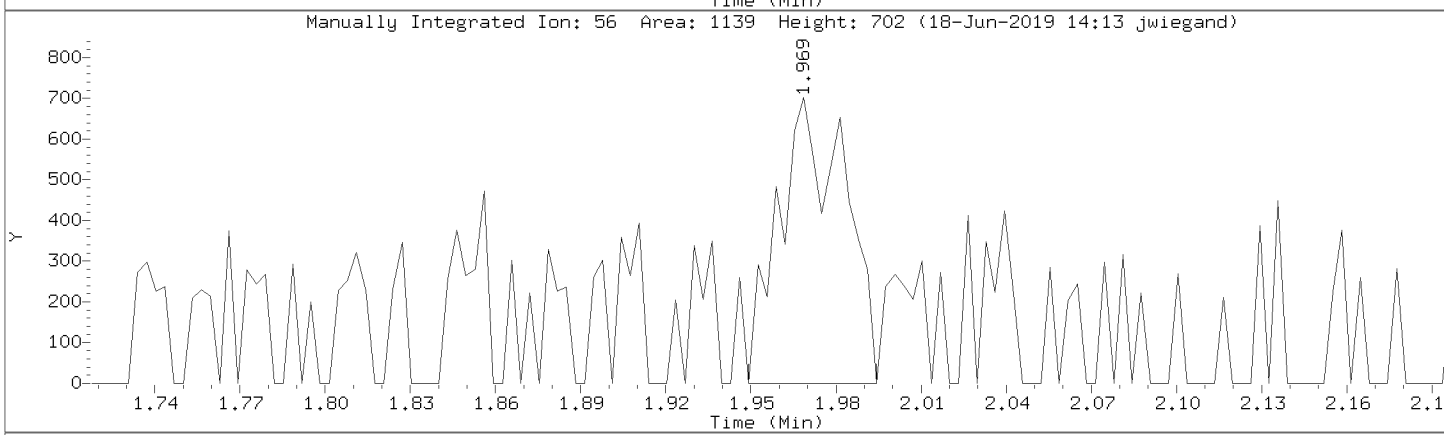
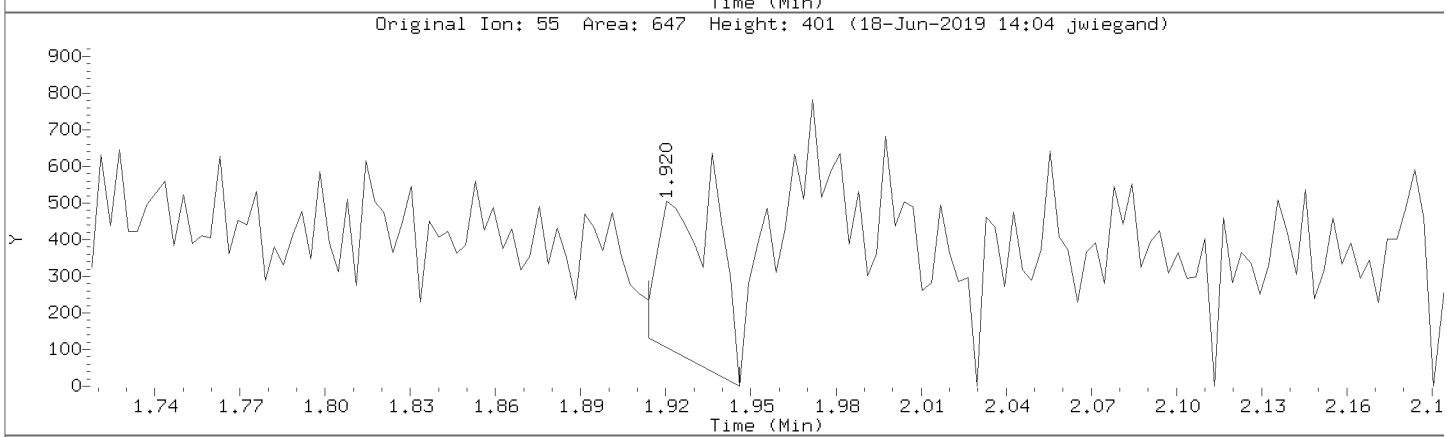
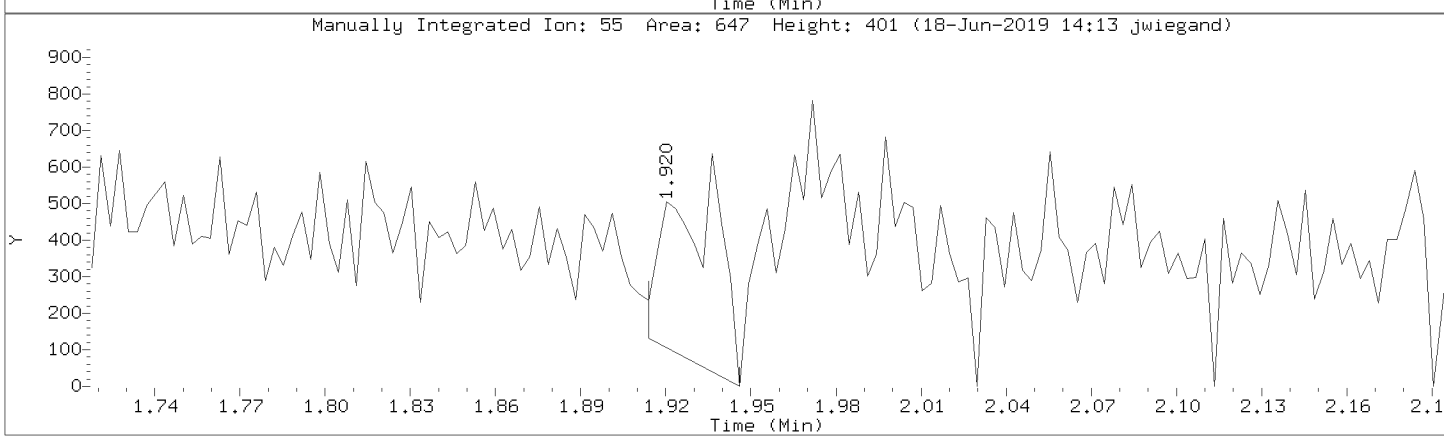
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8









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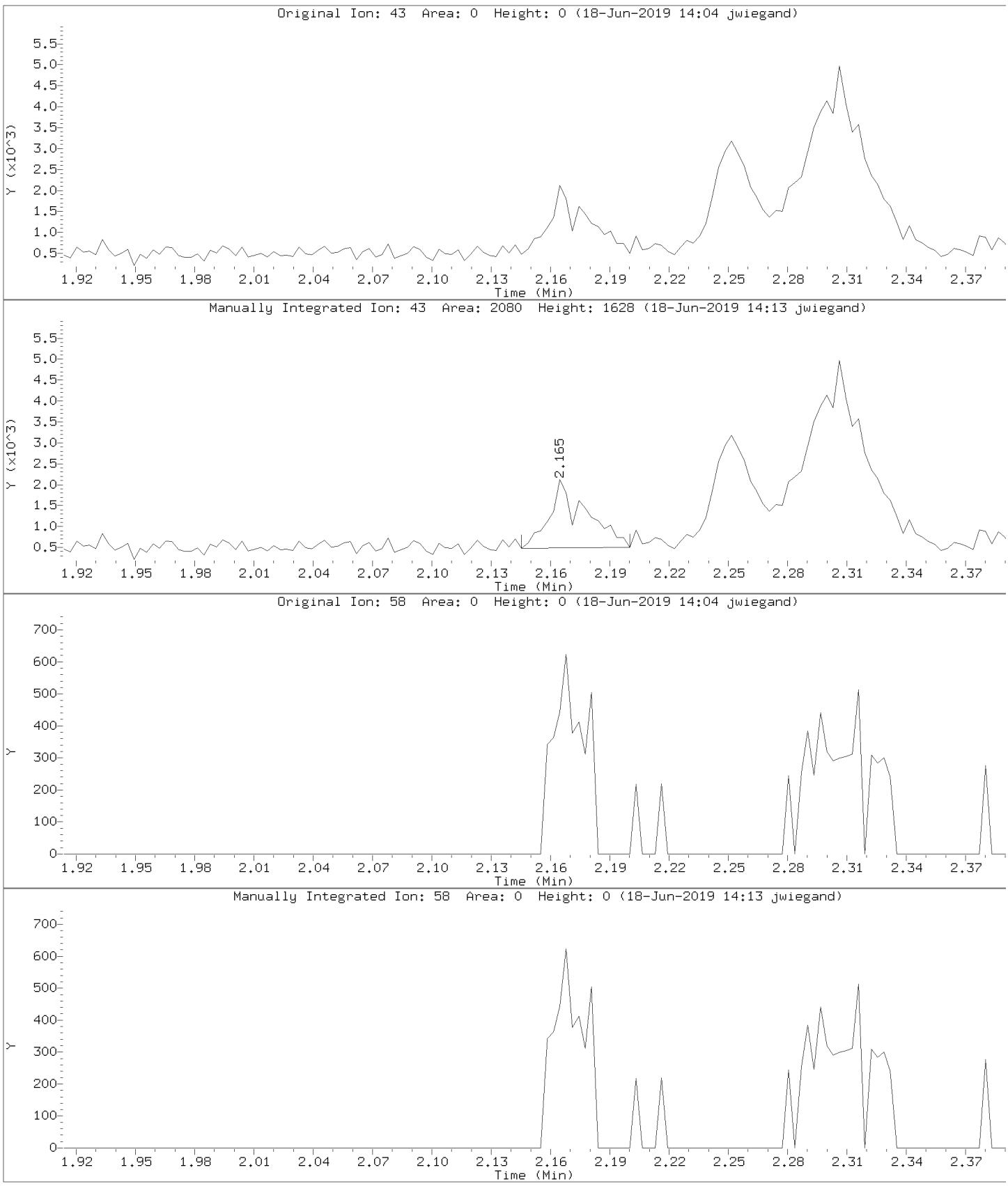
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acetone Review Code: NI
CAS Number: 67-64-1



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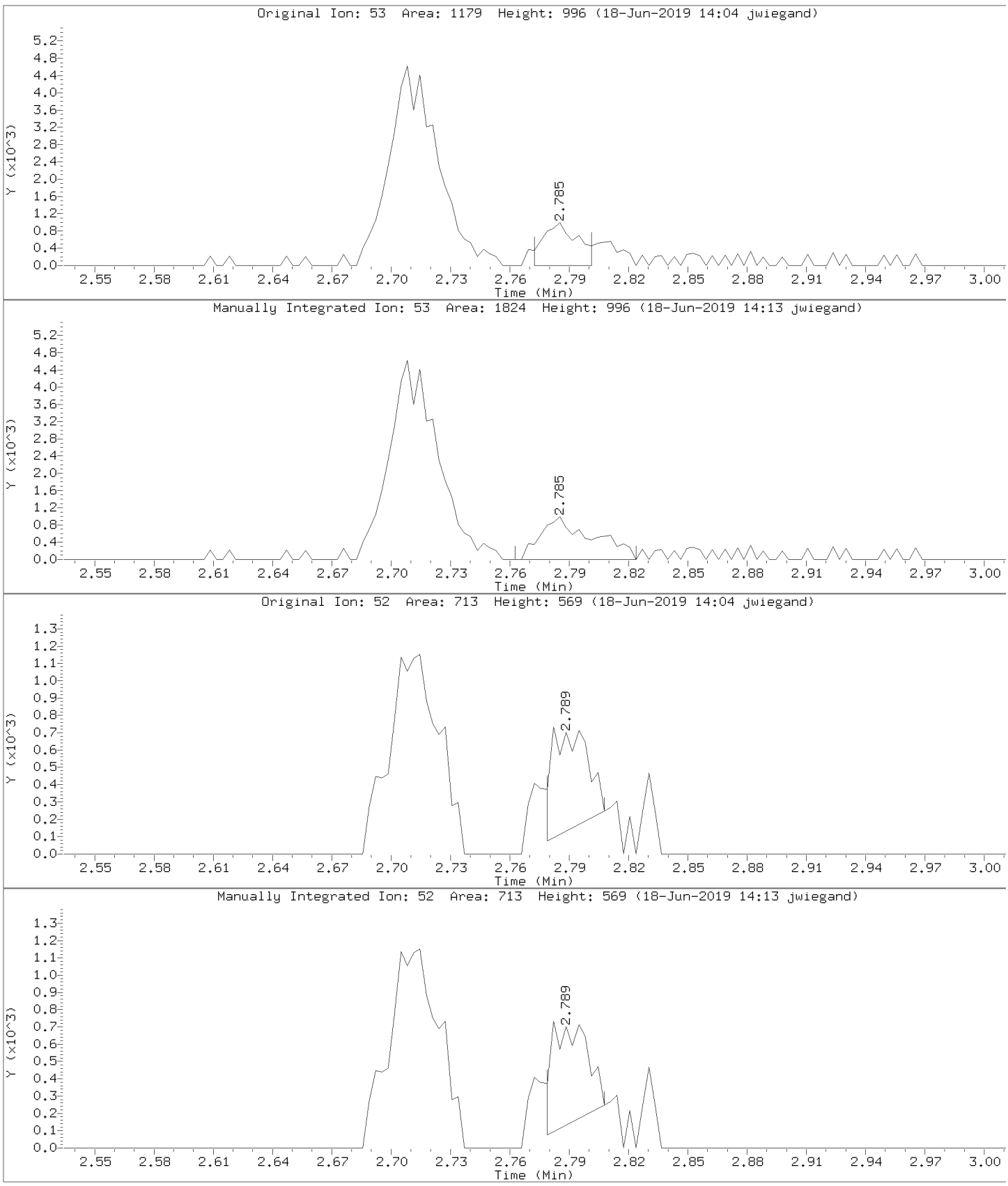
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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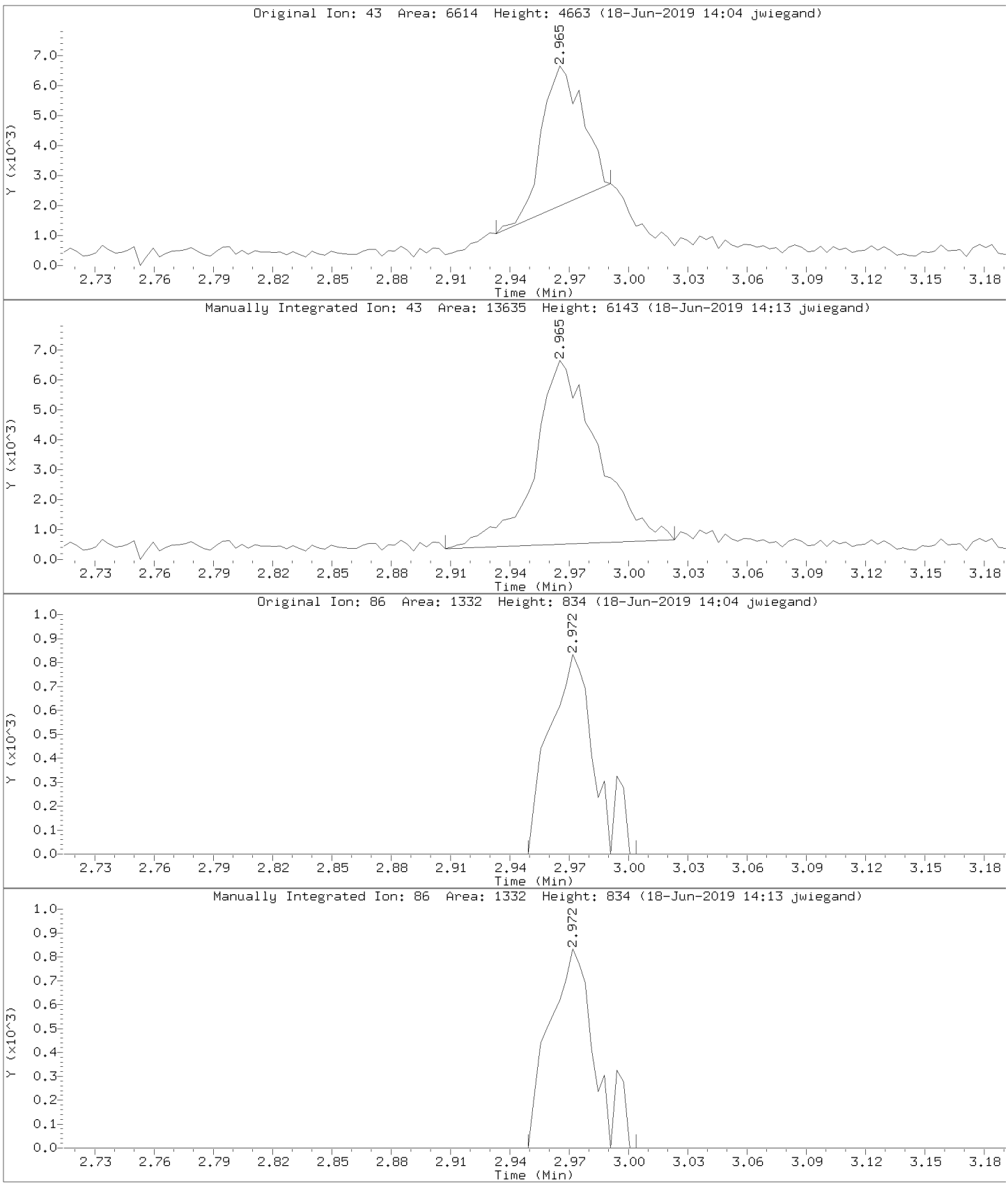
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Vinyl acetate Review Code: NI
CAS Number: 108-05-4



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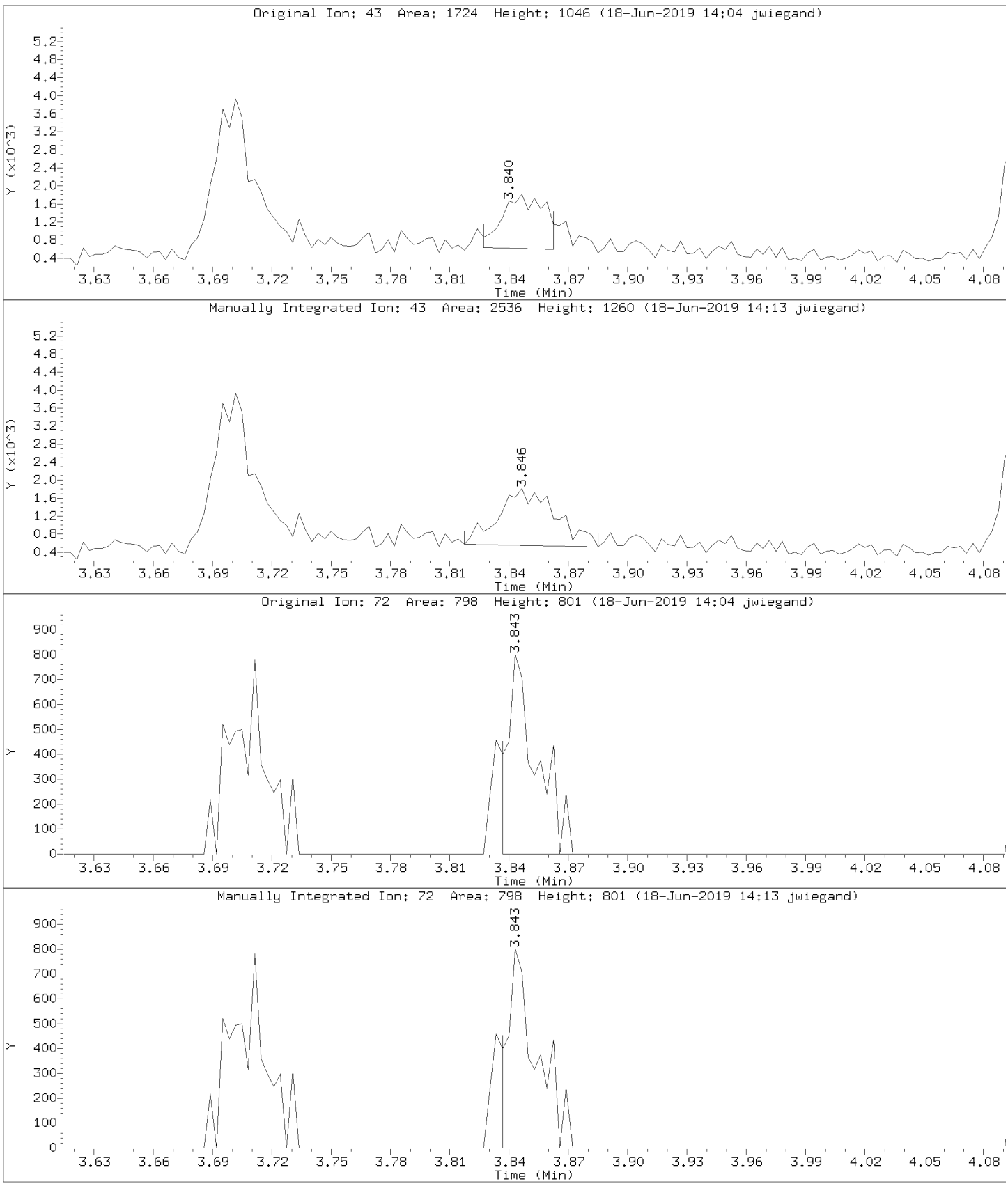
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3



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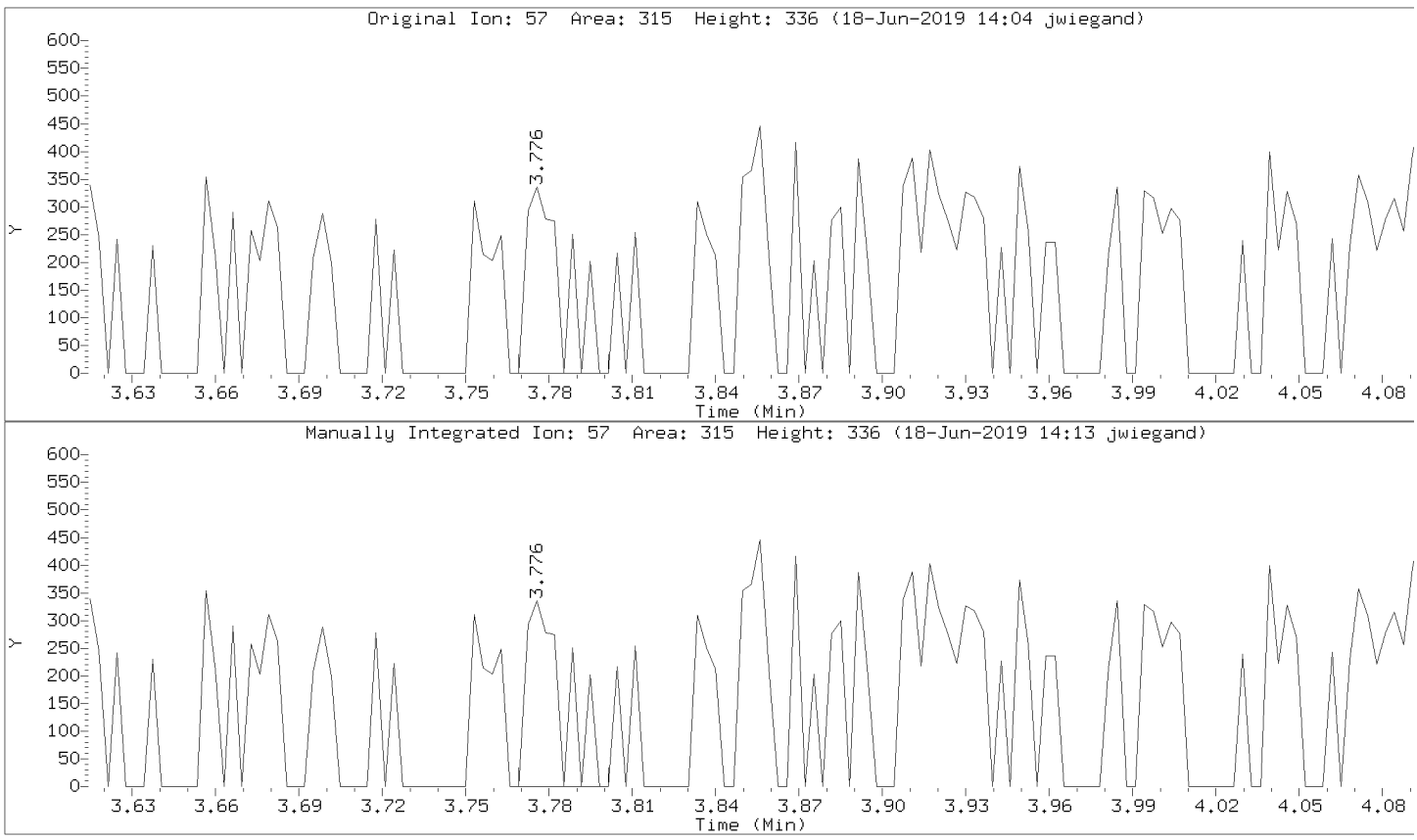
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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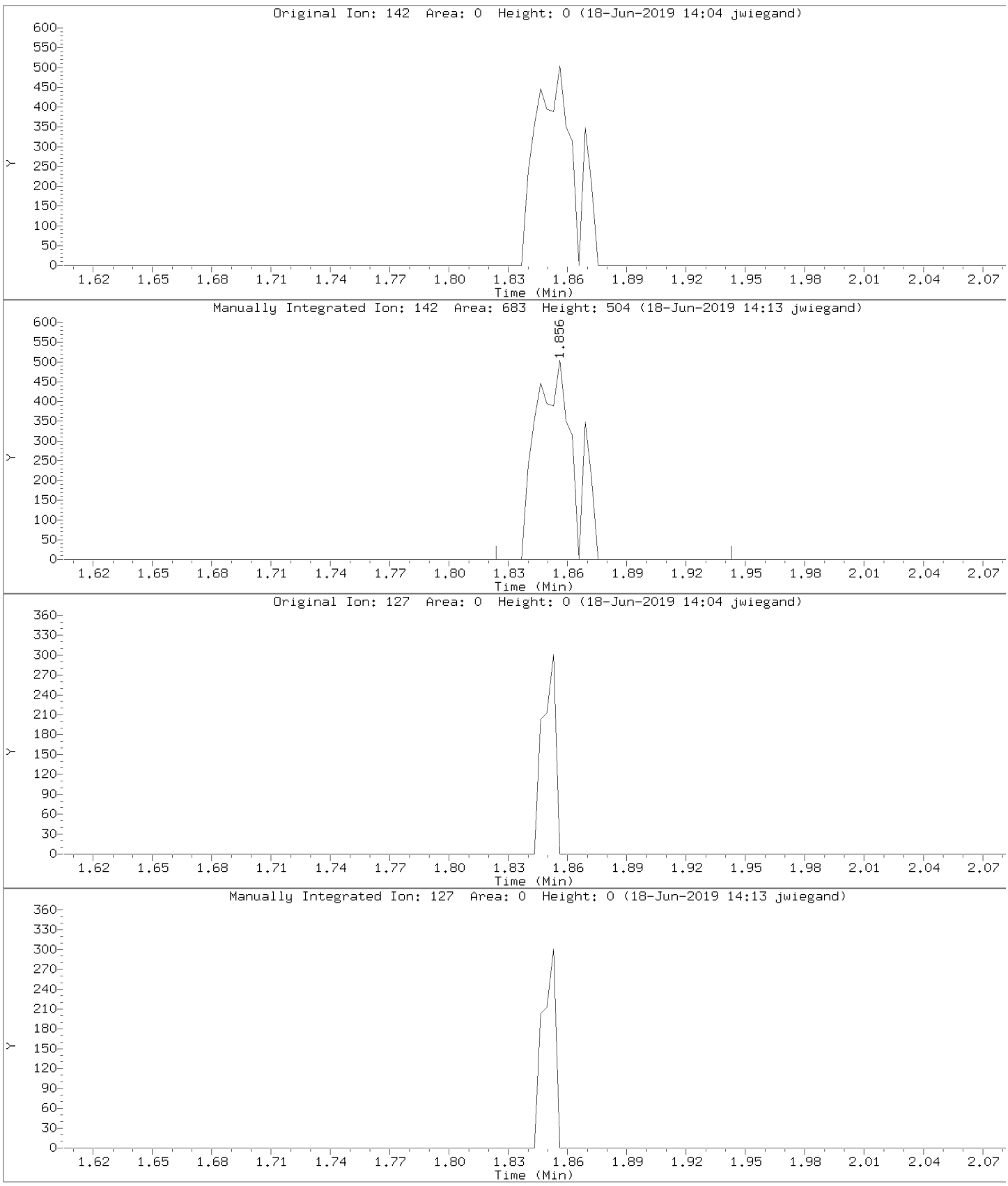
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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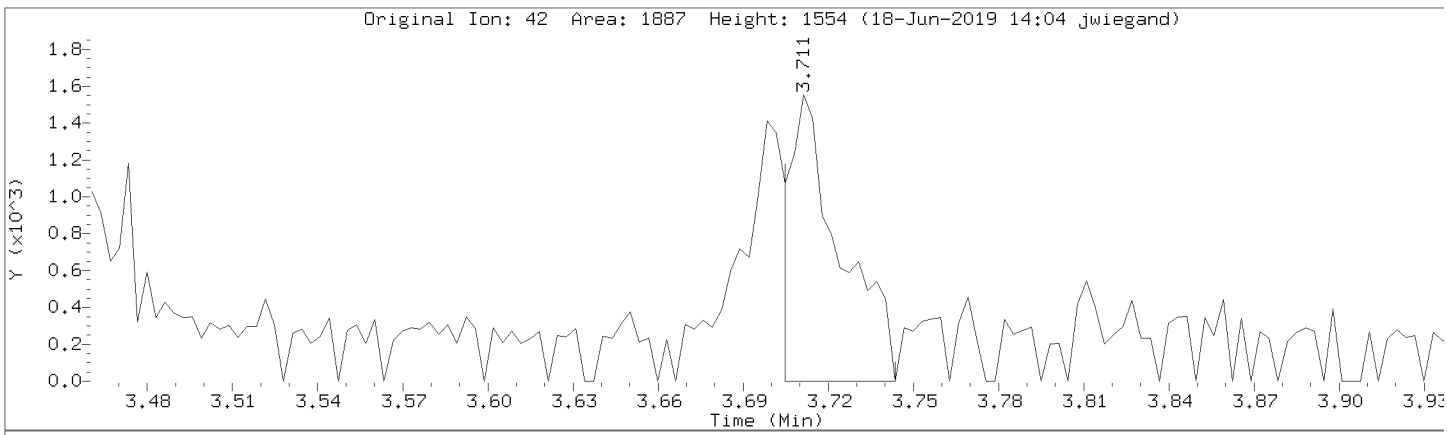
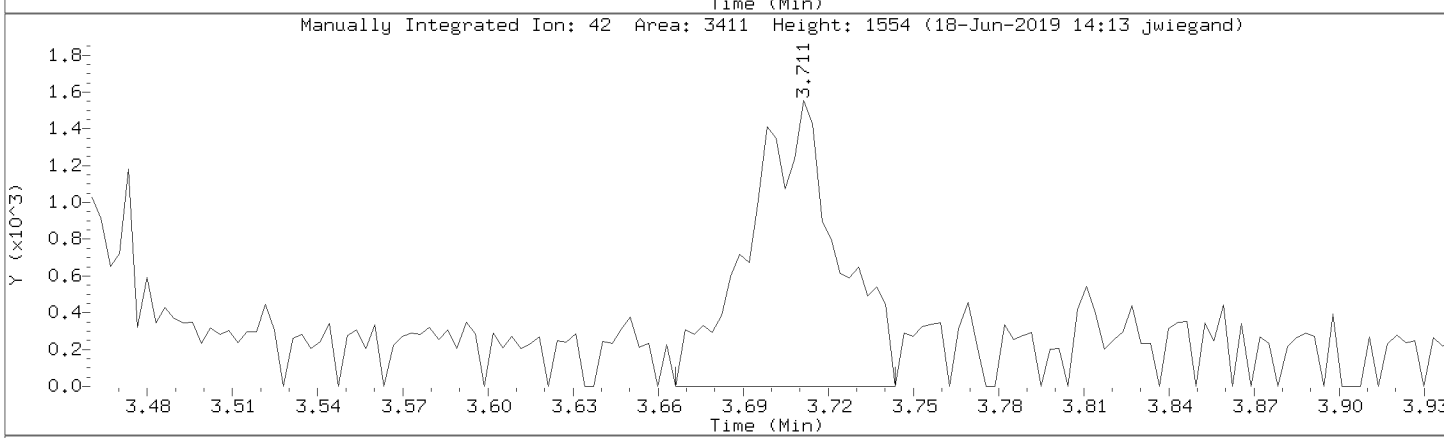
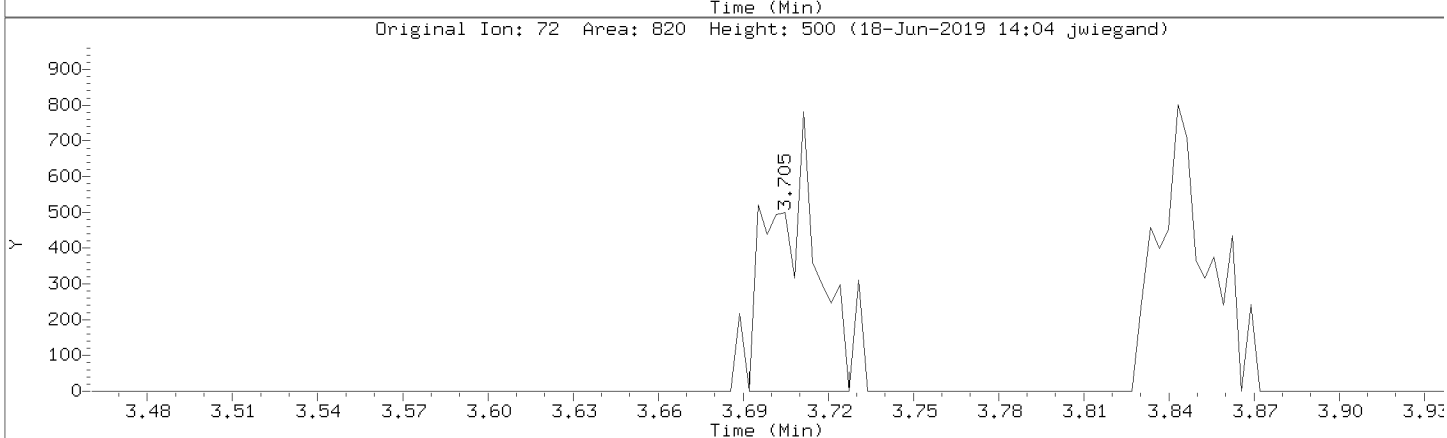
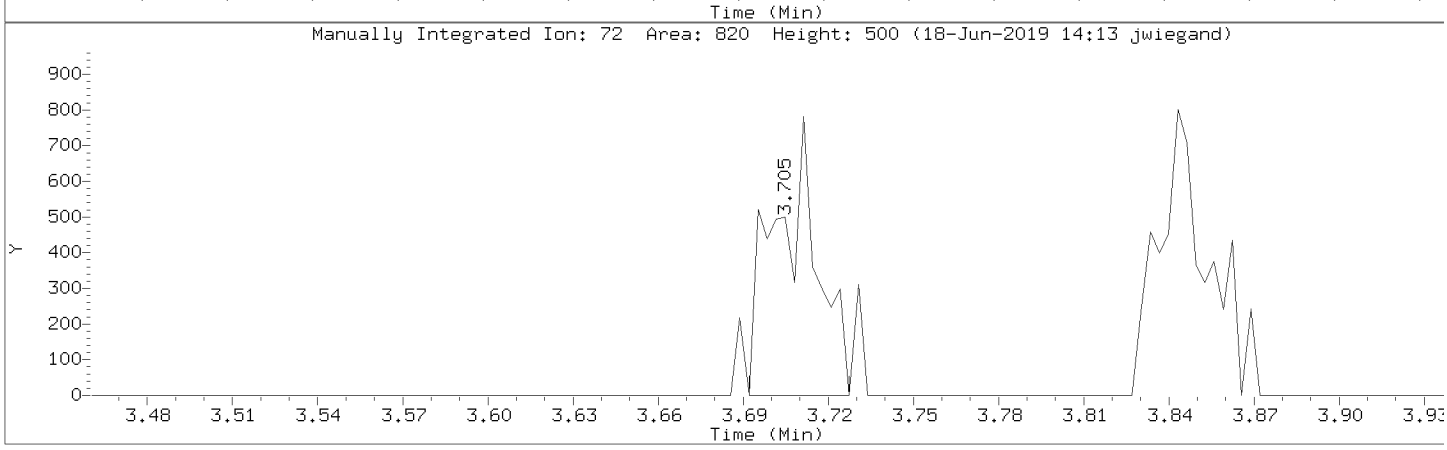
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9









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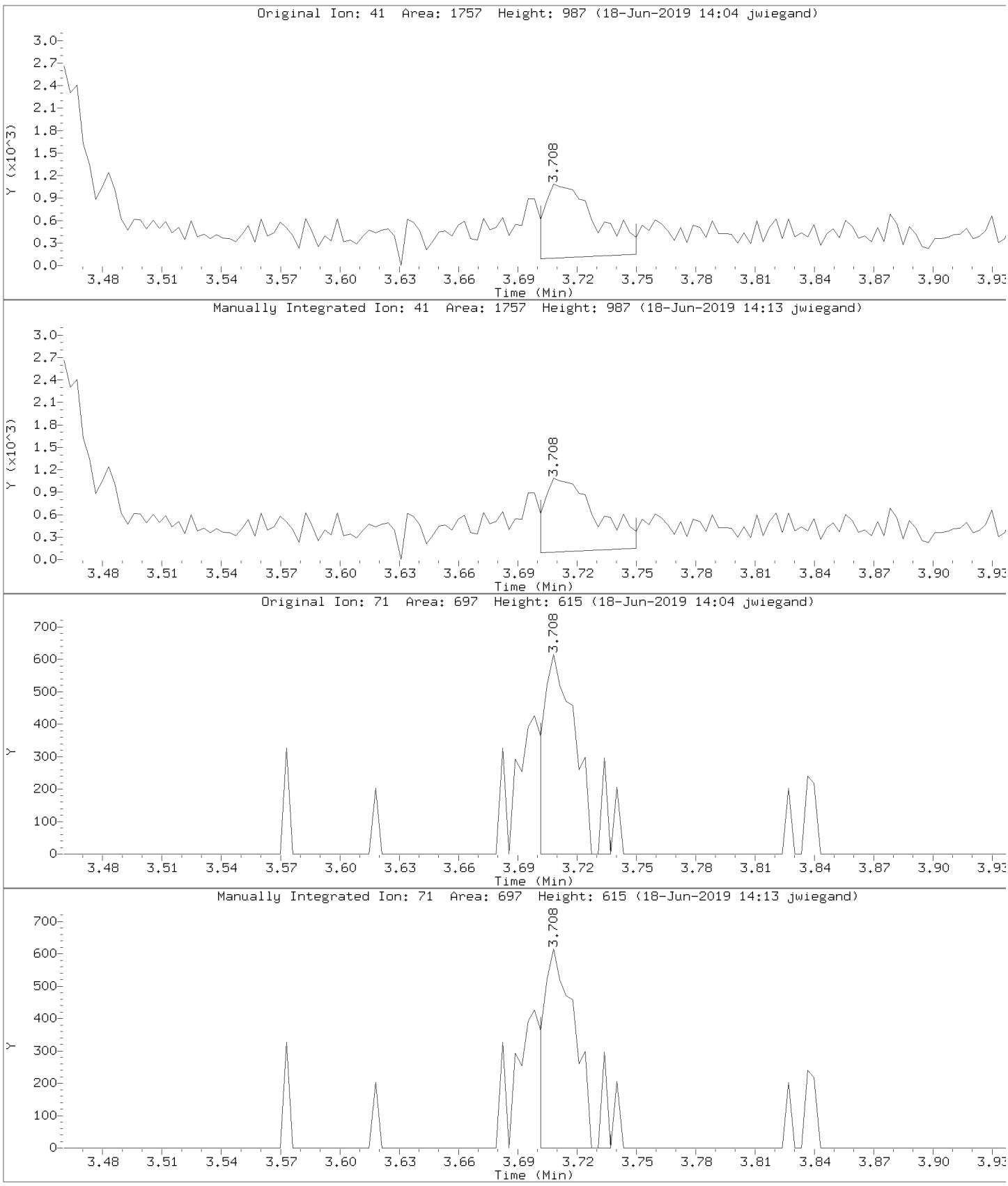
Instrument: 30mv5a.i
Lab Sample ID: CAL2



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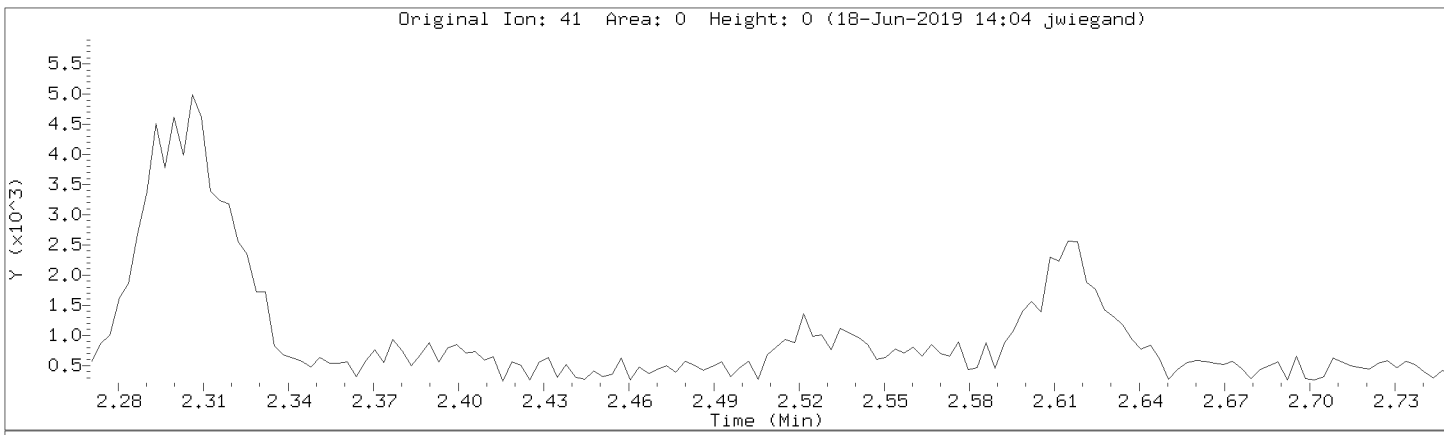
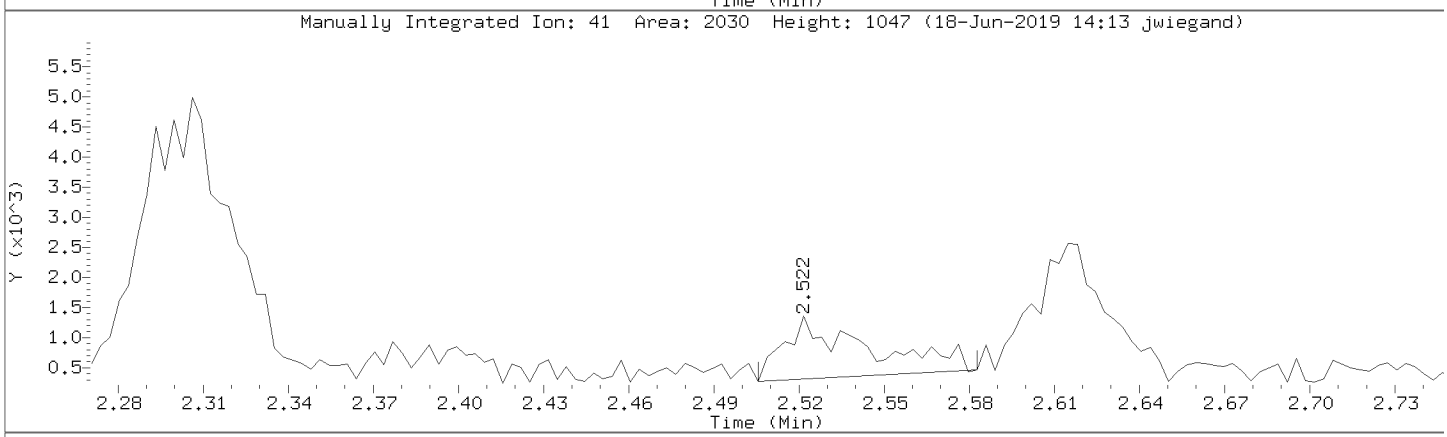
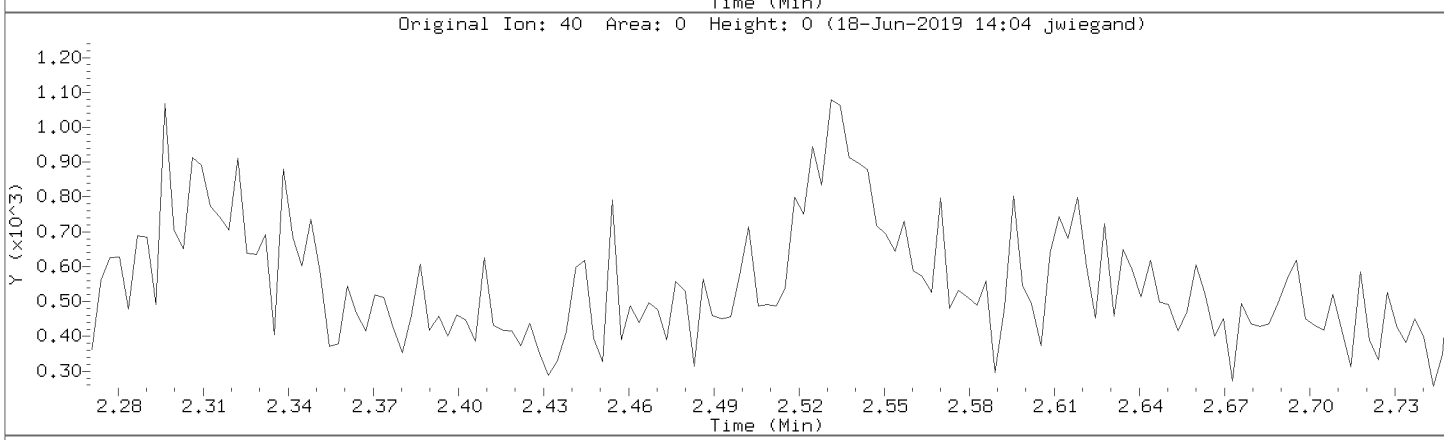
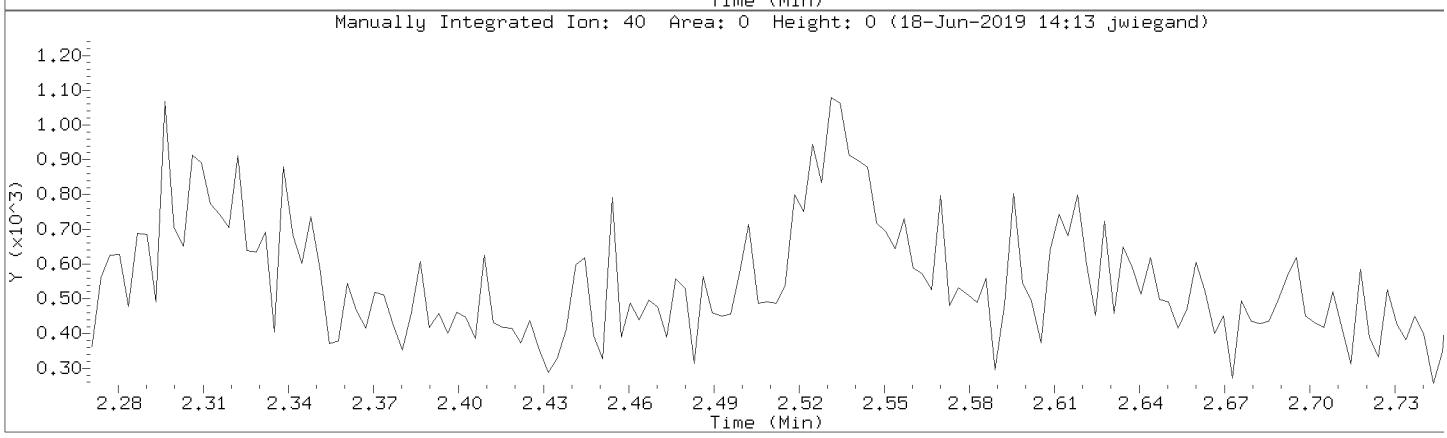
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Acetonitrile Review Code: WP
CAS Number: 75-05-8









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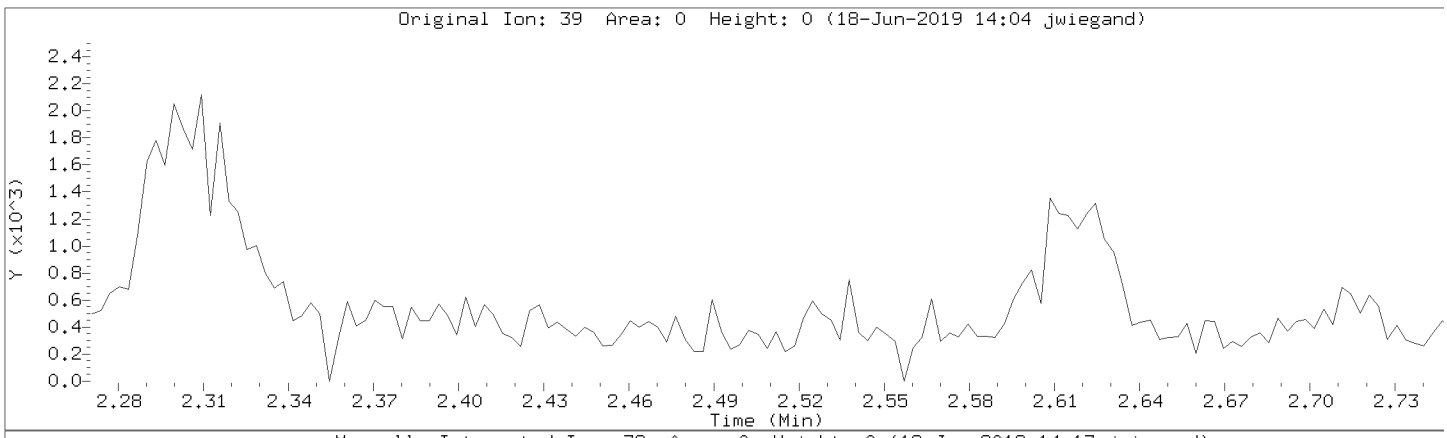
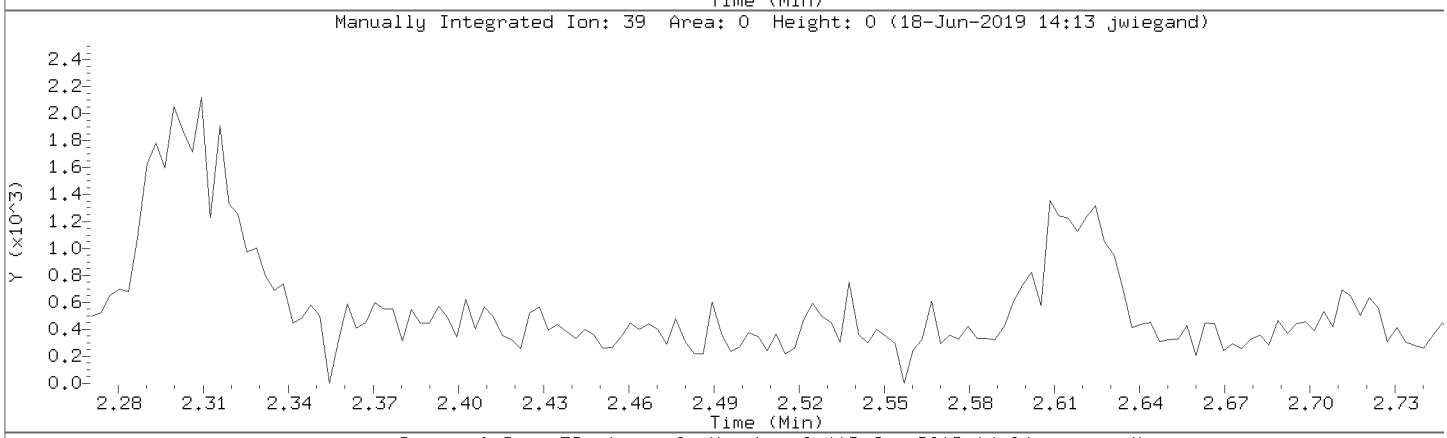
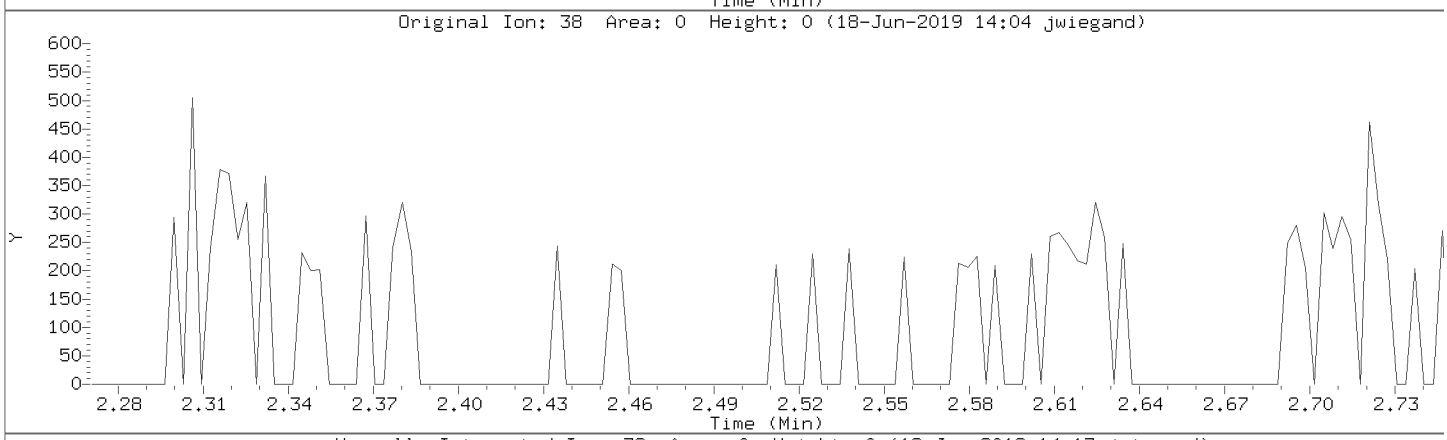
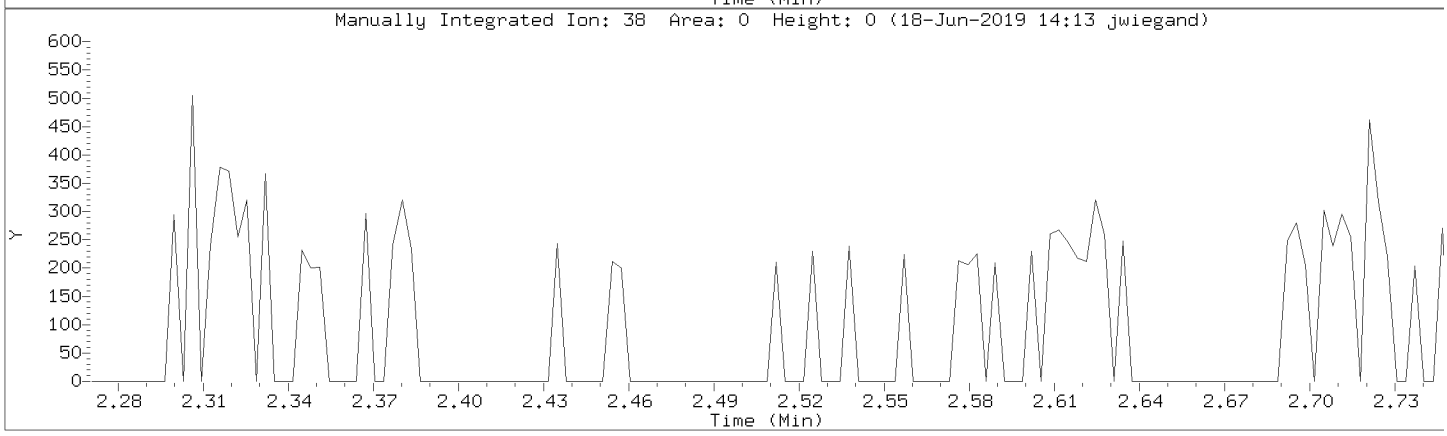
Instrument: 30mv5a.i
Lab Sample ID: CAL2



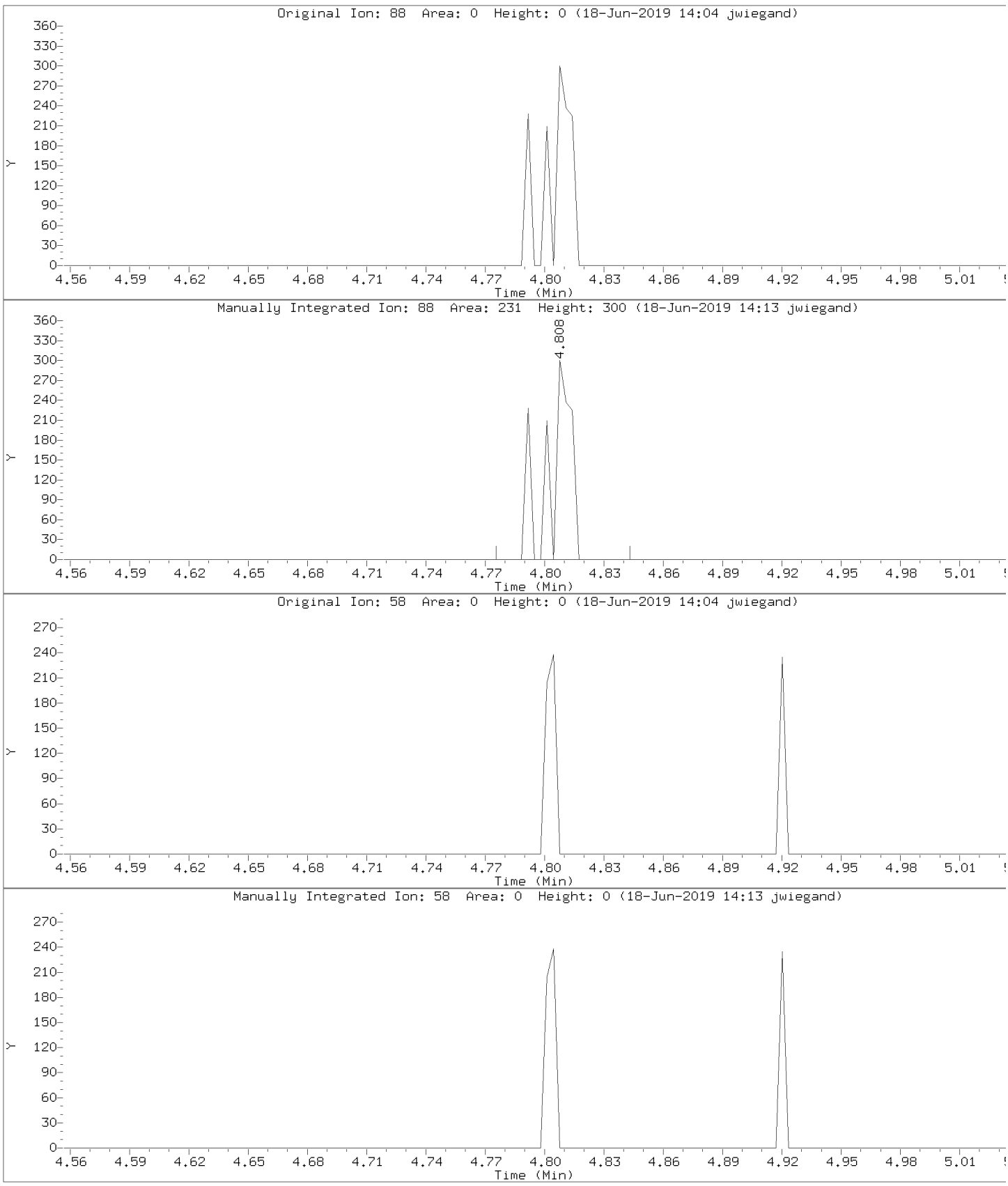




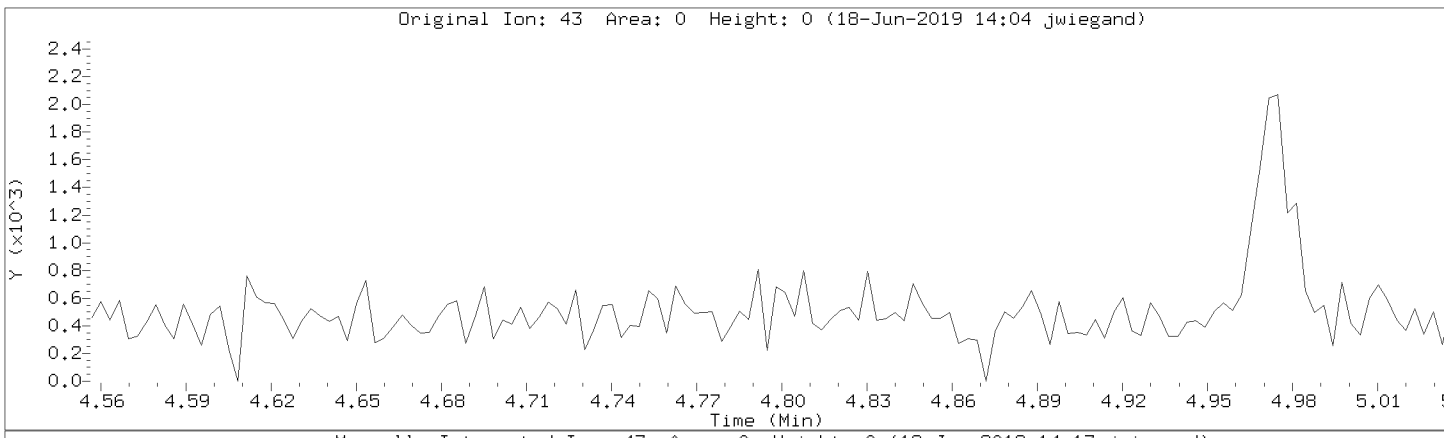


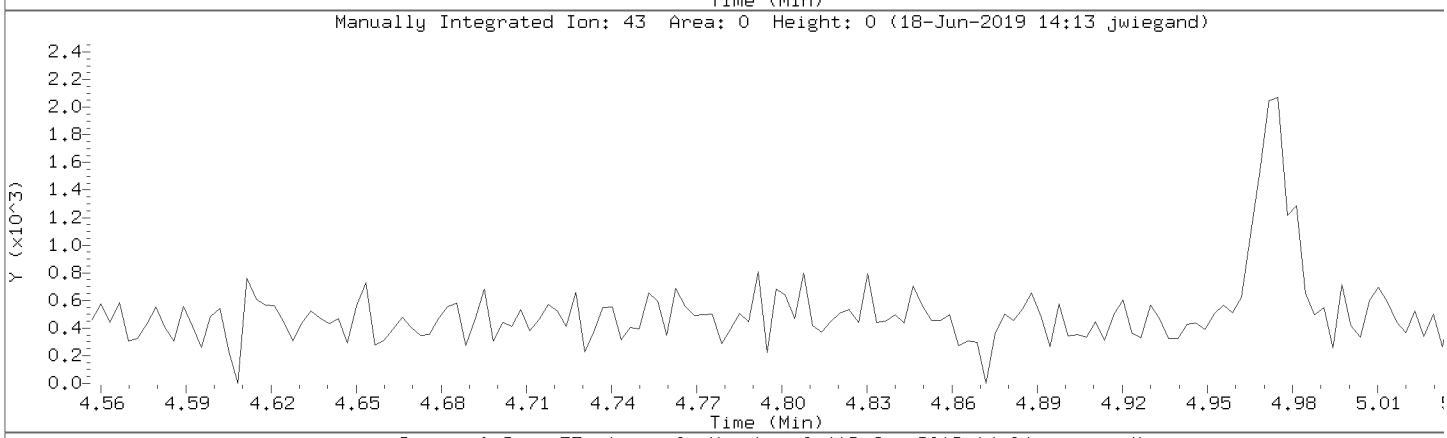
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

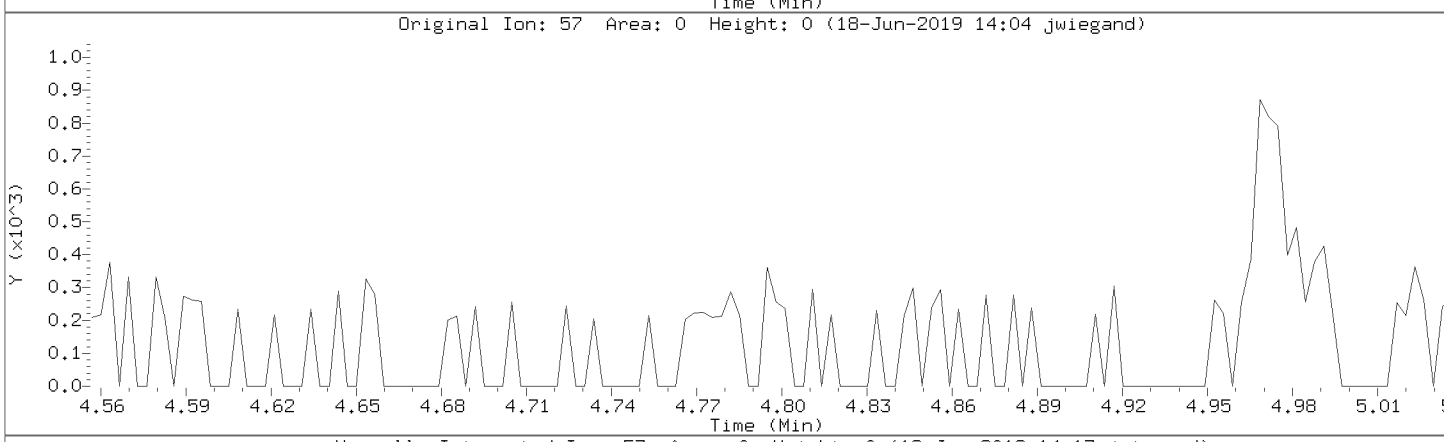
Compound: 1,4-Dioxane (p-Dioxane) Review Code:
CAS Number: 123-91-1

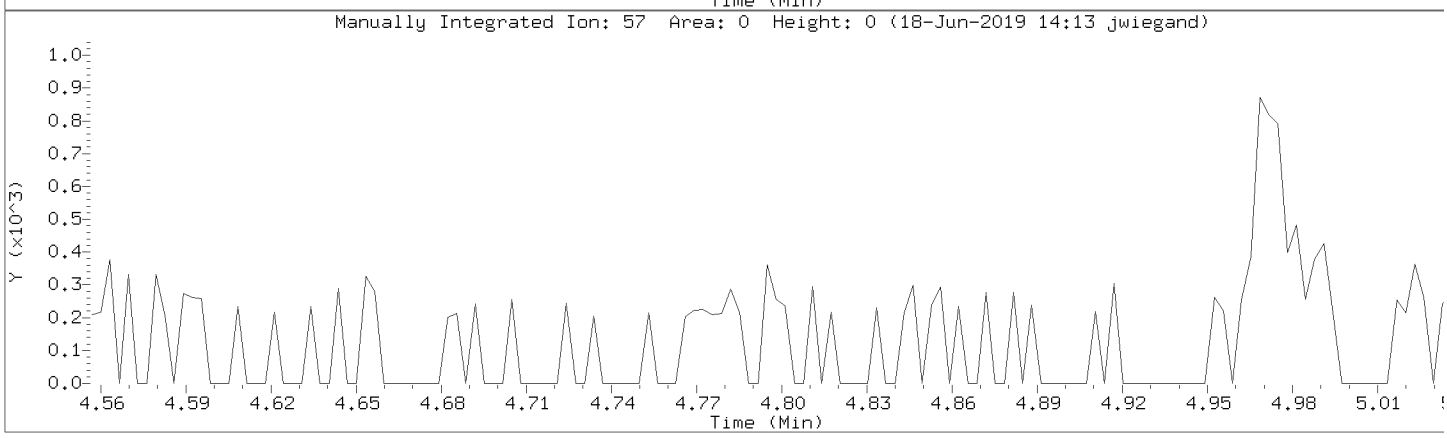


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2



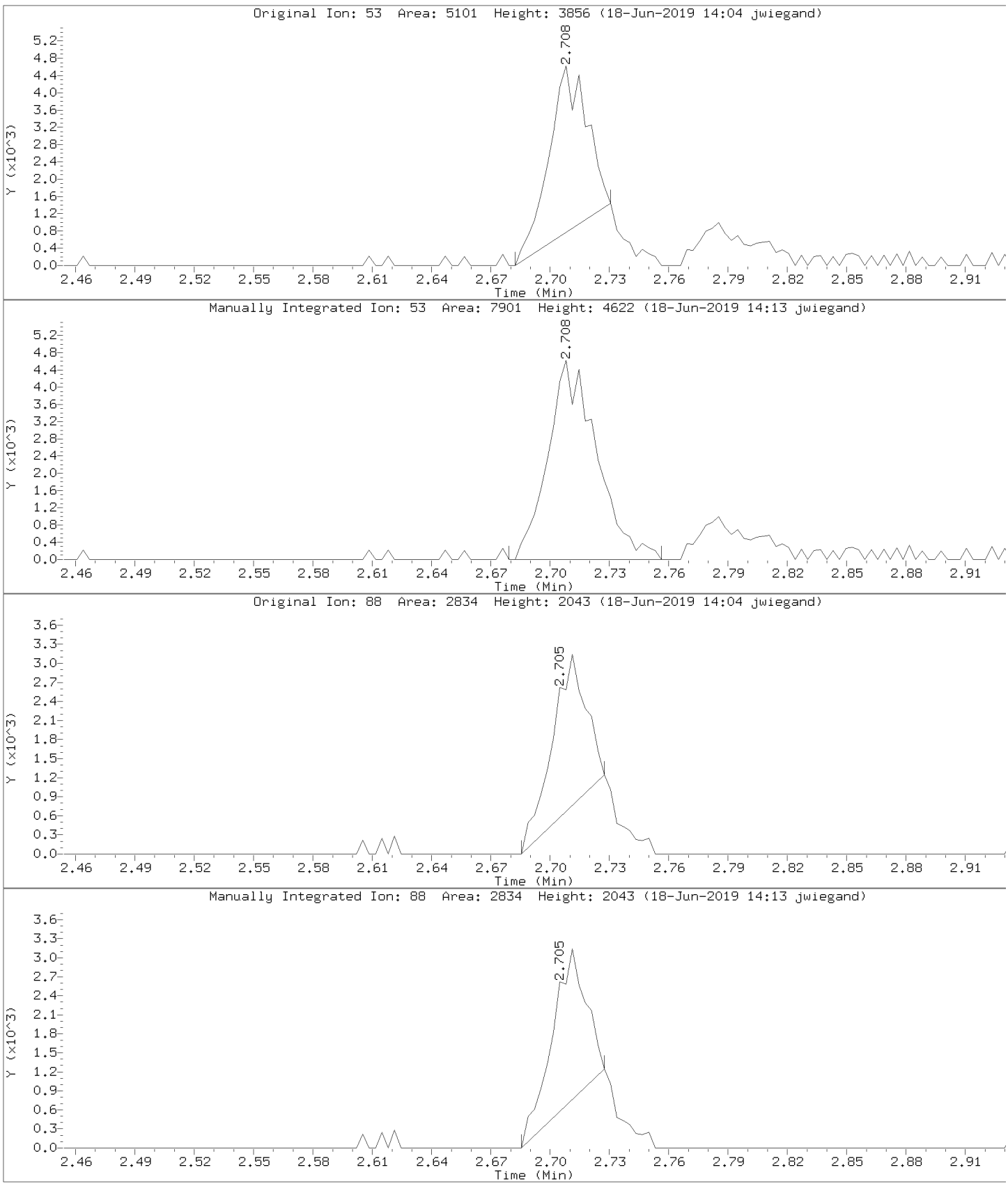




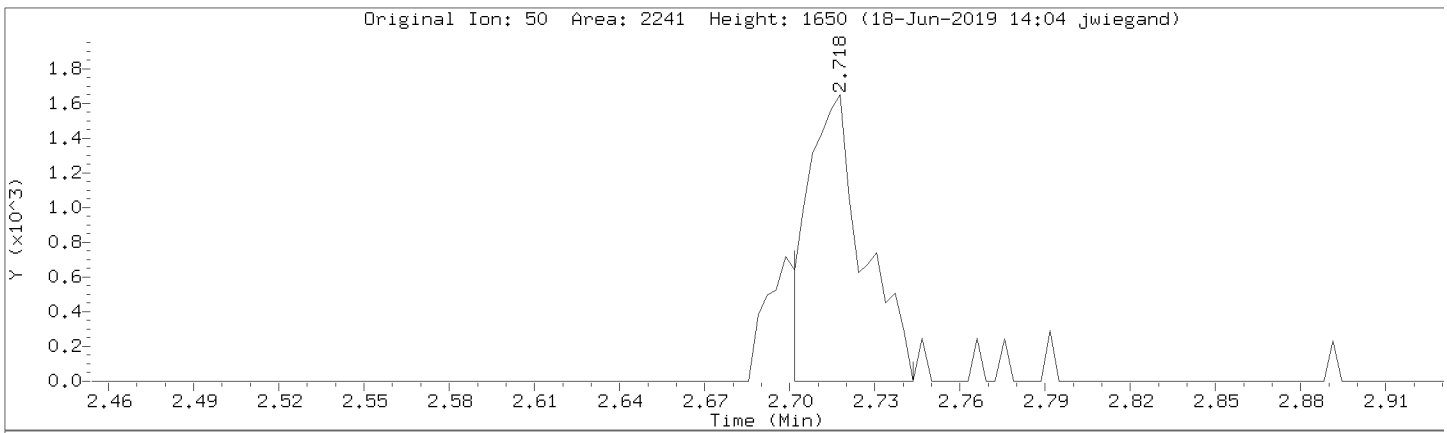


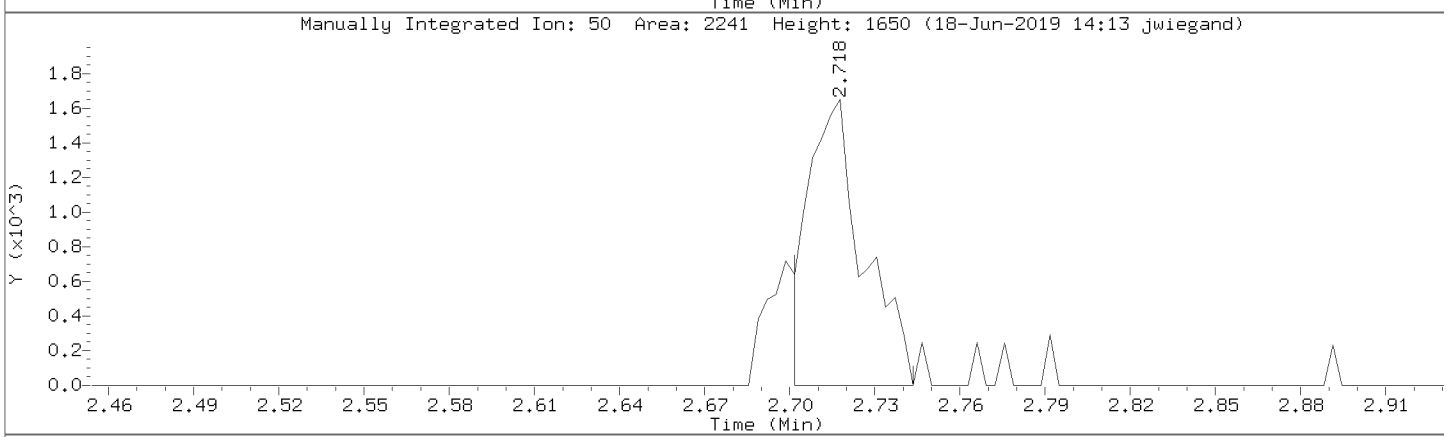
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

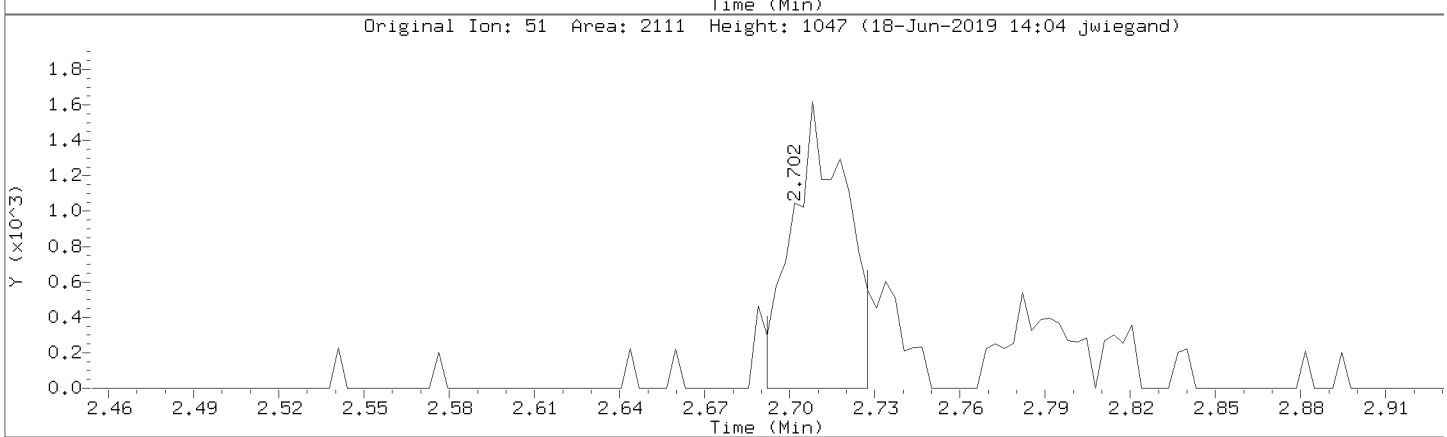
Compound: Chloroprene Review Code:
CAS Number: 126-99-8

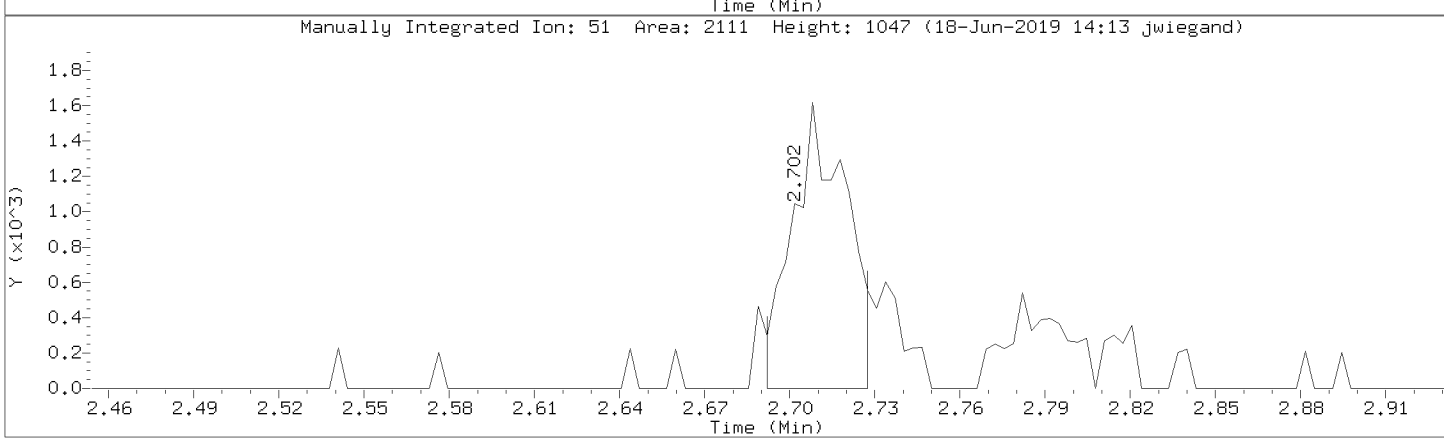


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618007.d
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2









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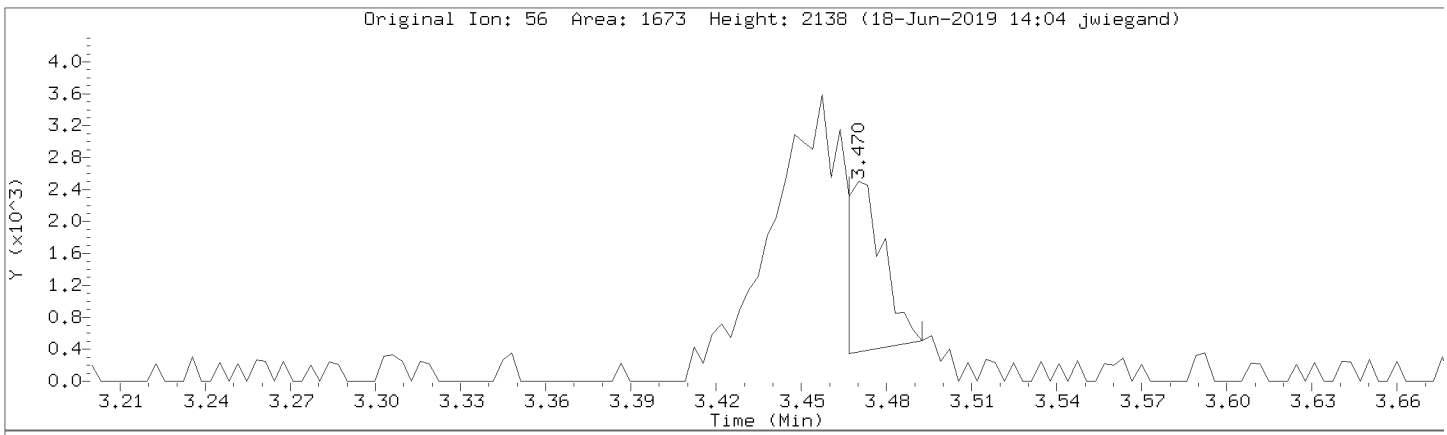
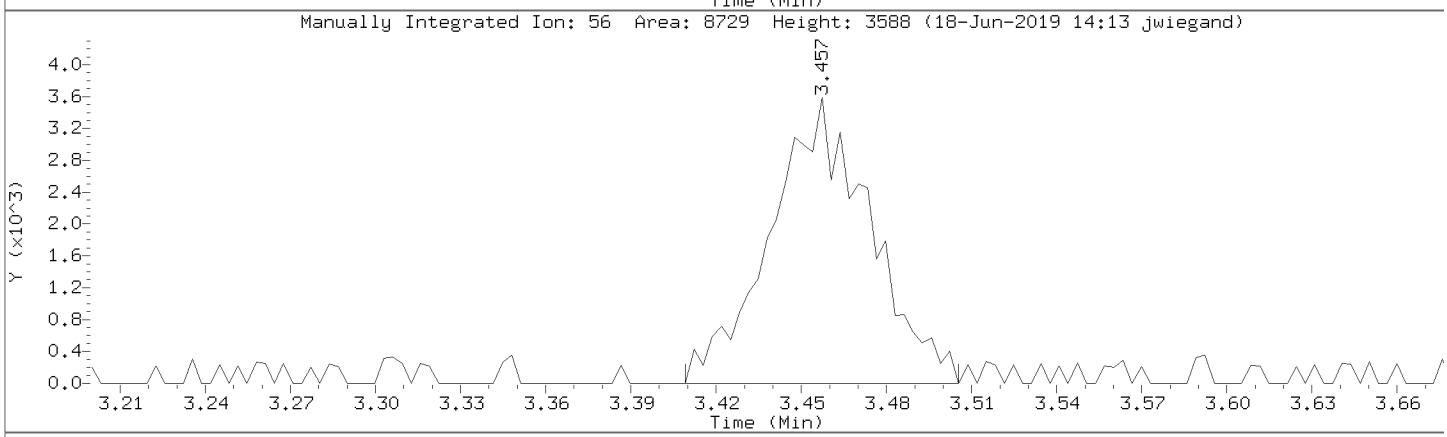
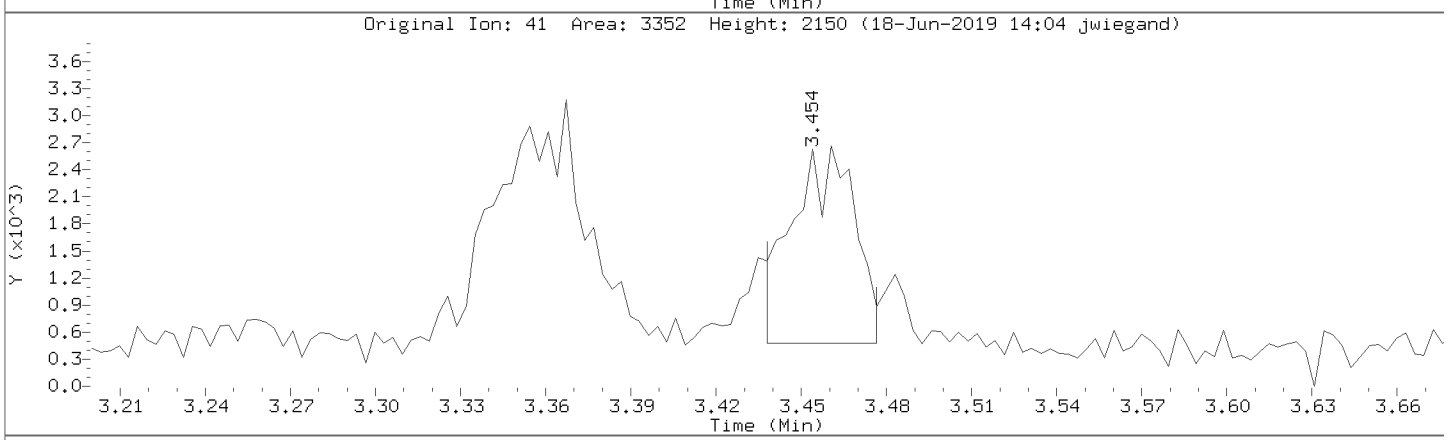
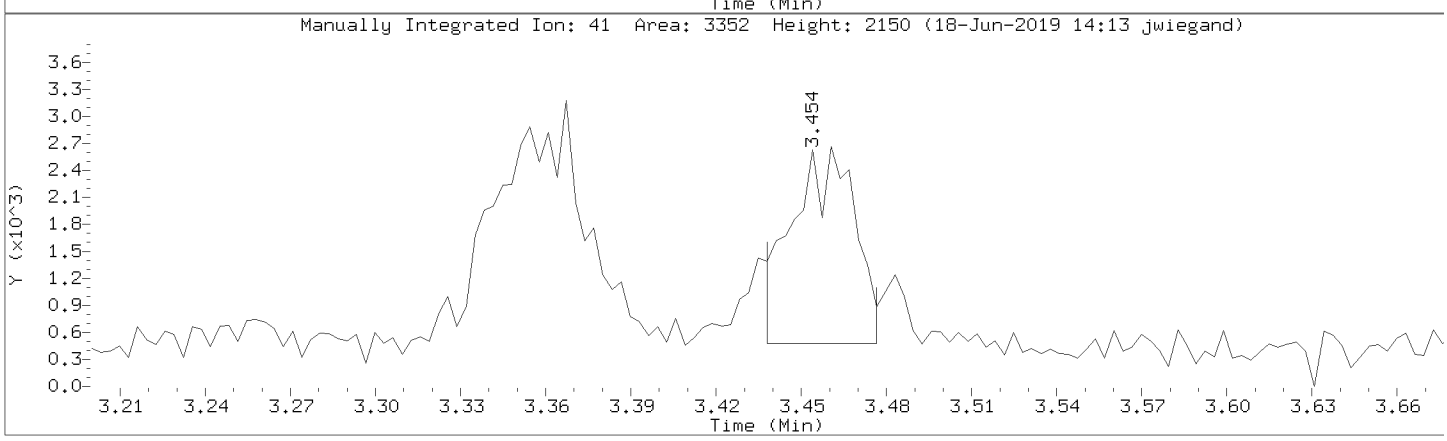
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7









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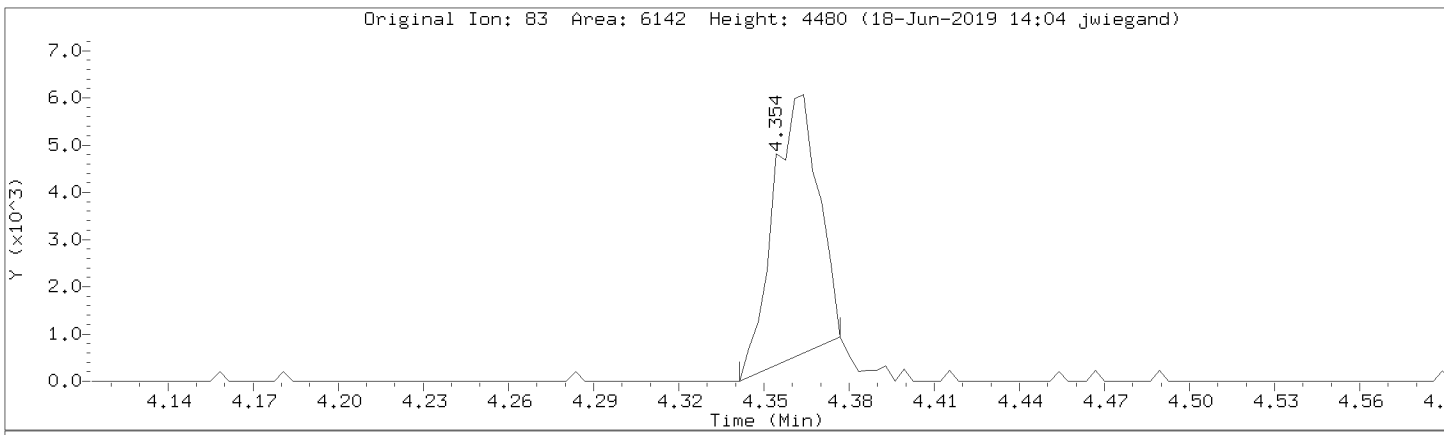
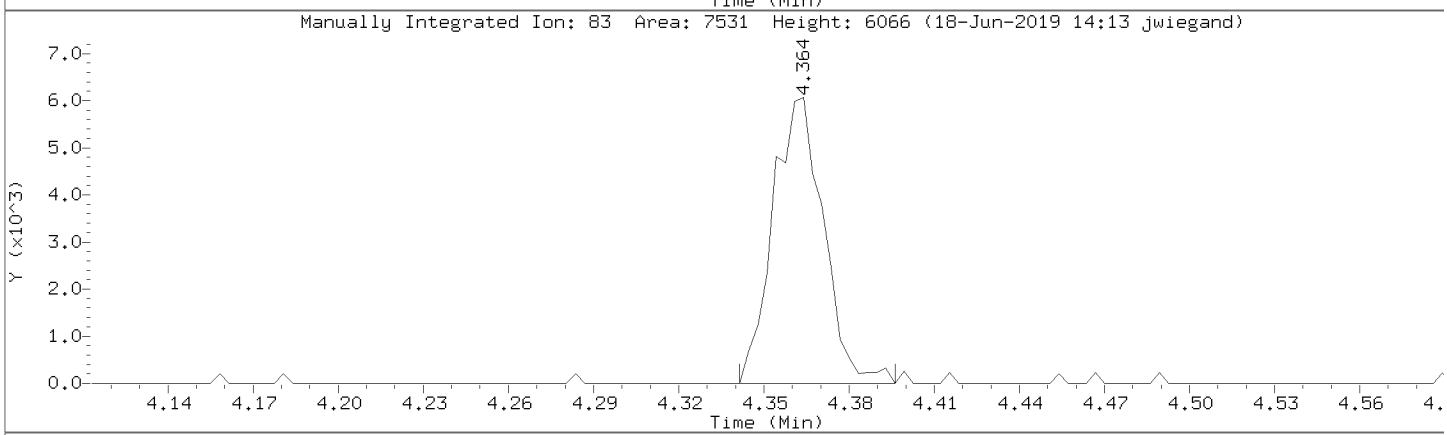
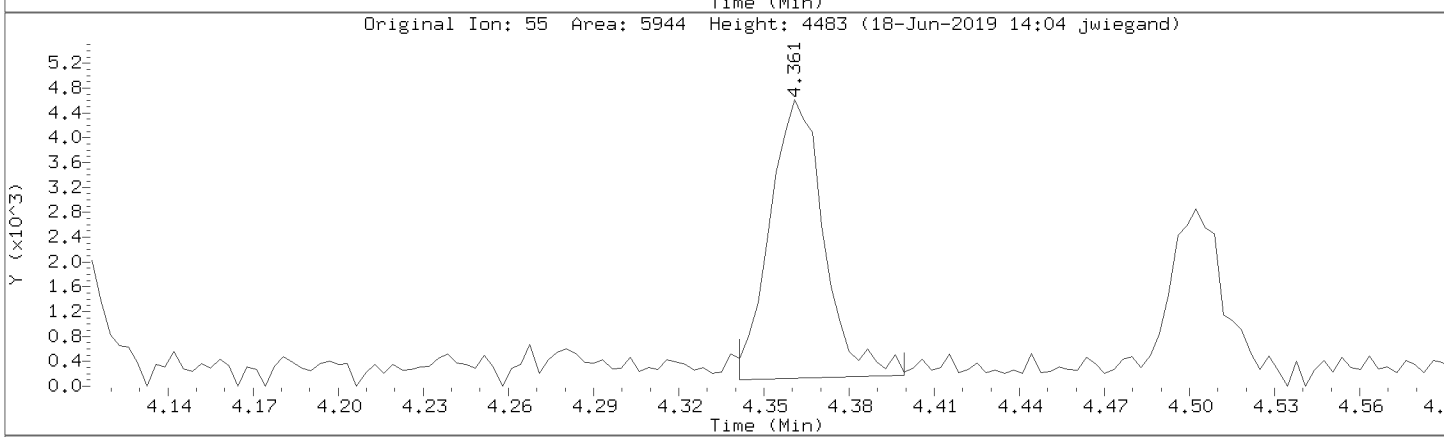
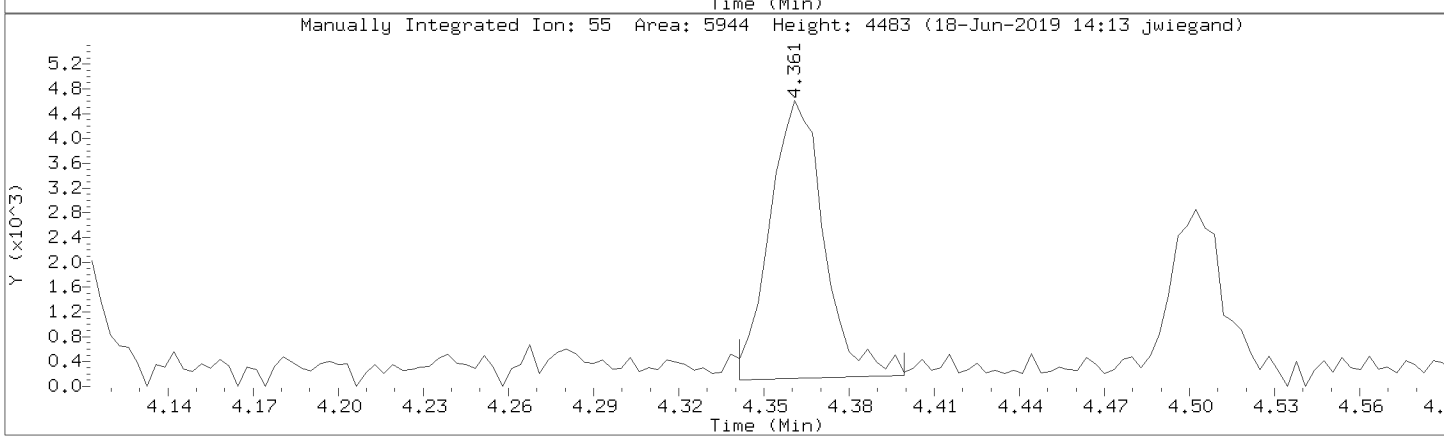
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2









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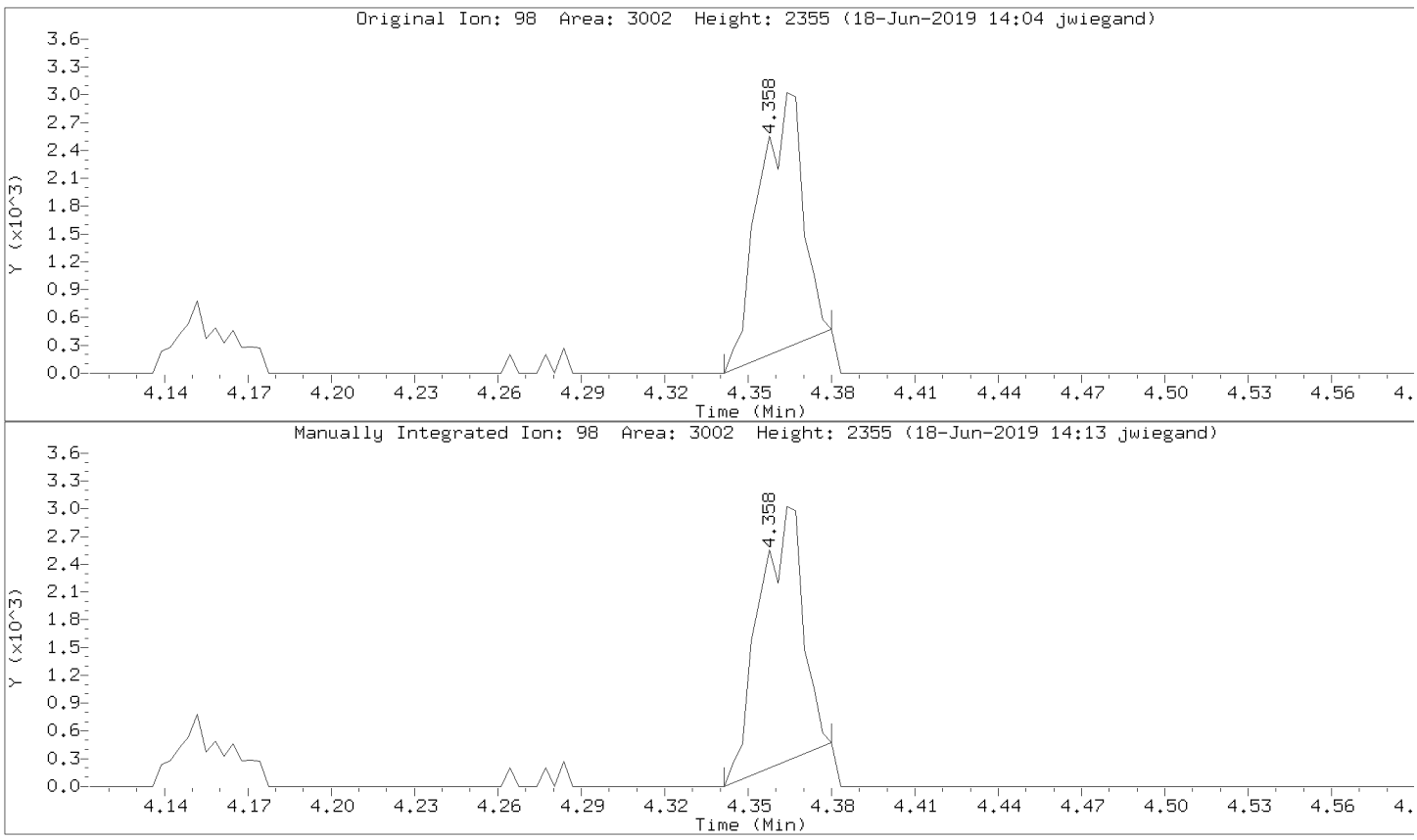
Lab Sample ID: CAL2



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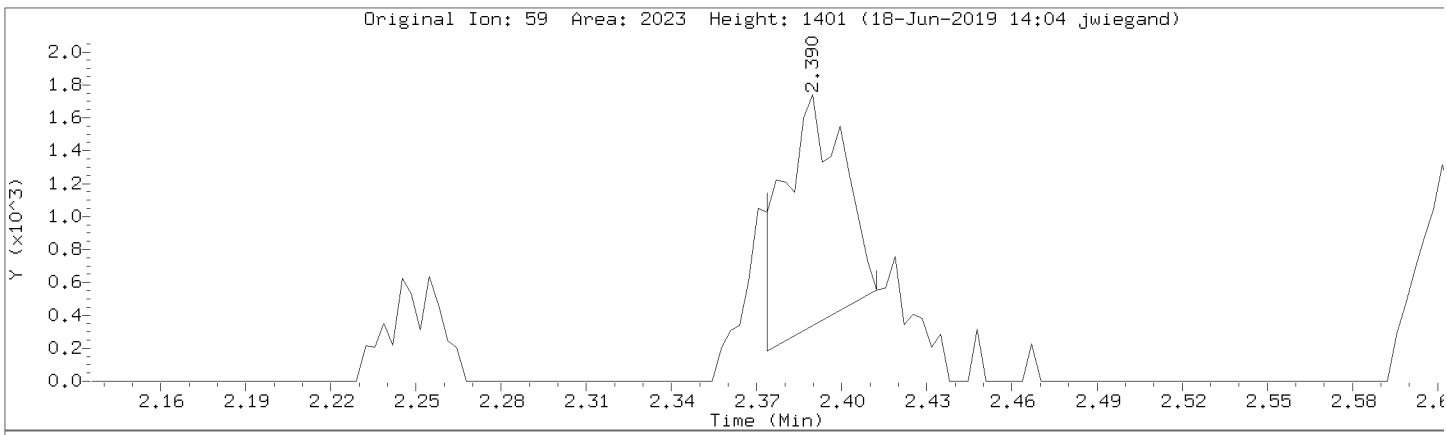
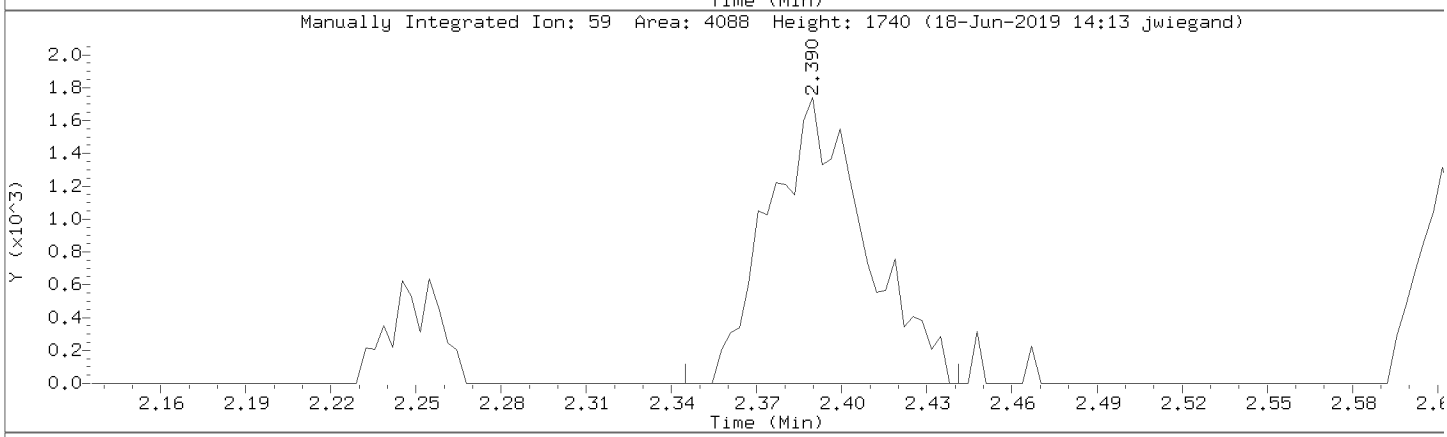
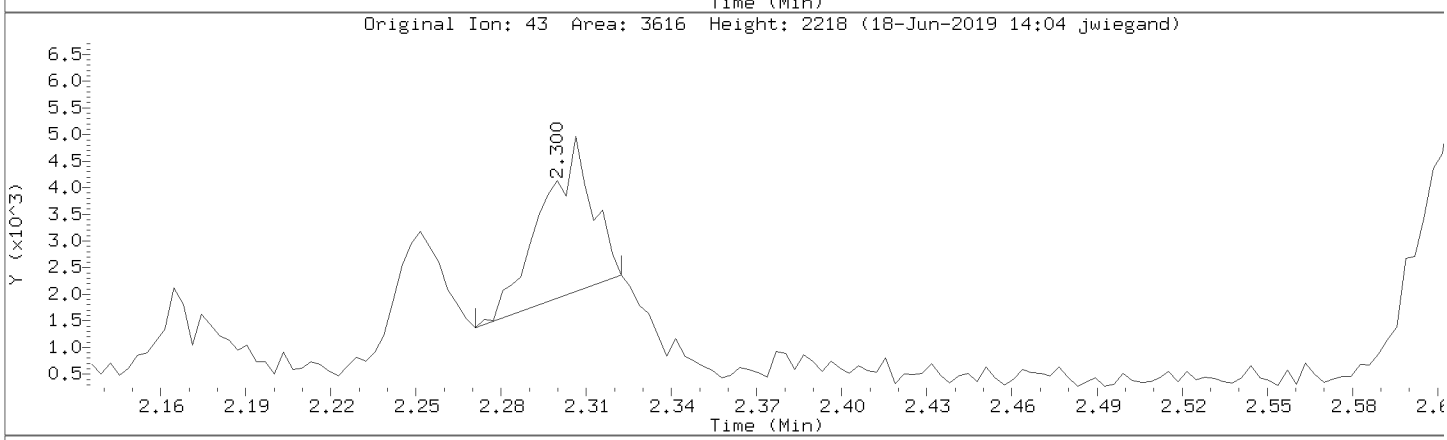
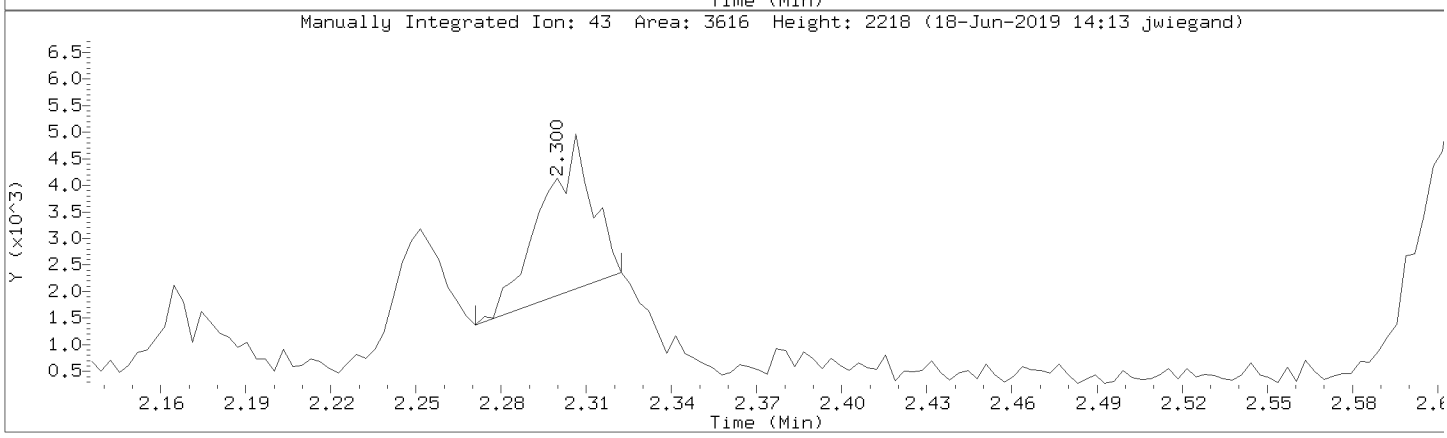
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









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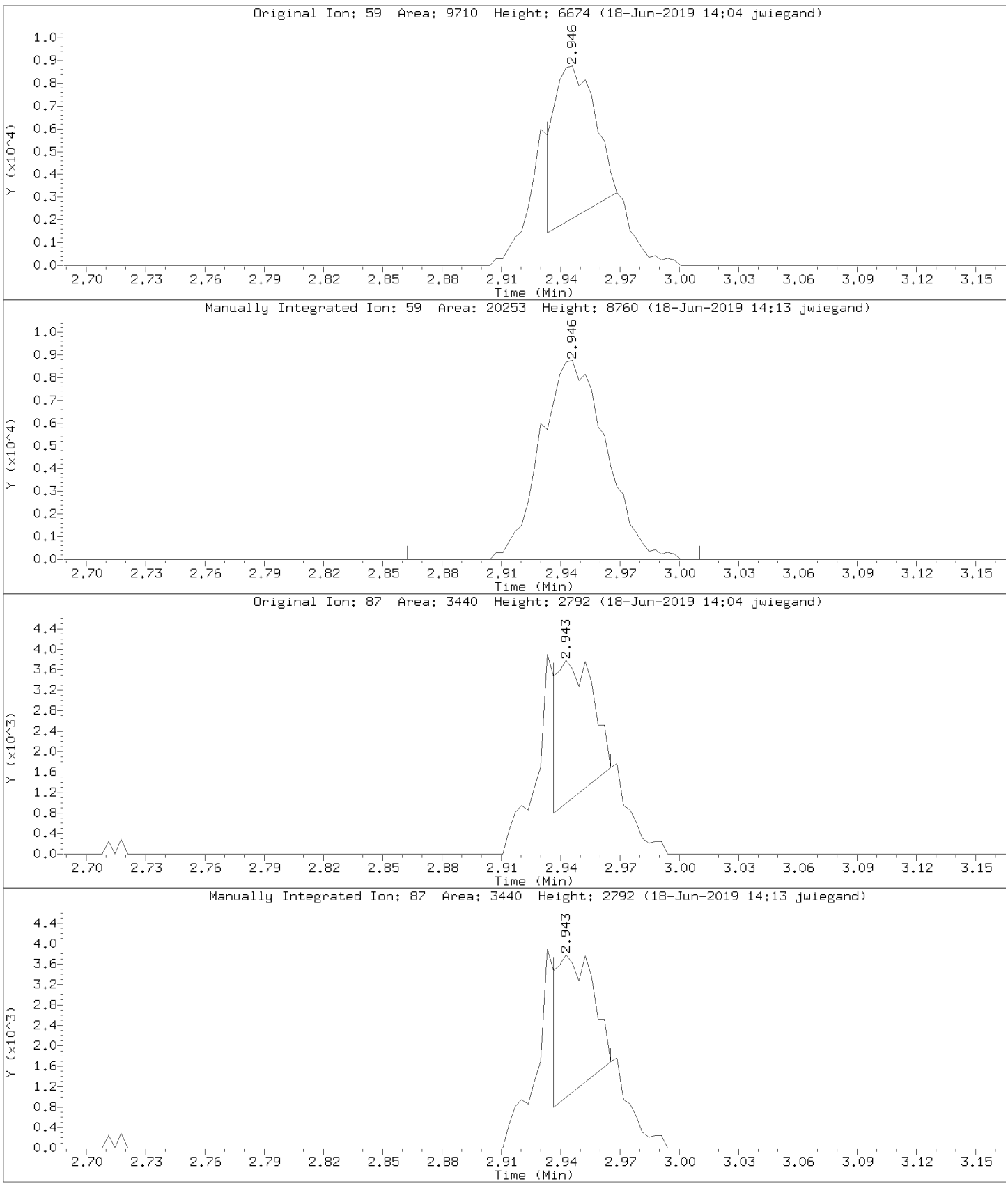
Injection Date: 18-JUN-2019 10:01
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Ethyl-tert-butyl ether Review Code: LT
CAS Number: 637-92-3



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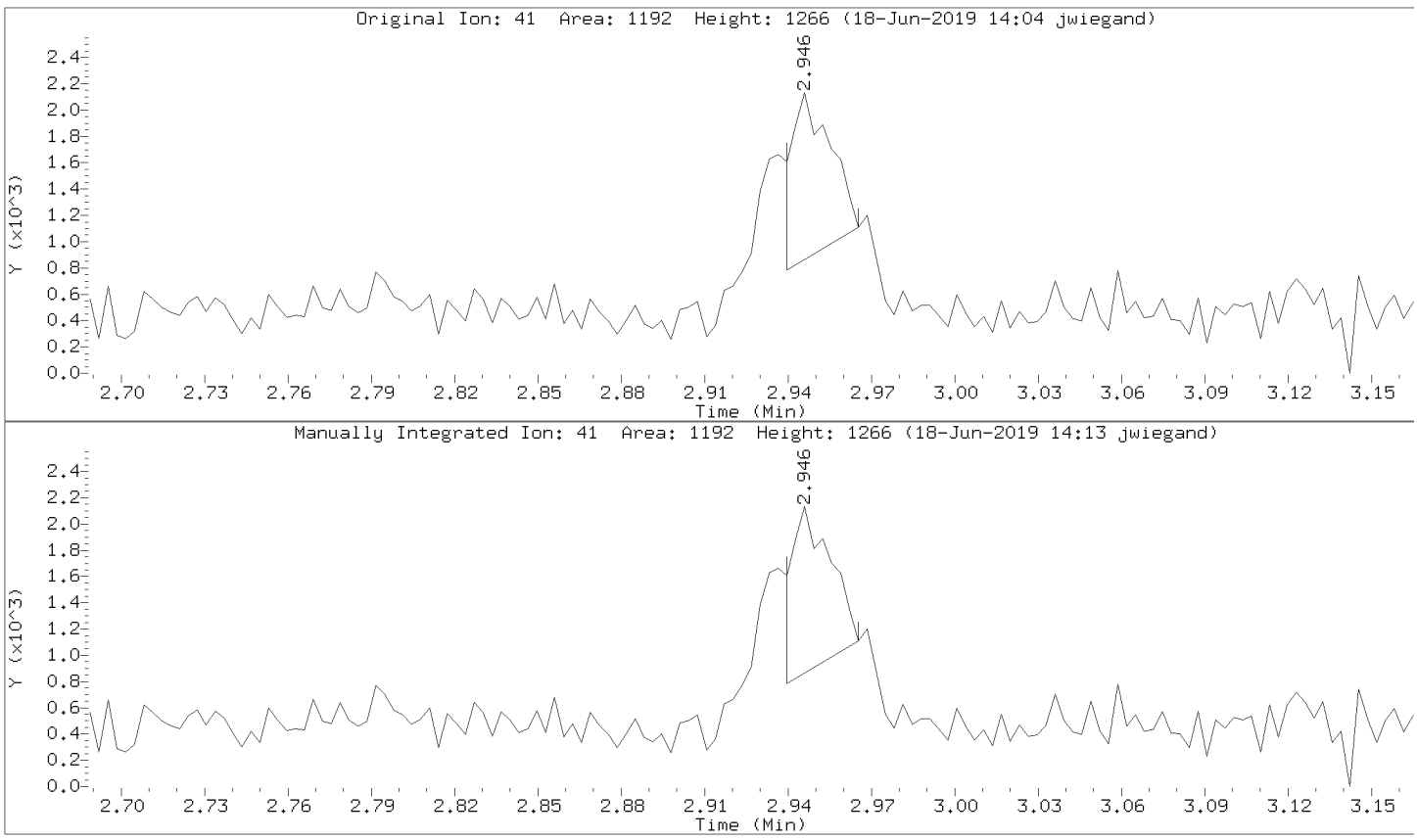

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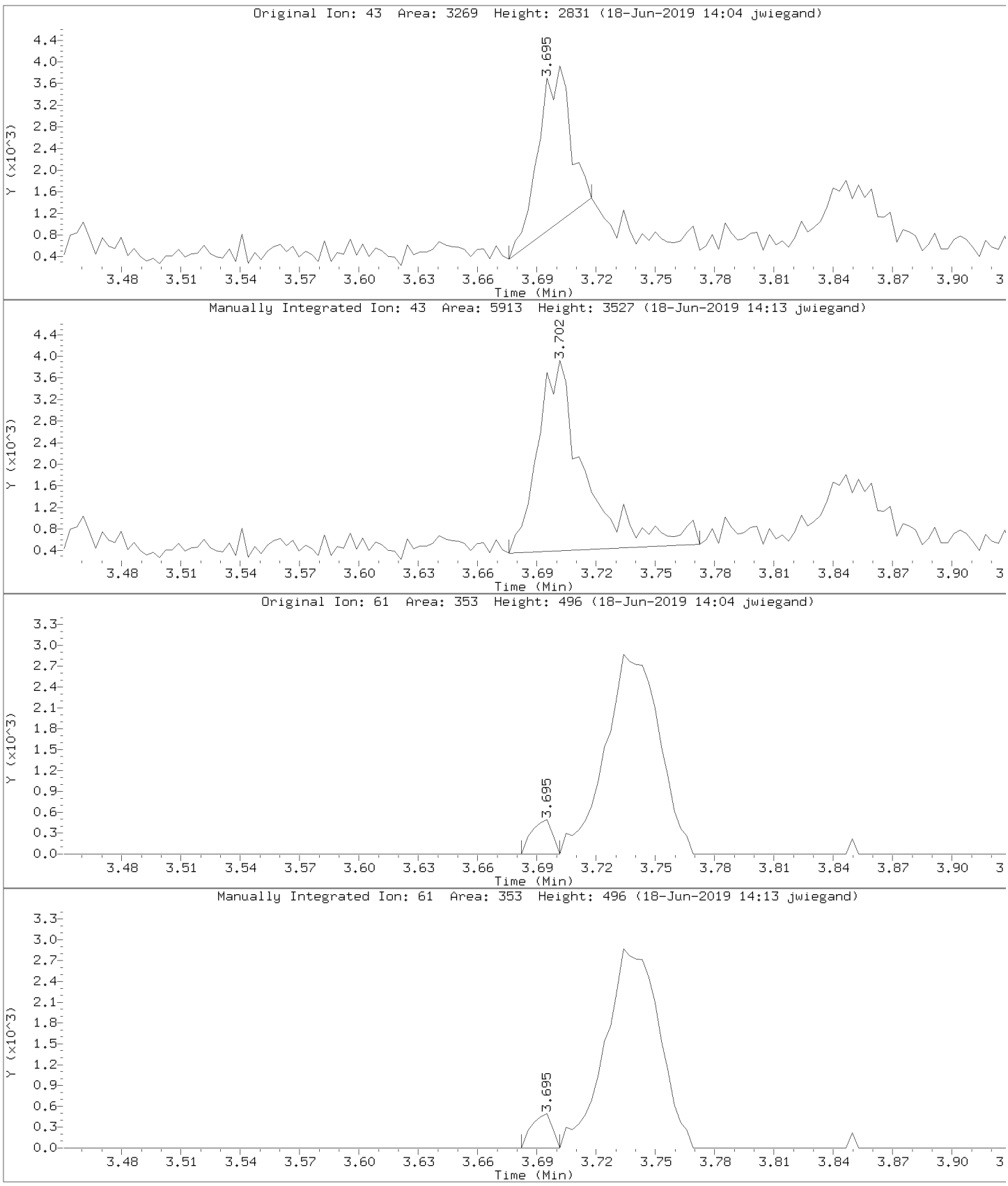
Instrument: 30mv5a.i
Lab Sample ID: CAL2

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



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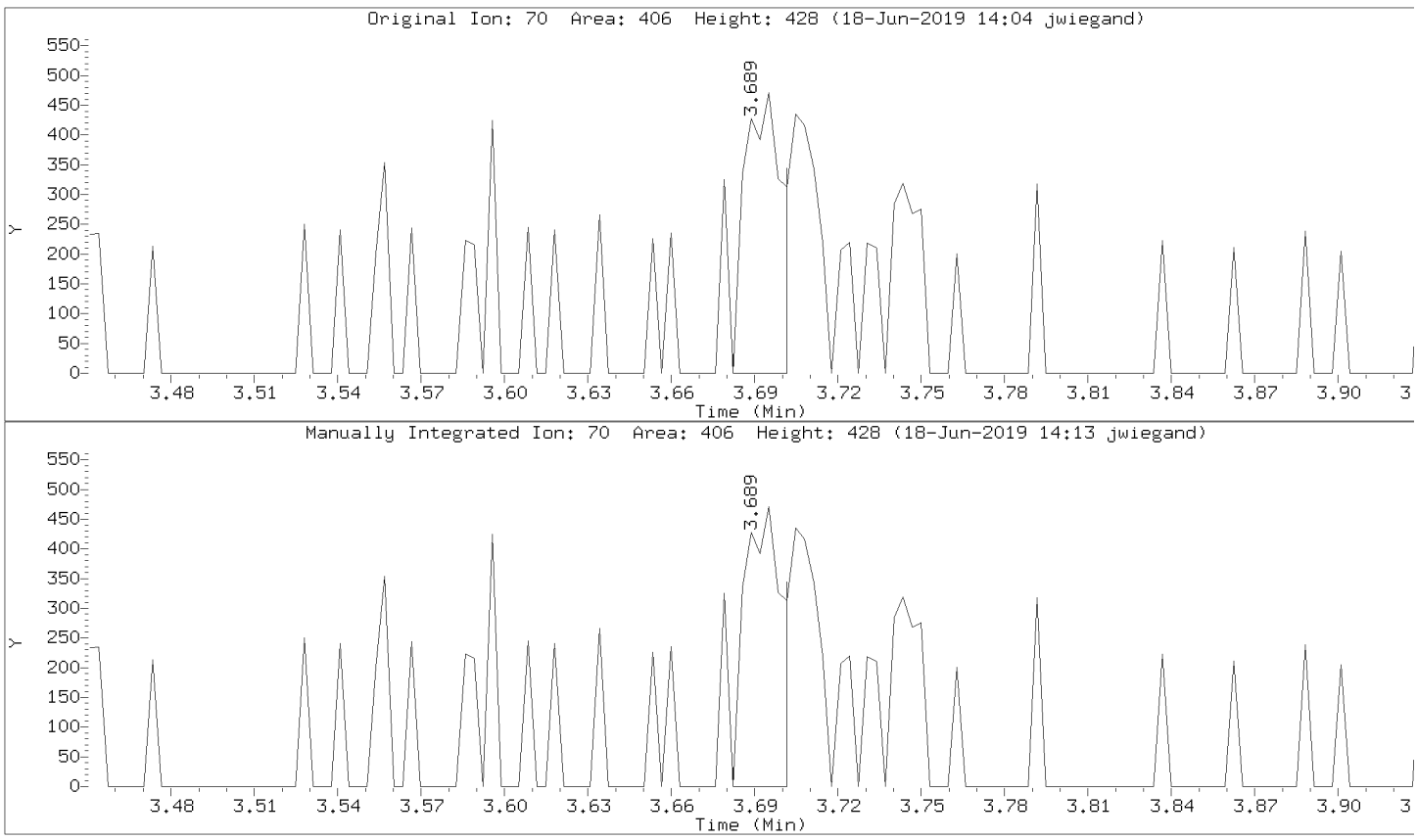


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 18-JUN-2019 10:27
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal3, 91187:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:27 Cal File: 50618009.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	13165	10.0000	10.9(QM)	LT
2 Chloromethane	50	1.138	1.142	(0.266)	10593	10.0000	11.5(M)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	16896	10.0000	11.0(M)	NI
4 Bromomethane	94	1.322	1.326	(0.309)	15314	10.0000	12.7(M)	LT
5 Chloroethane	64	1.386	1.380	(0.324)	9508	10.0000	9.73	
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	23570	10.0000	10.6	
7 Diethyl ether (Ethyl ether)	59	1.630	1.634	(0.381)	12424	10.0000	11.1	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	20065	10.0000	11.0	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	8267	10.0000	9.66(Q)	
11 Carbon disulfide	76	1.785	1.785	(0.417)	33988	10.0000	10.7	
12 Iodomethane	142	1.849	1.856	(0.432)	2427	10.0000	5.38(M)	LT
13 Acrolein	56	1.971	1.969	(0.461)	2159	10.0000	13.5(QM)	NI
14 Allyl chloride	41	2.055	2.056	(0.481)	91532	50.0000	61.0	
15 Methylene Chloride	49	2.129	2.133	(0.498)	13987	10.0000	10.6(Q)	
16 Acetone	43	2.174	2.165	(0.508)	3986	10.0000	11.8(QM)	LT
17 trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	20674	10.0000	11.0	
18 Methyl acetate	74	2.248	2.255	(0.526)	2518	10.0000	11.2	
19 n-Hexane	86	2.293	2.297	(0.536)	2859	10.0000	9.36(Q)	
20 Methyl-tert-butyl ether	73	2.318	2.313	(0.542)	43601	10.0000	10.6(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.396	2.387	(0.560)	9407	50.0000	54.6(QM)	LT
	22 Acetonitrile	41	2.531	2.522	(0.592)	4189	50.0000	44.8(QM)	WP
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	44690	10.0000	11.3	
	24 Chloroprene	53	2.711	2.705	(0.634)	18631	10.0000	11.1(Q)	
	25 1,1-Dichloroethane	63	2.733	2.728	(0.639)	27669	10.0000	11.6(Q)	
	26 Acrylonitrile	53	2.781	2.785	(0.650)	4564	10.0000	11.9(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.949	2.940	(0.690)	44845	10.0000	10.8(QM)	LT
	28 Vinyl acetate	43	2.965	2.965	(0.693)	32451	10.0000	10.2(Q)	
	29 cis-1,2-Dichloroethene	61	3.251	3.248	(0.760)	20358	10.0000	10.7(QM)	LT
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	23965	10.0000	10.6(QM)	LT
	31 Cyclohexane	56	3.460	3.451	(0.809)	18272	10.0000	9.71(QM)	LT
	32 Bromochloromethane	130	3.460	3.467	(0.809)	9536	10.0000	11.0(QM)	LT
	33 Chloroform	83	3.556	3.554	(0.832)	29850	10.0000	10.7(Q)	
	34 Carbon tetrachloride	117	3.685	3.679	(0.862)	19454	10.0000	9.80(QM)	LT
	35 Ethyl acetate	43	3.691	3.702	(0.863)	13267	10.0000	9.99(Q)	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	6457	10.0000	11.5(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	38506	30.0000	30.5	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	24312	10.0000	10.1	
	39 2-Butanone (MEK)	43	3.839	3.866	(0.898)	6070	10.0000	9.82(Q)	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.898)	19874	10.0000	9.93	
	41 Benzene	78	4.016	4.019	(0.939)	57334	10.0000	9.99	
	42 Propionitrile	54	4.052	4.049	(0.947)	1557	10.0000	10.8(QM)	LT
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	7531	10.0000	9.70(Q)	
	44 tert-Amylmethyl ether	73	4.106	4.107	(0.960)	42488	10.0000	10.1(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	40085	30.0000	29.4	
	46 Isobutanol	43	4.193	4.099	(0.980)	3115	50.0000	56.2(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	19977	10.0000	9.84	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	144432	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	17062	10.0000	8.44	
	50 Trichloroethene	95	4.373	4.374	(0.759)	15597	10.0000	10.3	
	51 Dibromomethane	174	4.598	4.599	(1.075)	9974	10.0000	10.3	
	52 1,2-Dichloropropane	63	4.650	4.647	(1.087)	14114	10.0000	10.1	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	19729	10.0000	10.1	
	54 Methyl methacrylate	69	4.772	4.776	(1.116)	10167	10.0000	9.81	
	55 1,4-Dioxane (p-Dioxane)	88	4.807	4.808	(1.124)	756	100.000	84.0(QM)	NI
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	5371	10.0000	10.1	
	57 cis-1,3-Dichloropropene	75	5.000	5.001	(1.169)	24484	10.0000	10.4	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	133902	30.0000	30.7	
	59 Toluene	91	5.109	5.110	(0.886)	58918	10.0000	10.2	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	23750	50.0000	51.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.284	(1.235)	14043	10.0000	10.0	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	13623	10.0000	9.29	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	21980	10.0000	10.1	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	11283	10.0000	9.79	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	13544	10.0000	10.4	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	15540	10.0000	10.3	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	21090	10.0000	10.1	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	13351	10.0000	10.2	
	69 2-Hexanone	43	5.643	5.644	(0.979)	10082	10.0000	10.3	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	19723	10.0000	9.81	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	101652	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	38629	10.0000	9.99	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	14813	10.0000	10.1	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	47949	20.0000	19.8	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.013	6.017	(1.043)	24254	10.0000	10.1	
76	Styrene	104	6.035	6.036	(1.047)	38744	10.0000	9.85	
77	Bromoform	173	6.055	6.059	(0.902)	10086	10.0000	9.73	
78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	54797	10.0000	9.70	
$ 79	4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	39144	30.0000	30.9	
80	n-Propylbenzene	91	6.305	6.306	(0.940)	61226	10.0000	9.46	
81	Bromobenzene	77	6.305	6.309	(0.940)	26324	10.0000	10.2	
82	1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	18421	10.0000	10.7	
83	1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	45387	10.0000	9.98	
84	2-Chlorotoluene	126	6.376	6.380	(0.950)	14866	10.0000	10.5	
85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	5183	10.0000	10.3	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	4100	10.0000	9.92(Q)	
87	Cyclohexanone	55	6.421	6.422	(0.957)	4685	50.0000	58.2	
88	4-Chlorotoluene	126	6.444	6.444	(0.960)	14365	10.0000	10.1	
89	tert-Butylbenzene	119	6.511	6.512	(0.970)	35295	10.0000	9.40	
90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	44243	10.0000	9.80	
91	sec-Butylbenzene	105	6.582	6.583	(0.981)	49010	10.0000	9.18	
92	p-Isopropyltoluene	119	6.633	6.634	(0.988)	41339	10.0000	9.20	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	24426	10.0000	9.68	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	43455	30.0000		
95	1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	24970	10.0000	9.90	
96	n-Butylbenzene	91	6.804	6.805	(1.014)	35444	10.0000	9.13	
97	1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	24233	10.0000	10.2	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	43454	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	2576	10.0000	9.12	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	12951	10.0000	9.43	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	5347	10.0000	8.66	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	10753	10.0000	9.44	
102	Naphthalene	128	7.617	7.618	(1.135)	26941	10.0000	9.19	
103	1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	9812	10.0000	9.48	
104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	7411	10.0000	6.55	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618009.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	144432	0.52
71 Chlorobenzene-d5	102704	51352	205408	101652	-1.02
94 1,4-Dichlorobenze	44519	22260	89038	43455	-2.39

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	10.9	
74-87-3	Chloromethane	11.5	
75-01-4	Vinyl chloride	11.0	
74-83-9	Bromomethane	12.7	
75-00-3	Chloroethane	9.73	
75-69-4	Trichlorofluoromethane	10.6	
60-29-7	Diethyl ether (Ethyl ether)	11.1	
75-35-4	1,1-Dichloroethene	11.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	9.66	
75-15-0	Carbon disulfide	10.7	
74-88-4	Iodomethane	5.38	
107-02-8	Acrolein	13.5	
107-05-1	Allyl chloride	61.0	
75-09-2	Methylene Chloride	10.6	
67-64-1	Acetone	11.8	
156-60-5	trans-1,2-Dichloroethene	11.0	
79-20-9	Methyl acetate	11.2	
110-54-3	n-Hexane	9.36	
1634-04-4	Methyl-tert-butyl ether	10.6	
75-65-0	tert-Butyl Alcohol	54.6	
75-05-8	Acetonitrile	44.8	
108-20-3	Diisopropyl ether	11.3	
126-99-8	Chloroprene	11.1	
75-34-3	1,1-Dichloroethane	11.6	
107-13-1	Acrylonitrile	11.9	
637-92-3	Ethyl-tert-butyl ether	10.8	
108-05-4	Vinyl acetate	10.2	
156-59-2	cis-1,2-Dichloroethene	10.7	
594-20-7	2,2-Dichloropropane	10.6	
110-82-7	Cyclohexane	9.71	
74-97-5	Bromochloromethane	11.0	
67-66-3	Chloroform	10.7	
56-23-5	Carbon tetrachloride	9.80	
141-78-6	Ethyl acetate	9.99	
109-99-9	Tetrahydrofuran	11.5	
71-55-6	1,1,1-Trichloroethane	10.1	
78-93-3	2-Butanone (MEK)	9.82	
563-58-6	1,1-Dichloropropene	9.93	
71-43-2	Benzene	9.99	
107-12-0	Propionitrile	10.8	
126-98-7	Methacrylonitrile	9.70	
994-05-8	tert-Amylmethyl ether	10.1	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	56.2	
107-06-2	1,2-Dichloroethane	9.84	
108-87-2	Methylcyclohexane	8.44	
79-01-6	Trichloroethene	10.3	
74-95-3	Dibromomethane	10.3	
78-87-5	1,2-Dichloropropane	10.1	
75-27-4	Bromodichloromethane	10.1	
80-62-6	Methyl methacrylate	9.81	
123-91-1	1,4-Dioxane (p-Dioxane)	84.0	
110-75-8	2-Chloroethylvinyl ether	10.1	
10061-01-5	cis-1,3-Dichloropropene	10.4	
108-88-3	Toluene	10.2	
79-46-9	2-Nitropropane	51.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.0	
127-18-4	Tetrachloroethene	9.29	
10061-02-6	trans-1,3-Dichloropropene	10.1	
97-63-2	Ethyl methacrylate	9.79	
79-00-5	1,1,2-Trichloroethane	10.4	
124-48-1	Dibromochloromethane	10.3	
142-28-9	1,3-Dichloropropane	10.1	
106-93-4	1,2-Dibromoethane (EDB)	10.2	
591-78-6	2-Hexanone	10.3	
100-41-4	Ethylbenzene	9.81	
108-90-7	Chlorobenzene	9.99	
630-20-6	1,1,1,2-Tetrachloroethane	10.1	
7816-60-0	m&p-Xylene	19.8	
95-47-6	o-Xylene	10.1	
100-42-5	Styrene	9.85	
75-25-2	Bromoform	9.73	
98-82-8	Isopropylbenzene (Cumene)	9.70	
103-65-1	n-Propylbenzene	9.46	
108-86-1	Bromobenzene	10.2	
79-34-5	1,1,2,2-Tetrachloroethane	10.7	
108-67-8	1,3,5-Trimethylbenzene	9.98	
95-49-8	2-Chlorotoluene	10.5	
96-18-4	1,2,3-Trichloropropane	10.3	
110-57-6	trans-1,4-Dichloro-2-butene	9.92	
108-94-1	Cyclohexanone	58.2	
106-43-4	4-Chlorotoluene	10.1	
98-06-6	tert-Butylbenzene	9.40	
95-63-6	1,2,4-Trimethylbenzene	9.80	
135-98-8	sec-Butylbenzene	9.18	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Report Date: 26-Jun-2019 14:06

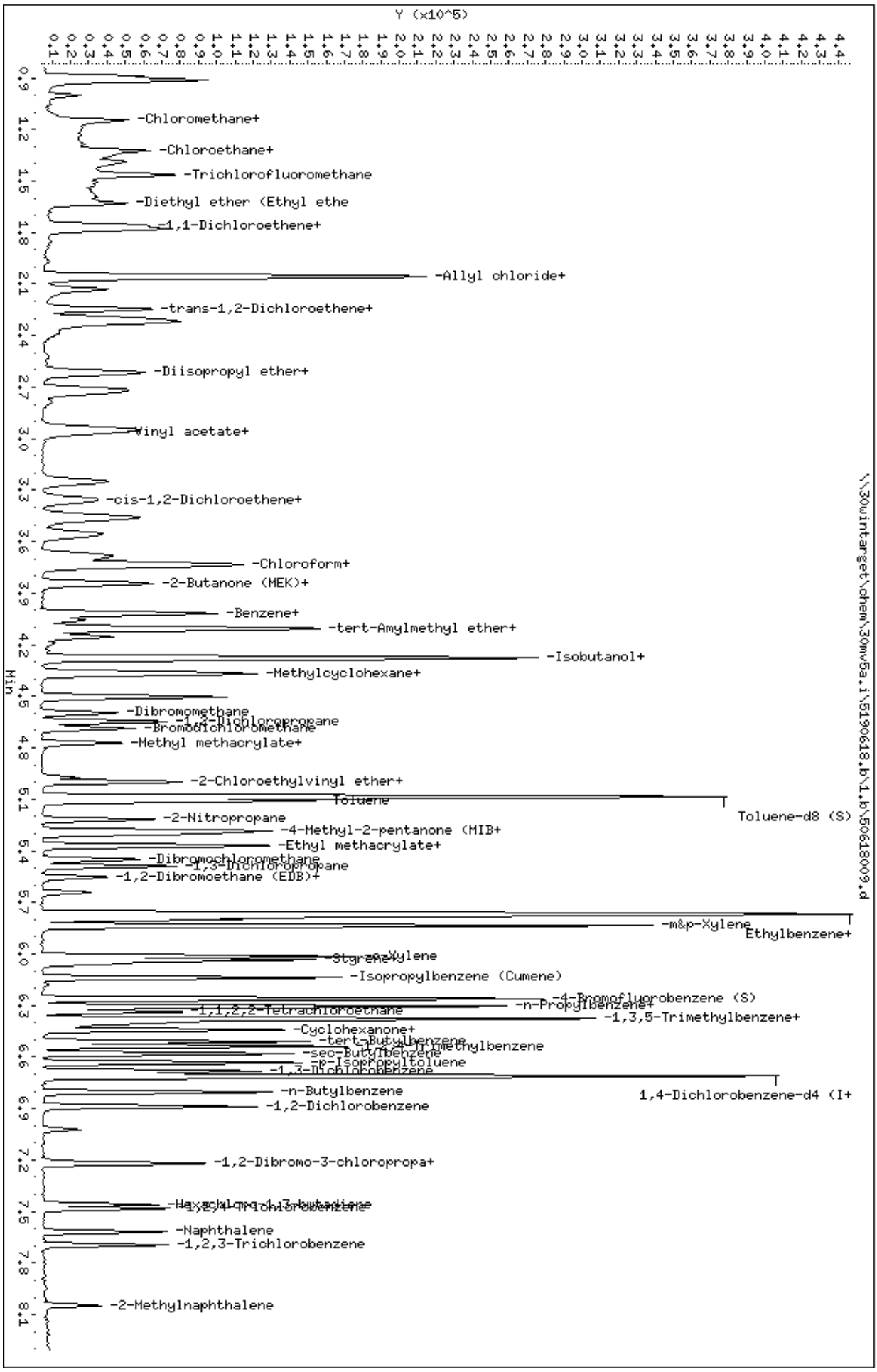
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	9.20	
541-73-1	1,3-Dichlorobenzene	9.68	
106-46-7	1,4-Dichlorobenzene	9.90	
104-51-8	n-Butylbenzene	9.13	
95-50-1	1,2-Dichlorobenzene	10.2	
96-12-8	1,2-Dibromo-3-chloropropane	9.12	
108-70-3	1,3,5-Trichlorobenzene	9.43	
87-68-3	Hexachloro-1,3-butadiene	8.66	
120-82-1	1,2,4-Trichlorobenzene	9.44	
91-20-3	Naphthalene	9.19	
87-61-6	1,2,3-Trichlorobenzene	9.48	
91-57-6	2-Methylnaphthalene	6.55	
1868-53-7	Dibromofluoromethane (S)	30.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.4	
2037-26-5	Toluene-d8 (S)	30.7	
460-00-4	4-Bromofluorobenzene (S)	30.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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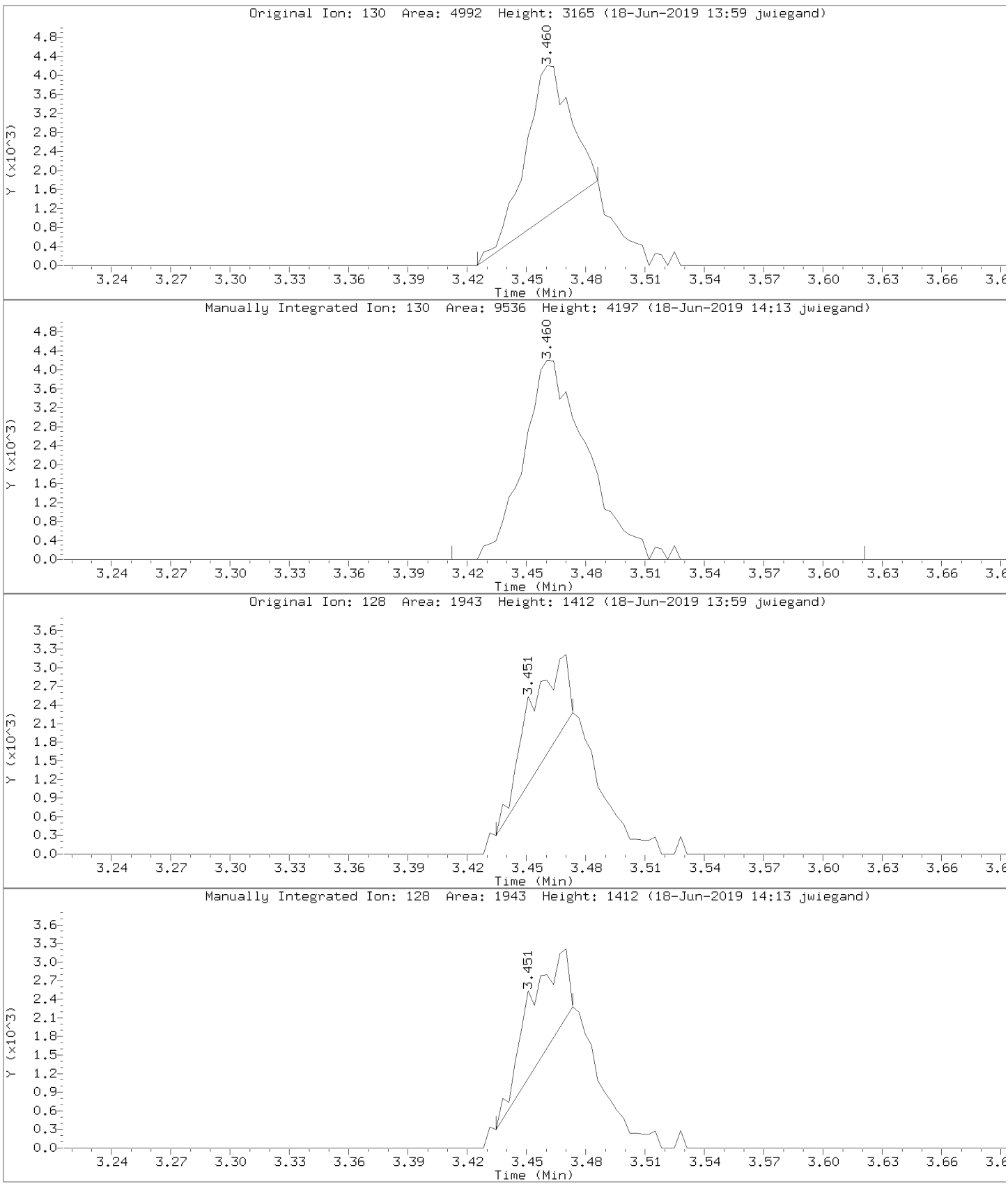
Date : 18-JUN-2019 10:27
Client ID: CAL3
Sample Info: CAL3, 91187:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618009.d
Y (x10^5)
Min
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Allyl chloride+
-trans-1,2-Dichloroethene+
-Diisopropyl ether+
-Vinyl acetate+
-cis-1,2-Dichloroethene+
-Chloroform+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether+
Toluene
Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)+
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618009.d
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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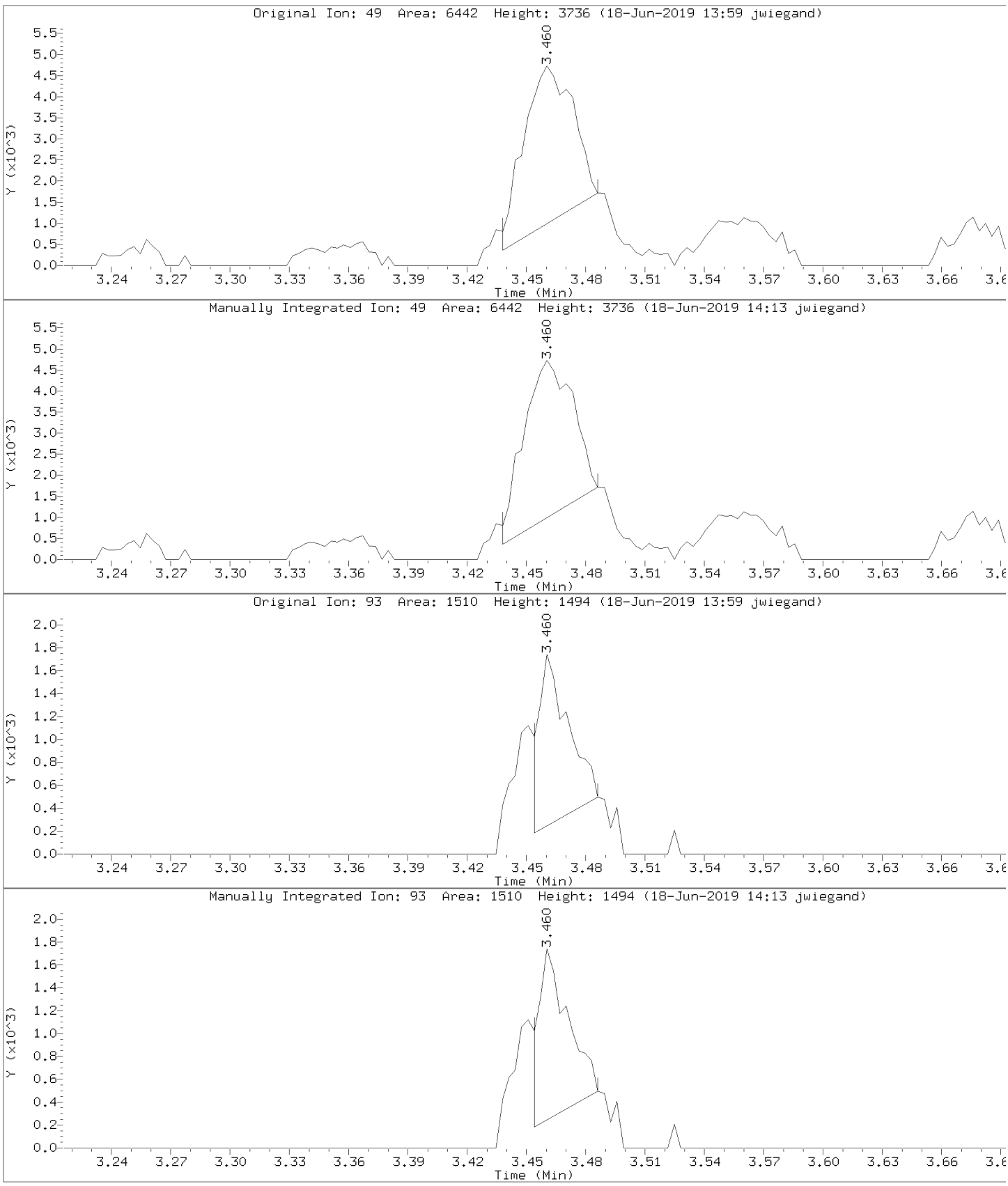
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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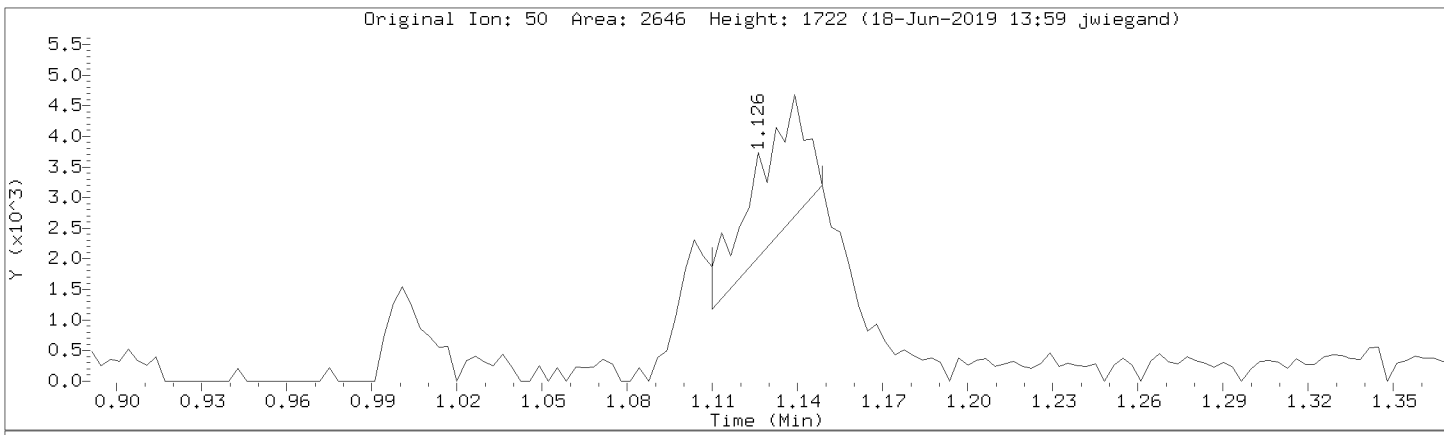
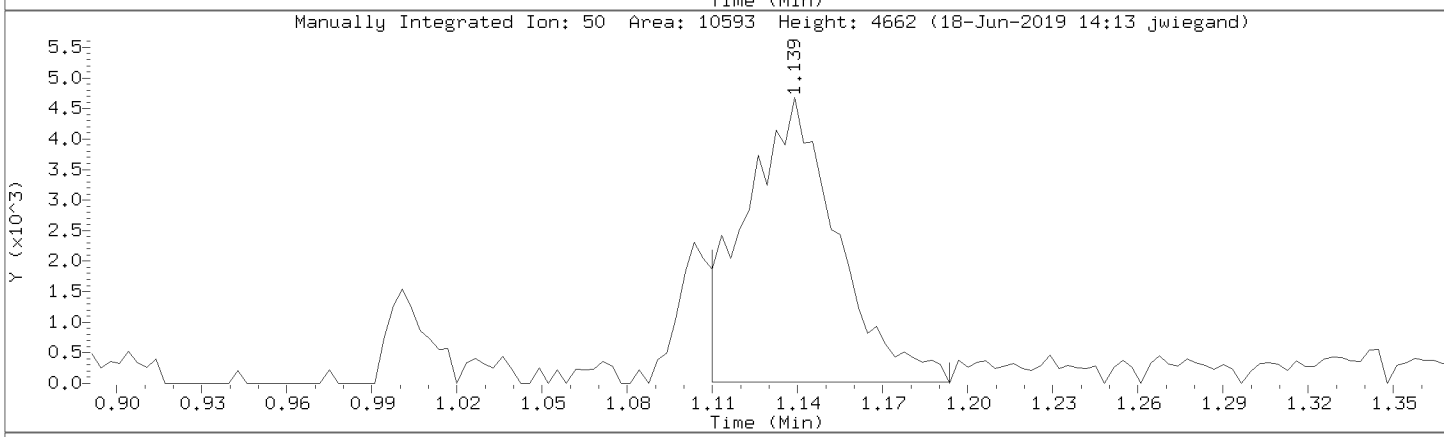
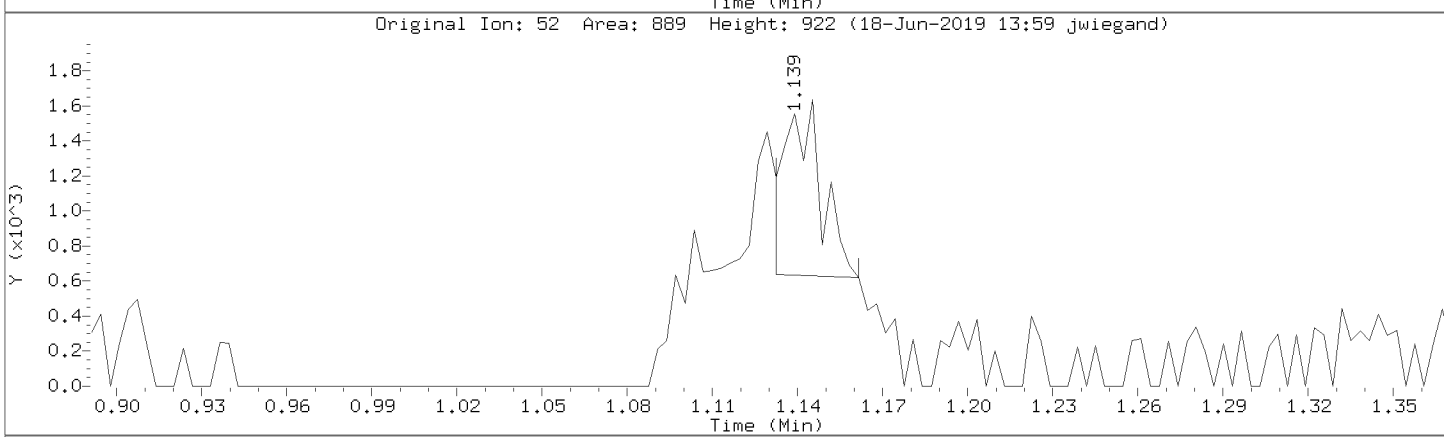
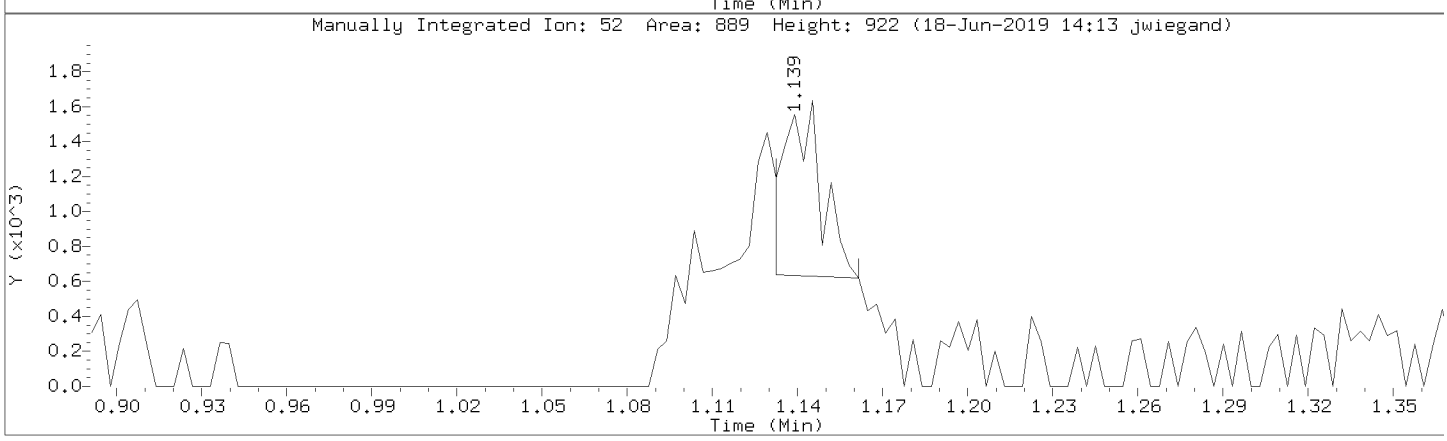
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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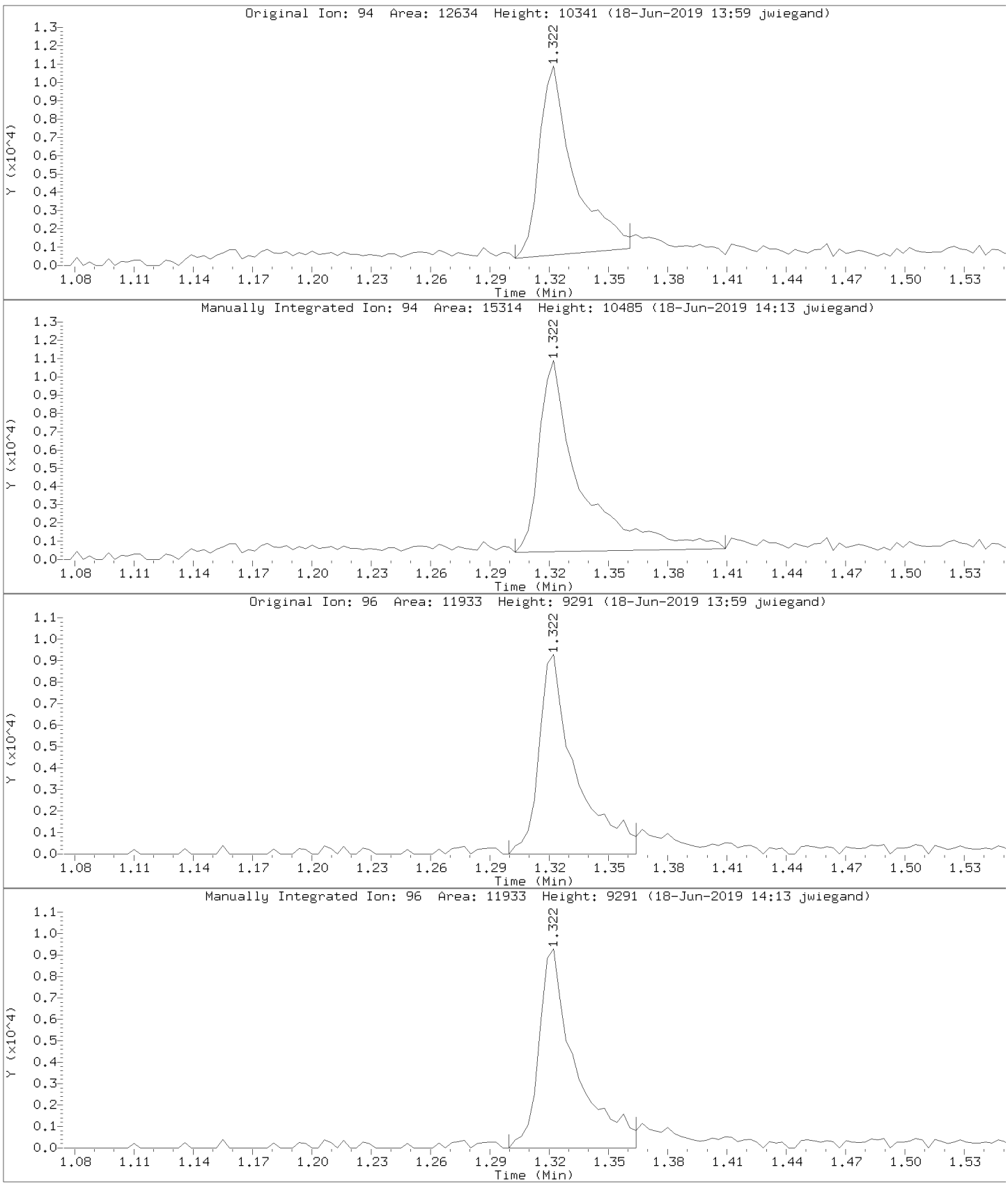
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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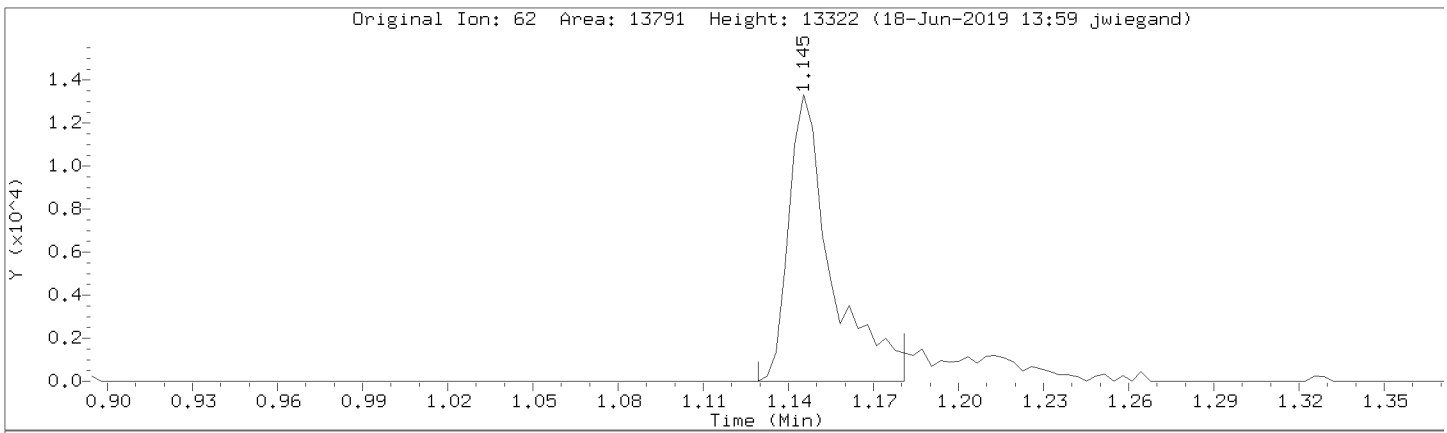
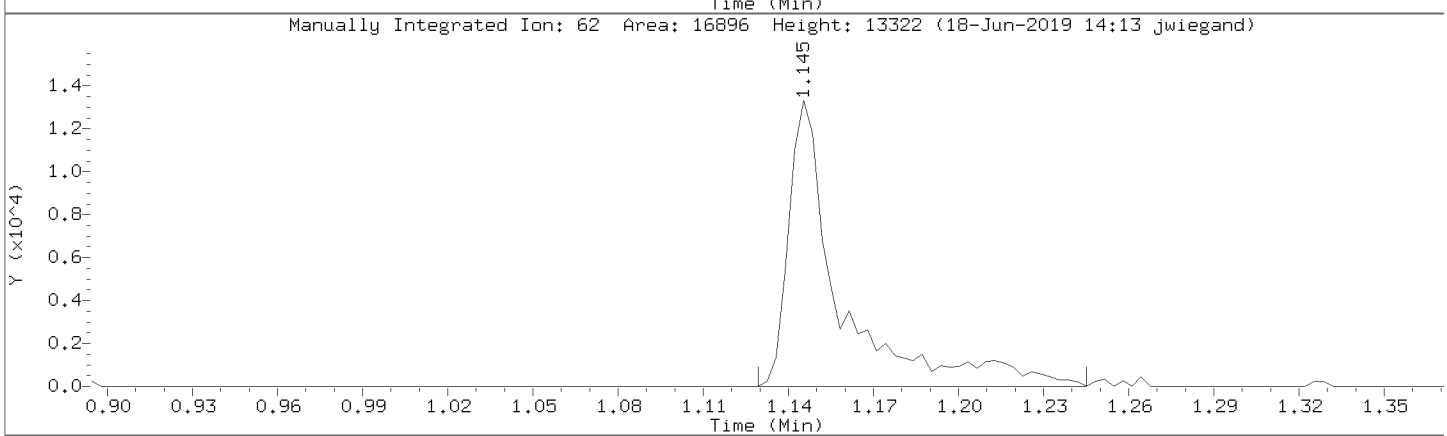
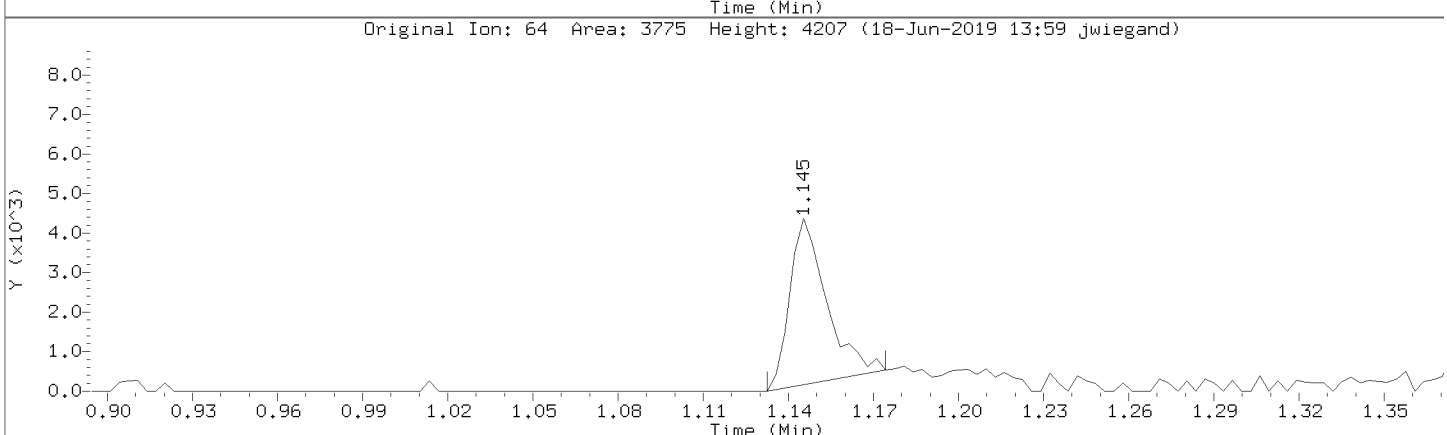
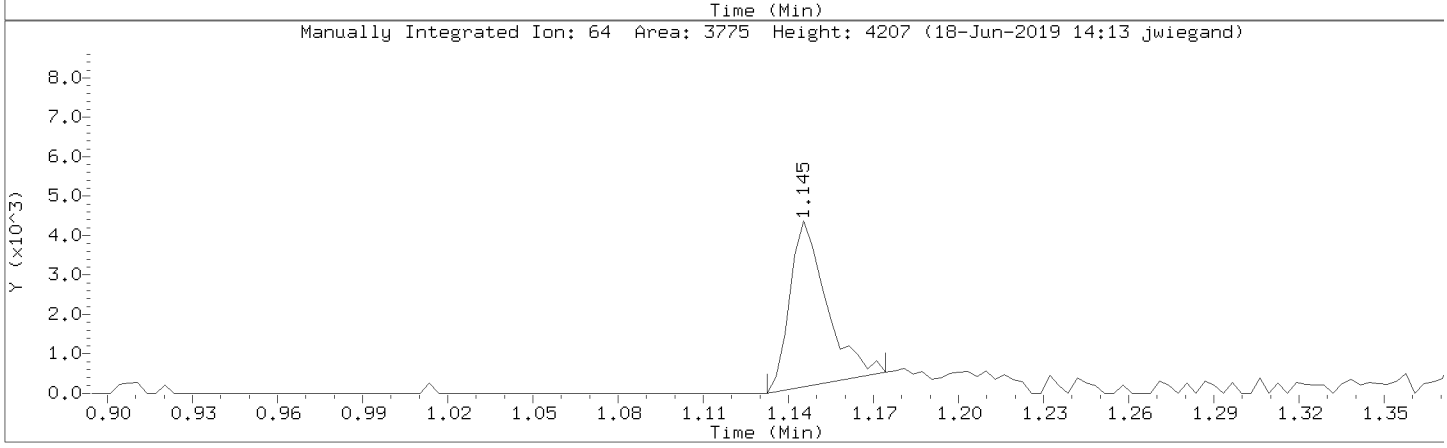
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Vinyl chloride Review Code: NI
CAS Number: 75-01-4









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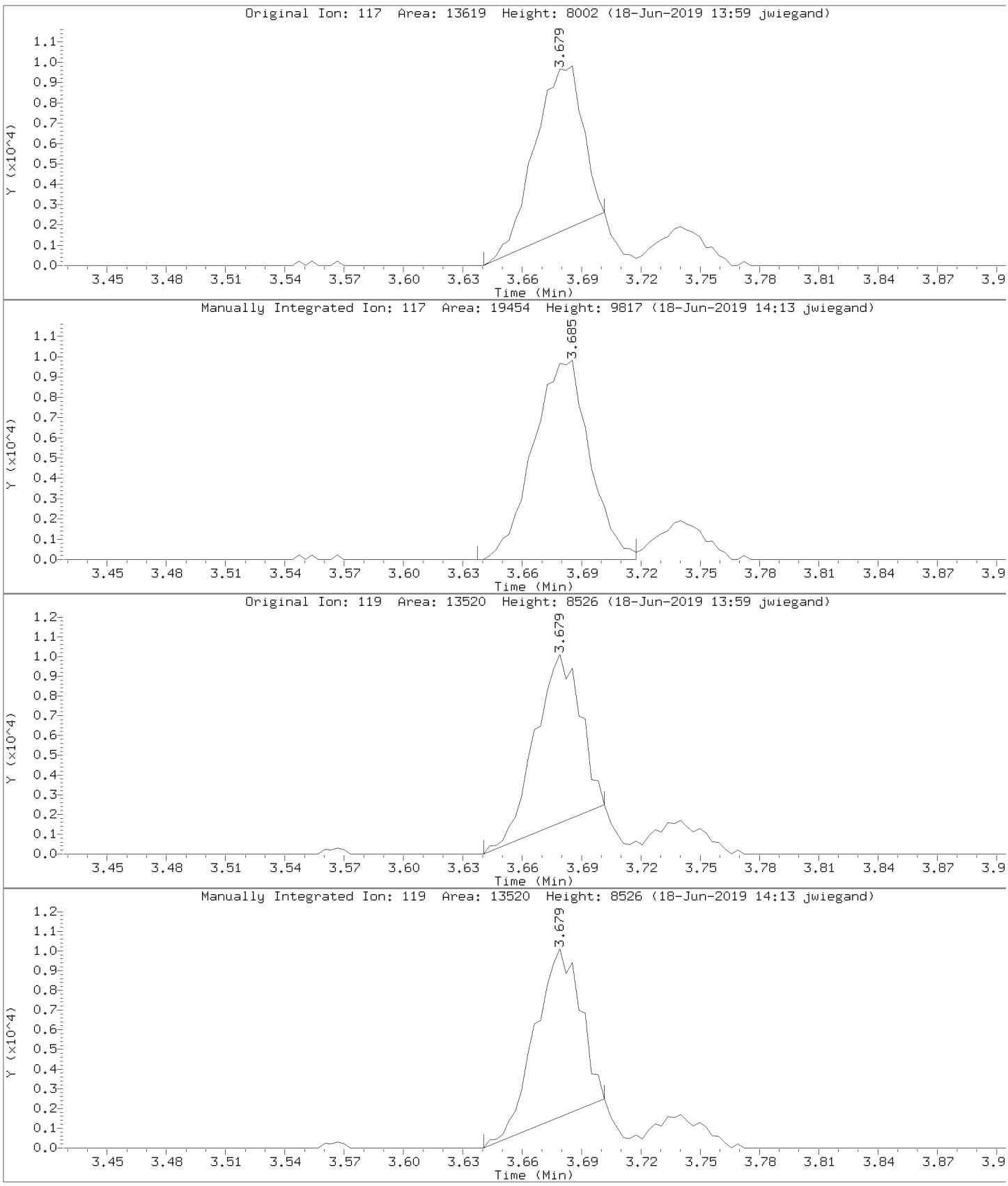
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Carbon tetrachloride Review Code: LT
CAS Number: 56-23-5



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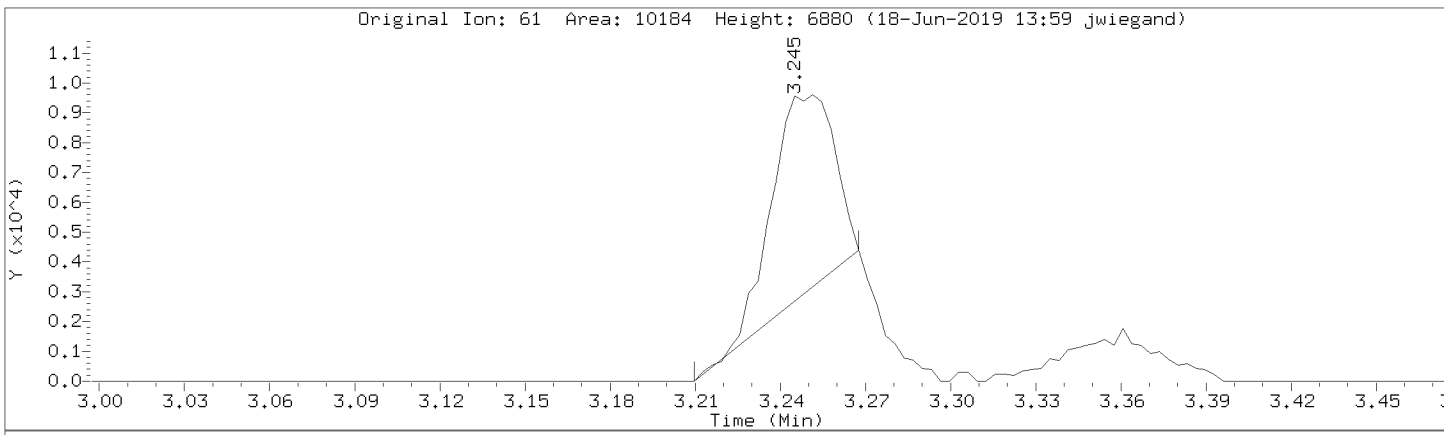
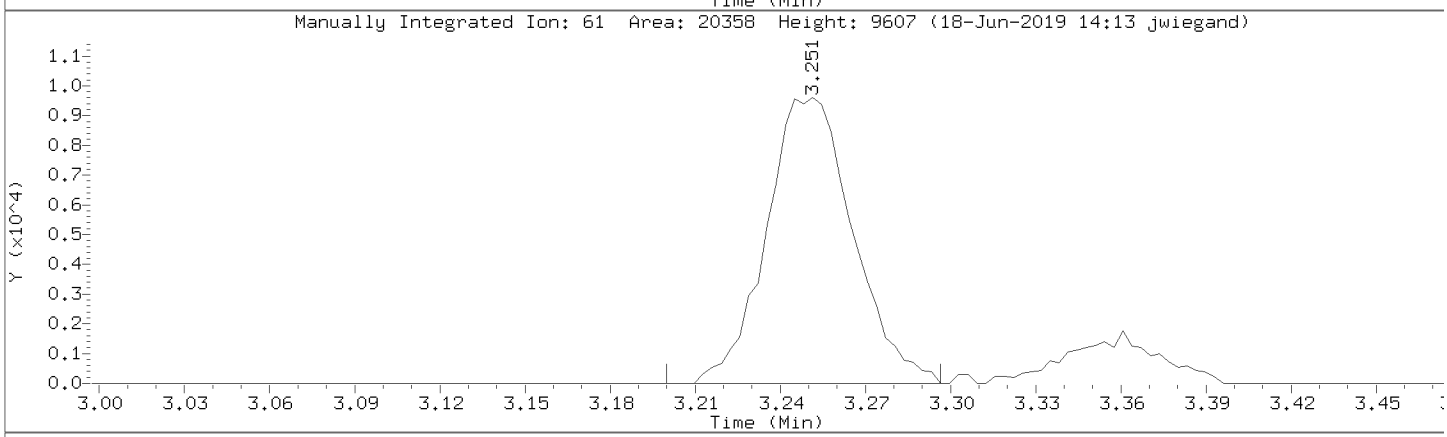
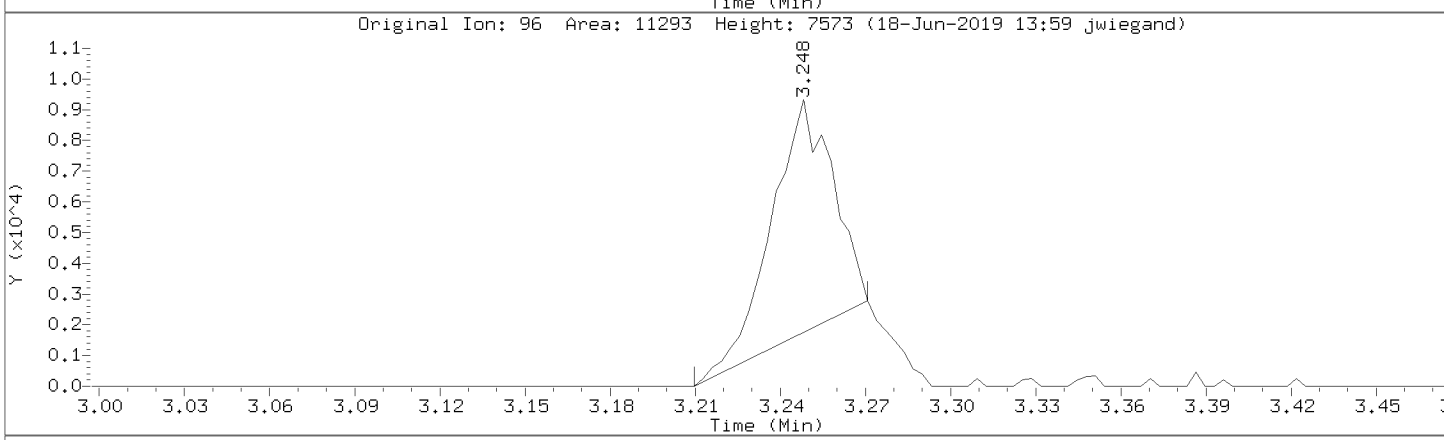
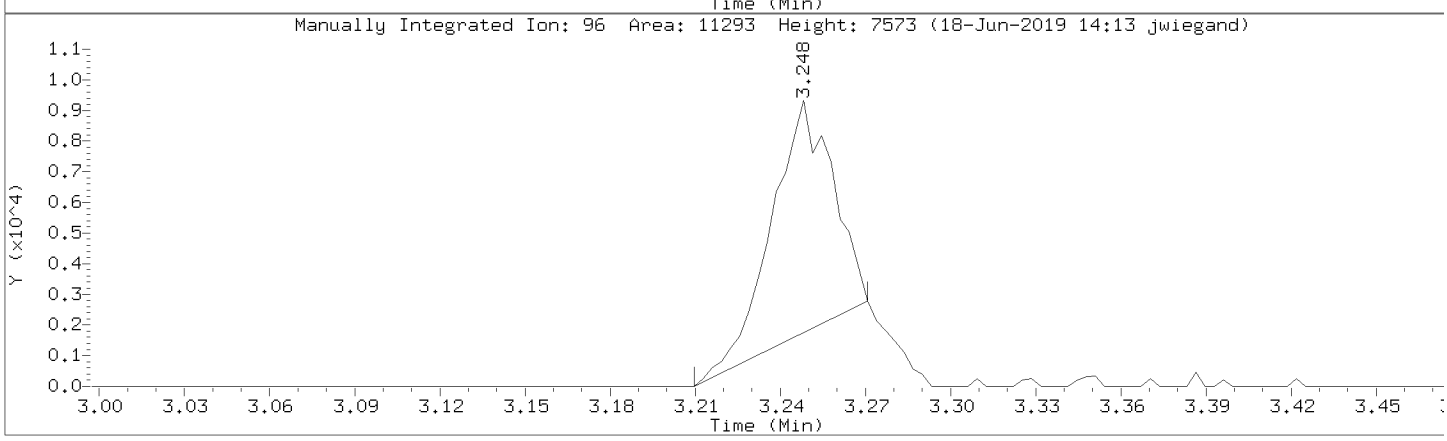
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2









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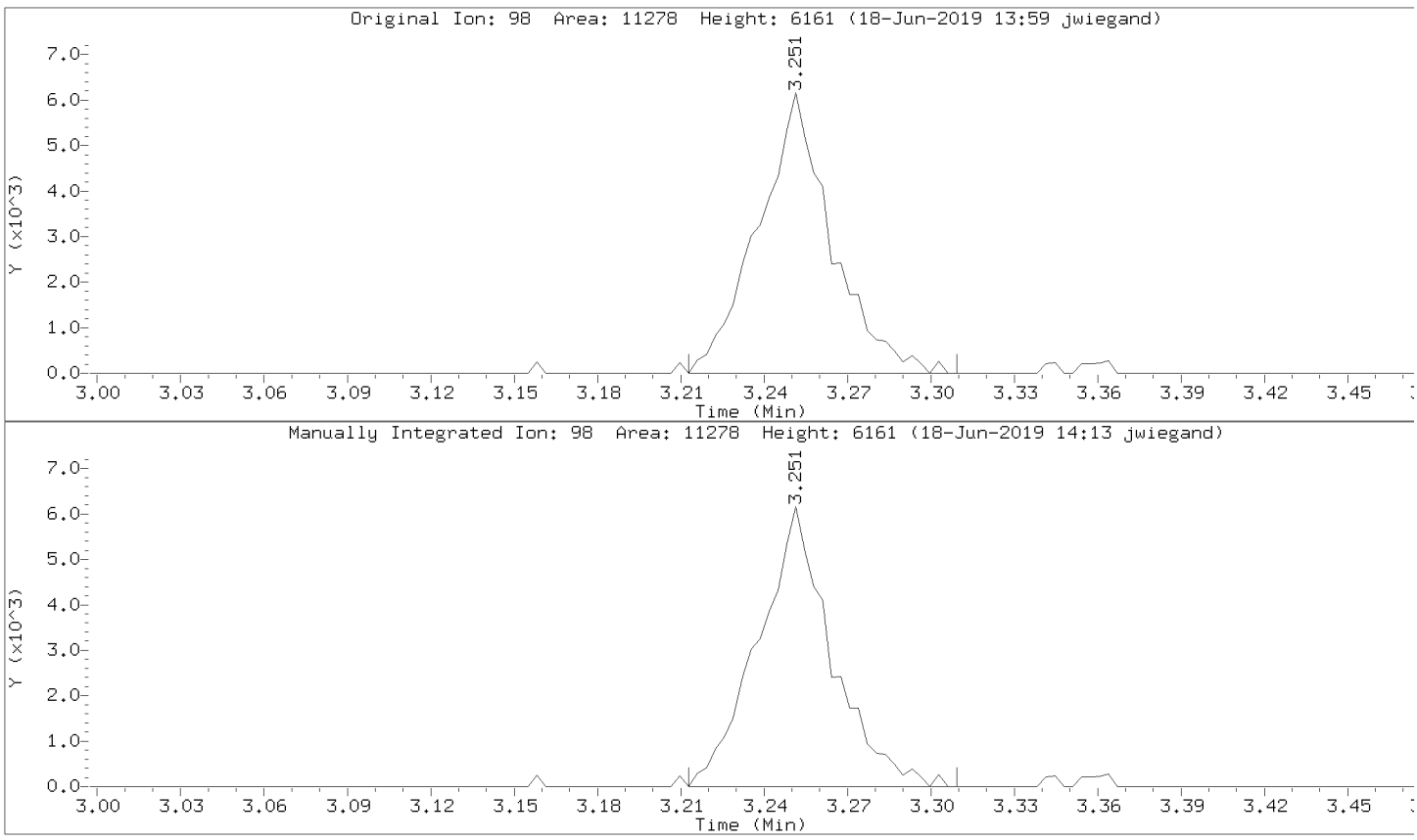
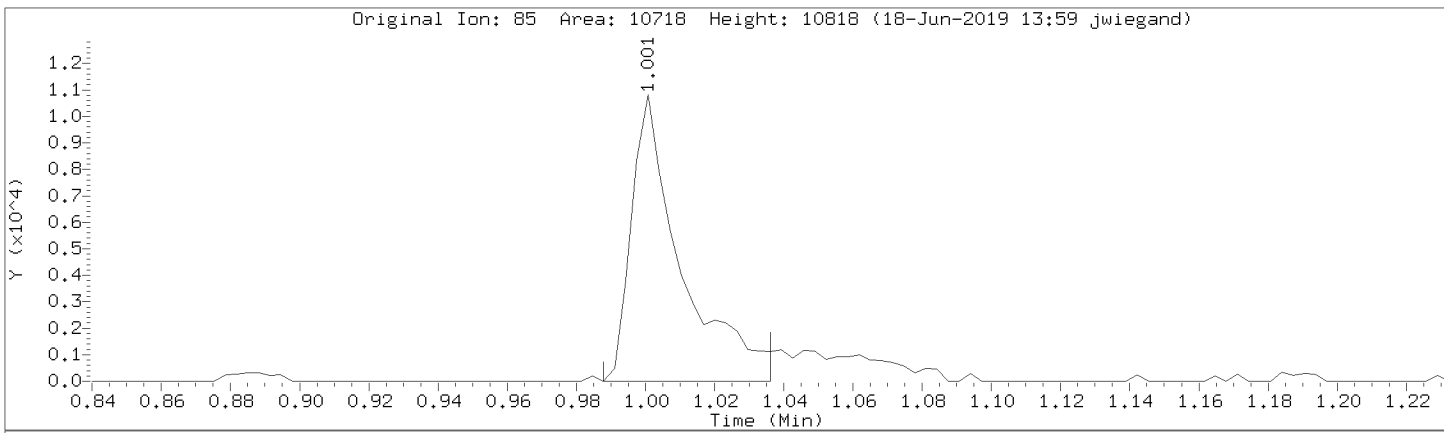
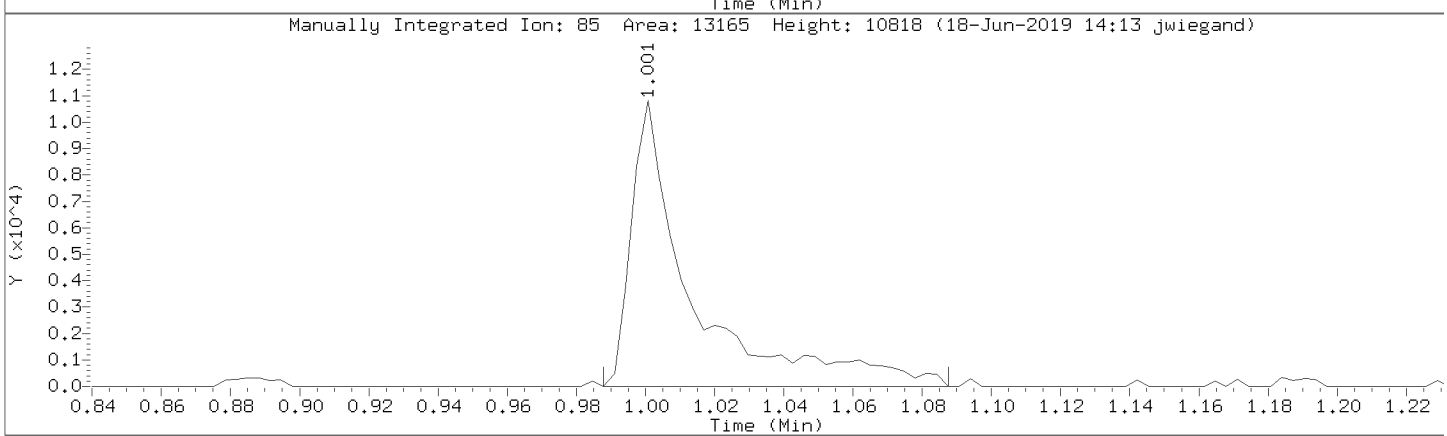
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

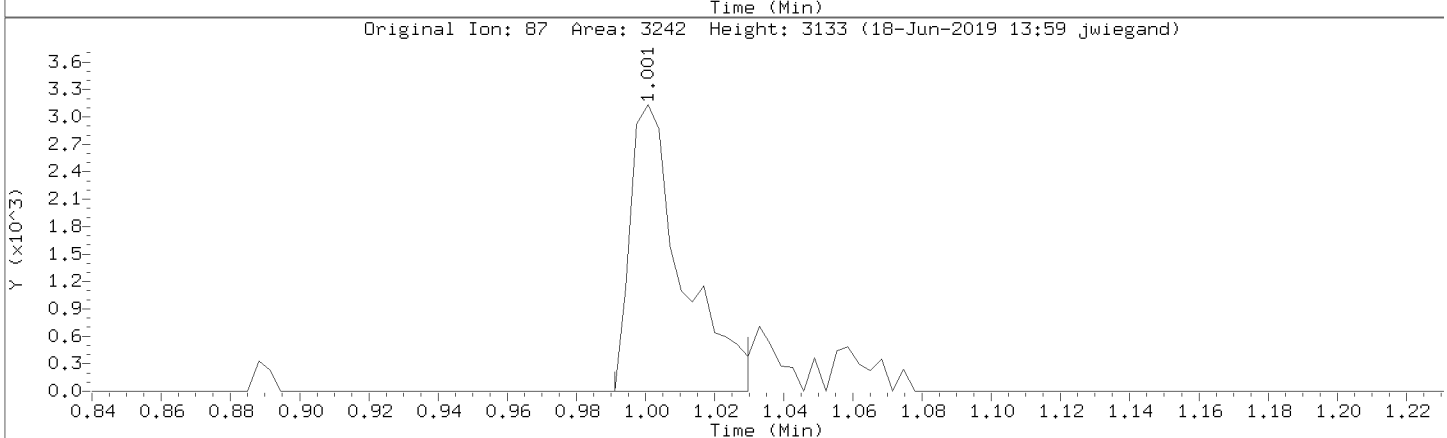


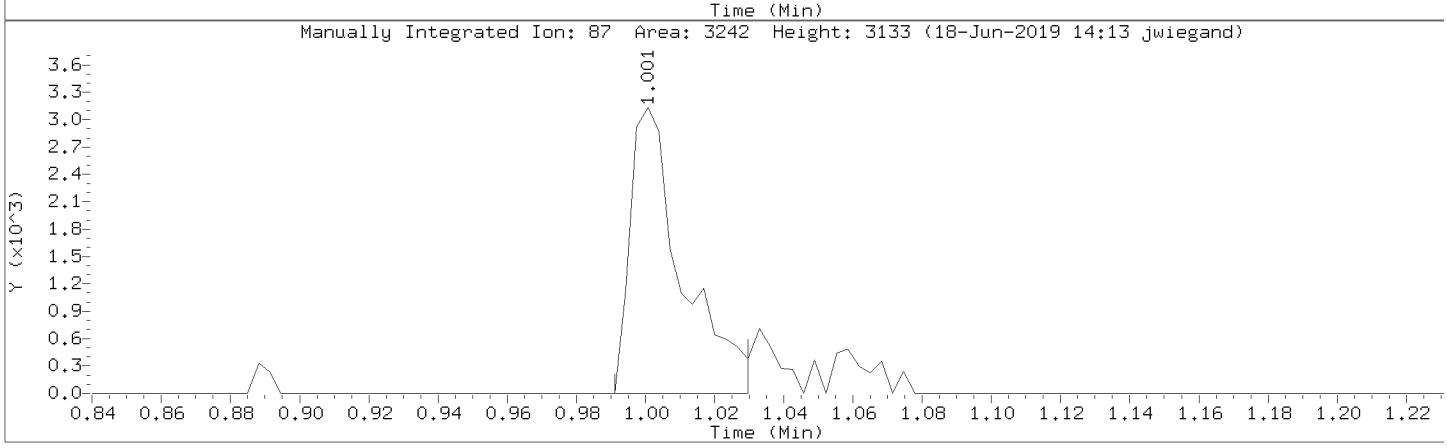
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618009.d
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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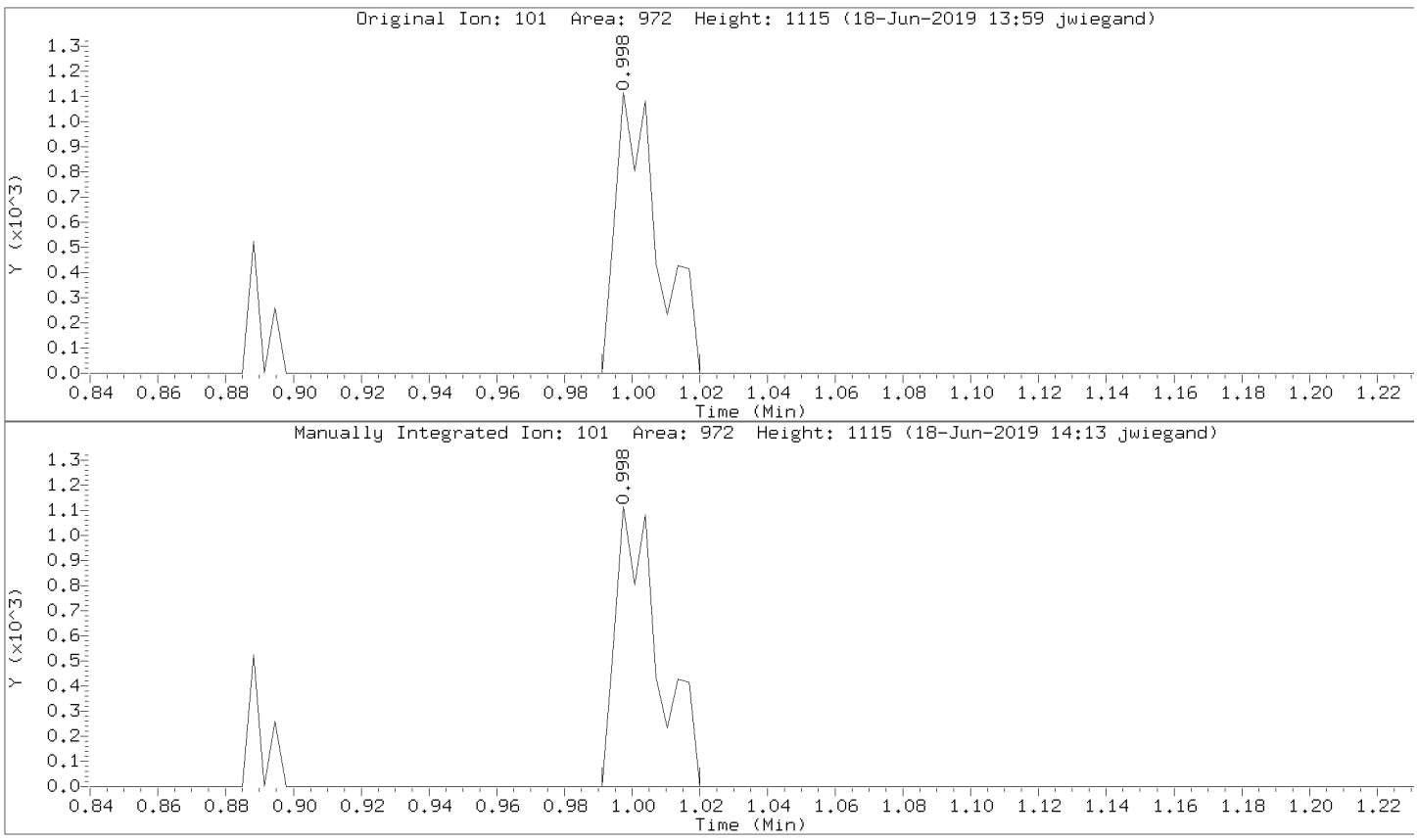
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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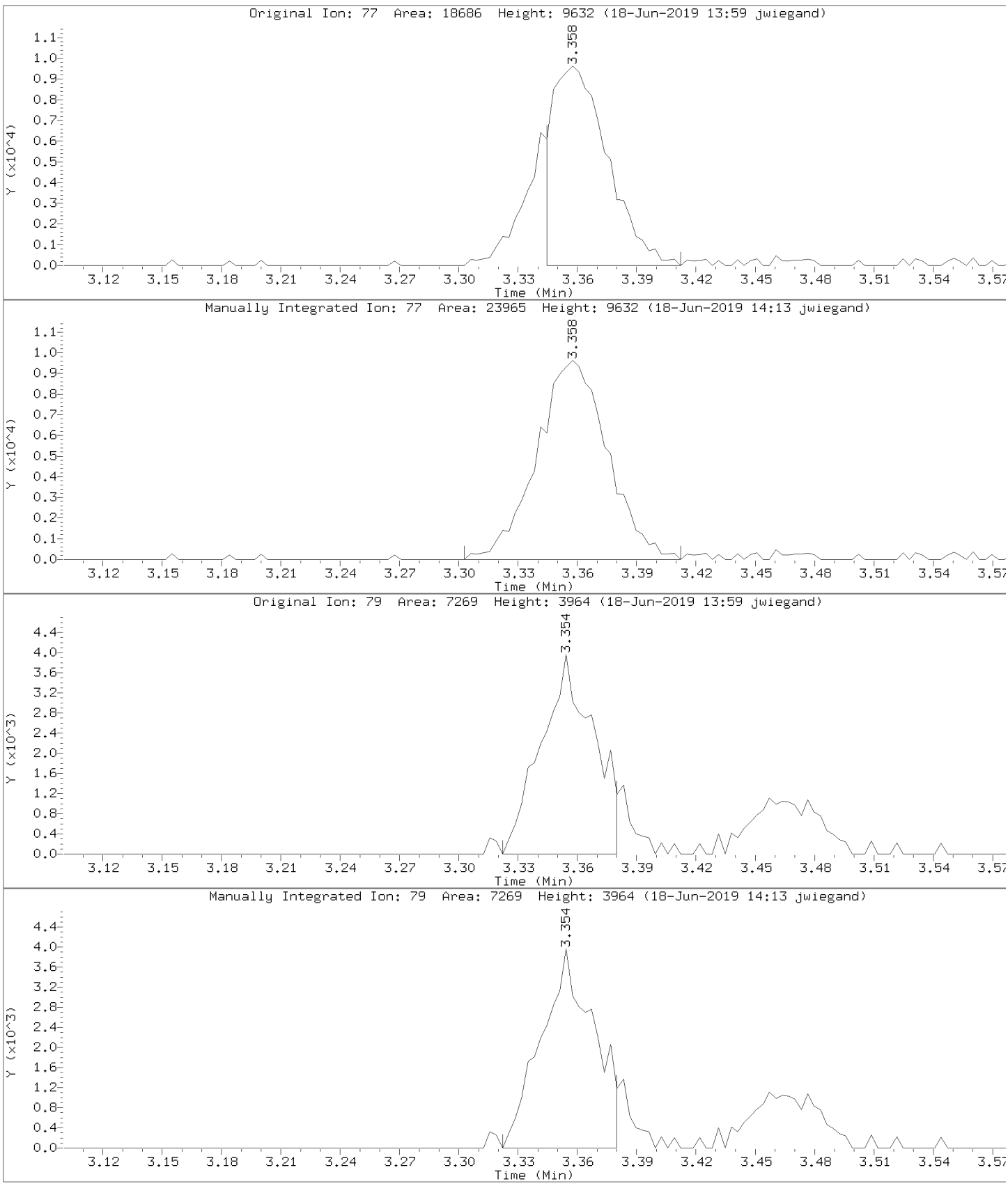
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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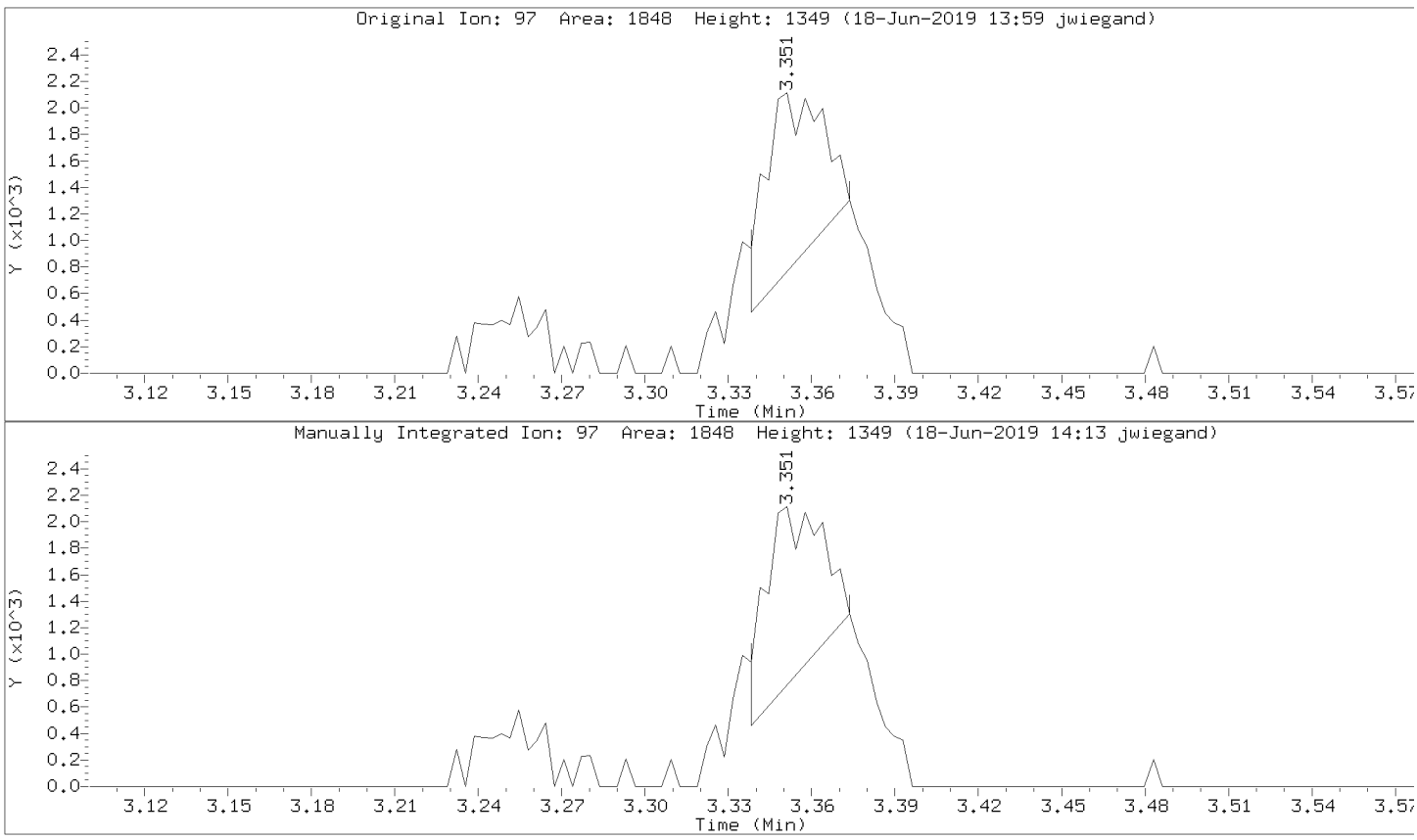
Lab Sample ID: CAL3



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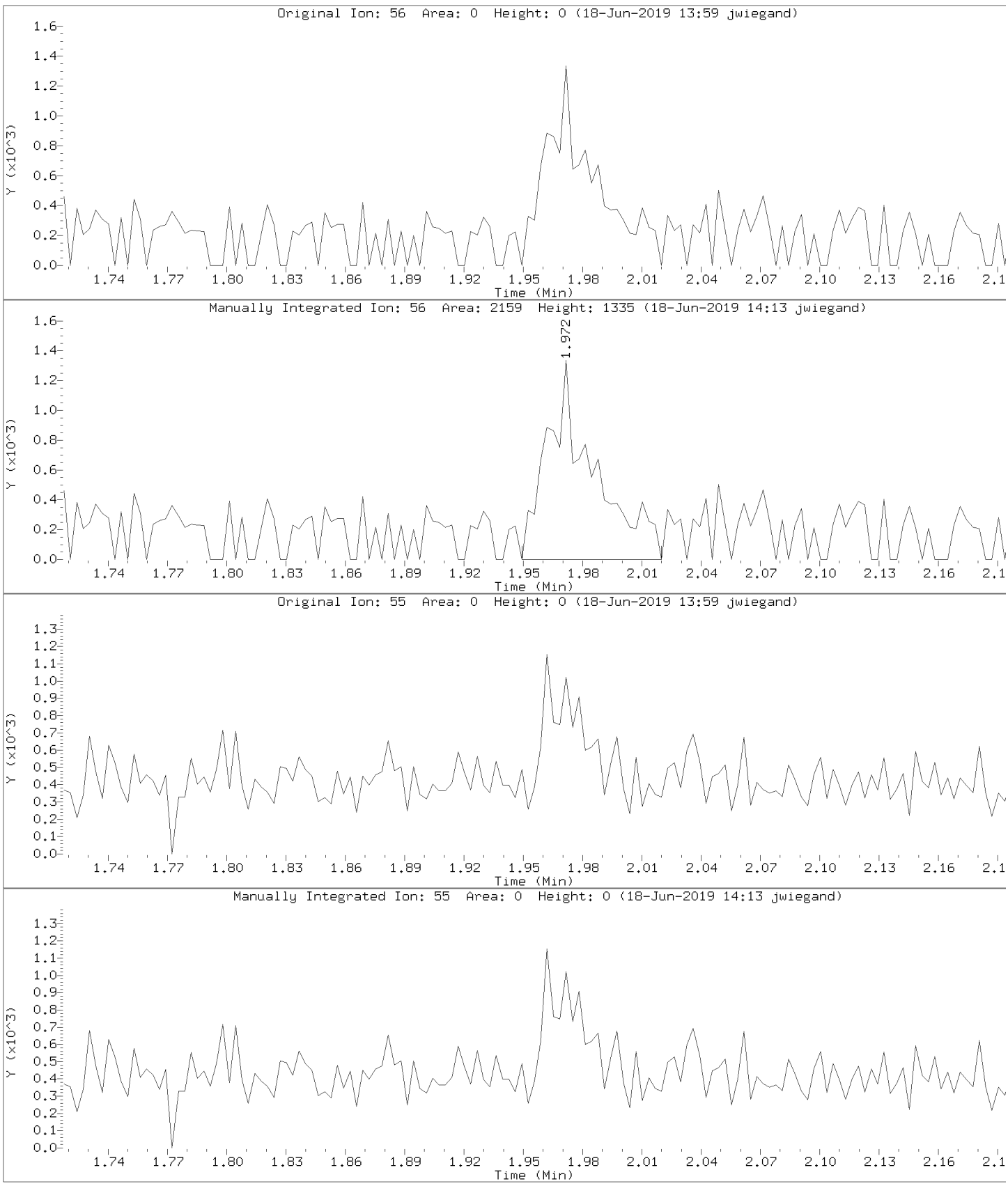
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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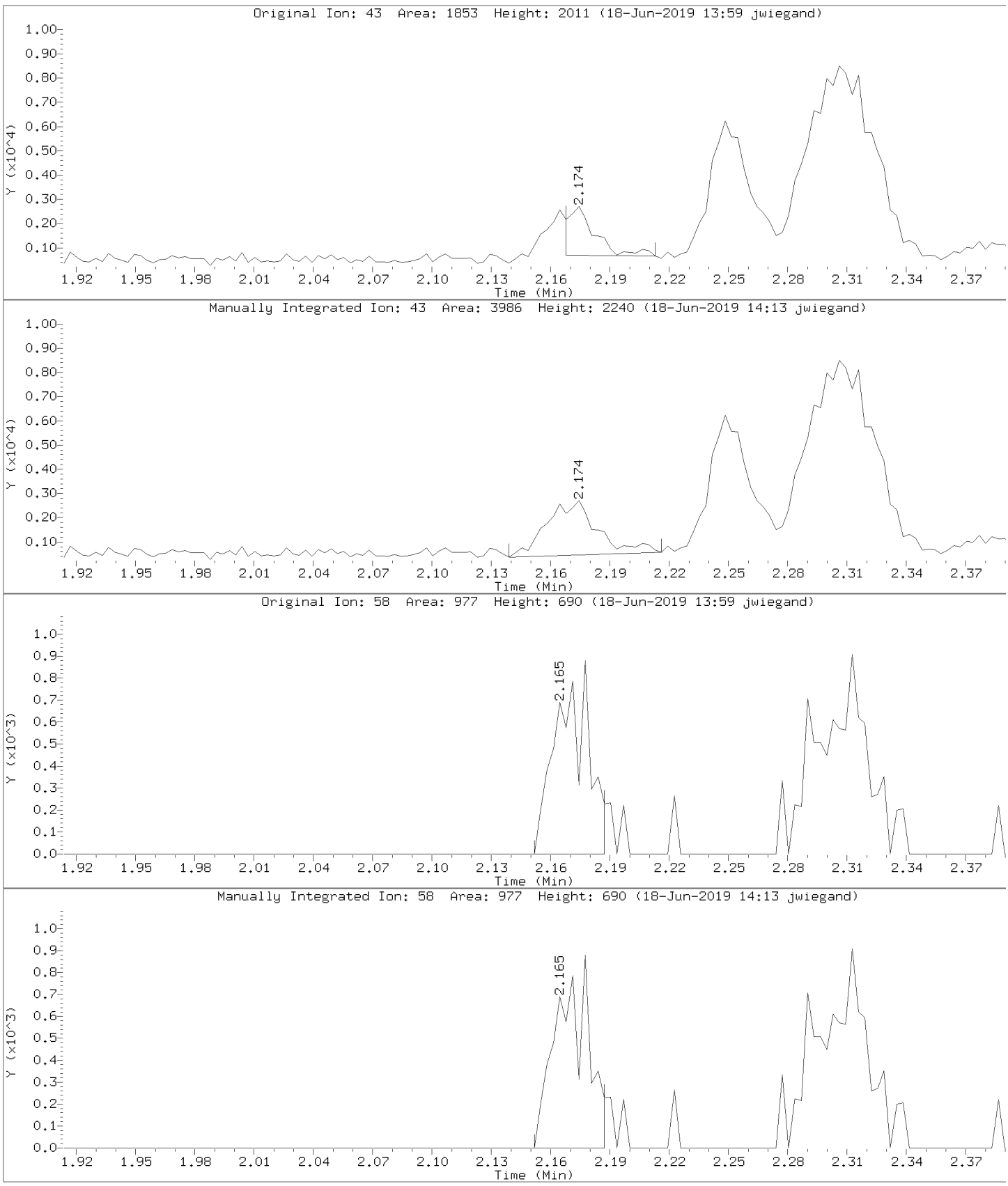
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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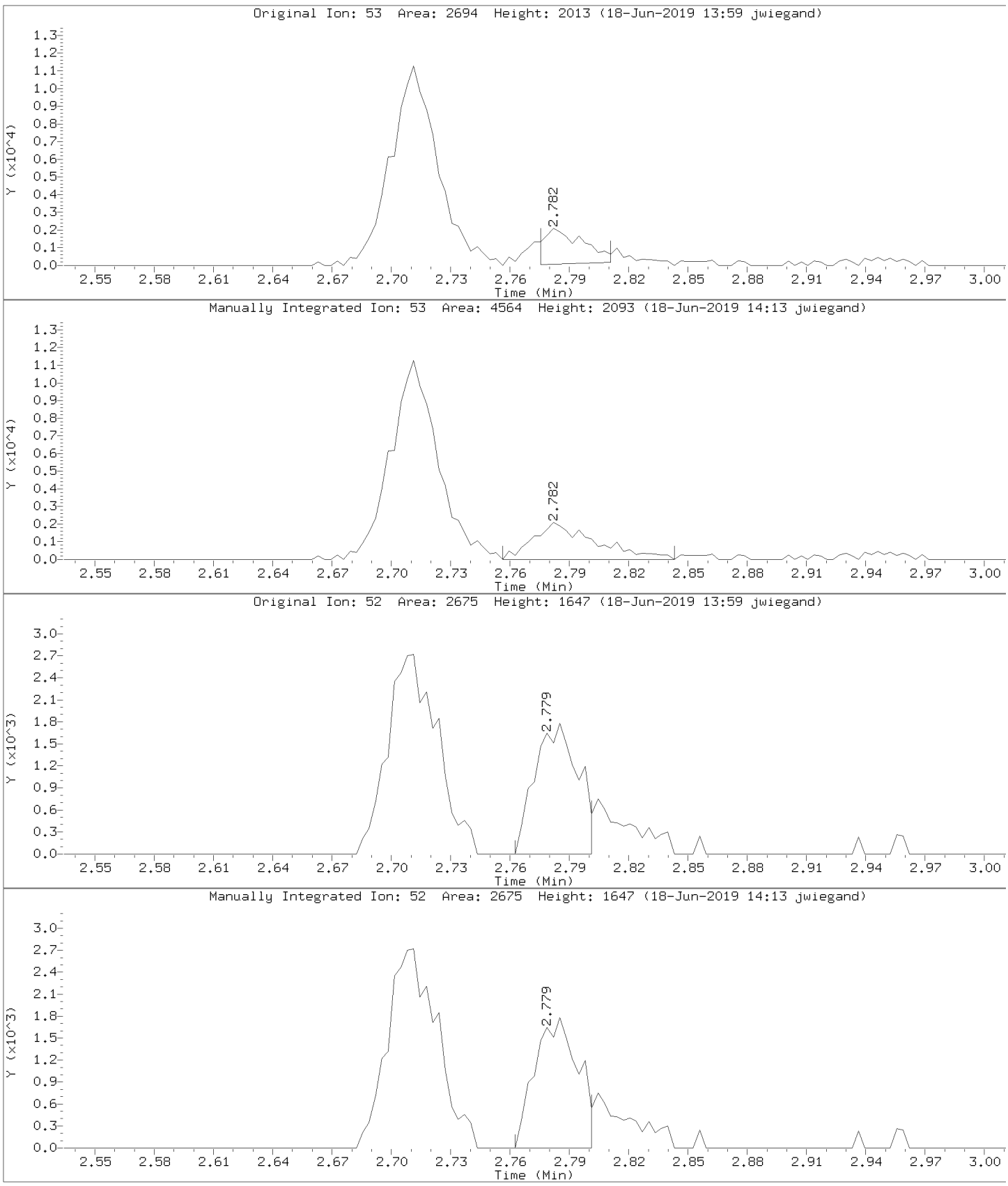
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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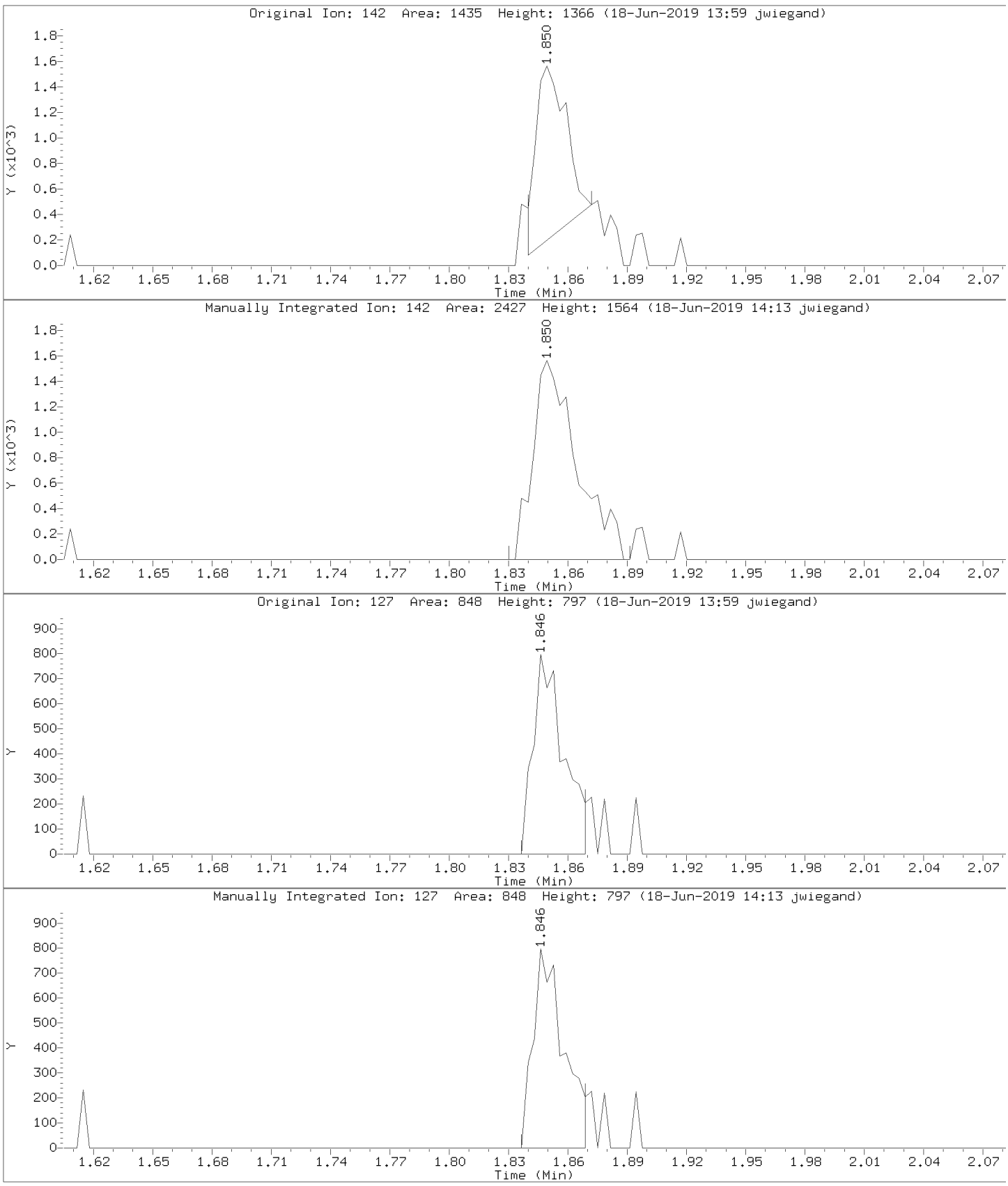
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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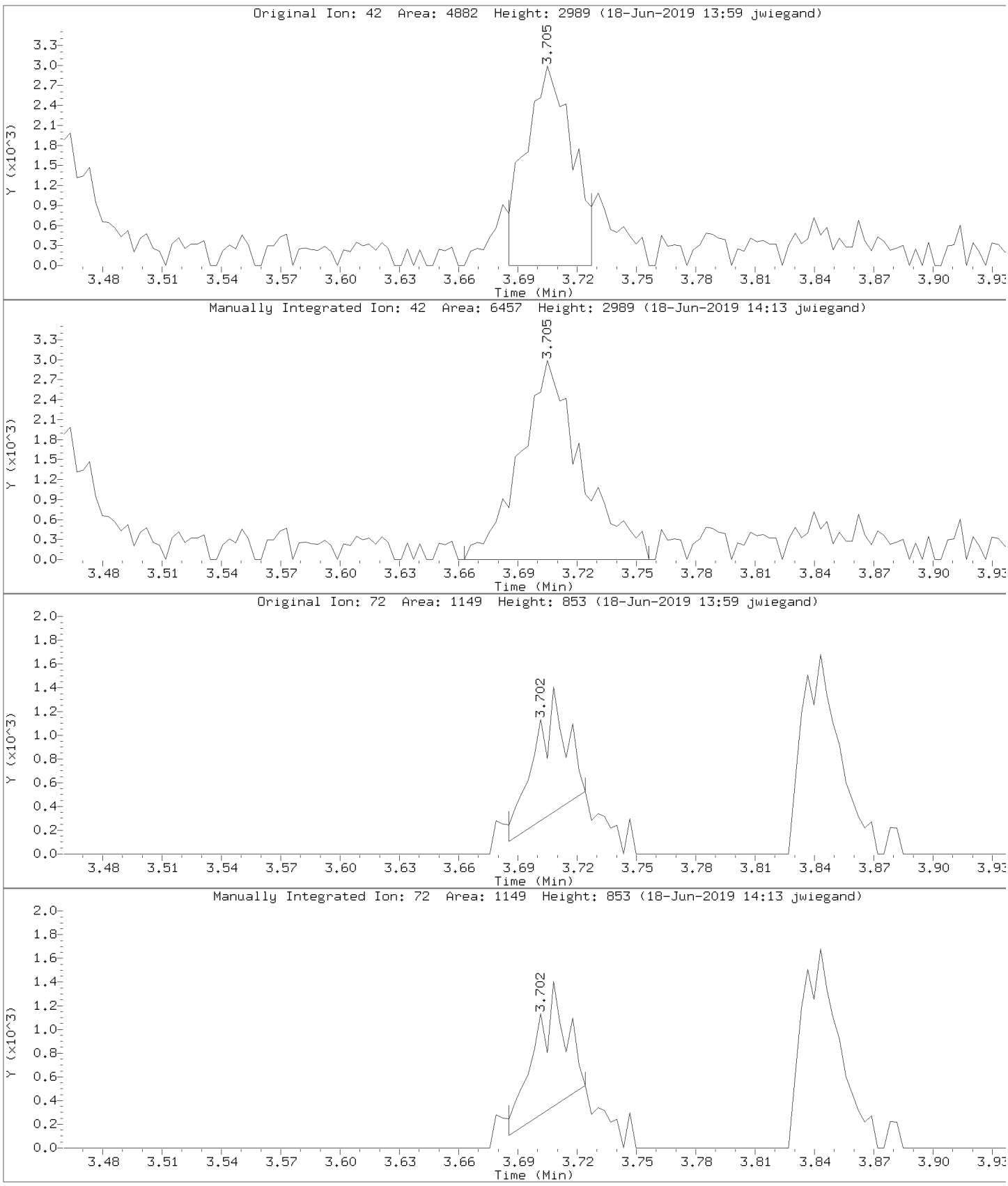
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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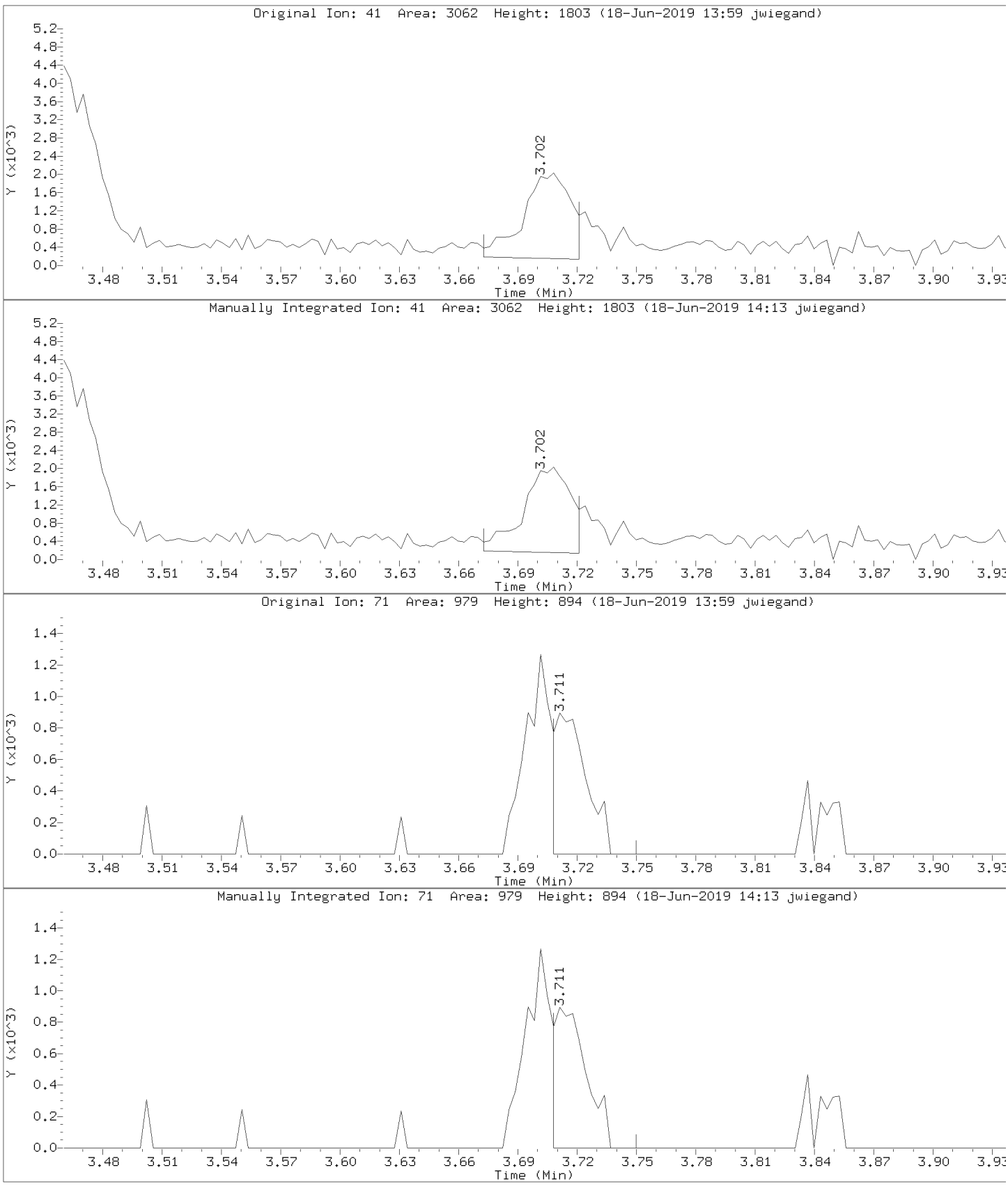
Instrument: 30mv5a.i
Lab Sample ID: CAL3



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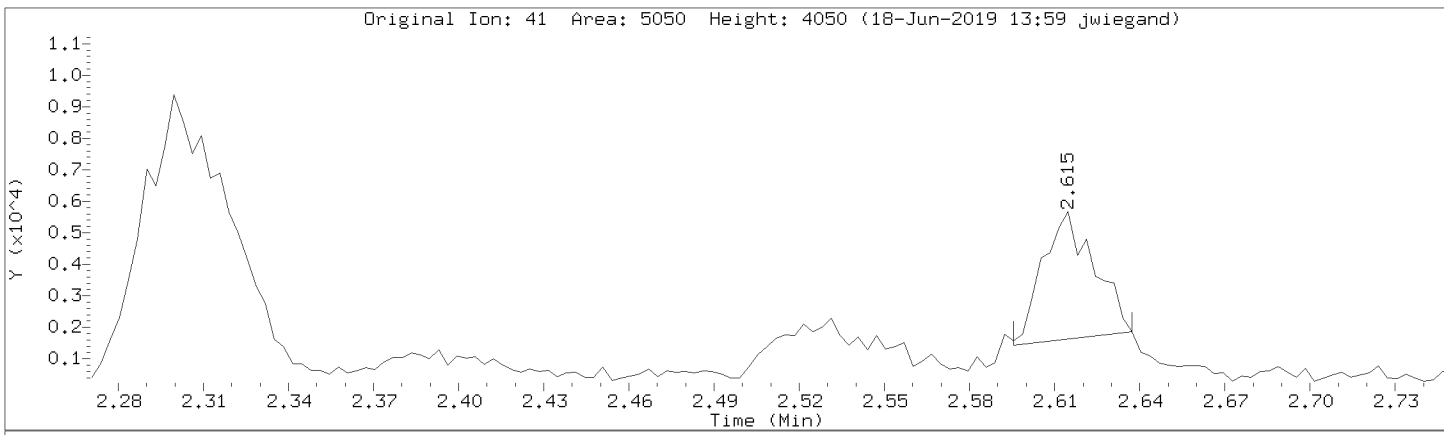
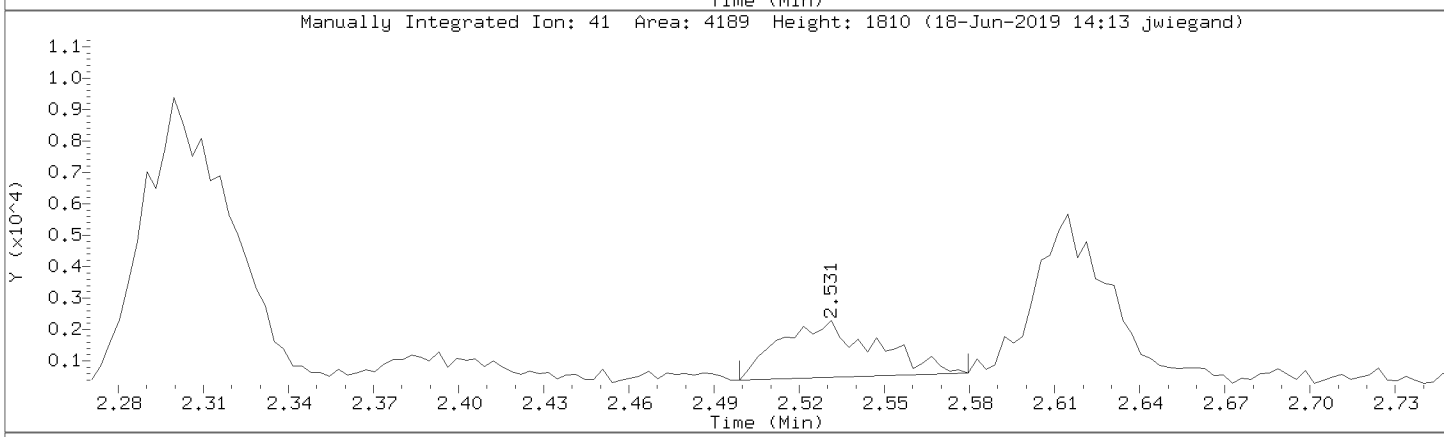
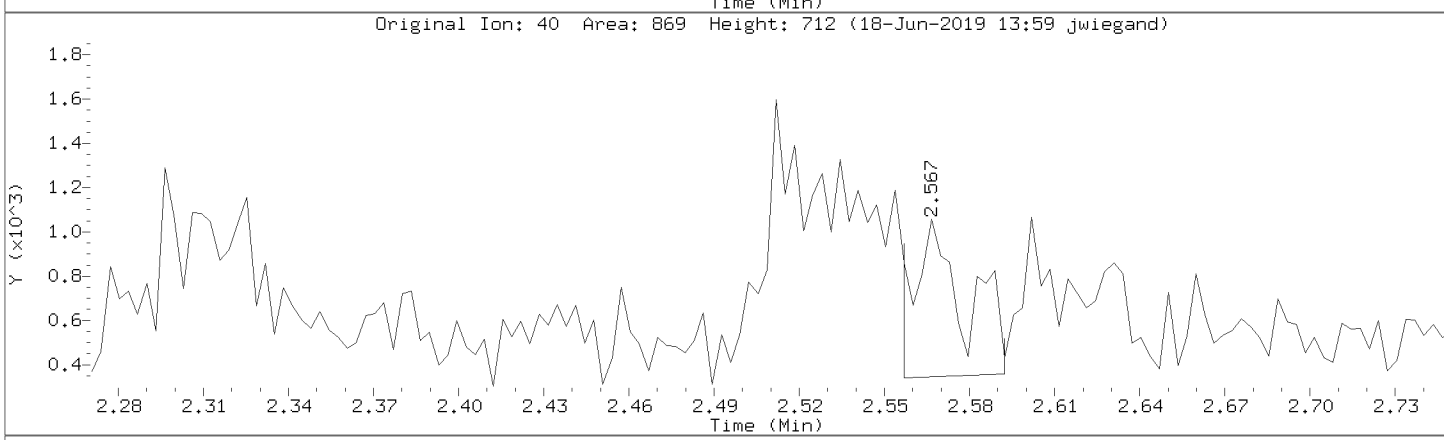
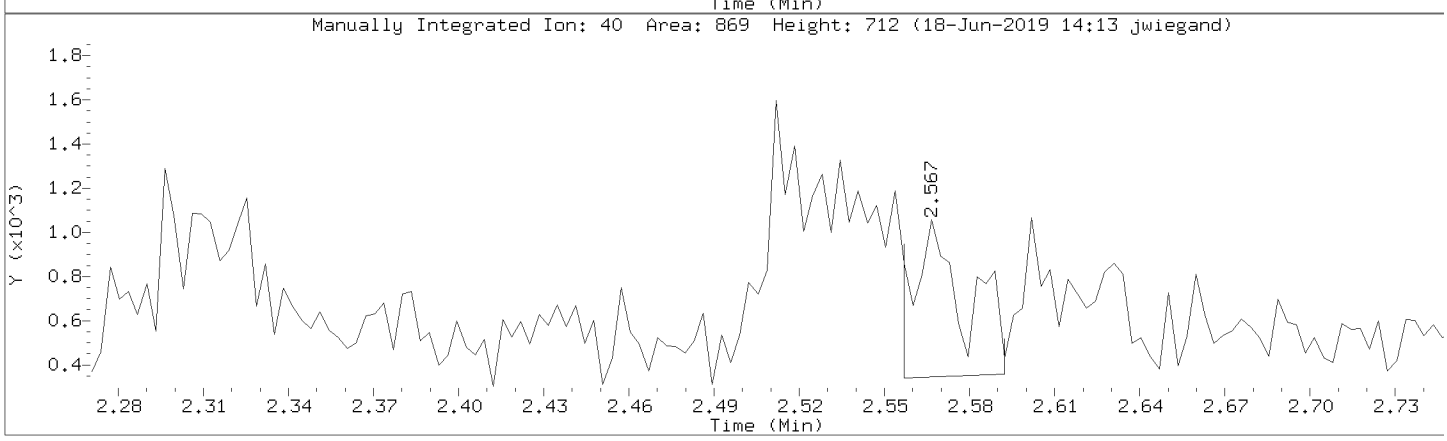
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Acetonitrile Review Code: WP
CAS Number: 75-05-8









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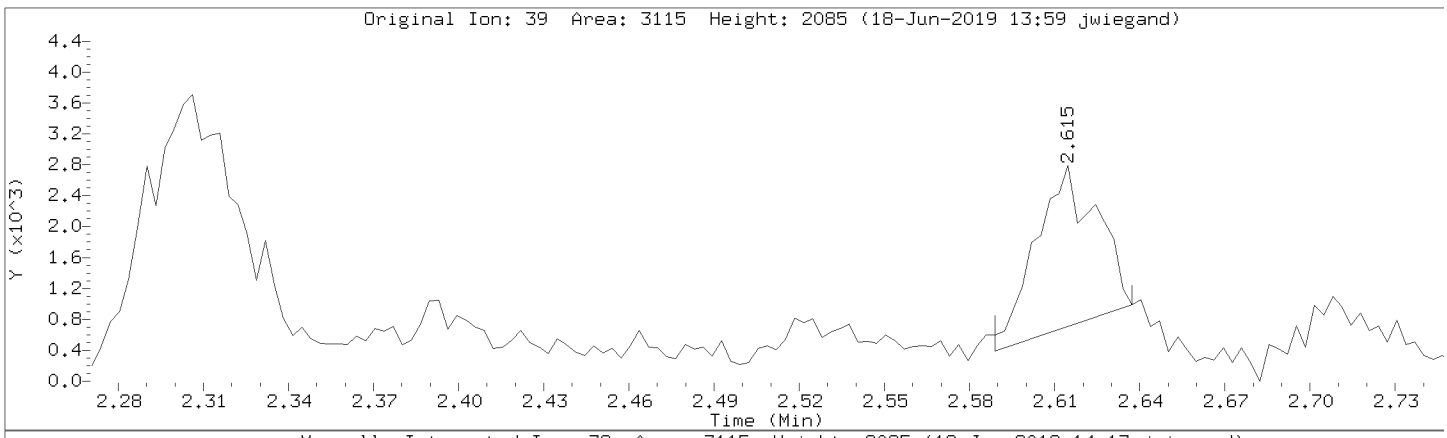
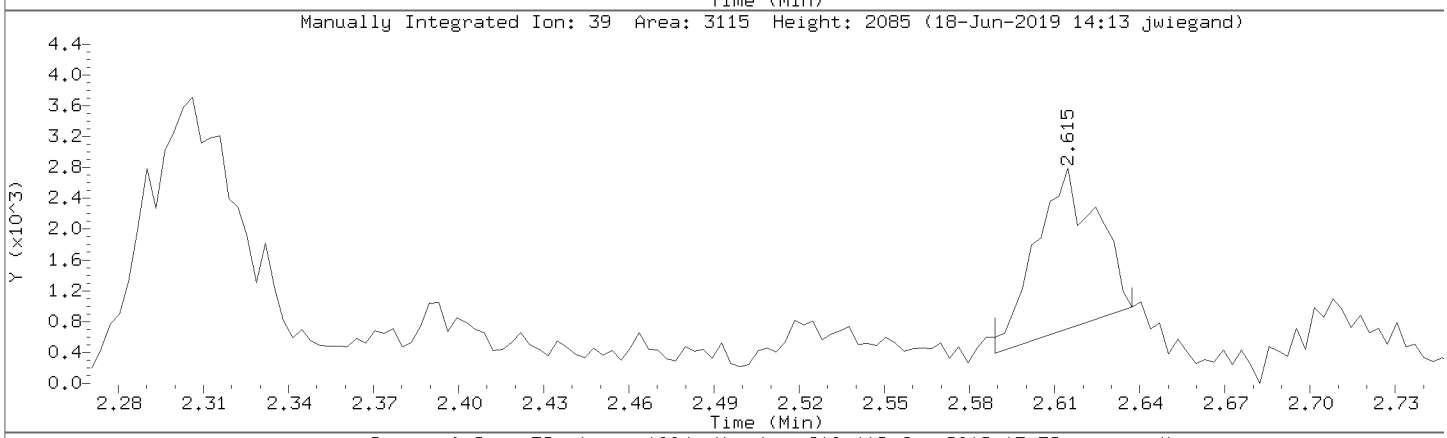
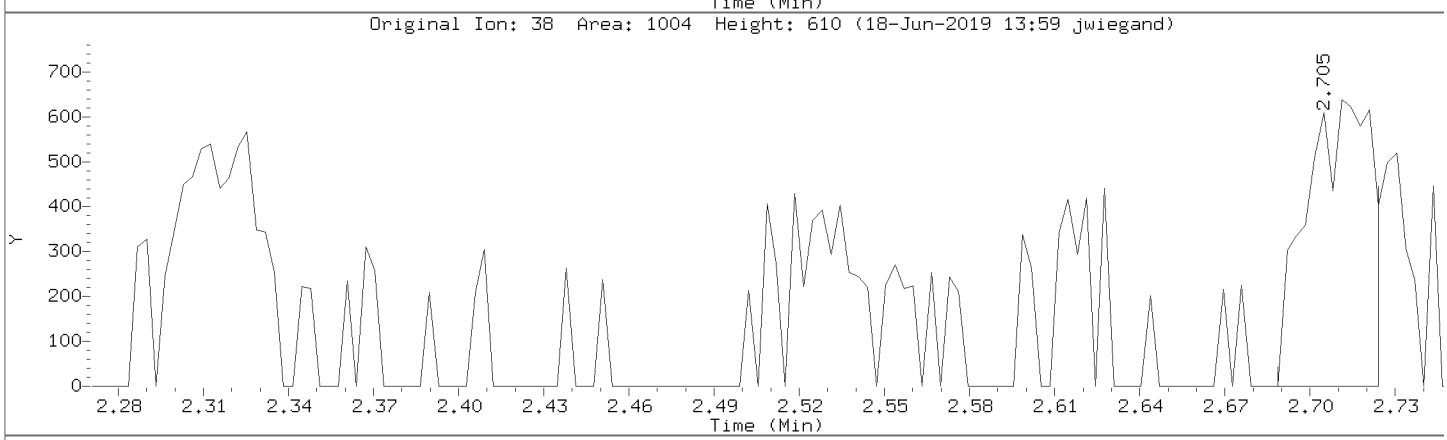
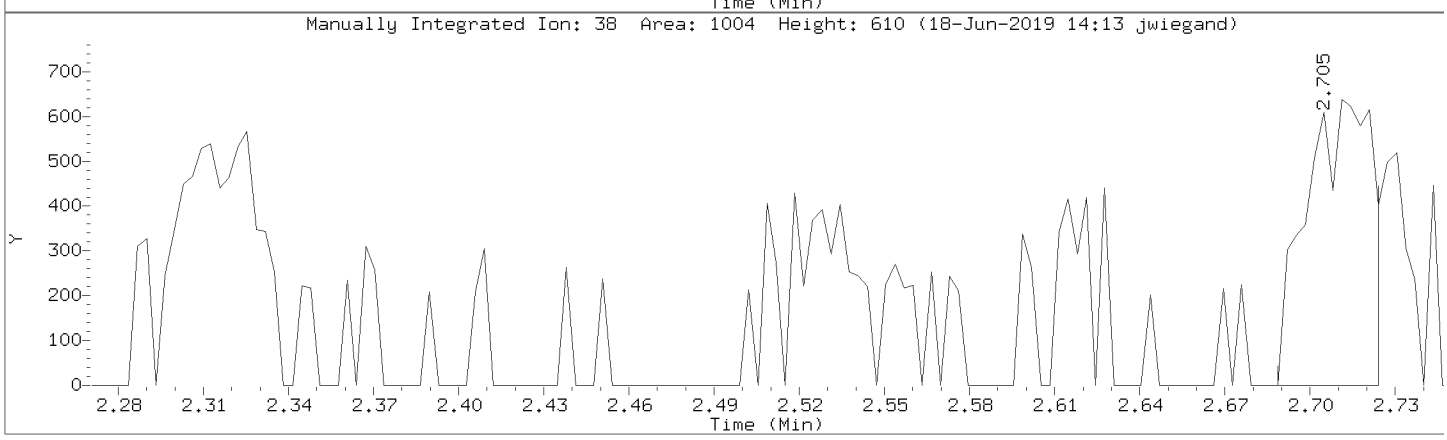
Instrument: 30mv5a.i
Lab Sample ID: CAL3









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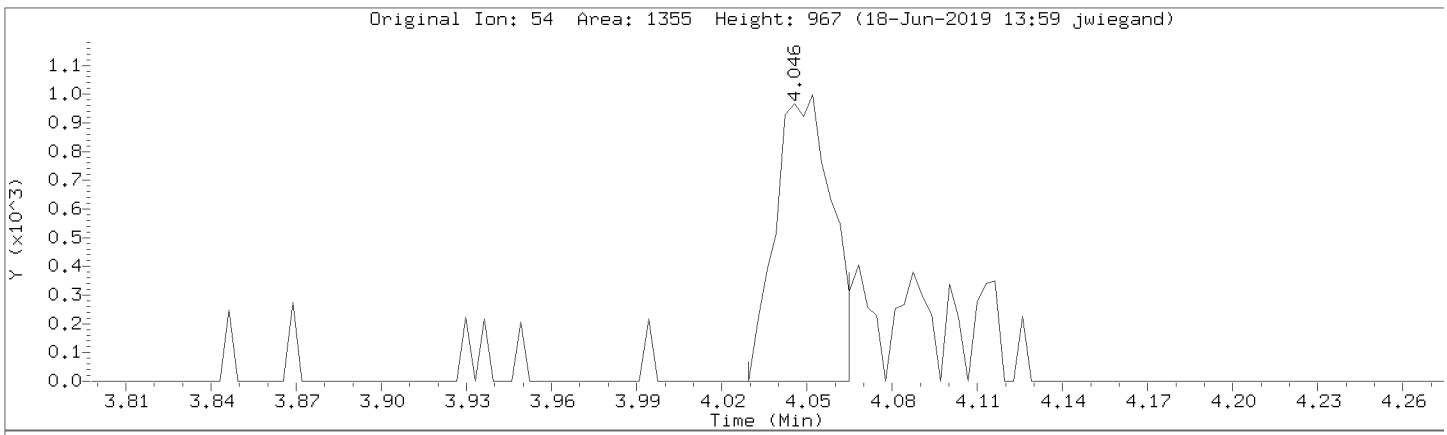
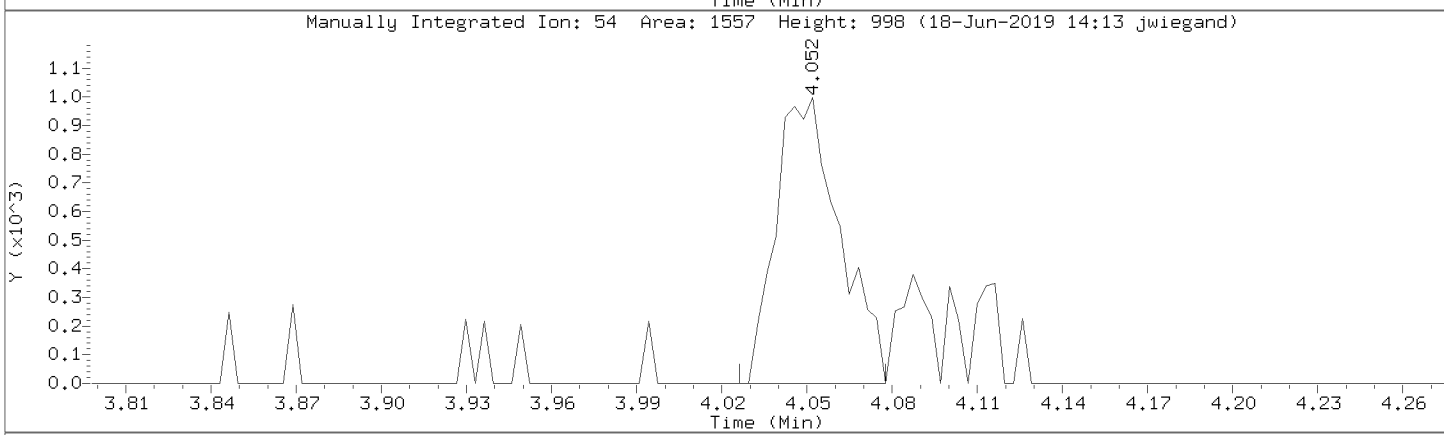
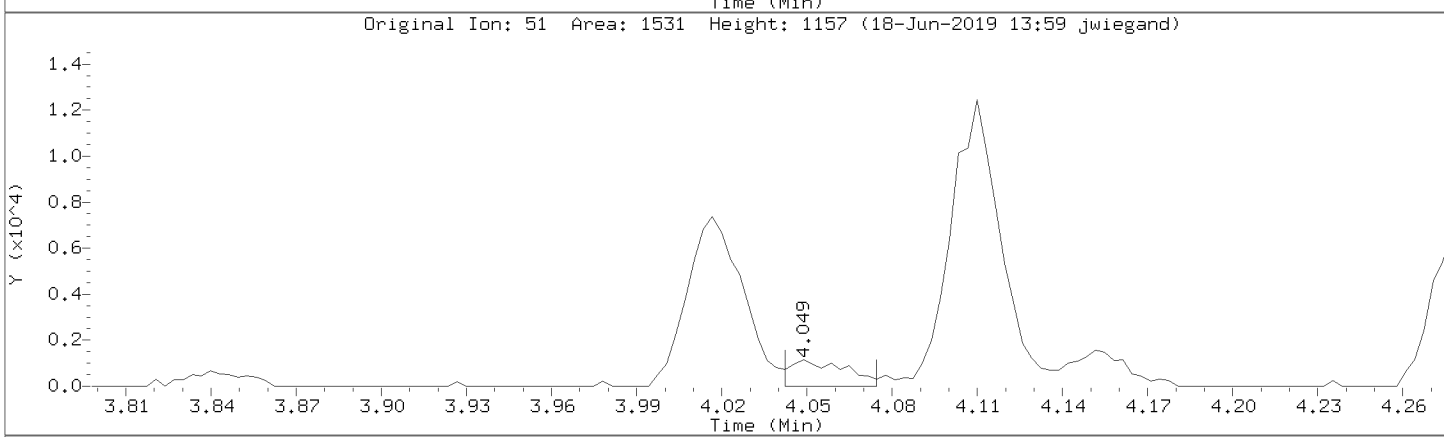
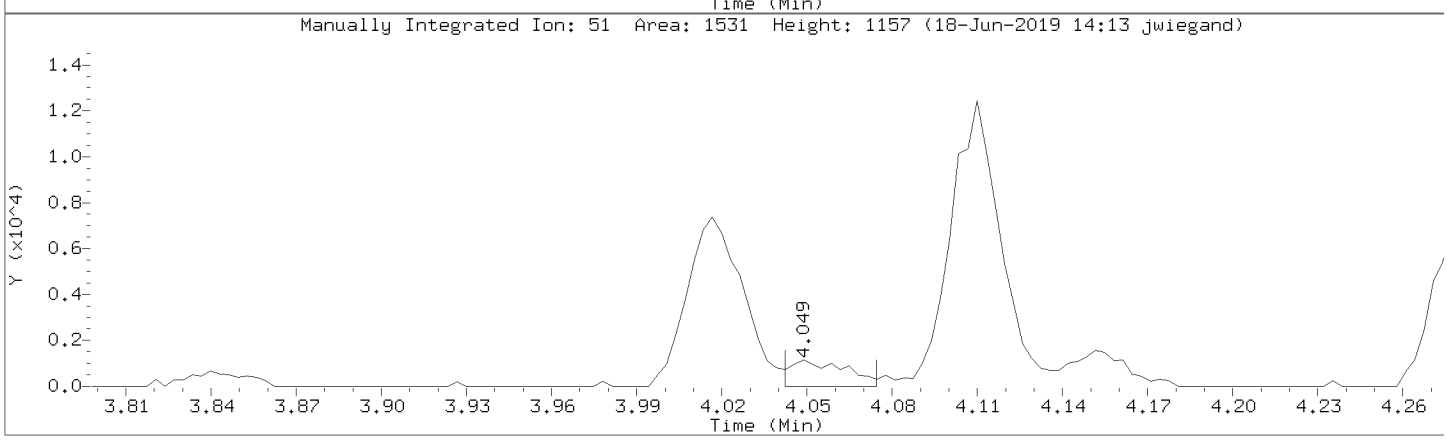
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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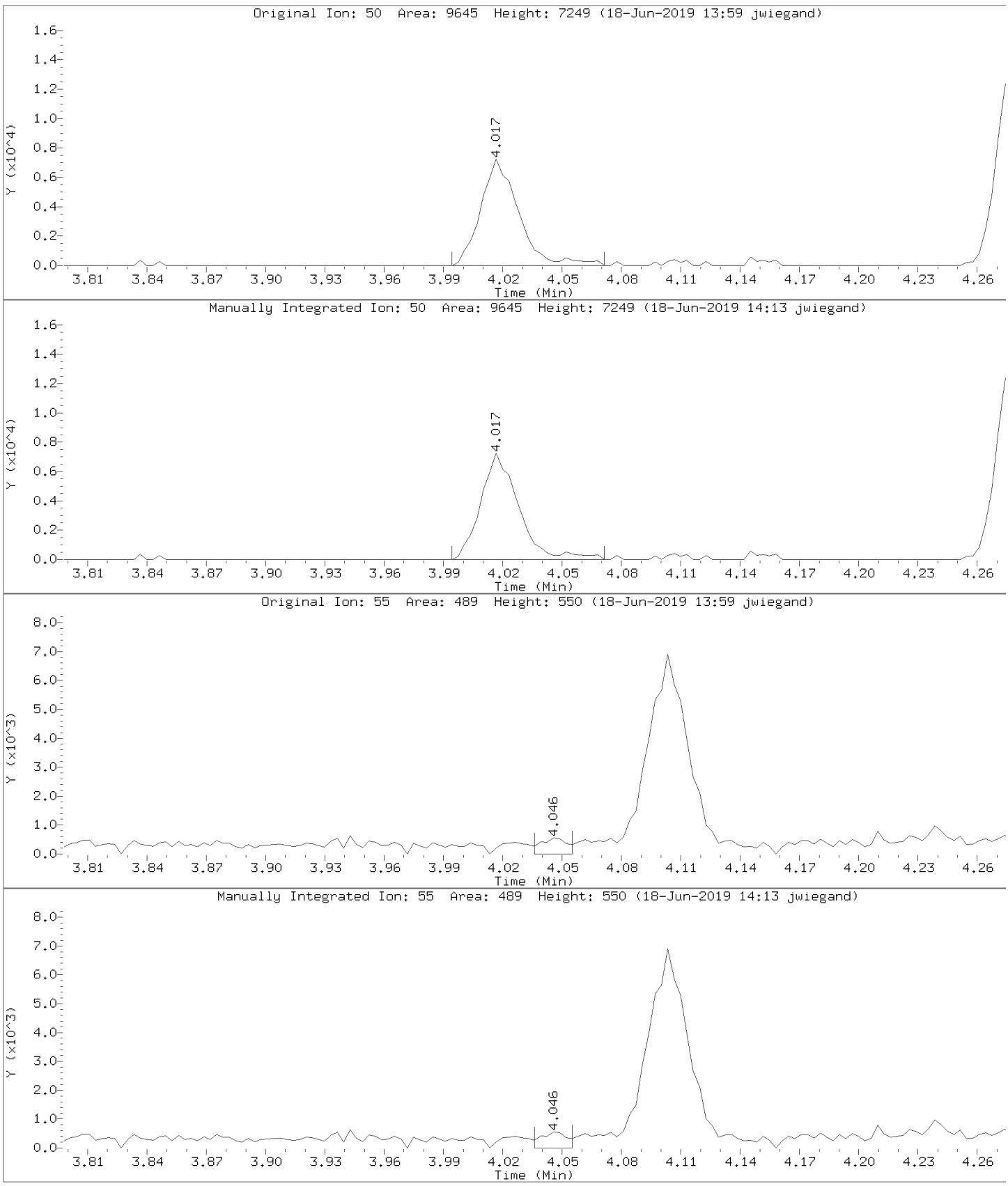
Lab Sample ID: CAL3



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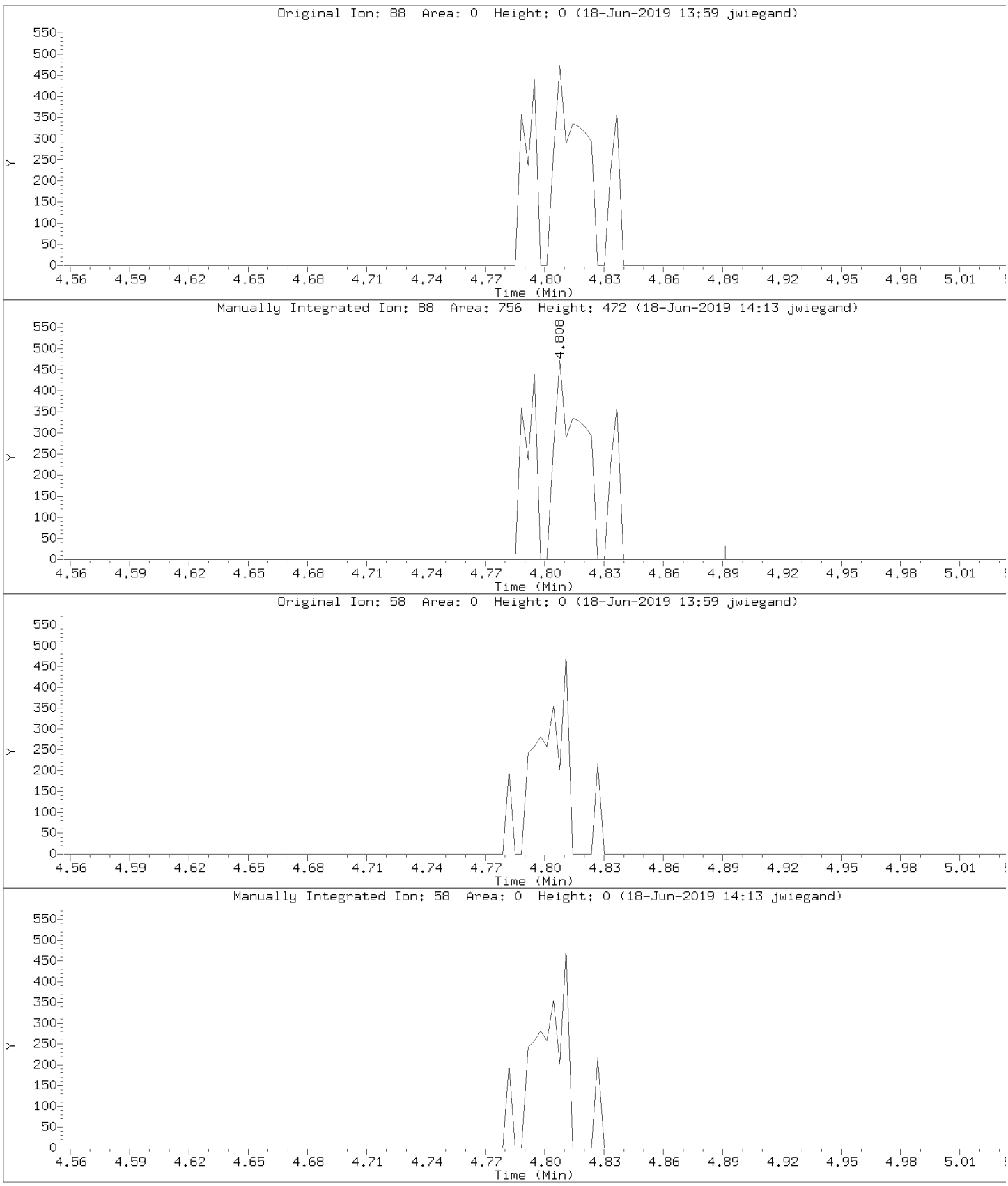
Injection Date: 18-JUN-2019 10:27
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1



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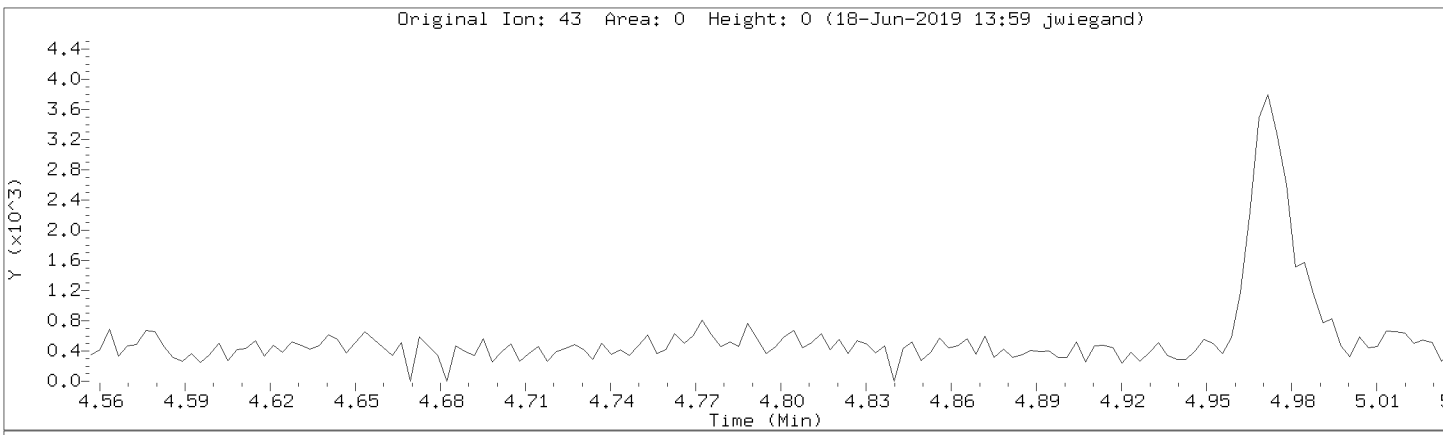
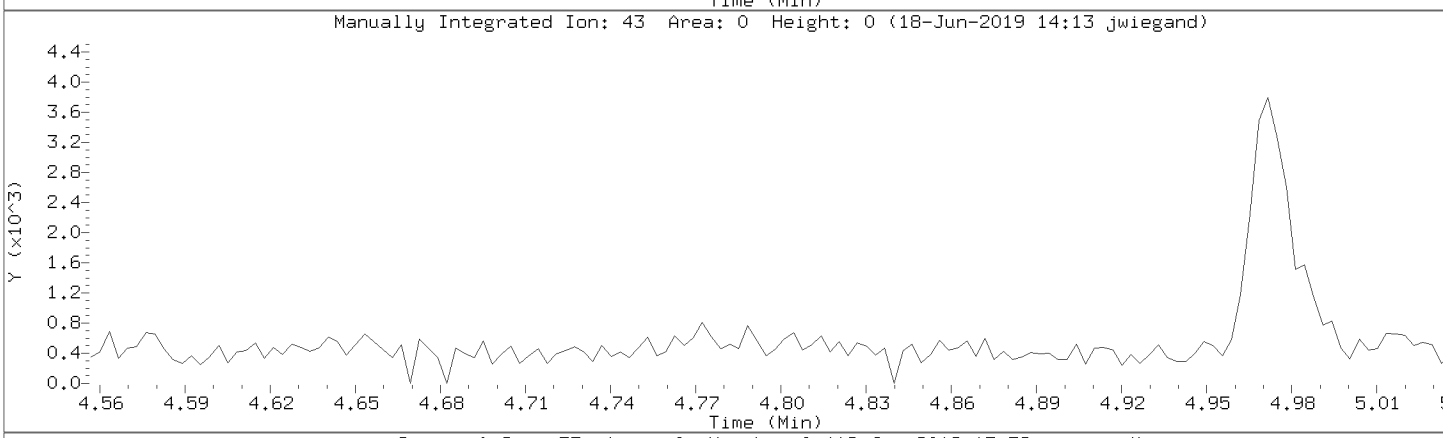
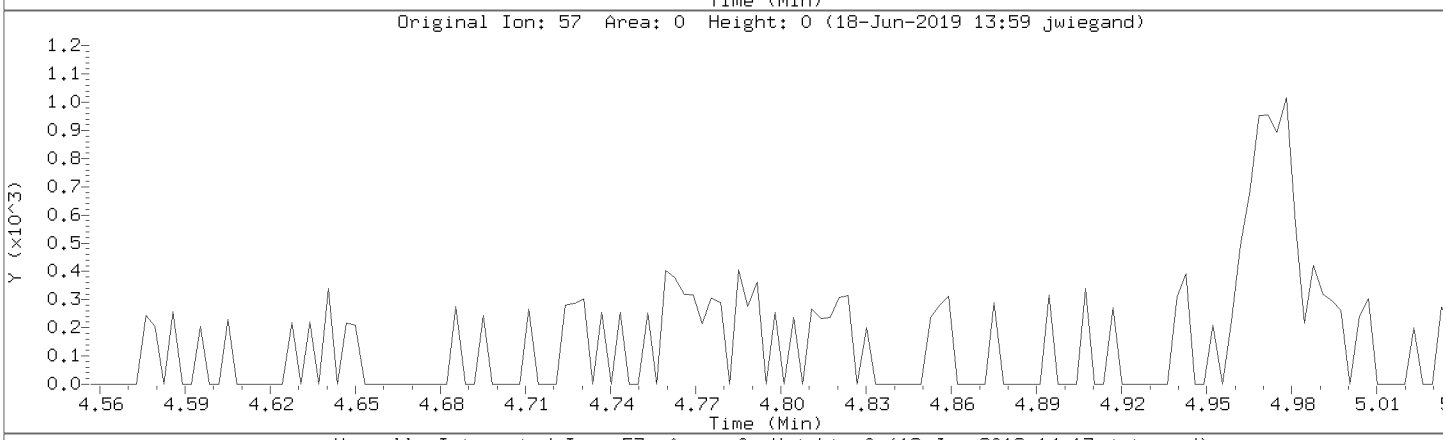
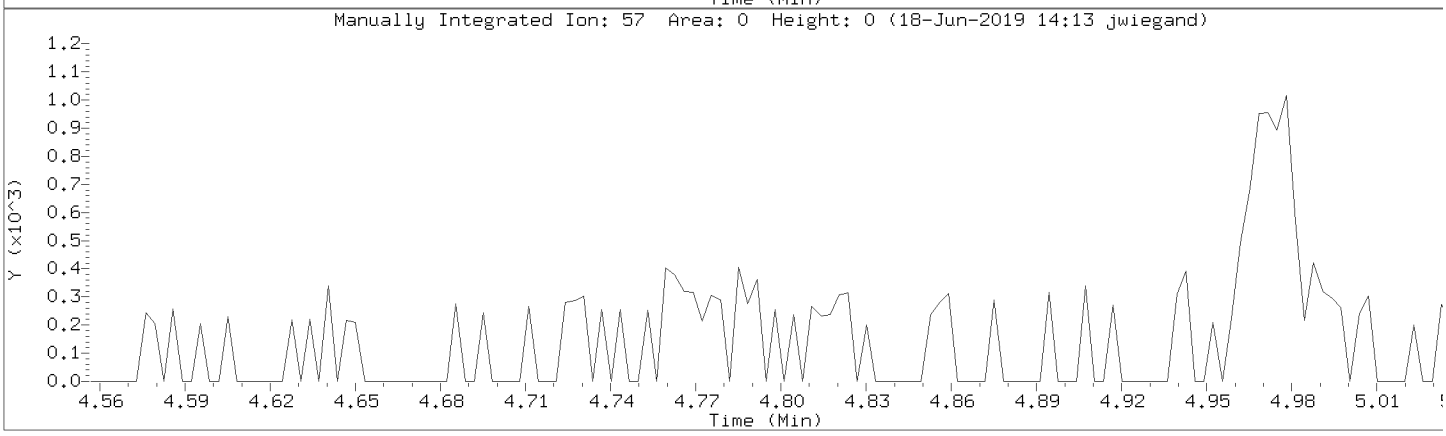
Lab Sample ID: CAL3









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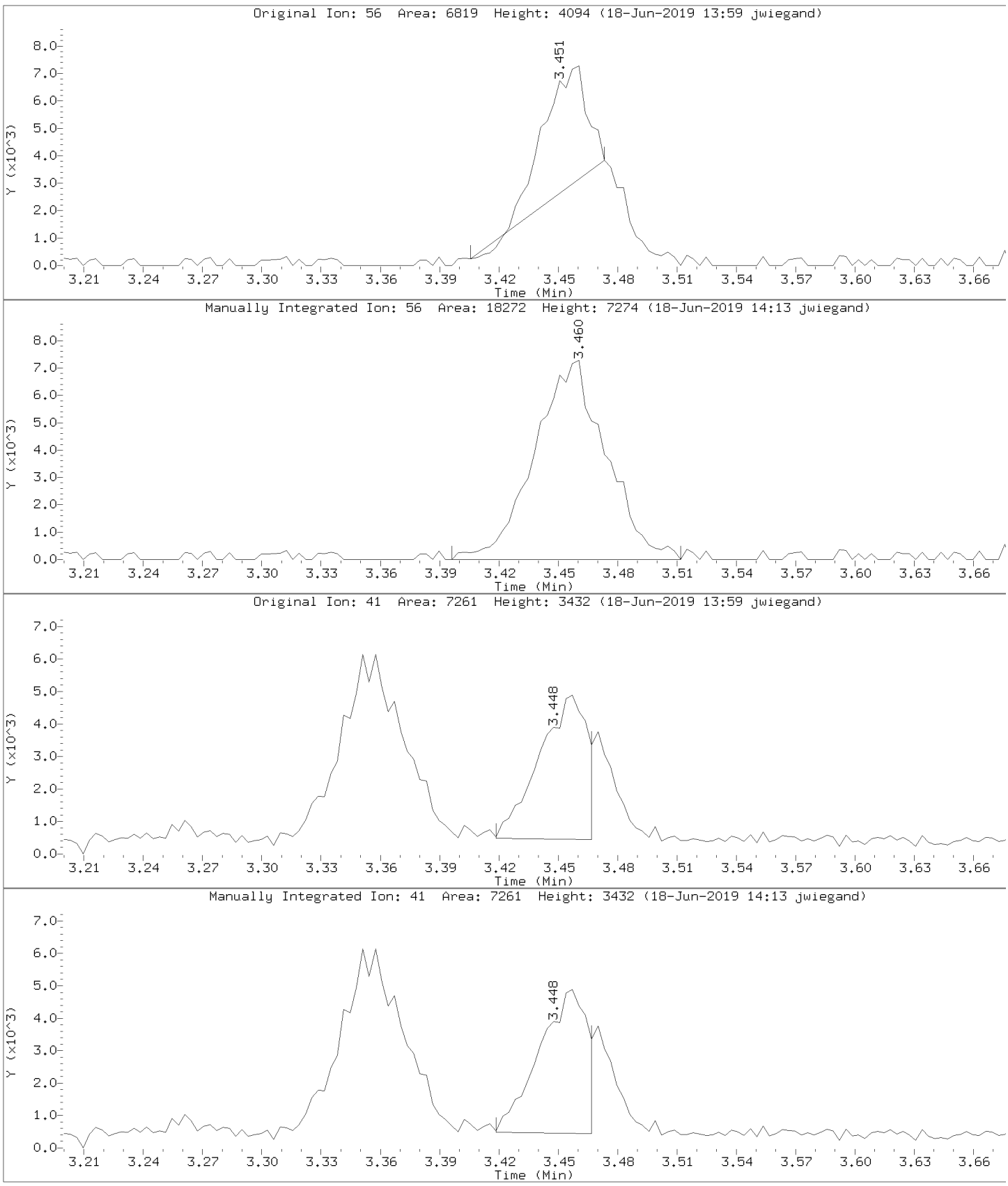
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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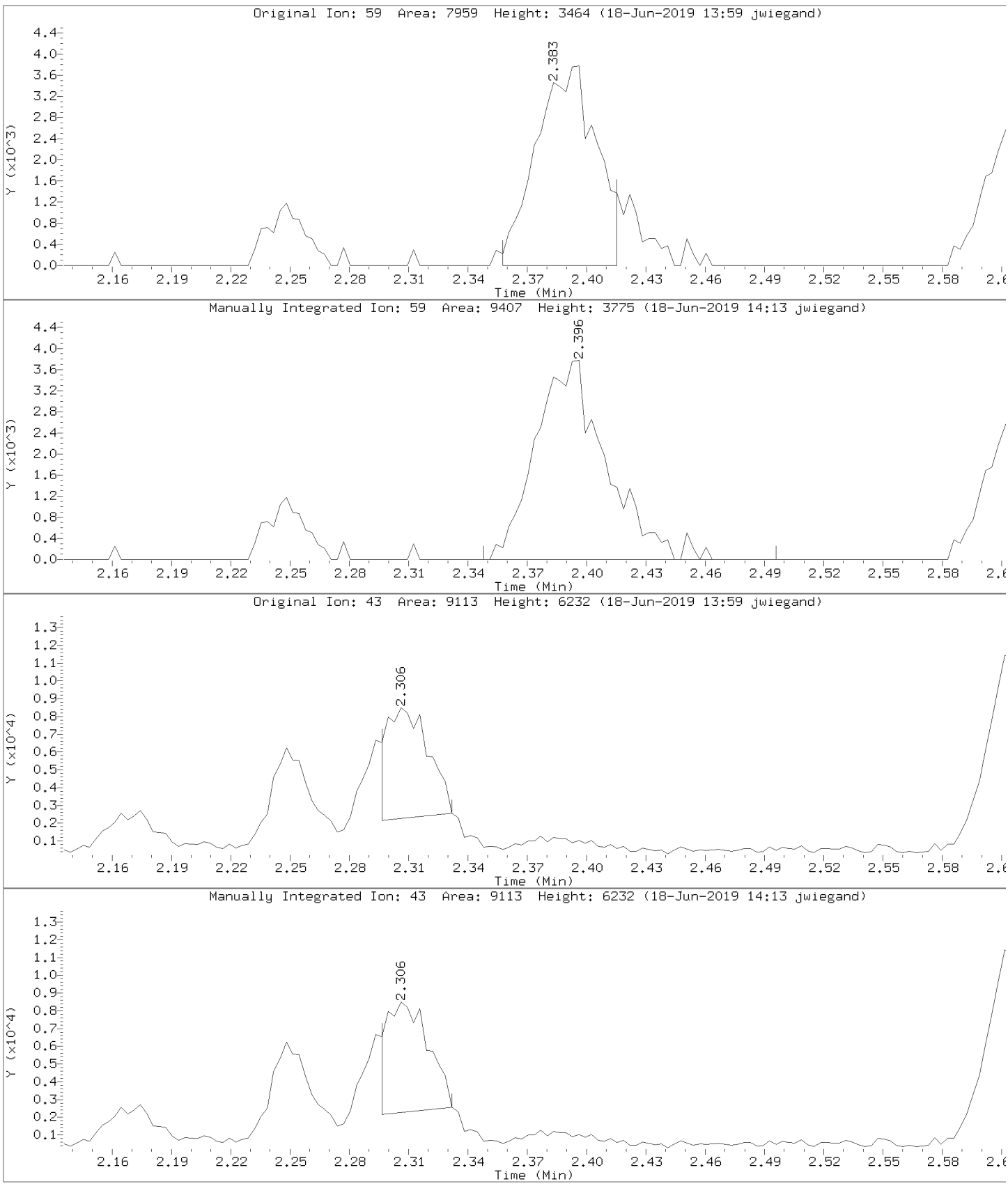
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



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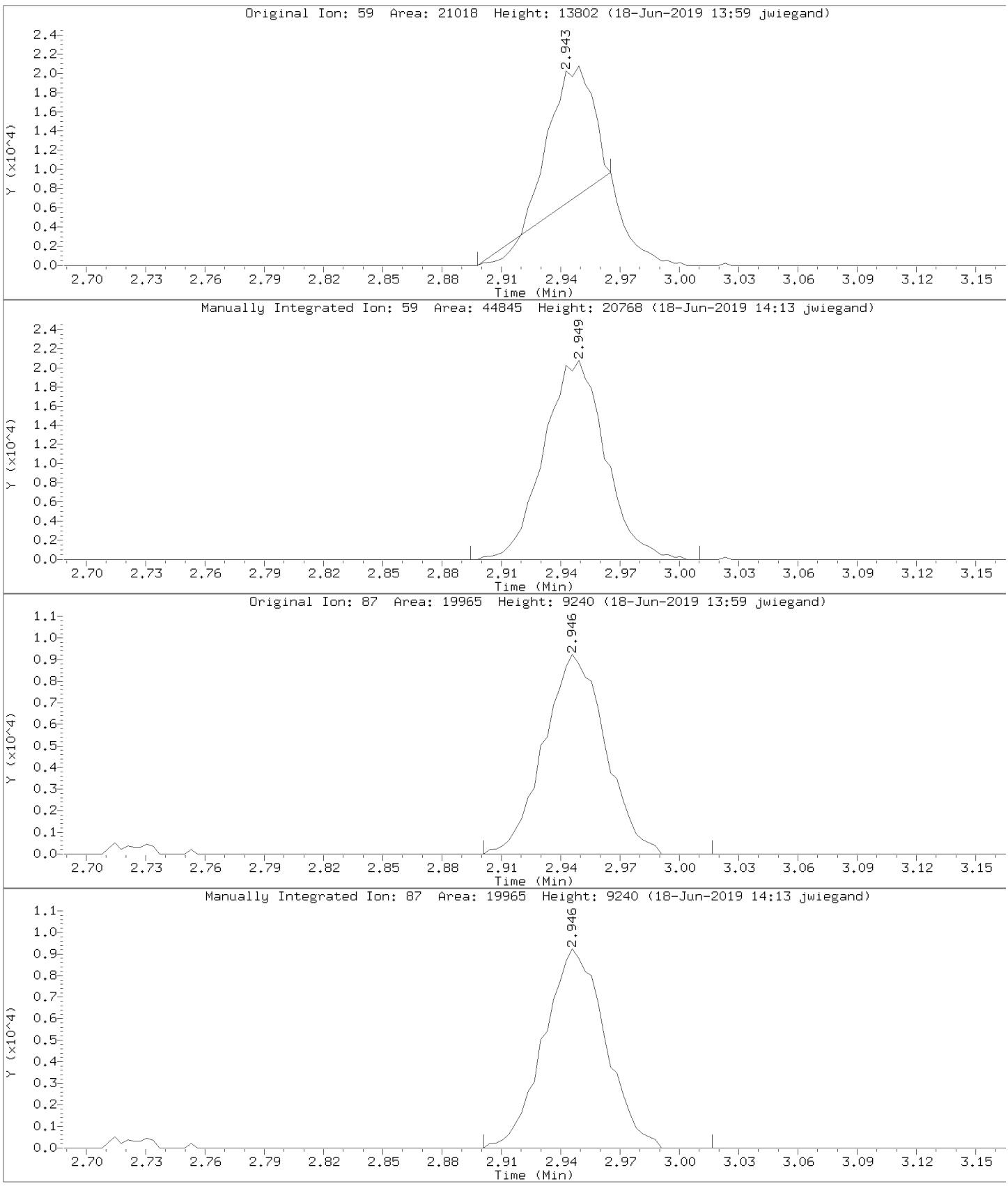
Instrument: 30mv5a.i
Lab Sample ID: CAL3

Compound: Ethyl-tert-butyl ether Review Code: LT
CAS Number: 637-92-3



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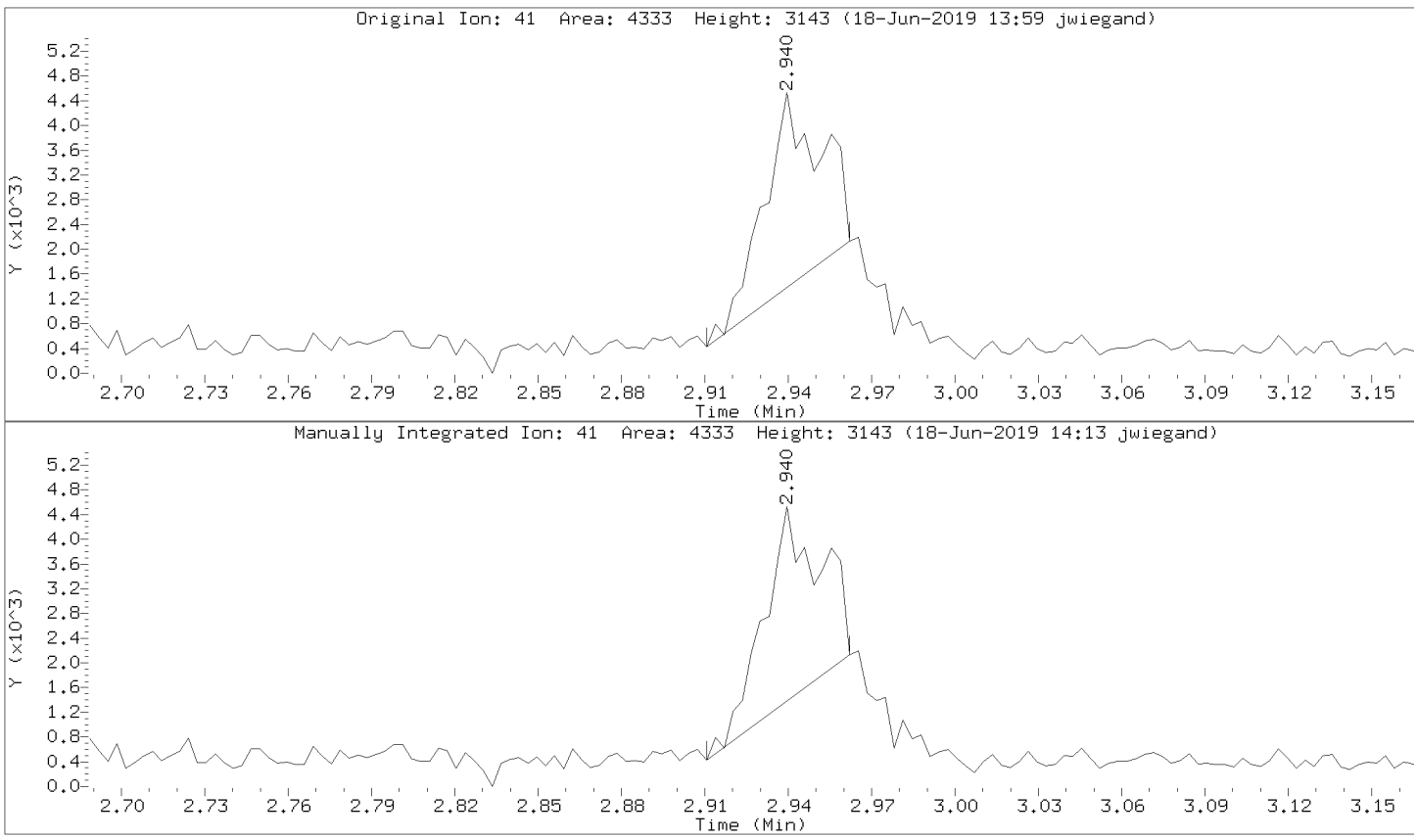
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 18-JUN-2019 10:54
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal4, 91188:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 10:54 Cal File: 50618011.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	25375	20.0000	21.5(M)	LT
2 Chloromethane	50	1.142	1.142	(0.267)	16977	20.0000	20.1(M)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	31572	20.0000	21.8(M)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	25393	20.0000	23.6(M)	LT
5 Chloroethane	64	1.389	1.380	(0.325)	18442	20.0000	19.9	
6 Trichlorofluoromethane	101	1.463	1.467	(0.342)	47135	20.0000	21.9	
7 Diethyl ether (Ethyl ether)	59	1.631	1.634	(0.381)	22024	20.0000	20.0	
8 Ethanol	45	1.772	1.773	(0.264)	535	200.000	(a)	
9 1,1-Dichloroethene	61	1.756	1.760	(0.411)	40362	20.0000	23.1	
10 1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	19879	20.0000	22.4	
11 Carbon disulfide	76	1.782	1.785	(0.417)	68483	20.0000	22.2	
12 Iodomethane	142	1.852	1.856	(0.433)	8024	20.0000	14.4(M)	LT
13 Acrolein	56	1.962	1.969	(0.459)	2698	20.0000	20.6	
14 Allyl chloride	41	2.058	2.056	(0.481)	170904	100.000	125	
15 Methylene Chloride	49	2.129	2.133	(0.498)	27984	20.0000	23.2	
16 Acetone	43	2.171	2.165	(0.508)	6589	20.0000	21.8(M)	LT
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	42136	20.0000	23.3	
18 Methyl acetate	74	2.251	2.255	(0.526)	4643	20.0000	20.9	
19 n-Hexane	86	2.296	2.297	(0.537)	7153	20.0000	23.8	
20 Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	88164	20.0000	21.9	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.383	2.387	(0.557)	20219	100.000	120(M)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	9844	100.000	125(M)	NI
	23 Diisopropyl ether	45	2.615	2.618	(0.611)	86622	20.0000	22.9	
	24 Chloroprene	53	2.711	2.705	(0.634)	38703	20.0000	23.6	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	54775	20.0000	24.4	
	26 Acrylonitrile	53	2.778	2.785	(0.650)	7950	20.0000	21.7	
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	88439	20.0000	22.0	
	28 Vinyl acetate	43	2.965	2.965	(0.693)	65810	20.0000	20.6	
	29 cis-1,2-Dichloroethene	61	3.248	3.248	(0.759)	40504	20.0000	22.1	
	30 2,2-Dichloropropane	77	3.360	3.351	(0.786)	47205	20.0000	21.8	
	31 Cyclohexane	56	3.460	3.451	(0.809)	40843	20.0000	21.6(M)	LT
	32 Bromochloromethane	130	3.467	3.467	(0.811)	19198	20.0000	23.0(M)	LT
	33 Chloroform	83	3.557	3.554	(0.832)	58618	20.0000	22.0	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	42471	20.0000	21.0	
	35 Ethyl acetate	43	3.692	3.702	(0.863)	25458	20.0000	19.0	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	10395	20.0000	20.4	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	39784	30.0000	31.6	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	51478	20.0000	21.8	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	13264	20.0000	20.9	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.899)	42522	20.0000	21.3	
	41 Benzene	78	4.020	4.019	(0.940)	121150	20.0000	21.2	
	42 Propionitrile	54	4.049	4.049	(0.947)	2998	20.0000	20.9	
	43 Methacrylonitrile	41	4.055	4.054	(0.948)	14192	20.0000	18.3	
	44 tert-Amylmethyl ether	73	4.103	4.107	(0.959)	85465	20.0000	20.4	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	40881	30.0000	29.8	
	46 Isobutanol	43	4.193	4.099	(0.980)	5731	100.000	99.5	
	47 1,2-Dichloroethane	62	4.155	4.152	(0.971)	41127	20.0000	20.5	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	144844	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	44598	20.0000	20.6	
	50 Trichloroethene	95	4.373	4.374	(0.759)	32516	20.0000	20.7	
	51 Dibromomethane	174	4.598	4.599	(1.075)	20272	20.0000	20.8	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	28087	20.0000	20.5	
	53 Bromodichloromethane	83	4.688	4.689	(1.096)	39632	20.0000	20.5	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	20385	20.0000	19.8	
	55 1,4-Dioxane (p-Dioxane)	88	4.791	4.808	(1.120)	1834	200.000	181(M)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	10470	20.0000	19.5	
	57 cis-1,3-Dichloropropene	75	5.000	5.001	(1.169)	47276	20.0000	20.3	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	136373	30.0000	30.4	
	59 Toluene	91	5.110	5.110	(0.886)	125004	20.0000	20.9	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	45184	100.000	99.6	
	61 4-Methyl-2-pentanone (MIBK)	43	5.283	5.284	(1.235)	27035	20.0000	19.7	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	33554	20.0000	21.4	
	63 trans-1,3-Dichloropropene	75	5.302	5.303	(0.920)	44402	20.0000	19.8	
	64 Ethyl methacrylate	41	5.367	5.367	(0.931)	21758	20.0000	18.3	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	27197	20.0000	20.5	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	31405	20.0000	20.1	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	43348	20.0000	20.2	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	26493	20.0000	19.7	
	69 2-Hexanone	43	5.640	5.644	(0.978)	20013	20.0000	20.1	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	45063	20.0000	21.2	
*	71 Chlorobenzene-d5 (IS)	117	5.766	5.766	(1.000)	104675	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	83353	20.0000	20.8	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	32094	20.0000	21.1	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	108939	40.0000	42.6	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.043)	53892	20.0000	21.5	
	76 Styrene	104	6.036	6.036	(1.047)	87395	20.0000	21.0	
	77 Bromoform	173	6.058	6.059	(0.903)	21952	20.0000	19.0	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	132976	20.0000	21.1	
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	40851	30.0000	29.8	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	150303	20.0000	20.6	
	81 Bromobenzene	77	6.309	6.309	(0.940)	58117	20.0000	20.5	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	38014	20.0000	20.9	
	83 1,3,5-Trimethylbenzene	105	6.380	6.380	(0.951)	107460	20.0000	21.4	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	32217	20.0000	20.6	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	11005	20.0000	20.5	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	8613	20.0000	19.9	
	87 Cyclohexanone	55	6.421	6.422	(0.957)	8852	100.000	107	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	31612	20.0000	20.1	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	91499	20.0000	21.6	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	106024	20.0000	21.4	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	127392	20.0000	21.1	
	92 p-Isopropyltoluene	119	6.634	6.634	(0.989)	107756	20.0000	21.0	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	58376	20.0000	20.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	47592	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	57872	20.0000	20.7	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	95658	20.0000	21.5	
	97 1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	55191	20.0000	21.0	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	47591	30.0000	29.9	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	6394	20.0000	20.2	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	33788	20.0000	21.7	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	15951	20.0000	21.9	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	26797	20.0000	20.7	
	102 Naphthalene	128	7.618	7.618	(1.135)	68151	20.0000	20.1	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	24894	20.0000	20.9	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	23324	20.0000	16.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618011.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	144844	0.81
71 Chlorobenzene-d5	102704	51352	205408	104675	1.92
94 1,4-Dichlorobenze	44519	22260	89038	47592	6.90

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	21.5	
74-87-3	Chloromethane	20.1	
75-01-4	Vinyl chloride	21.8	
74-83-9	Bromomethane	23.6	
75-00-3	Chloroethane	19.9	
75-69-4	Trichlorofluoromethane	21.9	
60-29-7	Diethyl ether (Ethyl ether)	20.0	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	23.1	
76-13-1	1,1,2-Trichlorotrifluoroetha	22.4	
75-15-0	Carbon disulfide	22.2	
74-88-4	Iodomethane	14.4	
107-02-8	Acrolein	20.6	
107-05-1	Allyl chloride	125	
75-09-2	Methylene Chloride	23.2	
67-64-1	Acetone	21.8	
156-60-5	trans-1,2-Dichloroethene	23.3	
79-20-9	Methyl acetate	20.9	
110-54-3	n-Hexane	23.8	
1634-04-4	Methyl-tert-butyl ether	21.9	
75-65-0	tert-Butyl Alcohol	120	
75-05-8	Acetonitrile	125	
108-20-3	Diisopropyl ether	22.9	
126-99-8	Chloroprene	23.6	
75-34-3	1,1-Dichloroethane	24.4	
107-13-1	Acrylonitrile	21.7	
637-92-3	Ethyl-tert-butyl ether	22.0	
108-05-4	Vinyl acetate	20.6	
156-59-2	cis-1,2-Dichloroethene	22.1	
594-20-7	2,2-Dichloropropane	21.8	
110-82-7	Cyclohexane	21.6	
74-97-5	Bromochloromethane	23.0	
67-66-3	Chloroform	22.0	
56-23-5	Carbon tetrachloride	21.0	
141-78-6	Ethyl acetate	19.0	
109-99-9	Tetrahydrofuran	20.4	
71-55-6	1,1,1-Trichloroethane	21.8	
78-93-3	2-Butanone (MEK)	20.9	
563-58-6	1,1-Dichloropropene	21.3	
71-43-2	Benzene	21.2	
107-12-0	Propionitrile	20.9	
126-98-7	Methacrylonitrile	18.3	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	20.4	
78-83-1	Isobutanol	99.5	
107-06-2	1,2-Dichloroethane	20.5	
108-87-2	Methylcyclohexane	20.6	
79-01-6	Trichloroethene	20.7	
74-95-3	Dibromomethane	20.8	
78-87-5	1,2-Dichloropropane	20.5	
75-27-4	Bromodichloromethane	20.5	
80-62-6	Methyl methacrylate	19.8	
123-91-1	1,4-Dioxane (p-Dioxane)	181	
110-75-8	2-Chloroethylvinyl ether	19.5	
10061-01-5	cis-1,3-Dichloropropene	20.3	
108-88-3	Toluene	20.9	
79-46-9	2-Nitropropane	99.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.7	
127-18-4	Tetrachloroethene	21.4	
10061-02-6	trans-1,3-Dichloropropene	19.8	
97-63-2	Ethyl methacrylate	18.3	
79-00-5	1,1,2-Trichloroethane	20.5	
124-48-1	Dibromochloromethane	20.1	
142-28-9	1,3-Dichloropropane	20.2	
106-93-4	1,2-Dibromoethane (EDB)	19.7	
591-78-6	2-Hexanone	20.1	
100-41-4	Ethylbenzene	21.2	
108-90-7	Chlorobenzene	20.8	
630-20-6	1,1,1,2-Tetrachloroethane	21.1	
7816-60-0	m&p-Xylene	42.6	
95-47-6	o-Xylene	21.5	
100-42-5	Styrene	21.0	
75-25-2	Bromoform	19.0	
98-82-8	Isopropylbenzene (Cumene)	21.1	
103-65-1	n-Propylbenzene	20.6	
108-86-1	Bromobenzene	20.5	
79-34-5	1,1,2,2-Tetrachloroethane	20.9	
108-67-8	1,3,5-Trimethylbenzene	21.4	
95-49-8	2-Chlorotoluene	20.6	
96-18-4	1,2,3-Trichloropropane	20.5	
110-57-6	trans-1,4-Dichloro-2-butene	19.9	
108-94-1	Cyclohexanone	107	
106-43-4	4-Chlorotoluene	20.1	
98-06-6	tert-Butylbenzene	21.6	
95-63-6	1,2,4-Trimethylbenzene	21.4	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Report Date: 26-Jun-2019 14:07

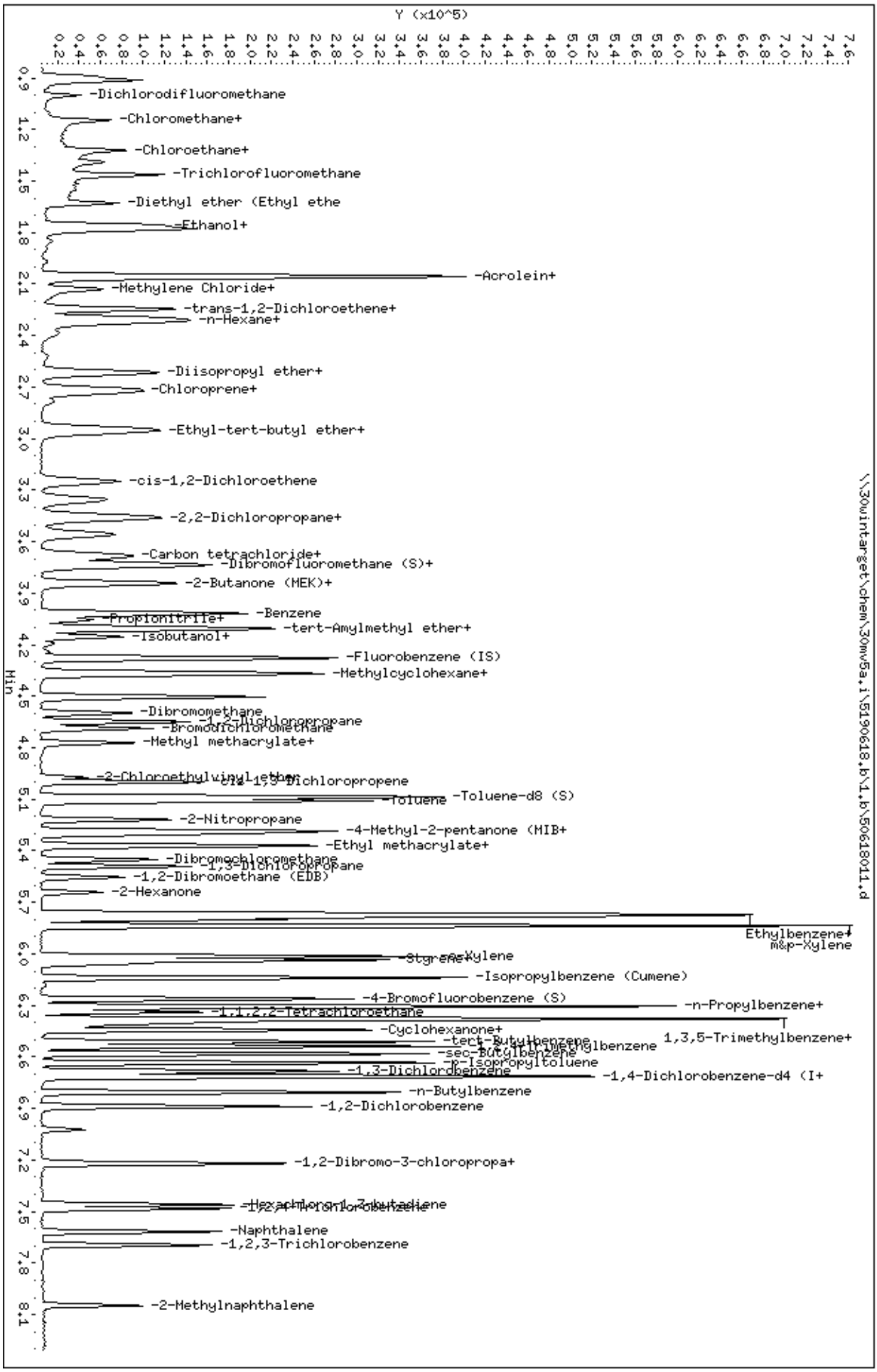
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.1	
99-87-6	p-Isopropyltoluene	21.0	
541-73-1	1,3-Dichlorobenzene	20.6	
106-46-7	1,4-Dichlorobenzene	20.7	
104-51-8	n-Butylbenzene	21.5	
95-50-1	1,2-Dichlorobenzene	21.0	
96-12-8	1,2-Dibromo-3-chloropropane	20.2	
108-70-3	1,3,5-Trichlorobenzene	21.7	
87-68-3	Hexachloro-1,3-butadiene	21.9	
120-82-1	1,2,4-Trichlorobenzene	20.7	
91-20-3	Naphthalene	20.1	
87-61-6	1,2,3-Trichlorobenzene	20.9	
91-57-6	2-Methylnaphthalene	16.0	
1868-53-7	Dibromofluoromethane (S)	31.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.8	
2037-26-5	Toluene-d8 (S)	30.4	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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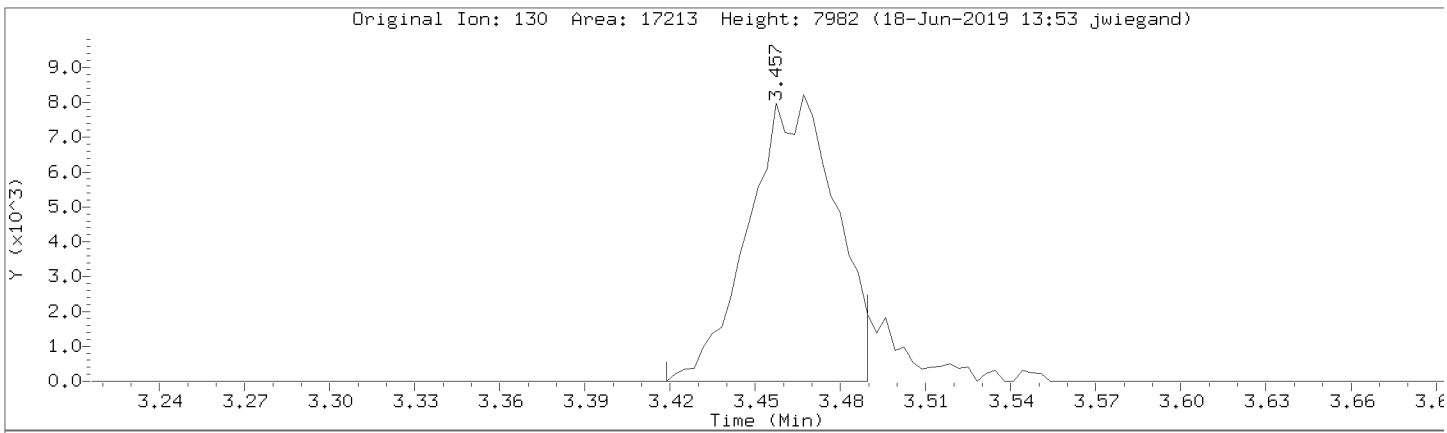
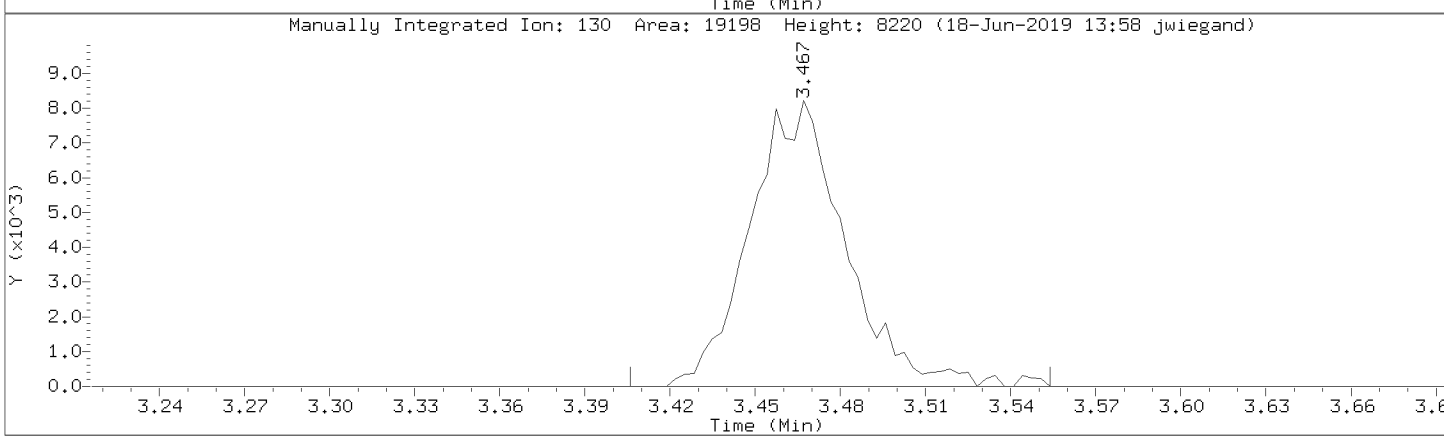
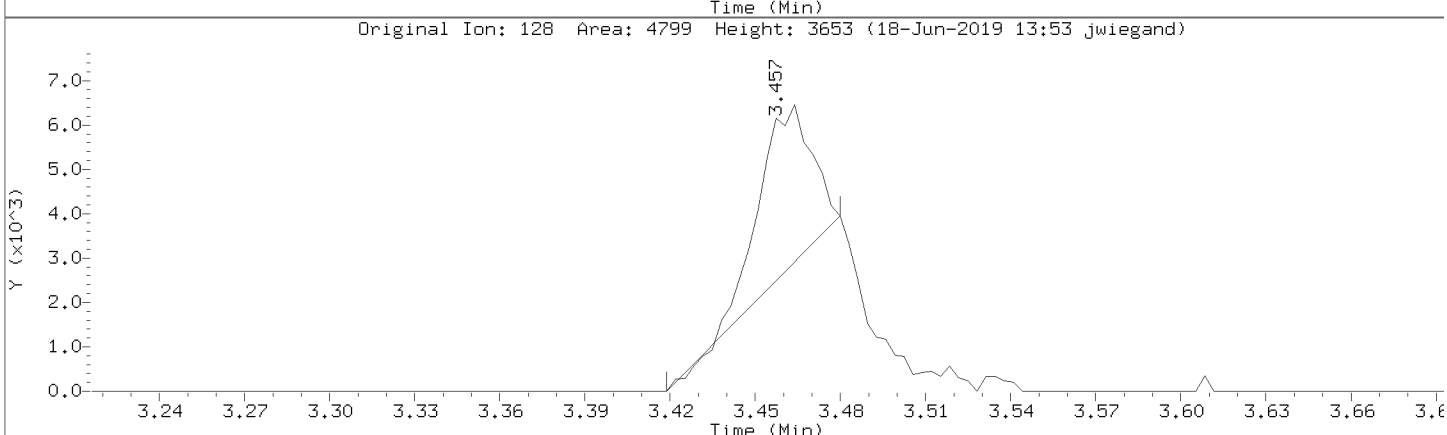
Date : 18-JUN-2019 10:54
Client ID: CAL4
Sample Info: CAL4, 91188:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618011.d
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane+
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
m&p-Xylene
-Styrene+
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachlorobutadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

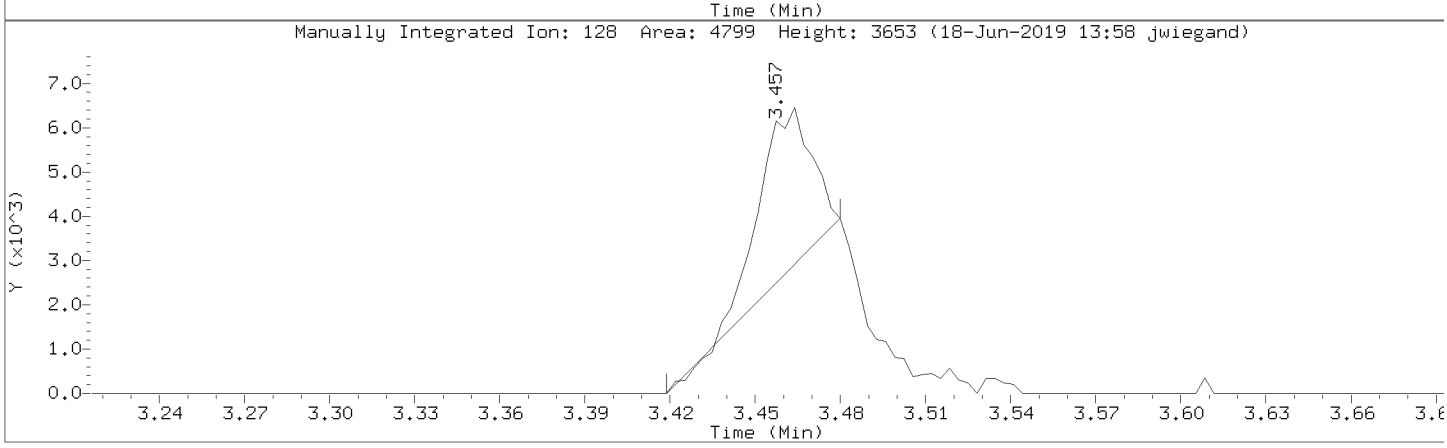
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618011.d
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5









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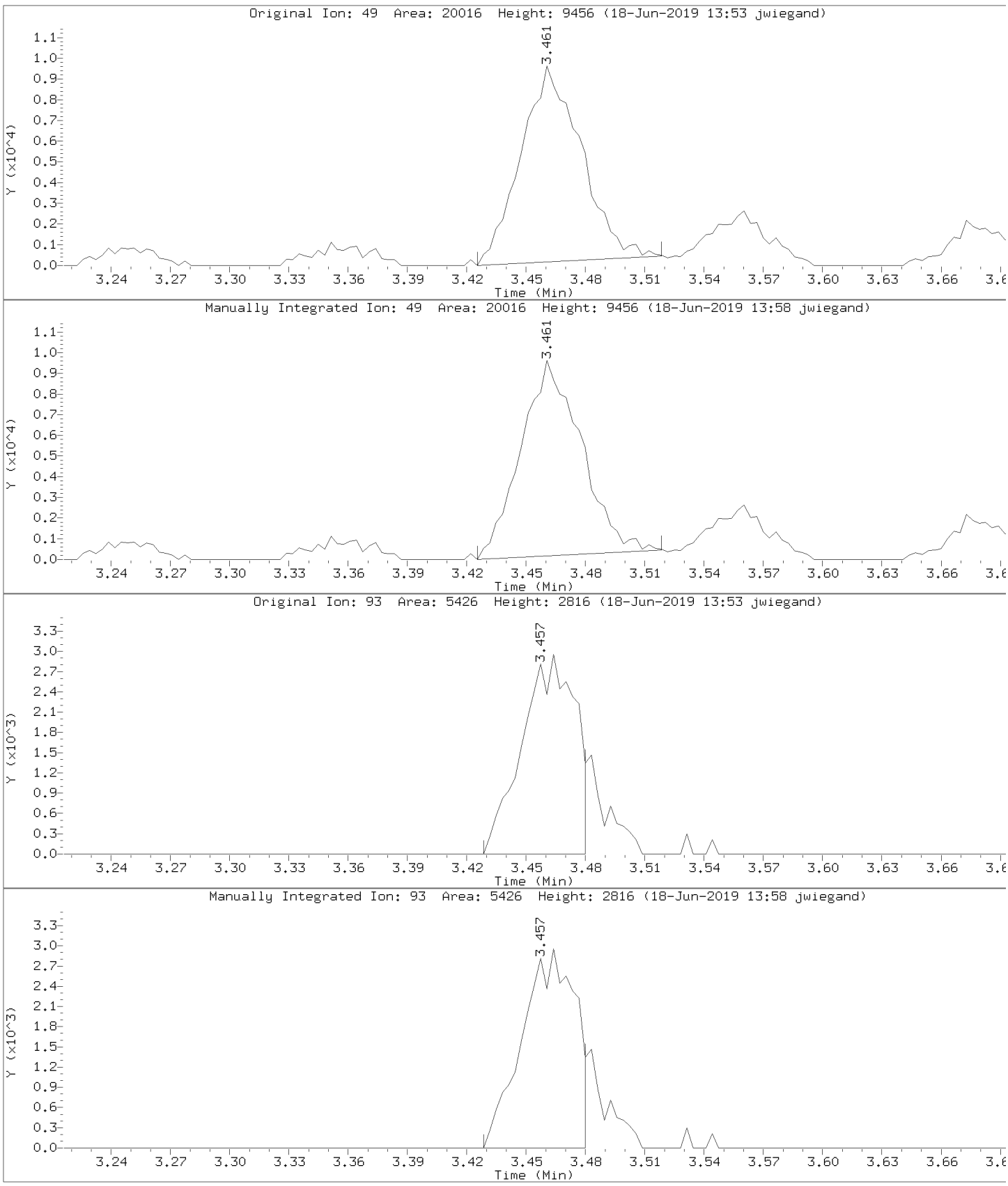
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4



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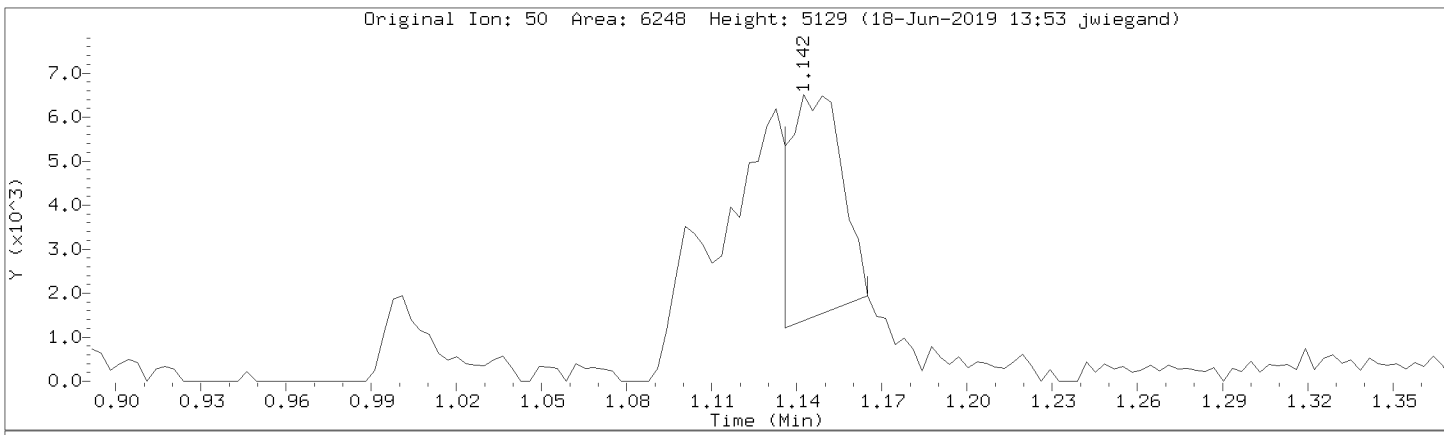
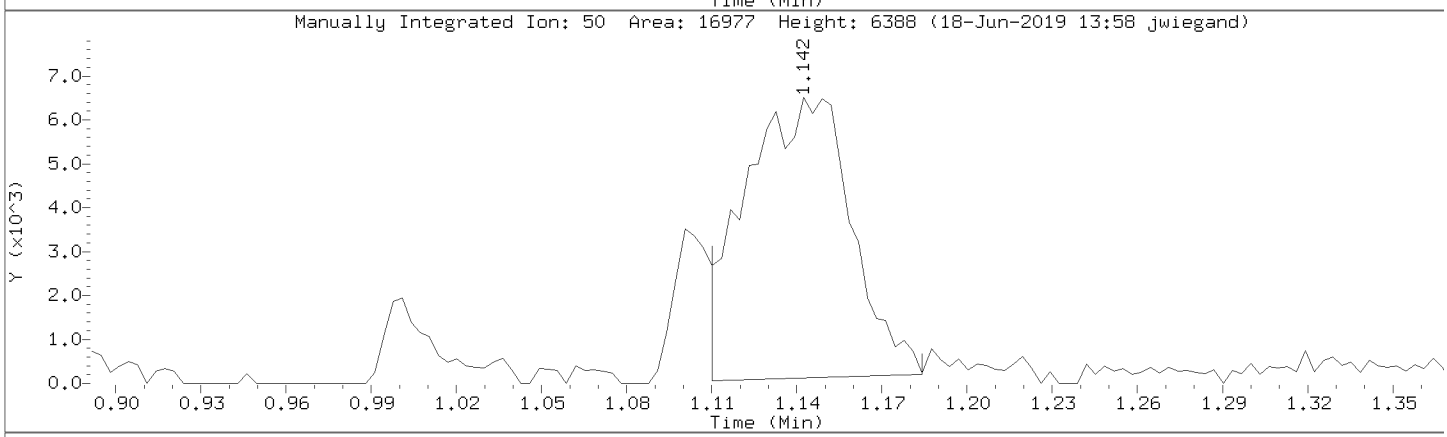
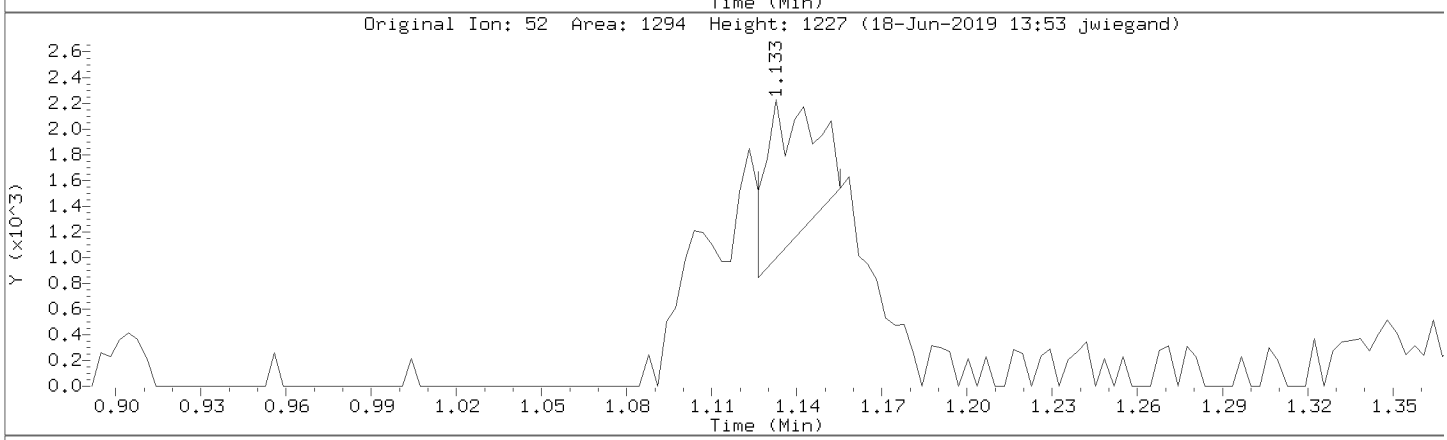
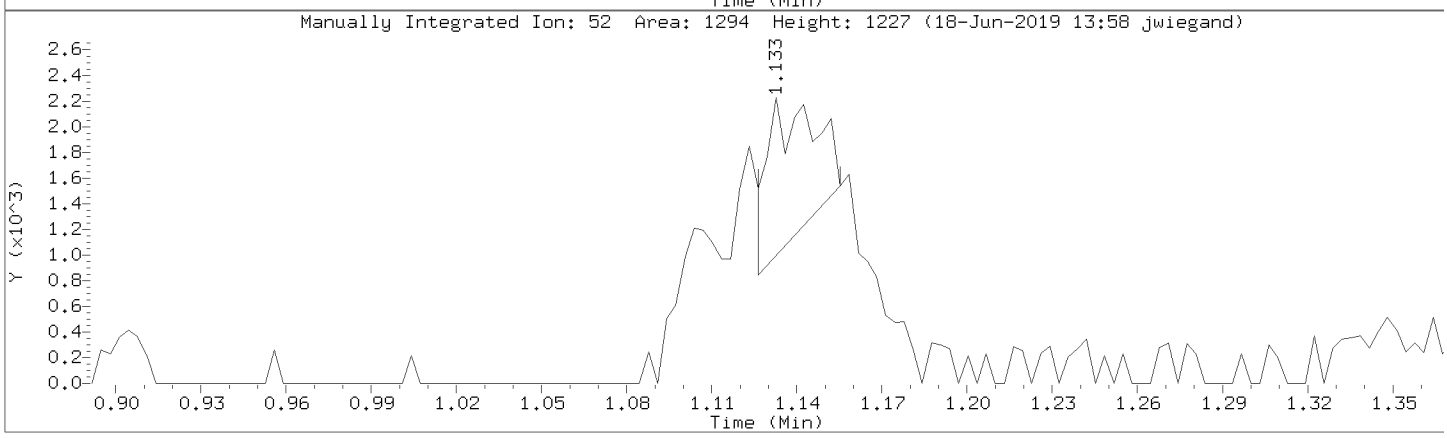
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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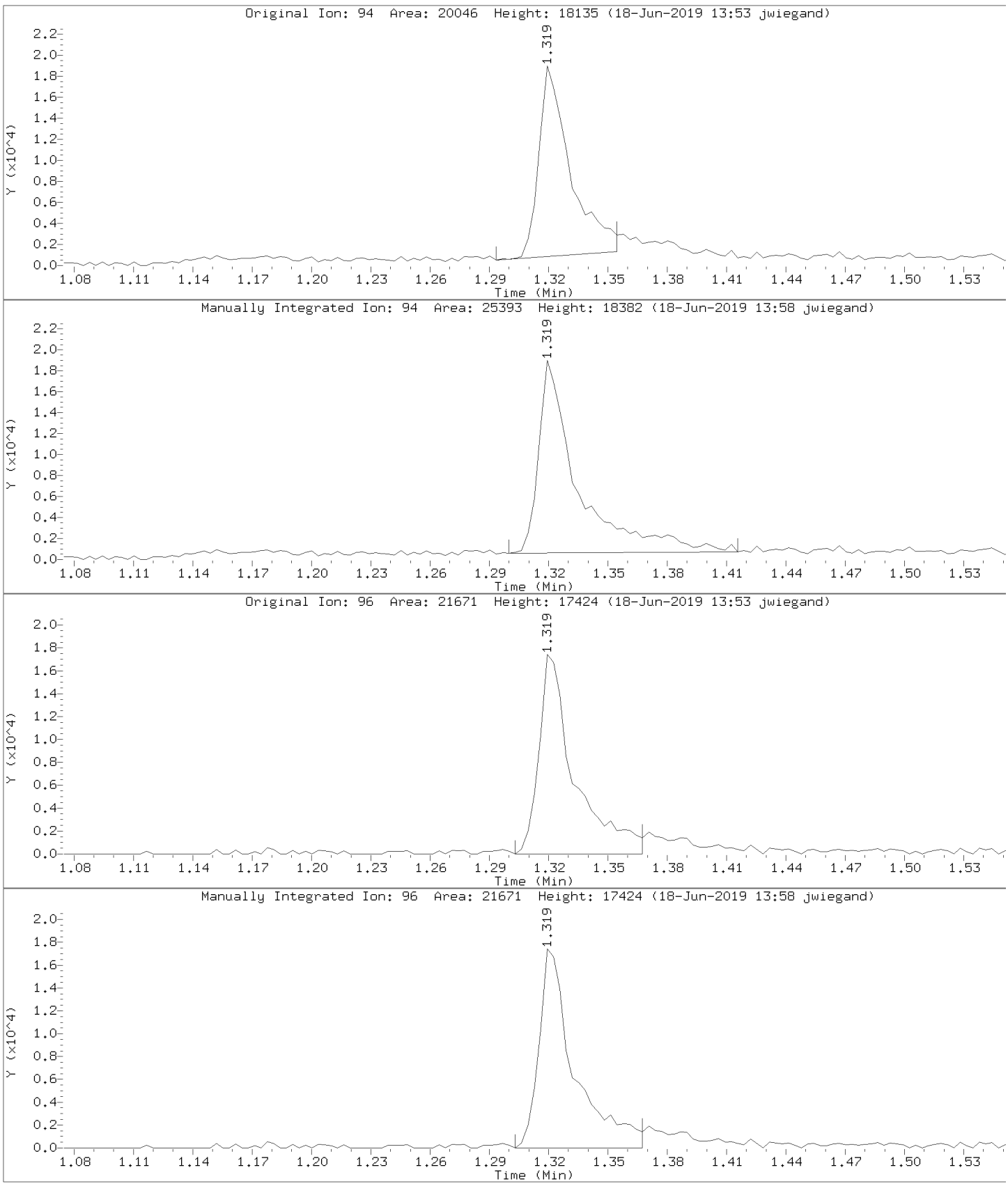
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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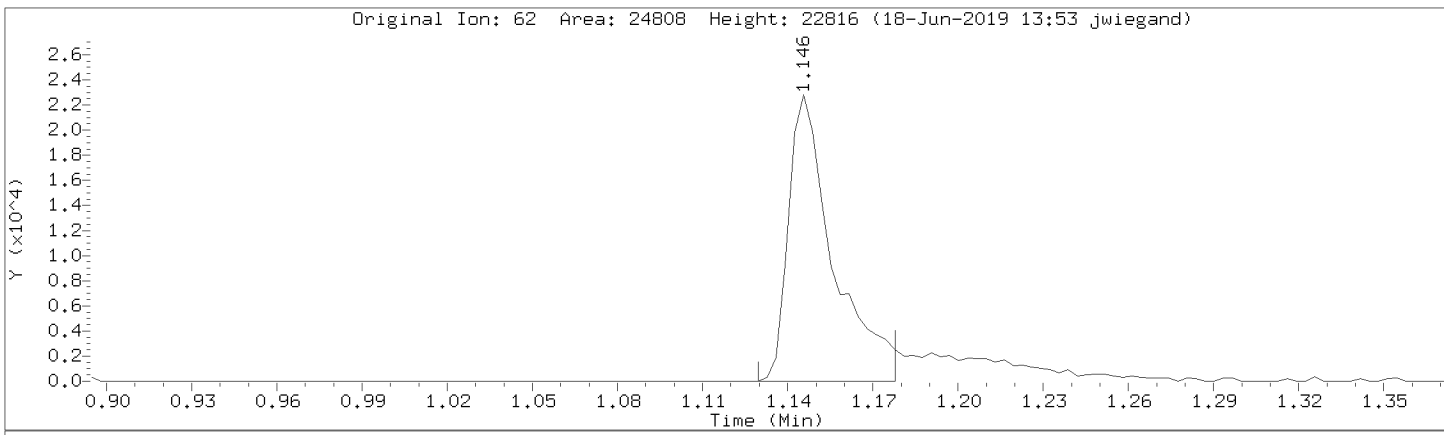
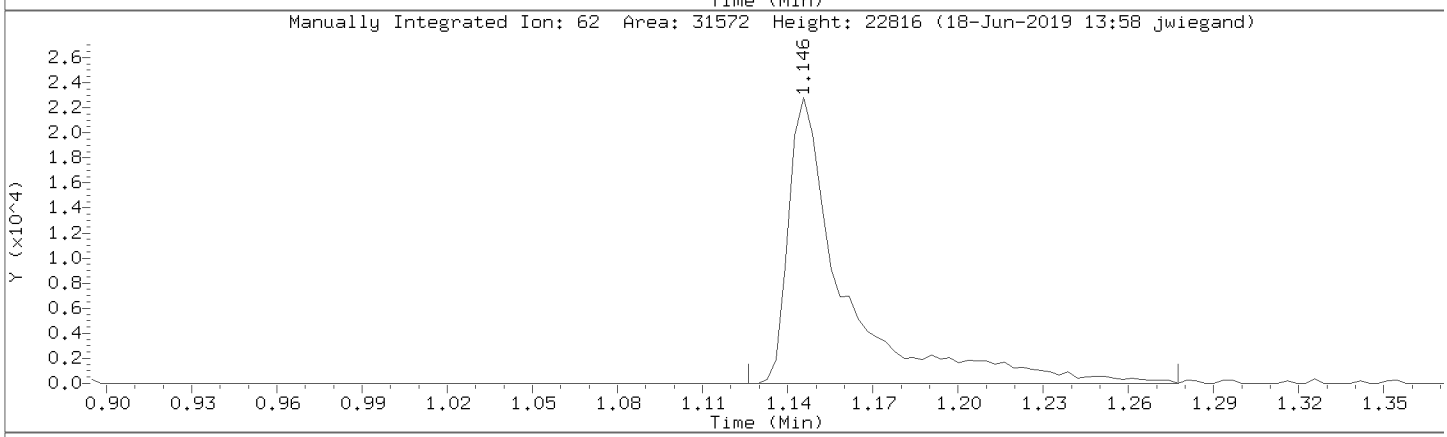
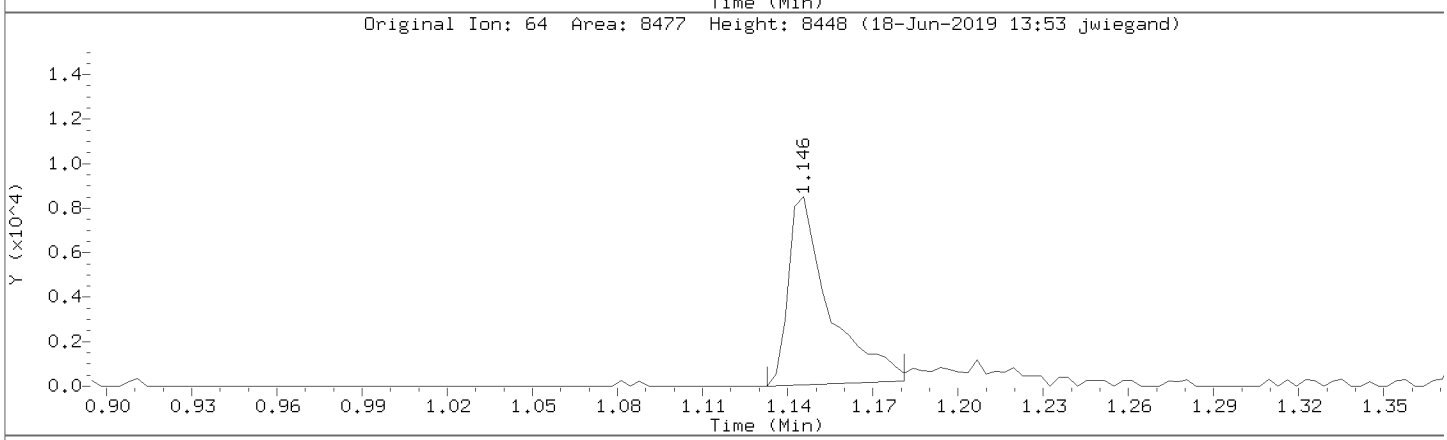
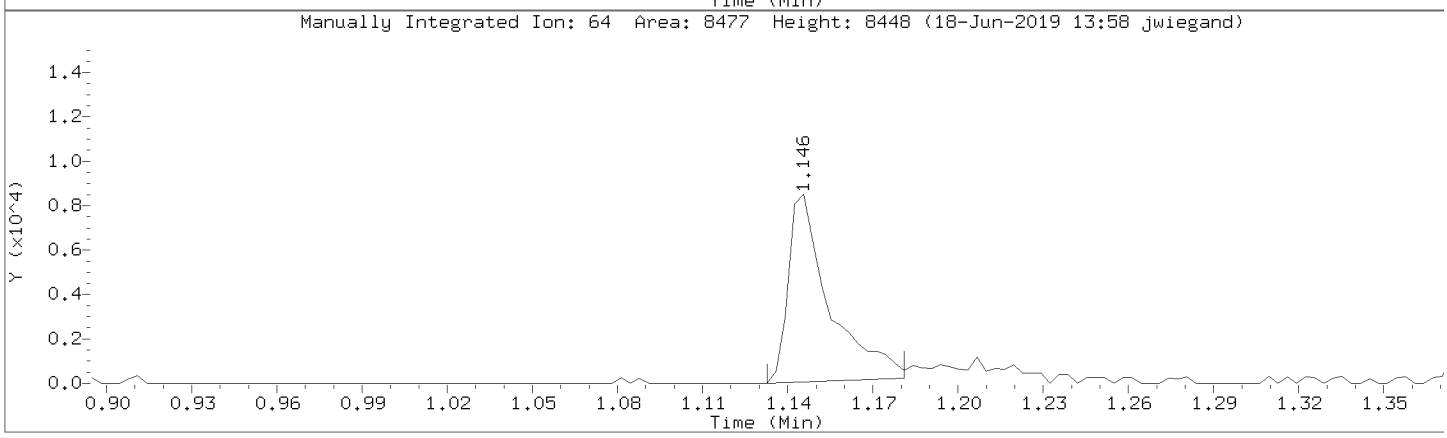
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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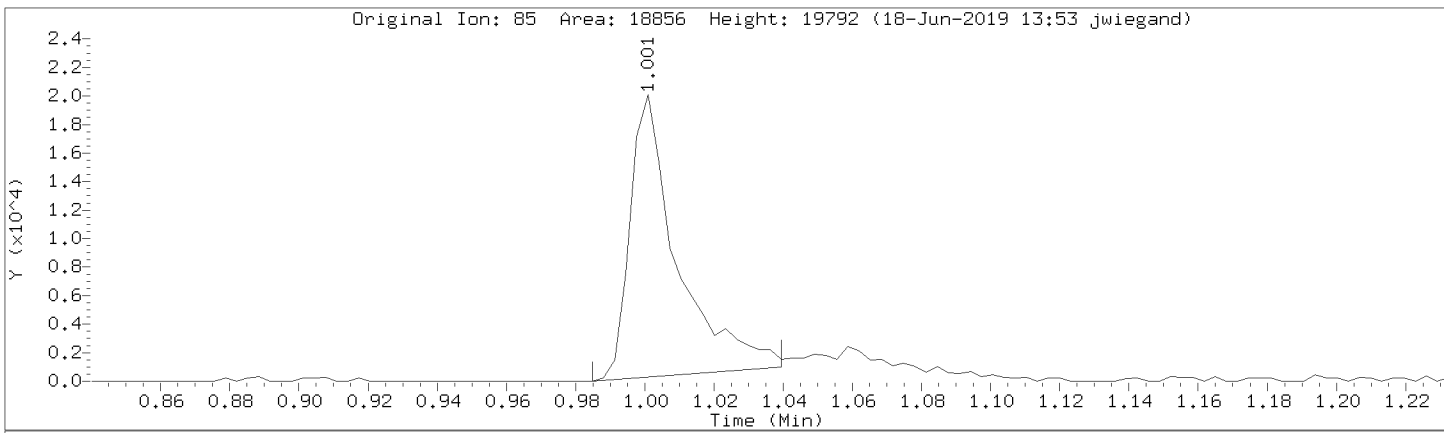
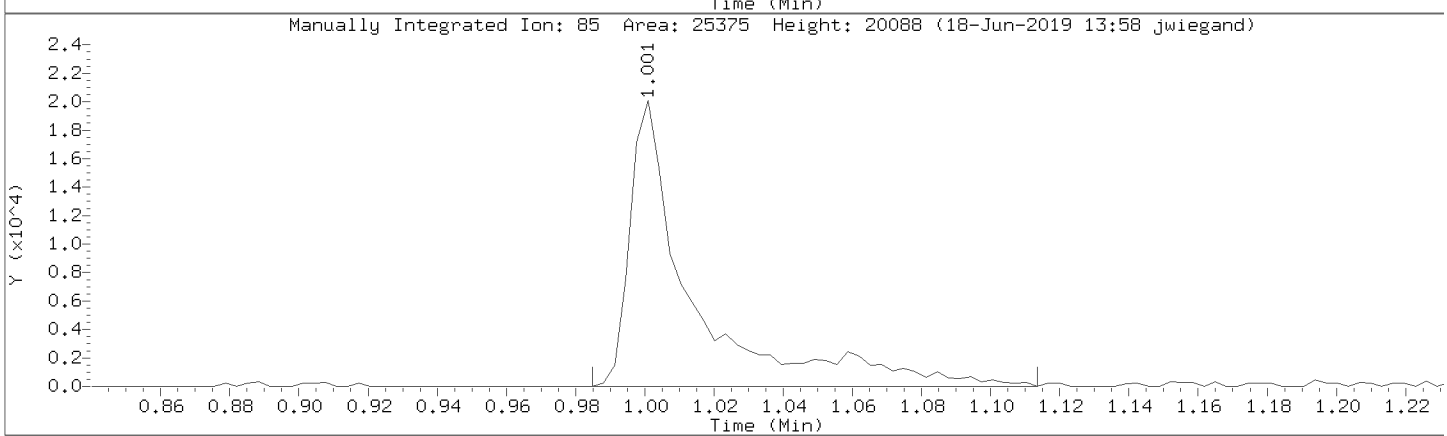
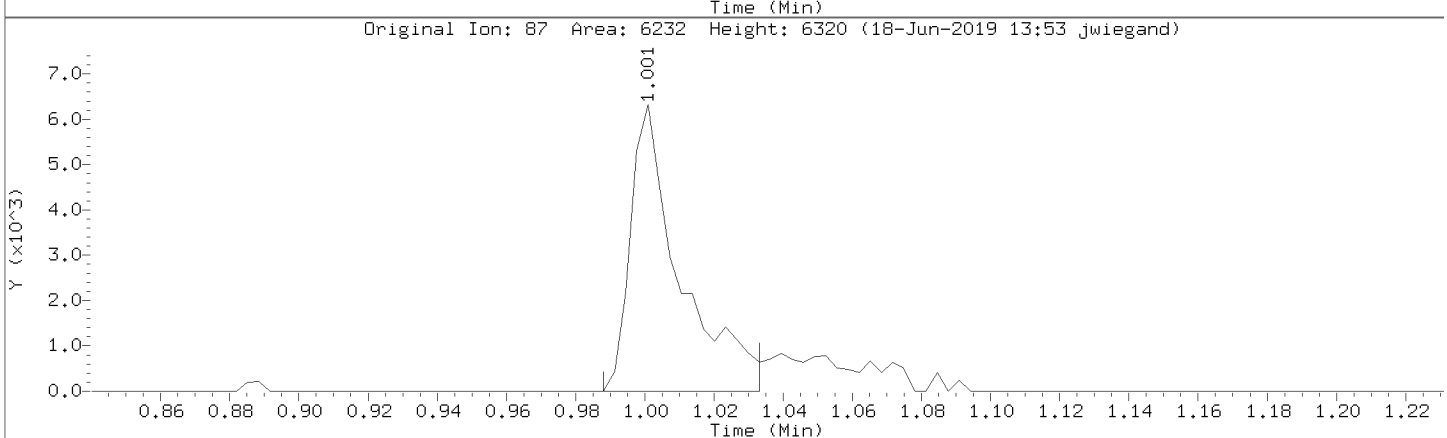
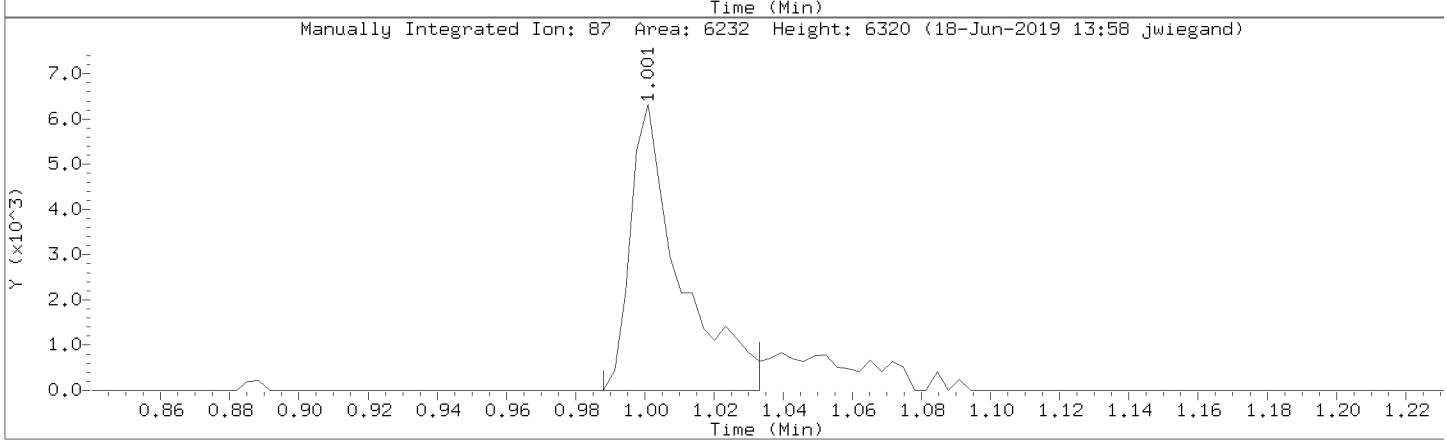
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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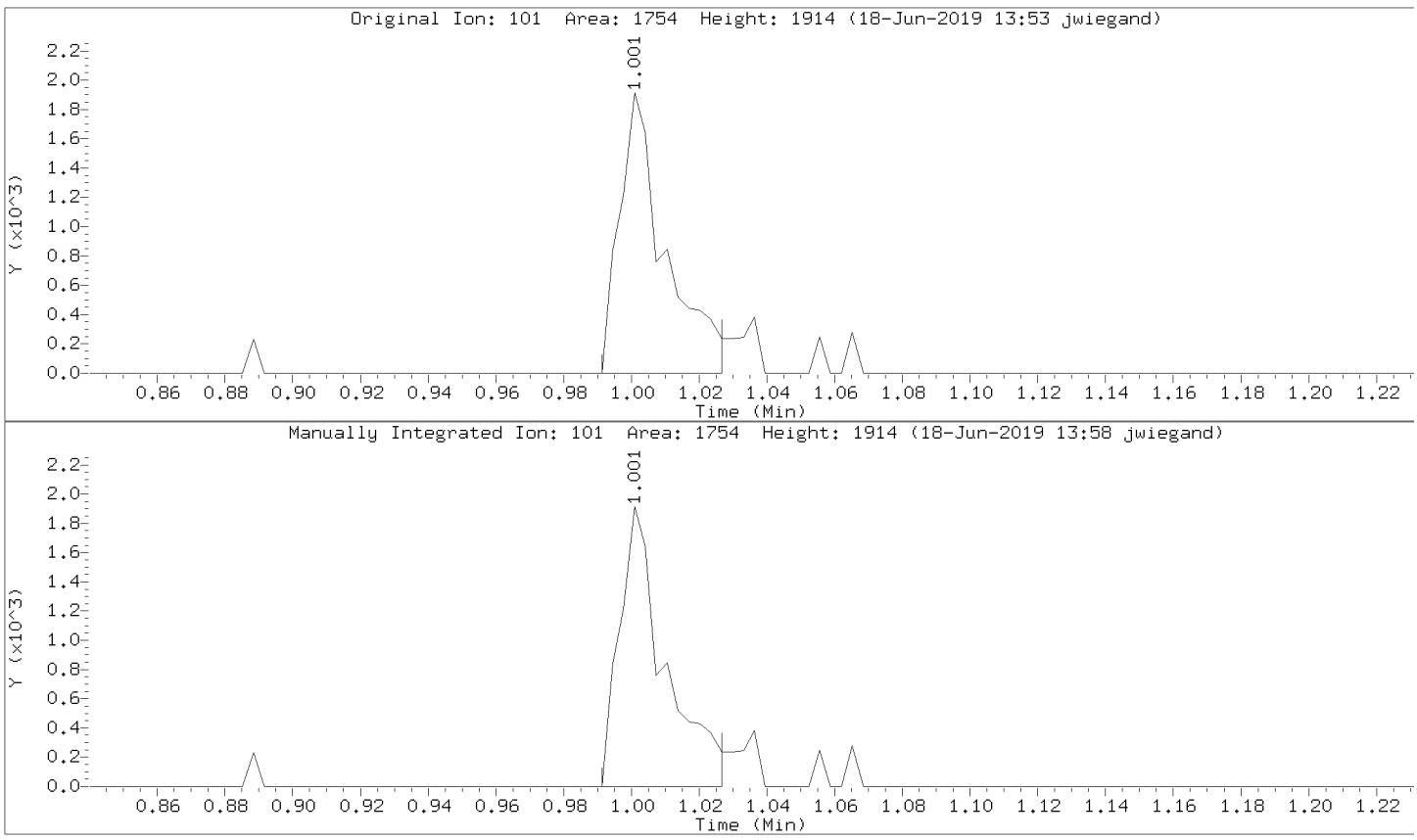
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4



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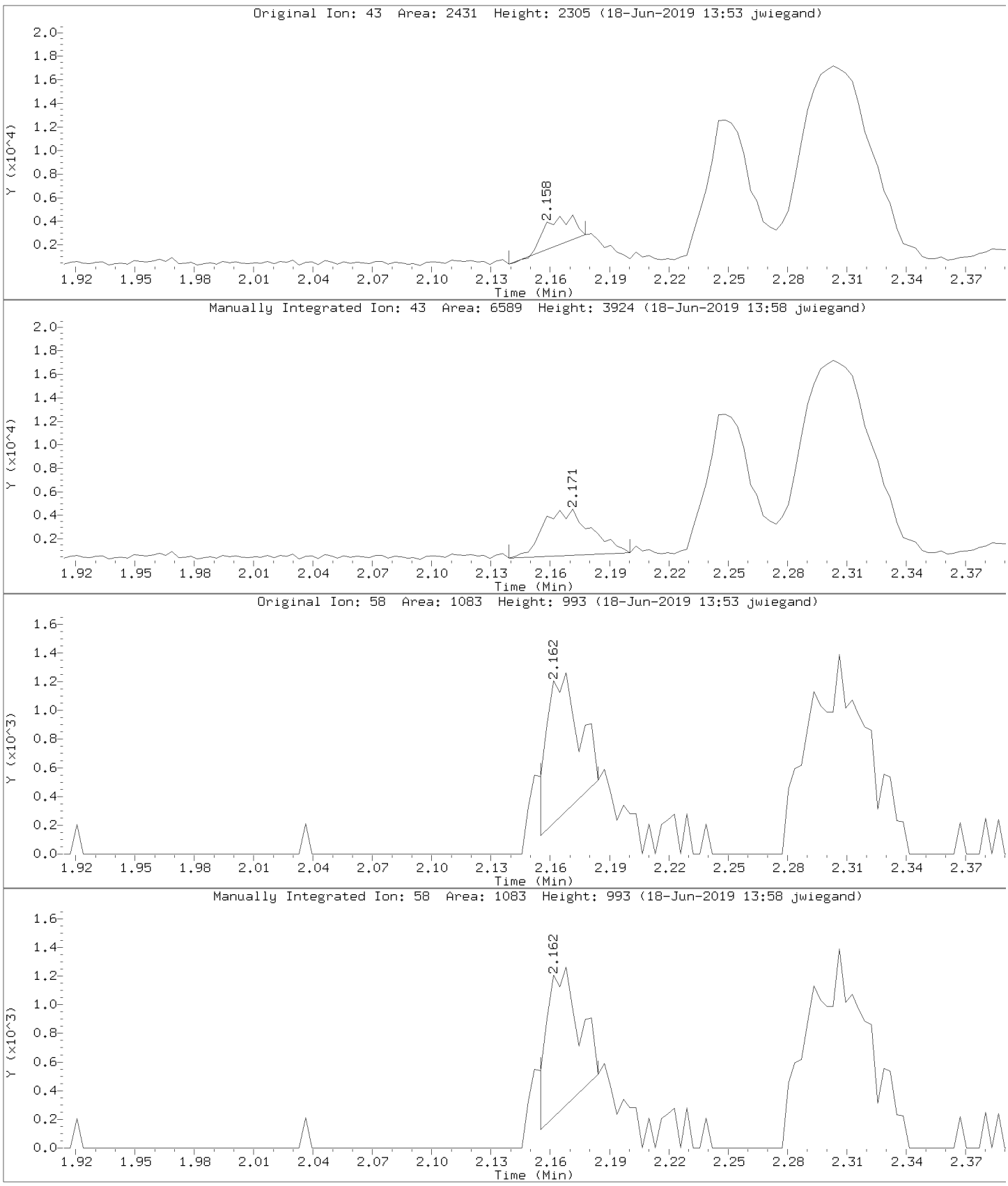
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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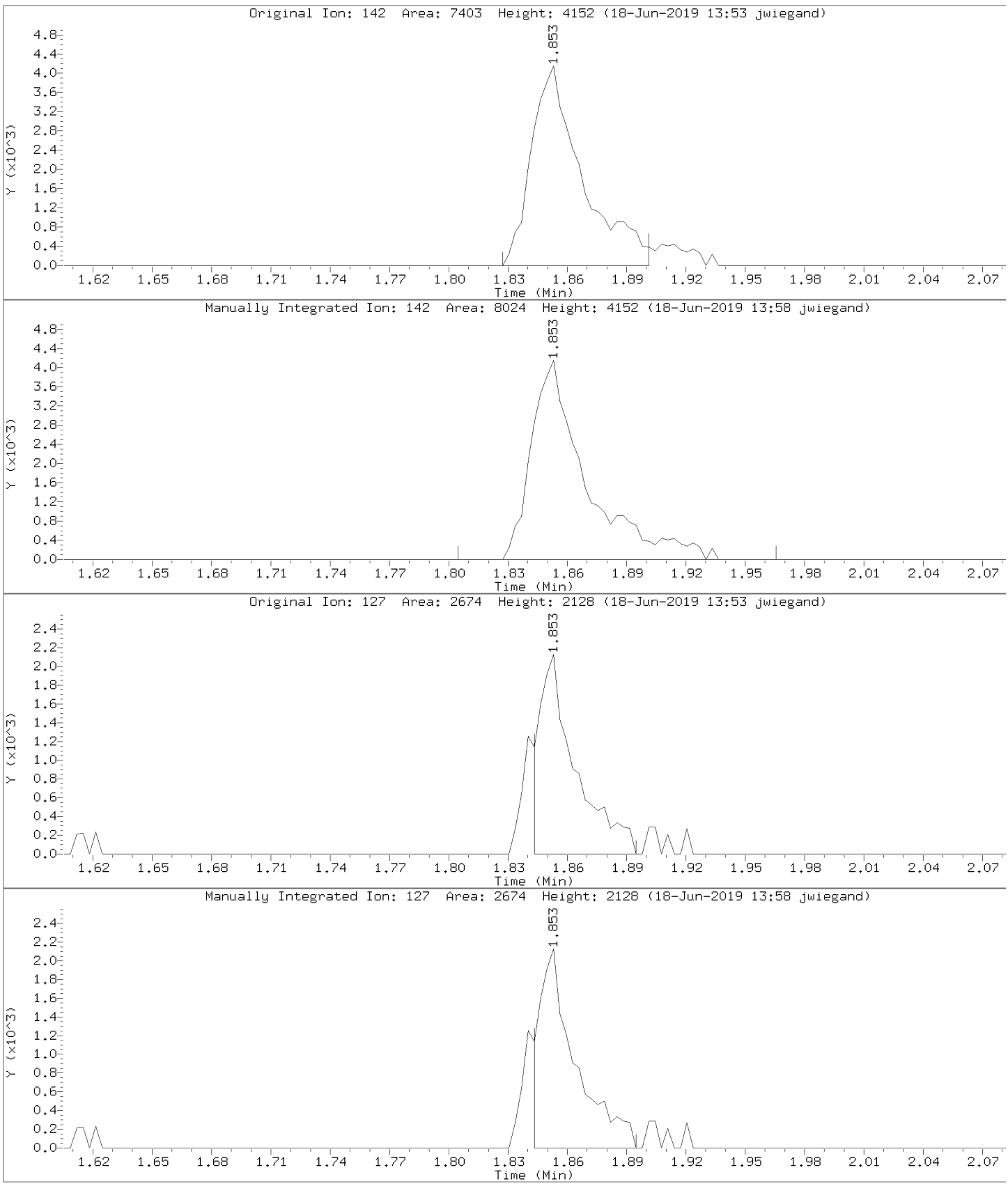
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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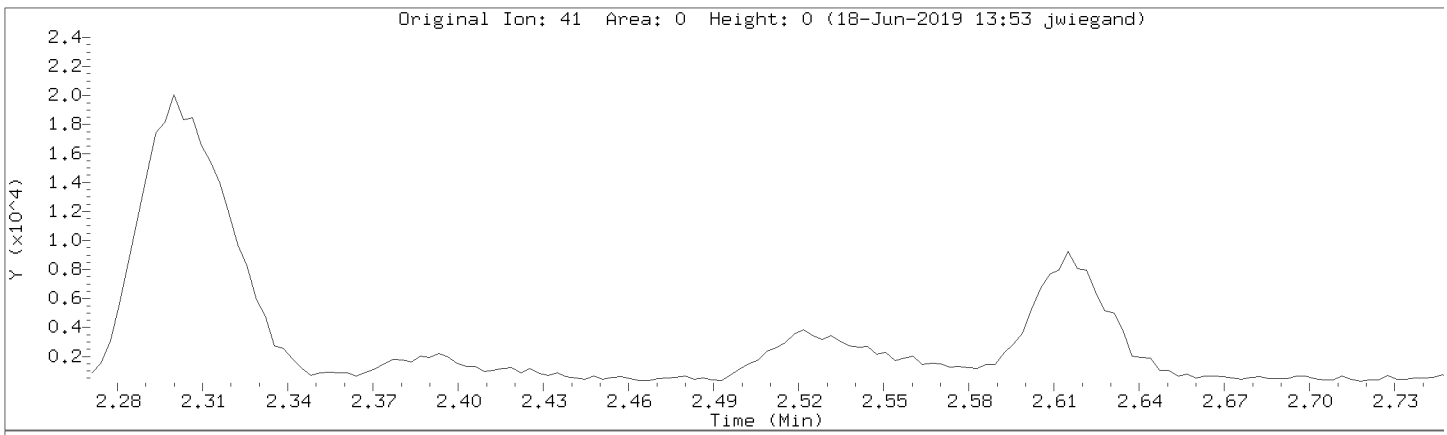
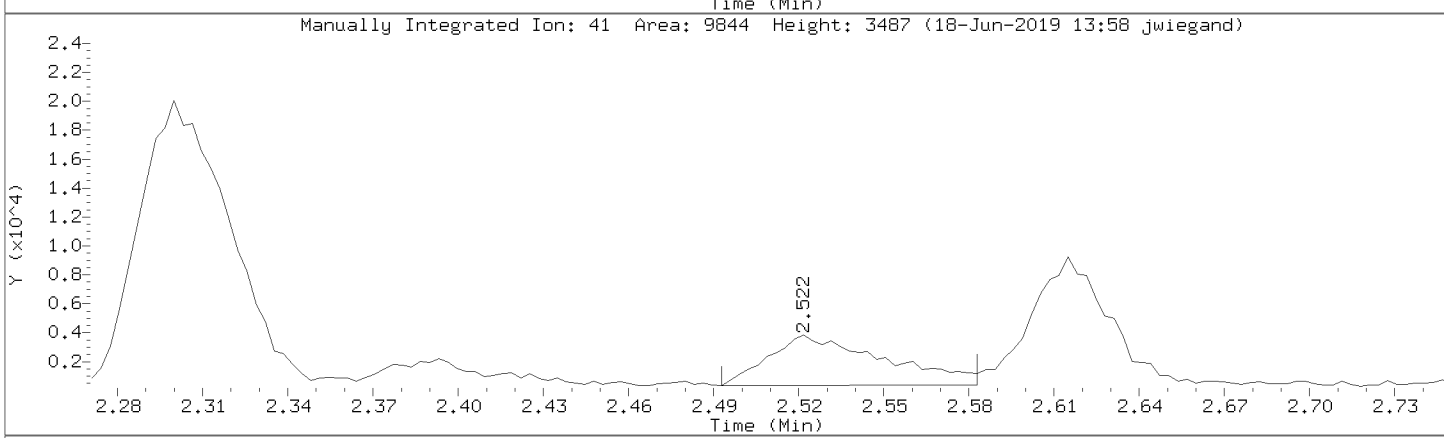
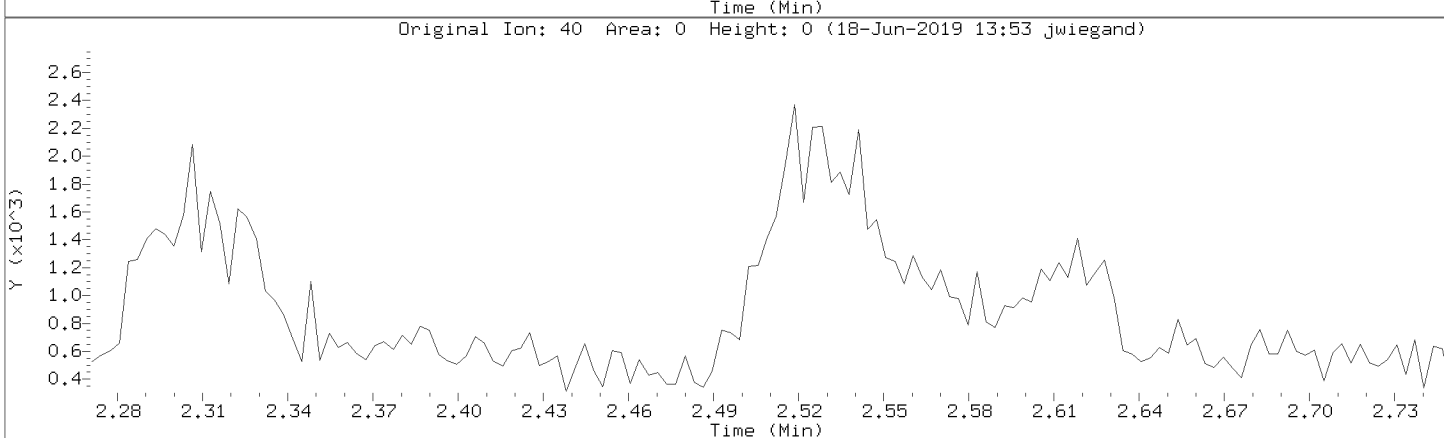
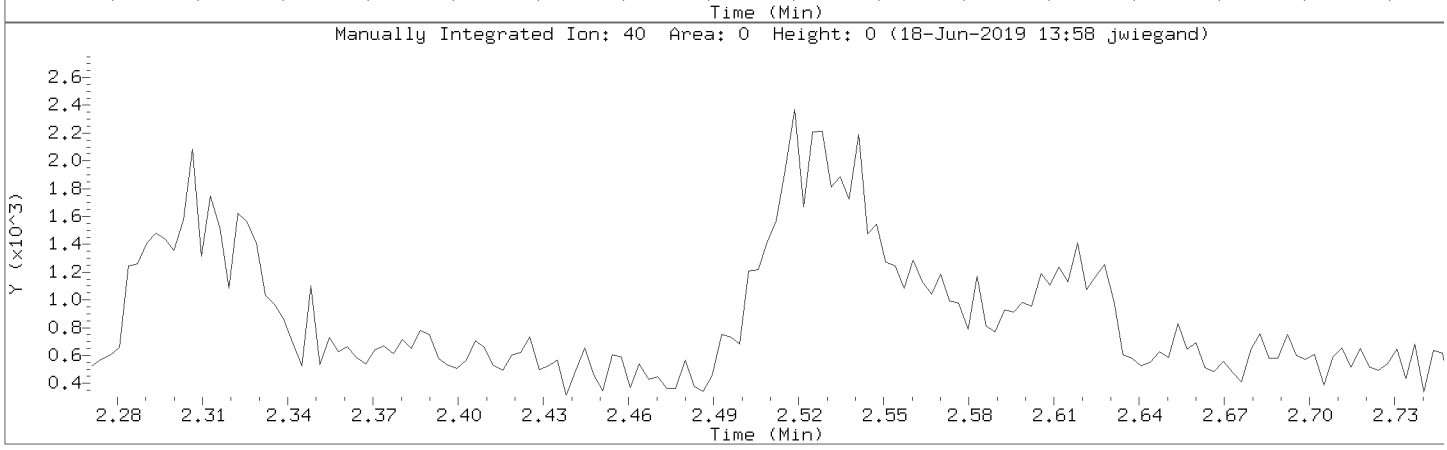
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8









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Injection Date: 18-JUN-2019 10:54
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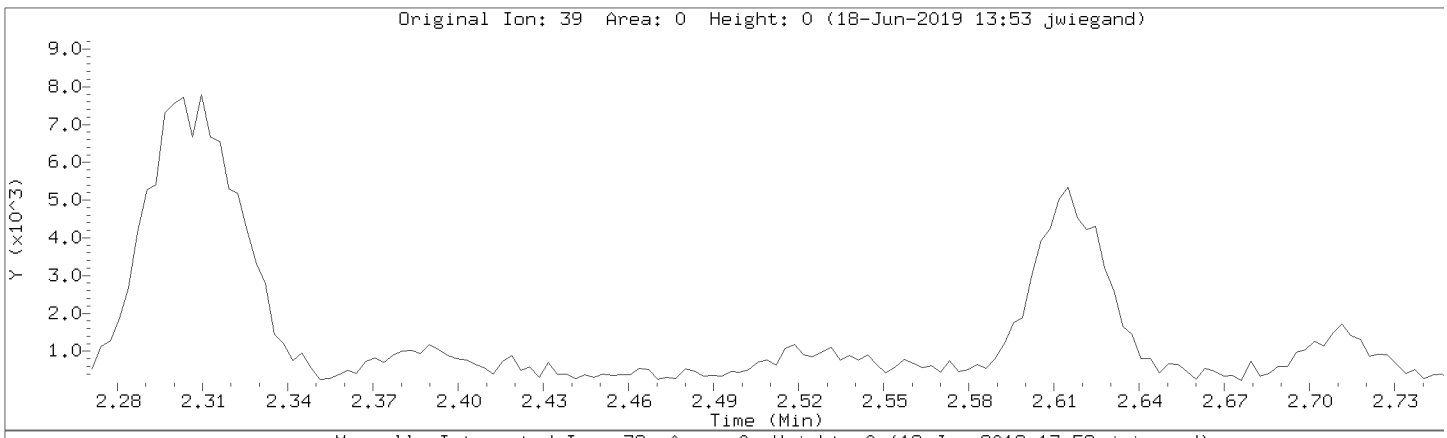
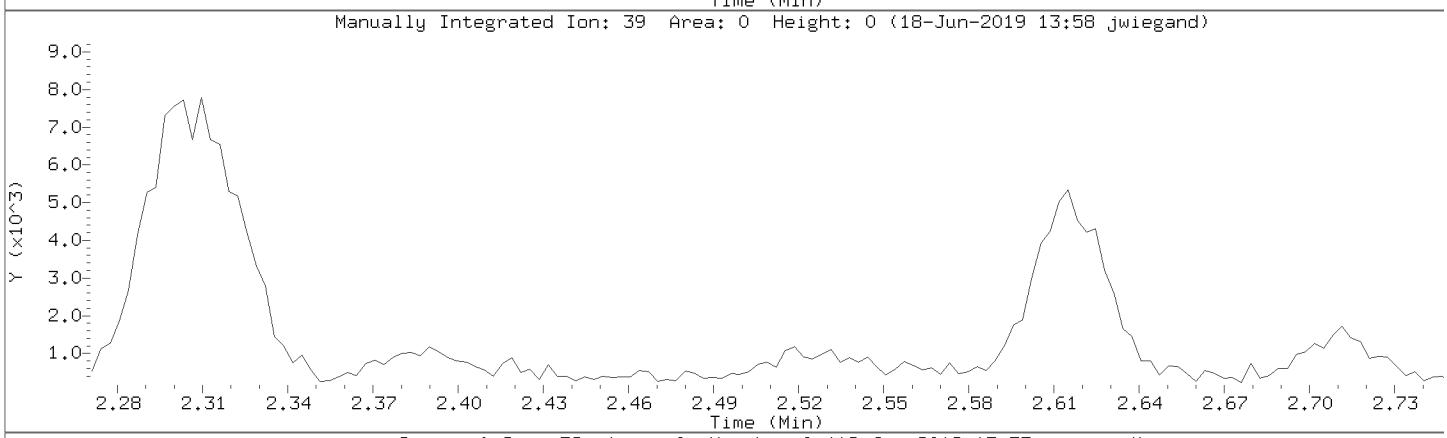
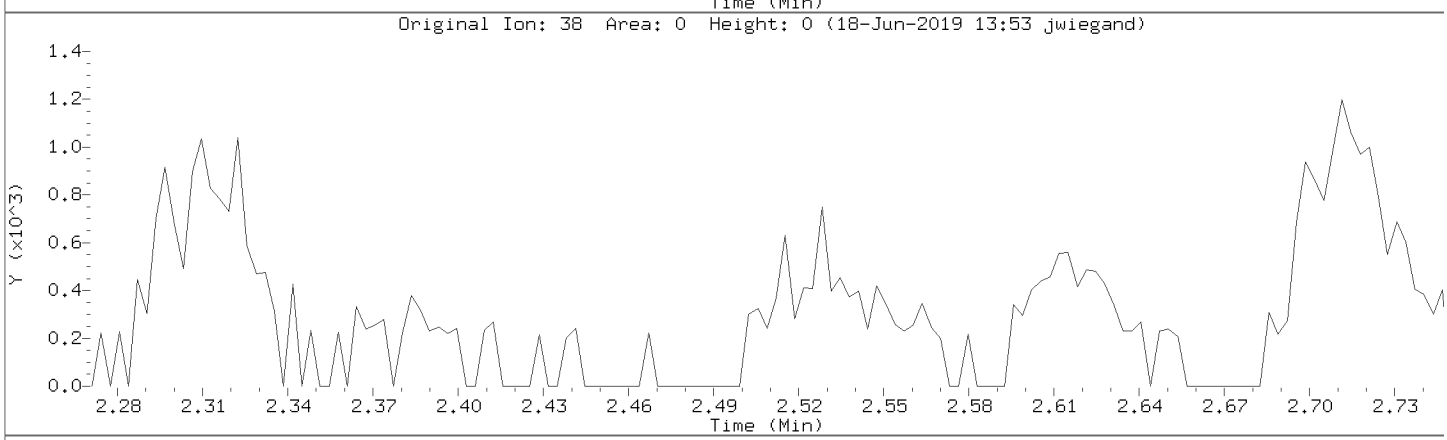
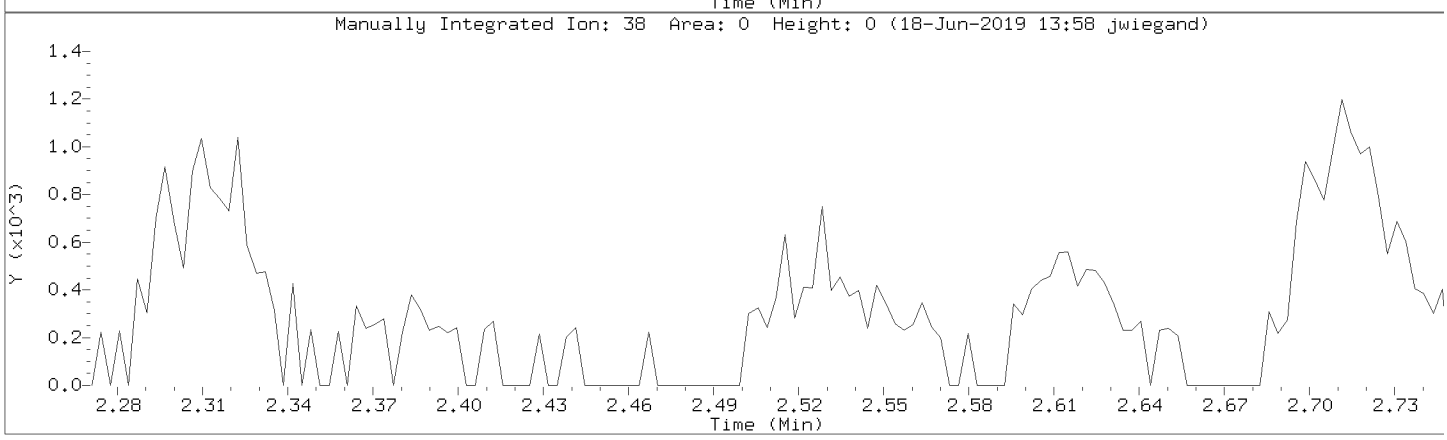
Lab Sample ID: CAL4









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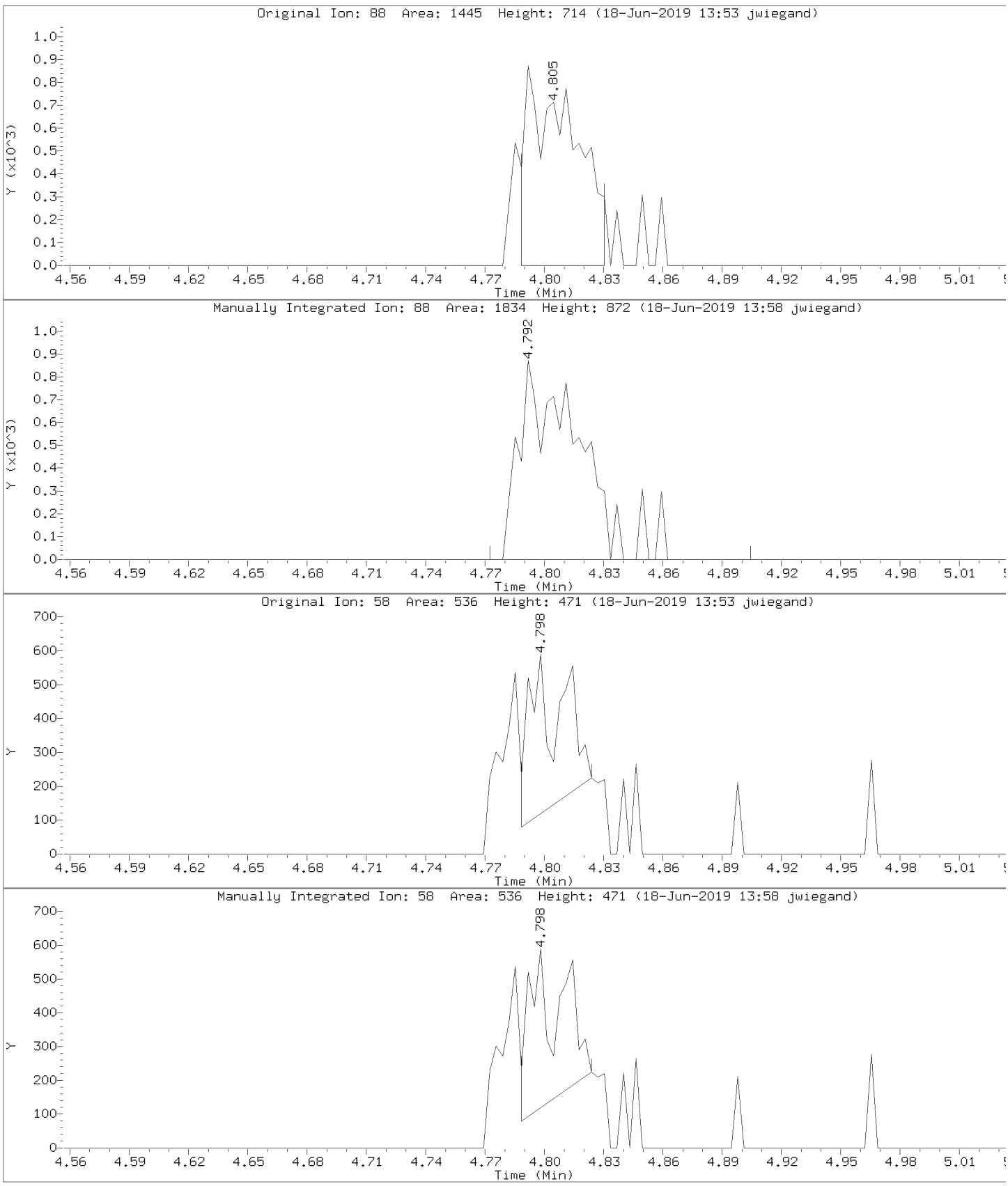
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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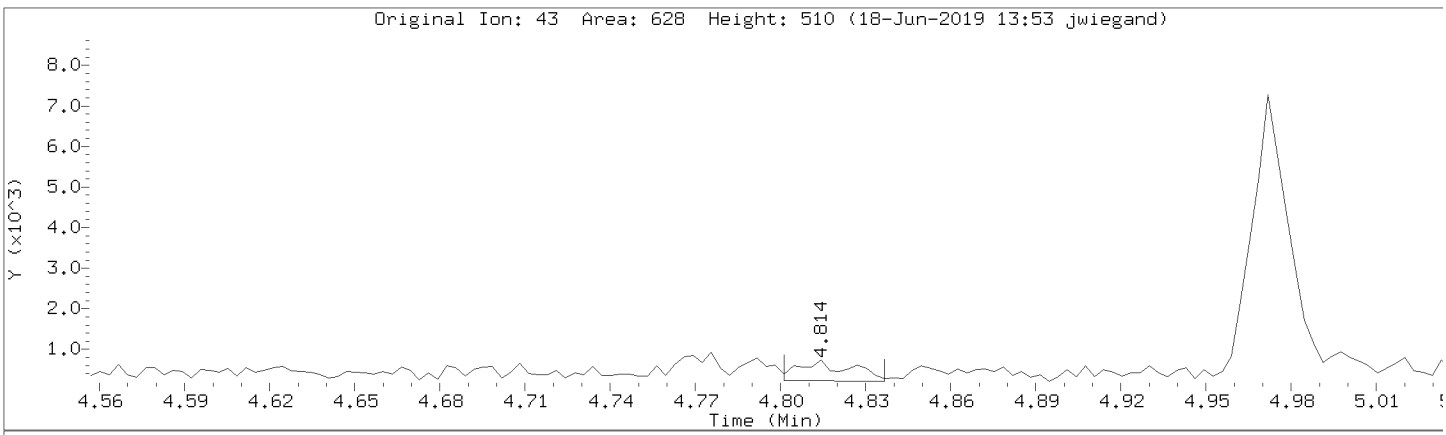
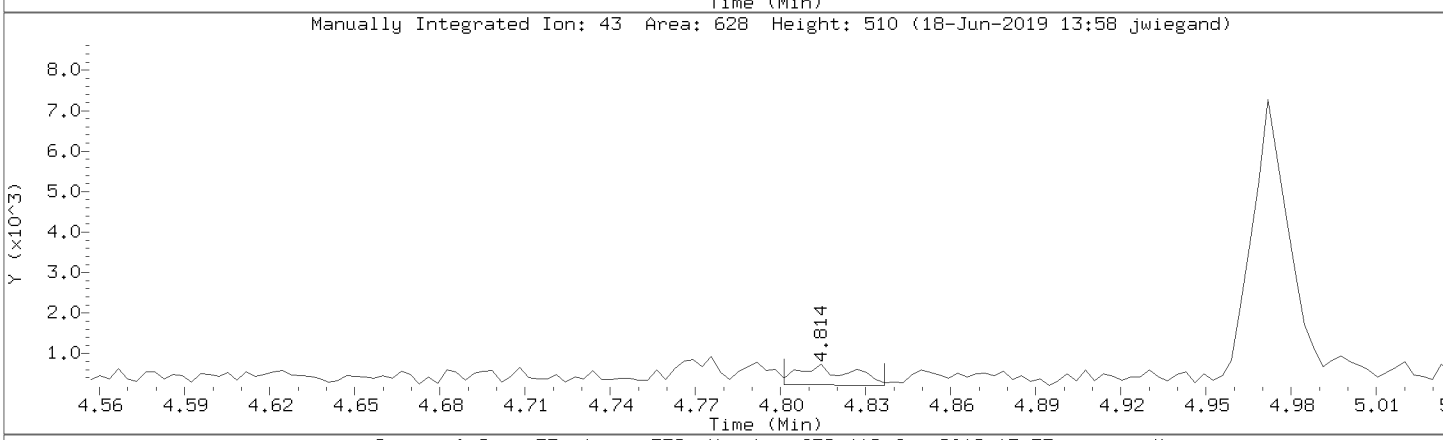
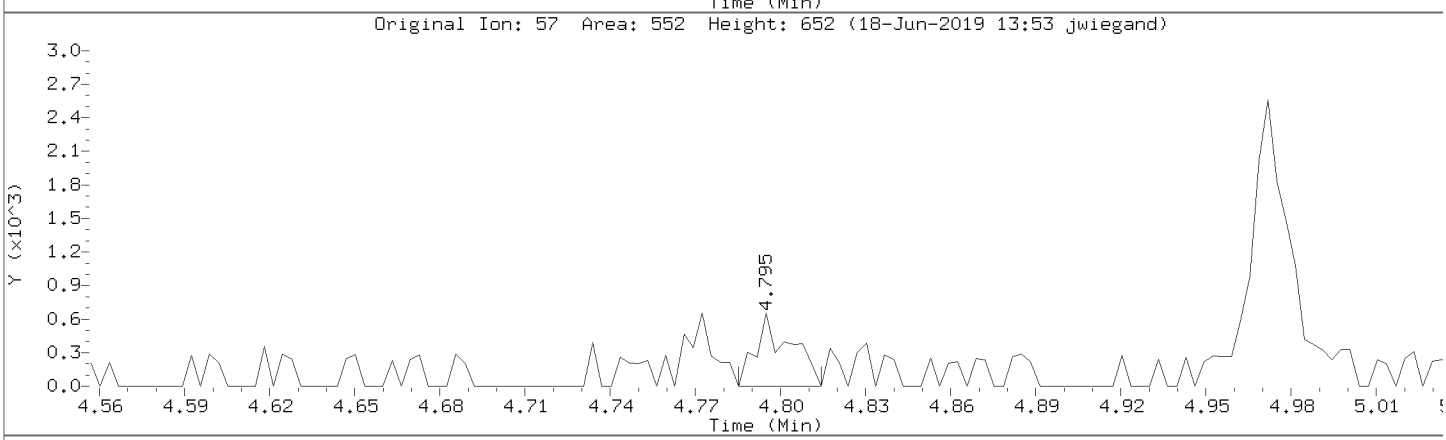
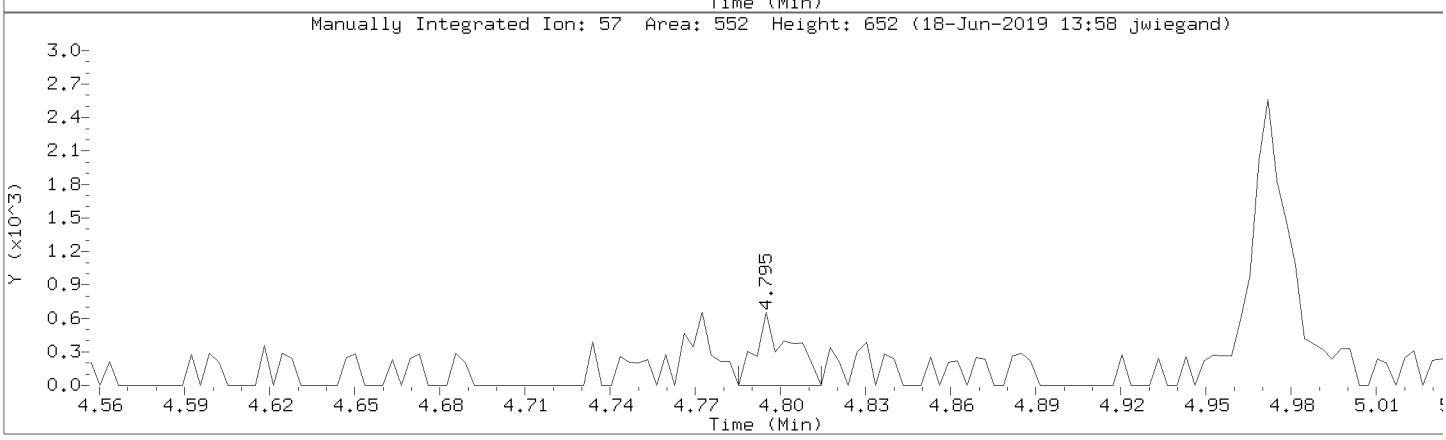
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4









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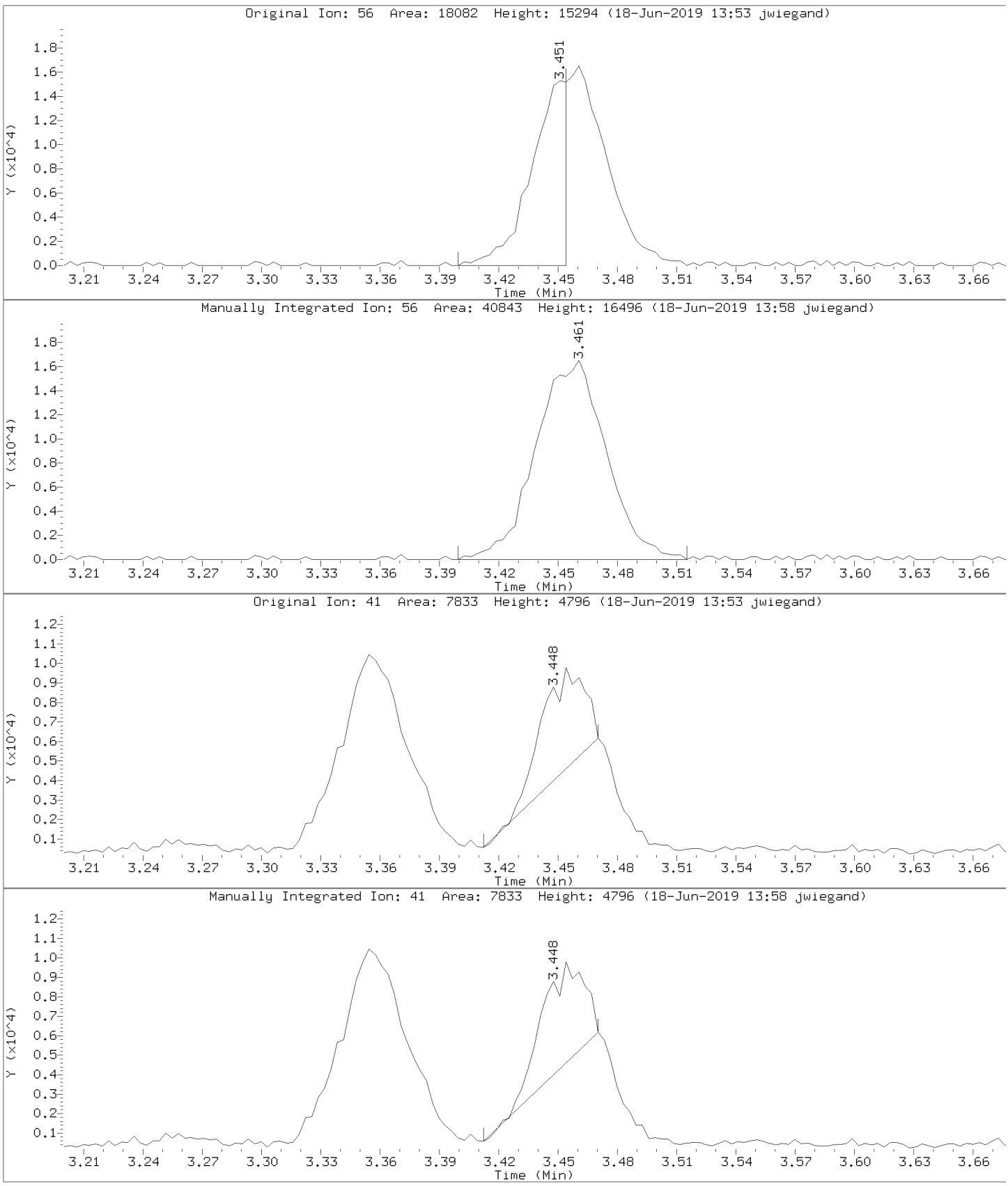
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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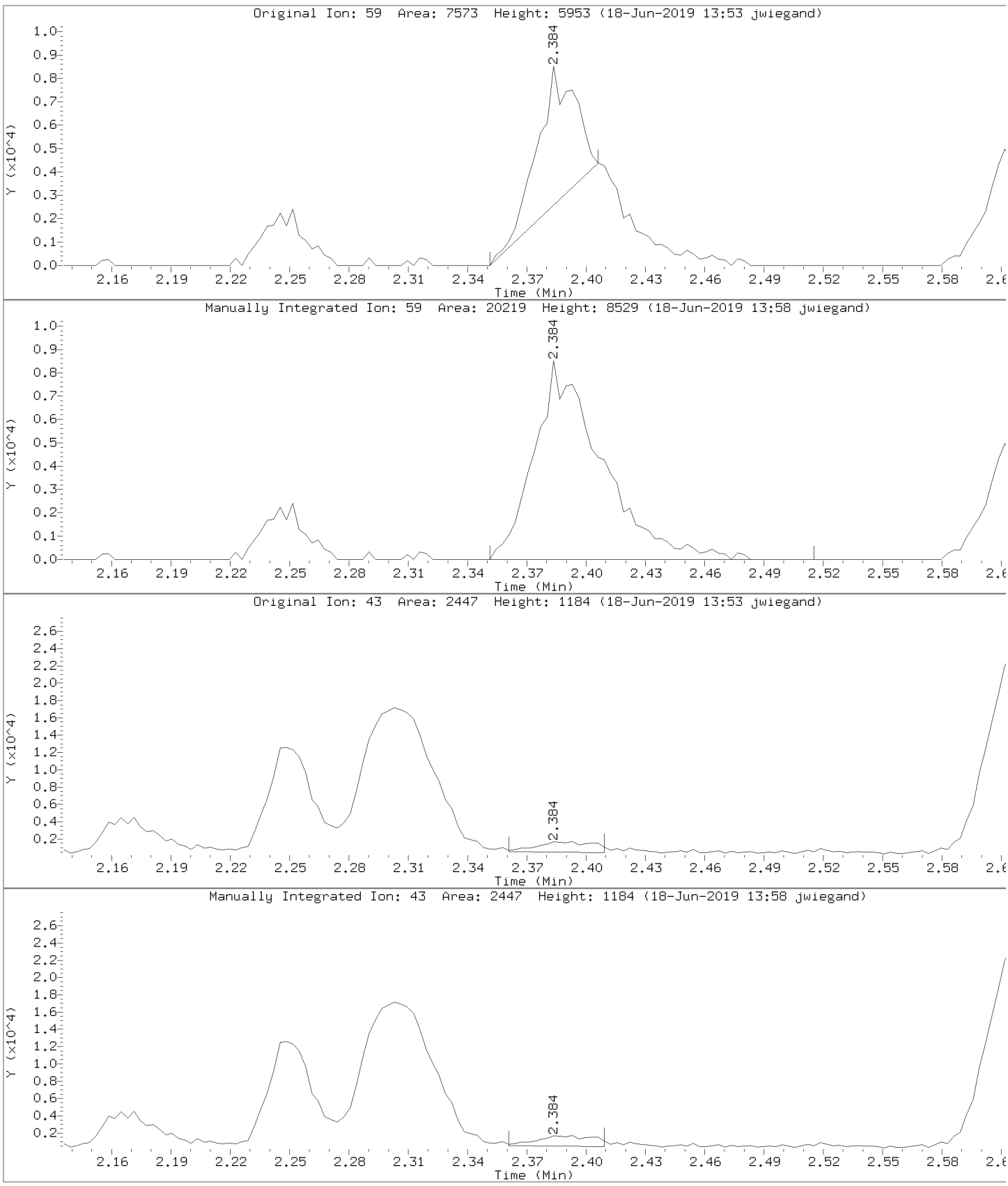
Injection Date: 18-JUN-2019 10:54
Instrument: 30mv5a.i
Lab Sample ID: CAL4

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 18-JUN-2019 11:20
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal5, 91189:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 11:20 Cal File: 50618013.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	60336	50.0000	54.6(QM)	LT
2	Chloromethane	50	1.142	1.142	(0.267)	42974	50.0000	53.2(QM)	LT
3	Vinyl chloride	62	1.145	1.146	(0.268)	74575	50.0000	55.2(QM)	LT
4	Bromomethane	94	1.322	1.326	(0.309)	55042	50.0000	56.0(QM)	LT
5	Chloroethane	64	1.386	1.380	(0.324)	47794	50.0000	53.8(QM)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	102367	50.0000	51.1(Q)	
7	Diethyl ether (Ethyl ether)	59	1.631	1.634	(0.381)	53431	50.0000	50.8(Q)	
8	Ethanol	45	1.717	1.773	(0.256)	7367	500.000	(aQM)	LT
9	1,1-Dichloroethene	61	1.756	1.760	(0.411)	93253	50.0000	58.0(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	43112	50.0000	52.5(Q)	
11	Carbon disulfide	76	1.782	1.785	(0.417)	160619	50.0000	56.2(Q)	
12	Iodomethane	142	1.852	1.856	(0.433)	26800	50.0000	47.2(Q)	
13	Acrolein	56	1.968	1.969	(0.460)	6732	50.0000	54.3(Q)	
14	Allyl chloride	41	2.055	2.056	(0.481)	385599	250.000	316(Q)	
15	Methylene Chloride	49	2.129	2.133	(0.498)	63709	50.0000	57.7(Q)	
16	Acetone	43	2.168	2.165	(0.507)	14577	50.0000	51.7(Q)	
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	92062	50.0000	55.6(Q)	
18	Methyl acetate	74	2.245	2.255	(0.525)	10405	50.0000	49.6(Q)	
19	n-Hexane	86	2.303	2.297	(0.538)	14532	50.0000	53.0(Q)	
20	Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	196506	50.0000	52.2(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	40057	250.000	263(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	16258	250.000	231(QM)	LT
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	186995	50.0000	53.6(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	80710	50.0000	53.8(Q)	
	25 1,1-Dichloroethane	63	2.733	2.728	(0.639)	117696	50.0000	58.1(Q)	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	15756	50.0000	46.1(QM)	LT
	27 Ethyl-tert-butyl ether	59	2.946	2.940	(0.689)	198355	50.0000	52.8(Q)	
	28 Vinyl acetate	43	2.962	2.965	(0.693)	156197	50.0000	51.4(Q)	
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	101570	50.0000	59.6(Q)	
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	112573	50.0000	55.6(Q)	
	31 Cyclohexane	56	3.454	3.451	(0.808)	98881	50.0000	55.8(QM)	
	32 Bromochloromethane	130	3.463	3.467	(0.810)	42544	50.0000	55.6(QM)	LT
	33 Chloroform	83	3.557	3.554	(0.832)	139330	50.0000	56.0(Q)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	100476	50.0000	52.8(Q)	
	35 Ethyl acetate	43	3.692	3.702	(0.863)	66277	50.0000	51.2(Q)	
	36 Tetrahydrofuran	42	3.704	3.711	(0.866)	26367	50.0000	54.4(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	37707	30.0000	31.8(Q)	
	38 1,1,1-Trichloroethane	97	3.740	3.734	(0.874)	120277	50.0000	54.6(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	30887	50.0000	51.5(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	103442	50.0000	55.0(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	287262	50.0000	53.4(Q)	
	42 Propionitrile	54	4.042	4.049	(0.945)	6551	50.0000	48.4(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	37554	50.0000	49.8(Q)	
	44 tert-Amylmethyl ether	73	4.103	4.107	(0.959)	203898	50.0000	51.3(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.110	4.110	(0.961)	40026	30.0000	30.5(Q)	
	46 Isobutanol	43	4.190	4.099	(0.980)	13968	250.000	253(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	98956	50.0000	52.0(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	138436	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	107825	50.0000	52.5(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	76869	50.0000	52.6(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	45692	50.0000	49.7(Q)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	67586	50.0000	51.9(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	95603	50.0000	51.9(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	48819	50.0000	49.4(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.794	4.808	(1.121)	4596	500.000	465(QM)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	25655	50.0000	49.6(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	111048	50.0000	50.2(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	124224	30.0000	29.6(Q)	
	59 Toluene	91	5.110	5.110	(0.886)	290016	50.0000	52.3(Q)	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	107261	250.000	247(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	67852	50.0000	51.5(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	74861	50.0000	51.8(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	111102	50.0000	52.5(Q)	
	64 Ethyl methacrylate	41	5.364	5.367	(0.930)	60278	50.0000	52.9(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	63497	50.0000	51.2(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	74028	50.0000	50.4(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	104367	50.0000	52.0(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	65391	50.0000	51.7(Q)	
	69 2-Hexanone	43	5.640	5.644	(0.978)	47795	50.0000	51.2(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	105629	50.0000	53.9(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	98213	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.001)	195941	50.0000	52.5(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	75449	50.0000	53.6(Q)	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	256650	100.000	109(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	==========	====	====	========	========	========	=======	=======	========
75	o-Xylene	106	6.013	6.017	(1.043)	124660	50.0000	54.0(Q)	
76	Styrene	104	6.036	6.036	(1.047)	205287	50.0000	53.4(Q)	
77	Bromoform	173	6.055	6.059	(0.902)	52046	50.0000	48.0(Q)	
78	Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	311351	50.0000	54.0(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	37083	30.0000	29.0(Q)	
80	n-Propylbenzene	91	6.306	6.306	(0.940)	364041	50.0000	53.9(Q)	
81	Bromobenzene	77	6.306	6.309	(0.940)	137861	50.0000	52.7(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	88031	50.0000	52.6(Q)	
83	1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	251345	50.0000	54.8(Q)	
84	2-Chlorotoluene	126	6.376	6.380	(0.950)	76698	50.0000	53.3(Q)	
85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	25517	50.0000	51.4(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	20760	50.0000	51.7(Q)	
87	Cyclohexanone	55	6.421	6.422	(0.957)	19412	250.000	256(Q)	
88	4-Chlorotoluene	126	6.444	6.444	(0.960)	77251	50.0000	52.9(Q)	
89	tert-Butylbenzene	119	6.511	6.512	(0.970)	212302	50.0000	54.8(Q)	
90	1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	247234	50.0000	54.7(Q)	
91	sec-Butylbenzene	105	6.582	6.583	(0.981)	305863	50.0000	55.2(Q)	
92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	256114	50.0000	54.4(Q)	
93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	139271	50.0000	53.3(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	44243	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	136365	50.0000	52.8(Q)	
96	n-Butylbenzene	91	6.804	6.805	(1.014)	223881	50.0000	55.2(Q)	
97	1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	129299	50.0000	53.6(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	44242	30.0000	29.9(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	14471	50.0000	49.2(Q)	
99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	77492	50.0000	54.8(Q)	
100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	35538	50.0000	53.7(Q)	
101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	62346	50.0000	52.3(Q)	
102	Naphthalene	128	7.617	7.618	(1.135)	159317	50.0000	50.6(Q)	
103	1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	57448	50.0000	52.6(Q)	
104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	64600	50.0000	45.4(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618013.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	138436	-3.65
71 Chlorobenzene-d5	102704	51352	205408	98213	-4.37
94 1,4-Dichlorobenze	44519	22260	89038	44243	-0.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	54.6	
74-87-3	Chloromethane	53.2	
75-01-4	Vinyl chloride	55.2	
74-83-9	Bromomethane	56.0	
75-00-3	Chloroethane	53.8	
75-69-4	Trichlorofluoromethane	51.1	
60-29-7	Diethyl ether (Ethyl ether)	50.8	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	58.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	52.5	
75-15-0	Carbon disulfide	56.2	
74-88-4	Iodomethane	47.2	
107-02-8	Acrolein	54.3	
107-05-1	Allyl chloride	316	
75-09-2	Methylene Chloride	57.7	
67-64-1	Acetone	51.7	
156-60-5	trans-1,2-Dichloroethene	55.6	
79-20-9	Methyl acetate	49.6	
110-54-3	n-Hexane	53.0	
1634-04-4	Methyl-tert-butyl ether	52.2	
75-65-0	tert-Butyl Alcohol	263	
75-05-8	Acetonitrile	231	
108-20-3	Diisopropyl ether	53.6	
126-99-8	Chloroprene	53.8	
75-34-3	1,1-Dichloroethane	58.1	
107-13-1	Acrylonitrile	46.1	
637-92-3	Ethyl-tert-butyl ether	52.8	
108-05-4	Vinyl acetate	51.4	
156-59-2	cis-1,2-Dichloroethene	59.6	
594-20-7	2,2-Dichloropropane	55.6	
110-82-7	Cyclohexane	55.8	
74-97-5	Bromochloromethane	55.6	
67-66-3	Chloroform	56.0	
56-23-5	Carbon tetrachloride	52.8	
141-78-6	Ethyl acetate	51.2	
109-99-9	Tetrahydrofuran	54.4	
71-55-6	1,1,1-Trichloroethane	54.6	
78-93-3	2-Butanone (MEK)	51.5	
563-58-6	1,1-Dichloropropene	55.0	
71-43-2	Benzene	53.4	
107-12-0	Propionitrile	48.4	
126-98-7	Methacrylonitrile	49.8	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	51.3	
78-83-1	Isobutanol	253	
107-06-2	1,2-Dichloroethane	52.0	
108-87-2	Methylcyclohexane	52.5	
79-01-6	Trichloroethene	52.6	
74-95-3	Dibromomethane	49.7	
78-87-5	1,2-Dichloropropane	51.9	
75-27-4	Bromodichloromethane	51.9	
80-62-6	Methyl methacrylate	49.4	
123-91-1	1,4-Dioxane (p-Dioxane)	465	
110-75-8	2-Chloroethylvinyl ether	49.6	
10061-01-5	cis-1,3-Dichloropropene	50.2	
108-88-3	Toluene	52.3	
79-46-9	2-Nitropropane	247	
108-10-1	4-Methyl-2-pentanone (MIBK)	51.5	
127-18-4	Tetrachloroethene	51.8	
10061-02-6	trans-1,3-Dichloropropene	52.5	
97-63-2	Ethyl methacrylate	52.9	
79-00-5	1,1,2-Trichloroethane	51.2	
124-48-1	Dibromochloromethane	50.4	
142-28-9	1,3-Dichloropropane	52.0	
106-93-4	1,2-Dibromoethane (EDB)	51.7	
591-78-6	2-Hexanone	51.2	
100-41-4	Ethylbenzene	53.9	
108-90-7	Chlorobenzene	52.5	
630-20-6	1,1,1,2-Tetrachloroethane	53.6	
7816-60-0	m&p-Xylene	109	
95-47-6	o-Xylene	54.0	
100-42-5	Styrene	53.4	
75-25-2	Bromoform	48.0	
98-82-8	Isopropylbenzene (Cumene)	54.0	
103-65-1	n-Propylbenzene	53.9	
108-86-1	Bromobenzene	52.7	
79-34-5	1,1,2,2-Tetrachloroethane	52.6	
108-67-8	1,3,5-Trimethylbenzene	54.8	
95-49-8	2-Chlorotoluene	53.3	
96-18-4	1,2,3-Trichloropropane	51.4	
110-57-6	trans-1,4-Dichloro-2-butene	51.7	
108-94-1	Cyclohexanone	256	
106-43-4	4-Chlorotoluene	52.9	
98-06-6	tert-Butylbenzene	54.8	
95-63-6	1,2,4-Trimethylbenzene	54.7	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Report Date: 26-Jun-2019 14:07

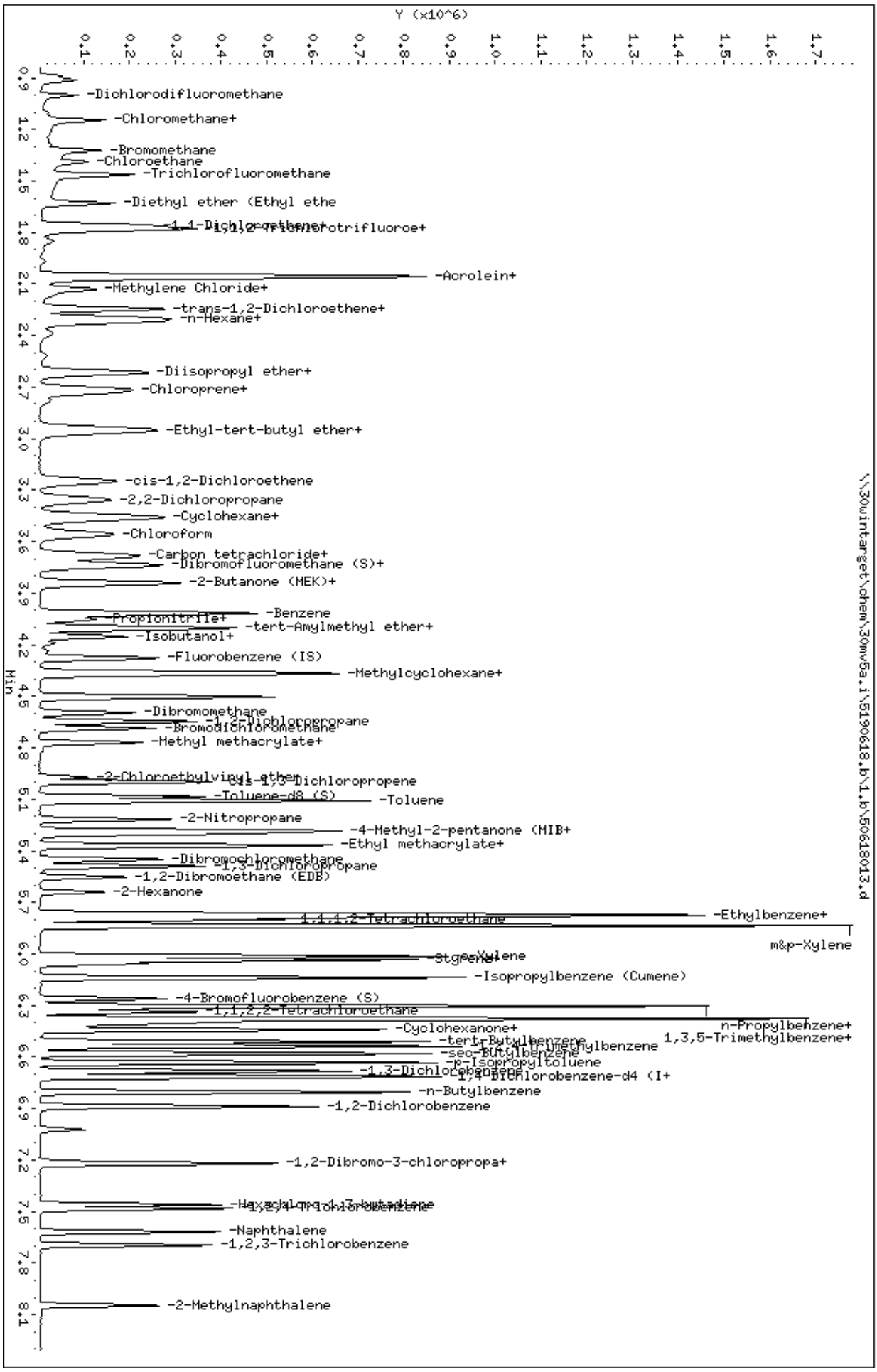
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	55.2	
99-87-6	p-Isopropyltoluene	54.4	
541-73-1	1,3-Dichlorobenzene	53.3	
106-46-7	1,4-Dichlorobenzene	52.8	
104-51-8	n-Butylbenzene	55.2	
95-50-1	1,2-Dichlorobenzene	53.6	
96-12-8	1,2-Dibromo-3-chloropropane	49.2	
108-70-3	1,3,5-Trichlorobenzene	54.8	
87-68-3	Hexachloro-1,3-butadiene	53.7	
120-82-1	1,2,4-Trichlorobenzene	52.3	
91-20-3	Naphthalene	50.6	
87-61-6	1,2,3-Trichlorobenzene	52.6	
91-57-6	2-Methylnaphthalene	45.4	
1868-53-7	Dibromofluoromethane (S)	31.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.5	
2037-26-5	Toluene-d8 (S)	29.6	
460-00-4	4-Bromofluorobenzene (S)	29.0	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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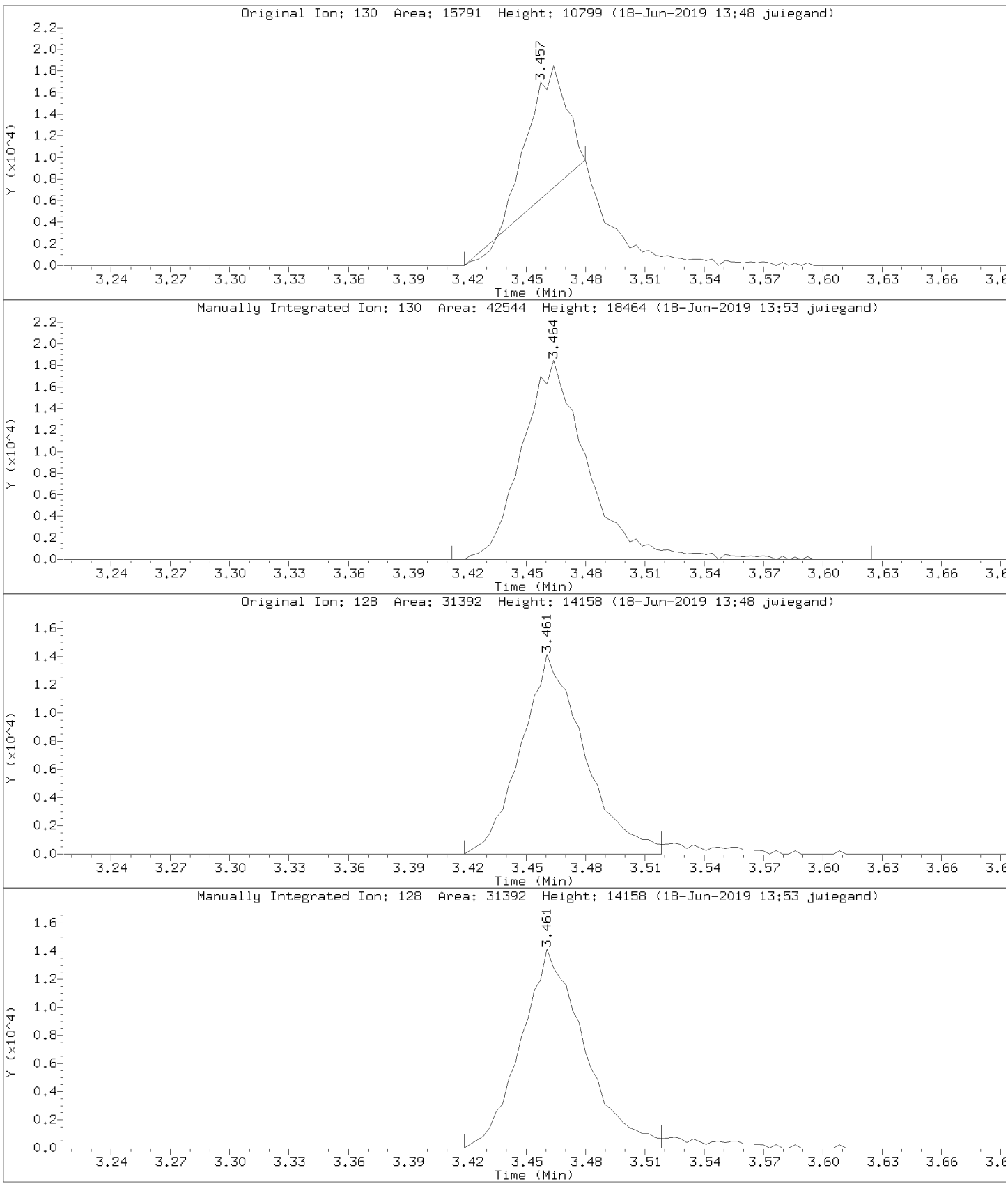
Date : 18-JUN-2019 11:20
Client ID: CAL5
Sample Info: CAL5, 91189:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618013.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-1,1,2-Trichlorotrifluoroe+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Styrene+
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
n-Propylbenzene+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachlorobutadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618013.d
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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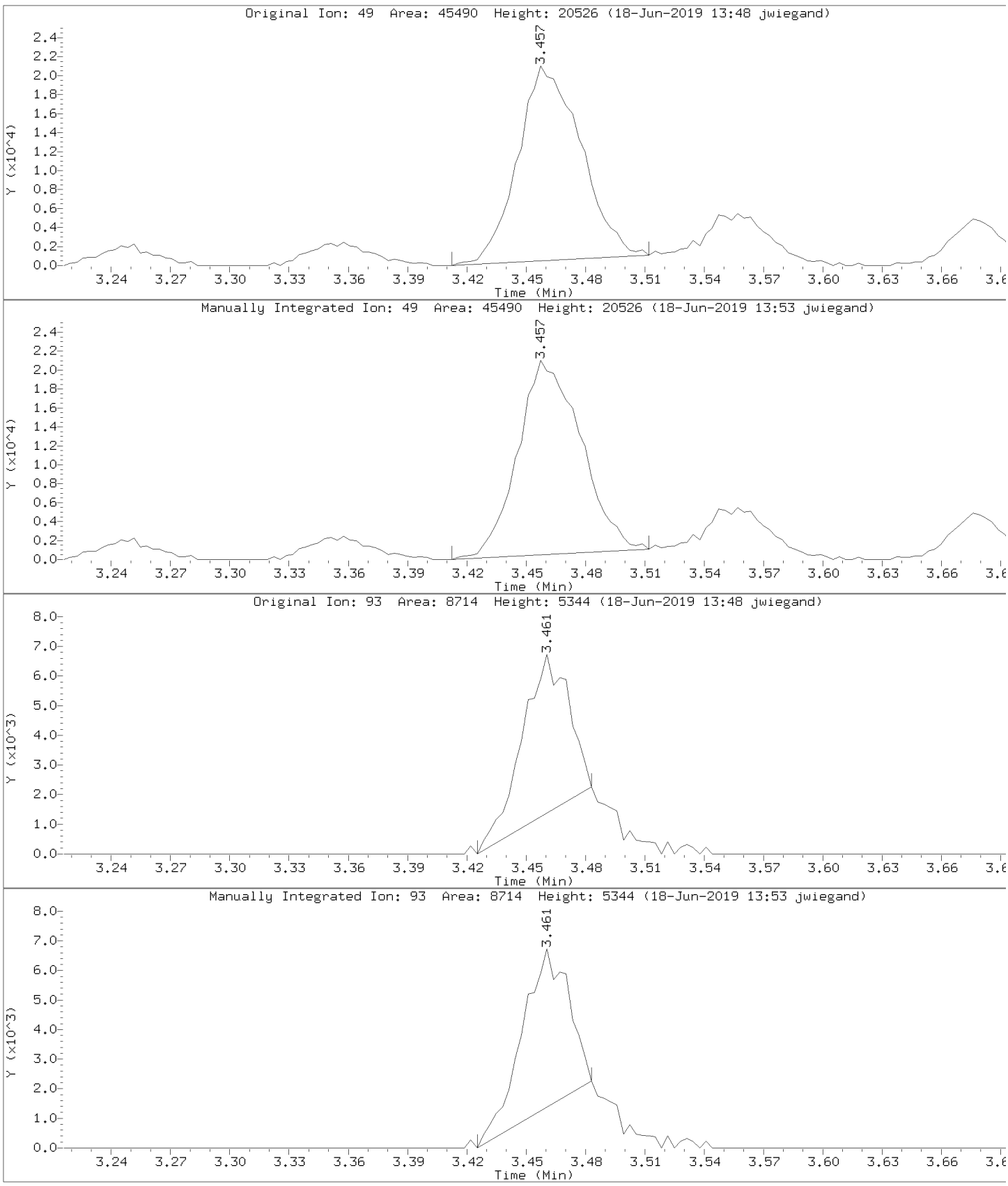
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5



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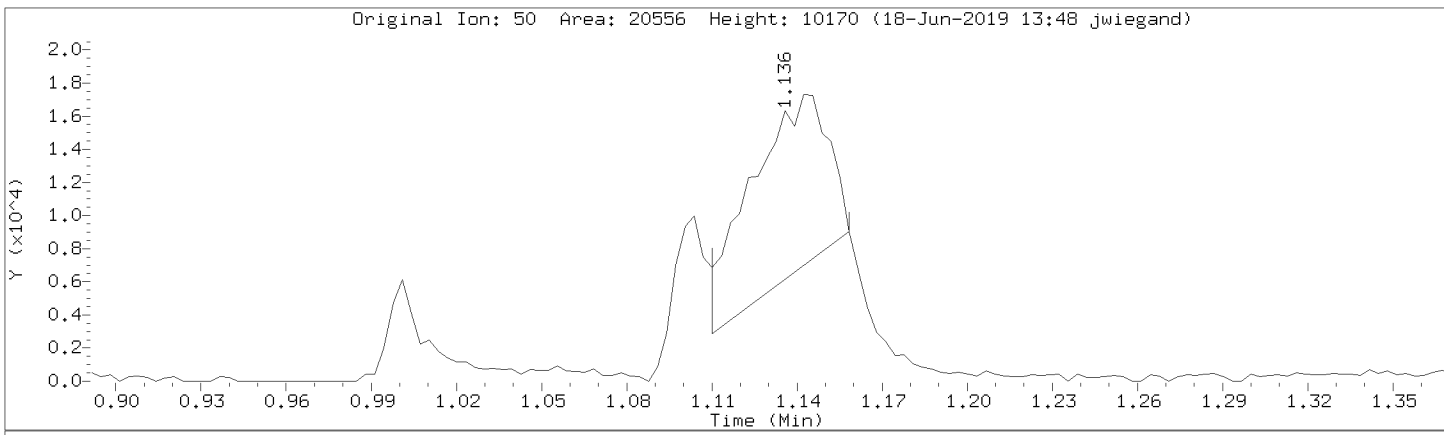
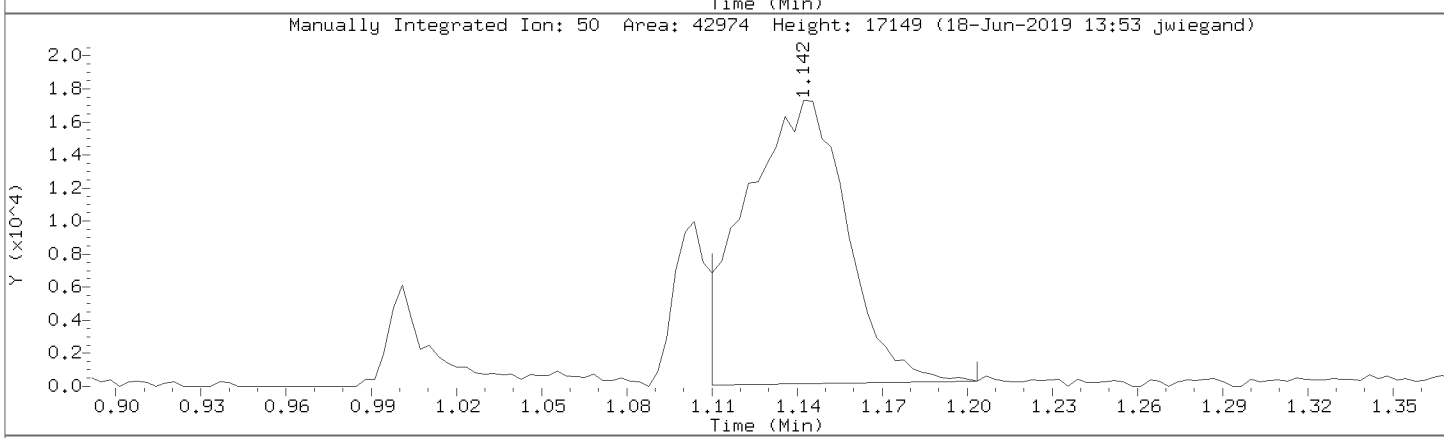
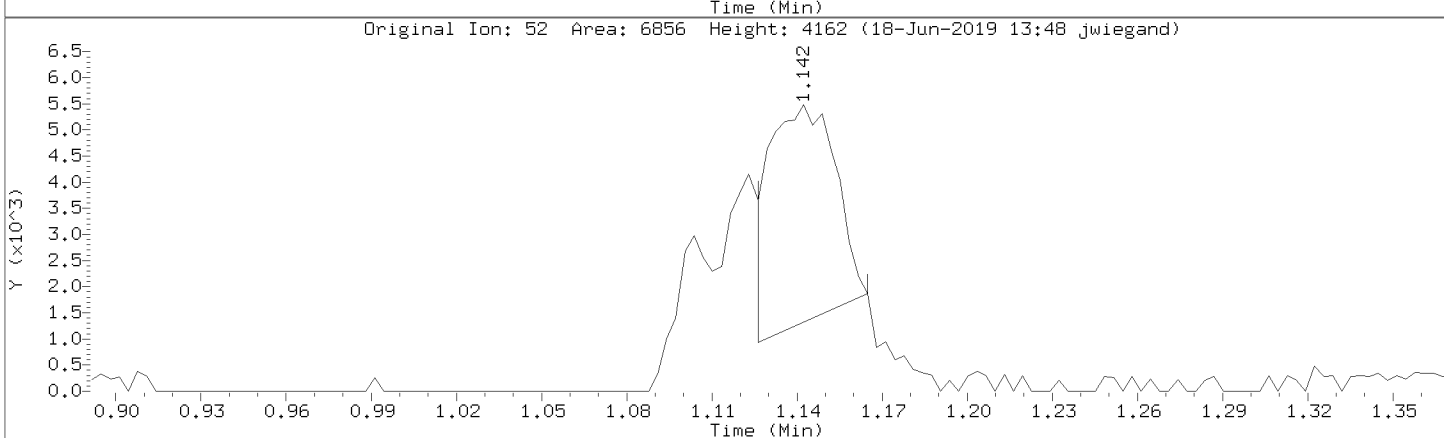
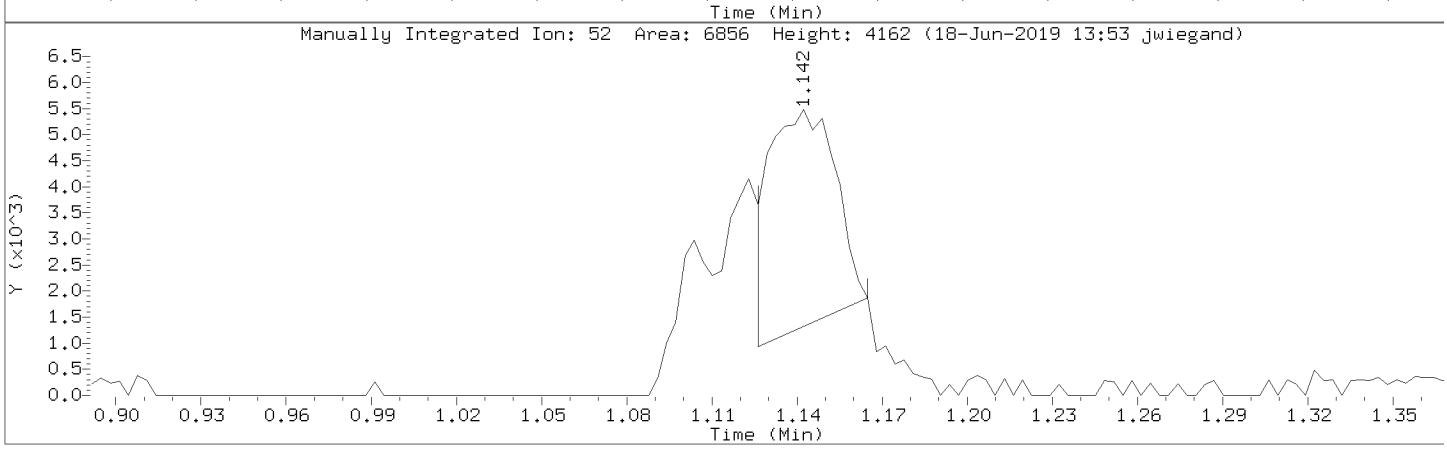
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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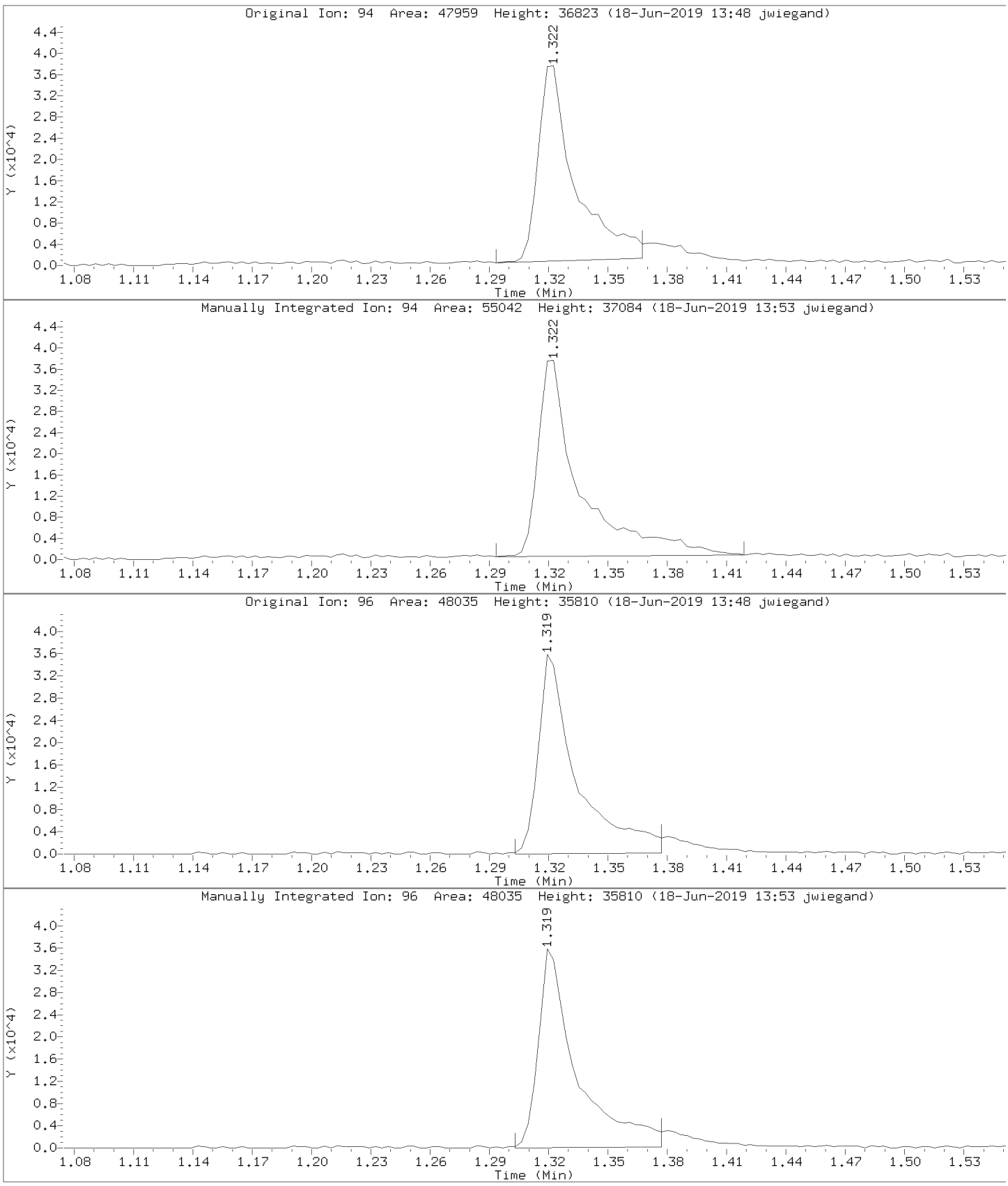
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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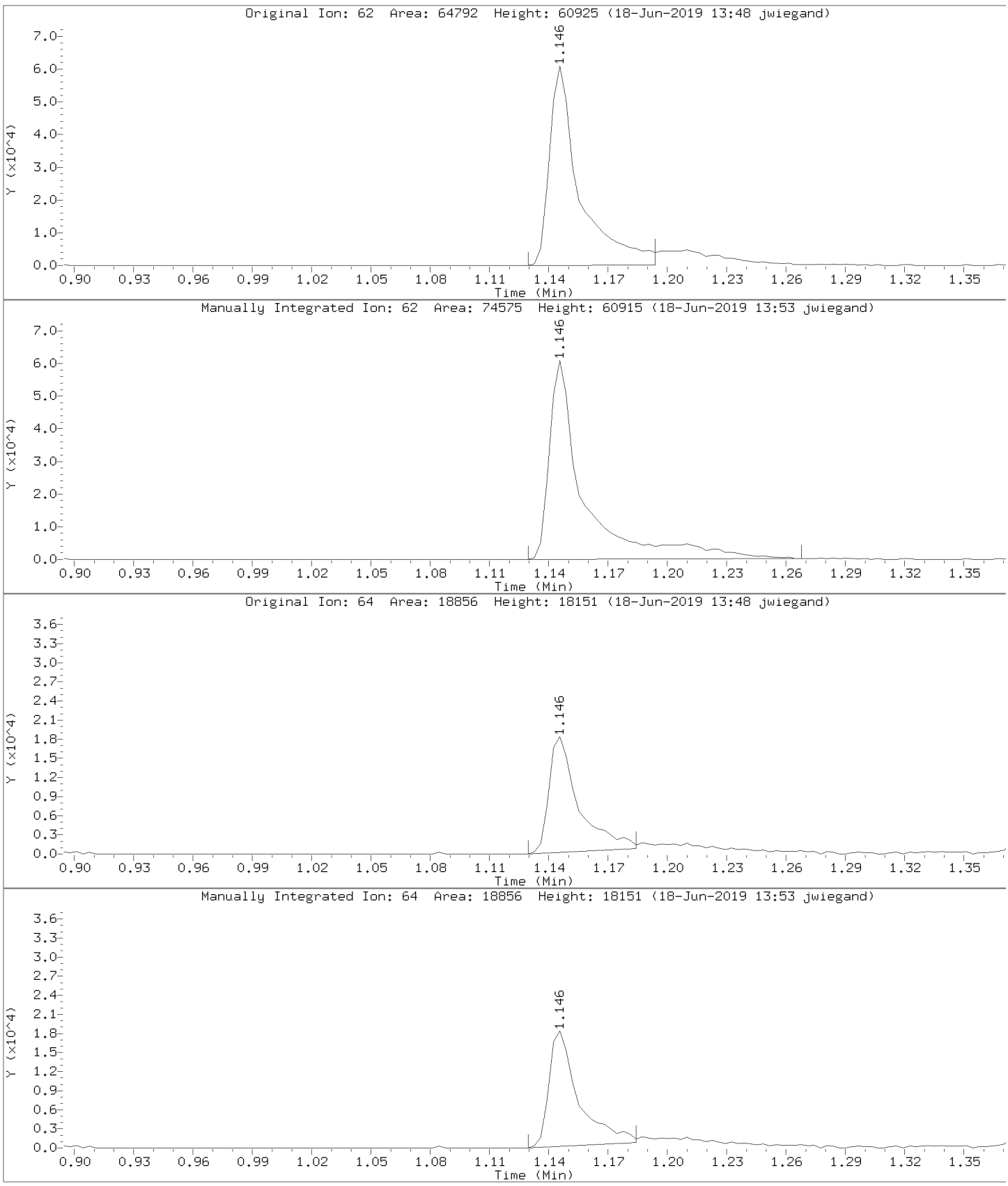
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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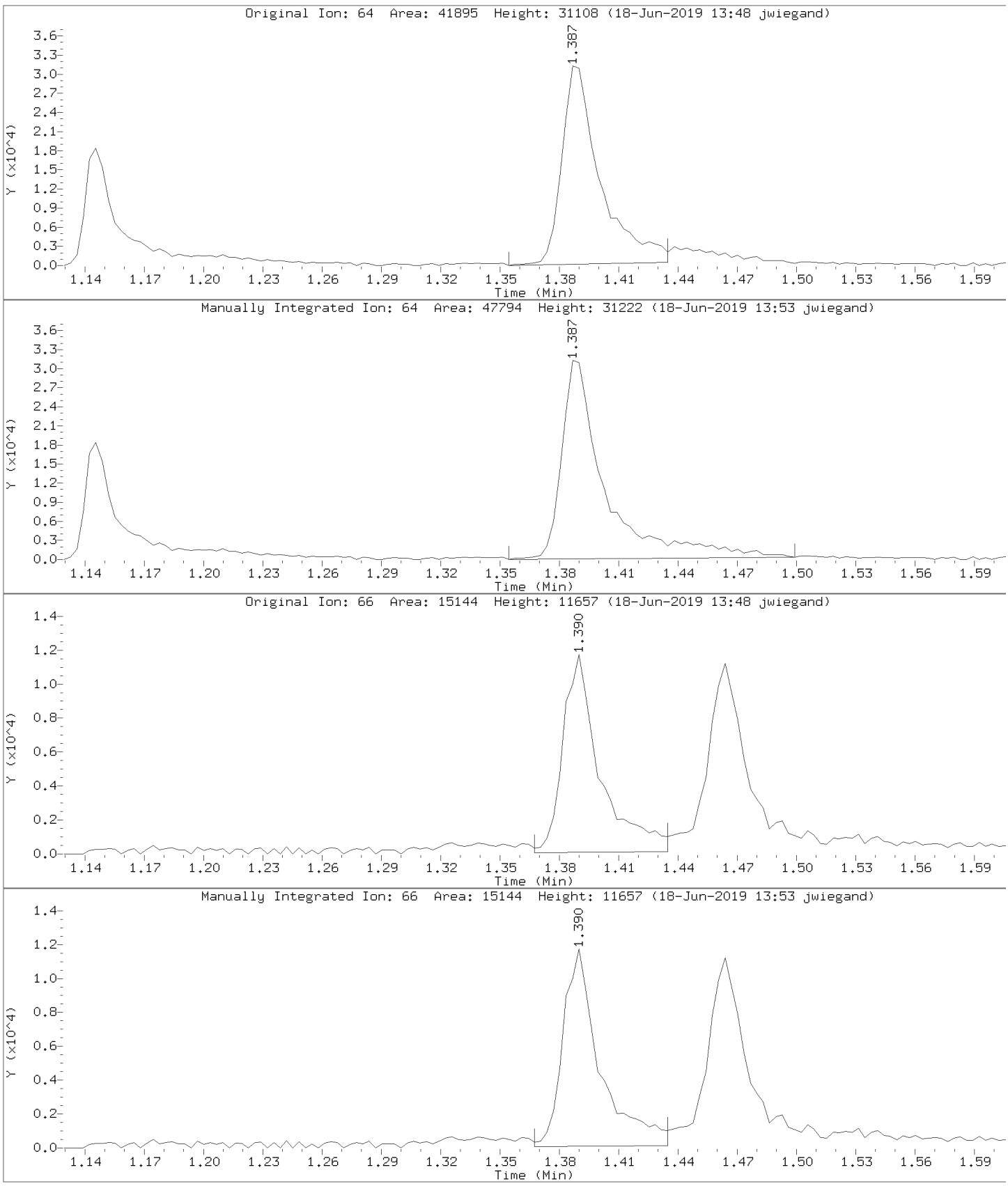
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



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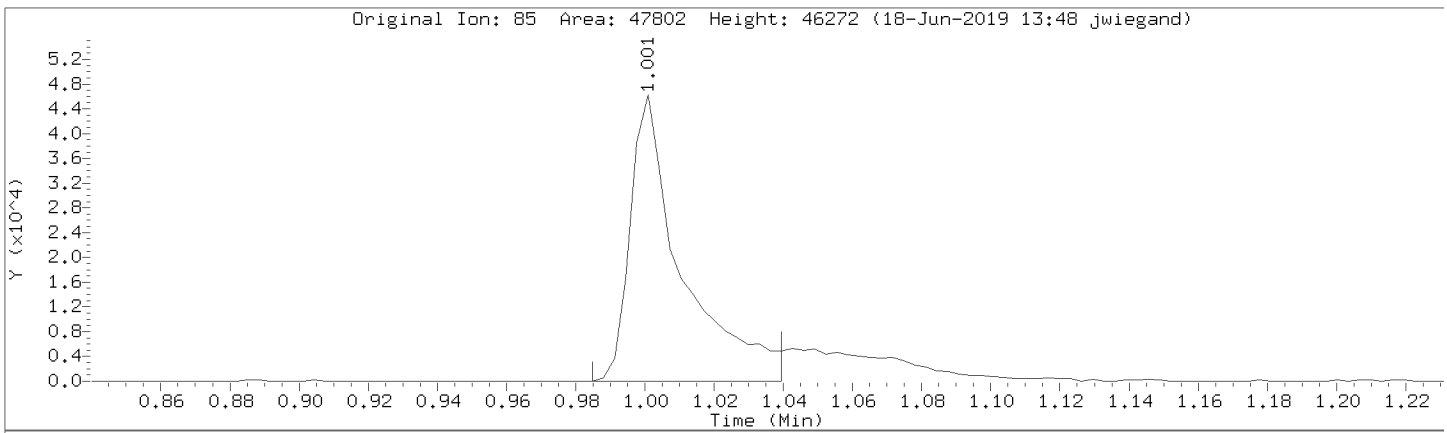
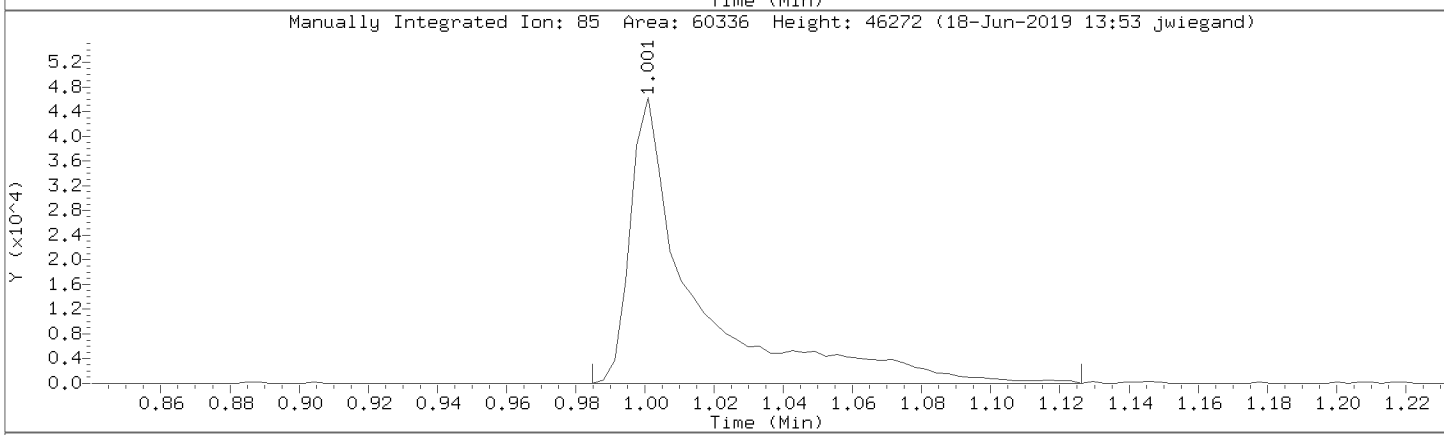
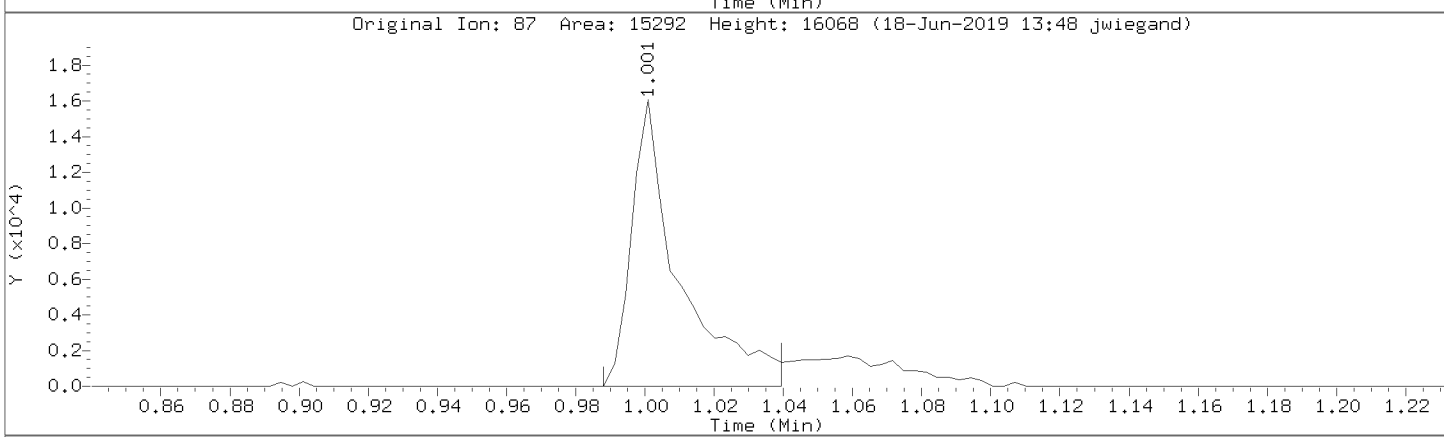
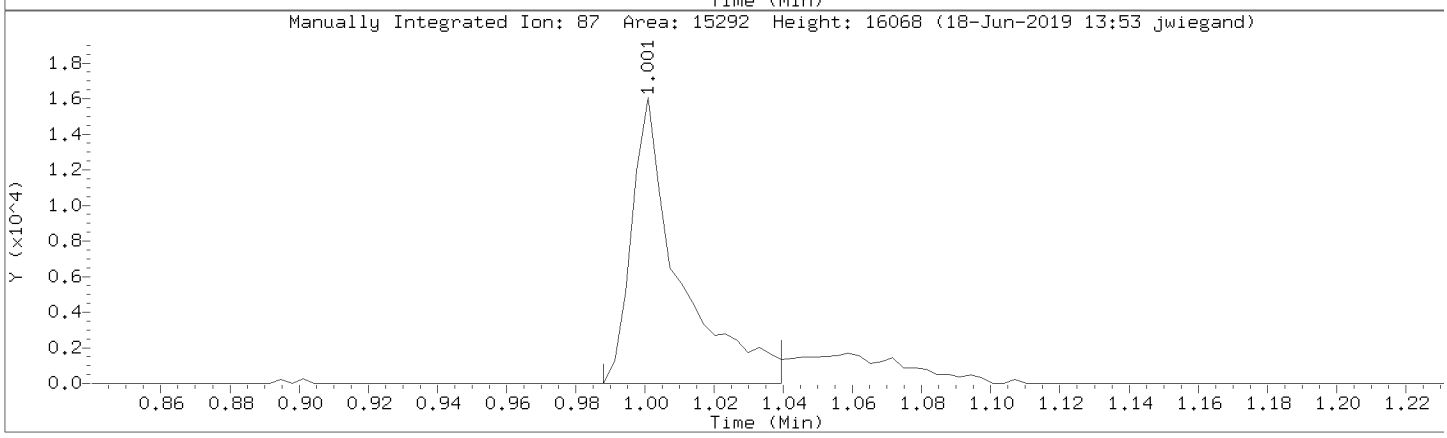
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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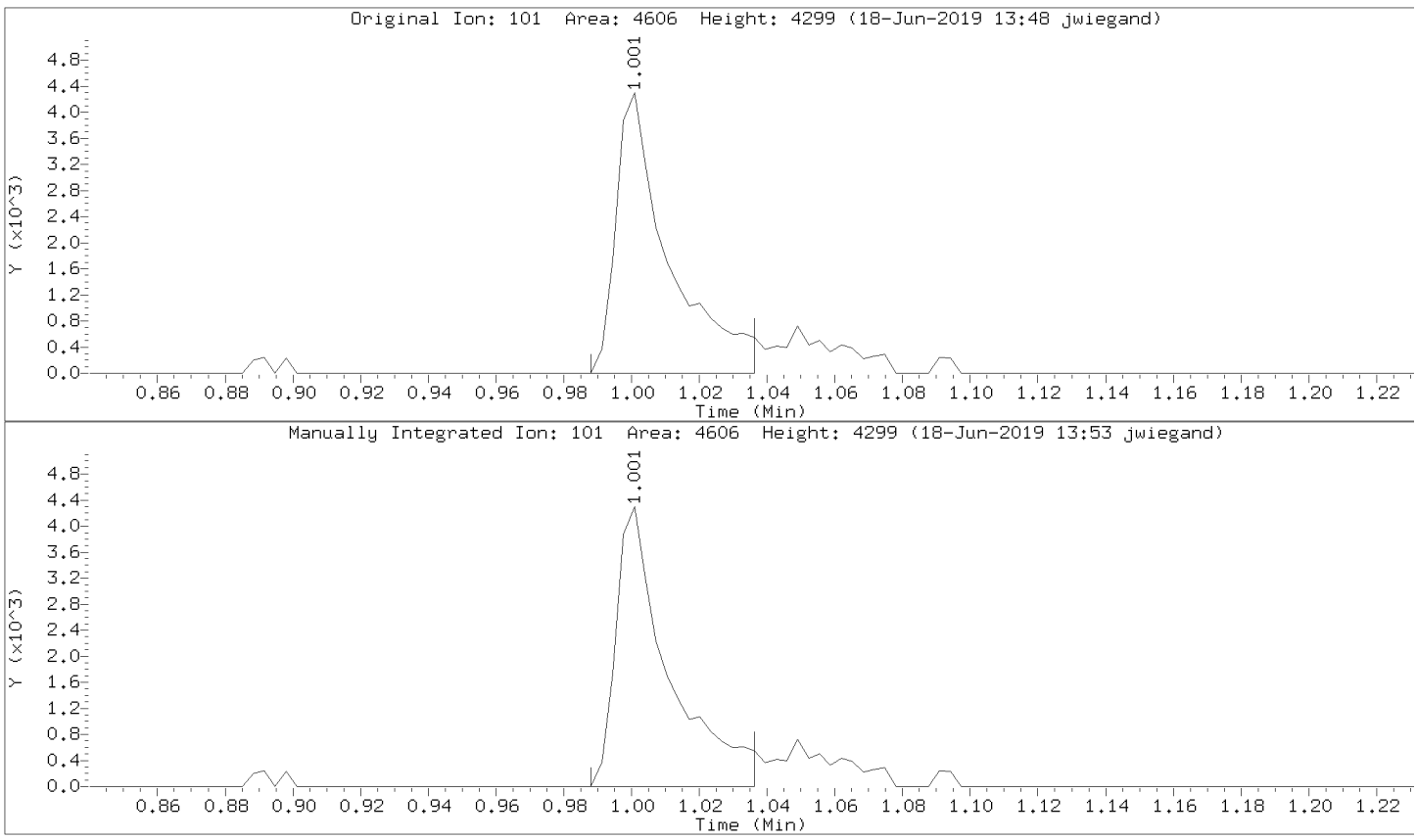
Instrument: 30mv5a.i
Lab Sample ID: CAL5



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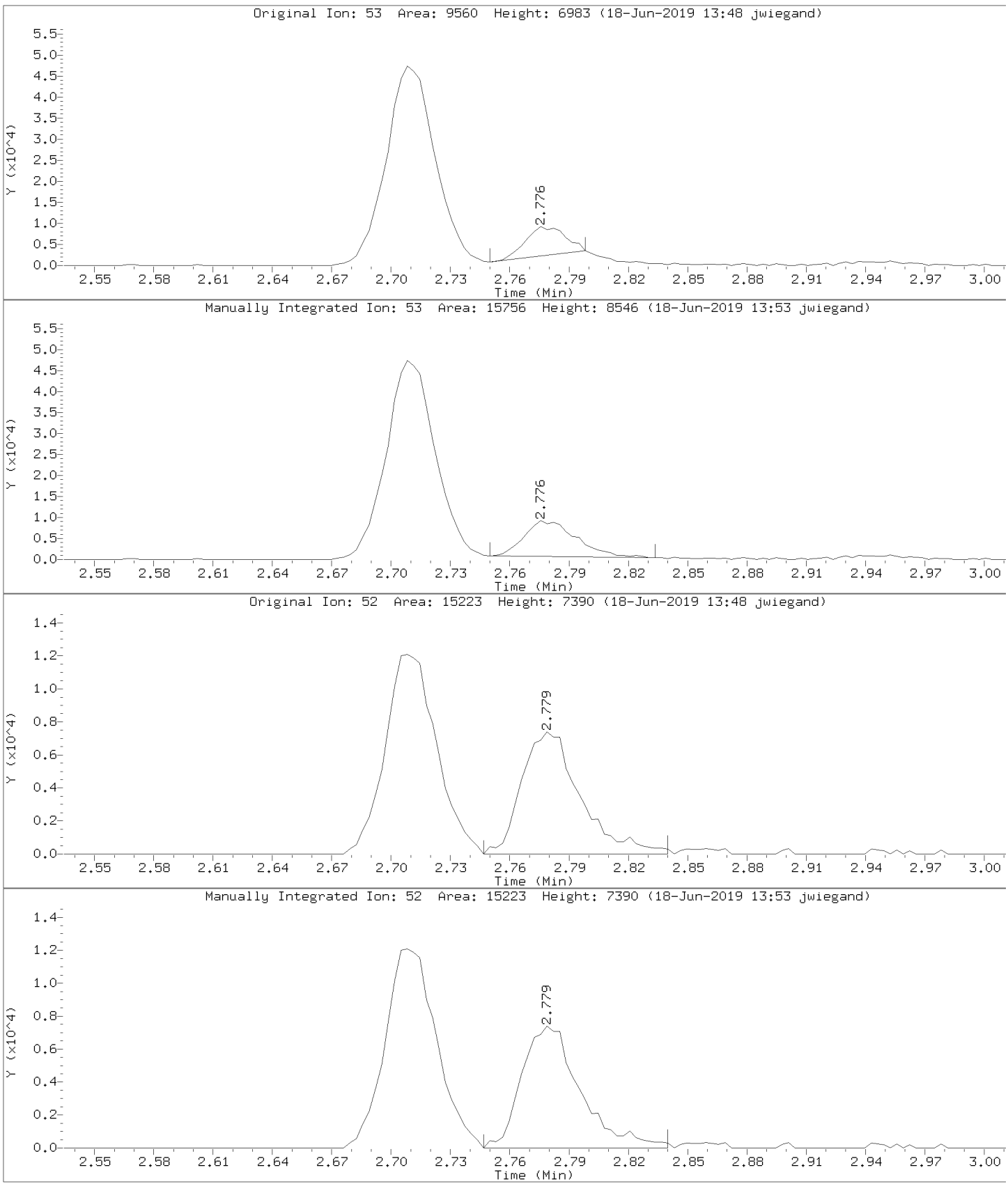
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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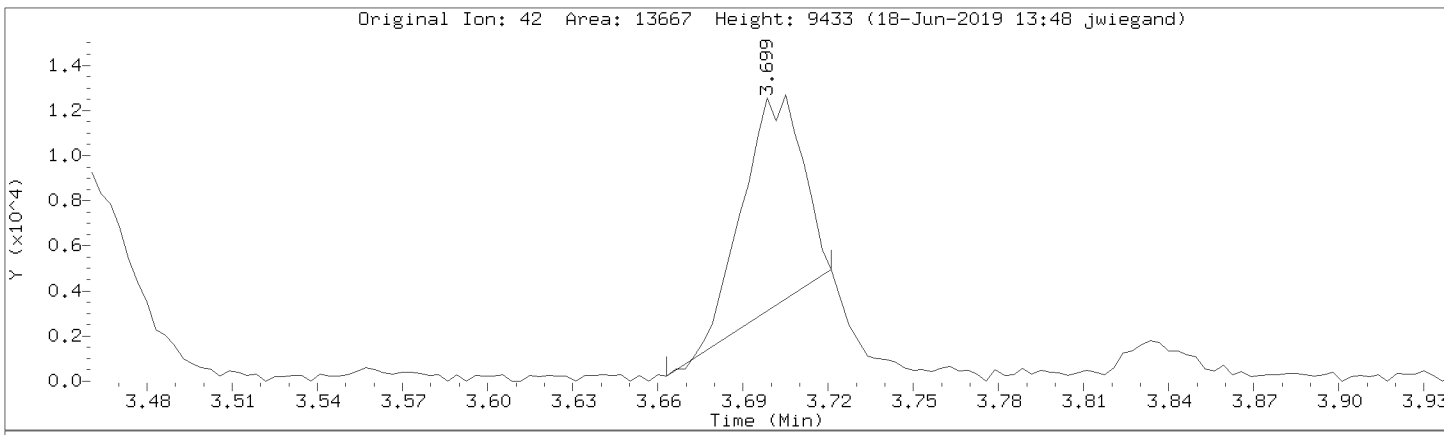
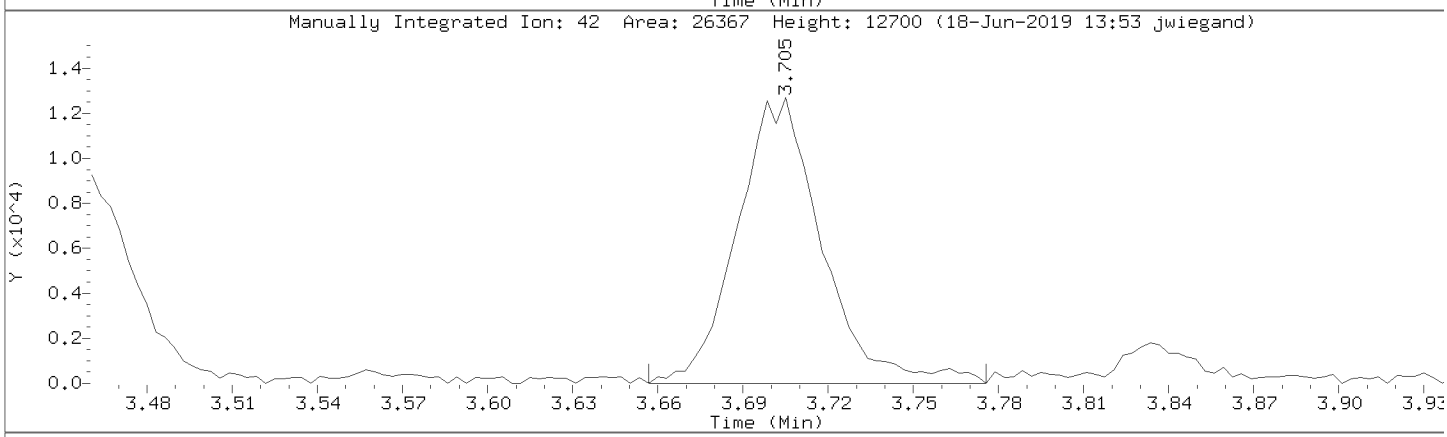
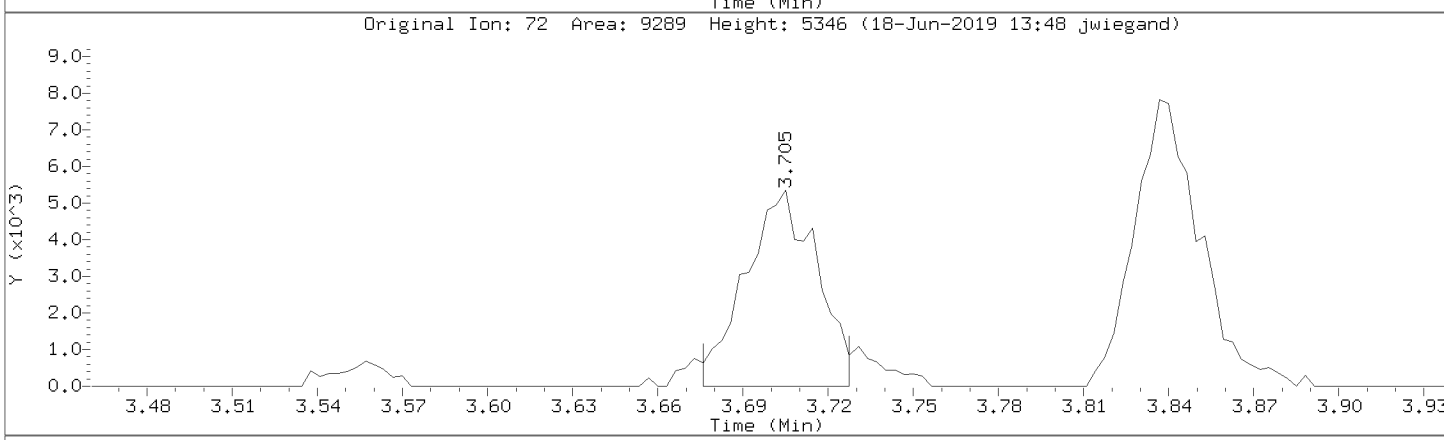
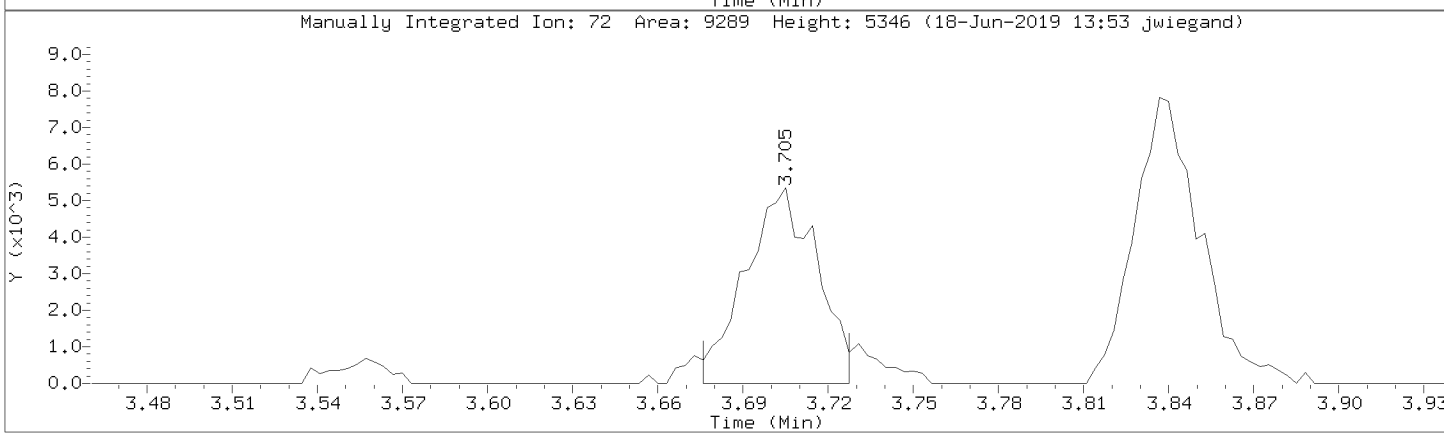
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9









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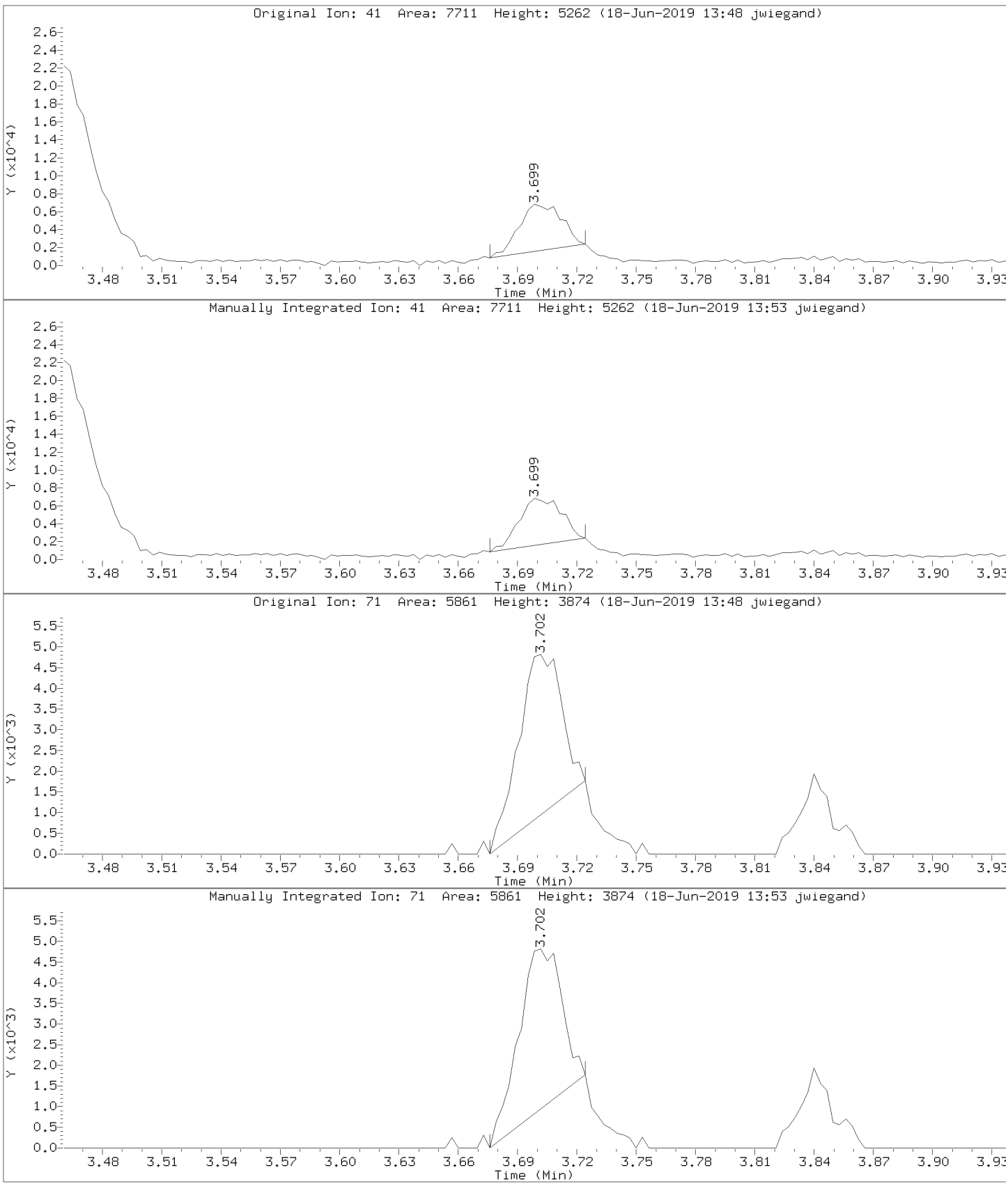
Lab Sample ID: CAL5



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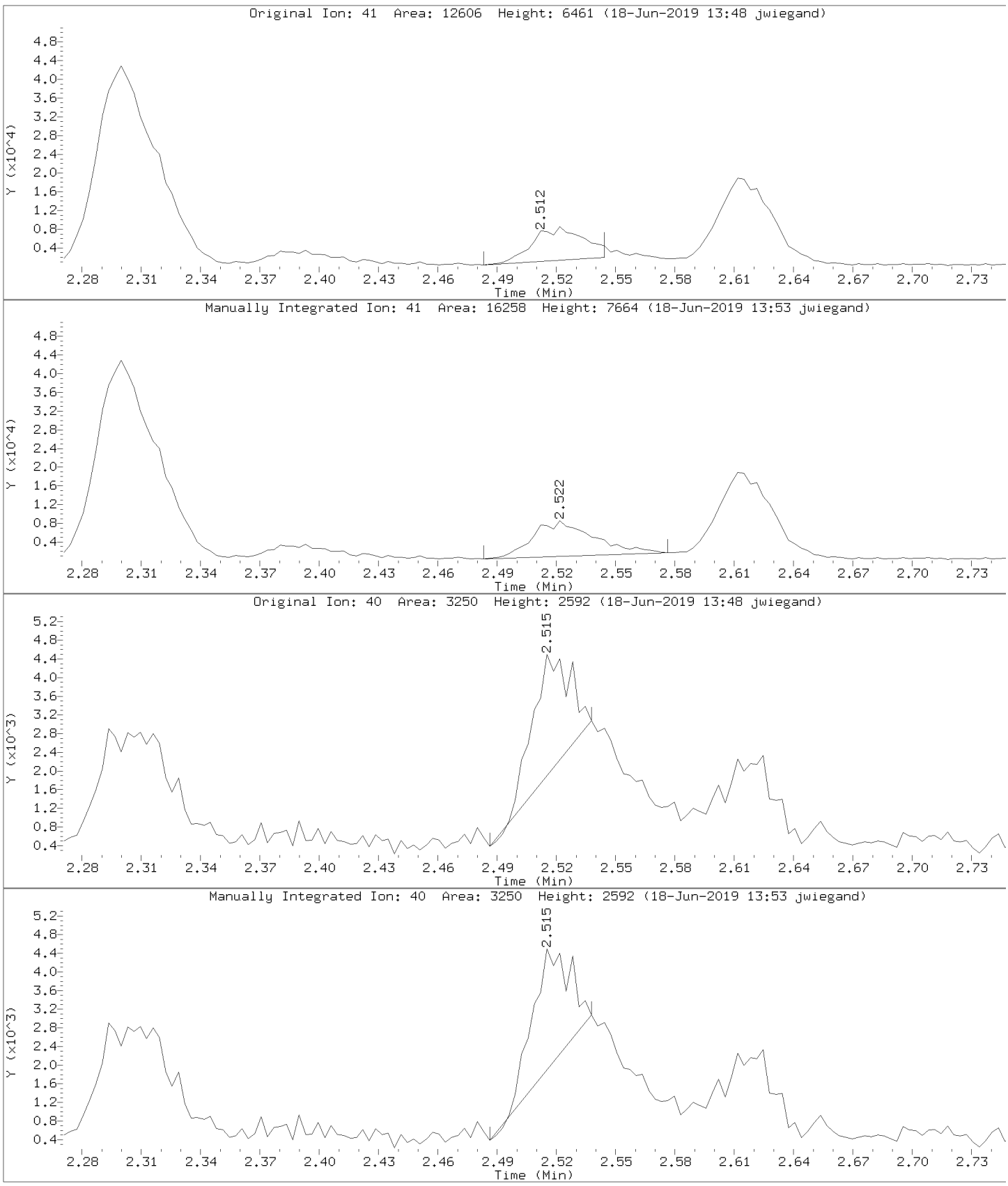
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8



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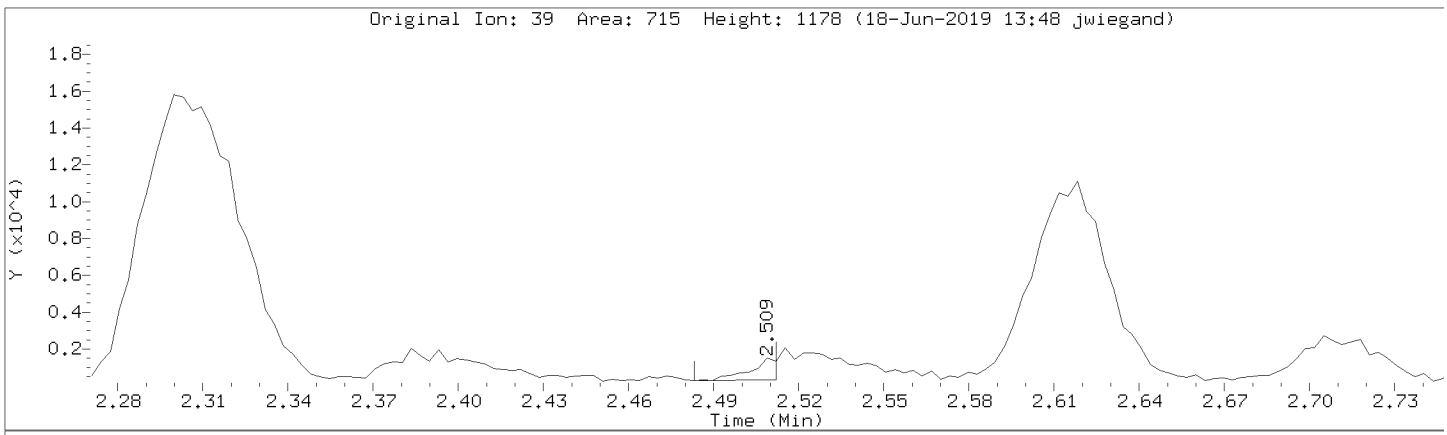
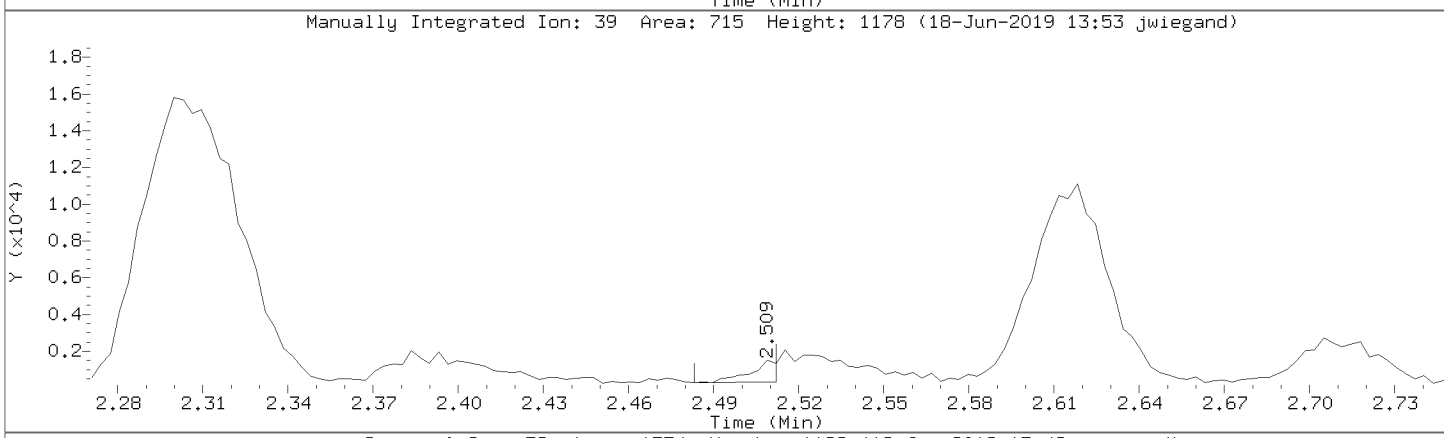
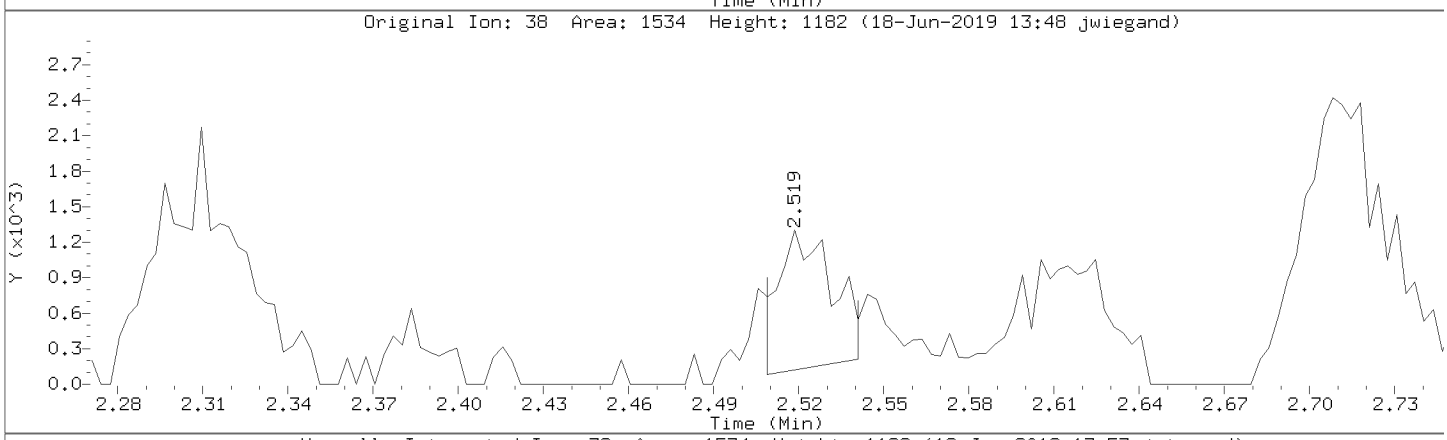
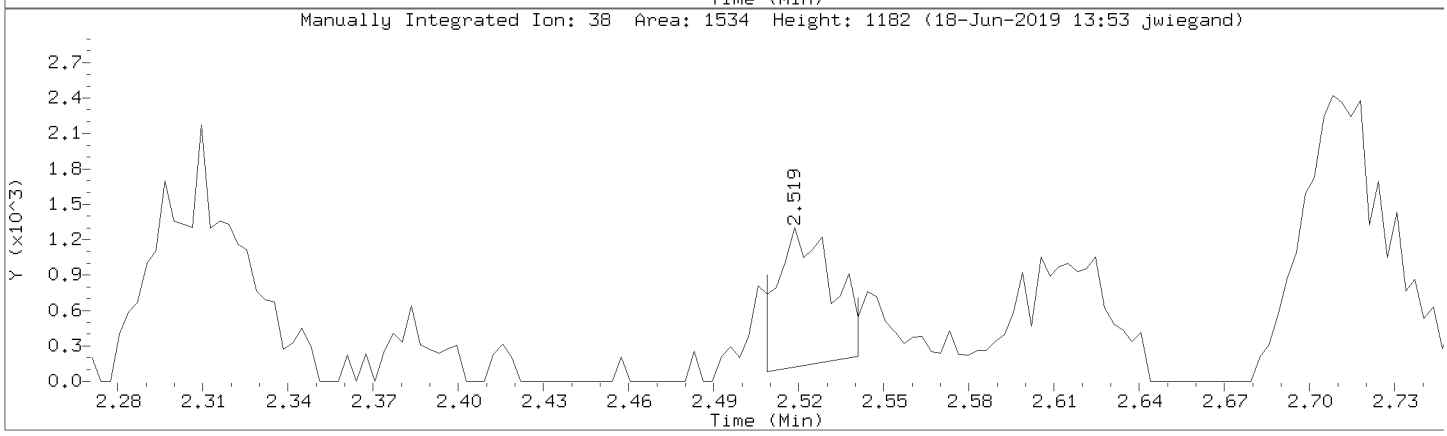
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5









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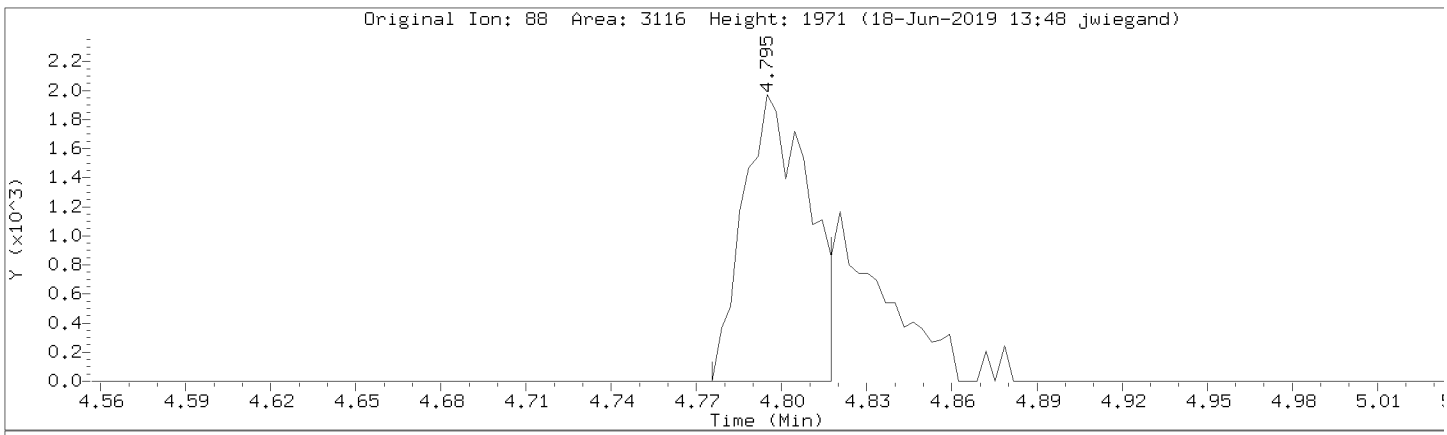
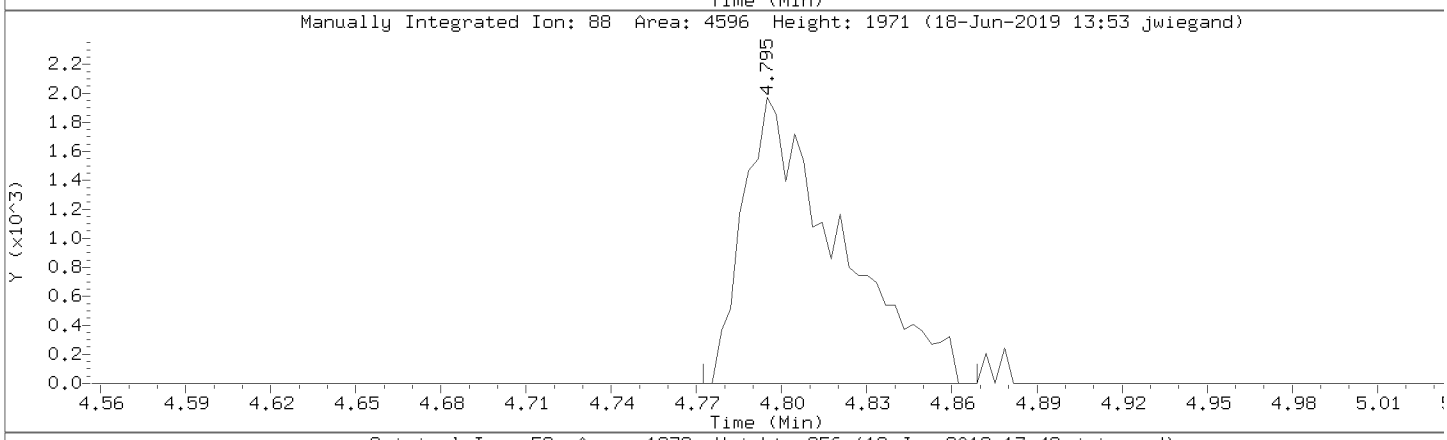
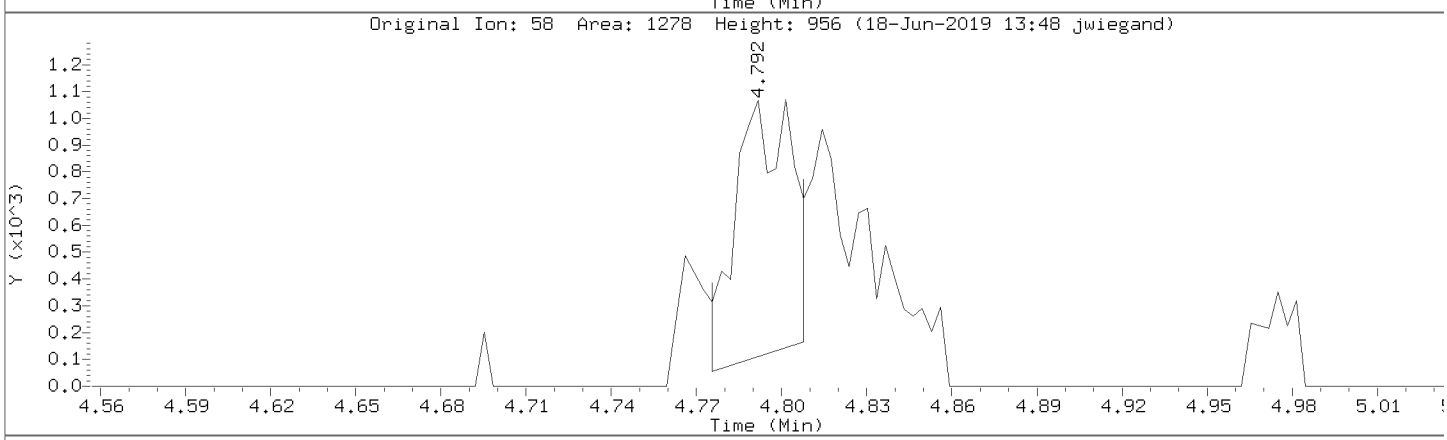
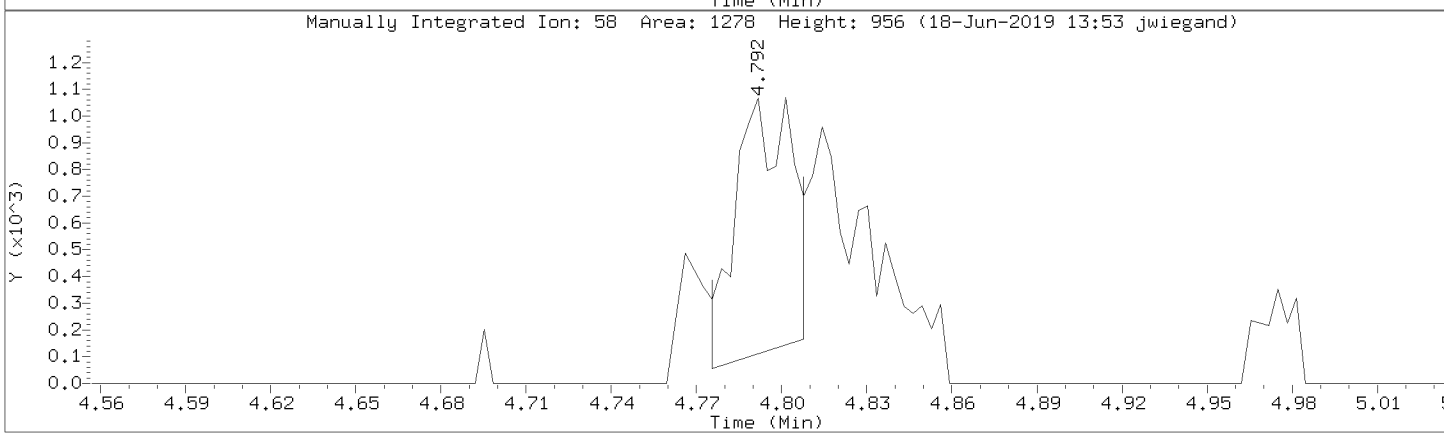
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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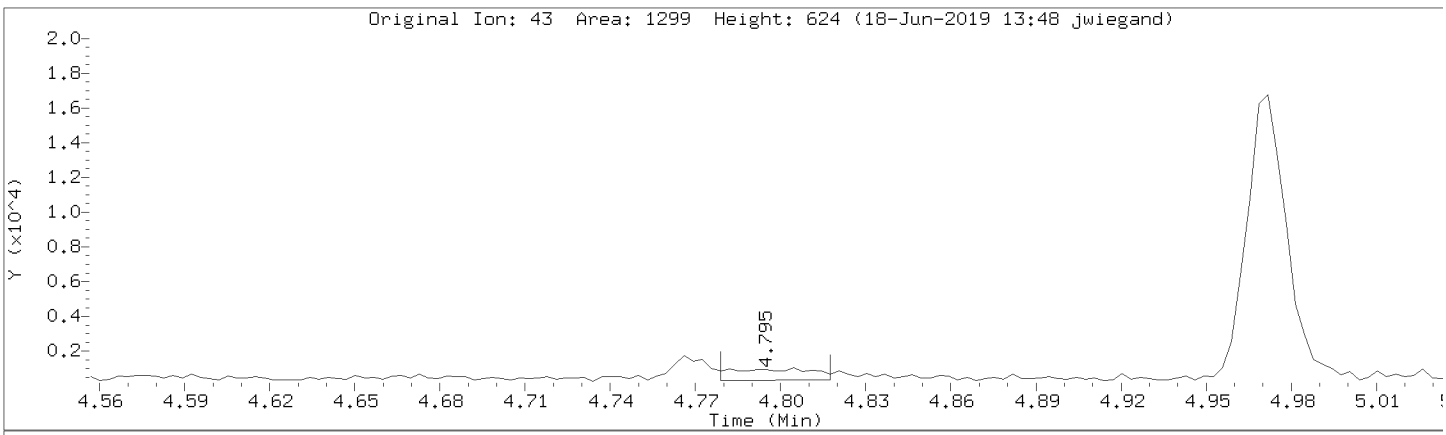
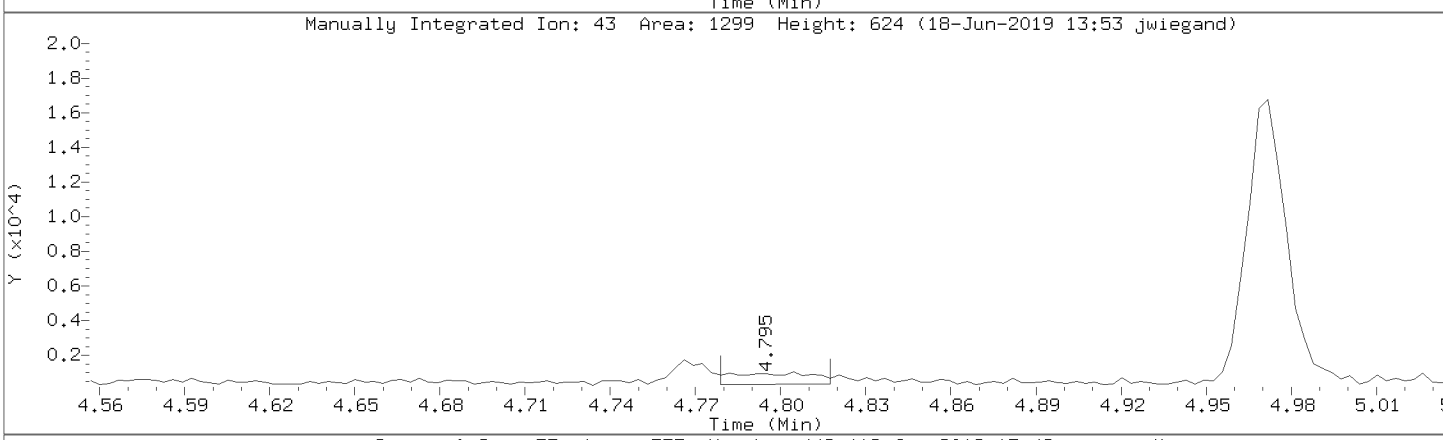
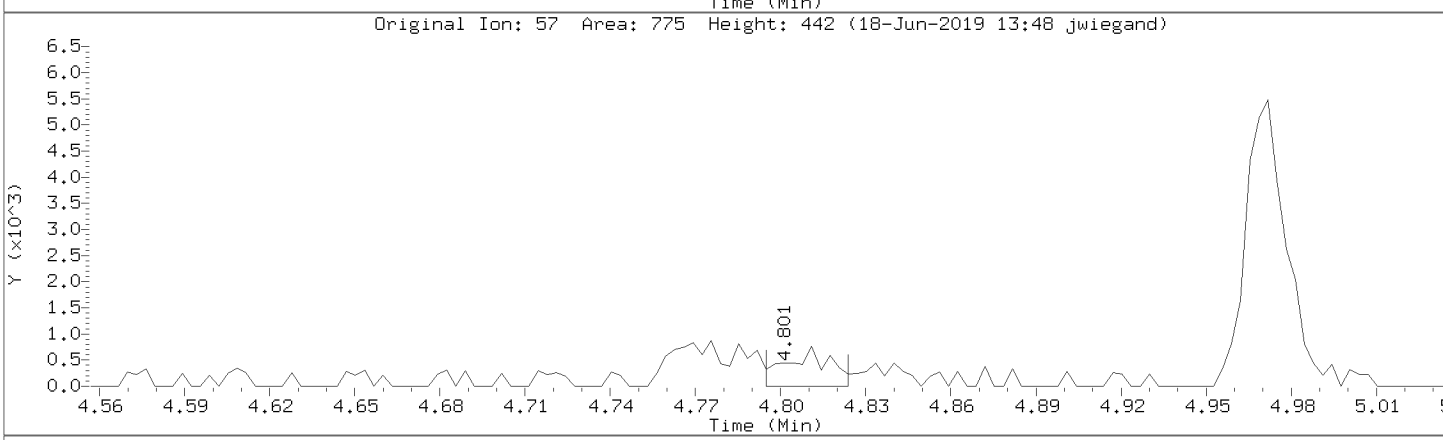
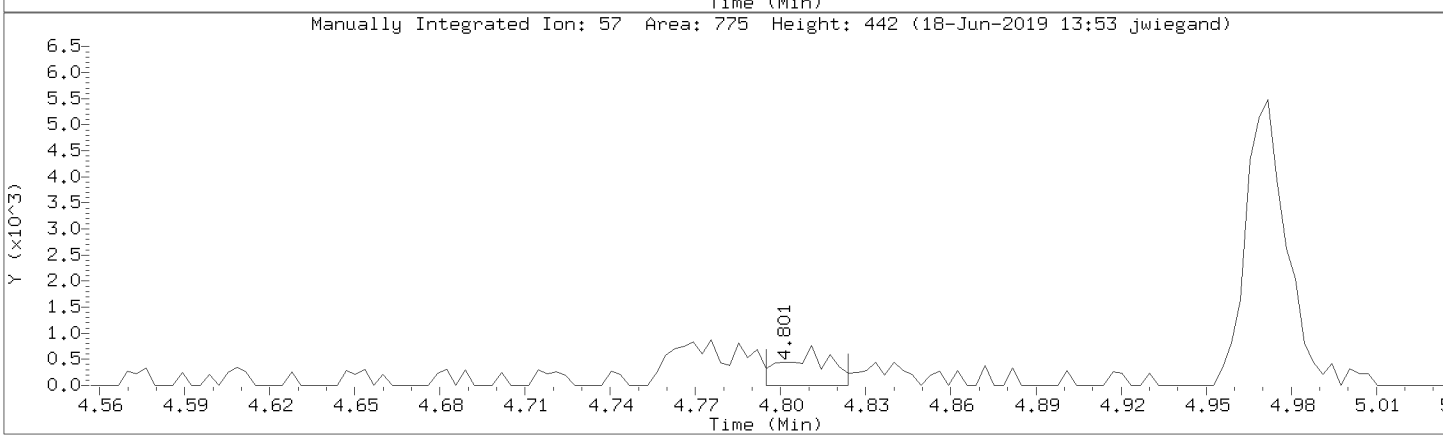
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5









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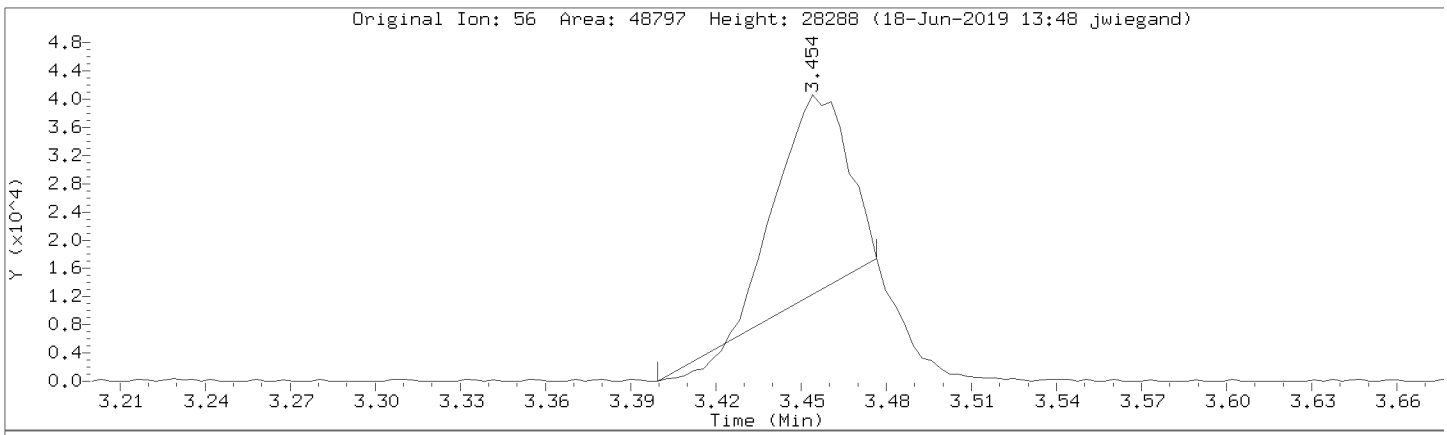
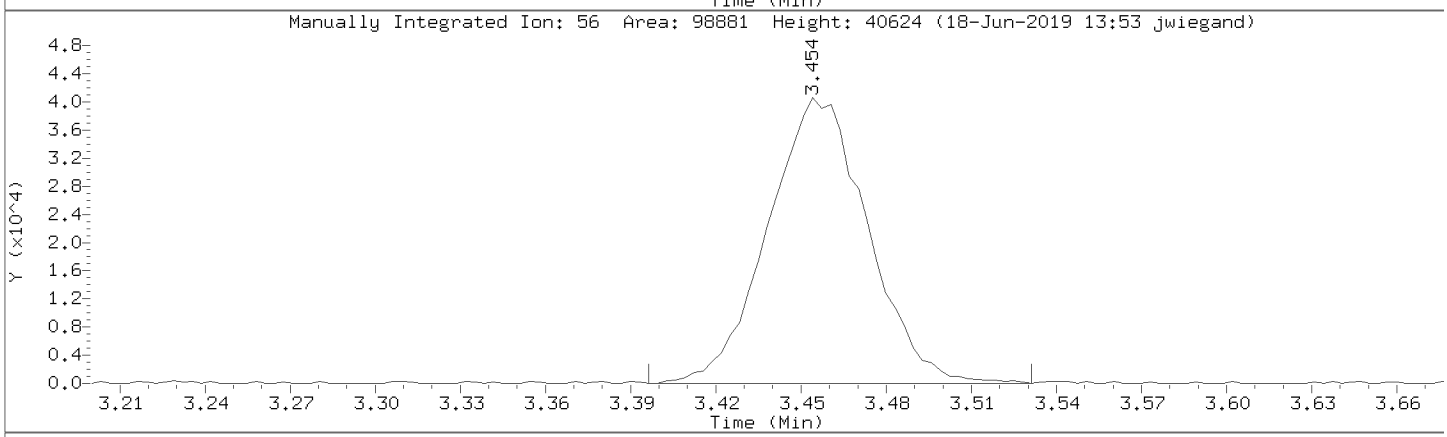
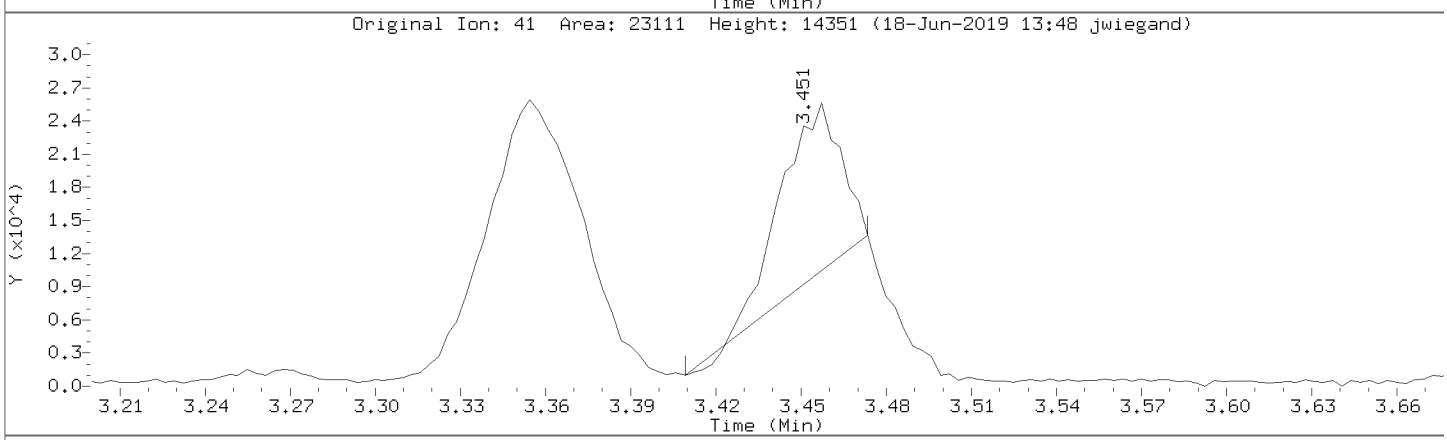
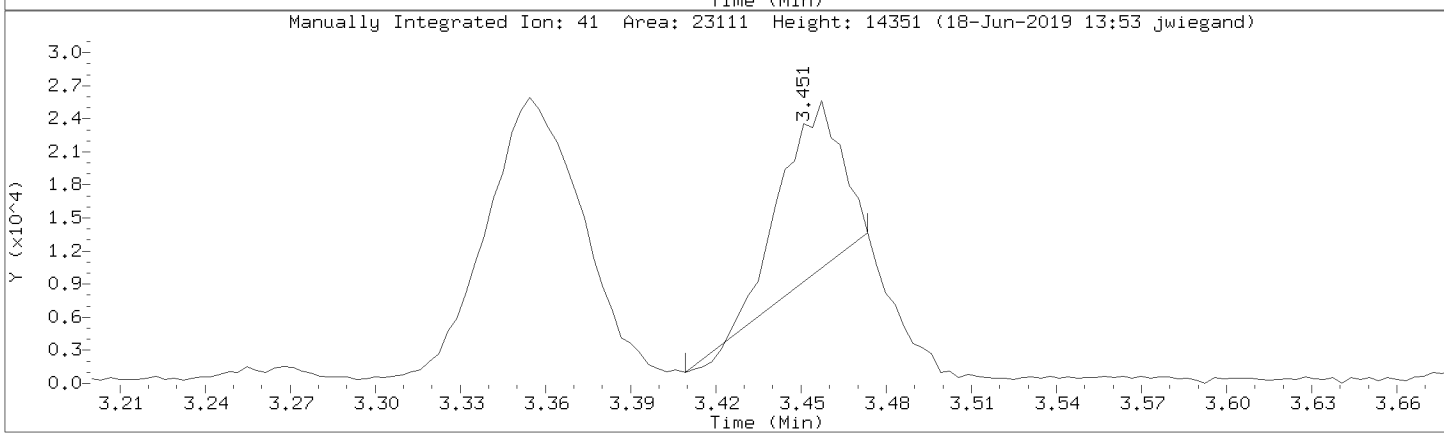
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Cyclohexane Review Code:
CAS Number: 110-82-7









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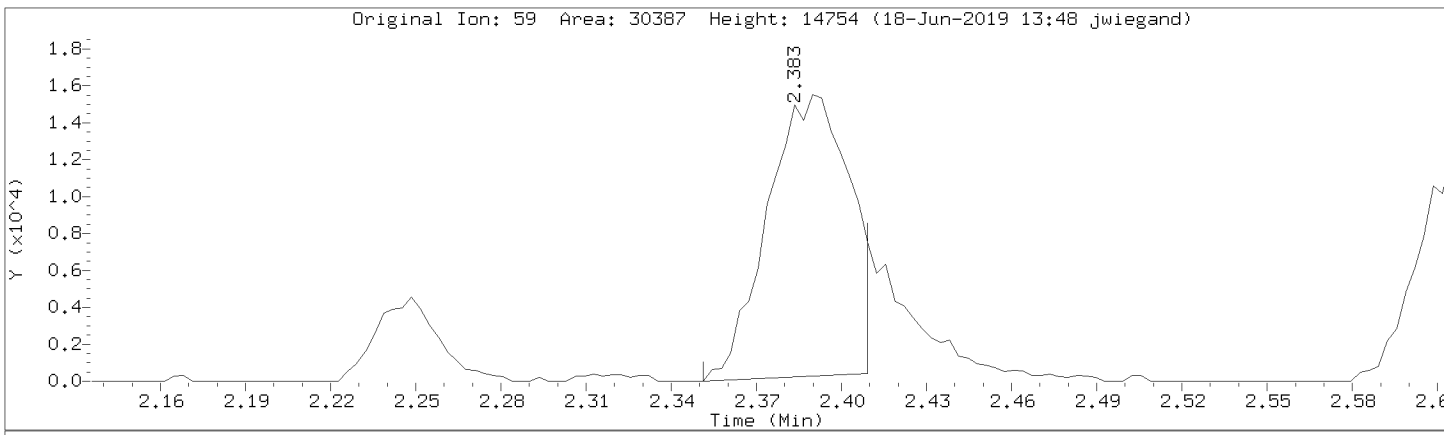
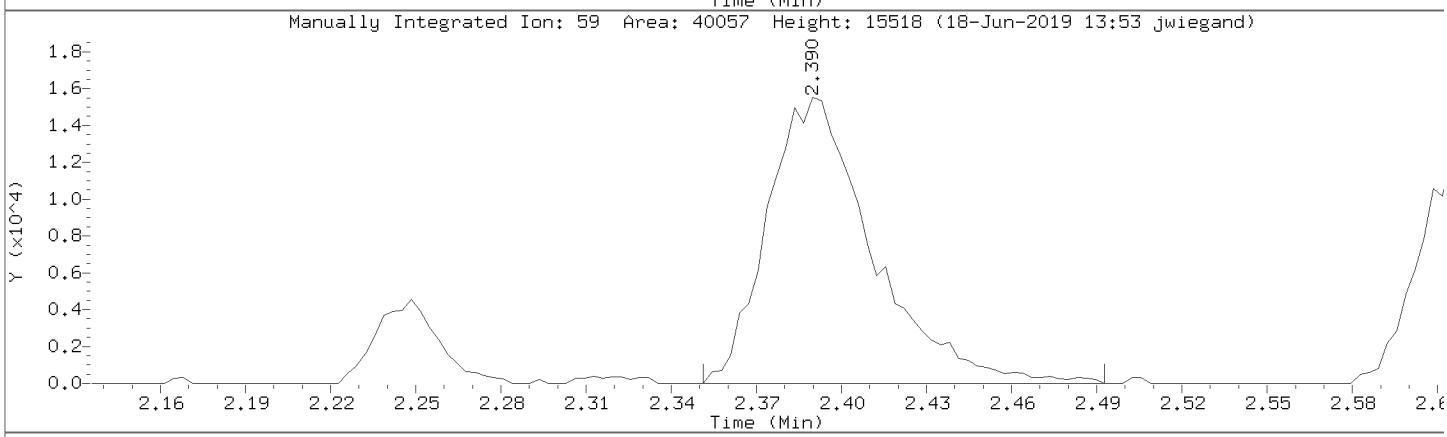
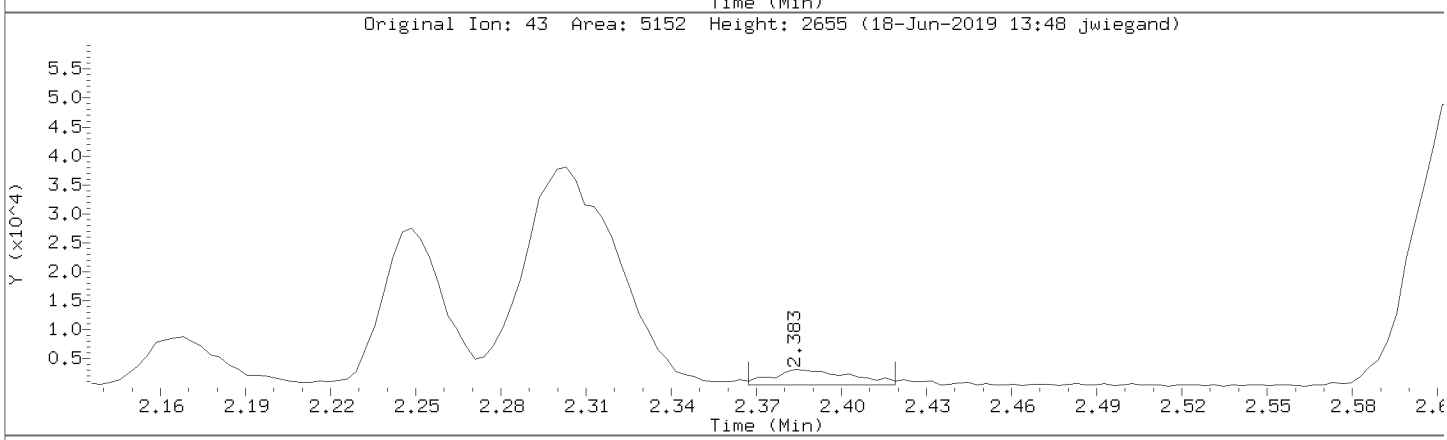
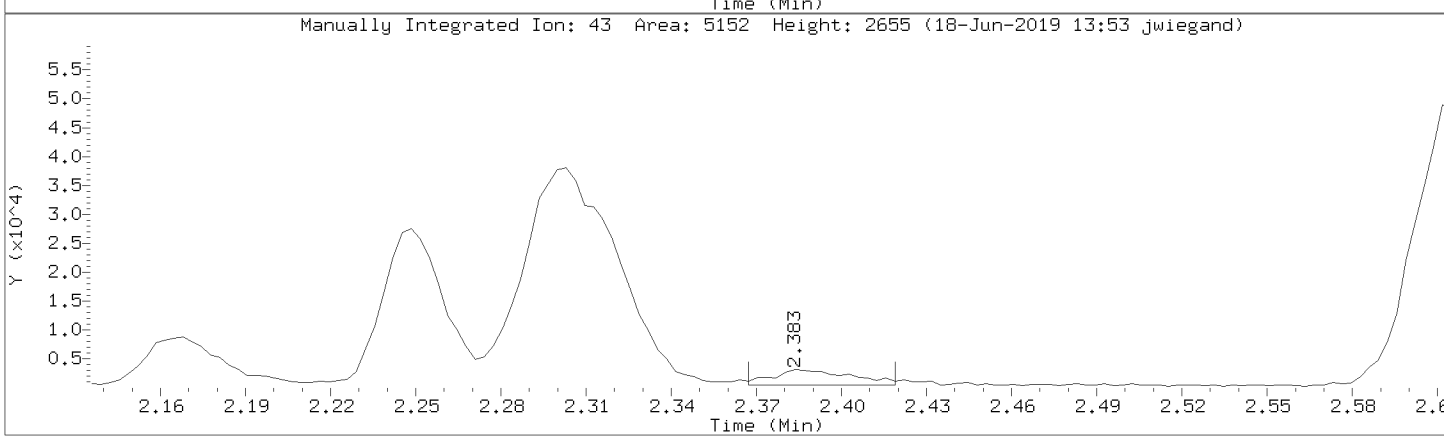
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









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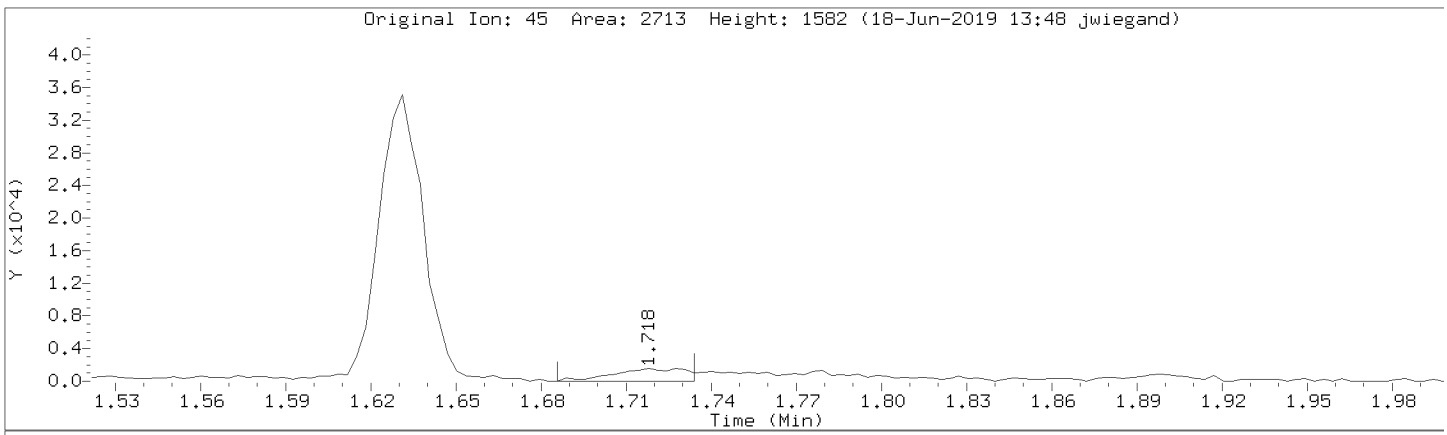
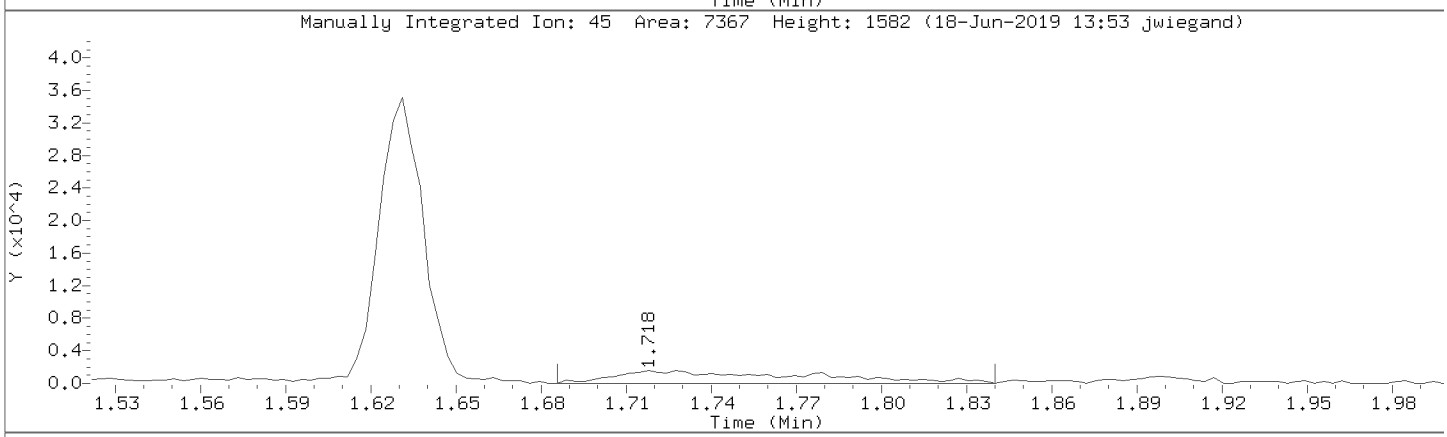
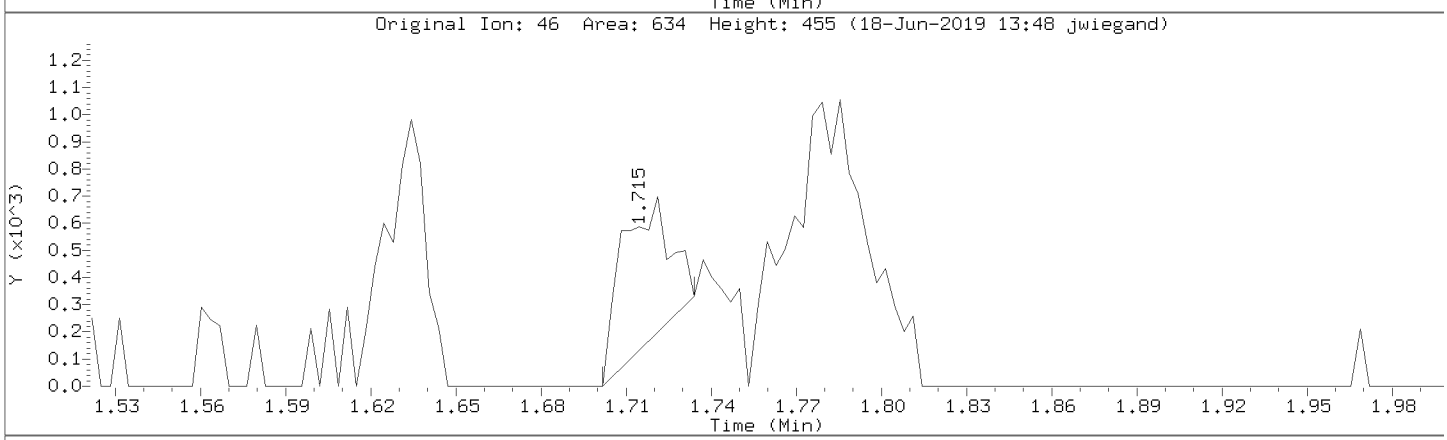
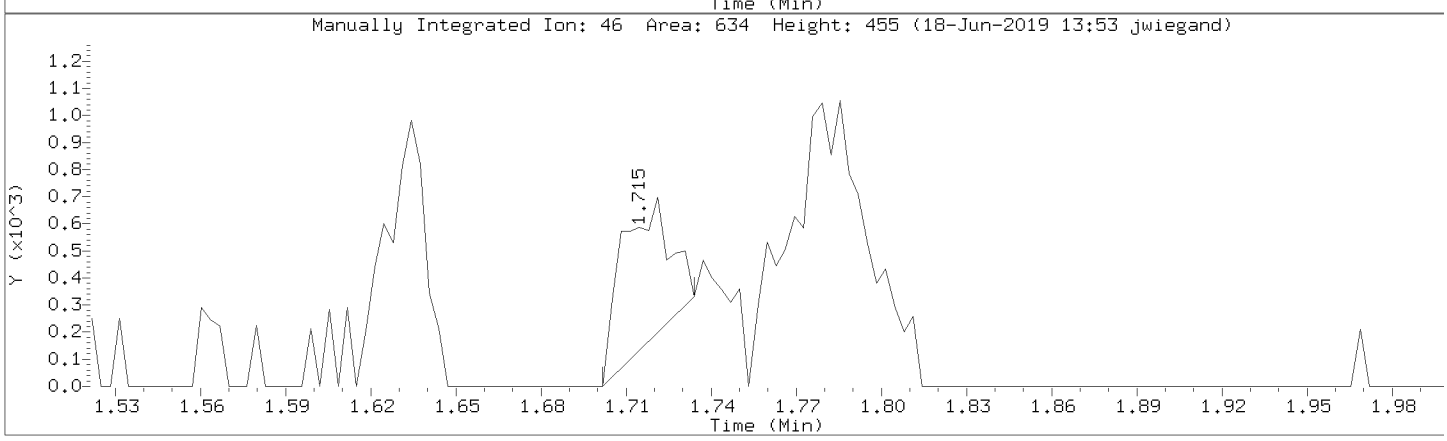
Injection Date: 18-JUN-2019 11:20
Instrument: 30mv5a.i
Lab Sample ID: CAL5

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
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Inj Date : 18-JUN-2019 11:47
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal6, 91190:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 11:47 Cal File: 50618015.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	116782	100.000	103(QM)	LT
2	Chloromethane	50	1.145	1.142	(0.268)	84376	100.000	101(AQ)	
3	Vinyl chloride	62	1.145	1.146	(0.268)	150755	100.000	110(QM)	LT
4	Bromomethane	94	1.319	1.326	(0.308)	106857	100.000	107(QM)	
5	Chloroethane	64	1.386	1.380	(0.324)	98198	100.000	107(AQM)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	232671	100.000	111(QM)	LT
7	Diethyl ether (Ethyl ether)	59	1.630	1.634	(0.381)	110338	100.000	100(Q)	
8	Ethanol	45	1.724	1.773	(0.257)	10541	1000.00	(aQM)	LT
9	1,1-Dichloroethene	61	1.756	1.760	(0.411)	178809	100.000	111(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.776	(0.415)	88999	100.000	104(Q)	
11	Carbon disulfide	76	1.782	1.785	(0.417)	319664	100.000	110(Q)	
12	Iodomethane	142	1.852	1.856	(0.433)	64237	100.000	105(QM)	LT
13	Acrolein	56	1.965	1.969	(0.459)	12639	100.000	99.6(Q)	
14	Allyl chloride	41	2.055	2.056	(0.481)	675353	500.000	575(Q)	
15	Methylene Chloride	49	2.129	2.133	(0.498)	115301	100.000	104(Q)	
16	Acetone	43	2.161	2.165	(0.505)	30754	100.000	105(Q)	
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	180243	100.000	107(Q)	
18	Methyl acetate	74	2.245	2.255	(0.525)	21771	100.000	98.2(Q)	
19	n-Hexane	86	2.296	2.297	(0.537)	28758	100.000	102(Q)	
20	Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	395498	100.000	101(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.387	(0.559)	81616	500.000	516(QM)	LT
	22 Acetonitrile	41	2.521	2.522	(0.590)	32465	500.000	427(QM)	LT
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	359657	100.000	100(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	158716	100.000	103(Q)	
	25 1,1-Dichloroethane	63	2.730	2.728	(0.638)	225963	100.000	112(Q)	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	37287	100.000	101(Q)	
	27 Ethyl-tert-butyl ether	59	2.945	2.940	(0.689)	389403	100.000	100(Q)	
	28 Vinyl acetate	43	2.958	2.965	(0.692)	313772	100.000	98.8(Q)	
	29 cis-1,2-Dichloroethene	61	3.244	3.248	(0.759)	184779	100.000	110(Q)	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	218977	100.000	106(Q)	
	31 Cyclohexane	56	3.453	3.451	(0.808)	186331	100.000	104(Q)	
	32 Bromochloromethane	130	3.463	3.467	(0.810)	83208	100.000	107(Q)	
	33 Chloroform	83	3.553	3.554	(0.831)	274320	100.000	109(Q)	
	34 Carbon tetrachloride	117	3.679	3.679	(0.860)	209795	100.000	106(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	137223	100.000	101(Q)	
	36 Tetrahydrofuran	42	3.701	3.711	(0.865)	51894	100.000	104(Q)	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	39562	30.0000	32.3(Q)	
	38 1,1,1-Trichloroethane	97	3.736	3.734	(0.874)	243357	100.000	108(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	64883	100.000	104(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	204460	100.000	107(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	583729	100.000	105(Q)	
	42 Propionitrile	54	4.039	4.049	(0.944)	14918	100.000	103(Q)	
	43 Methacrylonitrile	41	4.048	4.054	(0.947)	80344	100.000	101(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	420097	100.000	101(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.961)	40106	30.0000	29.1(Q)	
	46 Isobutanol	43	4.187	4.099	(0.979)	30537	500.000	527(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	204224	100.000	103(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	146078	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	219632	100.000	103(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	157608	100.000	99.7(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	100344	100.000	103(Q)	
	52 1,2-Dichloropropane	63	4.643	4.647	(1.086)	138990	100.000	102(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	196715	100.000	103(Q)	
	54 Methyl methacrylate	69	4.765	4.776	(1.114)	105700	100.000	101(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	10046	1000.00	941(QM)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	54002	100.000	98.7(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	235771	100.000	101(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	134400	30.0000	28.9(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	601063	100.000	100(Q)	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	226539	500.000	493(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	138470	100.000	100(Q)	
	62 Tetrachloroethene	166	5.283	5.290	(0.917)	157102	100.000	99.8(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	225640	100.000	98.5(Q)	
	64 Ethyl methacrylate	41	5.363	5.367	(0.931)	119397	100.000	96.9(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.932)	134136	100.000	99.0(Q)	
	66 Dibromochloromethane	129	5.447	5.451	(0.945)	160282	100.000	99.4(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.953)	218947	100.000	100(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.550	5.554	(0.963)	137341	100.000	99.7(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	100303	100.000	98.4(Q)	
	70 Ethylbenzene	106	5.775	5.779	(1.002)	219868	100.000	104(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	108243	30.0000	(Q)	
	72 Chlorobenzene	112	5.769	5.769	(1.001)	412948	100.000	102(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.794	5.798	(1.006)	158819	100.000	105(Q)	
	74 m&p-Xylene	106	5.833	5.837	(1.012)	530174	200.000	210(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.044)	261595	100.000	106(Q)	
	76 Styrene	104	6.035	6.036	(1.047)	433238	100.000	104(Q)	
	77 Bromoform	173	6.055	6.059	(0.903)	117030	100.000	93.4(Q)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	640636	100.000	100(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	41101	30.0000	27.9(Q)	
	80 n-Propylbenzene	91	6.302	6.306	(0.940)	745464	100.000	99.4(Q)	
	81 Bromobenzene	77	6.305	6.309	(0.940)	288011	100.000	98.4(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.334	6.335	(0.944)	184869	100.000	98.4(Q)	
	83 1,3,5-Trimethylbenzene	105	6.376	6.380	(0.951)	514749	100.000	102(Q)	
	84 2-Chlorotoluene	126	6.376	6.380	(0.951)	159013	100.000	99.0(Q)	
	85 1,2,3-Trichloropropane	110	6.395	6.396	(0.954)	56190	100.000	100(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.955)	44144	100.000	97.4(Q)	
	87 Cyclohexanone	55	6.418	6.422	(0.957)	37432	500.000	437(Q)	
	88 4-Chlorotoluene	126	6.441	6.444	(0.960)	164360	100.000	101(Q)	
	89 tert-Butylbenzene	119	6.511	6.512	(0.971)	437920	100.000	102(Q)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.975)	513002	100.000	103(Q)	
	91 sec-Butylbenzene	105	6.579	6.583	(0.981)	627208	100.000	103(Q)	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	531614	100.000	102(Q)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	291894	100.000	100(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.707	6.711	(1.000)	50468	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	292580	100.000	101(Q)	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	453066	100.000	101(Q)	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.027)	269577	100.000	100(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.707	6.711	(1.000)	50467	30.0000	29.9(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	31807	100.000	94.2(Q)	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.077)	156883	100.000	100(Q)	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	72142	100.000	98.0(Q)	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.116)	134025	100.000	100(Q)	
	102 Naphthalene	128	7.617	7.618	(1.136)	345925	100.000	96.7(Q)	
	103 1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	120683	100.000	98.6(Q)	
	104 2-Methylnaphthalene	142	8.045	8.048	(1.199)	149305	100.000	89.3(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618015.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	146078	1.66
71 Chlorobenzene-d5	102704	51352	205408	108243	5.39
94 1,4-Dichlorobenze	44519	22260	89038	50468	13.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.76	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	103	
74-87-3	Chloromethane	101	E
75-01-4	Vinyl chloride	110	
74-83-9	Bromomethane	107	
75-00-3	Chloroethane	107	E
75-69-4	Trichlorofluoromethane	111	
60-29-7	Diethyl ether (Ethyl ether)	100	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	111	
76-13-1	1,1,2-Trichlorotrifluoroetha	104	
75-15-0	Carbon disulfide	110	
74-88-4	Iodomethane	105	
107-02-8	Acrolein	99.6	
107-05-1	Allyl chloride	575	
75-09-2	Methylene Chloride	104	
67-64-1	Acetone	105	
156-60-5	trans-1,2-Dichloroethene	107	
79-20-9	Methyl acetate	98.2	
110-54-3	n-Hexane	102	
1634-04-4	Methyl-tert-butyl ether	101	
75-65-0	tert-Butyl Alcohol	516	
75-05-8	Acetonitrile	427	
108-20-3	Diisopropyl ether	100	
126-99-8	Chloroprene	103	
75-34-3	1,1-Dichloroethane	112	
107-13-1	Acrylonitrile	101	
637-92-3	Ethyl-tert-butyl ether	100	
108-05-4	Vinyl acetate	98.8	
156-59-2	cis-1,2-Dichloroethene	110	
594-20-7	2,2-Dichloropropane	106	
110-82-7	Cyclohexane	104	
74-97-5	Bromochloromethane	107	
67-66-3	Chloroform	109	
56-23-5	Carbon tetrachloride	106	
141-78-6	Ethyl acetate	101	
109-99-9	Tetrahydrofuran	104	
71-55-6	1,1,1-Trichloroethane	108	
78-93-3	2-Butanone (MEK)	104	
563-58-6	1,1-Dichloropropene	107	
71-43-2	Benzene	105	
107-12-0	Propionitrile	103	
126-98-7	Methacrylonitrile	101	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	101	
78-83-1	Isobutanol	527	
107-06-2	1,2-Dichloroethane	103	
108-87-2	Methylcyclohexane	103	
79-01-6	Trichloroethene	99.7	
74-95-3	Dibromomethane	103	
78-87-5	1,2-Dichloropropane	102	
75-27-4	Bromodichloromethane	103	
80-62-6	Methyl methacrylate	101	
123-91-1	1,4-Dioxane (p-Dioxane)	941	
110-75-8	2-Chloroethylvinyl ether	98.7	
10061-01-5	cis-1,3-Dichloropropene	101	
108-88-3	Toluene	100	
79-46-9	2-Nitropropane	493	
108-10-1	4-Methyl-2-pentanone (MIBK)	100	
127-18-4	Tetrachloroethene	99.8	
10061-02-6	trans-1,3-Dichloropropene	98.5	
97-63-2	Ethyl methacrylate	96.9	
79-00-5	1,1,2-Trichloroethane	99.0	
124-48-1	Dibromochloromethane	99.4	
142-28-9	1,3-Dichloropropane	100	
106-93-4	1,2-Dibromoethane (EDB)	99.7	
591-78-6	2-Hexanone	98.4	
100-41-4	Ethylbenzene	104	
108-90-7	Chlorobenzene	102	
630-20-6	1,1,1,2-Tetrachloroethane	105	
7816-60-0	m&p-Xylene	210	
95-47-6	o-Xylene	106	
100-42-5	Styrene	104	
75-25-2	Bromoform	93.4	
98-82-8	Isopropylbenzene (Cumene)	100	
103-65-1	n-Propylbenzene	99.4	
108-86-1	Bromobenzene	98.4	
79-34-5	1,1,2,2-Tetrachloroethane	98.4	
108-67-8	1,3,5-Trimethylbenzene	102	
95-49-8	2-Chlorotoluene	99.0	
96-18-4	1,2,3-Trichloropropane	100	
110-57-6	trans-1,4-Dichloro-2-butene	97.4	
108-94-1	Cyclohexanone	437	
106-43-4	4-Chlorotoluene	101	
98-06-6	tert-Butylbenzene	102	
95-63-6	1,2,4-Trimethylbenzene	103	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Report Date: 26-Jun-2019 14:07

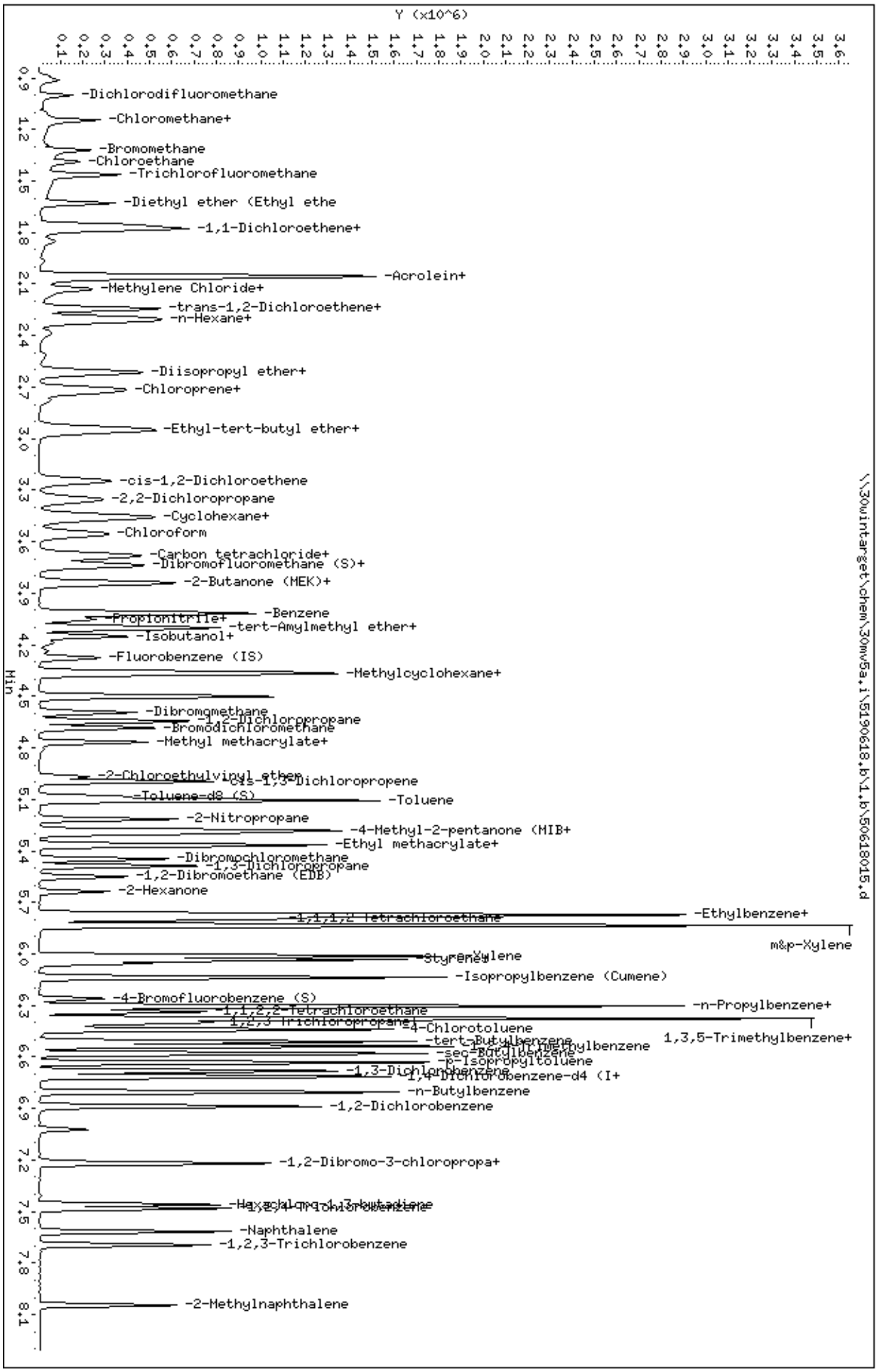
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	103	
99-87-6	p-Isopropyltoluene	102	
541-73-1	1,3-Dichlorobenzene	100	
106-46-7	1,4-Dichlorobenzene	101	
104-51-8	n-Butylbenzene	101	
95-50-1	1,2-Dichlorobenzene	100	
96-12-8	1,2-Dibromo-3-chloropropane	94.2	
108-70-3	1,3,5-Trichlorobenzene	100	
87-68-3	Hexachloro-1,3-butadiene	98.0	
120-82-1	1,2,4-Trichlorobenzene	100	
91-20-3	Naphthalene	96.7	
87-61-6	1,2,3-Trichlorobenzene	98.6	
91-57-6	2-Methylnaphthalene	89.3	
1868-53-7	Dibromofluoromethane (S)	32.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.1	
2037-26-5	Toluene-d8 (S)	28.9	
460-00-4	4-Bromofluorobenzene (S)	27.9	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	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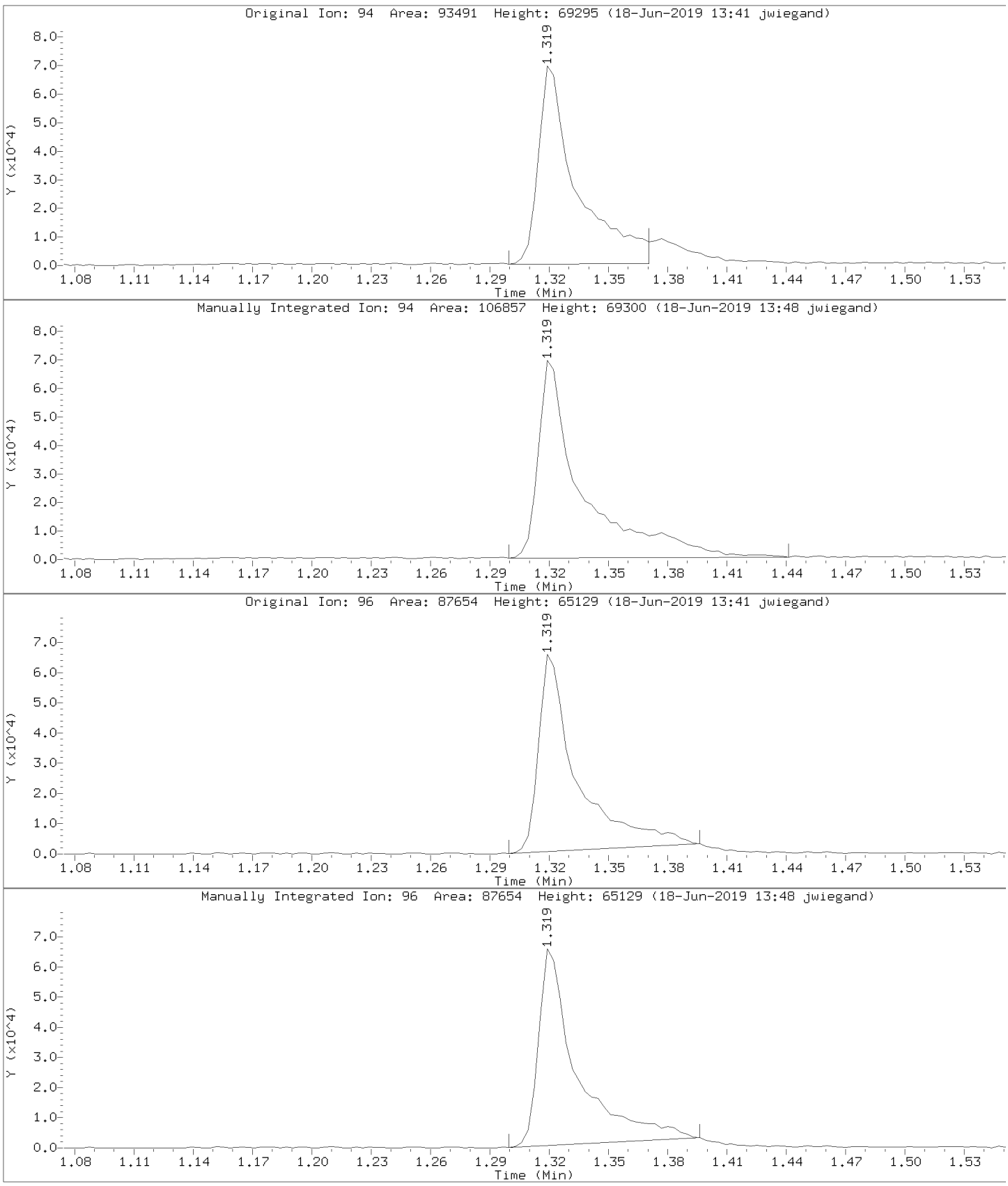
Date : 18-JUN-2019 11:47
Client ID: CAL6
Sample Info: CAL6, 91190:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618015.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Styrene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane
4-Chlorotoluene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618015.d
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Bromomethane Review Code:
CAS Number: 74-83-9



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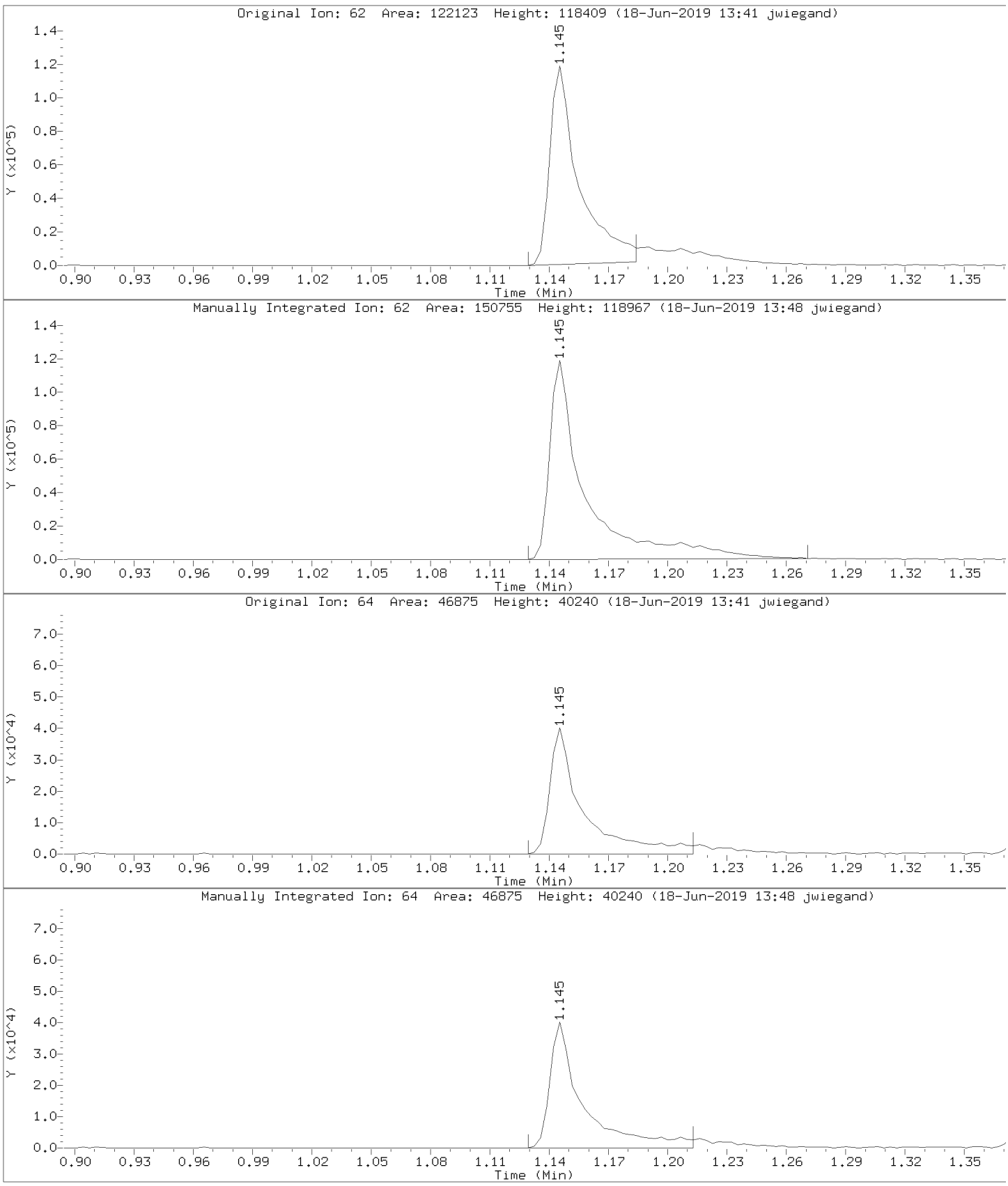
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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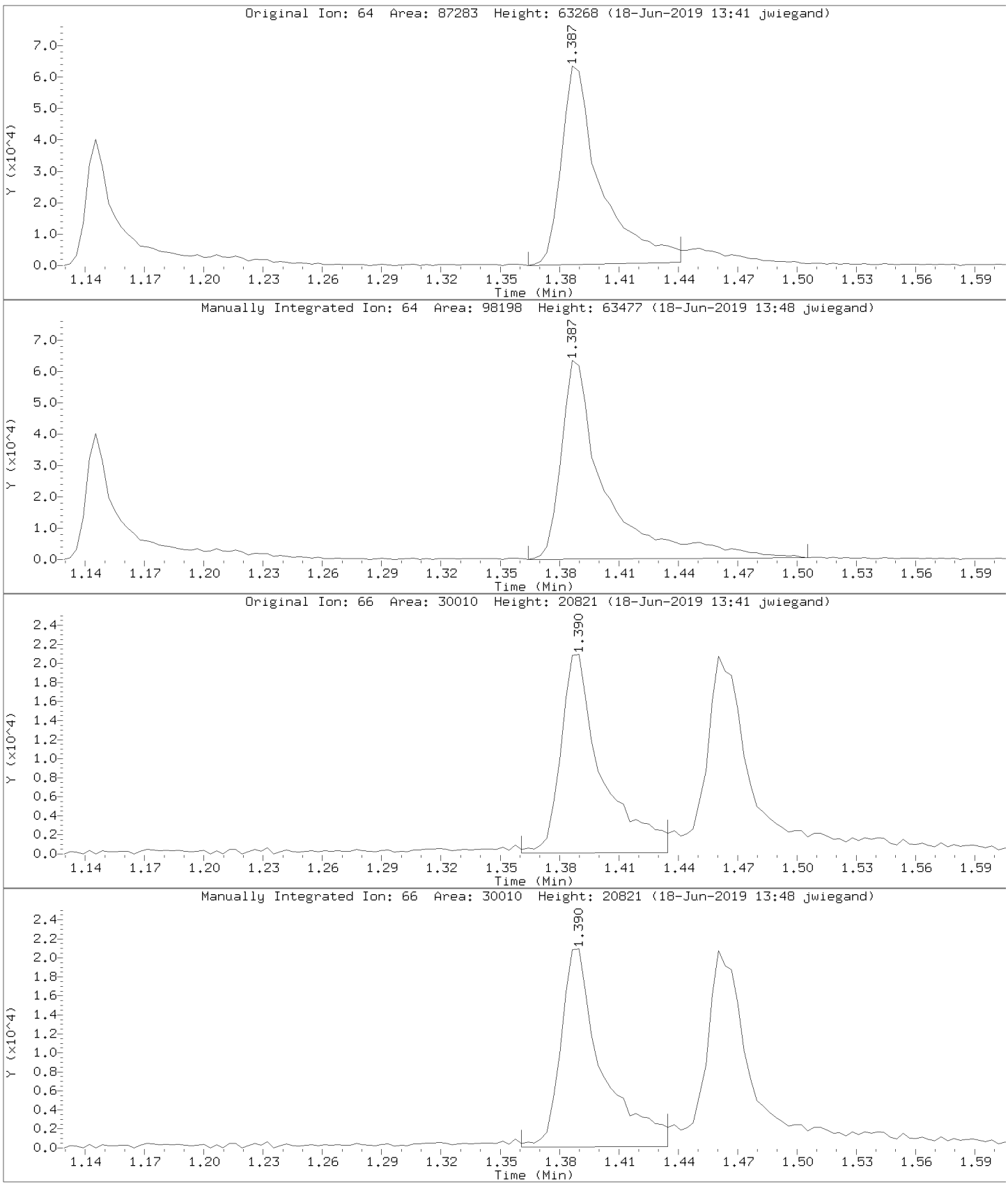
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



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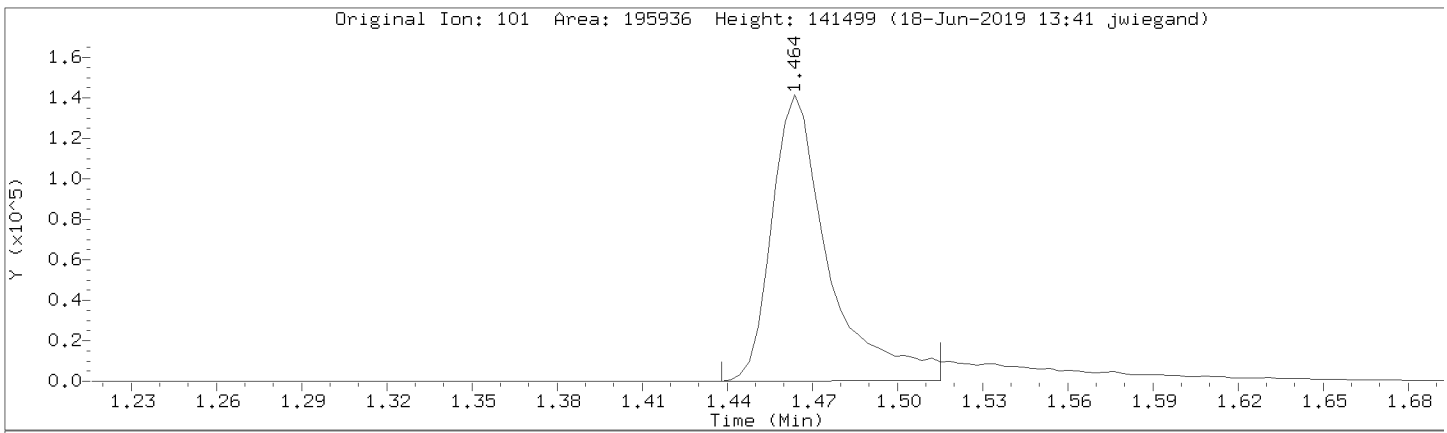
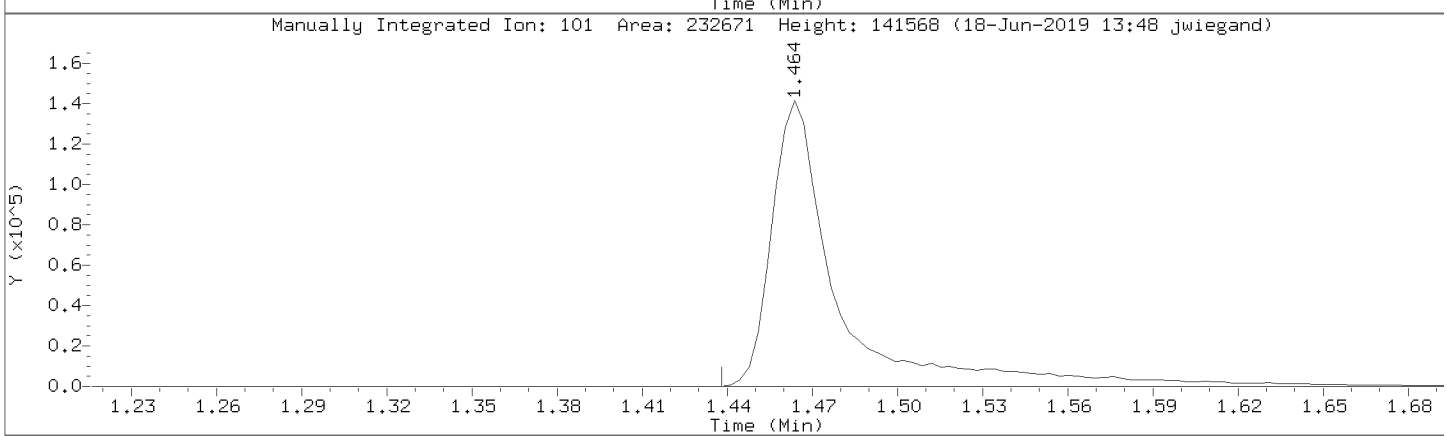
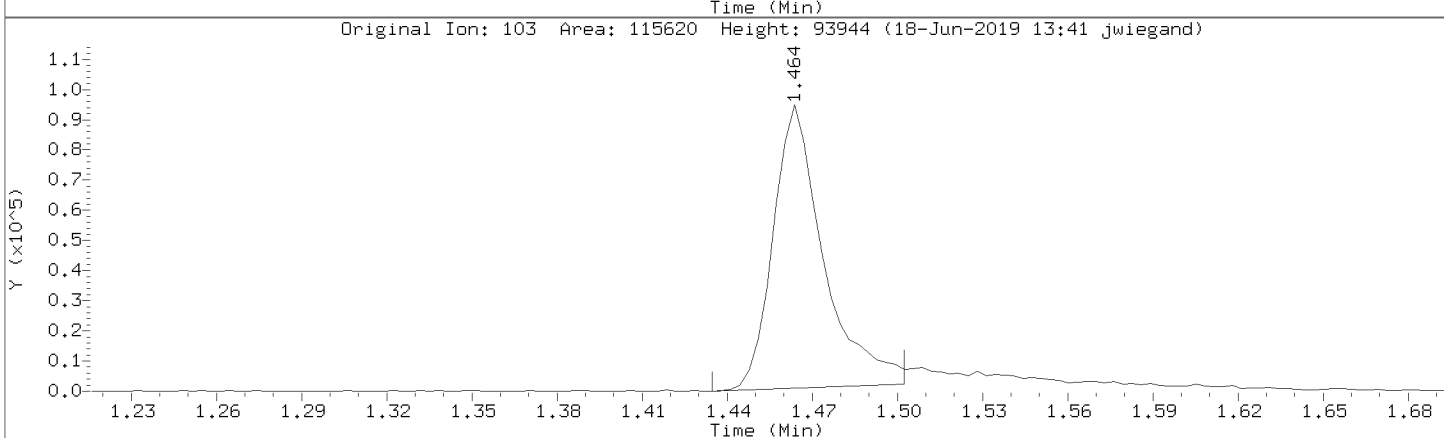
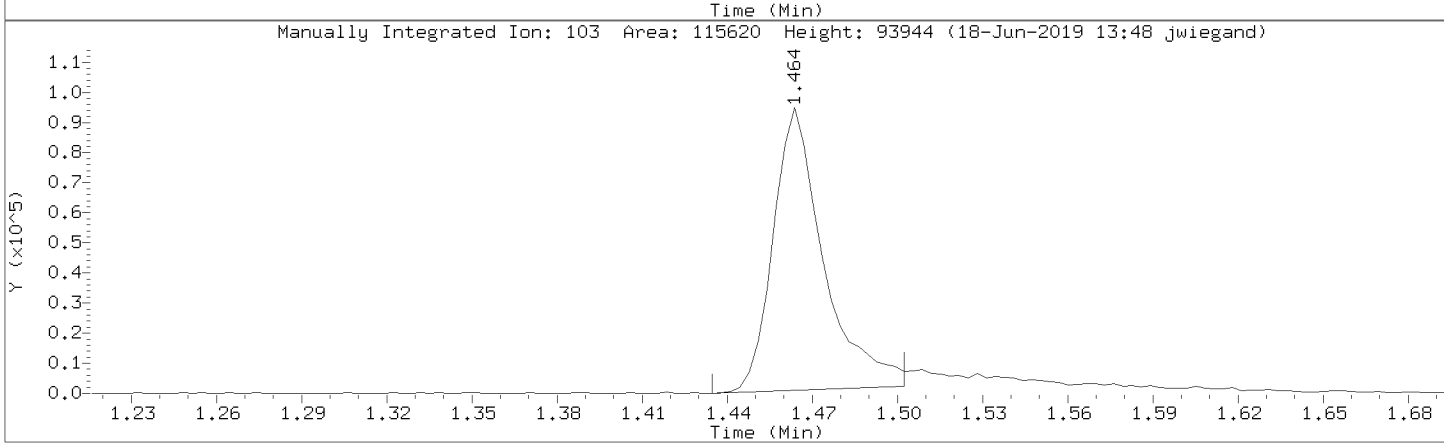
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4









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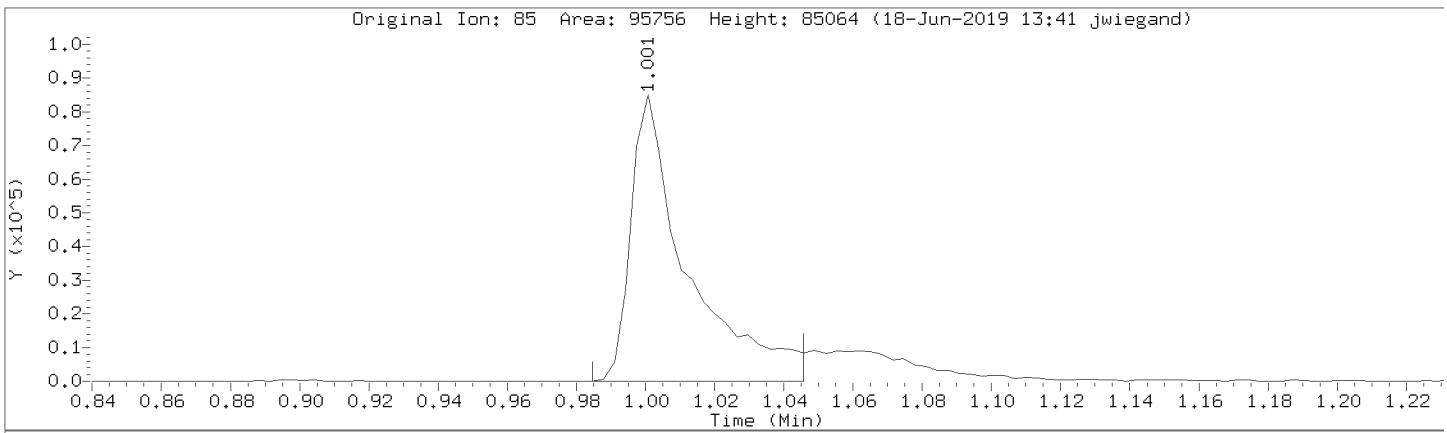
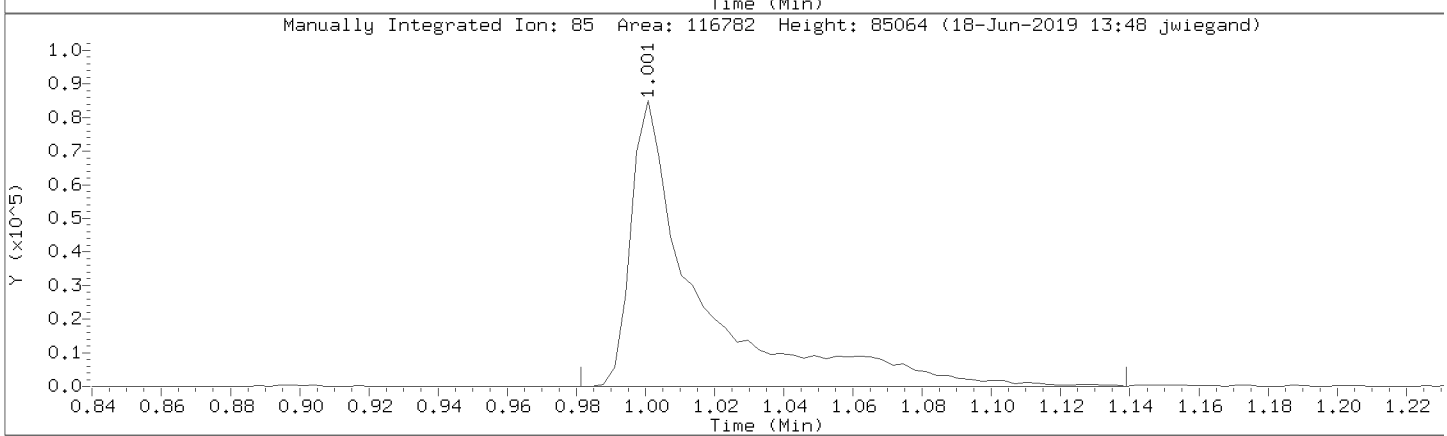
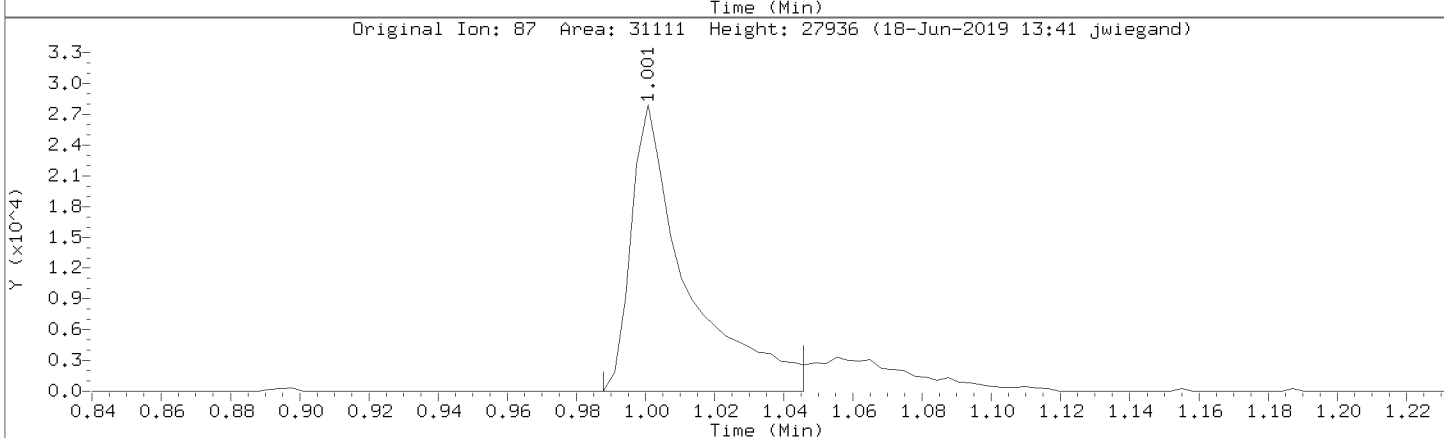
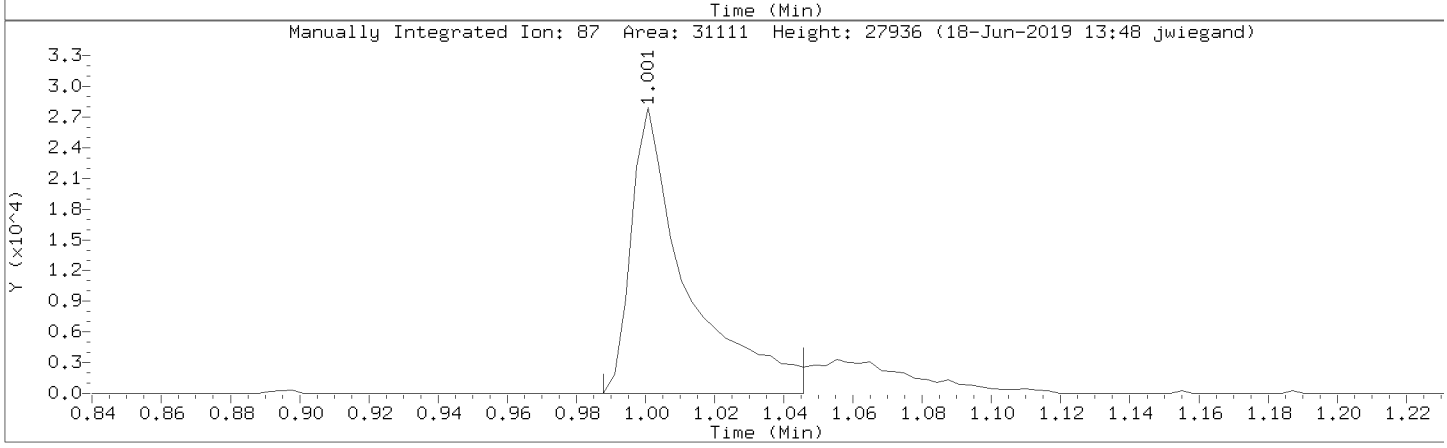
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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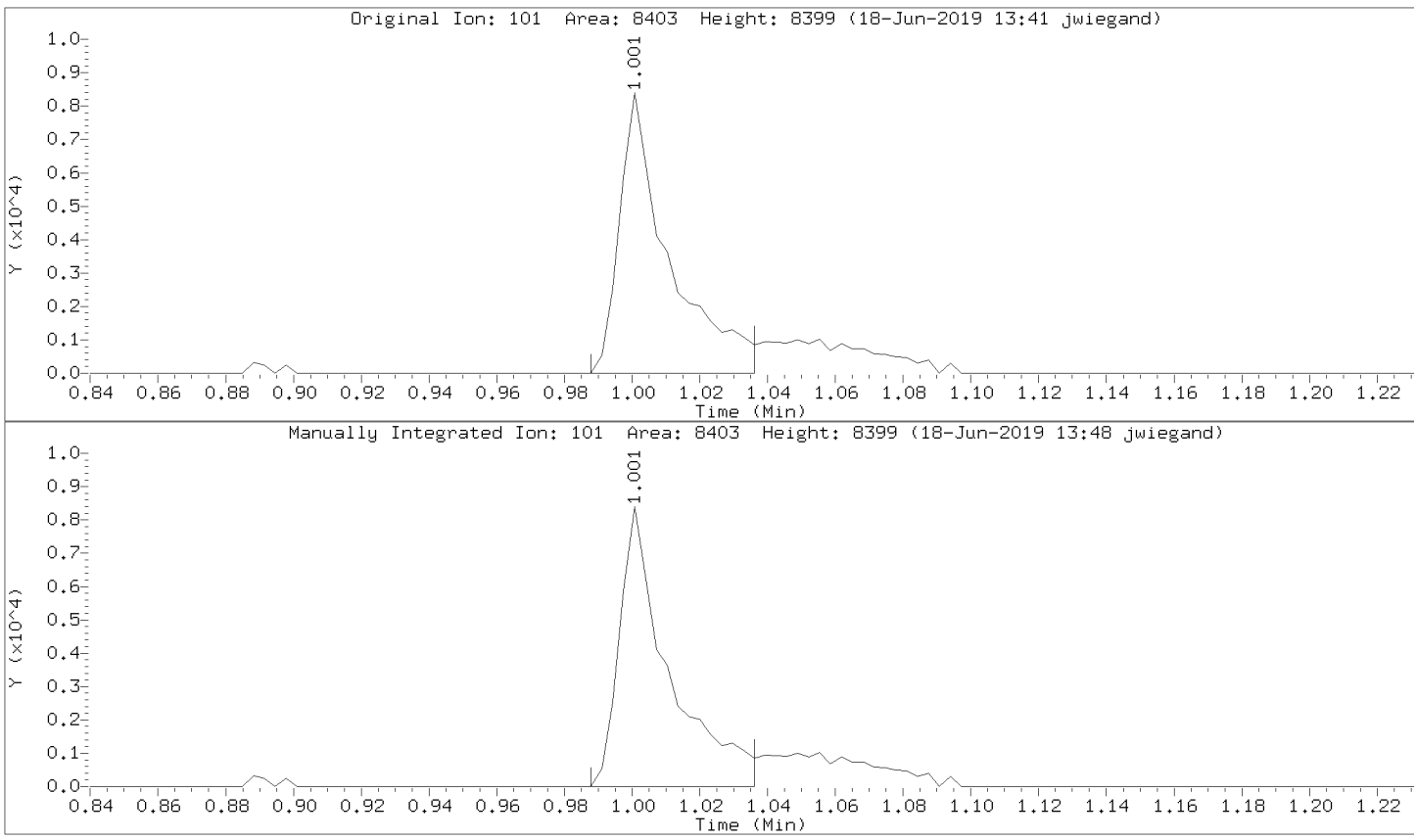
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6



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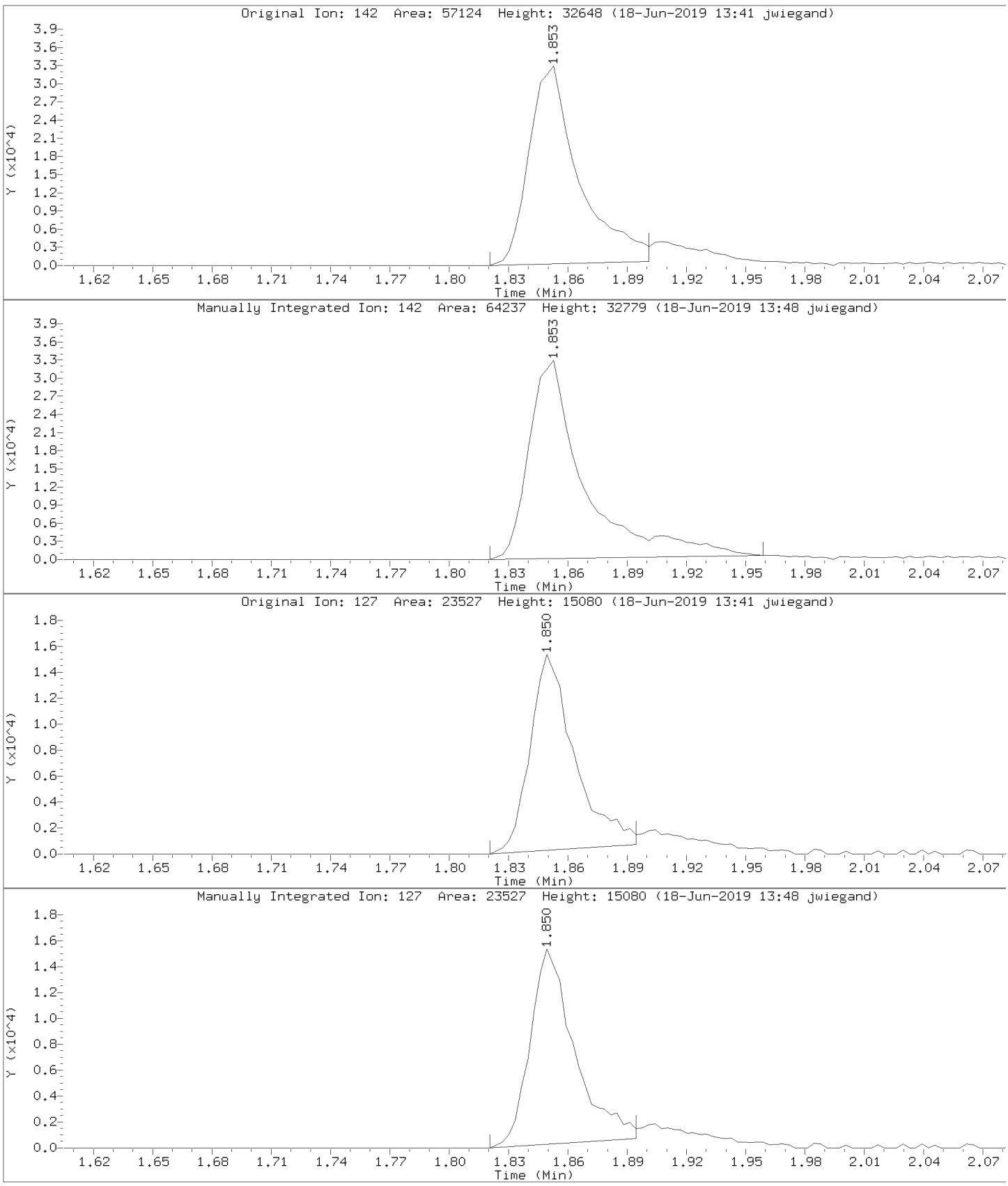
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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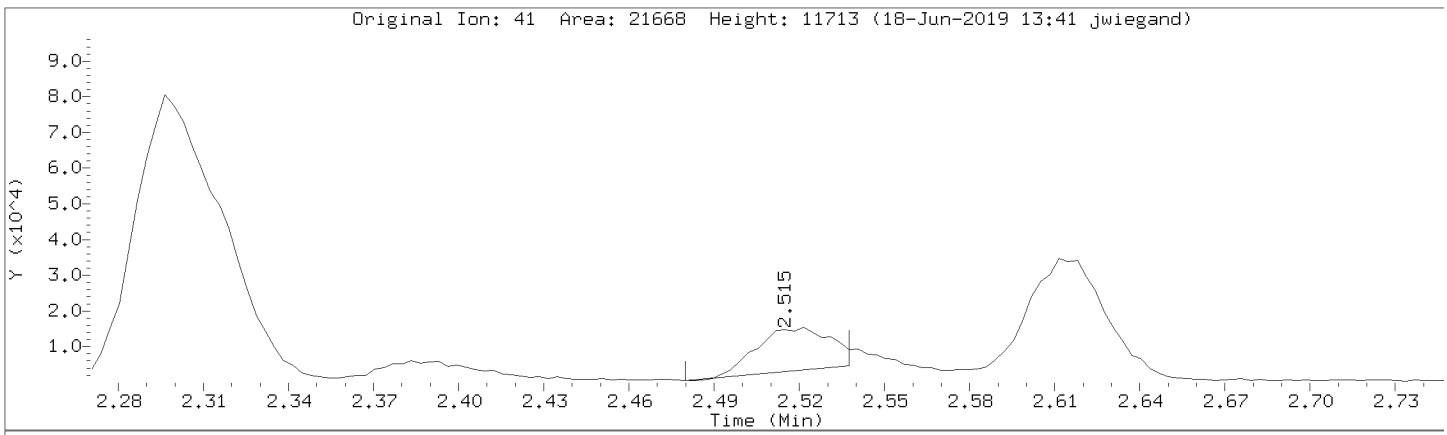
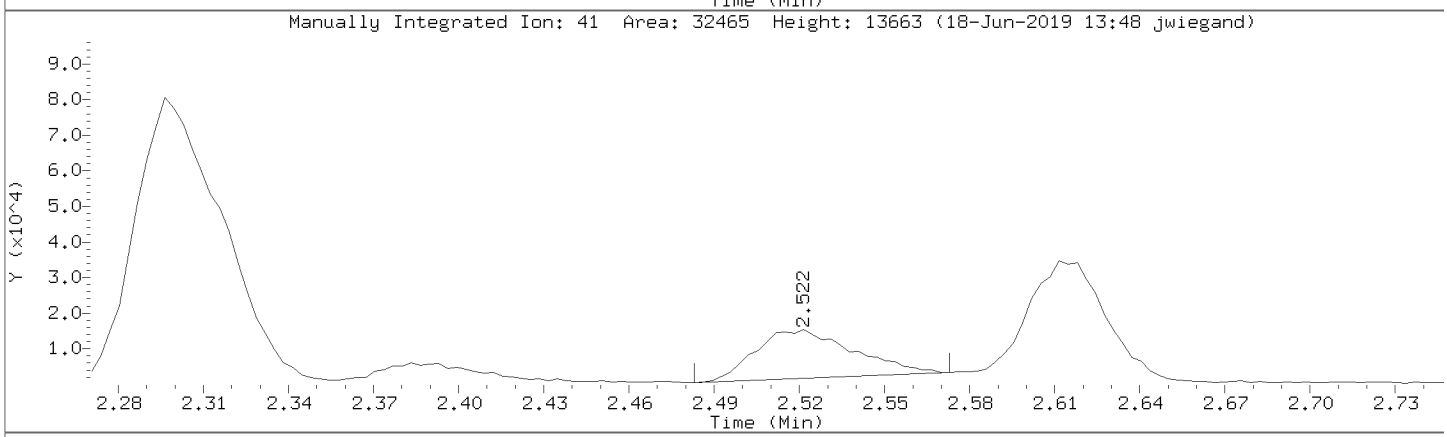
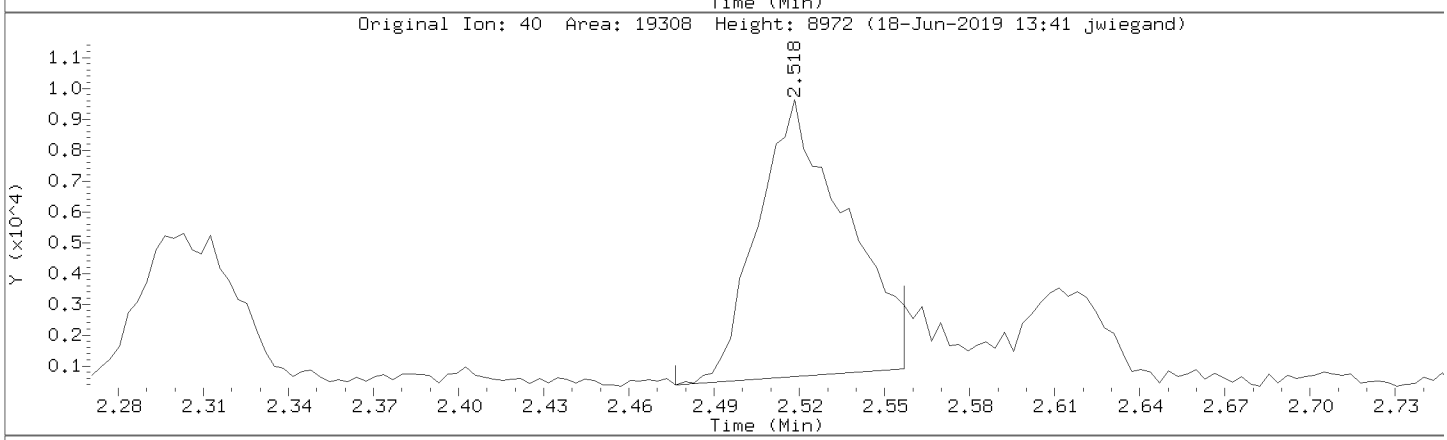
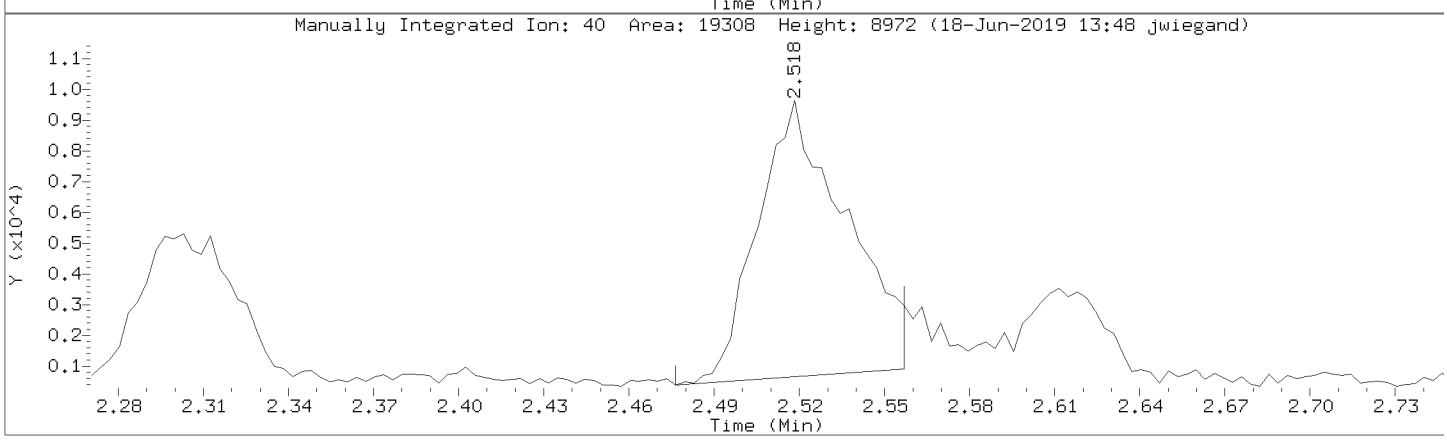
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8









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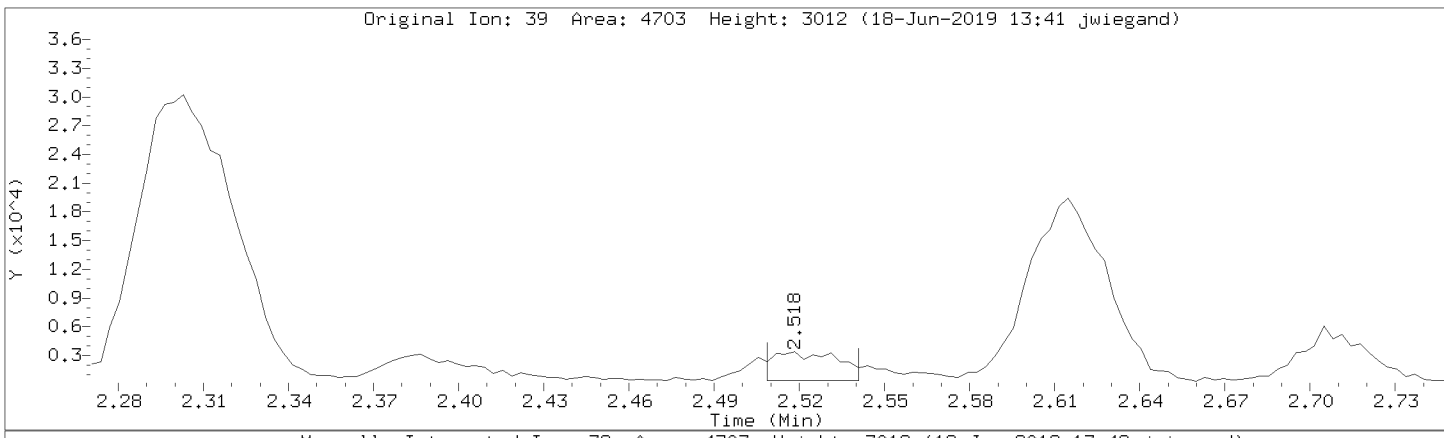
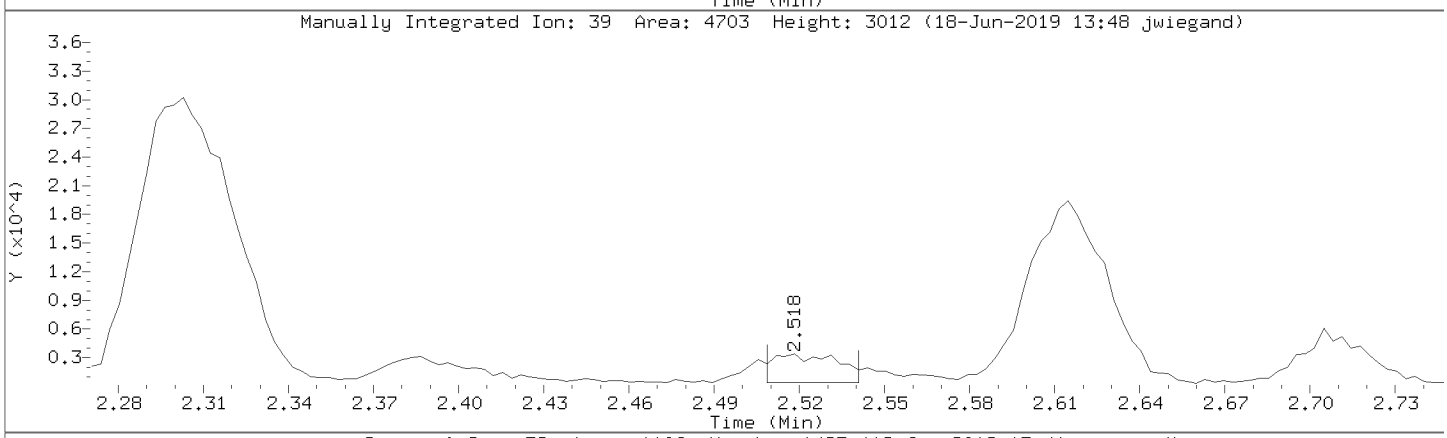
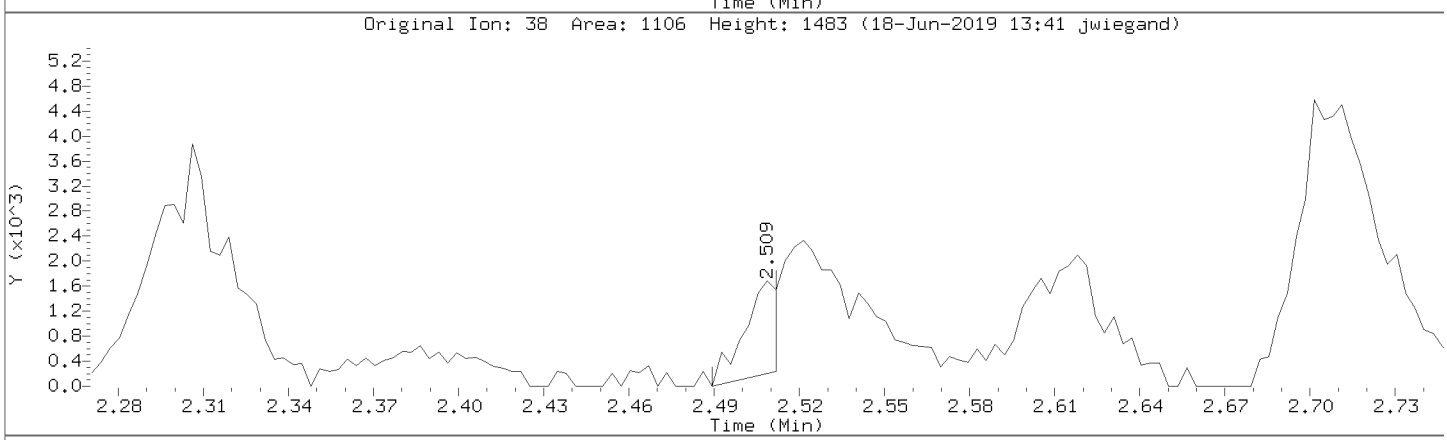
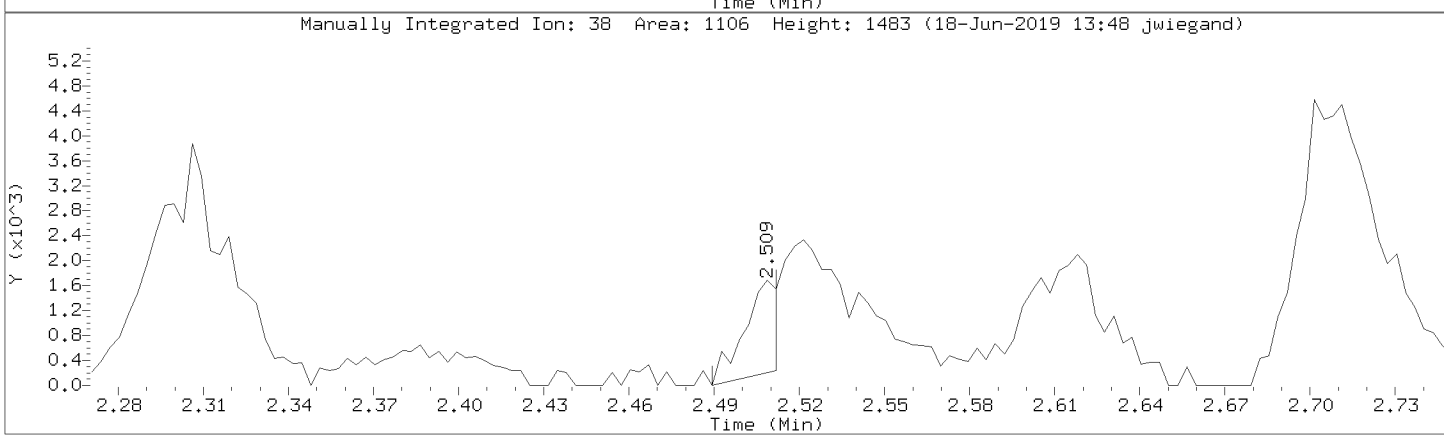
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6









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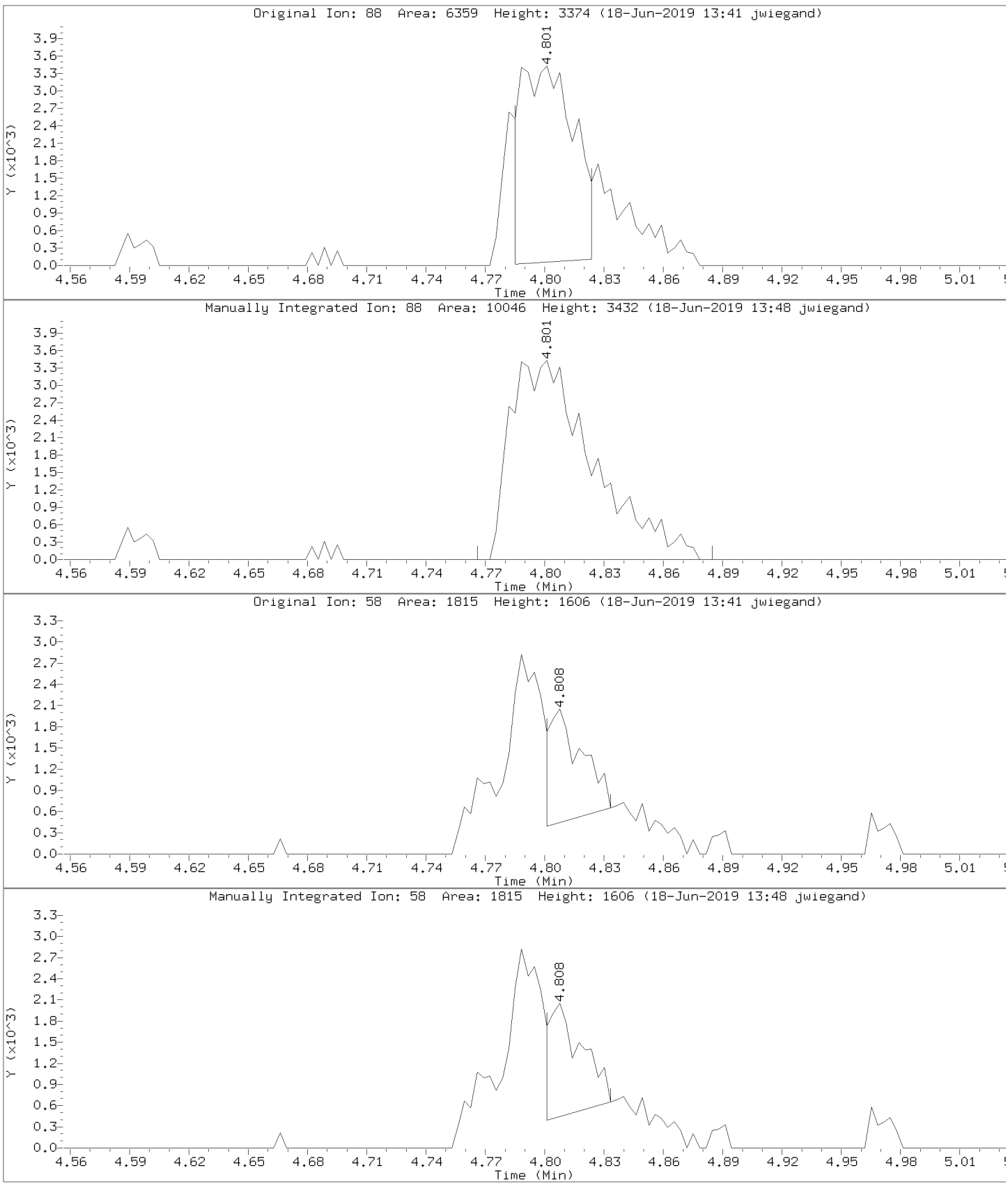
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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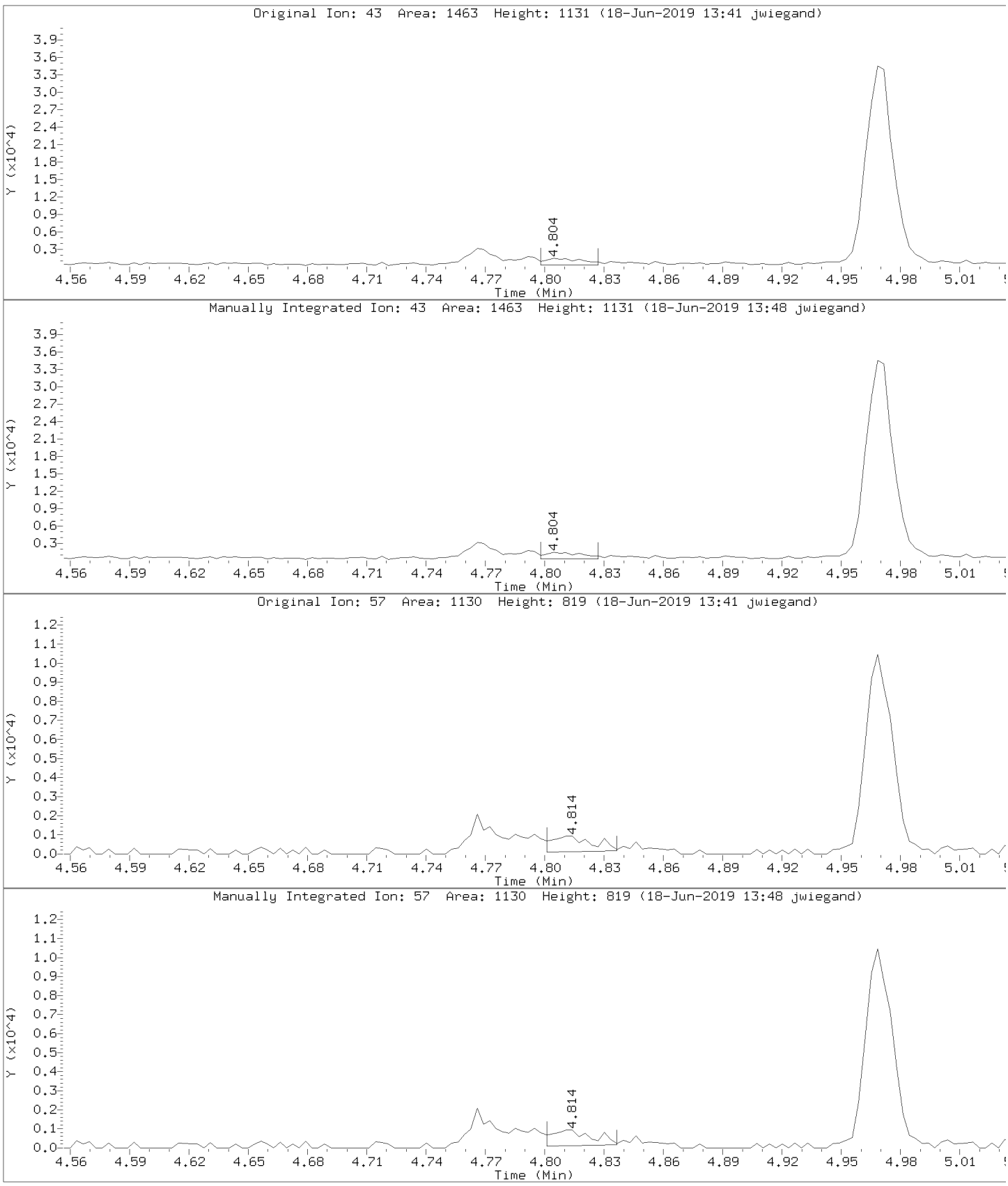
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6



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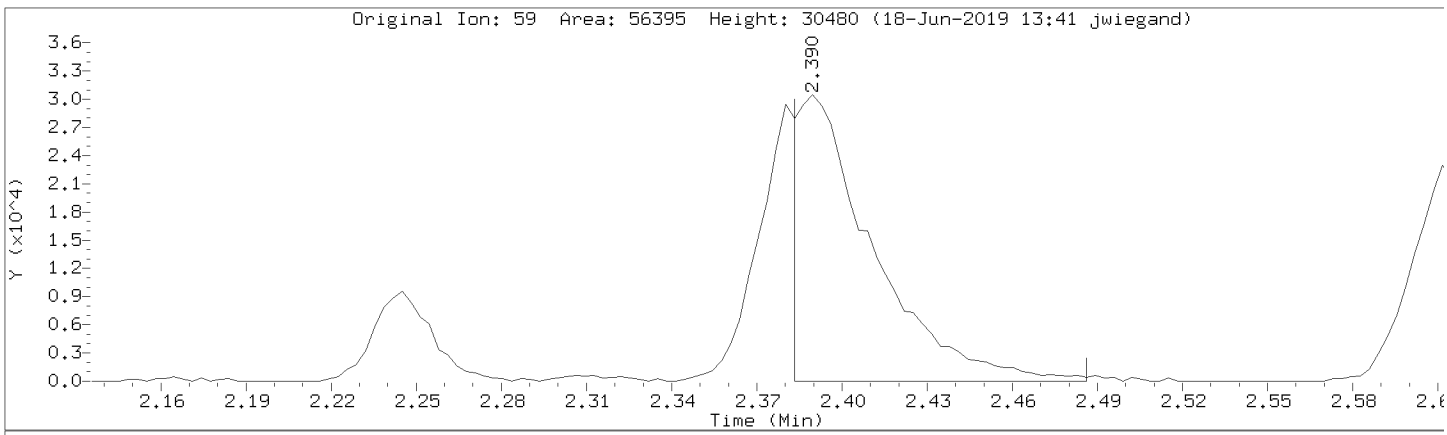
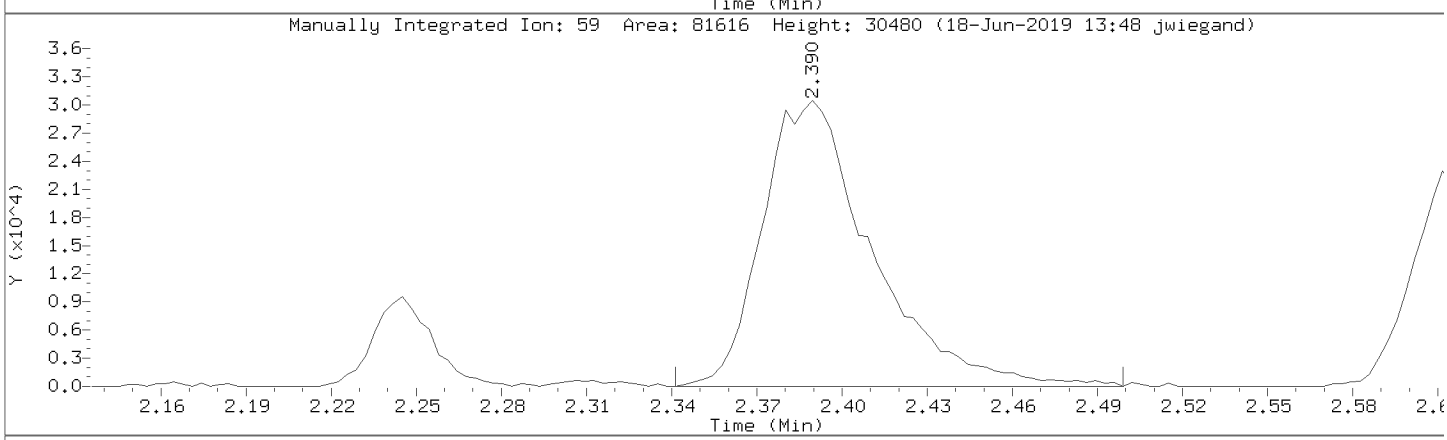
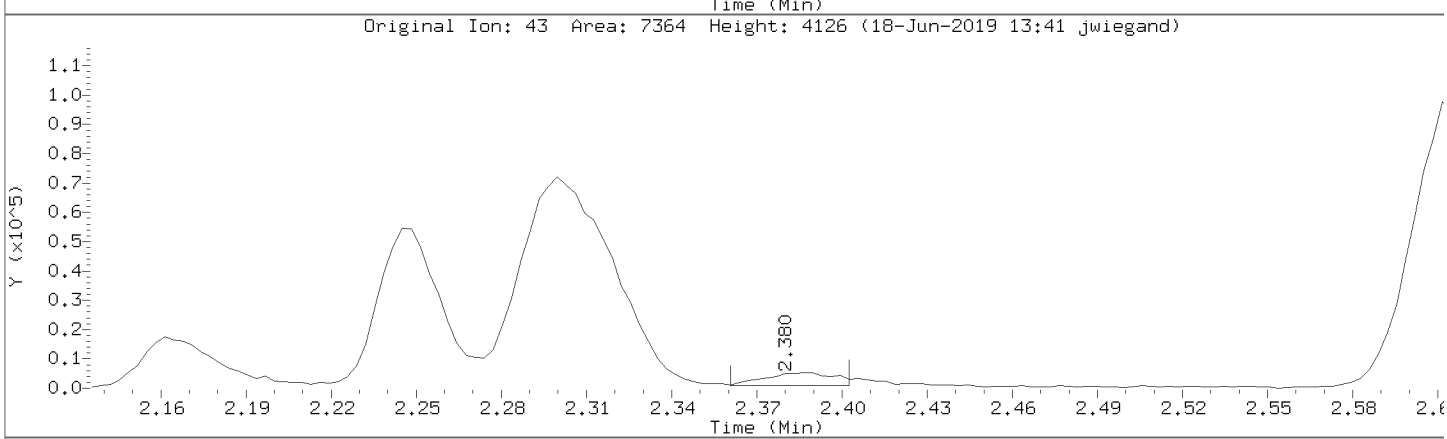
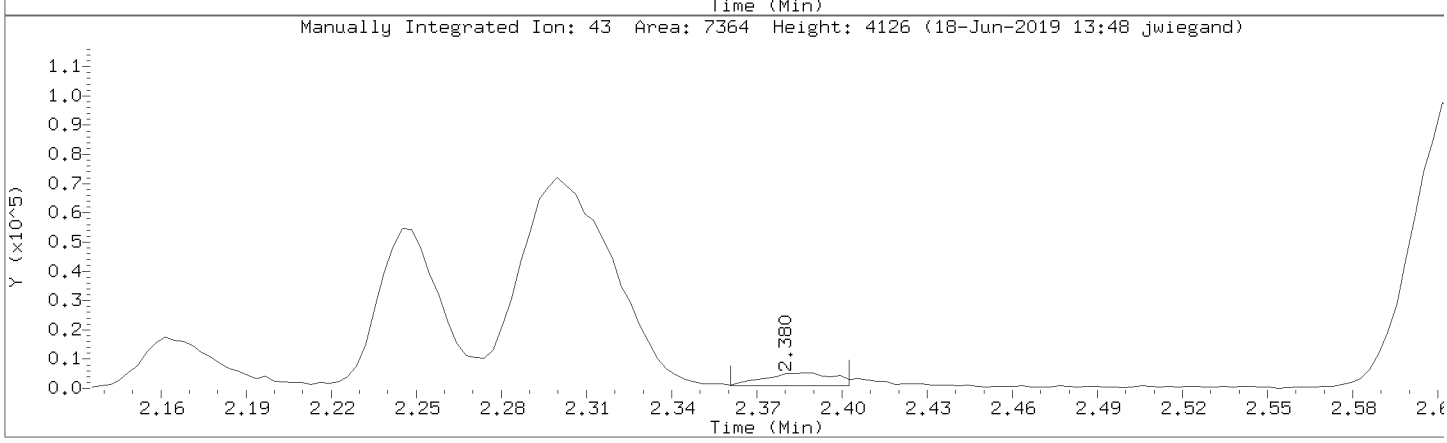
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









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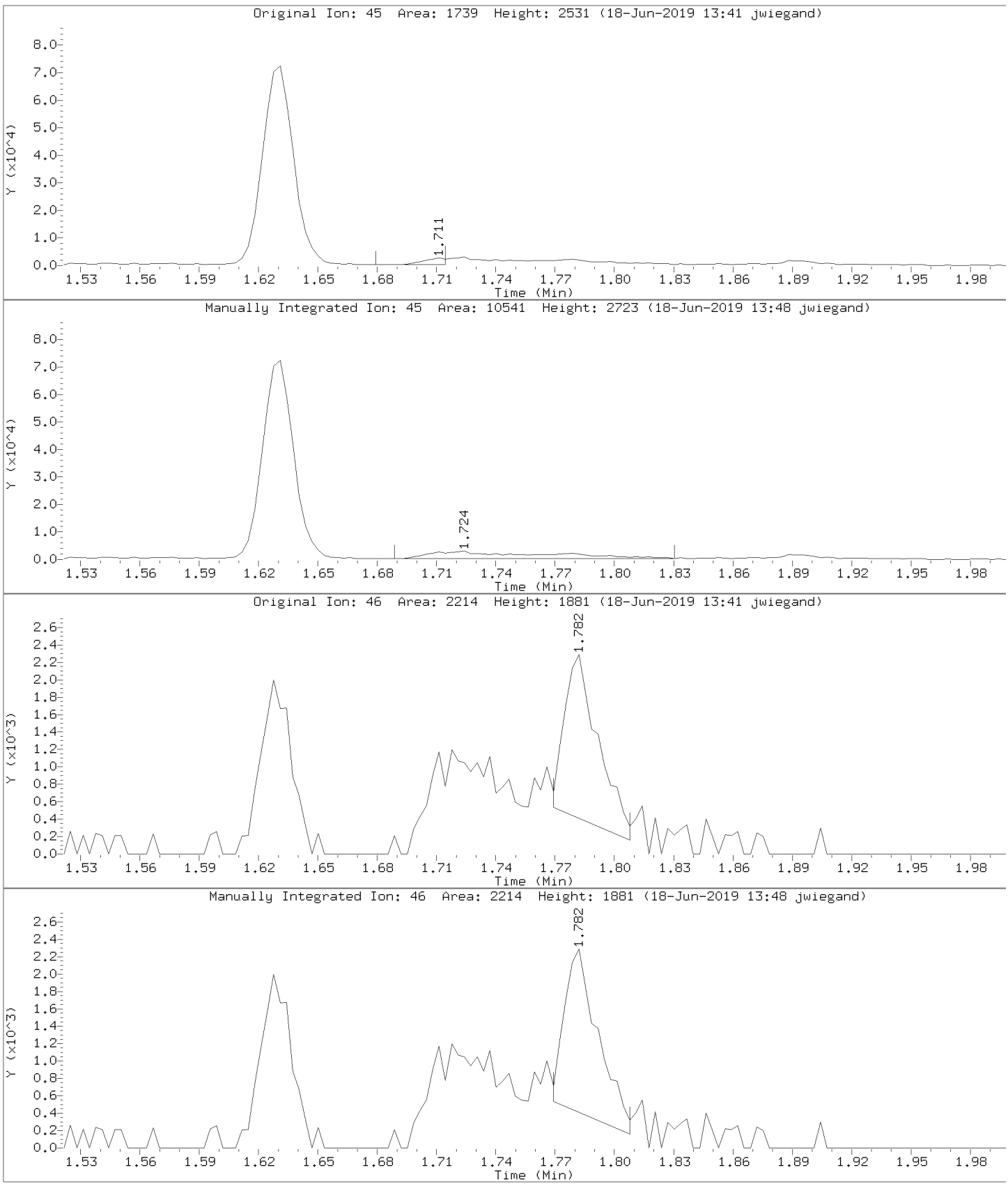
Injection Date: 18-JUN-2019 11:47
Instrument: 30mv5a.i
Lab Sample ID: CAL6

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 18-JUN-2019 12:13
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal7, 91191:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 12:13 Cal File: 50618017.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.000	1.000	(0.234)	213174	200.000	198(QM)	LT
2 Chloromethane	50	1.132	1.142	(0.265)	157596	200.000	197(AQM)	LT
3 Vinyl chloride	62	1.145	1.146	(0.268)	252136	200.000	199(QM)	LT
4 Bromomethane	94	1.319	1.326	(0.308)	190172	200.000	205(QM)	LT
5 Chloroethane	64	1.386	1.380	(0.324)	179327	200.000	211(AQM)	LT
6 Trichlorofluoromethane	101	1.460	1.467	(0.342)	386080	200.000	201(QM)	
7 Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	211935	200.000	198(Q)	
8 Ethanol	45	1.714	1.773	(0.255)	2740	2000.00	(aQ)	
9 1,1-Dichloroethene	61	1.753	1.760	(0.410)	300997	200.000	206(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	1.772	1.776	(0.414)	155647	200.000	193(Q)	
11 Carbon disulfide	76	1.779	1.785	(0.416)	555406	200.000	209(Q)	
12 Iodomethane	142	1.849	1.856	(0.432)	113692	200.000	198(QM)	LT
13 Acrolein	56	1.965	1.969	(0.460)	26618	200.000	216(Q)	
14 Allyl chloride	41	2.055	2.056	(0.481)	1162036	1000.00	1100(Q)	
15 Methylene Chloride	49	2.126	2.133	(0.497)	223418	200.000	214(Q)	
16 Acetone	43	2.164	2.165	(0.506)	59201	200.000	213(Q)	
17 trans-1,2-Dichloroethene	61	2.242	2.242	(0.524)	325725	200.000	207(Q)	
18 Methyl acetate	74	2.245	2.255	(0.525)	44394	200.000	205(Q)	
19 n-Hexane	86	2.293	2.297	(0.536)	51968	200.000	191(Q)	
20 Methyl-tert-butyl ether	73	2.315	2.313	(0.541)	769856	200.000	205(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.386	2.387	(0.558)	156753	1000.00	1040(AQ)	
	22 Acetonitrile	41	2.515	2.522	(0.588)	80951	1000.00	1020(AQ)	
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	707313	200.000	203(Q)	
	24 Chloroprene	53	2.708	2.705	(0.633)	292721	200.000	199(Q)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	397236	200.000	216(Q)	
	26 Acrylonitrile	53	2.772	2.785	(0.648)	73324	200.000	206(AQ)	
	27 Ethyl-tert-butyl ether	59	2.942	2.940	(0.688)	750385	200.000	200(Q)	
	28 Vinyl acetate	43	2.955	2.965	(0.691)	627380	200.000	203(Q)	
	29 cis-1,2-Dichloroethene	61	3.241	3.248	(0.758)	333116	200.000	215(Q)	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	390889	200.000	203(Q)	
	31 Cyclohexane	56	3.450	3.451	(0.807)	341969	200.000	201(Q)	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	151793	200.000	209(Q)	
	33 Chloroform	83	3.553	3.554	(0.831)	486562	200.000	209(Q)	
	34 Carbon tetrachloride	117	3.676	3.679	(0.859)	360787	200.000	196(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	266273	200.000	205(Q)	
	36 Tetrahydrofuran	42	3.698	3.711	(0.865)	96888	200.000	206(Q)	
$	37 Dibromofluoromethane (S)	111	3.727	3.731	(0.871)	36657	30.0000	32.1(Q)	
	38 1,1,1-Trichloroethane	97	3.737	3.734	(0.874)	415420	200.000	198(Q)	
	39 2-Butanone (MEK)	43	3.830	3.866	(0.895)	123860	200.000	208(Q)	
	40 1,1-Dichloropropene	75	3.840	3.846	(0.898)	354361	200.000	198(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	1041376	200.000	199(Q)	
	42 Propionitrile	54	4.042	4.049	(0.945)	28249	200.000	206(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	157541	200.000	205(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	812938	200.000	203(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	42213	30.0000	31.3(Q)	
	46 Isobutanol	43	4.187	4.099	(0.979)	54766	1000.00	1000(Q)	
	47 1,2-Dichloroethane	62	4.151	4.152	(0.971)	388023	200.000	206(Q)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	141295	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	392395	200.000	193(Q)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	277699	200.000	187(Q)	
	51 Dibromomethane	174	4.592	4.599	(1.074)	188803	200.000	204(Q)	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	258300	200.000	199(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	369753	200.000	202(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	206629	200.000	205(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.798	4.808	(1.122)	21552	2000.00	2030(AQM)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	110521	200.000	208(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	451841	200.000	202(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	130728	30.0000	29.5(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	1077329	200.000	191(Q)	
	60 2-Nitropropane	43	5.216	5.216	(1.219)	462863	1000.00	1030(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	278821	200.000	210(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	275425	200.000	187(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	428413	200.000	198(Q)	
	64 Ethyl methacrylate	41	5.364	5.367	(0.931)	237651	200.000	203(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.932)	251305	200.000	197(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.946)	298613	200.000	197(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.953)	409841	200.000	201(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.550	5.554	(0.963)	257861	200.000	200(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	197856	200.000	206(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.003)	375127	200.000	195(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	101303	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.002)	727646	200.000	194(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	277750	200.000	200(Q)	
	74 m&p-Xylene	106	5.836	5.837	(1.013)	907529	400.000	393(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.044)	449383	200.000	199(Q)	
	76 Styrene	104	6.036	6.036	(1.047)	761152	200.000	201(Q)	
	77 Bromoform	173	6.055	6.059	(0.902)	216933	200.000	196(Q)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	1065437	200.000	195(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	38290	30.0000	29.3(Q)	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	1252985	200.000	195(Q)	
	81 Bromobenzene	77	6.306	6.309	(0.940)	496199	200.000	196(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.335	6.335	(0.944)	331743	200.000	205(Q)	
	83 1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	846307	200.000	197(Q)	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	270160	200.000	196(Q)	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	97334	200.000	203(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	79979	200.000	204(Q)	
	87 Cyclohexanone	55	6.418	6.422	(0.956)	75944	1000.00	974(Q)	
	88 4-Chlorotoluene	126	6.441	6.444	(0.960)	275690	200.000	198(Q)	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	713966	200.000	198(Q)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	839232	200.000	199(Q)	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	1018871	200.000	198(Q)	
	92 p-Isopropyltoluene	119	6.634	6.634	(0.989)	869428	200.000	197(Q)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	496450	200.000	199(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	43191	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	486946	200.000	198(Q)	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	748405	200.000	197(Q)	
	97 1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	459213	200.000	200(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	43647	30.0000	30.2(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	59766	200.000	201(Q)	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	261539	200.000	196(Q)	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	123435	200.000	194(Q)	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	227980	200.000	199(Q)	
	102 Naphthalene	128	7.618	7.618	(1.135)	635649	200.000	204(Q)	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	210312	200.000	199(Q)	
	104 2-Methylnaphthalene	142	8.045	8.048	(1.199)	286607	200.000	190(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
    :

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618017.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	141295	-1.66
71 Chlorobenzene-d5	102704	51352	205408	101303	-1.36
94 1,4-Dichlorobenze	44519	22260	89038	43191	-2.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.01
71 Chlorobenzene-d5	5.76	5.26	6.26	5.76	0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	198	
74-87-3	Chloromethane	197	E
75-01-4	Vinyl chloride	199	
74-83-9	Bromomethane	205	
75-00-3	Chloroethane	211	E
75-69-4	Trichlorofluoromethane	201	
60-29-7	Diethyl ether (Ethyl ether)	198	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	206	
76-13-1	1,1,2-Trichlorotrifluoroetha	193	
75-15-0	Carbon disulfide	209	
74-88-4	Iodomethane	198	
107-02-8	Acrolein	216	
107-05-1	Allyl chloride	1100	
75-09-2	Methylene Chloride	214	
67-64-1	Acetone	213	
156-60-5	trans-1,2-Dichloroethene	207	
79-20-9	Methyl acetate	205	
110-54-3	n-Hexane	191	
1634-04-4	Methyl-tert-butyl ether	205	
75-65-0	tert-Butyl Alcohol	1040	E
75-05-8	Acetonitrile	1020	E
108-20-3	Diisopropyl ether	203	
126-99-8	Chloroprene	199	
75-34-3	1,1-Dichloroethane	216	
107-13-1	Acrylonitrile	206	E
637-92-3	Ethyl-tert-butyl ether	200	
108-05-4	Vinyl acetate	203	
156-59-2	cis-1,2-Dichloroethene	215	
594-20-7	2,2-Dichloropropane	203	
110-82-7	Cyclohexane	201	
74-97-5	Bromochloromethane	209	
67-66-3	Chloroform	209	
56-23-5	Carbon tetrachloride	196	
141-78-6	Ethyl acetate	205	
109-99-9	Tetrahydrofuran	206	
71-55-6	1,1,1-Trichloroethane	198	
78-93-3	2-Butanone (MEK)	208	
563-58-6	1,1-Dichloropropene	198	
71-43-2	Benzene	199	
107-12-0	Propionitrile	206	
126-98-7	Methacrylonitrile	205	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	203	
78-83-1	Isobutanol	1000	
107-06-2	1,2-Dichloroethane	206	
108-87-2	Methylcyclohexane	193	
79-01-6	Trichloroethene	187	
74-95-3	Dibromomethane	204	
78-87-5	1,2-Dichloropropane	199	
75-27-4	Bromodichloromethane	202	
80-62-6	Methyl methacrylate	205	
123-91-1	1,4-Dioxane (p-Dioxane)	2030	E
110-75-8	2-Chloroethylvinyl ether	208	
10061-01-5	cis-1,3-Dichloropropene	202	
108-88-3	Toluene	191	
79-46-9	2-Nitropropane	1030	
108-10-1	4-Methyl-2-pentanone (MIBK)	210	
127-18-4	Tetrachloroethene	187	
10061-02-6	trans-1,3-Dichloropropene	198	
97-63-2	Ethyl methacrylate	203	
79-00-5	1,1,2-Trichloroethane	197	
124-48-1	Dibromochloromethane	197	
142-28-9	1,3-Dichloropropane	201	
106-93-4	1,2-Dibromoethane (EDB)	200	
591-78-6	2-Hexanone	206	
100-41-4	Ethylbenzene	195	
108-90-7	Chlorobenzene	194	
630-20-6	1,1,1,2-Tetrachloroethane	200	
7816-60-0	m&p-Xylene	393	
95-47-6	o-Xylene	199	
100-42-5	Styrene	201	
75-25-2	Bromoform	196	
98-82-8	Isopropylbenzene (Cumene)	195	
103-65-1	n-Propylbenzene	195	
108-86-1	Bromobenzene	196	
79-34-5	1,1,2,2-Tetrachloroethane	205	
108-67-8	1,3,5-Trimethylbenzene	197	
95-49-8	2-Chlorotoluene	196	
96-18-4	1,2,3-Trichloropropane	203	
110-57-6	trans-1,4-Dichloro-2-butene	204	
108-94-1	Cyclohexanone	974	
106-43-4	4-Chlorotoluene	198	
98-06-6	tert-Butylbenzene	198	
95-63-6	1,2,4-Trimethylbenzene	199	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Report Date: 26-Jun-2019 14:07

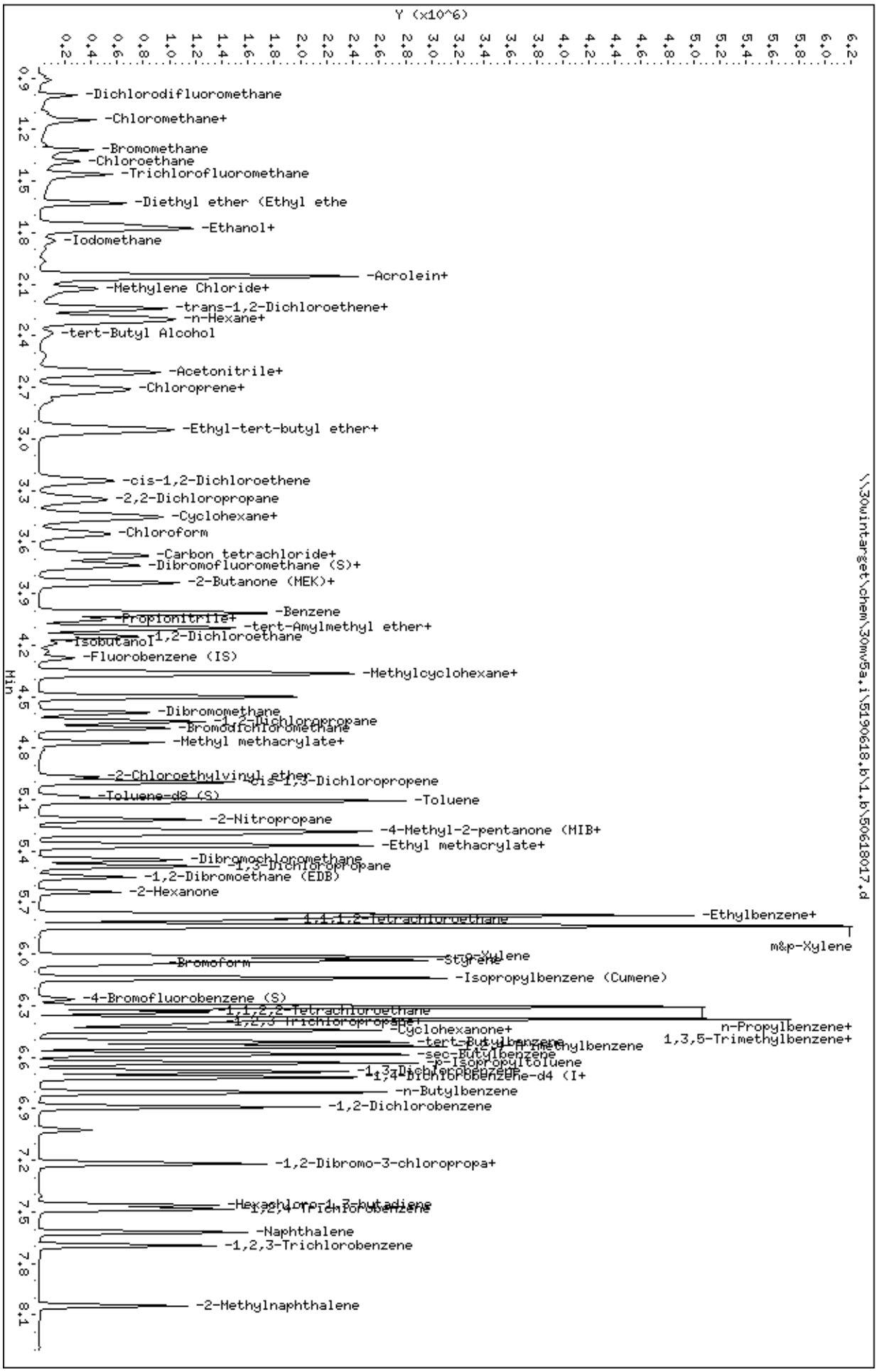
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

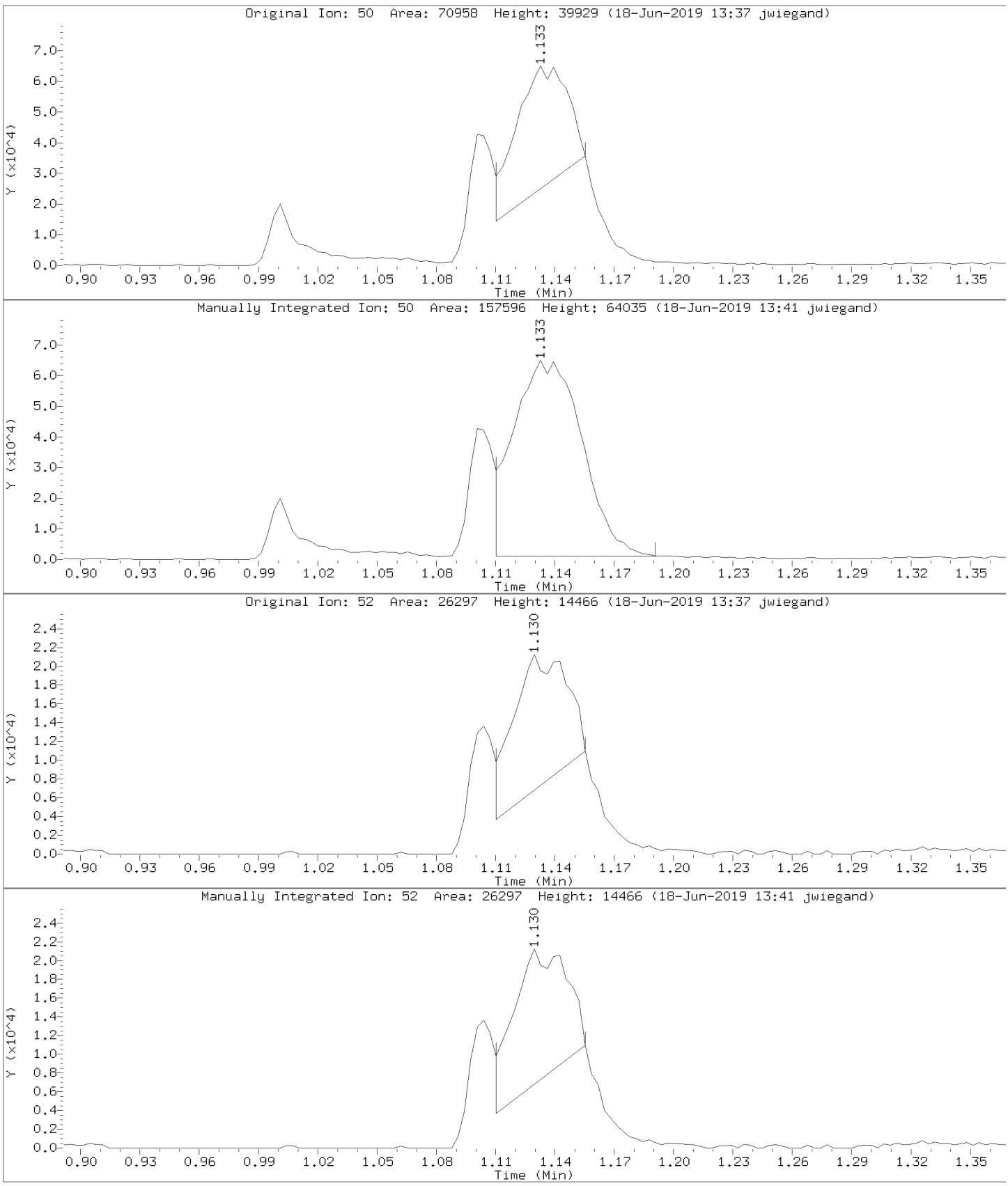
Client SDG: 30MV5A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	198	
99-87-6	p-Isopropyltoluene	197	
541-73-1	1,3-Dichlorobenzene	199	
106-46-7	1,4-Dichlorobenzene	198	
104-51-8	n-Butylbenzene	197	
95-50-1	1,2-Dichlorobenzene	200	
96-12-8	1,2-Dibromo-3-chloropropane	201	
108-70-3	1,3,5-Trichlorobenzene	196	
87-68-3	Hexachloro-1,3-butadiene	194	
120-82-1	1,2,4-Trichlorobenzene	199	
91-20-3	Naphthalene	204	
87-61-6	1,2,3-Trichlorobenzene	199	
91-57-6	2-Methylnaphthalene	190	
1868-53-7	Dibromofluoromethane (S)	32.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.3	
2037-26-5	Toluene-d8 (S)	29.5	
460-00-4	4-Bromofluorobenzene (S)	29.3	
----------	1,2-Dichlorobenzene-d4 (S)	30.2	


Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Date : 18-JUN-2019 12:13
Client ID: CAL7
Sample Info: CAL7, 91191:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618017.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol
1,2-Dichloroethane
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-Bromoform
-Styrene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane
-Cyclohexanone+
n-Propylbenzene+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618017.d
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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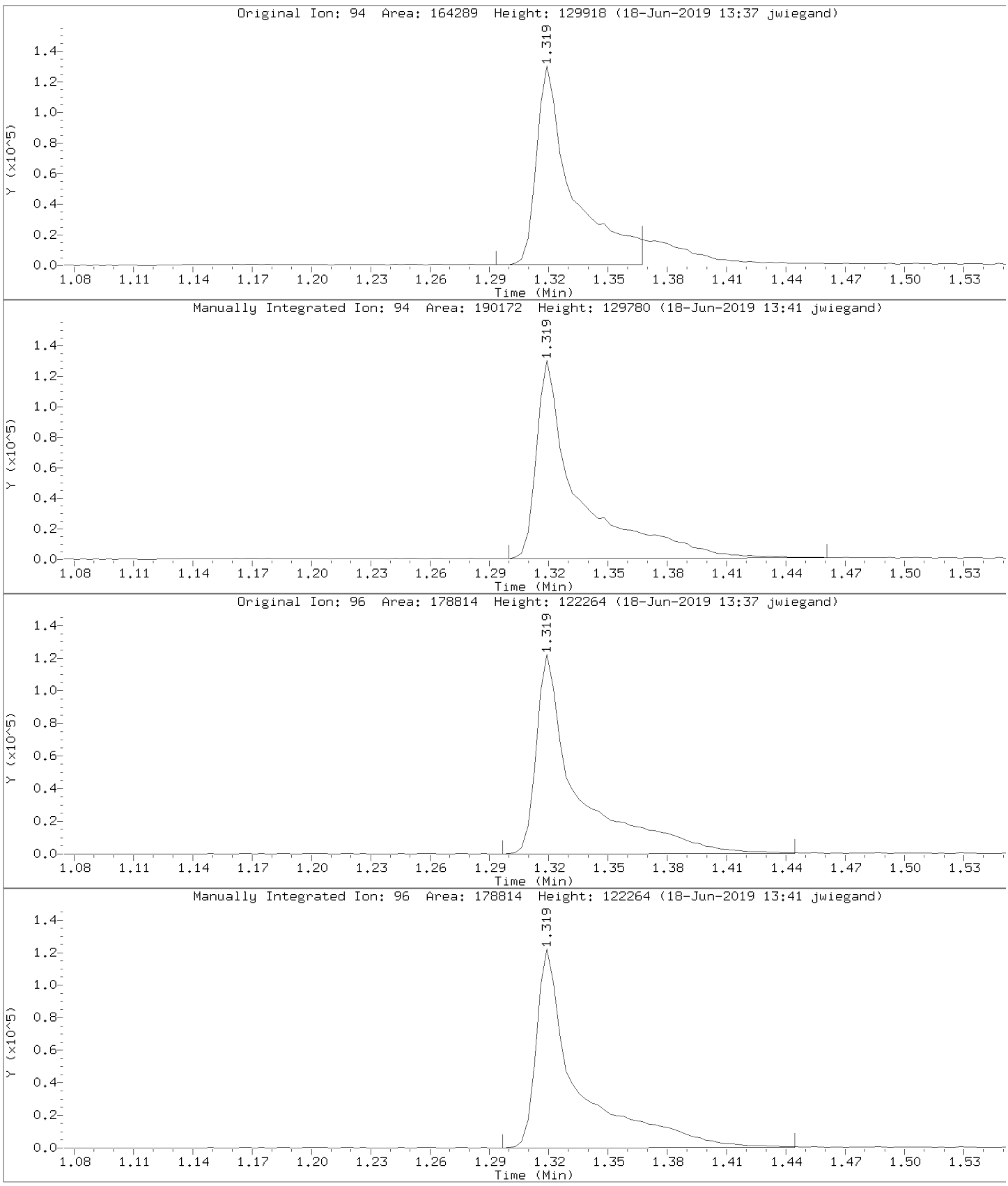
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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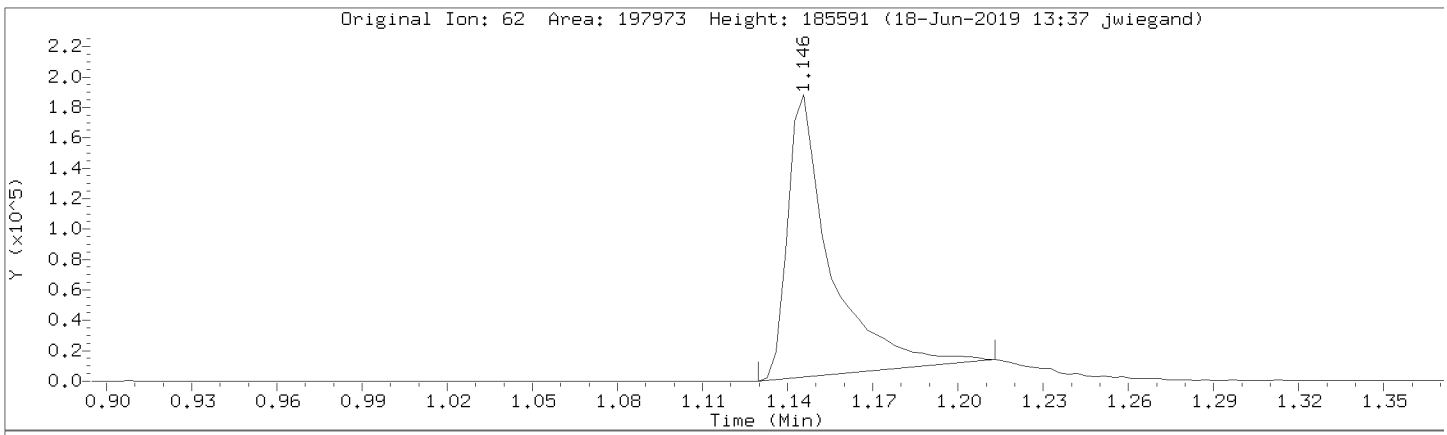
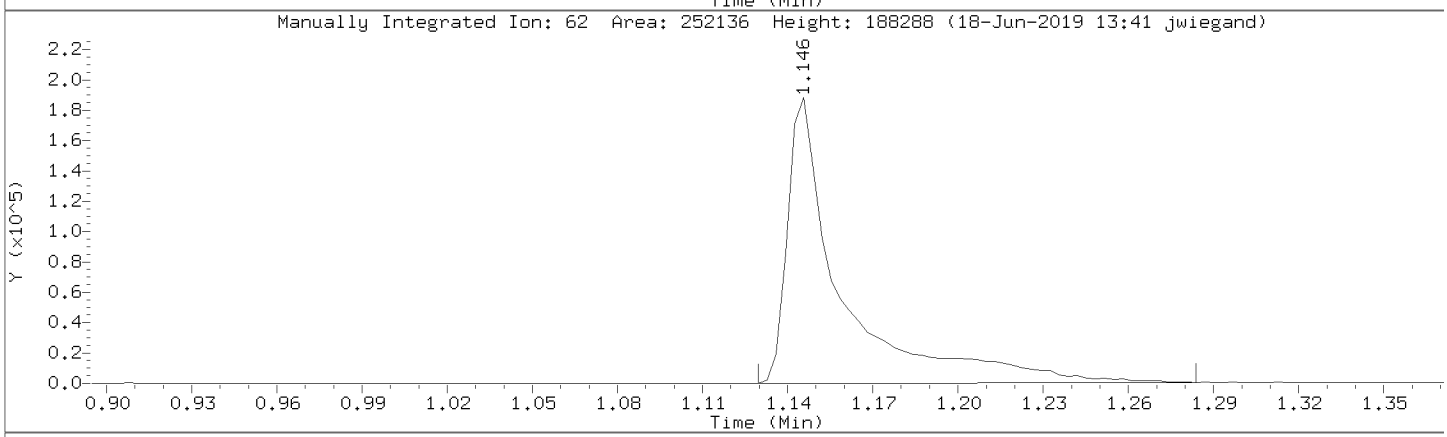
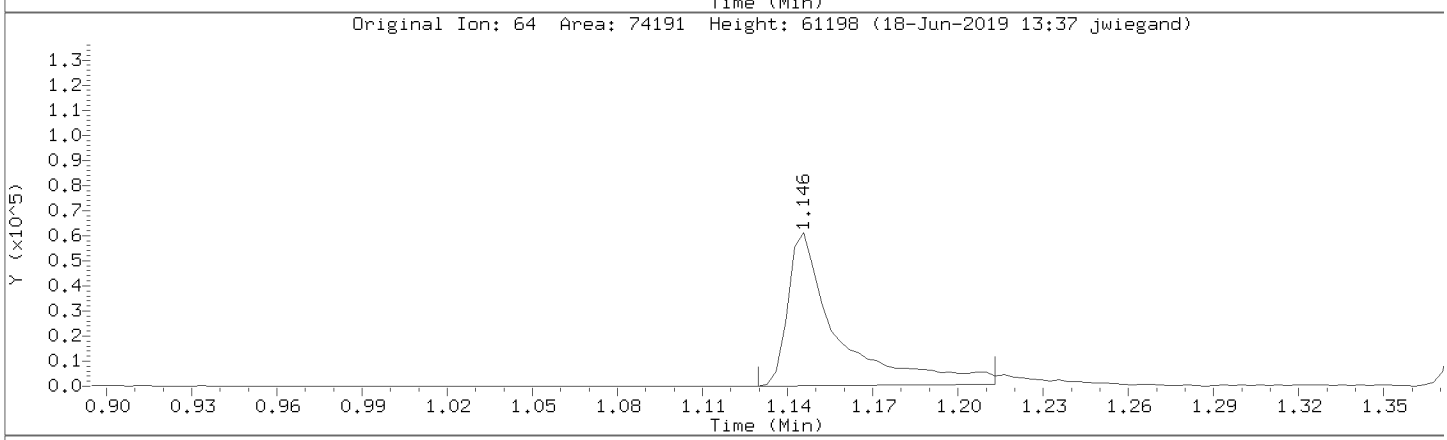
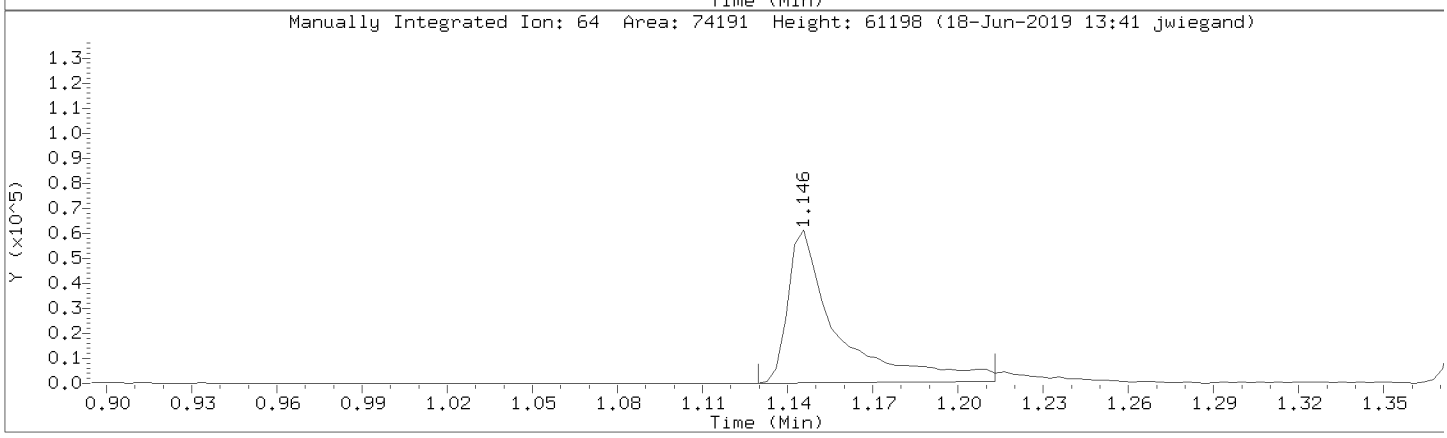
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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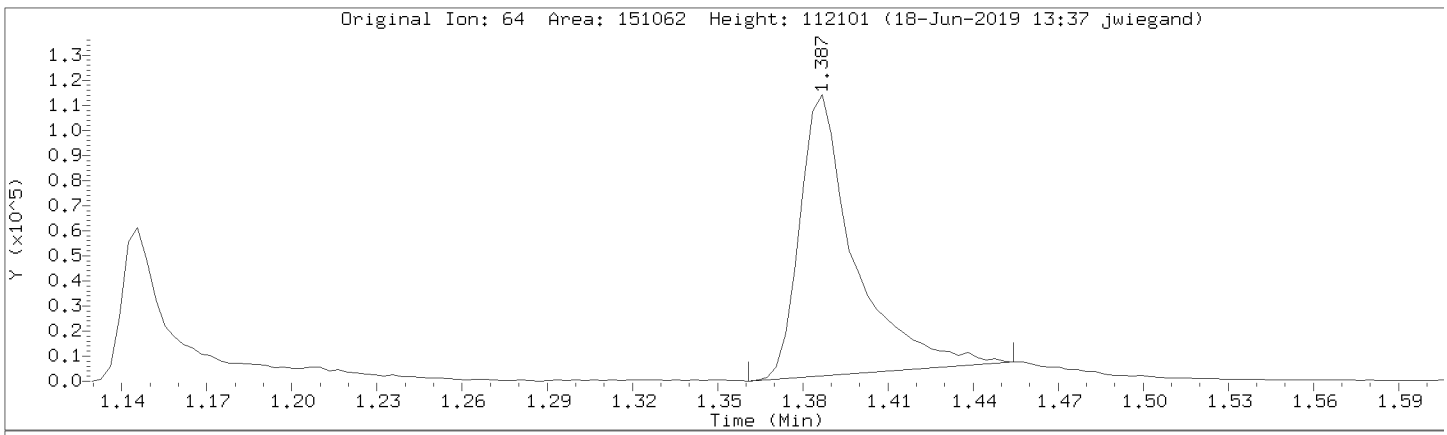
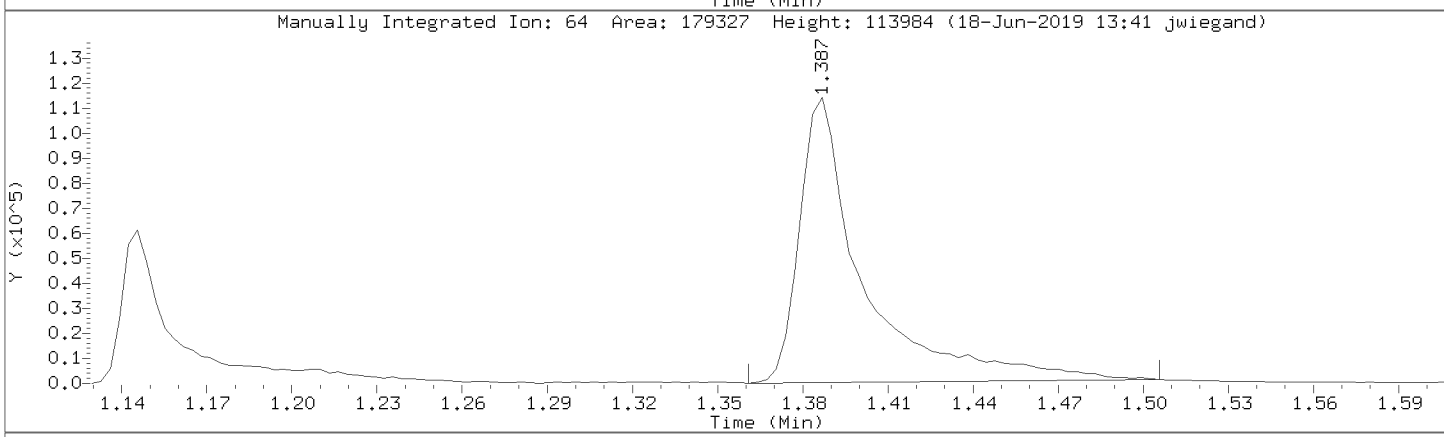
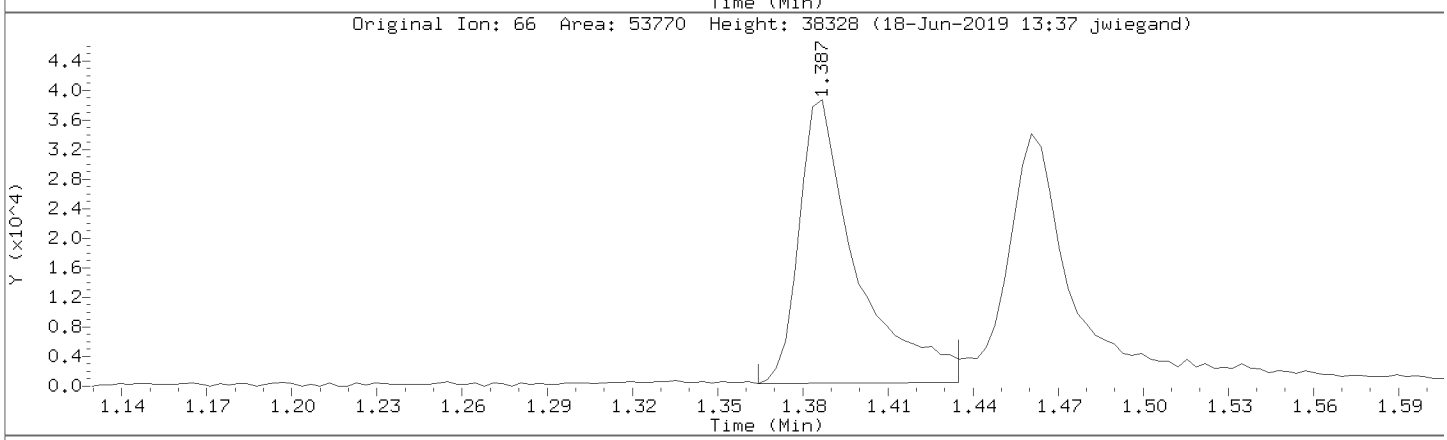
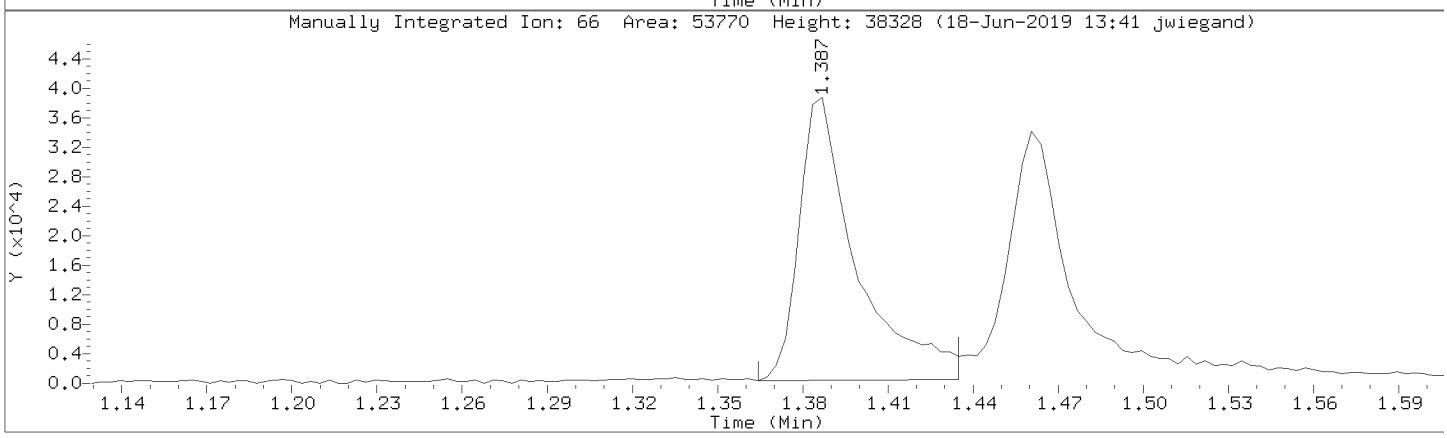
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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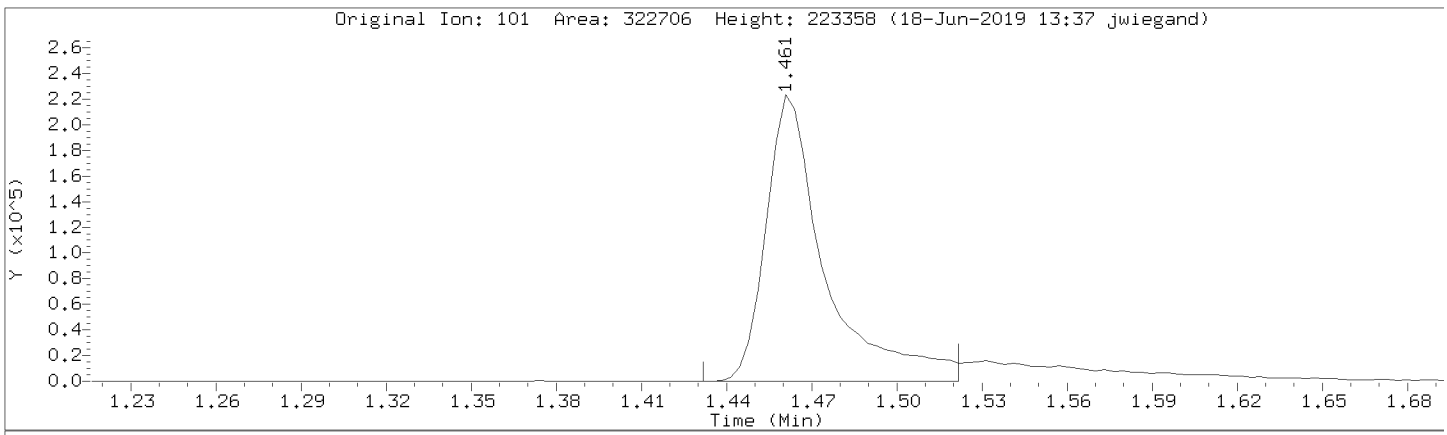
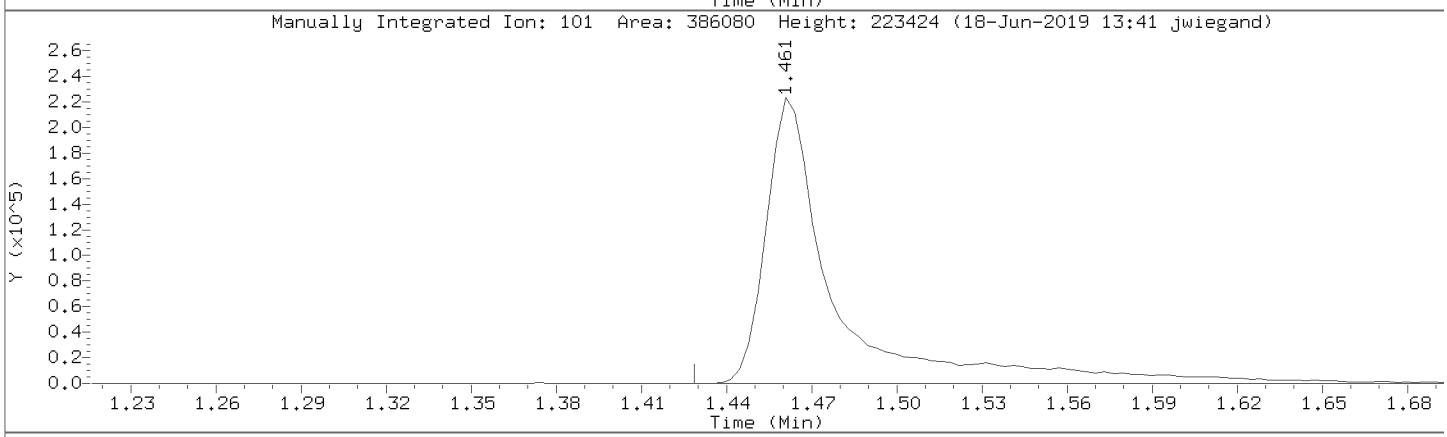
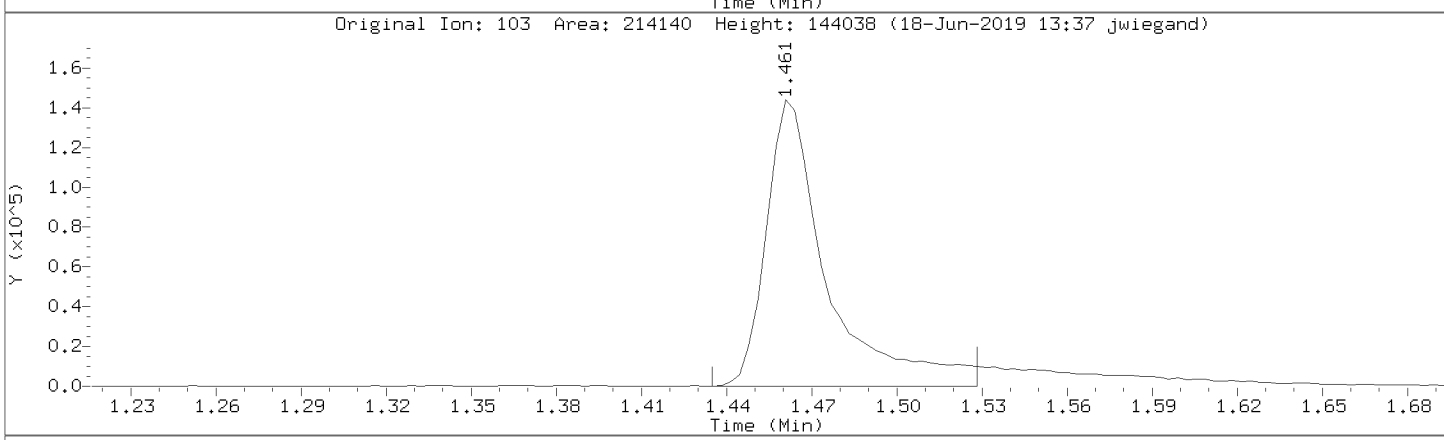
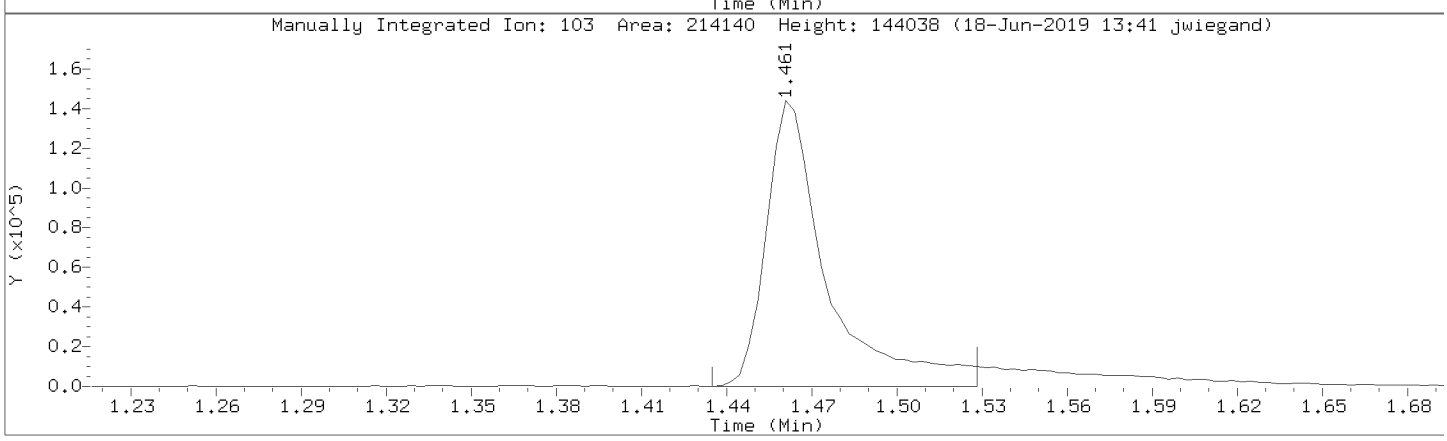
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Trichlorofluoromethane Review Code:
CAS Number: 75-69-4



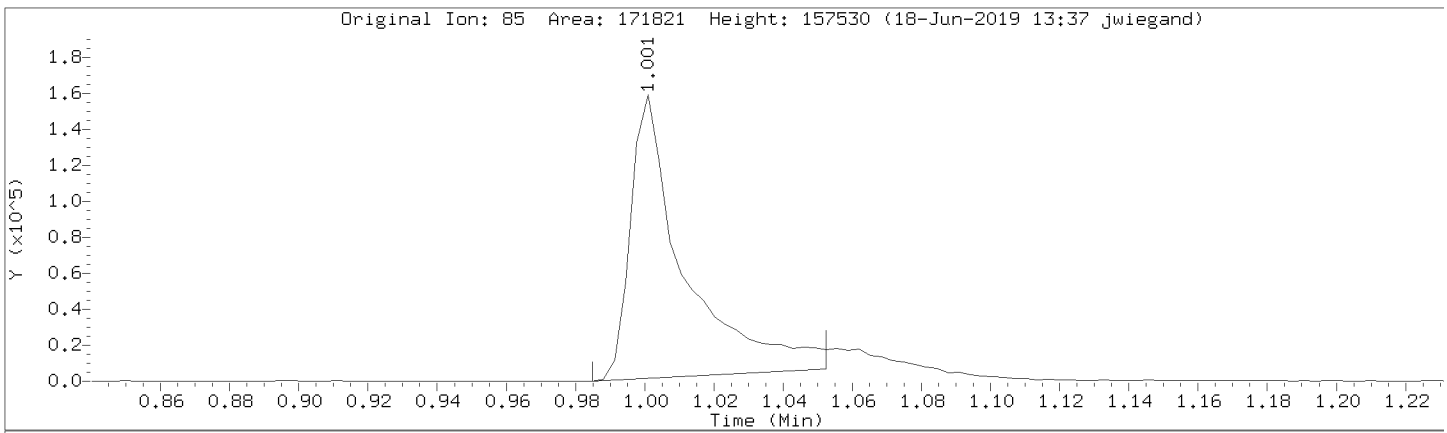


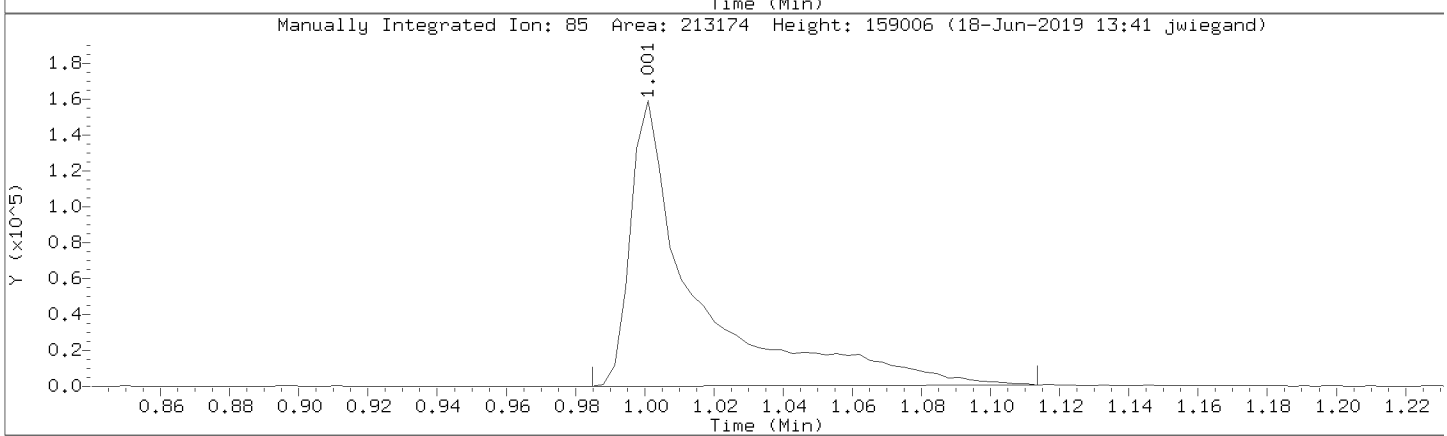


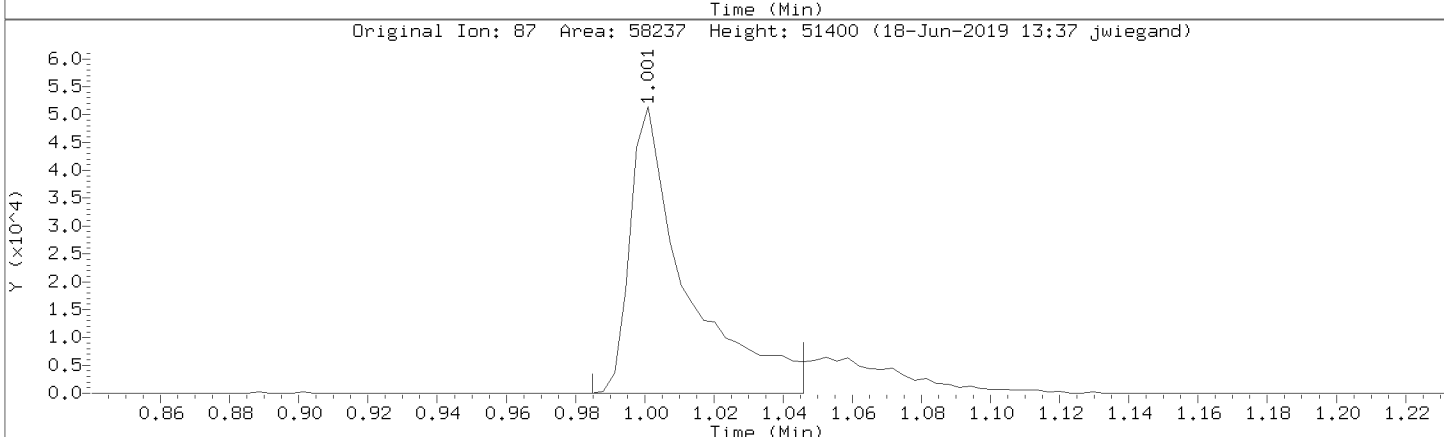


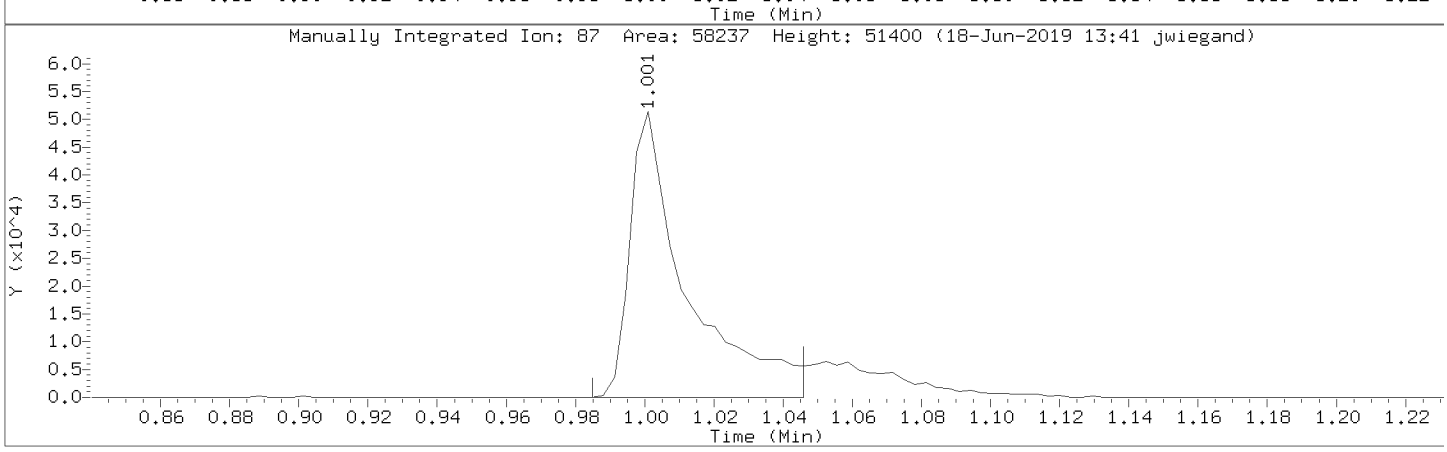
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618017.d
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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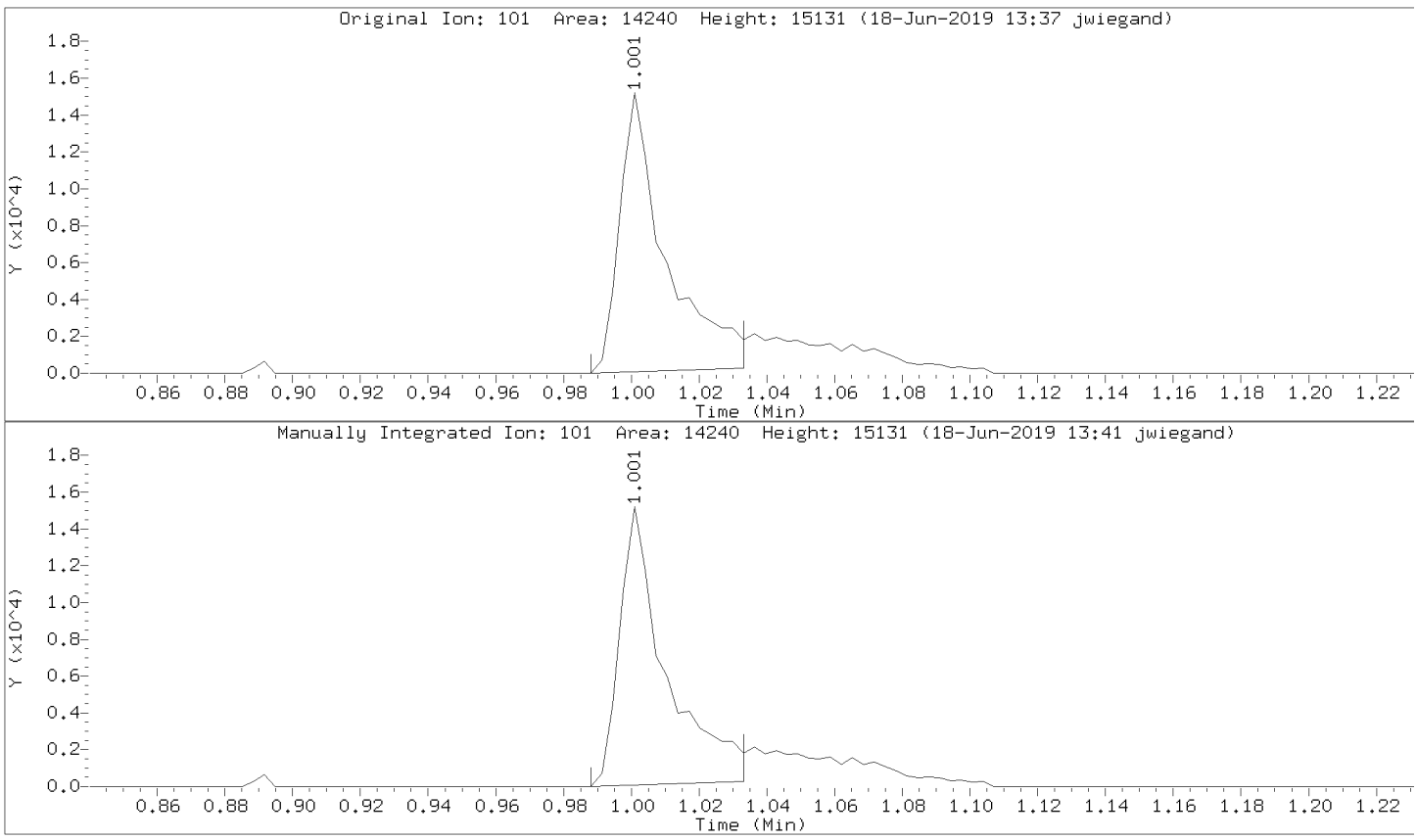
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7



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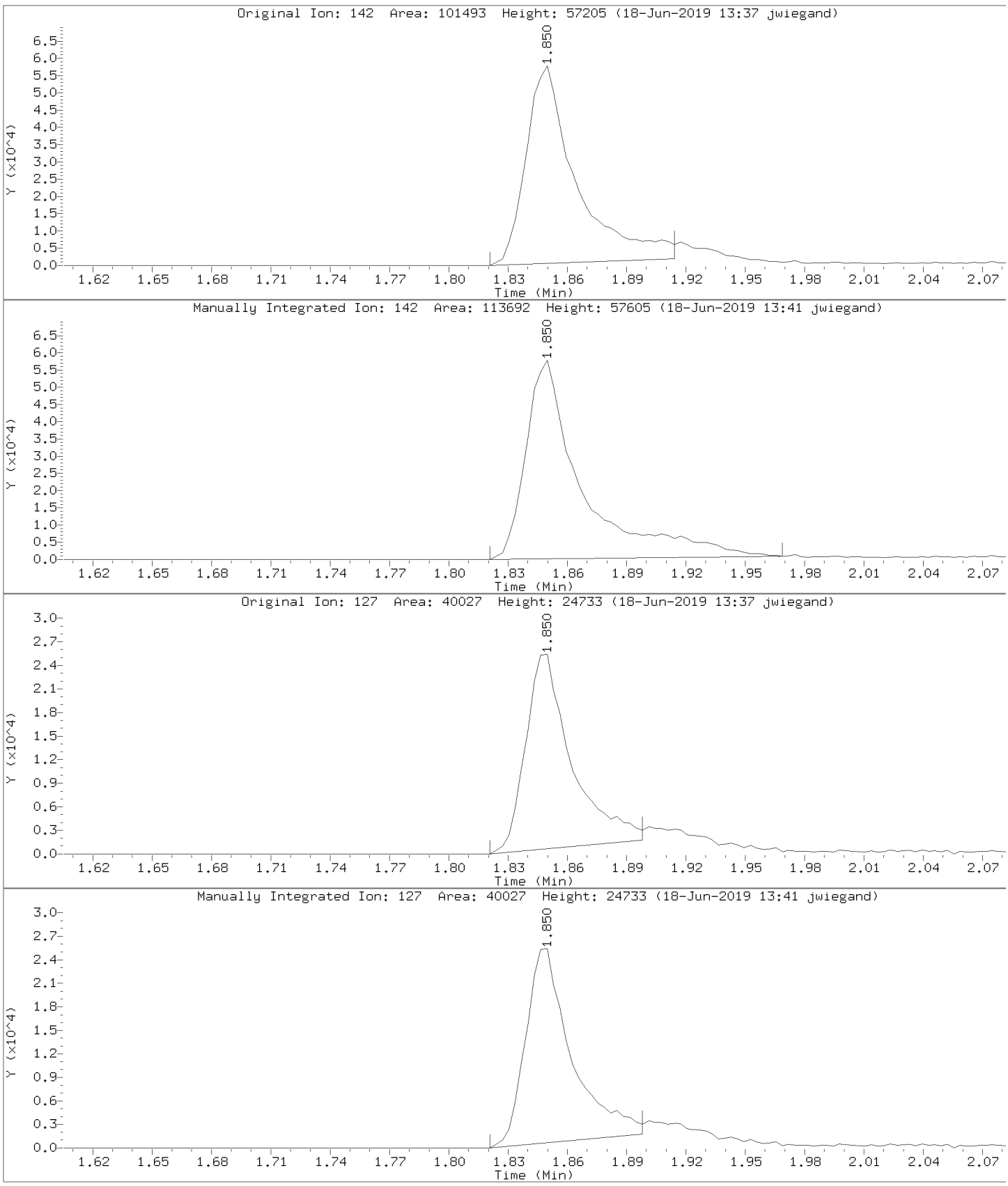
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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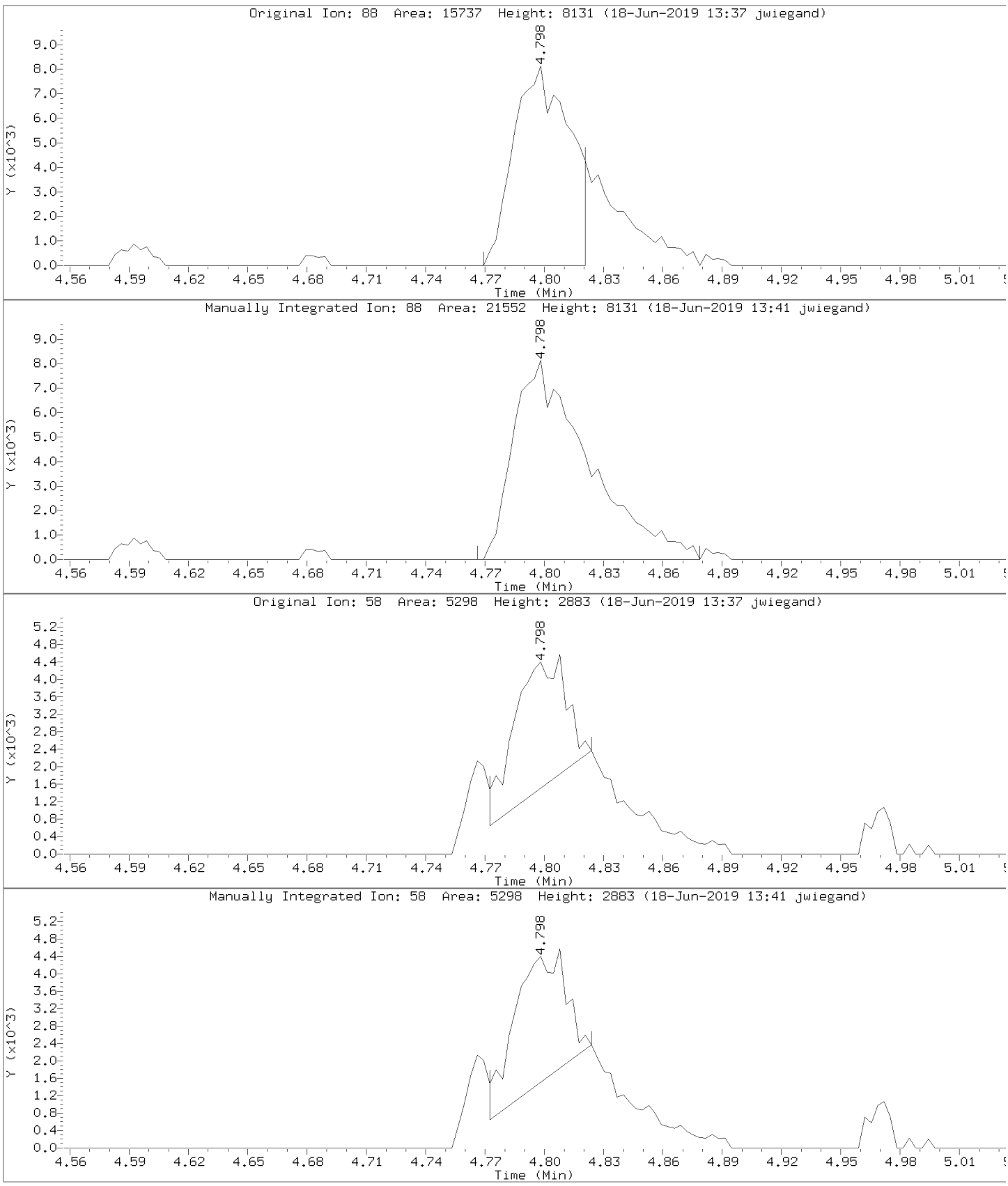
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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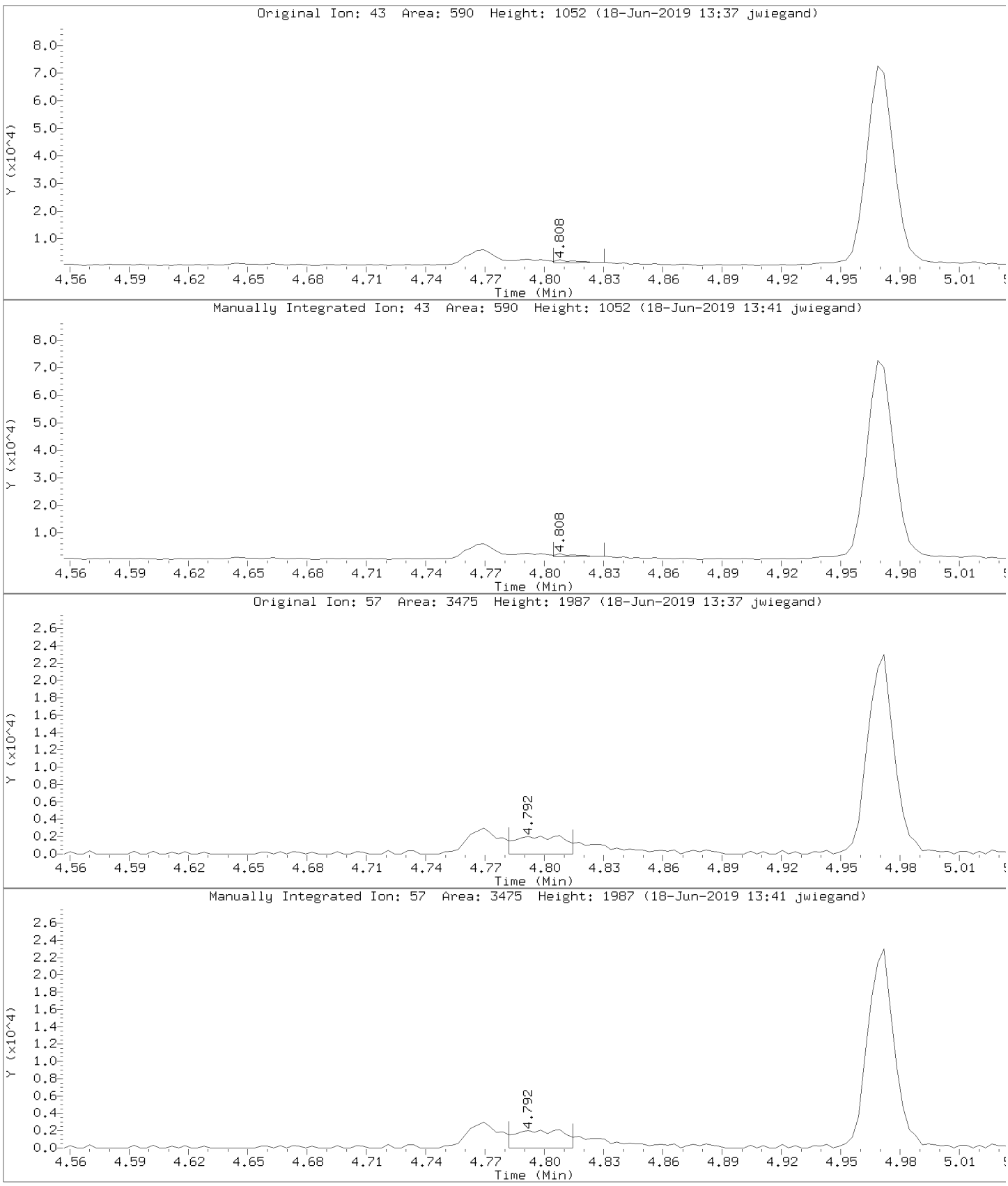
Injection Date: 18-JUN-2019 12:13
Instrument: 30mv5a.i
Lab Sample ID: CAL7



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 18-JUN-2019 12:40
Operator : JEW Inst ID: 30mv5a.i
Smp Info : cal8, 91192:1
Misc Info : 44968,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 19-Jun-2019 08:25 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 12:40 Cal File: 50618019.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	480644	400.000	400(AQM)	LT
2	Chloromethane	50	1.145	1.142	(0.268)	359944	400.000	400(AQ)	
3	Vinyl chloride	62	1.145	1.146	(0.268)	562991	400.000	400(QM)	LT
4	Bromomethane	94	1.319	1.326	(0.308)	399705	400.000	400(AQM)	LT
5	Chloroethane	64	1.383	1.380	(0.323)	355871	400.000	400(AQ)	
6	Trichlorofluoromethane	101	1.460	1.467	(0.341)	842968	400.000	400(QM)	LT
7	Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	475716	400.000	400(Q)	
8	Ethanol	45	1.717	1.773	(0.256)	15260	4000.00	(aQ)	
9	1,1-Dichloroethene	61	1.753	1.760	(0.410)	629086	400.000	400(AQ)	
10	1,1,2-Trichlorotrifluoroethane	151	1.772	1.776	(0.414)	367741	400.000	400(Q)	
11	Carbon disulfide	76	1.778	1.785	(0.416)	1118140	400.000	400(AQ)	
12	Iodomethane	142	1.849	1.856	(0.432)	255823	400.000	400(QM)	LT
13	Acrolein	56	1.962	1.969	(0.459)	49907	400.000	400(Q)	
14	Allyl chloride	41	2.052	2.056	(0.480)	2077476	2000.00	2000(AQ)	
15	Methylene Chloride	49	2.129	2.133	(0.498)	430148	400.000	400(Q)	
16	Acetone	43	2.164	2.165	(0.506)	114648	400.000	400(Q)	
17	trans-1,2-Dichloroethene	61	2.238	2.242	(0.523)	668070	400.000	400(AQ)	
18	Methyl acetate	74	2.245	2.255	(0.525)	93037	400.000	400(Q)	
19	n-Hexane	86	2.293	2.297	(0.536)	125518	400.000	400(AQ)	
20	Methyl-tert-butyl ether	73	2.312	2.313	(0.541)	1621097	400.000	400(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.392	2.387	(0.559)	318528	2000.00	2000(AQ)	
	22 Acetonitrile	41	2.518	2.522	(0.589)	170066	2000.00	2000(AQ)	
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	1512857	400.000	400(Q)	
	24 Chloroprene	53	2.704	2.705	(0.632)	652324	400.000	400(Q)	
	25 1,1-Dichloroethane	63	2.727	2.728	(0.638)	746991	400.000	400(AQ)	
	26 Acrylonitrile	53	2.772	2.785	(0.648)	153063	400.000	400(AQ)	
	27 Ethyl-tert-butyl ether	59	2.942	2.940	(0.688)	1658622	400.000	400(AQ)	
	28 Vinyl acetate	43	2.955	2.965	(0.691)	1344383	400.000	400(Q)	
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	634794	400.000	400(AQ)	
	30 2,2-Dichloropropane	77	3.351	3.351	(0.783)	839510	400.000	400(Q)	
	31 Cyclohexane	56	3.450	3.451	(0.807)	750792	400.000	400(Q)	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	306086	400.000	400(Q)	
	33 Chloroform	83	3.556	3.554	(0.832)	983224	400.000	400(AQ)	
	34 Carbon tetrachloride	117	3.675	3.679	(0.859)	833499	400.000	400(Q)	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	560049	400.000	400(AQ)	
	36 Tetrahydrofuran	42	3.698	3.711	(0.865)	200820	400.000	400(AQ)	
$	37 Dibromofluoromethane (S)	111	3.730	3.731	(0.872)	35090	30.0000	30.0(Q)	
	38 1,1,1-Trichloroethane	97	3.736	3.734	(0.874)	934724	400.000	400(Q)	
	39 2-Butanone (MEK)	43	3.833	3.866	(0.896)	251632	400.000	400(Q)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	801475	400.000	400(Q)	
	41 Benzene	78	4.016	4.019	(0.939)	2323354	400.000	400(Q)	
	42 Propionitrile	54	4.039	4.049	(0.944)	58885	400.000	400(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	330901	400.000	400(Q)	
	44 tert-Amylmethyl ether	73	4.100	4.107	(0.959)	1737299	400.000	400(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.109	4.110	(0.961)	42875	30.0000	30.0(Q)	
	46 Isobutanol	43	4.190	4.099	(0.980)	119715	2000.00	2000(Q)	
	47 1,2-Dichloroethane	62	4.148	4.152	(0.970)	806562	400.000	400(AQ)	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	156111	30.0000	(Q)	
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	926795	400.000	400(AQ)	
	50 Trichloroethene	95	4.370	4.374	(0.758)	645249	400.000	400(Q)	
	51 Dibromomethane	174	4.595	4.599	(1.074)	400046	400.000	400(AQ)	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	575052	400.000	400(Q)	
	53 Bromodichloromethane	83	4.685	4.689	(1.095)	800683	400.000	400(Q)	
	54 Methyl methacrylate	69	4.769	4.776	(1.115)	435514	400.000	400(AQ)	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	46278	4000.00	4000(AQM)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	226254	400.000	400(Q)	
	57 cis-1,3-Dichloropropene	75	4.997	5.001	(1.168)	981031	400.000	400(Q)	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	138130	30.0000	30.0(Q)	
	59 Toluene	91	5.106	5.110	(0.886)	2401819	400.000	400(Q)	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	955264	2000.00	2000(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.284	(1.235)	558675	400.000	400(Q)	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	642866	400.000	400(Q)	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	892273	400.000	400(Q)	
	64 Ethyl methacrylate	41	5.363	5.367	(0.930)	472398	400.000	400(Q)	
	65 1,1,2-Trichloroethane	97	5.370	5.371	(0.931)	528654	400.000	400(Q)	
	66 Dibromochloromethane	129	5.450	5.451	(0.945)	627696	400.000	400(Q)	
	67 1,3-Dichloropropane	76	5.489	5.493	(0.952)	831858	400.000	400(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.554	(0.963)	529782	400.000	400(Q)	
	69 2-Hexanone	43	5.637	5.644	(0.978)	382214	400.000	400(Q)	
	70 Ethylbenzene	106	5.778	5.779	(1.002)	806132	400.000	400(AQ)	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	103695	30.0000	(Q)	
	72 Chlorobenzene	112	5.772	5.769	(1.001)	1579118	400.000	400(AQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	565348	400.000	400(AQ)	
	74 m&p-Xylene	106	5.836	5.837	(1.012)	1920245	800.000	800(Q)	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.013	6.017	(1.043)	927019	400.000	400(Q)	
	76 Styrene	104	6.035	6.036	(1.047)	1547210	400.000	400(AQ)	
	77 Bromoform	173	6.055	6.059	(0.902)	435741	400.000	400(AQ)	
	78 Isopropylbenzene (Cumene)	105	6.138	6.139	(0.915)	2162909	400.000	400(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	38578	30.0000	30.0(Q)	
	80 n-Propylbenzene	91	6.306	6.306	(0.940)	2544921	400.000	400(Q)	
	81 Bromobenzene	77	6.306	6.309	(0.940)	990909	400.000	400(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	609331	400.000	400(Q)	
	83 1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	1680942	400.000	400(AQ)	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	544549	400.000	400(Q)	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	181785	400.000	400(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	148832	400.000	400(AQ)	
	87 Cyclohexanone	55	6.421	6.422	(0.957)	154202	2000.00	2000(AQ)	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	543421	400.000	400(AQ)	
	89 tert-Butylbenzene	119	6.511	6.512	(0.970)	1407229	400.000	400(Q)	
	90 1,2,4-Trimethylbenzene	105	6.537	6.538	(0.974)	1629960	400.000	400(Q)	
	91 sec-Butylbenzene	105	6.582	6.583	(0.981)	2010034	400.000	400(AQ)	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	1727306	400.000	400(AQ)	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	964467	400.000	400(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	41633	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.717	6.715	(1.001)	953829	400.000	400(Q)	
	96 n-Butylbenzene	91	6.804	6.805	(1.014)	1487512	400.000	400(Q)	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	885990	400.000	400(AQ)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	41632	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.213	(1.075)	114027	400.000	400(Q)	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	523013	400.000	400(Q)	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	252605	400.000	400(Q)	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	444850	400.000	400(Q)	
	102 Naphthalene	128	7.617	7.618	(1.135)	1173337	400.000	400(AQ)	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	407892	400.000	400(AQ)	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	609976	400.000	400(AQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618019.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 13:33
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	143687	71844	287374	156111	8.65
71 Chlorobenzene-d5	102704	51352	205408	103695	0.96
94 1,4-Dichlorobenze	44519	22260	89038	41633	-6.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.76	5.26	6.26	5.77	0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	400	E
74-87-3	Chloromethane	400	E
75-01-4	Vinyl chloride	400	
74-83-9	Bromomethane	400	E
75-00-3	Chloroethane	400	E
75-69-4	Trichlorofluoromethane	400	
60-29-7	Diethyl ether (Ethyl ether)	400	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	400	E
76-13-1	1,1,2-Trichlorotrifluoroetha	400	
75-15-0	Carbon disulfide	400	E
74-88-4	Iodomethane	400	
107-02-8	Acrolein	400	
107-05-1	Allyl chloride	2000	E
75-09-2	Methylene Chloride	400	
67-64-1	Acetone	400	
156-60-5	trans-1,2-Dichloroethene	400	E
79-20-9	Methyl acetate	400	
110-54-3	n-Hexane	400	E
1634-04-4	Methyl-tert-butyl ether	400	
75-65-0	tert-Butyl Alcohol	2000	E
75-05-8	Acetonitrile	2000	E
108-20-3	Diisopropyl ether	400	
126-99-8	Chloroprene	400	
75-34-3	1,1-Dichloroethane	400	E
107-13-1	Acrylonitrile	400	E
637-92-3	Ethyl-tert-butyl ether	400	E
108-05-4	Vinyl acetate	400	
156-59-2	cis-1,2-Dichloroethene	400	E
594-20-7	2,2-Dichloropropane	400	
110-82-7	Cyclohexane	400	
74-97-5	Bromochloromethane	400	
67-66-3	Chloroform	400	E
56-23-5	Carbon tetrachloride	400	
141-78-6	Ethyl acetate	400	E
109-99-9	Tetrahydrofuran	400	E
71-55-6	1,1,1-Trichloroethane	400	
78-93-3	2-Butanone (MEK)	400	
563-58-6	1,1-Dichloropropene	400	
71-43-2	Benzene	400	
107-12-0	Propionitrile	400	
126-98-7	Methacrylonitrile	400	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	400	
78-83-1	Isobutanol	2000	
107-06-2	1,2-Dichloroethane	400	E
108-87-2	Methylcyclohexane	400	E
79-01-6	Trichloroethene	400	
74-95-3	Dibromomethane	400	E
78-87-5	1,2-Dichloropropane	400	
75-27-4	Bromodichloromethane	400	
80-62-6	Methyl methacrylate	400	E
123-91-1	1,4-Dioxane (p-Dioxane)	4000	E
110-75-8	2-Chloroethylvinyl ether	400	
10061-01-5	cis-1,3-Dichloropropene	400	
108-88-3	Toluene	400	
79-46-9	2-Nitropropane	2000	
108-10-1	4-Methyl-2-pentanone (MIBK)	400	
127-18-4	Tetrachloroethene	400	
10061-02-6	trans-1,3-Dichloropropene	400	
97-63-2	Ethyl methacrylate	400	
79-00-5	1,1,2-Trichloroethane	400	
124-48-1	Dibromochloromethane	400	
142-28-9	1,3-Dichloropropane	400	
106-93-4	1,2-Dibromoethane (EDB)	400	
591-78-6	2-Hexanone	400	
100-41-4	Ethylbenzene	400	E
108-90-7	Chlorobenzene	400	E
630-20-6	1,1,1,2-Tetrachloroethane	400	E
7816-60-0	m&p-Xylene	800	
95-47-6	o-Xylene	400	
100-42-5	Styrene	400	E
75-25-2	Bromoform	400	E
98-82-8	Isopropylbenzene (Cumene)	400	
103-65-1	n-Propylbenzene	400	
108-86-1	Bromobenzene	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	
108-67-8	1,3,5-Trimethylbenzene	400	E
95-49-8	2-Chlorotoluene	400	
96-18-4	1,2,3-Trichloropropane	400	
110-57-6	trans-1,4-Dichloro-2-butene	400	E
108-94-1	Cyclohexanone	2000	E
106-43-4	4-Chlorotoluene	400	E
98-06-6	tert-Butylbenzene	400	
95-63-6	1,2,4-Trimethylbenzene	400	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Report Date: 26-Jun-2019 14:07

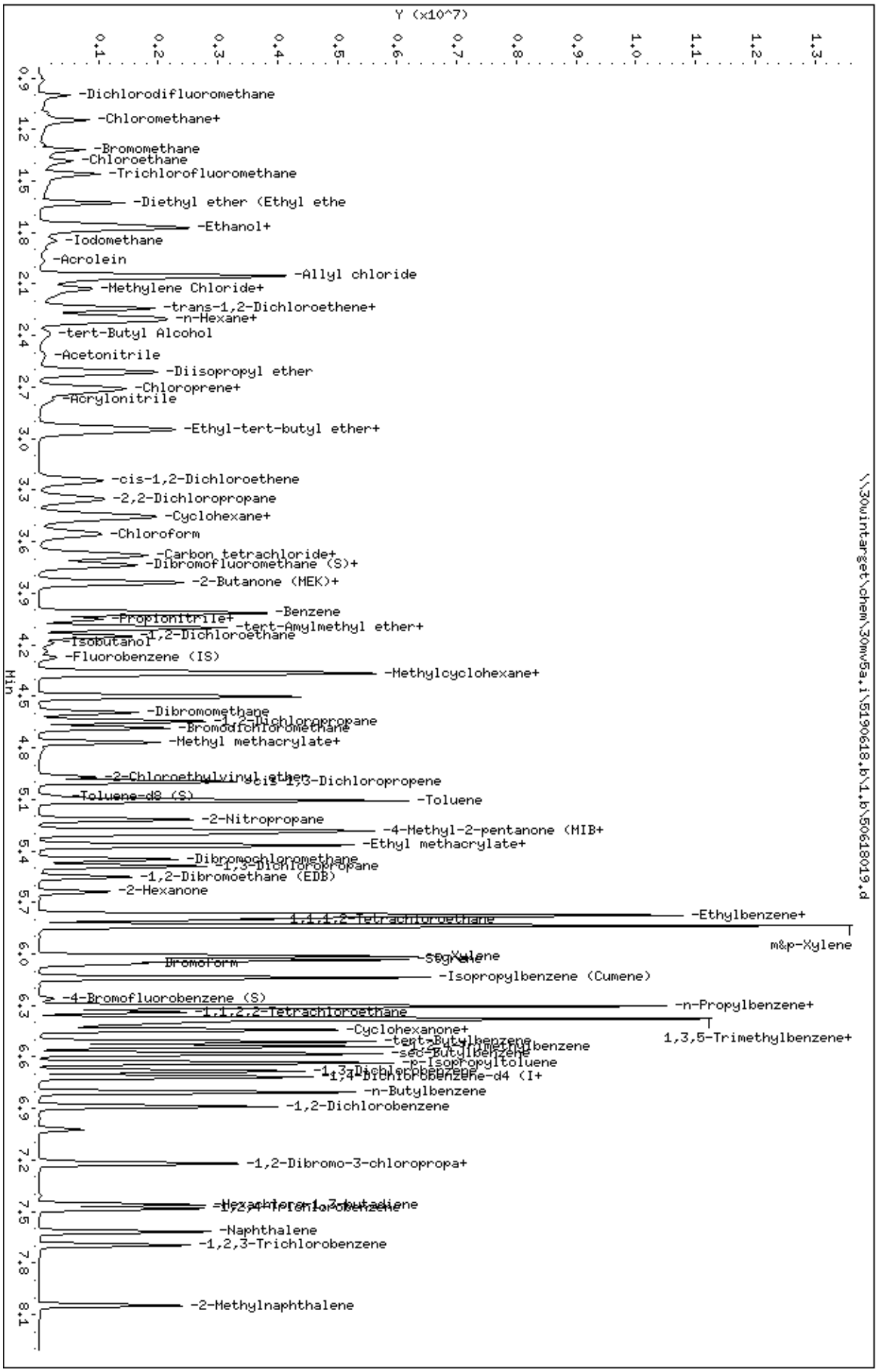
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44968,

Client SDG: 30MV5A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	400	E
99-87-6	p-Isopropyltoluene	400	E
541-73-1	1,3-Dichlorobenzene	400	
106-46-7	1,4-Dichlorobenzene	400	
104-51-8	n-Butylbenzene	400	
95-50-1	1,2-Dichlorobenzene	400	E
96-12-8	1,2-Dibromo-3-chloropropane	400	
108-70-3	1,3,5-Trichlorobenzene	400	
87-68-3	Hexachloro-1,3-butadiene	400	
120-82-1	1,2,4-Trichlorobenzene	400	
91-20-3	Naphthalene	400	E
87-61-6	1,2,3-Trichlorobenzene	400	E
91-57-6	2-Methylnaphthalene	400	E
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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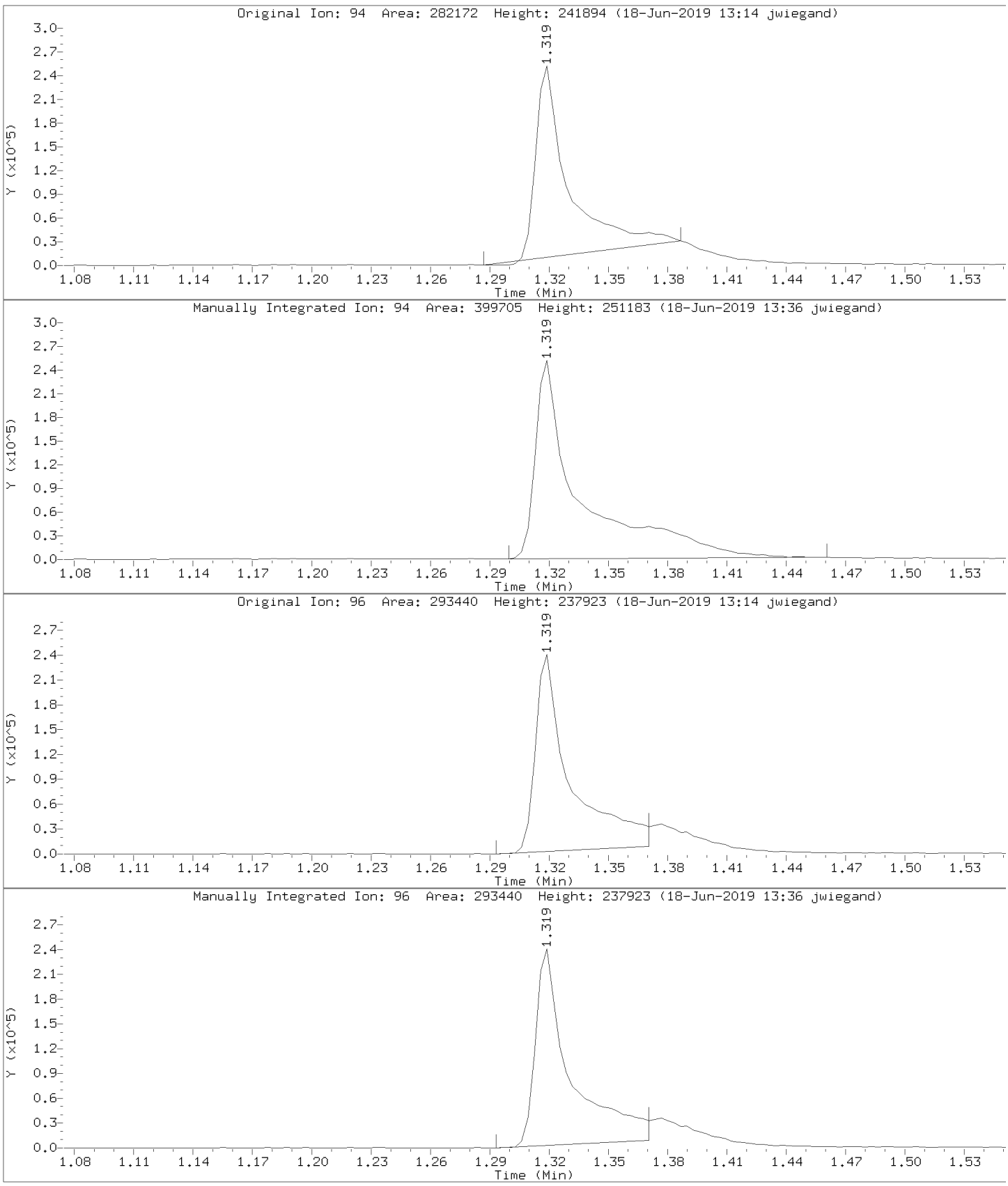
Date : 18-JUN-2019 12:40
Client ID: CAL8
Sample Info: CAL8, 91192:1
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618019.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618019.d
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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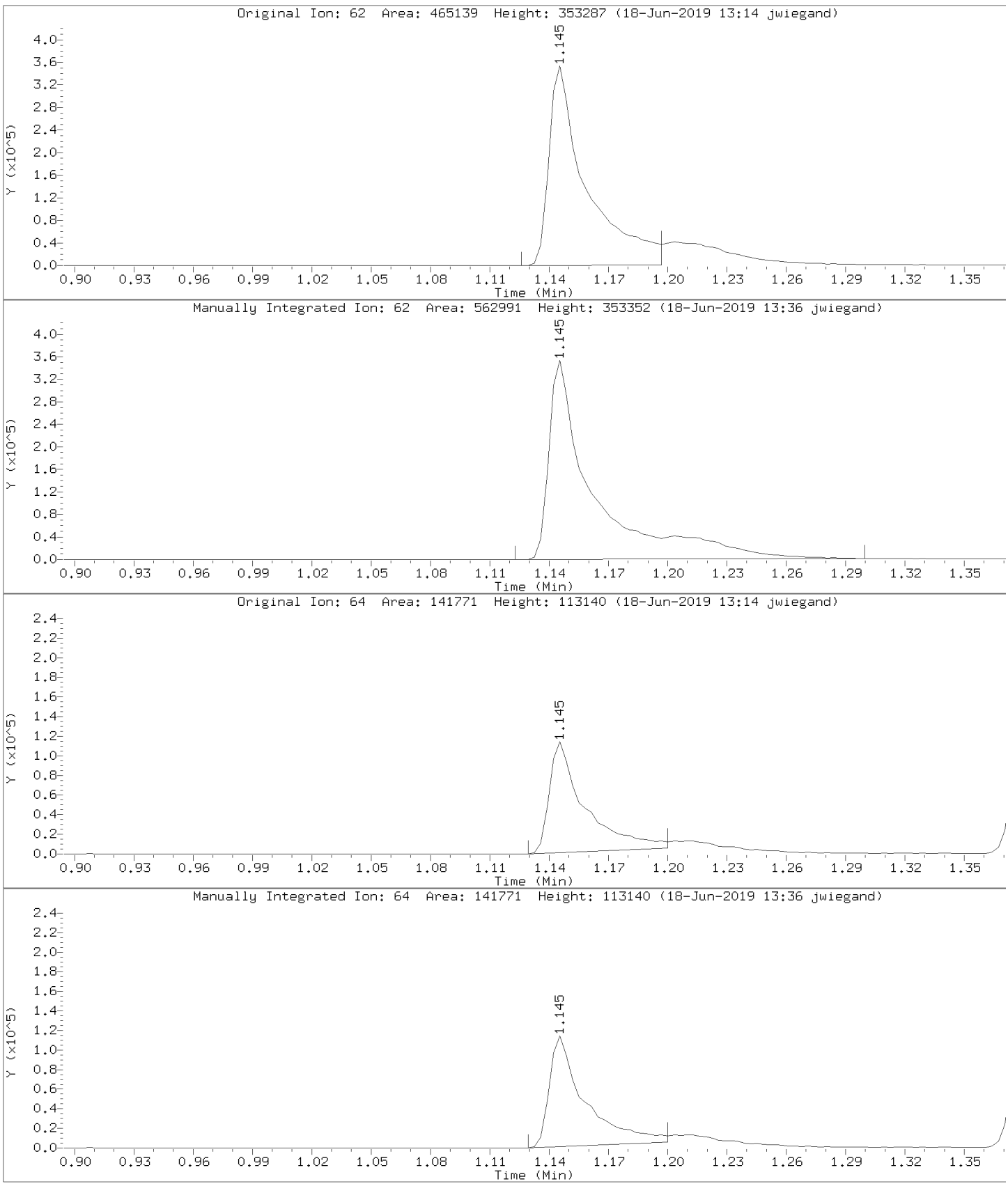
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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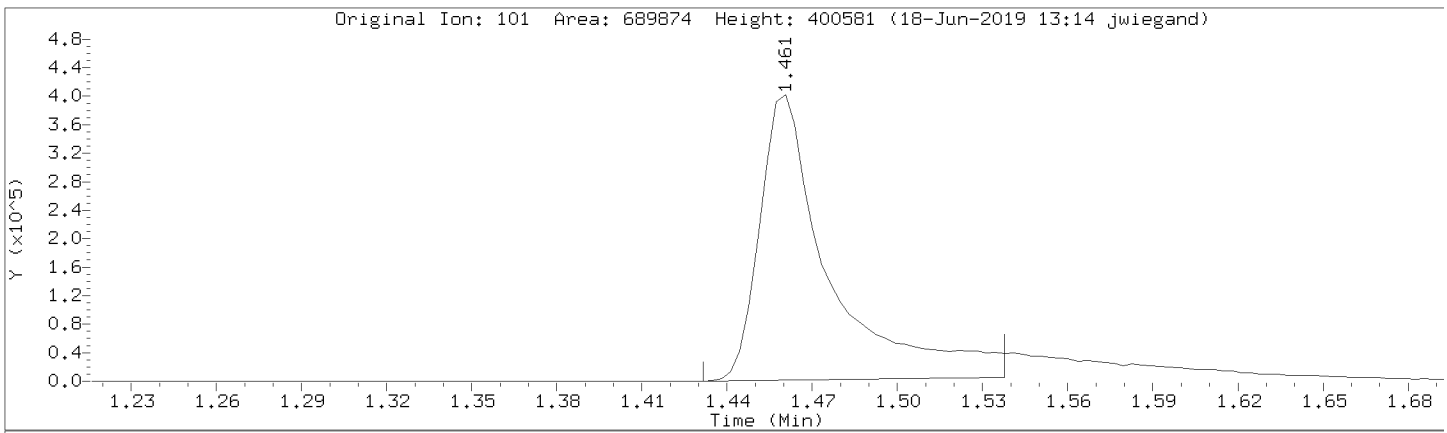
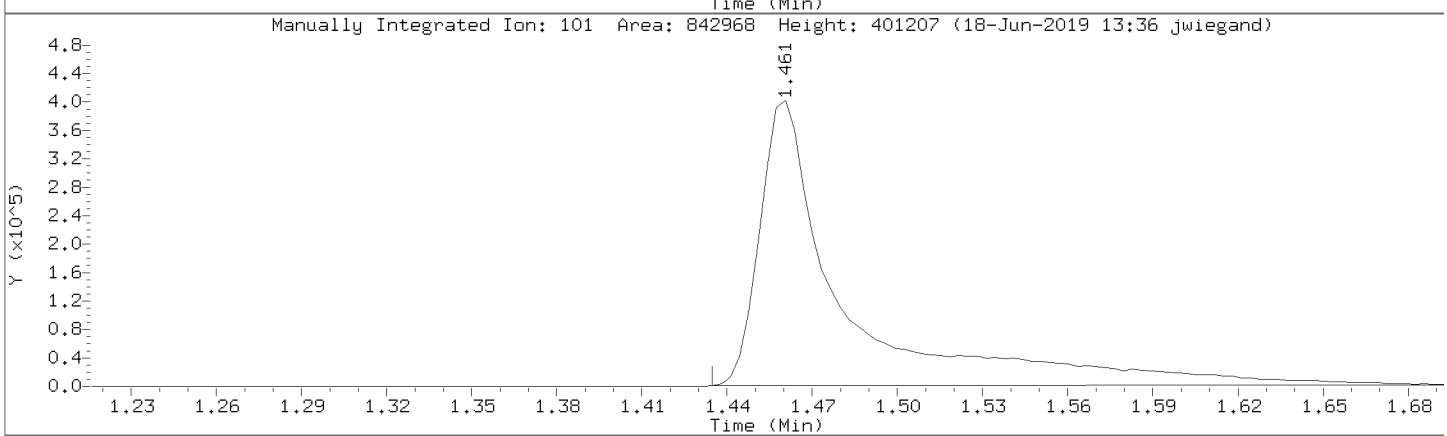
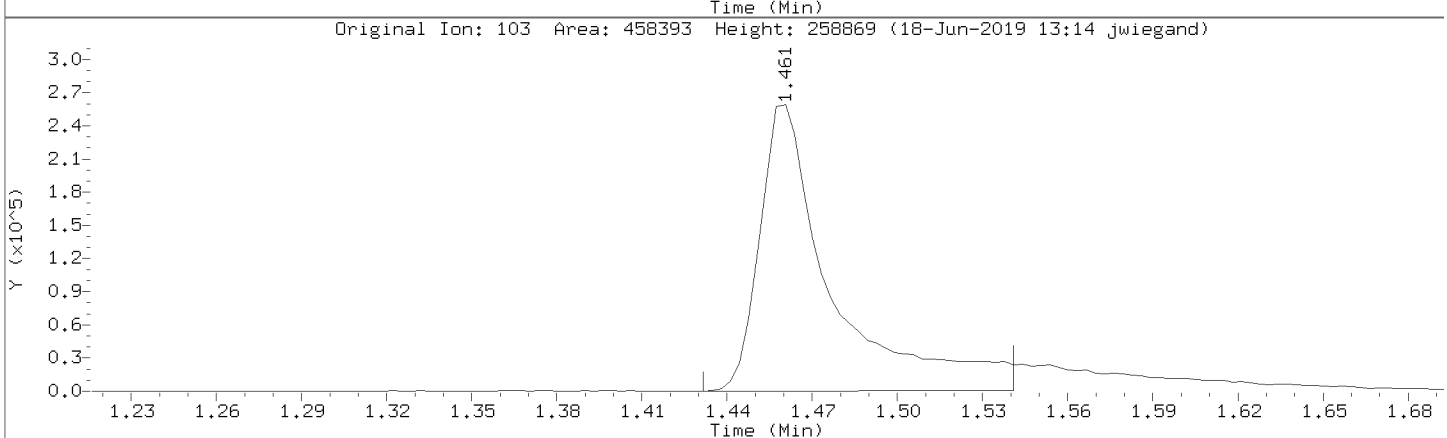
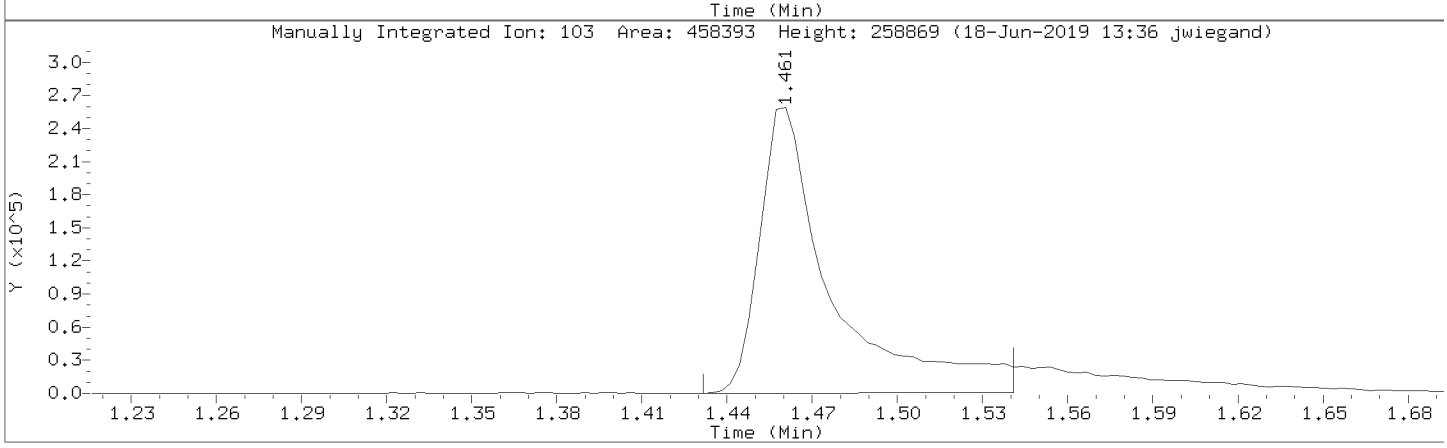
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4









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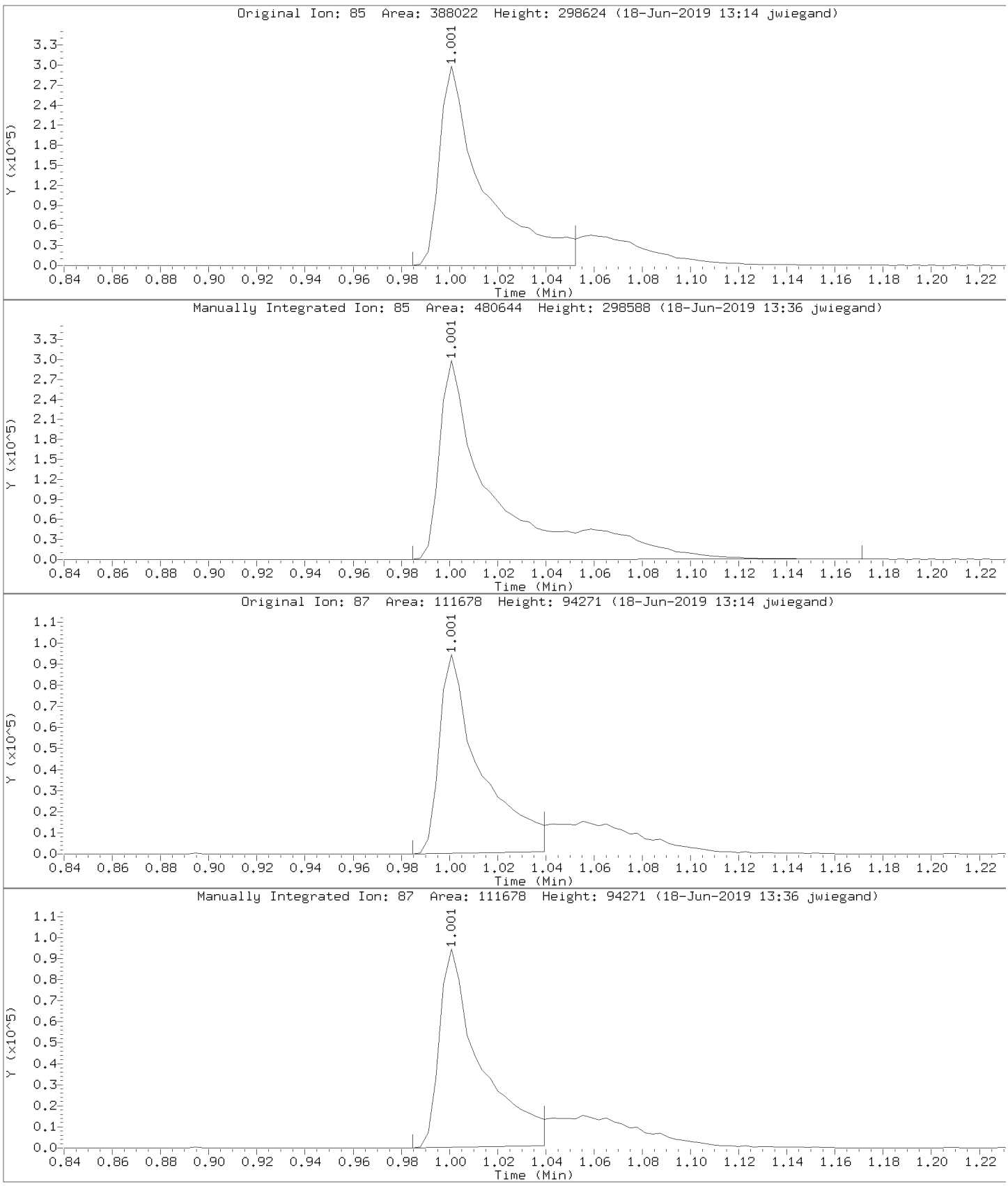
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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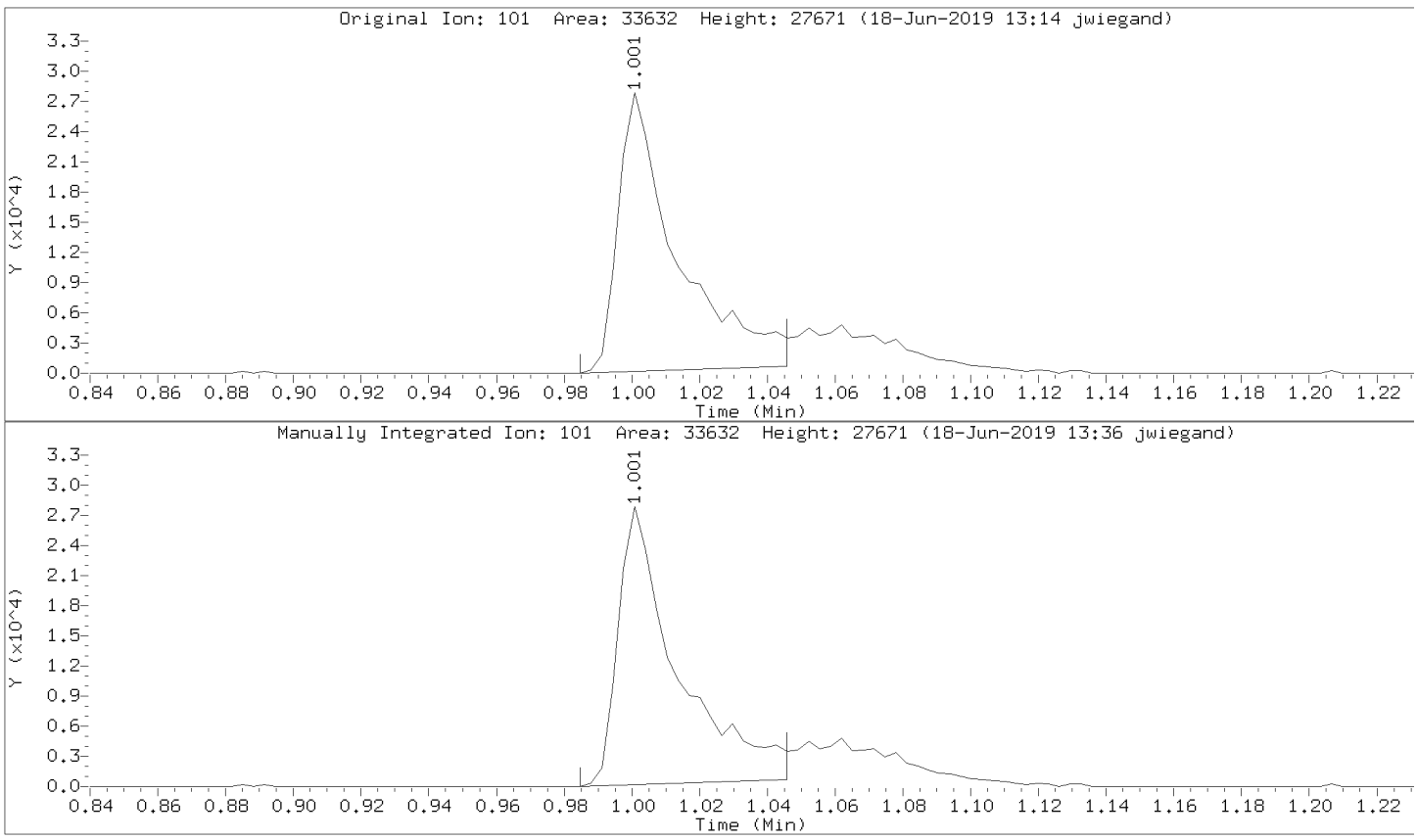
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8



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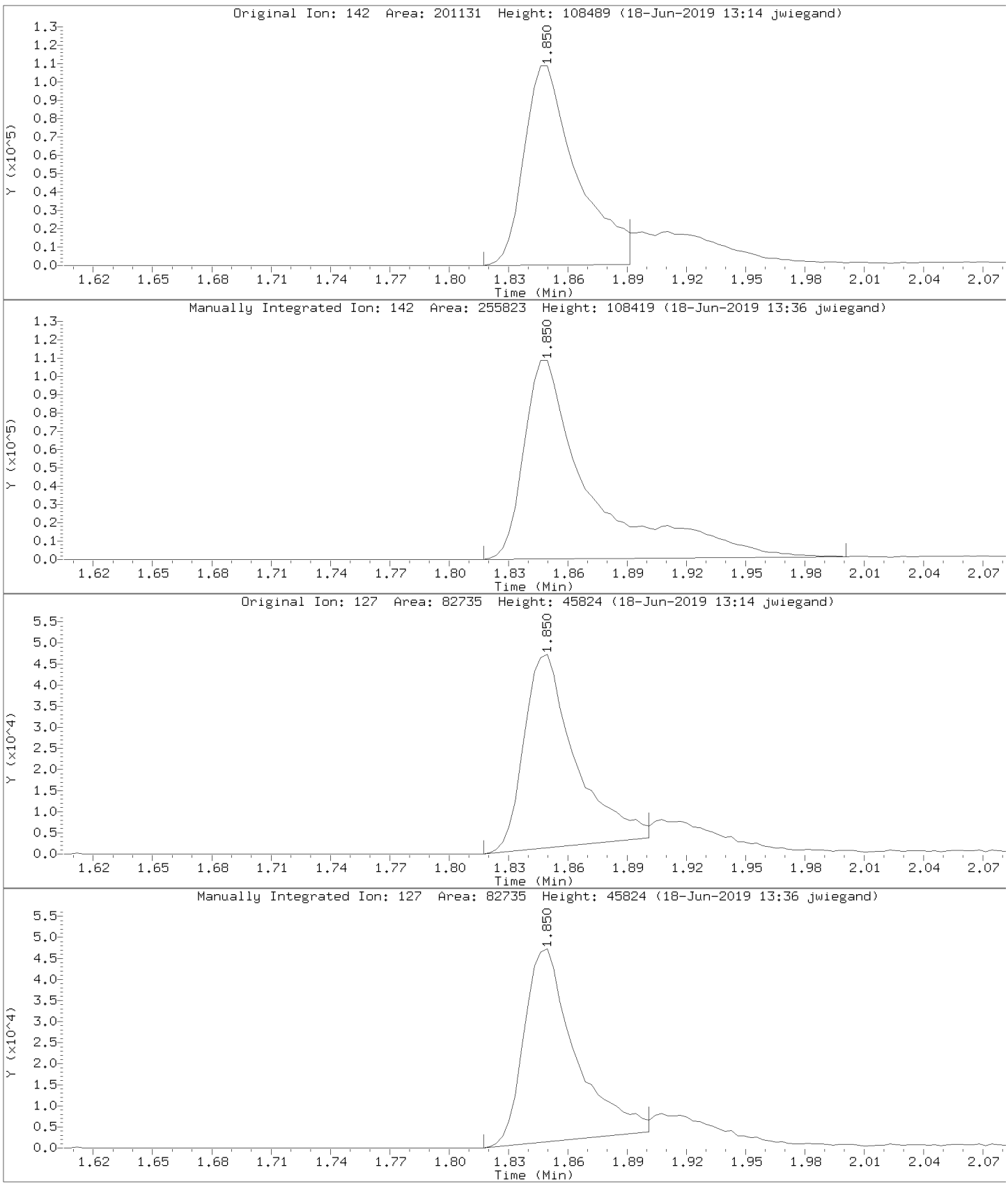
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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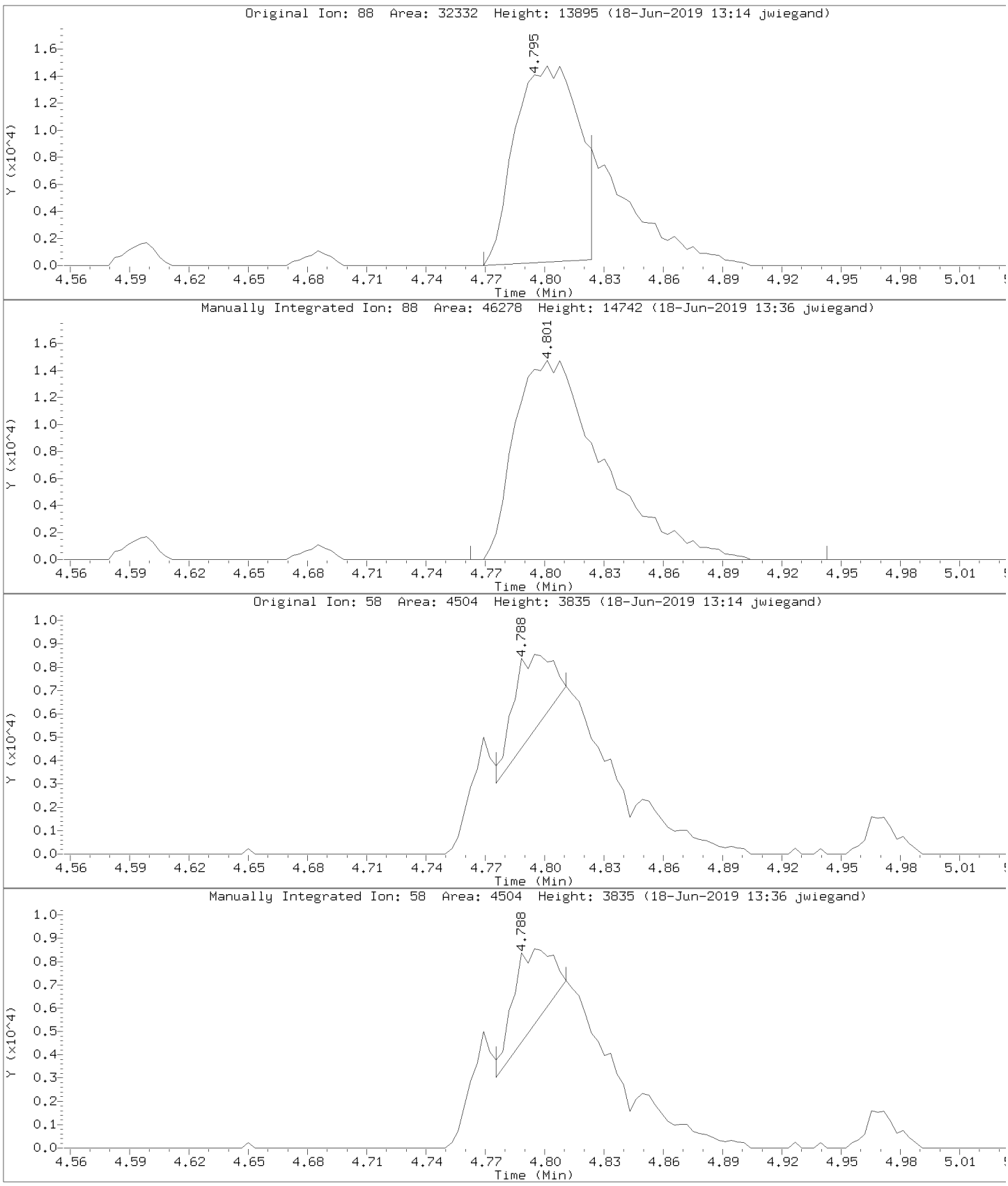
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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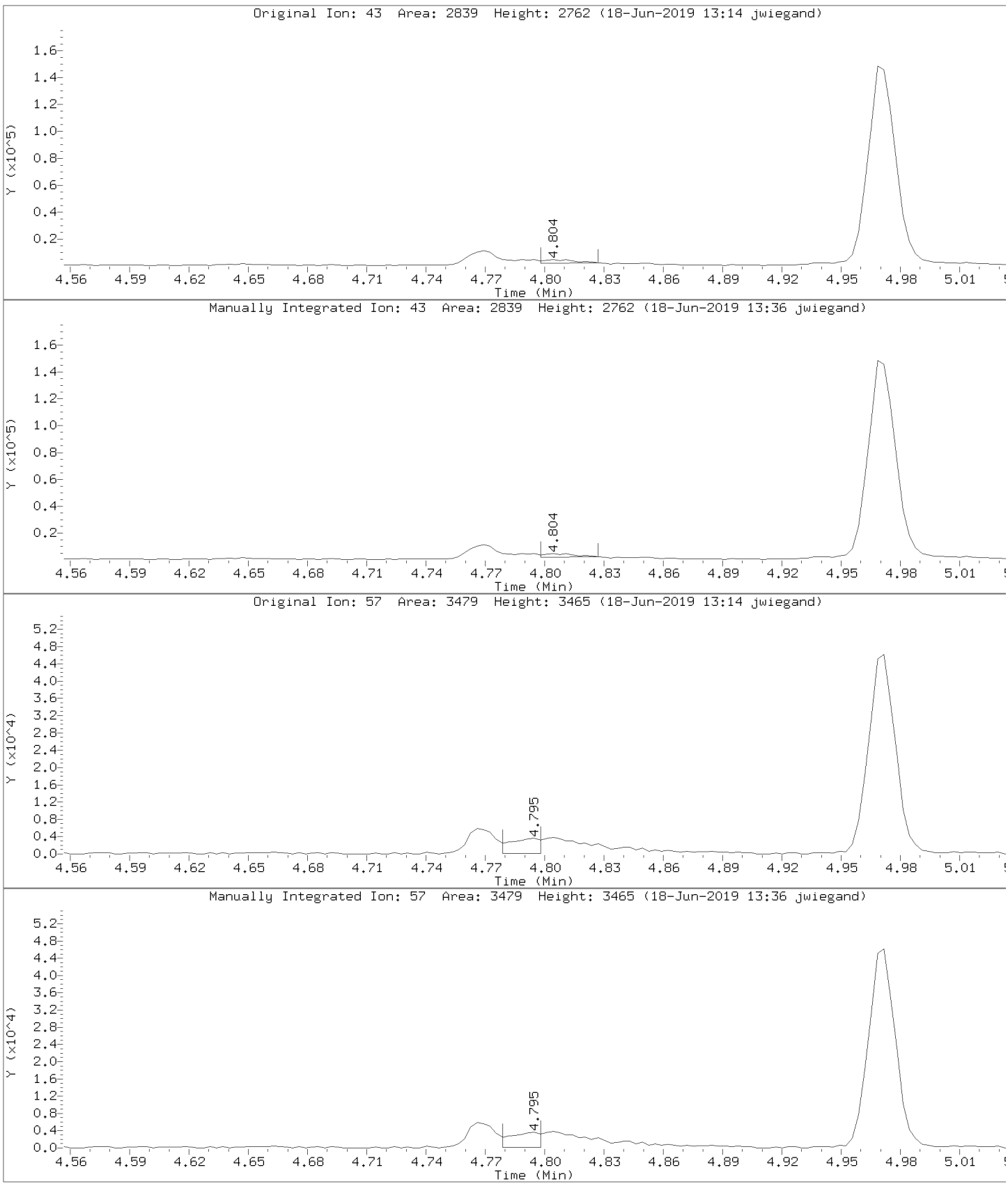
Injection Date: 18-JUN-2019 12:40
Instrument: 30mv5a.i
Lab Sample ID: CAL8



SAMPLE NO.

11146257ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/18/2019 Time: 13:33

Instrument ID: 30MV5A GC Column: Col 1 Init. Calib. Date(s): 06/18/2019 06/18/2019

Lab File ID: 5190618.B\1.B\50618023.D Init. Calib. Time(s): 09:34 12:40

SDG No.: 30313260

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	1.14511	0.95863	0.0100	-16.2855	30.0000
2-Butanone (MEK)	Averaged	0.12842	0.10946	0.0100	-14.7670	30.0000
Carbon tetrachloride	Averaged	0.41252	0.31595	0.0100	-23.4112	30.0000
Chlorobenzene	Averaged	1.14103	1.03492	0.3000	-9.2999	30.0000
Chloroform	Averaged	0.57749	0.47296	0.0100	-18.1010	30.0000
1,2-Dichloroethane	Averaged	0.42170	0.35118	0.0100	-16.7228	30.0000
1,1-Dichloroethene	Averaged	0.38037	0.28128	0.0100	-26.0519	30.0000
Tetrachloroethene	Averaged	0.43296	0.38020	0.0100	-12.1852	30.0000
Trichloroethene	Averaged	0.44684	0.37624	0.0100	-15.7998	30.0000
Vinyl chloride	Averaged	0.31764	0.25219	0.0100	-20.6030	30.0000
4-Bromofluorobenzene (S)	Averaged	0.87338	0.86992	0.0100	-0.3962	30.0000
Dibromofluoromethane (S)	Averaged	0.26237	0.26588	0.0100	1.3367	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.28268	0.28351	0.0100	0.2938	30.0000
Toluene-d8 (S)	Averaged	1.28649	1.29957	0.0100	1.0169	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11318989CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/15/2019 Time: 14:12

Instrument ID: 30MV5A GC Column: Col 1
Init. Calib. Date(s): 06/18/2019 06/18/2019

Lab File ID: 5190715.B\1.B\50715009.D
Init. Calib. Time(s): 09:34 12:40

SDG No.: 30313260

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Averaged	1.14511	1.15141	0.0100	0.5497	20.0000
2-Butanone (MEK)	Averaged	0.12842	0.11320	0.0100	-11.8527	20.0000
Carbon tetrachloride	Averaged	0.41252	0.41609	0.0100	0.8647	20.0000
Chlorobenzene	Averaged	1.14103	1.14053	0.3000	-0.0442	20.0000
Chloroform	Averaged	0.57749	0.57288	0.0100	-0.7975	20.0000
1,2-Dichloroethane	Averaged	0.42170	0.39707	0.0100	-5.8417	20.0000
1,1-Dichloroethene	Averaged	0.38037	0.39804	0.0100	4.6436	20.0000
Tetrachloroethene	Averaged	0.43296	0.47904	0.0100	10.6437	20.0000
Trichloroethene	Averaged	0.44684	0.42656	0.0100	-4.5386	20.0000
Vinyl chloride	Averaged	0.31764	0.26000	0.0100	-18.1467	20.0000
4-Bromofluorobenzene (S)	Averaged	0.87338	0.88519	0.0100	1.3521	20.0000
Dibromofluoromethane (S)	Averaged	0.26237	0.27462	0.0100	4.6702	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.28268	0.26619	0.0100	-5.8330	20.0000
Toluene-d8 (S)	Averaged	1.28649	1.23006	0.0100	-4.3861	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 18-JUN-2019 13:33
Operator : JEW Inst ID: 30mv5a.i
Smp Info : icv, 91193:1
Misc Info : 44968,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Meth Date : 01-Jul-2019 08:29 30mv5a.i Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	20565	20.0000	17.2(QM)	LT
2	Chloromethane	50	1.148	1.142	(0.269)	15427	20.0000	19.0(M)	LT
3	Vinyl chloride	62	1.145	1.145	(0.268)	24158	20.0000	15.9(M)	LT
4	Bromomethane	94	1.319	1.325	(0.308)	20872	20.0000	19.7(M)	LT
5	Chloroethane	64	1.386	1.380	(0.324)	16053	20.0000	16.5	
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	40990	20.0000	18.6	
7	Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	22106	20.0000	19.9	
8	Ethanol	45	1.798	1.773	(0.268)	472	200.000	(a)	
9	1,1-Dichloroethene	61	1.756	1.759	(0.411)	26944	20.0000	14.8	
10	1,1,2-Trichlorotrifluoroethane	151	1.772	1.775	(0.414)	17788	20.0000	20.9	
11	Carbon disulfide	76	1.782	1.785	(0.417)	59971	20.0000	19.0	
12	Iodomethane	142	1.849	1.856	(0.432)	5797	20.0000	9.91(M)	LT
13	Acrolein	56	1.968	1.969	(0.460)	5493	20.0000	38.5	
14	Allyl chloride	41	2.055	2.055	(0.481)	148939	100.000	104	
15	Methylene Chloride	49	2.126	2.132	(0.497)	21990	20.0000	17.6	
16	Acetone	43	2.161	2.165	(0.505)	7451	20.0000	23.0	
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	27525	20.0000	14.7	
18	Methyl acetate	74	2.245	2.254	(0.525)	5129	20.0000	22.9	
19	n-Hexane	86	2.293	2.297	(0.536)	11513	20.0000	37.9	
20	Methyl-tert-butyl ether	73	2.312	2.312	(0.541)	76827	20.0000	18.7	
21	tert-Butyl Alcohol	59	2.386	2.386	(0.558)	19543	100.000	114(M)	LT

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.515	2.522	(0.588)	7905	100.000	98.5(M)	LT
	23 Diisopropyl ether	45	2.611	2.618	(0.611)	71841	20.0000	18.2	
	24 Chloroprene	53	2.704	2.705	(0.632)	30662	20.0000	18.3(M)	LT
	25 1,1-Dichloroethane	63	2.724	2.727	(0.637)	37590	20.0000	15.2	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	6796	20.0000	17.8	
	27 Ethyl-tert-butyl ether	59	2.942	2.939	(0.688)	74629	20.0000	18.1	
	28 Vinyl acetate	43	2.962	2.965	(0.693)	51750	20.0000	16.4	
	29 cis-1,2-Dichloroethene	61	3.244	3.248	(0.759)	28947	20.0000	15.3	
	30 2,2-Dichloropropane	77	3.357	3.351	(0.785)	36518	20.0000	16.2(M)	LT
	31 Cyclohexane	56	3.453	3.450	(0.808)	37877	20.0000	20.2(M)	LT
	32 Bromochloromethane	130	3.460	3.467	(0.809)	14597	20.0000	16.9(M)	LT
	33 Chloroform	83	3.550	3.553	(0.830)	45304	20.0000	16.4(M)	LT
	34 Carbon tetrachloride	117	3.675	3.679	(0.859)	30265	20.0000	15.3	
	35 Ethyl acetate	43	3.685	3.702	(0.862)	27249	20.0000	20.6	
	36 Tetrahydrofuran	42	3.701	3.711	(0.865)	11539	20.0000	22.0(M)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	38203	30.0000	30.4	
	38 1,1,1-Trichloroethane	97	3.740	3.733	(0.874)	38009	20.0000	15.9(M)	LT
	39 2-Butanone (MEK)	43	3.836	3.865	(0.897)	11740	20.0000	19.1(H)	
	40 1,1-Dichloropropene	75	3.839	3.846	(0.898)	32045	20.0000	16.1	
	41 Benzene	78	4.016	4.020	(0.939)	91828	20.0000	16.7	
	42 Propionitrile	54	4.039	4.049	(0.944)	3005	20.0000	21.0	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	16683	20.0000	21.6	
	44 tert-Amylmethyl ether	73	4.100	4.106	(0.959)	78127	20.0000	18.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	40737	30.0000	30.1	
	46 Isobutanol	43	4.190	4.213	(0.980)	7175	100.000	130(H)	
	47 1,2-Dichloroethane	62	4.148	4.151	(0.970)	33640	20.0000	16.6	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	143687	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	43158	20.0000	21.4	
	50 Trichloroethene	95	4.370	4.373	(0.758)	25761	20.0000	16.8	
	51 Dibromomethane	174	4.595	4.598	(1.074)	16287	20.0000	17.0	
	52 1,2-Dichloropropane	63	4.646	4.647	(1.086)	24033	20.0000	17.4	
	53 Bromodichloromethane	83	4.685	4.688	(1.095)	37439	20.0000	19.2	
	54 Methyl methacrylate	69	4.769	4.775	(1.115)	19603	20.0000	19.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.801	4.808	(1.123)	2195	200.000	210(M)	LT
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	9307	20.0000	17.6	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	43026	20.0000	18.4	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	133471	30.0000	30.3	
	59 Toluene	91	5.106	5.110	(0.886)	105380	20.0000	18.0	
	60 2-Nitropropane	43	5.215	5.216	(1.220)	48309	100.000	105	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.235)	30159	20.0000	21.7	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	26032	20.0000	17.6	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	40846	20.0000	18.5	
	64 Ethyl methacrylate	41	5.363	5.367	(0.931)	23241	20.0000	20.0	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.932)	25566	20.0000	19.4	
	66 Dibromochloromethane	129	5.450	5.450	(0.946)	28427	20.0000	18.6	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.953)	39895	20.0000	18.9	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.964)	25177	20.0000	19.5	
	69 2-Hexanone	43	5.640	5.643	(0.979)	21140	20.0000	21.3	
	70 Ethylbenzene	106	5.778	5.778	(1.003)	38623	20.0000	19.0	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	102704	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.002)	70860	20.0000	18.1	
	73 1,1,1,2-Tetrachloroethane	131	5.797	5.798	(1.006)	26410	20.0000	17.9	
	74 m&p-Xylene	106	5.836	5.836	(1.013)	94026	40.0000	38.3	
	75 o-Xylene	106	6.013	6.016	(1.044)	46217	20.0000	19.0	

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	76 Styrene	104	6.035	6.036	(1.047)	73654	20.0000	18.5	
	77 Bromoform	173	6.055	6.058	(0.902)	19534	20.0000	18.4	
	78 Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	115739	20.0000	20.0	
$	79 4-Bromofluorobenzene (S)	174	6.260	6.261	(0.933)	38728	30.0000	29.9	
	80 n-Propylbenzene	91	6.305	6.306	(0.940)	135744	20.0000	20.5	
	81 Bromobenzene	77	6.305	6.309	(0.940)	52427	20.0000	19.8	
	82 1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	36184	20.0000	20.5	
	83 1,3,5-Trimethylbenzene	105	6.379	6.380	(0.951)	95339	20.0000	20.5	
	84 2-Chlorotoluene	126	6.376	6.380	(0.950)	28255	20.0000	19.4	
	85 1,2,3-Trichloropropane	110	6.395	6.396	(0.953)	10527	20.0000	20.5	
	86 trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	9284	20.0000	21.9	
	87 Cyclohexanone	55	6.421	6.421	(0.957)	12960	100.000	157	
	88 4-Chlorotoluene	126	6.444	6.444	(0.960)	28234	20.0000	19.4	
	89 tert-Butylbenzene	119	6.511	6.511	(0.970)	80487	20.0000	20.9	
	90 1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	94668	20.0000	20.5	
	91 sec-Butylbenzene	105	6.582	6.582	(0.981)	117803	20.0000	21.6	
	92 p-Isopropyltoluene	119	6.633	6.634	(0.989)	97954	20.0000	21.3	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	52652	20.0000	20.4	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	44519	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	52751	20.0000	20.4	
	96 n-Butylbenzene	91	6.804	6.804	(1.014)	92408	20.0000	23.2	
	97 1,2-Dichlorobenzene	146	6.887	6.891	(1.026)	49848	20.0000	20.4	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	44519	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	6402	20.0000	22.1	
	99 1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	34704	20.0000	24.7	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	13797	20.0000	22.1	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	26765	20.0000	22.9	
	102 Naphthalene	128	7.617	7.618	(1.135)	72780	20.0000	24.2	
	103 1,2,3-Trichlorobenzene	180	7.694	7.695	(1.147)	25414	20.0000	24.0	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.199)	31531	20.0000	24.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50618023.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 18-JUN-2019
Calibration Time: 10:54
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	144844	72422	289688	143687	-0.80
71 Chlorobenzene-d5	104675	52338	209350	102704	-1.88
94 1,4-Dichlorobenze	47592	23796	95184	44519	-6.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.00
71 Chlorobenzene-d5	5.77	5.27	6.27	5.76	-0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.24991	0.21469	0.21469	0.010	-14.09615	20.00000	Aver	(QM)	
	2 Chloromethane	20.00000	19.02810	0.16105	0.100	-4.85951	20.00000	Quad	(M)	
	3 Vinyl chloride	0.31764	0.25219	0.25219	0.010	-20.60303	20.00000	Aver	(M)	<-
	4 Bromomethane	20.00000	19.70046	0.21789	0.010	-1.49769	20.00000	Quad	(M)	
	5 Chloroethane	0.20300	0.16758	0.16758	0.010	-17.44486	20.00000	Aver		
	6 Trichlorofluoromethane	0.46032	0.42791	0.42791	0.010	-7.04005	20.00000	Aver		
	7 Diethyl ether (Ethyl ether)	0.23226	0.23077	0.23077	0.010	-0.63859	20.00000	Aver		
	8 Ethanol	++++	0.00159	0.00159	0.010	++++	20.00000	Aver	(a)	<-
	9 1,1-Dichloroethene	0.38037	0.28128	0.28128	0.010	-26.05195	20.00000	Aver		<-
	10 1,1,2-Trichlorotrifluoroeth	0.17766	0.18570	0.18570	0.010	4.52146	20.00000	Aver		
	11 Carbon disulfide	0.65804	0.62606	0.62606	0.010	-4.86000	20.00000	Aver		
	12 Iodomethane	20.00000	9.91207	0.06052	0.010	-50.43963	20.00000	Quad	(M)	<-
	13 Acrolein	20.00000	38.54495	0.05734	0.010	92.72473	20.00000	Quad		<-
	14 Allyl chloride	100	104	0.31097	0.010	3.64973	20.00000	Quad		
	15 Methylene Chloride	20.00000	17.56467	0.22956	0.010	-12.17664	20.00000	Quad		
	16 Acetone	20.00000	22.97721	0.07778	0.010	14.88603	20.00000	Quad		
	17 trans-1,2-Dichloroethene	0.38968	0.28734	0.28734	0.010	-26.26137	20.00000	Aver		<-
	18 Methyl acetate	0.04681	0.05354	0.05354	0.010	14.38497	20.00000	Aver		
	19 n-Hexane	0.06345	0.12019	0.12019	0.010	89.41619	20.00000	Aver		<-
	20 Methyl-tert-butyl ether	0.85575	0.80202	0.80202	0.010	-6.27861	20.00000	Aver		
	21 tert-Butyl Alcohol	0.03578	0.04080	0.04080	0.010	14.02648	20.00000	Aver	(M)	
	22 Acetonitrile	0.01676	0.01650	0.01650	0.010	-1.52218	20.00000	Aver	(M)	
	23 Diisopropyl ether	0.82173	0.74997	0.74997	0.010	-8.73191	20.00000	Aver		
	24 Chloroprene	0.34987	0.32009	0.32009	0.010	-8.51213	20.00000	Aver	(M)	
	25 1,1-Dichloroethane	0.51731	0.39242	0.39242	0.100	-24.14293	20.00000	Aver		<-
	26 Acrylonitrile	0.07954	0.07095	0.07095	0.010	-10.80870	20.00000	Aver		
	27 Ethyl-tert-butyl ether	0.86095	0.77908	0.77908	0.010	-9.50924	20.00000	Aver		
	28 Vinyl acetate	0.65893	0.54024	0.54024	0.010	-18.01361	20.00000	Aver		
	29 cis-1,2-Dichloroethene	0.39600	0.30219	0.30219	0.010	-23.69008	20.00000	Aver		<-
	30 2,2-Dichloropropane	0.46961	0.38122	0.38122	0.010	-18.82150	20.00000	Aver	(M)	
	31 Cyclohexane	0.39096	0.39541	0.39541	0.010	1.13753	20.00000	Aver	(M)	
	32 Bromochloromethane	0.18013	0.15238	0.15238	0.010	-15.40558	20.00000	Aver	(M)	
	33 Chloroform	0.57749	0.47294	0.47294	0.010	-18.10285	20.00000	Aver	(M)	
	34 Carbon tetrachloride	0.41252	0.31595	0.31595	0.010	-23.41118	20.00000	Aver		<-
	35 Ethyl acetate	0.27578	0.28446	0.28446	0.010	3.14641	20.00000	Aver		
	36 Tetrahydrofuran	20.00000	21.95862	0.12046	0.010	9.79309	20.00000	Quad	(M)	
$	37 Dibromofluoromethane (S)	0.26237	0.26588	0.26588	0.010	1.33671	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.49845	0.39679	0.39679	0.010	-20.39516	20.00000	Aver	(M)	<-
	39 2-Butanone (MEK)	0.12842	0.12256	0.12256	0.010	-4.56508	20.00000	Aver	(H)	
	40 1,1-Dichloropropene	0.41560	0.33453	0.33453	0.010	-19.50635	20.00000	Aver		
	41 Benzene	1.14511	0.95863	0.95863	0.010	-16.28549	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	0.02985	0.03137	0.03137	0.010	5.08516	20.00000	Aver		
43 Methacrylonitrile	0.16123	0.17416	0.17416	0.010	8.02058	20.00000	Aver		
44 tert-Amylmethyl ether	0.87404	0.81560	0.81560	0.010	-6.68695	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.28268	0.28351	0.28351	0.010	0.29384	20.00000	Aver		
46 Isobutanol	0.01151	0.01498	0.01498	0.010	30.15305	20.00000	Aver	(H)	<-
47 1,2-Dichloroethane	0.42170	0.35118	0.35118	0.010	-16.72281	20.00000	Aver		
49 Methylcyclohexane	0.42014	0.45054	0.45054	0.010	7.23728	20.00000	Aver		
50 Trichloroethene	0.44684	0.37624	0.37624	0.010	-15.79978	20.00000	Aver		
51 Dibromomethane	0.20022	0.17003	0.17003	0.010	-15.07964	20.00000	Aver		
52 1,2-Dichloropropane	0.28909	0.25089	0.25089	0.010	-13.21535	20.00000	Aver		
53 Bromodichloromethane	0.40684	0.39084	0.39084	0.010	-3.93356	20.00000	Aver		
54 Methyl methacrylate	0.21529	0.20464	0.20464	0.010	-4.94761	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	200	210	0.00229	0.010	4.83666	20.00000	Quad	(M)	<-
56 2-Chloroethylvinyl ether	0.11070	0.09716	0.09716	0.010	-12.22923	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.48710	0.44916	0.44916	0.010	-7.78832	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.28649	1.29957	1.29957	0.010	1.01692	20.00000	Aver		
59 Toluene	1.71127	1.53908	1.53908	0.010	-10.06204	20.00000	Aver		
60 2-Nitropropane	0.09588	0.10086	0.10086	0.010	5.19367	20.00000	Aver		
61 4-Methyl-2-pentanone (MIBK)	0.29042	0.31484	0.31484	0.010	8.40931	20.00000	Aver		
62 Tetrachloroethene	0.43296	0.38020	0.38020	0.010	-12.18518	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.64394	0.59656	0.59656	0.010	-7.35827	20.00000	Aver		
64 Ethyl methacrylate	0.34021	0.33944	0.33944	0.010	-0.22597	20.00000	Aver		
65 1,1,2-Trichloroethane	0.38462	0.37339	0.37339	0.010	-2.91993	20.00000	Aver		
66 Dibromochloromethane	0.44604	0.41518	0.41518	0.010	-6.91862	20.00000	Aver		
67 1,3-Dichloropropane	0.61709	0.58267	0.58267	0.010	-5.57858	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.37769	0.36771	0.36771	0.010	-2.64128	20.00000	Aver		
69 2-Hexanone	0.28980	0.30875	0.30875	0.010	6.54088	20.00000	Aver		
70 Ethylbenzene	0.59336	0.56409	0.56409	0.010	-4.93302	20.00000	Aver		
72 Chlorobenzene	1.14103	1.03492	1.03492	0.300	-9.29986	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.43143	0.38572	0.38572	0.010	-10.59472	20.00000	Aver		
74 m&p-Xylene	0.71618	0.68663	0.68663	0.010	-4.12660	20.00000	Aver		
75 o-Xylene	0.70897	0.67500	0.67500	0.010	-4.79121	20.00000	Aver		
76 Styrene	1.16122	1.07572	1.07572	0.010	-7.36298	20.00000	Aver		
77 Bromoform	0.71541	0.65817	0.65817	0.100	-8.00121	20.00000	Aver		
78 Isopropylbenzene (Cumene)	3.89837	3.89965	3.89965	0.010	0.03280	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.87338	0.86992	0.86992	0.010	-0.39625	20.00000	Aver		
80 n-Propylbenzene	4.46847	4.57369	4.57369	0.010	2.35463	20.00000	Aver		
81 Bromobenzene	1.78520	1.76645	1.76645	0.010	-1.05020	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	1.19102	1.21916	1.21916	0.300	2.36272	20.00000	Aver		
83 1,3,5-Trimethylbenzene	3.13805	3.21230	3.21230	0.010	2.36623	20.00000	Aver		
84 2-Chlorotoluene	0.98101	0.95201	0.95201	0.010	-2.95612	20.00000	Aver		
85 1,2,3-Trichloropropane	0.34617	0.35469	0.35469	0.010	2.46068	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Report Date: 01-Jul-2019 08:58

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 18-JUN-2019 13:33
Lab File ID: 50618023.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\msv5061819a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.28521	0.31281	0.31281	0.010	9.67824	20.00000	Aver		
87 Cyclohexanone	0.05556	0.08733	0.08733	0.010	57.18515	20.00000	Aver		<-
88 4-Chlorotoluene	0.97978	0.95130	0.95130	0.010	-2.90628	20.00000	Aver		
89 tert-Butylbenzene	2.59165	2.71189	2.71189	0.010	4.63951	20.00000	Aver		
90 1,2,4-Trimethylbenzene	3.11701	3.18969	3.18969	0.010	2.33176	20.00000	Aver		
91 sec-Butylbenzene	3.68336	3.96919	3.96919	0.010	7.76018	20.00000	Aver		
92 p-Isopropyltoluene	3.10234	3.30041	3.30041	0.010	6.38449	20.00000	Aver		
93 1,3-Dichlorobenzene	1.74109	1.77403	1.77403	0.010	1.89180	20.00000	Aver		
95 1,4-Dichlorobenzene	1.74106	1.77736	1.77736	0.010	2.08503	20.00000	Aver		
96 n-Butylbenzene	2.67877	3.11355	3.11355	0.010	16.23032	20.00000	Aver		
97 1,2-Dichlorobenzene	1.64323	1.67955	1.67955	0.010	2.21054	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00149	1.00000	1.00000	0.010	-0.14902	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19491	0.21571	0.21571	0.010	10.66880	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.94777	1.16930	1.16930	0.010	23.37417	20.00000	Aver		<-
100 Hexachloro-1,3-butadiene	20.00000	22.08370	0.46487	0.010	10.41850	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.78606	0.90181	0.90181	0.010	14.72499	20.00000	Aver		
102 Naphthalene	2.02357	2.45221	2.45221	0.010	21.18218	20.00000	Aver		<-
103 1,2,3-Trichlorobenzene	0.71440	0.85629	0.85629	0.010	19.86114	20.00000	Aver		
104 2-Methylnaphthalene	20.00000	24.39628	1.06239	0.010	21.98139	20.00000	Quad		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.90622
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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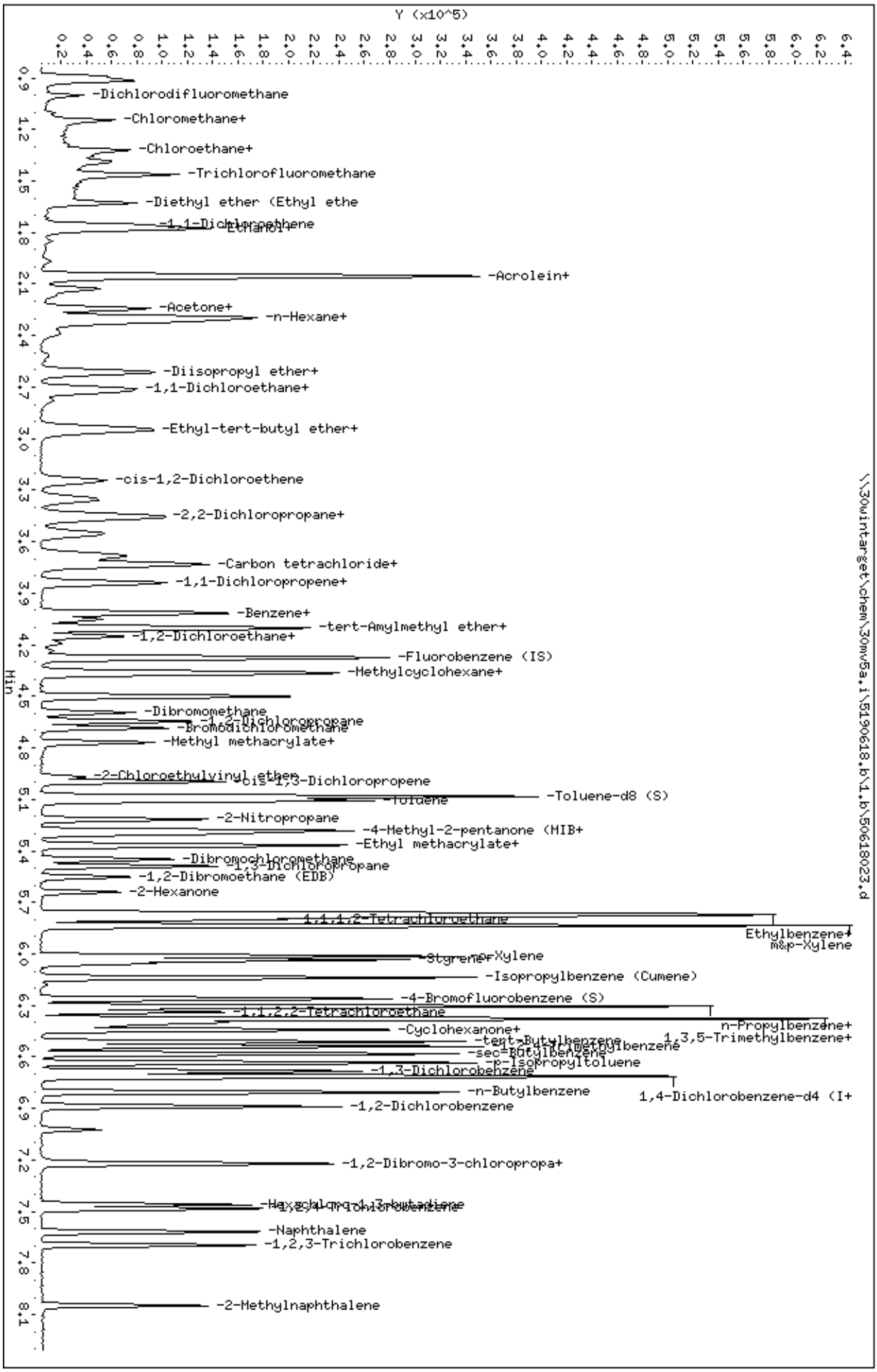
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Date : 18-JUN-2019 13:33
Client ID: ICV
Sample Info: ICV, 9119311
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618023.d
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Chloroethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene
Ethanol
-Acrolein+
-Acetone+
-n-Hexane+
-Diisopropyl ether+
-1,1-Dichloroethane+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane+
-Carbon tetrachloride+
-1,1-Dichloropropene+
-Benzene+
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
n-Propylbenzene+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachlorobutadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618023.d
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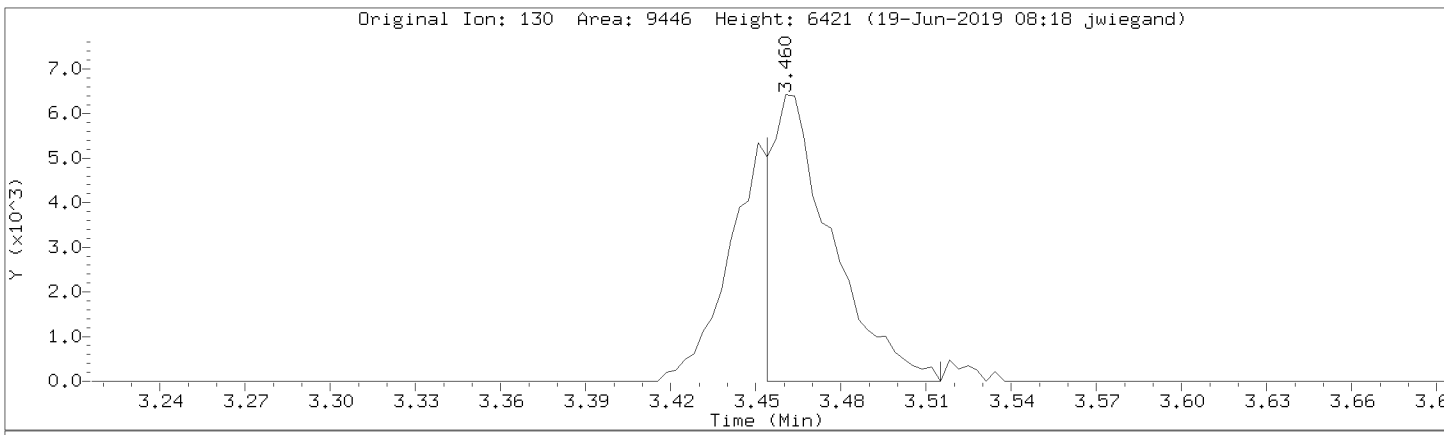
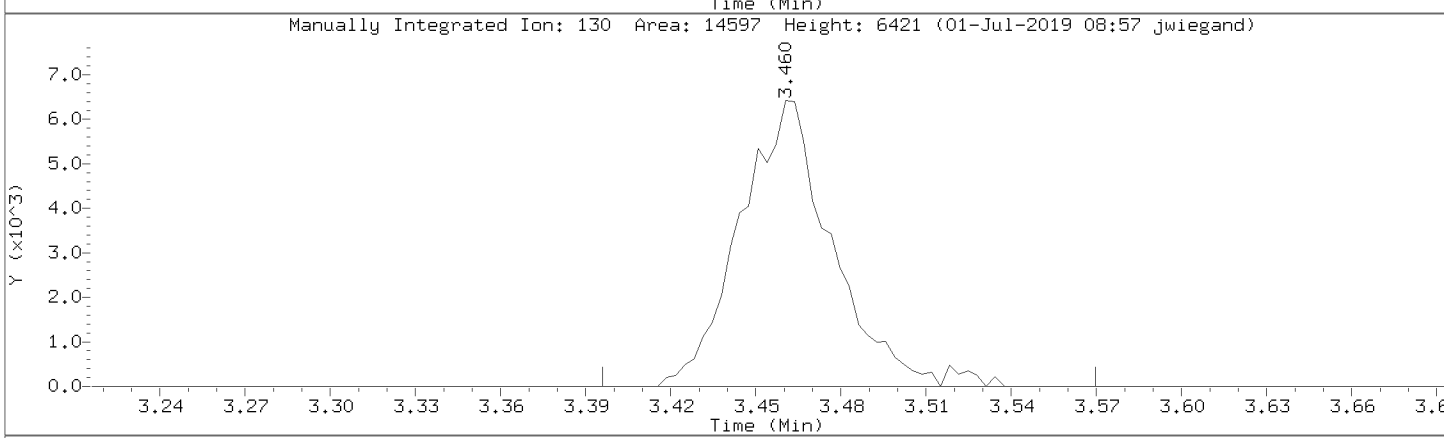
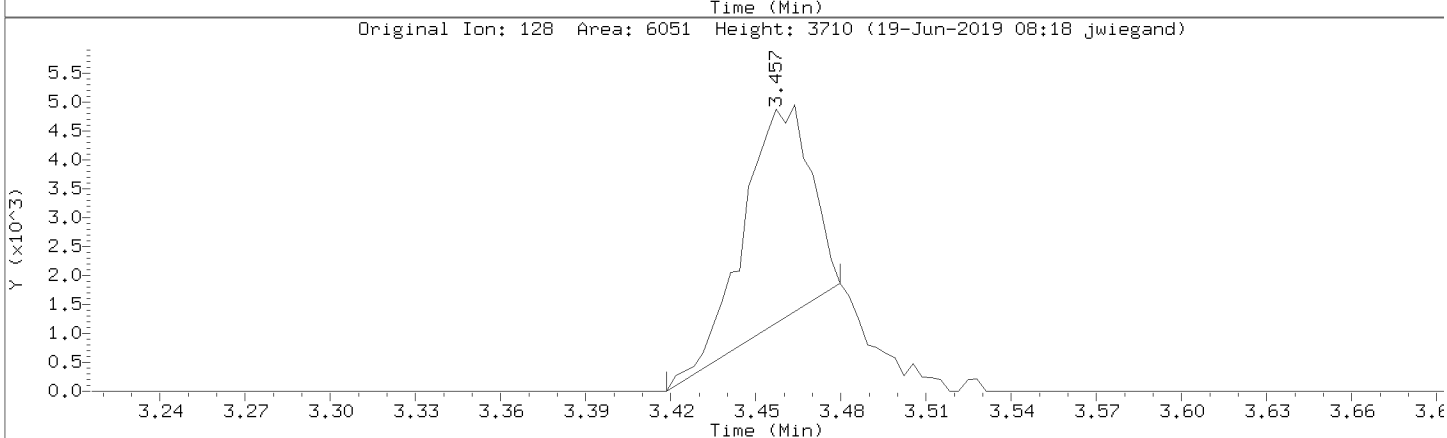
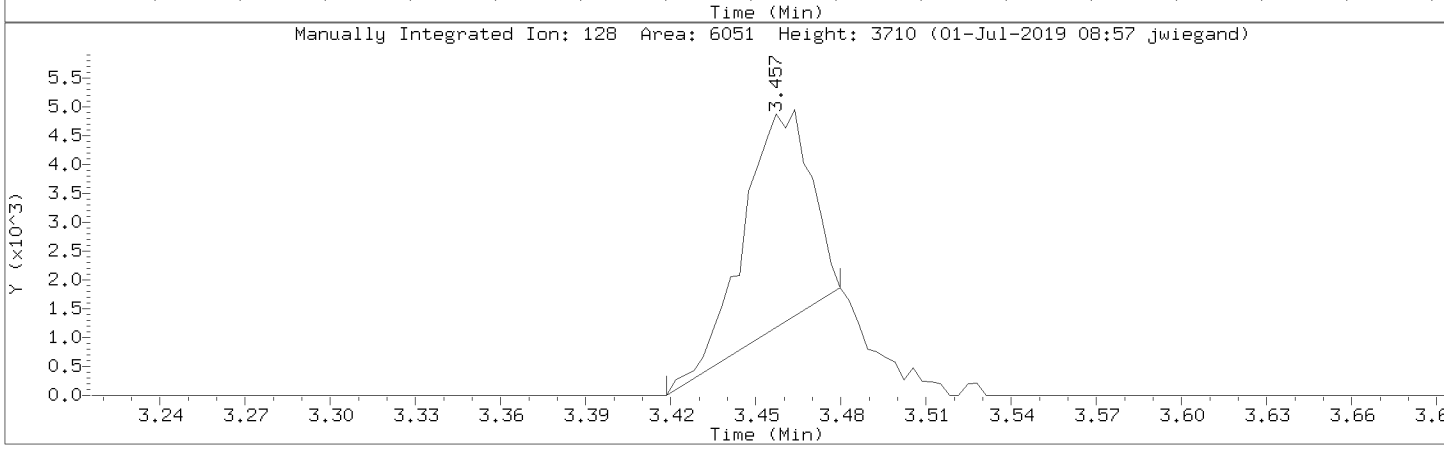
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5









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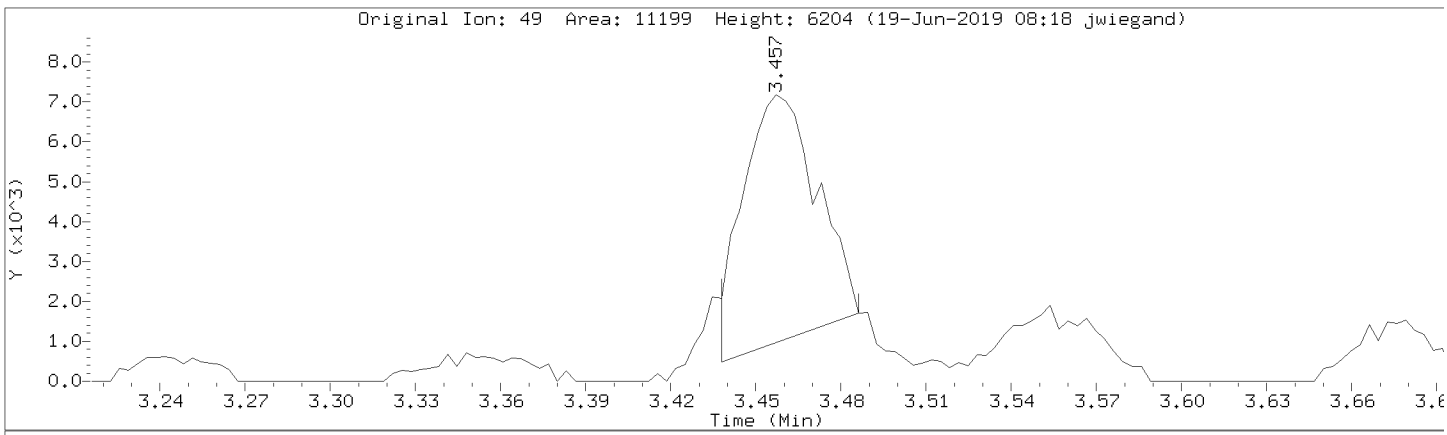
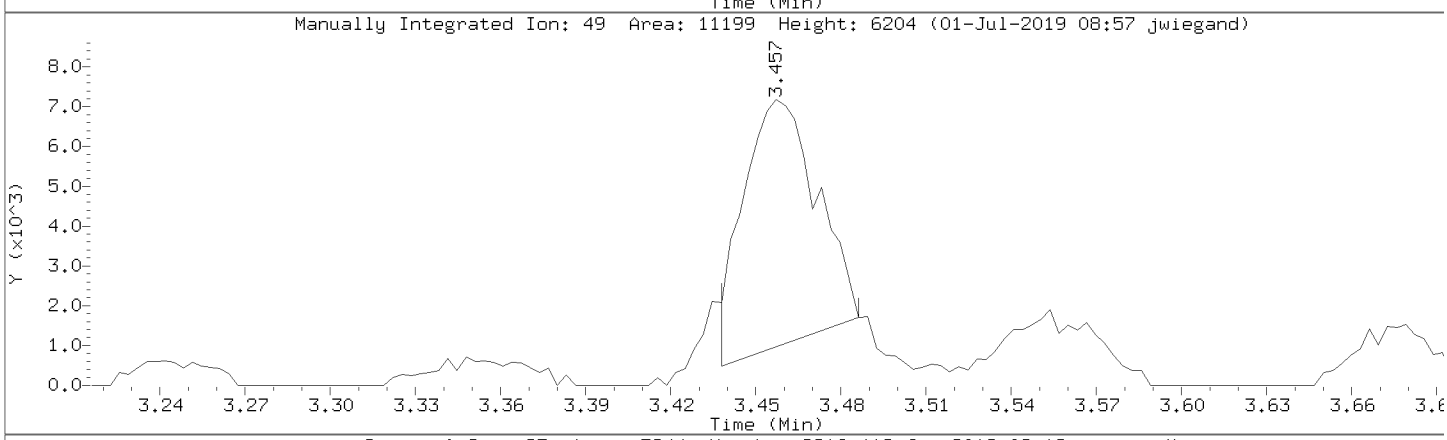
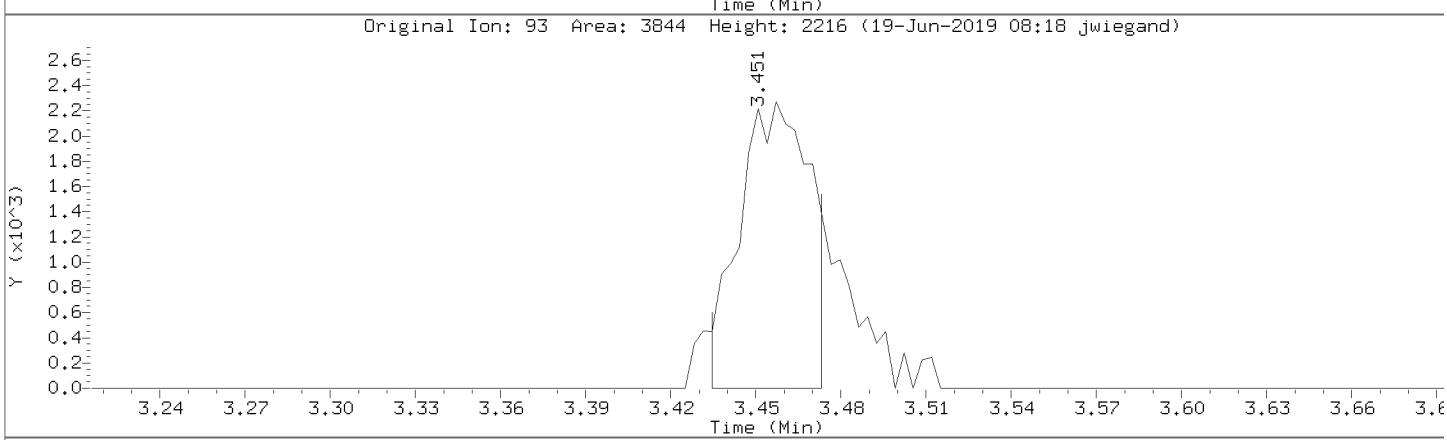
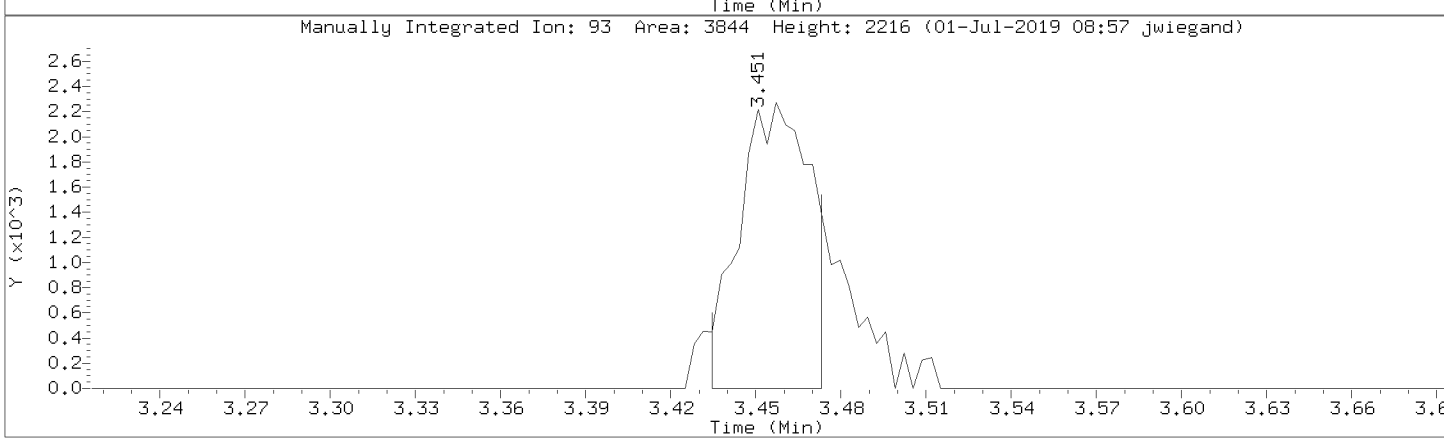
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV









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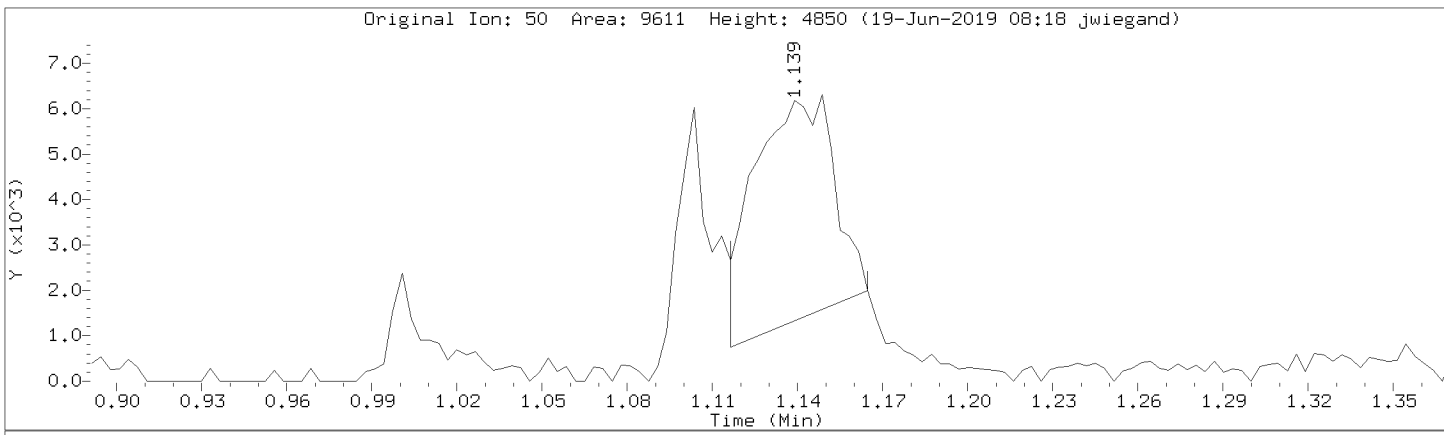
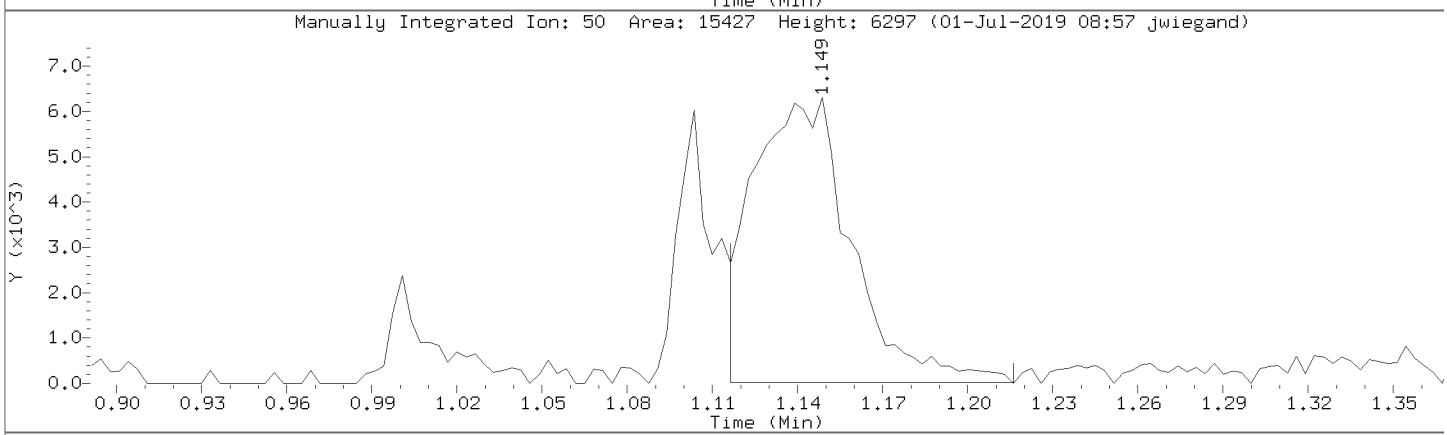
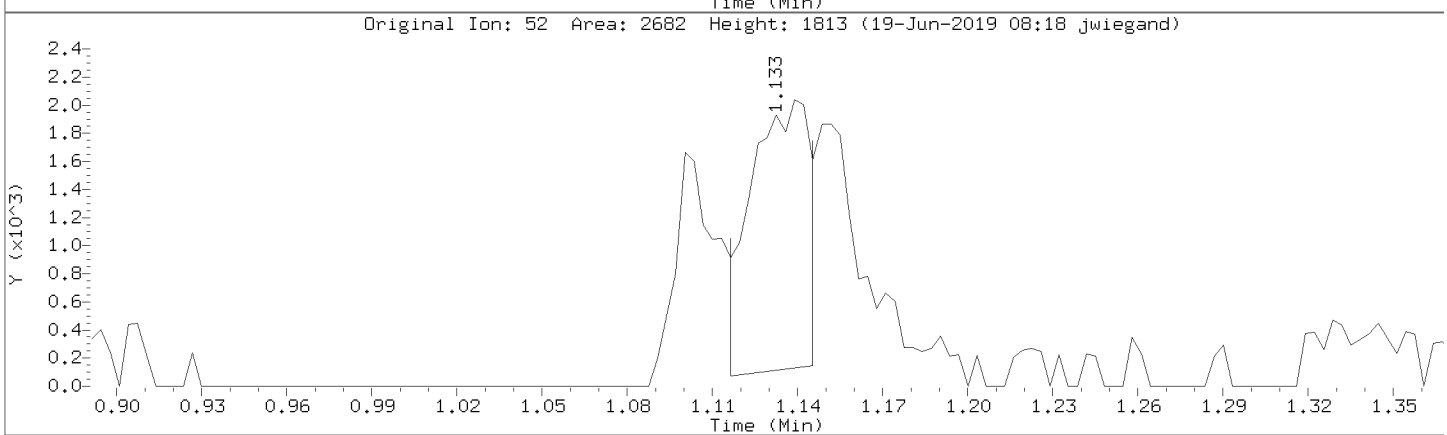
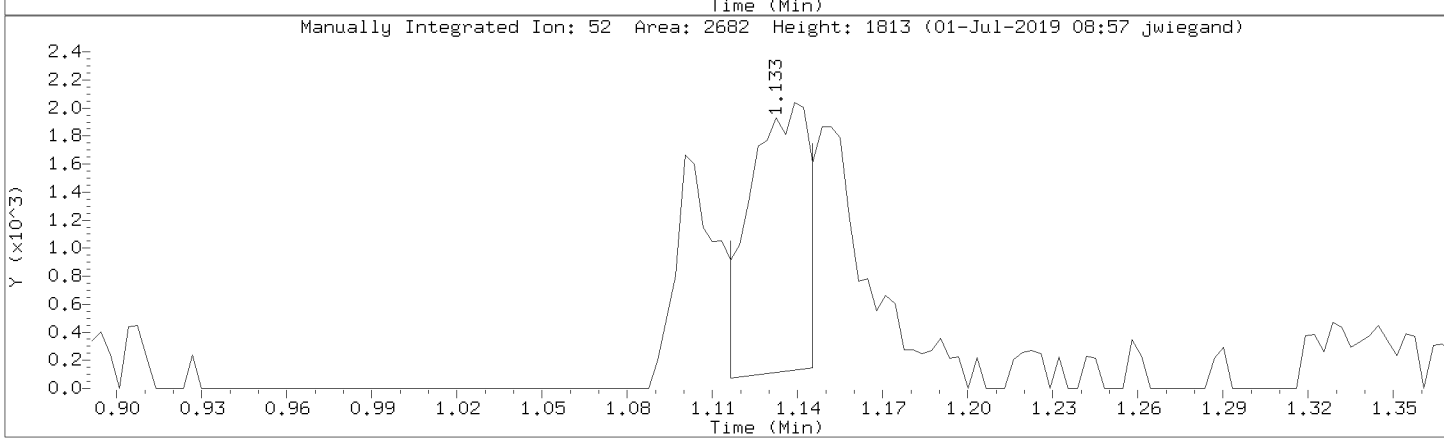
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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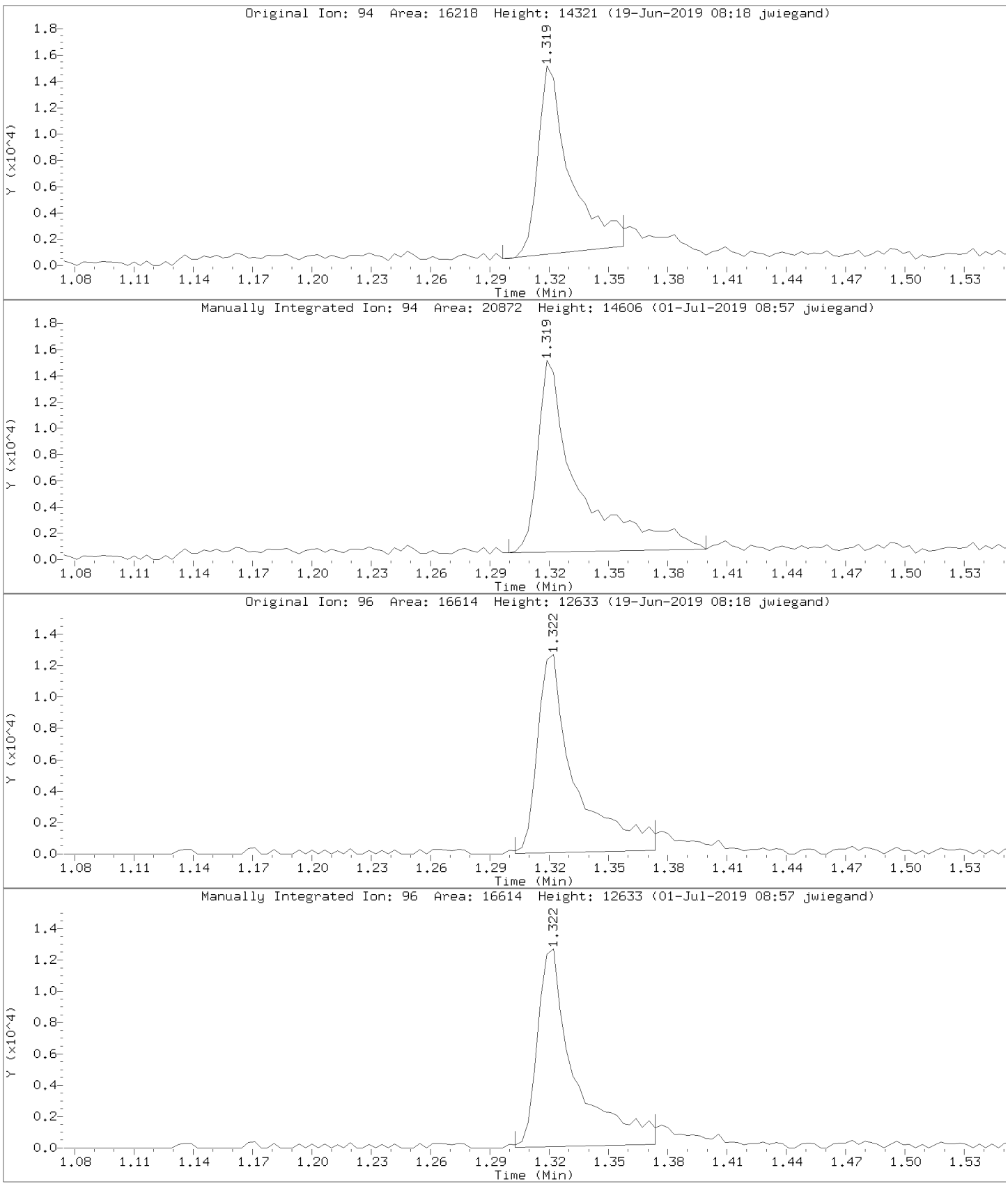
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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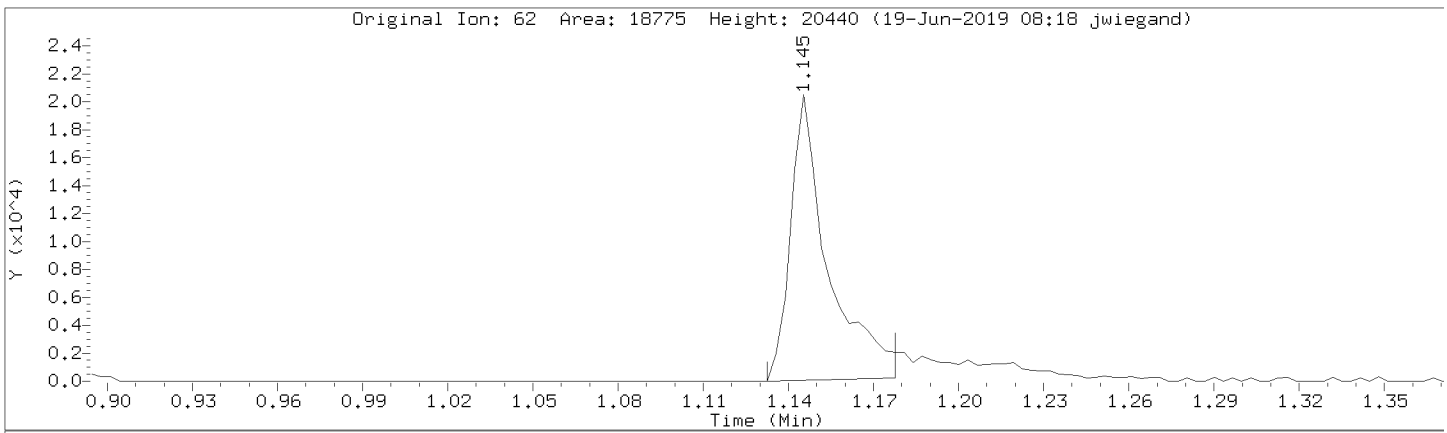
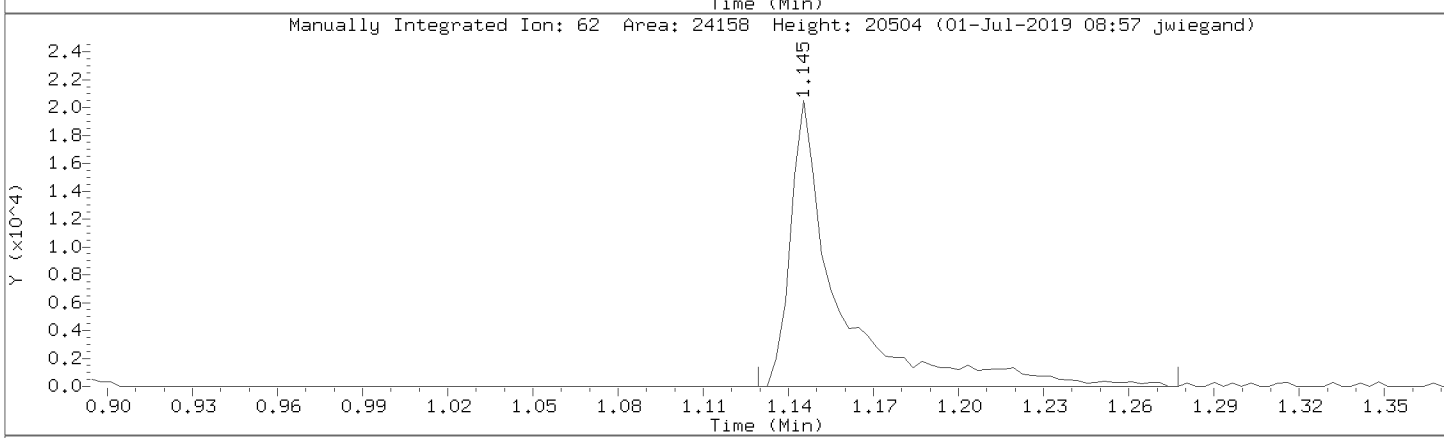
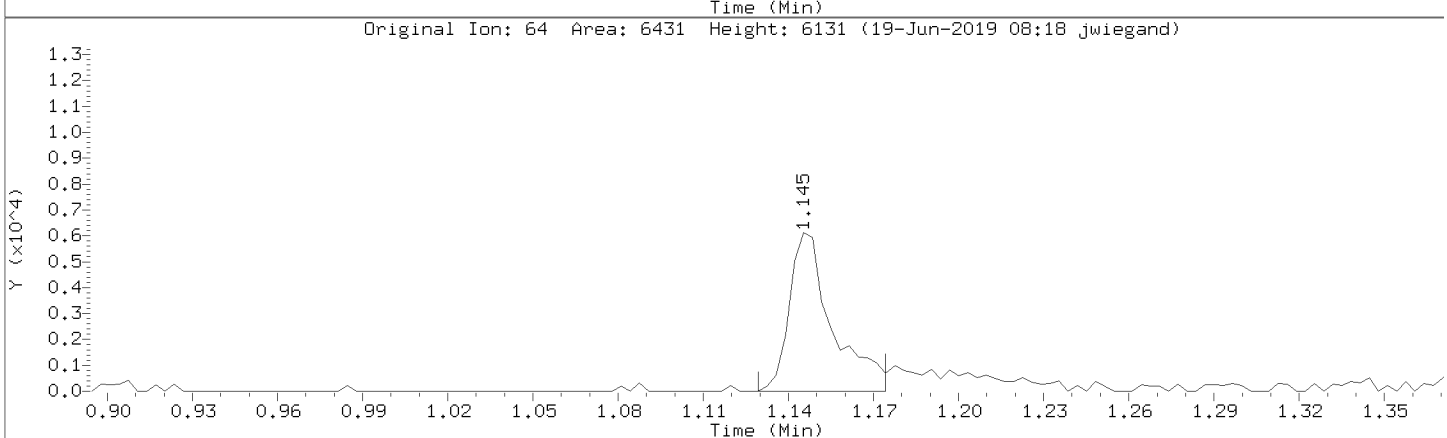
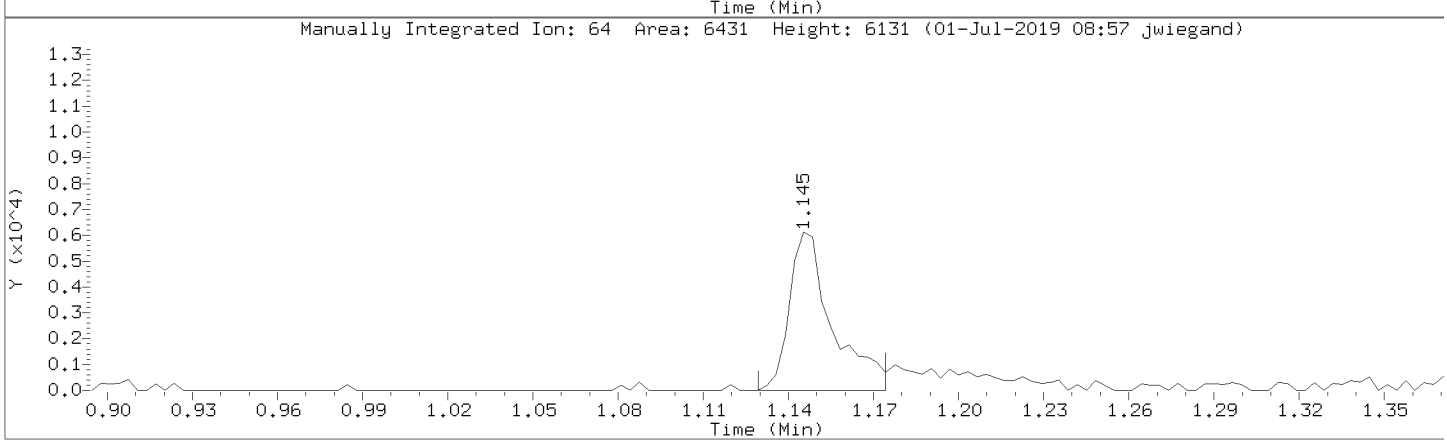
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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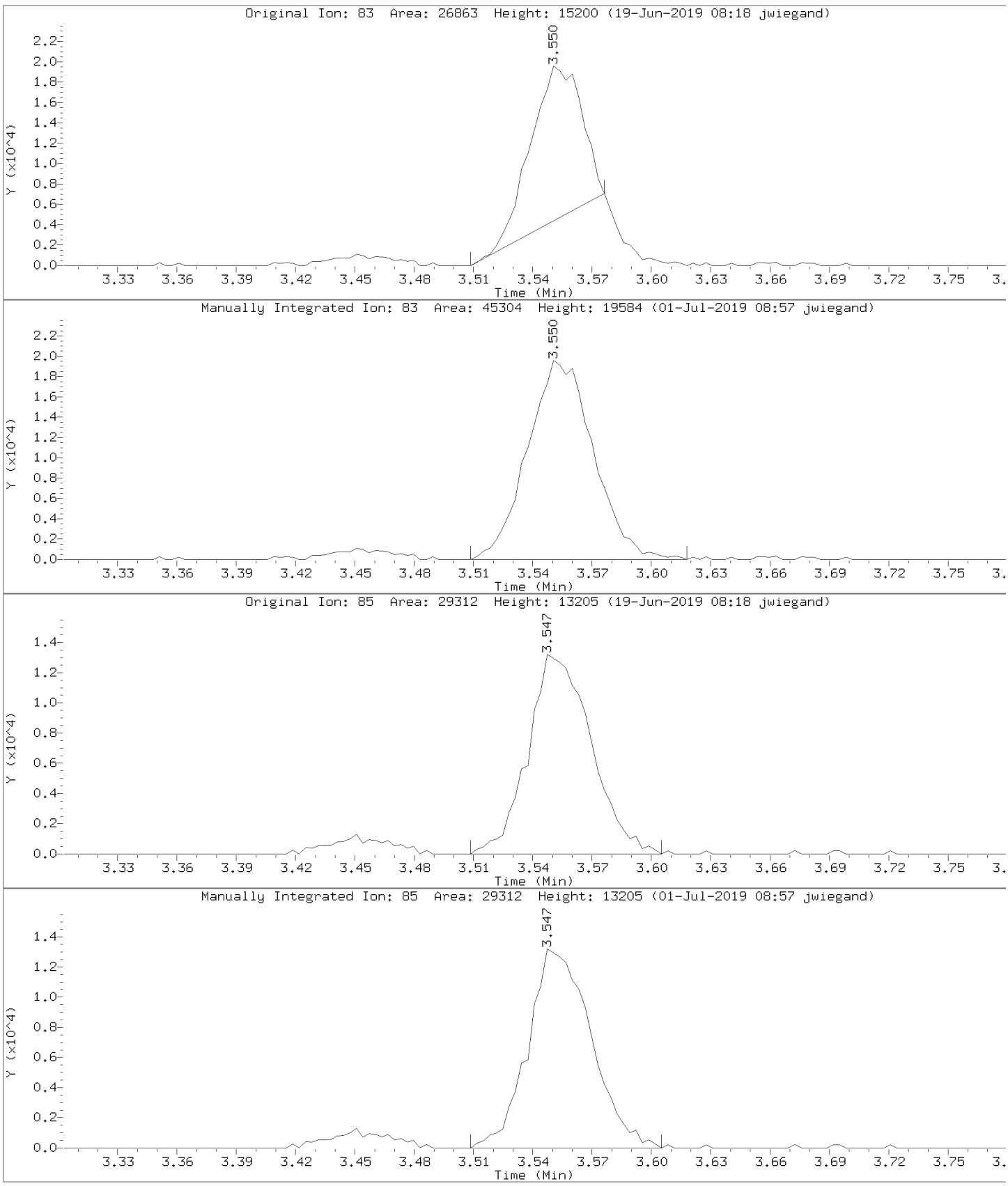
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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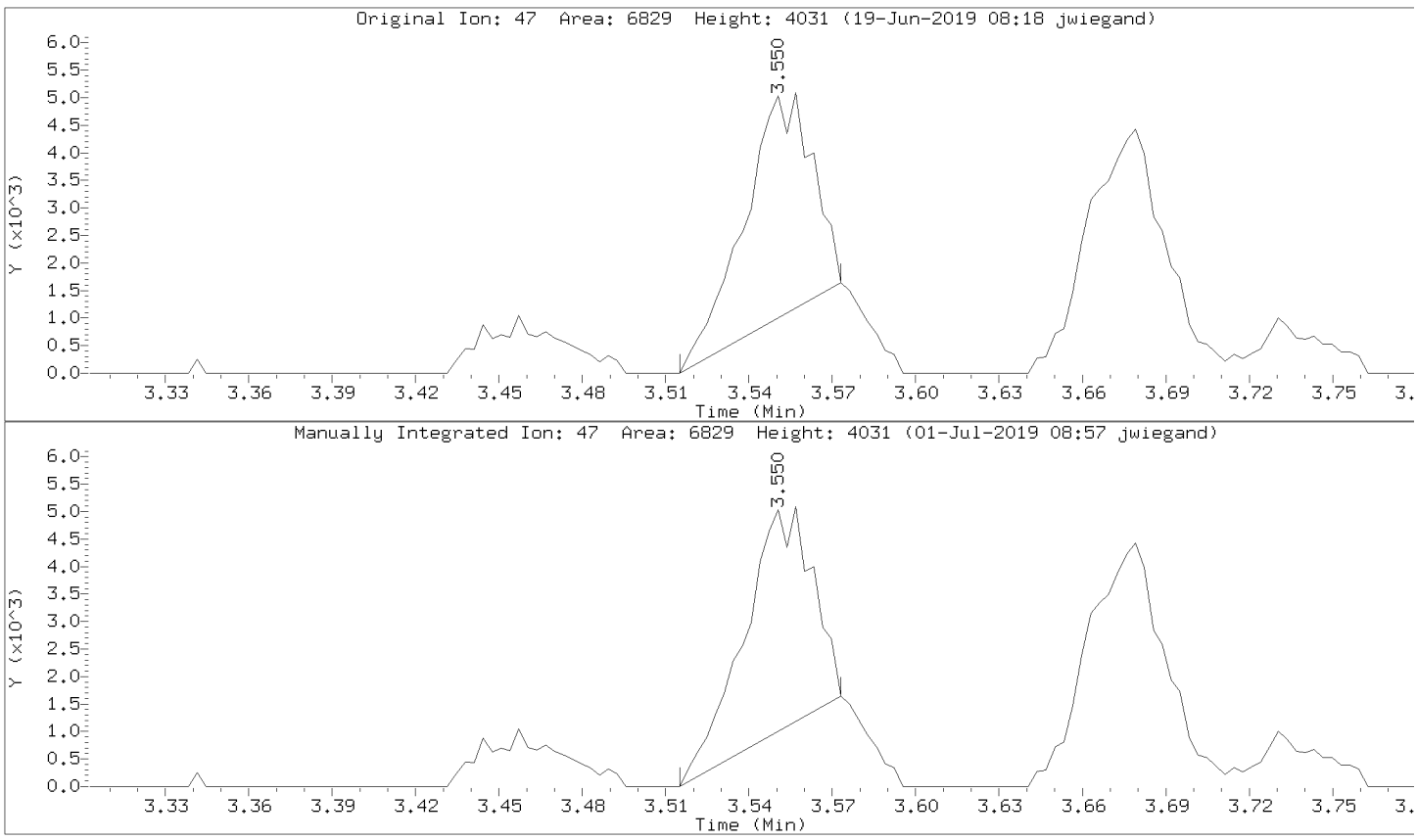
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV



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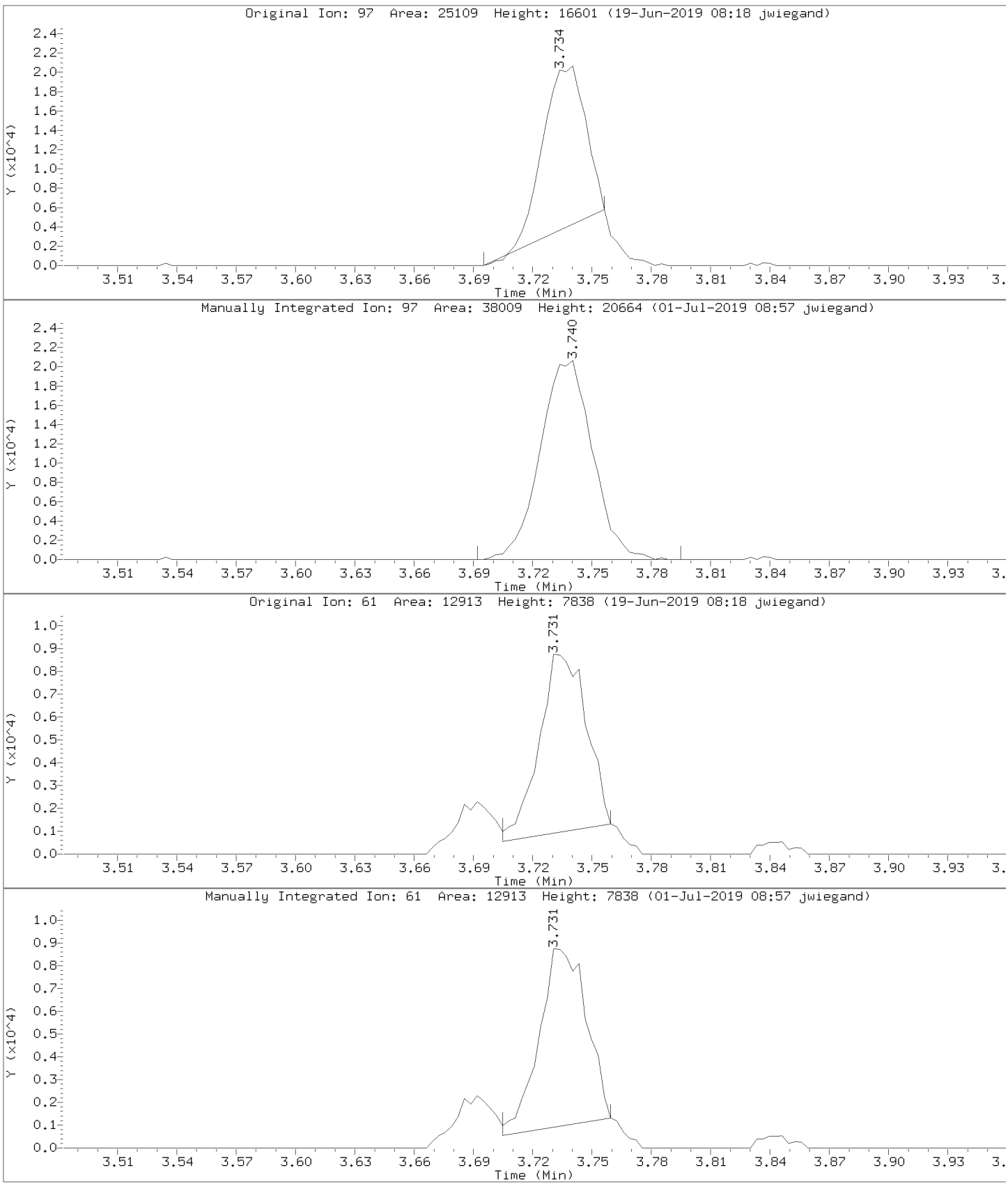
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 1,1,1-Trichloroethane Review Code: LT
CAS Number: 71-55-6



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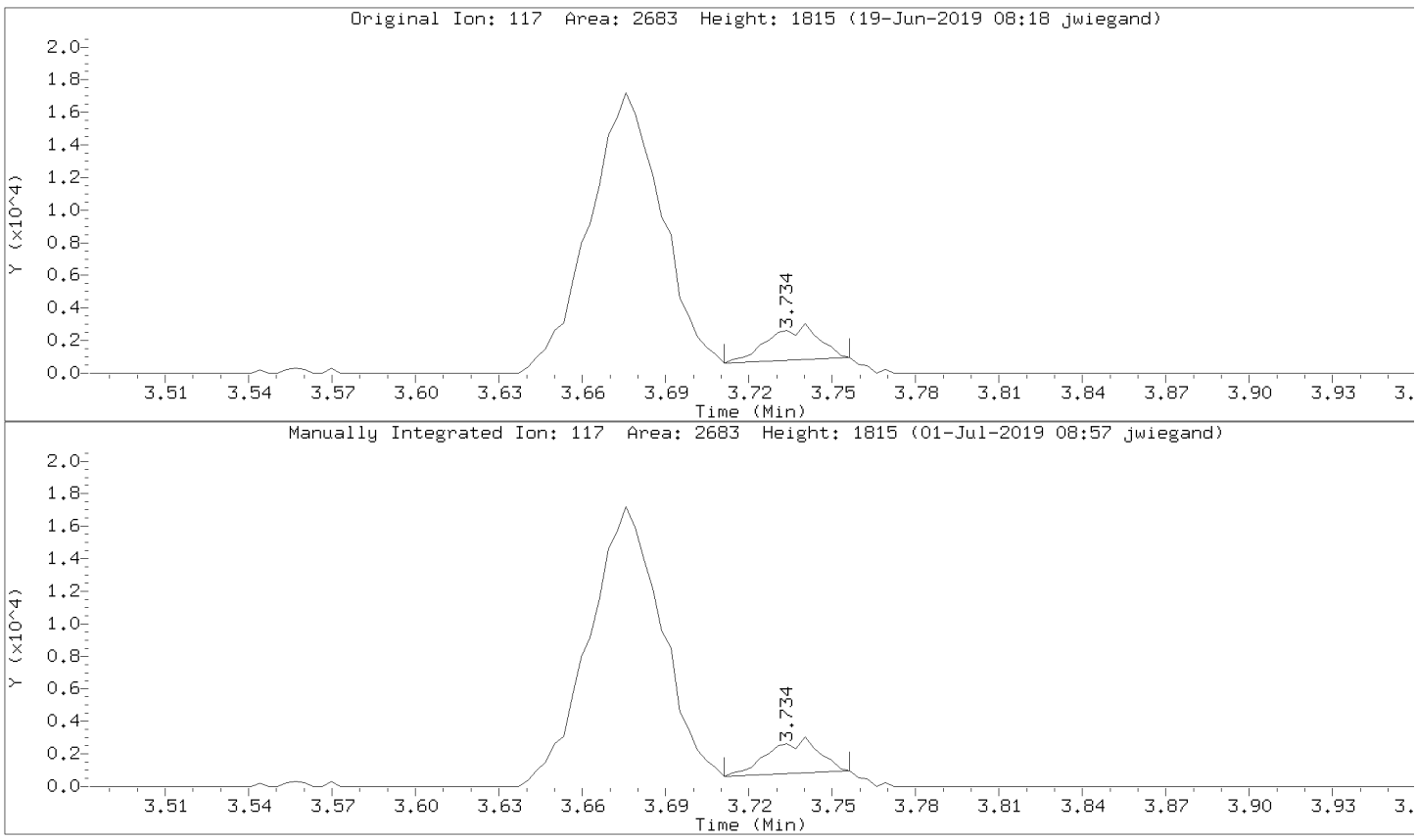
Lab Sample ID: ICV



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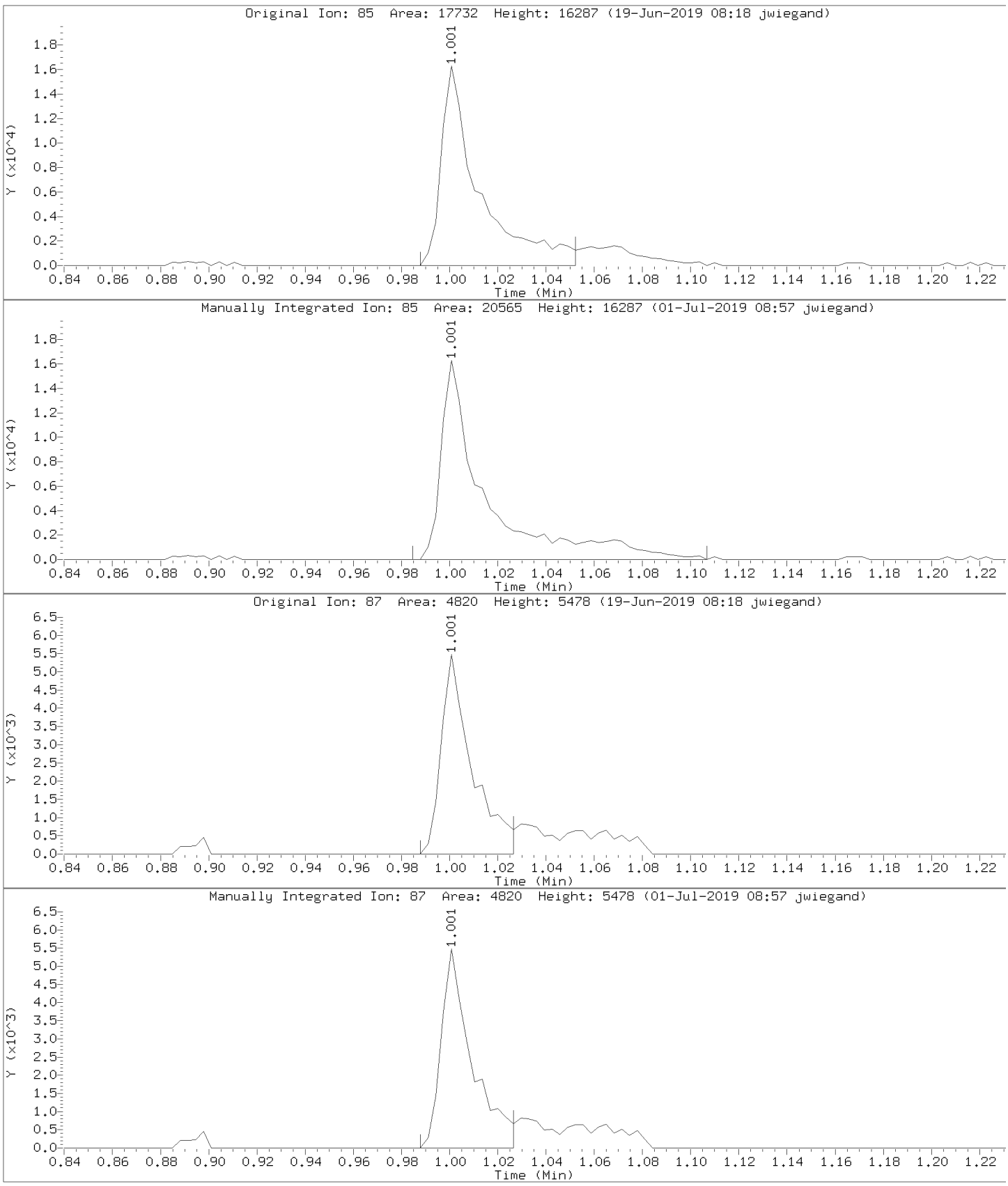
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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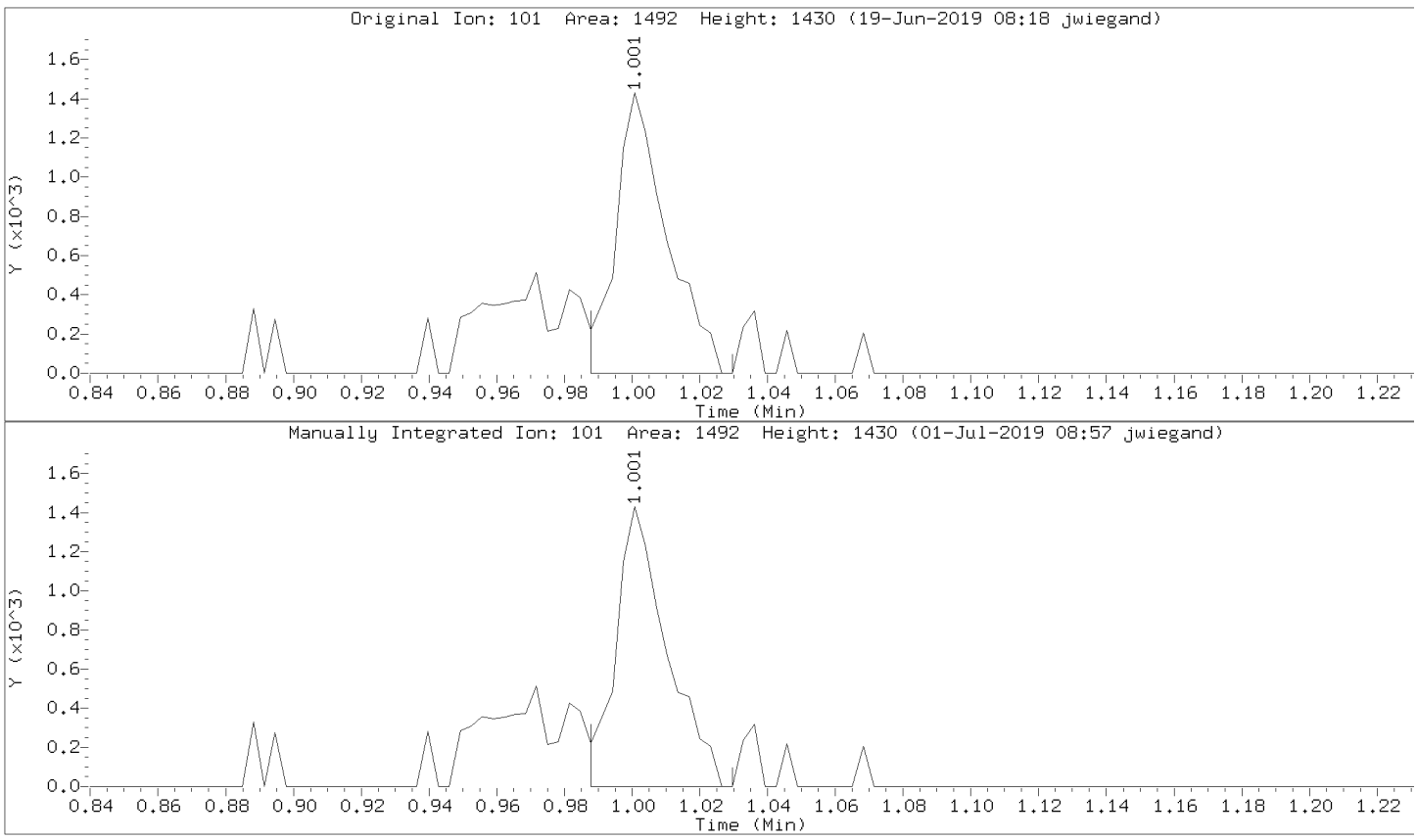
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV



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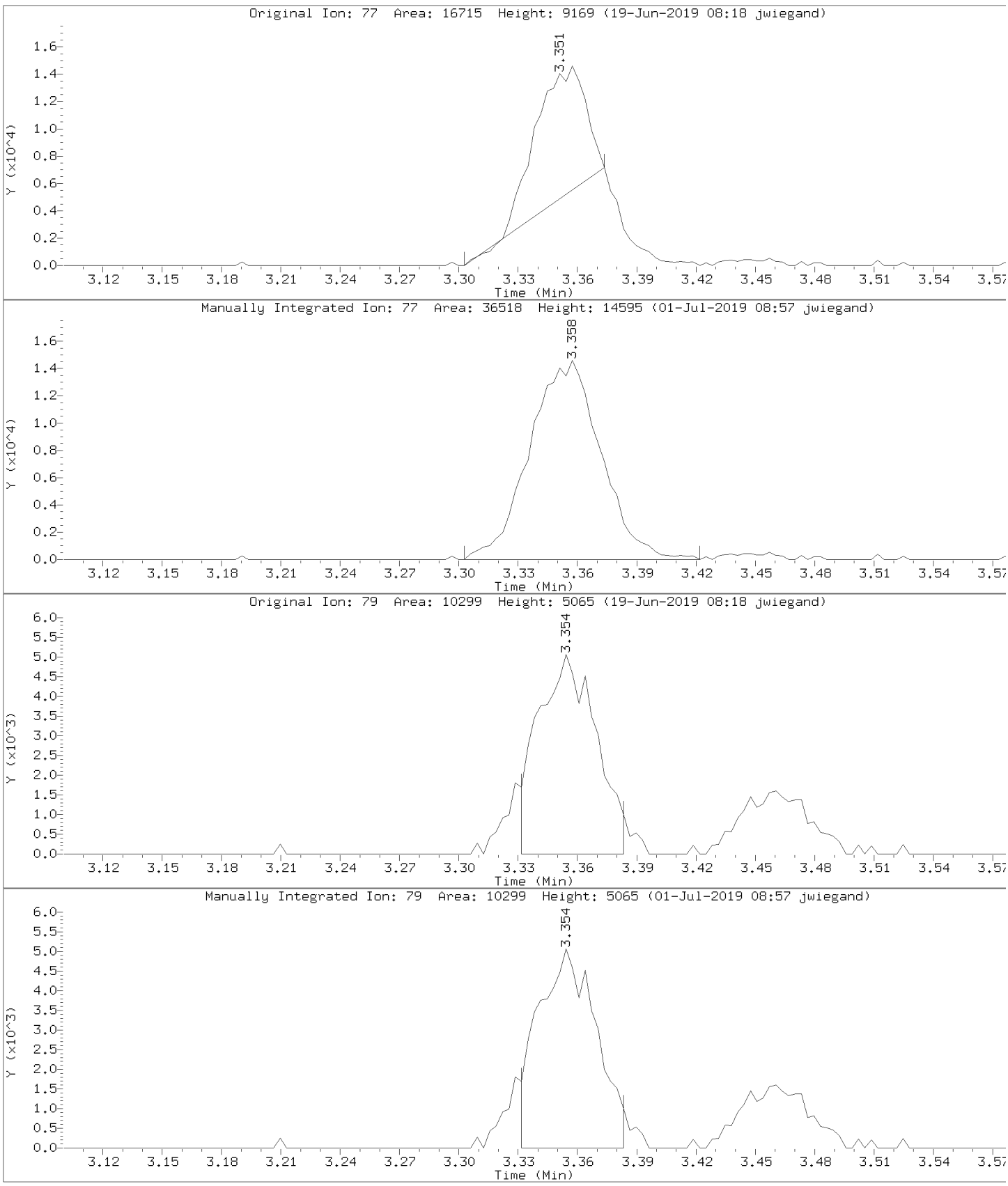
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 2,2-Dichloropropane Review Code: LT
CAS Number: 594-20-7



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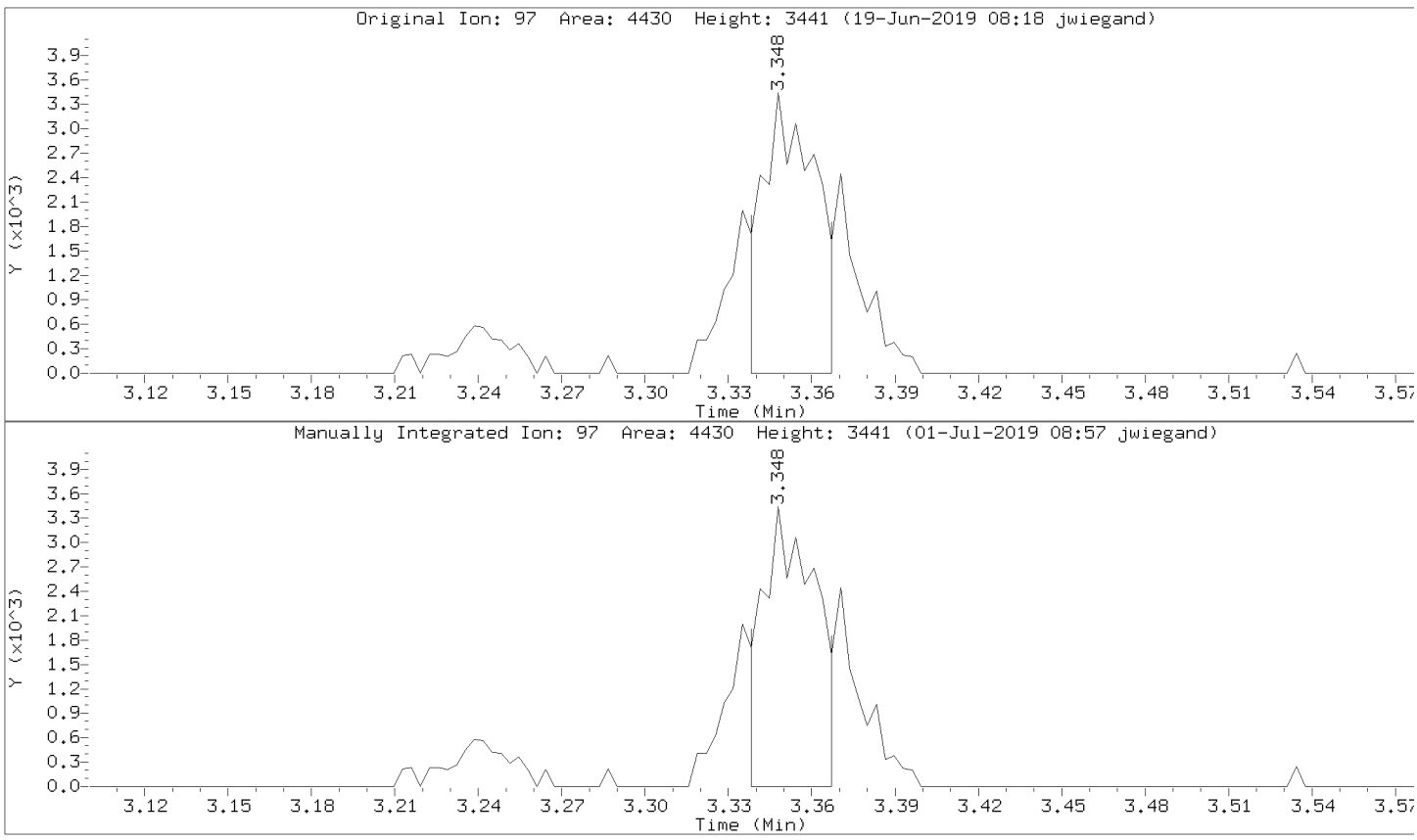
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV



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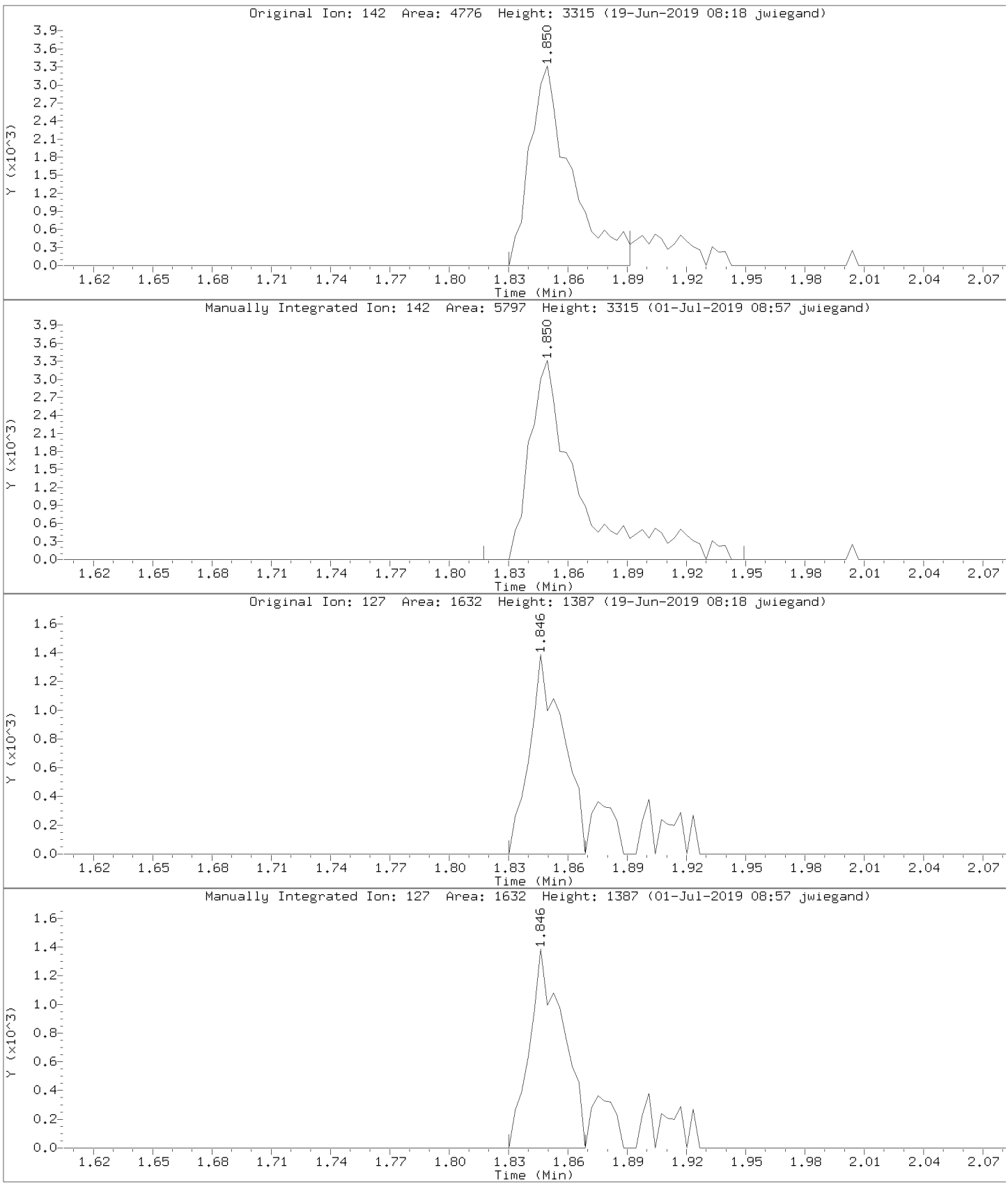
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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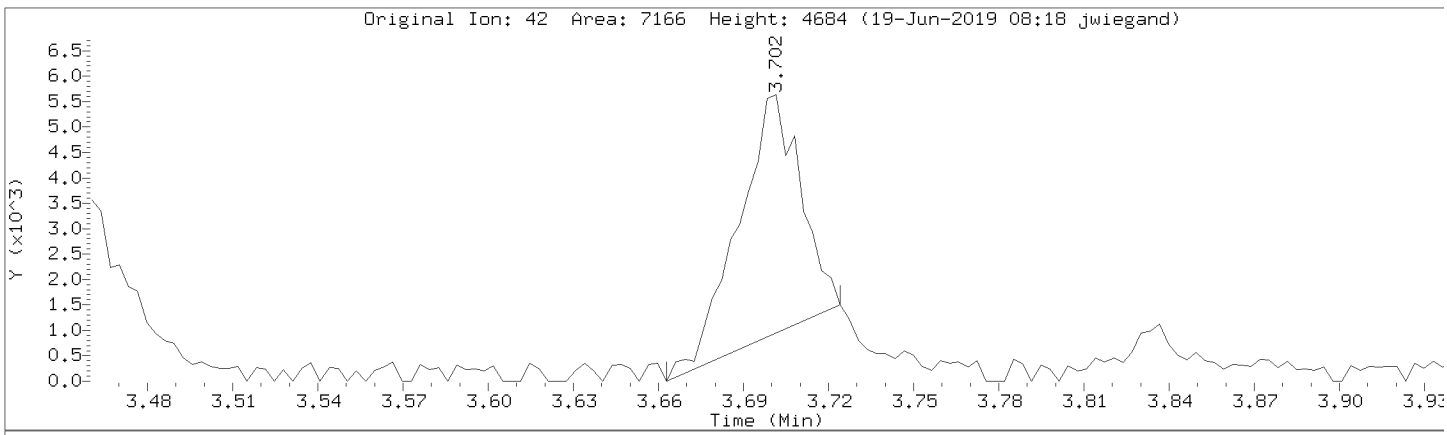
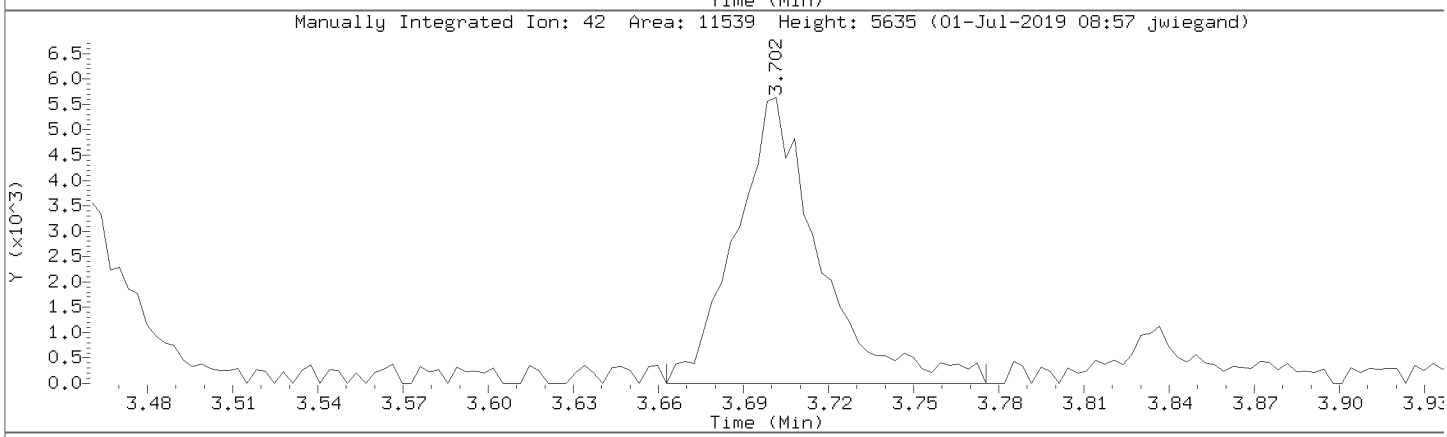
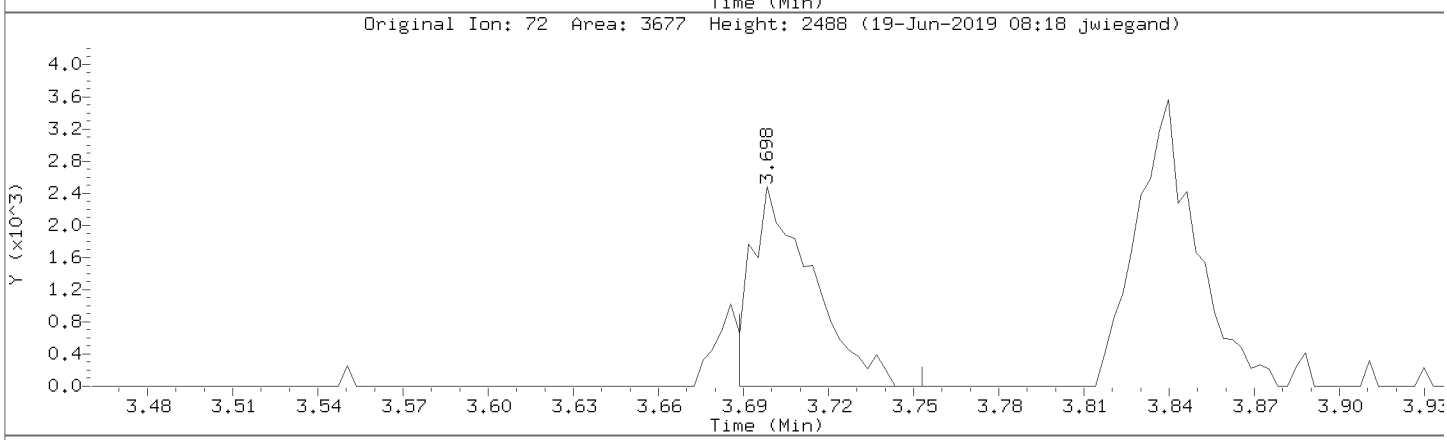
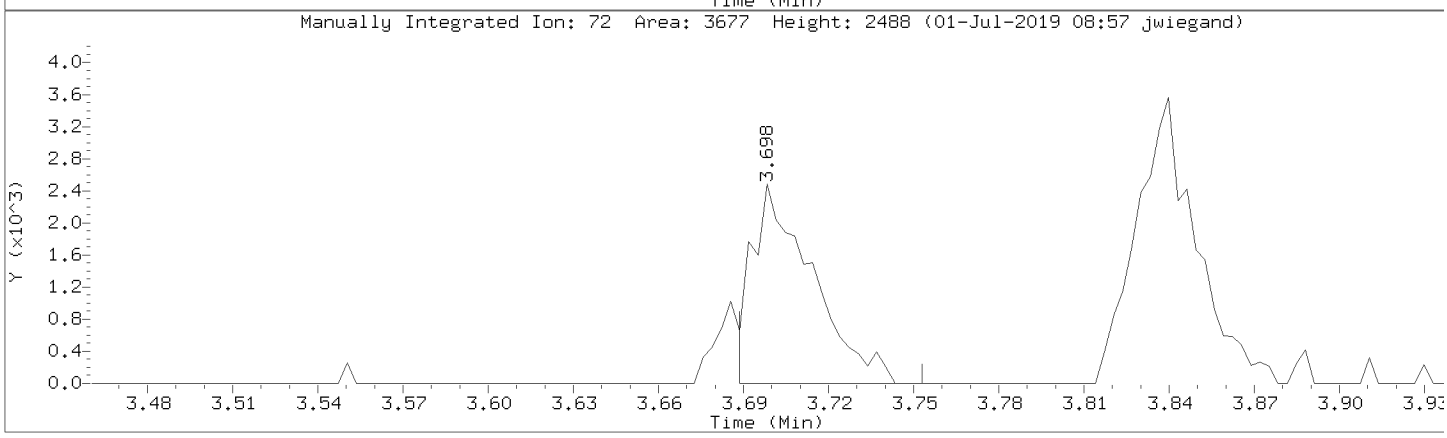
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9









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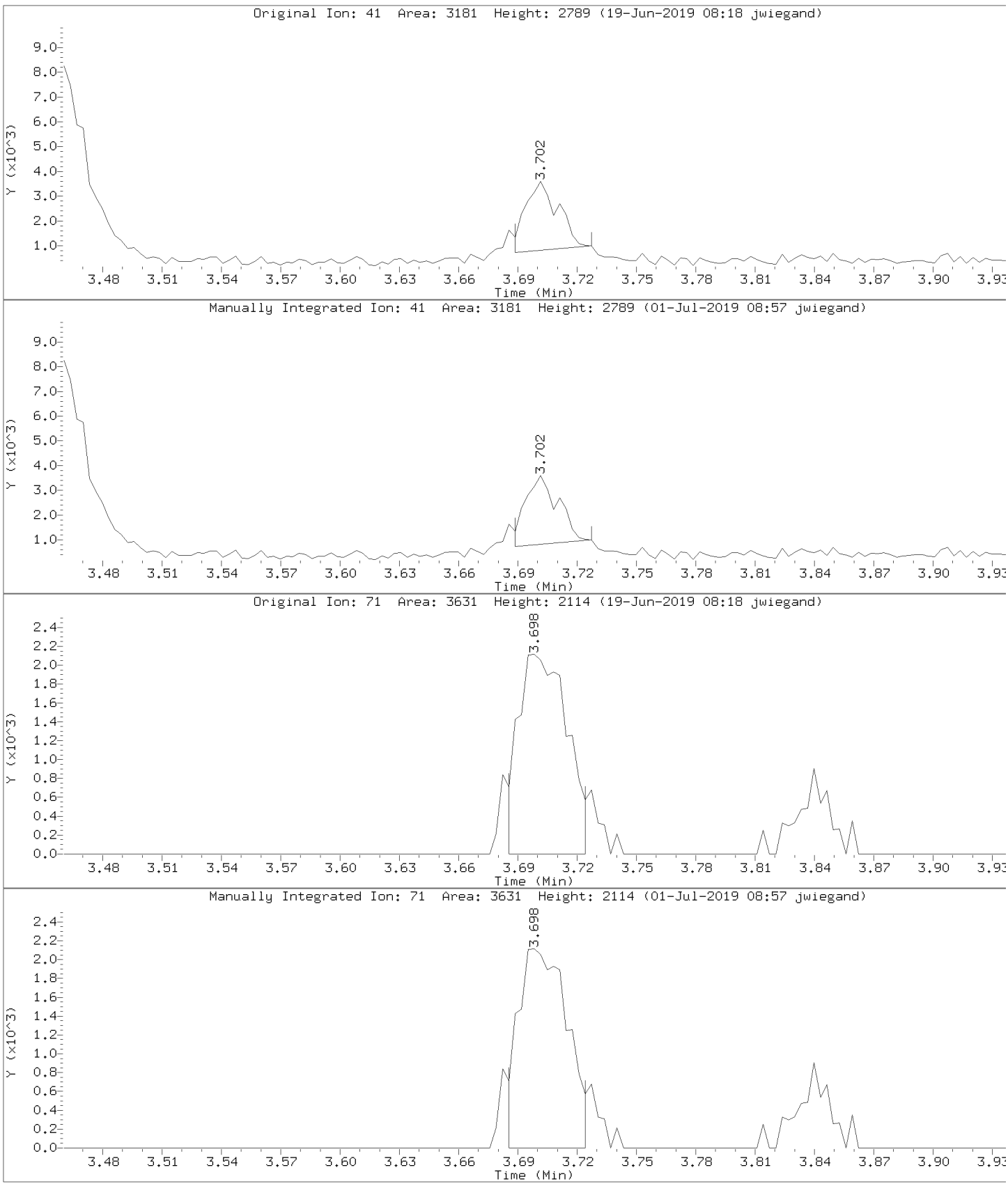
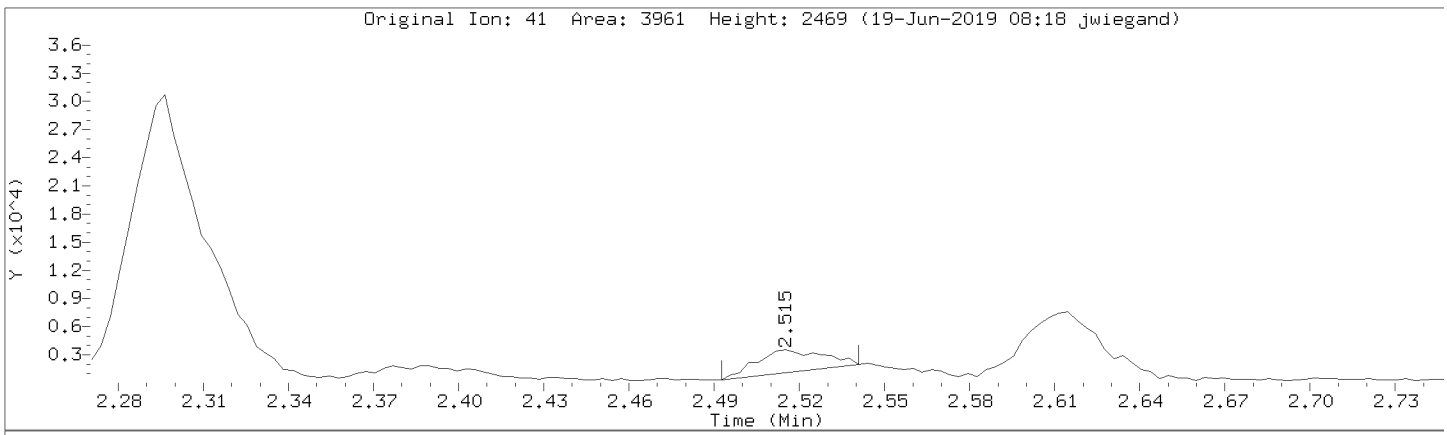
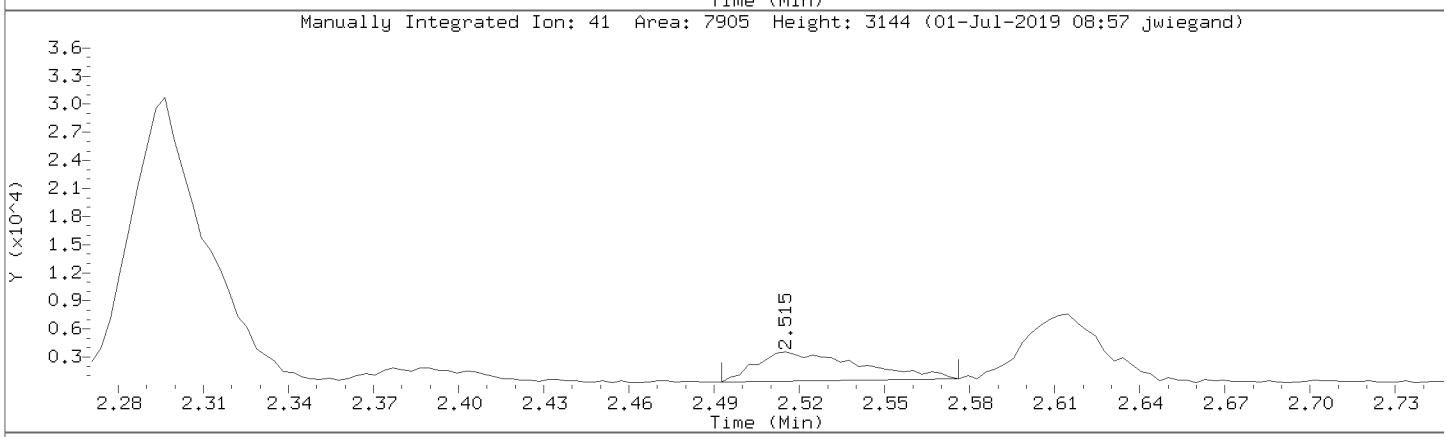
Instrument: 30mv5a.i
Lab Sample ID: ICV

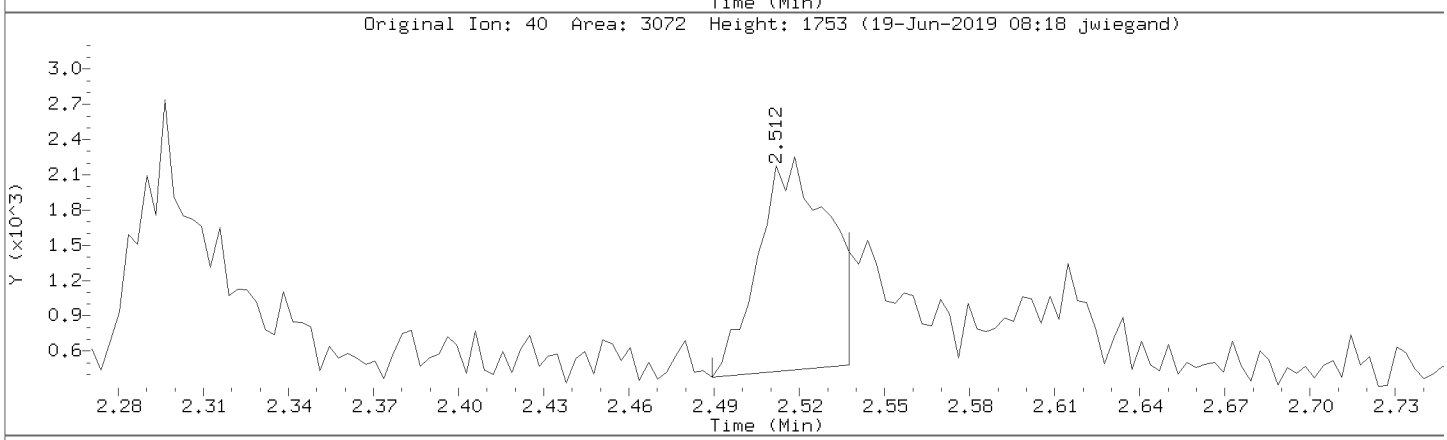


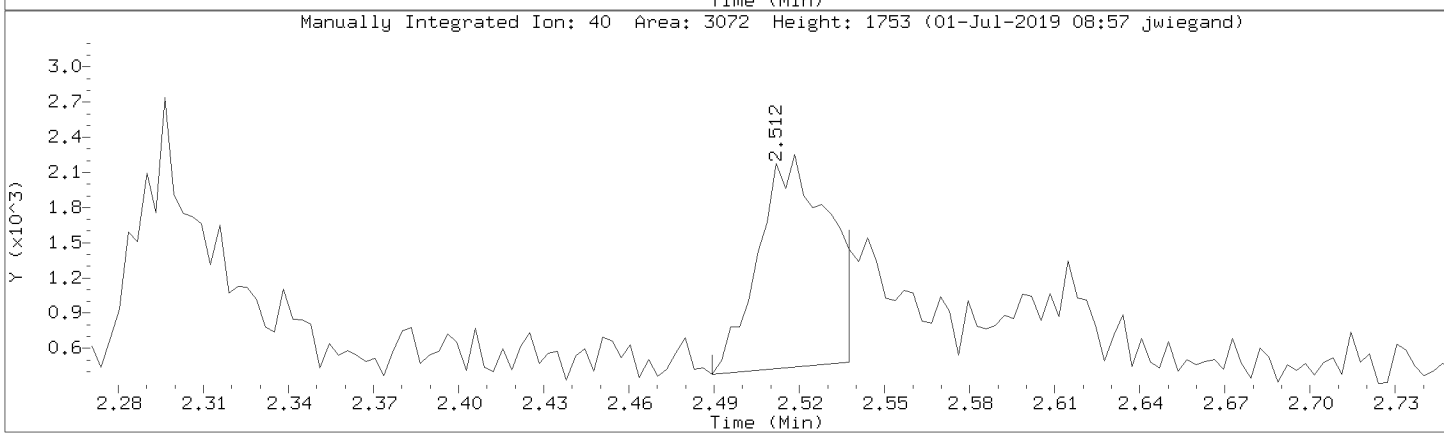
Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b/50618023.d
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8









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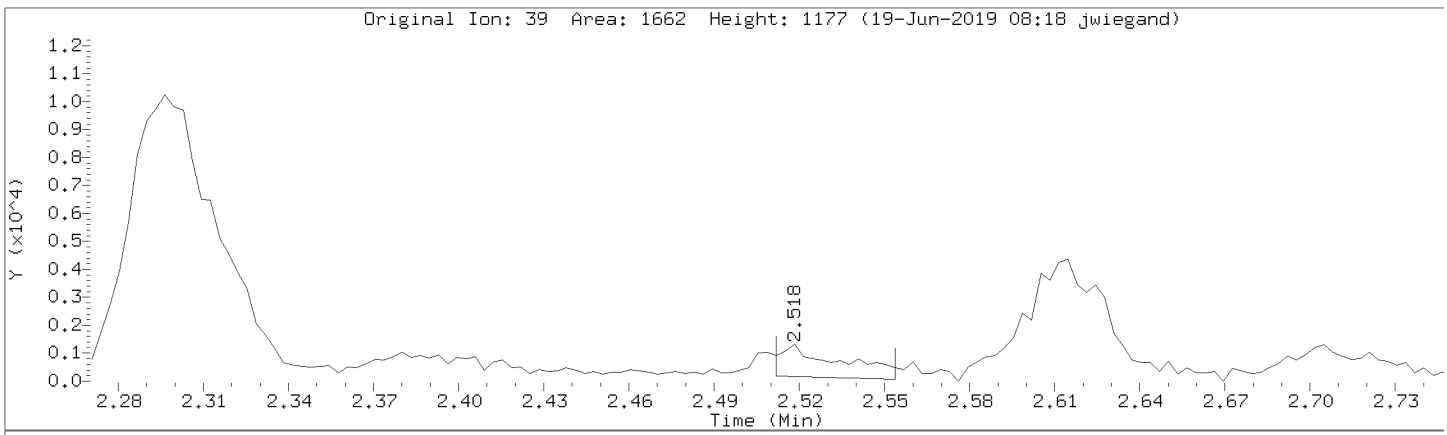
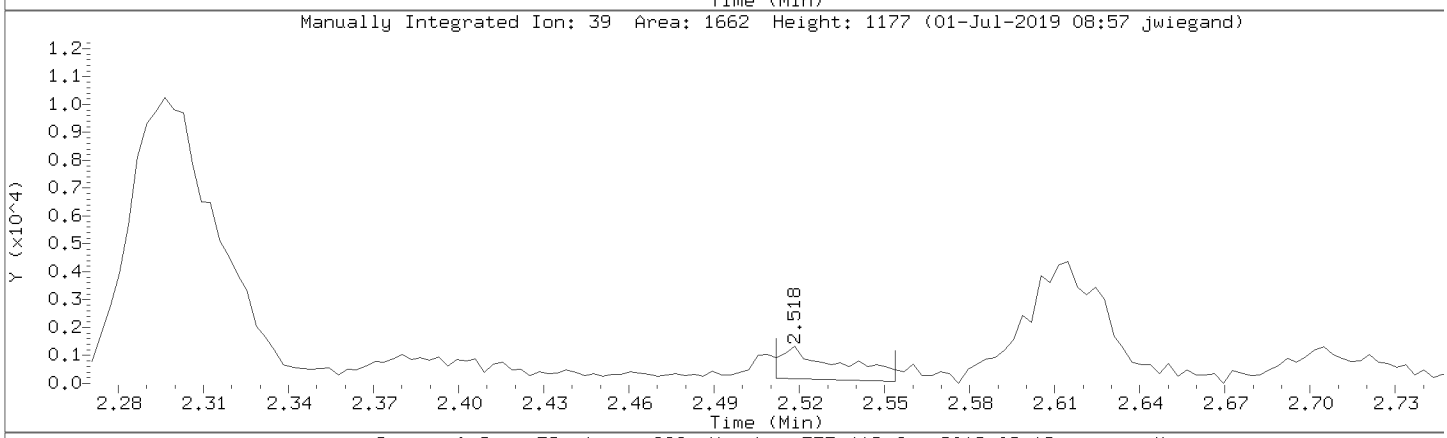
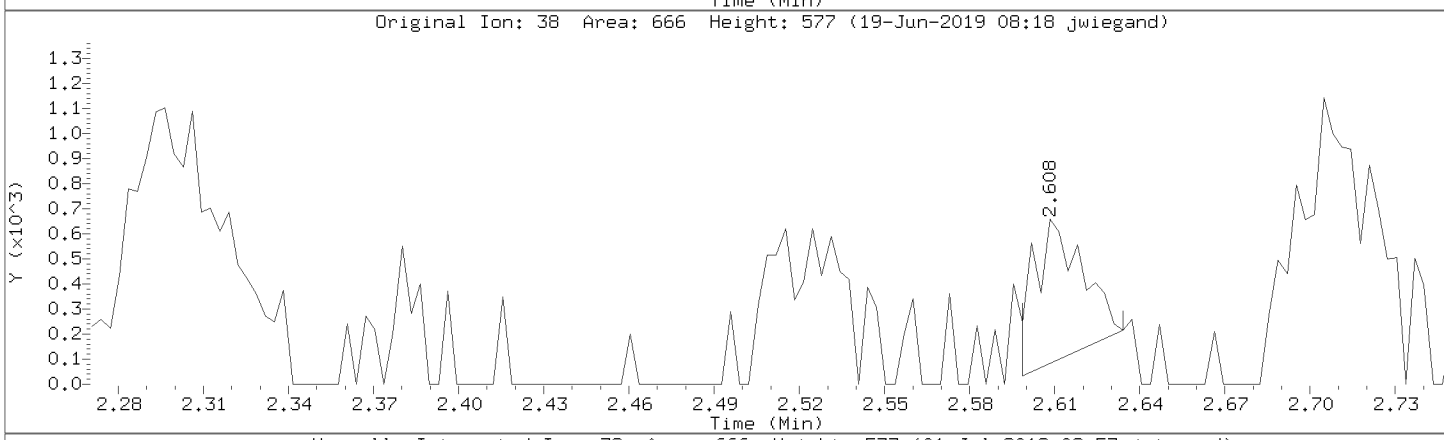
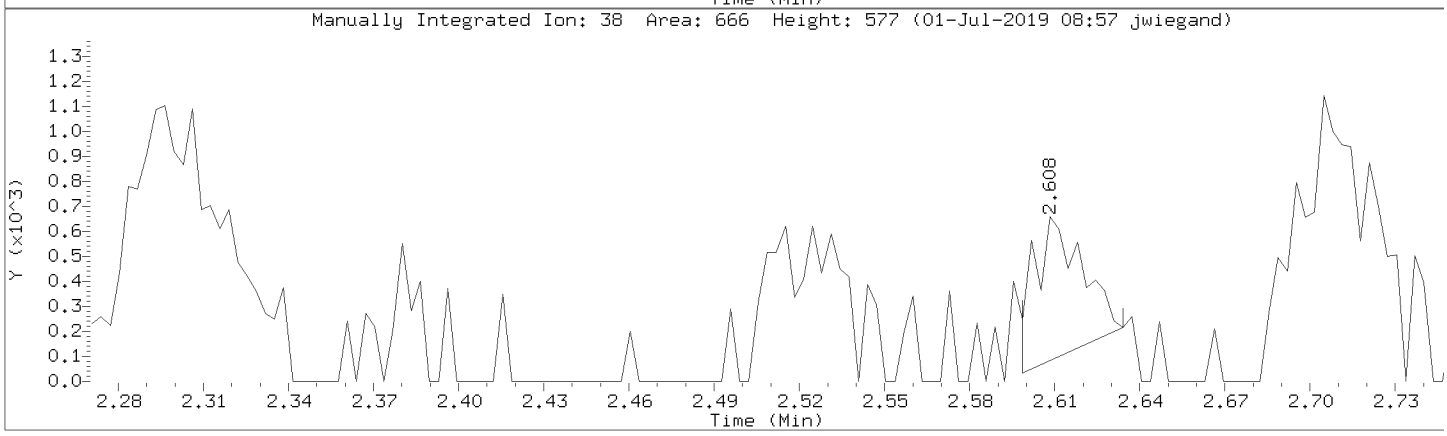
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV









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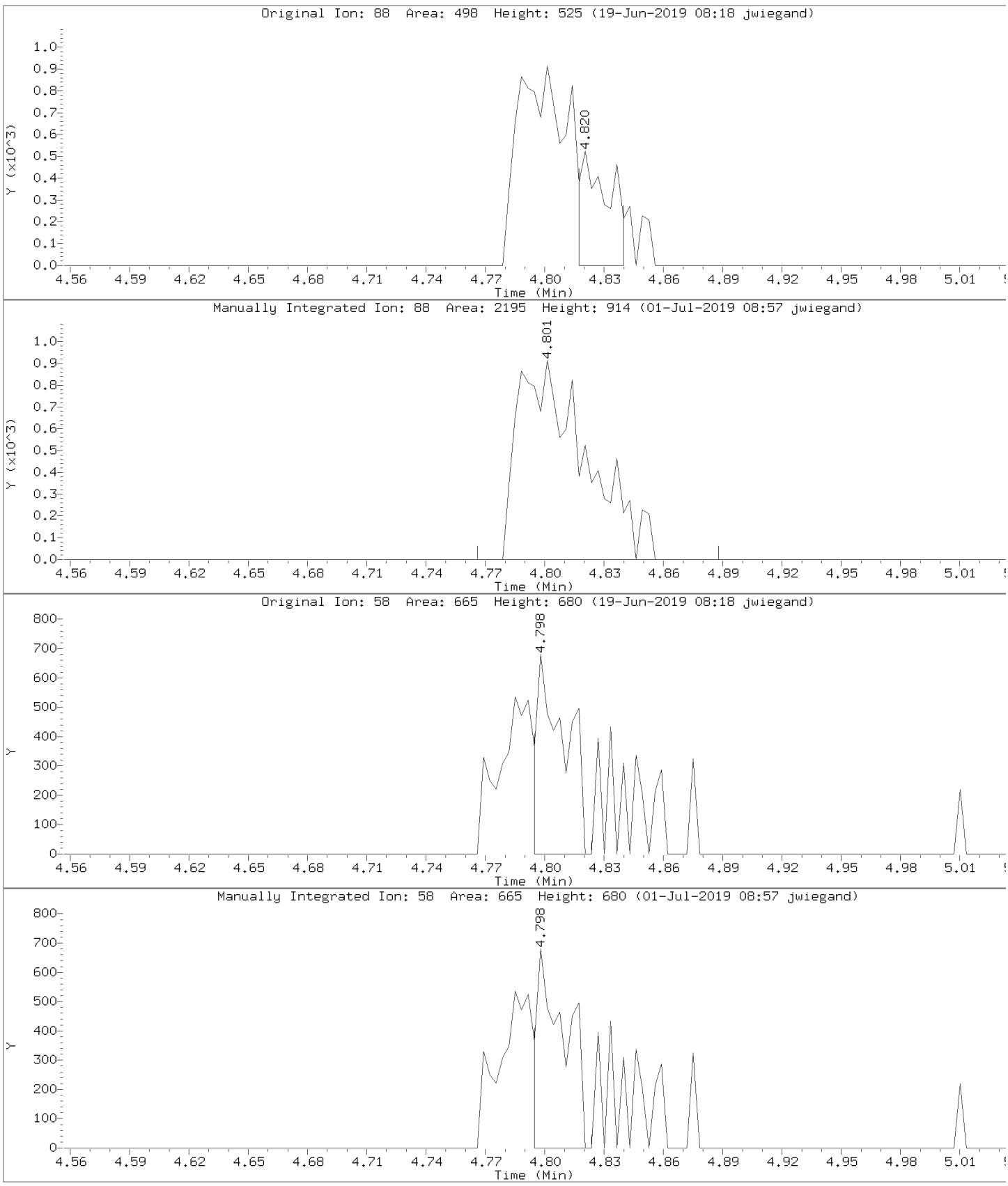
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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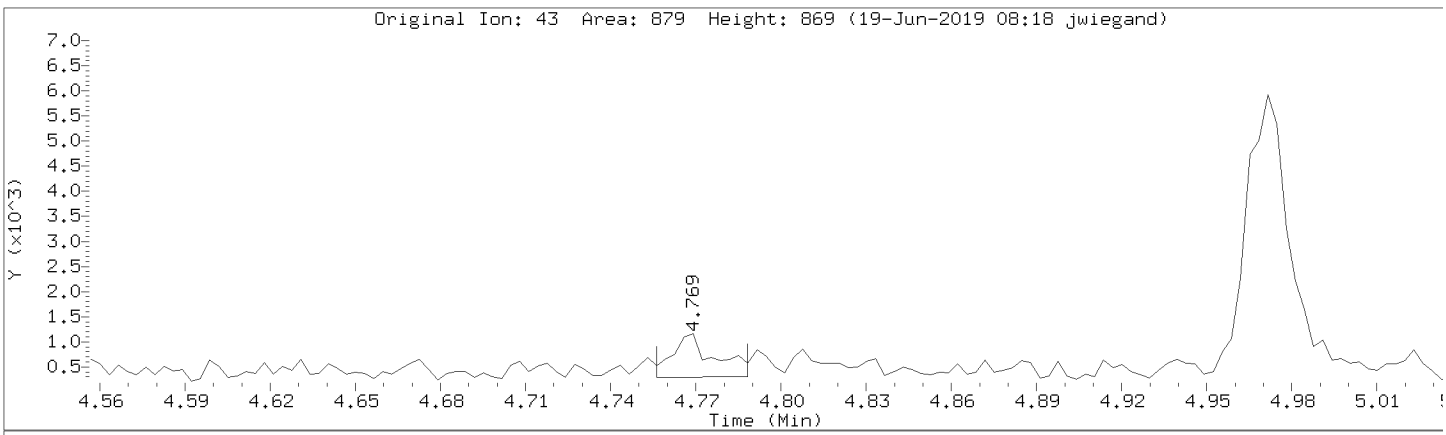
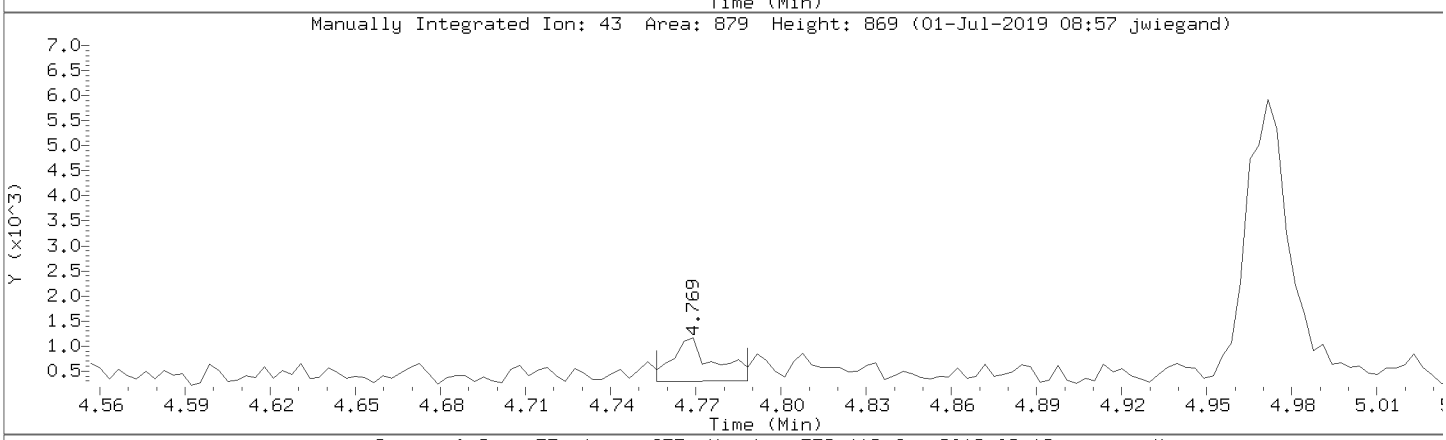
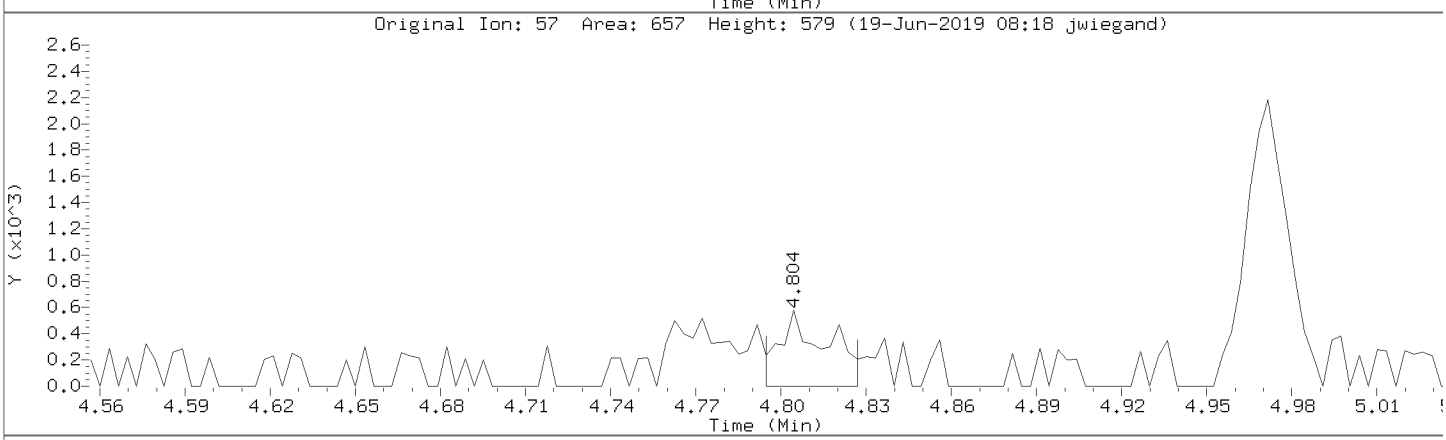
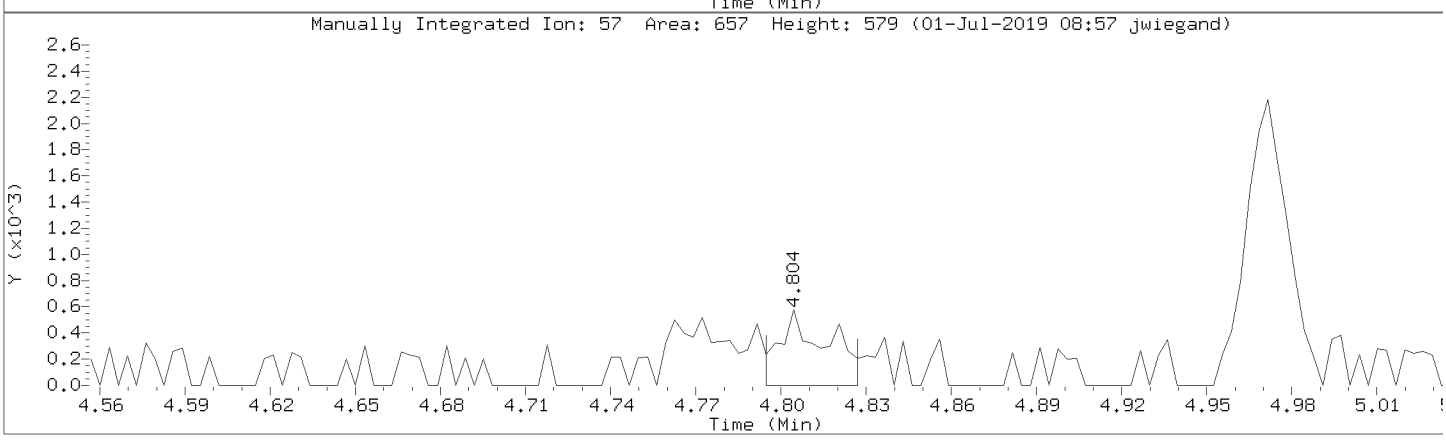
Lab Sample ID: ICV









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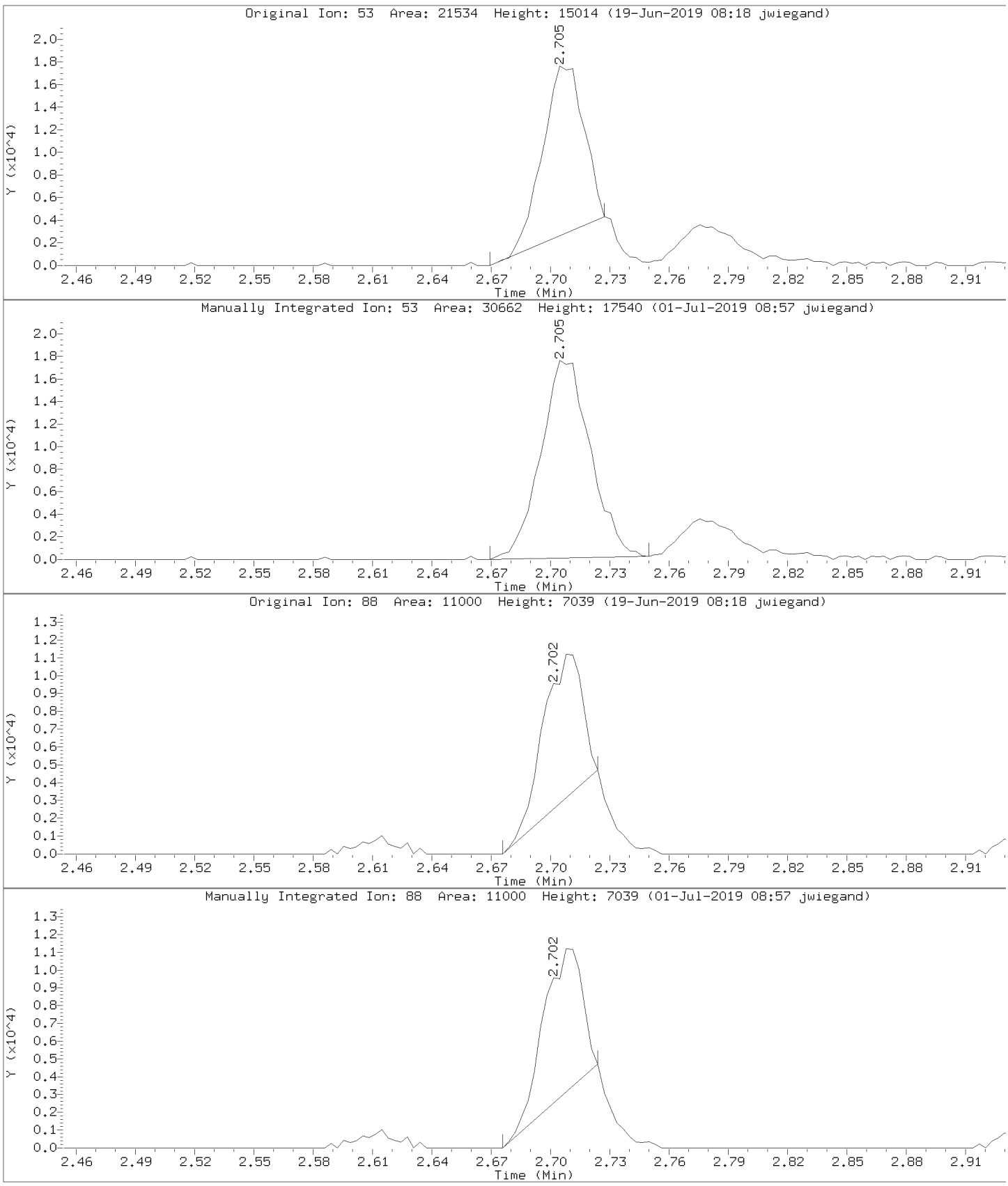
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Chloroprene Review Code: LT
CAS Number: 126-99-8



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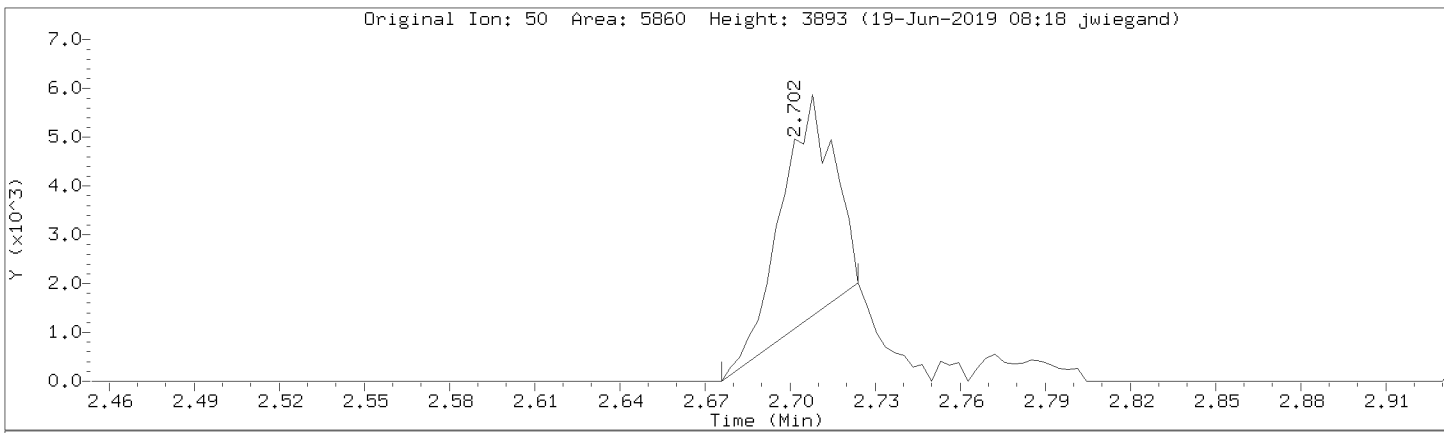
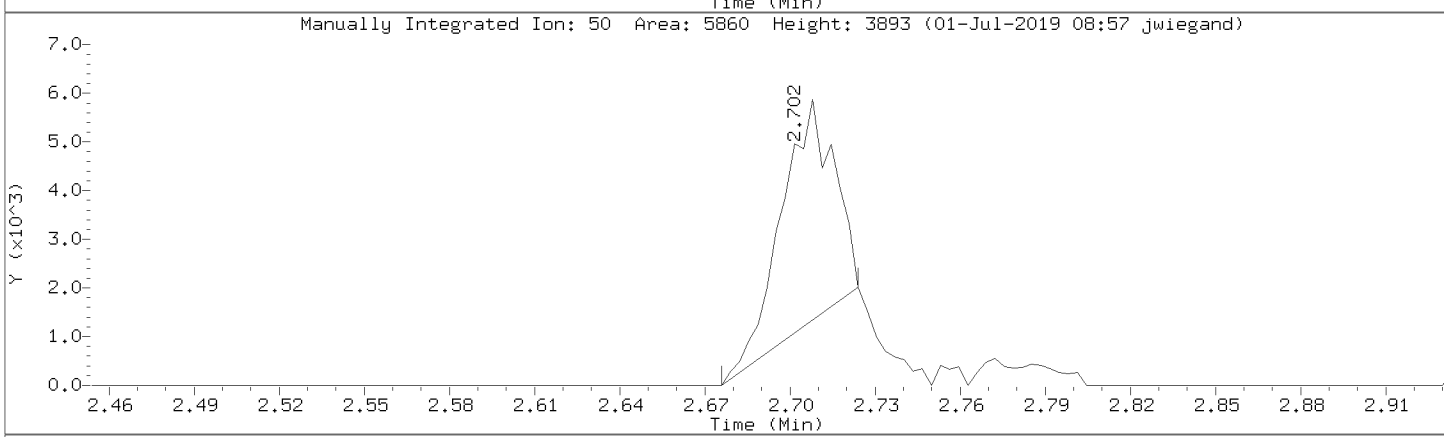
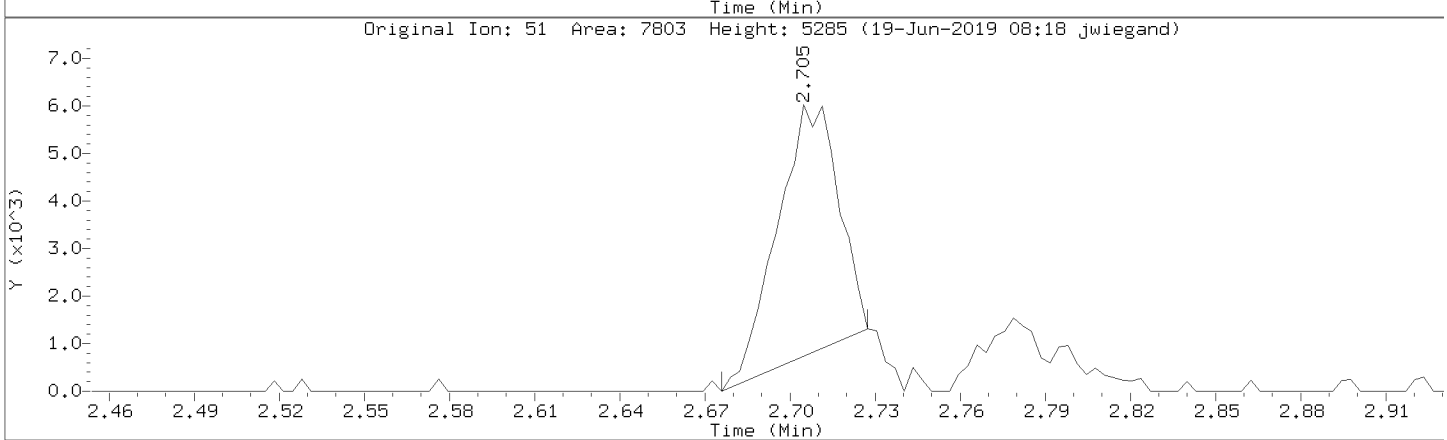
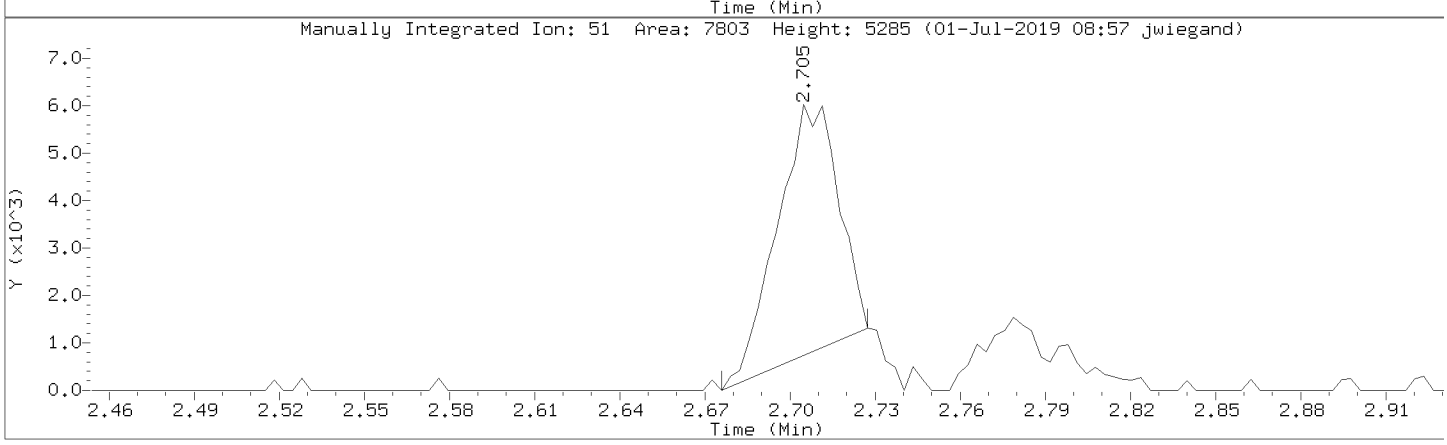
Instrument: 30mv5a.i
Lab Sample ID: ICV









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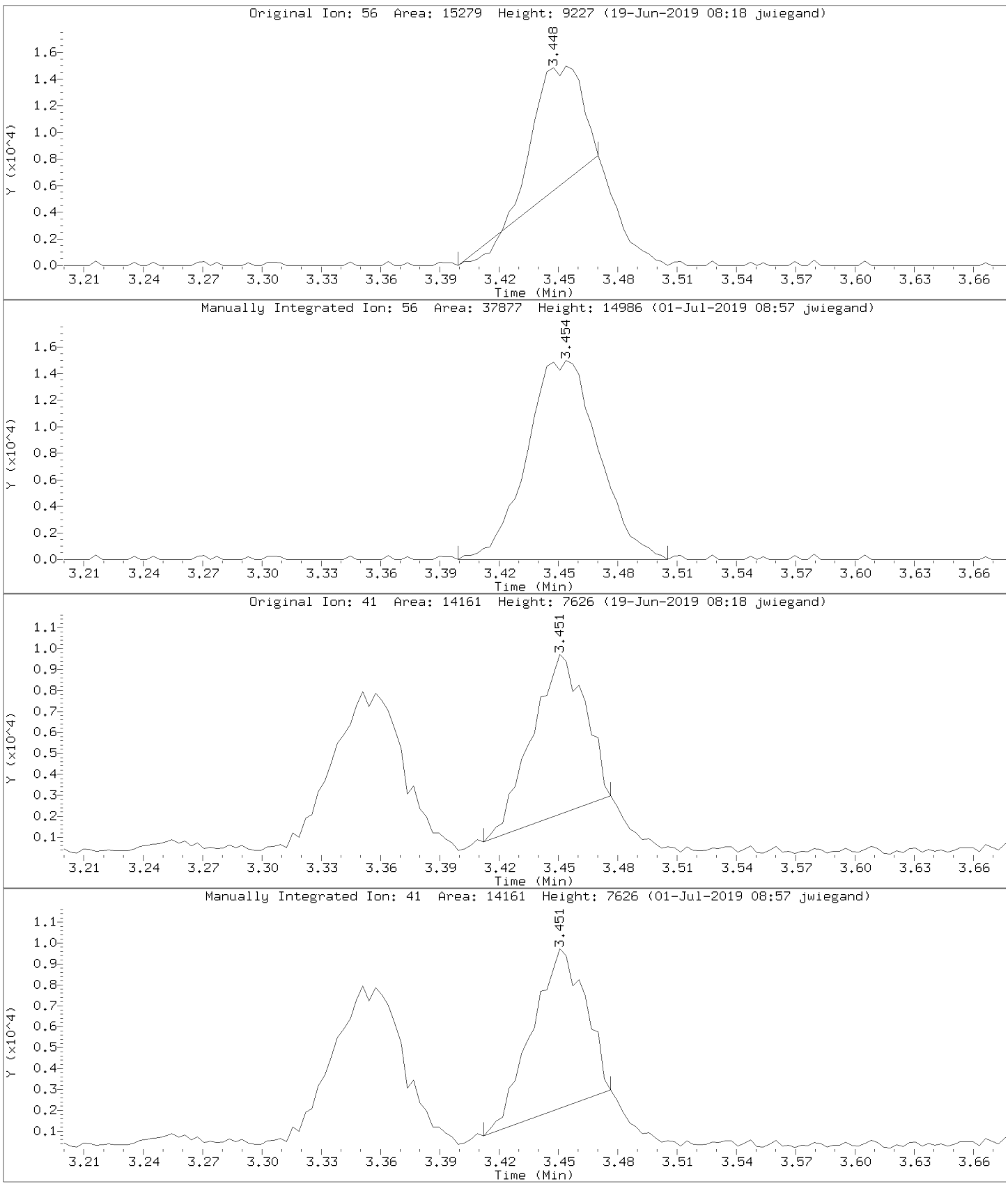
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



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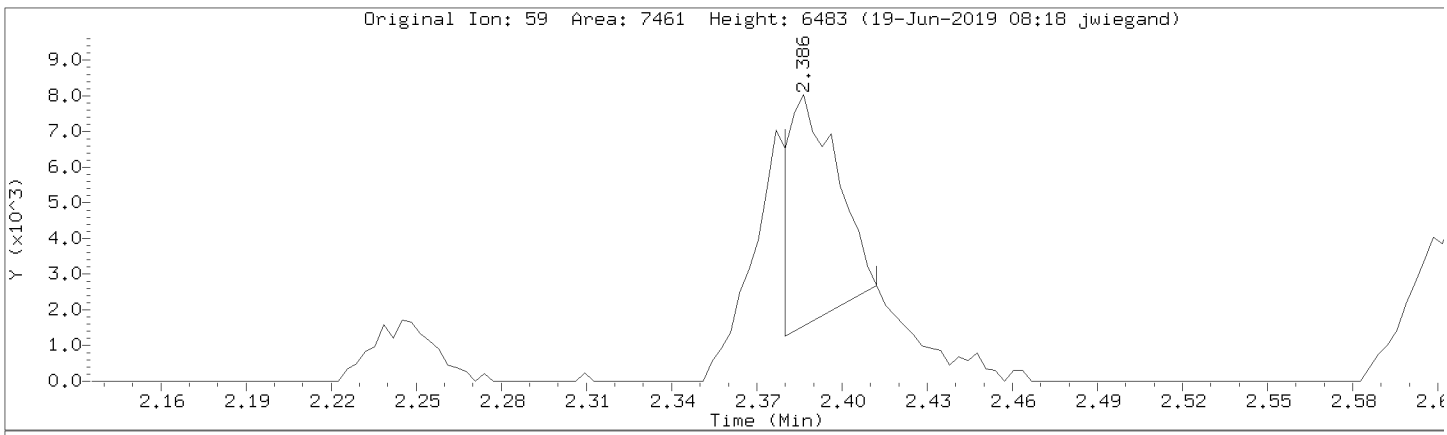
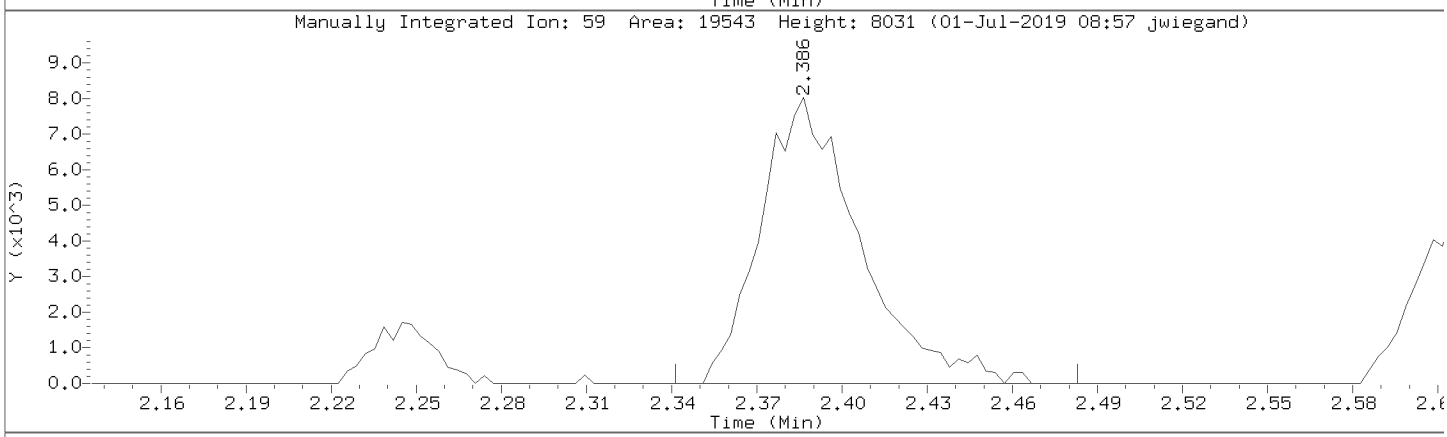
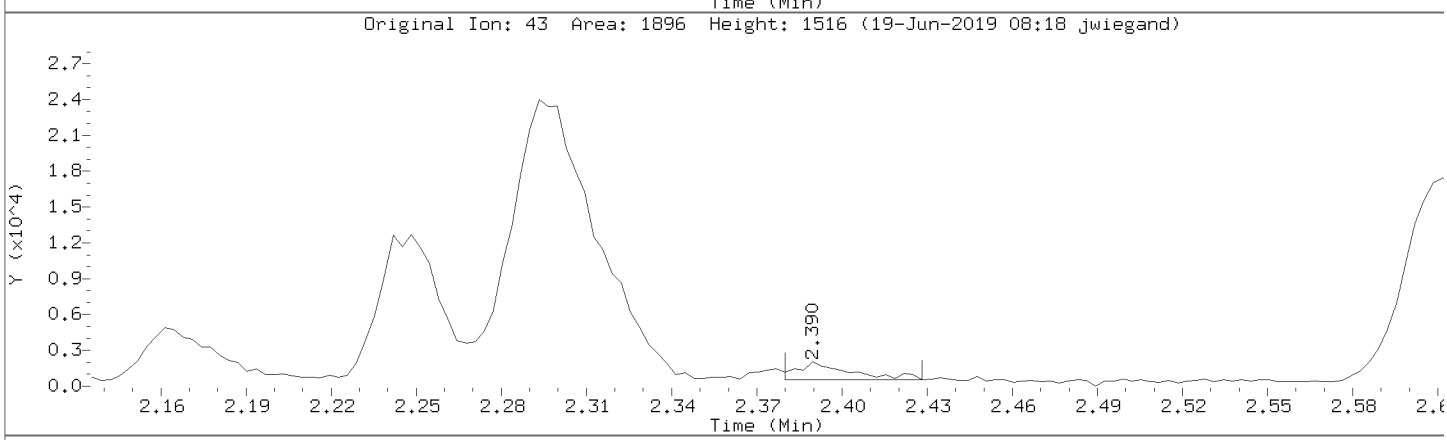
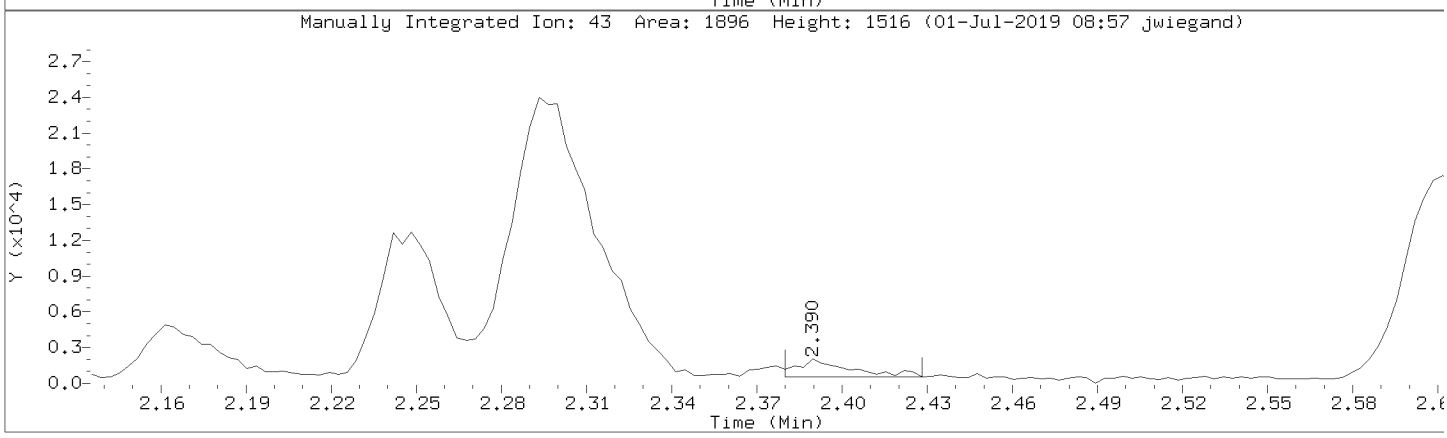
Injection Date: 18-JUN-2019 13:33
Instrument: 30mv5a.i
Lab Sample ID: ICV

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









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Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-JUL-2019 14:12
Operator : JEW Inst ID: 30mv5a.i
Smp Info : ccv, 93604:1
Misc Info : 44968,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	66242	50.0000	45.6(QM)	LT
2	Chloromethane	50	1.139	1.142	(0.266)	41224	50.0000	41.8(M)	LT
3	Vinyl chloride	62	1.145	1.145	(0.268)	75613	50.0000	40.9(M)	LT
4	Bromomethane	94	1.319	1.325	(0.308)	62222	50.0000	48.9	
5	Chloroethane	64	1.386	1.380	(0.324)	49893	50.0000	42.2(M)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	127222	50.0000	47.5	
7	Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	63010	50.0000	46.6	
8	Ethanol	45	1.782	1.773	(0.266)	922	500.000	(a)	
9	1,1-Dichloroethene	61	1.756	1.759	(0.411)	115758	50.0000	52.3	
10	1,1,2-Trichlorotrifluoroethane	151	1.772	1.775	(0.414)	65340	50.0000	63.2	
11	Carbon disulfide	76	1.782	1.785	(0.417)	194952	50.0000	50.9	
12	Iodomethane	142	1.849	1.856	(0.432)	39469	50.0000	55.5(M)	LT
13	Acrolein	56	1.968	1.969	(0.460)	6627	50.0000	38.3	
14	Allyl chloride	41	2.055	2.055	(0.481)	444903	250.000	262	
15	Methylene Chloride	49	2.129	2.132	(0.498)	83738	50.0000	56.3	
16	Acetone	43	2.161	2.165	(0.505)	20701	50.0000	53.4(M)	LT
17	trans-1,2-Dichloroethene	61	2.241	2.242	(0.524)	115839	50.0000	51.1	
18	Methyl acetate	74	2.248	2.254	(0.526)	13813	50.0000	50.7	
19	n-Hexane	86	2.296	2.297	(0.537)	29122	50.0000	78.9	
20	Methyl-tert-butyl ether	73	2.315	2.312	(0.541)	243167	50.0000	48.8	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.389	2.386	(0.559)	48351	250.000	232(M)	LT
	22 Acetonitrile	41	2.518	2.522	(0.589)	21041	250.000	216(M)	LT
	23 Diisopropyl ether	45	2.614	2.618	(0.611)	212518	50.0000	44.5	
	24 Chloroprene	53	2.711	2.705	(0.634)	97274	50.0000	47.8	
	25 1,1-Dichloroethane	63	2.730	2.727	(0.638)	143730	50.0000	47.8	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	21988	50.0000	47.5	
	27 Ethyl-tert-butyl ether	59	2.942	2.939	(0.688)	231856	50.0000	46.3	
	28 Vinyl acetate	43	2.959	2.965	(0.692)	164396	50.0000	42.9	
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	114621	50.0000	49.8	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	134395	50.0000	49.2	
	31 Cyclohexane	56	3.454	3.450	(0.808)	116882	50.0000	51.4	
	32 Bromochloromethane	130	3.460	3.467	(0.809)	55943	50.0000	53.4	
	33 Chloroform	83	3.553	3.553	(0.831)	166607	50.0000	49.6	
	34 Carbon tetrachloride	117	3.676	3.679	(0.859)	121009	50.0000	50.4	
	35 Ethyl acetate	43	3.688	3.702	(0.862)	63933	50.0000	39.8	
	36 Tetrahydrofuran	42	3.701	3.711	(0.865)	25550	50.0000	40.3	
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	47920	30.0000	31.4	
	38 1,1,1-Trichloroethane	97	3.737	3.733	(0.874)	143854	50.0000	49.6(M)	LT
	39 2-Butanone (MEK)	43	3.833	3.865	(0.896)	32921	50.0000	44.1(H)	
	40 1,1-Dichloropropene	75	3.843	3.846	(0.899)	122991	50.0000	50.9	
	41 Benzene	78	4.016	4.020	(0.939)	334856	50.0000	50.3	
	42 Propionitrile	54	4.039	4.049	(0.944)	7898	50.0000	45.5(M)	LT
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	39060	50.0000	41.6	
	44 tert-Amylmethyl ether	73	4.100	4.106	(0.959)	232430	50.0000	45.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	46449	30.0000	28.2	
	46 Isobutanol	43	4.190	4.213	(0.980)	13637	250.000	204(H)	
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	115476	50.0000	47.1	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	174494	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	139595	50.0000	57.1	
	50 Trichloroethene	95	4.370	4.373	(0.758)	97054	50.0000	47.7	
	51 Dibromomethane	174	4.595	4.598	(1.074)	65200	50.0000	56.0	
	52 1,2-Dichloropropane	63	4.647	4.647	(1.086)	83223	50.0000	49.5	
	53 Bromodichloromethane	83	4.685	4.688	(1.095)	112446	50.0000	47.5	
	54 Methyl methacrylate	69	4.769	4.775	(1.115)	57736	50.0000	46.1	
	55 1,4-Dioxane (p-Dioxane)	88	4.788	4.808	(1.120)	6134	500.000	482(M)	LT
	56 2-Chloroethylvinyl ether	63	4.971	4.978	(1.162)	33041	50.0000	51.3	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	140636	50.0000	49.6	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	167923	30.0000	28.7	
	59 Toluene	91	5.106	5.110	(0.886)	376917	50.0000	48.4	
	60 2-Nitropropane	43	5.219	5.216	(1.220)	87985	250.000	158	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.235)	76030	50.0000	45.0	
	62 Tetrachloroethene	166	5.286	5.290	(0.917)	108994	50.0000	55.3	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.919)	131266	50.0000	44.8	
	64 Ethyl methacrylate	41	5.364	5.367	(0.930)	62978	50.0000	40.7	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.931)	82424	50.0000	47.1	
	66 Dibromochloromethane	129	5.450	5.450	(0.945)	93246	50.0000	45.9	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.952)	132248	50.0000	47.1	
	68 1,2-Dibromoethane (EDB)	107	5.553	5.553	(0.963)	84988	50.0000	49.4	
	69 2-Hexanone	43	5.637	5.643	(0.978)	53949	50.0000	40.9	
	70 Ethylbenzene	106	5.778	5.778	(1.002)	139953	50.0000	51.8	
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	136516	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	259500	50.0000	50.0	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	94014	50.0000	47.9	
	74 m&p-Xylene	106	5.836	5.836	(1.012)	338400	100.000	104	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75	o-Xylene	106	6.013	6.016	(1.043)	165941	50.0000	51.4	
	76	Styrene	104	6.036	6.036	(1.047)	260753	50.0000	49.3	
	77	Bromoform	173	6.055	6.058	(0.902)	62617	50.0000	41.2	
	78	Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	412435	50.0000	49.8	
$	79	4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	56407	30.0000	30.4	
	80	n-Propylbenzene	91	6.306	6.306	(0.940)	463070	50.0000	48.8	
	81	Bromobenzene	77	6.306	6.309	(0.940)	167034	50.0000	44.0	
	82	1,1,2,2-Tetrachloroethane	83	6.338	6.335	(0.944)	109694	50.0000	43.4	
	83	1,3,5-Trimethylbenzene	105	6.376	6.380	(0.950)	327738	50.0000	49.2	
	84	2-Chlorotoluene	126	6.376	6.380	(0.950)	105321	50.0000	50.5	
	85	1,2,3-Trichloropropane	110	6.396	6.396	(0.953)	33063	50.0000	45.0	
	86	trans-1,4-Dichloro-2-butene	53	6.405	6.409	(0.954)	21457	50.0000	35.4	
	87	Cyclohexanone	55	6.418	6.421	(0.956)	18217	250.000	154	
	88	4-Chlorotoluene	126	6.441	6.444	(0.960)	108775	50.0000	52.3	
	89	tert-Butylbenzene	119	6.511	6.511	(0.970)	289466	50.0000	52.6	
	90	1,2,4-Trimethylbenzene	105	6.537	6.537	(0.974)	324409	50.0000	49.0	
	91	sec-Butylbenzene	105	6.582	6.582	(0.981)	409870	50.0000	52.4	
	92	p-Isopropyltoluene	119	6.634	6.634	(0.989)	355866	50.0000	54.0	
	93	1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	192999	50.0000	52.2	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	63723	30.0000		
	95	1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	193497	50.0000	52.3	
	96	n-Butylbenzene	91	6.804	6.804	(1.014)	300997	50.0000	52.9	
	97	1,2-Dichlorobenzene	146	6.888	6.891	(1.026)	180530	50.0000	51.7	
$	161	1,2-Dichlorobenzene-d4 (S)	152	6.711	6.711	(1.000)	63768	30.0000	30.0	
	98	1,2-Dibromo-3-chloropropane	157	7.209	7.212	(1.074)	19549	50.0000	47.2	
	99	1,3,5-Trichlorobenzene	180	7.222	7.222	(1.076)	117771	50.0000	58.5	
	100	Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	57331	50.0000	63.6	
	101	1,2,4-Trichlorobenzene	180	7.482	7.486	(1.115)	98878	50.0000	59.2	
	102	Naphthalene	128	7.617	7.618	(1.135)	225727	50.0000	52.5	
	103	1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	87879	50.0000	57.9	
	104	2-Methylnaphthalene	142	8.048	8.048	(1.199)	104665	50.0000	55.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715009.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 15-JUL-2019
Calibration Time: 13:19
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 44968,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	144844	72422	289688	174494	20.47
71 Chlorobenzene-d5	104675	52338	209350	136516	30.42
94 1,4-Dichlorobenze	47592	23796	95184	63723	33.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	-0.00
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	-0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 15-JUL-2019 14:12
Lab File ID: 50715009.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.24991	0.22777	0.22777	0.010	-8.85889	20.00000	Aver	(QM)	
	2 Chloromethane	50.00000	41.82107	0.14175	0.100	-16.35785	20.00000	Quad	(M)	
	3 Vinyl chloride	0.31764	0.26000	0.26000	0.010	-18.14666	20.00000	Aver	(M)	
	4 Bromomethane	50.00000	48.86409	0.21395	0.010	-2.27182	20.00000	Quad		
	5 Chloroethane	0.20300	0.17156	0.17156	0.010	-15.48681	20.00000	Aver	(M)	
	6 Trichlorofluoromethane	0.46032	0.43745	0.43745	0.010	-4.96640	20.00000	Aver		
	7 Diethyl ether (Ethyl ether)	0.23226	0.21666	0.21666	0.010	-6.71452	20.00000	Aver		
	8 Ethanol	++++	0.00087	0.00087	0.010	++++	20.00000	Aver	(a)	<-
	9 1,1-Dichloroethene	0.38037	0.39804	0.39804	0.010	4.64359	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.17766	0.22467	0.22467	0.010	26.46037	20.00000	Aver		<-
	11 Carbon disulfide	0.65804	0.67035	0.67035	0.010	1.87005	20.00000	Aver		
	12 Iodomethane	50.00000	55.53402	0.13571	0.010	11.06804	20.00000	Quad	(M)	
	13 Acrolein	50.00000	38.28711	0.02279	0.010	-23.42579	20.00000	Quad		<-
	14 Allyl chloride	250	262	0.30596	0.010	4.93882	20.00000	Quad		
	15 Methylene Chloride	50.00000	56.26832	0.28793	0.010	12.53663	20.00000	Quad		
	16 Acetone	50.00000	53.36292	0.07118	0.010	6.72584	20.00000	Quad	(M)	
	17 trans-1,2-Dichloroethene	0.38968	0.39831	0.39831	0.010	2.21615	20.00000	Aver		
	18 Methyl acetate	0.04681	0.04750	0.04750	0.010	1.46617	20.00000	Aver		
	19 n-Hexane	0.06345	0.10014	0.10014	0.010	57.81445	20.00000	Aver		<-
	20 Methyl-tert-butyl ether	0.85575	0.83613	0.83613	0.010	-2.29283	20.00000	Aver		
	21 tert-Butyl Alcohol	0.03578	0.03325	0.03325	0.010	-7.07835	20.00000	Aver	(M)	
	22 Acetonitrile	0.01676	0.01447	0.01447	0.010	-13.66241	20.00000	Aver	(M)	
	23 Diisopropyl ether	0.82173	0.73075	0.73075	0.010	-11.07184	20.00000	Aver		
	24 Chloroprene	0.34987	0.33448	0.33448	0.010	-4.40024	20.00000	Aver		
	25 1,1-Dichloroethane	0.51731	0.49422	0.49422	0.100	-4.46376	20.00000	Aver		
	26 Acrylonitrile	0.07954	0.07561	0.07561	0.010	-4.95007	20.00000	Aver		
	27 Ethyl-tert-butyl ether	0.86095	0.79724	0.79724	0.010	-7.39980	20.00000	Aver		
	28 Vinyl acetate	0.65893	0.56528	0.56528	0.010	-14.21337	20.00000	Aver		
	29 cis-1,2-Dichloroethene	0.39600	0.39413	0.39413	0.010	-0.47354	20.00000	Aver		
	30 2,2-Dichloropropane	0.46961	0.46212	0.46212	0.010	-1.59569	20.00000	Aver		
	31 Cyclohexane	0.39096	0.40190	0.40190	0.010	2.79722	20.00000	Aver		
	32 Bromochloromethane	0.18013	0.19236	0.19236	0.010	6.78760	20.00000	Aver		
	33 Chloroform	0.57749	0.57288	0.57288	0.010	-0.79753	20.00000	Aver		
	34 Carbon tetrachloride	0.41252	0.41609	0.41609	0.010	0.86473	20.00000	Aver		
	35 Ethyl acetate	0.27578	0.21983	0.21983	0.010	-20.28765	20.00000	Aver		<-
	36 Tetrahydrofuran	50.00000	40.27391	0.08785	0.010	-19.45218	20.00000	Quad		
$	37 Dibromofluoromethane (S)	0.26237	0.27462	0.27462	0.010	4.67021	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.49845	0.49464	0.49464	0.010	-0.76338	20.00000	Aver	(M)	
	39 2-Butanone (MEK)	0.12842	0.11320	0.11320	0.010	-11.85266	20.00000	Aver	(H)	
	40 1,1-Dichloropropene	0.41560	0.42291	0.42291	0.010	1.75873	20.00000	Aver		
	41 Benzene	1.14511	1.15141	1.15141	0.010	0.54968	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 15-JUL-2019 14:12
Lab File ID: 50715009.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	0.02985	0.02716	0.02716	0.010	-9.02731	20.00000	Aver	(M)	
	43 Methacrylonitrile	0.16123	0.13431	0.13431	0.010	-16.69682	20.00000	Aver		
	44 tert-Amylmethyl ether	0.87404	0.79921	0.79921	0.010	-8.56122	20.00000	Aver		
$	45 1,2-Dichloroethane-d4 (S)	0.28268	0.26619	0.26619	0.010	-5.83304	20.00000	Aver		
	46 Isobutanol	0.01151	0.00938	0.00938	0.010	-18.52052	20.00000	Aver	(H)	<-
	47 1,2-Dichloroethane	0.42170	0.39707	0.39707	0.010	-5.84167	20.00000	Aver		
	49 Methylcyclohexane	0.42014	0.48000	0.48000	0.010	14.24871	20.00000	Aver		
	50 Trichloroethene	0.44684	0.42656	0.42656	0.010	-4.53861	20.00000	Aver		
	51 Dibromomethane	0.20022	0.22419	0.22419	0.010	11.97351	20.00000	Aver		
	52 1,2-Dichloropropane	0.28909	0.28616	0.28616	0.010	-1.01366	20.00000	Aver		
	53 Bromodichloromethane	0.40684	0.38665	0.38665	0.010	-4.96394	20.00000	Aver		
	54 Methyl methacrylate	0.21529	0.19853	0.19853	0.010	-7.78870	20.00000	Aver		
	55 1,4-Dioxane (p-Dioxane)	500	482	0.00211	0.010	-3.64486	20.00000	Quad	(M)	<-
	56 2-Chloroethylvinyl ether	0.11070	0.11361	0.11361	0.010	2.63378	20.00000	Aver		
	57 cis-1,3-Dichloropropene	0.48710	0.48358	0.48358	0.010	-0.72305	20.00000	Aver		
$	58 Toluene-d8 (S)	1.28649	1.23006	1.23006	0.010	-4.38606	20.00000	Aver		
	59 Toluene	1.71127	1.65658	1.65658	0.010	-3.19576	20.00000	Aver		
	60 2-Nitropropane	0.09588	0.06051	0.06051	0.010	-36.89451	20.00000	Aver		<-
	61 4-Methyl-2-pentanone (MIBK)	0.29042	0.26143	0.26143	0.010	-9.98154	20.00000	Aver		
	62 Tetrachloroethene	0.43296	0.47904	0.47904	0.010	10.64370	20.00000	Aver		
	63 trans-1,3-Dichloropropene	0.64394	0.57693	0.57693	0.010	-10.40719	20.00000	Aver		
	64 Ethyl methacrylate	0.34021	0.27679	0.27679	0.010	-18.63917	20.00000	Aver		
	65 1,1,2-Trichloroethane	0.38462	0.36226	0.36226	0.010	-5.81434	20.00000	Aver		
	66 Dibromochloromethane	0.44604	0.40982	0.40982	0.010	-8.11898	20.00000	Aver		
	67 1,3-Dichloropropane	0.61709	0.58124	0.58124	0.010	-5.80997	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.37769	0.37353	0.37353	0.010	-1.10091	20.00000	Aver		
	69 2-Hexanone	0.28980	0.23711	0.23711	0.010	-18.18018	20.00000	Aver		
	70 Ethylbenzene	0.59336	0.61511	0.61511	0.010	3.66442	20.00000	Aver		
	72 Chlorobenzene	1.14103	1.14053	1.14053	0.300	-0.04420	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.43143	0.41320	0.41320	0.010	-4.22523	20.00000	Aver		
	74 m&p-Xylene	0.71618	0.74365	0.74365	0.010	3.83513	20.00000	Aver		
	75 o-Xylene	0.70897	0.72933	0.72933	0.010	2.87096	20.00000	Aver		
	76 Styrene	1.16122	1.14603	1.14603	0.010	-1.30814	20.00000	Aver		
	77 Bromoform	0.71541	0.58959	0.58959	0.100	-17.58763	20.00000	Aver		
	78 Isopropylbenzene (Cumene)	3.89837	3.88339	3.88339	0.010	-0.38439	20.00000	Aver		
$	79 4-Bromofluorobenzene (S)	0.87338	0.88519	0.88519	0.010	1.35212	20.00000	Aver		
	80 n-Propylbenzene	4.46847	4.36015	4.36015	0.010	-2.42407	20.00000	Aver		
	81 Bromobenzene	1.78520	1.57275	1.57275	0.010	-11.90039	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	1.19102	1.03285	1.03285	0.300	-13.28040	20.00000	Aver		
	83 1,3,5-Trimethylbenzene	3.13805	3.08590	3.08590	0.010	-1.66184	20.00000	Aver		
	84 2-Chlorotoluene	0.98101	0.99168	0.99168	0.010	1.08739	20.00000	Aver		
	85 1,2,3-Trichloropropane	0.34617	0.31131	0.31131	0.010	-10.07011	20.00000	Aver		

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv5a.i Injection Date: 15-JUL-2019 14:12
Lab File ID: 50715009.d Init. Cal. Date(s): 18-JUN-2019 18-JUN-2019
Analysis Type: SOIL Init. Cal. Times: 09:34 12:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.28521	0.20203	0.20203	0.010	-29.16245	20.00000	Aver		<-
87 Cyclohexanone	0.05556	0.03431	0.03431	0.010	-38.25632	20.00000	Aver		<-
88 4-Chlorotoluene	0.97978	1.02420	1.02420	0.010	4.53387	20.00000	Aver		
89 tert-Butylbenzene	2.59165	2.72554	2.72554	0.010	5.16632	20.00000	Aver		
90 1,2,4-Trimethylbenzene	3.11701	3.05455	3.05455	0.010	-2.00378	20.00000	Aver		
91 sec-Butylbenzene	3.68336	3.85923	3.85923	0.010	4.77490	20.00000	Aver		
92 p-Isopropyltoluene	3.10234	3.35075	3.35075	0.010	8.00698	20.00000	Aver		
93 1,3-Dichlorobenzene	1.74109	1.81723	1.81723	0.010	4.37311	20.00000	Aver		
95 1,4-Dichlorobenzene	1.74106	1.82192	1.82192	0.010	4.64411	20.00000	Aver		
96 n-Butylbenzene	2.67877	2.83411	2.83411	0.010	5.79891	20.00000	Aver		
97 1,2-Dichlorobenzene	1.64323	1.69983	1.69983	0.010	3.44429	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00149	1.00071	1.00071	0.010	-0.07851	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19491	0.18407	0.18407	0.010	-5.56276	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.94777	1.10890	1.10890	0.010	17.00172	20.00000	Aver		
100 Hexachloro-1,3-butadiene	50.00000	63.56000	0.53981	0.010	27.12000	20.00000	Quad		<-
101 1,2,4-Trichlorobenzene	0.78606	0.93101	0.93101	0.010	18.44034	20.00000	Aver		
102 Naphthalene	2.02357	2.12539	2.12539	0.010	5.03146	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.71440	0.82745	0.82745	0.010	15.82429	20.00000	Aver		
104 2-Methylnaphthalene	50.00000	55.37301	0.98550	0.010	10.74603	20.00000	Quad		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Average %D / Drift Results.
Calculated Average %D/Drift = 8.94060
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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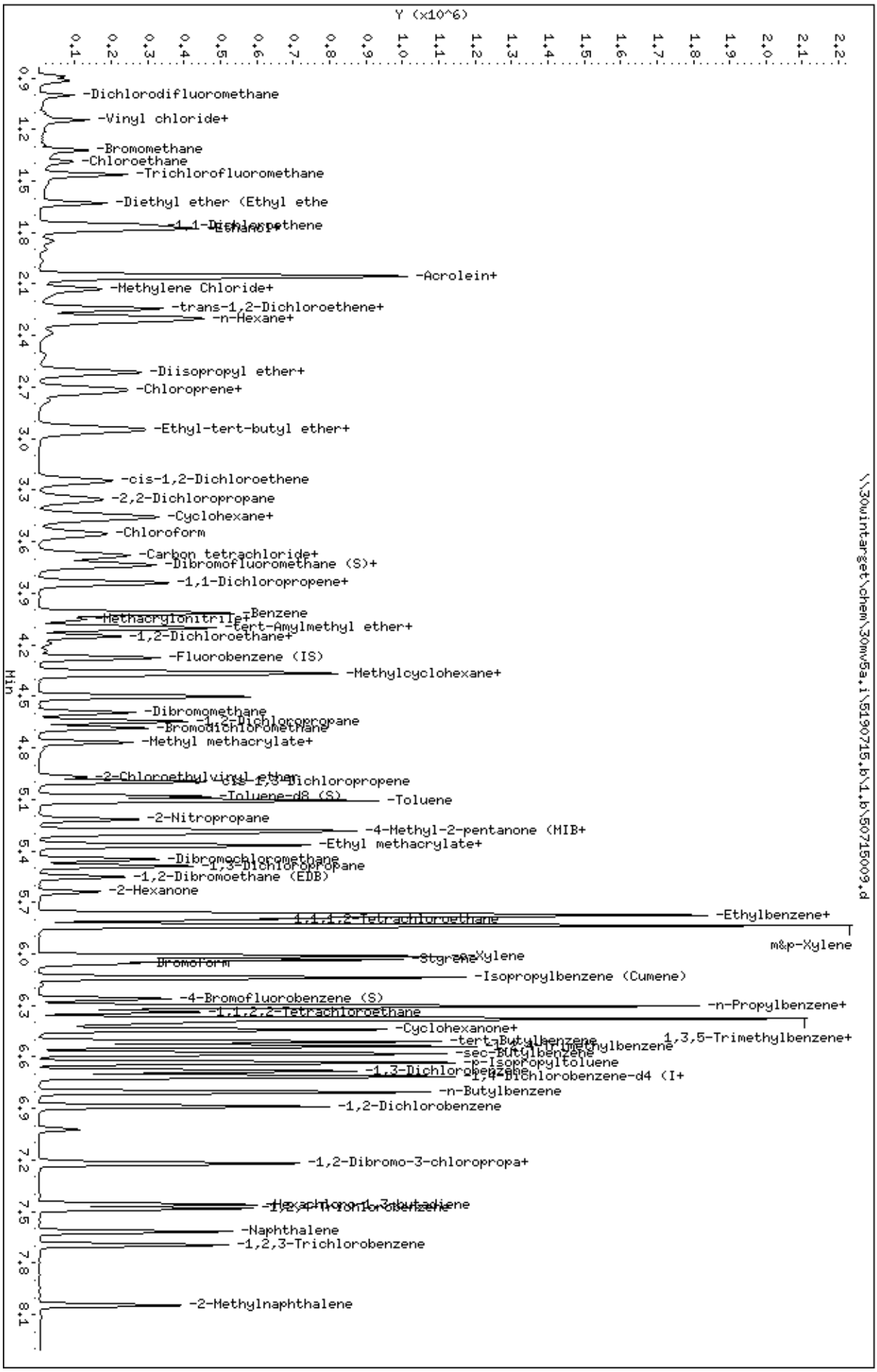
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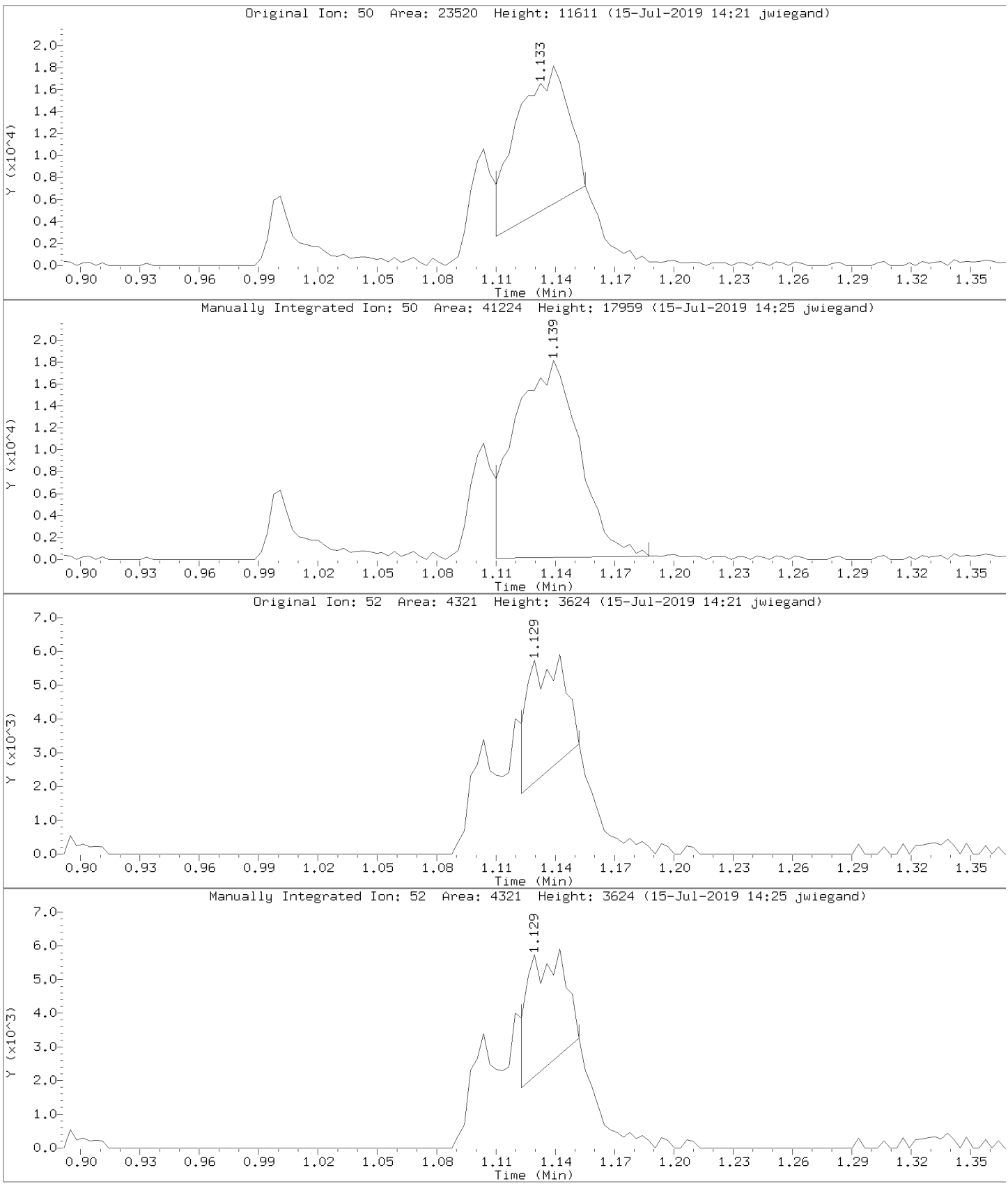
Date : 15-JUL-2019 14:12
Client ID: CCV
Sample Info: CCV, 9360411
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715009.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Vinyl chloride+
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-1,1-Dichloropropene+
-Benzene
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715009.d
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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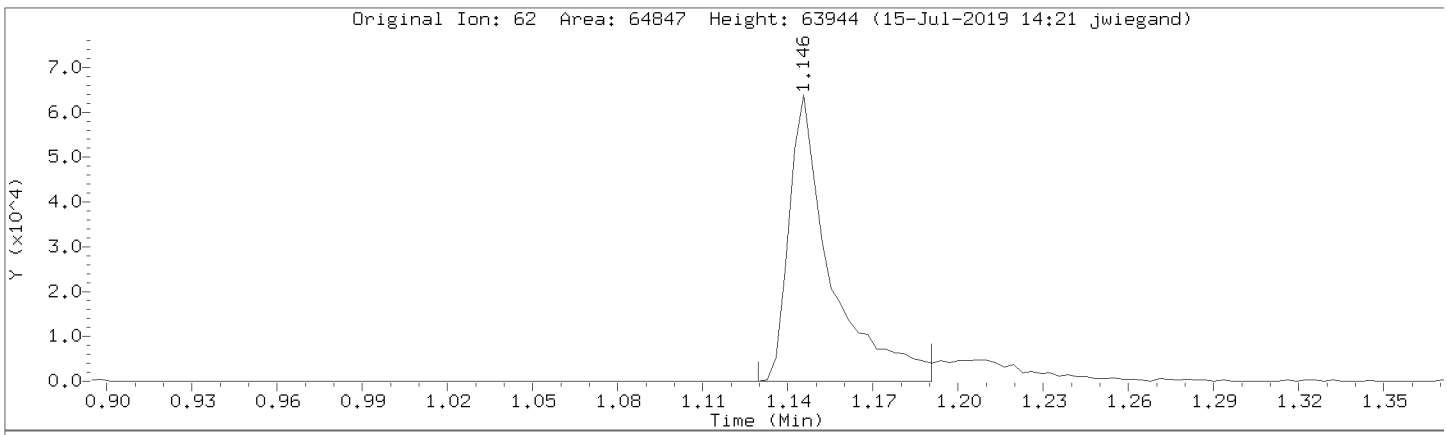
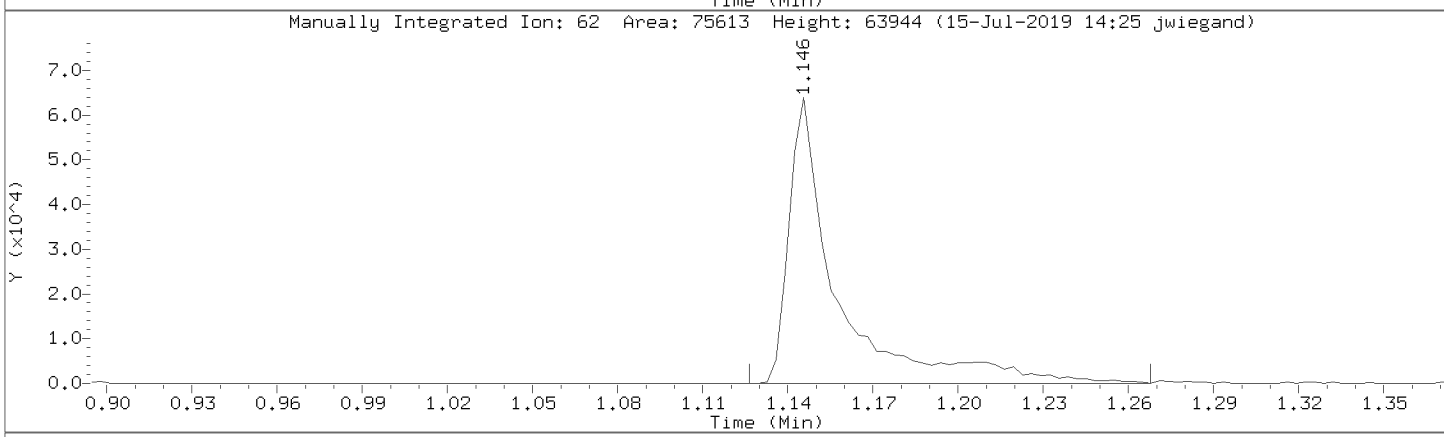
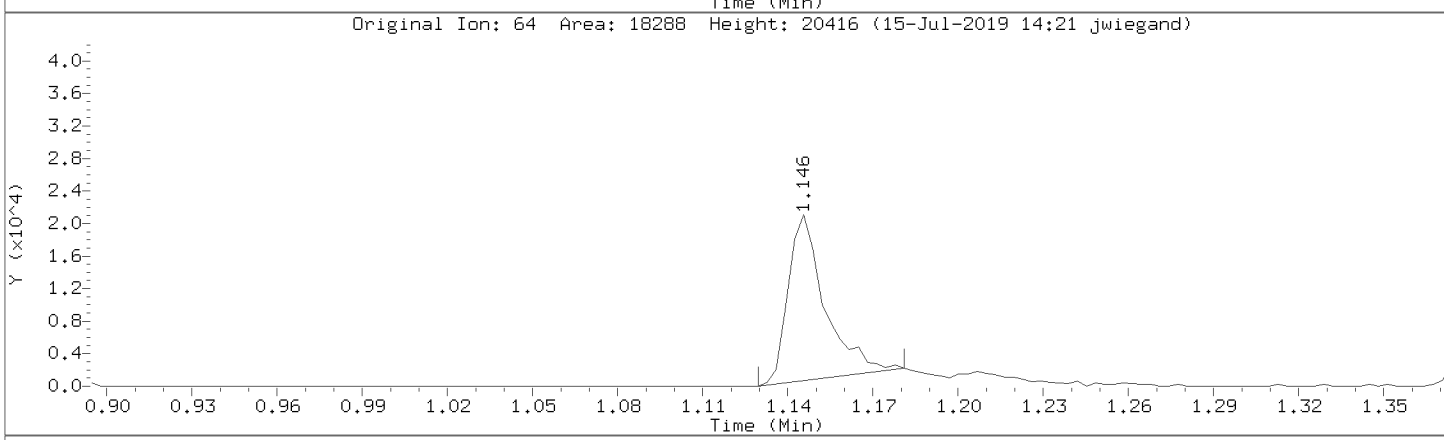
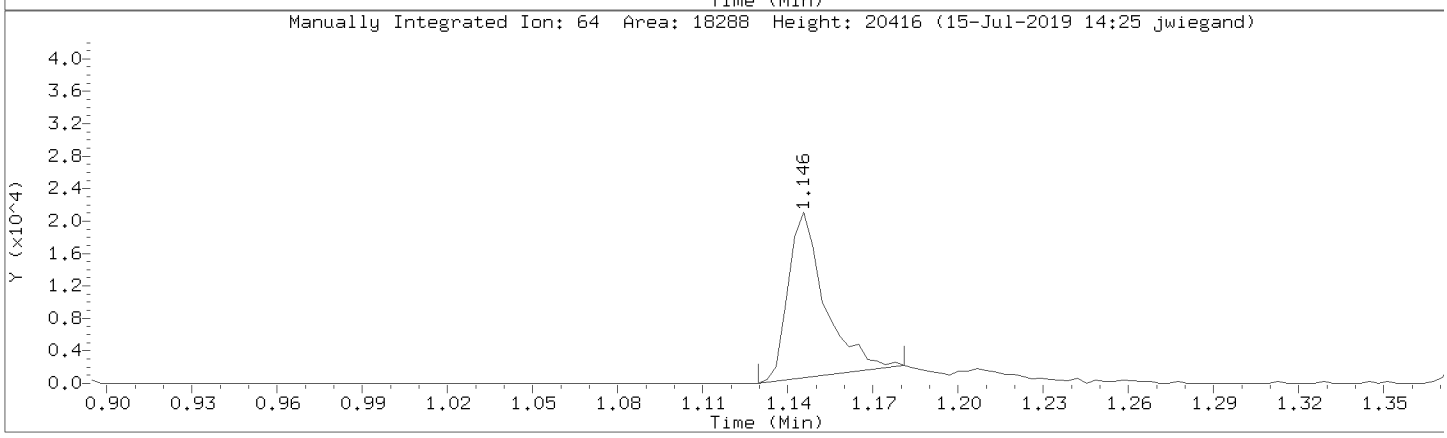
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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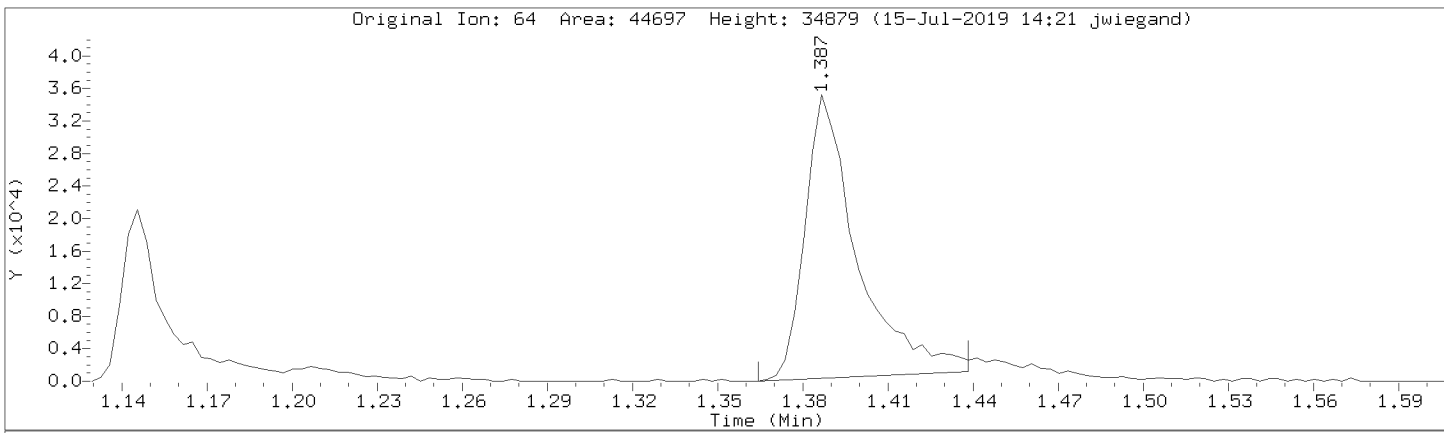
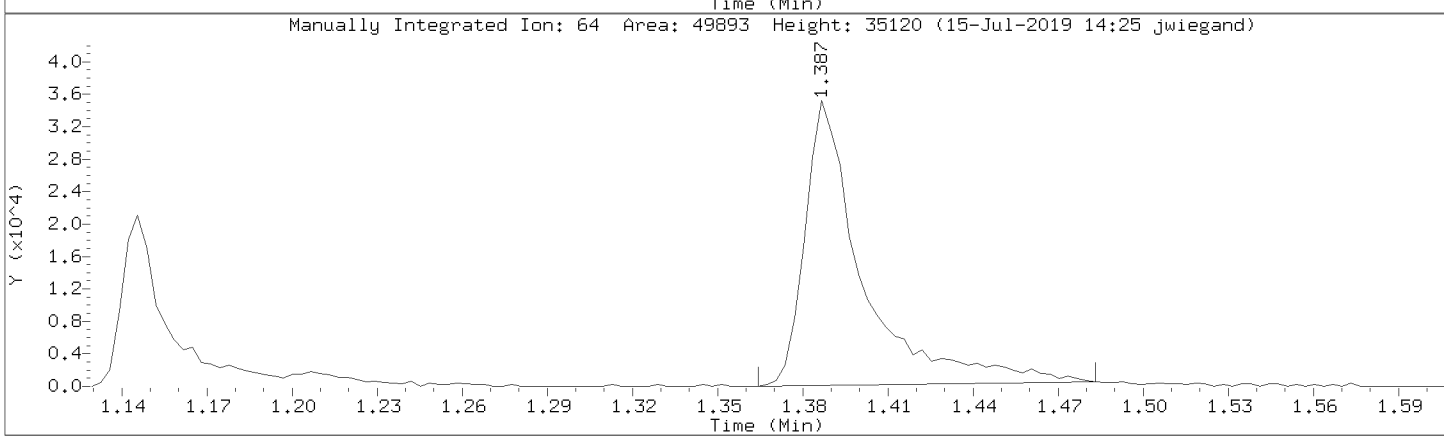
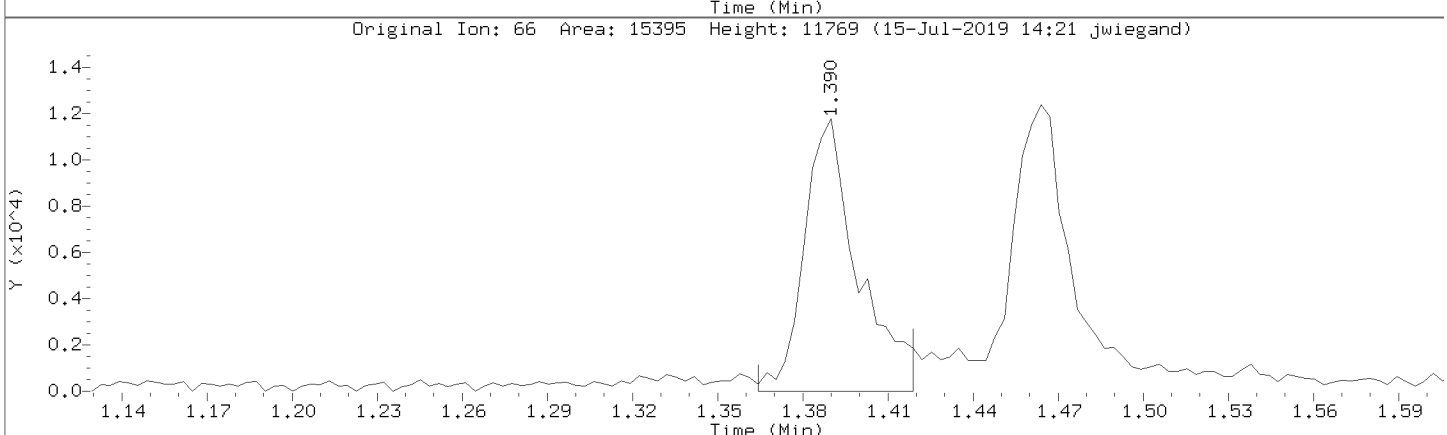
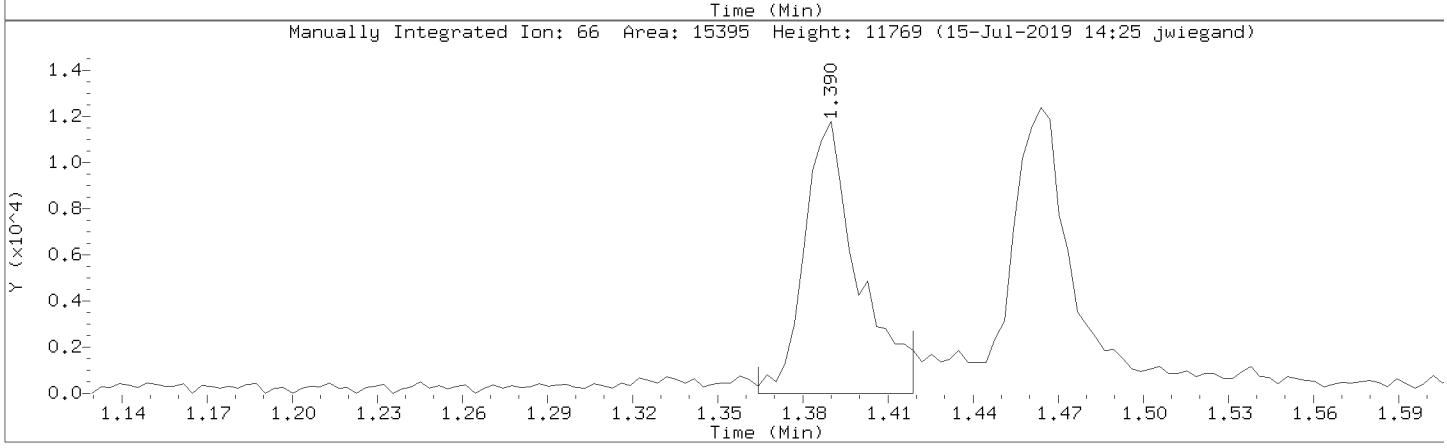
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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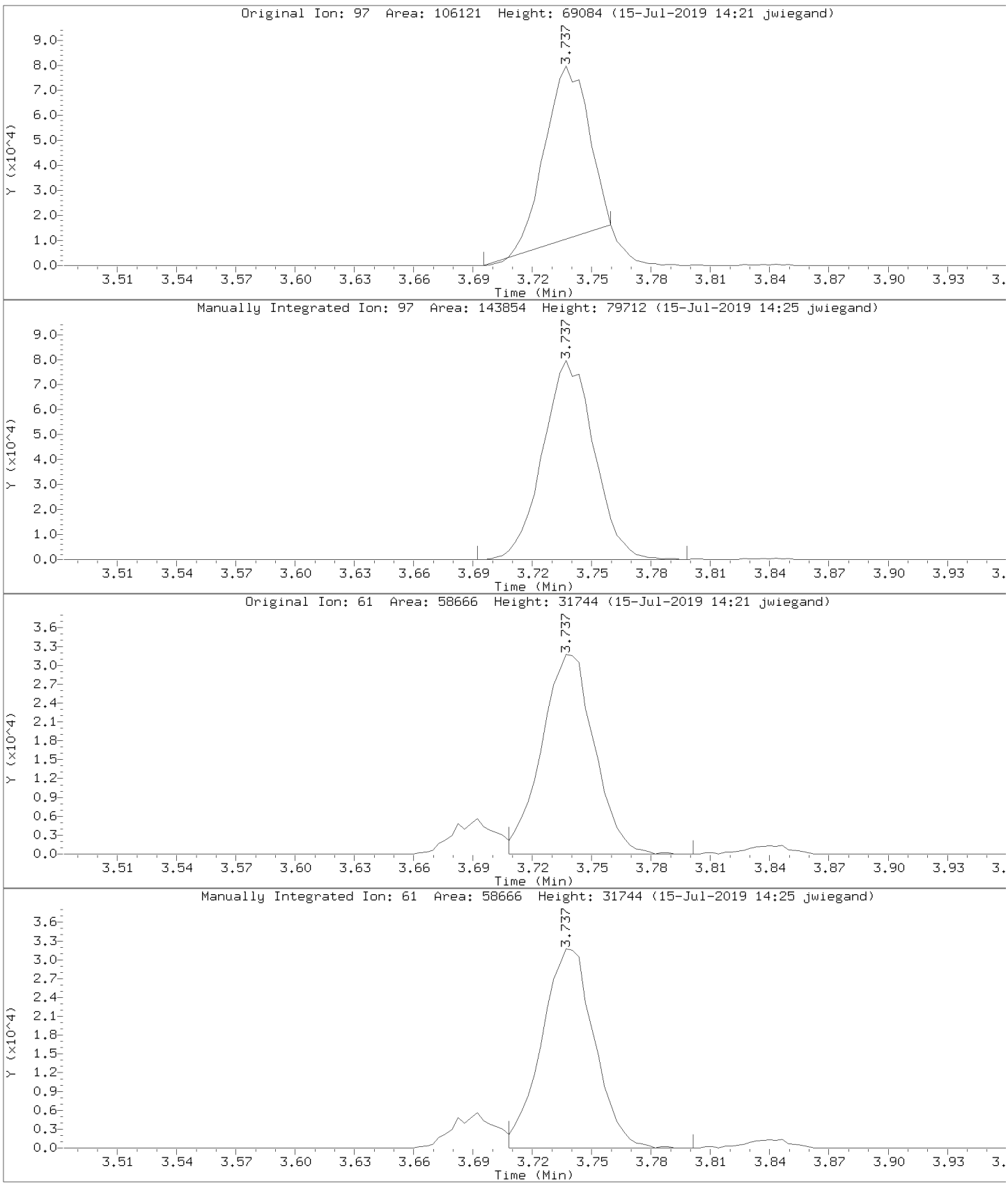
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: 1,1,1-Trichloroethane Review Code: LT
CAS Number: 71-55-6



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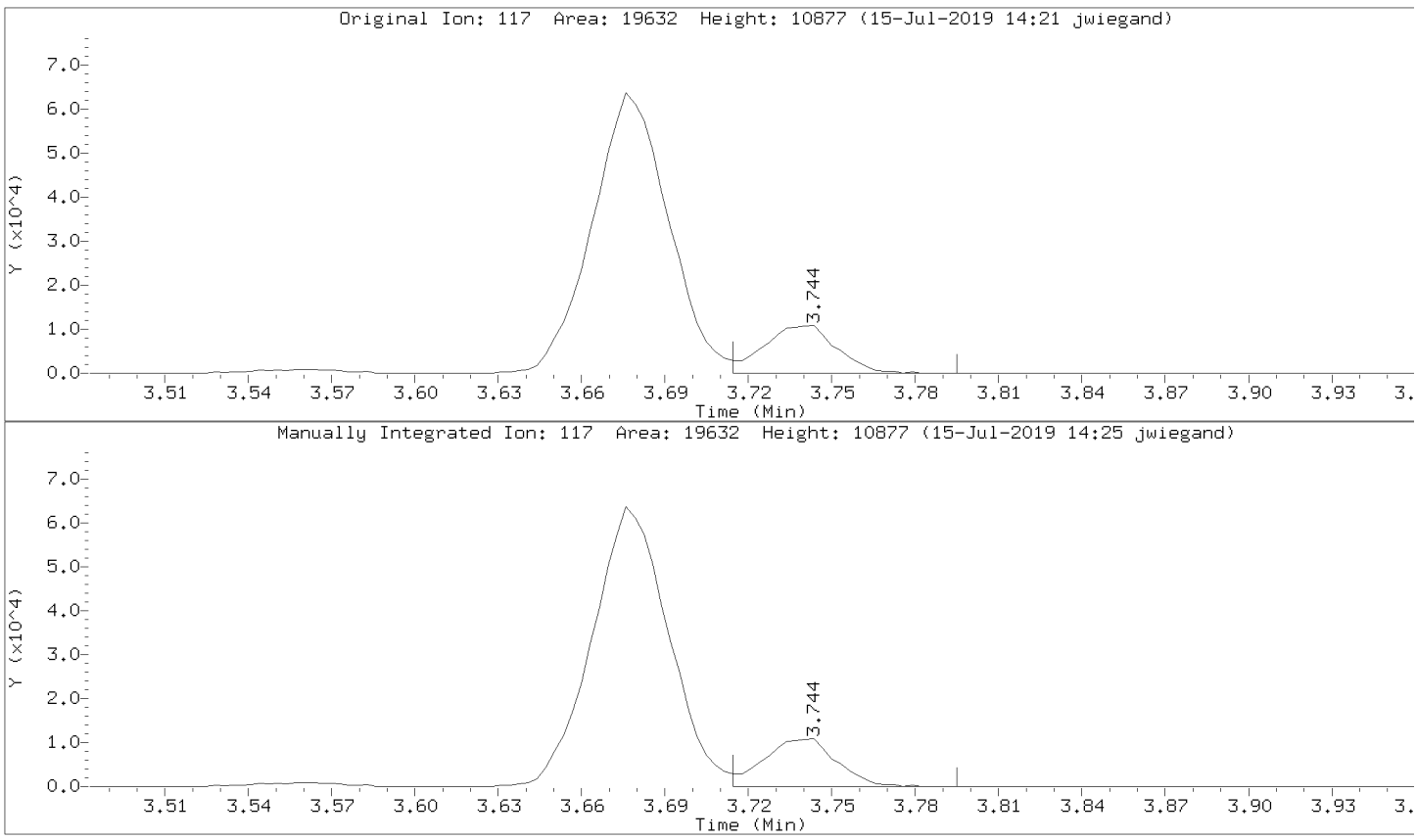
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV



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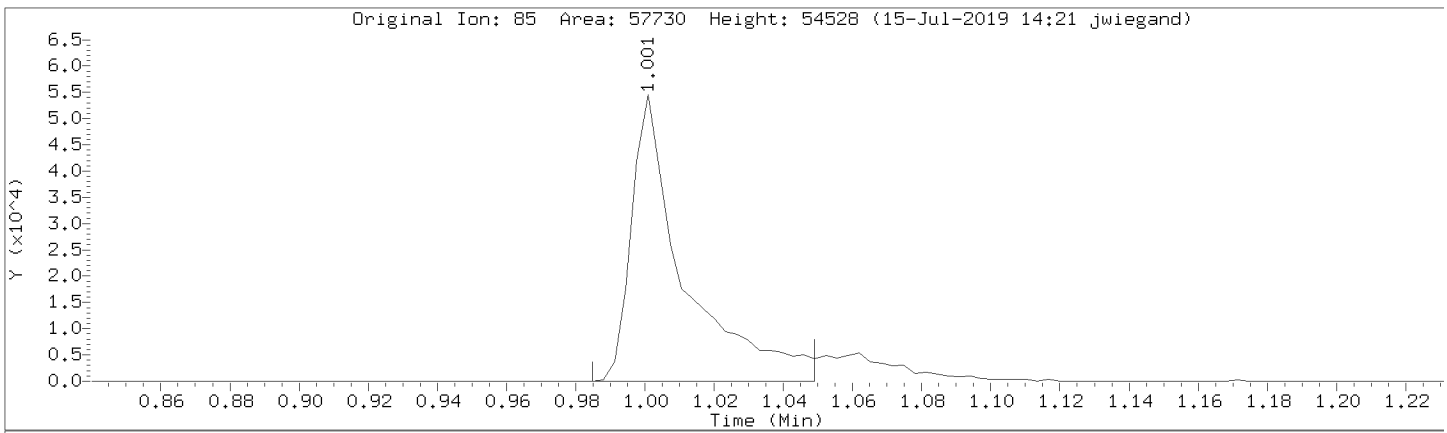
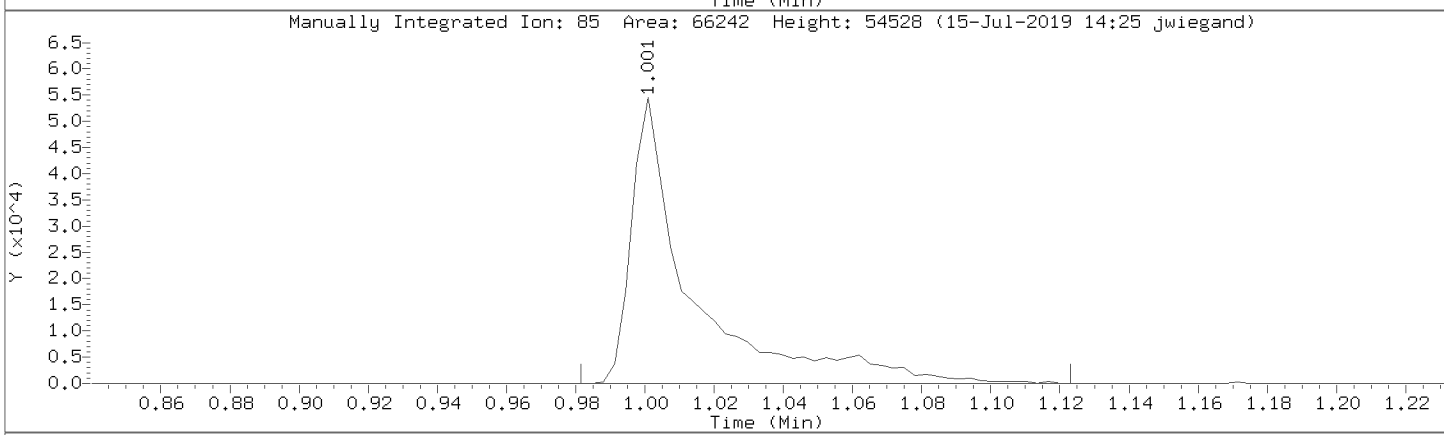
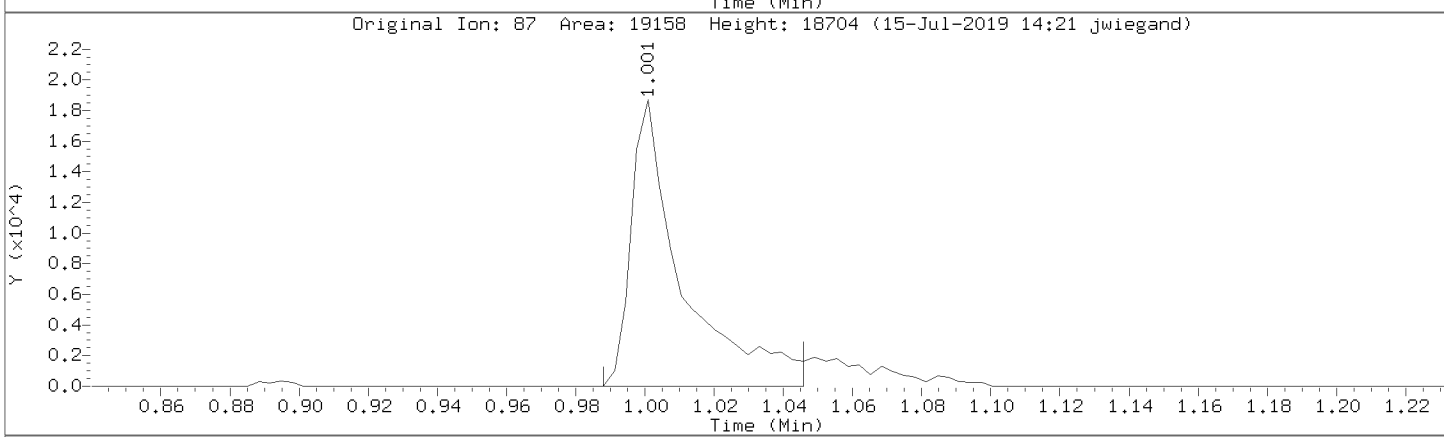
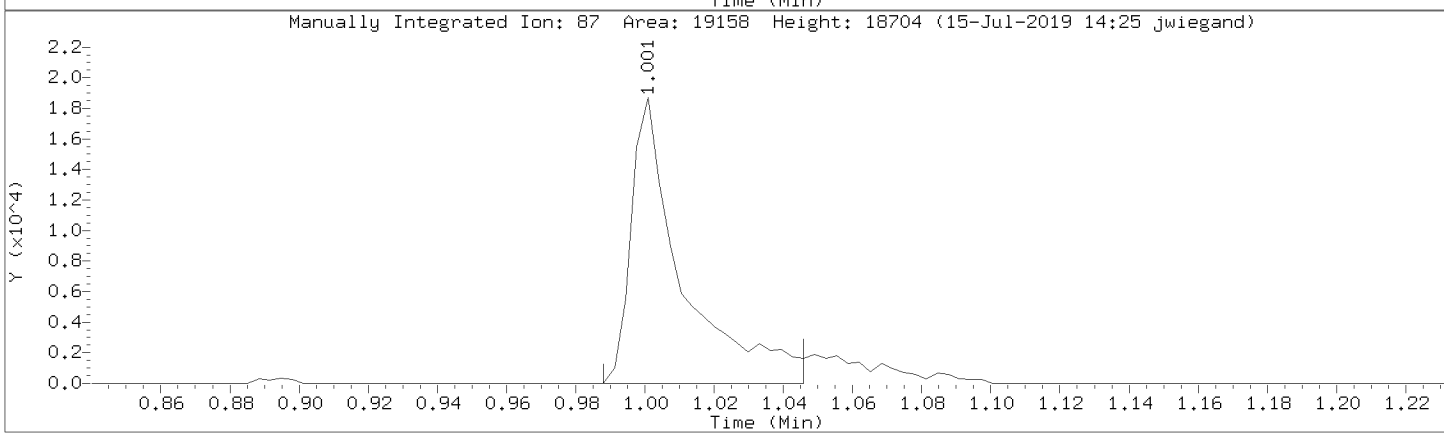
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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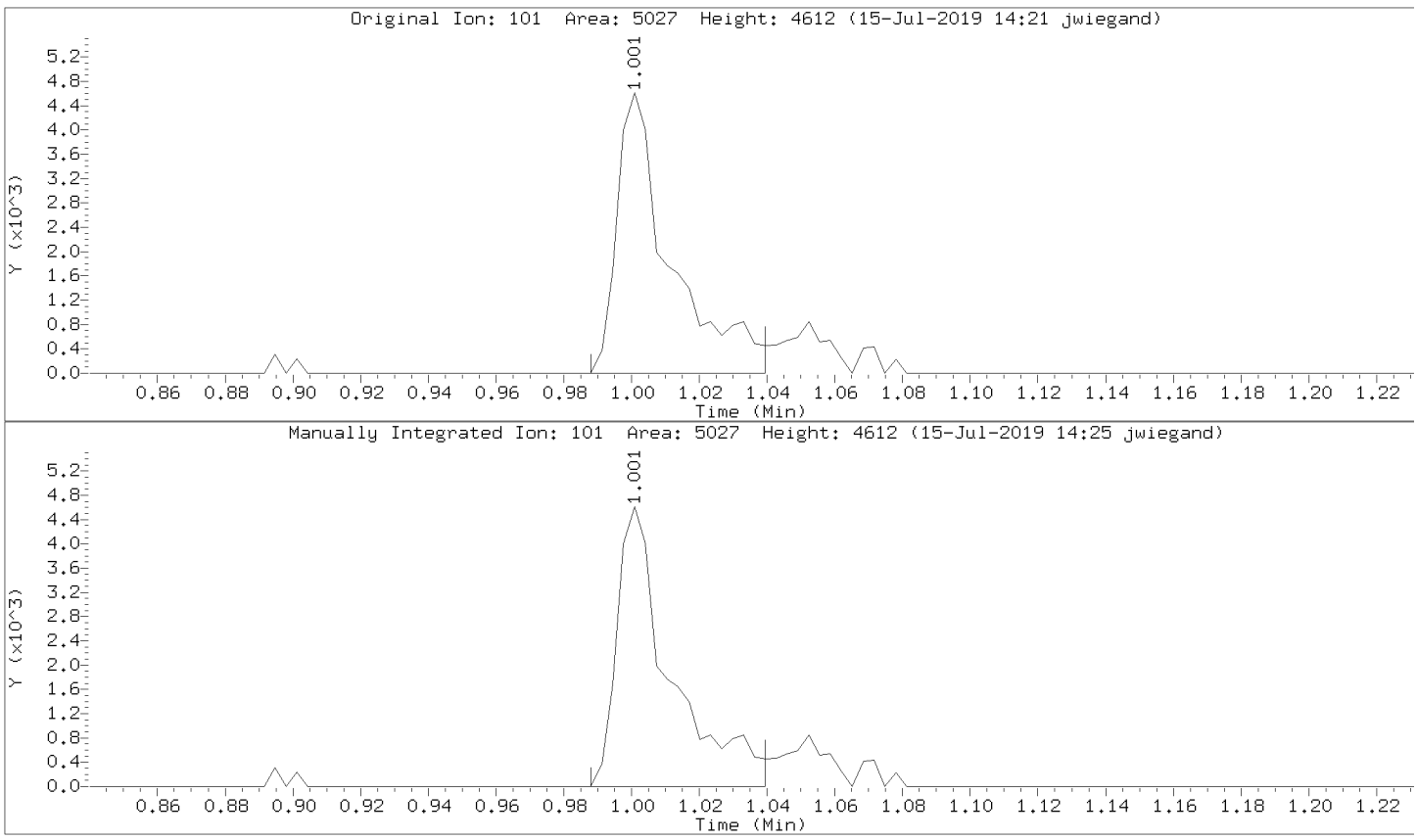
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV



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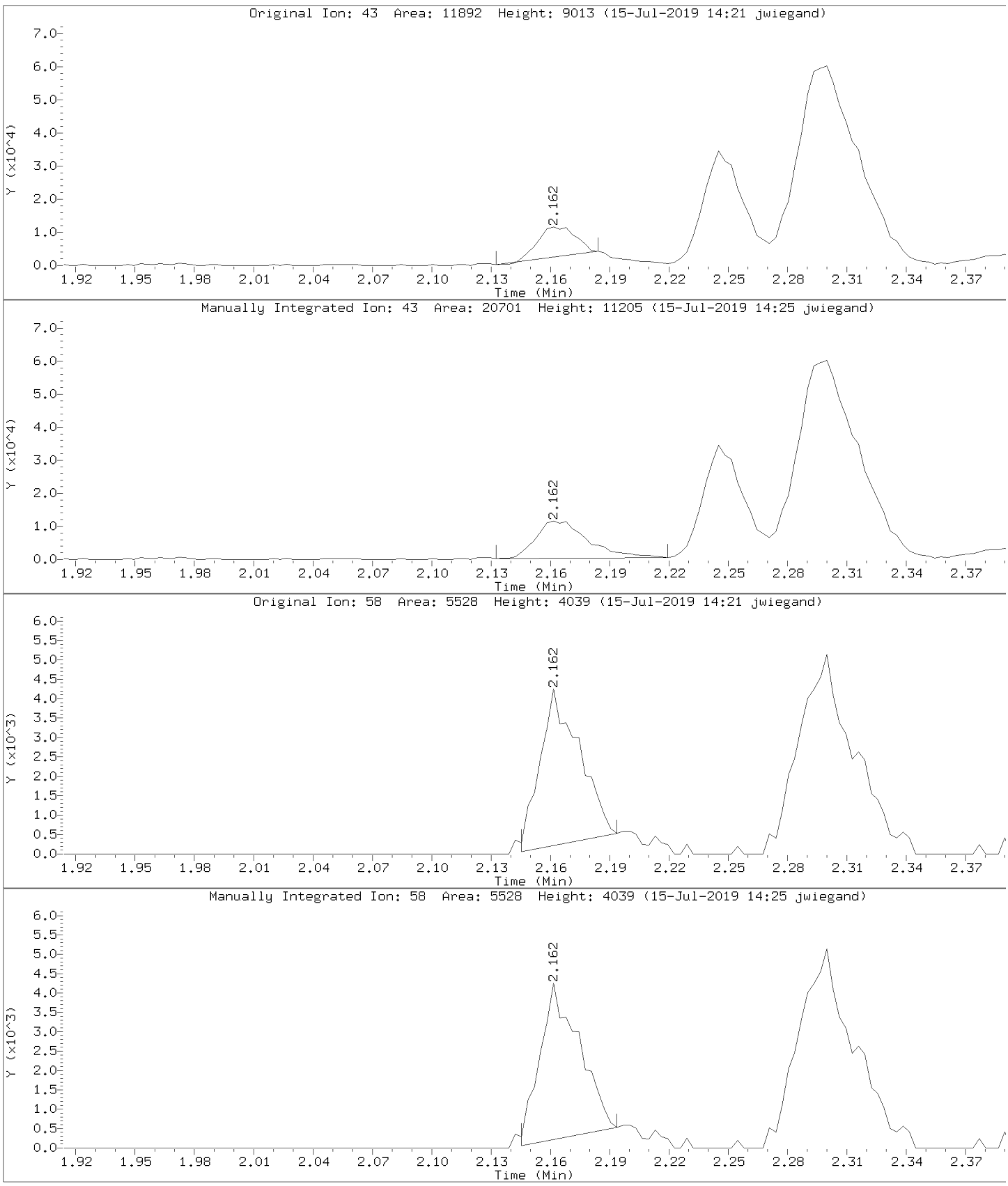
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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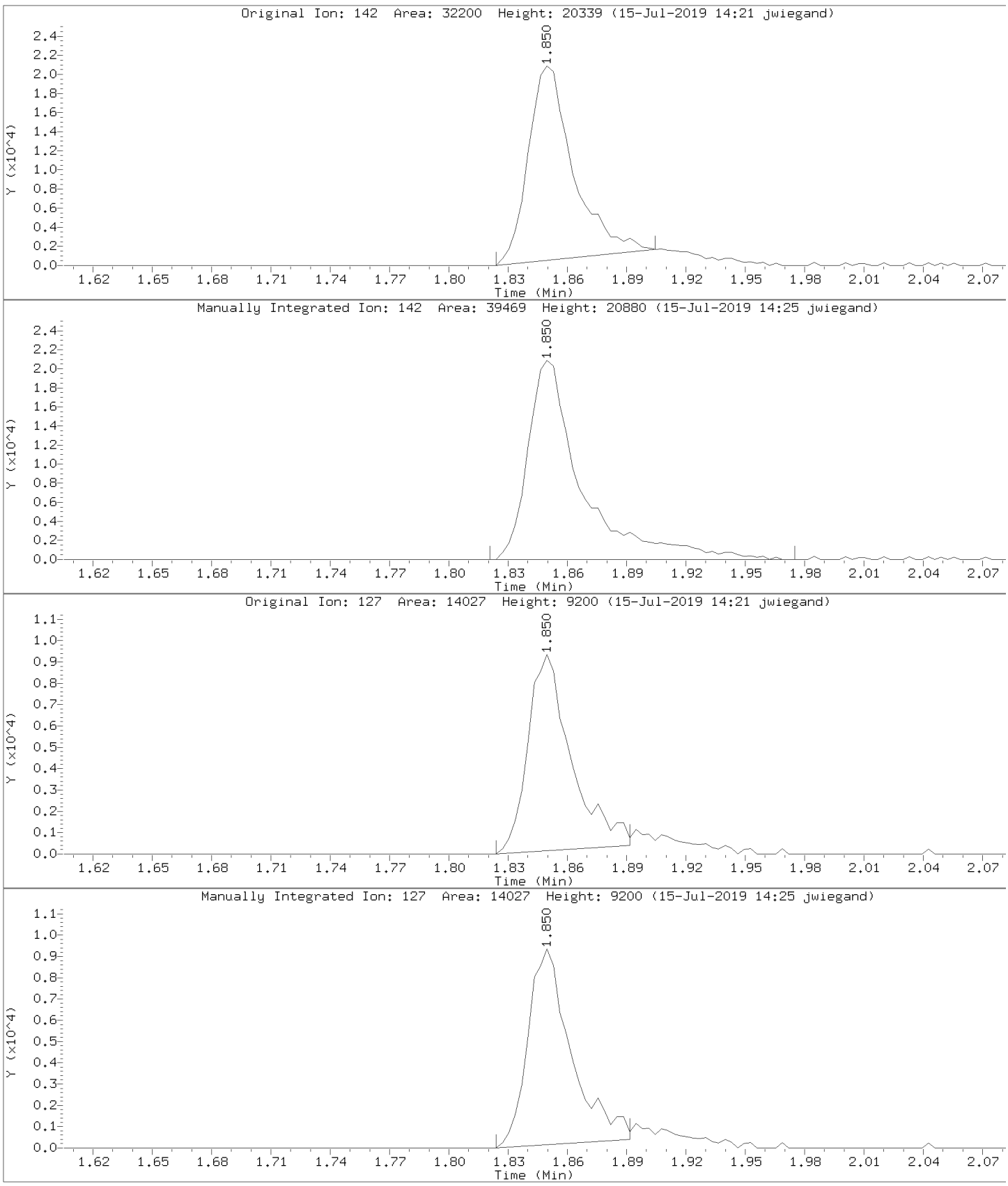
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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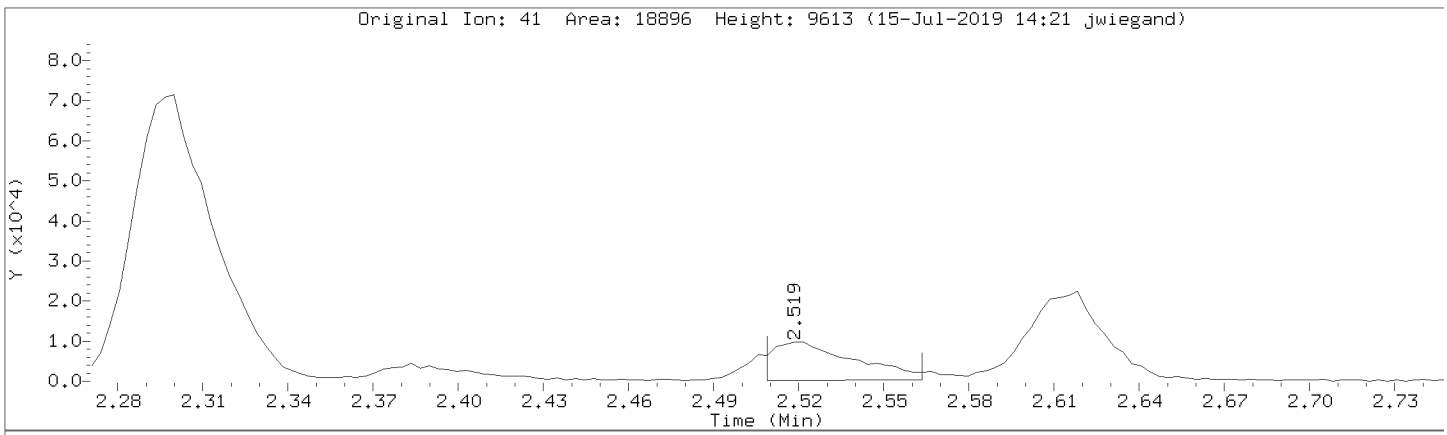
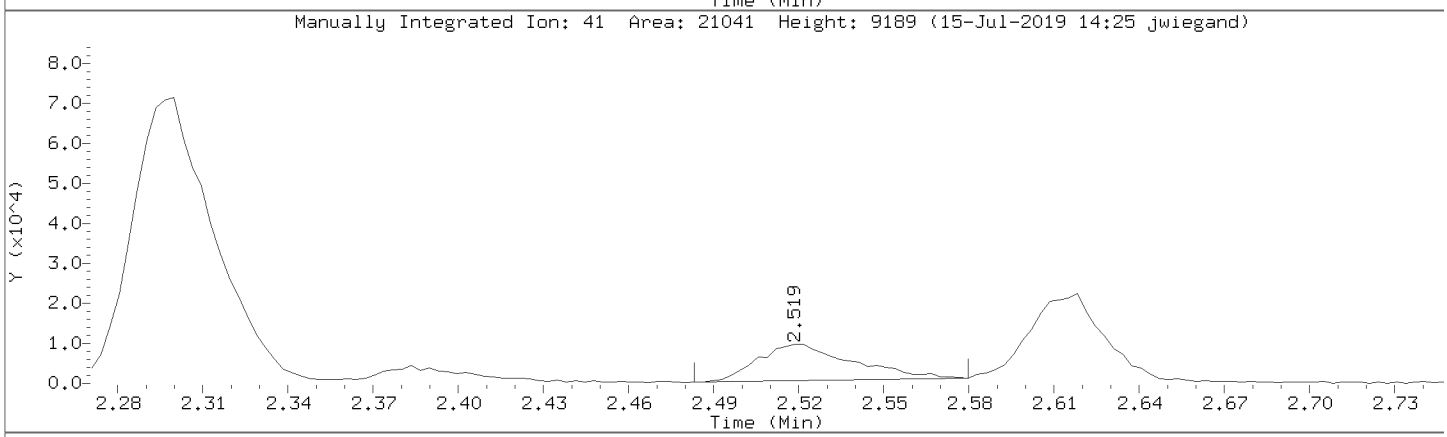
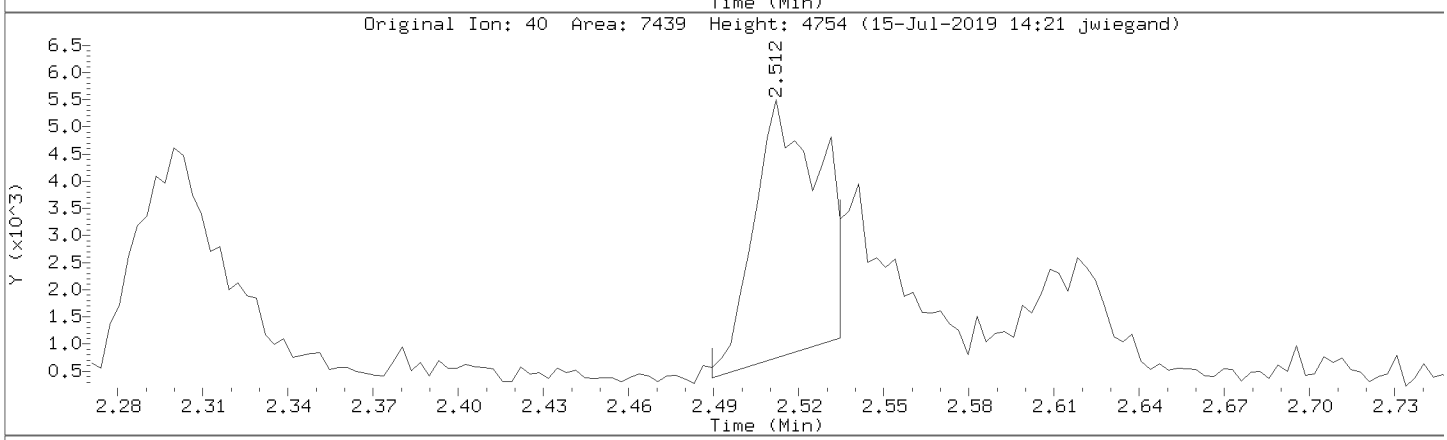
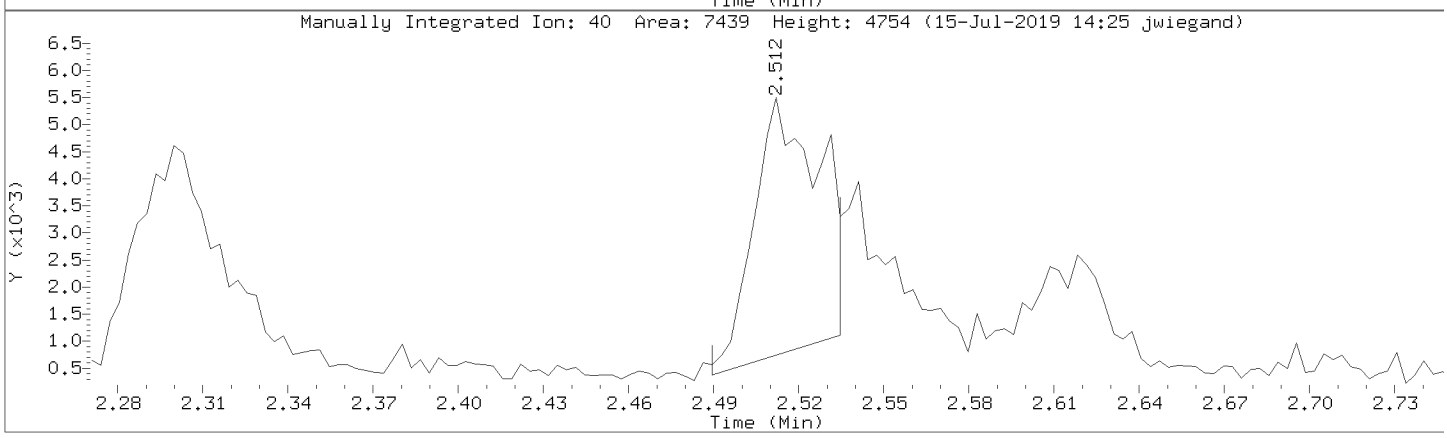
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8

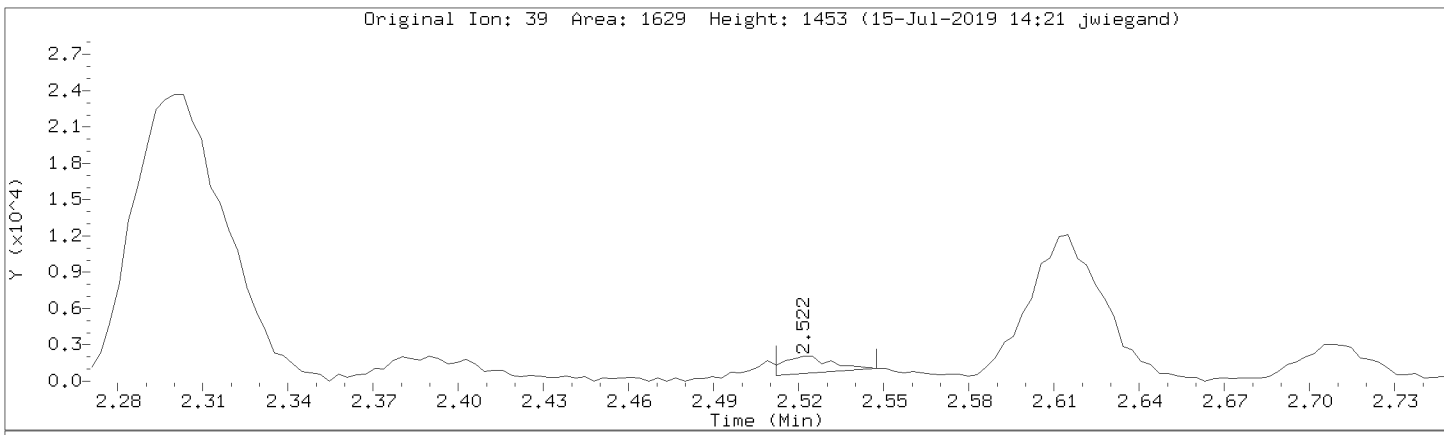


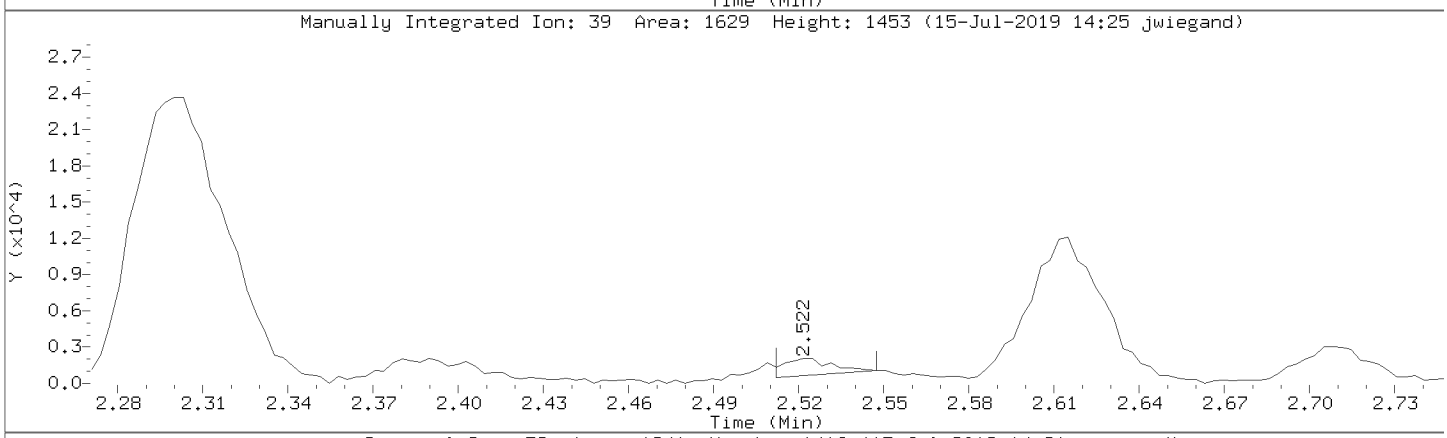


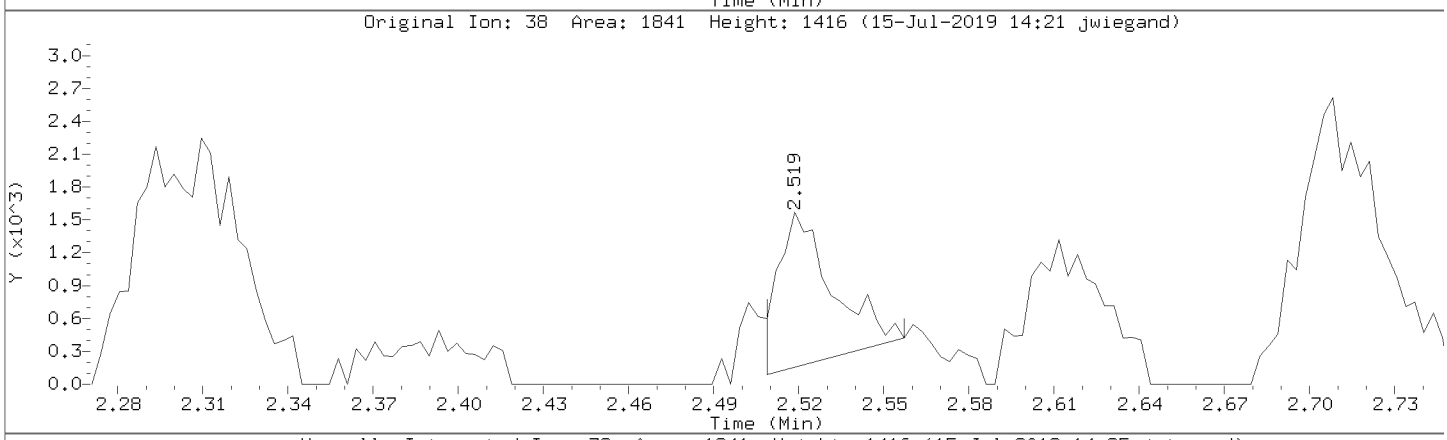


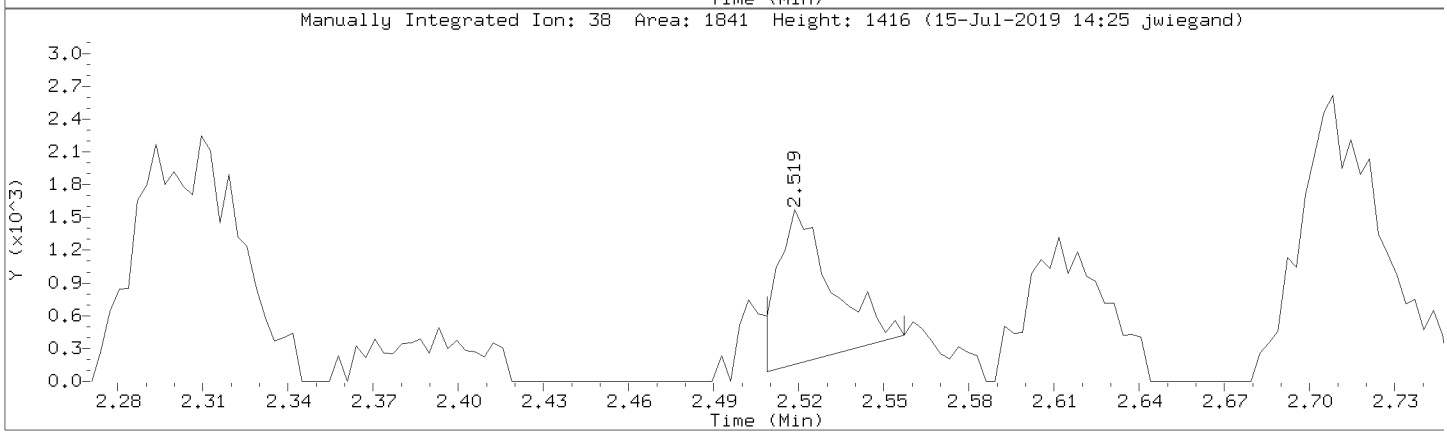


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715009.d
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV









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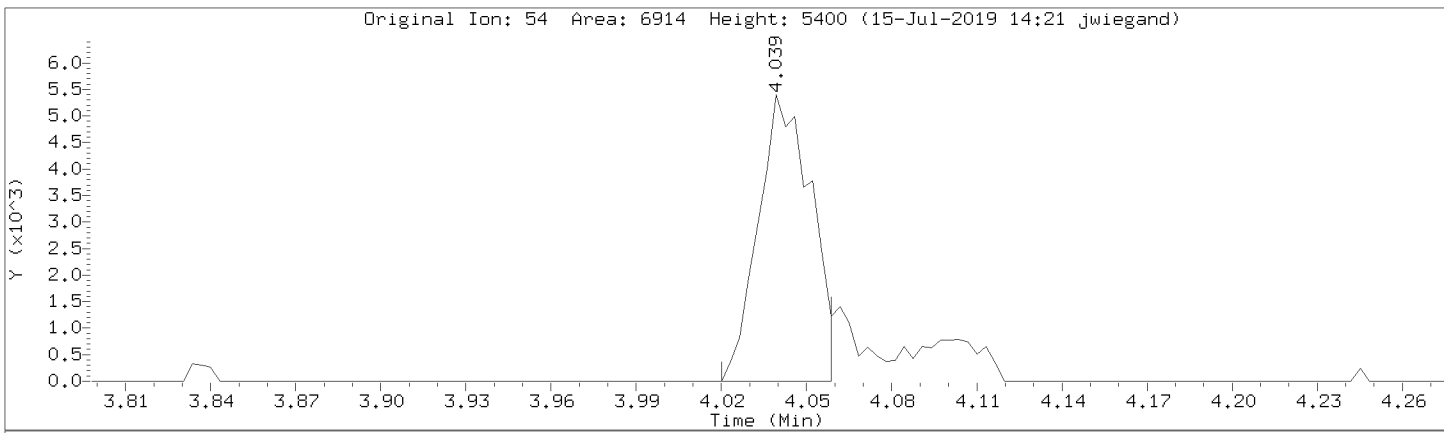
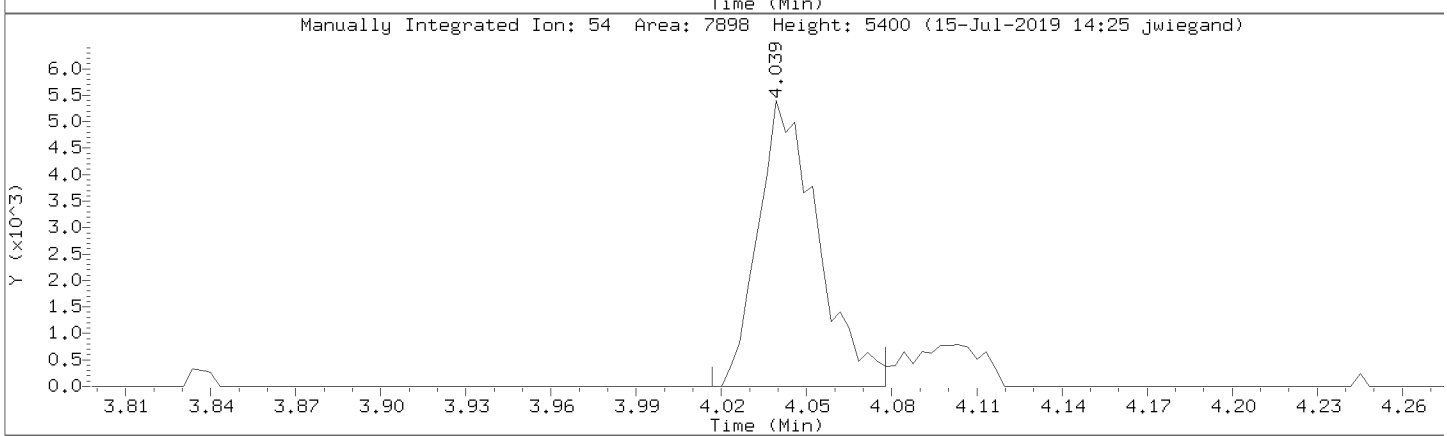
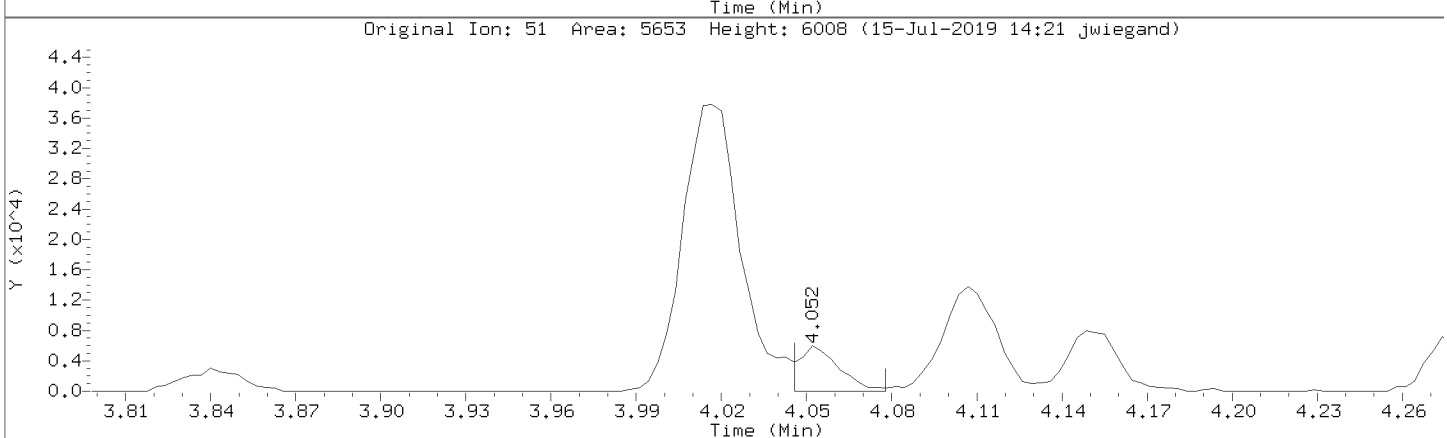
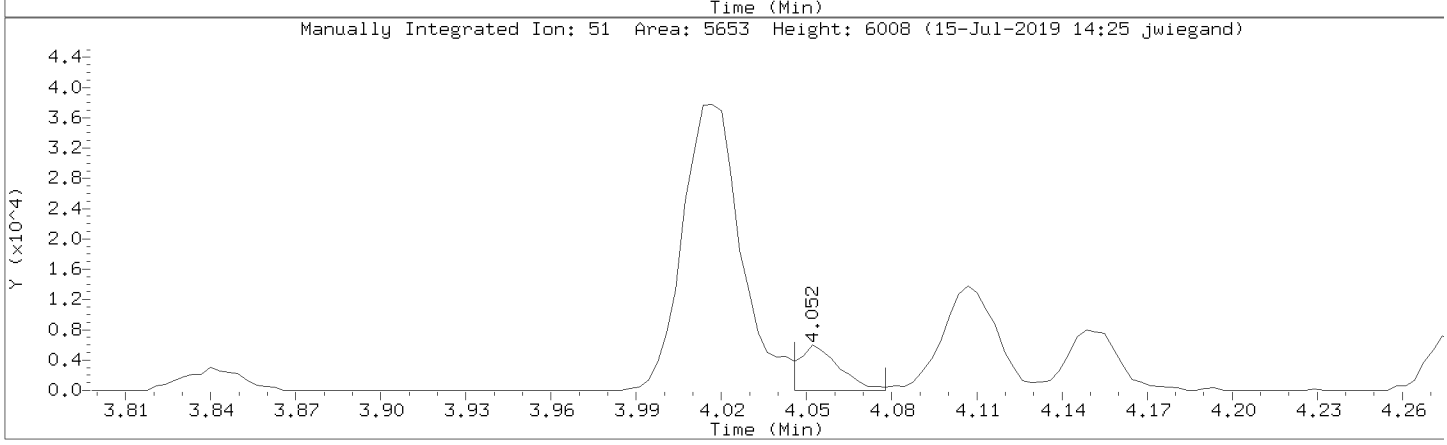
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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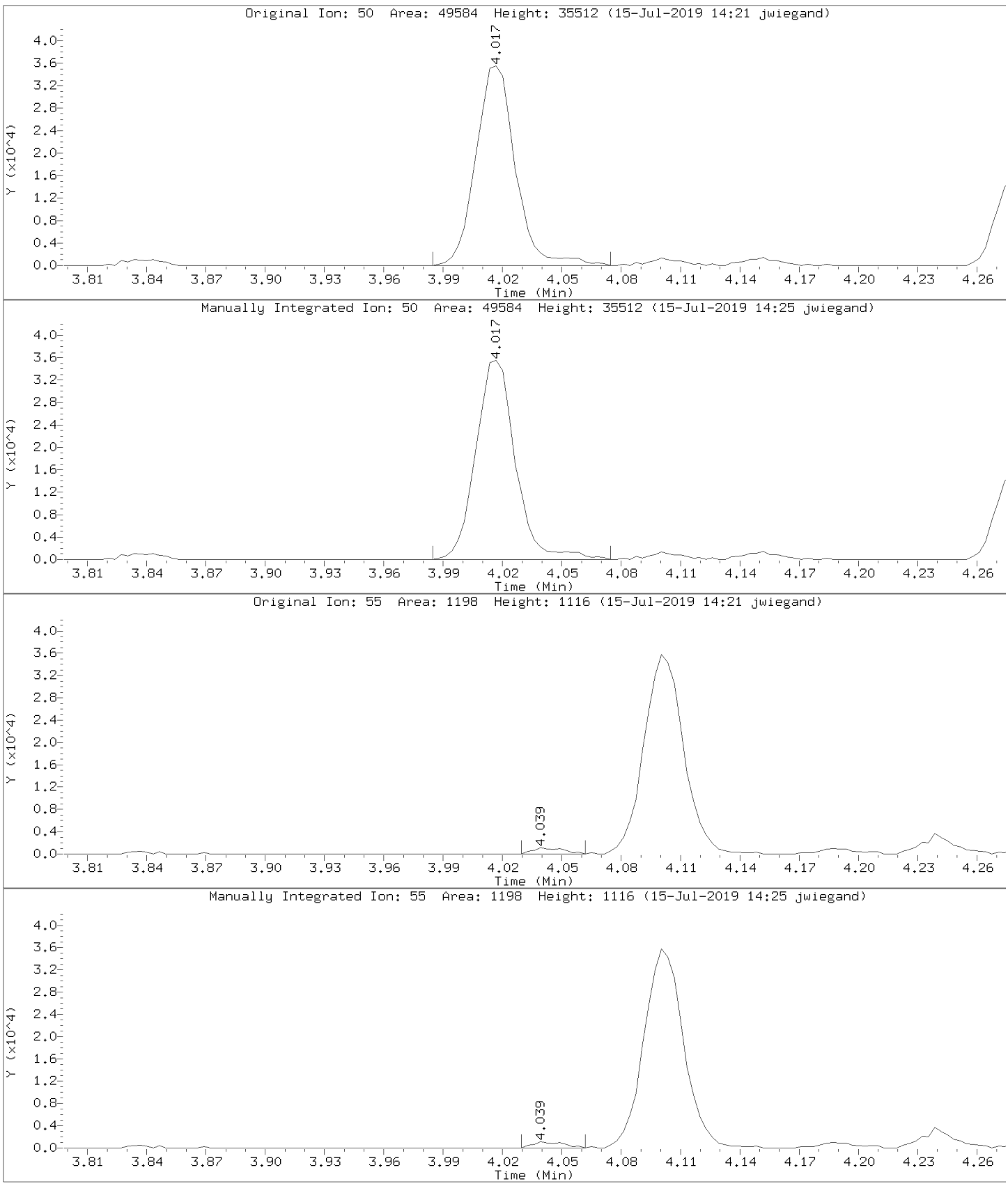
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV



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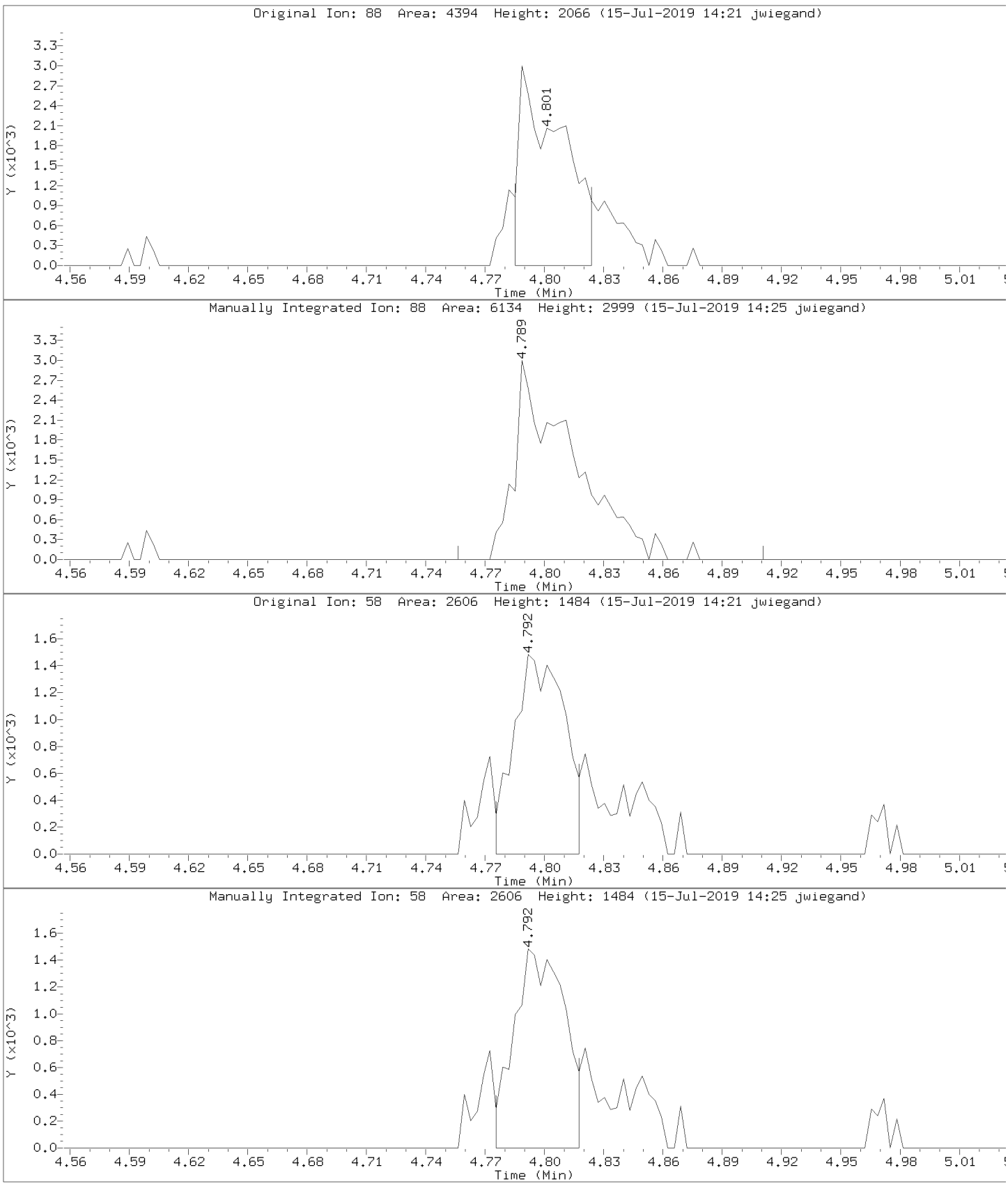
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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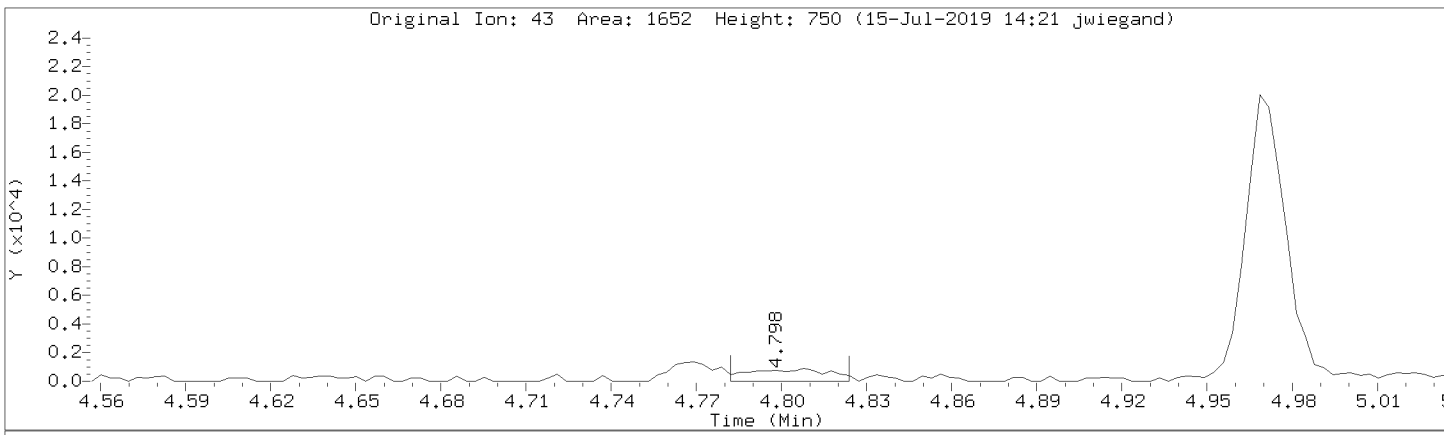
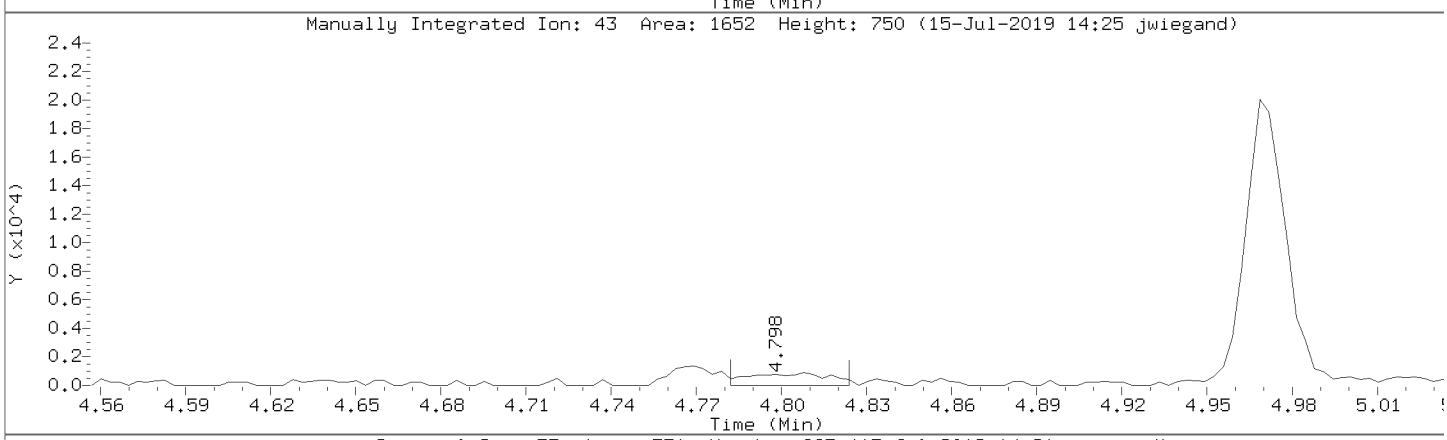
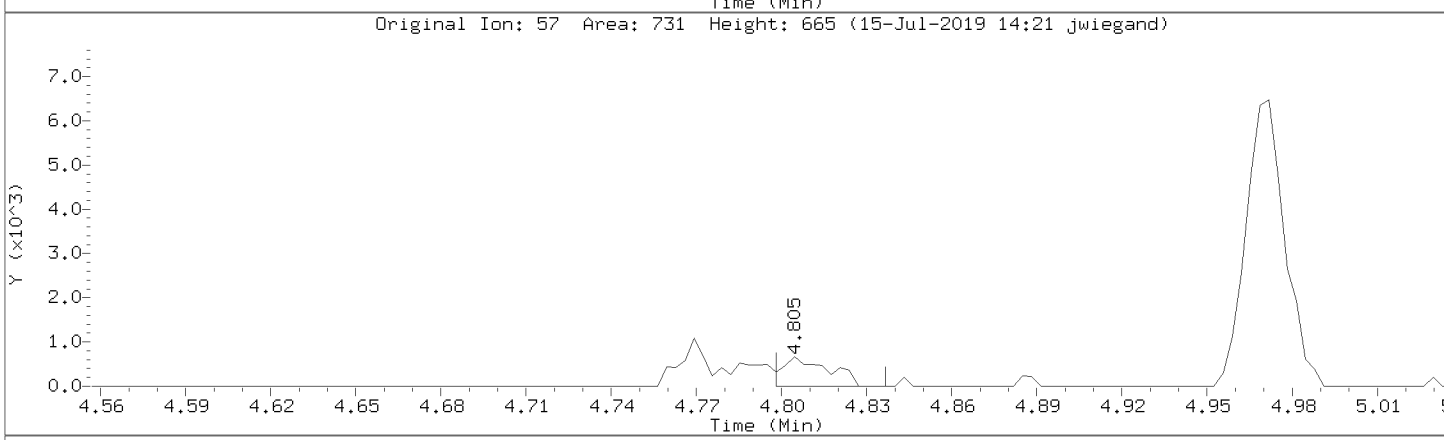
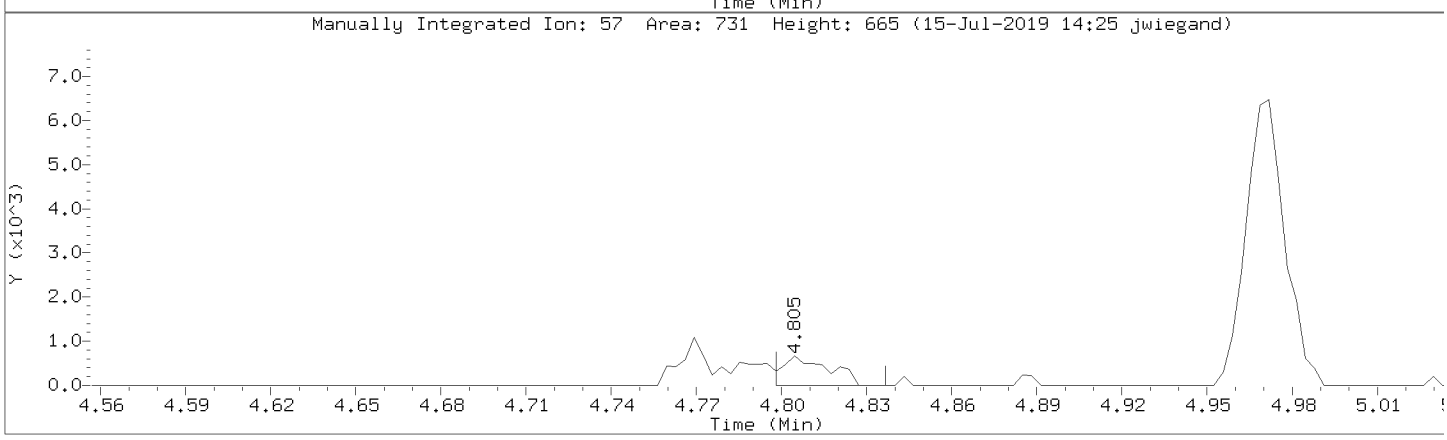
Instrument: 30mv5a.i
Lab Sample ID: CCV









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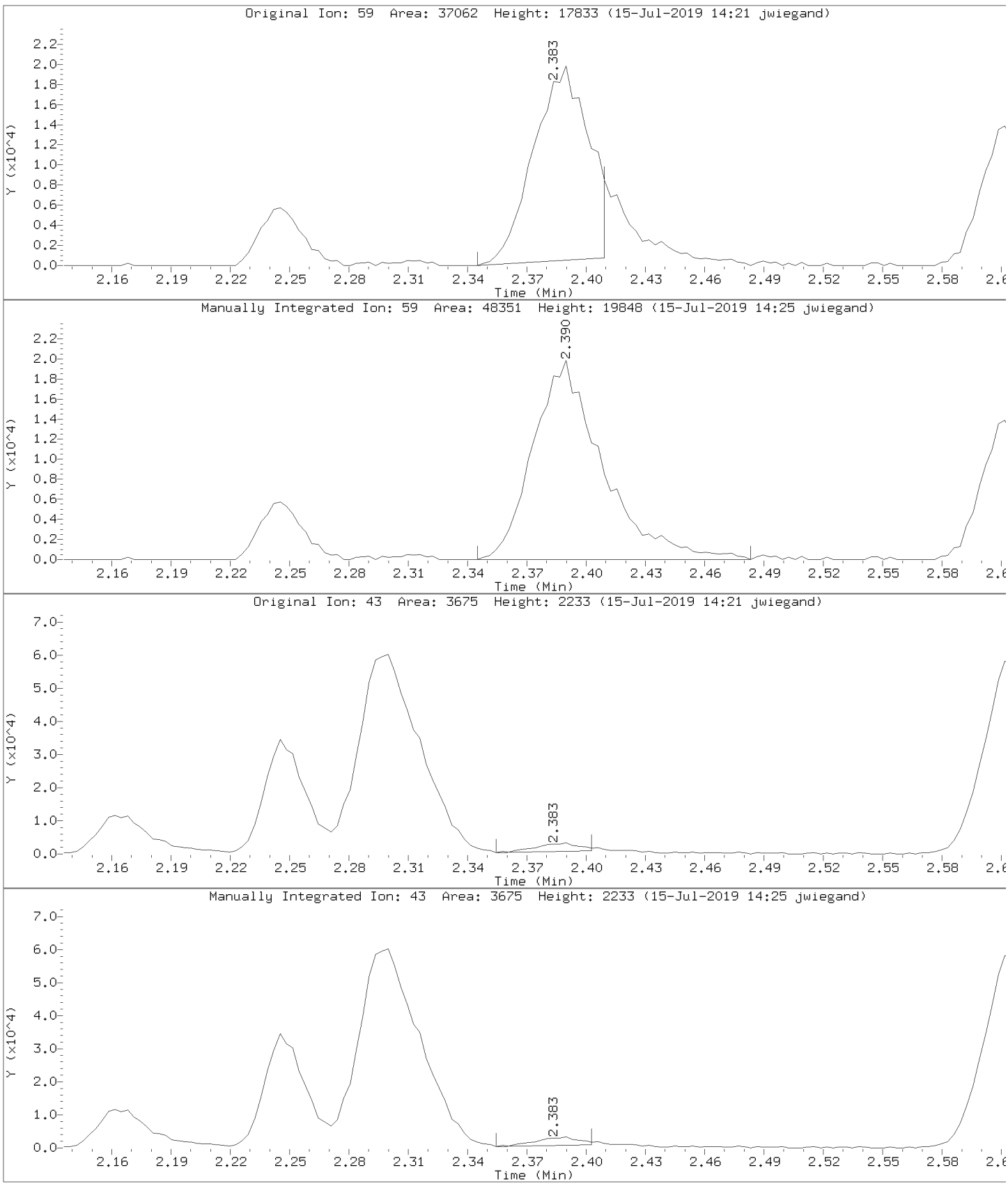
Injection Date: 15-JUL-2019 14:12
Instrument: 30mv5a.i
Lab Sample ID: CCV

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv5a.i\5190618.b\1.b\50618003.d

Date : 18-JUN-2019 09:08

Client ID: TUNE

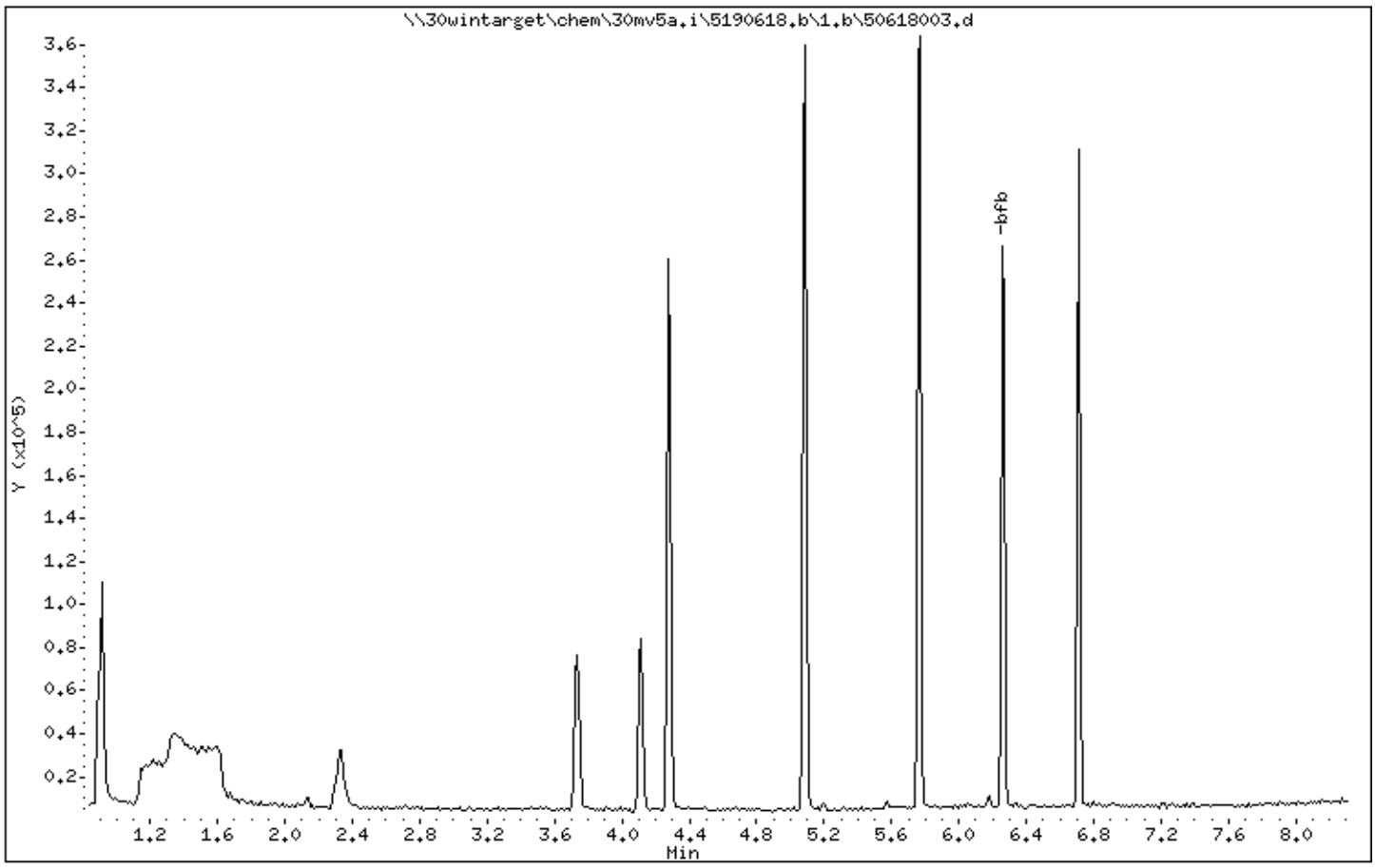
Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18



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Date : 18-JUN-2019 09:08

Client ID: TUNE

Instrument: 30mv5a.i

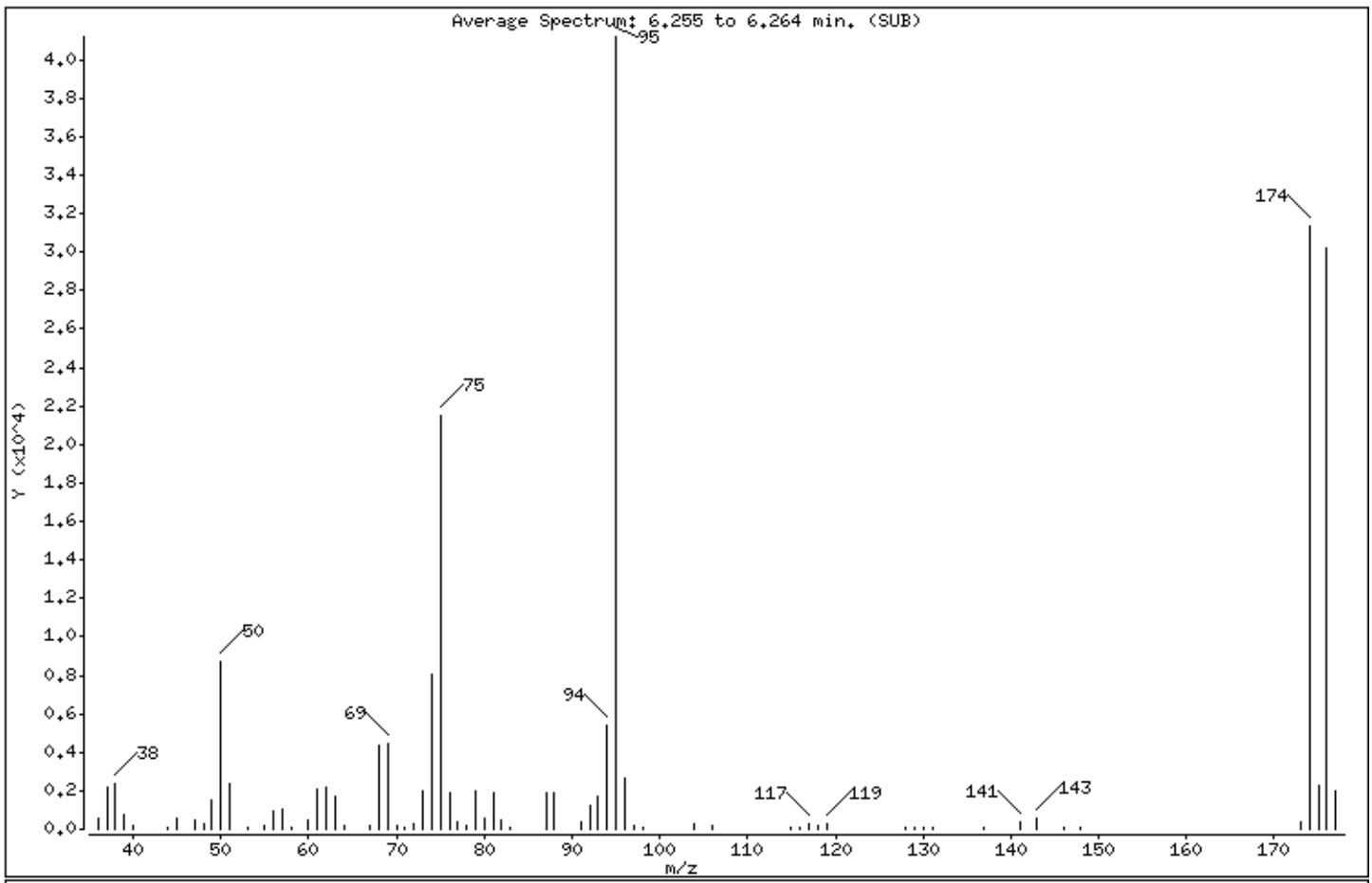
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.25
75	30.00 - 60.00% of mass 95	52.14
96	5.00 - 9.00% of mass 95	6.48
173	Less than 2.00% of mass 174	0.94 (1.24)
174	50.00 - 120.00% of mass 95	76.08
175	5.00 - 9.00% of mass 174	5.41 (7.12)
176	95.00 - 101.00% of mass 174	73.24 (96.27)
177	5.00 - 9.00% of mass 176	4.85 (6.62)

Date : 18-JUN-2019 09:08

Client ID: TUNE Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS Column diameter: 0.18

Data File: 50618003.d
Spectrum: Average Spectrum: 6.255 to 6.264 min. (SUB)
Location of Maximum: 95.00
Number of points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	561	61.00	2074	81.00	1896	118.00	153
37.00	2198	62.00	2203	82.00	470	119.00	278
38.00	2413	63.00	1750	83.00	57	128.00	50
39.00	802	64.00	201	87.00	1855	129.00	50
40.00	185	67.00	155	88.00	1886	130.00	59
44.00	121	68.00	4322	91.00	361	131.00	54
45.00	587	69.00	4448	92.00	1221	137.00	53
47.00	445	70.00	189	93.00	1735	141.00	386
48.00	246	71.00	70	94.00	5358	143.00	558
49.00	1556	72.00	286	95.00	41184	146.00	53
50.00	8751	73.00	2034	96.00	2667	148.00	55
51.00	2342	74.00	8022	97.00	179	173.00	388
53.00	68	75.00	21472	98.00	52	174.00	31328
55.00	182	76.00	1898	104.00	255	175.00	2230
56.00	981	77.00	381	106.00	188	176.00	30160
57.00	1024	78.00	149	115.00	51	177.00	1997
58.00	61	79.00	2019	116.00	125		
60.00	441	80.00	557	117.00	263		

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715003.d

Date : 15-JUL-2019 12:53

Client ID: TUNE

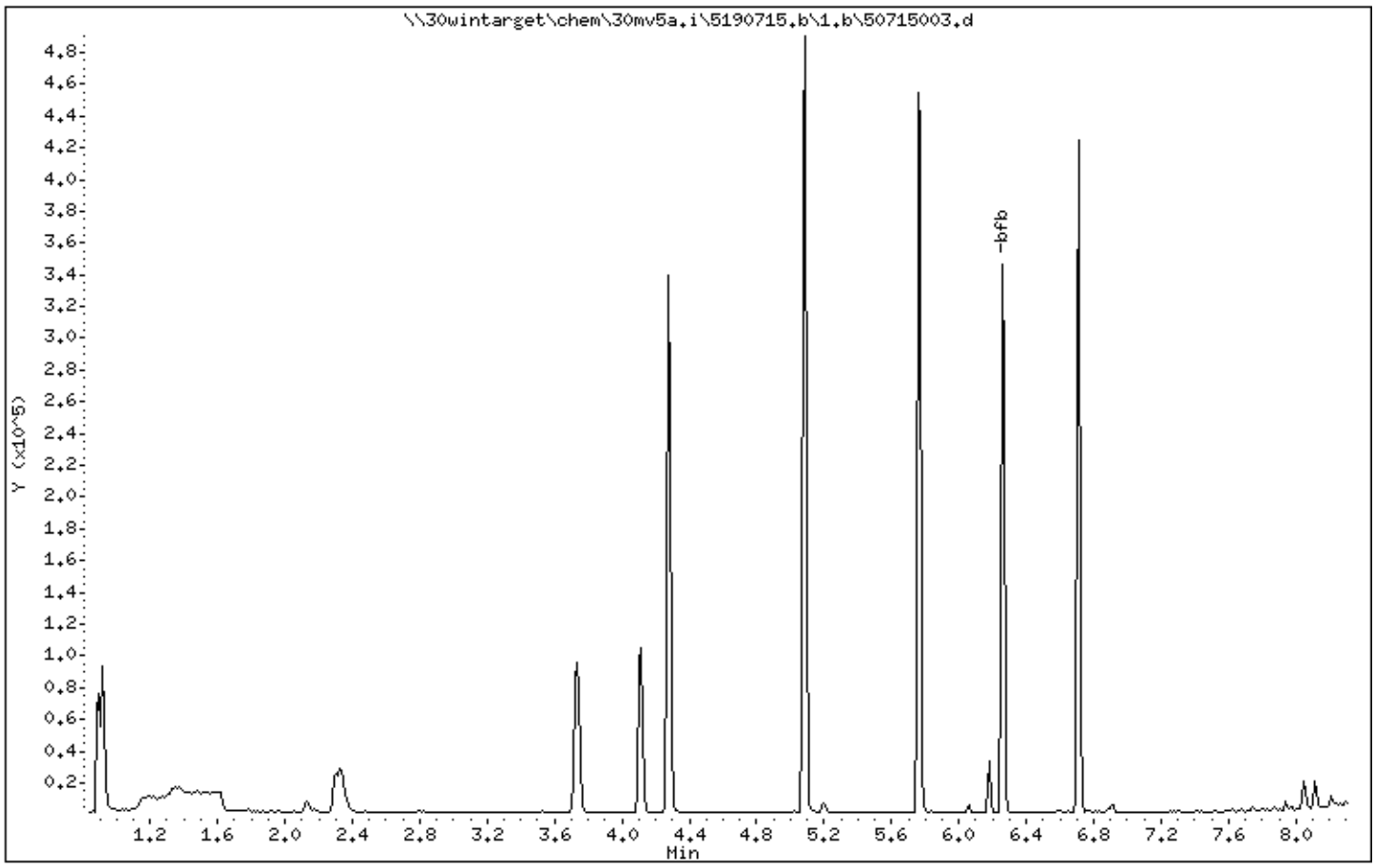
Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18



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Date : 15-JUL-2019 12:53

Client ID: TUNE

Instrument: 30mv5a.i

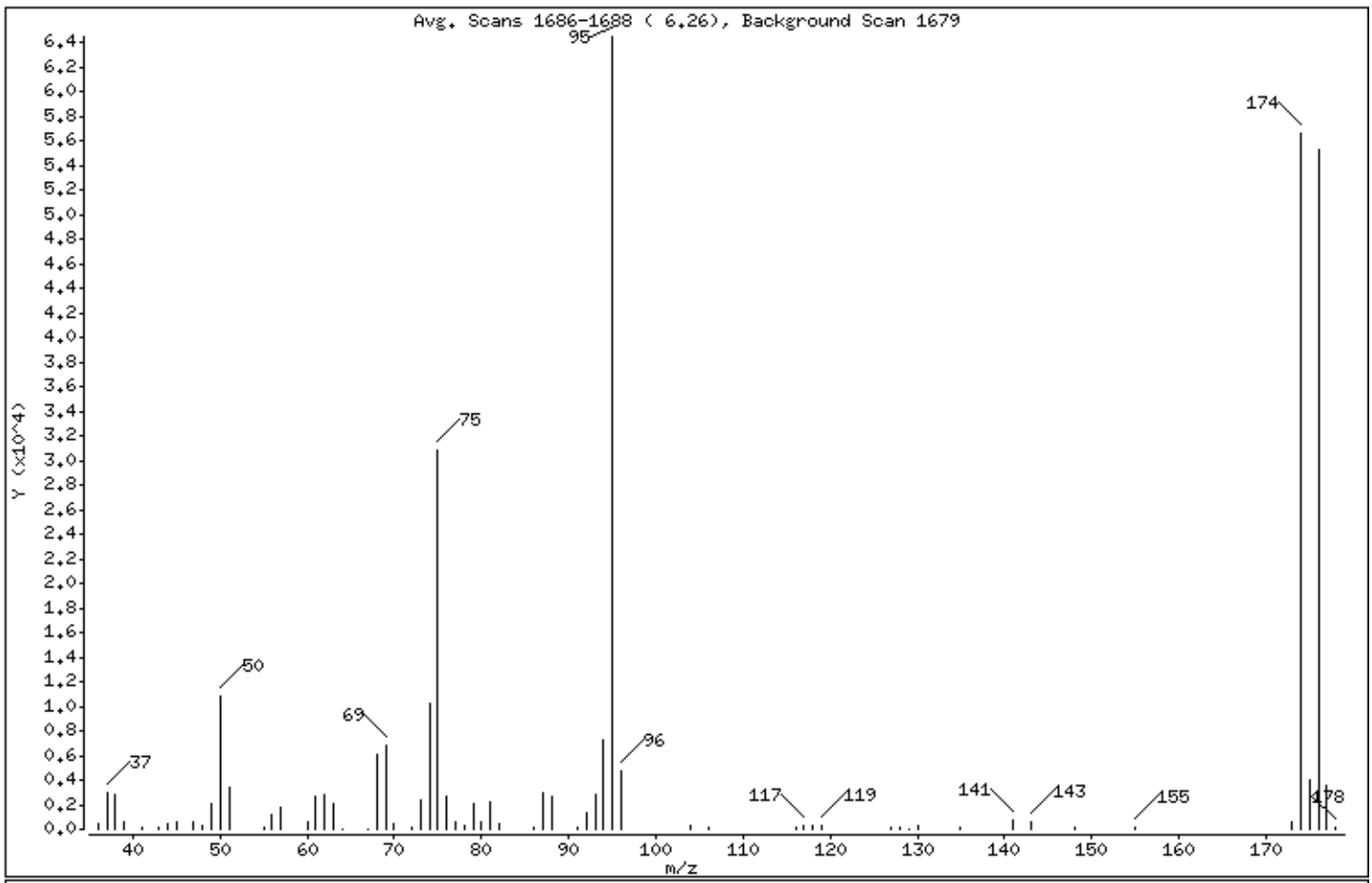
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.77
75	30.00 - 60.00% of mass 95	47.83
96	5.00 - 9.00% of mass 95	7.27
173	Less than 2.00% of mass 174	0.92 (1.05)
174	50.00 - 120.00% of mass 95	87.77
175	5.00 - 9.00% of mass 174	6.29 (7.16)
176	95.00 - 101.00% of mass 174	85.71 (97.65)
177	5.00 - 9.00% of mass 176	5.42 (6.33)

Date : 15-JUL-2019 12:53

Client ID: TUNE Instrument: 30mv5a.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: RTx-VMS Column diameter: 0.18

Data File: 50715003.d
Spectrum: Avg. Scans 1686-1688 (6.26), Background Scan 1679
Location of Maximum: 95.00
Number of points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	408	61.00	2723	81.00	2273	127.00	90
37.00	2946	62.00	2820	82.00	480	128.00	193
38.00	2840	63.00	2078	86.00	78	129.00	73
39.00	634	64.00	70	87.00	2951	130.00	272
41.00	76	67.00	72	88.00	2668	135.00	175
43.00	78	68.00	6043	91.00	207	141.00	700
44.00	436	69.00	6860	92.00	1375	143.00	640
45.00	625	70.00	443	93.00	2823	148.00	104
47.00	622	72.00	216	94.00	7201	155.00	87
48.00	247	73.00	2351	95.00	64448	173.00	593
49.00	2108	74.00	10232	96.00	4683	174.00	56568
50.00	10809	75.00	30824	104.00	339	175.00	4052
51.00	3469	76.00	2663	106.00	214	176.00	55240
55.00	165	77.00	606	116.00	78	177.00	3495
56.00	1193	78.00	316	117.00	336	178.00	82
57.00	1741	79.00	2132	118.00	223		
60.00	572	80.00	583	119.00	370		

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: Matrix: Water SDG No.: 30313260

Date Extracted: 07/15/2019 15:05 Lab Sample ID: 1709347

Date Analyzed: 07/15/2019 15:05 Lab File ID: 5190715.B\1.B\50715013-45365.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	18.4	
78-93-3	2-Butanone (MEK)	13.8	
56-23-5	Carbon tetrachloride	17.3	
108-90-7	Chlorobenzene	17.9	
67-66-3	Chloroform	18.5	
107-06-2	1,2-Dichloroethane	16.6	
75-35-4	1,1-Dichloroethene	17.3	
127-18-4	Tetrachloroethene	19.7	
79-01-6	Trichloroethene	17.2	
75-01-4	Vinyl chloride	16.2	

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Lab Smp Id: 1709347 Client Smp ID: MBLCS
Inj Date : 15-JUL-2019 15:05
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1709347,93569:5,,
Misc Info : 45365,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.000	1.000	(0.234)	29600	19.6909	19.7(M)	LT
2	Chloromethane	50	1.142	1.142	(0.267)	18292	17.9663	18.0(M)	LT
3	Vinyl chloride	62	1.145	1.145	(0.268)	30958	16.2034	16.2(M)	LT
4	Bromomethane	94	1.319	1.325	(0.308)	26702	20.0712	20.1(M)	LT
5	Chloroethane	64	1.389	1.380	(0.325)	21021	17.2160	17.2(M)	LT
6	Trichlorofluoromethane	101	1.463	1.467	(0.342)	53817	19.4369	19.4	
7	Diethyl ether (Ethyl ether)	59	1.627	1.634	(0.381)	22857	16.3613	16.4	
8	Ethanol	45	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.756	1.759	(0.411)	39609	17.3121	17.3	
10	1,1,2-Trichlorotrifluoroethane	151	1.775	1.775	(0.415)	21873	20.4681	20.5(Q)	
11	Carbon disulfide	76	1.782	1.785	(0.417)	61339	15.4971	15.5	
12	Iodomethane	142	1.846	1.856	(0.432)	10765	14.6557	14.6(QRM)	LT
13	Acrolein	56	1.965	1.969	(0.460)	3222	17.8075	17.8(Q)	
14	Allyl chloride	41	2.055	2.055	(0.481)	148489	81.9683	82.0(QR)	
15	Methylene Chloride	49	2.126	2.132	(0.497)	39966	25.5307	25.5	
16	Acetone	43	2.161	2.165	(0.505)	8463	20.7584	20.8	
17	trans-1,2-Dichloroethene	61	2.238	2.242	(0.523)	39071	16.6691	16.7	
18	Methyl acetate	74	2.248	2.254	(0.526)	6464	22.9577	23.0	
19	n-Hexane	86	2.293	2.297	(0.536)	15851	41.5313	41.5(QR)	
20	Methyl-tert-butyl ether	73	2.312	2.312	(0.541)	85119	16.5364	16.5(Q)	
21	tert-Butyl Alcohol	59	2.380	2.386	(0.556)	17767	82.5447	82.5(QM)	LT
22	Acetonitrile	41	2.531	2.522	(0.592)	6884	68.2870	68.3(QRM)	LT
23	Diisopropyl ether	45	2.615	2.618	(0.611)	73278	14.8255	14.8	

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	2.705	2.705	(0.632)	31001	14.7309	14.7(Q)	
	25 1,1-Dichloroethane	63	2.727	2.727	(0.638)	50677	16.2864	16.3(Q)	
	26 Acrylonitrile	53	2.775	2.785	(0.649)	5888	12.3063	12.3(RM)	LT
	27 Ethyl-tert-butyl ether	59	2.942	2.939	(0.688)	79704	15.3910	15.4(Q)	
	28 Vinyl acetate	43	2.965	2.965	(0.693)	38970	9.83224	9.83(QRM)	LT
	29 cis-1,2-Dichloroethene	61	3.245	3.248	(0.759)	39871	16.7388	16.7(Q)	
	30 2,2-Dichloropropane	77	3.354	3.351	(0.784)	48958	17.3320	17.3(Q)	
	31 Cyclohexane	56	3.454	3.450	(0.808)	38226	16.2550	16.2(M)	LT
	32 Bromochloromethane	130	3.460	3.467	(0.809)	22073	20.3718	20.4(Q)	
	33 Chloroform	83	3.557	3.553	(0.832)	64386	18.5359	18.5	
	34 Carbon tetrachloride	117	3.676	3.679	(0.859)	43004	17.3310	17.3	
	35 Ethyl acetate	43	3.692	3.702	(0.863)	20853	12.5708	12.6(QRM)	LT
	36 Tetrahydrofuran	42	3.705	3.711	(0.866)	9869	14.9208	14.9(QM)	LT
$	37 Dibromofluoromethane (S)	111	3.730	3.730	(0.872)	49261	31.2144	31.2	
	38 1,1,1-Trichloroethane	97	3.737	3.733	(0.874)	51752	17.2612	17.3(Q)	
	39 2-Butanone (MEK)	43	3.836	3.865	(0.897)	10627	13.7575	13.8(QH)	
	40 1,1-Dichloropropene	75	3.840	3.846	(0.898)	43280	17.3133	17.3(Q)	
	41 Benzene	78	4.016	4.020	(0.939)	127074	18.4490	18.4	
	42 Propionitrile	54	4.039	4.049	(0.944)	2746	15.2928	15.3(Q)	
	43 Methacrylonitrile	41	4.052	4.054	(0.947)	14040	14.4774	14.5(M)	LT
	44 tert-Amylmethyl ether	73	4.100	4.106	(0.959)	83027	15.7925	15.8	
$	45 1,2-Dichloroethane-d4 (S)	65	4.106	4.110	(0.960)	47357	27.8517	27.8	
	46 Isobutanol	43	4.190	4.213	(0.980)	4922	71.0943	71.1(QRH)	
	47 1,2-Dichloroethane	62	4.151	4.151	(0.971)	42036	16.5723	16.6	
*	48 Fluorobenzene (IS)	96	4.277	4.277	(1.000)	180450	30.0000		
	49 Methylcyclohexane	83	4.360	4.364	(1.020)	45756	18.1060	18.1	
	50 Trichloroethene	95	4.370	4.373	(0.758)	35412	17.1824	17.2	
	51 Dibromomethane	174	4.595	4.598	(1.074)	24024	19.9483	19.9	
	52 1,2-Dichloropropane	63	4.643	4.647	(1.086)	30401	17.4829	17.5	
	53 Bromodichloromethane	83	4.685	4.688	(1.095)	41527	16.9695	17.0	
	54 Methyl methacrylate	69	4.766	4.775	(1.114)	20013	15.4541	15.4	
	55 1,4-Dioxane (p-Dioxane)	88	4.811	4.808	(1.125)	2296	174.672	175(QRM)	NI
	56 2-Chloroethylvinyl ether	63	4.968	4.978	(1.162)	11301	16.9726	17.0	
	57 cis-1,3-Dichloropropene	75	4.997	5.000	(1.168)	49787	16.9927	17.0	
$	58 Toluene-d8 (S)	98	5.084	5.084	(0.882)	172043	28.9946	29.0	
	59 Toluene	91	5.106	5.110	(0.886)	141105	17.8776	17.9	
	60 2-Nitropropane	43	5.216	5.216	(1.219)	28523	49.4558	49.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.280	5.283	(1.235)	26341	15.0790	15.1	
	62 Tetrachloroethene	166	5.283	5.290	(0.917)	39308	19.6844	19.7	
	63 trans-1,3-Dichloropropene	75	5.299	5.303	(0.920)	44928	15.1271	15.1	
	64 Ethyl methacrylate	41	5.364	5.367	(0.931)	21916	13.9671	14.0(R)	
	65 1,1,2-Trichloroethane	97	5.370	5.370	(0.932)	29932	16.8727	16.9	
	66 Dibromochloromethane	129	5.447	5.450	(0.945)	33402	16.2363	16.2	
	67 1,3-Dichloropropane	76	5.489	5.492	(0.953)	48262	16.9566	17.0	
	68 1,2-Dibromoethane (EDB)	107	5.550	5.553	(0.963)	31360	18.0023	18.0	
	69 2-Hexanone	43	5.637	5.643	(0.978)	17713	13.2521	13.2(R)	
	70 Ethylbenzene	106	5.775	5.778	(1.002)	50368	18.4043	18.4	
*	71 Chlorobenzene-d5 (IS)	117	5.762	5.766	(1.000)	138368	30.0000		
	72 Chlorobenzene	112	5.769	5.769	(1.001)	94175	17.8947	17.9	
	73 1,1,1,2-Tetrachloroethane	131	5.798	5.798	(1.006)	32725	16.4458	16.4	
	74 m&p-Xylene	106	5.836	5.836	(1.013)	120015	36.3327	36.3	
	75 o-Xylene	106	6.013	6.016	(1.044)	58804	17.9831	18.0	
	76 Styrene	104	6.036	6.036	(1.047)	92091	17.1944	17.2	
	77 Bromoform	173	6.055	6.058	(0.903)	21156	14.2602	14.3	

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	6.138	6.138	(0.915)	145648	18.0164	18.0	
$	79 4-Bromofluorobenzene (S)	174	6.261	6.261	(0.933)	55673	30.7389	30.7	
	80 n-Propylbenzene	91	6.302	6.306	(0.940)	157990	17.0497	17.0	
	81 Bromobenzene	77	6.306	6.309	(0.940)	59384	16.0410	16.0	
	82 1,1,2,2-Tetrachloroethane	83	6.335	6.335	(0.944)	38680	15.6608	15.7	
	83 1,3,5-Trimethylbenzene	105	6.376	6.380	(0.951)	118642	18.2316	18.2	
	84 2-Chlorotoluene	126	6.376	6.380	(0.951)	37422	18.3951	18.4	
	85 1,2,3-Trichloropropane	110	6.396	6.396	(0.954)	12224	17.0281	17.0	
	86 trans-1,4-Dichloro-2-butene	53	6.402	6.409	(0.954)	6519	11.0222	11.0	
	87 Cyclohexanone	55	6.418	6.421	(0.957)	5951	51.6497	51.6	
	88 4-Chlorotoluene	126	6.441	6.444	(0.960)	37484	18.4487	18.4	
	89 tert-Butylbenzene	119	6.511	6.511	(0.971)	103819	19.3174	19.3	
	90 1,2,4-Trimethylbenzene	105	6.537	6.537	(0.975)	116023	17.9495	17.9	
	91 sec-Butylbenzene	105	6.579	6.582	(0.981)	142572	18.6654	18.7	
	92 p-Isopropyltoluene	119	6.630	6.634	(0.988)	125343	19.4831	19.5	
	93 1,3-Dichlorobenzene	146	6.682	6.682	(0.996)	68085	18.8572	18.8	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.708	6.711	(1.000)	62212	30.0000		
	95 1,4-Dichlorobenzene	146	6.717	6.714	(1.001)	67115	18.5888	18.6	
	96 n-Butylbenzene	91	6.804	6.804	(1.014)	104766	18.8596	18.8	
	97 1,2-Dichlorobenzene	146	6.888	6.891	(1.027)	65875	19.3317	19.3	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.708	6.711	(1.000)	62211	29.9548	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.212	7.212	(1.075)	6737	16.6678	16.7	
	99 1,3,5-Trichlorobenzene	180	7.219	7.222	(1.076)	44817	22.8028	22.8	
	100 Hexachloro-1,3-butadiene	225	7.460	7.460	(1.112)	19003	21.7675	21.8	
	101 1,2,4-Trichlorobenzene	180	7.482	7.486	(1.116)	33450	20.5205	20.5	
	102 Naphthalene	128	7.618	7.618	(1.136)	78892	18.8001	18.8	
	103 1,2,3-Trichlorobenzene	180	7.695	7.695	(1.147)	31819	21.4780	21.5	
	104 2-Methylnaphthalene	142	8.048	8.048	(1.200)	35161	19.5345	19.5	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715013-45365.d
Lab Smp Id: 1709347
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365,

Calibration Date: 15-JUL-2019
Calibration Time: 14:12
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	174494	87247	348988	180450	3.41
71 Chlorobenzene-d5	136516	68258	273032	138368	1.36
94 1,4-Dichlorobenze	63723	31862	127446	62212	-2.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.00
71 Chlorobenzene-d5	5.77	5.27	6.27	5.76	-0.06
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1709347 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.0	19.7	98.45	70-130
2 Chloromethane	20.0	18.0	89.83	70-130
3 Vinyl chloride	20.0	16.2	81.02	70-130
4 Bromomethane	20.0	20.1	100.36	70-130
5 Chloroethane	20.0	17.2	86.08	70-130
6 Trichlorofluoromet	20.0	19.4	97.18	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	17.3	86.56	70-130
10 1,1,2-Trichlorotri	20.0	20.5	102.34	50-150
11 Carbon disulfide	20.0	15.5	77.49	70-130
12 Iodomethane	50.0	14.6	29.31*	70-130
13 Acrolein	20.0	17.8	89.04	70-130
14 Allyl chloride	50.0	82.0	163.94*	70-130
15 Methylene Chloride	20.0	25.5	127.65	70-130
16 Acetone	20.0	20.8	103.79	70-130
17 trans-1,2-Dichloro	20.0	16.7	83.35	70-130
18 Methyl acetate	20.0	23.0	114.79	70-130
19 n-Hexane	20.0	41.5	207.66*	50-150
20 Methyl-tert-butyl	20.0	16.5	82.68	50-150
22 Acetonitrile	50.0	68.3	136.57*	70-130
23 Diisopropyl ether	20.0	14.8	74.13	70-130
24 Chloroprene	20.0	14.7	73.65	70-130
25 1,1-Dichloroethane	20.0	16.3	81.43	70-130
26 Acrylonitrile	20.0	12.3	61.53*	70-130
27 Ethyl-tert-butyl e	20.0	15.4	76.96	50-150
28 Vinyl acetate	20.0	9.83	49.16*	70-130
29 cis-1,2-Dichloroet	20.0	16.7	83.69	70-130
30 2,2-Dichloropropan	20.0	17.3	86.66	70-130
31 Cyclohexane	20.0	16.2	81.27	70-130
32 Bromochloromethane	20.0	20.4	101.86	70-130
33 Chloroform	20.0	18.5	92.68	70-130
34 Carbon tetrachlori	20.0	17.3	86.66	70-130
35 Ethyl acetate	20.0	12.6	62.85*	70-130
36 Tetrahydrofuran	20.0	14.9	74.60	70-130
38 1,1,1-Trichloroeth	20.0	17.3	86.31	70-130
39 2-Butanone (MEK)	20.0	13.8	68.79	50-150
40 1,1-Dichloropropen	20.0	17.3	86.57	70-130
41 Benzene	20.0	18.4	92.25	70-130
42 Propionitrile	20.0	15.3	76.46	70-130
43 Methacrylonitrile	20.0	14.5	72.39	70-130

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44 tert-Amylmethyl et	20.0	15.8	78.96	50-150
46 Isobutanol	20.0	71.1	355.47*	70-130
47 1,2-Dichloroethane	20.0	16.6	82.86	70-130
49 Methylcyclohexane	20.0	18.1	90.53	70-130
50 Trichloroethene	20.0	17.2	85.91	70-130
51 Dibromomethane	20.0	19.9	99.74	70-130
52 1,2-Dichloropropan	20.0	17.5	87.41	70-130
53 Bromodichlorometha	20.0	17.0	84.85	70-130
54 Methyl methacrylat	20.0	15.4	77.27	70-130
55 1,4-Dioxane (p-Dio	20.0	175	873.36*	50-150
56 2-Chloroethylvinyl	20.0	17.0	84.86	50-150
57 cis-1,3-Dichloropr	20.0	17.0	84.96	70-130
59 Toluene	20.0	17.9	89.39	70-130
60 2-Nitropropane	50.0	49.4	98.91	70-130
61 4-Methyl-2-pentano	20.0	15.1	75.39	50-150
62 Tetrachloroethene	20.0	19.7	98.42	70-130
63 trans-1,3-Dichloro	20.0	15.1	75.64	70-130
64 Ethyl methacrylate	20.0	14.0	69.84*	70-130
65 1,1,2-Trichloroeth	20.0	16.9	84.36	70-130
66 Dibromochlorometha	20.0	16.2	81.18	70-130
67 1,3-Dichloropropan	20.0	17.0	84.78	70-130
69 2-Hexanone	20.0	13.2	66.26*	70-130
70 Ethylbenzene	20.0	18.4	92.02	70-130
72 Chlorobenzene	20.0	17.9	89.47	70-130
73 1,1,1,2-Tetrachlor	20.0	16.4	82.23	70-130
74 m&p-Xylene	40.0	36.3	90.83	50-150
75 o-Xylene	20.0	18.0	89.92	70-130
76 Styrene	20.0	17.2	85.97	70-130
77 Bromoform	20.0	14.3	71.30	70-130
80 n-Propylbenzene	20.0	17.0	85.25	70-130
81 Bromobenzene	20.0	16.0	80.20	70-130
82 1,1,2,2-Tetrachlor	20.0	15.7	78.30	70-130
83 1,3,5-Trimethylben	20.0	18.2	91.16	70-130
84 2-Chlorotoluene	20.0	18.4	91.98	70-130
85 1,2,3-Trichloropro	20.0	17.0	85.14	70-130
86 trans-1,4-Dichloro	20.0	11.0	55.11	50-150
87 Cyclohexanone	50.0	51.6	103.30	70-130
88 4-Chlorotoluene	20.0	18.4	92.24	70-130
90 1,2,4-Trimethylben	20.0	17.9	89.75	70-130
92 p-Isopropyltoluene	20.0	19.5	97.42	50-150
93 1,3-Dichlorobenzen	20.0	18.8	94.29	70-130
95 1,4-Dichlorobenzen	20.0	18.6	92.94	70-130
97 1,2-Dichlorobenzen	20.0	19.3	96.66	70-130
98 1,2-Dibromo-3-chlo	20.0	16.7	83.34	70-130
100 Hexachloro-1,3-but	20.0	21.8	108.84	50-150
101 1,2,4-Trichloroben	20.0	20.5	102.60	70-130
102 Naphthalene	20.0	18.8	94.00	70-130
103 1,2,3-Trichloroben	20.0	21.5	107.39	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.2	104.05	70-130

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	27.8	92.84	70-130
$ 58 Toluene-d8 (S)	30.0	29.0	96.65	70-130
$ 79 4-Bromofluorobenze	30.0	30.7	102.46	70-130
$ 161 1,2-Dichlorobenzen	30.0	30.0	99.85	0-200

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Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709347
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45365,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 15-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Dichlorodifluoromethane	19.7	
74-87-3	Chloromethane	18.0	
75-01-4	Vinyl chloride	16.2	
74-83-9	Bromomethane	20.1	
75-00-3	Chloroethane	17.2	
75-69-4	Trichlorofluoromethane	19.4	
60-29-7	Diethyl ether (Ethyl ether)	16.4	
75-35-4	1,1-Dichloroethene	17.3	
76-13-1	1,1,2-Trichlorotrifluoroetha	20.5	
75-15-0	Carbon disulfide	15.5	
74-88-4	Iodomethane	14.6	
107-02-8	Acrolein	17.8	
107-05-1	Allyl chloride	82.0	
75-09-2	Methylene Chloride	25.5	
67-64-1	Acetone	20.8	
156-60-5	trans-1,2-Dichloroethene	16.7	
79-20-9	Methyl acetate	23.0	
110-54-3	n-Hexane	41.5	
1634-04-4	Methyl-tert-butyl ether	16.5	
75-65-0	tert-Butyl Alcohol	82.5	
75-05-8	Acetonitrile	68.3	
108-20-3	Diisopropyl ether	14.8	
126-99-8	Chloroprene	14.7	
75-34-3	1,1-Dichloroethane	16.3	
107-13-1	Acrylonitrile	12.3	
637-92-3	Ethyl-tert-butyl ether	15.4	
108-05-4	Vinyl acetate	9.83	
156-59-2	cis-1,2-Dichloroethene	16.7	
594-20-7	2,2-Dichloropropane	17.3	
110-82-7	Cyclohexane	16.2	
74-97-5	Bromochloromethane	20.4	
67-66-3	Chloroform	18.5	
56-23-5	Carbon tetrachloride	17.3	
141-78-6	Ethyl acetate	12.6	
109-99-9	Tetrahydrofuran	14.9	
71-55-6	1,1,1-Trichloroethane	17.3	
78-93-3	2-Butanone (MEK)	13.8	
563-58-6	1,1-Dichloropropene	17.3	
71-43-2	Benzene	18.4	
107-12-0	Propionitrile	15.3	
126-98-7	Methacrylonitrile	14.5	
994-05-8	tert-Amylmethyl ether	15.8	

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d
Report Date: 16-Jul-2019 07:45

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709347
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45365,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 15-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
78-83-1	Isobutanol	71.1	
107-06-2	1,2-Dichloroethane	16.6	
108-87-2	Methylcyclohexane	18.1	
79-01-6	Trichloroethene	17.2	
74-95-3	Dibromomethane	19.9	
78-87-5	1,2-Dichloropropane	17.5	
75-27-4	Bromodichloromethane	17.0	
80-62-6	Methyl methacrylate	15.4	
123-91-1	1,4-Dioxane (p-Dioxane)	175	
110-75-8	2-Chloroethylvinyl ether	17.0	
10061-01-5	cis-1,3-Dichloropropene	17.0	
108-88-3	Toluene	17.9	
79-46-9	2-Nitropropane	49.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	15.1	
127-18-4	Tetrachloroethene	19.7	
10061-02-6	trans-1,3-Dichloropropene	15.1	
97-63-2	Ethyl methacrylate	14.0	
79-00-5	1,1,2-Trichloroethane	16.9	
124-48-1	Dibromochloromethane	16.2	
142-28-9	1,3-Dichloropropane	17.0	
106-93-4	1,2-Dibromoethane (EDB)	18.0	
591-78-6	2-Hexanone	13.2	
100-41-4	Ethylbenzene	18.4	
108-90-7	Chlorobenzene	17.9	
630-20-6	1,1,1,2-Tetrachloroethane	16.4	
7816-60-0	m&p-Xylene	36.3	
95-47-6	o-Xylene	18.0	
100-42-5	Styrene	17.2	
75-25-2	Bromoform	14.3	
98-82-8	Isopropylbenzene (Cumene)	18.0	
103-65-1	n-Propylbenzene	17.0	
108-86-1	Bromobenzene	16.0	
79-34-5	1,1,2,2-Tetrachloroethane	15.7	
108-67-8	1,3,5-Trimethylbenzene	18.2	
95-49-8	2-Chlorotoluene	18.4	
96-18-4	1,2,3-Trichloropropane	17.0	
110-57-6	trans-1,4-Dichloro-2-butene	11.0	
108-94-1	Cyclohexanone	51.6	
106-43-4	4-Chlorotoluene	18.4	
98-06-6	tert-Butylbenzene	19.3	
95-63-6	1,2,4-Trimethylbenzene	17.9	
135-98-8	sec-Butylbenzene	18.7	

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Report Date: 16-Jul-2019 07:45

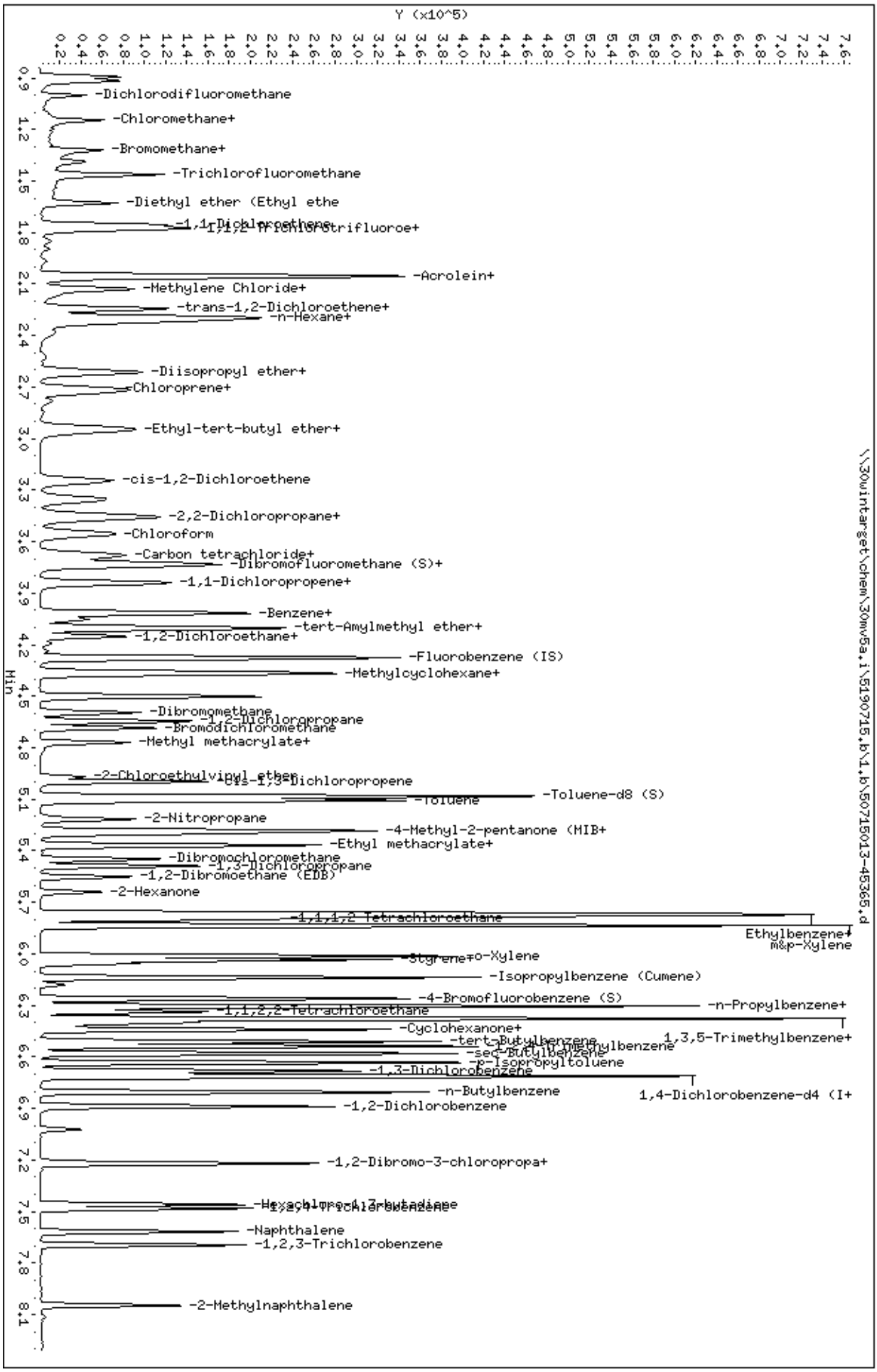
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709347
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45365,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 15-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	19.5	
541-73-1	1,3-Dichlorobenzene	18.8	
106-46-7	1,4-Dichlorobenzene	18.6	
104-51-8	n-Butylbenzene	18.8	
95-50-1	1,2-Dichlorobenzene	19.3	
96-12-8	1,2-Dibromo-3-chloropropane	16.7	
108-70-3	1,3,5-Trichlorobenzene	22.8	
87-68-3	Hexachloro-1,3-butadiene	21.8	
120-82-1	1,2,4-Trichlorobenzene	20.5	
91-20-3	Naphthalene	18.8	
87-61-6	1,2,3-Trichlorobenzene	21.5	
91-57-6	2-Methylnaphthalene	19.5	
1868-53-7	Dibromofluoromethane (S)	31.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.8	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	30.7	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 15-JUL-2019 15:05
Client ID: HBLCS
Sample Info: 1709347,93569:5,,
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv5a.i
Operator: JEW
Column diameter: 0.18
Y (x10^5)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Diisopropyl ether+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane+
-Chloroform
-Carbon tetrachloride+
-Dibromofluoromethane (S)+
-1,1-Dichloropropene+
-Benzene+
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene
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Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

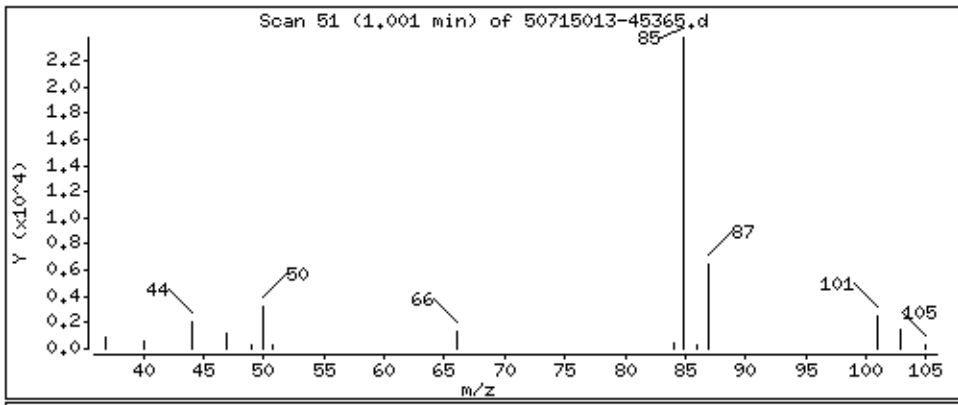
Operator: JEW

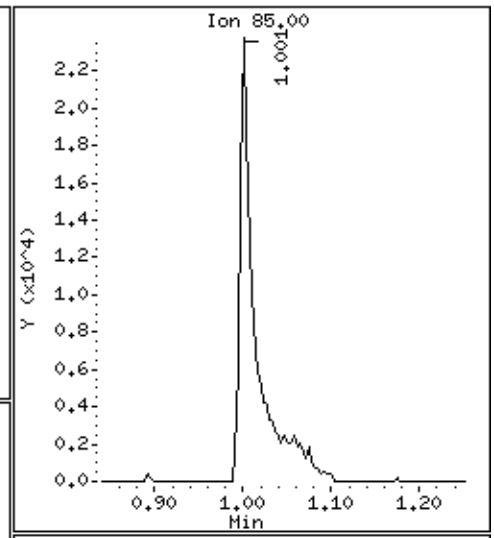
Column phase: RTX-VMS

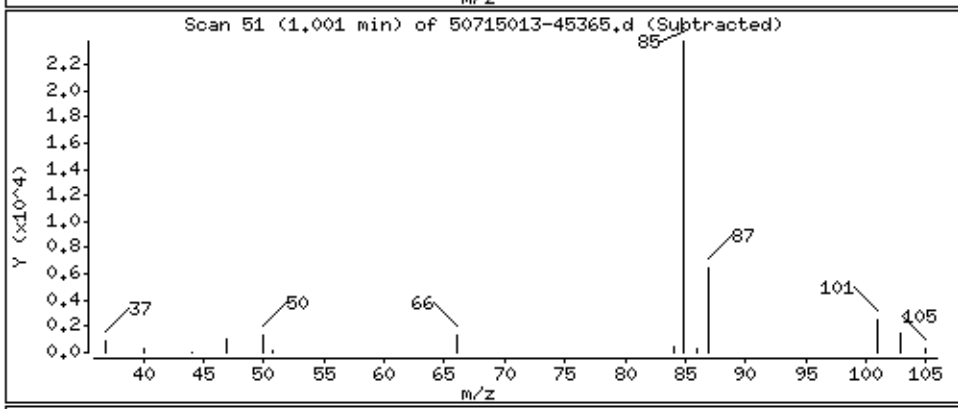
Column diameter: 0.18

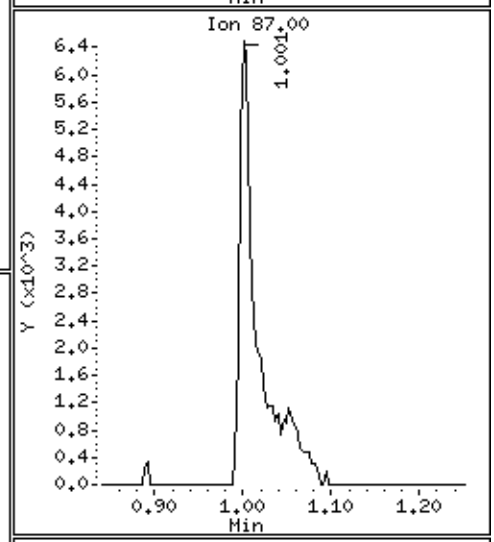
1 Dichlorodifluoromethane

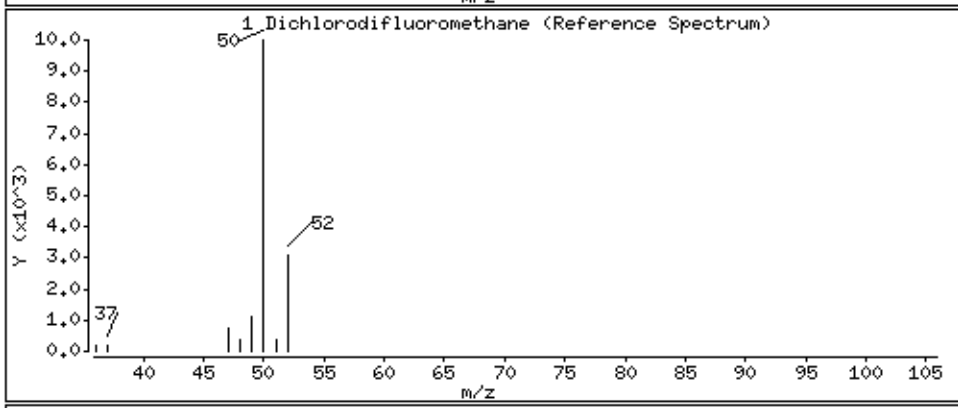
Concentration: 19.7 ug/L

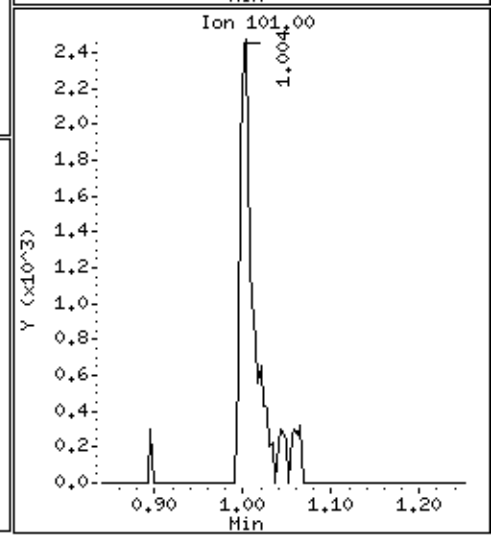


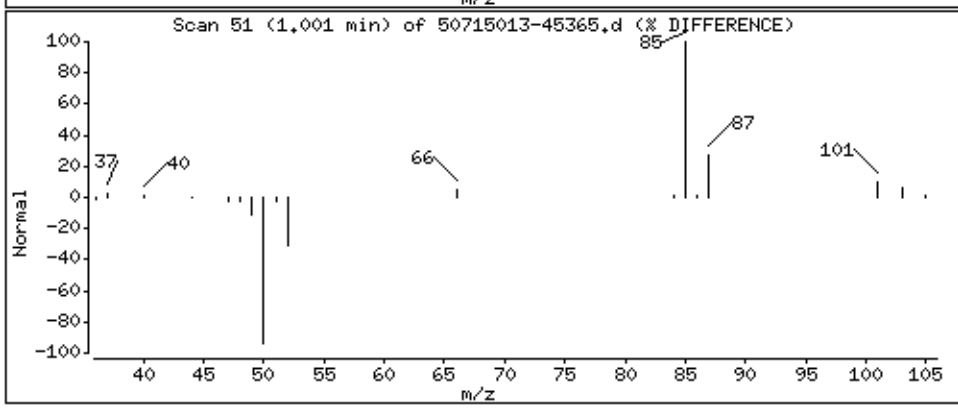












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

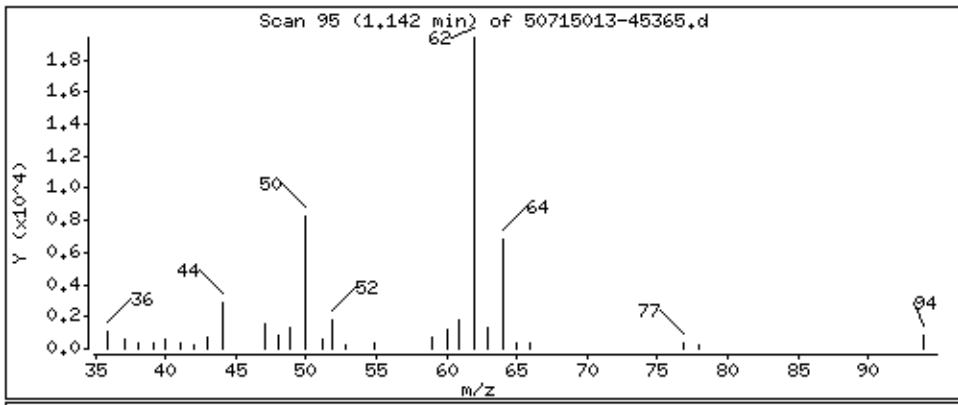
Operator: JEW

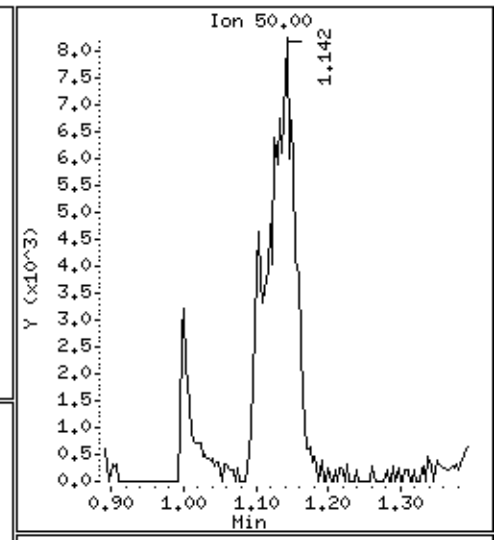
Column phase: RTX-VMS

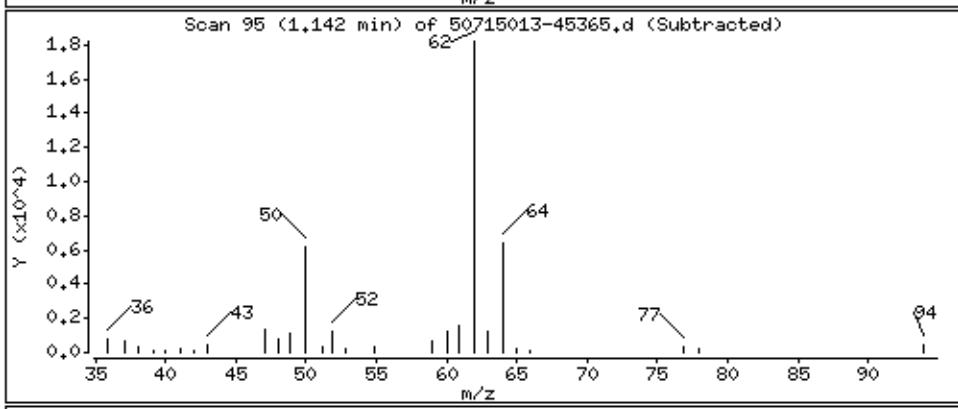
Column diameter: 0.18

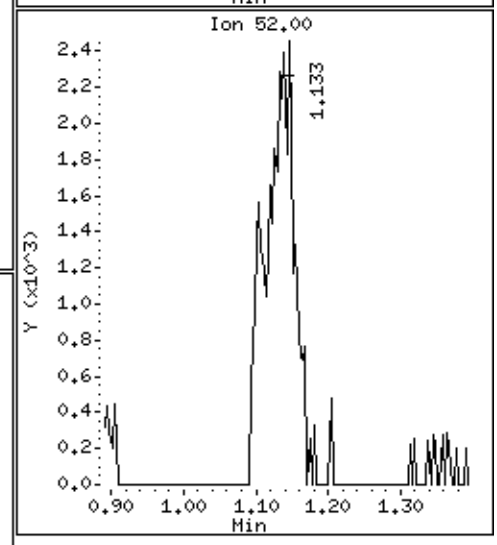
2 Chloromethane

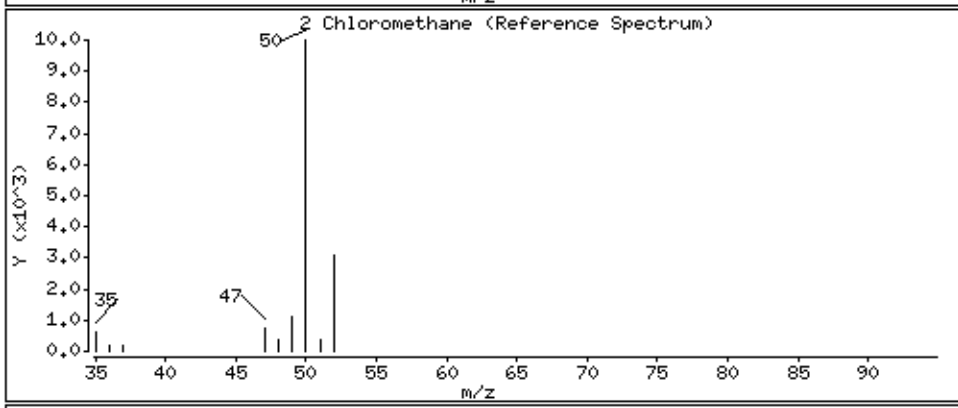
Concentration: 18.0 ug/L

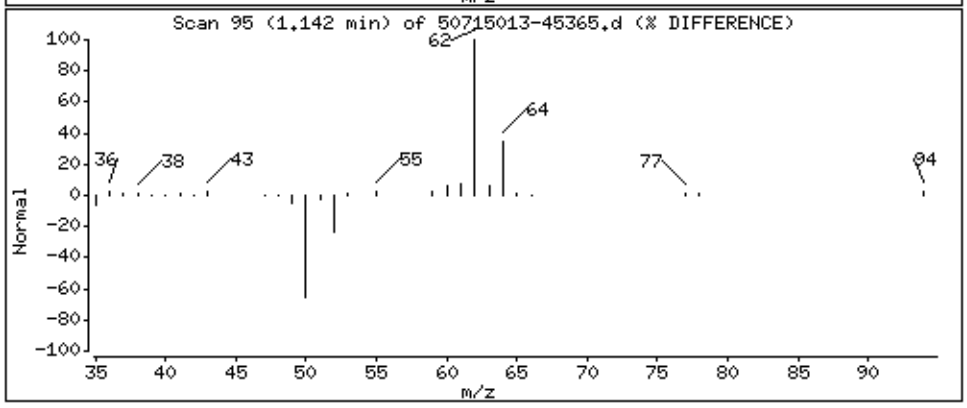












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

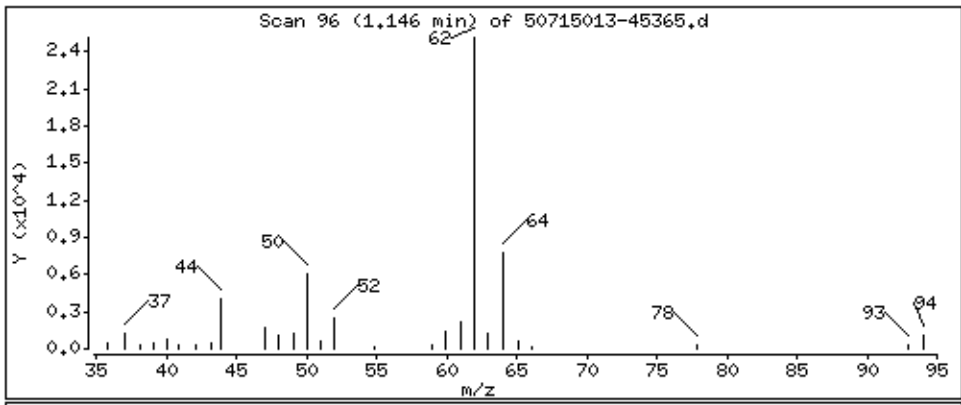
Operator: JEW

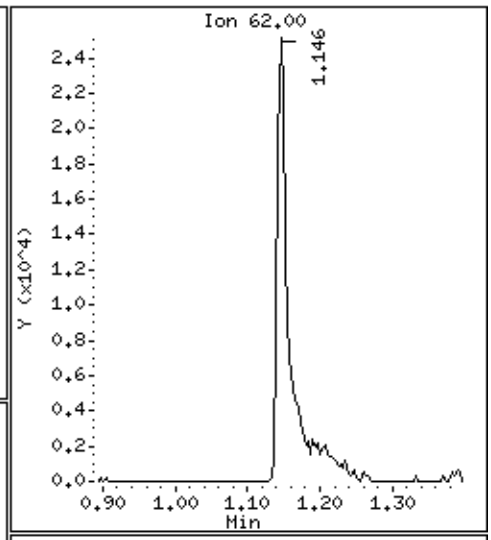
Column phase: RTX-VMS

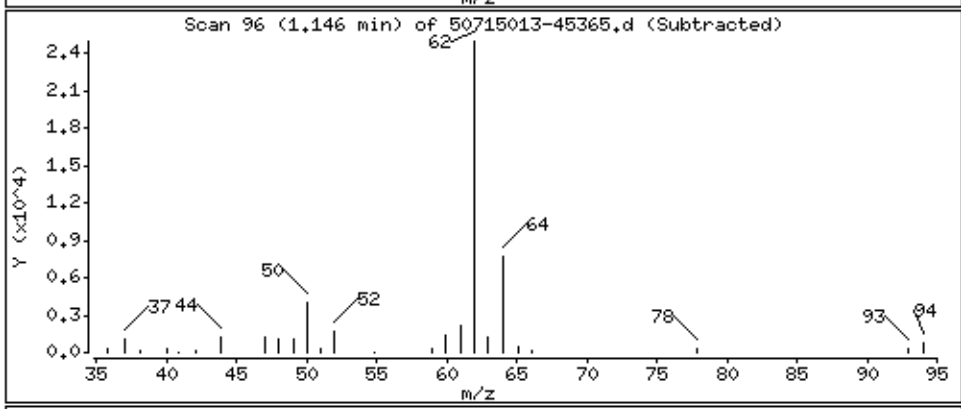
Column diameter: 0.18

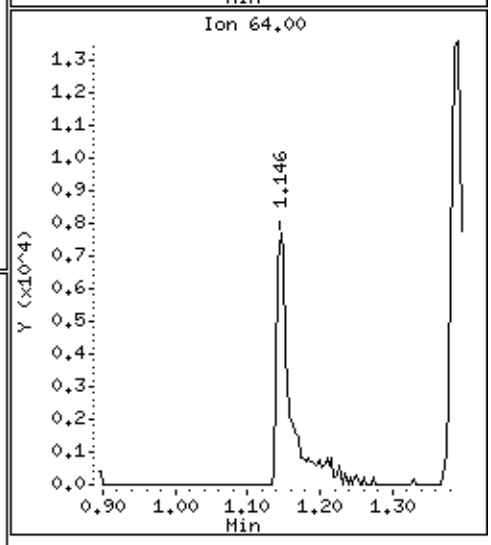
3 Vinyl chloride

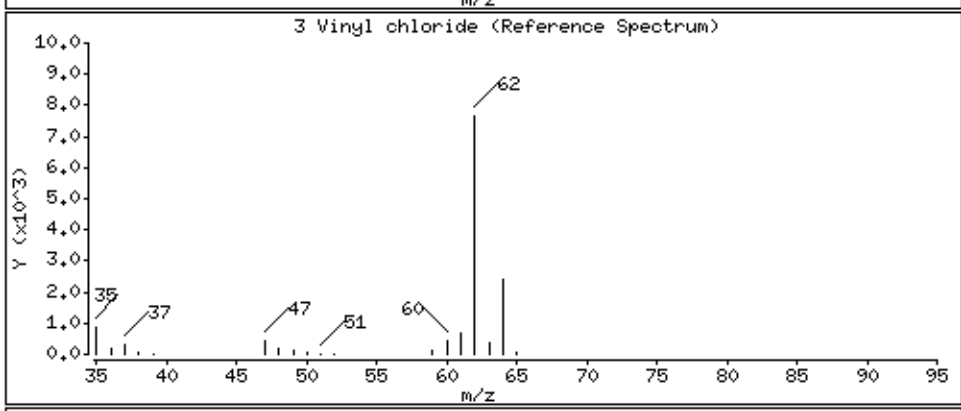
Concentration: 16.2 ug/L

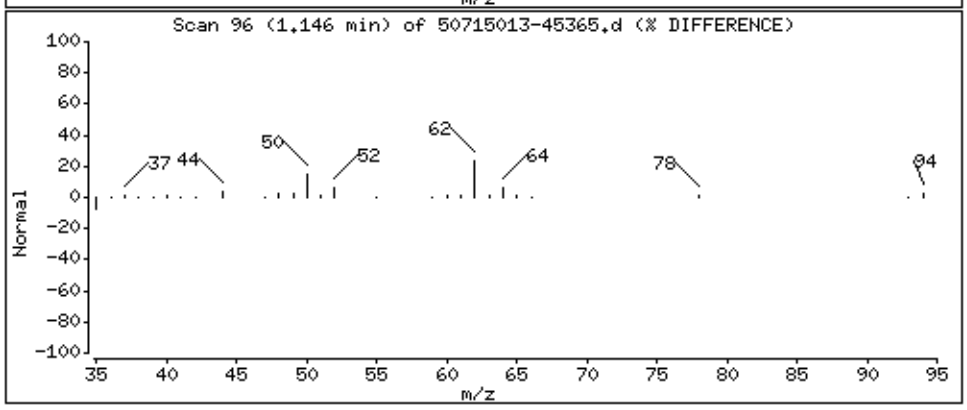












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

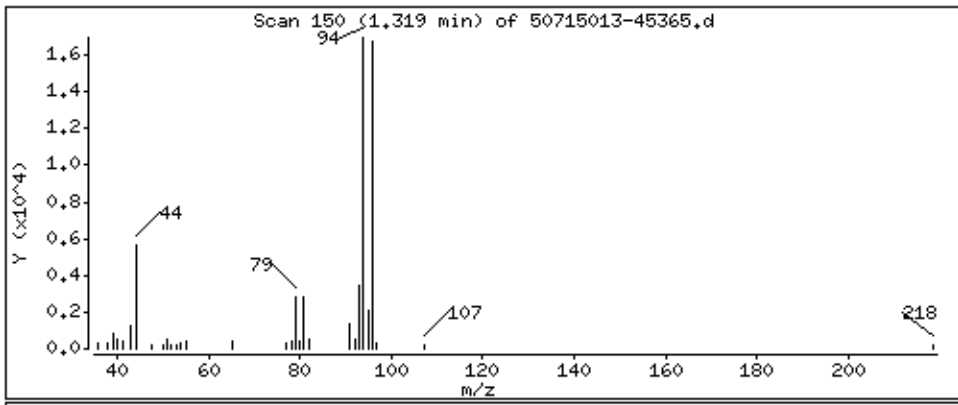
Operator: JEW

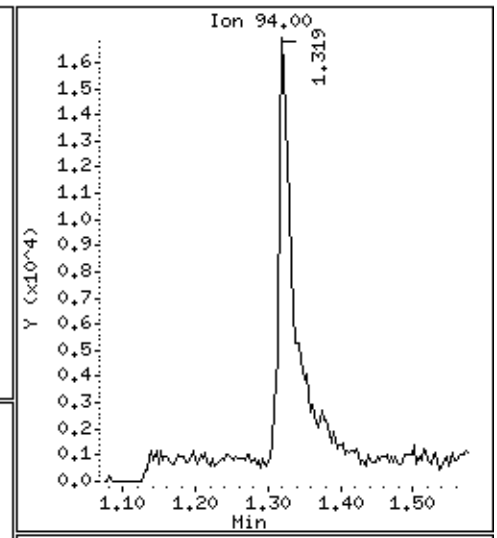
Column phase: RTX-VMS

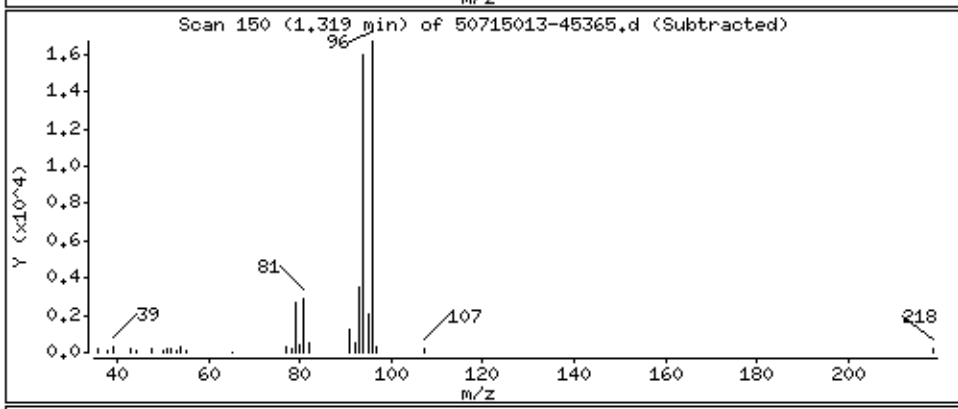
Column diameter: 0.18

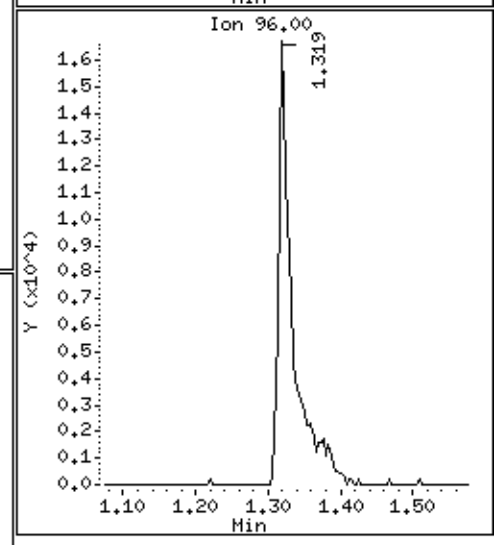
4 Bromomethane

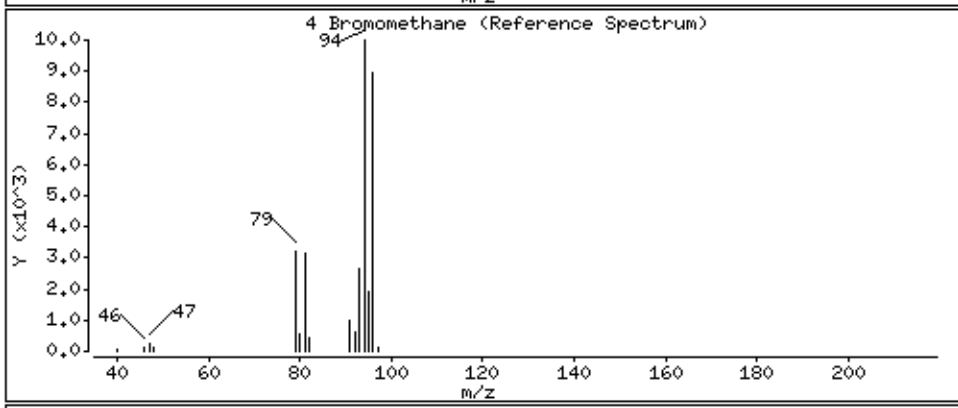
Concentration: 20.1 ug/L

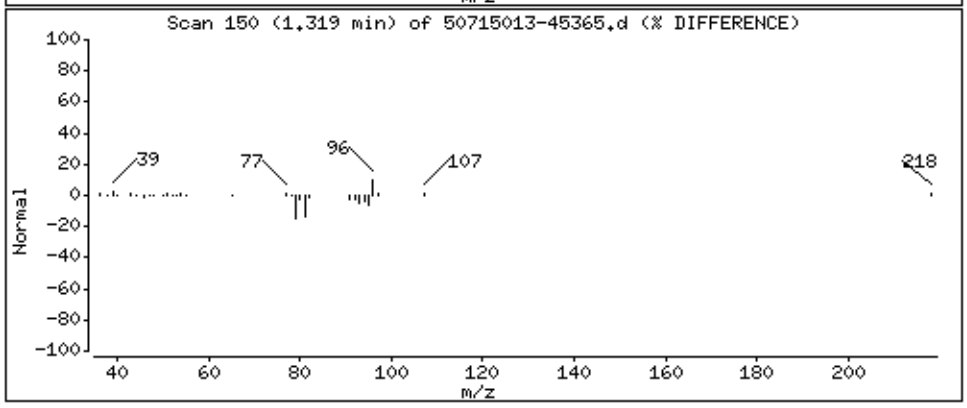












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

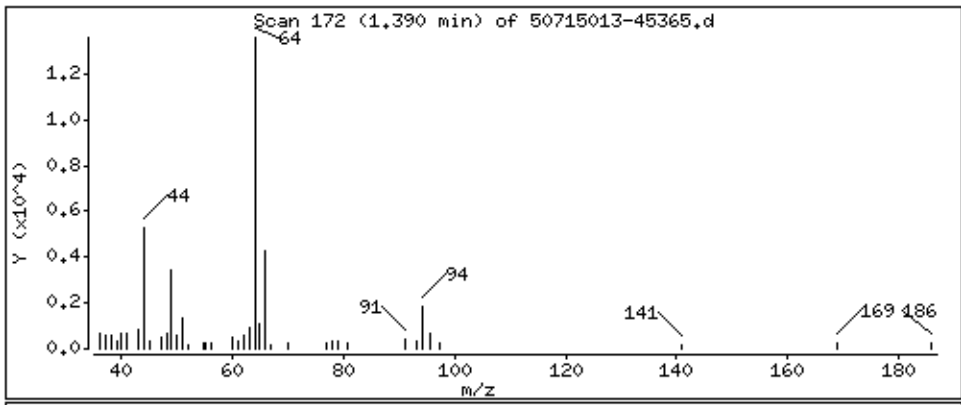
Operator: JEW

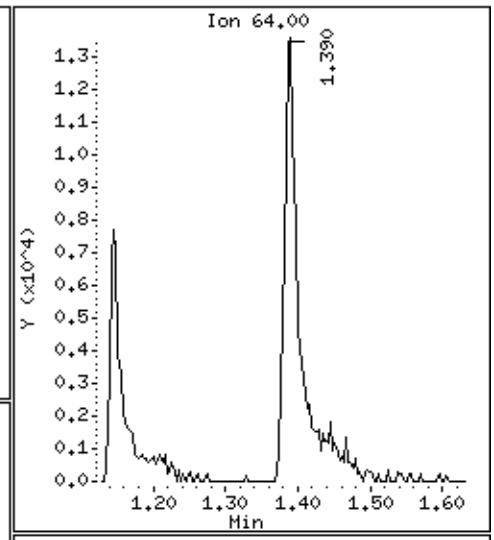
Column phase: RTX-VMS

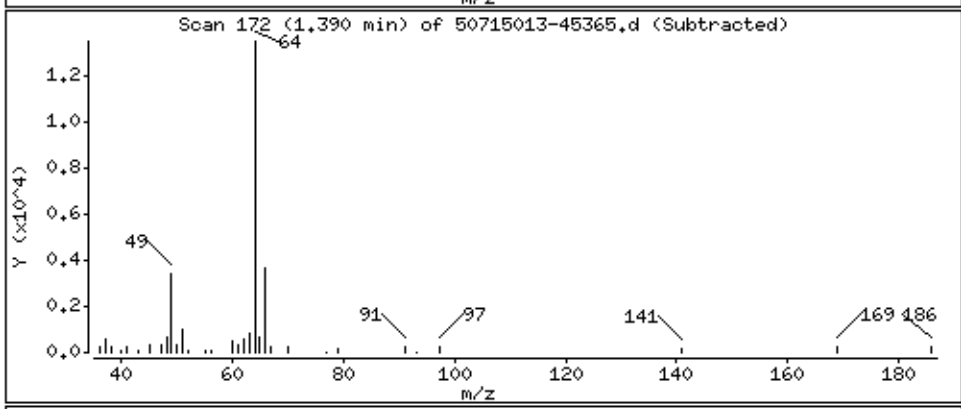
Column diameter: 0.18

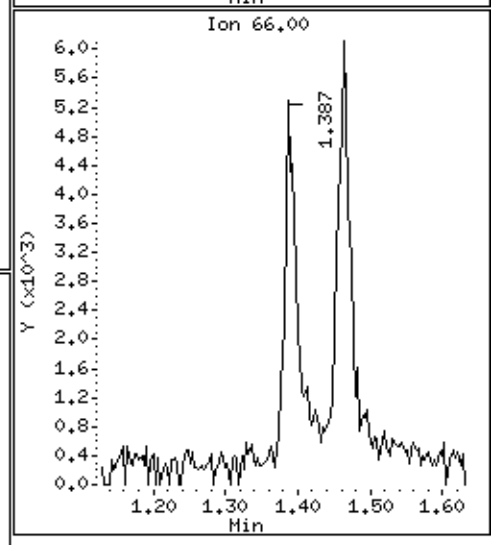
5 Chloroethane

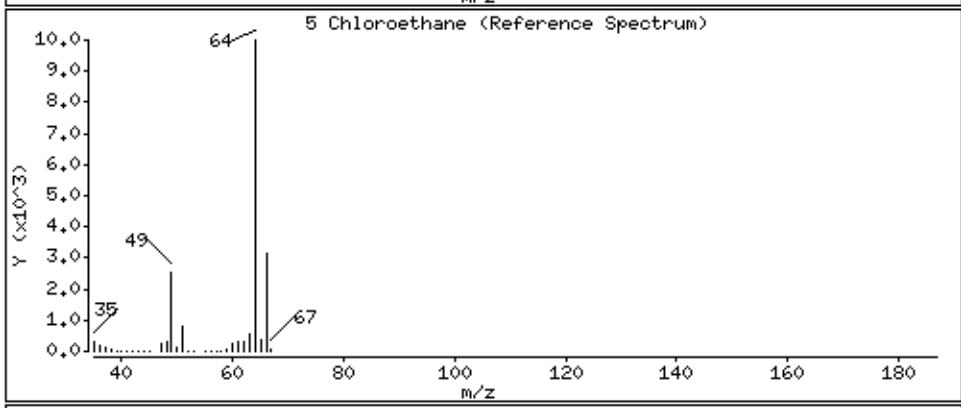
Concentration: 17.2 ug/L

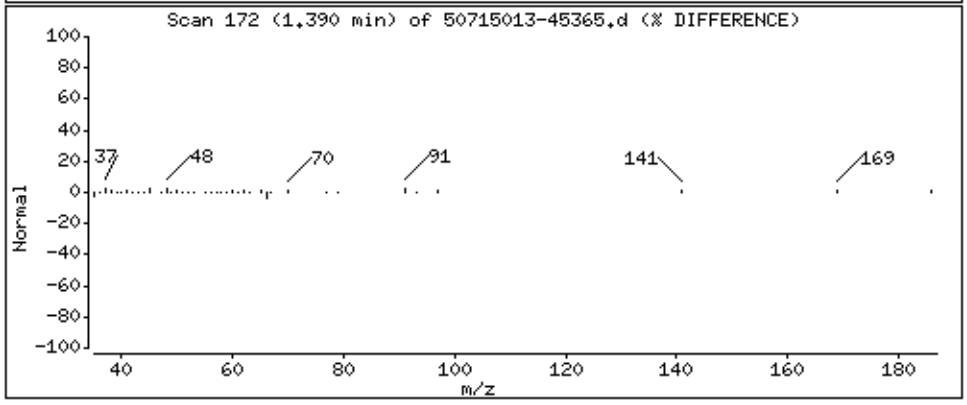












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

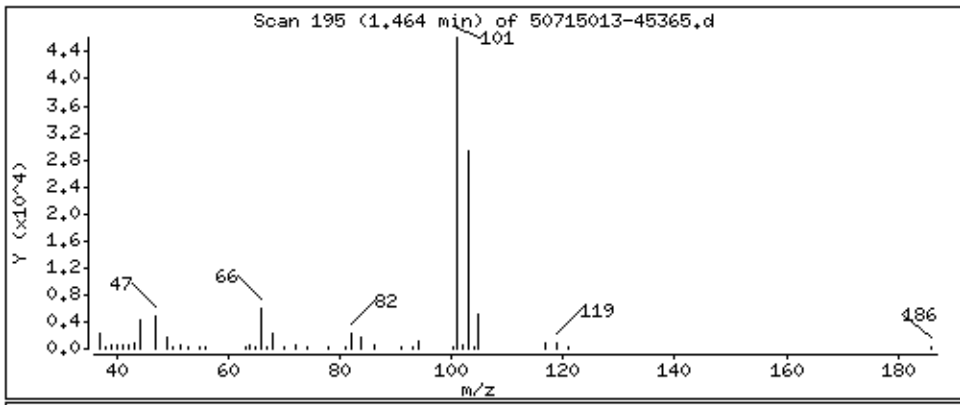
Operator: JEW

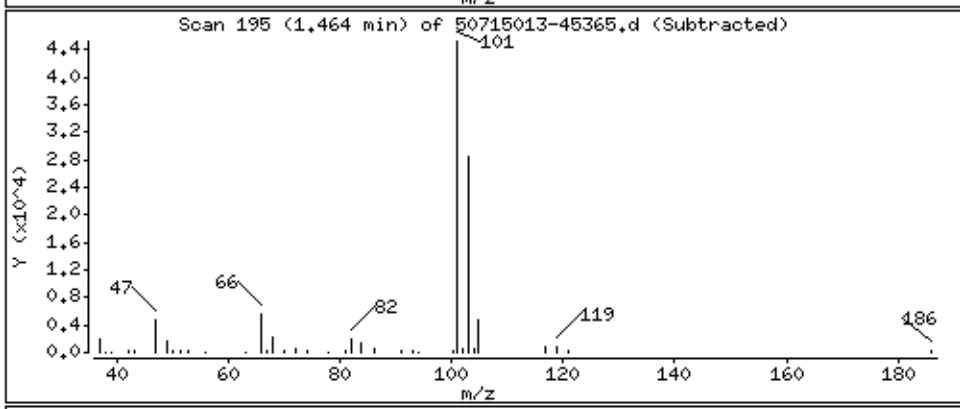
Column phase: RTX-VMS

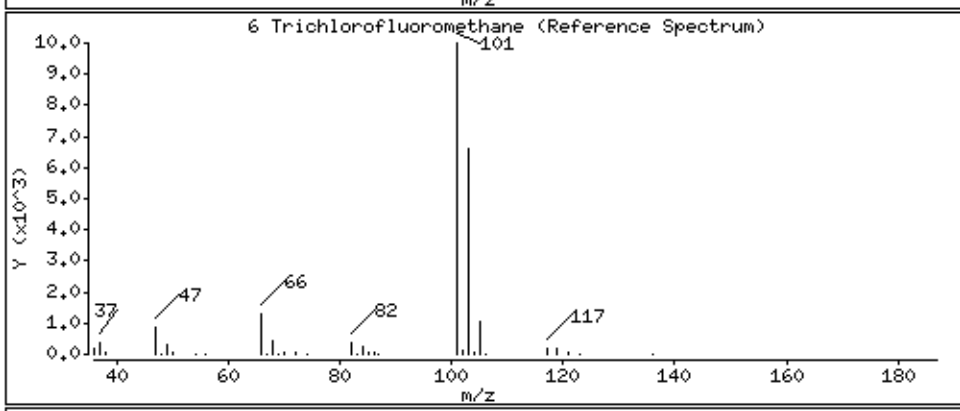
Column diameter: 0.18

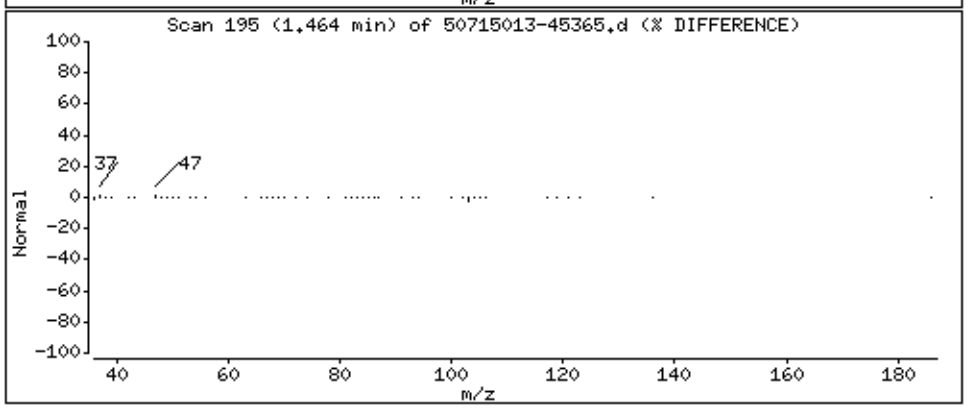
6 Trichlorofluoromethane

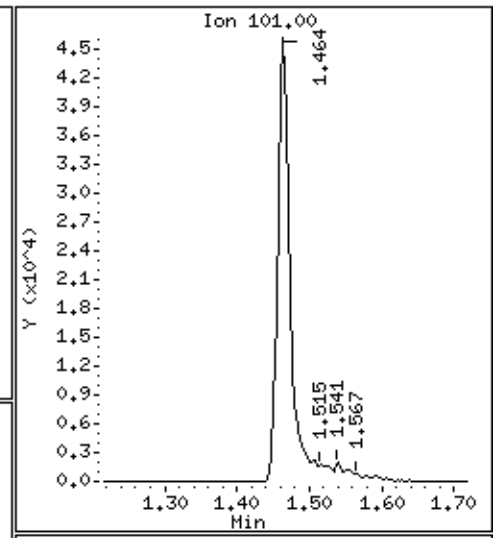
Concentration: 19.4 ug/L

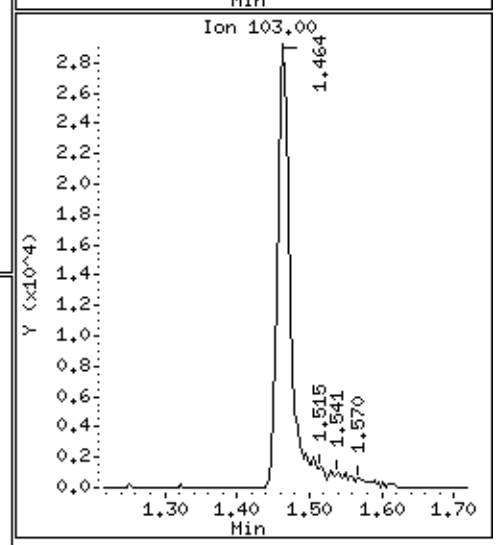












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

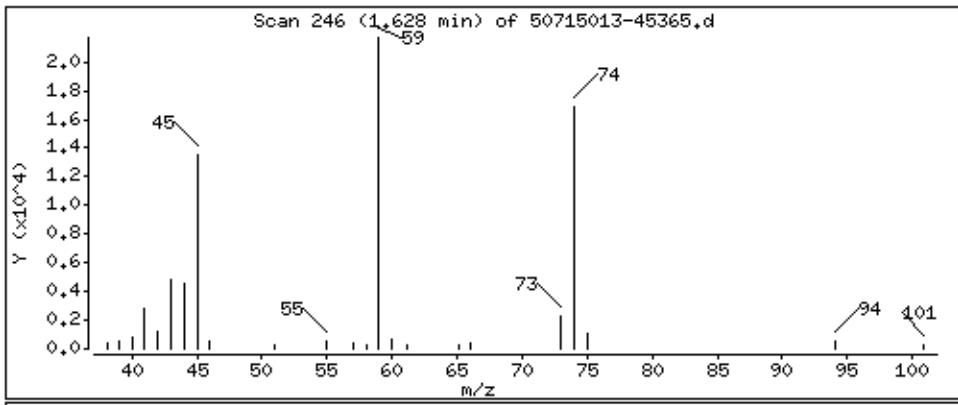
Operator: JEW

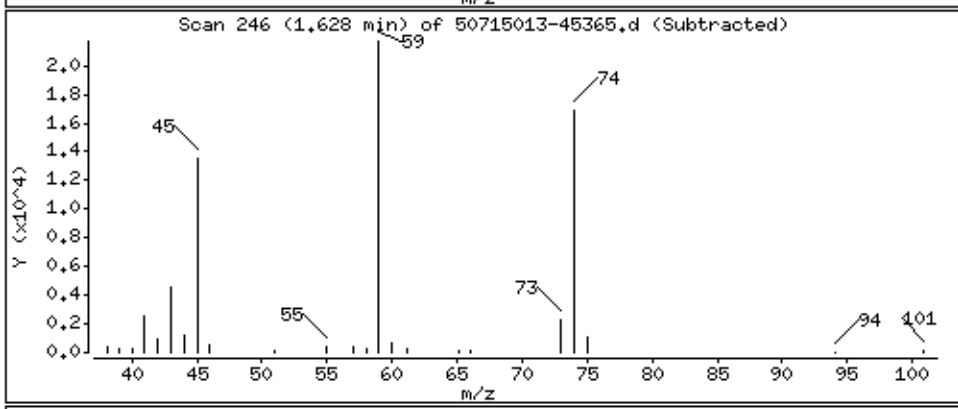
Column phase: RTX-VMS

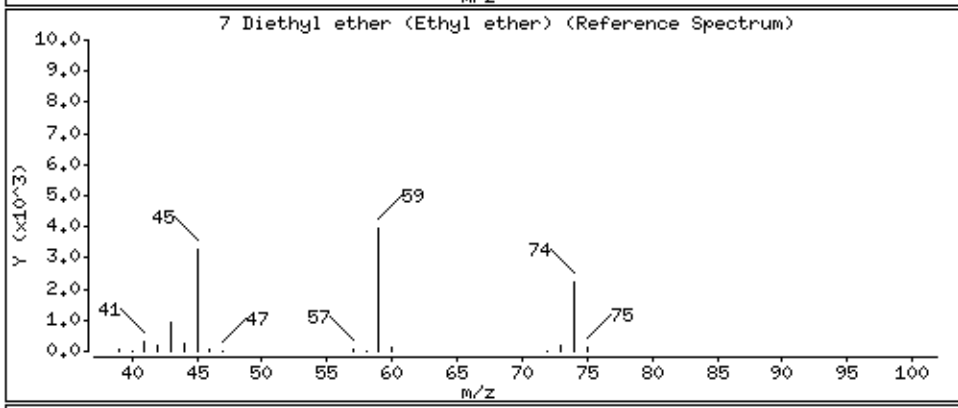
Column diameter: 0.18

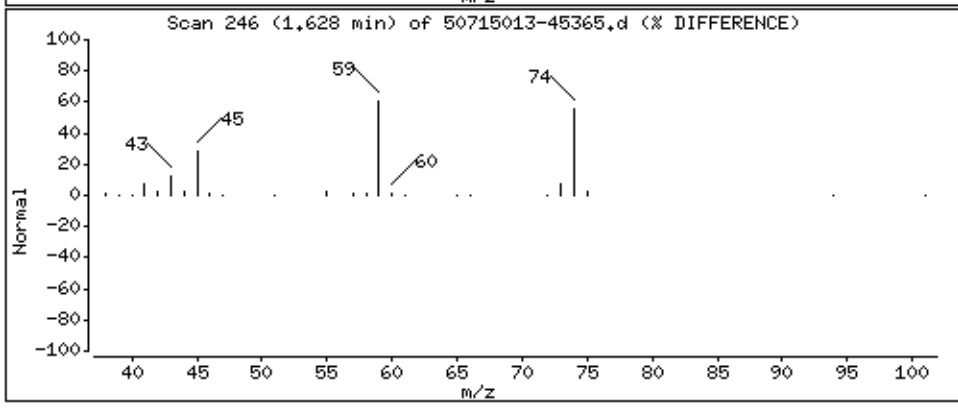
7 Diethyl ether (Ethyl ether)

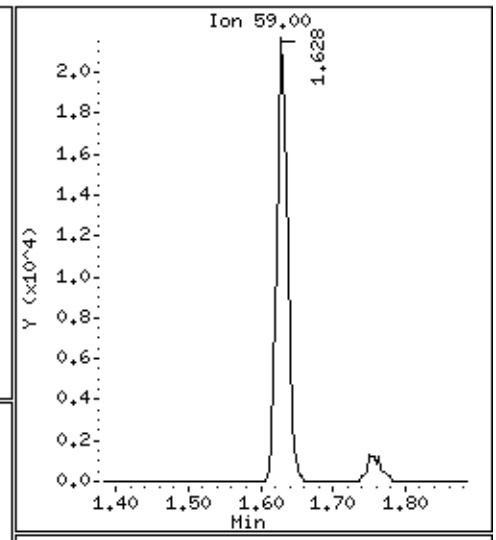
Concentration: 16.4 ug/L

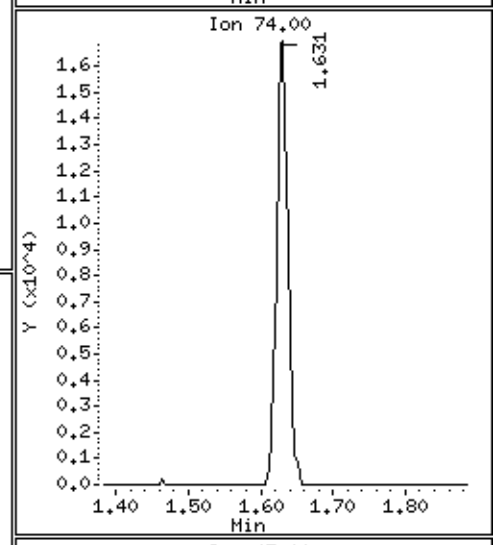


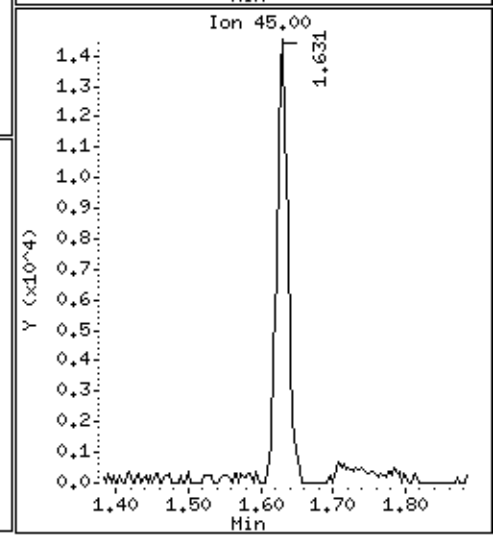












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

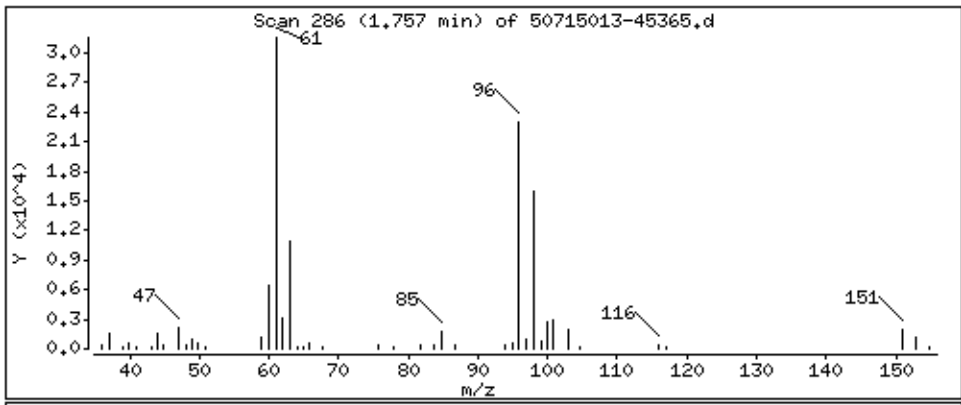
Operator: JEW

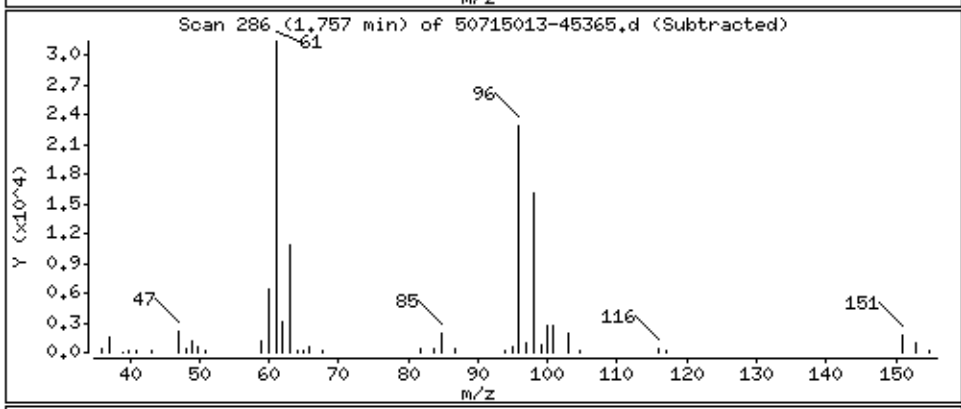
Column phase: RTX-VMS

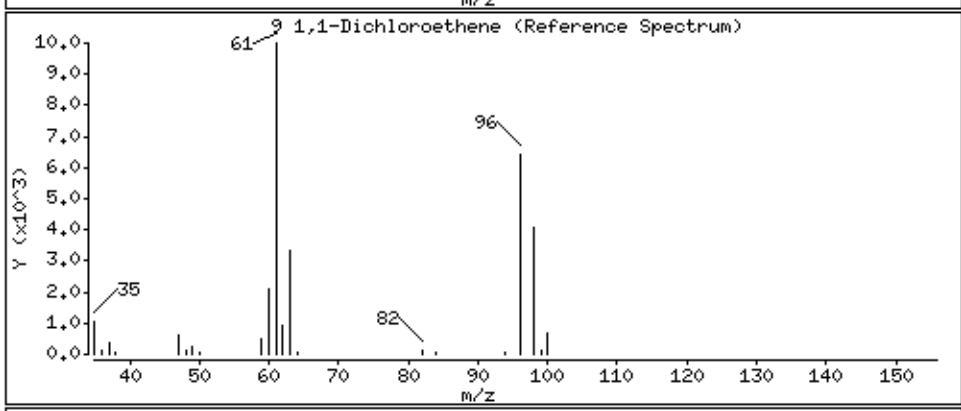
Column diameter: 0.18

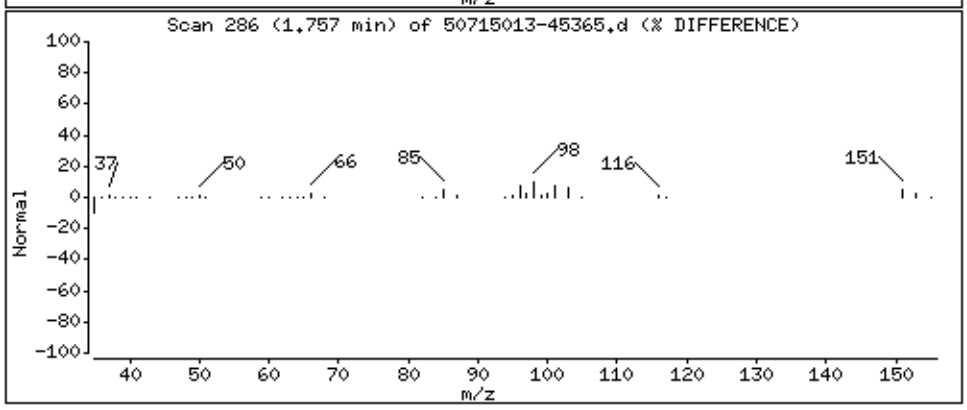
9 1,1-Dichloroethene

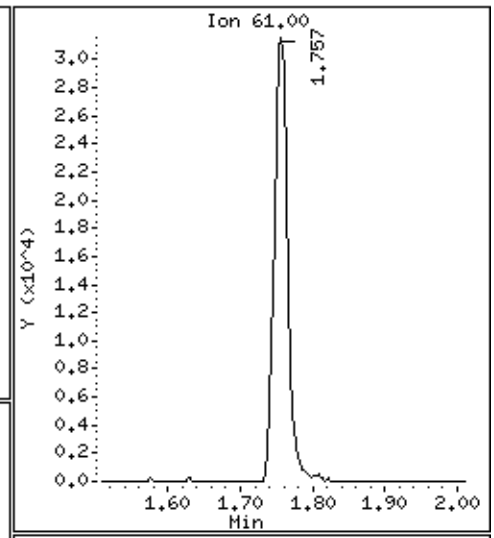
Concentration: 17.3 ug/L

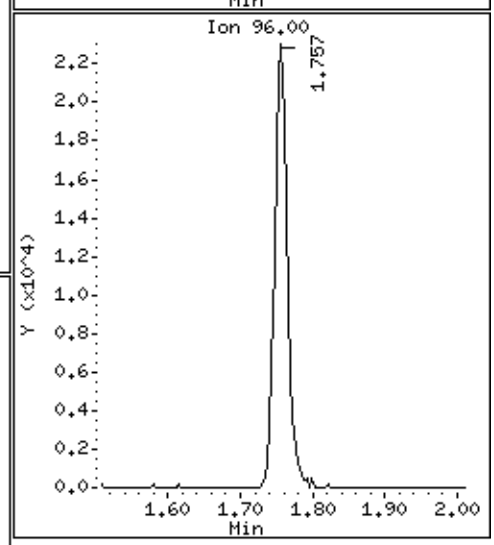












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

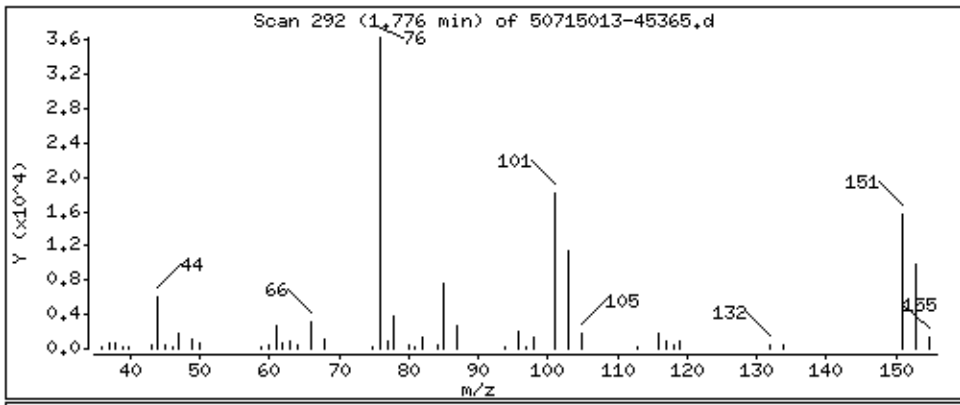
Operator: JEW

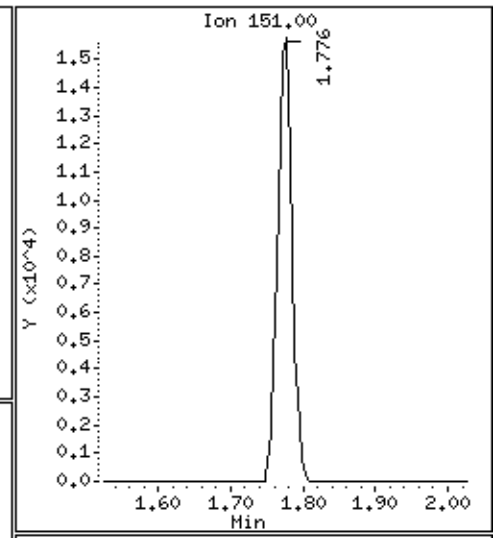
Column phase: RTX-VMS

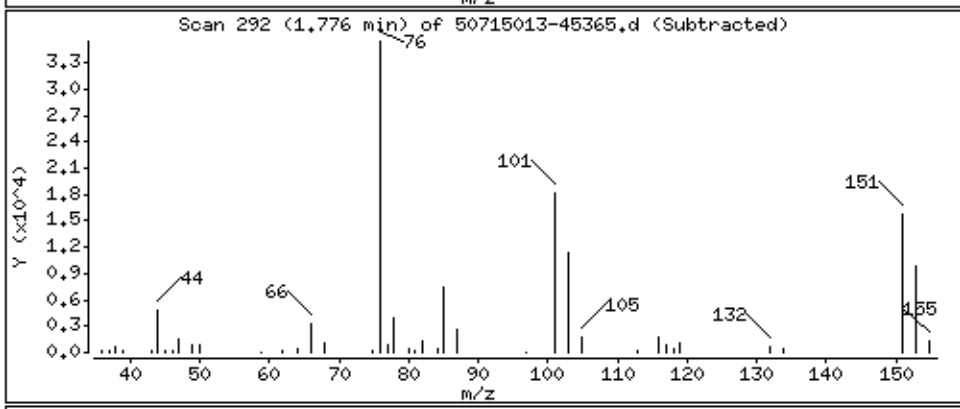
Column diameter: 0.18

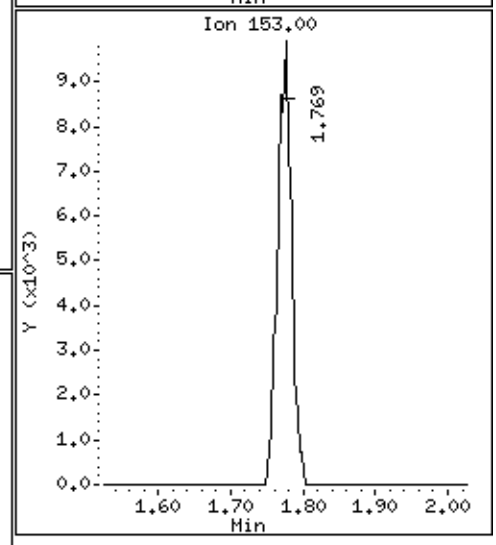
10 1,1,2-Trichlorotrifluoroethane

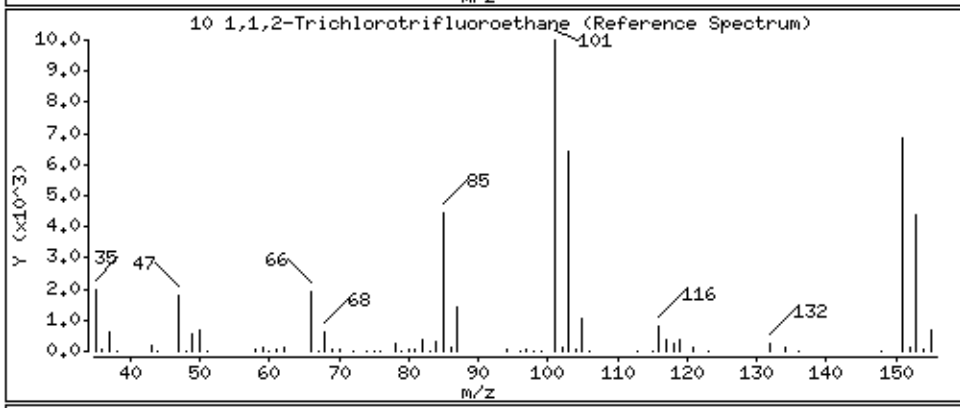
Concentration: 20.5 ug/L

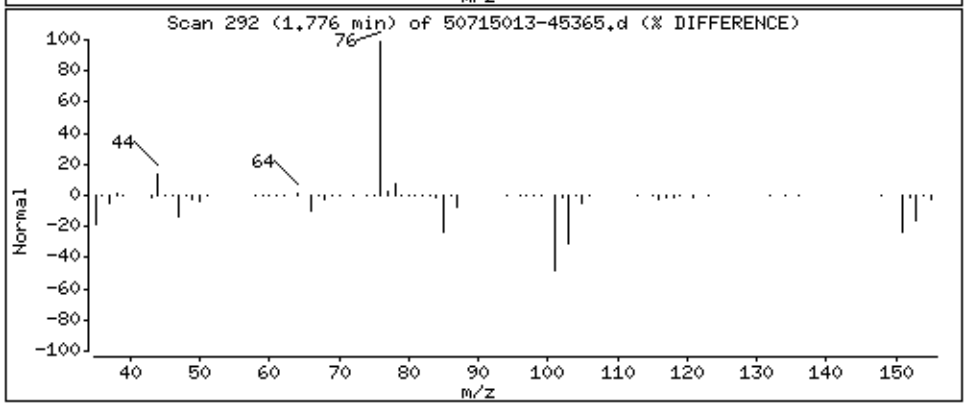












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

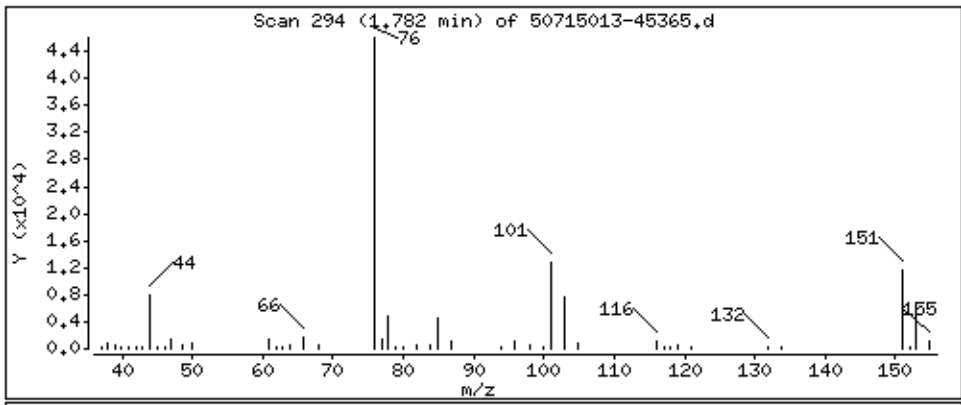
Operator: JEW

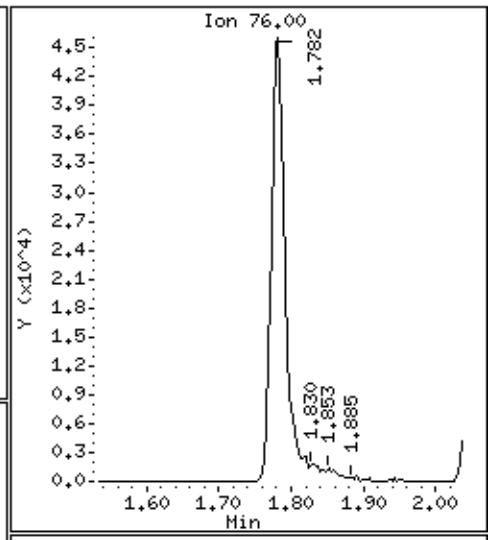
Column phase: RTX-VMS

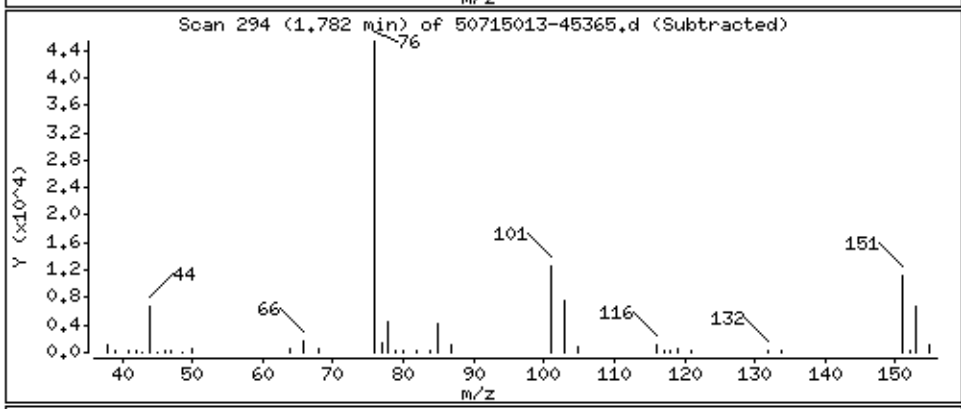
Column diameter: 0.18

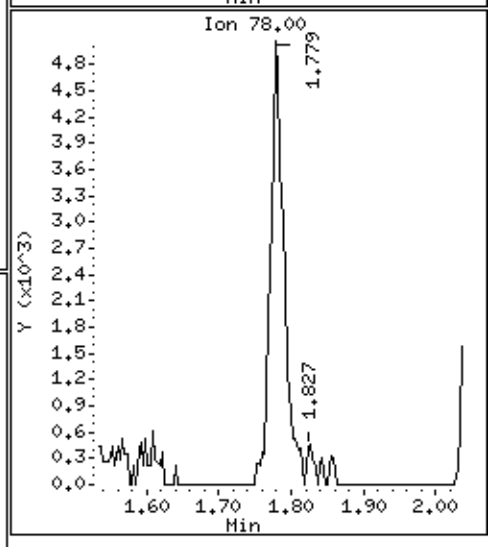
11 Carbon disulfide

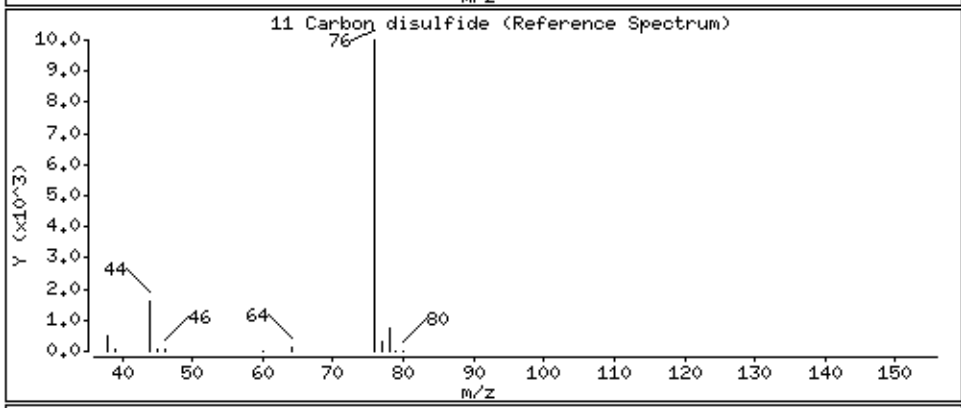
Concentration: 15.5 ug/L

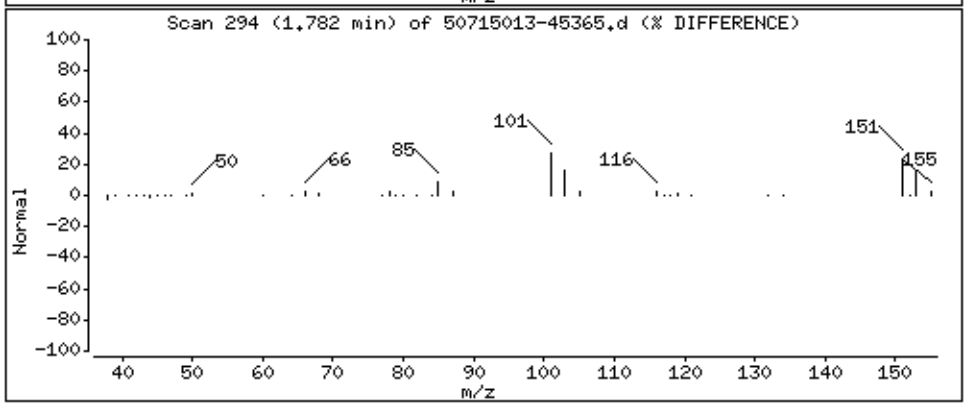












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

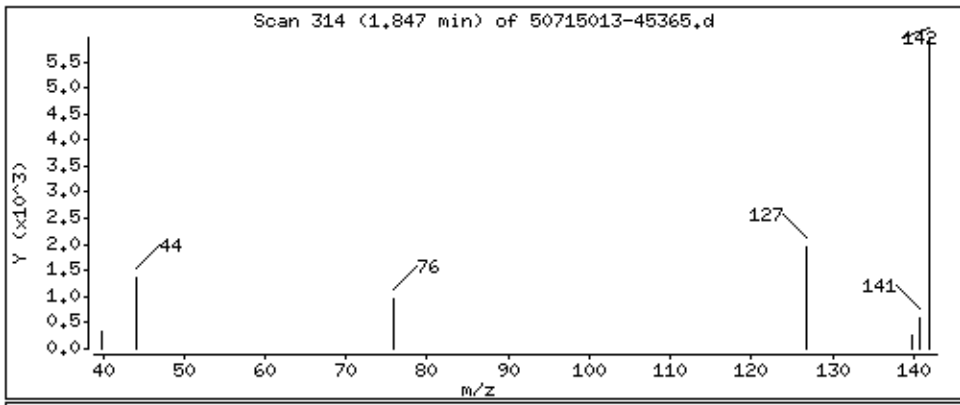
Operator: JEW

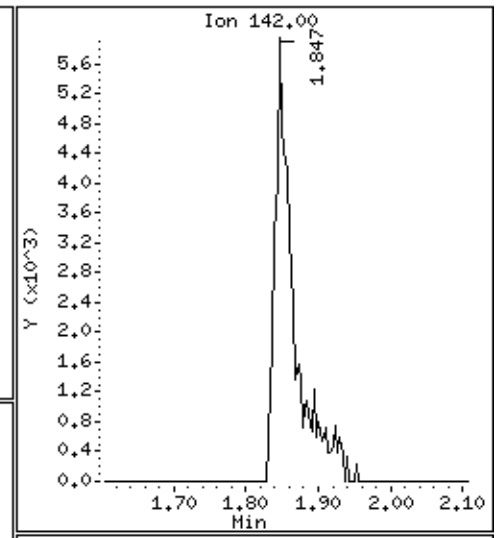
Column phase: RTX-VMS

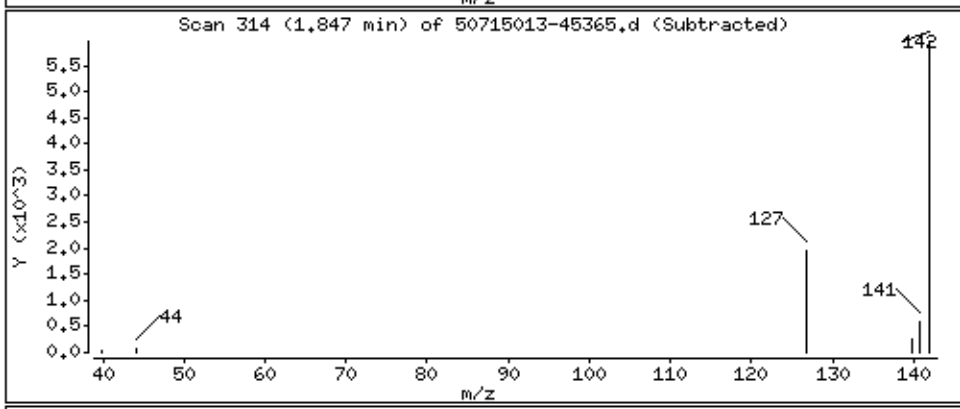
Column diameter: 0.18

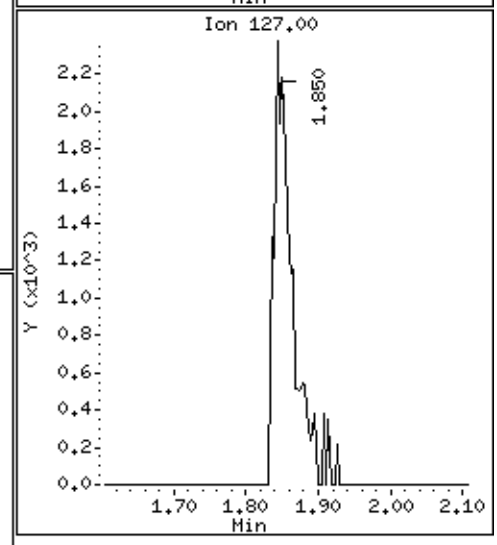
12 Iodomethane

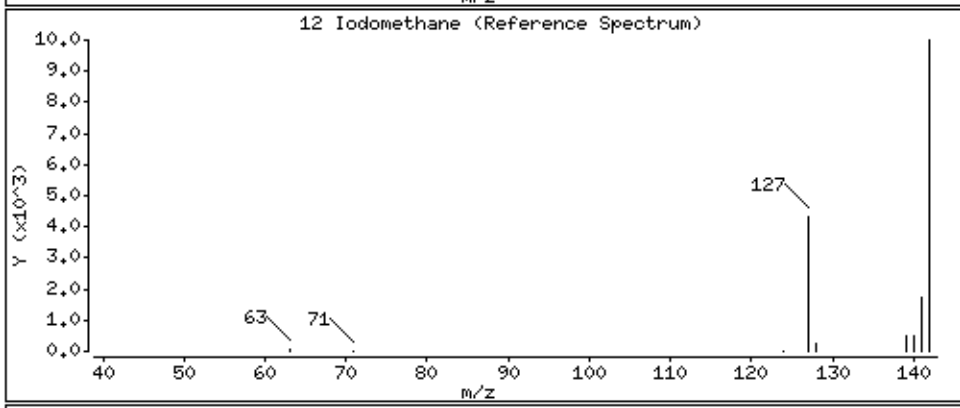
Concentration: 14.6 ug/L

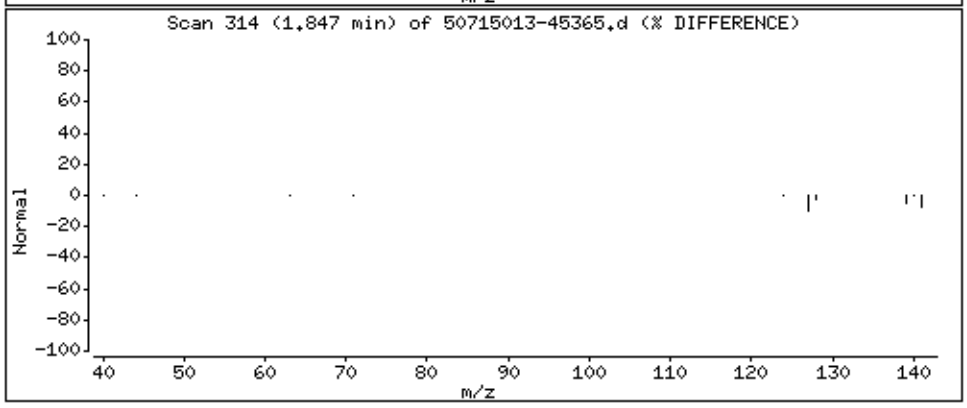












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

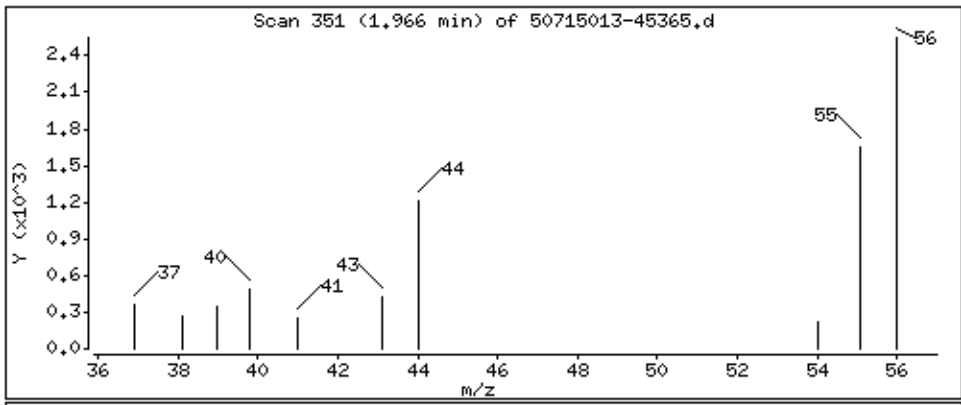
Operator: JEW

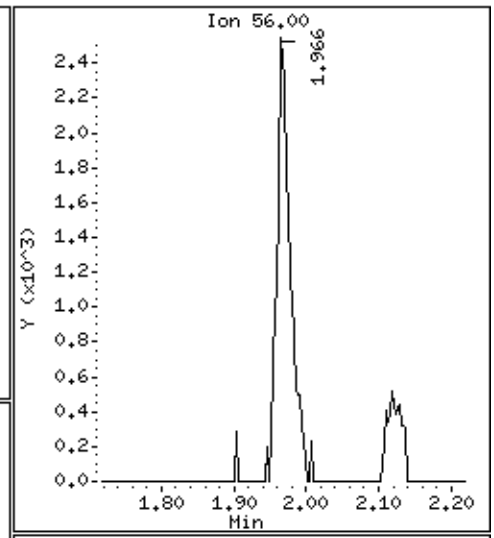
Column phase: RTX-VMS

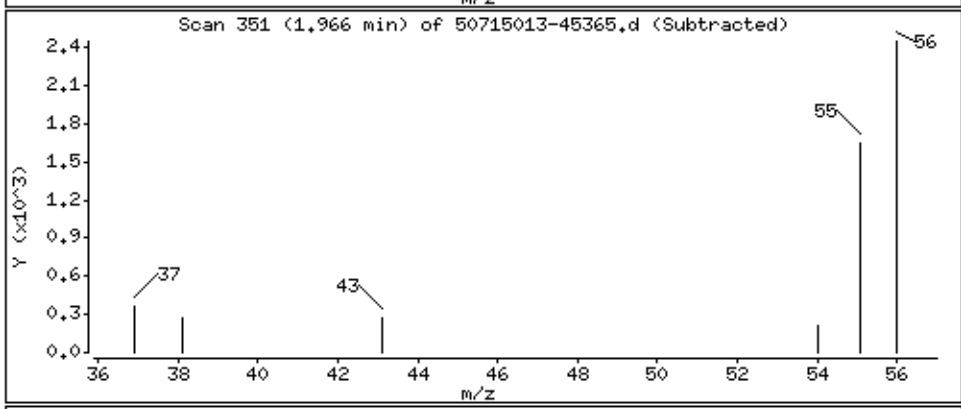
Column diameter: 0.18

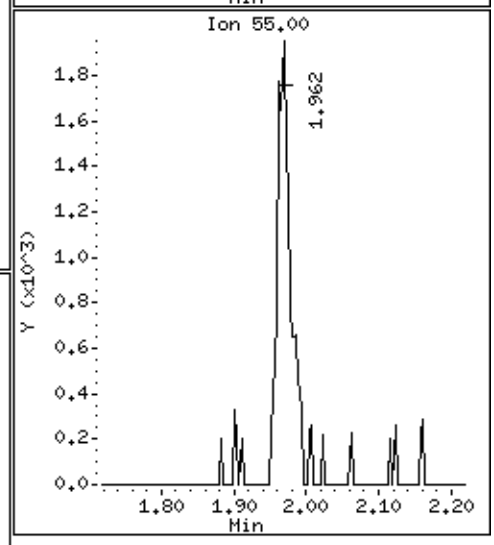
13 Acrolein

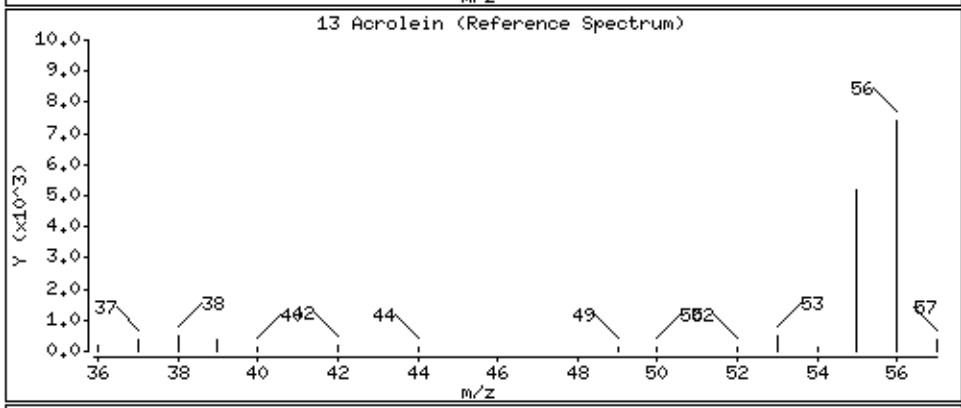
Concentration: 17.8 ug/L

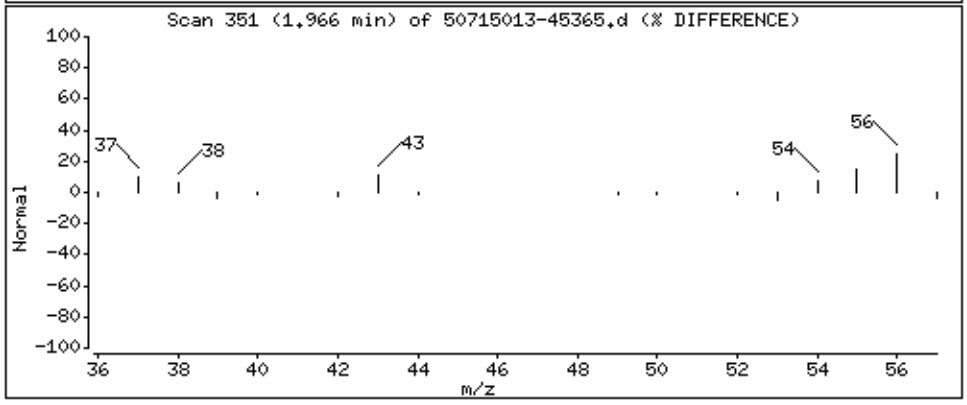












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

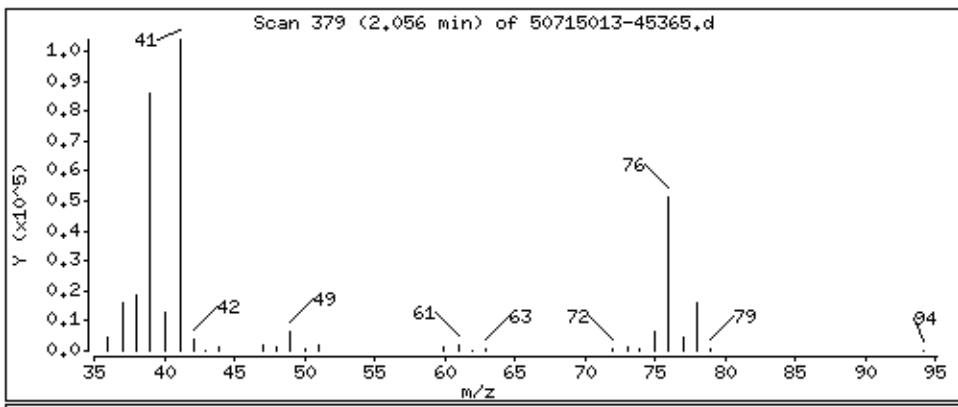
Operator: JEW

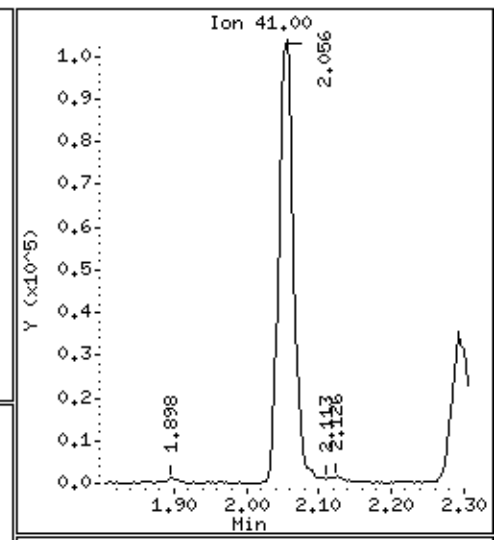
Column phase: RTX-VMS

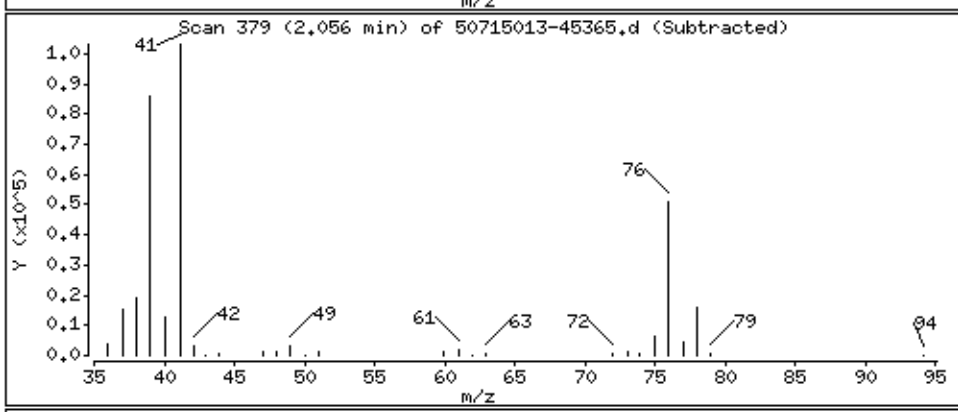
Column diameter: 0.18

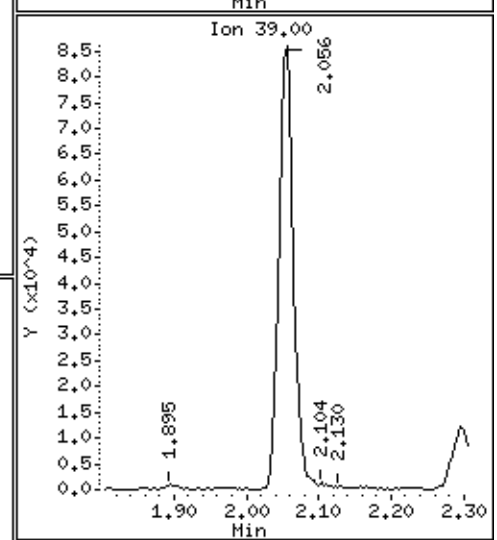
14 Allyl chloride

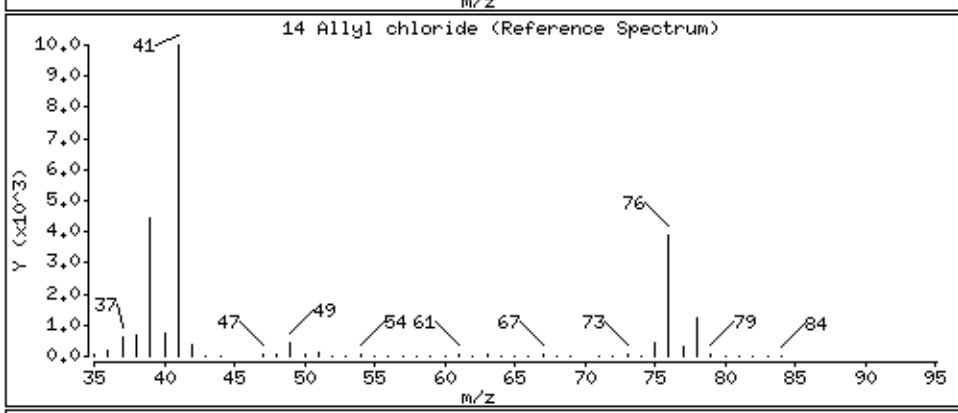
Concentration: 82.0 ug/L

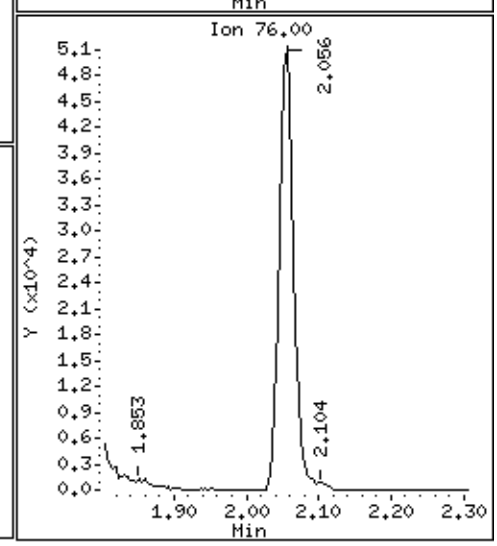


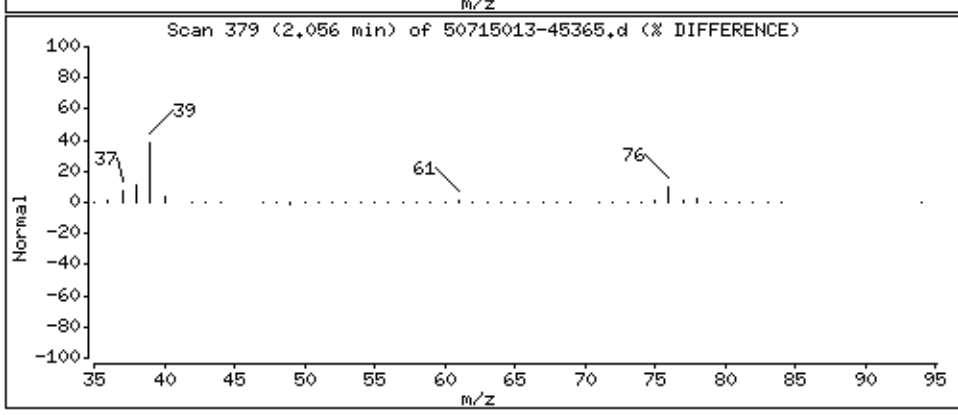












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

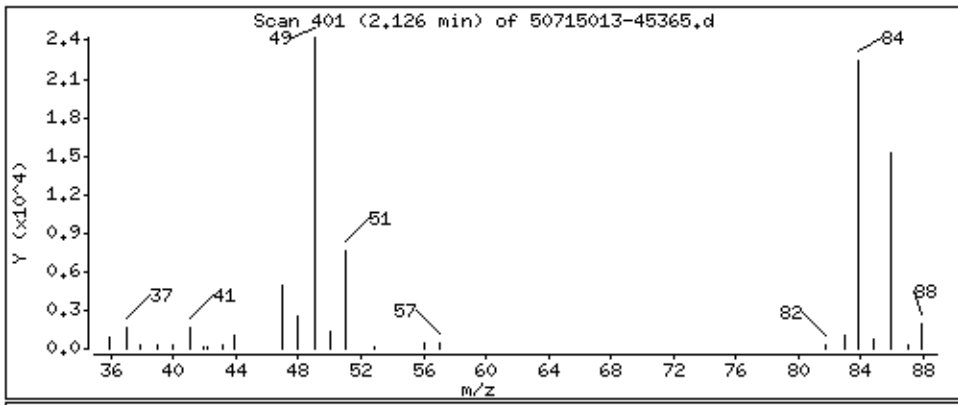
Operator: JEW

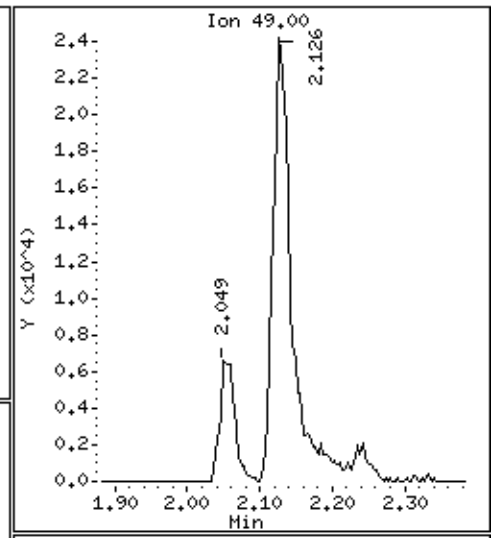
Column phase: RTX-VMS

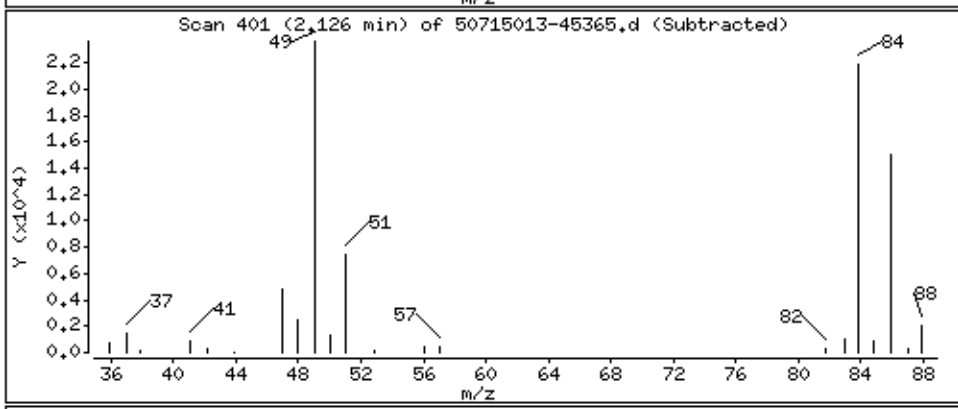
Column diameter: 0.18

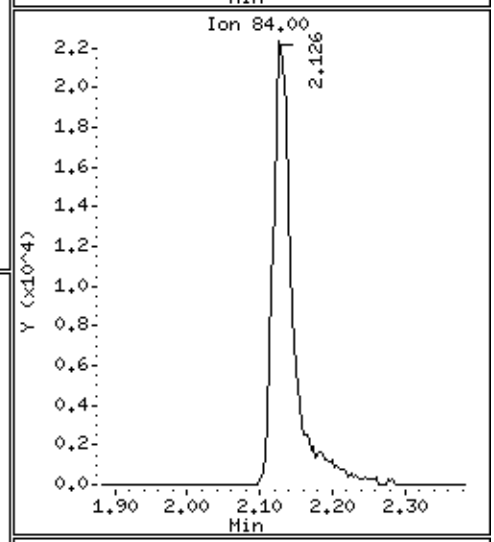
15 Methylene Chloride

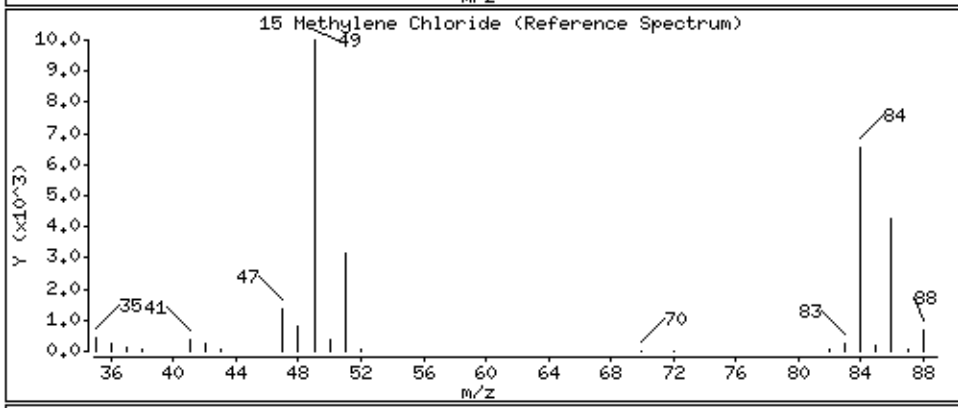
Concentration: 25.5 ug/L

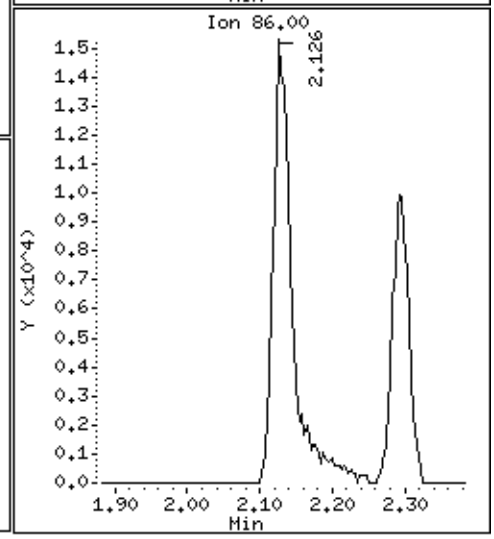


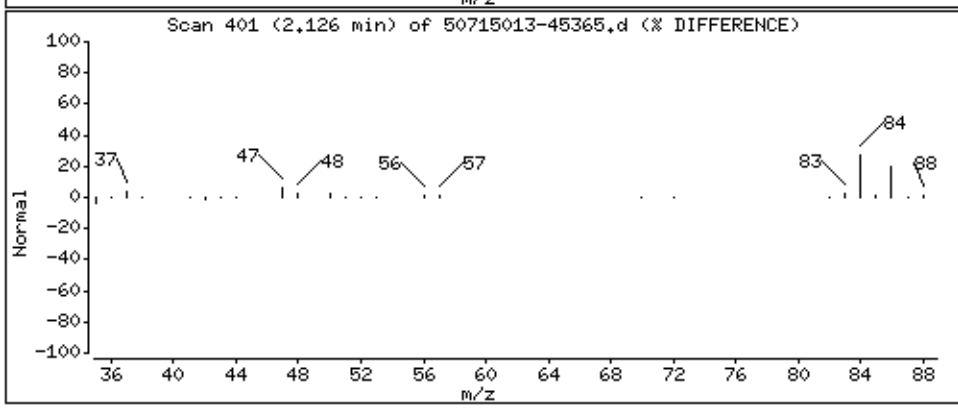












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

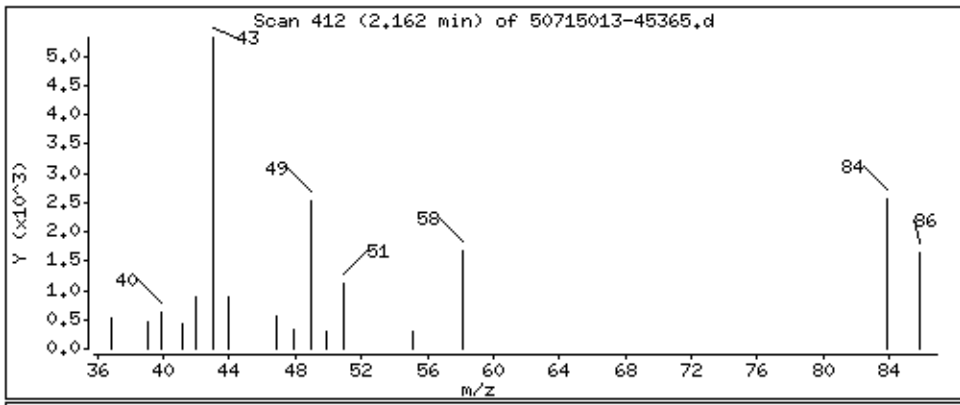
Operator: JEW

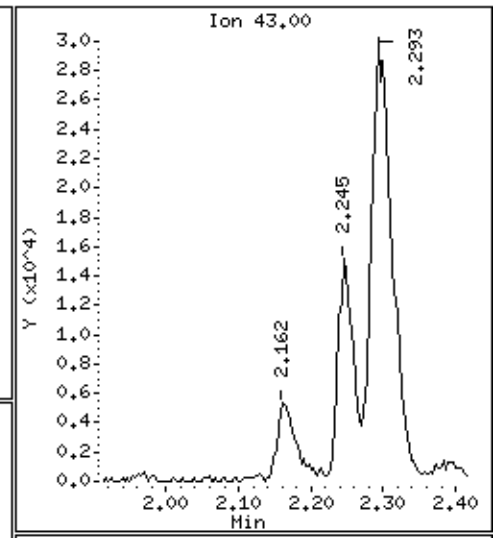
Column phase: RTX-VMS

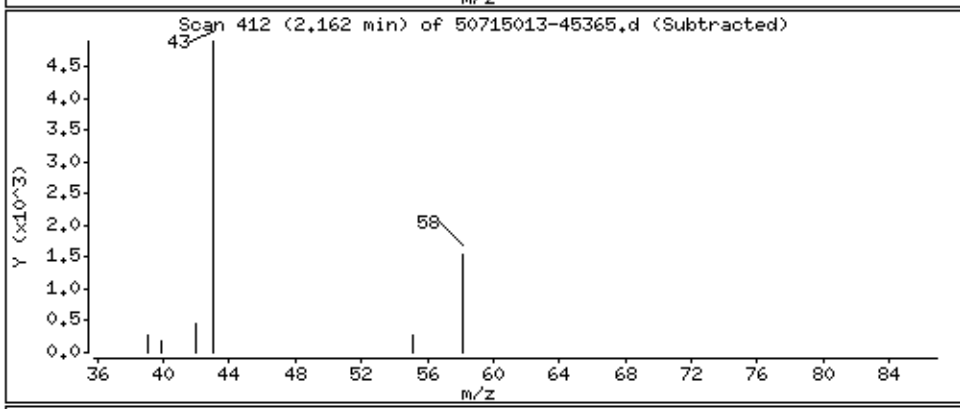
Column diameter: 0.18

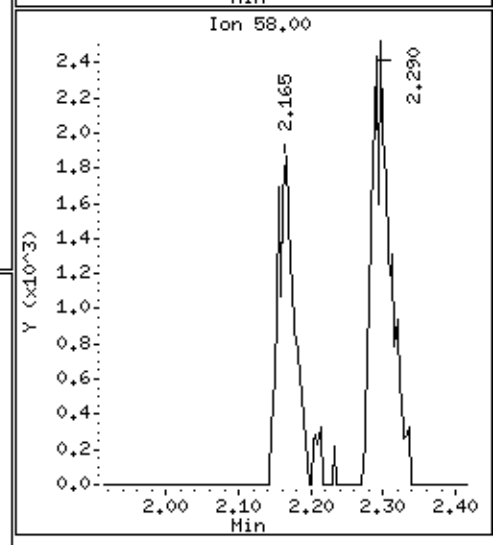
16 Acetone

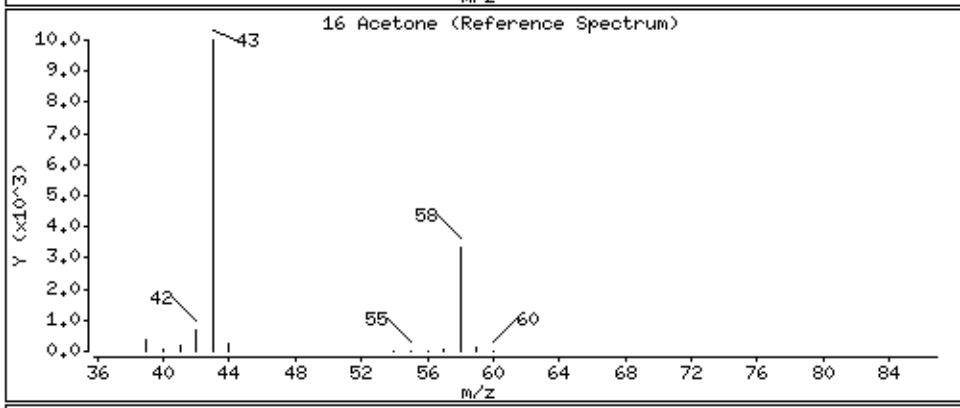
Concentration: 20.8 ug/L

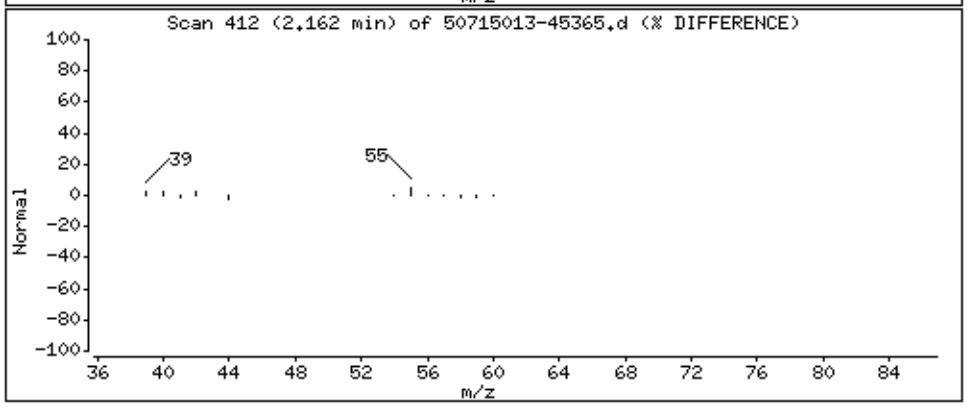












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

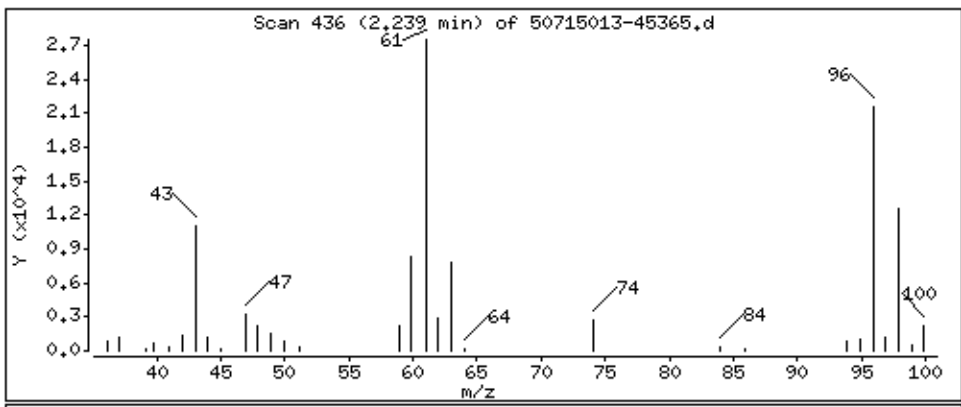
Operator: JEW

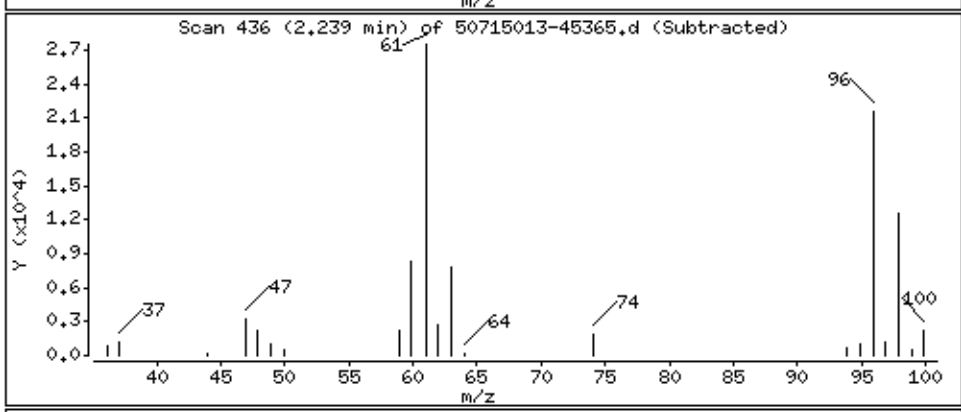
Column phase: RTX-VMS

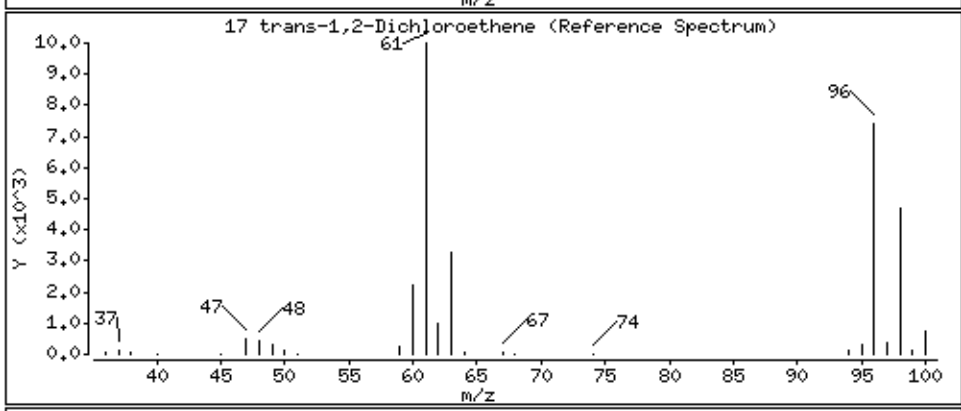
Column diameter: 0.18

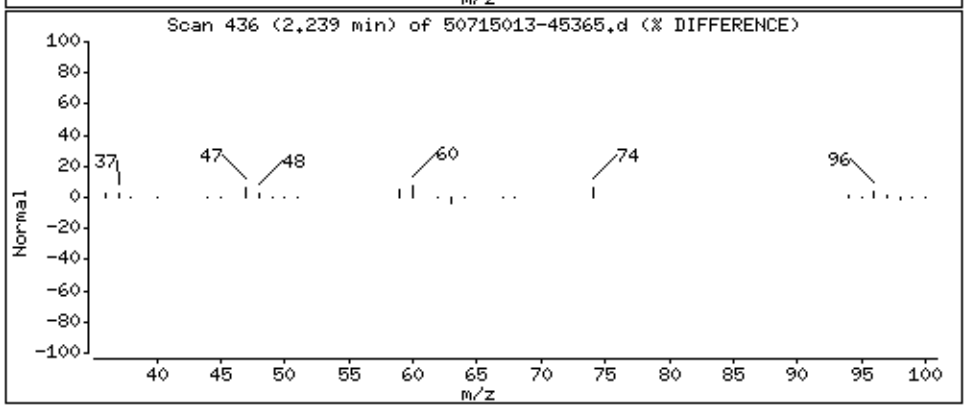
17 trans-1,2-Dichloroethene

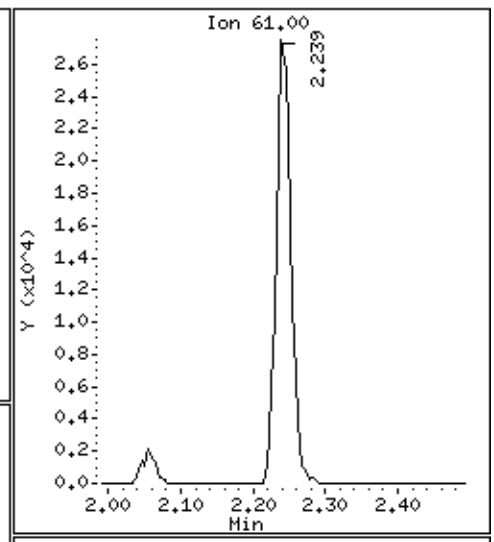
Concentration: 16.7 ug/L

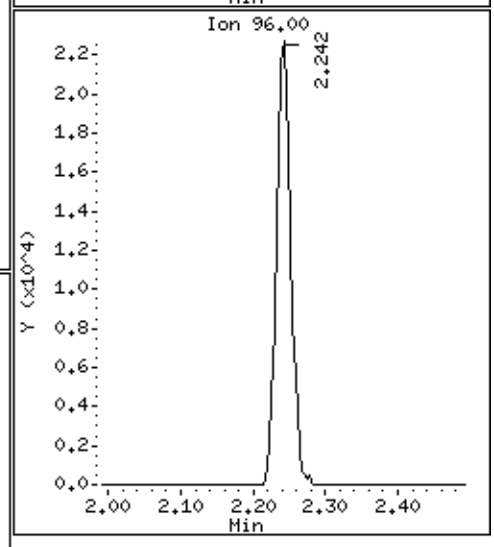












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

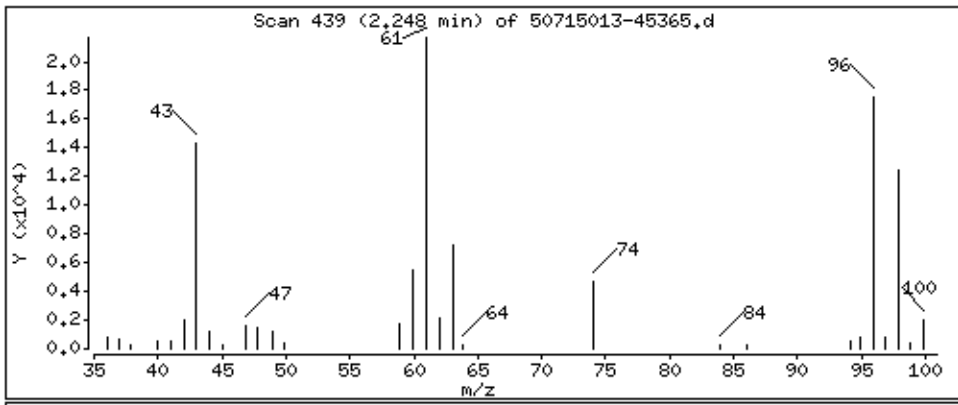
Operator: JEW

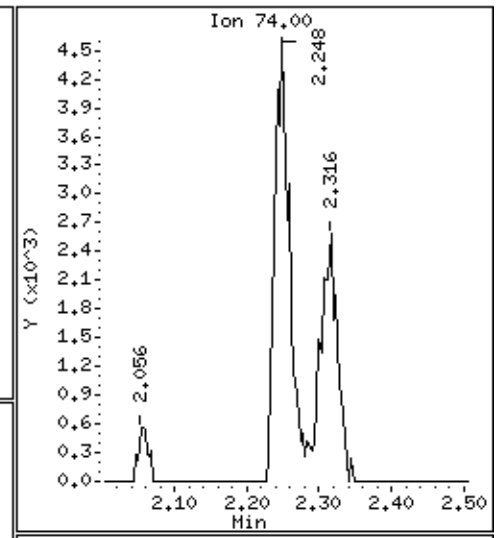
Column phase: RTX-VMS

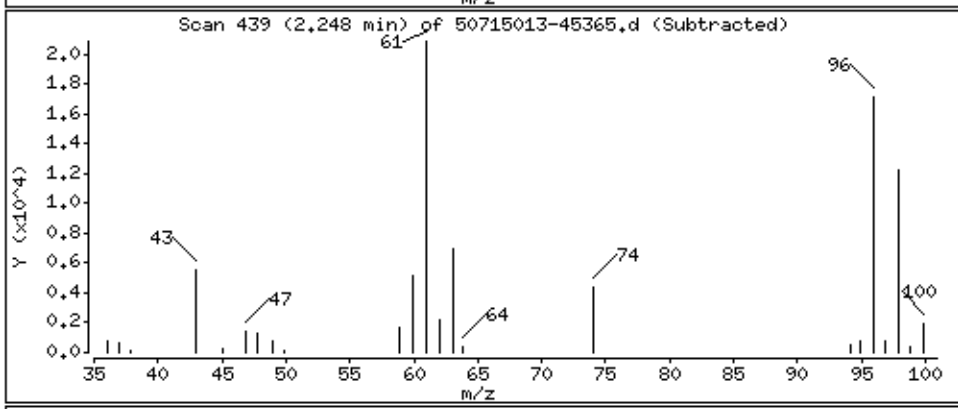
Column diameter: 0.18

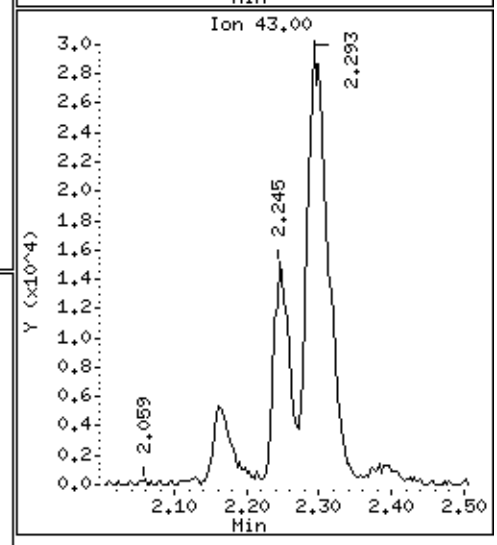
18 Methyl acetate

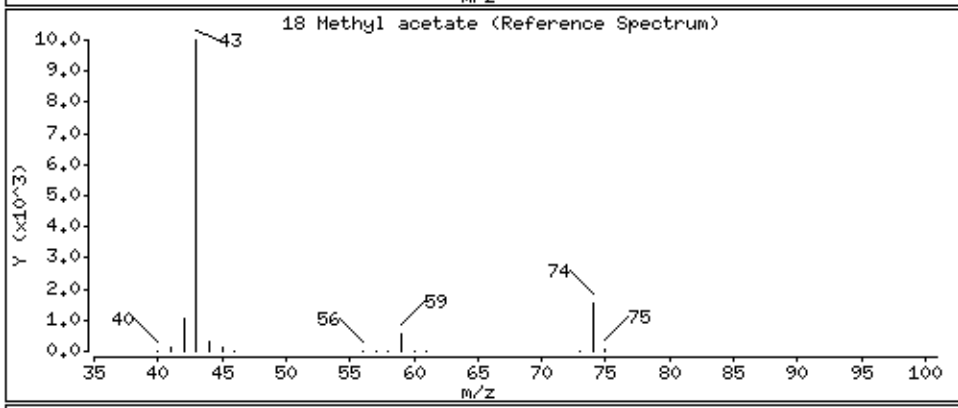
Concentration: 23.0 ug/L

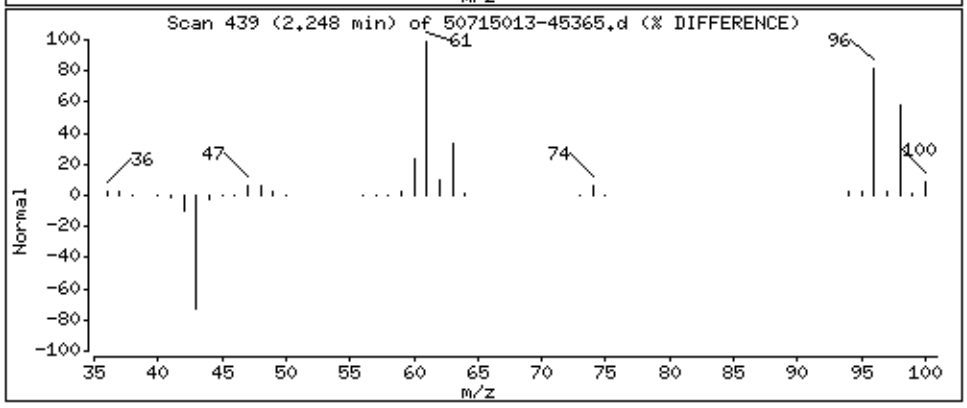












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

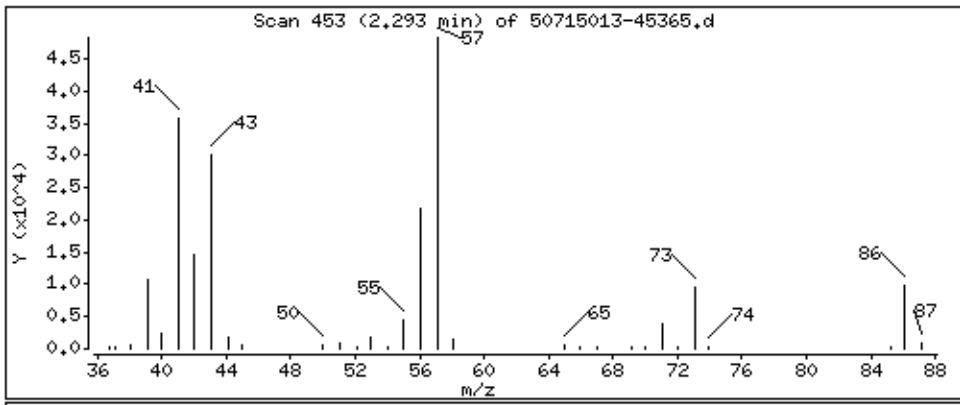
Operator: JEW

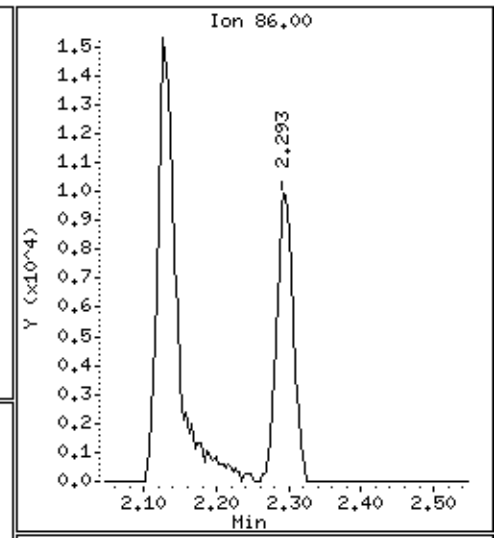
Column phase: RTX-VMS

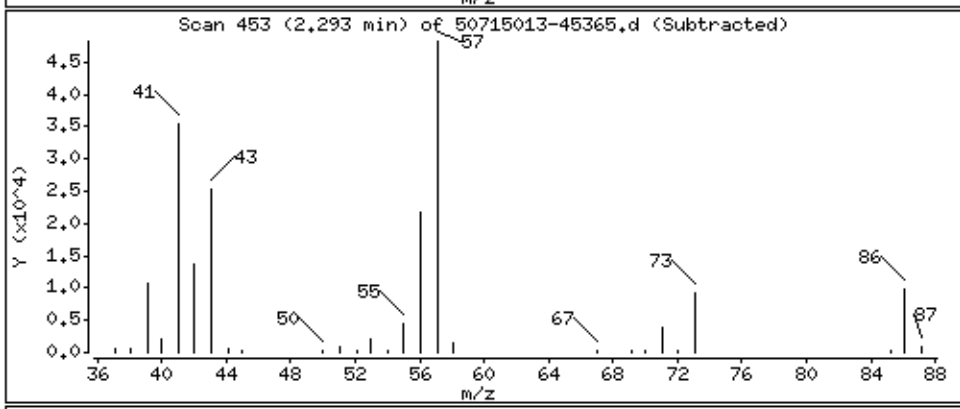
Column diameter: 0.18

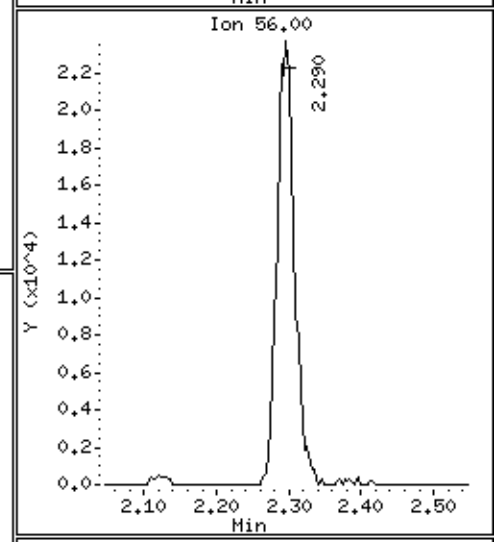
19 n-Hexane

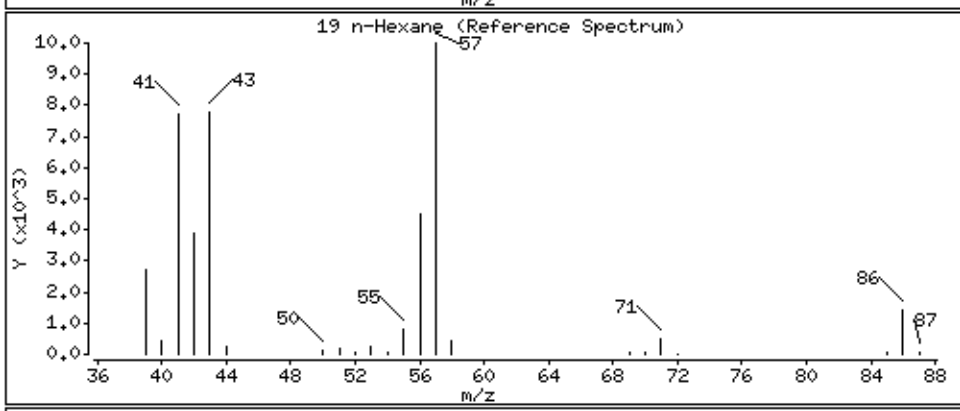
Concentration: 41.5 ug/L

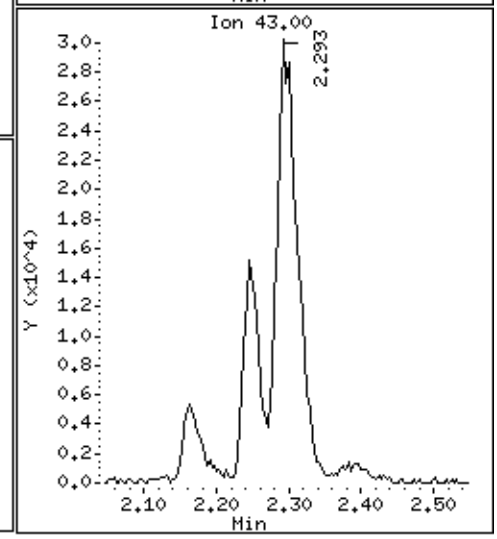


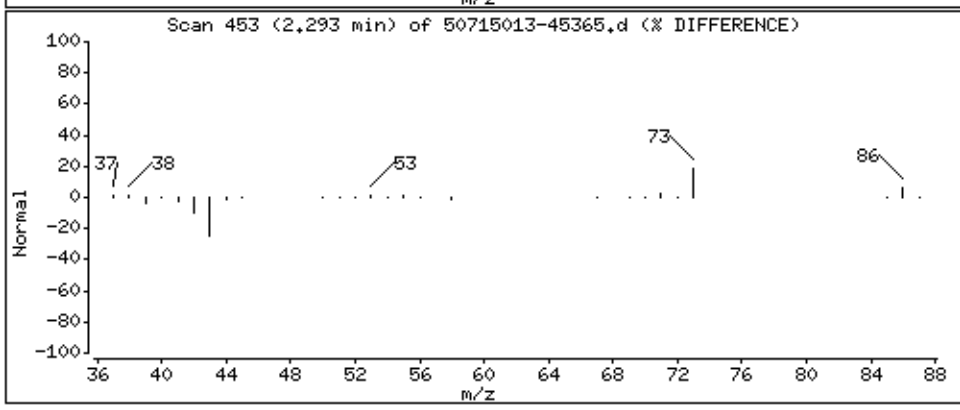












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

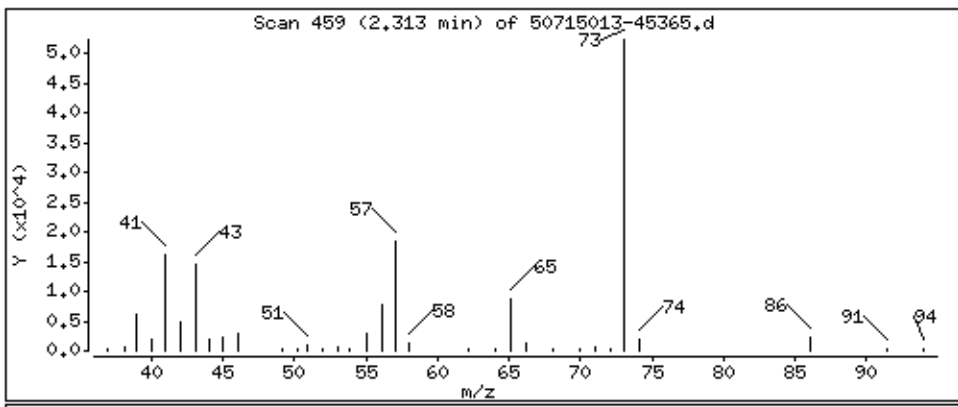
Operator: JEW

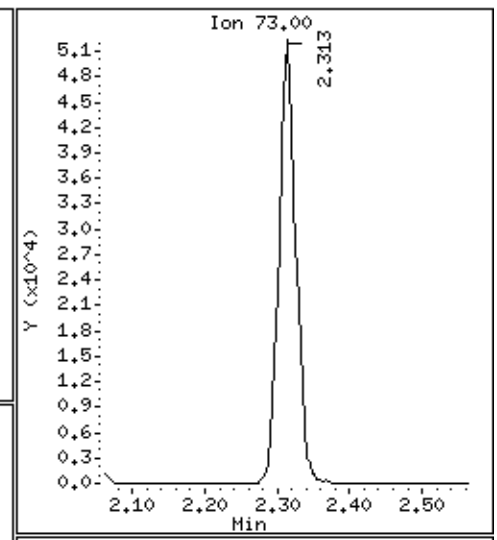
Column phase: RTX-VMS

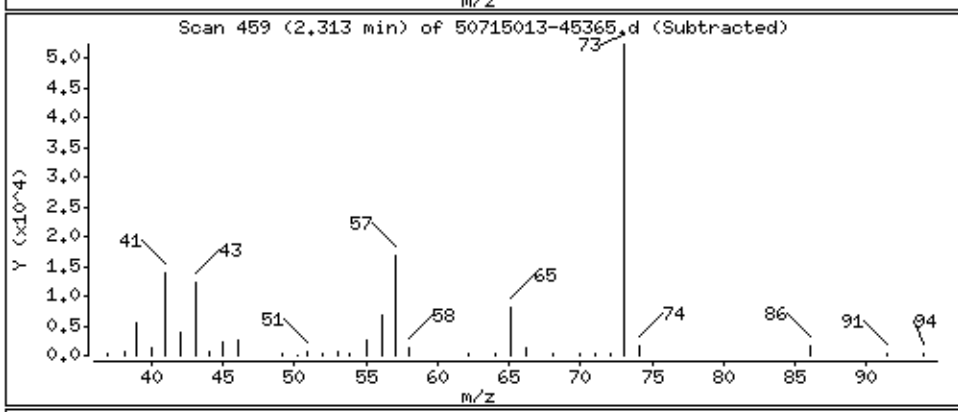
Column diameter: 0.18

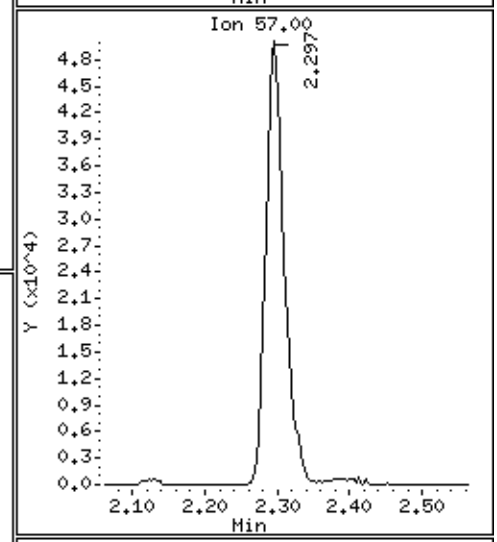
20 Methyl-tert-butyl ether

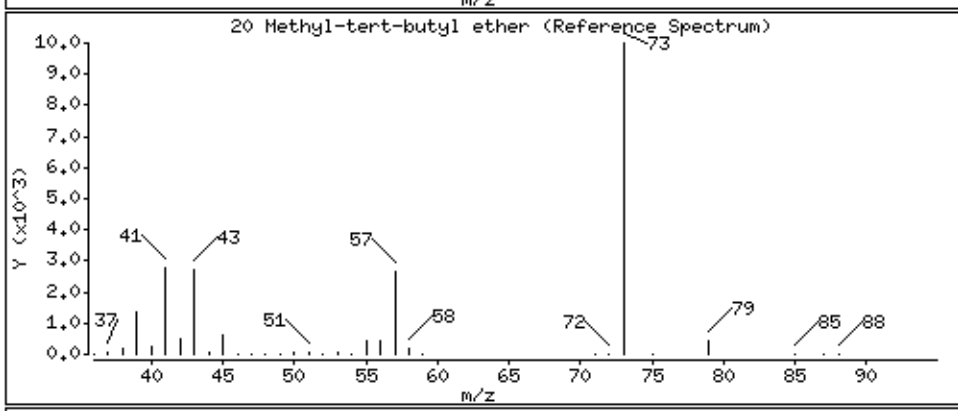
Concentration: 16.5 ug/L

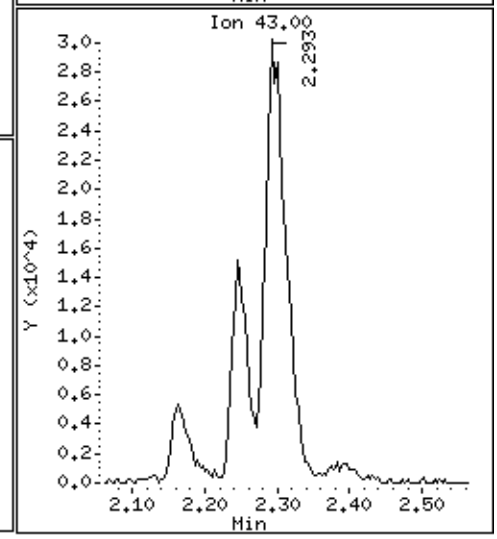


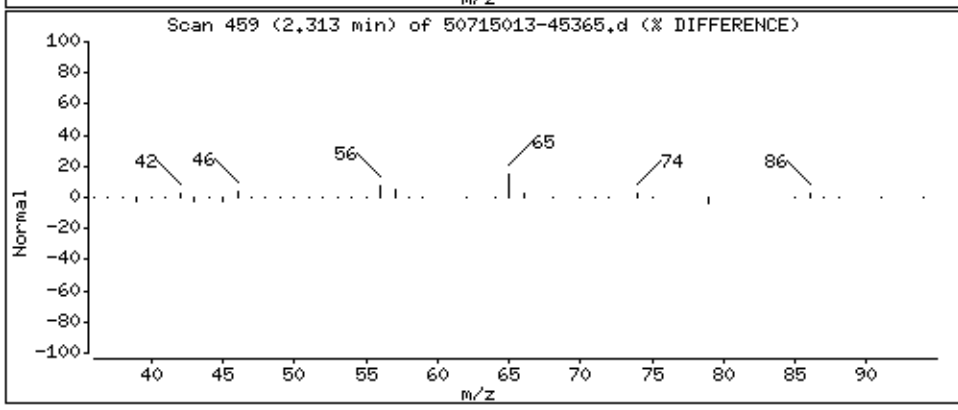












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

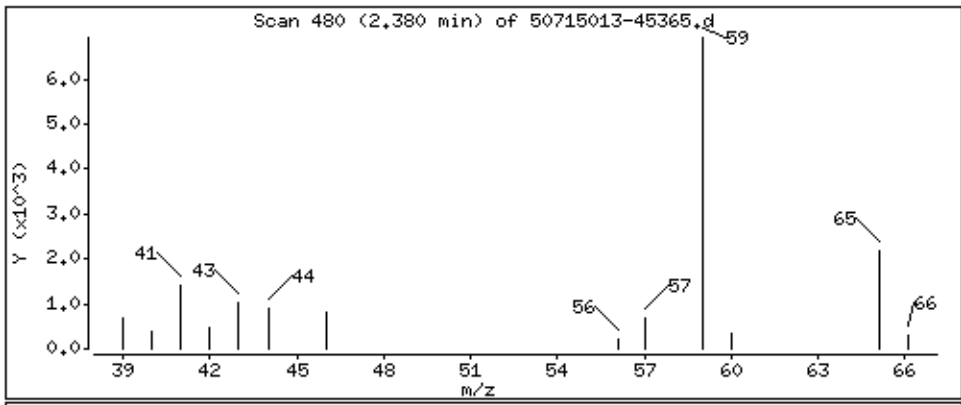
Operator: JEW

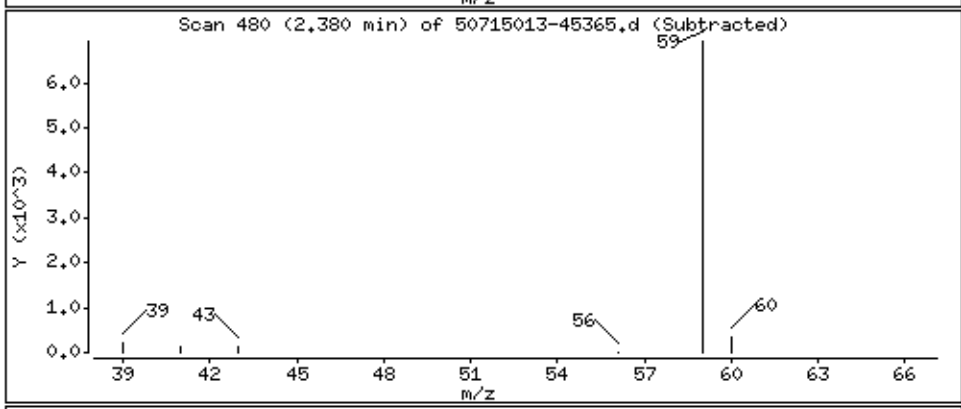
Column phase: RTX-VMS

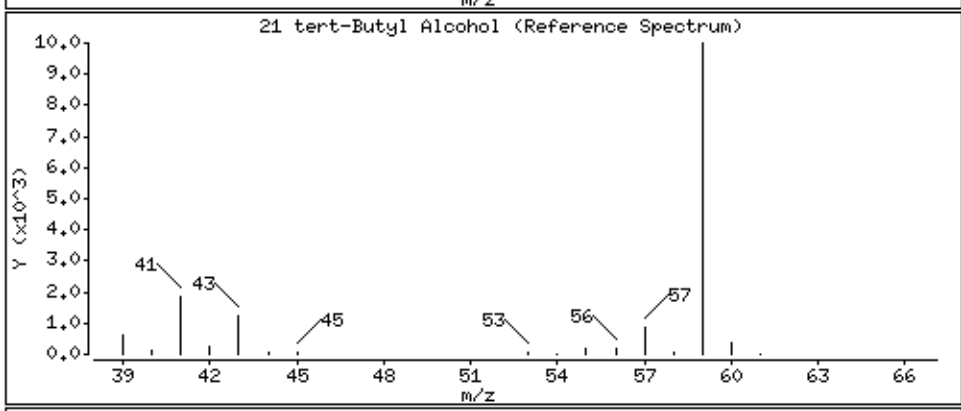
Column diameter: 0.18

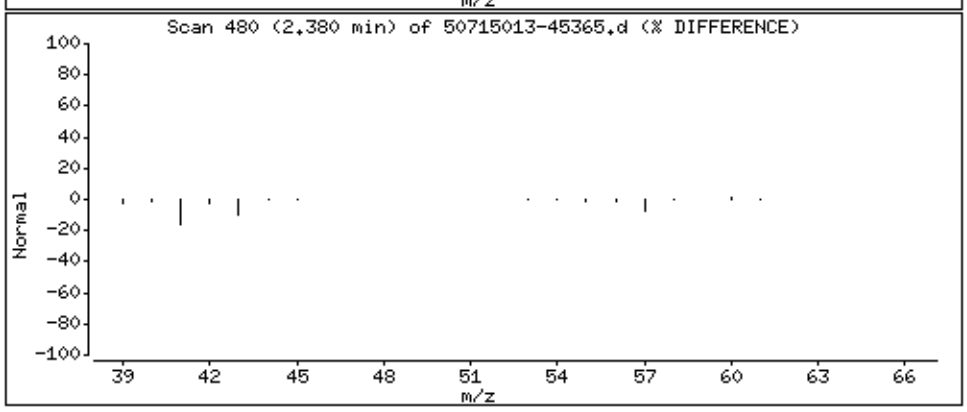
21 tert-Butyl Alcohol

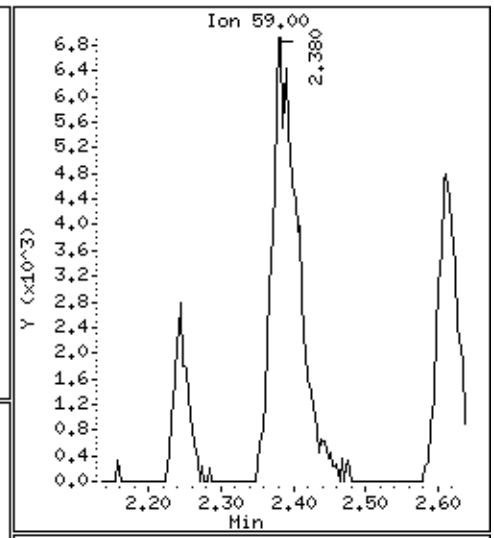
Concentration: 82.5 ug/L

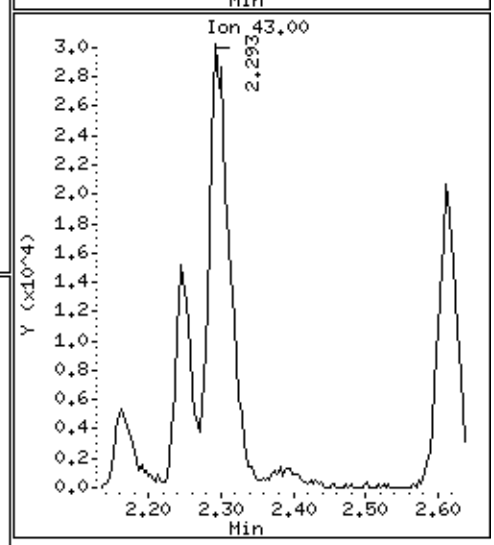












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

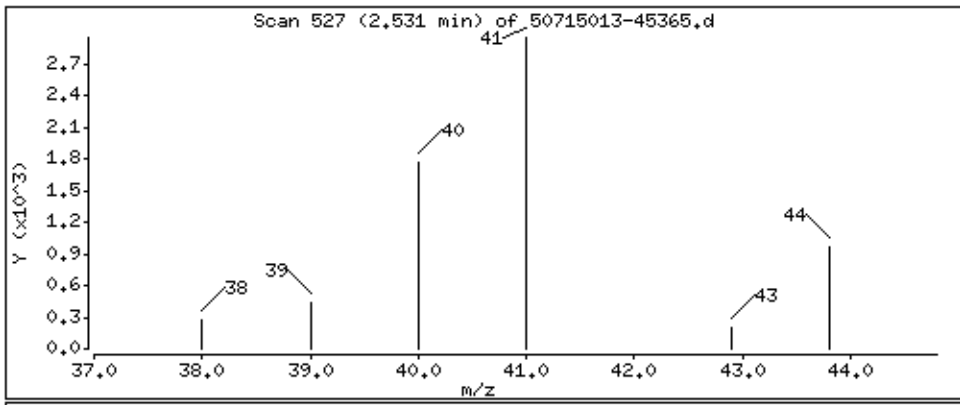
Operator: JEW

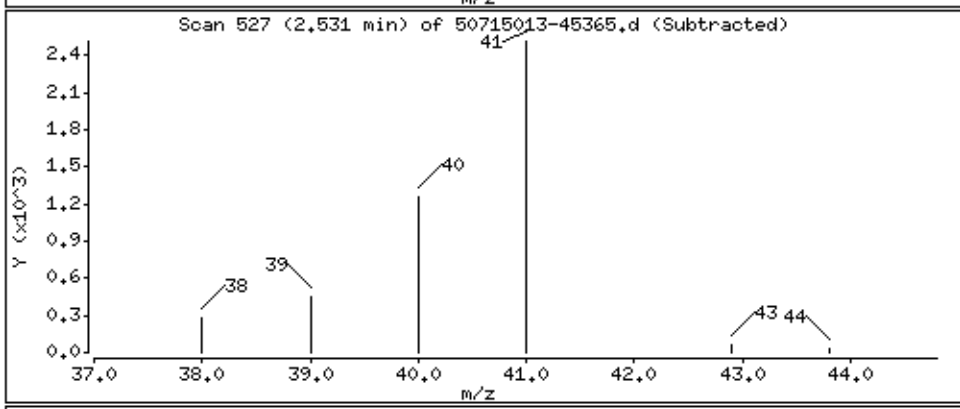
Column phase: RTX-VMS

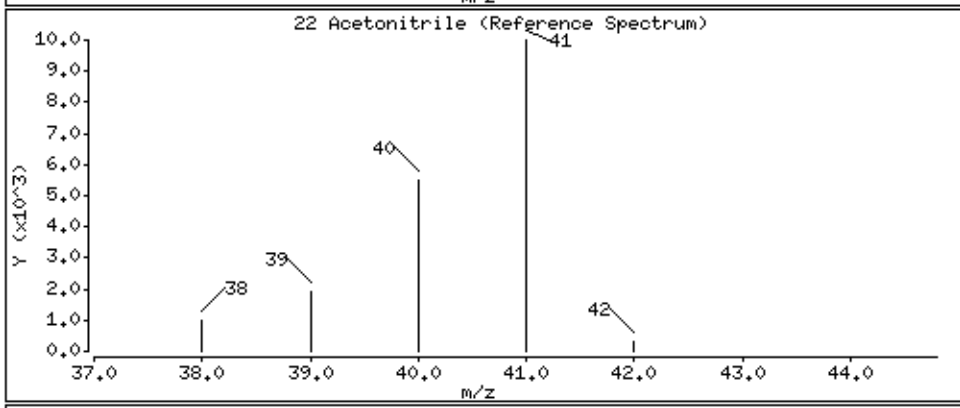
Column diameter: 0.18

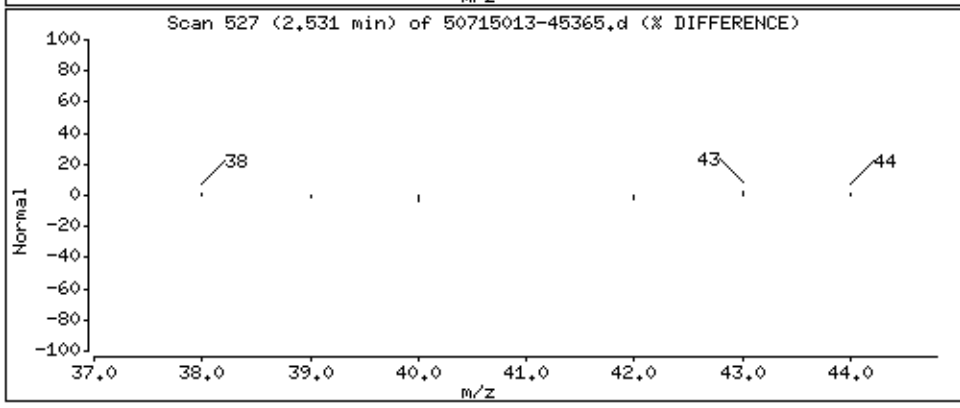
22 Acetonitrile

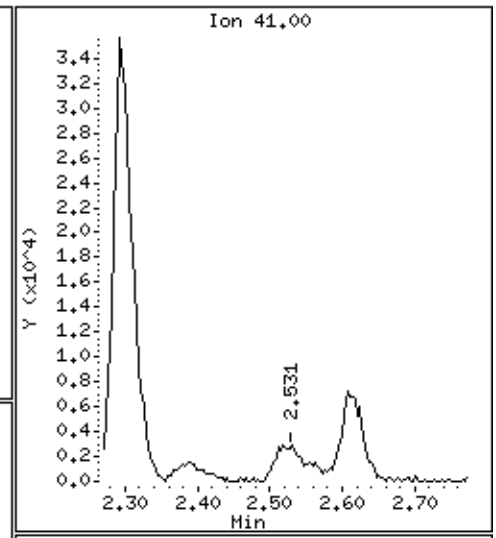
Concentration: 68.3 ug/L

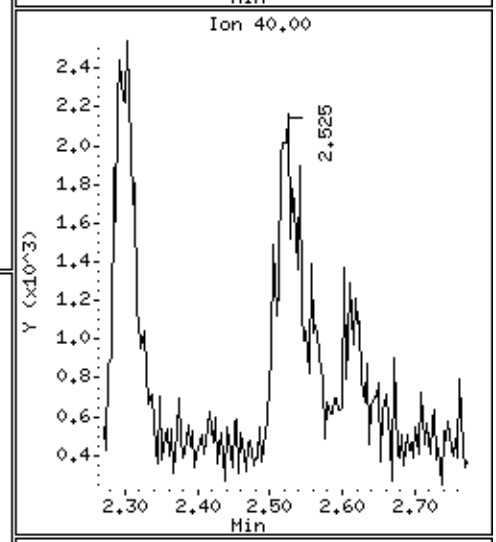


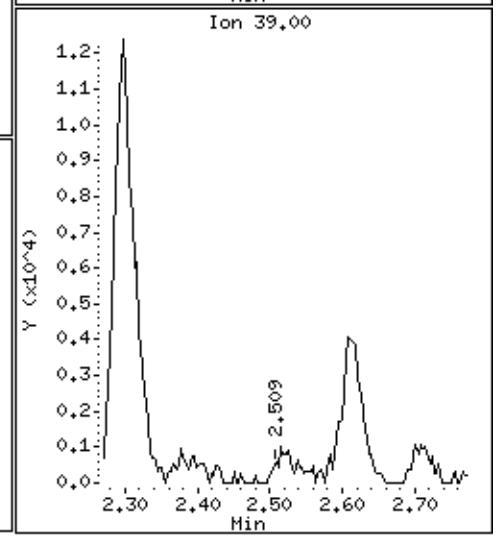












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

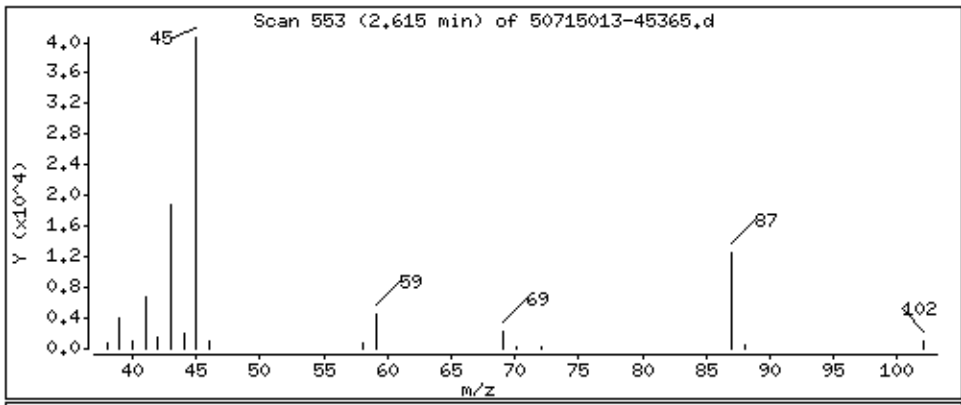
Operator: JEW

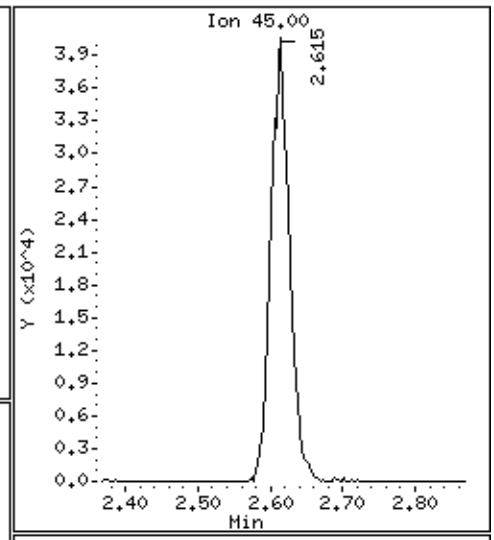
Column phase: RTX-VMS

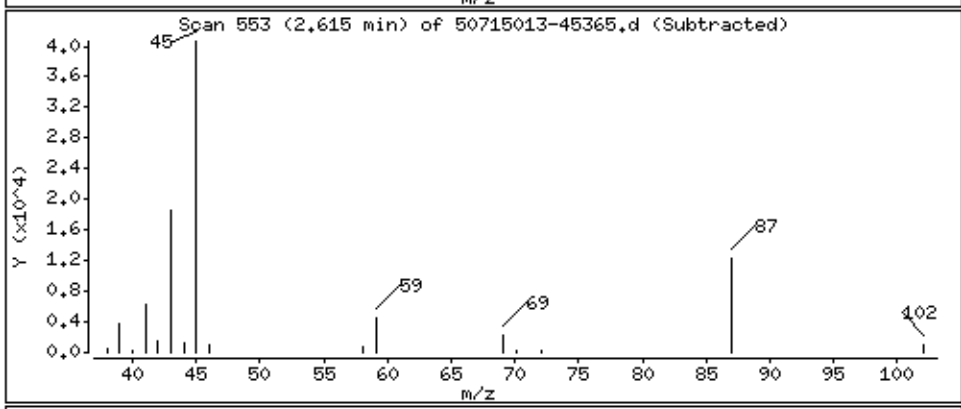
Column diameter: 0.18

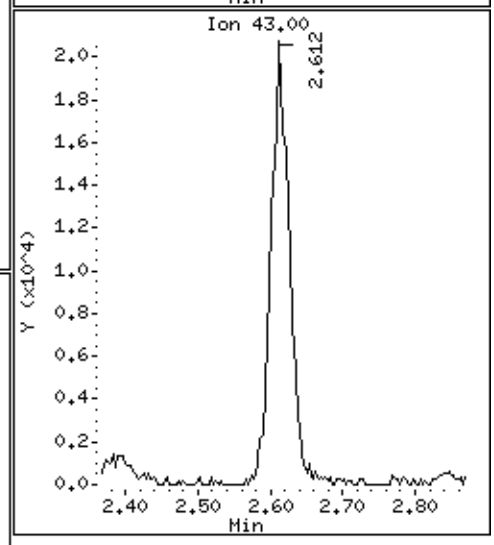
23 Diisopropyl ether

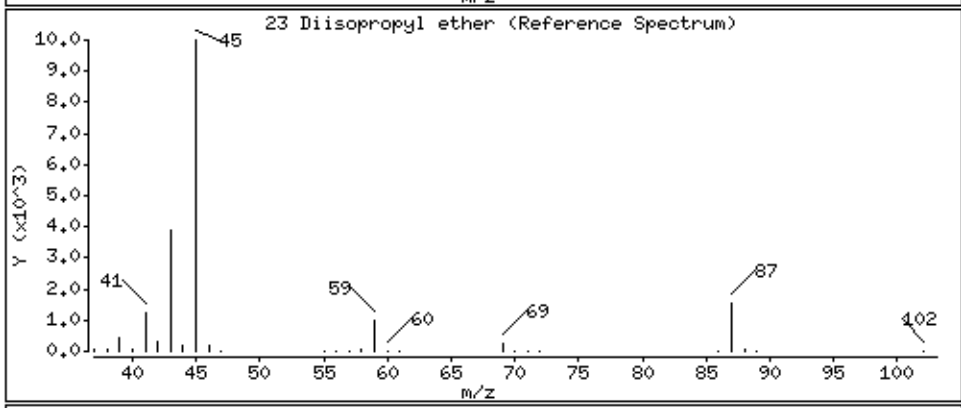
Concentration: 14.8 ug/L

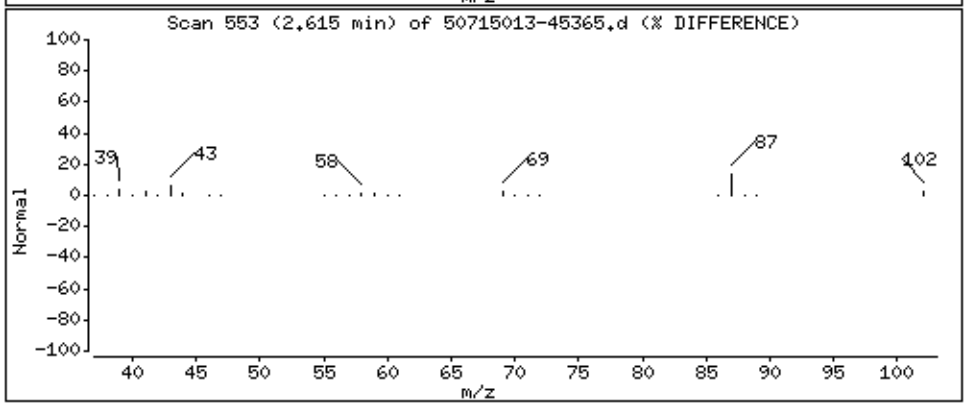












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

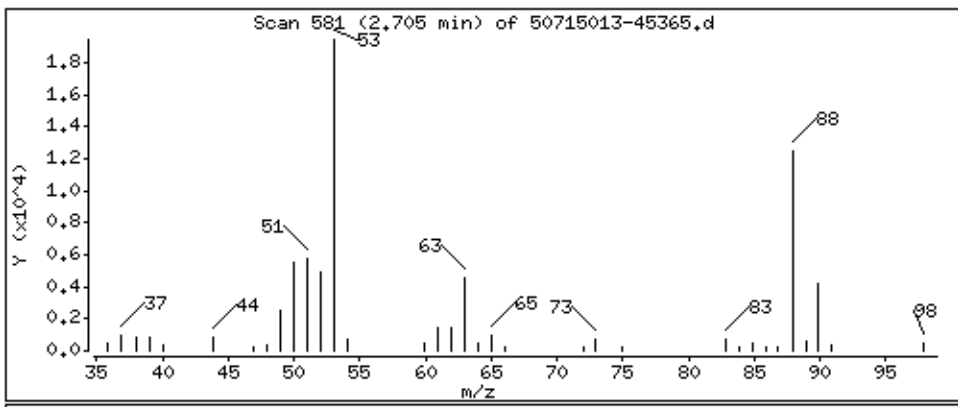
Operator: JEW

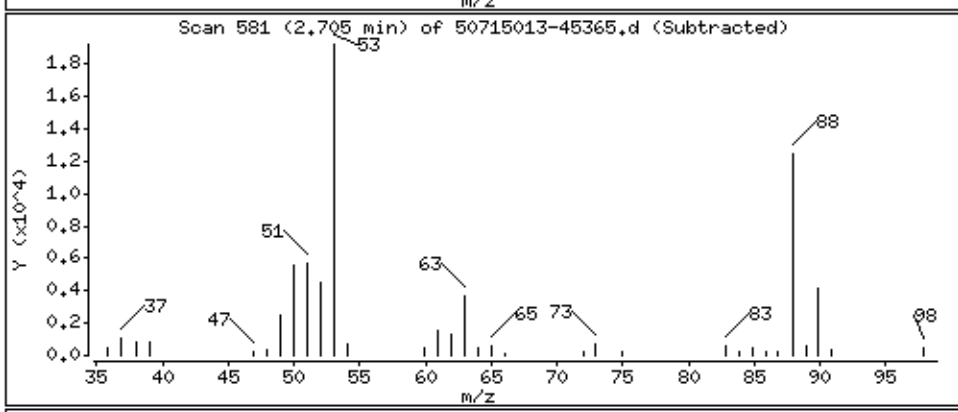
Column phase: RTX-VMS

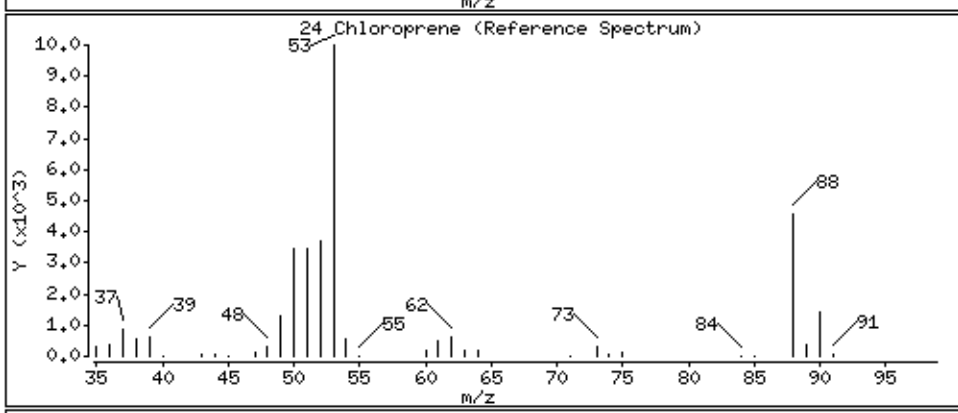
Column diameter: 0.18

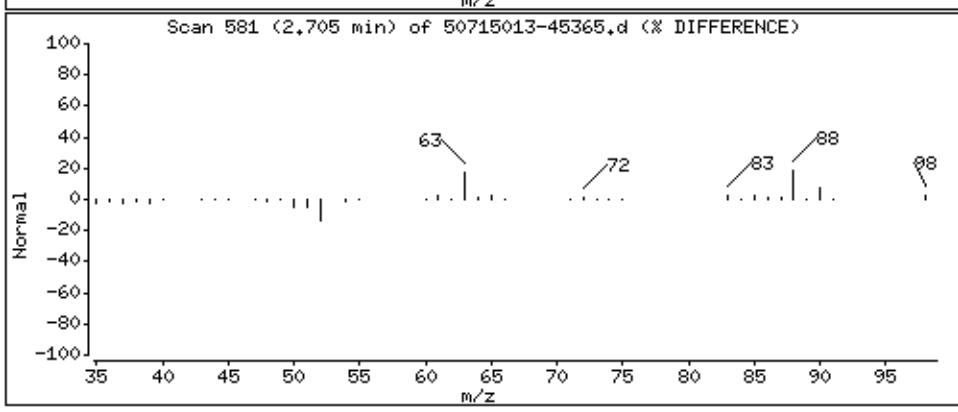
24 Chloroprene

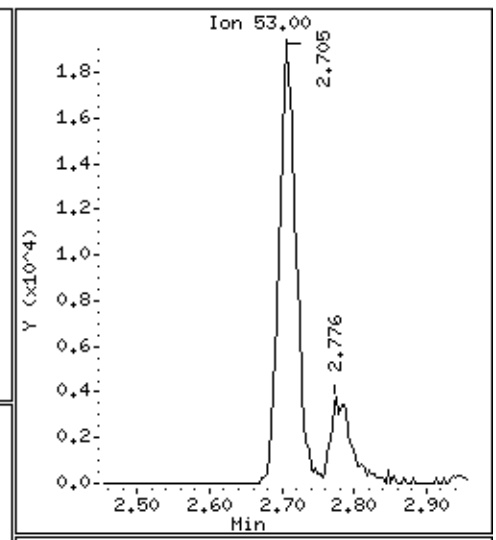
Concentration: 14.7 ug/L

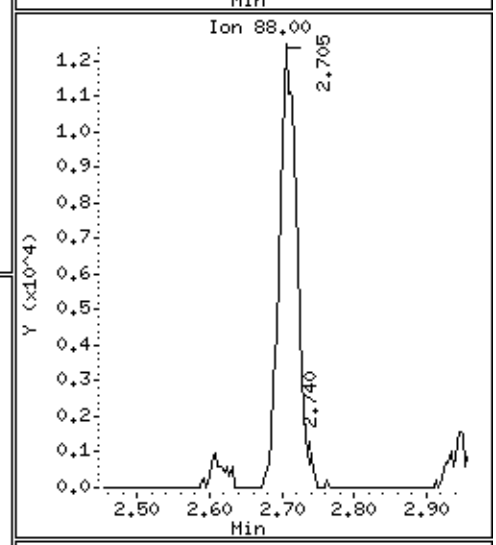


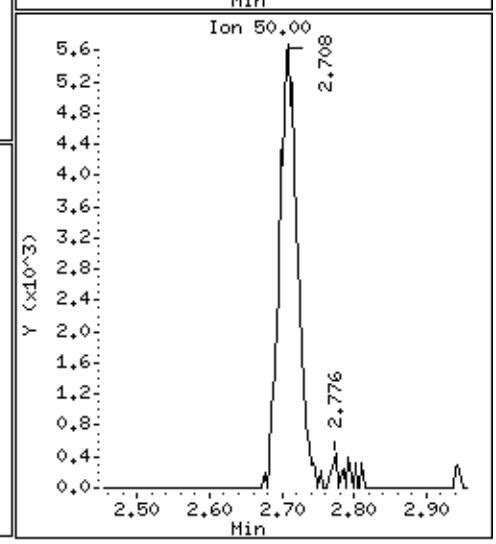












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

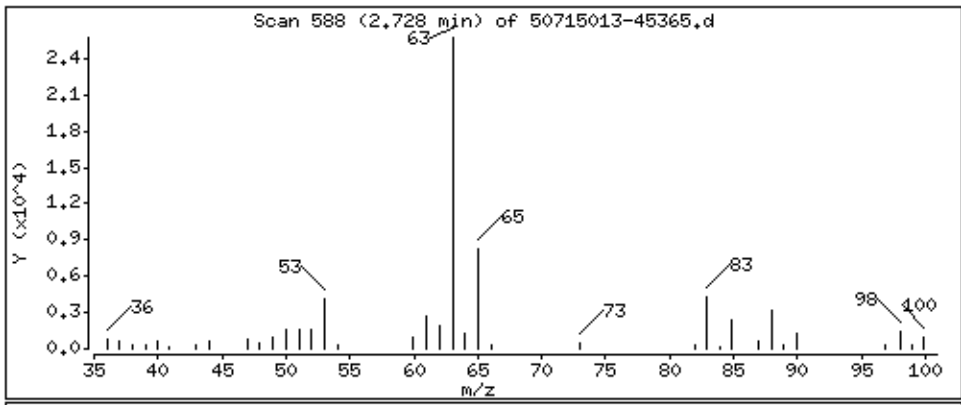
Operator: JEW

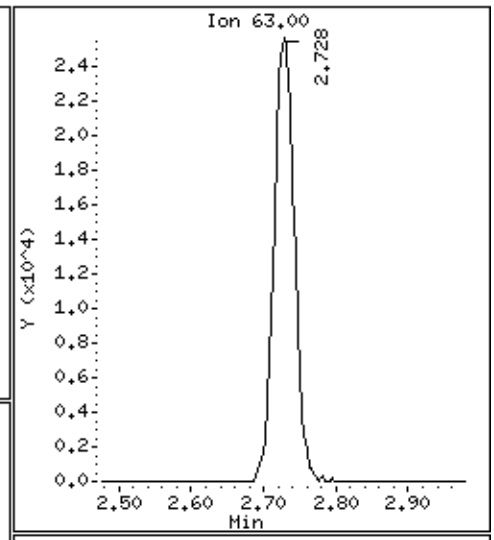
Column phase: RTX-VMS

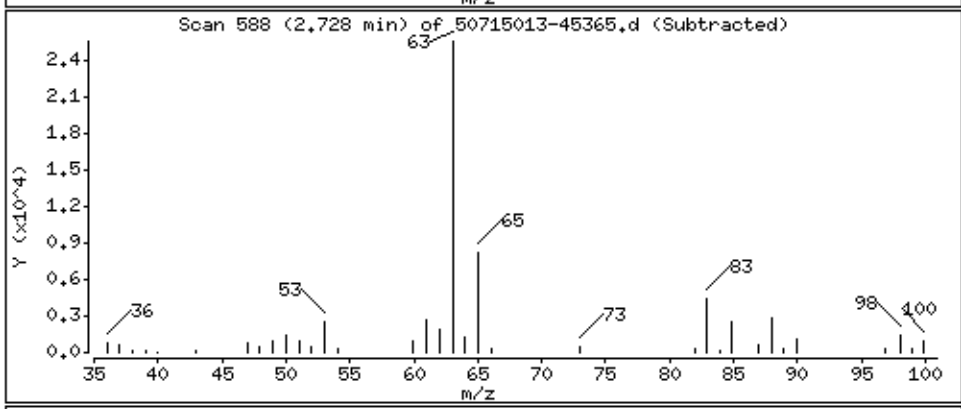
Column diameter: 0.18

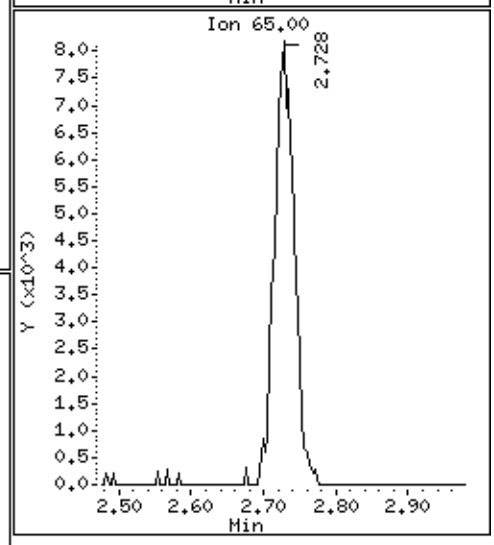
25 1,1-Dichloroethane

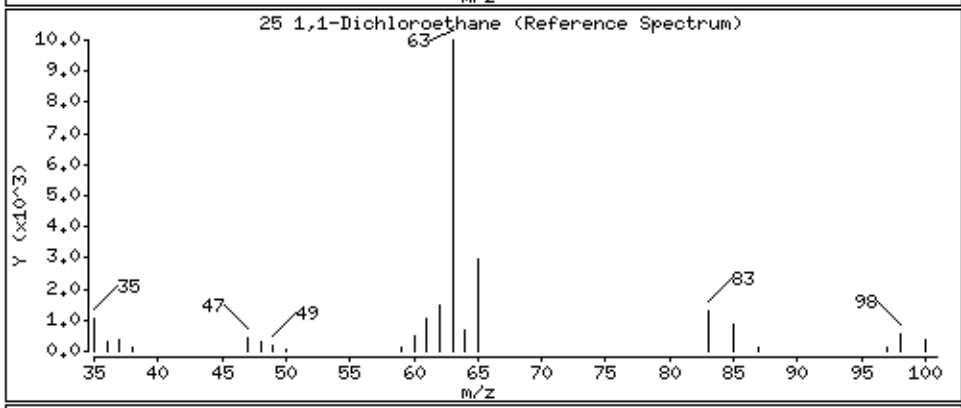
Concentration: 16.3 ug/L

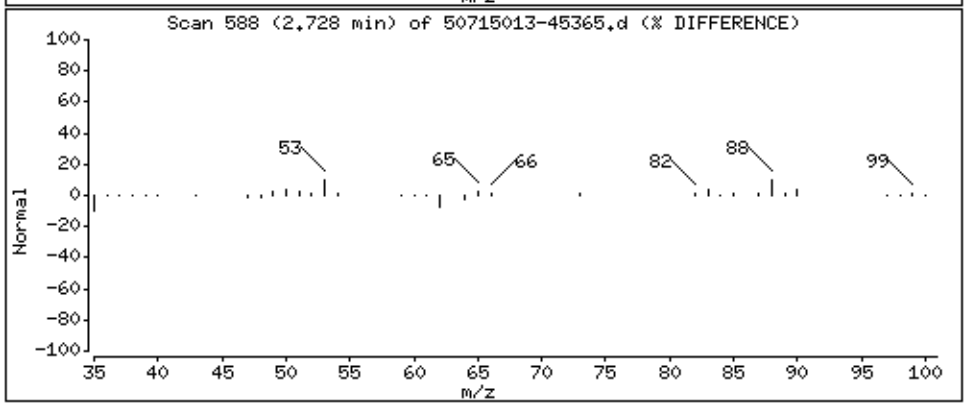












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

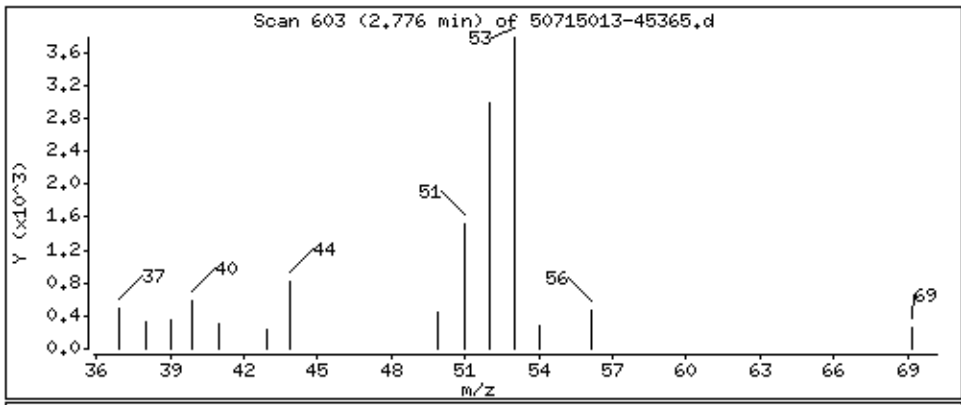
Operator: JEW

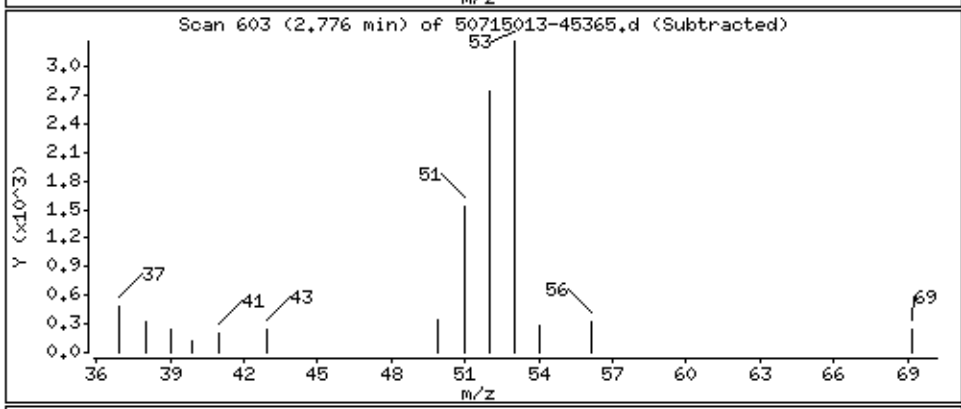
Column phase: RTX-VMS

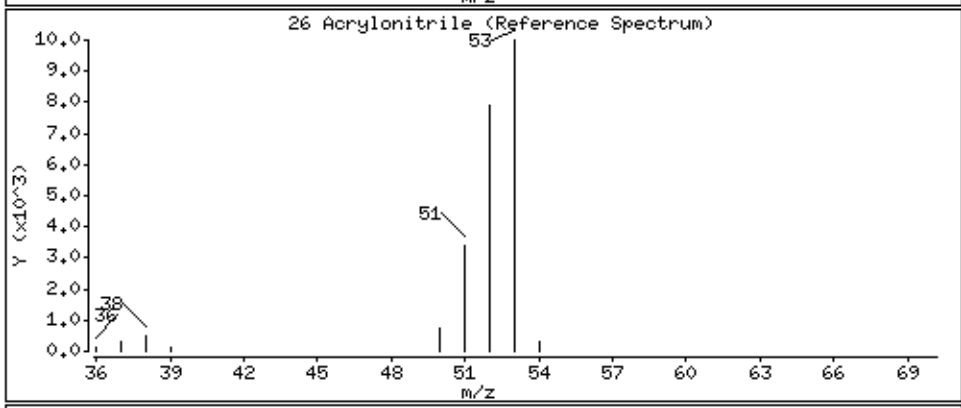
Column diameter: 0.18

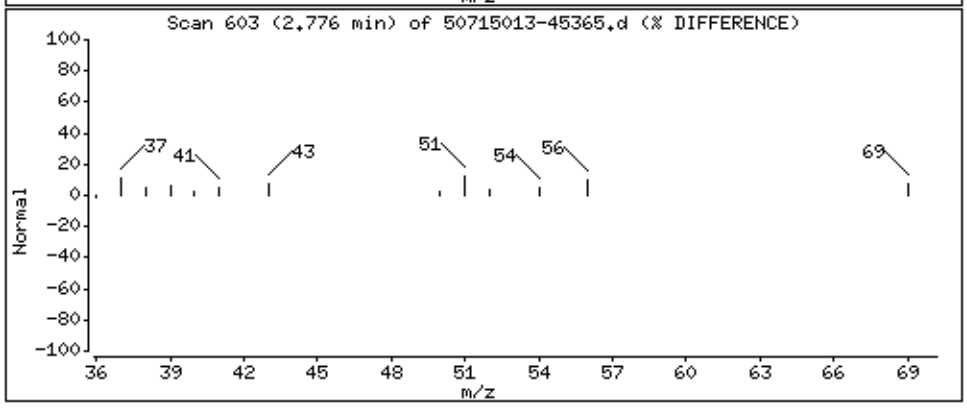
26 Acrylonitrile

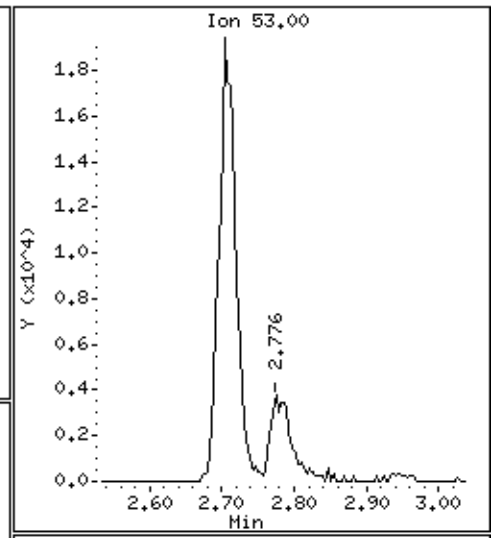
Concentration: 12.3 ug/L

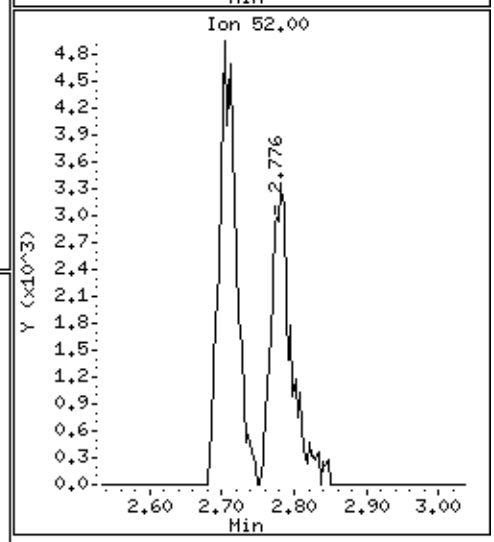












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

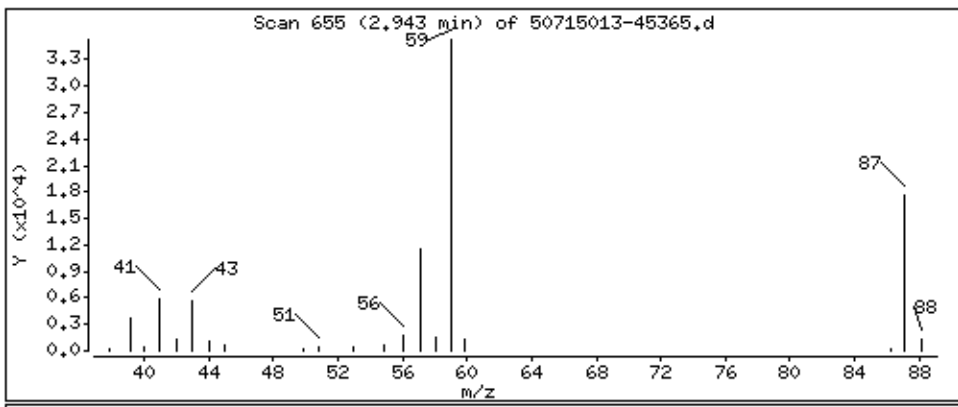
Operator: JEW

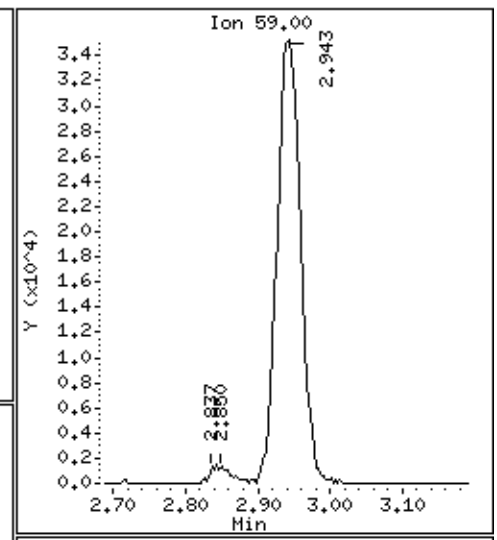
Column phase: RTX-VMS

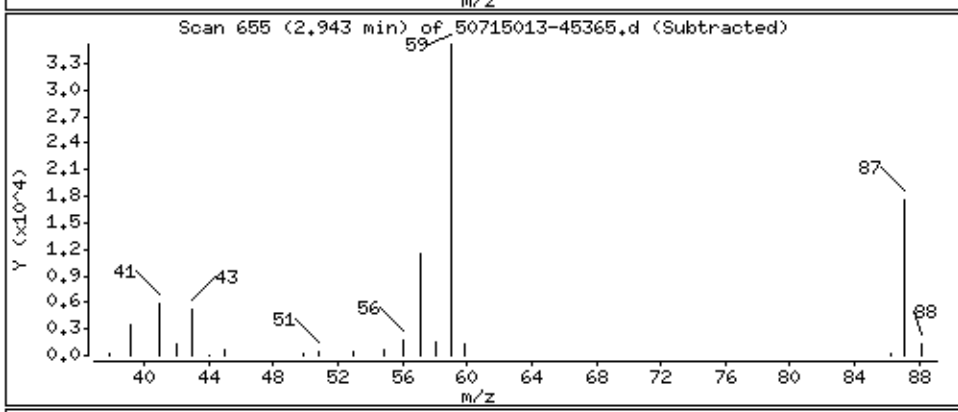
Column diameter: 0.18

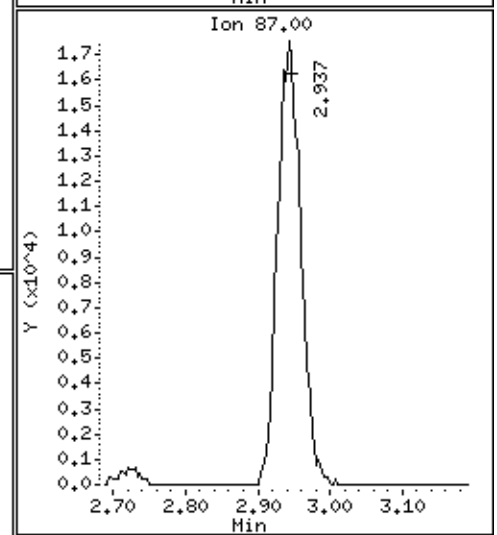
27 Ethyl-tert-butyl ether

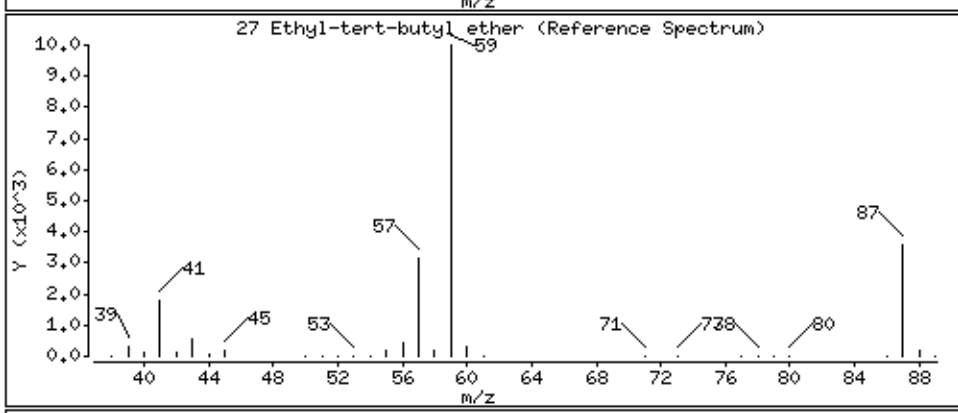
Concentration: 15.4 ug/L

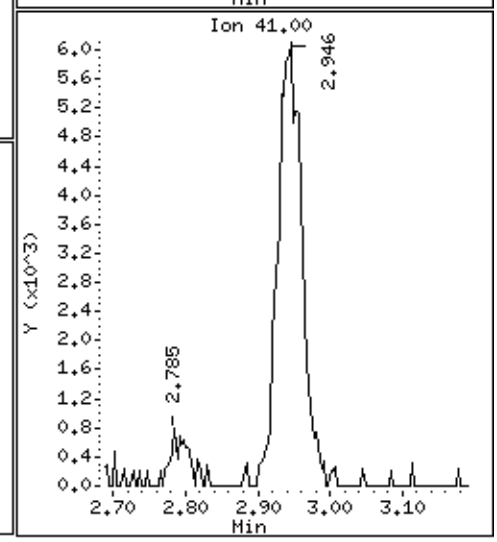


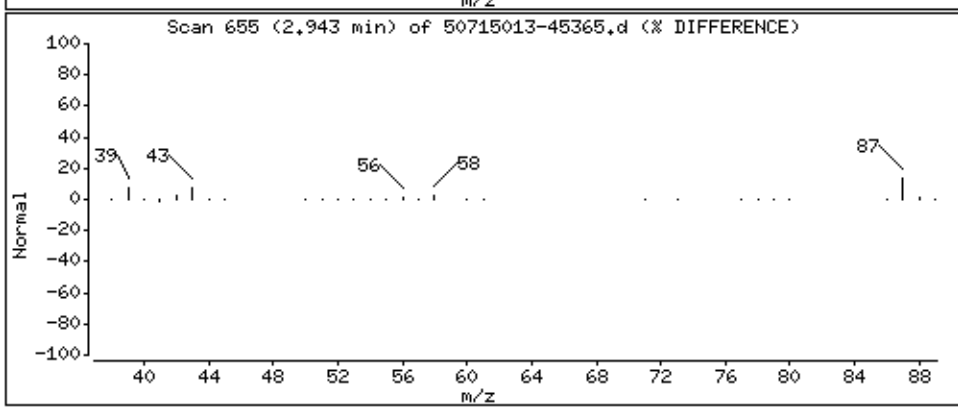












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

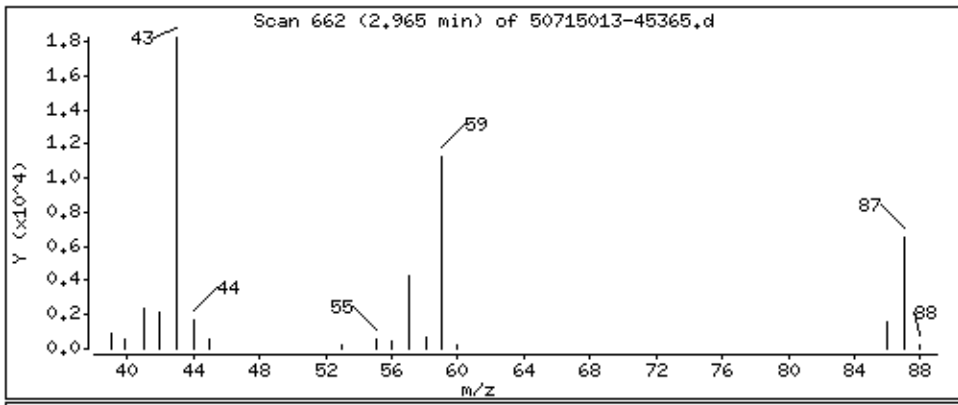
Operator: JEW

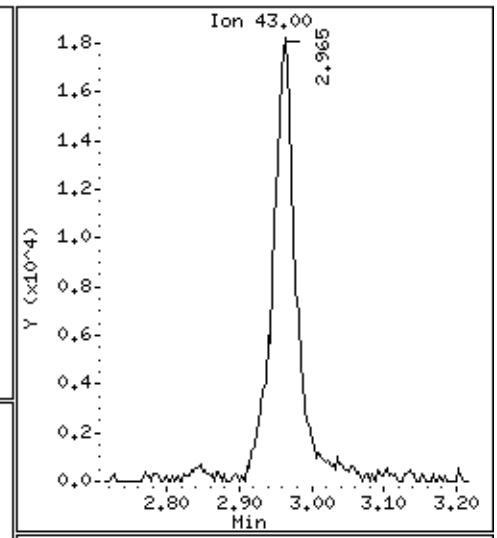
Column phase: RTX-VMS

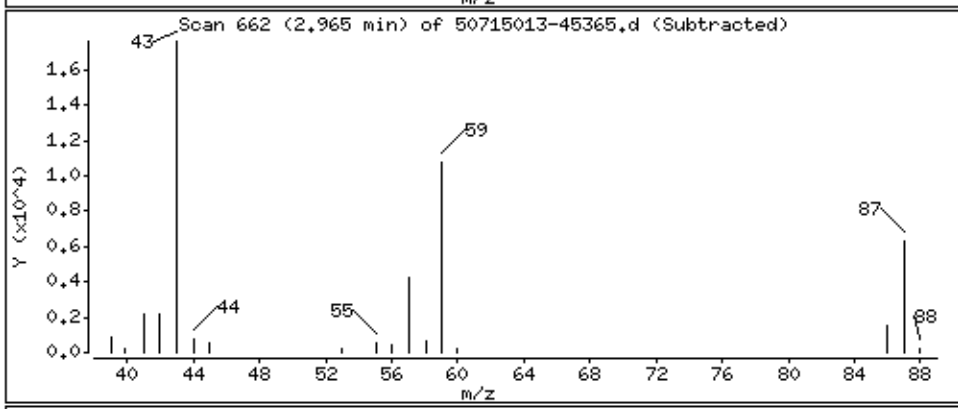
Column diameter: 0.18

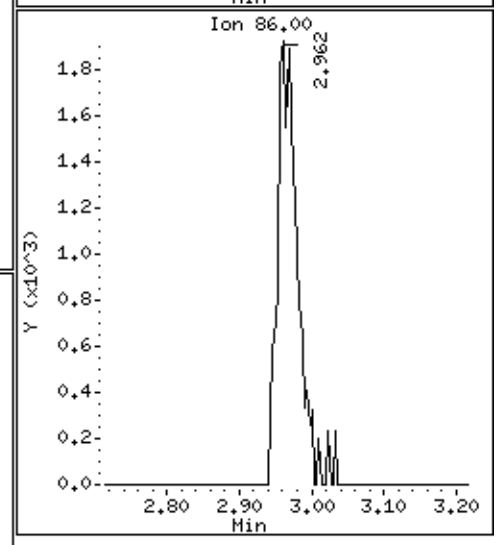
28 Vinyl acetate

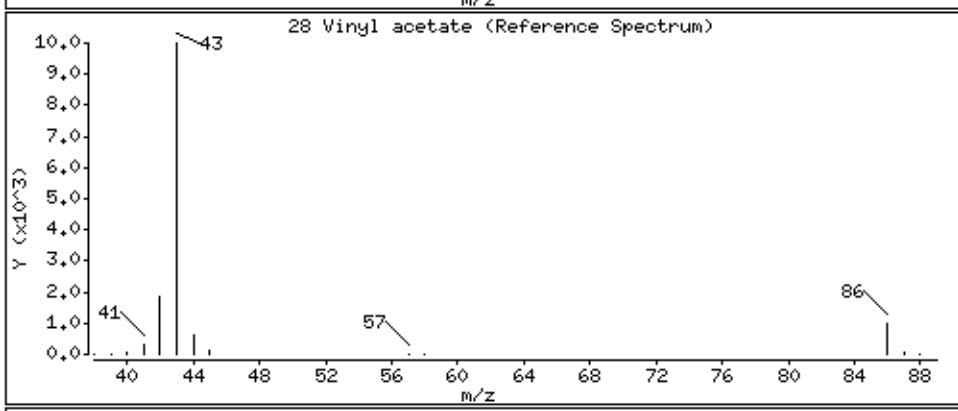
Concentration: 9.83 ug/L

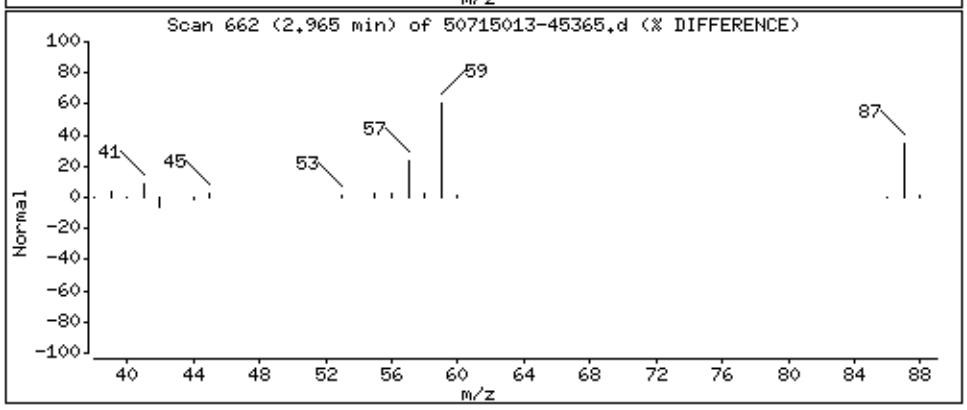












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

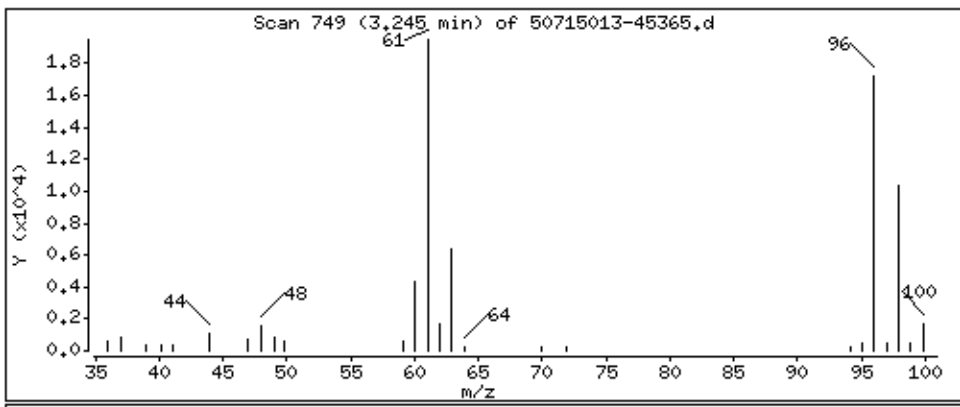
Operator: JEW

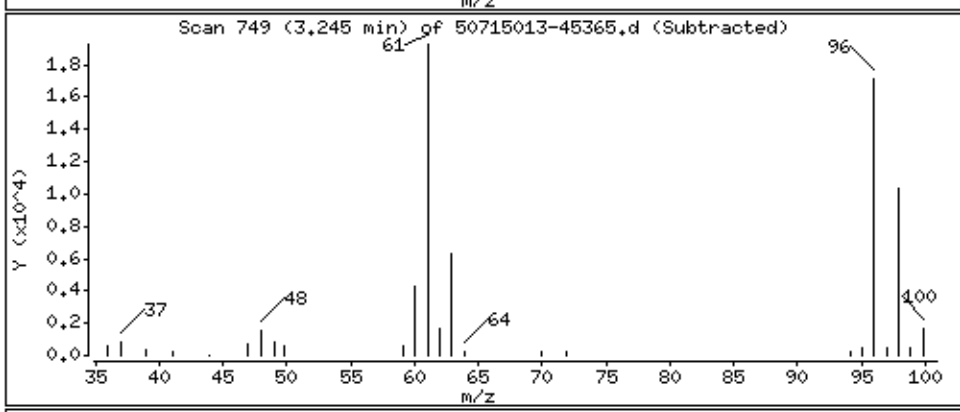
Column phase: RTX-VMS

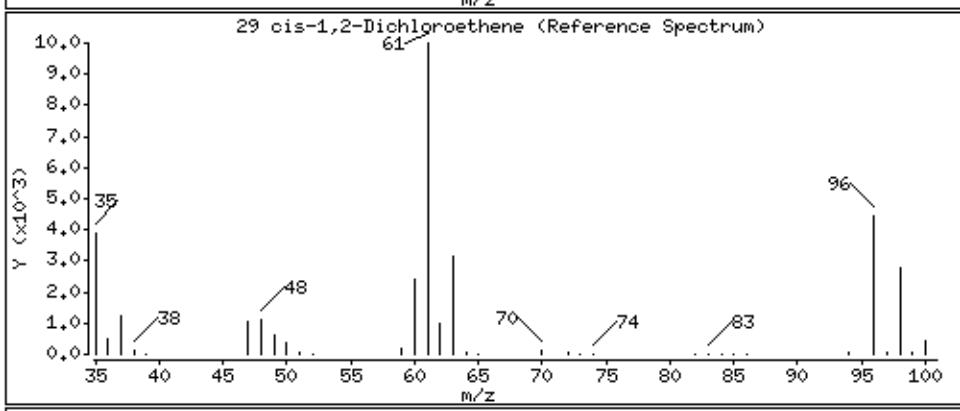
Column diameter: 0.18

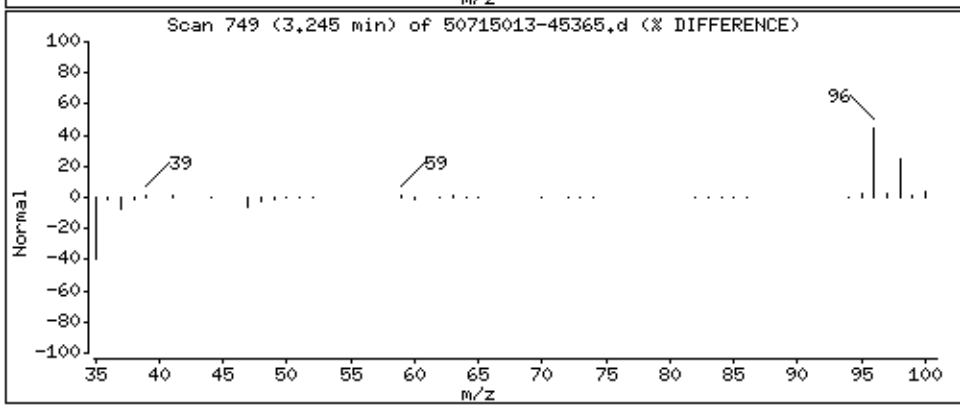
29 cis-1,2-Dichloroethene

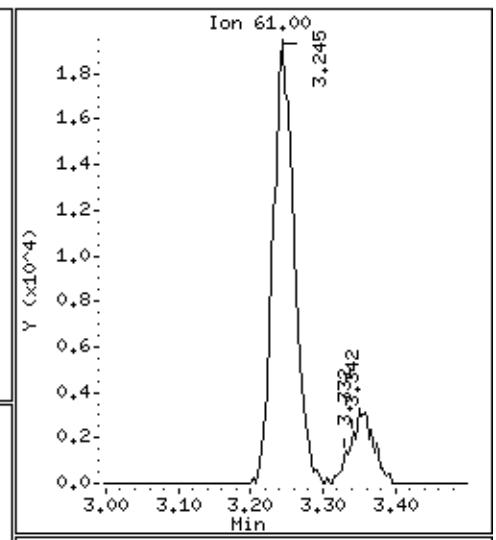
Concentration: 16.7 ug/L

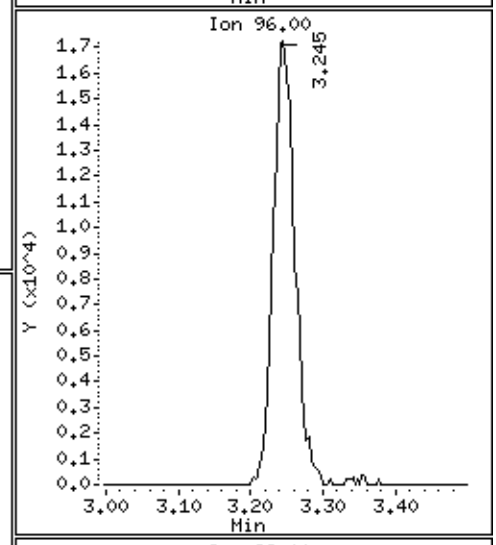


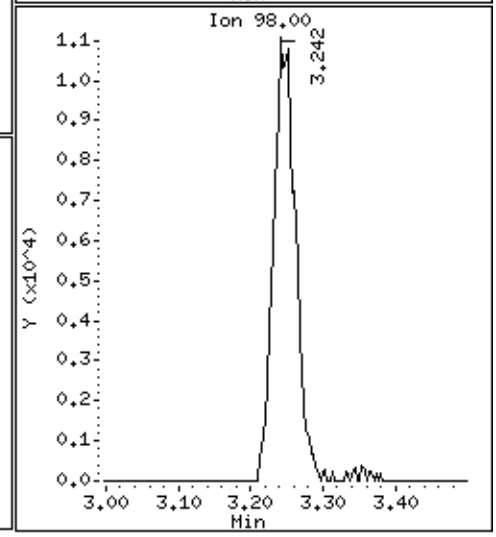












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

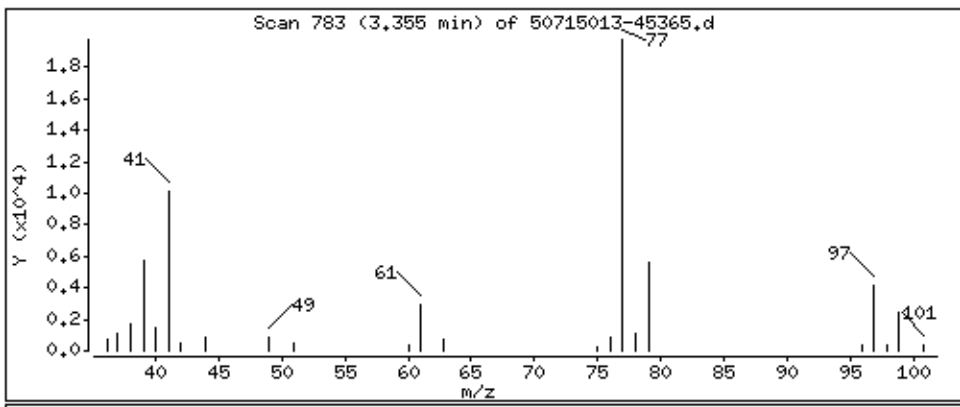
Operator: JEW

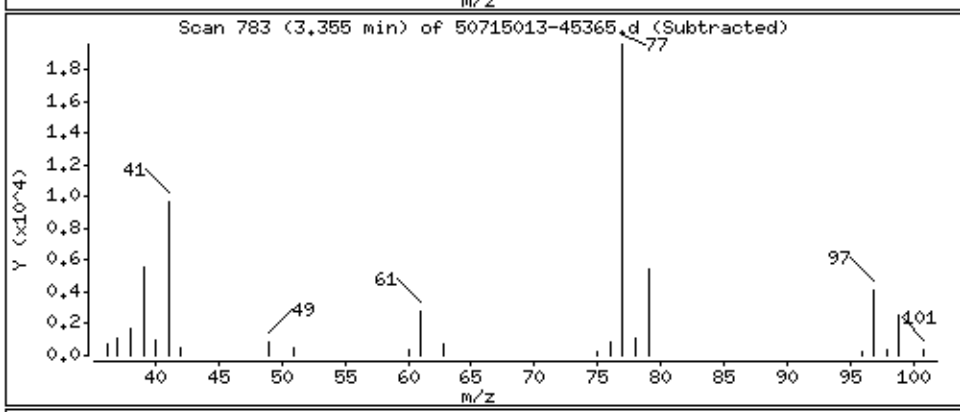
Column phase: RTX-VMS

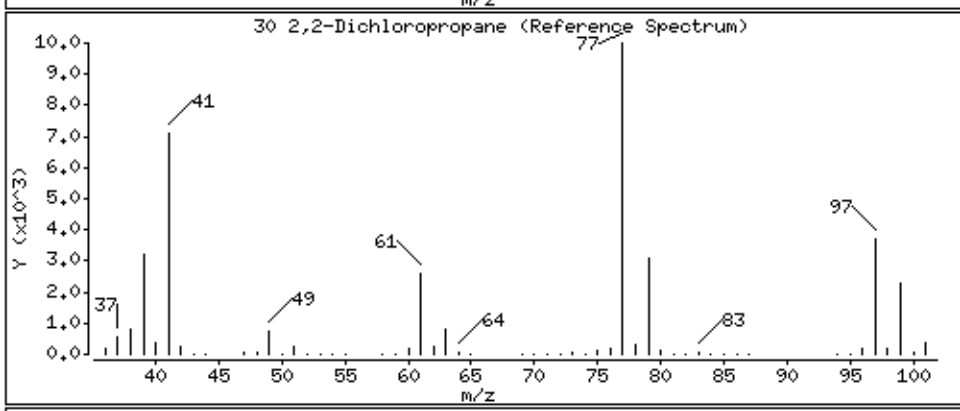
Column diameter: 0.18

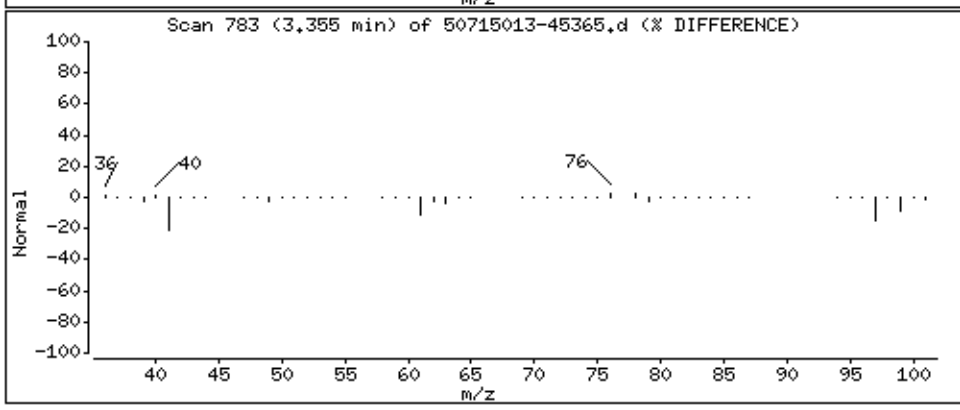
30 2,2-Dichloropropane

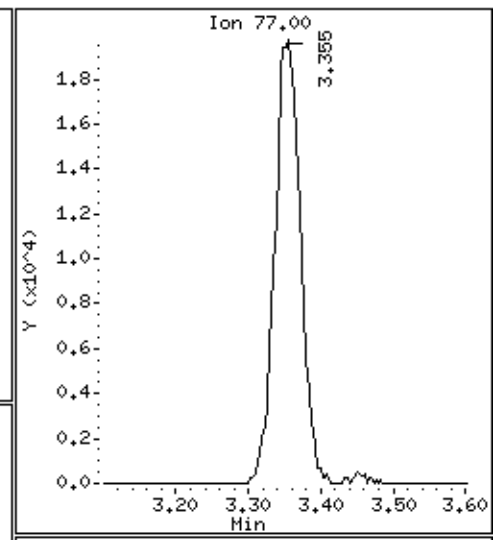
Concentration: 17.3 ug/L

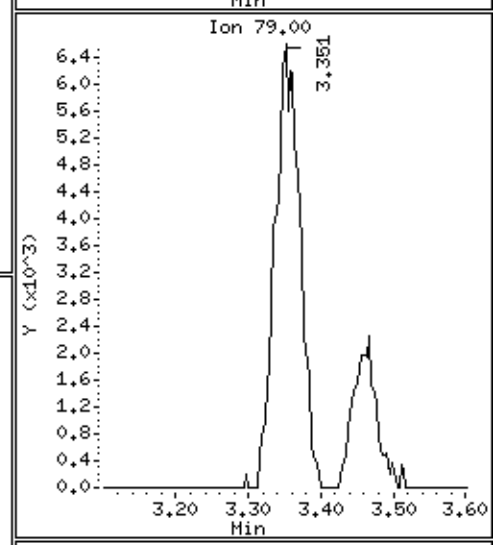


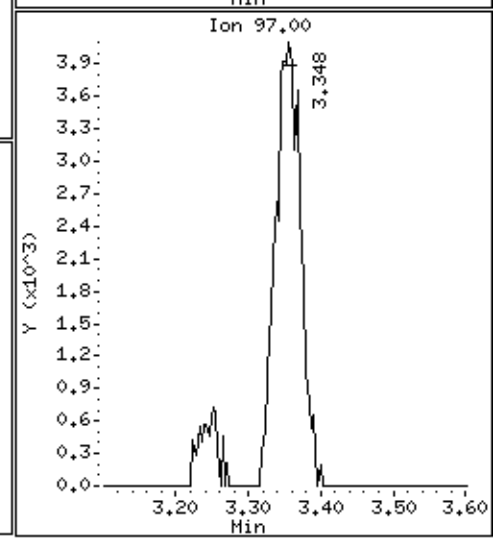












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

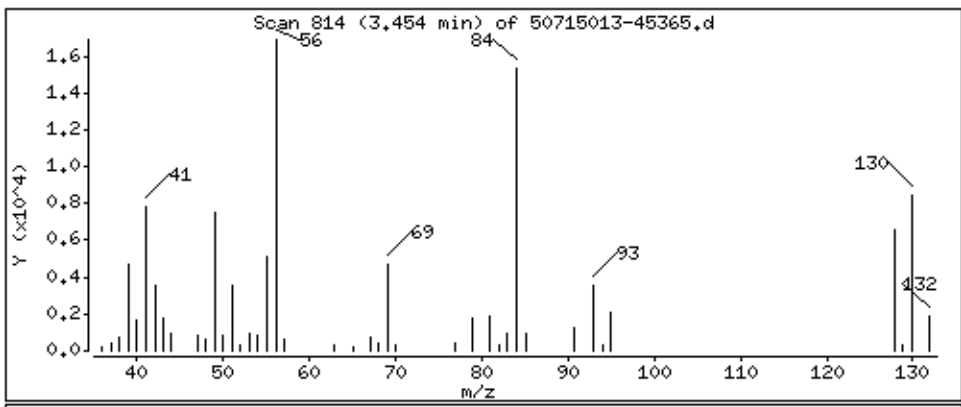
Operator: JEW

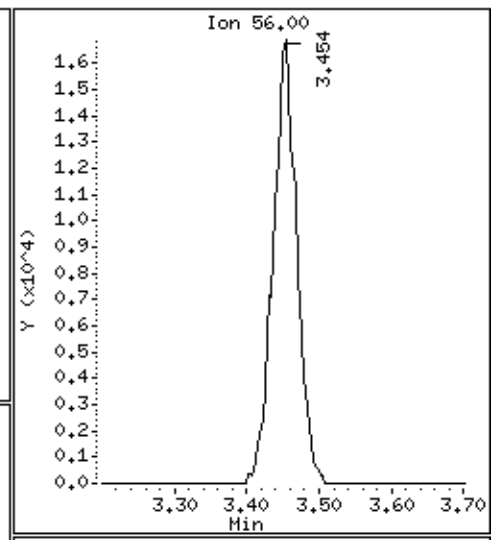
Column phase: RTX-VMS

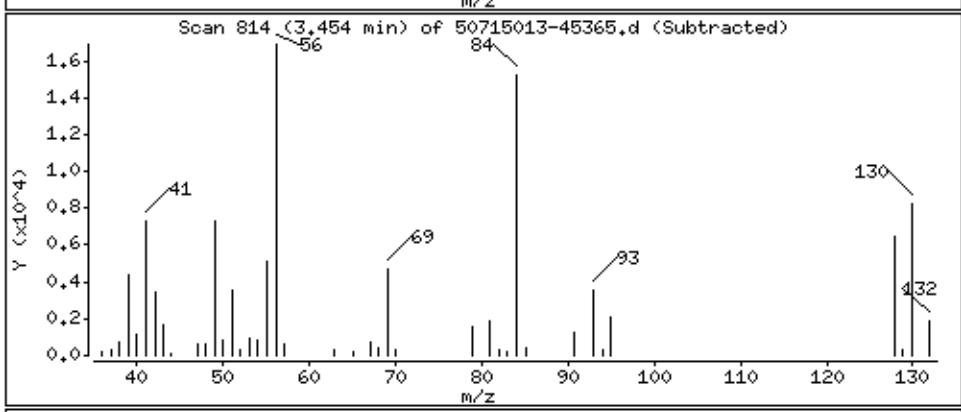
Column diameter: 0.18

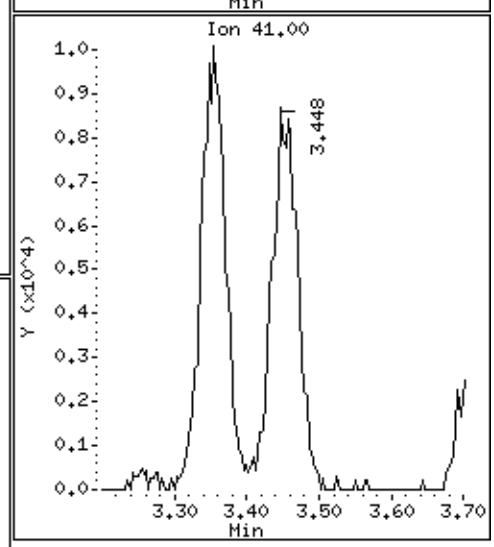
31 Cyclohexane

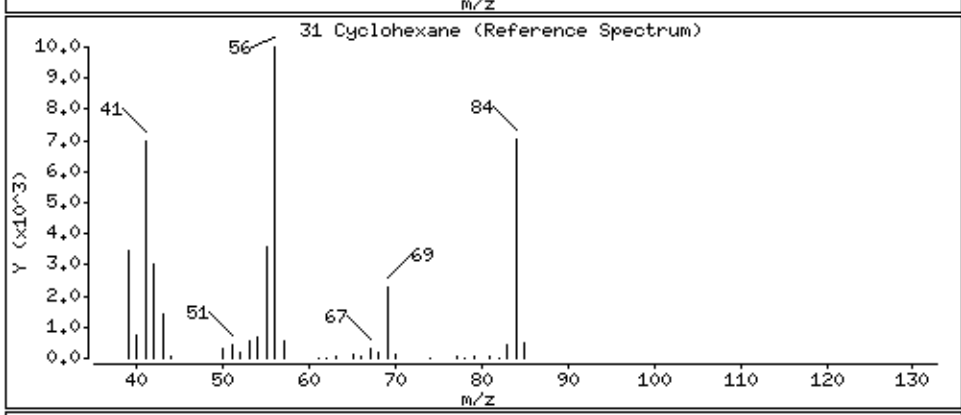
Concentration: 16.2 ug/L

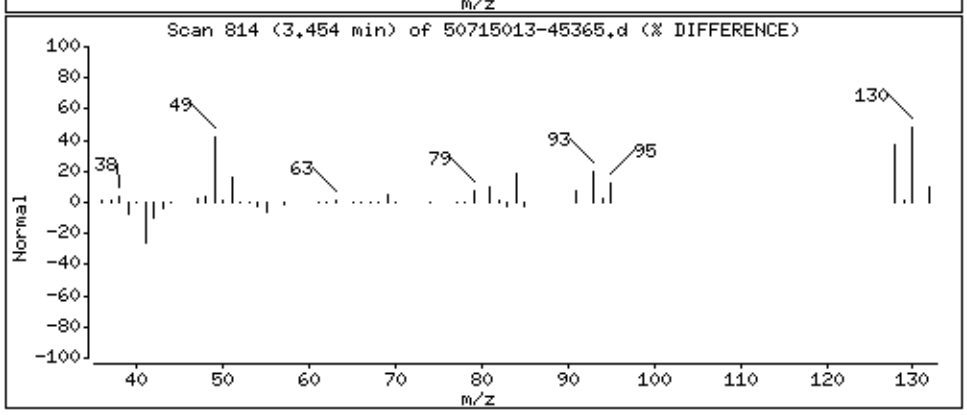












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

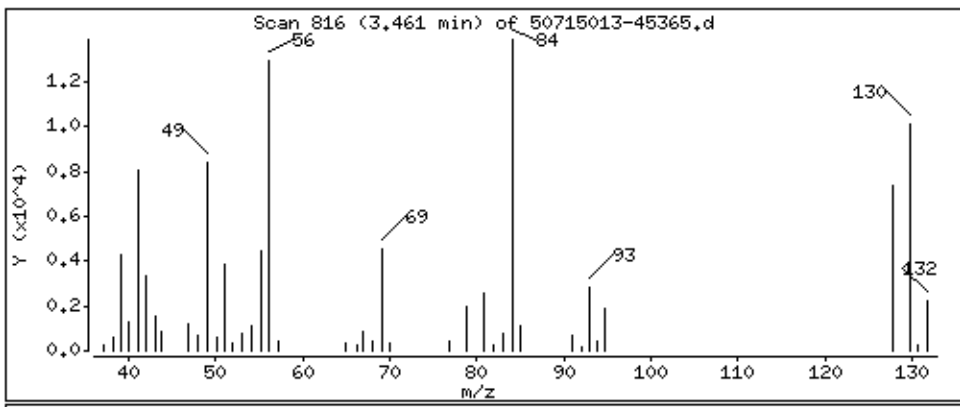
Operator: JEW

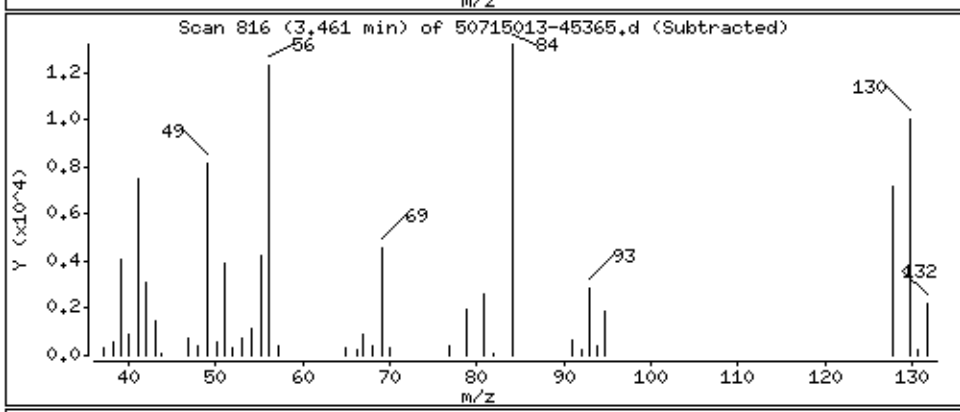
Column phase: RTX-VMS

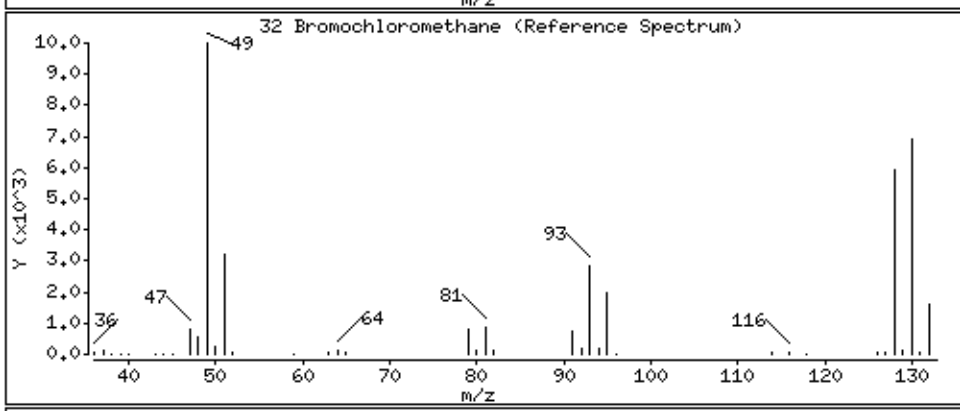
Column diameter: 0.18

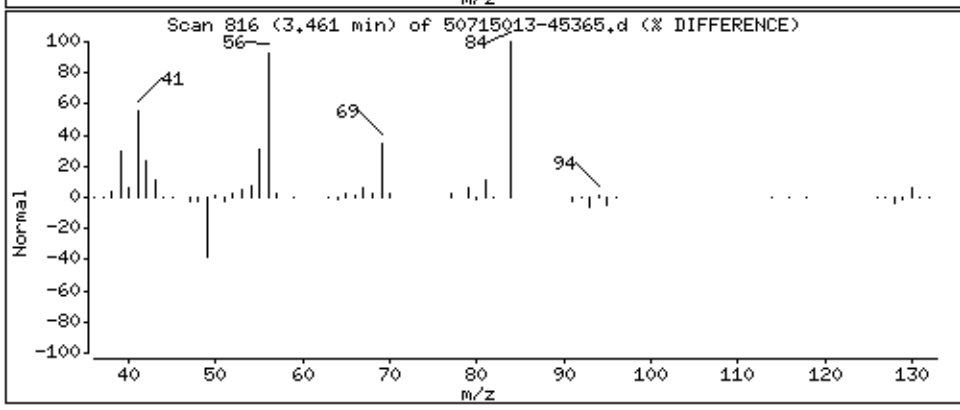
32 Bromochloromethane

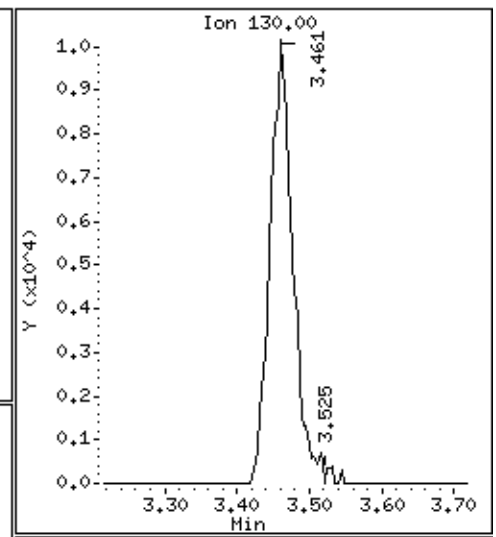
Concentration: 20.4 ug/L

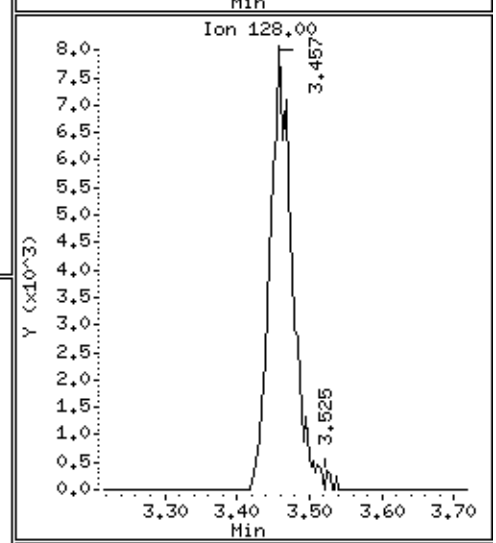


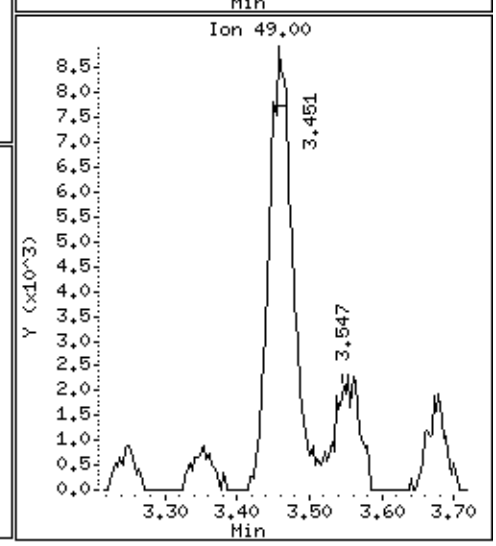












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

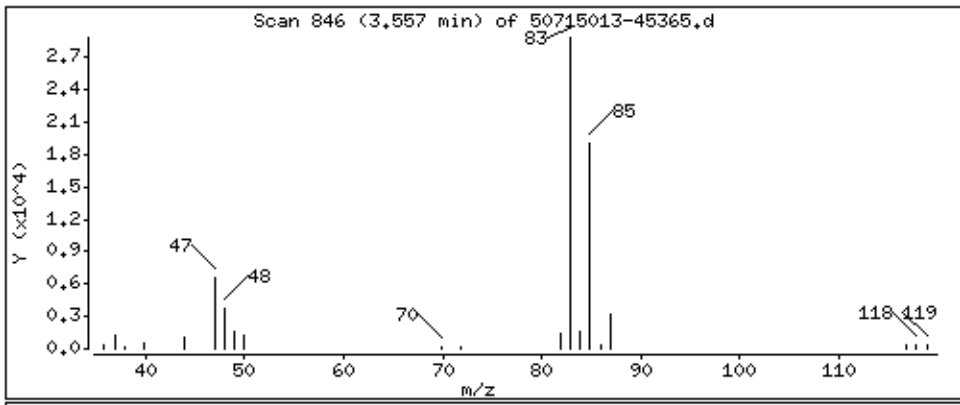
Operator: JEW

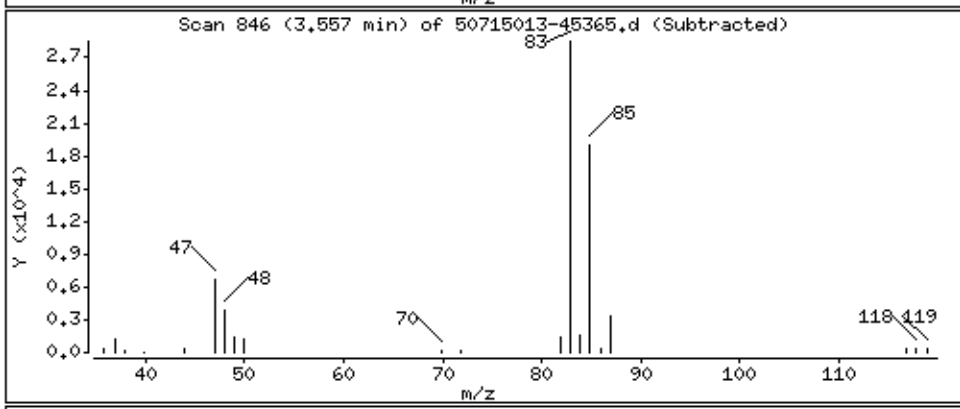
Column phase: RTX-VMS

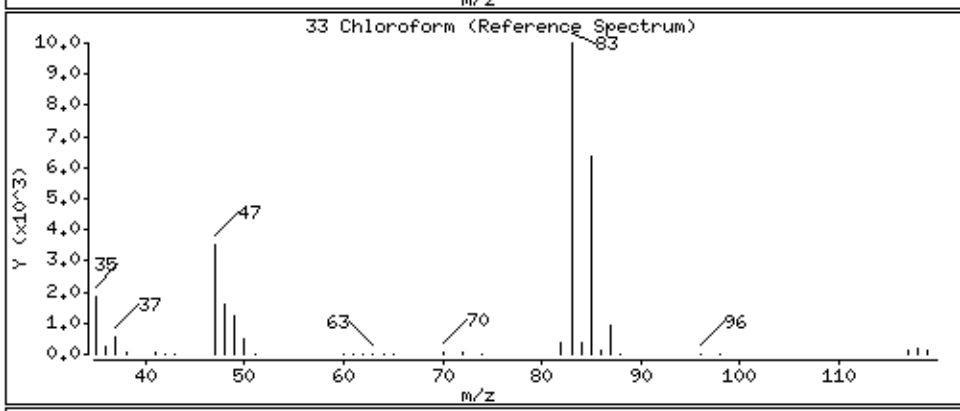
Column diameter: 0.18

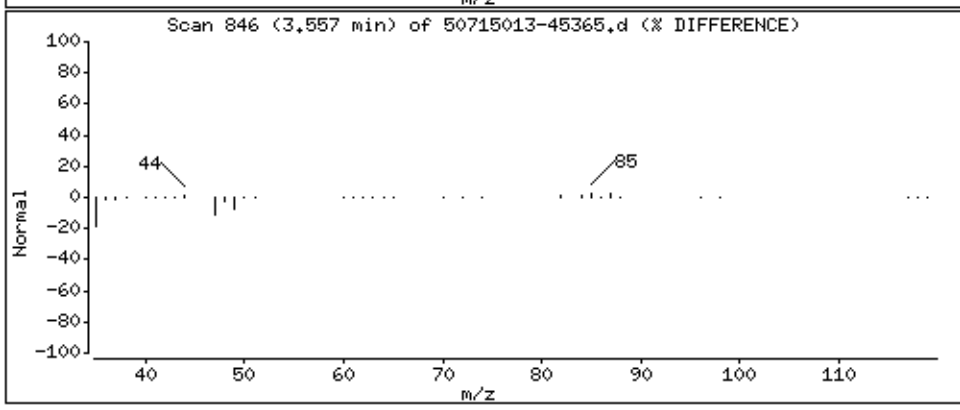
33 Chloroform

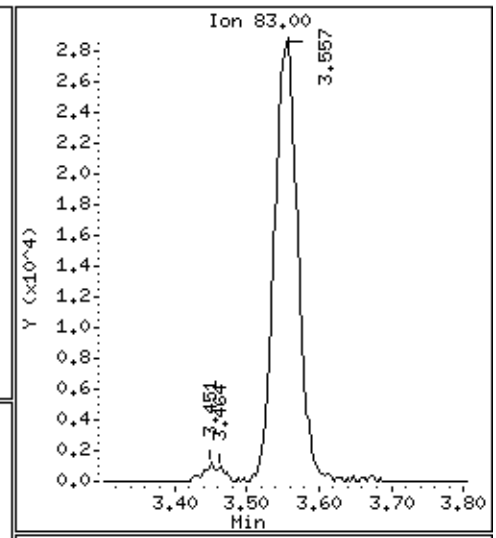
Concentration: 18.5 ug/L

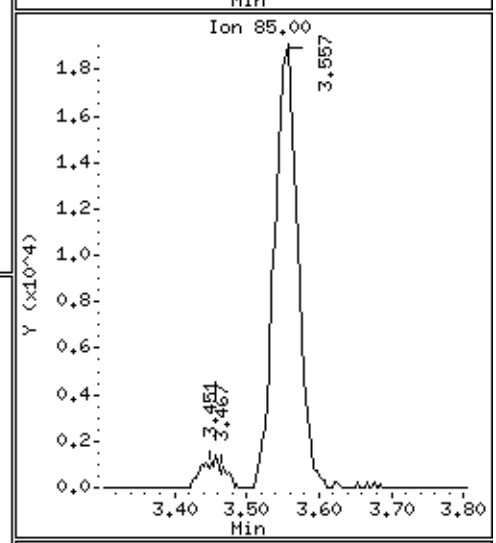


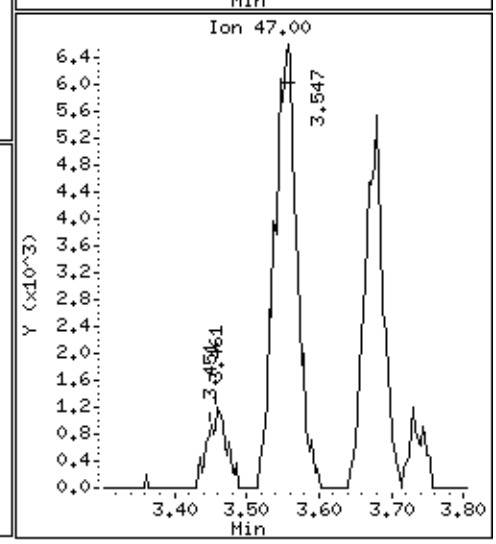












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

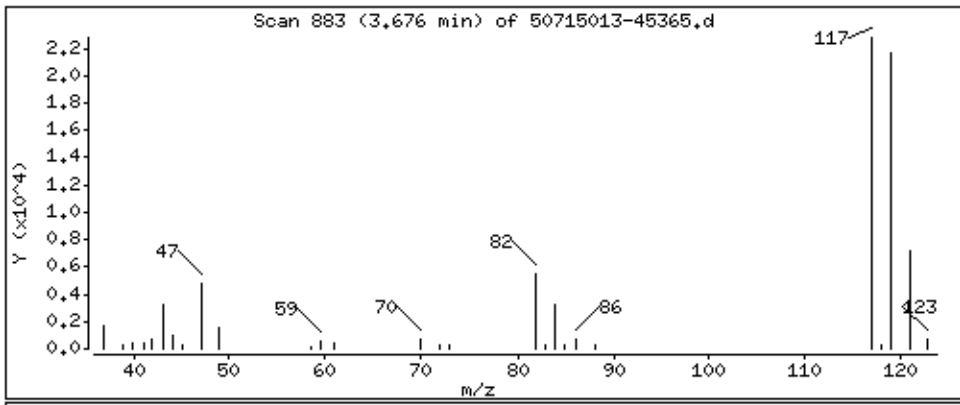
Operator: JEW

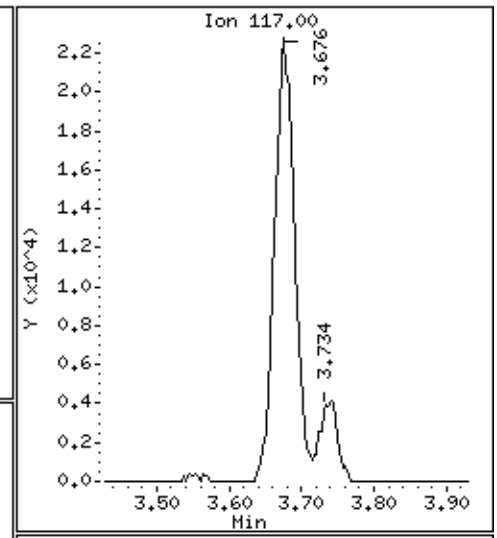
Column phase: RTX-VMS

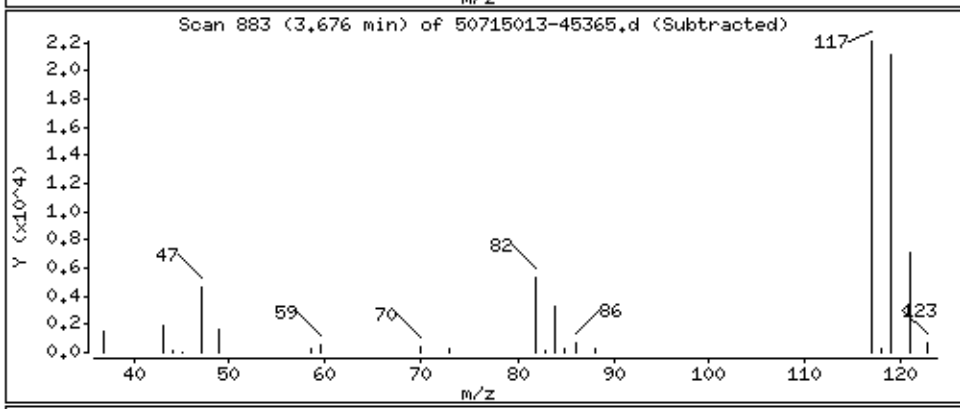
Column diameter: 0.18

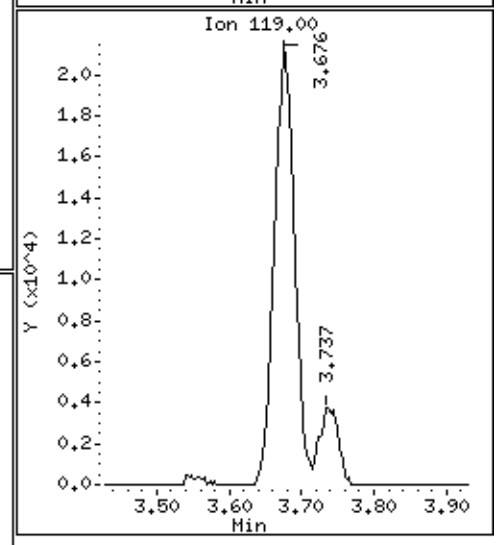
34 Carbon tetrachloride

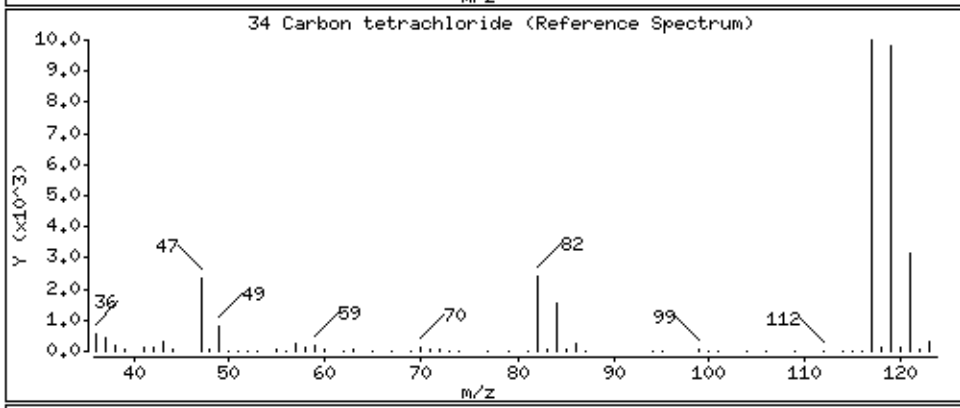
Concentration: 17.3 ug/L

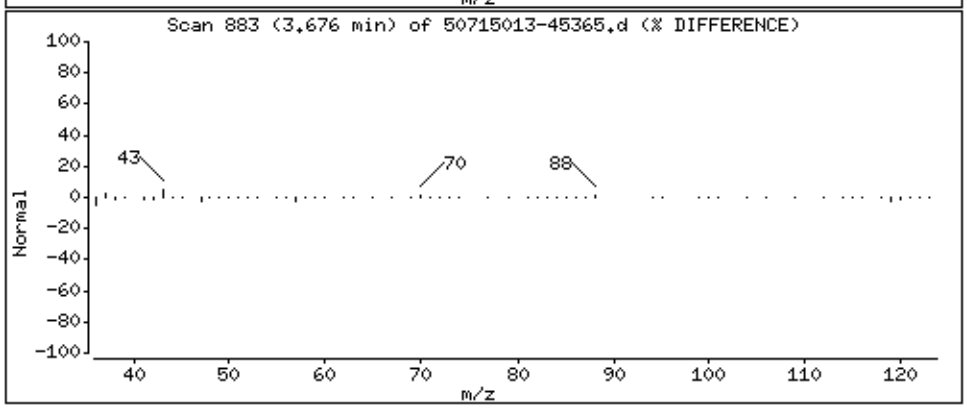












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

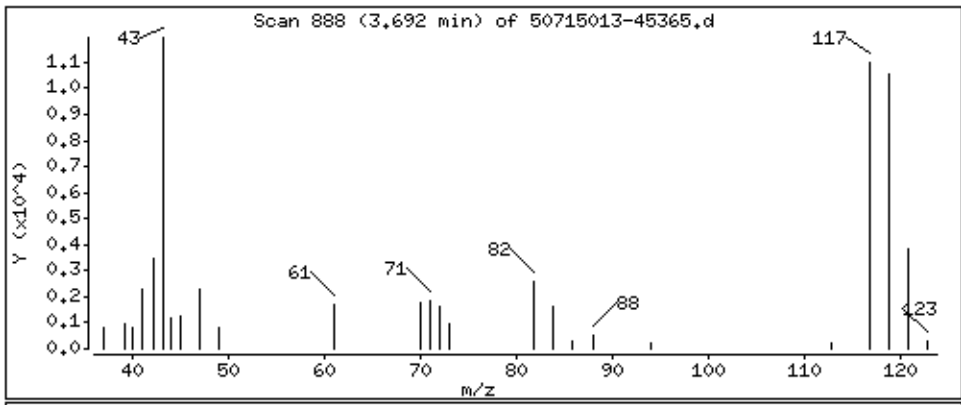
Operator: JEW

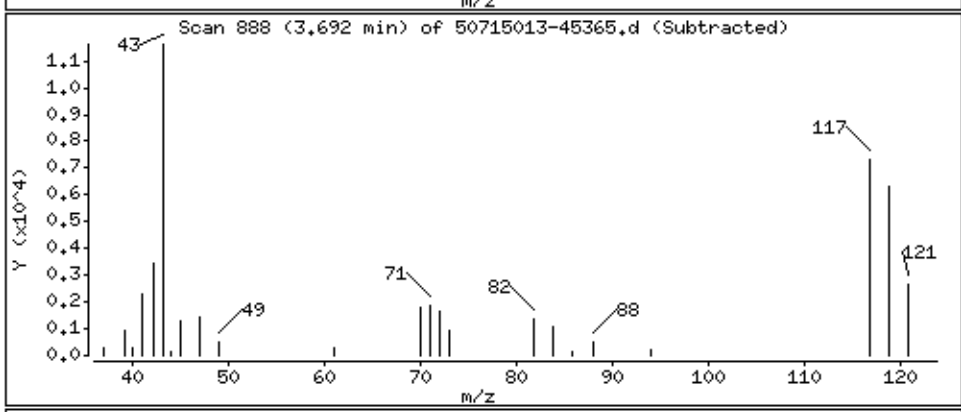
Column phase: RTX-VMS

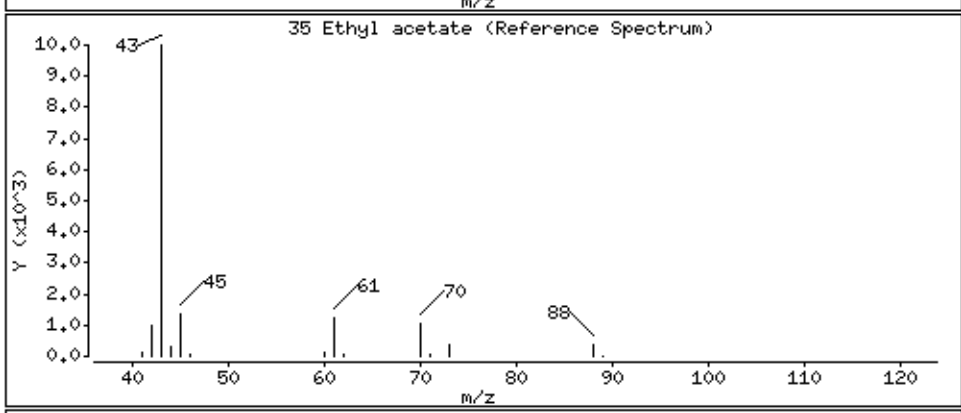
Column diameter: 0.18

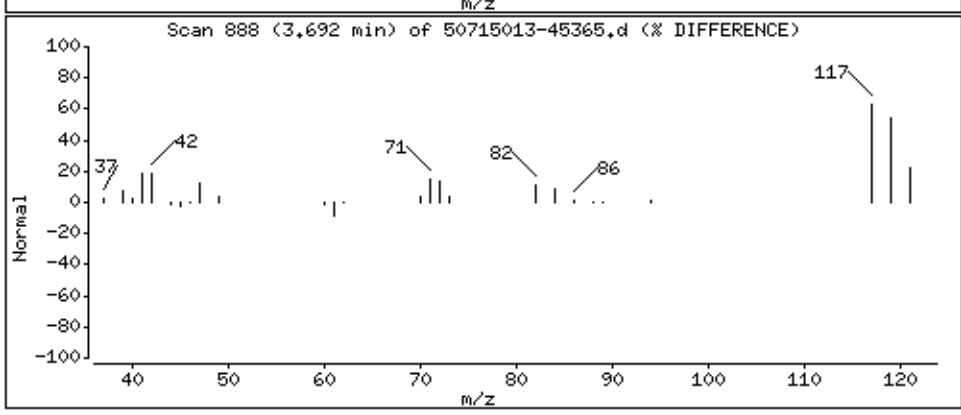
35 Ethyl acetate

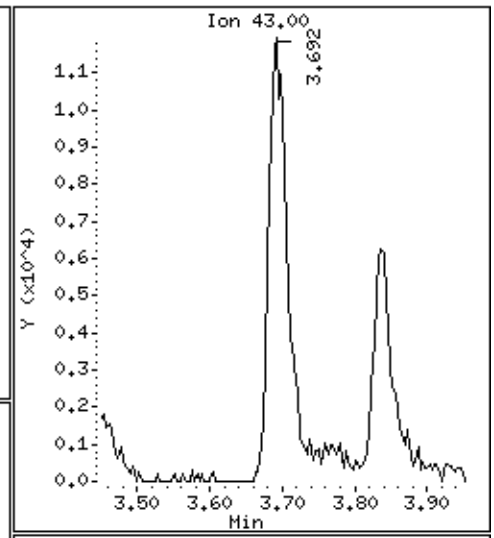
Concentration: 12.6 ug/L

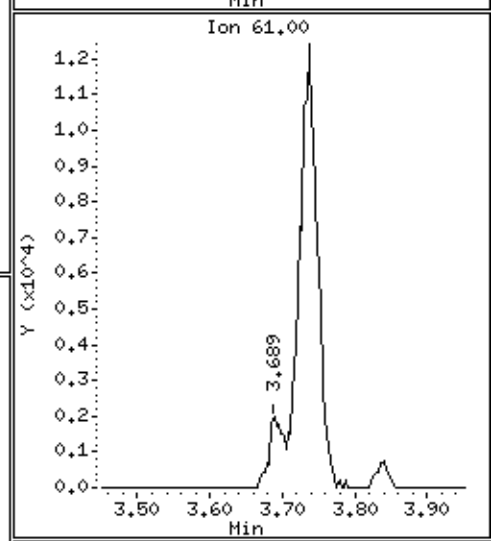


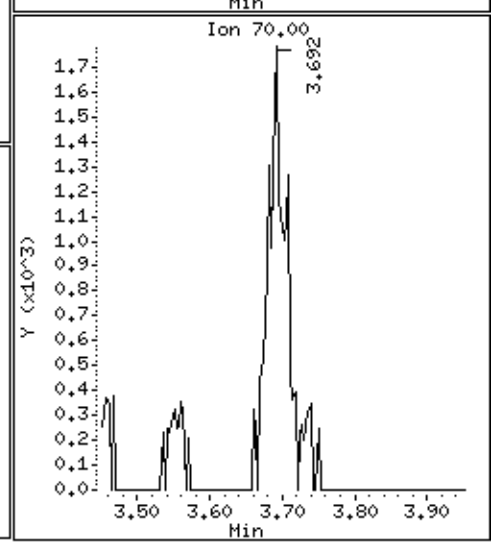












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

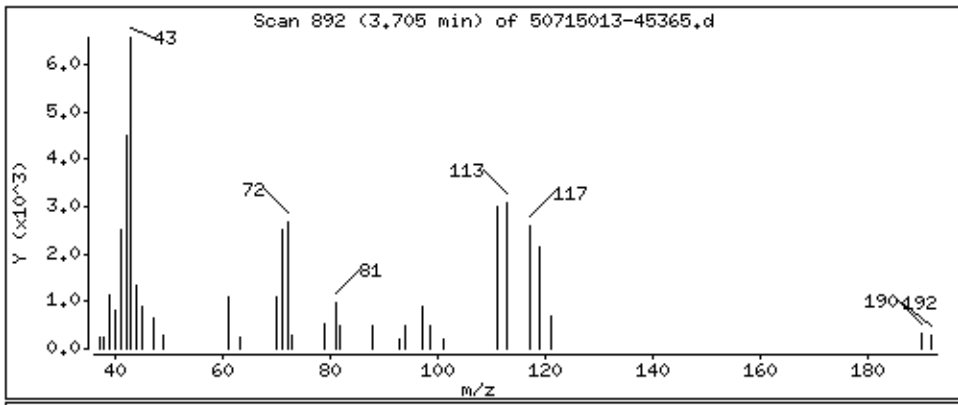
Operator: JEW

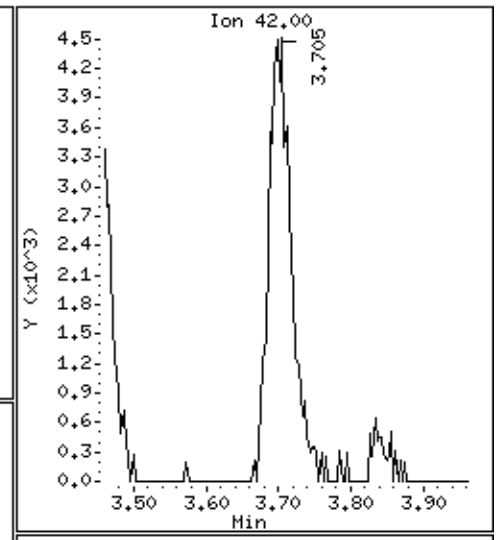
Column phase: RTX-VMS

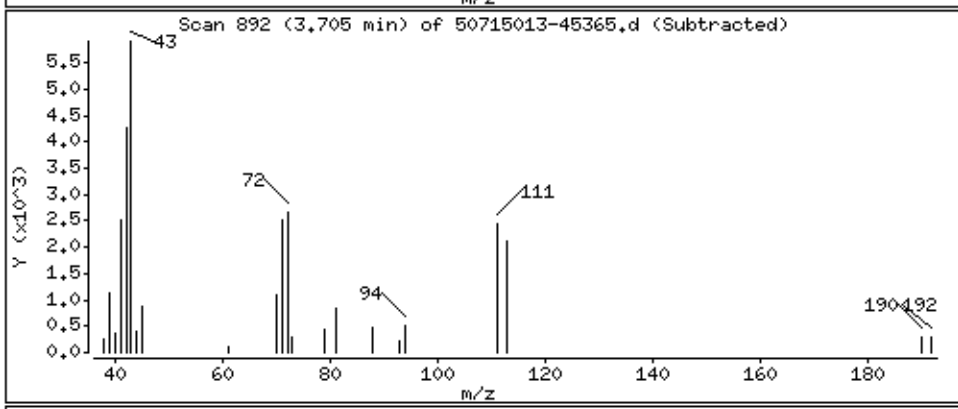
Column diameter: 0.18

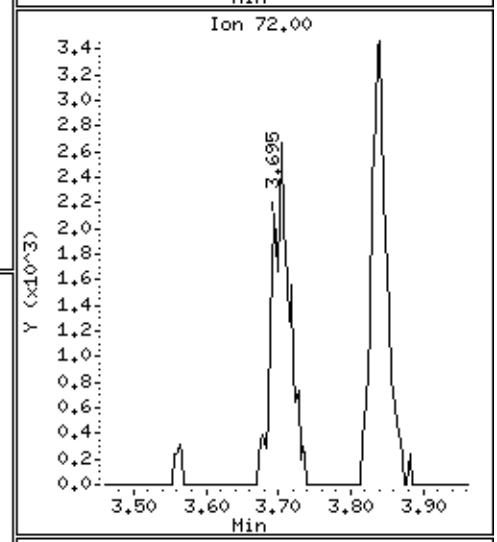
36 Tetrahydrofuran

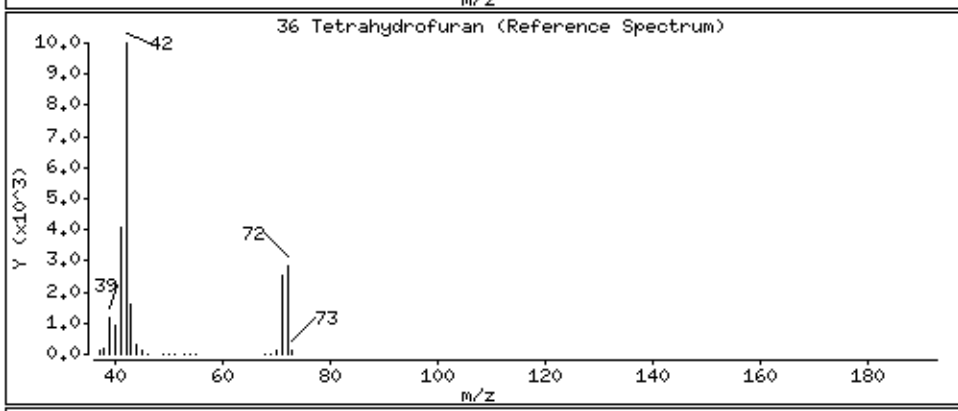
Concentration: 14.9 ug/L

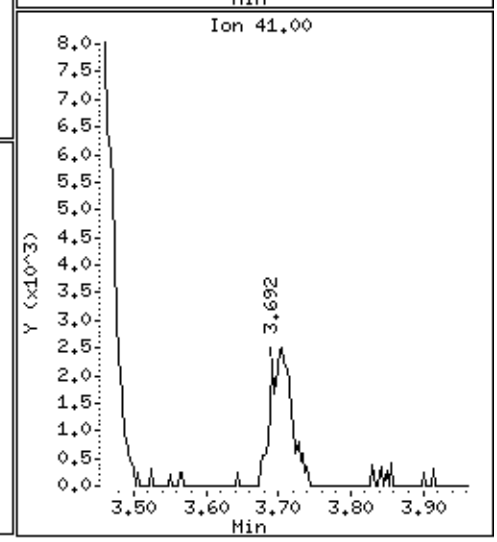


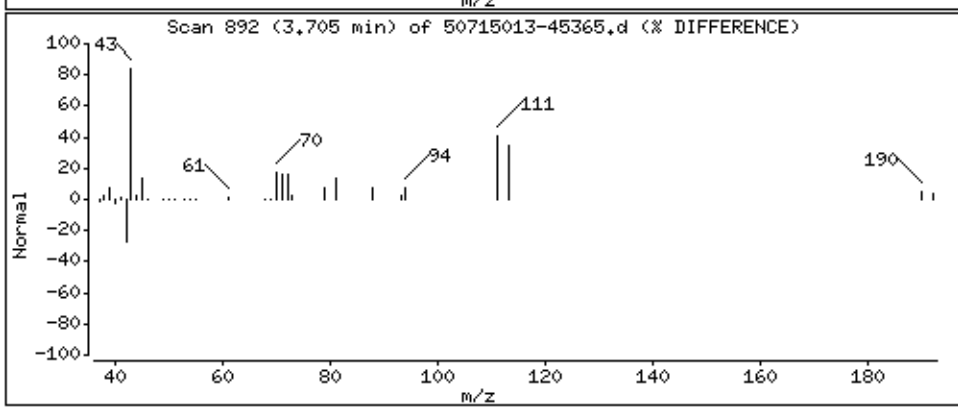












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

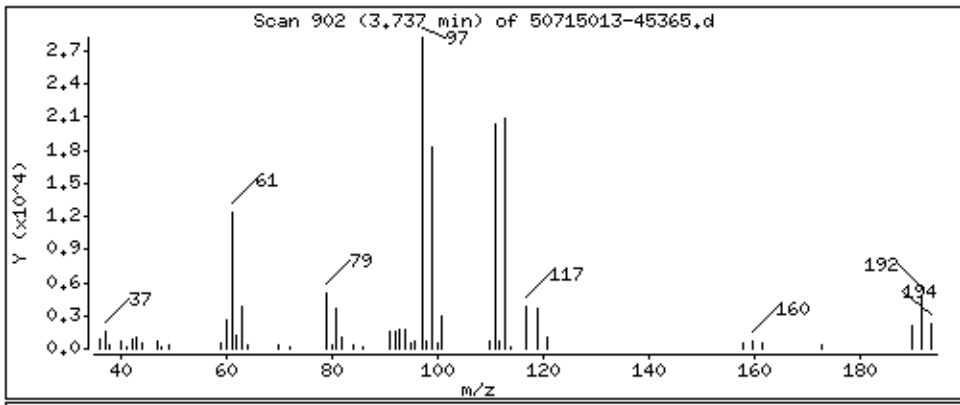
Operator: JEW

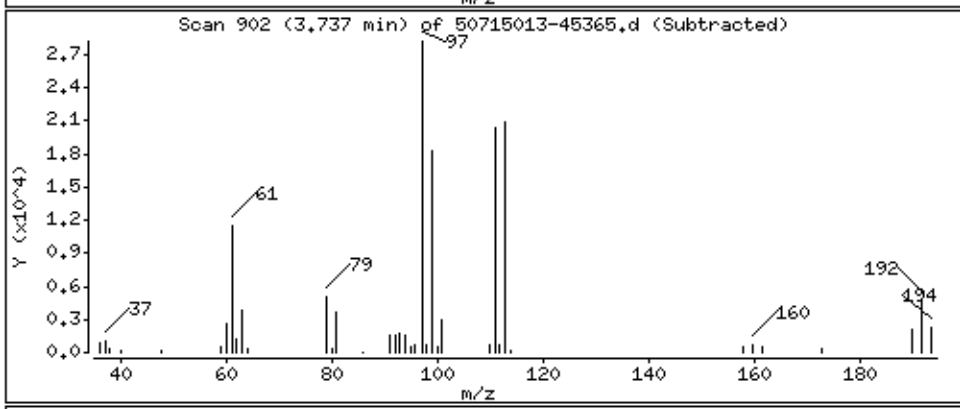
Column phase: RTX-VMS

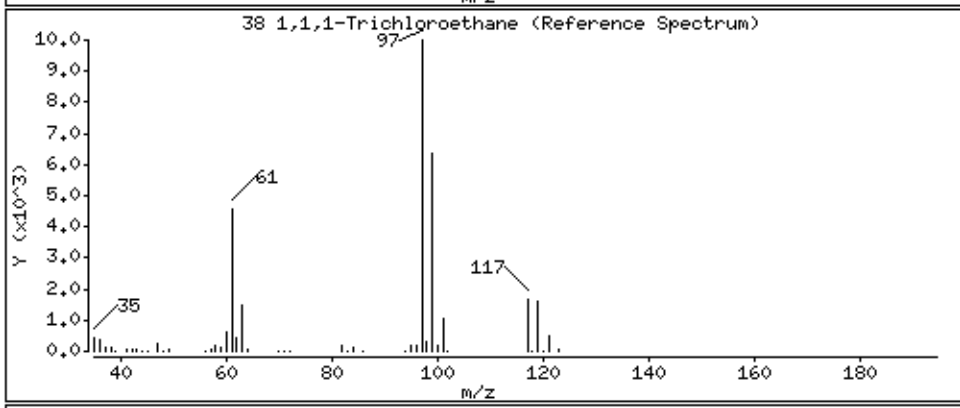
Column diameter: 0.18

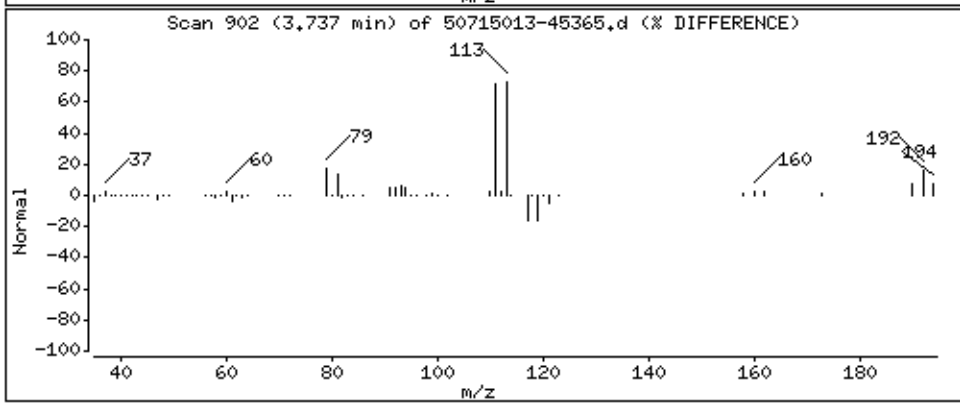
38 1,1,1-Trichloroethane

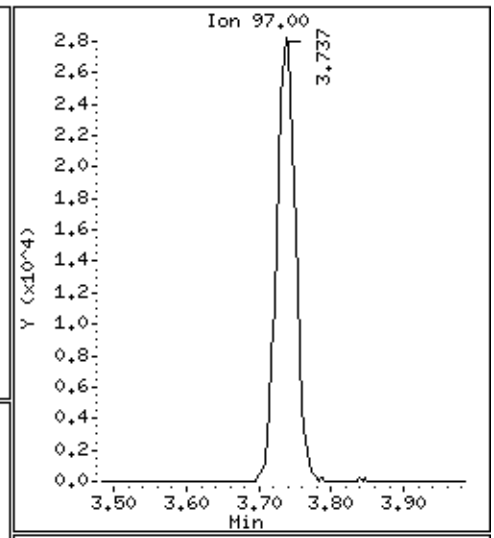
Concentration: 17.3 ug/L

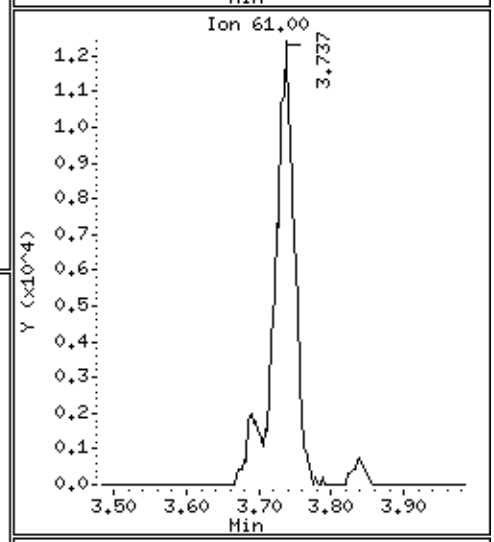


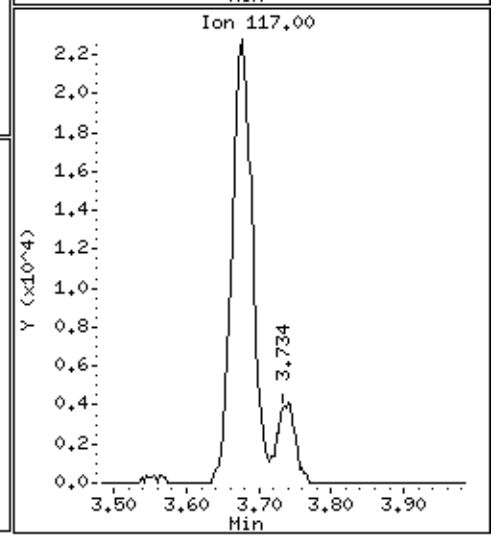












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

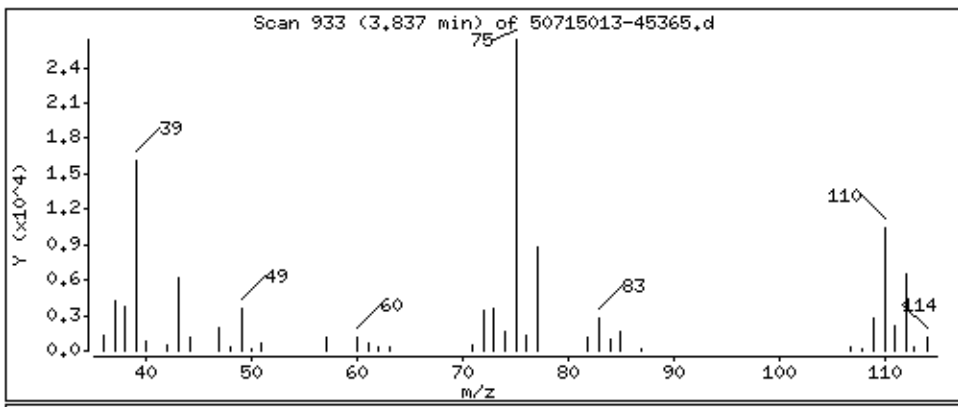
Operator: JEW

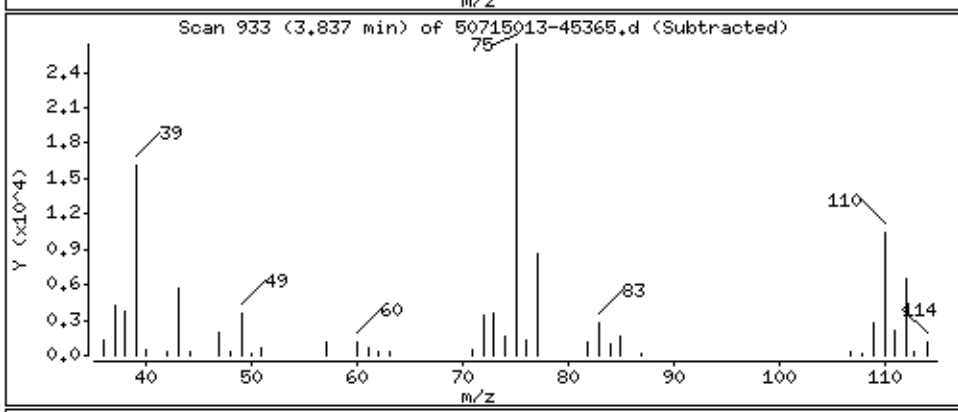
Column phase: RTX-VMS

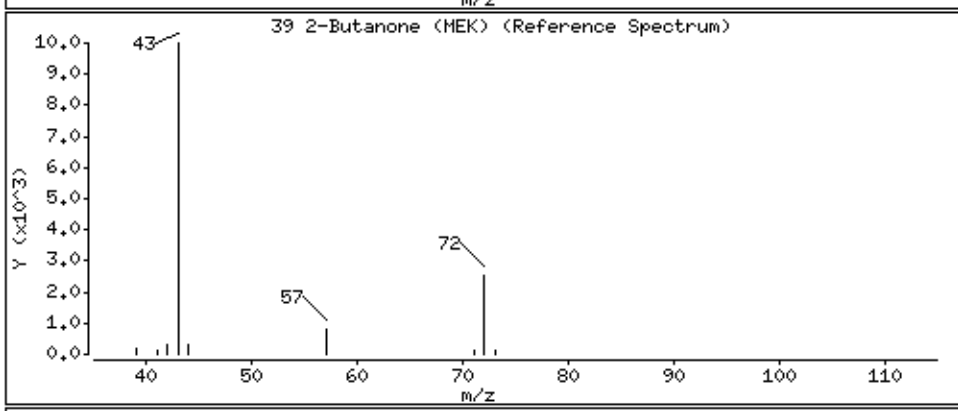
Column diameter: 0.18

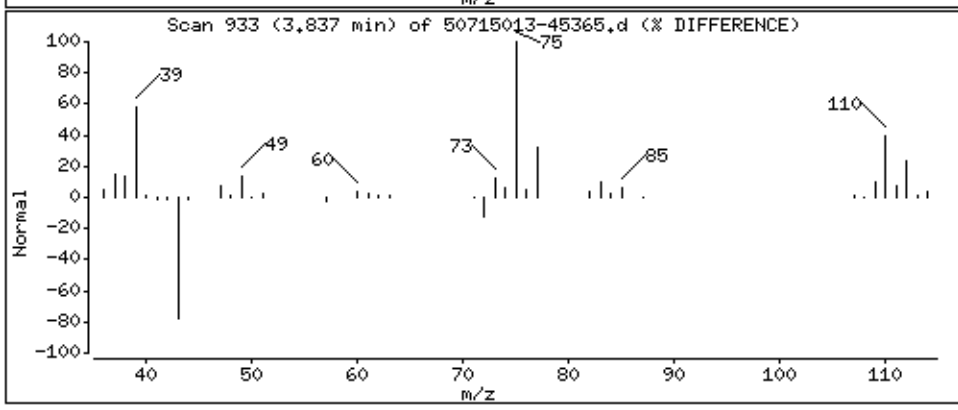
39 2-Butanone (MEK)

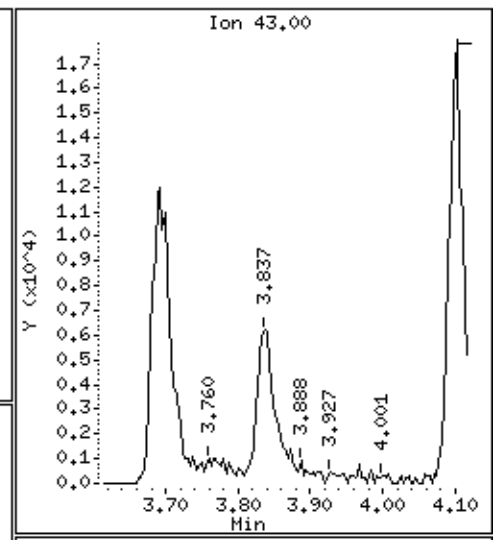
Concentration: 13.8 ug/L

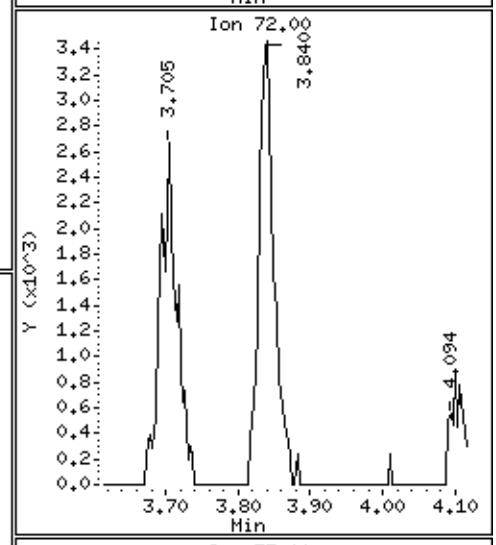


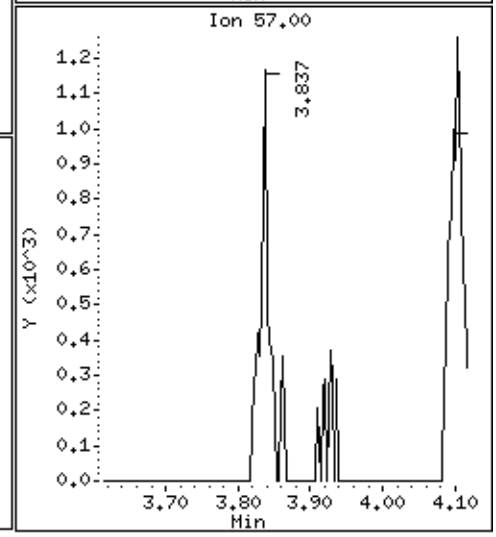












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

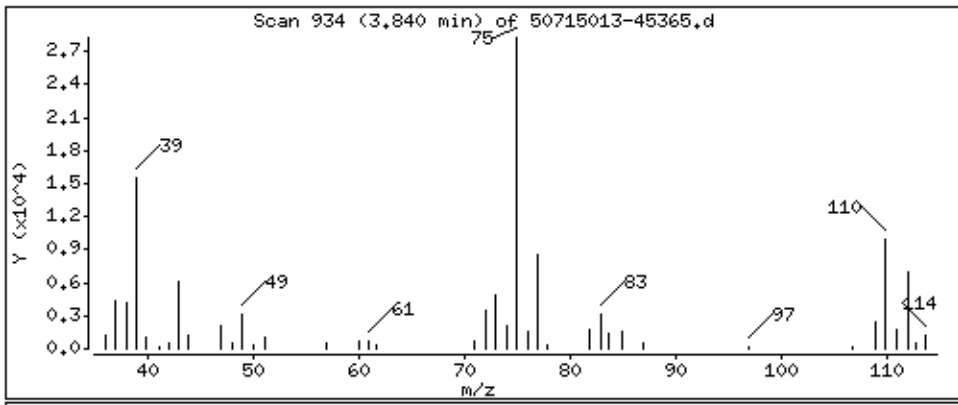
Operator: JEW

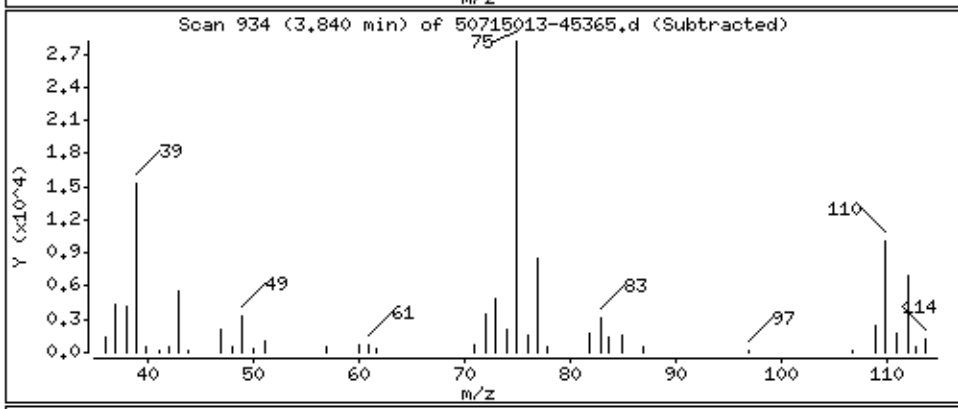
Column phase: RTX-VMS

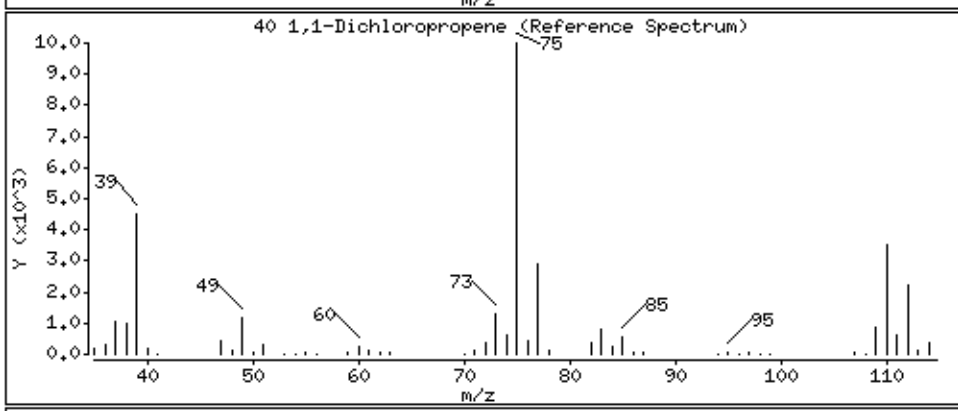
Column diameter: 0.18

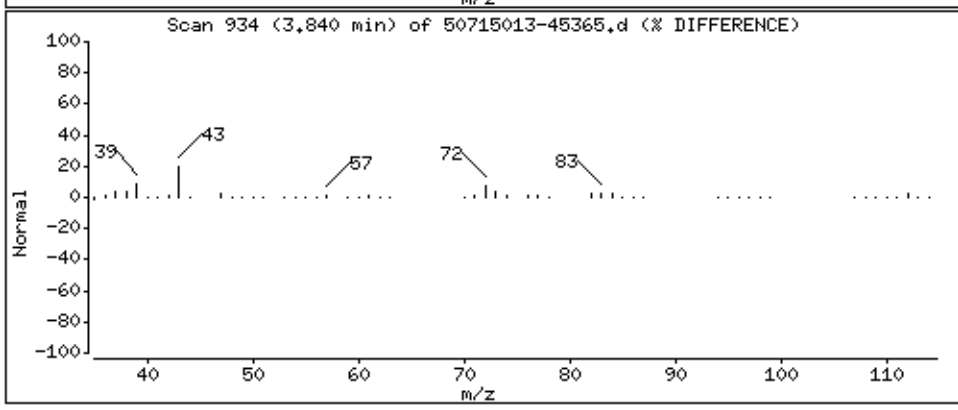
40 1,1-Dichloropropene

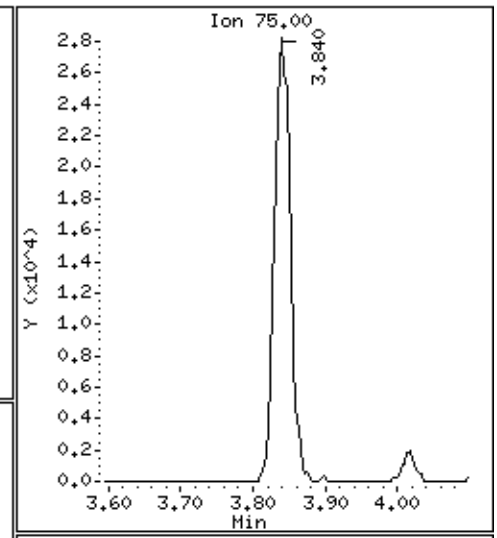
Concentration: 17.3 ug/L

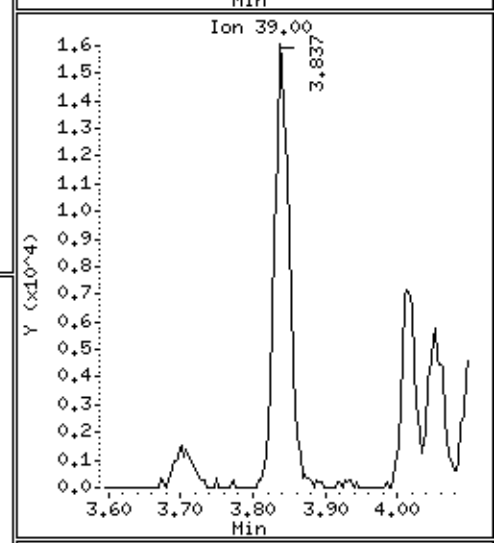


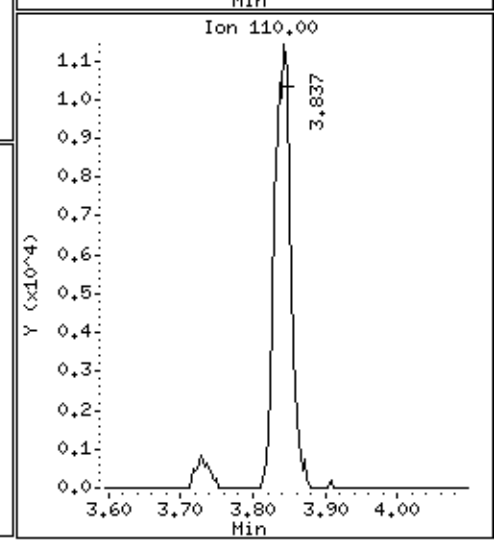












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

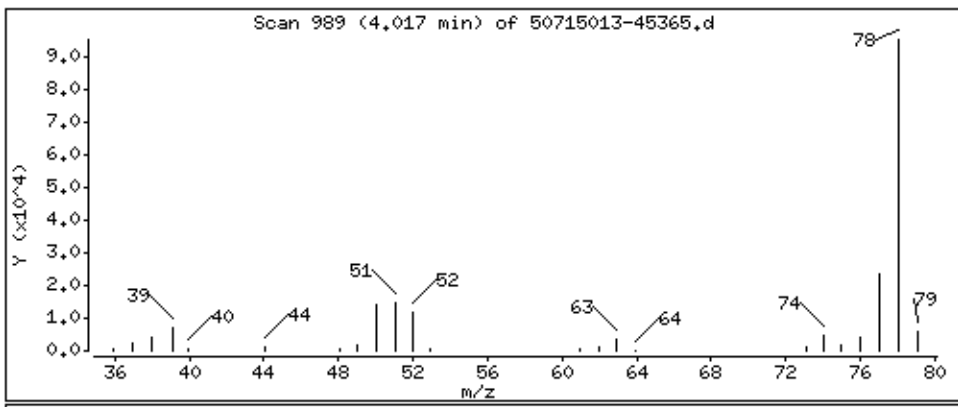
Operator: JEW

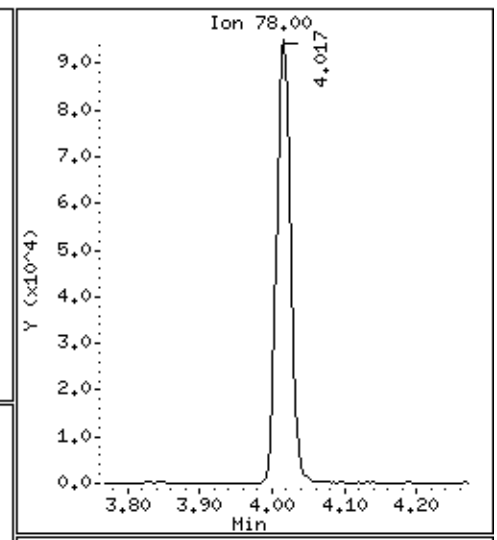
Column phase: RTX-VMS

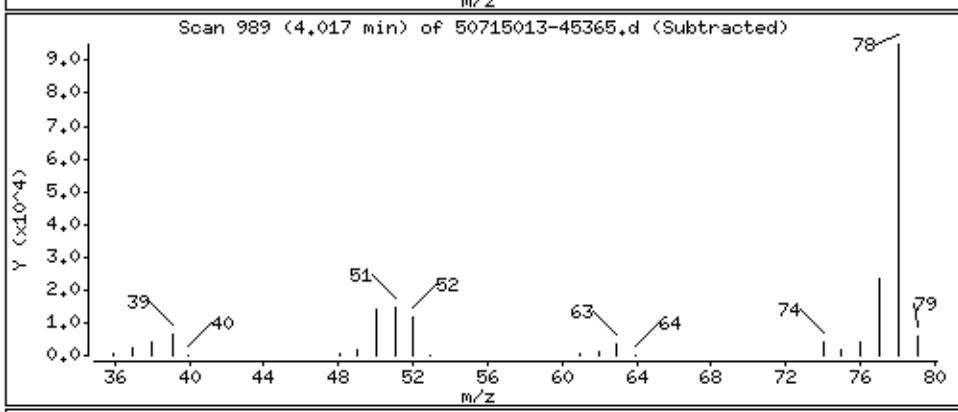
Column diameter: 0.18

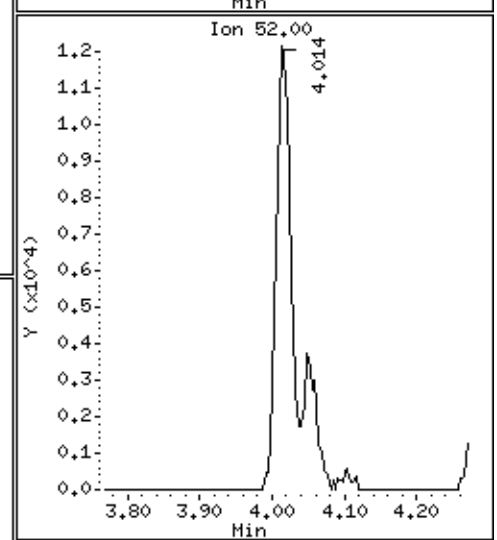
41 Benzene

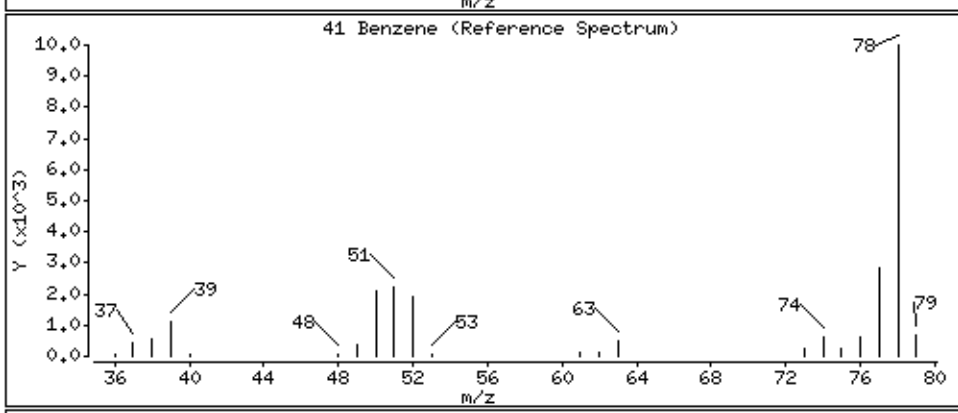
Concentration: 18.4 ug/L

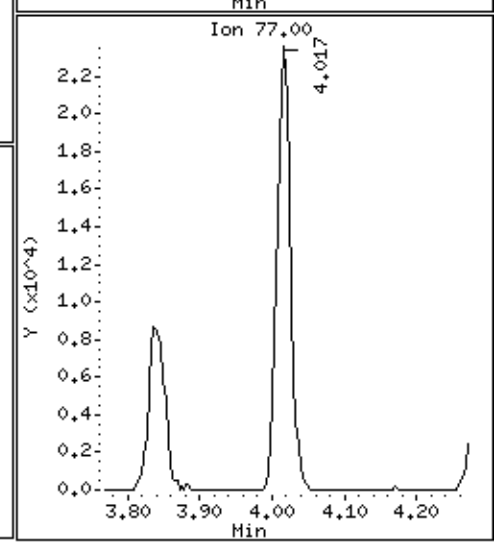


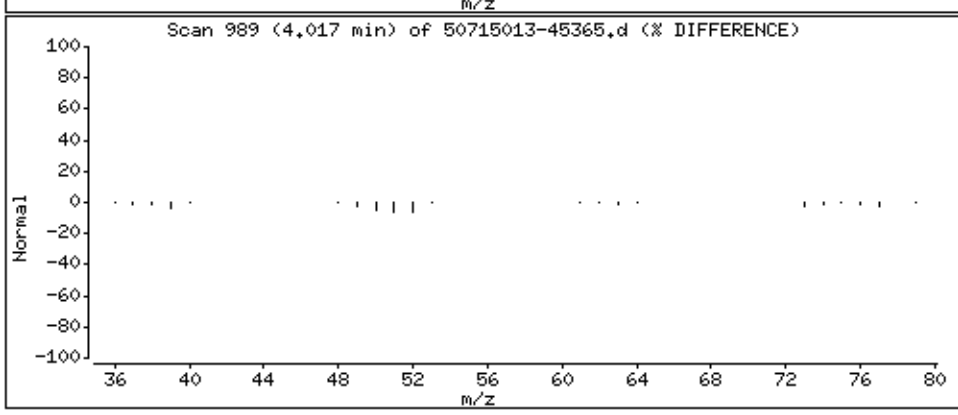












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

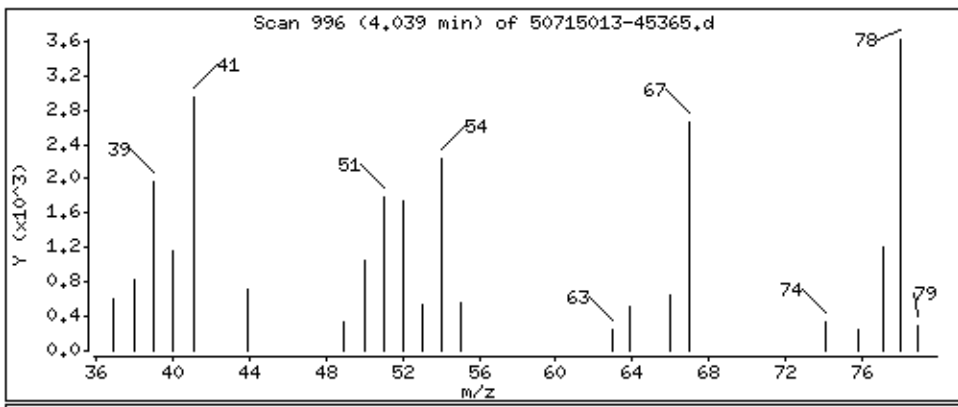
Operator: JEW

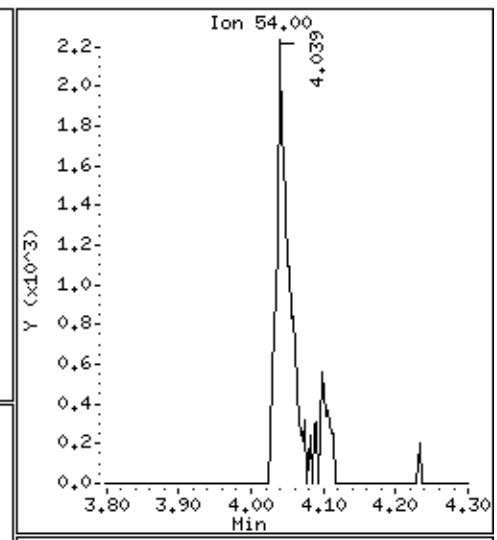
Column phase: RTX-VMS

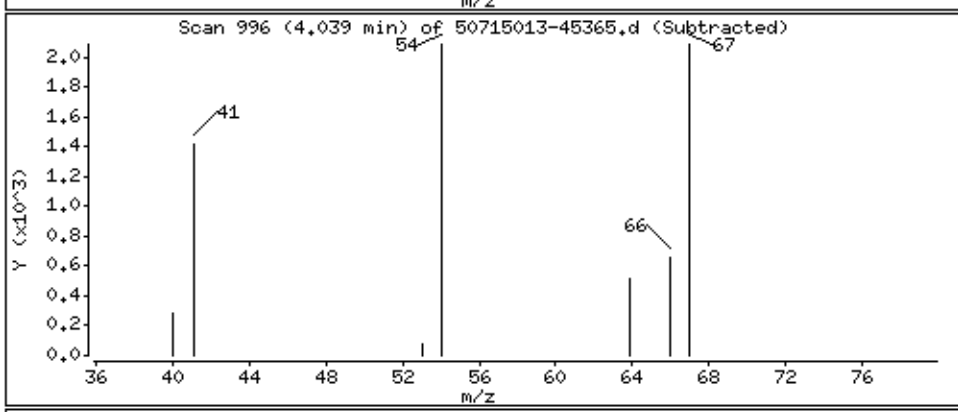
Column diameter: 0.18

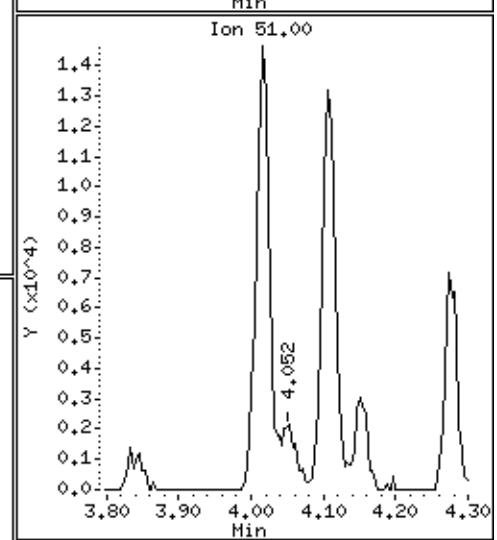
42 Propionitrile

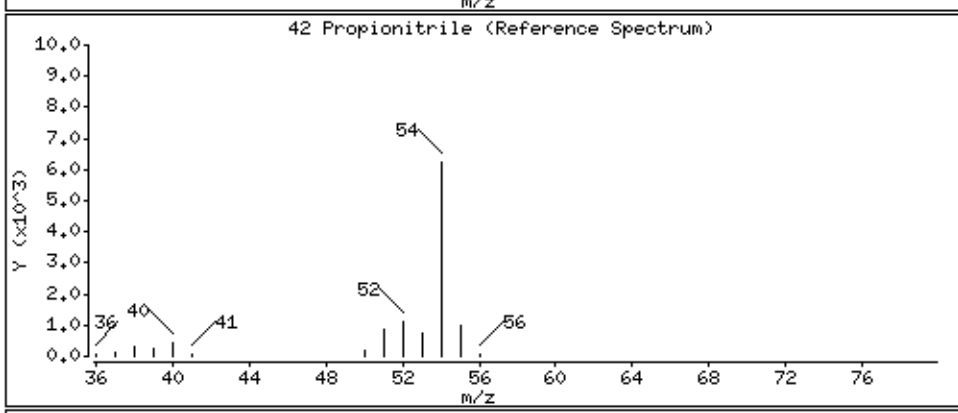
Concentration: 15.3 ug/L

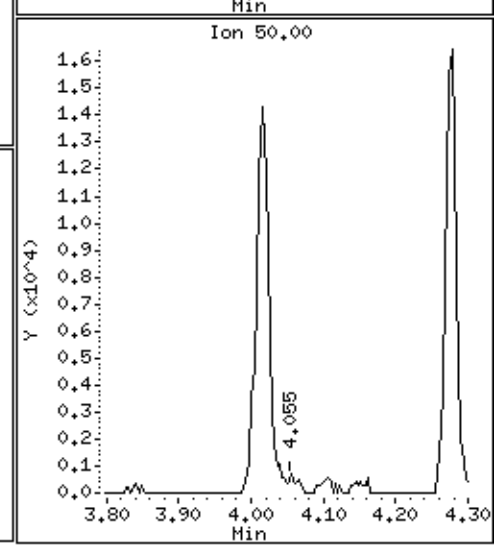


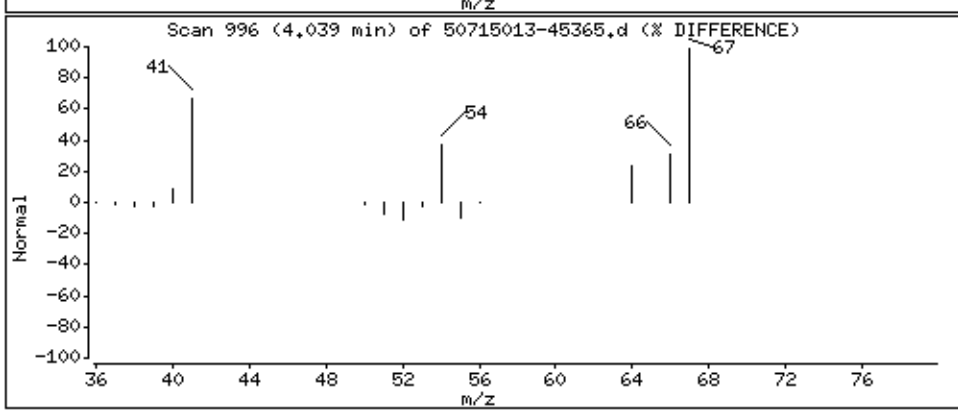












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

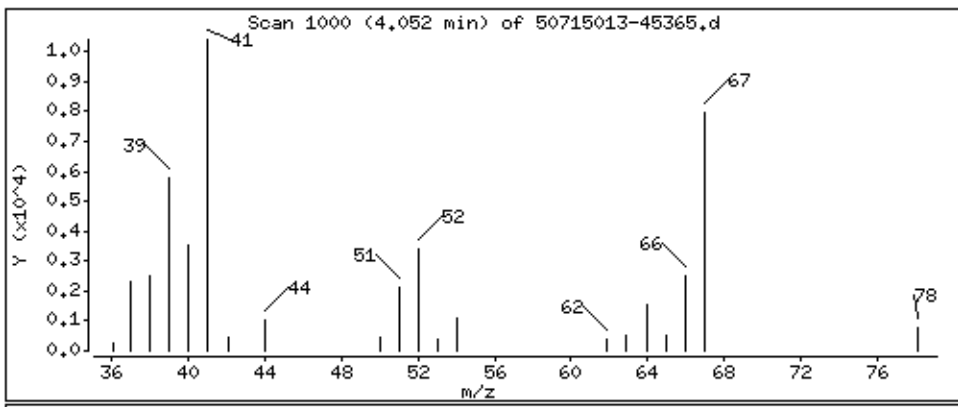
Operator: JEW

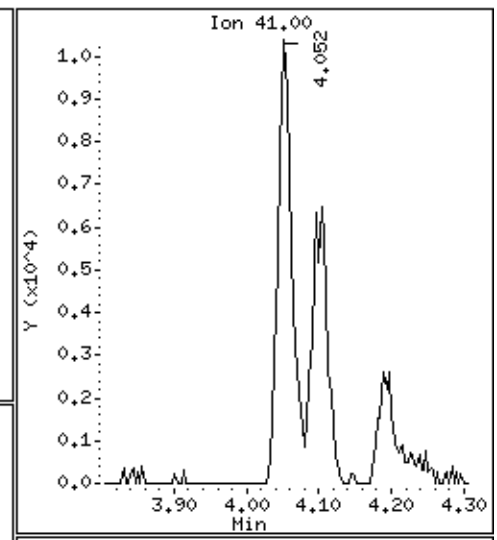
Column phase: RTX-VMS

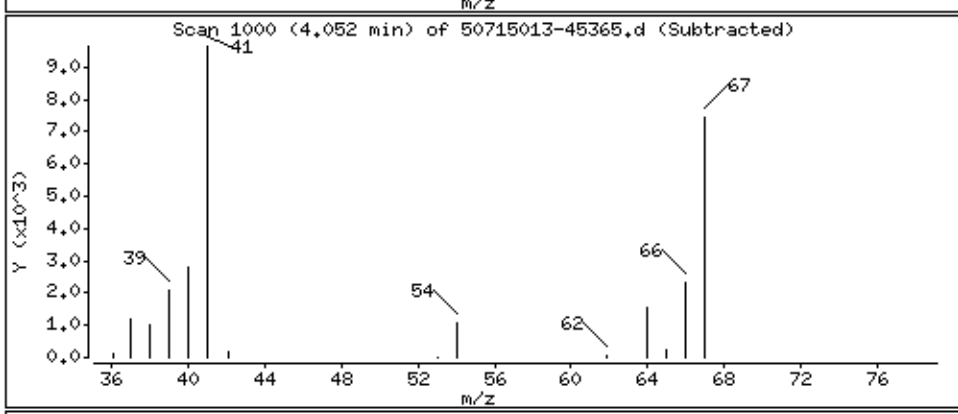
Column diameter: 0.18

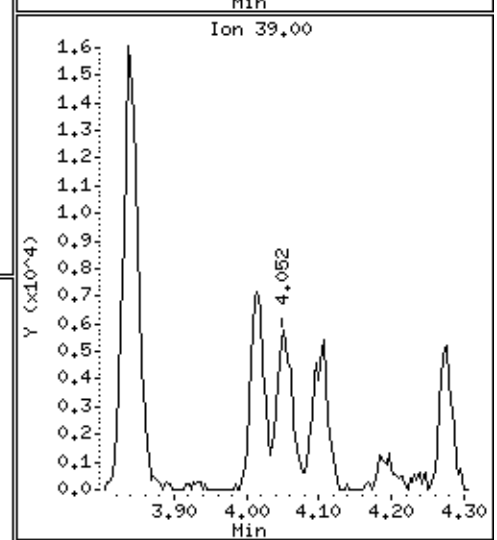
43 Methacrylonitrile

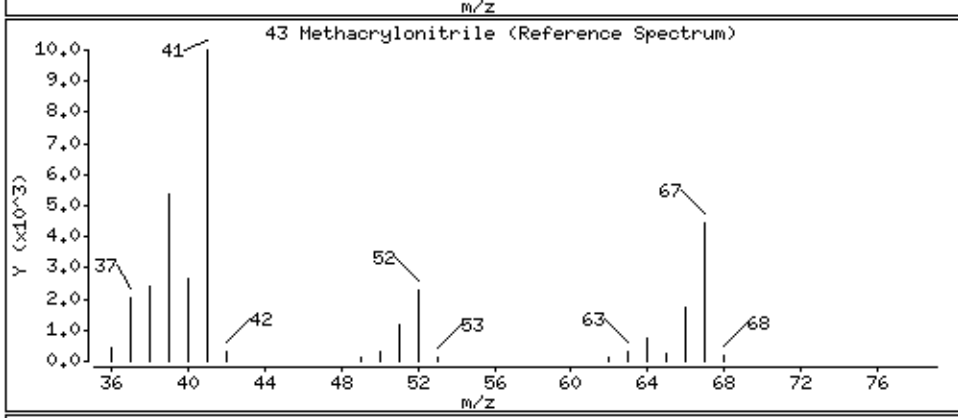
Concentration: 14.5 ug/L

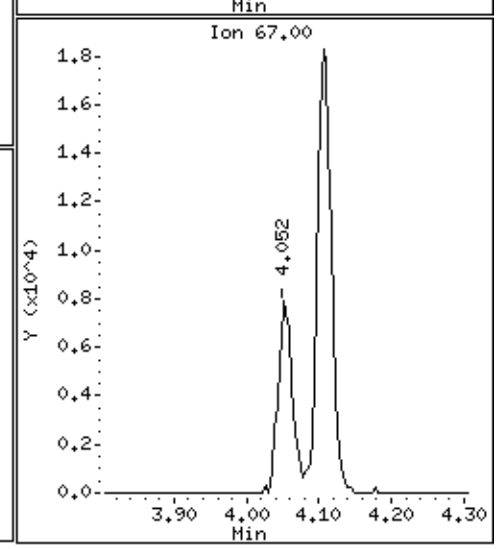


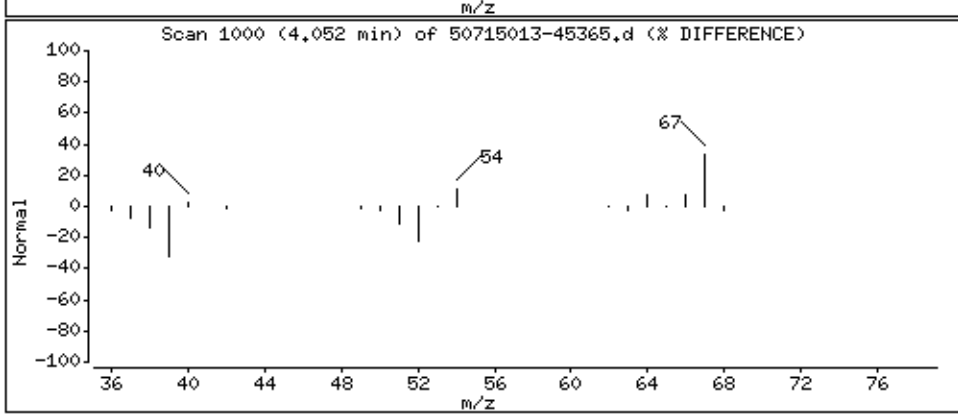












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

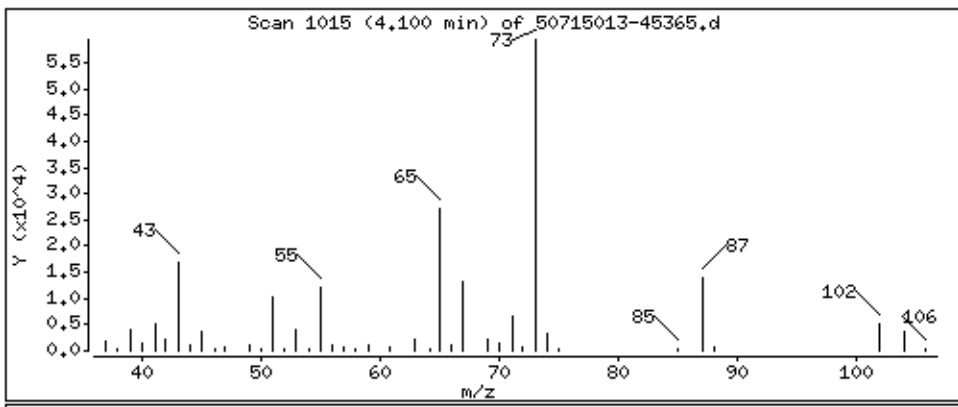
Operator: JEW

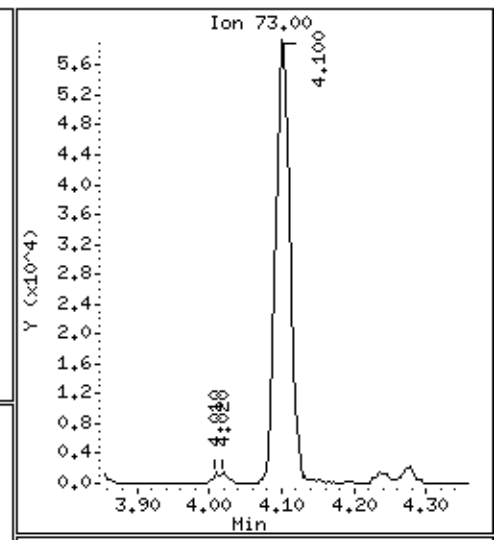
Column phase: RTX-VMS

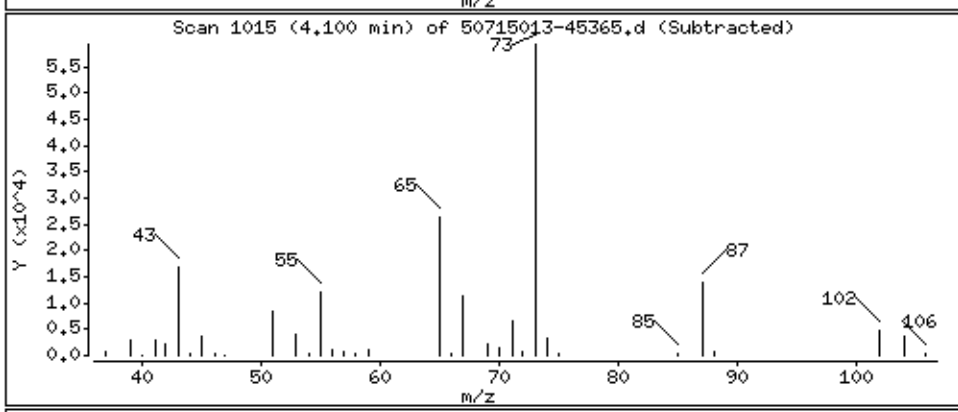
Column diameter: 0.18

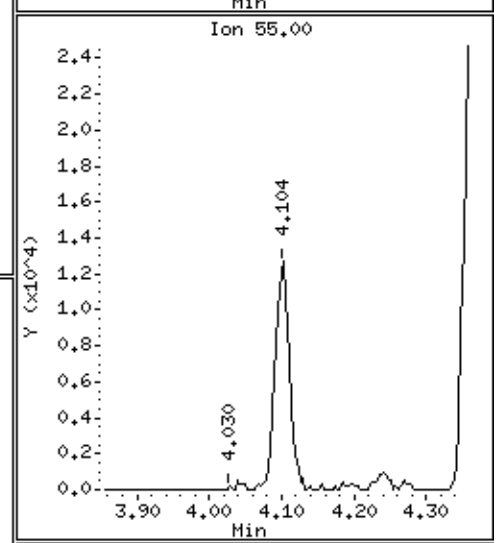
44 tert-Amylmethyl ether

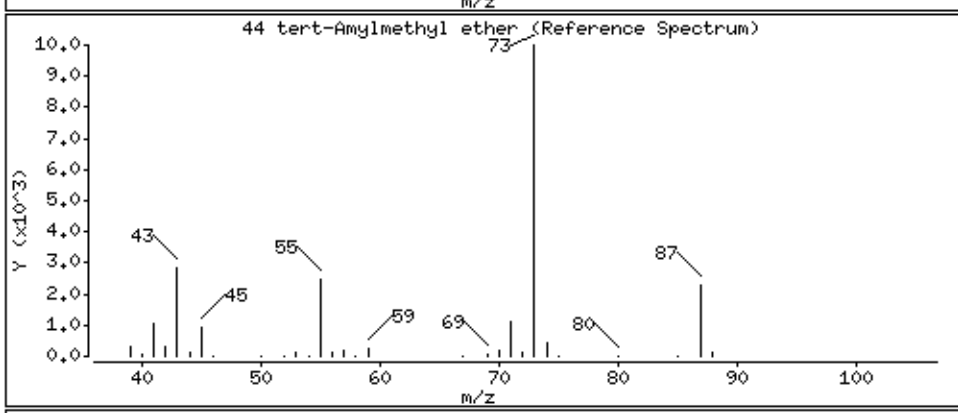
Concentration: 15.8 ug/L

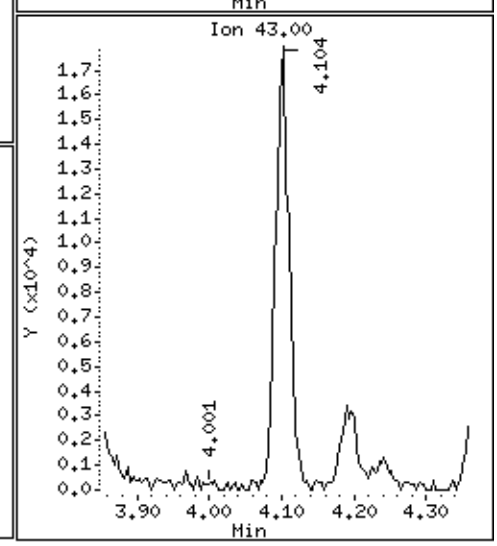


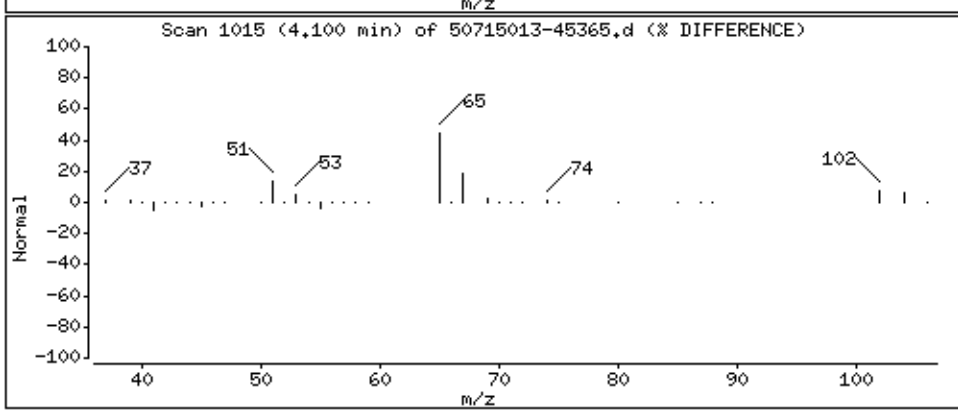












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

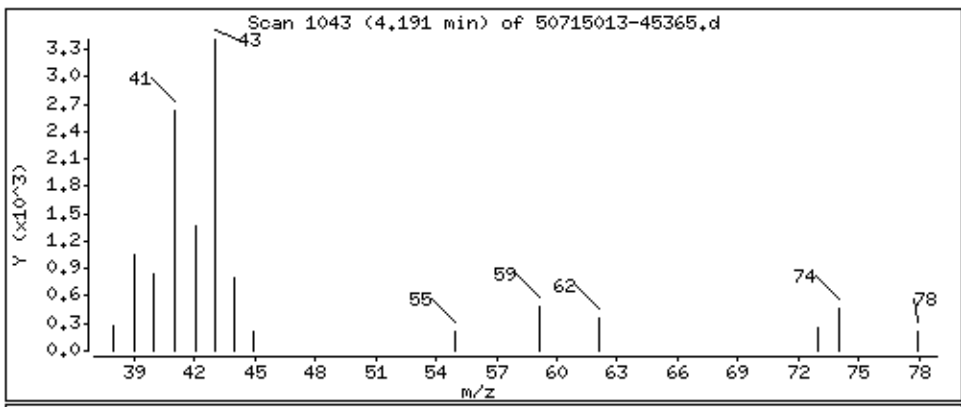
Operator: JEW

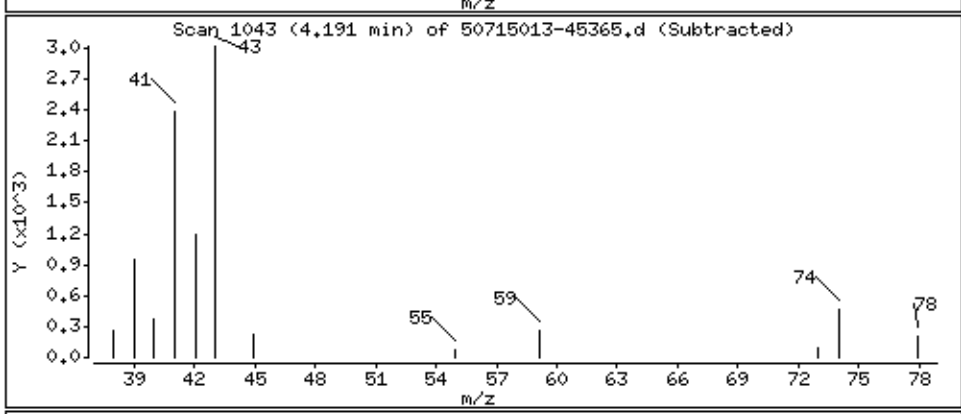
Column phase: RTX-VMS

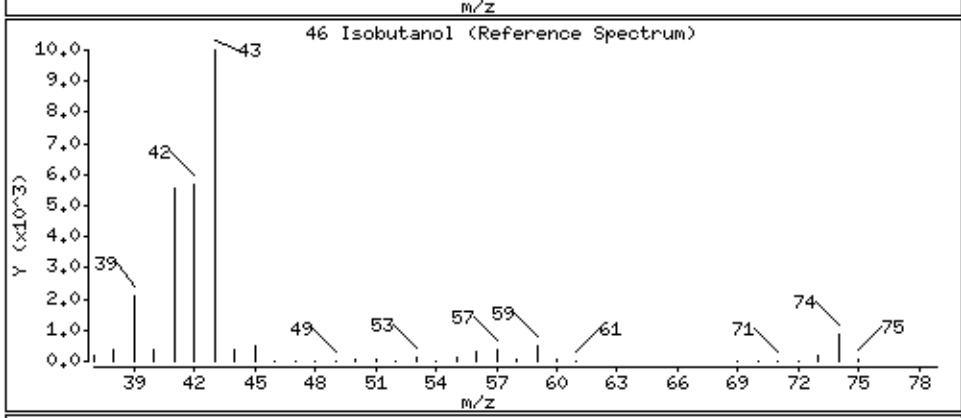
Column diameter: 0.18

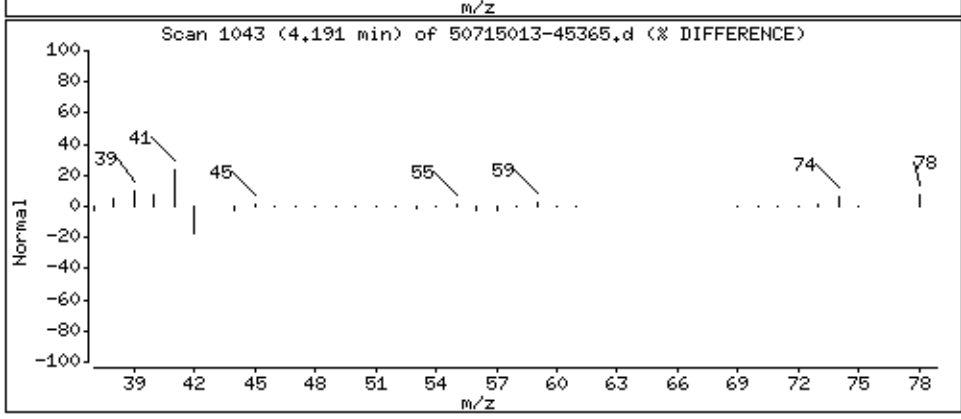
46 Isobutanol

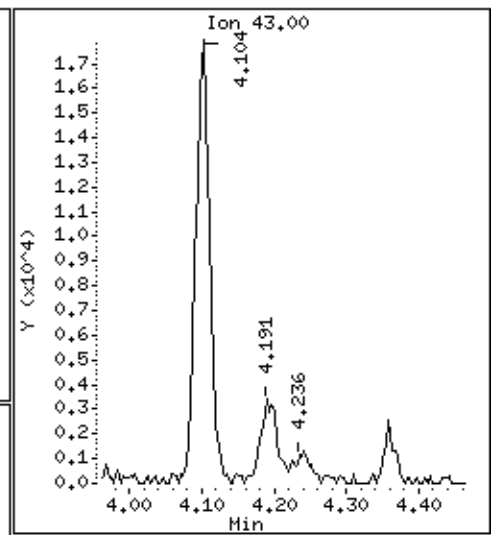
Concentration: 71.1 ug/L

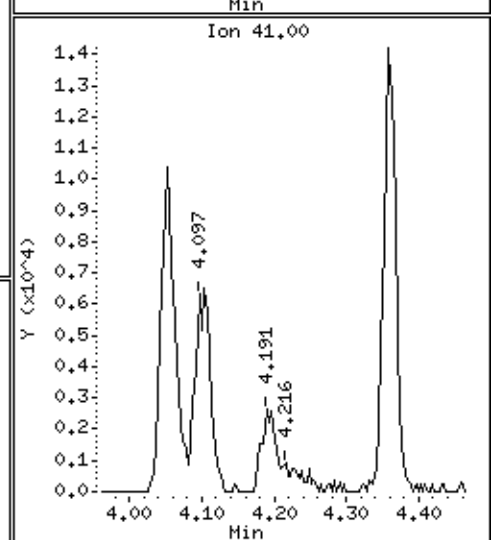


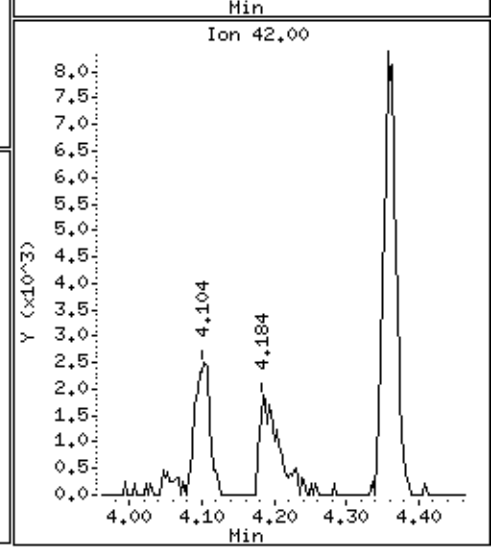












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

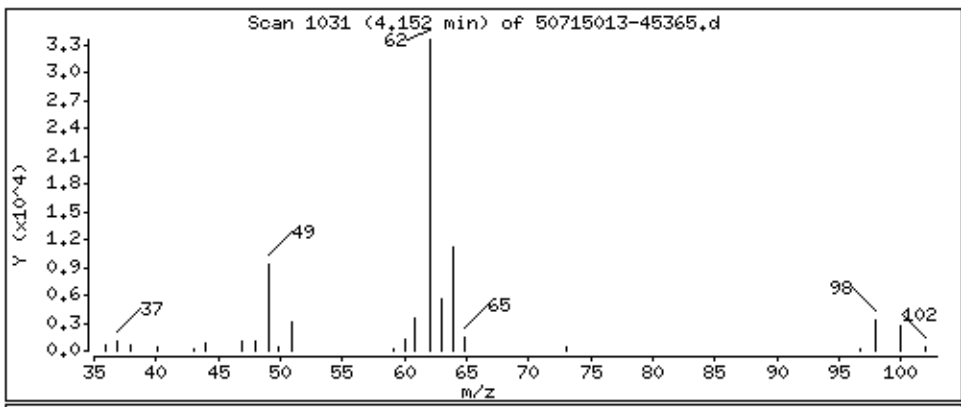
Operator: JEW

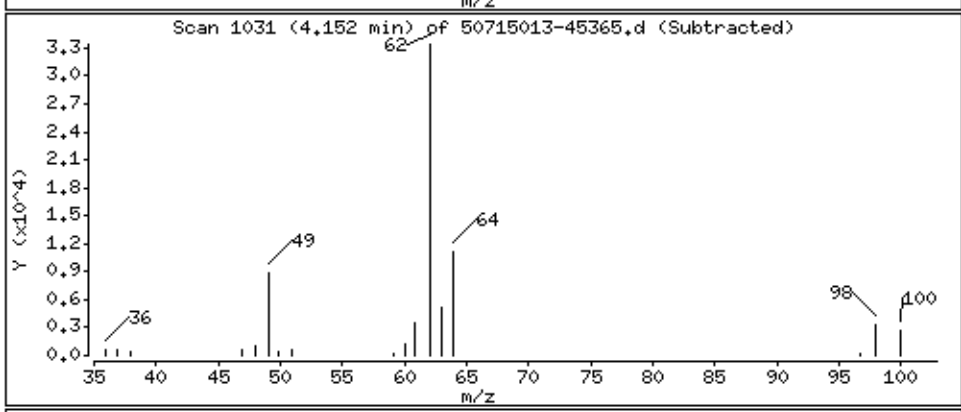
Column phase: RTX-VMS

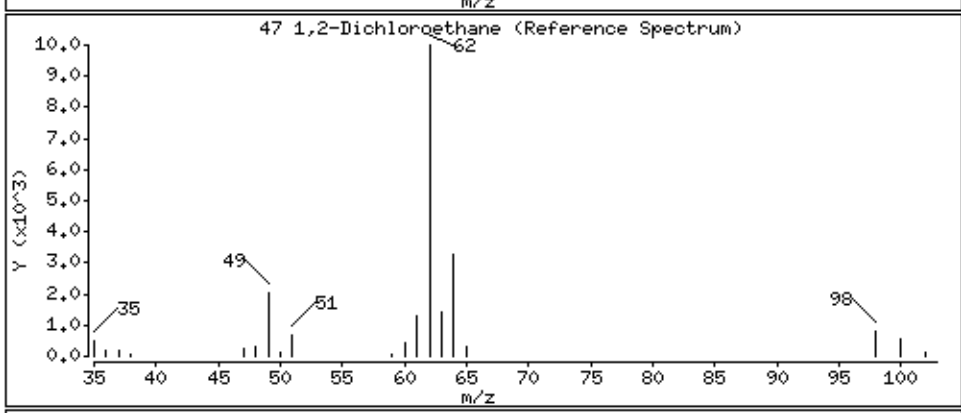
Column diameter: 0.18

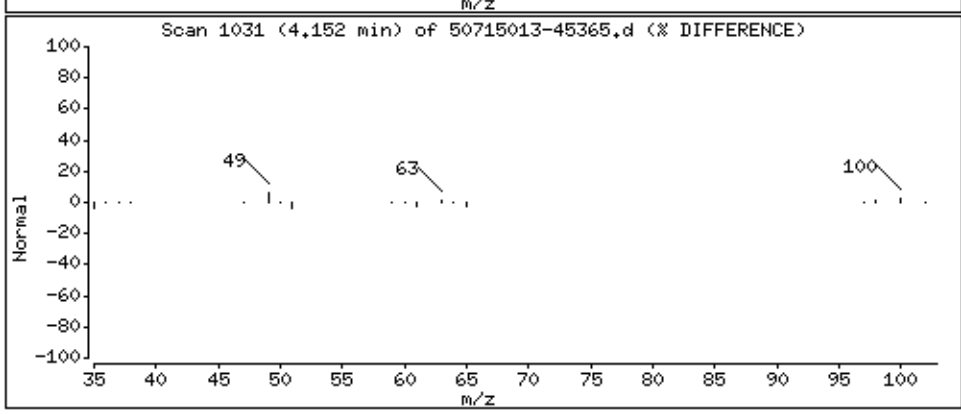
47 1,2-Dichloroethane

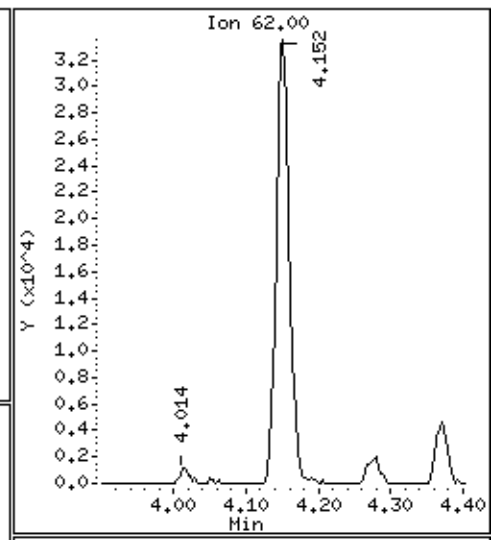
Concentration: 16.6 ug/L

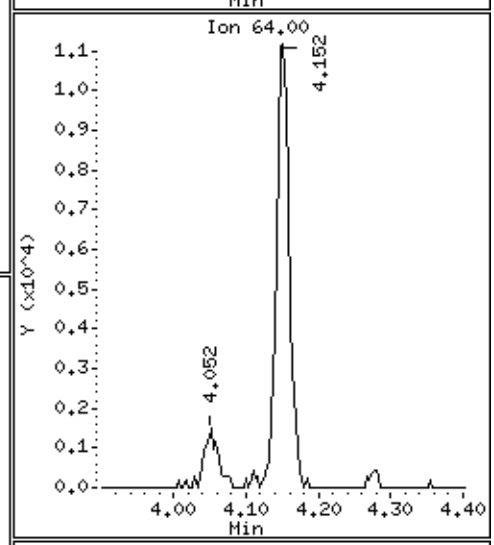


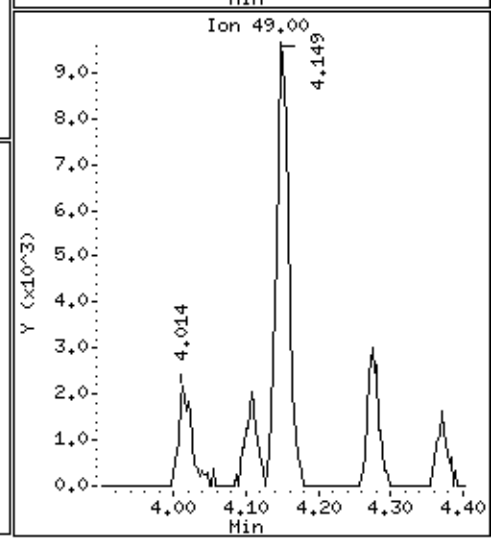












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

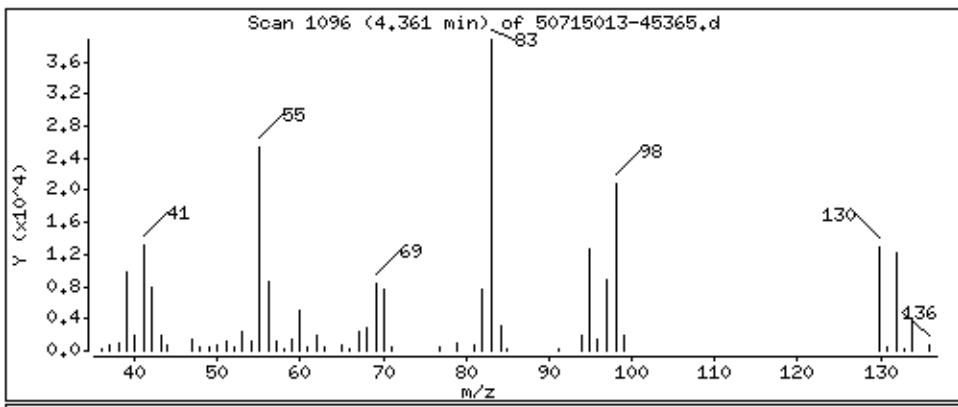
Operator: JEW

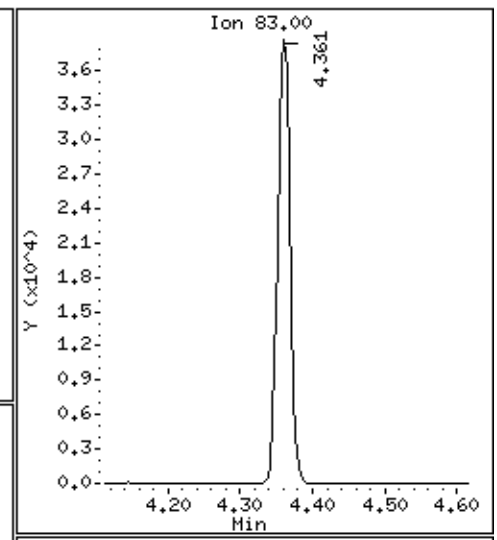
Column phase: RTX-VMS

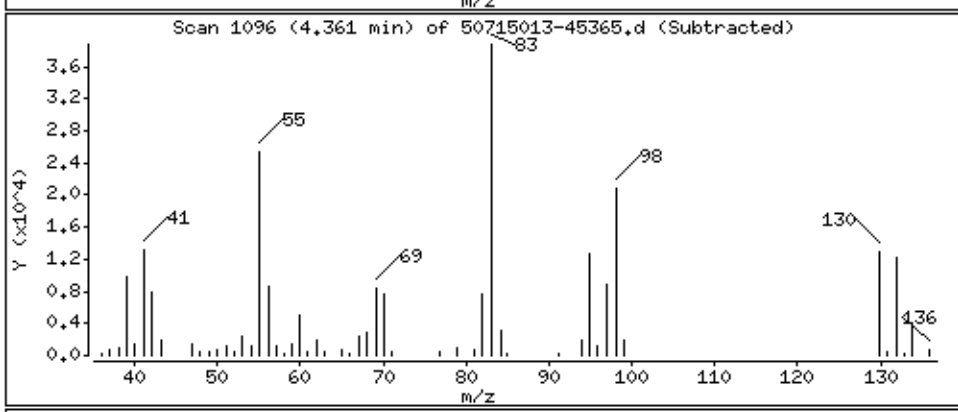
Column diameter: 0.18

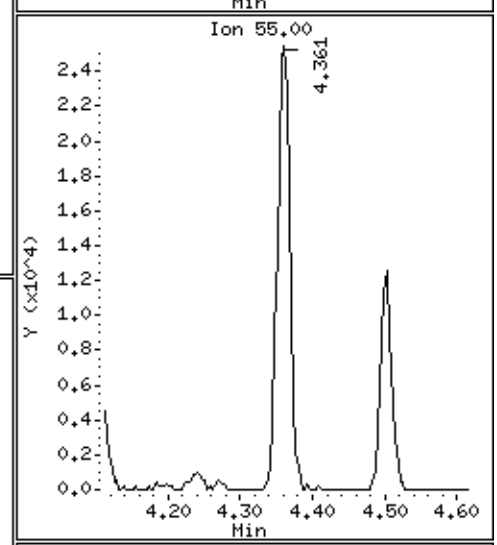
49 Methylcyclohexane

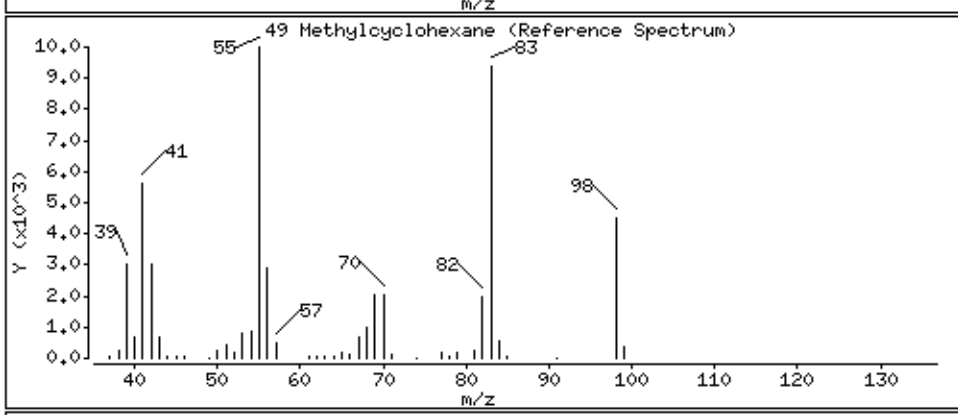
Concentration: 18.1 ug/L

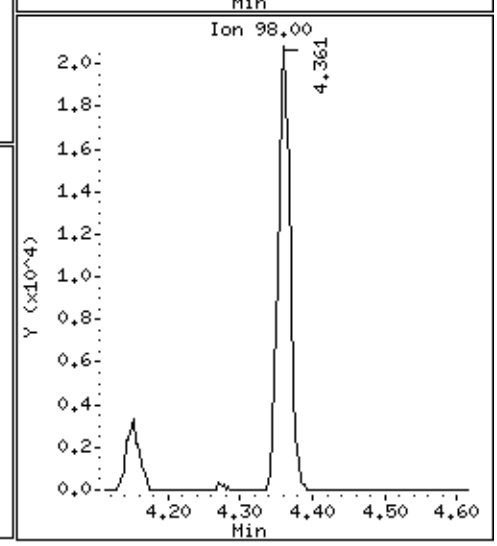


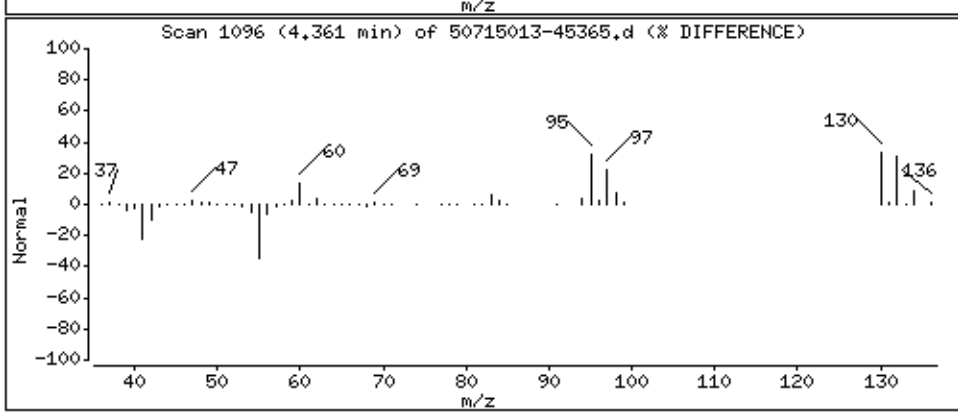












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

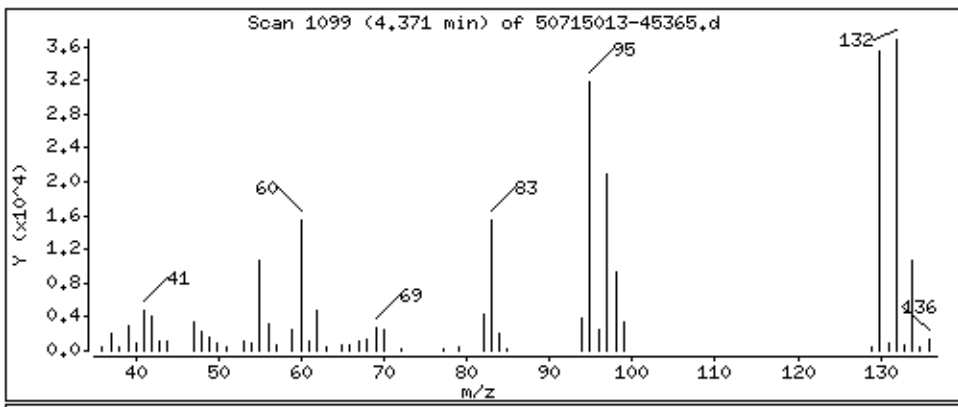
Operator: JEW

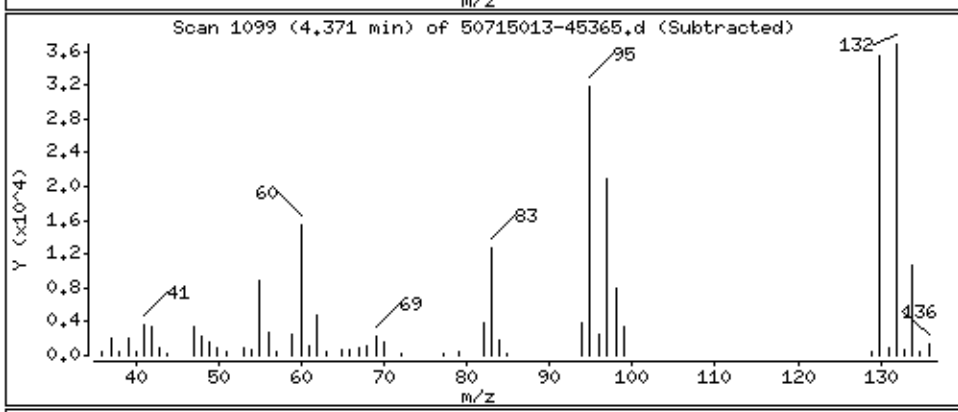
Column phase: RTX-VMS

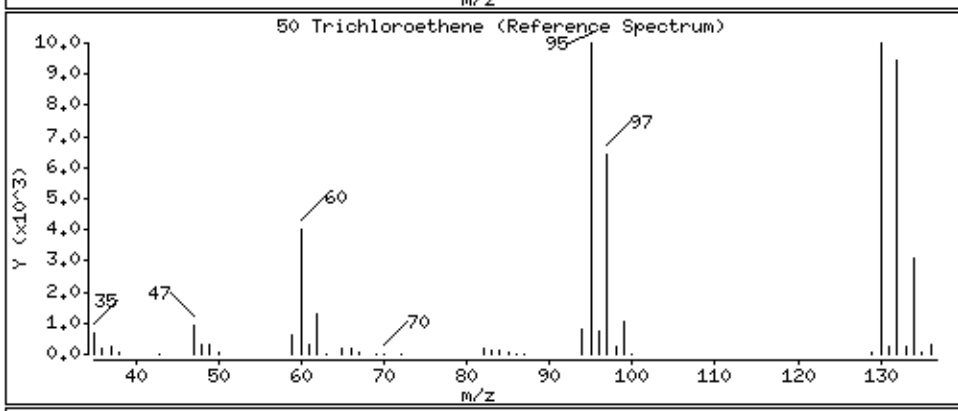
Column diameter: 0.18

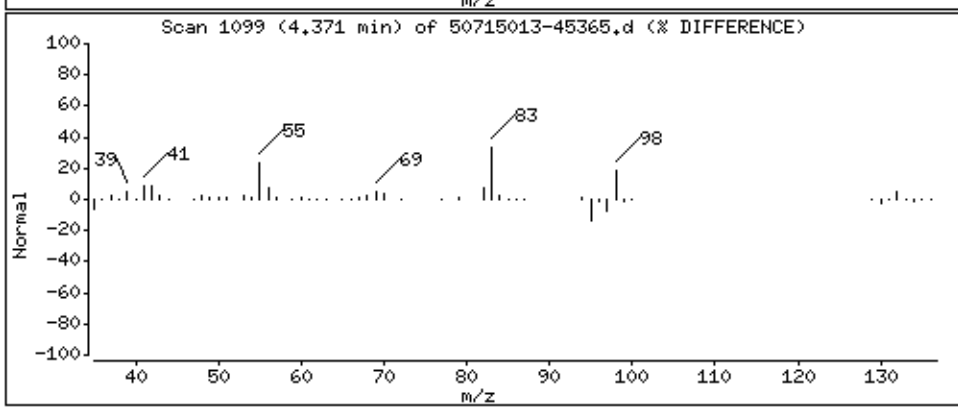
50 Trichloroethene

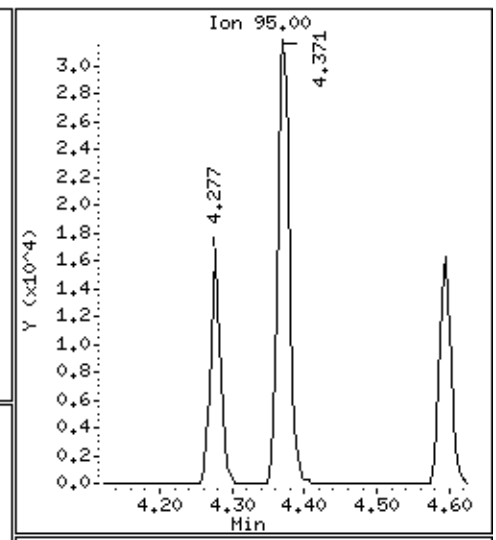
Concentration: 17.2 ug/L

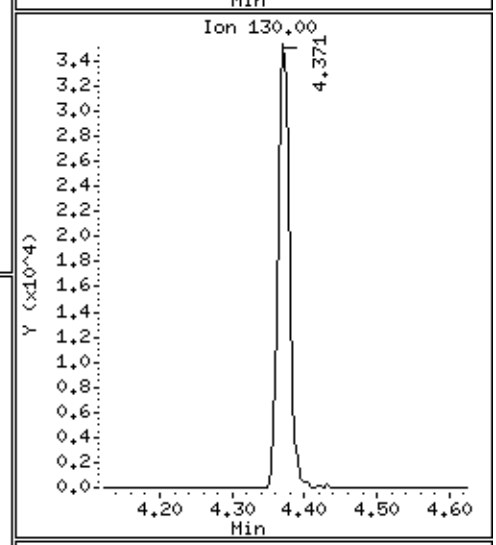


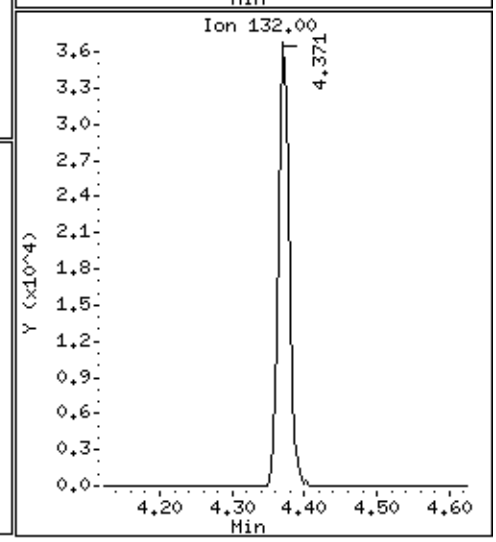












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

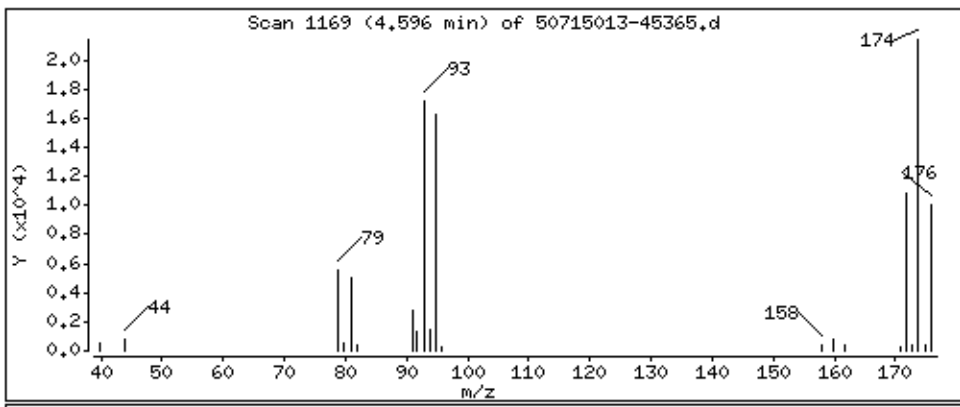
Operator: JEW

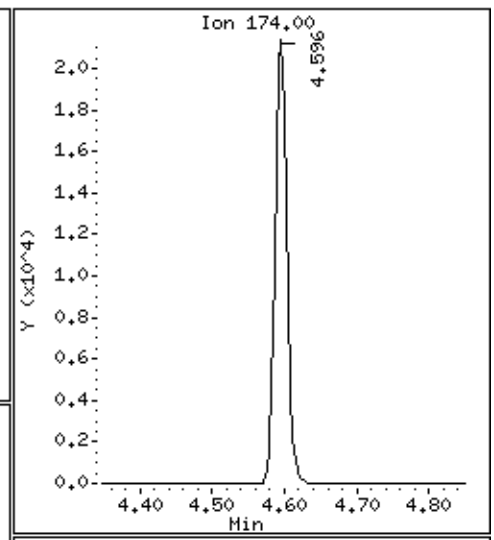
Column phase: RTX-VMS

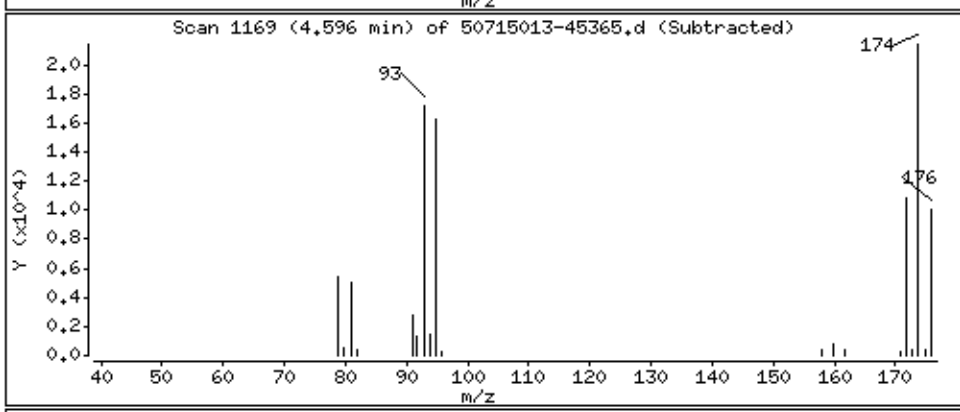
Column diameter: 0.18

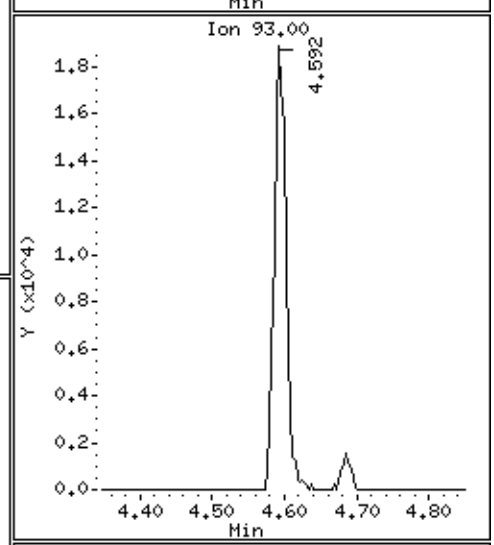
51 Dibromomethane

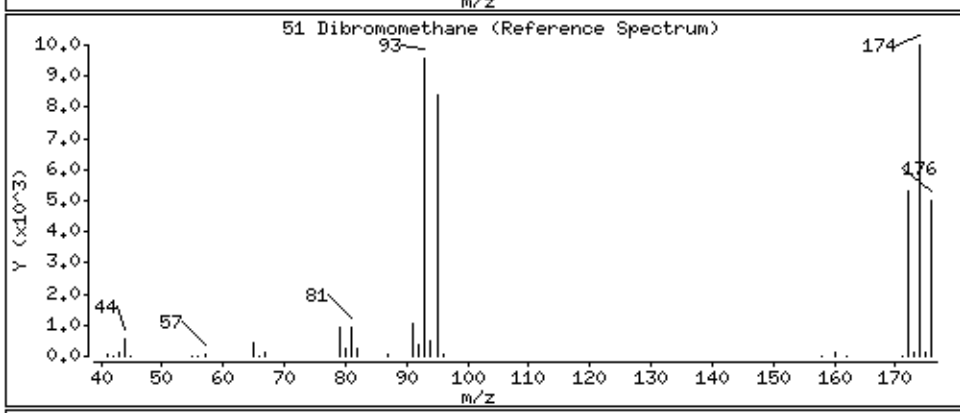
Concentration: 19.9 ug/L

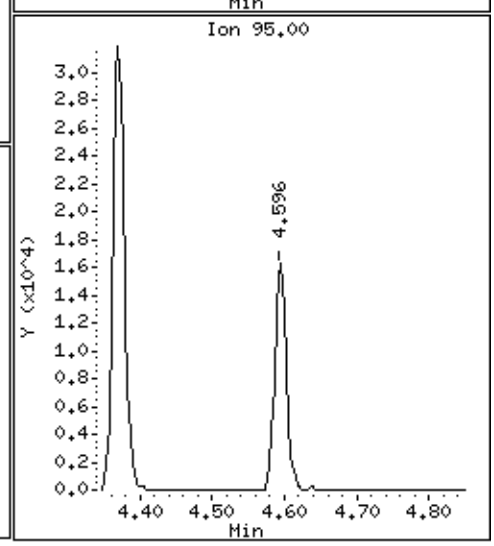


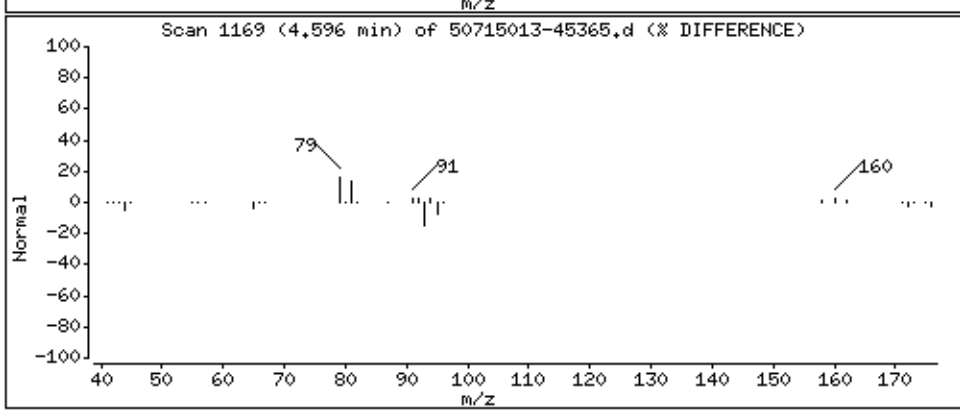












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

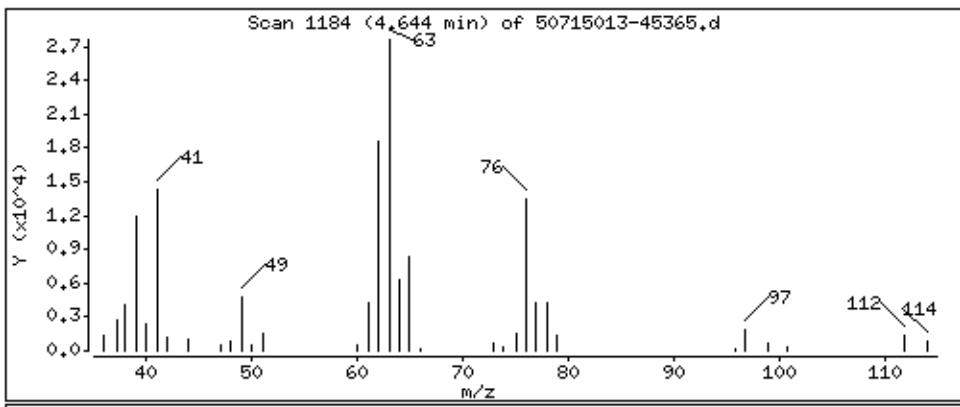
Operator: JEW

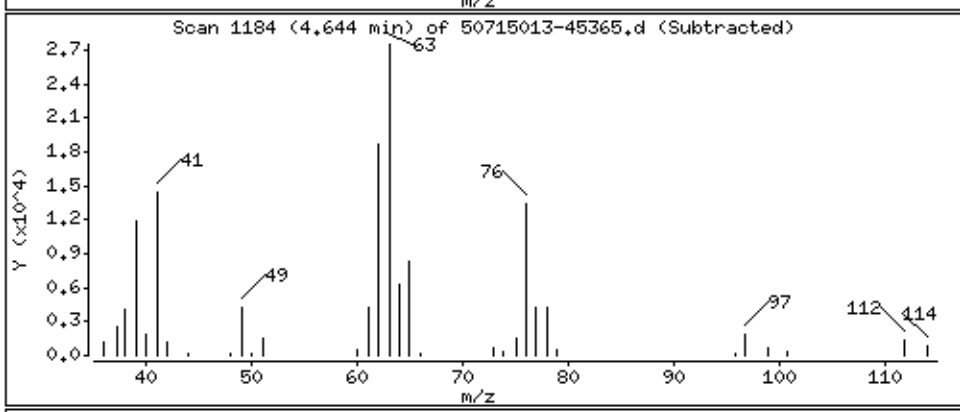
Column phase: RTX-VMS

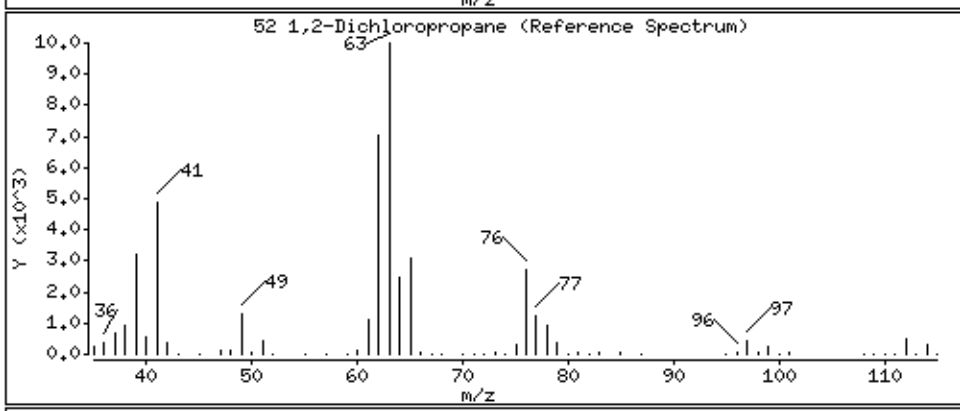
Column diameter: 0.18

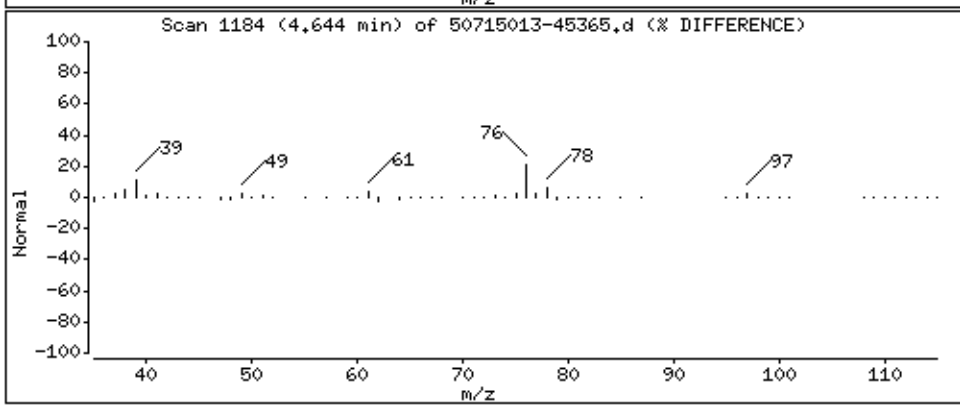
52 1,2-Dichloropropane

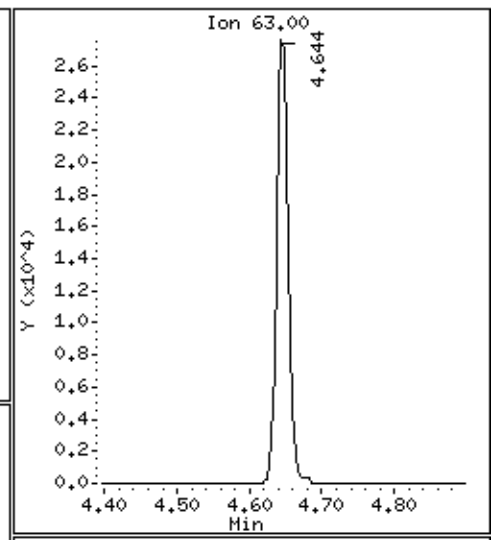
Concentration: 17.5 ug/L

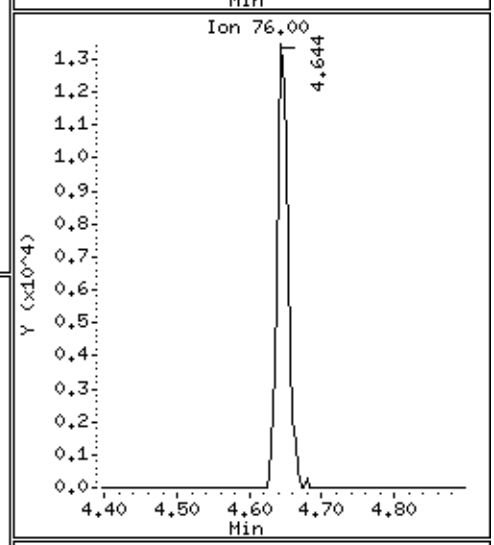


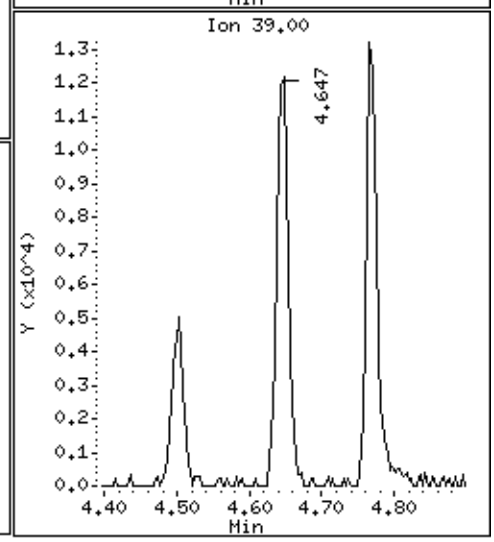












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

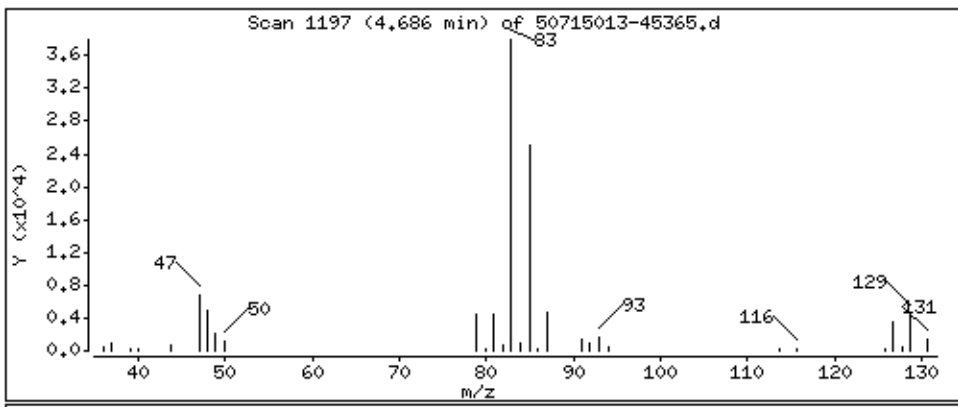
Operator: JEW

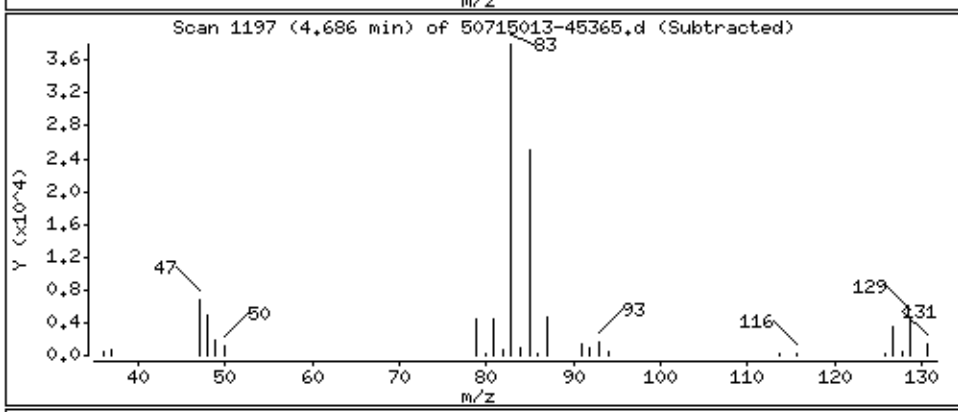
Column phase: RTX-VMS

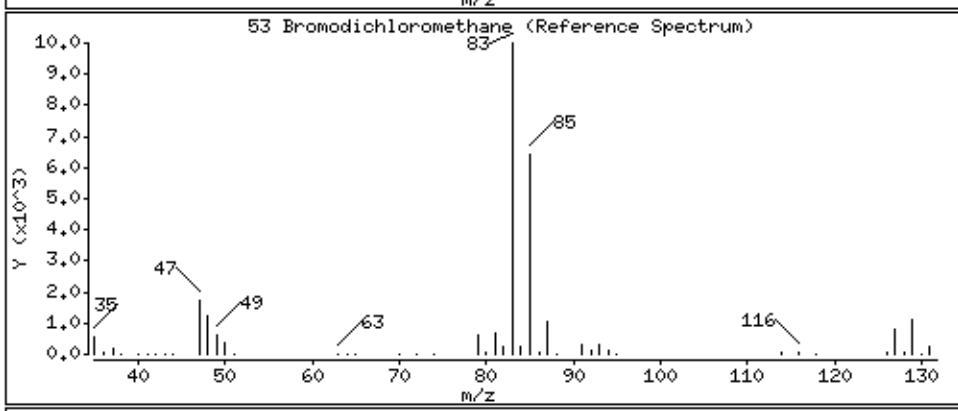
Column diameter: 0.18

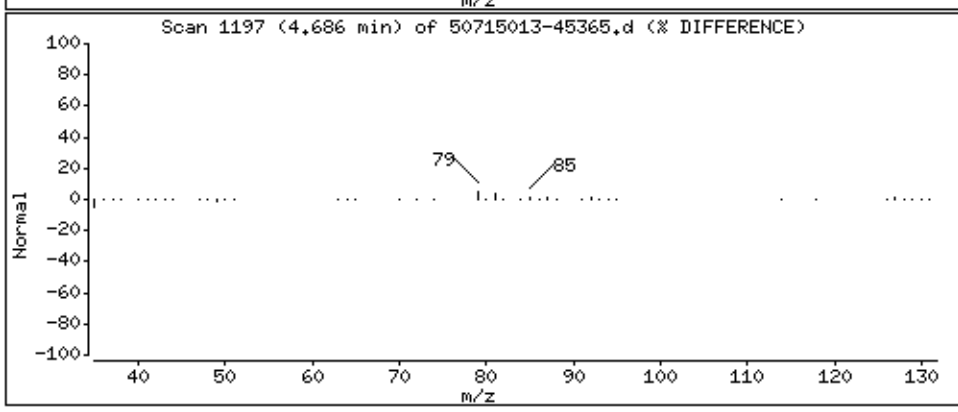
53 Bromodichloromethane

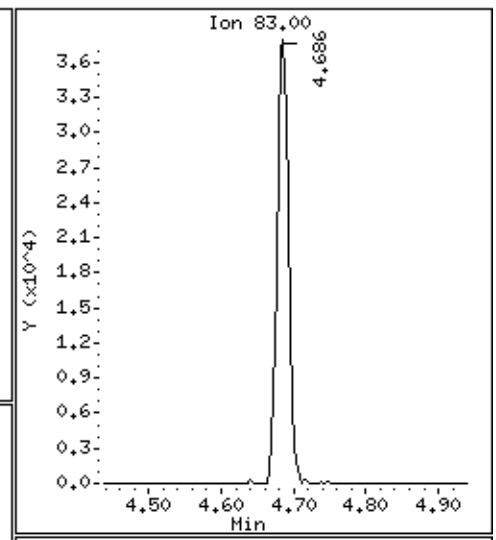
Concentration: 17.0 ug/L

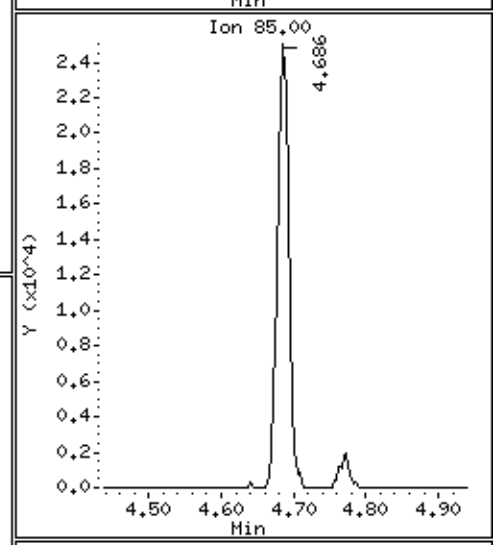


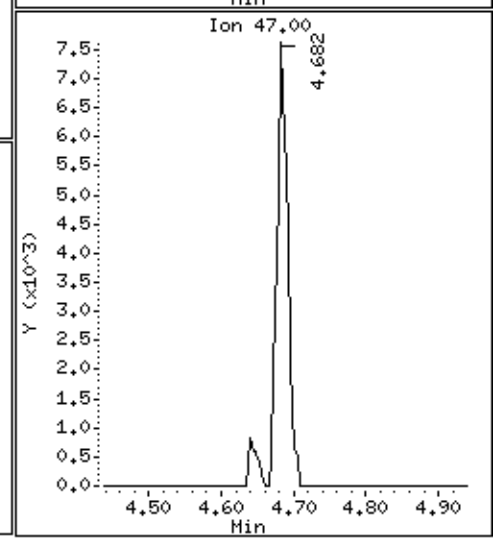












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

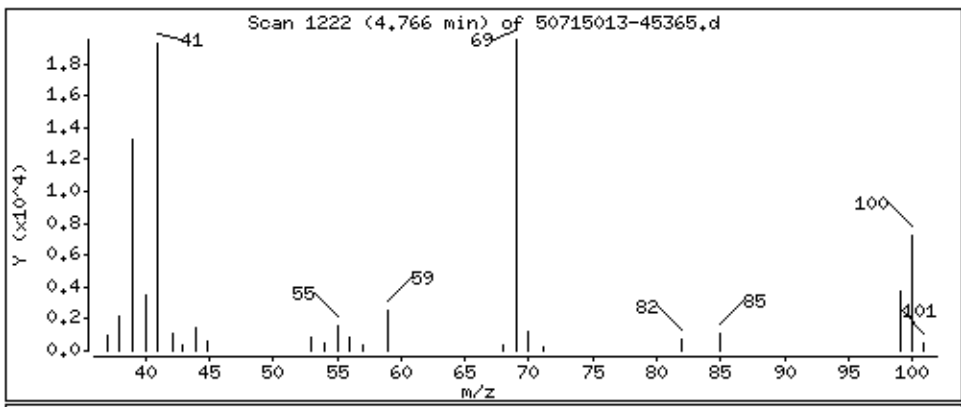
Operator: JEW

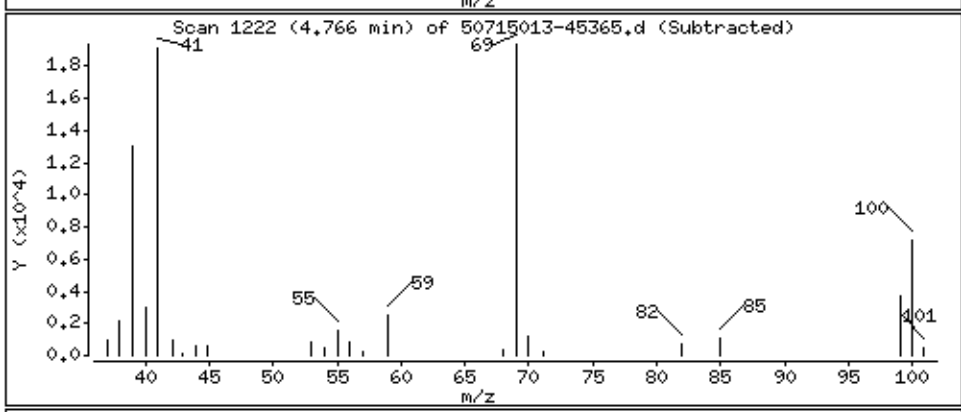
Column phase: RTX-VMS

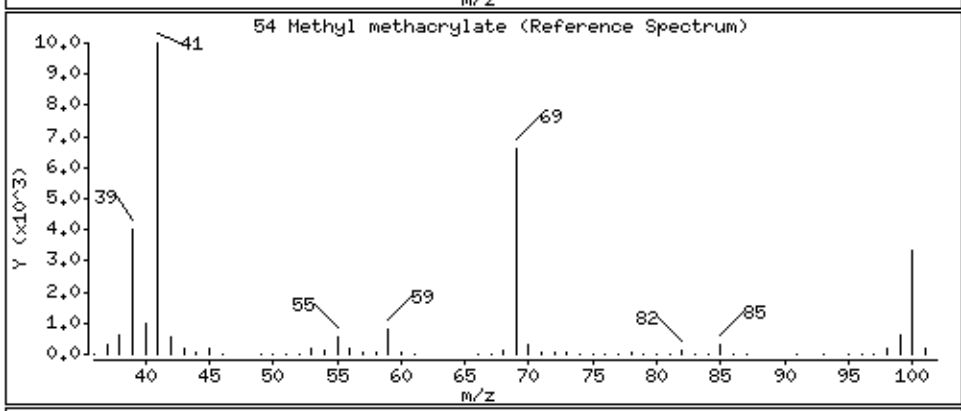
Column diameter: 0.18

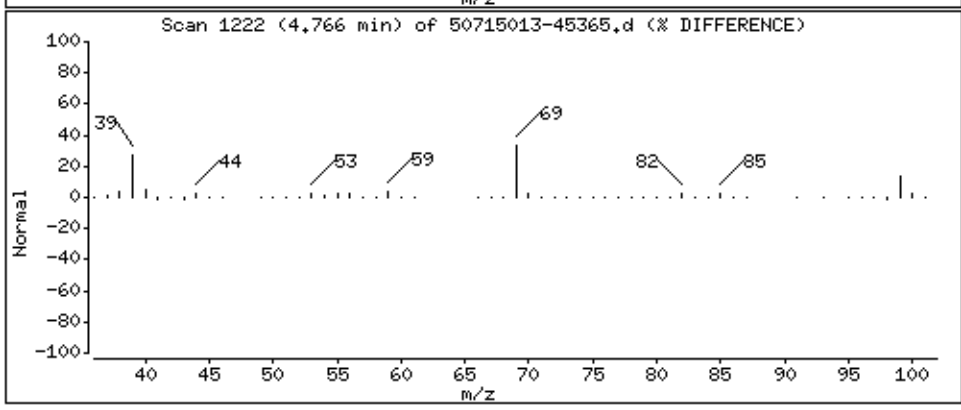
54 Methyl methacrylate

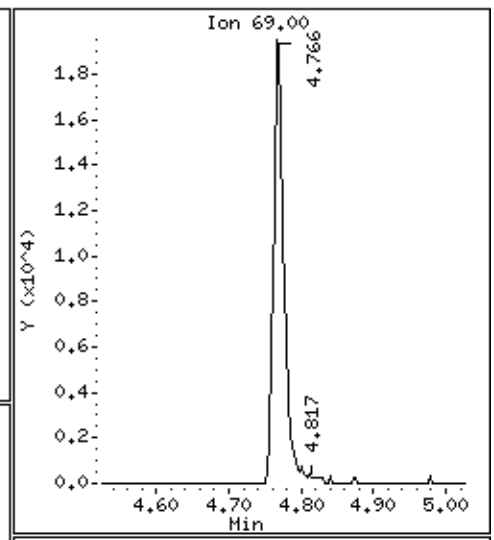
Concentration: 15.4 ug/L

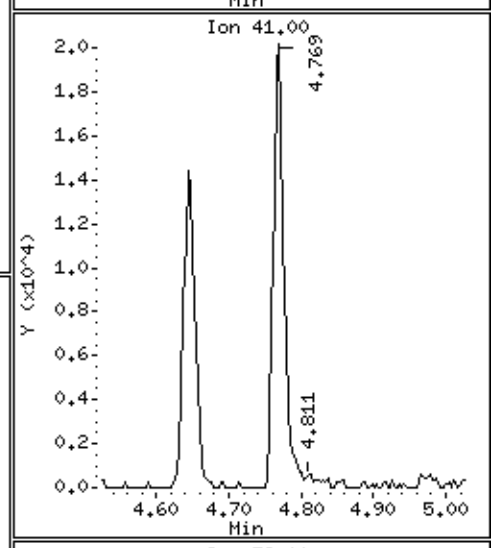


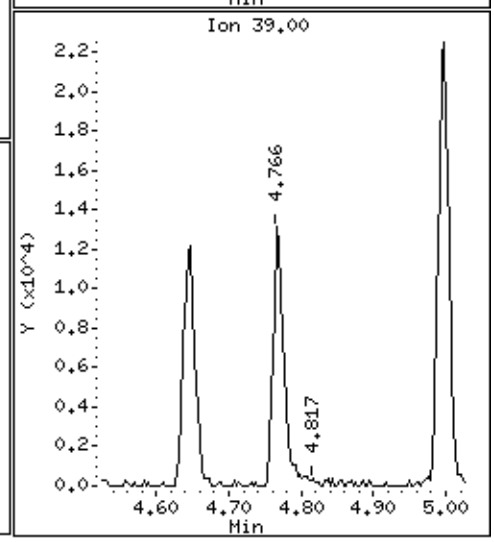












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

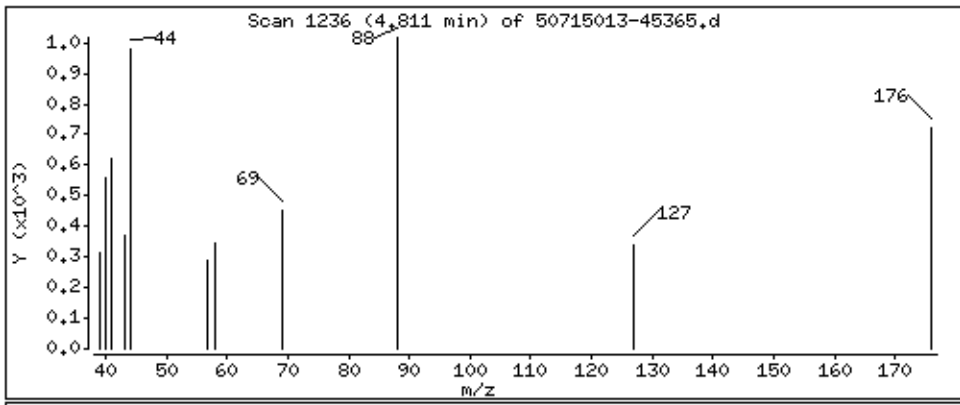
Operator: JEW

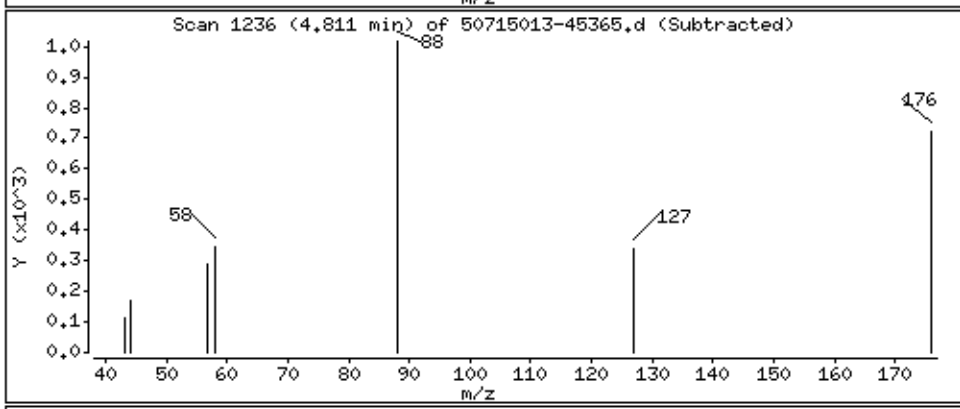
Column phase: RTX-VMS

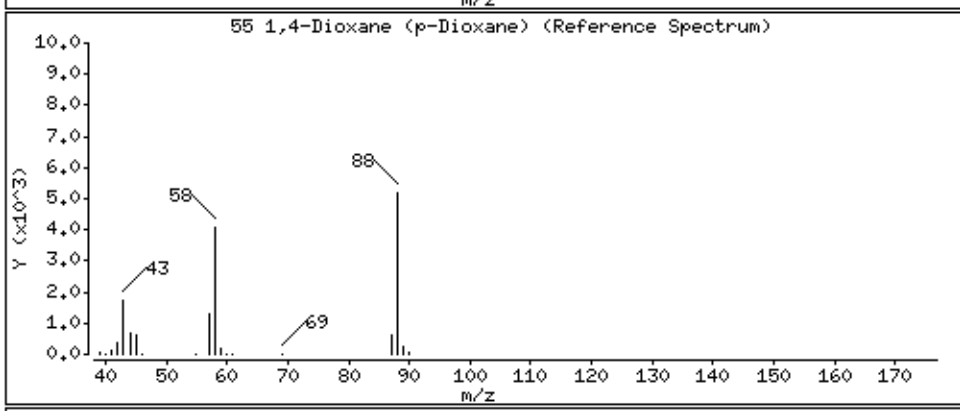
Column diameter: 0.18

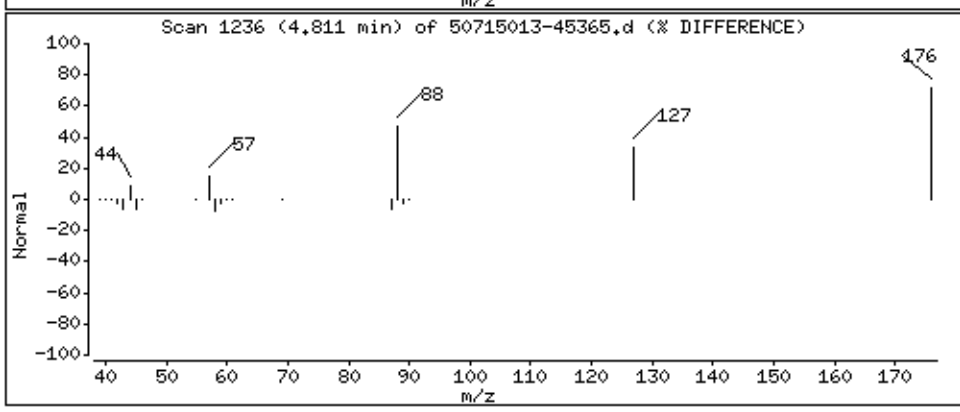
55 1,4-Dioxane (p-Dioxane)

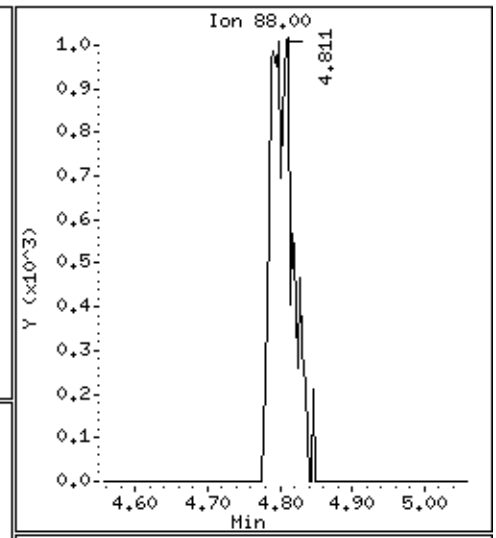
Concentration: 175 ug/L

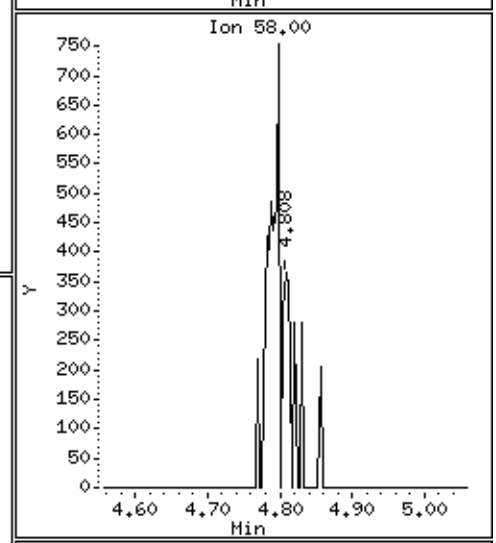


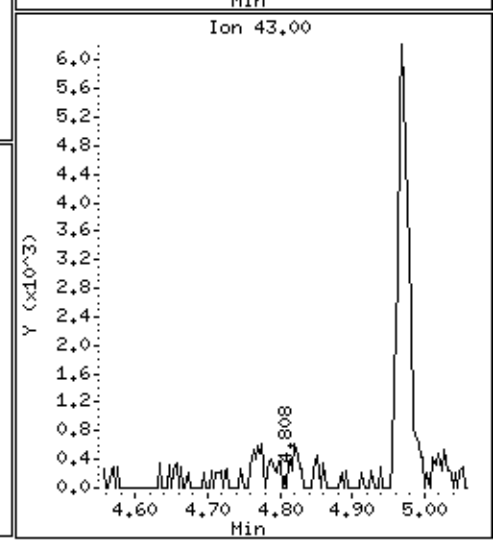












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

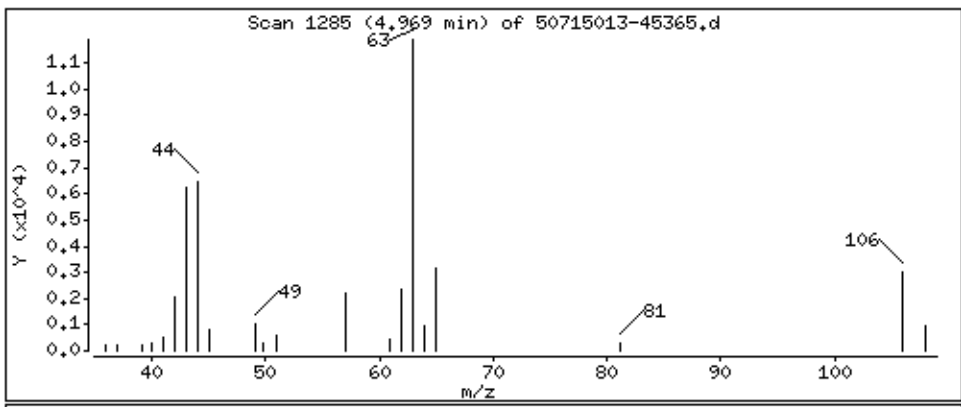
Operator: JEW

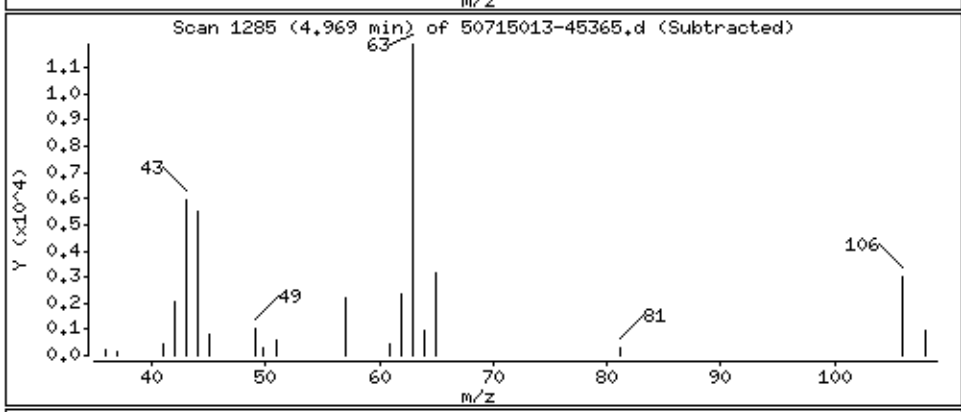
Column phase: RTX-VMS

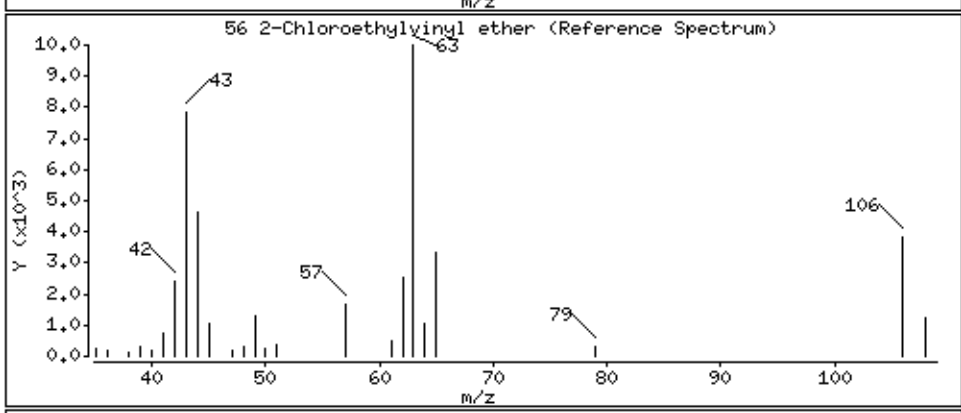
Column diameter: 0.18

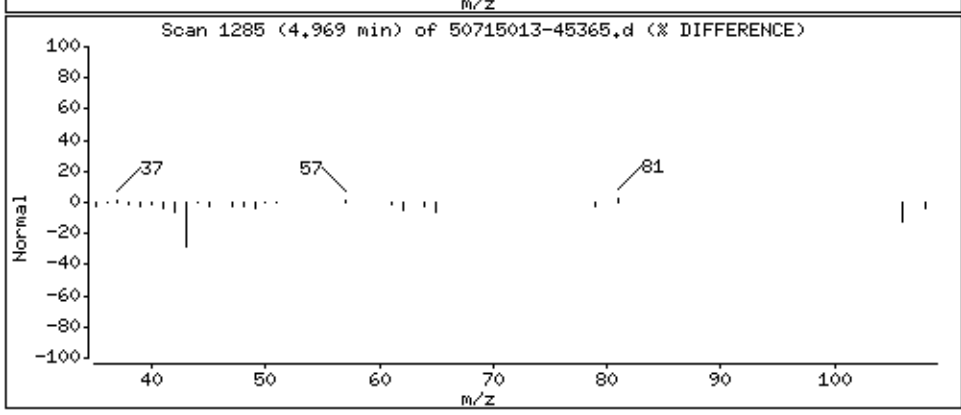
56 2-Chloroethylvinyl ether

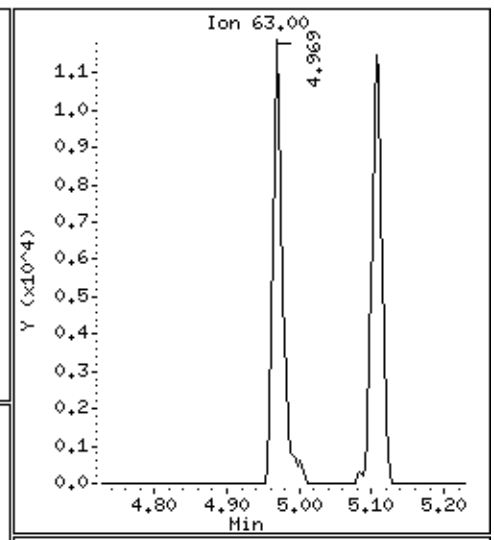
Concentration: 17.0 ug/L

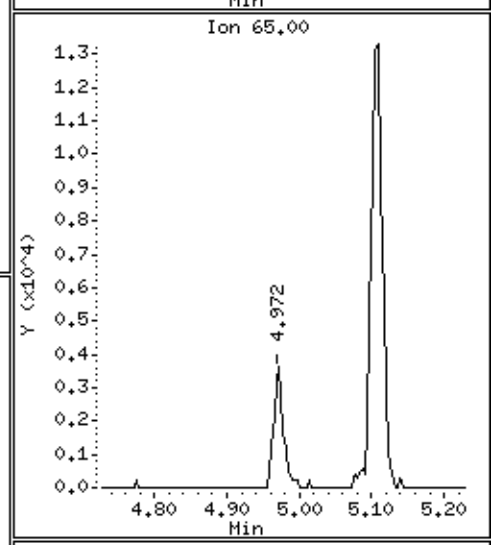


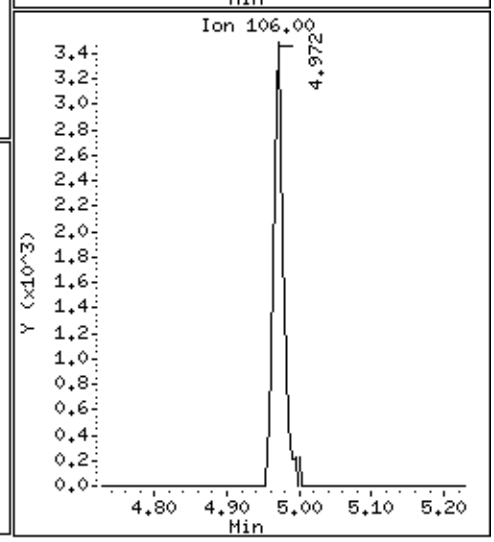












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

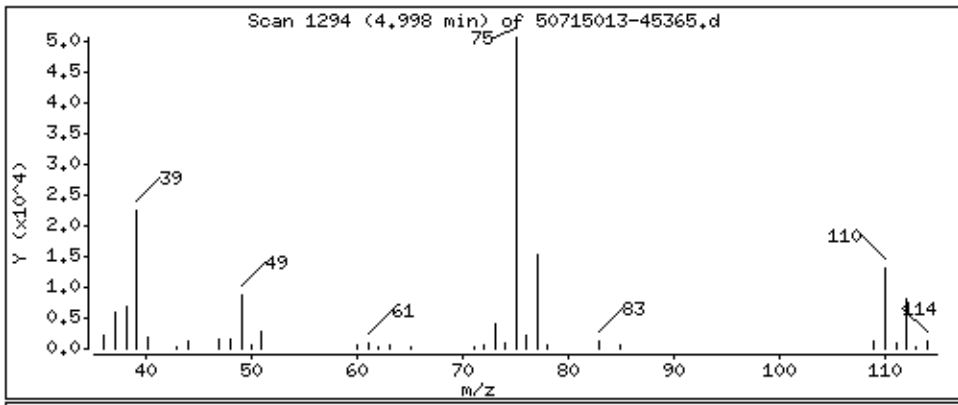
Operator: JEW

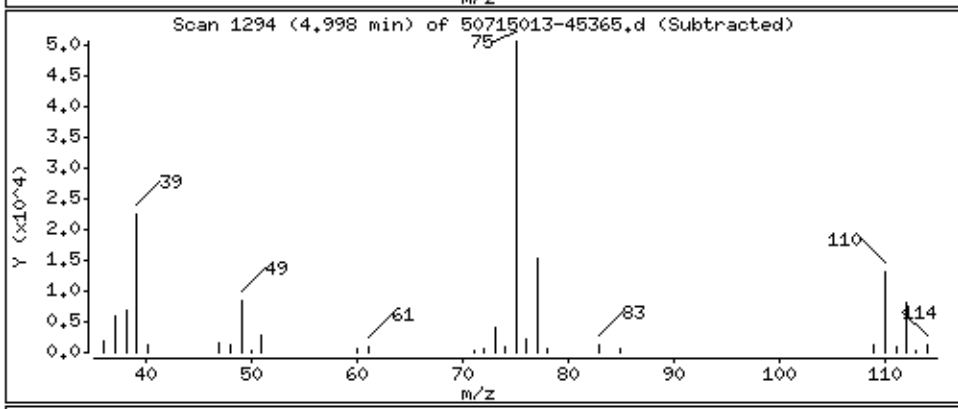
Column phase: RTX-VMS

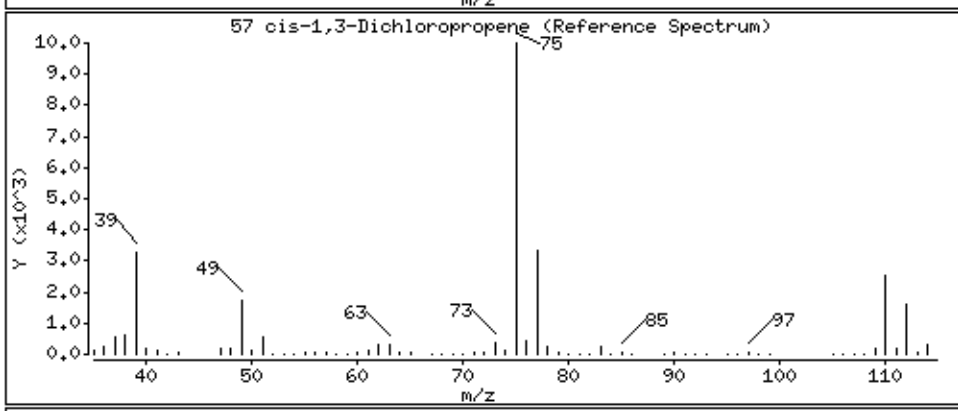
Column diameter: 0.18

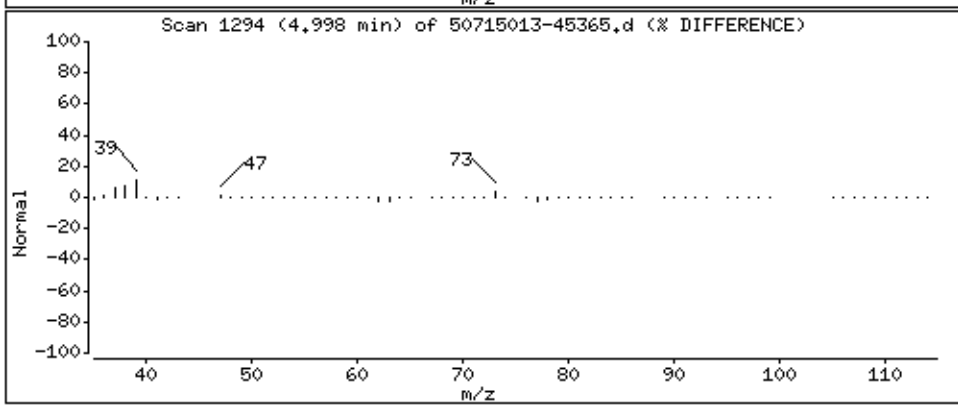
57 cis-1,3-Dichloropropene

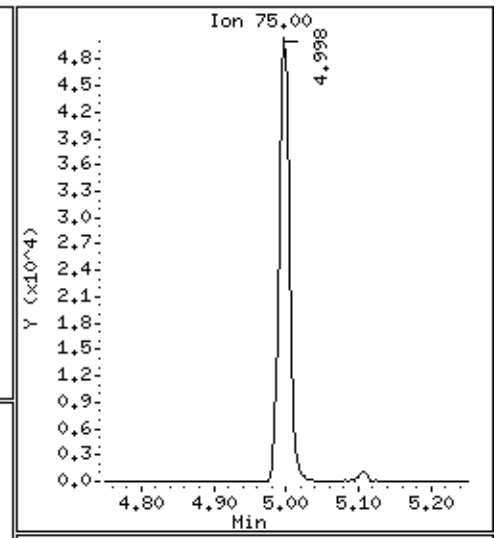
Concentration: 17.0 ug/L

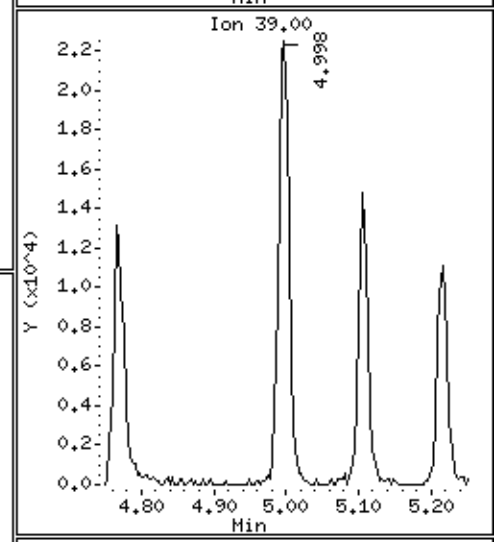


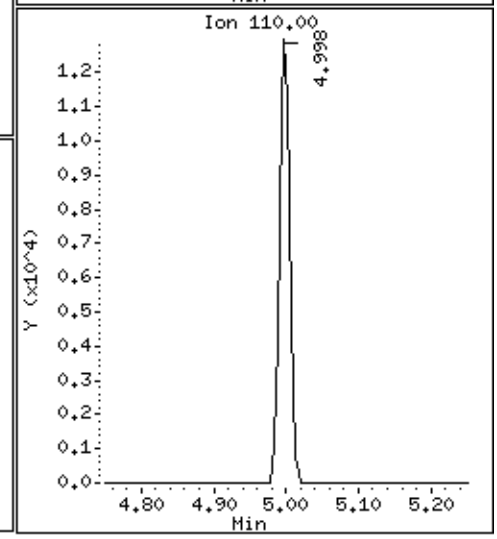












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

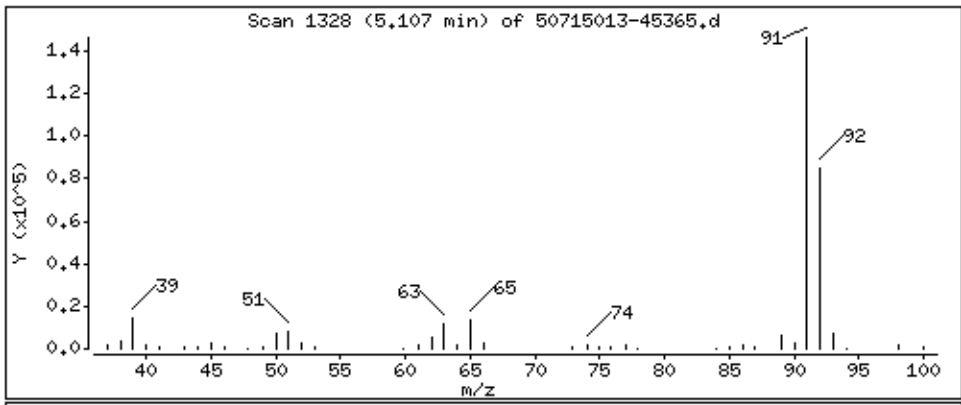
Operator: JEW

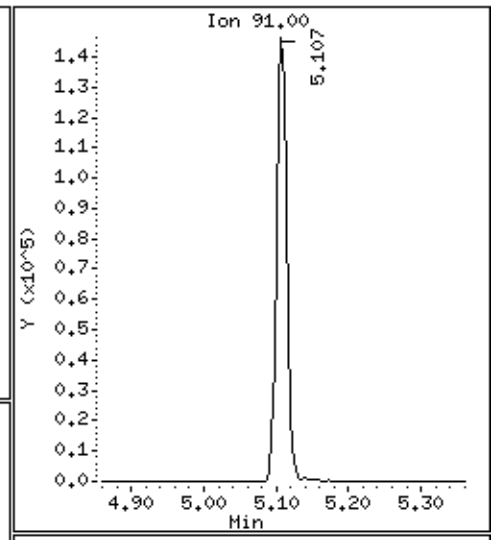
Column phase: RTX-VMS

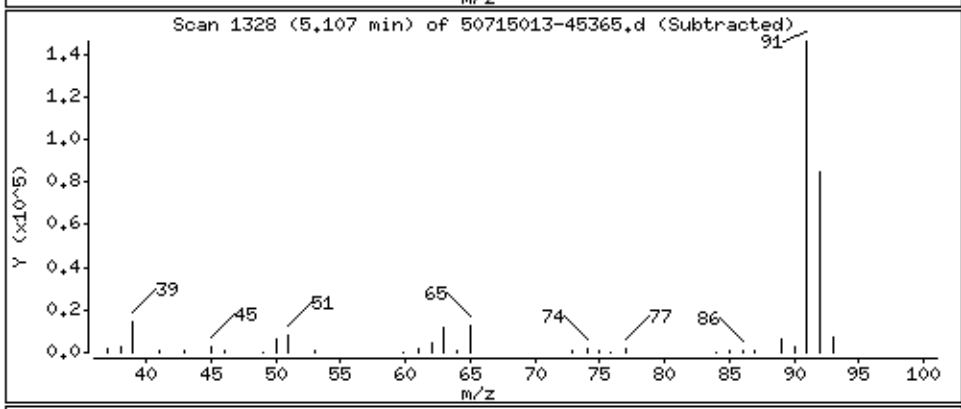
Column diameter: 0.18

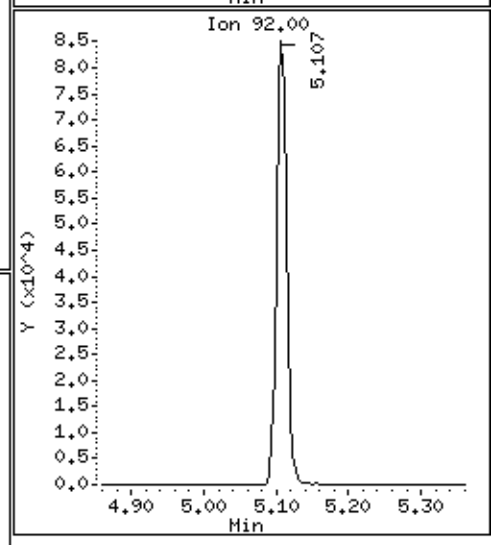
59 Toluene

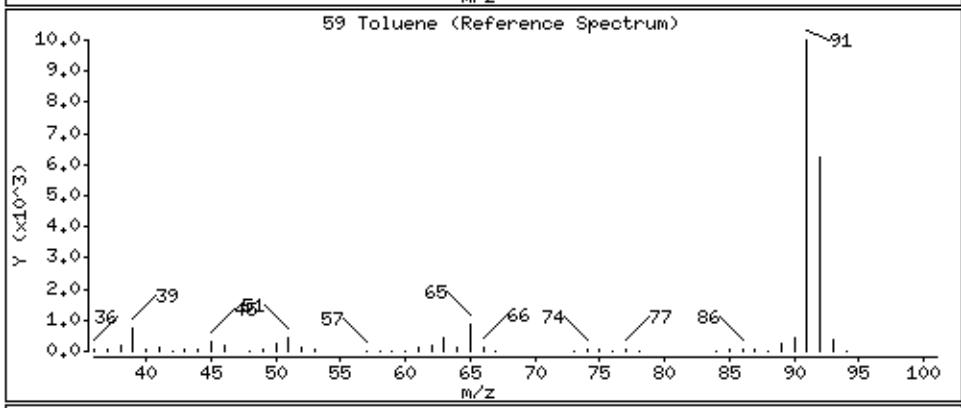
Concentration: 17.9 ug/L

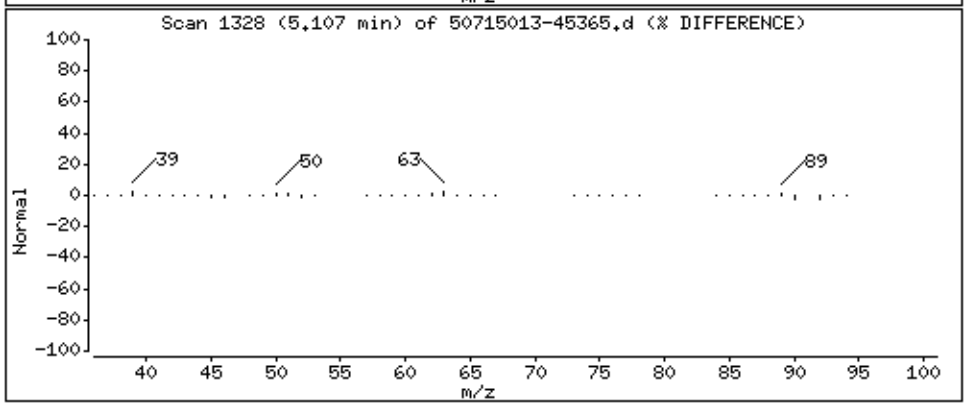












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

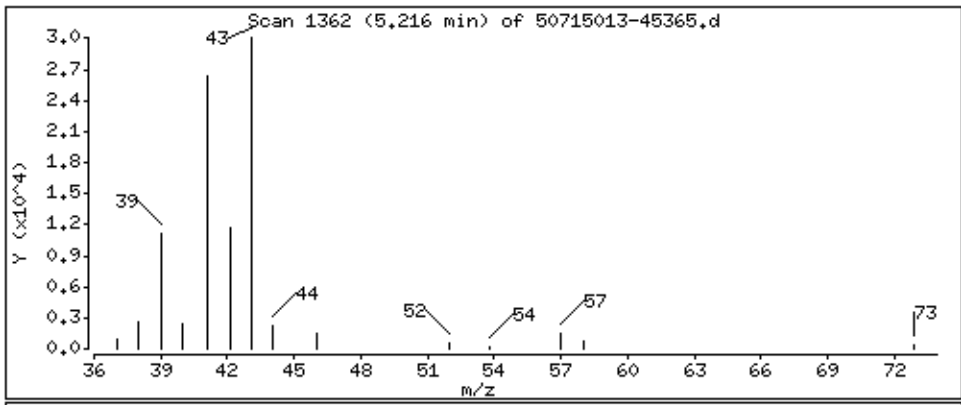
Operator: JEW

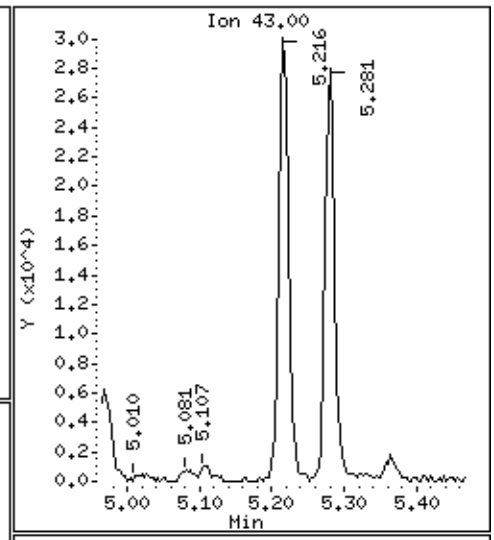
Column phase: RTX-VMS

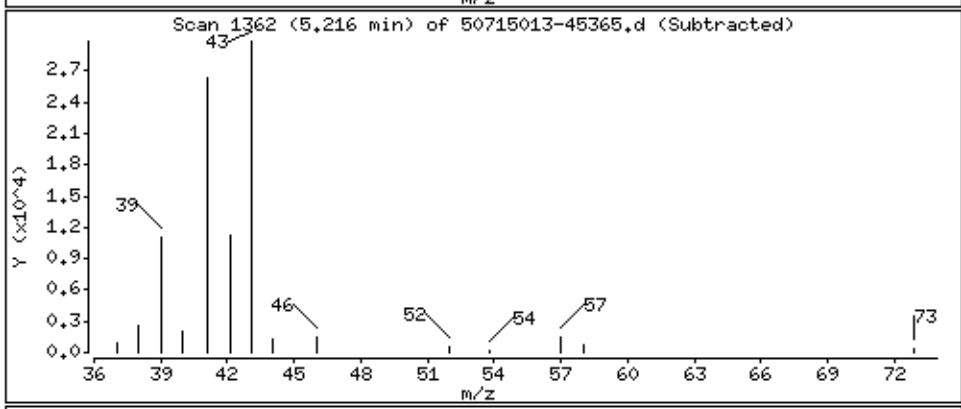
Column diameter: 0.18

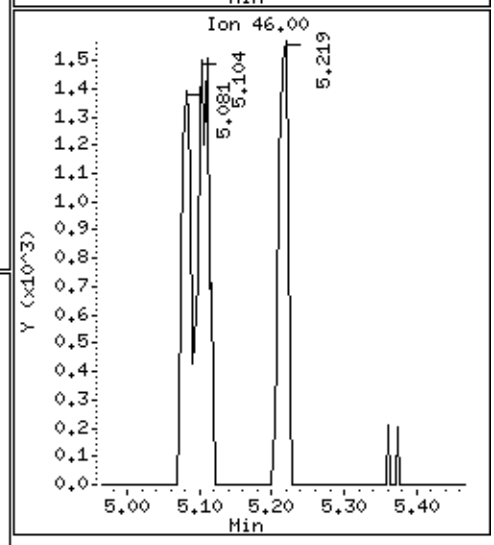
60 2-Nitropropane

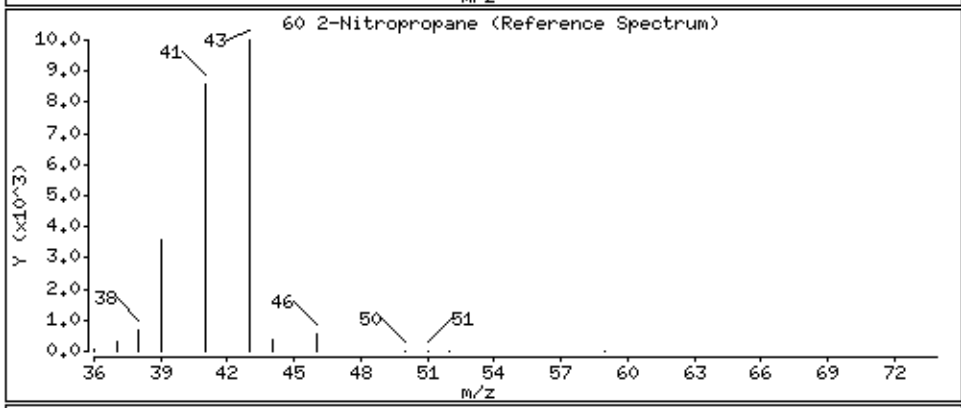
Concentration: 49.4 ug/L

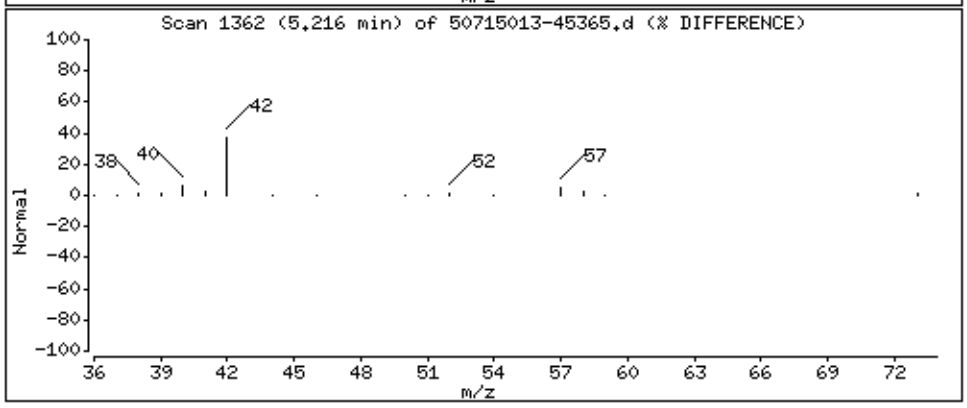












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

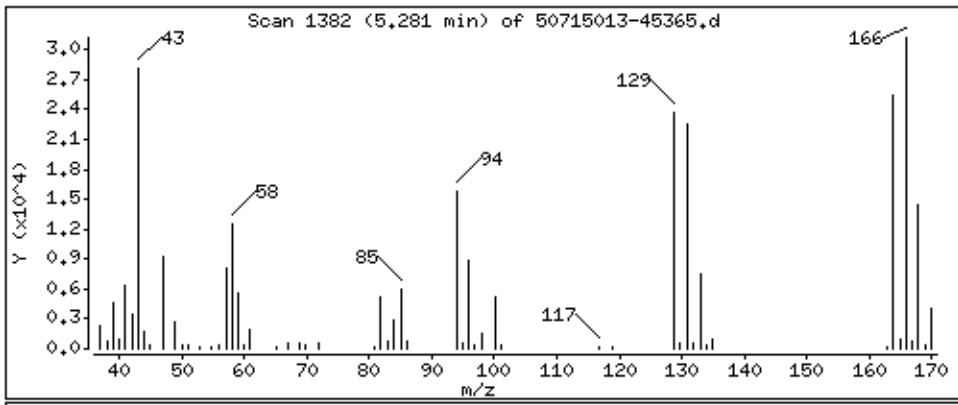
Operator: JEW

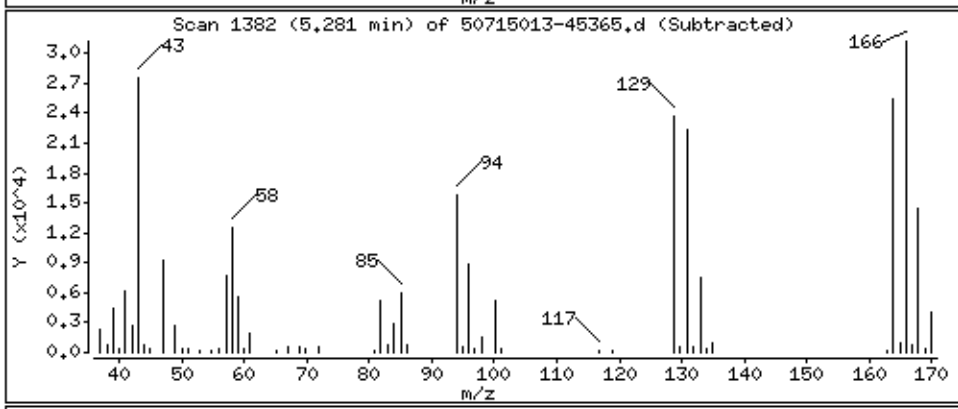
Column phase: RTX-VMS

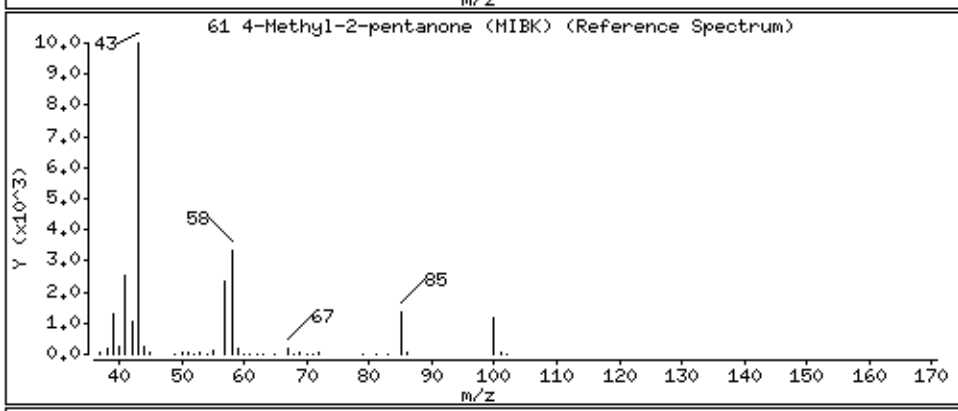
Column diameter: 0.18

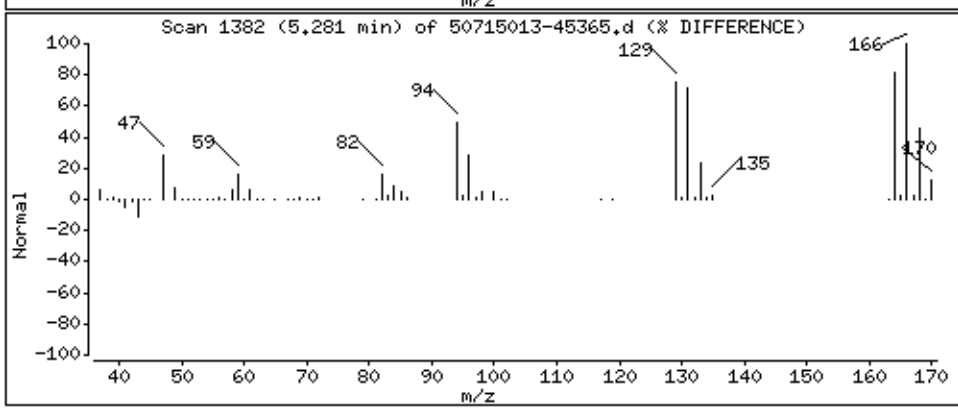
61 4-Methyl-2-pentanone (MIBK)

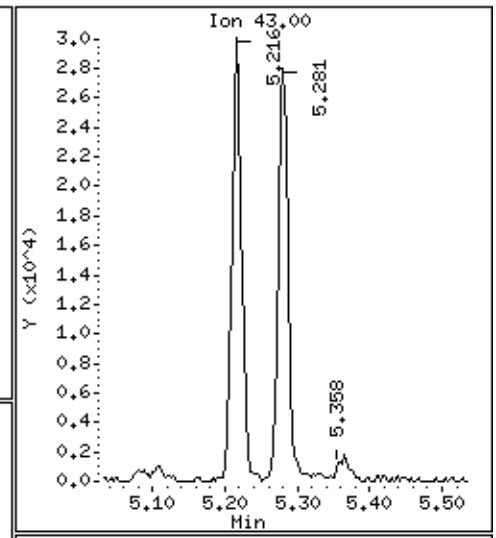
Concentration: 15.1 ug/L

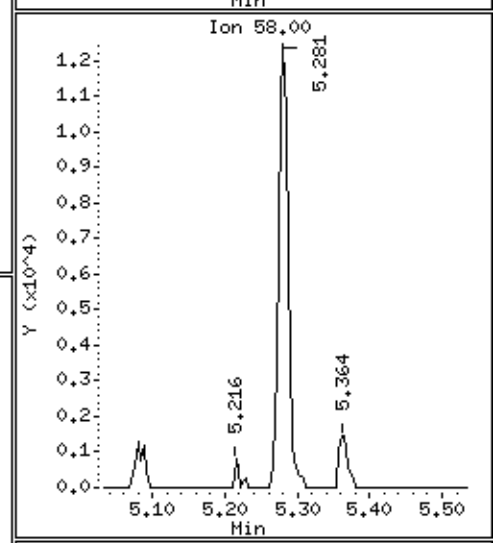


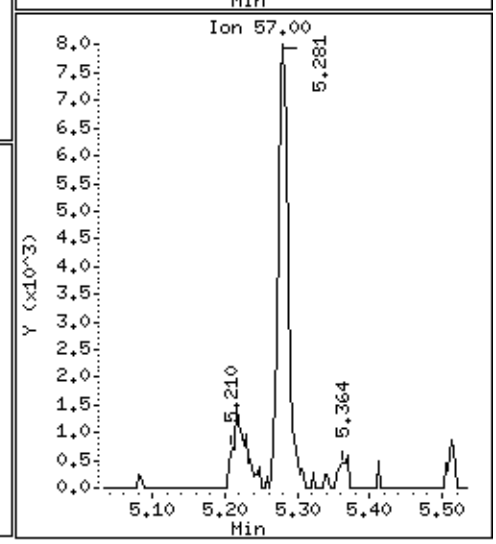












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

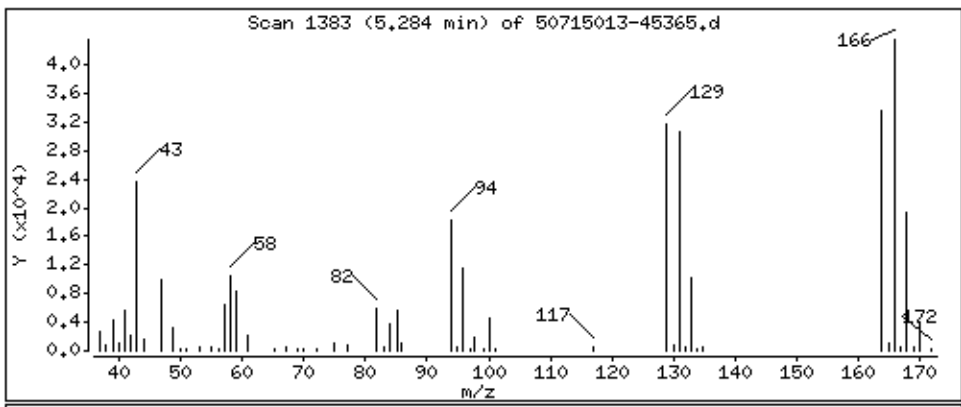
Operator: JEW

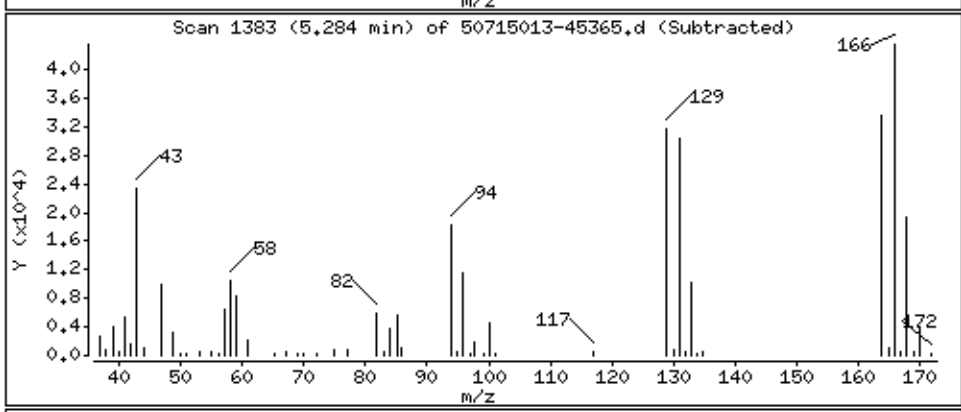
Column phase: RTX-VMS

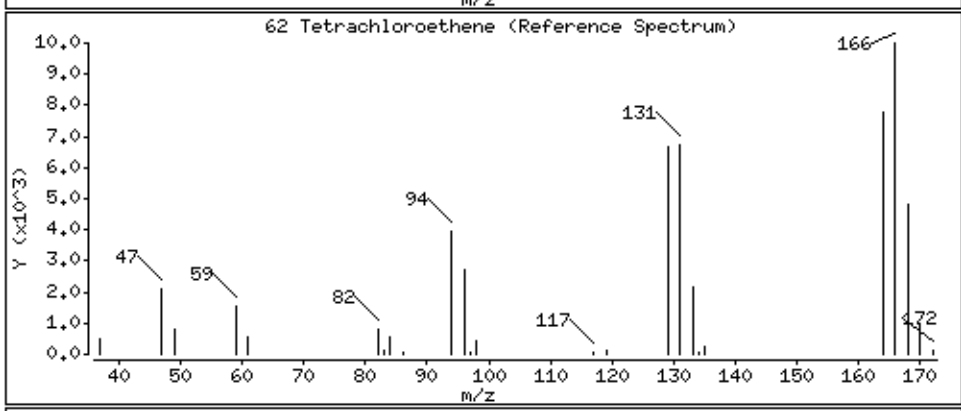
Column diameter: 0.18

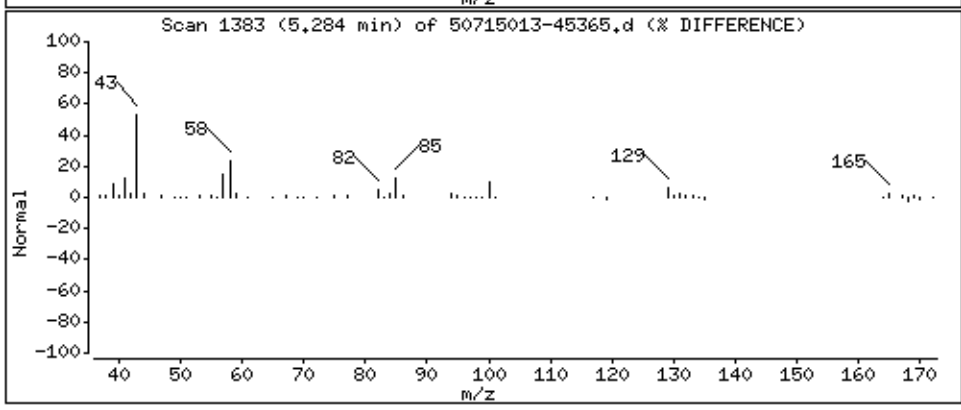
62 Tetrachloroethene

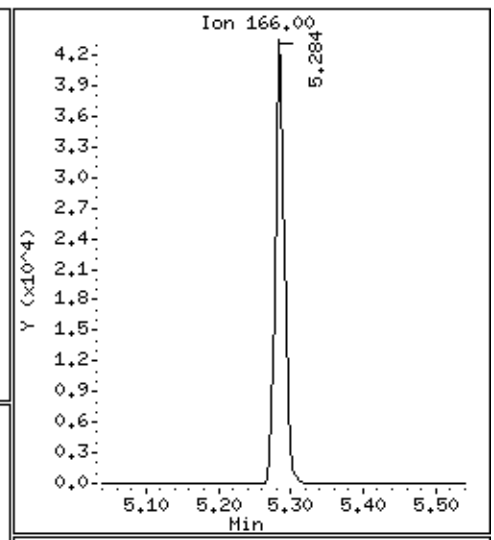
Concentration: 19.7 ug/L

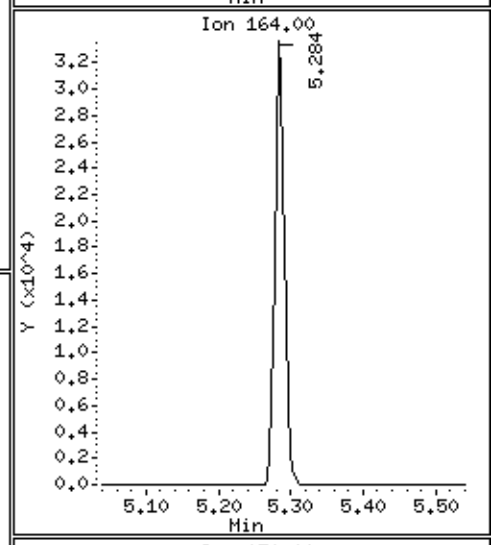


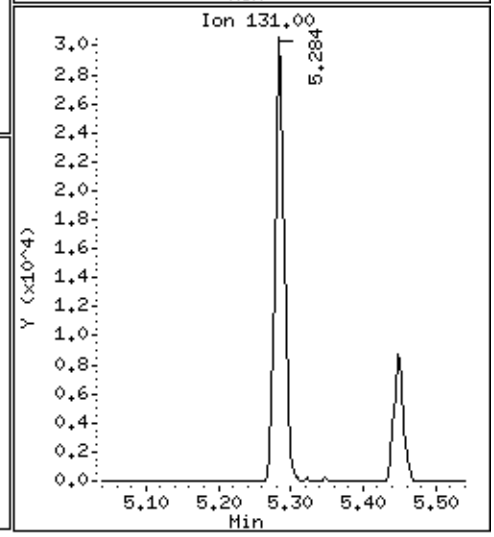












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

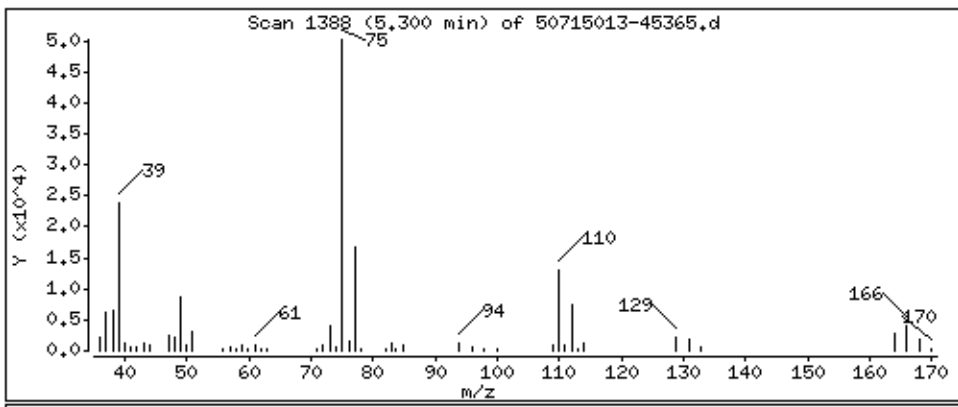
Operator: JEW

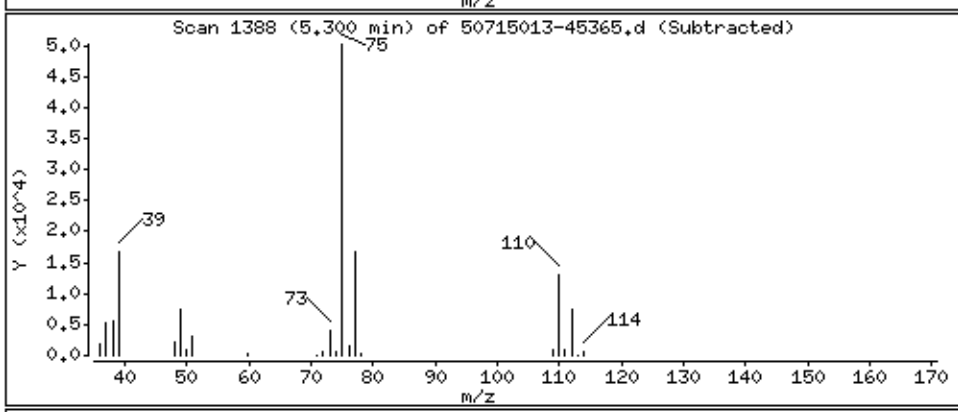
Column phase: RTX-VMS

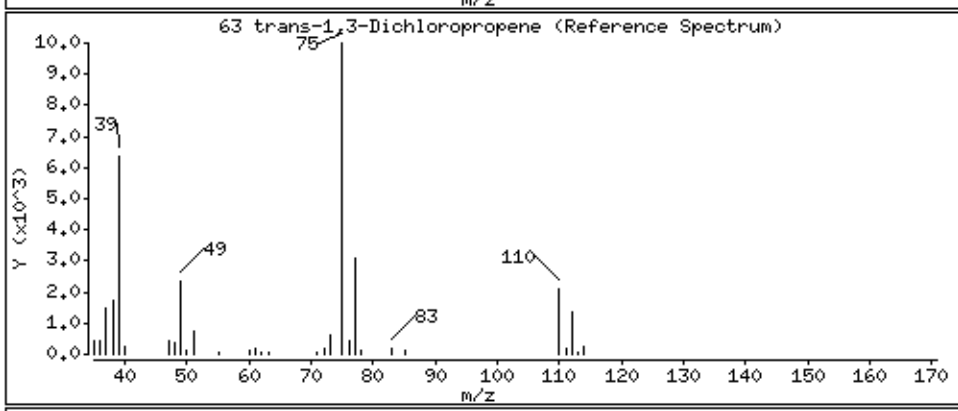
Column diameter: 0.18

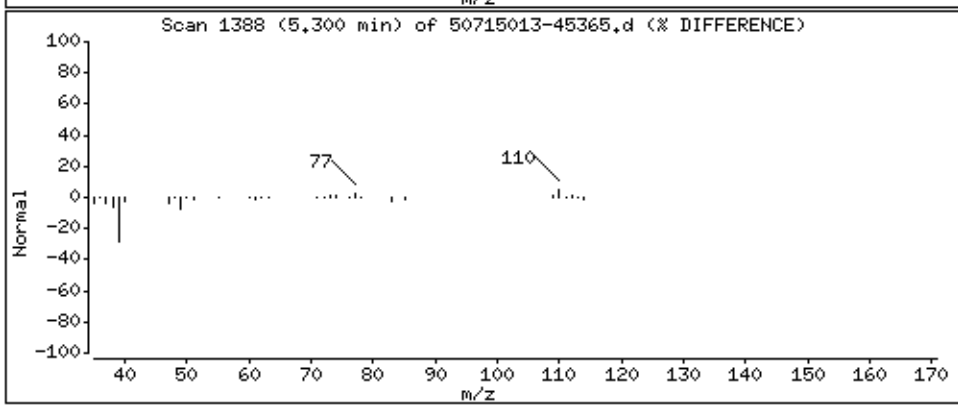
63 trans-1,3-Dichloropropene

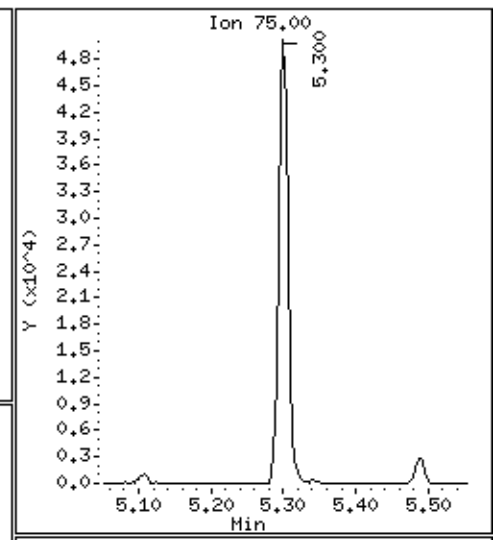
Concentration: 15.1 ug/L

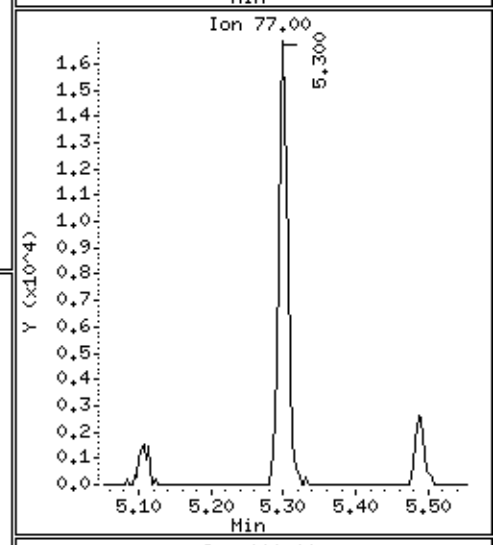


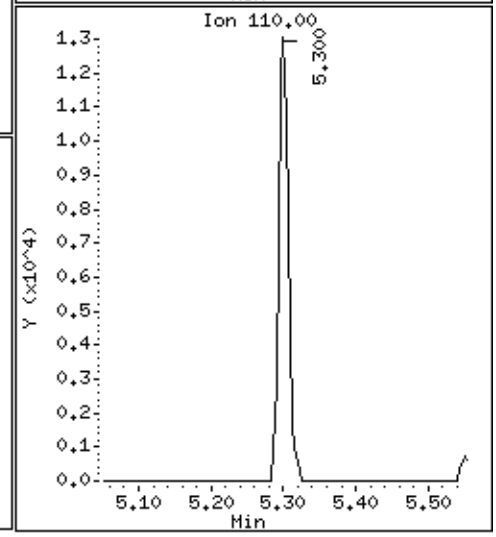












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

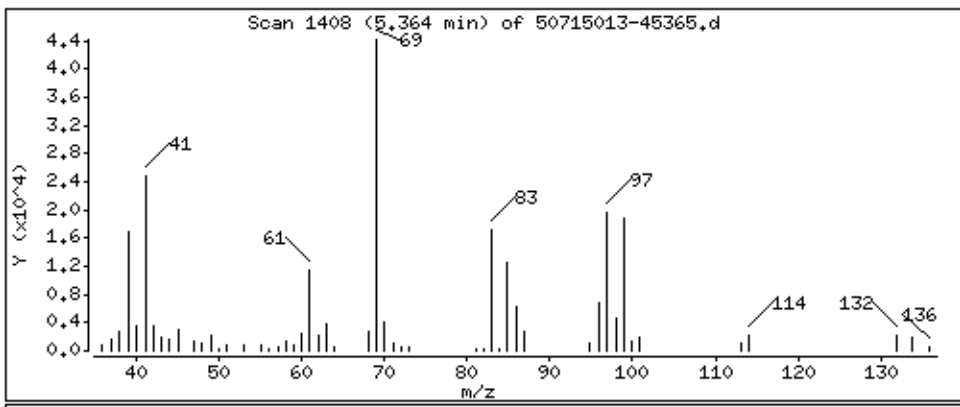
Operator: JEW

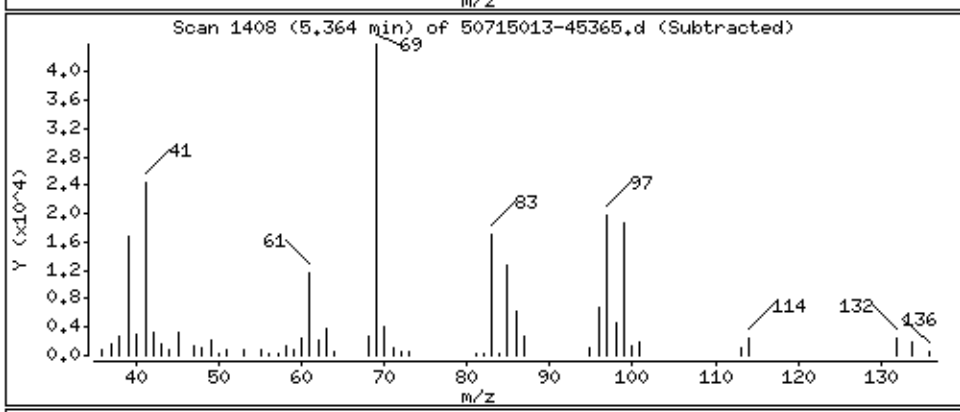
Column phase: RTX-VMS

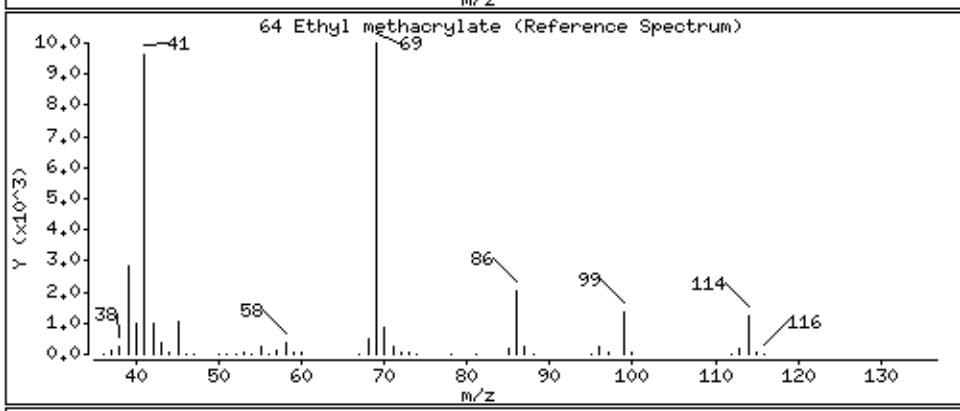
Column diameter: 0.18

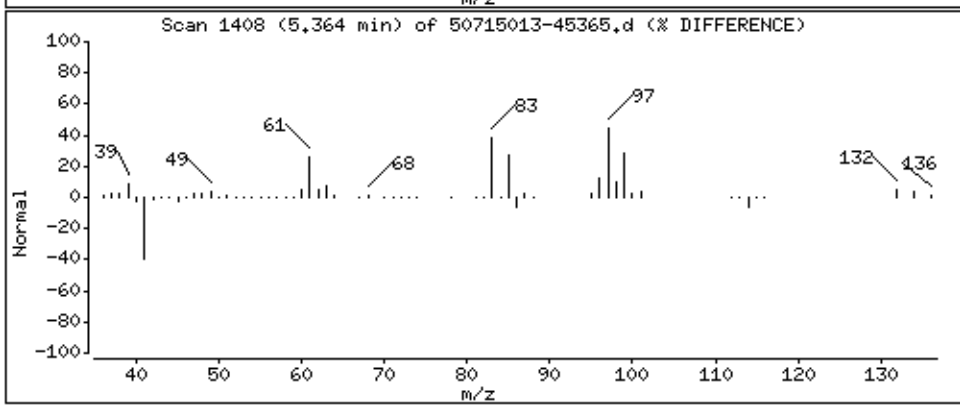
64 Ethyl methacrylate

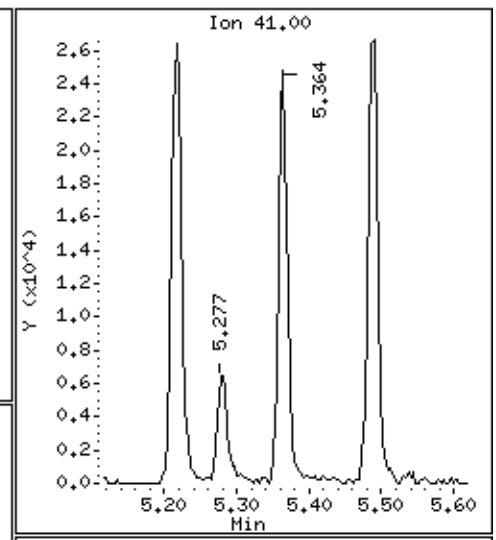
Concentration: 14.0 ug/L

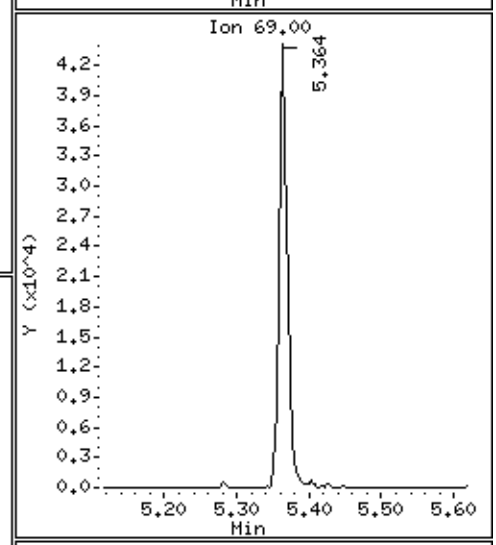


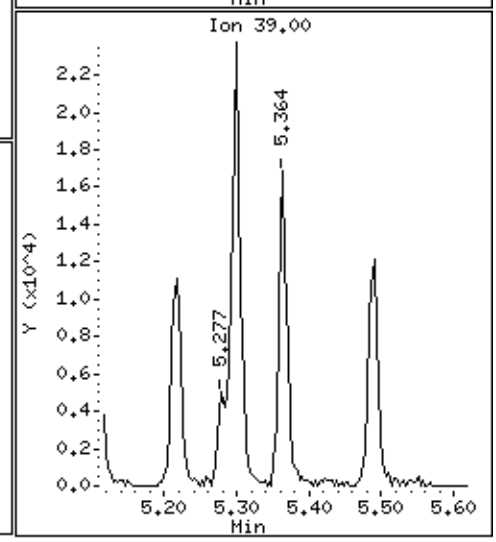












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

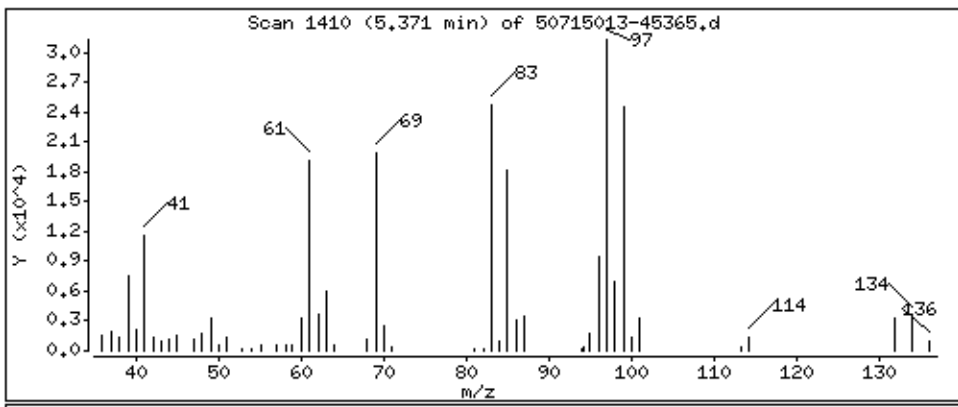
Operator: JEW

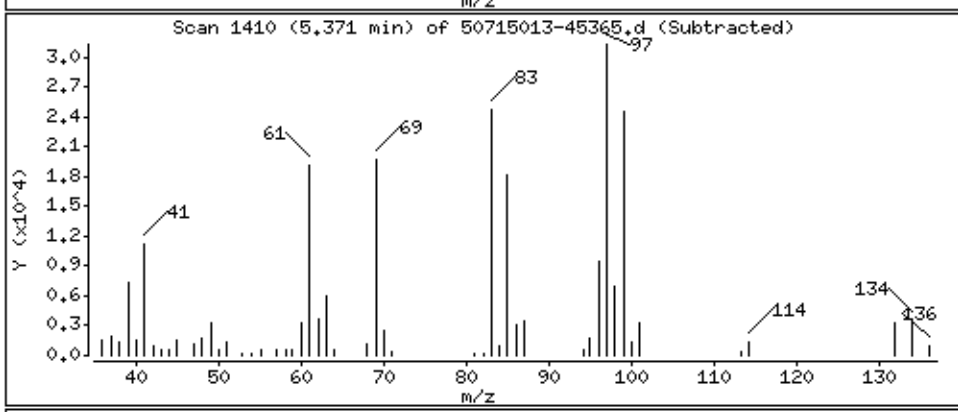
Column phase: RTX-VMS

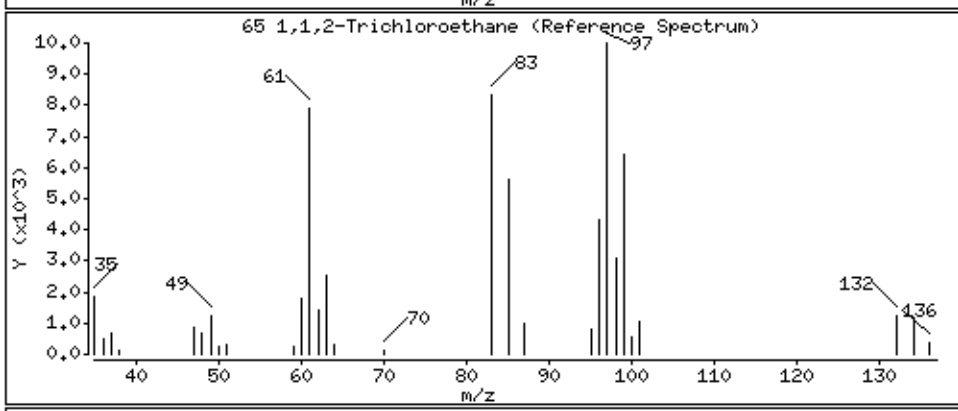
Column diameter: 0.18

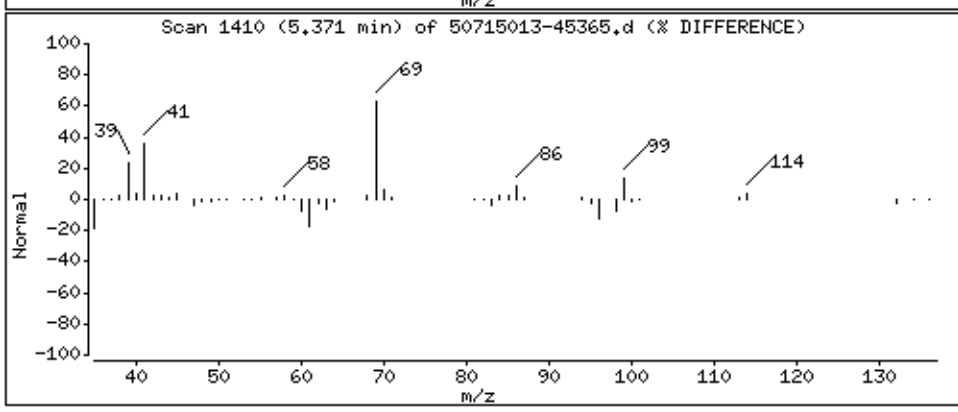
65 1,1,2-Trichloroethane

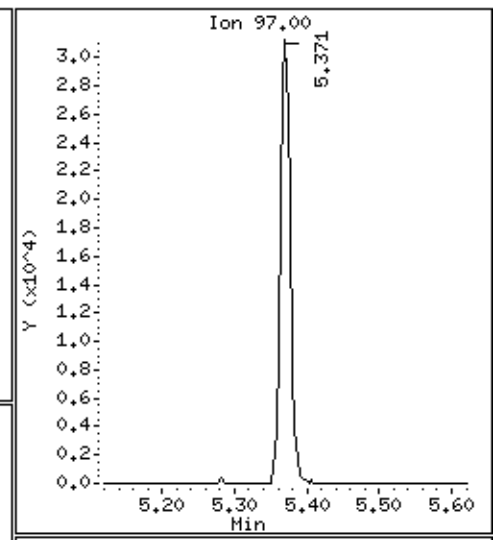
Concentration: 16.9 ug/L

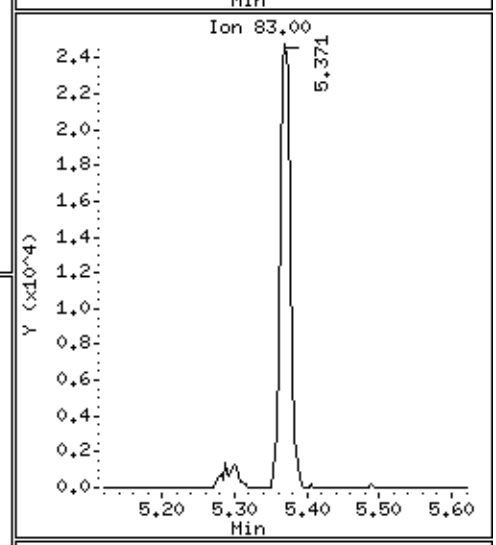


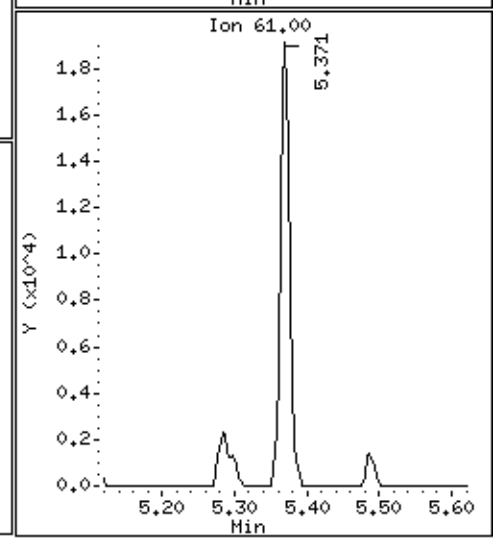












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

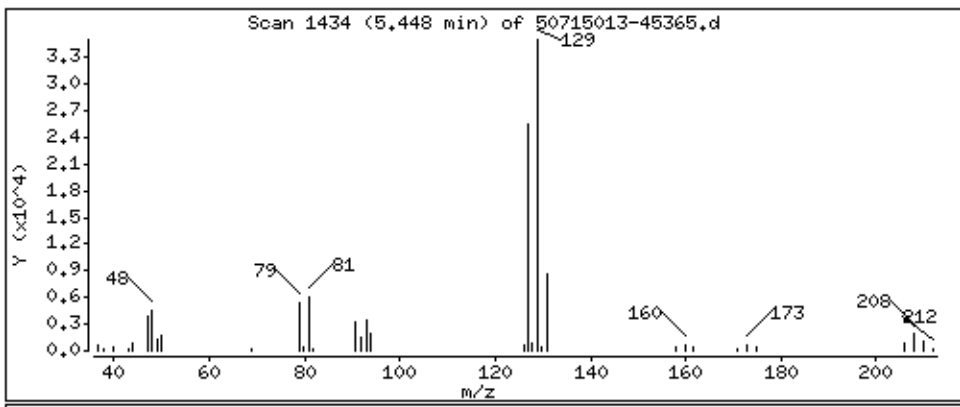
Operator: JEW

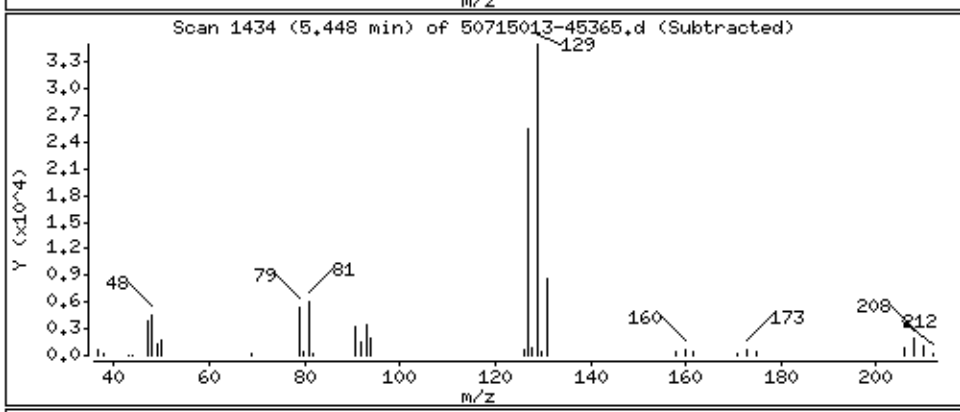
Column phase: RTX-VMS

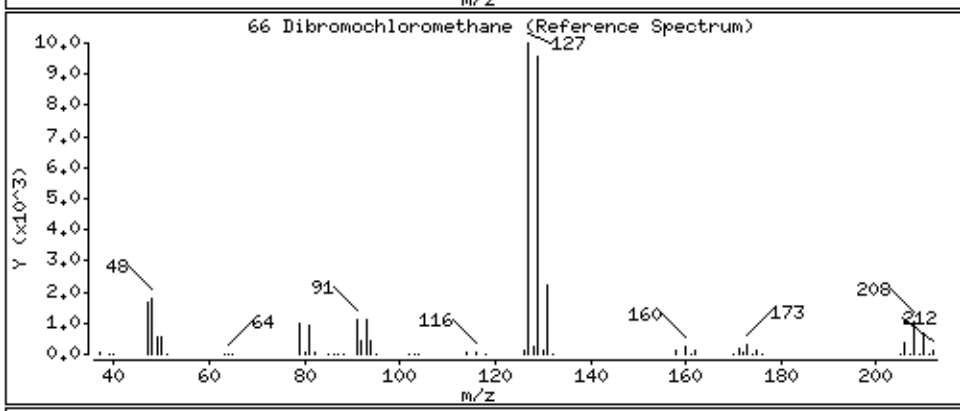
Column diameter: 0.18

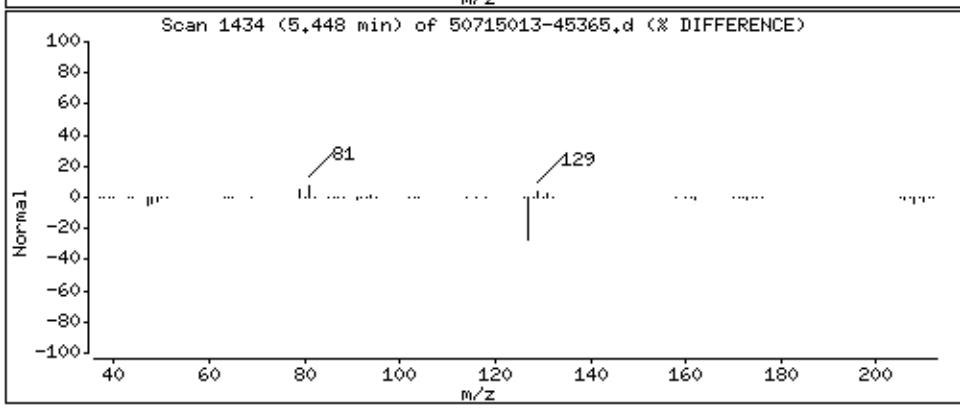
66 Dibromochloromethane

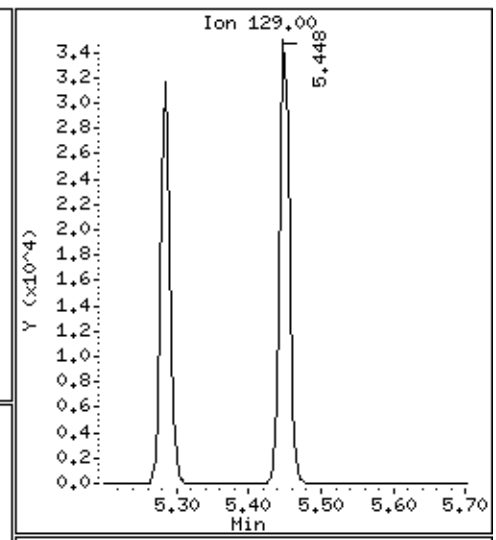
Concentration: 16.2 ug/L

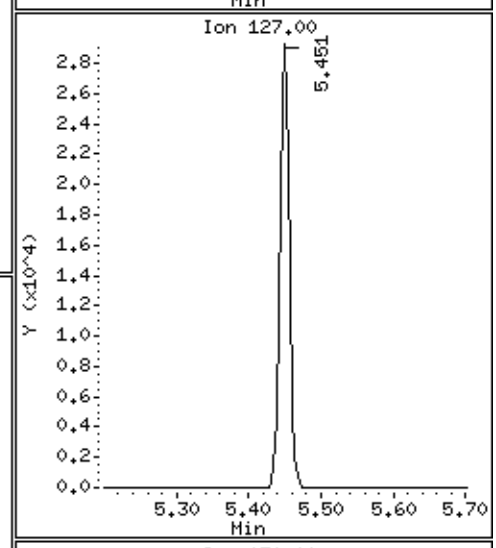


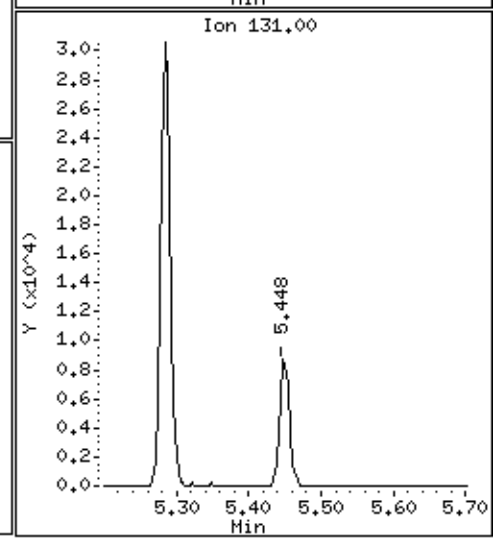












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

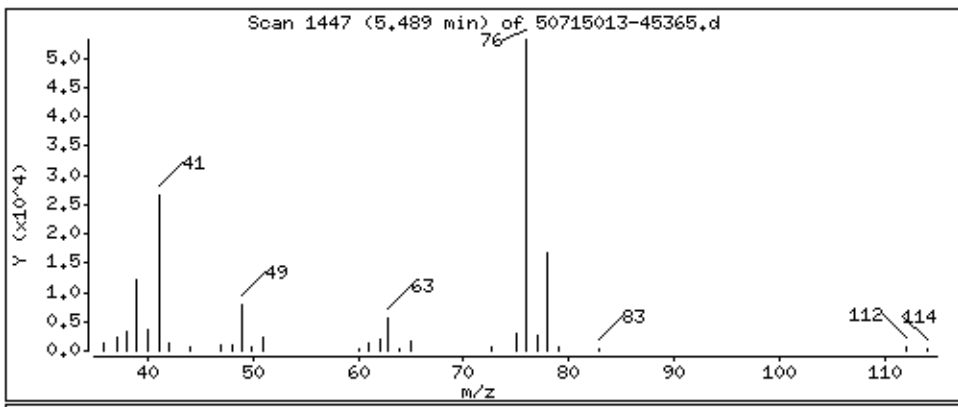
Operator: JEW

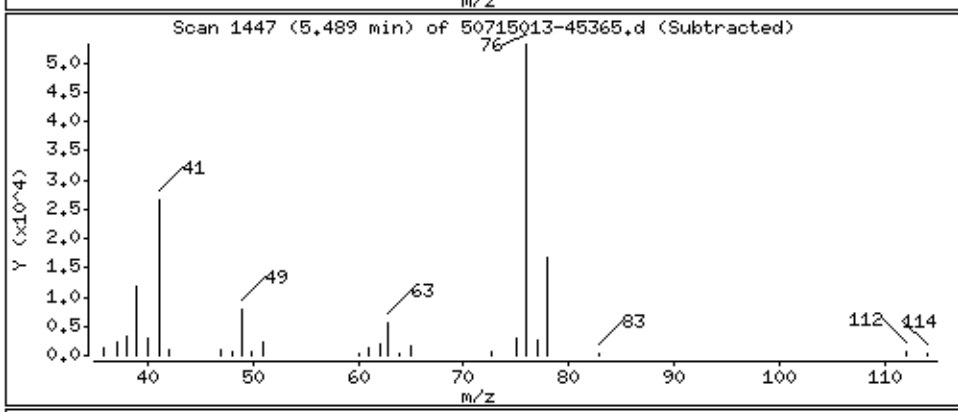
Column phase: RTX-VMS

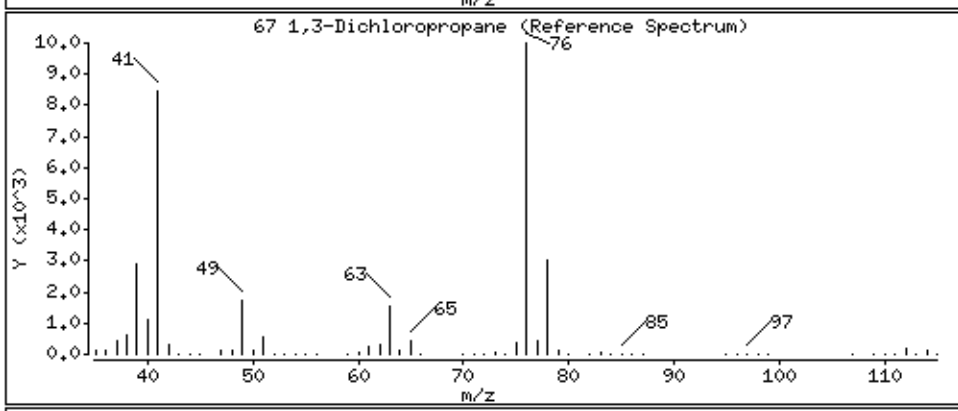
Column diameter: 0.18

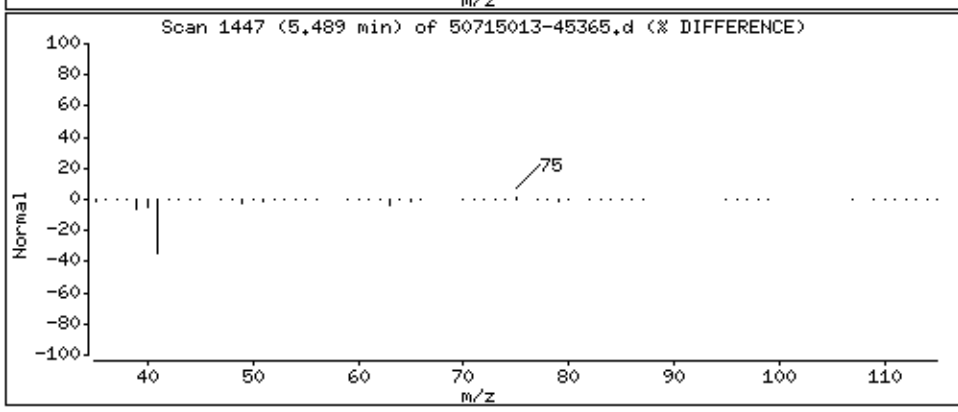
67 1,3-Dichloropropane

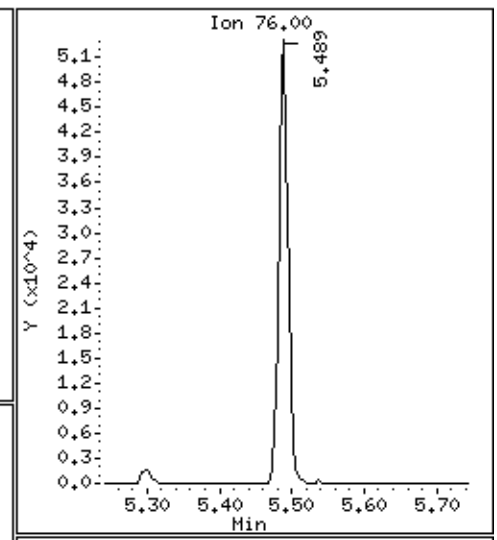
Concentration: 17.0 ug/L

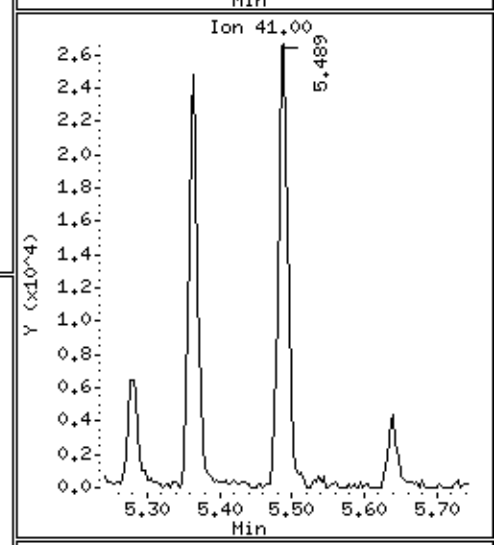


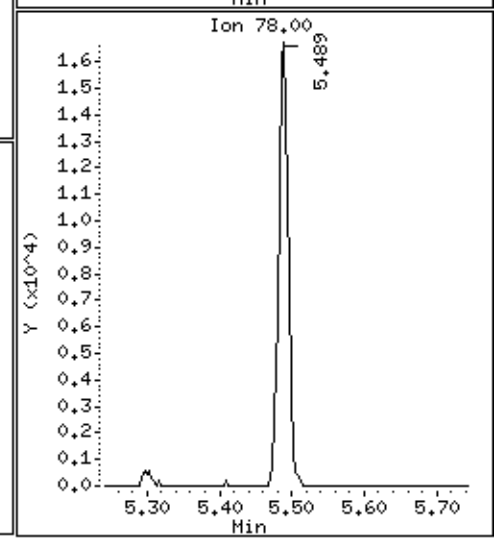












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

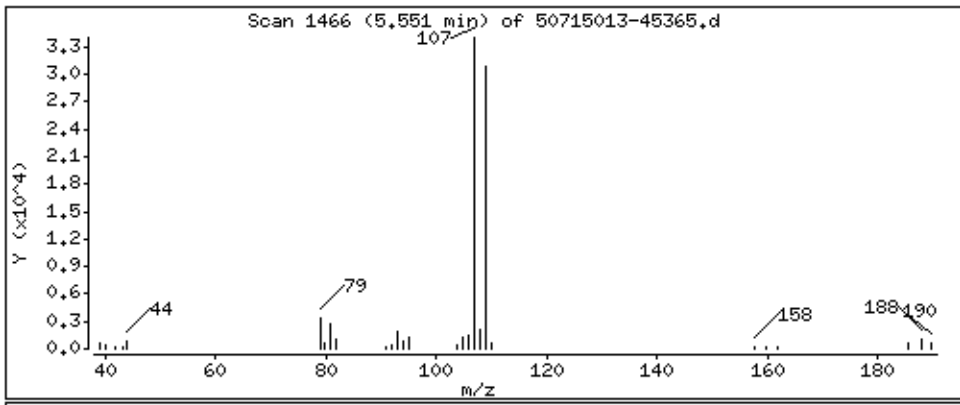
Operator: JEW

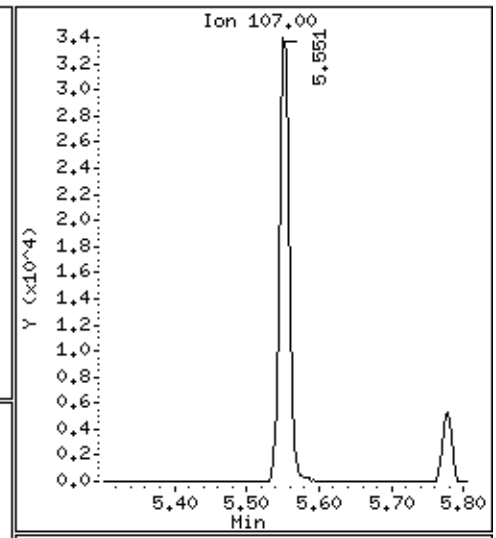
Column phase: RTX-VMS

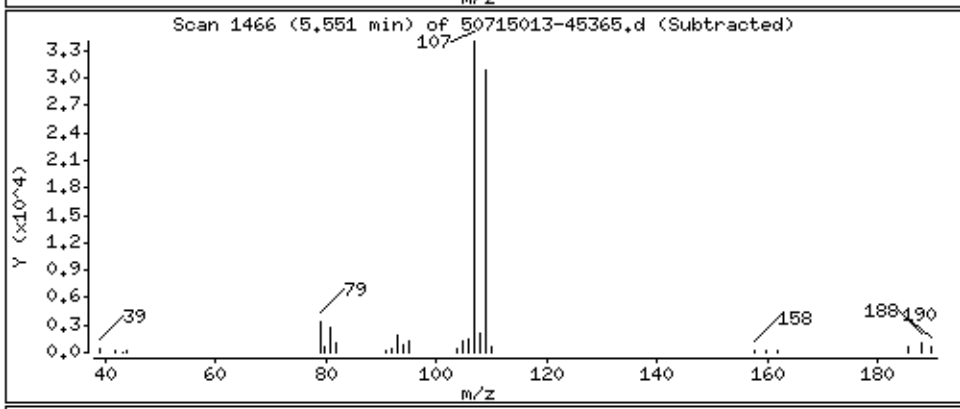
Column diameter: 0.18

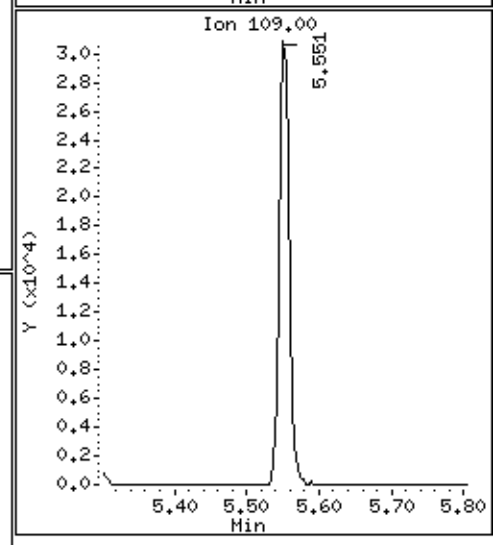
68 1,2-Dibromoethane (EDB)

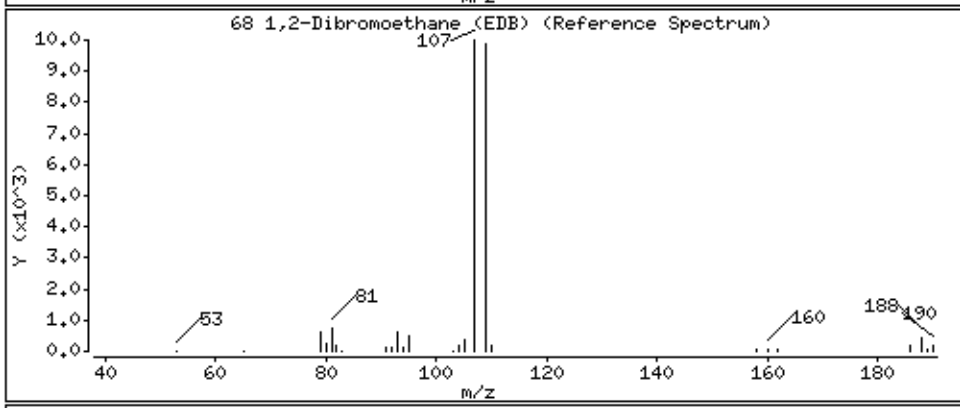
Concentration: 18.0 ug/L

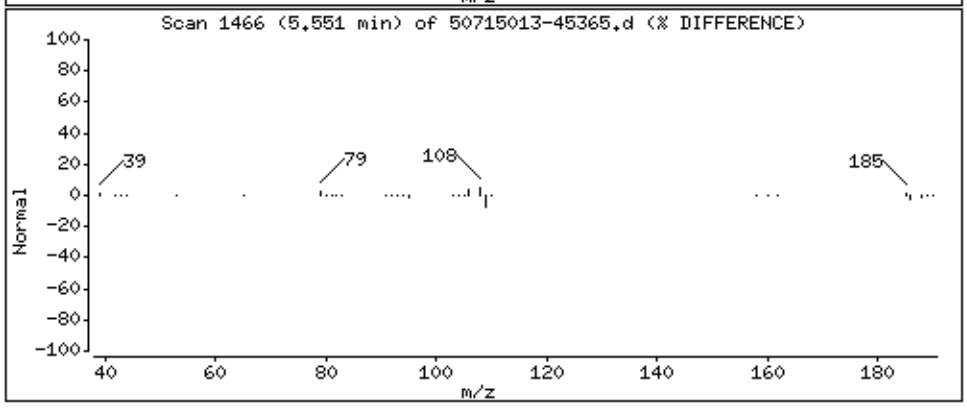












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

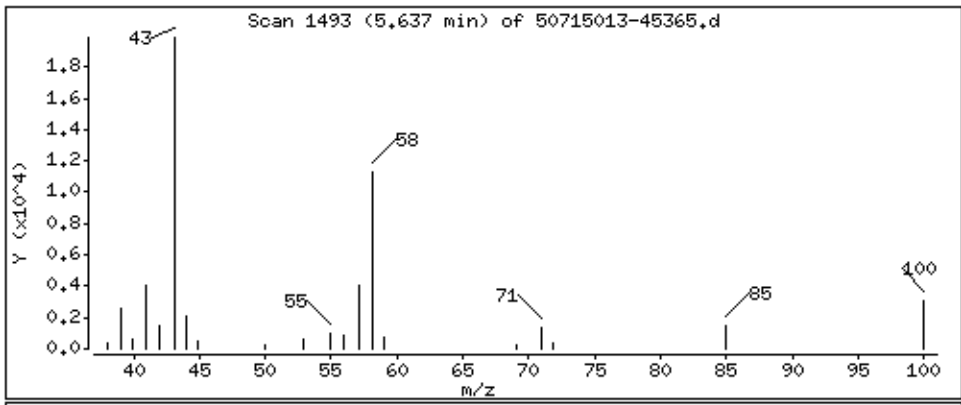
Operator: JEW

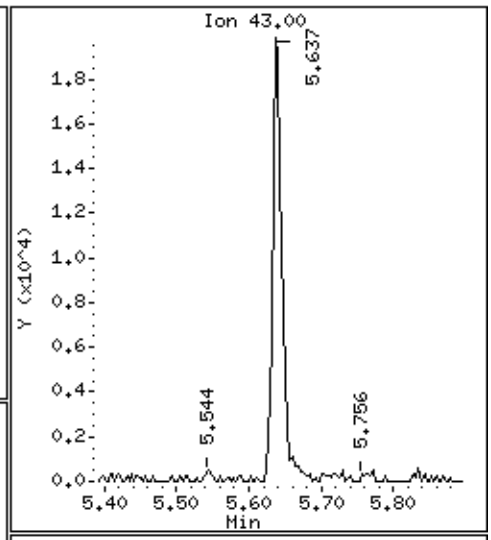
Column phase: RTX-VMS

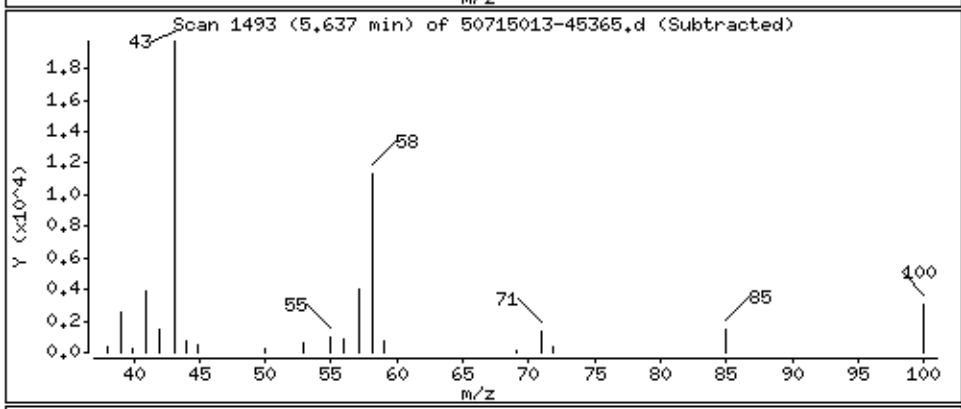
Column diameter: 0.18

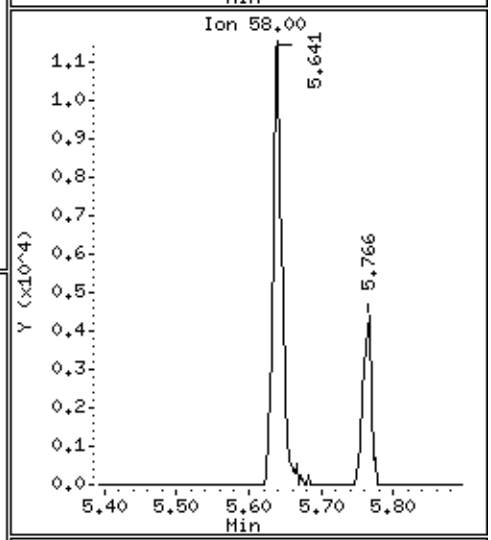
69 2-Hexanone

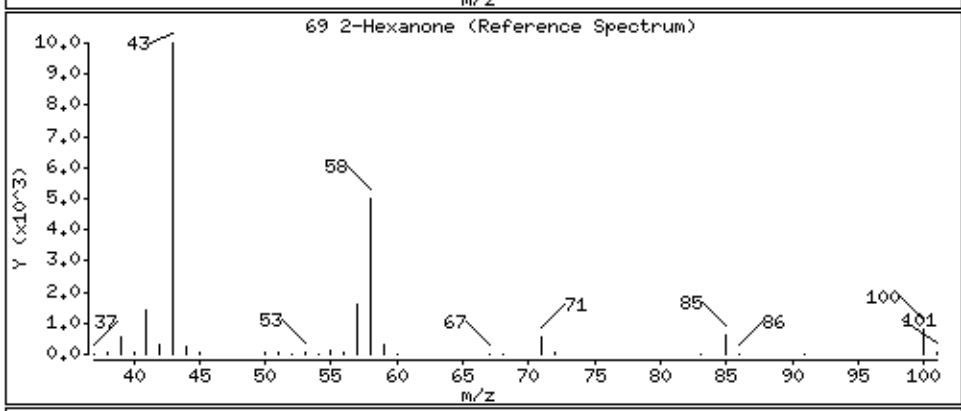
Concentration: 13.2 ug/L

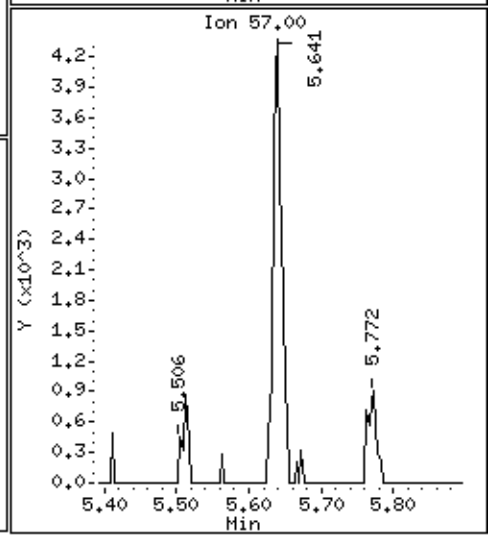


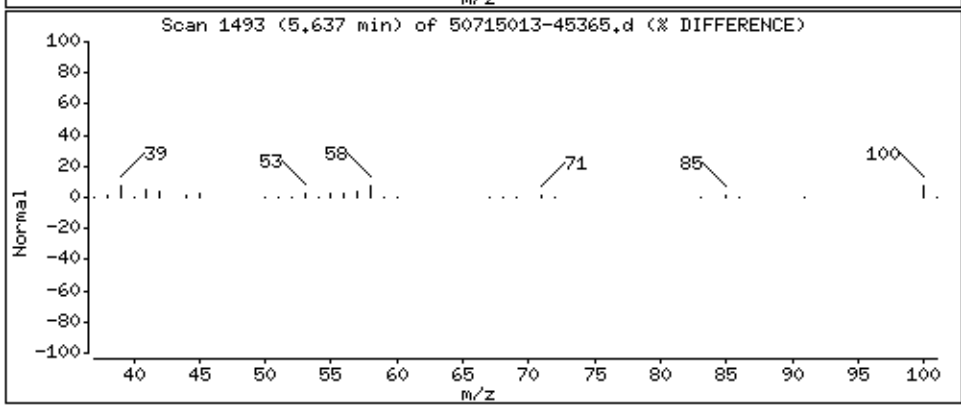












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

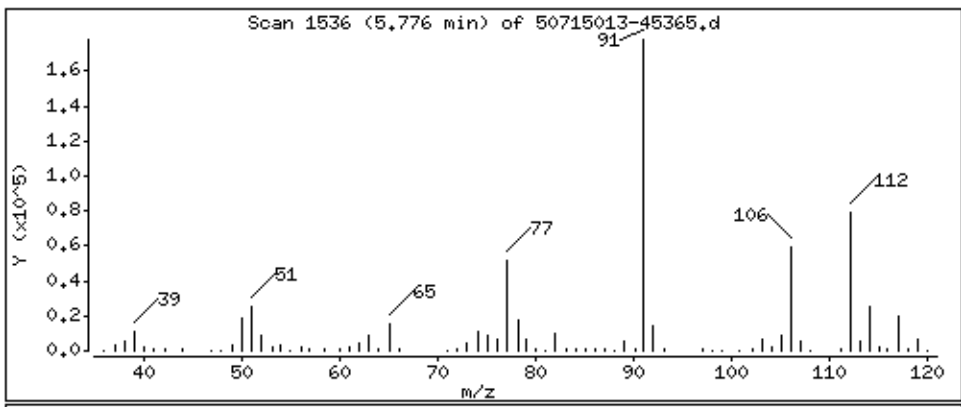
Operator: JEW

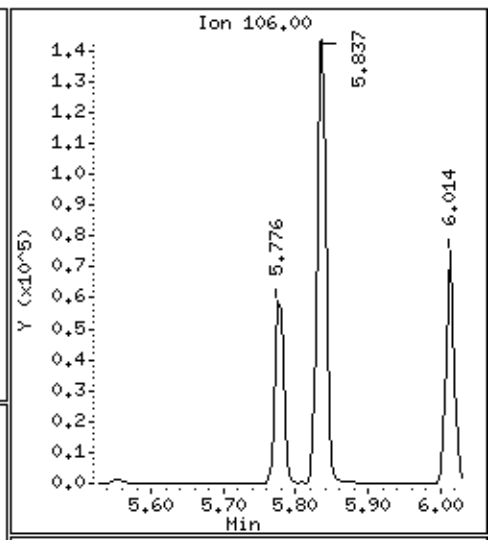
Column phase: RTX-VMS

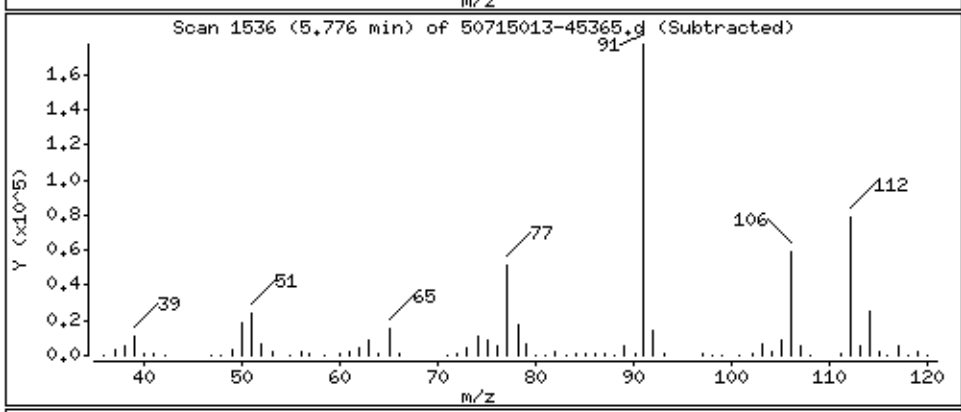
Column diameter: 0.18

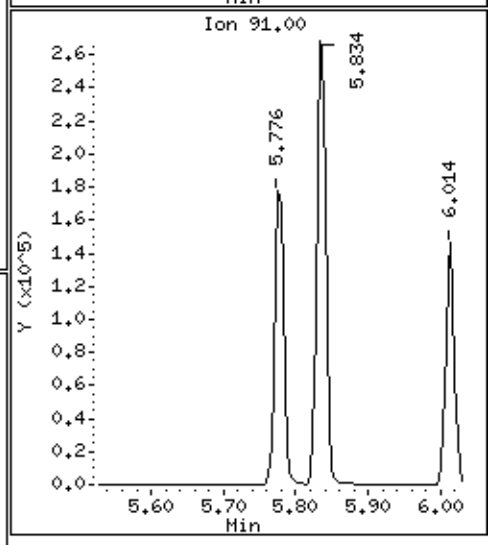
70 Ethylbenzene

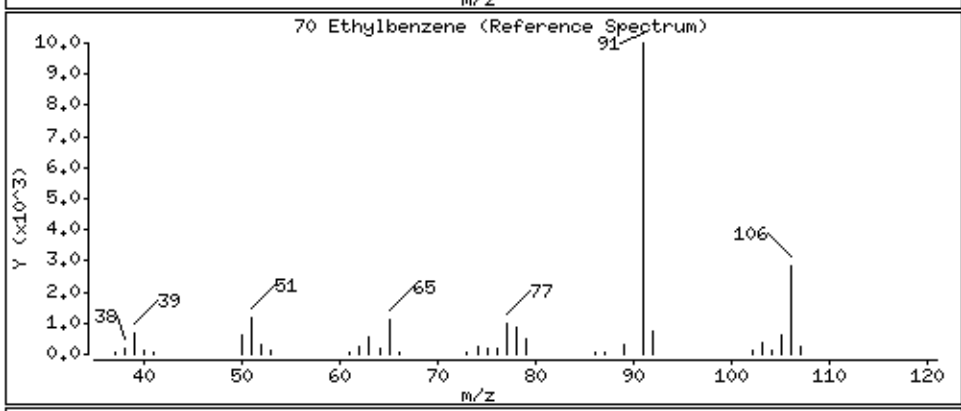
Concentration: 18.4 ug/L

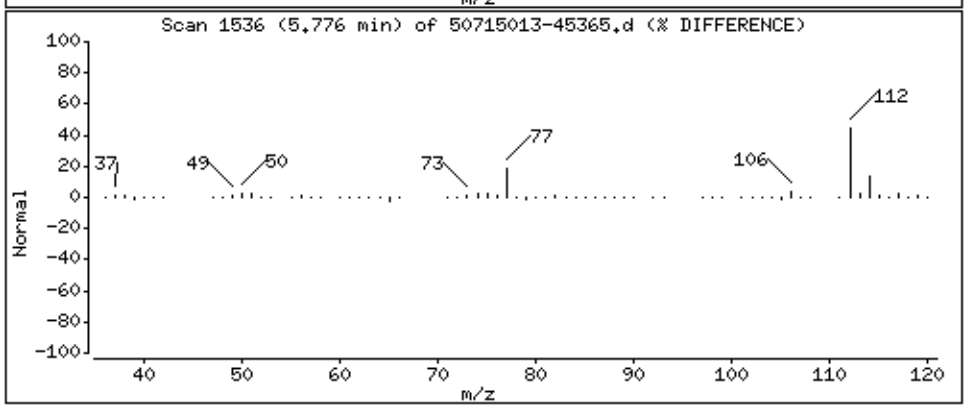












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

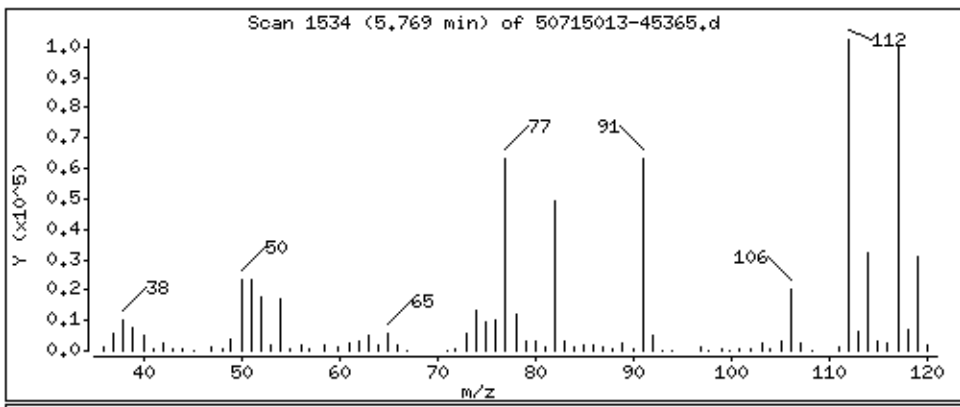
Operator: JEW

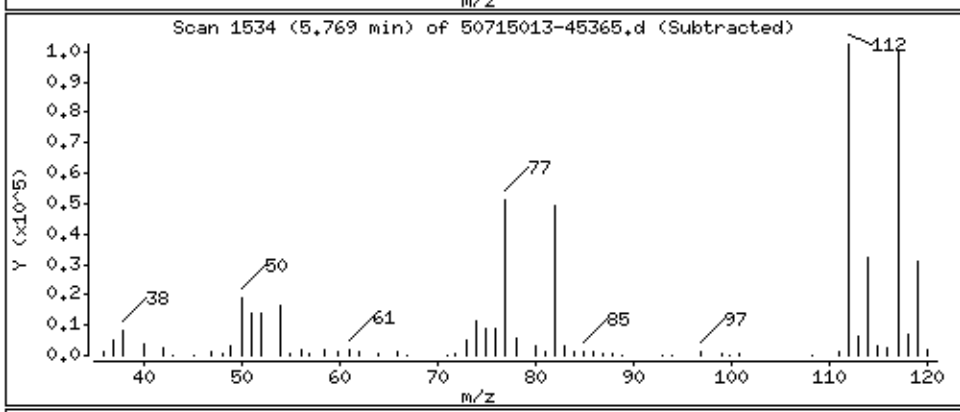
Column phase: RTX-VMS

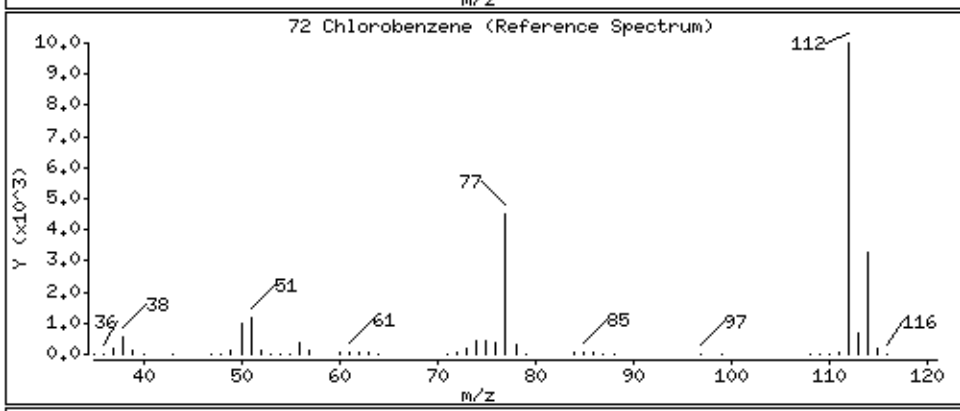
Column diameter: 0.18

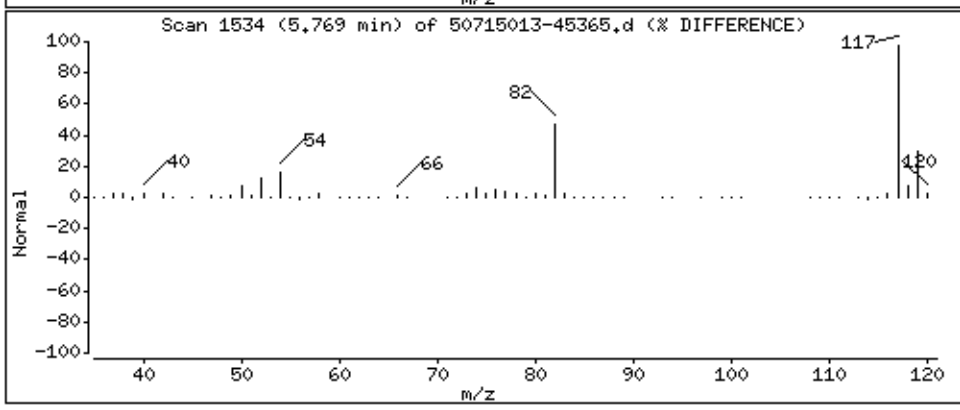
72 Chlorobenzene

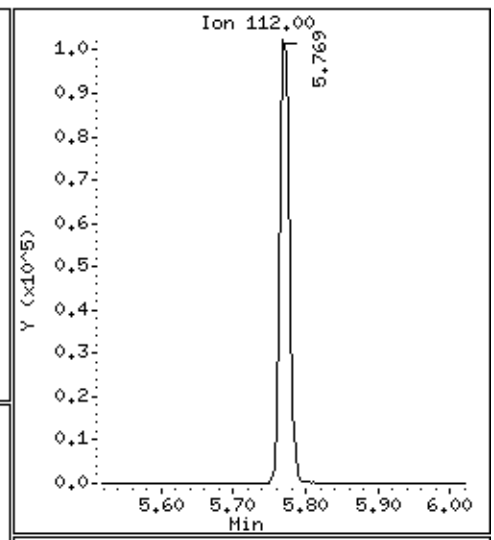
Concentration: 17.9 ug/L

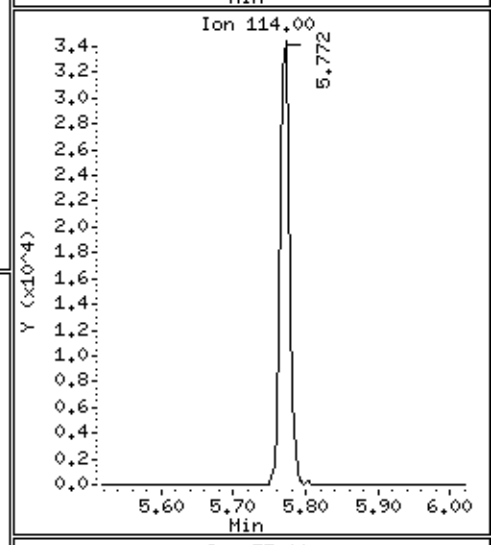


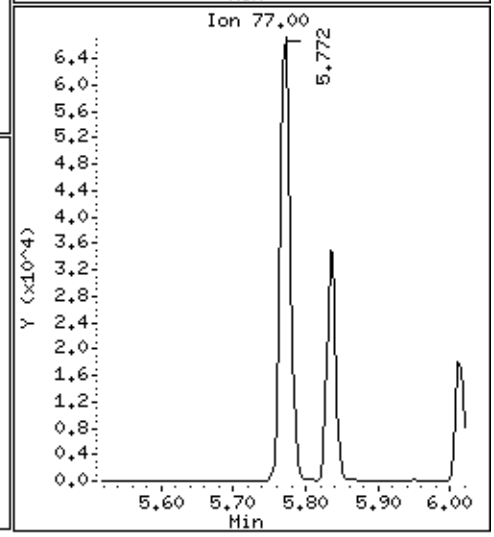












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

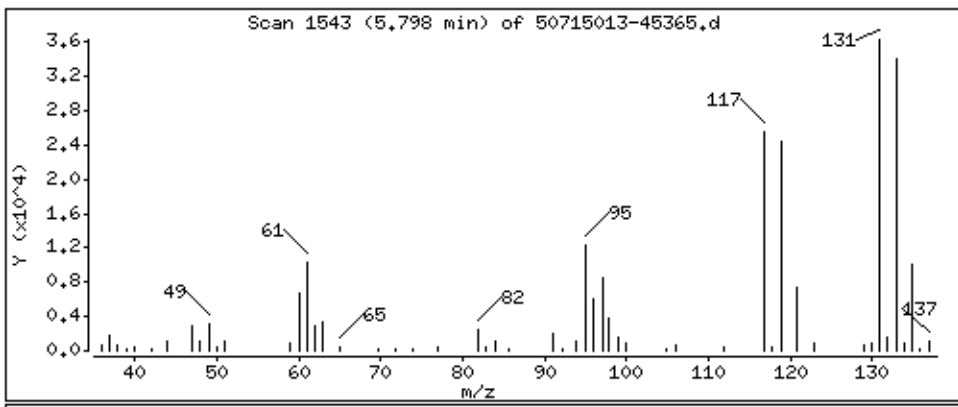
Operator: JEW

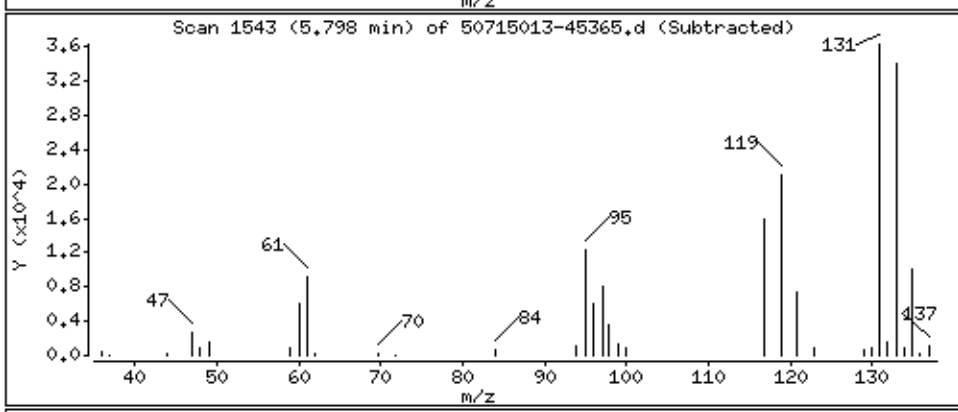
Column phase: RTX-VMS

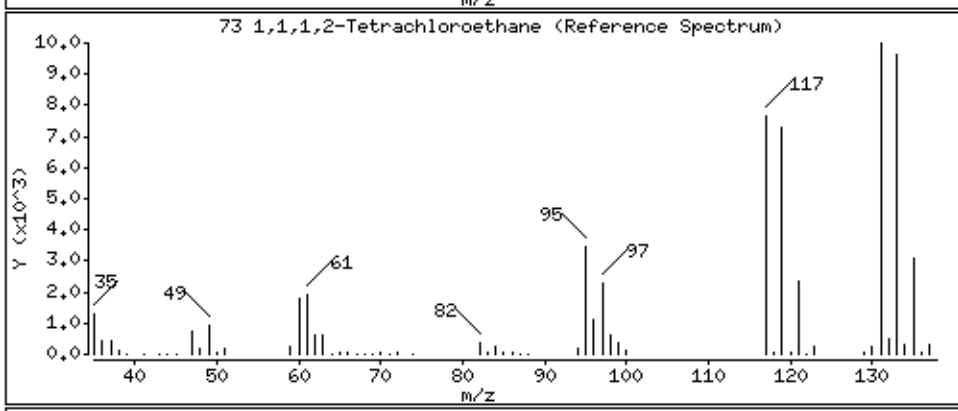
Column diameter: 0.18

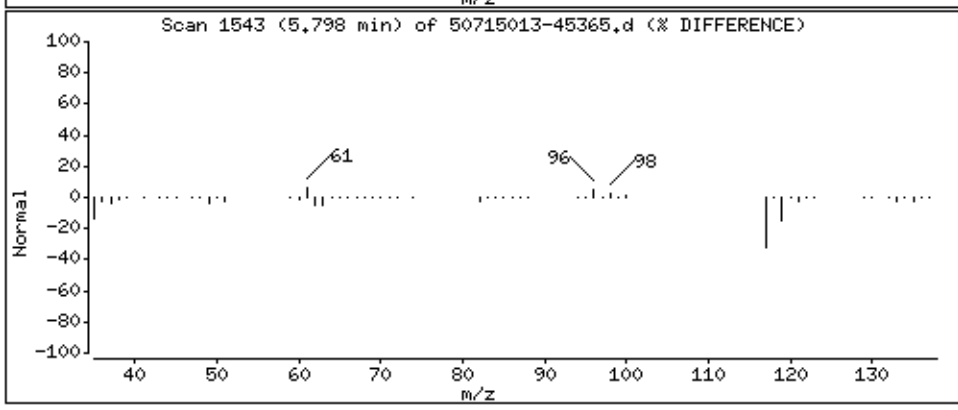
73 1,1,1,2-Tetrachloroethane

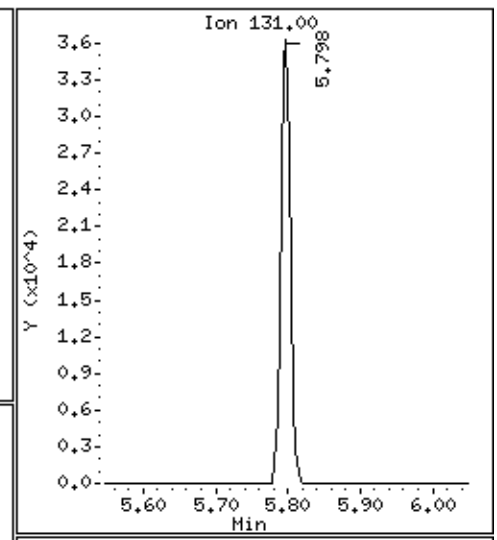
Concentration: 16.4 ug/L

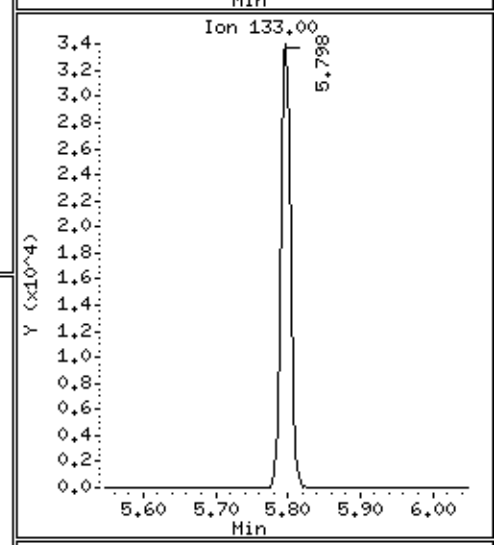


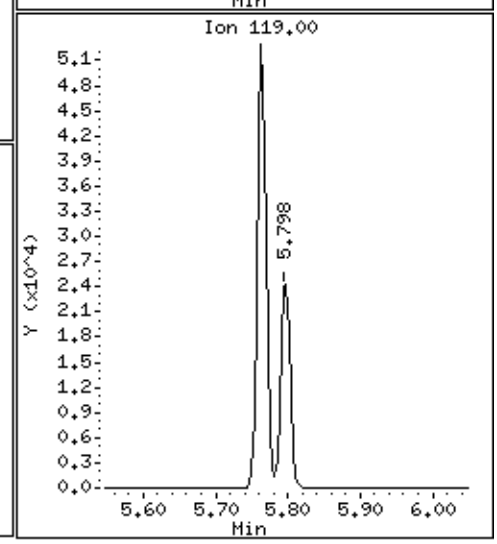












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

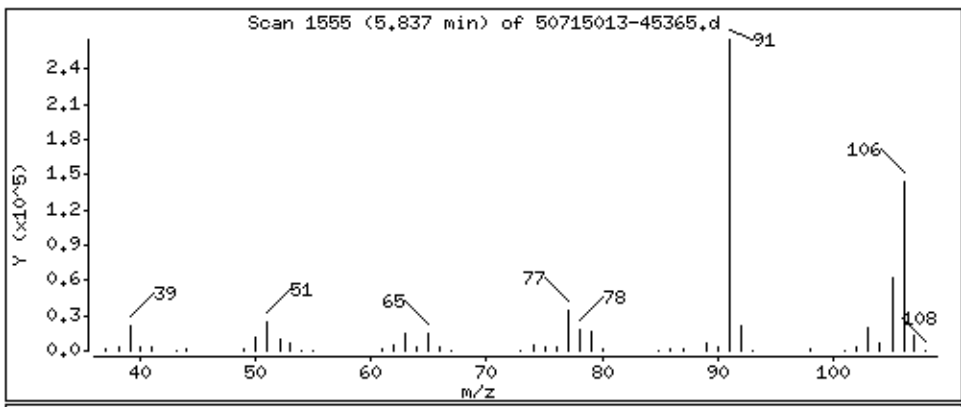
Client ID: MBLCS | Instrument: 30mv5a.i

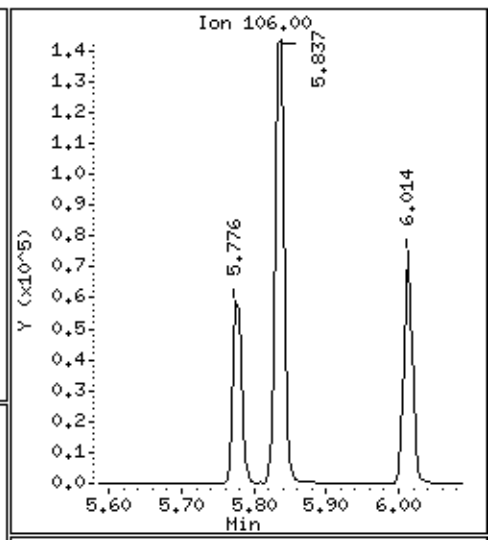
Sample Info: 1709347,93569:5,,

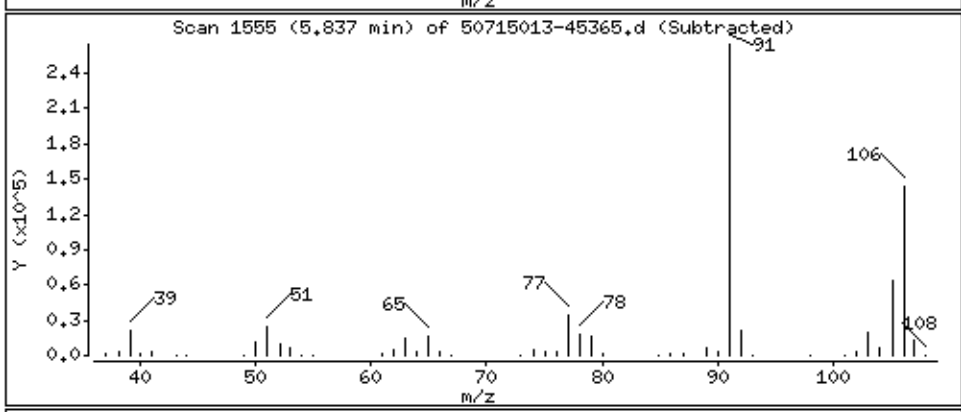
Purge Volume: 5.0 | Operator: JEW

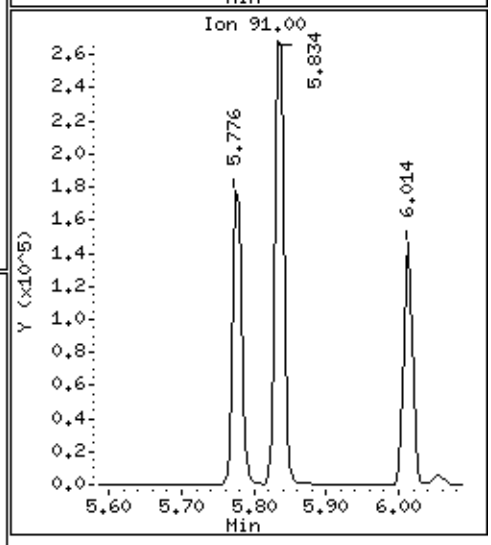
Column phase: RTX-VMS | Column diameter: 0.18

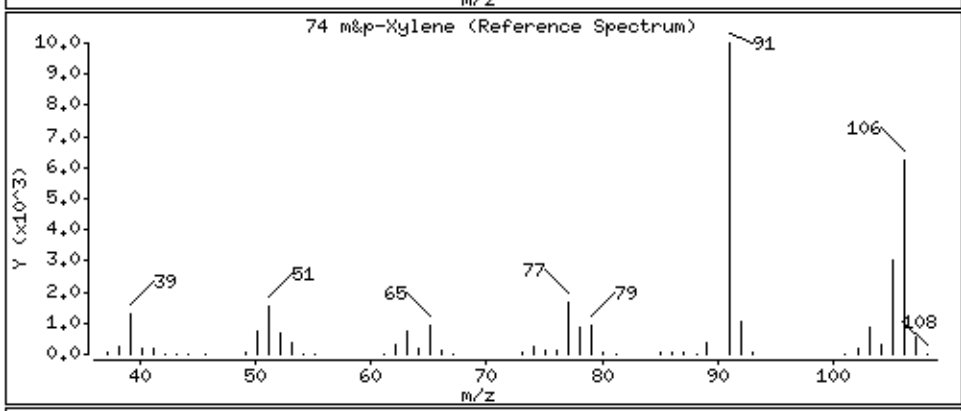
74 m&p-Xylene | Concentration: 36.3 ug/L

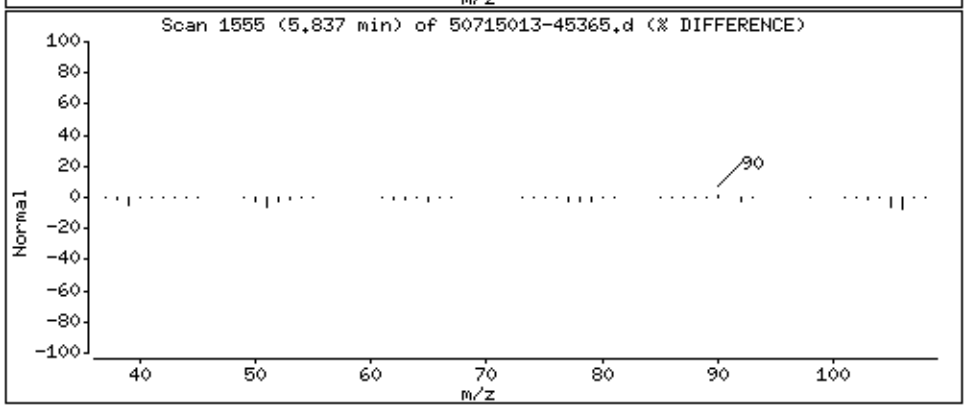












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

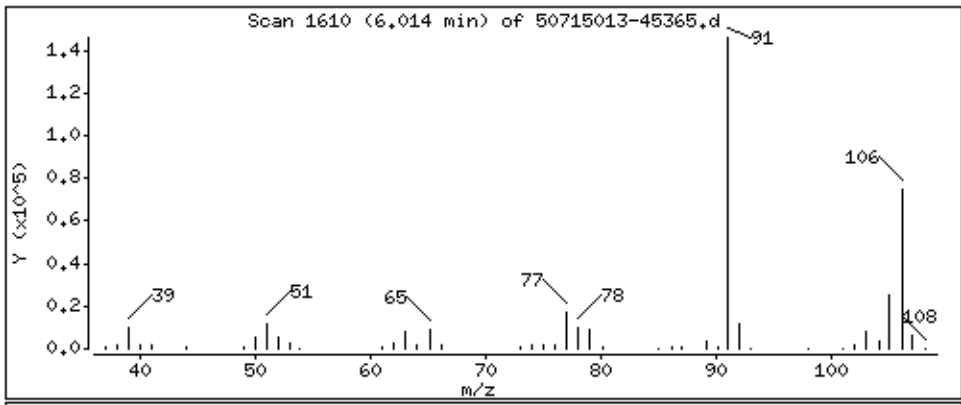
Operator: JEW

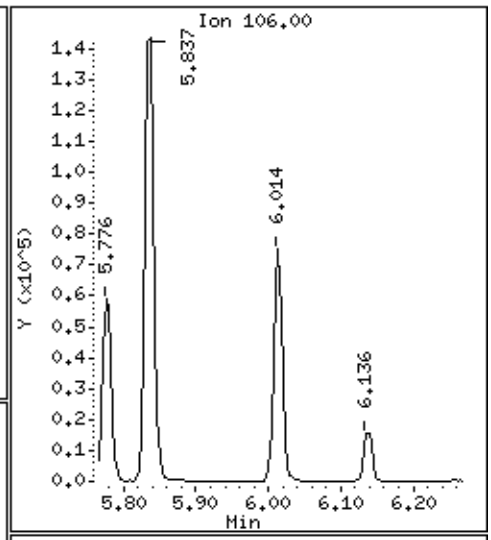
Column phase: RTX-VMS

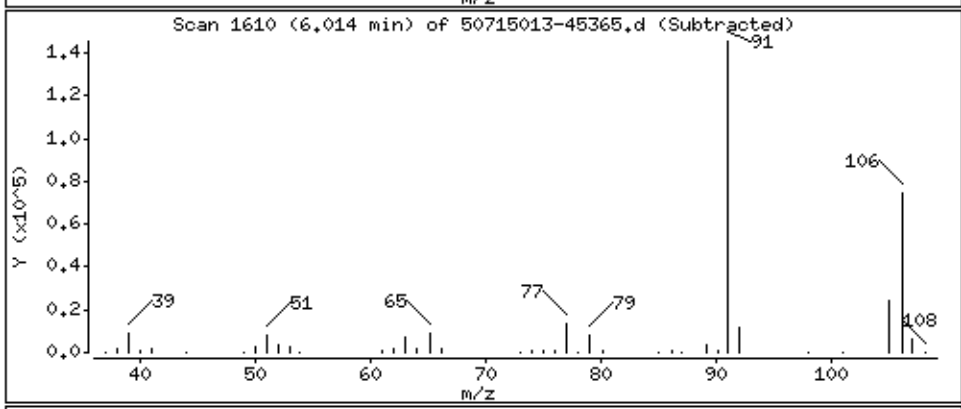
Column diameter: 0.18

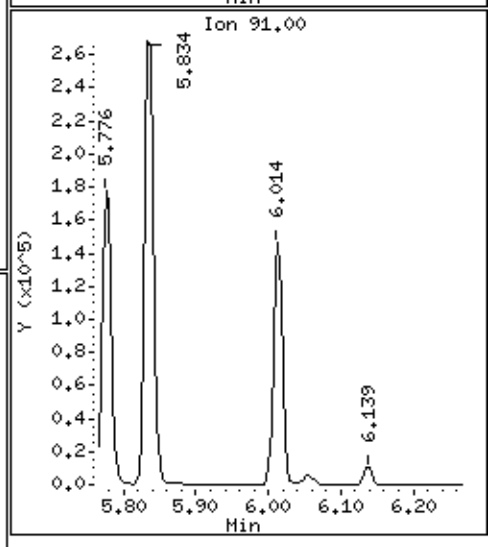
75 o-Xylene

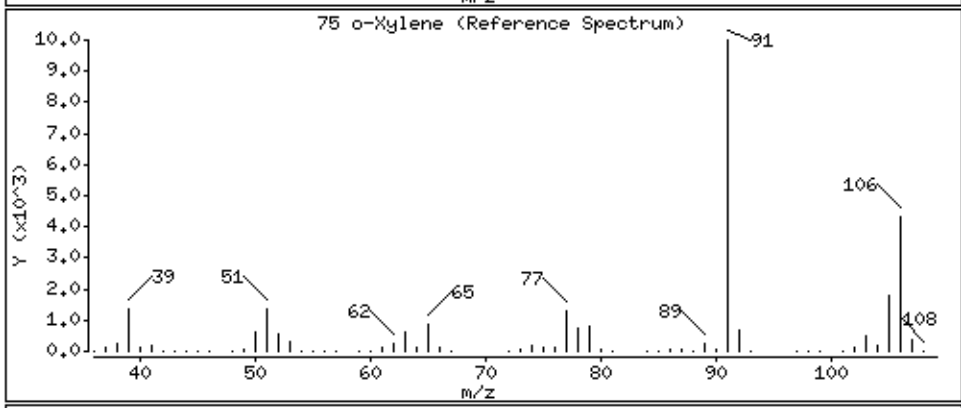
Concentration: 18.0 ug/L

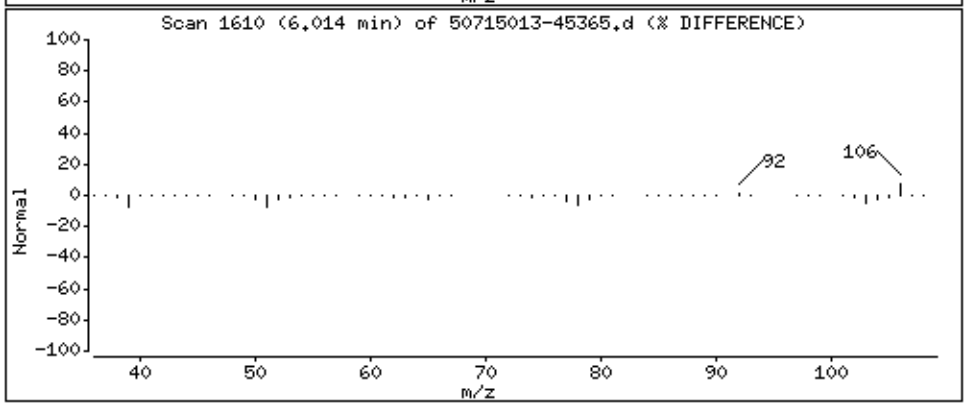












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

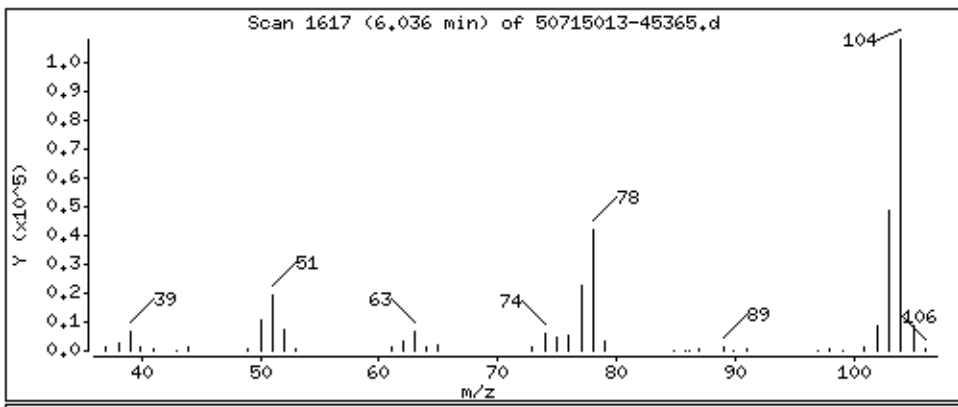
Operator: JEW

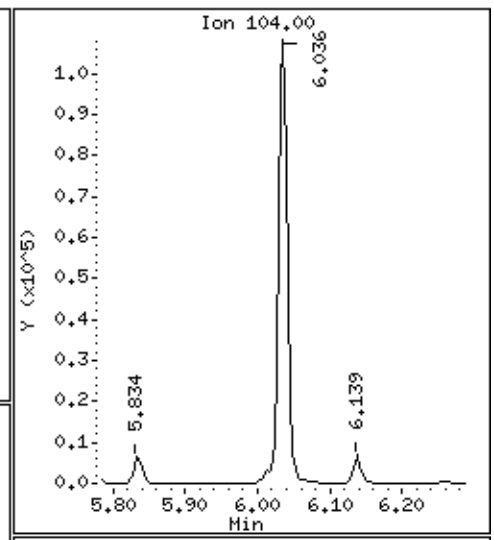
Column phase: RTX-VMS

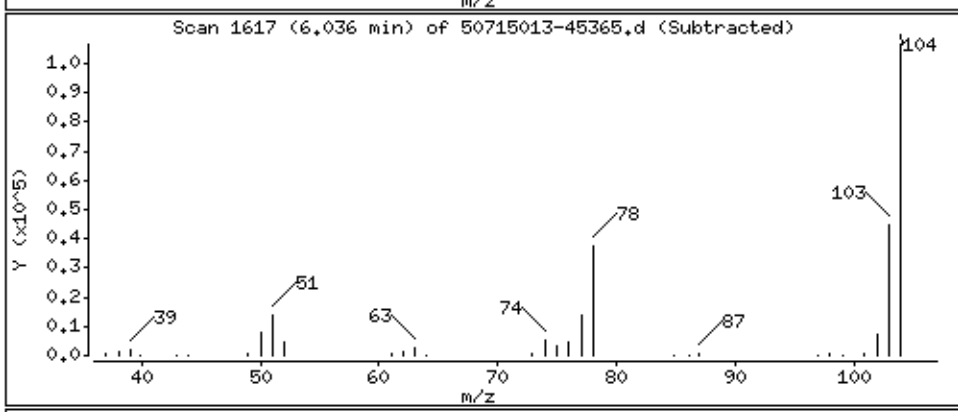
Column diameter: 0.18

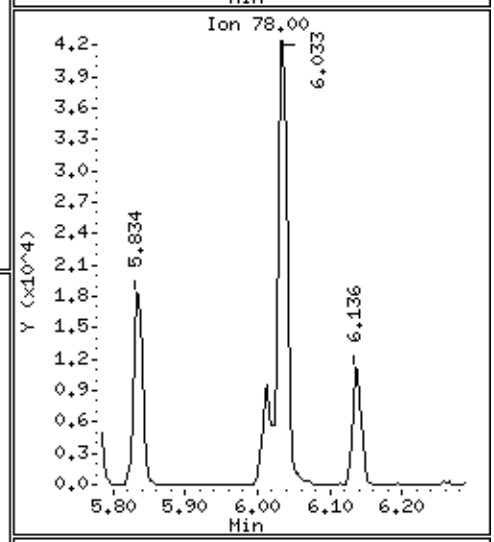
76 Styrene

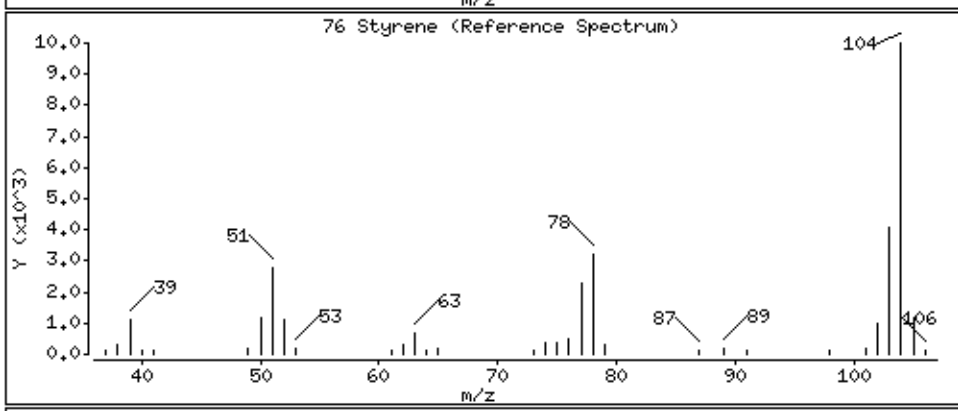
Concentration: 17.2 ug/L

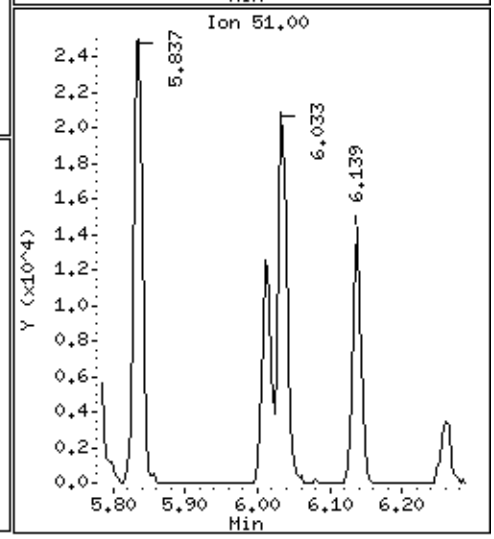


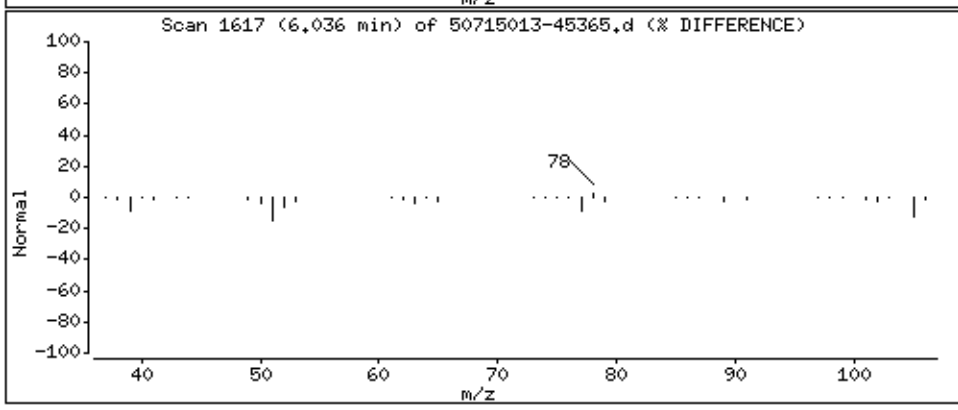












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

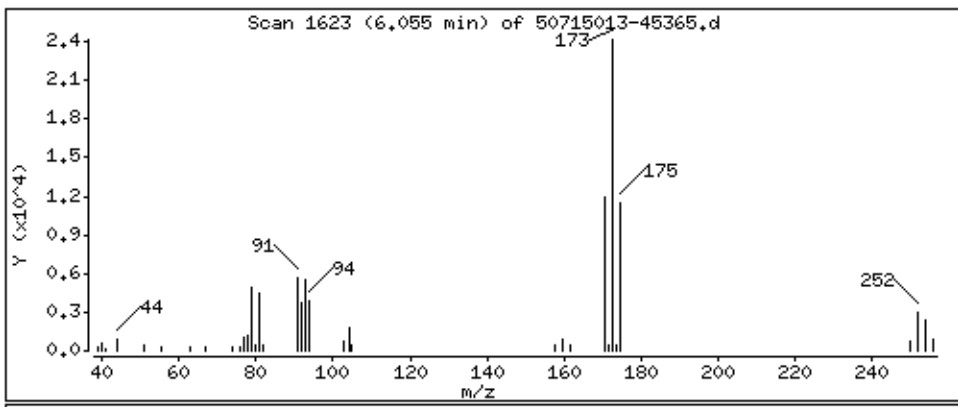
Operator: JEW

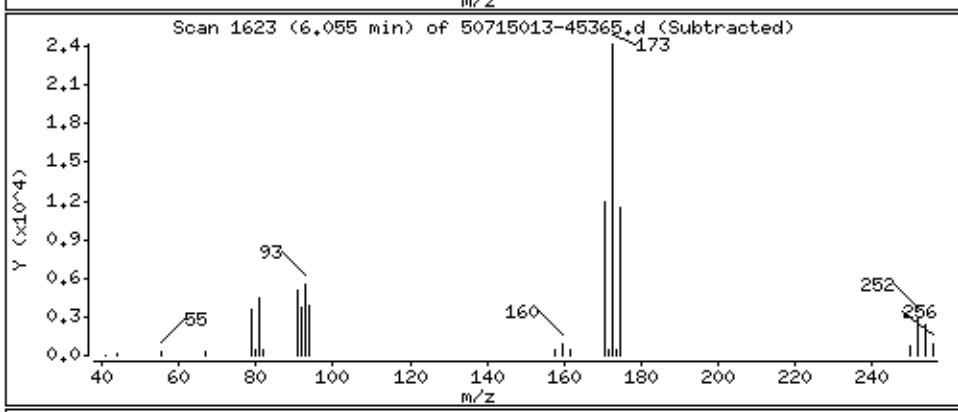
Column phase: RTX-VMS

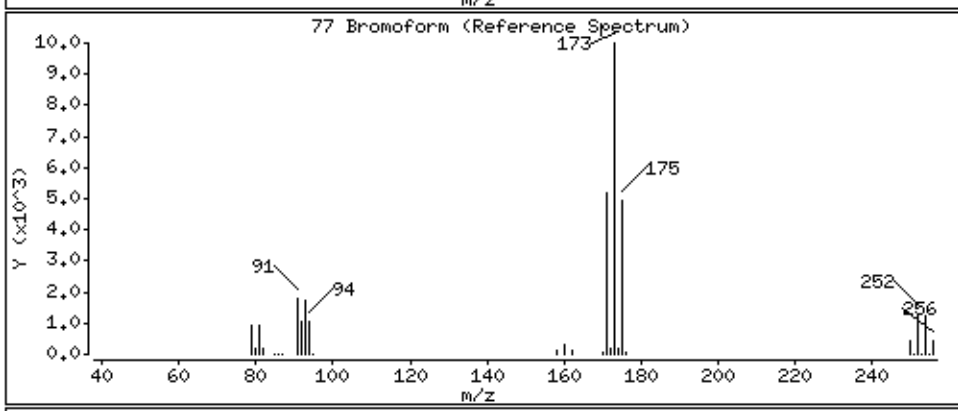
Column diameter: 0.18

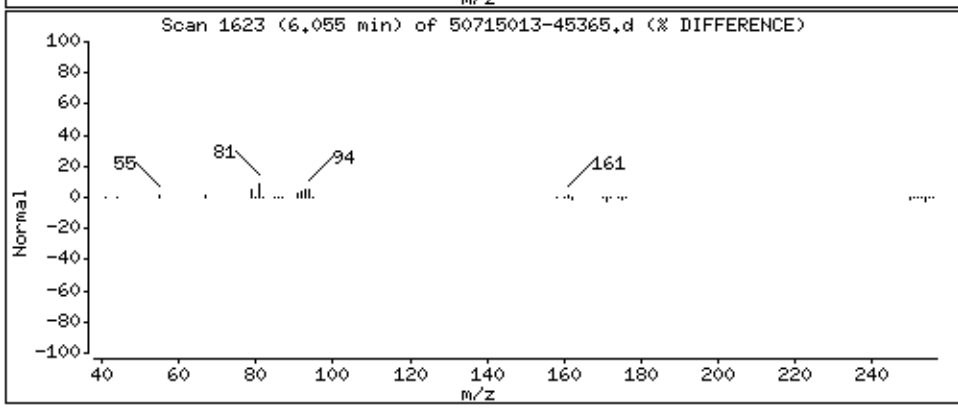
77 Bromoform

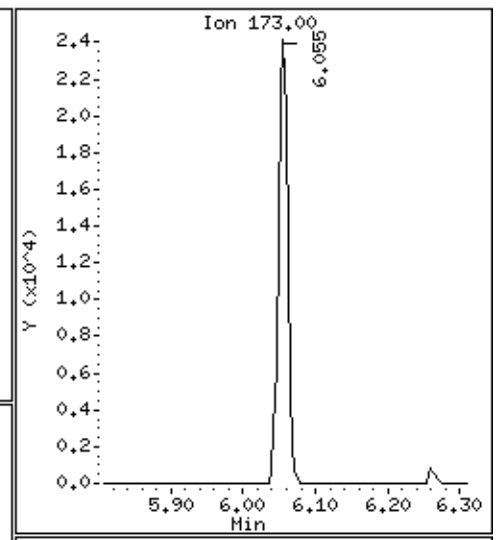
Concentration: 14.3 ug/L

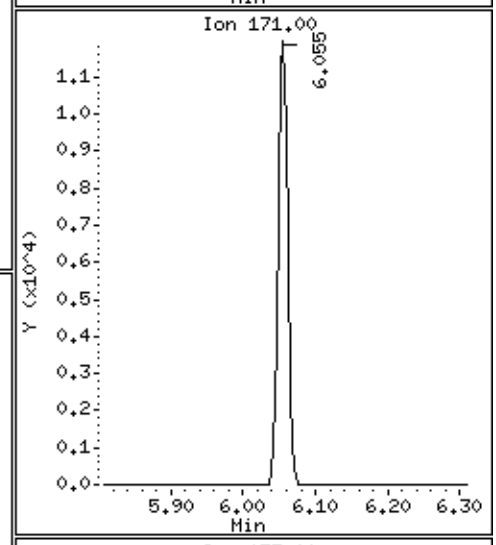


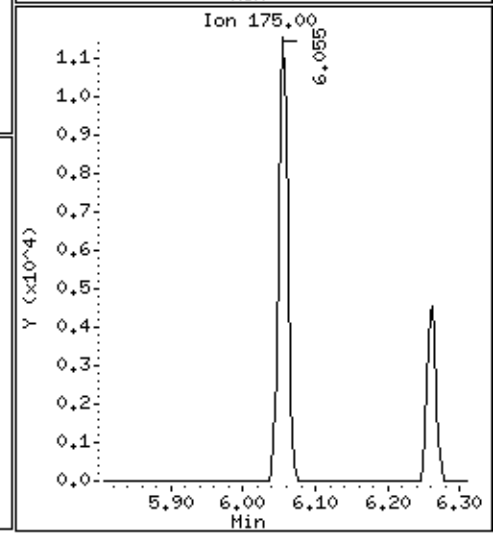












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

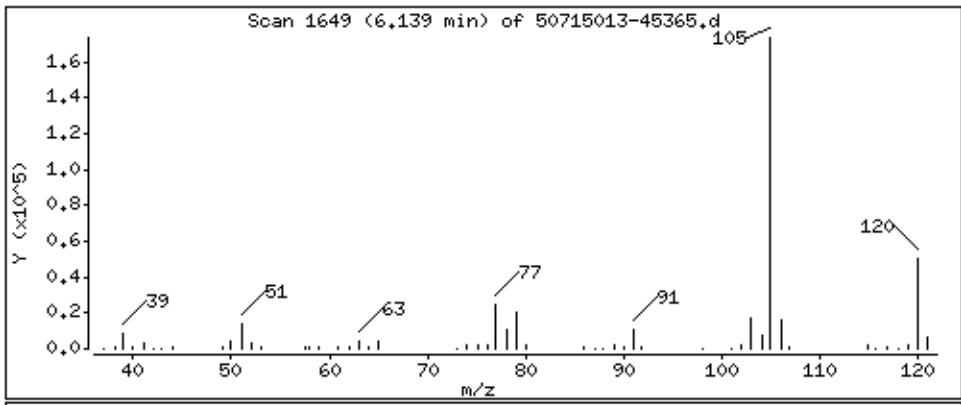
Operator: JEW

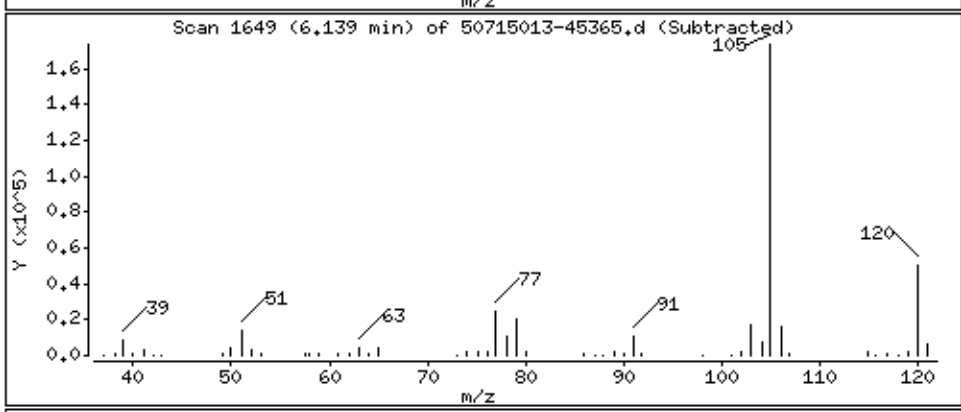
Column phase: RTX-VMS

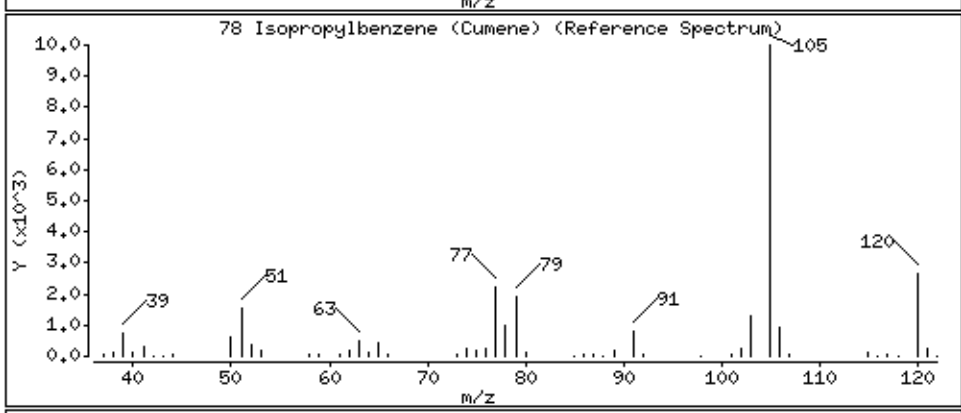
Column diameter: 0.18

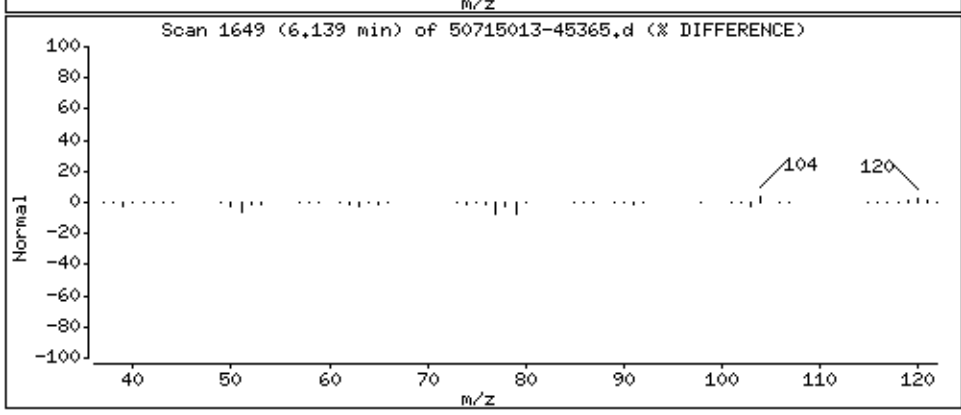
78 Isopropylbenzene (Cumene)

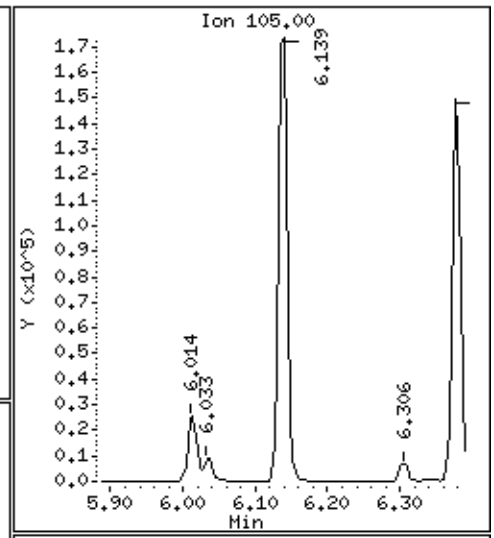
Concentration: 18.0 ug/L

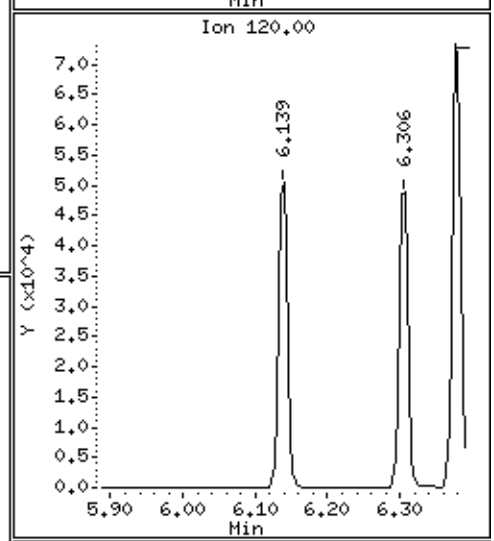


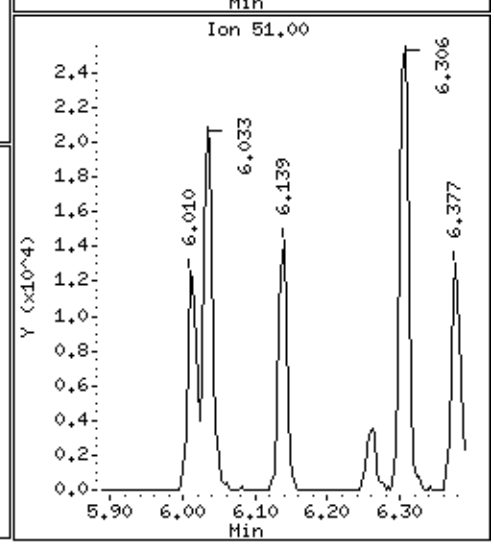












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

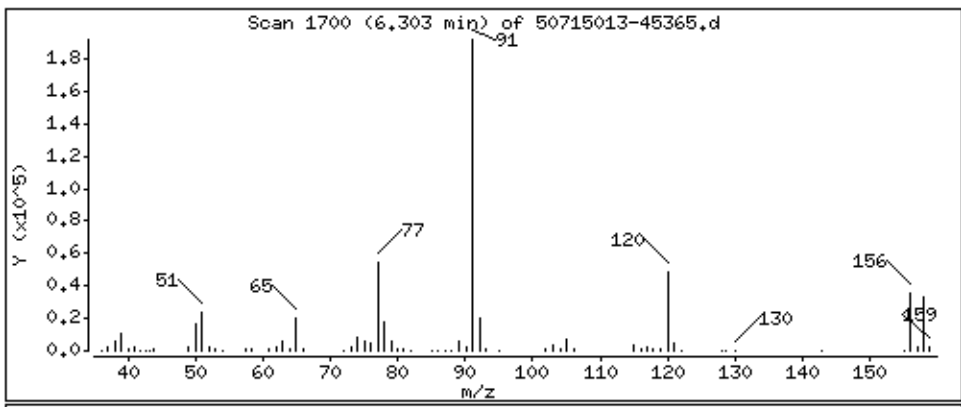
Operator: JEW

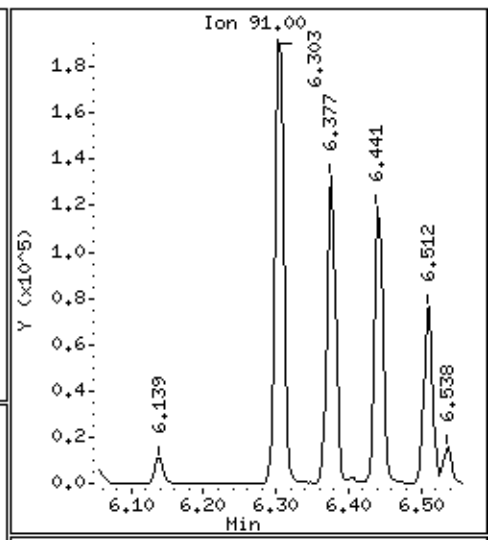
Column phase: RTX-VMS

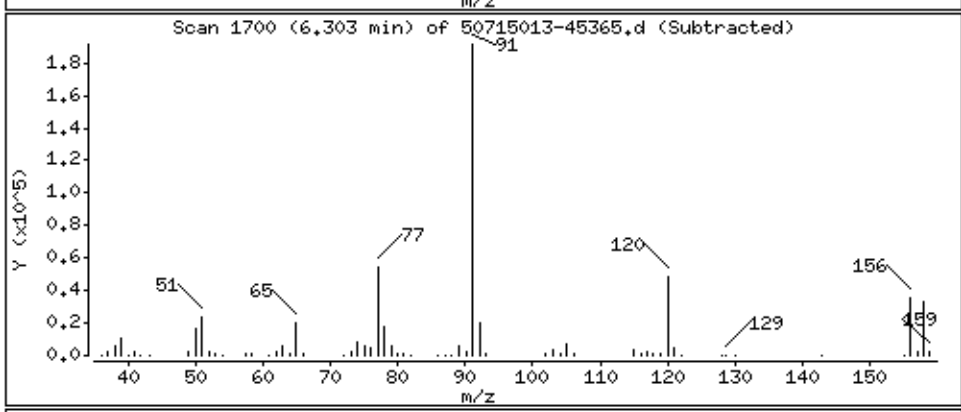
Column diameter: 0.18

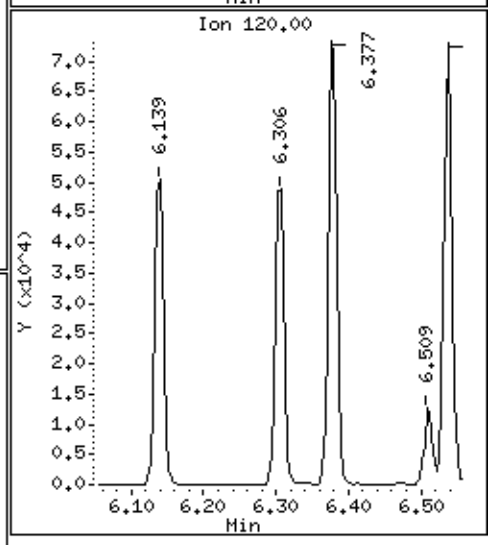
80 n-Propylbenzene

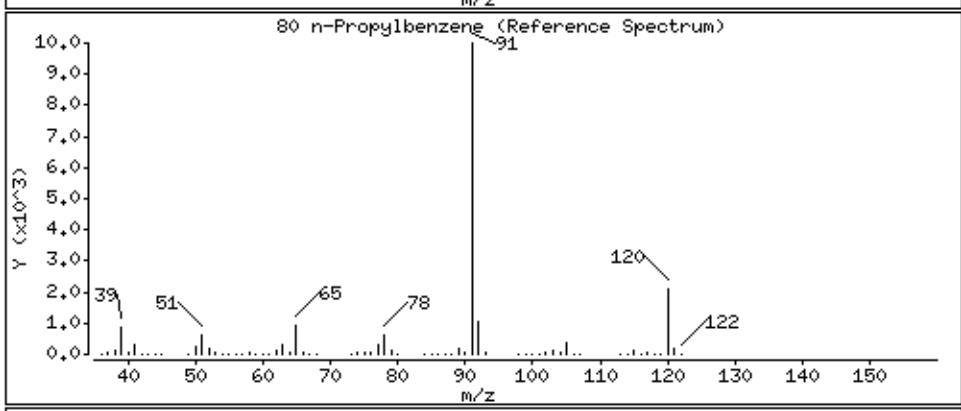
Concentration: 17.0 ug/L

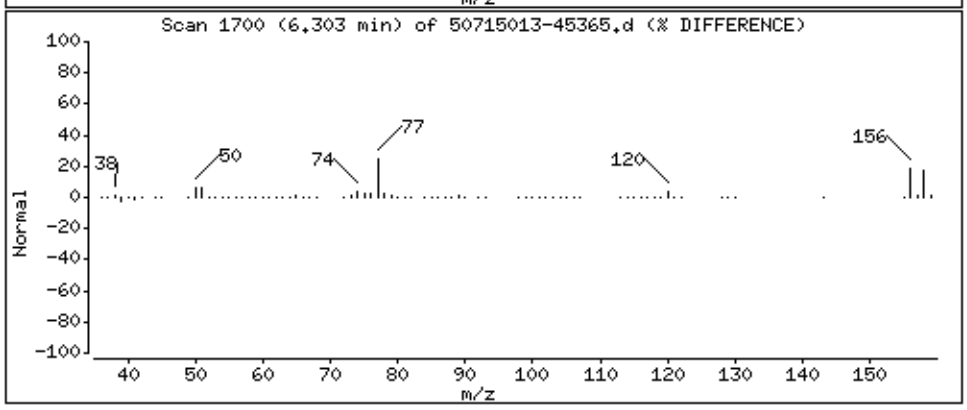












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

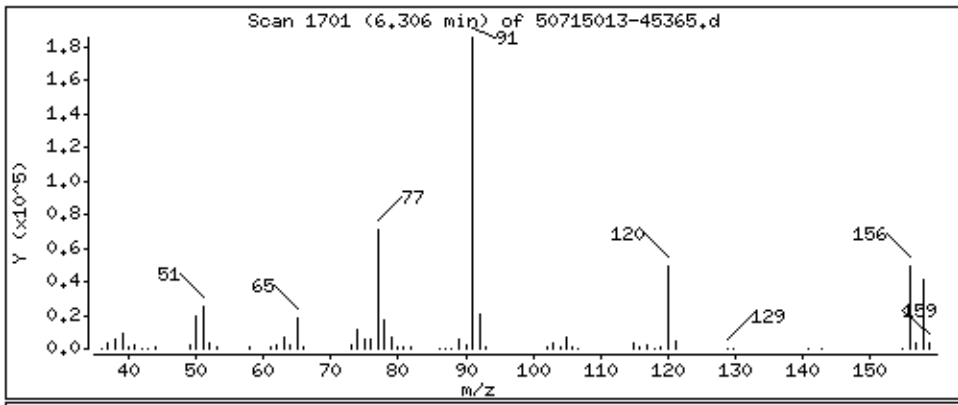
Operator: JEW

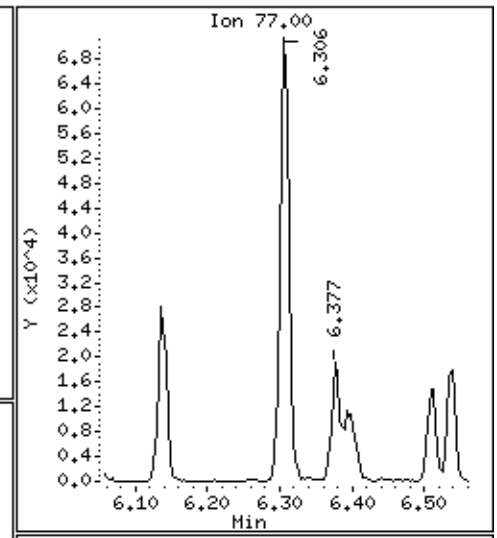
Column phase: RTX-VMS

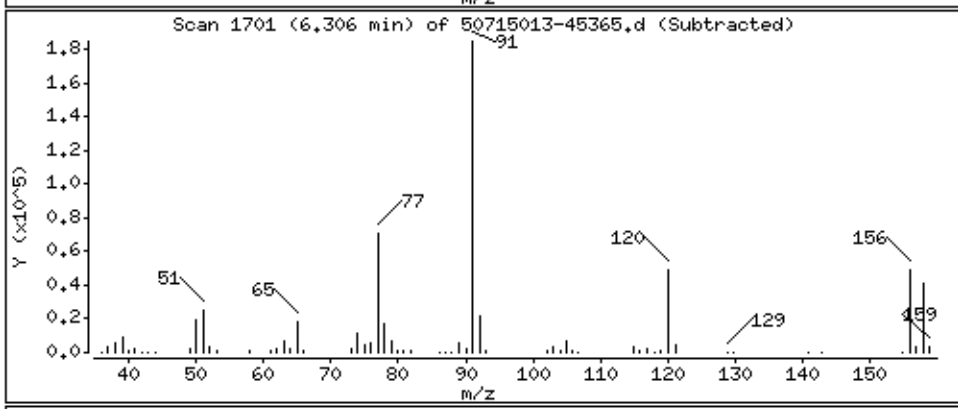
Column diameter: 0.18

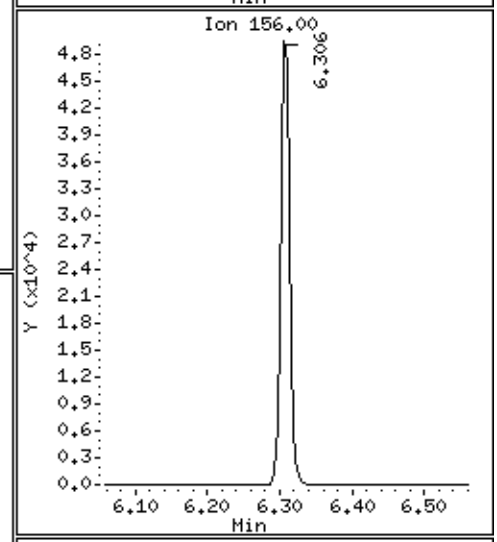
81 Bromobenzene

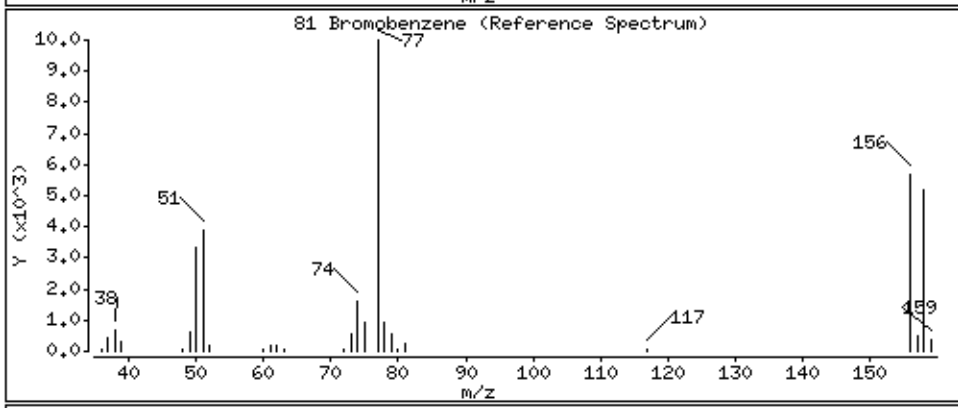
Concentration: 16.0 ug/L

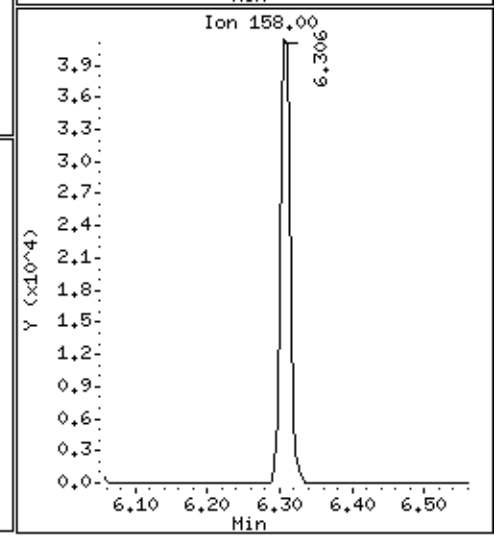


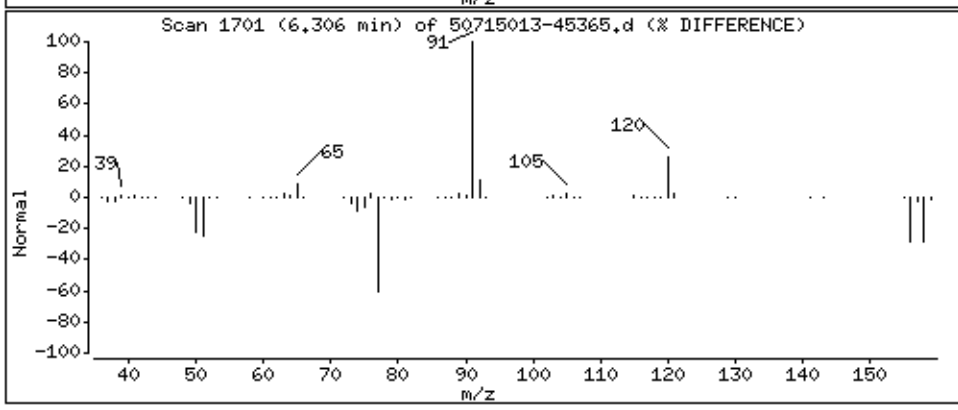












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

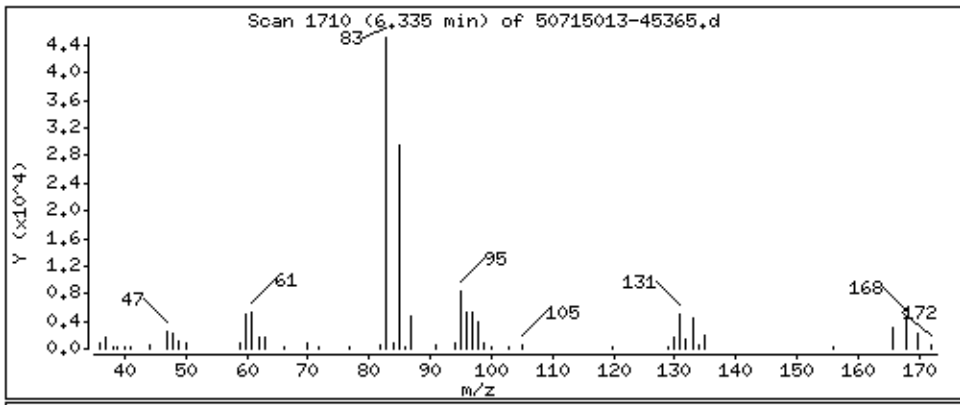
Operator: JEW

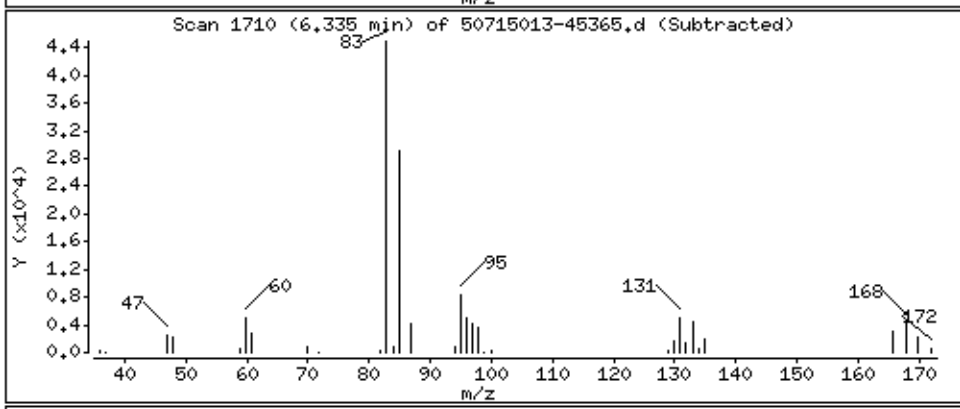
Column phase: RTX-VMS

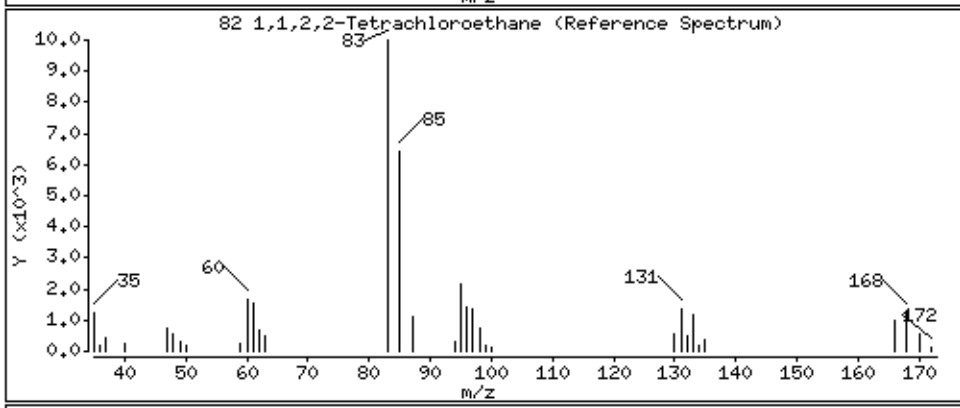
Column diameter: 0.18

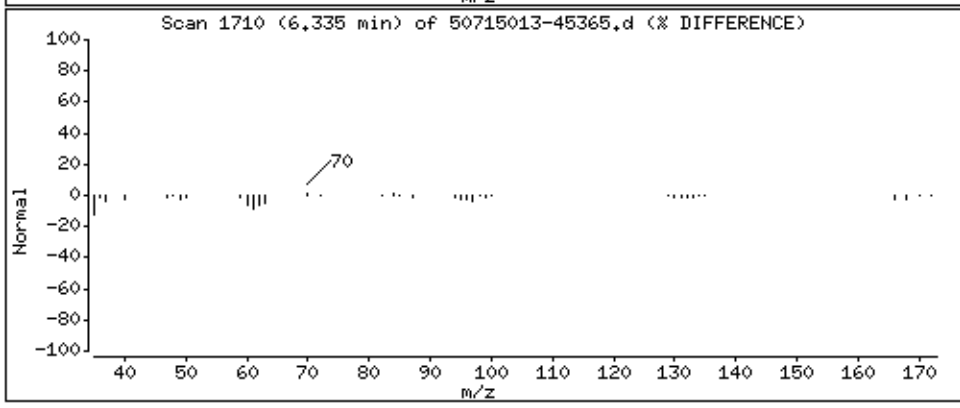
82 1,1,2,2-Tetrachloroethane

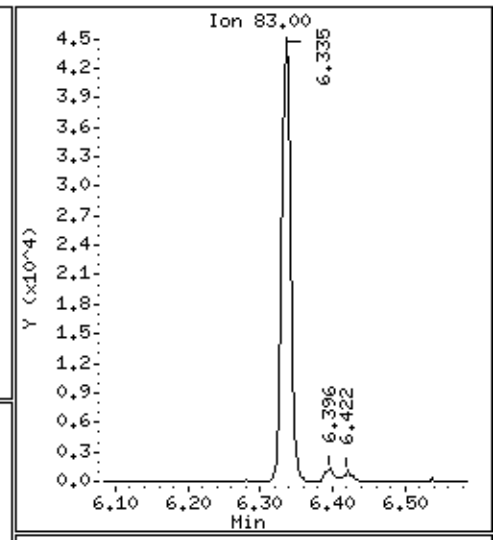
Concentration: 15.7 ug/L

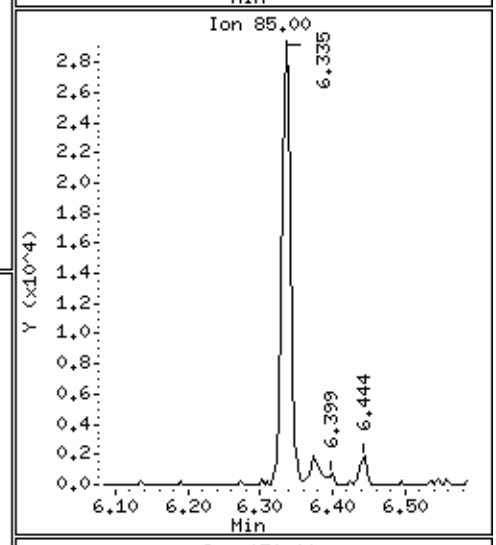


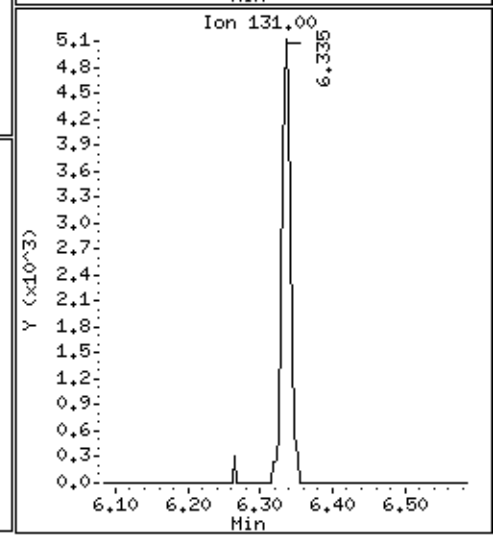












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

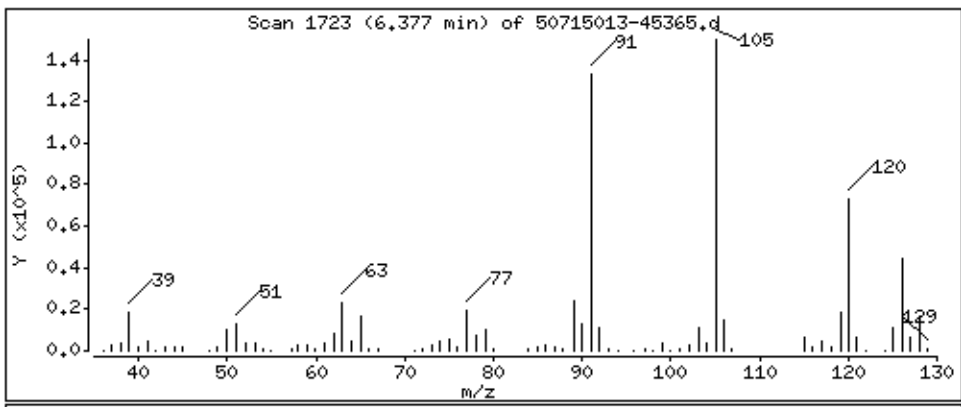
Operator: JEW

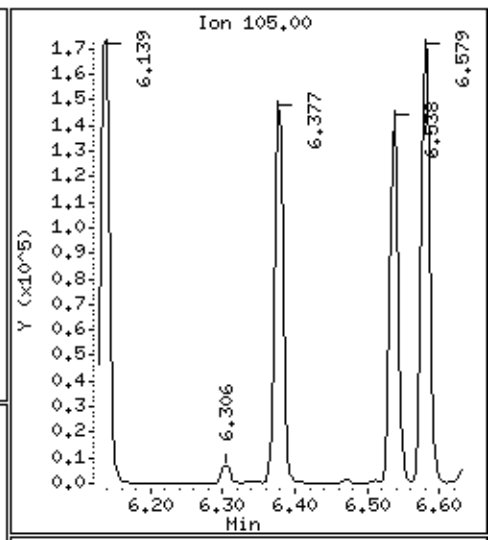
Column phase: RTX-VMS

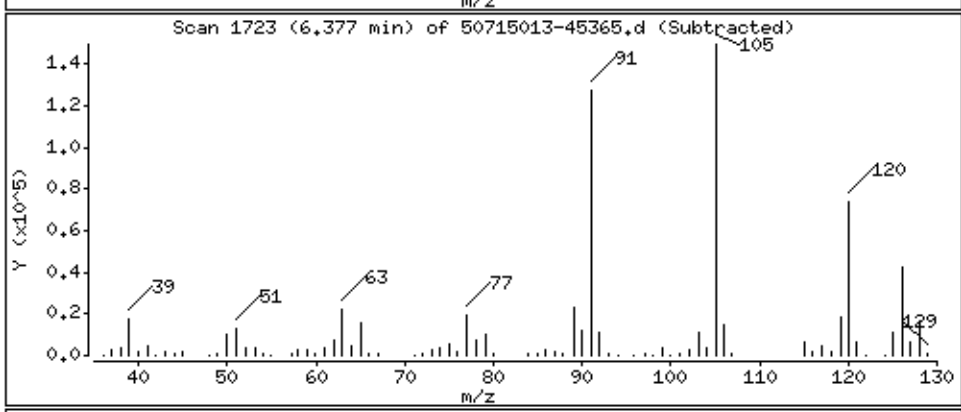
Column diameter: 0.18

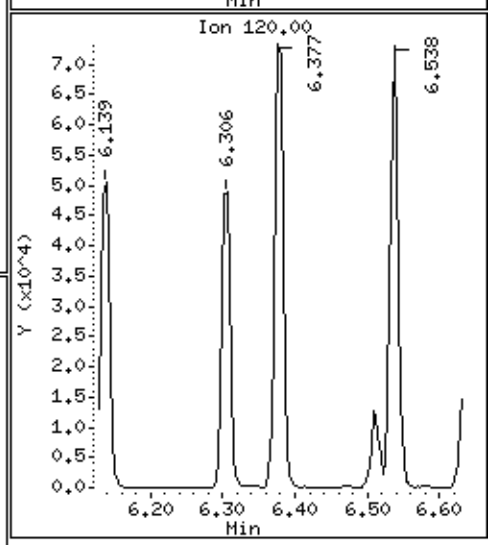
83 1,3,5-Trimethylbenzene

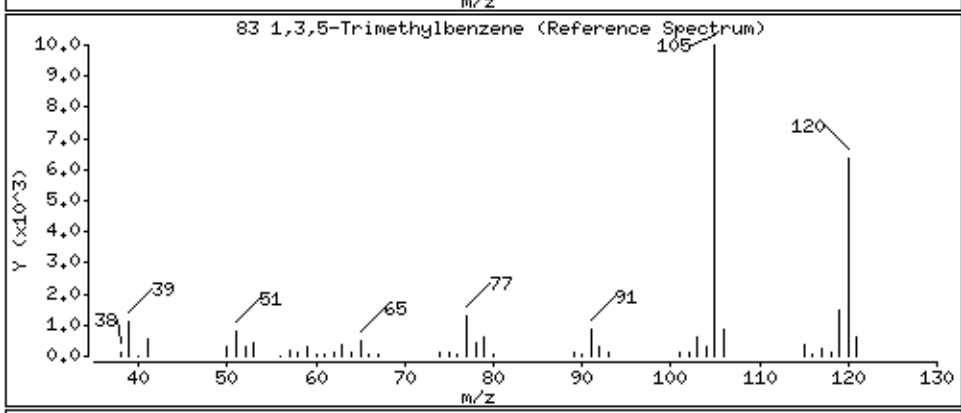
Concentration: 18.2 ug/L

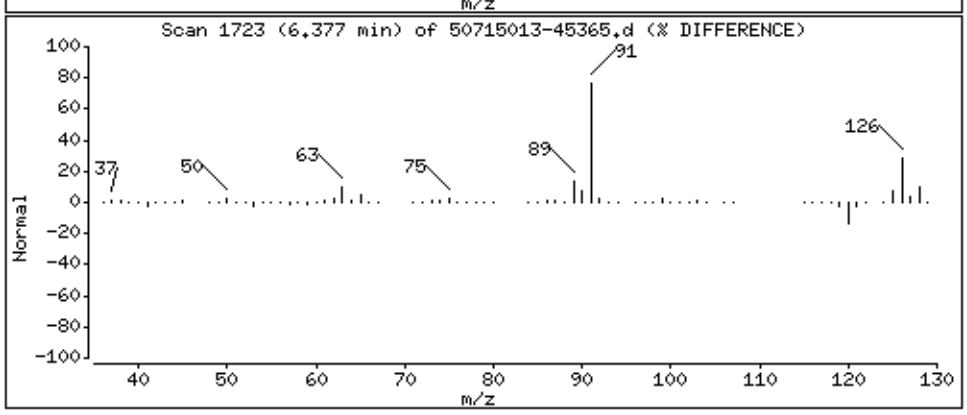












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

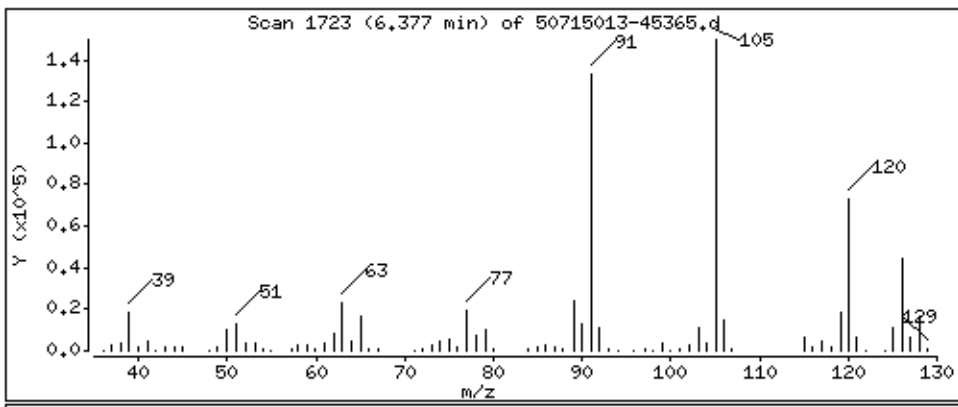
Operator: JEW

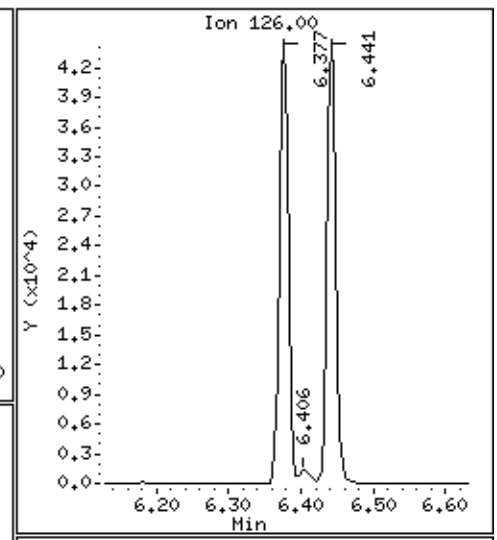
Column phase: RTX-VMS

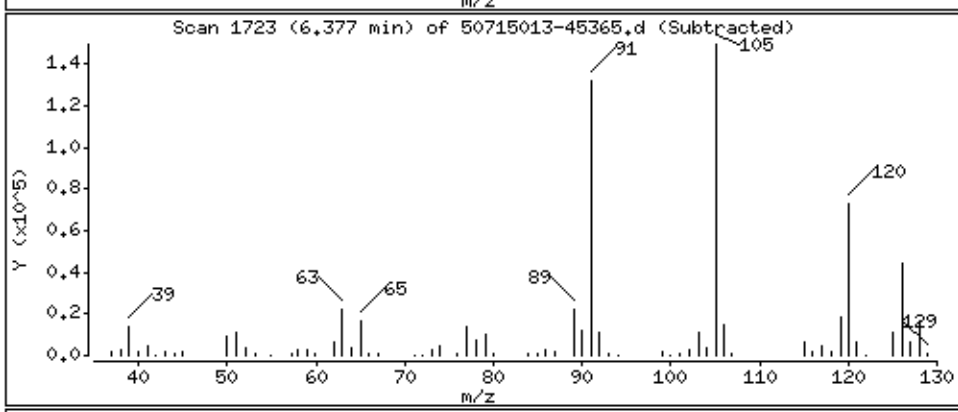
Column diameter: 0.18

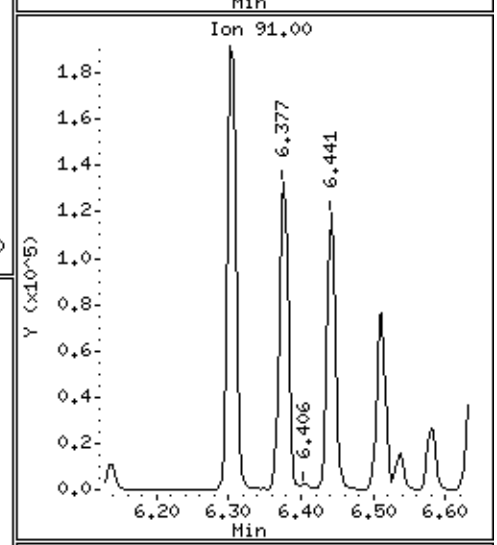
84 2-Chlorotoluene

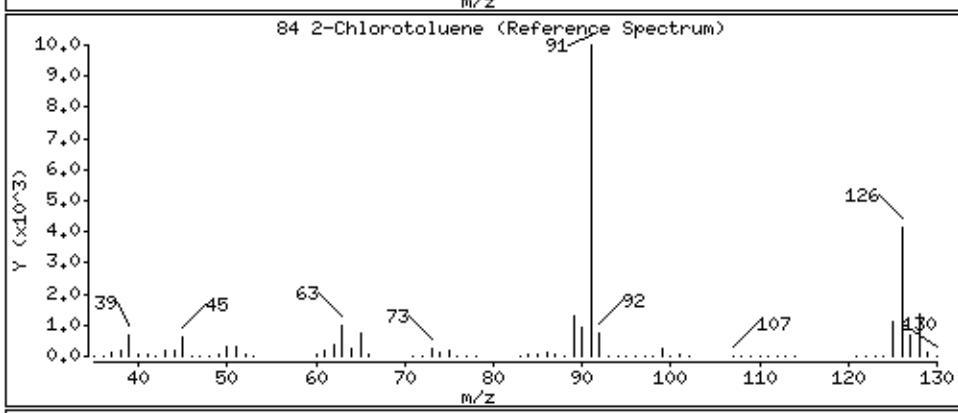
Concentration: 18.4 ug/L

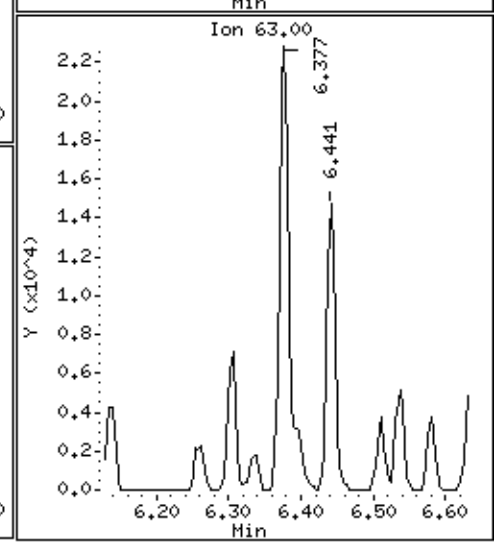


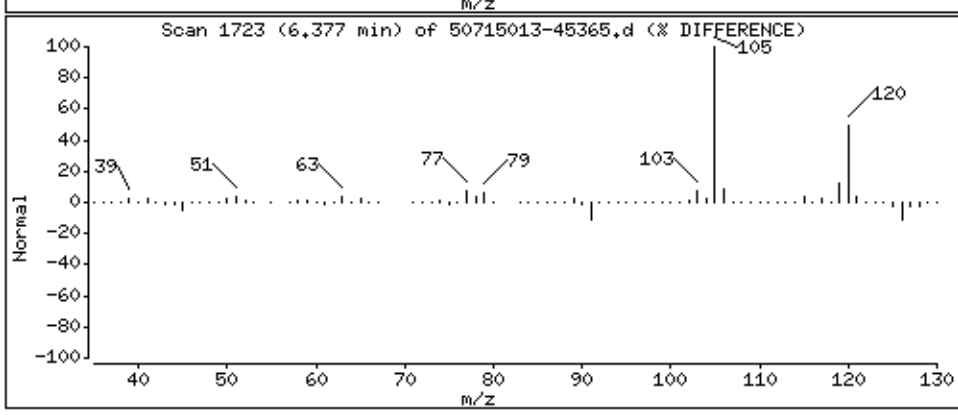












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

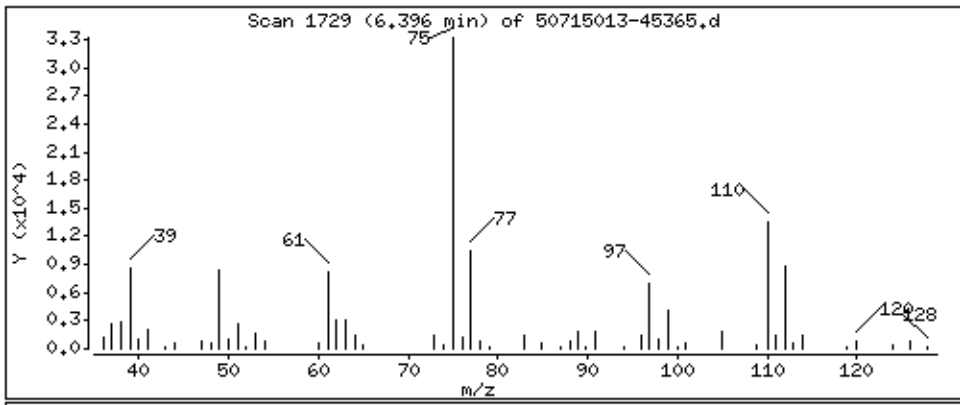
Operator: JEW

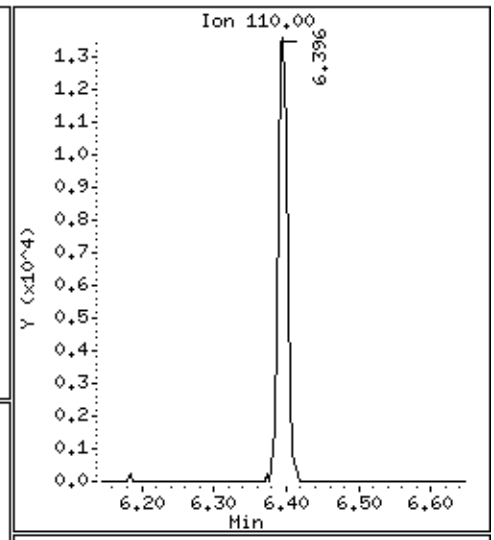
Column phase: RTX-VMS

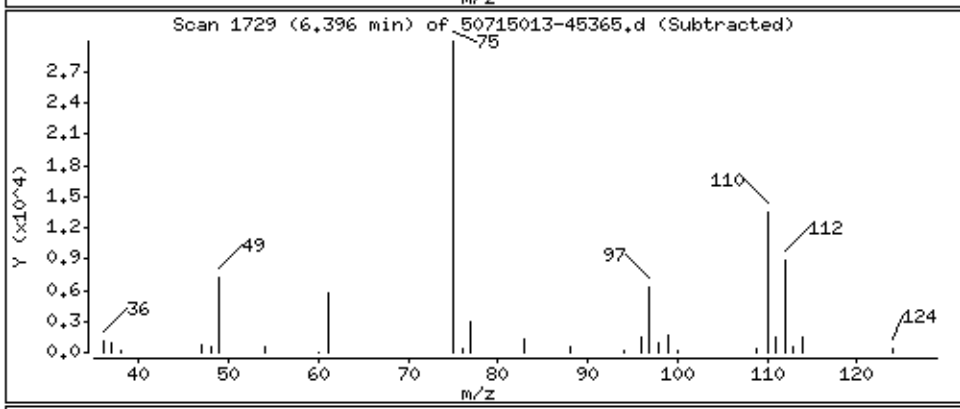
Column diameter: 0.18

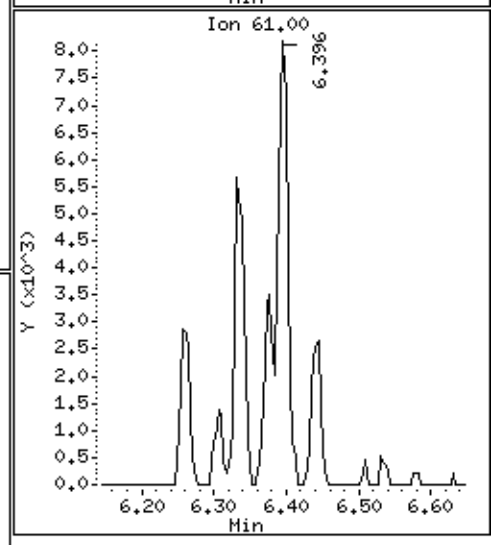
85 1,2,3-Trichloropropane

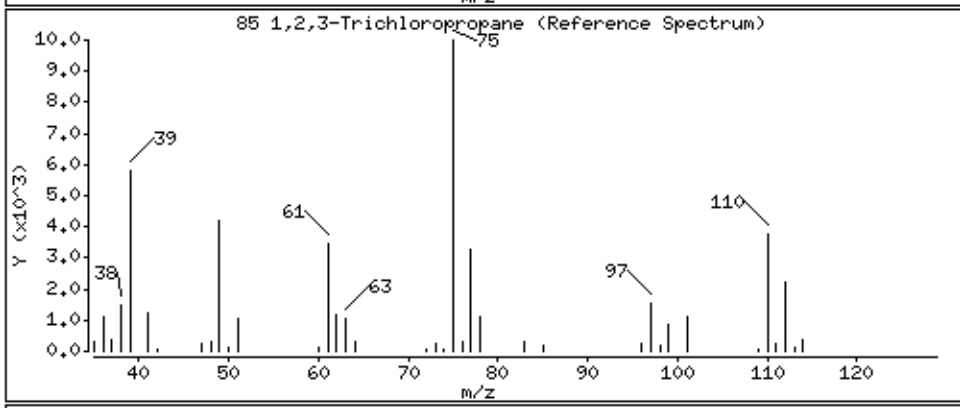
Concentration: 17.0 ug/L

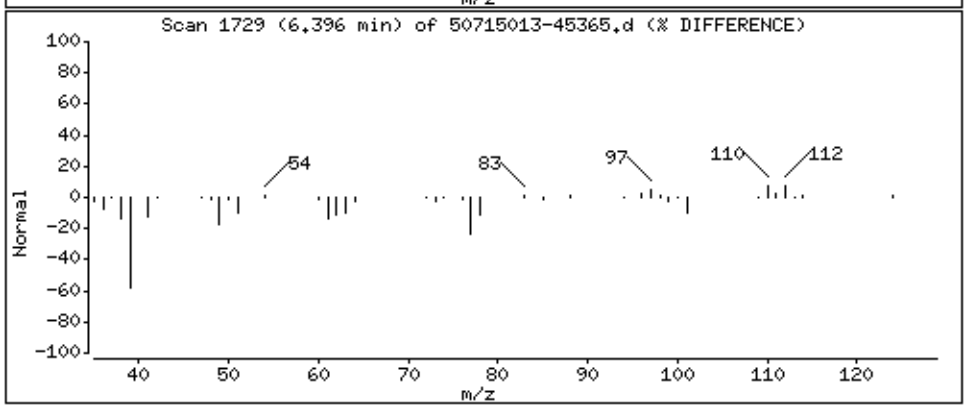












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

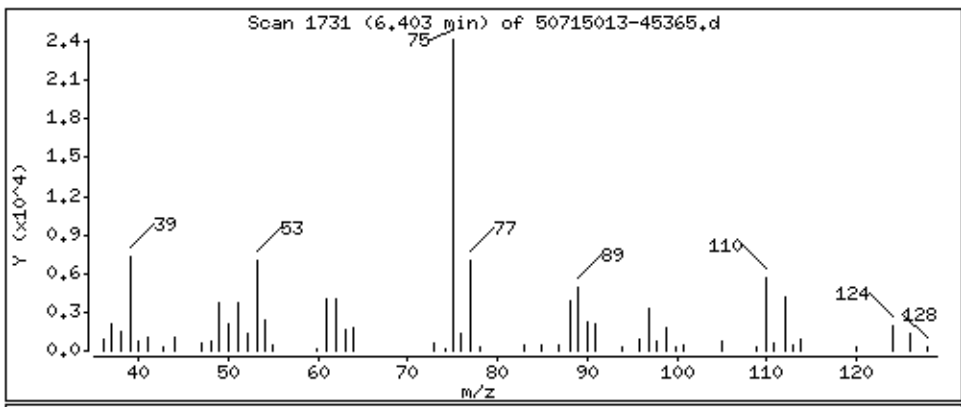
Operator: JEW

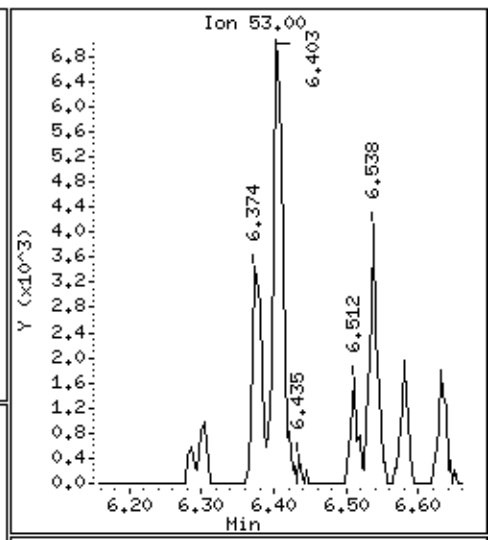
Column phase: RTX-VMS

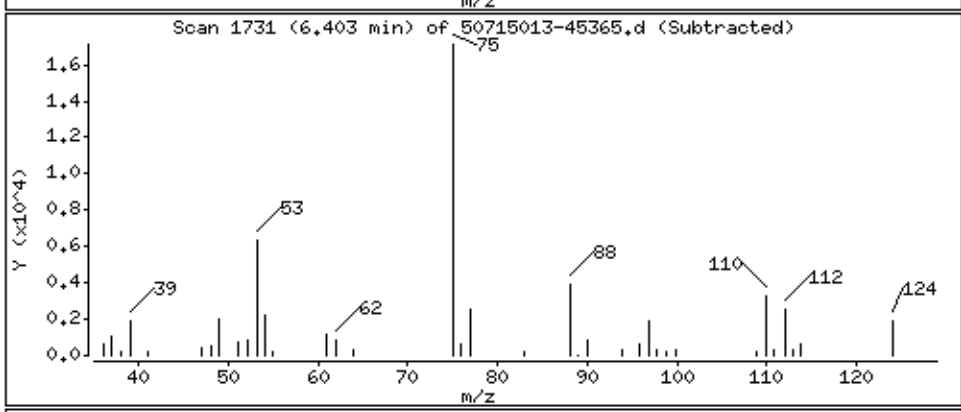
Column diameter: 0.18

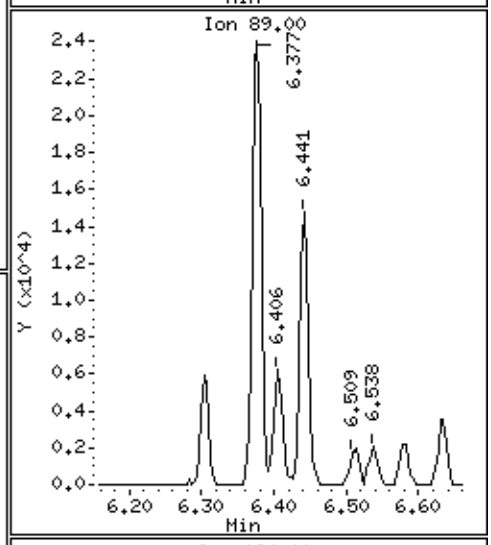
86 trans-1,4-Dichloro-2-butene

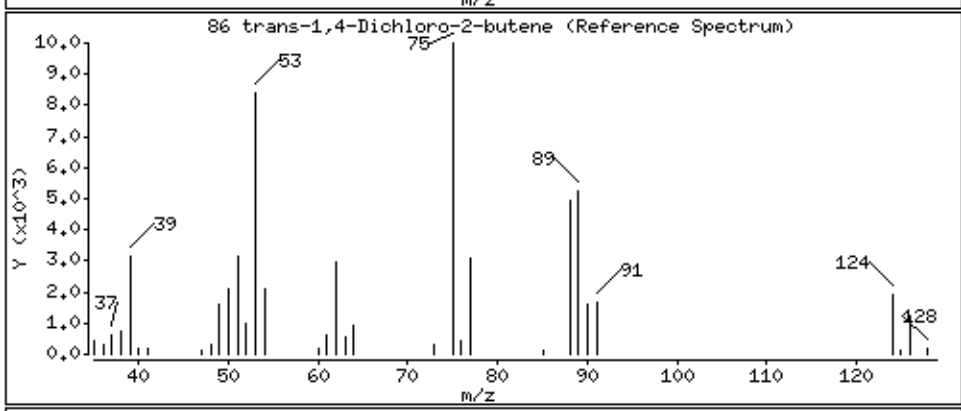
Concentration: 11.0 ug/L

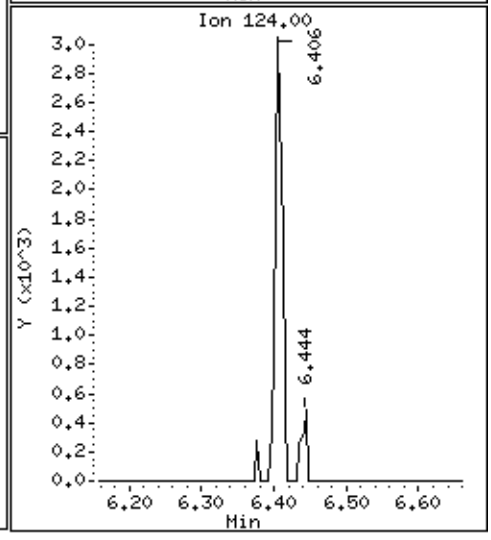


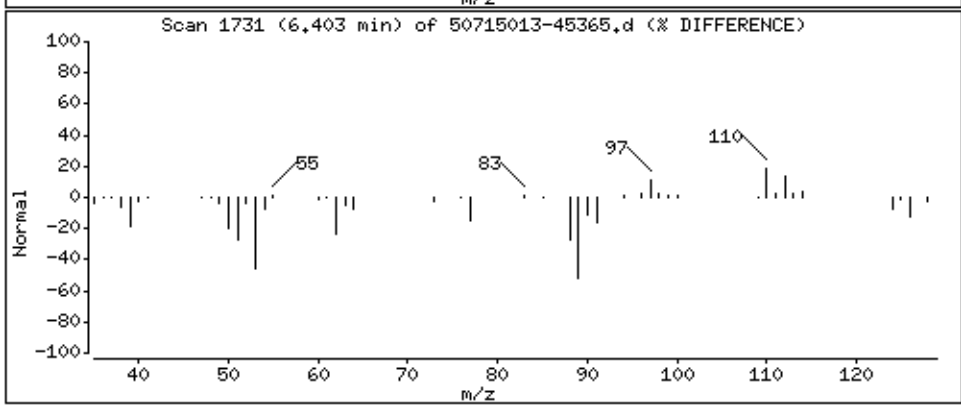












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

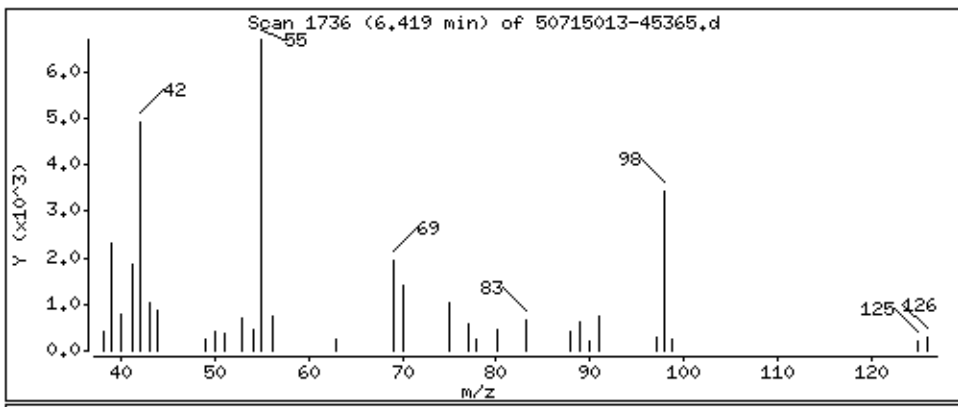
Operator: JEW

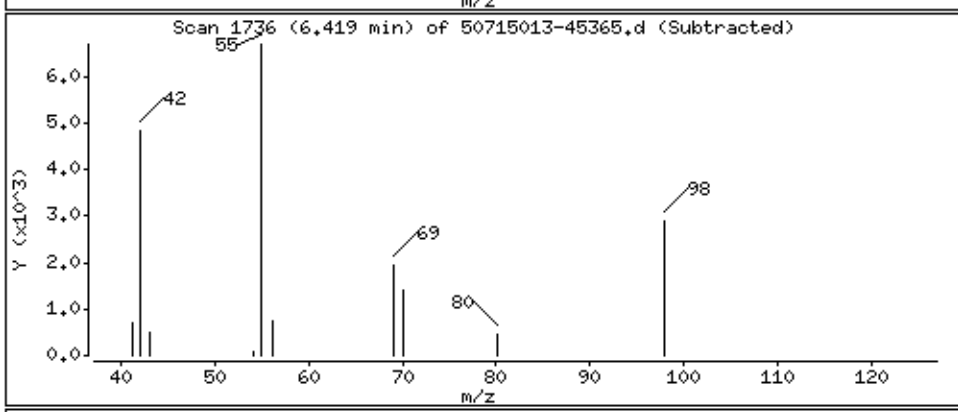
Column phase: RTX-VMS

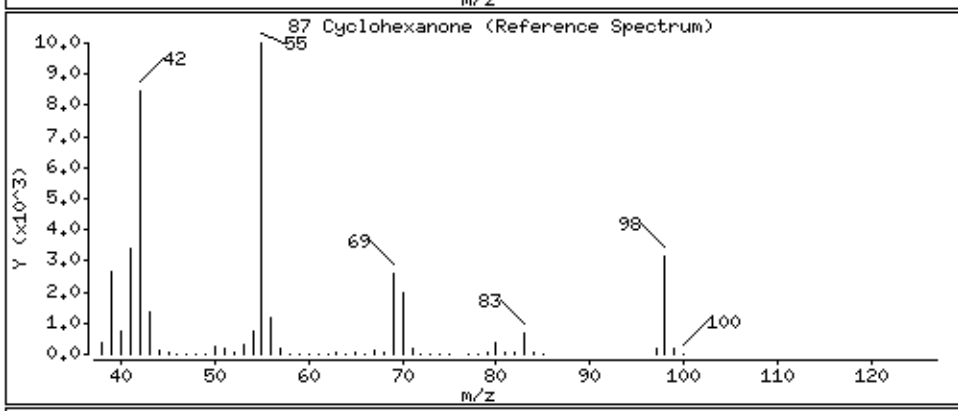
Column diameter: 0.18

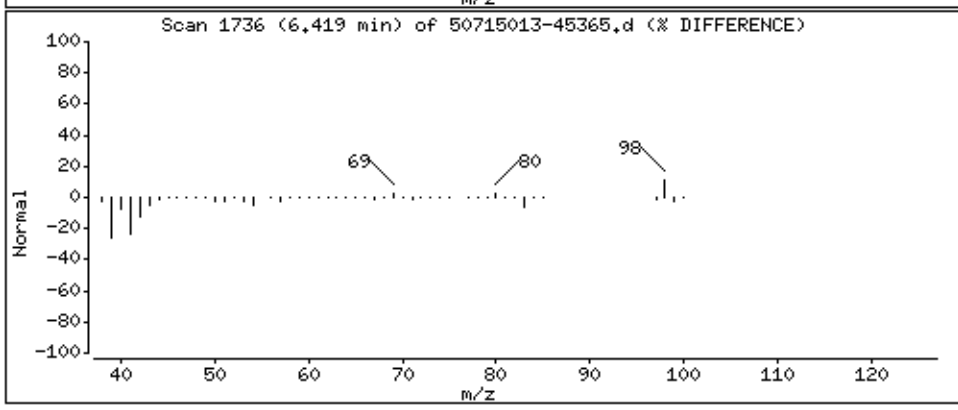
87 Cyclohexanone

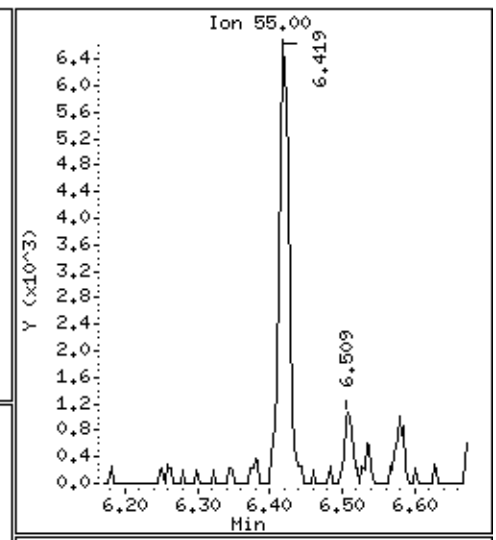
Concentration: 51.6 ug/L

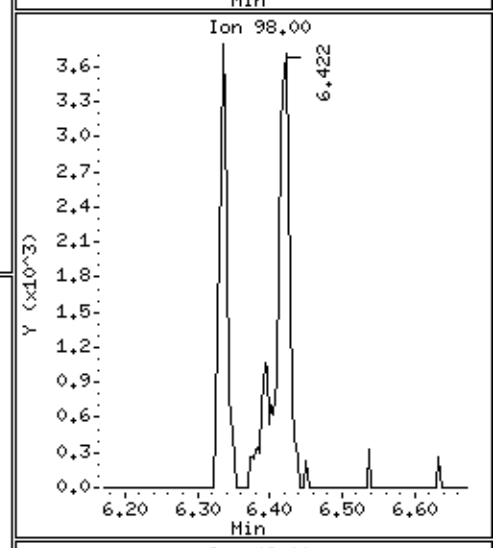


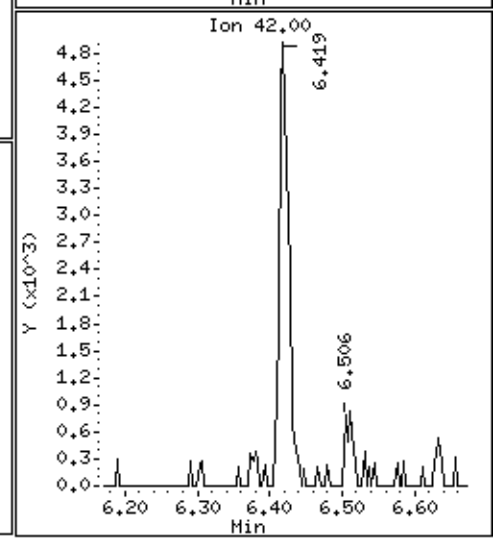












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

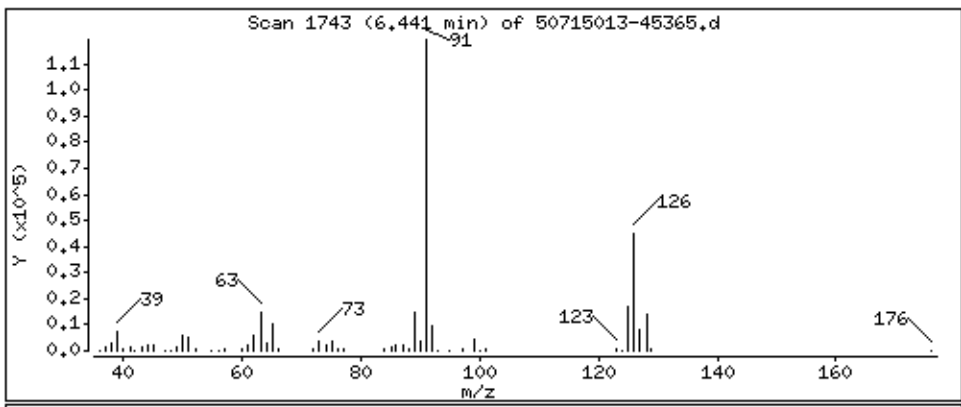
Operator: JEW

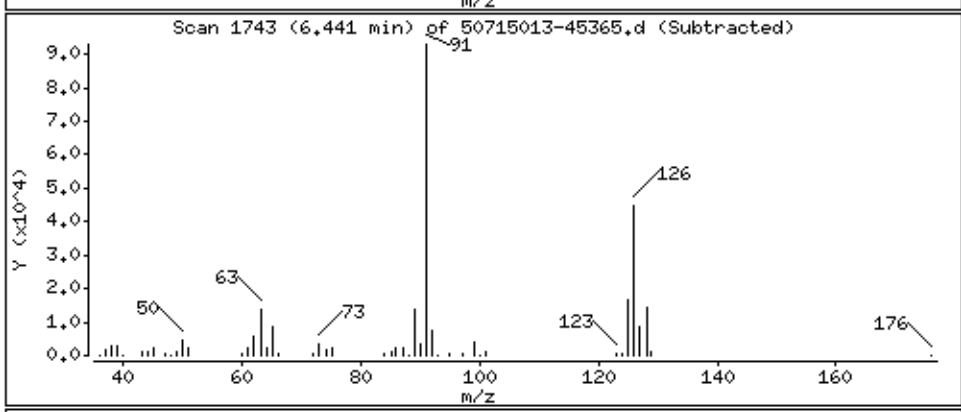
Column phase: RTX-VMS

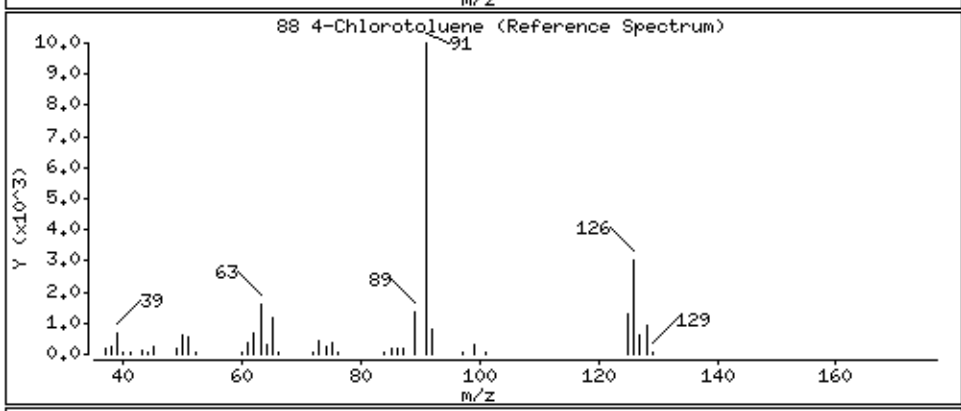
Column diameter: 0.18

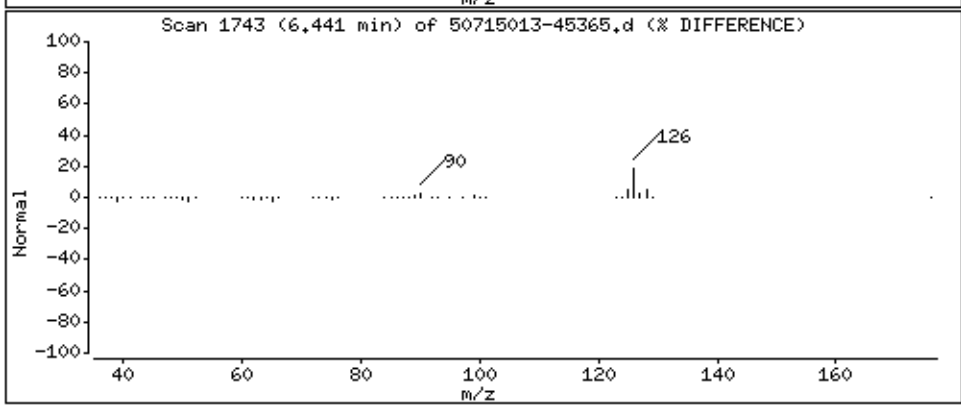
88 4-Chlorotoluene

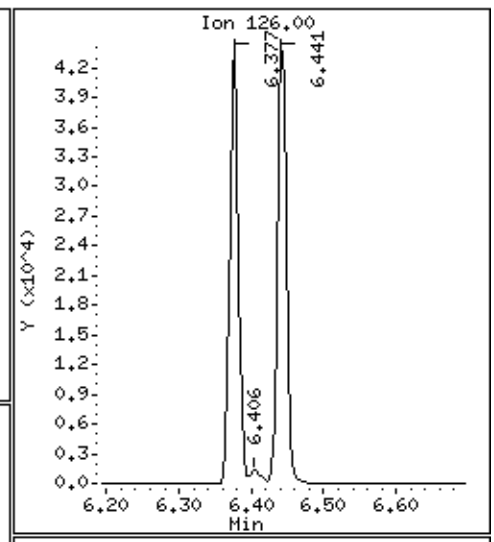
Concentration: 18.4 ug/L

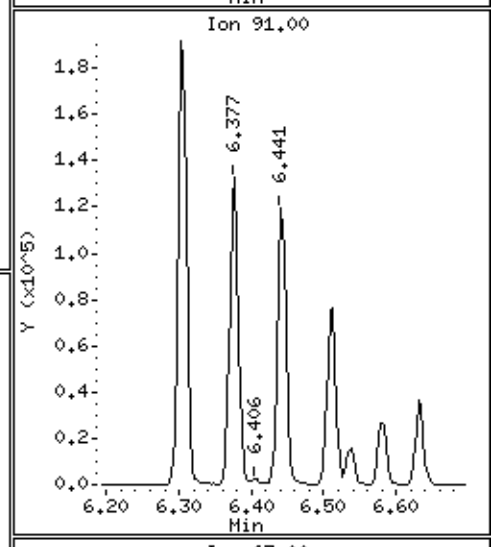


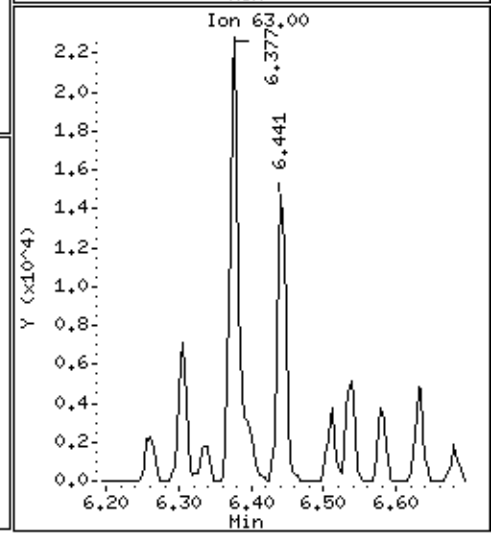












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

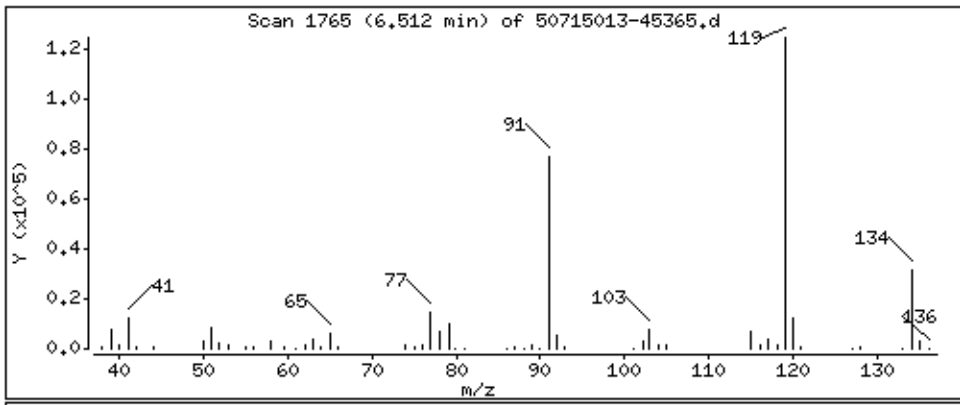
Operator: JEW

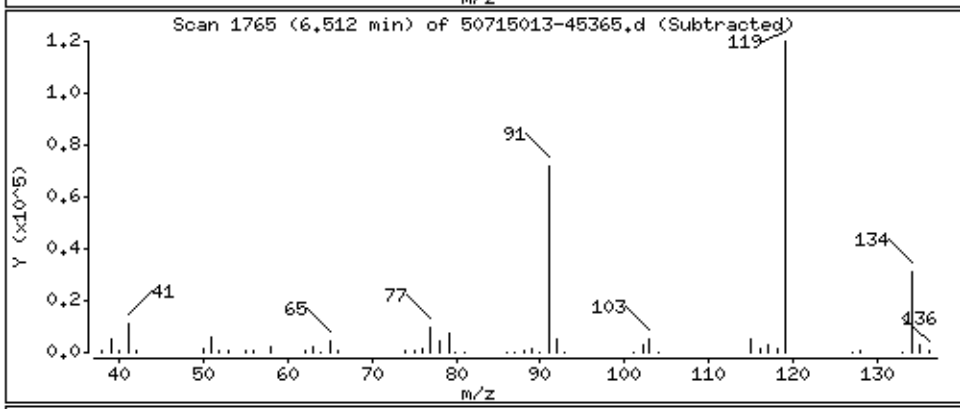
Column phase: RTX-VMS

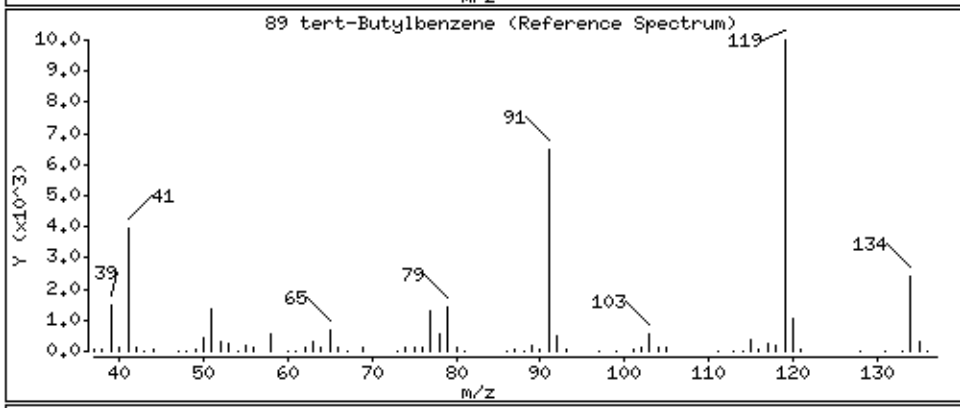
Column diameter: 0.18

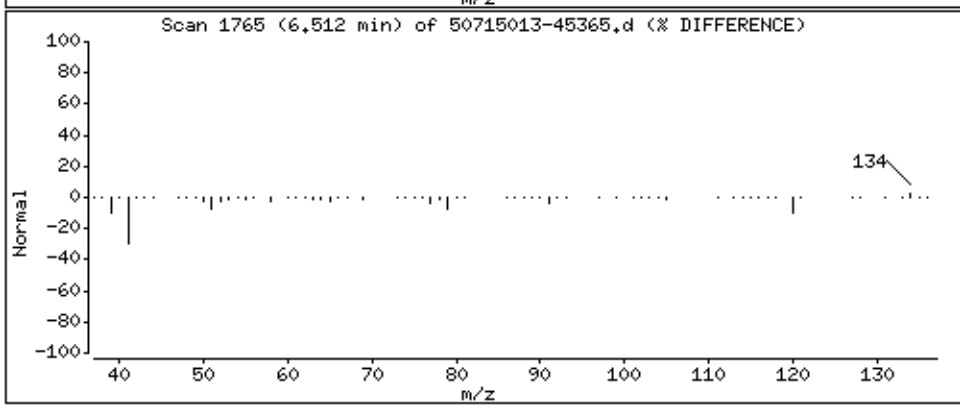
89 tert-Butylbenzene

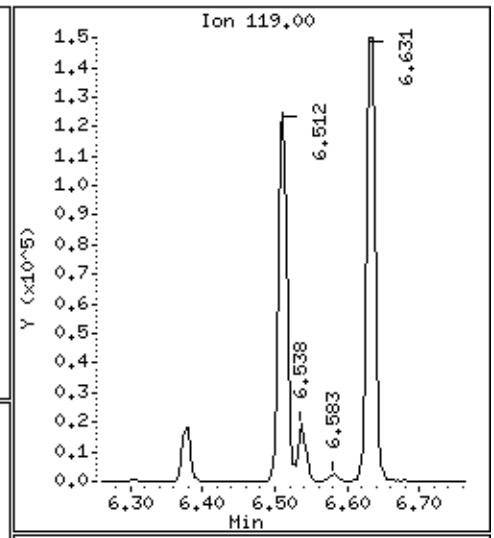
Concentration: 19.3 ug/L

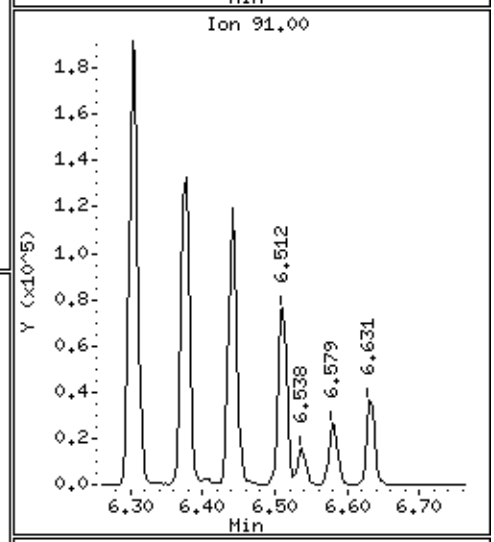


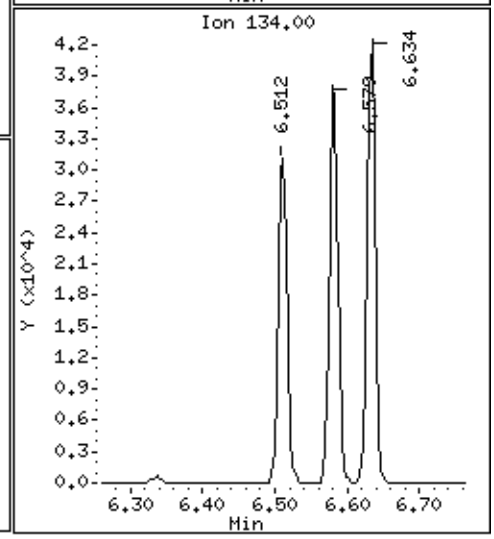












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

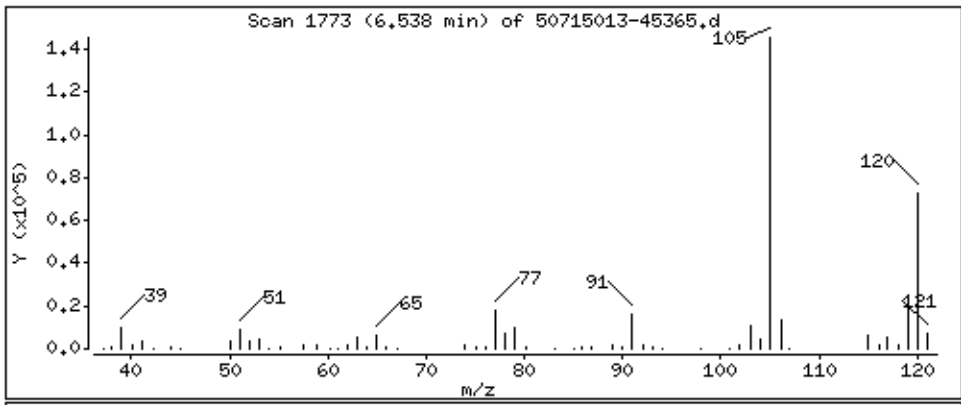
Operator: JEW

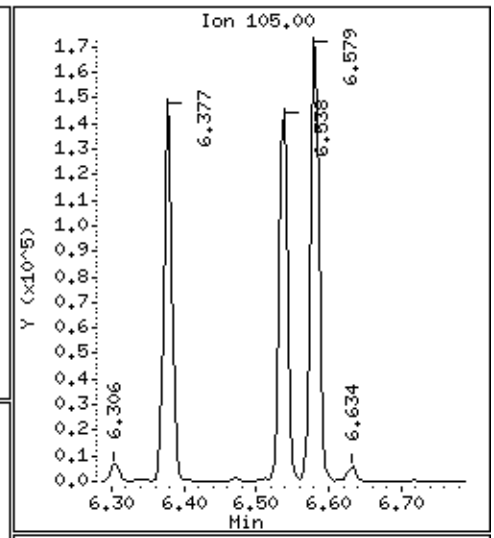
Column phase: RTX-VMS

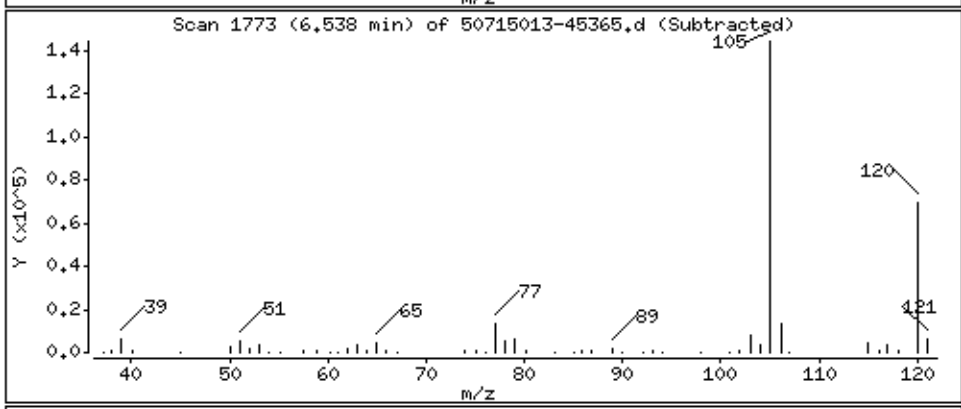
Column diameter: 0.18

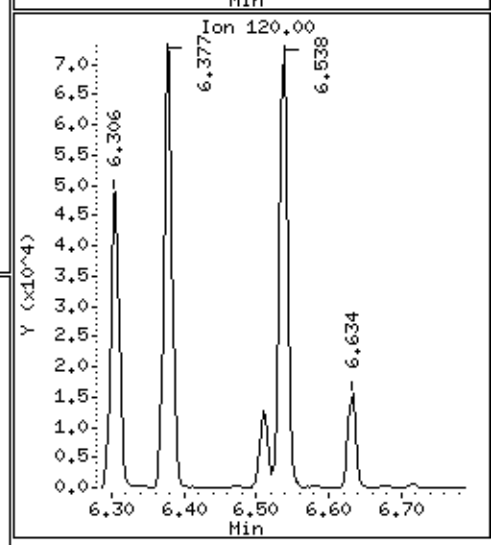
90 1,2,4-Trimethylbenzene

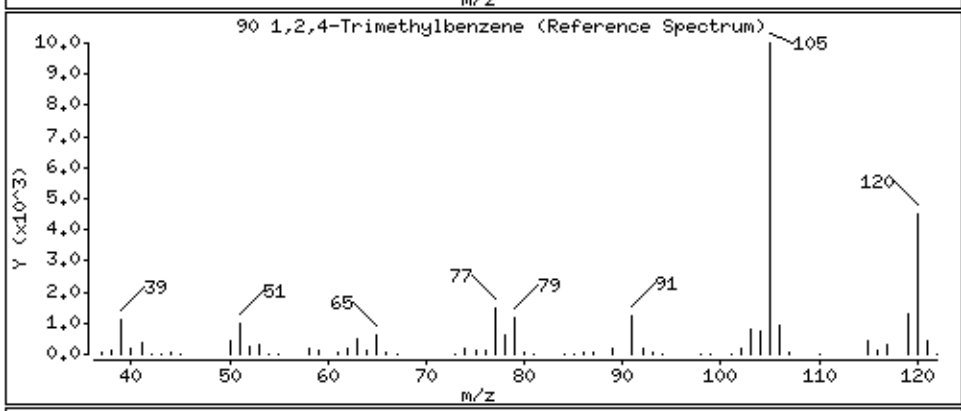
Concentration: 17.9 ug/L

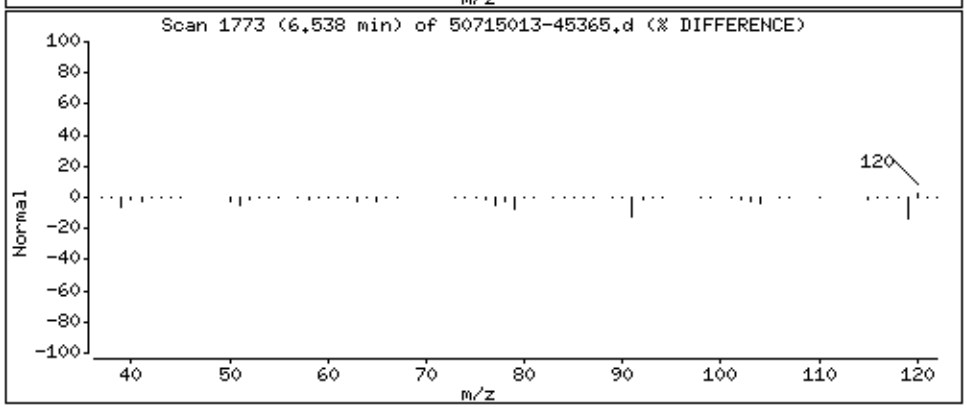












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

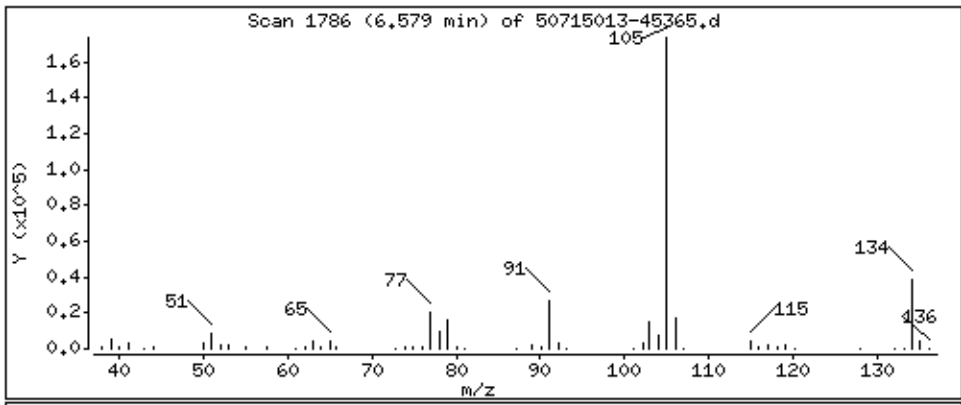
Operator: JEW

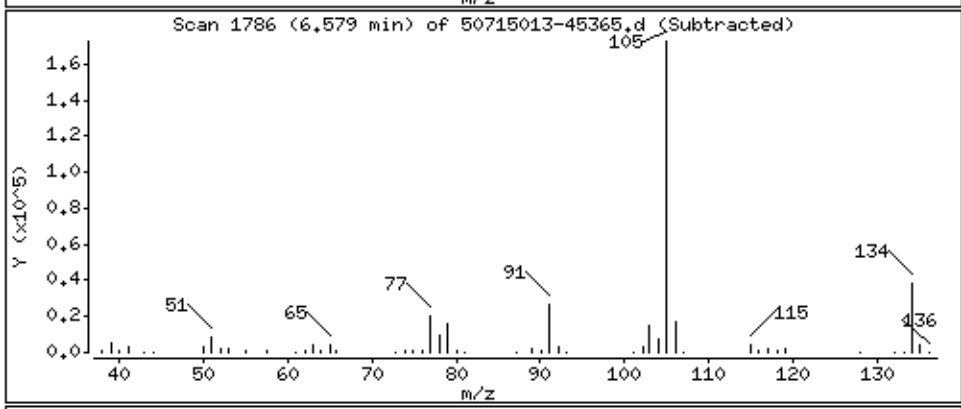
Column phase: RTX-VMS

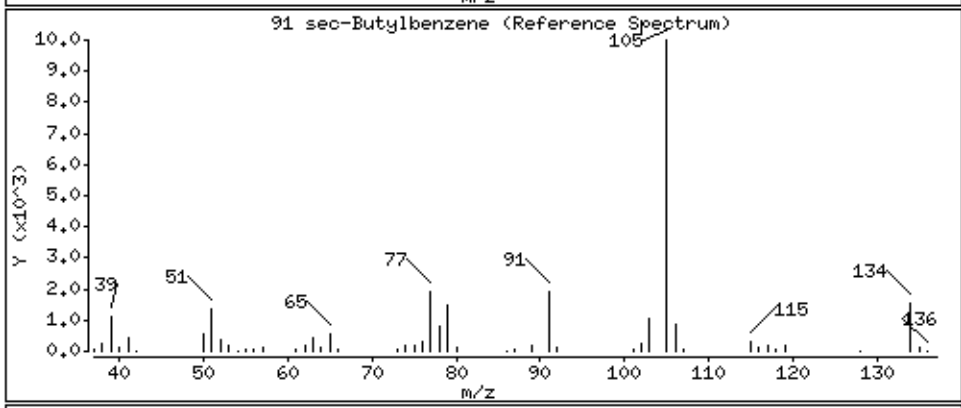
Column diameter: 0.18

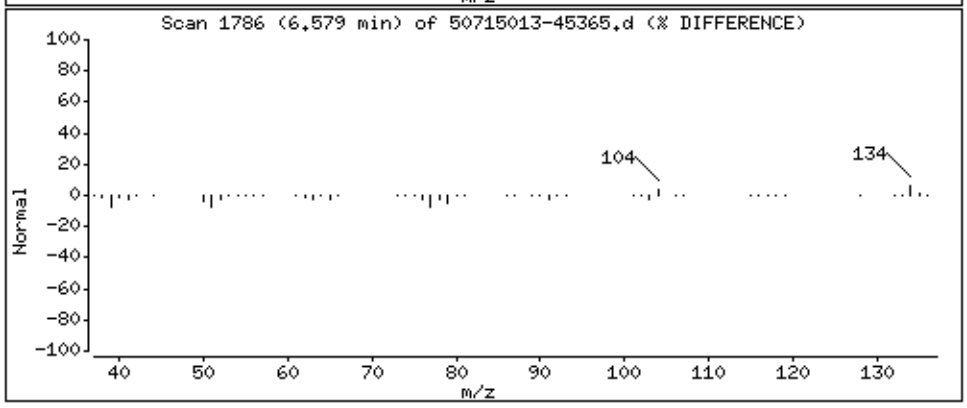
91 sec-Butylbenzene

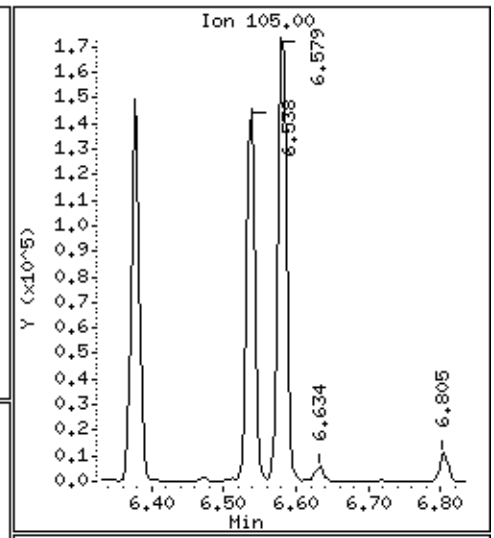
Concentration: 18.7 ug/L

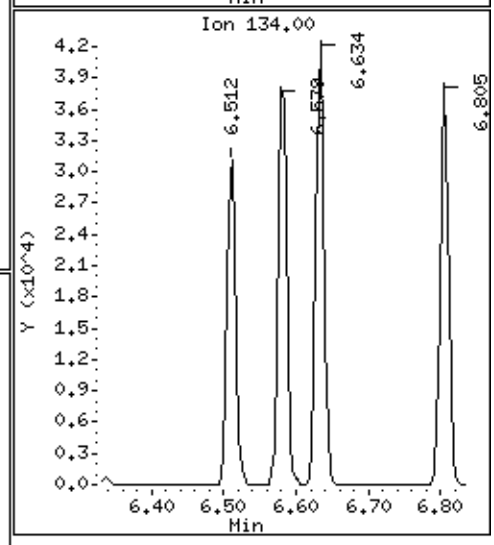












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

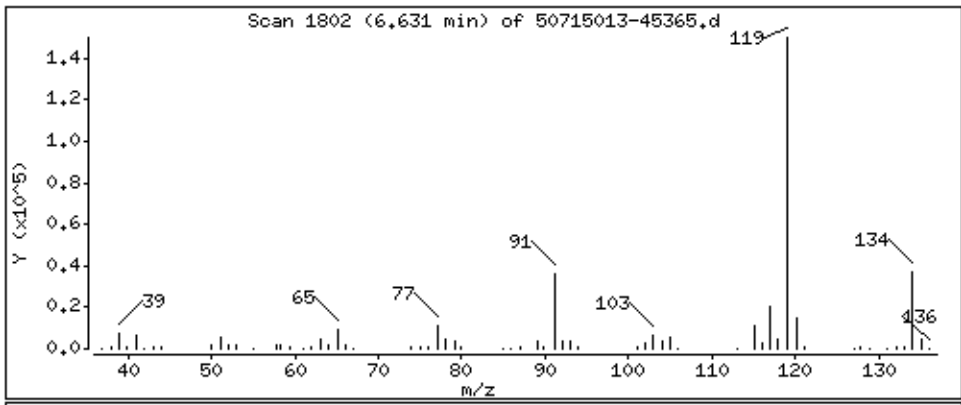
Operator: JEW

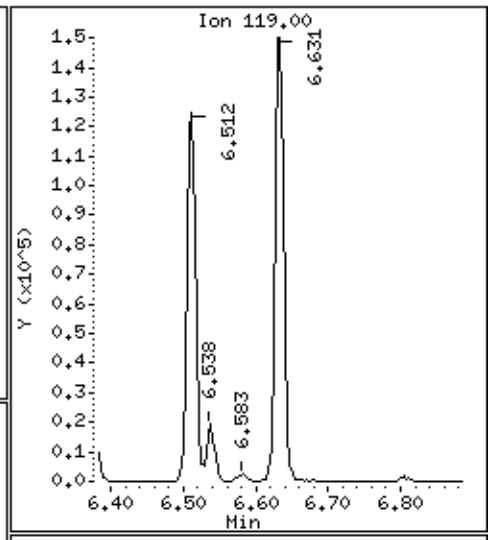
Column phase: RTX-VMS

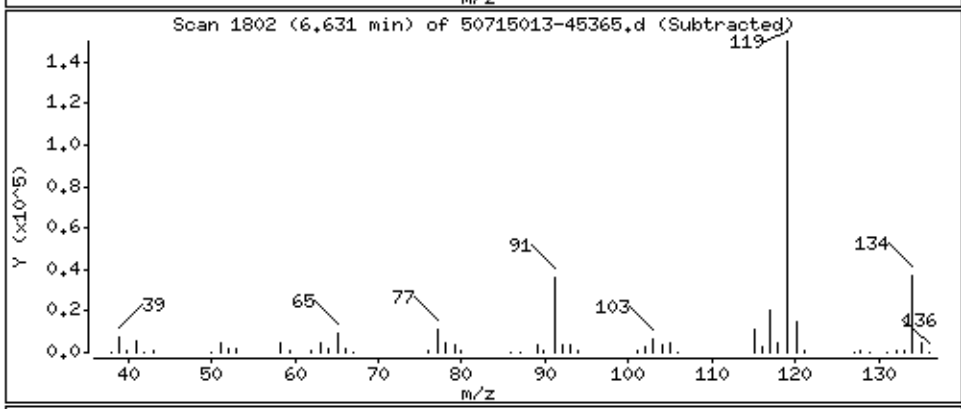
Column diameter: 0.18

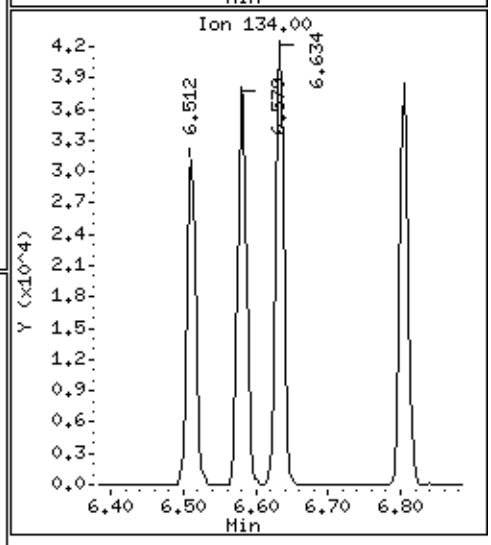
92 p-Isopropyltoluene

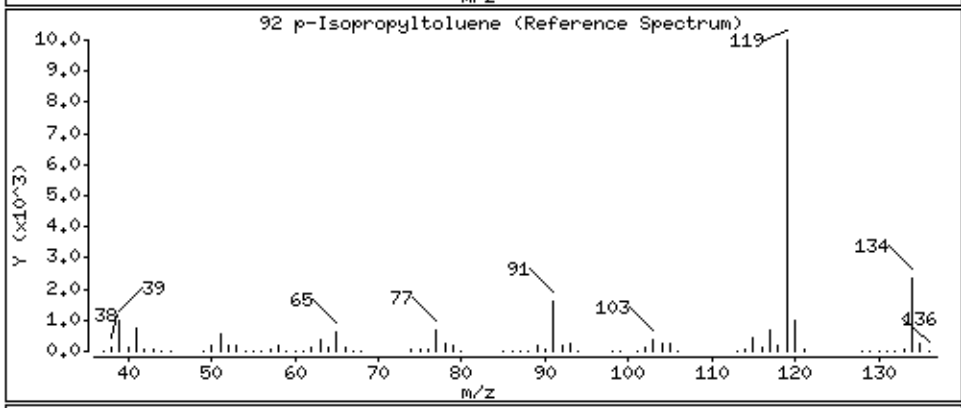
Concentration: 19.5 ug/L

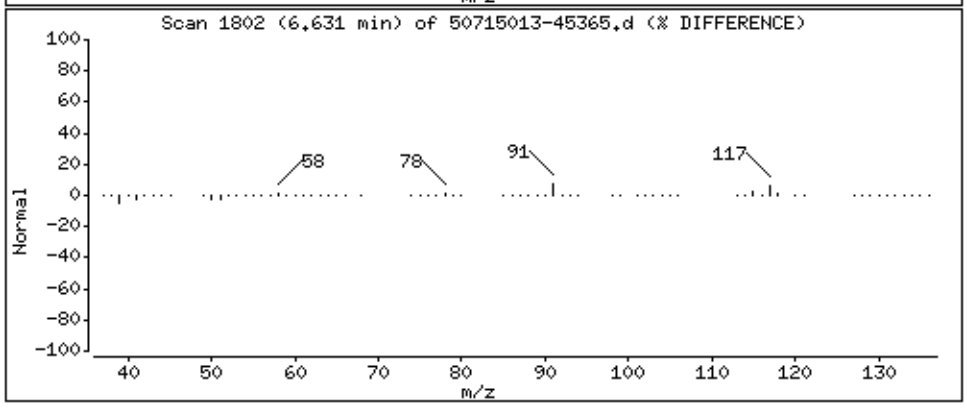












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

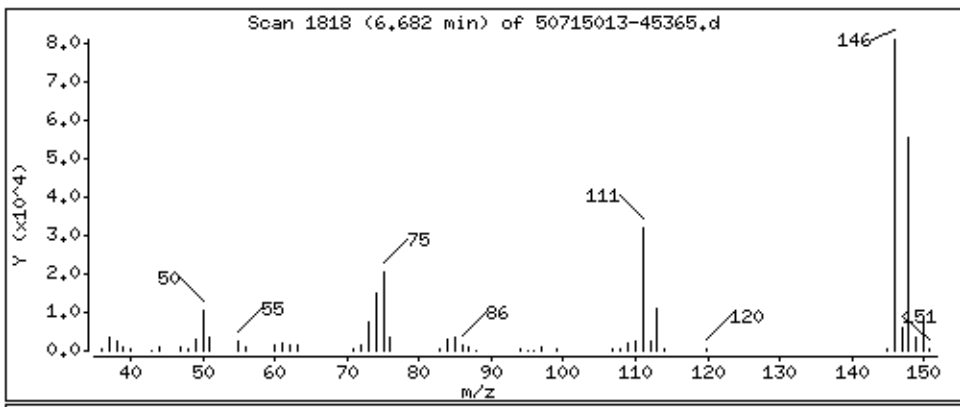
Operator: JEW

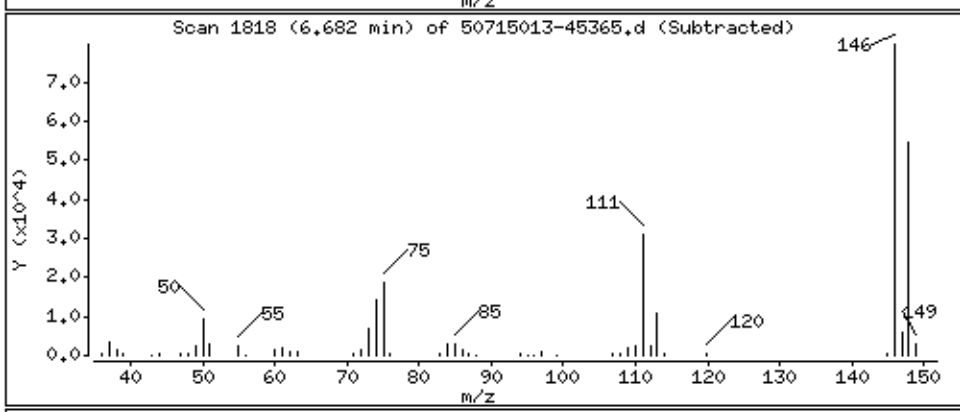
Column phase: RTX-VMS

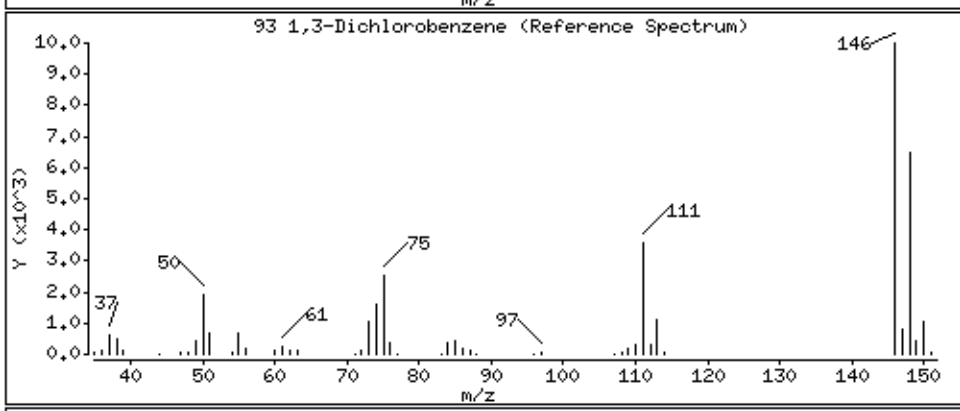
Column diameter: 0.18

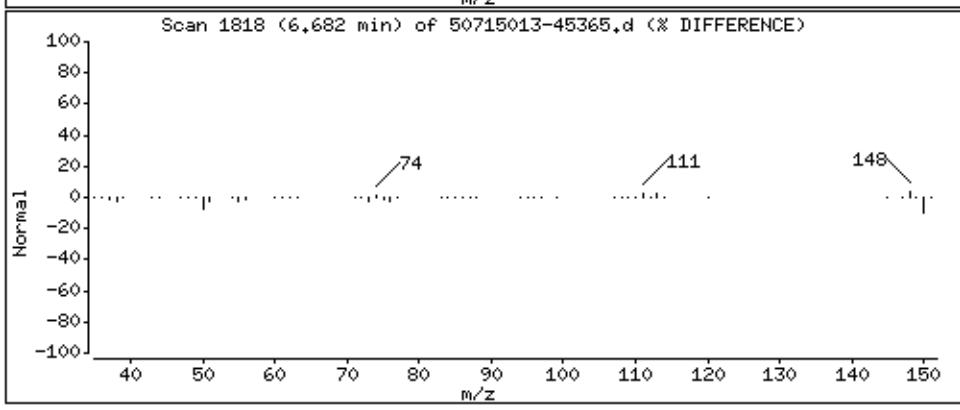
93 1,3-Dichlorobenzene

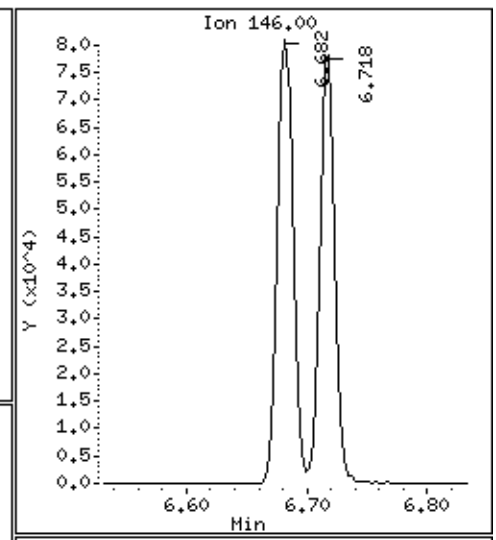
Concentration: 18.8 ug/L

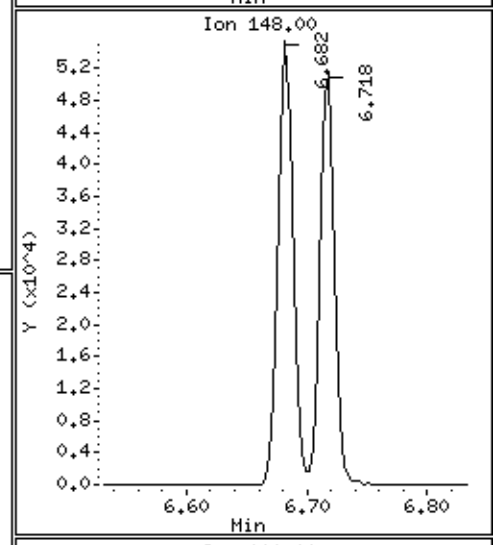


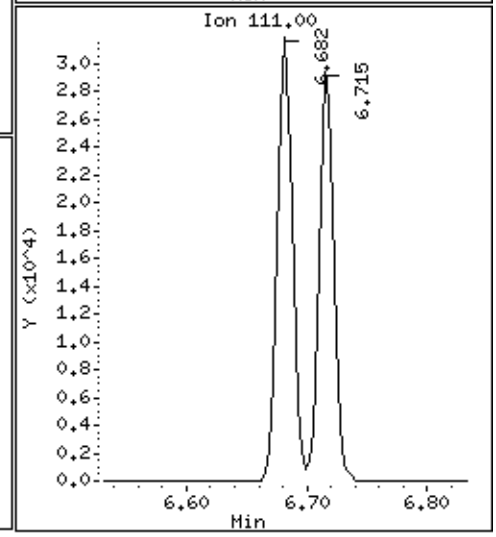












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

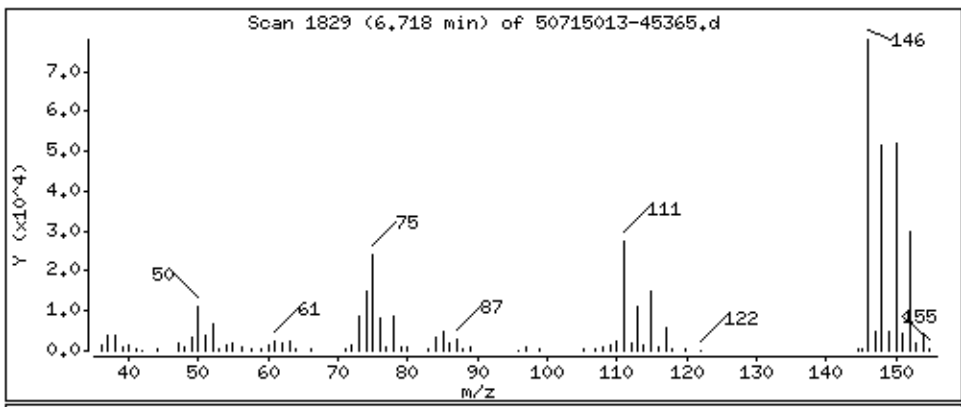
Operator: JEW

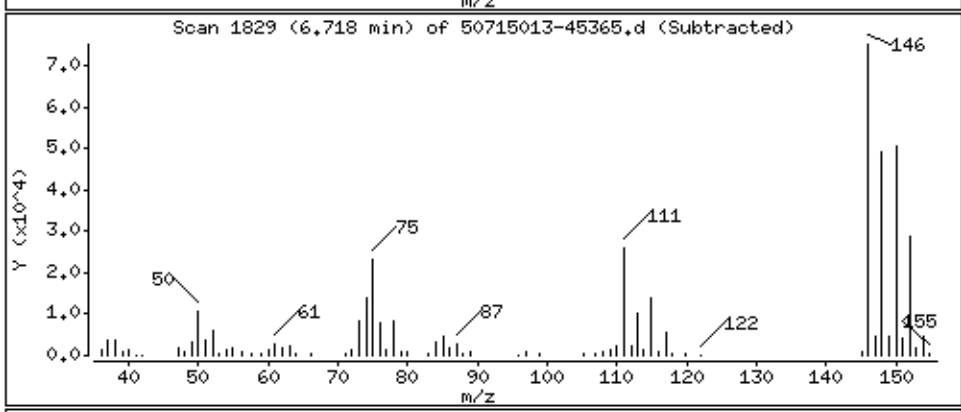
Column phase: RTX-VMS

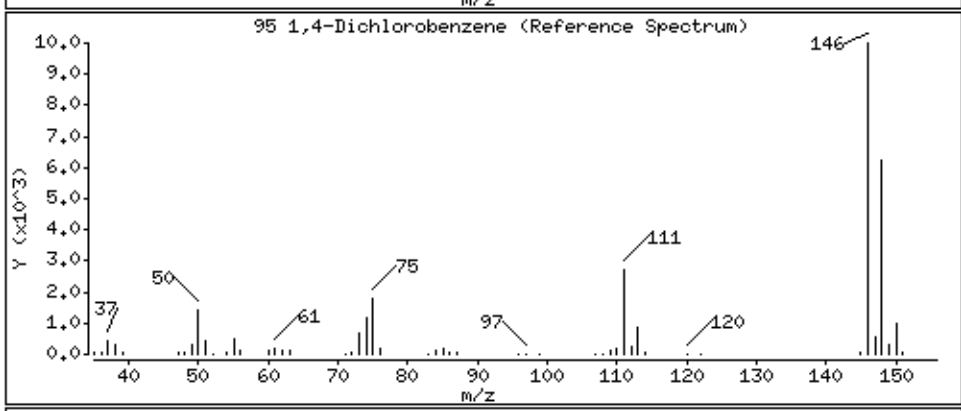
Column diameter: 0.18

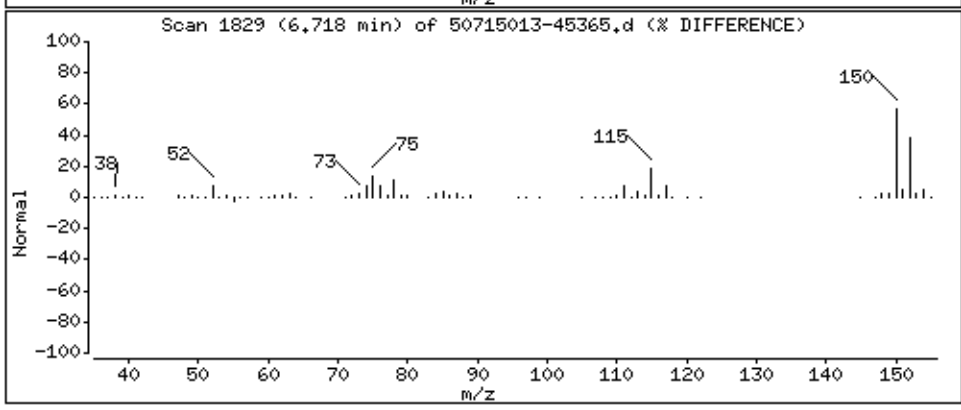
95 1,4-Dichlorobenzene

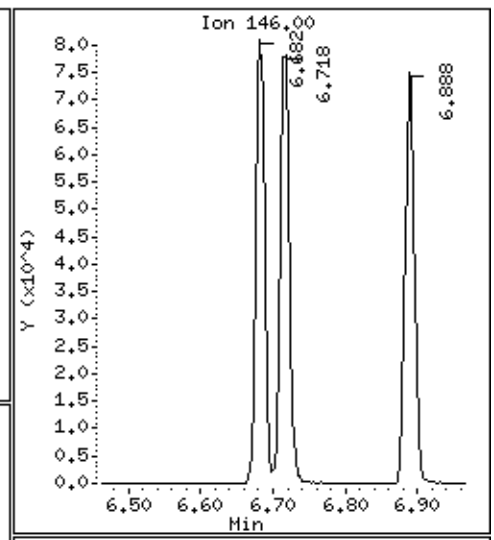
Concentration: 18.6 ug/L

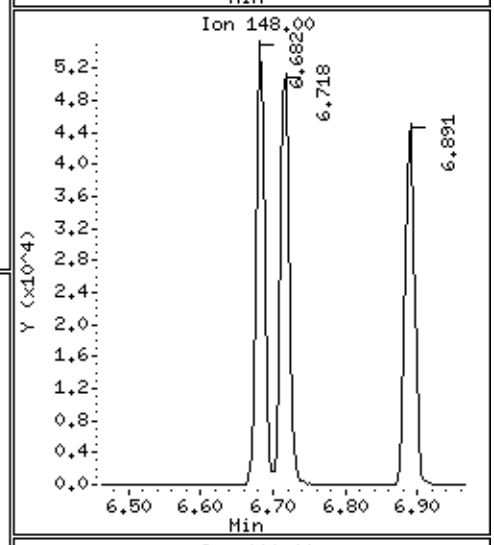


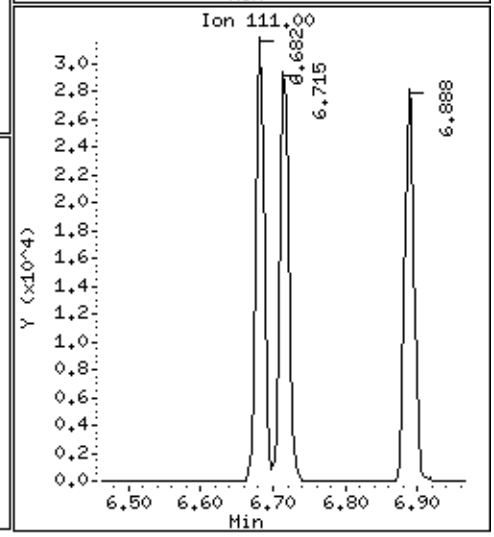












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

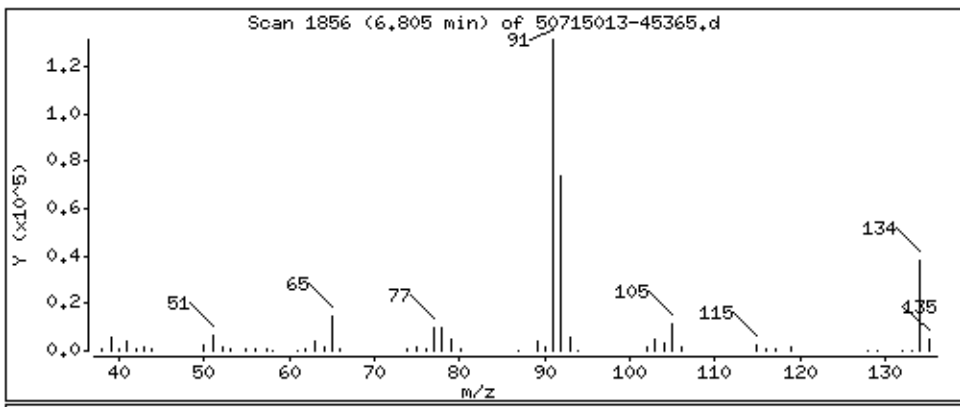
Operator: JEW

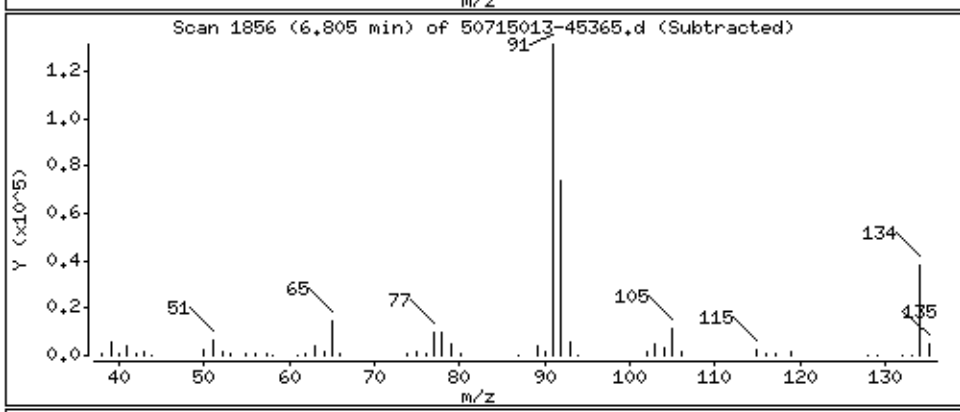
Column phase: RTX-VMS

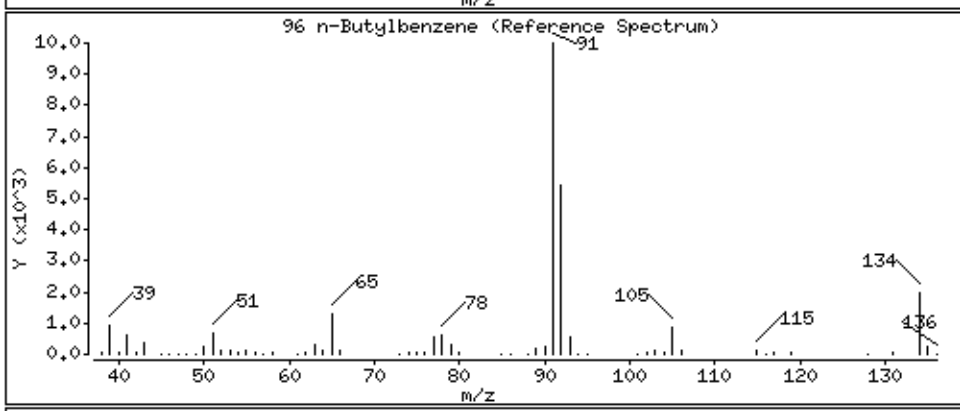
Column diameter: 0.18

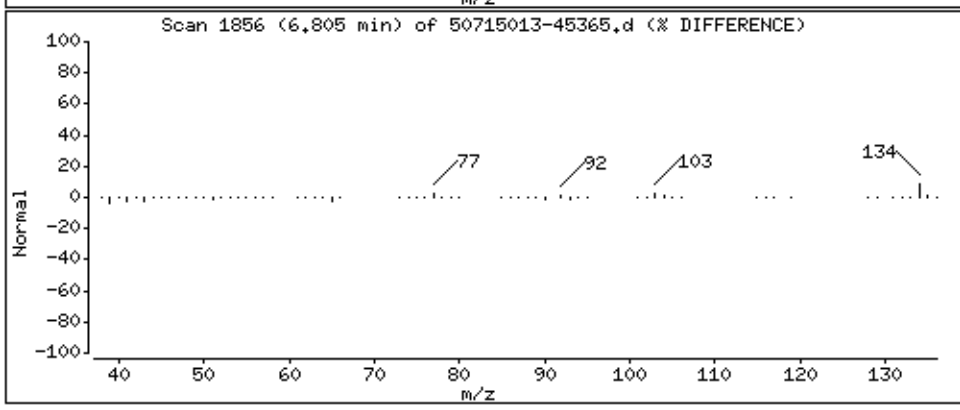
96 n-Butylbenzene

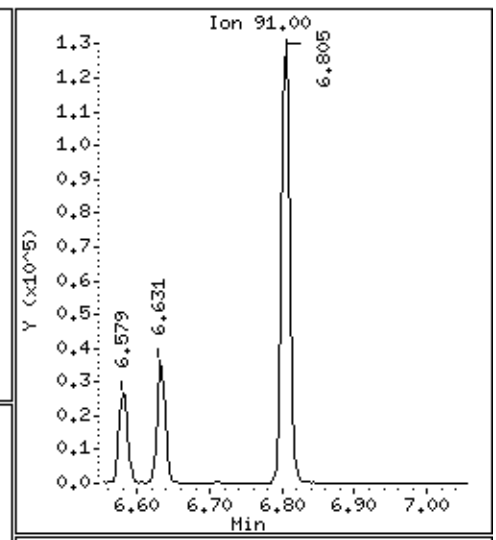
Concentration: 18.8 ug/L

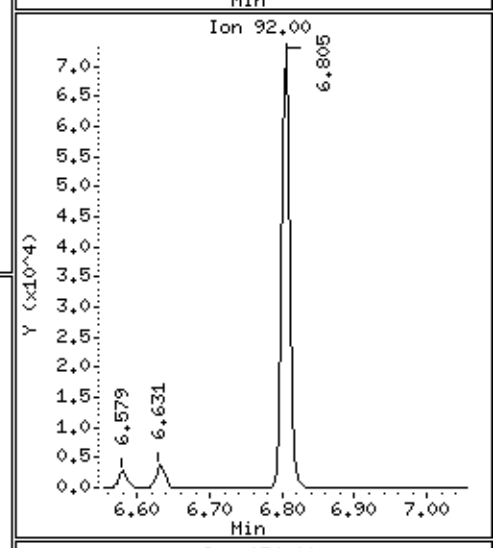


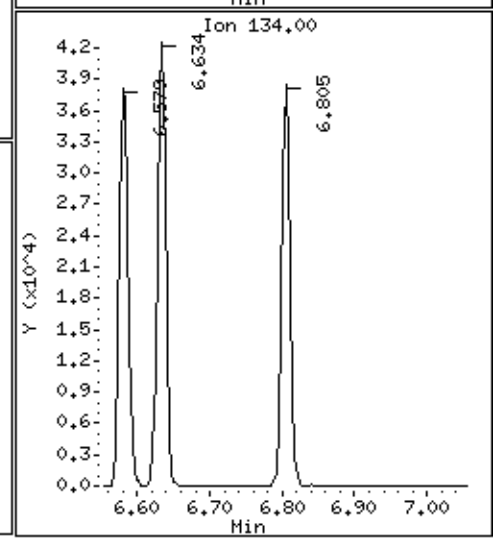












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

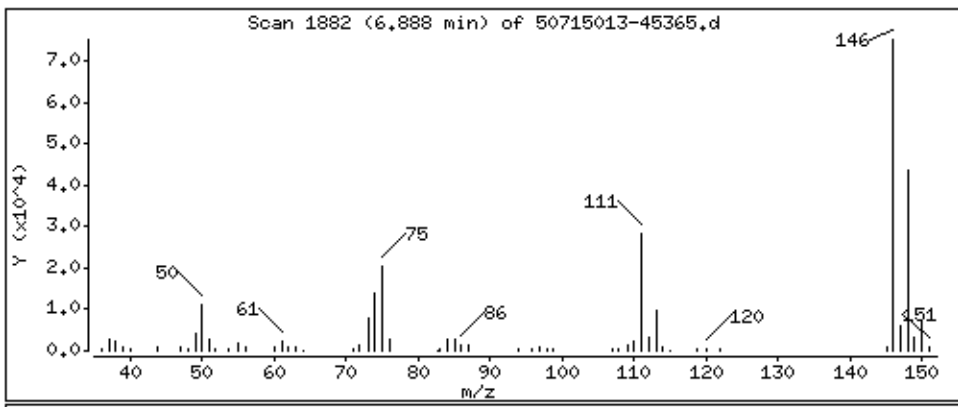
Operator: JEW

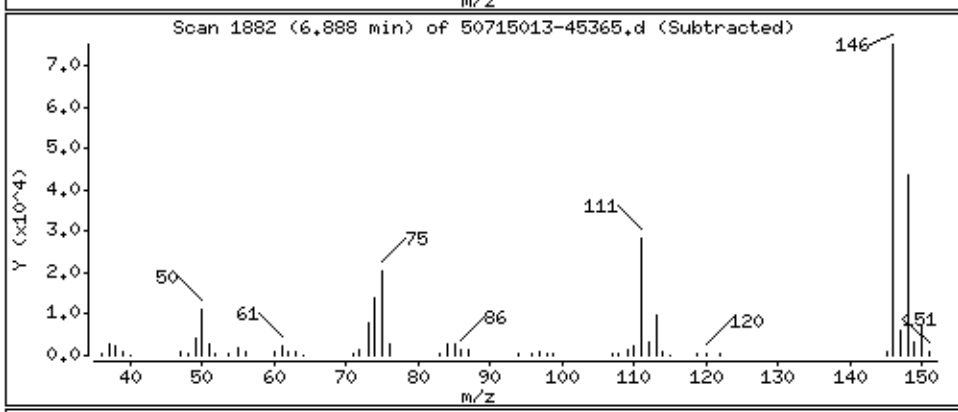
Column phase: RTX-VMS

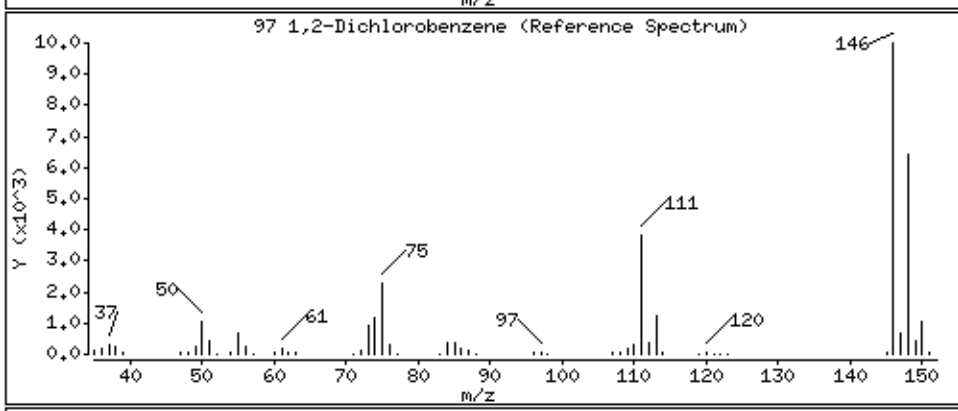
Column diameter: 0.18

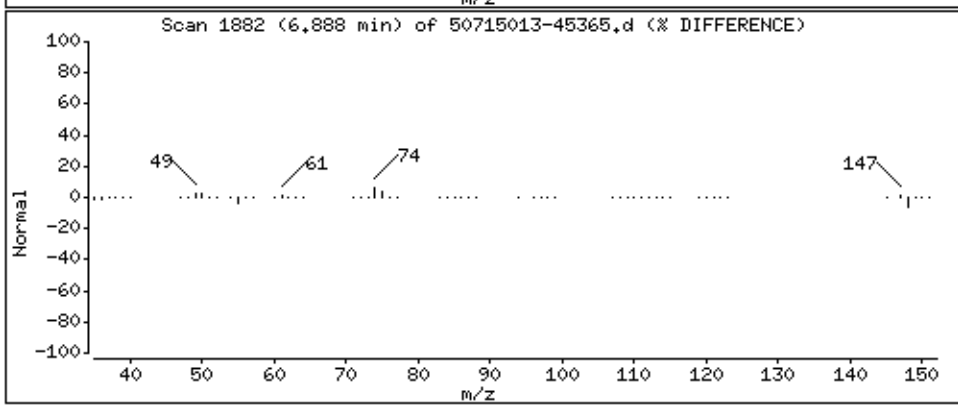
97 1,2-Dichlorobenzene

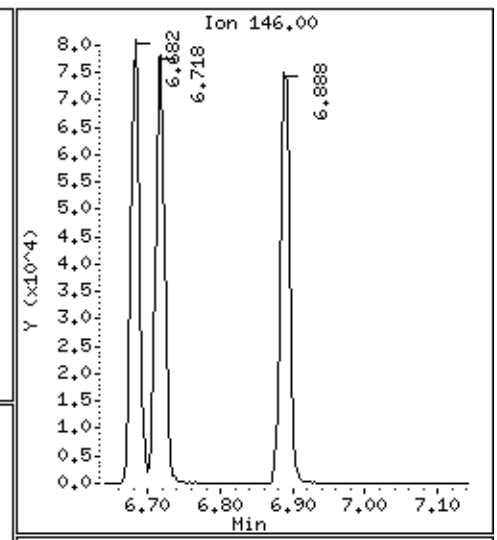
Concentration: 19.3 ug/L

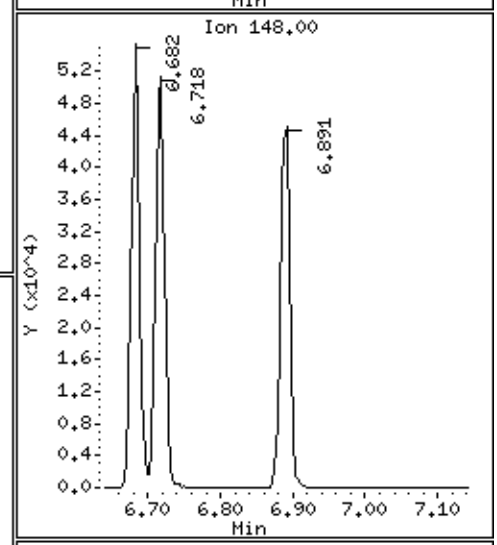


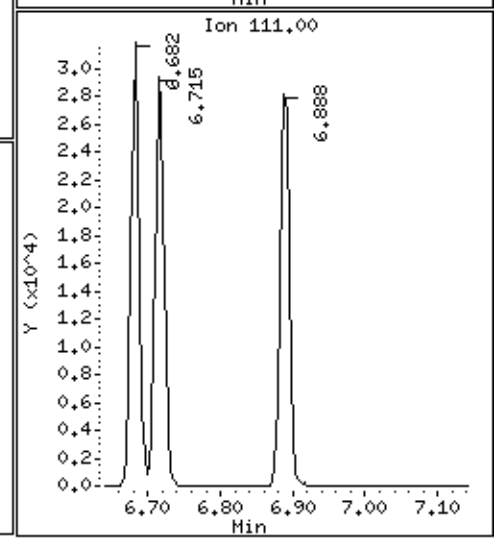












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

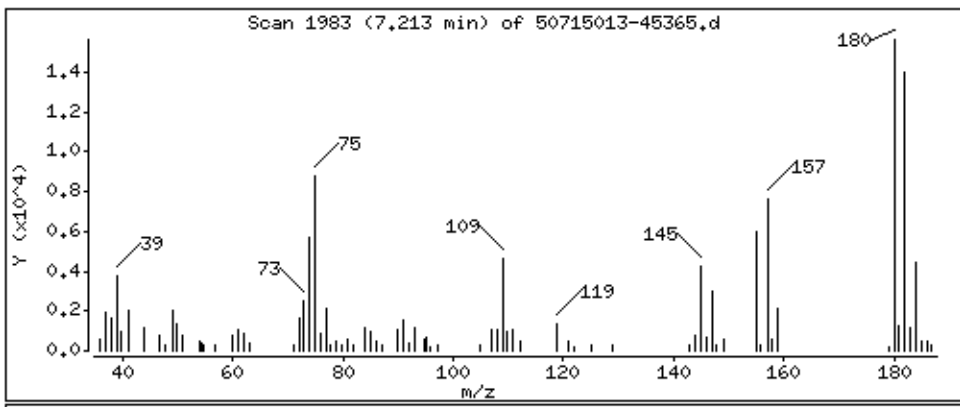
Operator: JEW

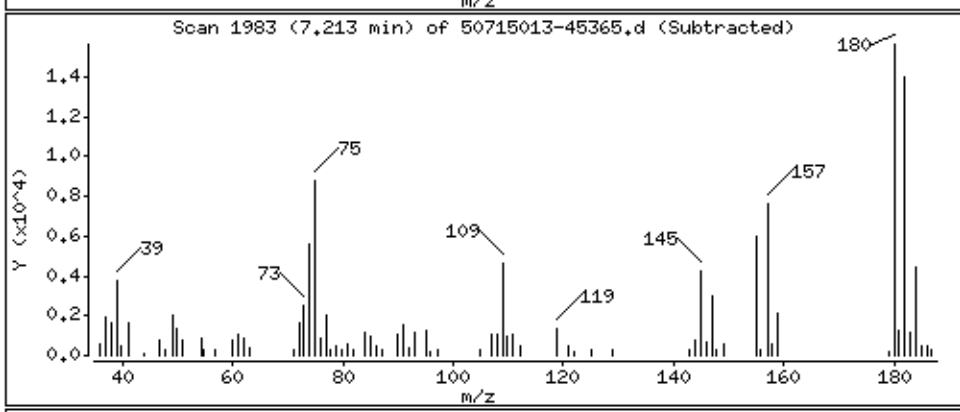
Column phase: RTX-VMS

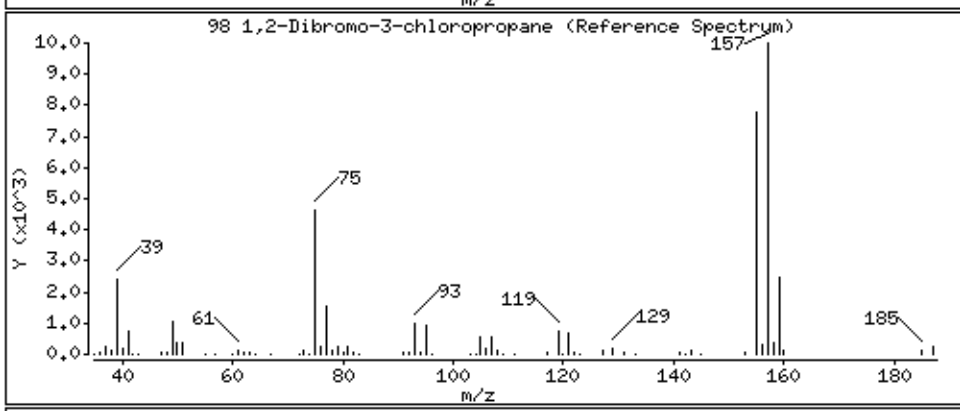
Column diameter: 0.18

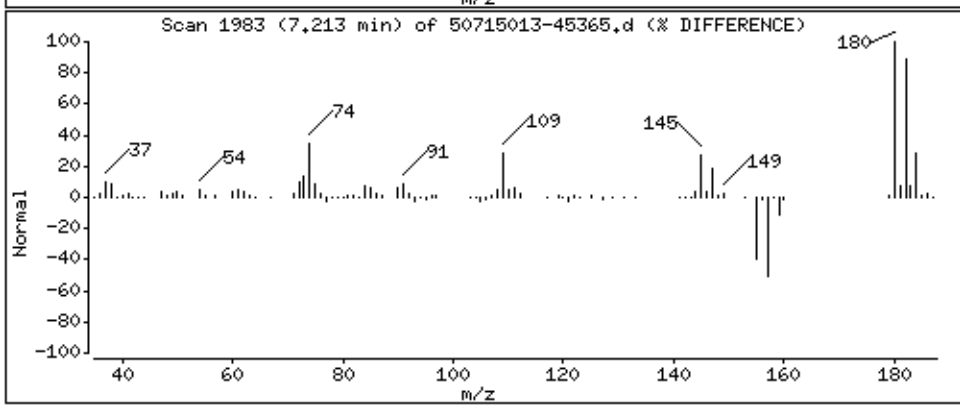
98 1,2-Dibromo-3-chloropropane

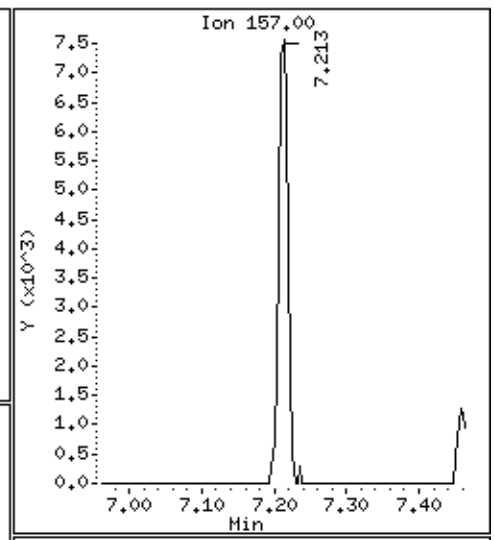
Concentration: 16.7 ug/L

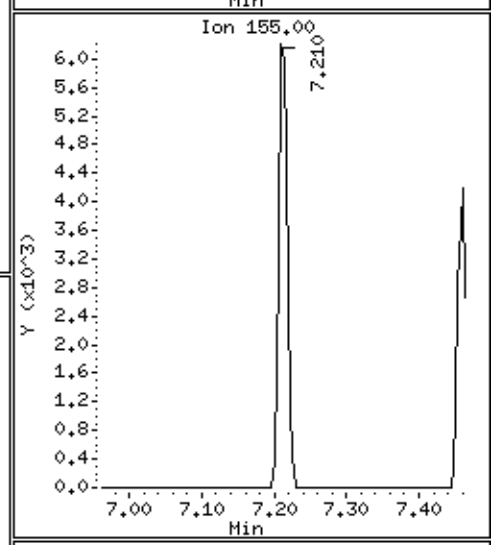


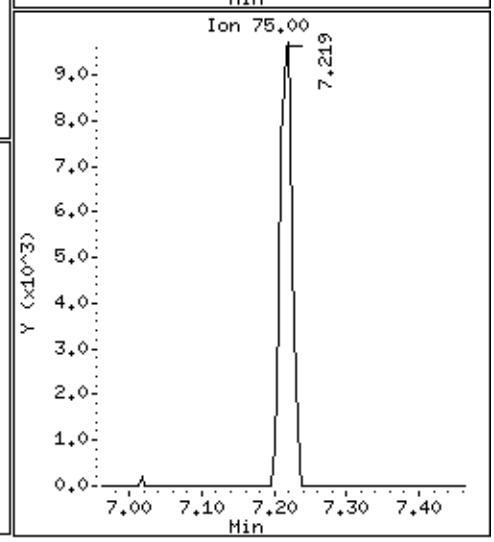












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

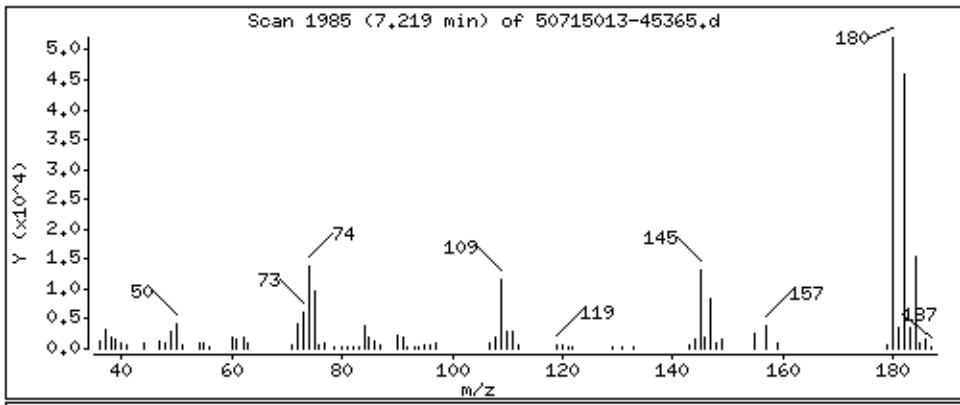
Operator: JEW

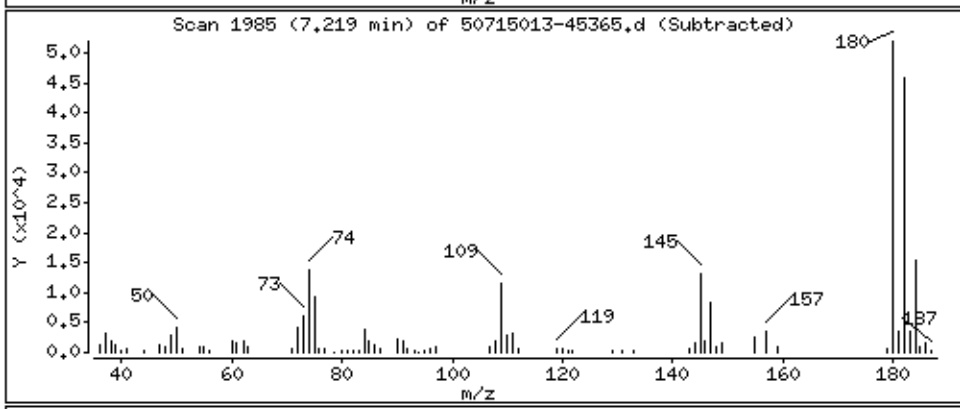
Column phase: RTX-VMS

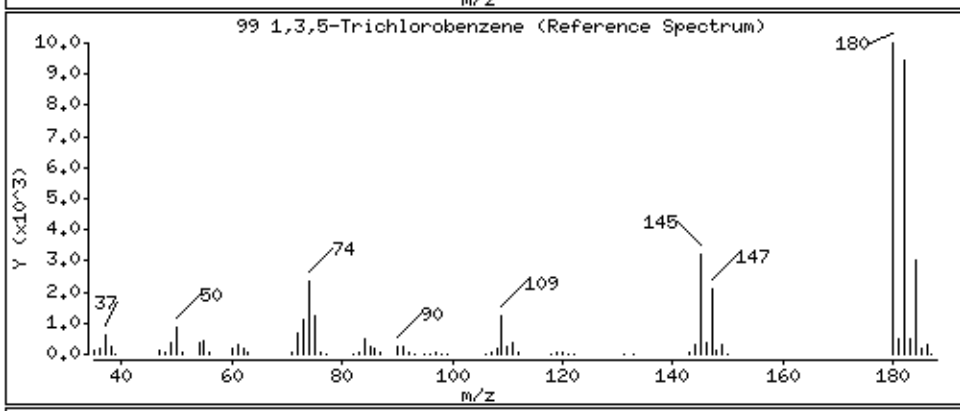
Column diameter: 0.18

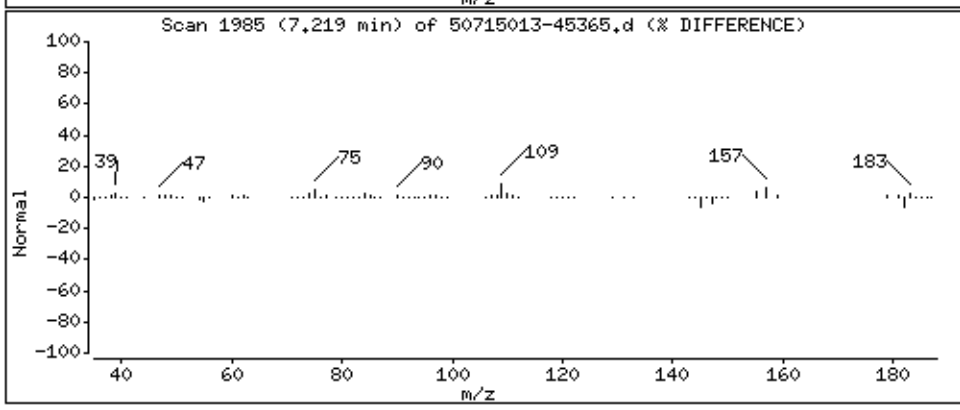
99 1,3,5-Trichlorobenzene

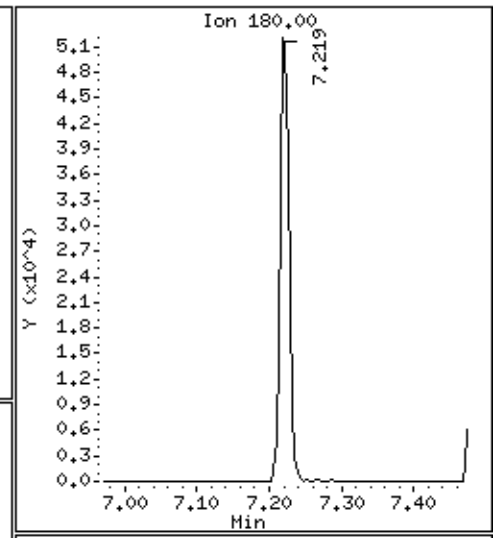
Concentration: 22.8 ug/L

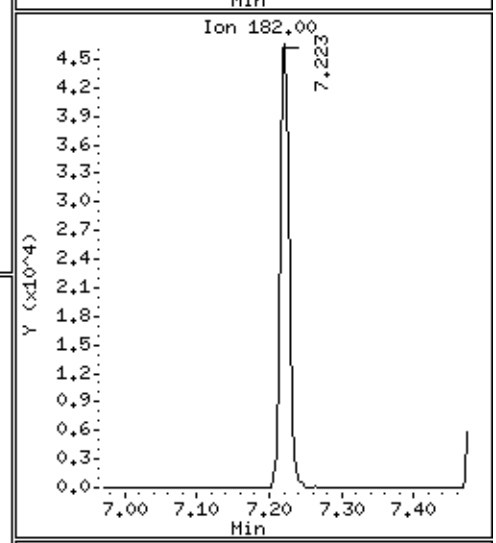


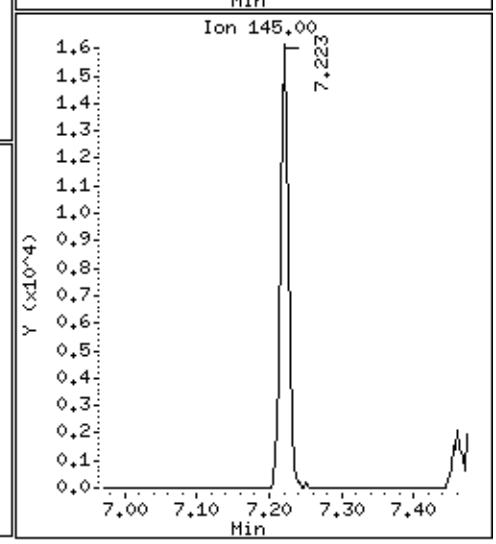












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

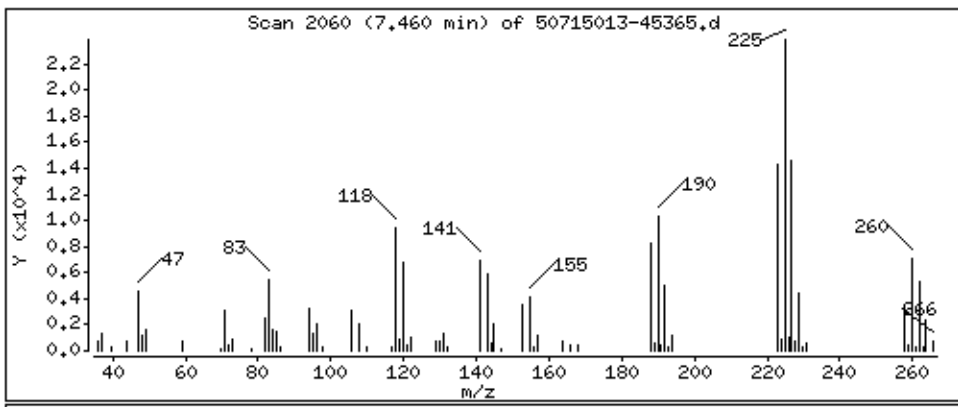
Operator: JEW

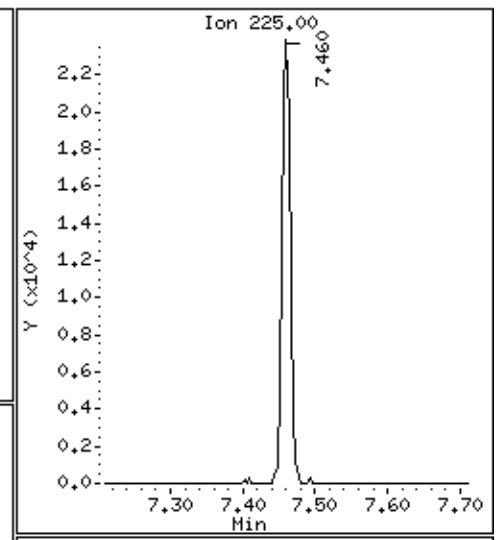
Column phase: RTX-VMS

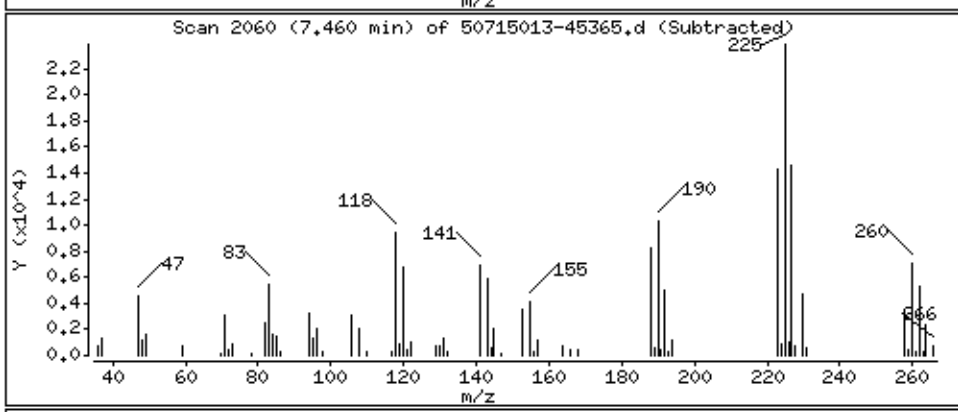
Column diameter: 0.18

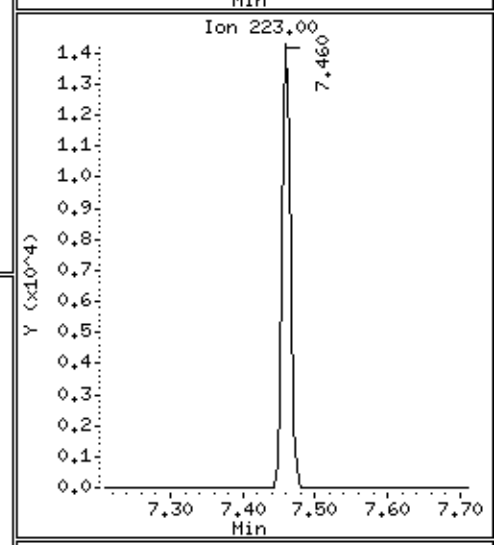
100 Hexachloro-1,3-butadiene

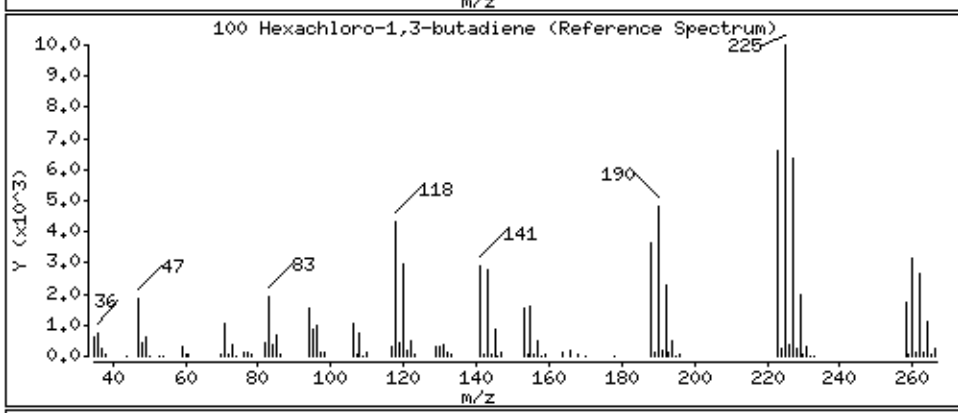
Concentration: 21.8 ug/L

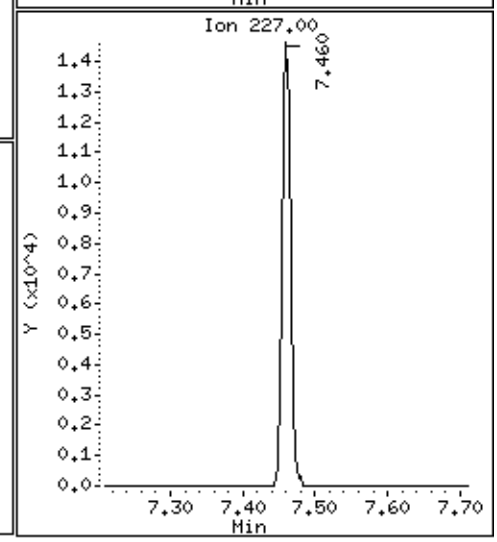


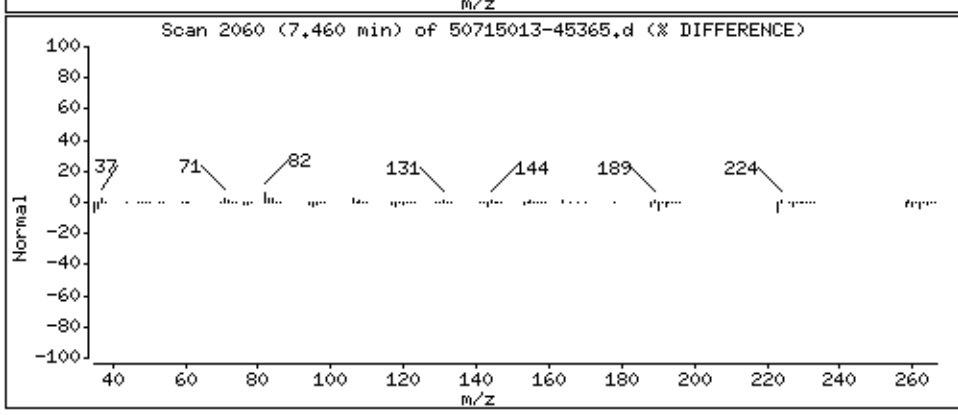












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

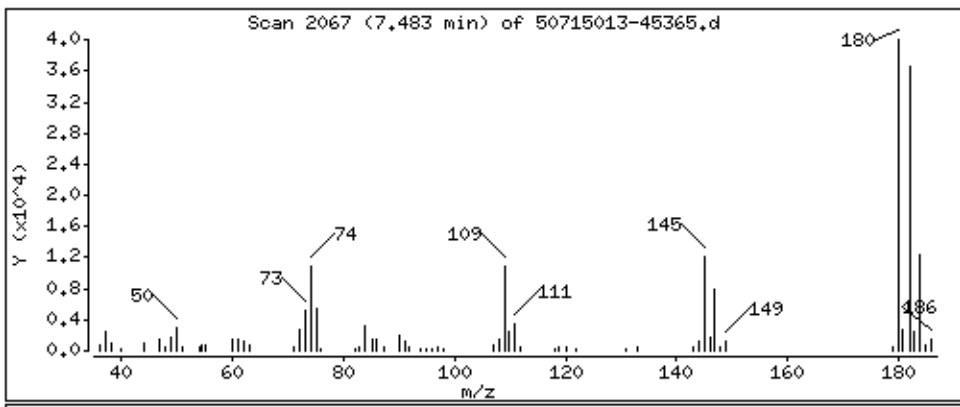
Operator: JEW

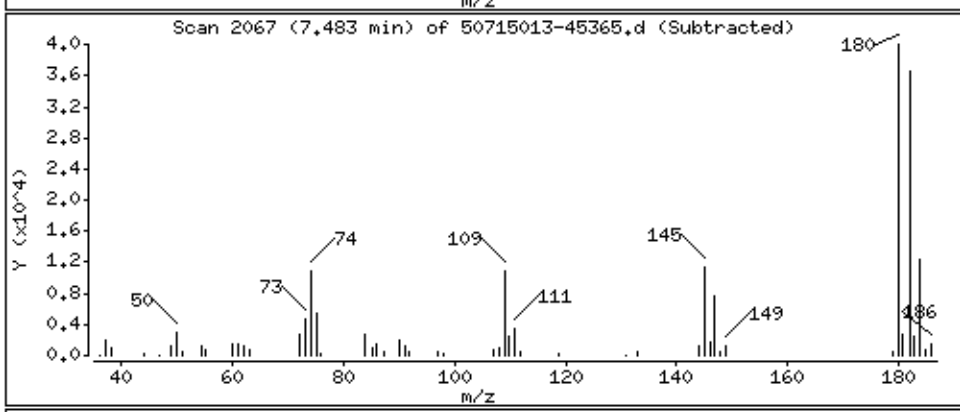
Column phase: RTX-VMS

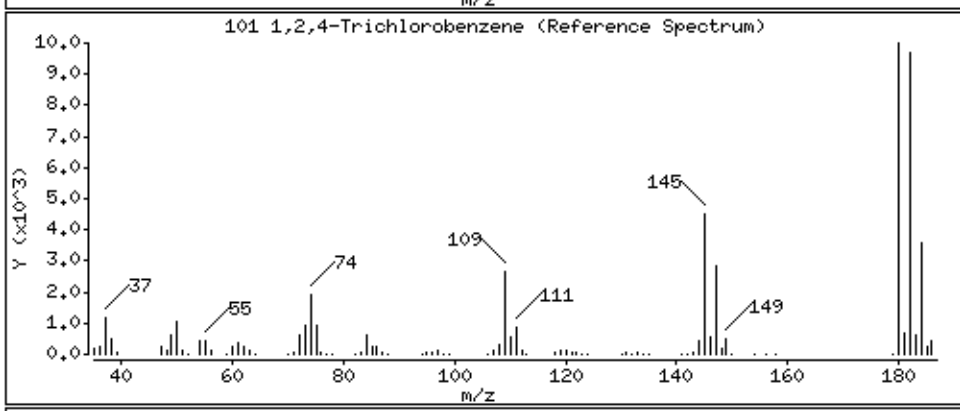
Column diameter: 0.18

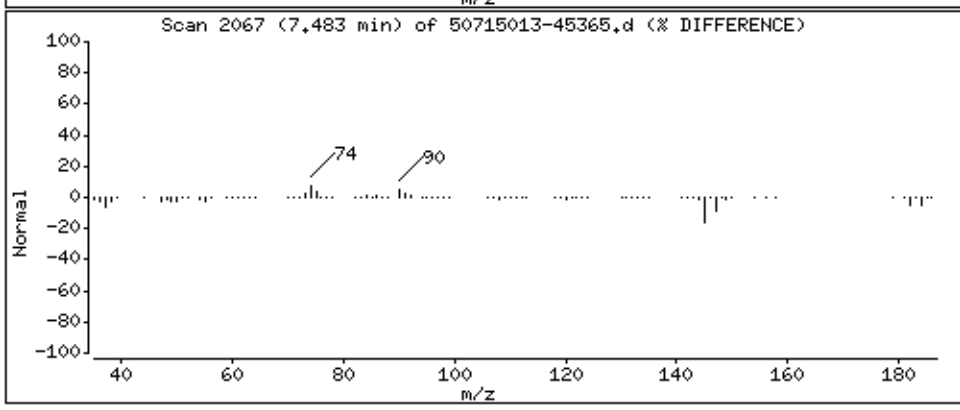
101 1,2,4-Trichlorobenzene

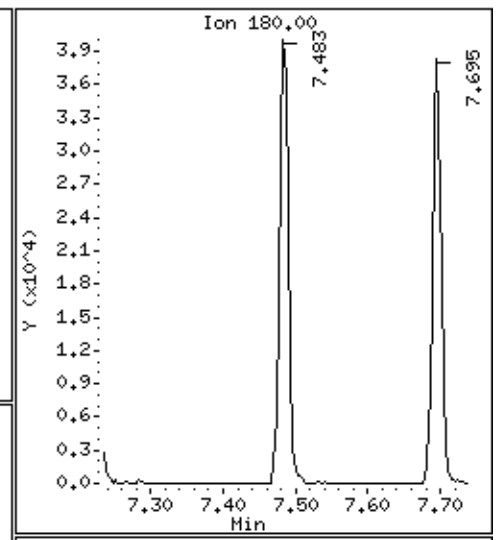
Concentration: 20.5 ug/L

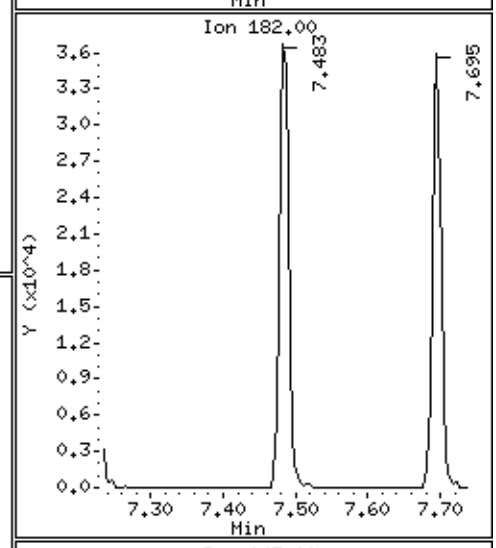


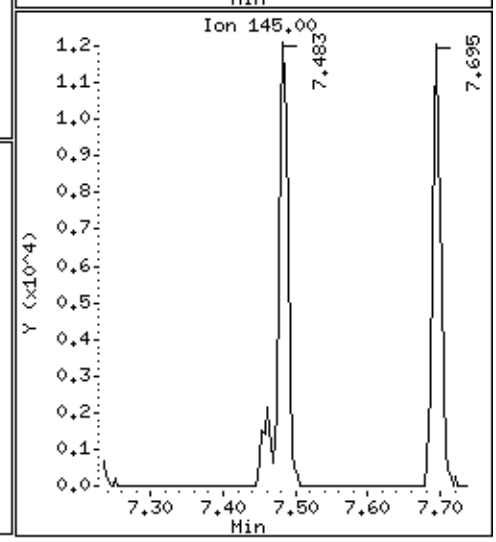












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Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

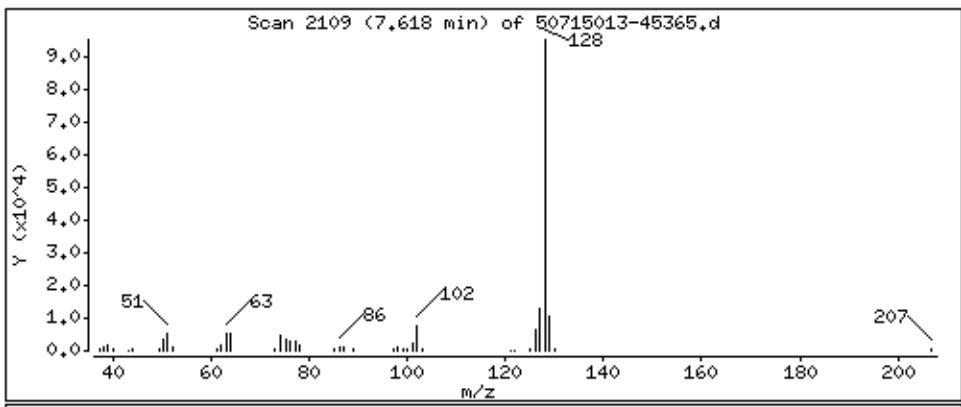
Operator: JEW

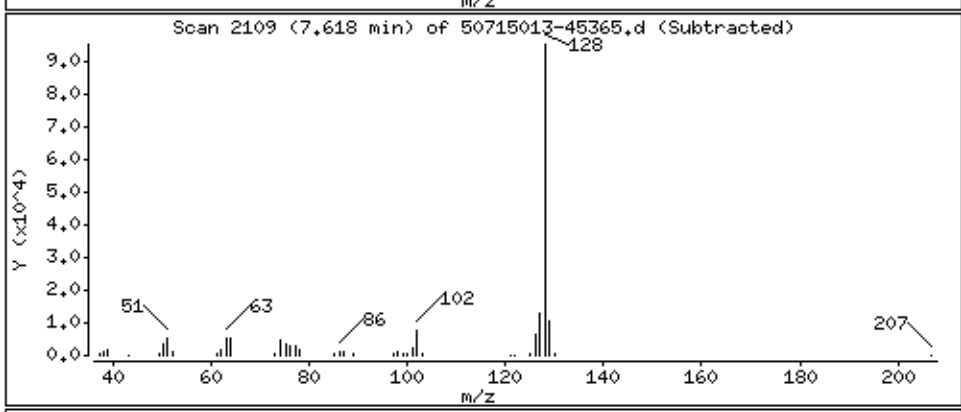
Column phase: RTX-VMS

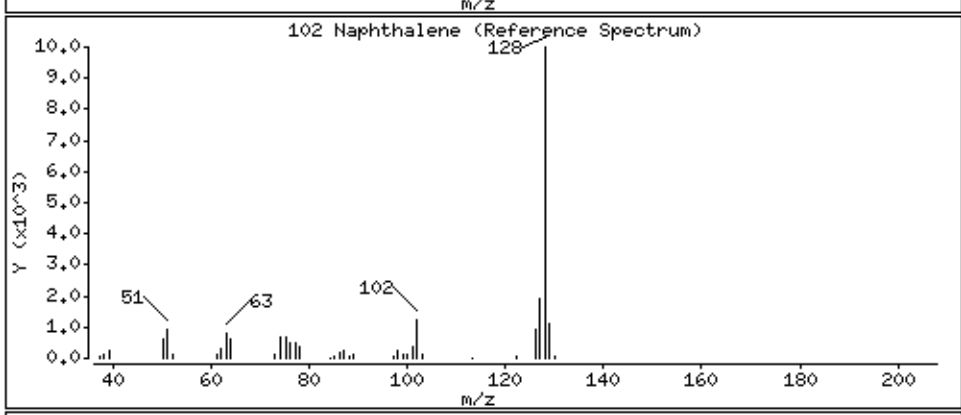
Column diameter: 0.18

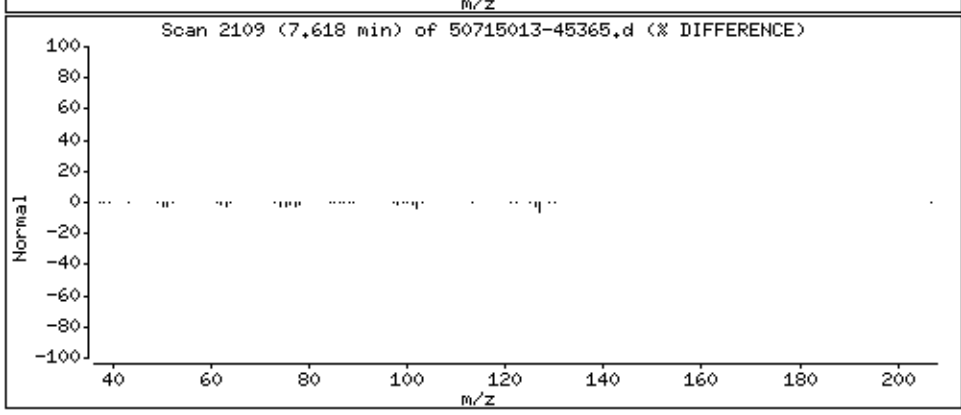
102 Naphthalene

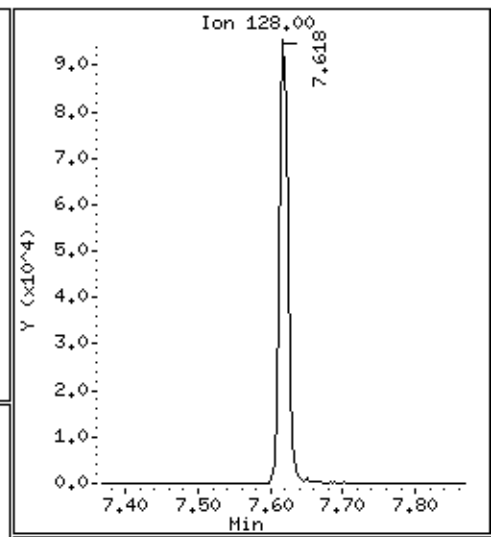
Concentration: 18.8 ug/L

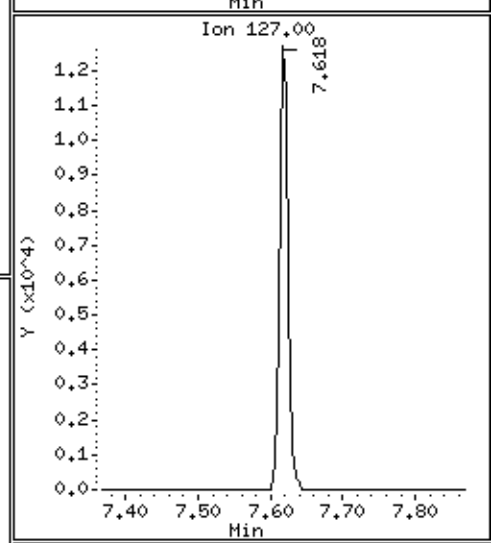


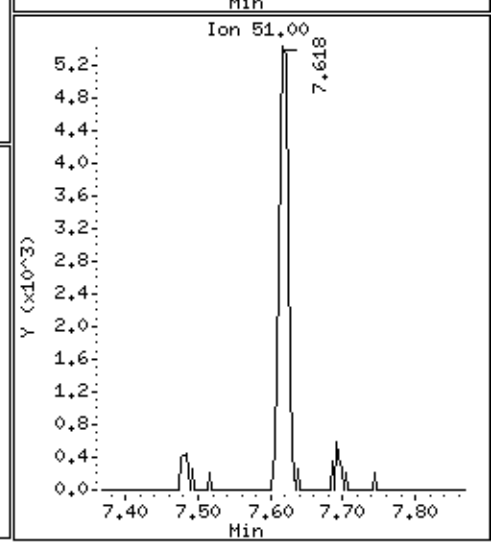












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

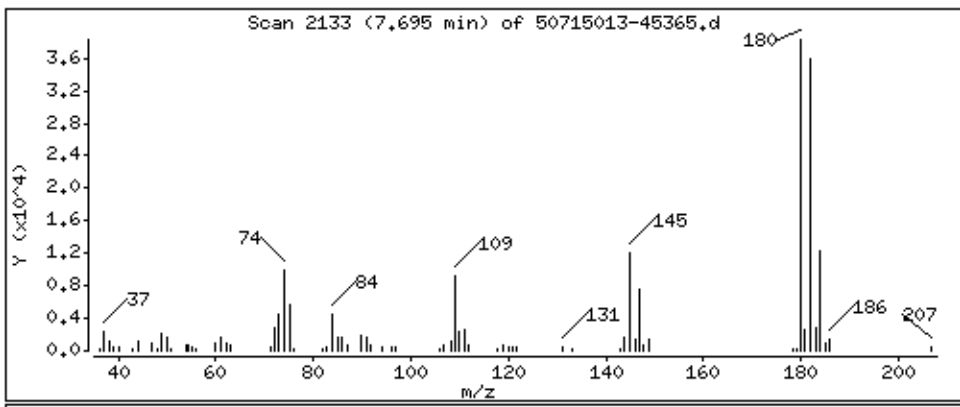
Operator: JEW

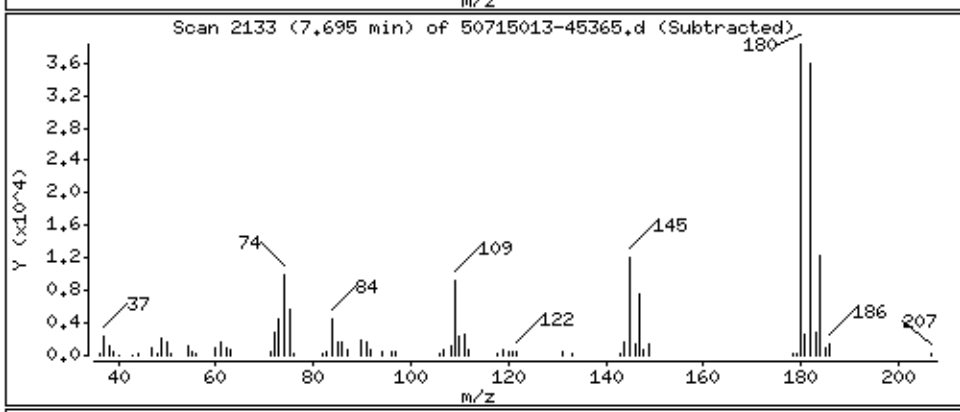
Column phase: RTX-VMS

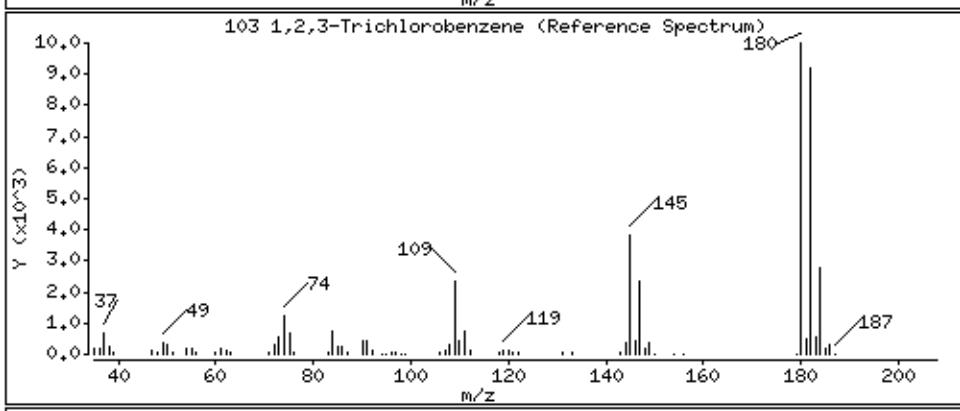
Column diameter: 0.18

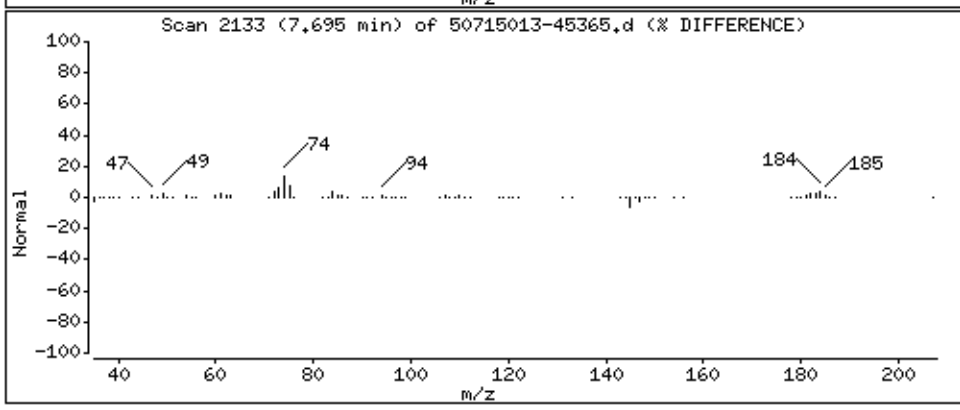
103 1,2,3-Trichlorobenzene

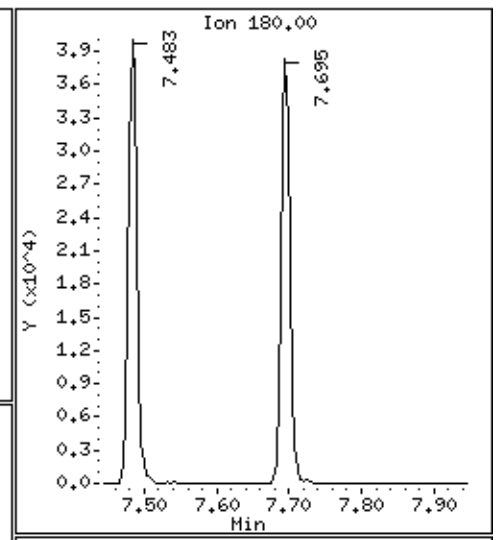
Concentration: 21.5 ug/L

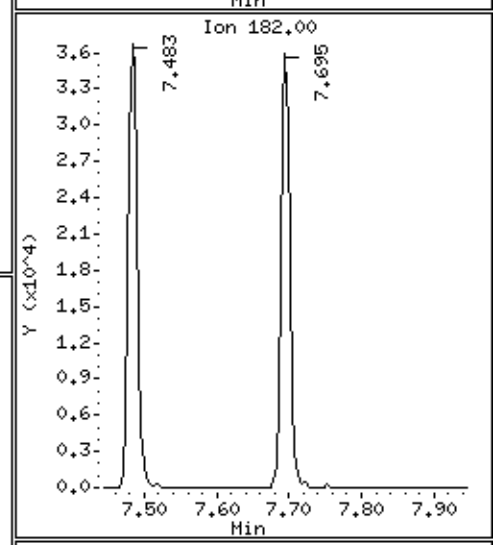


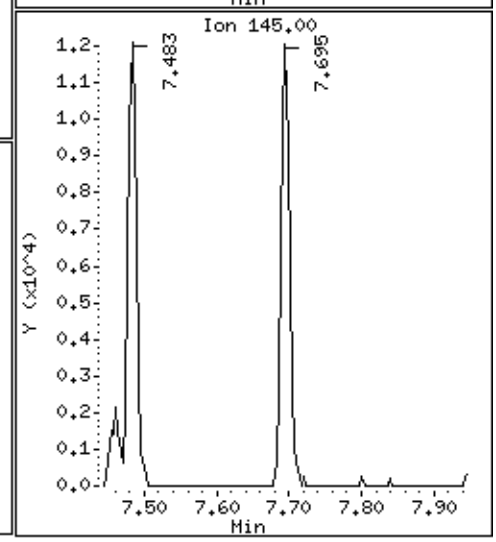












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715013-45365.d

Date : 15-JUL-2019 15:05

Client ID: MBLCS

Instrument: 30mv5a.i

Sample Info: 1709347,93569:5,,

Purge Volume: 5.0

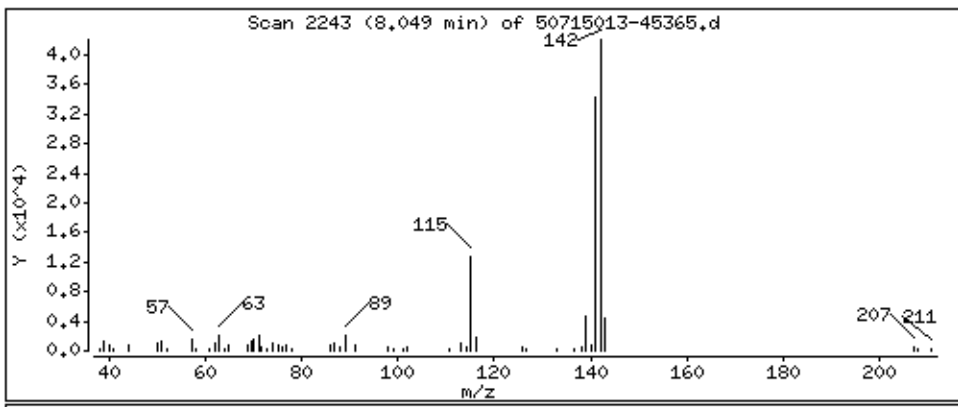
Operator: JEW

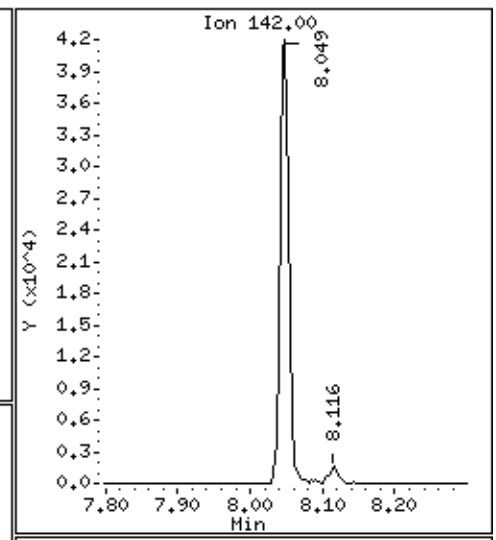
Column phase: RTX-VMS

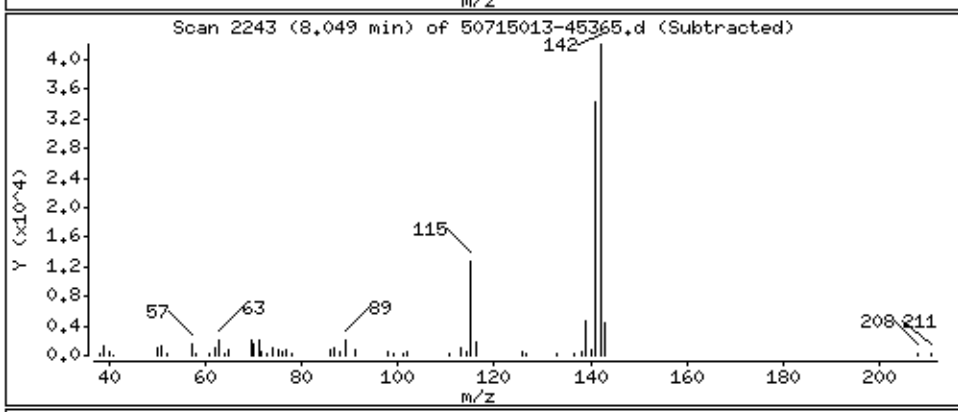
Column diameter: 0.18

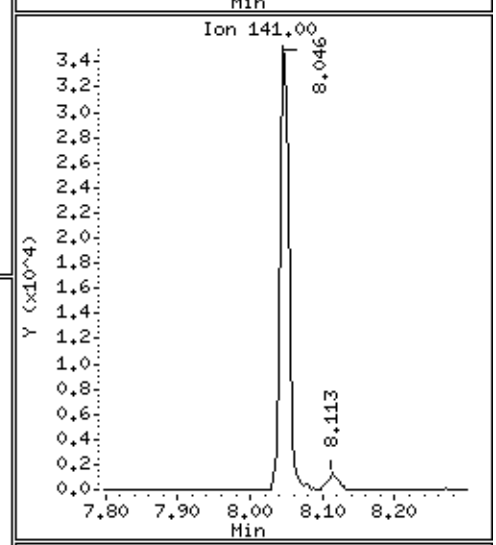
104 2-Methylnaphthalene

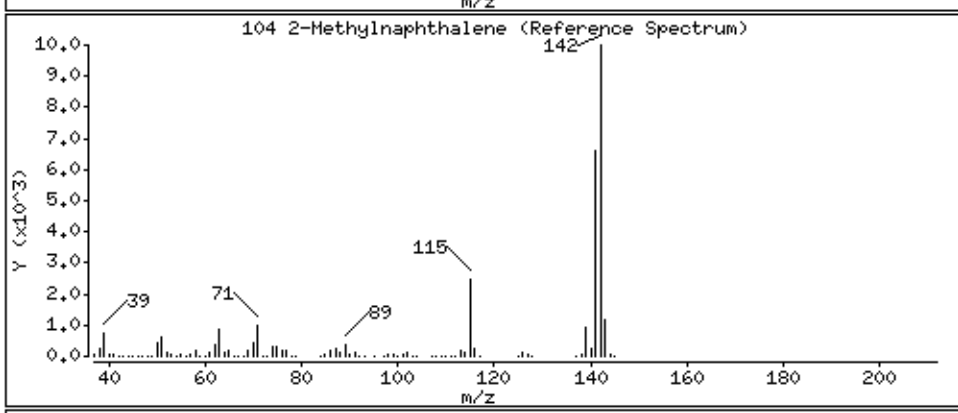
Concentration: 19.5 ug/L

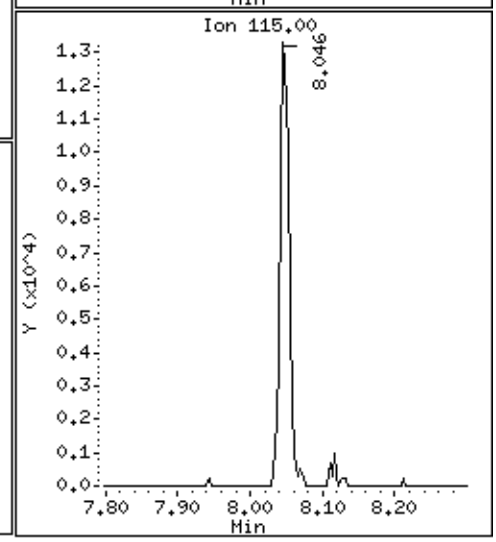


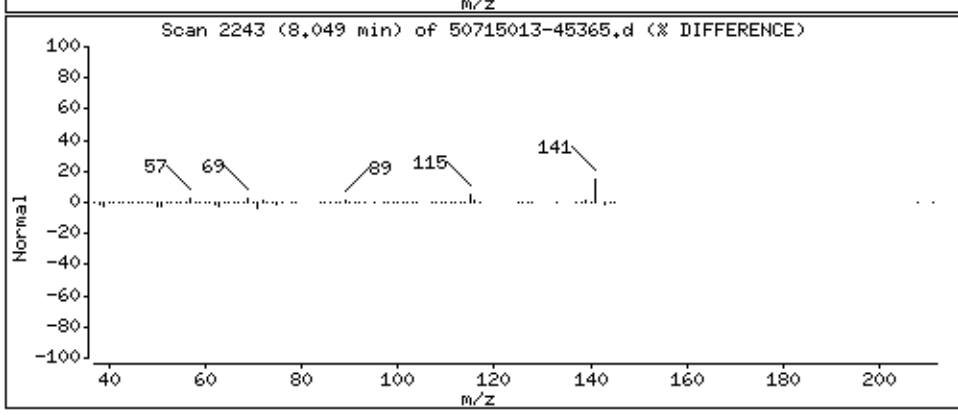












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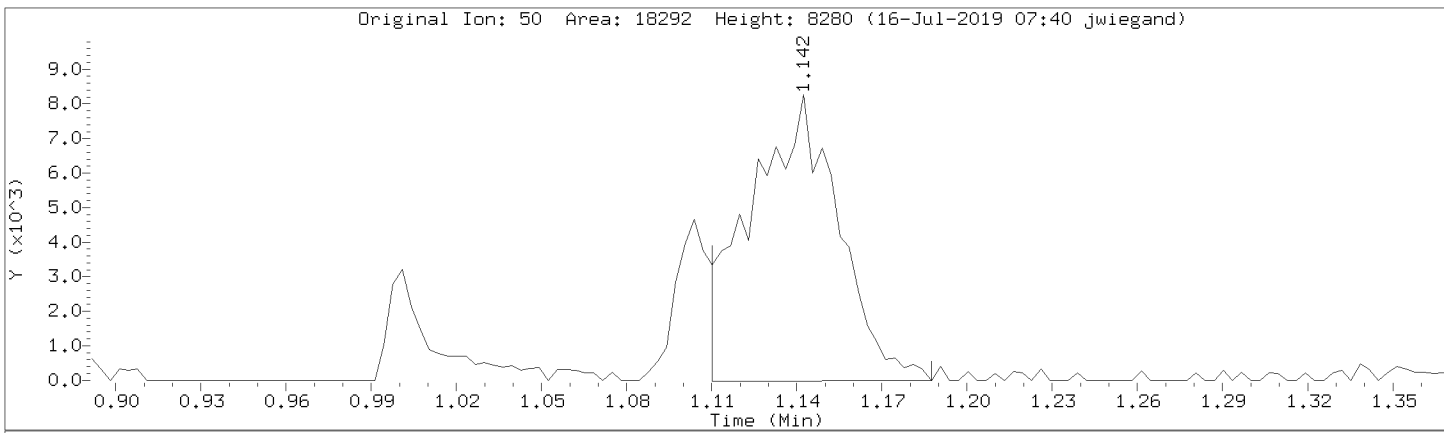
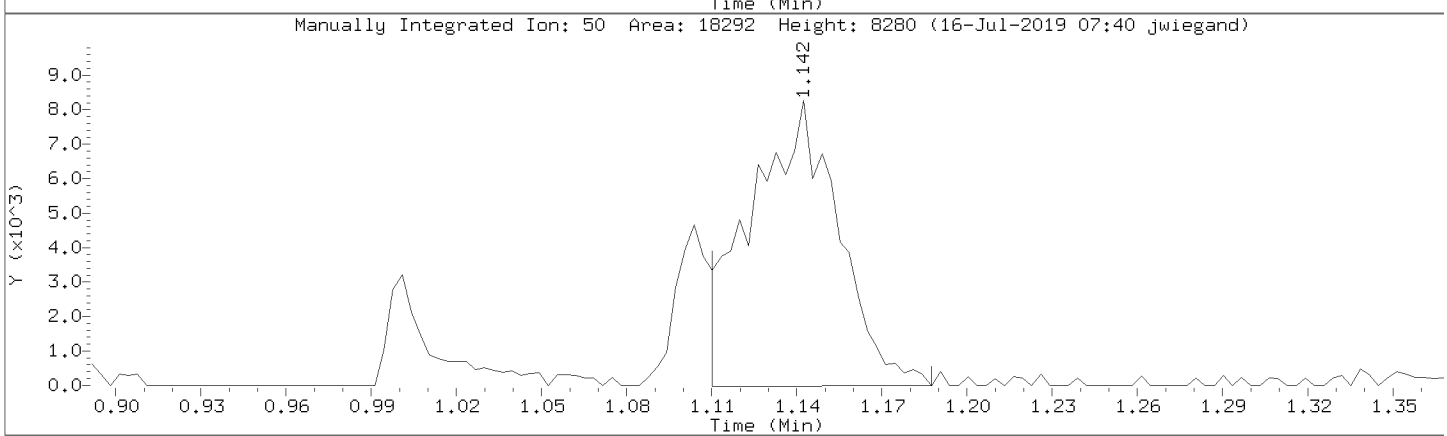
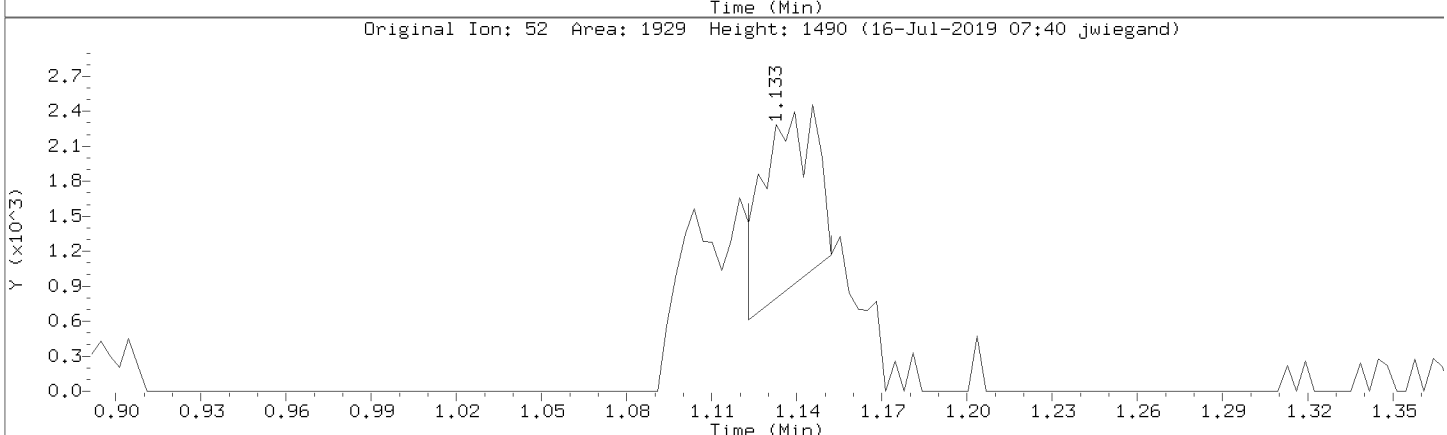
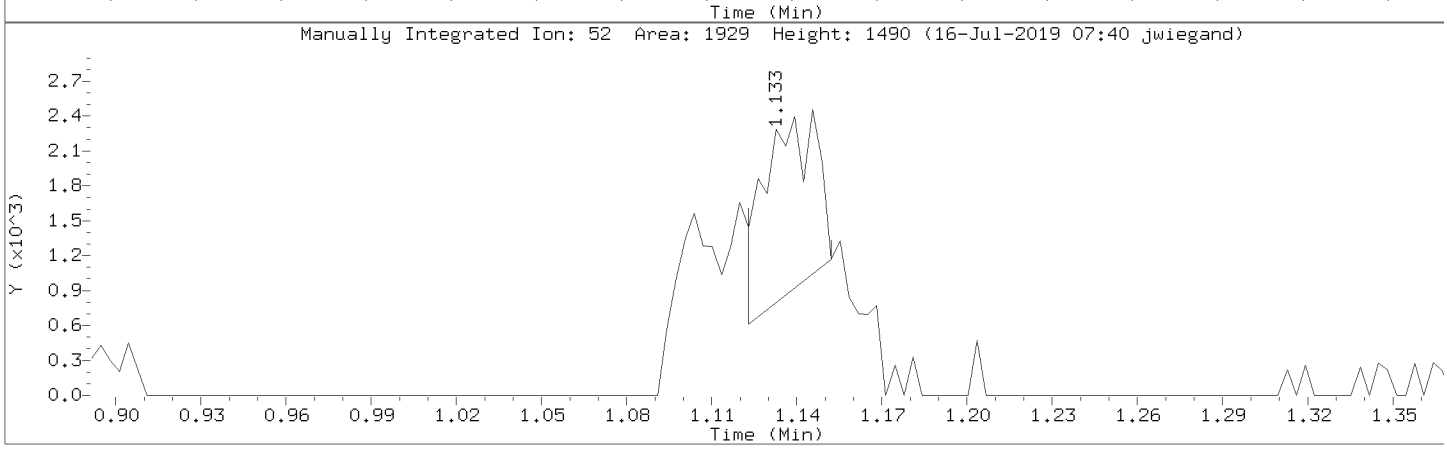
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3









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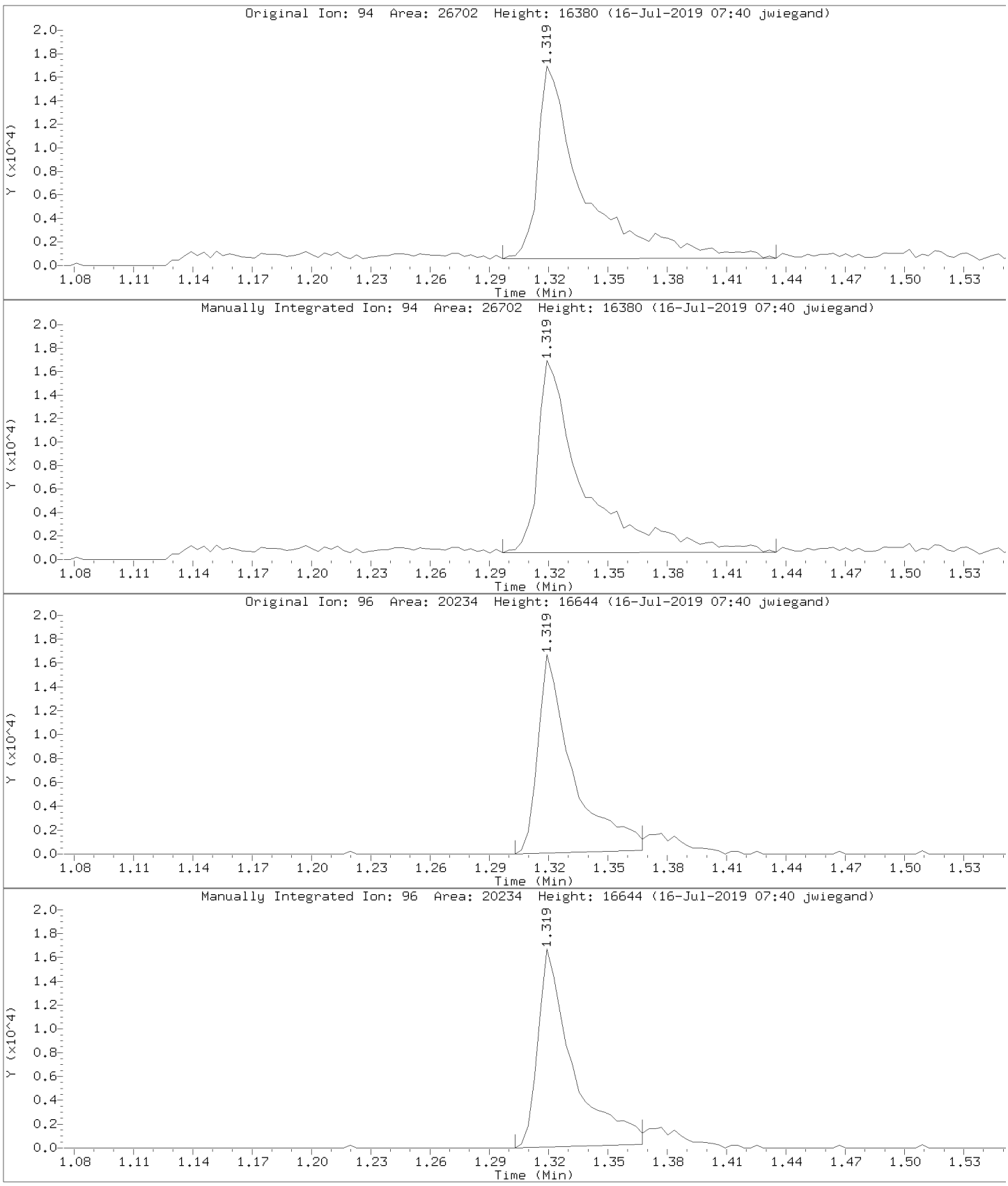
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



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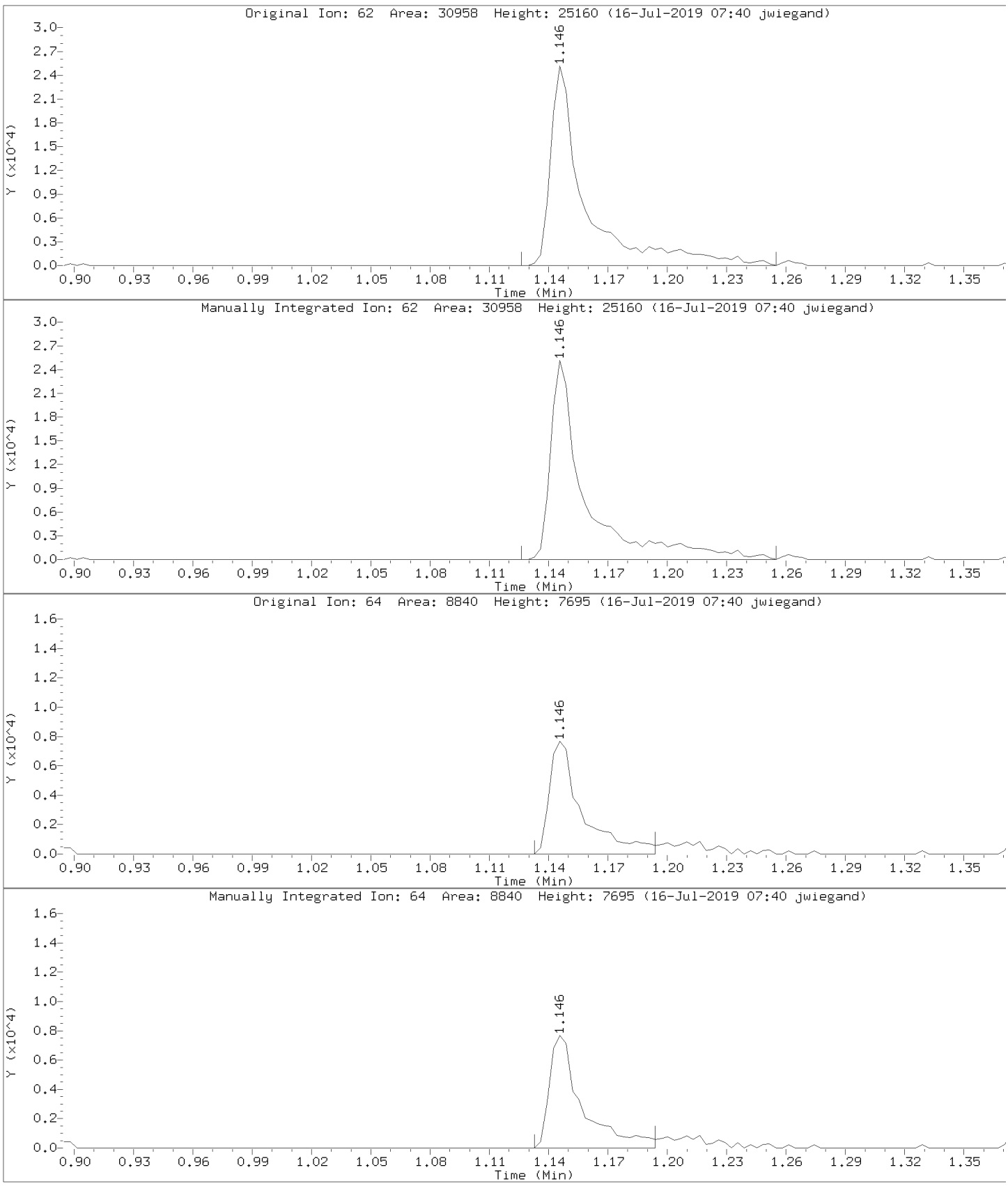
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



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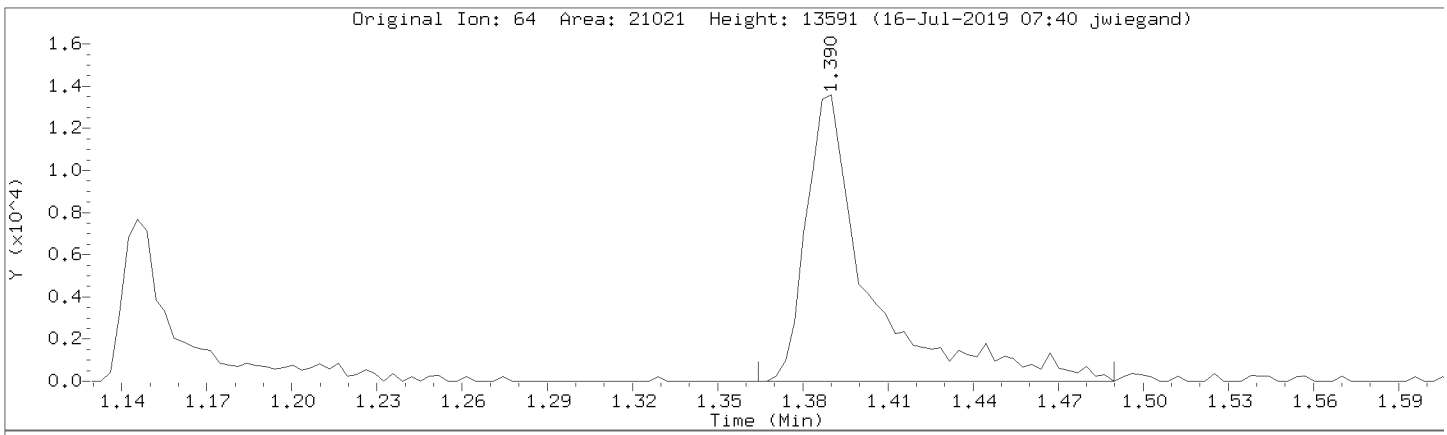
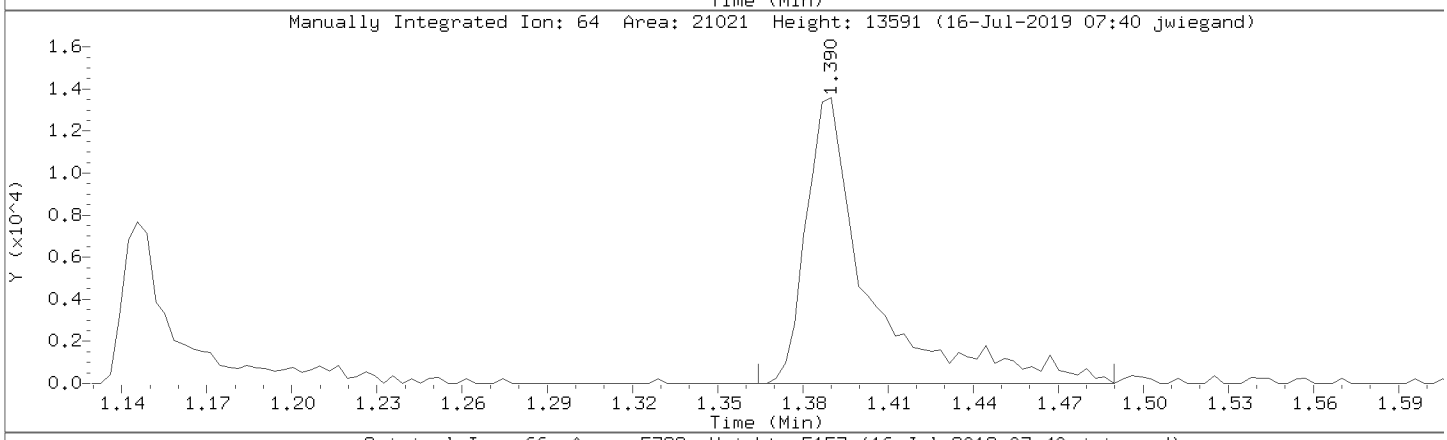
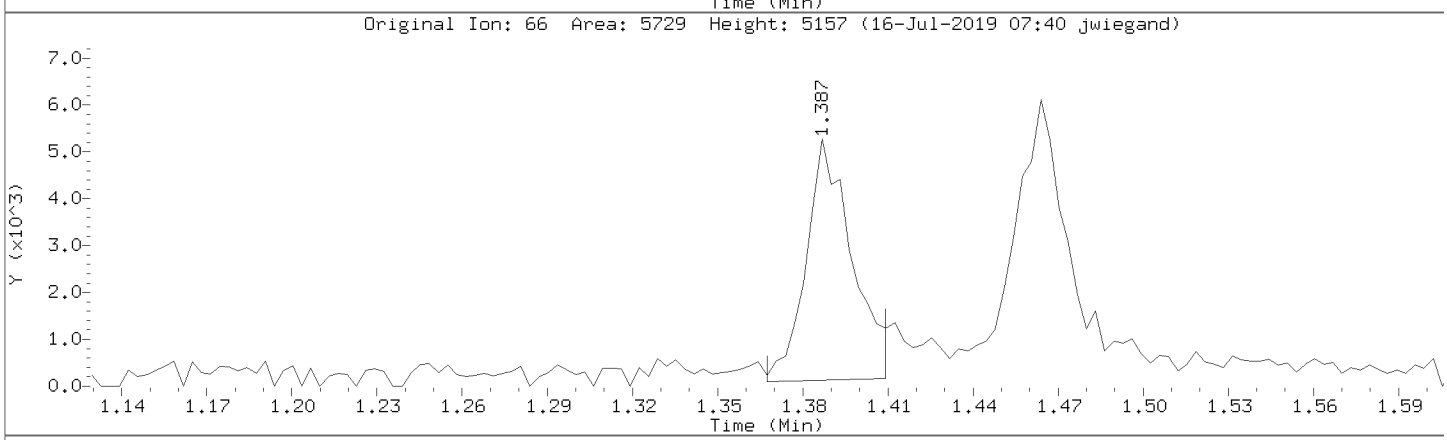
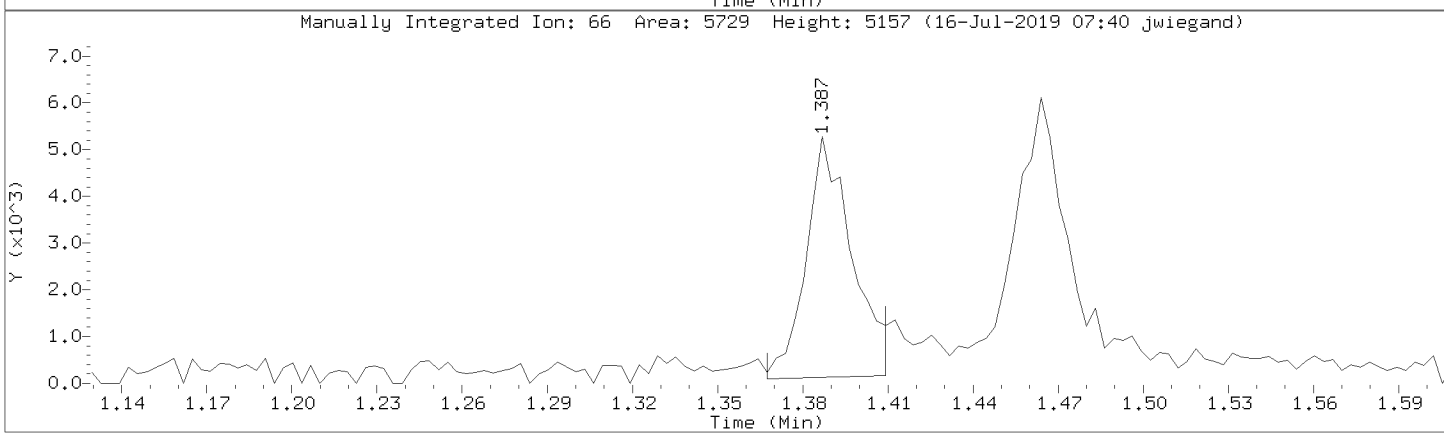
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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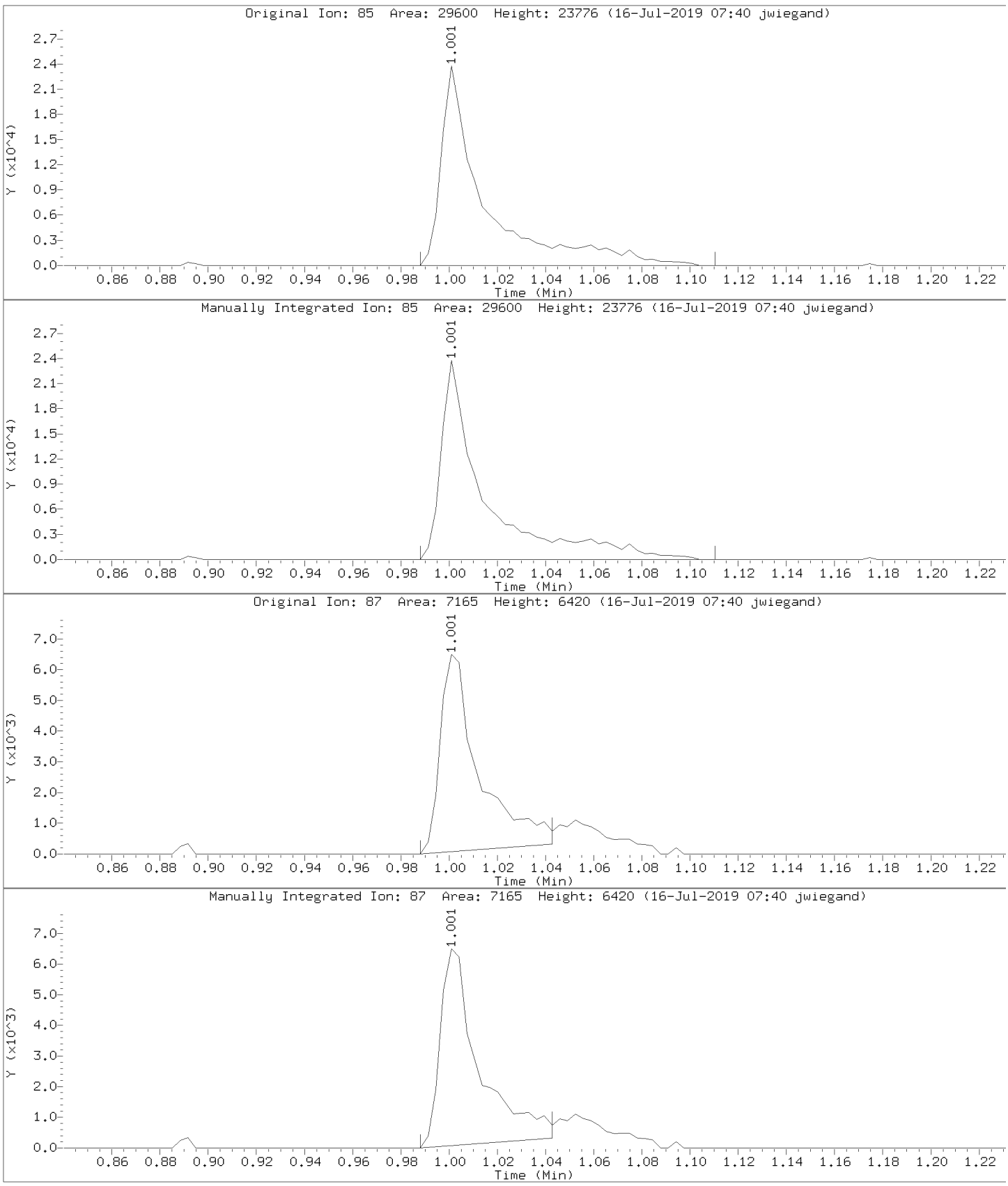
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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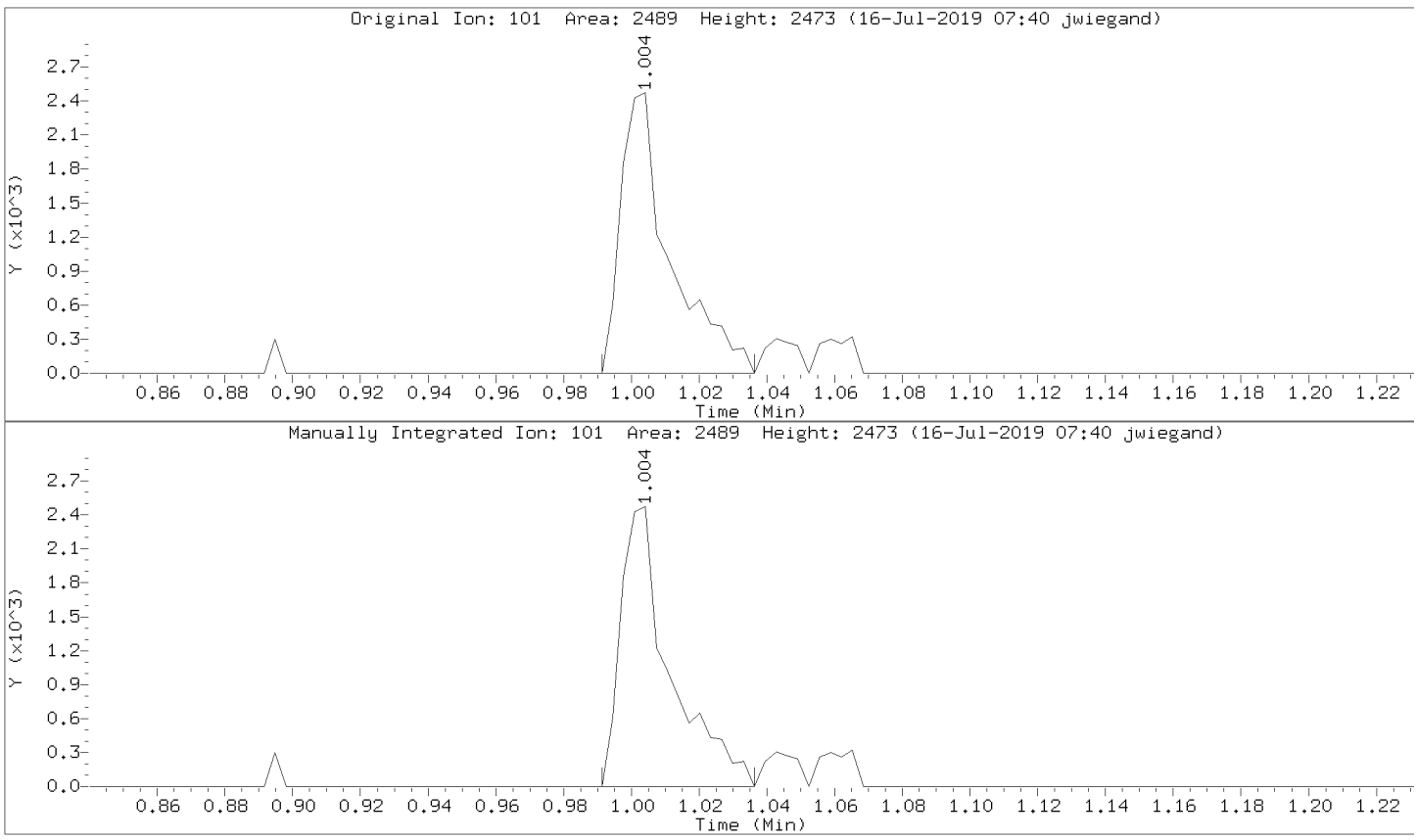
Instrument: 30mv5a.i
Lab Sample ID: 1709347



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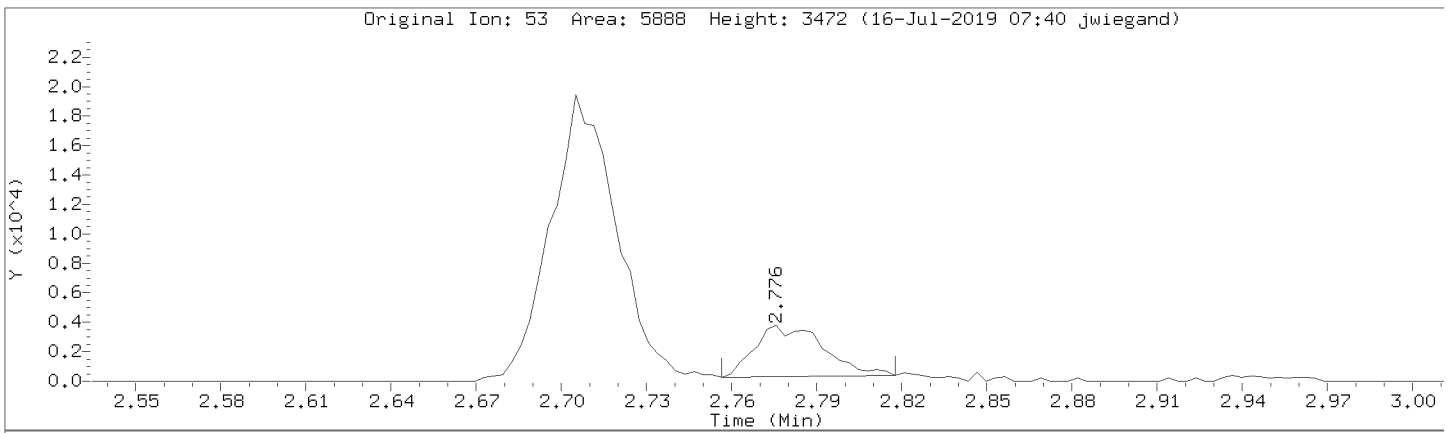
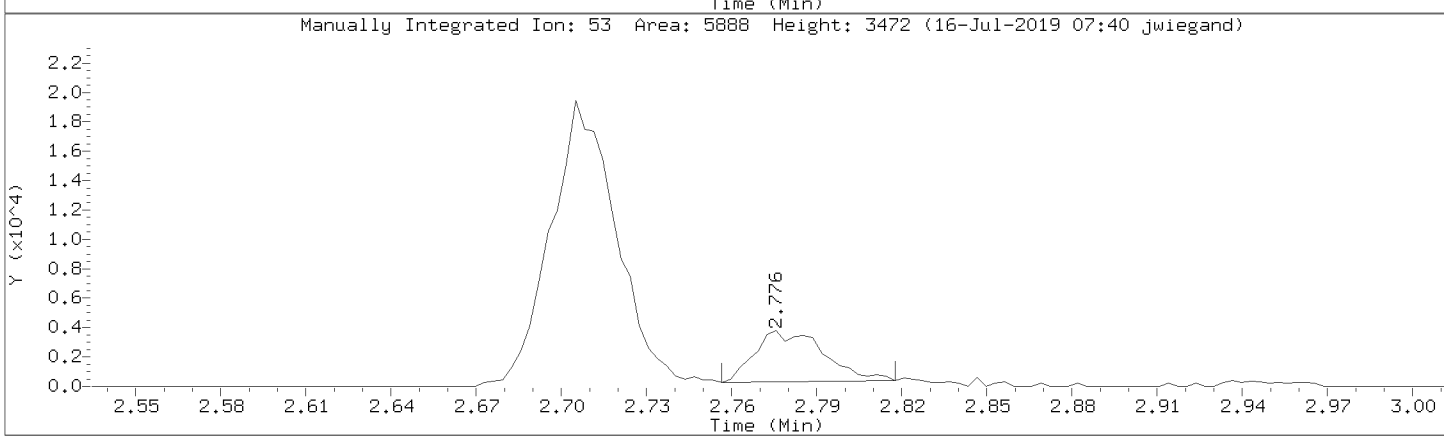
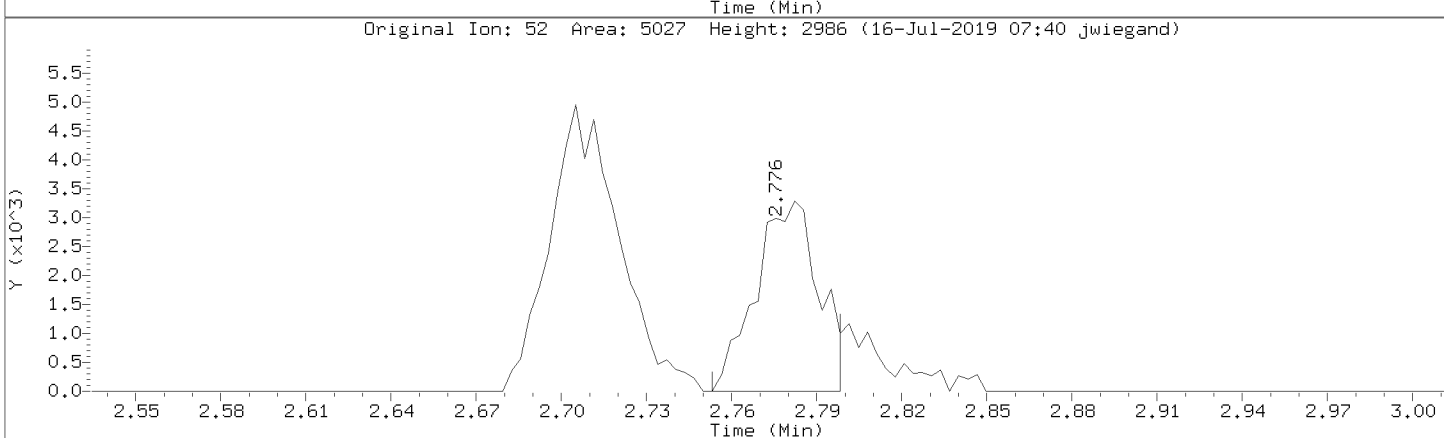
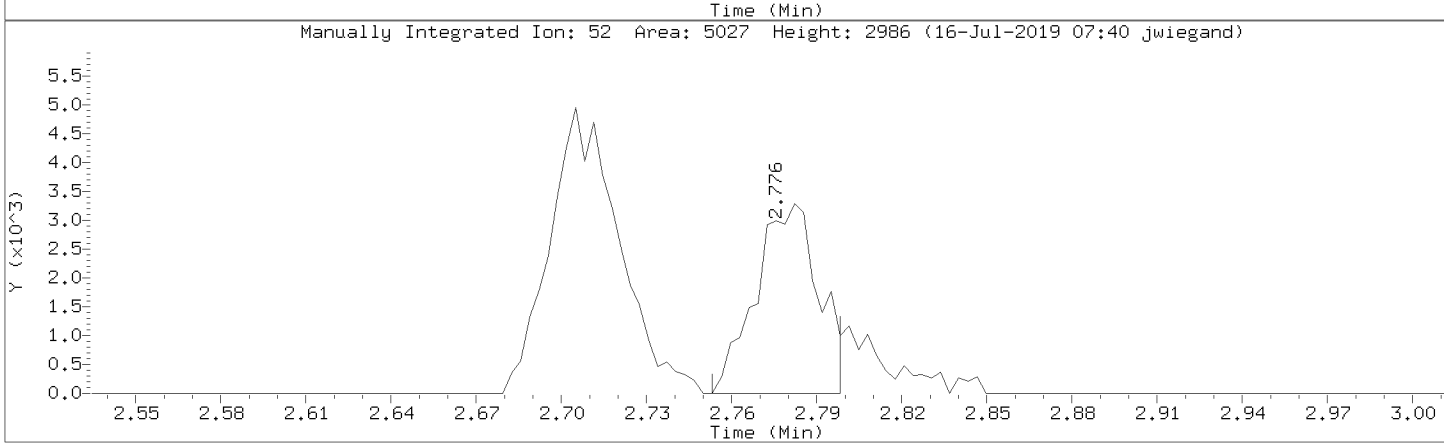
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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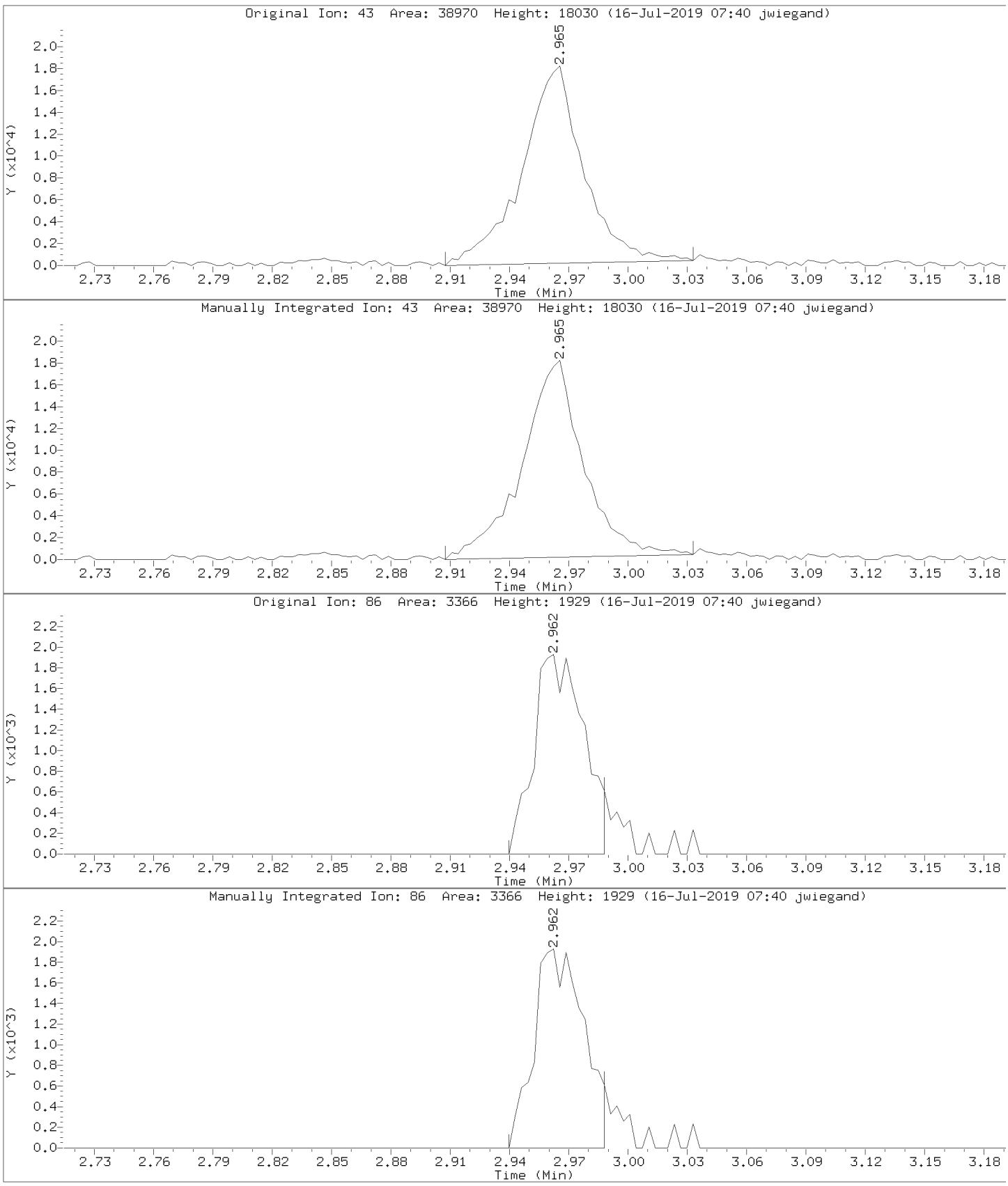
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Vinyl acetate Review Code: LT
CAS Number: 108-05-4



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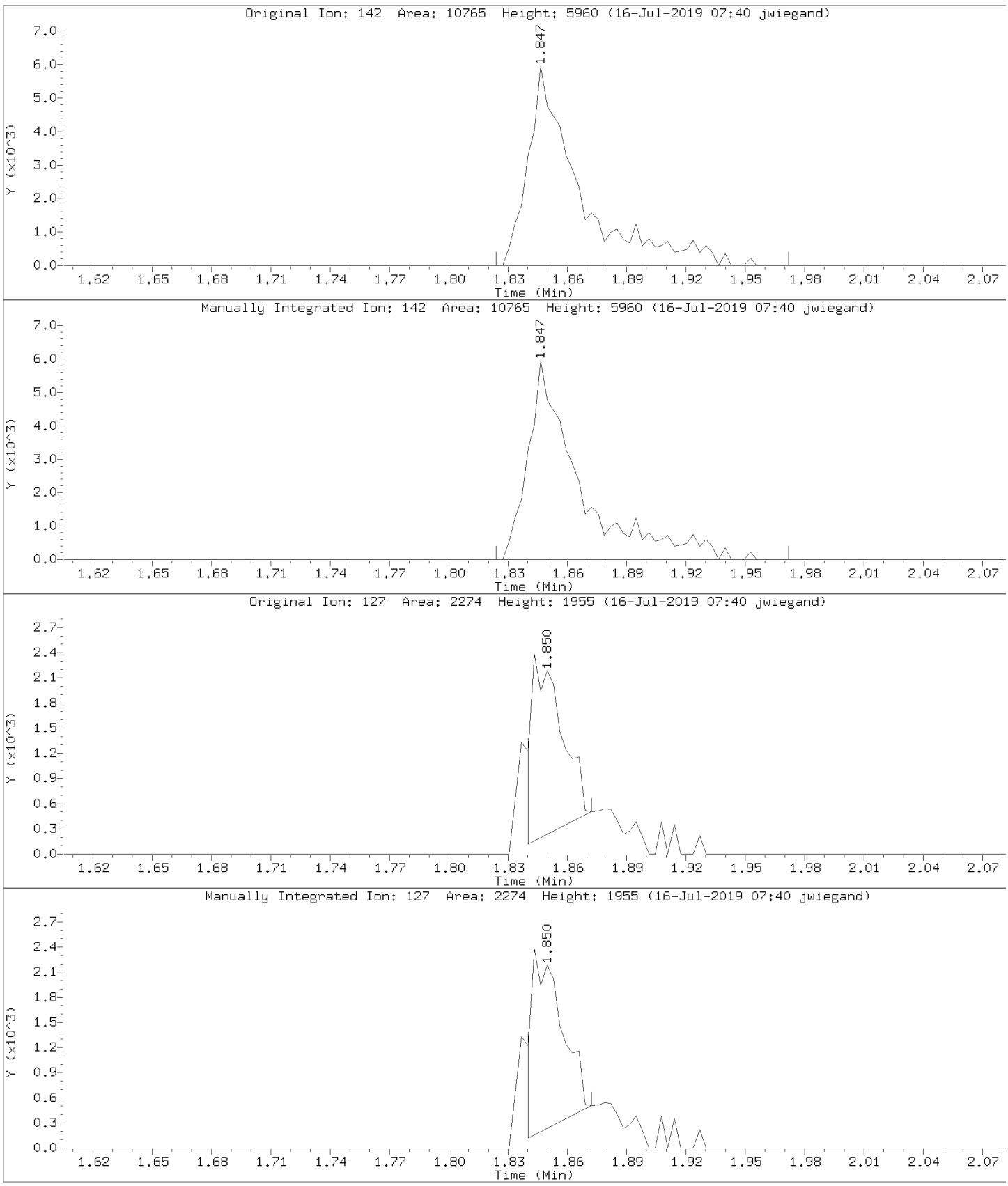
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



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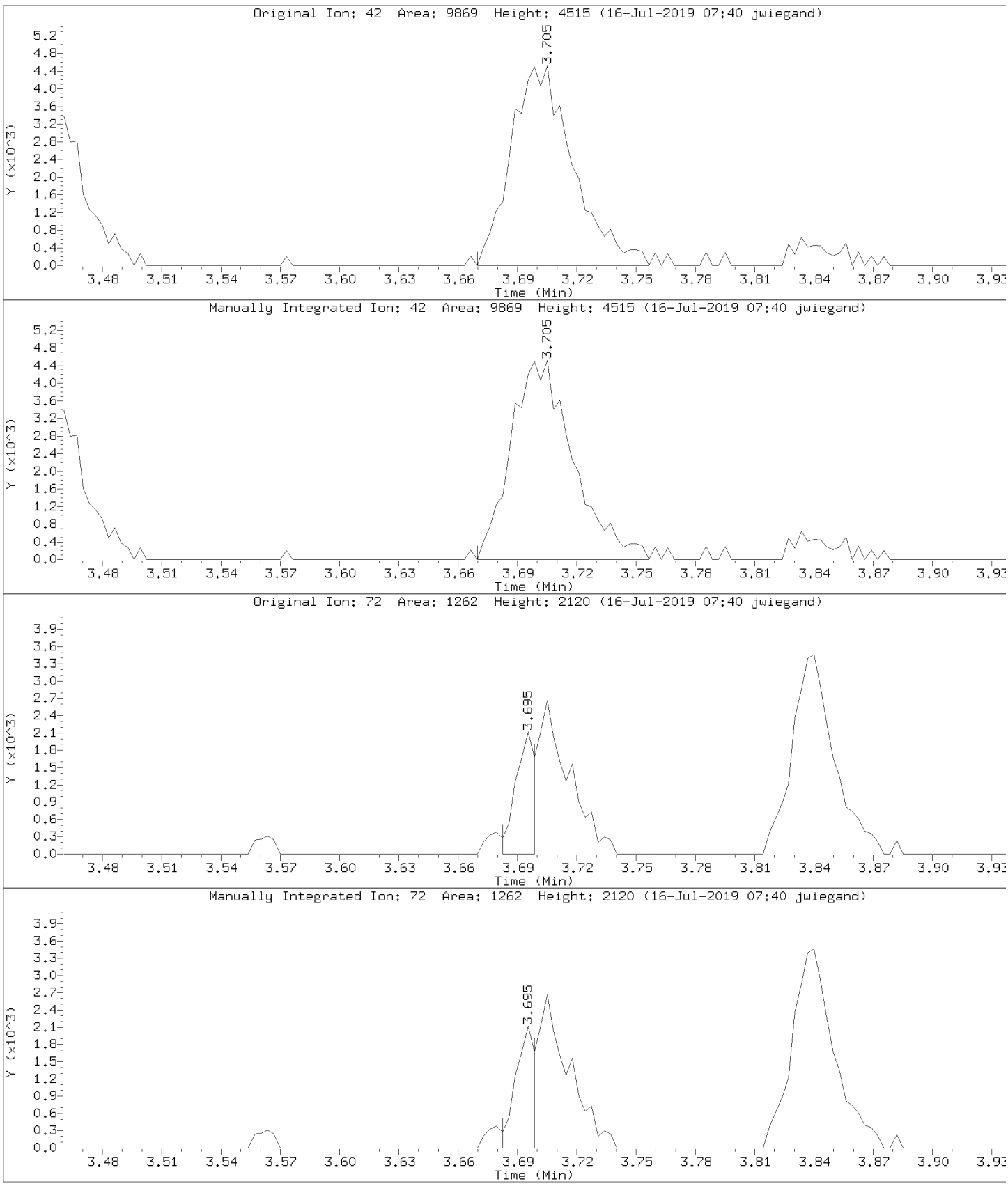
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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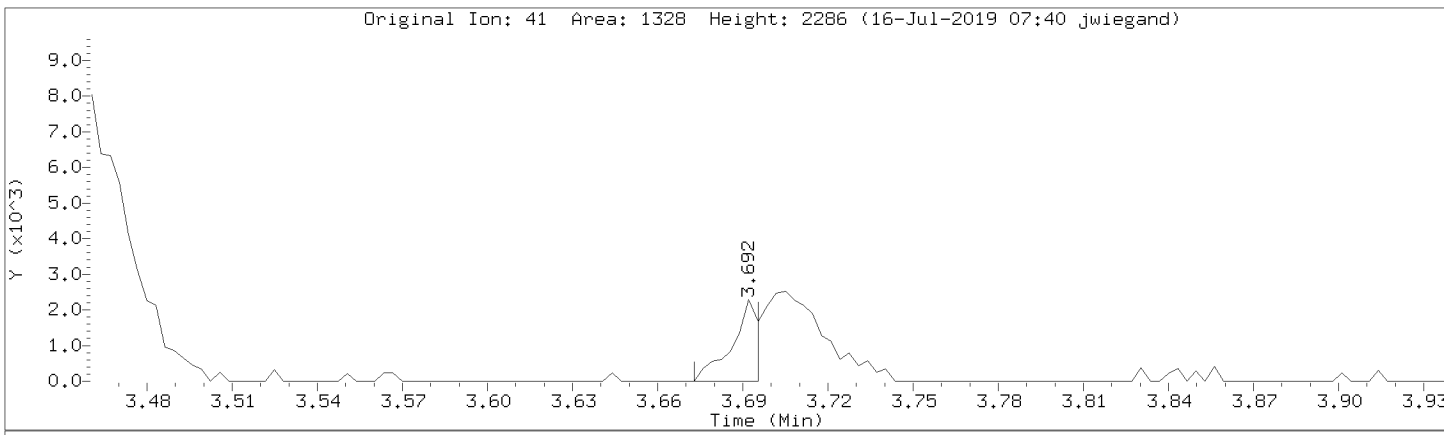
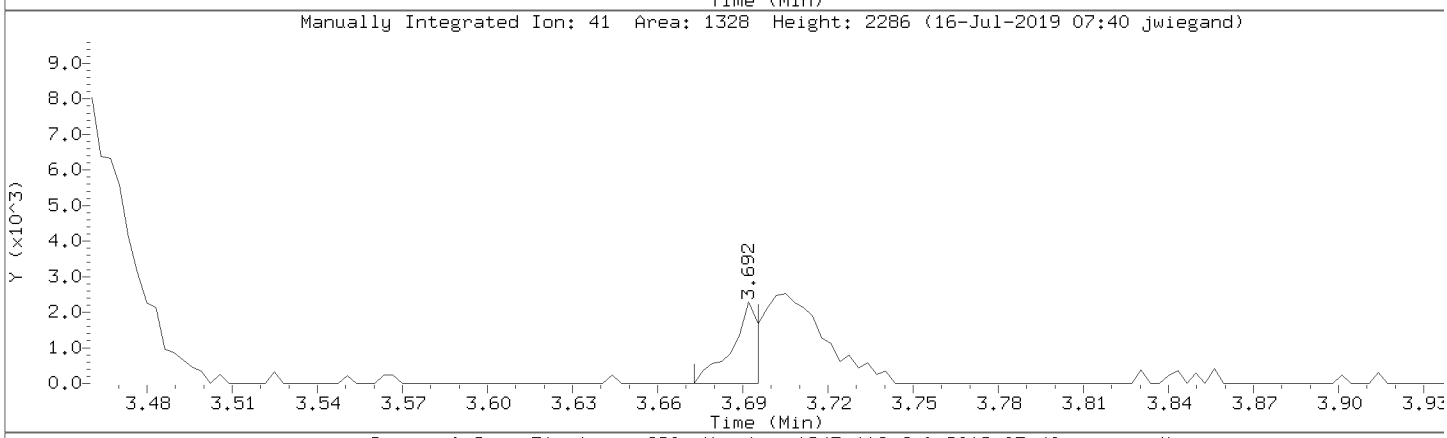
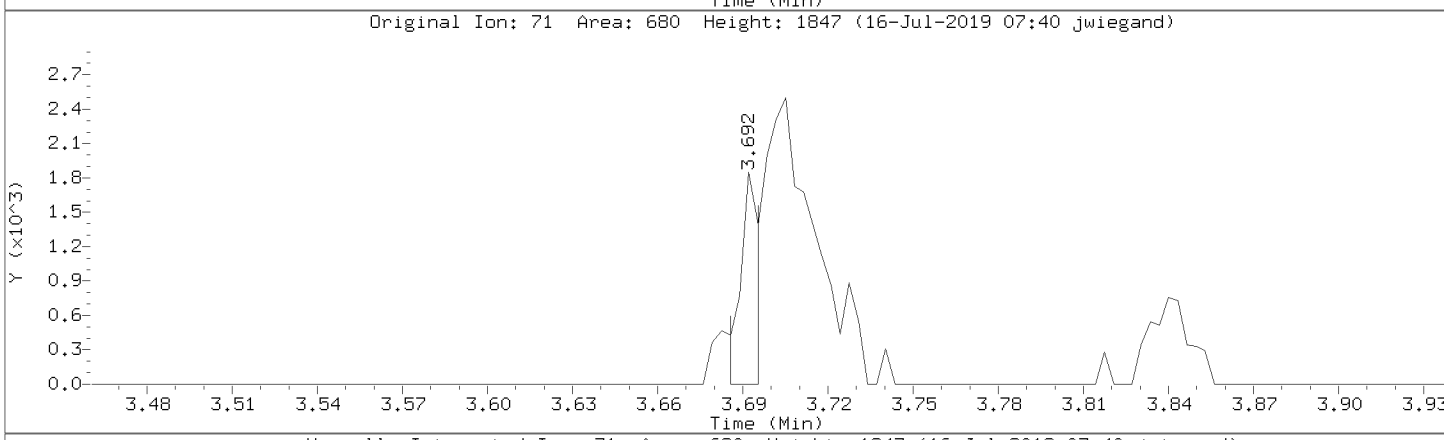
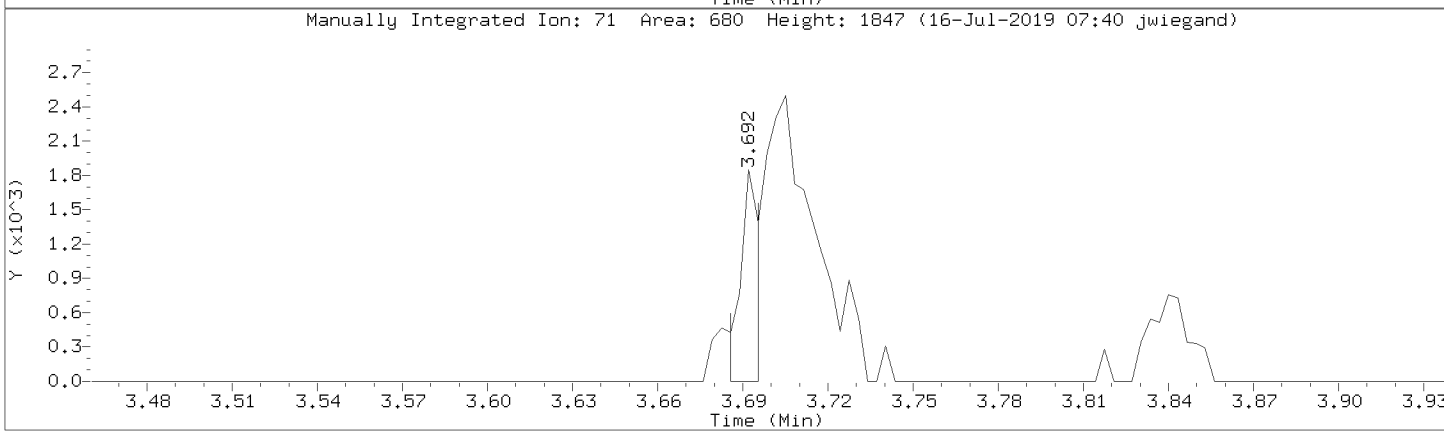
Instrument: 30mv5a.i
Lab Sample ID: 1709347









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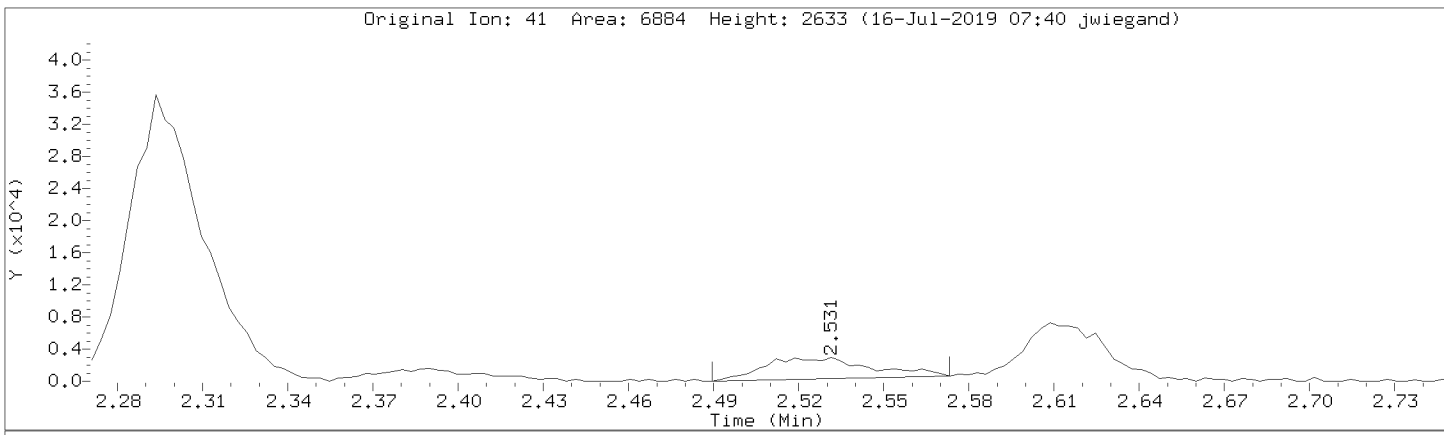
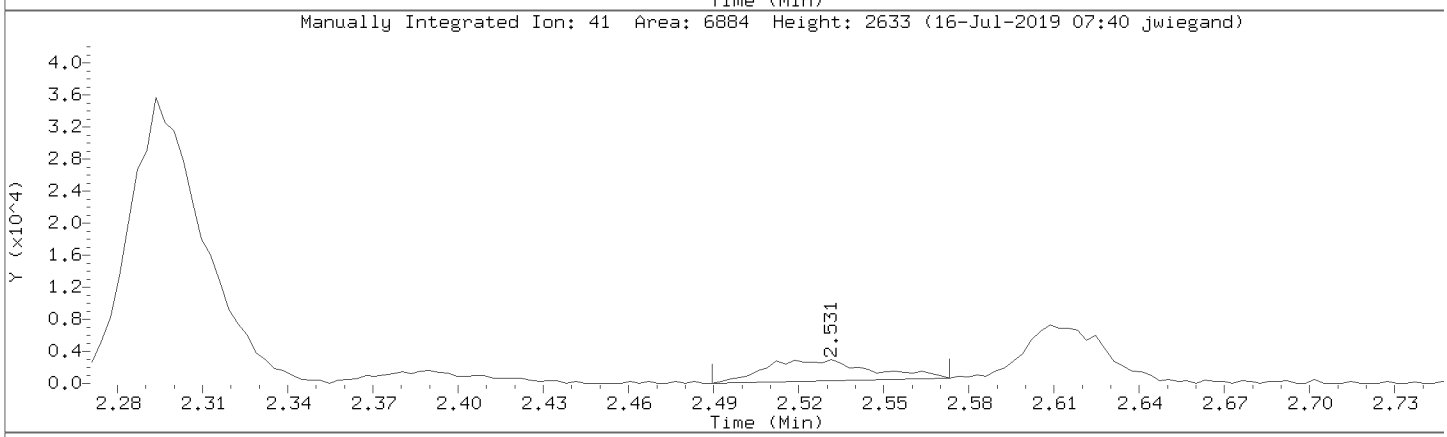
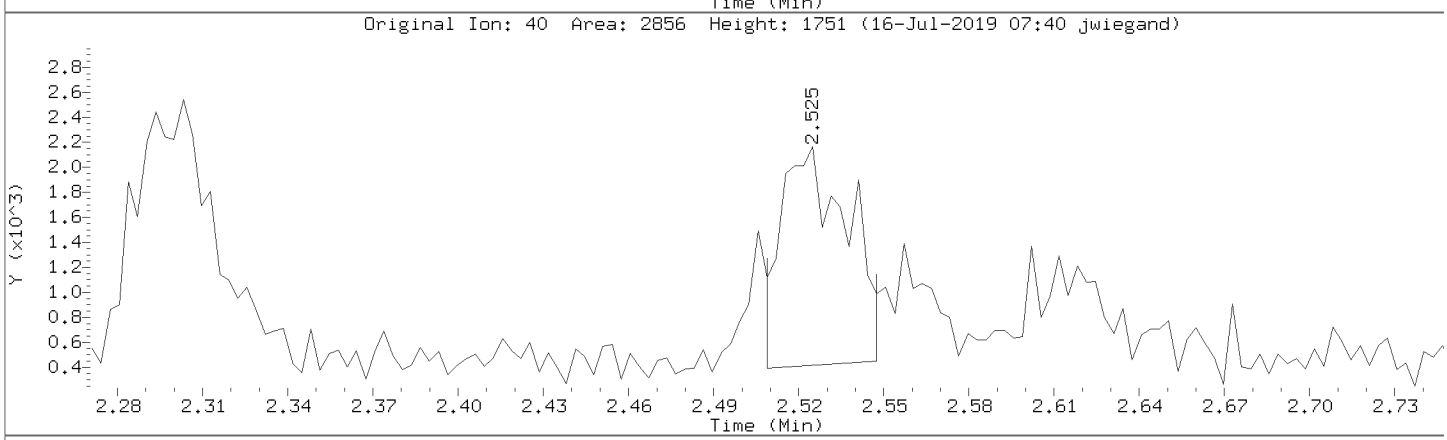
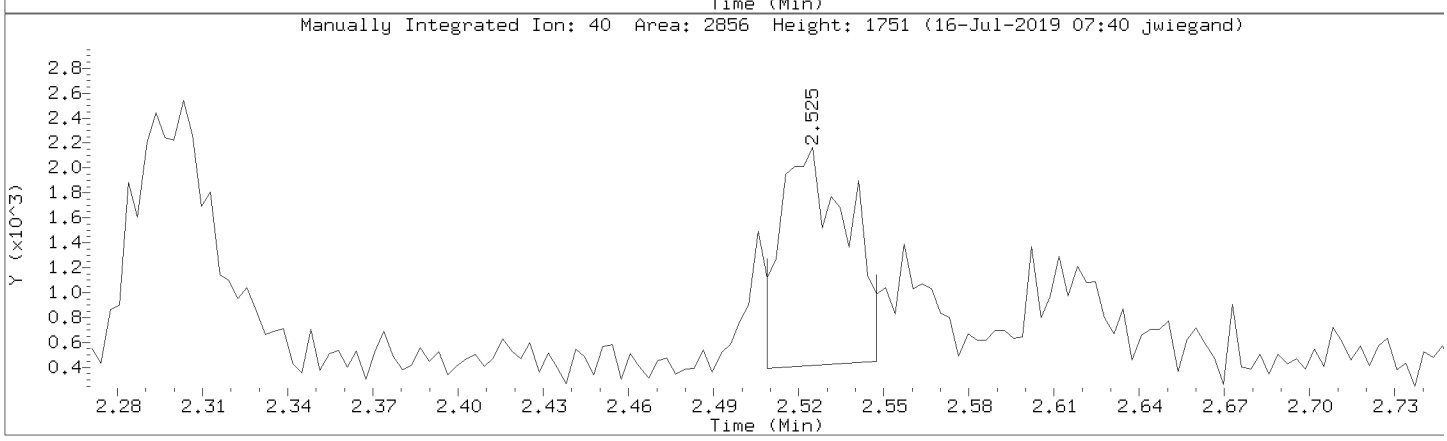
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8

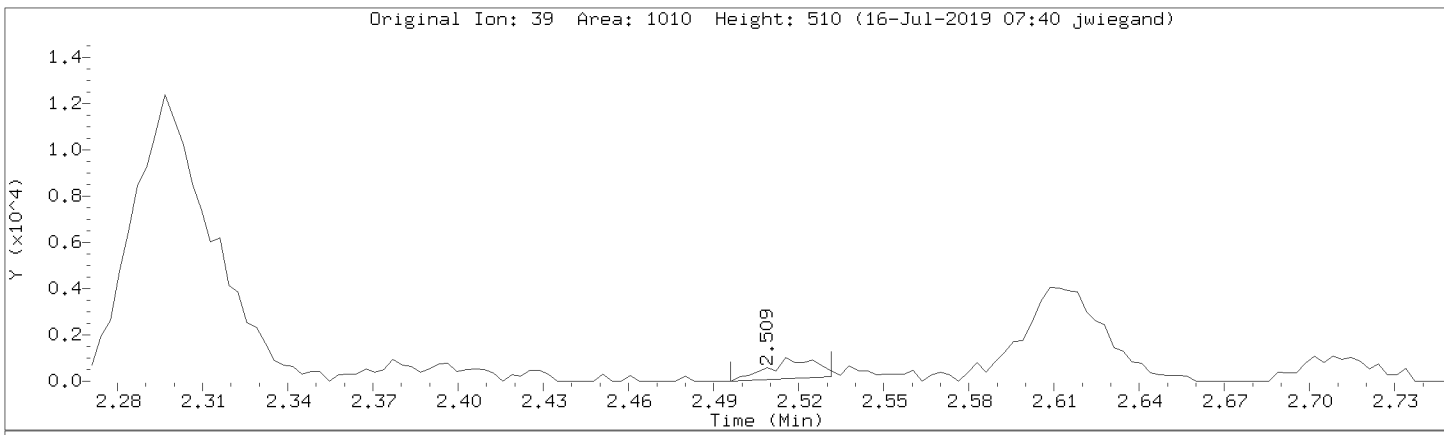


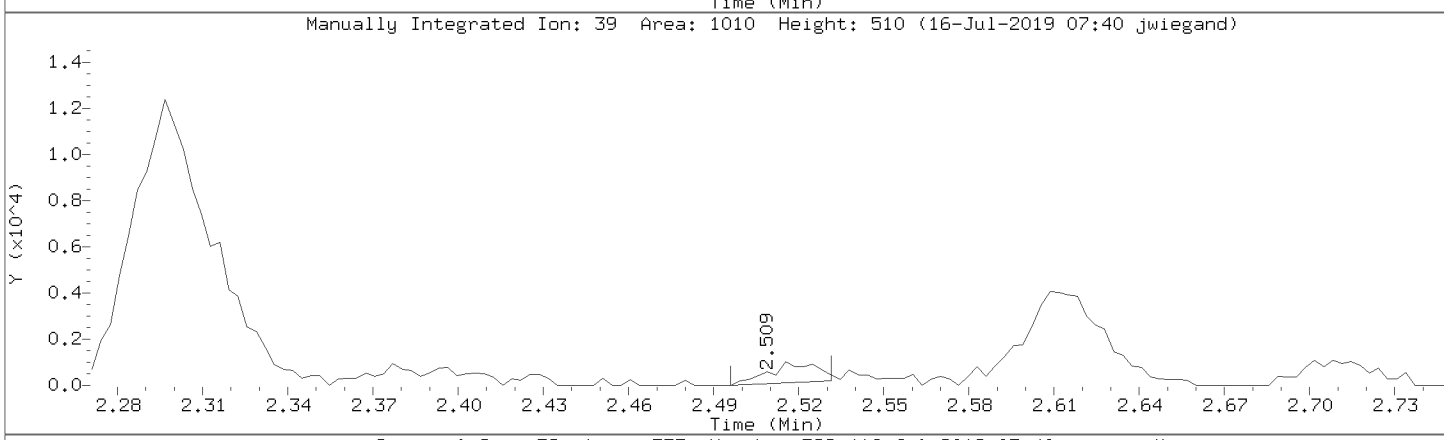


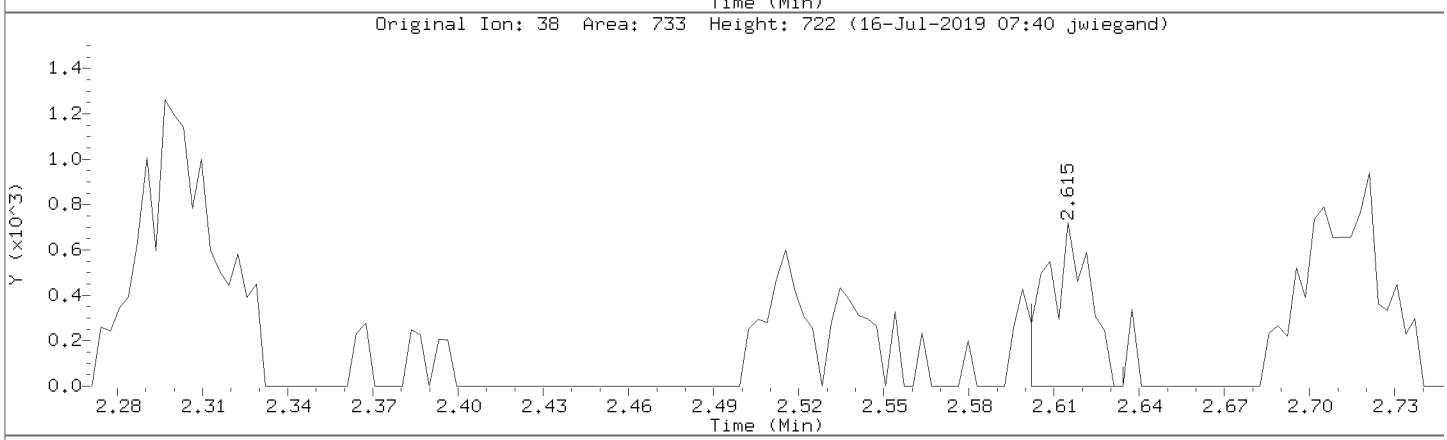


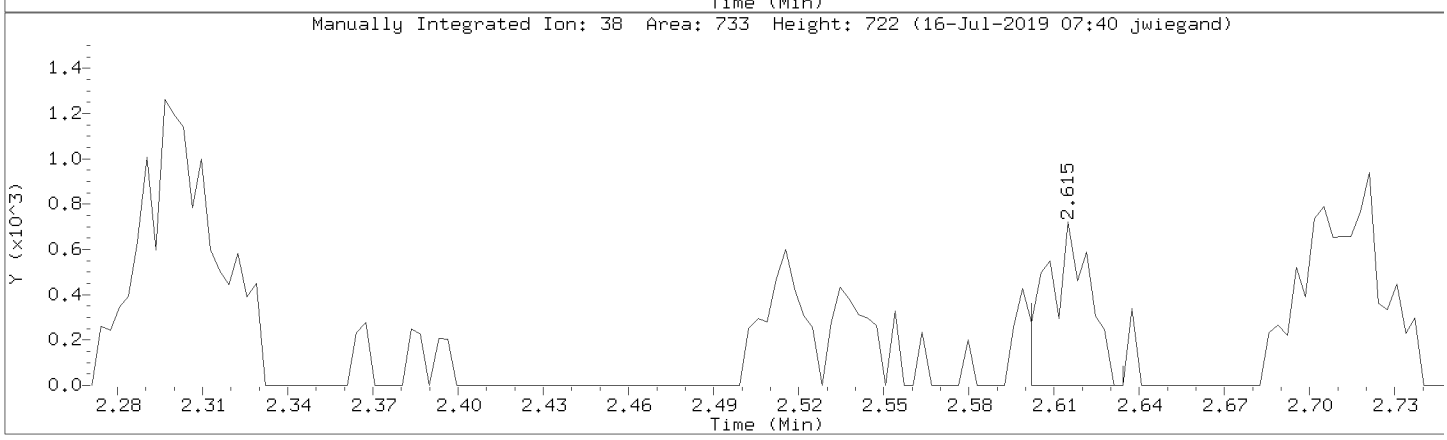


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347



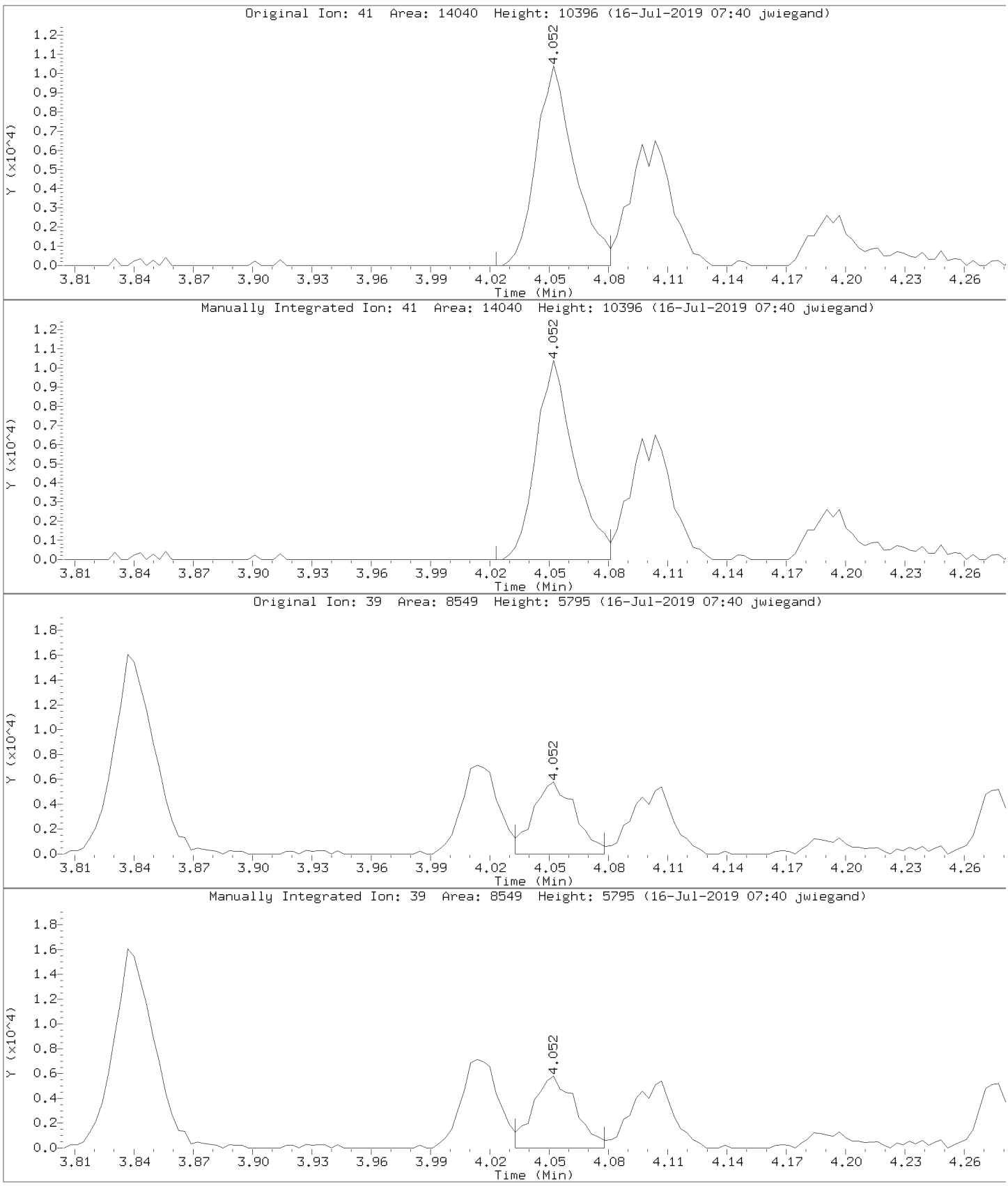




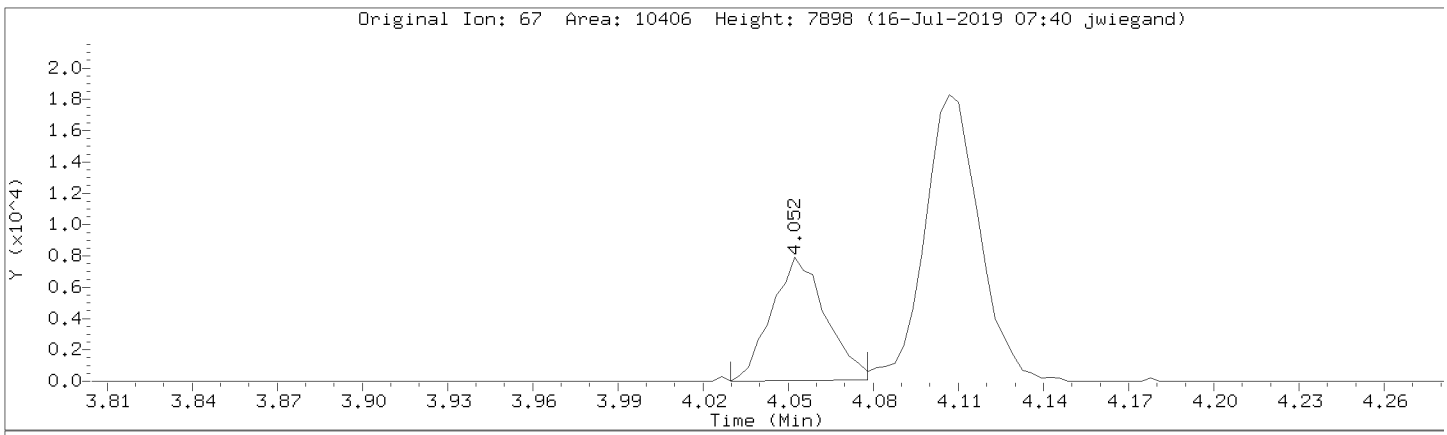


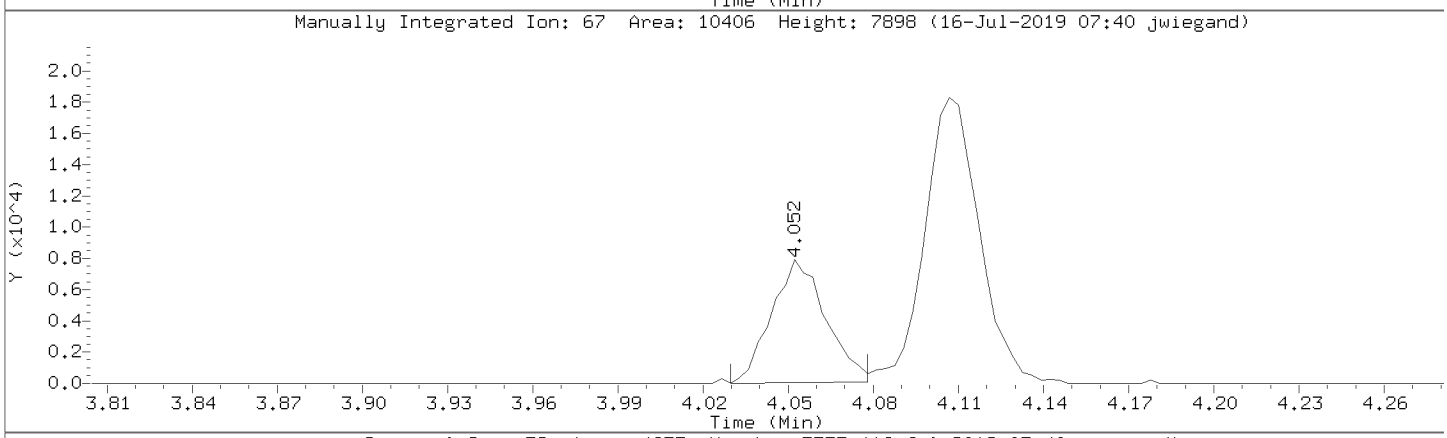
Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

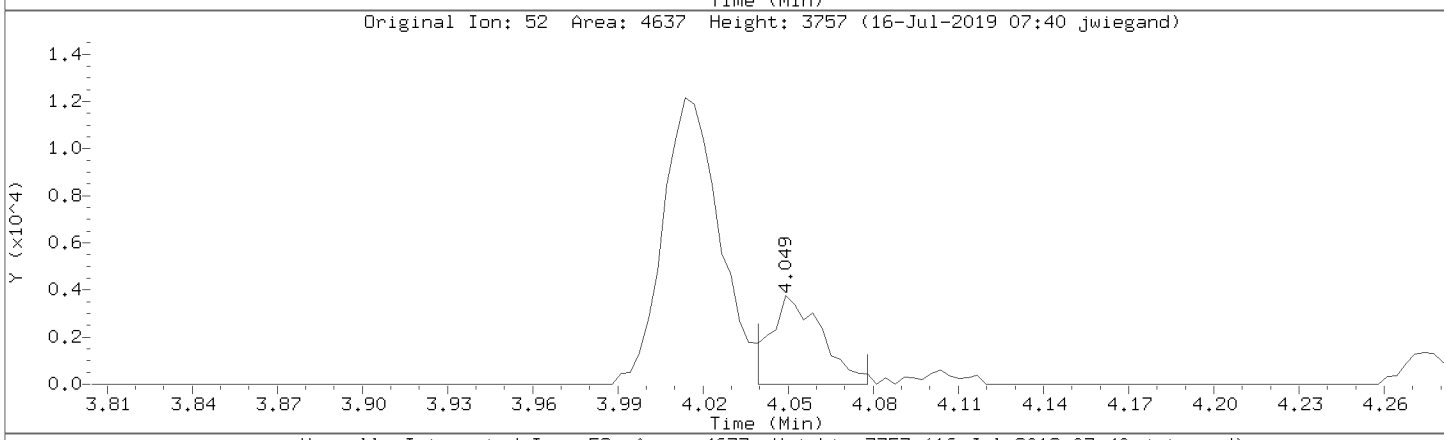
Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7

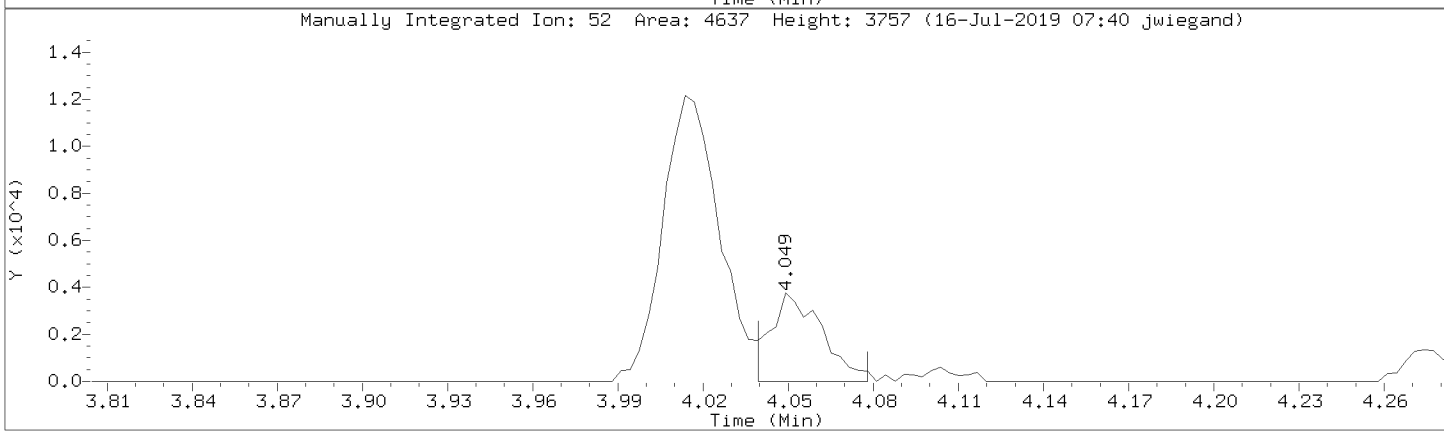


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347



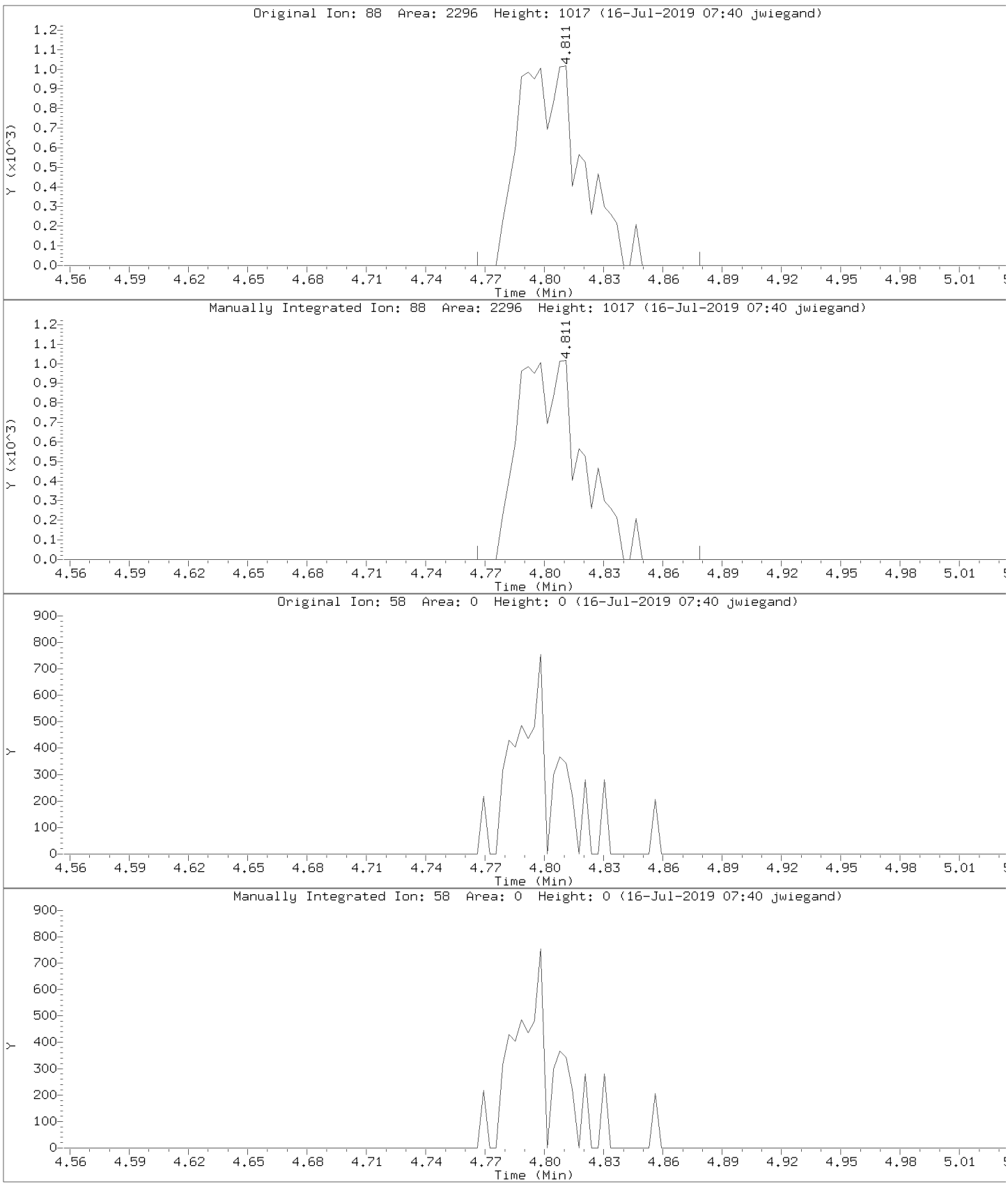




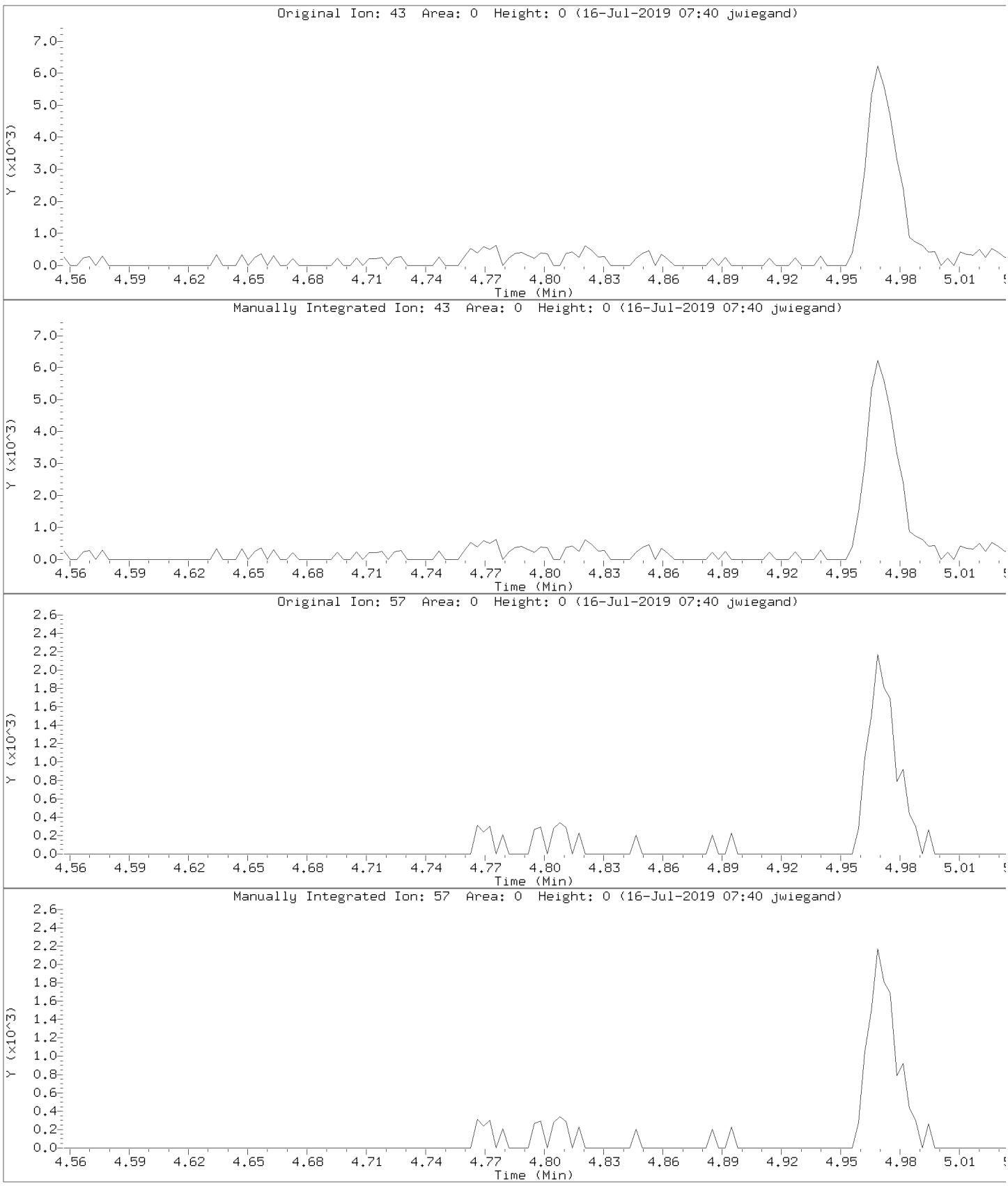


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1

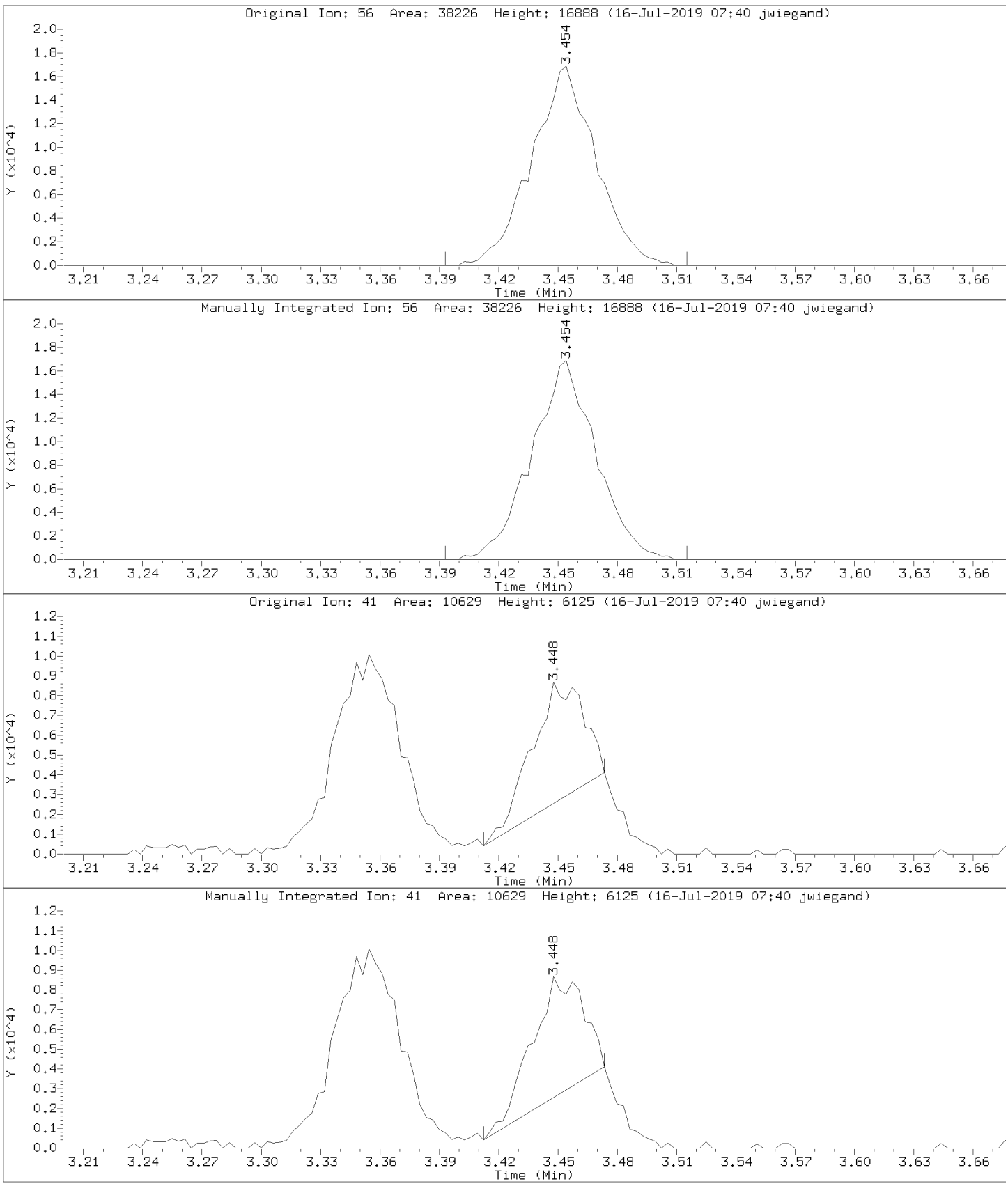


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347



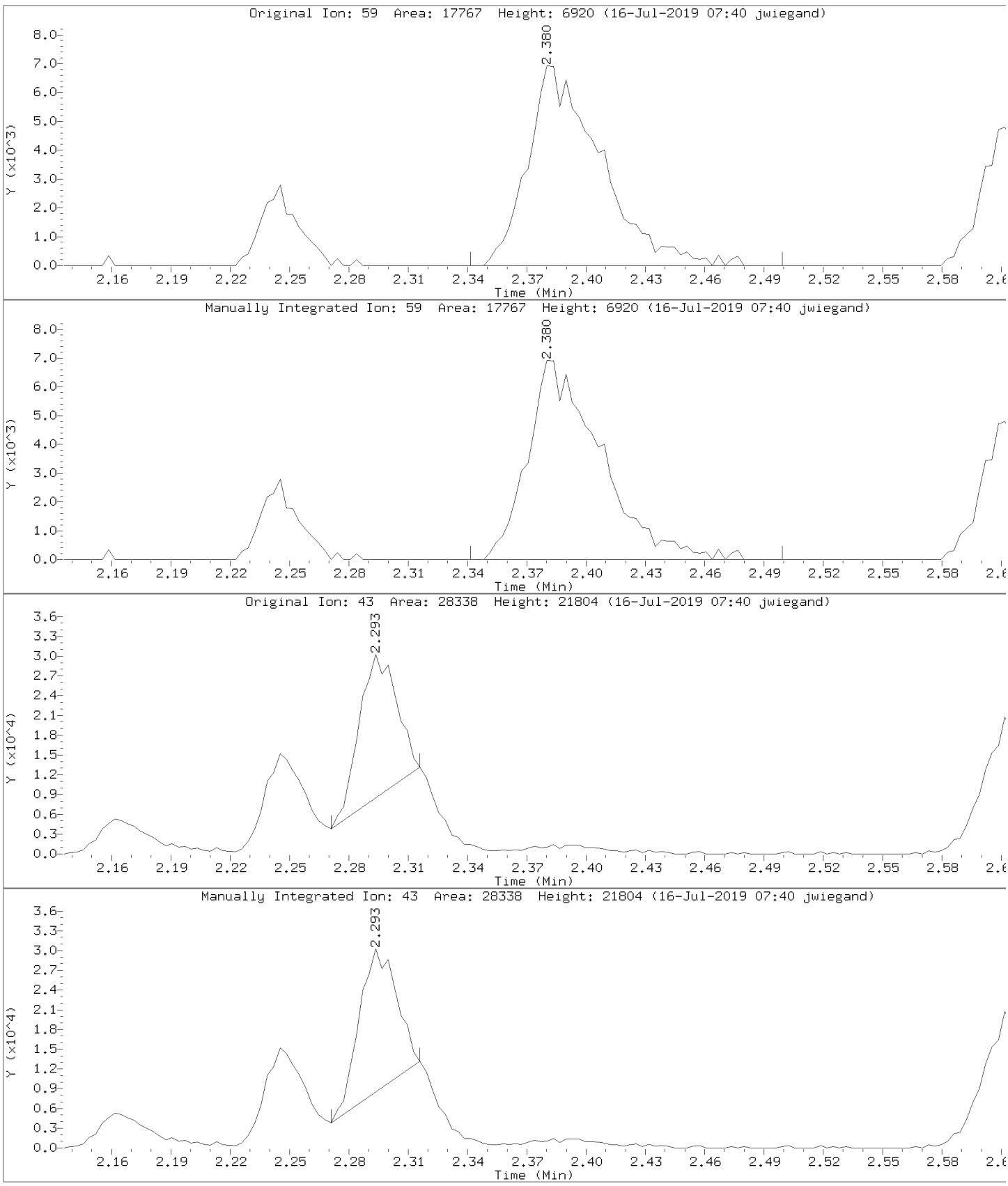
Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Cyclohexane Review Code: LT
CAS Number: 110-82-7



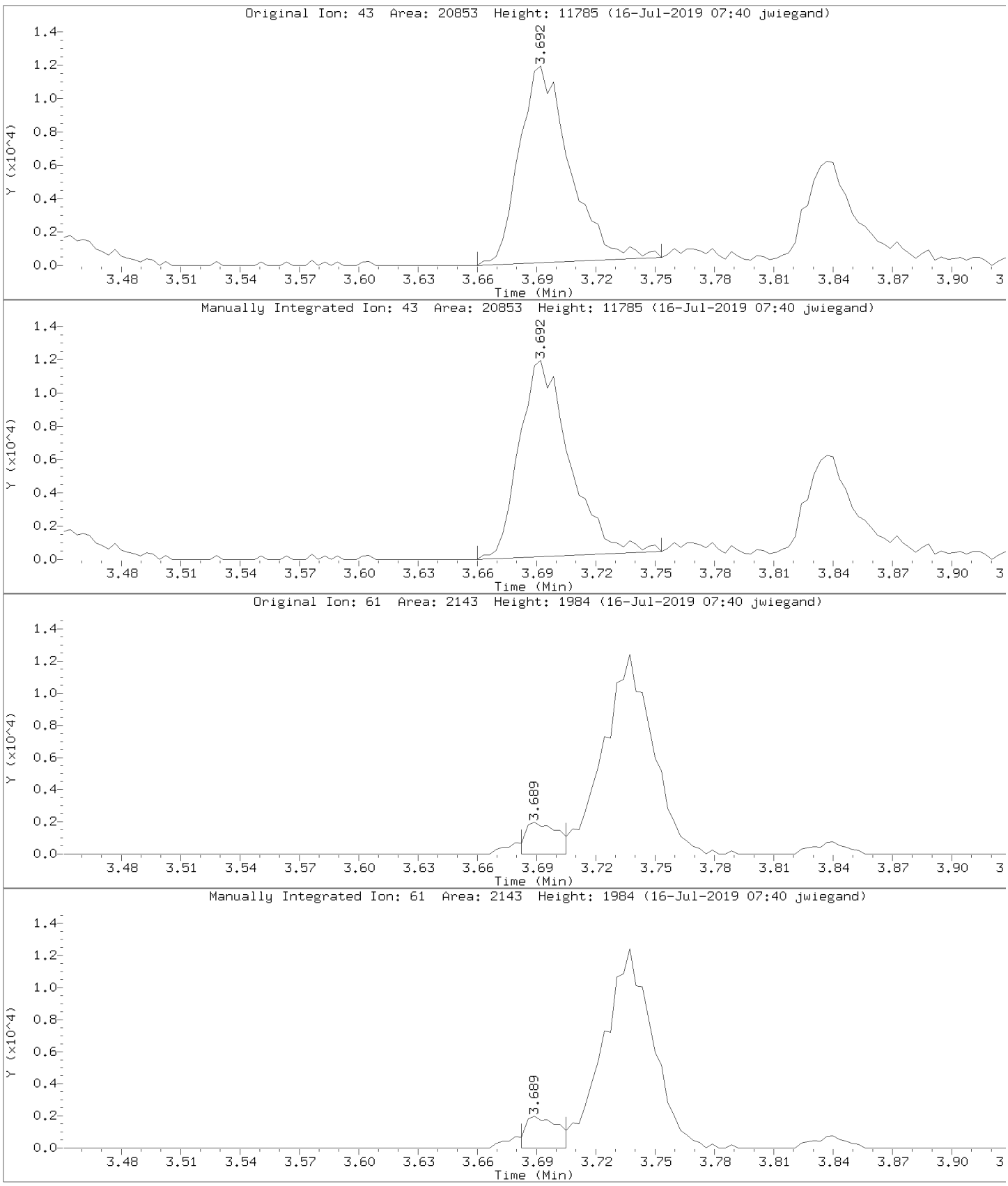
Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0

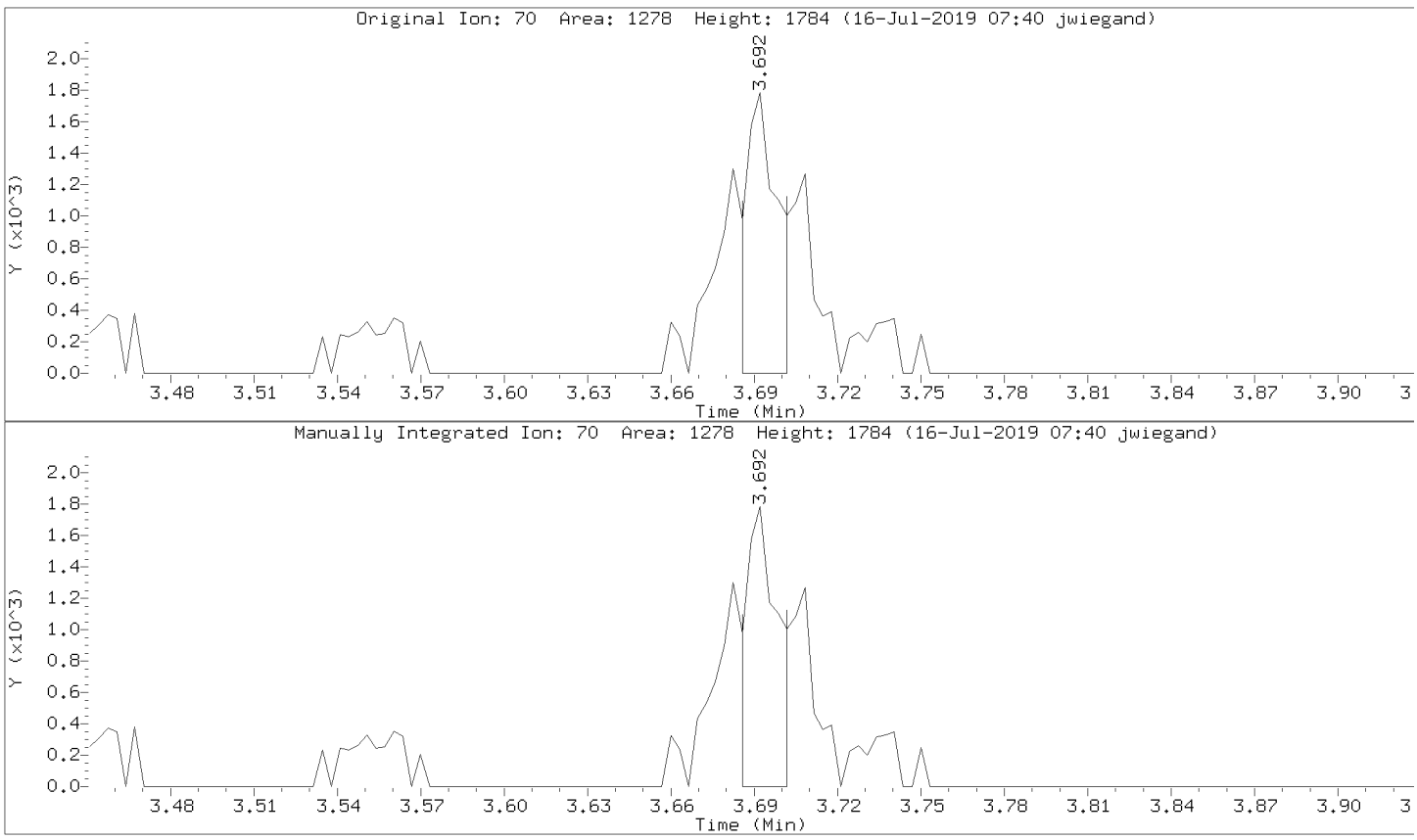


Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715013-45365.d
Injection Date: 15-JUL-2019 15:05
Instrument: 30mv5a.i
Lab Sample ID: 1709347



SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/12/2019 16:06 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/15/2019 18:27 Lab Sample ID: 1708492

Date Analyzed: 07/15/2019 18:27 Lab File ID: 5190715.B\1.B\50715023-45365.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV5A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Report Date: 16-Jul-2019 07:57

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Lab Smp Id: 1708492 Client Smp ID: LB for HBN 351599 [
Inj Date : 15-JUL-2019 18:27
Operator : JEW Inst ID: 30mv5a.i
Smp Info : 1708492x10
Misc Info : 45365
Comment : Heated Purge
Method : \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Meth Date : 16-Jul-2019 07:05 jwiegand Quant Type: ISTD
Cal Date : 18-JUN-2019 09:34 Cal File: 50618005.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	3.737	3.730	(0.873)	41536	31.1914	31.2	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.113	4.110	(0.961)	40034	27.9033	27.9	
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.280	4.277	(1.000)	152264	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.087	5.084	(0.882)	148329	27.7951	27.8	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.765	5.766	(1.000)	124444	30.0000		
	72 Chlorobenzene	112	5.772	5.769	(1.001)	14479	3.05907	30.6(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.264	6.261	(0.933)	47274	29.6752	29.7	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.711	6.711	(1.000)	54720	30.0000		

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Report Date: 16-Jul-2019 07:57

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Review Codes Legend

    :

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Report Date: 16-Jul-2019 07:57

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv5a.i
Lab File ID: 50715023-45365.d
Lab Smp Id: 1708492
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

Calibration Date: 15-JUL-2019
Calibration Time: 14:12
Client Smp ID: LB for HBN 351
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	174494	87247	348988	152264	-12.74
71 Chlorobenzene-d5	136516	68258	273032	124444	-8.84
94 1,4-Dichlorobenze	63723	31862	127446	54720	-14.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.28	3.78	4.78	4.28	0.07
71 Chlorobenzene-d5	5.77	5.27	6.27	5.77	-0.00
94 1,4-Dichlorobenze	6.71	6.21	7.21	6.71	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Report Date: 16-Jul-2019 07:57

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: PACE ANALYTICAL SER
Client SDG: 30313785
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 1708492
Client Smp ID: LB for HBN 351599 [
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\msv5061819a.m
Misc Info: 45365

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.2	103.97	0-130
$ 45 1,2-Dichloroethane	30.0	27.9	93.01	0-138
$ 58 Toluene-d8 (S)	30.0	27.8	92.65	0-124
$ 79 4-Bromofluorobenze	30.0	29.7	98.92	0-124

Data File: ...arget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Report Date: 16-Jul-2019 07:57

Pace Analytical Services, Inc.

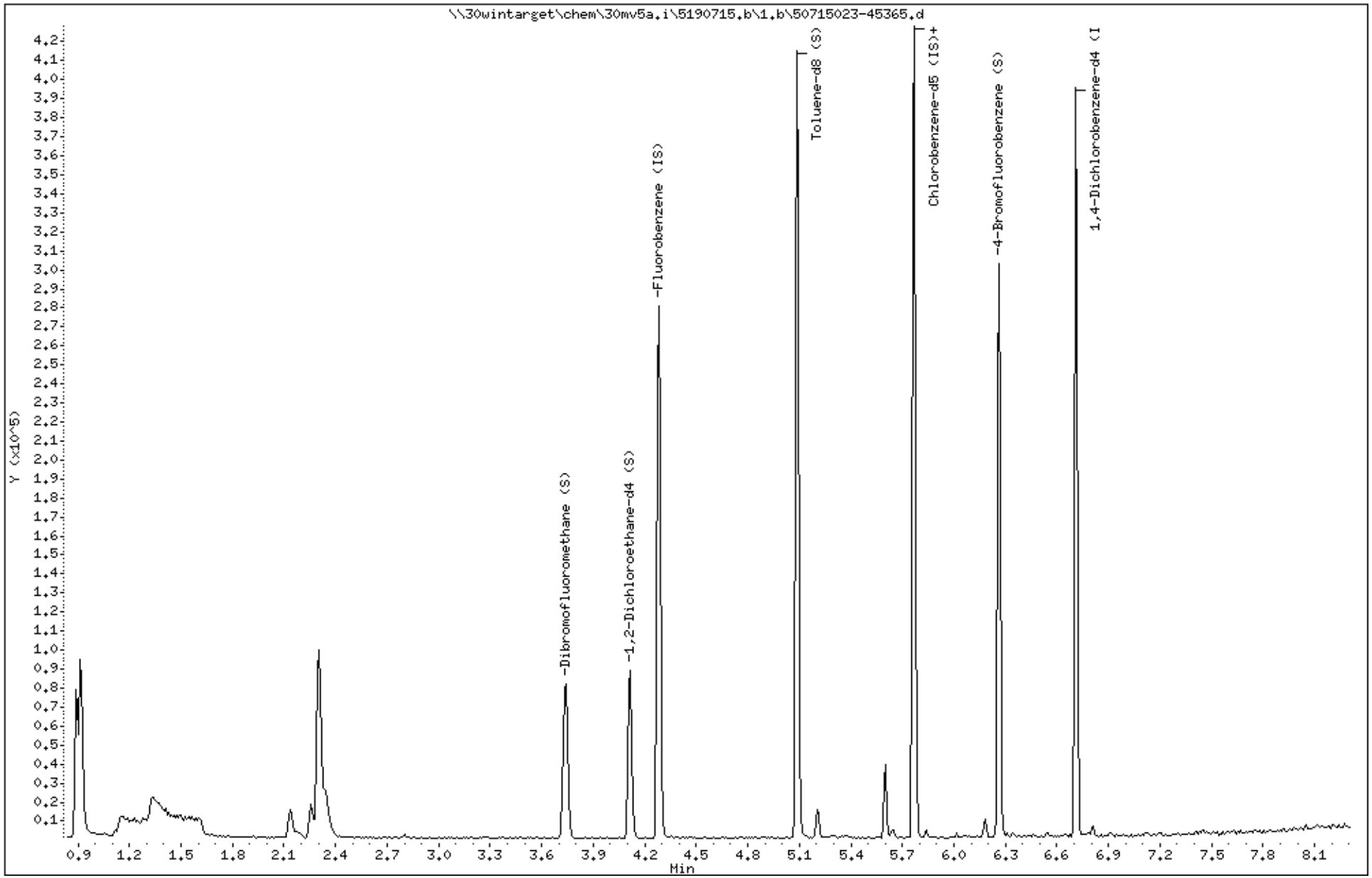
TARGET COMPOUNDS

Client Name: PACE ANALYTICAL SER
Client SDG: 30313785
Lab Smp Id: 1708492
Client Smp ID: LB for HBN 351599 [
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45365

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-90-7	Chlorobenzene	30.6	J
1868-53-7	Dibromofluoromethane (S)	31.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.9	
2037-26-5	Toluene-d8 (S)	27.8	
460-00-4	4-Bromofluorobenzene (S)	29.7	

Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d
Date : 15-JUL-2019 18:27
Client ID: LB for HBN 351599 [
Sample Info: 1708492x10

Instrument: 30mv5a.i
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b\50715023-45365.d

Date : 15-JUL-2019 18:27

Client ID: LB for HBN 351599 [

Instrument: 30mv5a.i

Sample Info: 1708492x10

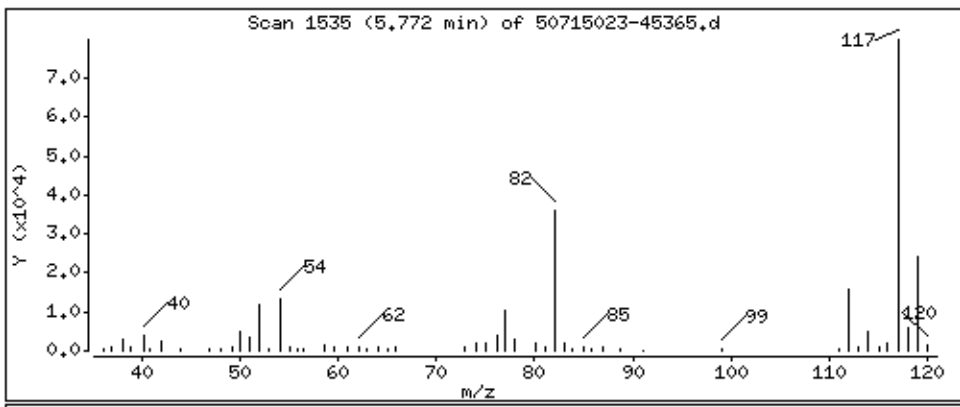
Operator: JEW

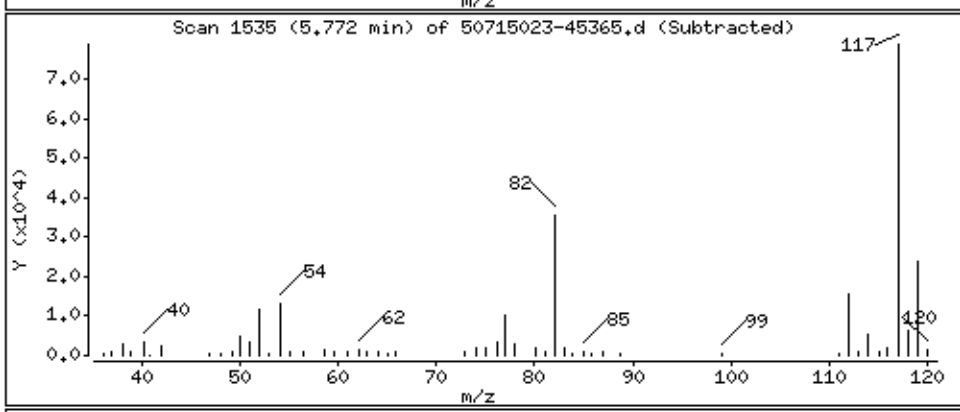
Column phase: RTX-VMS

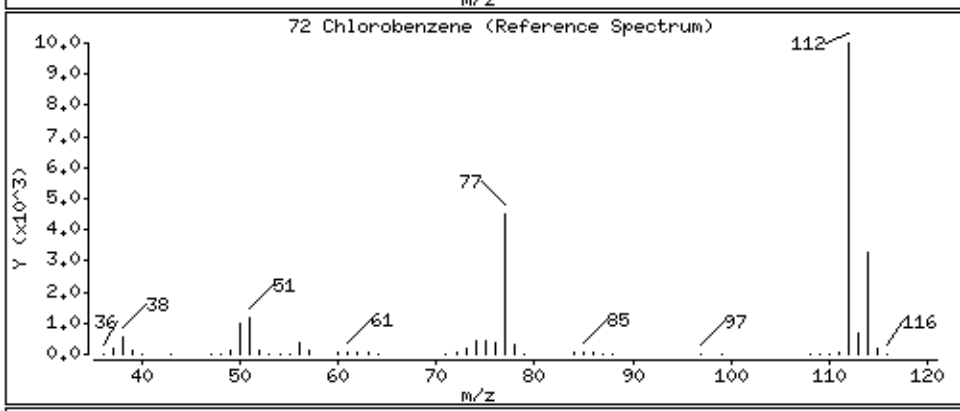
Column diameter: 0.18

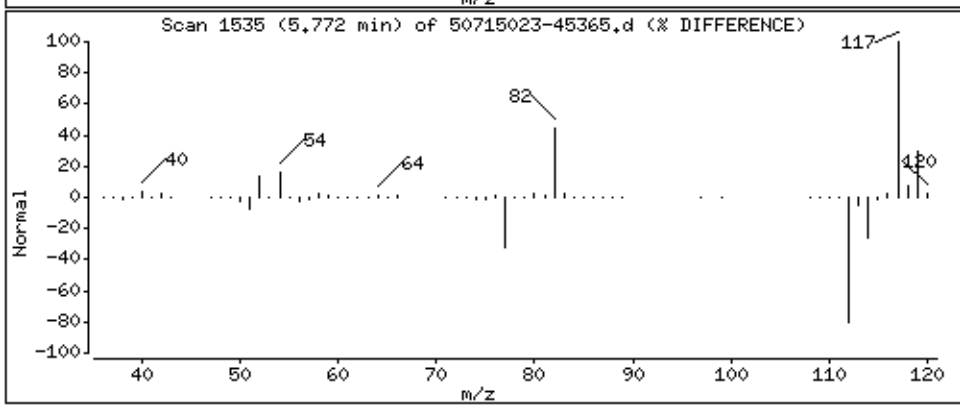
72 Chlorobenzene

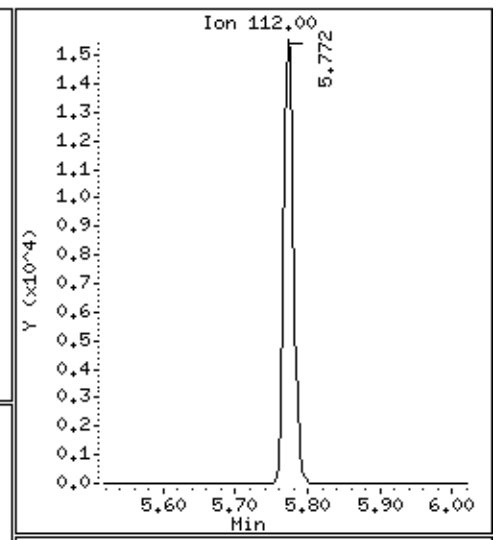
Concentration: 30.6 ug/kg

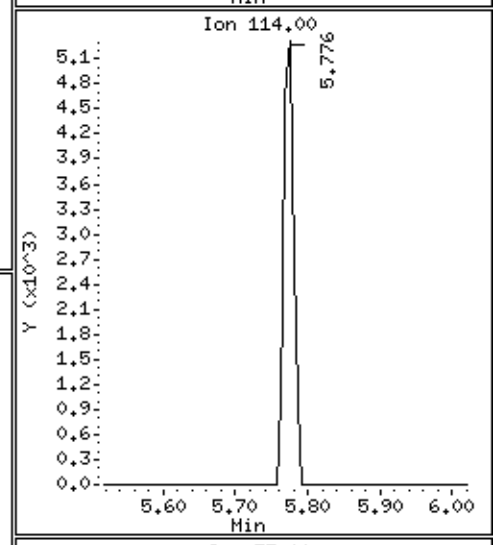


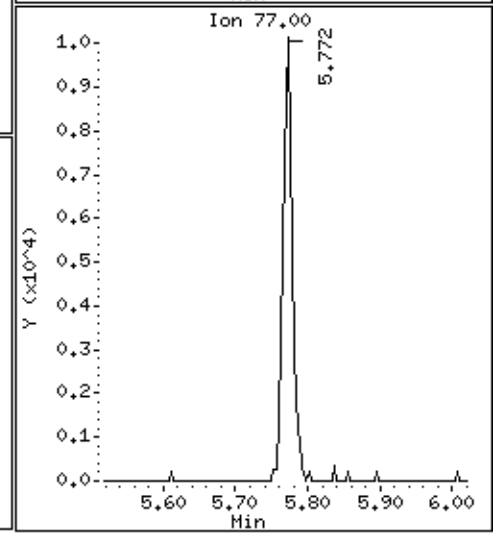












Data File: \\30wintarget\chem\30mv5a.i\5190715.b\1.b/50715023-45365.d
Injection Date: 15-JUL-2019 18:27
Instrument: 30mv5a.i
Lab Sample ID: 1708492
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: ZHE 8729/351599

Template Version: F-PA-O-010-Rev.02 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/14/2019 09:02:10:196	Tedlar Bag	92996
Tumbler Start Temp. (C)	20.6	Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Batch Notes	
Reviewed By		Reviewed By Date					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	TCLP Matrix	Actual sample Weight (g) used	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time
ZHETCLP	LB	**1708492**	Y		15	30TBL3		0	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30312590007**	Y		17	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313243001**	Y		1	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313260001**	Y		2	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313260002**	Y		3	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313260003**	Y		5	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313319001**	Y		6	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313319002**	Y		6	30TBL3	Other	10	92410 ()	TCLP 1	93561 ()	72915 ()	07/14/2019 14:38:24	
ZHETCLP	PS	**30313326001**	Y		7	30TBL3	Other	10	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:24	

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	LB	**1708492**	Y	10	10		07/15/2019 10:30:19:938							
ZHETCLP	PS	**30312590007**	Y	10	10		07/15/2019 10:32:19:938							
ZHETCLP	PS	**30313243001**	Y	10	10		07/15/2019 10:35:19:938							

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	PS	**30313260001**	Y	10	10		07/15/2019 10:37:19:938							
ZHETCLP	PS	**30313260002**	Y	10	10		07/15/2019 10:46:19:938							
ZHETCLP	PS	**30313260003**	Y	10	10		07/15/2019 10:50:19:938							
ZHETCLP	PS	**30313319001**	Y	10	10		07/15/2019 10:55:19:938					32.4	29.3	55
ZHETCLP	PS	**30313319002**	Y	10	10		07/15/2019 11:00:19:938					32.4	29.3	55
ZHETCLP	PS	**30313326001**	Y	10	10		07/15/2019 11:04:19:938							

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	LB	**1708492**				400	
ZHETCLP	PS	**30312590007**				200	clay/rock
ZHETCLP	PS	**30313243001**				200	clay
ZHETCLP	PS	**30313260001**				200	soil/rock
ZHETCLP	PS	**30313260002**				200	soil/rock
ZHETCLP	PS	**30313260003**				200	soil/rock
ZHETCLP	PS	**30313319001**	25.7	6.7	20.68	134.00	oil
ZHETCLP	PS	**30313319002**	25.7	6.7	20.68	134.00	oil
ZHETCLP	PS	**30313326001**				200	soil/rock

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv5a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: 1 Cal. std: See curve

Instrument name..... 30MV5A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/50618001.d	blk	S/	SAMPLE	1	< 2	msv5061819a	6/18/19	08:41	JEW	
1/50618003.d	TUNE, 84349:10	L/44968	BFB	1	7	bfb390	6/18/19	09:08	JEW	
1/50618005.d	CAL1, 91185:1	S/44968	CALIB_1	1	< 2	msv5061819a	6/18/19	09:34	JEW	
1/50618007.d	CAL2, 91186:1	S/44968	CALIB_2	1	< 2	msv5061819a	6/18/19	10:01	JEW	
1/50618009.d	CAL3, 91187:1	S/44968	CALIB_3	1	< 2	msv5061819a	6/18/19	10:27	JEW	
1/50618009l1.d	CAL3, 91187:1	S/44968	SAMPLE	1	< 2	msv5061819a	6/18/19	10:27	JEW	
1/50618011.d	CAL4, 91188:1	S/44968	CALIB_4	1	< 2	msv5061819a	6/18/19	10:54	JEW	
1/50618013.d	CAL5, 91189:1	S/44968	CALIB_5	1	< 2	msv5061819a	6/18/19	11:20	JEW	
1/50618015.d	CAL6, 91190:1	S/44968	CALIB_6	1	< 2	msv5061819a	6/18/19	11:47	JEW	
1/50618017.d	CAL7, 91191:1	S/44968	CALIB_7	1	< 2	msv5061819a	6/18/19	12:13	JEW	
1/50618019.d	CAL8, 91192:1	S/44968	CALIB_8	1	< 2	msv5061819a	6/18/19	12:40	JEW	
1/50618021.d	blk	S/	SAMPLE	1	< 2	msv5061819a	6/18/19	13:06	JEW	
1/50618023.d	ICV, 91193:1	S/44968	CCALIB_4	1	< 2	msv5061819a	6/18/19	13:33	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv5a.i\5190618.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:05 06/26/2019

Reviewed By/Date: ARD 6/20/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv5a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: \ Cal. std: 93604

Instrument name..... 30MV5A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/50715001.d	blk	S/	SAMPLE	1	< 2	msv5061819a	7/15/19	12:26	MAK	
1/50715003.d	TUNE, 84349:10	L/44968	BFB	1	7	bfb390	7/15/19	12:53	JEW	
1/50715005.d	CCV, 93567:1	S/44968	CCALIB_5	1	< 2	msv5061819a	7/15/19	13:19	MAK	
1/50715007.d	LLCHECK,93568:1,	S/	SAMPLE	1	< 2	msv5061819a	7/15/19	13:46	JEW	
1/50715009.d	CCV, 93604:1	S/44968	CCALIB_5	1	< 2	msv5061819a	7/15/19	14:12	JEW	
1/50715011.d	LLCHECK,93568:1,	S/	SAMPLE	1	< 2	msv5061819a	7/15/19	14:39	JEW	
1/50715013-45364.d	1709342,93569:5,	L/45364	LCS	1	< 2	msv5061819a	7/15/19	15:05	JEW	
1/50715013-45365.d	1709347,93569:5,	L/45365	LCS	1	< 2	msv5061819a	7/15/19	15:05	JEW	
1/50715013-45375.d	1709502,93569:5,	S/45375	LCS	1	< 2	msv5061819a	7/15/19	15:05	JEW	
1/50715015.d	1709501	S/45375	BLANK	1	< 2	msv5061819a	7/15/19	15:32	JEW	
1/50715016.d	30313021001	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	15:53	JEW	
1/50715017.d	30313279001	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	16:15	JEW	
1/50715018.d	30313279002	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	16:37	JEW	
1/50715019.d	30313337001	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	16:59	JEW	
1/50715020.d	30313337002	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	17:21	JEW	
1/50715021.d	30313601001	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	17:43	JEW	
1/50715022.d	30313785001	S/45375	SAMPLE	1	< 2	msv5061819a	7/15/19	18:05	JEW	
1/50715023-45365.d	1708492x10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	18:27	JEW	
1/50715023.d	1708492x10	S/45364	SAMPLE	10	< 2	msv5061819a	7/15/19	18:27	JEW	
1/50715024.d	30313326001x10	S/45364	SAMPLE	10	< 2	msv5061819a	7/15/19	18:48	JEW	
1/50715025.d	1709343x10	S/45364	MS	10	< 2	msv5061819a	7/15/19	19:10	JEW	
1/50715026.d	1709344X10	S/45364	MSD	10	< 2	msv5061819a	7/15/19	19:32	JEW	
1/50715027.d	30313319002x10	S/45364	SAMPLE	10	< 2	msv5061819a	7/15/19	19:54	JEW	
1/50715028.d	30313243001x10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	20:16	JEW	
1/50715029.d	30313260001x10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	20:38	JEW	
1/50715030.d	1709345x10	S/45365	MS	10	< 2	msv5061819a	7/15/19	21:00	JEW	
1/50715031.d	1709346X10	S/45365	MSD	10	< 2	msv5061819a	7/15/19	21:22	JEW	
1/50715032.d	30313260002x10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	21:43	JEW	
1/50715033.d	30313260003X10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	22:05	JEW	
1/50715034.d	3031259007x10	S/45365	SAMPLE	10	< 2	msv5061819a	7/15/19	22:27	JEW	
1/50715035.d	30313319001x50,,	S/45364	SAMPLE	50	< 2	msv5061819a	7/15/19	22:49	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv5a.i\5190715.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:10 07/16/2019 Reviewed By/Date: QRD 7/16/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS1

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1707039	1707039LB	86	76	81	86	84	70
1708463	1708463LB	94	74	84	83	83	73
1709291	1709291LB	82	71	82	81	83	72
1709532	1709532LCS	86	76	81	82	83	76
30313260001	AOC32 Lower-1	86	74	84	87	90	49
30313260002	AOC32 Lower-2	81	72	80	80	82	52
30313260003	AOC27	81	72	80	82	83	12*

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1709532LCS
Date Extracted: 07/16/2019
Date Analyzed (1): 07/16/2019
Instrument: 30MSS1
LCS Lot No: 90624
Lab File ID: MSS1071619.B\M1071614.D
SDG No.: 30313260

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	299J	60	38-85
2,4-Dinitrotoluene	500	338	68	51-102
Hexachloro-1,3-butadiene	500	304	61	27-97
Hexachlorobenzene	500	317	63	36-66
Hexachloroethane	500	337	67	37-89
2-Methylphenol(o-Cresol)	500	472J	94	60-106
3&4-Methylphenol(m&p Cresol)	1000	956J	96	64-106
Nitrobenzene	500	423	85	64-108
Pentachlorophenol	500	359J	72	47-107
Pyridine	500	146J	29	20-54
2,4,5-Trichlorophenol	500	429J	86	60-110
2,4,6-Trichlorophenol	500	407	81	62-110

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1709533MS

Date Extracted: 07/16/2019

Date Analyzed (1): 07/16/2019

Instrument: 30MSS1

Lab File ID: MSS1071619.B\M1071616.D

Parent Sample ID: 30312957001

SDG No.: 30313260

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	ND	356J	71	51-85
2,4,5-Trichlorophenol	500	ND	454J	91	65-108
2,4,6-Trichlorophenol	500	ND	424	85	61-110
2,4-Dinitrotoluene	500	ND	441	88	52-106
2-Methylphenol(o-Cresol)	500	ND	454J	90	65-105
3&4-Methylphenol(m&p Cresol)	1000	ND	941J	94	69-106
Hexachloro-1,3-butadiene	500	ND	356	71	44-90
Hexachlorobenzene	500	ND	302	60	36-68
Hexachloroethane	500	ND	380	76	48-94
Nitrobenzene	500	ND	446	89	66-106
Pentachlorophenol	500	ND	522J	104	49-120
Pyridine	500	ND	141J	28	10-72

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1709534MSD

Lab File ID (2): MSS1071619.B\M1071617.D Date Analyzed (2): 07/16/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,4-Dichlorobenzene	500	345J	69		0-20	51-85
2,4,5-Trichlorophenol	500	440J	88		0-20	65-108
2,4,6-Trichlorophenol	500	427	85	1	0-20	61-110
2,4-Dinitrotoluene	500	381	76	15	0-20	52-106
2-Methylphenol(o-Cresol)	500	499J	99		0-20	65-105
3&4-Methylphenol(m&p Cresol)	1000	1010J	101		0-20	69-106
Hexachloro-1,3-butadiene	500	364	73	2	0-20	44-90
Hexachlorobenzene	500	364	73	19	0-20	36-68
Hexachloroethane	500	429	86	12	0-20	48-94
Nitrobenzene	500	429	86	4	0-20	66-106
Pentachlorophenol	500	556J	111		0-20	49-120
Pyridine	500	129J	26		0-20	10-72

RPD: 0 out of 6 outside limits.

Spike Recovery: 1 out of 12 outside limits.

07/31/2019 9:47

SAMPLE NO.

1707039LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1707039

Lab File ID: MSS1071619.B\M1071611.D Date Analyzed: 07/16/2019 Time: 17:27

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709532LCS	1709532	MSS1071619.B\M1071614.D	07/16/2019 18:35
AOC32 Lower-1	30313260001	MSS1071619.B\M1071623.D	07/16/2019 21:59
AOC32 Lower-2	30313260002	MSS1071619.B\M1071624.D	07/16/2019 22:21
AOC27	30313260003	MSS1071619.B\M1071625.D	07/16/2019 22:44

SAMPLE NO.

1708463LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1708463

Lab File ID: MSS1071619.B\M1071612.D Date Analyzed: 07/16/2019 Time: 17:50

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709532LCS	1709532	MSS1071619.B\M1071614.D	07/16/2019 18:35
AOC32 Lower-1	30313260001	MSS1071619.B\M1071623.D	07/16/2019 21:59
AOC32 Lower-2	30313260002	MSS1071619.B\M1071624.D	07/16/2019 22:21
AOC27	30313260003	MSS1071619.B\M1071625.D	07/16/2019 22:44

SAMPLE NO.

1709291LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1709291

Lab File ID: MSS1071619.B\M1071613.D Date Analyzed: 07/16/2019 Time: 18:13

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709532LCS	1709532	MSS1071619.B\M1071614.D	07/16/2019 18:35
AOC32 Lower-1	30313260001	MSS1071619.B\M1071623.D	07/16/2019 21:59
AOC32 Lower-2	30313260002	MSS1071619.B\M1071624.D	07/16/2019 22:21
AOC27	30313260003	MSS1071619.B\M1071625.D	07/16/2019 22:44

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: MSS1071519.B\M10715T4.D DFTPP Injection Date 07/15/2019
Instrument ID: 30MSS1 DFTPP Injection Time 09:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	48.01	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	46.49	
70	Less than 2.00% of mass 69	0.17	(0.37)[1]
127	40.00 - 60.00% of mass 198	55.40	
197	Less than 1.00% of mass 198	0.10	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	7.14	
275	10.00 - 30.00% of mass 198	24.35	
365	Greater than 1.00% of mass 198	3.46	
441	Present, but less than mass 443	12.64	
442	Greater than 40.00% of mass 198	88.06	
443	17.00 - 23.00% of mass 442	16.99	(19.30)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11239667CAL7	11239667CAL7	MSS1071519.B\M10715Y1.D	07/15/2019	09:21
11239663CAL6	11239663CAL6	MSS1071519.B\M10715Y2.D	07/15/2019	09:43
11239662CAL5	11239662CAL5	MSS1071519.B\M10715Y3.D	07/15/2019	10:06
11239666CAL4	11239666CAL4	MSS1071519.B\M10715Y4.D	07/15/2019	10:28
11239661CAL3	11239661CAL3	MSS1071519.B\M10715Y5.D	07/15/2019	10:51
11239665CAL2	11239665CAL2	MSS1071519.B\M10715Y6.D	07/15/2019	11:13
11239664CAL1	11239664CAL1	MSS1071519.B\M10715Y7.D	07/15/2019	11:36
11239660ICV	11239660ICV	MSS1071519.B\M10715Y8.D	07/15/2019	11:59

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: MSS1071619.B\M10716T1.D DFTPP Injection Date: 07/16/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 12:04

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	42.28	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	42.75	
70	Less than 2.00% of mass 69	0.24	(0.57)[1]
127	40.00 - 60.00% of mass 198	53.47	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.66	
275	10.00 - 30.00% of mass 198	24.51	
365	Greater than 1.00% of mass 198	3.31	
441	Present, but less than mass 443	10.77	
442	Greater than 40.00% of mass 198	81.29	
443	17.00 - 23.00% of mass 442	16.11	(19.82)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11248551CCV	11248551CCV	MSS1071619.B\M10716S1.D	07/16/2019	12:19
1707039LB	1707039LB	MSS1071619.B\M1071611.D	07/16/2019	17:27
1708463LB	1708463LB	MSS1071619.B\M1071612.D	07/16/2019	17:50
1709291LB	1709291LB	MSS1071619.B\M1071613.D	07/16/2019	18:13
1709532LCS	1709532LCS	MSS1071619.B\M1071614.D	07/16/2019	18:35
AOC32 Lower-1	30313260001	MSS1071619.B\M1071623.D	07/16/2019	21:59
AOC32 Lower-2	30313260002	MSS1071619.B\M1071624.D	07/16/2019	22:21
AOC27	30313260003	MSS1071619.B\M1071625.D	07/16/2019	22:44

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Sample ID : 11248551CCV Date Analyzed: 07/16/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 12:19

Lab File ID: MSS1071619.B\M10716S1.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		1362814	5.946	1997880	10.054	603419	3.526	2499192	4.519
UPPER LIMIT		2725628	6.446	3995760	10.554	1206838	4.026	4998384	5.019
LOWER LIMIT		681407	5.446	998940	9.554	301709.5	3.026	1249596	4.019
LAB SAMPLE ID	SAMPLE NO.								
1707039	1707039LB	1298327	5.945	1945030	10.053	592614	3.525	2398709	4.519
1708463	1708463LB	1240711	5.943	1128168	10.052	538853	3.529	2370120	4.517
1709291	1709291LB	1281619	5.944	1348487	10.052	544579	3.529	2407221	4.517
1709532	1709532LCS	1269005	5.944	1349554	10.052	553149	3.529	2449812	4.517
30313260001	AOC32 Lower-1	1299040	5.939	1966107	10.047	594153	3.524	2435640	4.513
30313260002	AOC32 Lower-2	1377371	5.94	2020920	10.049	619816	3.526	2577758	4.514
30313260003	AOC27	1358465	5.943	2070583	10.051	616727	3.523	2539332	4.517

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Sample ID : 11248551CCV Date Analyzed: 07/16/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 12:19

Lab File ID: MSS1071619.B\M10716S1.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		2241118	7.265	1867332	11.389
UPPER LIMIT		4482236	7.765	3734664	11.889
LOWER LIMIT		1120559	6.765	933666	10.889
LAB SAMPLE ID	SAMPLE NO.				
1707039	1707039LB	2107631	7.265	1822477	11.389
1708463	1708463LB	1586483	7.268	1034738	11.387
1709291	1709291LB	1907458	7.263	1278219	11.393
1709532	1709532LCS	1832907	7.263	1250485	11.387
30313260001	AOC32 Lower-1	2175400	7.264	1805360	11.388
30313260002	AOC32 Lower-2	2298263	7.265	1886232	11.389
30313260003	AOC27	2267810	7.263	1927021	11.387

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC32 Lower-1

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 30313260001
Date Analyzed: 07/16/2019 21:59
Lab File ID: MSS1071619.B\M1071623.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071623.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 16-JUL-2019 21:59
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30313260001
Misc Info : 14834
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	1.574	1.581	(0.447)	494	0.00196	0.196	
$	3 2-Fluorophenol (S)	112	2.632	2.633	(0.747)	1244448	6.31651	632	
$	4 Phenol-d6 (S)	99	3.294	3.290	(0.935)	1560784	6.72271	672	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.524	3.525	(1.000)	594153	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						(D)
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						(D)
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.967	3.968	(0.879)	434488	4.33708	434	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
*	30 Naphthalene-d8 (IS)	136	4.512	4.519	(1.000)	2435640	4.00000		
	31 Naphthalene	128	4.528	4.535	(1.004)	1656	0.00301	0.301	
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.394	5.395	(0.908)	1474798	3.72061	372	
*	50 Acenaphthene-d10 (IS)	164	5.938	5.945	(1.000)	1299040	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	6.590	6.597	(0.907)	376740	6.41816	642	
67 Hexachlorobenzene	284	Compound Not Detected.						(D)
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	7.263	7.265	(1.000)	2175400	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.984	8.990	(0.894)	1125884	2.45972	246	
* 82 Chrysene-d12 (IS)	240	10.047	10.053	(1.000)	1966107	4.00000		
* 88 Perylene-d12 (IS)	264	11.387	11.389	(1.000)	1805360	4.00000		

QC Flag Legend

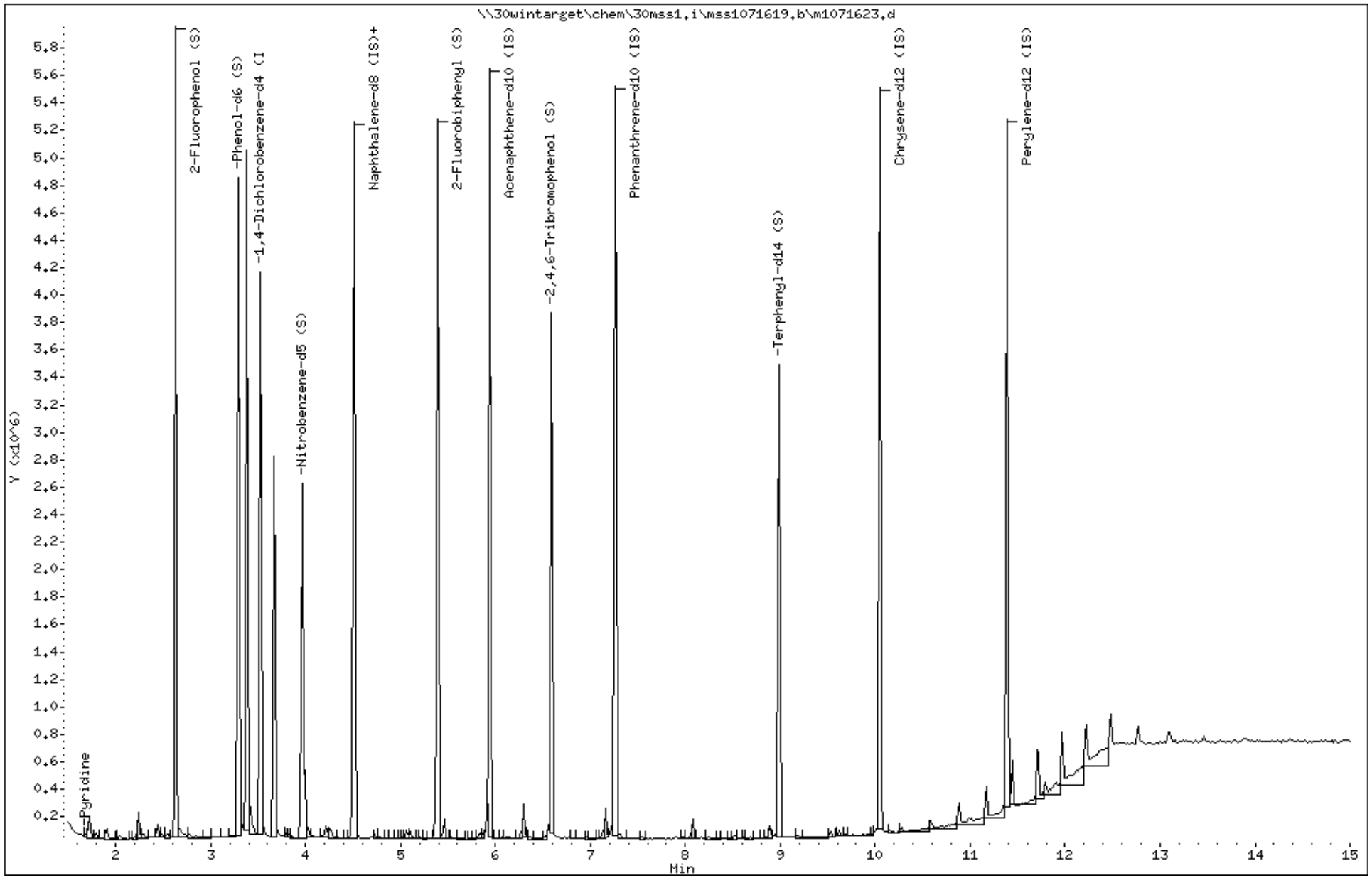
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071623.d
Date : 16-JUL-2019 21:59
Client ID: A0C32 Lower-1
Sample Info: 30313260001
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071623.d

Date : 16-JUL-2019 21:59

Client ID: AOC32 Lower-1

Instrument: 30mss1.i

Sample Info: 30313260001

Volume Injected (uL): 1.0

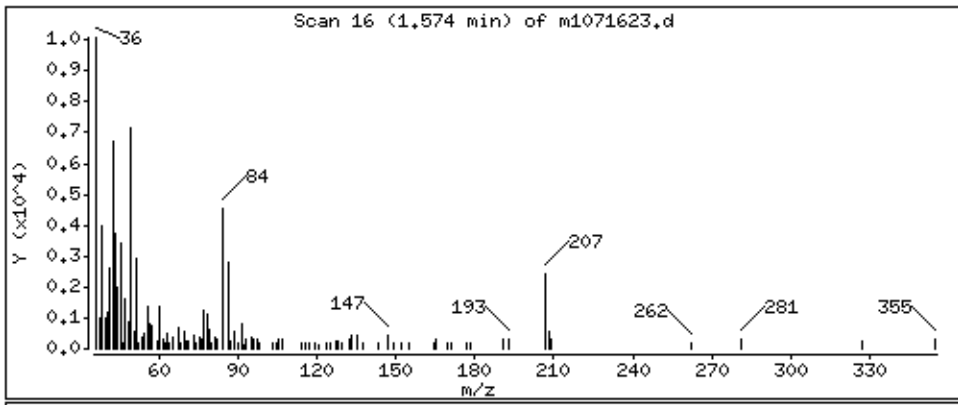
Operator: EAC

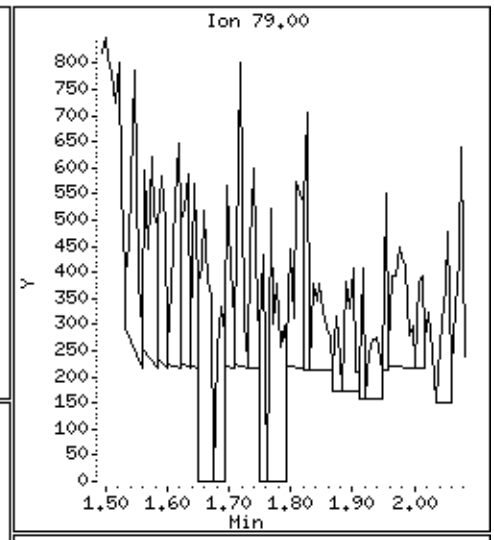
Column phase: RTX-5MS

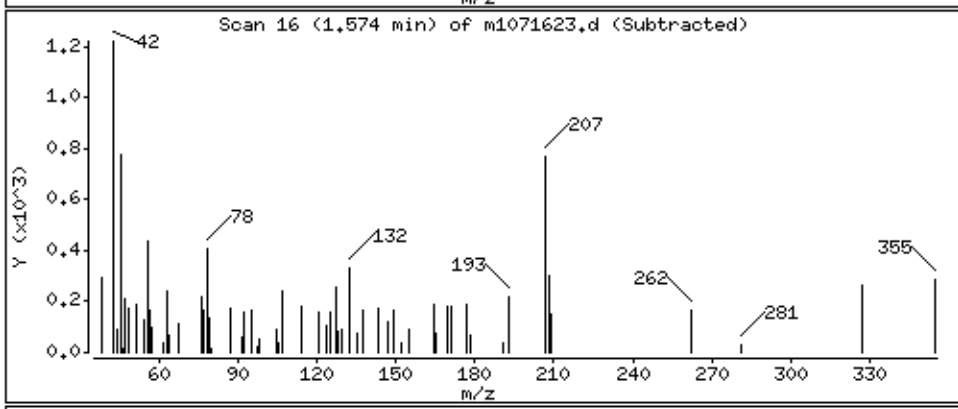
Column diameter: 0.18

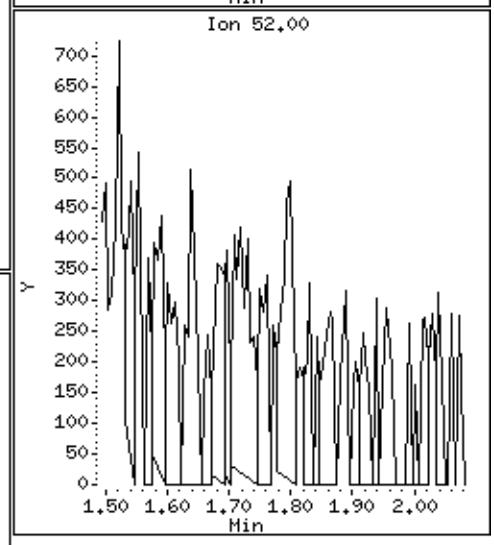
2 Pyridine

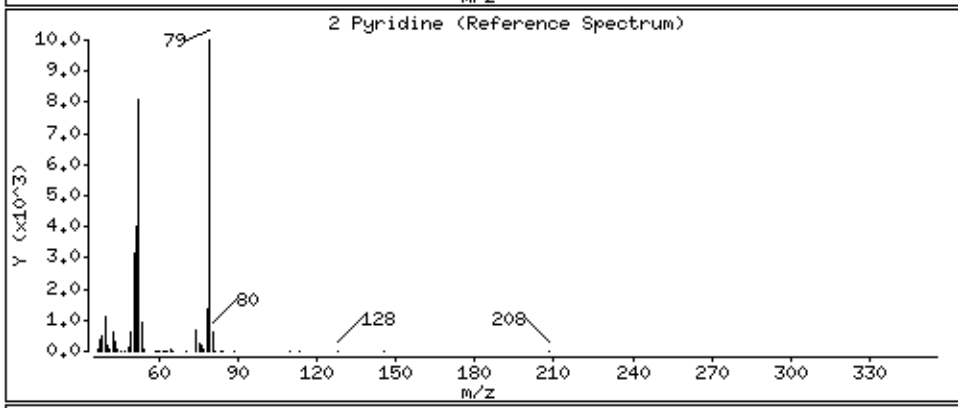
Concentration: 0.196 ug/Kg

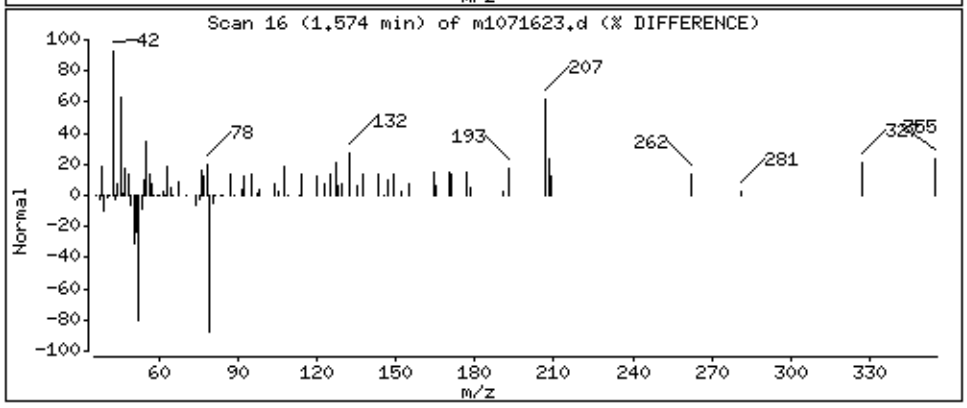












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071623.d

Date : 16-JUL-2019 21:59

Client ID: AOC32 Lower-1

Instrument: 30mss1.i

Sample Info: 30313260001

Volume Injected (uL): 1.0

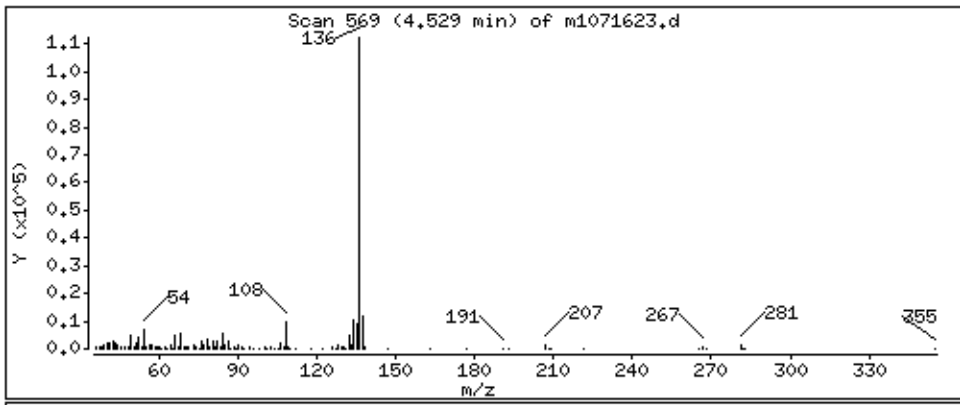
Operator: EAC

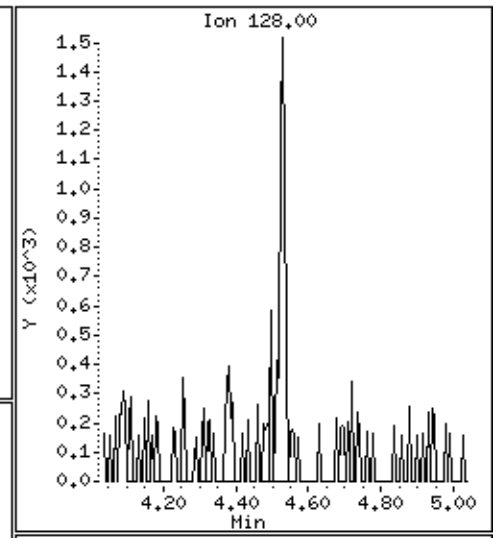
Column phase: RTX-5MS

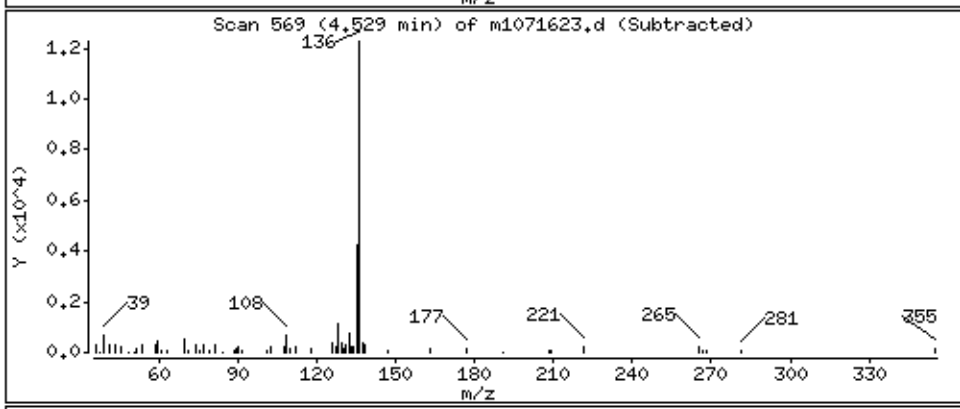
Column diameter: 0.18

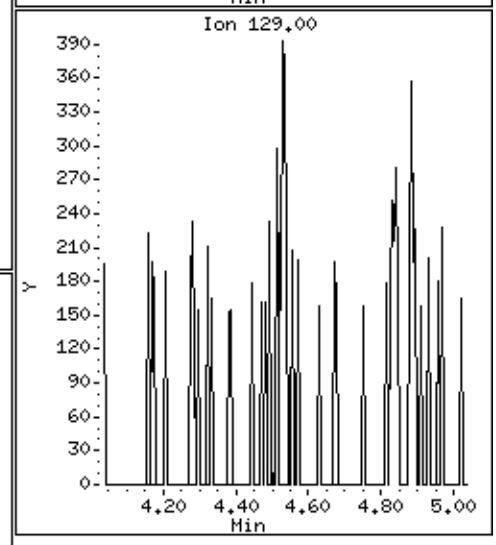
31 Naphthalene

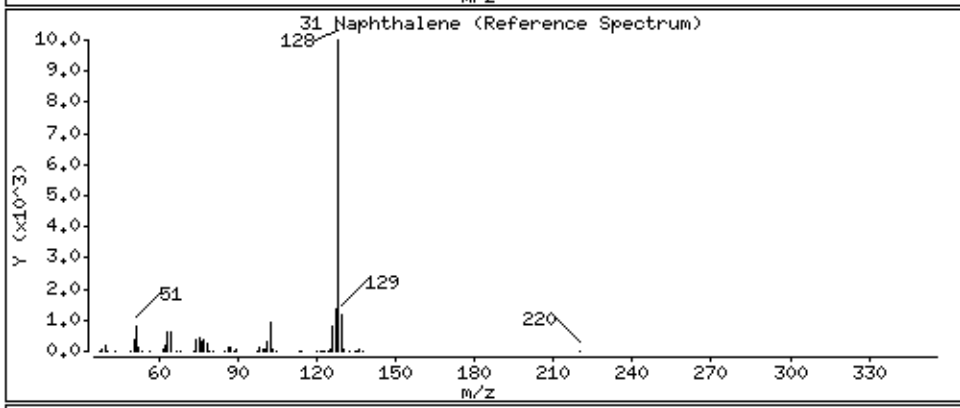
Concentration: 0.301 ug/Kg

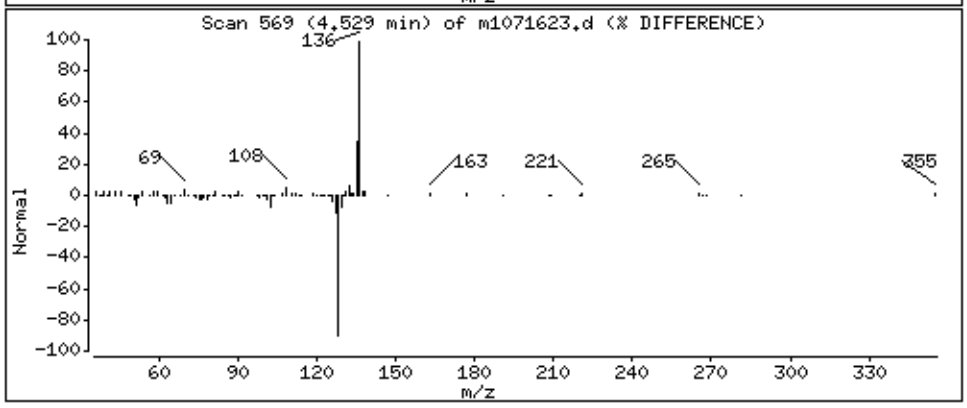












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071623.d
Injection Date: 16-JUL-2019 21:59
Instrument: 30mss1.i
Lab Sample ID: 30313260001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC32 Lower-2

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 30313260002
Date Analyzed: 07/16/2019 22:21
Lab File ID: MSS1071619.B\M1071624.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071624.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 16-JUL-2019 22:21
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30313260002
Misc Info : 14834
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	1.586	1.581	(0.450)	278	0.00106	0.106	
$	3 2-Fluorophenol (S)	112	2.633	2.633	(0.747)	1239364	6.03024	603	
$	4 Phenol-d6 (S)	99	3.290	3.290	(0.933)	1494810	6.17196	617	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.525	3.525	(1.000)	619816	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						(D)
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						(D)
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.963	3.968	(0.878)	426043	4.01832	402	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
*	30 Naphthalene-d8 (IS)	136	4.514	4.519	(1.000)	2577758	4.00000		
	31 Naphthalene	128	Compound Not Detected.						(D)
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.395	5.395	(0.908)	1520126	3.61687	362	
*	50 Acenaphthene-d10 (IS)	164	5.940	5.945	(1.000)	1377371	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	6.592	6.597	(0.907)	376707	6.07452	607	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	7.265	7.265	(1.000)	2298263	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.985	8.990	(0.894)	1226086	2.60598	260	
* 82 Chrysene-d12 (IS)	240	10.048	10.053	(1.000)	2020920	4.00000		
* 88 Perylene-d12 (IS)	264	11.389	11.389	(1.000)	1886232	4.00000		

QC Flag Legend

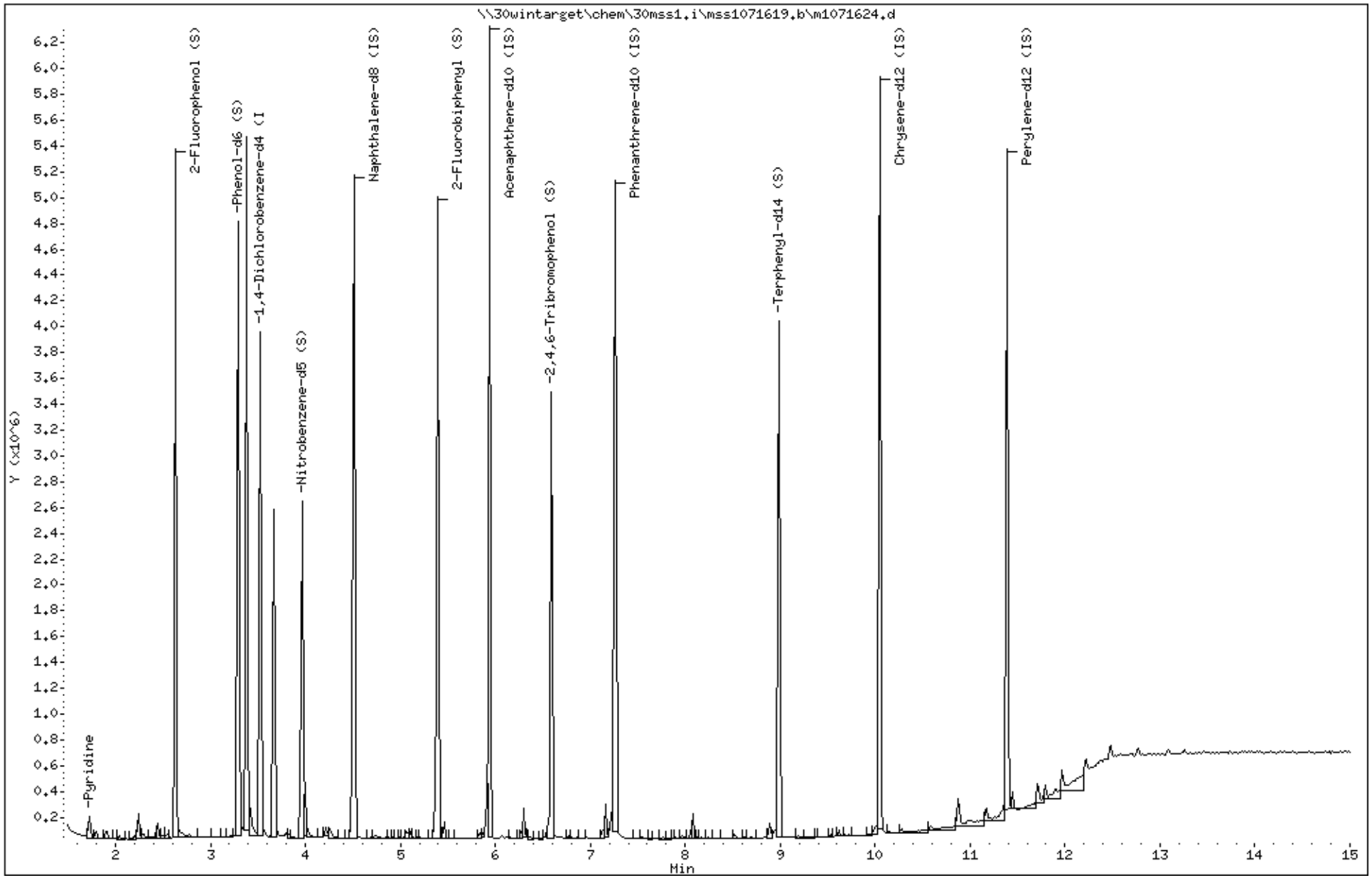
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071624.d
Date : 16-JUL-2019 22:21
Client ID: A0C32 Lower-2
Sample Info: 30313260002
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071624.d

Date : 16-JUL-2019 22:21

Client ID: AOC32 Lower-2

Instrument: 30mss1.i

Sample Info: 30313260002

Volume Injected (uL): 1.0

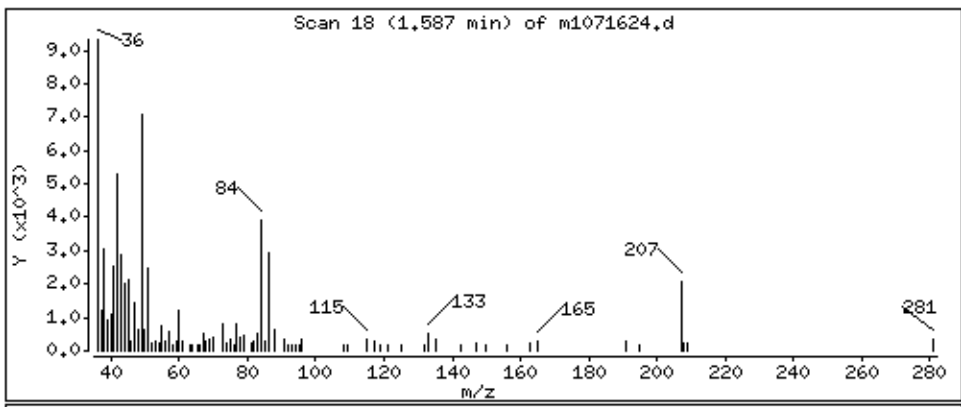
Operator: EAC

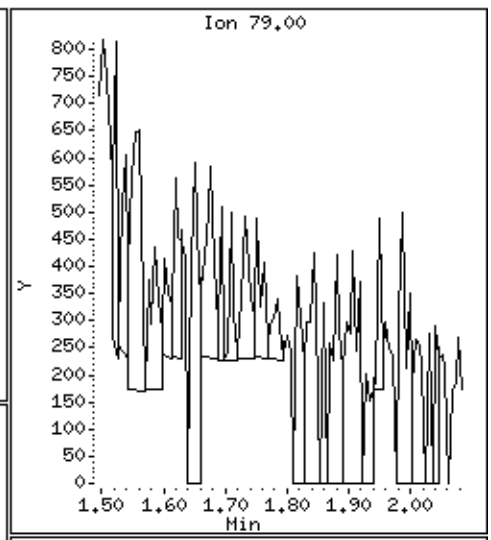
Column phase: RTX-5MS

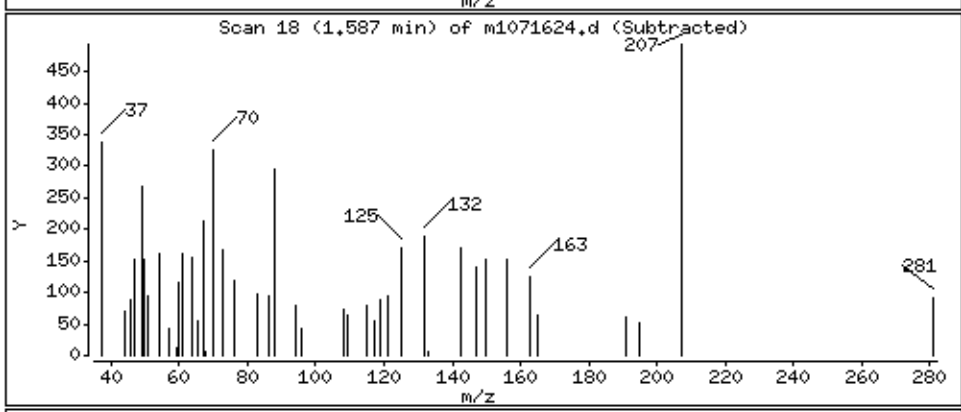
Column diameter: 0.18

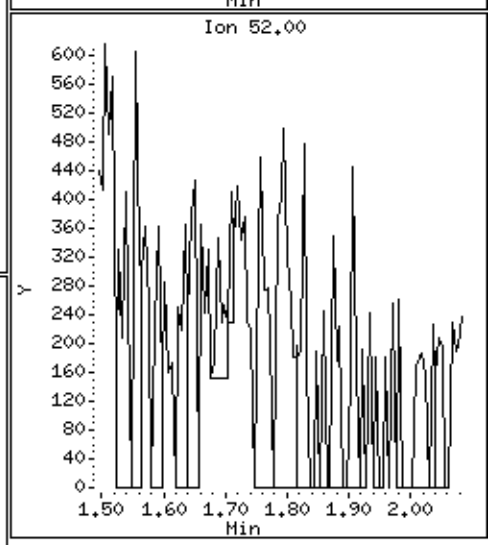
2 Pyridine

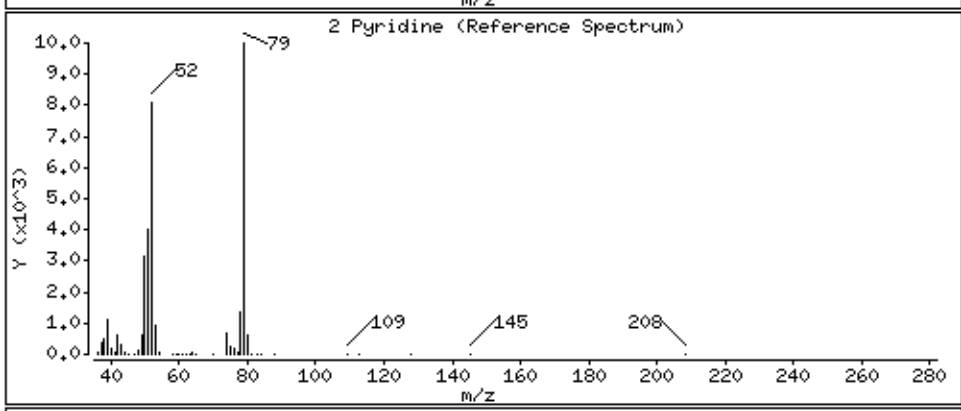
Concentration: 0.106 ug/Kg

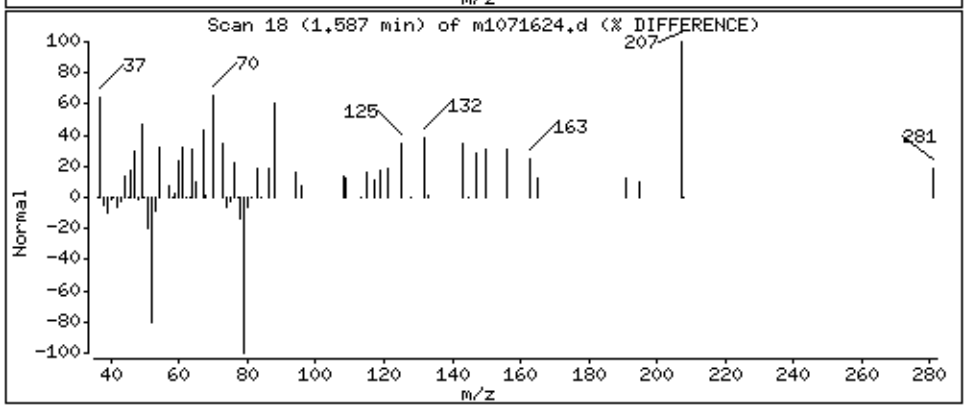












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071624.d
Injection Date: 16-JUL-2019 22:21
Instrument: 30mss1.i
Lab Sample ID: 30313260002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC27

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 30313260003
Date Analyzed: 07/16/2019 22:44
Lab File ID: MSS1071619.B\M1071625.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 30MSS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071625.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 16-JUL-2019 22:44
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30313260003
Misc Info : 14834
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	1.589	1.581	(0.451)	410	0.00157	0.157	
$	3 2-Fluorophenol (S)	112	2.636	2.633	(0.748)	1230722	6.01818	602	
$	4 Phenol-d6 (S)	99	3.293	3.290	(0.935)	1505682	6.24799	625	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.523	3.525	(1.000)	616727	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						(D)
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	3.859	3.856	(1.096)	284	0.00143	0.142	
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.966	3.968	(0.878)	426367	4.08223	408	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
*	30 Naphthalene-d8 (IS)	136	4.516	4.519	(1.000)	2539332	4.00000		
	31 Naphthalene	128	Compound Not Detected.						(D)
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.392	5.395	(0.907)	1492044	3.59946	360	
*	50 Acenaphthene-d10 (IS)	164	5.943	5.945	(1.000)	1358465	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/Kg)	REVIEW C
$	65 2,4,6-Tribromophenol (S)	330	6.594	6.597	(0.908)	373341	6.10108	610	
	67 Hexachlorobenzene	284	Compound Not Detected.						(D)
	69 Pentachlorophenol	266	Compound Not Detected.						
*	70 Phenanthrene-d10 (IS)	188	7.262	7.265	(1.000)	2267810	4.00000		
$	77 Terphenyl-d14 (S)	244	8.982	8.990	(0.894)	295990	0.61402	61.4(R)	
*	82 Chrysene-d12 (IS)	240	10.051	10.053	(1.000)	2070583	4.00000		
*	88 Perylene-d12 (IS)	264	11.386	11.389	(1.000)	1927021	4.00000		

QC Flag Legend

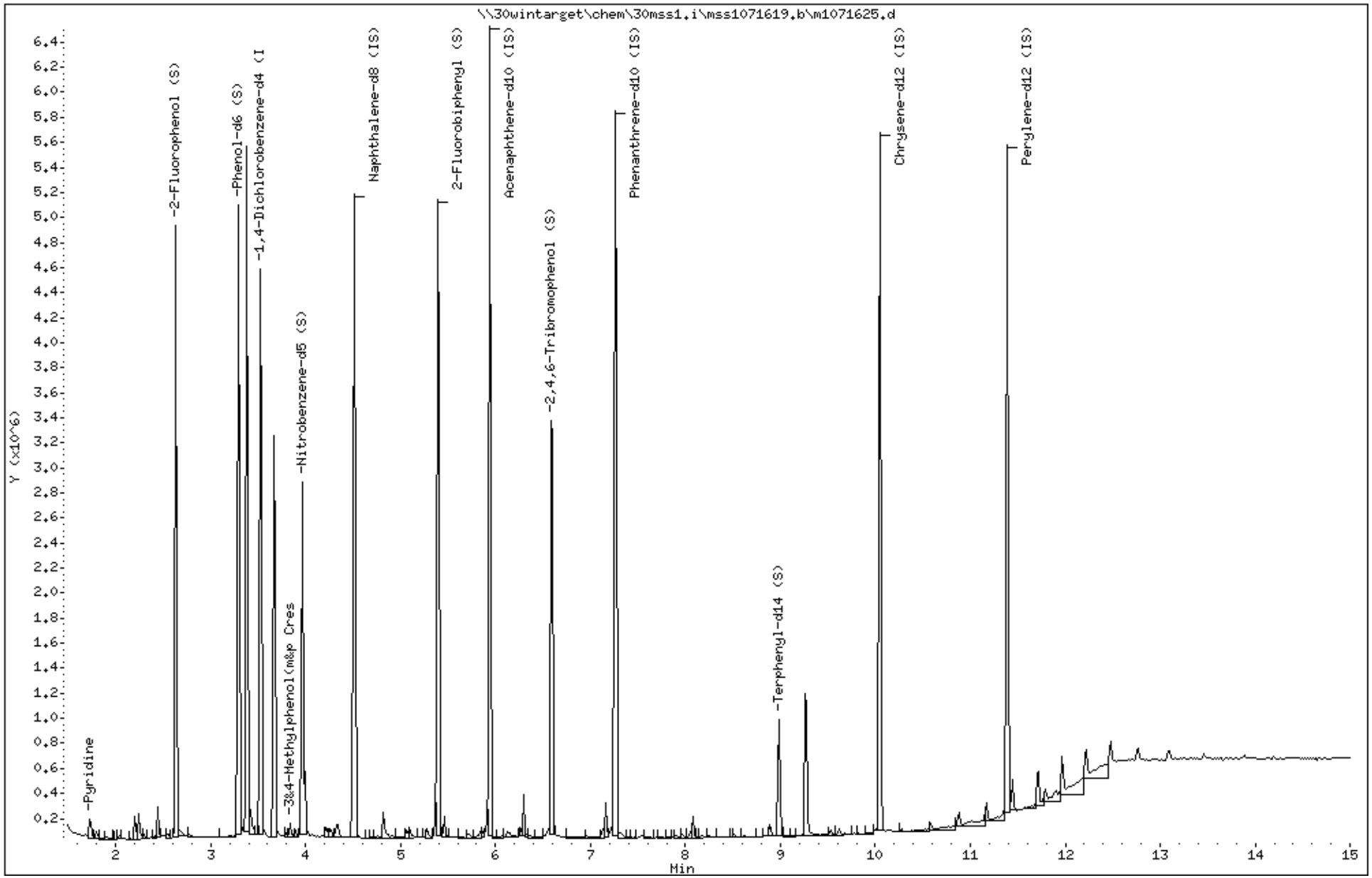
R - Spike/Surrogate failed recovery limits.
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071625.d
Date : 16-JUL-2019 22:44
Client ID: A0C27
Sample Info: 30313260003
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



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Date : 16-JUL-2019 22:44

Client ID: AOC27

Instrument: 30mss1.i

Sample Info: 30313260003

Volume Injected (uL): 1.0

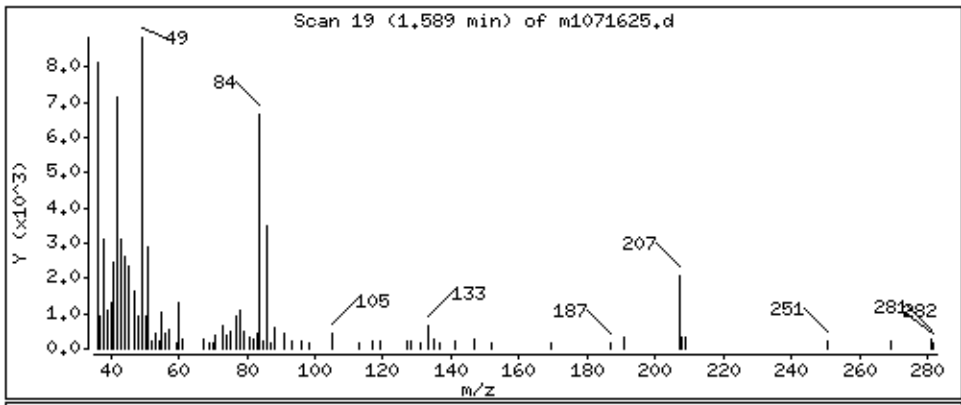
Operator: EAC

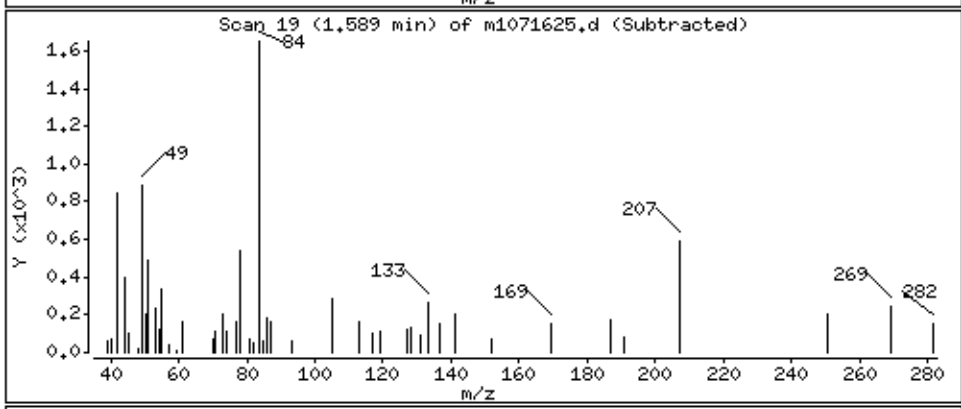
Column phase: RTX-5MS

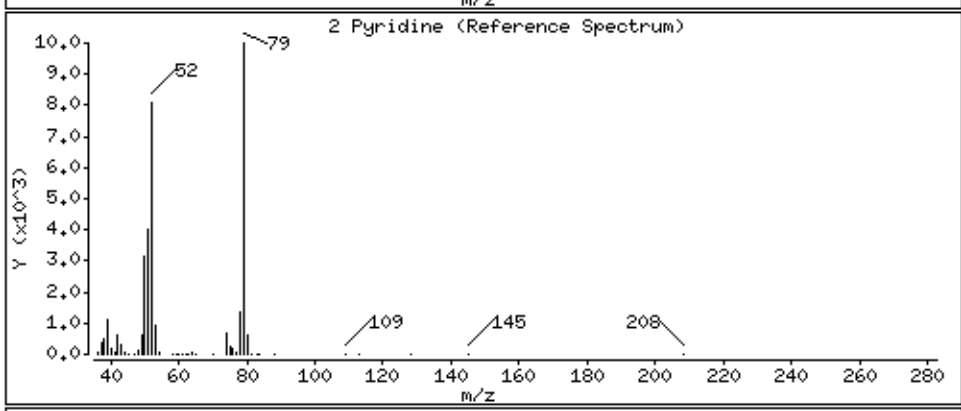
Column diameter: 0.18

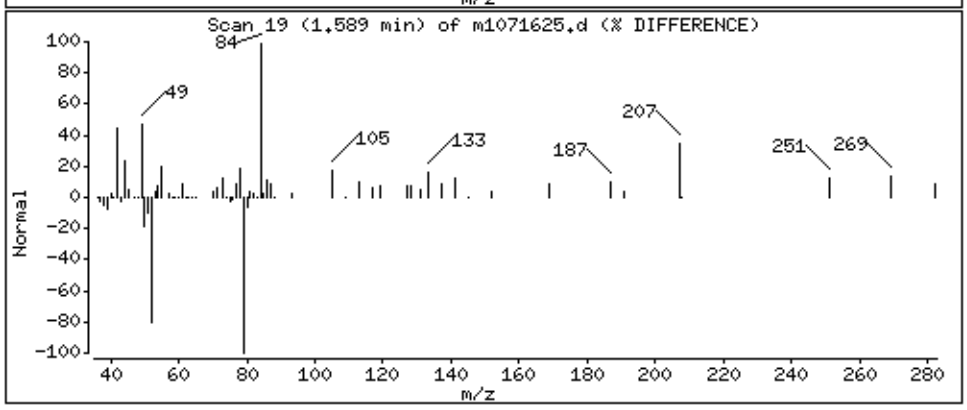
2 Pyridine

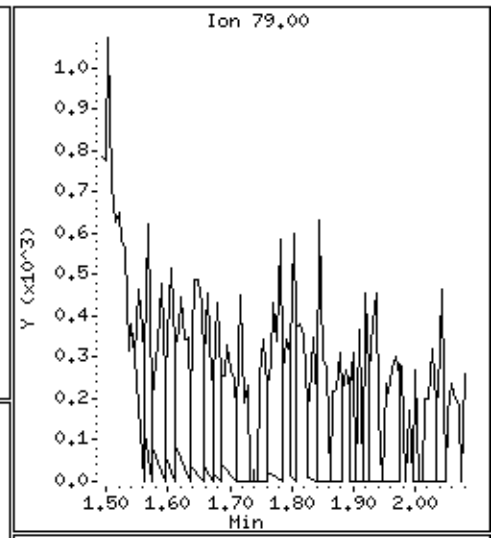
Concentration: 0.157 ug/Kg

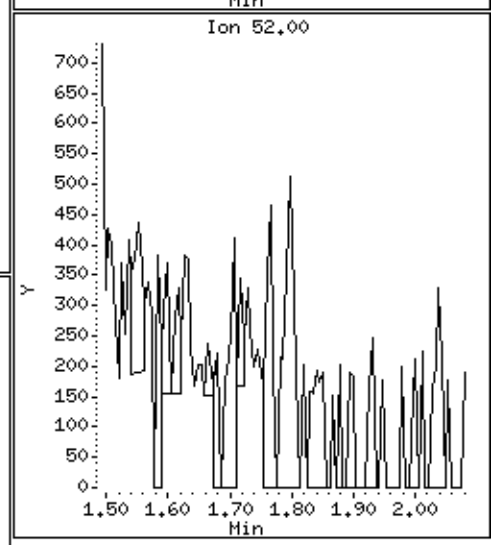












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071625.d

Date : 16-JUL-2019 22:44

Client ID: AOC27

Instrument: 30mss1.i

Sample Info: 30313260003

Volume Injected (uL): 1.0

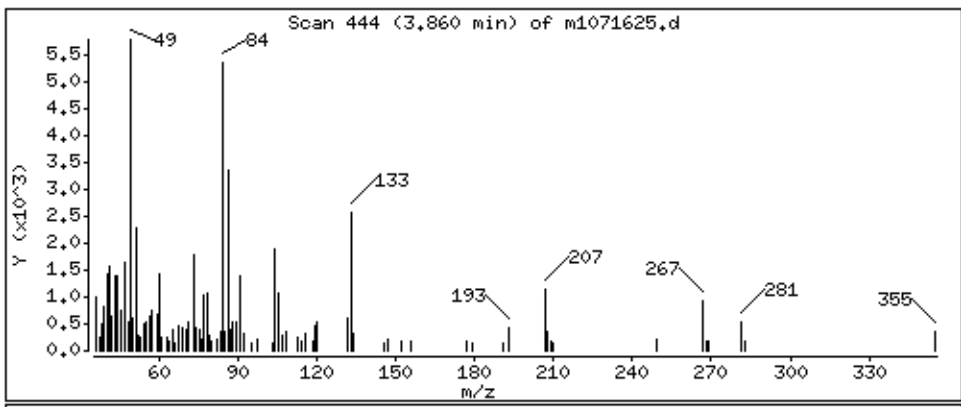
Operator: EAC

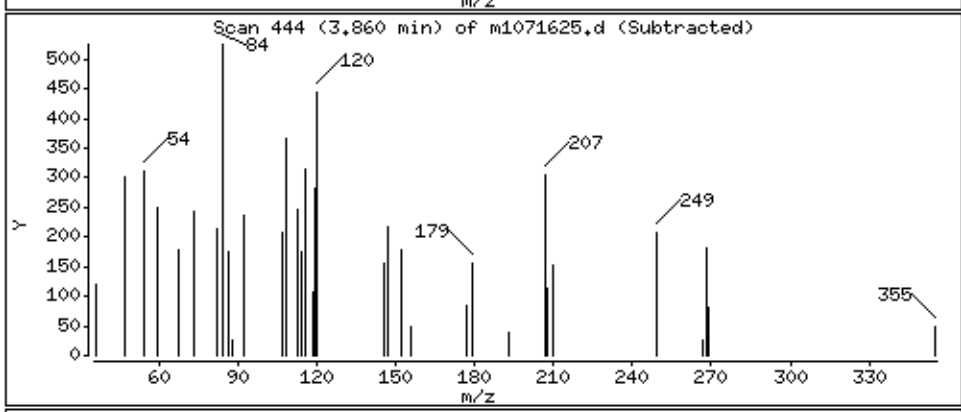
Column phase: RTX-5MS

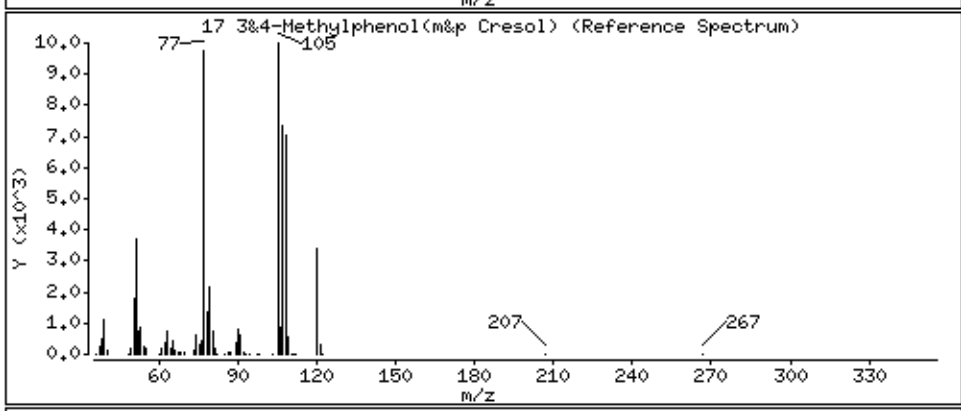
Column diameter: 0.18

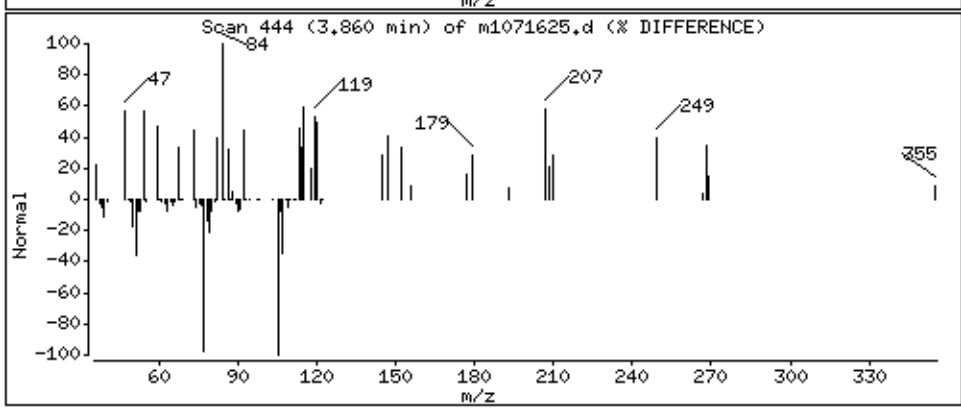
17 3&4-Methylphenol(m&p Cresol)

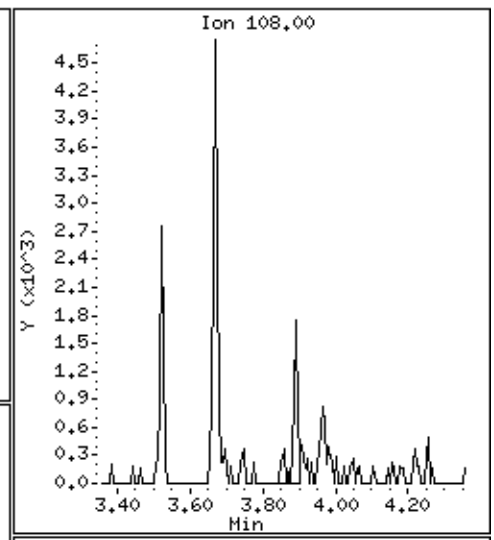
Concentration: 0.142 ug/Kg

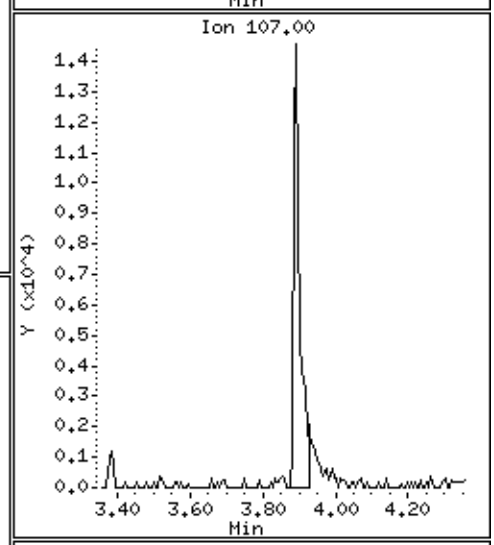


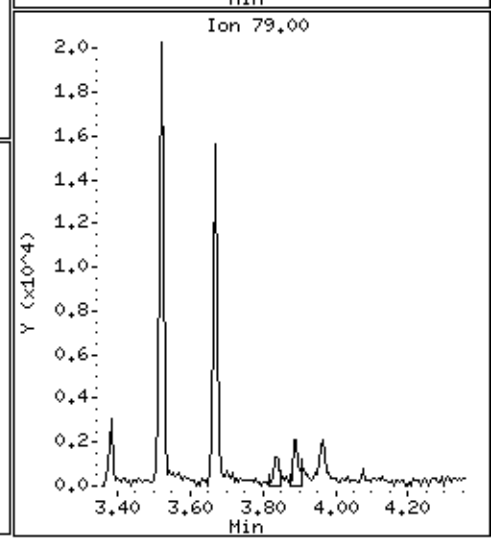












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071625.d
Injection Date: 16-JUL-2019 22:44
Instrument: 30mss1.i
Lab Sample ID: 30313260003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 07/15/2019 07/15/2019 Calibration Time(s): 09:21 11:36

LAB FILE ID

CAL1 = MSS1071519.B\M10715Y7.D CAL2 = MSS1071519.B\M10715Y6.D CAL3 = MSS1071519.B\M10715Y5.D

CAL4 = MSS1071519.B\M10715Y4.D CAL5 = MSS1071519.B\M10715Y3.D CAL6 = MSS1071519.B\M10715Y2.D

CAL7 = MSS1071519.B\M10715Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.78889	1.72117	1.60637	1.62823	1.70773	1.61190
2,4-Dinitrotoluene	Averaged	0.39117	0.36562	0.39623	0.39030	0.39337	0.37669
Hexachloro-1,3-butadiene	Averaged	0.16836	0.15783	0.15829	0.15714	0.15926	0.15678
Hexachlorobenzene	Averaged	0.22864	0.21311	0.20877	0.20597	0.21573	0.21580
Hexachloroethane	Averaged	0.60486	0.57400	0.57055	0.58410	0.60341	0.58308
2-Methylphenol(o-Cresol)	Averaged	1.43657	1.29487	1.27654	1.29873	1.32429	1.27799
3&4-Methylphenol(m&p Cresol)	Averaged	1.43238	1.35270	1.32786	1.30874	1.31940	1.27563
Nitrobenzene	Averaged	0.35466	0.34757	0.33690	0.33525	0.32923	0.32017
Pentachlorophenol	Averaged	0.10942	0.10615	0.12202	0.12907	0.12947	0.14032
Pyridine	Averaged	1.85763	1.79501	1.69777	1.65460	1.63325	1.64643
2,4,5-Trichlorophenol	Averaged	0.33438	0.32864	0.34544	0.33484	0.36280	0.35173
2,4,6-Trichlorophenol	Averaged	0.40934	0.39315	0.38620	0.38754	0.37355	0.37423
2-Fluorobiphenyl (S)	Averaged	1.45037	1.32239	1.26657	1.19971	1.16435	1.09497
2-Fluorophenol (S)	Averaged	1.57038	1.37142	1.24291	1.33179	1.22458	1.29790
Nitrobenzene-d5 (S)	Averaged	0.16488	0.16331	0.16518	0.16608	0.16629	0.16416
Phenol-d6 (S)	Averaged	1.82179	1.55713	1.53826	1.51111	1.56050	1.48776
Terphenyl-d14 (S)	Averaged	1.02530	0.99793	0.98085	0.97479	0.89081	0.87880
2,4,6-Tribromophenol (S)	Averaged	0.10221	0.10227	0.10576	0.10719	0.10923	0.11503

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 07/15/2019 07/15/2019 Calibration Time(s): 09:21 11:36

LAB FILE ID

CAL1 = MSS1071519.B\M10715Y7.D CAL2 = MSS1071519.B\M10715Y6.D CAL3 = MSS1071519.B\M10715Y5.D

CAL4 = MSS1071519.B\M10715Y4.D CAL5 = MSS1071519.B\M10715Y3.D CAL6 = MSS1071519.B\M10715Y2.D

CAL7 = MSS1071519.B\M10715Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.55295	4.93773			1.65961	
2,4-Dinitrotoluene	Averaged	0.37488	3.01220			0.38404	
Hexachloro-1,3-butadiene	Averaged	0.15644	2.62029			0.15916	
Hexachlorobenzene	Averaged	0.21783	3.39026			0.21512	
Hexachloroethane	Averaged	0.56073	2.82520			0.58296	
2-Methylphenol(o-Cresol)	Averaged	1.22269	5.05937			1.30452	
3&4-Methylphenol(m&p Cresol)	Averaged	1.02887	9.74852			1.29223	
Nitrobenzene	Averaged	0.30788	4.76474			0.33310	
Pentachlorophenol	Averaged	0.13610	10.36020			0.12465	
Pyridine	Averaged	1.56561	5.95484			1.69290	
2,4,5-Trichlorophenol	Averaged	0.35057	3.50192			0.34406	
2,4,6-Trichlorophenol	Averaged	0.37128	3.51926			0.38504	
2-Fluorobiphenyl (S)	Averaged	1.04550	11.35808			1.22055	
2-Fluorophenol (S)	Averaged	1.24554	9.04041			1.32636	
Nitrobenzene-d5 (S)	Averaged	0.16176	0.97109			0.16452	
Phenol-d6 (S)	Averaged	1.46447	7.64585			1.56300	
Terphenyl-d14 (S)	Averaged	0.77020	9.60178			0.93124	
2,4,6-Tribromophenol (S)	Averaged	0.11383	4.73648			0.10793	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 15-JUL-2019 09:21
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14828,93073:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 09:21 Cal File: m10715y1.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.721	1.700	(0.478)	3398159	20.0000	19.1	
	2 Pyridine	79	1.694	1.689	(0.470)	5006904	20.0000	18.9	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.751)	3983312	20.0000	18.7	
$	4 Phenol-d6 (S)	99	3.366	3.351	(0.935)	4683453	20.0000	19.4	
	5 Benzaldehyde	77	3.291	3.281	(0.914)	3737900	20.0000	21.4(A)	
	6 Phenol	94	3.377	3.361	(0.938)	5010149	20.0000	18.7	
	7 Aniline	66	3.398	3.383	(0.944)	2159397	20.0000	19.6	
	8 bis(2-Chloroethyl)ether	63	3.436	3.425	(0.954)	3073128	20.0000	20.2(A)	
	9 2-Chlorophenol	128	3.473	3.463	(0.964)	4323924	20.0000	19.7	
	10 1,3-Dichlorobenzene	146	3.574	3.570	(0.993)	4408035	20.0000	18.1	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.601	3.596	(1.000)	639612	4.00000		
	12 1,4-Dichlorobenzene	146	3.617	3.607	(1.004)	4966421	20.0000	19.1(M)	LT
	13 Benzyl Alcohol	79	3.729	3.719	(1.036)	3556037	20.0000	20.5(A)	
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.043)	4468797	20.0000	19.3	
	15 2-Methylphenol(o-Cresol)	108	3.815	3.810	(1.059)	3910232	20.0000	18.8	
	16 bis(2-Chloroisopropyl)ether	45	3.842	3.837	(1.067)	6178043	20.0000	17.8	
	17 3&4-Methylphenol(m&p Cresol)	108	3.938	3.917	(1.093)	3290383	20.0000	15.7(H)	
	18 N-Nitroso-di-n-propylamine	70	3.964	3.938	(1.101)	3003458	20.0000	18.8	
	19 Acetophenone	105	3.932	3.922	(1.092)	4972295	20.0000	17.6	
	20 Hexachloroethane	117	3.991	3.986	(1.108)	1793243	20.0000	19.2	
$	21 Nitrobenzene-d5 (S)	128	4.050	4.040	(0.881)	2075997	20.0000	19.5	
	22 Nitrobenzene	77	4.066	4.050	(0.885)	3951202	20.0000	18.4	
	23 Isophorone	82	4.253	4.232	(0.926)	7175189	20.0000	18.2	
	24 2,4-Dimethylphenol	107	4.344	4.333	(0.945)	3993908	20.0000	19.0	
	25 2-Nitrophenol	139	4.312	4.301	(0.938)	2314348	20.0000	19.1	
	26 Benzoic acid	105	4.472	4.376	(0.973)	2832521	20.0000	0.228(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.418	4.408	(0.962)	4446255	20.0000	18.6	
	28 2,4-Dichlorophenol	162	4.493	4.483	(0.978)	3327910	20.0000	18.9	
	29 1,2,4-Trichlorobenzene	180	4.563	4.558	(0.993)	3633977	20.0000	19.1	
*	30 Naphthalene-d8 (IS)	136	4.595	4.590	(1.000)	2566688	4.00000		
	31 Naphthalene	128	4.611	4.606	(1.003)	8978139	20.0000	15.4	
	32 4-Chloroaniline	65	4.664	4.659	(1.015)	1353256	20.0000	19.4	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	2007667	20.0000	19.9	
	34 Caprolactam	55	4.969	4.894	(1.081)	1643611	20.0000	17.5(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.060	5.049	(1.101)	3427437	20.0000	19.2(M)	LT
	36	2-Methylnaphthalene	142	5.166	5.162	(1.124)	7312325	20.0000	17.1	
	37	1-Methylnaphthalene	142	5.252	5.247	(1.143)	6866478	20.0000	17.2	
	38	Hexachlorocyclopentadiene	237	5.353	5.348	(0.888)	2479020	20.0000	20.6(AM)	LT
	39	1,2,4,5-Tetrachlorobenzene	216	5.337	5.327	(0.885)	3222865	20.0000	19.6	
	40	2,4,6-Trichlorophenol	196	5.417	5.407	(0.898)	2510555	20.0000	19.2	
	41	2,4,5-Trichlorophenol	196	5.450	5.439	(0.903)	2370498	20.0000	20.9(A)	
$	42	2-Fluorobiphenyl (S)	172	5.482	5.471	(0.909)	7069498	20.0000	17.4	
	43	Biphenyl (Diphenyl)	154	5.551	5.541	(0.920)	7520566	20.0000	16.5(M)	LT
	44	2-Chloronaphthalene	164	5.562	5.551	(0.922)	2447504	20.0000	20.1(A)	
	45	2-Nitroaniline	138	5.669	5.653	(0.940)	2708792	20.0000	18.9	
	46	Dimethylphthalate	163	5.845	5.829	(0.969)	6550420	20.0000	17.9	
	47	2,6-Dinitrotoluene	165	5.898	5.883	(0.978)	1969417	20.0000	19.8	
	48	Acenaphthylene	152	5.909	5.899	(0.980)	8614937	20.0000	15.4	
	49	3-Nitroaniline	65	6.010	5.990	(0.996)	2330248	20.0000	20.6(A)	
*	50	Acenaphthene-d10 (IS)	164	6.032	6.022	(1.000)	1352368	4.00000		
	51	2,4-Dinitrophenol	184	6.091	6.075	(1.010)	1191872	20.0000	19.6	
	52	Acenaphthene	153	6.059	6.048	(1.004)	6343657	20.0000	17.4	
	53	4-Nitrophenol	109	6.149	6.123	(1.019)	1035197	20.0000	0.116(M)	LT
	54	2,4-Dinitrotoluene	165	6.219	6.198	(1.031)	2534852	20.0000	19.2	
	55	Dibenzofuran	168	6.187	6.176	(1.026)	8041787	20.0000	16.3	
	56	2,3,4,6-Tetrachlorophenol	232	6.320	6.315	(1.048)	1944396	20.0000	20.1(A)	
	57	Diethylphthalate	149	6.422	6.406	(1.065)	6787884	20.0000	17.0	
	58	4-Chlorophenylphenyl ether	204	6.465	6.460	(1.072)	3752938	20.0000	18.9	
	59	Fluorene	166	6.470	6.460	(1.073)	7181297	20.0000	17.6	
	60	4-Nitroaniline	108	6.529	6.492	(1.082)	1150406	20.0000	19.7(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.561	6.534	(0.889)	1537699	20.0000	19.6	
	62	N-Nitrosodiphenylamine	169	6.577	6.556	(0.891)	6343144	20.0000	18.0	
	63	Azobenzene	77	6.598	6.588	(0.894)	6569916	20.0000	17.6	
	64	1,2-Diphenylhydrazine	77	6.598	6.588	(0.894)	6569916	20.0000	17.6	
$	65	2,4,6-Tribromophenol (S)	330	6.689	6.679	(0.907)	1269597	20.0000	21.2(A)	
	66	4-Bromophenylphenyl ether	248	6.903	6.892	(0.936)	2400095	20.0000	20.6(A)	
	67	Hexachlorobenzene	284	7.063	7.053	(0.957)	2429521	20.0000	21.2(A)	
	68	Atrazine	200	7.132	7.106	(0.967)	2265696	20.0000	19.1	
	69	Pentachlorophenol	266	7.250	7.240	(0.983)	1517914	20.0000	21.1(A)	
*	70	Phenanthrene-d10 (IS)	188	7.378	7.368	(1.000)	2230644	4.00000		
	71	Phenanthrene	178	7.410	7.395	(1.004)	10094097	20.0000	16.8	
	72	Anthracene	178	7.458	7.437	(1.011)	9955947	20.0000	17.4	
	73	Carbazole	167	7.634	7.614	(1.035)	8674353	20.0000	16.3	
	74	Di-n-butylphthalate	149	8.078	8.068	(1.095)	9912218	20.0000	16.2	
	75	Fluoranthene	202	8.676	8.666	(1.176)	9496296	20.0000	16.3	
	76	Pyrene	202	8.911	8.896	(0.877)	9481501	20.0000	14.9	
$	77	Terphenyl-d14 (S)	244	9.093	9.083	(0.894)	7685748	20.0000	15.8	
	78	Butylbenzylphthalate	149	9.643	9.633	(0.949)	5367366	20.0000	18.1	
	79	3,3'-Dichlorobenzidine	252	10.151	10.135	(0.998)	4117834	20.0000	20.0	
	80	bis(2-Ethylhexyl)phthalate	149	10.257	10.253	(1.009)	6951018	20.0000	17.1	
	81	Benzo(a)anthracene	228	10.151	10.135	(0.998)	9949876	20.0000	17.8	
*	82	Chrysene-d12 (IS)	240	10.167	10.151	(1.000)	1995784	4.00000		
	83	Chrysene	228	10.199	10.178	(1.003)	9228915	20.0000	17.9	
	84	Di-n-octylphthalate	149	10.840	10.835	(0.942)	10248519	20.0000	19.0	
	85	Benzo(b)fluoranthene	252	11.182	11.161	(0.972)	9699309	20.0000	19.7	
	86	Benzo(k)fluoranthene	252	11.208	11.182	(0.974)	8573764	20.0000	17.8	
	87	Benzo(a)pyrene	252	11.459	11.444	(0.996)	8097109	20.0000	18.0	
*	88	Perylene-d12 (IS)	264	11.502	11.492	(1.000)	1681771	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.352	12.325	(1.074)	7900185	20.0000	16.4	
90 Dibenz(a,h)anthracene	278	12.357	12.336	(1.074)	6491854	20.0000	16.1	
91 Benzo(g,h,i)perylene	276	12.555	12.528	(1.091)	6356557	20.0000	15.3	

QC Flag Legend

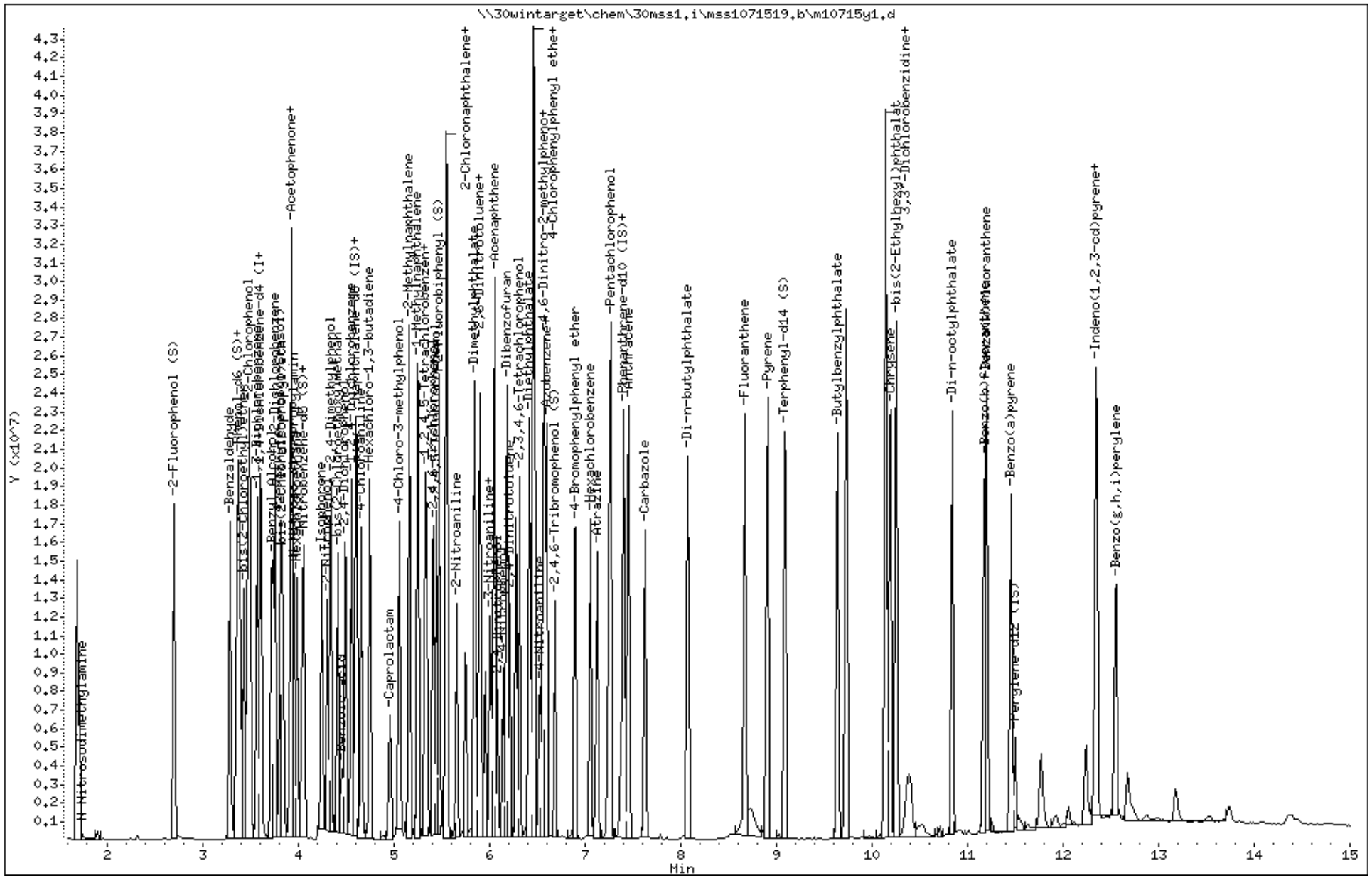
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y1.d
Date : 15-JUL-2019 09:21
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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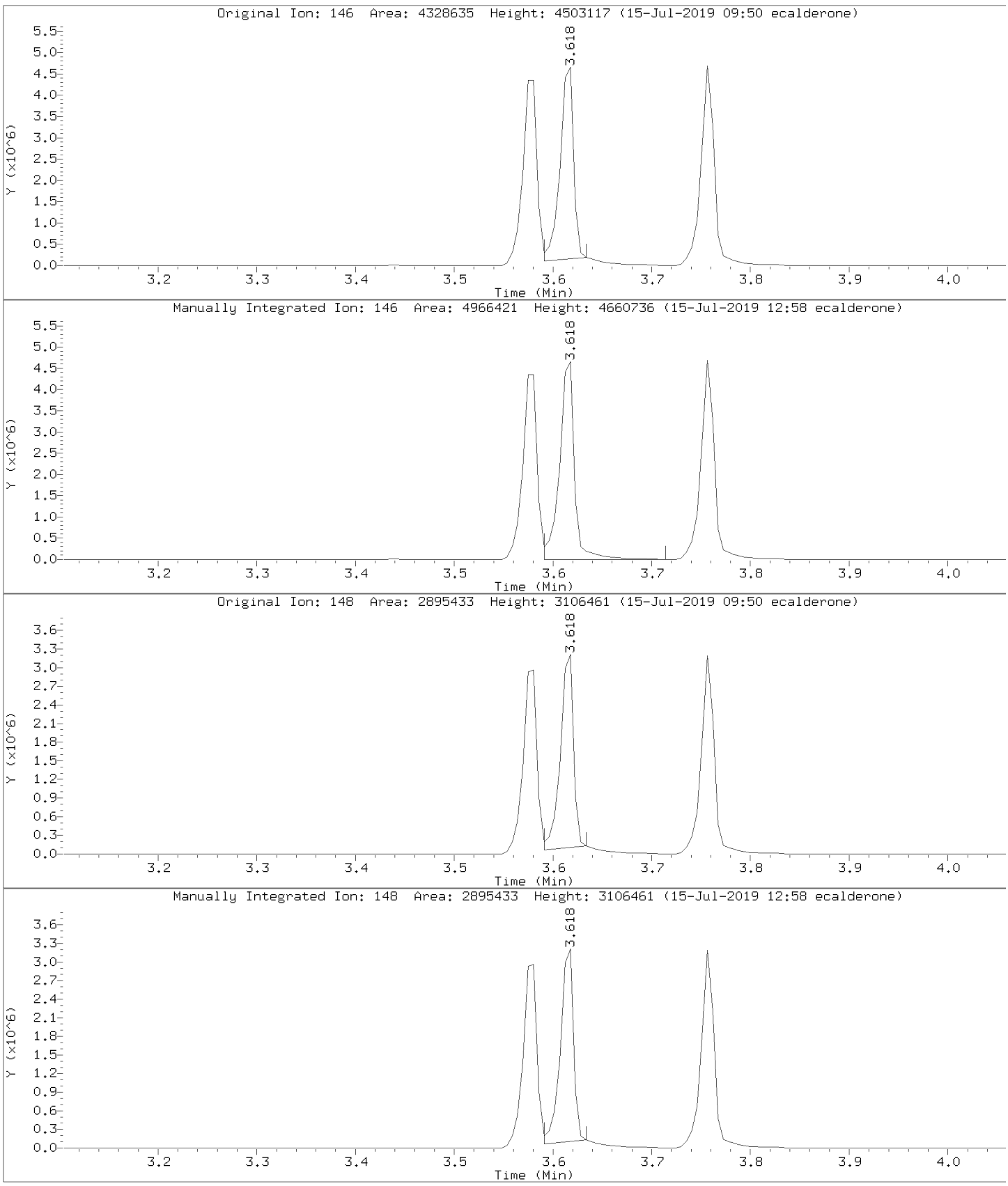
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7



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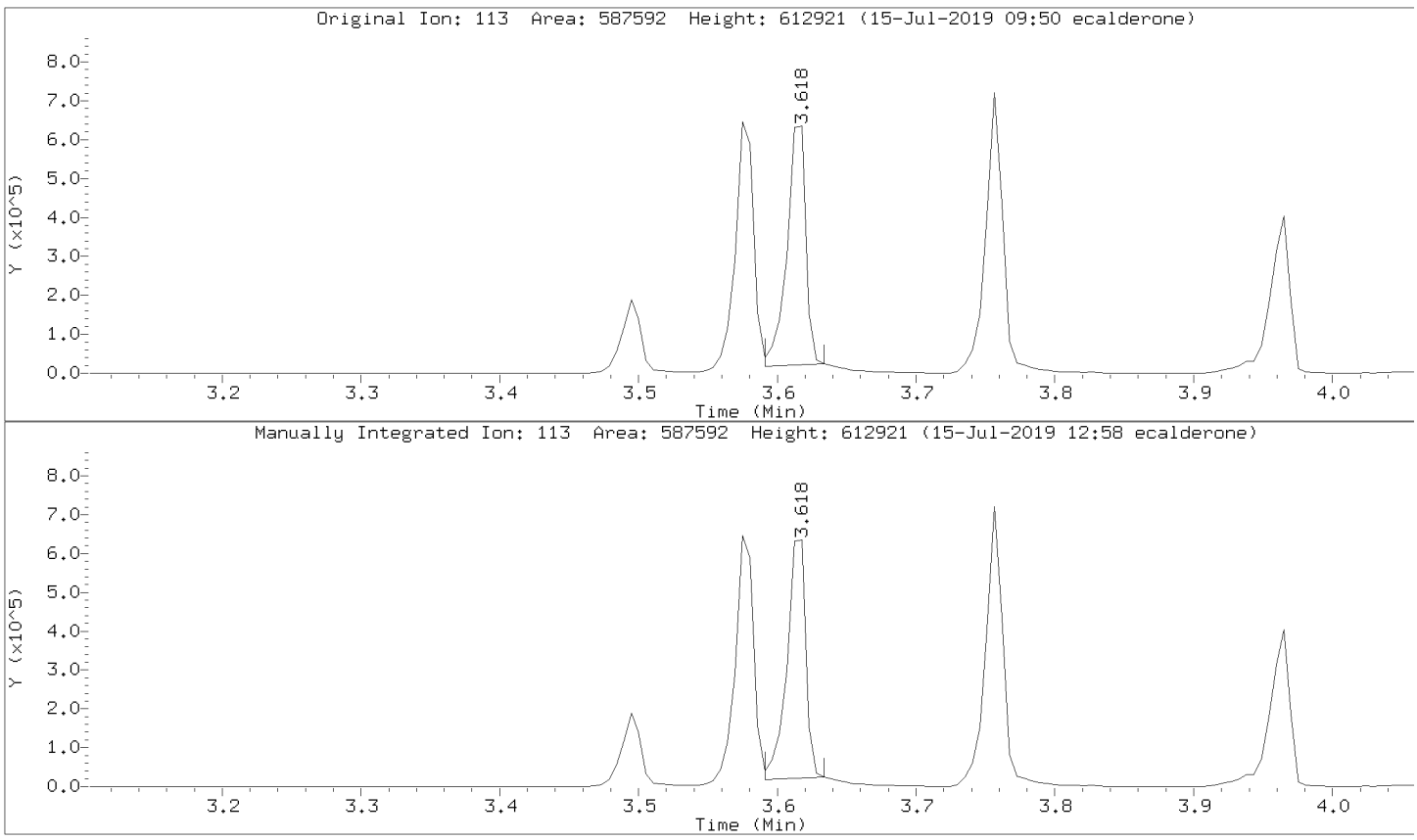
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7



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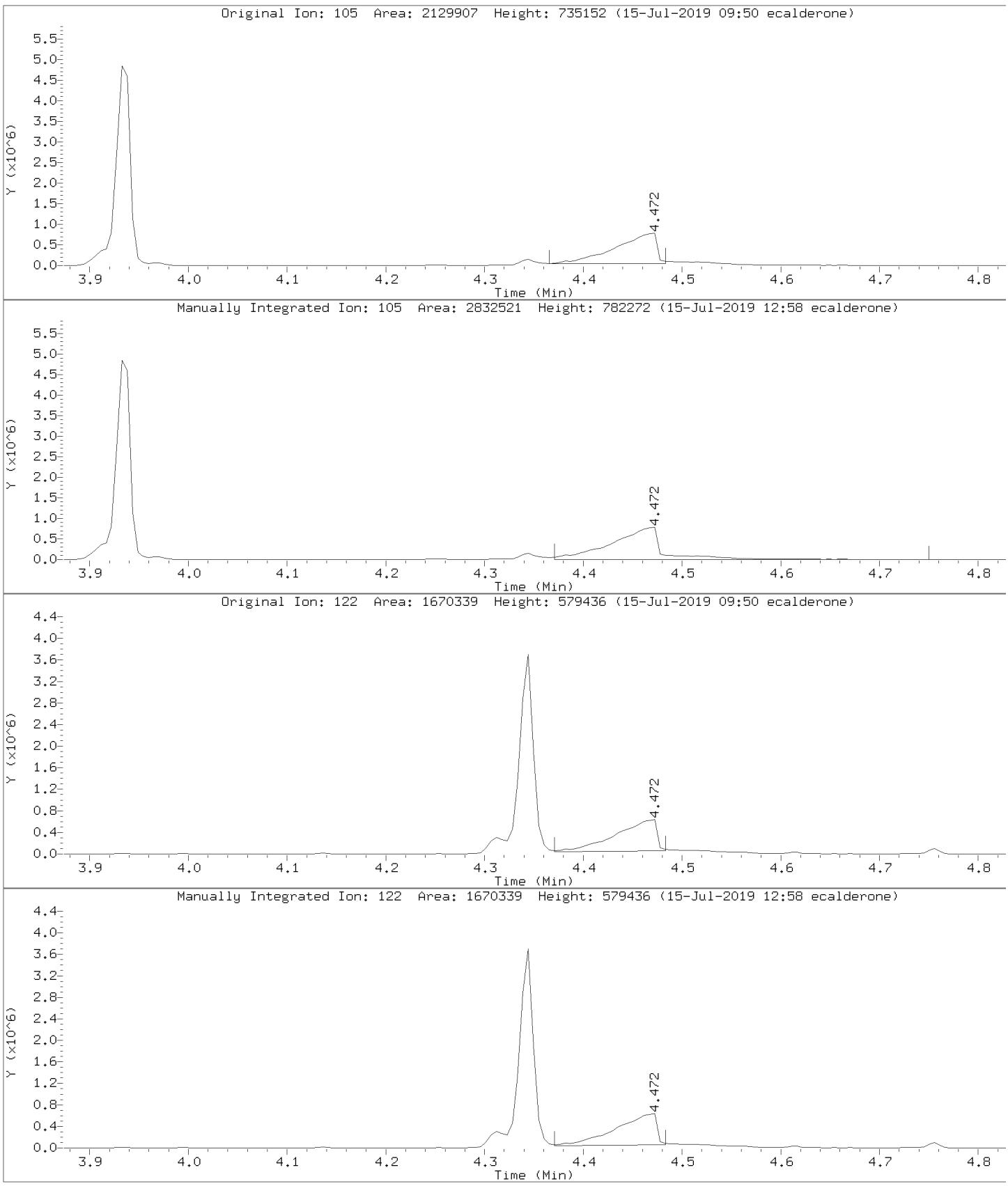
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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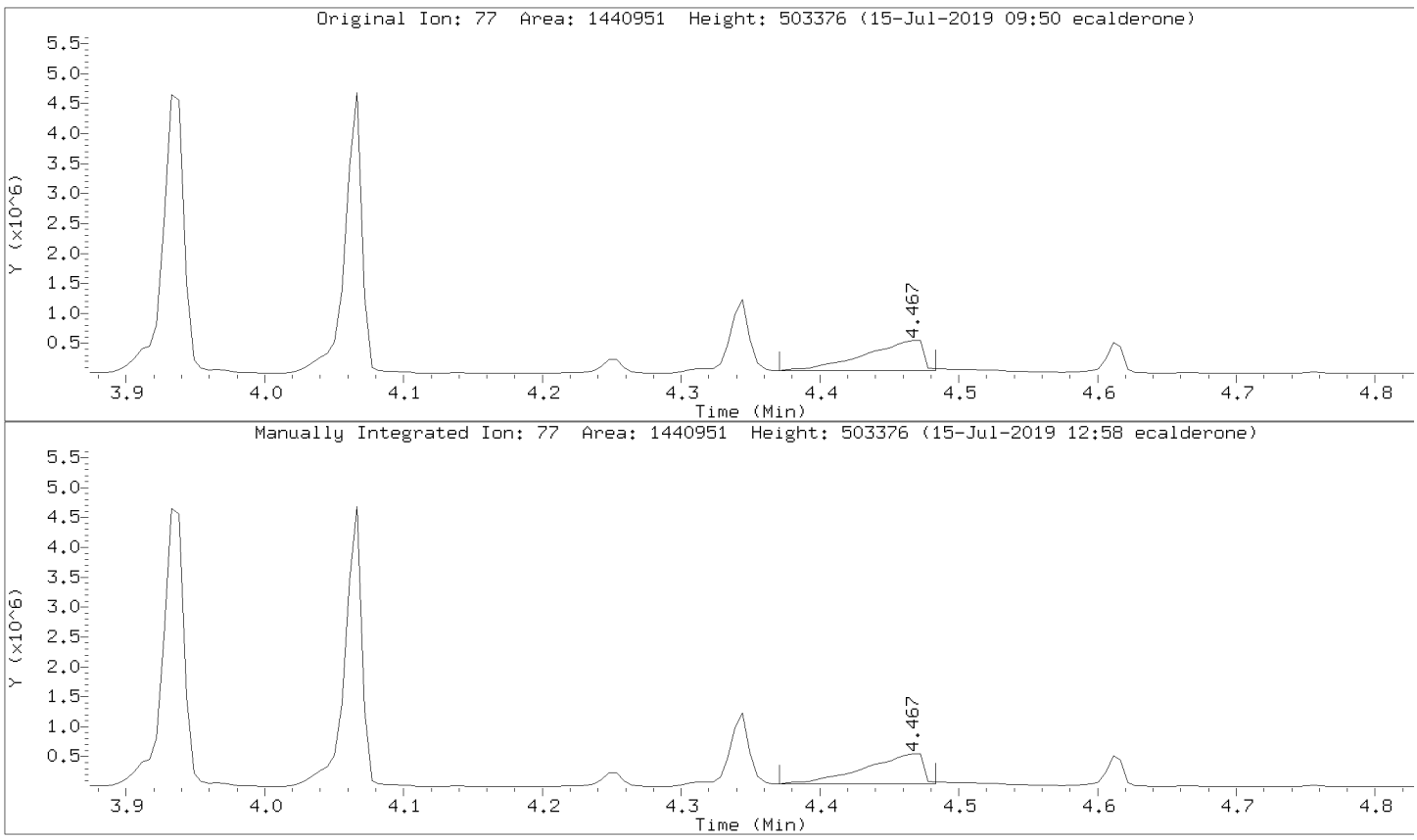
Instrument: 30mss1.i
Lab Sample ID: CAL7



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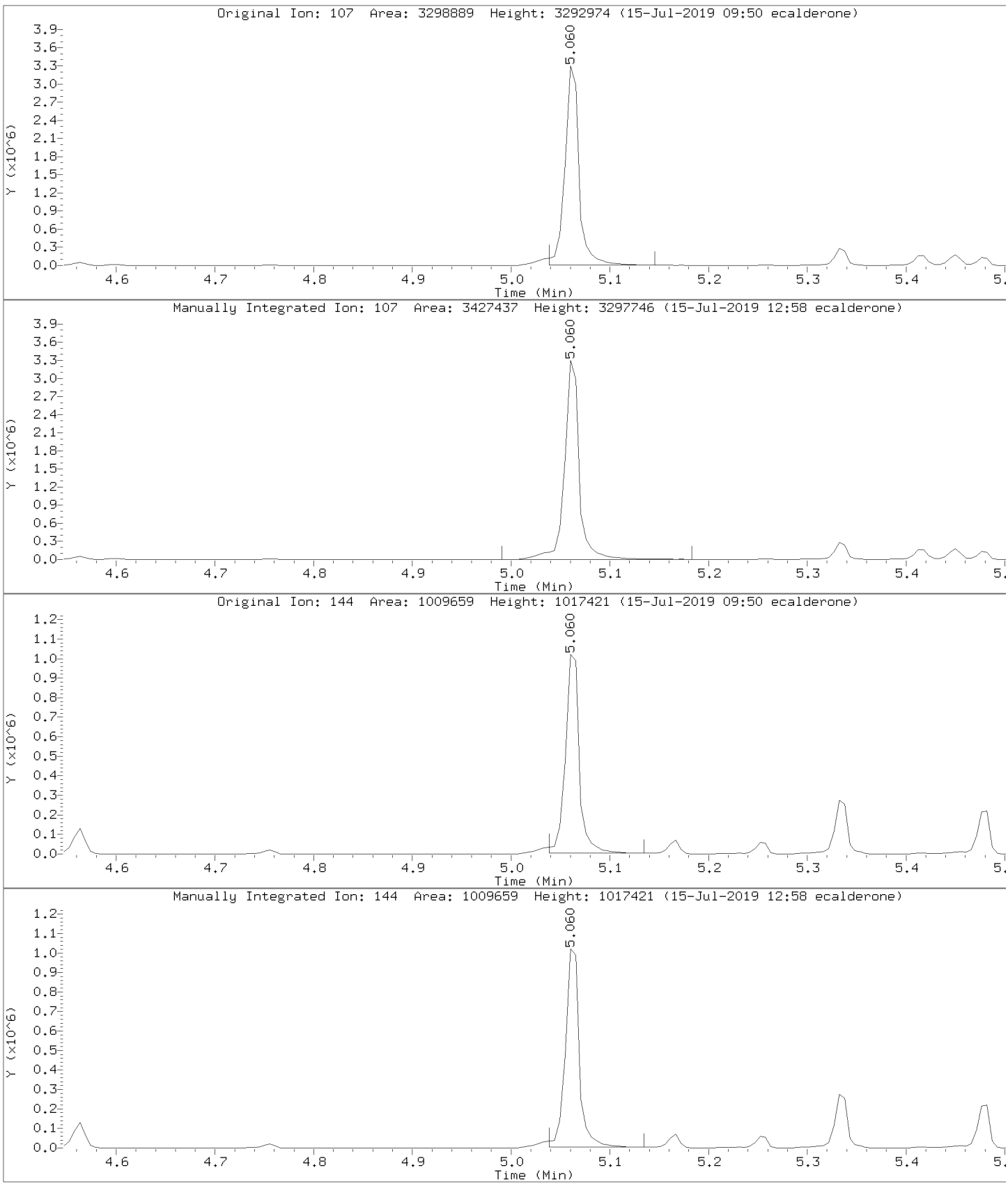
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Chloro-3-methylphenol Review Code: LT
CAS Number: 59-50-7



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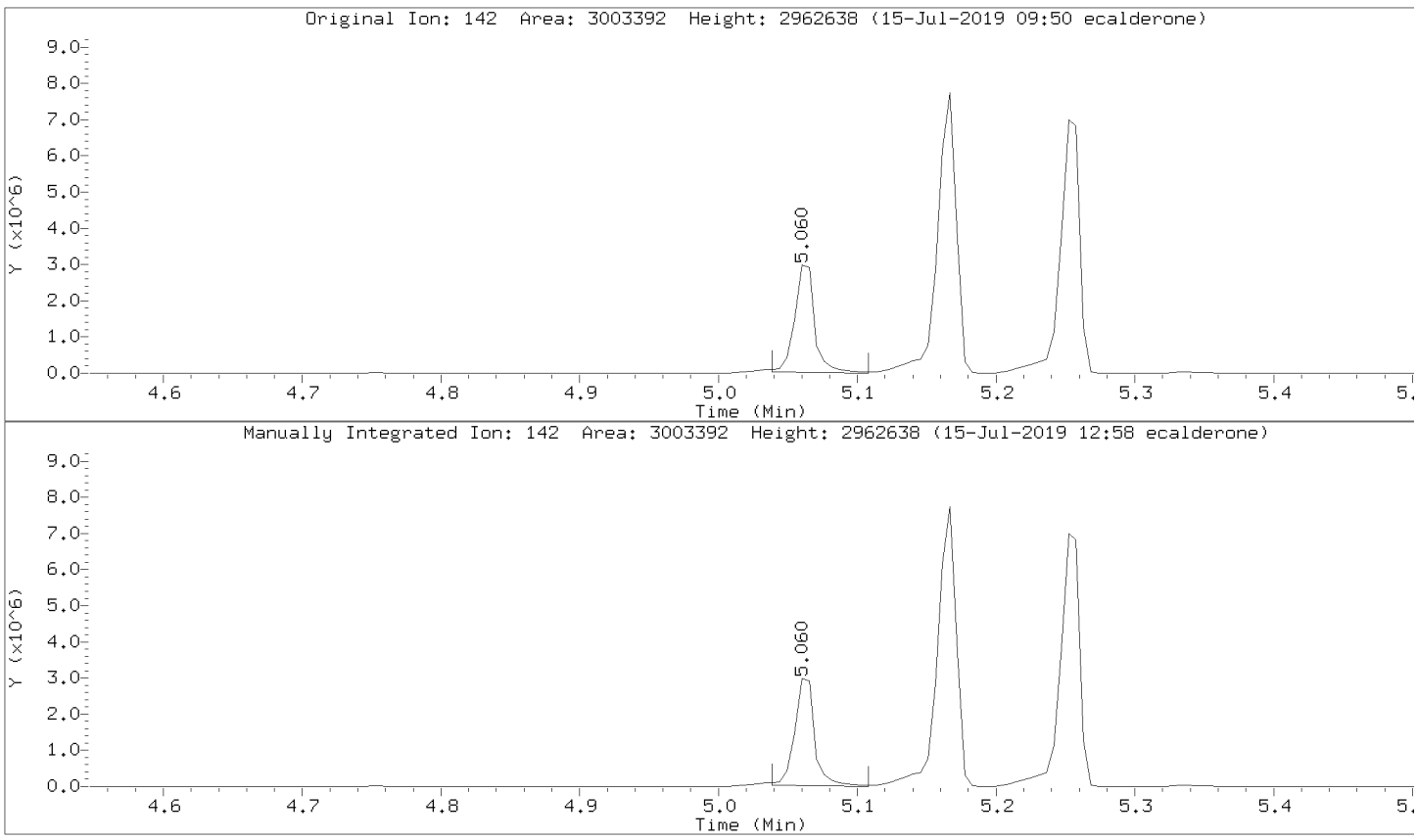
Instrument: 30mss1.i
Lab Sample ID: CAL7



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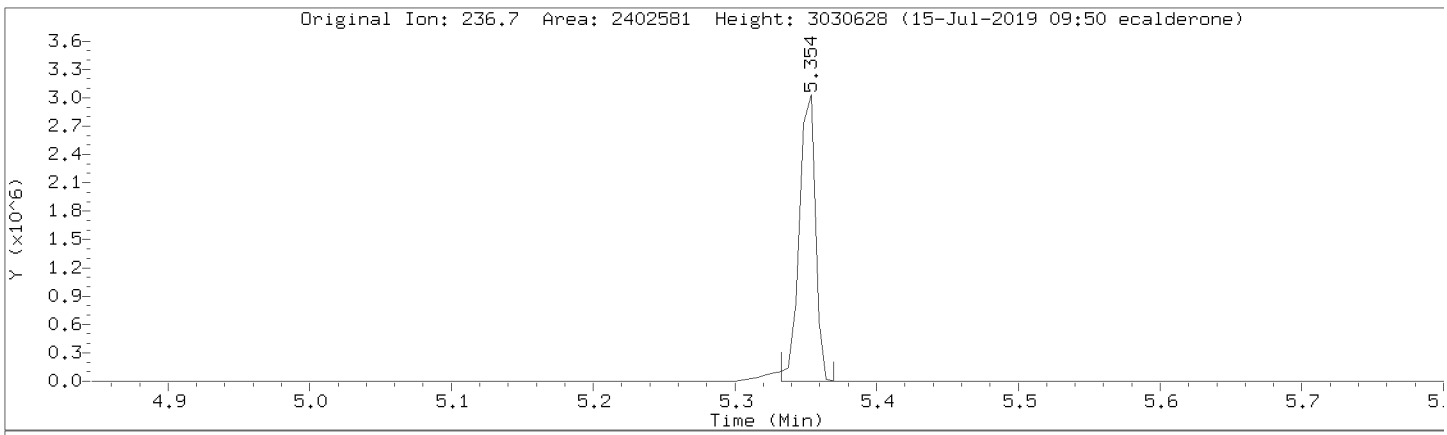
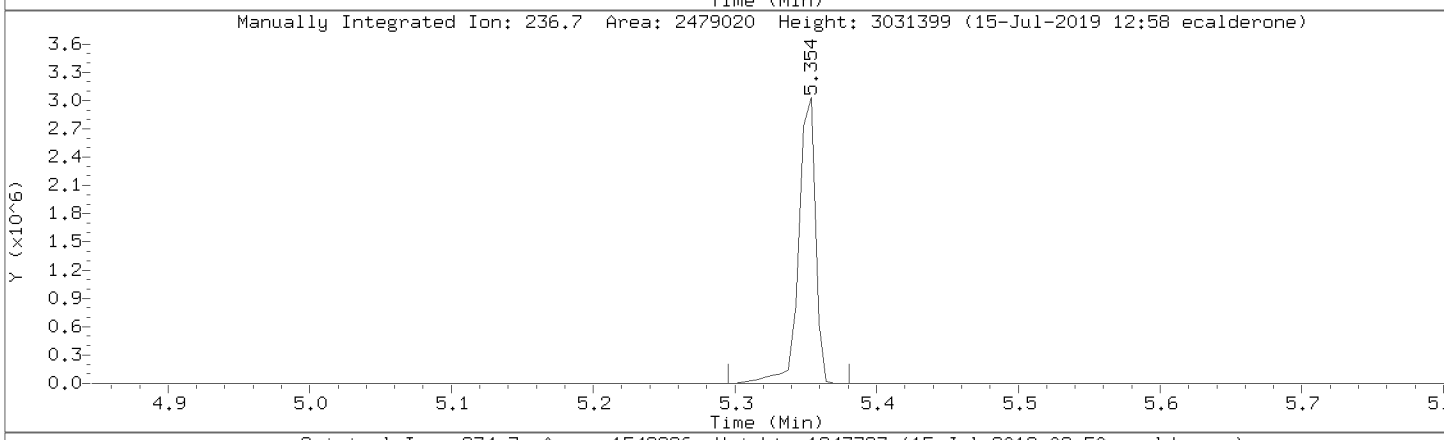
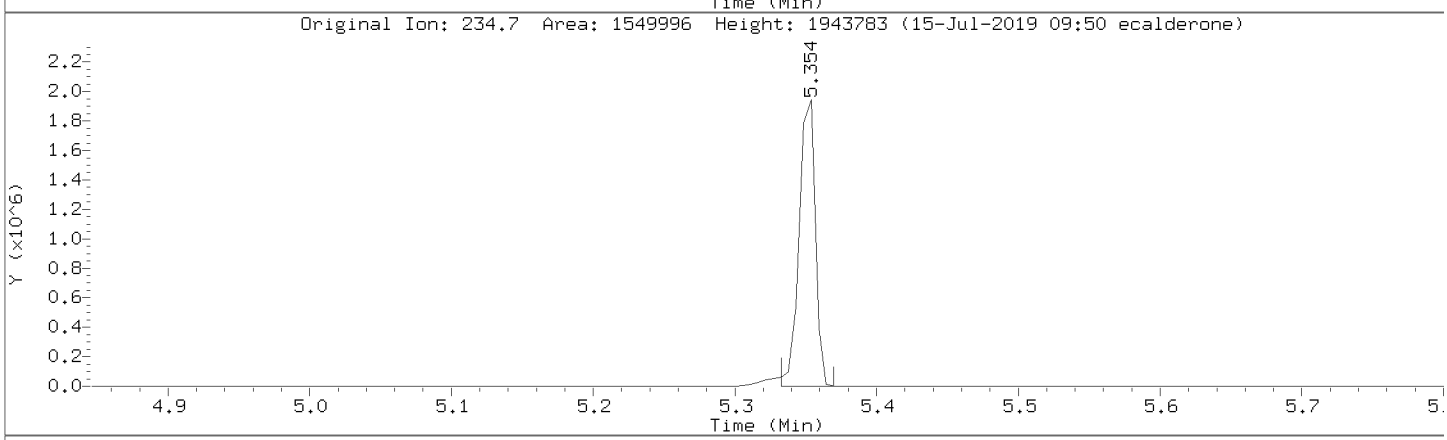
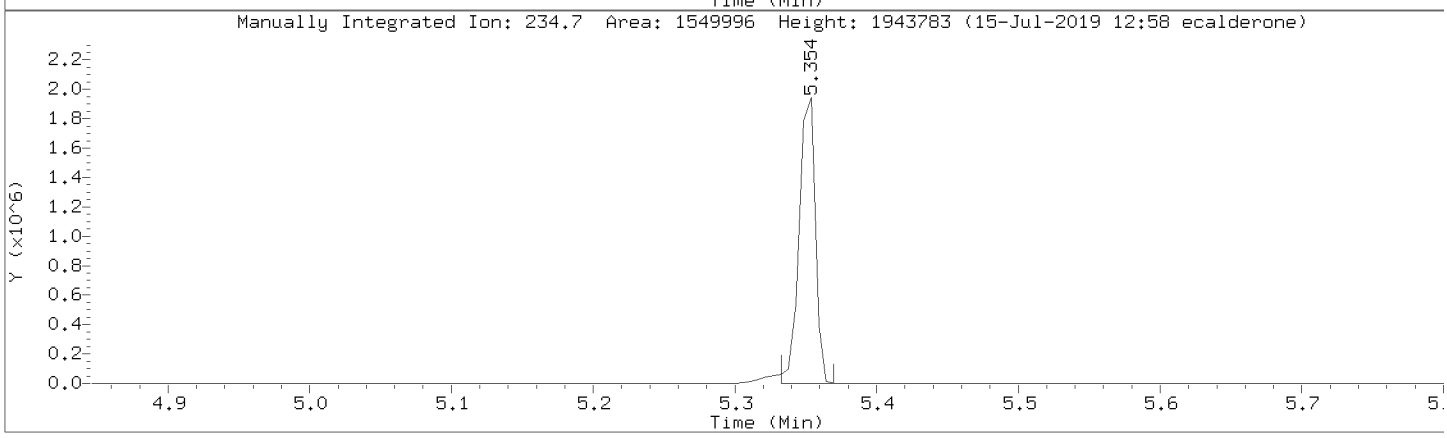
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4









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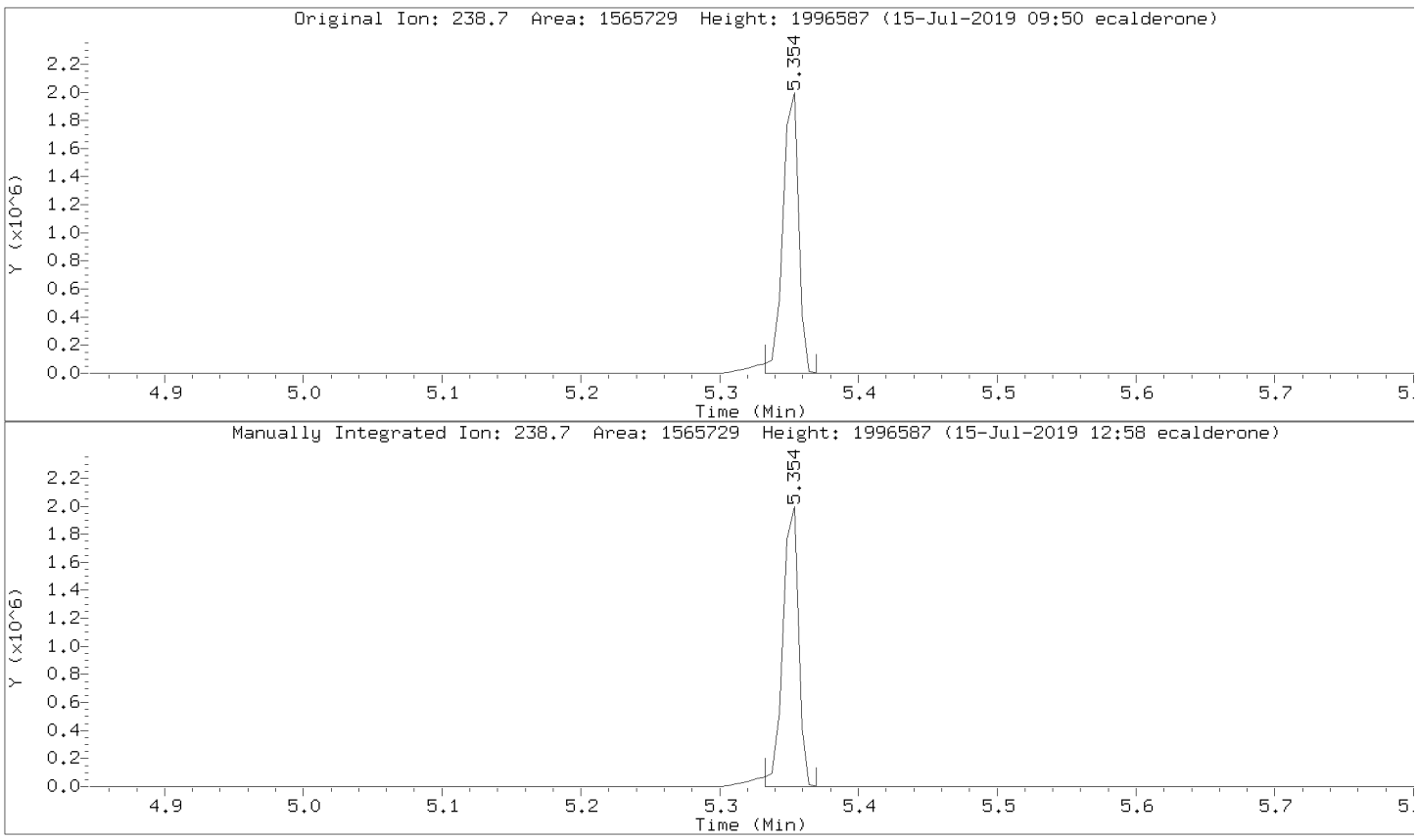
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7



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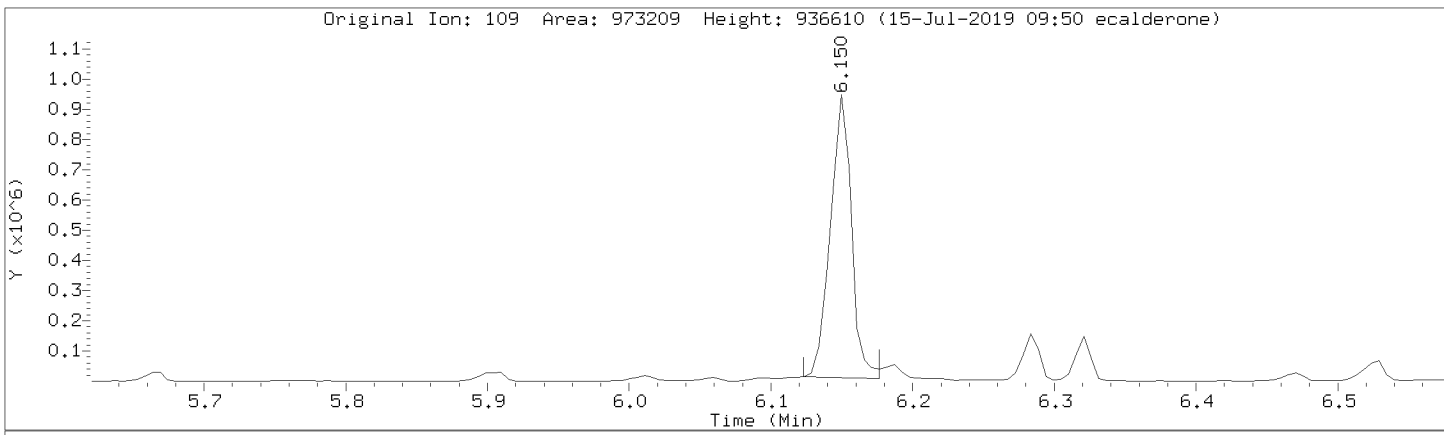
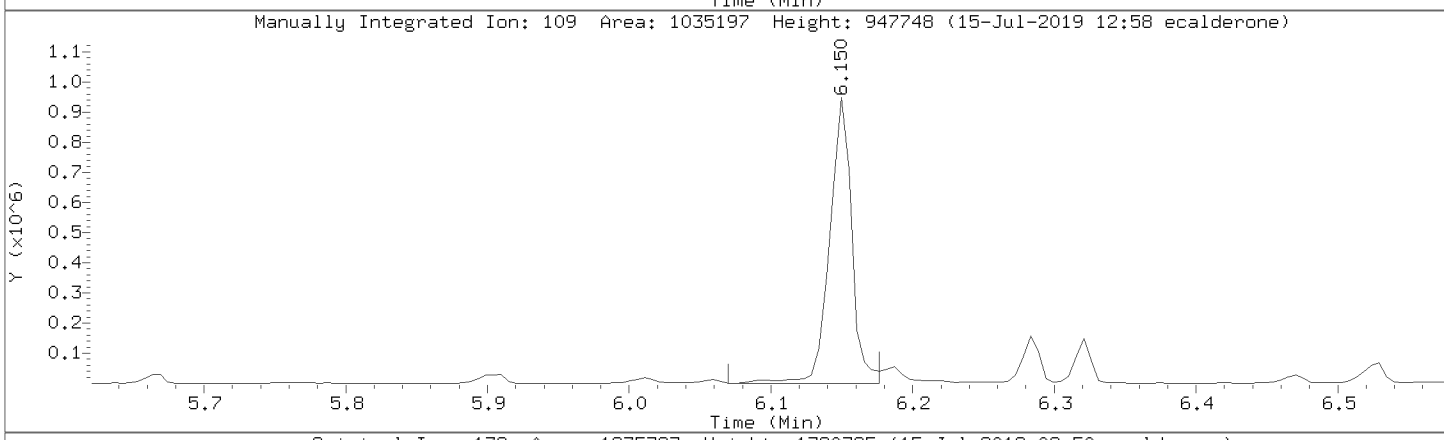
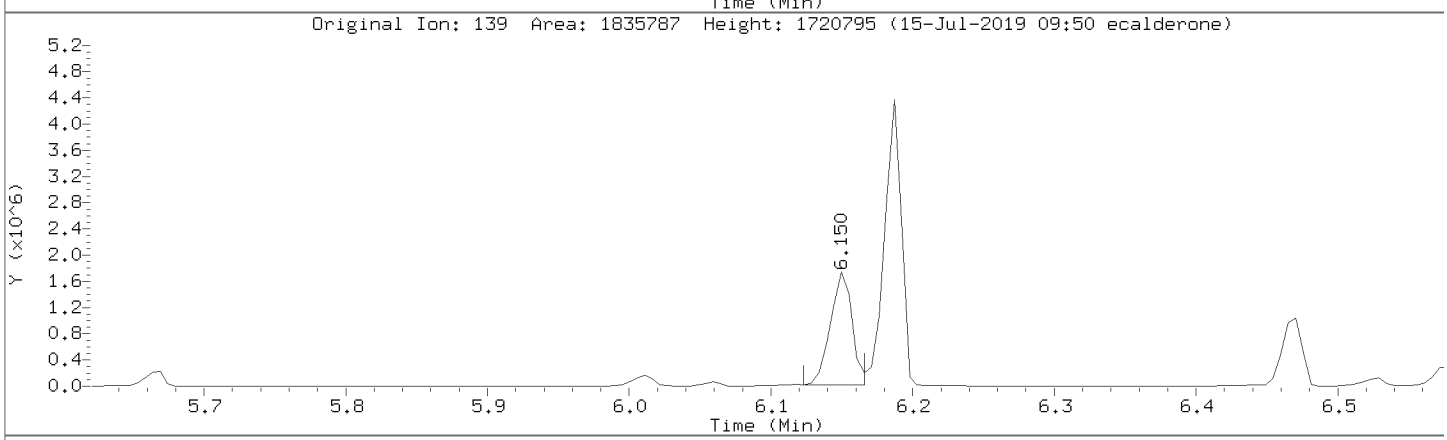
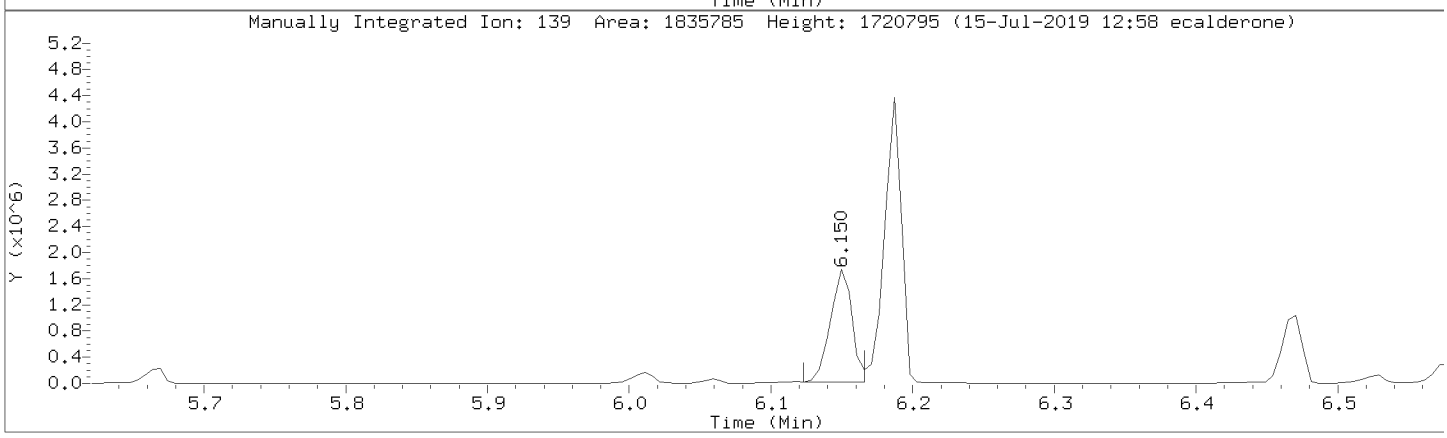
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7









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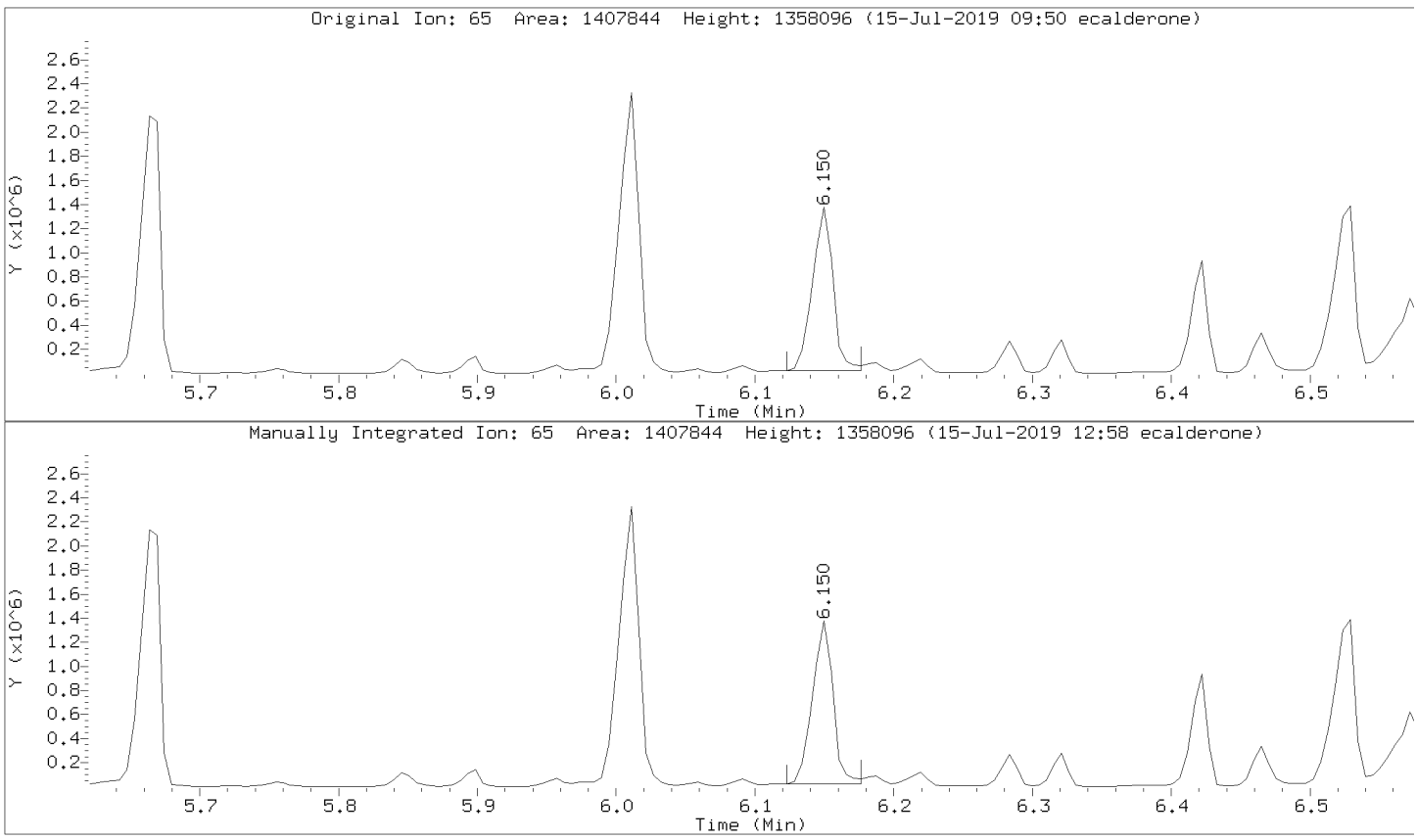
Instrument: 30mss1.i
Lab Sample ID: CAL7



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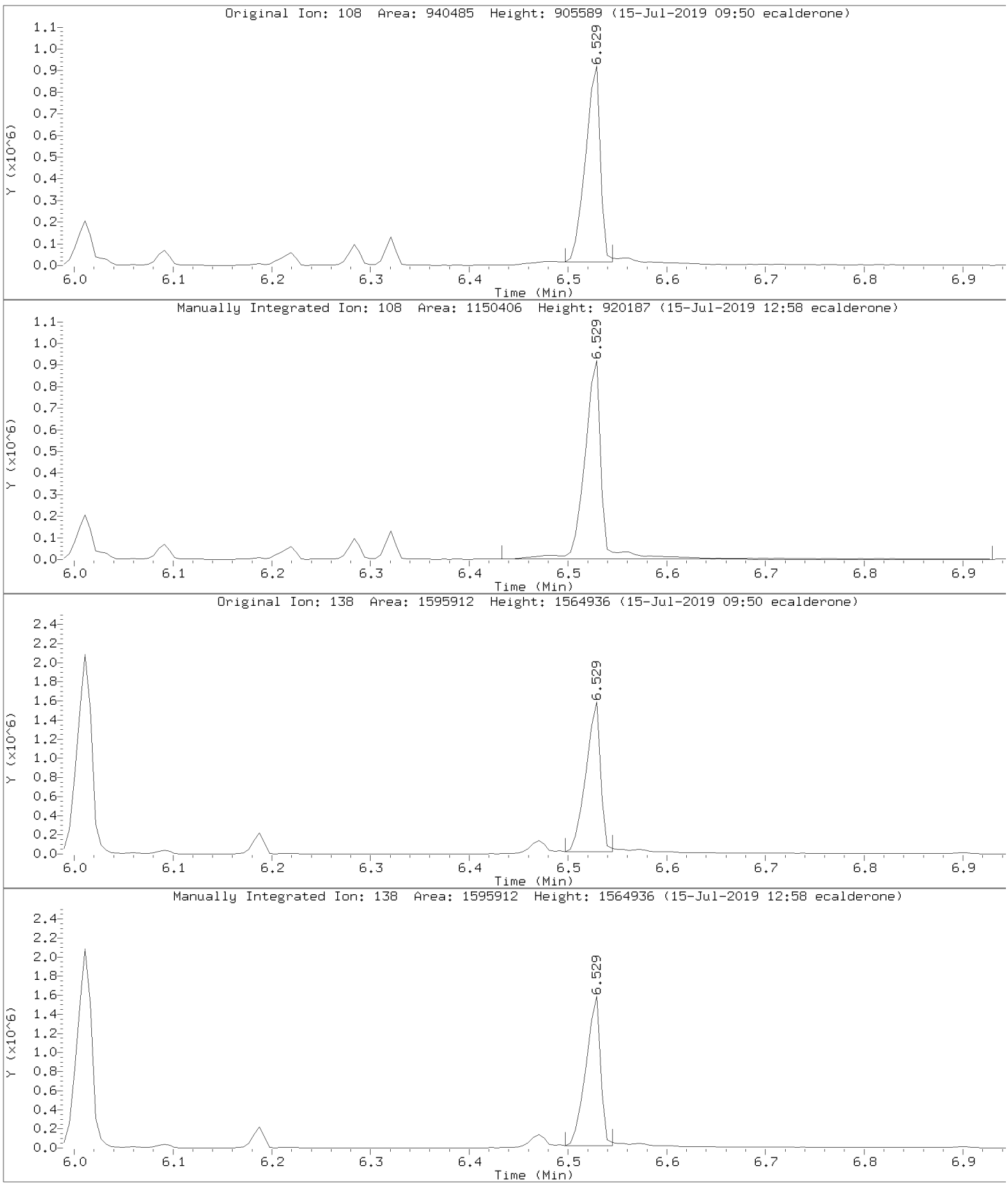
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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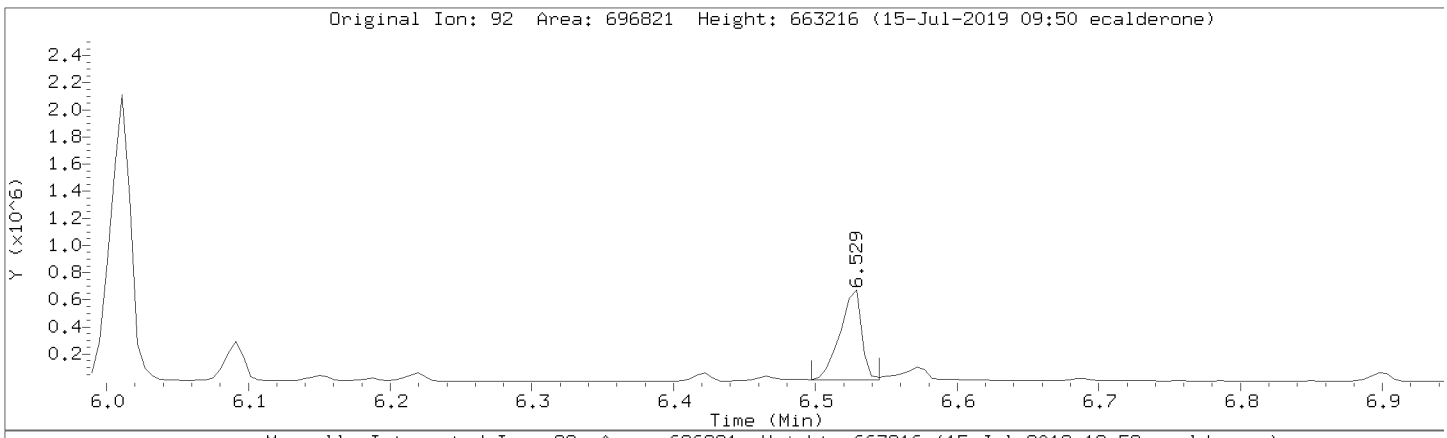
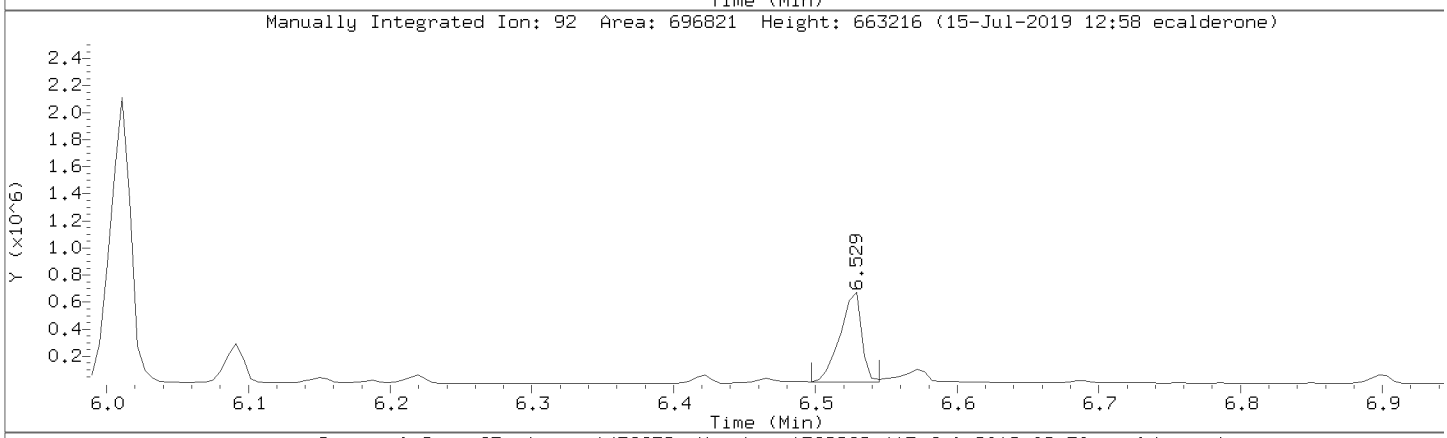
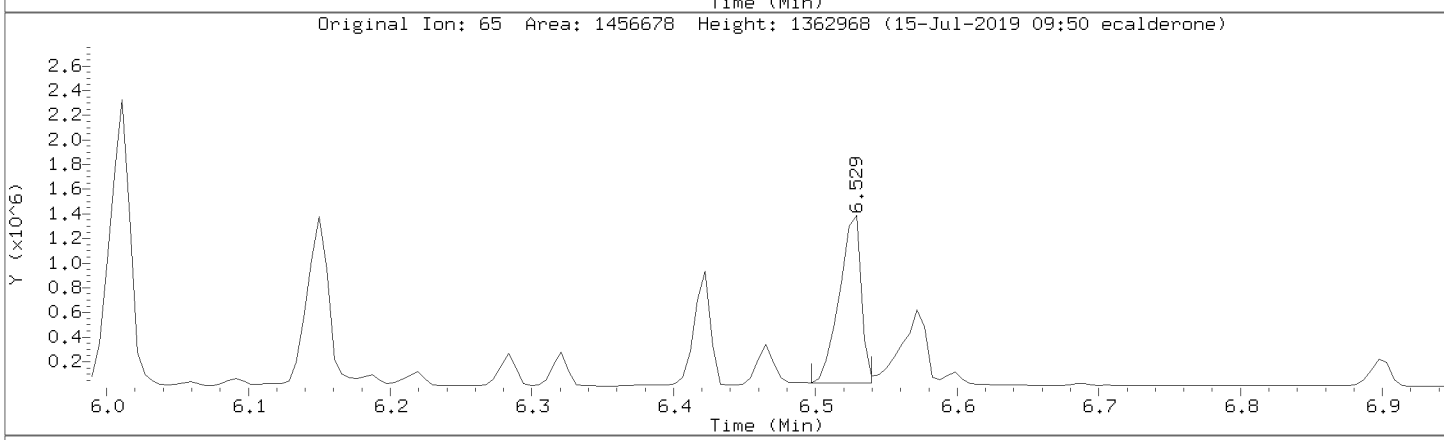
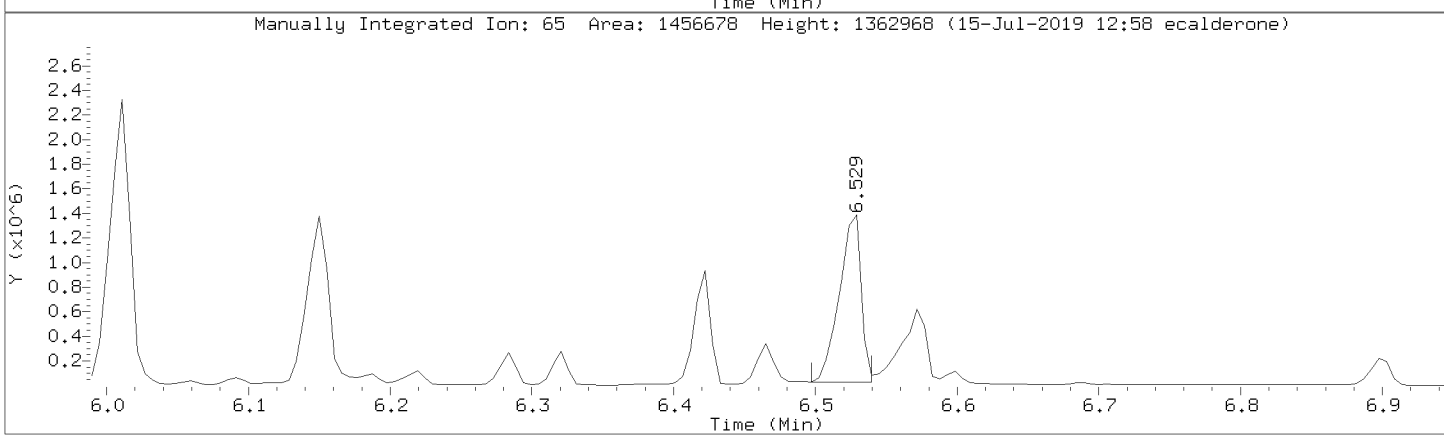
Lab Sample ID: CAL7









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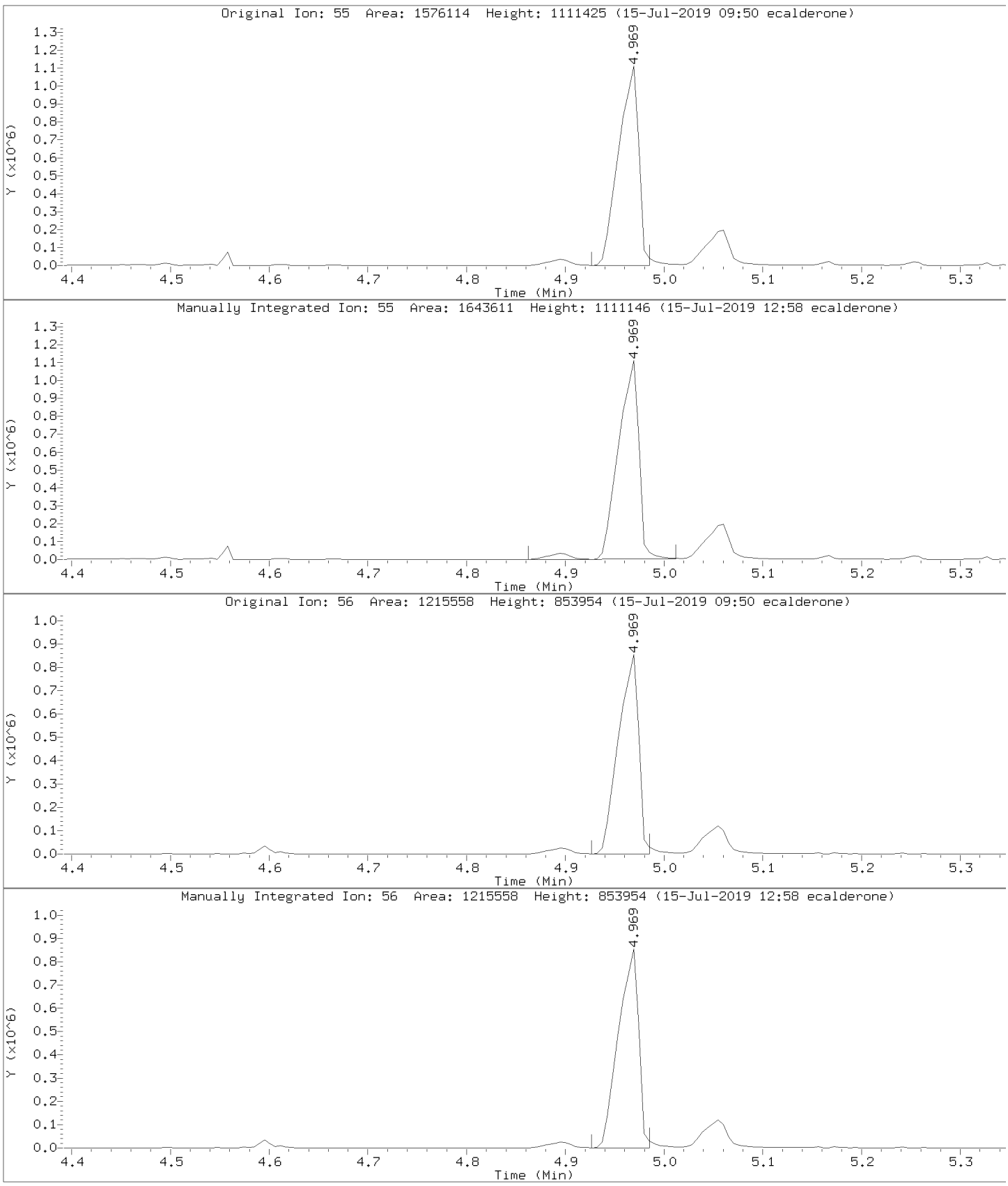
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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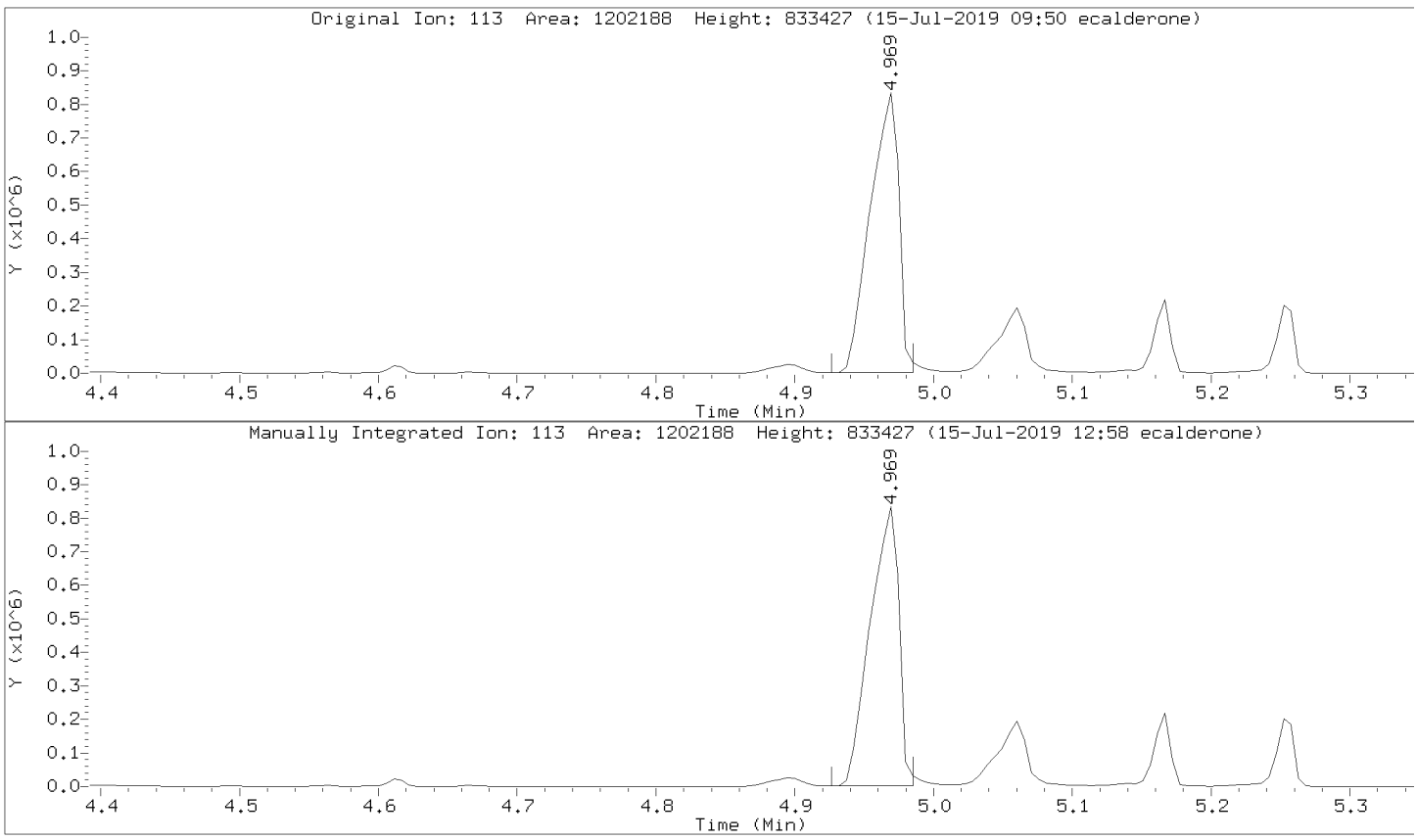
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7



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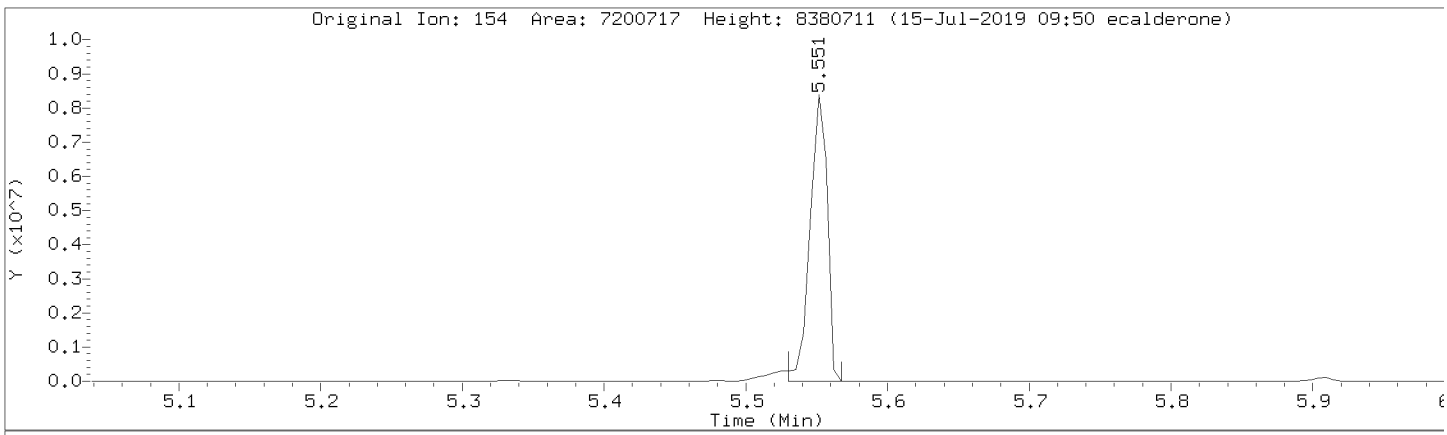
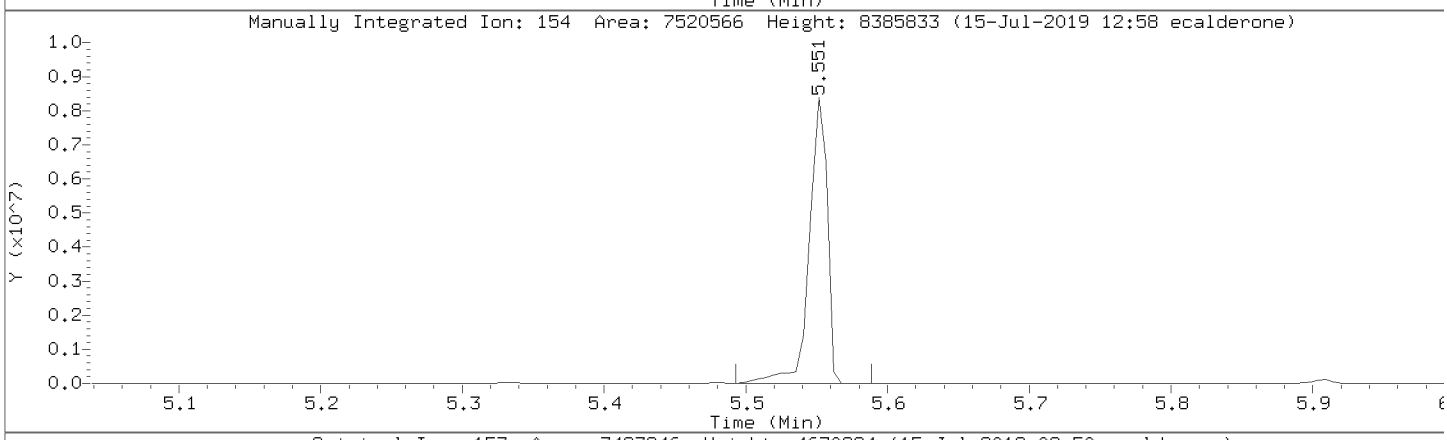
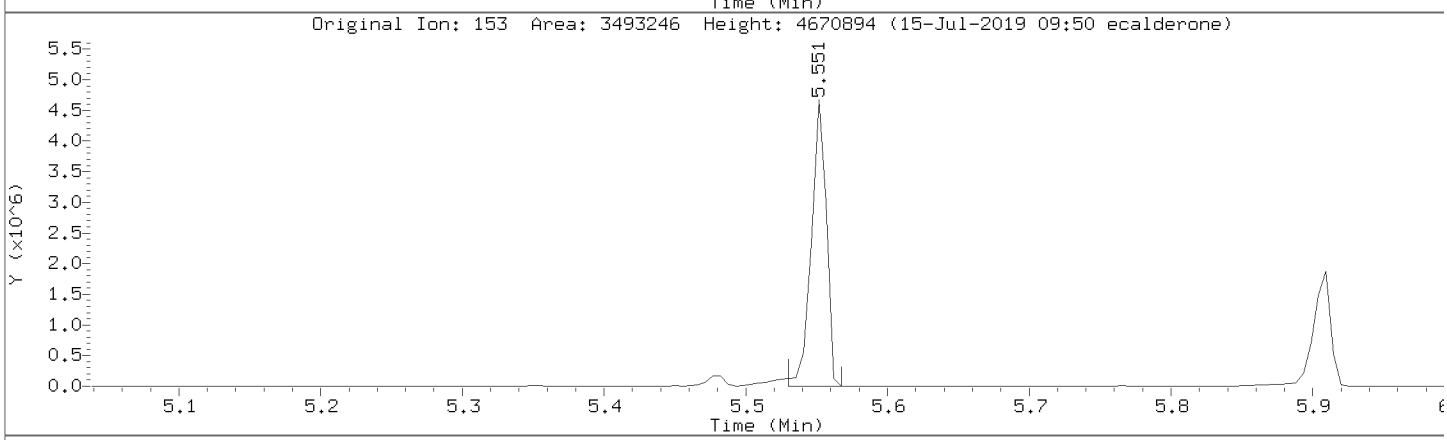
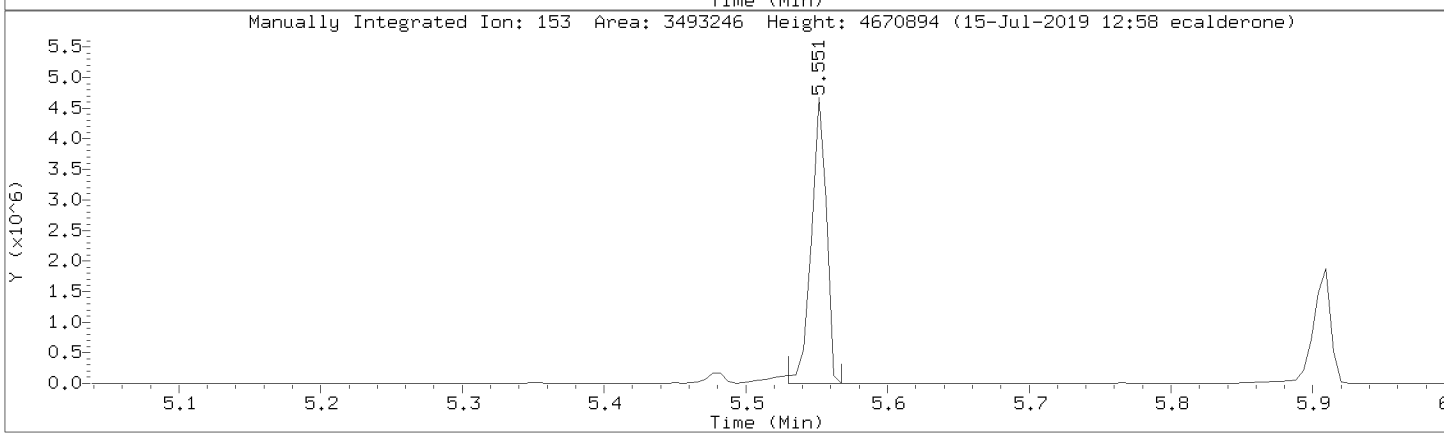
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4

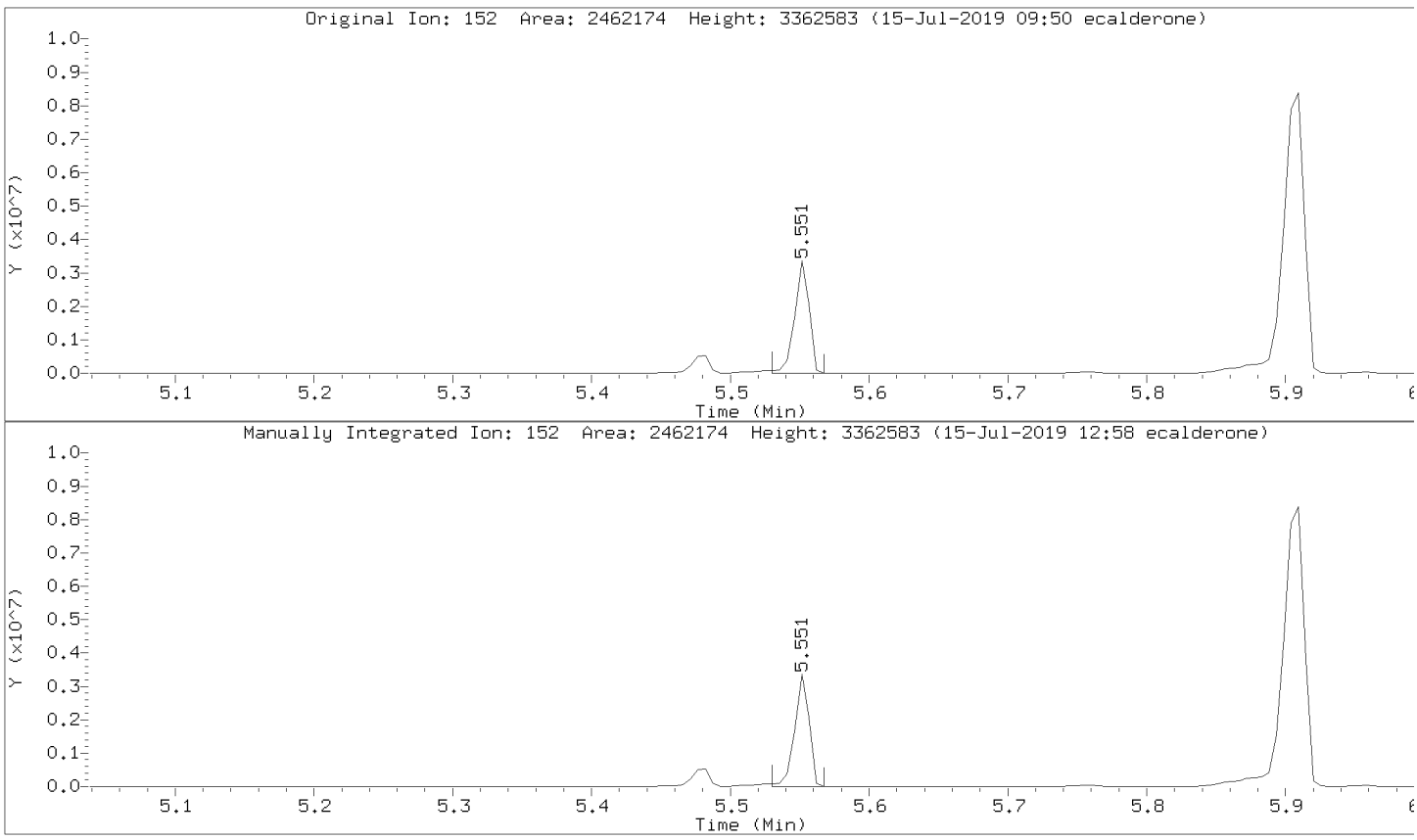








Data File: \\30wintarget\chem\30mss1.i\mss1071519.b/m10715y1.d
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y2.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 15-JUL-2019 09:43
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14828,93074:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 09:43 Cal File: m10715y2.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.719	1.700	(0.478)	2802284	16.0000	16.4	
	2 Pyridine	79	1.692	1.689	(0.470)	4152972	16.0000	16.4	
$	3 2-Fluorophenol (S)	112	2.702	2.704	(0.751)	3273847	16.0000	16.1	
$	4 Phenol-d6 (S)	99	3.364	3.351	(0.935)	3752745	16.0000	16.0	
	5 Benzaldehyde	77	3.289	3.281	(0.914)	2689338	16.0000	15.1	
	6 Phenol	94	3.375	3.361	(0.938)	3997736	16.0000	15.6	
	7 Aniline	66	3.391	3.383	(0.942)	1865106	16.0000	17.3	
	8 bis(2-Chloroethyl)ether	63	3.434	3.425	(0.954)	2386299	16.0000	15.8	
	9 2-Chlorophenol	128	3.471	3.463	(0.964)	3465169	16.0000	16.2	
	10 1,3-Dichlorobenzene	146	3.573	3.570	(0.993)	3602809	16.0000	15.7	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.599	3.596	(1.000)	630604	4.00000		
	12 1,4-Dichlorobenzene	146	3.610	3.607	(1.003)	4065892	16.0000	16.2	
	13 Benzyl Alcohol	79	3.722	3.719	(1.034)	2727640	16.0000	15.8	
	14 1,2-Dichlorobenzene	146	3.754	3.751	(1.043)	3628047	16.0000	16.2	
	15 2-Methylphenol(o-Cresol)	108	3.813	3.810	(1.059)	3223627	16.0000	16.2	
	16 bis(2-Chloroisopropyl)ether	45	3.840	3.837	(1.067)	5246549	16.0000	16.2	
	17 3&4-Methylphenol(m&p Cresol)	108	3.930	3.917	(1.092)	3217669	16.0000	17.5	
	18 N-Nitroso-di-n-propylamine	70	3.957	3.938	(1.099)	2466893	16.0000	16.2	
	19 Acetophenone	105	3.930	3.922	(1.092)	4244787	16.0000	16.2	
	20 Hexachloroethane	117	3.989	3.986	(1.108)	1470768	16.0000	16.3	
$	21 Nitrobenzene-d5 (S)	128	4.048	4.040	(0.881)	1722042	16.0000	16.0	
	22 Nitrobenzene	77	4.059	4.050	(0.884)	3358599	16.0000	15.9	
	23 Isophorone	82	4.246	4.232	(0.924)	6105236	16.0000	15.9	
	24 2,4-Dimethylphenol	107	4.336	4.333	(0.944)	3313619	16.0000	15.8	
	25 2-Nitrophenol	139	4.304	4.301	(0.937)	1907373	16.0000	15.8	
	26 Benzoic acid	105	4.454	4.376	(0.970)	2231855	16.0000	3.90(MH)	LT
	27 bis(2-Chloroethoxy)methane	93	4.411	4.408	(0.960)	3775508	16.0000	16.0	
	28 2,4-Dichlorophenol	162	4.491	4.483	(0.978)	2802210	16.0000	16.0	
	29 1,2,4-Trichlorobenzene	180	4.561	4.558	(0.993)	3013783	16.0000	15.8	
*	30 Naphthalene-d8 (IS)	136	4.593	4.590	(1.000)	2622488	4.00000		
	31 Naphthalene	128	4.609	4.606	(1.003)	8458459	16.0000	16.0	
	32 4-Chloroaniline	65	4.662	4.659	(1.015)	1110615	16.0000	15.8	
	33 Hexachloro-1,3-butadiene	225	4.753	4.755	(1.035)	1644624	16.0000	16.0	
	34 Caprolactam	55	4.951	4.894	(1.078)	1335674	16.0000	13.9(MH)	LT

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.058	5.049	(1.101)	2869473	16.0000	16.0	
	36 2-Methylnaphthalene	142	5.164	5.162	(1.124)	6383045	16.0000	15.8	
	37 1-Methylnaphthalene	142	5.250	5.247	(1.143)	5992796	16.0000	15.8	
	38 Hexachlorocyclopentadiene	237	5.346	5.348	(0.887)	2029236	16.0000	15.9	
	39 1,2,4,5-Tetrachlorobenzene	216	5.330	5.327	(0.884)	2693289	16.0000	15.9	
	40 2,4,6-Trichlorophenol	196	5.416	5.407	(0.898)	2110572	16.0000	15.8	
	41 2,4,5-Trichlorophenol	196	5.448	5.439	(0.903)	1983658	16.0000	16.4	
$	42 2-Fluorobiphenyl (S)	172	5.474	5.471	(0.908)	6175311	16.0000	15.6	
	43 Biphenyl (Diphenyl)	154	5.549	5.541	(0.920)	6873429	16.0000	15.8	
	44 2-Chloronaphthalene	164	5.560	5.551	(0.922)	2046885	16.0000	16.1	
	45 2-Nitroaniline	138	5.661	5.653	(0.939)	2306191	16.0000	15.9	
	46 Dimethylphthalate	163	5.843	5.829	(0.969)	5910739	16.0000	16.3	
	47 2,6-Dinitrotoluene	165	5.891	5.883	(0.977)	1636933	16.0000	15.9	
	48 Acenaphthylene	152	5.907	5.899	(0.980)	8187737	16.0000	15.8	
	49 3-Nitroaniline	65	6.003	5.990	(0.996)	1896205	16.0000	15.8	
*	50 Acenaphthene-d10 (IS)	164	6.030	6.022	(1.000)	1409927	4.00000		
	51 2,4-Dinitrophenol	184	6.083	6.075	(1.009)	1035952	16.0000	16.5	
	52 Acenaphthene	153	6.057	6.048	(1.004)	5556141	16.0000	15.6	
	53 4-Nitrophenol	109	6.142	6.123	(1.019)	866153	16.0000	0.0935(M)	LT
	54 2,4-Dinitrotoluene	165	6.212	6.198	(1.030)	2124449	16.0000	15.8	
	55 Dibenzofuran	168	6.185	6.176	(1.026)	7178596	16.0000	15.4	
	56 2,3,4,6-Tetrachlorophenol	232	6.318	6.315	(1.048)	1588955	16.0000	15.7	
	57 Diethylphthalate	149	6.420	6.406	(1.065)	6015672	16.0000	15.6	
	58 4-Chlorophenylphenyl ether	204	6.463	6.460	(1.072)	3076628	16.0000	15.3	
	59 Fluorene	166	6.468	6.460	(1.073)	6243924	16.0000	15.6	
	60 4-Nitroaniline	108	6.521	6.492	(1.081)	955781	16.0000	15.8(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.553	6.534	(0.888)	1366336	16.0000	16.9	
	62 N-Nitrosodiphenylamine	169	6.569	6.556	(0.891)	5487172	16.0000	15.8	
	63 Azobenzene	77	6.596	6.588	(0.894)	5731150	16.0000	15.7	
	64 1,2-Diphenylhydrazine	77	6.596	6.588	(0.894)	5731150	16.0000	15.7	
$	65 2,4,6-Tribromophenol (S)	330	6.687	6.679	(0.907)	1066880	16.0000	16.6	
	66 4-Bromophenylphenyl ether	248	6.901	6.892	(0.936)	1973833	16.0000	16.1	
	67 Hexachlorobenzene	284	7.061	7.053	(0.957)	2001538	16.0000	16.3	
	68 Atrazine	200	7.130	7.106	(0.967)	1905935	16.0000	15.8	
	69 Pentachlorophenol	266	7.248	7.240	(0.983)	1301521	16.0000	16.9(A)	
*	70 Phenanthrene-d10 (IS)	188	7.376	7.368	(1.000)	2318774	4.00000		
	71 Phenanthrene	178	7.403	7.395	(1.004)	8995244	16.0000	15.7	
	72 Anthracene	178	7.451	7.437	(1.010)	8497995	16.0000	15.3	
	73 Carbazole	167	7.627	7.614	(1.034)	8036919	16.0000	16.0	
	74 Di-n-butylphthalate	149	8.076	8.068	(1.095)	9271122	16.0000	16.1	
	75 Fluoranthene	202	8.674	8.666	(1.176)	9037001	16.0000	16.4	
	76 Pyrene	202	8.904	8.896	(0.876)	9075489	16.0000	15.6	
$	77 Terphenyl-d14 (S)	244	9.091	9.083	(0.895)	7361325	16.0000	16.1	
	78 Butylbenzylphthalate	149	9.641	9.633	(0.949)	4722902	16.0000	16.0	
	79 3,3'-Dichlorobenzidine	252	10.143	10.135	(0.998)	3512498	16.0000	16.2	
	80 bis(2-Ethylhexyl)phthalate	149	10.256	10.253	(1.009)	6063154	16.0000	15.4	
	81 Benzo(a)anthracene	228	10.143	10.135	(0.998)	8532512	16.0000	15.4	
*	82 Chrysene-d12 (IS)	240	10.159	10.151	(1.000)	2094152	4.00000		
	83 Chrysene	228	10.191	10.178	(1.003)	7857441	16.0000	15.3	
	84 Di-n-octylphthalate	149	10.838	10.835	(0.942)	8756441	16.0000	14.1	
	85 Benzo(b)fluoranthene	252	11.180	11.161	(0.972)	9657677	16.0000	16.8	
	86 Benzo(k)fluoranthene	252	11.201	11.182	(0.974)	7537907	16.0000	14.0	
	87 Benzo(a)pyrene	252	11.457	11.444	(0.996)	7985804	16.0000	15.9	
*	88 Perylene-d12 (IS)	264	11.500	11.492	(1.000)	1982668	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.350	12.325	(1.074)	9833989	16.0000	19.0	
90 Dibenz(a,h)anthracene	278	12.355	12.336	(1.074)	7679058	16.0000	17.9	
91 Benzo(g,h,i)perylene	276	12.558	12.528	(1.092)	8129069	16.0000	18.8	

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

   :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y2.d
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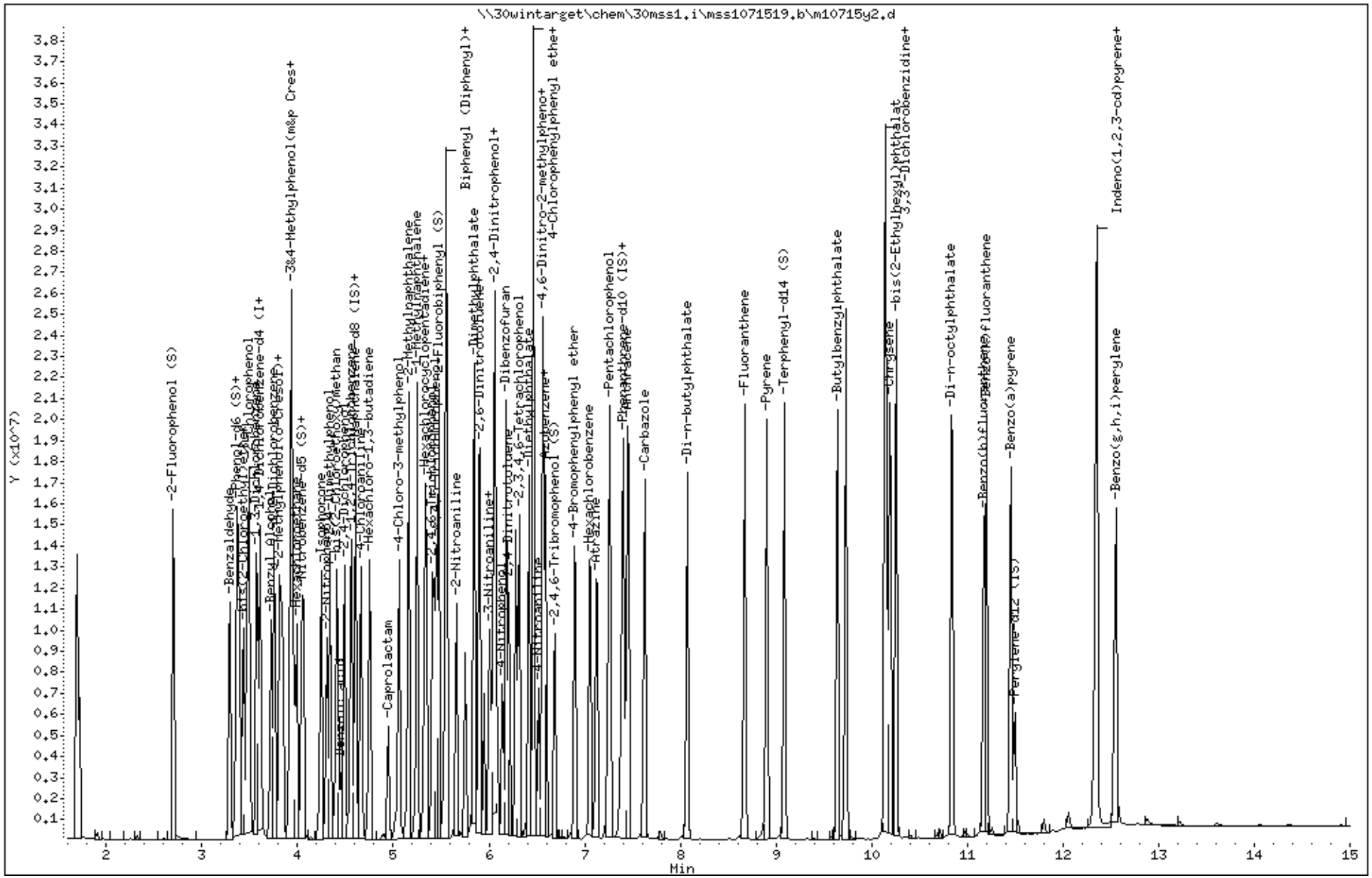
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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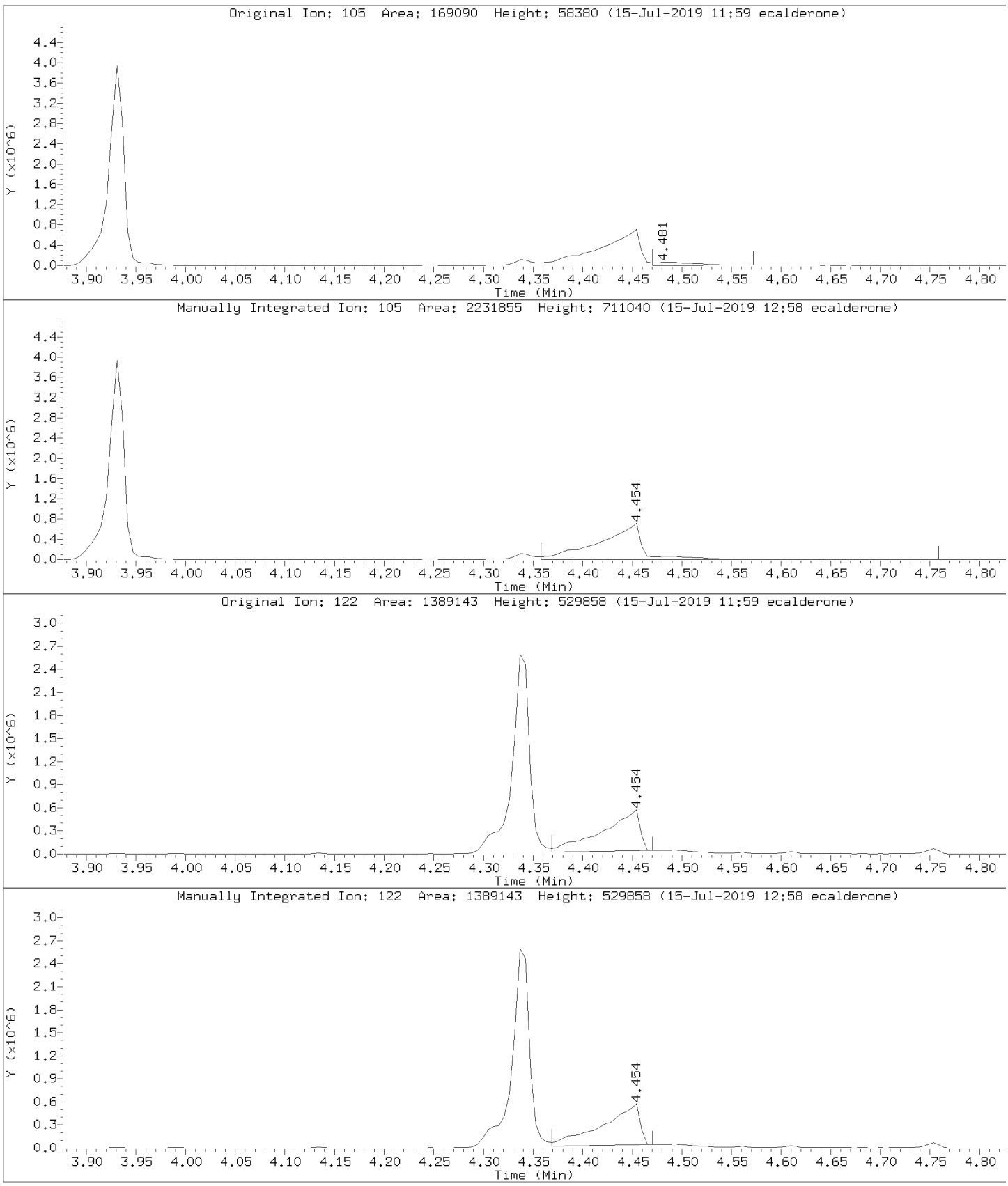
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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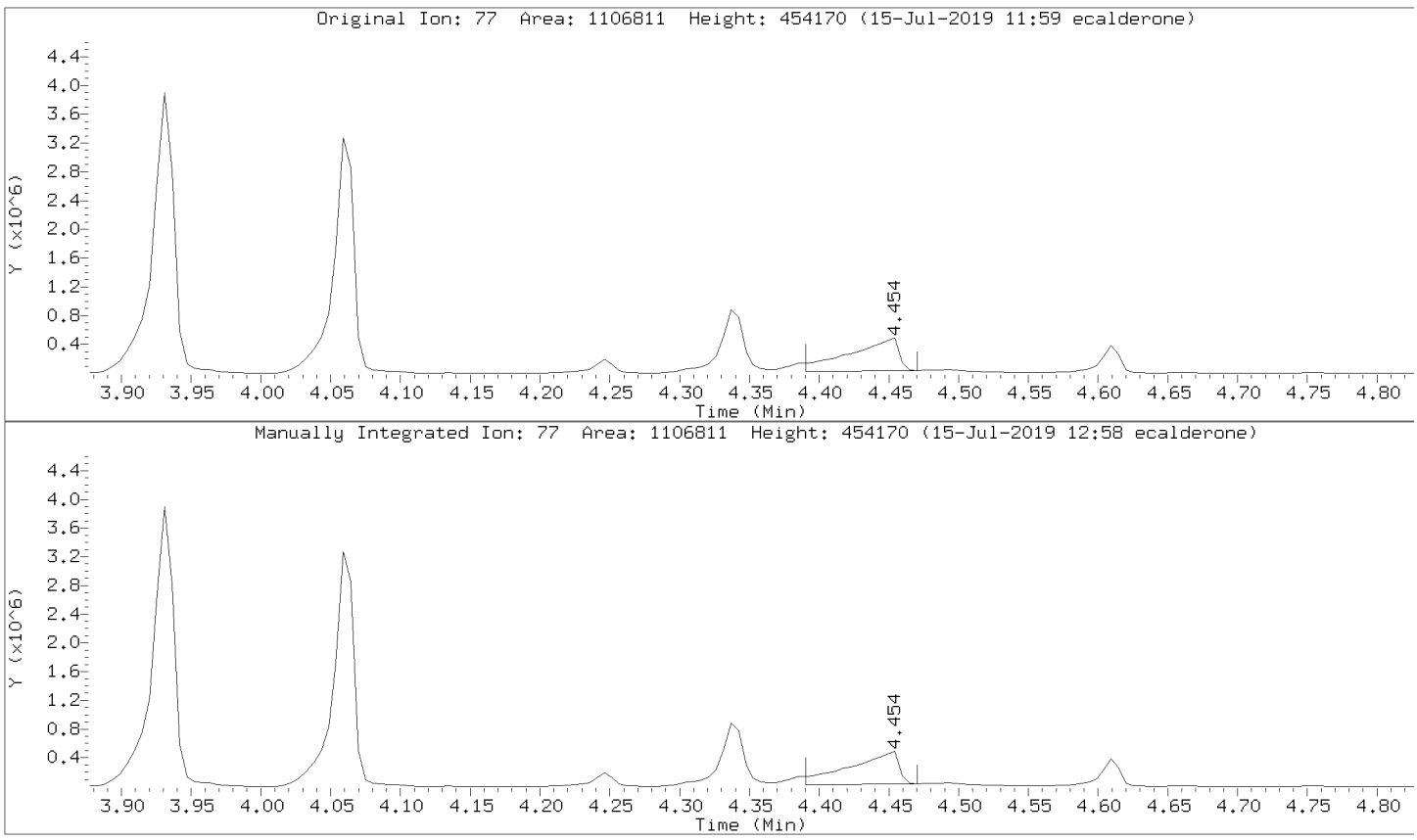

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Injection Date: 15-JUL-2019 09:43
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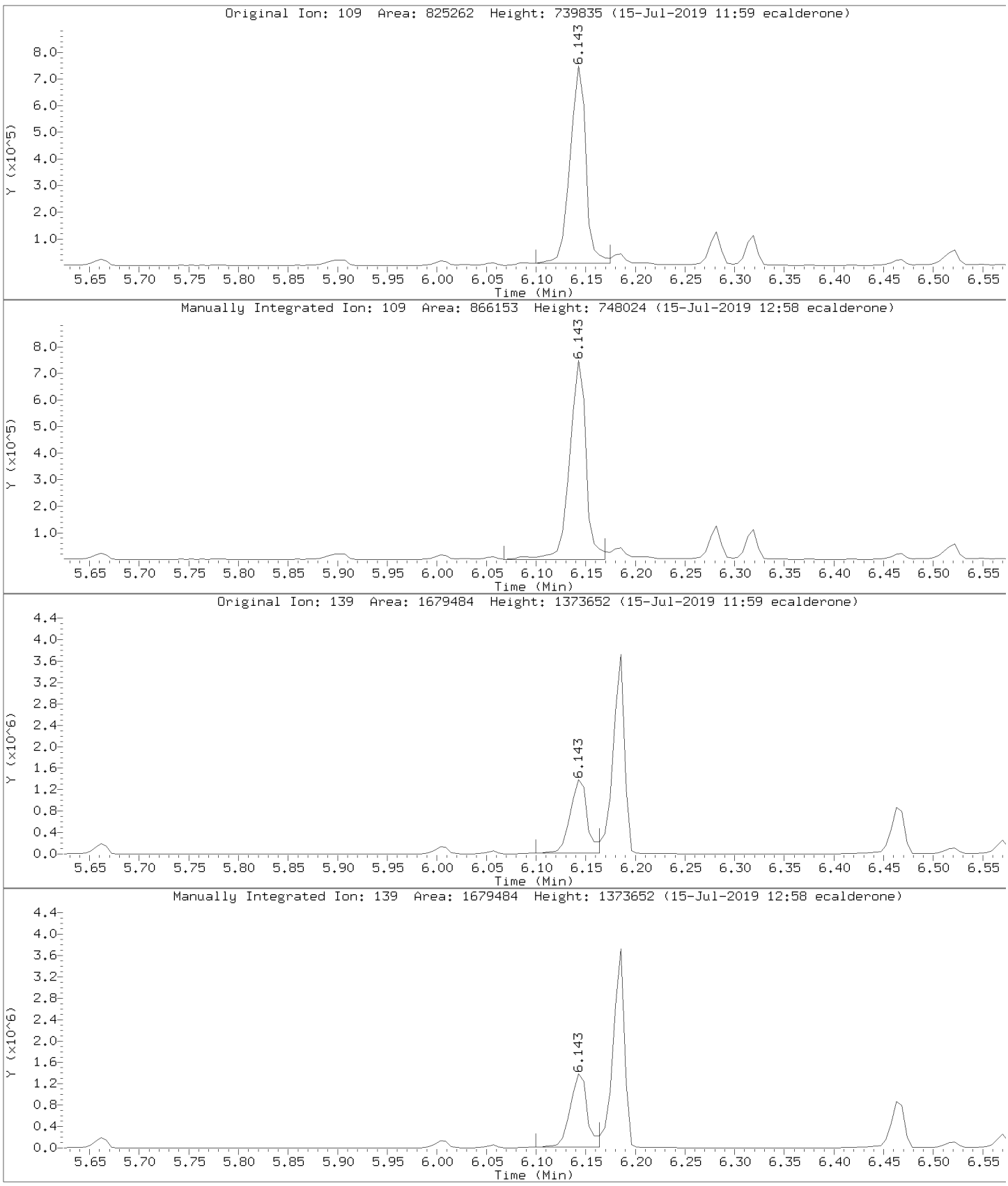
Lab Sample ID: CAL6

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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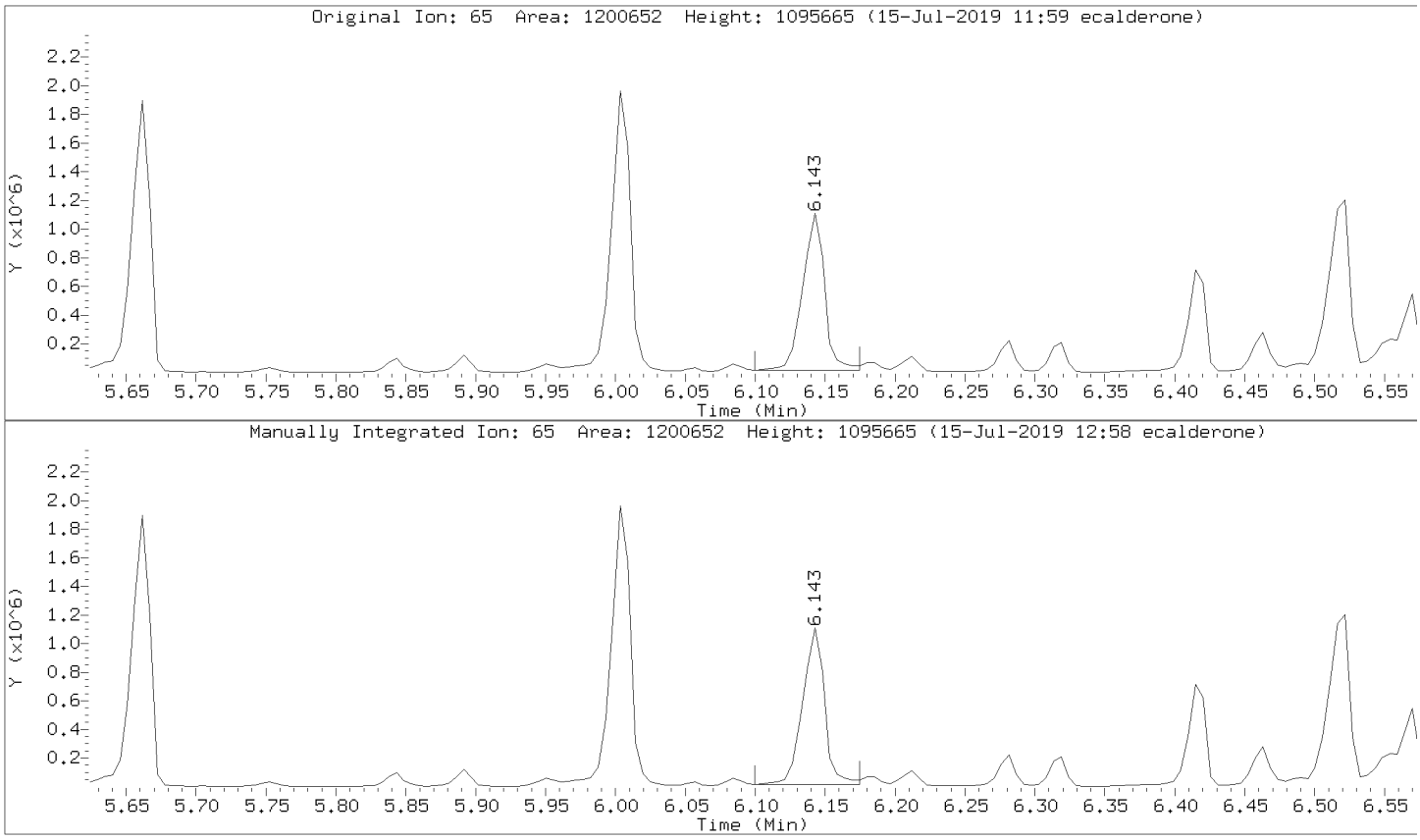

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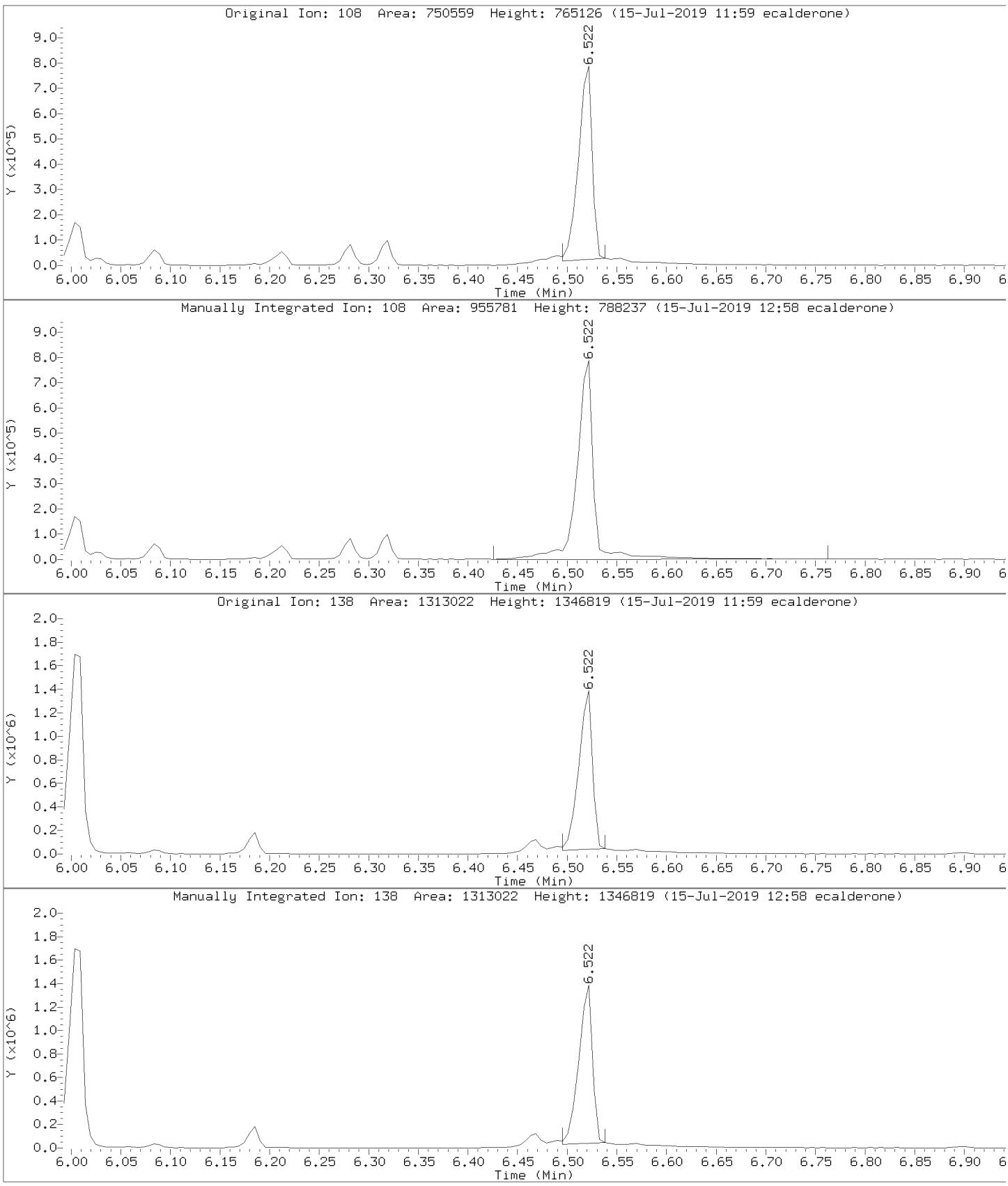
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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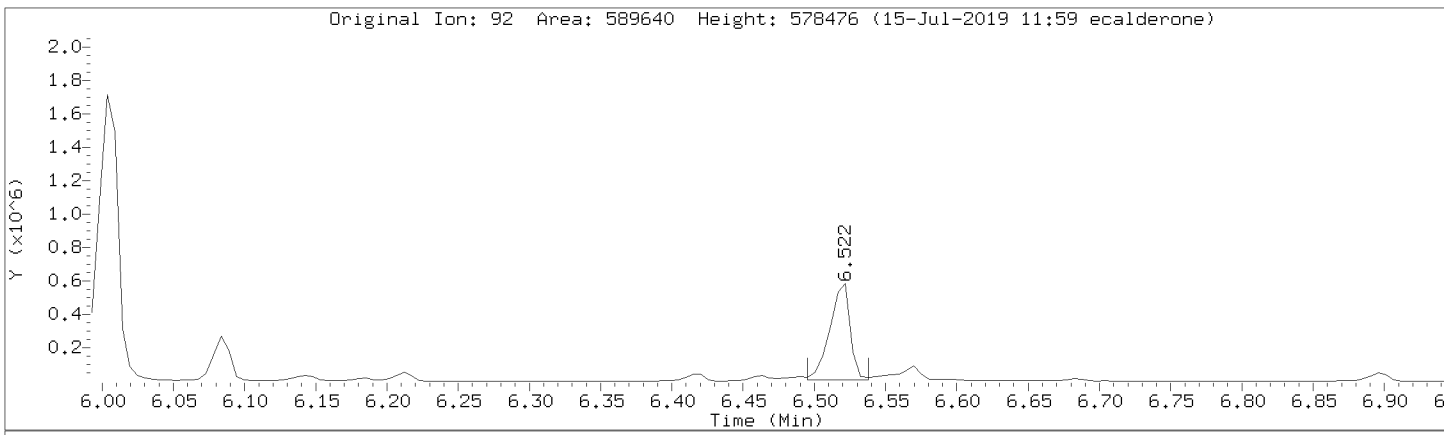

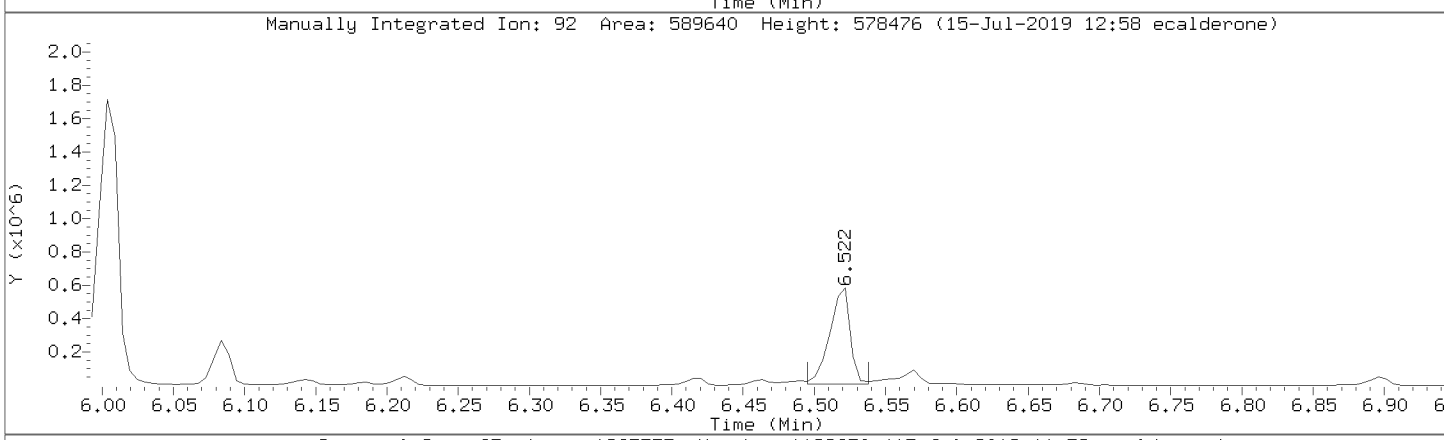

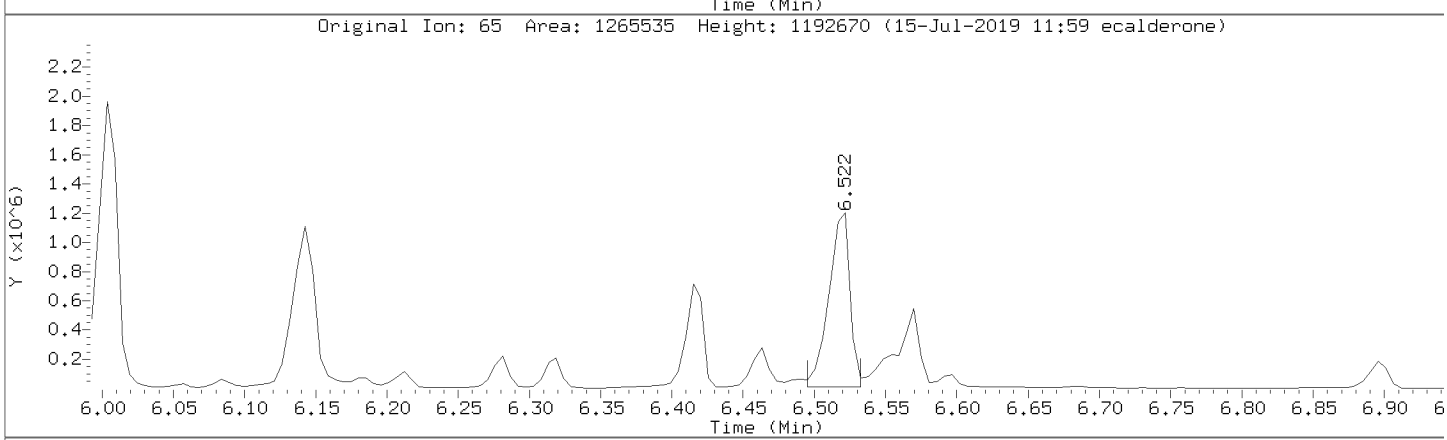

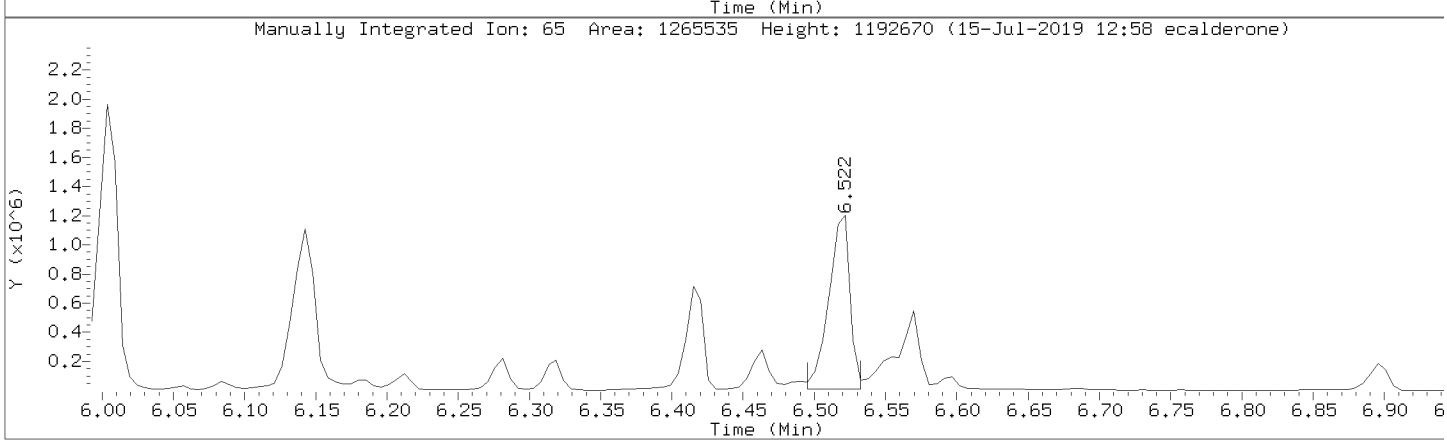

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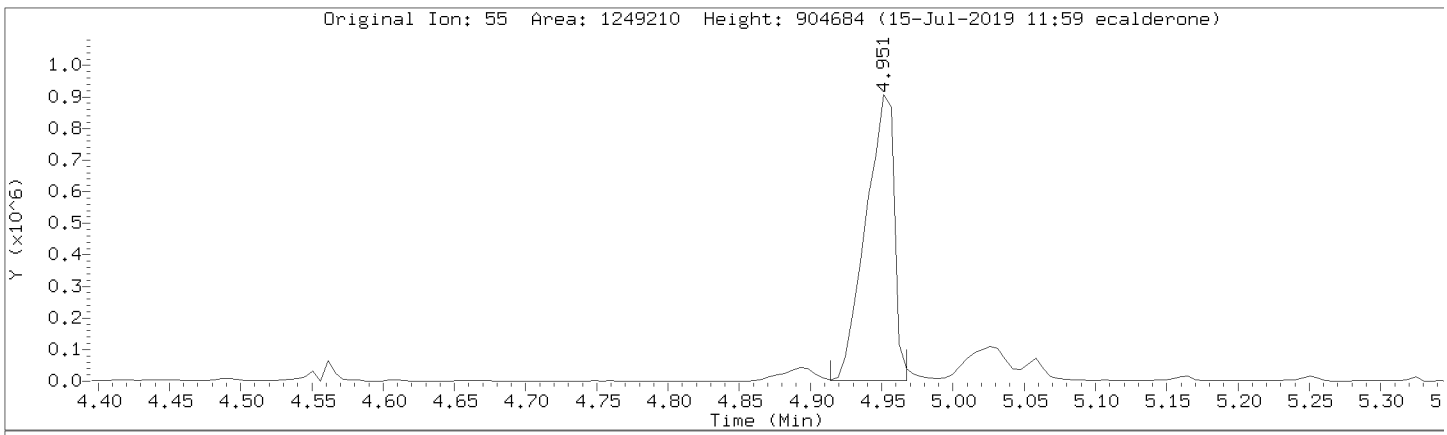
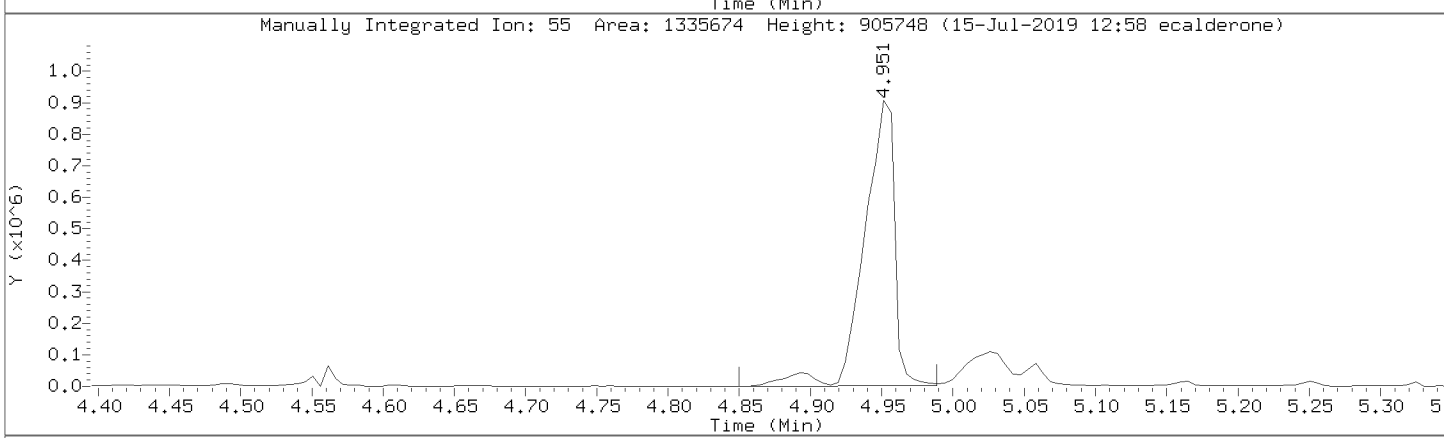
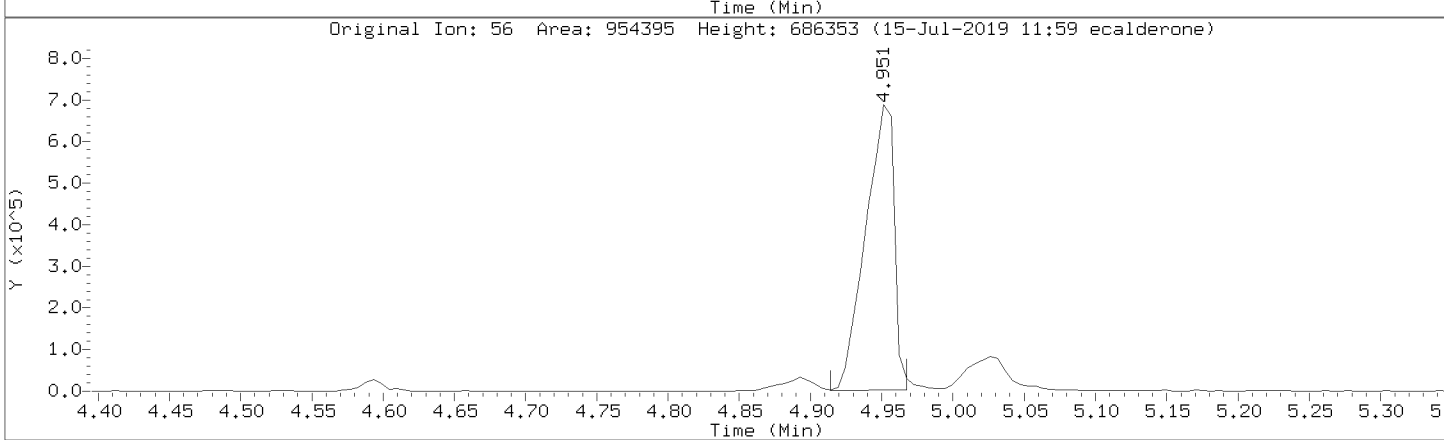
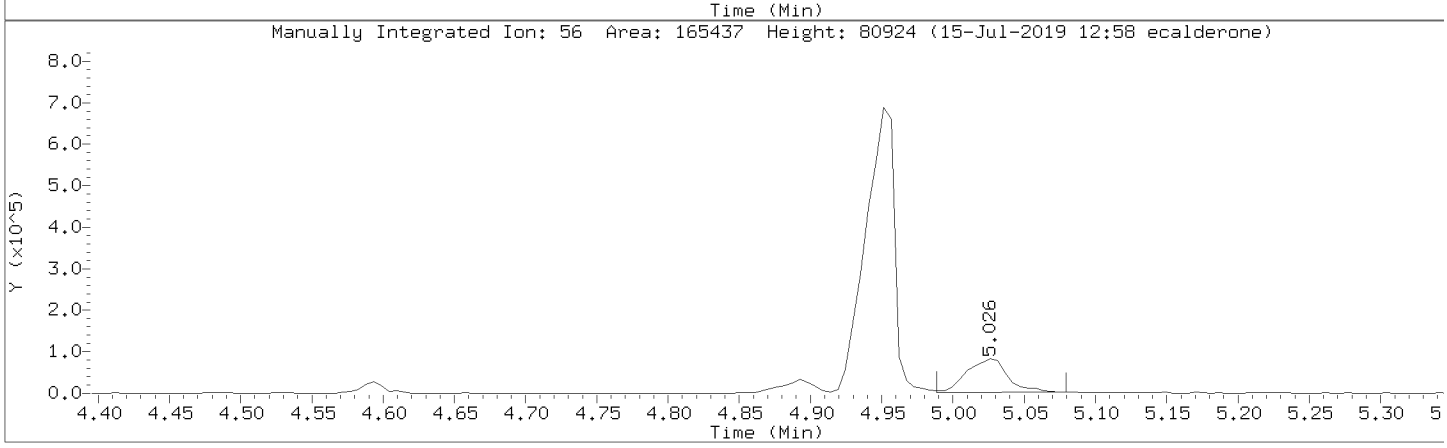
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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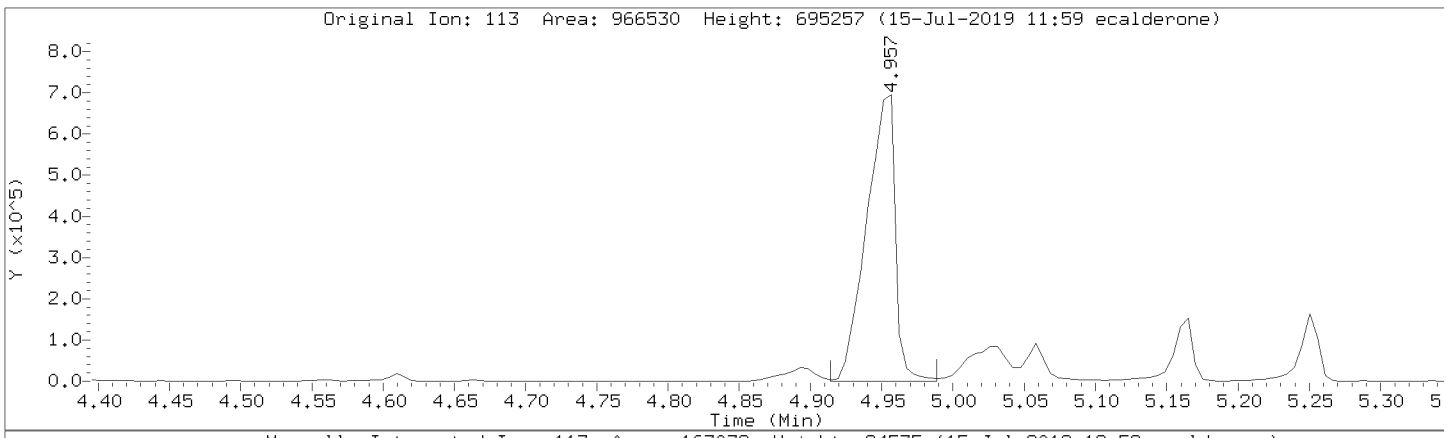

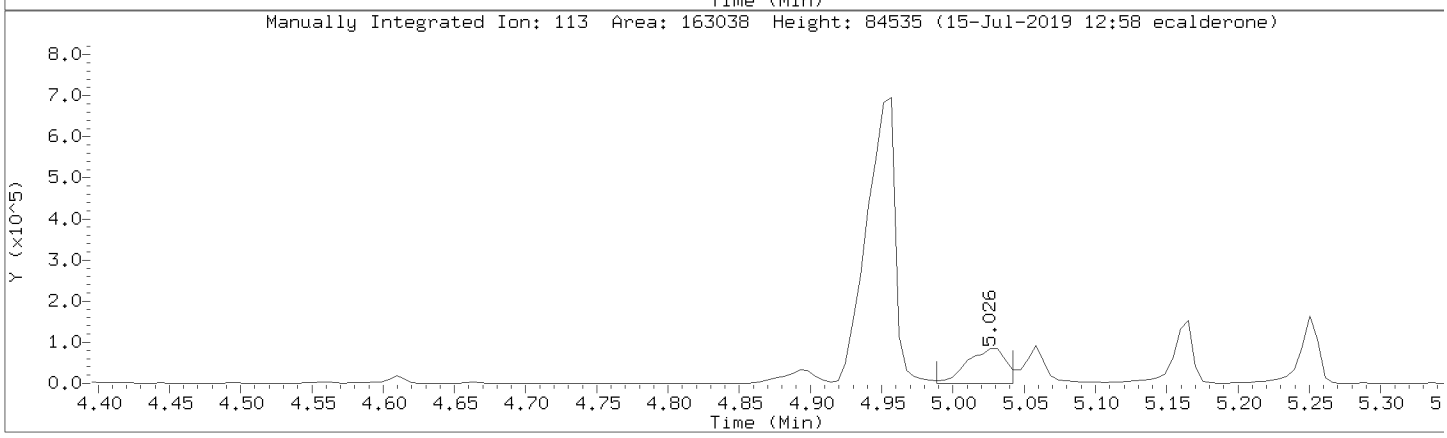

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y3.d
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Operator : EAC Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14828,93075:1
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 10:06 Cal File: m10715y3.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.721	1.700	(0.478)	1944154	12.0000	11.8	
	2 Pyridine	79	1.694	1.689	(0.470)	2943776	12.0000	12.1	
$	3 2-Fluorophenol (S)	112	2.709	2.704	(0.752)	2207196	12.0000	11.4	
$	4 Phenol-d6 (S)	99	3.366	3.351	(0.935)	2812660	12.0000	12.6	
	5 Benzaldehyde	77	3.291	3.281	(0.914)	2057485	12.0000	12.3	
	6 Phenol	94	3.371	3.361	(0.936)	2903471	12.0000	12.0	
	7 Aniline	66	3.398	3.383	(0.944)	1464000	12.0000	13.9	
	8 bis(2-Chloroethyl)ether	63	3.436	3.425	(0.954)	1783142	12.0000	12.4	
	9 2-Chlorophenol	128	3.473	3.463	(0.964)	2577474	12.0000	12.6	
	10 1,3-Dichlorobenzene	146	3.580	3.570	(0.994)	2734568	12.0000	12.6	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.601	3.596	(1.000)	600802	4.00000		
	12 1,4-Dichlorobenzene	146	3.617	3.607	(1.004)	3078016	12.0000	12.8	
	13 Benzyl Alcohol	79	3.724	3.719	(1.034)	1995855	12.0000	12.2	
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.043)	2733524	12.0000	12.7	
	15 2-Methylphenol(o-Cresol)	108	3.815	3.810	(1.059)	2386905	12.0000	12.5	
	16 bis(2-Chloroisopropyl)ether	45	3.842	3.837	(1.067)	3951347	12.0000	12.8	
	17 3&4-Methylphenol(m&p Cresol)	108	3.932	3.917	(1.092)	2378087	12.0000	13.1	
	18 N-Nitroso-di-n-propylamine	70	3.959	3.938	(1.099)	1832798	12.0000	12.6	
	19 Acetophenone	105	3.932	3.922	(1.092)	3215404	12.0000	12.8	
	20 Hexachloroethane	117	3.991	3.986	(1.108)	1087590	12.0000	12.6	
$	21 Nitrobenzene-d5 (S)	128	4.050	4.040	(0.881)	1268309	12.0000	12.2	
	22 Nitrobenzene	77	4.061	4.050	(0.884)	2511087	12.0000	12.3	
	23 Isophorone	82	4.248	4.232	(0.924)	4572479	12.0000	12.3	
	24 2,4-Dimethylphenol	107	4.338	4.333	(0.944)	2455253	12.0000	12.2	
	25 2-Nitrophenol	139	4.306	4.301	(0.937)	1435696	12.0000	12.3	
	26 Benzoic acid	105	4.445	4.376	(0.967)	1604439	12.0000	12.2(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.413	4.408	(0.960)	2791922	12.0000	12.2	
	28 2,4-Dichlorophenol	162	4.493	4.483	(0.978)	2091620	12.0000	12.3	
	29 1,2,4-Trichlorobenzene	180	4.563	4.558	(0.993)	2261320	12.0000	12.3	
*	30 Naphthalene-d8 (IS)	136	4.595	4.590	(1.000)	2542404	4.00000		
	31 Naphthalene	128	4.611	4.606	(1.003)	6510994	12.0000	12.7	
	32 4-Chloroaniline	65	4.664	4.659	(1.015)	814960	12.0000	12.0	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	1214714	12.0000	12.2	
	34 Caprolactam	55	4.942	4.894	(1.076)	1126479	12.0000	12.1(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.054	5.049	(1.100)	2085095	12.0000	12.0	
	36 2-Methylnaphthalene	142	5.166	5.162	(1.124)	4833567	12.0000	12.4	
	37 1-Methylnaphthalene	142	5.252	5.247	(1.143)	4491658	12.0000	12.3	
	38 Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	1441740	12.0000	11.9	
	39 1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	1974997	12.0000	12.2	
	40 2,4,6-Trichlorophenol	196	5.412	5.407	(0.898)	1509371	12.0000	11.9	
	41 2,4,5-Trichlorophenol	196	5.444	5.439	(0.903)	1465925	12.0000	12.6	
$	42 2-Fluorobiphenyl (S)	172	5.476	5.471	(0.909)	4704608	12.0000	12.5	
	43 Biphenyl (Diphenyl)	154	5.546	5.541	(0.920)	5241260	12.0000	12.7(M)	LT
	44 2-Chloronaphthalene	164	5.556	5.551	(0.922)	1496449	12.0000	12.3	
	45 2-Nitroaniline	138	5.663	5.653	(0.940)	1696279	12.0000	12.2	
	46 Dimethylphthalate	163	5.839	5.829	(0.969)	4485730	12.0000	12.9	
	47 2,6-Dinitrotoluene	165	5.893	5.883	(0.978)	1233584	12.0000	12.6	
	48 Acenaphthylene	152	5.904	5.899	(0.980)	6306699	12.0000	12.8	
	49 3-Nitroaniline	65	6.005	5.990	(0.996)	1428560	12.0000	12.5	
*	50 Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1346853	4.00000		
	51 2,4-Dinitrophenol	184	6.085	6.075	(1.010)	714582	12.0000	11.8	
	52 Acenaphthene	153	6.053	6.048	(1.004)	4266028	12.0000	12.7	
	53 4-Nitrophenol	109	6.139	6.123	(1.019)	620067	12.0000	3.01(M)	LT
	54 2,4-Dinitrotoluene	165	6.208	6.198	(1.030)	1589431	12.0000	12.4	
	55 Dibenzofuran	168	6.181	6.176	(1.026)	5500154	12.0000	12.5	
	56 2,3,4,6-Tetrachlorophenol	232	6.320	6.315	(1.049)	1198168	12.0000	12.5	
	57 Diethylphthalate	149	6.416	6.406	(1.065)	4680510	12.0000	12.8	
	58 4-Chlorophenylphenyl ether	204	6.465	6.460	(1.073)	2349815	12.0000	12.4	
	59 Fluorene	166	6.465	6.460	(1.073)	4638996	12.0000	12.2	
	60 4-Nitroaniline	108	6.513	6.492	(1.081)	633713	12.0000	11.0(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.545	6.534	(0.888)	928607	12.0000	11.6	
	62 N-Nitrosodiphenylamine	169	6.566	6.556	(0.891)	4049873	12.0000	12.0	
	63 Azobenzene	77	6.593	6.588	(0.894)	4437616	12.0000	12.6	
	64 1,2-Diphenylhydrazine	77	6.593	6.588	(0.894)	4437616	12.0000	12.6	
$	65 2,4,6-Tribromophenol (S)	330	6.684	6.679	(0.907)	740019	12.0000	11.7	
	66 4-Bromophenylphenyl ether	248	6.897	6.892	(0.936)	1465738	12.0000	12.2	
	67 Hexachlorobenzene	284	7.058	7.053	(0.957)	1461556	12.0000	12.1	
	68 Atrazine	200	7.122	7.106	(0.966)	1425143	12.0000	12.2	
	69 Pentachlorophenol	266	7.244	7.240	(0.983)	877160	12.0000	11.5	
*	70 Phenanthrene-d10 (IS)	188	7.373	7.368	(1.000)	2258266	4.00000		
	71 Phenanthrene	178	7.405	7.395	(1.004)	6777307	12.0000	12.2	
	72 Anthracene	178	7.453	7.437	(1.011)	6682093	12.0000	12.5	
	73 Carbazole	167	7.624	7.614	(1.034)	5965181	12.0000	12.2	
	74 Di-n-butylphthalate	149	8.073	8.068	(1.095)	7215618	12.0000	12.8	
	75 Fluoranthene	202	8.671	8.666	(1.176)	6508223	12.0000	12.0	
	76 Pyrene	202	8.906	8.896	(0.876)	6721853	12.0000	12.8	
$	77 Terphenyl-d14 (S)	244	9.093	9.083	(0.895)	5086280	12.0000	12.2	
	78 Butylbenzylphthalate	149	9.638	9.633	(0.948)	3386625	12.0000	12.6	
	79 3,3'-Dichlorobenzidine	252	10.140	10.135	(0.998)	2487648	12.0000	12.6	
	80 bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	4675877	12.0000	13.2	
	81 Benzo(a)anthracene	228	10.140	10.135	(0.998)	6135118	12.0000	12.3	
*	82 Chrysene-d12 (IS)	240	10.161	10.151	(1.000)	1903235	4.00000		
	83 Chrysene	228	10.188	10.178	(1.003)	5845361	12.0000	12.7	
	84 Di-n-octylphthalate	149	10.840	10.835	(0.943)	7297250	12.0000	11.8	
	85 Benzo(b)fluoranthene	252	11.176	11.161	(0.972)	7350031	12.0000	12.1	
	86 Benzo(k)fluoranthene	252	11.198	11.182	(0.974)	6288706	12.0000	11.8	
	87 Benzo(a)pyrene	252	11.454	11.444	(0.996)	6271992	12.0000	12.1	
*	88 Perylene-d12 (IS)	264	11.497	11.492	(1.000)	2051253	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.346	12.325	(1.074)	6788486	12.0000	12.0	
90 Dibenz(a,h)anthracene	278	12.352	12.336	(1.074)	5656440	12.0000	12.2	
91 Benzo(g,h,i)perylene	276	12.549	12.528	(1.092)	5512034	12.0000	11.6	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y3.d
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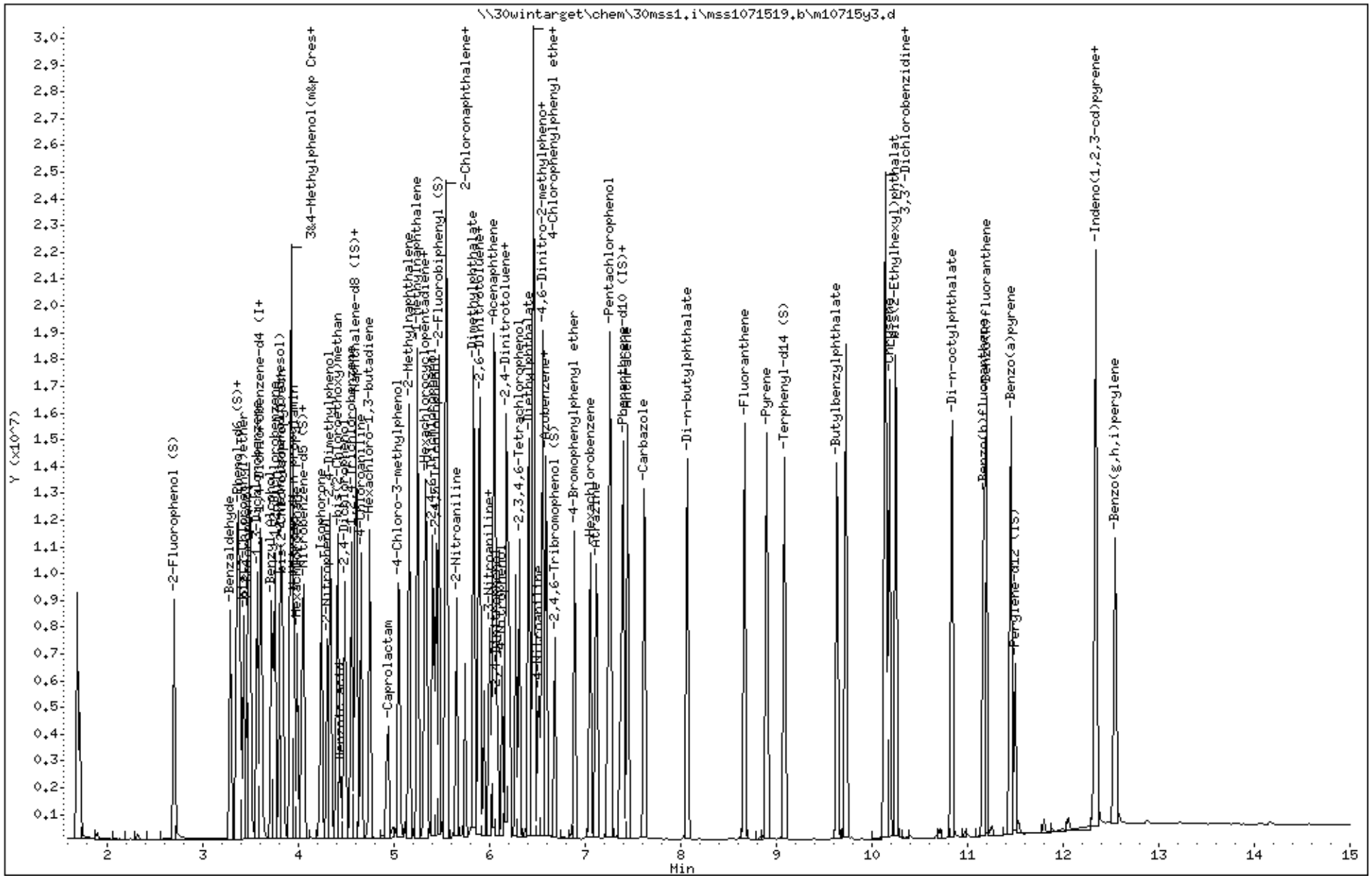
Client ID: CAL5
Sample Info: CAL5

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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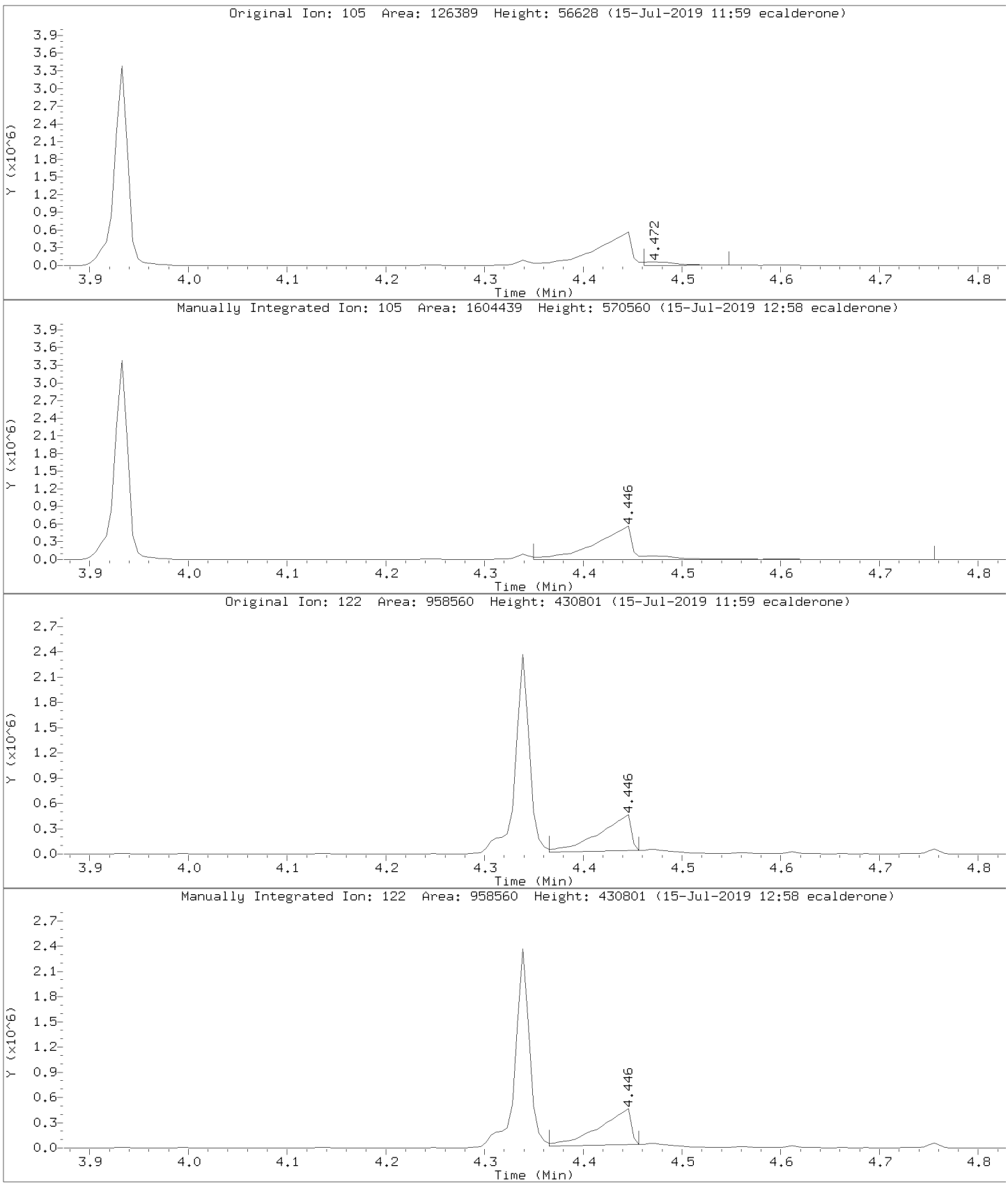
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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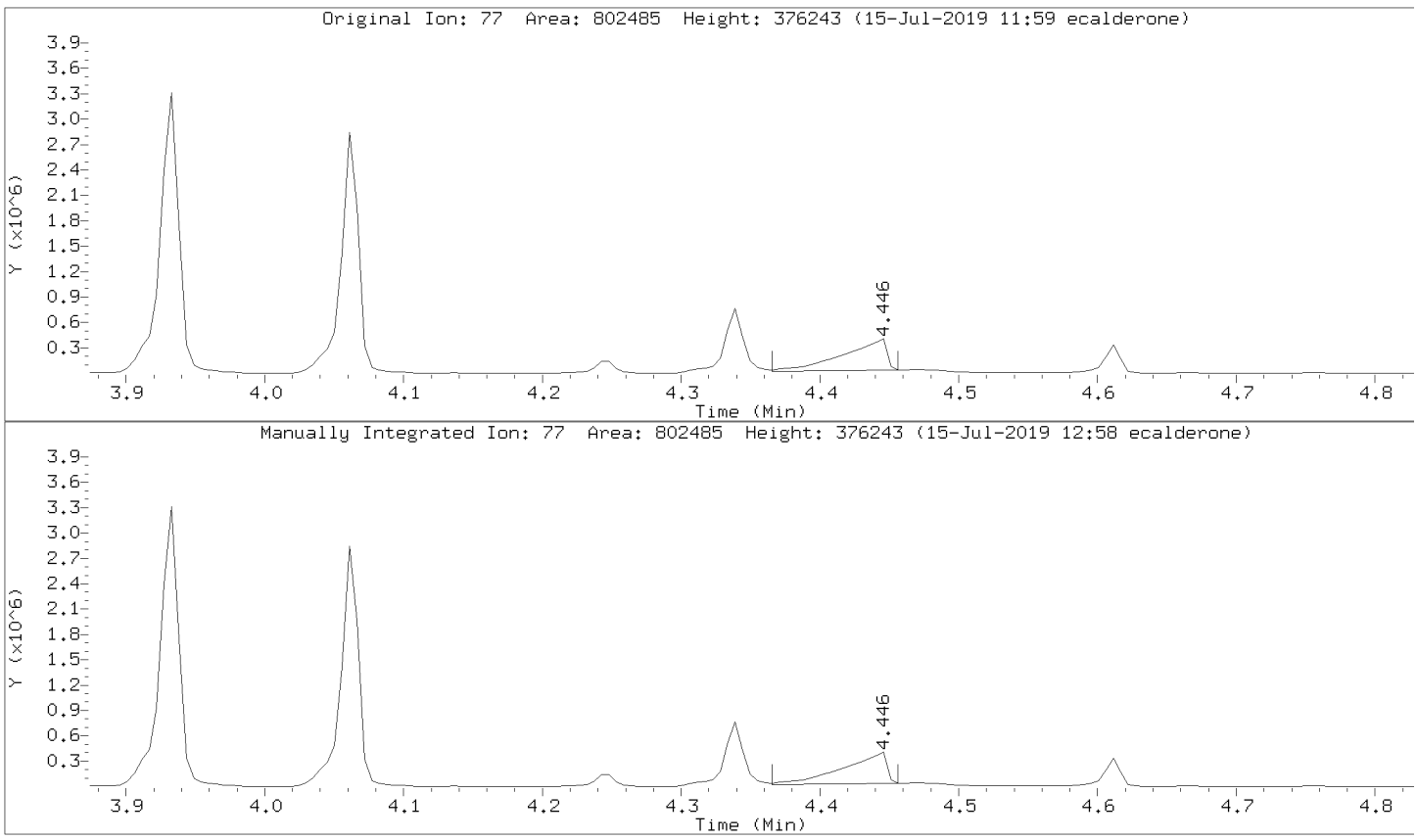

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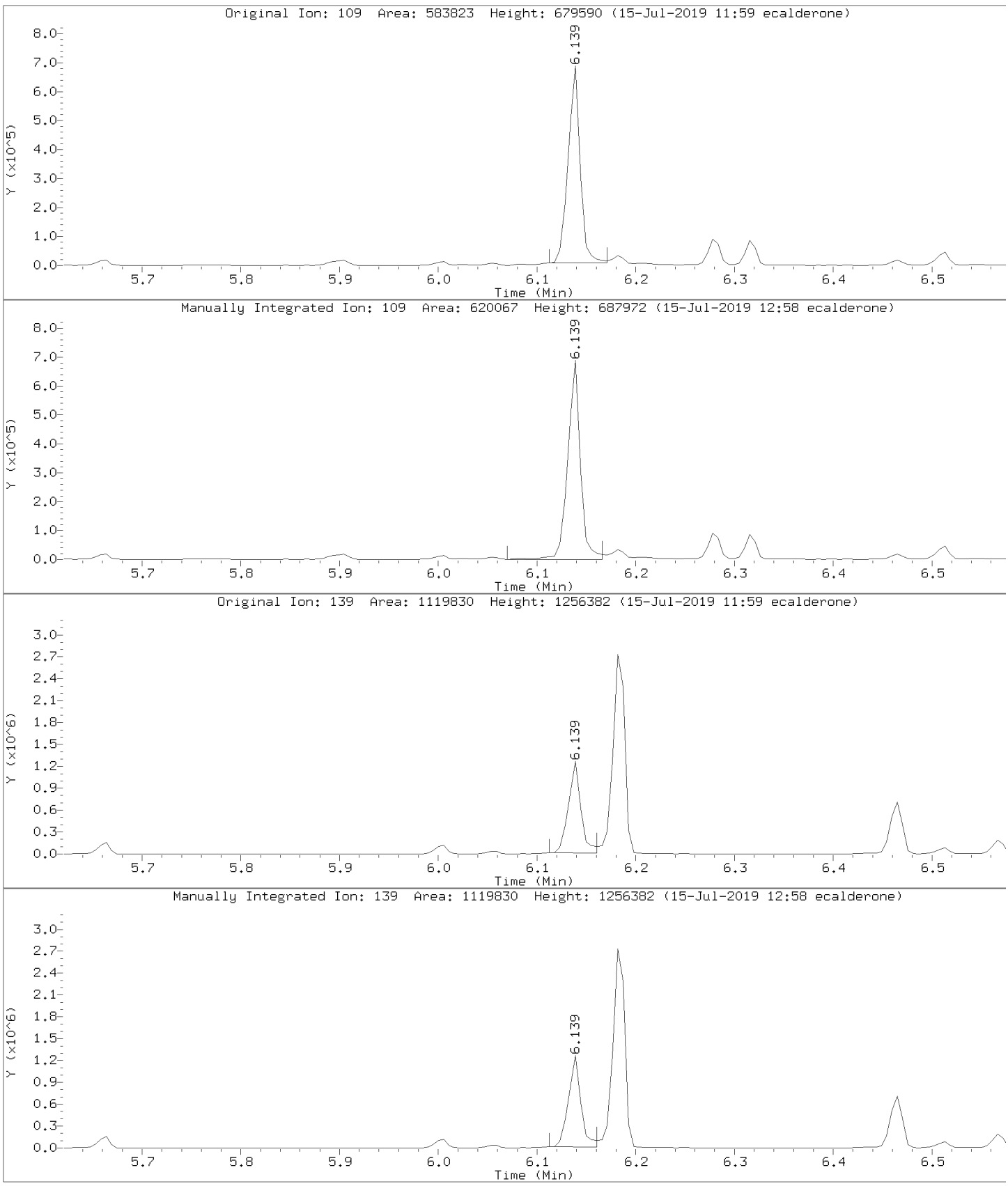
Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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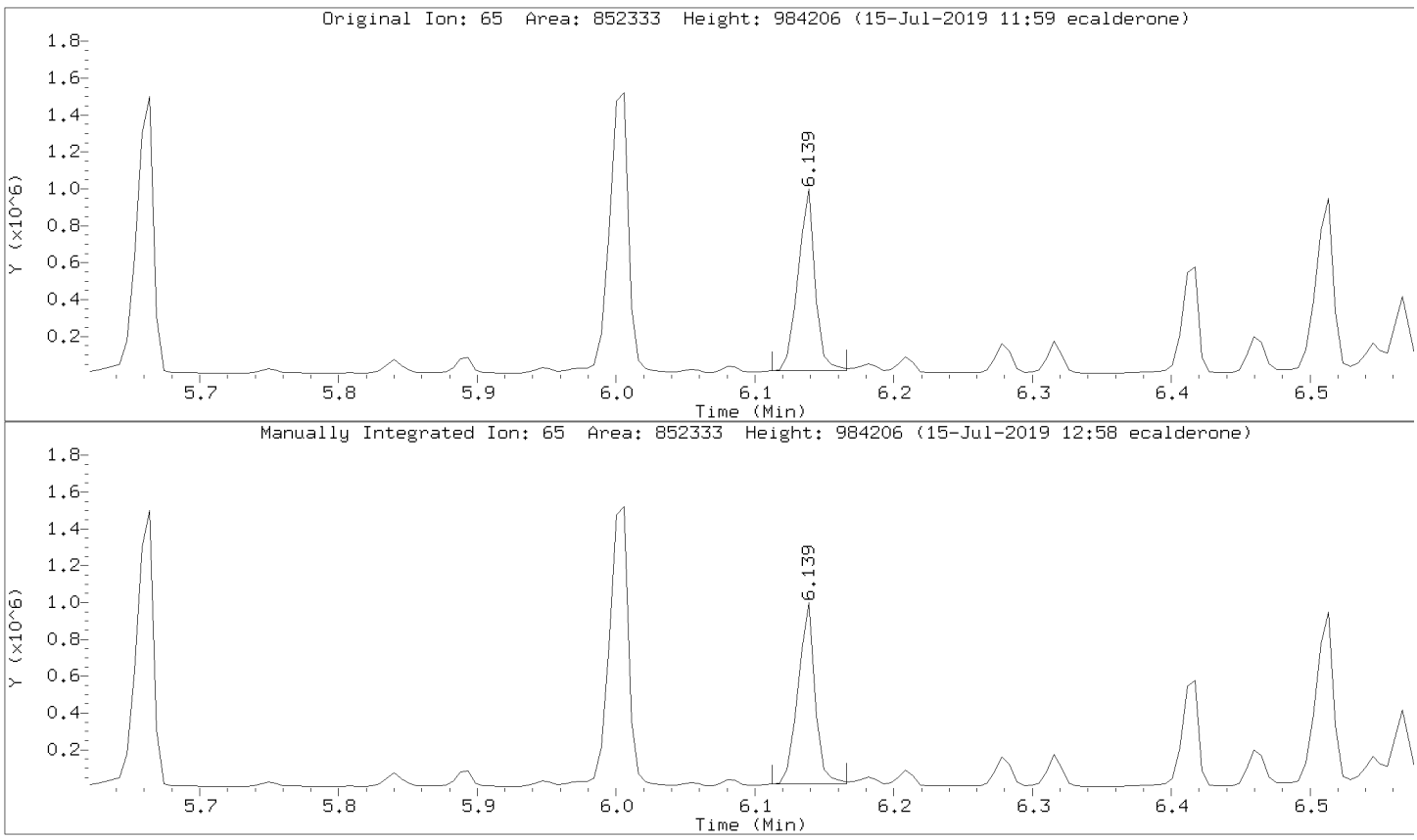

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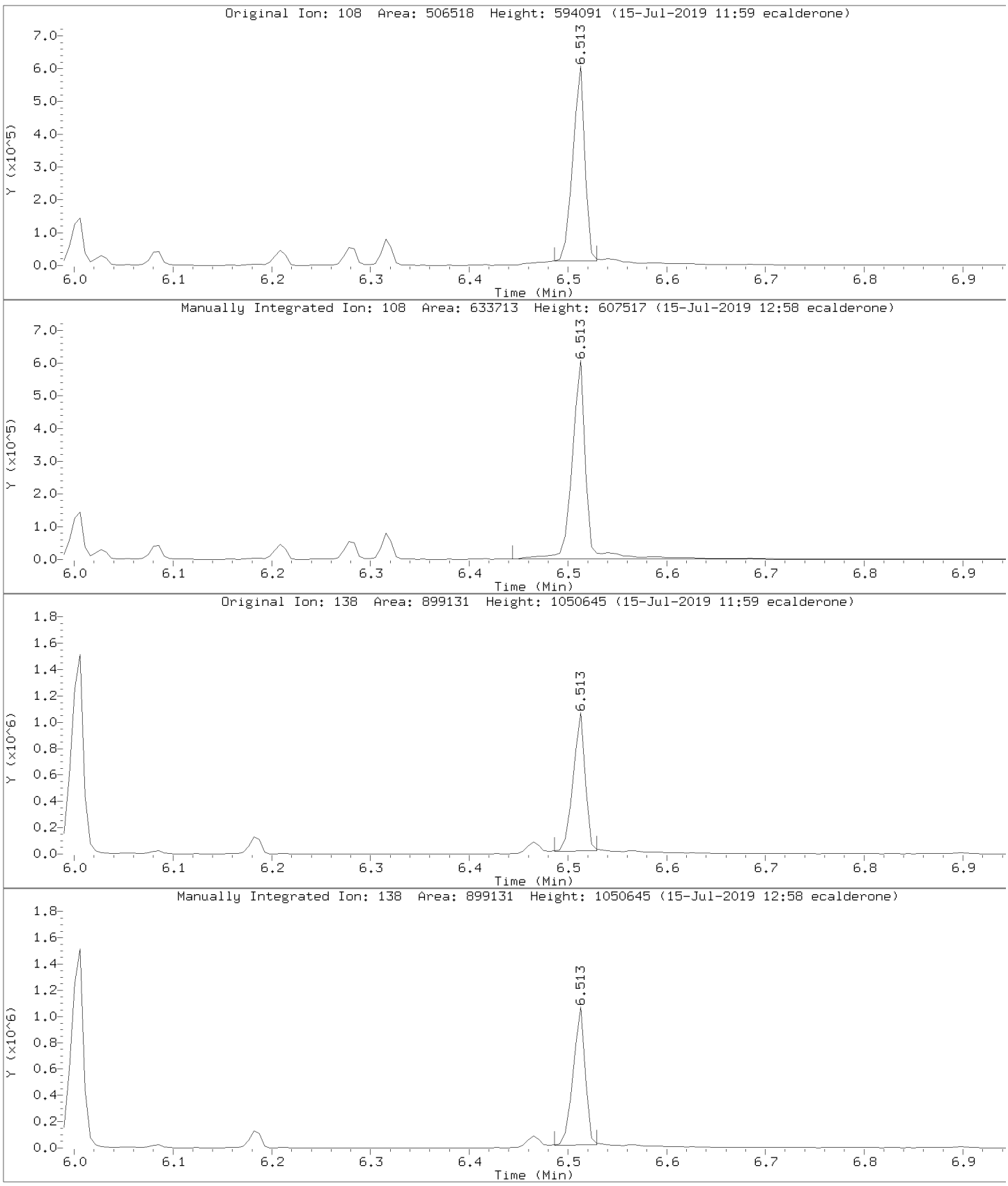
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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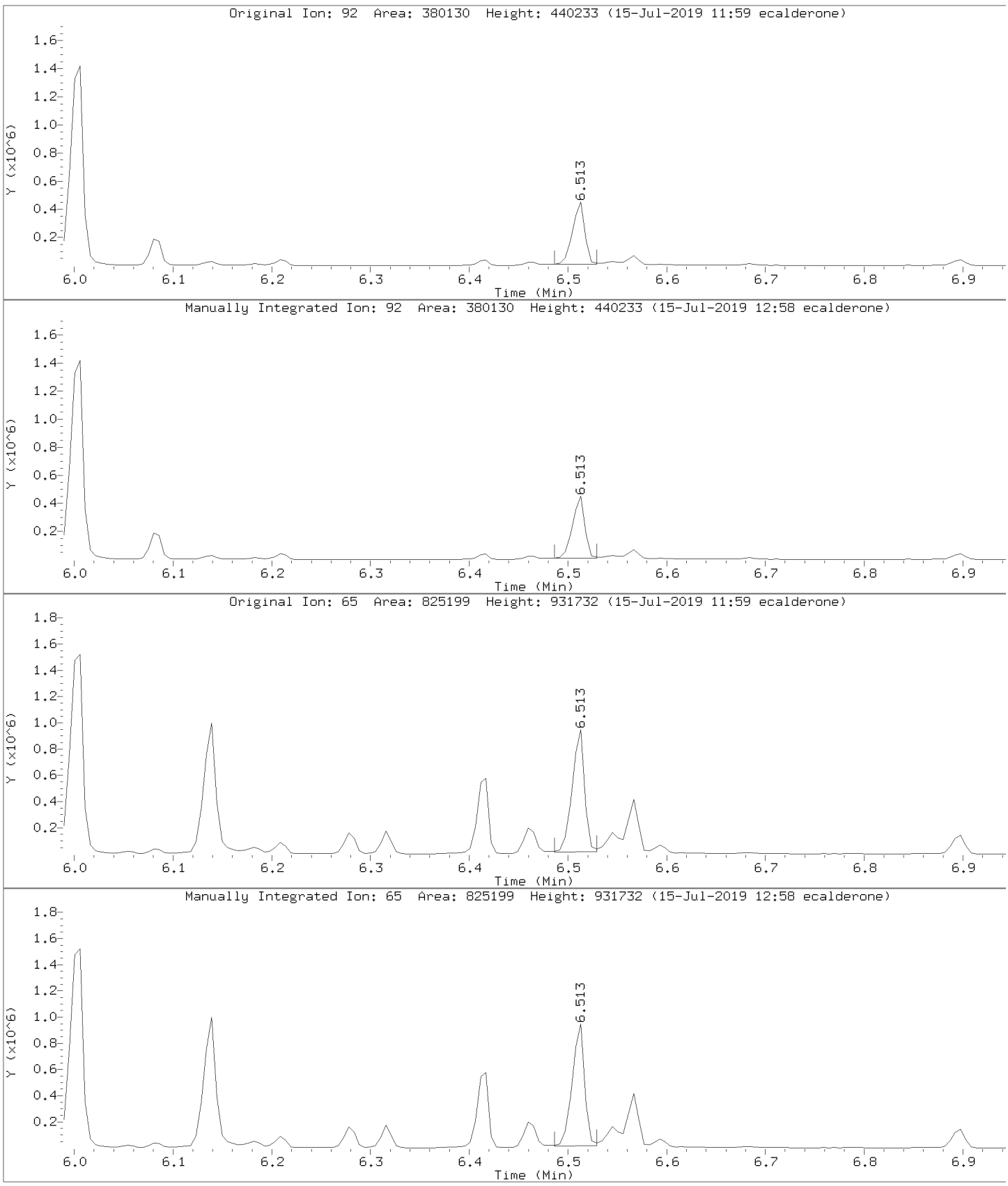

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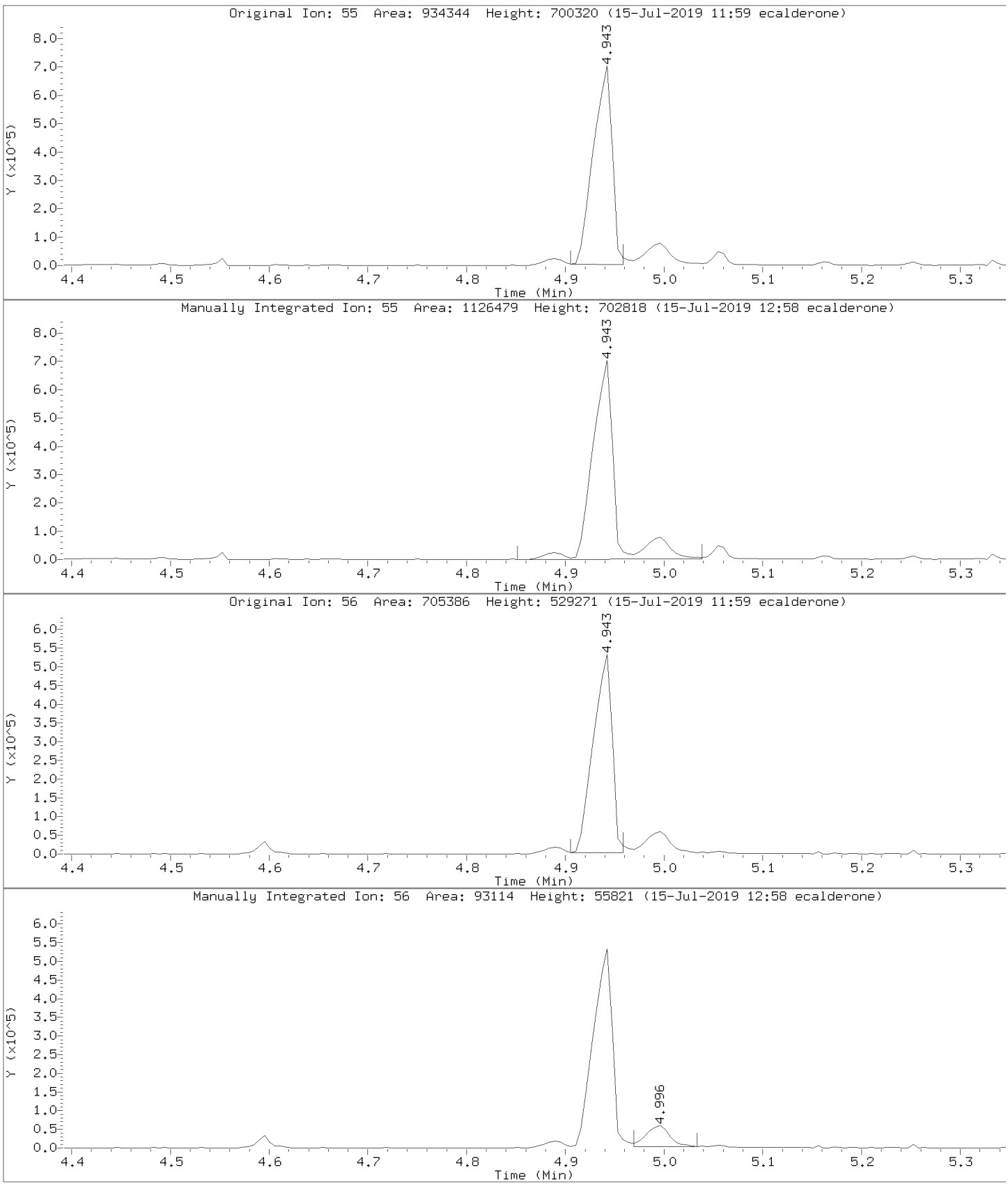
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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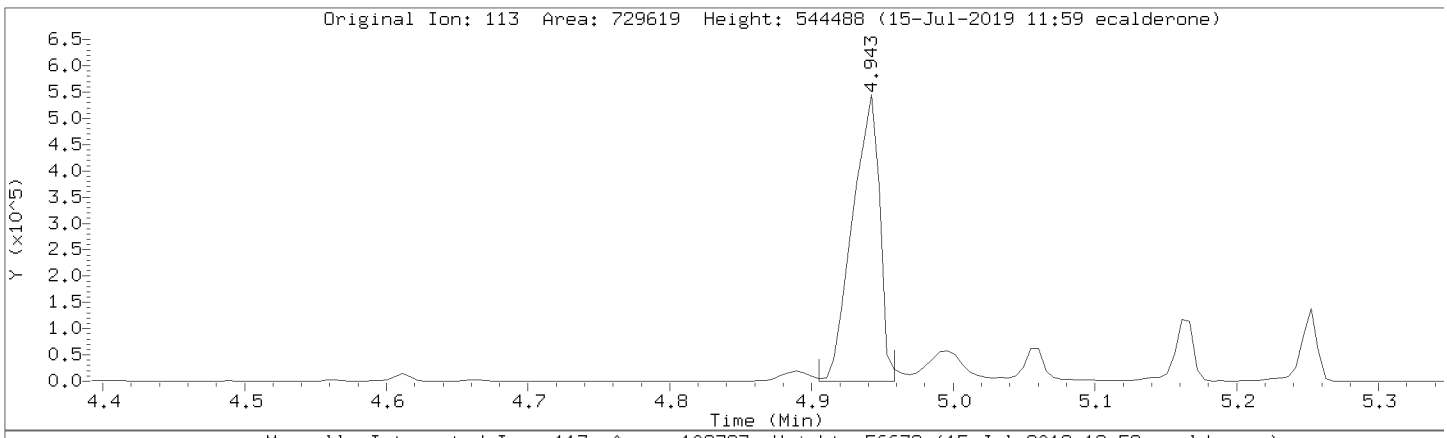

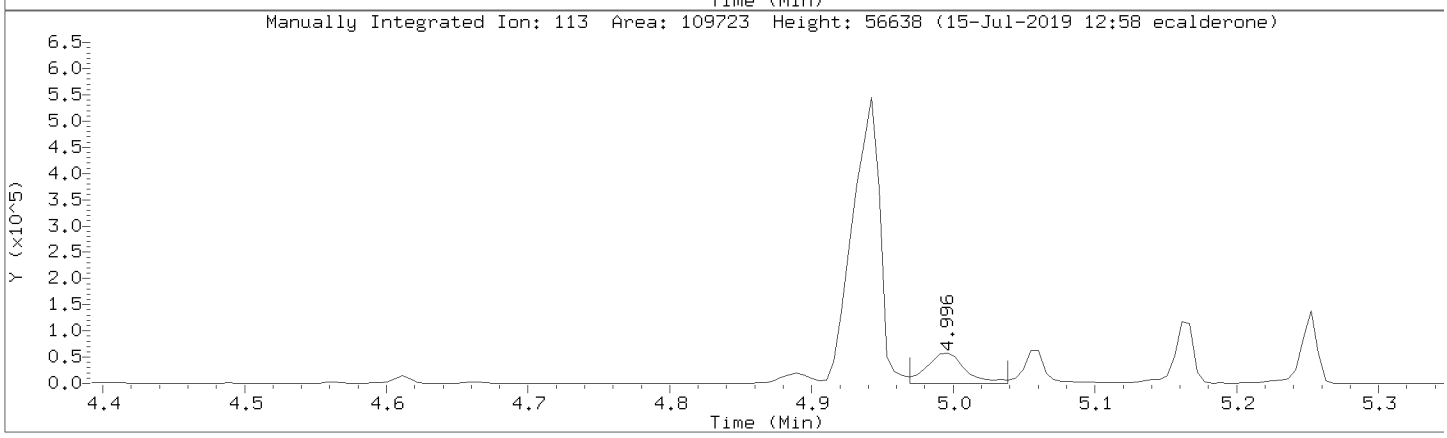

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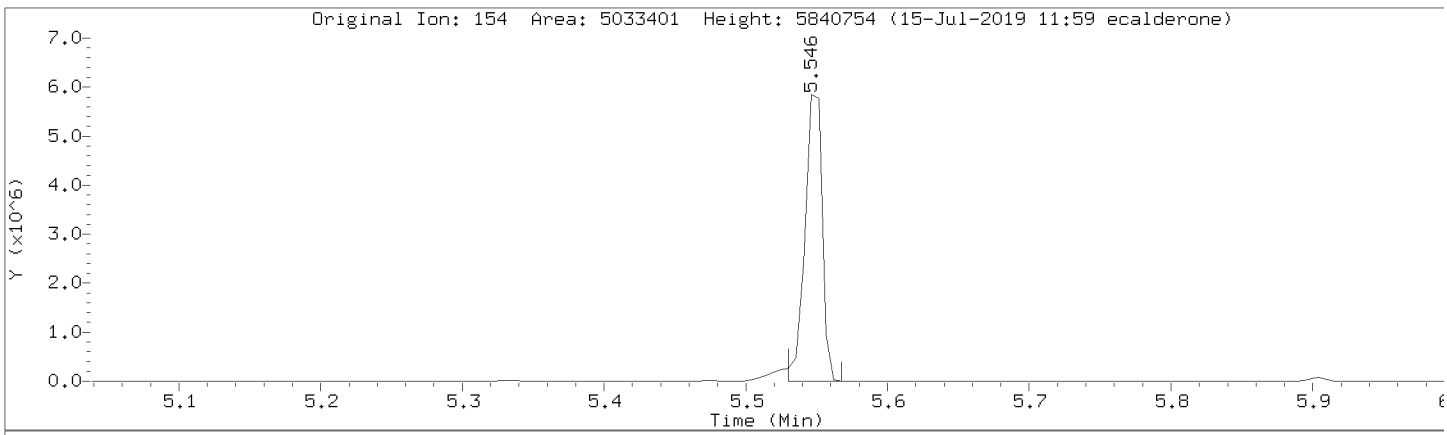
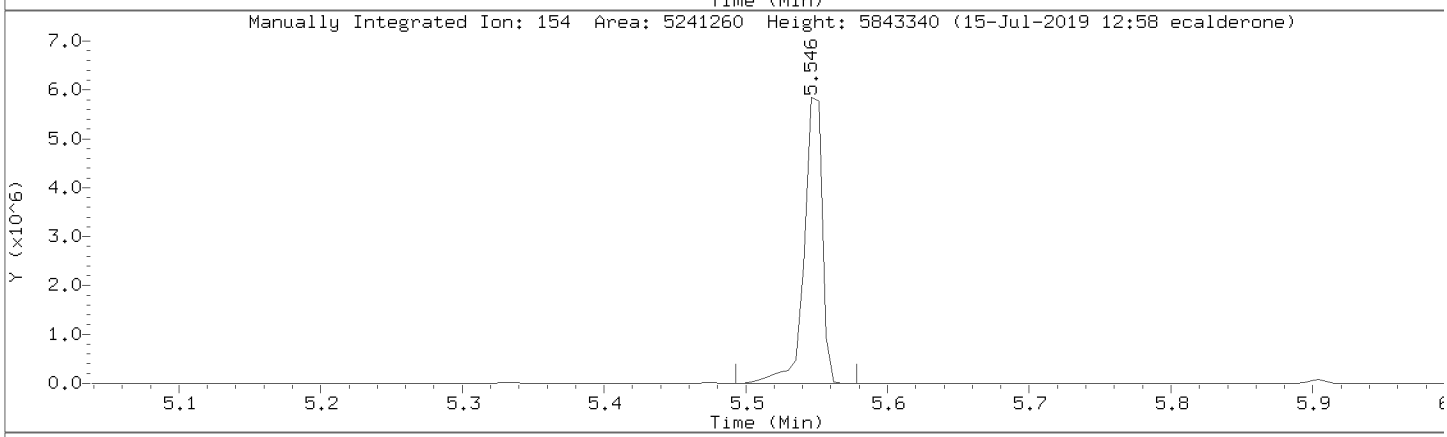
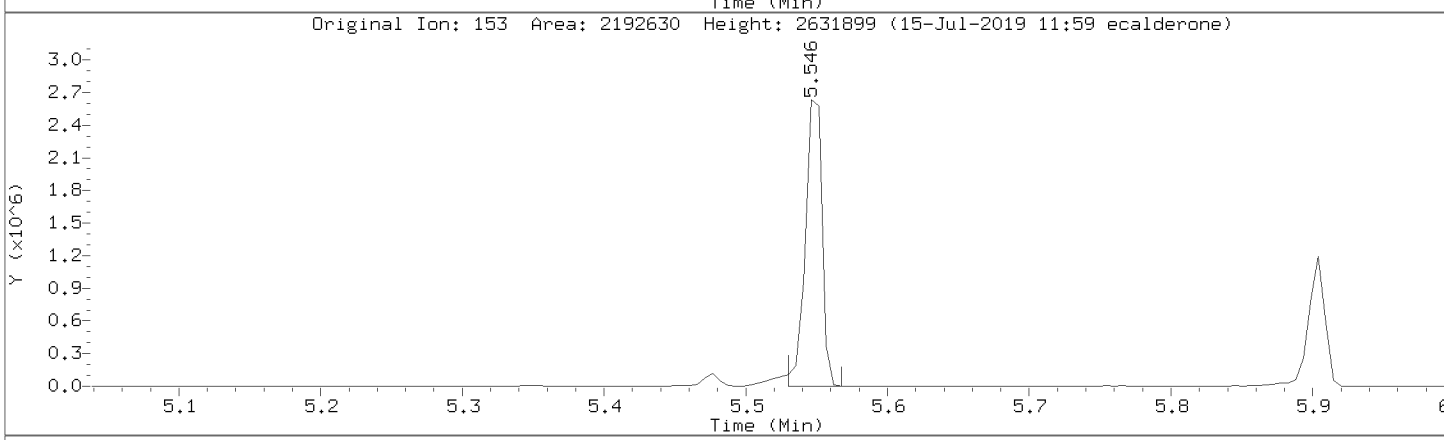
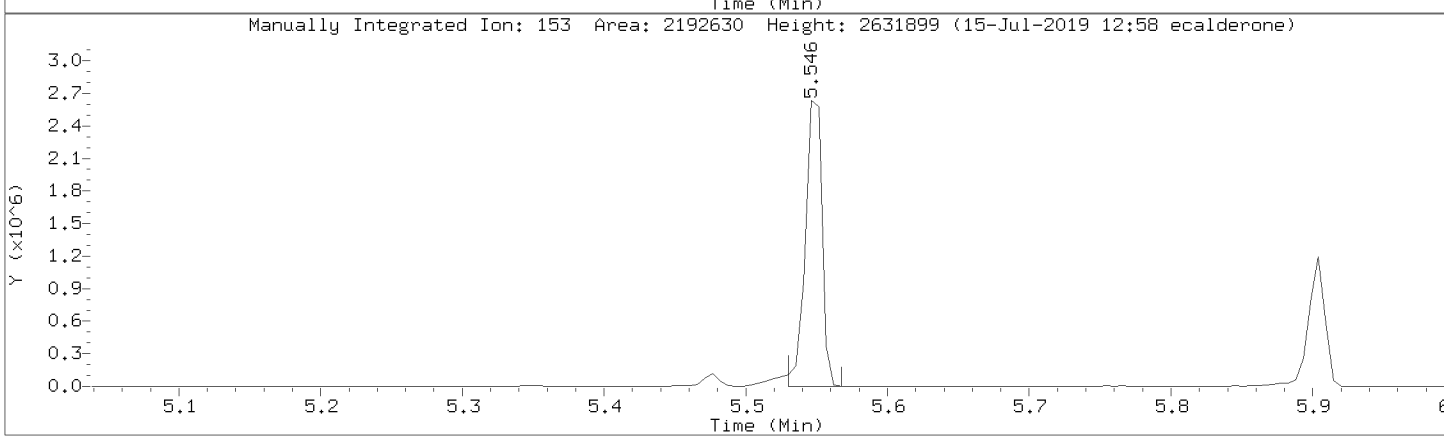
Injection Date: 15-JUL-2019 10:06
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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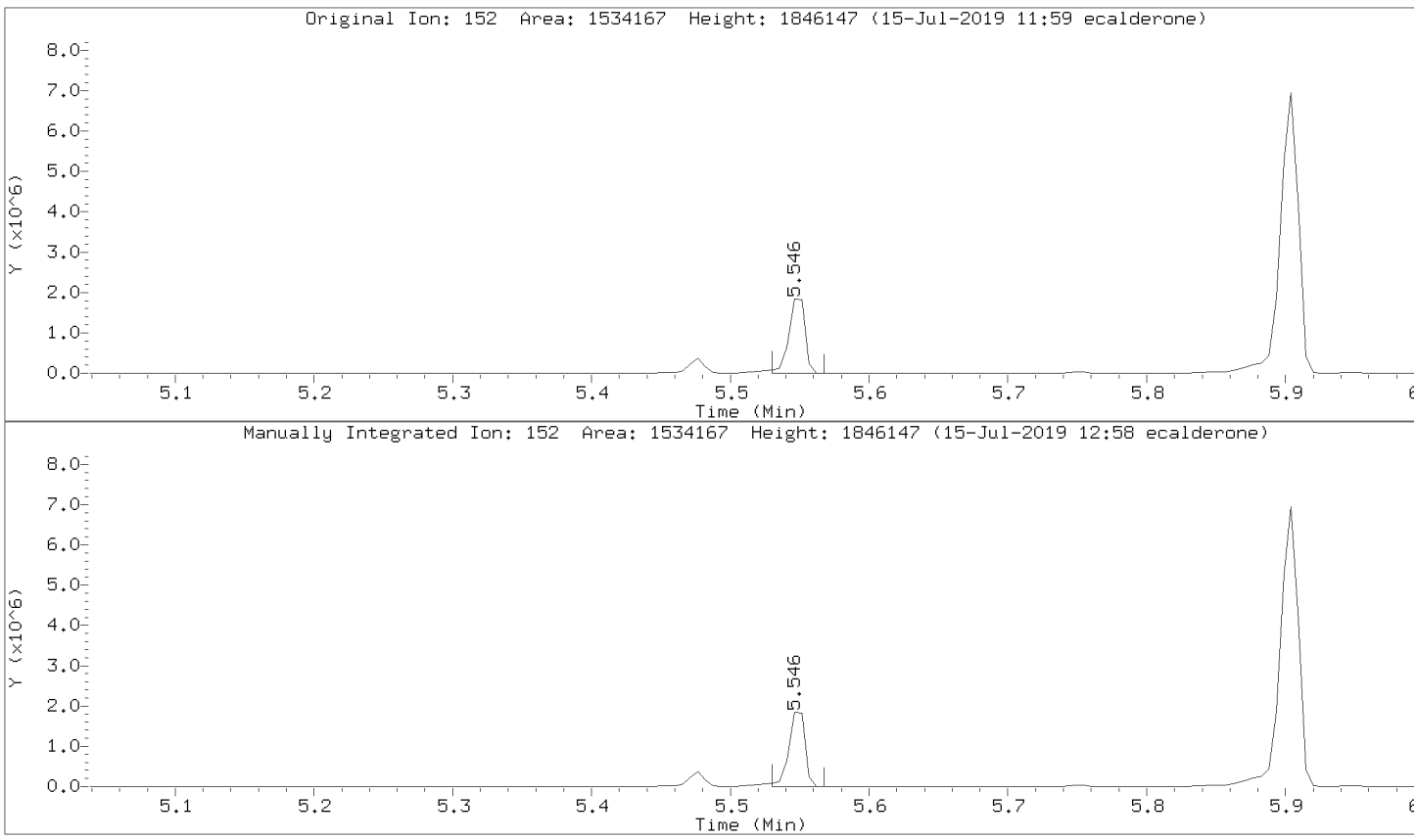
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y4.d
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Inj Date : 15-JUL-2019 10:28
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Smp Info : cal4
Misc Info : 14828,93076:1
Comment :
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 10:28 Cal File: m10715y4.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.699	1.700	(0.473)	1375720	8.00000		
	2 Pyridine	79	1.683	1.689	(0.468)	2049302	8.00000		
$	3 2-Fluorophenol (S)	112	2.698	2.704	(0.750)	1649494	8.00000		
$	4 Phenol-d6 (S)	99	3.355	3.351	(0.933)	1871587	8.00000		
	5 Benzaldehyde	77	3.280	3.281	(0.912)	1354332	8.00000		
	6 Phenol	94	3.366	3.361	(0.936)	2079548	8.00000		
	7 Aniline	66	3.387	3.383	(0.942)	854576	8.00000		
	8 bis(2-Chloroethyl)ether	63	3.424	3.425	(0.952)	1179764	8.00000		
	9 2-Chlorophenol	128	3.467	3.463	(0.964)	1696021	8.00000		
	10 1,3-Dichlorobenzene	146	3.574	3.570	(0.994)	1887388	8.00000		
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.595	3.596	(1.000)	619276	4.00000		
	12 1,4-Dichlorobenzene	146	3.611	3.607	(1.004)	2016653	8.00000		
	13 Benzyl Alcohol	79	3.718	3.719	(1.034)	1341130	8.00000		
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.045)	1793077	8.00000		
	15 2-Methylphenol(o-Cresol)	108	3.809	3.810	(1.059)	1608543	8.00000		
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	2683904	8.00000		
	17 3&4-Methylphenol(m&p Cresol)	108	3.927	3.917	(1.092)	1620945	8.00000		
	18 N-Nitroso-di-n-propylamine	70	3.948	3.938	(1.098)	1235974	8.00000		
	19 Acetophenone	105	3.927	3.922	(1.092)	2189574	8.00000		
	20 Hexachloroethane	117	3.991	3.986	(1.110)	723435	8.00000		
$	21 Nitrobenzene-d5 (S)	128	4.044	4.040	(0.880)	845462	8.00000		
	22 Nitrobenzene	77	4.055	4.050	(0.883)	1706671	8.00000		
	23 Isophorone	82	4.242	4.232	(0.923)	3121421	8.00000		
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.943)	1662998	8.00000		
	25 2-Nitrophenol	139	4.306	4.301	(0.937)	960589	8.00000		
	26 Benzoic acid	105	4.429	4.376	(0.964)	1050319	8.00000	(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.407	4.408	(0.959)	1897953	8.00000		
	28 2,4-Dichlorophenol	162	4.487	4.483	(0.977)	1395866	8.00000		
	29 1,2,4-Trichlorobenzene	180	4.557	4.558	(0.992)	1512251	8.00000		
*	30 Naphthalene-d8 (IS)	136	4.594	4.590	(1.000)	2545349	4.00000		
	31 Naphthalene	128	4.610	4.606	(1.003)	4621960	8.00000		
	32 4-Chloroaniline	65	4.658	4.659	(1.014)	551921	8.00000		
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	799957	8.00000		
	34 Caprolactam	55	4.926	4.894	(1.072)	745332	8.00000	(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	35 4-Chloro-3-methylphenol	107	5.054	5.049	(1.100)	1416223	8.00000			
	36 2-Methylnaphthalene	142	5.161	5.162	(1.123)	3386794	8.00000			
	37 1-Methylnaphthalene	142	5.251	5.247	(1.143)	3163693	8.00000			
	38 Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	989357	8.00000			
	39 1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	1349473	8.00000			
	40 2,4,6-Trichlorophenol	196	5.412	5.407	(0.898)	1078331	8.00000			
	41 2,4,5-Trichlorophenol	196	5.444	5.439	(0.903)	931688	8.00000			
$	42 2-Fluorobiphenyl (S)	172	5.476	5.471	(0.909)	3338200	8.00000			
	43 Biphenyl (Diphenyl)	154	5.545	5.541	(0.920)	3747676	8.00000		(MH)	LT
	44 2-Chloronaphthalene	164	5.556	5.551	(0.922)	1003662	8.00000			
	45 2-Nitroaniline	138	5.657	5.653	(0.939)	1180617	8.00000		(M)	LT
	46 Dimethylphthalate	163	5.834	5.829	(0.968)	3016150	8.00000		(H)	
	47 2,6-Dinitrotoluene	165	5.887	5.883	(0.977)	818757	8.00000			
	48 Acenaphthylene	152	5.903	5.899	(0.980)	4618249	8.00000			
	49 3-Nitroaniline	65	5.999	5.990	(0.996)	932334	8.00000			
*	50 Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1391253	4.00000		(M)	LT
	51 2,4-Dinitrophenol	184	6.079	6.075	(1.009)	499264	8.00000		(M)	LT
	52 Acenaphthene	153	6.053	6.048	(1.004)	2993847	8.00000		(M)	LT
	53 4-Nitrophenol	109	6.133	6.123	(1.018)	423572	8.00000		(M)	LT
	54 2,4-Dinitrotoluene	165	6.208	6.198	(1.030)	1086012	8.00000			
	55 Dibenzofuran	168	6.181	6.176	(1.026)	4066799	8.00000		(M)	LT
	56 2,3,4,6-Tetrachlorophenol	232	6.314	6.315	(1.048)	794622	8.00000			
	57 Diethylphthalate	149	6.411	6.406	(1.064)	3281873	8.00000			
	58 4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	1629974	8.00000			
	59 Fluorene	166	6.464	6.460	(1.073)	3365521	8.00000			
	60 4-Nitroaniline	108	6.501	6.492	(1.079)	481511	8.00000		(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.539	6.534	(0.887)	654501	8.00000			
	62 N-Nitrosodiphenylamine	169	6.566	6.556	(0.891)	2940399	8.00000			
	63 Azobenzene	77	6.592	6.588	(0.894)	3111862	8.00000			
	64 1,2-Diphenylhydrazine	77	6.592	6.588	(0.894)	3111862	8.00000			
$	65 2,4,6-Tribromophenol (S)	330	6.683	6.679	(0.907)	497825	8.00000			
	66 4-Bromophenylphenyl ether	248	6.897	6.892	(0.936)	969368	8.00000			
	67 Hexachlorobenzene	284	7.057	7.053	(0.957)	956604	8.00000			
	68 Atrazine	200	7.116	7.106	(0.965)	986322	8.00000			
	69 Pentachlorophenol	266	7.239	7.240	(0.982)	599451	8.00000			
*	70 Phenanthrene-d10 (IS)	188	7.372	7.368	(1.000)	2322236	4.00000			
	71 Phenanthrene	178	7.399	7.395	(1.004)	4986313	8.00000			
	72 Anthracene	178	7.447	7.437	(1.010)	4777135	8.00000			
	73 Carbazole	167	7.623	7.614	(1.034)	4423119	8.00000			
	74 Di-n-butylphthalate	149	8.072	8.068	(1.095)	5107785	8.00000			
	75 Fluoranthene	202	8.670	8.666	(1.176)	4851204	8.00000			
	76 Pyrene	202	8.900	8.896	(0.876)	4916656	8.00000			
$	77 Terphenyl-d14 (S)	244	9.087	9.083	(0.895)	3770351	8.00000			
	78 Butylbenzylphthalate	149	9.637	9.633	(0.949)	2293750	8.00000			
	79 3,3'-Dichlorobenzidine	252	10.139	10.135	(0.998)	1598302	8.00000			
	80 bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	3141969	8.00000			
	81 Benzo(a)anthracene	228	10.139	10.135	(0.998)	4339082	8.00000			
*	82 Chrysene-d12 (IS)	240	10.155	10.151	(1.000)	1933921	4.00000			
	83 Chrysene	228	10.182	10.178	(1.003)	3986739	8.00000			
	84 Di-n-octylphthalate	149	10.834	10.835	(0.942)	4843888	8.00000			
	85 Benzo(b)fluoranthene	252	11.170	11.161	(0.972)	4418035	8.00000			
	86 Benzo(k)fluoranthene	252	11.192	11.182	(0.974)	4335085	8.00000			
	87 Benzo(a)pyrene	252	11.448	11.444	(0.996)	4029127	8.00000			
*	88 Perylene-d12 (IS)	264	11.496	11.492	(1.000)	1888308	4.00000			

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.340	12.325	(1.073)	4315433	8.00000		
90 Dibenz(a,h)anthracene	278	12.346	12.336	(1.074)	3621162	8.00000		
91 Benzo(g,h,i)perylene	276	12.543	12.528	(1.091)	3729205	8.00000		

QC Flag Legend

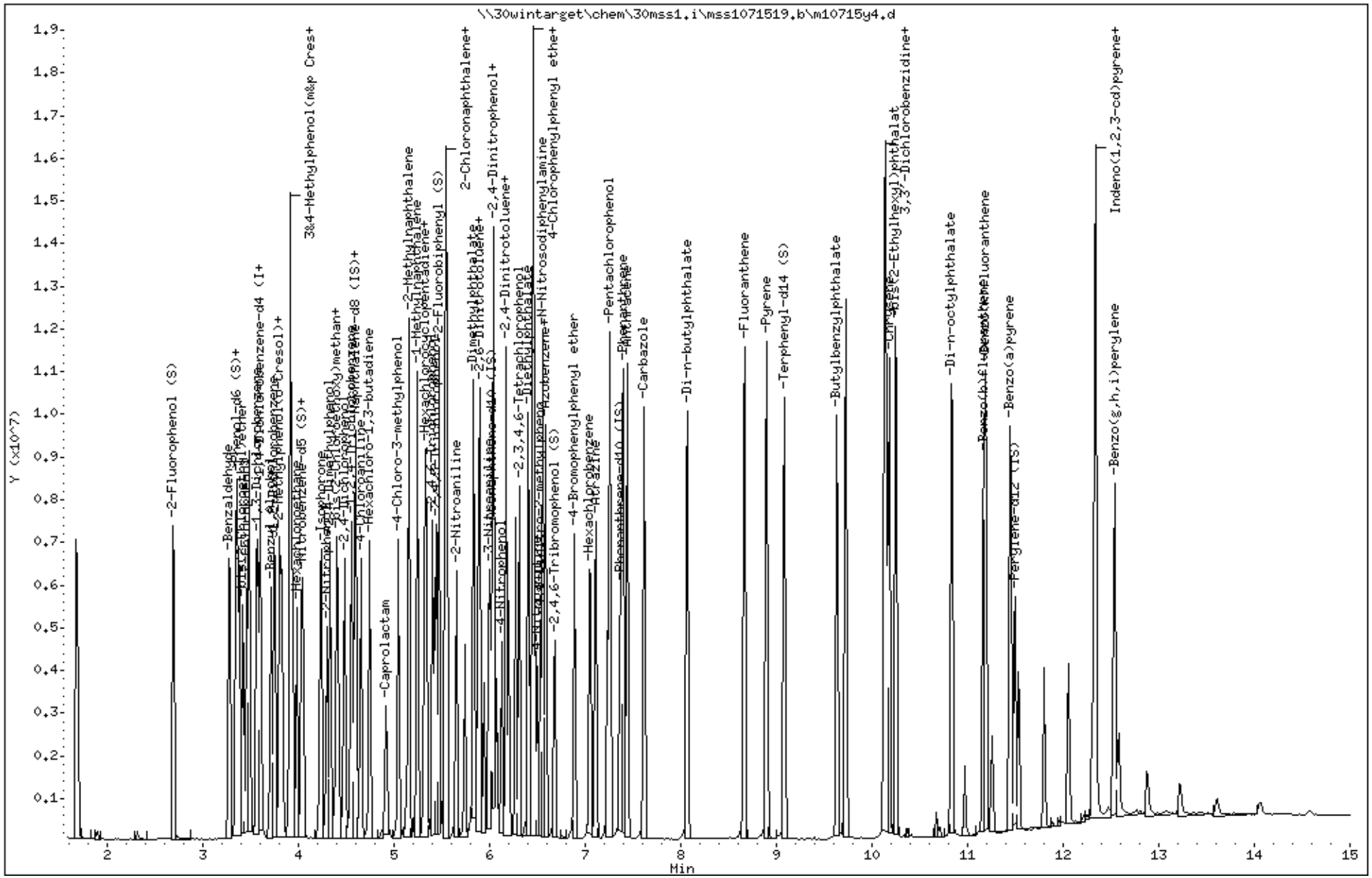
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y4.d
Date : 15-JUL-2019 10:28
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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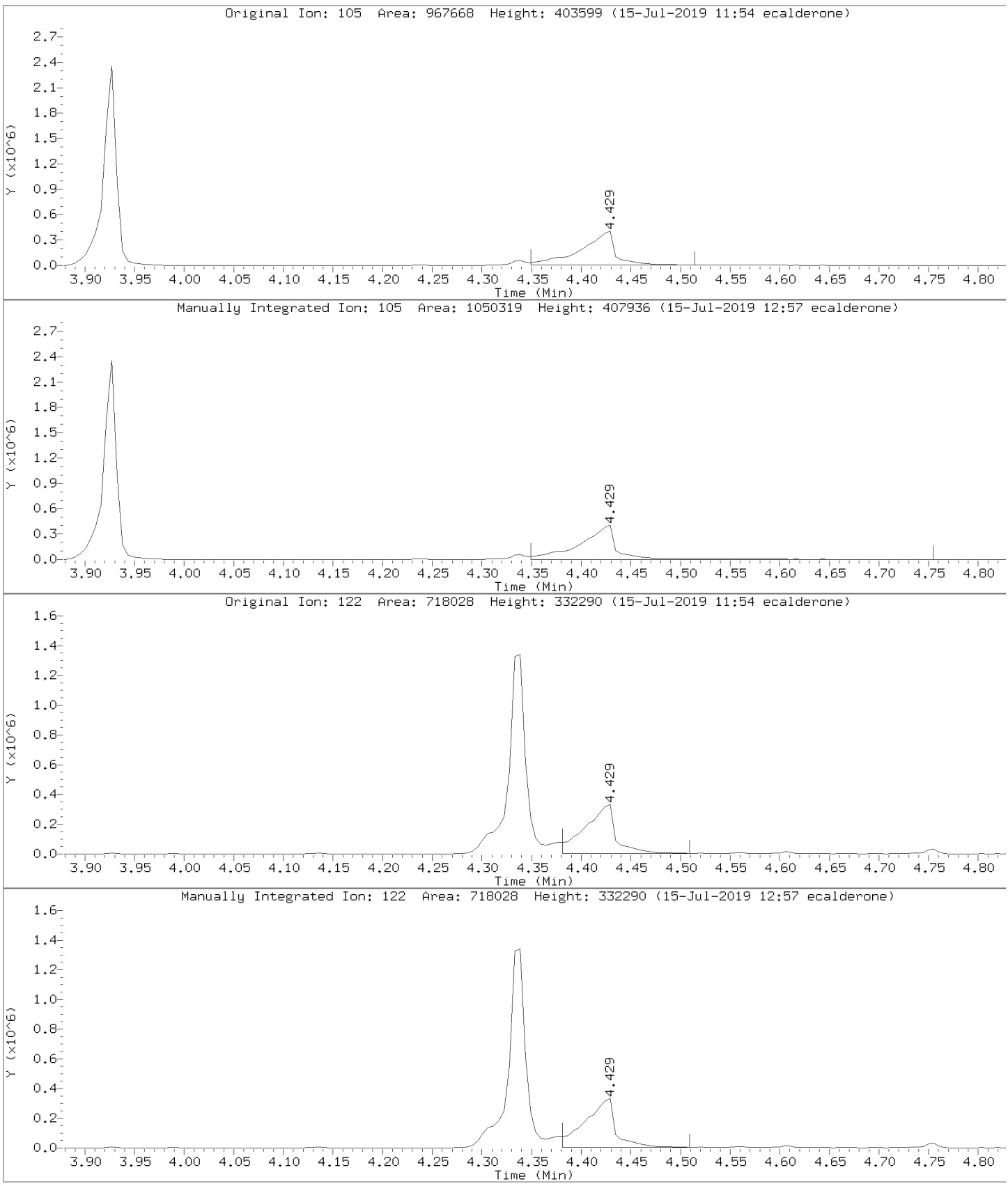
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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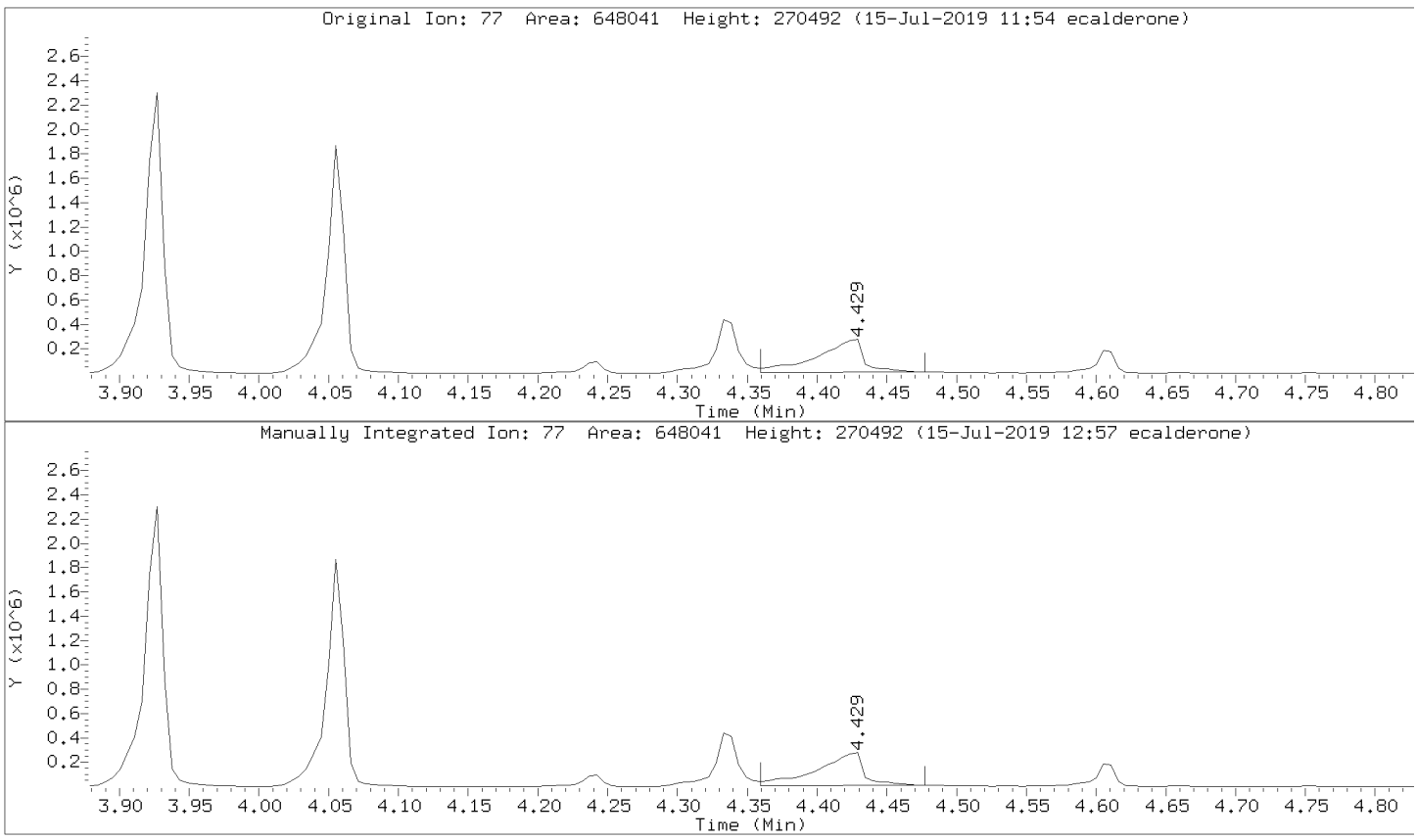
Lab Sample ID: CAL4



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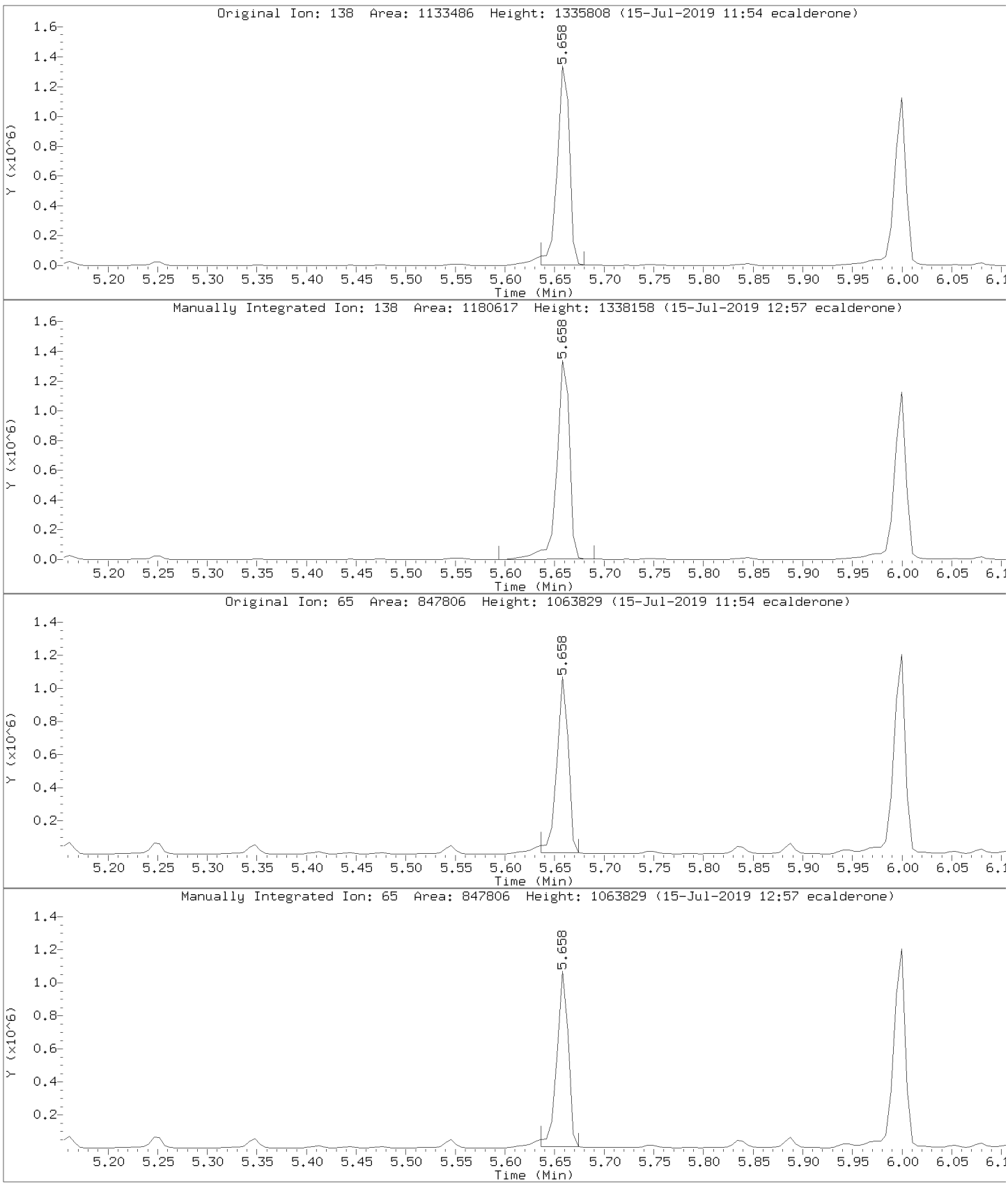
Lab Sample ID: CAL4

Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4



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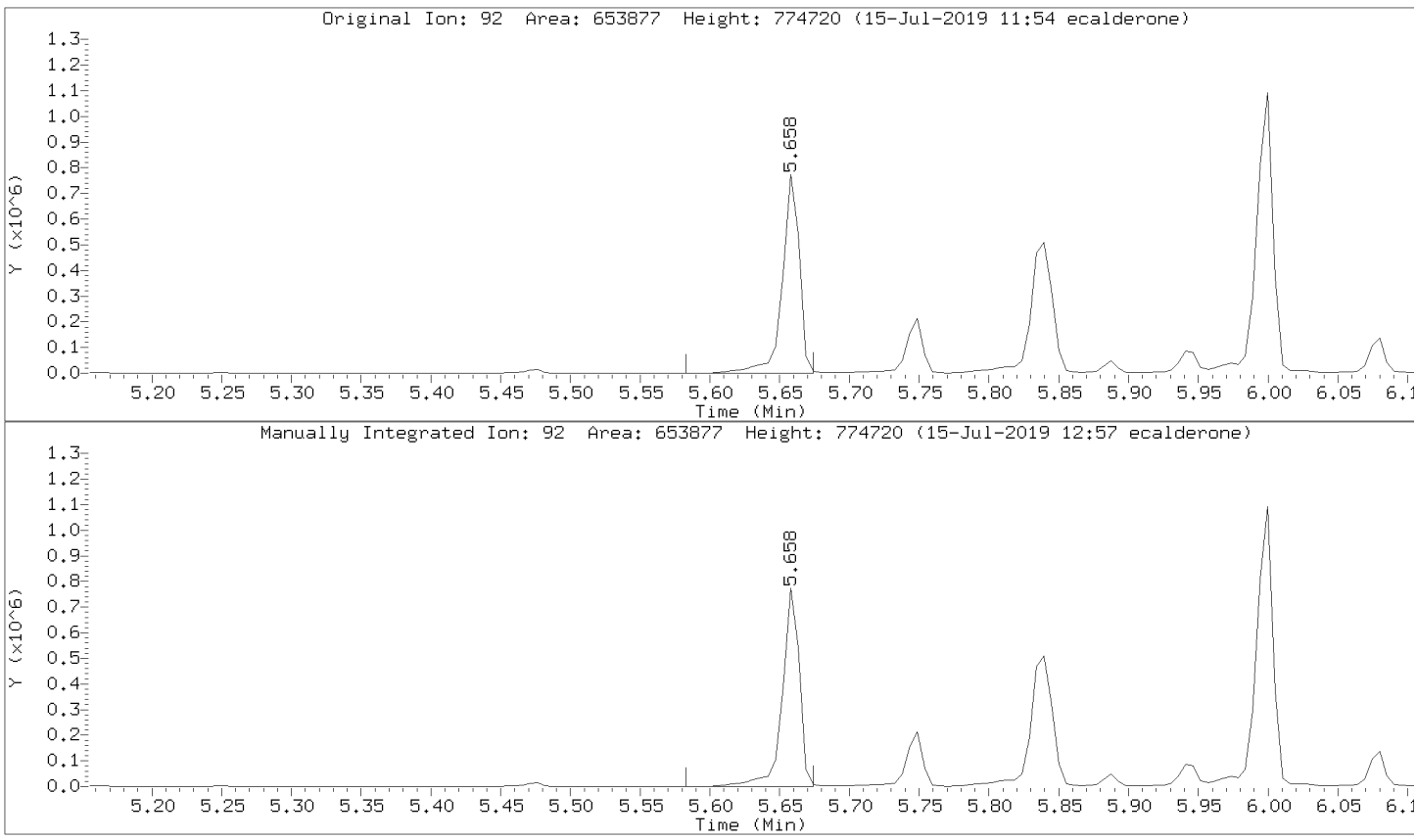
Instrument: 30mss1.i
Lab Sample ID: CAL4



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Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9



Data File: \\30wintarget\chem\30mss1.i\mss1071519.b/m10715y4.d
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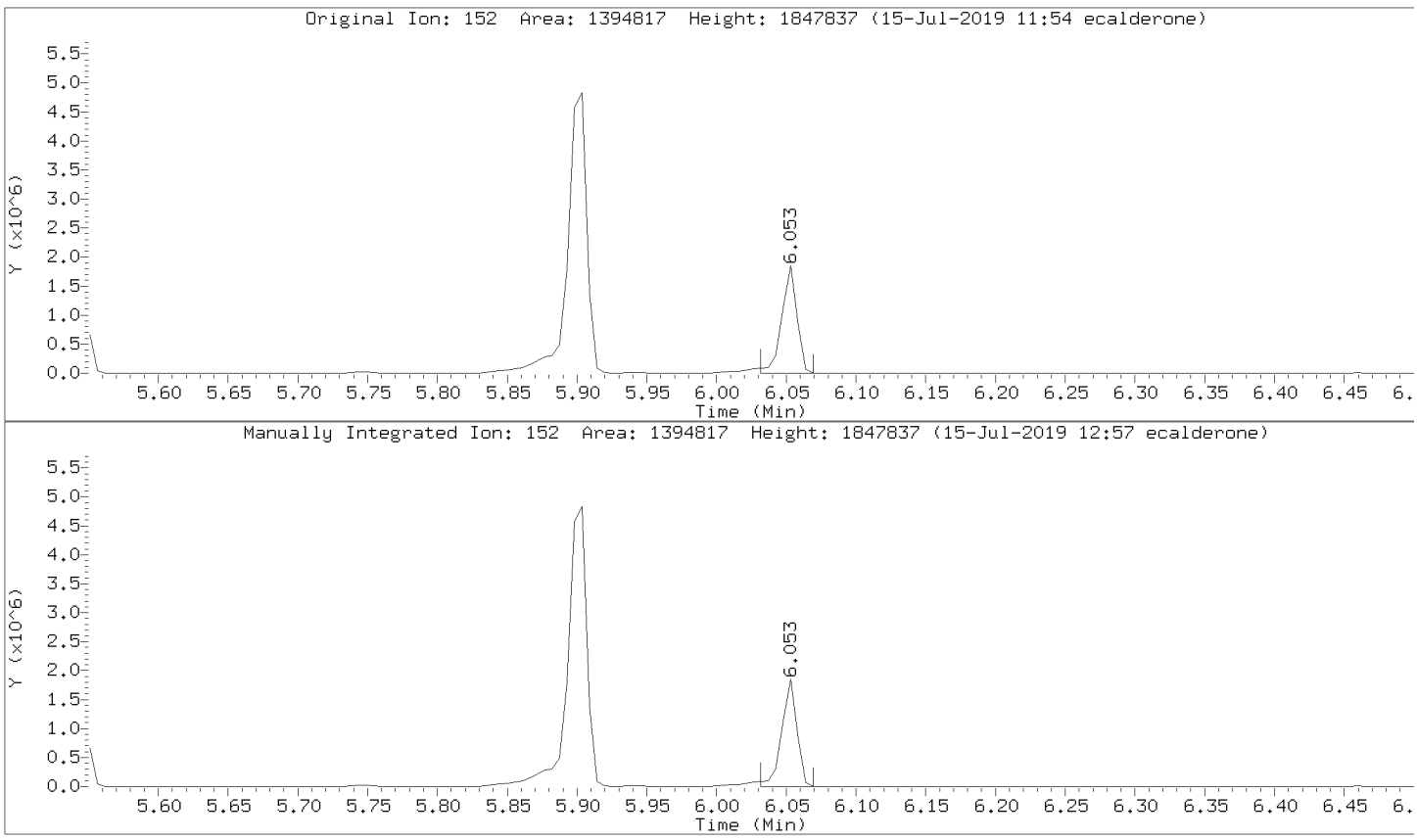
Lab Sample ID: CAL4



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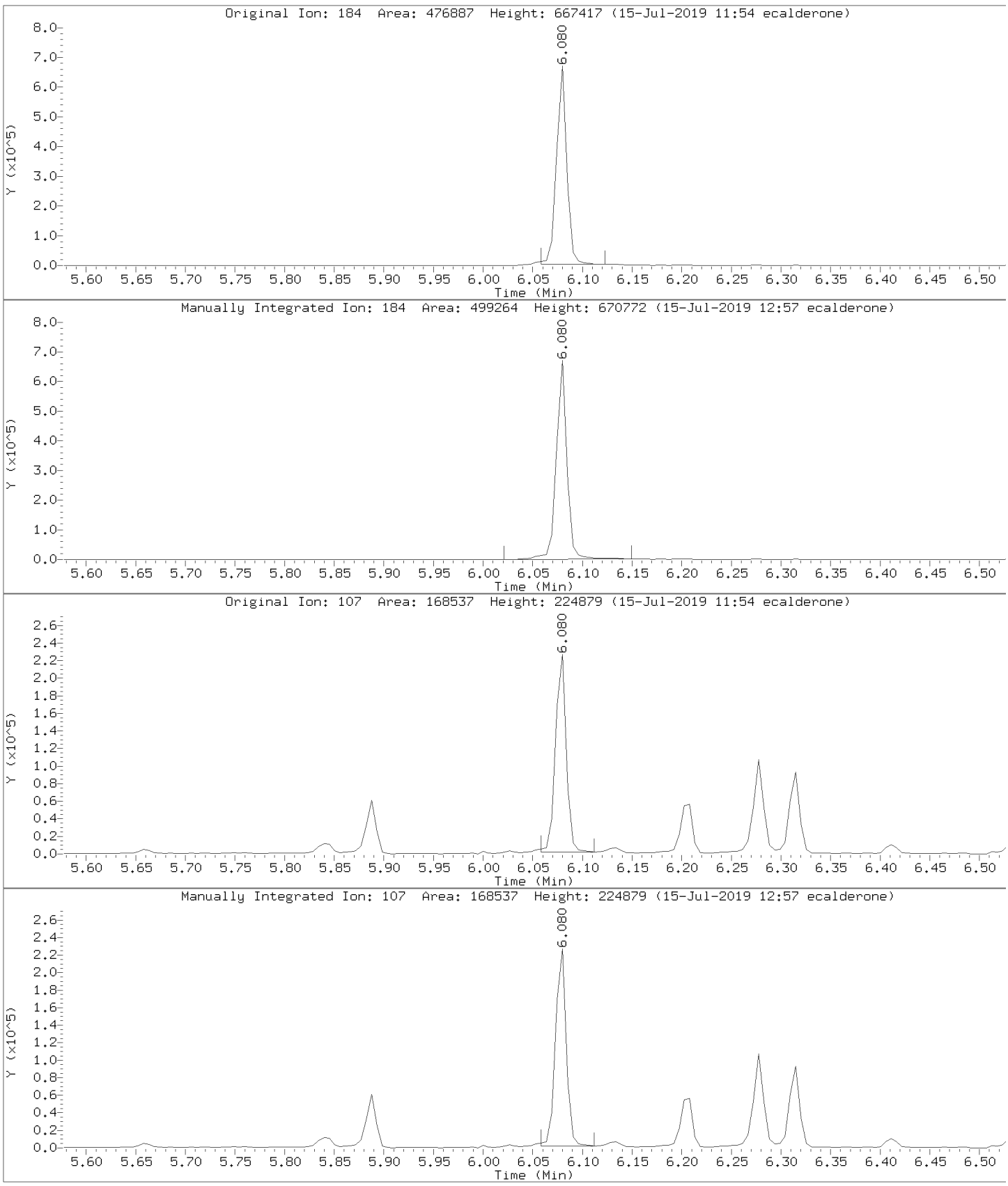
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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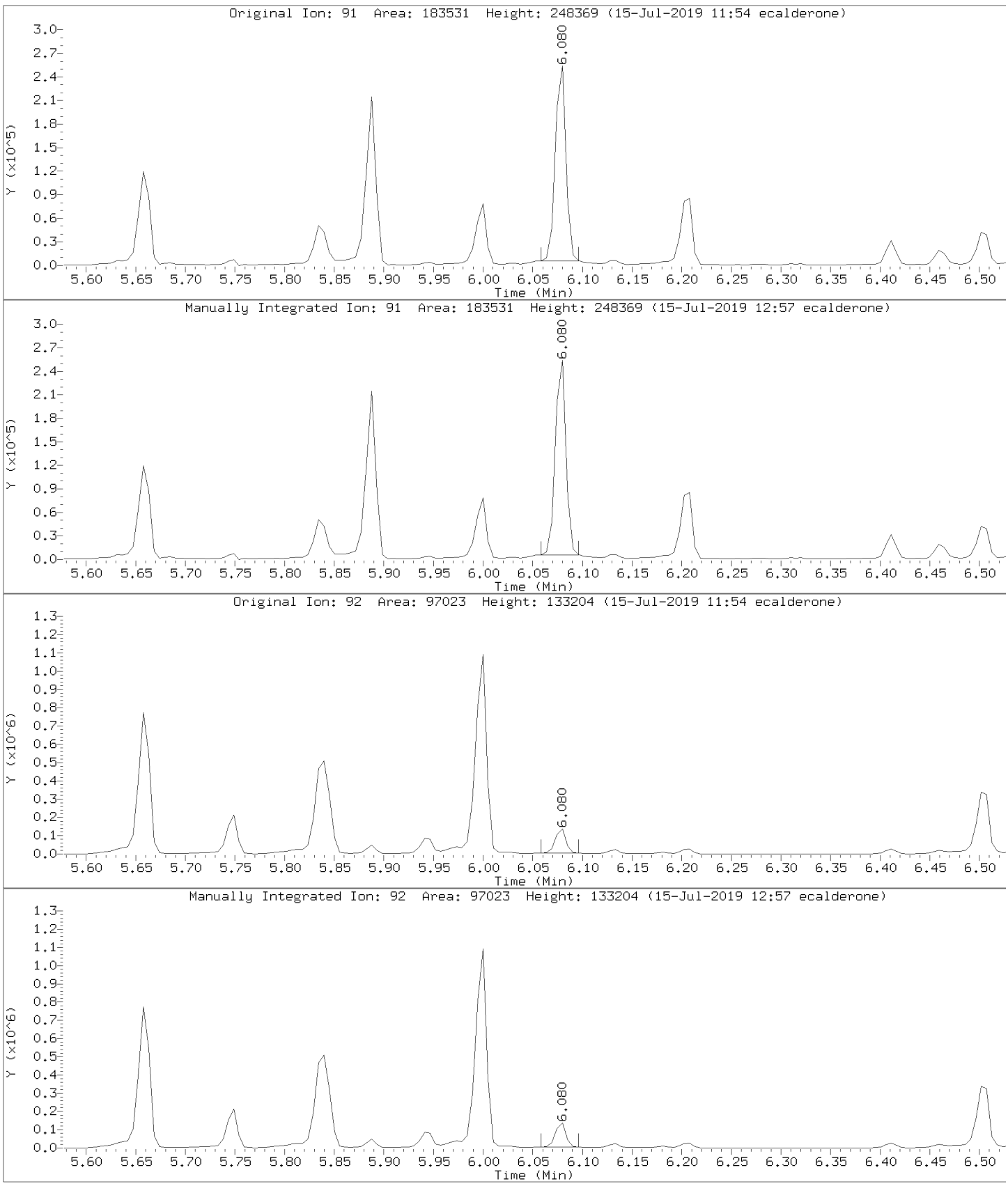
Instrument: 30mss1.i
Lab Sample ID: CAL4



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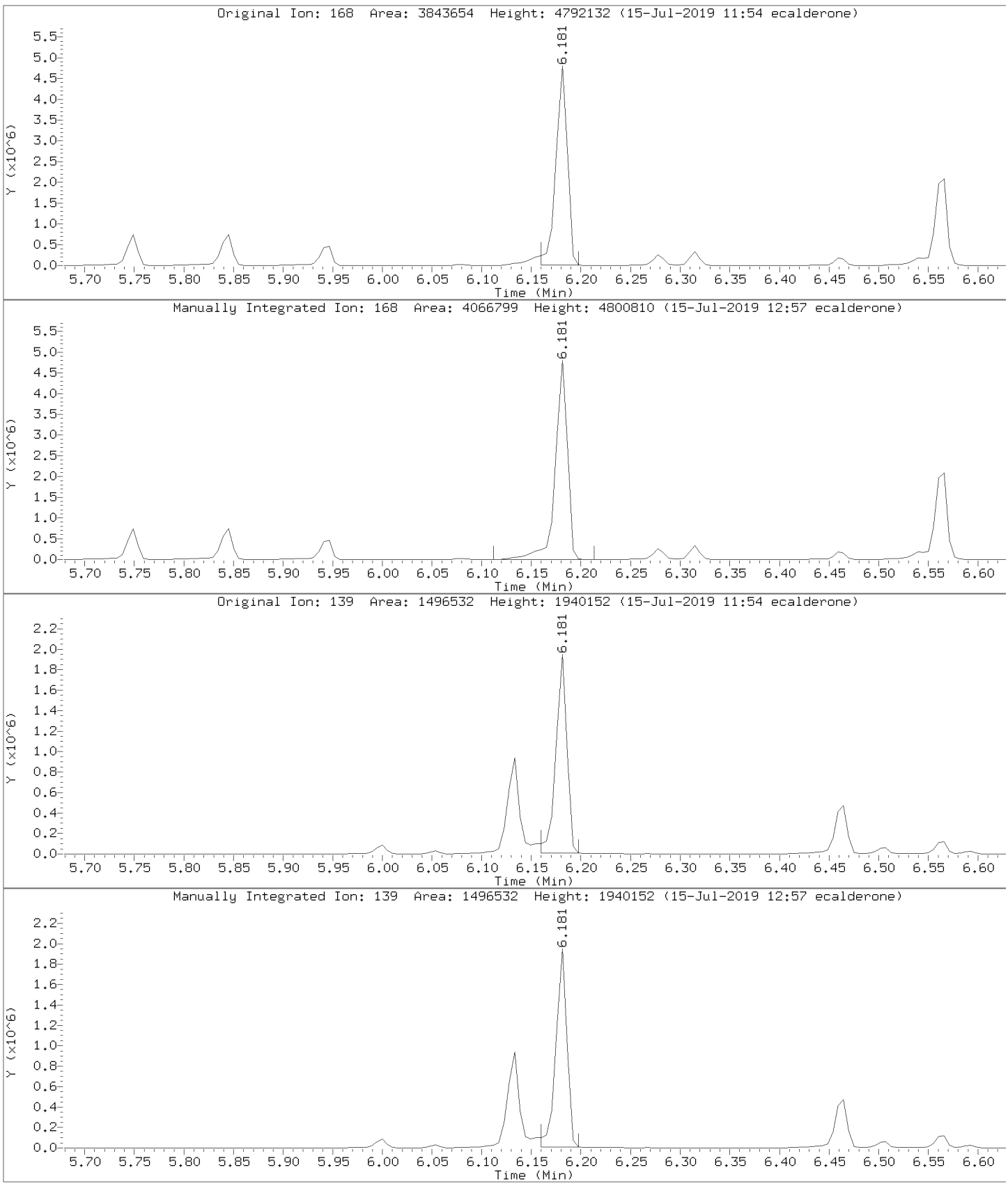
Lab Sample ID: CAL4

Compound: Dibenzofuran Review Code: LT
CAS Number: 132-64-9



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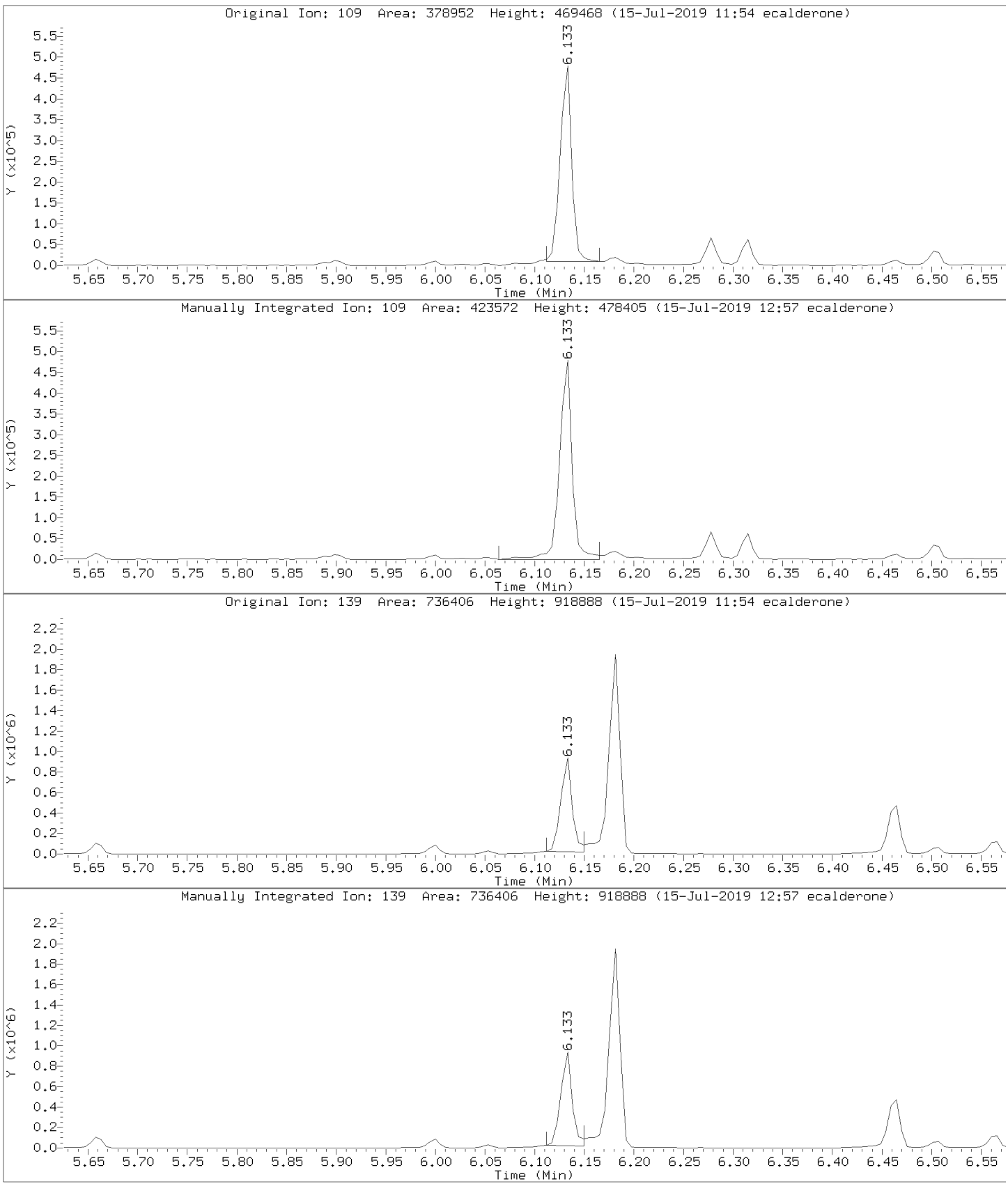
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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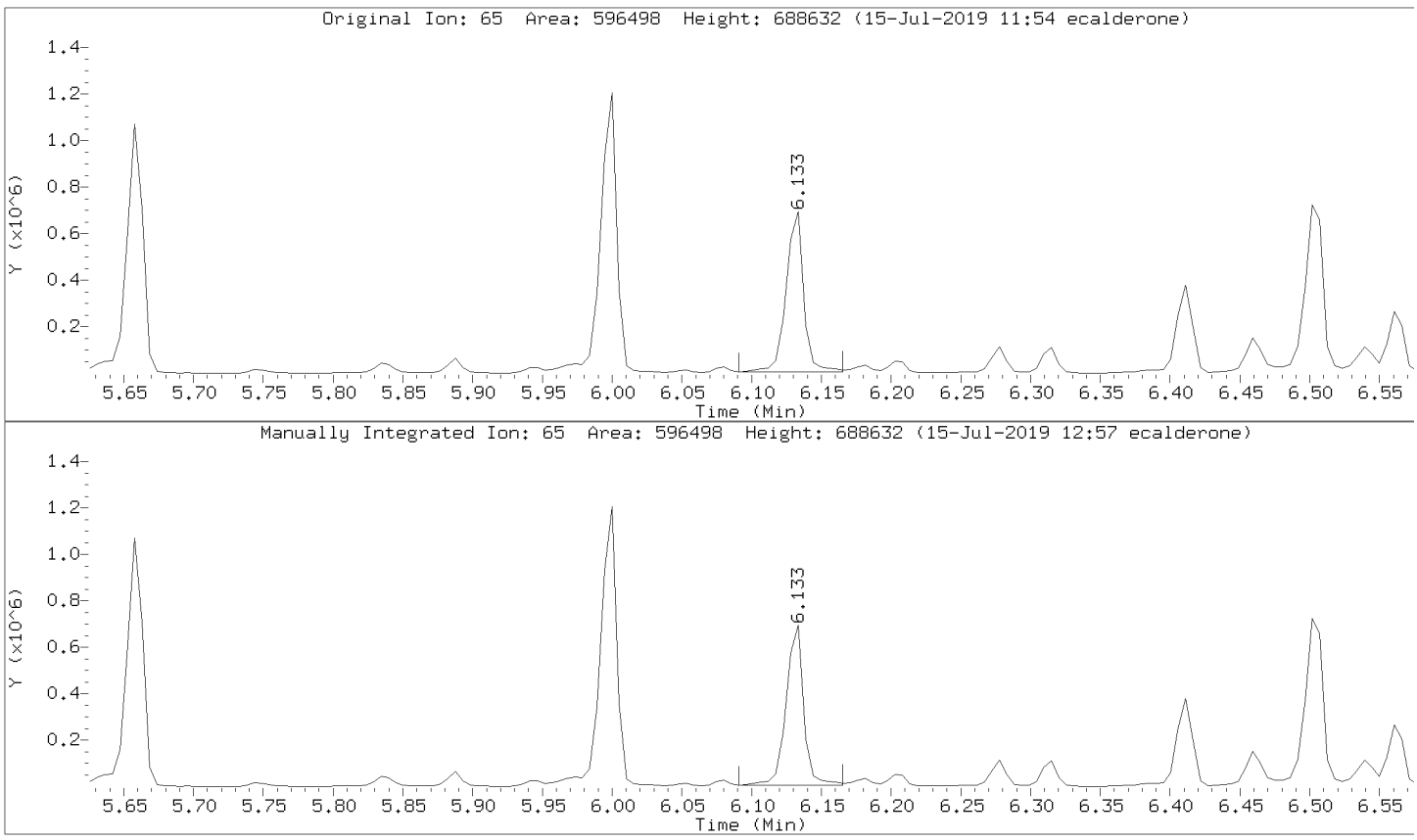
Lab Sample ID: CAL4



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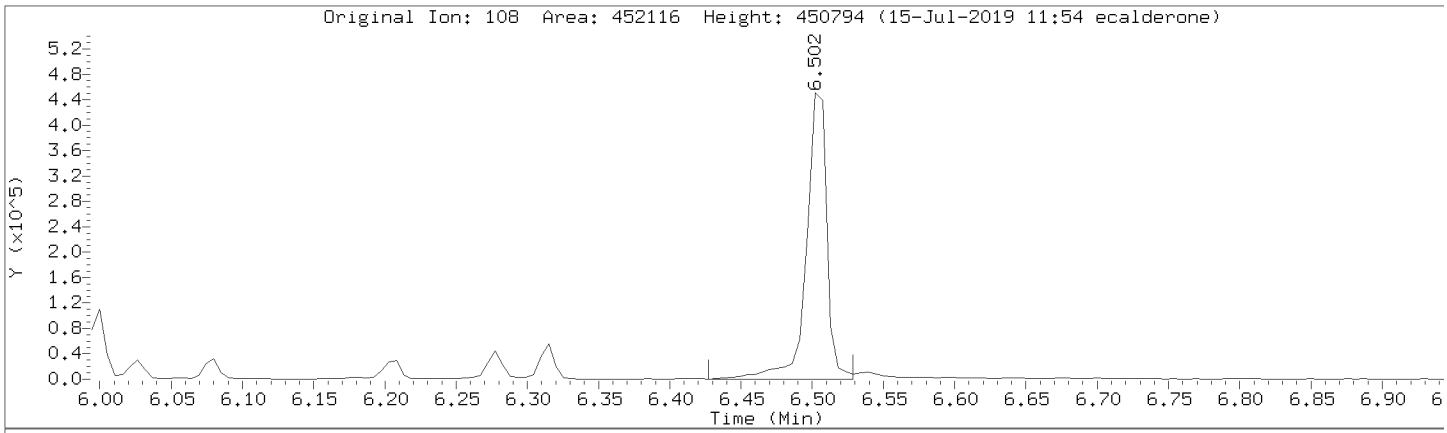
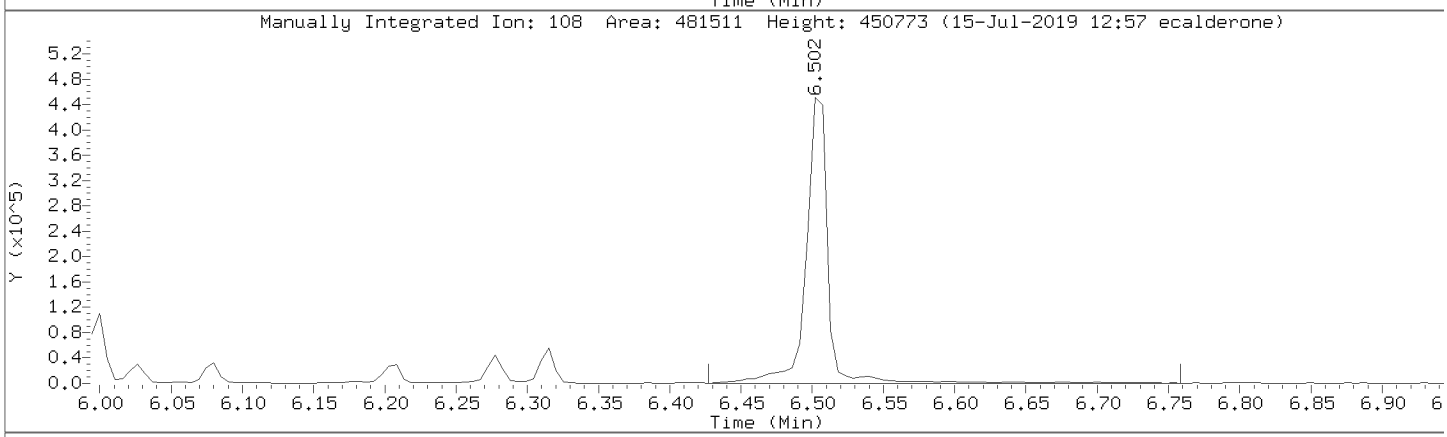
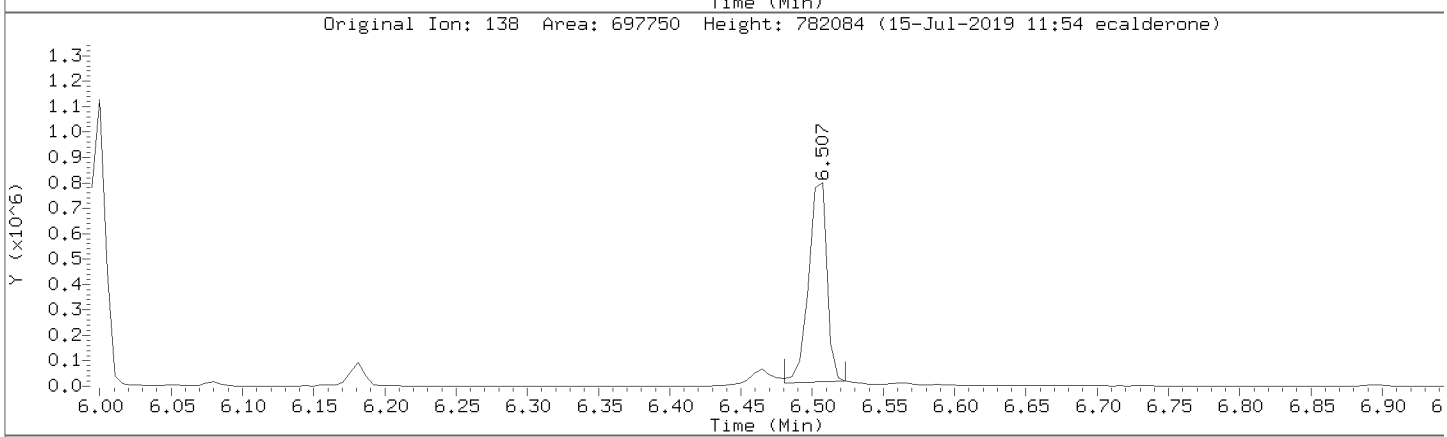
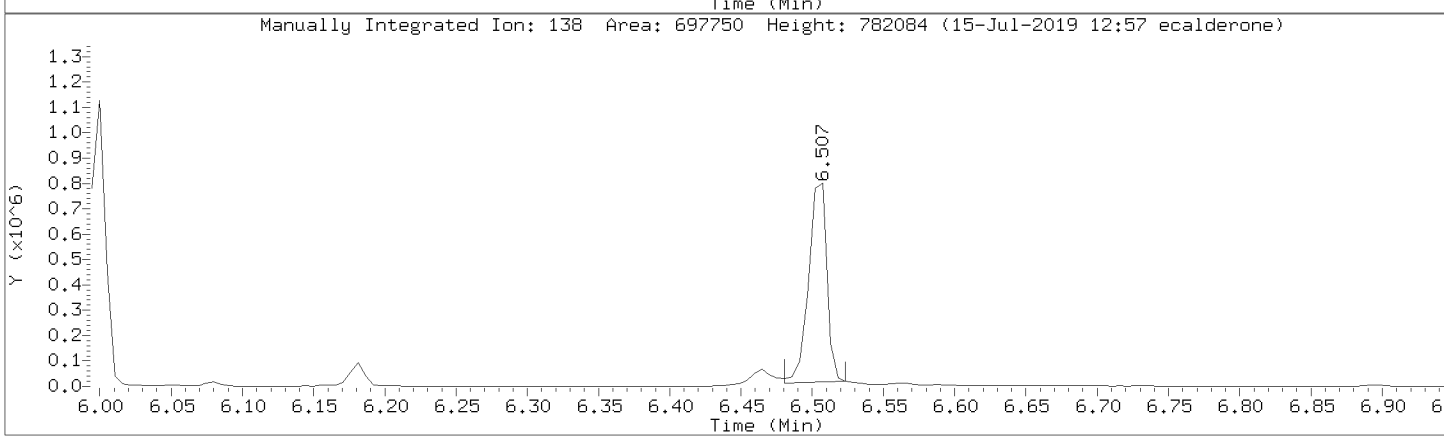
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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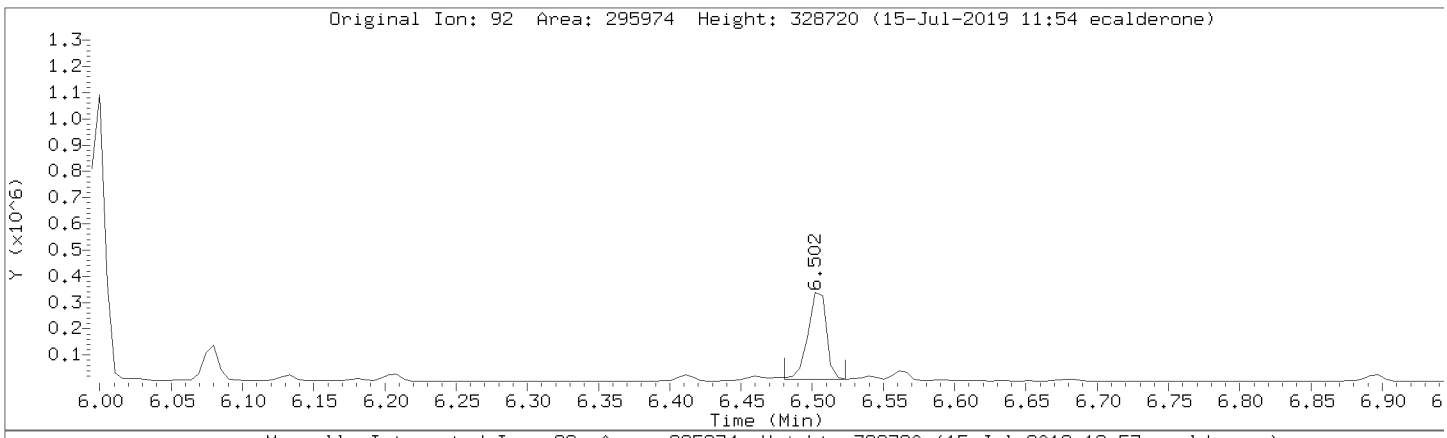
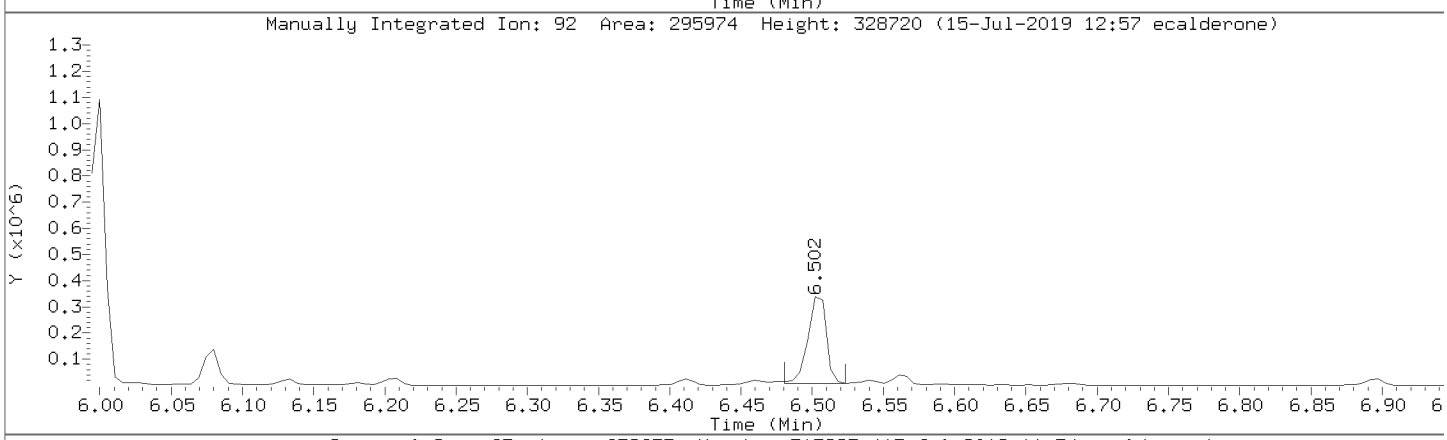
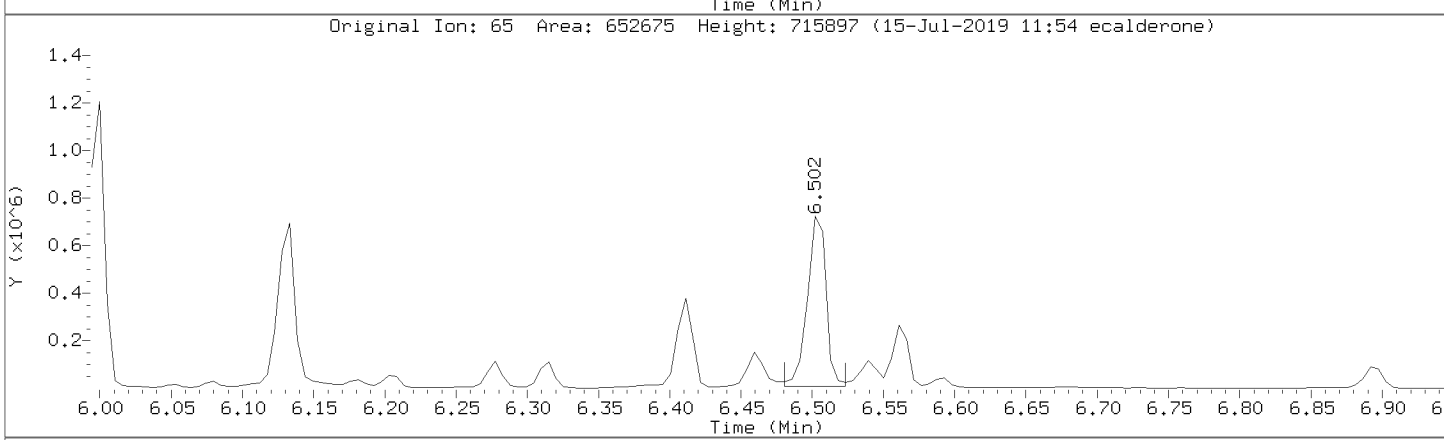
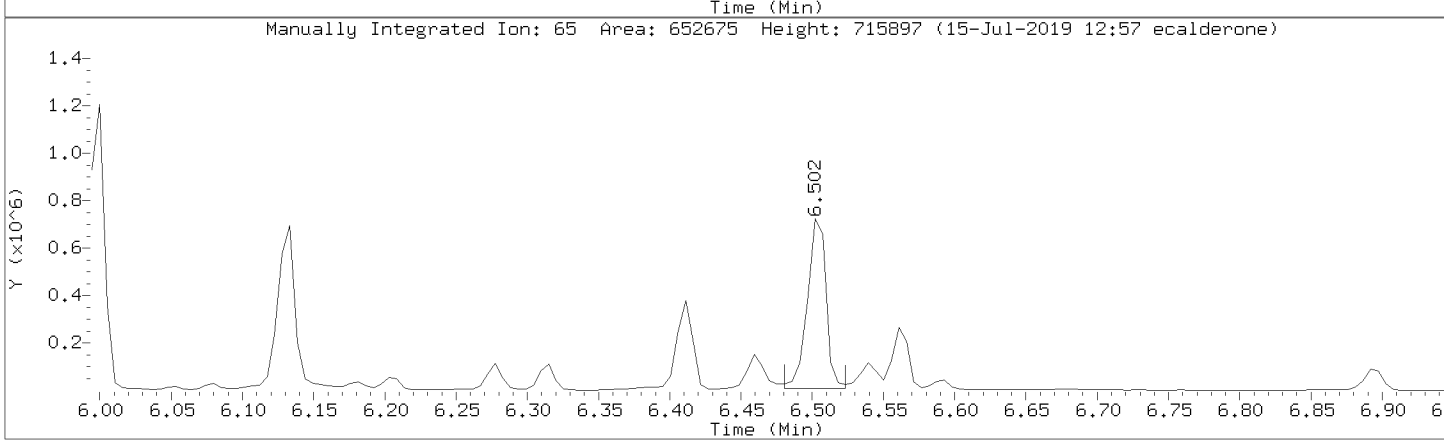
Injection Date: 15-JUL-2019 10:28
Instrument: 30mss1.i
Lab Sample ID: CAL4









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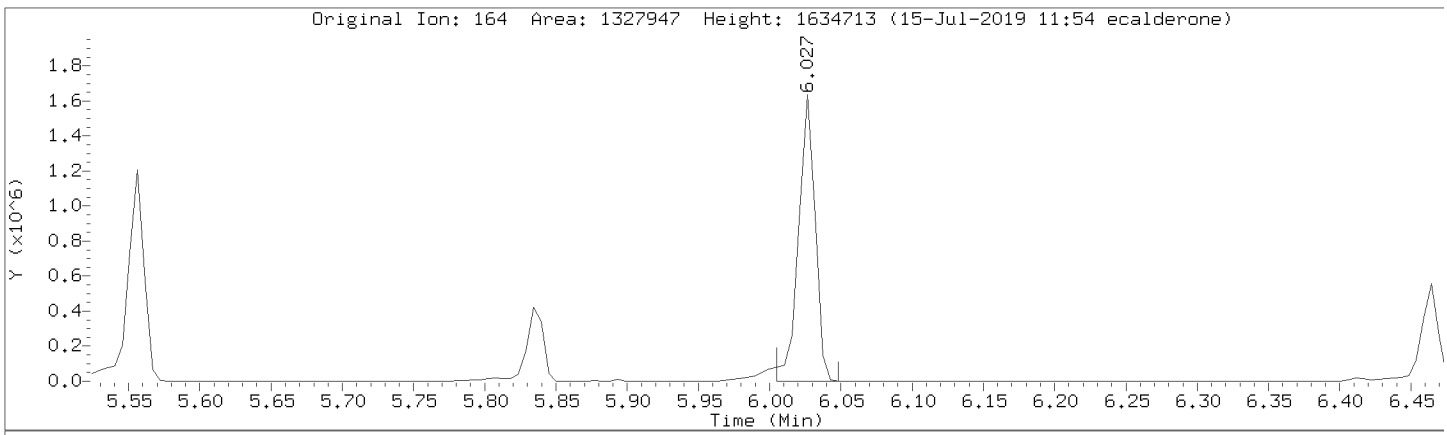
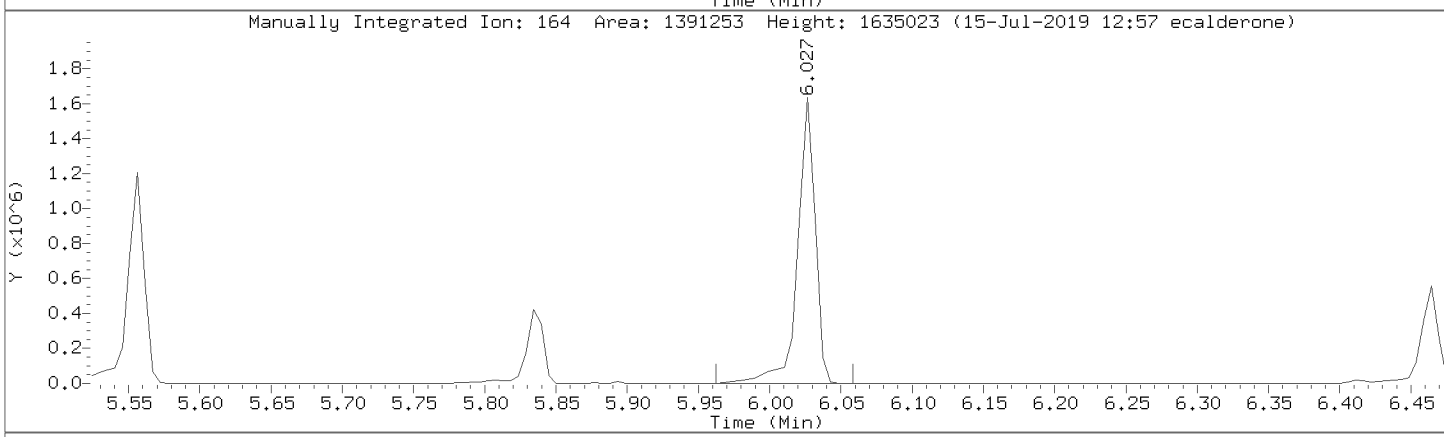
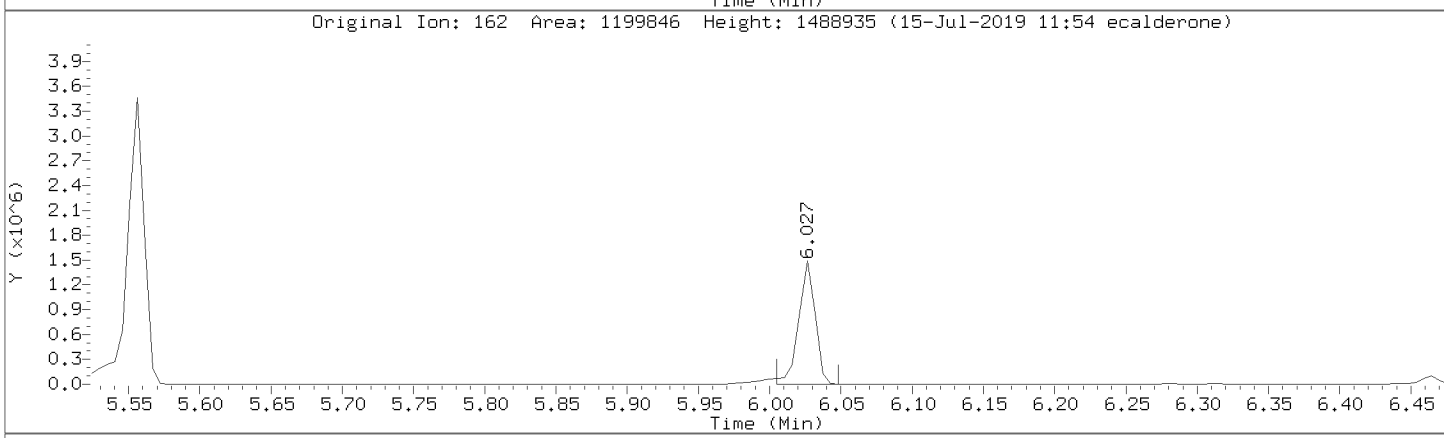
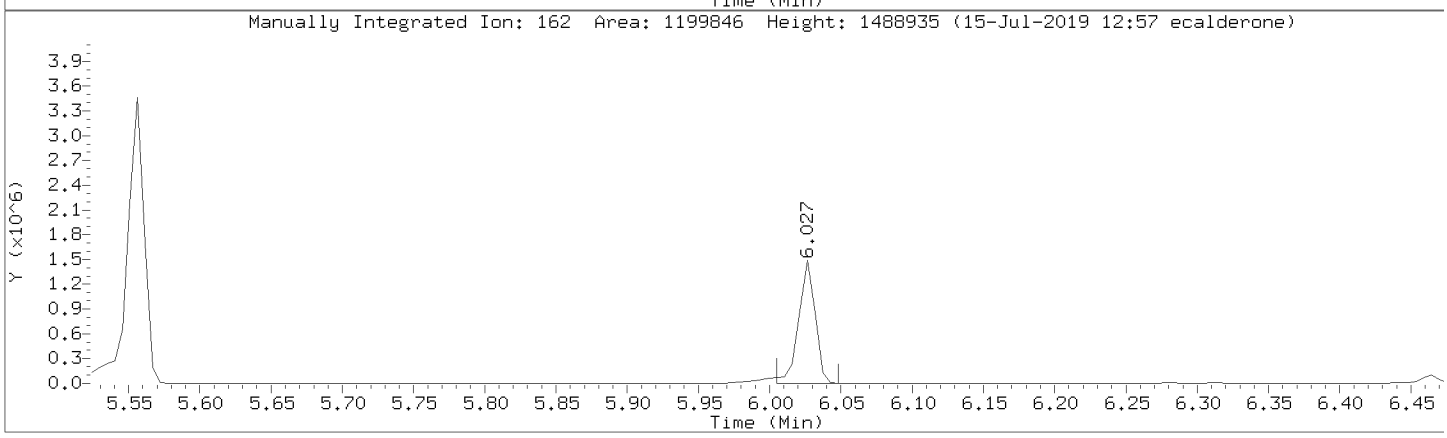
Injection Date: 15-JUL-2019 10:28
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Acenaphthene-d10 (IS) Review Code: LT
CAS Number: 15067-26-2









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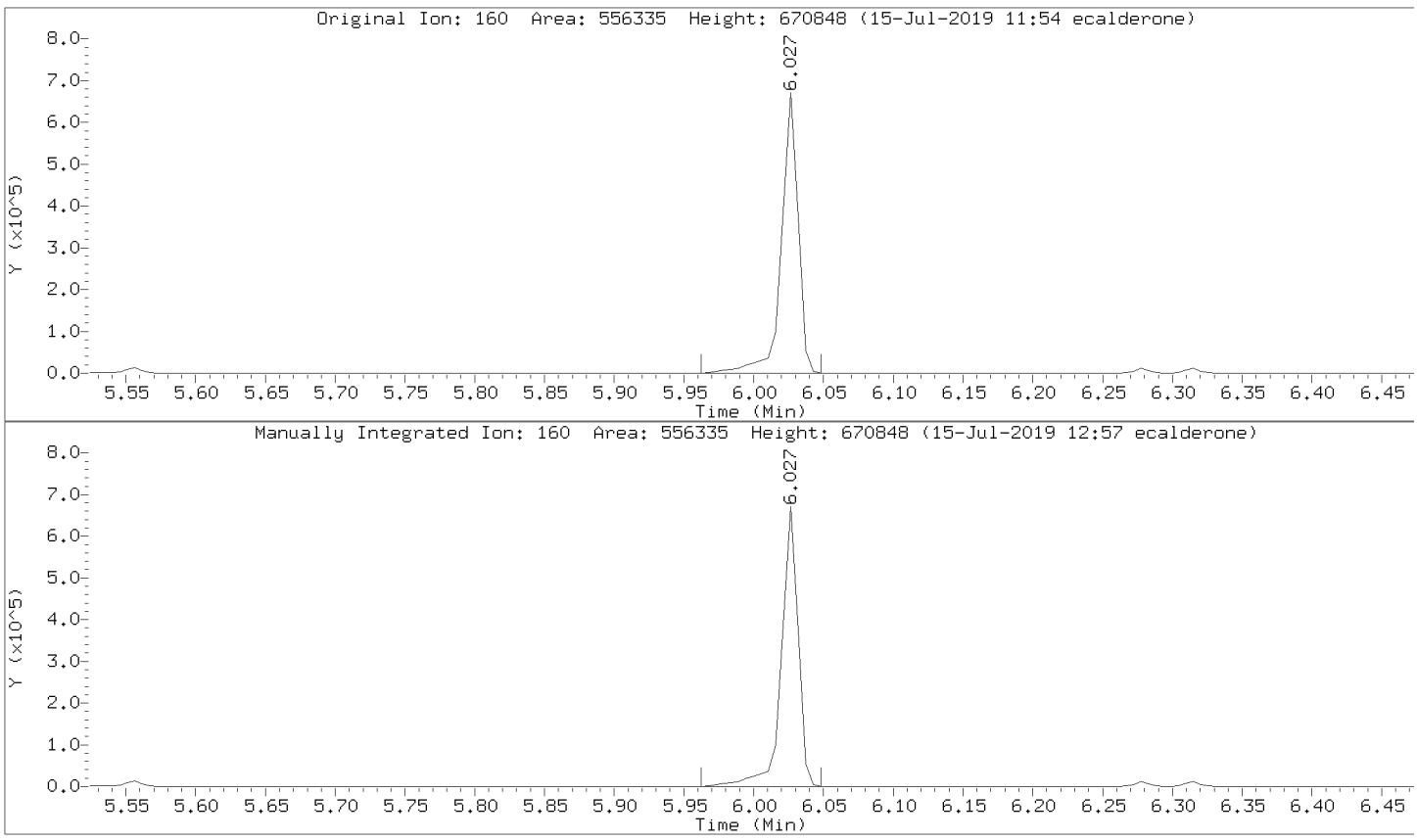
Injection Date: 15-JUL-2019 10:28
Instrument: 30mss1.i
Lab Sample ID: CAL4



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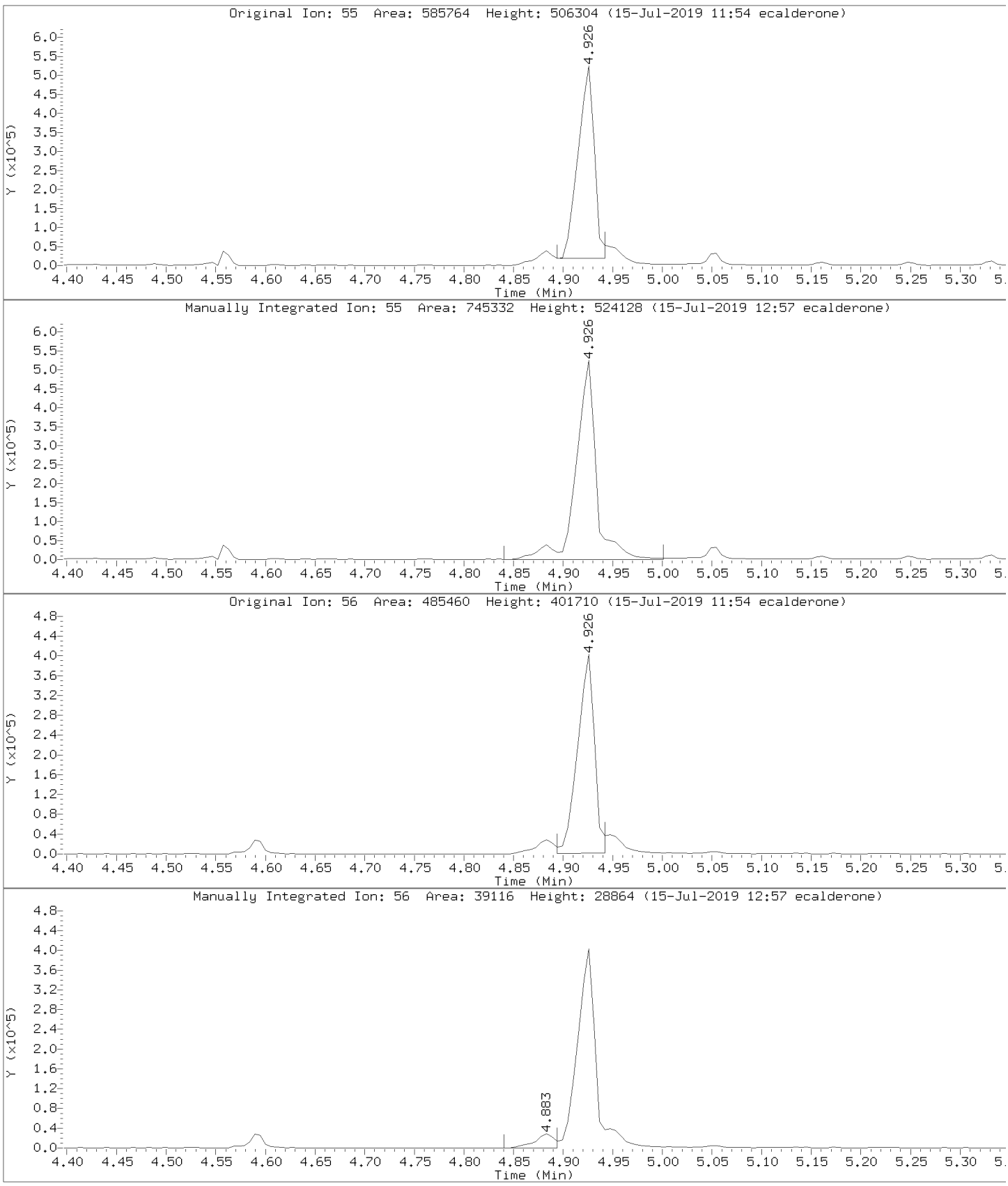
Injection Date: 15-JUL-2019 10:28
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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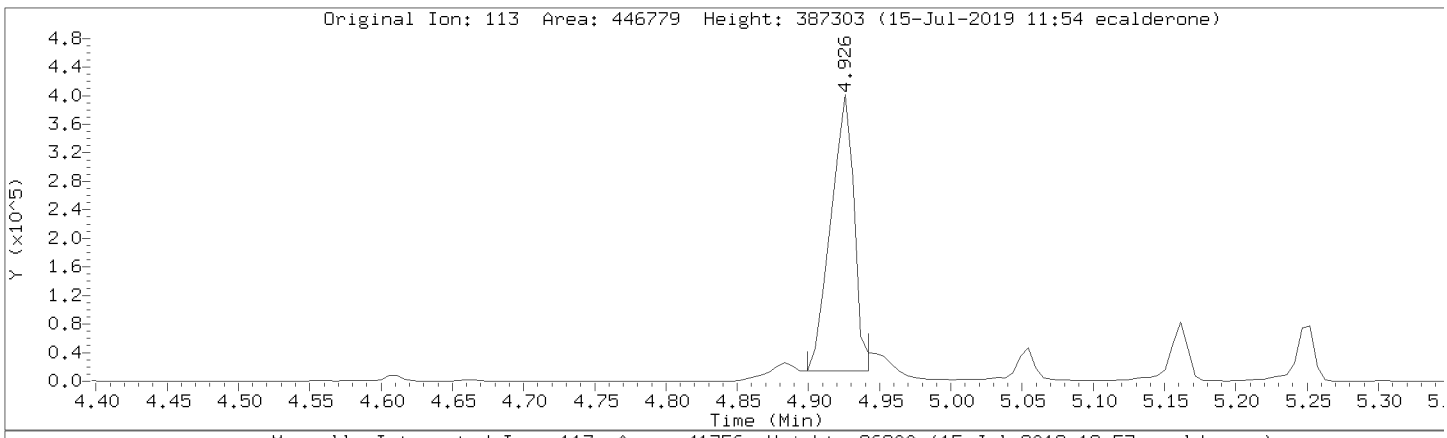

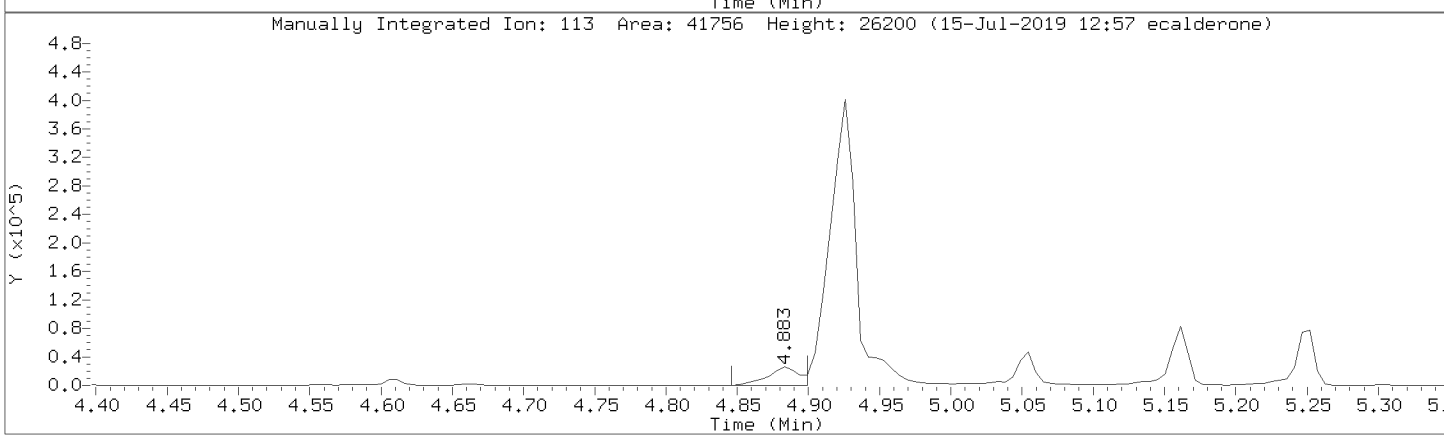

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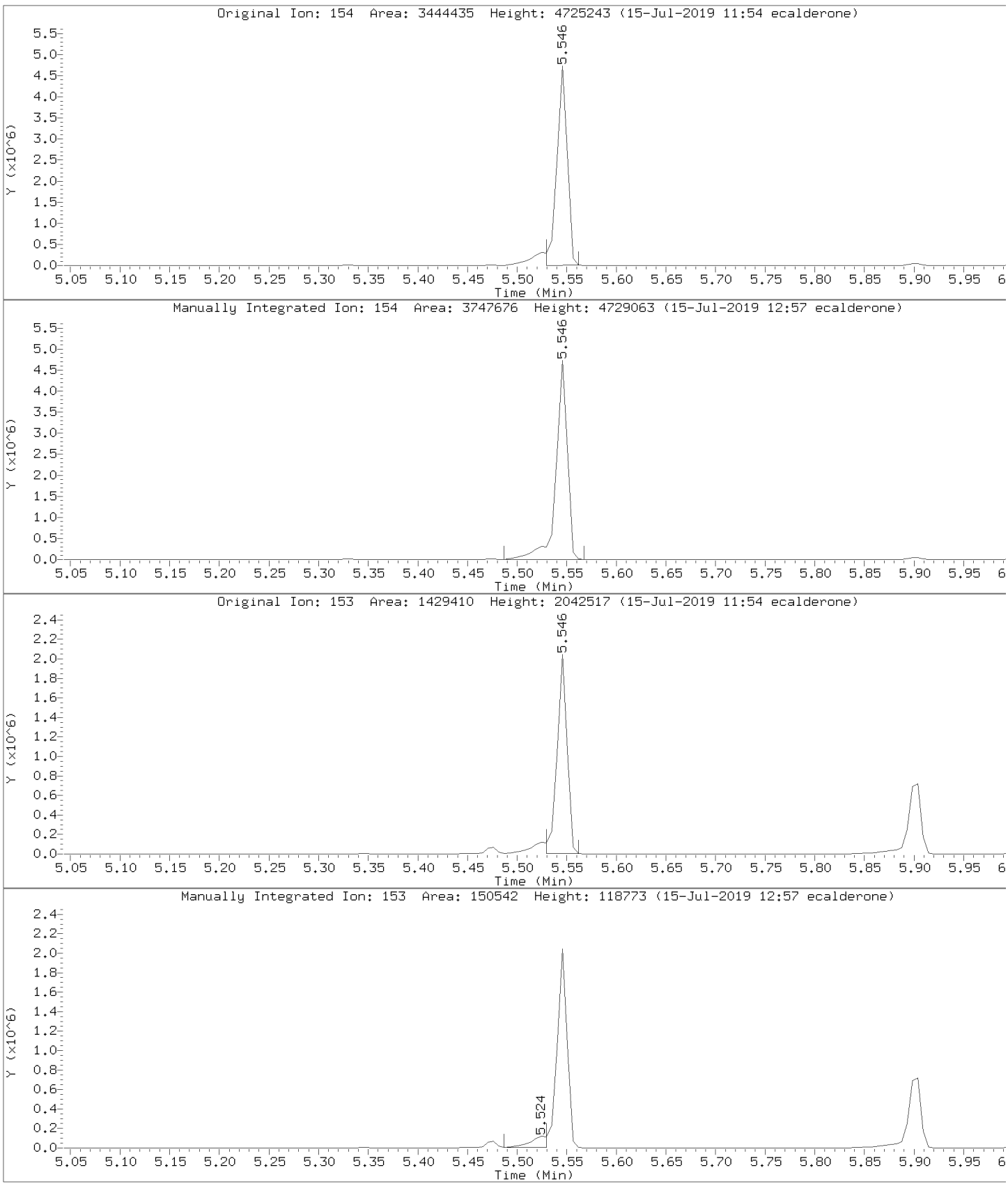
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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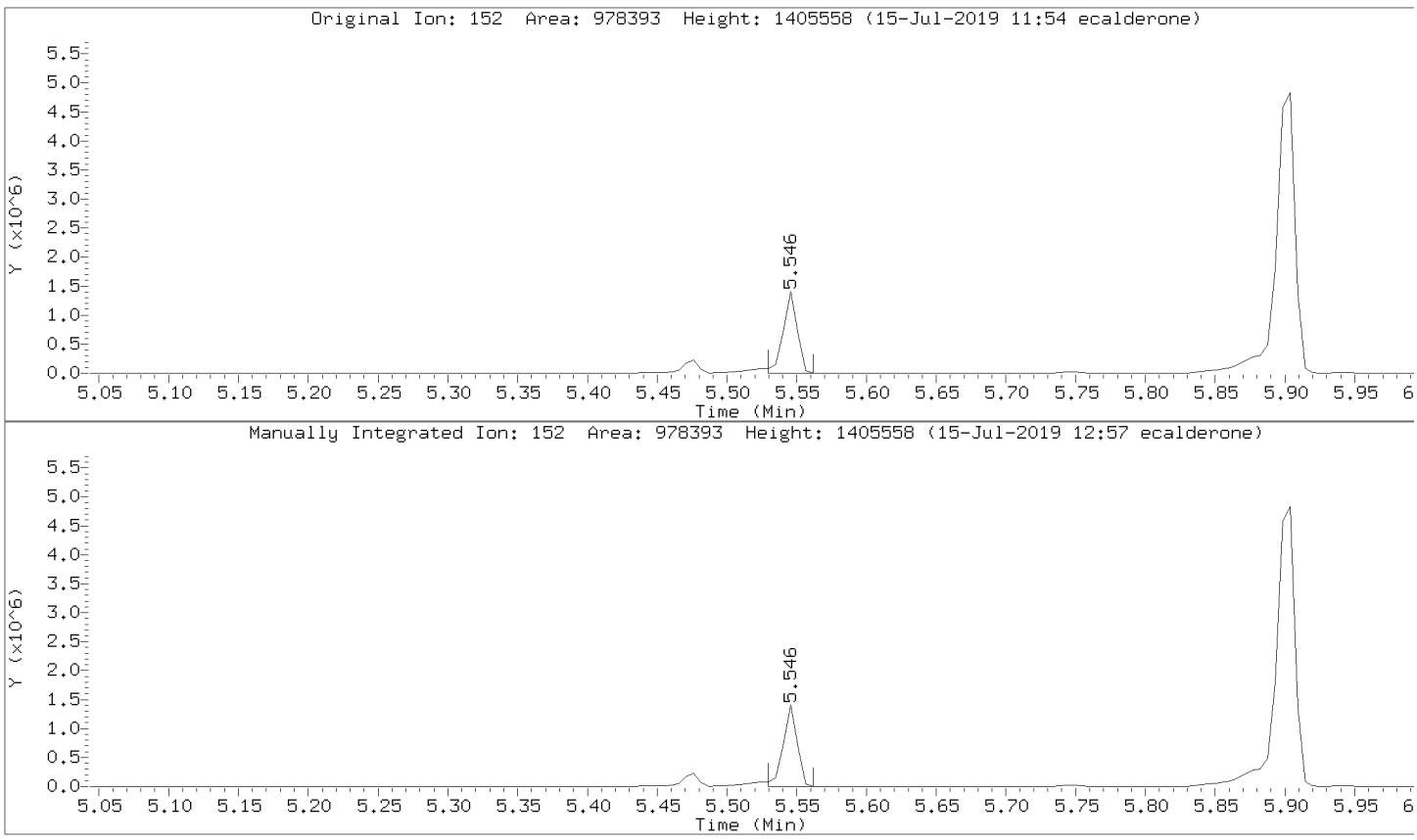
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y5.d
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Inj Date : 15-JUL-2019 10:51
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal3
Misc Info : 14828,93077:1
Comment :
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 10:51 Cal File: m10715y5.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.704	1.700	(0.474)	727947	4.00000	4.15	
	2 Pyridine	79	1.688	1.689	(0.470)	1091927	4.00000	4.18	
$	3 2-Fluorophenol (S)	112	2.703	2.704	(0.752)	799383	4.00000	3.90	
$	4 Phenol-d6 (S)	99	3.355	3.351	(0.933)	989341	4.00000	4.08	
	5 Benzaldehyde	77	3.286	3.281	(0.914)	695407	4.00000	3.87	
	6 Phenol	94	3.366	3.361	(0.936)	1053129	4.00000	4.07	
	7 Aniline	66	3.387	3.383	(0.942)	510809	4.00000	4.36	
	8 bis(2-Chloroethyl)ether	63	3.425	3.425	(0.952)	623169	4.00000	4.03	
	9 2-Chlorophenol	128	3.462	3.463	(0.963)	896901	4.00000	4.04	
	10 1,3-Dichlorobenzene	146	3.569	3.570	(0.993)	989881	4.00000	4.21	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	643155	4.00000		
	12 1,4-Dichlorobenzene	146	3.612	3.607	(1.004)	1033142	4.00000	3.95	
	13 Benzyl Alcohol	79	3.718	3.719	(1.034)	665956	4.00000	3.78	
	14 1,2-Dichlorobenzene	146	3.750	3.751	(1.043)	940438	4.00000	4.03	
	15 2-Methylphenol(o-Cresol)	108	3.809	3.810	(1.059)	821011	4.00000	3.99	
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	1389849	4.00000	4.13	
	17 3&4-Methylphenol(m&p Cresol)	108	3.921	3.917	(1.091)	854019	4.00000	4.31	
	18 N-Nitroso-di-n-propylamine	70	3.943	3.938	(1.097)	626292	4.00000	3.96	
	19 Acetophenone	105	3.921	3.922	(1.091)	1132961	4.00000	4.15	
	20 Hexachloroethane	117	3.991	3.986	(1.110)	366951	4.00000	3.92	
$	21 Nitrobenzene-d5 (S)	128	4.039	4.040	(0.880)	424805	4.00000	4.01	
	22 Nitrobenzene	77	4.055	4.050	(0.884)	866419	4.00000	4.17	
	23 Isophorone	82	4.237	4.232	(0.923)	1616982	4.00000	4.27	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	852711	4.00000	4.16	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	517406	4.00000	4.36	
	26 Benzoic acid	105	4.402	4.376	(0.959)	466947	4.00000	3.19(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	985953	4.00000	4.24	
	28 2,4-Dichlorophenol	162	4.488	4.483	(0.978)	715292	4.00000	4.14	
	29 1,2,4-Trichlorobenzene	180	4.557	4.558	(0.993)	773423	4.00000	4.13	
*	30 Naphthalene-d8 (IS)	136	4.589	4.590	(1.000)	2571764	4.00000		
	31 Naphthalene	128	4.605	4.606	(1.003)	2478837	4.00000	4.72	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	272269	4.00000	3.97	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	407081	4.00000	4.02	
	34 Caprolactam	55	4.904	4.894	(1.069)	360481	4.00000	3.94(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	711912	4.00000	4.06	
	36	2-Methylnaphthalene	142	5.161	5.162	(1.125)	1783991	4.00000	4.48	
	37	1-Methylnaphthalene	142	5.246	5.247	(1.143)	1643976	4.00000	4.41	
	38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	480143	4.00000	3.84	
	39	1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	685729	4.00000	4.10	
	40	2,4,6-Trichlorophenol	196	5.407	5.407	(0.897)	536240	4.00000	4.10	
	41	2,4,5-Trichlorophenol	196	5.439	5.439	(0.902)	479641	4.00000	3.95	
$	42	2-Fluorobiphenyl (S)	172	5.471	5.471	(0.908)	1758615	4.00000	4.50(M)	LT
	43	Biphenyl (Diphenyl)	154	5.545	5.541	(0.920)	2035505	4.00000	4.71	
	44	2-Chloronaphthalene	164	5.556	5.551	(0.922)	516163	4.00000	4.08(M)	LT
	45	2-Nitroaniline	138	5.658	5.653	(0.939)	571884	4.00000	3.98	
	46	Dimethylphthalate	163	5.834	5.829	(0.968)	1701784	4.00000	4.66(M)	LT
	47	2,6-Dinitrotoluene	165	5.882	5.883	(0.976)	393304	4.00000	3.84	
	48	Acenaphthylene	152	5.898	5.899	(0.979)	2513352	4.00000	4.87	
	49	3-Nitroaniline	65	5.994	5.990	(0.995)	483236	4.00000	4.07	
*	50	Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1388489	4.00000		
	51	2,4-Dinitrophenol	184	6.074	6.075	(1.008)	208120	4.00000	3.35	
	52	Acenaphthene	153	6.048	6.048	(1.004)	1563132	4.00000	4.44	
	53	4-Nitrophenol	109	6.128	6.123	(1.017)	210352	4.00000	4.12(M)	LT
	54	2,4-Dinitrotoluene	165	6.202	6.198	(1.029)	550161	4.00000	4.13	
	55	Dibenzofuran	168	6.176	6.176	(1.025)	2189987	4.00000	4.78	
	56	2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.048)	381635	4.00000	3.82	
	57	Diethylphthalate	149	6.411	6.406	(1.064)	1705128	4.00000	4.46	
	58	4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	841968	4.00000	4.28	
	59	Fluorene	166	6.459	6.460	(1.072)	1780881	4.00000	4.53	
	60	4-Nitroaniline	108	6.496	6.492	(1.078)	261079	4.00000	4.49(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.886)	310457	4.00000	3.86	
	62	N-Nitrosodiphenylamine	169	6.560	6.556	(0.890)	1561455	4.00000	4.57	
	63	Azobenzene	77	6.587	6.588	(0.893)	1615274	4.00000	4.46	
	64	1,2-Diphenylhydrazine	77	6.587	6.588	(0.893)	1615274	4.00000	4.46	
$	65	2,4,6-Tribromophenol (S)	330	6.678	6.679	(0.906)	241949	4.00000	3.80	
	66	4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	488492	4.00000	4.00	
	67	Hexachlorobenzene	284	7.052	7.053	(0.957)	477598	4.00000	3.90	
	68	Atrazine	200	7.111	7.106	(0.964)	488141	4.00000	4.11	
	69	Pentachlorophenol	266	7.239	7.240	(0.982)	279149	4.00000	3.65	
*	70	Phenanthrene-d10 (IS)	188	7.372	7.368	(1.000)	2287639	4.00000		
	71	Phenanthrene	178	7.394	7.395	(1.003)	2649081	4.00000	4.69	
	72	Anthracene	178	7.442	7.437	(1.009)	2550455	4.00000	4.66	
	73	Carbazole	167	7.618	7.614	(1.033)	2369365	4.00000	4.76	
	74	Di-n-butylphthalate	149	8.067	8.068	(1.094)	2795929	4.00000	4.82	
	75	Fluoranthene	202	8.665	8.666	(1.175)	2583083	4.00000	4.72	
	76	Pyrene	202	8.900	8.896	(0.876)	2673362	4.00000	4.70	
$	77	Terphenyl-d14 (S)	244	9.087	9.083	(0.895)	1992130	4.00000	4.46	
	78	Butylbenzylphthalate	149	9.637	9.633	(0.949)	1163450	4.00000	4.01	
	79	3,3'-Dichlorobenzidine	252	10.134	10.135	(0.998)	859614	4.00000	3.99	
	80	bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	1642502	4.00000	4.24	
	81	Benzo(a)anthracene	228	10.140	10.135	(0.998)	2339605	4.00000	4.38	
*	82	Chrysene-d12 (IS)	240	10.156	10.151	(1.000)	2031031	4.00000		
	83	Chrysene	228	10.182	10.178	(1.003)	2287780	4.00000	4.60	
	84	Di-n-octylphthalate	149	10.834	10.835	(0.943)	2615387	4.00000	4.44	
	85	Benzo(b)fluoranthene	252	11.165	11.161	(0.972)	2411142	4.00000	4.15	
	86	Benzo(k)fluoranthene	252	11.187	11.182	(0.974)	2400763	4.00000	4.72	
	87	Benzo(a)pyrene	252	11.443	11.444	(0.996)	2030418	4.00000	4.08	
*	88	Perylene-d12 (IS)	264	11.491	11.492	(1.000)	1964688	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.330	12.325	(1.073)	2170253	4.00000	3.99	
90 Dibenz(a,h)anthracene	278	12.335	12.336	(1.073)	1902001	4.00000	4.28	
91 Benzo(g,h,i)perylene	276	12.533	12.528	(1.091)	1844285	4.00000	4.10	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y5.d
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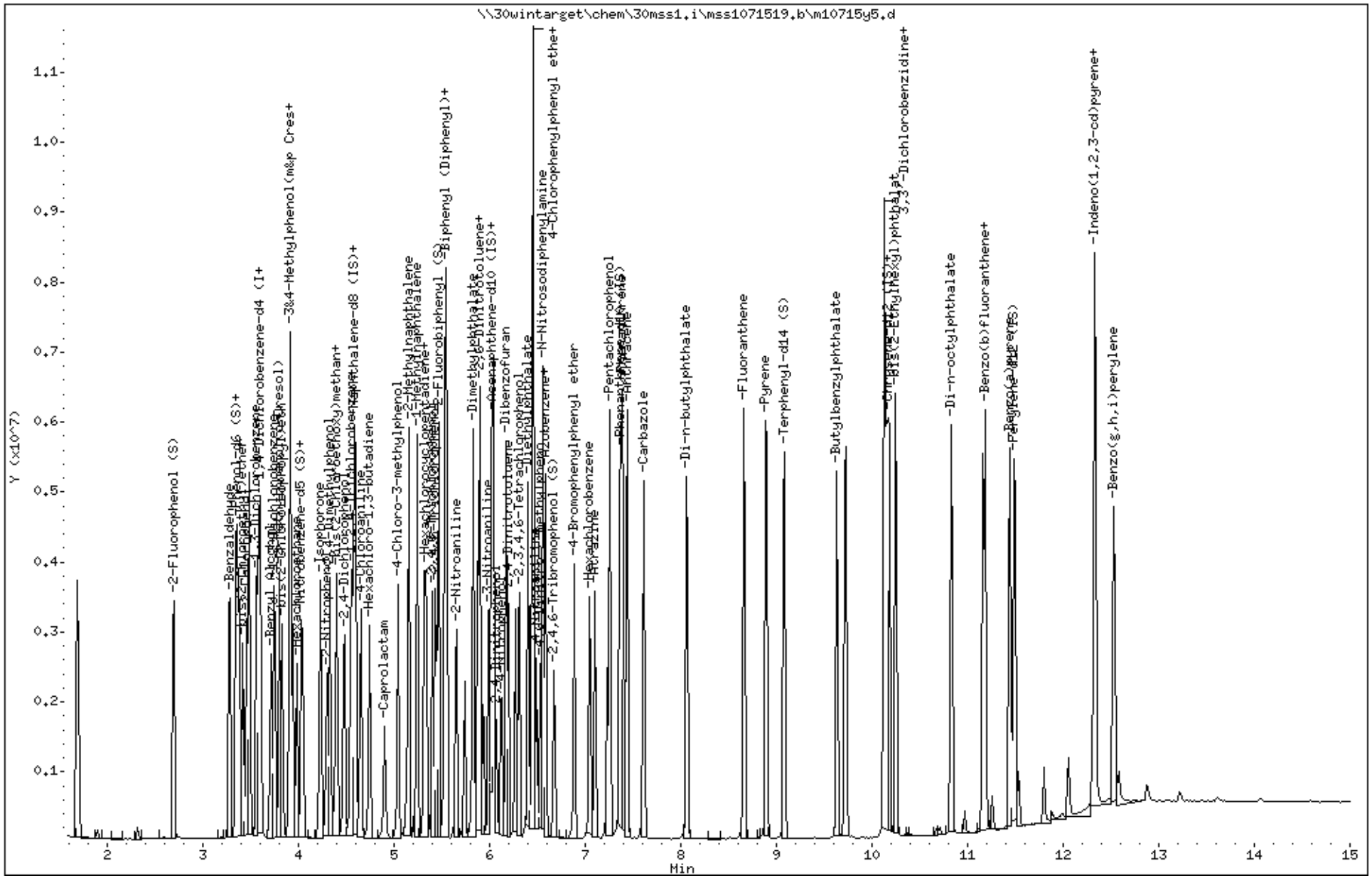
Client ID: CAL3
Sample Info: CAL3

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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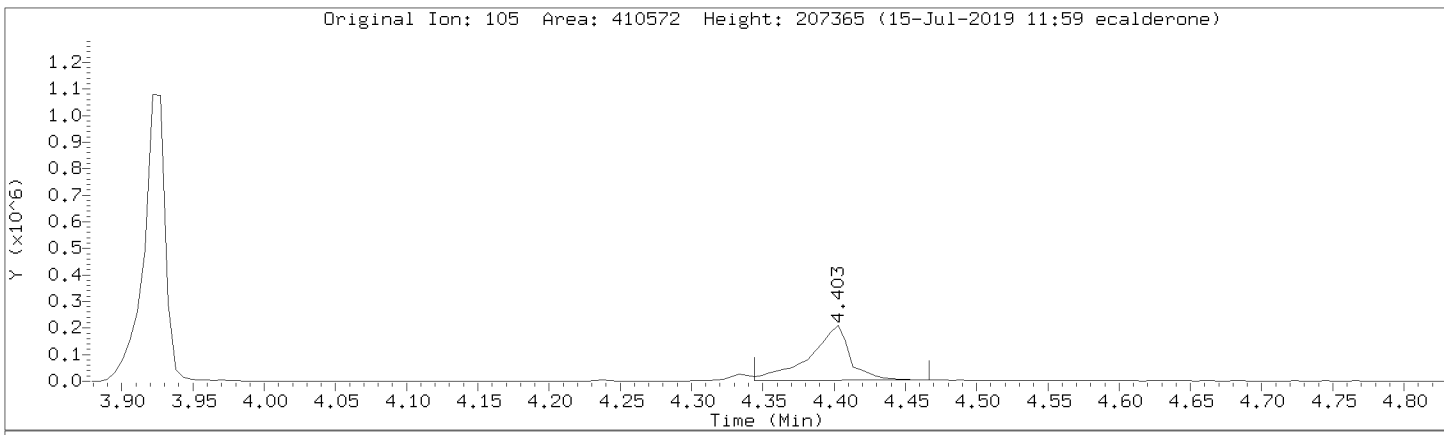
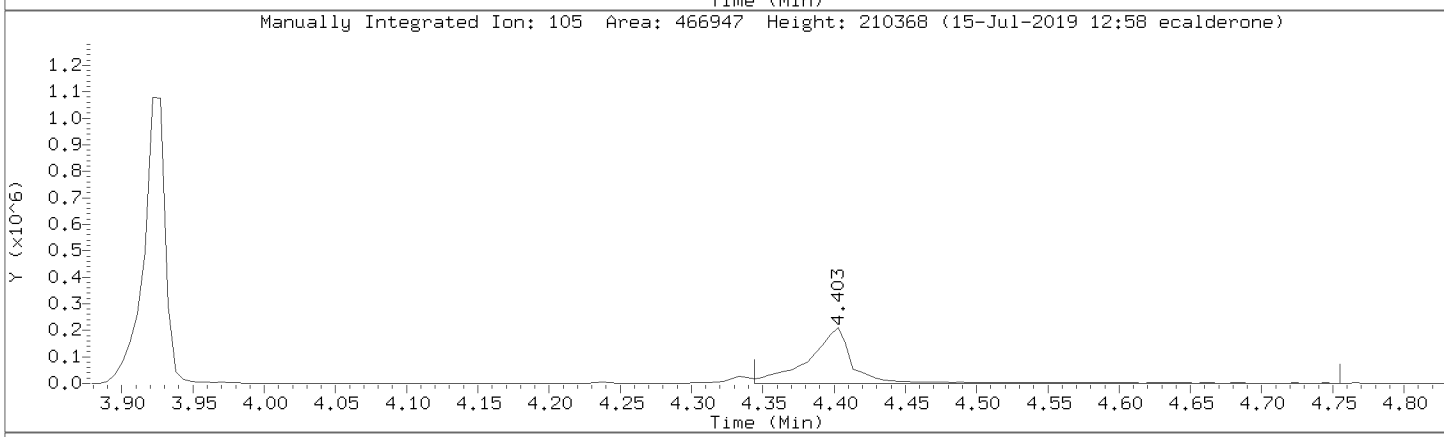
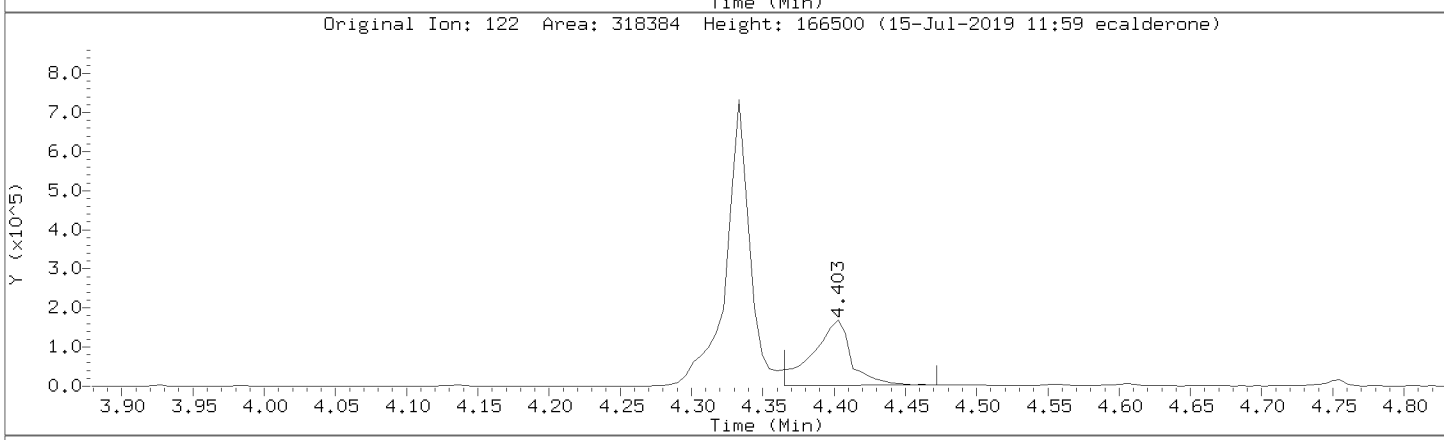
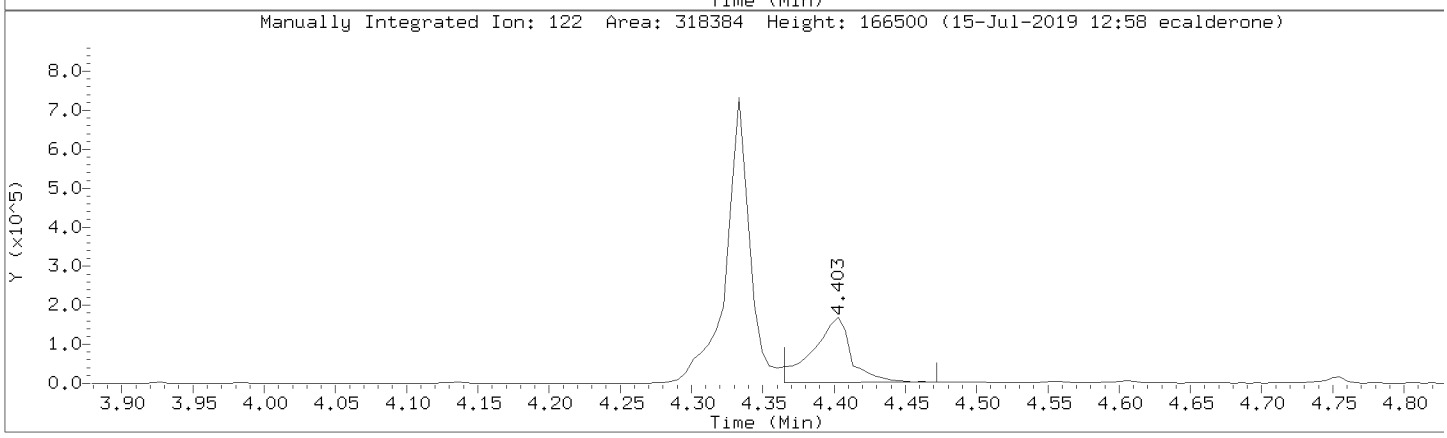
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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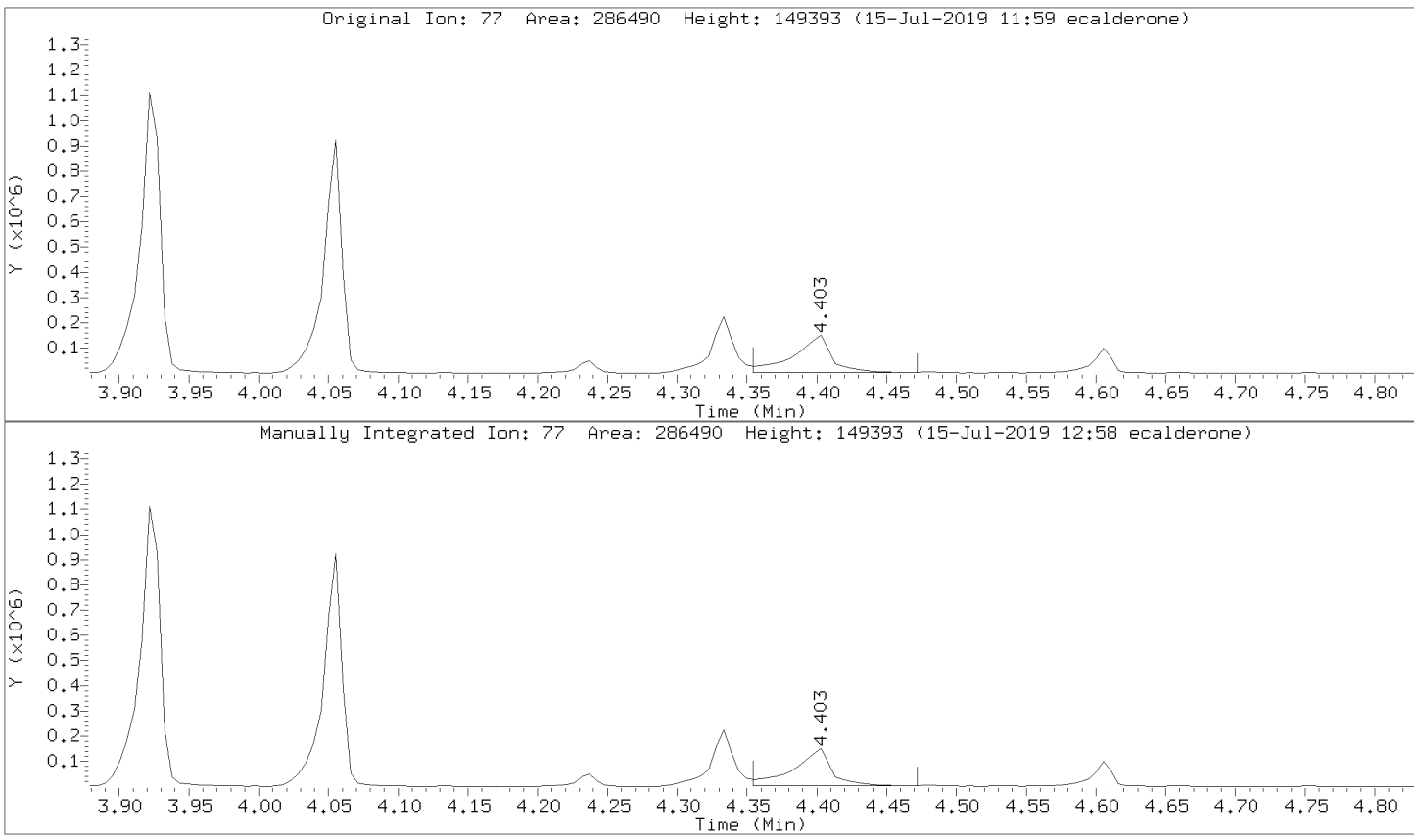
Lab Sample ID: CAL3



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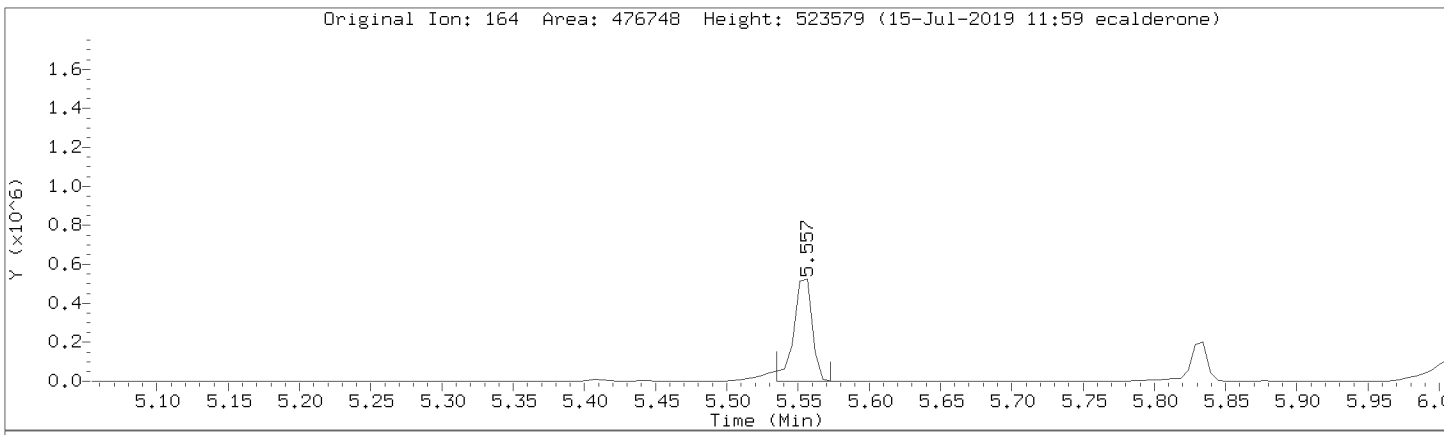
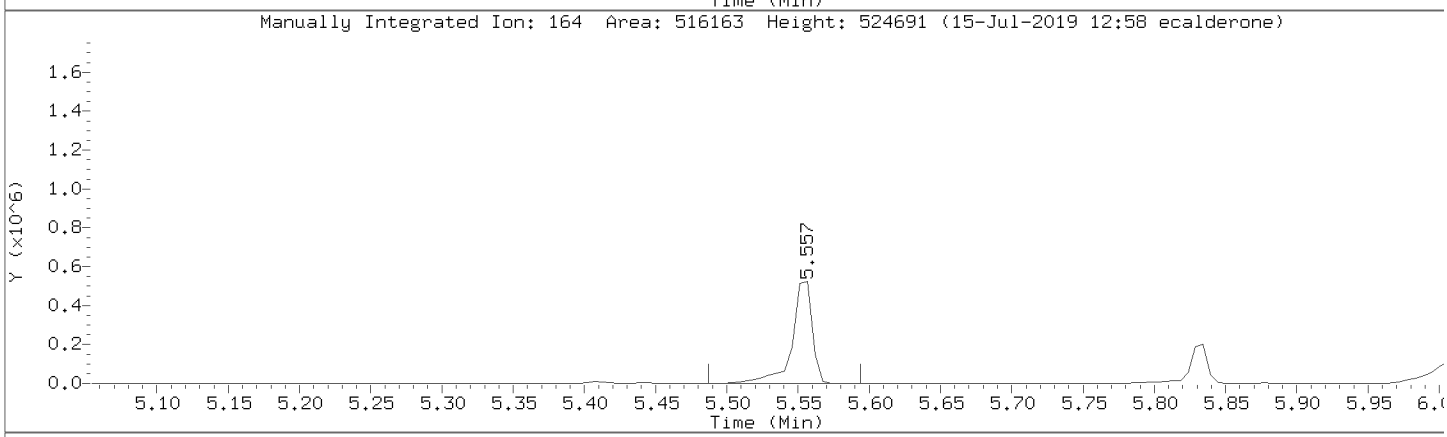
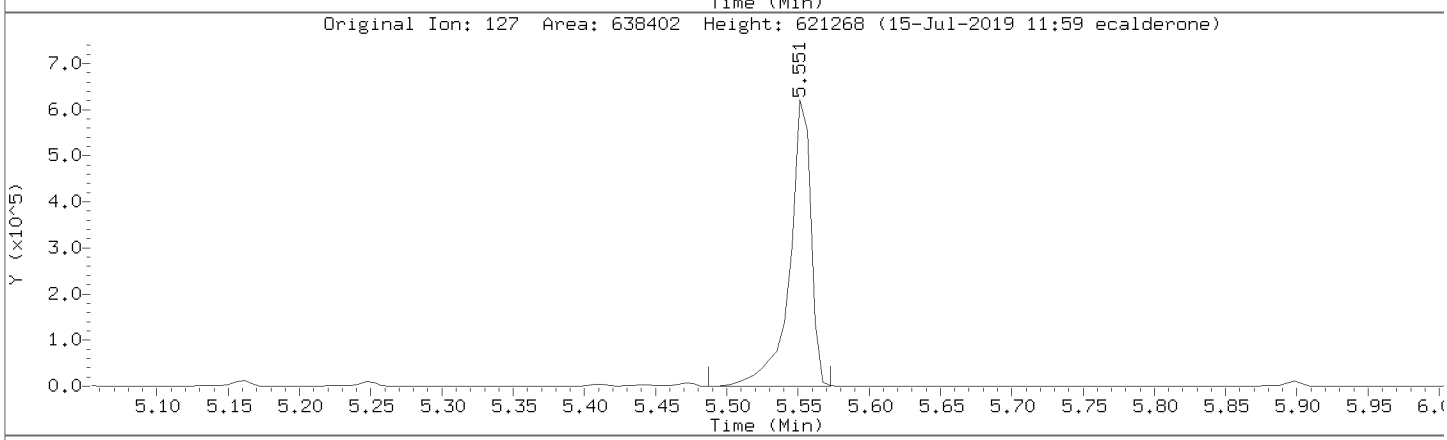
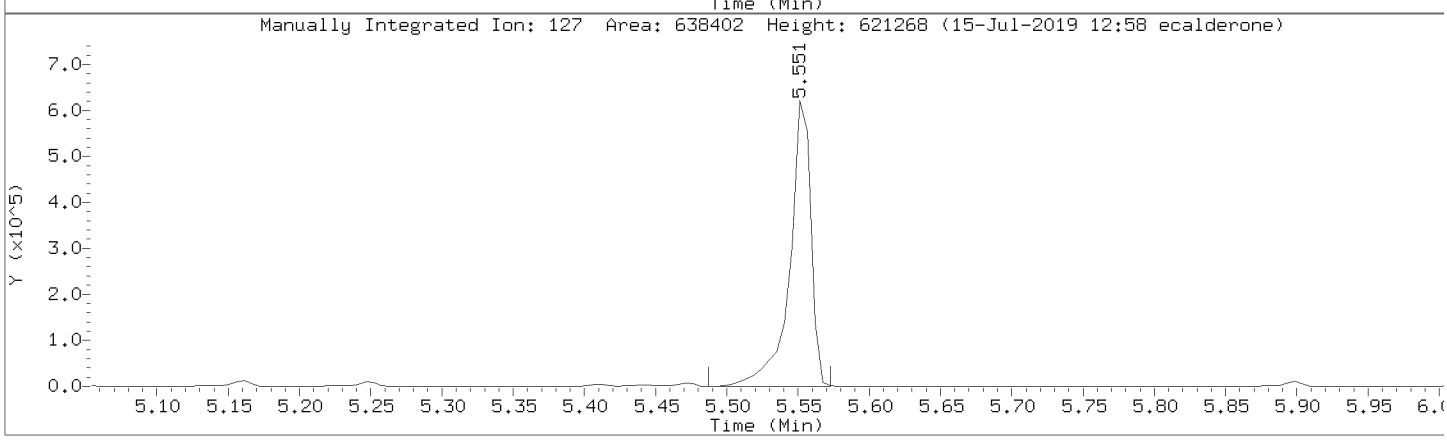
Compound: 2-Chloronaphthalene Review Code: LT
CAS Number: 91-58-7









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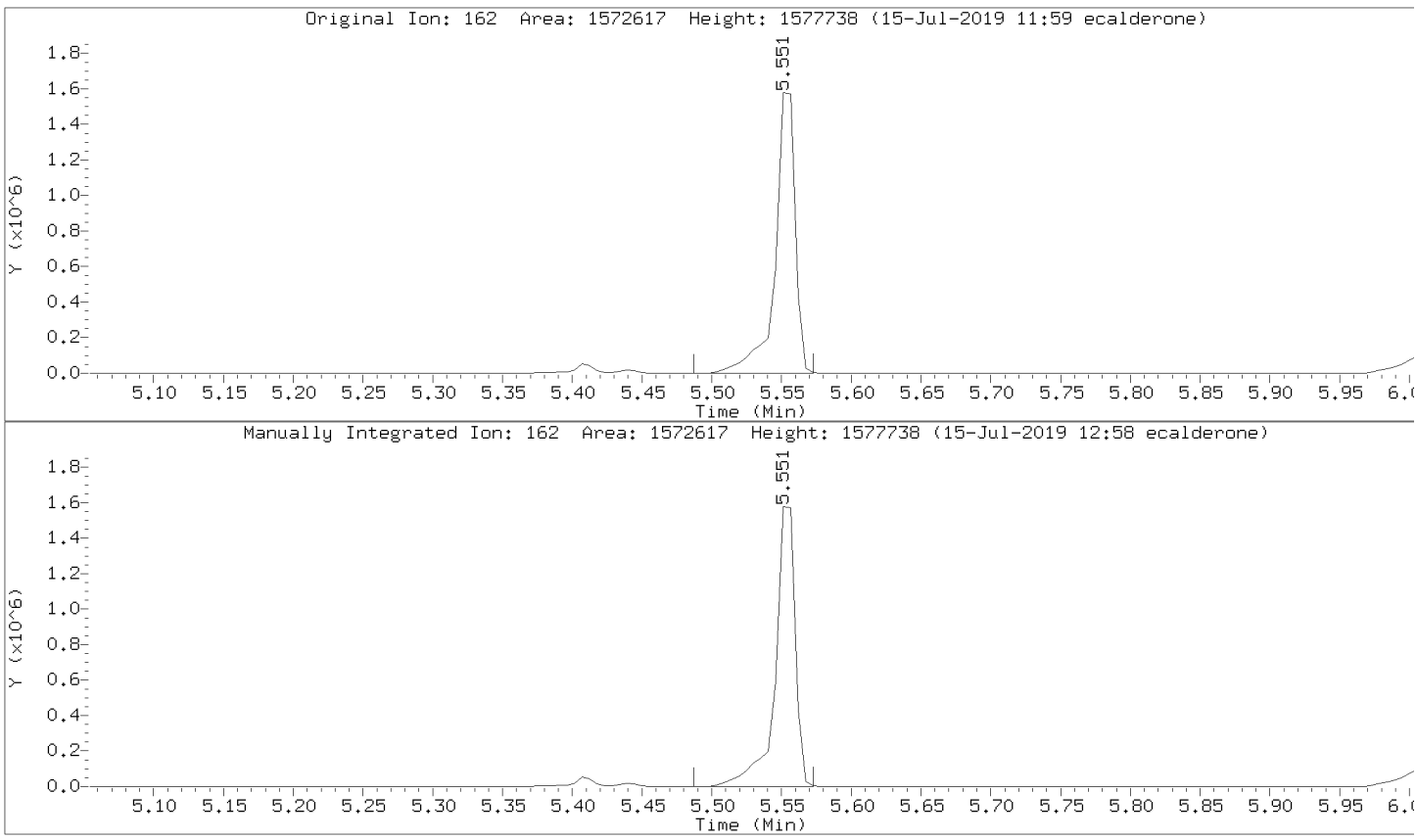
Instrument: 30mss1.i
Lab Sample ID: CAL3



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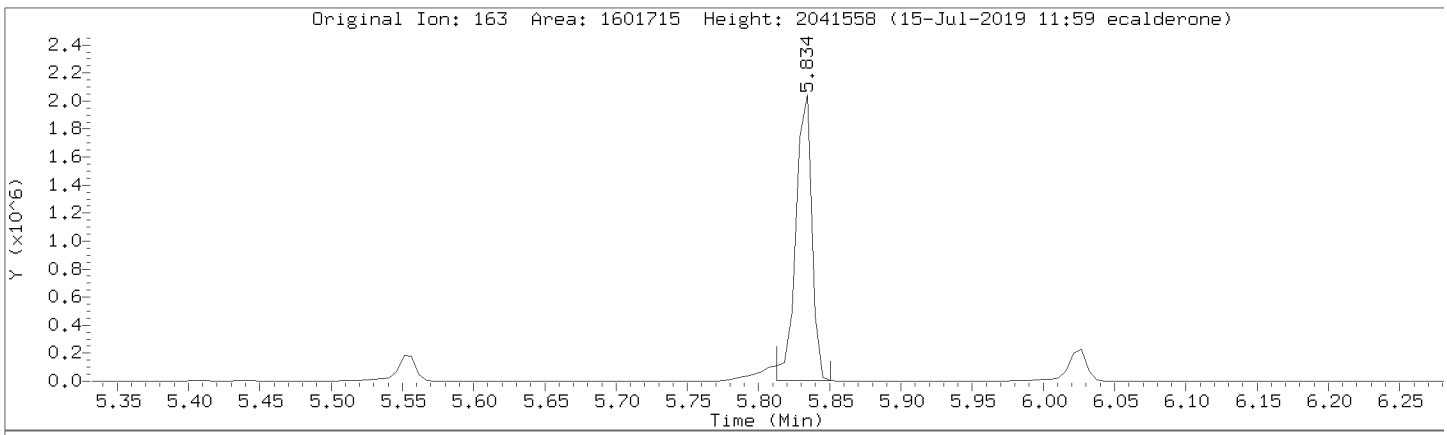
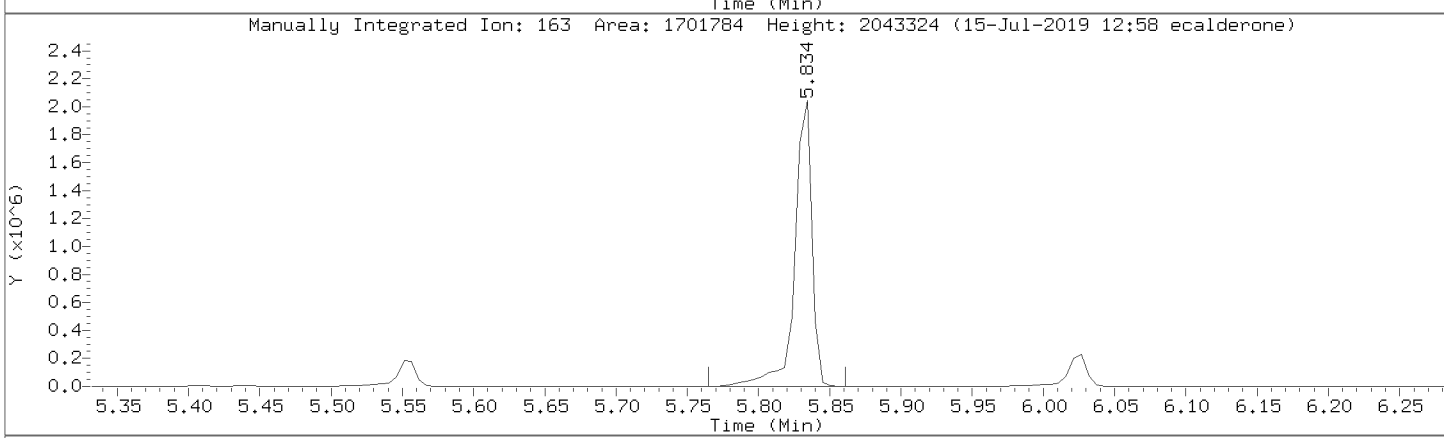
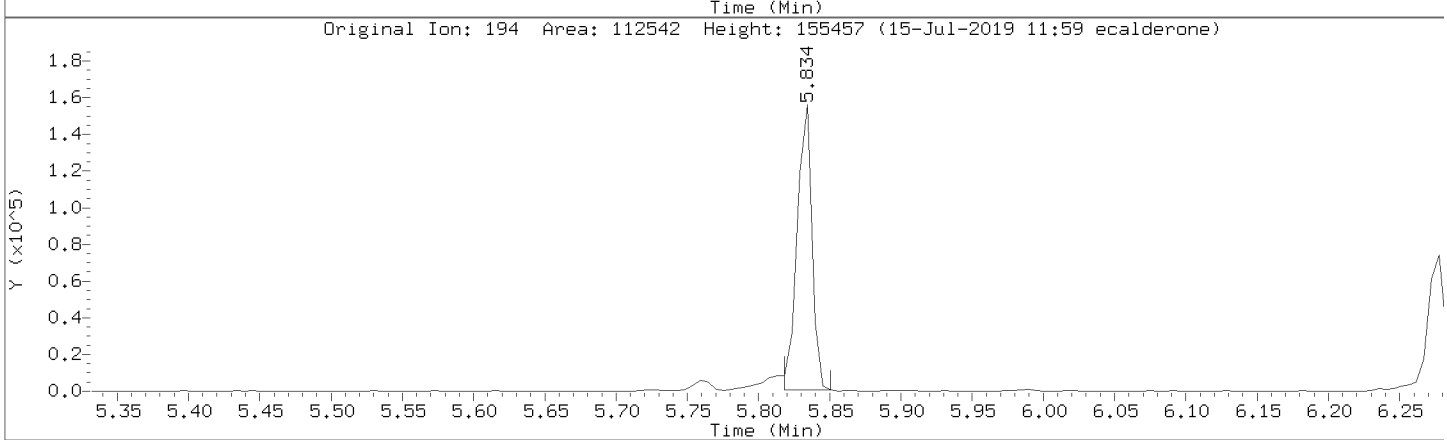
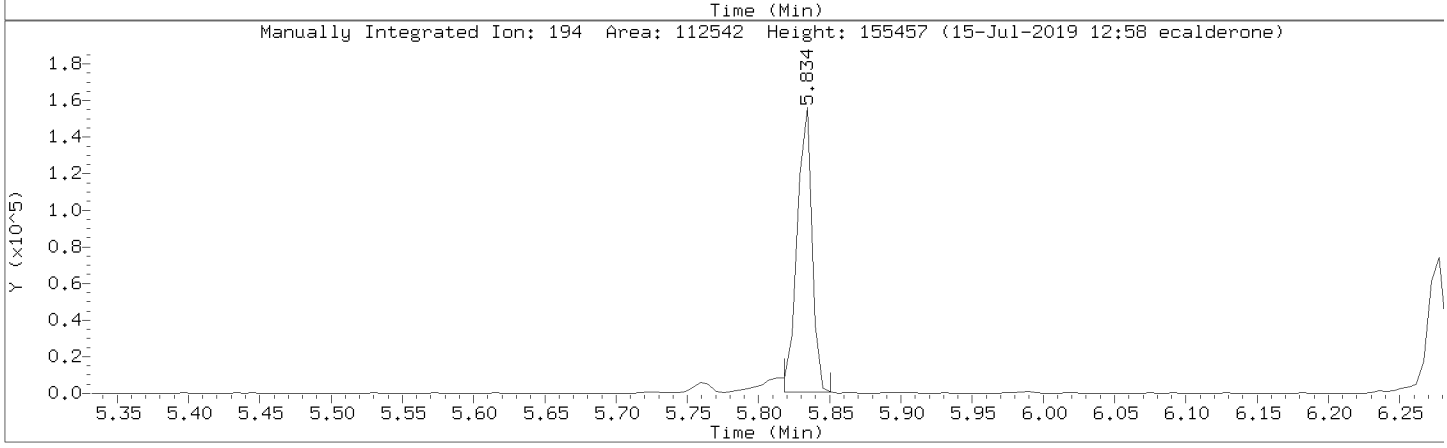
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3









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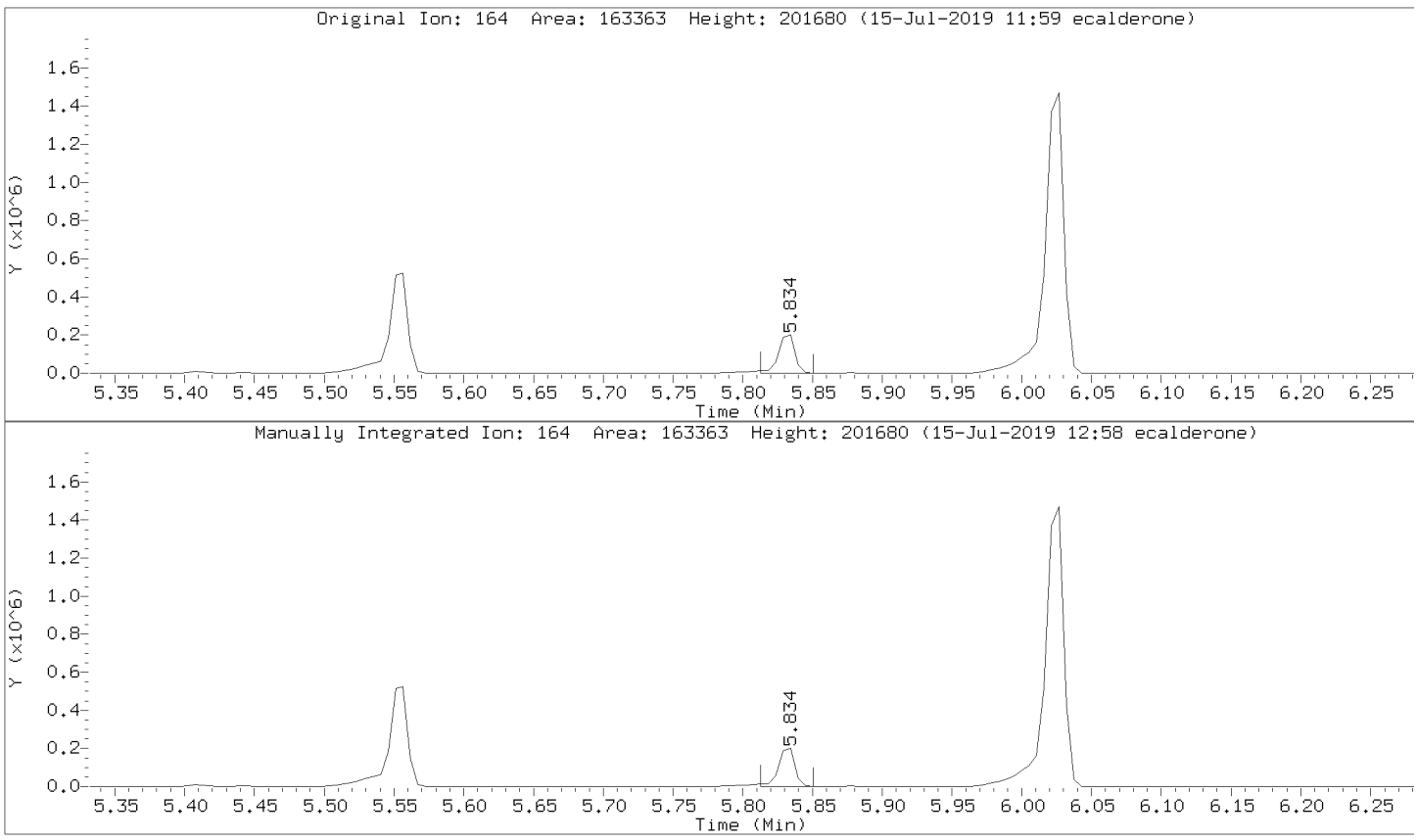

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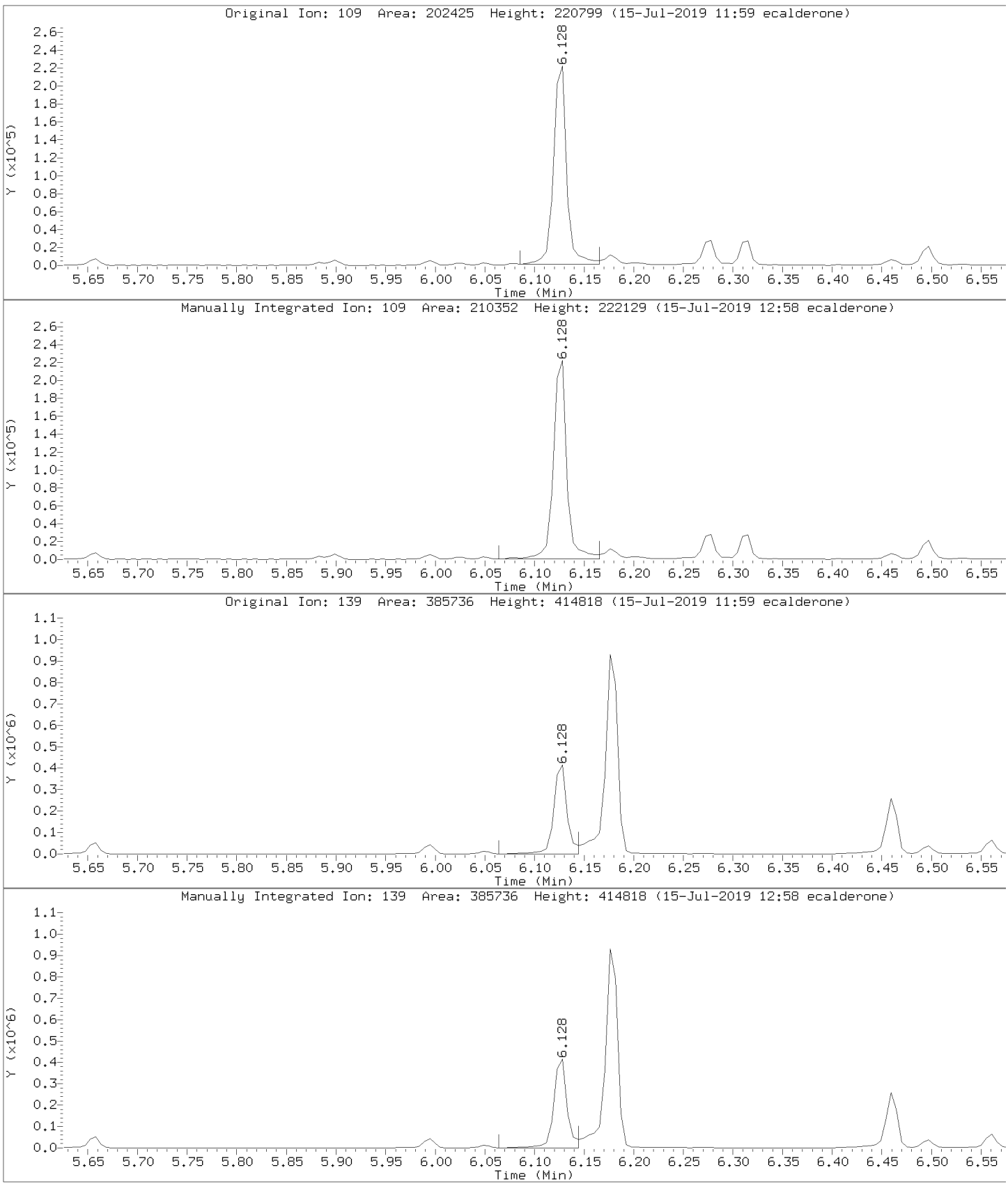
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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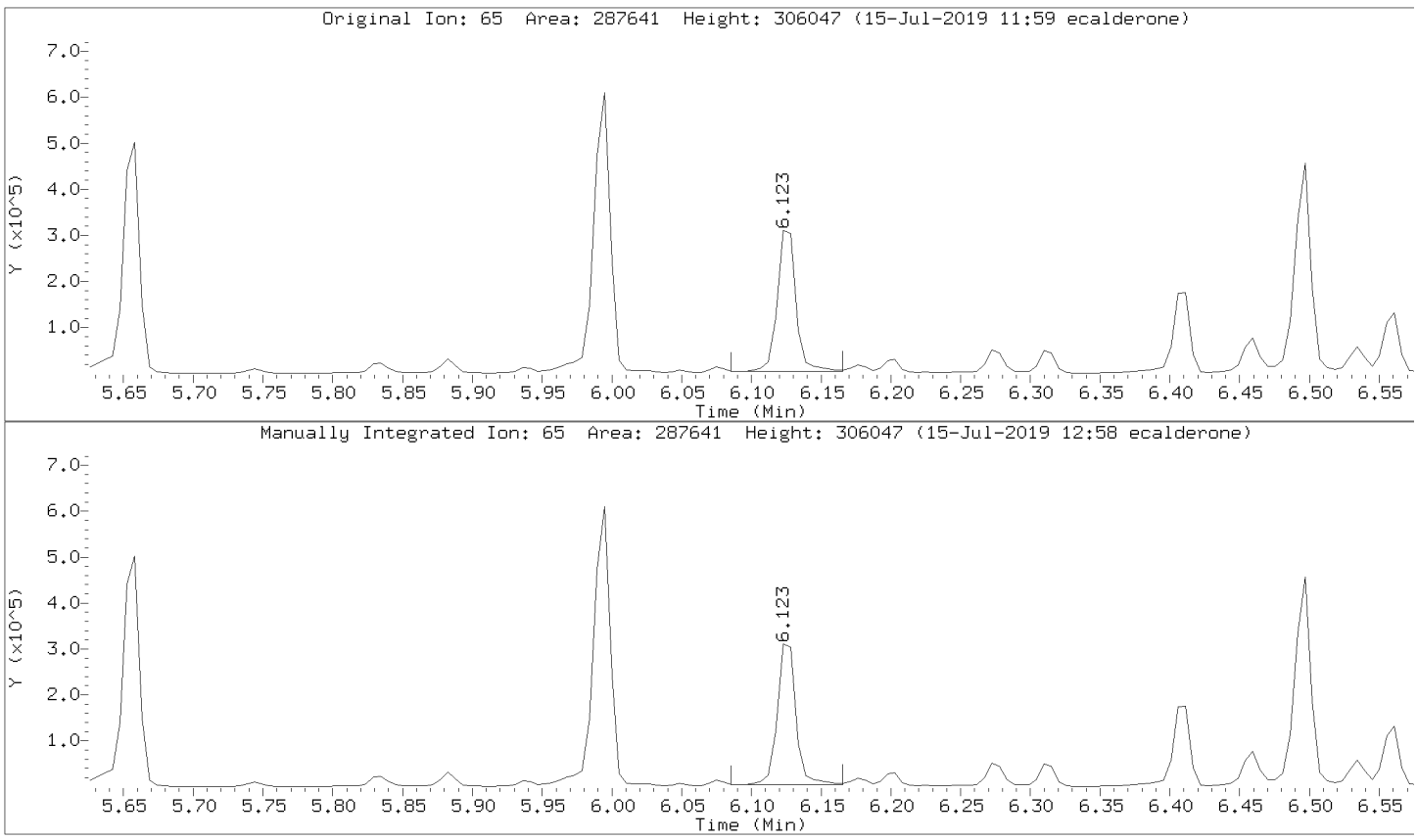
Lab Sample ID: CAL3



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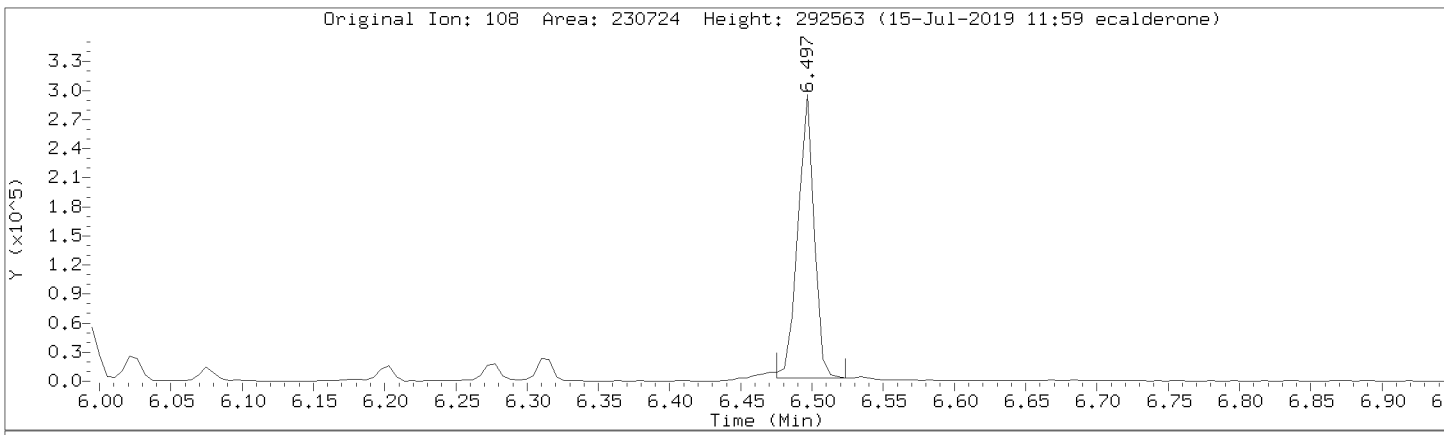
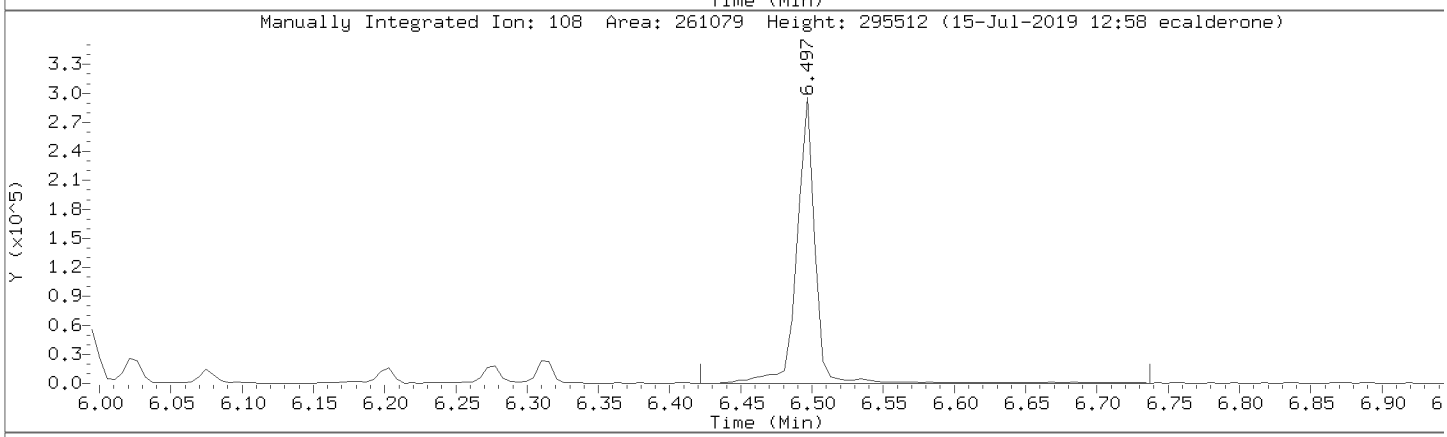
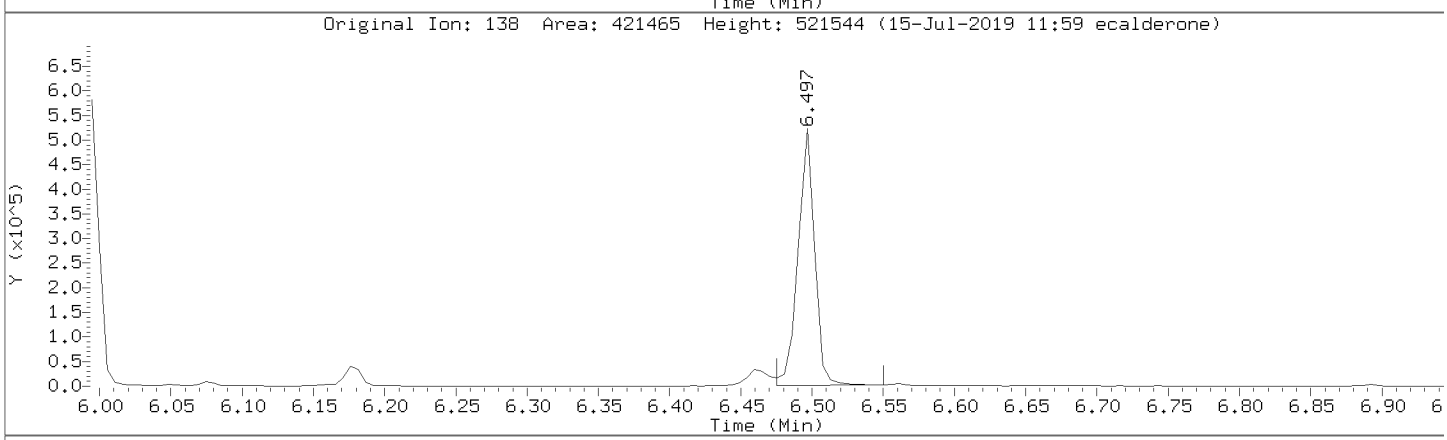
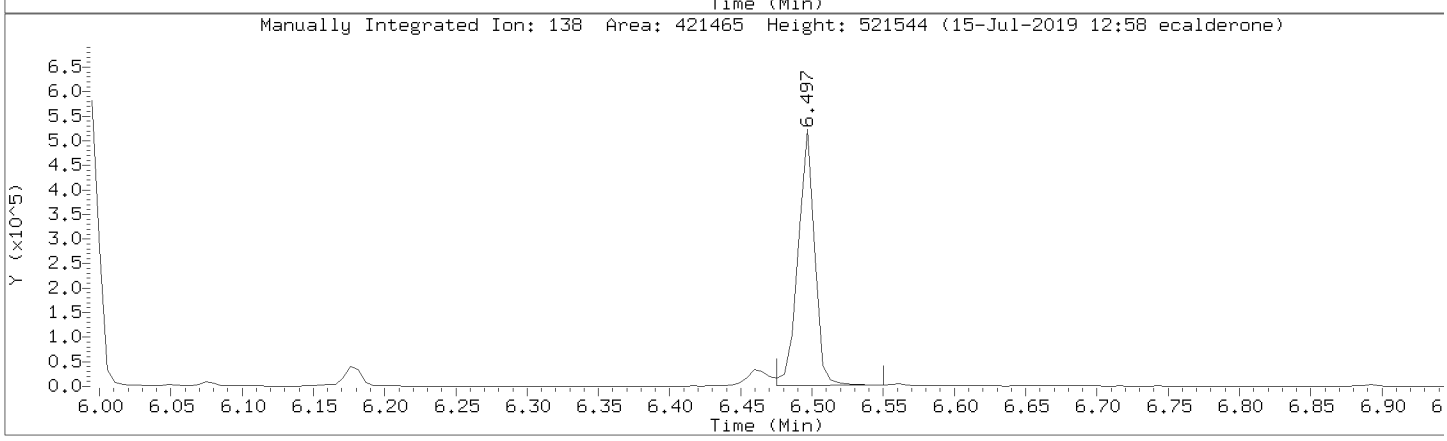
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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Instrument: 30mss1.i
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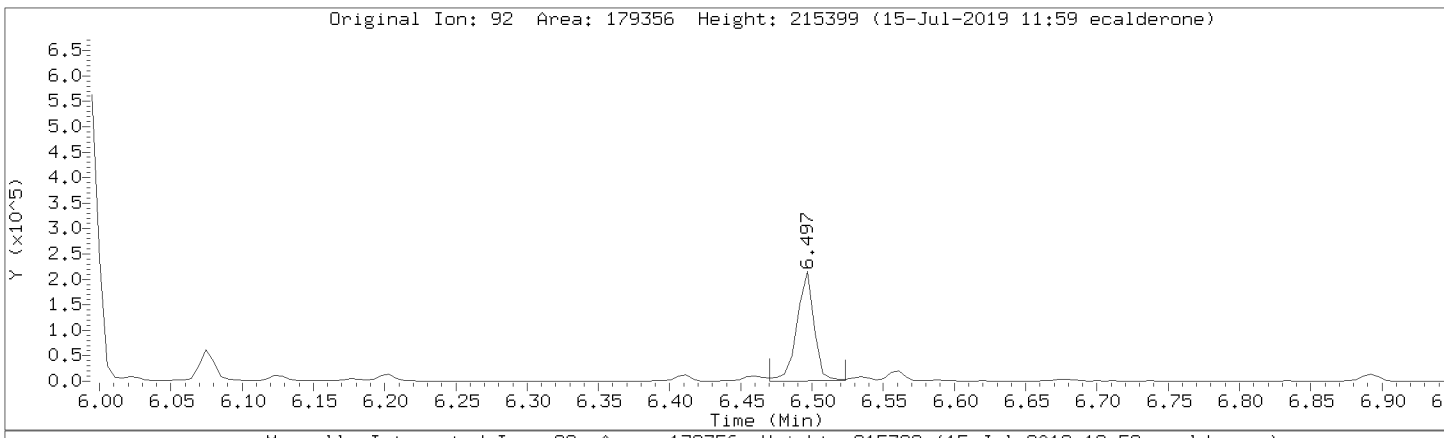
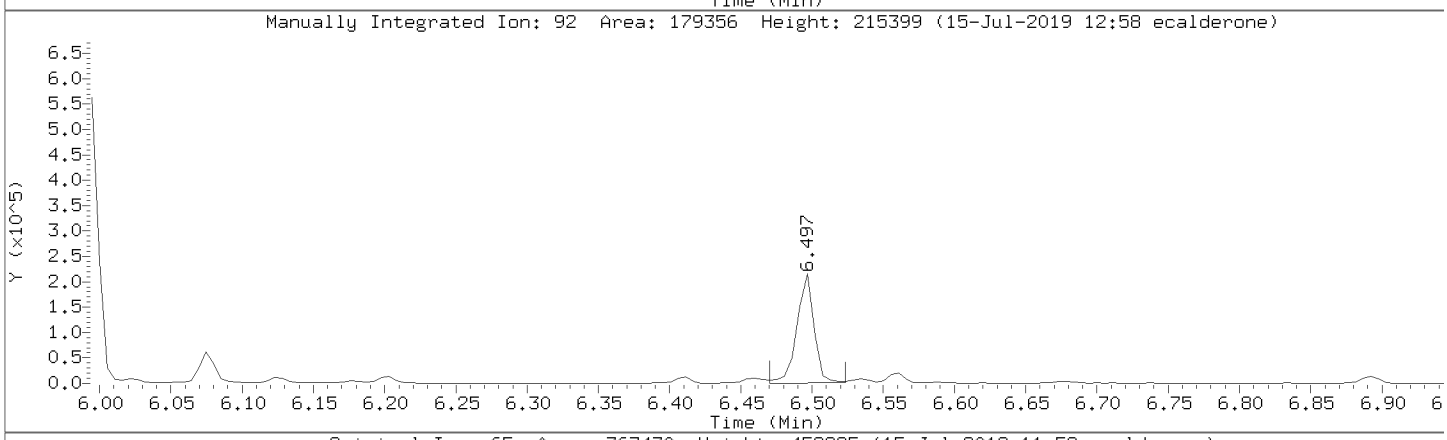
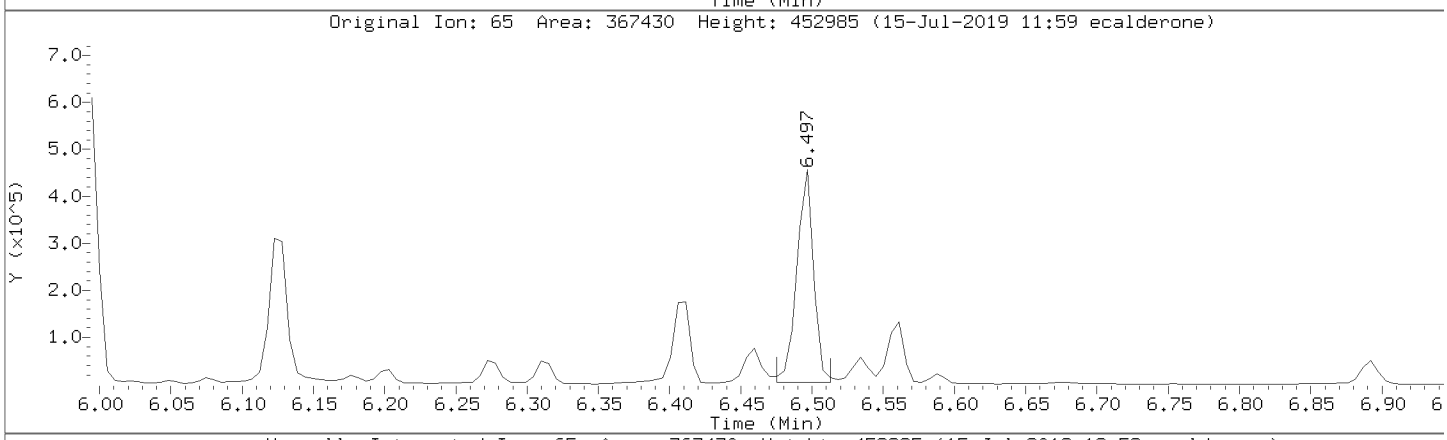
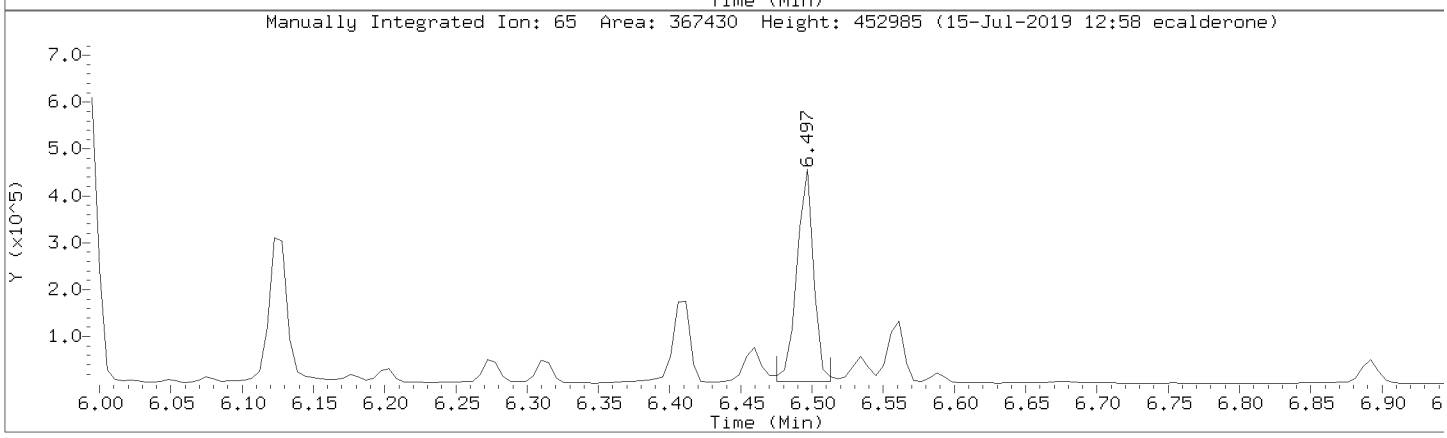


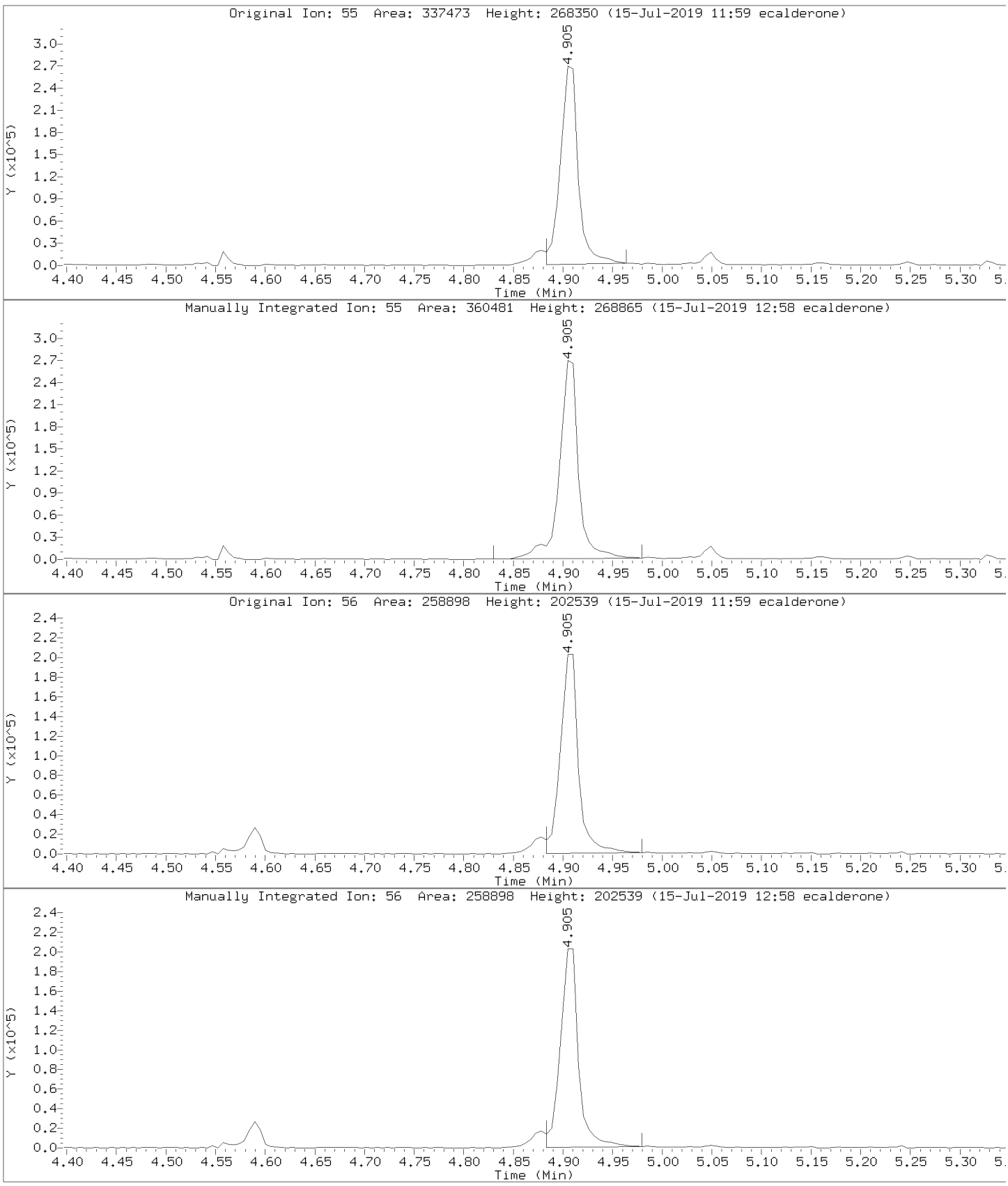






Data File: \\30wintarget\chem\30mss1.i\mss1071519.b/m10715y5.d
Injection Date: 15-JUL-2019 10:51
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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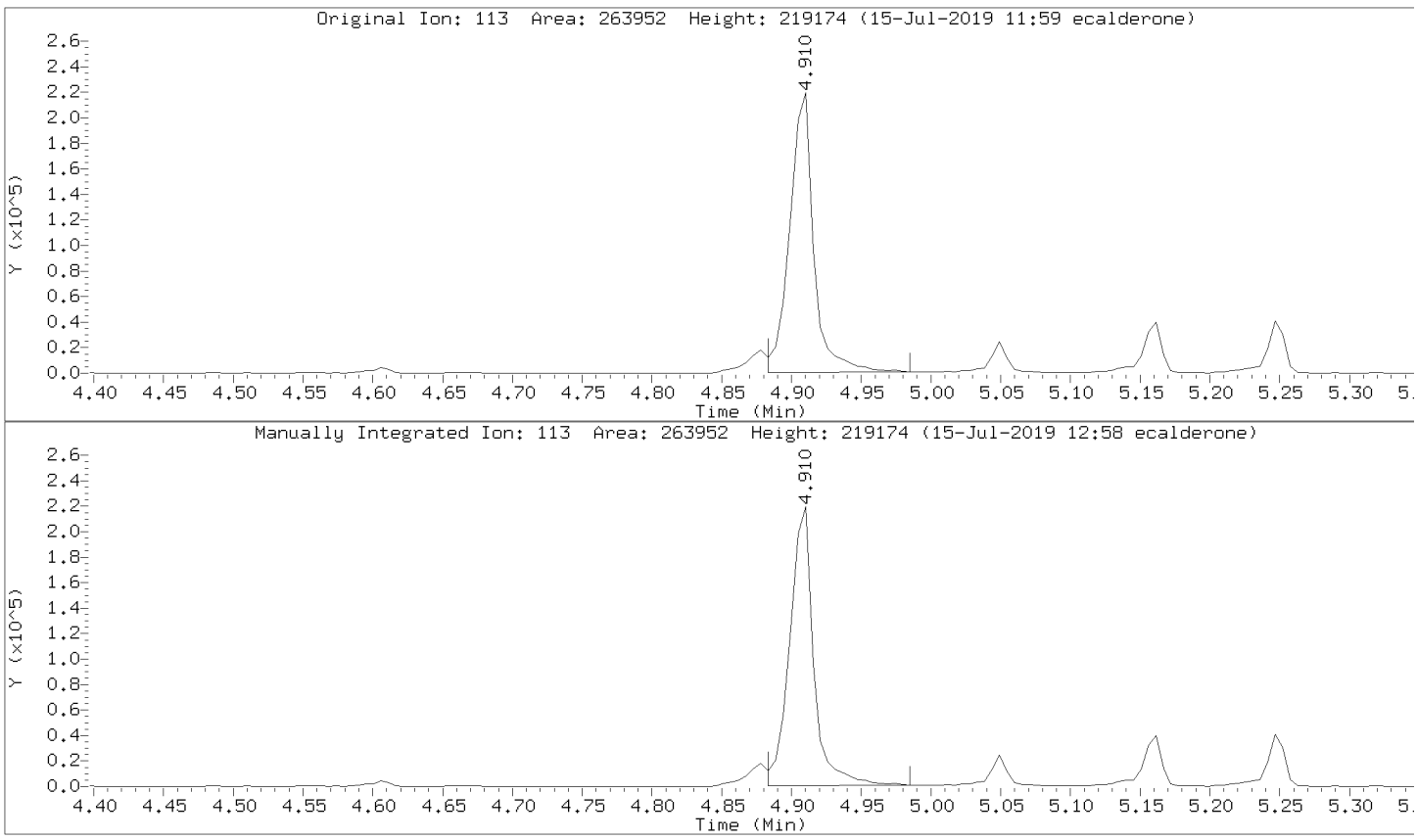
Injection Date: 15-JUL-2019 10:51
Instrument: 30mss1.i
Lab Sample ID: CAL3



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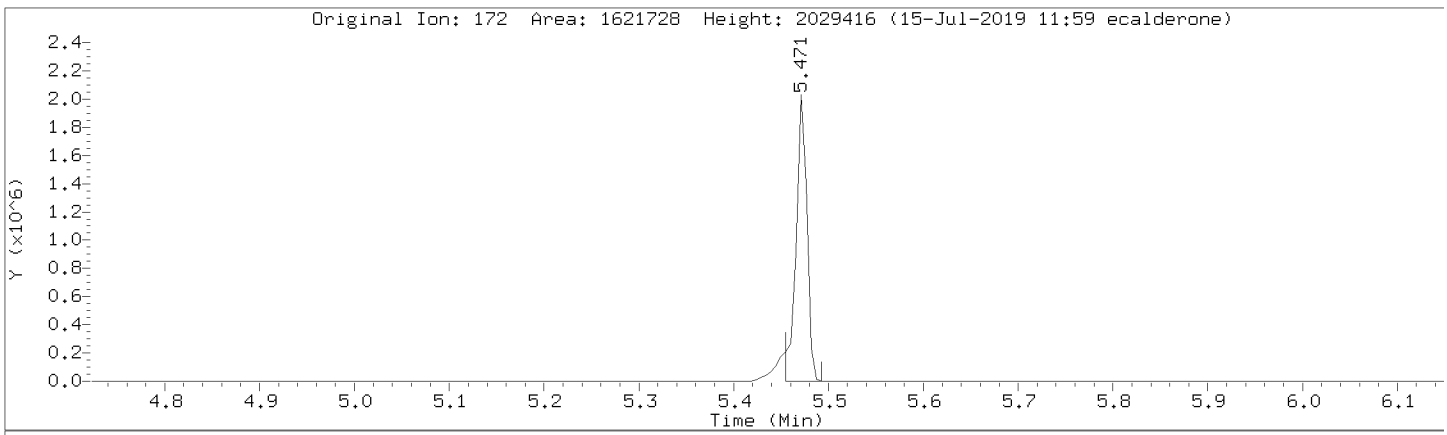
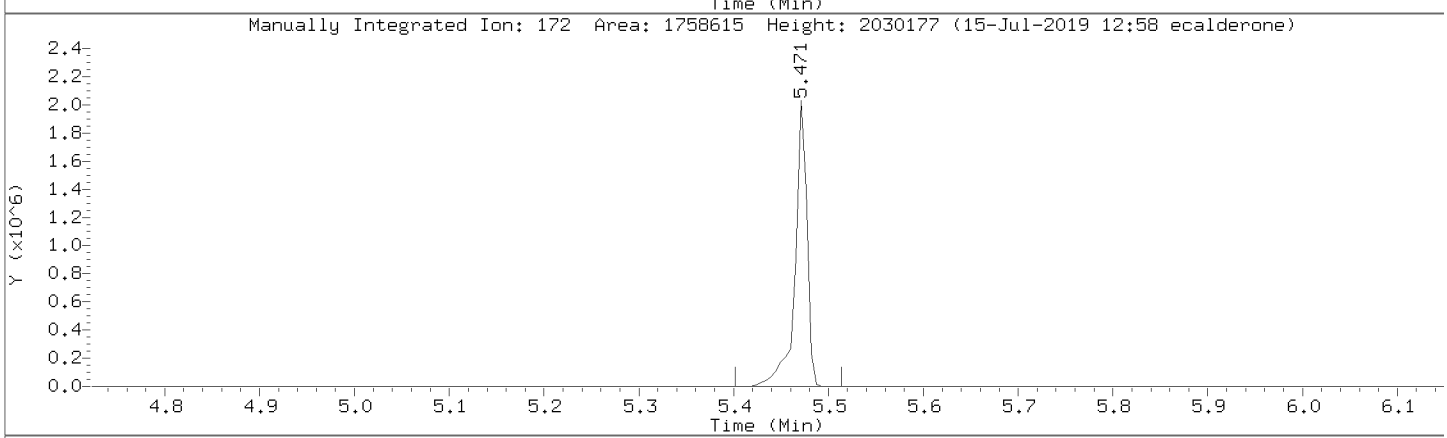
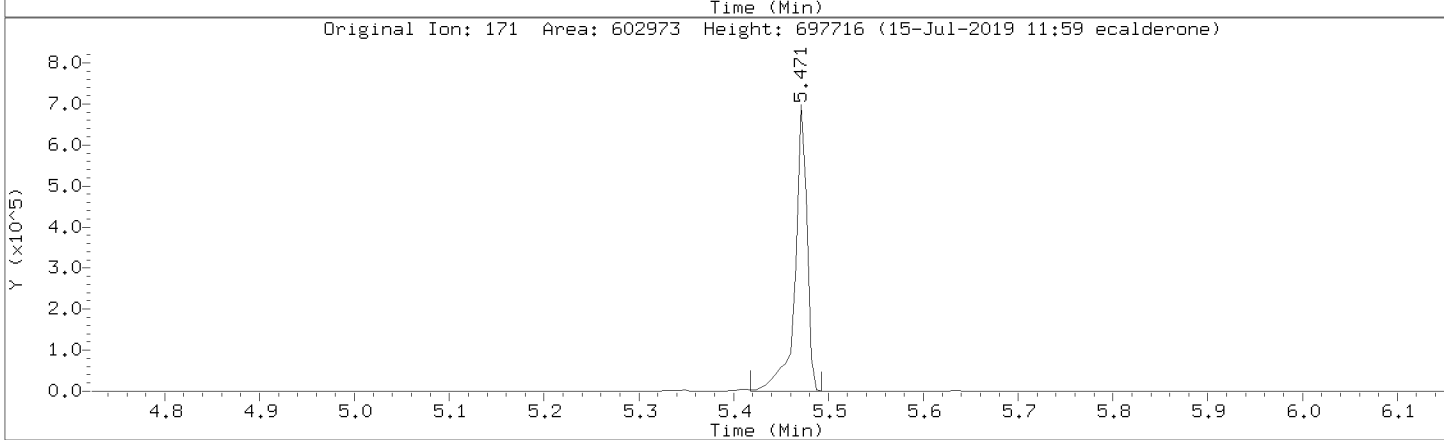
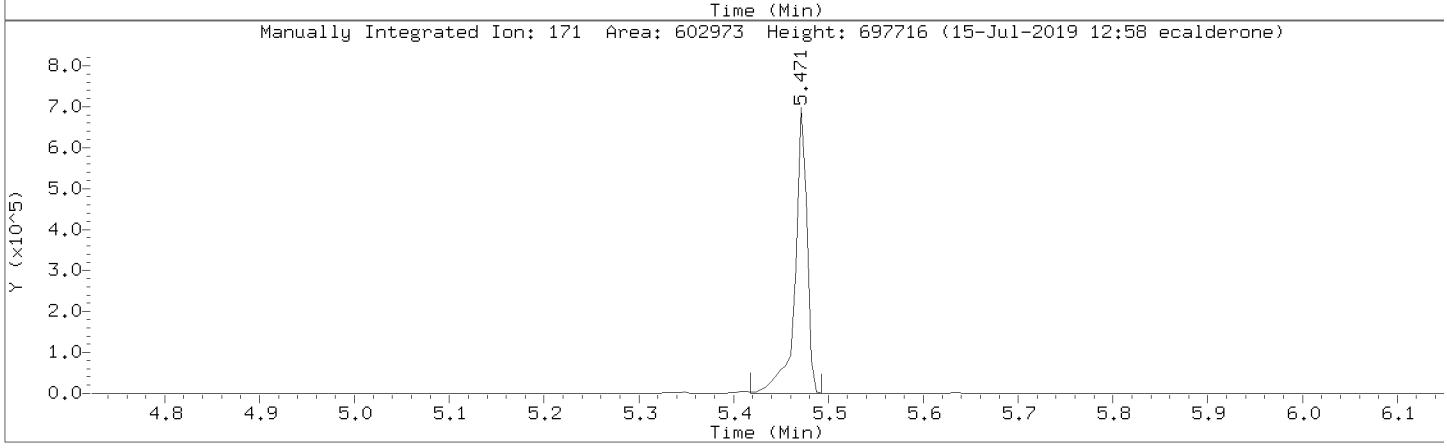
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8









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Injection Date: 15-JUL-2019 10:51
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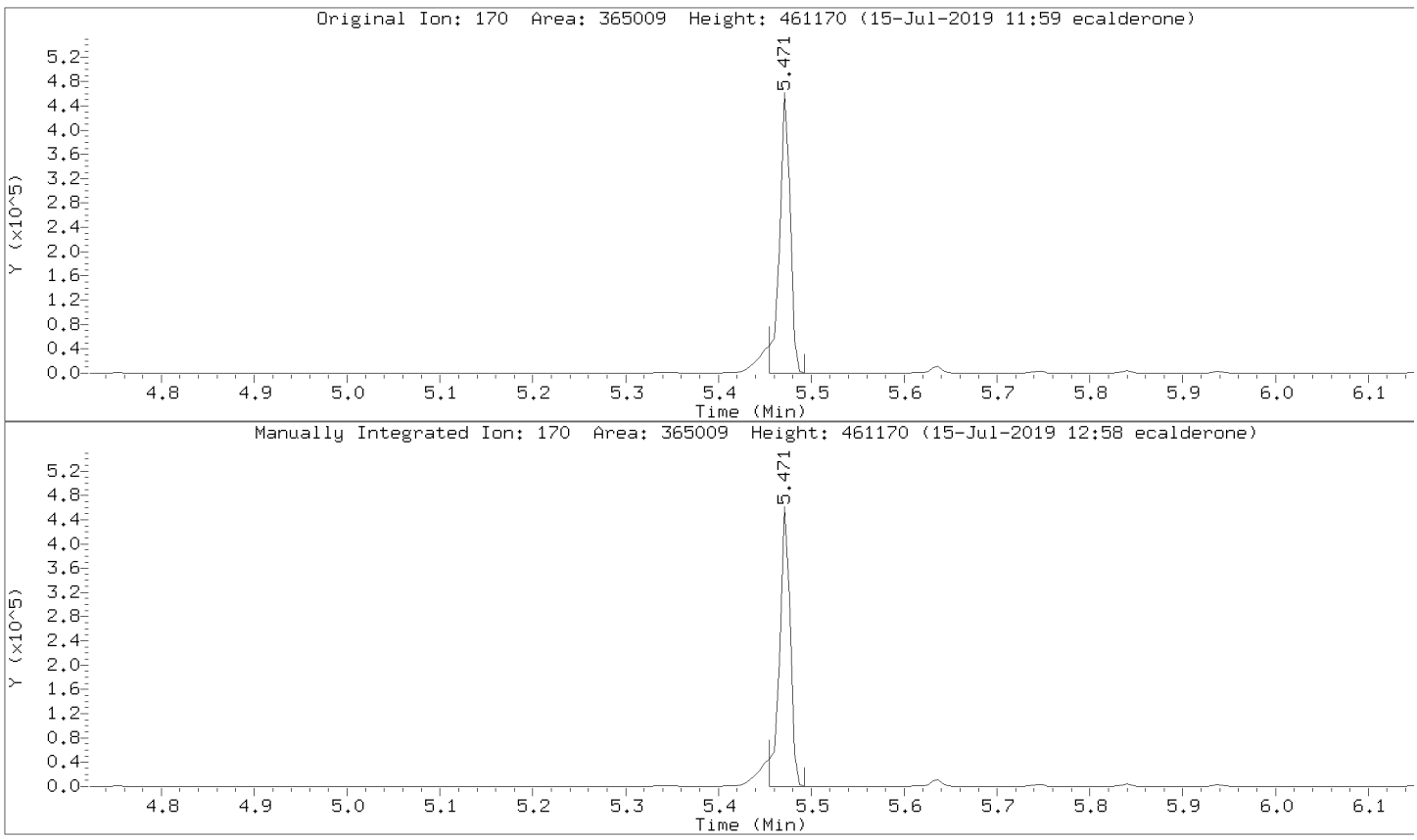
Lab Sample ID: CAL3



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y6.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 15-JUL-2019 11:13
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14828,93078:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:13 Cal File: m10715y6.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.694	1.700	(0.471)	366622	2.00000	2.17	
	2 Pyridine	79	1.684	1.689	(0.468)	551518	2.00000	2.19	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	421370	2.00000	2.16	
$	4 Phenol-d6 (S)	99	3.350	3.351	(0.932)	478431	2.00000	2.06	
	5 Benzaldehyde	77	3.281	3.281	(0.912)	342754	2.00000	2.01	
	6 Phenol	94	3.361	3.361	(0.935)	568176	2.00000	2.29	
	7 Aniline	66	3.382	3.383	(0.941)	248699	2.00000	2.18	
	8 bis(2-Chloroethyl)ether	63	3.420	3.425	(0.951)	309553	2.00000	2.09	
	9 2-Chlorophenol	128	3.462	3.463	(0.963)	442607	2.00000	2.08	
	10 1,3-Dichlorobenzene	146	3.569	3.570	(0.993)	477775	2.00000	2.10	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	614502	4.00000		
	12 1,4-Dichlorobenzene	146	3.607	3.607	(1.003)	528832	2.00000	2.12	
	13 Benzyl Alcohol	79	3.714	3.719	(1.033)	317072	2.00000	1.90	
	14 1,2-Dichlorobenzene	146	3.751	3.751	(1.043)	462582	2.00000	2.07	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	397851	2.00000	2.02	
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	696378	2.00000	2.15	
	17 3&4-Methylphenol(m&p Cresol)	108	3.917	3.917	(1.089)	415619	2.00000	2.16	
	18 N-Nitroso-di-n-propylamine	70	3.943	3.938	(1.097)	309095	2.00000	2.05	
	19 Acetophenone	105	3.922	3.922	(1.091)	561112	2.00000	2.14	
	20 Hexachloroethane	117	3.986	3.986	(1.108)	176362	2.00000	1.98	
$	21 Nitrobenzene-d5 (S)	128	4.039	4.040	(0.880)	206087	2.00000	1.98	
	22 Nitrobenzene	77	4.050	4.050	(0.882)	438625	2.00000	2.13	
	23 Isophorone	82	4.232	4.232	(0.922)	790358	2.00000	2.10	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	421217	2.00000	2.08	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	250469	2.00000	2.11	
	26 Benzoic acid	105	4.387	4.376	(0.956)	181239	2.00000	1.87(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	484197	2.00000	2.10	
	28 2,4-Dichlorophenol	162	4.483	4.483	(0.977)	342036	2.00000	2.00	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	383927	2.00000	2.08	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2523919	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	1280966	2.00000	2.40	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	131905	2.00000	1.96	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	199175	2.00000	2.00	
	34 Caprolactam	55	4.899	4.894	(1.067)	175772	2.00000	2.13(M)	LT

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	343833	2.00000	1.99	
36	2-Methylnaphthalene	142	5.161	5.162	(1.125)	894691	2.00000	2.24	
37	1-Methylnaphthalene	142	5.247	5.247	(1.143)	832802	2.00000	2.23	
38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	225533	2.00000	1.88	
39	1,2,4,5-Tetrachlorobenzene	216	5.327	5.327	(0.884)	347483	2.00000	2.13	
40	2,4,6-Trichlorophenol	196	5.407	5.407	(0.897)	264663	2.00000	2.08	
41	2,4,5-Trichlorophenol	196	5.439	5.439	(0.902)	221236	2.00000	1.88	
$ 42	2-Fluorobiphenyl (S)	172	5.471	5.471	(0.908)	890218	2.00000	2.29	
43	Biphenyl (Diphenyl)	154	5.541	5.541	(0.919)	1027065	2.00000	2.37	
44	2-Chloronaphthalene	164	5.551	5.551	(0.921)	257927	2.00000	2.10	
45	2-Nitroaniline	138	5.658	5.653	(0.939)	267908	2.00000	1.93(M)	LT
46	Dimethylphthalate	163	5.829	5.829	(0.967)	848845	2.00000	2.32(M)	LT
47	2,6-Dinitrotoluene	165	5.882	5.883	(0.976)	200142	2.00000	2.03	
48	Acenaphthylene	152	5.898	5.899	(0.979)	1248520	2.00000	2.39	
49	3-Nitroaniline	65	5.989	5.990	(0.994)	230073	2.00000	1.99	
* 50	Acenaphthene-d10 (IS)	164	6.027	6.022	(1.000)	1346373	4.00000		
51	2,4-Dinitrophenol	184	6.075	6.075	(1.008)	92948	2.00000	1.59(M)	LT
52	Acenaphthene	153	6.048	6.048	(1.004)	798093	2.00000	2.29	
53	4-Nitrophenol	109	6.123	6.123	(1.016)	96754	2.00000	1.93(M)	LT
54	2,4-Dinitrotoluene	165	6.203	6.198	(1.029)	246129	2.00000	1.89	
55	Dibenzofuran	168	6.176	6.176	(1.025)	1098409	2.00000	2.38	
56	2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.048)	193953	2.00000	2.02	
57	Diethylphthalate	149	6.406	6.406	(1.063)	848062	2.00000	2.24(M)	LT
58	4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	420810	2.00000	2.17	
59	Fluorene	166	6.459	6.460	(1.072)	894524	2.00000	2.29	
60	4-Nitroaniline	108	6.491	6.492	(1.077)	143643	2.00000	2.49(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.887)	133725	2.00000	1.73	
62	N-Nitrosodiphenylamine	169	6.561	6.556	(0.891)	739332	2.00000	2.17	
63	Azobenzene	77	6.588	6.588	(0.894)	788854	2.00000	2.20	
64	1,2-Diphenylhydrazine	77	6.588	6.588	(0.894)	788854	2.00000	2.20	
$ 65	2,4,6-Tribromophenol (S)	330	6.678	6.679	(0.906)	113200	2.00000	1.86	
66	4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	240731	2.00000	2.04	
67	Hexachlorobenzene	284	7.052	7.053	(0.957)	235875	2.00000	2.00	
68	Atrazine	200	7.106	7.106	(0.964)	217979	2.00000	1.88	
69	Pentachlorophenol	266	7.239	7.240	(0.983)	117491	2.00000	1.62	
* 70	Phenanthrene-d10 (IS)	188	7.368	7.368	(1.000)	2213648	4.00000		
71	Phenanthrene	178	7.394	7.395	(1.004)	1340717	2.00000	2.37	
72	Anthracene	178	7.442	7.437	(1.010)	1278397	2.00000	2.34	
73	Carbazole	167	7.613	7.614	(1.033)	1158632	2.00000	2.32	
74	Di-n-butylphthalate	149	8.067	8.068	(1.095)	1356391	2.00000	2.32	
75	Fluoranthene	202	8.666	8.666	(1.176)	1221033	2.00000	2.22	
76	Pyrene	202	8.895	8.896	(0.876)	1310135	2.00000	2.36	
$ 77	Terphenyl-d14 (S)	244	9.082	9.083	(0.895)	954503	2.00000	2.22	
78	Butylbenzylphthalate	149	9.638	9.633	(0.949)	535335	2.00000	1.96	
79	3,3'-Dichlorobenzidine	252	10.129	10.135	(0.998)	391251	2.00000	1.93	
80	bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.010)	755637	2.00000	2.05	
81	Benzo(a)anthracene	228	10.135	10.135	(0.998)	1159689	2.00000	2.26	
* 82	Chrysene-d12 (IS)	240	10.151	10.151	(1.000)	1912973	4.00000		
83	Chrysene	228	10.178	10.178	(1.003)	1150937	2.00000	2.38	
84	Di-n-octylphthalate	149	10.835	10.835	(0.943)	1172151	2.00000	2.07	
85	Benzo(b)fluoranthene	252	11.160	11.161	(0.971)	1010648	2.00000	1.84	
86	Benzo(k)fluoranthene	252	11.182	11.182	(0.973)	1261209	2.00000	2.55	
87	Benzo(a)pyrene	252	11.444	11.444	(0.996)	988305	2.00000	2.10	
* 88	Perylene-d12 (IS)	264	11.492	11.492	(1.000)	1846990	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.330	12.325	(1.073)	1061506	2.00000	2.08	
90 Dibenz(a,h)anthracene	278	12.336	12.336	(1.073)	892307	2.00000	2.11	
91 Benzo(g,h,i)perylene	276	12.528	12.528	(1.090)	905452	2.00000	2.13	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y6.d
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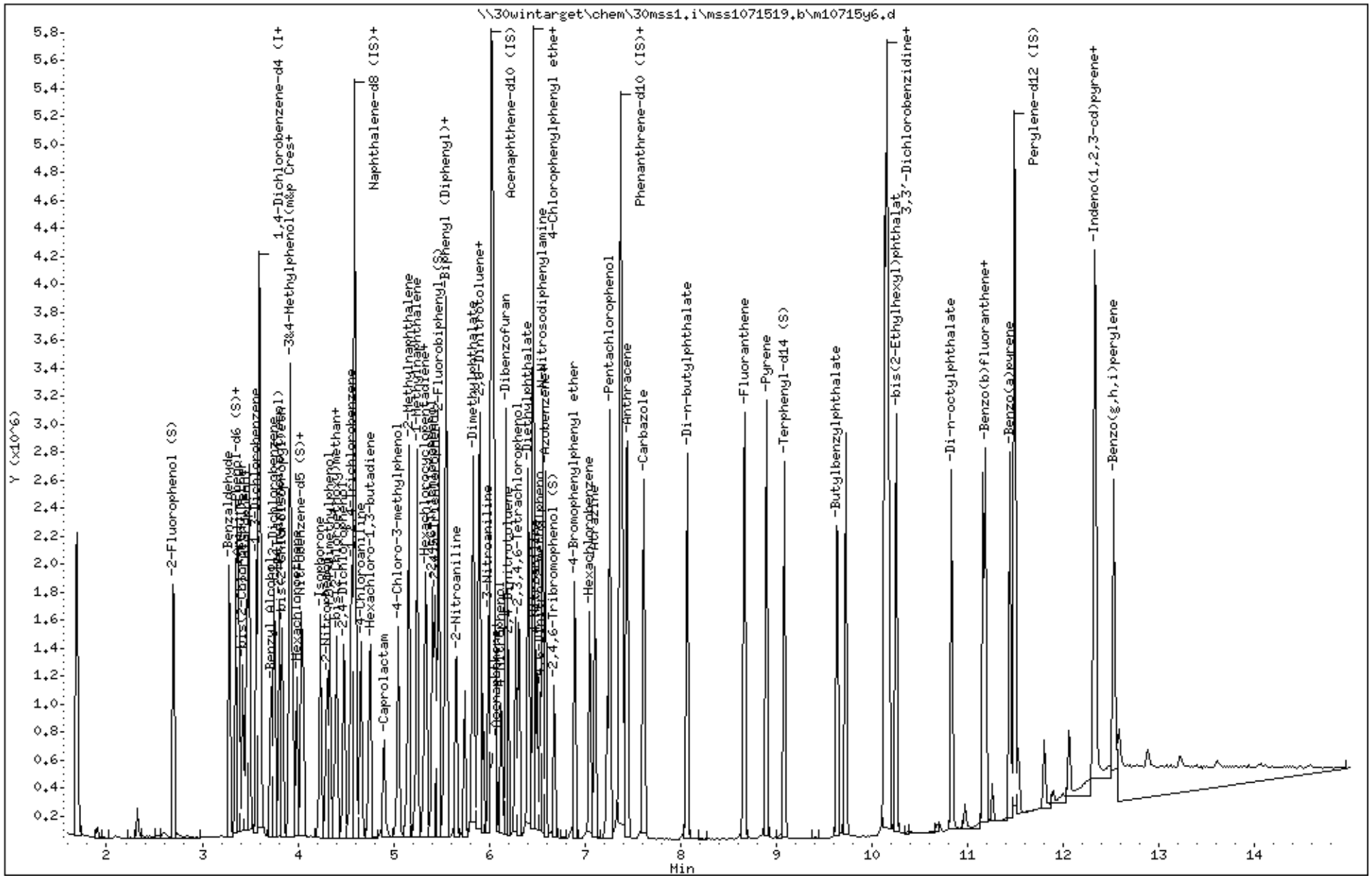
Sample Info: CAL2

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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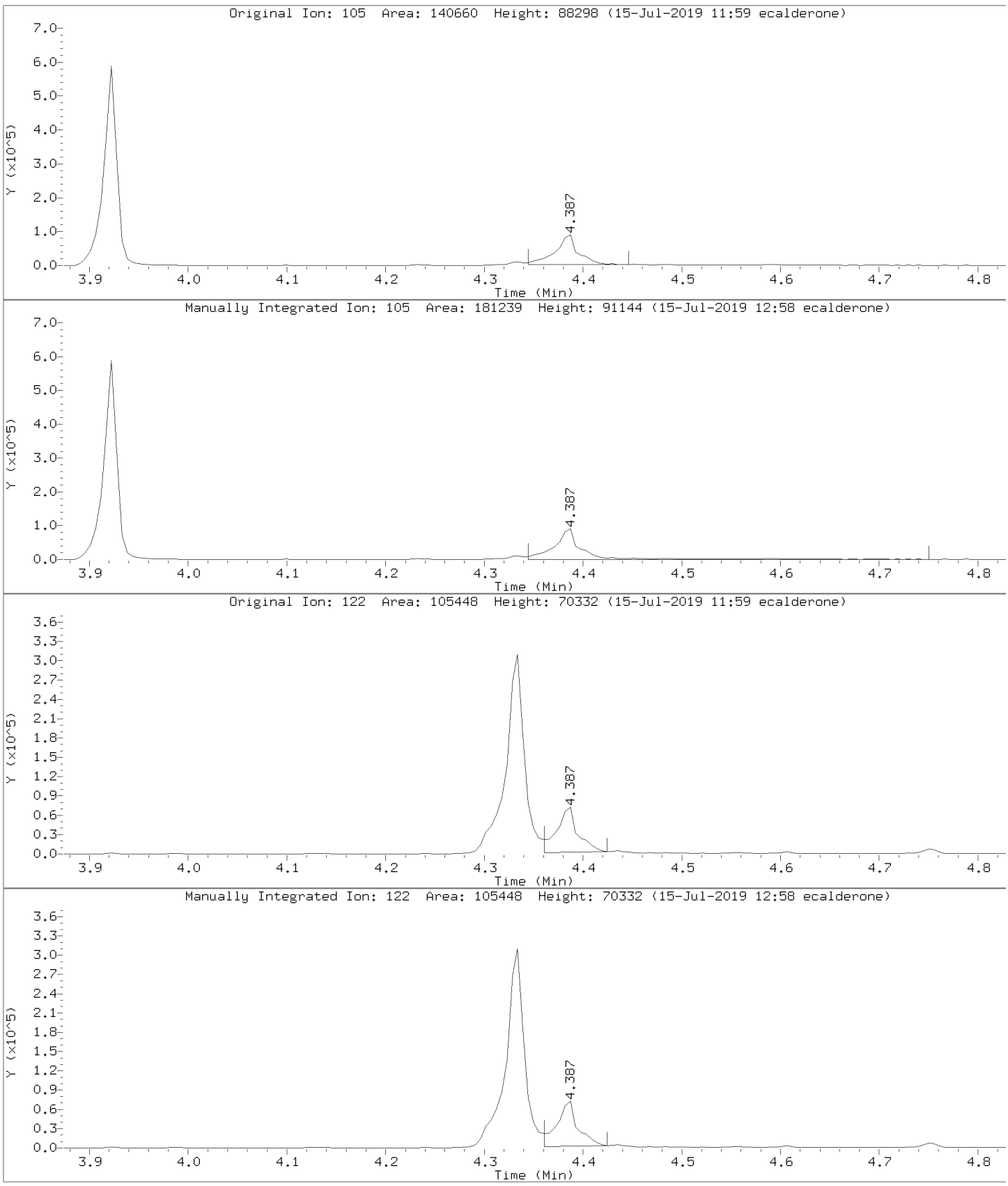
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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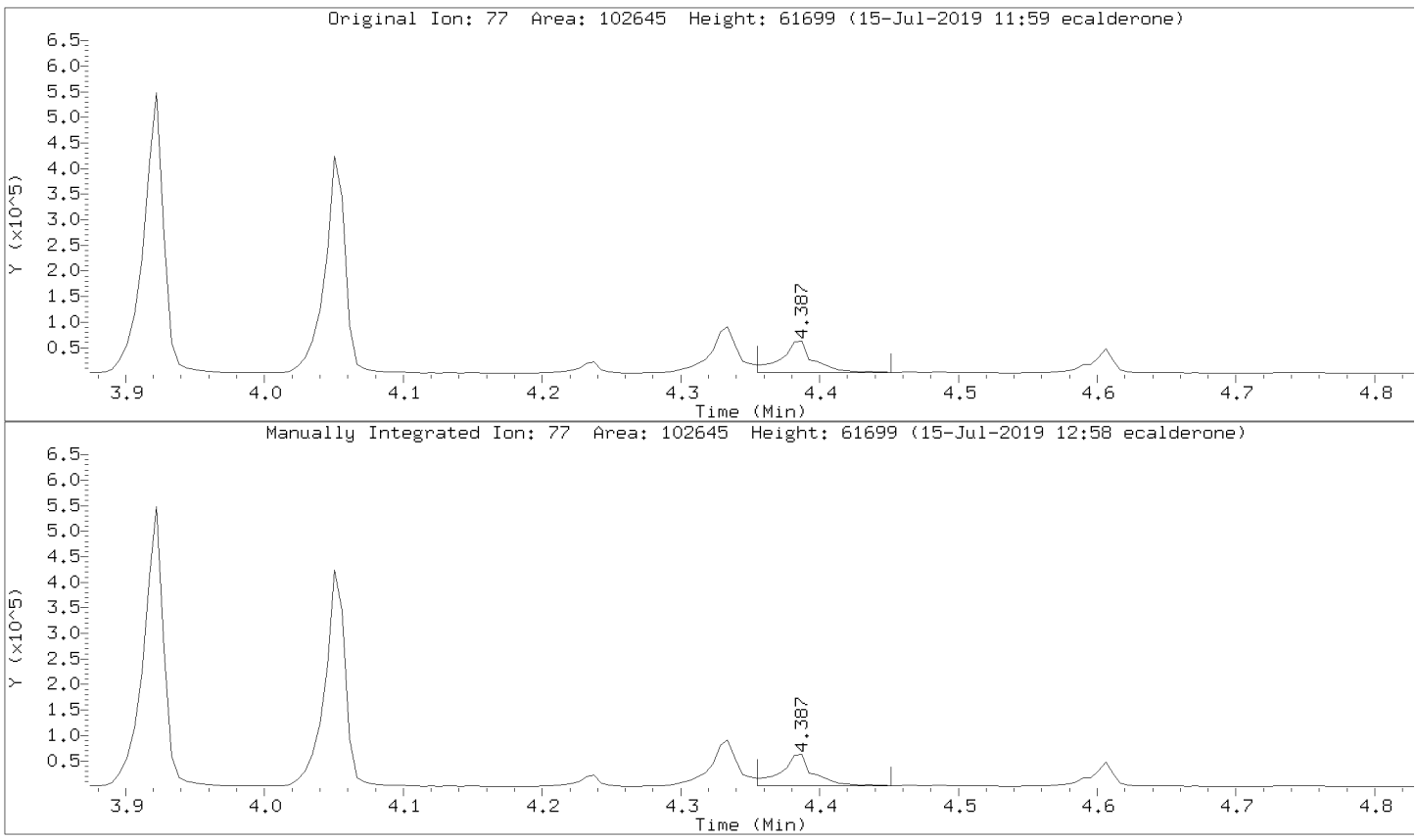

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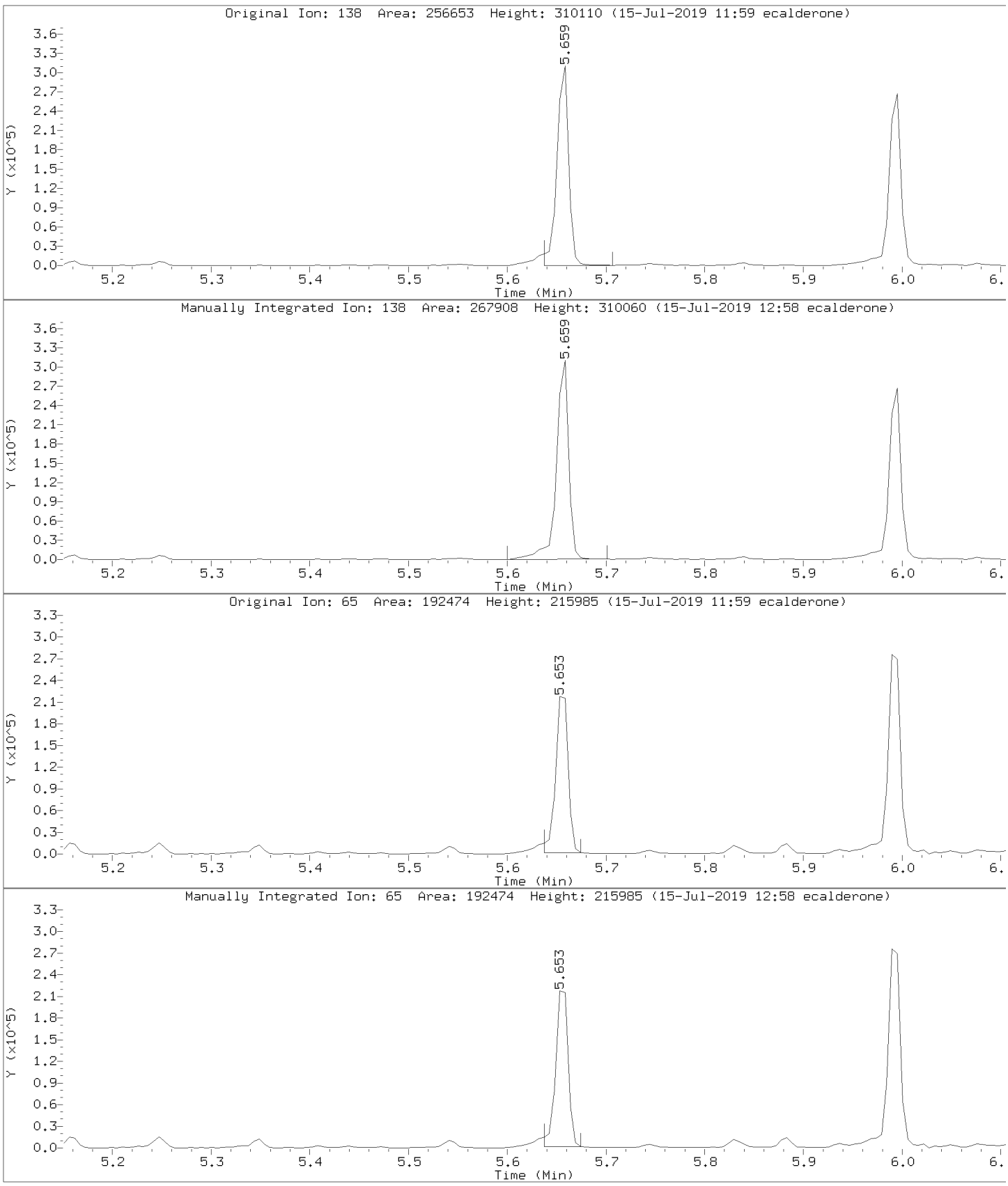
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4



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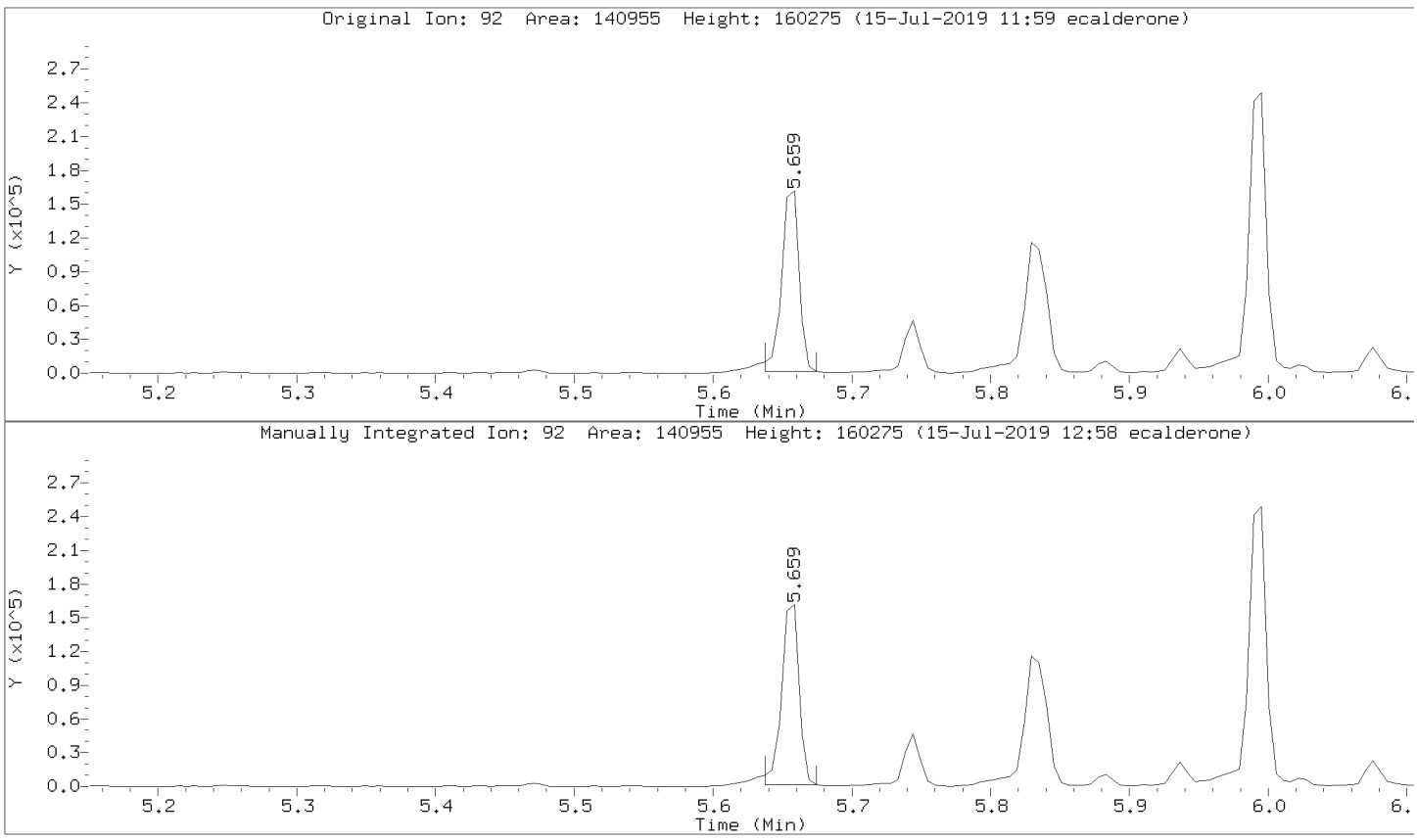

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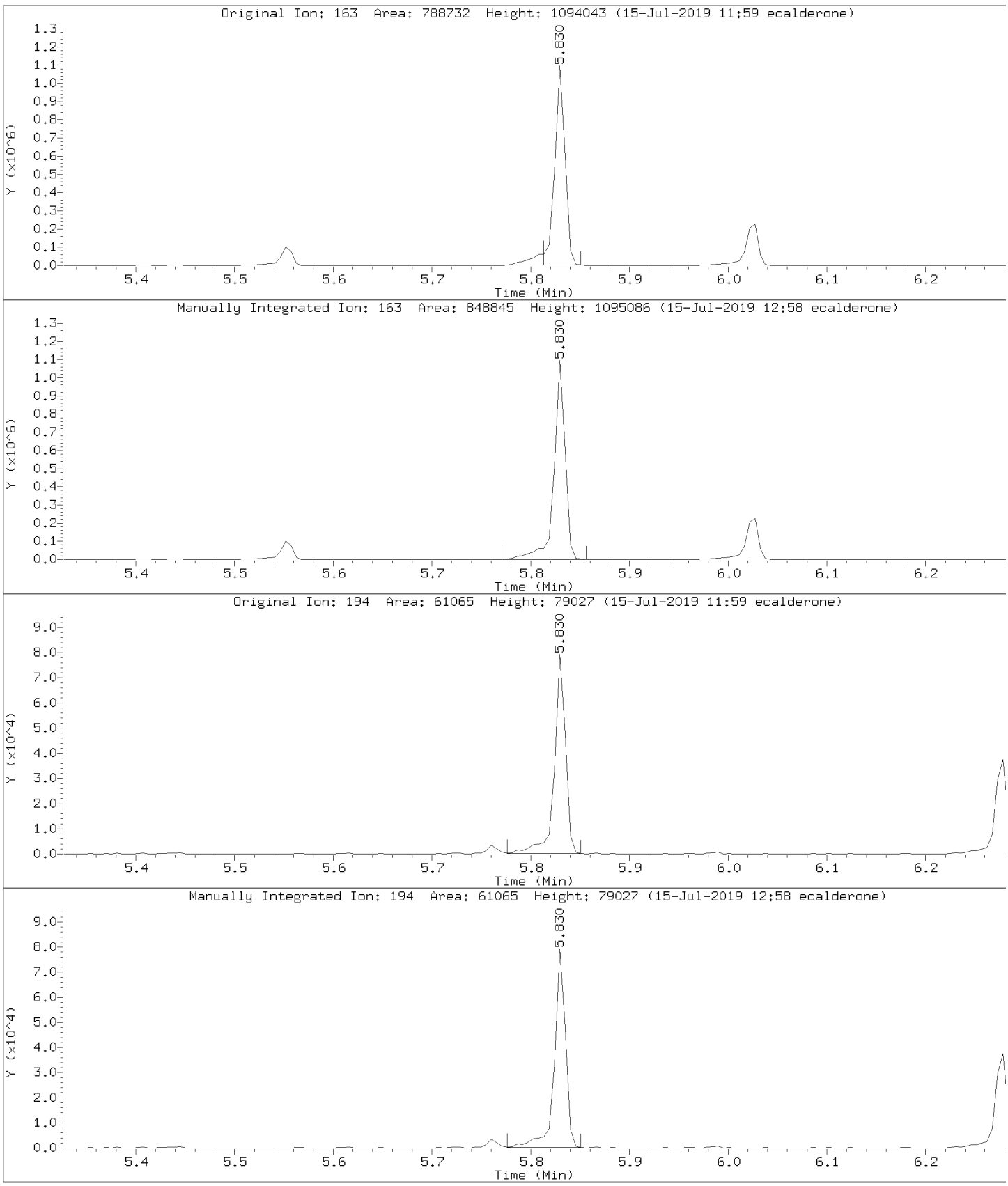
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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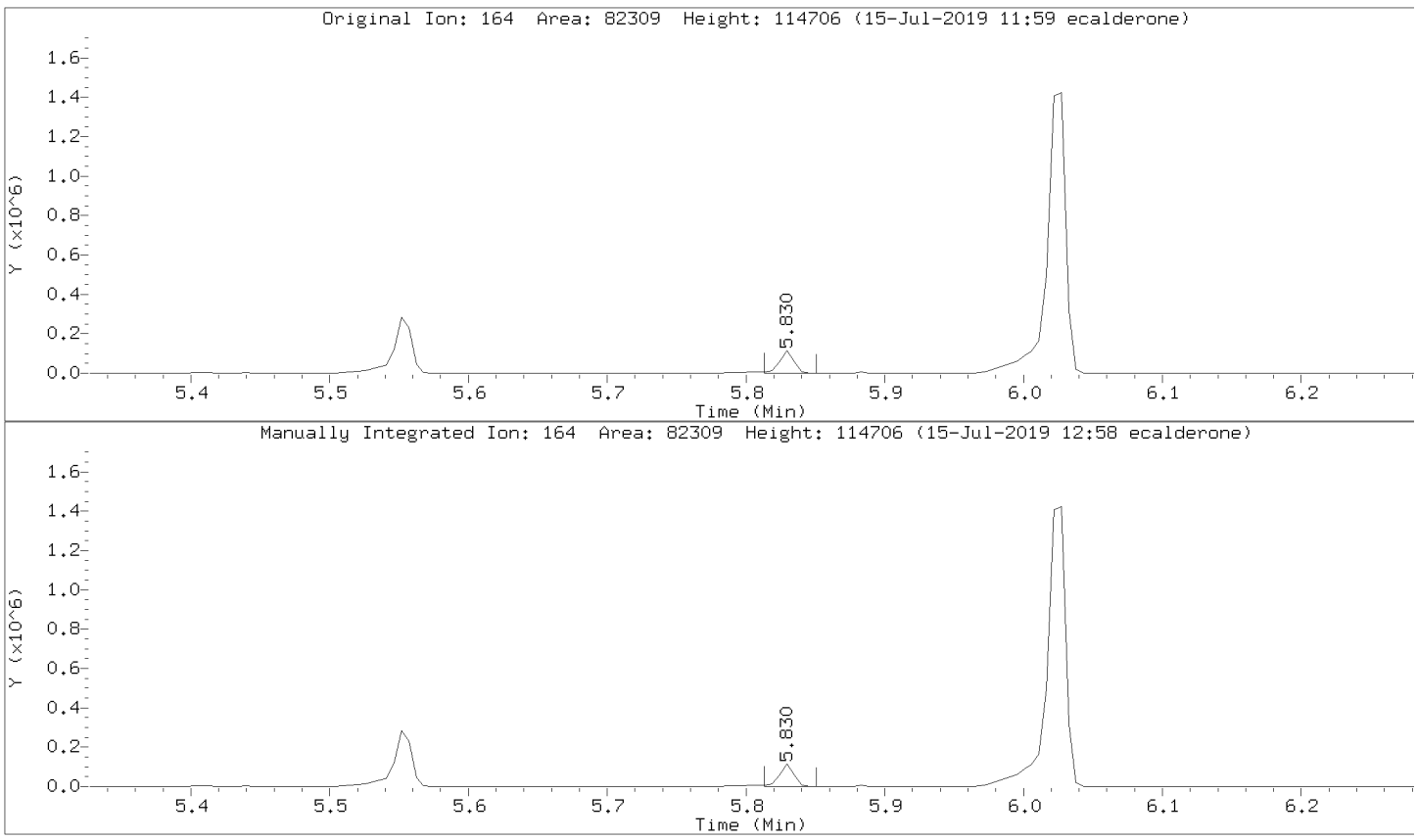

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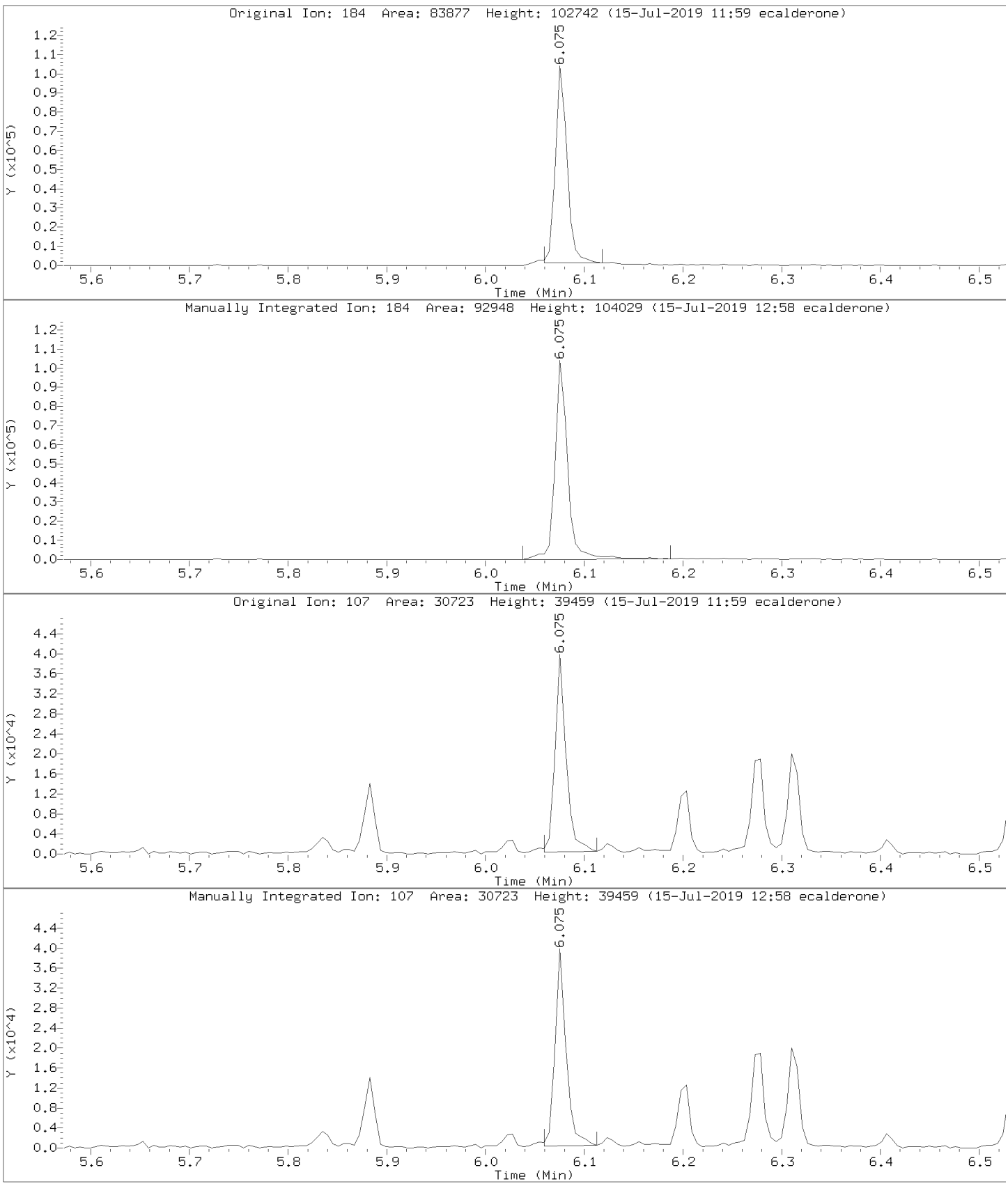
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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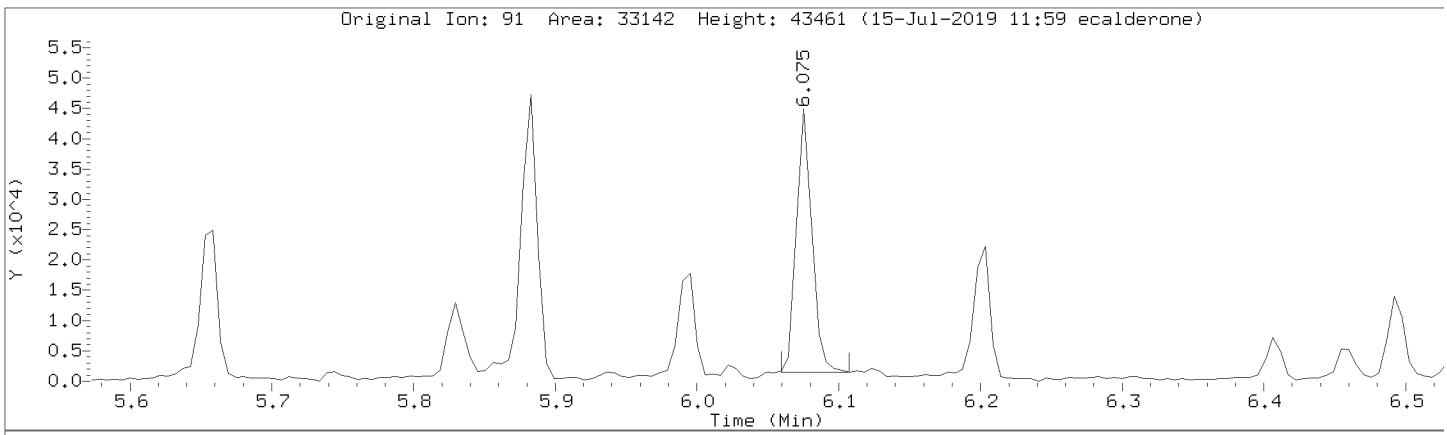
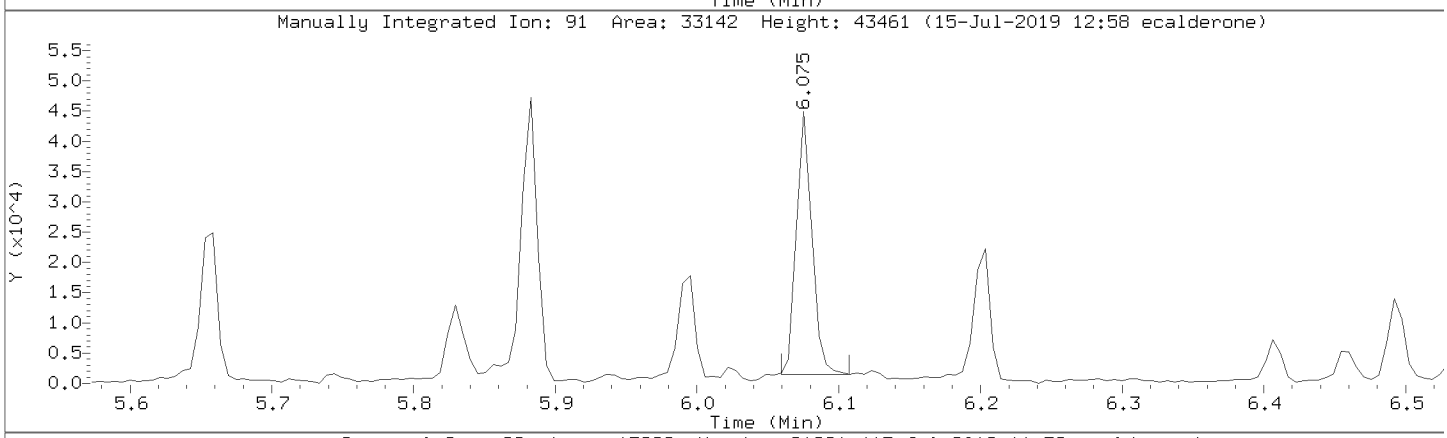
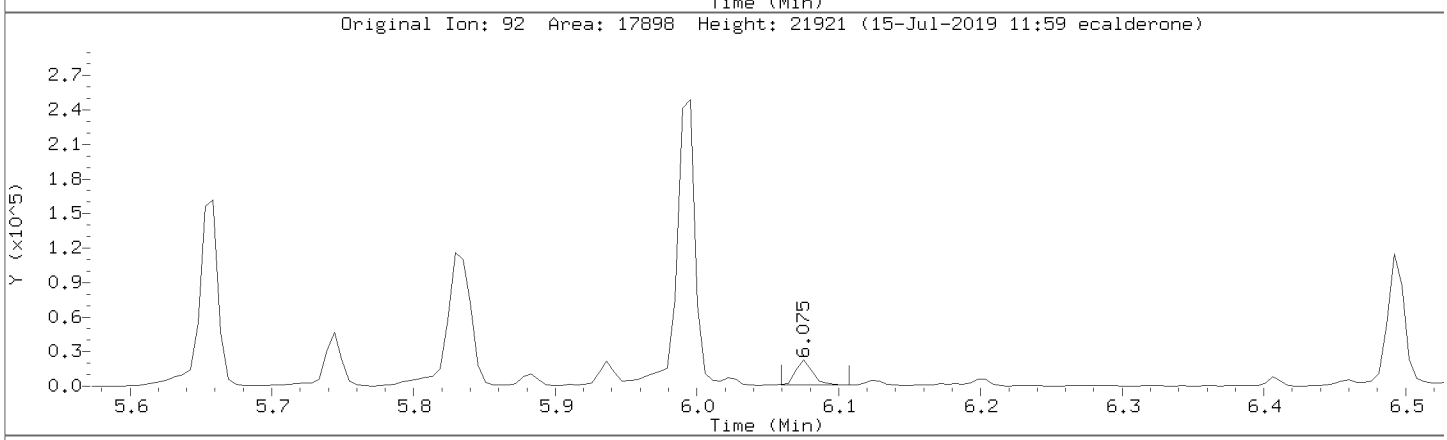
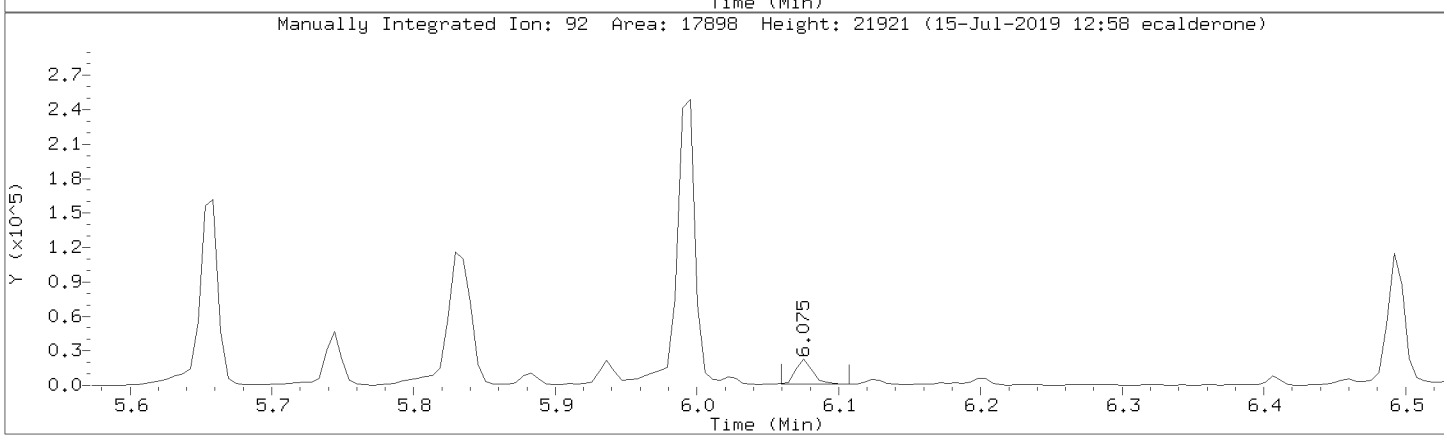
Lab Sample ID: CAL2









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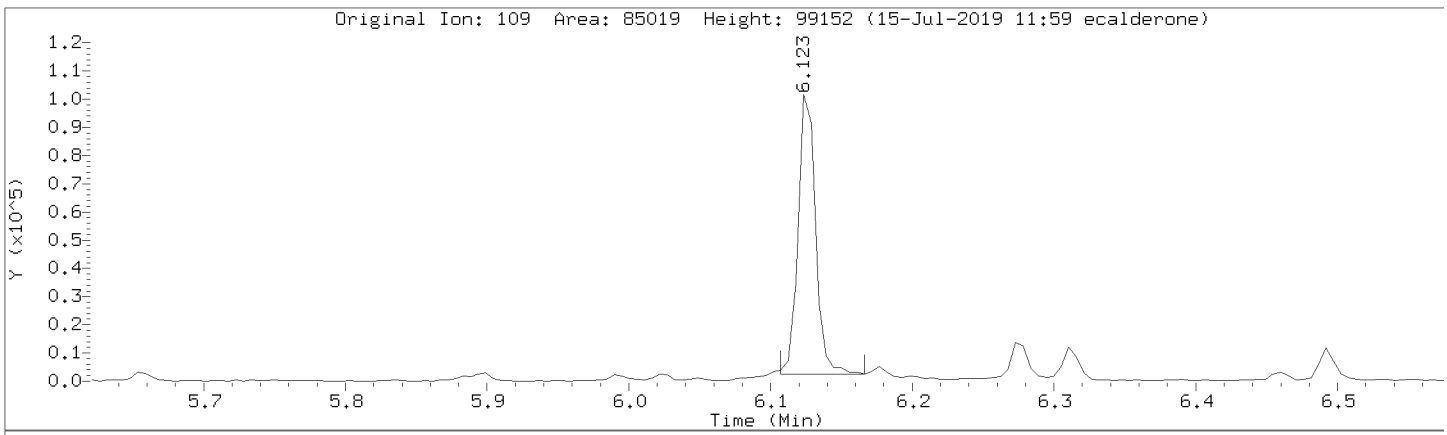
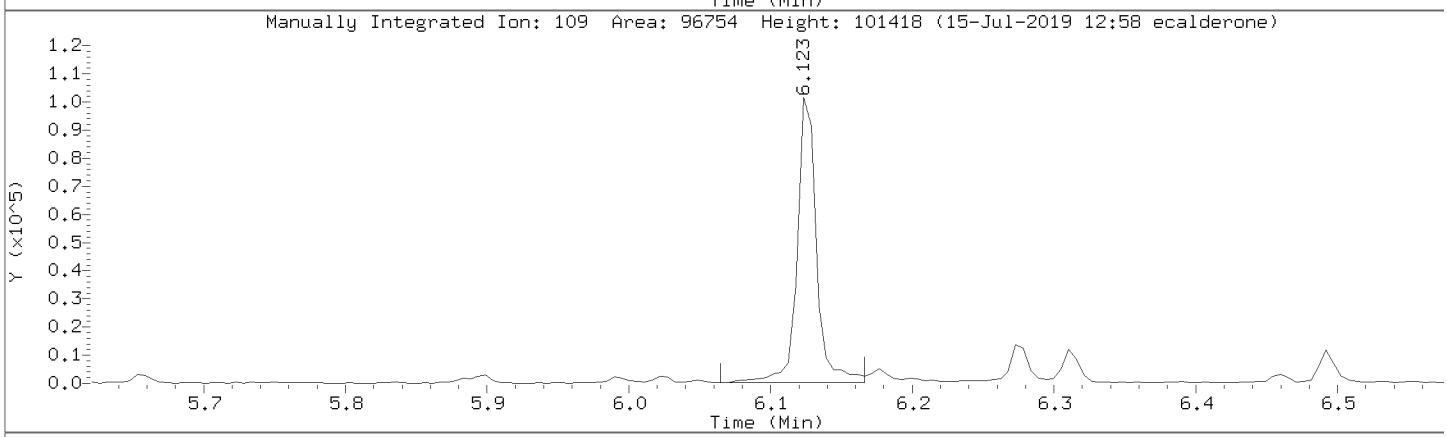
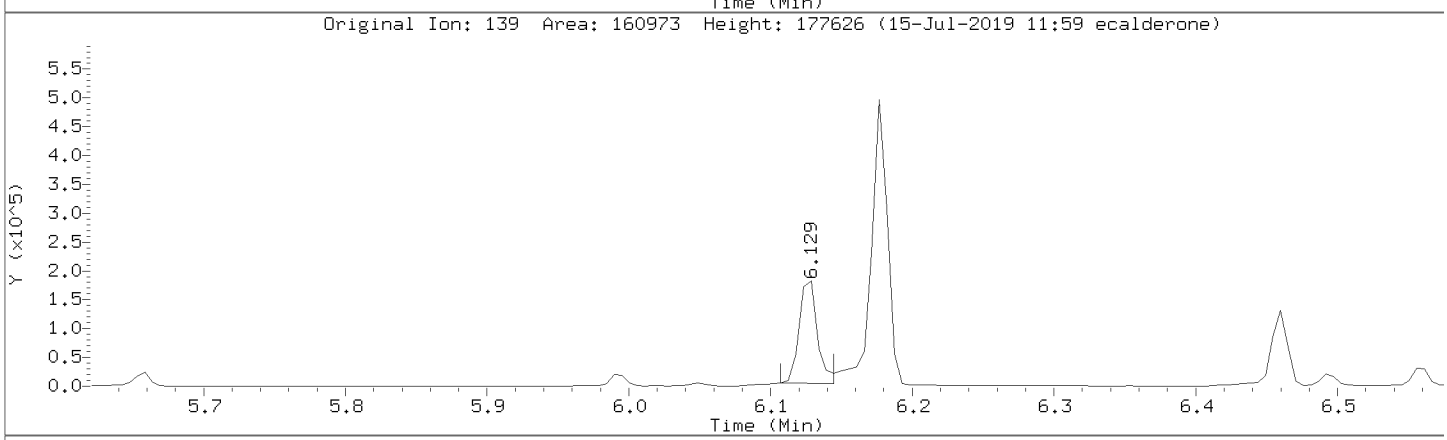
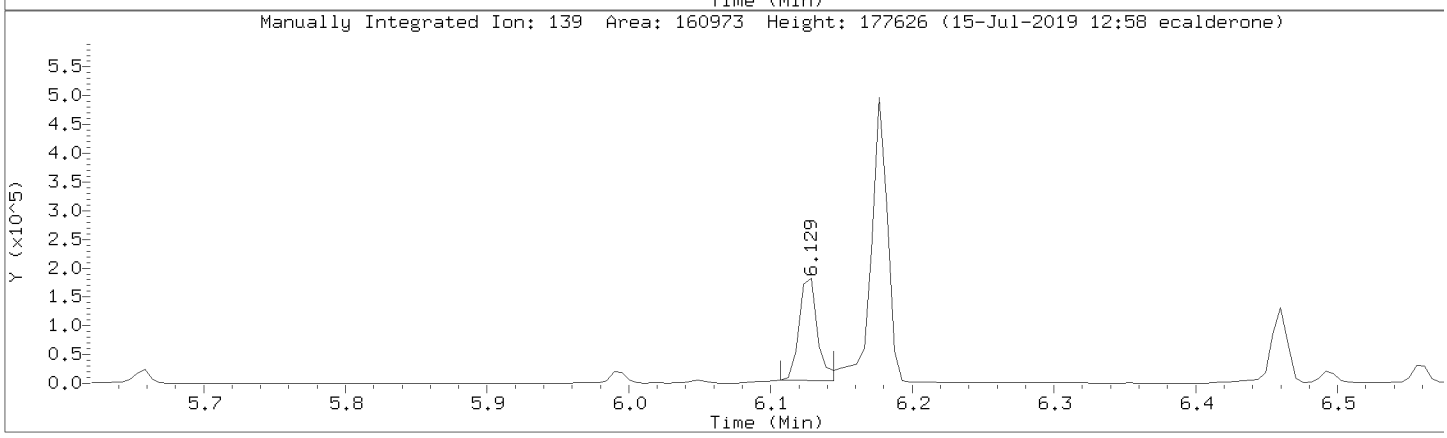
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7









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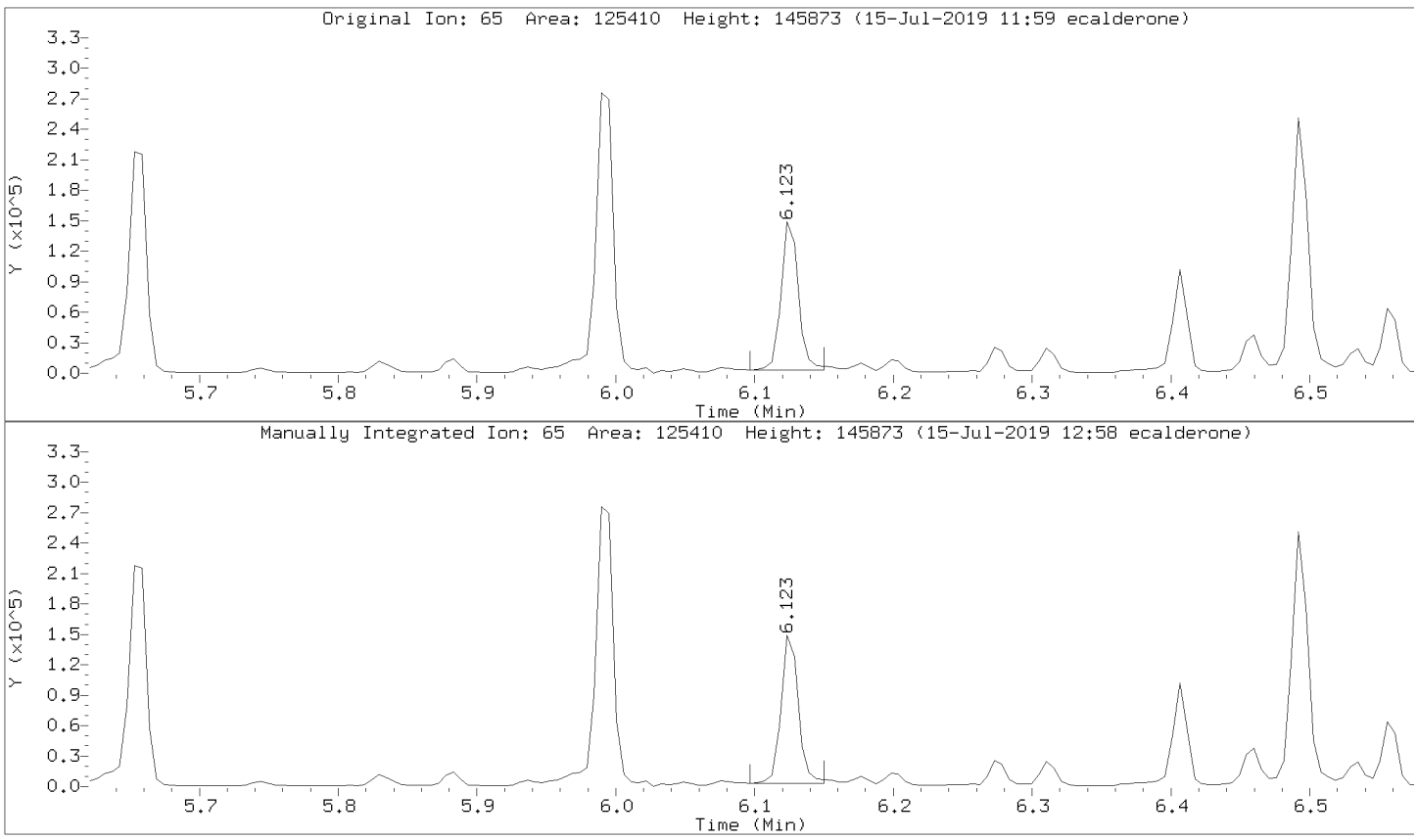
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2



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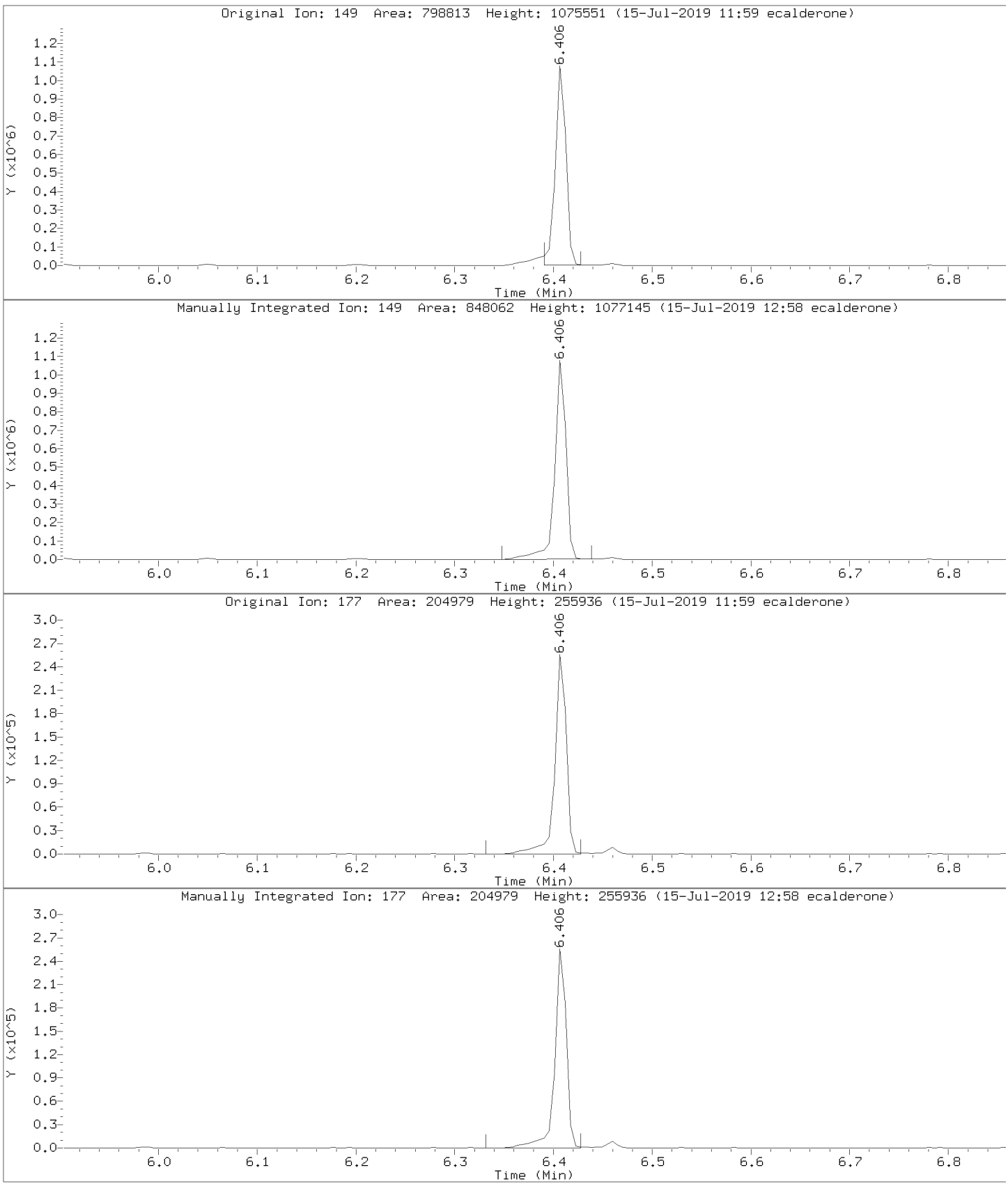
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2



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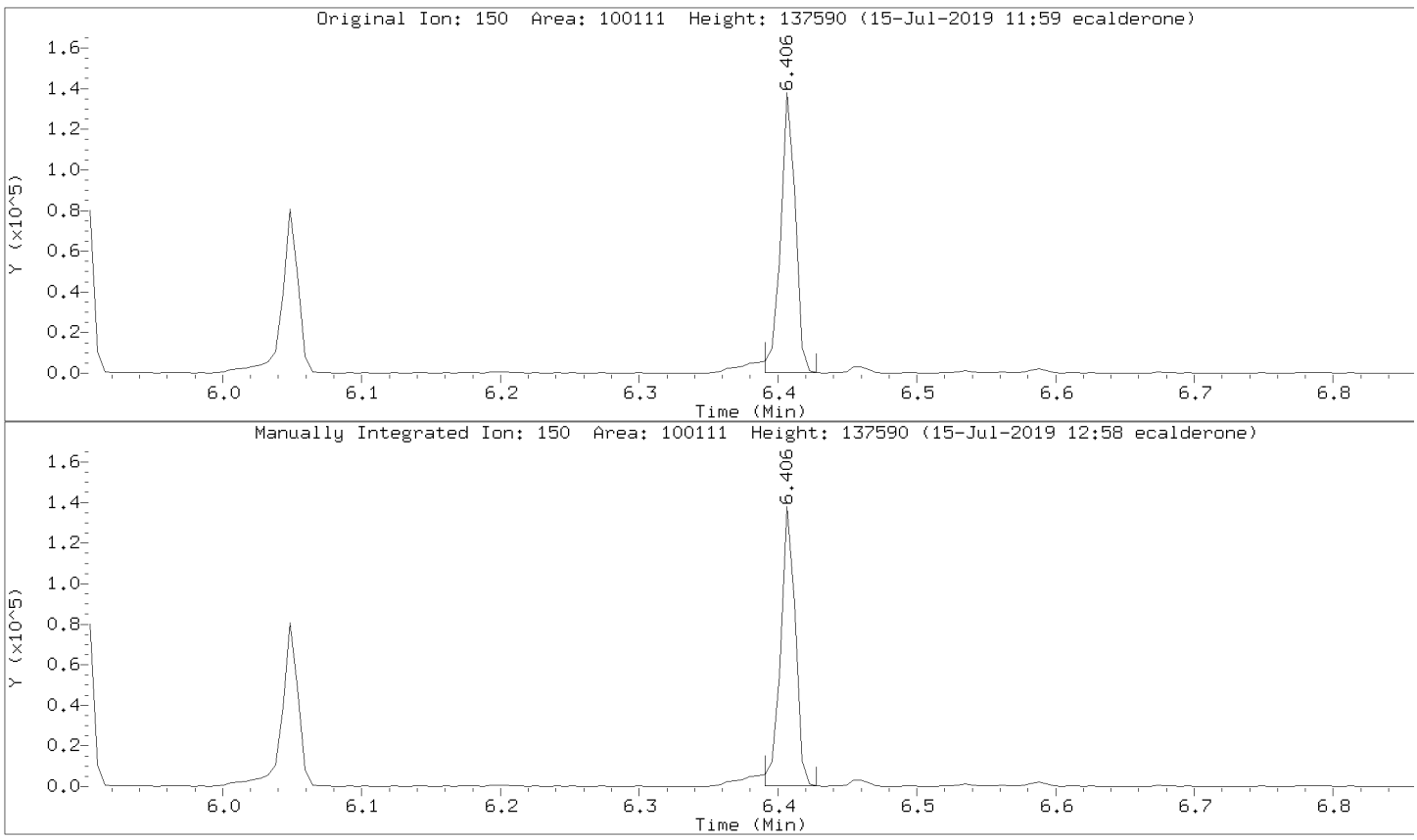
Lab Sample ID: CAL2



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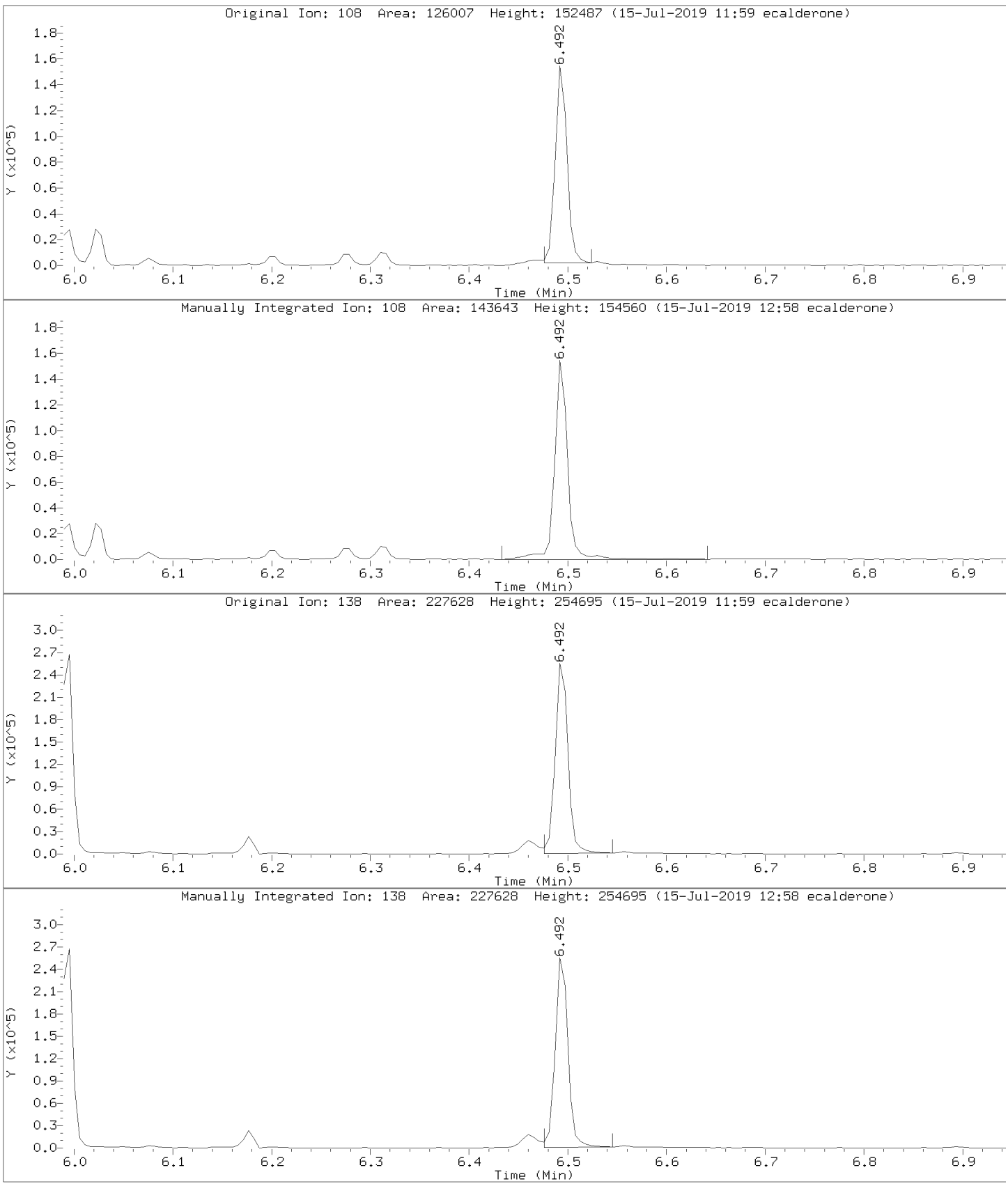
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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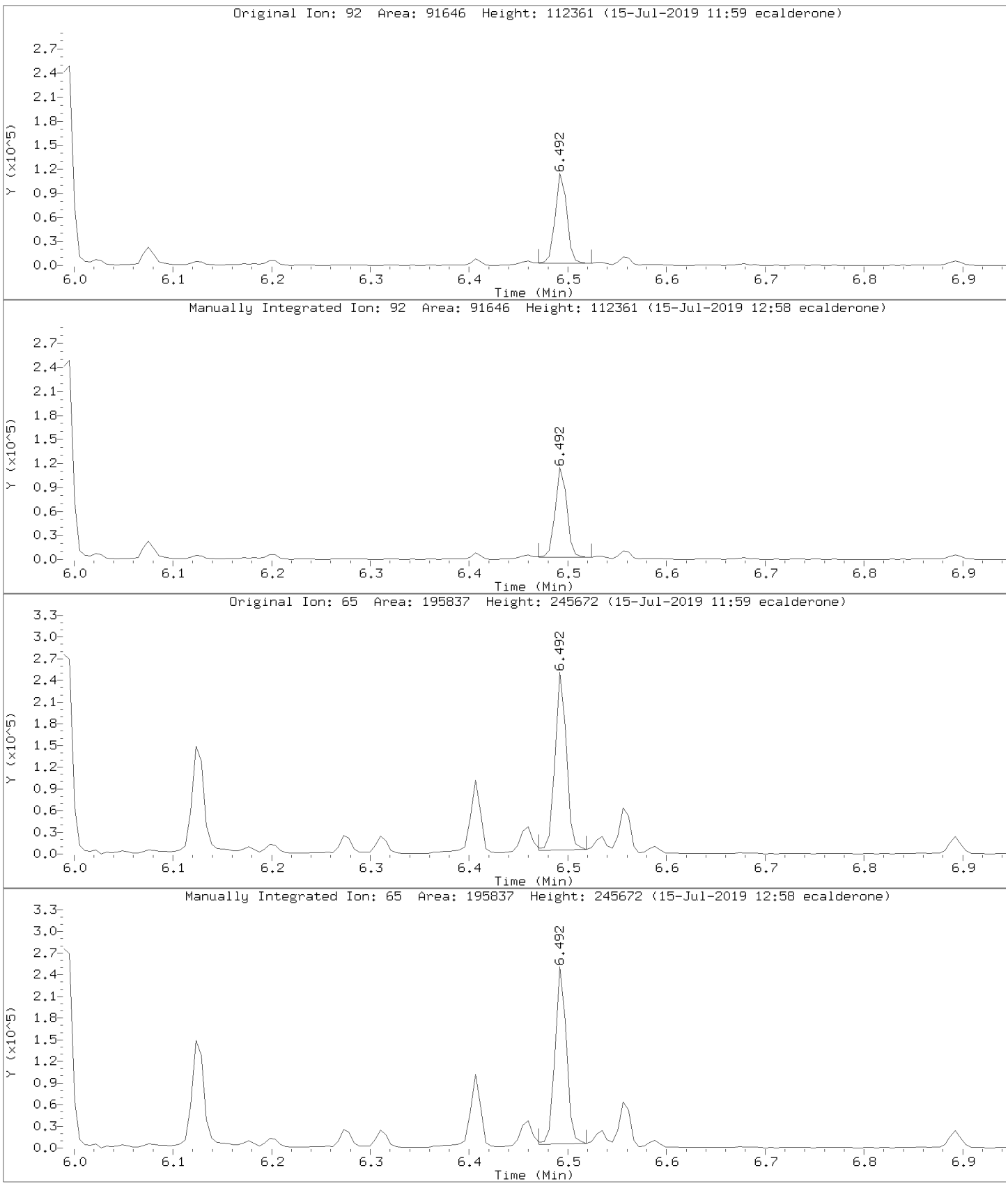
Lab Sample ID: CAL2



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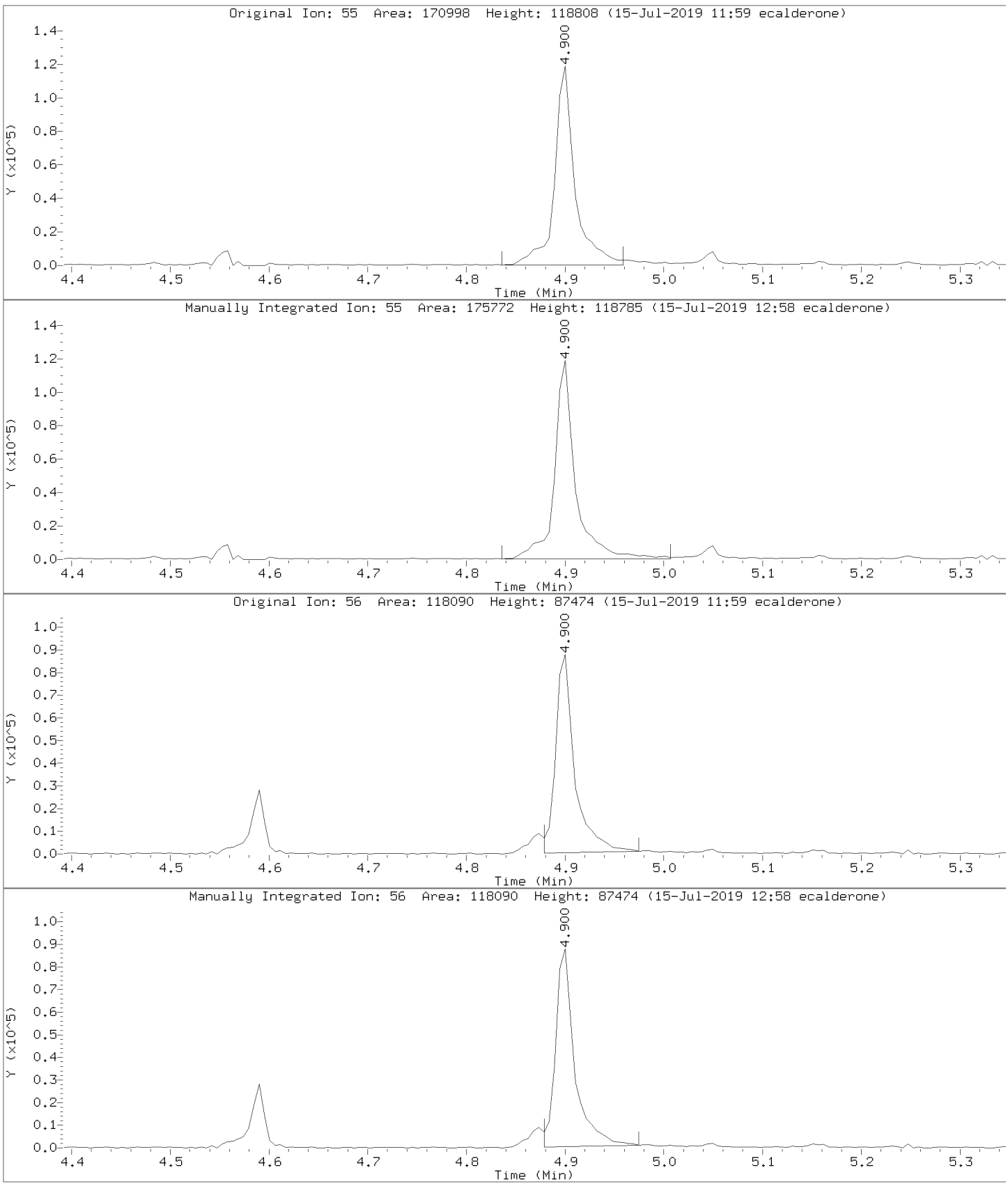
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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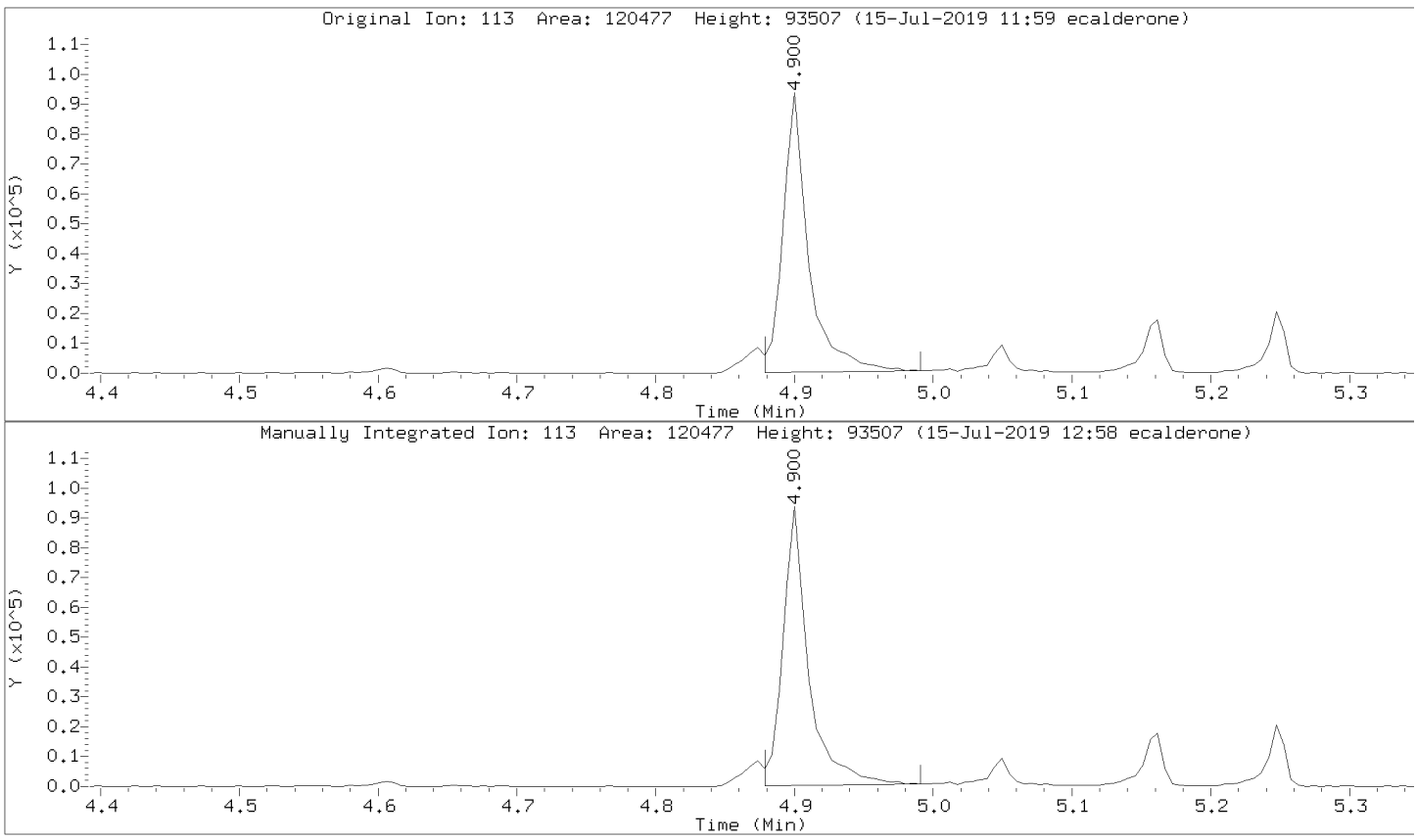


Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y7.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 15-JUL-2019 11:36
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14828,93079:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.700	1.700	(0.473)	187057	1.00000	1.13	
	2 Pyridine	79	1.689	1.689	(0.470)	275901	1.00000	1.12	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	233237	1.00000	1.22	
$	4 Phenol-d6 (S)	99	3.351	3.351	(0.932)	270578	1.00000	1.20	
	5 Benzaldehyde	77	3.281	3.281	(0.912)	185914	1.00000	1.13	
	6 Phenol	94	3.361	3.361	(0.935)	319924	1.00000	1.30	
	7 Aniline	66	3.383	3.383	(0.941)	143335	1.00000	1.28	
	8 bis(2-Chloroethyl)ether	63	3.425	3.425	(0.952)	166385	1.00000	1.15	
	9 2-Chlorophenol	128	3.463	3.463	(0.963)	243113	1.00000	1.17	
	10 1,3-Dichlorobenzene	146	3.570	3.570	(0.993)	250665	1.00000	1.13	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	594092	4.00000		
	12 1,4-Dichlorobenzene	146	3.607	3.607	(1.003)	265692	1.00000	1.09	
	13 Benzyl Alcohol	79	3.719	3.719	(1.034)	155216	1.00000	0.972	
	14 1,2-Dichlorobenzene	146	3.751	3.751	(1.043)	240461	1.00000	1.11	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	213363	1.00000	1.12	
	16 bis(2-Chloroisopropyl)ether	45	3.837	3.837	(1.067)	357407	1.00000	1.13	
	17 3&4-Methylphenol(m&p Cresol)	108	3.917	3.917	(1.089)	212742	1.00000	1.13	
	18 N-Nitroso-di-n-propylamine	70	3.938	3.938	(1.095)	157740	1.00000	1.08	
	19 Acetophenone	105	3.922	3.922	(1.091)	295553	1.00000	1.15	
	20 Hexachloroethane	117	3.986	3.986	(1.108)	89835	1.00000	1.04	
$	21 Nitrobenzene-d5 (S)	128	4.040	4.040	(0.880)	102000	1.00000	1.00	
	22 Nitrobenzene	77	4.050	4.050	(0.882)	219401	1.00000	1.08	
	23 Isophorone	82	4.232	4.232	(0.922)	414631	1.00000	1.11	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	217483	1.00000	1.09	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	127189	1.00000	1.08	
	26 Benzoic acid	105	4.376	4.376	(0.953)	59511	1.00000	1.07(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	259652	1.00000	1.14	
	28 2,4-Dichlorophenol	162	4.483	4.483	(0.977)	178034	1.00000	1.06	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	198449	1.00000	1.09	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2474498	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	663853	1.00000	1.23	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	66746	1.00000	1.02	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	104153	1.00000	1.07	
	34 Caprolactam	55	4.894	4.894	(1.066)	80061	1.00000	1.06	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	175360	1.00000	1.04	
	36	2-Methylnaphthalene	142	5.162	5.162	(1.125)	466998	1.00000	1.17	
	37	1-Methylnaphthalene	142	5.247	5.247	(1.143)	445116	1.00000	1.19	
	38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.888)	109520	1.00000	0.941	
	39	1,2,4,5-Tetrachlorobenzene	216	5.327	5.327	(0.885)	181873	1.00000	1.13	
	40	2,4,6-Trichlorophenol	196	5.407	5.407	(0.898)	134838	1.00000	1.07	
	41	2,4,5-Trichlorophenol	196	5.439	5.439	(0.903)	110145	1.00000	0.967	
$	42	2-Fluorobiphenyl (S)	172	5.471	5.471	(0.909)	477757	1.00000	1.23	
	43	Biphenyl (Diphenyl)	154	5.541	5.541	(0.920)	554886	1.00000	1.27	
	44	2-Chloronaphthalene	164	5.551	5.551	(0.922)	137387	1.00000	1.13	
	45	2-Nitroaniline	138	5.653	5.653	(0.939)	131398	1.00000	0.972	
	46	Dimethylphthalate	163	5.829	5.829	(0.968)	448352	1.00000	1.22	
	47	2,6-Dinitrotoluene	165	5.883	5.883	(0.977)	100666	1.00000	1.04	
	48	Acenaphthylene	152	5.899	5.899	(0.980)	668559	1.00000	1.27	
	49	3-Nitroaniline	65	5.990	5.990	(0.995)	112615	1.00000	0.996	
*	50	Acenaphthene-d10 (IS)	164	6.022	6.022	(1.000)	1317618	4.00000		
	51	2,4-Dinitrophenol	184	6.075	6.075	(1.009)	40251	1.00000	0.730(M)	LT
	52	Acenaphthene	153	6.048	6.048	(1.004)	420481	1.00000	1.20	
	53	4-Nitrophenol	109	6.123	6.123	(1.017)	45939	1.00000	1.03(M)	LT
	54	2,4-Dinitrotoluene	165	6.198	6.198	(1.029)	128852	1.00000	1.02	
	55	Dibenzofuran	168	6.176	6.176	(1.026)	591170	1.00000	1.27	
	56	2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.049)	95629	1.00000	1.02	
	57	Diethylphthalate	149	6.406	6.406	(1.064)	438432	1.00000	1.16	
	58	4-Chlorophenylphenyl ether	204	6.460	6.460	(1.073)	224153	1.00000	1.17	
	59	Fluorene	166	6.460	6.460	(1.073)	476060	1.00000	1.21	
	60	4-Nitroaniline	108	6.492	6.492	(1.078)	71727	1.00000	1.22(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.887)	57705	1.00000	0.778	
	62	N-Nitrosodiphenylamine	169	6.556	6.556	(0.890)	406931	1.00000	1.20	
	63	Azobenzene	77	6.588	6.588	(0.894)	418801	1.00000	1.17	
	64	1,2-Diphenylhydrazine	77	6.588	6.588	(0.894)	418801	1.00000	1.17	
$	65	2,4,6-Tribromophenol (S)	330	6.679	6.679	(0.906)	55519	1.00000	0.939	
	66	4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	124088	1.00000	1.07	
	67	Hexachlorobenzene	284	7.053	7.053	(0.957)	124192	1.00000	1.07	
	68	Atrazine	200	7.106	7.106	(0.964)	118385	1.00000	1.05	
	69	Pentachlorophenol	266	7.240	7.240	(0.983)	59432	1.00000	0.860(M)	LT
*	70	Phenanthrene-d10 (IS)	188	7.368	7.368	(1.000)	2172690	4.00000		
	71	Phenanthrene	178	7.395	7.395	(1.004)	724637	1.00000	1.27	
	72	Anthracene	178	7.437	7.437	(1.009)	652046	1.00000	1.18	
	73	Carbazole	167	7.614	7.614	(1.033)	611761	1.00000	1.22	
	74	Di-n-butylphthalate	149	8.068	8.068	(1.095)	682315	1.00000	1.16	
	75	Fluoranthene	202	8.666	8.666	(1.176)	645094	1.00000	1.18	
	76	Pyrene	202	8.896	8.896	(0.876)	681190	1.00000	1.15	
$	77	Terphenyl-d14 (S)	244	9.083	9.083	(0.895)	506396	1.00000	1.12	
	78	Butylbenzylphthalate	149	9.633	9.633	(0.949)	264558	1.00000	0.940	
	79	3,3'-Dichlorobenzidine	252	10.135	10.135	(0.998)	200973	1.00000	0.968	
	80	bis(2-Ethylhexyl)phthalate	149	10.253	10.253	(1.010)	383727	1.00000	1.00	
	81	Benzo(a)anthracene	228	10.135	10.135	(0.998)	623756	1.00000	1.15	
*	82	Chrysene-d12 (IS)	240	10.151	10.151	(1.000)	1975607	4.00000		
	83	Chrysene	228	10.178	10.178	(1.003)	630347	1.00000	1.22	
	84	Di-n-octylphthalate	149	10.835	10.835	(0.943)	583693	1.00000	0.991	
	85	Benzo(b)fluoranthene	252	11.161	11.161	(0.971)	573829	1.00000	1.02	
	86	Benzo(k)fluoranthene	252	11.182	11.182	(0.973)	696070	1.00000	1.30	
	87	Benzo(a)pyrene	252	11.444	11.444	(0.996)	545093	1.00000	1.11	
*	88	Perylene-d12 (IS)	264	11.492	11.492	(1.000)	1912450	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.325	12.325	(1.073)	612909	1.00000	1.15	
90 Dibenz(a,h)anthracene	278	12.336	12.336	(1.073)	521610	1.00000	1.18	
91 Benzo(g,h,i)perylene	276	12.528	12.528	(1.090)	521125	1.00000	1.17	

QC Flag Legend

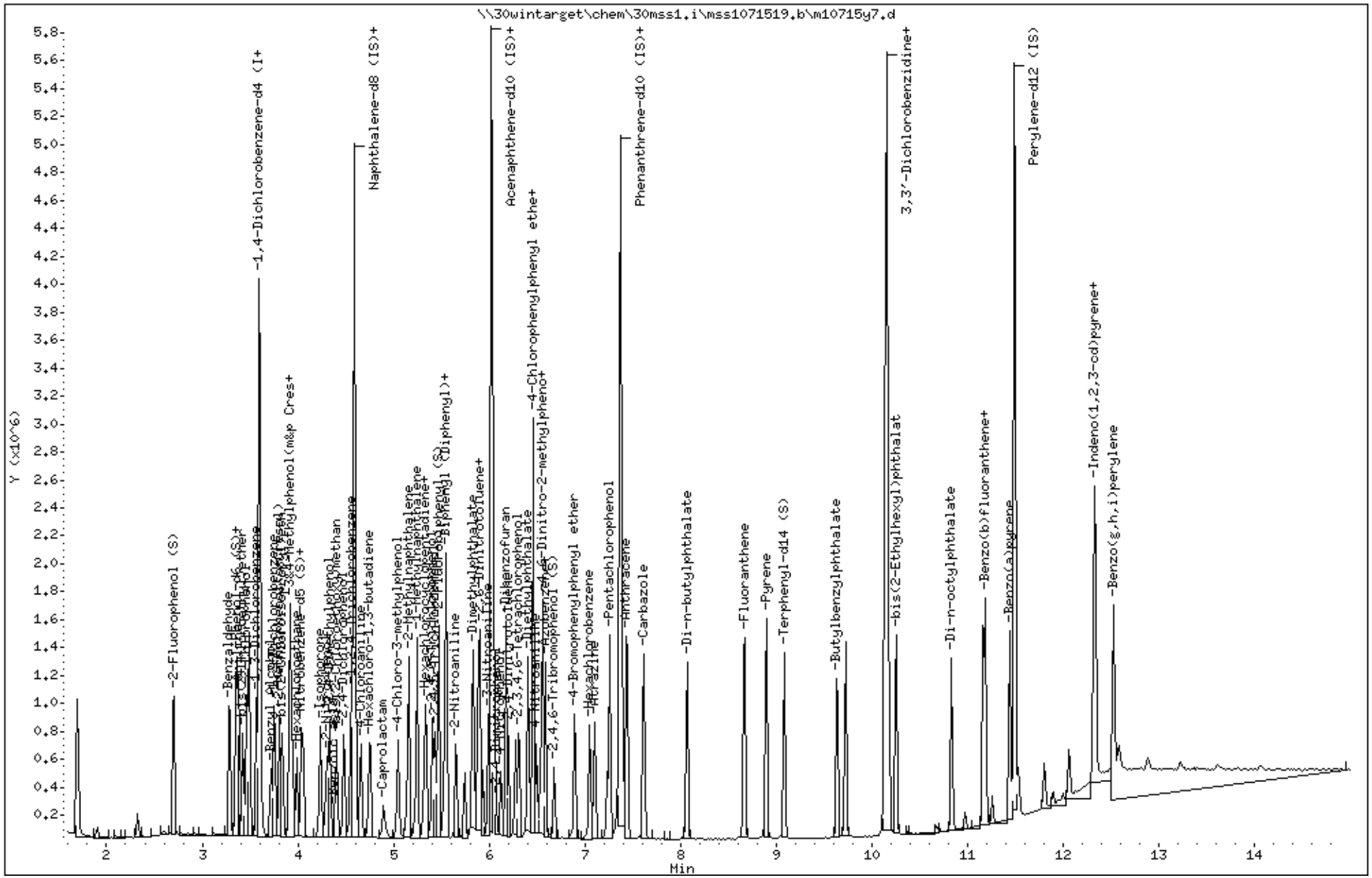
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y7.d
Date : 15-JUL-2019 11:36
Client ID: CAL1
Sample Info: CAL1

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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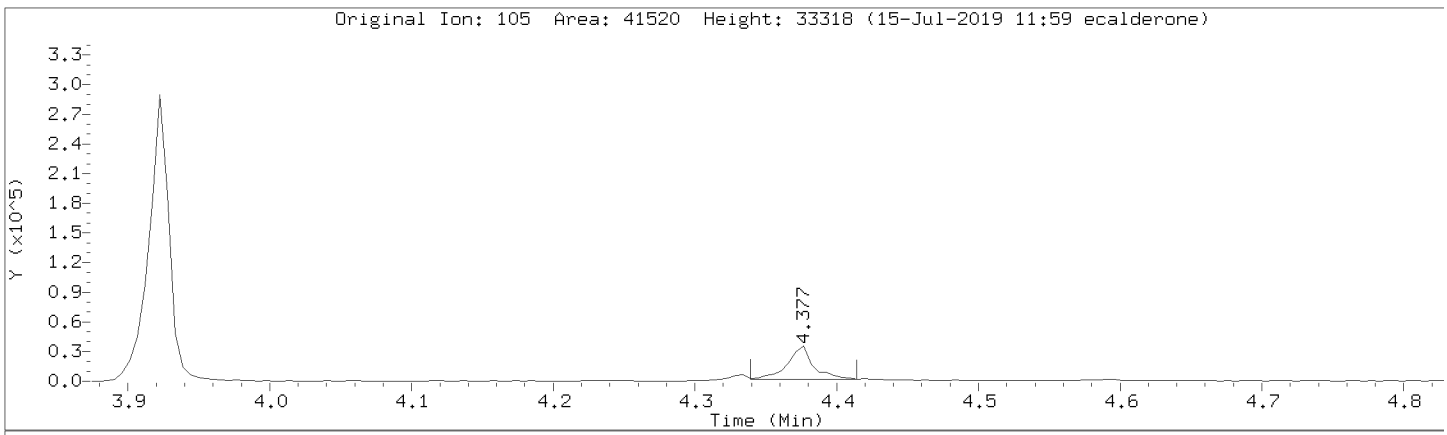
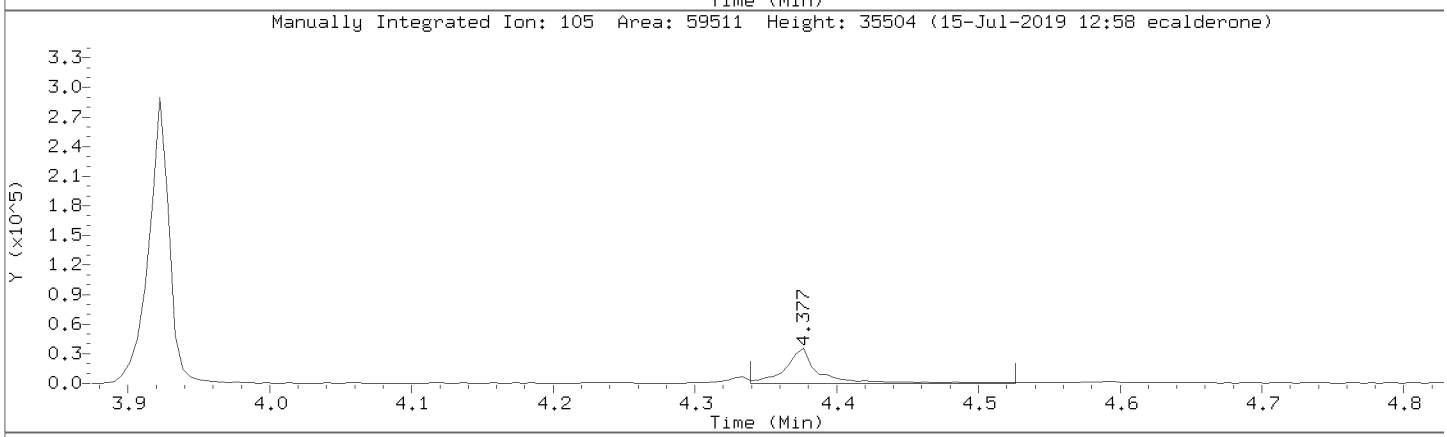
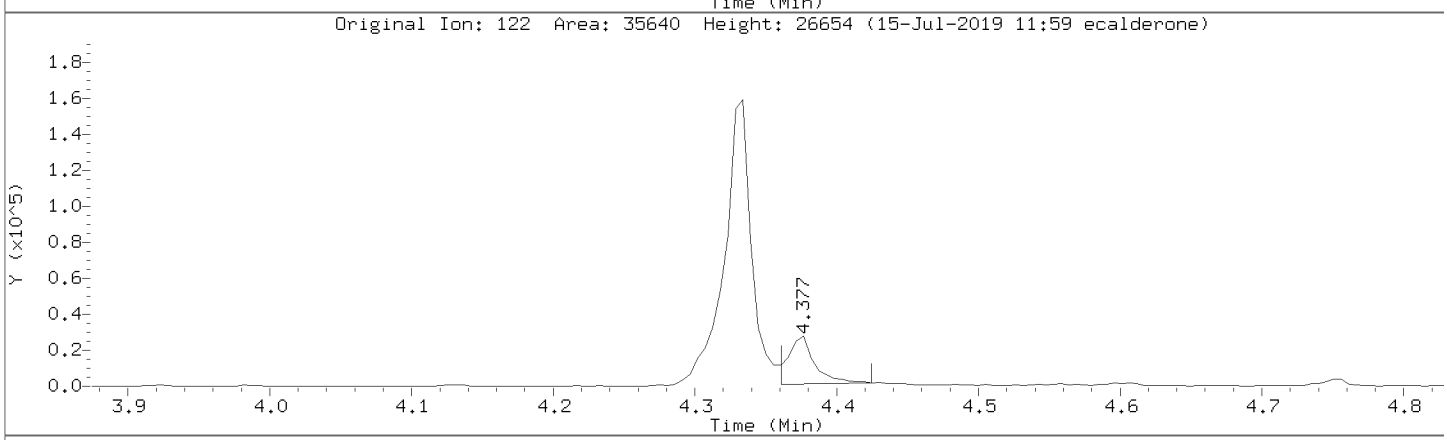
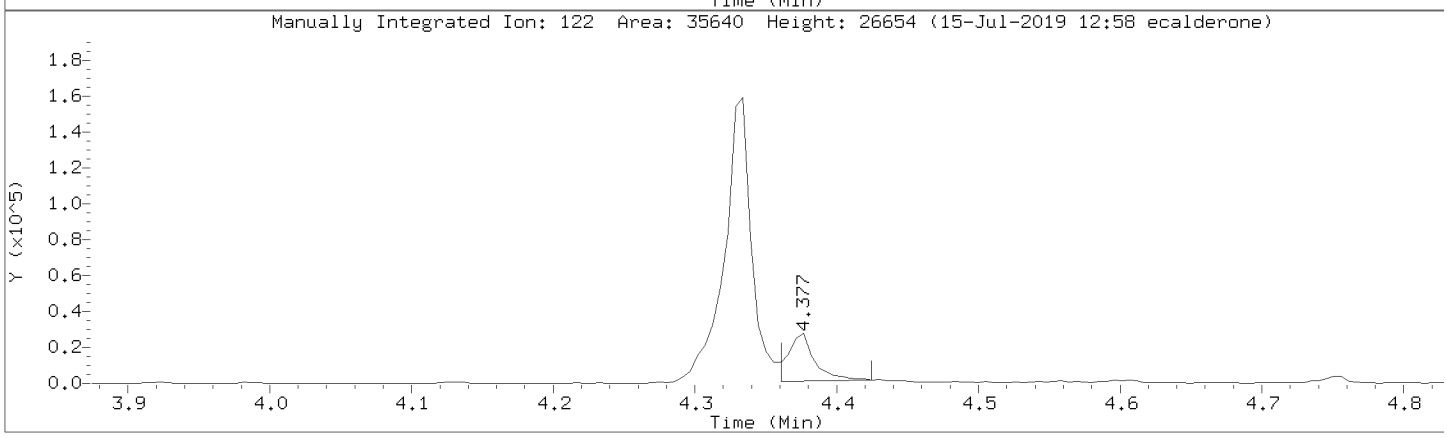
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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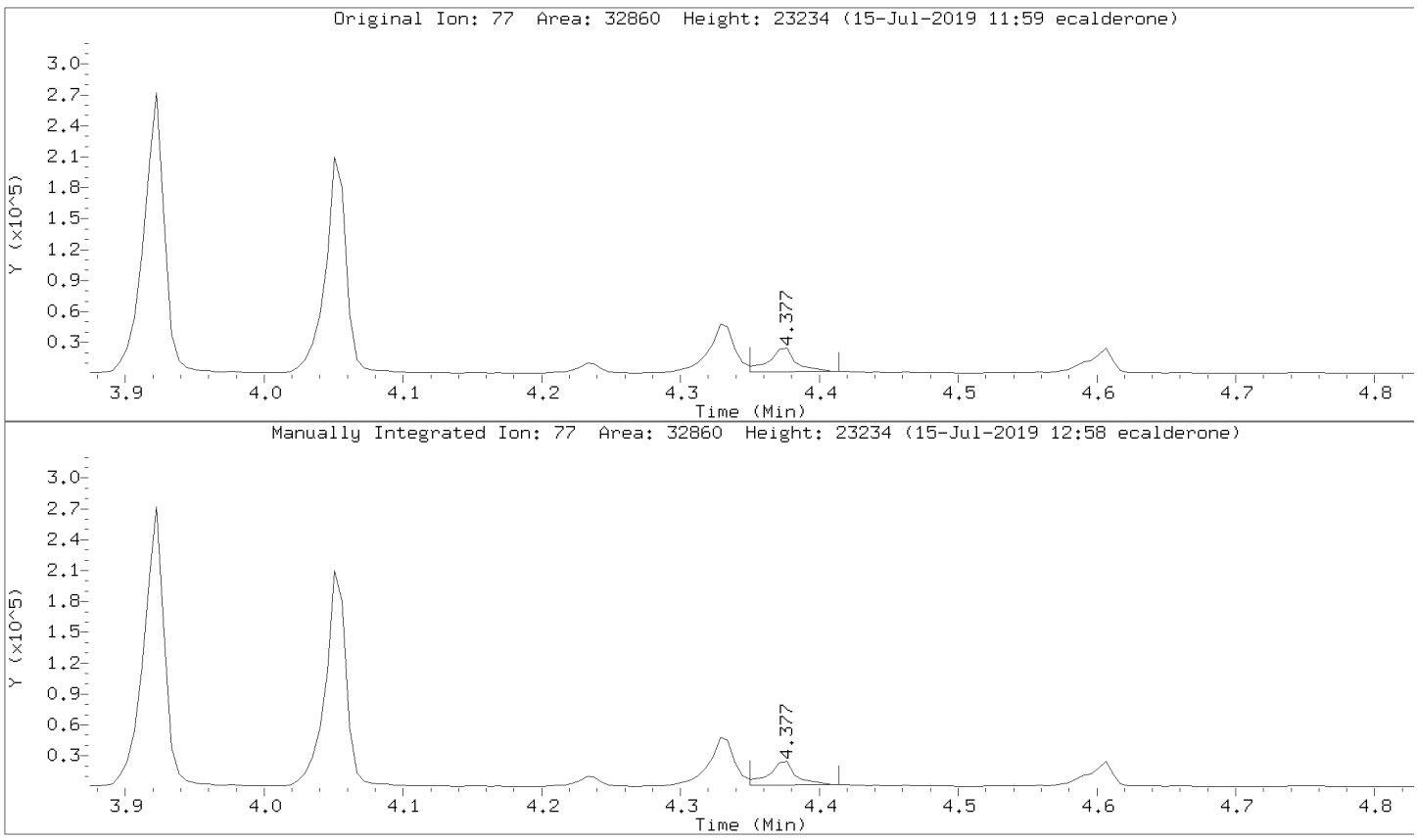
Instrument: 30mss1.i
Lab Sample ID: CAL1



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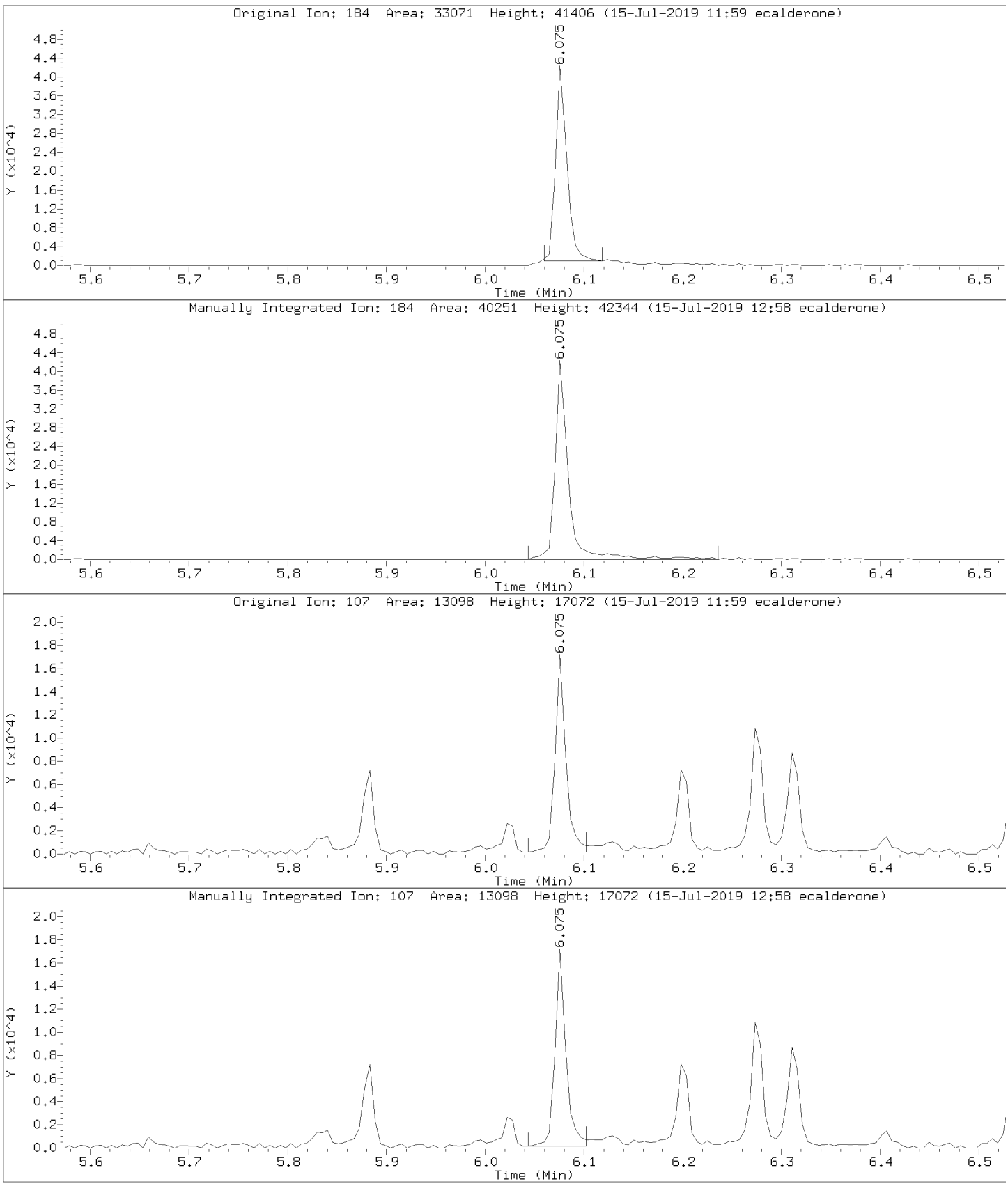
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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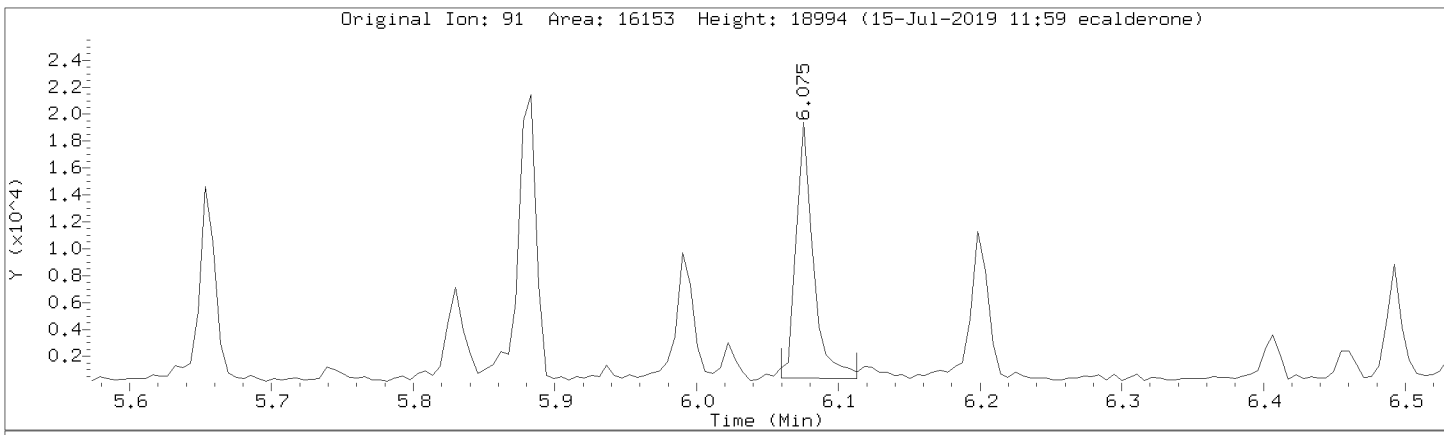
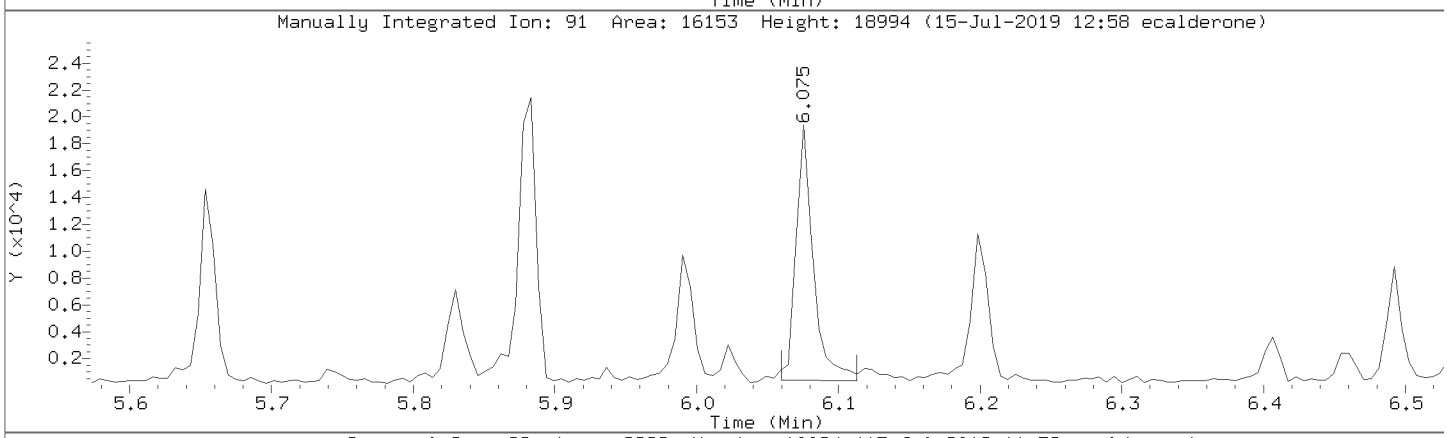
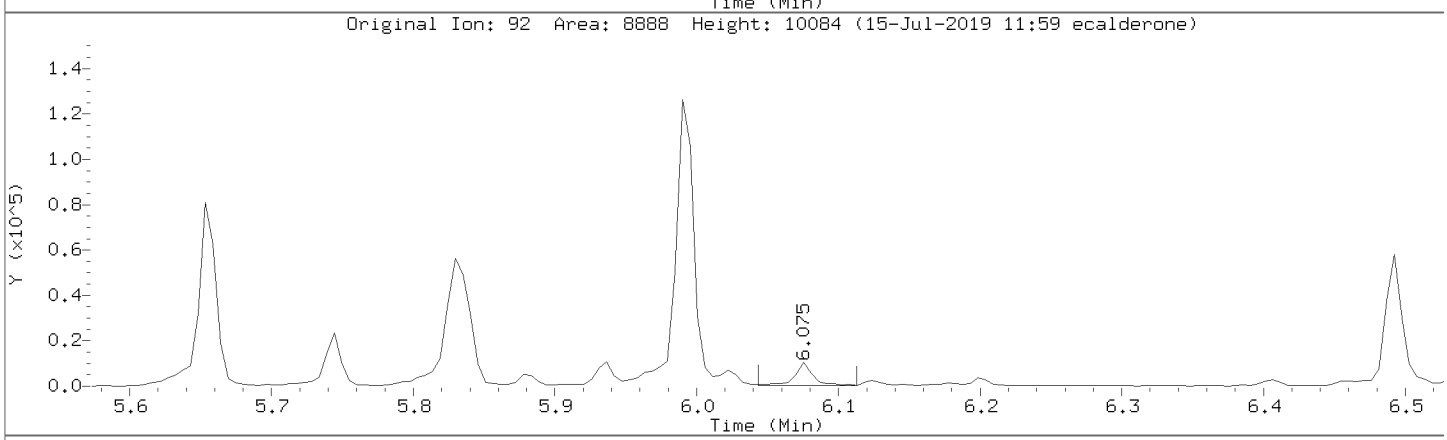
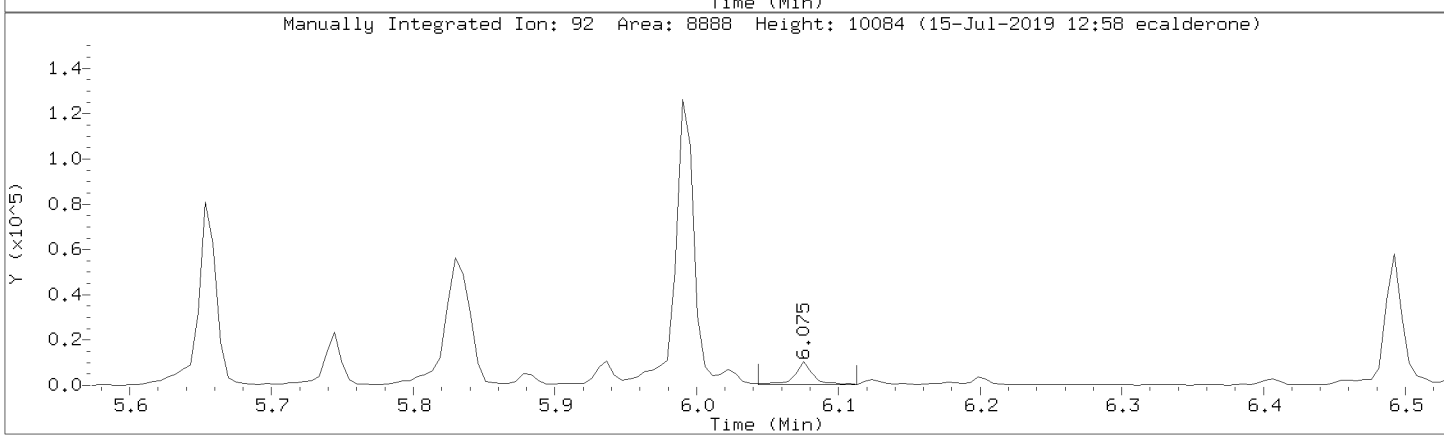
Instrument: 30mss1.i
Lab Sample ID: CAL1









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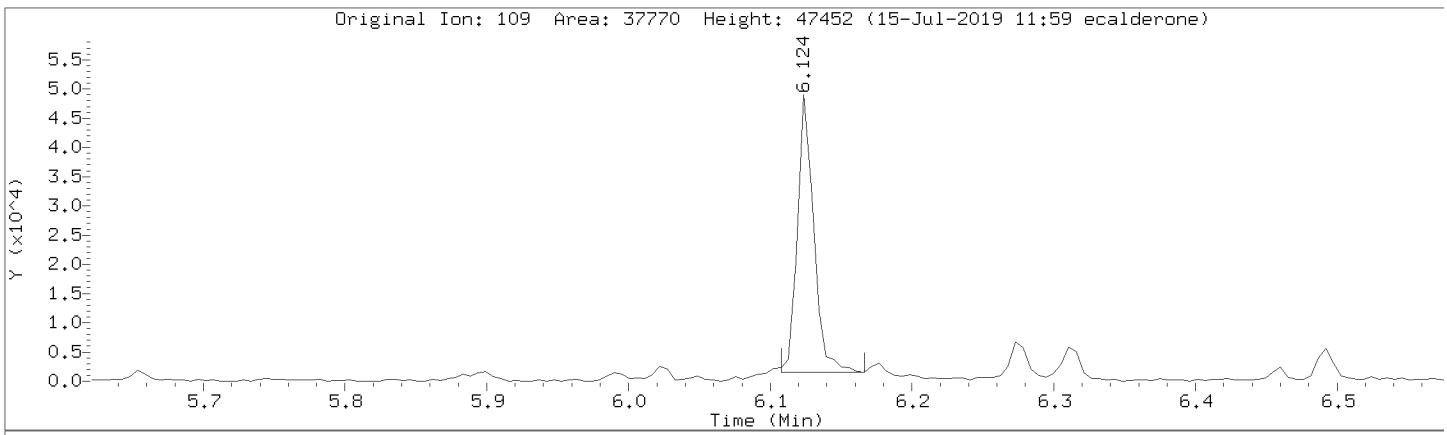
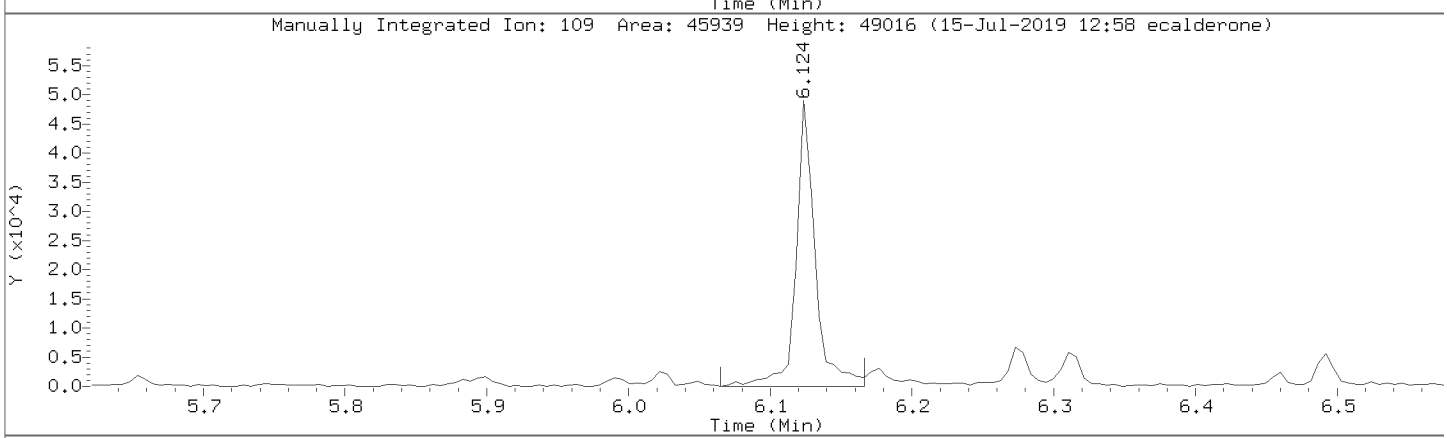
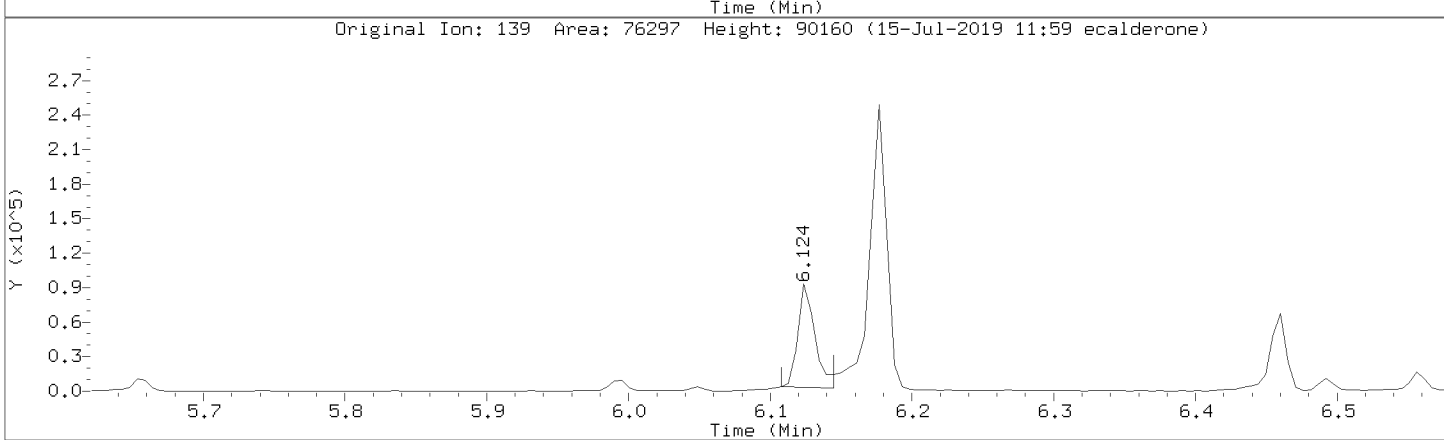
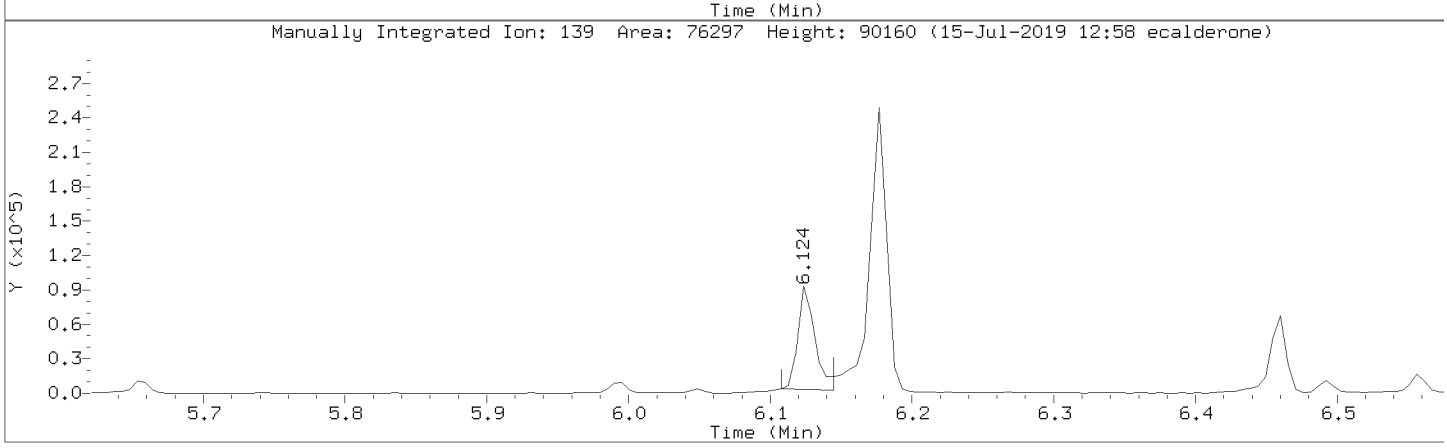
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7









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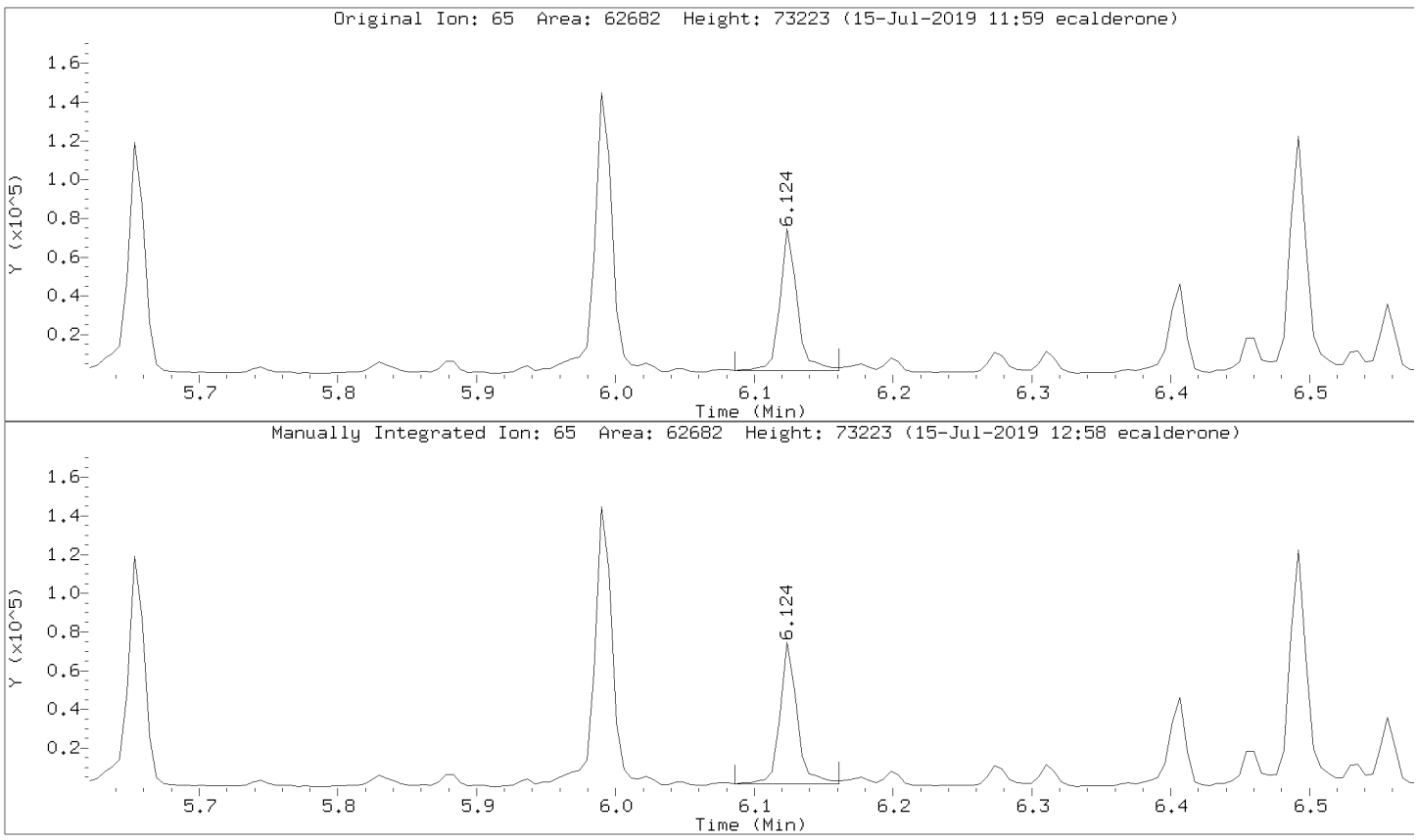
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1



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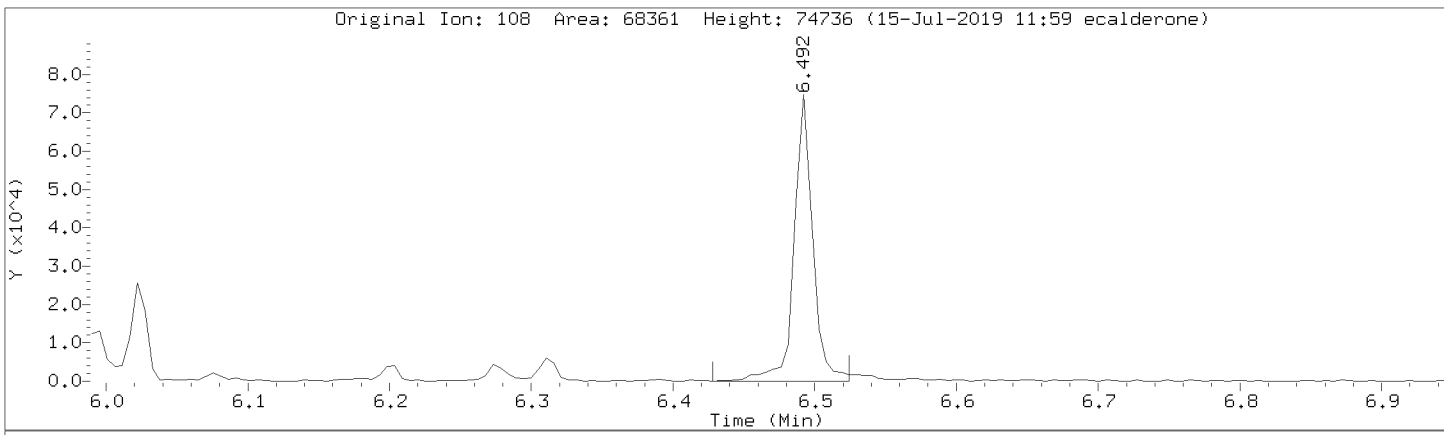
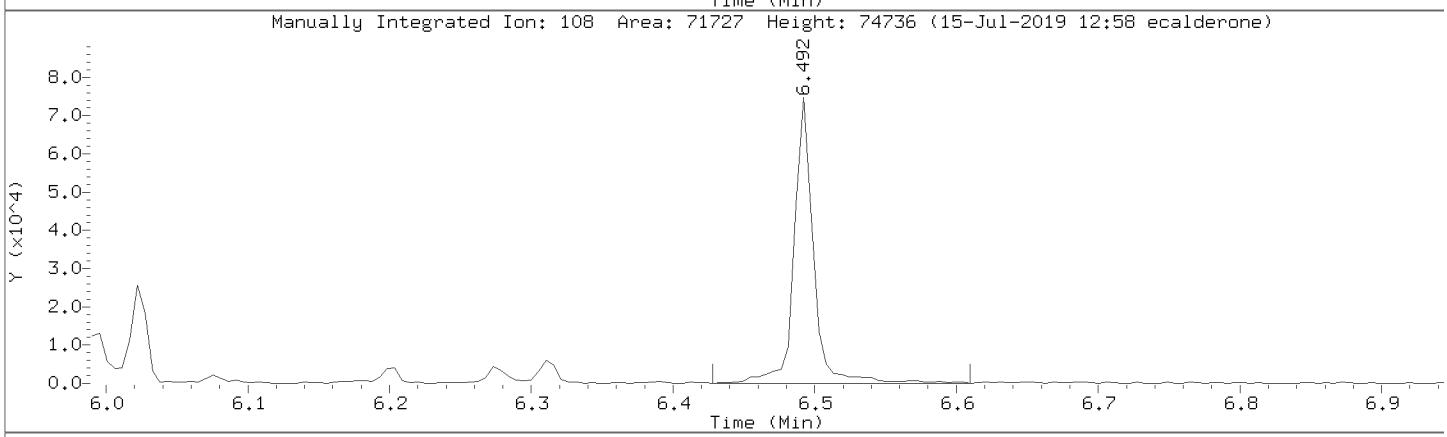
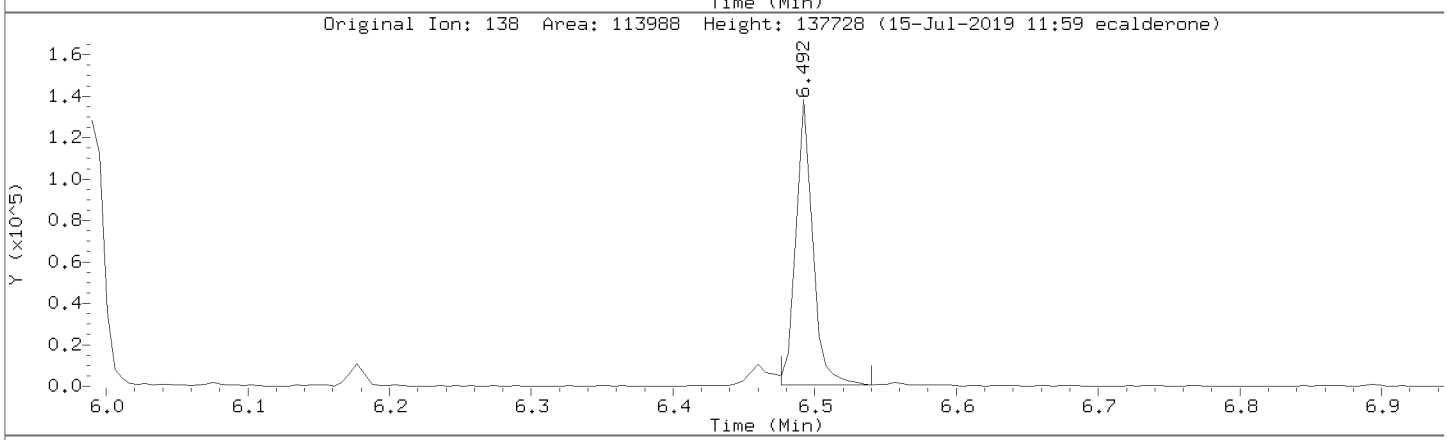
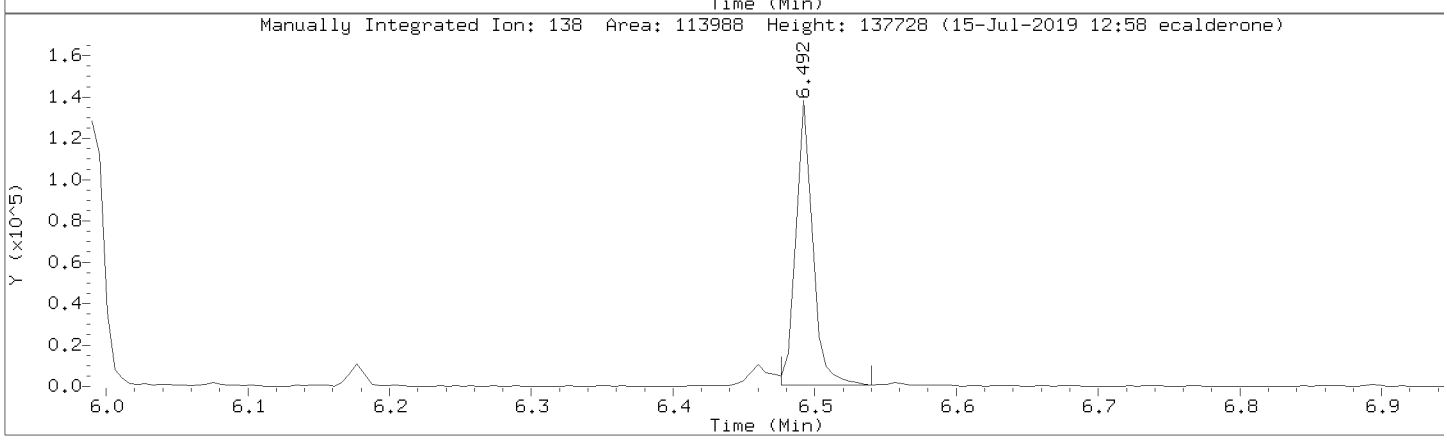
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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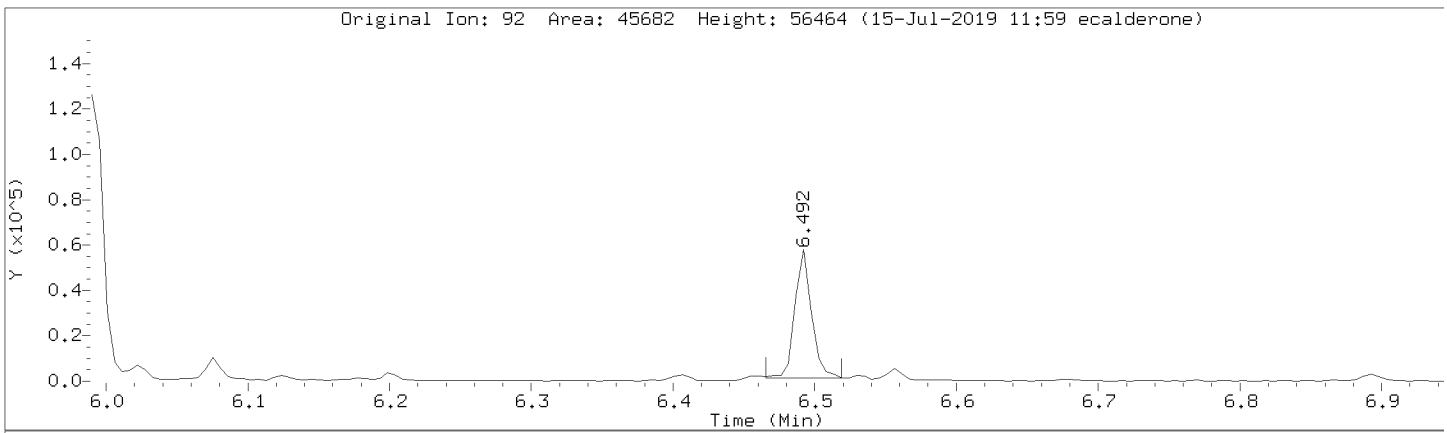
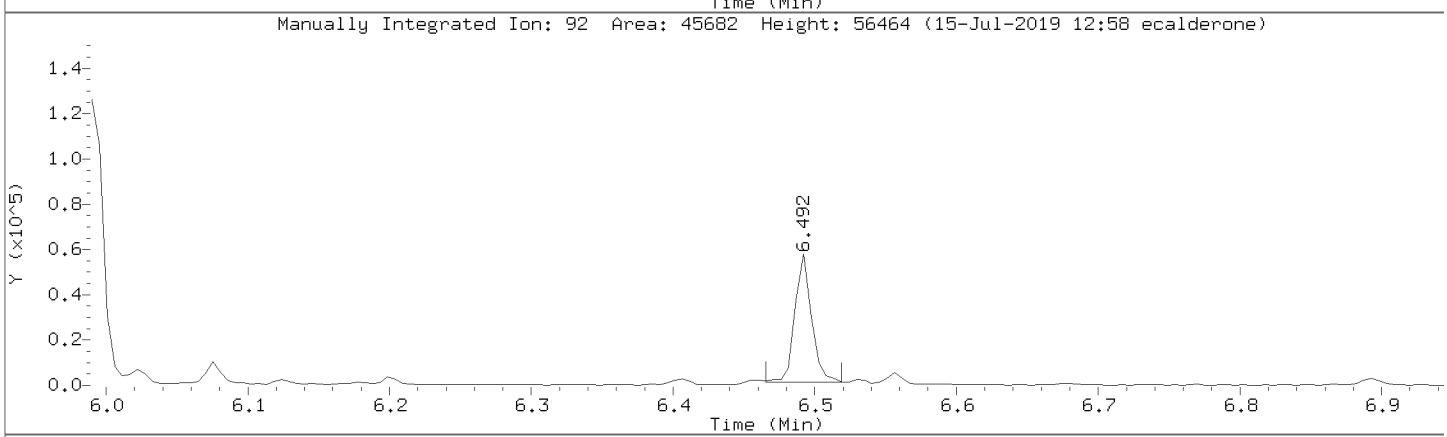
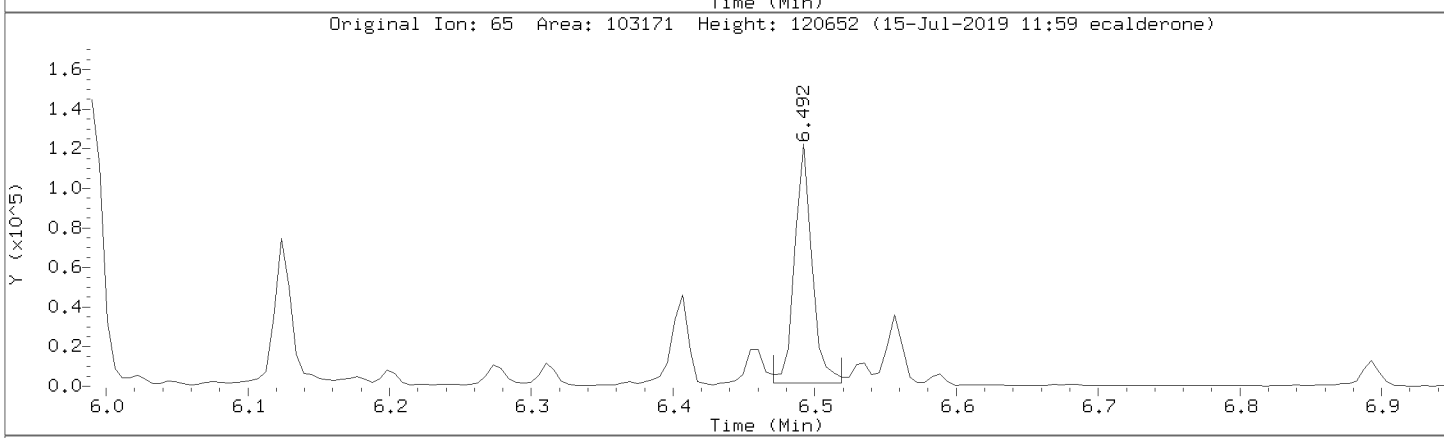
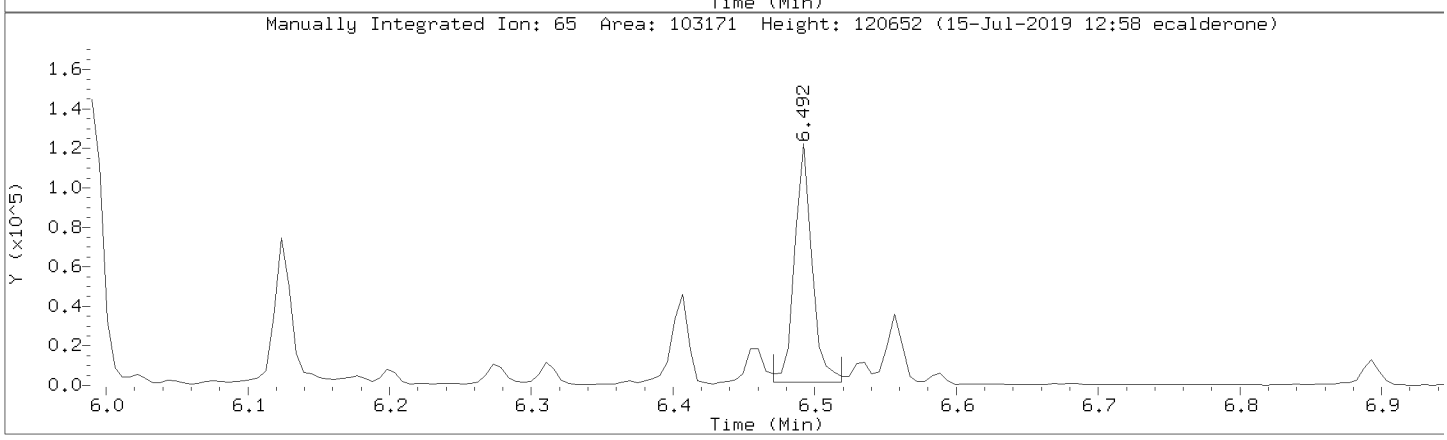
Lab Sample ID: CAL1









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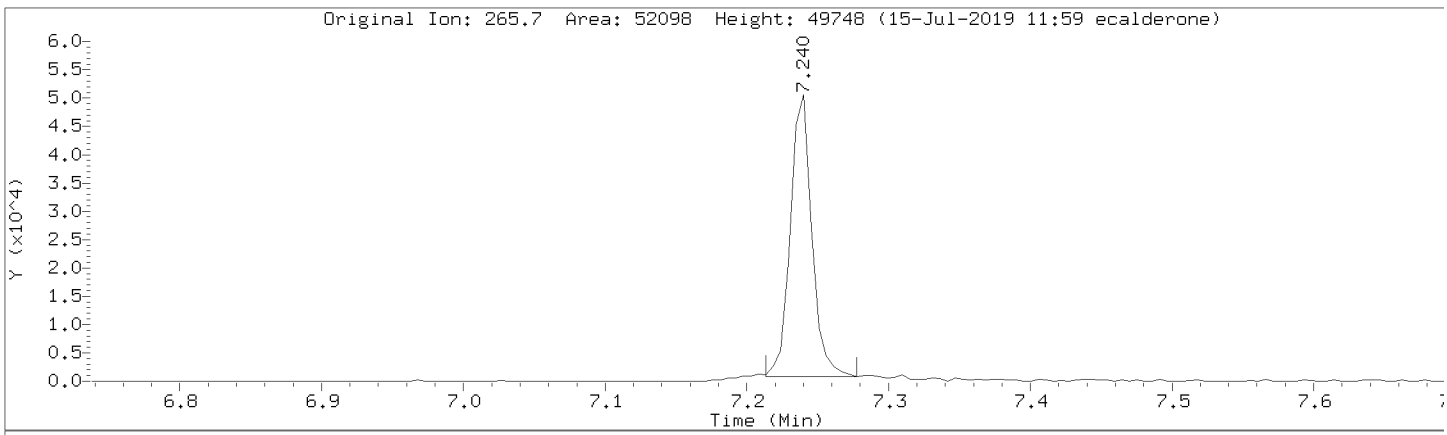
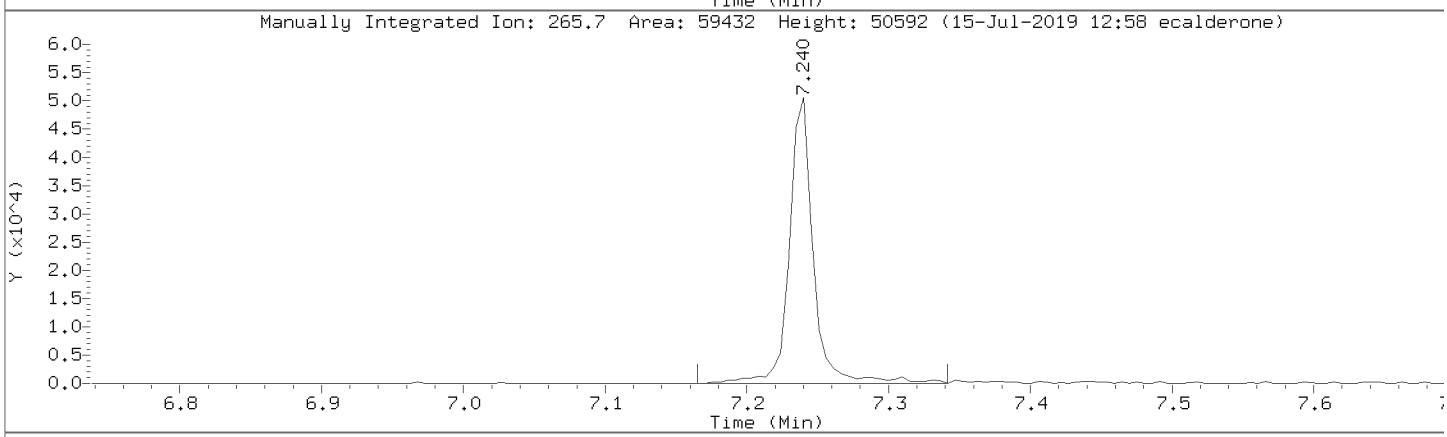
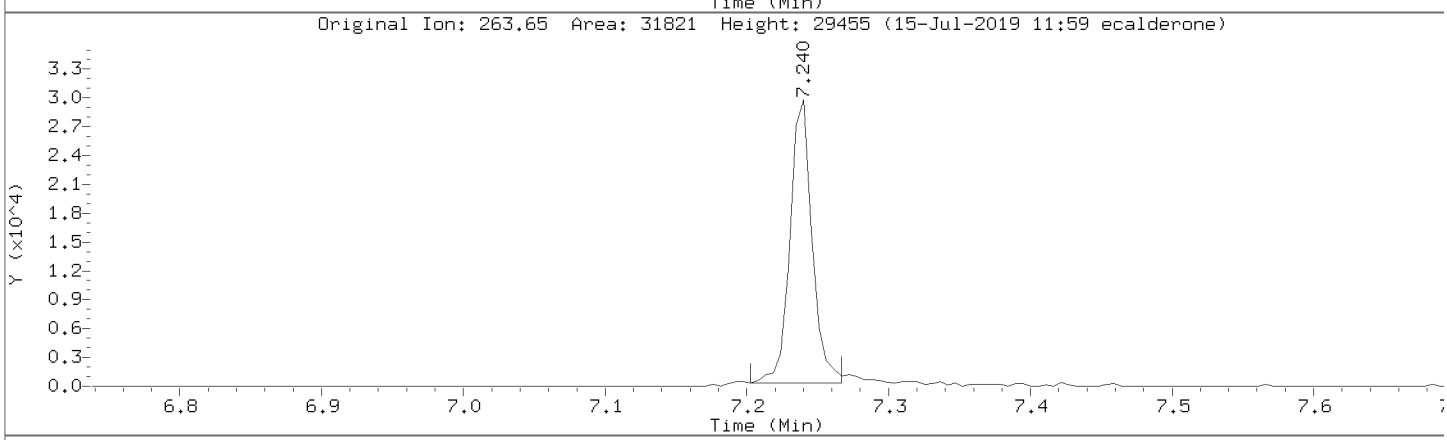
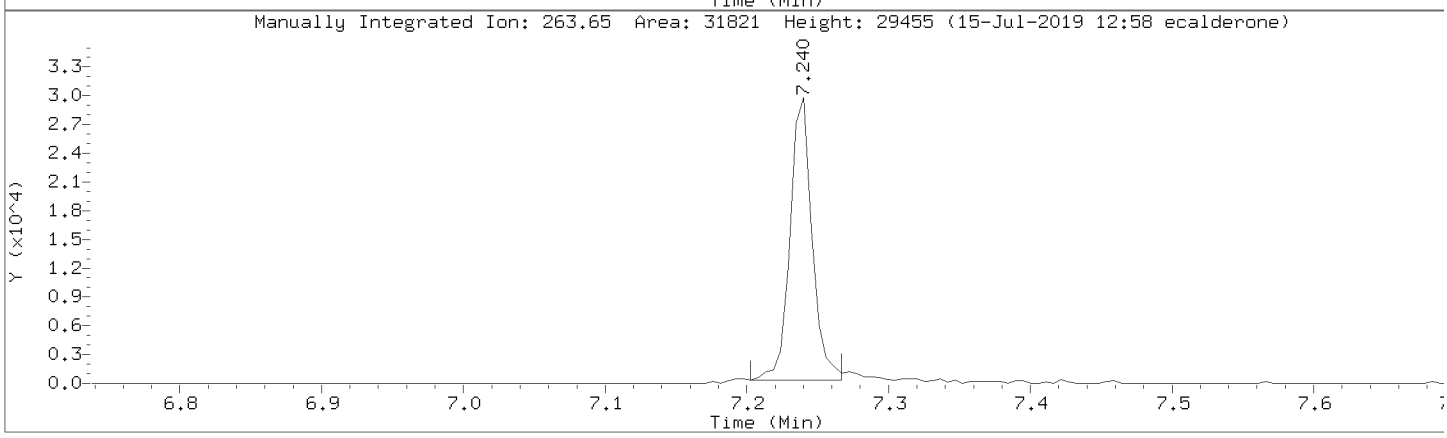
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5









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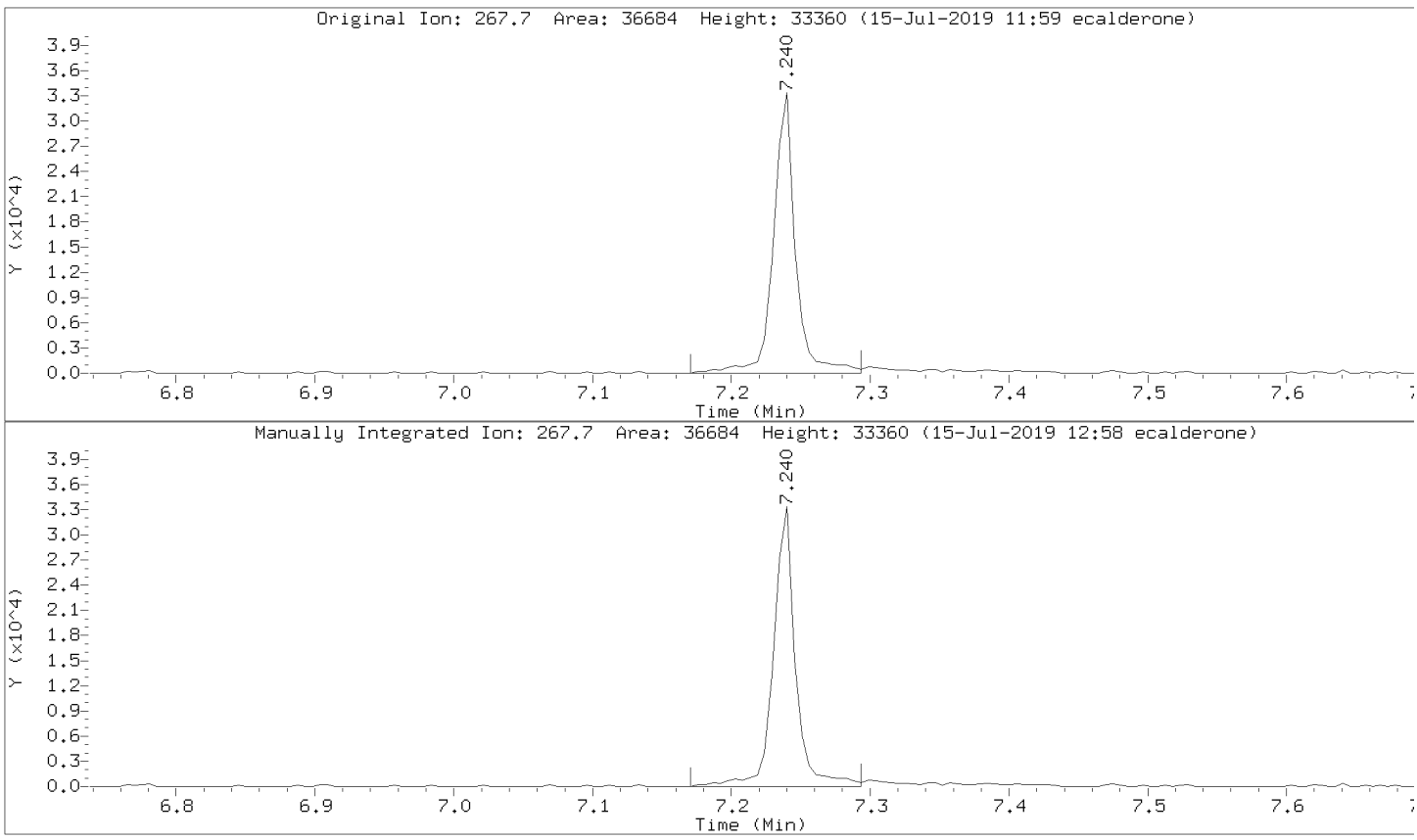
Lab Sample ID: CAL1



SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11239660ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/15/2019 Time: 11:59

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/15/2019 07/15/2019

Lab File ID: MSS1071519.B\M10715Y8.D Init. Calib. Time(s): 09:21 11:36

SDG No.: 30313260

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.65961	1.51092	0.0500	-8.9590	20.0000
2,4-Dinitrotoluene	Averaged	0.38404	0.39107	0.0500	1.8309	20.0000
Hexachloro-1,3-butadiene	Averaged	0.15916	0.16711	0.0500	4.9976	20.0000
Hexachlorobenzene	Averaged	0.21512	0.20770	0.0500	-3.4513	20.0000
Hexachloroethane	Averaged	0.58296	0.60475	0.0500	3.7375	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.30452	1.33492	0.0500	2.3304	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.29223	2.57187	0.0500	-0.4868	20.0000
Nitrobenzene	Averaged	0.33310	0.34755	0.0500	4.3385	20.0000
Pentachlorophenol	Averaged	0.12465	0.13672	0.0500	9.6860	20.0000
Pyridine	Averaged	1.69290	1.66813	0.0500	-1.4628	20.0000
2,4,5-Trichlorophenol	Averaged	0.34406	0.32423	0.0500	-5.7635	20.0000
2,4,6-Trichlorophenol	Averaged	0.38504	0.41878	0.0500	8.7620	20.0000
2-Fluorobiphenyl (S)	Averaged	1.22055	1.24744	0.0500	2.2028	20.0000
2-Fluorophenol (S)	Averaged	1.32636	1.27939	0.0500	-3.5410	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16452	0.16595	0.0500	0.8681	20.0000
Phenol-d6 (S)	Averaged	1.56300	1.62260	0.0500	3.8132	20.0000
Terphenyl-d14 (S)	Averaged	0.93124	0.83291	0.0500	-10.5590	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10793	0.10357	0.0500	-4.0456	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11248551CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/16/2019 Time: 12:19

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/15/2019 07/15/2019

Lab File ID: MSS1071619.B\M10716S1.D Init. Calib. Time(s): 09:21 11:36

SDG No.: 30313260

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.65961	1.70254	0.0500	2.5869	20.0000
2,4-Dinitrotoluene	Averaged	0.38404	0.38375	0.0500	-0.0758	20.0000
Hexachloro-1,3-butadiene	Averaged	0.15916	0.16002	0.0500	0.5422	20.0000
Hexachlorobenzene	Averaged	0.21512	0.20754	0.0500	-3.5245	20.0000
Hexachloroethane	Averaged	0.58296	0.59252	0.0500	1.6404	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.30452	1.32166	0.0500	1.3138	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.29223	1.33175	0.0500	3.0586	20.0000
Nitrobenzene	Averaged	0.33310	0.33366	0.0500	0.1684	20.0000
Pentachlorophenol	Averaged	0.12465	0.13235	0.0500	6.1735	20.0000
Pyridine	Averaged	1.69290	1.46667	0.0500	-13.3630	20.0000
2,4,5-Trichlorophenol	Averaged	0.34406	0.33561	0.0500	-2.4558	20.0000
2,4,6-Trichlorophenol	Averaged	0.38504	0.35971	0.0500	-6.5798	20.0000
2-Fluorobiphenyl (S)	Averaged	1.22055	1.21475	0.0500	-0.4750	20.0000
2-Fluorophenol (S)	Averaged	1.32636	1.24626	0.0500	-6.0388	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16452	0.16401	0.0500	-0.3092	20.0000
Phenol-d6 (S)	Averaged	1.56300	1.51082	0.0500	-3.3387	20.0000
Terphenyl-d14 (S)	Averaged	0.93124	0.94840	0.0500	1.8430	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10793	0.10623	0.0500	-1.5744	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 15-JUL-2019 11:59
Operator : EAC Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14828,93080:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.711	1.700	(0.476)	1516206	8.00000	7.24	
	2 Pyridine	79	1.689	1.689	(0.470)	2463016	8.00000	7.88	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	1889038	8.00000	7.72	
$	4 Phenol-d6 (S)	99	3.356	3.351	(0.933)	2395792	8.00000	8.30	
	5 Benzaldehyde	77	3.287	3.281	(0.914)	1533922	8.00000	7.35	
	6 Phenol	94	3.367	3.361	(0.936)	2594675	8.00000	8.14	
	7 Aniline	66	3.388	3.383	(0.942)	1135889	8.00000	7.85	
	8 bis(2-Chloroethyl)ether	63	3.426	3.425	(0.952)	1475400	8.00000	8.06	
	9 2-Chlorophenol	128	3.468	3.463	(0.964)	2055036	8.00000	7.80	
	10 1,3-Dichlorobenzene	146	3.570	3.570	(0.993)	2120417	8.00000	7.56	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.597	3.596	(1.000)	738255	4.00000		
	12 1,4-Dichlorobenzene	146	3.613	3.607	(1.004)	2230893	8.00000	7.28	
	13 Benzyl Alcohol	79	3.719	3.719	(1.034)	1689697	8.00000	8.55	
	14 1,2-Dichlorobenzene	146	3.752	3.751	(1.043)	2127171	8.00000	7.77	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	1971030	8.00000	8.19	
	16 bis(2-Chloroisopropyl)ether	45	3.837	3.837	(1.067)	3212717	8.00000	8.01	
	17 3&4-Methylphenol(m&p Cresol)	108	3.928	3.917	(1.092)	3797391	16.0000	15.9	
	18 N-Nitroso-di-n-propylamine	70	3.949	3.938	(1.098)	1426323	8.00000	7.76	
	19 Acetophenone	105	3.928	3.922	(1.092)	2627052	8.00000	8.06	
	20 Hexachloroethane	117	3.987	3.986	(1.108)	892916	8.00000	8.30	
$	21 Nitrobenzene-d5 (S)	128	4.045	4.040	(0.881)	968374	8.00000	8.07	
	22 Nitrobenzene	77	4.056	4.050	(0.884)	2028035	8.00000	8.35	
	23 Isophorone	82	4.243	4.232	(0.924)	3774953	8.00000	8.47	
	24 2,4-Dimethylphenol	107	4.334	4.333	(0.944)	1978574	8.00000	8.28	
	25 2-Nitrophenol	139	4.307	4.301	(0.938)	1084858	8.00000	7.74	
	26 Benzoic acid	105	4.425	4.376	(0.964)	1406733	8.00000	9.39(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.409	4.408	(0.960)	2477395	8.00000	9.03	
	28 2,4-Dichlorophenol	162	4.489	4.483	(0.978)	1619125	8.00000	8.13	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	1730007	8.00000	7.94	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2917644	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	5336563	8.00000	8.10	
	32 4-Chloroaniline	65	4.660	4.659	(1.015)	663479	8.00000	8.55	
	33 Hexachloro-1,3-butadiene	225	4.756	4.755	(1.036)	975145	8.00000	8.40	
	34 Caprolactam	55	4.927	4.894	(1.073)	1060375	8.00000	9.89(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.055	5.049	(1.101)	1889691	8.00000	9.42	
	36	2-Methylnaphthalene	142	5.162	5.162	(1.125)	4417326	8.00000	9.15	
	37	1-Methylnaphthalene	142	5.253	5.247	(1.144)	4103308	8.00000	9.08	
	38	Hexachlorocyclopentadiene	237	5.349	5.348	(0.887)	1208773	8.00000	8.18	
	39	1,2,4,5-Tetrachlorobenzene	216	5.333	5.327	(0.885)	1671811	8.00000	7.95	
	40	2,4,6-Trichlorophenol	196	5.413	5.407	(0.898)	1413274	8.00000	8.70	
	41	2,4,5-Trichlorophenol	196	5.445	5.439	(0.903)	1094180	8.00000	7.54	
$	42	2-Fluorobiphenyl (S)	172	5.477	5.471	(0.909)	4209767	8.00000	8.18	
	43	Biphenyl (Diphenyl)	154	5.546	5.541	(0.920)	4747765	8.00000	8.16(MH)	LT
	44	2-Chloronaphthalene	164	5.557	5.551	(0.922)	1281575	8.00000	8.09	
	45	2-Nitroaniline	138	5.664	5.653	(0.940)	1435364	8.00000	8.32(MH)	LT
	46	Dimethylphthalate	163	5.835	5.829	(0.968)	4047847	8.00000	8.34(MH)	LT
	47	2,6-Dinitrotoluene	165	5.888	5.883	(0.977)	1010767	8.00000	8.11	
	48	Acenaphthylene	152	5.899	5.899	(0.979)	5831349	8.00000	8.31(M)	LT
	49	3-Nitroaniline	65	5.995	5.990	(0.995)	1378995	8.00000	9.53(MH)	LT
*	50	Acenaphthene-d10 (IS)	164	6.027	6.022	(1.000)	1687367	4.00000		
	51	2,4-Dinitrophenol	184	6.081	6.075	(1.009)	551146	8.00000	7.81	
	52	Acenaphthene	153	6.054	6.048	(1.004)	3793102	8.00000	8.24(M)	LT
	53	4-Nitrophenol	109	6.134	6.123	(1.018)	601817	8.00000	9.58	
	54	2,4-Dinitrotoluene	165	6.204	6.198	(1.029)	1319749	8.00000	8.15	
	55	Dibenzofuran	168	6.182	6.176	(1.026)	5038419	8.00000	8.13	
	56	2,3,4,6-Tetrachlorophenol	232	6.316	6.315	(1.048)	968341	8.00000	8.02	
	57	Diethylphthalate	149	6.412	6.406	(1.064)	4118108	8.00000	8.31	
	58	4-Chlorophenylphenyl ether	204	6.460	6.460	(1.072)	1925334	8.00000	7.64	
	59	Fluorene	166	6.465	6.460	(1.073)	4103213	8.00000	7.93(M)	LT
	60	4-Nitroaniline	108	6.503	6.492	(1.079)	710770	8.00000	9.15(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.540	6.534	(0.887)	774712	8.00000	8.98(M)	LT
	62	N-Nitrosodiphenylamine	169	6.567	6.556	(0.891)	3535044	8.00000	8.45(M)	LT
	63	Azobenzene	77	6.594	6.588	(0.894)	4143503	8.00000	9.42	
	64	1,2-Diphenylhydrazine	77	6.594	6.588	(0.894)	4143503	8.00000	9.42	
$	65	2,4,6-Tribromophenol (S)	330	6.684	6.679	(0.907)	540092	8.00000	7.68(M)	LT
	66	4-Bromophenylphenyl ether	248	6.898	6.892	(0.936)	1100794	8.00000	7.82	
	67	Hexachlorobenzene	284	7.058	7.053	(0.957)	1083134	8.00000	7.72	
	68	Atrazine	200	7.117	7.106	(0.965)	1047148	8.00000	7.70	
	69	Pentachlorophenol	266	7.245	7.240	(0.983)	713012	8.00000	8.77	
*	70	Phenanthrene-d10 (IS)	188	7.373	7.368	(1.000)	2607479	4.00000		
	71	Phenanthrene	178	7.400	7.395	(1.004)	5825170	8.00000	8.17	
	72	Anthracene	178	7.448	7.437	(1.010)	5271994	8.00000	7.76	
	73	Carbazole	167	7.625	7.614	(1.034)	4759078	8.00000	7.64	
	74	Di-n-butylphthalate	149	8.073	8.068	(1.095)	5760179	8.00000	7.97	
	75	Fluoranthene	202	8.672	8.666	(1.176)	5535515	8.00000	8.20	
	76	Pyrene	202	8.901	8.896	(0.876)	5310640	8.00000	7.86	
$	77	Terphenyl-d14 (S)	244	9.088	9.083	(0.895)	3685244	8.00000	7.16	
	78	Butylbenzylphthalate	149	9.639	9.633	(0.949)	2985768	8.00000	9.55	
	79	3,3'-Dichlorobenzidine	252	10.135	10.135	(0.998)	1514207	8.00000	6.56	
	80	bis(2-Ethylhexyl)phthalate	149	10.253	10.253	(1.009)	3564606	8.00000	8.31	
	81	Benzo(a)anthracene	228	10.141	10.135	(0.998)	5406925	8.00000	8.73	
*	82	Chrysene-d12 (IS)	240	10.157	10.151	(1.000)	2212272	4.00000		
	83	Chrysene	228	10.183	10.178	(1.003)	4595668	8.00000	7.73	
	84	Di-n-octylphthalate	149	10.835	10.835	(0.942)	5484334	8.00000	7.63	
	85	Benzo(b)fluoranthene	252	11.172	11.161	(0.972)	5296222	8.00000	7.68	
	86	Benzo(k)fluoranthene	252	11.193	11.182	(0.974)	5095567	8.00000	7.46	
	87	Benzo(a)pyrene	252	11.455	11.444	(0.996)	4790480	8.00000	7.86	
*	88	Perylene-d12 (IS)	264	11.498	11.492	(1.000)	2337297	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.342	12.325	(1.073)	5244035	8.00000	7.89	
90 Dibenz(a,h)anthracene	278	12.347	12.336	(1.074)	4350233	8.00000	7.84	
91 Benzo(g,h,i)perylene	276	12.545	12.528	(1.091)	4608596	8.00000	8.27	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

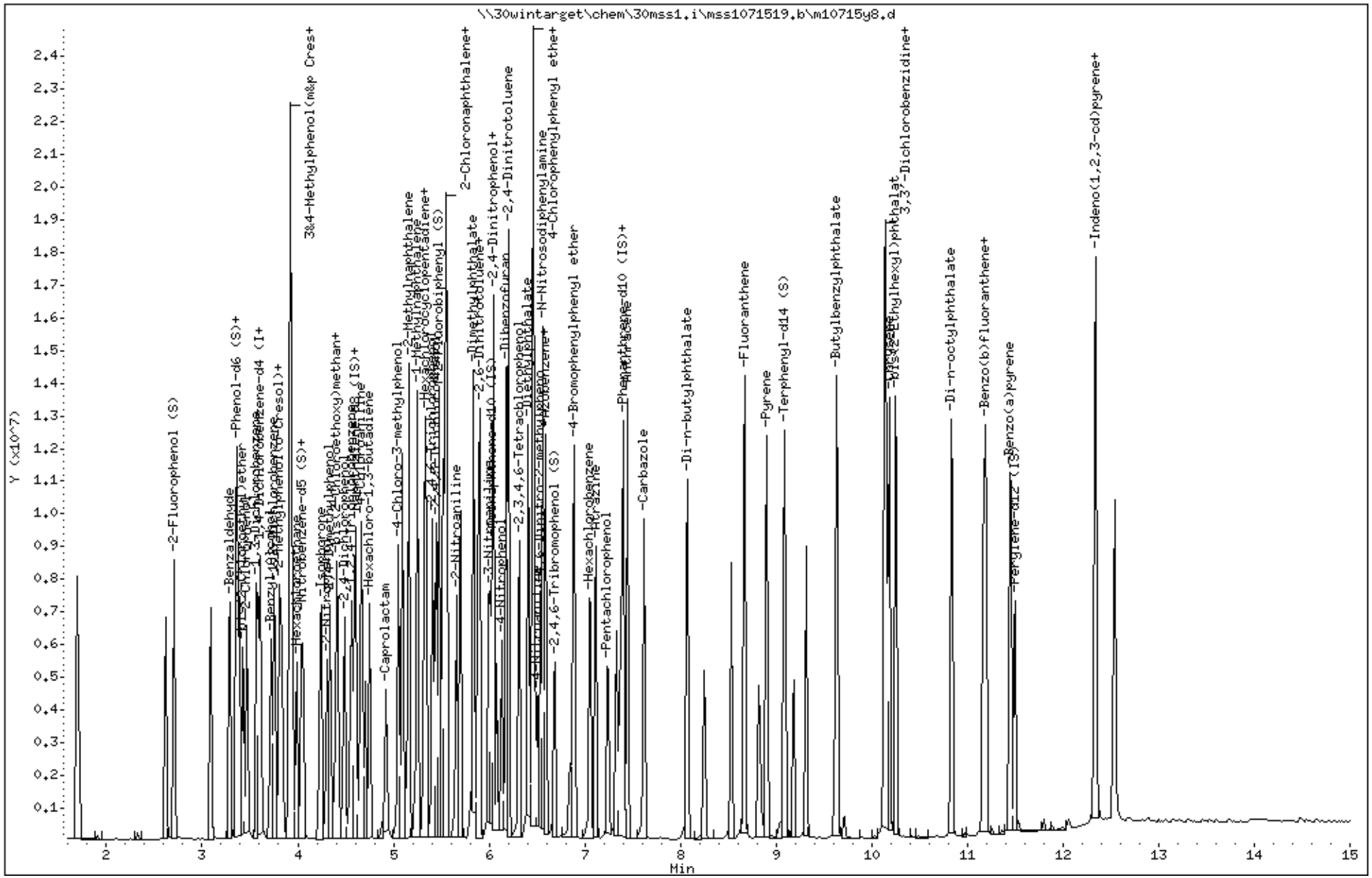
Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y8.d
Date : 15-JUL-2019 11:59
Client ID: ICV
Sample Info: ICV

Instrument: 30mss1.i

Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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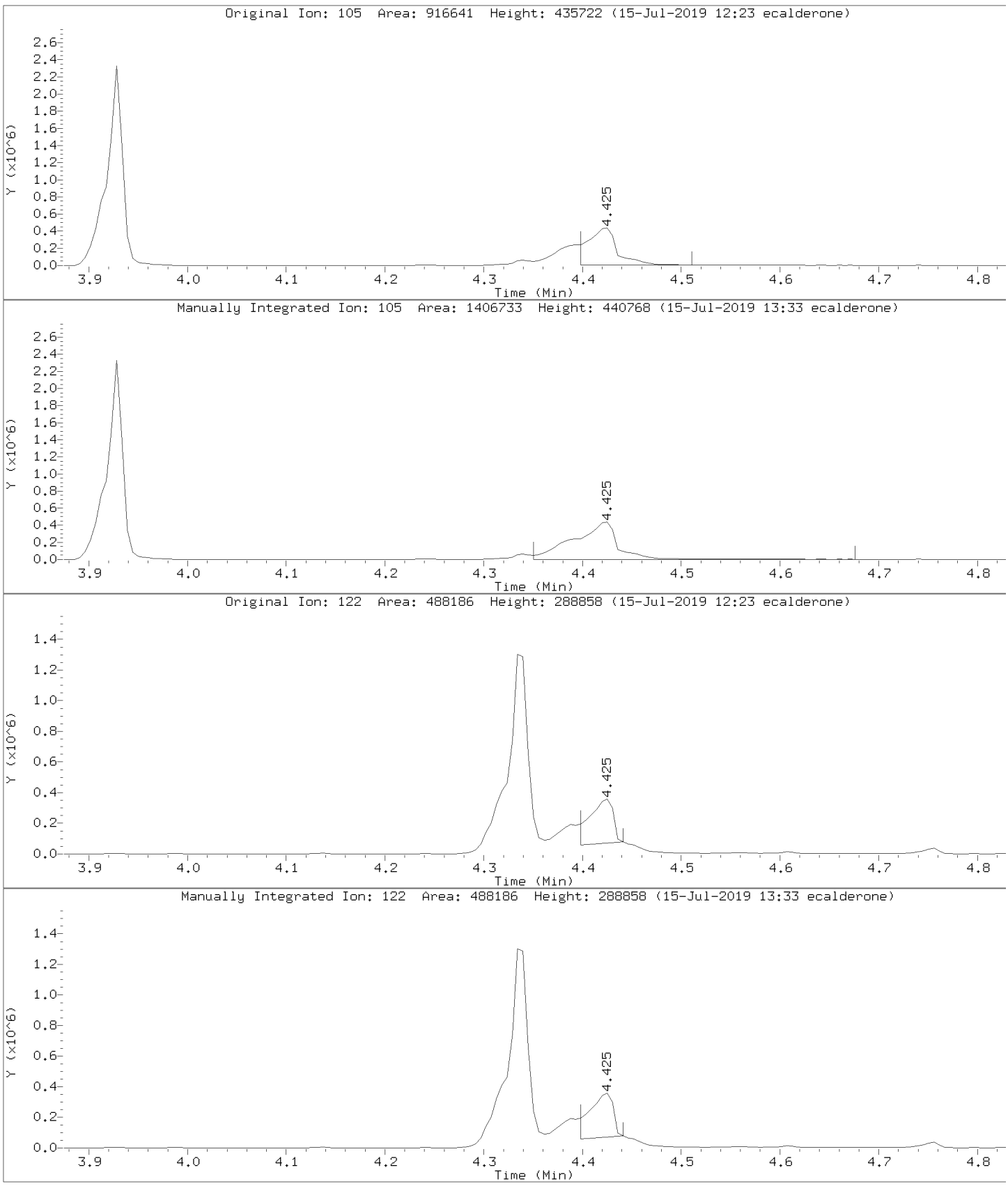
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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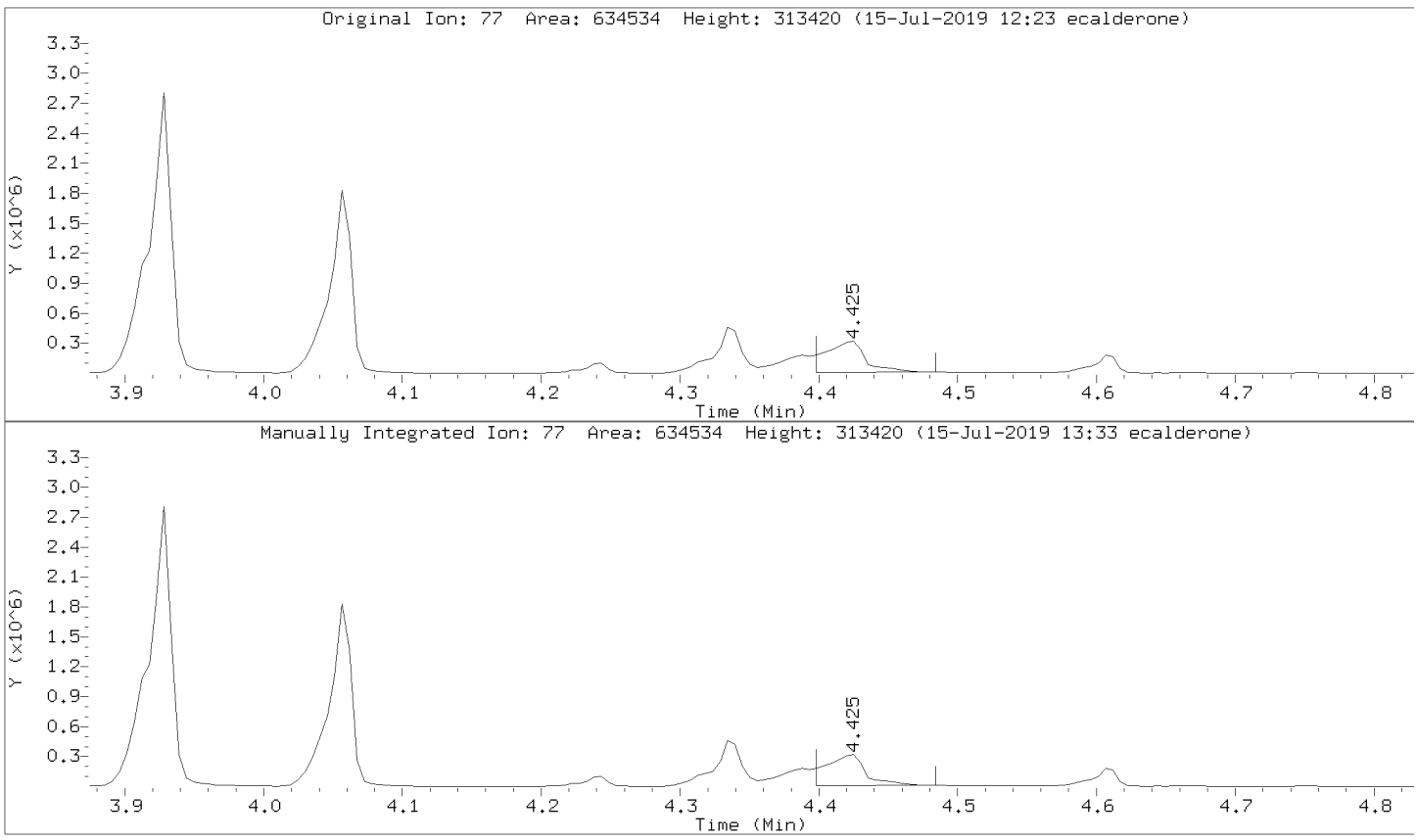

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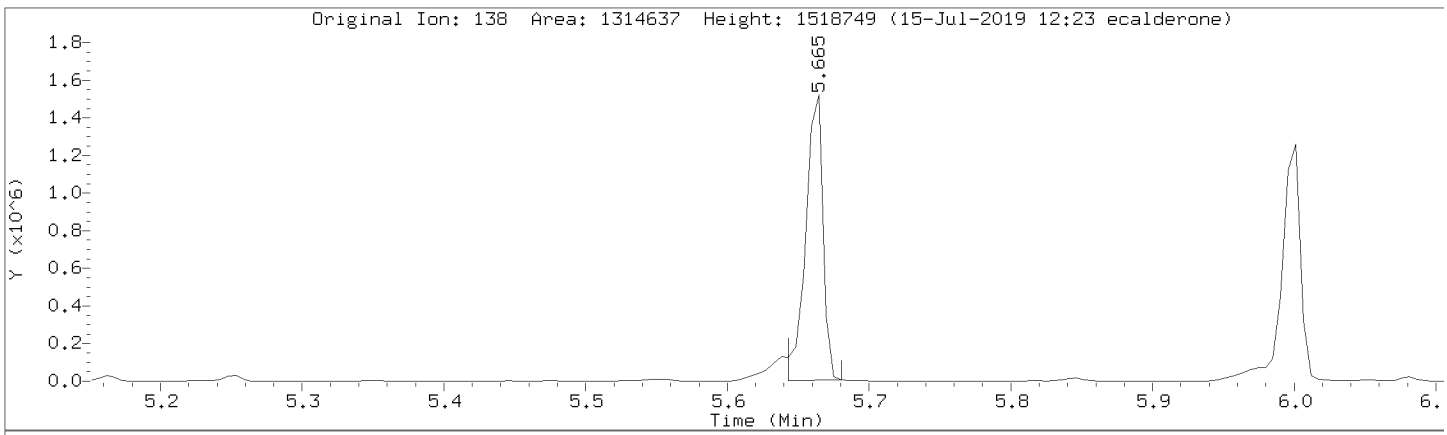
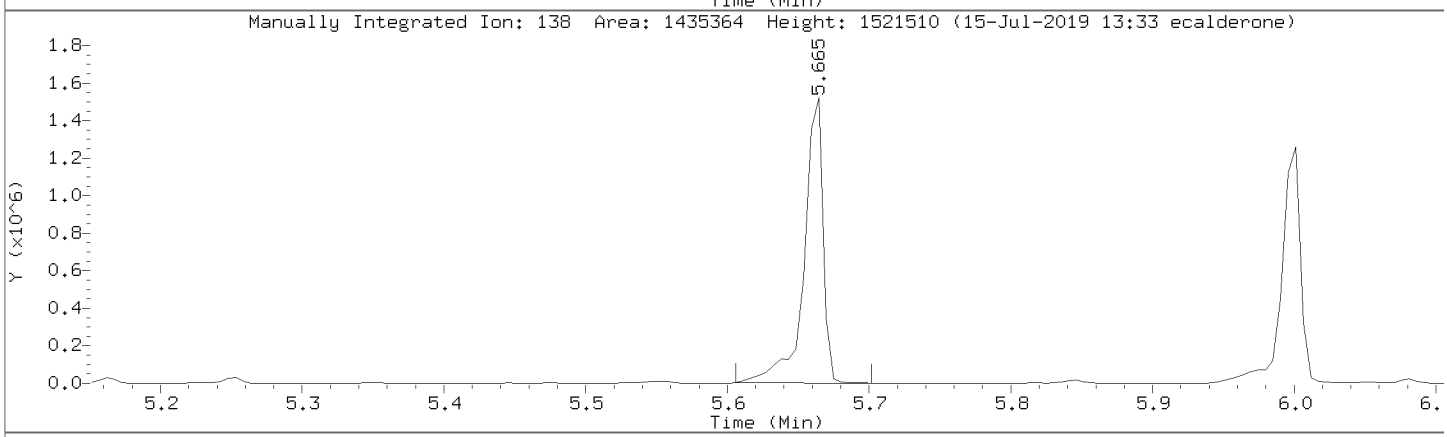
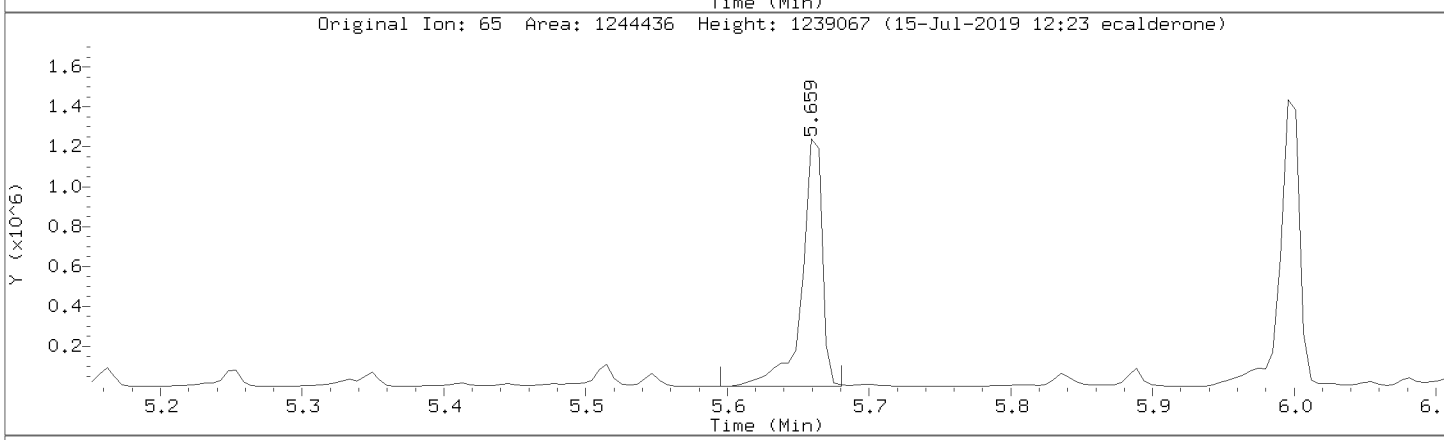
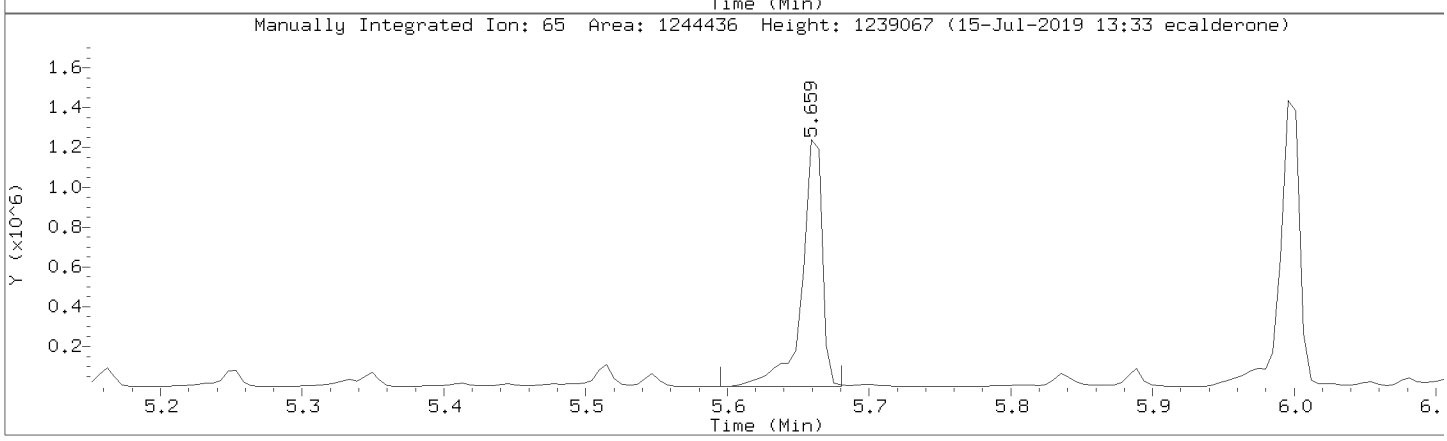
Lab Sample ID: ICV

Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4









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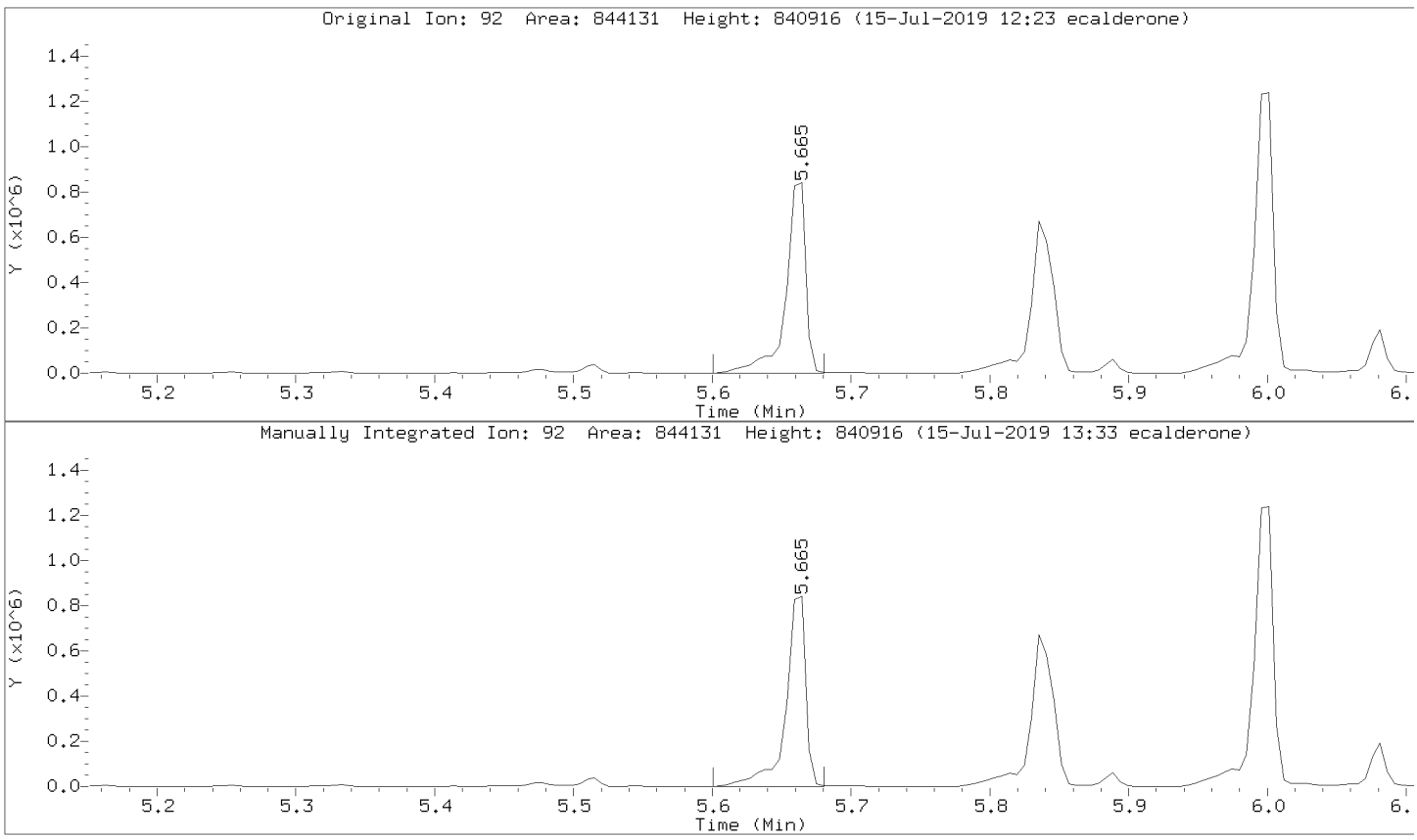

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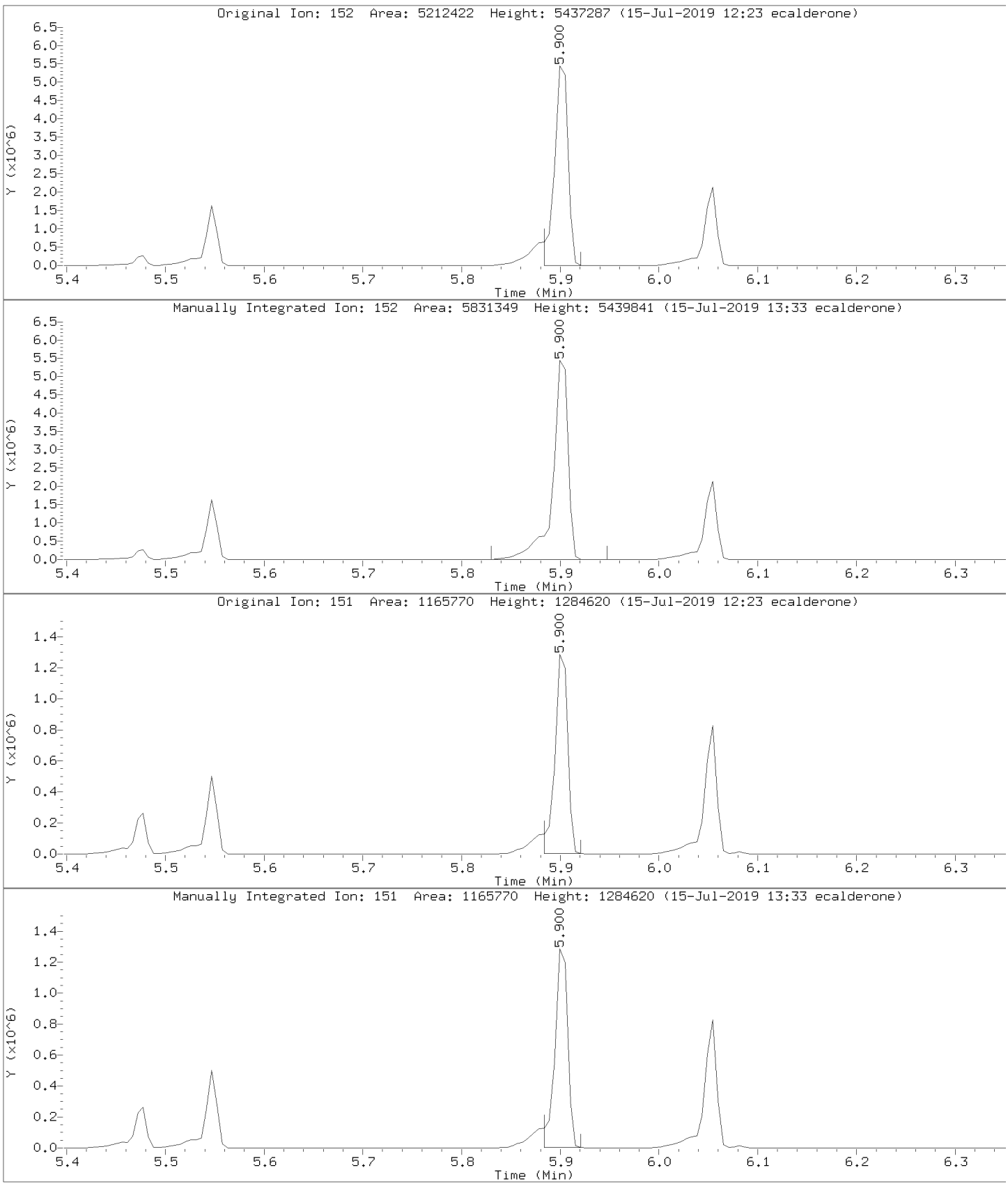
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Acenaphthylene Review Code: LT
CAS Number: 208-96-8



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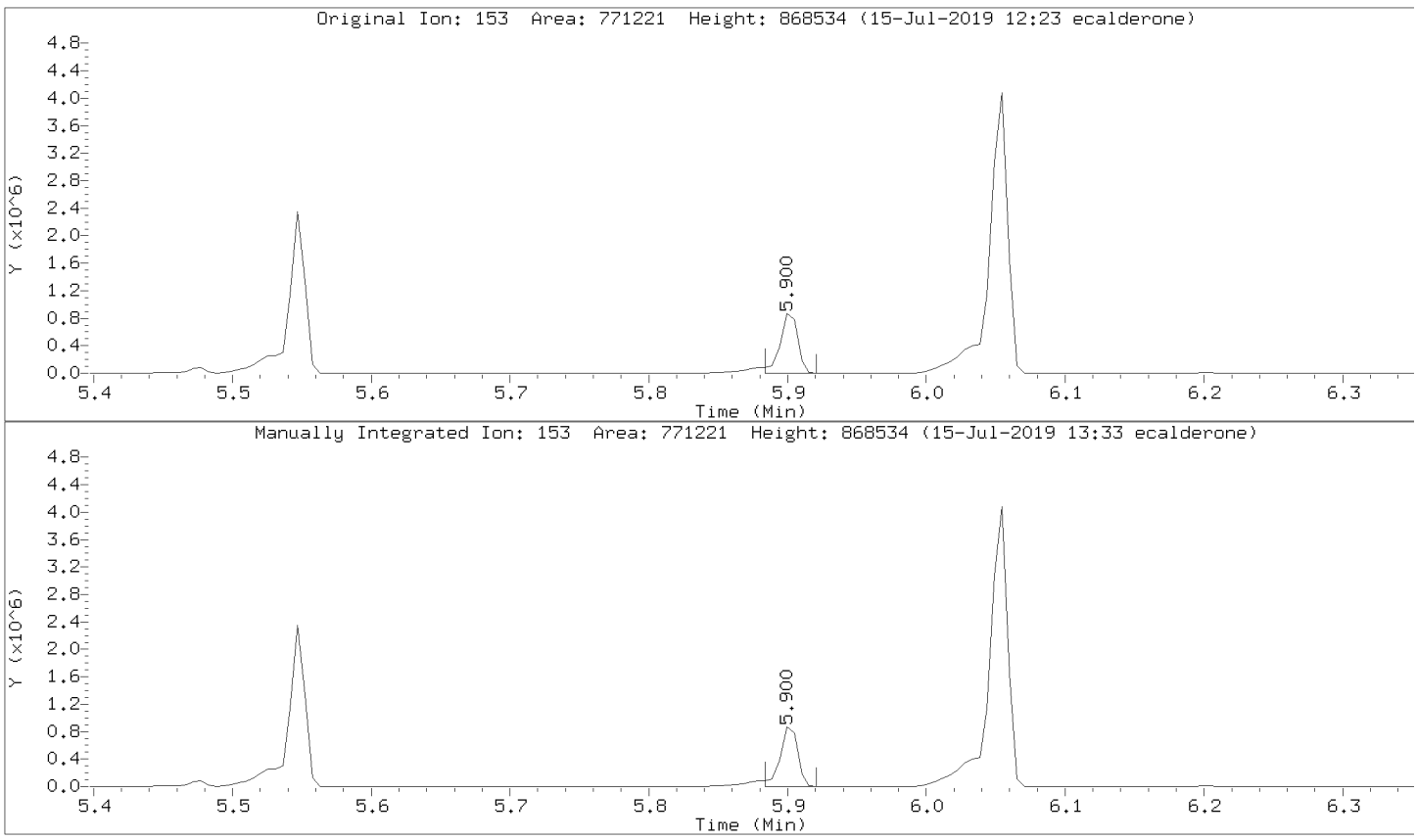

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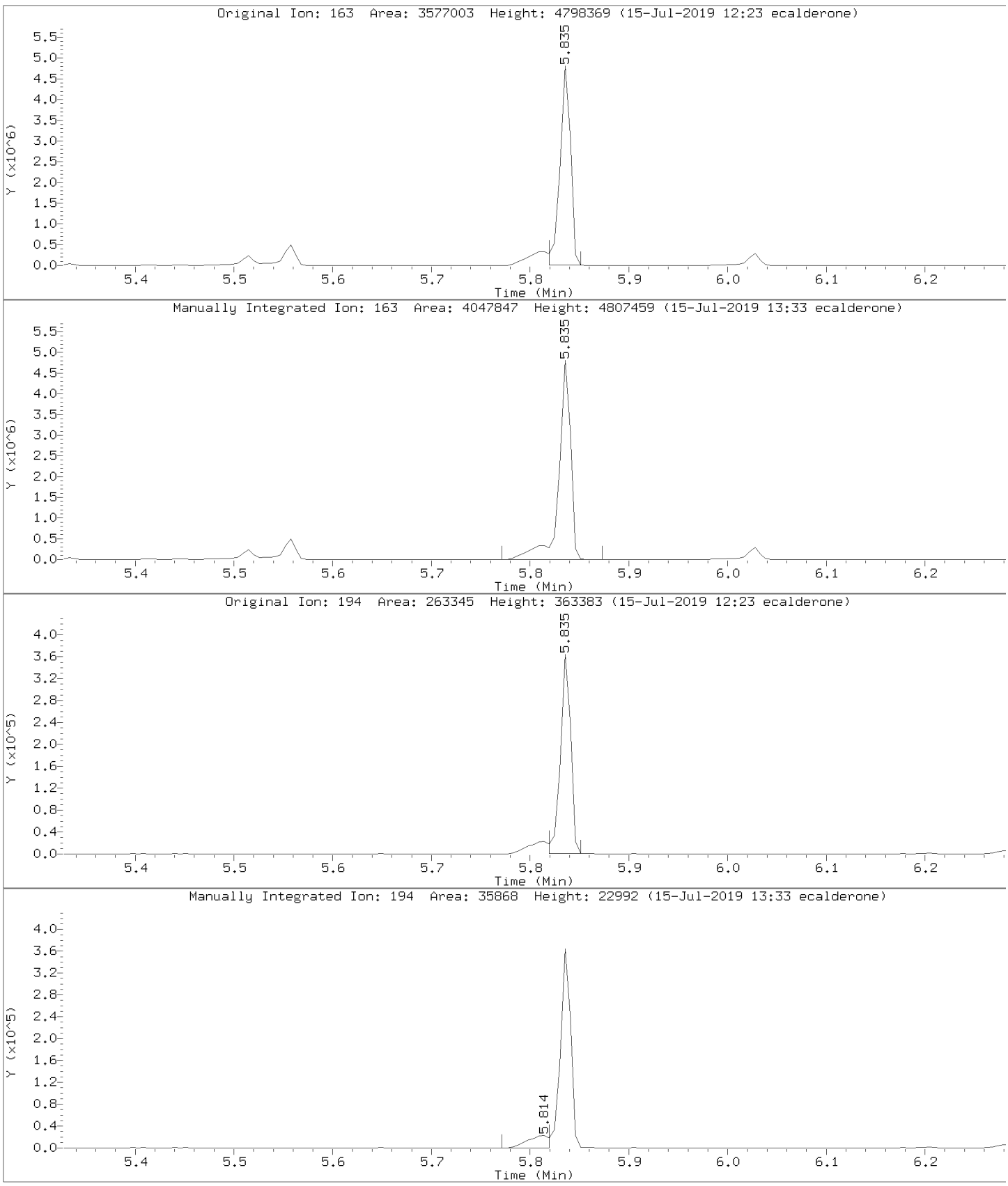
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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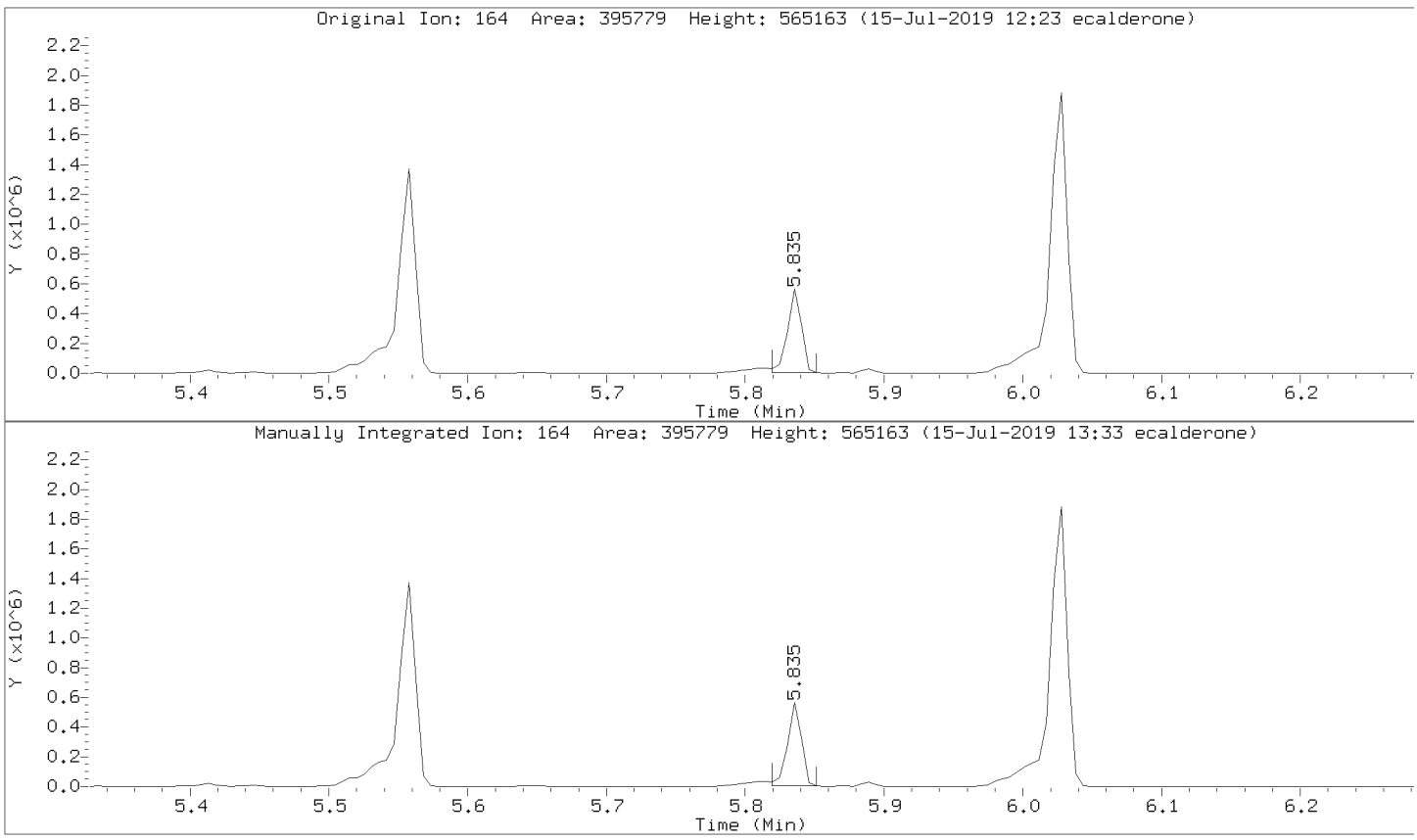
Lab Sample ID: ICV



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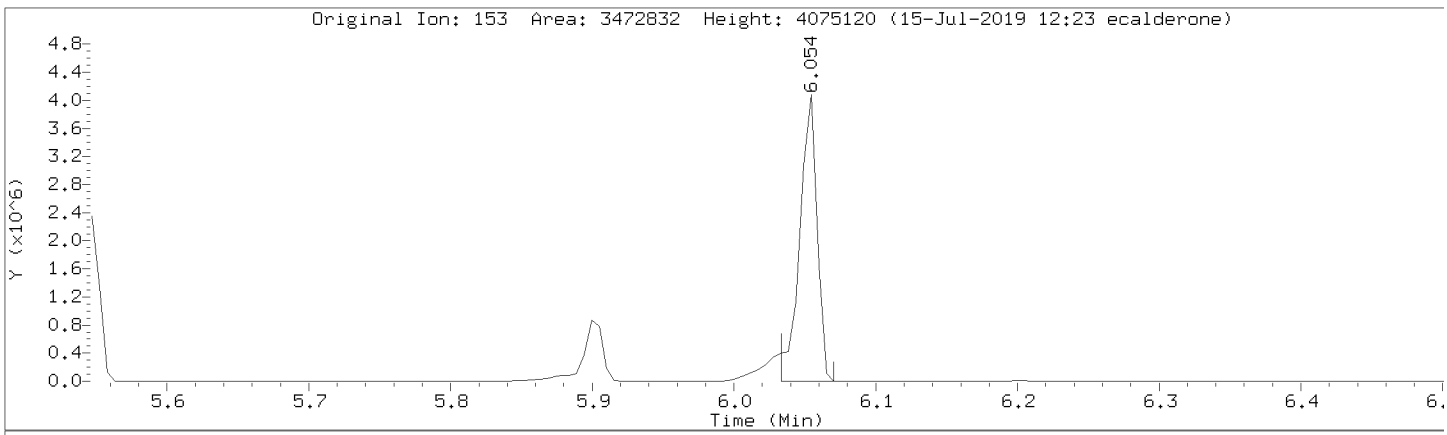
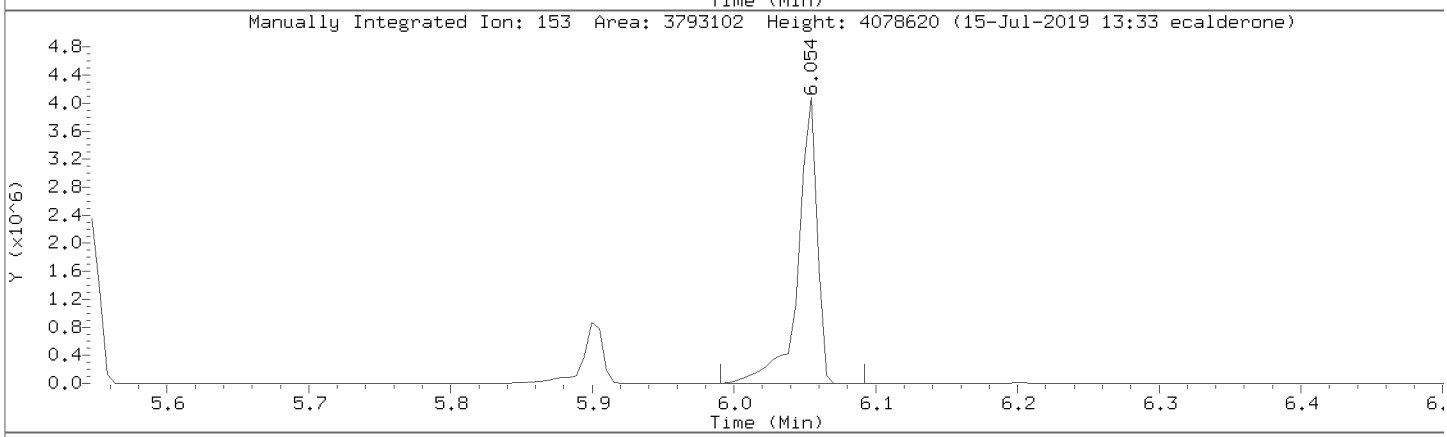
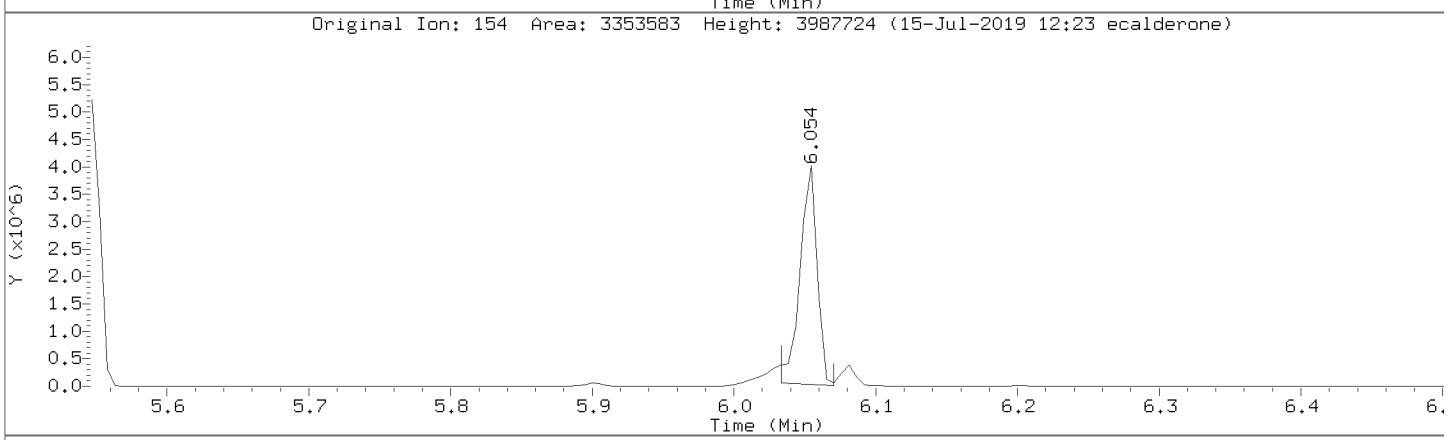
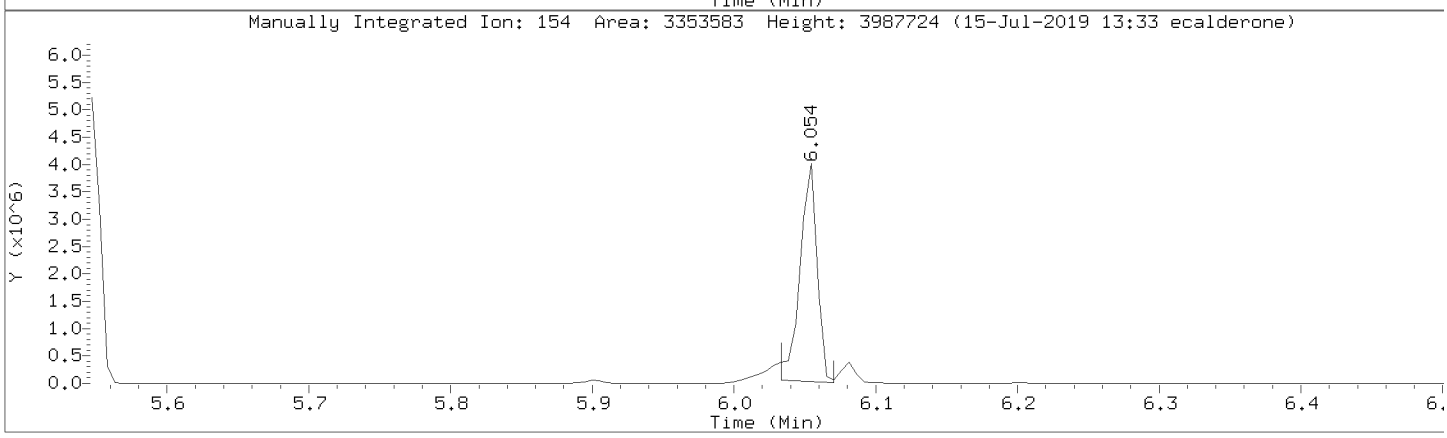
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9









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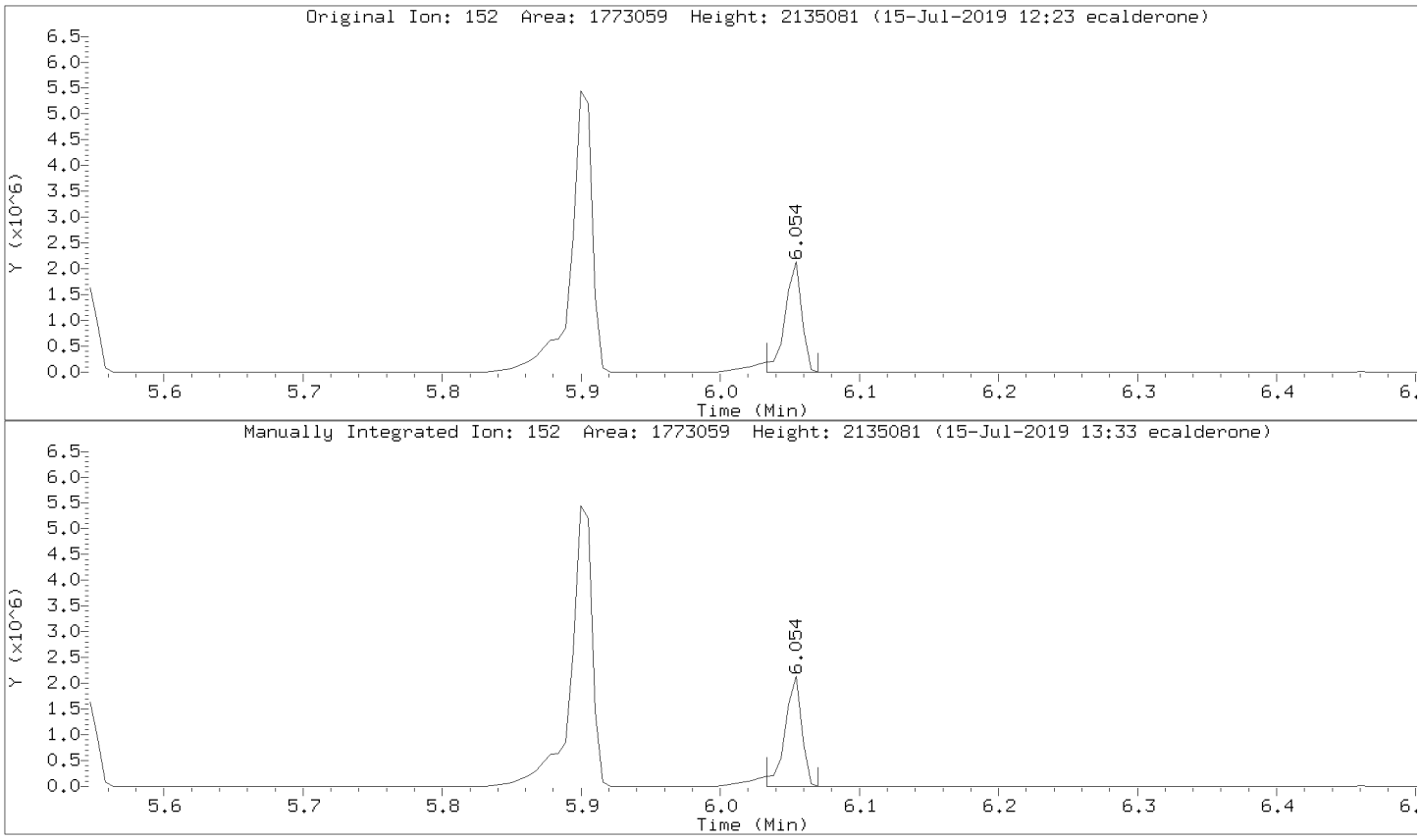

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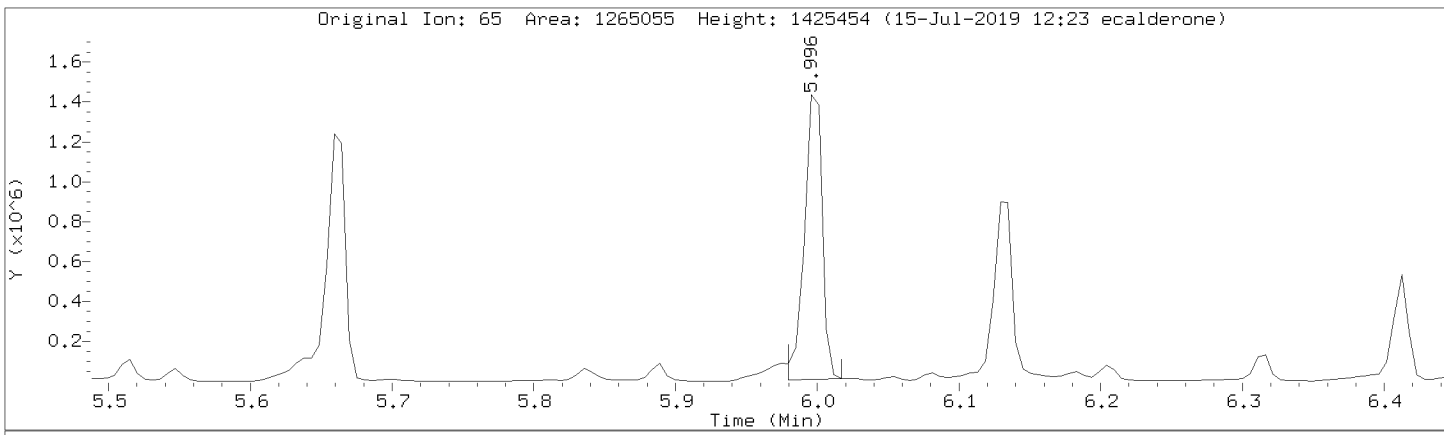
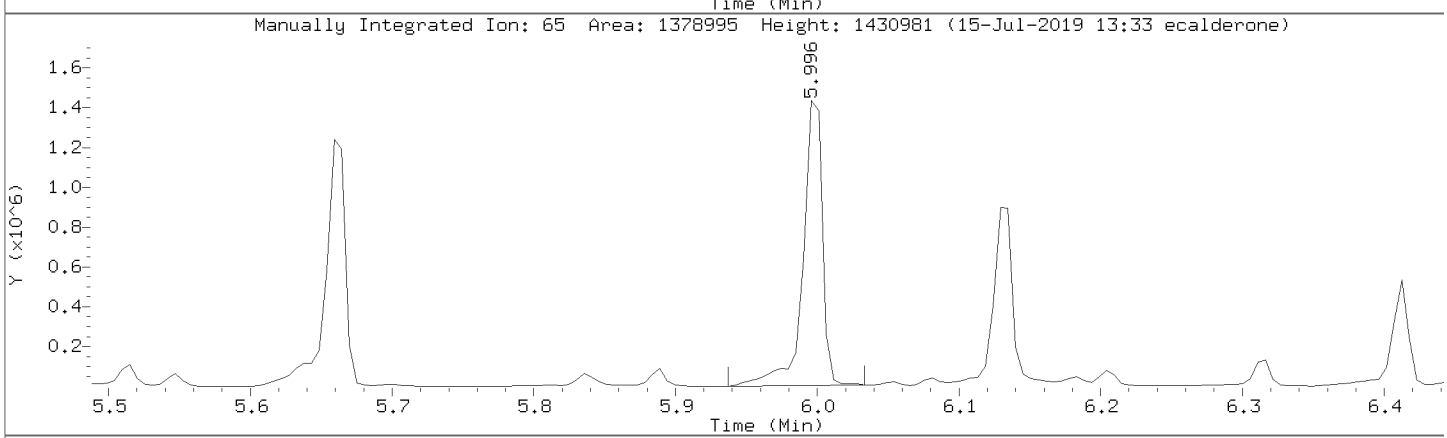
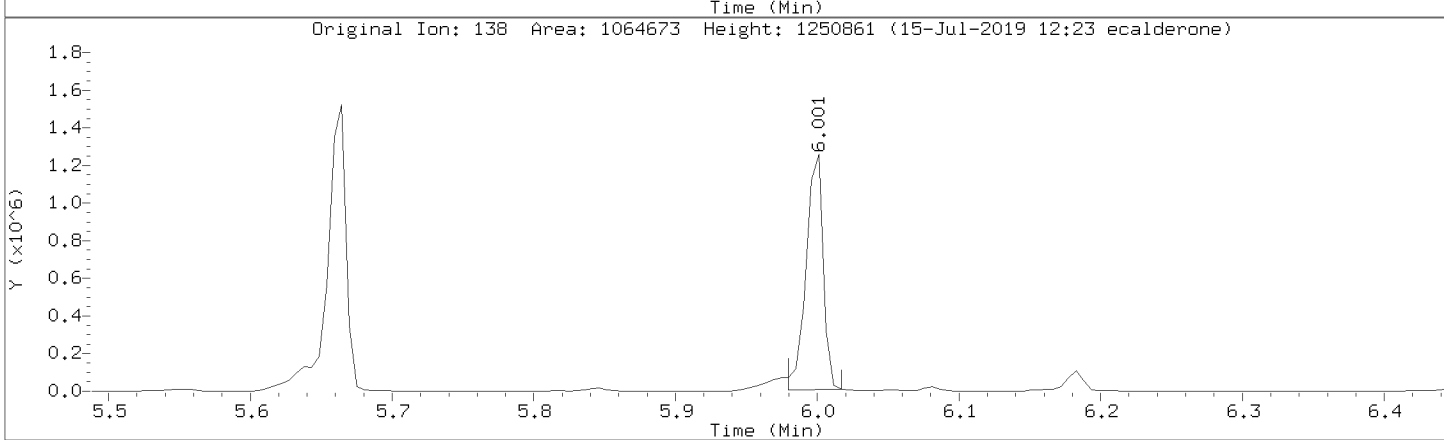
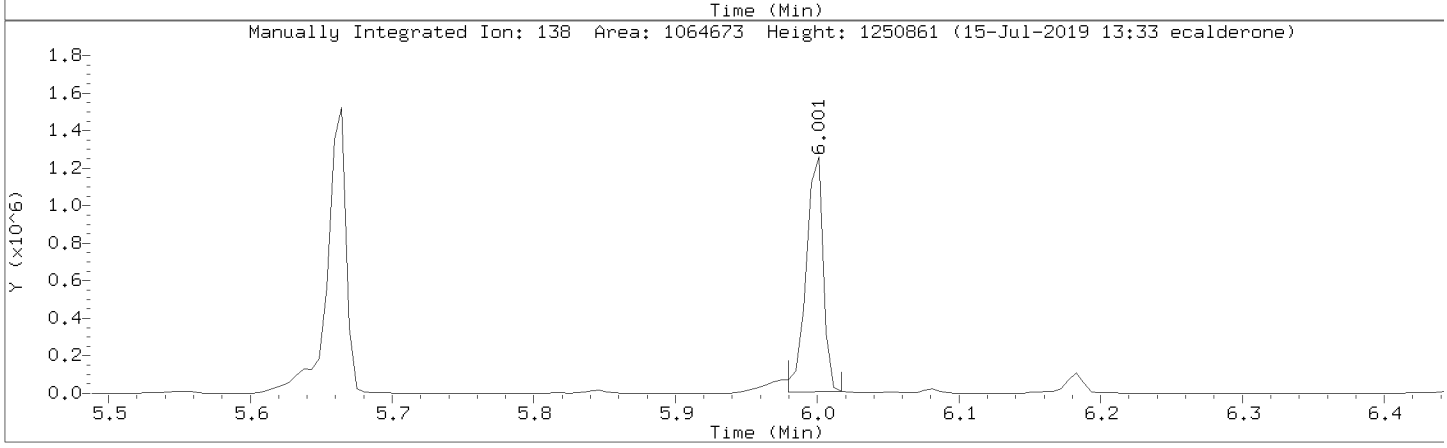
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 3-Nitroaniline Review Code: LT
CAS Number: 99-09-2









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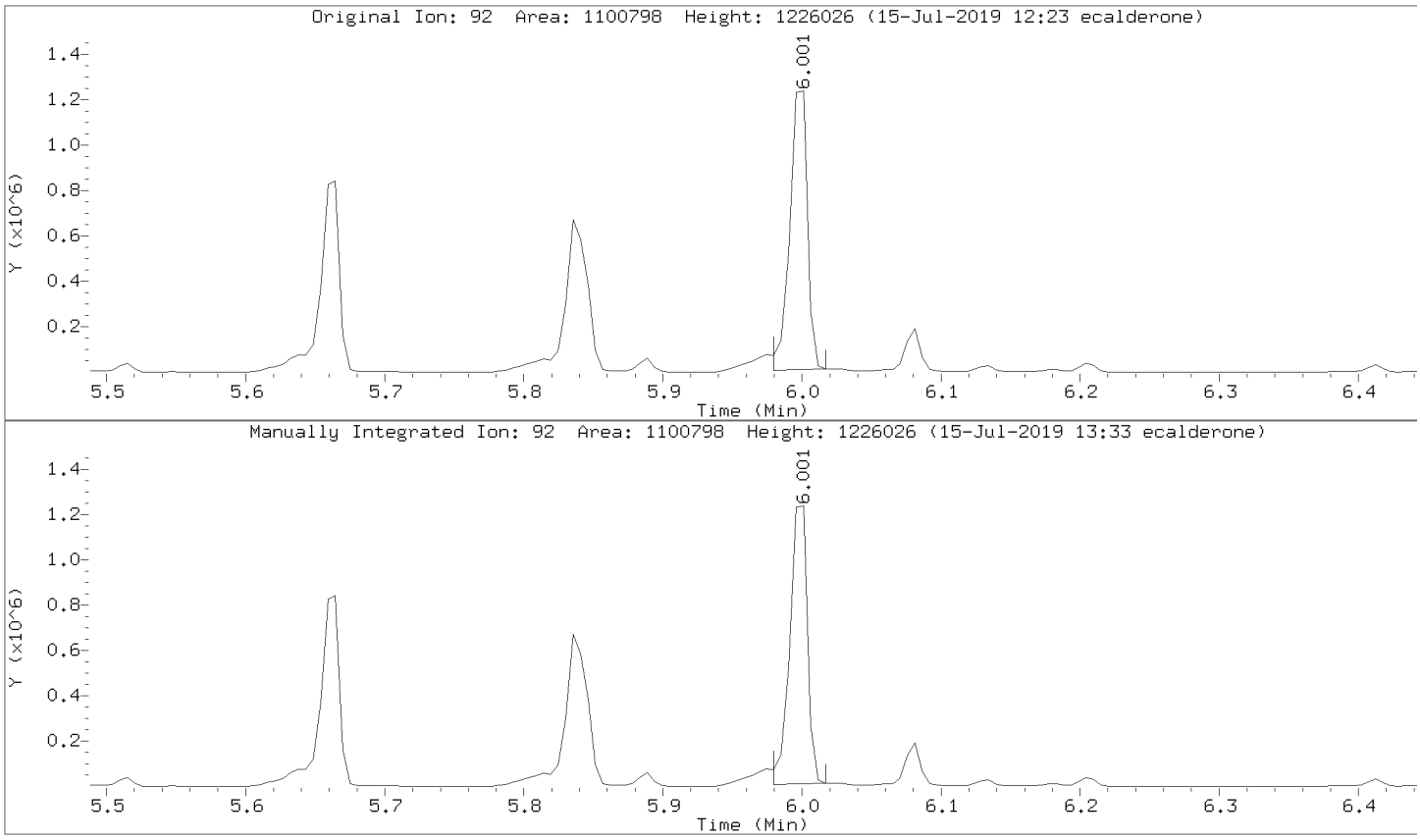
Lab Sample ID: ICV



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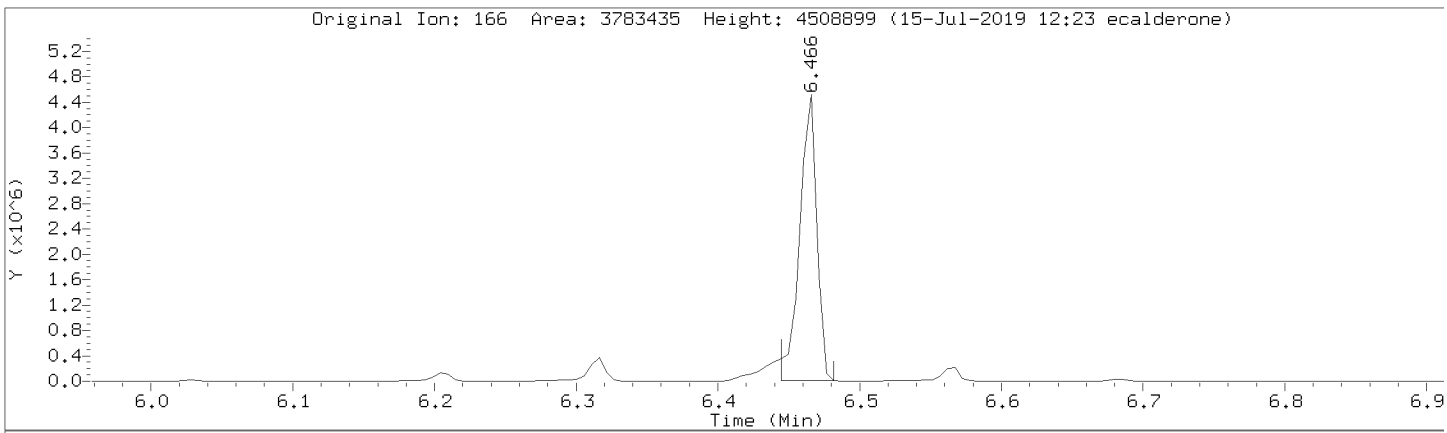
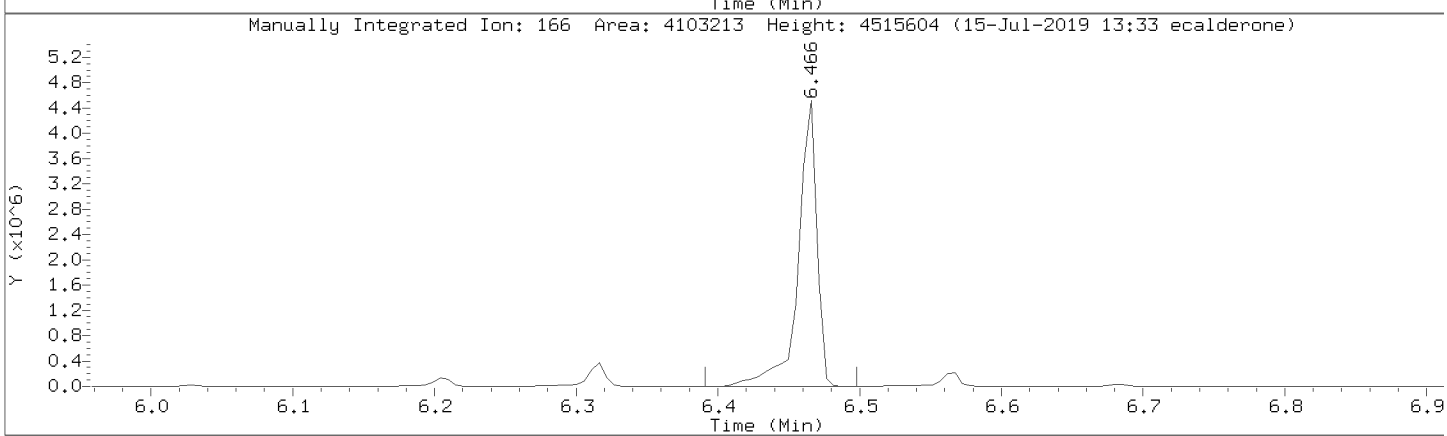
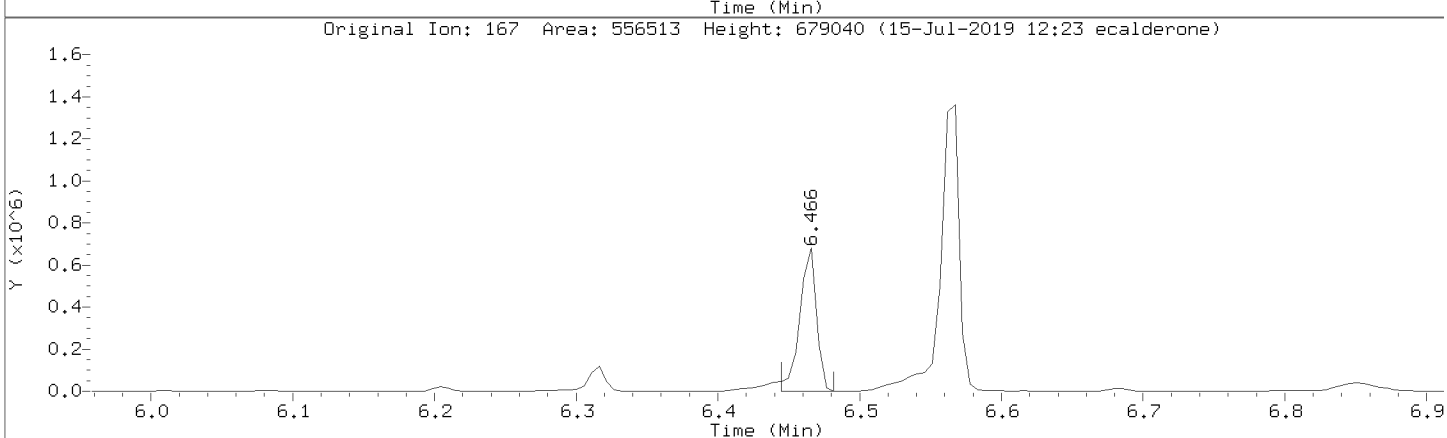
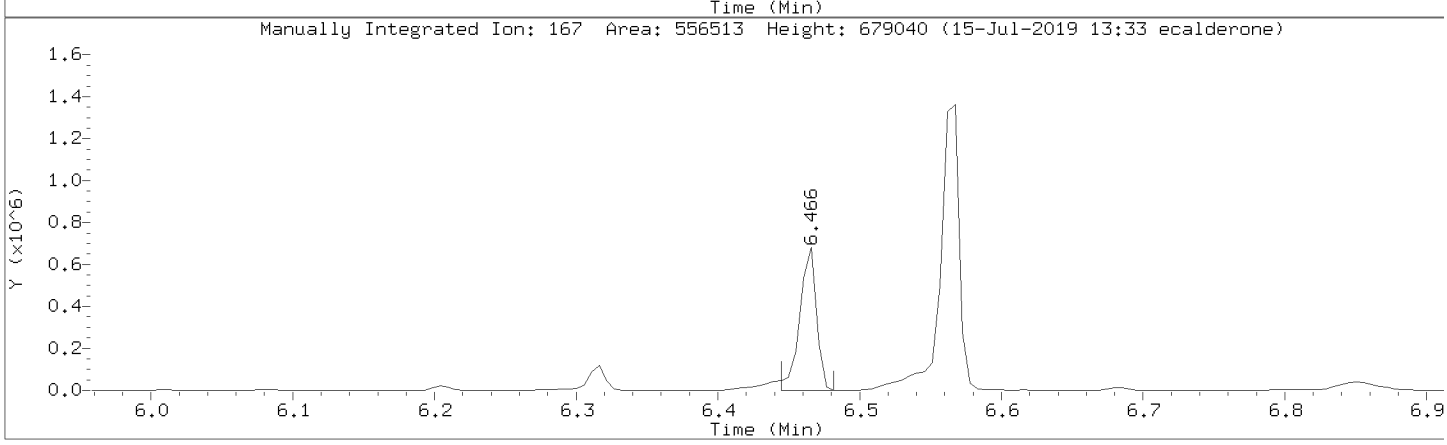
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Fluorene Review Code: LT
CAS Number: 86-73-7









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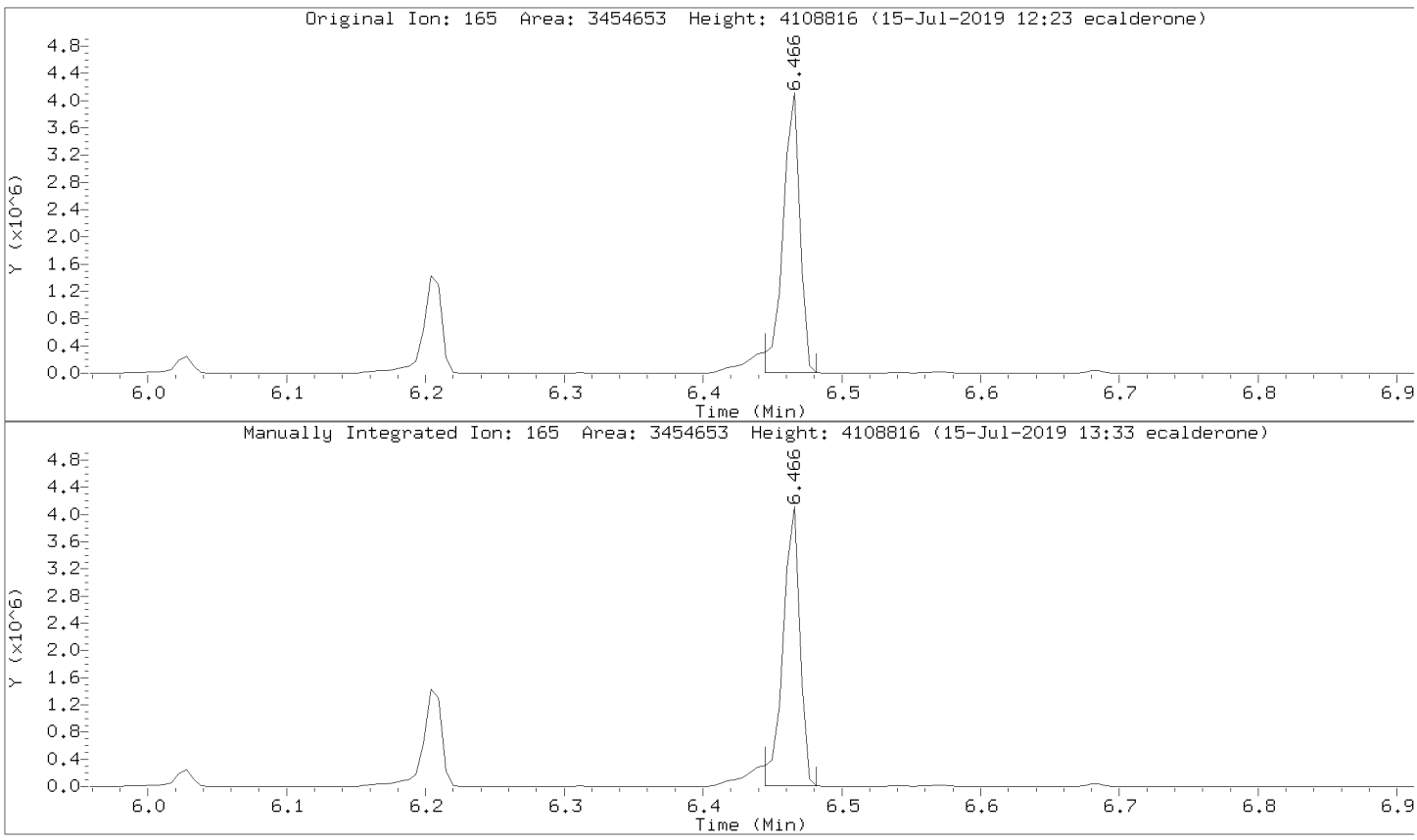

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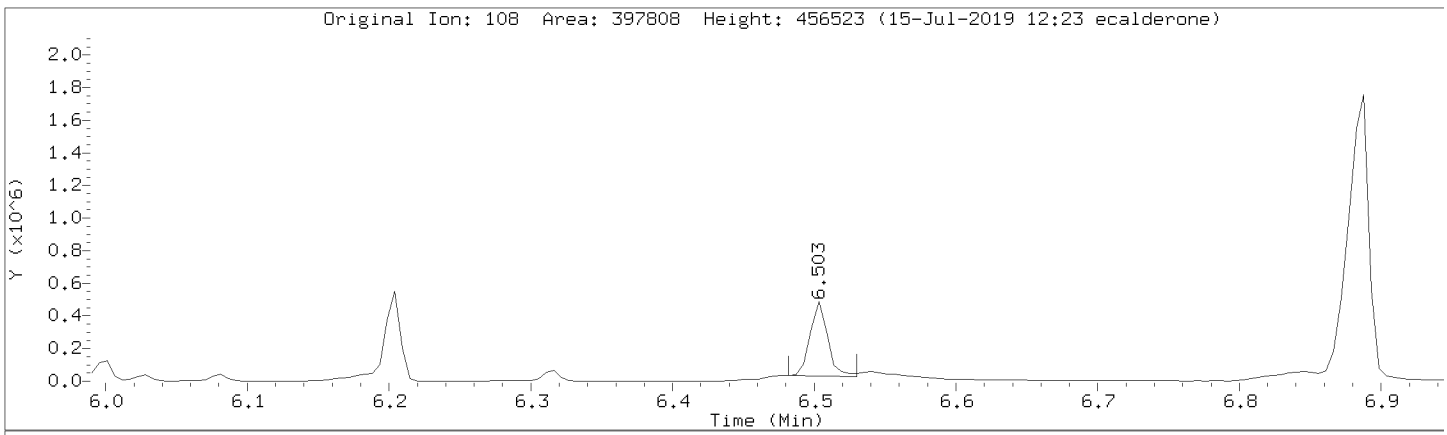
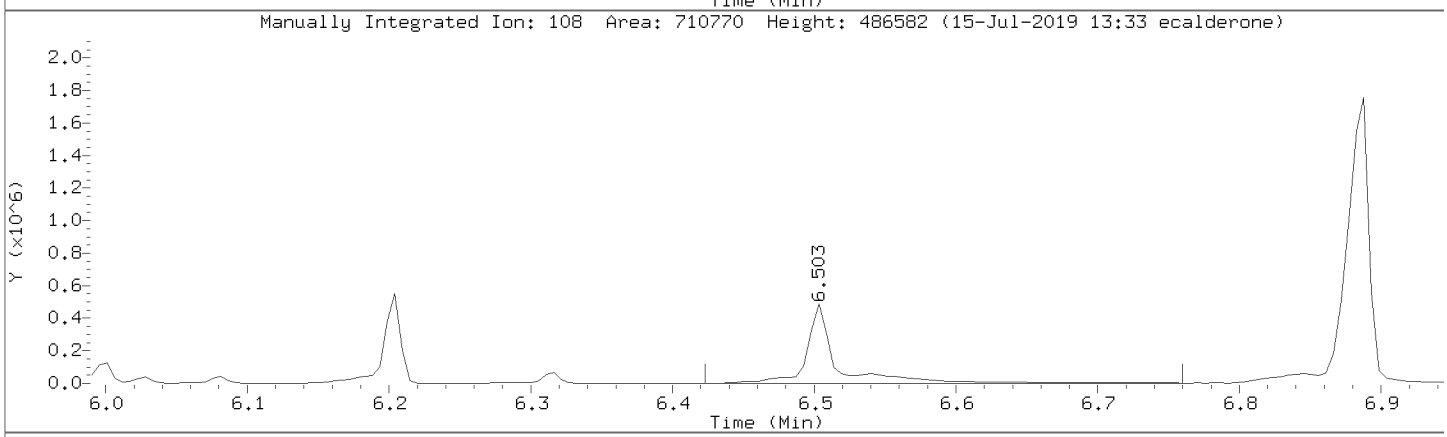
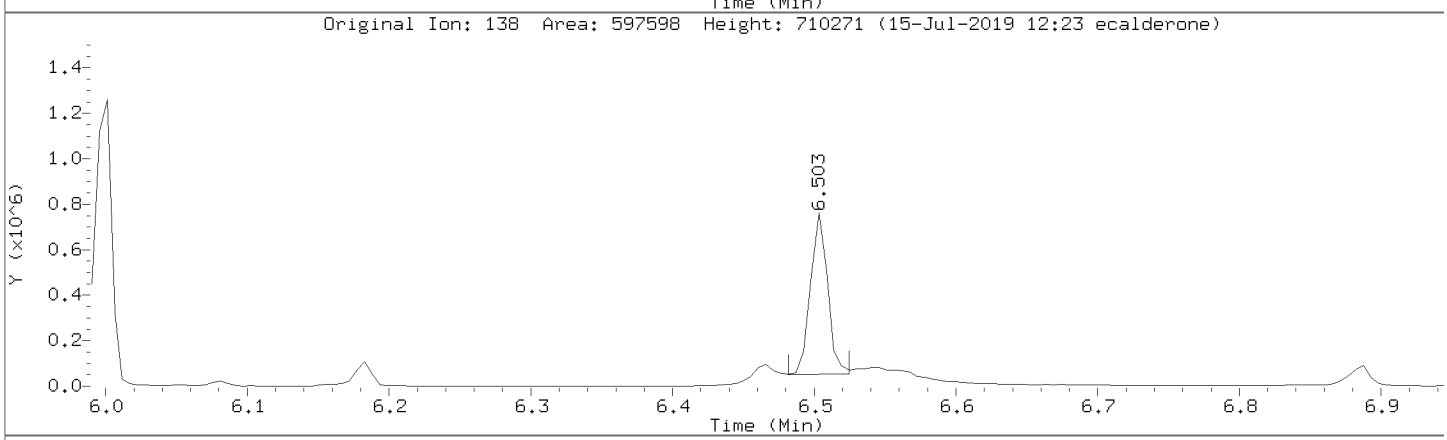
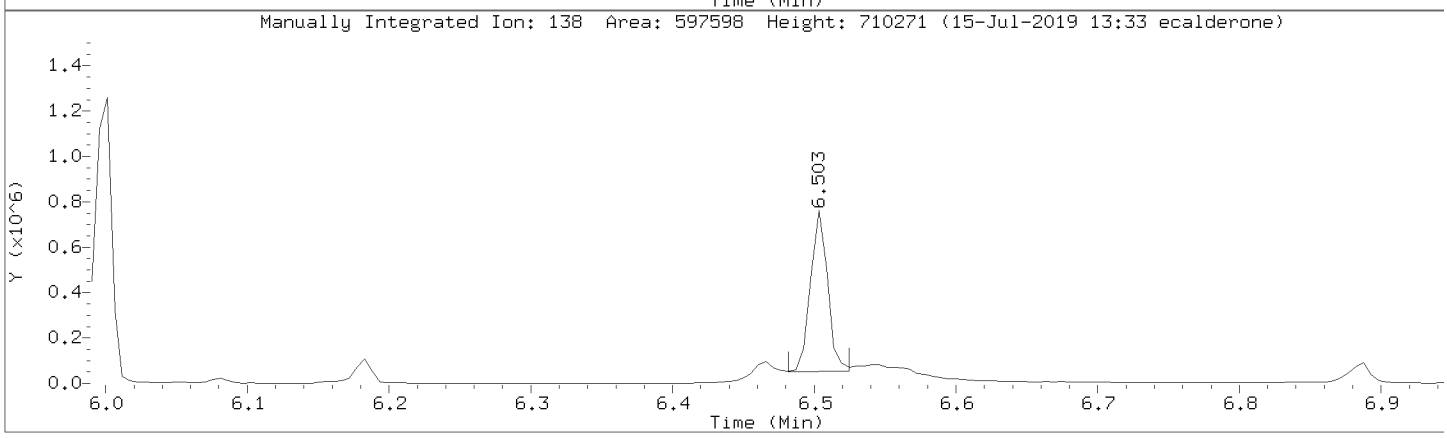
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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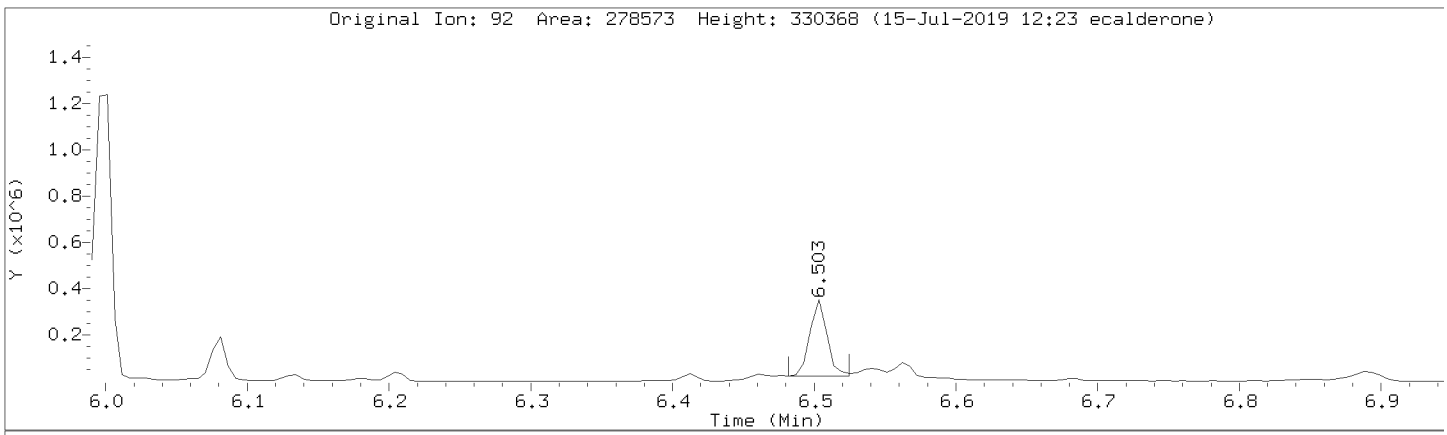
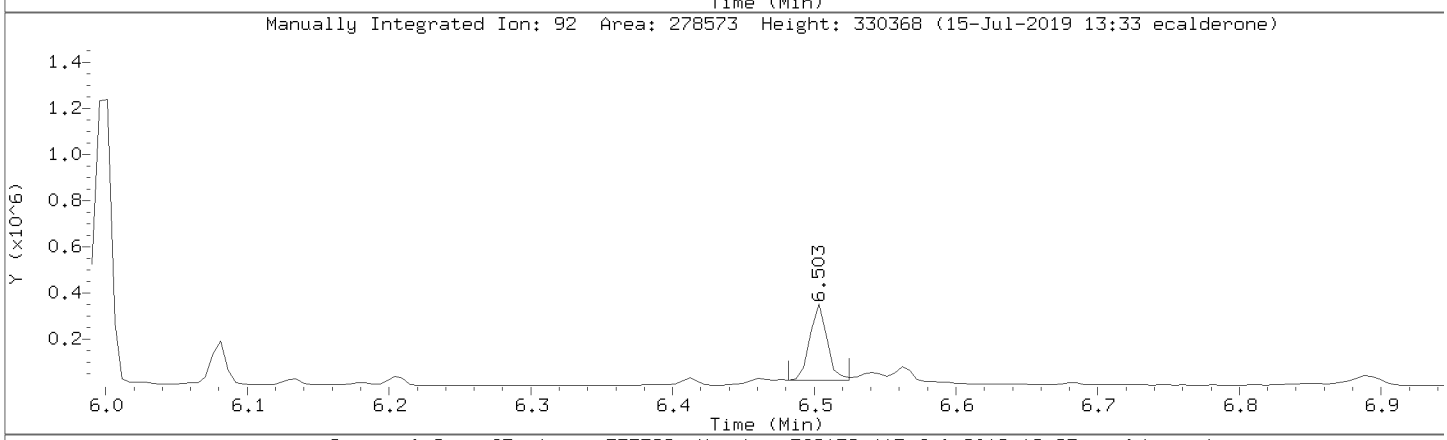
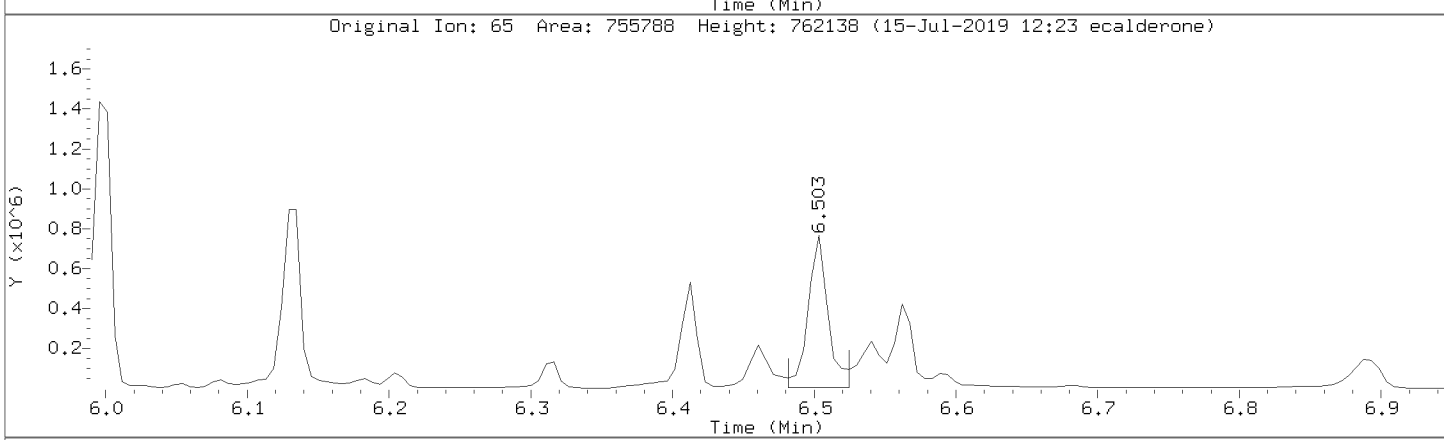
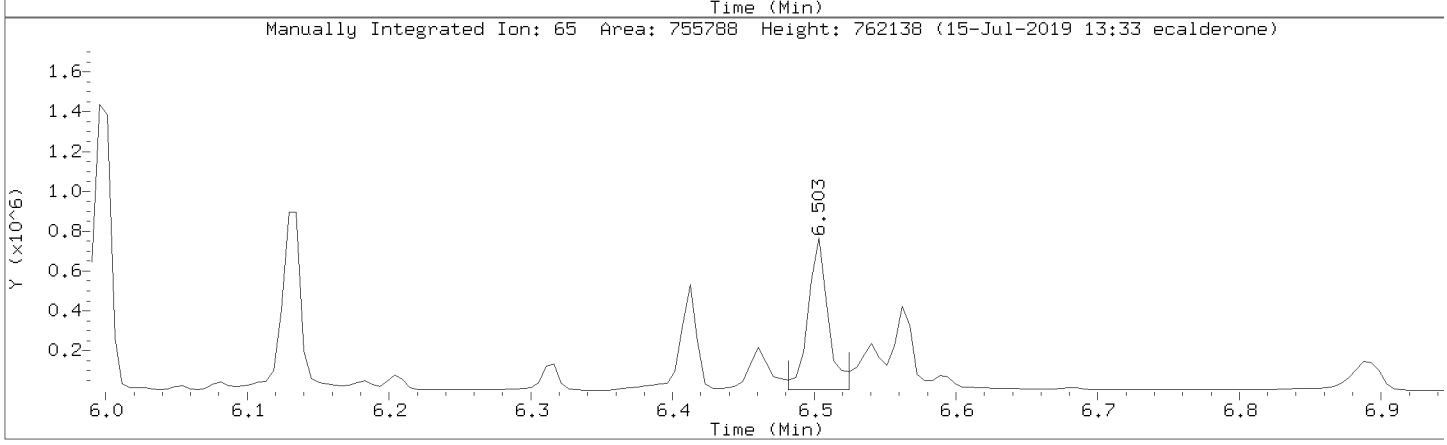
Lab Sample ID: ICV









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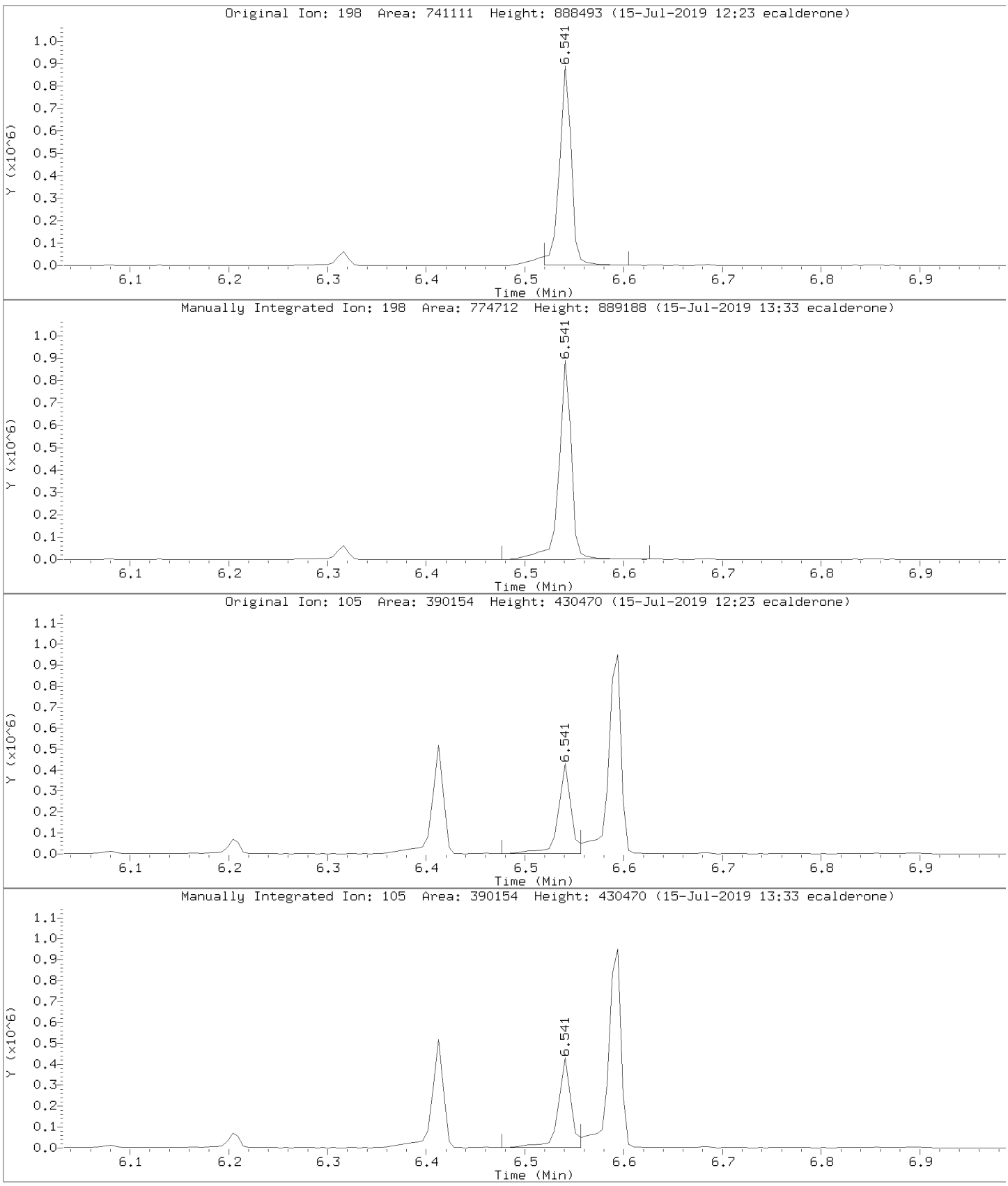
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4,6-Dinitro-2-methylphenol Review Code: LT
CAS Number: 534-52-1



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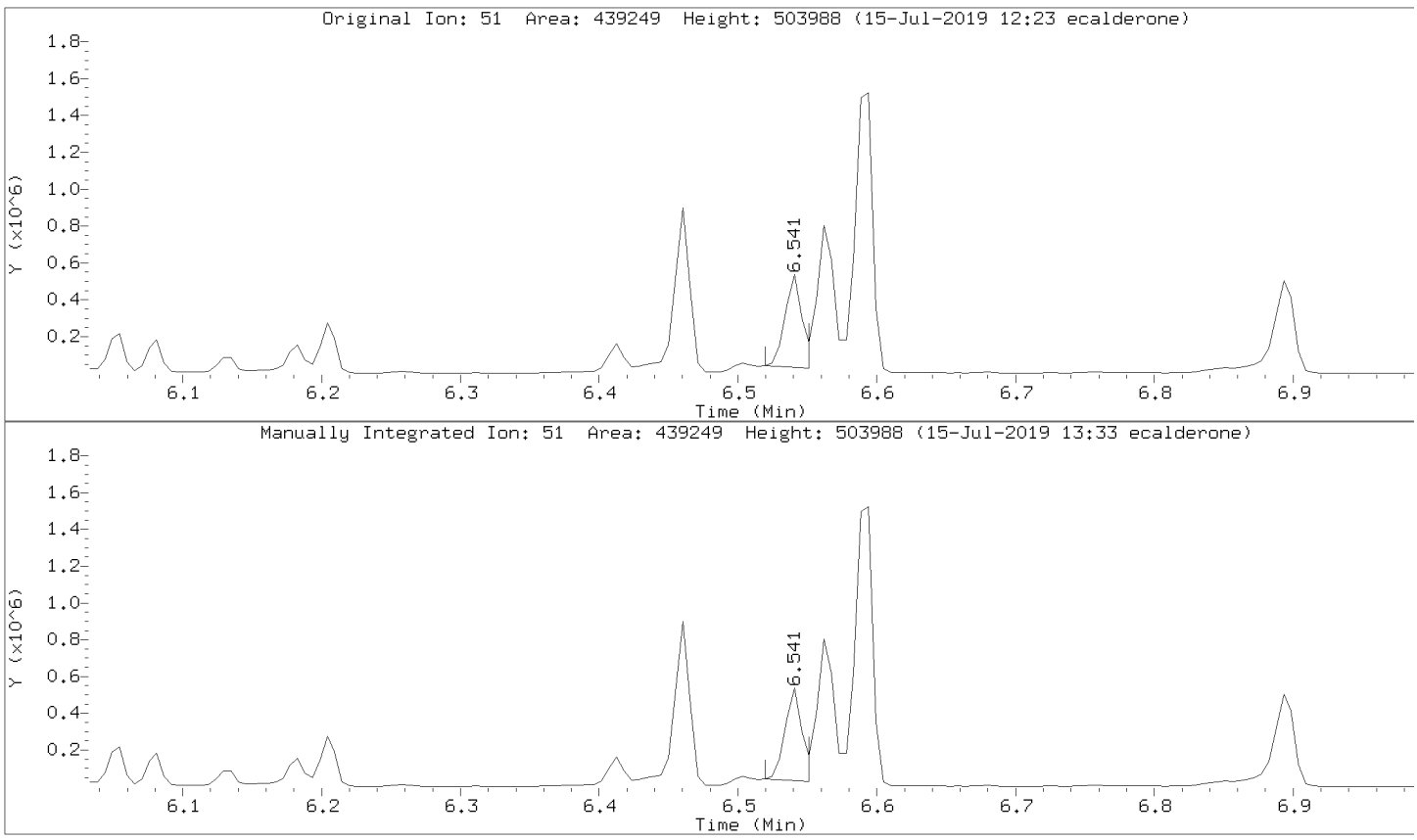
Lab Sample ID: ICV



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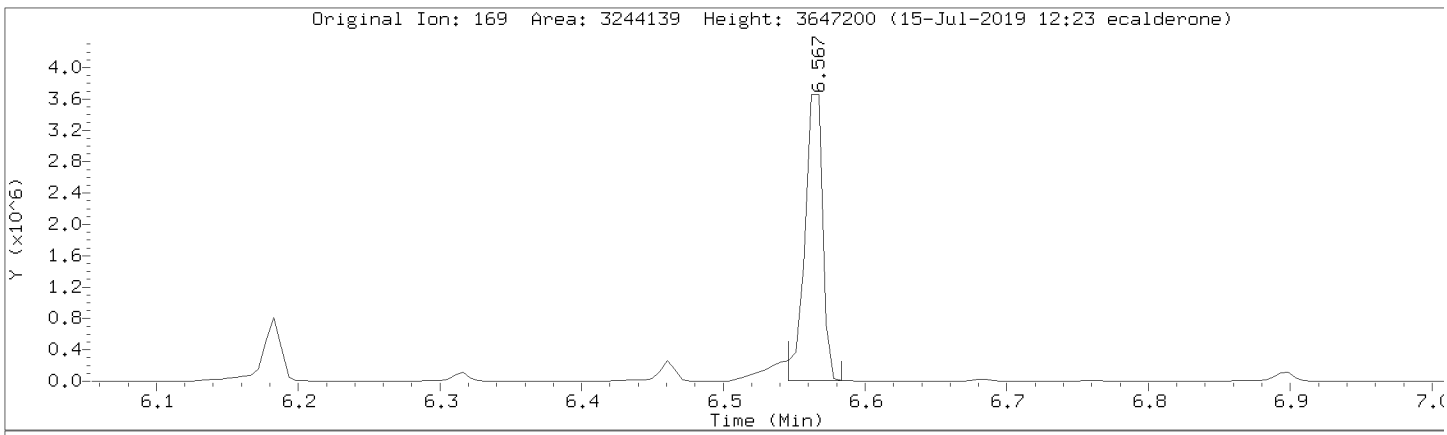
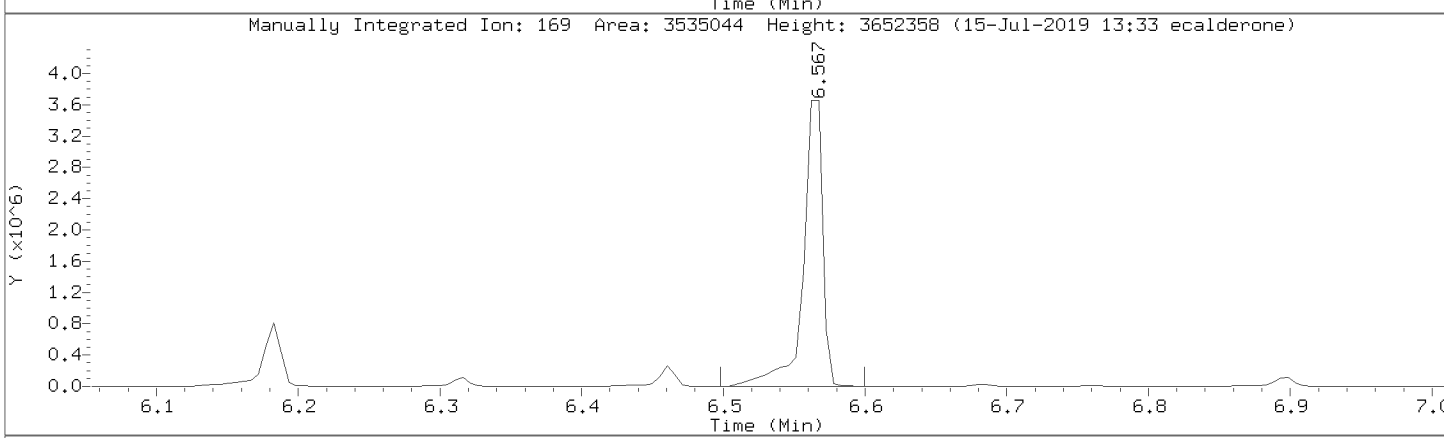
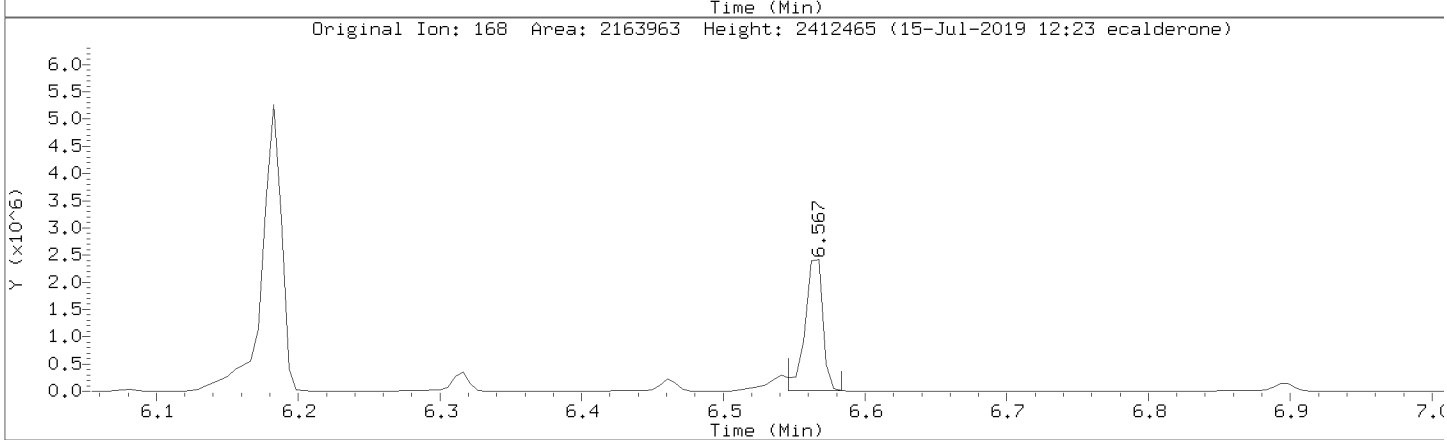
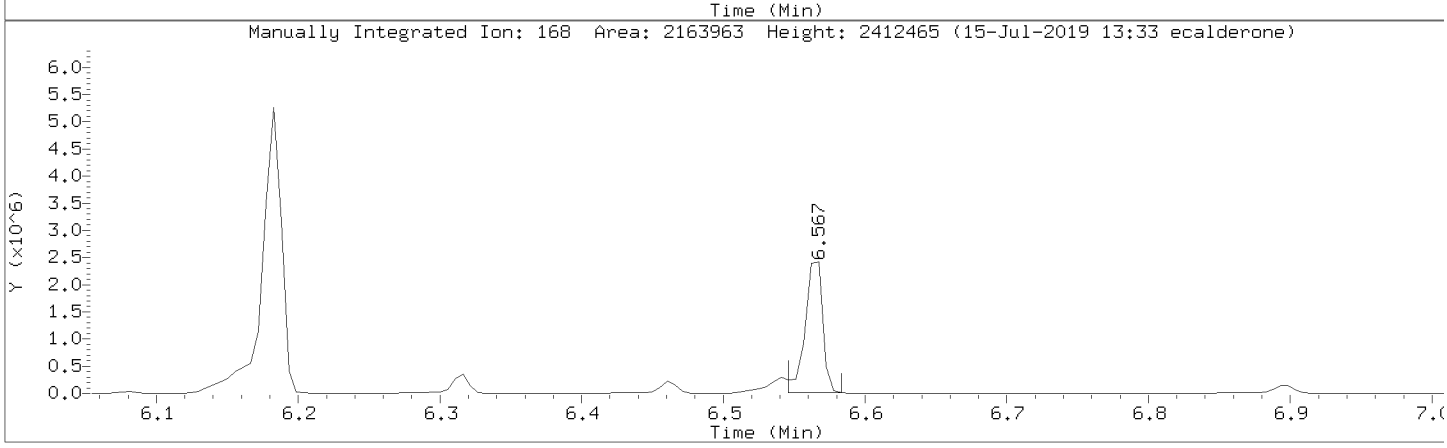
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: N-Nitrosodiphenylamine Review Code: LT
CAS Number: 86-30-6









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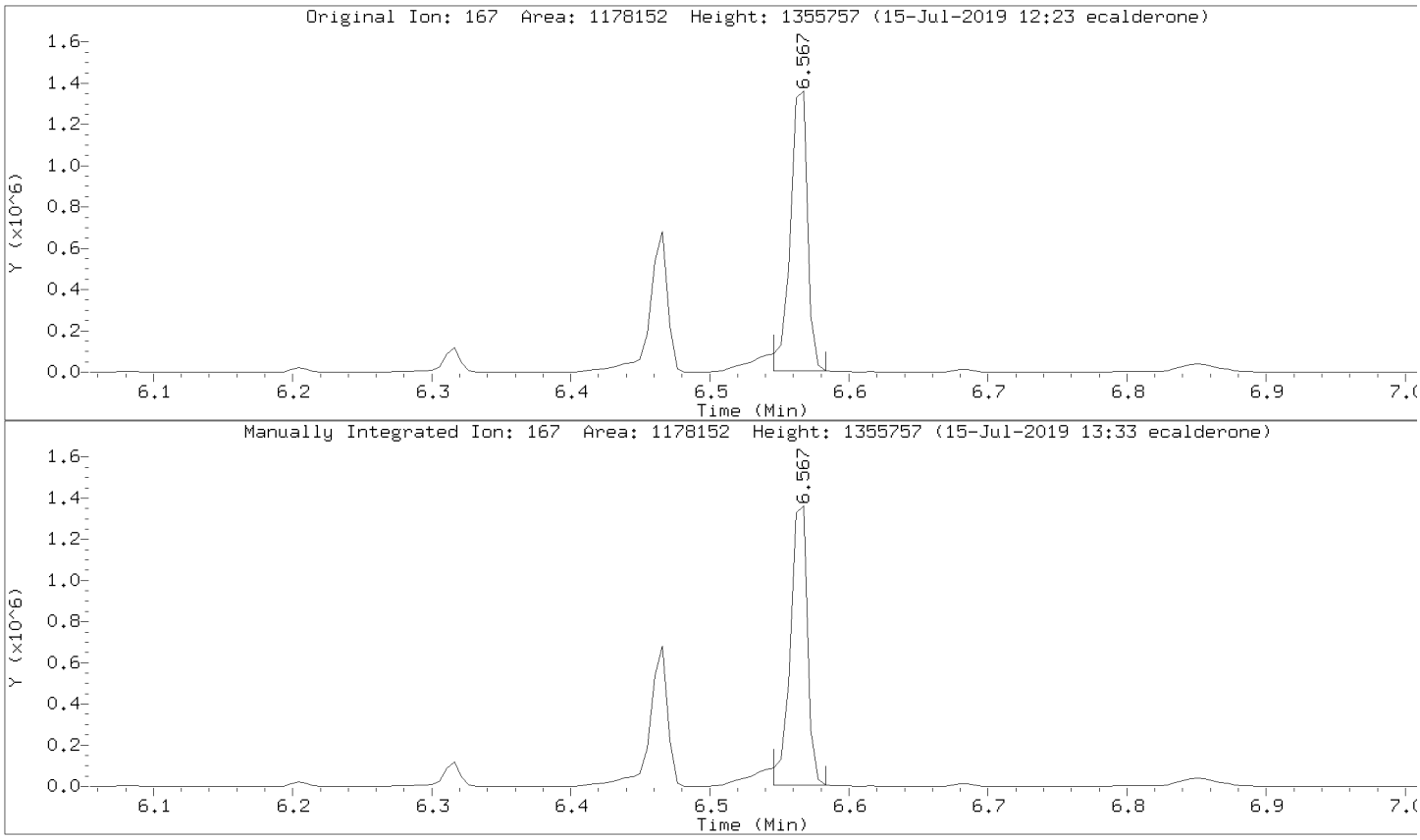
Instrument: 30mss1.i
Lab Sample ID: ICV



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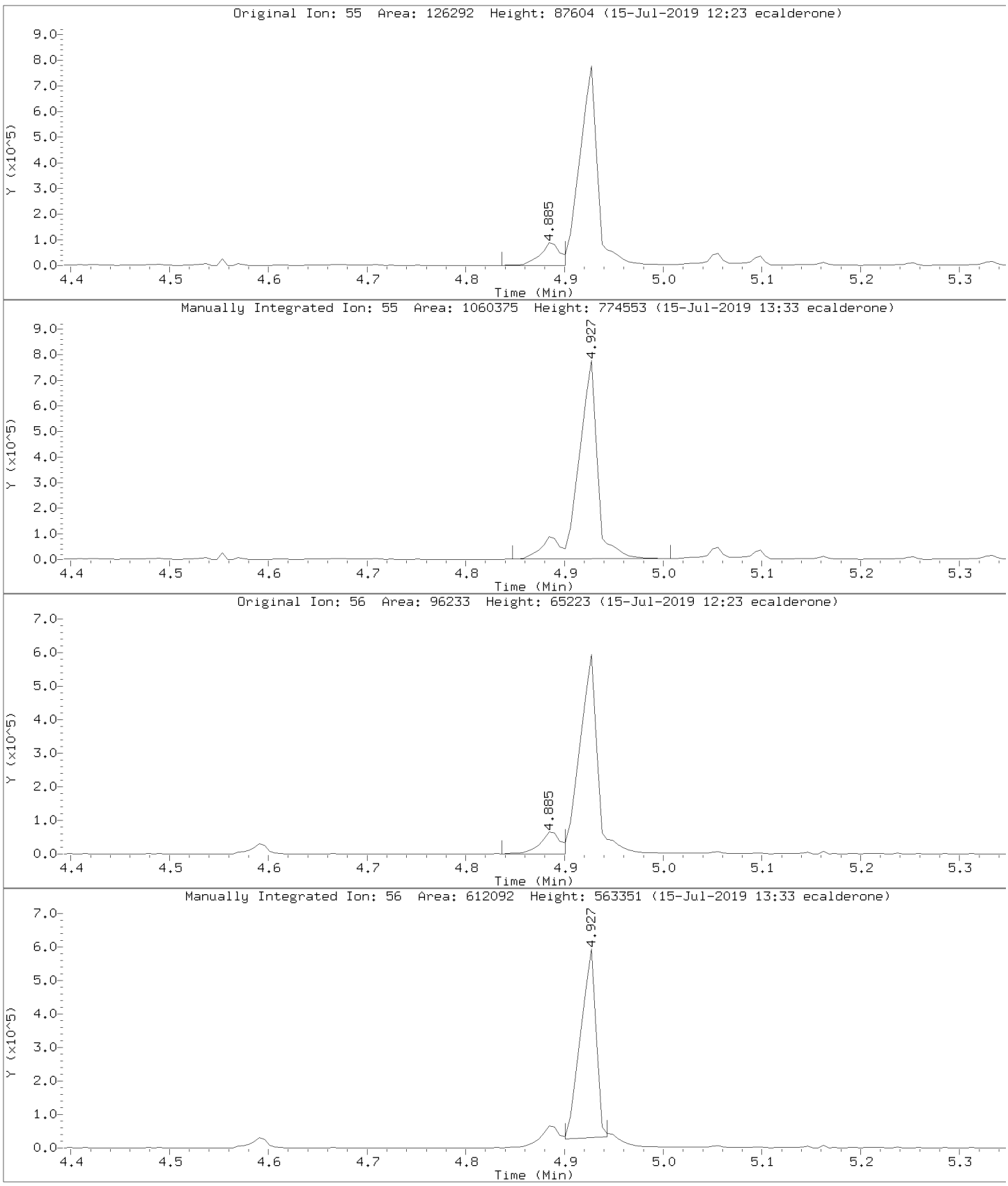
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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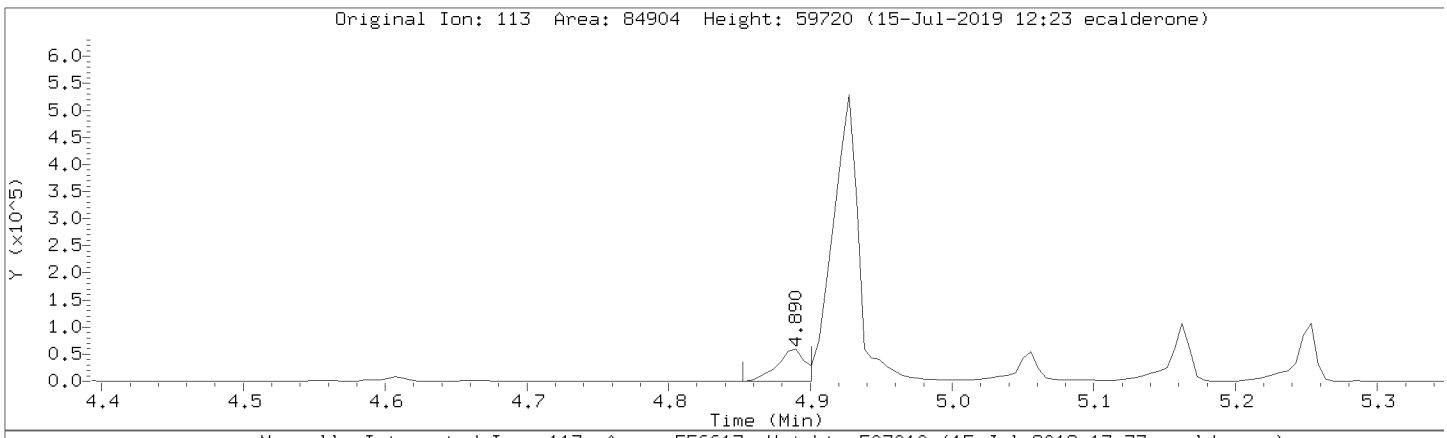
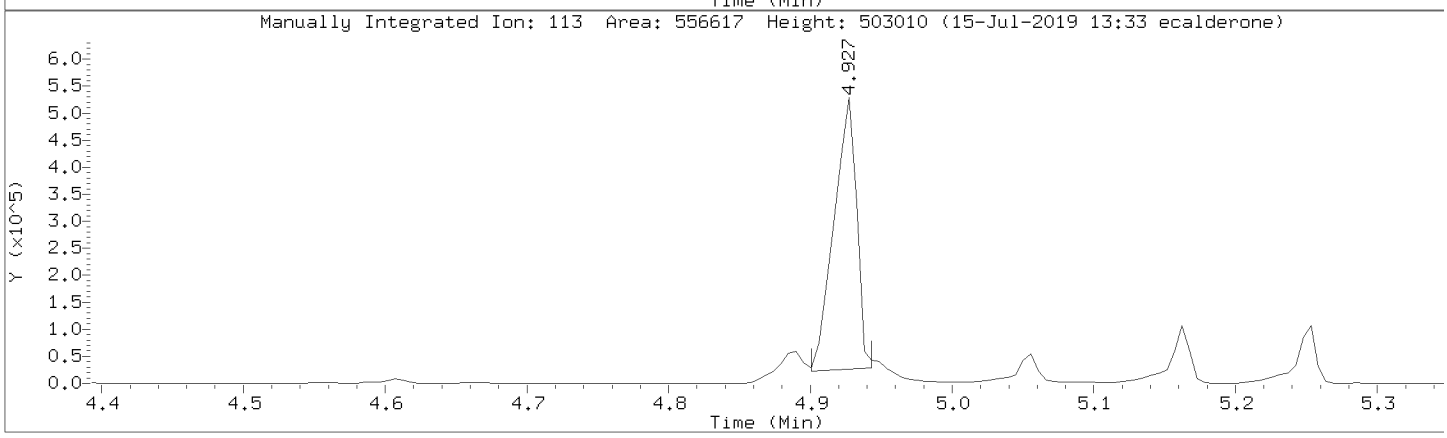
Instrument: 30mss1.i
Lab Sample ID: ICV





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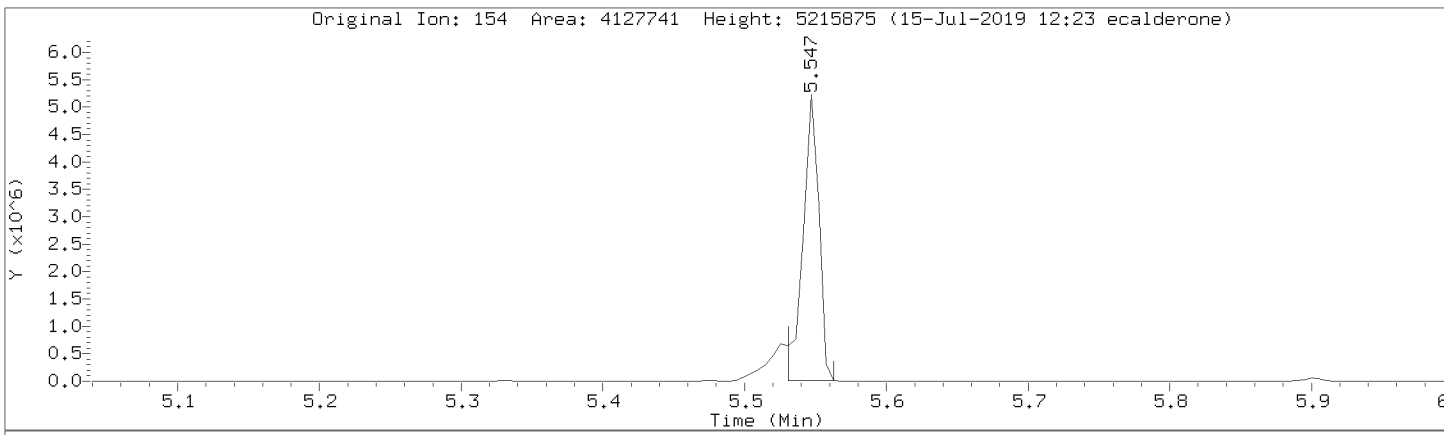
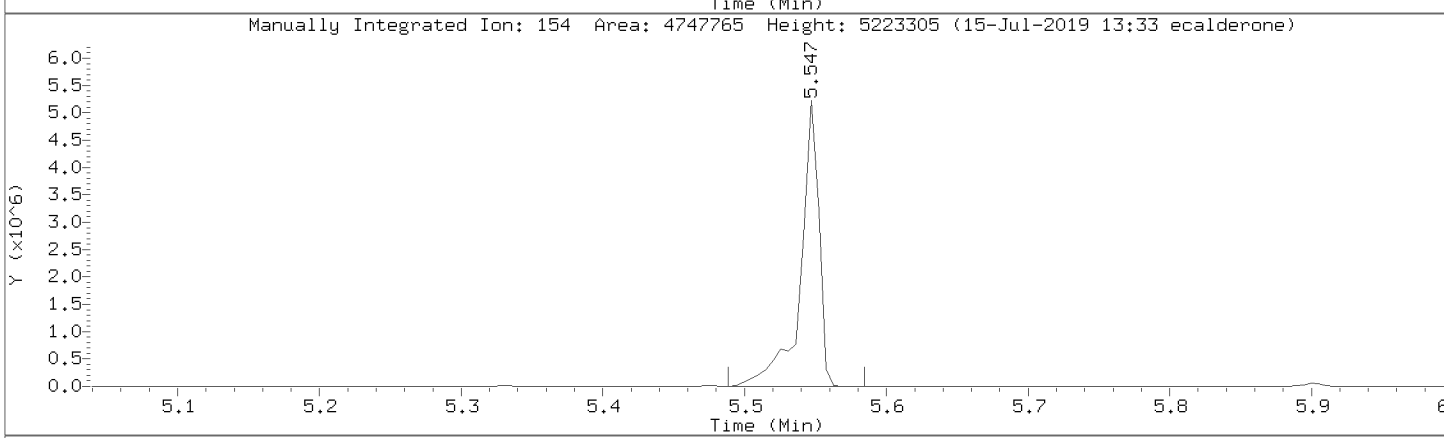
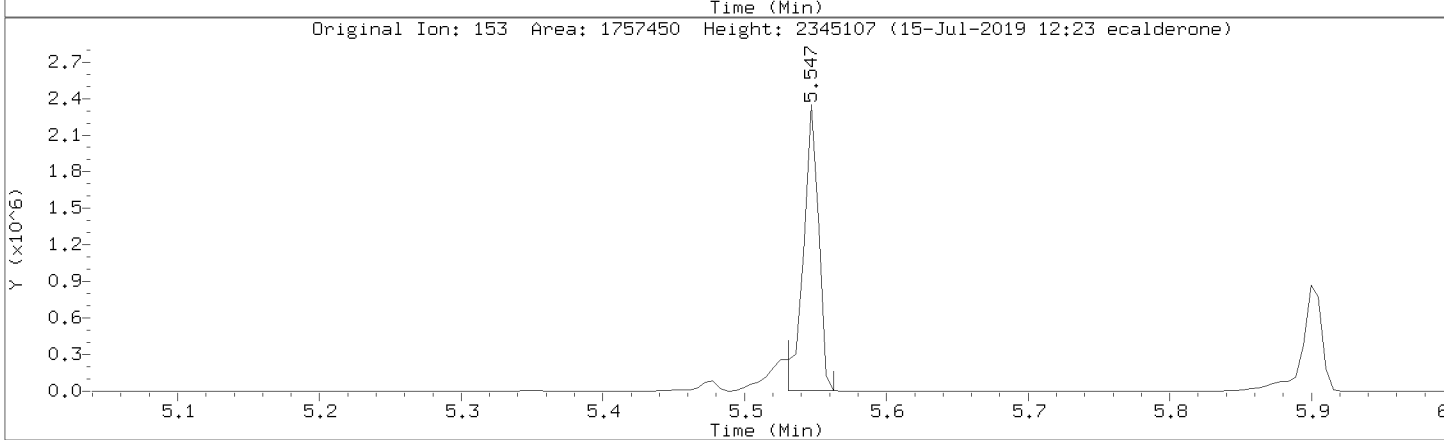
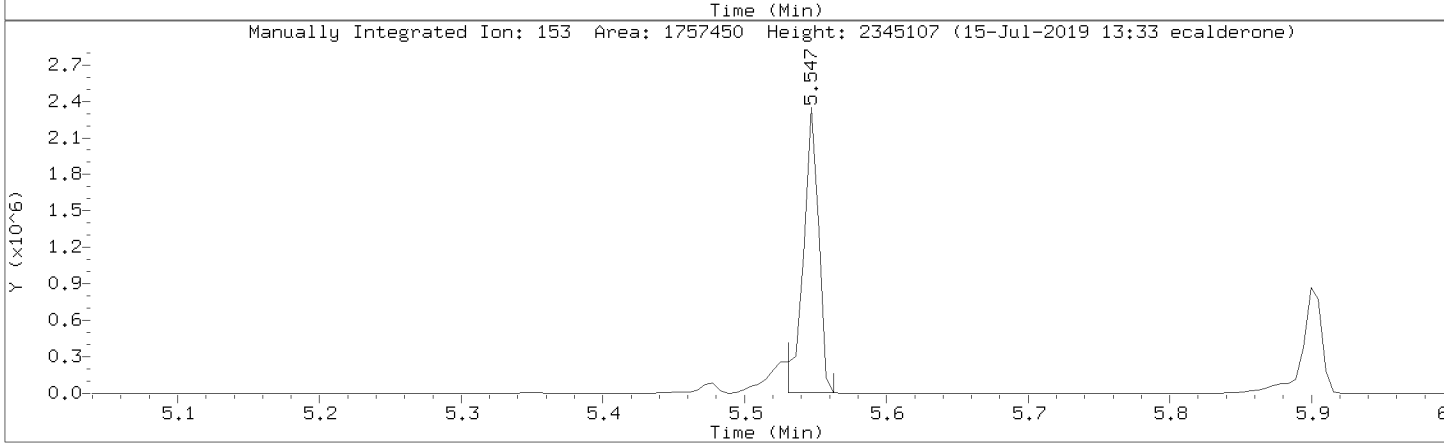
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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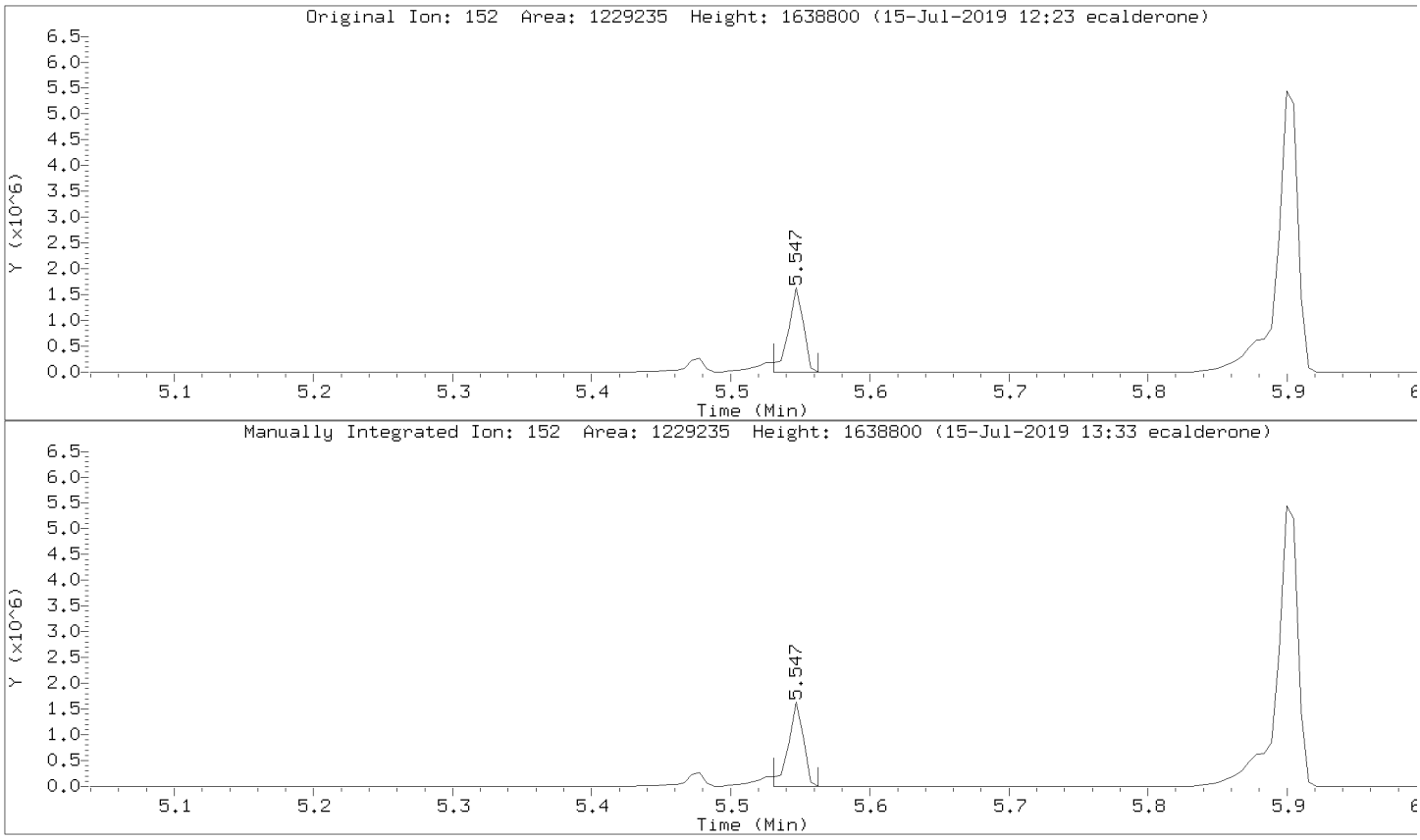
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV



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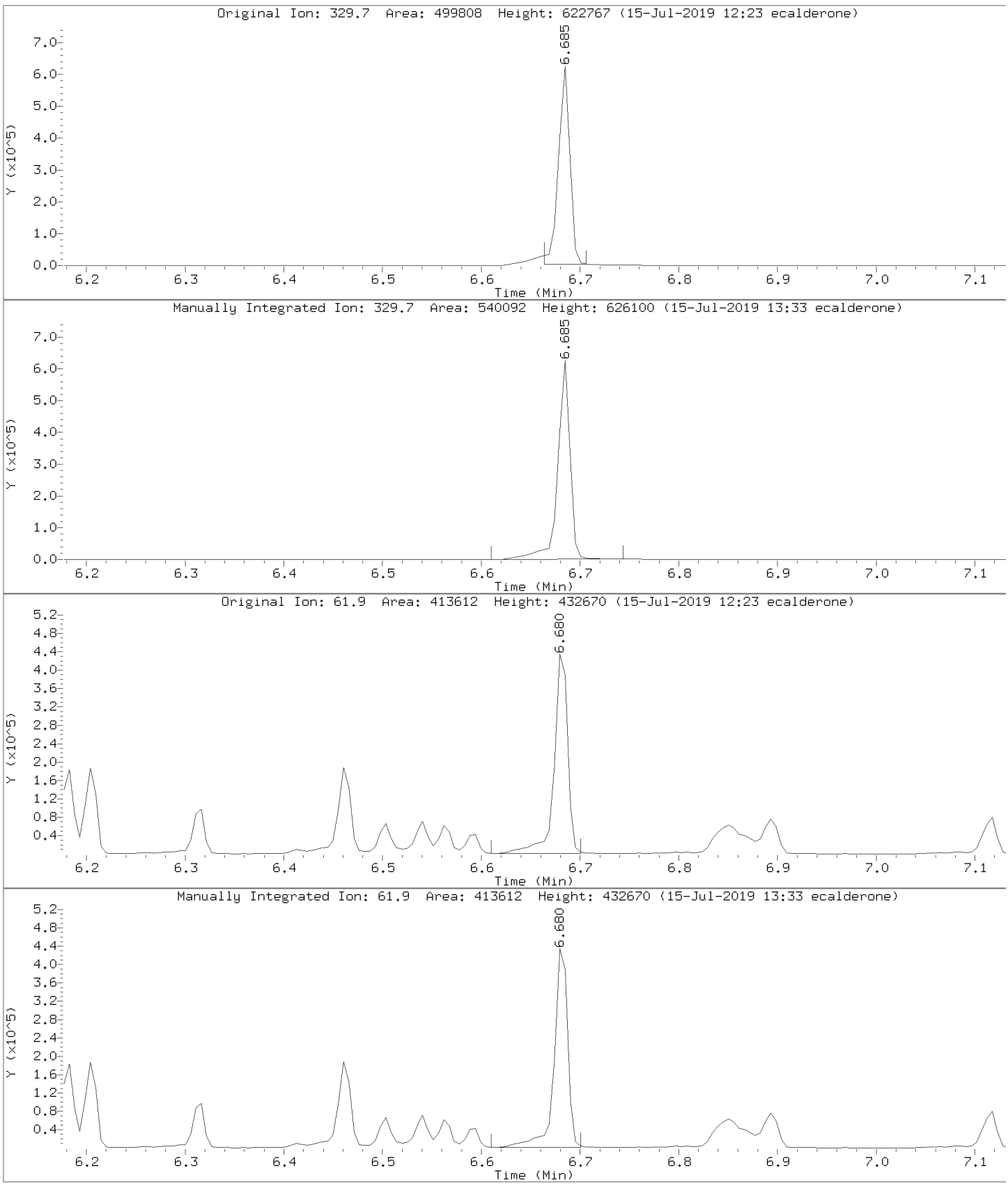
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 2,4,6-Tribromophenol (S) Review Code: LT
CAS Number: 118-79-6



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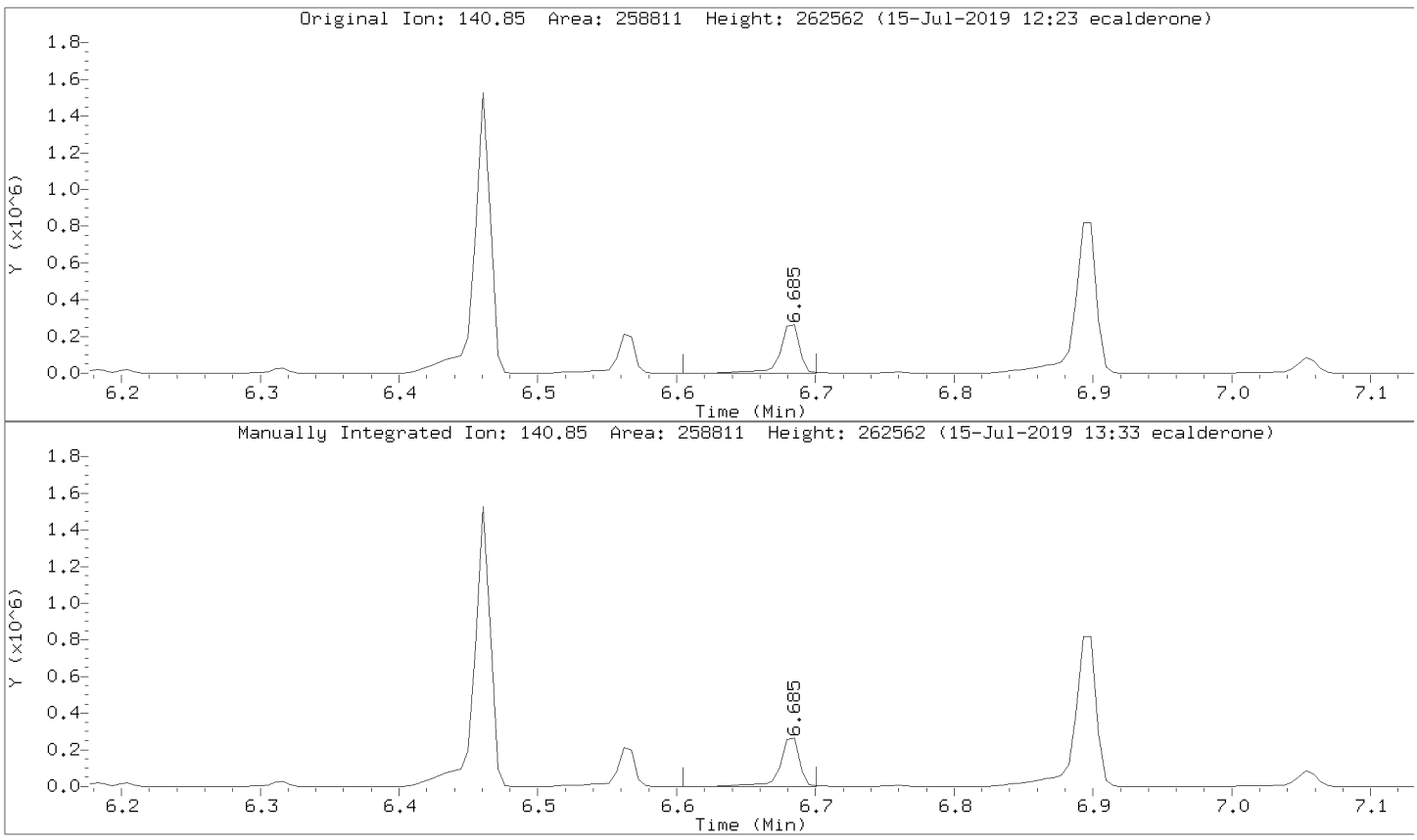
Instrument: 30mss1.i
Lab Sample ID: ICV



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m10716s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUL-2019 12:19
Operator : EAC Inst ID: 30mss1.i
Smp Info : ccv
Misc Info : 14828,93076:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.607	1.607	(0.456)	1165661	8.00000	6.80	
	2 Pyridine	79	1.581	1.581	(0.448)	1770039	8.00000	6.93	
$	3 2-Fluorophenol (S)	112	2.633	2.633	(0.747)	1504038	8.00000	7.52	
$	4 Phenol-d6 (S)	99	3.290	3.290	(0.933)	1823315	8.00000	7.73	
	5 Benzaldehyde	77	3.215	3.215	(0.912)	1309393	8.00000	7.67	
	6 Phenol	94	3.301	3.301	(0.936)	2026302	8.00000	7.78	
	7 Aniline	66	3.317	3.317	(0.941)	1007862	8.00000	8.52	
	8 bis(2-Chloroethyl)ether	63	3.359	3.359	(0.953)	1150634	8.00000	7.69	
	9 2-Chlorophenol	128	3.397	3.397	(0.964)	1625949	8.00000	7.55	
	10 1,3-Dichlorobenzene	146	3.504	3.504	(0.994)	1814541	8.00000	7.92	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.525	3.525	(1.000)	603419	4.00000		
	12 1,4-Dichlorobenzene	146	3.541	3.541	(1.005)	2054688	8.00000	8.21(M)	LT
	13 Benzyl Alcohol	79	3.648	3.648	(1.035)	1289779	8.00000	7.98	
	14 1,2-Dichlorobenzene	146	3.680	3.680	(1.044)	1737498	8.00000	7.76	
	15 2-Methylphenol(o-Cresol)	108	3.744	3.744	(1.062)	1595033	8.00000	8.10	
	16 bis(2-Chloroisopropyl)ether	45	3.771	3.771	(1.070)	2644827	8.00000	8.07	
	17 3&4-Methylphenol(m&p Cresol)	108	3.856	3.856	(1.094)	1607206	8.00000	8.24	
	18 N-Nitroso-di-n-propylamine	70	3.878	3.878	(1.100)	1216086	8.00000	8.09	
	19 Acetophenone	105	3.856	3.856	(1.094)	2146596	8.00000	8.05	
	20 Hexachloroethane	117	3.915	3.915	(1.111)	715079	8.00000	8.13	
$	21 Nitrobenzene-d5 (S)	128	3.968	3.968	(0.878)	819807	8.00000	7.98	
	22 Nitrobenzene	77	3.984	3.984	(0.882)	1667742	8.00000	8.01	
	23 Isophorone	82	4.166	4.166	(0.922)	3104759	8.00000	8.13	
	24 2,4-Dimethylphenol	107	4.262	4.262	(0.943)	1646071	8.00000	8.04	
	25 2-Nitrophenol	139	4.230	4.230	(0.936)	943588	8.00000	7.86	
	26 Benzoic acid	105	4.353	4.353	(0.963)	1009584	8.00000	8.00(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.337	4.337	(0.960)	1891695	8.00000	8.05	
	28 2,4-Dichlorophenol	162	4.412	4.412	(0.976)	1362037	8.00000	7.98	
	29 1,2,4-Trichlorobenzene	180	4.487	4.487	(0.993)	1489583	8.00000	7.98	
*	30 Naphthalene-d8 (IS)	136	4.519	4.519	(1.000)	2499192	4.00000		
	31 Naphthalene	128	4.535	4.535	(1.004)	4539894	8.00000	8.05	
	32 4-Chloroaniline	65	4.588	4.588	(1.015)	542841	8.00000	8.16	
	33 Hexachloro-1,3-butadiene	225	4.679	4.679	(1.035)	799844	8.00000	8.04	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	34	Caprolactam	55	4.845	4.845	(1.072)	725667	8.00000	7.93(M)	LT
	35	4-Chloro-3-methylphenol	107	4.978	4.978	(1.102)	1393281	8.00000	8.11	
	36	2-Methylnaphthalene	142	5.085	5.085	(1.125)	3314639	8.00000	8.01	
	37	1-Methylnaphthalene	142	5.170	5.170	(1.144)	3123999	8.00000	8.07	
	38	Hexachlorocyclopentadiene	237	5.272	5.272	(0.887)	954768	8.00000	8.00	
	39	1,2,4,5-Tetrachlorobenzene	216	5.256	5.256	(0.884)	1341210	8.00000	7.90	
	40	2,4,6-Trichlorophenol	196	5.336	5.336	(0.898)	980431	8.00000	7.47	
	41	2,4,5-Trichlorophenol	196	5.363	5.363	(0.902)	914741	8.00000	7.80	
$	42	2-Fluorobiphenyl (S)	172	5.395	5.395	(0.907)	3310964	8.00000	7.96	
	43	Biphenyl (Diphenyl)	154	5.470	5.470	(0.920)	3699092	8.00000	7.87	
	44	2-Chloronaphthalene	164	5.475	5.475	(0.921)	986352	8.00000	7.71	
	45	2-Nitroaniline	138	5.582	5.582	(0.939)	1111336	8.00000	7.98	
	46	Dimethylphthalate	163	5.758	5.758	(0.969)	3212712	8.00000	8.19	
	47	2,6-Dinitrotoluene	165	5.811	5.811	(0.978)	815280	8.00000	8.10	
	48	Acenaphthylene	152	5.822	5.822	(0.979)	4550946	8.00000	8.03	
	49	3-Nitroaniline	65	5.918	5.918	(0.996)	940439	8.00000	8.05	
*	50	Acenaphthene-d10 (IS)	164	5.945	5.945	(1.000)	1362814	4.00000		
	51	2,4-Dinitrophenol	184	5.998	5.998	(1.009)	471227	8.00000	8.26	
	52	Acenaphthene	153	5.972	5.972	(1.004)	2965729	8.00000	7.97	
	53	4-Nitrophenol	109	6.057	6.057	(1.019)	410488	8.00000	8.09	
	54	2,4-Dinitrotoluene	165	6.127	6.127	(1.031)	1045947	8.00000	7.99	
	55	Dibenzofuran	168	6.100	6.100	(1.026)	3969087	8.00000	7.93	
	56	2,3,4,6-Tetrachlorophenol	232	6.234	6.234	(1.049)	781523	8.00000	8.01	
	57	Diethylphthalate	149	6.335	6.335	(1.066)	3250106	8.00000	8.12	
	58	4-Chlorophenylphenyl ether	204	6.383	6.383	(1.074)	1599481	8.00000	7.86	
	59	Fluorene	166	6.383	6.383	(1.074)	3246190	8.00000	7.77	
	60	4-Nitroaniline	108	6.426	6.426	(1.081)	458047	8.00000	7.30(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.463	6.463	(0.890)	633816	8.00000	8.55	
	62	N-Nitrosodiphenylamine	169	6.485	6.485	(0.893)	2863143	8.00000	7.96	
	63	Azobenzene	77	6.511	6.511	(0.896)	3070945	8.00000	8.12	
	64	1,2-Diphenylhydrazine	77	6.511	6.511	(0.896)	3070945	8.00000	8.12	
$	65	2,4,6-Tribromophenol (S)	330	6.597	6.597	(0.908)	476162	8.00000	7.87	
	66	4-Bromophenylphenyl ether	248	6.800	6.800	(0.936)	941760	8.00000	7.78	
	67	Hexachlorobenzene	284	6.949	6.949	(0.957)	930243	8.00000	7.72	
	68	Atrazine	200	7.013	7.013	(0.965)	955024	8.00000	8.17	
	69	Pentachlorophenol	266	7.136	7.136	(0.982)	593206	8.00000	8.49	
*	70	Phenanthrene-d10 (IS)	188	7.265	7.265	(1.000)	2241118	4.00000		
	71	Phenanthrene	178	7.291	7.291	(1.004)	4817249	8.00000	7.86	
	72	Anthracene	178	7.339	7.339	(1.010)	4681820	8.00000	8.02	
	73	Carbazole	167	7.516	7.516	(1.035)	4318677	8.00000	8.07	
	74	Di-n-butylphthalate	149	7.975	7.975	(1.098)	5145197	8.00000	8.29	
	75	Fluoranthene	202	8.563	8.563	(1.179)	4795358	8.00000	8.26	
	76	Pyrene	202	8.798	8.798	(0.875)	4869937	8.00000	7.98	
$	77	Terphenyl-d14 (S)	244	8.990	8.990	(0.894)	3789586	8.00000	8.15	
	78	Butylbenzylphthalate	149	9.546	9.546	(0.950)	2357823	8.00000	8.35	
	79	3,3'-Dichlorobenzidine	252	10.037	10.037	(0.998)	1706637	8.00000	8.18	
	80	bis(2-Ethylhexyl)phthalate	149	10.160	10.160	(1.011)	3188659	8.00000	8.23	
	81	Benzo(a)anthracene	228	10.037	10.037	(0.998)	4530997	8.00000	8.10	
*	82	Chrysene-d12 (IS)	240	10.053	10.053	(1.000)	1997880	4.00000		
	83	Chrysene	228	10.080	10.080	(1.003)	4198679	8.00000	7.82	
	84	Di-n-octylphthalate	149	10.742	10.742	(0.943)	4971700	8.00000	8.66	
	85	Benzo(b)fluoranthene	252	11.068	11.068	(0.972)	3968283	8.00000	7.21	
	86	Benzo(k)fluoranthene	252	11.090	11.090	(0.974)	4637441	8.00000	8.50	
	87	Benzo(a)pyrene	252	11.346	11.346	(0.996)	3910823	8.00000	8.03	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	11.389	11.389	(1.000)	1867332	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	12.227	12.227	(1.074)	4291858	8.00000	8.08	
90 Dibenz(a,h)anthracene	278	12.238	12.238	(1.075)	3596921	8.00000	8.12	
91 Benzo(g,h,i)perylene	276	12.425	12.425	(1.091)	3683625	8.00000	8.28	

QC Flag Legend

M - Compound response manually integrated.

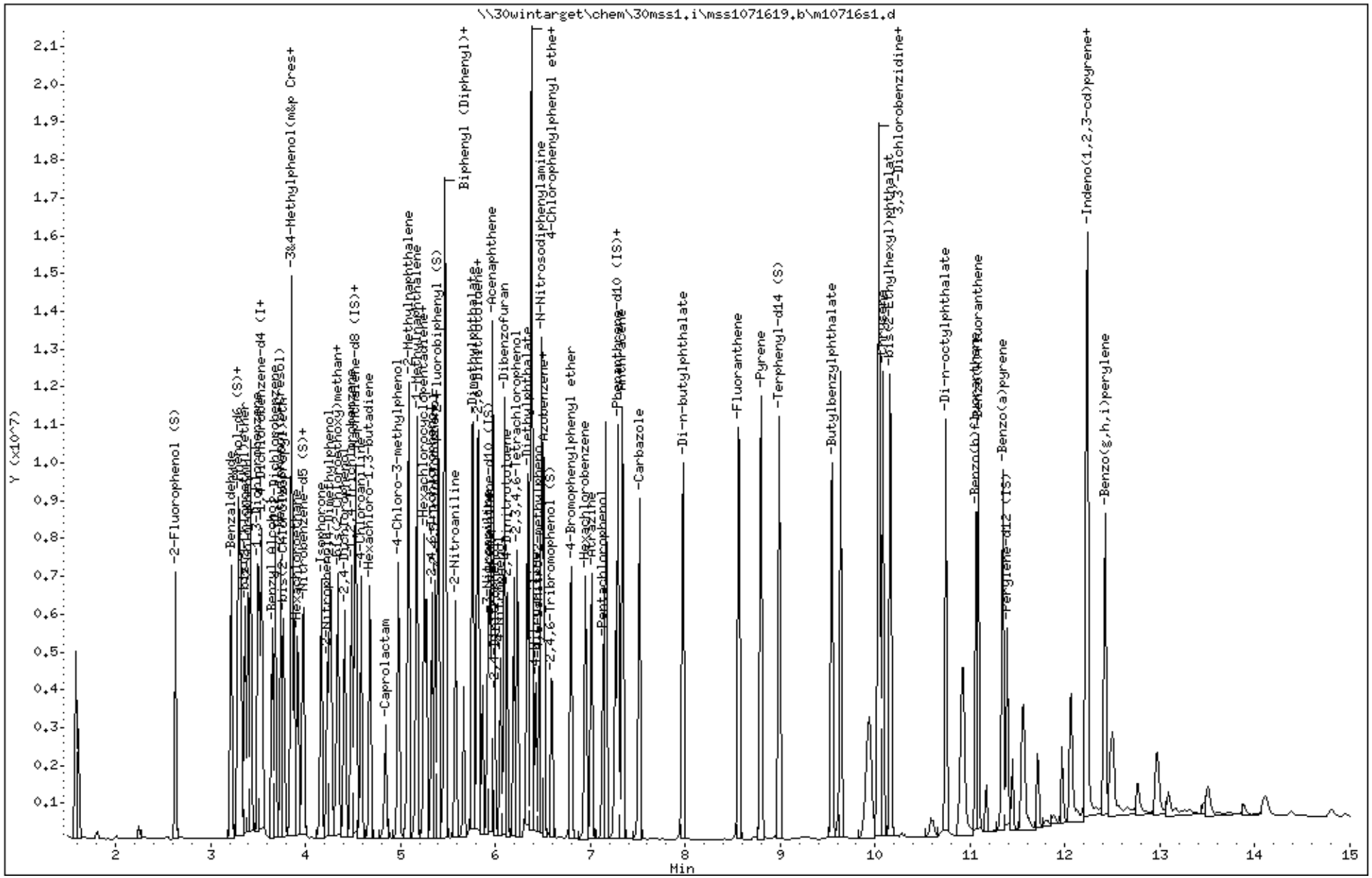
Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m10716s1.d
Date : 16-JUL-2019 12:19
Client ID: CCV
Sample Info: CCV

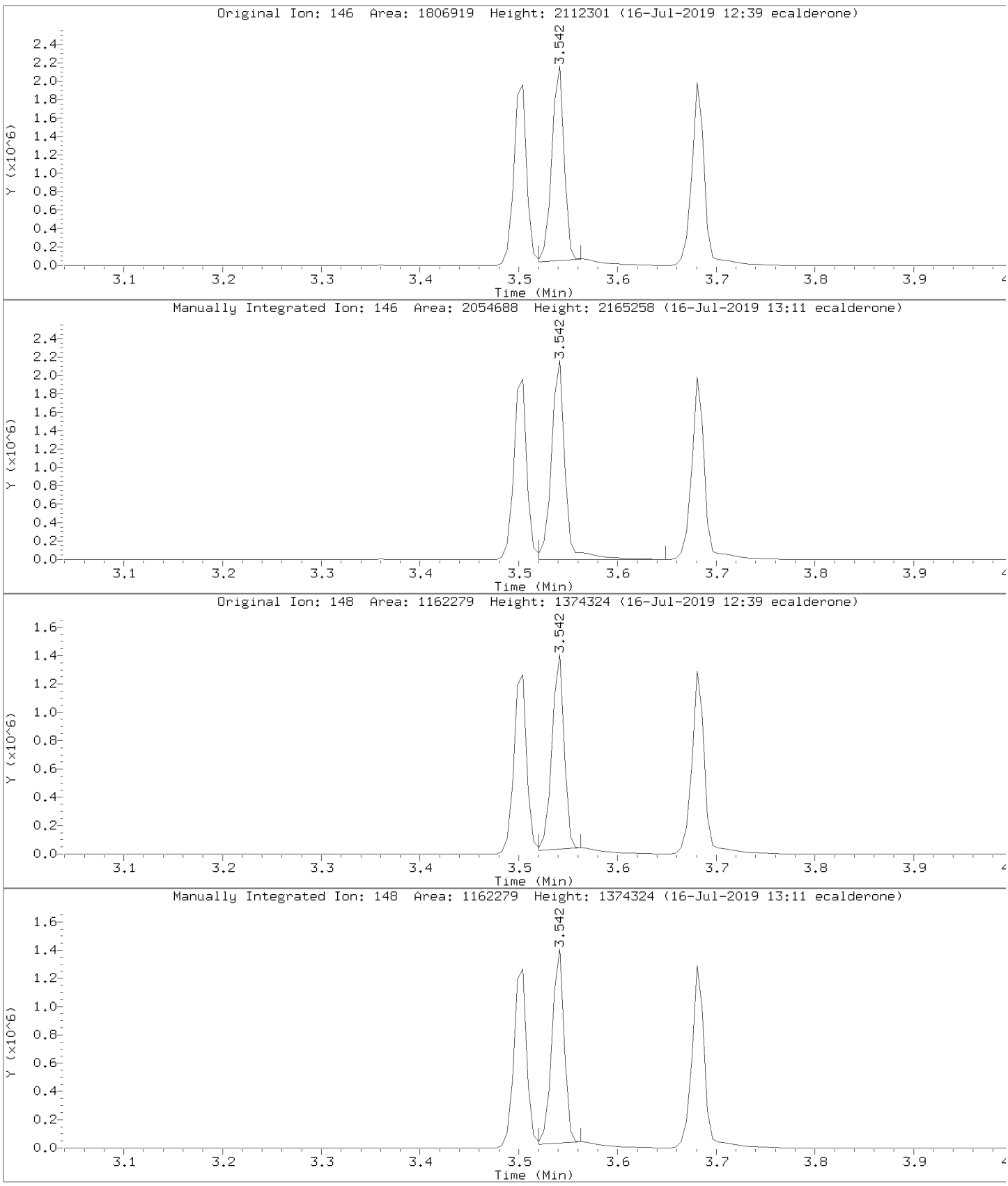
Instrument: 30mss1.i

Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m10716s1.d
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7



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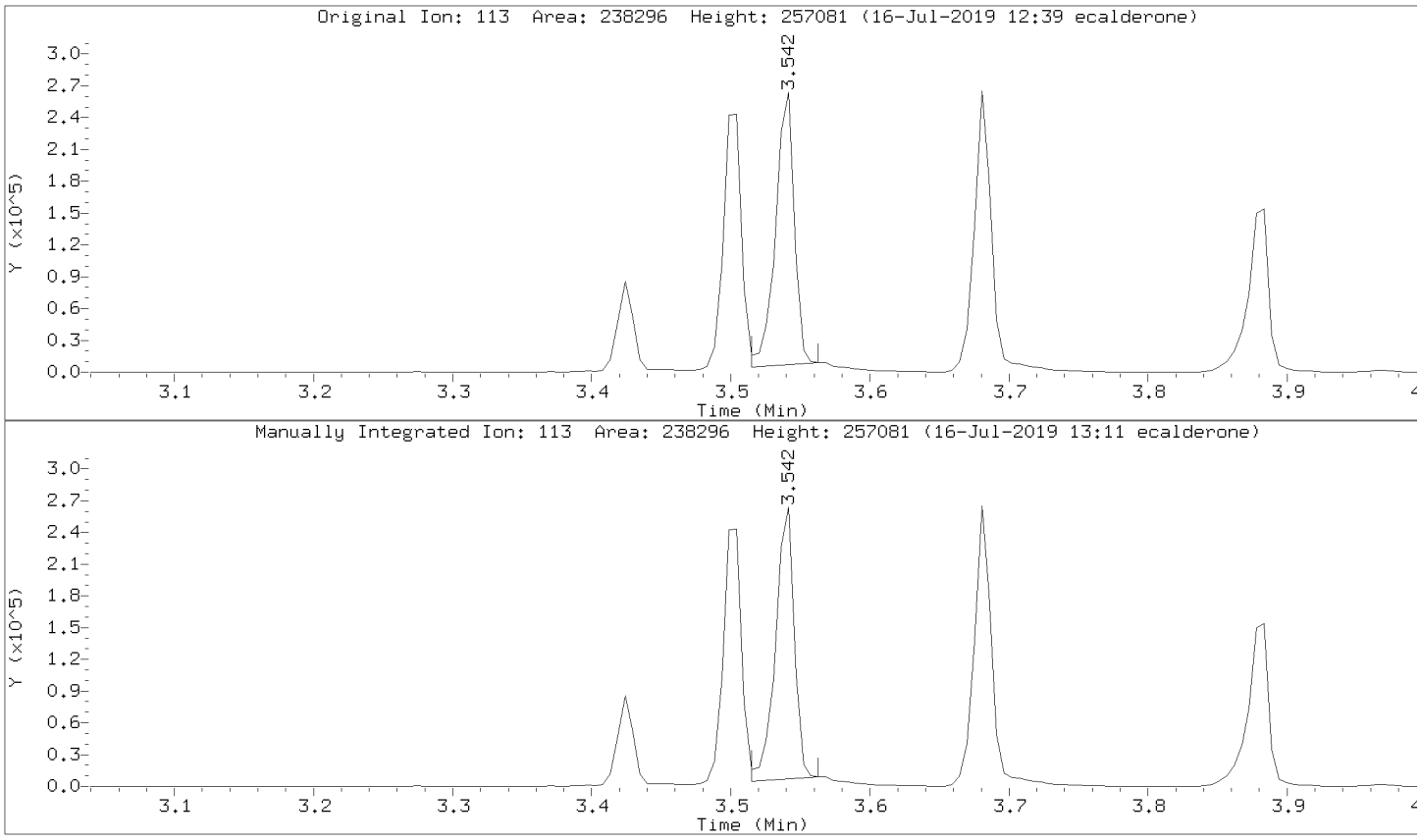
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV



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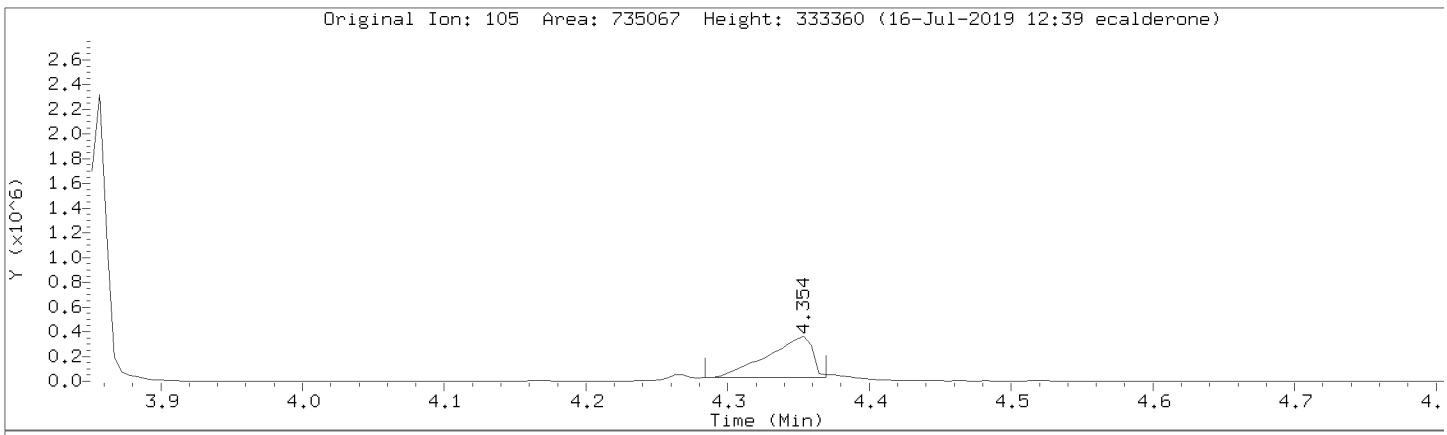
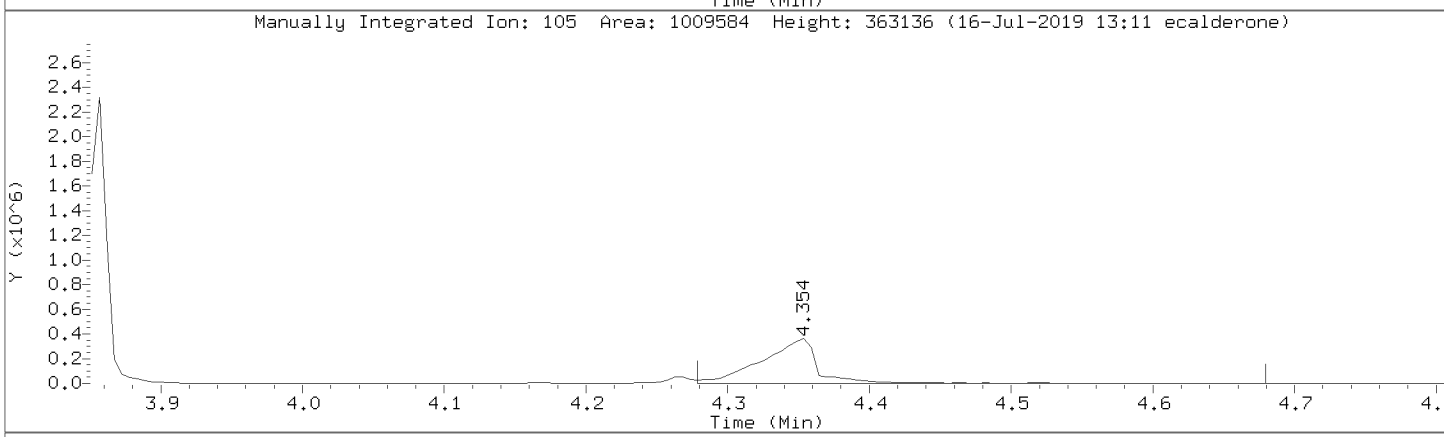
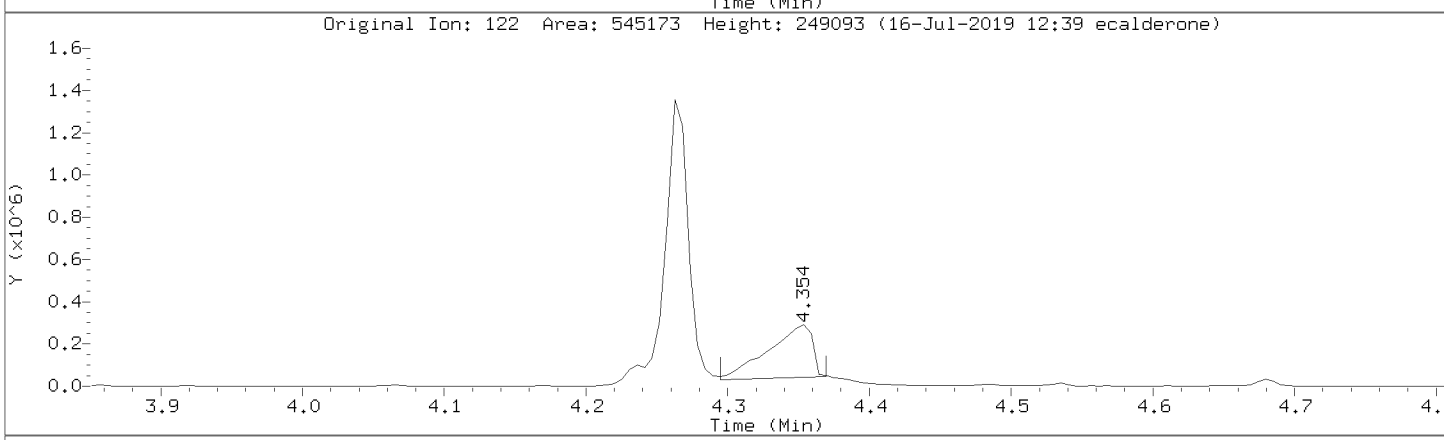
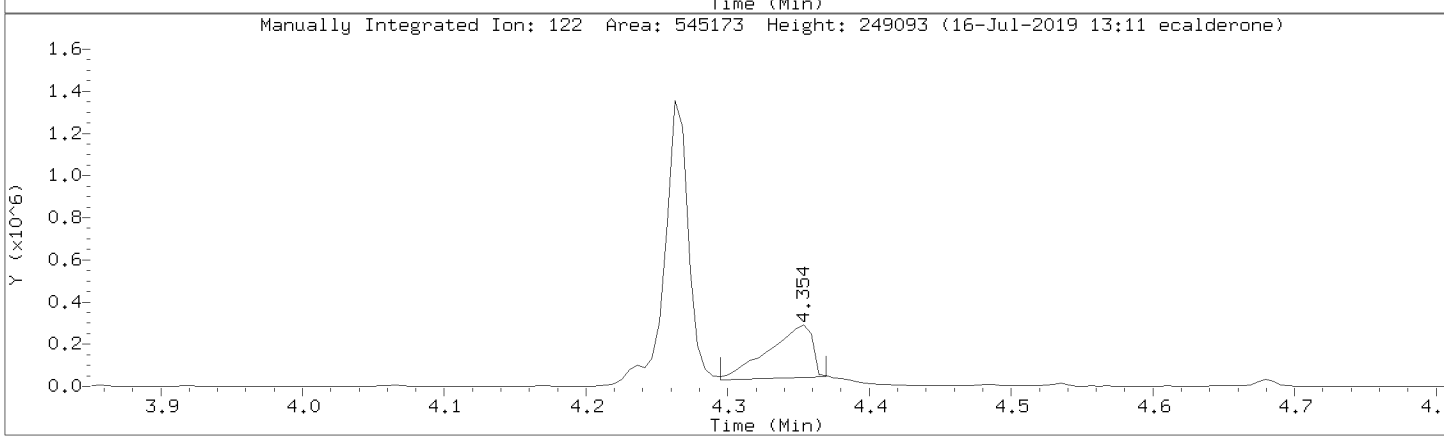
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

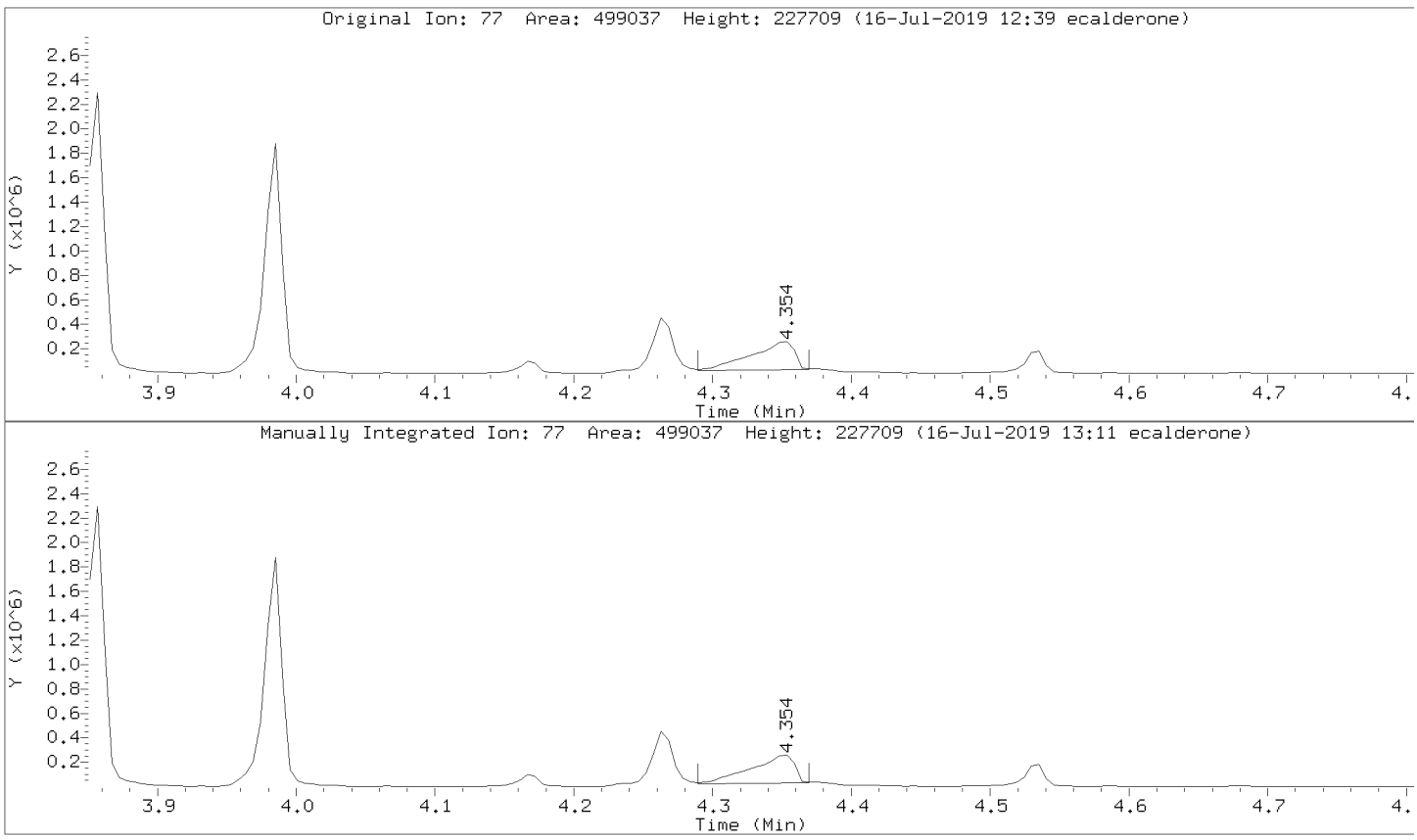








Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m10716s1.d
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV



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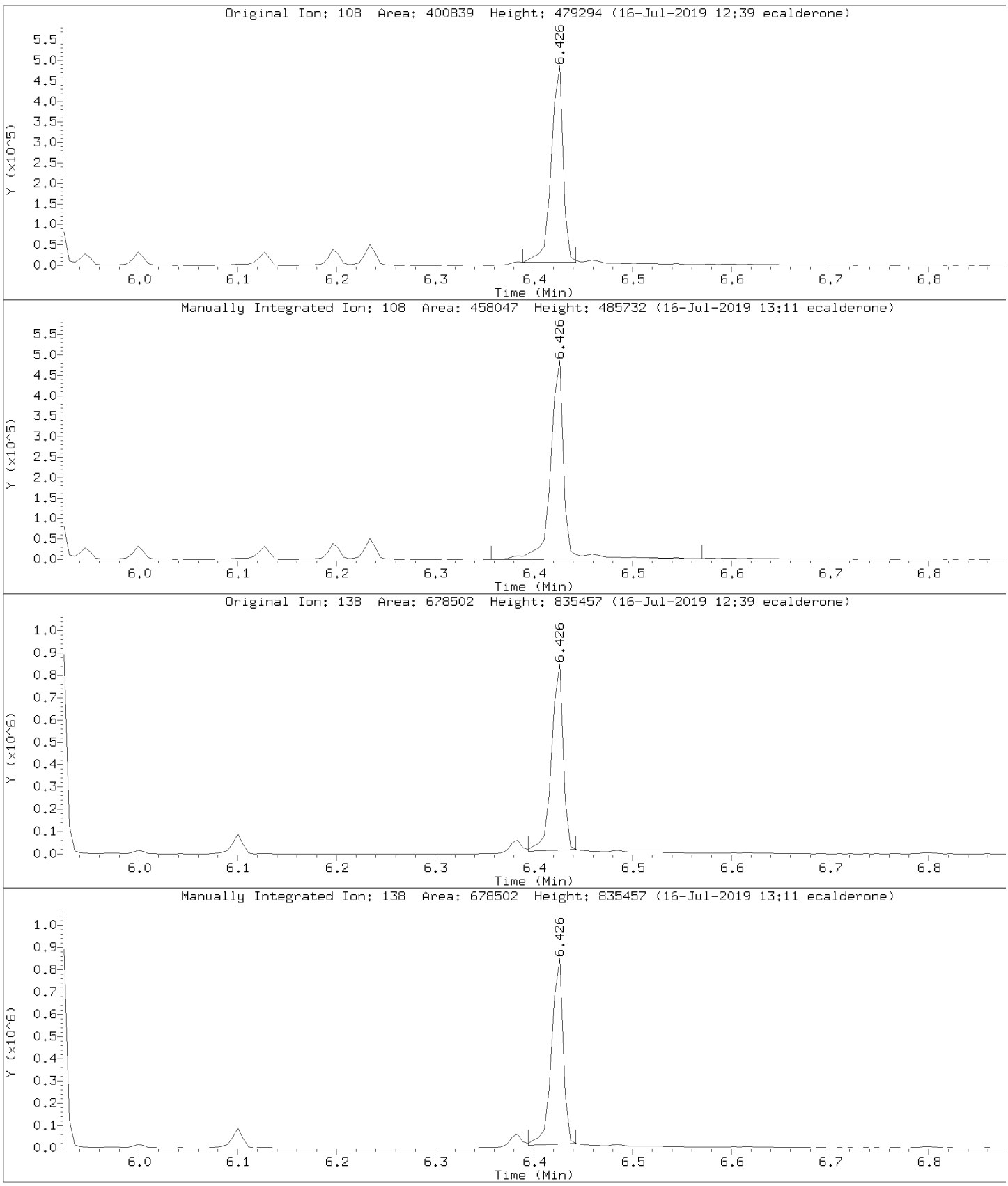
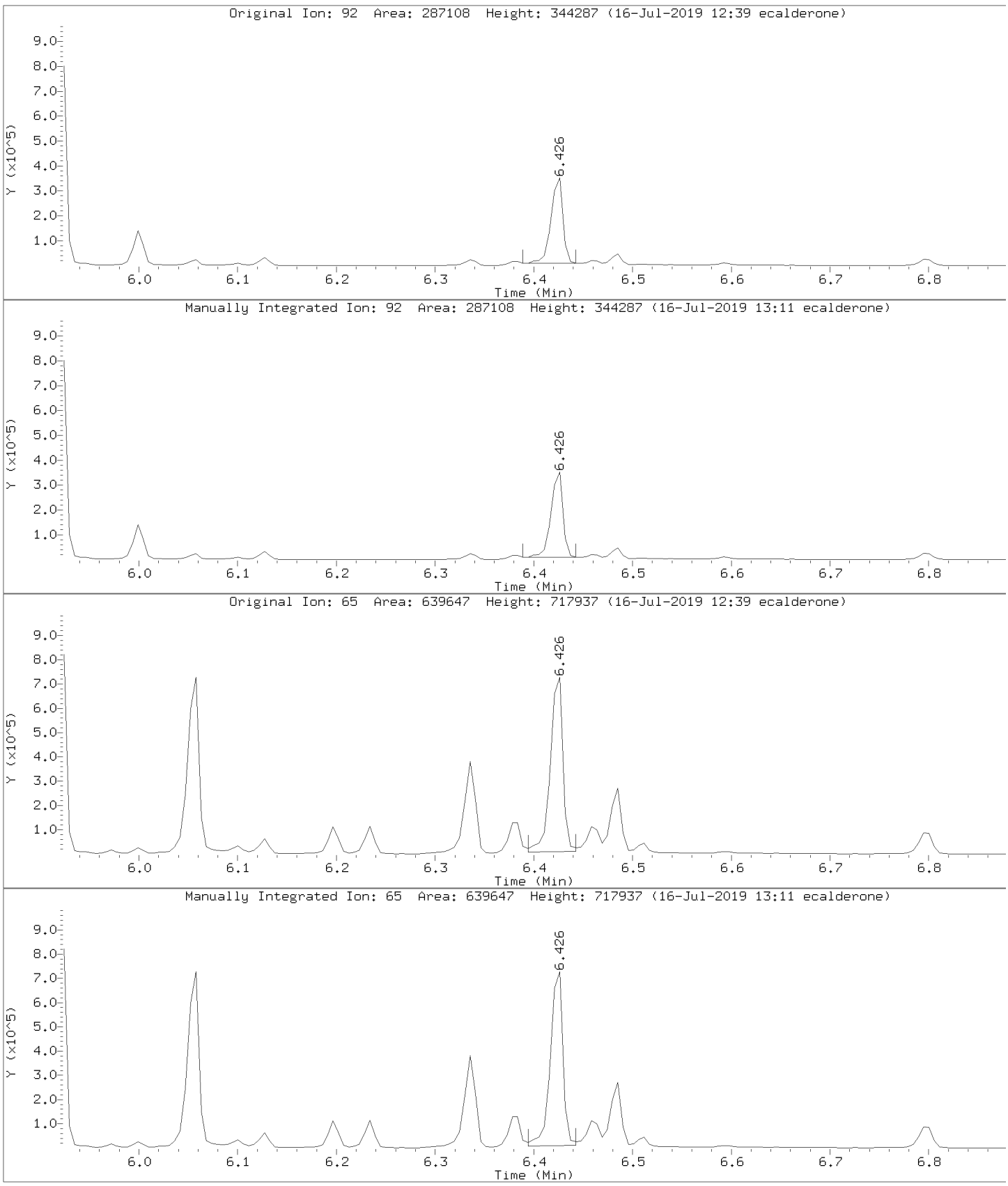
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6

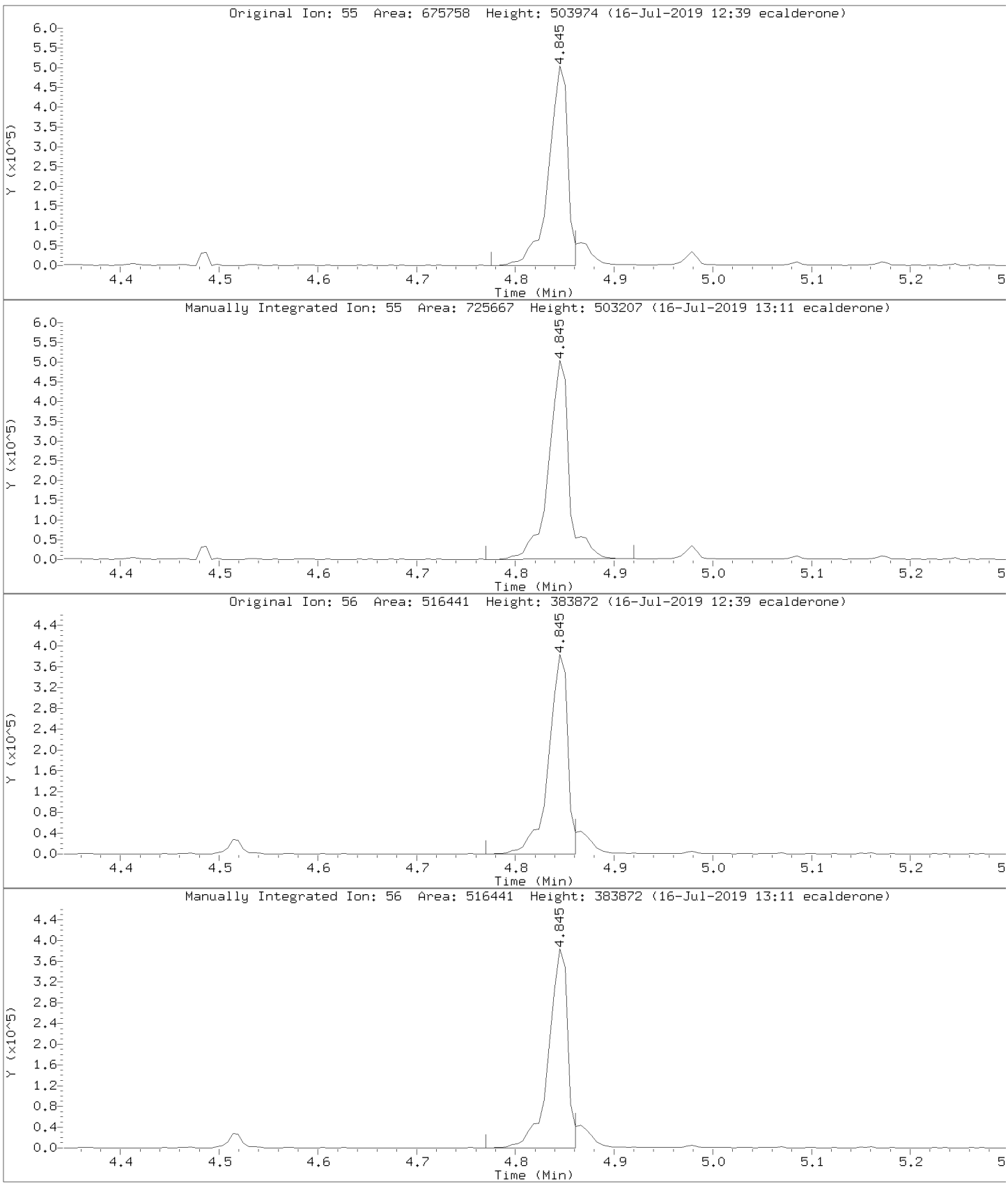


Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m10716s1.d
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV

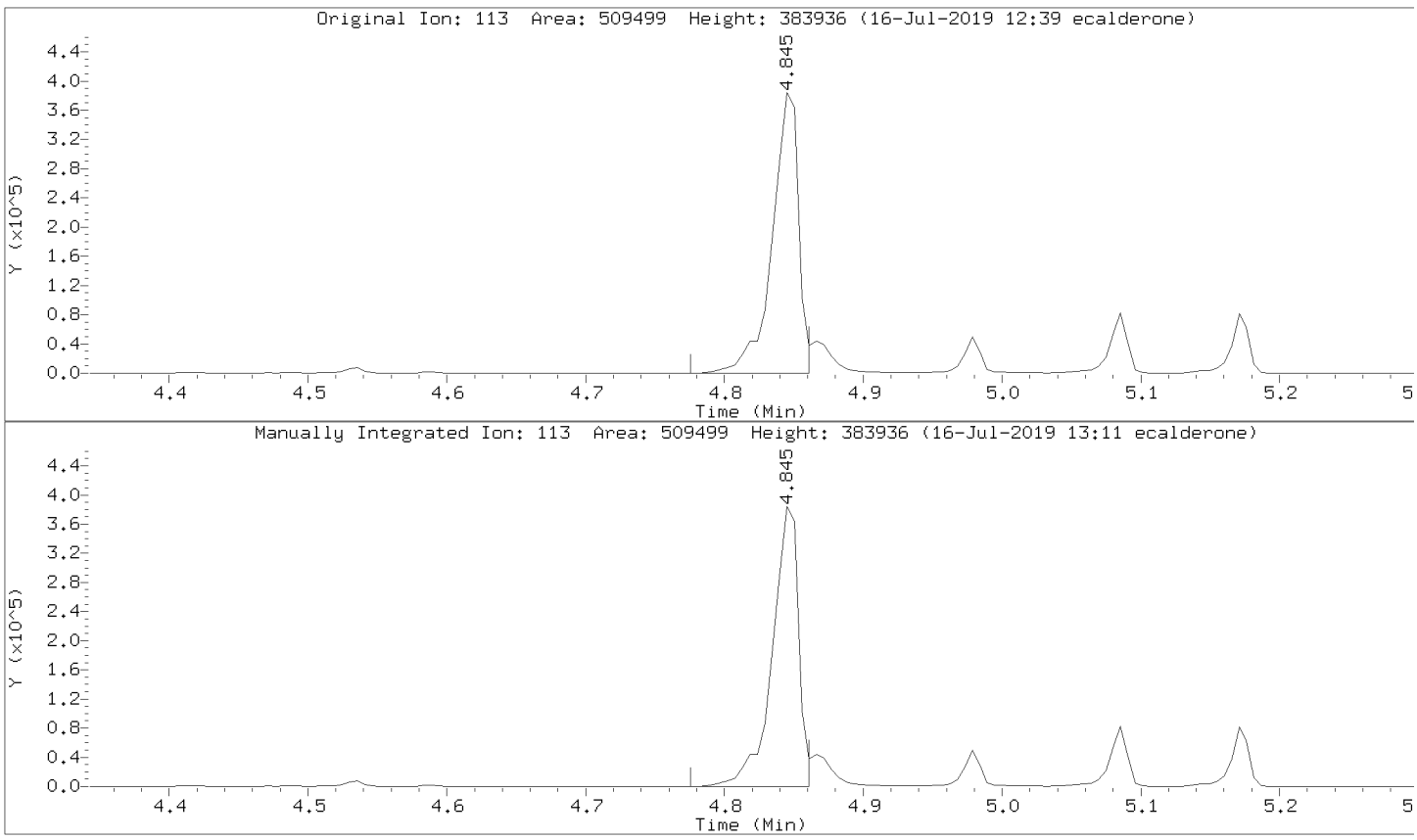


Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m10716s1.d
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m10716s1.d
Injection Date: 16-JUL-2019 12:19
Instrument: 30mss1.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715t4.d

Date : 15-JUL-2019 09:06

Client ID: DFTPP

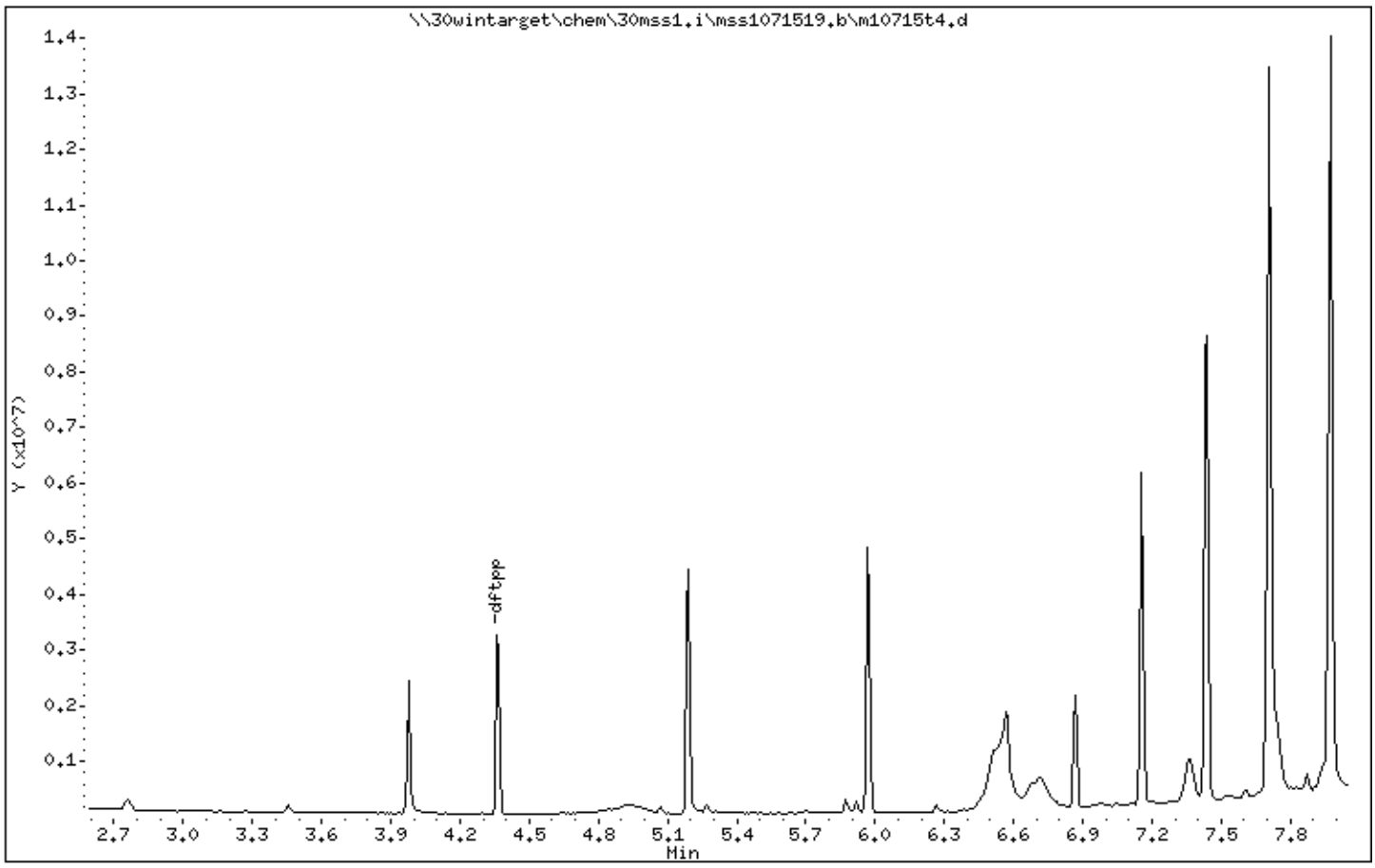
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715t4.d

Date : 15-JUL-2019 09:06

Client ID: DFTPP

Instrument: 30mss1.i

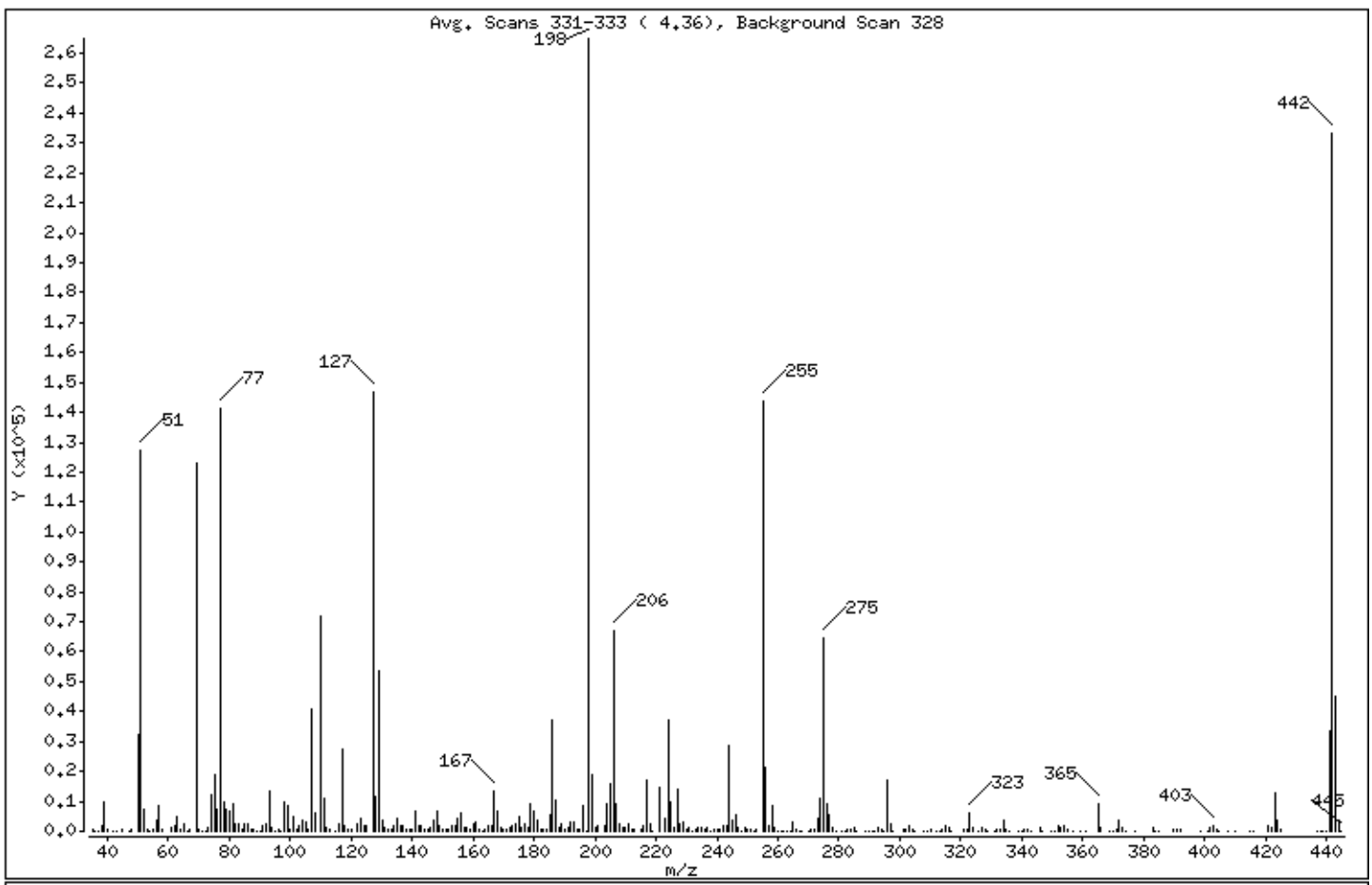
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	48.01
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.49
70	Less than 2.00% of mass 69	0.17 (0.37)
127	40.00 - 60.00% of mass 198	55.40
197	Less than 1.00% of mass 198	0.10
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 30.00% of mass 198	24.35
365	Greater than 1.00% of mass 198	3.46
441	Present, but less than mass 443	12.64
442	Greater than 40.00% of mass 198	88.06
443	17.00 - 23.00% of mass 442	16.99 (19.30)

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	709	128.00	11537	211.00	2328	303.00	2071
36.00	198	129.00	53416	212.00	685	304.00	617
37.00	186	130.00	3851	213.00	339	305.00	64
38.00	1535	131.00	1019	215.00	841	308.00	289
39.00	9640	132.00	419	216.00	1588	309.00	249
40.00	843	133.00	385	217.00	16768	310.00	447
42.00	62	134.00	1543	218.00	2203	312.00	51
43.00	22	135.00	4415	219.00	243	313.00	249
45.00	319	136.00	1965	221.00	14711	314.00	871
47.00	67	137.00	2119	223.00	4156	315.00	1816
48.00	404	138.00	390	224.00	36864	316.00	1231
50.00	32472	139.00	426	225.00	9533	317.00	247
51.00	127184	140.00	711	226.00	1015	321.00	633
52.00	7033	141.00	6779	227.00	14114	322.00	351
53.00	479	142.00	1984	228.00	2159	323.00	5787
54.00	118	143.00	1539	229.00	3046	324.00	1298
55.00	305	144.00	474	230.00	678	326.00	231
56.00	3769	145.00	411	231.00	1305	327.00	1491
57.00	8616	146.00	1381	232.00	272	328.00	636
58.00	528	147.00	3597	233.00	357	329.00	211
61.00	1522	148.00	6886	234.00	939	331.00	103
62.00	1676	149.00	1913	235.00	1275	332.00	375
63.00	4798	150.00	602	236.00	675	333.00	807
64.00	698	151.00	867	237.00	1368	334.00	3746
65.00	2366	152.00	644	238.00	159	335.00	901
66.00	102	153.00	2027	239.00	716	336.00	187
67.00	348	154.00	1702	240.00	527	339.00	84
69.00	123144	155.00	4284	241.00	822	340.00	123
70.00	452	156.00	5795	242.00	2039	341.00	482
71.00	40	157.00	1395	243.00	1936	342.00	323
72.00	55	158.00	1428	244.00	28560	343.00	133
73.00	1210	159.00	854	245.00	3801	346.00	1360
74.00	11911	160.00	2255	246.00	5587	347.00	159
75.00	18704	161.00	3089	247.00	936	350.00	105
76.00	7560	162.00	828	248.00	73	351.00	75

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	141568	163.00	268	249.00	1080	352.00	1969
78.00	9990	164.00	400	250.00	416	353.00	1485
79.00	7527	165.00	2074	251.00	325	354.00	1898
80.00	6410	166.00	1896	252.00	274	355.00	309
81.00	9129	167.00	13283	253.00	605	357.00	125
82.00	2708	168.00	6719	255.00	144000	359.00	211
83.00	2299	169.00	1216	256.00	21264	361.00	51
84.00	570	170.00	374	257.00	1595	365.00	9159
85.00	2616	171.00	519	258.00	8404	366.00	1062
86.00	2368	172.00	1200	259.00	1400	369.00	51
87.00	785	173.00	1526	260.00	241	370.00	208
88.00	470	174.00	2301	261.00	170	371.00	448
89.00	251	175.00	4905	262.00	69	372.00	3853
90.00	77	176.00	1352	263.00	96	373.00	1041
91.00	1791	177.00	2197	264.00	116	374.00	59
92.00	2385	178.00	938	265.00	2957	377.00	72
93.00	13534	179.00	9427	266.00	598	383.00	959
94.00	1318	180.00	6767	267.00	31	384.00	285
95.00	178	181.00	3551	268.00	51	385.00	50
96.00	697	182.00	559	270.00	253	390.00	433
97.00	84	183.00	353	271.00	349	391.00	308
98.00	9620	184.00	825	272.00	650	392.00	410
99.00	8526	185.00	5343	273.00	4243	399.00	105
100.00	552	186.00	37088	274.00	11042	401.00	265
101.00	5097	187.00	10433	275.00	64512	402.00	1324
102.00	443	188.00	1038	276.00	9118	403.00	1980
103.00	1611	189.00	2166	277.00	5202	404.00	829
104.00	3402	190.00	307	278.00	959	405.00	198
105.00	2989	191.00	937	279.00	152	408.00	50
106.00	815	192.00	2911	281.00	202	410.00	64
107.00	40696	193.00	3154	282.00	39	415.00	108
108.00	6312	194.00	836	283.00	453	416.00	59
110.00	71984	195.00	603	284.00	493	421.00	1645
111.00	11147	196.00	8472	285.00	1014	422.00	1376
112.00	1501	197.00	272	286.00	168	423.00	12568

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	643	198.00	264896	289.00	212	424.00	3436
115.00	165	199.00	18904	290.00	168	425.00	552
116.00	2317	200.00	1438	291.00	126	437.00	77
117.00	27376	201.00	2020	292.00	244	438.00	146
118.00	1957	203.00	1822	293.00	1309	439.00	197
119.00	409	204.00	9317	294.00	536	440.00	122
120.00	563	205.00	15730	295.00	263	441.00	33488
122.00	2543	206.00	67200	296.00	17224	442.00	233280
123.00	4204	207.00	8950	297.00	2658	443.00	45016
124.00	1679	208.00	2235	298.00	124	444.00	3667
125.00	1684	209.00	1176	301.00	604	445.00	218
127.00	146752	210.00	1390	302.00	528		

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m10716t1.d

Page 1

Date : 16-JUL-2019 12:04

Client ID: DFTPP

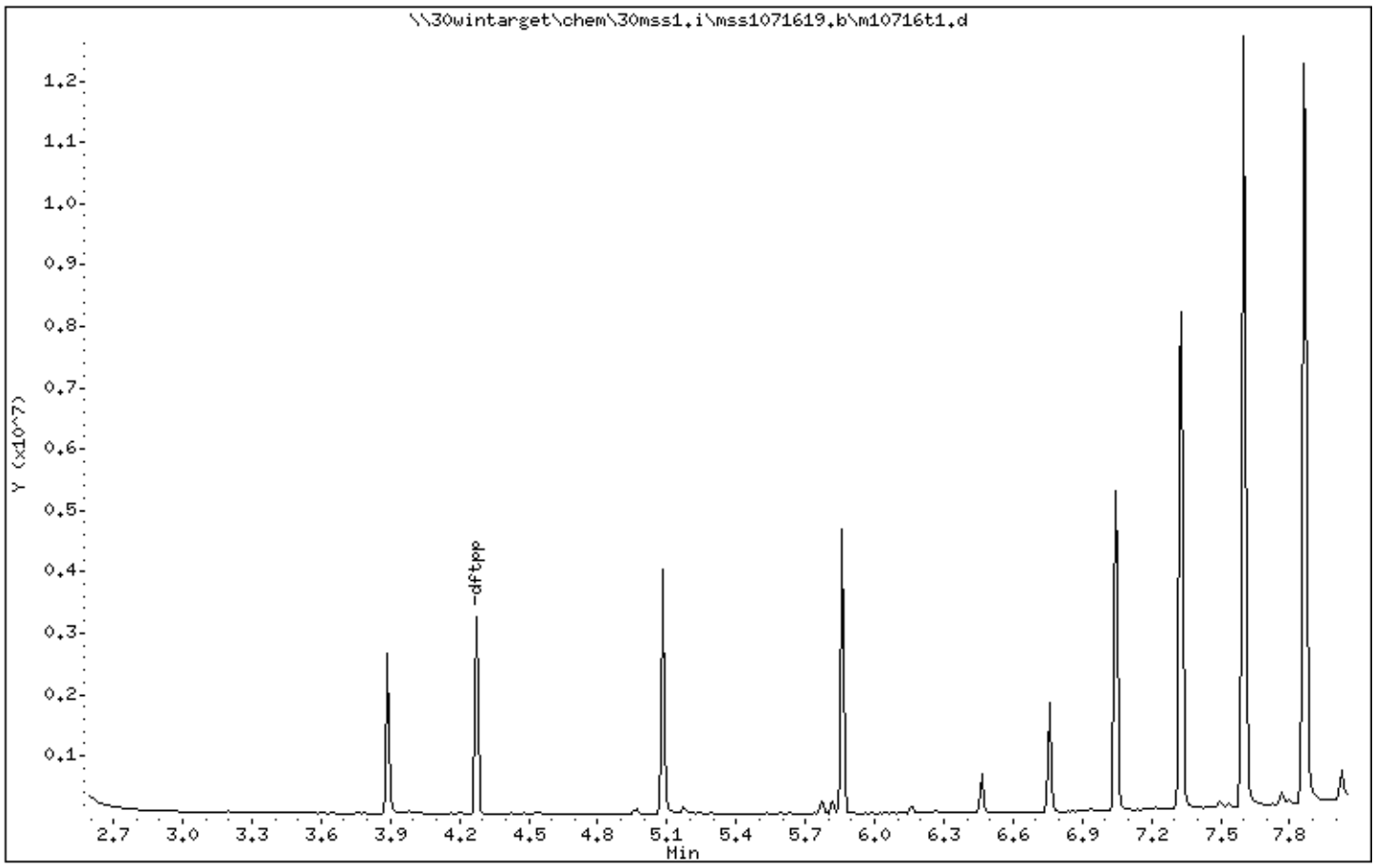
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m10716t1.d

Date : 16-JUL-2019 12:04

Client ID: DFTPP

Instrument: 30mss1.i

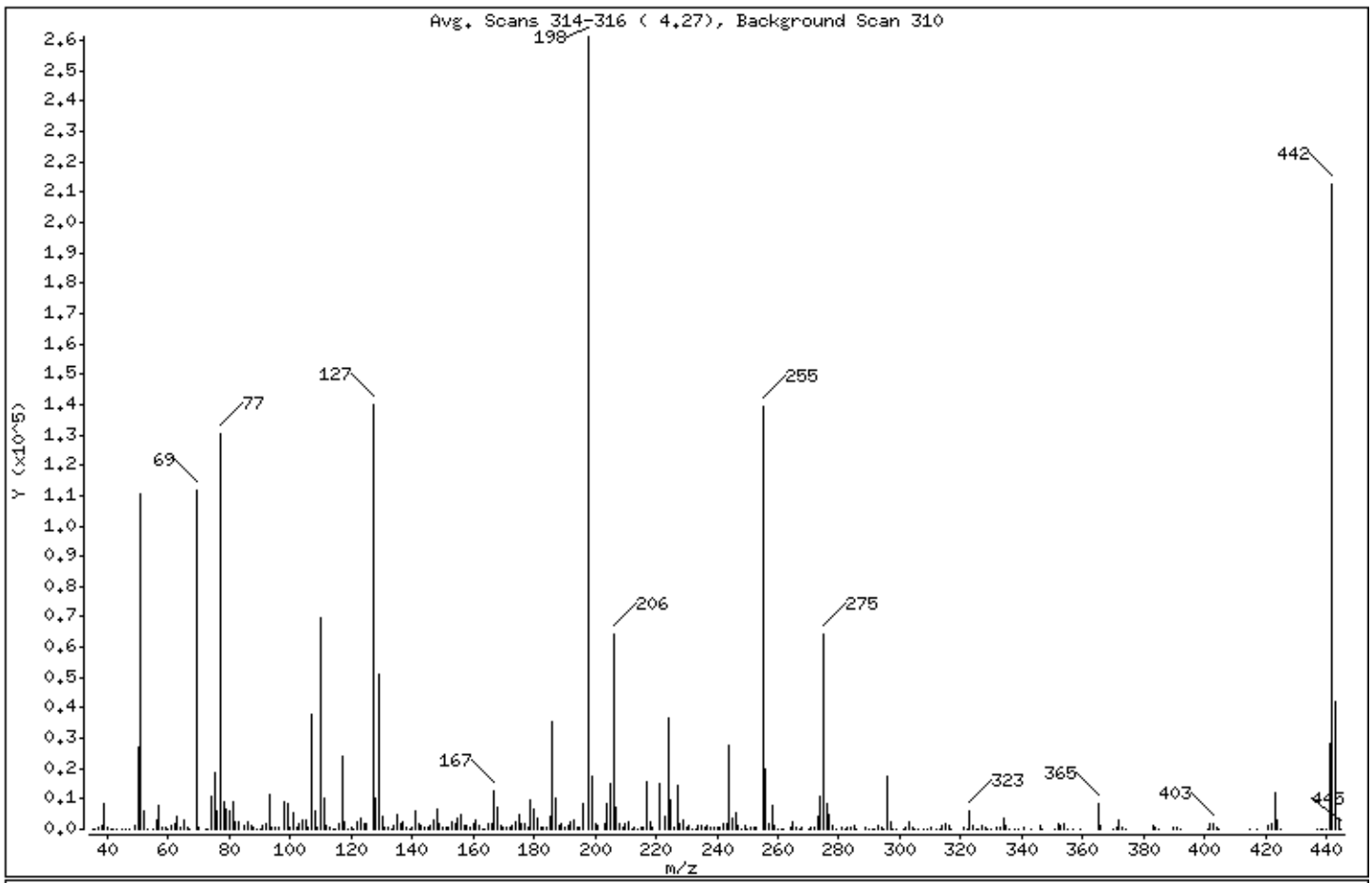
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	42.28
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	42.75
70	Less than 2.00% of mass 69	0.24 (0.57)
127	40.00 - 60.00% of mass 198	53.47
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.66
275	10.00 - 30.00% of mass 198	24.51
365	Greater than 1.00% of mass 198	3.31
441	Present, but less than mass 443	10.77
442	Greater than 40.00% of mass 198	81.29
443	17.00 - 23.00% of mass 442	16.11 (19.82)

Date : 16-JUL-2019 12:04

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10716t1.d
Spectrum: Avg. Scans 314-316 (4.27), Background Scan 310
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	227	124.00	1685	209.00	559	299.00	110
36.00	159	125.00	1560	210.00	1626	301.00	194
37.00	404	127.00	139712	211.00	2465	302.00	358
38.00	1197	128.00	10101	212.00	134	303.00	2253
39.00	8631	129.00	50920	213.00	394	304.00	572
40.00	313	130.00	4362	214.00	70	305.00	222
41.00	241	131.00	886	215.00	674	306.00	57
42.00	21	132.00	583	216.00	822	308.00	272
43.00	82	133.00	208	217.00	15570	309.00	245
45.00	132	134.00	1201	218.00	2263	310.00	324
46.00	51	135.00	4511	219.00	410	312.00	50
47.00	66	136.00	1663	221.00	14978	313.00	159
49.00	934	137.00	2237	223.00	4285	314.00	986
50.00	27104	138.00	542	224.00	36544	315.00	2046
51.00	110488	139.00	142	225.00	9494	316.00	1052
52.00	6056	140.00	588	226.00	879	317.00	54
53.00	240	141.00	5950	227.00	14204	321.00	703
55.00	166	142.00	1859	228.00	1968	322.00	130
56.00	3255	143.00	1326	229.00	3083	323.00	5737
57.00	7626	144.00	603	230.00	416	324.00	1075
58.00	340	145.00	419	231.00	1429	325.00	272
59.00	394	146.00	1097	232.00	295	326.00	142
60.00	70	147.00	3290	233.00	299	327.00	1415
61.00	1185	148.00	6673	234.00	936	328.00	642
62.00	1588	149.00	1634	235.00	1090	329.00	67
63.00	4114	150.00	615	236.00	750	330.00	117
64.00	420	151.00	736	237.00	1449	332.00	516
65.00	2830	152.00	700	238.00	331	333.00	506
66.00	305	153.00	2109	239.00	441	334.00	3721
67.00	171	154.00	1557	240.00	530	335.00	1135
69.00	111704	155.00	3505	241.00	848	336.00	158
70.00	634	156.00	5031	242.00	1722	338.00	55
72.00	209	157.00	1113	243.00	1857	339.00	134
73.00	52	158.00	1106	244.00	27880	341.00	755
74.00	10747	159.00	819	245.00	3409	343.00	128

Date : 16-JUL-2019 12:04

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10716t1.d
Spectrum: Avg. Scans 314-316 (4.27), Background Scan 310
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	18712	160.00	1792	246.00	5170	346.00	1194
76.00	5853	161.00	3254	247.00	1221	347.00	240
77.00	130304	162.00	985	248.00	294	351.00	67
78.00	8992	163.00	251	249.00	1094	352.00	1792
79.00	6675	164.00	134	250.00	210	353.00	1432
80.00	5750	165.00	2051	251.00	375	354.00	1778
81.00	8798	166.00	1671	252.00	348	355.00	265
82.00	2450	167.00	12835	253.00	627	357.00	108
83.00	2250	168.00	7092	255.00	139136	359.00	189
85.00	1336	169.00	1149	256.00	20096	365.00	8637
86.00	2188	170.00	404	257.00	1792	366.00	1329
87.00	1372	171.00	657	258.00	7679	370.00	102
88.00	312	172.00	894	259.00	1235	371.00	507
89.00	201	173.00	978	260.00	236	372.00	2947
90.00	82	174.00	2504	261.00	276	373.00	835
91.00	1475	175.00	4823	262.00	69	374.00	110
92.00	2027	176.00	1710	264.00	494	383.00	936
93.00	11510	177.00	2011	265.00	2585	384.00	427
94.00	812	178.00	659	266.00	598	385.00	53
95.00	498	179.00	9399	267.00	164	390.00	404
96.00	422	180.00	6769	268.00	309	391.00	319
98.00	8871	181.00	3489	270.00	110	392.00	238
99.00	8442	182.00	387	271.00	406	401.00	267
100.00	851	183.00	359	272.00	348	402.00	1507
101.00	5127	184.00	726	273.00	4221	403.00	1924
102.00	369	185.00	4020	274.00	10879	404.00	672
103.00	1628	186.00	35512	275.00	64048	405.00	58
104.00	2918	187.00	10086	276.00	8565	415.00	178
105.00	2924	188.00	1122	277.00	4957	417.00	77
106.00	738	189.00	1810	278.00	983	421.00	1424
107.00	37952	190.00	419	279.00	192	422.00	1559
108.00	5987	191.00	1073	281.00	430	423.00	12168
109.00	450	192.00	2609	282.00	139	424.00	2790
110.00	69640	193.00	3190	283.00	778	425.00	279
111.00	10149	194.00	900	284.00	612	437.00	201

Date : 16-JUL-2019 12:04

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10716t1.d
Spectrum: Avg. Scans 314-316 (4.27), Background Scan 310
Location of Maximum: 198.00
Number of points: 324

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	1318	195.00	477	285.00	1040	438.00	99
113.00	491	196.00	8189	286.00	177	439.00	53
114.00	299	198.00	261312	289.00	389	440.00	96
115.00	166	199.00	17400	290.00	143	441.00	28144
116.00	1929	200.00	1617	291.00	173	442.00	212416
117.00	23936	201.00	1310	292.00	263	443.00	42104
118.00	2167	203.00	1547	293.00	1217	444.00	3411
119.00	227	204.00	8554	294.00	304	445.00	268
120.00	662	205.00	14808	295.00	131		
121.00	267	206.00	64304	296.00	17320		
122.00	2451	207.00	7486	297.00	2261		
123.00	3494	208.00	1973	298.00	268		

SAMPLE NO.

LCS

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received:
Matrix: Water SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 1709532
Date Analyzed: 07/16/2019 18:35
Lab File ID: MSS1071619.B\M1071614.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	299	J
121-14-2	2,4-Dinitrotoluene	338	
87-68-3	Hexachloro-1,3-butadiene	304	
118-74-1	Hexachlorobenzene	317	
67-72-1	Hexachloroethane	337	
95-48-7	2-Methylphenol(o-Cresol)	472	J
	3&4-Methylphenol(m&p Cresol)	956	J
98-95-3	Nitrobenzene	423	
87-86-5	Pentachlorophenol	359	J
110-86-1	Pyridine	146	J
95-95-4	2,4,5-Trichlorophenol	429	J
88-06-2	2,4,6-Trichlorophenol	407	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d
Lab Smp Id: 1709532 Client Smp ID: MBLCS
Inj Date : 16-JUL-2019 18:35
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1709532
Misc Info : 14834
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

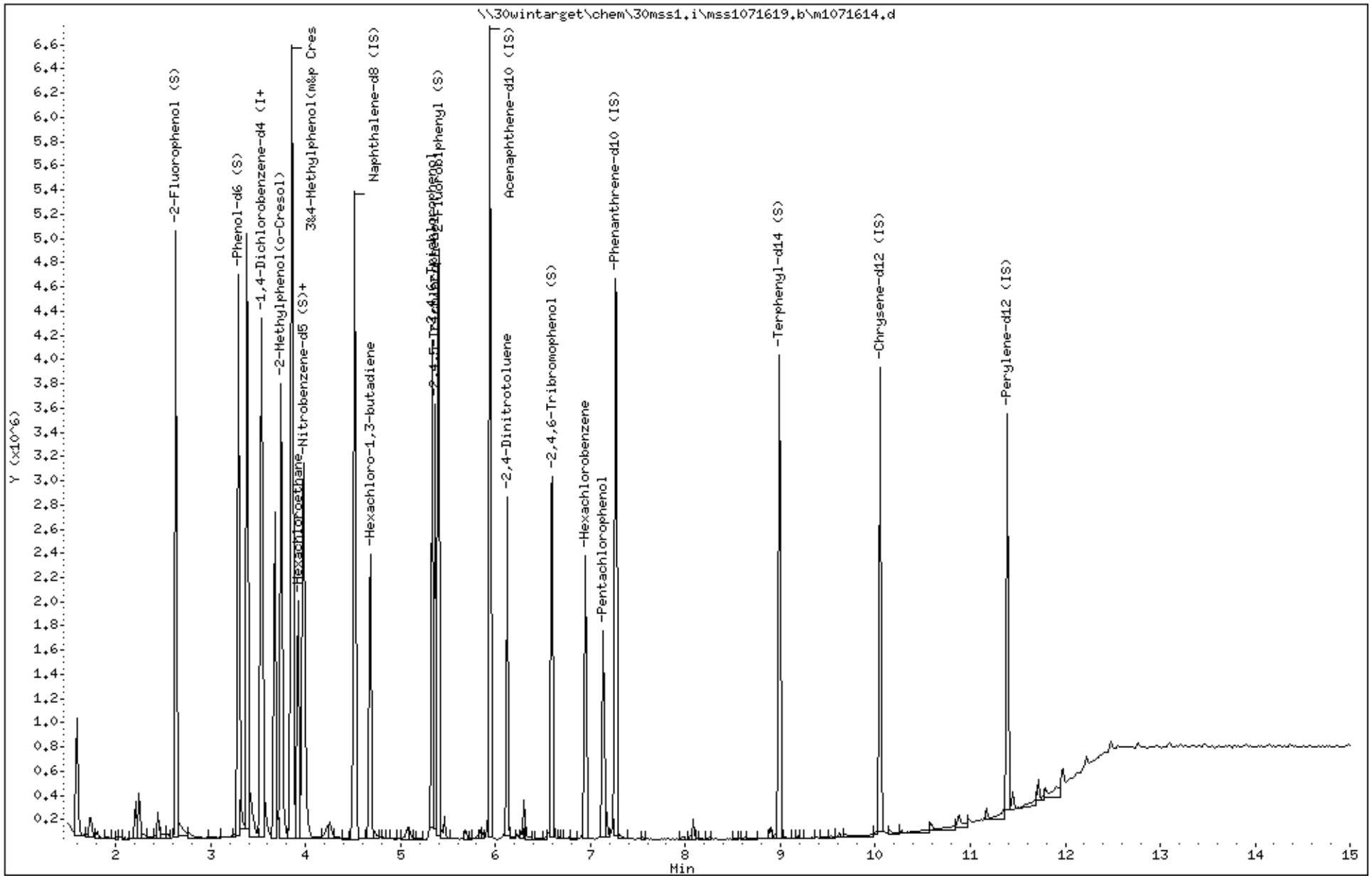
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	1.589	1.581	(0.450)	342118	1.46138	146	
$	3 2-Fluorophenol (S)	112	2.636	2.633	(0.747)	1117219	6.09109	609	
$	4 Phenol-d6 (S)	99	3.293	3.290	(0.933)	1339193	6.19585	620	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.528	3.525	(1.000)	553149	4.00000		
	12 1,4-Dichlorobenzene	146	3.539	3.541	(1.003)	685696	2.98775	299	
	15 2-Methylphenol(o-Cresol)	108	3.742	3.744	(1.061)	851536	4.72029	472	
	17 3&4-Methylphenol(m&p Cresol)	108	3.854	3.856	(1.092)	1708808	9.56253	956	
	20 Hexachloroethane	117	3.918	3.915	(1.111)	271624	3.36936	337	
$	21 Nitrobenzene-d5 (S)	128	3.972	3.968	(0.879)	411002	4.07891	408	
	22 Nitrobenzene	77	3.983	3.984	(0.882)	863539	4.23293	423	
*	30 Naphthalene-d8 (IS)	136	4.517	4.519	(1.000)	2449812	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	4.682	4.679	(1.037)	295987	3.03649	304	
	40 2,4,6-Trichlorophenol	196	5.334	5.336	(0.898)	496719	4.06628	407	
	41 2,4,5-Trichlorophenol	196	5.361	5.363	(0.902)	468184	4.28927	429	
$	42 2-Fluorobiphenyl (S)	172	5.398	5.395	(0.908)	1466421	3.78704	379	
*	50 Acenaphthene-d10 (IS)	164	5.943	5.945	(1.000)	1269005	4.00000		
	54 2,4-Dinitrotoluene	165	6.125	6.127	(1.031)	411341	3.37619	338	
$	65 2,4,6-Tribromophenol (S)	330	6.595	6.597	(0.908)	317705	6.42379	642	
	67 Hexachlorobenzene	284	6.947	6.949	(0.957)	312442	3.16960	317	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	7.134	7.136	(0.982)	205137	3.59144	359	
* 70 Phenanthrene-d10 (IS)	188	7.263	7.265	(1.000)	1832907	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.988	8.990	(0.894)	1198696	3.81520	382	
* 82 Chrysene-d12 (IS)	240	10.051	10.053	(1.000)	1349554	4.00000		
* 88 Perylene-d12 (IS)	264	11.387	11.389	(1.000)	1250485	4.00000		

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d
Date : 16-JUL-2019 18:35
Client ID: MBLCS
Instrument: 30mss1.i
Sample Info: 1709532
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

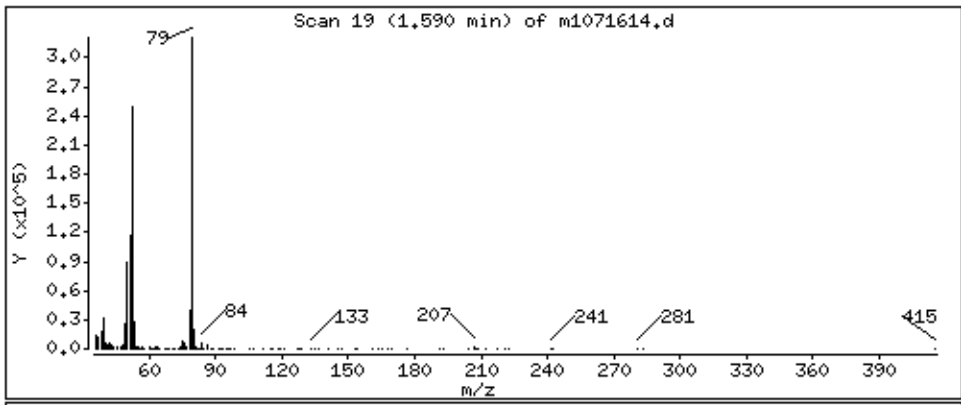
Operator: EAC

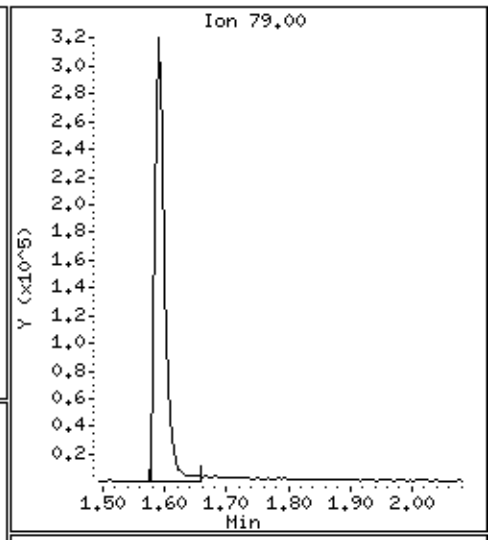
Column phase: RTX-5MS

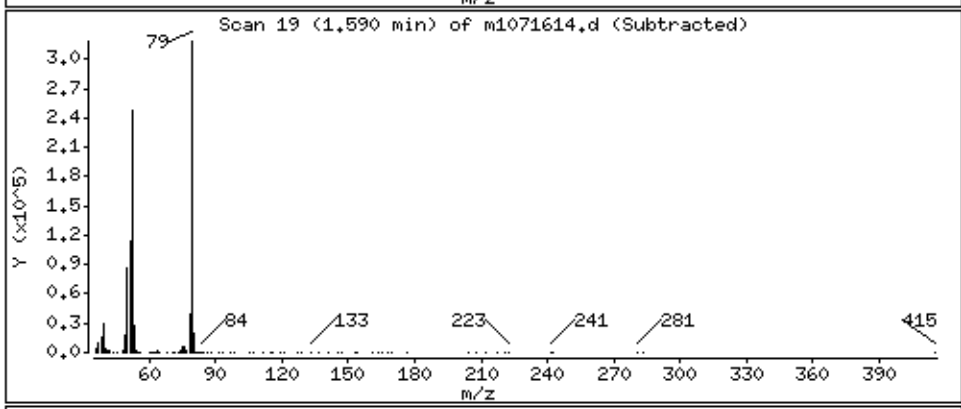
Column diameter: 0.18

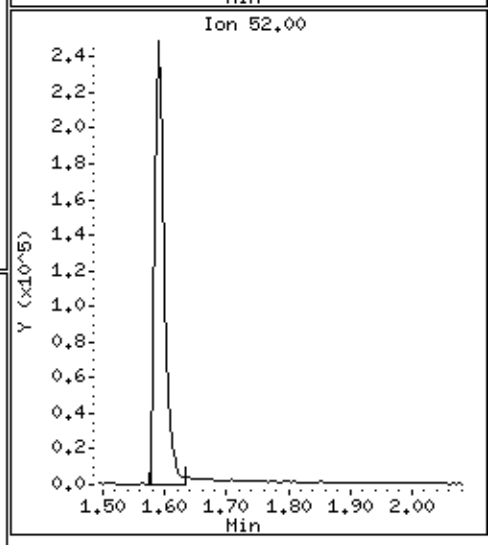
2 Pyridine

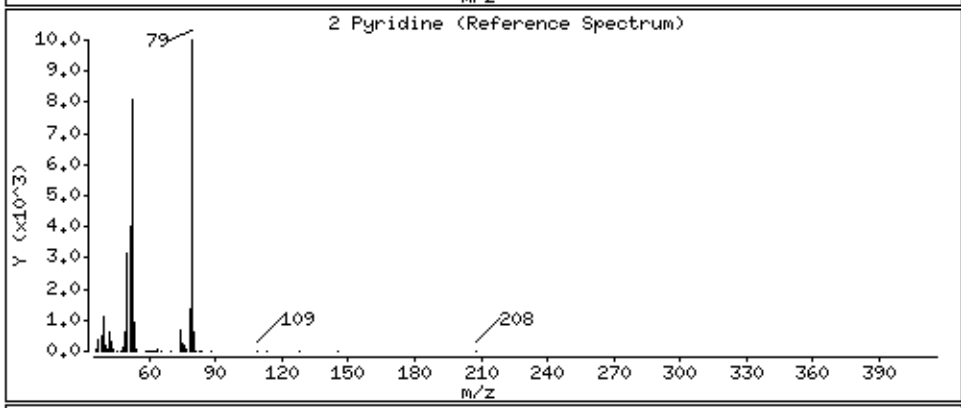
Concentration: 146 ug/L

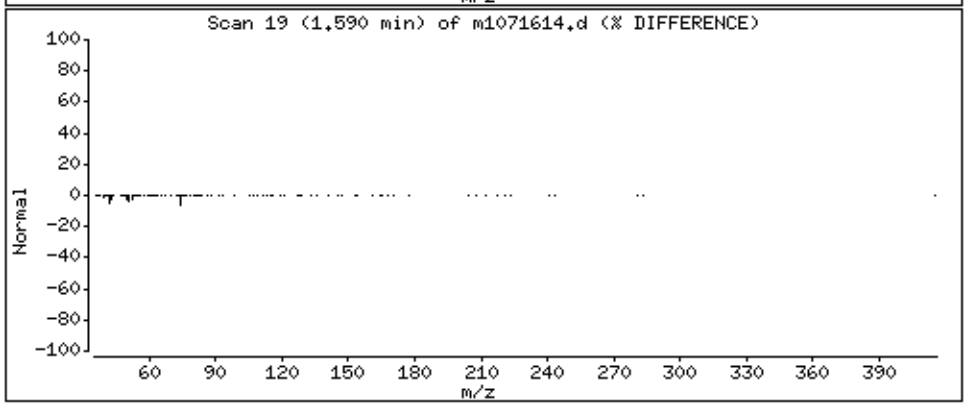












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

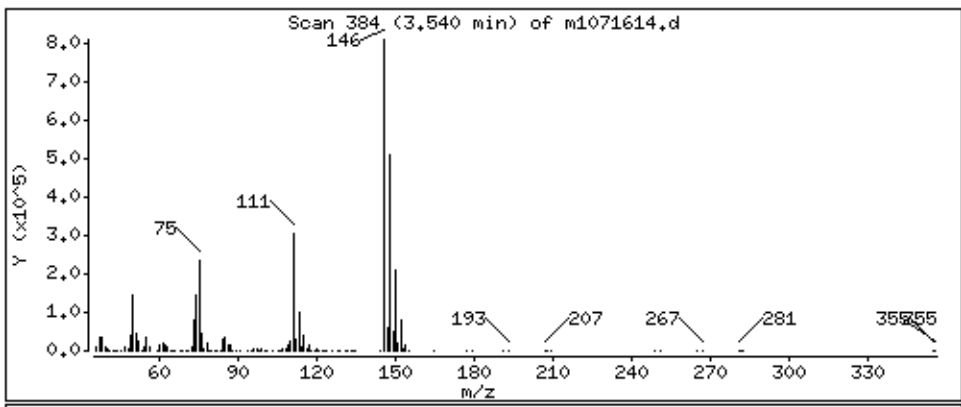
Operator: EAC

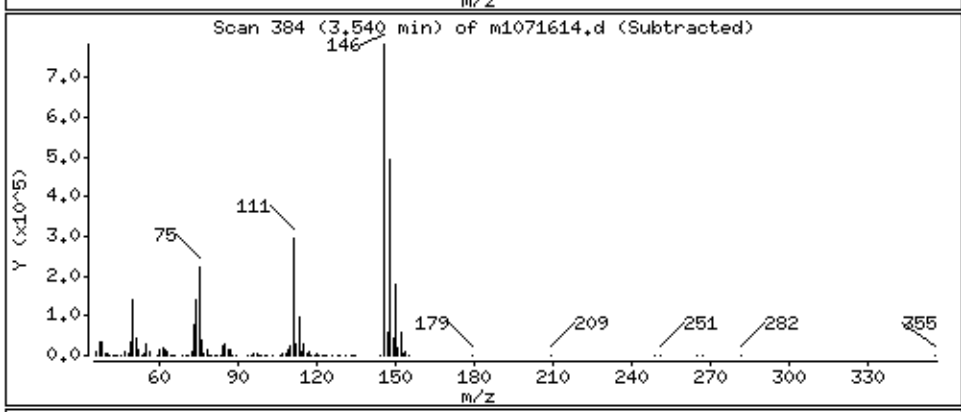
Column phase: RTX-5MS

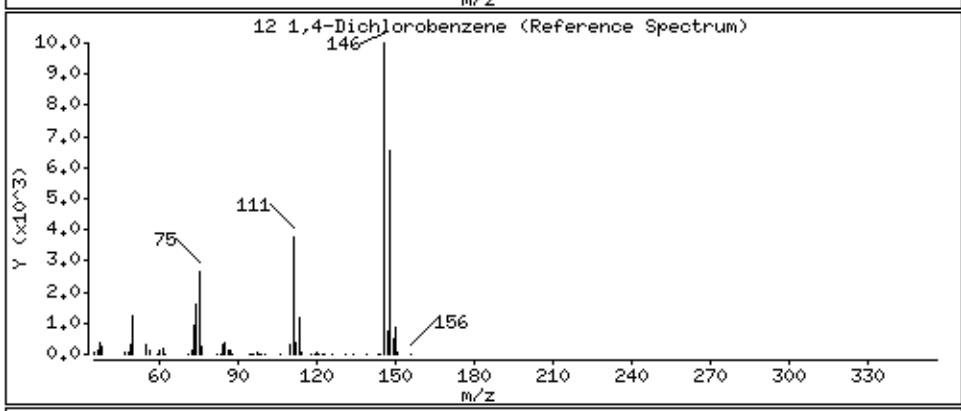
Column diameter: 0.18

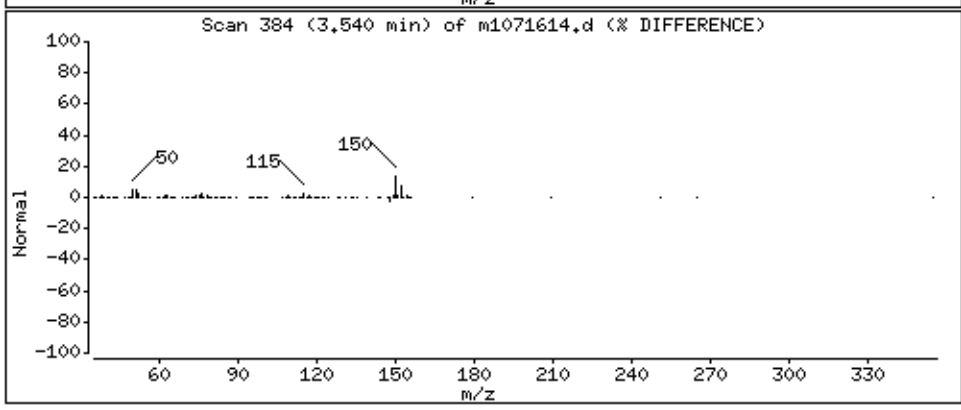
12 1,4-Dichlorobenzene

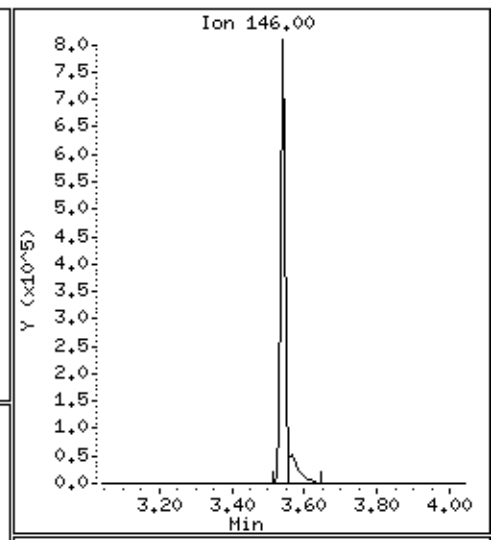
Concentration: 299 ug/L

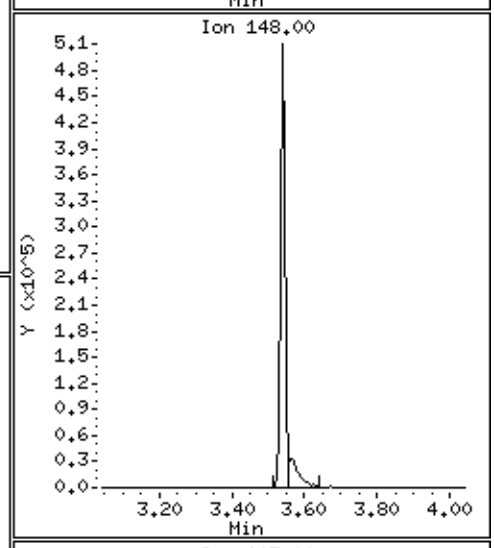


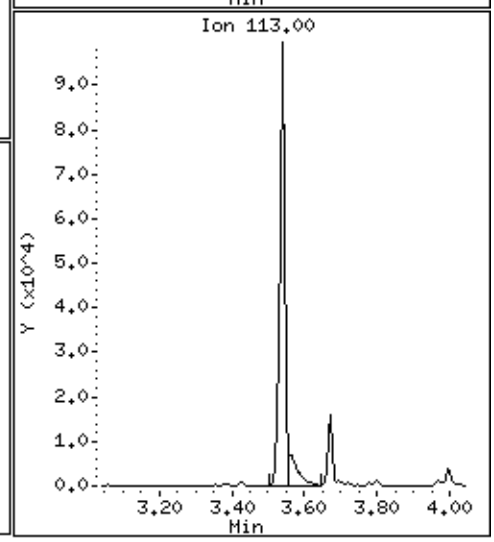












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

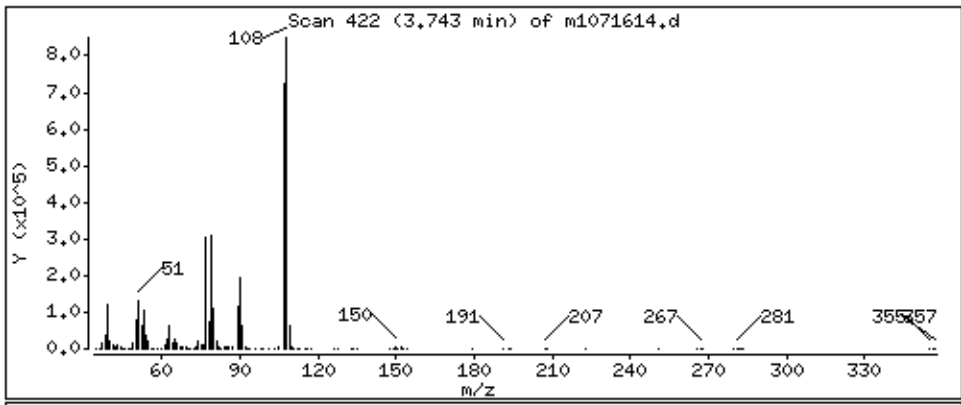
Operator: EAC

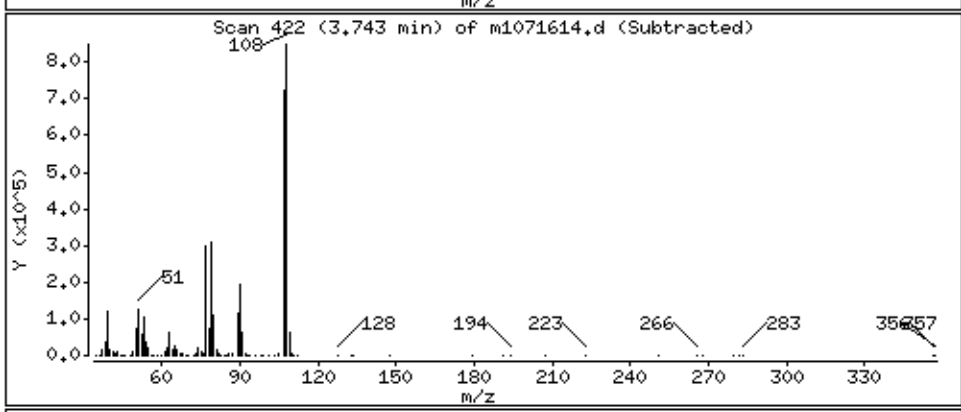
Column phase: RTX-5MS

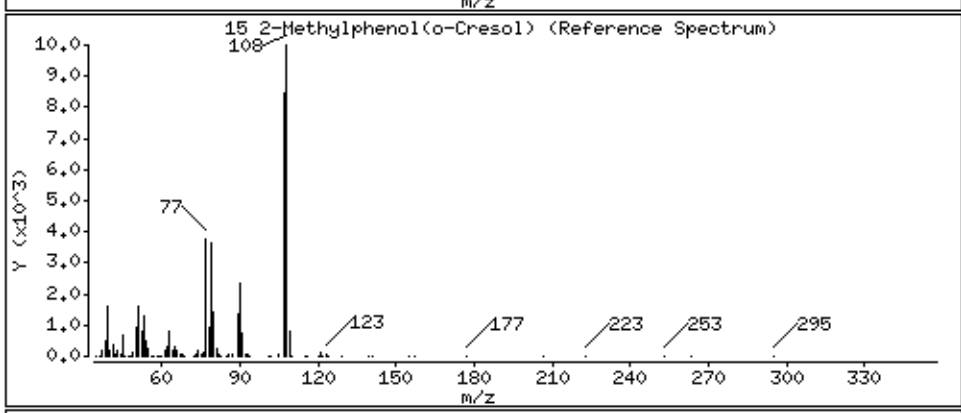
Column diameter: 0.18

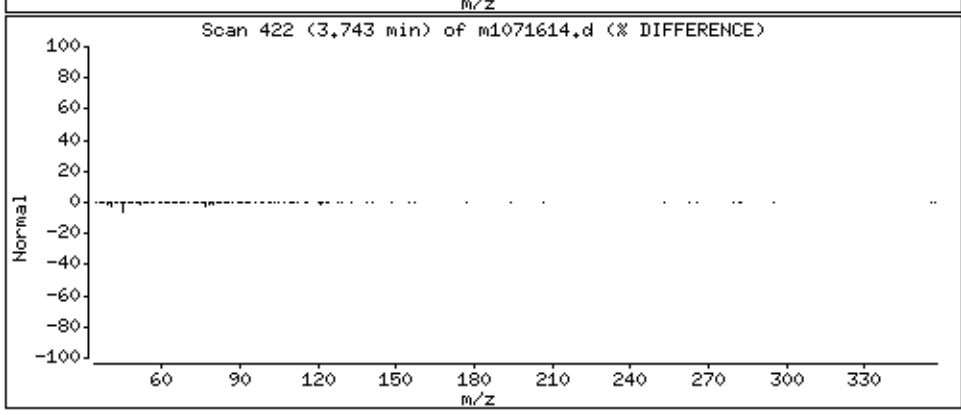
15 2-Methylphenol(o-Cresol)

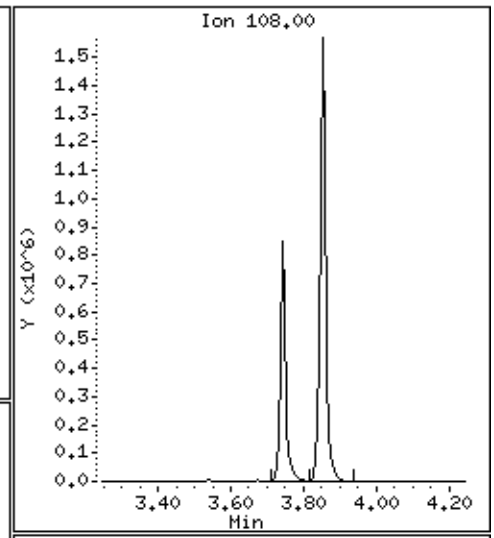
Concentration: 472 ug/L

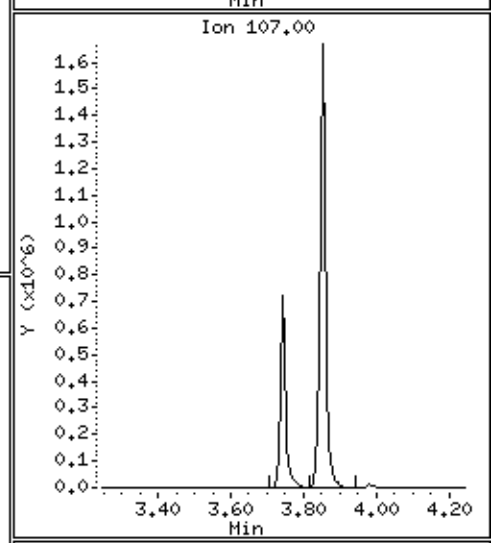


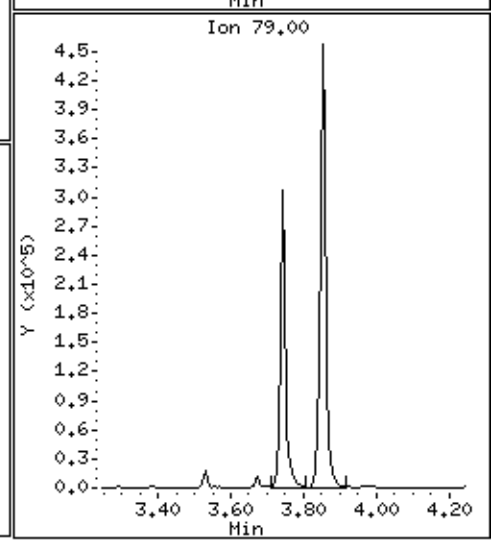












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Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

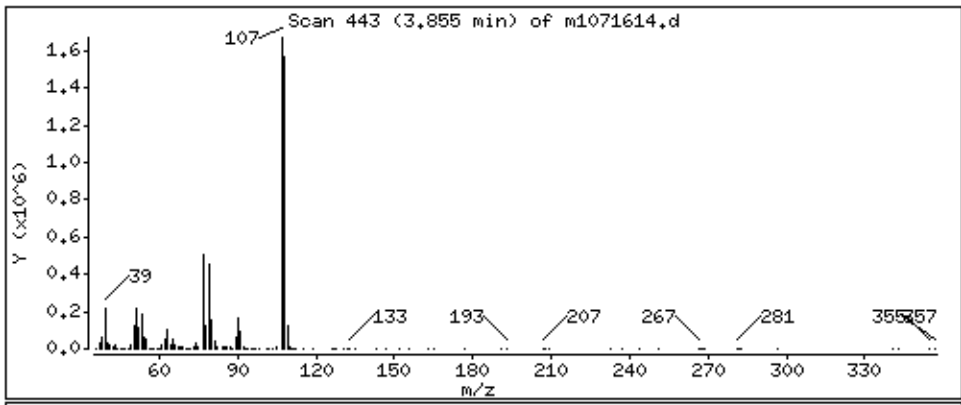
Operator: EAC

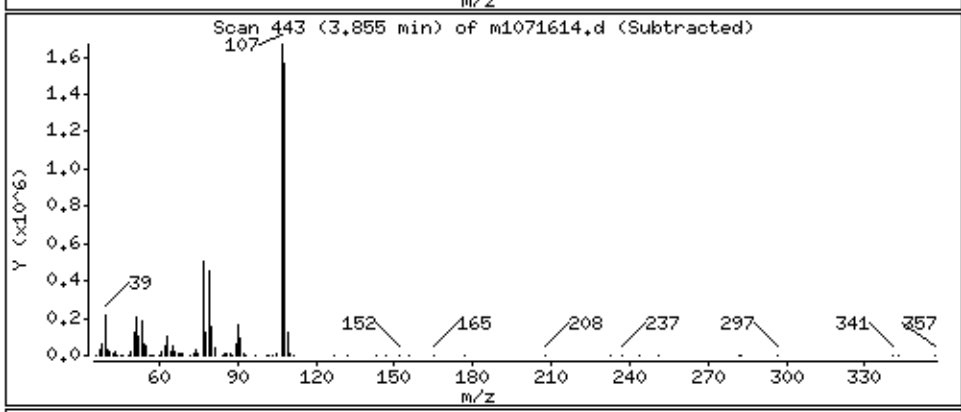
Column phase: RTX-5MS

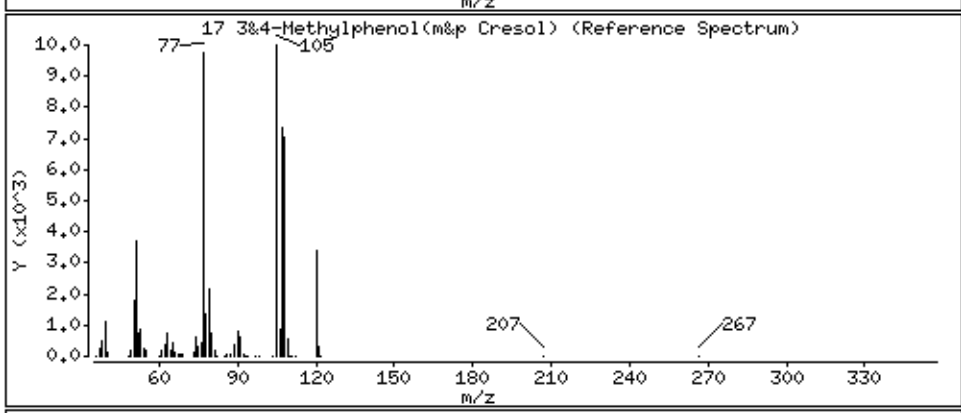
Column diameter: 0.18

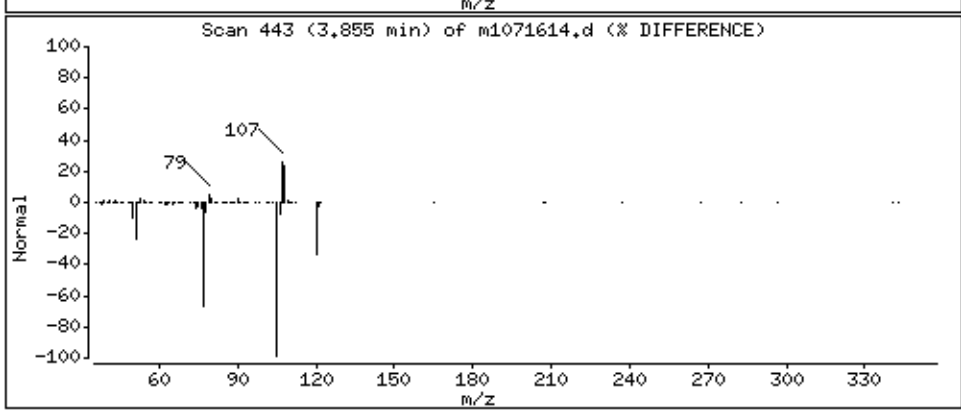
17 3&4-Methylphenol(m&p Cresol)

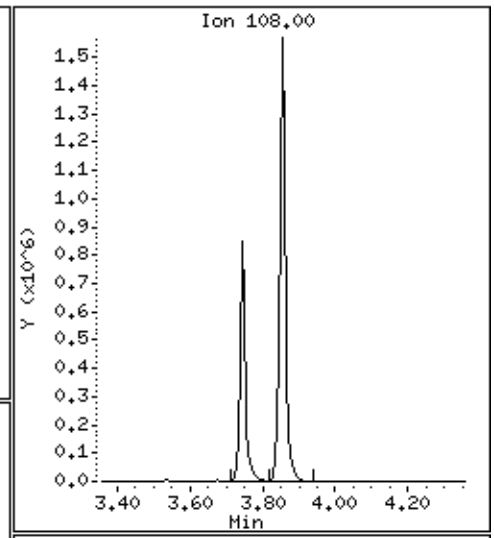
Concentration: 956 ug/L

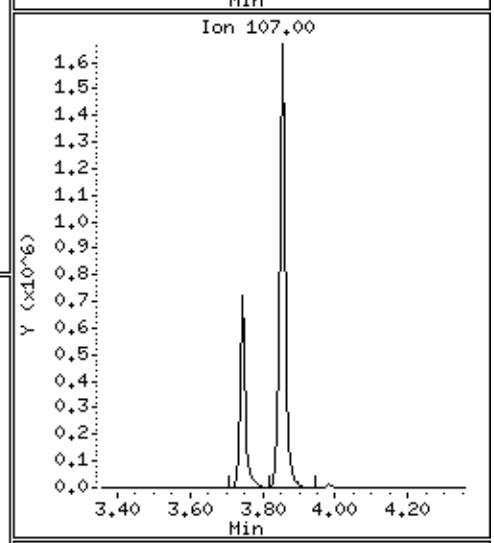


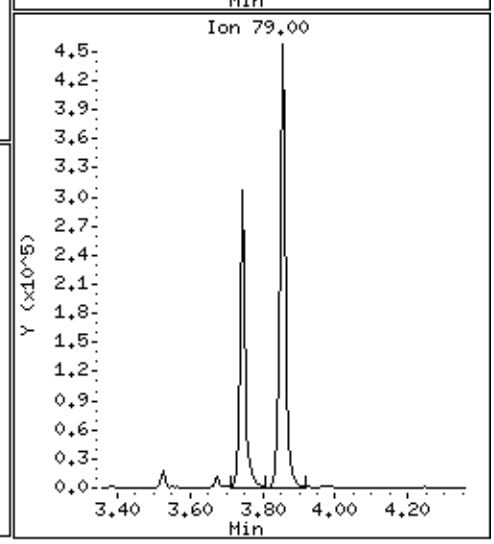












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Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

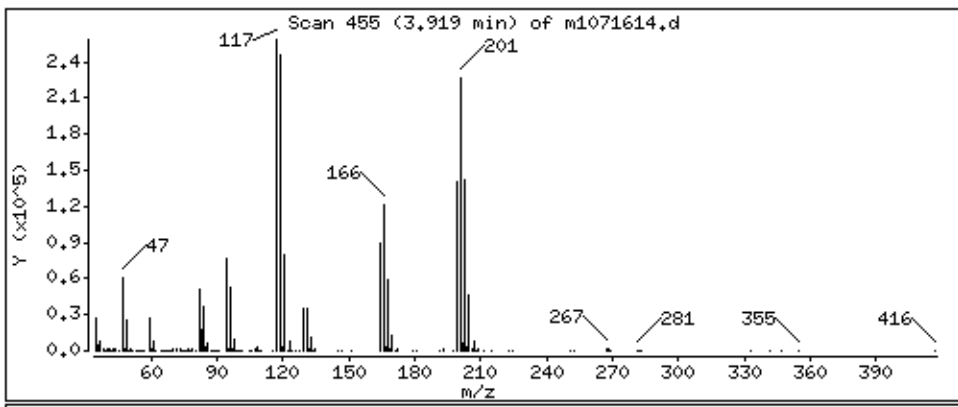
Operator: EAC

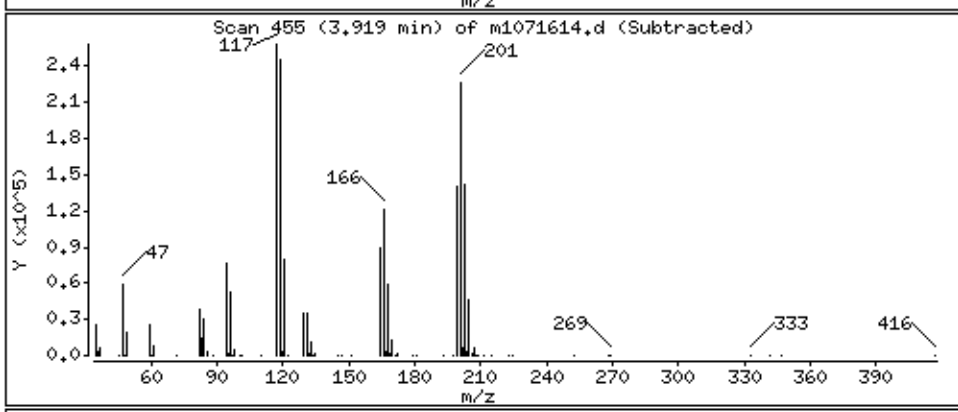
Column phase: RTX-5MS

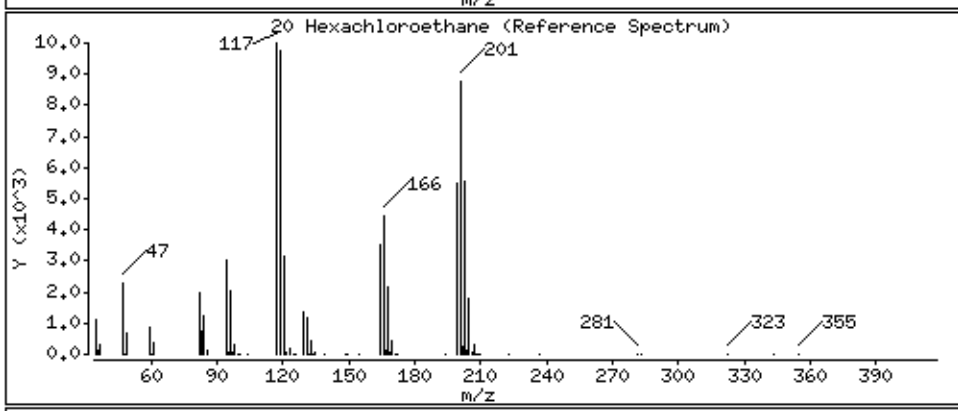
Column diameter: 0.18

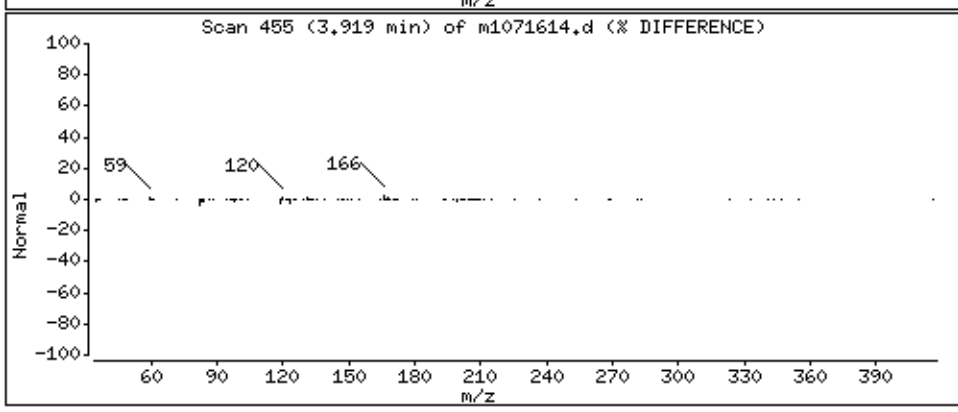
20 Hexachloroethane

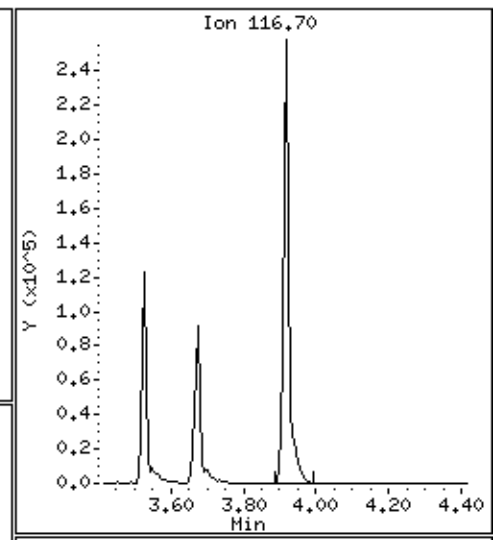
Concentration: 337 ug/L

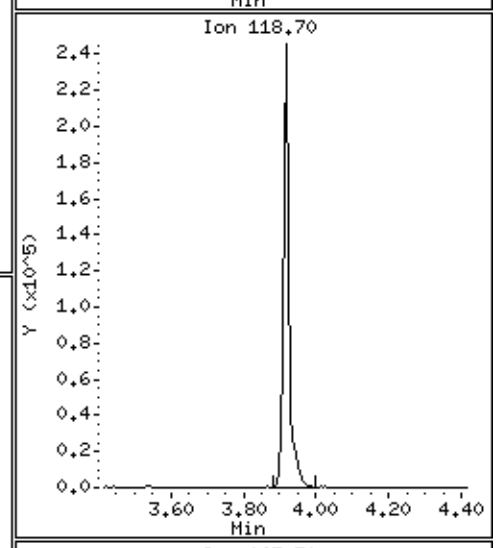


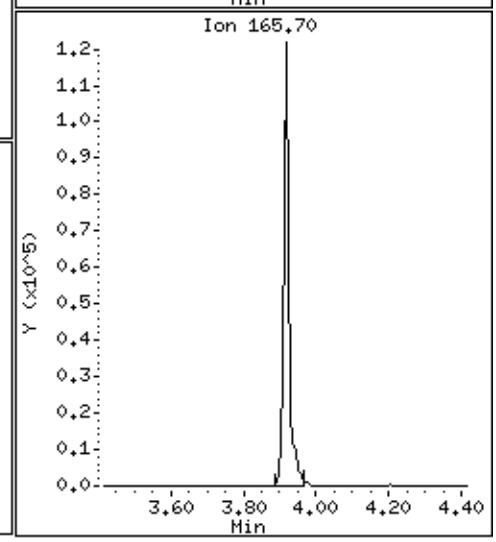












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

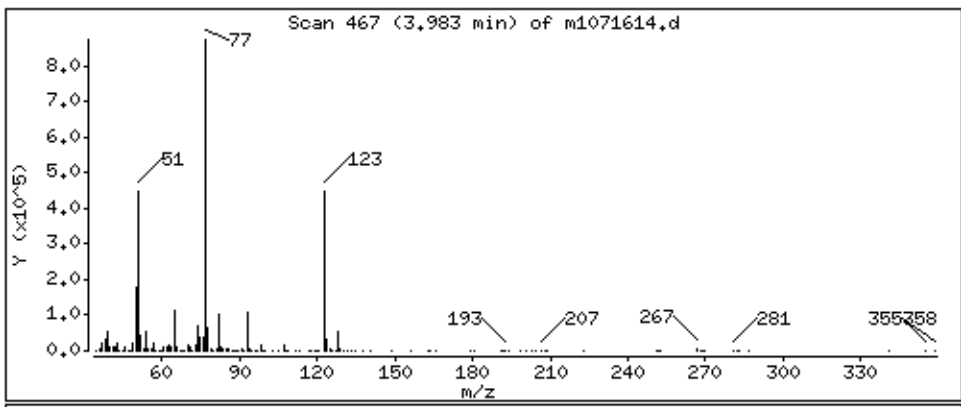
Operator: EAC

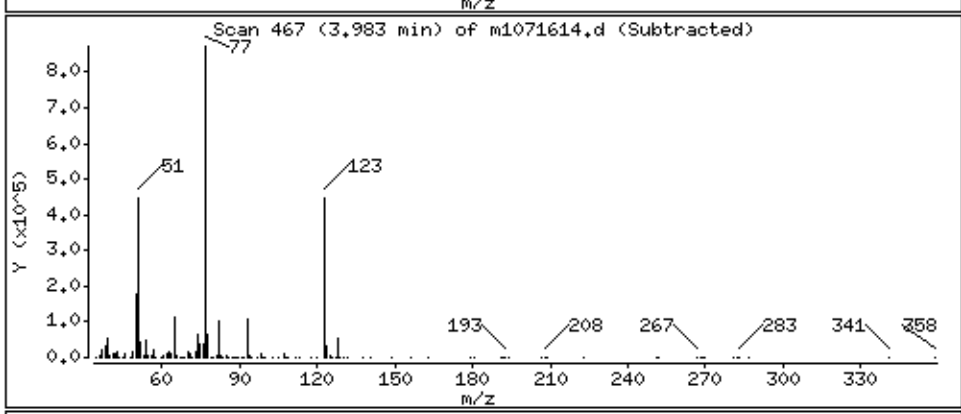
Column phase: RTX-5MS

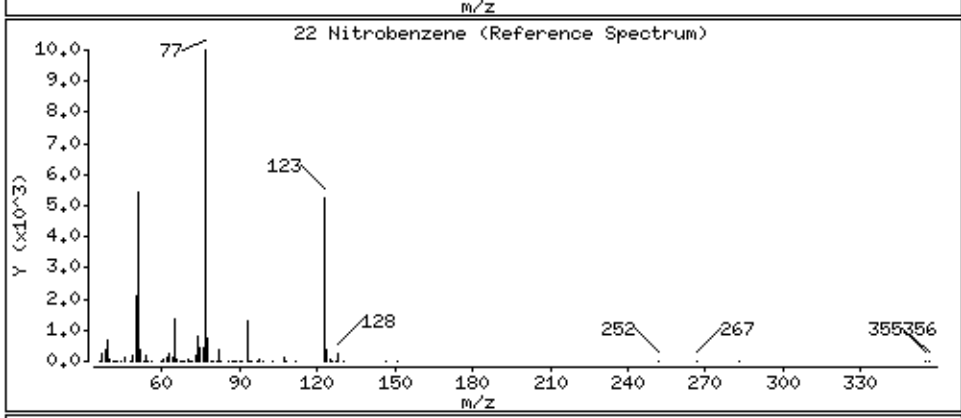
Column diameter: 0.18

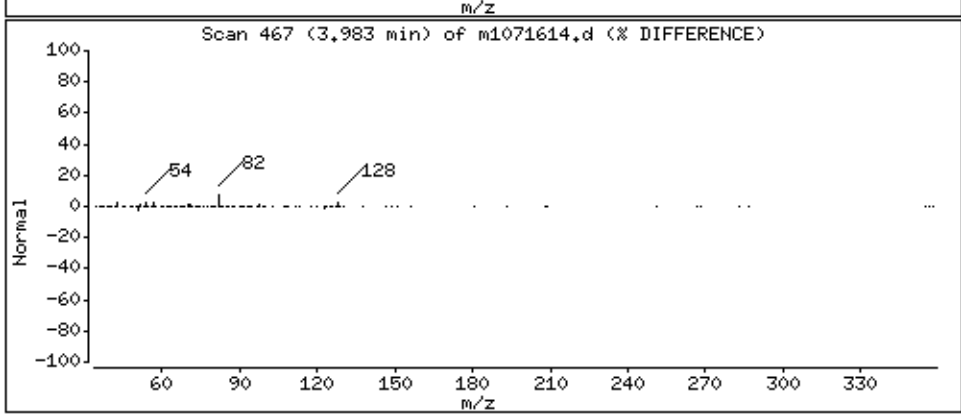
22 Nitrobenzene

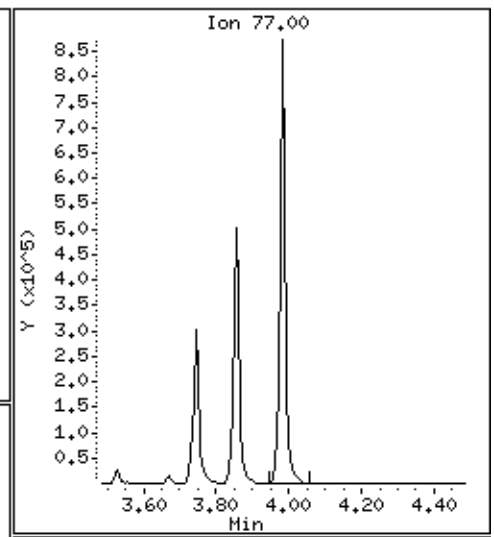
Concentration: 423 ug/L

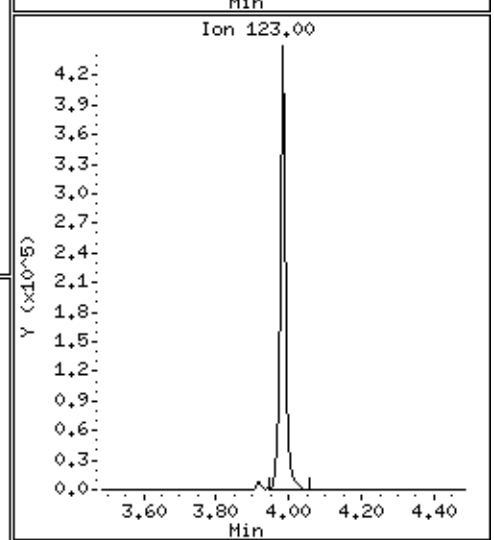


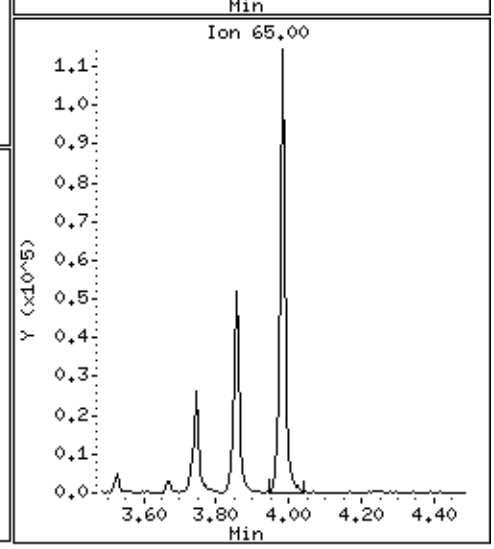












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

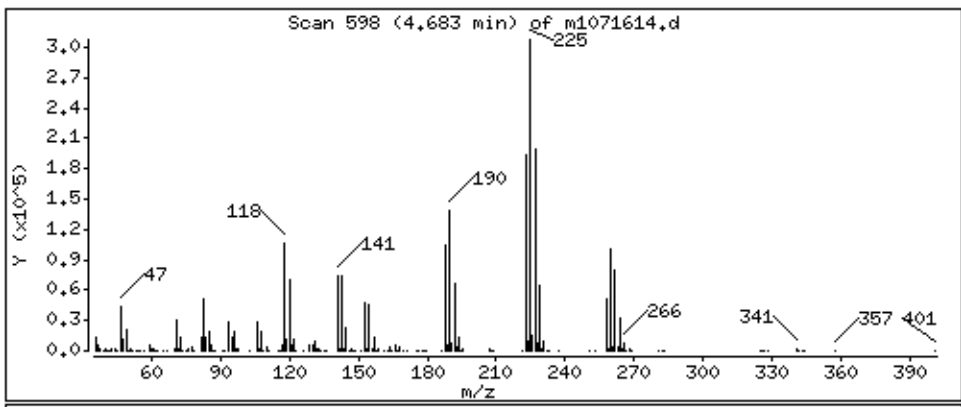
Operator: EAC

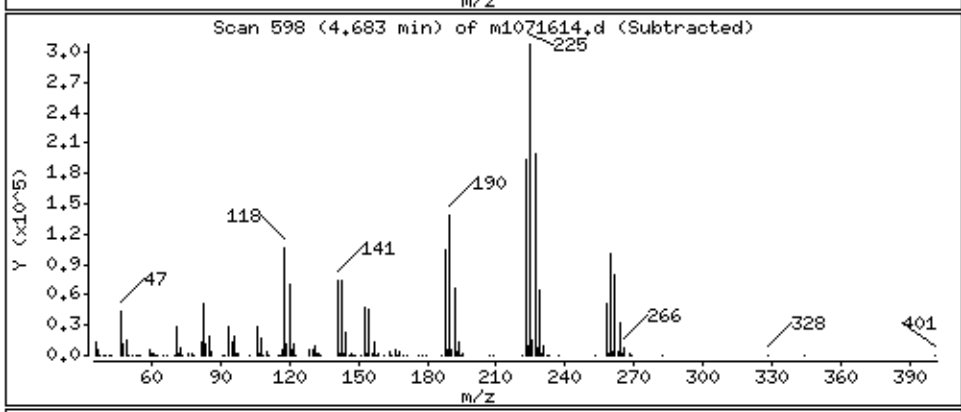
Column phase: RTX-5MS

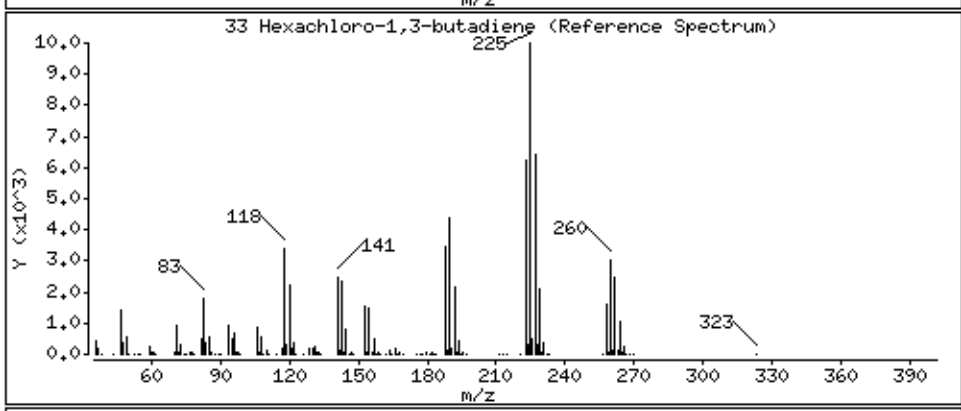
Column diameter: 0.18

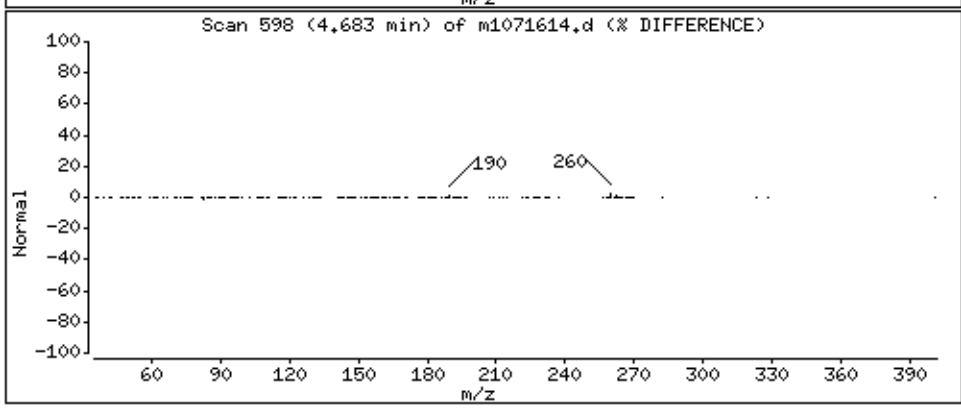
33 Hexachloro-1,3-butadiene

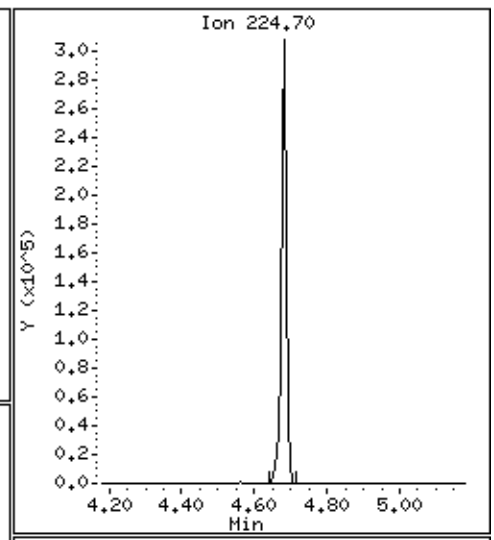
Concentration: 304 ug/L

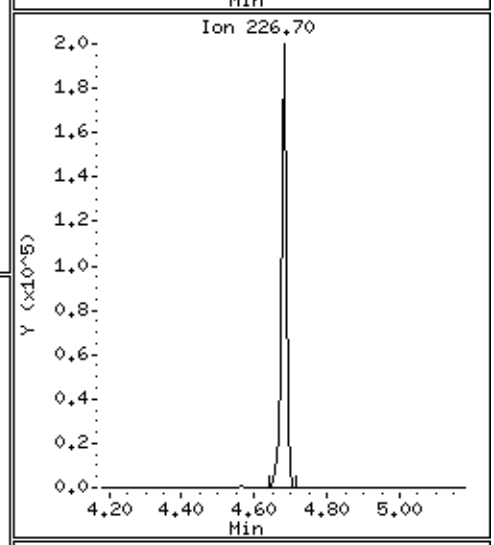


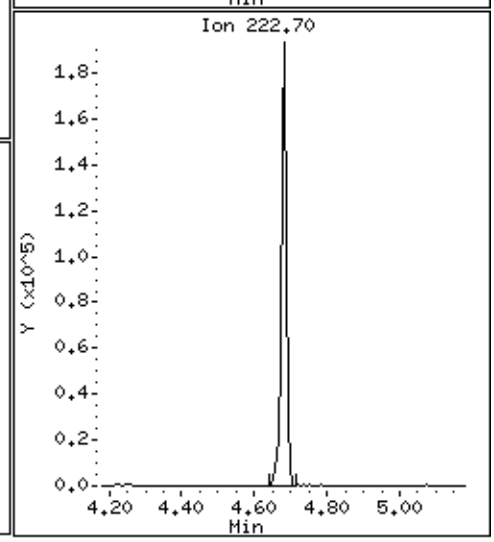












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

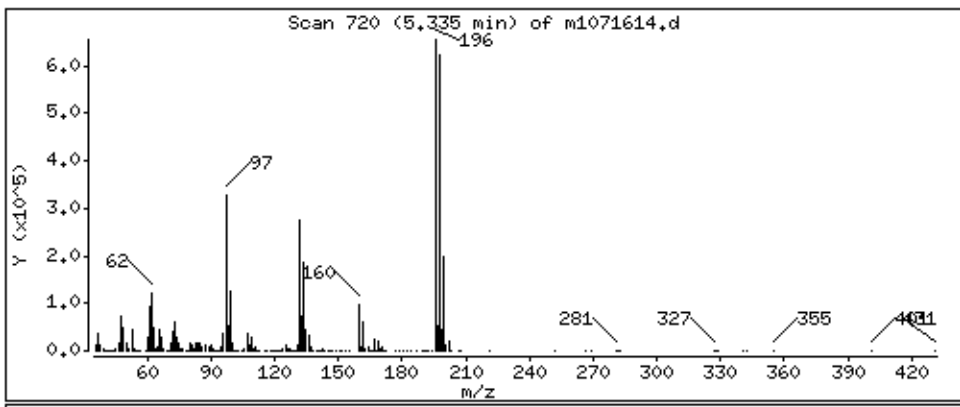
Operator: EAC

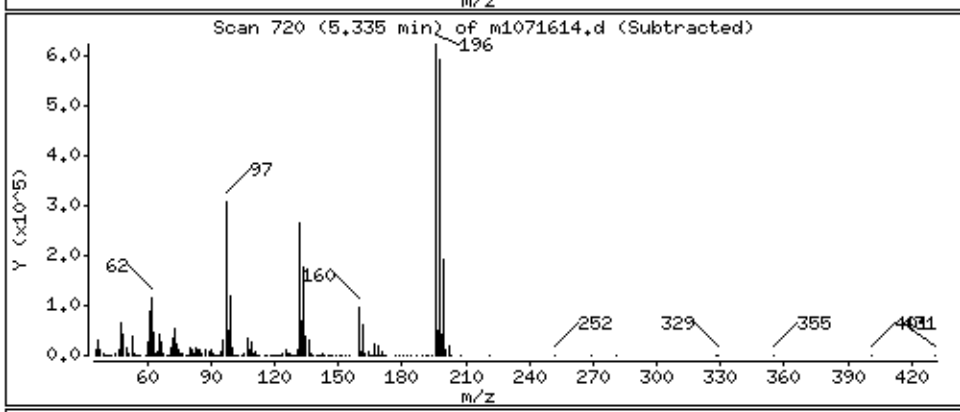
Column phase: RTX-5MS

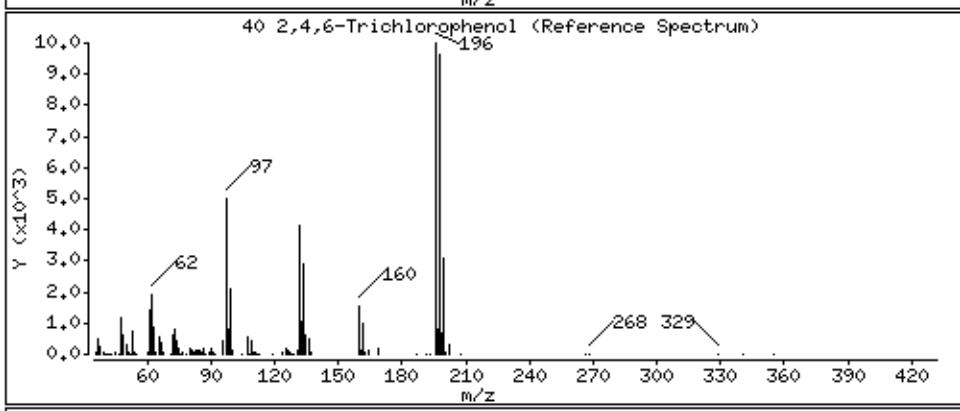
Column diameter: 0.18

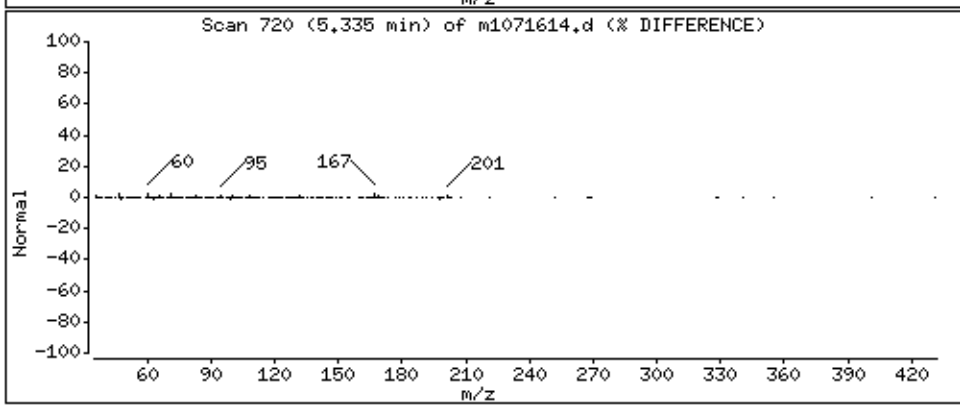
40 2,4,6-Trichlorophenol

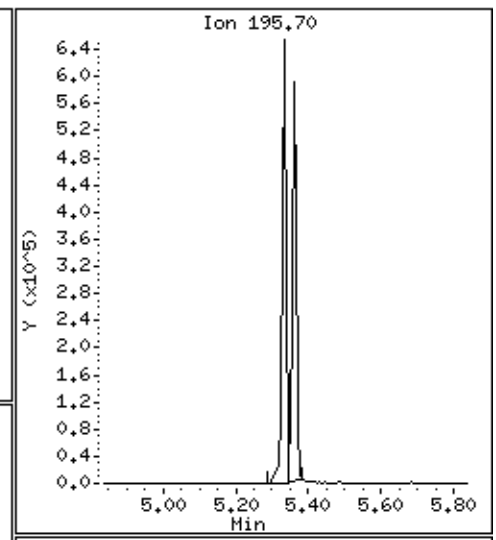
Concentration: 407 ug/L

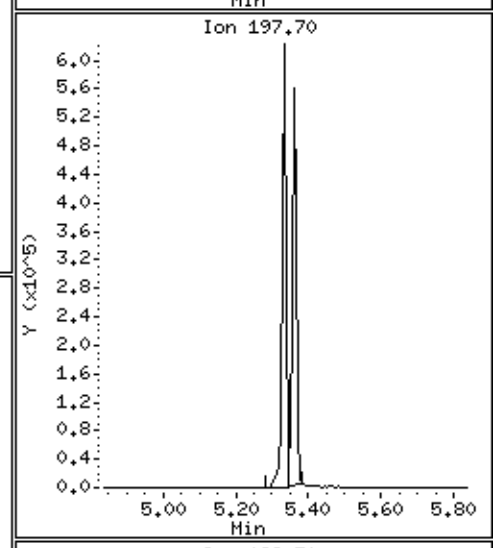


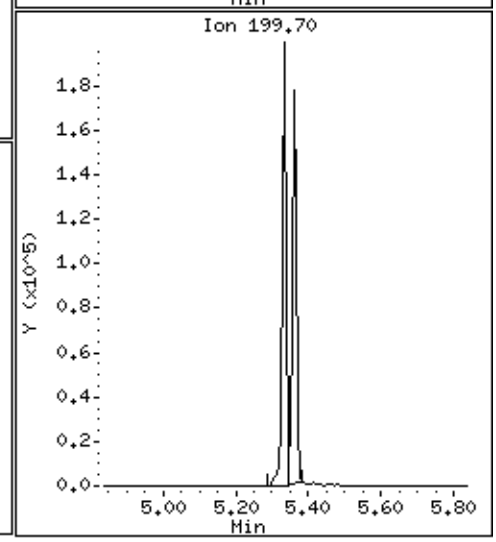












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

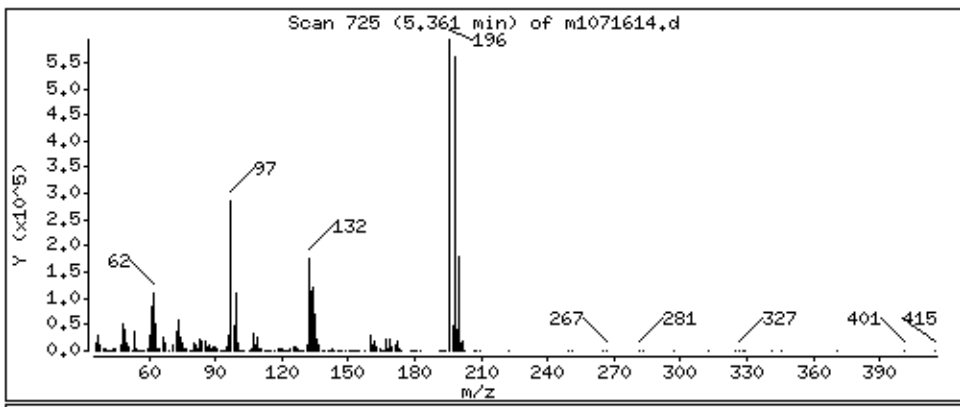
Operator: EAC

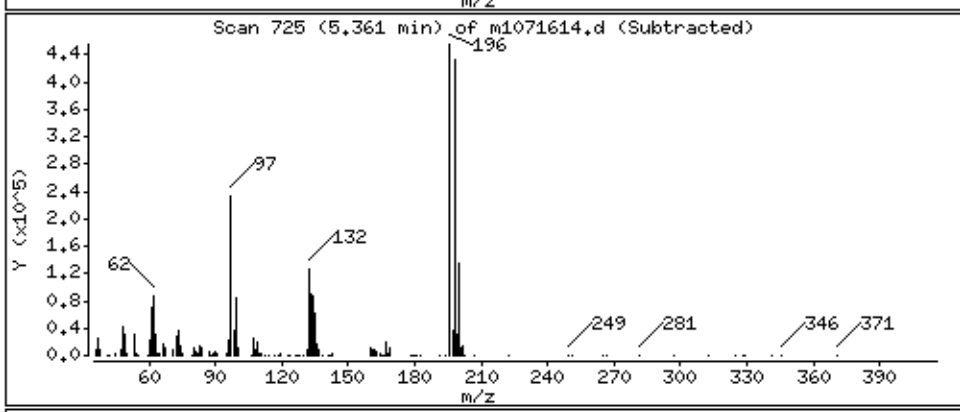
Column phase: RTX-5MS

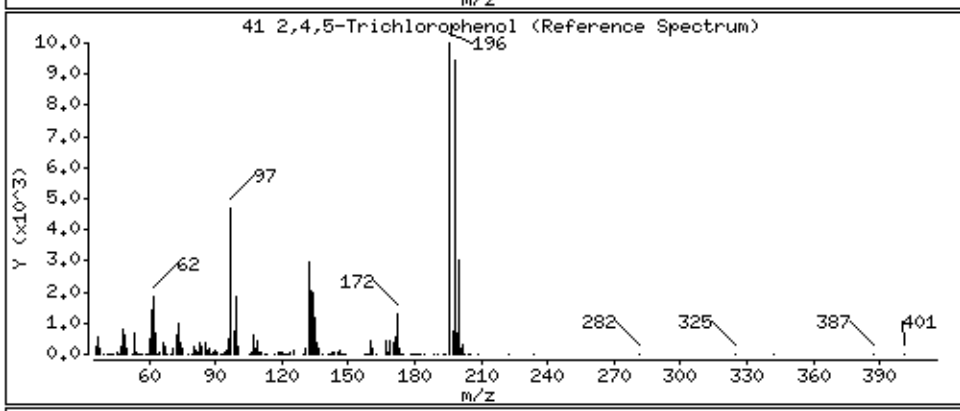
Column diameter: 0.18

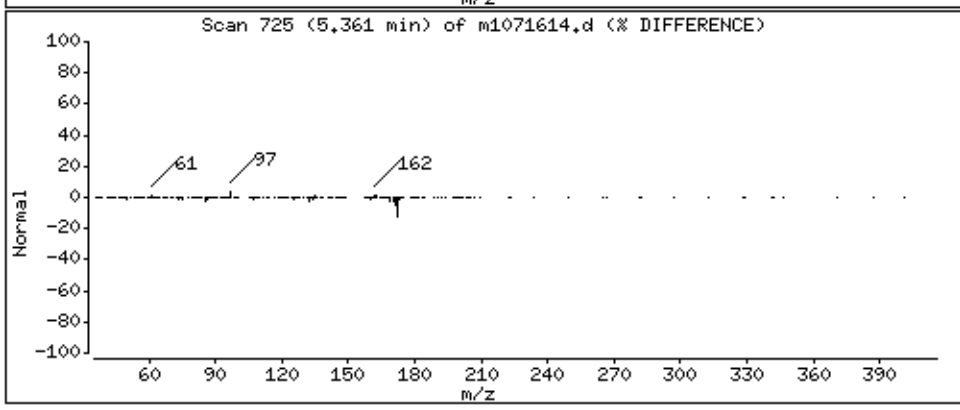
41 2,4,5-Trichlorophenol

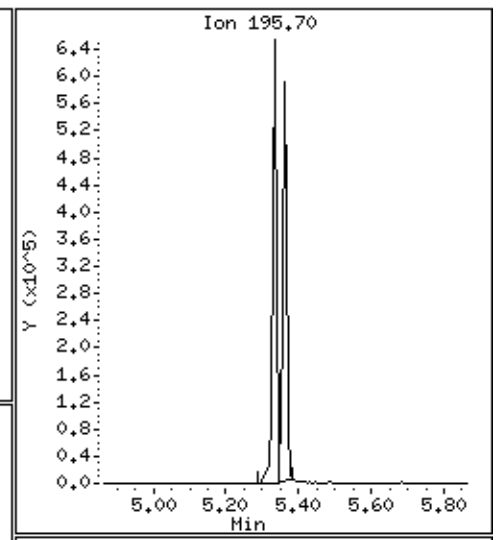
Concentration: 429 ug/L

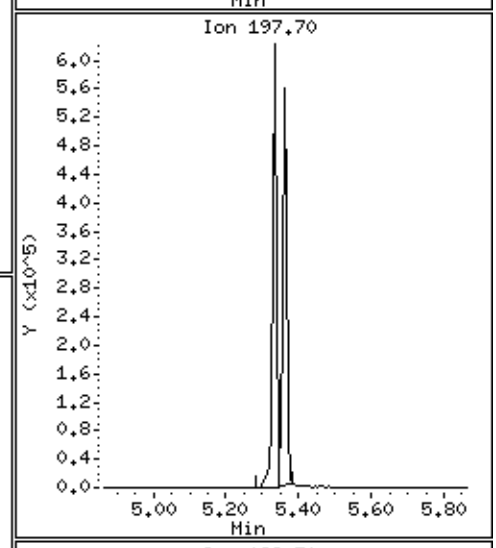


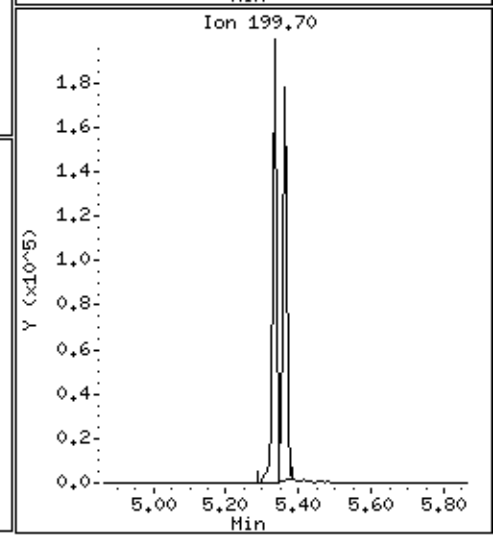












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

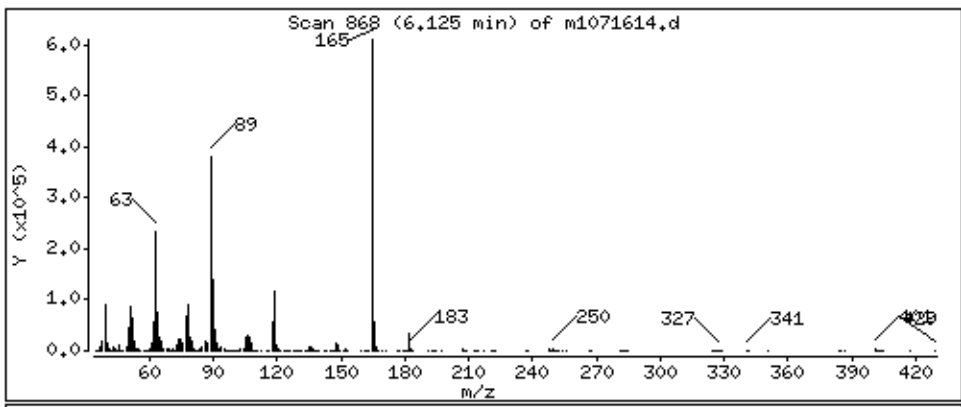
Operator: EAC

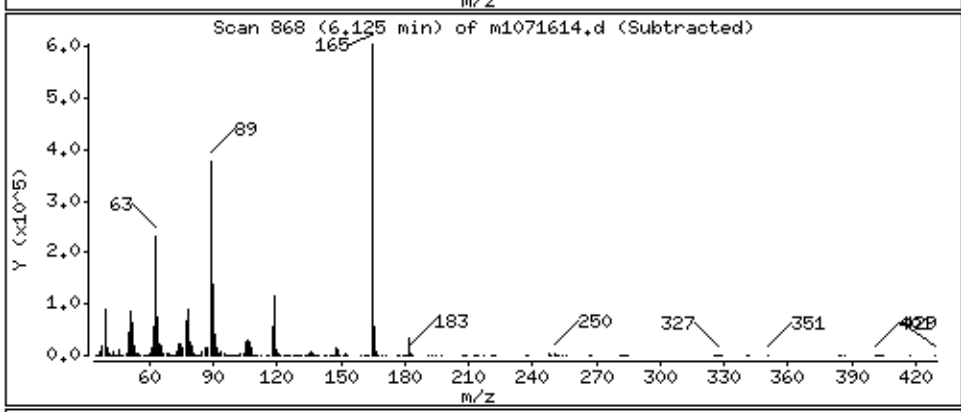
Column phase: RTX-5MS

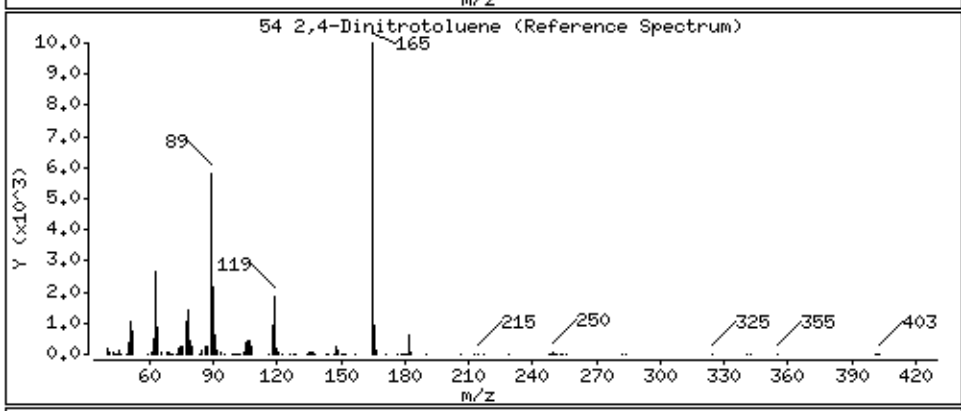
Column diameter: 0.18

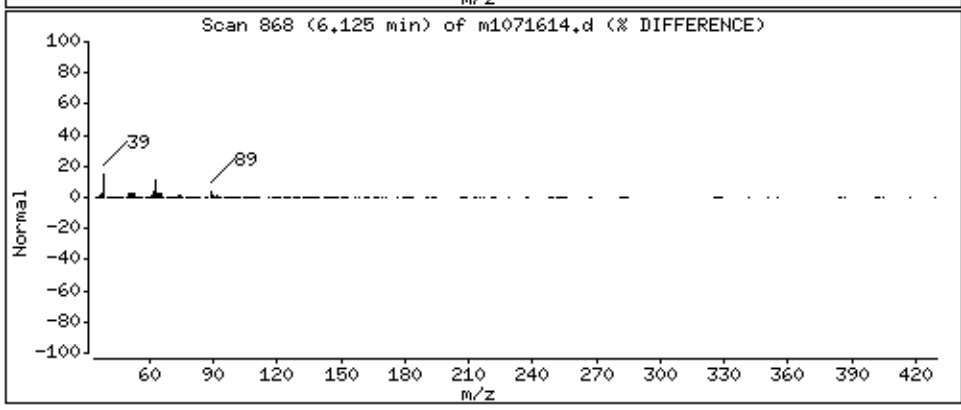
54 2,4-Dinitrotoluene

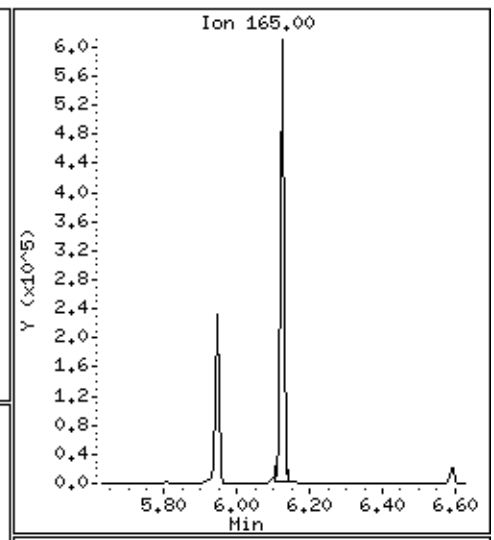
Concentration: 338 ug/L

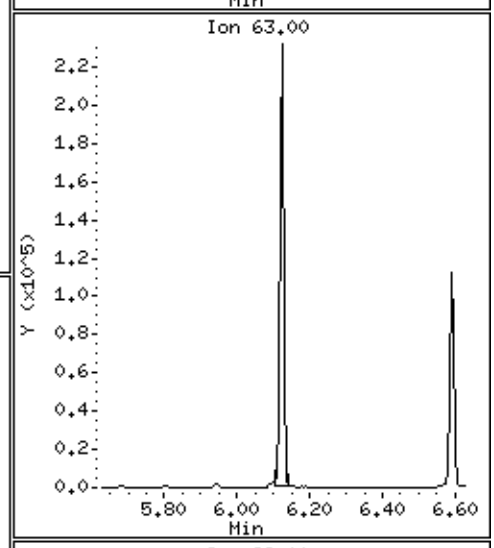


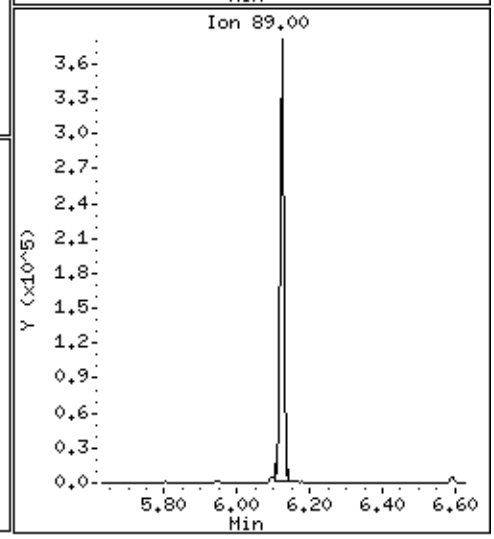












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

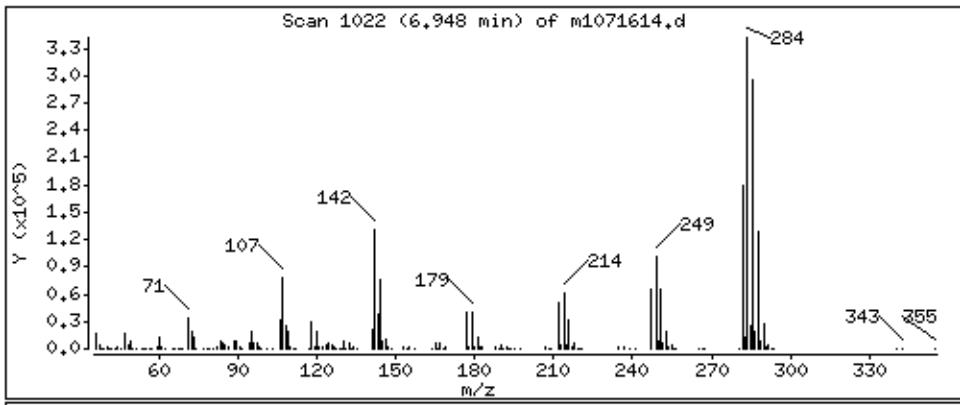
Operator: EAC

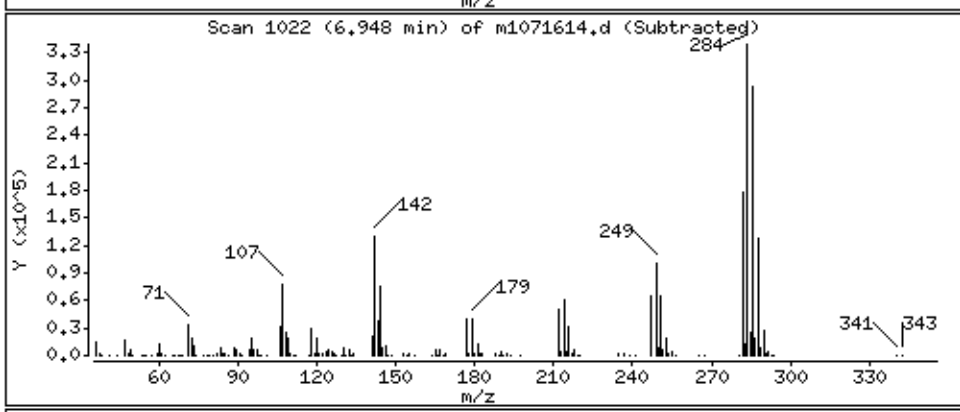
Column phase: RTX-5MS

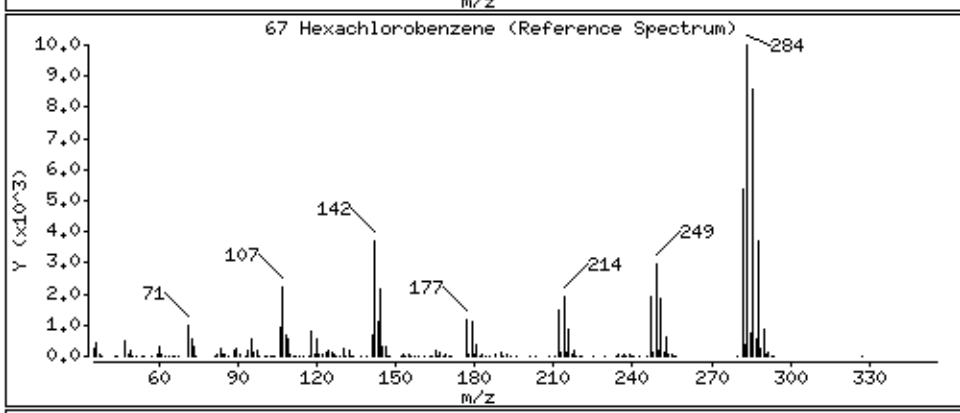
Column diameter: 0.18

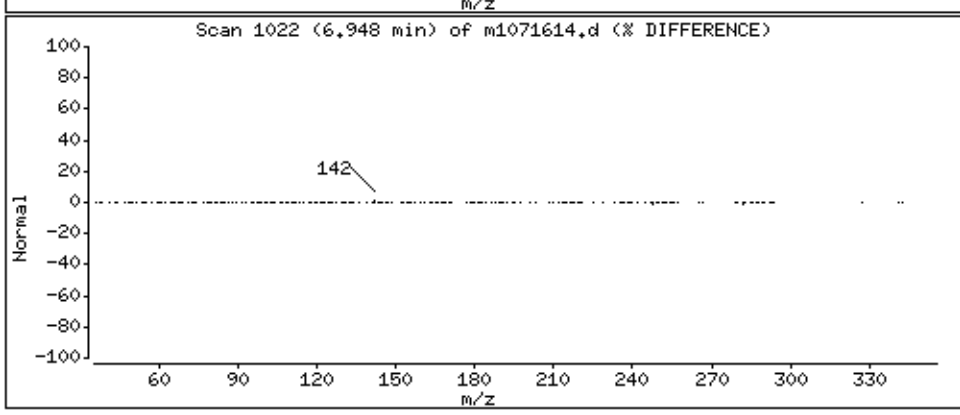
67 Hexachlorobenzene

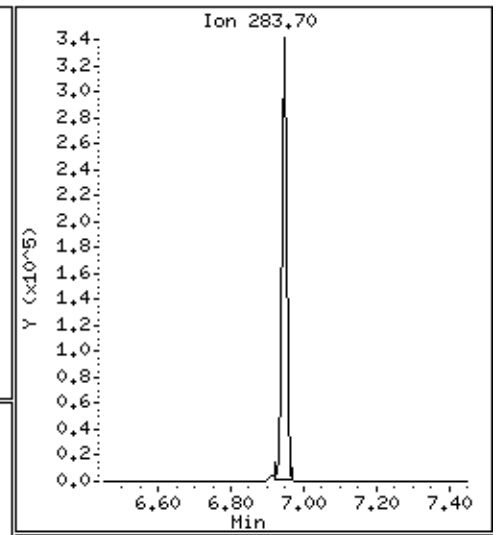
Concentration: 317 ug/L

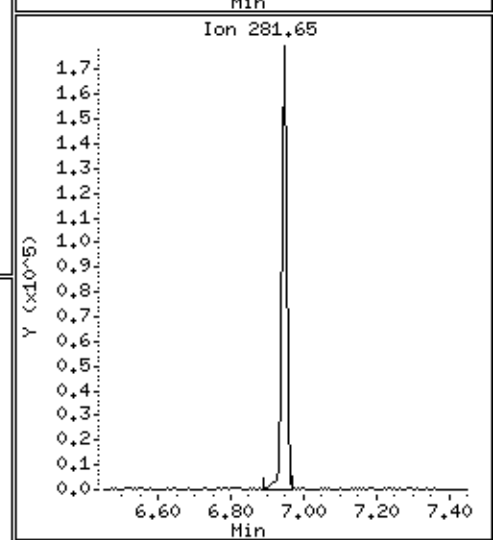


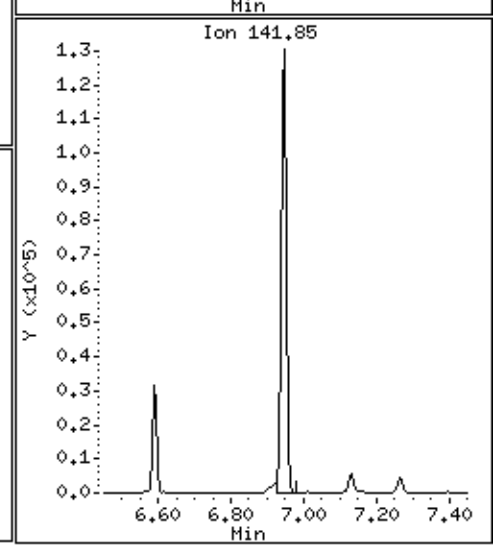












Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071614.d

Date : 16-JUL-2019 18:35

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1709532

Volume Injected (uL): 1.0

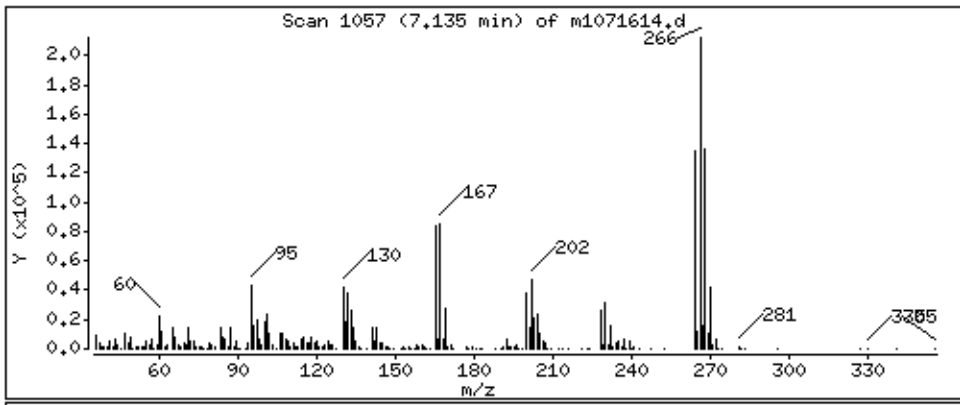
Operator: EAC

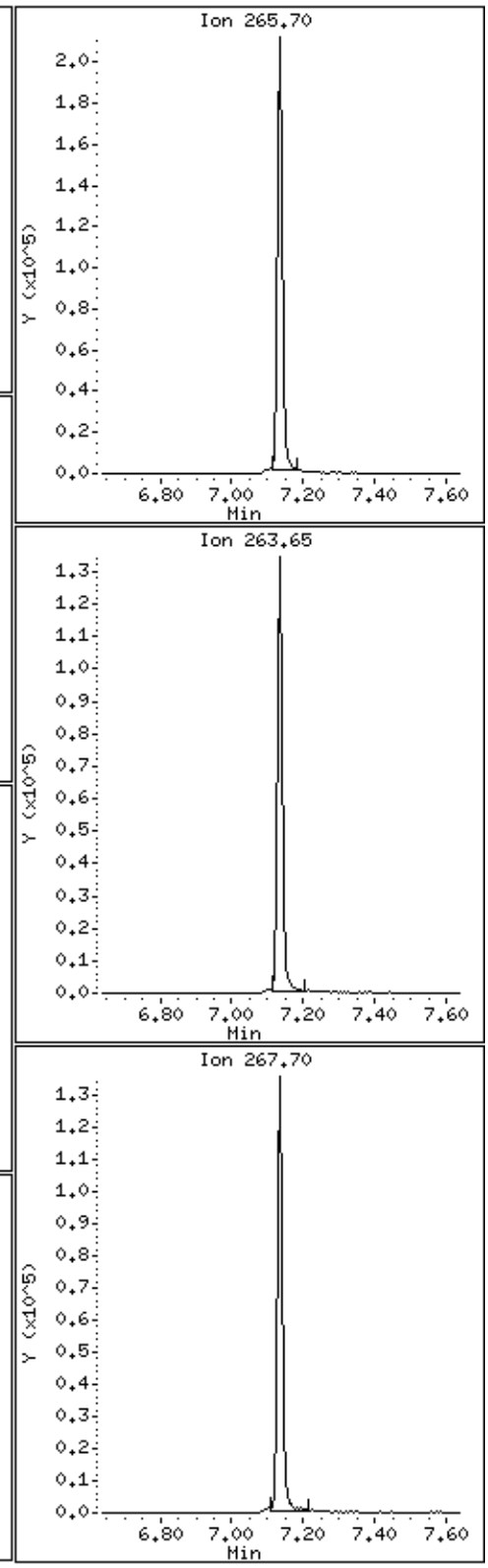
Column phase: RTX-5MS

Column diameter: 0.18

69 Pentachlorophenol

Concentration: 359 ug/L





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Injection Date: 16-JUL-2019 18:35
Instrument: 30mss1.i
Lab Sample ID: 1709532
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 11:36
Matrix: Water SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 1707039
Date Analyzed: 07/16/2019 17:27
Lab File ID: MSS1071619.B\M1071611.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071611.d
Lab Smp Id: 1707039 Client Smp ID: LB for HBN 351297 [
Inj Date : 16-JUL-2019 17:27
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1707039
Misc Info : 14834
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.633	2.633	(0.747)	1197704	6.09503	610	
$	4 Phenol-d6 (S)	99	3.290	3.290	(0.933)	1464992	6.32650	633	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.525	3.525	(1.000)	592614	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						(D)
$	21 Nitrobenzene-d5 (S)	128	3.968	3.968	(0.878)	425333	4.31106	431	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.518	4.519	(1.000)	2398709	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.395	5.395	(0.907)	1509042	3.80909	381	
*	50 Acenaphthene-d10 (IS)	164	5.945	5.945	(1.000)	1298327	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						
$	65 2,4,6-Tribromophenol (S)	330	6.597	6.597	(0.908)	366567	6.44565	644	
	67 Hexachlorobenzene	284	Compound Not Detected.						
	69 Pentachlorophenol	266	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
* 70 Phenanthrene-d10 (IS)	188	7.264	7.265	(1.000)	2107631	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.990	8.990	(0.894)	1581651	3.49288	349	
* 82 Chrysene-d12 (IS)	240	10.053	10.053	(1.000)	1945030	4.00000		
* 88 Perylene-d12 (IS)	264	11.388	11.389	(1.000)	1822477	4.00000		

QC Flag Legend

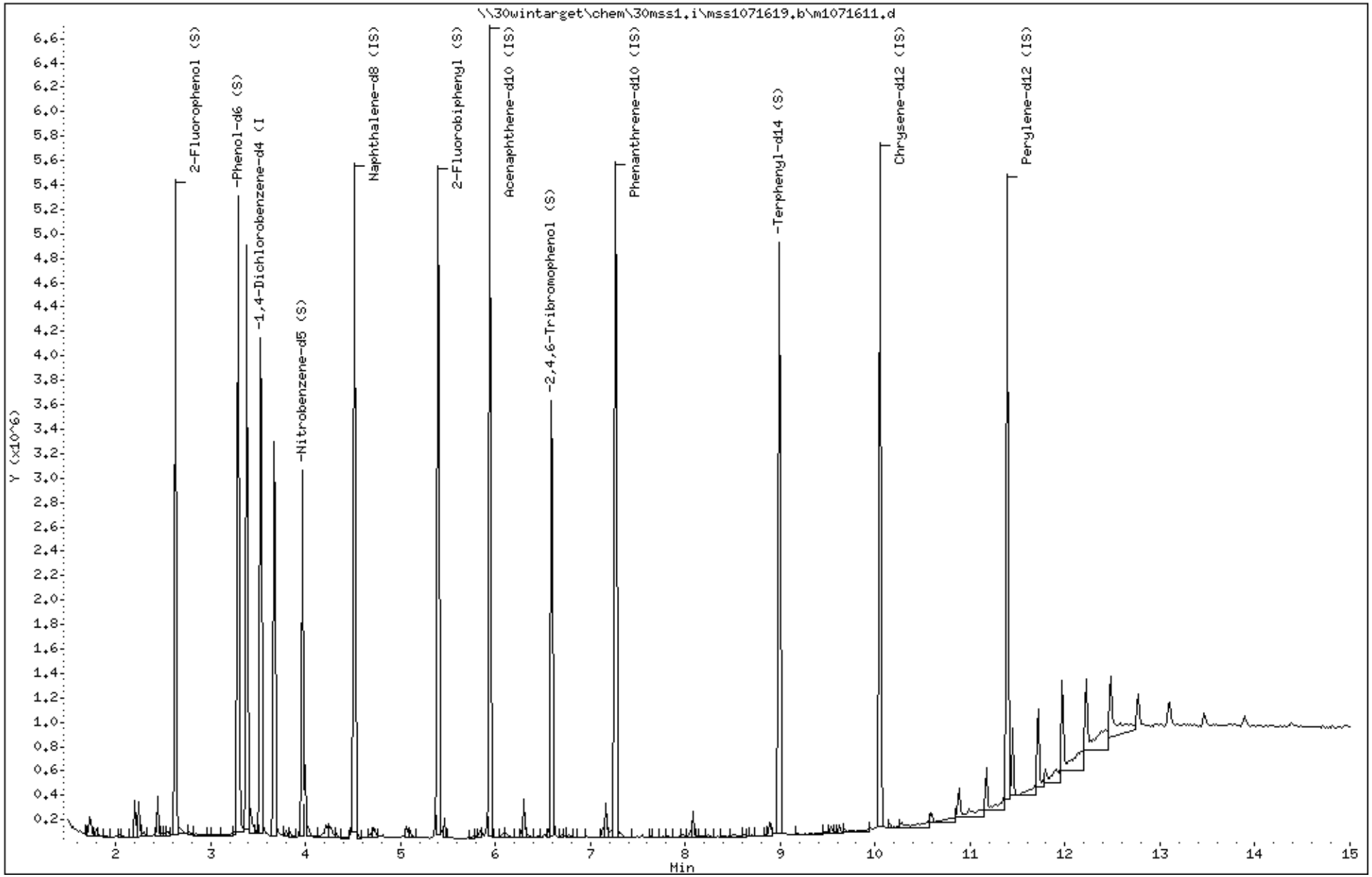
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071611.d
Date : 16-JUL-2019 17:27
Client ID: LB for HBN 351297 [
Sample Info: 1707039
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071611.d
Injection Date: 16-JUL-2019 17:27
Instrument: 30mss1.i
Lab Sample ID: 1707039
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/12/2019 15:32
Matrix: Water SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 1708463
Date Analyzed: 07/16/2019 17:50
Lab File ID: MSS1071619.B\M1071612.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071612.d
Lab Smp Id: 1708463 Client Smp ID: LB for HBN 351589 [
Inj Date : 16-JUL-2019 17:50
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1708463
Misc Info : 14834
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.636	2.633	(0.747)	1130152	6.32507	632	
$	4 Phenol-d6 (S)	99	3.293	3.290	(0.933)	1309556	6.21948	622	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.528	3.525	(1.000)	538853	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.966	3.968	(0.878)	406773	4.17268	417	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.517	4.519	(1.000)	2370120	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.398	5.395	(0.908)	1409640	3.72342	372	
*	50 Acenaphthene-d10 (IS)	164	5.943	5.945	(1.000)	1240711	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						
$	65 2,4,6-Tribromophenol (S)	330	6.595	6.597	(0.907)	301282	7.03794	704	
	67 Hexachlorobenzene	284	Compound Not Detected.						
	69 Pentachlorophenol	266	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
* 70 Phenanthrene-d10 (IS)	188	7.268	7.265	(1.000)	1586483	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.988	8.990	(0.894)	961664	3.66141	366	
* 82 Chrysene-d12 (IS)	240	10.051	10.053	(1.000)	1128168	4.00000		
* 88 Perylene-d12 (IS)	264	11.387	11.389	(1.000)	1034738	4.00000		

Review Codes Legend

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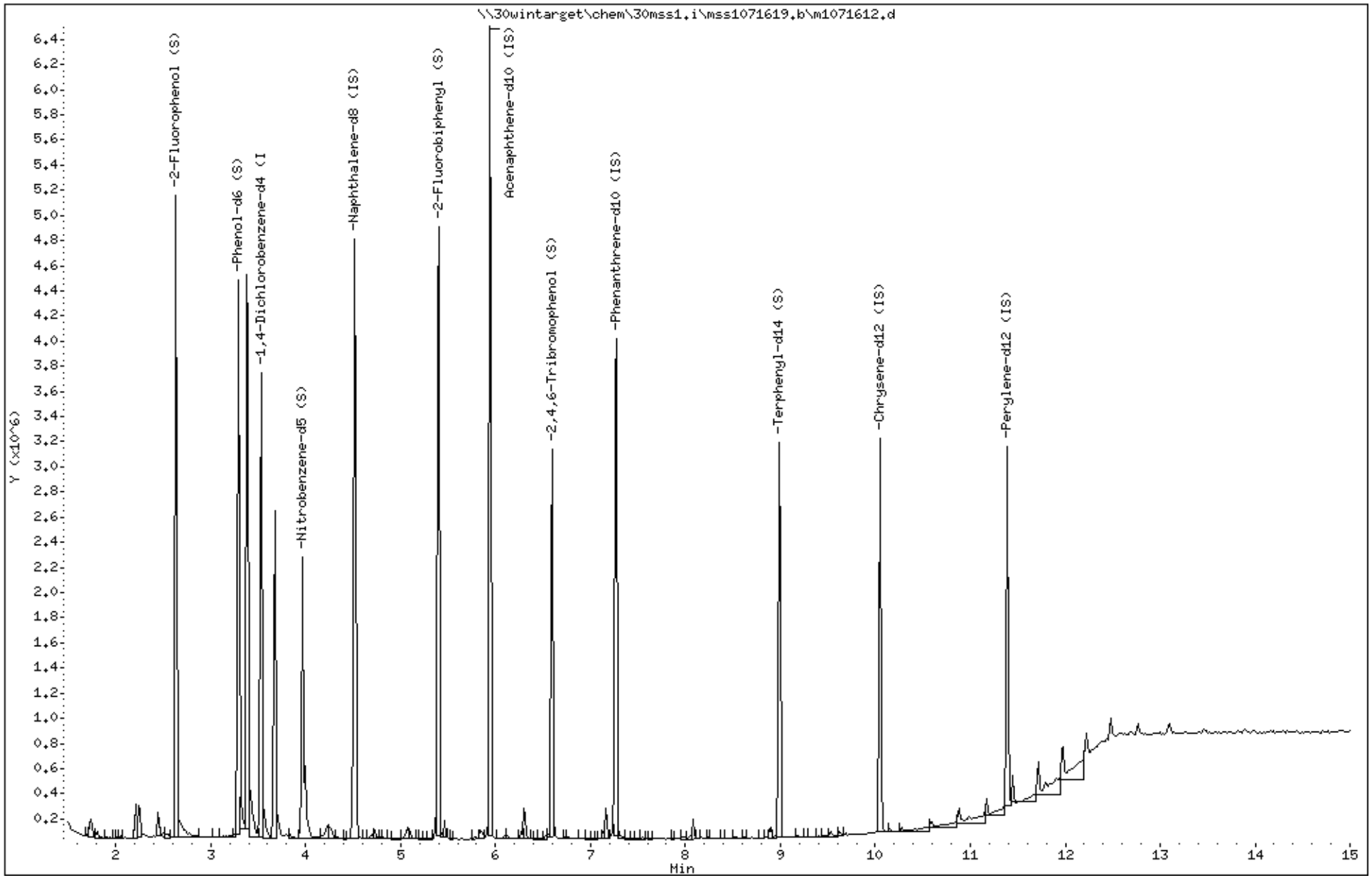
Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071612.d
Date : 16-JUL-2019 17:50
Client ID: LB for HBN 351589 [
Sample Info: 1708463
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071612.d
Injection Date: 16-JUL-2019 17:50
Instrument: 30mss1.i
Lab Sample ID: 1708463
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/15/2019 10:58
Matrix: Water SDG No.: 30313260
Date Extracted: 07/16/2019 10:55
Lab Sample ID: 1709291
Date Analyzed: 07/16/2019 18:13
Lab File ID: MSS1071619.B\M1071613.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071619.b\m1071613.d
Lab Smp Id: 1709291 Client Smp ID: LB for HBN 351733 [
Inj Date : 16-JUL-2019 18:13
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1709291
Misc Info : 14834
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1071619.b\8270071519.m
Meth Date : 16-Jul-2019 14:09 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.636	2.633	(0.747)	1116436	6.18260	618	
$	4 Phenol-d6 (S)	99	3.294	3.290	(0.933)	1327661	6.23916	624	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.529	3.525	(1.000)	544579	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.972	3.968	(0.879)	402277	4.06296	406	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.517	4.519	(1.000)	2407221	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.398	5.395	(0.908)	1394263	3.56525	356	
*	50 Acenaphthene-d10 (IS)	164	5.943	5.945	(1.000)	1281619	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						
$	65 2,4,6-Tribromophenol (S)	330	6.595	6.597	(0.908)	314685	6.11405	611	
	67 Hexachlorobenzene	284	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	7.263	7.265	(1.000)	1907458	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.988	8.990	(0.894)	1126605	3.58859	359	
* 82 Chrysene-d12 (IS)	240	10.051	10.053	(1.000)	1348487	4.00000		
* 88 Perylene-d12 (IS)	264	11.392	11.389	(1.000)	1278219	4.00000		

Review Codes Legend

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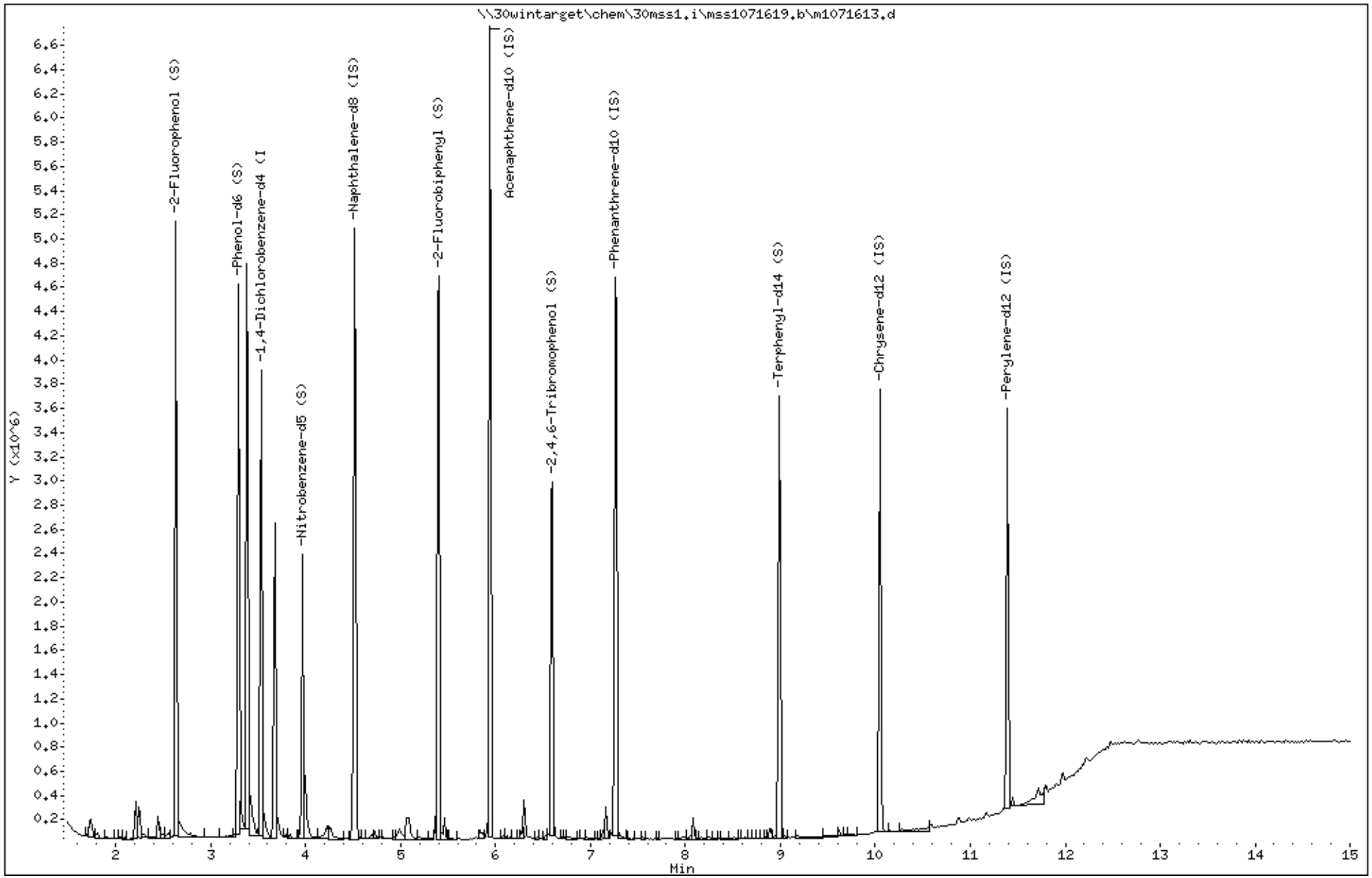
Data File: \\30wintarget\chem\30mss1.i\mss1071619.b\m1071613.d
Date : 16-JUL-2019 18:13
Client ID: LB for HBN 351733 [
Sample Info: 1709291
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071619.b/m1071613.d
Injection Date: 16-JUL-2019 18:13
Instrument: 30mss1.i
Lab Sample ID: 1709291
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: TCLP 8727/351589; 8728/351593

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/14/2019 08:59:35:873	Tumbler Start Temp. (C)	20.6
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1708463**	Y		M	30TBL5	HP001	Other			4.88		0	0
TCLP	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
TCLP	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
TCLP	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
TCLP	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
TCLP	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
TCLP	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
TCLP	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100
TCLP	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
TCLP	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
TCLP	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
TCLP	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
TCLP	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100
1311MET_L	LB	**1708468**	Y		M	30TBL5	HP001	Other	Y	Y	4.88	1.83	0	0
1311MET_L	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
1311MET_L	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
1311MET_L	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
1311MET_L	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
1311MET_L	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
1311MET_L	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
1311MET_L	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
1311MET_L	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
1311MET_L	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
1311MET_L	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
1311MET_L	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1708463**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359				
TCLP	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064		475.8	477	1.2
TCLP	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600				
TCLP	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31						
TCLP	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332				
TCLP	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370				
TCLP	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987				
TCLP	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523				
TCLP	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563				
TCLP	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467				
TCLP	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835				
TCLP	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179				
1311MET_L	LB	**1708468**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359	Y			
1311MET_L	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064	Y	475.8	477	1.2
1311MET_L	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600	Y			
1311MET_L	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31			Y			
1311MET_L	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332	Y			
1311MET_L	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370	Y			
1311MET_L	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987	Y			
1311MET_L	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523	Y			
1311MET_L	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998	Y			
1311MET_L	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563	Y			
1311MET_L	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835	Y			
1311MET_L	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1708463**								2000	
TCLP	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
TCLP	PS	**30312796002**								2000	wood dust
TCLP	PS	**30312590007**								2000	clay/rock
TCLP	PS	**30312957001**								2000	1*
TCLP	PS	**30313243001**								2000	clay
TCLP	PS	**30313260001**								2000	soil/rock
TCLP	PS	**30313260002**								2000	soil/rock
TCLP	PS	**30313260003**								2000	soil/rock
TCLP	PS	**30313438001**								2000	mud/rock
TCLP	PS	**30313438003**								2000	mud/rock
TCLP	PS	**30313438005**								2000	mud/rock
TCLP	PS	**30313438007**								2000	mud/rock
1311MET_L	LB	**1708468**								2000	
1311MET_L	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
1311MET_L	PS	**30312796002**								2000	wood dust
1311MET_L	PS	**30312590007**								2000	clay/rock
1311MET_L	PS	**30312957001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313243001**								2000	clay
1311MET_L	PS	**30313260001**								2000	soil/rock
1311MET_L	PS	**30313260002**								2000	soil/rock
1311MET_L	PS	**30313260003**								2000	soil/rock
1311MET_L	PS	**30313438001**								2000	mud/rock
1311MET_L	PS	**30313438003**								2000	mud/rock
1311MET_L	PS	**30313438005**								2000	mud/rock
1311MET_L	PS	**30313438007**								2000	mud/rock

Sample Notes:

1*: gel/rock/fabric

Prep Log Report

Batch Information: OEXT 38647/351816 TCLP BNA-SPE

Template Version: F-PA-O-007-Rev.00 (5May2016)

Prep Method	EPA 3535A	Analysis Method	EPA 8270D	Extracted By	JPD	Extracted Date/Time	07/16/2019 10:55:33:660
Extraction End Date/Time	07/16/2019 14:50:51:060	Acceptance Range:	pH: 4-5	Witnessed By		Concentrated By	JPD
Concentrated By Date	07/16/2019 14:03:50:769	Conc. Method	SPE	Methylene Chloride	92788	Methanol	93633
1:1 H2SO4	85991	10N Sodium Hydroxide	None Added	SPE Cartridge	87233	Sodium Sulfate	90972
Gravity Filters	89368	Syringe ID 1	SYR033	Reviewed By	BBR	Reviewed By Date	07/17/2019 02:01
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	LB	**1707039**		100	No	10		92714 (1)	
8270DSPE_P	LCS	**1709532**		100	No	10		92714 (1)	90624 (.5)
8270DSPE_P	LB	**1708463**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312796001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312796002**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312957001**		100	Yes	10		92714 (1)	
8270DSPE_P	MS	**1709533**		100	Yes	10		92714 (1)	90624 (.5)
8270DSPE_P	MSD	**1709534**		100	Yes	10		92714 (1)	90624 (.5)
8270DSPE_P	PS	**30313243001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313260001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313260002**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313260003**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313438001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313438003**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313438005**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313438007**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30312795002**		40	No	10	1*	92714 (1)	
8270DSPE_P	LB	**1709291**		100	No	10		92714 (1)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	PS	**30313233001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313756001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30313326001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30313331001**		100	Yes	10		92714 (1)	

Sample Notes:

1*: Limited Volume

Standard Notes:

90624: OEXT TCLP BNA spike 100 ppm in

92714: OEXT 8270 BNA surrogate 50/75

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium Method: 8270D
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890:10 Surr. lot: see extraction sheets
Tune std: 93078 Cal. std: 93076

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10715t1.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	07:44	EAC	
1/m10715t2.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	07:59	EAC	
1/m10715t3.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	08:24	EAC	Ran DFTPP Tune
1/m10715t4.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	09:06	EAC	
1/m10715y1.d	CAL7	N/14828	CALIB_7	1	8270071519	7/15/19	09:21	EAC	
1/m10715y2.d	CAL6	N/14828	CALIB_6	1	8270071519	7/15/19	09:43	EAC	
1/m10715y3.d	CAL5	N/14828	CALIB_5	1	8270071519	7/15/19	10:06	EAC	
1/m10715y4.d	CAL4	N/14828	CALIB_4	1	8270071519	7/15/19	10:28	EAC	
1/m10715y5.d	CAL3	N/14828	CALIB_3	1	8270071519	7/15/19	10:51	EAC	
1/m10715y6.d	CAL2	N/14828	CALIB_2	1	8270071519	7/15/19	11:13	EAC	
1/m10715y7.d	CAL1	N/14828	CALIB_1	1	8270071519	7/15/19	11:36	EAC	
1/m10715y8.d	ICV	N/14828	CCALIB_8	1	8270071519	7/15/19	11:59	EAC	
1/m1071501.d	1707890	L/14821	BLANK	1	8270071519	7/15/19	13:01	EAC	
1/m1071502.d	1707891	L/14821	LCS	1	8270071519	7/15/19	13:24	EAC	
1/m1071503.d	1708419	S/14825	BLANK	1	8270071519	7/15/19	13:47	EAC	
1/m1071504.d	1708420	S/14825	LCS	1	8270071519	7/15/19	14:10	EAC	
1/m1071505.d	30313269008	L/14821	SAMPLE	1	8270071519	7/15/19	14:32	EAC	
1/m1071506.d	30313269001	S/14825	SAMPLE	1	8270071519	7/15/19	14:55	EAC	
1/m1071507.d	1708421	S/14825	MS	1	8270071519	7/15/19	15:18	EAC	
1/m1071508.d	1708422	S/14825	MSD	1	8270071519	7/15/19	15:41	EAC	
1/m1071509.d	30313269002	S/14825	SAMPLE	1	8270071519	7/15/19	16:04	EAC	
1/m1071510.d	30313269003	S/14825	SAMPLE	1	8270071519	7/15/19	16:27	EAC	
1/m1071511.d	30313269004	S/14825	SAMPLE	1	8270071519	7/15/19	16:50	EAC	
1/m1071512.d	30313269005	S/14825	SAMPLE	1	8270071519	7/15/19	17:13	EAC	
1/m1071513.d	30313269006	S/14825	SAMPLE	1	8270071519	7/15/19	17:36	EAC	
1/m1071514.d	30313269007	S/14825	SAMPLE	1	8270071519	7/15/19	17:58	EAC	
1/m1071515.d	30312076002	S/14801	SAMPLE	1	8270071519	7/15/19	18:21	EAC	
1/m1071516.d	30313021004	S/14825	SAMPLE	1	8270071519	7/15/19	18:44	EAC	
1/m1071517.d	30312131001X1000	S/14797	SAMPLE	1000	8270071519	7/15/19	19:07	EAC	
1/m1071518.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	19:30	EAC	
1/m1071519.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	19:53	EAC	
1/m1071520.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	20:15	EAC	
1/m1071521.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	20:38	EAC	

Check Maintenance Items Performed:

- [x] Changed septum
- [x] Cleaned liner
- [x] Replaced/Cleaned gold seal
- [x] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [ ] Other minor parts replaced _____
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: 07/16/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:47 07/16/2019

Reviewed By/Date: SAG 7-17-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RTX-5MS 20m X 0.18mm Helium Method:

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 92890:10 Surr. lot:

Tune std: _____ Cal. std: _____

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1071522.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:01	EAC	
1/m1071523.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:23	EAC	
1/m1071524.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:46	EAC	
1/m1071525.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:08	EAC	
1/m1071526.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:31	EAC	
1/m1071527.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:53	EAC	
1/m1071528.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	23:15	EAC	
1/m1071529.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	23:38	EAC	
1/m1071530.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:00	EAC	
1/m1071531.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:22	EAC	
1/m1071532.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:44	EAC	
1/m1071533.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:07	EAC	
1/m1071534.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:29	EAC	
1/m1071535.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:51	EAC	
1/m1071536.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:14	EAC	
1/m1071537.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:37	EAC	
1/m1071538.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:59	EAC	
1/m1071539.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	03:22	EAC	
1/m1071540.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	03:44	EAC	
1/m1071541.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:06	EAC	
1/m1071542.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:29	EAC	
1/m1071543.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:51	EAC	
1/m1071544.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	05:14	EAC	
1/m1071545.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	05:36	EAC	

File Path 1: \\30wintarget\chem\30mss1.i\mss1071519.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:48 07/16/2019 Reviewed By/Date: _____ Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890
Tune std: 79378

Method: EPA 625/8270D/1619
Surr. lot: See extraction sheets
Cal. std: 93076

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10716t1.d	DFTPP	N/14828	DFTPP	1	625tune	7/16/19	12:04	EAC	
1/m10716s1.d	CCV	N/14828	CCALIB_4	1	8270071519	7/16/19	12:19	EAC	
1/m10716s2.d	CCV Benzidine	~~N/14828~~ 93076	CCALIB_4	1	benzidine070919	7/16/19	12:42	EAC	b retention time high 7/17/19
1/m1071601.d	1709055	L/14831	BLANK	1	8270071519	7/16/19	13:05	EAC	
1/m1071602.d	1709056	L/14831	LCS	1	8270071519	7/16/19	13:28	EAC	
1/m1071603.d	30311172001	N/14831RE	SAMPLE	1	8270071519	7/16/19	13:51	EAC	
1/m1071604.d	30312864001	N/14817	SAMPLE	1	8270071519	7/16/19	14:47	EAC	
1/m1071605.d	30312864002	L/14817	SAMPLE	1	8270071519	7/16/19	15:10	EAC	
1/m1071606.d	30312864004	L/14817	SAMPLE	1	8270071519	7/16/19	15:33	EAC	
1/m1071607.d	30312864005	L/14817	SAMPLE	1	8270071519	7/16/19	15:56	EAC	X5 ip
1/m1071608.d	30312864006	L/14817	SAMPLE	1	8270071519	7/16/19	16:19	EAC	X5 ip
1/m1071609.d	30312864007	L/14817	SAMPLE	1	8270071519	7/16/19	16:42	EAC	
1/m1071610.d	30312864008	L/14817	SAMPLE	1	8270071519	7/16/19	17:05	EAC	
1/m1071611.d	1707039	L/14834	BLANK	1	8270071519	7/16/19	17:27	EAC	
1/m1071612.d	1708463	L/14834	BLANK	1	8270071519	7/16/19	17:50	EAC	
1/m1071613.d	1709291	L/14834	BLANK	1	8270071519	7/16/19	18:13	EAC	
1/m1071614.d	1709532	L/14834	LCS	1	8270071519	7/16/19	18:35	EAC	
1/m1071615.d	30312957001	S/14834	SAMPLE	1	8270071519	7/16/19	18:58	EAC	
1/m1071616.d	1709533	S/14834	MS	1	8270071519	7/16/19	19:21	EAC	
1/m1071617.d	1709534	S/14834	MSD	1	8270071519	7/16/19	19:43	EAC	
1/m1071618.d	30312795002	S/14834	SAMPLE	1	8270071519	7/16/19	20:06	EAC	
1/m1071619.d	30313233001	L/14834	SAMPLE	1	8270071519	7/16/19	20:29	EAC	
1/m1071620.d	30312796001	L/14834	SAMPLE	1	8270071519	7/16/19	20:51	EAC	
1/m1071621.d	30312796002	S/14834	SAMPLE	1	8270071519	7/16/19	21:14	EAC	
1/m1071622.d	30313243001	S/14834	SAMPLE	1	8270071519	7/16/19	21:36	EAC	
1/m1071623.d	30313260001	S/14834	SAMPLE	1	8270071519	7/16/19	21:59	EAC	
1/m1071624.d	30313260002	S/14834	SAMPLE	1	8270071519	7/16/19	22:21	EAC	
1/m1071625.d	30313260003	S/14834	SAMPLE	1	8270071519	7/16/19	22:44	EAC	
1/m1071626.d	30313756001	S/14834	SAMPLE	1	8270071519	7/16/19	23:06	EAC	
1/m1071627.d	30313438001	S/14834	SAMPLE	1	8270071519	7/16/19	23:28	EAC	
1/m1071628.d	30313438003	S/14834	SAMPLE	1	8270071519	7/16/19	23:51	EAC	
1/m1071629.d	30313438005	S/14834	SAMPLE	1	8270071519	7/17/19	00:13	EAC	RR (low + true)
1/m1071630.d	30313438007	S/14834	SAMPLE	1	8270071519	7/17/19	00:35	EAC	1

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 7/17/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071619.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:13 07/17/2019

Reviewed By/Date: SJC 7-17-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RXI-5MS 20m X 0.18mm He Method: EPA 625

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 92890:10 Surr. lot:

Tune std: _____ Cal. std: _____

SGC Page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1071631.d	30311987001X10	N/RE	SAMPLE	1	8270071519	7/17/19	00:58	EAC	625
1/m1071632.d	30312217001X10	N/RE	SAMPLE	1	8270071519	7/17/19	01:20	EAC	1
1/m1071633.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	01:42	EAC	
1/m1071634.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	02:04	EAC	
1/m1071635.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	02:27	EAC	
1/m1071636.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	02:49	EAC	
1/m1071637.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	03:12	EAC	
1/m1071638.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	03:35	EAC	
1/m1071639.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	03:57	EAC	
1/m1071640.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	04:19	EAC	
1/m1071641.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	04:42	EAC	
1/m1071642.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	05:04	EAC	
1/m1071643.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	05:27	EAC	
1/m1071644.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	05:49	EAC	
1/m1071645.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	06:11	EAC	
1/m1071646.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	06:34	EAC	
1/m1071647.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	06:56	EAC	
1/m1071648.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	07:18	EAC	
1/m1071649.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	07:41	EAC	
1/m1071650.d	RINSE	N/	SAMPLE	1	8270071519	7/17/19	08:03	EAC	

SGC 7/17/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071619.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:13 07/17/2019

Reviewed By/Date: SJG 7-17-18 Page: 2 of 2

MSSV SIM - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS2

LAB SAMPLE ID	SAMPLE NAME	2FBP	TD14
1708423	1708423BLANK	74	87
1708424	1708424LCS	74	82
30313260001	AOC32 Lower-1	60	61
30313260002	AOC32 Lower-2	79	81
30313260003	AOC27	70	79

	QC LIMITS
(2FBP) = 2-Fluorobiphenyl (S)	(43-97)
(TD14) = Terphenyl-d14 (S)	(56-106)

* Values outside of QC Limits

MSSV SIM - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1708424LCS
Date Extracted: 07/12/2019
Date Analyzed (1): 07/15/2019
Instrument: 30MSS2
LCS Lot No: 85224
Lab File ID: MSS2071519.B\M207151902.D
SDG No.: 30313260

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
Acenaphthene	0.13	0.099	75	48-101
Acenaphthylene	0.13	0.097	73	42-109
Anthracene	0.13	0.11	84	54-110
Benzo(a)anthracene	0.13	0.12	92	59-119
Benzo(a)pyrene	0.13	0.12	89	55-125
Benzo(b)fluoranthene	0.13	0.13	95	54-131
Benzo(g,h,i)perylene	0.13	0.097	73	54-122
Benzo(k)fluoranthene	0.13	0.12	91	57-123
Chrysene	0.13	0.12	88	62-111
Dibenz(a,h)anthracene	0.13	0.098	74	60-124
Fluoranthene	0.13	0.12	90	60-116
Fluorene	0.13	0.10	78	49-110
Indeno(1,2,3-cd)pyrene	0.13	0.098	74	59-122
Naphthalene	0.13	0.10	76	42-97
Phenanthrene	0.13	0.11	81	52-107
Pyrene	0.13	0.12	89	60-117

Spike Recovery: 0 out of 16 outside limits.

MSSV SIM - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1708425MS

Date Extracted: 07/12/2019

Date Analyzed (1): 07/15/2019

Instrument: 30MSS2

Lab File ID: MSS2071519.B\M207151911.D

Parent Sample ID: 30313516001

SDG No.: 30313260

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
Acenaphthene	0.15	0.17	0.22	38	23-129
Acenaphthylene	0.15	0.42	0.47	28	26-144
Anthracene	0.15	0.63	0.79	104	10-166
Benzo(a)anthracene	0.15	2.2	2.7	362	10-175
Benzo(a)pyrene	0.15	1.9	2.3	286	10-175
Benzo(b)fluoranthene	0.15	2.9	3.5	360	10-175
Benzo(g,h,i)perylene	0.15	0.85	1.0	122	10-171
Benzo(k)fluoranthene	0.15	1.1	1.4	238	10-160
Chrysene	0.15	2.1	2.5	224	10-175
Dibenz(a,h)anthracene	0.15	0.34	0.48	94	10-149
Fluoranthene	0.15	4.1	4.7	407	10-175
Fluorene	0.15	0.17	0.24	47	31-136
Indeno(1,2,3-cd)pyrene	0.15	0.85	0.97	77	10-151
Naphthalene	0.15	0.59	0.41	-122	10-149
Phenanthrene	0.15	1.8	2.0	120	10-175
Pyrene	0.15	3.6	4.2	403	10-175

Spike Recovery: 8 out of 16 outside limits.

MSSV SIM - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS2 Matrix Spike Duplicate - Sample No: 1708426MSD

Lab File ID (2): MSS2071519.B\M207151912.D Date Analyzed (2): 07/15/2019

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Acenaphthene	0.15	0.28	72	21	0-20	23-129
Acenaphthylene	0.15	0.37	-32	22	0-20	26-144
Anthracene	0.15	0.84	138	6	0-20	10-166
Benzo(a)anthracene	0.15	2.7	346	1	0-20	10-175
Benzo(a)pyrene	0.15	2.4	308	1	0-20	10-175
Benzo(b)fluoranthene	0.15	3.5	390	1	0-20	10-175
Benzo(g,h,i)perylene	0.15	1.0	126	1	0-20	10-171
Benzo(k)fluoranthene	0.15	1.4	224	1	0-20	10-160
Chrysene	0.15	2.6	315	5	0-20	10-175
Dibenz(a,h)anthracene	0.15	0.50	106	4	0-20	10-149
Fluoranthene	0.15	4.8	500	3	0-20	10-175
Fluorene	0.15	0.28	76	17	0-20	31-136
Indeno(1,2,3-cd)pyrene	0.15	1.1	161	12	0-20	10-151
Naphthalene	0.15	0.33	-173	21	0-20	10-149
Phenanthrene	0.15	2.2	260	10	0-20	10-175
Pyrene	0.15	4.2	422	1	0-20	10-175

RPD: 3 out of 16 outside limits.

Spike Recovery: 11 out of 16 outside limits.

SAMPLE NO.

1708423BLANK

MSSV SIM - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30MSS2 Matrix: Solid Lab Sample ID: 1708423

Lab File ID: MSS2071519.B\M207151901.D Date Analyzed: 07/15/2019 Time: 09:19

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1708424LCS	1708424	MSS2071519.B\M207151902.	07/15/2019 09:37
AOC32 Lower-1	30313260001	MSS2071519.B\M207151907.	07/15/2019 11:05
AOC32 Lower-2	30313260002	MSS2071519.B\M207151908.	07/15/2019 11:23
AOC27	30313260003	MSS2071519.B\M207151909.	07/15/2019 11:40

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: MSS2061719.B\M2061719T1.D DFTPP Injection Date: 06/17/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 12:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.25	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	45.35	
70	Less than 2.00% of mass 69	0.12	(0.26)[1]
127	10.00 - 80.00% of mass 198	53.52	
197	Less than 2.00% of mass 198	0.14	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.99	
275	10.00 - 60.00% of mass 198	27.69	
365	Greater than 1.00% of mass 198	5.98	
441	Present, but less than mass 443	15.64	
442	50.00 - 110.00% of mass 198	99.44	
443	15.00 - 24.00% of mass 442	19.65	(19.76)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11097240CAL1	11097240CAL1	MSS2061719.B\M2061719Z1.D	06/17/2019	12:43
11097245CAL2	11097245CAL2	MSS2061719.B\M2061719Z2.D	06/17/2019	13:01
11097241CAL3	11097241CAL3	MSS2061719.B\M2061719Z3.D	06/17/2019	13:18
11097243CAL4	11097243CAL4	MSS2061719.B\M2061719Z4.D	06/17/2019	13:36
11097242CAL5	11097242CAL5	MSS2061719.B\M2061719Z5.D	06/17/2019	13:54
11097244CAL6	11097244CAL6	MSS2061719.B\M2061719Z6.D	06/17/2019	14:12
11097246ICV	11097246ICV	MSS2061719.B\M2061719Z7.D	06/17/2019	14:30

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM
Lab File ID: MSS2071519.B\M2071519T1.D DFTPP Injection Date 07/15/2019
Instrument ID: 30MSS2 DFTPP Injection Time 08:49

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.18	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	45.75	
70	Less than 2.00% of mass 69	0.24	(0.53)[1]
127	10.00 - 80.00% of mass 198	53.70	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	7.43	
275	10.00 - 60.00% of mass 198	28.25	
365	Greater than 1.00% of mass 198	6.39	
441	Present, but less than mass 443	15.03	
442	Greater than 50.00% of mass 198	96.63	
443	15.00 - 24.00% of mass 442	18.94	(19.60)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11234007CCV	11234007CCV	MSS2071519.B\M2071519S1.D	07/15/2019	09:02
1708423BLANK	1708423BLANK	MSS2071519.B\M207151901.D	07/15/2019	09:19
1708424LCS	1708424LCS	MSS2071519.B\M207151902.D	07/15/2019	09:37
AOC32 Lower-1	30313260001	MSS2071519.B\M207151907.D	07/15/2019	11:05
AOC32 Lower-2	30313260002	MSS2071519.B\M207151908.D	07/15/2019	11:23
AOC27	30313260003	MSS2071519.B\M207151909.D	07/15/2019	11:40

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Sample ID : 11234007CCV Date Analyzed: 07/15/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 09:02

Lab File ID: MSS2071519.B\M2071519S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		344036	4.517	567486	7.784	602627	3.39	597927	5.525
UPPER LIMIT		688072	5.017	1134972	8.284	1205254	3.89	1195854	6.025
LOWER LIMIT		172018	4.017	283743	7.284	301313.5	2.89	298963.5	5.025
LAB SAMPLE ID	SAMPLE NO.								
1708423	1708423BLANK	332702	4.517	531820	7.781	567654	3.39	570496	5.525
1708424	1708424LCS	319999	4.517	509433	7.781	554997	3.39	548484	5.525
30313260001	AOC32 Lower-1	364132	4.517	583420	7.784	612700	3.396	604455	5.524
30313260002	AOC32 Lower-2	365614	4.517	572212	7.787	612393	3.396	607549	5.524
30313260003	AOC27	370739	4.517	595938	7.787	613030	3.396	623537	5.525

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Sample ID : 11234007CCV Date Analyzed: 07/15/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 09:02

Lab File ID: MSS2071519.B\M2071519S1.D

		AREA PYL	RT
12 HOUR STD		611062	9.057
UPPER LIMIT		1222124	9.557
LOWER LIMIT		305531	8.557
LAB SAMPLE ID	SAMPLE NO.		
1708423	1708423BLANK	538180	9.057
1708424	1708424LCS	527236	9.057
30313260001	AOC32 Lower-1	650054	9.061
30313260002	AOC32 Lower-2	629129	9.061
30313260003	AOC27	645249	9.062

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC32 Lower-1

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 30313260001
Date Analyzed: 07/15/2019 11:05
Lab File ID: MSS2071519.B\M207151907.D
Initial wt/vol: 15.43 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 13.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.32	
208-96-8	Acenaphthylene	0.31	
120-12-7	Anthracene	1.1	
56-55-3	Benzo(a)anthracene	2.9	
50-32-8	Benzo(a)pyrene	2.5	
205-99-2	Benzo(b)fluoranthene	3.8	
191-24-2	Benzo(g,h,i)perylene	1.2	
207-08-9	Benzo(k)fluoranthene	1.5	
218-01-9	Chrysene	2.8	
53-70-3	Dibenz(a,h)anthracene	0.45	
206-44-0	Fluoranthene	5.4	
86-73-7	Fluorene	0.29	
193-39-5	Indeno(1,2,3-cd)pyrene	1.1	
91-20-3	Naphthalene	0.32	
85-01-8	Phenanthrene	3.3	
129-00-0	Pyrene	4.7	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 15-JUL-2019 11:05
Operator : DSC Inst ID: 30mss2.i
Smp Info : 30313260001x10,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 9
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.430	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.395	3.390	(1.000)	612700	4.00000		
	8 Naphthalene	128	3.406	3.401	(1.003)	58036	0.42032	272	
	9 2-Methylnaphthalene	142	3.852	3.846	(1.135)	49143	0.53552	347	
	10 1-Methylnaphthalene	142	3.915	3.909	(1.153)	56915	0.57811	375	
$	6 2-Fluorobiphenyl (S)	172	4.080	4.081	(0.903)	36200	0.29784	19.3(R)	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	59015	0.41141	267	
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	364132	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	39689	0.42361	274	
	13 Fluorene	166	4.870	4.870	(1.078)	42062	0.38253	248	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	604455	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	638713	4.37768	2840	
	15 Anthracene	178	5.578	5.578	(1.010)	220823	1.48508	962	
	16 Fluoranthene	202	6.494	6.490	(1.176)	1190755	7.13032	4620	
	17 Pyrene	202	6.688	6.688	(1.211)	1082244	6.30292	4080	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	39400	0.30707	19.9(R)	
	18 Benzo(a)anthracene	228	7.772	7.772	(0.999)	620923	3.88932	2520	
*	4 Chrysene-d12 (IS)	240	7.783	7.783	(1.000)	583420	4.00000		
	19 Chrysene	228	7.807	7.807	(1.003)	618243	3.78084	2450	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.742	8.732	(0.965)	848202	4.99997	3240(Q)	
21 Benzo(k)fluoranthene	252	8.756	8.757	(0.966)	406444	1.99417	1290(QM)	WP
22 Benzo(a)pyrene	252	9.012	9.007	(0.995)	528965	3.27770	2120	
* 5 Perylene-d12 (IS)	264	9.061	9.056	(1.000)	650054	4.00000		
23 Dibenz(a,h)anthracene	278	9.881	9.876	(1.091)	104842	0.59946	388(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.876	9.872	(1.090)	319068	1.50961	978	
25 Benzo[g,h,i]perylene	276	10.073	10.068	(1.112)	276159	1.58693	1030	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Pace Analytical Services, Inc.

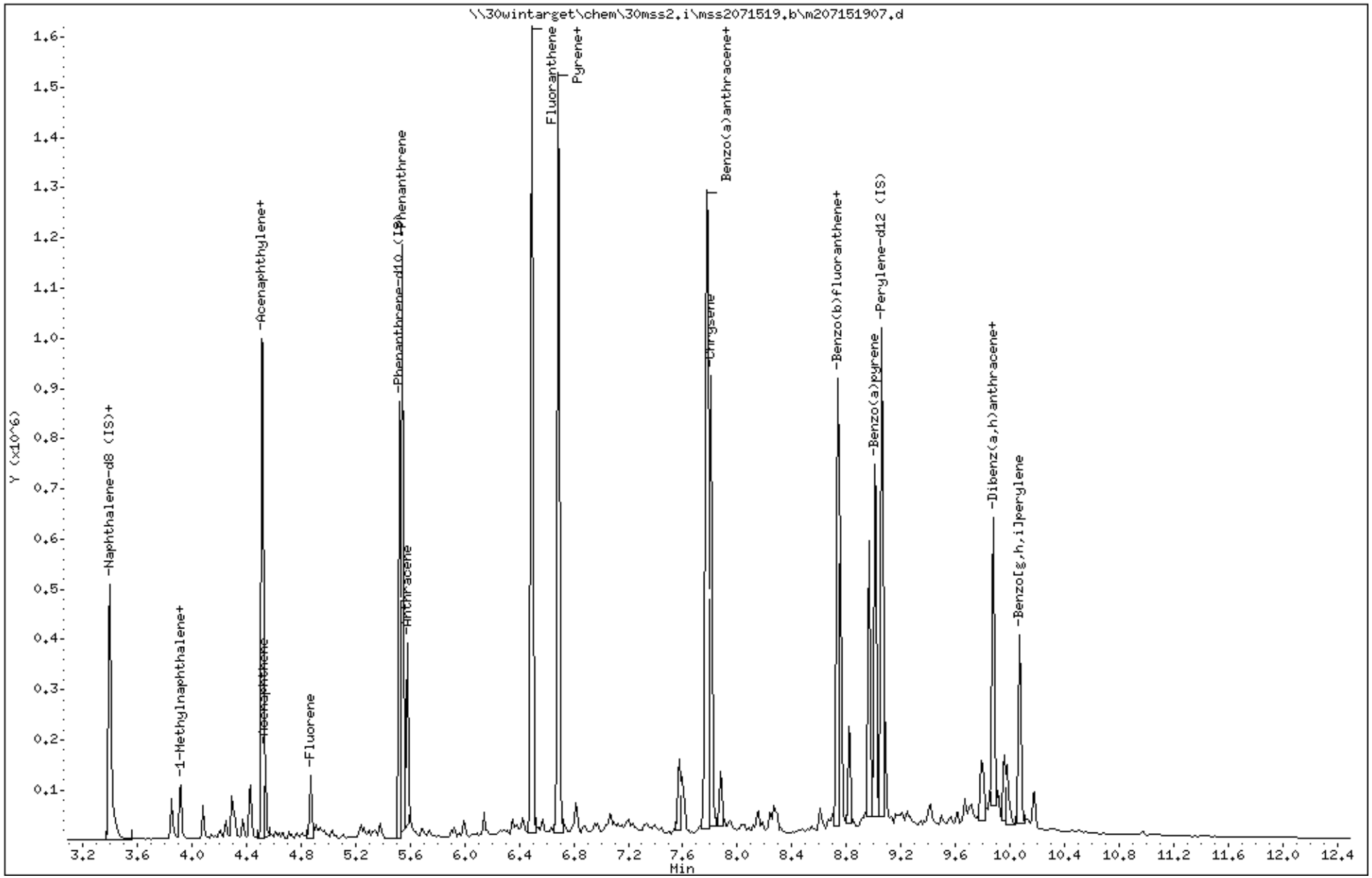
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260001
Client Smp ID: AOC32 Lower-1
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: DSC
Misc Info: 14824,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0972	U
91-20-3	Naphthalene	272	
91-57-6	2-Methylnaphthalene	347	
90-12-0	1-Methylnaphthalene	375	
208-96-8	Acenaphthylene	267	
83-32-9	Acenaphthene	274	
86-73-7	Fluorene	248	
85-01-8	Phenanthrene	2840	
120-12-7	Anthracene	962	
206-44-0	Fluoranthene	4620	
129-00-0	Pyrene	4080	
56-55-3	Benzo(a)anthracene	2520	
218-01-9	Chrysene	2450	
205-99-2	Benzo(b)fluoranthene	3240	
207-08-9	Benzo(k)fluoranthene	1290	
50-32-8	Benzo(a)pyrene	2120	
53-70-3	Dibenz(a,h)anthracene	388	
193-39-5	Indeno(1,2,3-cd)pyrene	978	
191-24-2	Benzo[g,h,i]perylene	1030	
321-60-8	2-Fluorobiphenyl (S)	19.3	
1718-51-0	Terphenyl-d14 (S)	19.9	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d
Date : 15-JUL-2019 11:05
Client ID: A0C32 Lower-1
Sample Info: 30313260001X10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: DSC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

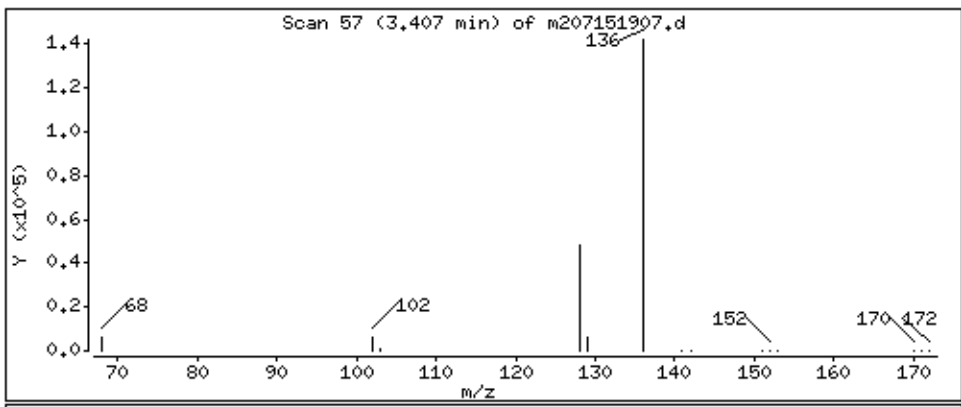
Operator: DSC

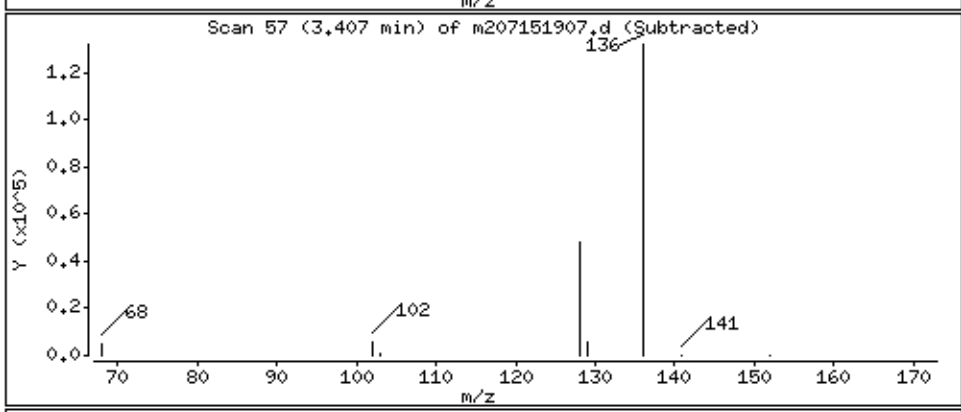
Column phase: RTX-5MS

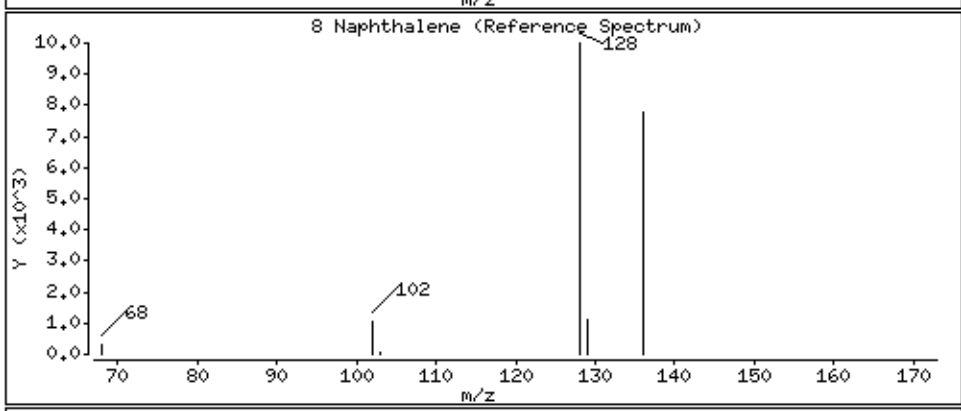
Column diameter: 0.25

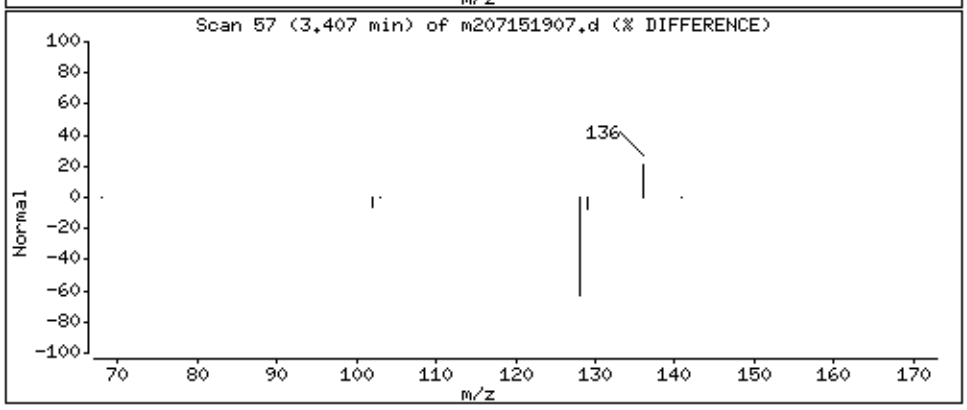
8 Naphthalene

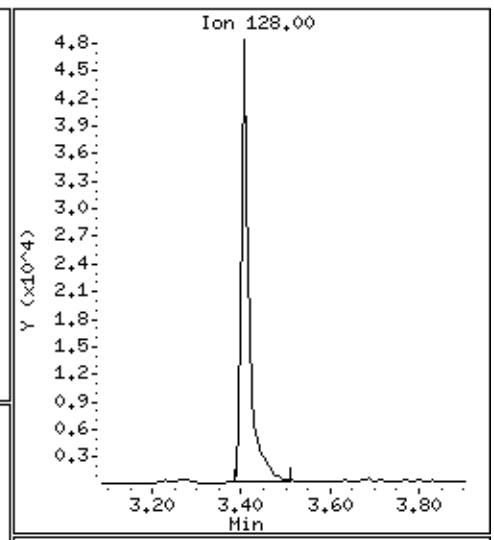
Concentration: 272 ug/Kg

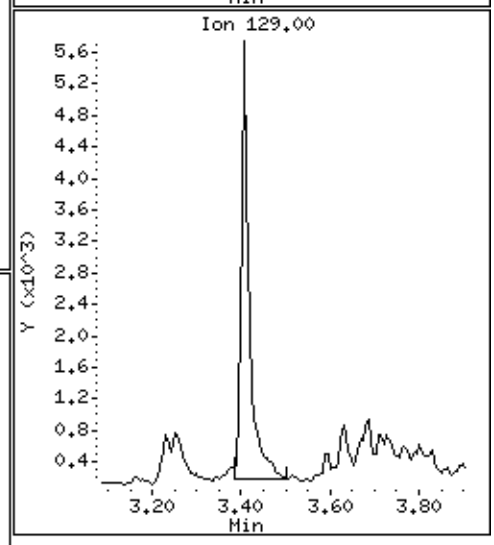












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

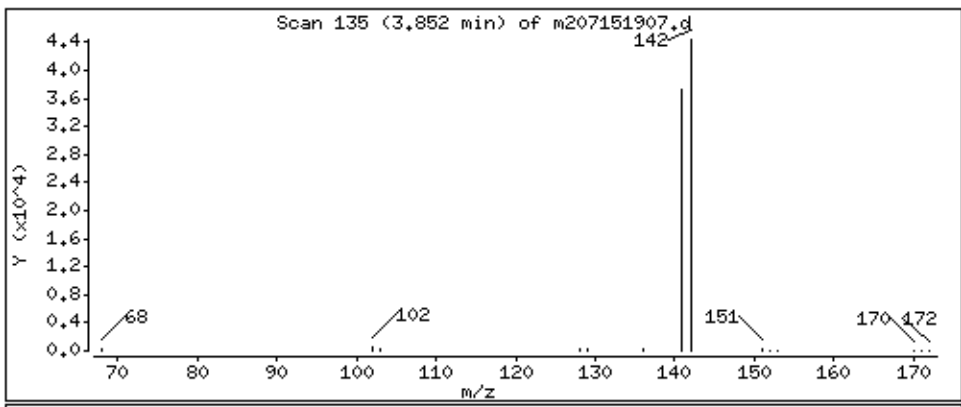
Operator: DSC

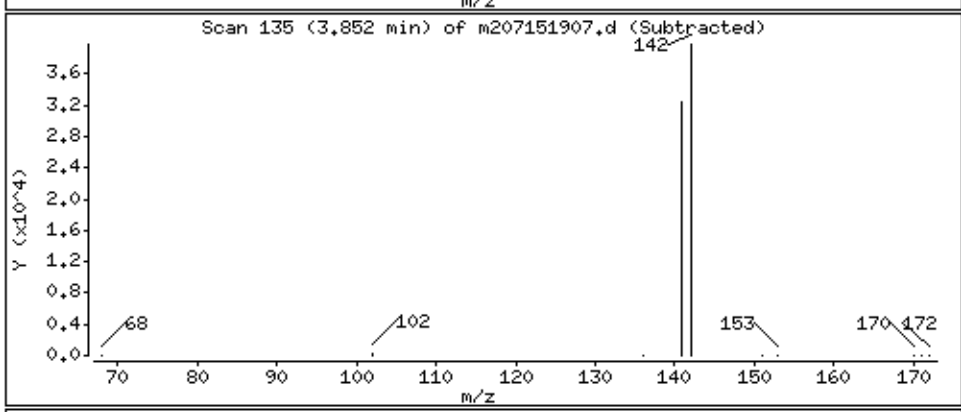
Column phase: RTX-5MS

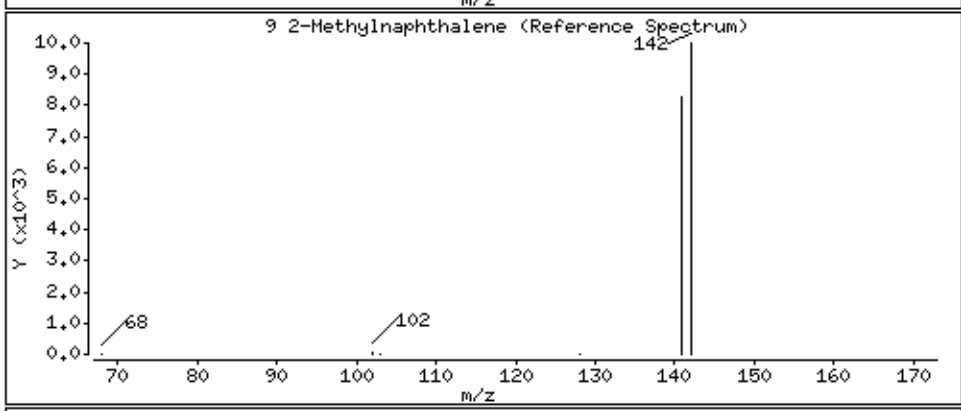
Column diameter: 0.25

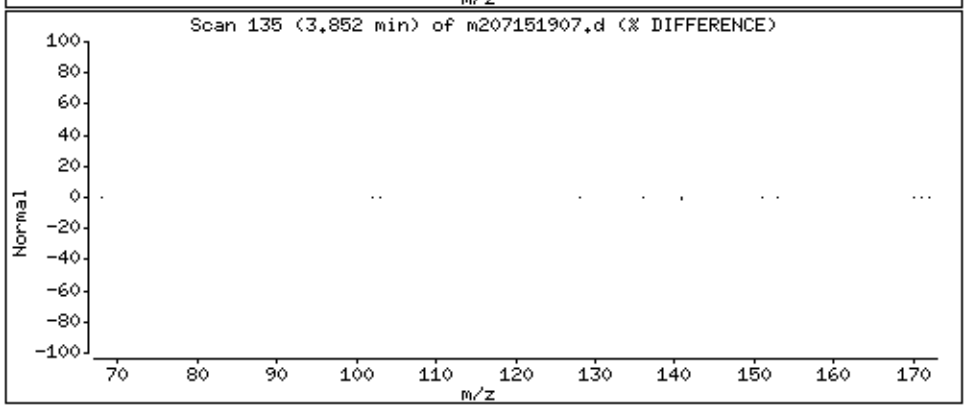
9 2-Methylnaphthalene

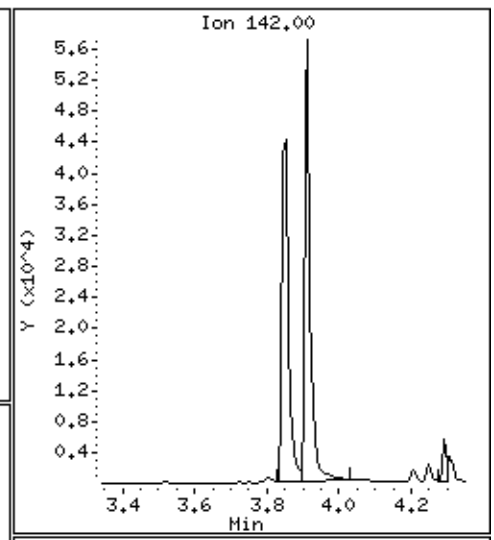
Concentration: 347 ug/Kg

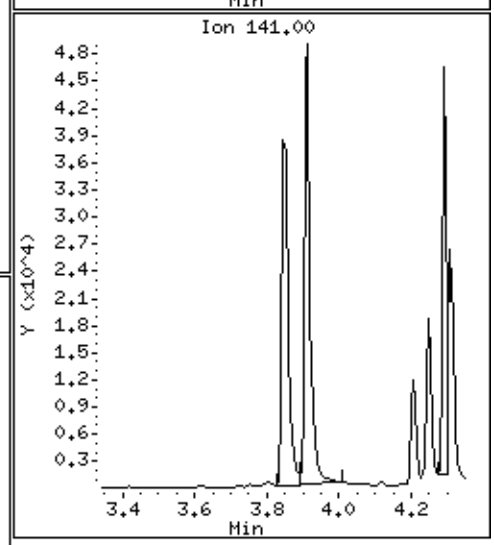












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

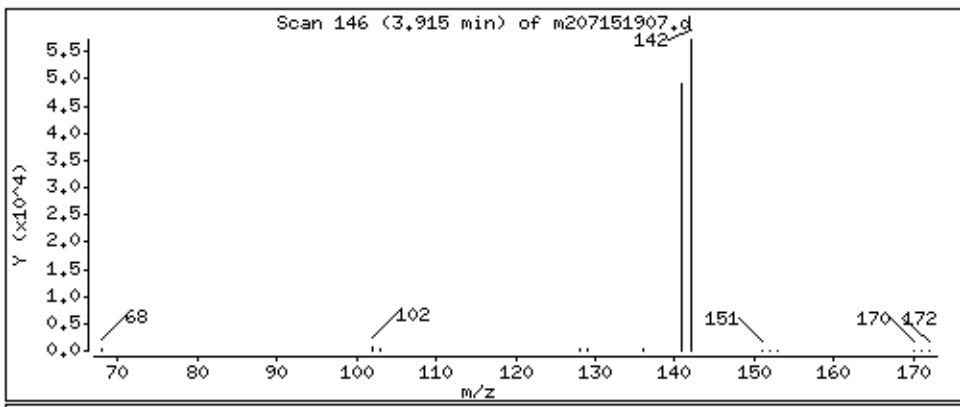
Operator: DSC

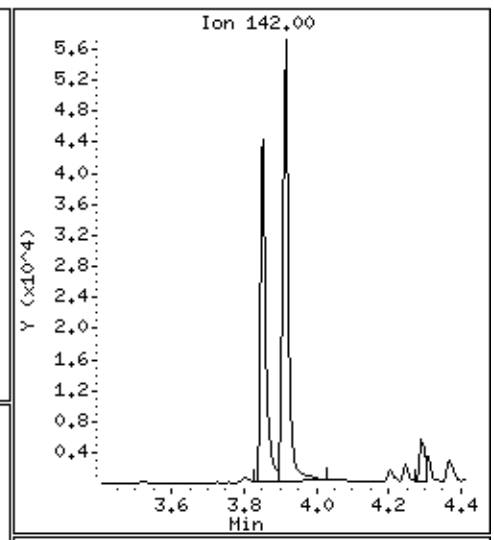
Column phase: RTX-5MS

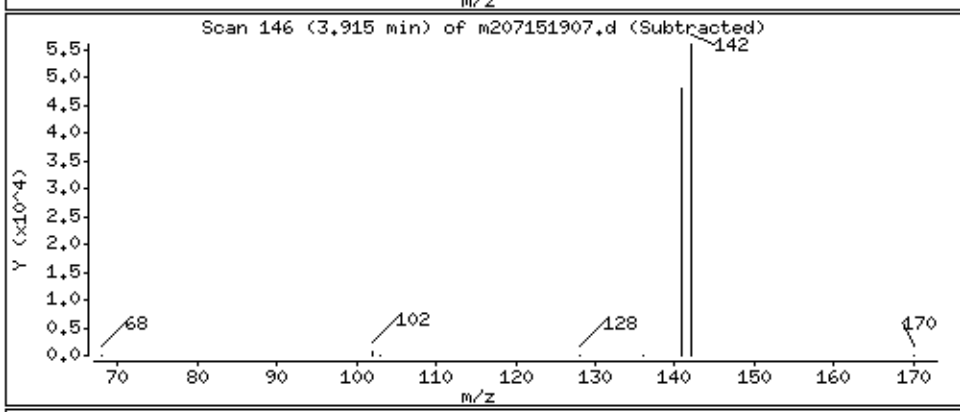
Column diameter: 0.25

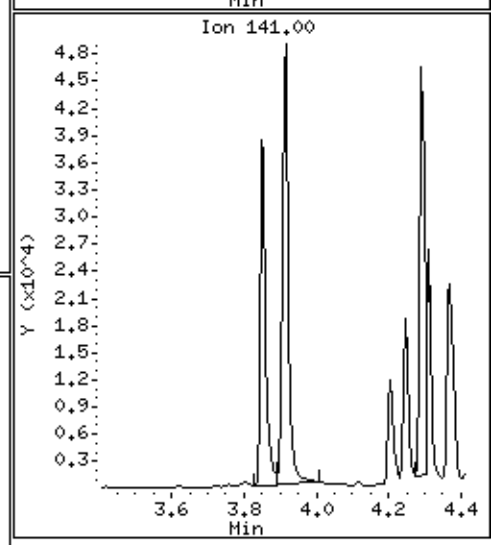
10 1-Methylnaphthalene

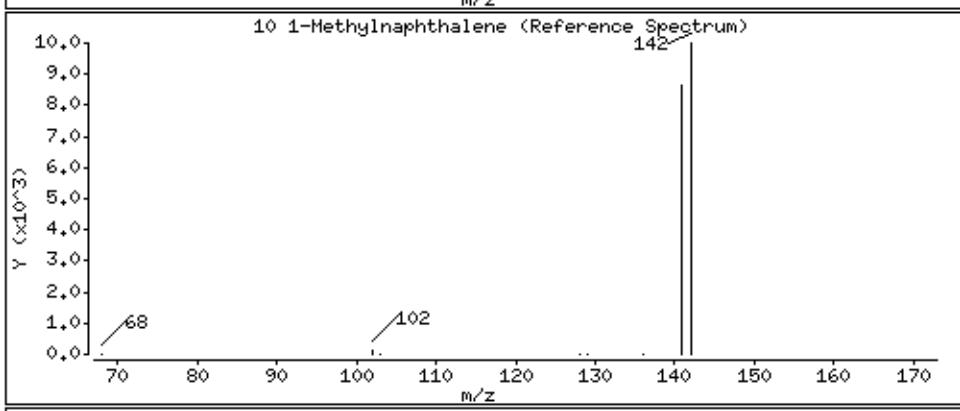
Concentration: 375 ug/Kg

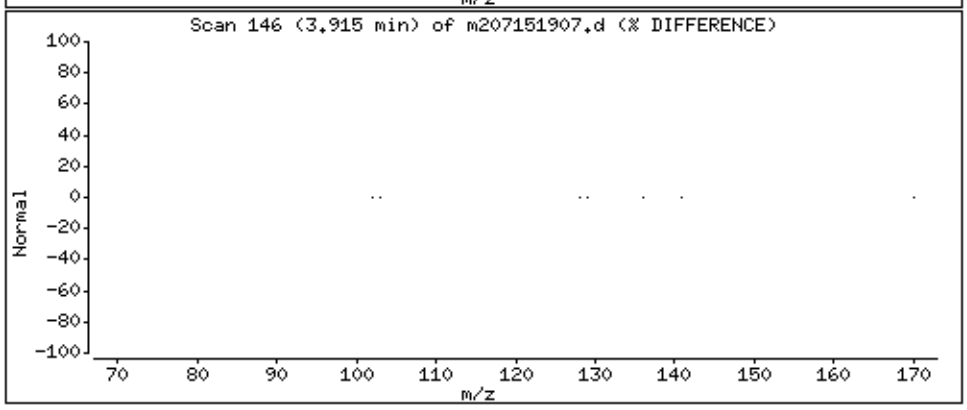












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

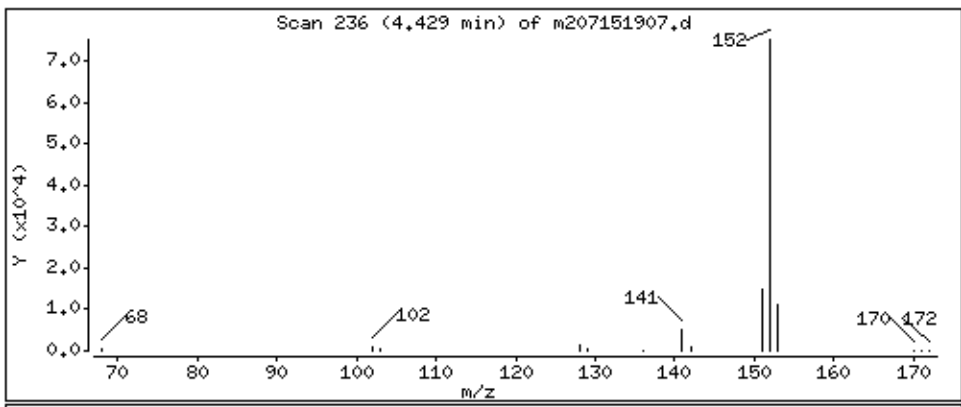
Operator: DSC

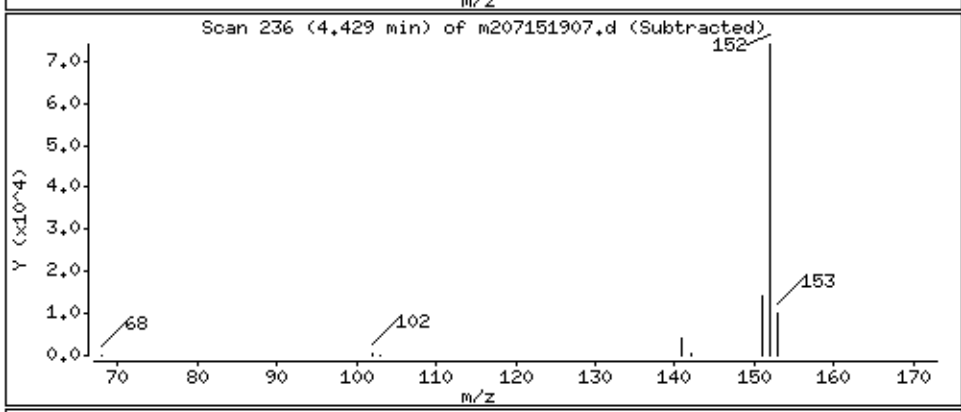
Column phase: RTX-5MS

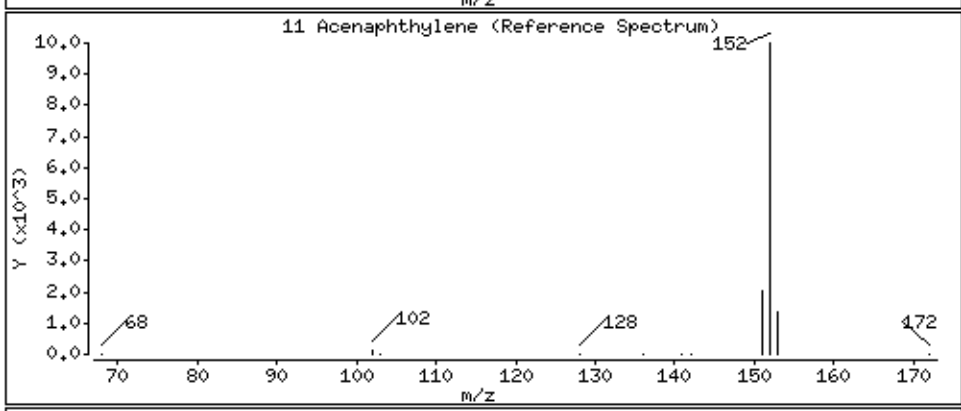
Column diameter: 0.25

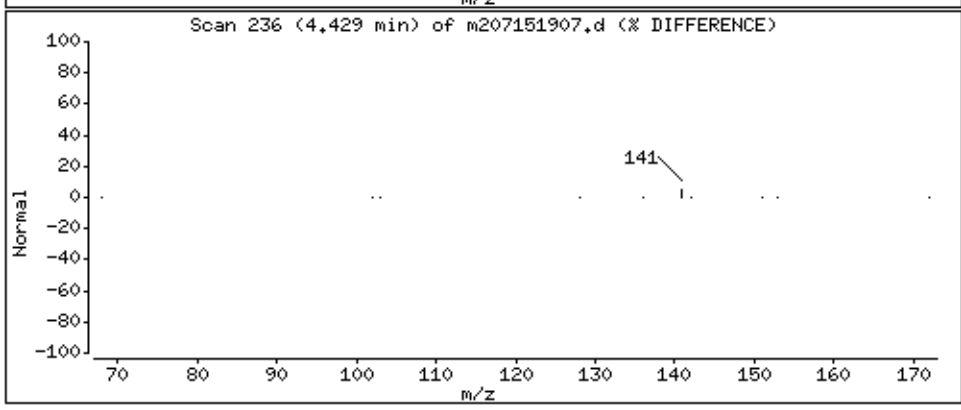
11 Acenaphthylene

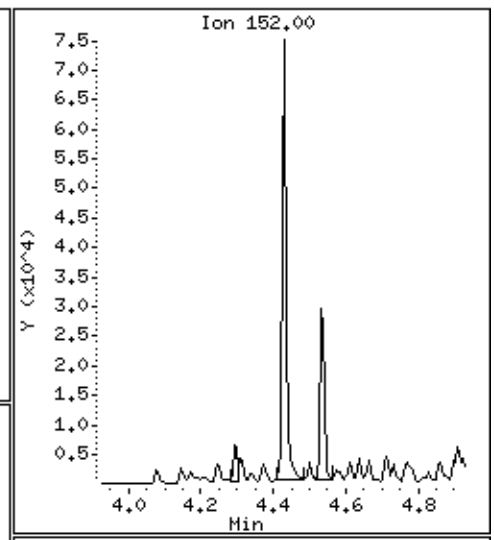
Concentration: 267 ug/Kg

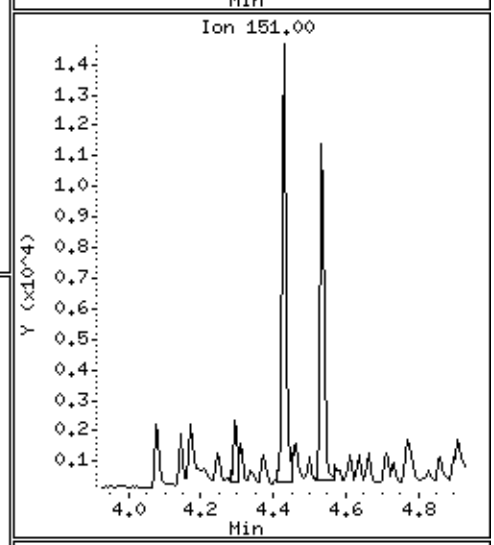


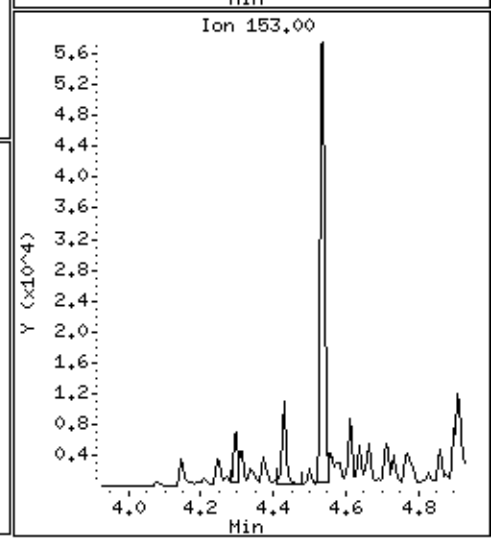












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

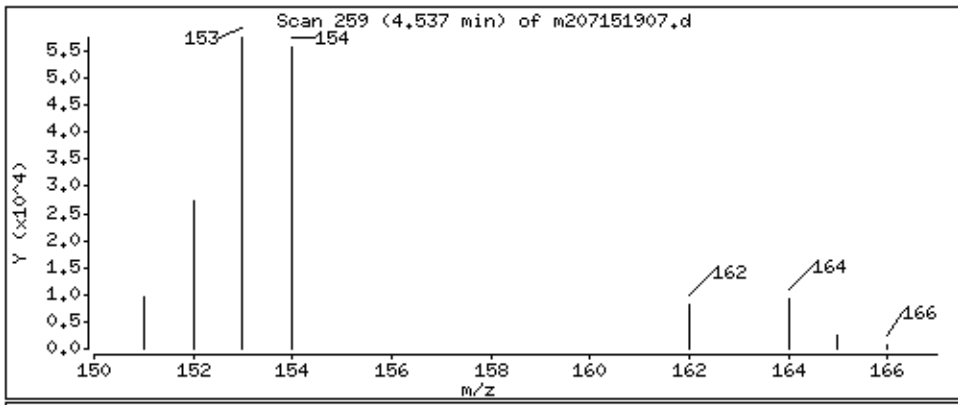
Operator: DSC

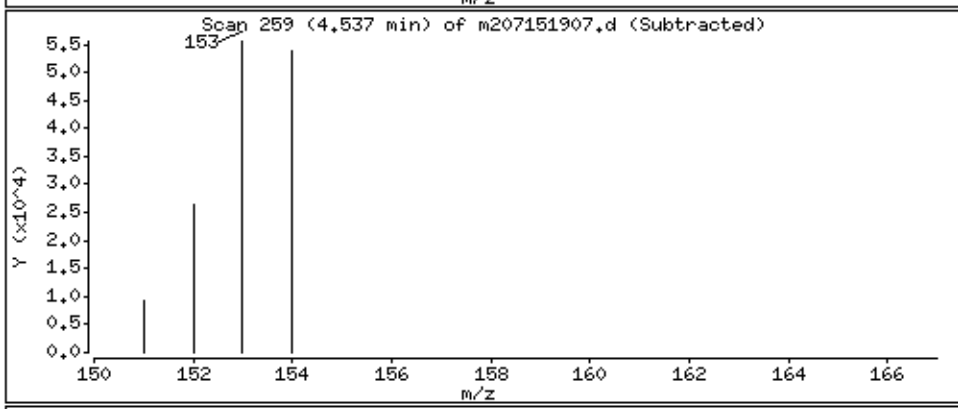
Column phase: RTX-5MS

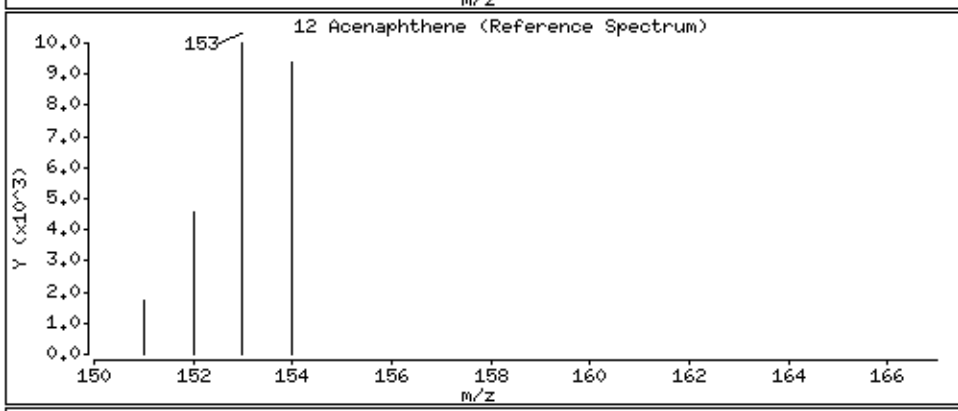
Column diameter: 0.25

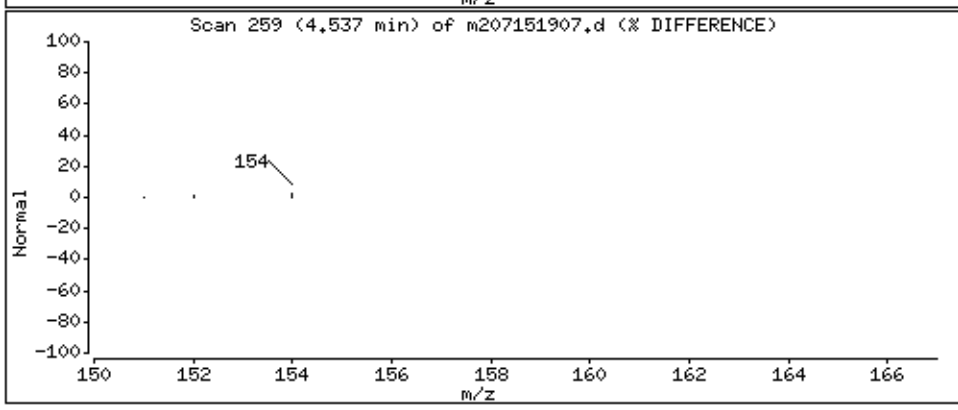
12 Acenaphthene

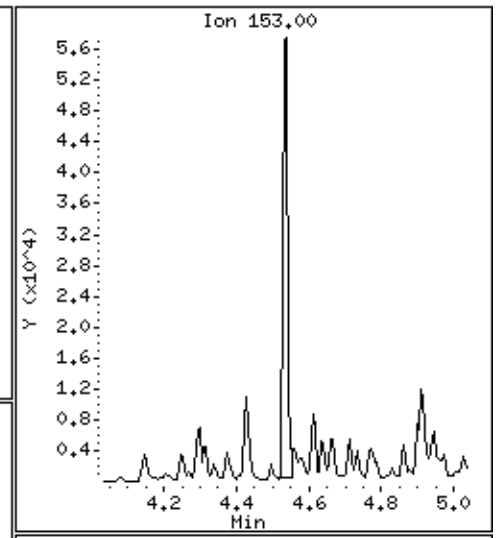
Concentration: 274 ug/Kg

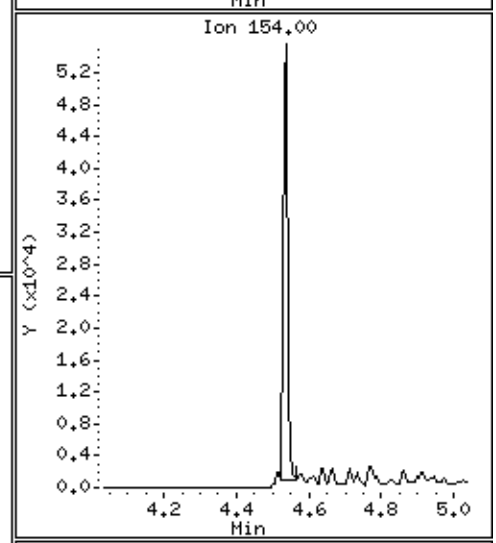


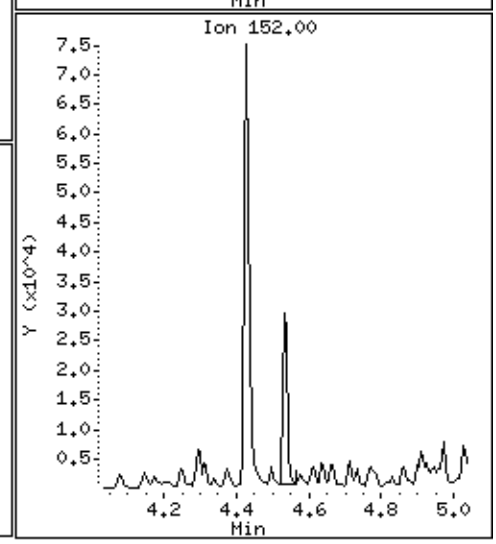












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

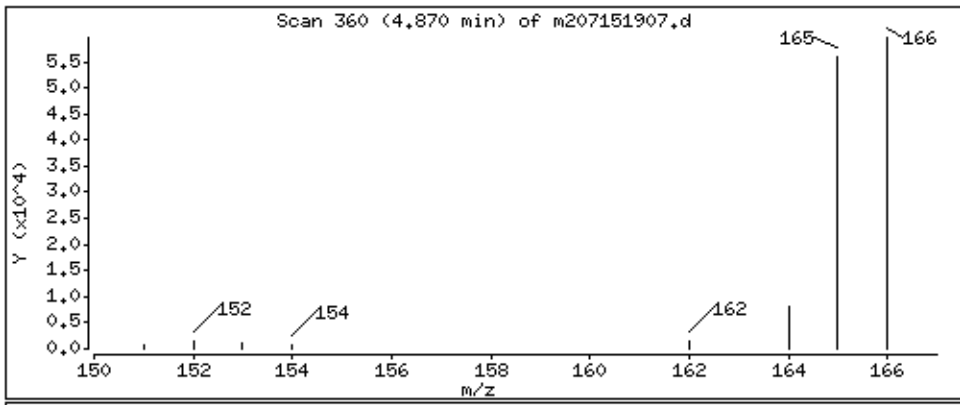
Operator: DSC

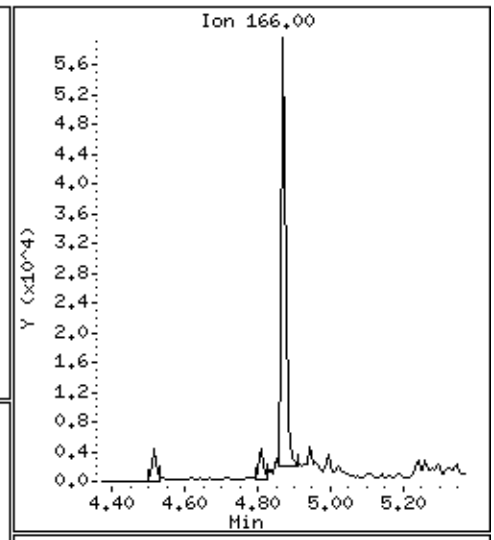
Column phase: RTX-5MS

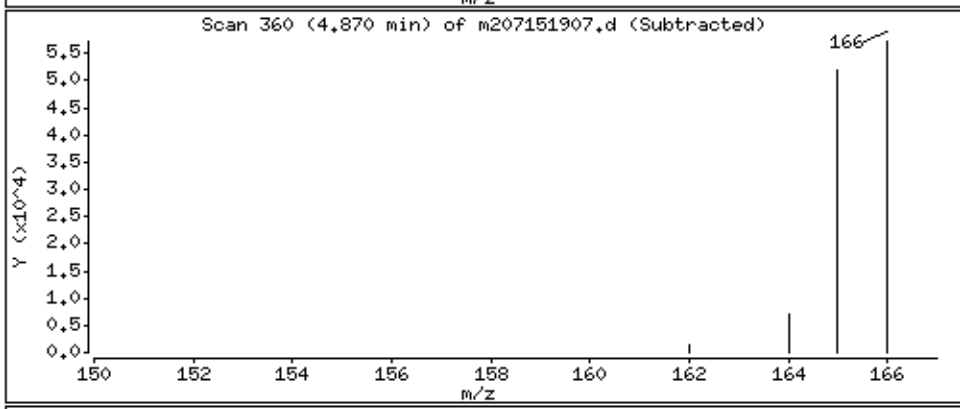
Column diameter: 0.25

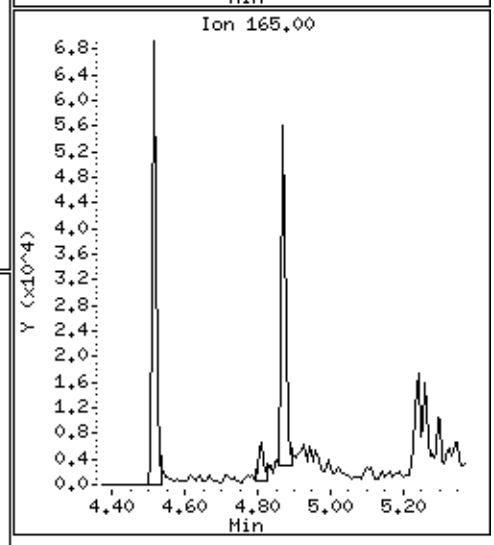
13 Fluorene

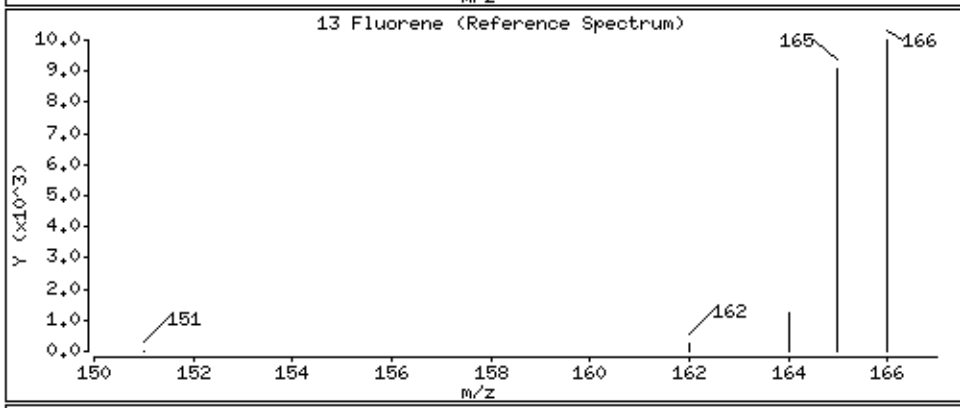
Concentration: 248 ug/Kg

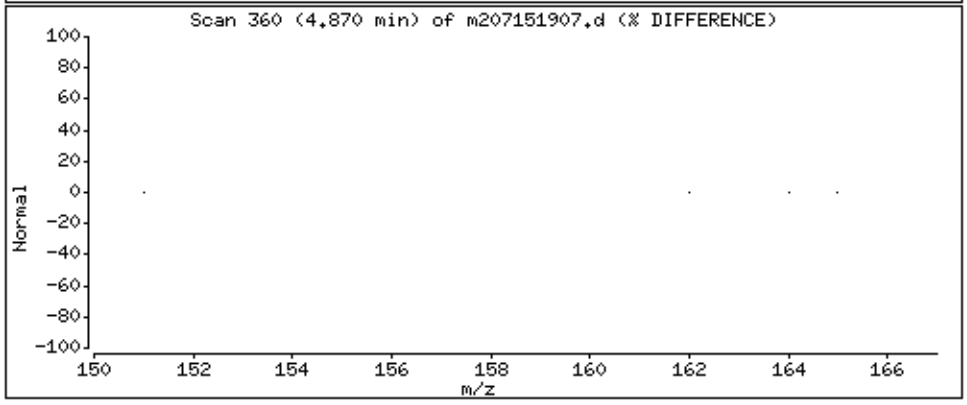












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

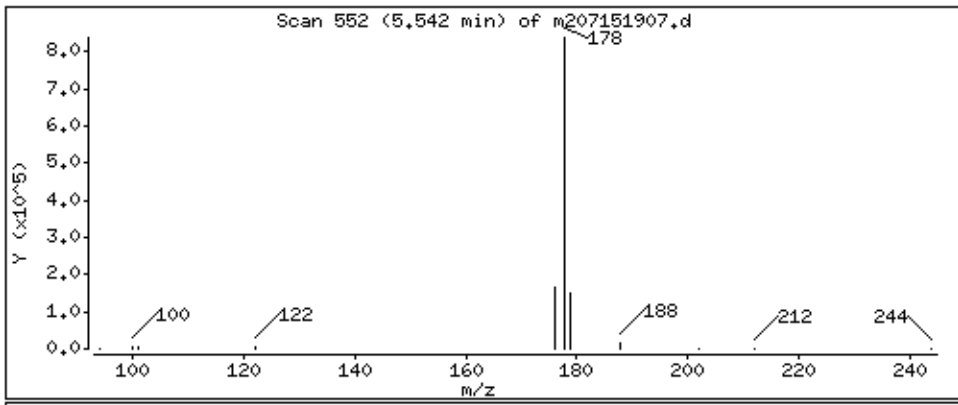
Operator: DSC

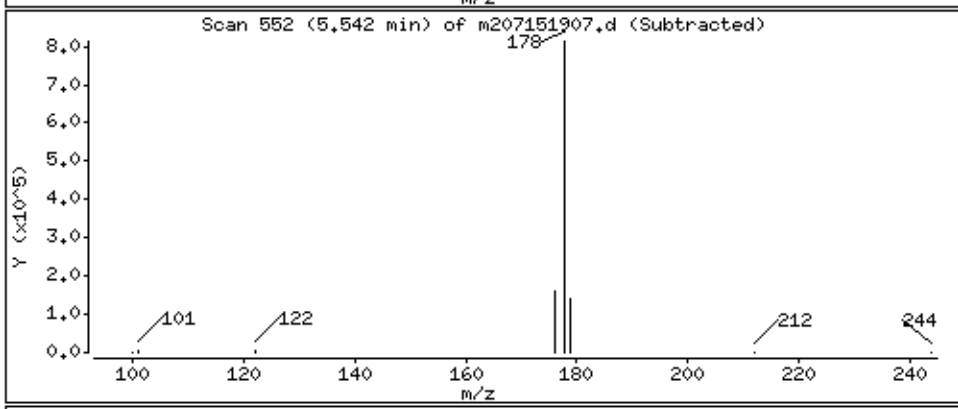
Column phase: RTX-5MS

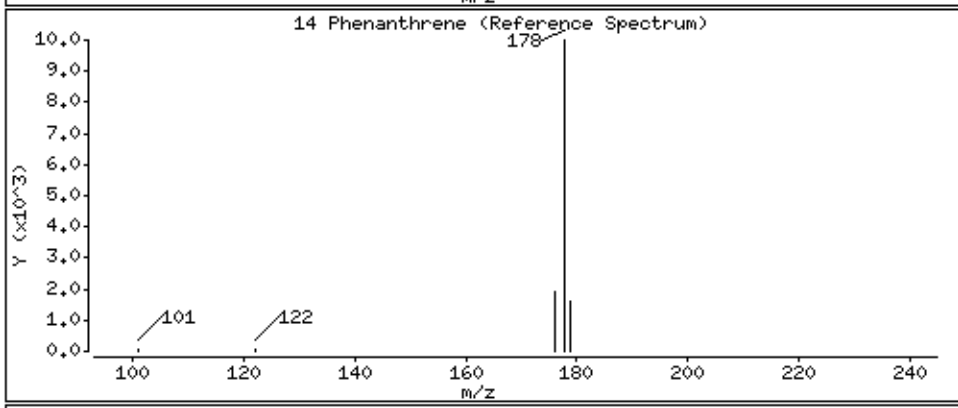
Column diameter: 0.25

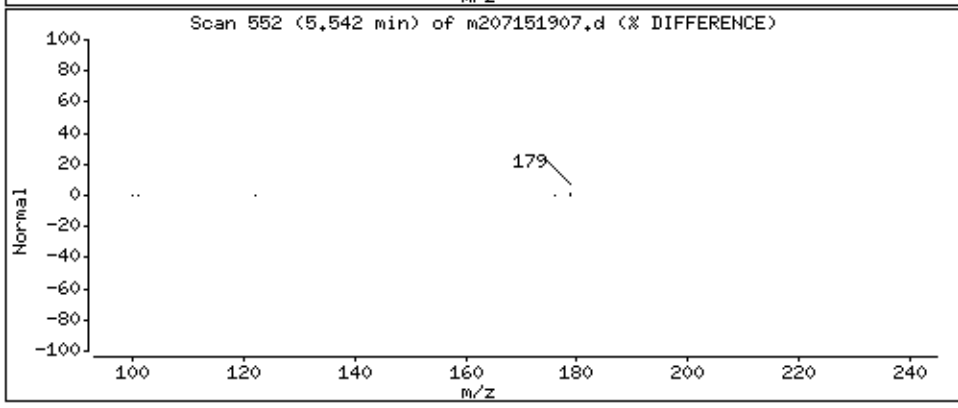
14 Phenanthrene

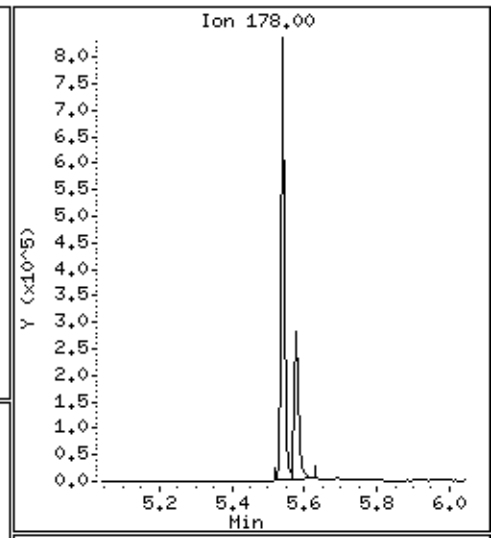
Concentration: 2840 ug/Kg

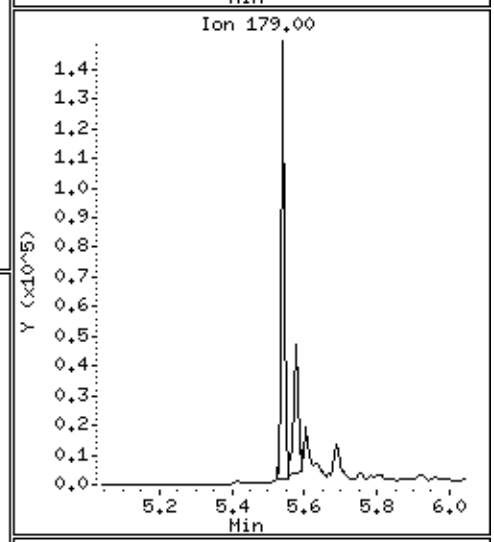


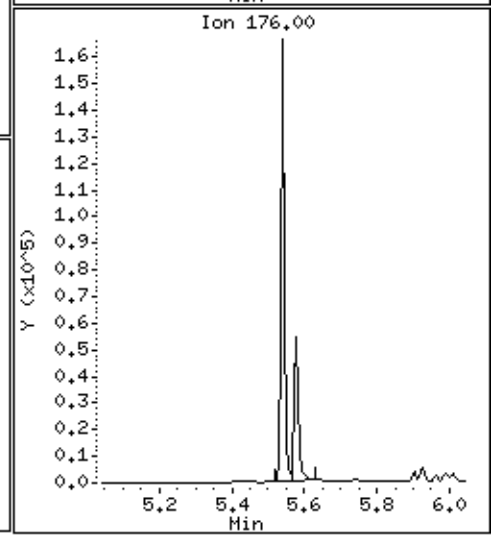












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

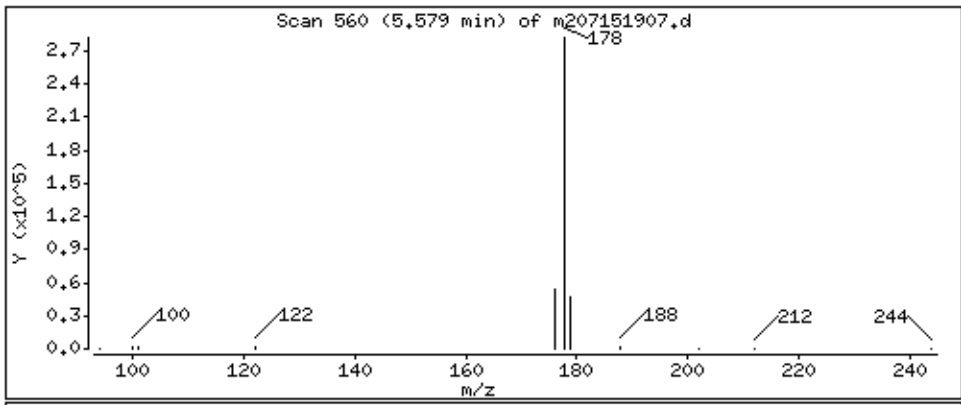
Operator: DSC

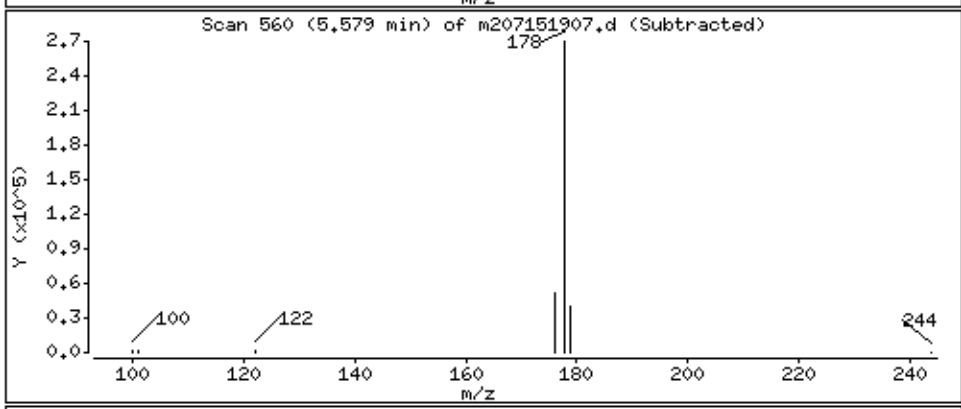
Column phase: RTX-5MS

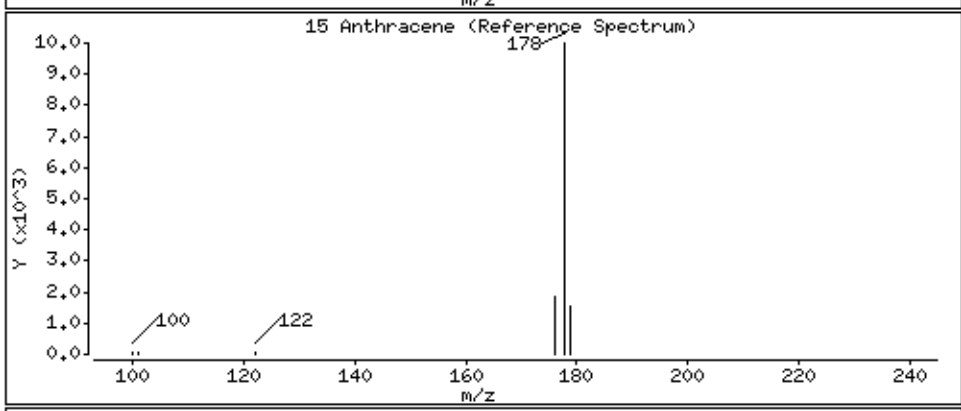
Column diameter: 0.25

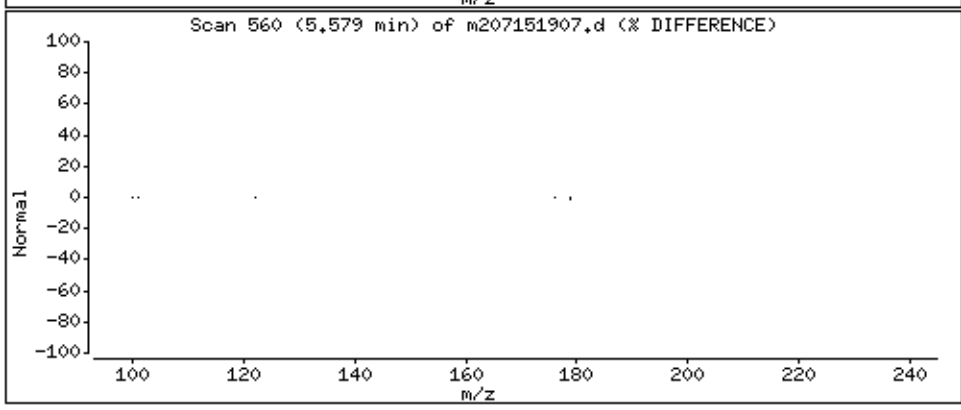
15 Anthracene

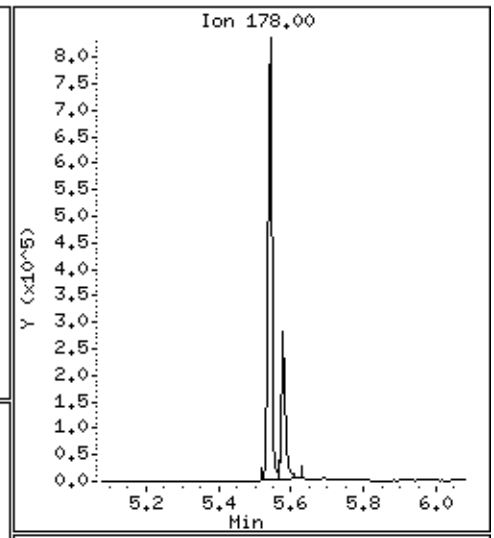
Concentration: 962 ug/Kg

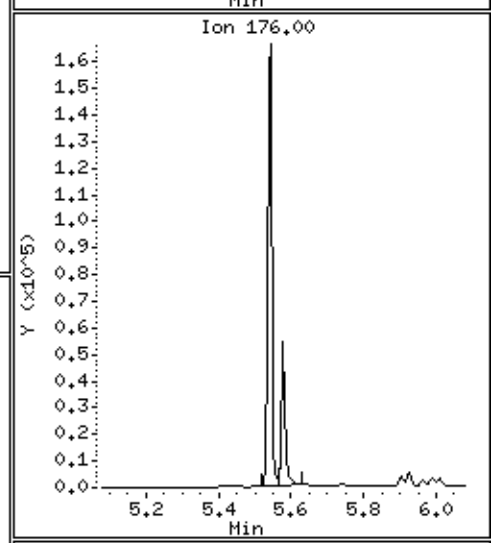


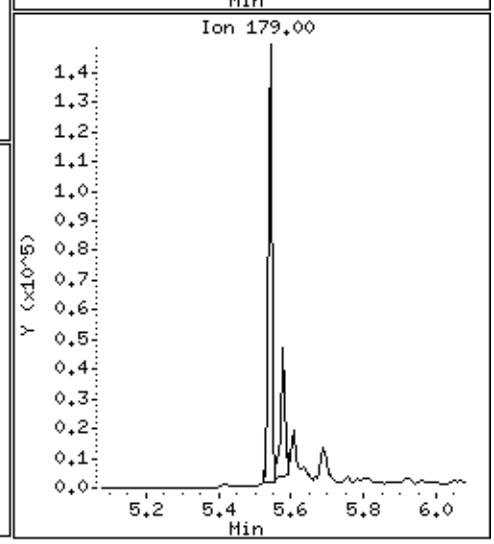












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

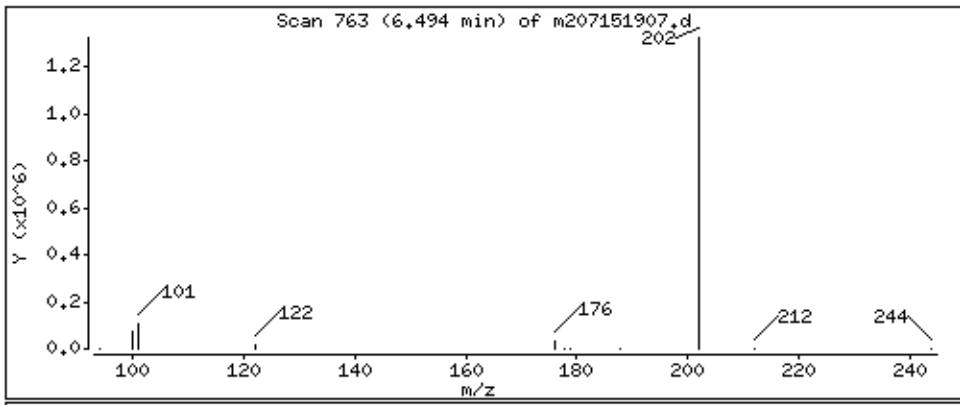
Operator: DSC

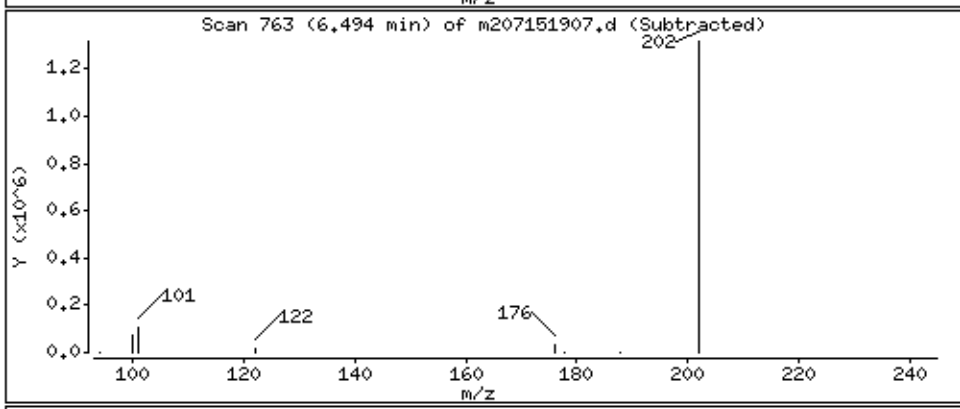
Column phase: RTX-5MS

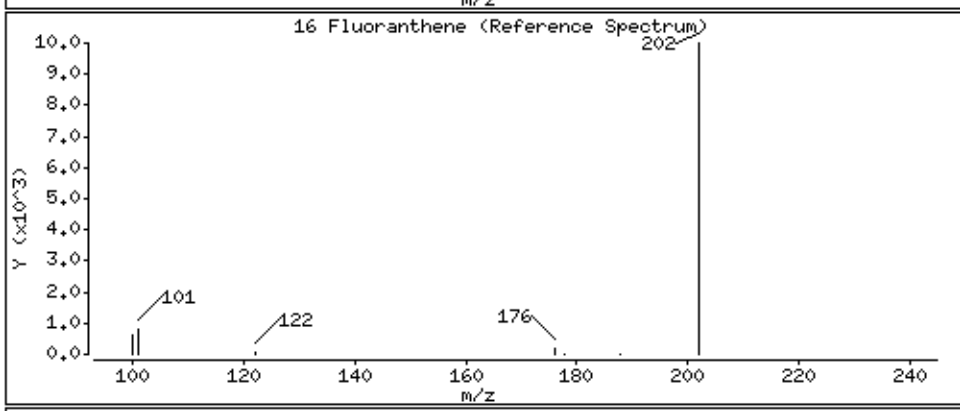
Column diameter: 0.25

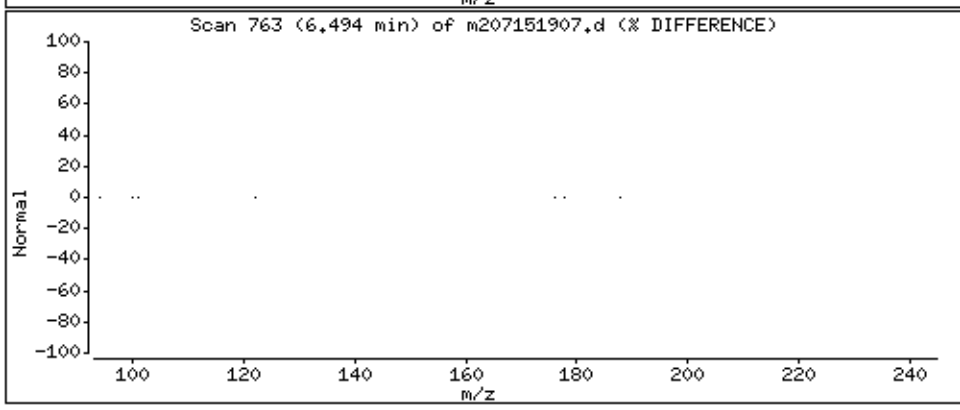
16 Fluoranthene

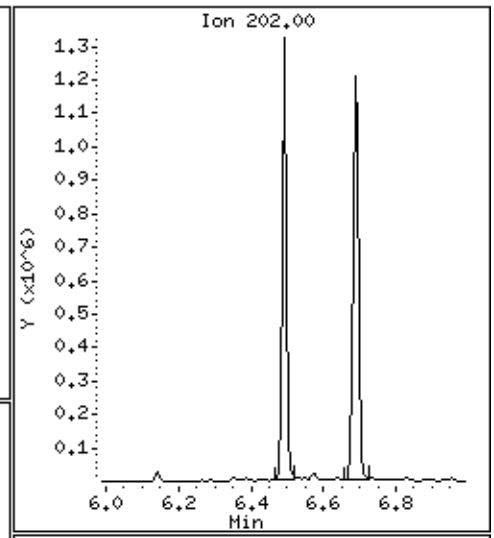
Concentration: 4620 ug/Kg

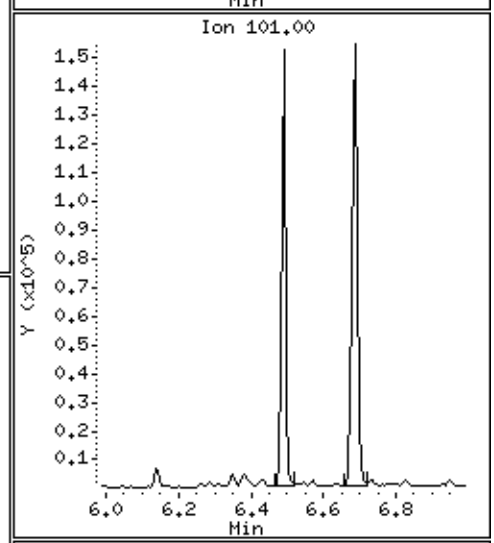


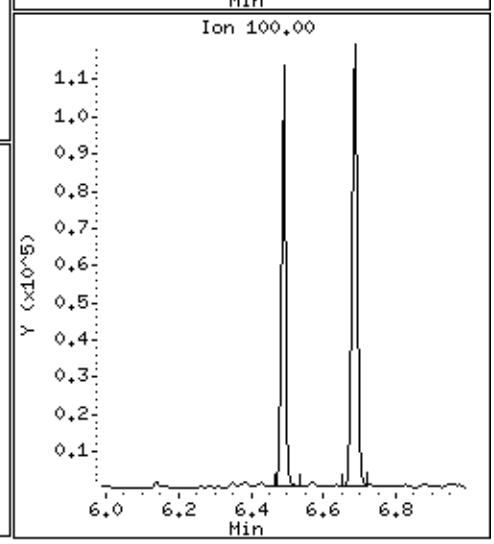












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

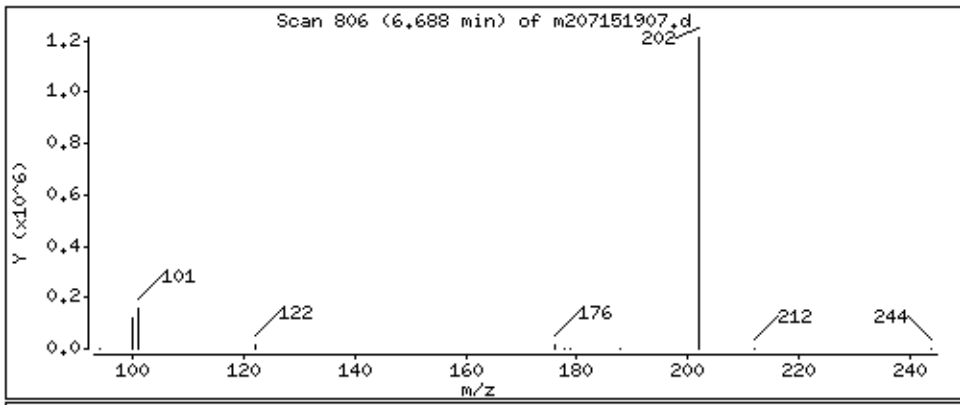
Operator: DSC

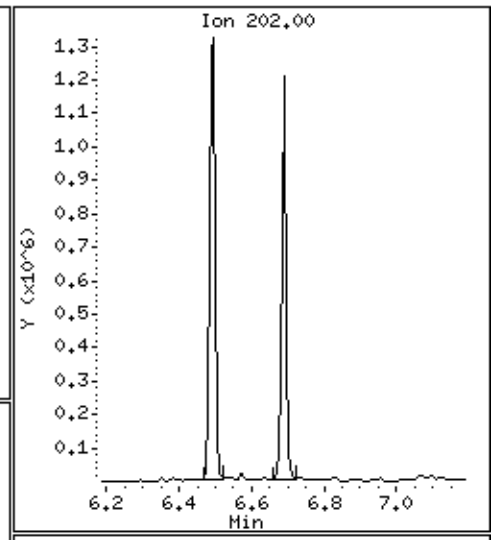
Column phase: RTX-5MS

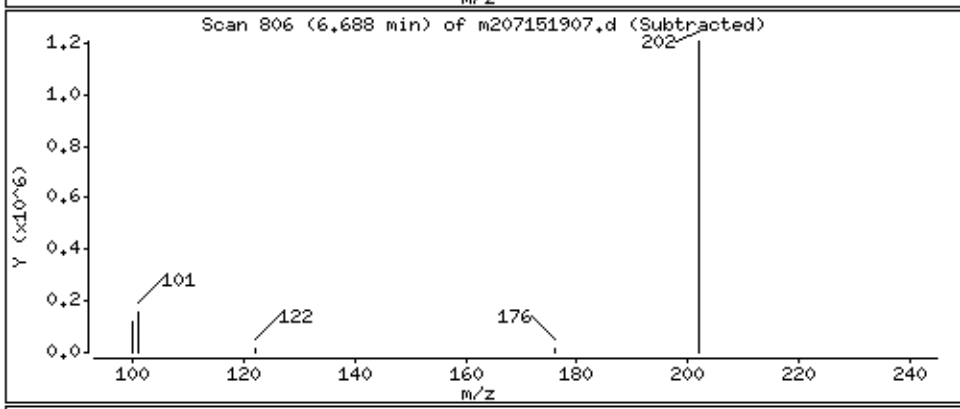
Column diameter: 0.25

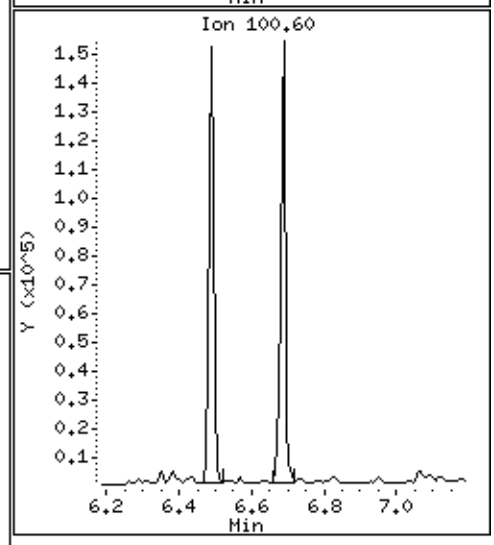
17 Pyrene

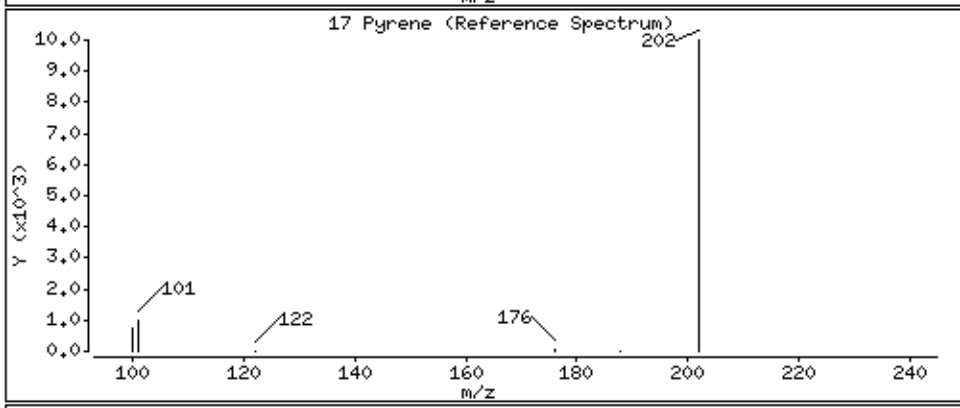
Concentration: 4080 ug/Kg

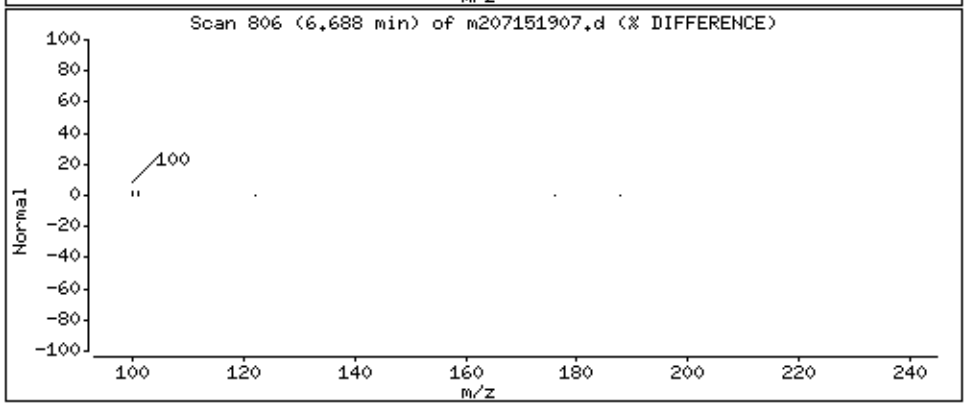












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

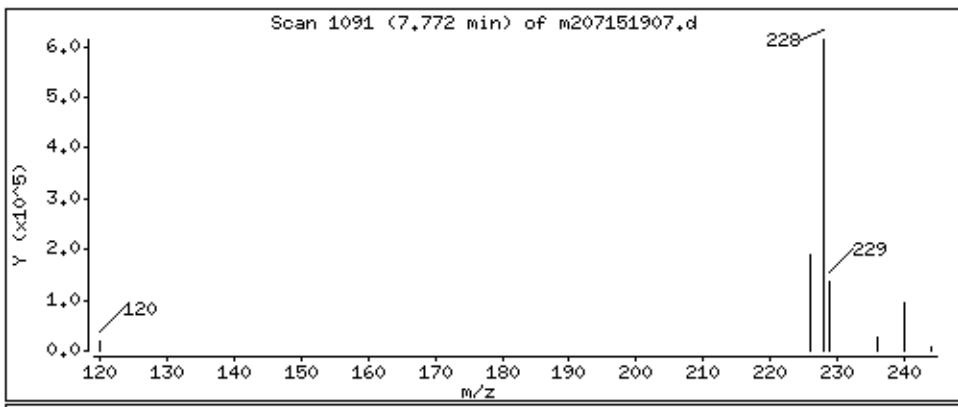
Operator: DSC

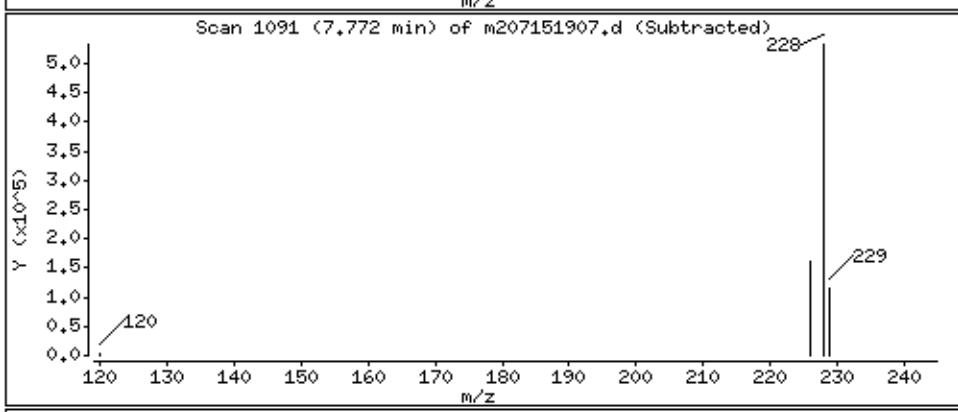
Column phase: RTX-5MS

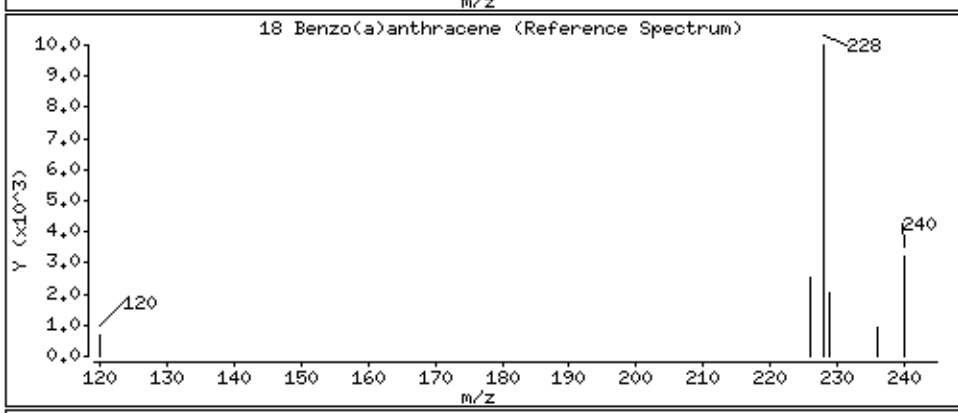
Column diameter: 0.25

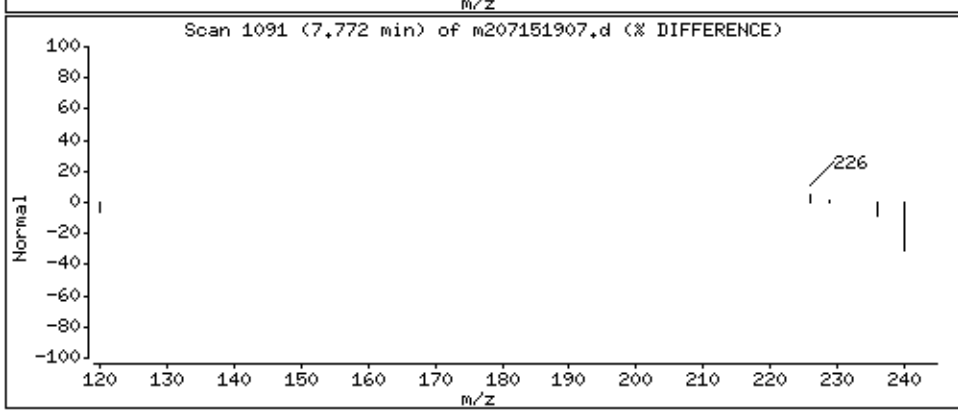
18 Benzo(a)anthracene

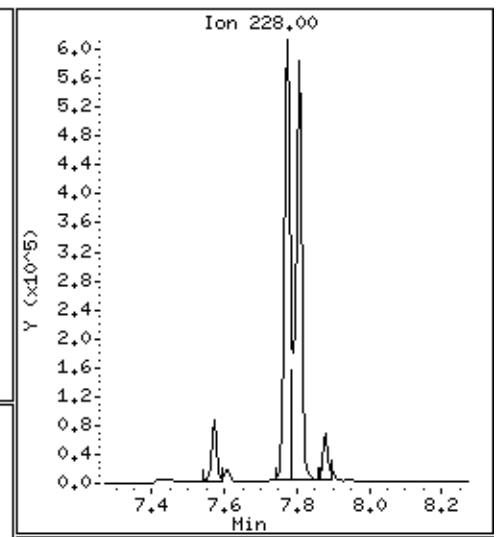
Concentration: 2520 ug/Kg

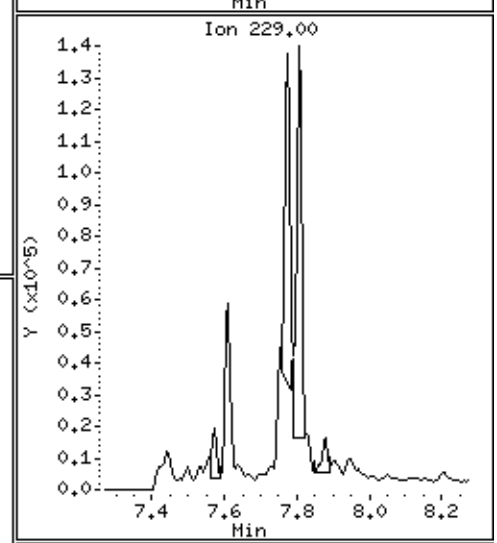


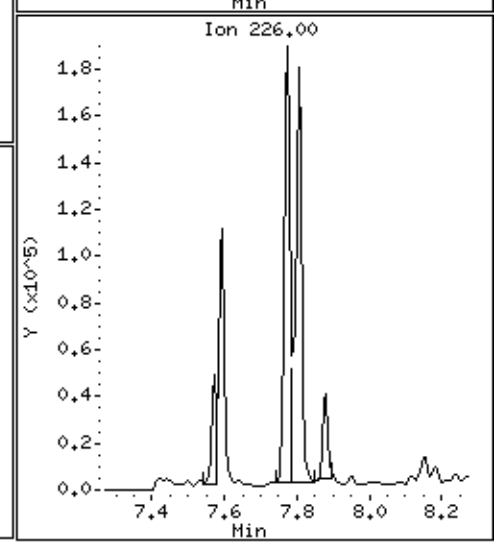












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

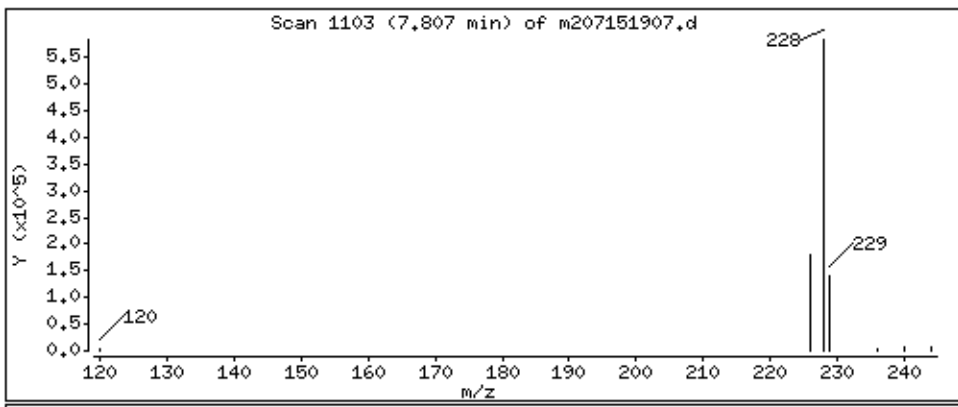
Operator: DSC

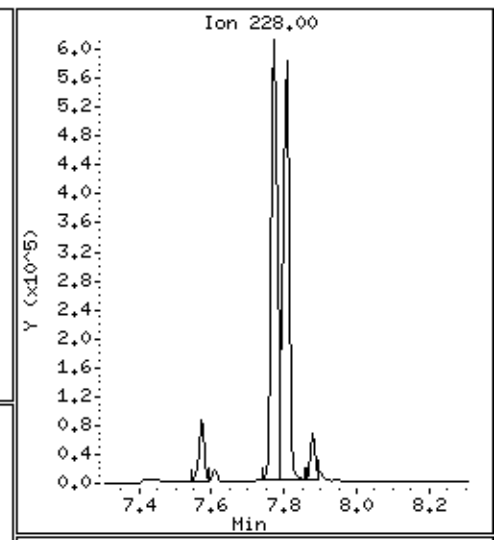
Column phase: RTX-5MS

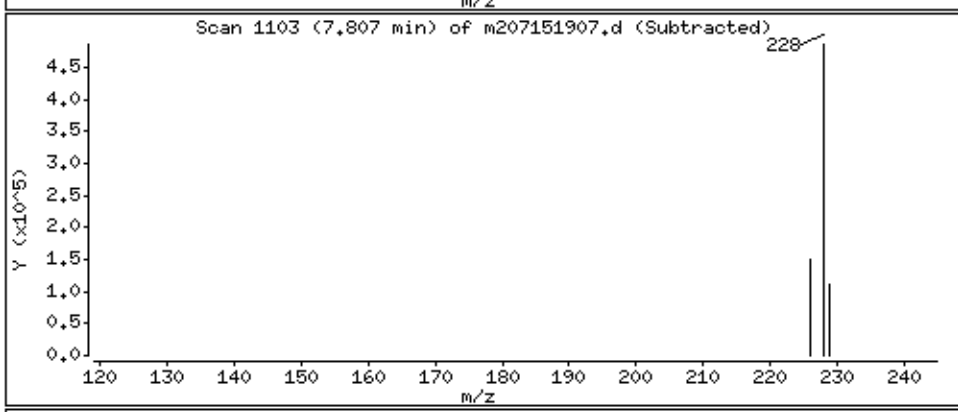
Column diameter: 0.25

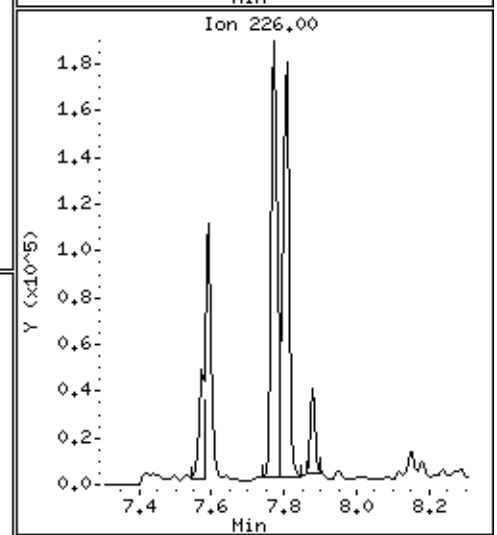
19 Chrysene

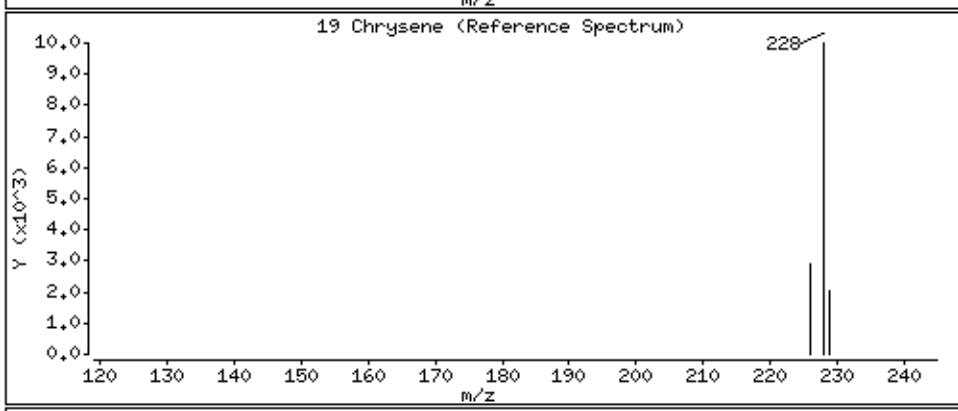
Concentration: 2450 ug/Kg

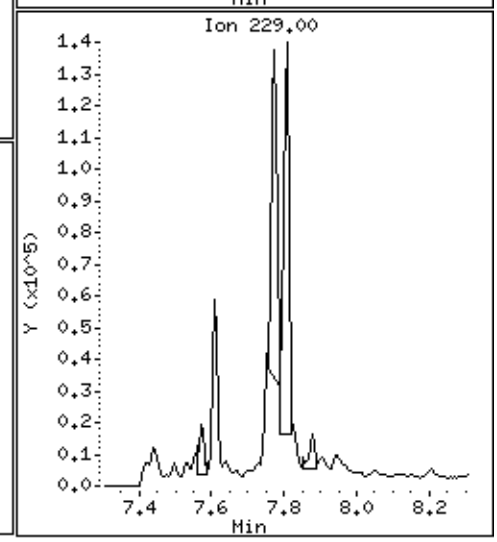


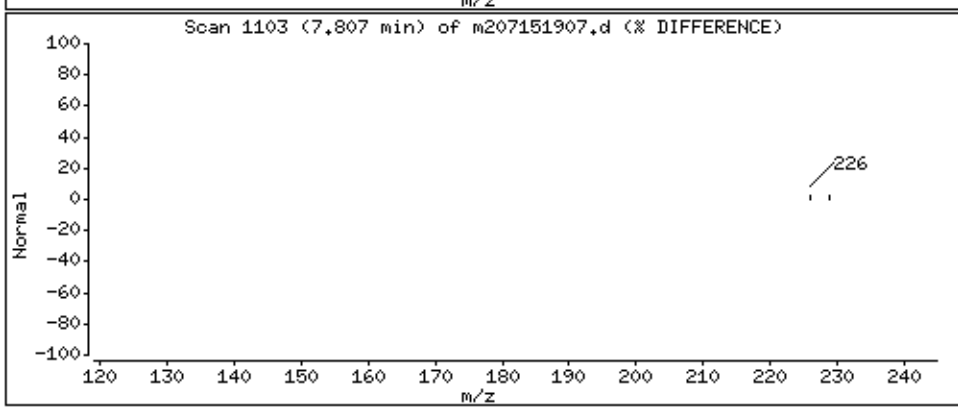












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

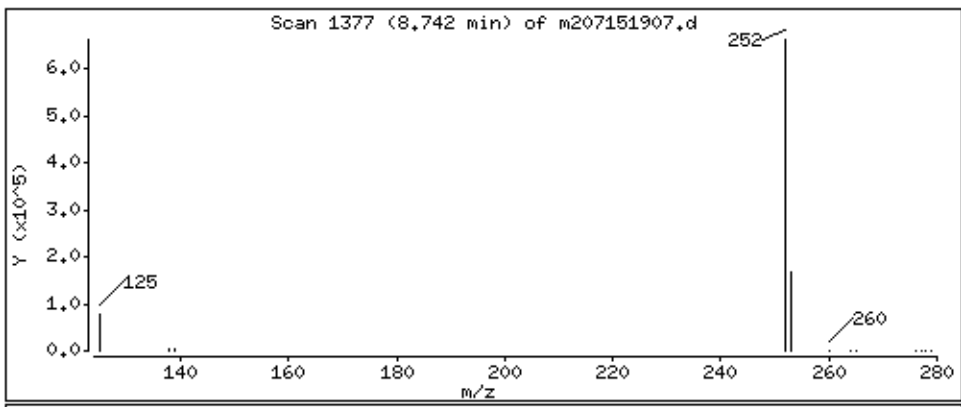
Operator: DSC

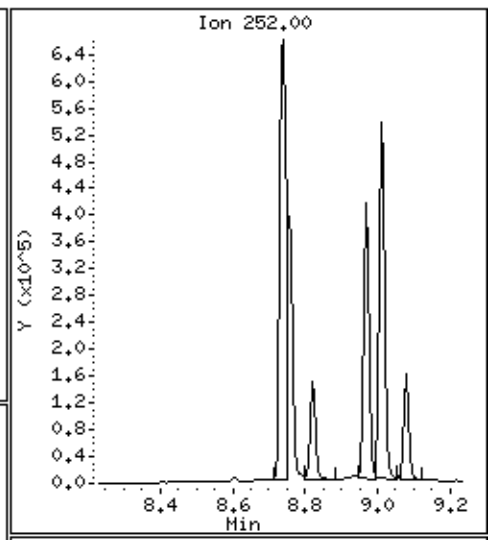
Column phase: RTX-5MS

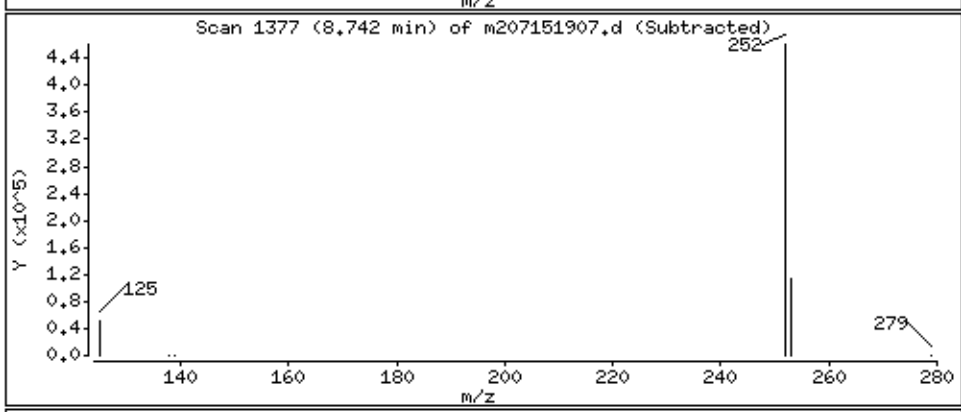
Column diameter: 0.25

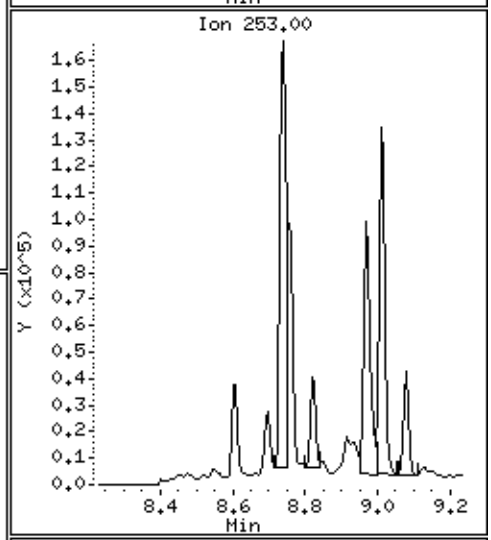
20 Benzo(b)fluoranthene

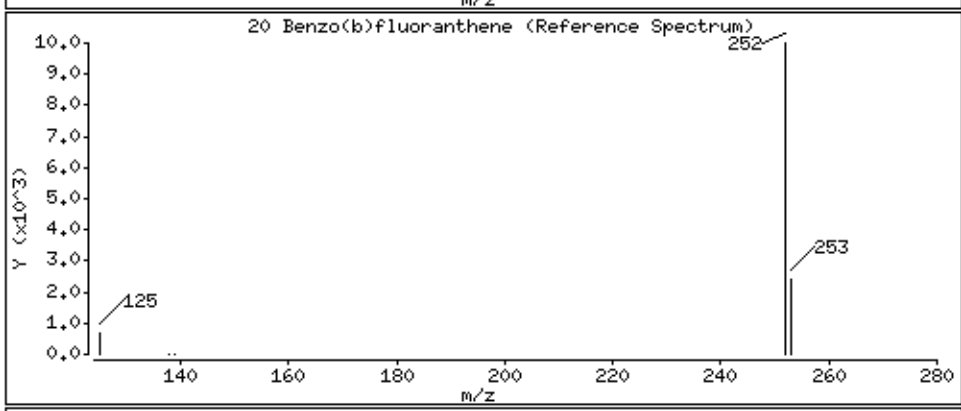
Concentration: 3240 ug/Kg

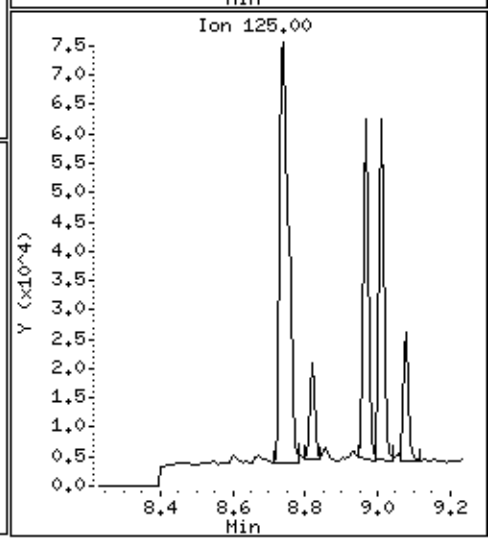


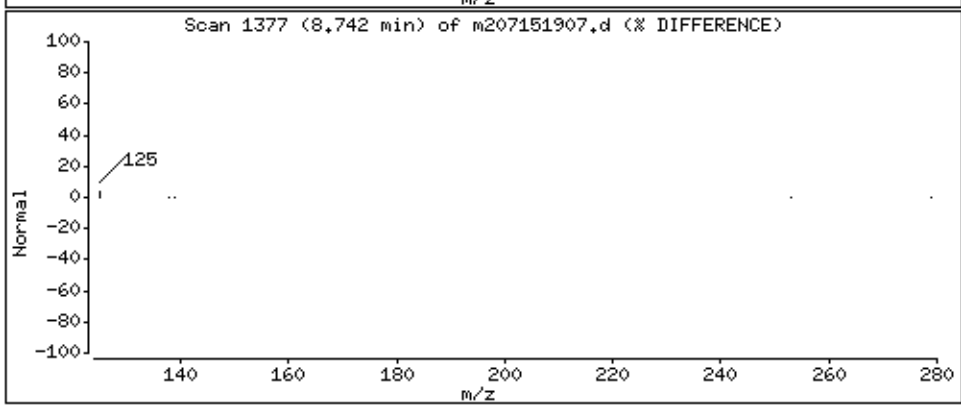












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

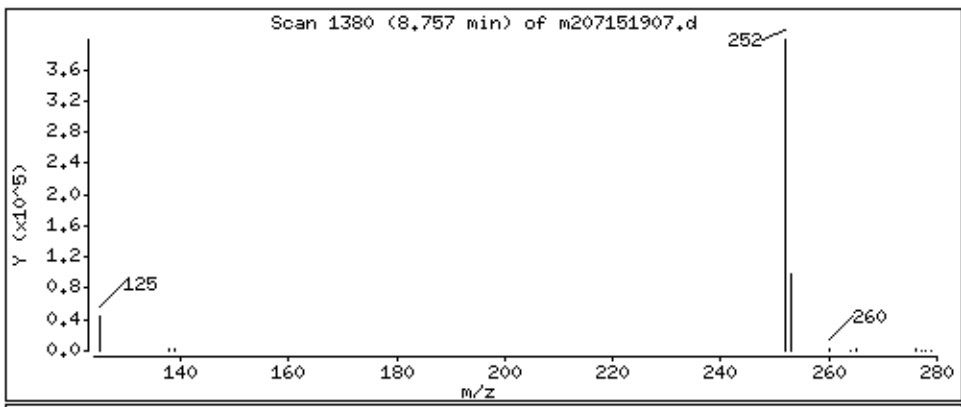
Operator: DSC

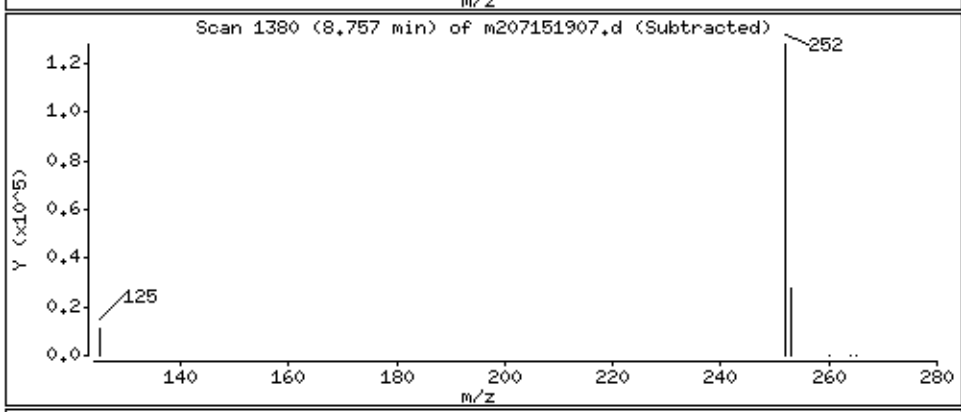
Column phase: RTX-5MS

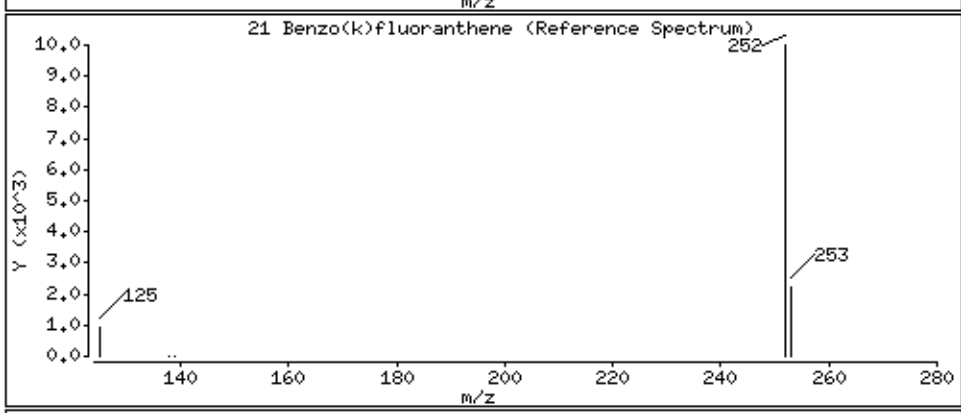
Column diameter: 0.25

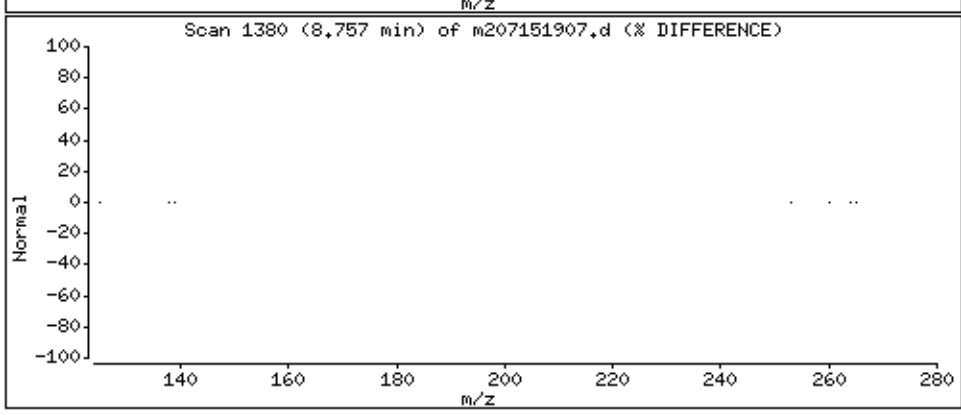
21 Benzo(k)fluoranthene

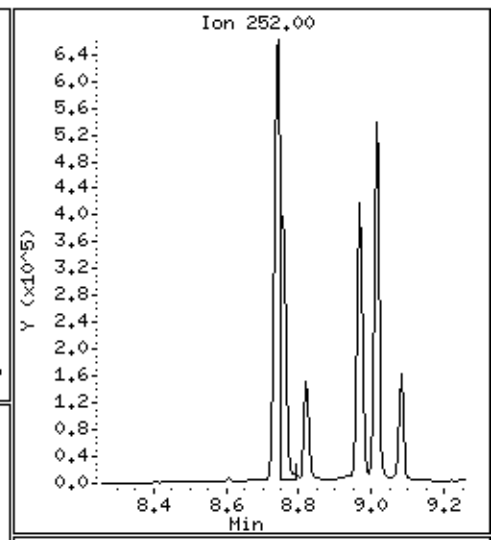
Concentration: 1290 ug/Kg

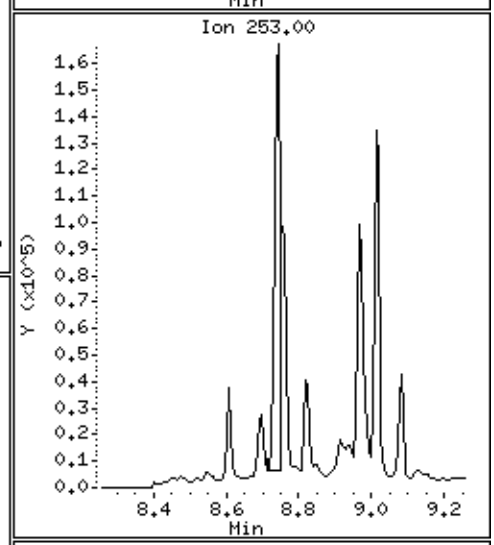


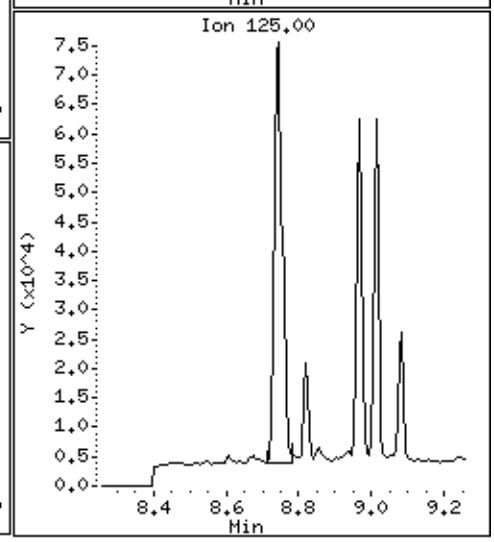












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

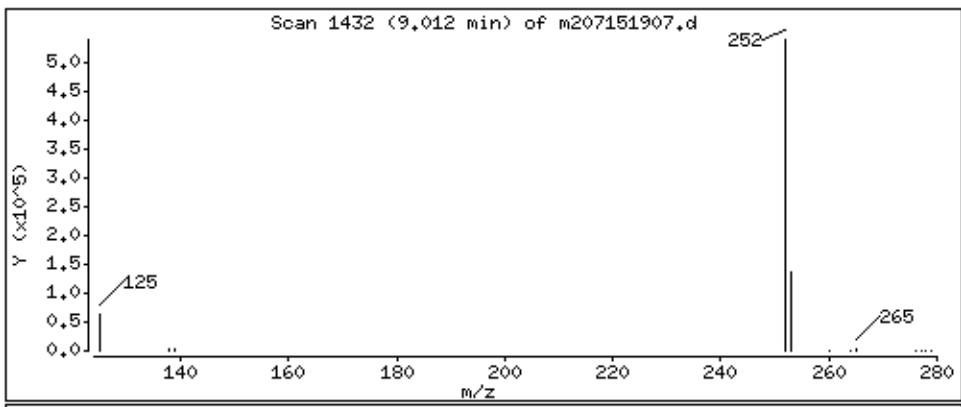
Operator: DSC

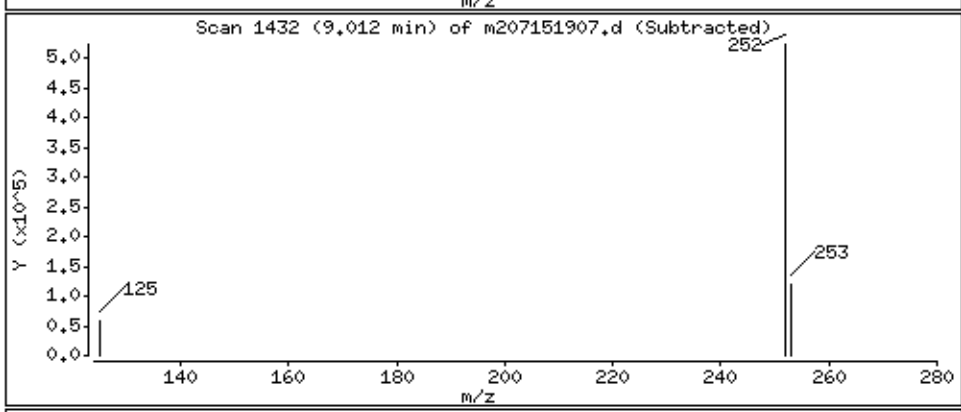
Column phase: RTX-5MS

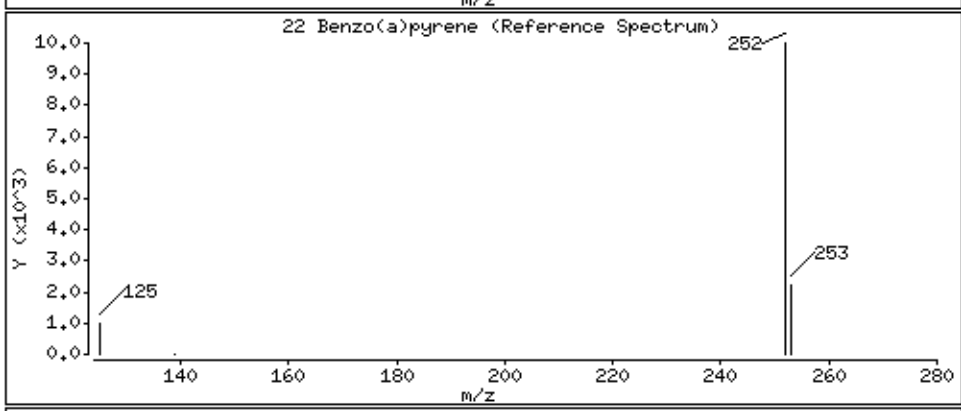
Column diameter: 0.25

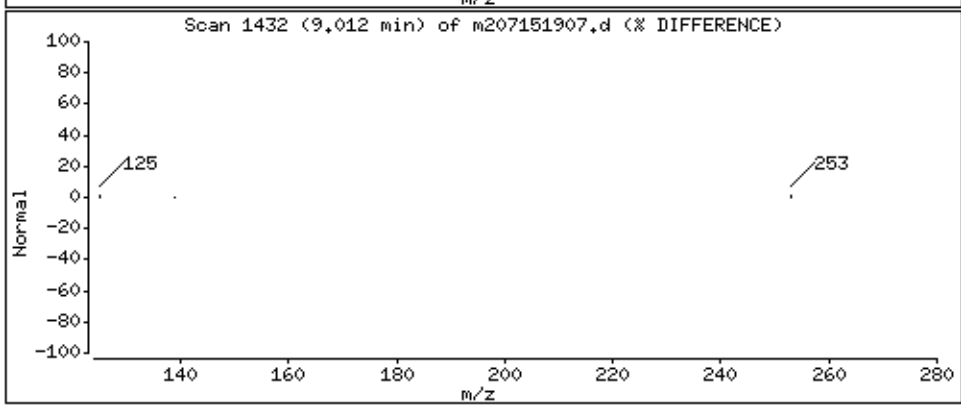
22 Benzo(a)pyrene

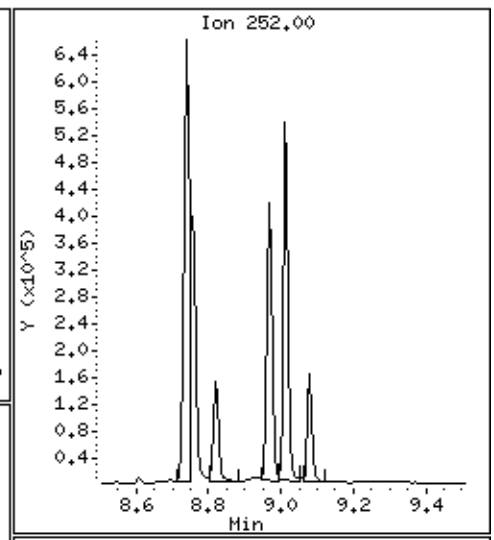
Concentration: 2120 ug/Kg

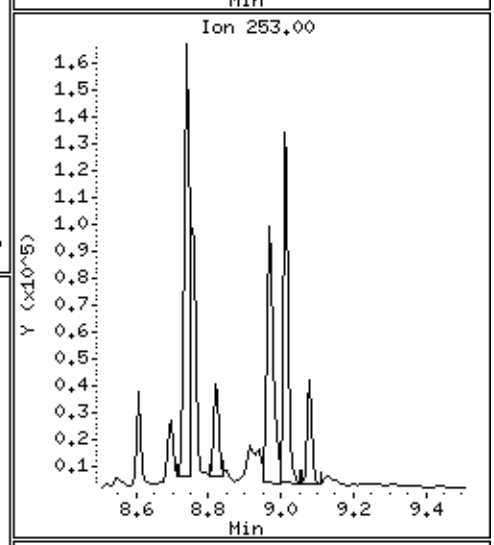


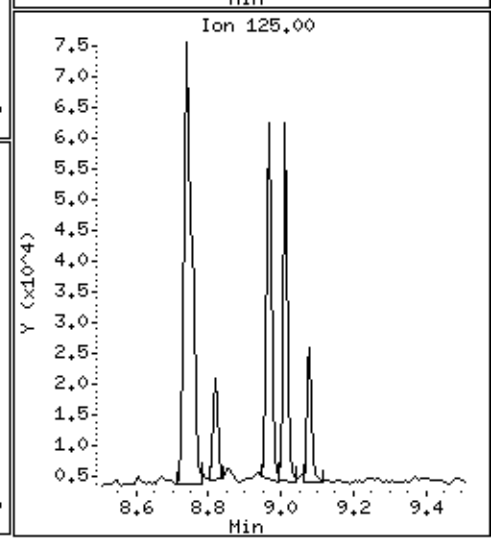












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151907.d

Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

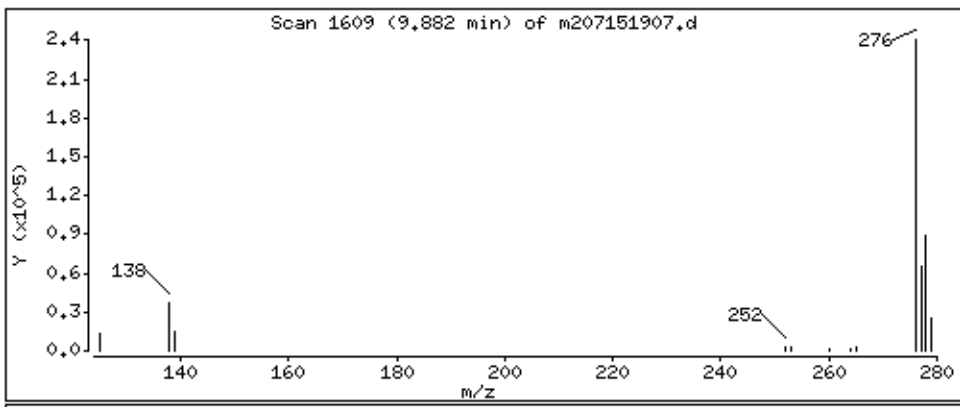
Operator: DSC

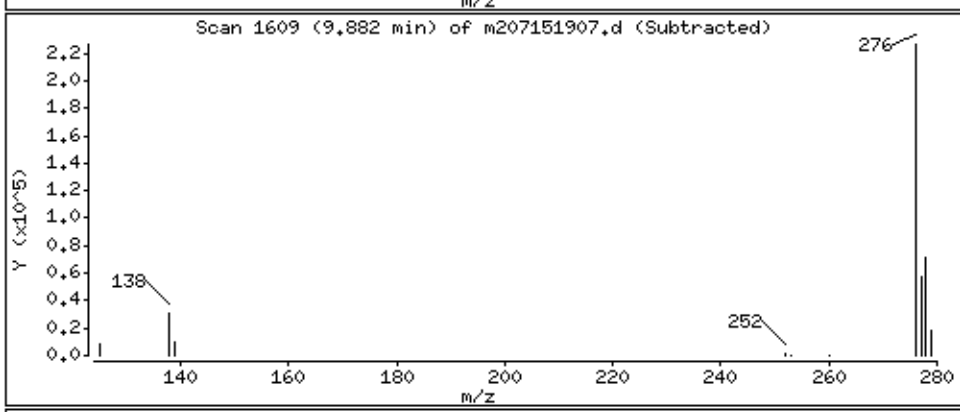
Column phase: RTX-5MS

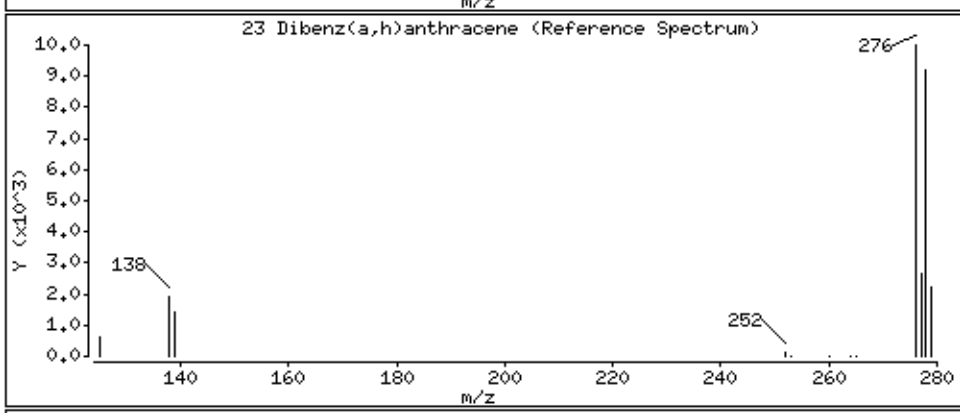
Column diameter: 0.25

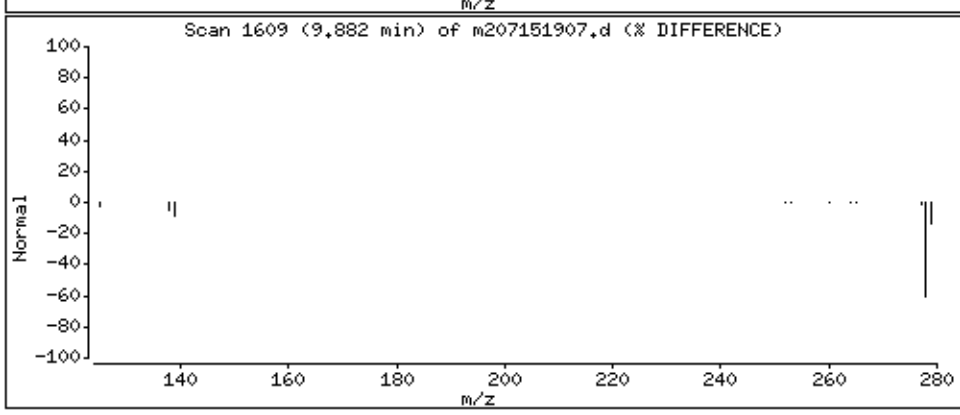
23 Dibenz(a,h)anthracene

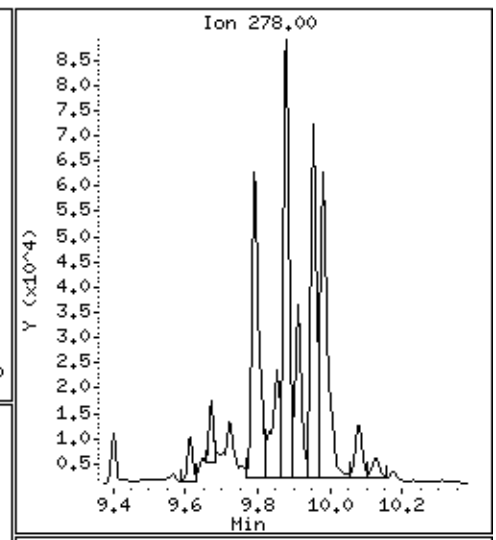
Concentration: 388 ug/Kg

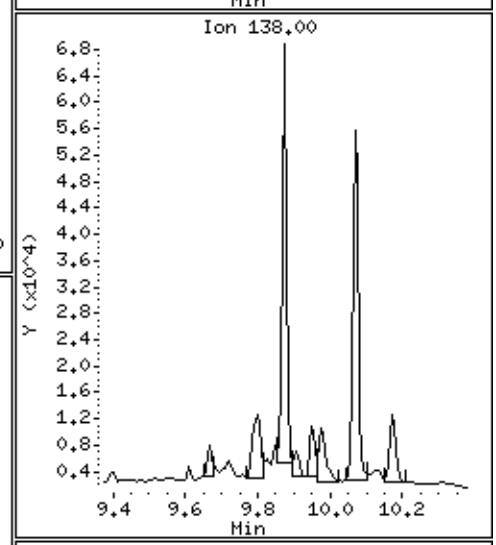


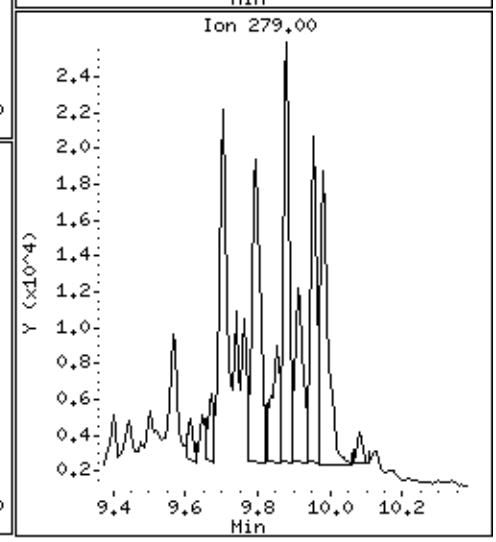












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

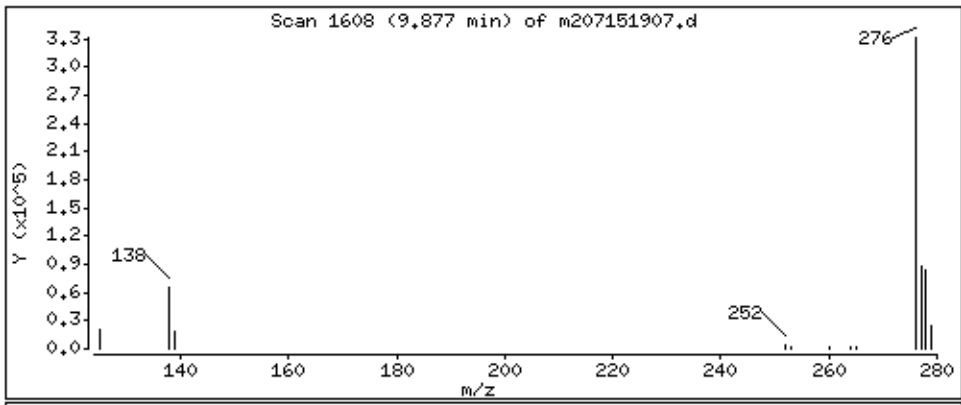
Operator: DSC

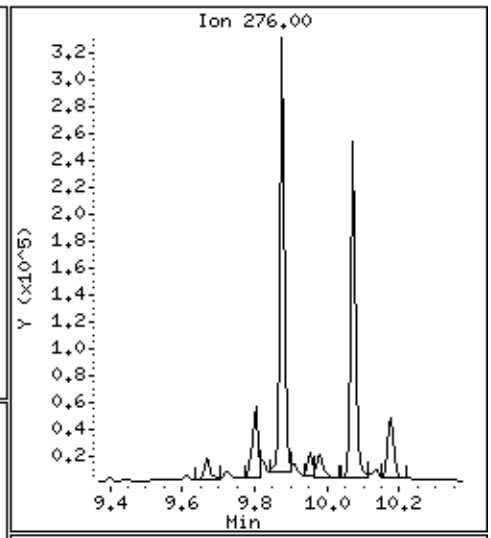
Column phase: RTX-5MS

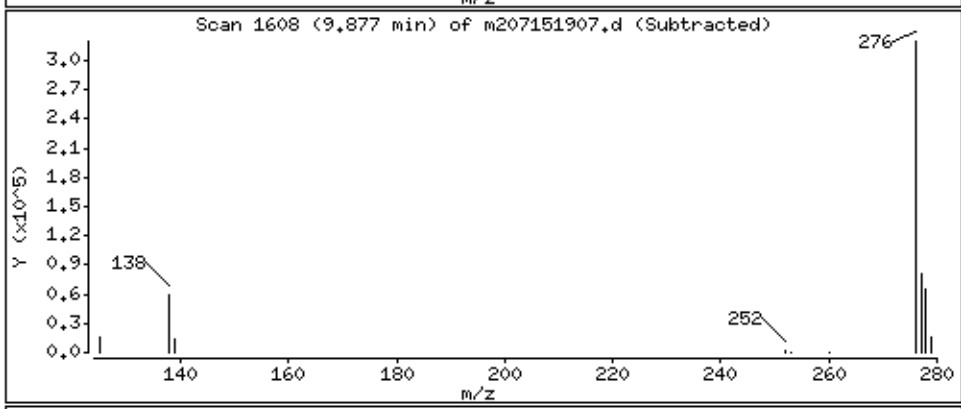
Column diameter: 0.25

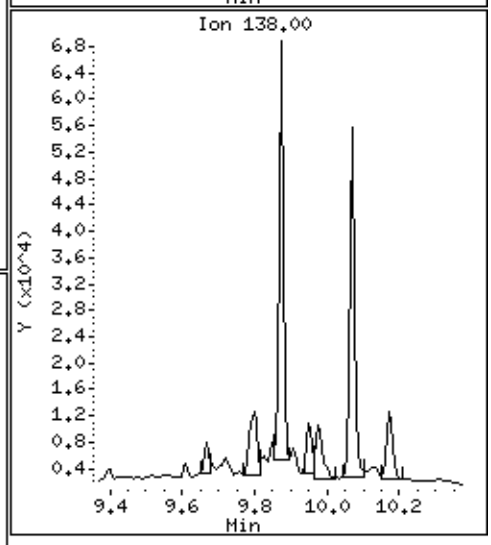
24 Indeno(1,2,3-cd)pyrene

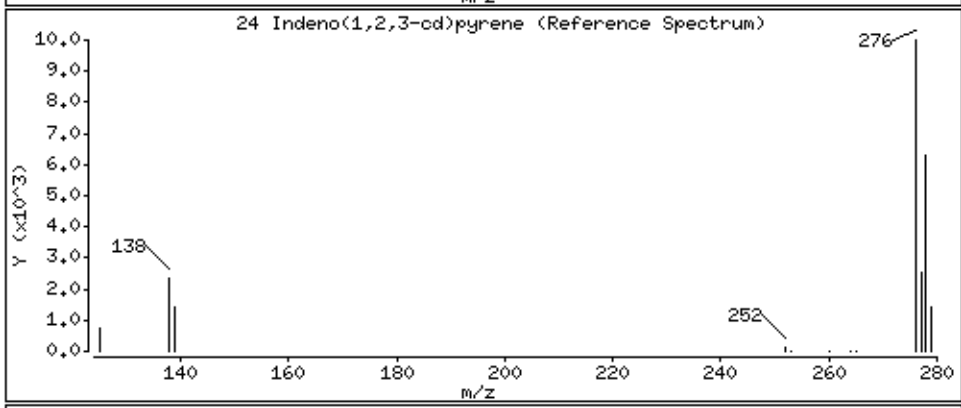
Concentration: 978 ug/Kg

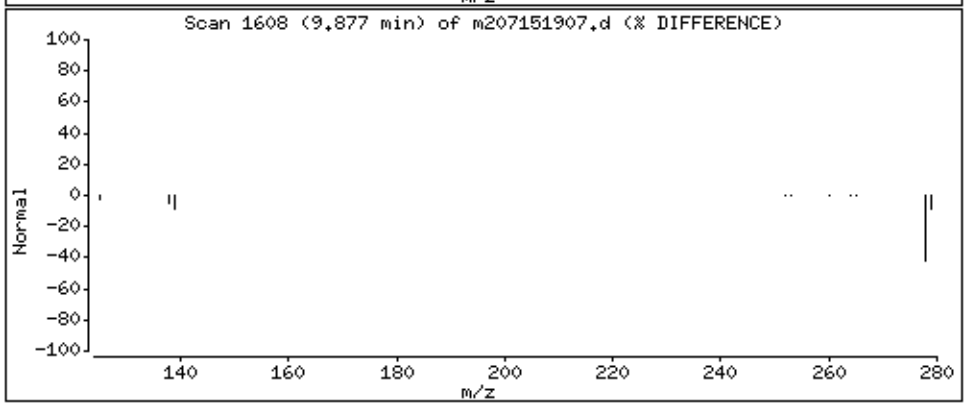












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Date : 15-JUL-2019 11:05

Client ID: AOC32 Lower-1

Instrument: 30mss2.i

Sample Info: 30313260001X10,

Volume Injected (uL): 1.0

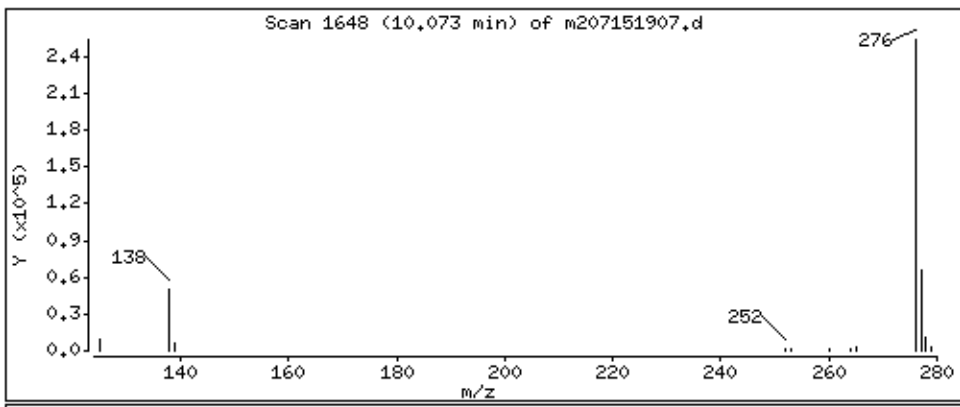
Operator: DSC

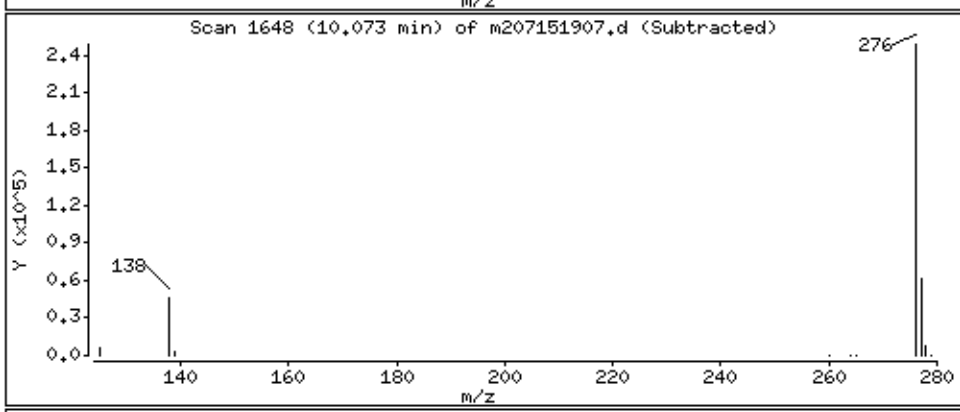
Column phase: RTX-5MS

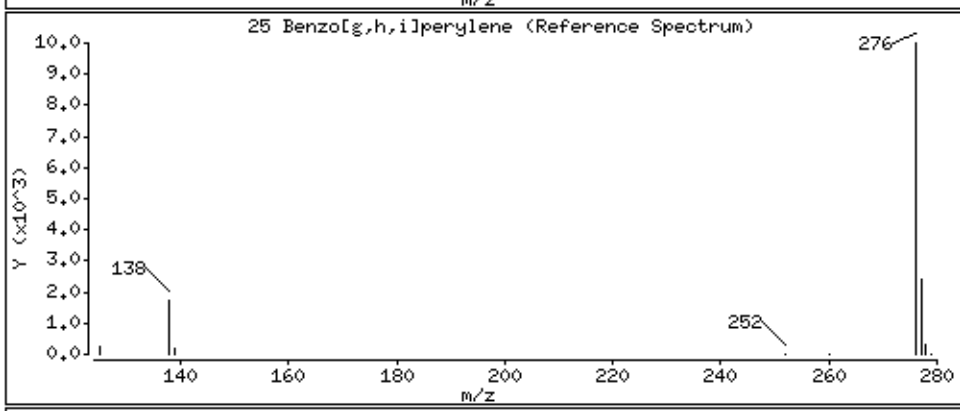
Column diameter: 0.25

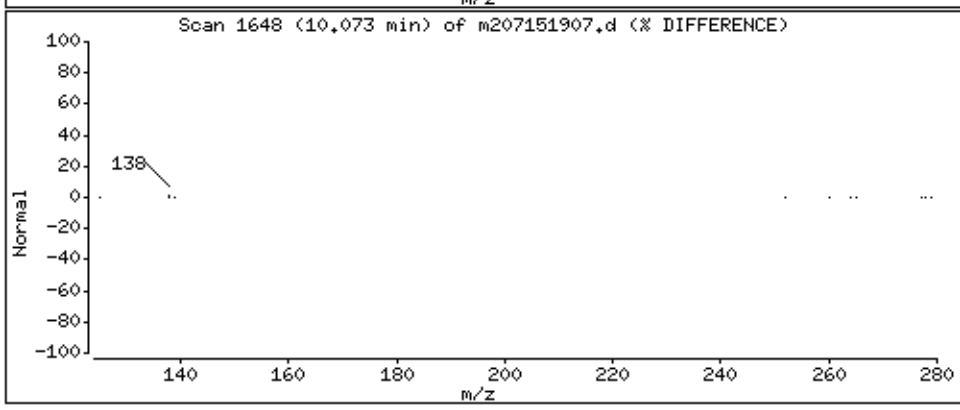
25 Benzo[g,h,i]perylene

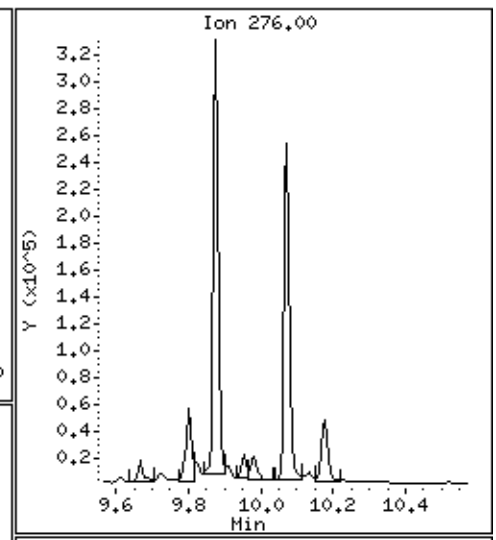
Concentration: 1030 ug/Kg

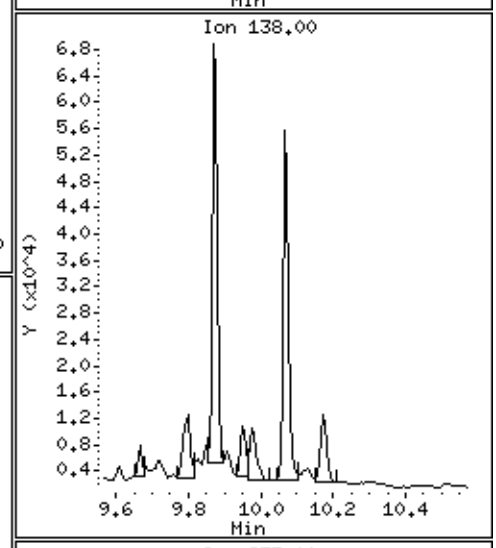


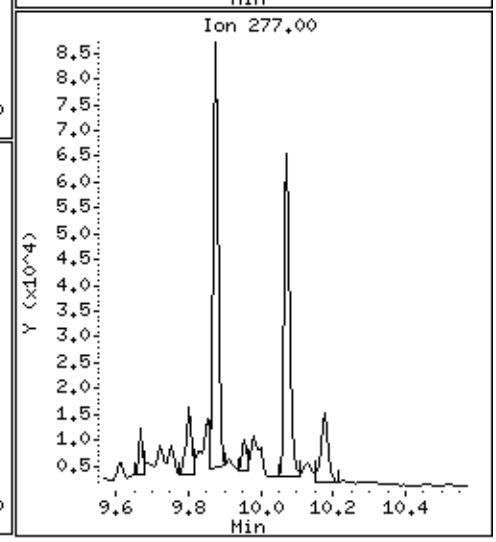












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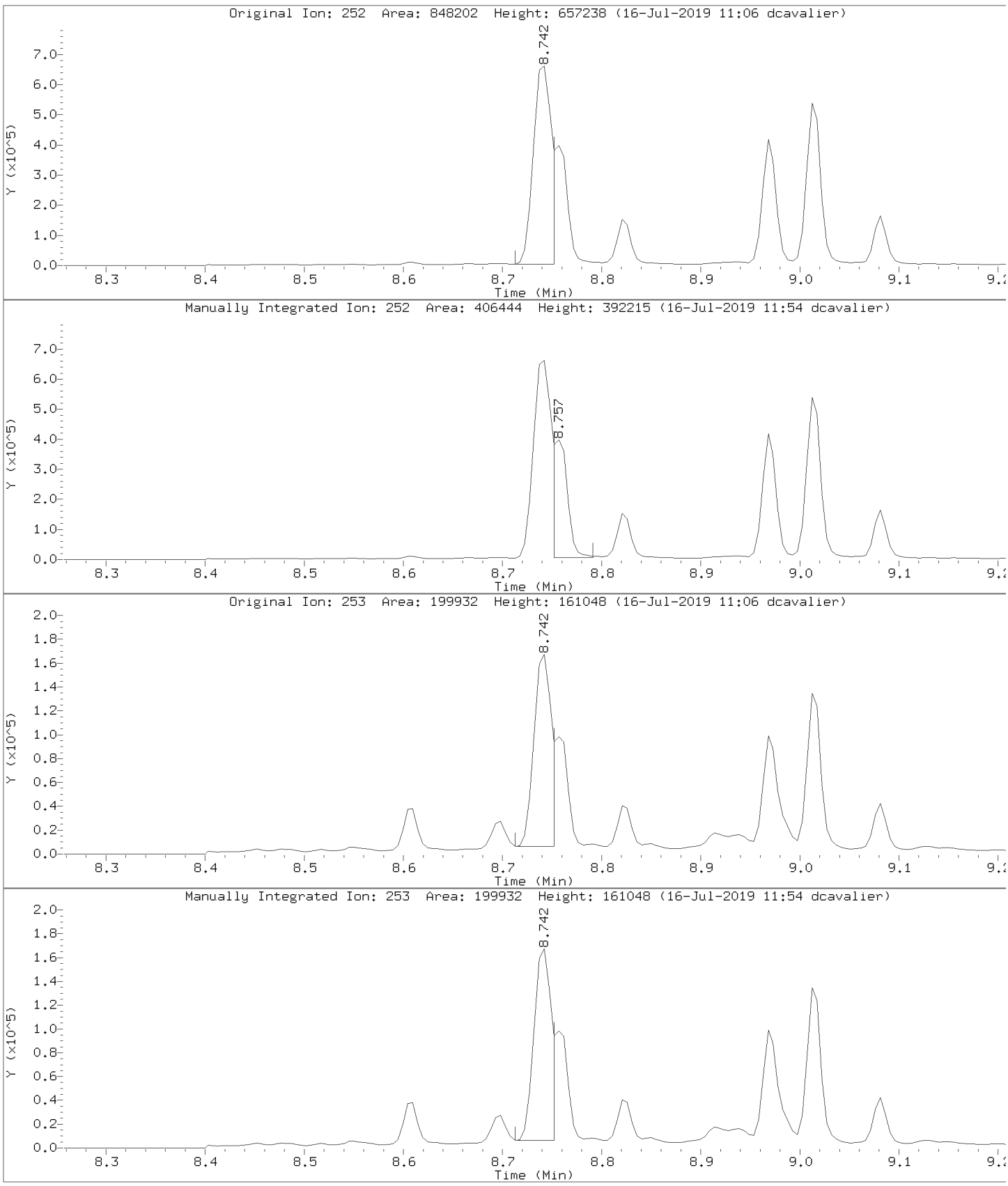
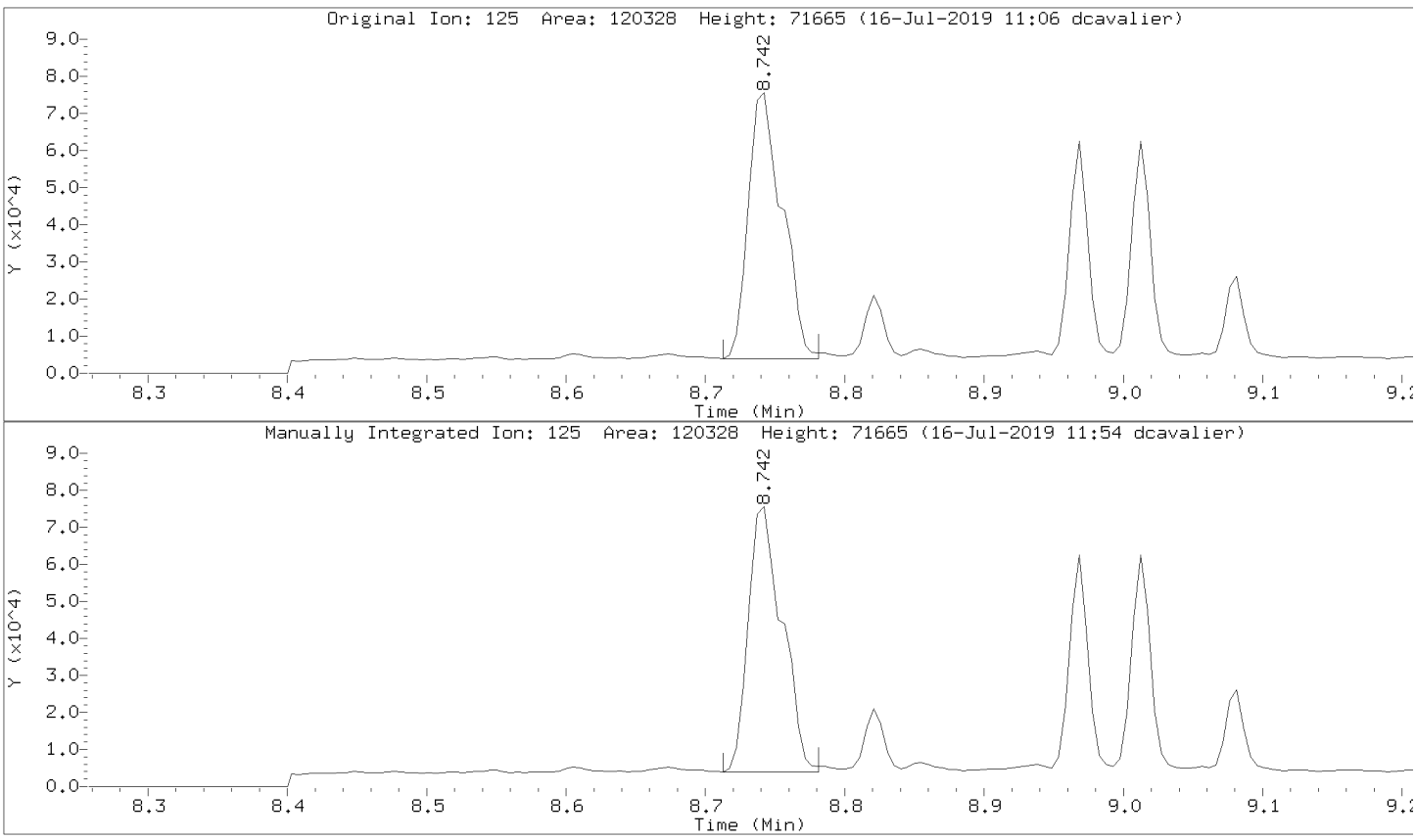
Injection Date: 15-JUL-2019 11:05
Instrument: 30mss2.i
Lab Sample ID: 30313260001

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151907.d
Injection Date: 15-JUL-2019 11:05
Instrument: 30mss2.i
Lab Sample ID: 30313260001



SAMPLE NO.

AOC32 Lower-2

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 30313260002
Date Analyzed: 07/15/2019 11:23
Lab File ID: MSS2071519.B\M207151908.D
Initial wt/vol: 15.23 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 14.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.31	
208-96-8	Acenaphthylene	0.51	
120-12-7	Anthracene	1.2	
56-55-3	Benzo(a)anthracene	3.9	
50-32-8	Benzo(a)pyrene	3.4	
205-99-2	Benzo(b)fluoranthene	5.5	
191-24-2	Benzo(g,h,i)perylene	1.7	
207-08-9	Benzo(k)fluoranthene	1.6	
218-01-9	Chrysene	3.6	
53-70-3	Dibenz(a,h)anthracene	0.67	
206-44-0	Fluoranthene	6.7	
86-73-7	Fluorene	0.32	
193-39-5	Indeno(1,2,3-cd)pyrene	1.6	
91-20-3	Naphthalene	0.55	
85-01-8	Phenanthrene	3.4	
129-00-0	Pyrene	5.9	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 15-JUL-2019 11:23
Operator : DSC Inst ID: 30mss2.i
Smp Info : 30313260002x10,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 10
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.230	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.395	3.390	(1.000)	612393	4.00000		
	8 Naphthalene	128	3.406	3.401	(1.003)	98745	0.71550	470	
	9 2-Methylnaphthalene	142	3.852	3.846	(1.135)	43996	0.47967	315	
	10 1-Methylnaphthalene	142	3.915	3.909	(1.153)	36759	0.37357	245	
$	6 2-Fluorobiphenyl (S)	172	4.080	4.081	(0.903)	48490	0.39735	26.1(R)	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	95606	0.66380	436	
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	365614	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	38082	0.40482	266	
	13 Fluorene	166	4.870	4.870	(1.078)	46086	0.41742	274	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	607549	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	650276	4.43424	2910	
	15 Anthracene	178	5.578	5.578	(1.010)	237602	1.58979	1040	
	16 Fluoranthene	202	6.494	6.490	(1.176)	1476768	8.79795	5780	
	17 Pyrene	202	6.688	6.688	(1.211)	1328237	7.69617	5050(Q)	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	52495	0.40704	26.7(QR)	
	18 Benzo(a)anthracene	228	7.775	7.772	(0.999)	787378	5.02856	3300	
*	4 Chrysene-d12 (IS)	240	7.786	7.783	(1.000)	572212	4.00000		
	19 Chrysene	228	7.807	7.807	(1.003)	744809	4.64407	3050	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.742	8.732	(0.965)	1180308	7.18907	4720(Q)	
21 Benzo(k)fluoranthene	252	8.761	8.757	(0.967)	423058	2.14472	1410(QM)	WP
22 Benzo(a)pyrene	252	9.017	9.007	(0.995)	700318	4.48381	2940	
* 5 Perylene-d12 (IS)	264	9.061	9.056	(1.000)	629129	4.00000		
23 Dibenz(a,h)anthracene	278	9.881	9.876	(1.091)	147014	0.86855	570(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.881	9.872	(1.091)	426806	2.08651	1370	
25 Benzo[g,h,i]perylene	276	10.078	10.068	(1.112)	366245	2.17460	1430	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

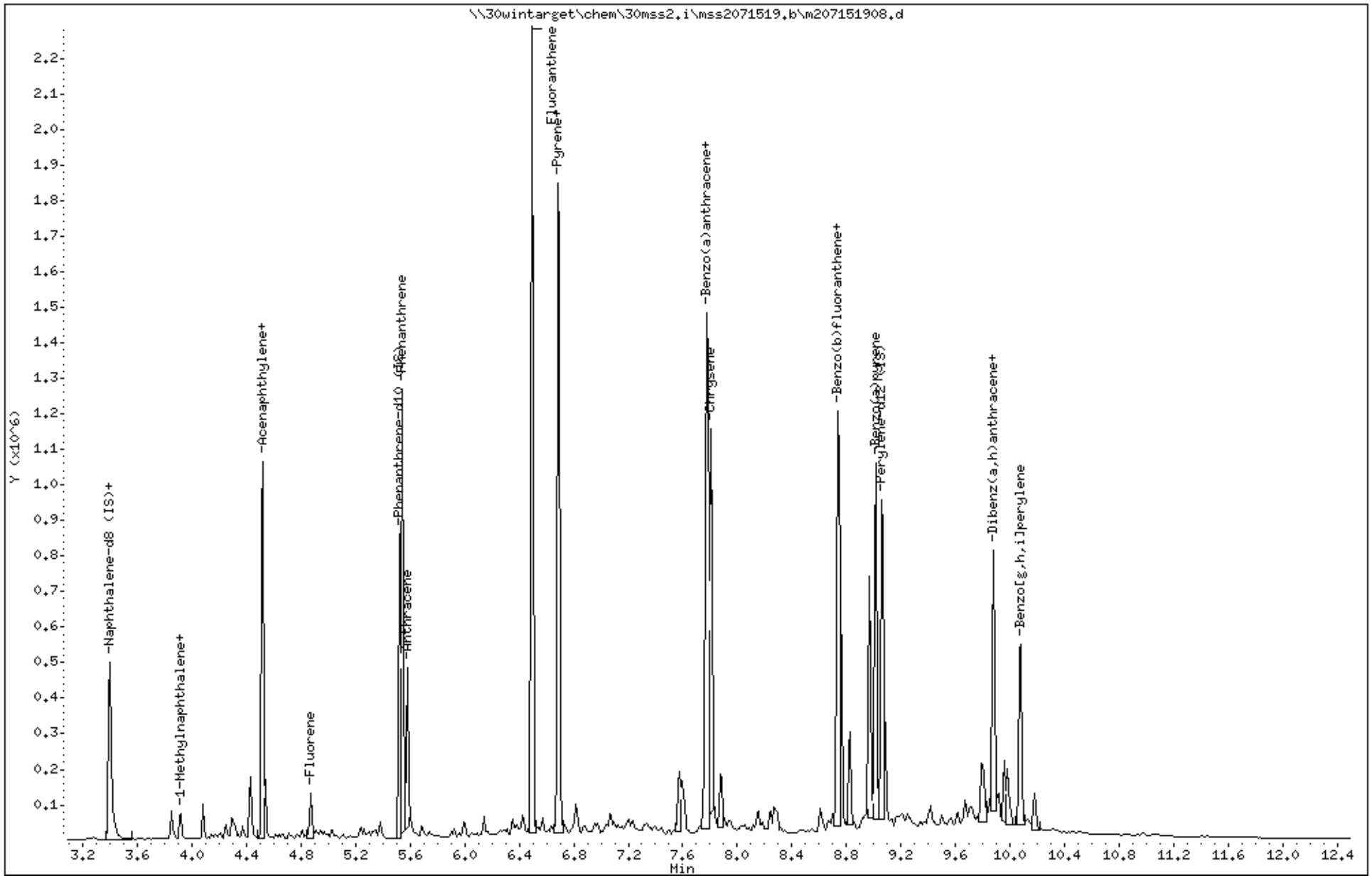
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260002
Client Smp ID: AOC32 Lower-2
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: DSC
Misc Info: 14824,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0985	U
91-20-3	Naphthalene	470	
91-57-6	2-Methylnaphthalene	315	
90-12-0	1-Methylnaphthalene	245	
208-96-8	Acenaphthylene	436	
83-32-9	Acenaphthene	266	
86-73-7	Fluorene	274	
85-01-8	Phenanthrene	2910	
120-12-7	Anthracene	1040	
206-44-0	Fluoranthene	5780	
129-00-0	Pyrene	5050	
56-55-3	Benzo(a)anthracene	3300	
218-01-9	Chrysene	3050	
205-99-2	Benzo(b)fluoranthene	4720	
207-08-9	Benzo(k)fluoranthene	1410	
50-32-8	Benzo(a)pyrene	2940	
53-70-3	Dibenz(a,h)anthracene	570	
193-39-5	Indeno(1,2,3-cd)pyrene	1370	
191-24-2	Benzo[g,h,i]perylene	1430	
321-60-8	2-Fluorobiphenyl (S)	26.1	
1718-51-0	Terphenyl-d14 (S)	26.7	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d
Date : 15-JUL-2019 11:23
Client ID: A0C32 Lower-2
Instrument: 30mss2.i
Sample Info: 30313260002X10,
Volume Injected (uL): 1.0
Operator: DSC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

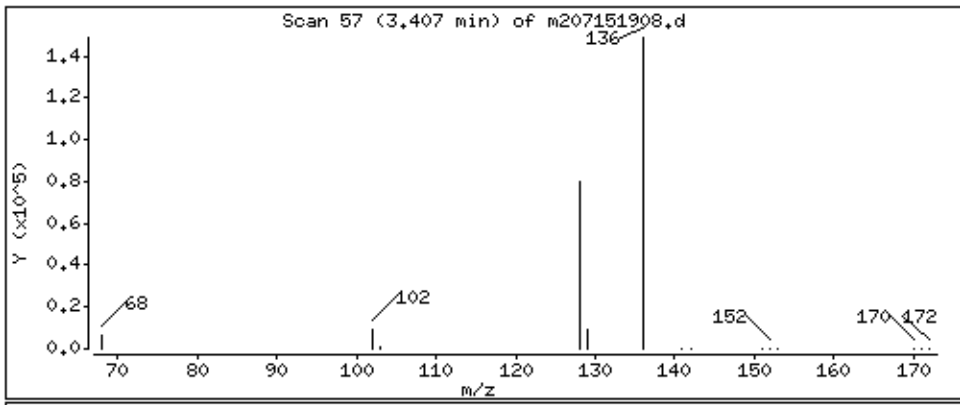
Operator: DSC

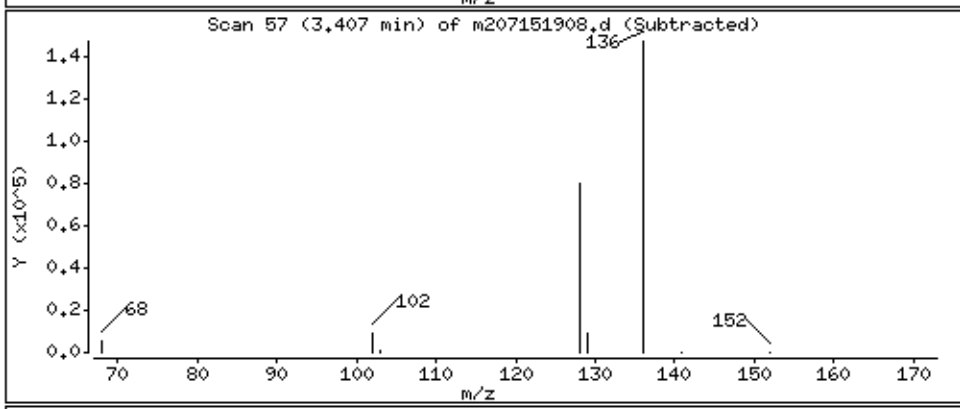
Column phase: RTX-5MS

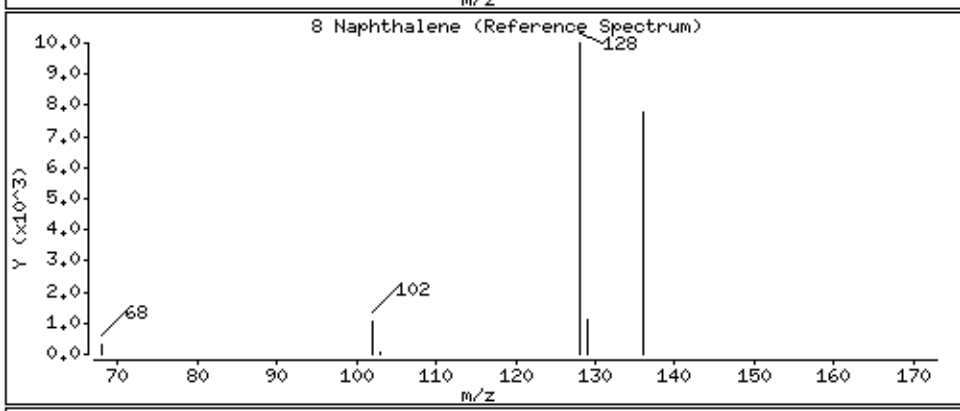
Column diameter: 0.25

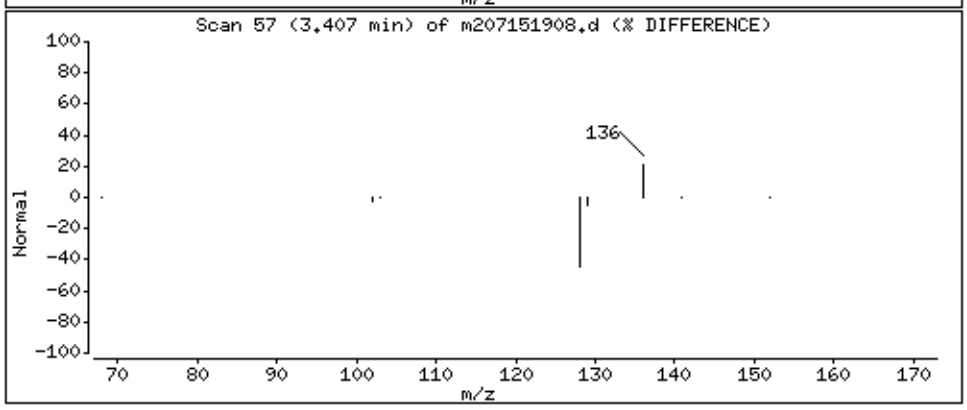
8 Naphthalene

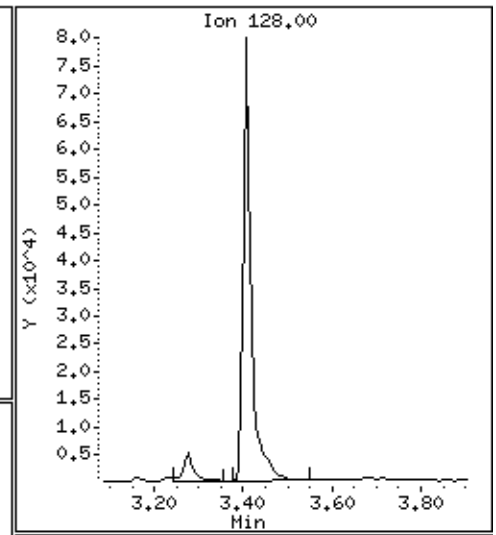
Concentration: 470 ug/Kg

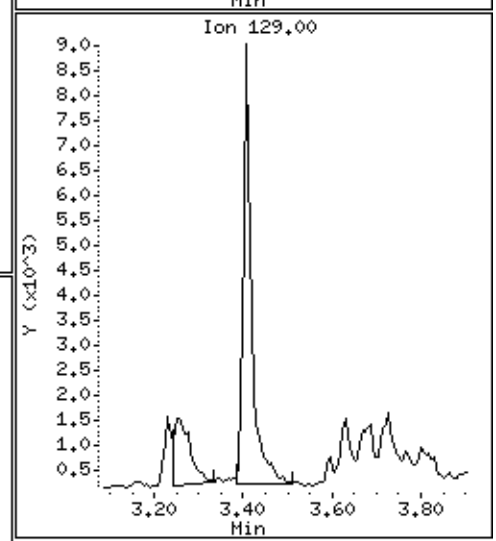












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

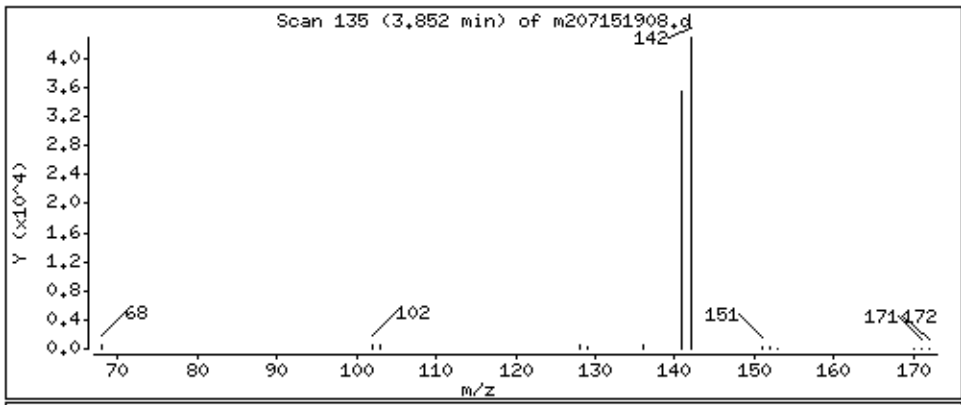
Operator: DSC

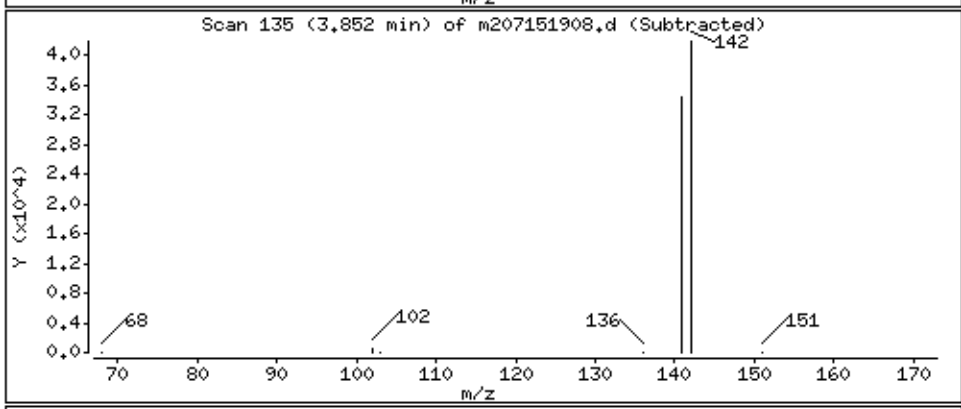
Column phase: RTX-5MS

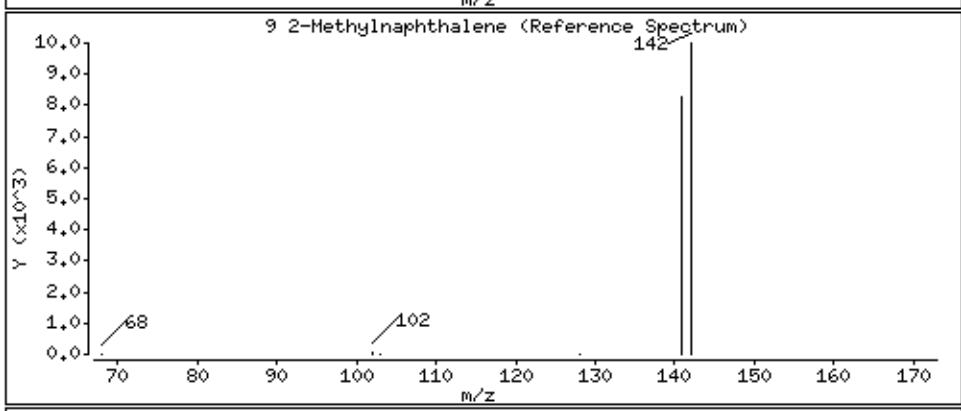
Column diameter: 0.25

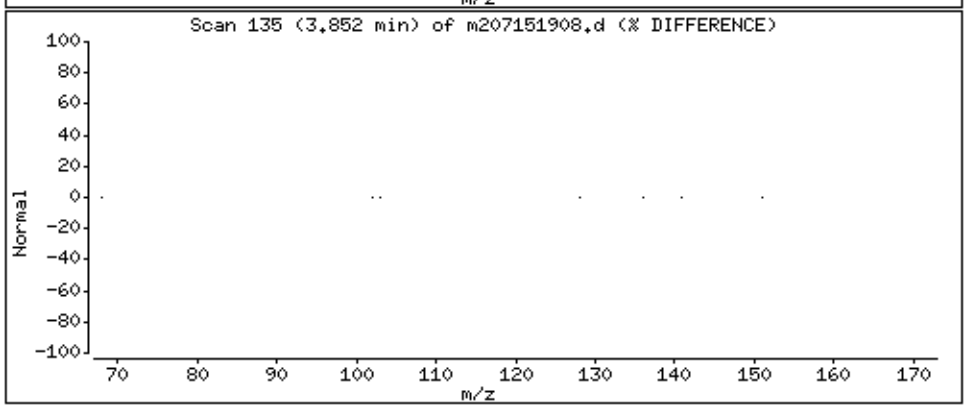
9 2-Methylnaphthalene

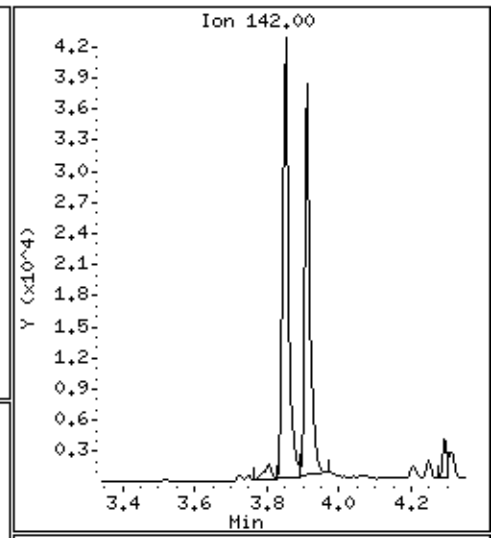
Concentration: 315 ug/Kg

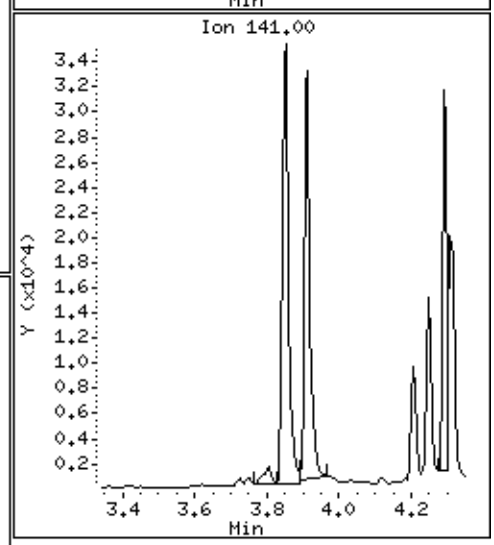












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

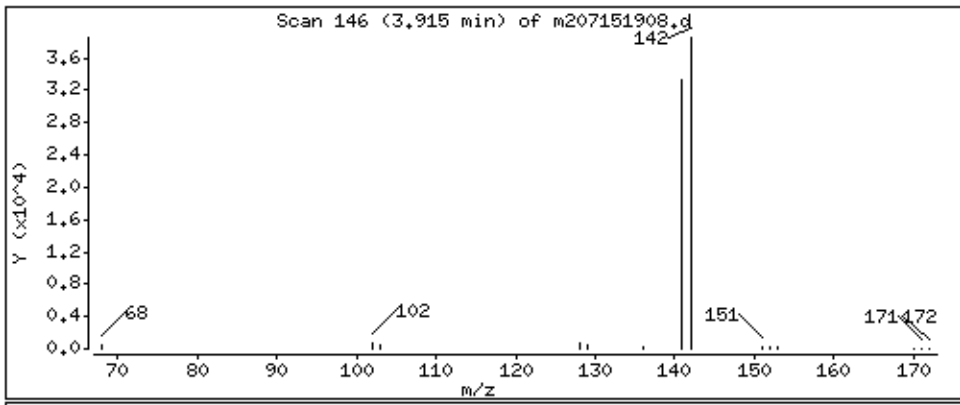
Operator: DSC

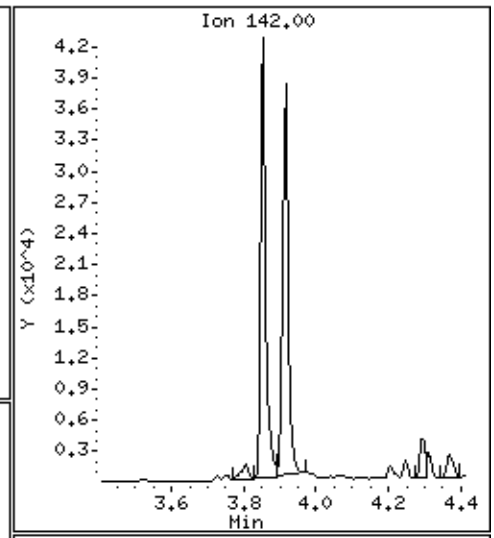
Column phase: RTX-5MS

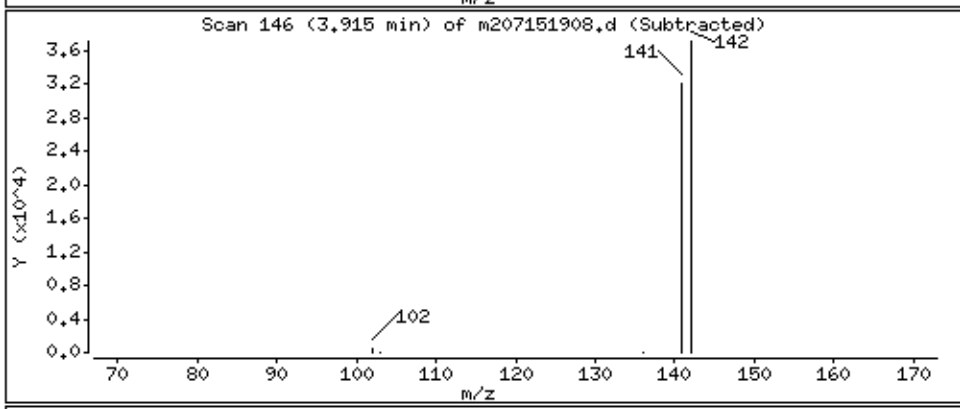
Column diameter: 0.25

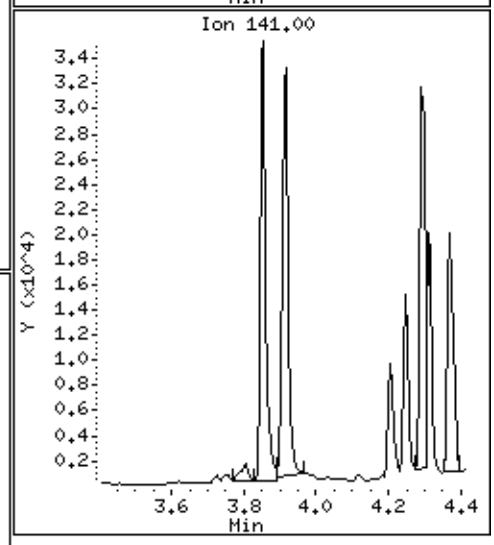
10 1-Methylnaphthalene

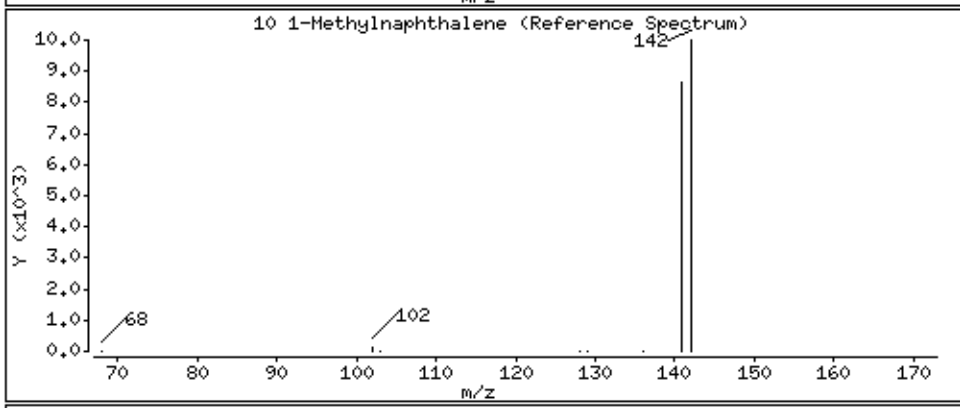
Concentration: 245 ug/Kg

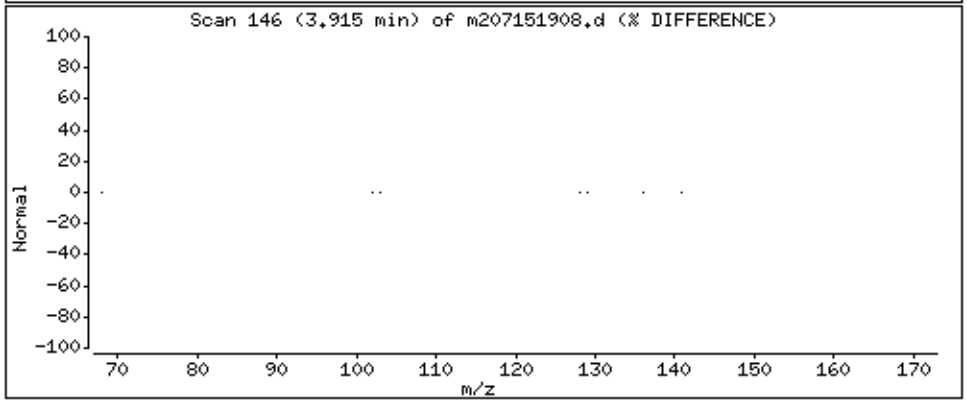












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

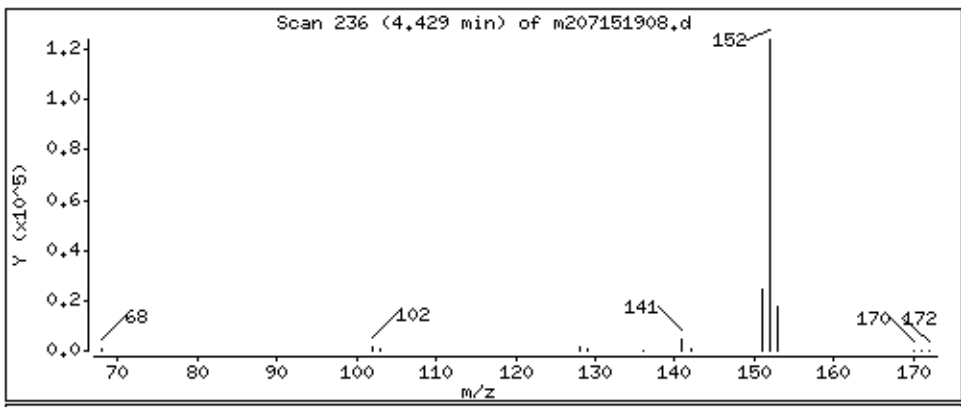
Operator: DSC

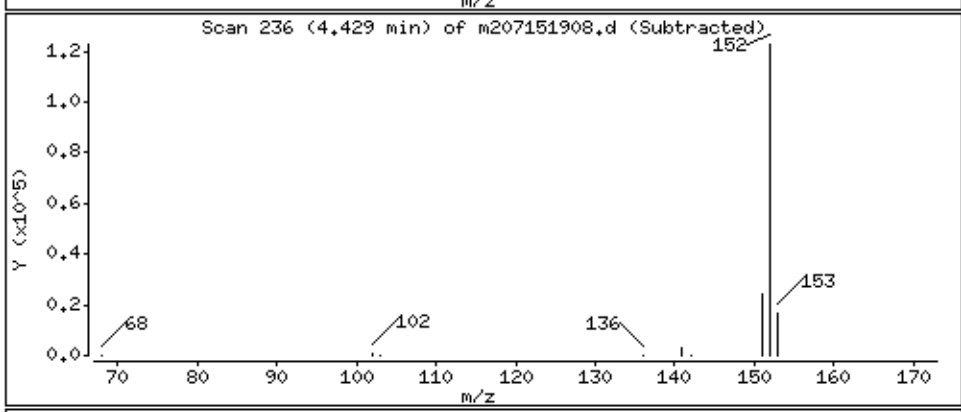
Column phase: RTX-5MS

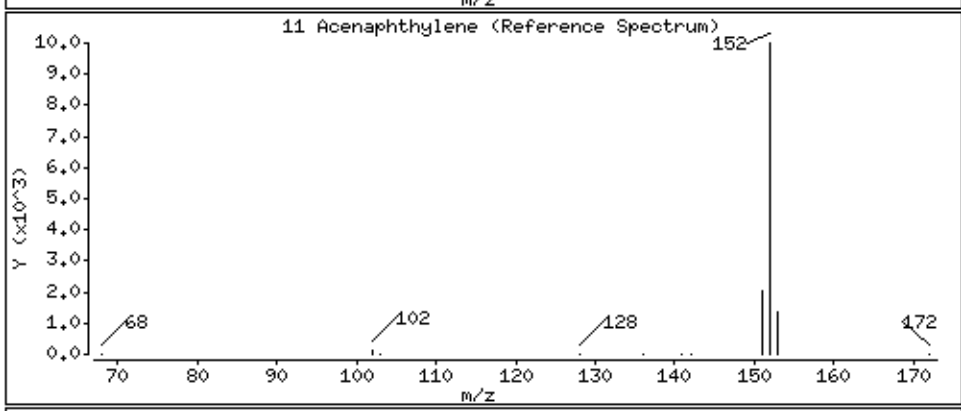
Column diameter: 0.25

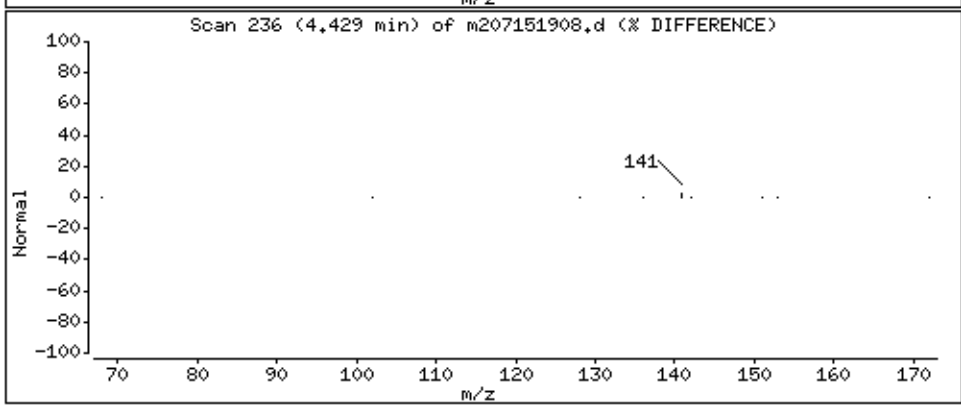
11 Acenaphthylene

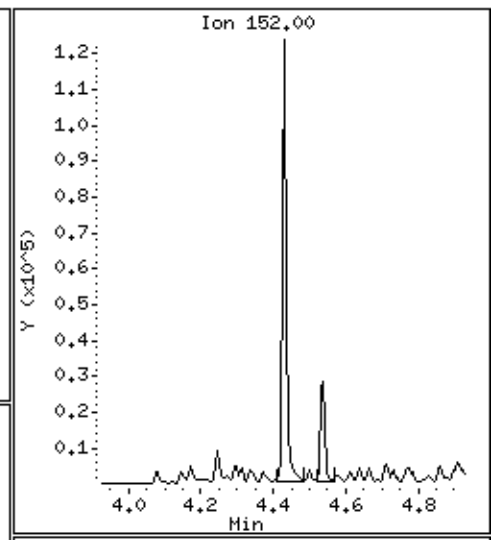
Concentration: 436 ug/Kg

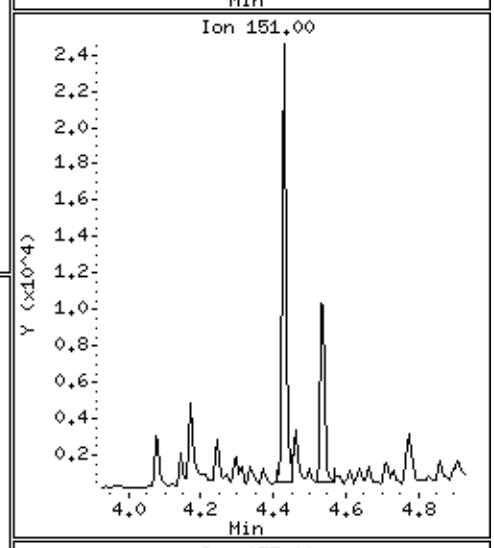


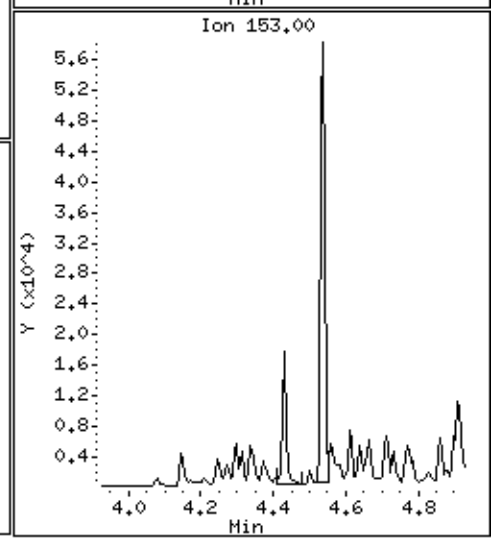












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

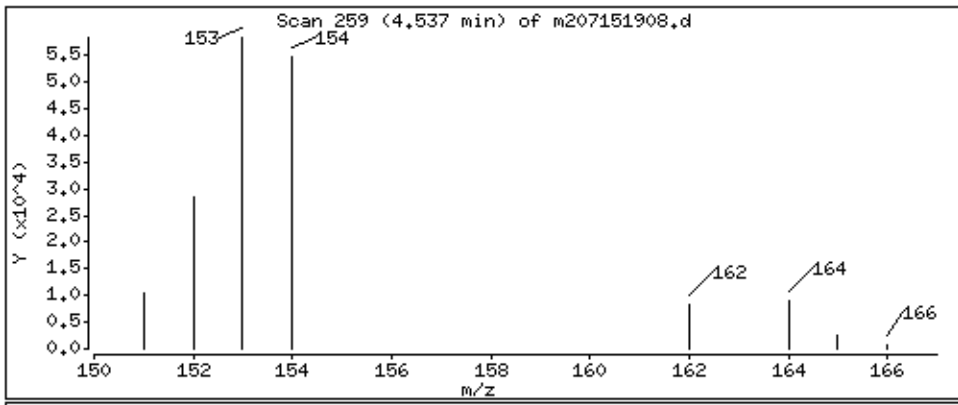
Operator: DSC

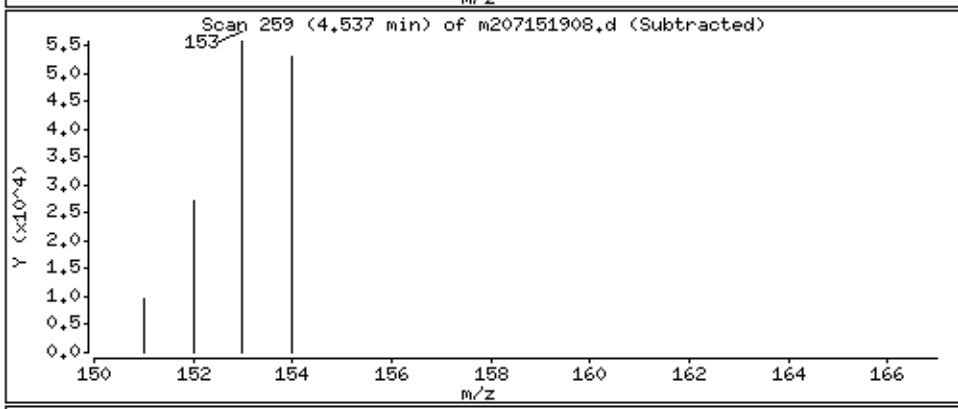
Column phase: RTX-5MS

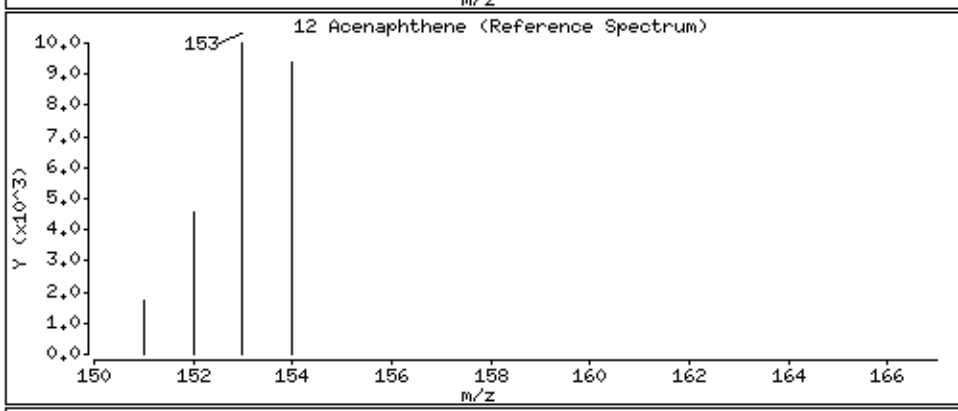
Column diameter: 0.25

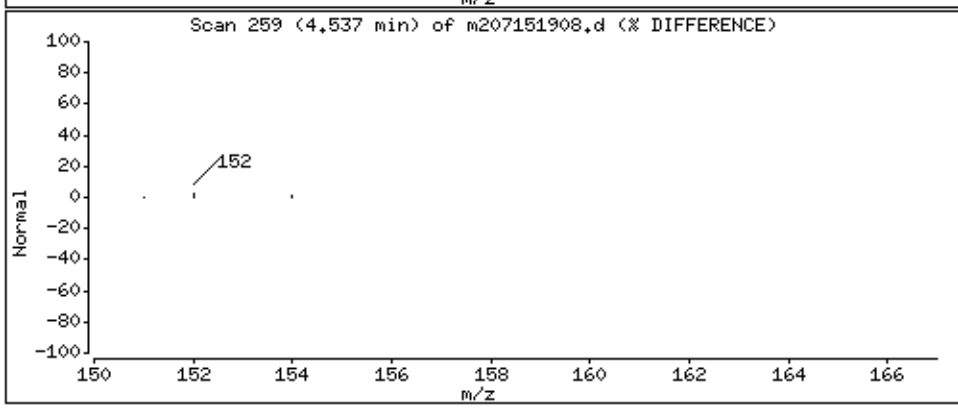
12 Acenaphthene

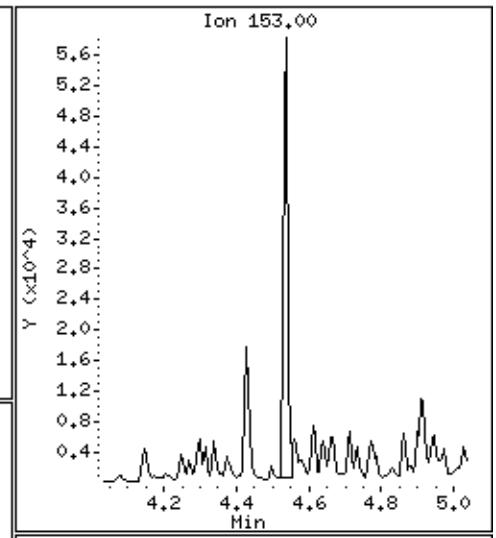
Concentration: 266 ug/Kg

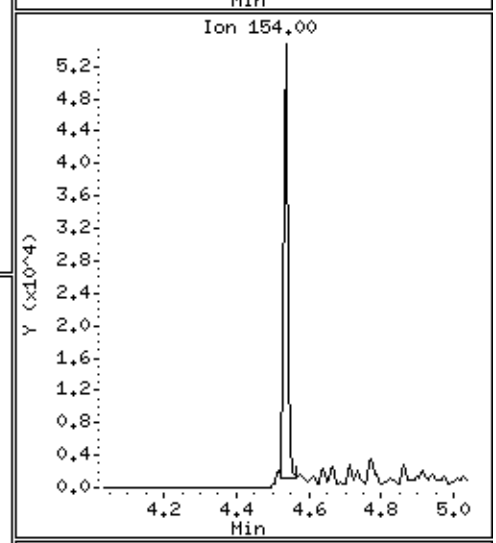


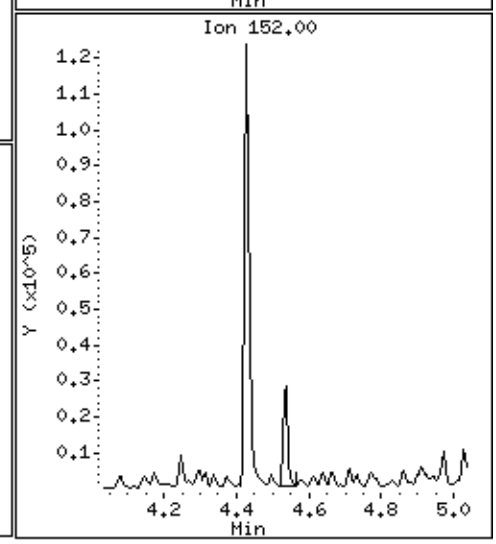












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

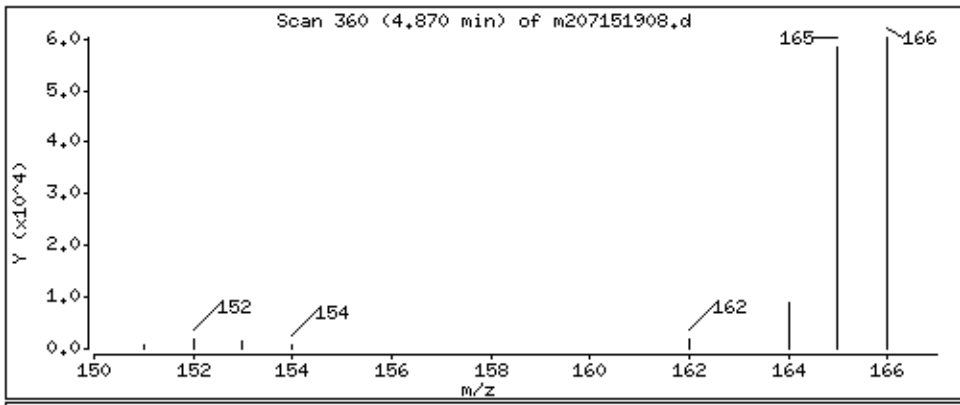
Operator: DSC

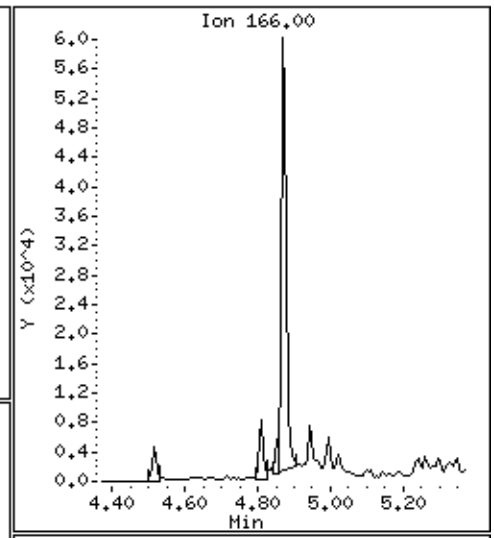
Column phase: RTX-5MS

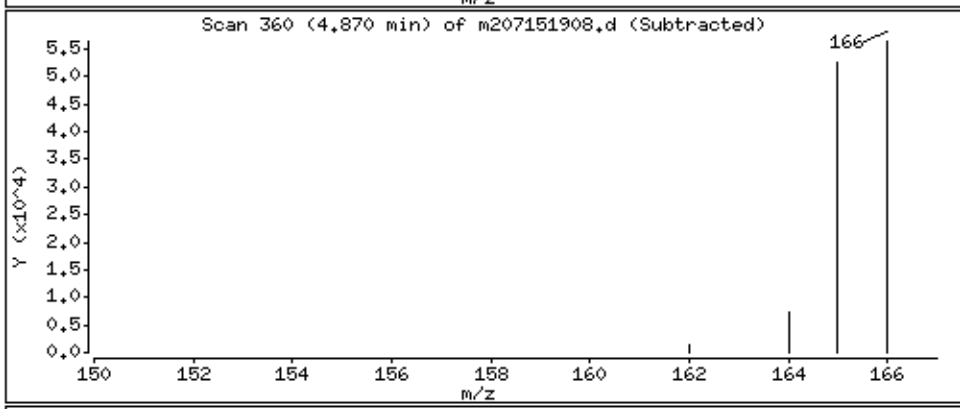
Column diameter: 0.25

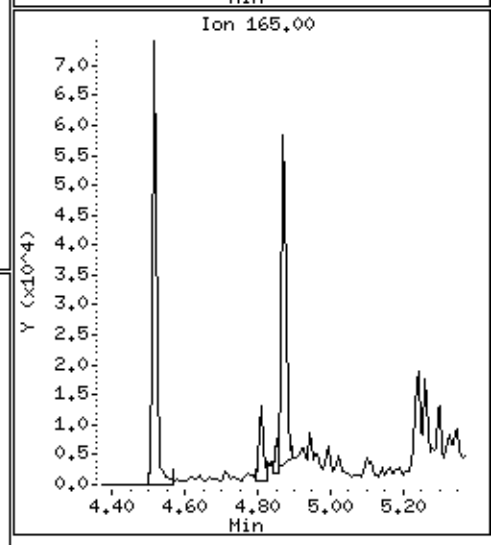
13 Fluorene

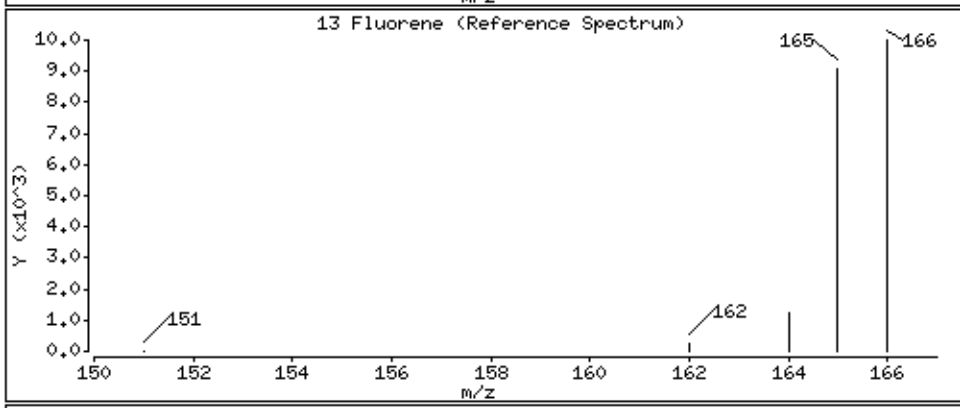
Concentration: 274 ug/Kg

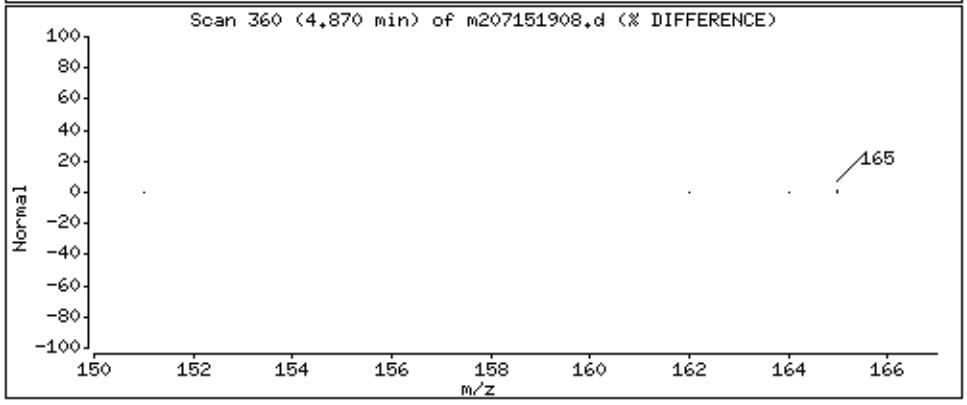












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

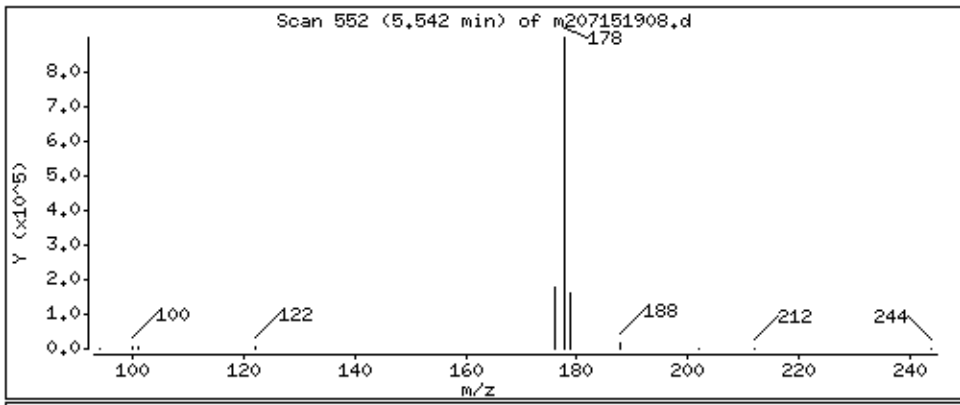
Operator: DSC

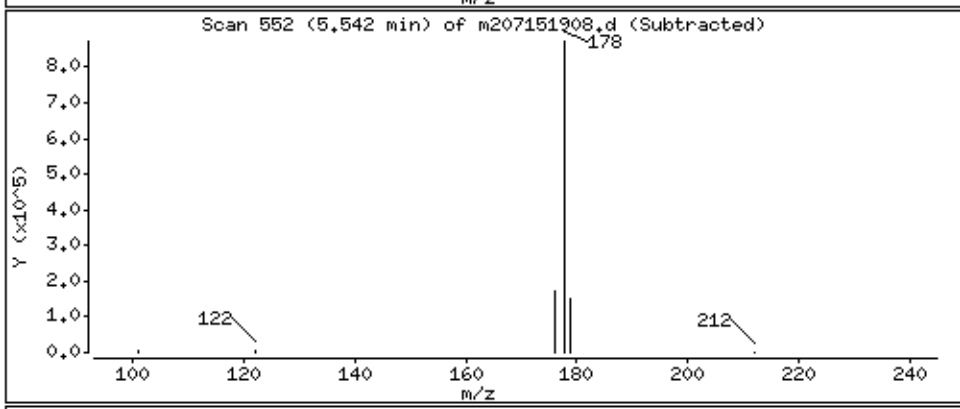
Column phase: RTX-5MS

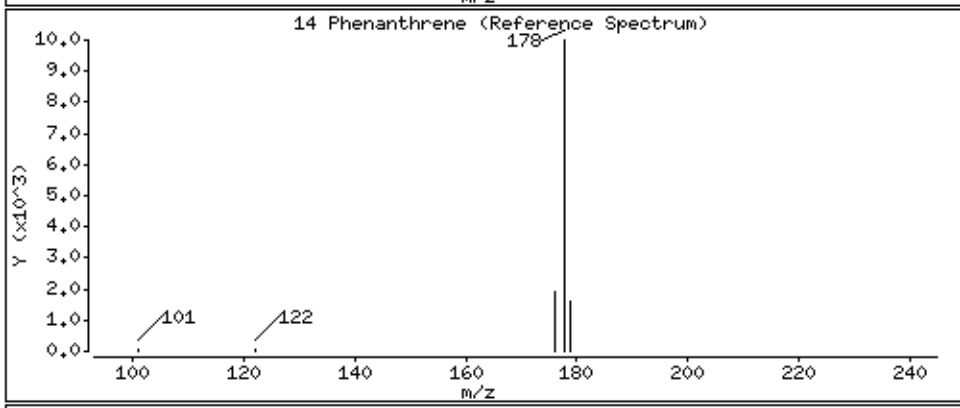
Column diameter: 0.25

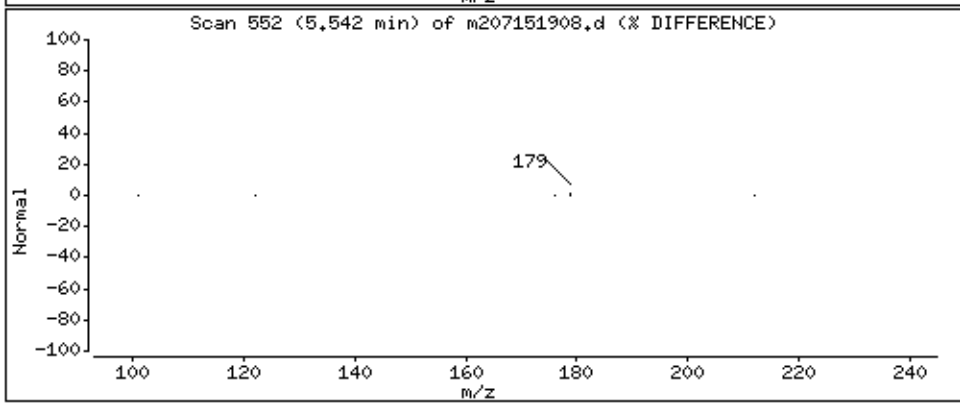
14 Phenanthrene

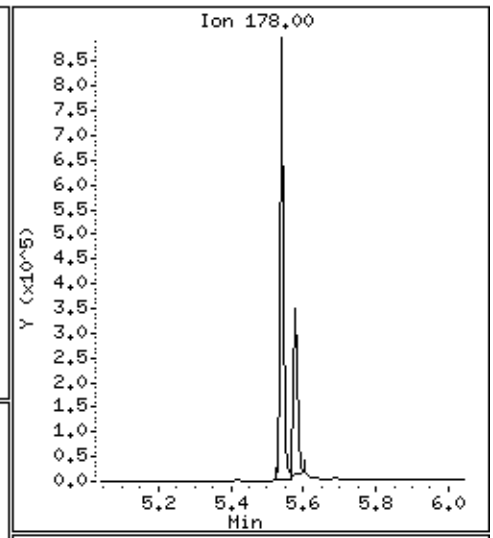
Concentration: 2910 ug/Kg

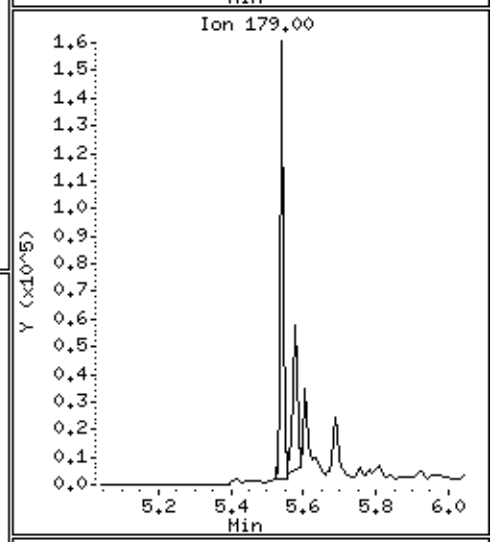


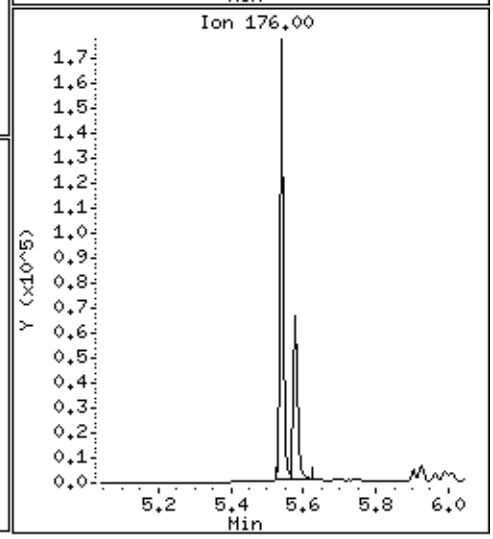












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

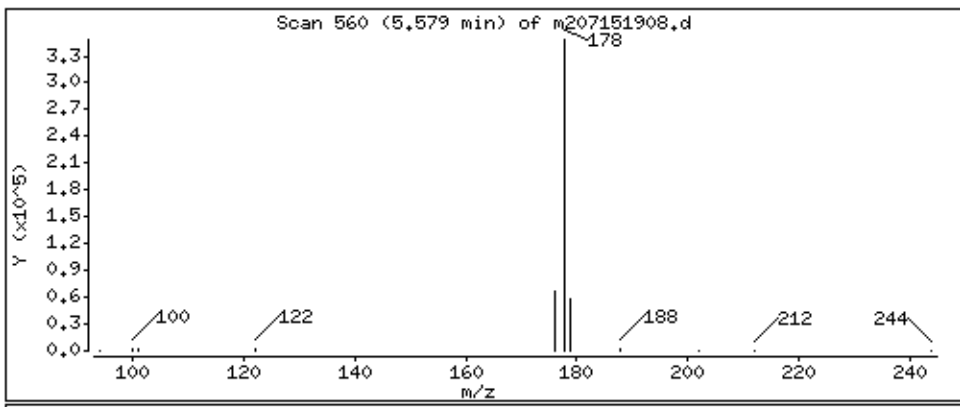
Operator: DSC

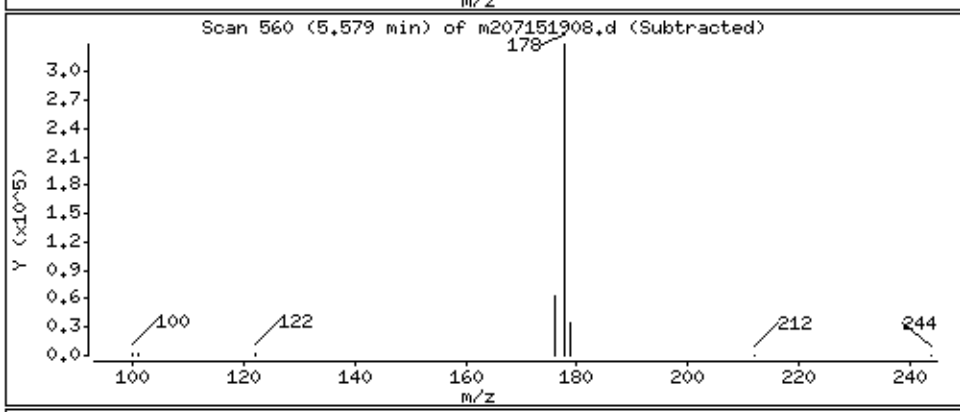
Column phase: RTX-5MS

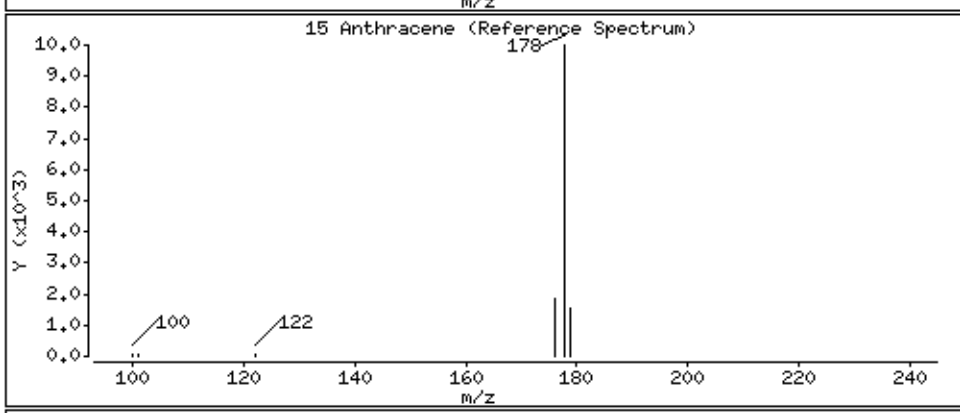
Column diameter: 0.25

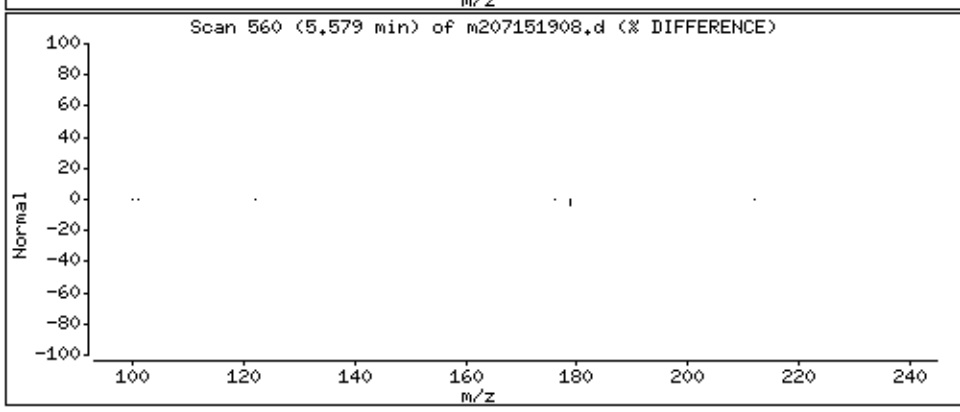
15 Anthracene

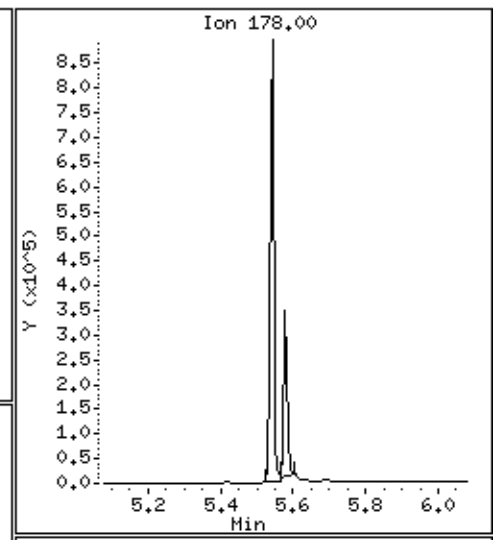
Concentration: 1040 ug/Kg

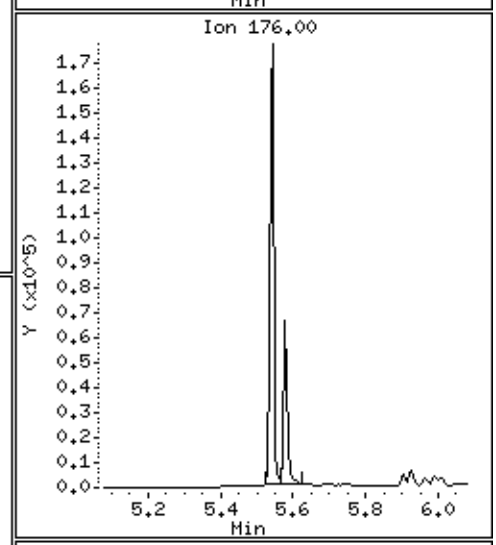


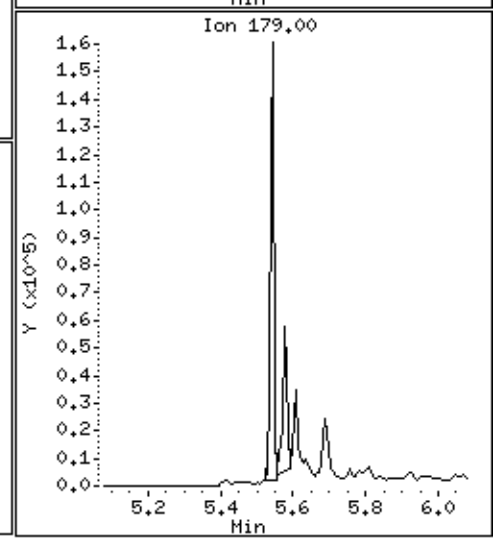












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

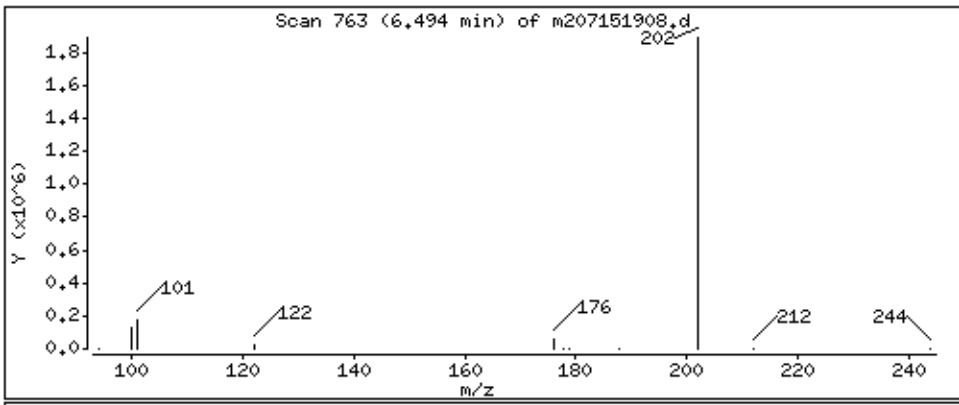
Operator: DSC

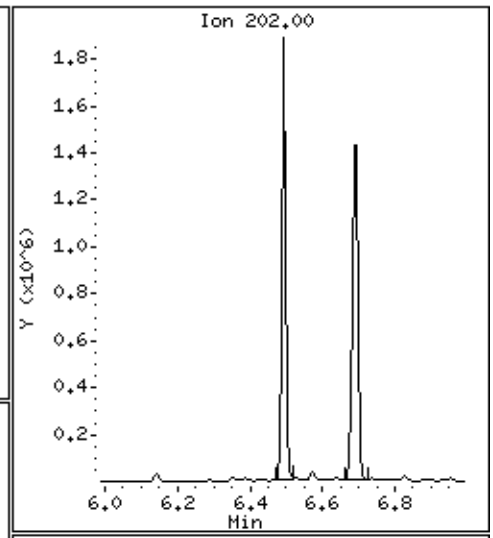
Column phase: RTX-5MS

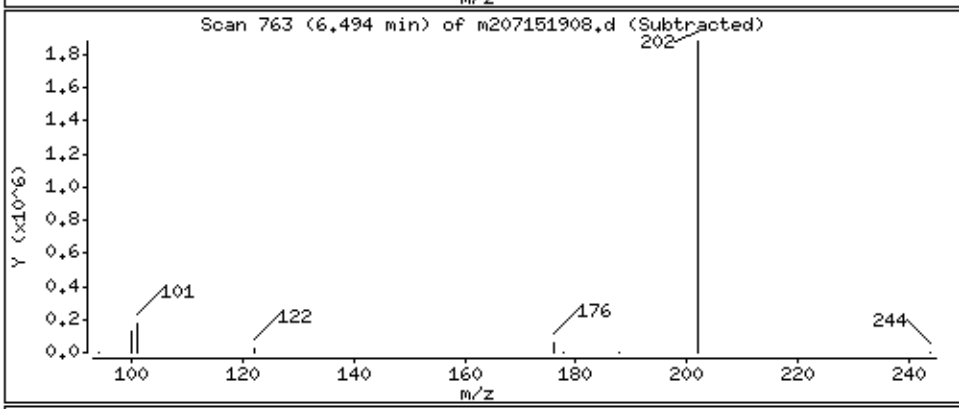
Column diameter: 0.25

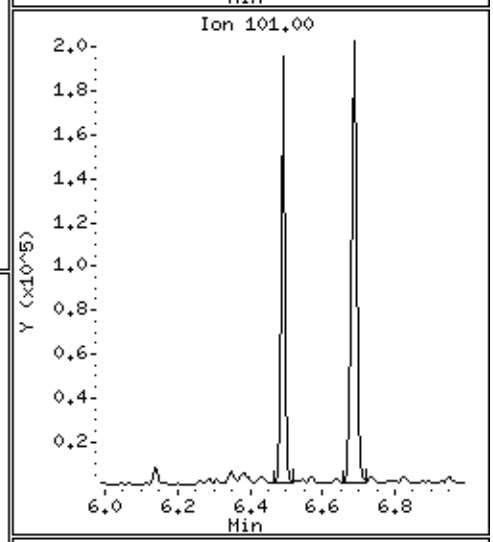
16 Fluoranthene

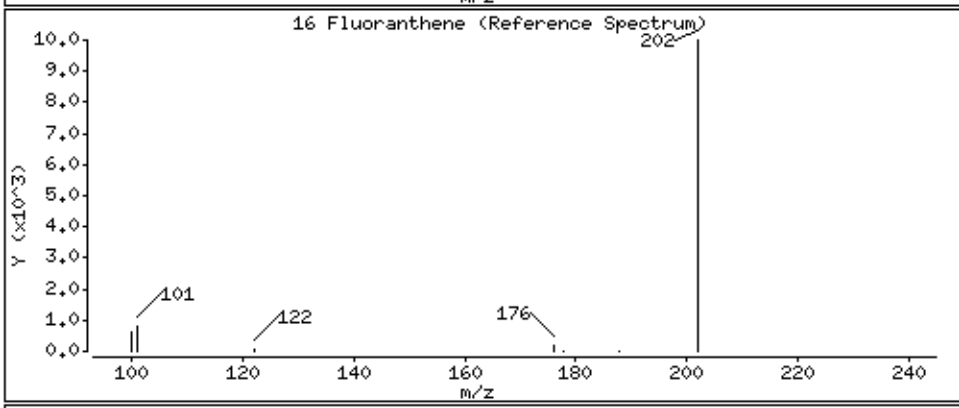
Concentration: 5780 ug/Kg

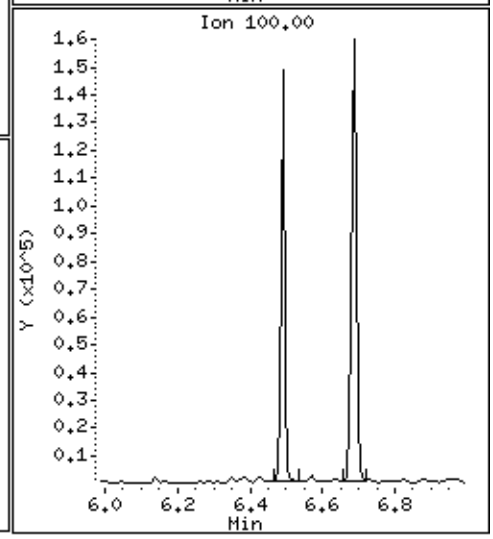


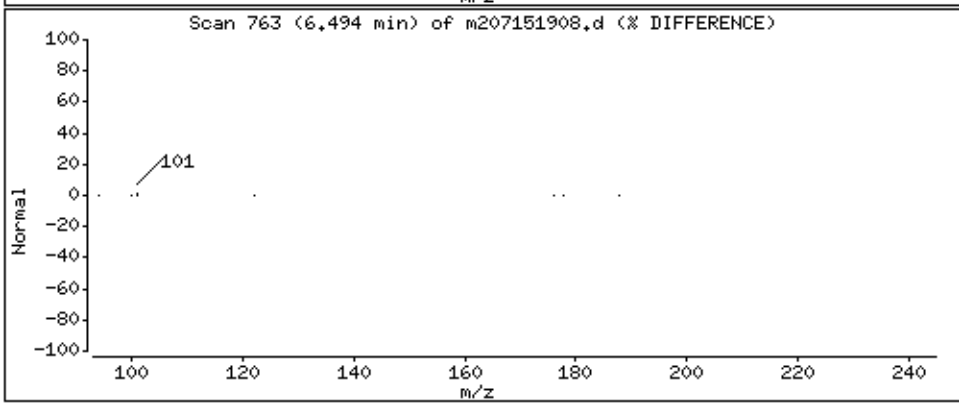












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

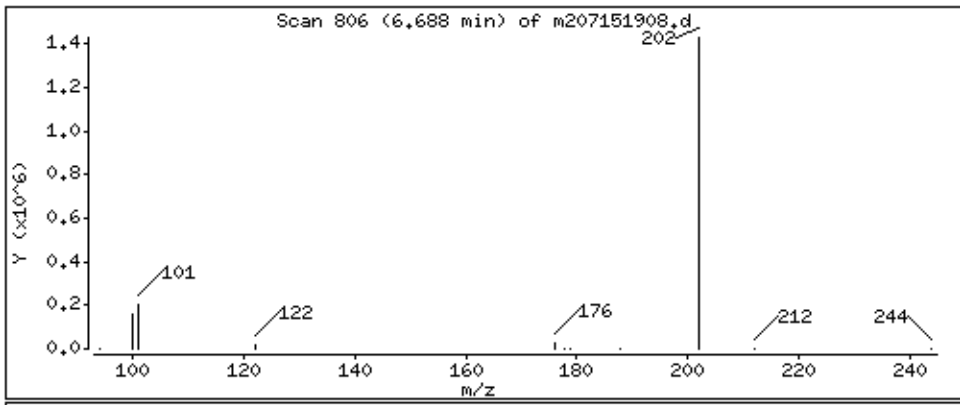
Operator: DSC

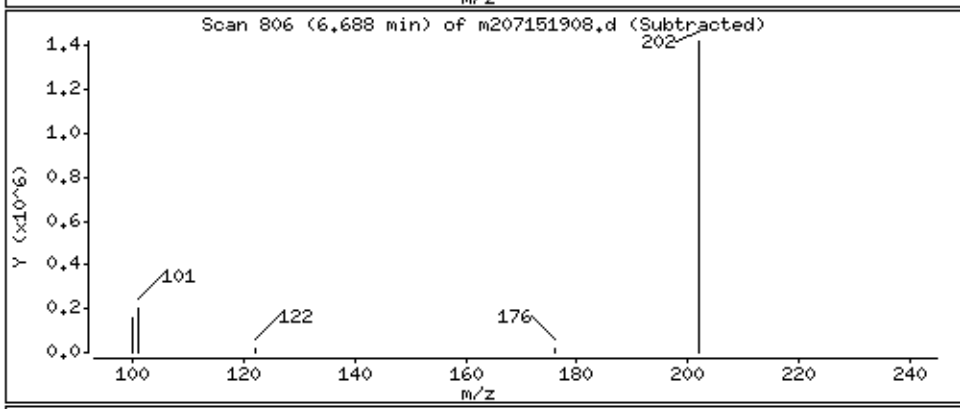
Column phase: RTX-5MS

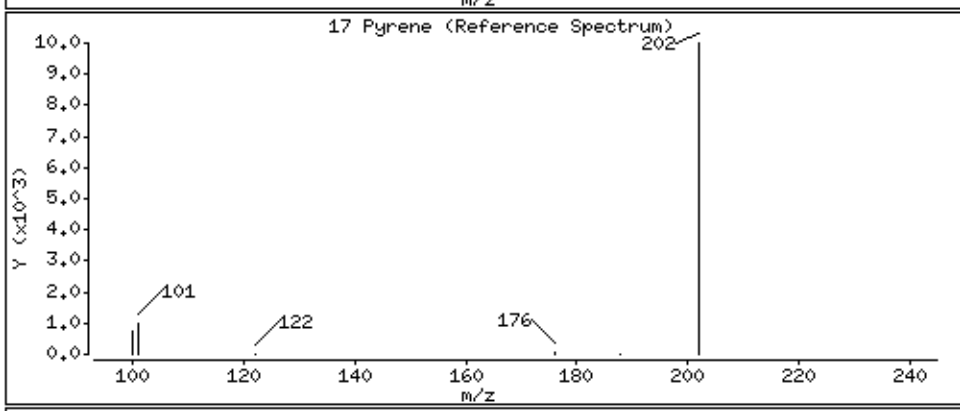
Column diameter: 0.25

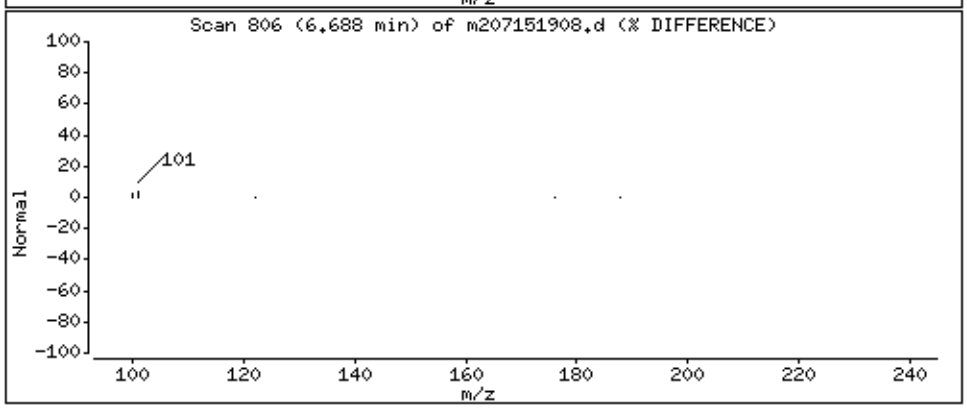
17 Pyrene

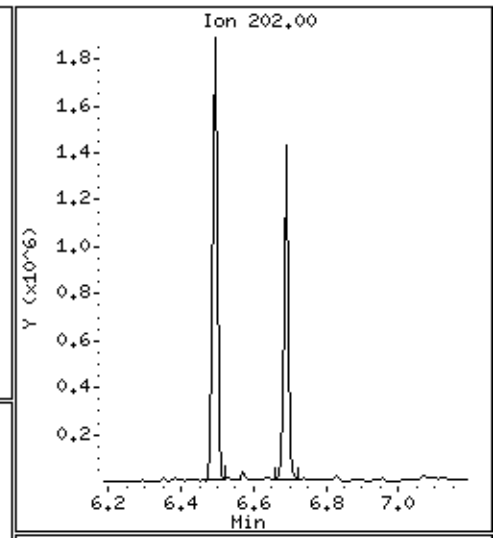
Concentration: 5050 ug/Kg

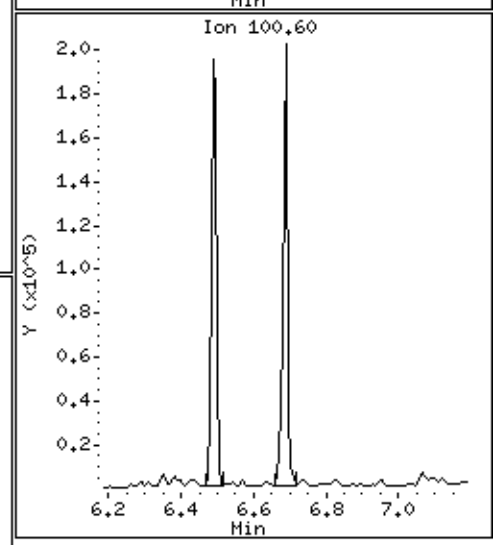












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

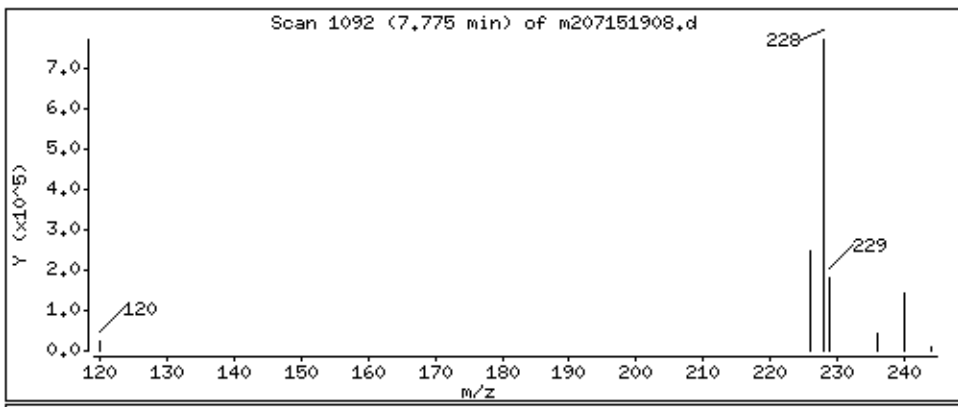
Operator: DSC

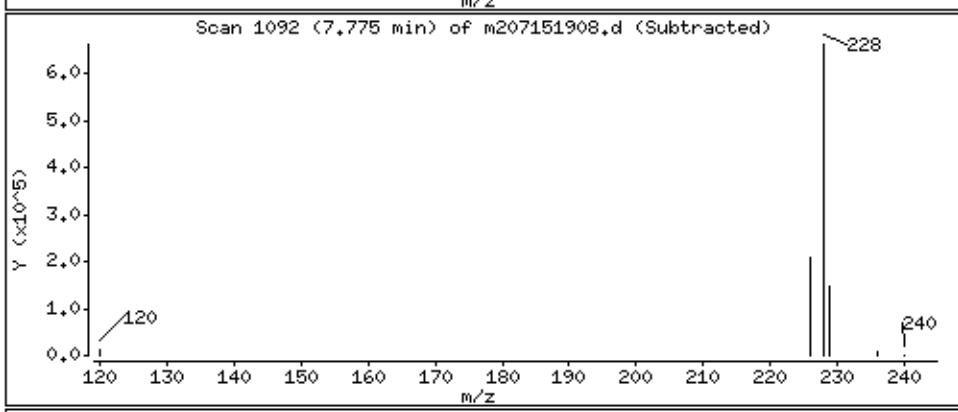
Column phase: RTX-5MS

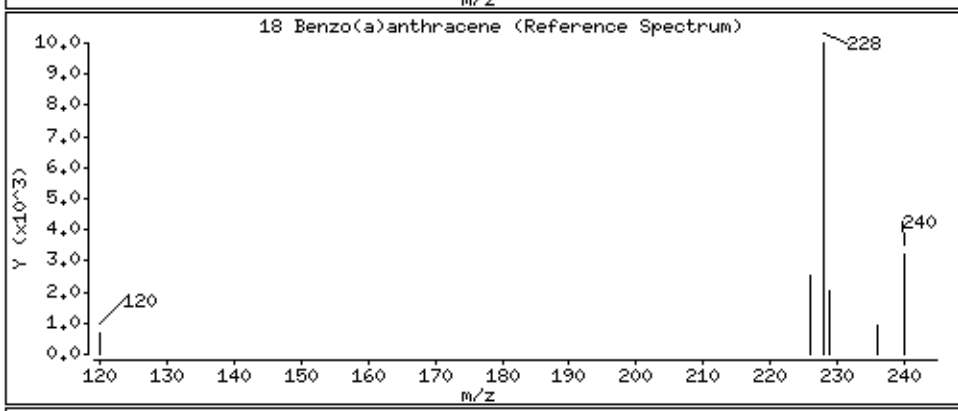
Column diameter: 0.25

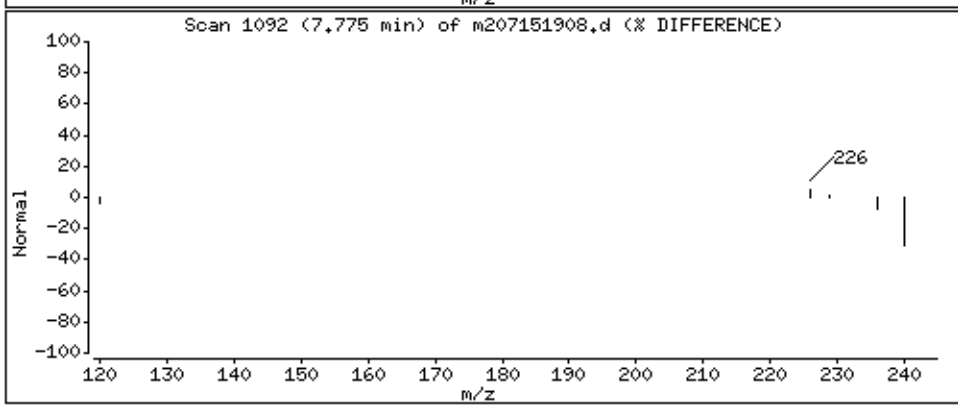
18 Benzo(a)anthracene

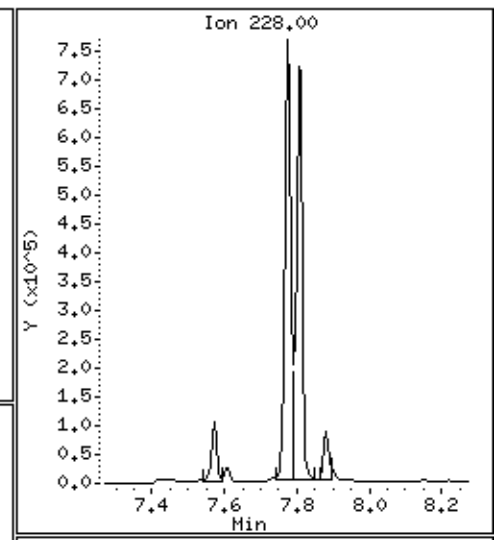
Concentration: 3300 ug/Kg

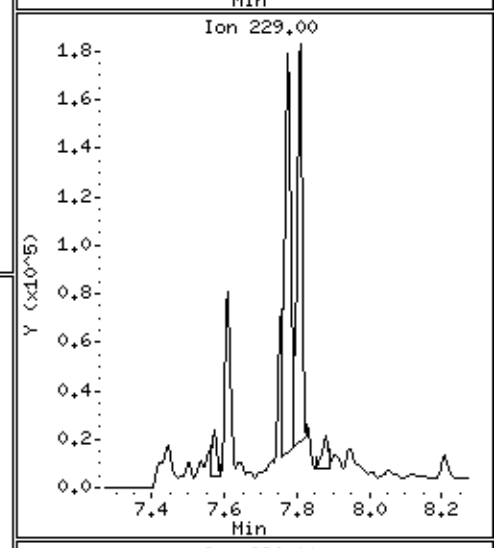


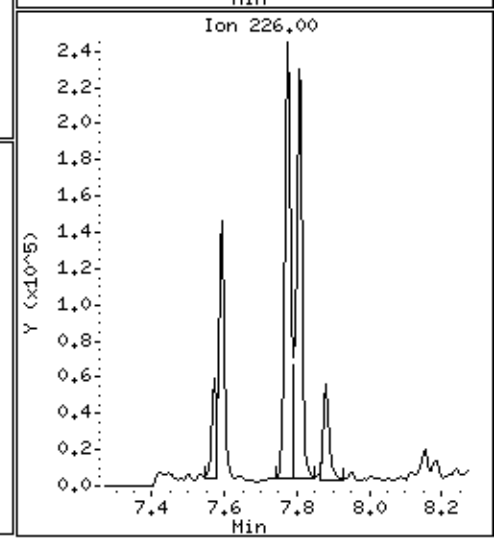












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Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

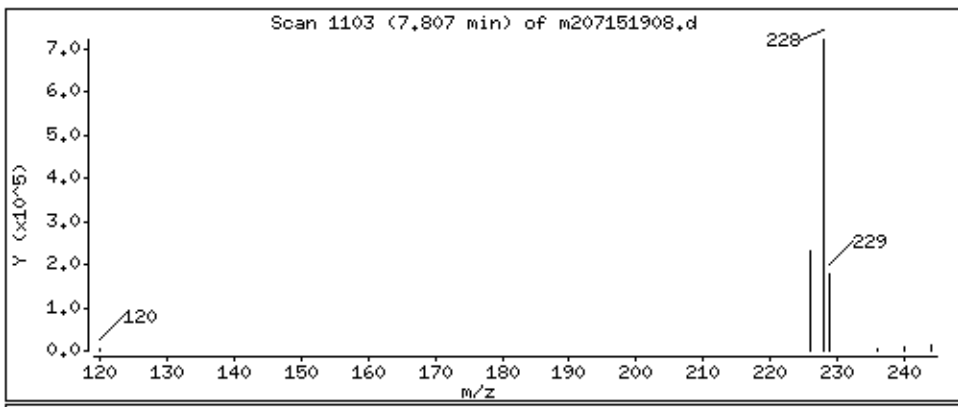
Operator: DSC

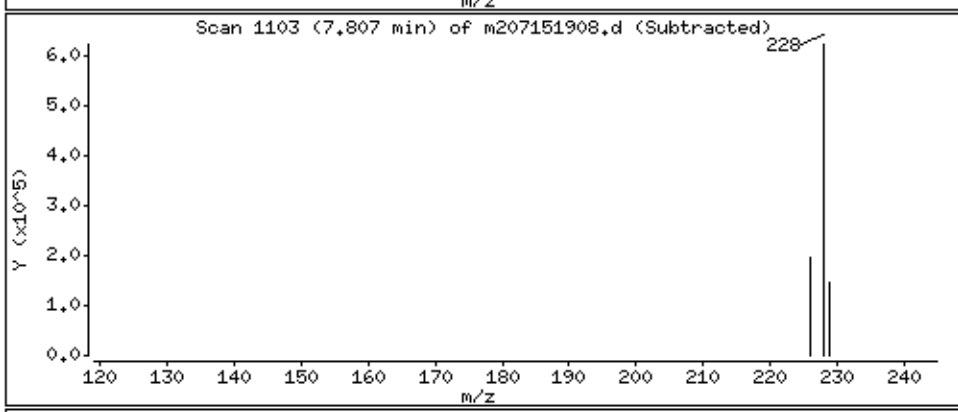
Column phase: RTX-5MS

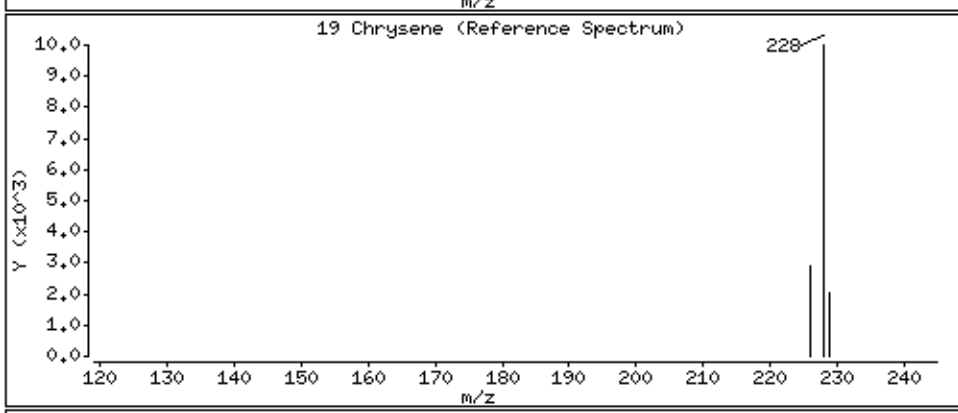
Column diameter: 0.25

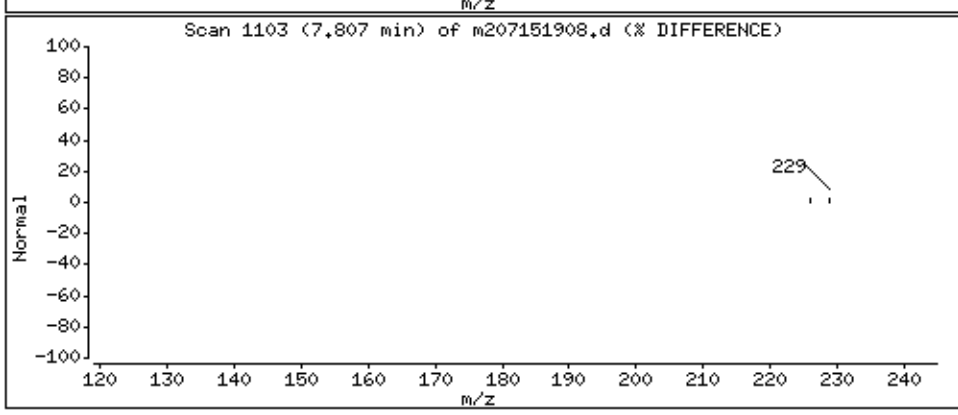
19 Chrysene

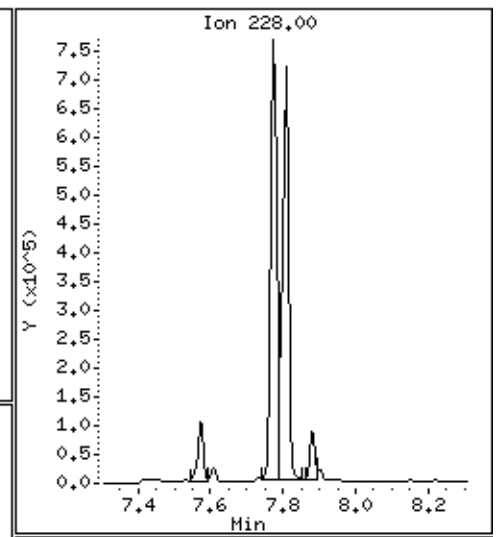
Concentration: 3050 ug/Kg

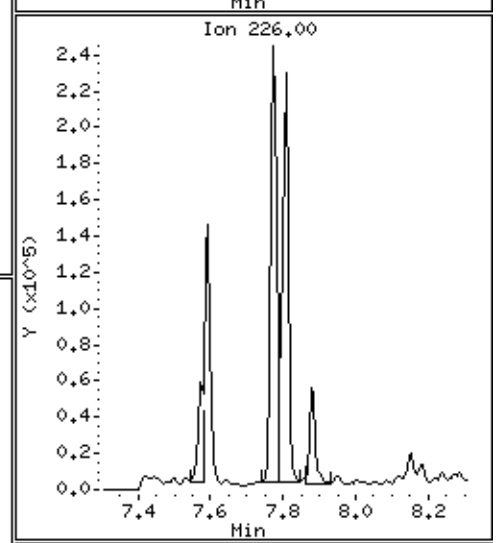


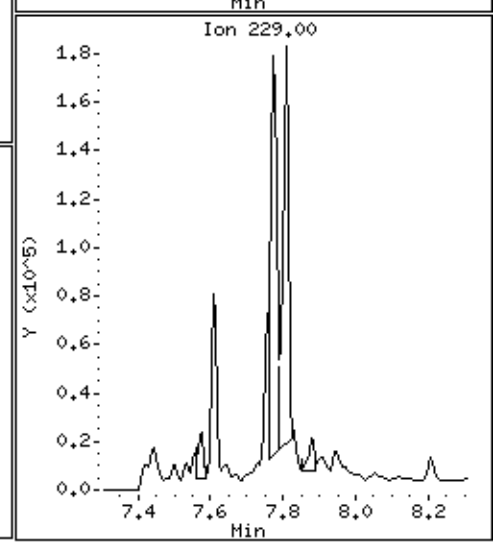












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Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

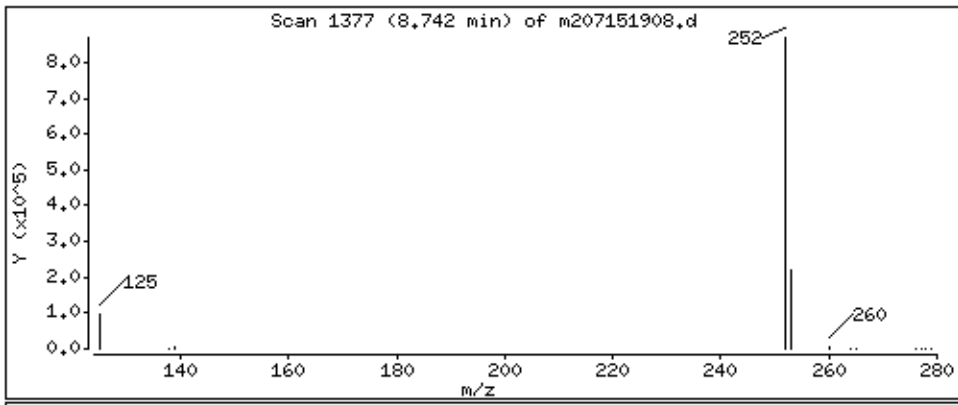
Operator: DSC

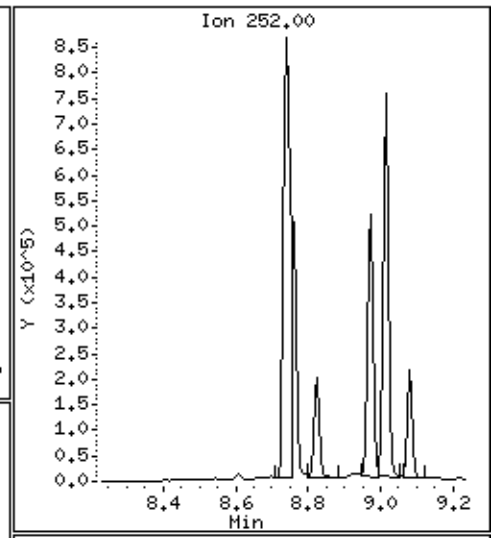
Column phase: RTX-5MS

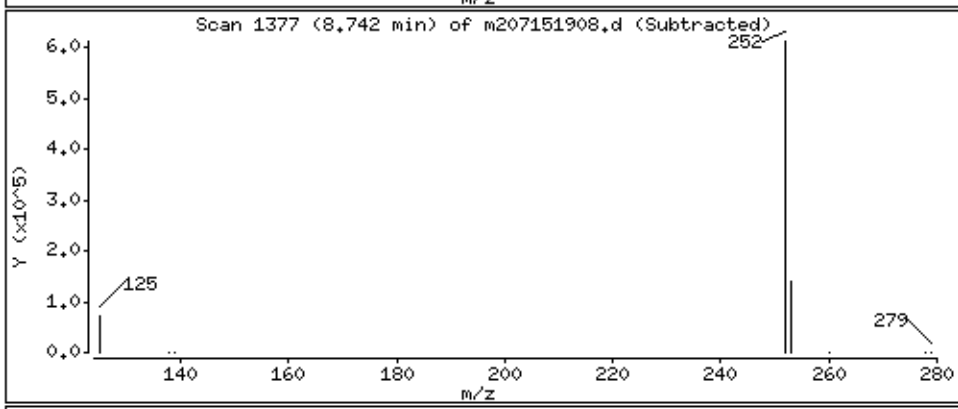
Column diameter: 0.25

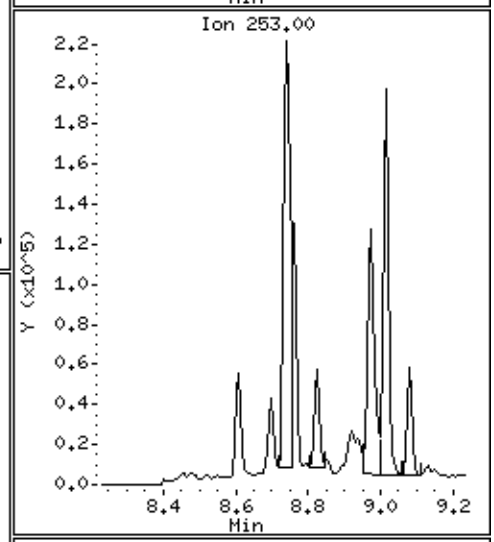
20 Benzo(b)fluoranthene

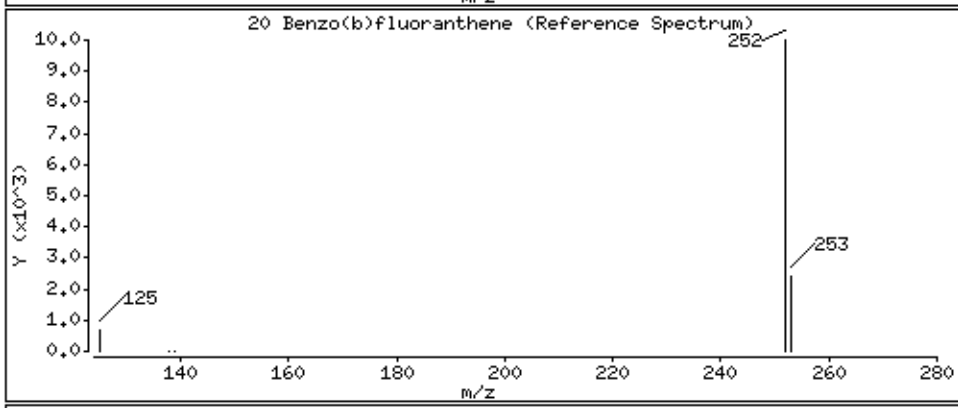
Concentration: 4720 ug/Kg

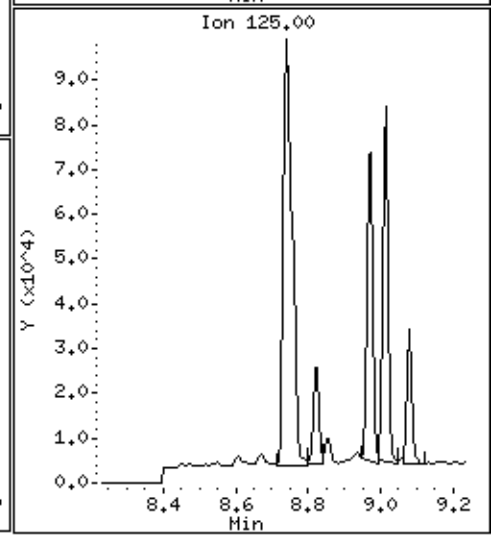


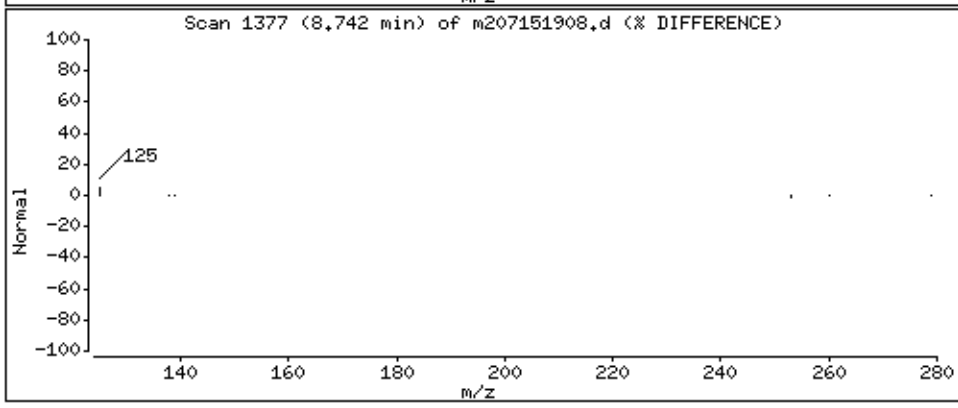












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Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

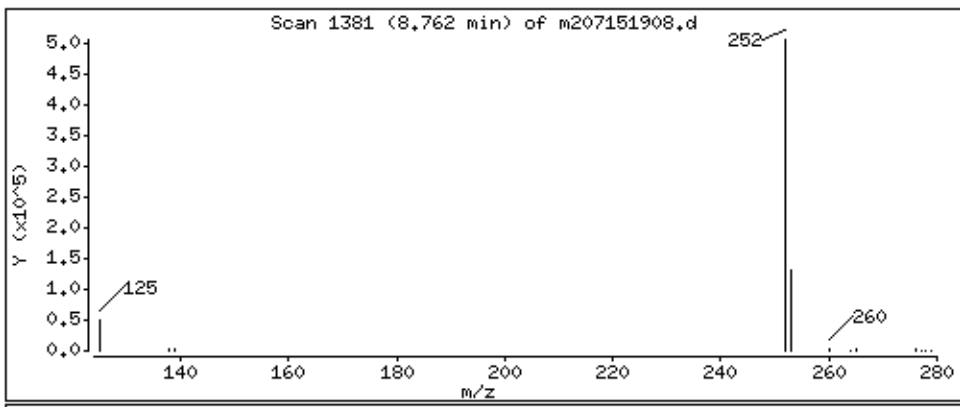
Operator: DSC

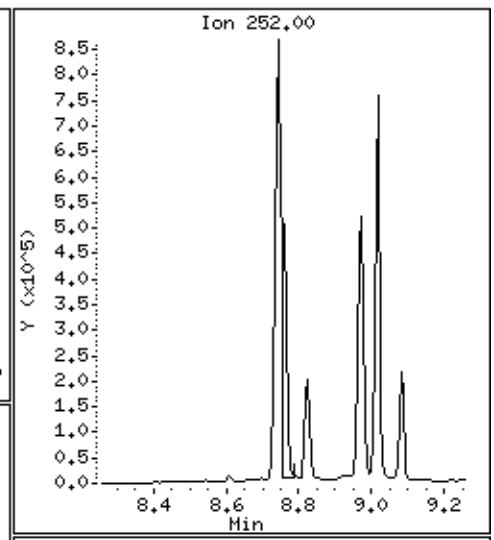
Column phase: RTX-5MS

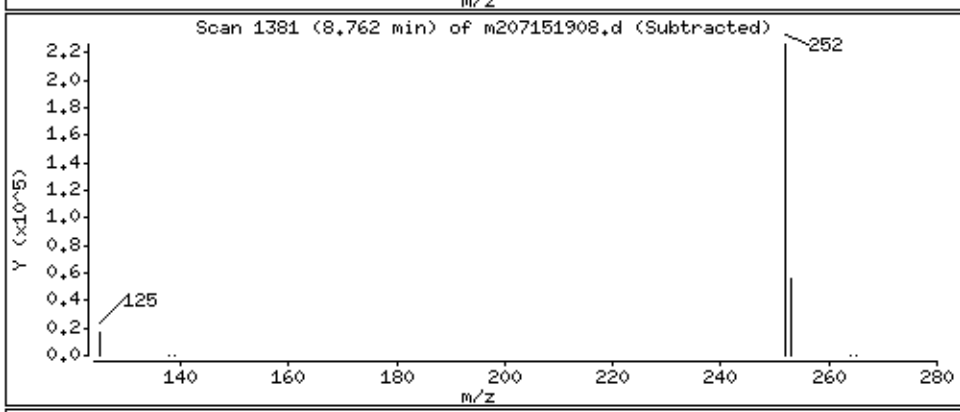
Column diameter: 0.25

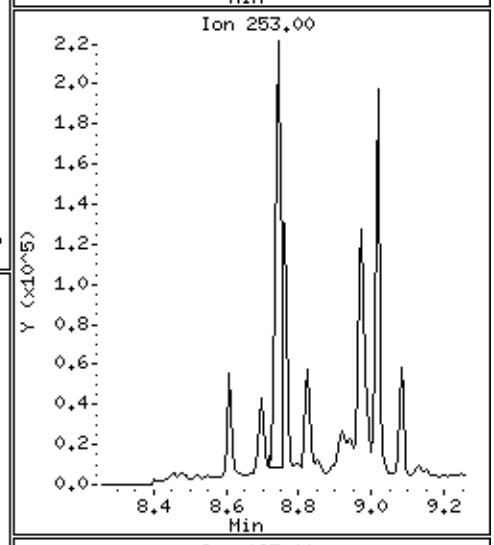
21 Benzo(k)fluoranthene

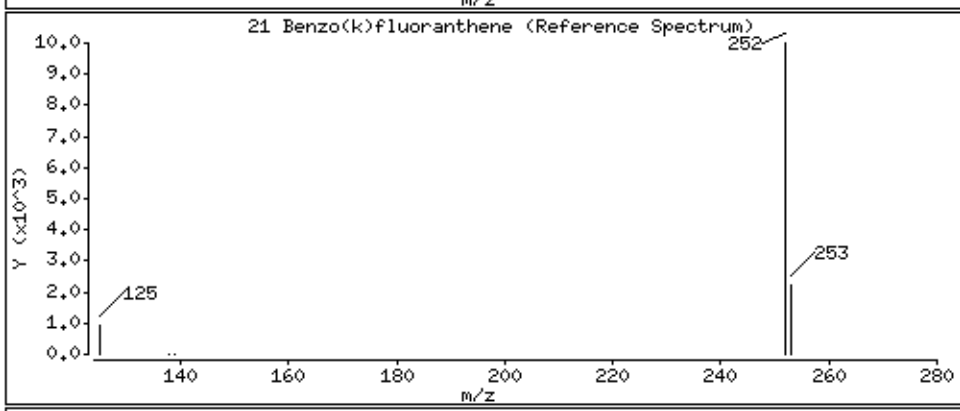
Concentration: 1410 ug/Kg

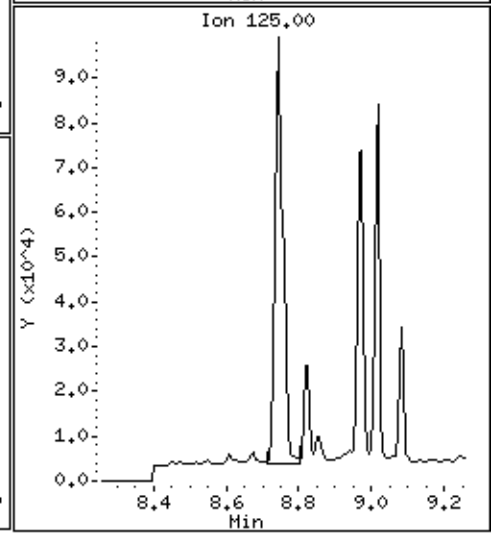


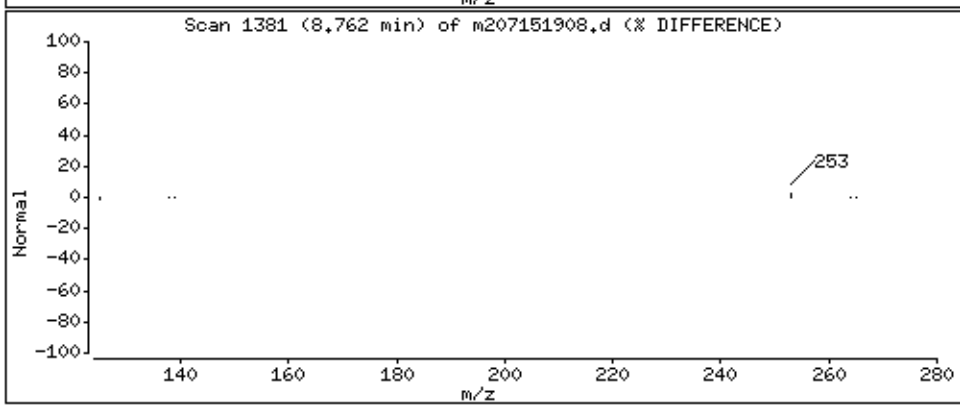












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

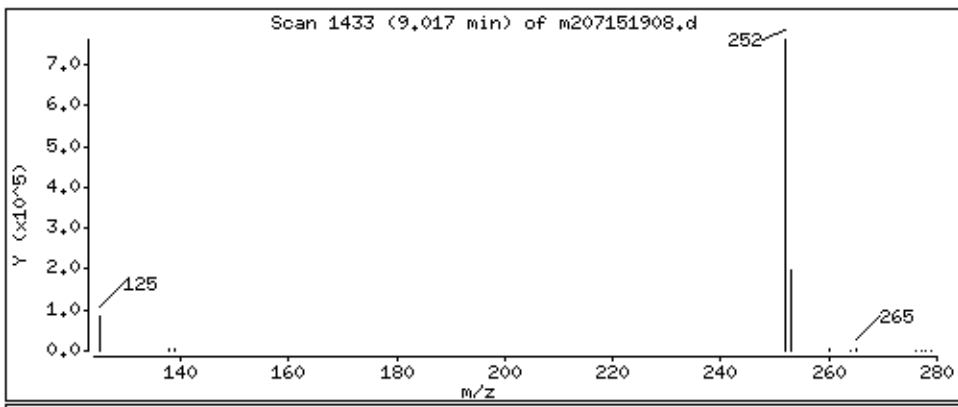
Operator: DSC

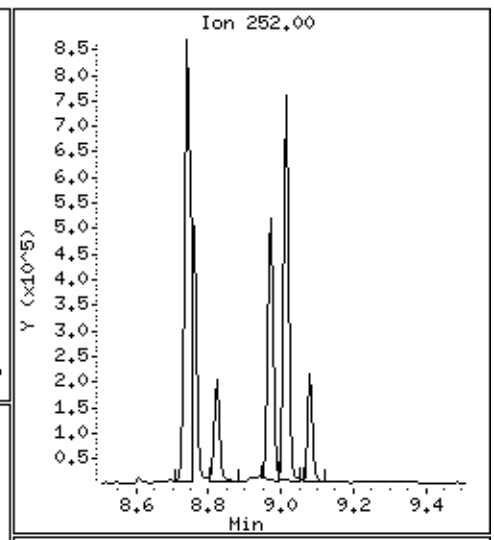
Column phase: RTX-5MS

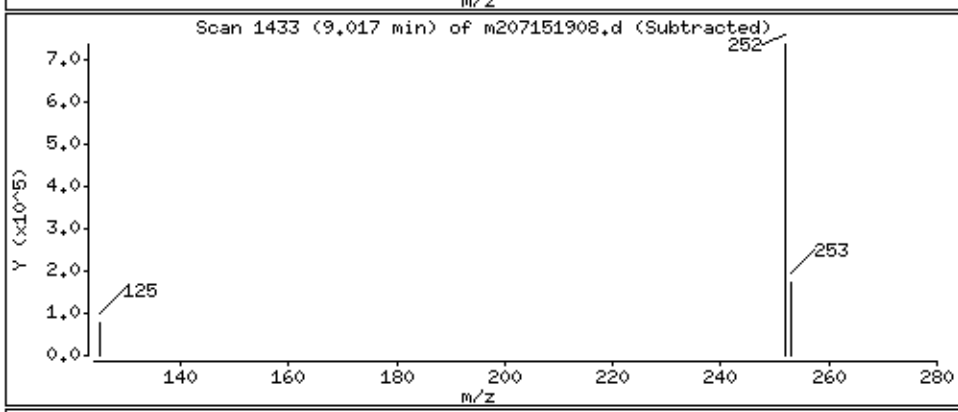
Column diameter: 0.25

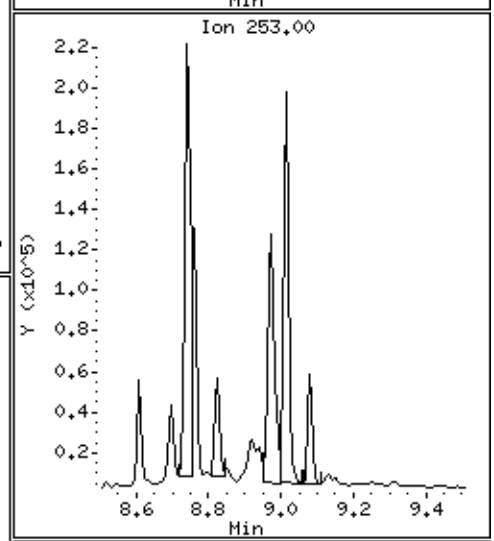
22 Benzo(a)pyrene

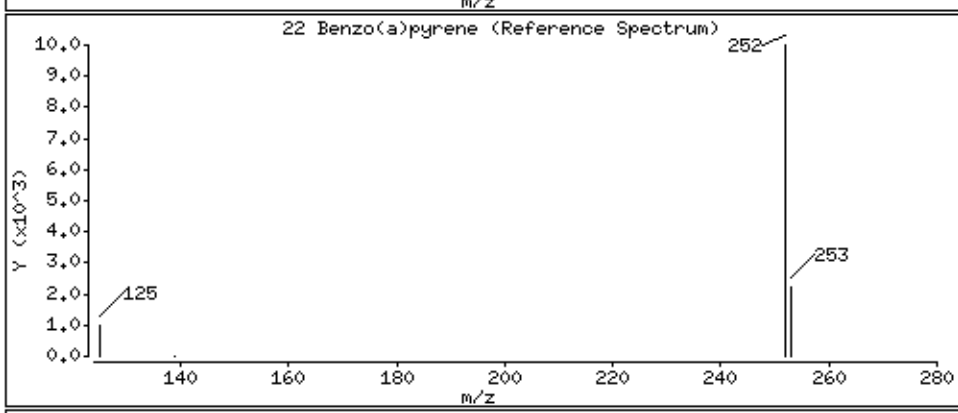
Concentration: 2940 ug/Kg

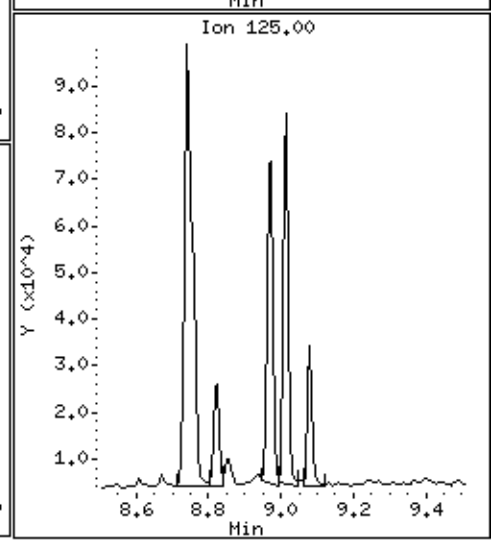


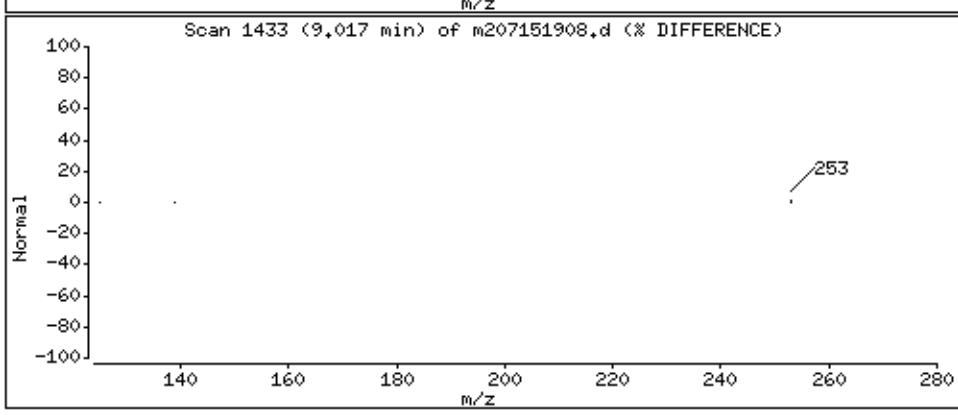












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

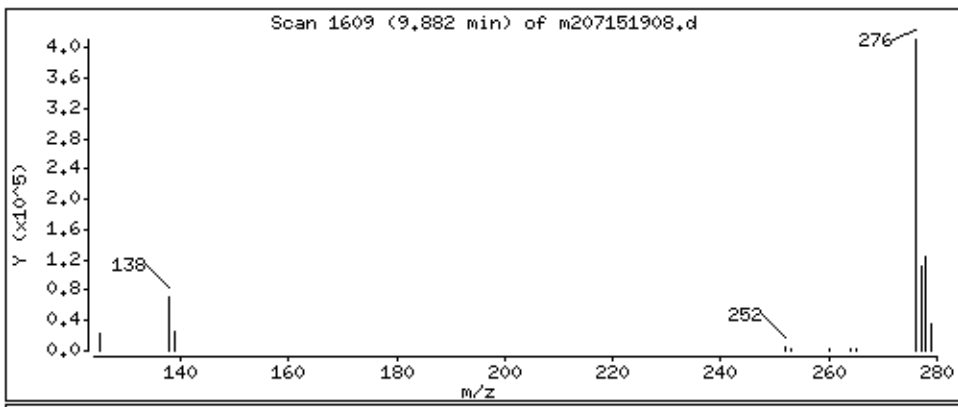
Operator: DSC

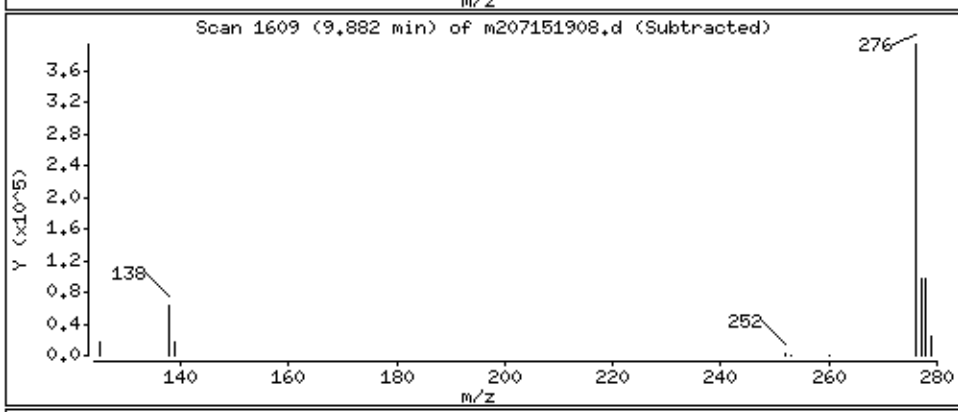
Column phase: RTX-5MS

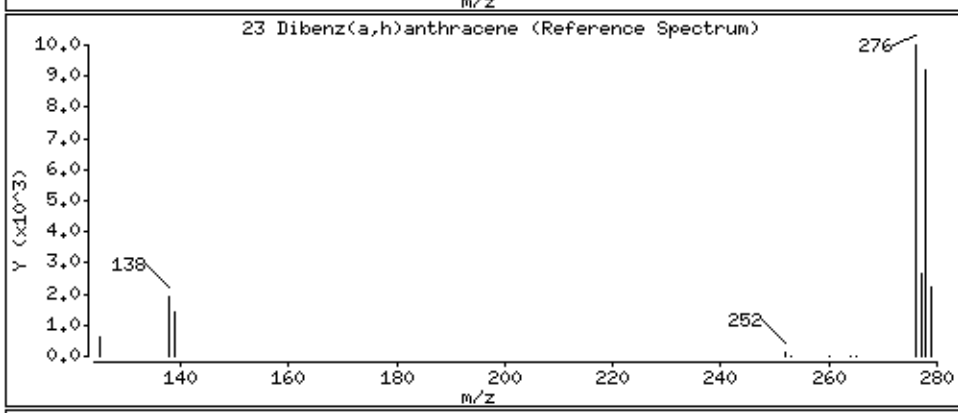
Column diameter: 0.25

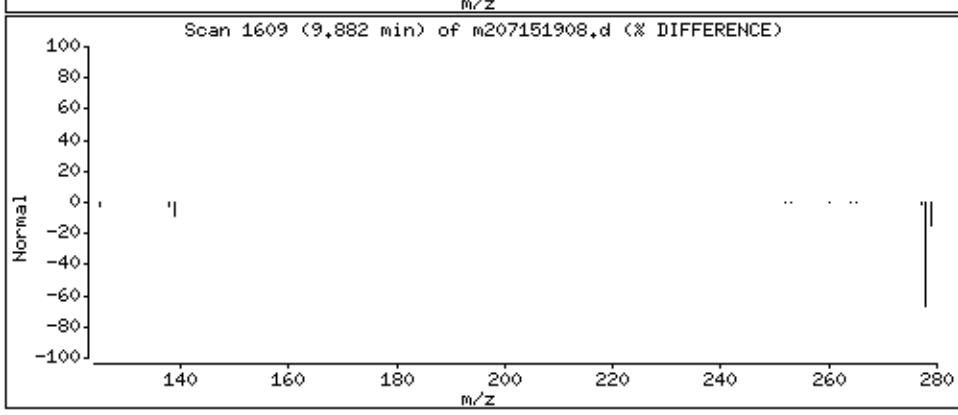
23 Dibenz(a,h)anthracene

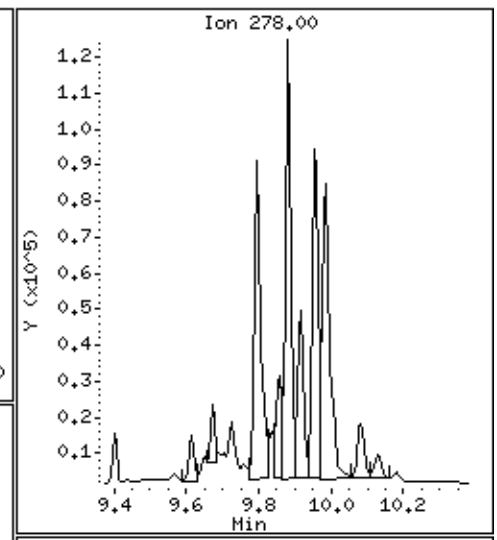
Concentration: 570 ug/Kg

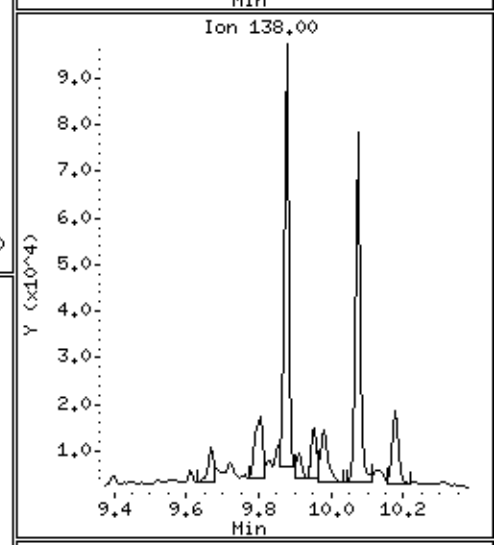


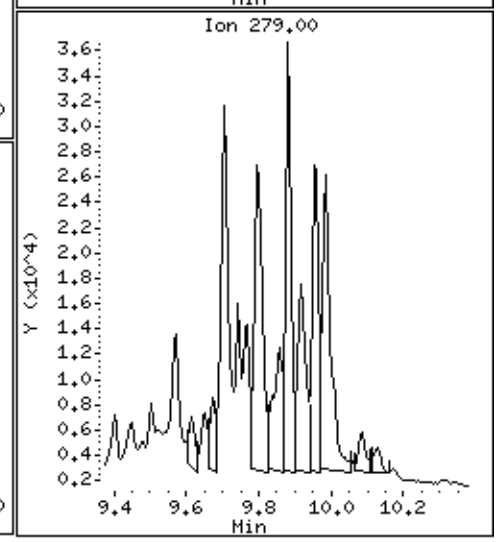












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

Client ID: AOC32 Lower-2

Instrument: 30mss2.i

Sample Info: 30313260002X10,

Volume Injected (uL): 1.0

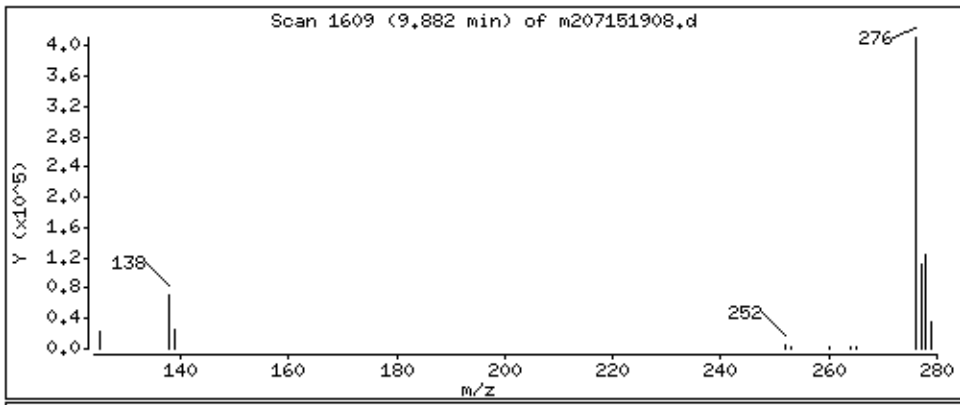
Operator: DSC

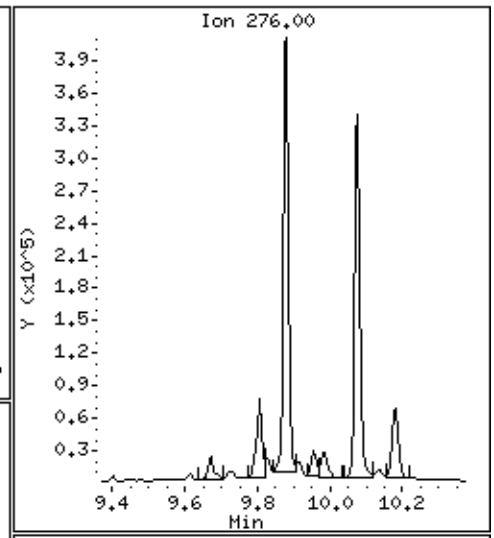
Column phase: RTX-5MS

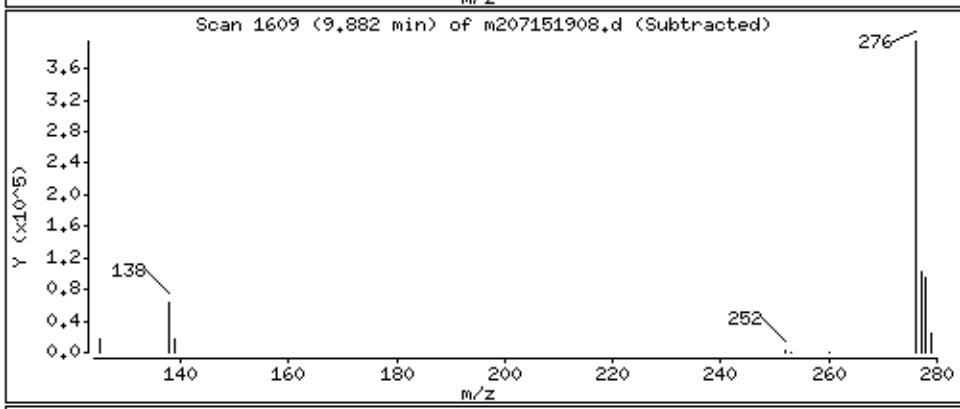
Column diameter: 0.25

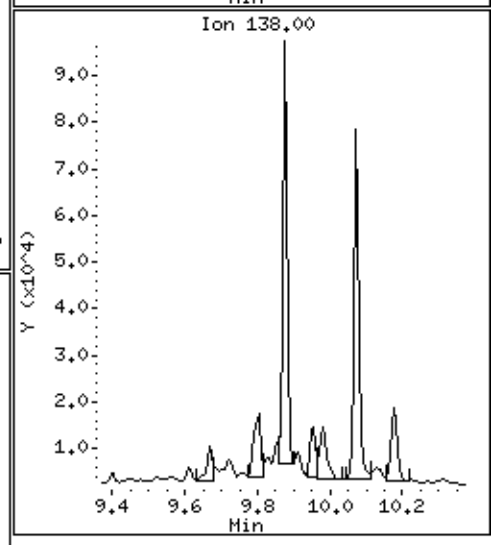
24 Indeno(1,2,3-cd)pyrene

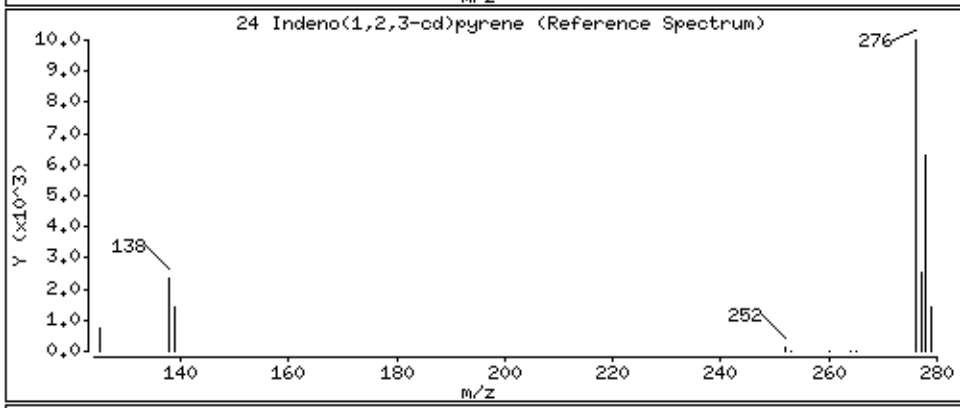
Concentration: 1370 ug/Kg

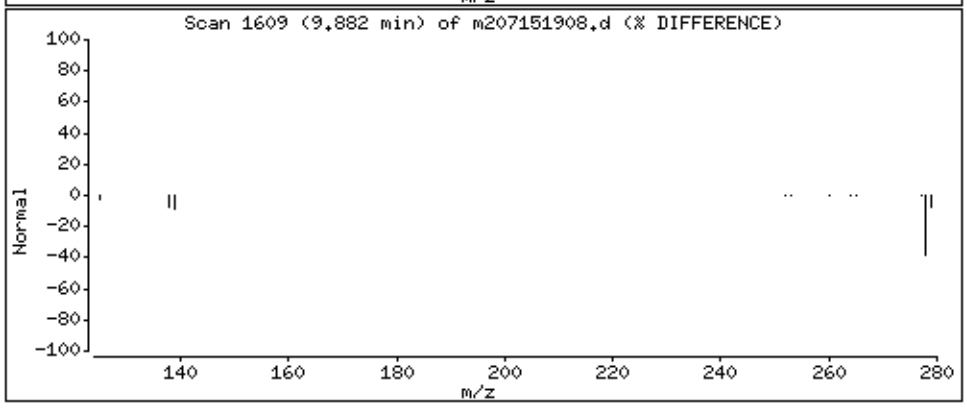












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151908.d

Date : 15-JUL-2019 11:23

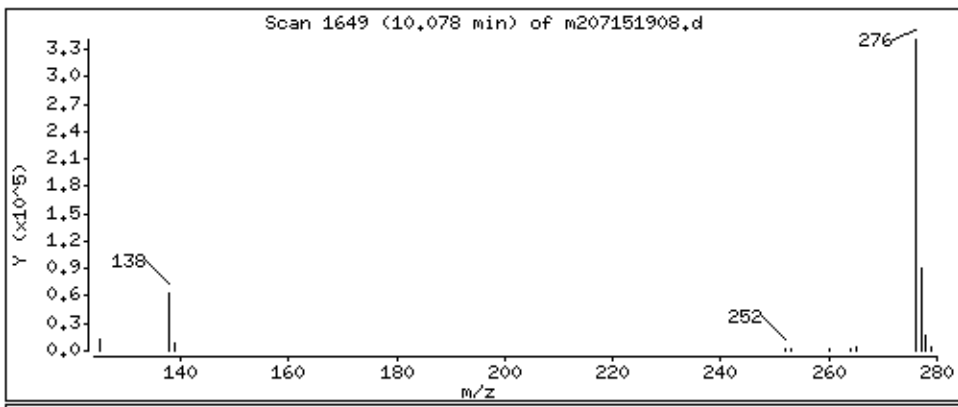
Client ID: AOC32 Lower-2 Instrument: 30mss2.i

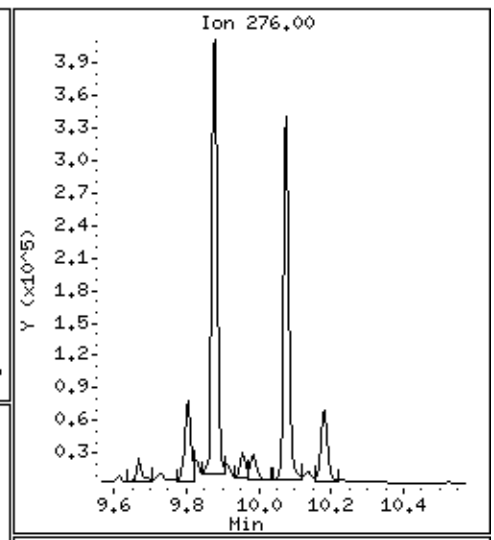
Sample Info: 30313260002X10,

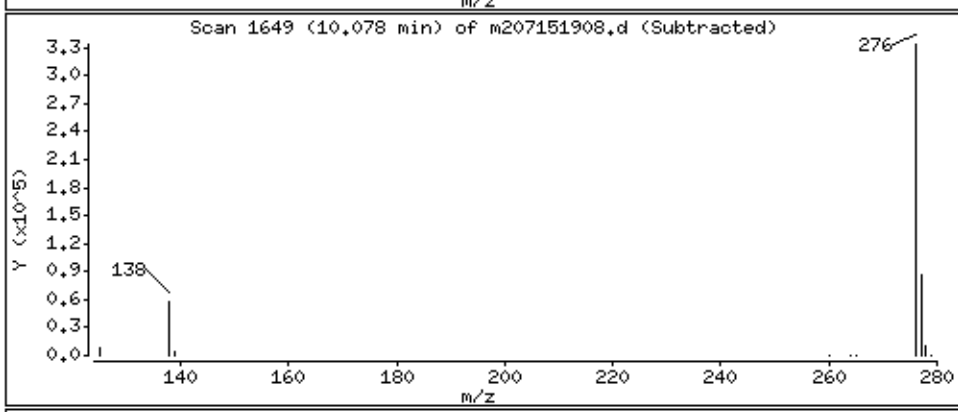
Volume Injected (uL): 1.0 Operator: DSC

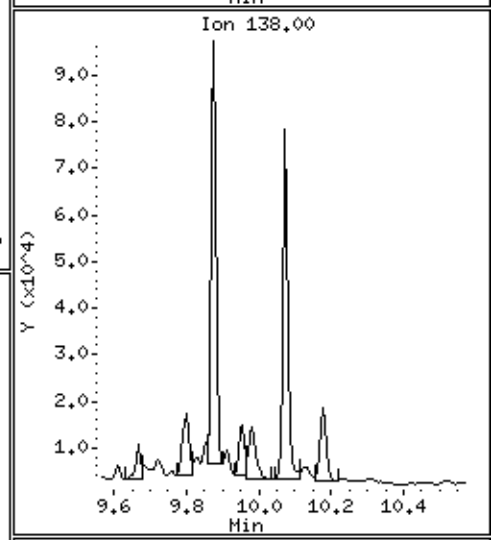
Column phase: RTX-5MS Column diameter: 0.25

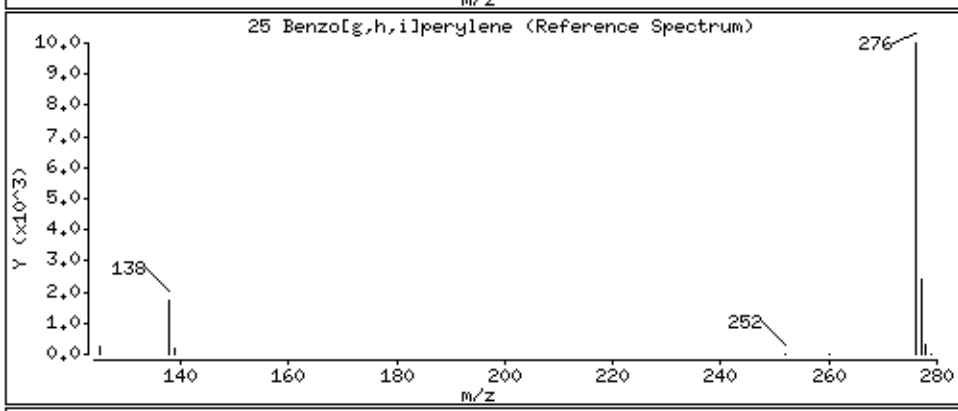
25 Benzo[g,h,i]perylene Concentration: 1430 ug/Kg

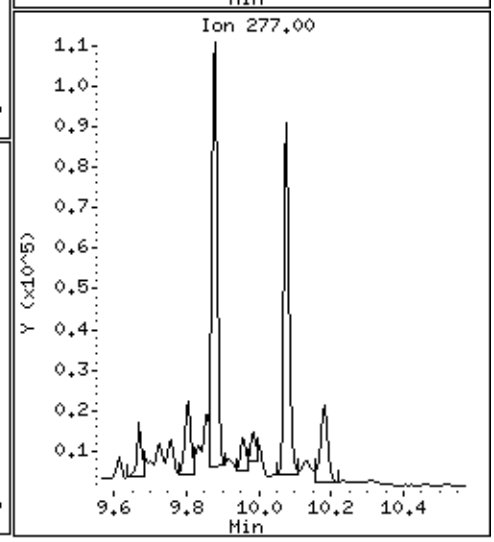


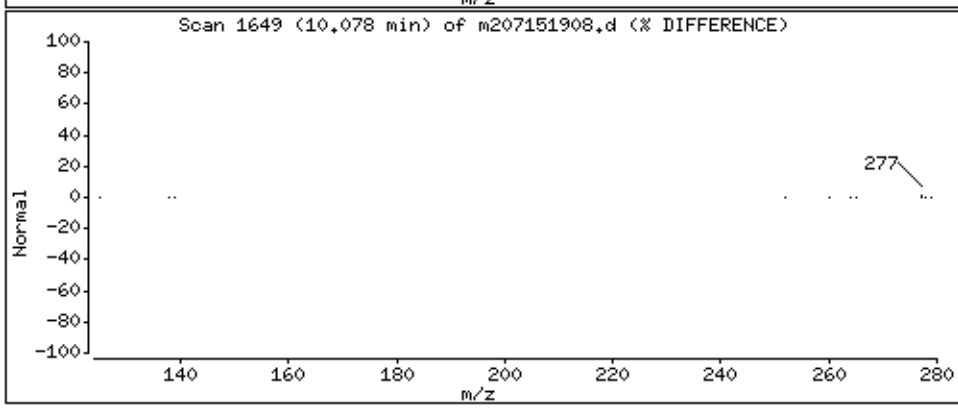












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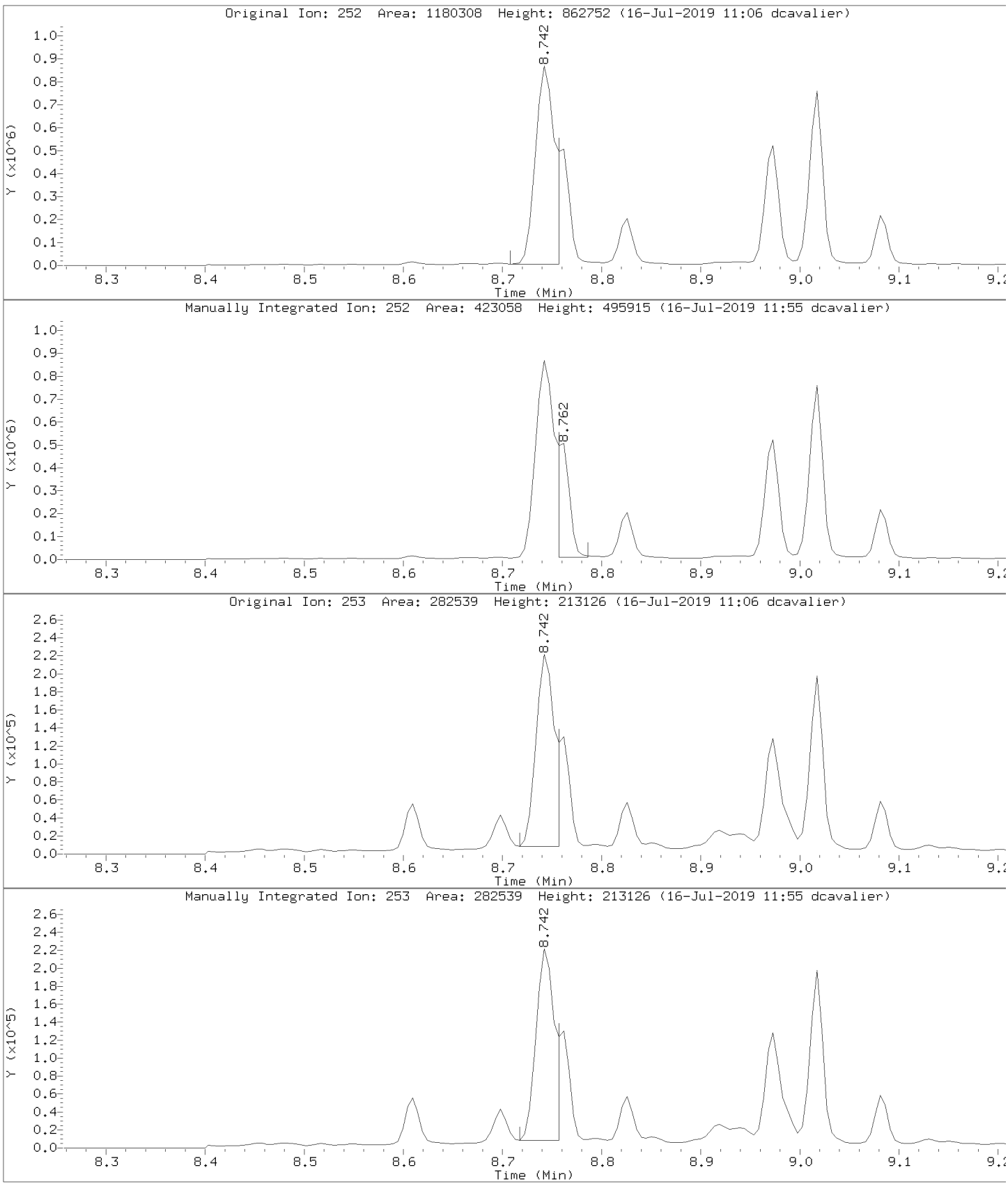
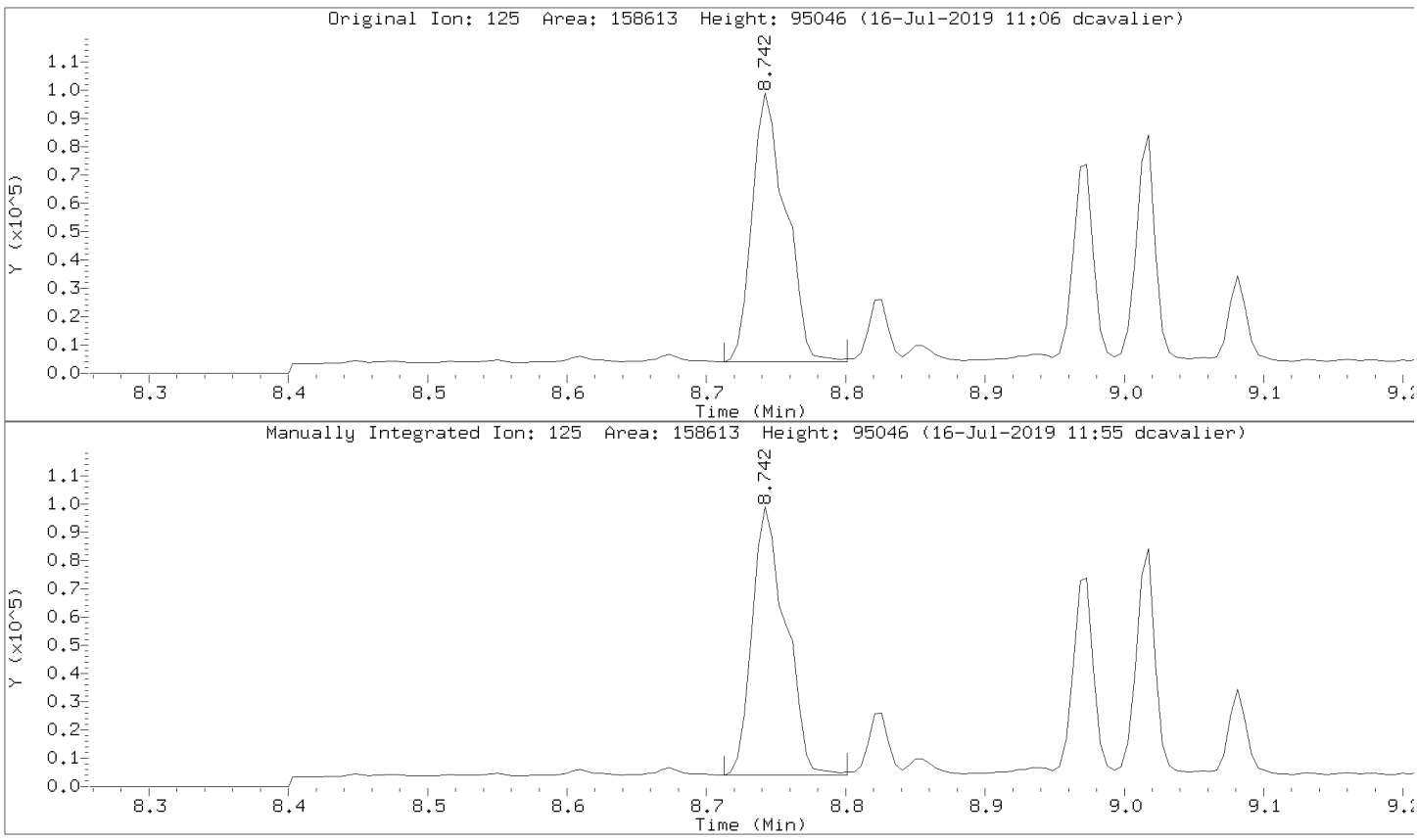
Injection Date: 15-JUL-2019 11:23
Instrument: 30mss2.i
Lab Sample ID: 30313260002

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151908.d
Injection Date: 15-JUL-2019 11:23
Instrument: 30mss2.i
Lab Sample ID: 30313260002



SAMPLE NO.

AOC27

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 30313260003
Date Analyzed: 07/15/2019 11:40
Lab File ID: MSS2071519.B\M207151909.D
Initial wt/vol: 15.1 g
Final wt/vol: 1 mL
Dilution: 10
Instrument: 30MSS2
Percent Moisture: 4.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.11	
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	0.28	
56-55-3	Benzo(a)anthracene	0.90	
50-32-8	Benzo(a)pyrene	0.70	
205-99-2	Benzo(b)fluoranthene	1.1	
191-24-2	Benzo(g,h,i)perylene	0.38	
207-08-9	Benzo(k)fluoranthene	0.44	
218-01-9	Chrysene	0.84	
53-70-3	Dibenz(a,h)anthracene	0.13	
206-44-0	Fluoranthene	1.8	
86-73-7	Fluorene	0.095	
193-39-5	Indeno(1,2,3-cd)pyrene	0.34	
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	1.2	
129-00-0	Pyrene	1.4	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 15-JUL-2019 11:40
Operator : DSC Inst ID: 30mss2.i
Smp Info : 30313260003x10,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 11
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.395	3.390	(1.000)	613030	4.00000		
	8 Naphthalene	128	3.407	3.401	(1.003)	13610	0.09852	65.2	
	9 2-Methylnaphthalene	142	3.852	3.846	(1.135)	4234	0.04611	30.5	
	10 1-Methylnaphthalene	142	3.915	3.909	(1.153)	3844	0.03902	25.8	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	43535	0.35181	23.3(R)	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	2951	0.02021	13.4(QM)	WP
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	370739	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	15706	0.16465	109	
	13 Fluorene	166	4.870	4.870	(1.078)	15416	0.13770	91.2	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	623537	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	271136	1.80147	1190	
	15 Anthracene	178	5.578	5.578	(1.010)	62494	0.40742	270(Q)	
	16 Fluoranthene	202	6.490	6.490	(1.175)	452540	2.62691	1740	
	17 Pyrene	202	6.688	6.688	(1.211)	368688	2.08150	1380	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	52189	0.39429	26.1(R)	
	18 Benzo(a)anthracene	228	7.775	7.772	(0.999)	211974	1.29987	861	
*	4 Chrysene-d12 (IS)	240	7.786	7.783	(1.000)	595938	4.00000		
	19 Chrysene	228	7.807	7.807	(1.003)	203404	1.21778	806	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.737	8.732	(0.964)	266696	1.58382	1050(Q)	
21 Benzo(k)fluoranthene	252	8.757	8.757	(0.966)	127253	0.62900	416(QM)	WP
22 Benzo(a)pyrene	252	9.012	9.007	(0.995)	161148	1.00598	666	
* 5 Perylene-d12 (IS)	264	9.061	9.056	(1.000)	645249	4.00000		
23 Dibenz(a,h)anthracene	278	9.881	9.876	(1.091)	32309	0.18611	123(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.876	9.872	(1.090)	104570	0.49844	330	
25 Benzo[g,h,i]perylene	276	10.073	10.068	(1.112)	94235	0.54555	361	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Pace Analytical Services, Inc.

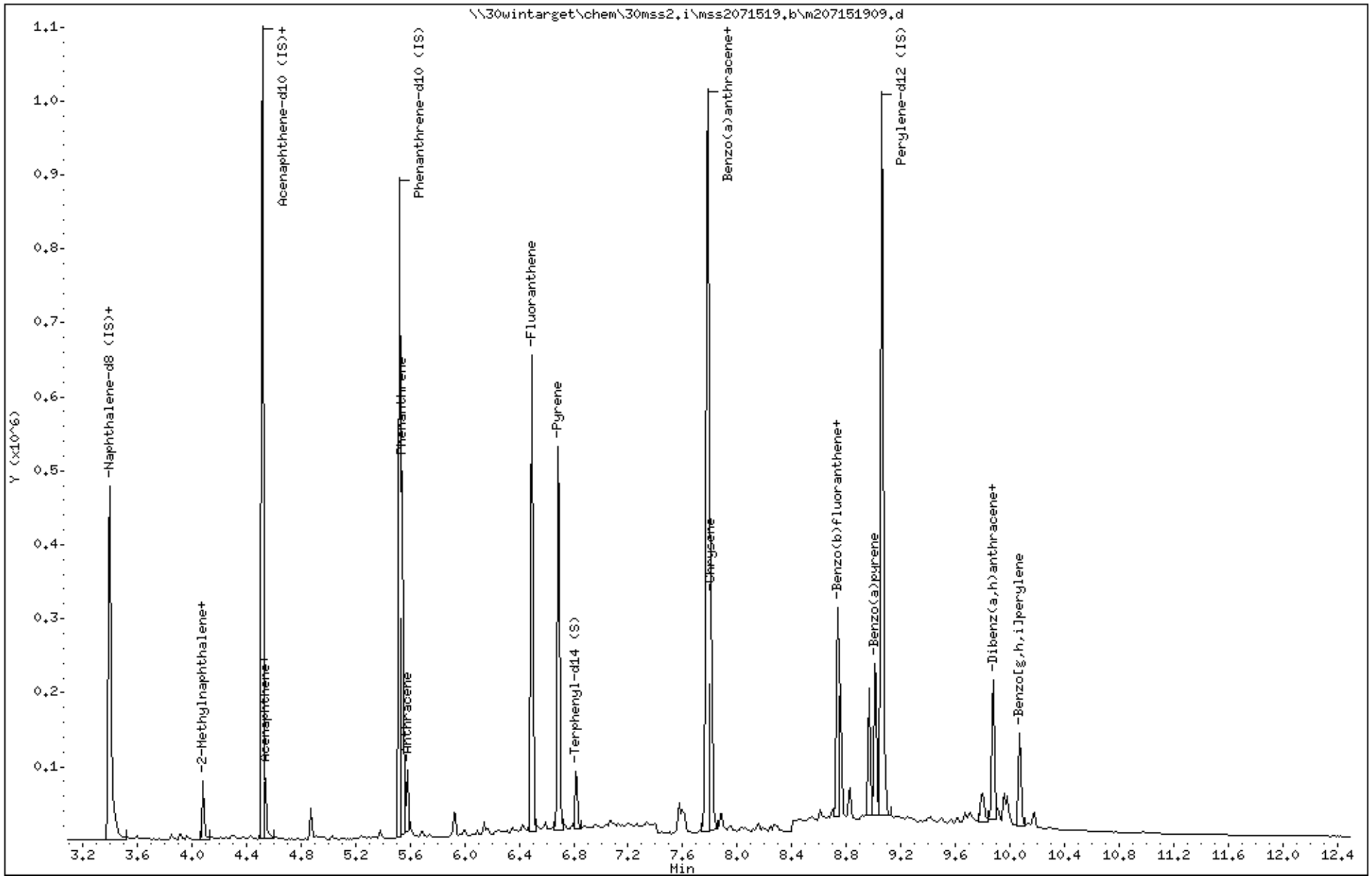
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260003
Client Smp ID: AOC27
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: DSC
Misc Info: 14824,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0993	U
91-20-3	Naphthalene	65.2	
91-57-6	2-Methylnaphthalene	30.5	
90-12-0	1-Methylnaphthalene	25.8	
208-96-8	Acenaphthylene	13.4	
83-32-9	Acenaphthene	109	
86-73-7	Fluorene	91.2	
85-01-8	Phenanthrene	1190	
120-12-7	Anthracene	270	
206-44-0	Fluoranthene	1740	
129-00-0	Pyrene	1380	
56-55-3	Benzo(a)anthracene	861	
218-01-9	Chrysene	806	
205-99-2	Benzo(b)fluoranthene	1050	
207-08-9	Benzo(k)fluoranthene	416	
50-32-8	Benzo(a)pyrene	666	
53-70-3	Dibenz(a,h)anthracene	123	
193-39-5	Indeno(1,2,3-cd)pyrene	330	
191-24-2	Benzo[g,h,i]perylene	361	
321-60-8	2-Fluorobiphenyl (S)	23.3	
1718-51-0	Terphenyl-d14 (S)	26.1	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d
Date : 15-JUL-2019 11:40
Client ID: A0C27
Sample Info: 30313260003X10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: DSC
Column diameter: 0.25



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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

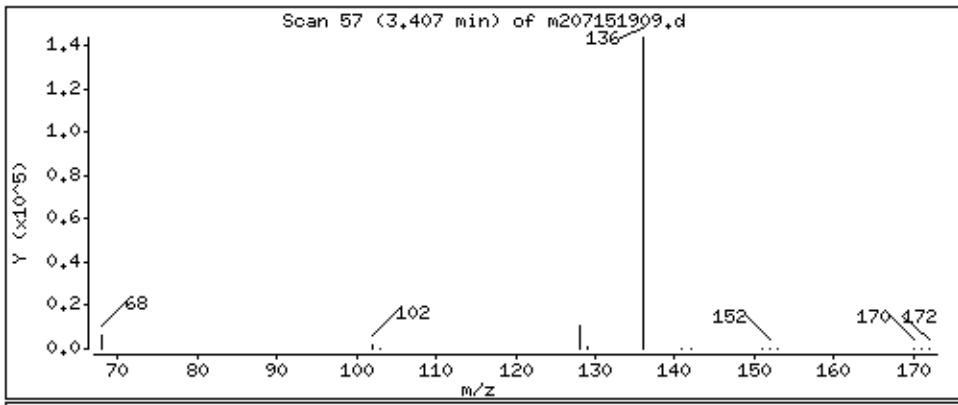
Operator: DSC

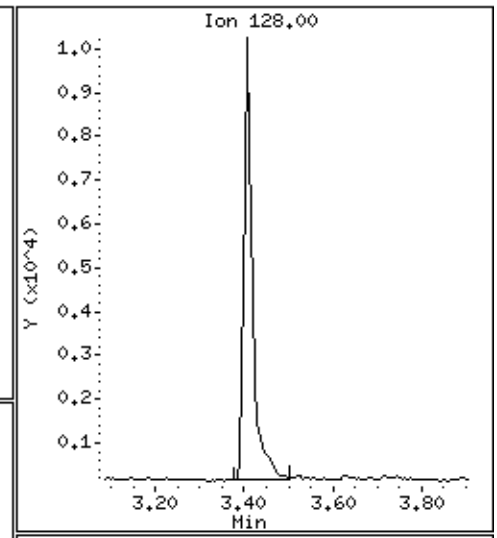
Column phase: RTX-5MS

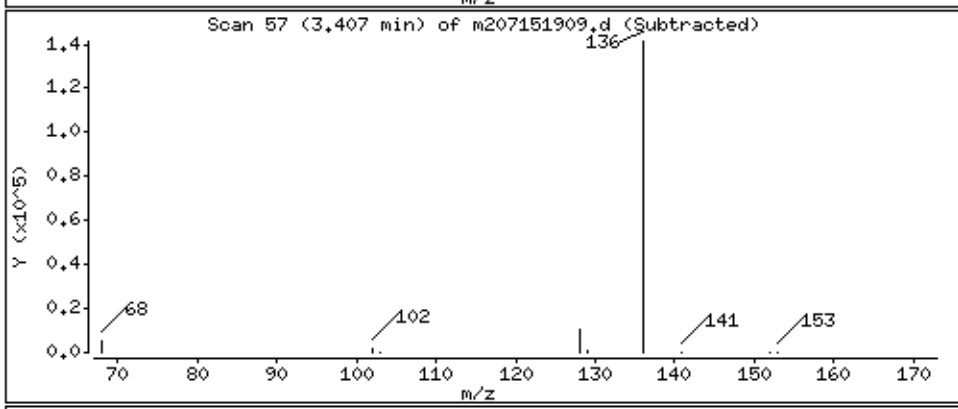
Column diameter: 0.25

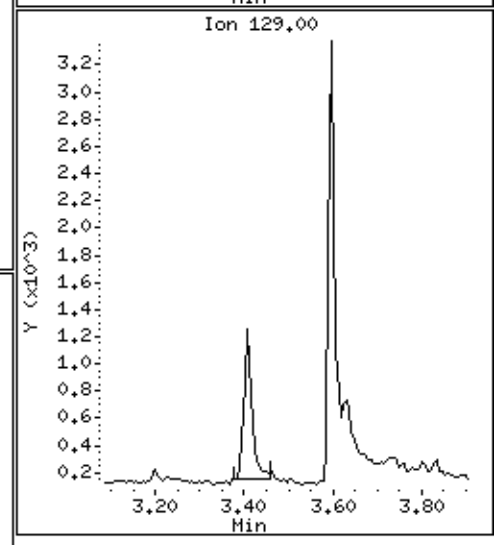
8 Naphthalene

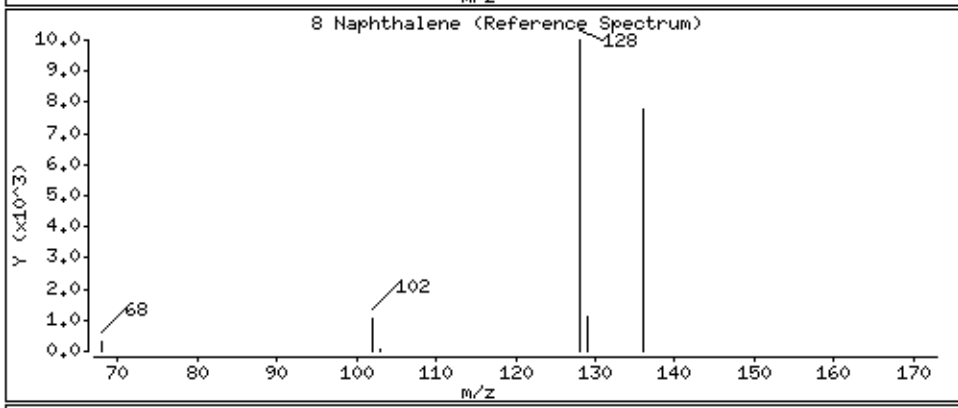
Concentration: 65.2 ug/Kg

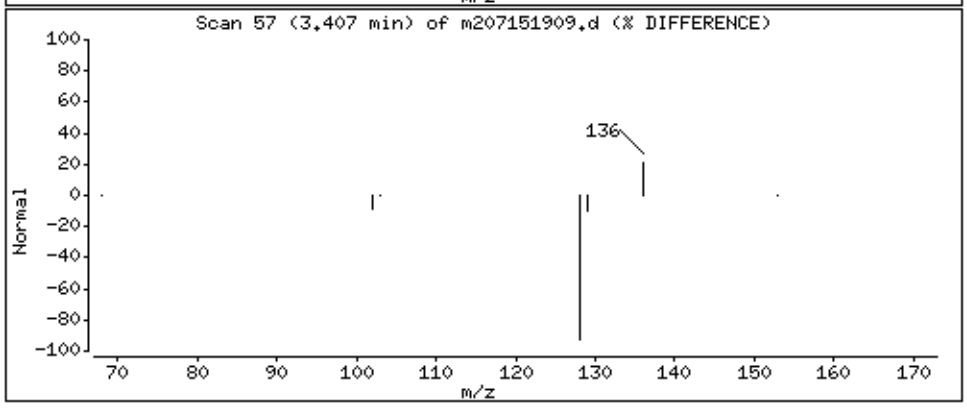












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

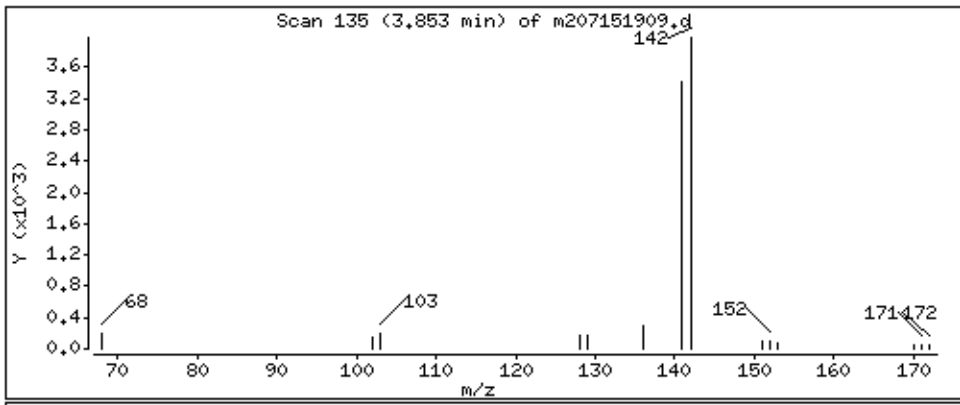
Operator: DSC

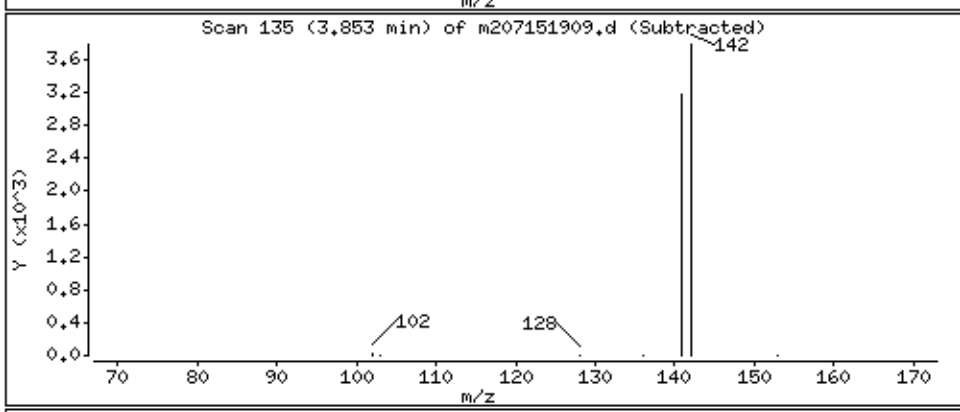
Column phase: RTX-5MS

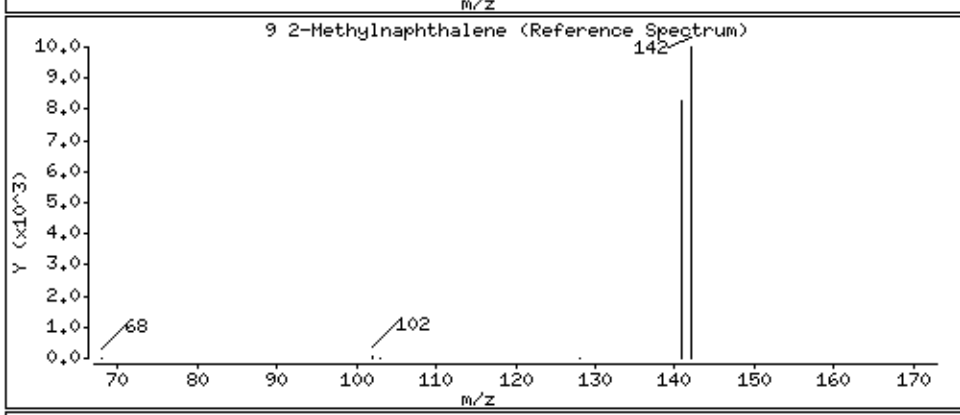
Column diameter: 0.25

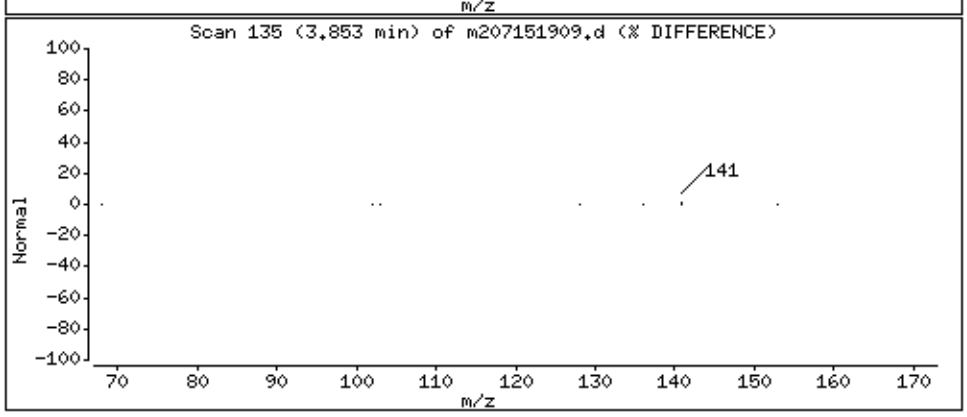
9 2-Methylnaphthalene

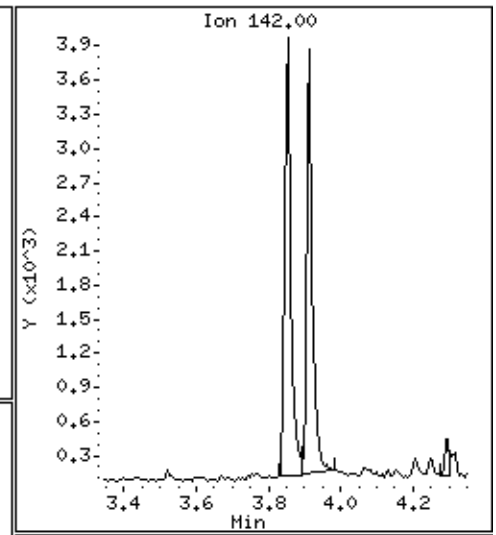
Concentration: 30.5 ug/Kg

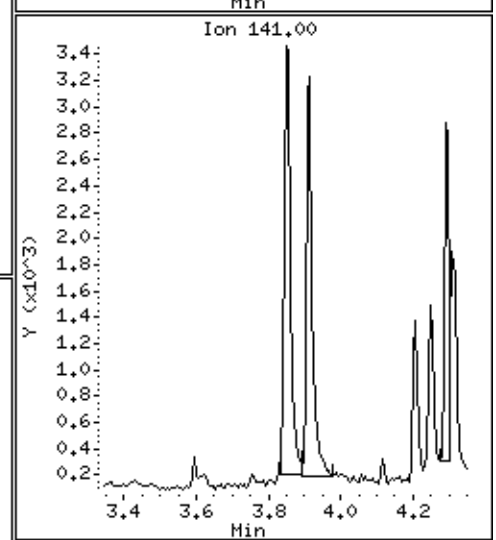












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

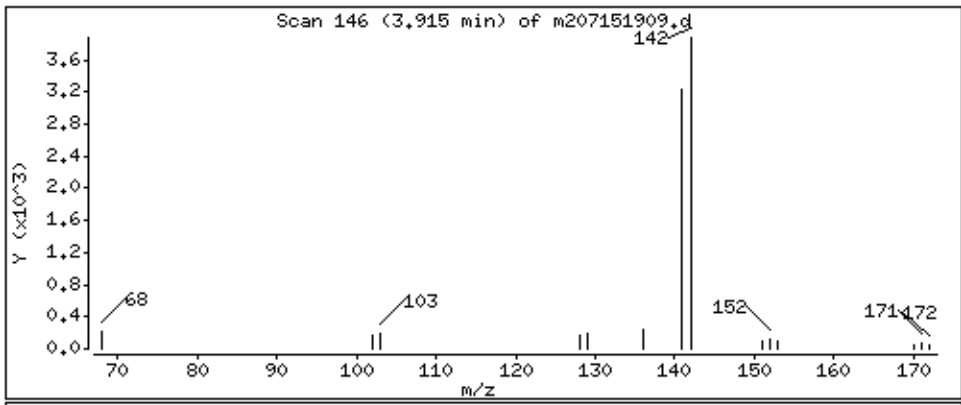
Client ID: AOC27 Instrument: 30mss2.i

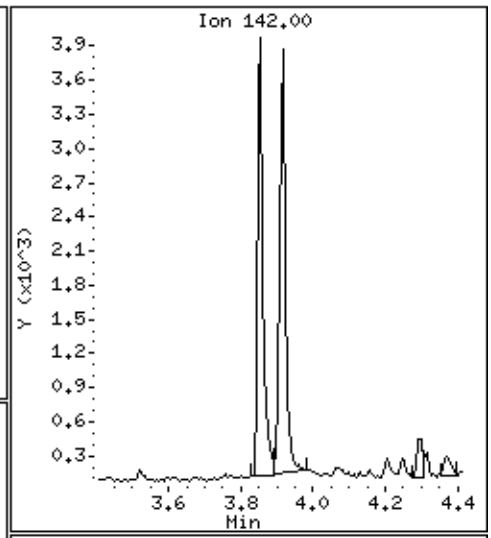
Sample Info: 30313260003X10,

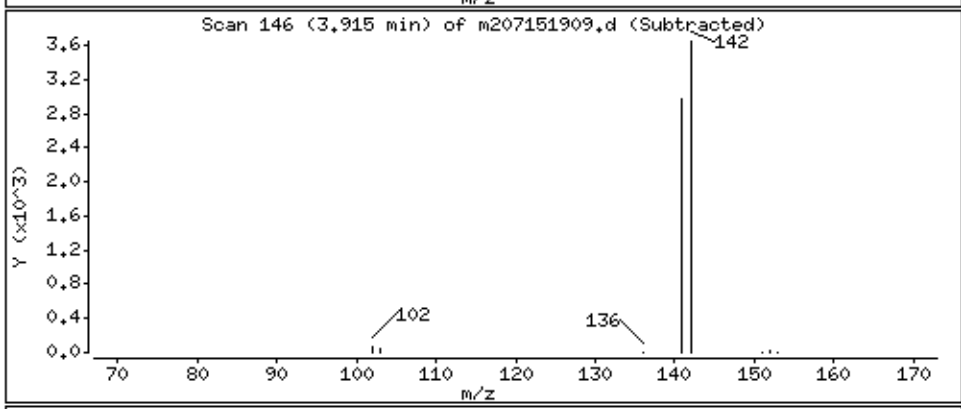
Volume Injected (uL): 1.0 Operator: DSC

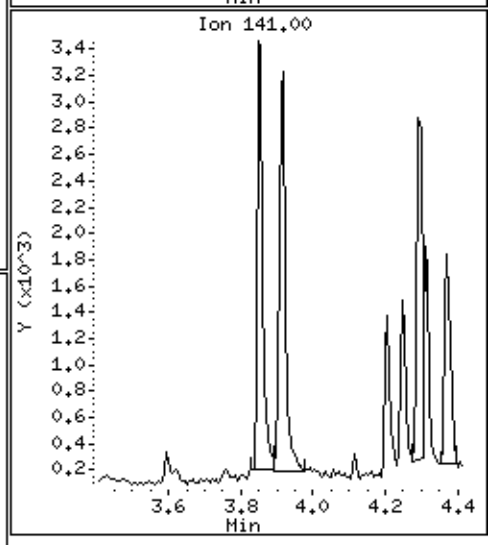
Column phase: RTX-5MS Column diameter: 0.25

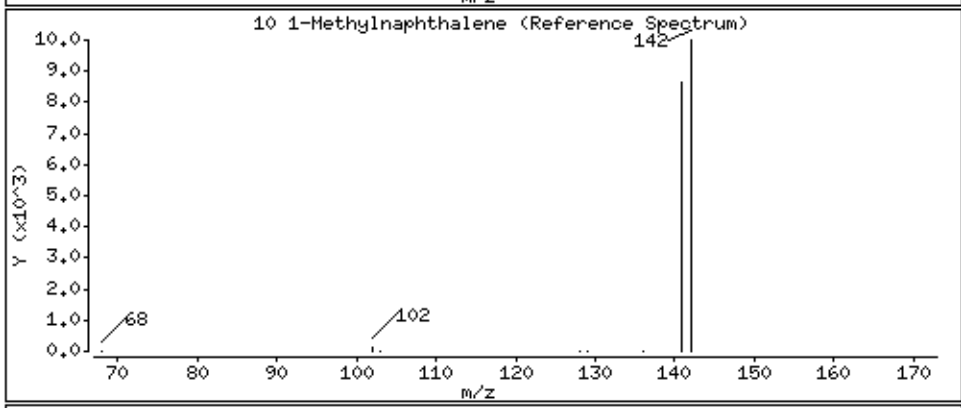
10 1-Methylnaphthalene Concentration: 25.8 ug/Kg

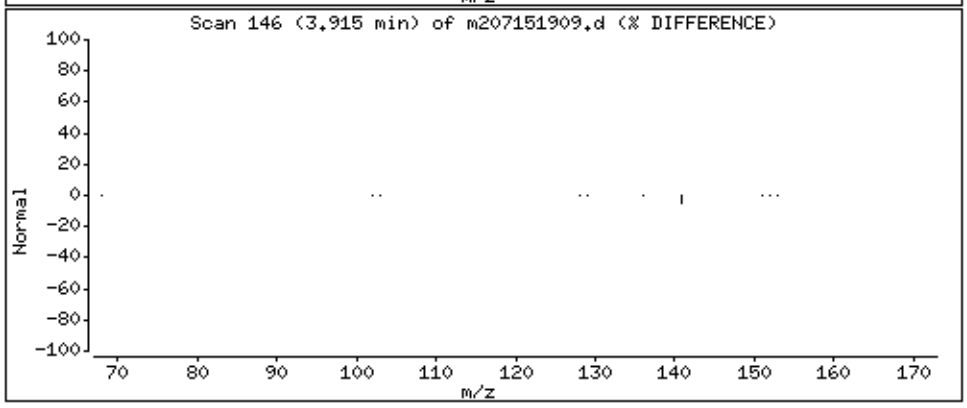












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

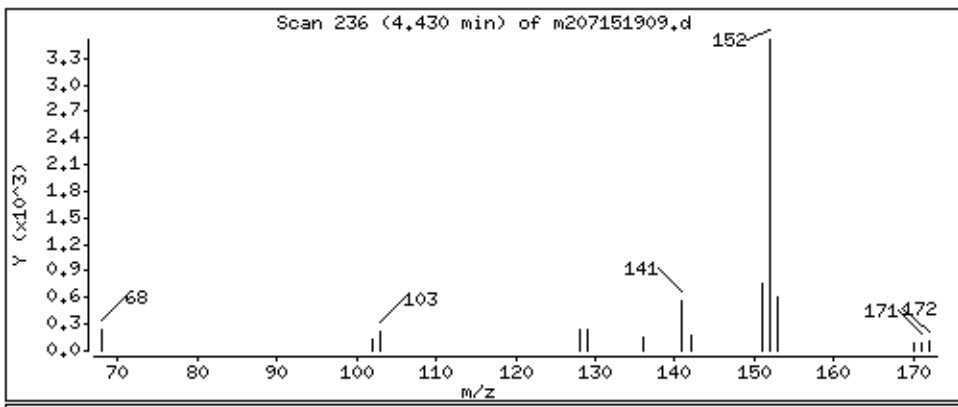
Client ID: AOC27 Instrument: 30mss2.i

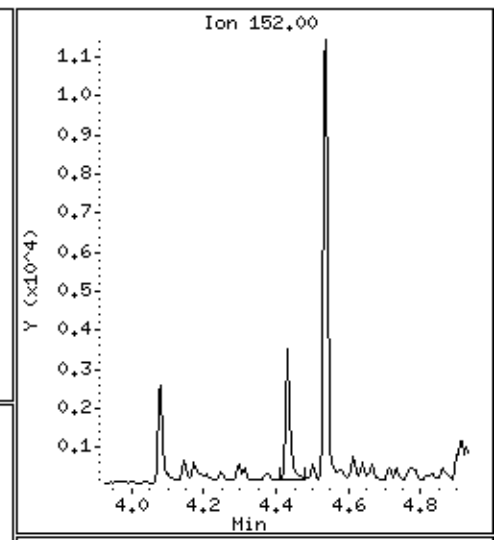
Sample Info: 30313260003X10,

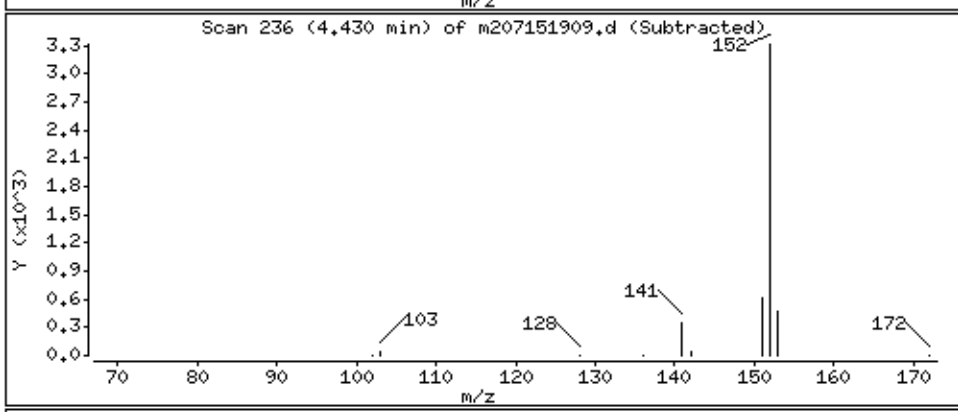
Volume Injected (uL): 1.0 Operator: DSC

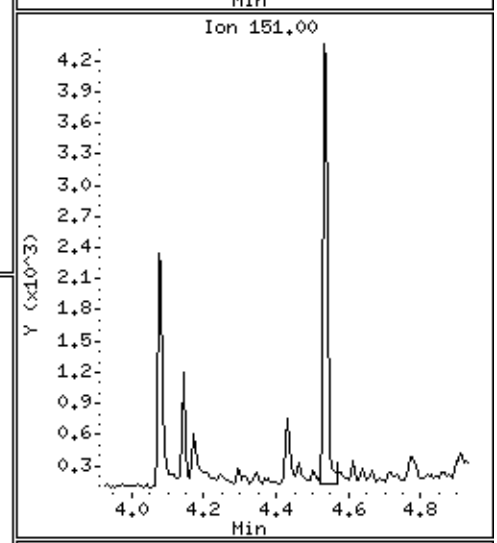
Column phase: RTX-5MS Column diameter: 0.25

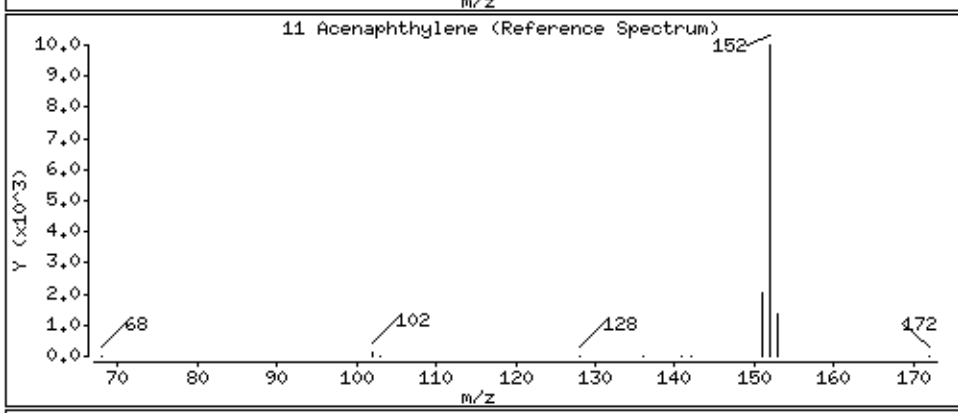
11 Acenaphthylene Concentration: 13.4 ug/Kg

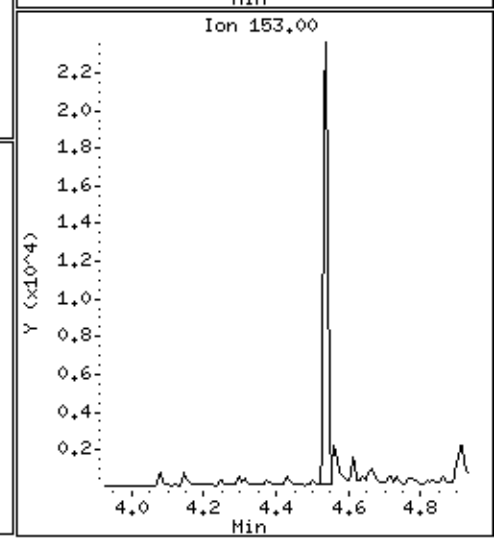


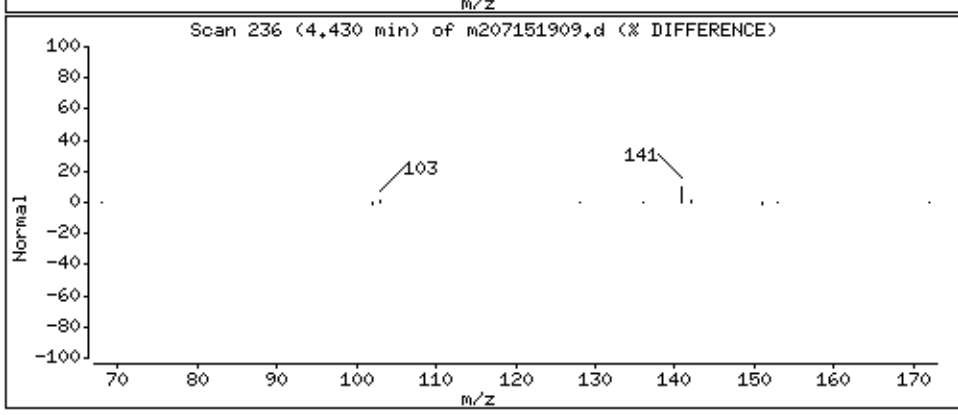












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

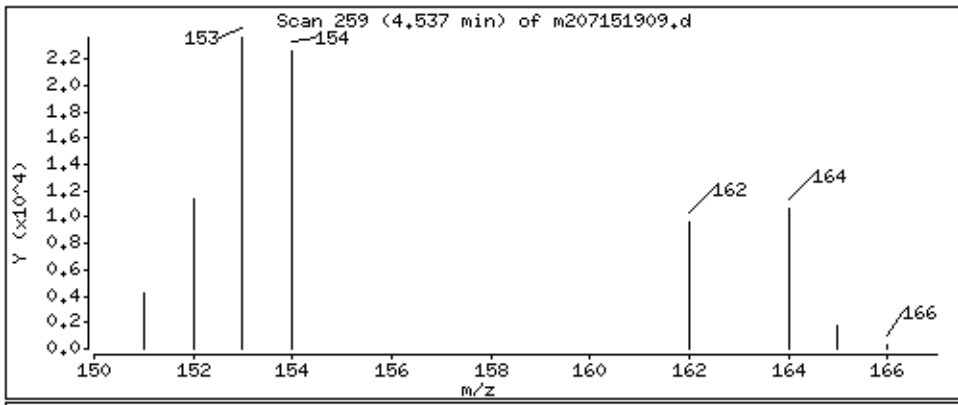
Operator: DSC

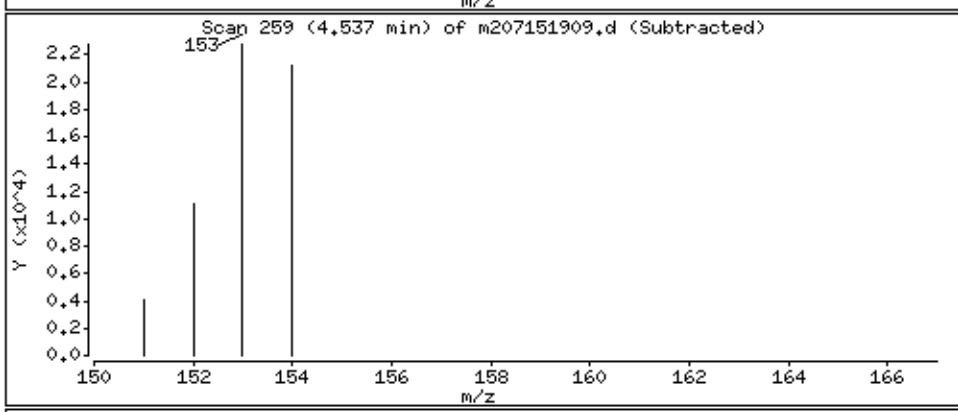
Column phase: RTX-5MS

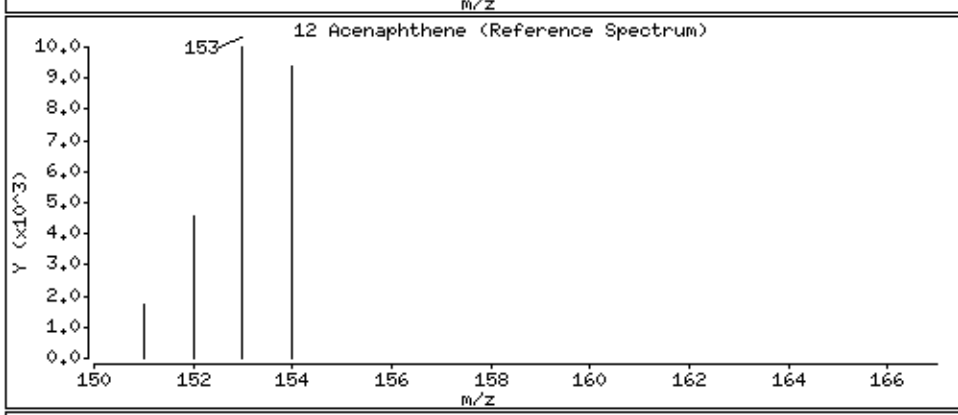
Column diameter: 0.25

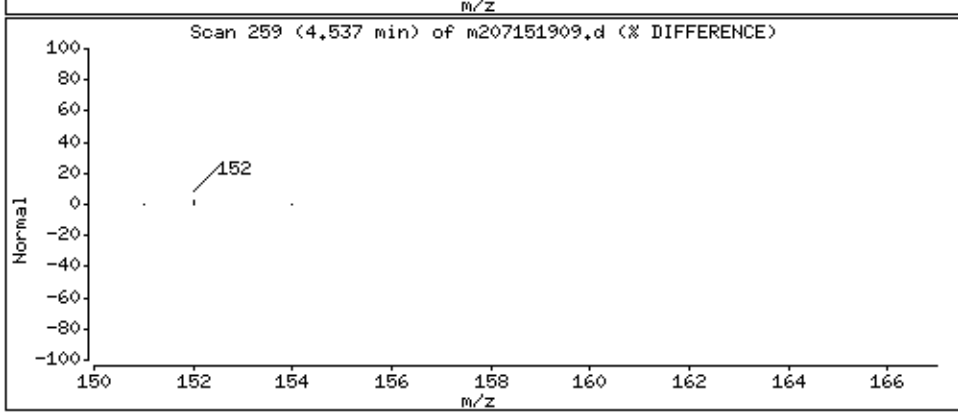
12 Acenaphthene

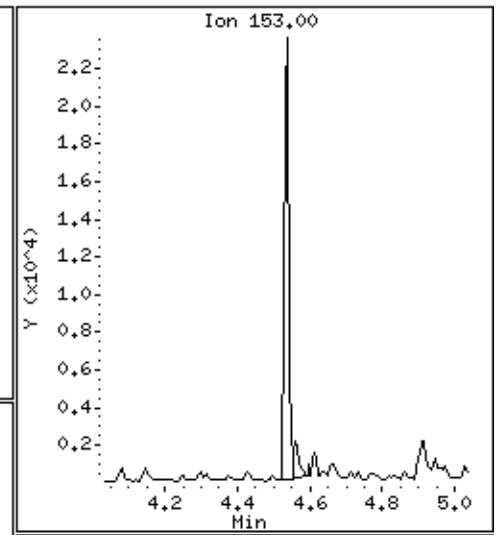
Concentration: 109 ug/Kg

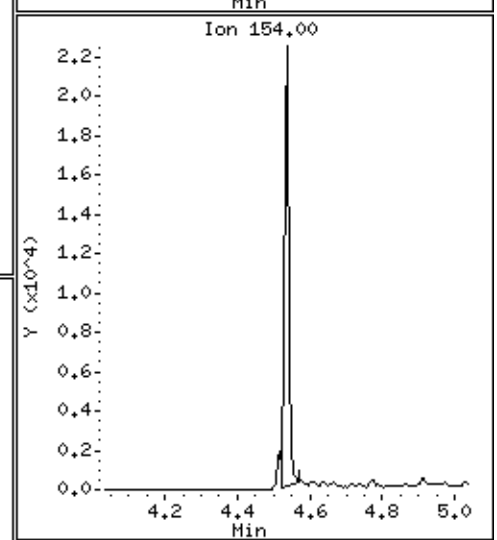


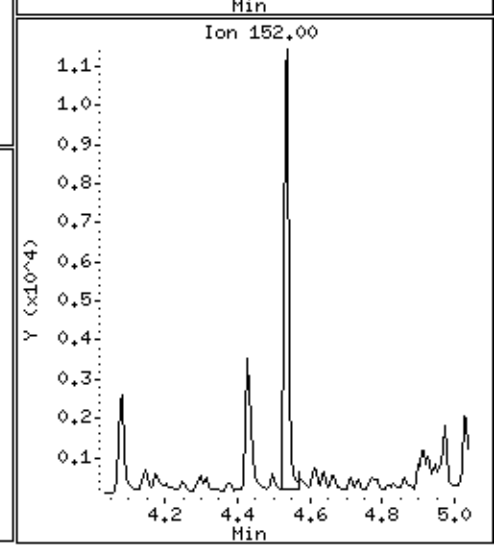












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

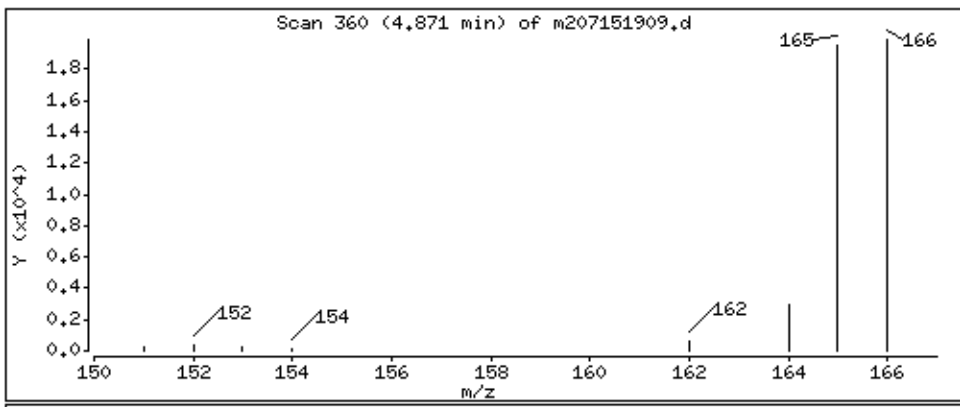
Operator: DSC

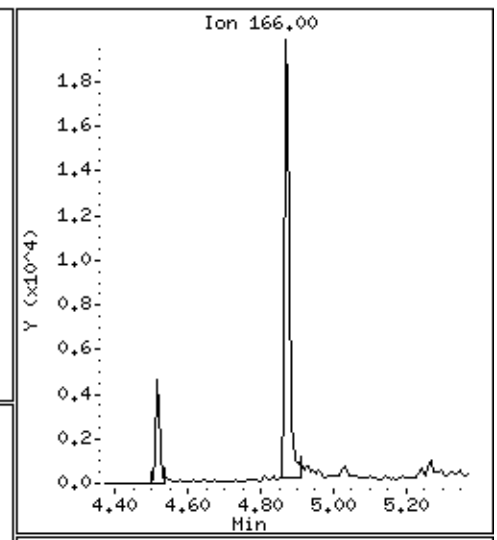
Column phase: RTX-5MS

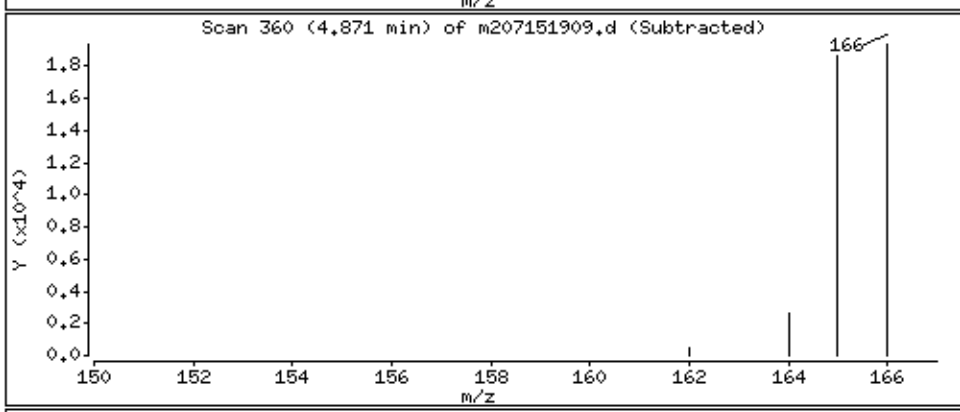
Column diameter: 0.25

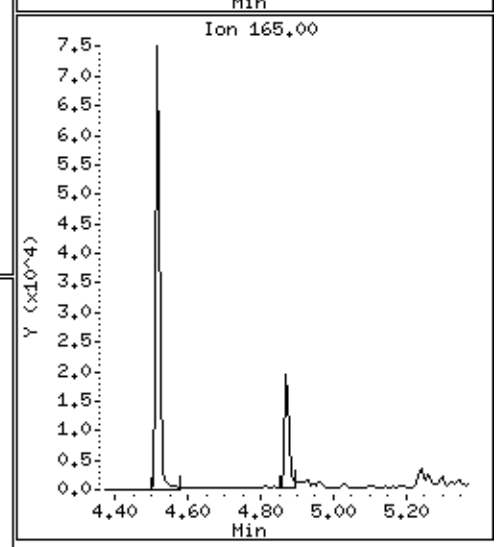
13 Fluorene

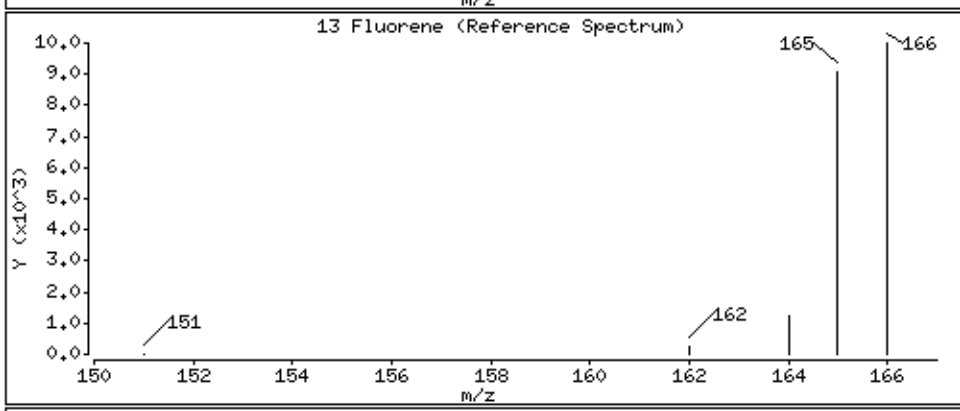
Concentration: 91.2 ug/Kg

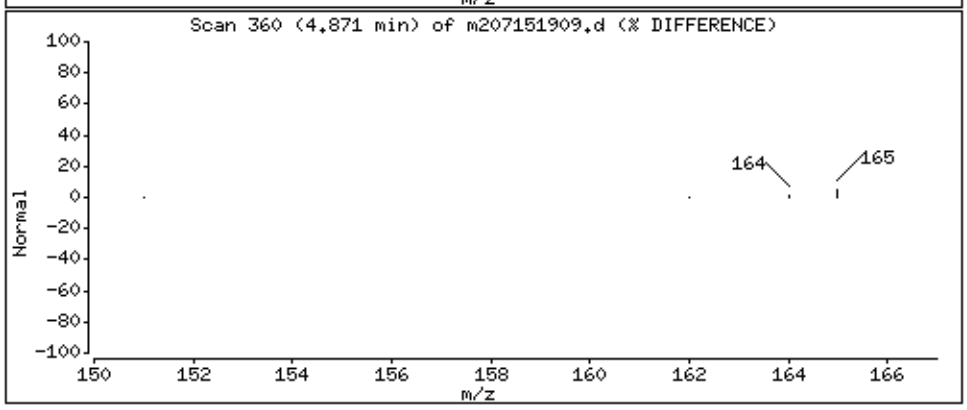












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

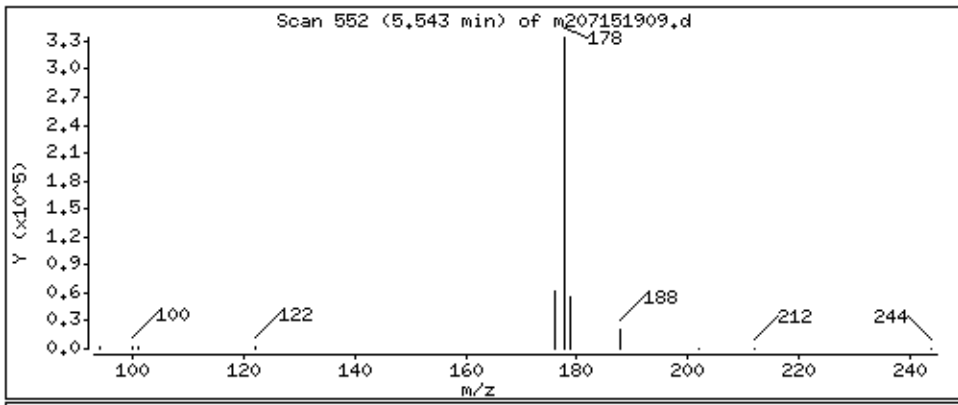
Operator: DSC

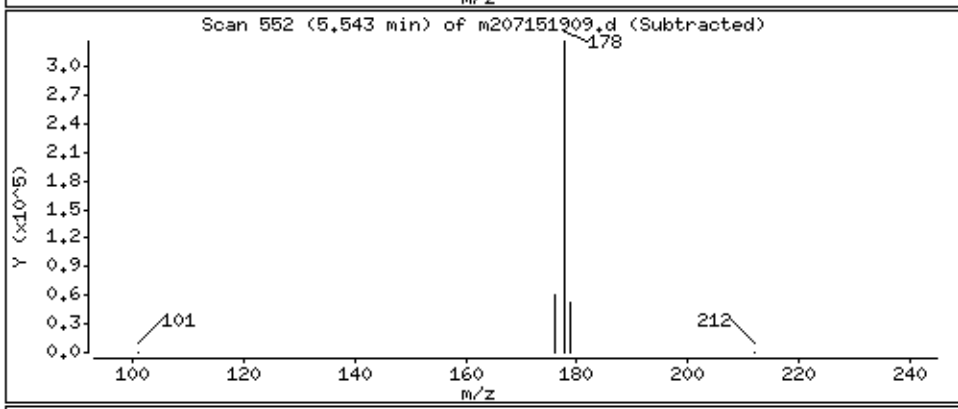
Column phase: RTX-5MS

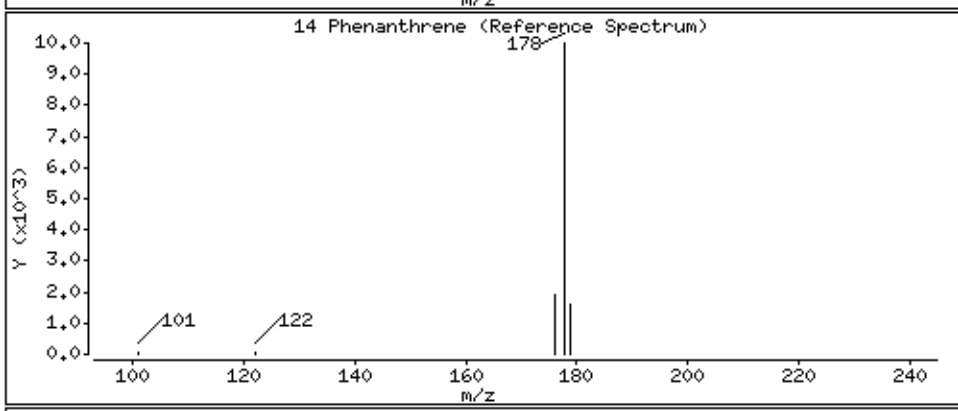
Column diameter: 0.25

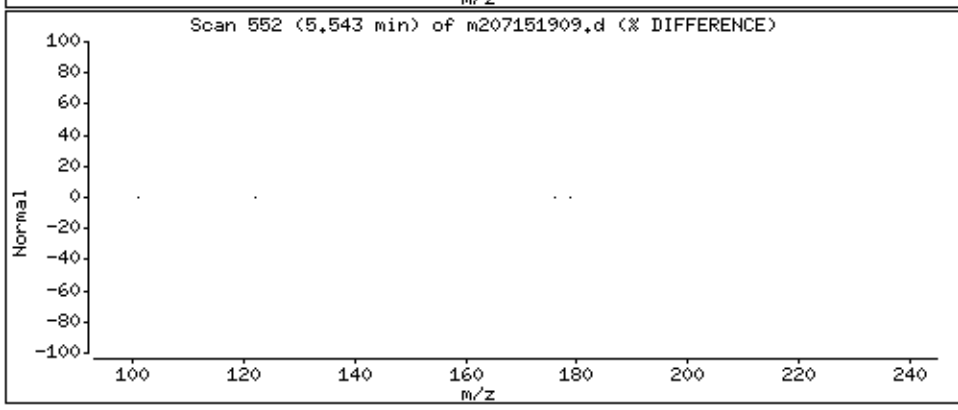
14 Phenanthrene

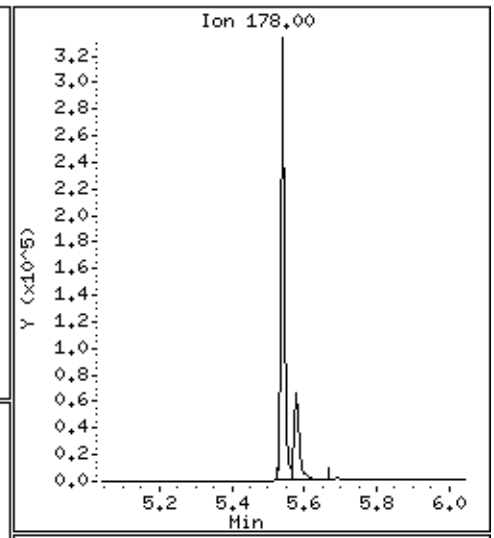
Concentration: 1190 ug/Kg

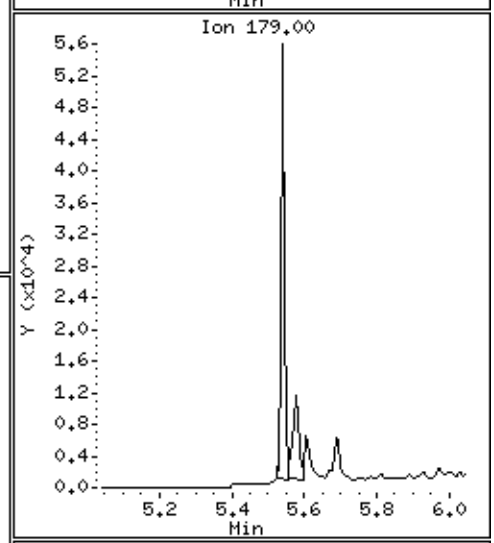


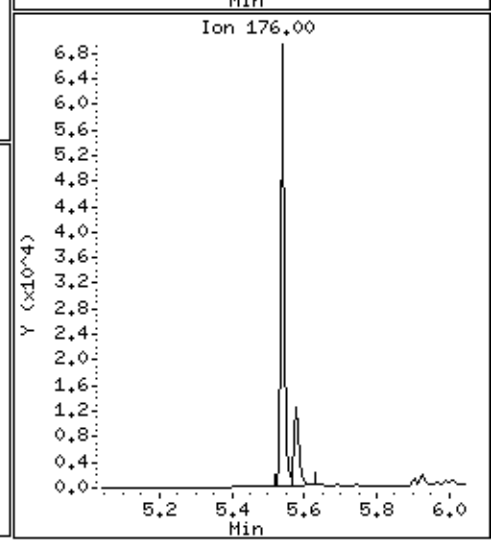












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

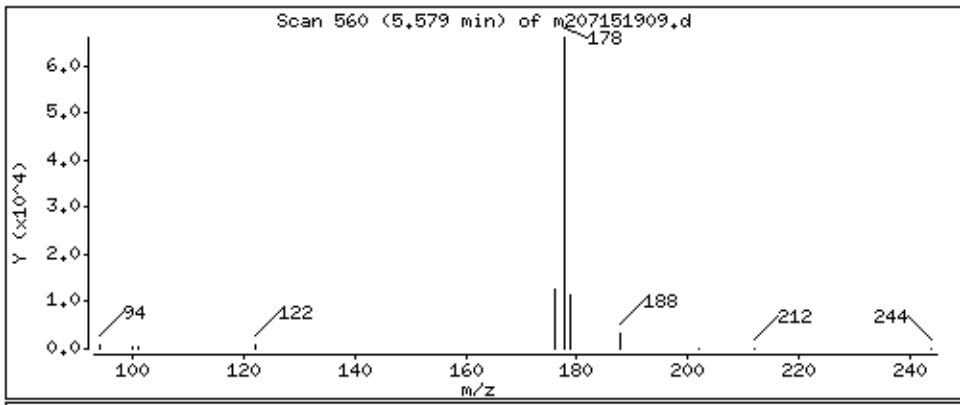
Operator: DSC

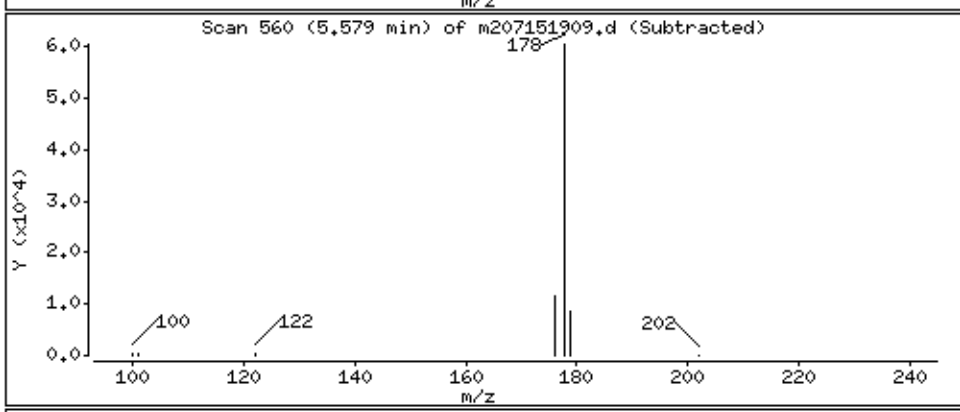
Column phase: RTX-5MS

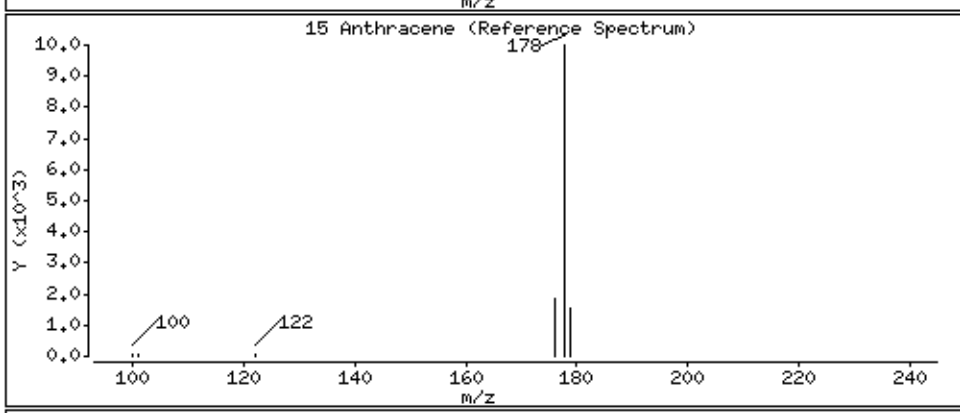
Column diameter: 0.25

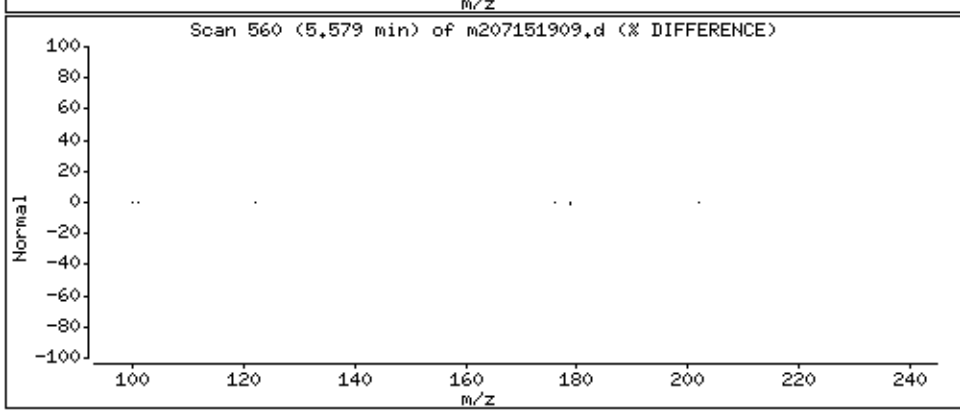
15 Anthracene

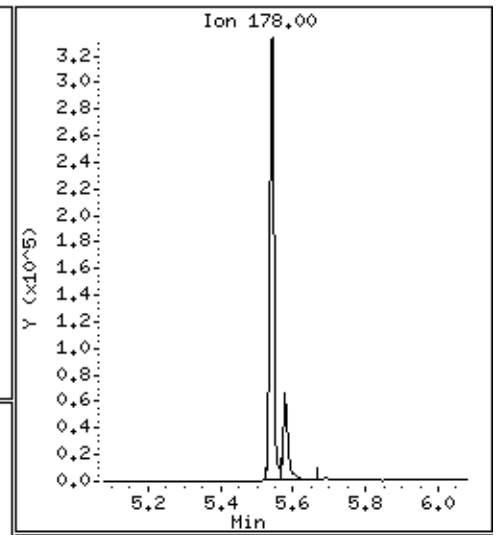
Concentration: 270 ug/Kg

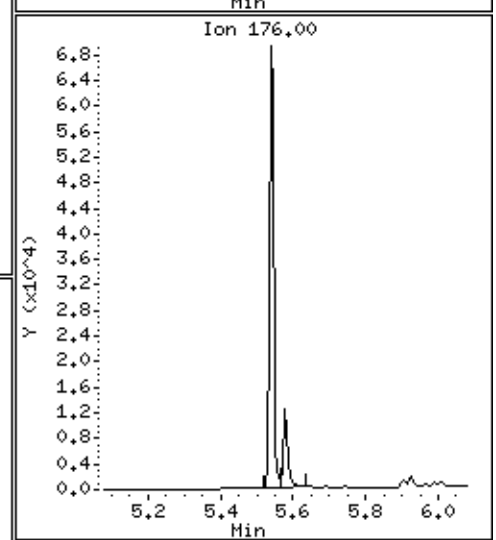


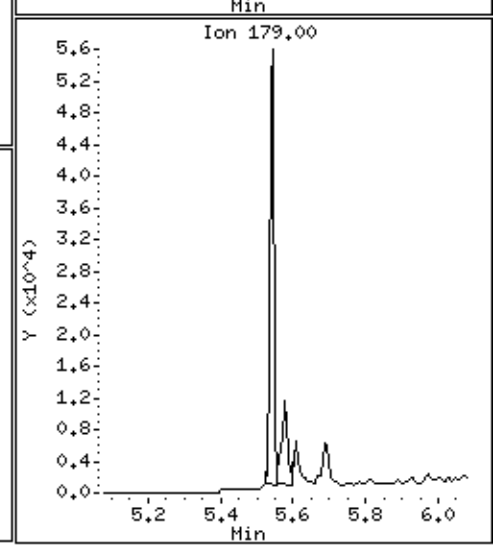












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Date : 15-JUL-2019 11:40

Client ID: A0C27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

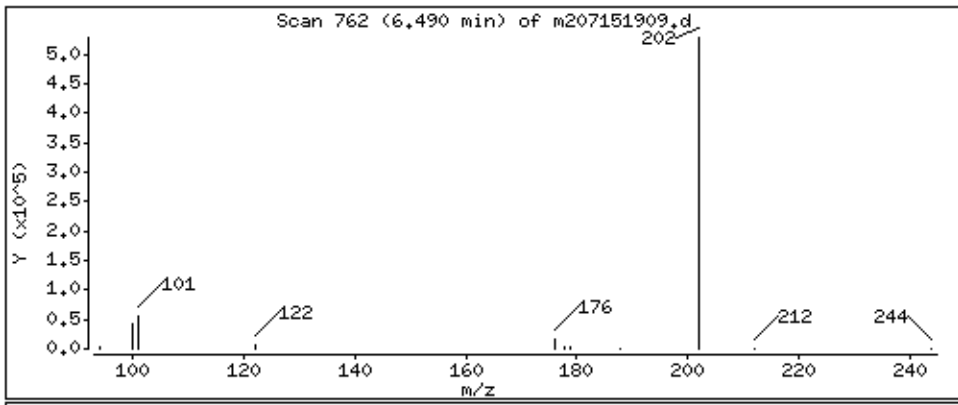
Operator: DSC

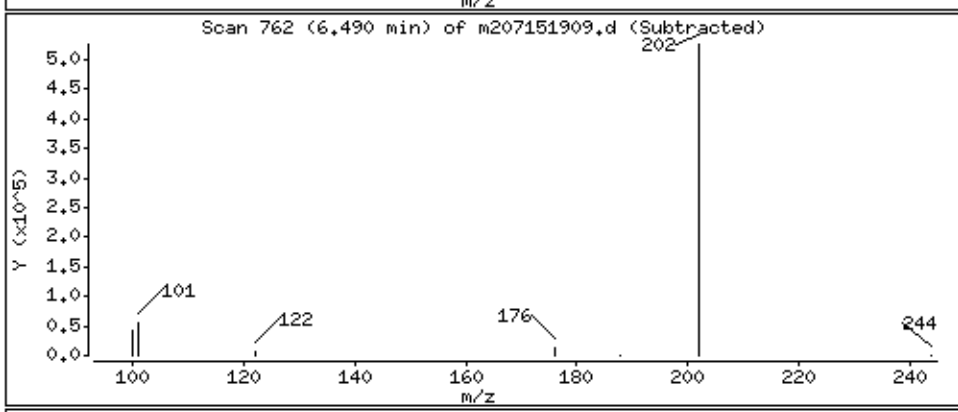
Column phase: RTX-5MS

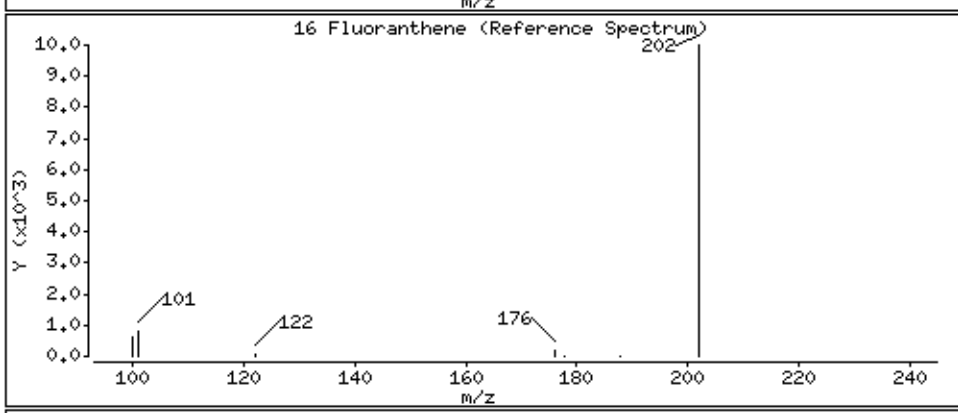
Column diameter: 0.25

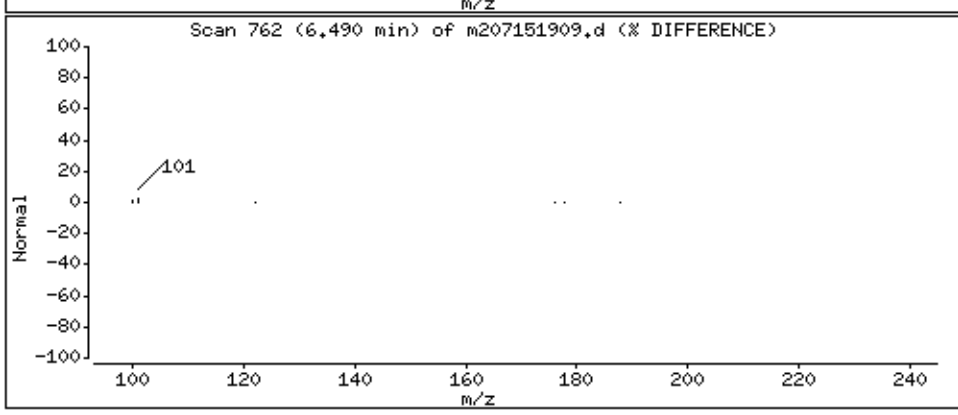
16 Fluoranthene

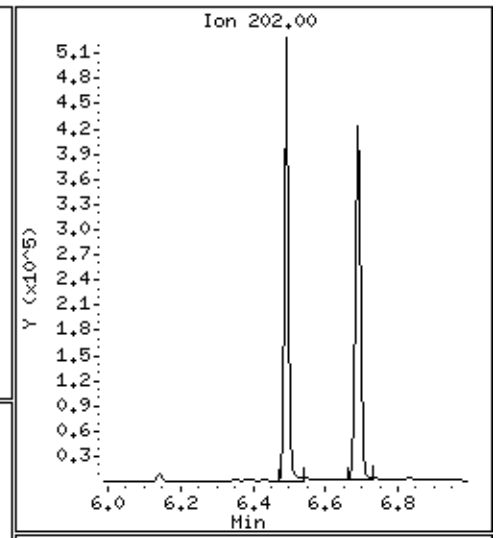
Concentration: 1740 ug/Kg

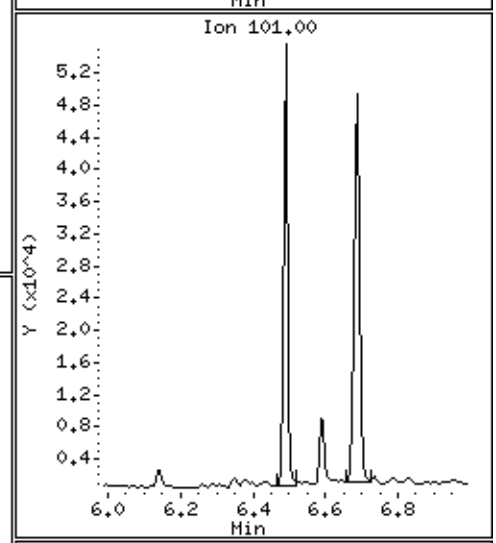


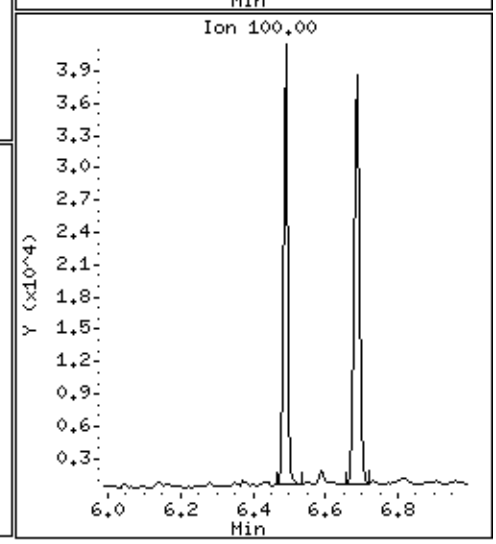












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

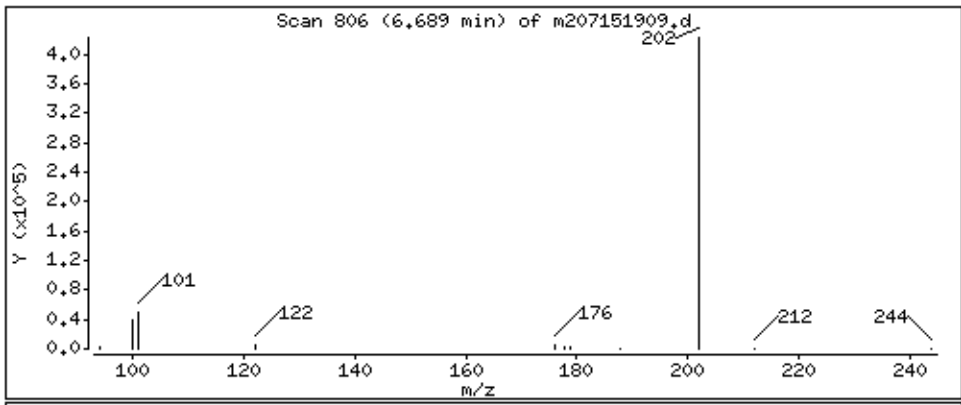
Operator: DSC

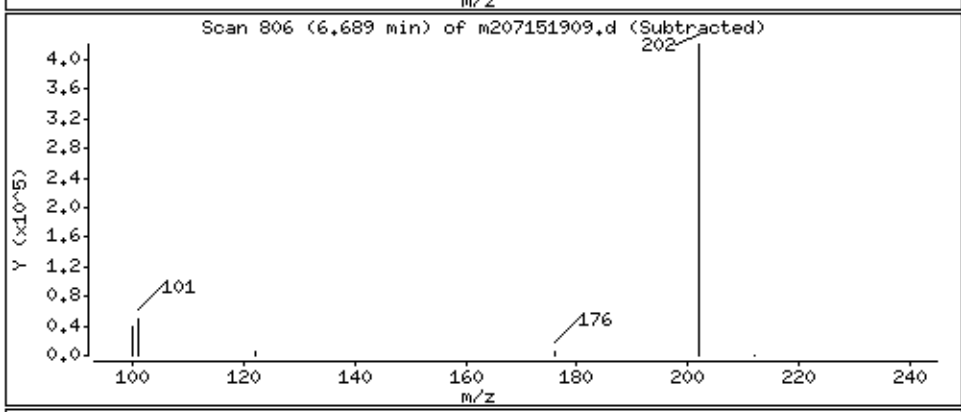
Column phase: RTX-5MS

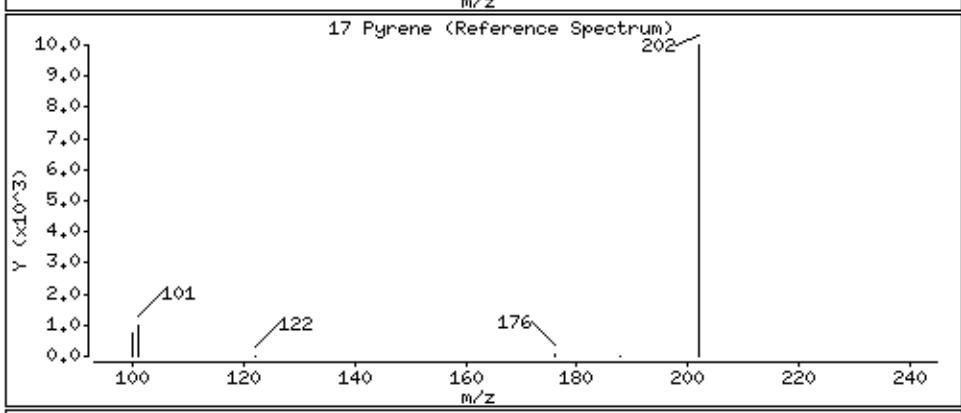
Column diameter: 0.25

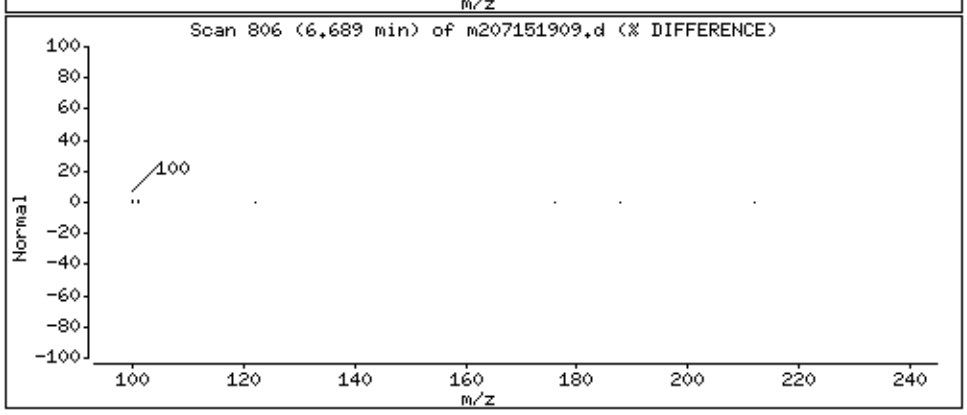
17 Pyrene

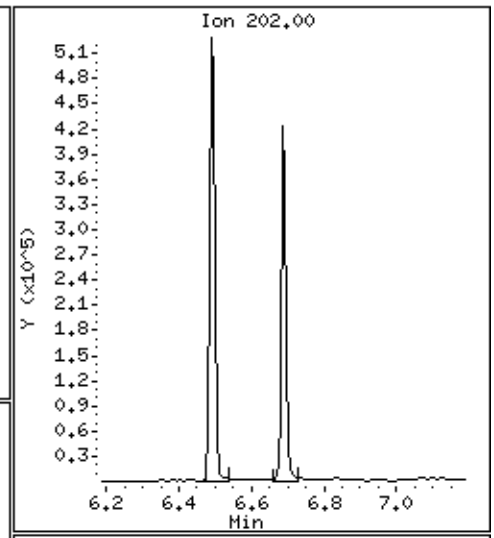
Concentration: 1380 ug/Kg

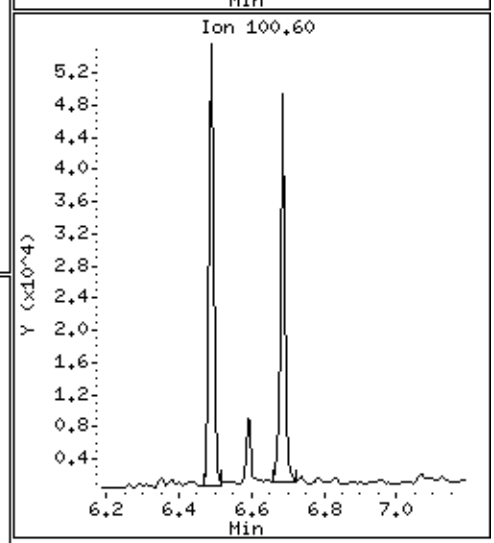












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

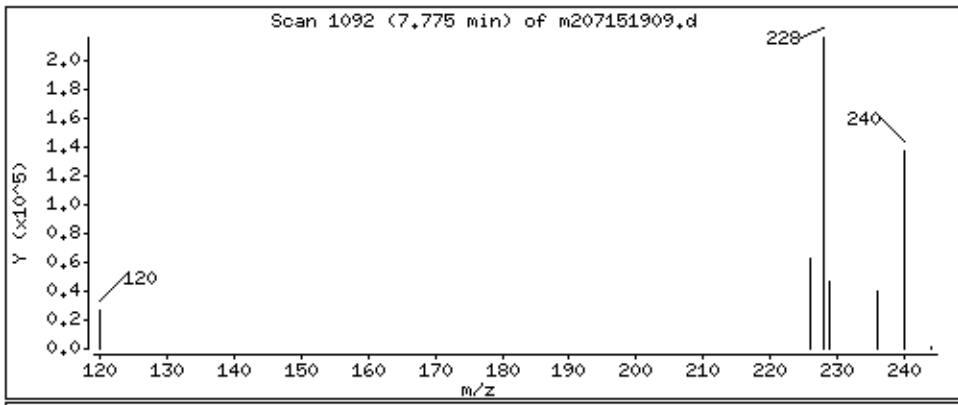
Operator: DSC

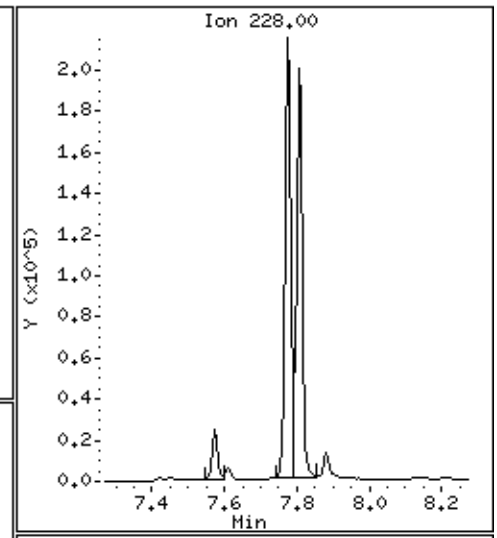
Column phase: RTX-5MS

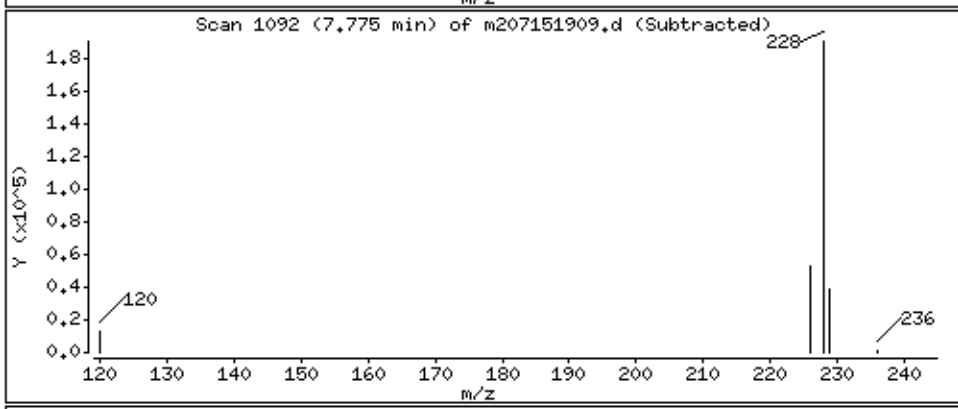
Column diameter: 0.25

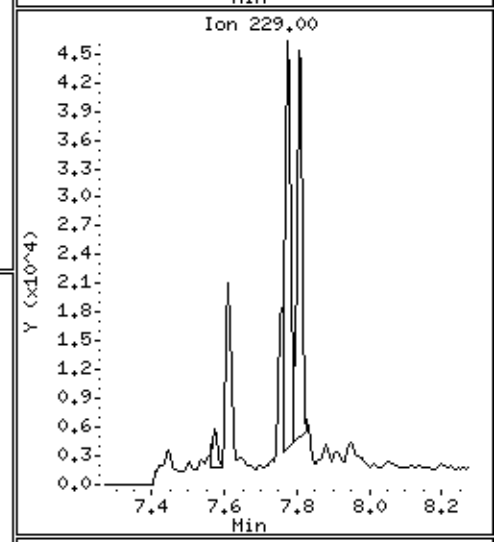
18 Benzo(a)anthracene

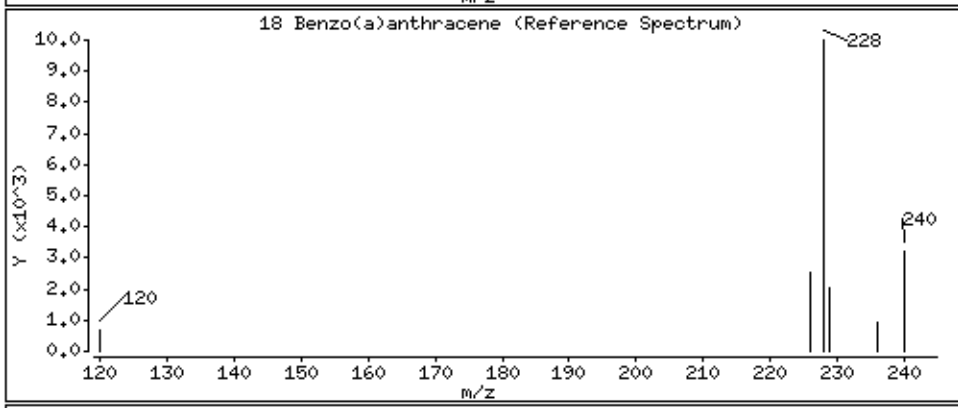
Concentration: 861 ug/Kg

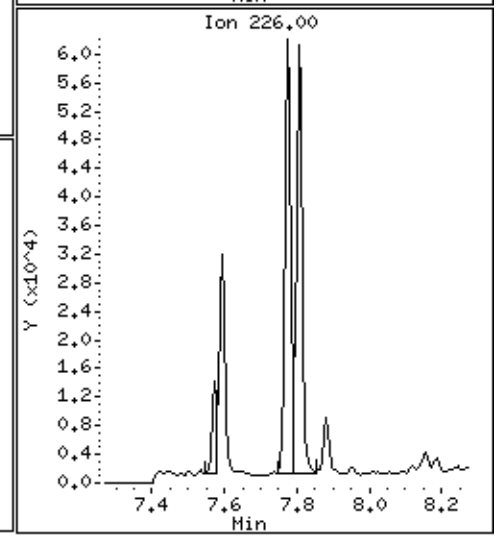


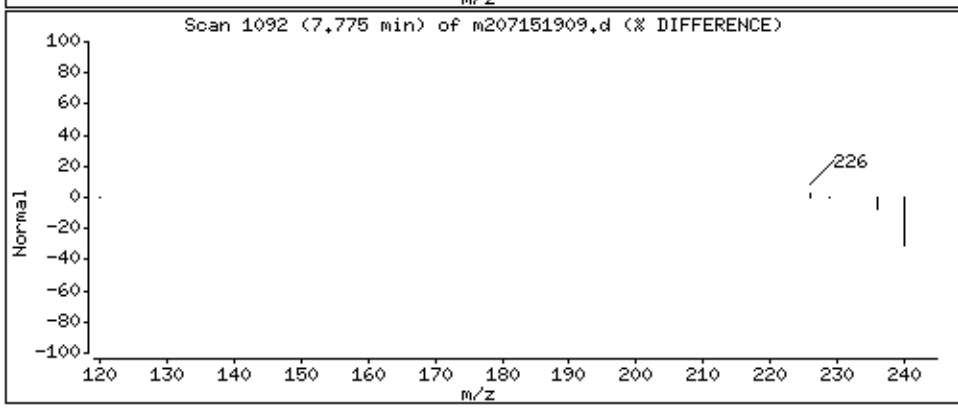












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

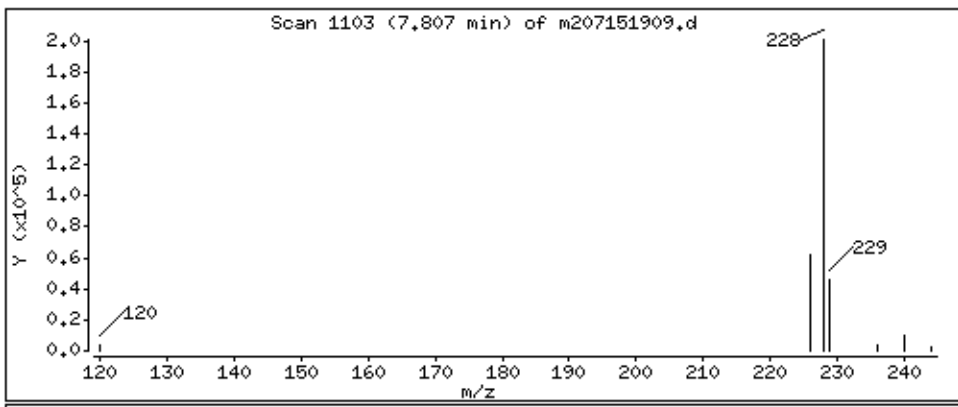
Operator: DSC

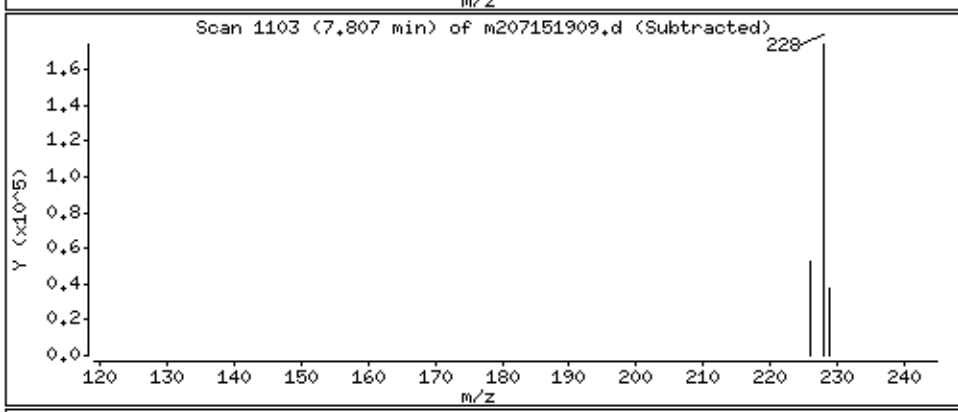
Column phase: RTX-5MS

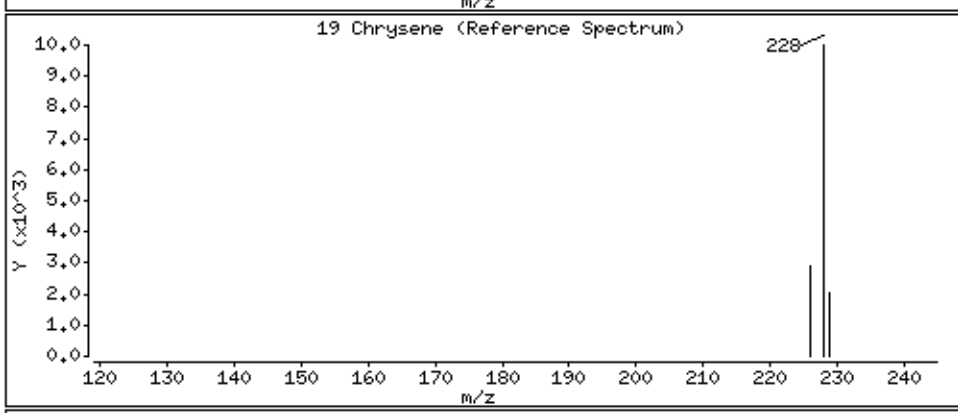
Column diameter: 0.25

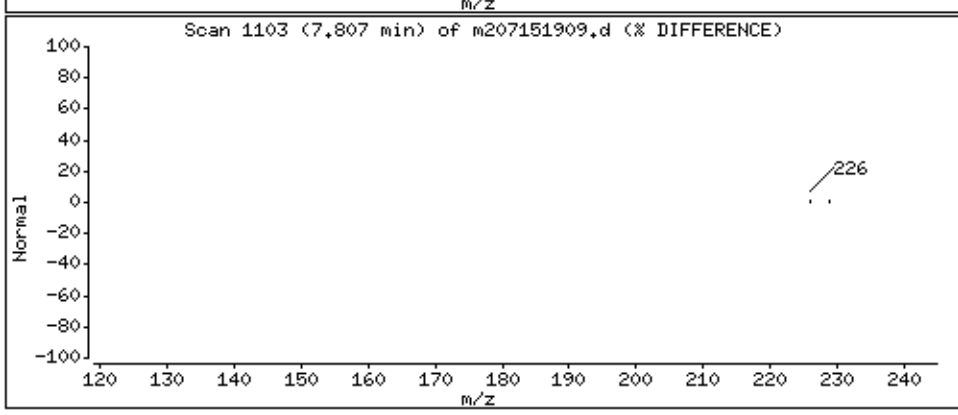
19 Chrysene

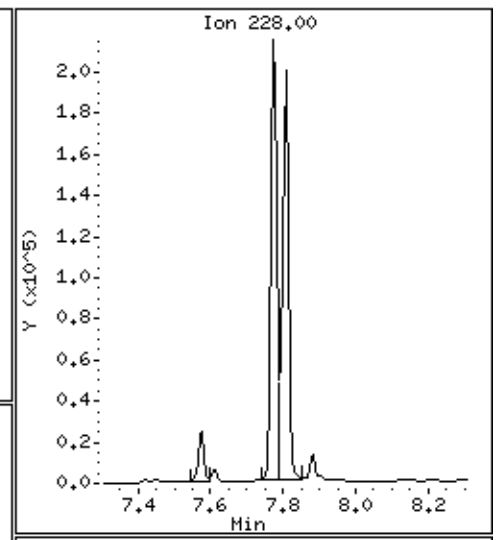
Concentration: 806 ug/Kg

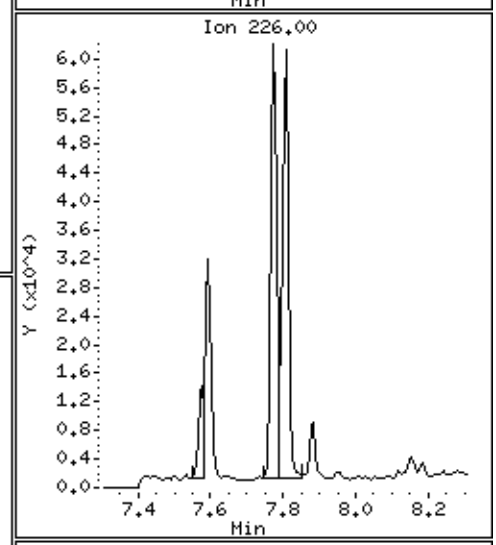


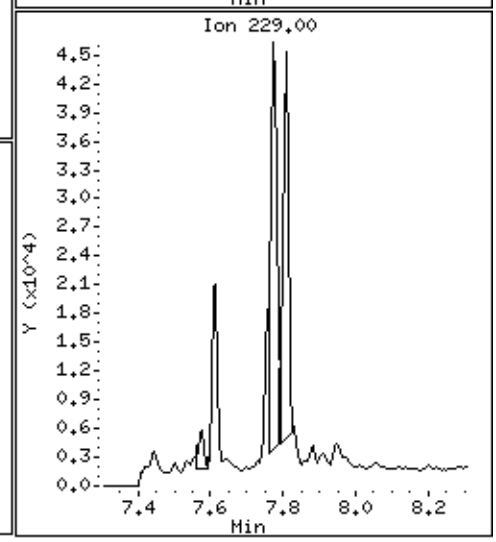












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

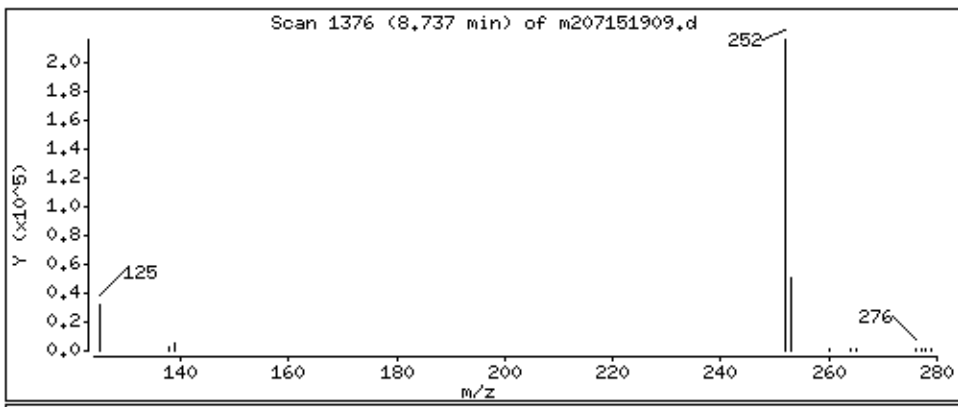
Operator: DSC

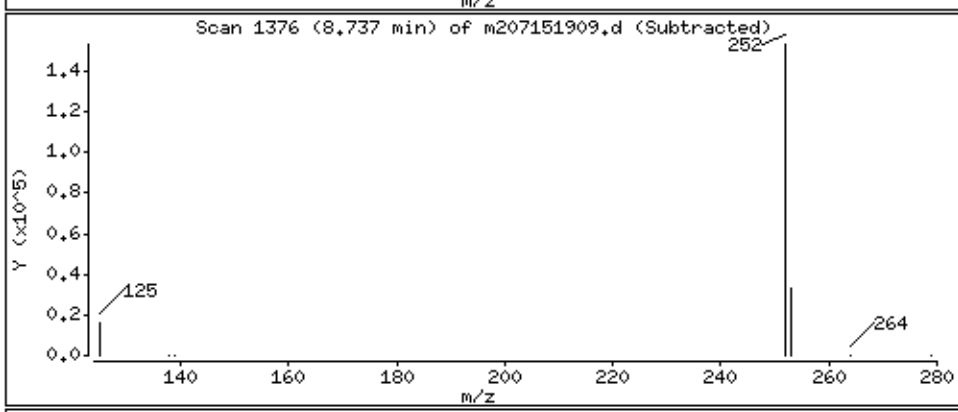
Column phase: RTX-5MS

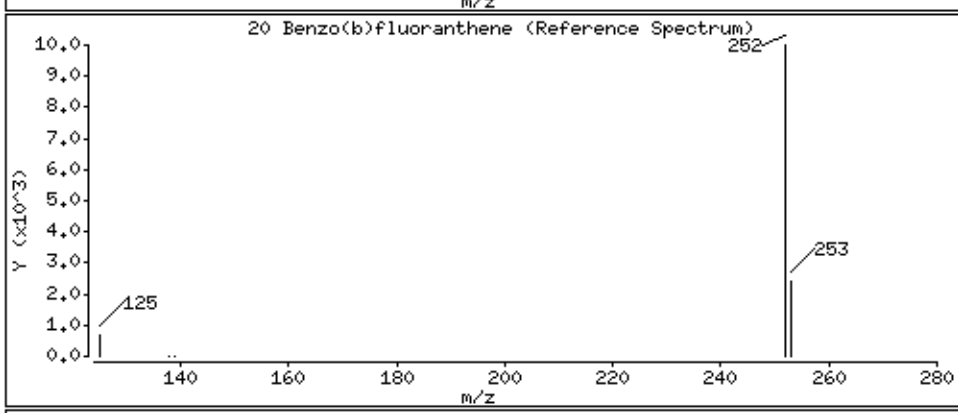
Column diameter: 0.25

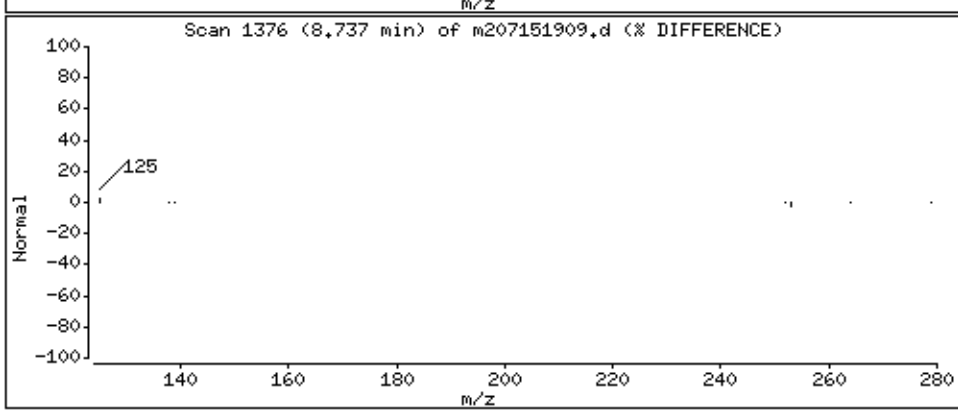
20 Benzo(b)fluoranthene

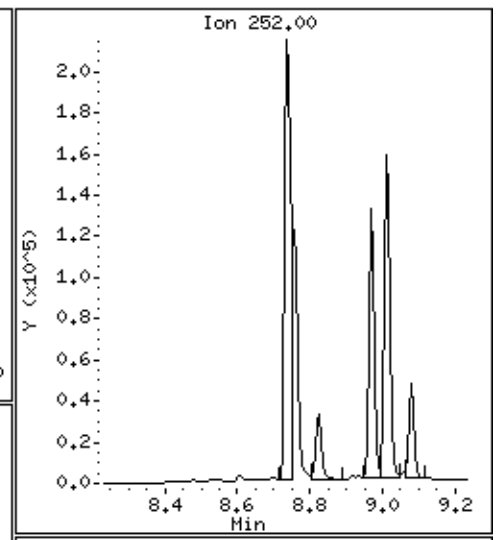
Concentration: 1050 ug/Kg

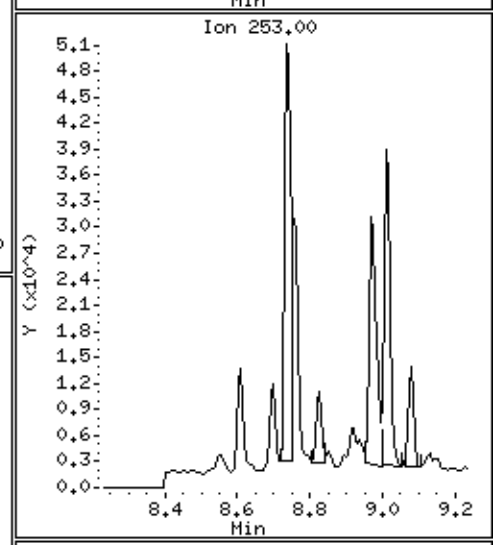


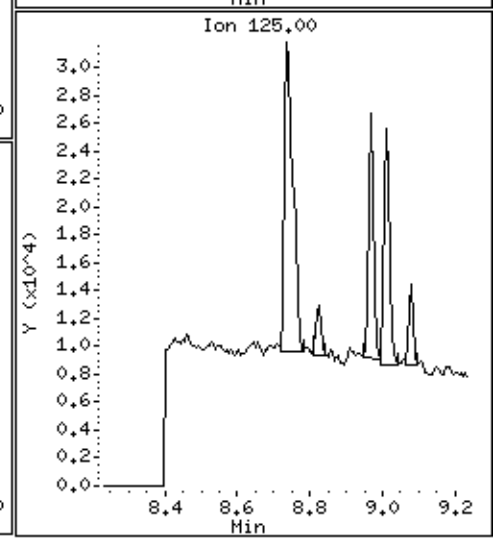












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Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

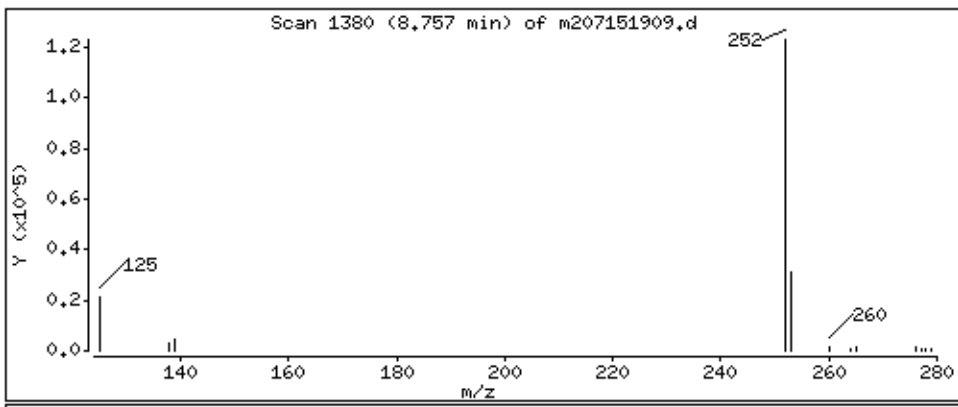
Operator: DSC

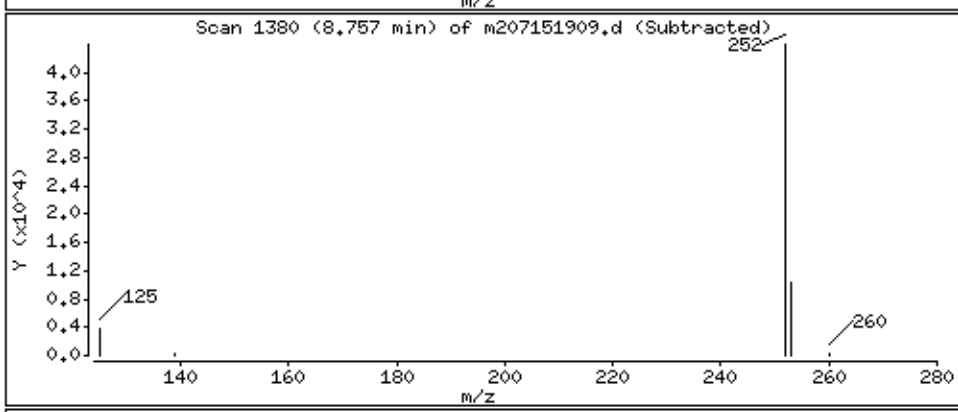
Column phase: RTX-5MS

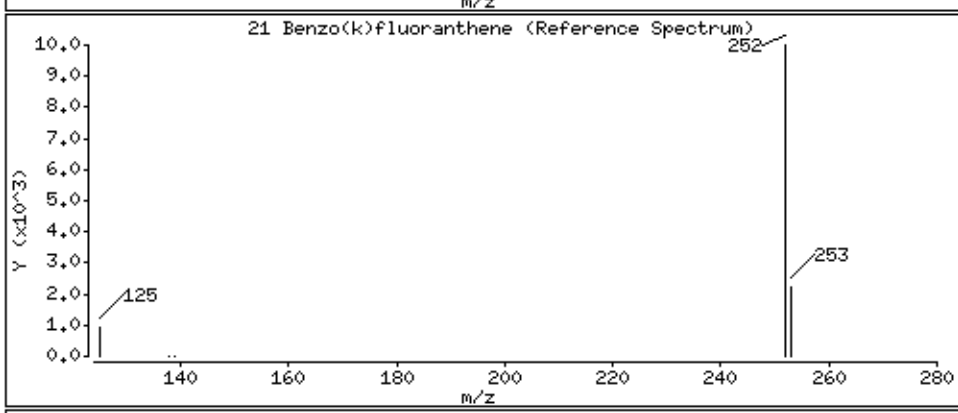
Column diameter: 0.25

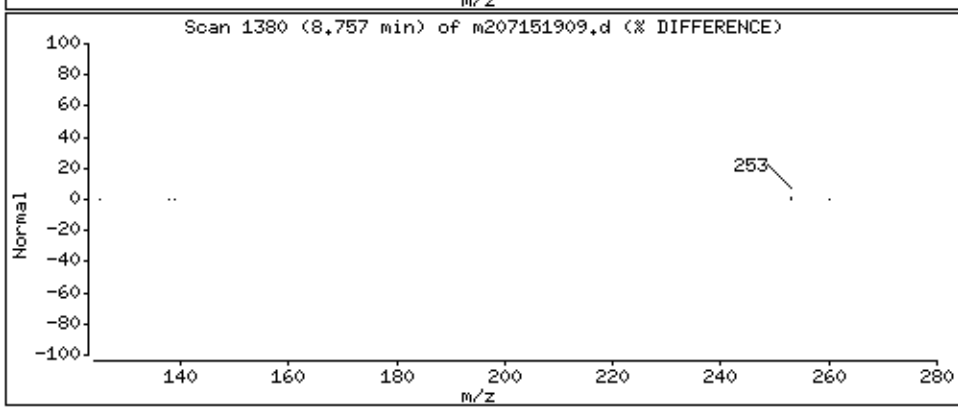
21 Benzo(k)fluoranthene

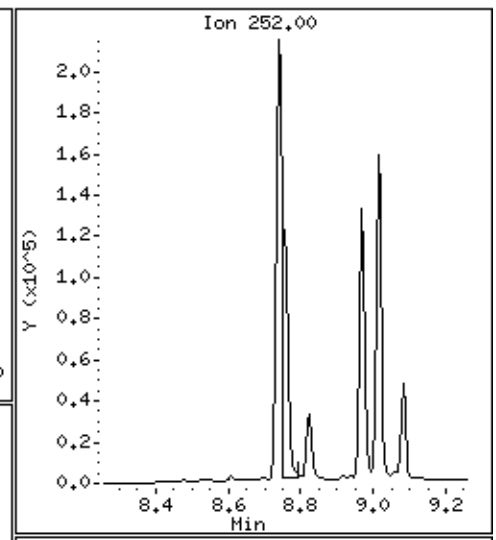
Concentration: 416 ug/Kg

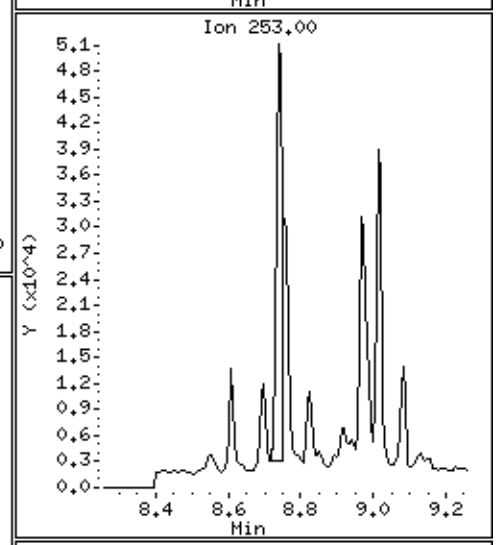


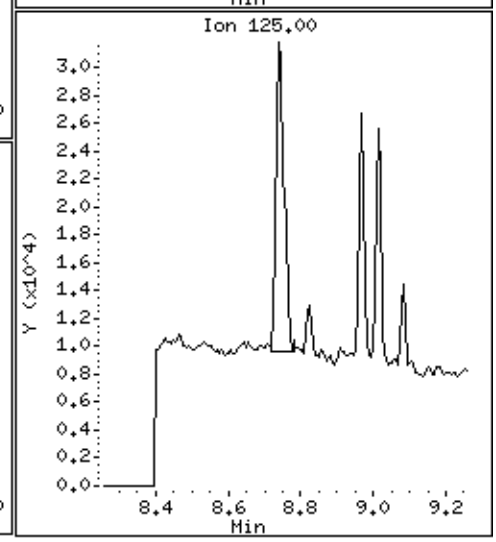












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

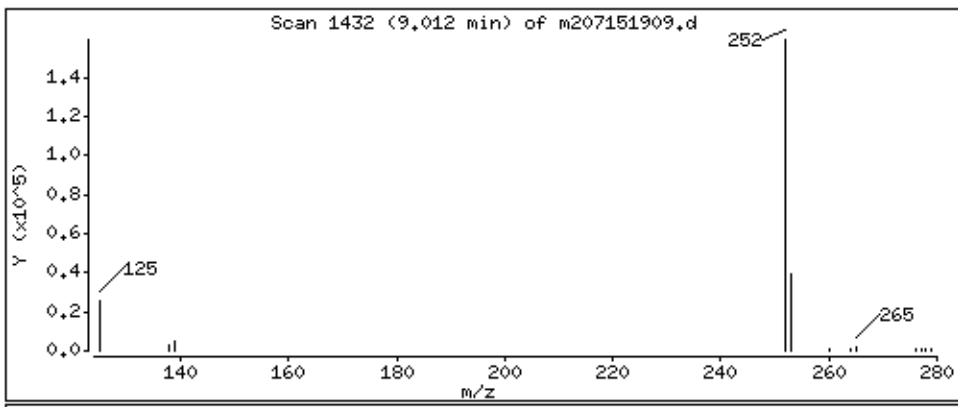
Operator: DSC

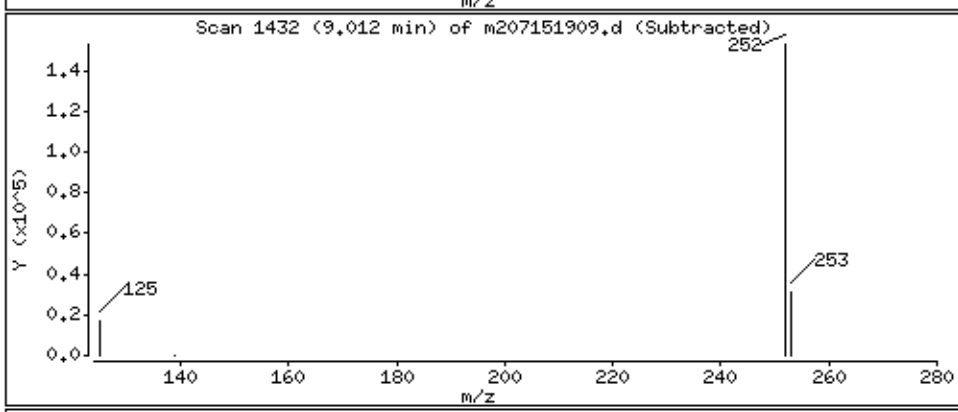
Column phase: RTX-5MS

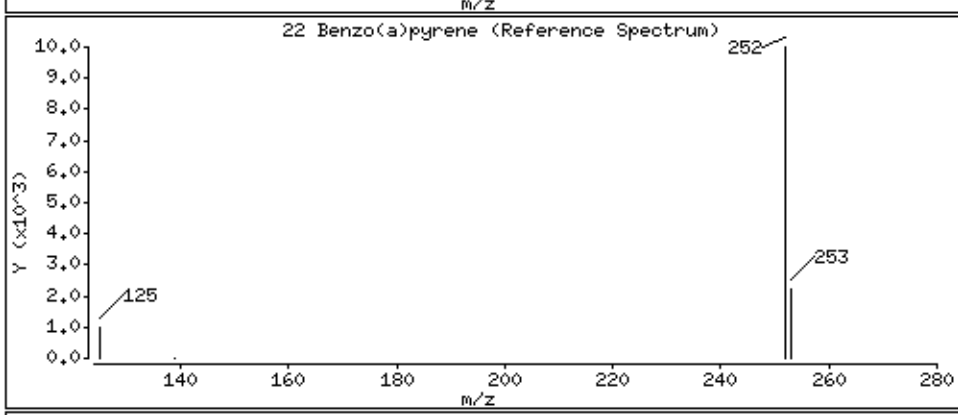
Column diameter: 0.25

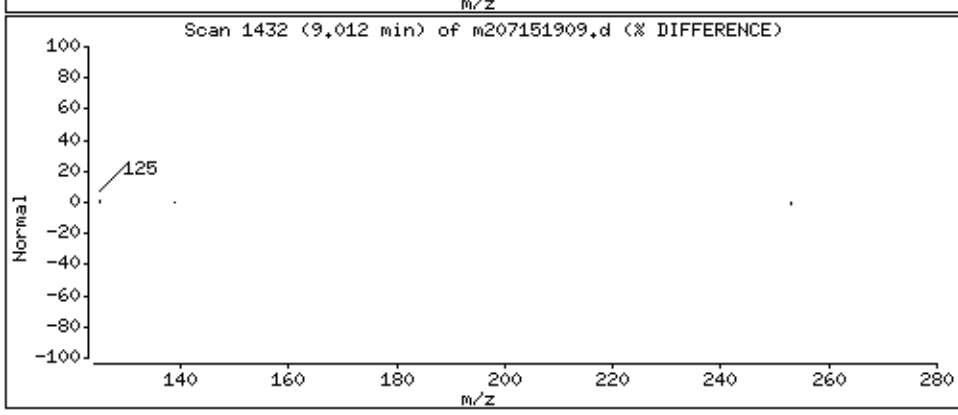
22 Benzo(a)pyrene

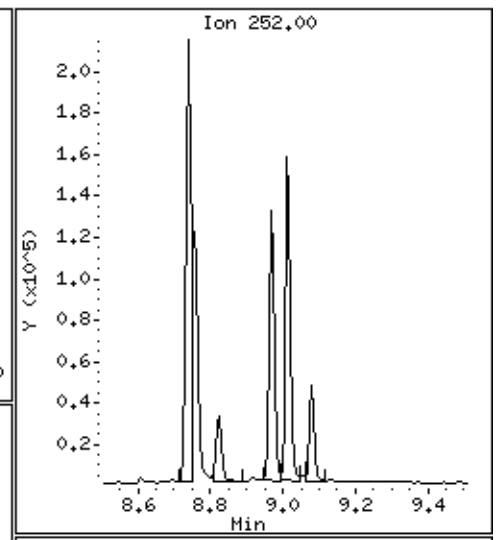
Concentration: 666 ug/Kg

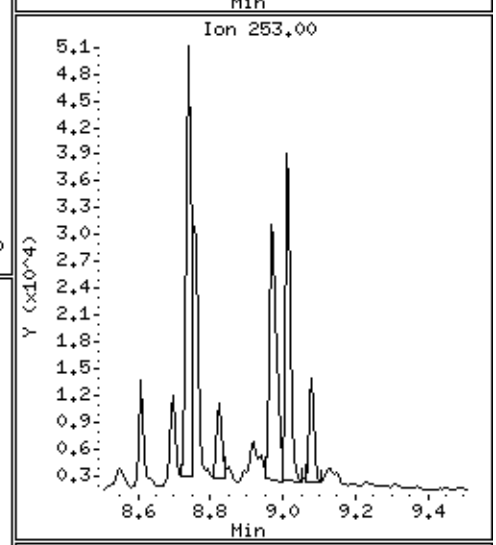


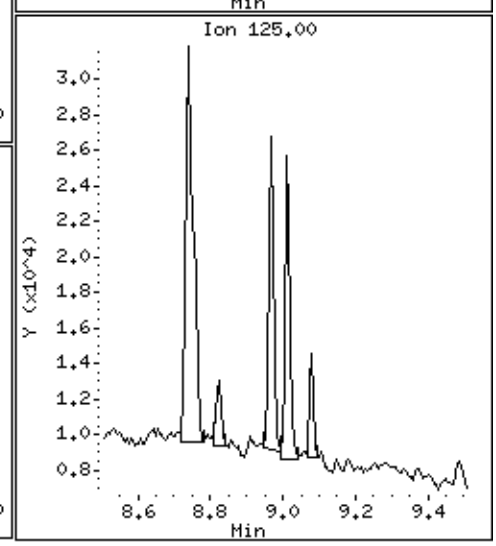












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

Client ID: AOC27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

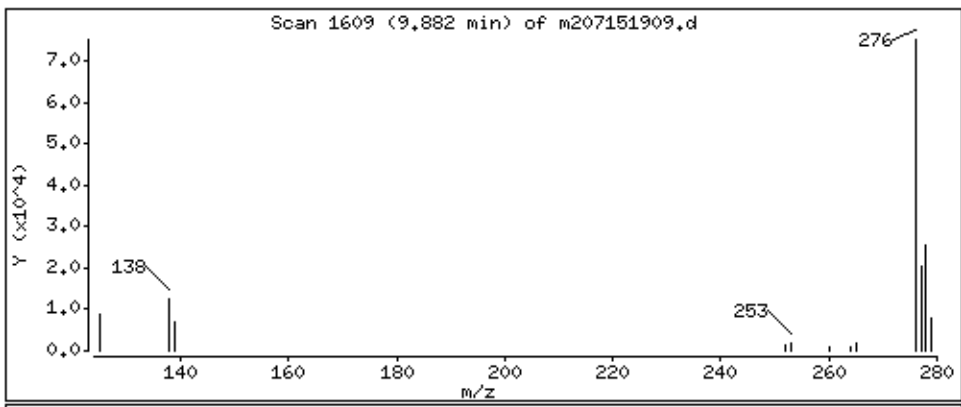
Operator: DSC

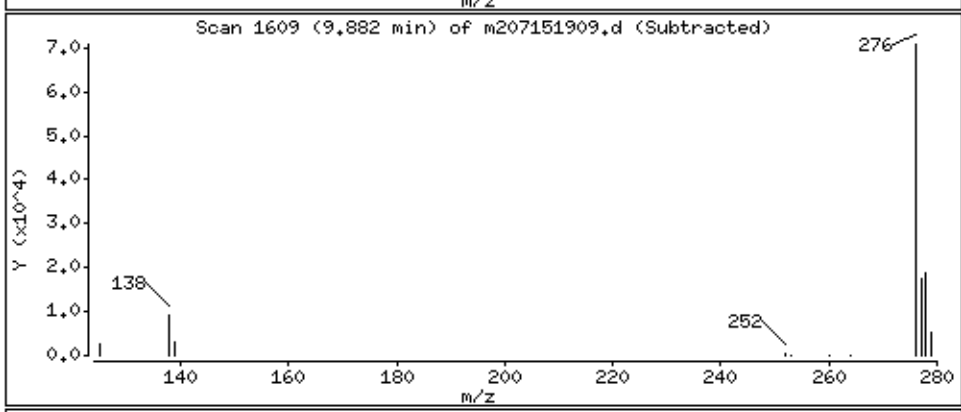
Column phase: RTX-5MS

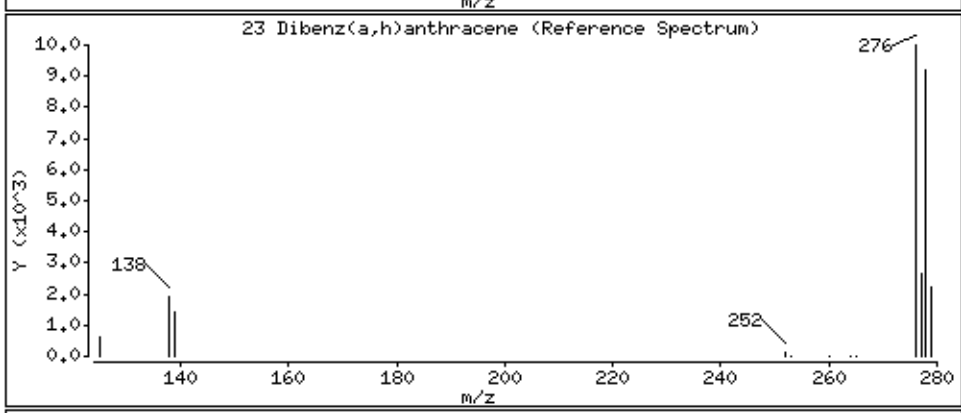
Column diameter: 0.25

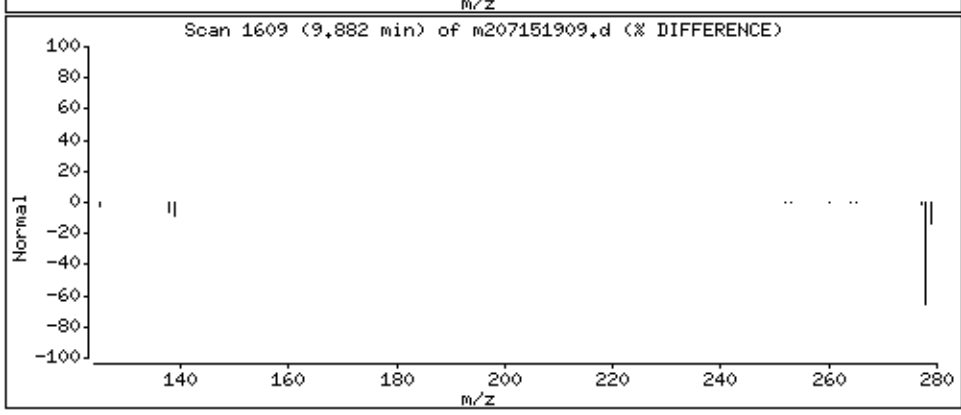
23 Dibenz(a,h)anthracene

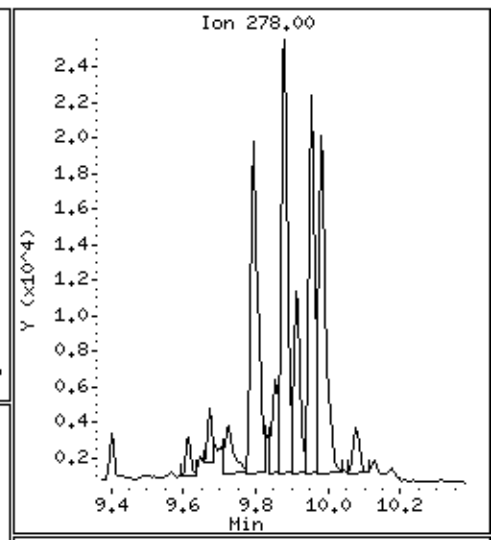
Concentration: 123 ug/Kg

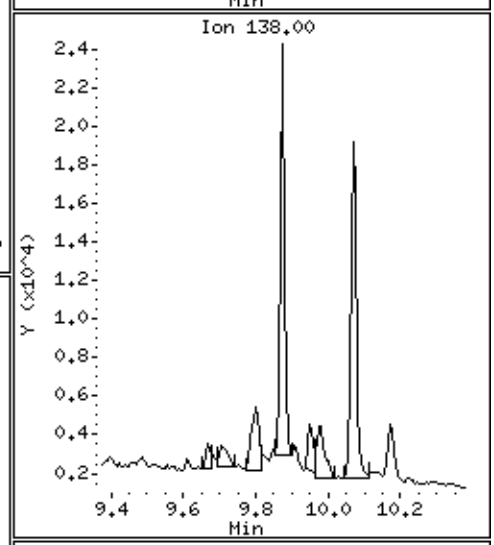


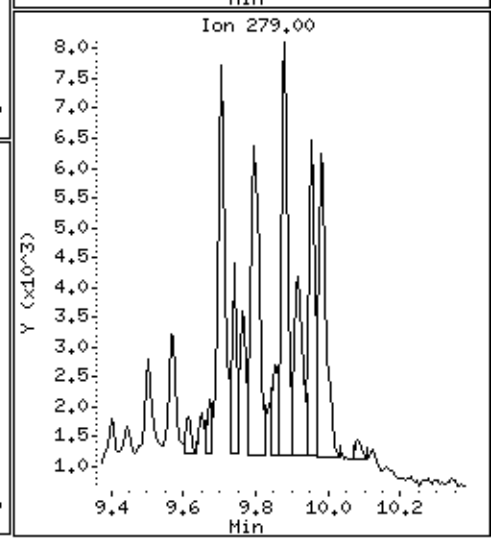












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

Client ID: A0C27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

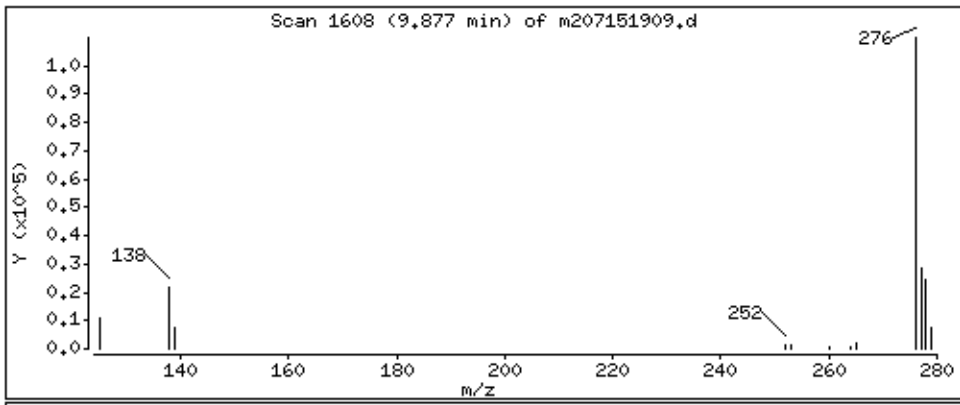
Operator: DSC

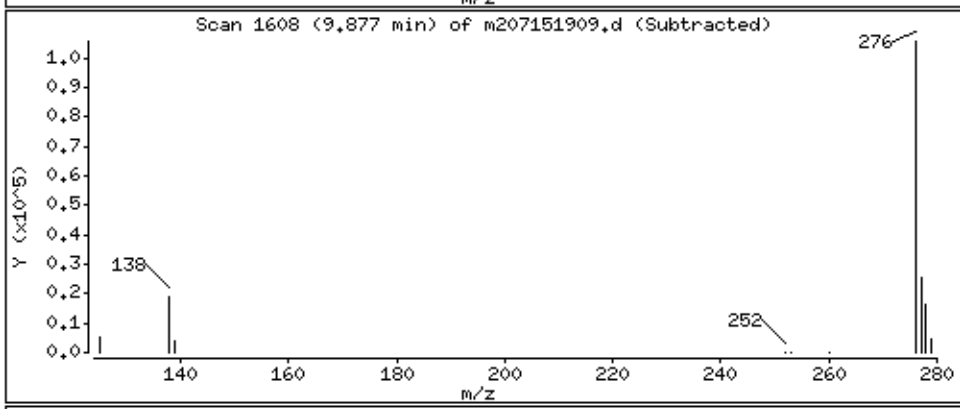
Column phase: RTX-5MS

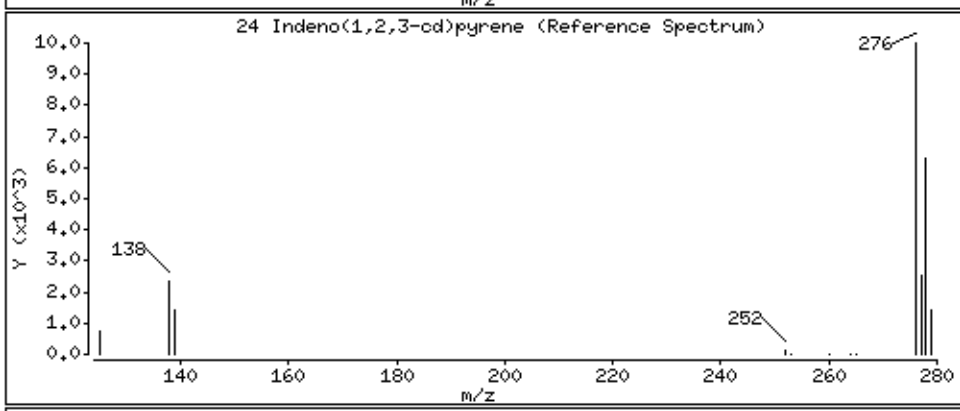
Column diameter: 0.25

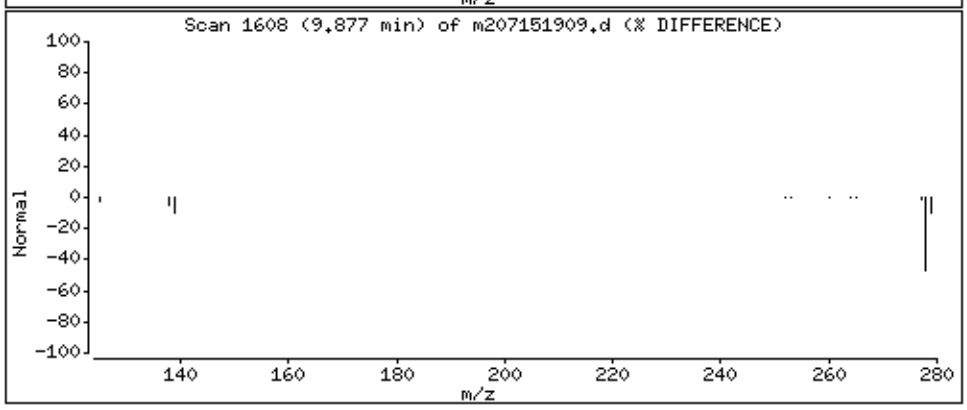
24 Indeno(1,2,3-cd)pyrene

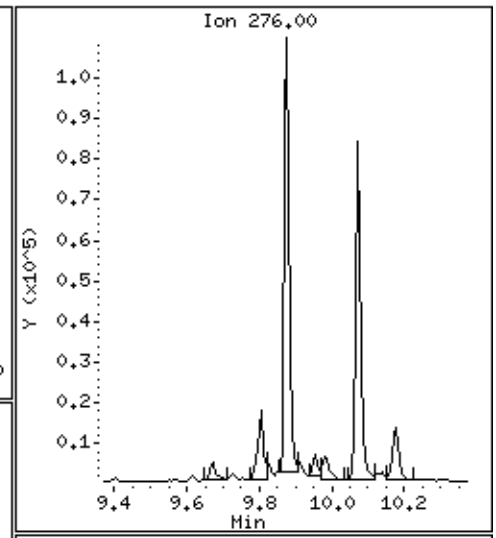
Concentration: 330 ug/Kg

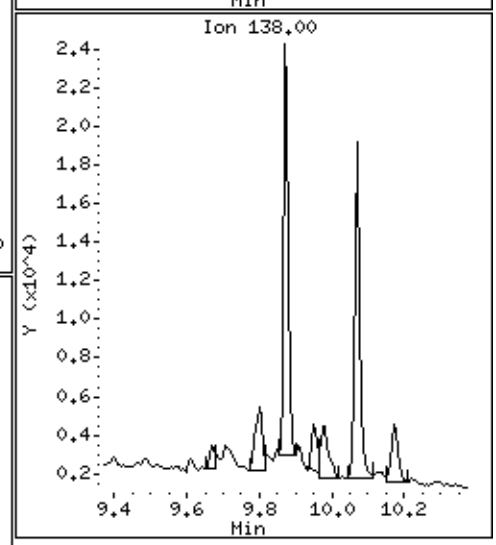












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151909.d

Date : 15-JUL-2019 11:40

Client ID: A0C27

Instrument: 30mss2.i

Sample Info: 30313260003X10,

Volume Injected (uL): 1.0

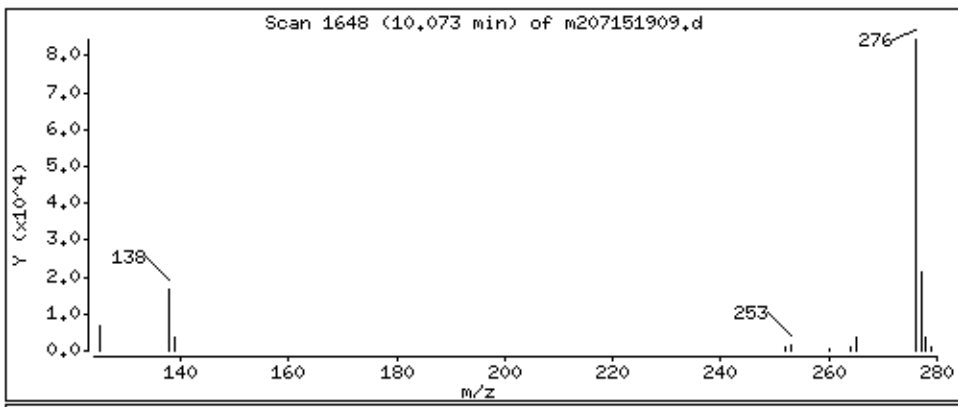
Operator: DSC

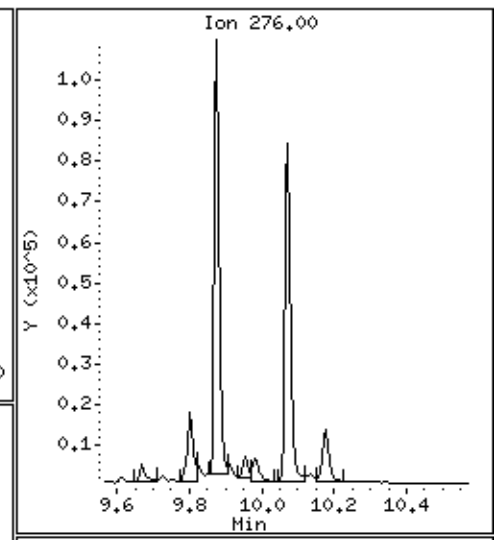
Column phase: RTX-5MS

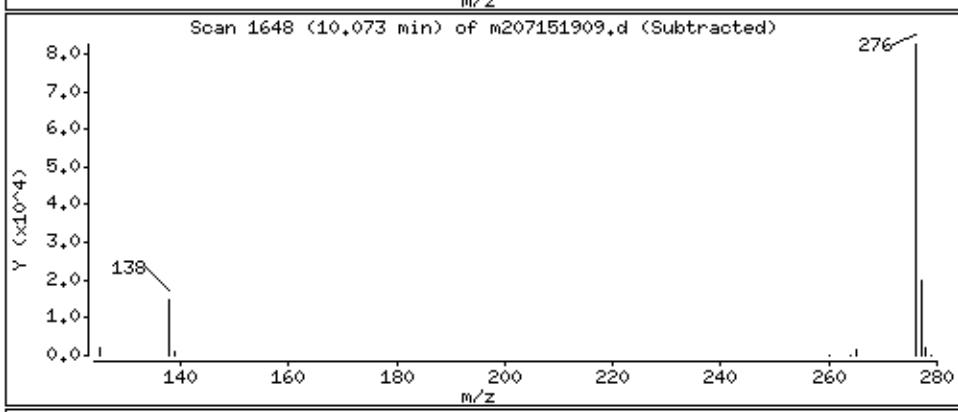
Column diameter: 0.25

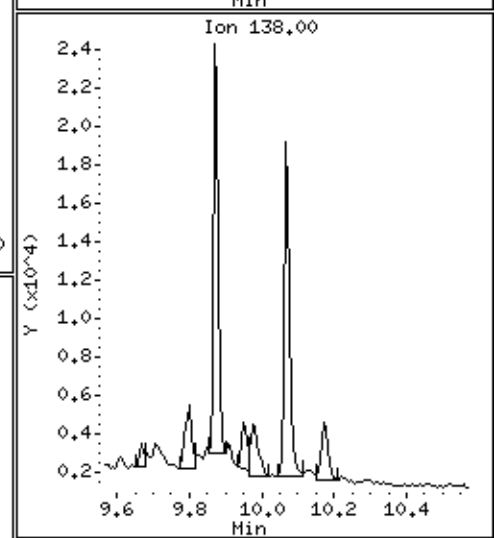
25 Benzo[g,h,i]perylene

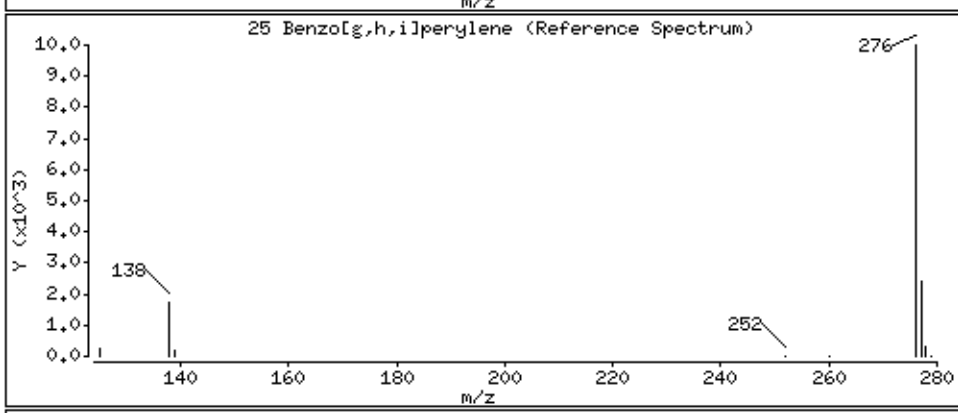
Concentration: 361 ug/Kg

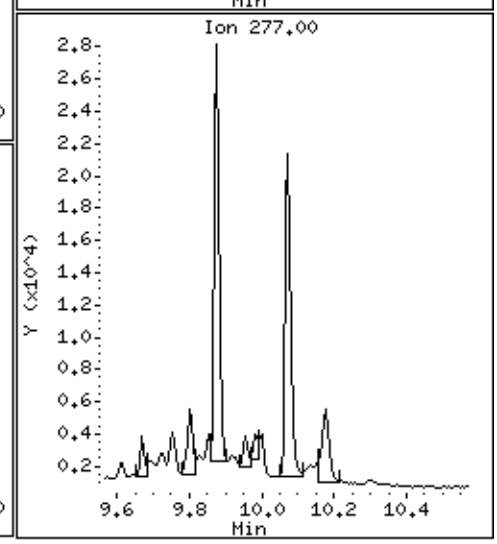


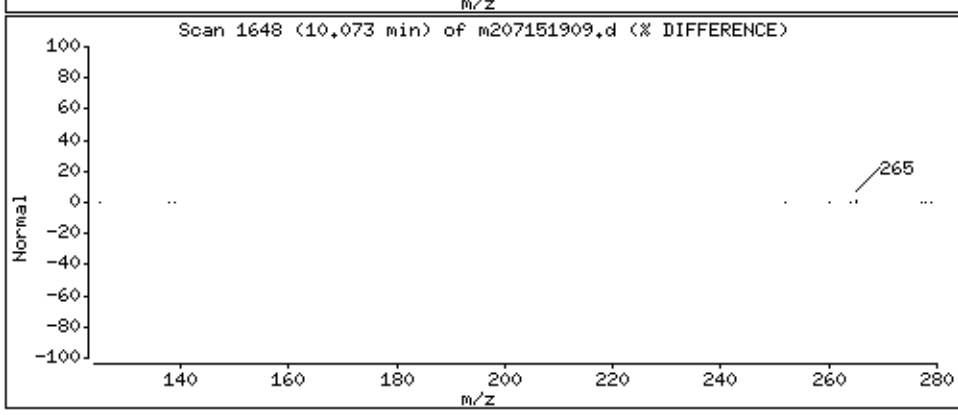






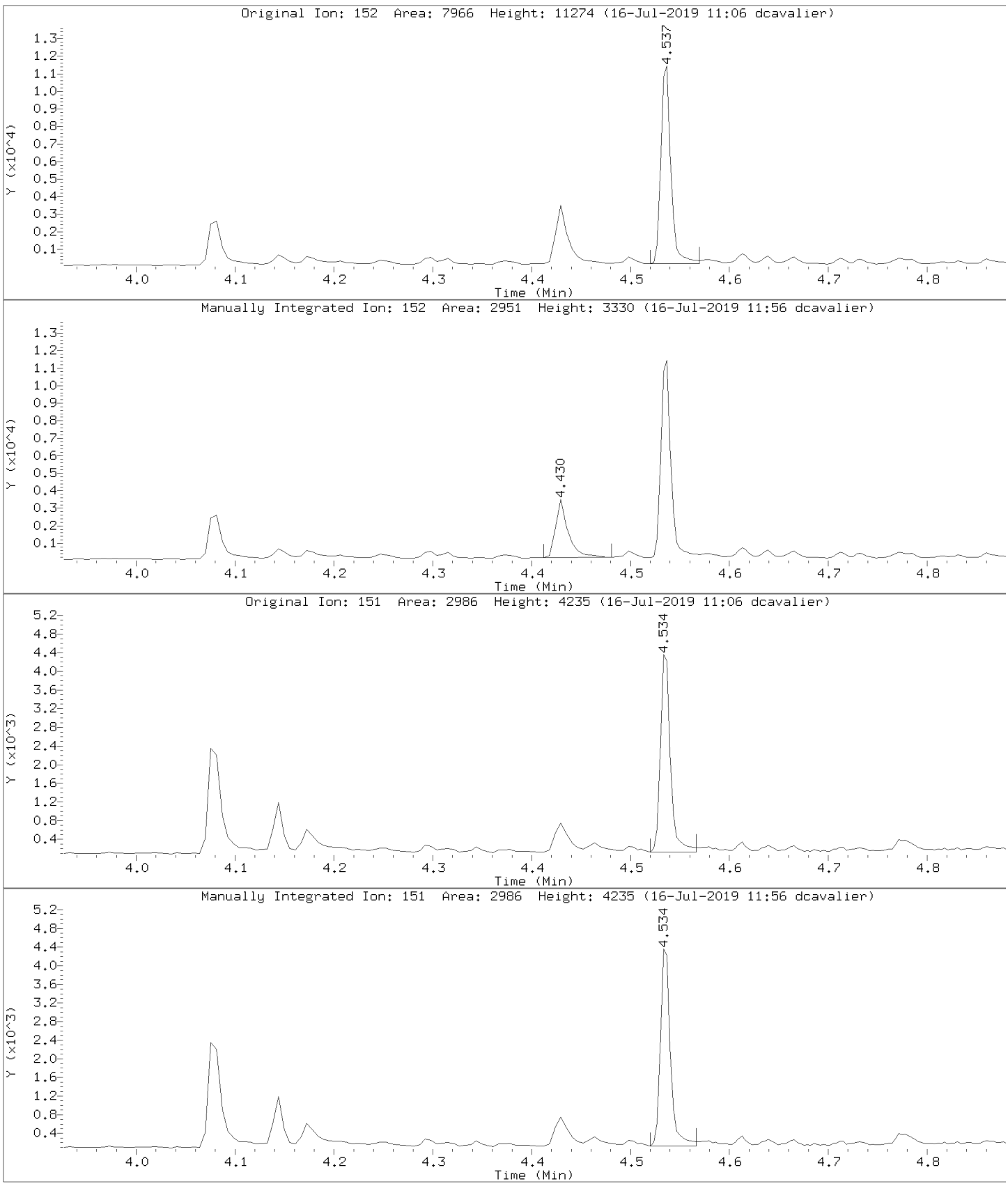






Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151909.d
Injection Date: 15-JUL-2019 11:40
Instrument: 30mss2.i
Lab Sample ID: 30313260003

Compound: Acenaphthylene Review Code: WP
CAS Number: 208-96-8



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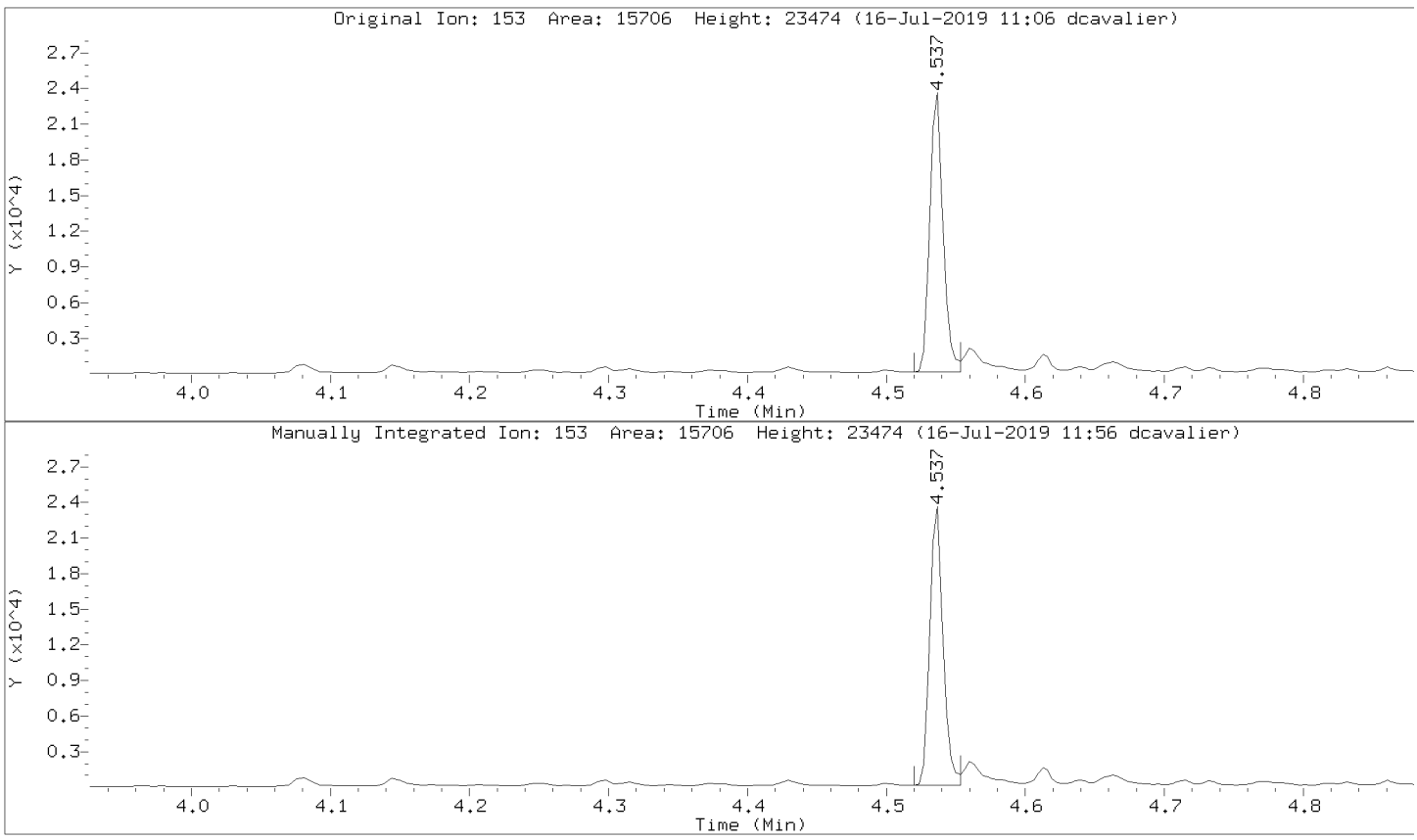
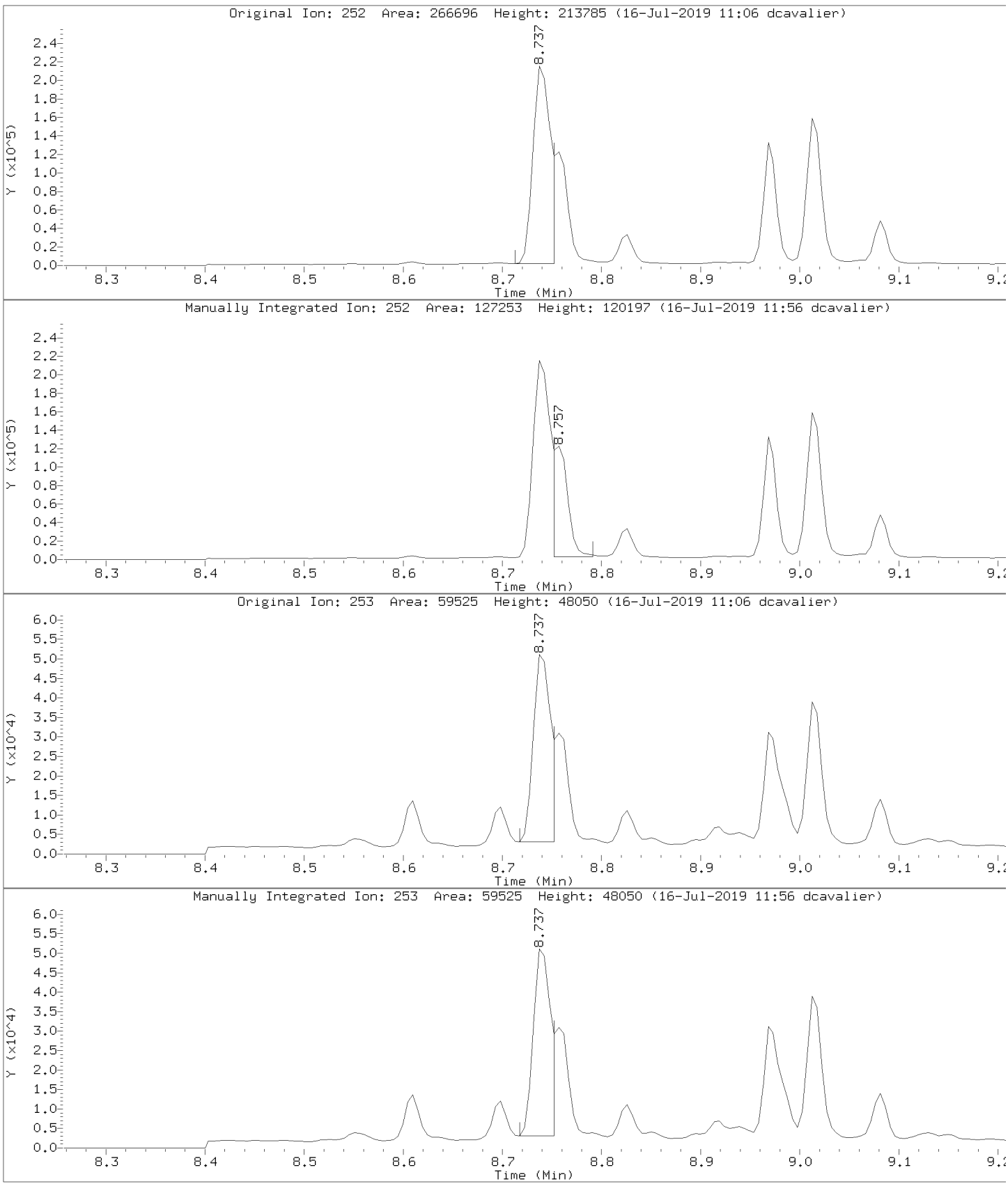
Injection Date: 15-JUL-2019 11:40
Instrument: 30mss2.i
Lab Sample ID: 30313260003

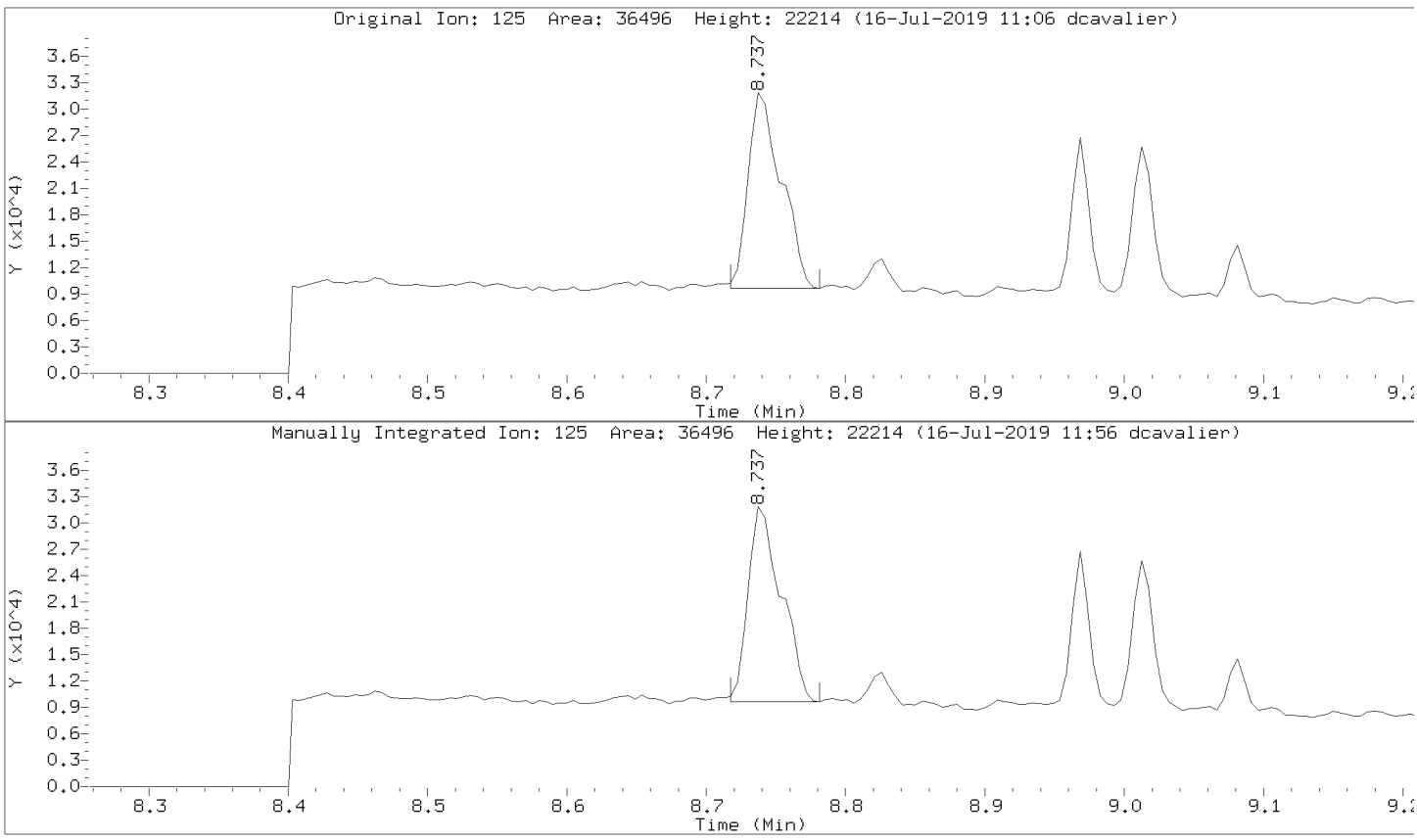


Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151909.d
Injection Date: 15-JUL-2019 11:40
Instrument: 30mss2.i
Lab Sample ID: 30313260003

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151909.d
Injection Date: 15-JUL-2019 11:40
Instrument: 30mss2.i
Lab Sample ID: 30313260003



MSSV SIM - FORM VI SVOA-1

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthene	Averaged	0.96268	1.11616	1.10258	1.06718	1.03824	0.88837
Acenaphthylene	Averaged	1.43989	1.65342	1.68303	1.69637	1.64011	1.34165
Anthracene	Averaged	0.90610	1.02881	1.05799	1.06905	1.02342	0.81856
Benzo(a)anthracene	Averaged	1.12160	1.15347	1.11954	1.14109	1.12720	0.90450
Benzo(a)pyrene	Averaged	0.89486	1.00170	1.00290	1.07499	1.06891	0.91490
Benzo(b)fluoranthene	Averaged	0.96240	0.99435	1.04494	1.10958	1.18984	0.96206
Benzo(g,h,i)perylene	Averaged	1.02678	1.14288	1.09729	1.11629	1.06836	0.97326
Benzo(k)fluoranthene	Averaged	1.25456	1.42202	1.35999	1.30675	1.16856	1.01301
Chrysene	Averaged	1.11889	1.25636	1.22042	1.16755	1.09409	0.86936
Dibenz(a,h)anthracene	Averaged	1.00665	1.12149	1.07754	1.11562	1.09084	1.04496
Fluoranthene	Averaged	1.02402	1.16677	1.16379	1.19410	1.16234	0.91970
Fluorene	Averaged	1.06996	1.29593	1.29433	1.28178	1.26279	1.04257
Indeno(1,2,3-cd)pyrene	Averaged	1.22581	1.36267	1.30915	1.34564	1.30992	1.25015
Naphthalene	Averaged	0.85313	0.98207	0.96429	0.95073	0.91642	0.74194
Phenanthrene	Averaged	0.91669	1.03963	1.03416	1.01879	0.98227	0.80153
Pyrene	Averaged	1.06432	1.22050	1.20610	1.22118	1.17405	0.93143
2-Fluorobiphenyl (S)	Averaged	1.16635	1.40340	1.47961	1.45886	1.37872	1.12378
Terphenyl-d14 (S)	Averaged	0.79034	0.91685	0.90265	0.90620	0.87792	0.70065

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV SIM - FORM VI SVOA-2

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acenaphthene	Averaged	8.55106		0.00000000	1.02920	
Acenaphthylene	Averaged	9.39113		0.00000000	1.57574	
Anthracene	Averaged	10.13326		0.00000000	0.98399	
Benzo(a)anthracene	Averaged	8.58778		0.00000000	1.09457	
Benzo(a)pyrene	Averaged	7.58809		0.00000000	0.99304	
Benzo(b)fluoranthene	Averaged	8.71805			1.04386	
Benzo(g,h,i)perylene	Averaged	5.82051		0.00000000	1.07081	
Benzo(k)fluoranthene	Averaged	11.69830		0.00000000	1.25415	
Chrysene	Averaged	12.25789		0.00000000	1.12111	
Dibenz(a,h)anthracene	Averaged	4.07890		0.00000000	1.07618	
Fluoranthene	Averaged	9.86211		0.00000000	1.10512	
Fluorene	Averaged	9.79942		0.00000000	1.20790	
Indeno(1,2,3-cd)pyrene	Averaged	4.09476		0.00000000	1.30056	
Naphthalene	Averaged	10.03077		0.00000000	0.90143	
Phenanthrene	Averaged	9.56014		0.00000000	0.96551	
Pyrene	Averaged	10.24402		0.00000000	1.13626	
2-Fluorobiphenyl (S)	Averaged	11.40340		0.00000000	1.33512	
Terphenyl-d14 (S)	Averaged	10.13636			0.84910	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 17-JUN-2019 12:43
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal1, 89118:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 12:43 Cal File: m2061719z1.d
Als bottle: 94 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	710510	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	15154	0.10000	0.0910	
9 2-Methylnaphthalene	142	4.041	4.041	(1.129)	9023	0.10000	0.0848	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	10451	0.10000	0.0885(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	11568	0.10000	0.0847	
11 Acenaphthylene	152	4.619	4.619	(0.981)	14281	0.10000	0.0890	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396724	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	9548	0.10000	0.0906	
13 Fluorene	166	5.075	5.075	(1.078)	10612	0.10000	0.0866	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	721512	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	16535	0.10000	0.0917(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	16344	0.10000	0.0892	
16 Fluoranthene	202	6.747	6.742	(1.173)	18471	0.10000	0.0900	
17 Pyrene	202	6.950	6.945	(1.209)	19198	0.10000	0.0903	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	14256	0.10000	0.0899	
18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	19022	0.10000	0.0989	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	678388	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	18976	0.10000	0.0947(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	17640	0.10000	0.0936	
21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	22995	0.10000	0.0948(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	16402	0.10000	0.0901	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	733165	4.00000		
23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	18451	0.10000	0.0932	
24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	22468	0.10000	0.0935	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	18820	0.10000	0.0937	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

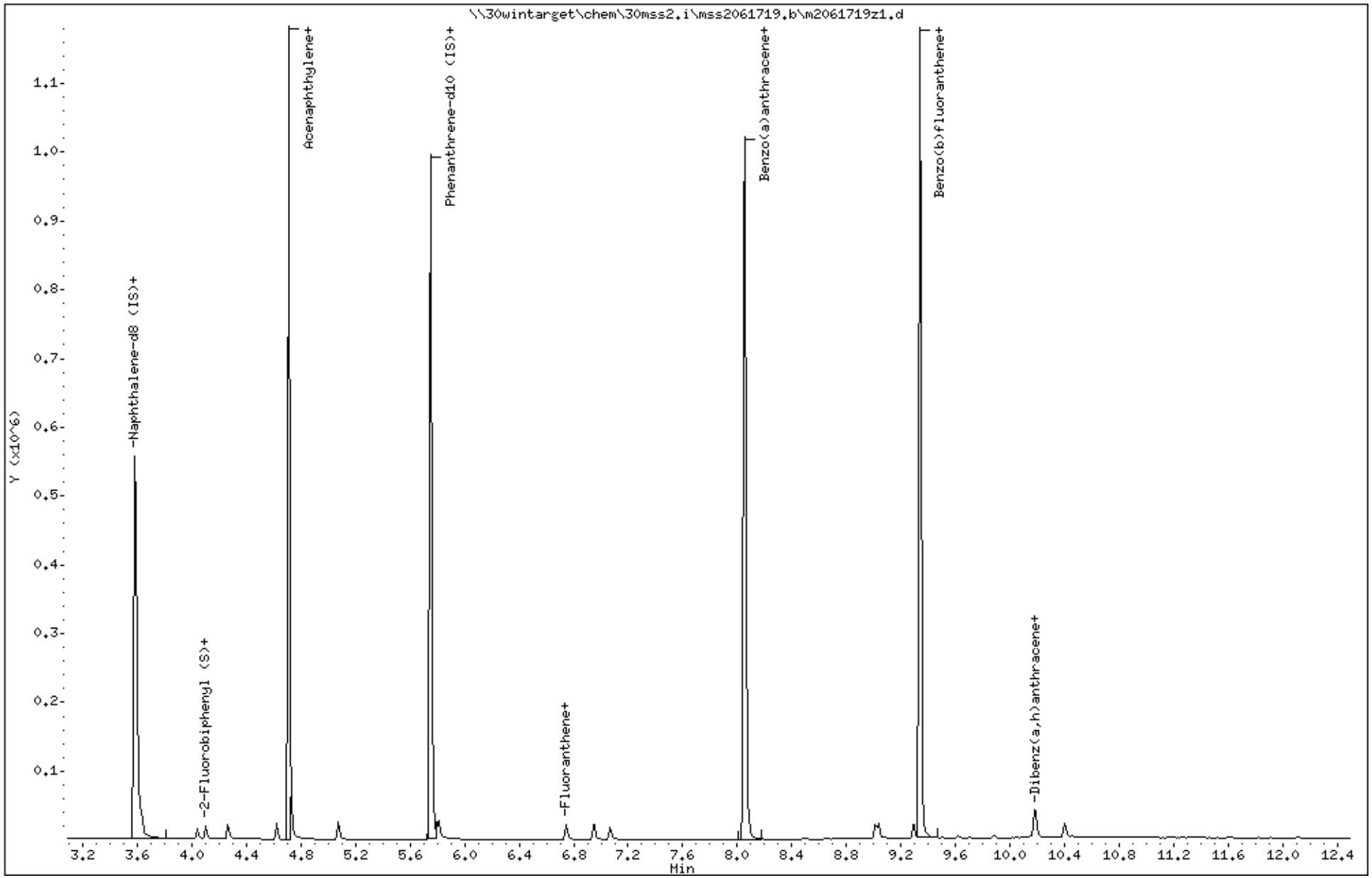
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.0910	
91-57-6	2-Methylnaphthalene	0.0848	
90-12-0	1-Methylnaphthalene	0.0885	
208-96-8	Acenaphthylene	0.0890	
83-32-9	Acenaphthene	0.0906	
86-73-7	Fluorene	0.0866	
85-01-8	Phenanthrene	0.0917	
120-12-7	Anthracene	0.0892	
206-44-0	Fluoranthene	0.0900	
129-00-0	Pyrene	0.0903	
56-55-3	Benzo(a)anthracene	0.0989	
218-01-9	Chrysene	0.0947	
205-99-2	Benzo(b)fluoranthene	0.0936	
207-08-9	Benzo(k)fluoranthene	0.0948	
50-32-8	Benzo(a)pyrene	0.0901	
53-70-3	Dibenz(a,h)anthracene	0.0932	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0935	
191-24-2	Benzo[g,h,i]perylene	0.0937	
321-60-8	2-Fluorobiphenyl (S)	0.0847	
1718-51-0	Terphenyl-d14 (S)	0.0899	

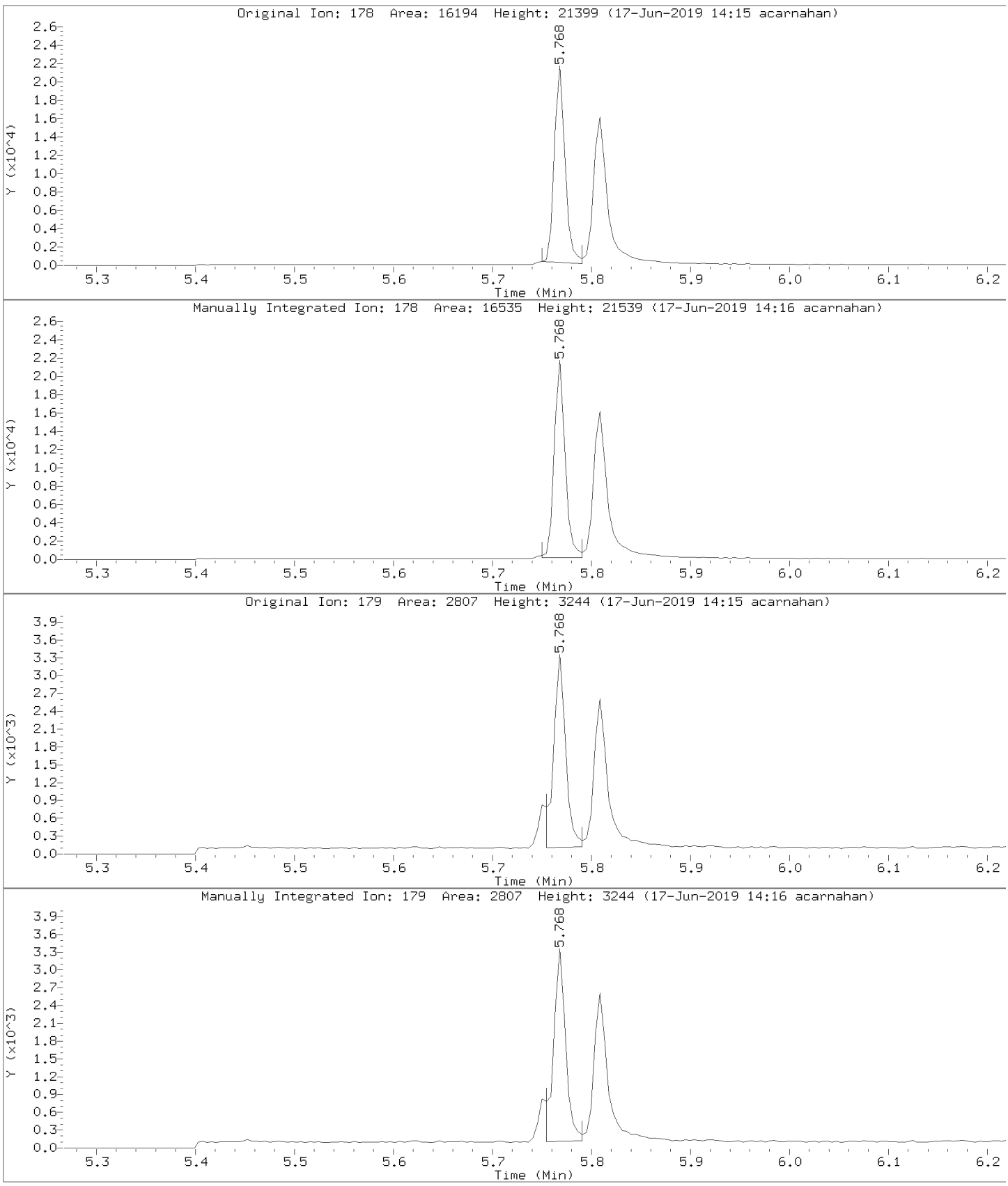
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Date : 17-JUN-2019 12:43
Client ID: CAL1
Sample Info: CAL1, 89118:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

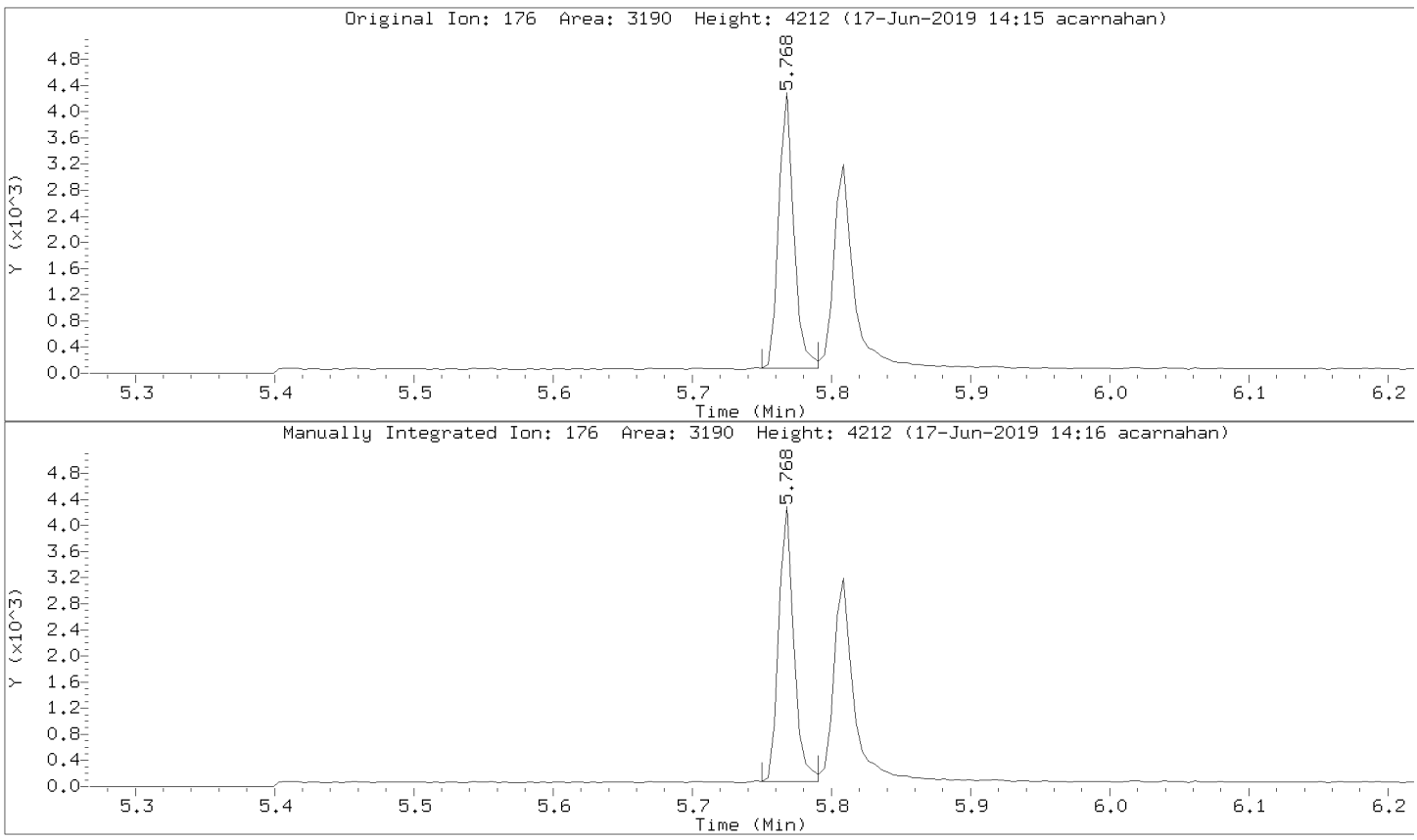


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1



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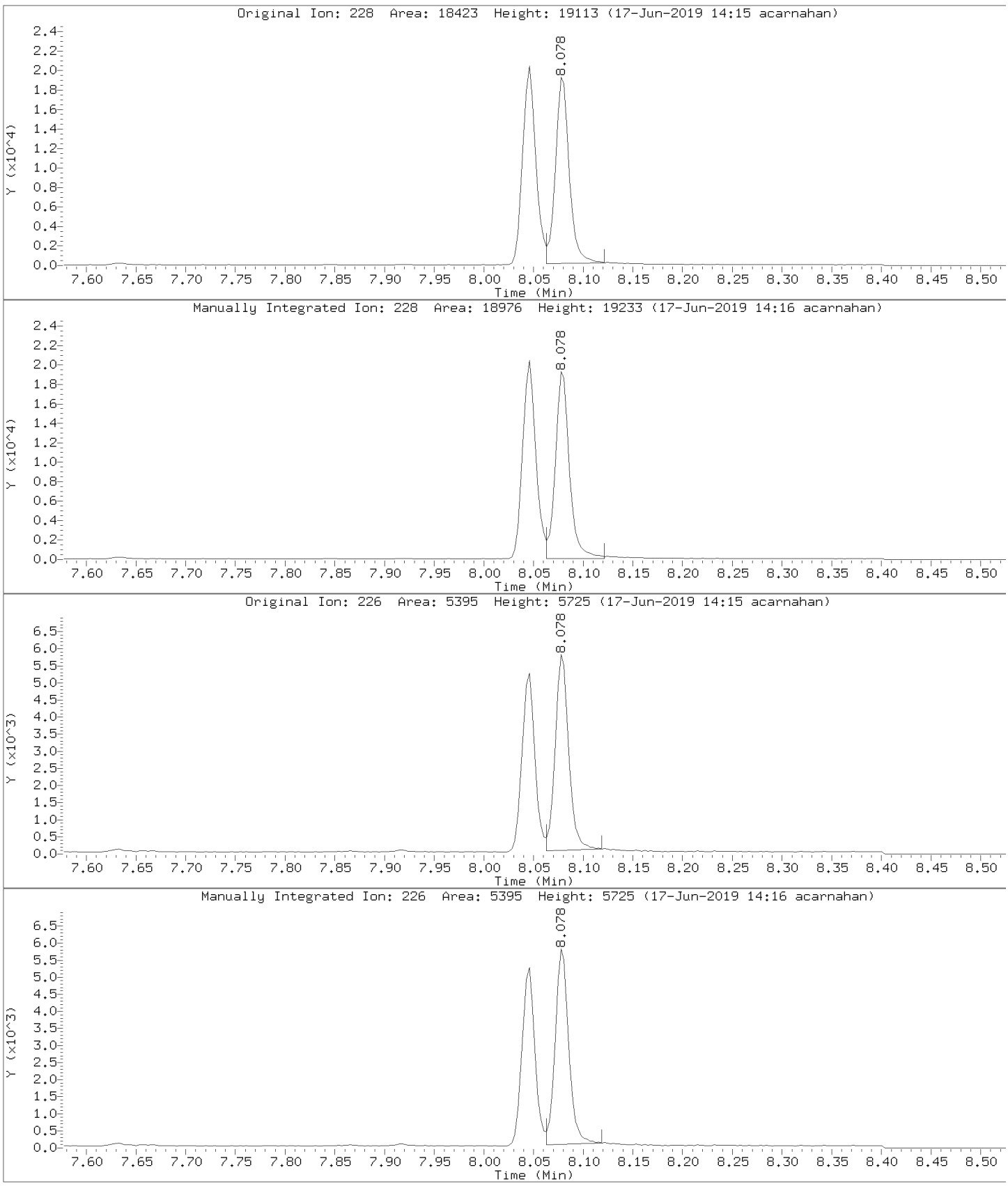
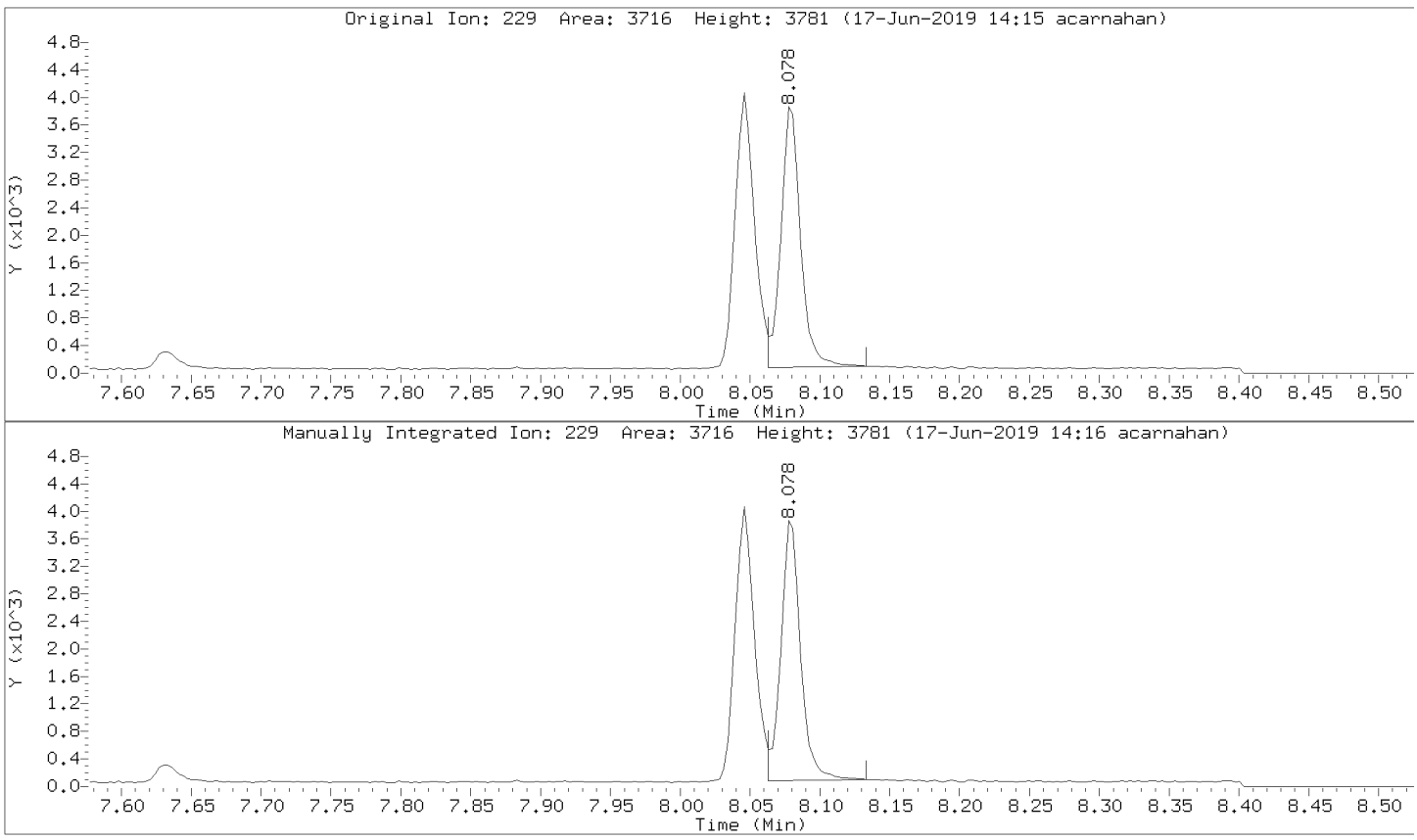
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

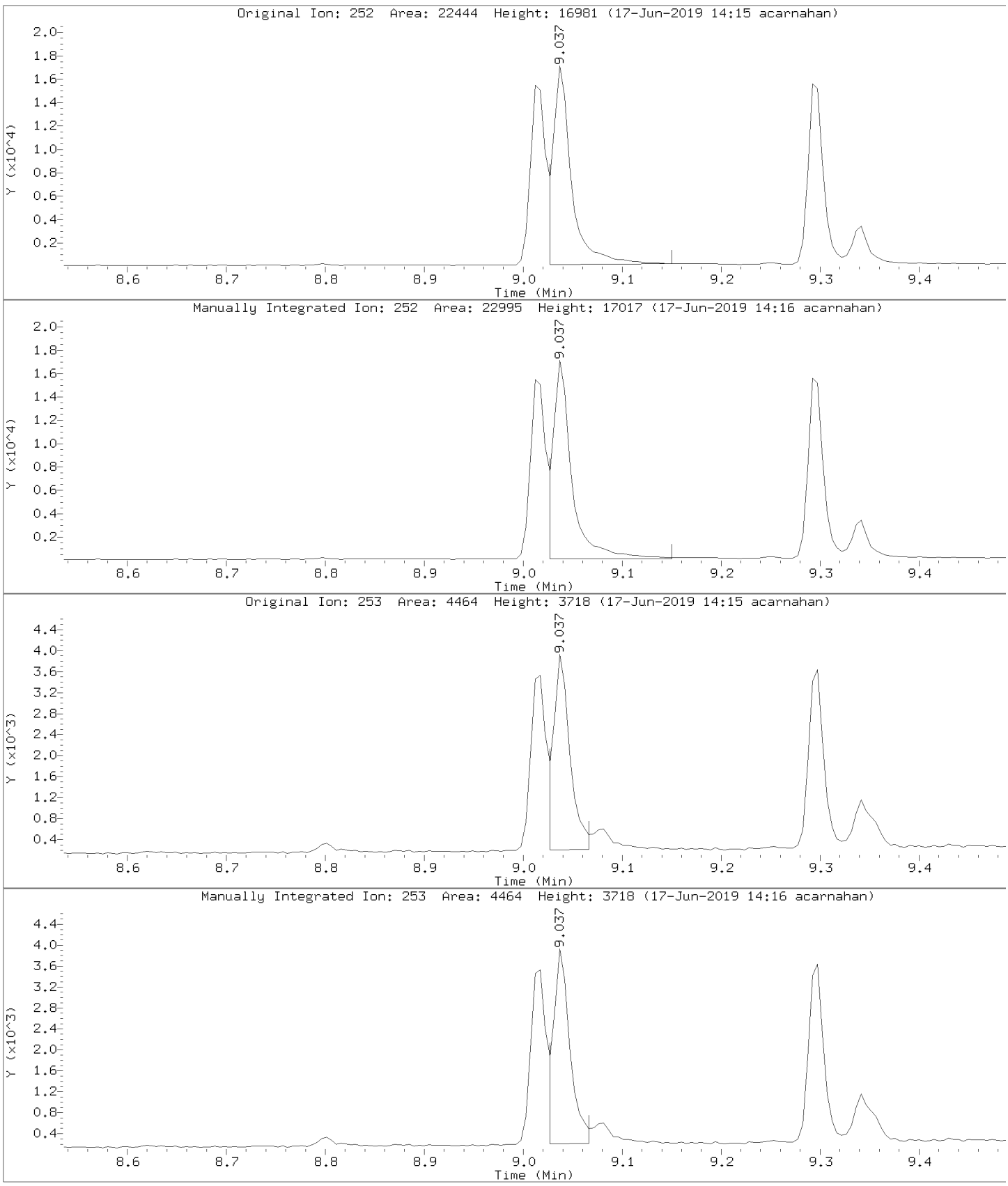


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

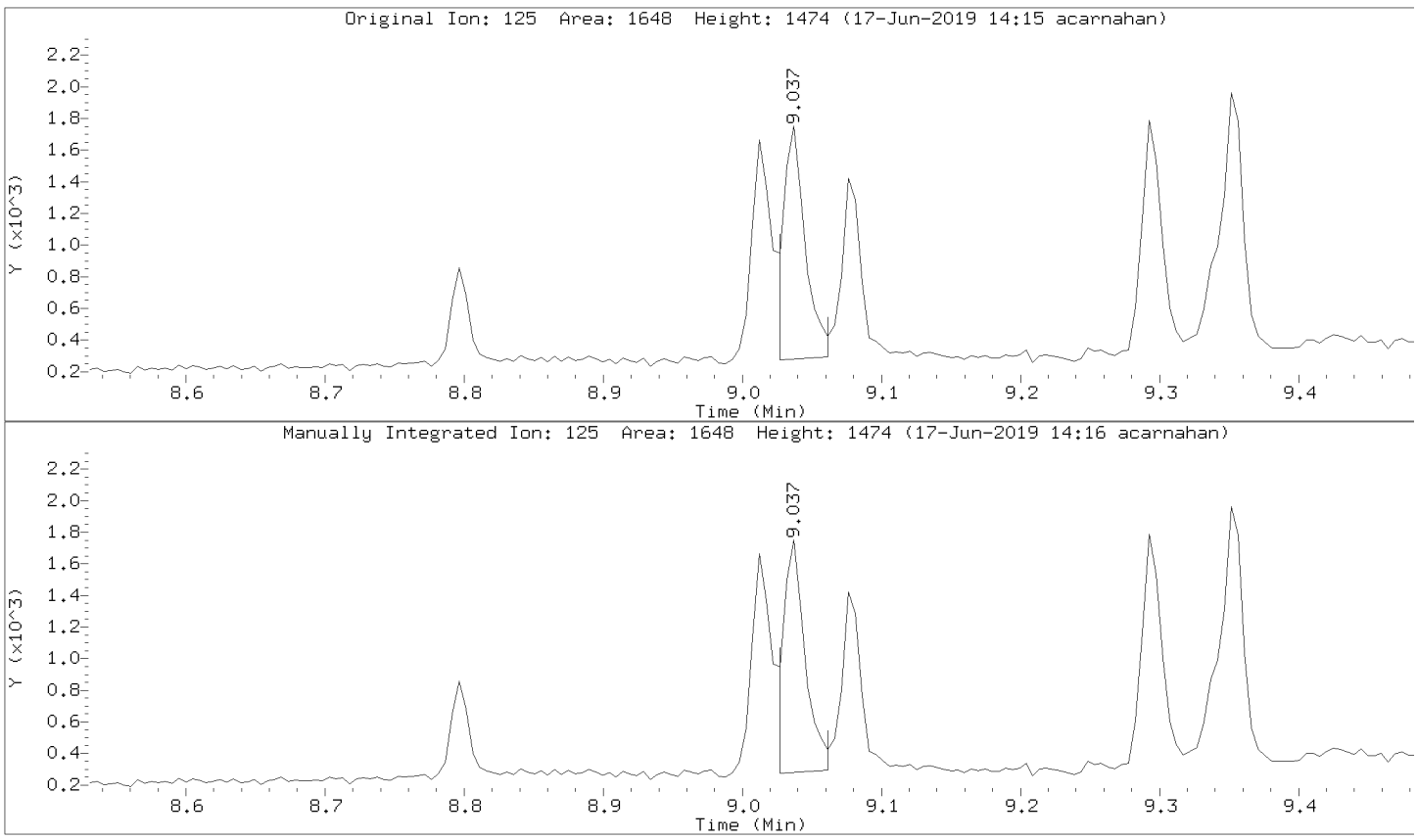


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

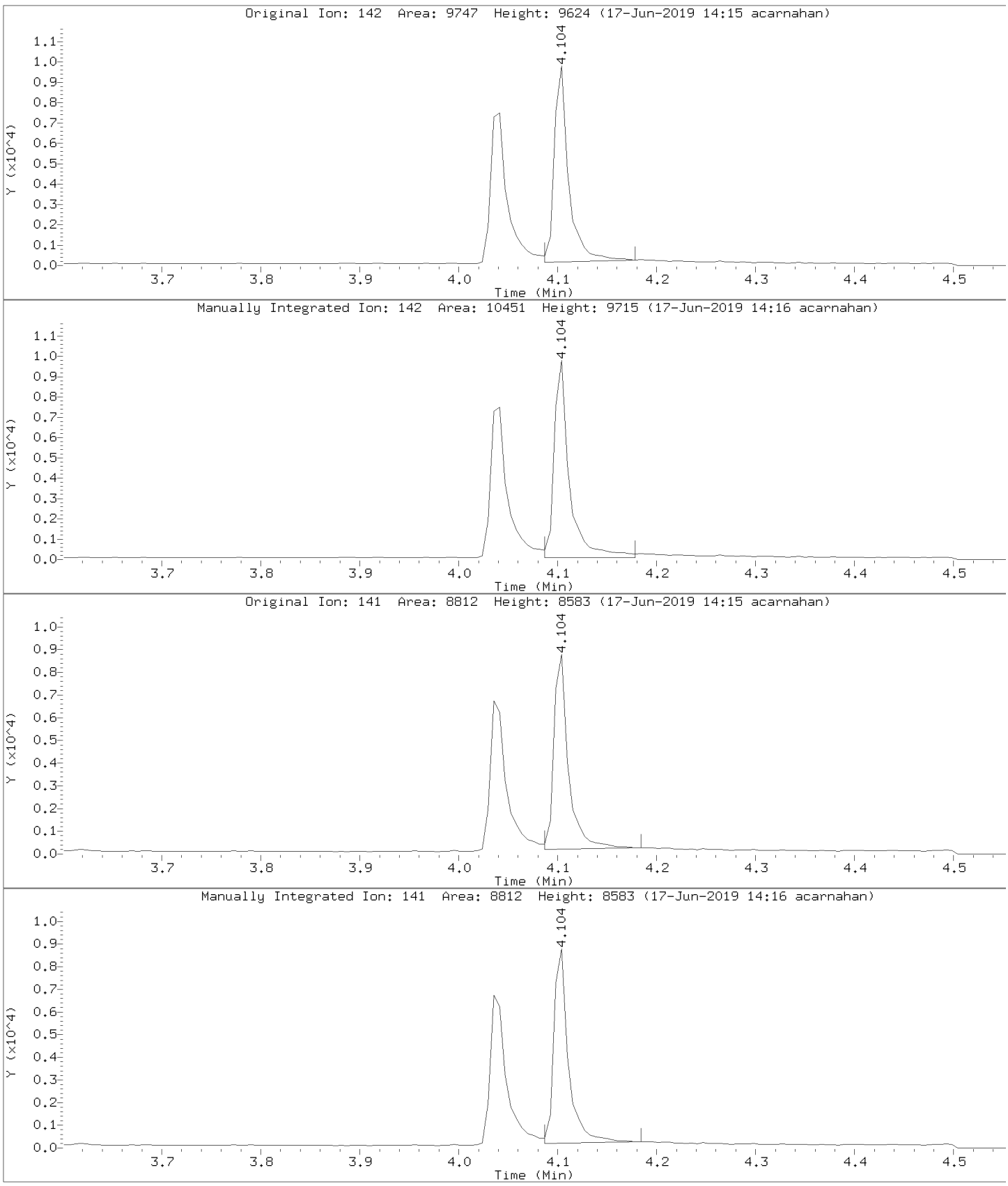


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 17-JUN-2019 13:01
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal2, 89119:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:01 Cal File: m2061719z2.d
Als bottle: 95 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	769170	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	37769	0.20000	0.209	
9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	23528	0.20000	0.204	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	28113	0.20000	0.216(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	30468	0.20000	0.204	
11 Acenaphthylene	152	4.619	4.619	(0.981)	35896	0.20000	0.204	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	434204	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	24232	0.20000	0.210	
13 Fluorene	166	5.075	5.075	(1.078)	28135	0.20000	0.210	
* 3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	797229	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	41441	0.20000	0.208(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	41010	0.20000	0.203	
16 Fluoranthene	202	6.742	6.742	(1.173)	46509	0.20000	0.205	
17 Pyrene	202	6.945	6.945	(1.208)	48651	0.20000	0.207	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	36547	0.20000	0.209	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	43913	0.20000	0.203	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	761404	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	47830	0.20000	0.212(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	41137	0.20000	0.193	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	58830	0.20000	0.214(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	41441	0.20000	0.202	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	827417	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	46397	0.20000	0.208	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	56375	0.20000	0.208	
25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.113)	47282	0.20000	0.208	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

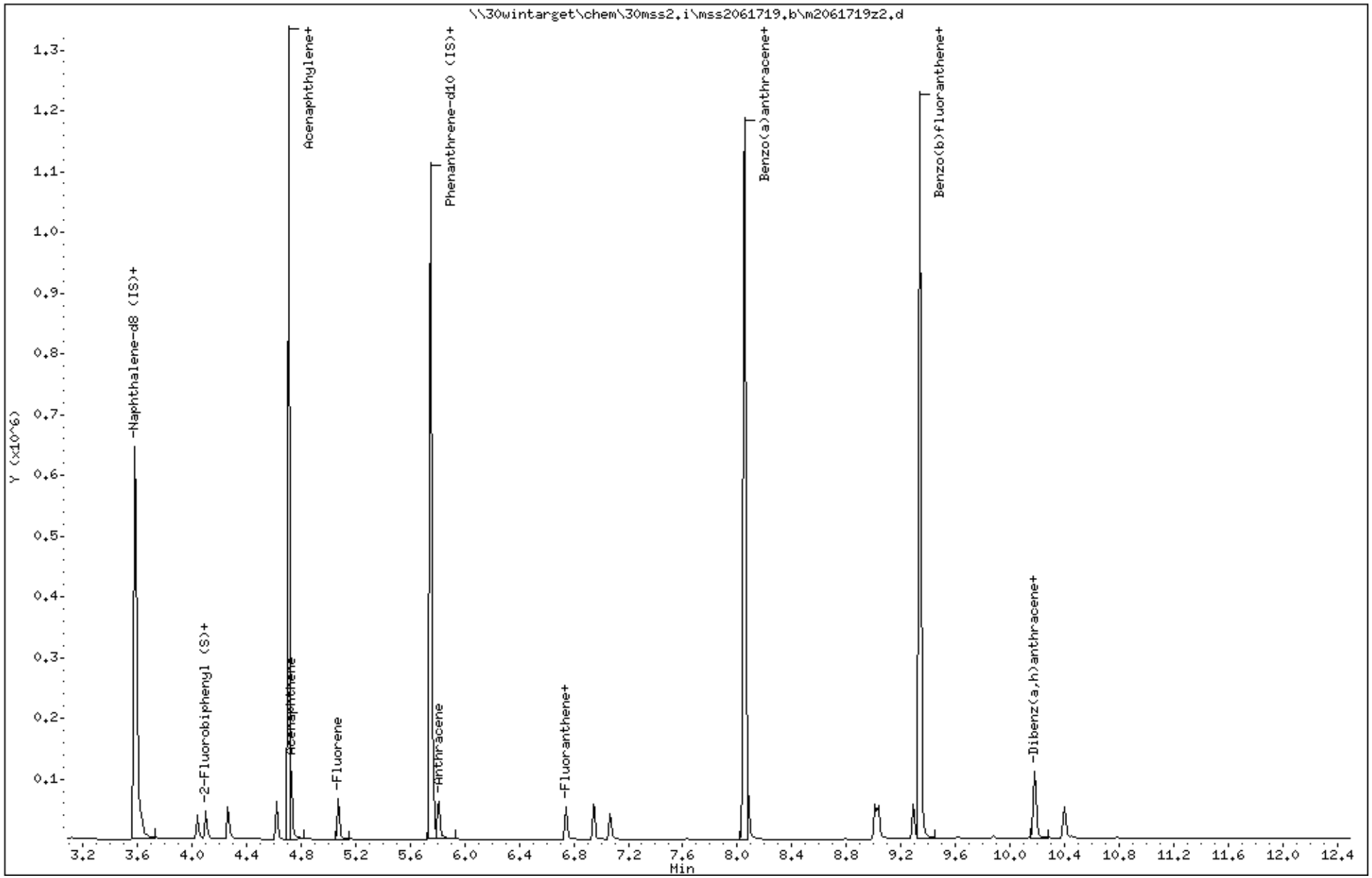
Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.209	
91-57-6	2-Methylnaphthalene	0.204	
90-12-0	1-Methylnaphthalene	0.216	
208-96-8	Acenaphthylene	0.204	
83-32-9	Acenaphthene	0.210	
86-73-7	Fluorene	0.210	
85-01-8	Phenanthrene	0.208	
120-12-7	Anthracene	0.203	
206-44-0	Fluoranthene	0.205	
129-00-0	Pyrene	0.207	
56-55-3	Benzo(a)anthracene	0.203	
218-01-9	Chrysene	0.212	
205-99-2	Benzo(b)fluoranthene	0.193	
207-08-9	Benzo(k)fluoranthene	0.214	
50-32-8	Benzo(a)pyrene	0.202	
53-70-3	Dibenz(a,h)anthracene	0.208	
193-39-5	Indeno(1,2,3-cd)pyrene	0.208	
191-24-2	Benzo[g,h,i]perylene	0.208	
321-60-8	2-Fluorobiphenyl (S)	0.204	
1718-51-0	Terphenyl-d14 (S)	0.209	

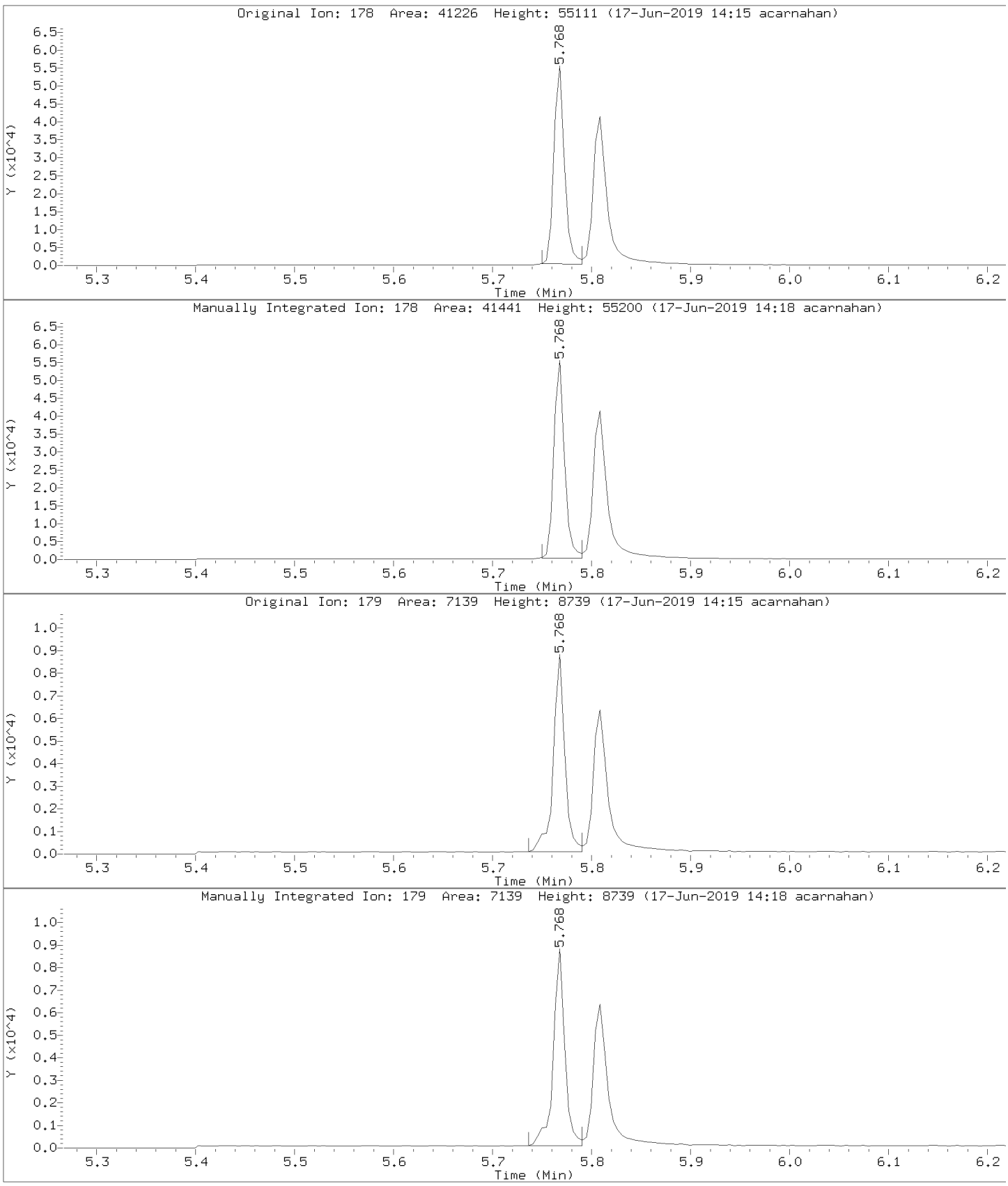
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Date : 17-JUN-2019 13:01
Client ID: CAL2
Sample Info: CAL2, 89119:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

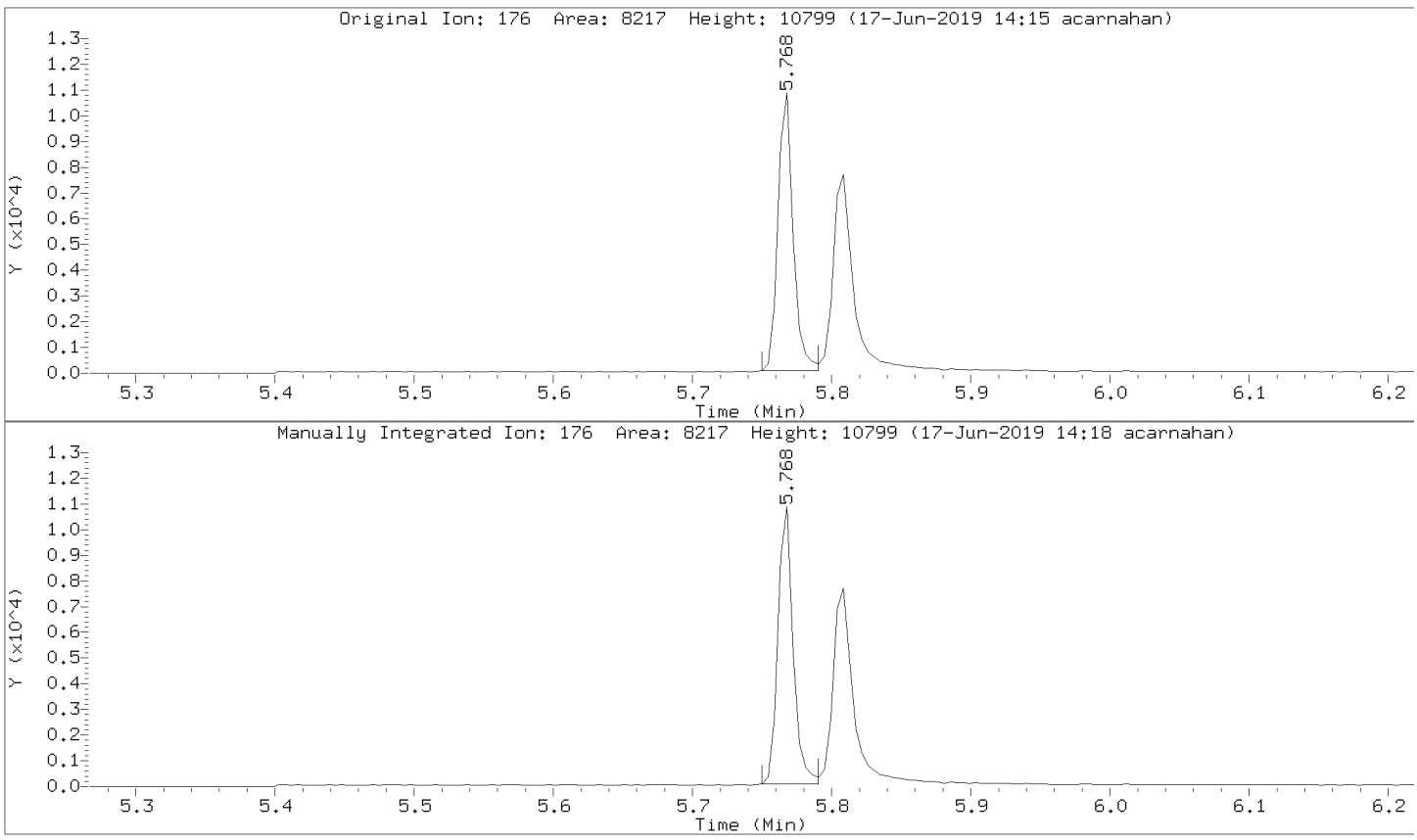


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

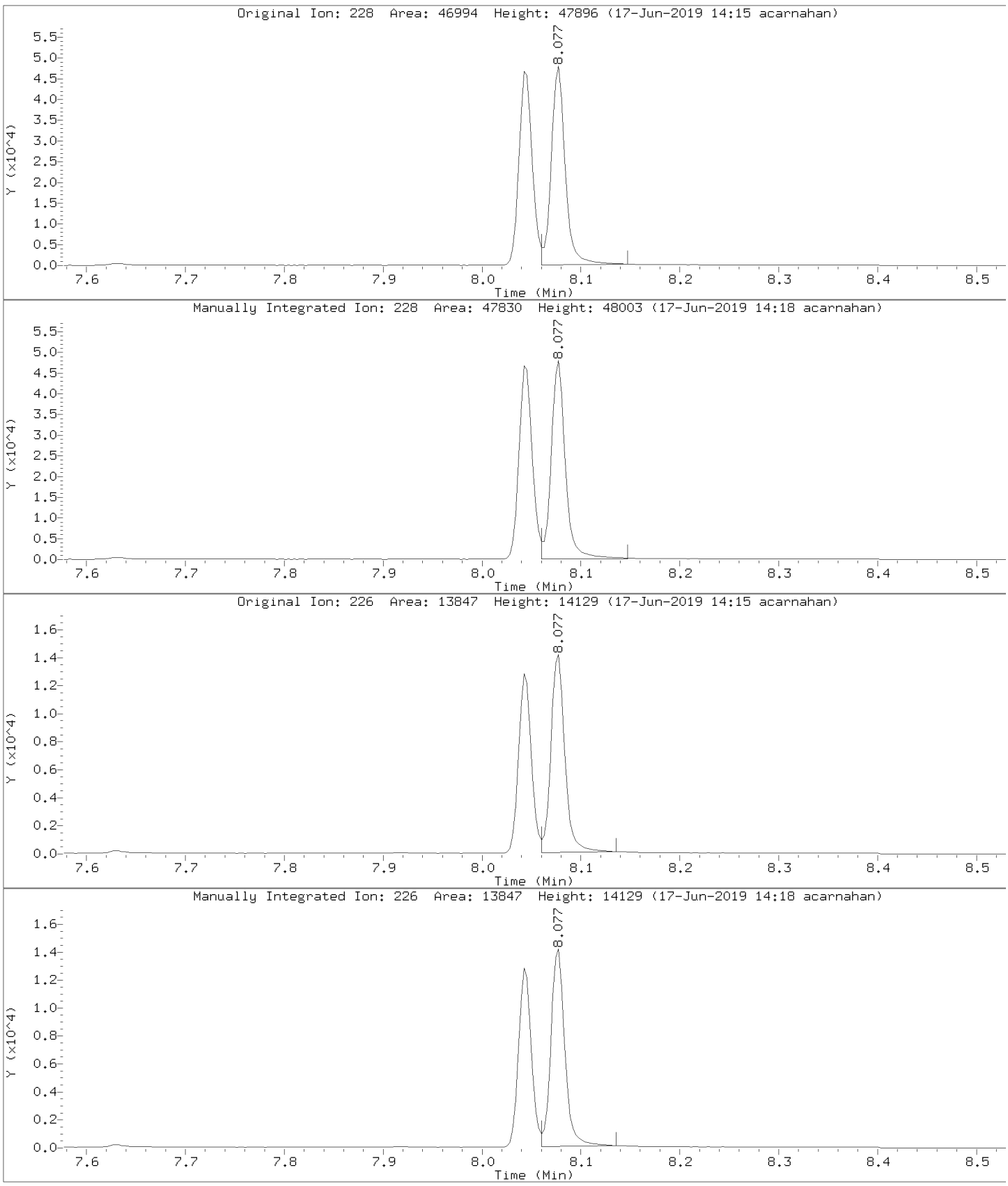


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

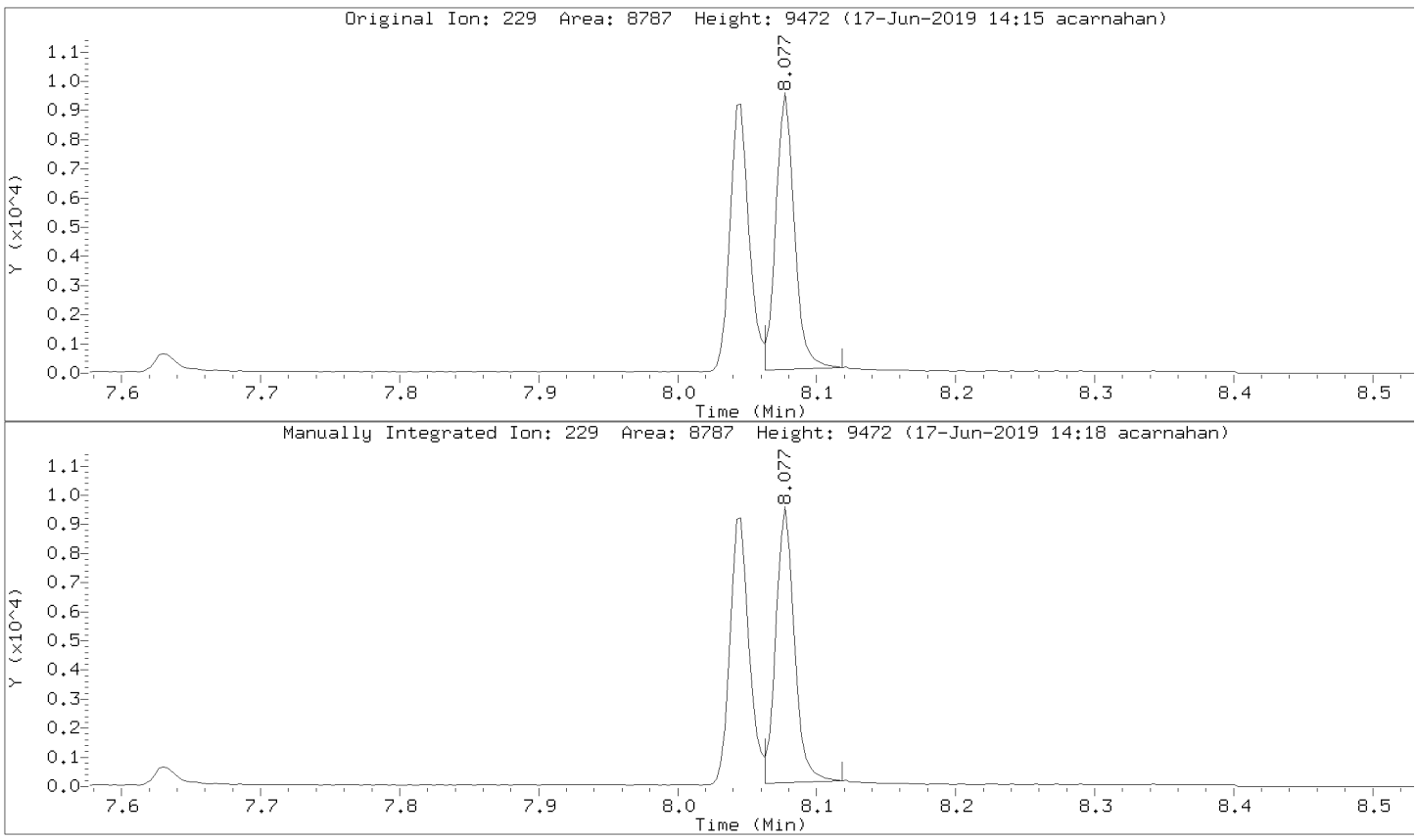


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2



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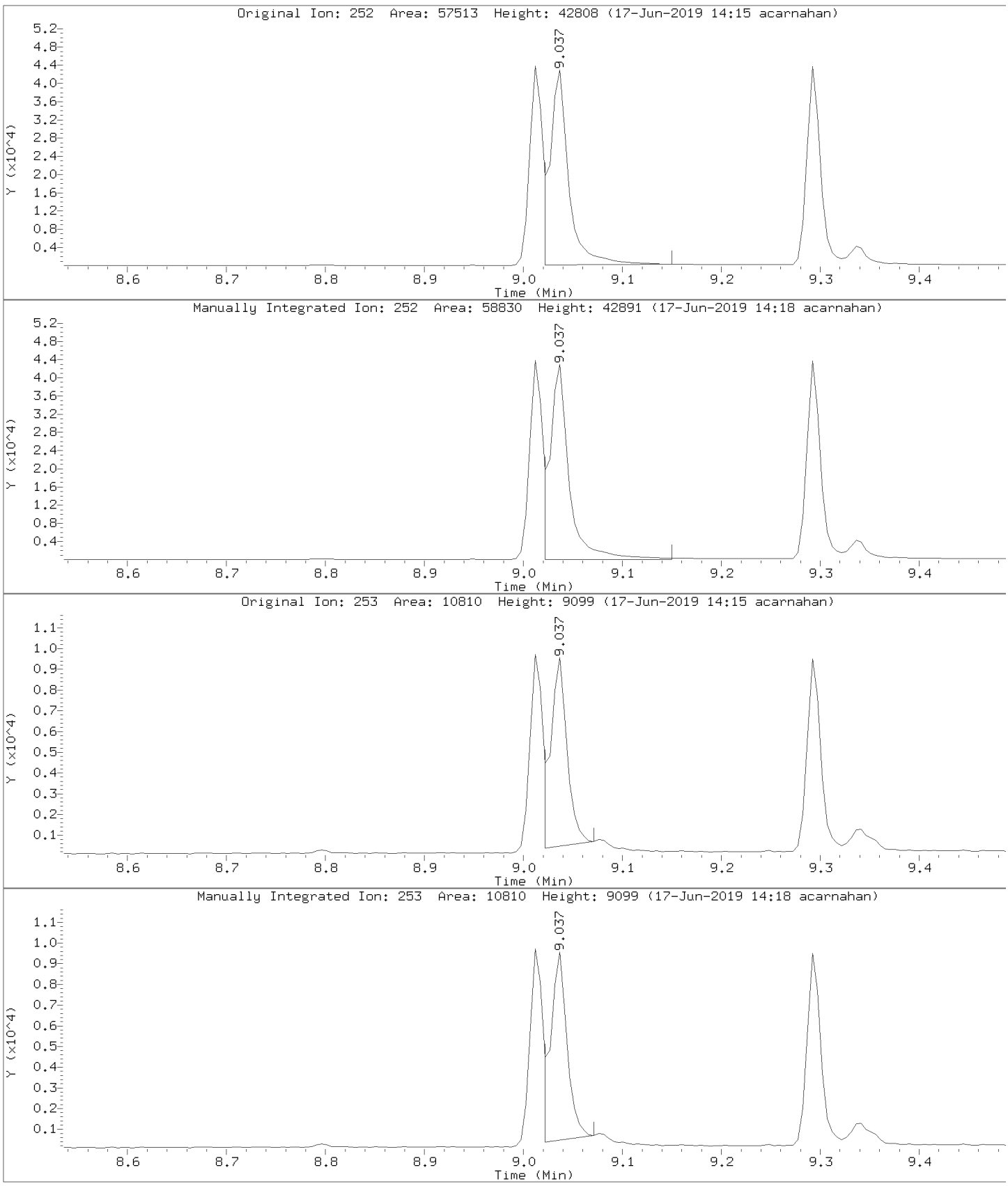
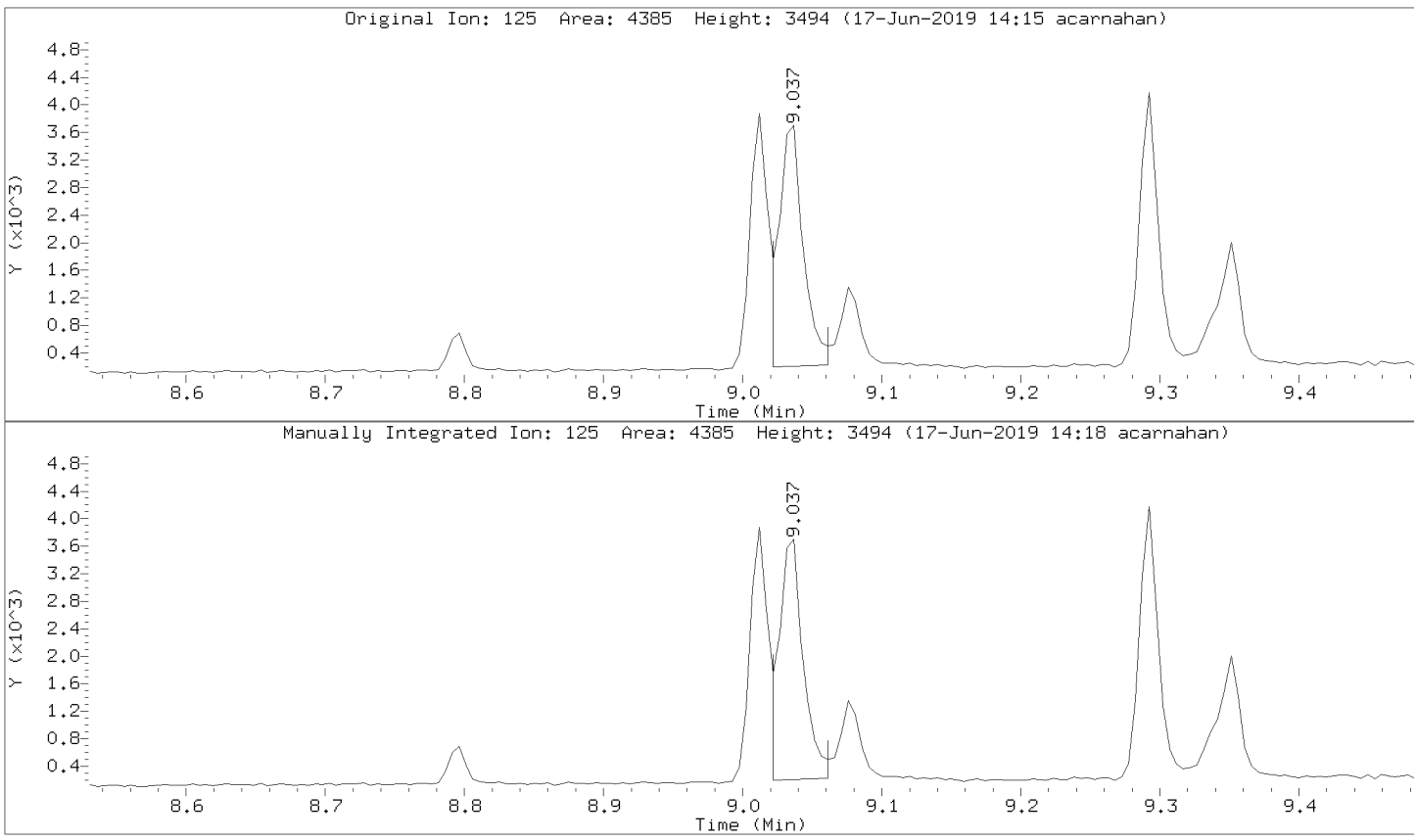
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

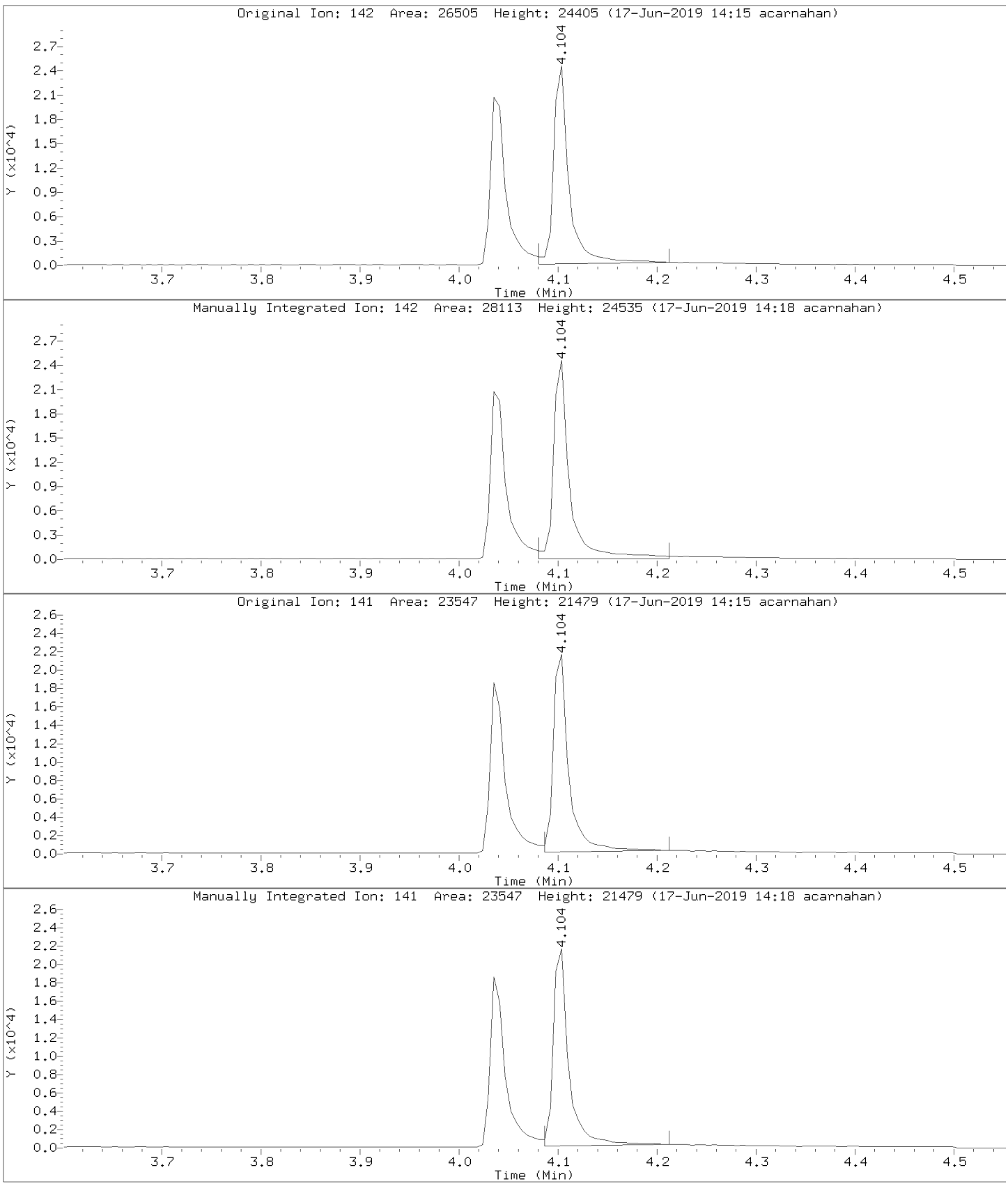


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 17-JUN-2019 13:18
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal3, 89120:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:18 Cal File: m2061719z3.d
Als bottle: 96 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	696850	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	83996	0.50000	0.514	
9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	53961	0.50000	0.517	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	63386	0.50000	0.536(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	72424	0.50000	0.537	
11 Acenaphthylene	152	4.619	4.619	(0.981)	82381	0.50000	0.520	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	391584	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	53969	0.50000	0.519	
13 Fluorene	166	5.075	5.075	(1.078)	63355	0.50000	0.524	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	710720	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	91875	0.50000	0.516(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	93992	0.50000	0.521	
16 Fluoranthene	202	6.742	6.742	(1.173)	103391	0.50000	0.512	
17 Pyrene	202	6.945	6.945	(1.208)	107150	0.50000	0.512	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	80191	0.50000	0.513	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	93220	0.50000	0.494	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	666129	4.00000		
19 Chrysene	228	8.074	8.077	(1.003)	101620	0.50000	0.512(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	93337	0.50000	0.508	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.968)	121479	0.50000	0.509(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	89582	0.50000	0.505	
* 5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	714585	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	96249	0.50000	0.499	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	116937	0.50000	0.499	
25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.114)	98013	0.50000	0.501	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

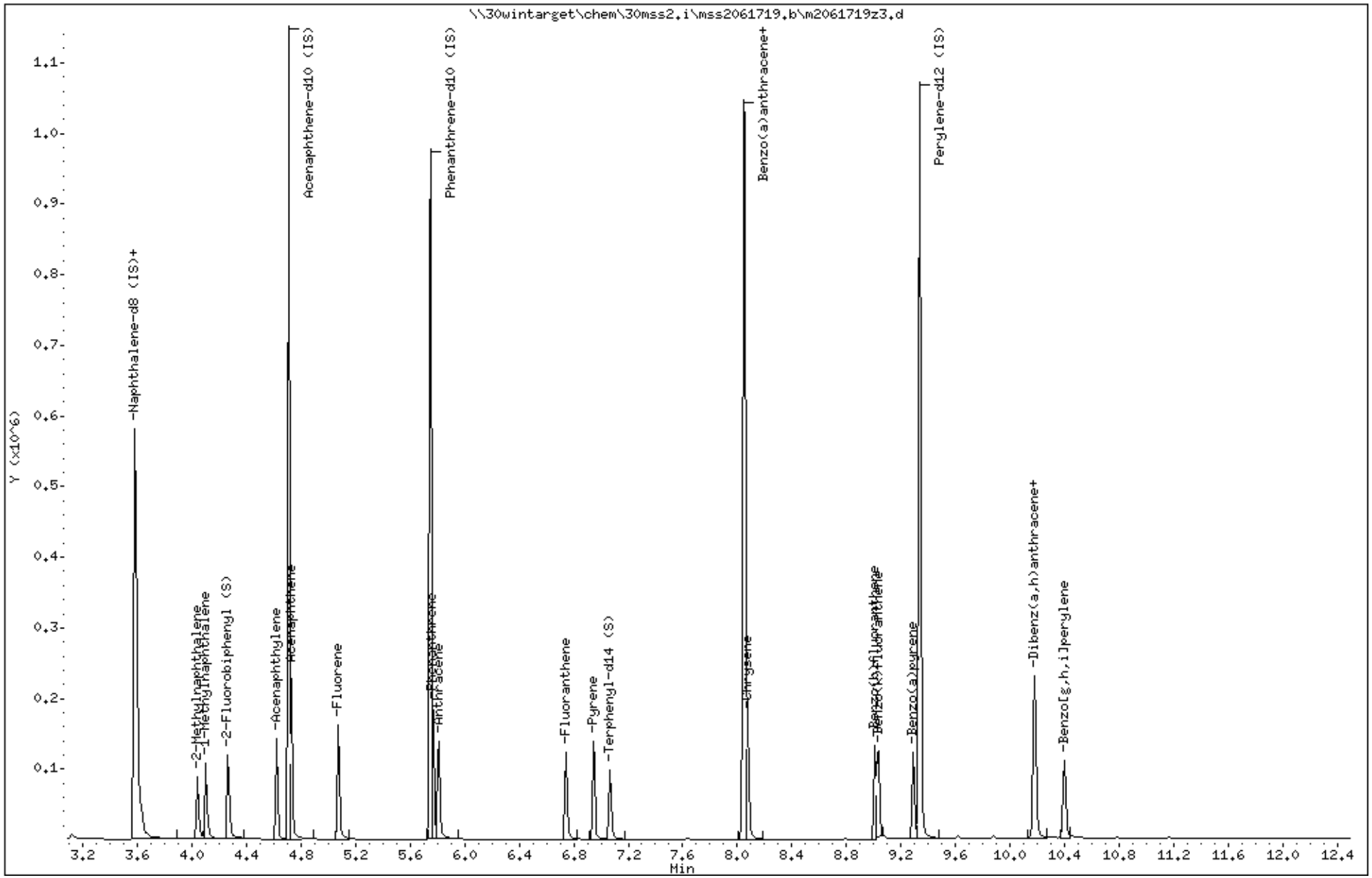
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

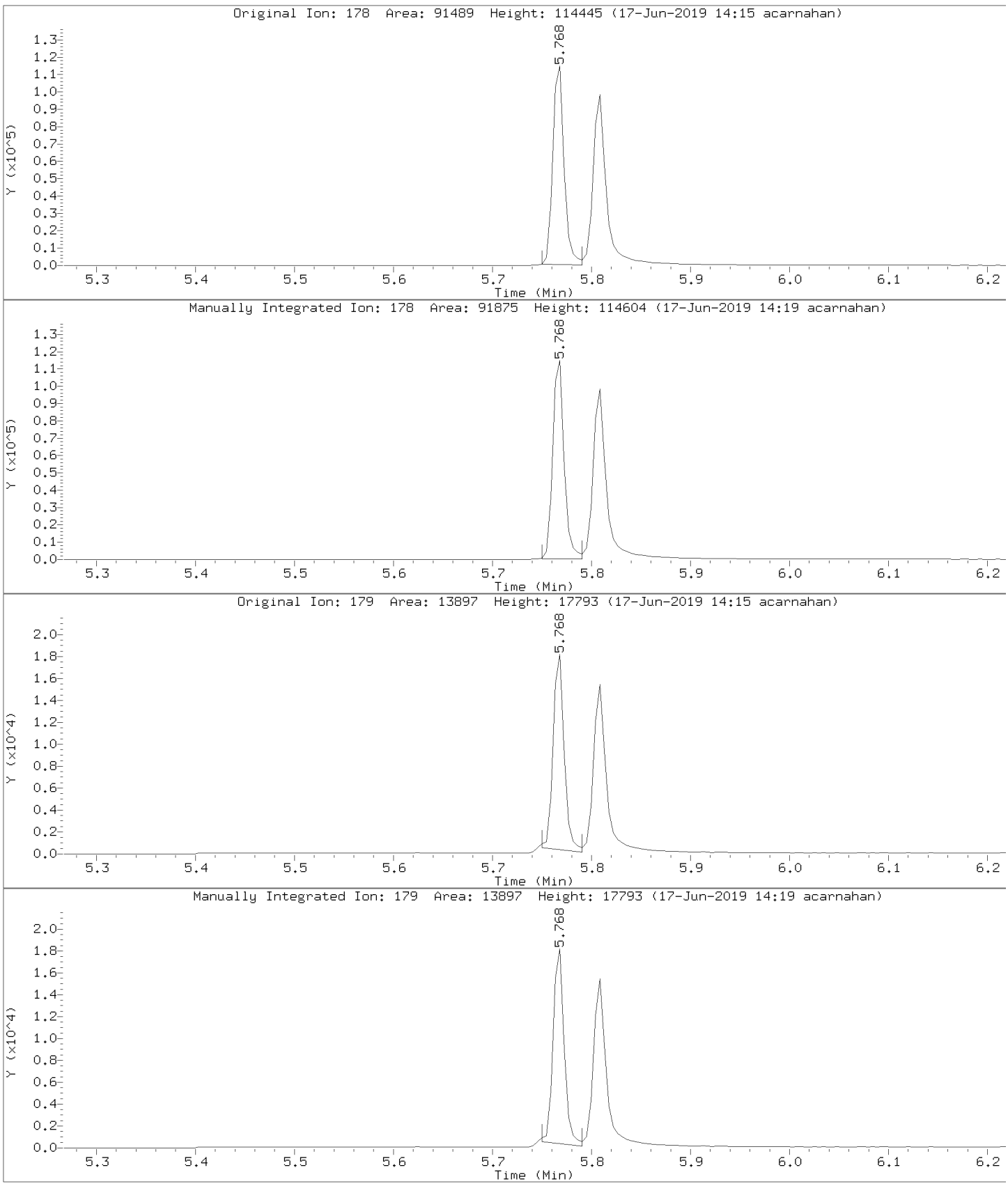
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.514	
91-57-6	2-Methylnaphthalene	0.517	
90-12-0	1-Methylnaphthalene	0.536	
208-96-8	Acenaphthylene	0.520	
83-32-9	Acenaphthene	0.519	
86-73-7	Fluorene	0.524	
85-01-8	Phenanthrene	0.516	
120-12-7	Anthracene	0.521	
206-44-0	Fluoranthene	0.512	
129-00-0	Pyrene	0.512	
56-55-3	Benzo(a)anthracene	0.494	
218-01-9	Chrysene	0.512	
205-99-2	Benzo(b)fluoranthene	0.508	
207-08-9	Benzo(k)fluoranthene	0.509	
50-32-8	Benzo(a)pyrene	0.505	
53-70-3	Dibenz(a,h)anthracene	0.499	
193-39-5	Indeno(1,2,3-cd)pyrene	0.499	
191-24-2	Benzo[g,h,i]perylene	0.501	
321-60-8	2-Fluorobiphenyl (S)	0.537	
1718-51-0	Terphenyl-d14 (S)	0.513	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Date : 17-JUN-2019 13:18
Client ID: CAL3
Instrument: 30mss2.i
Sample Info: CAL3, 89120:1
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

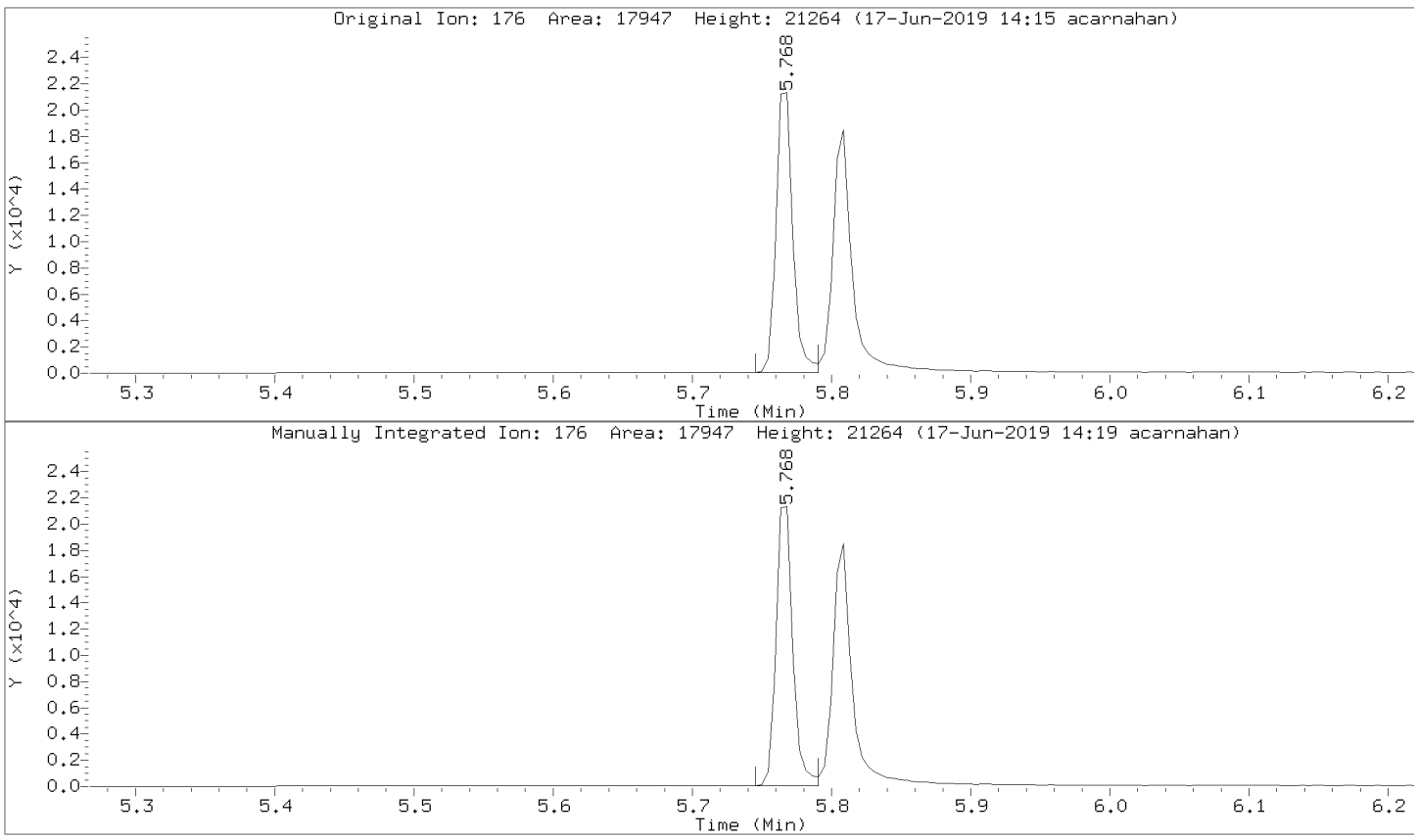


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

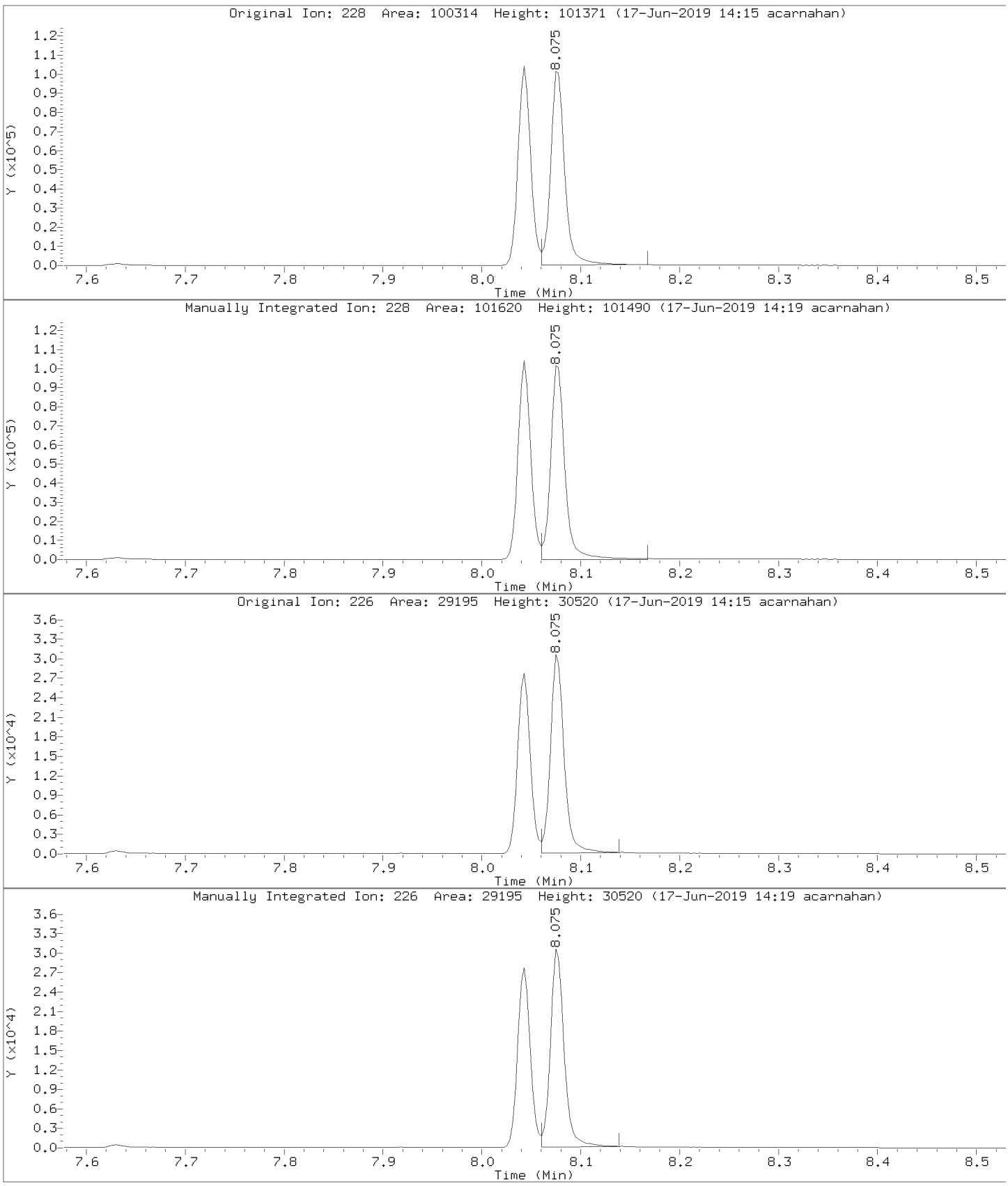


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

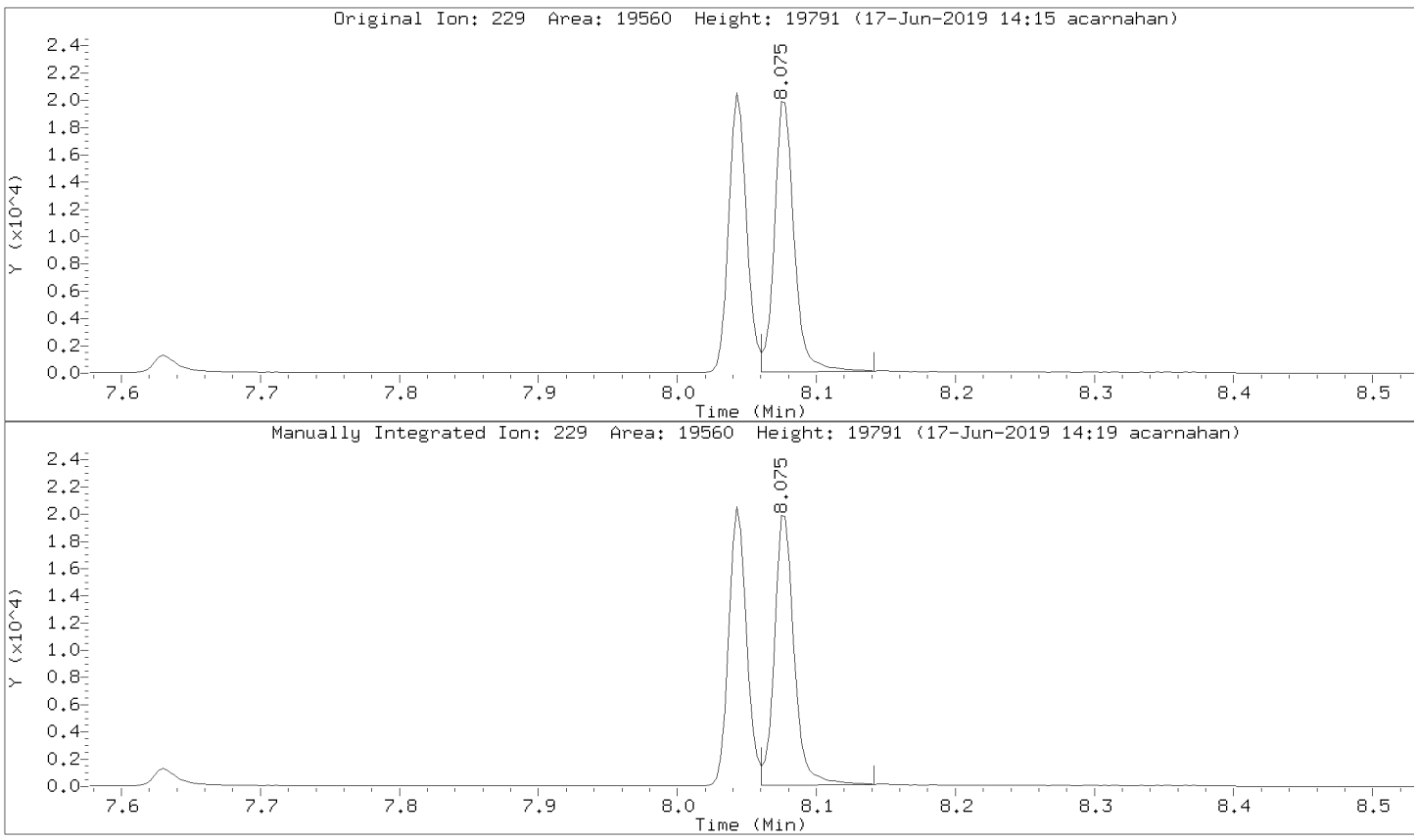


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

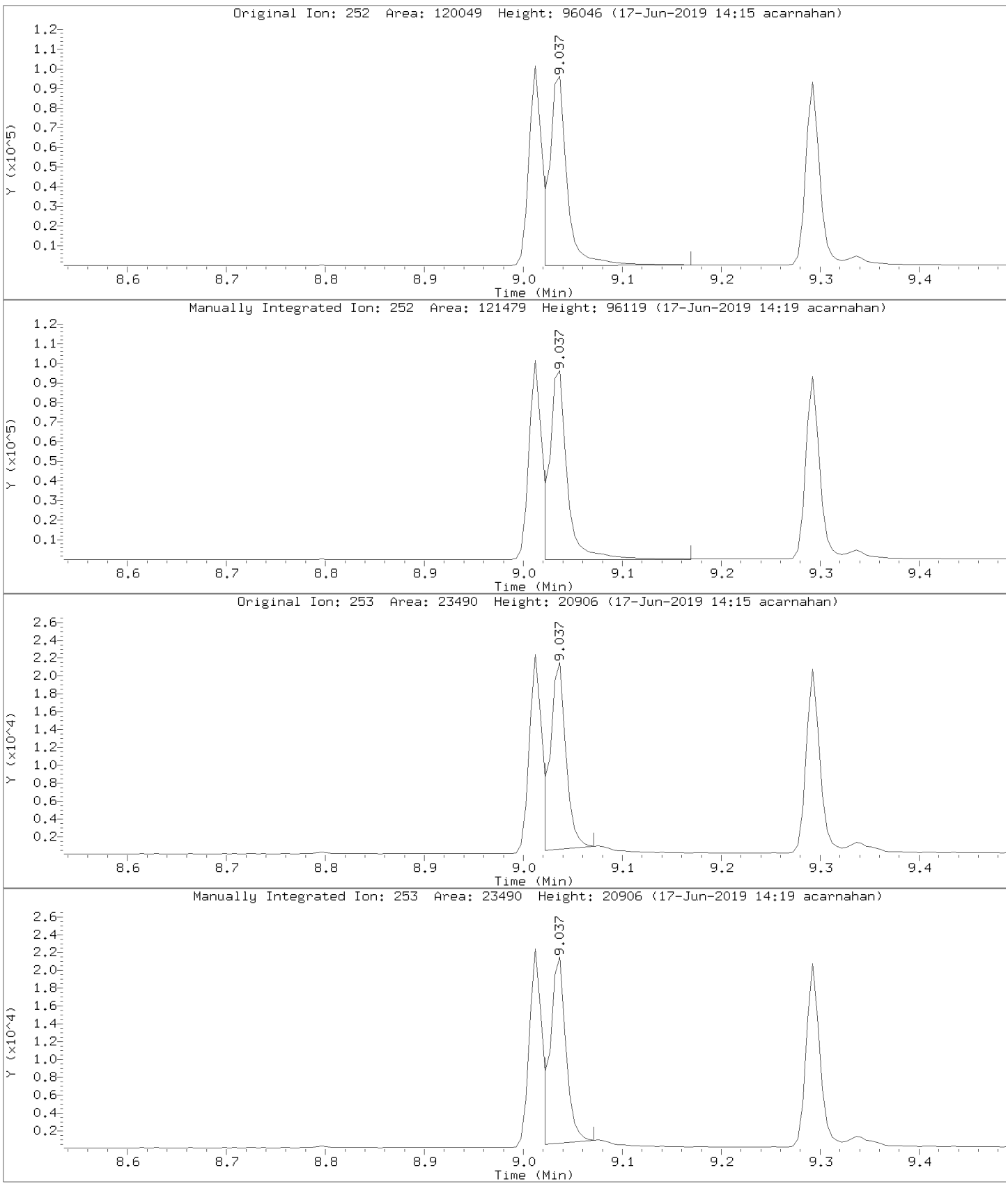


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

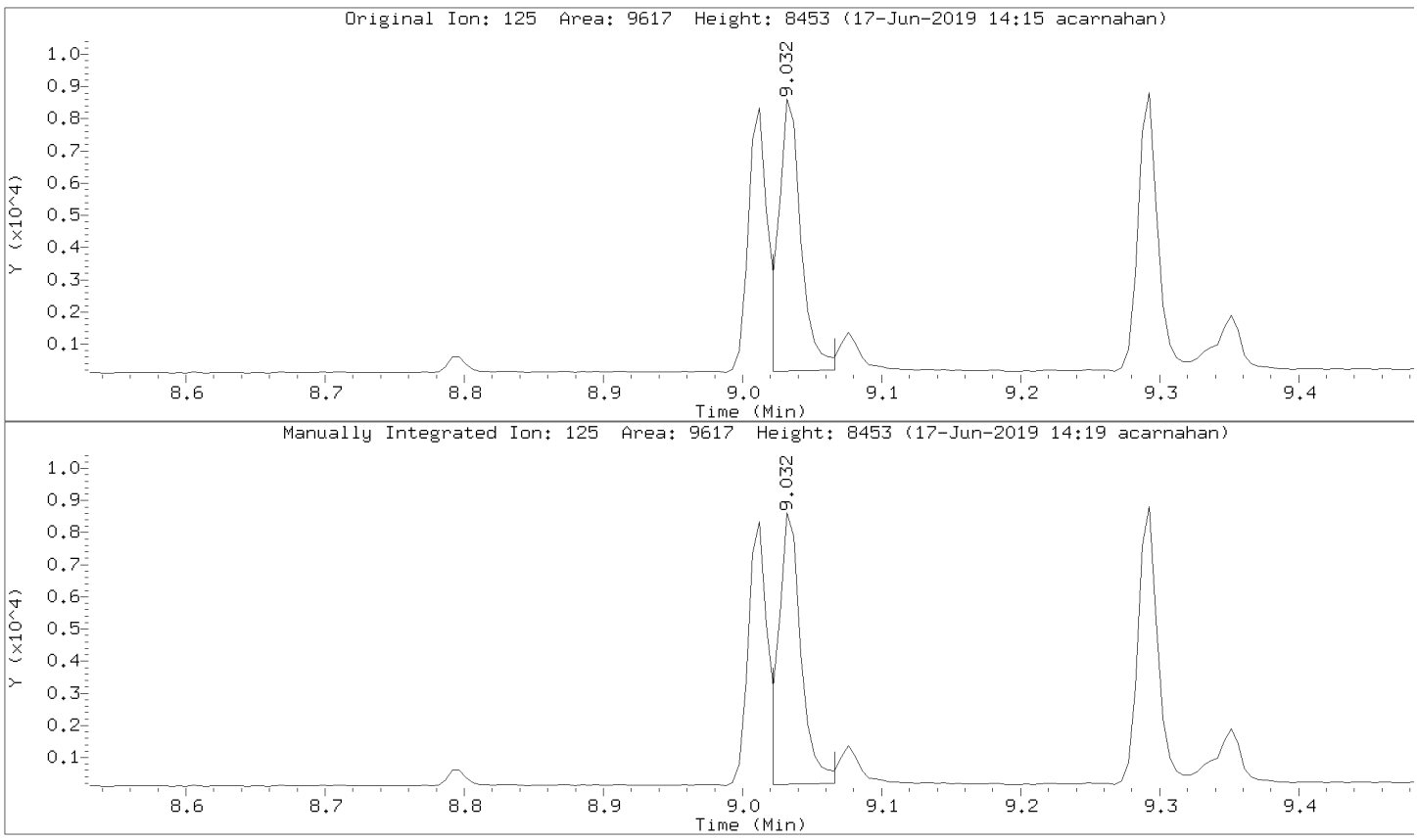


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

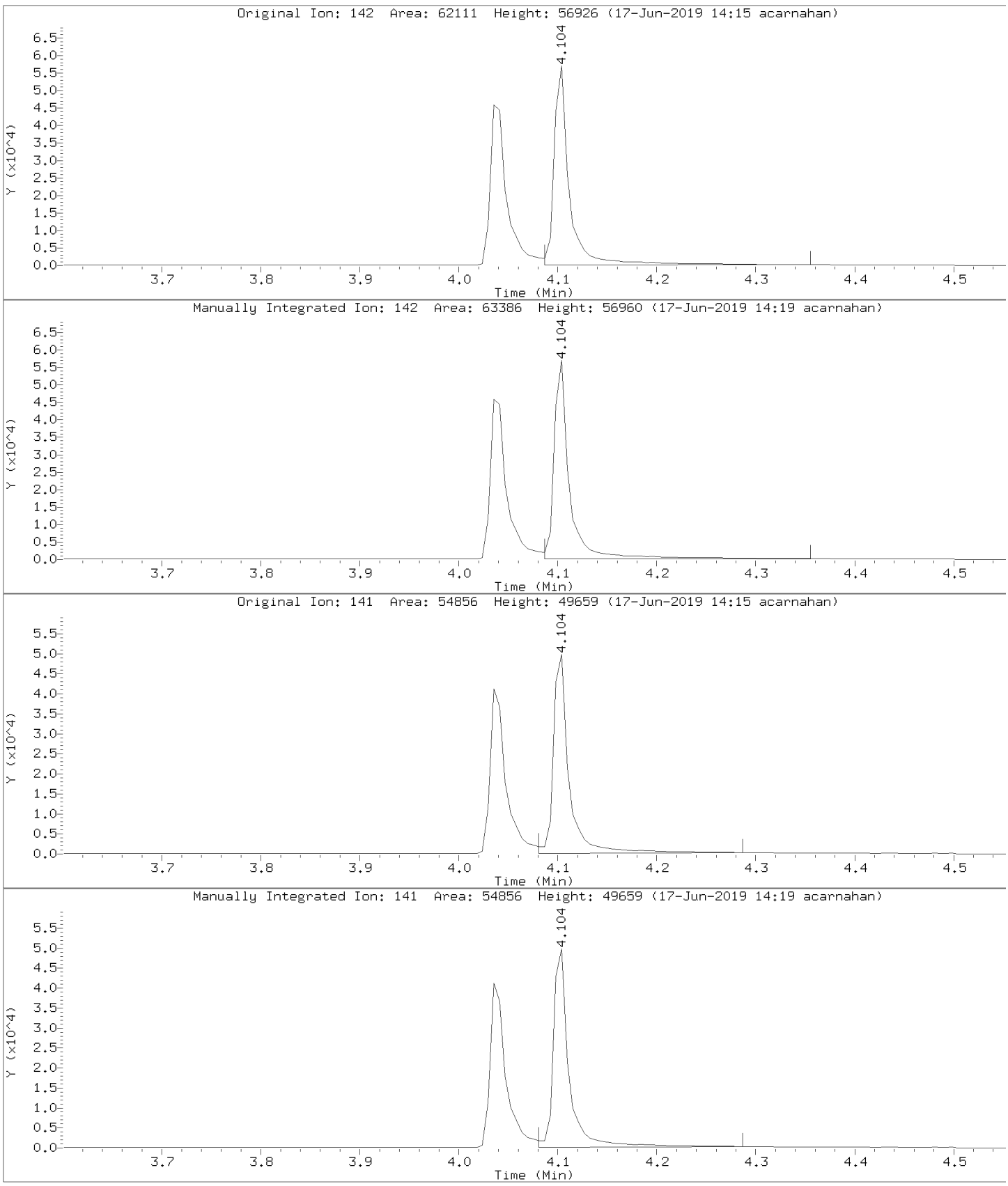


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 17-JUN-2019 13:36
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal4, 89121:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:36 Cal File: m2061719z4.d
Als bottle: 97 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	714427	4.00000		
8 Naphthalene	128	3.595	3.595	(1.003)	339612	2.00000	2.00	
9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	234251	2.00000	2.00	
10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	238685	2.00000	2.00(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	288982	2.00000	2.00	
11 Acenaphthylene	152	4.619	4.619	(0.981)	336030	2.00000	2.00	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396176	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	211395	2.00000	2.00	
13 Fluorene	166	5.072	5.075	(1.077)	253906	2.00000	2.00	
* 3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	704632	4.00000		
14 Phenanthrene	178	5.767	5.768	(1.003)	358937	2.00000	2.00(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	376643	2.00000	2.00	
16 Fluoranthene	202	6.742	6.742	(1.173)	420702	2.00000	2.00	
17 Pyrene	202	6.945	6.945	(1.208)	430243	2.00000	2.00	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	319268	2.00000	2.00	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	370572	2.00000	2.00	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	649506	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	379165	2.00000	2.00(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	391201	2.00000	2.00	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	460714	2.00000	2.00(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	379006	2.00000	2.00	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	705131	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	393328	2.00000	2.00	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	474427	2.00000	2.00	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	393564	2.00000	2.00	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

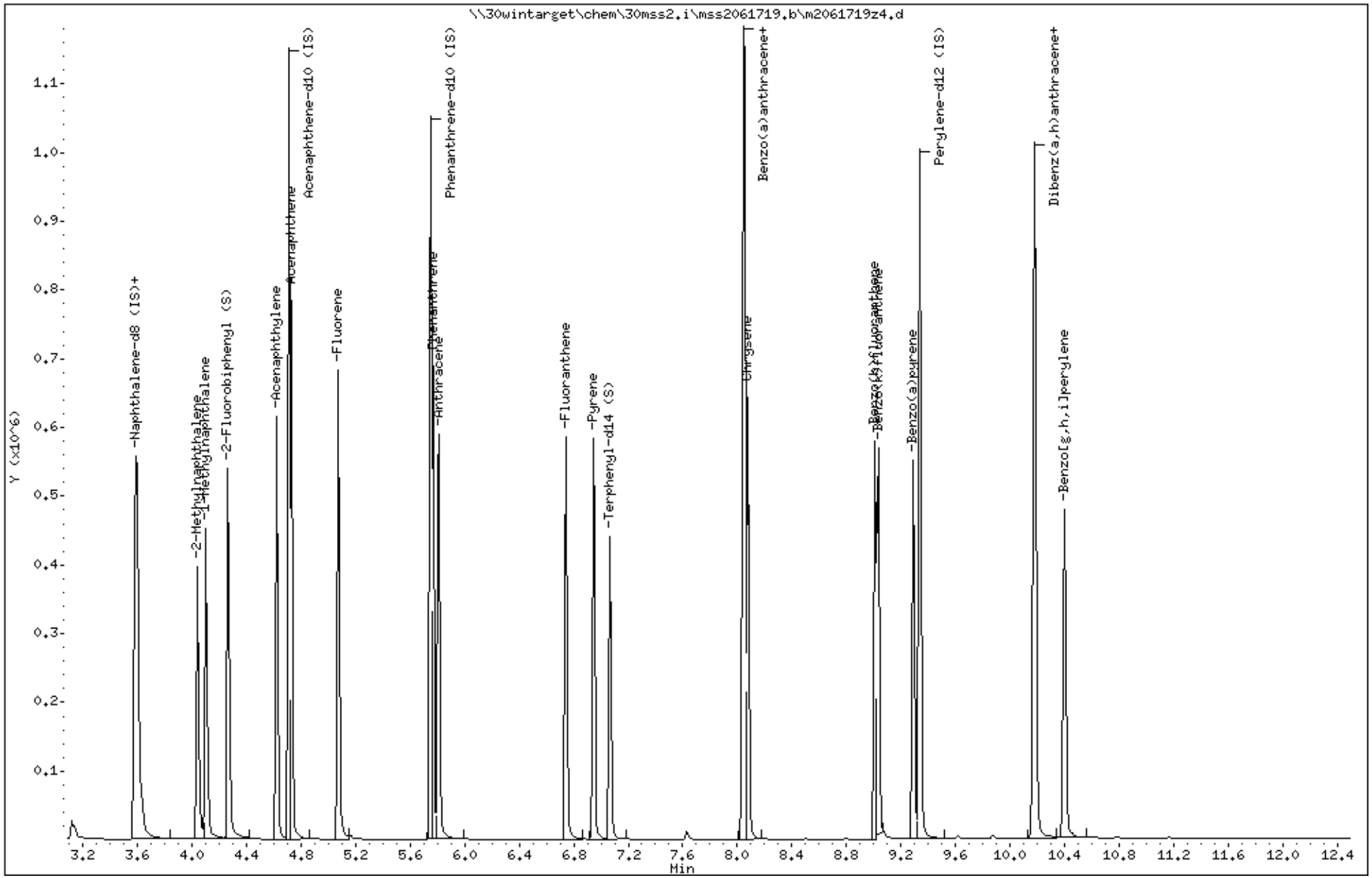
Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	2.00	
91-57-6	2-Methylnaphthalene	2.00	
90-12-0	1-Methylnaphthalene	2.00	
208-96-8	Acenaphthylene	2.00	
83-32-9	Acenaphthene	2.00	
86-73-7	Fluorene	2.00	
85-01-8	Phenanthrene	2.00	
120-12-7	Anthracene	2.00	
206-44-0	Fluoranthene	2.00	
129-00-0	Pyrene	2.00	
56-55-3	Benzo(a)anthracene	2.00	
218-01-9	Chrysene	2.00	
205-99-2	Benzo(b)fluoranthene	2.00	
207-08-9	Benzo(k)fluoranthene	2.00	
50-32-8	Benzo(a)pyrene	2.00	
53-70-3	Dibenz(a,h)anthracene	2.00	
193-39-5	Indeno(1,2,3-cd)pyrene	2.00	
191-24-2	Benzo[g,h,i]perylene	2.00	
321-60-8	2-Fluorobiphenyl (S)	2.00	
1718-51-0	Terphenyl-d14 (S)	2.00	

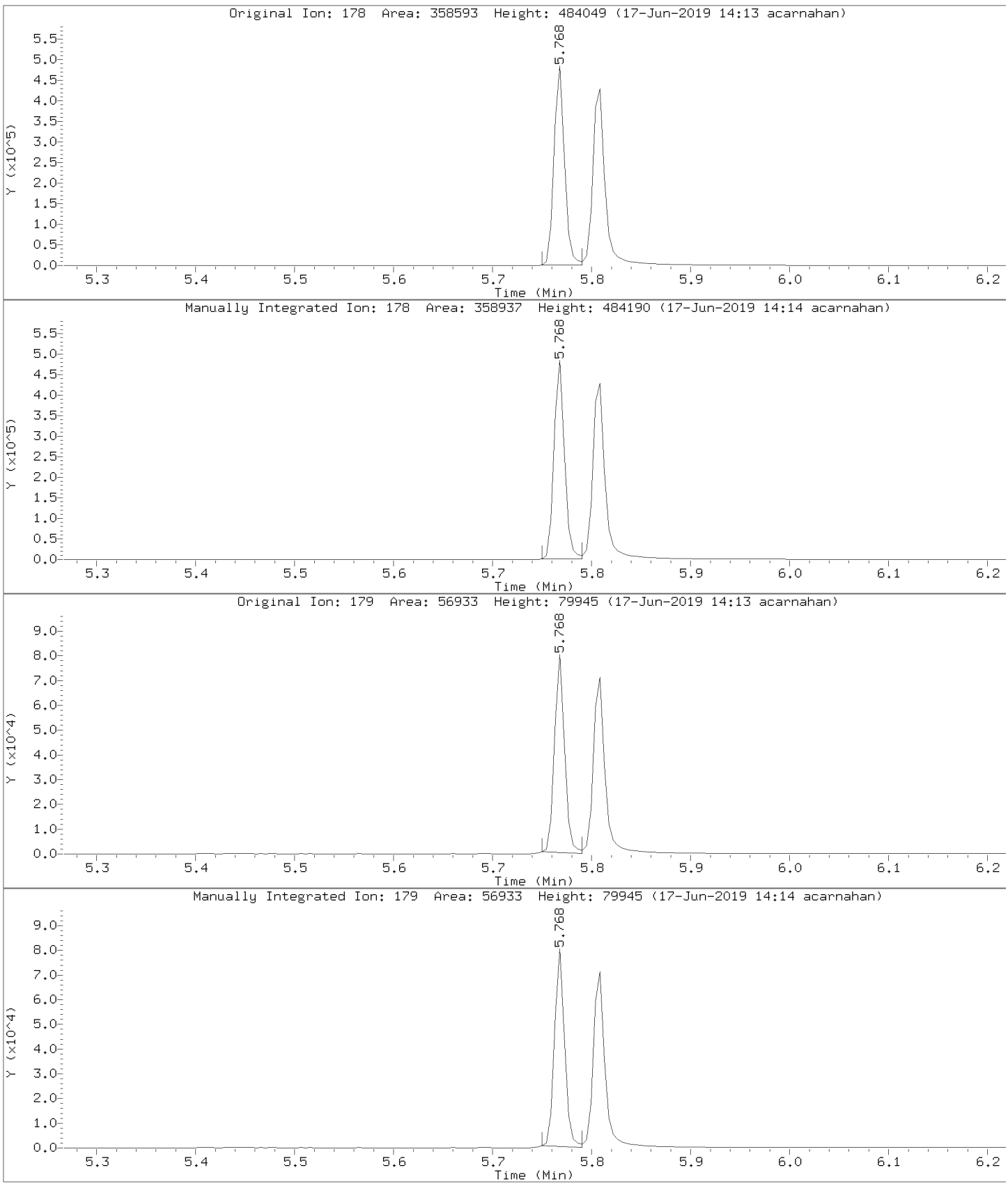
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Date : 17-JUN-2019 13:36
Client ID: CAL4
Sample Info: CAL4, 89121:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

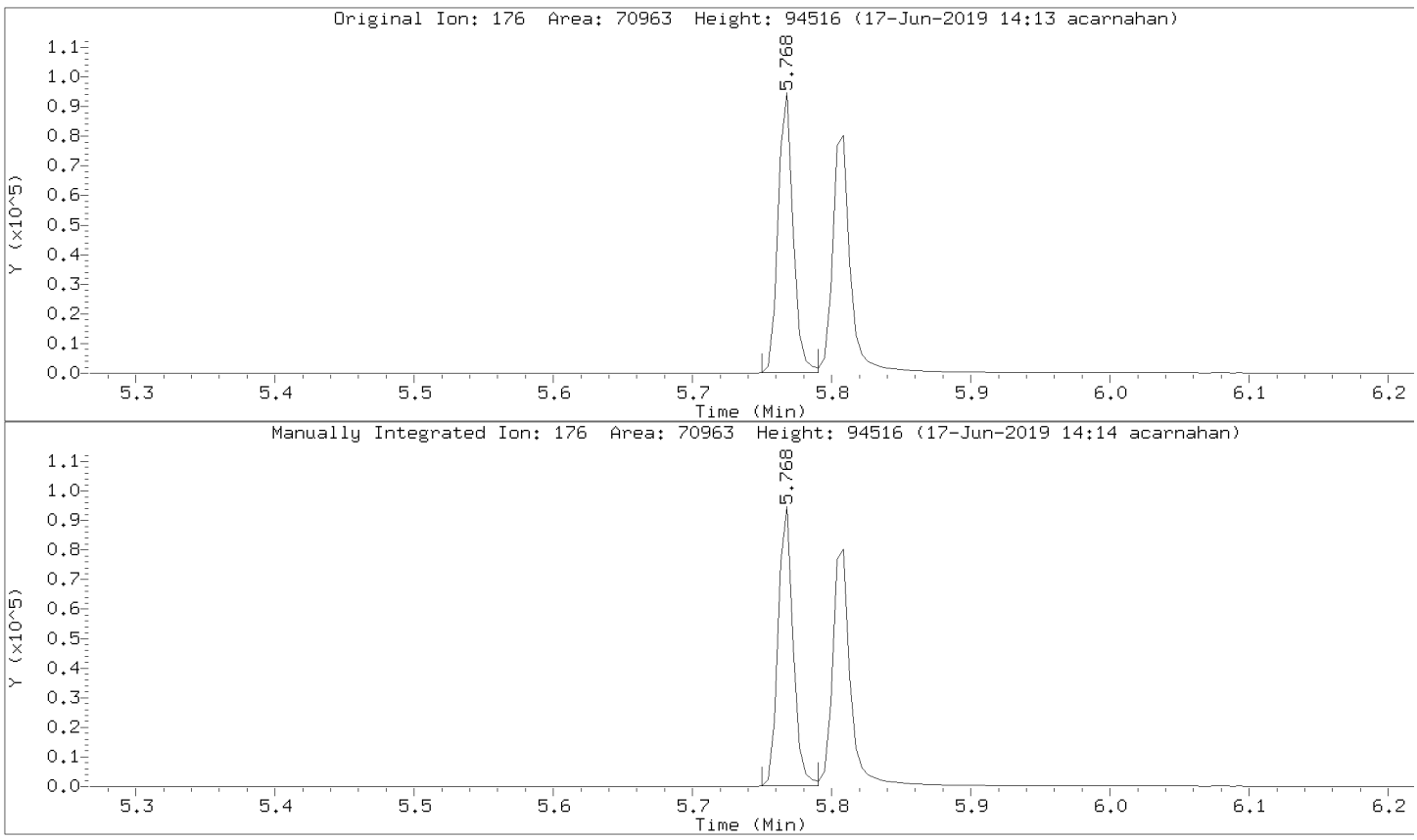


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

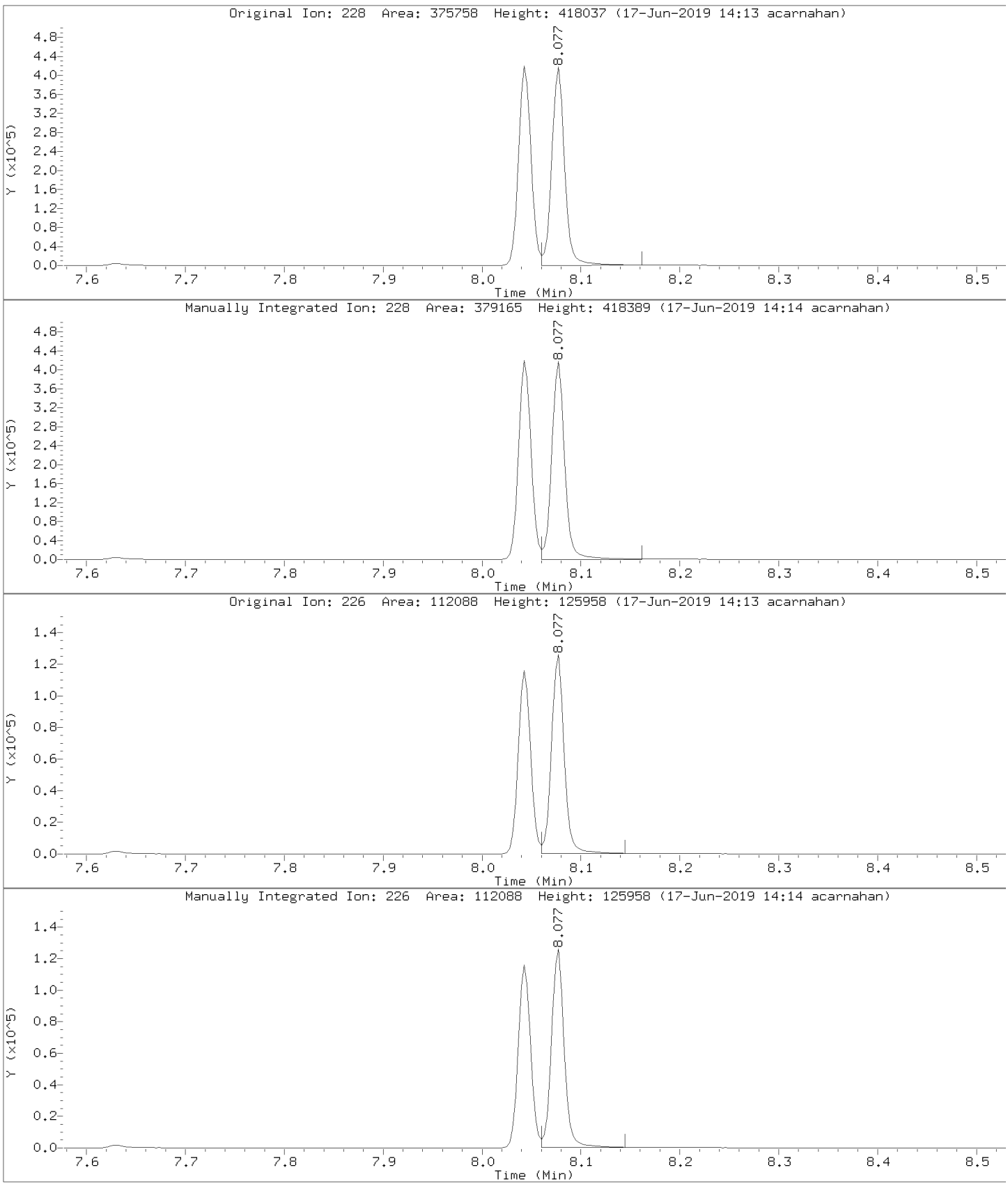


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

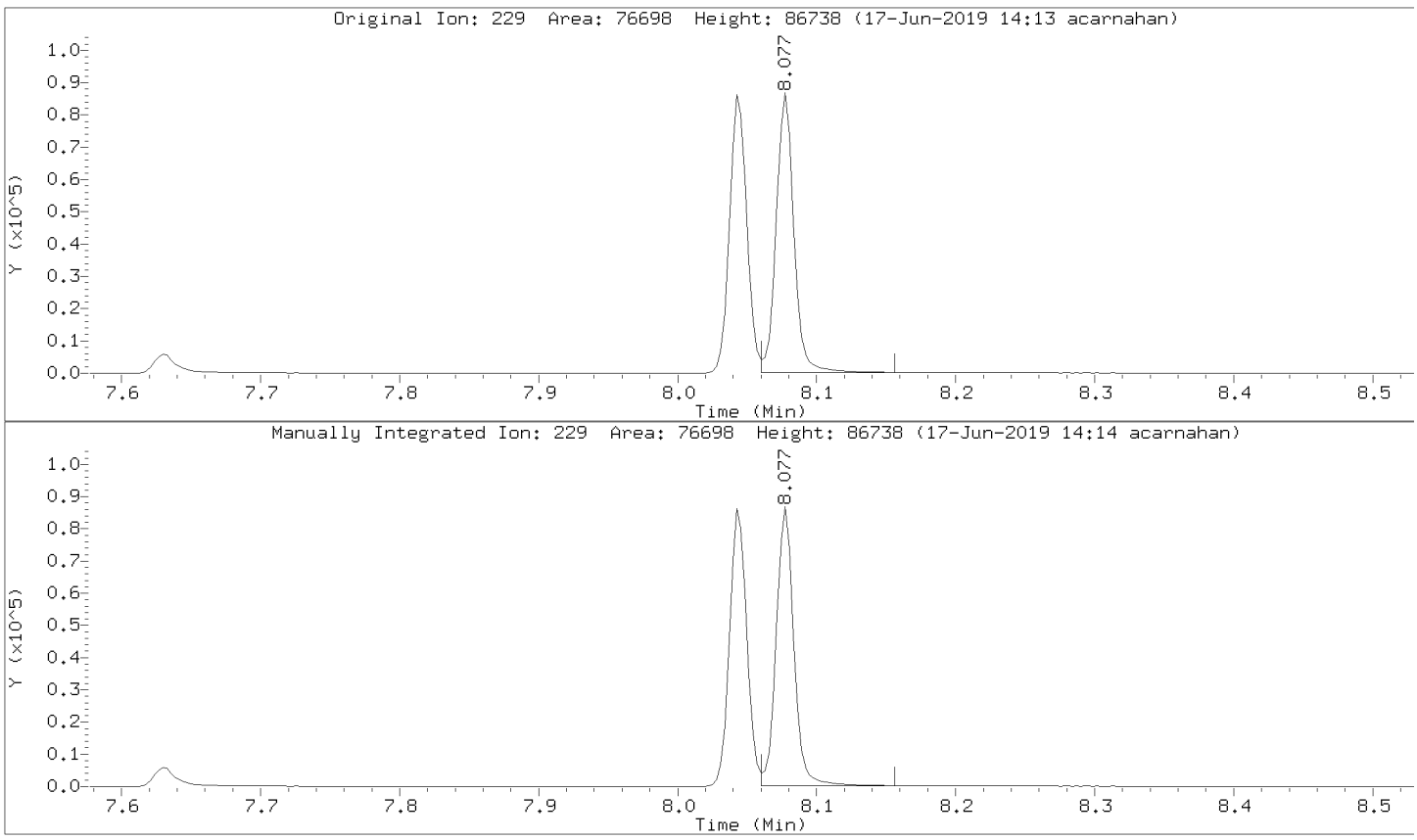


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

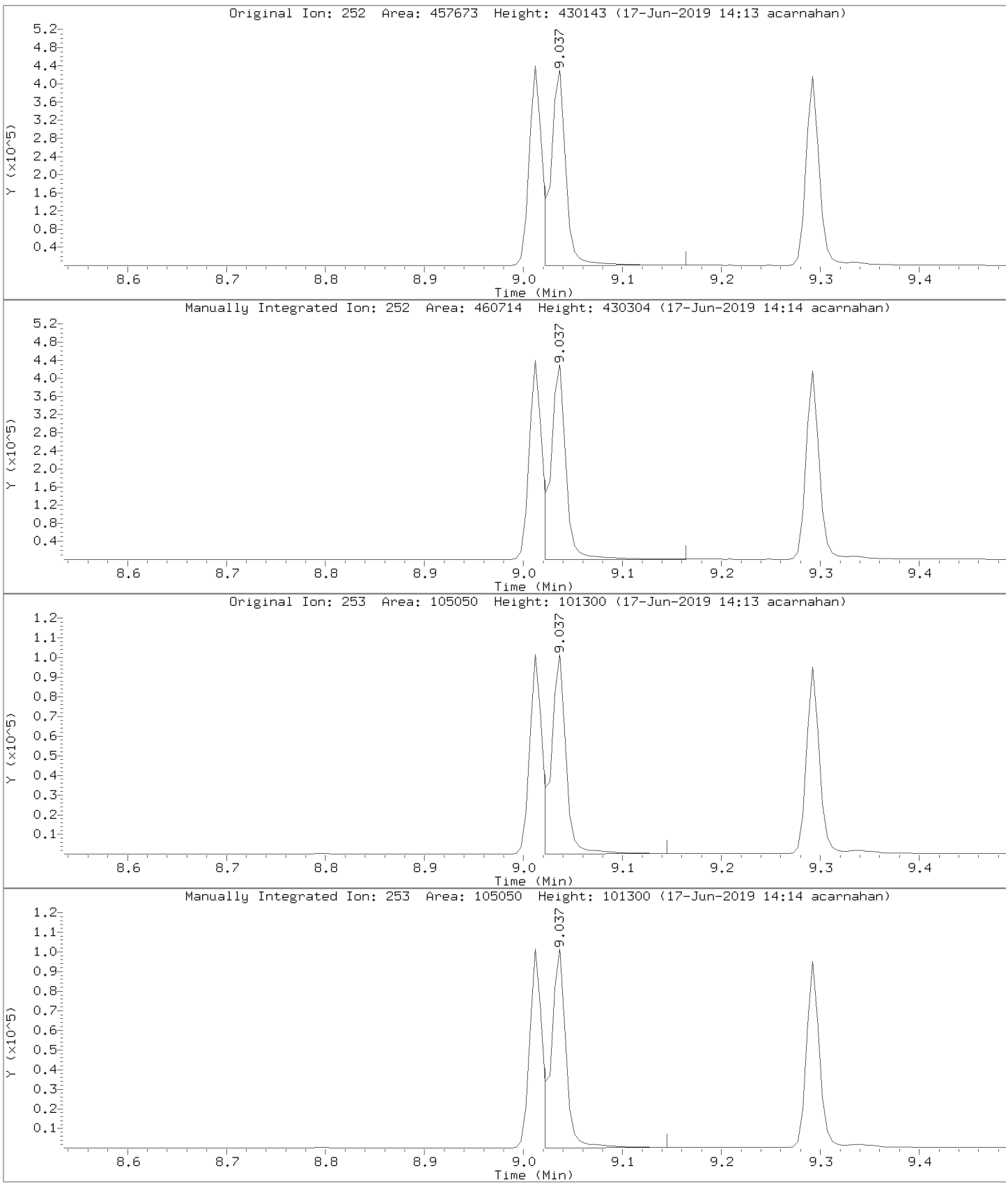


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

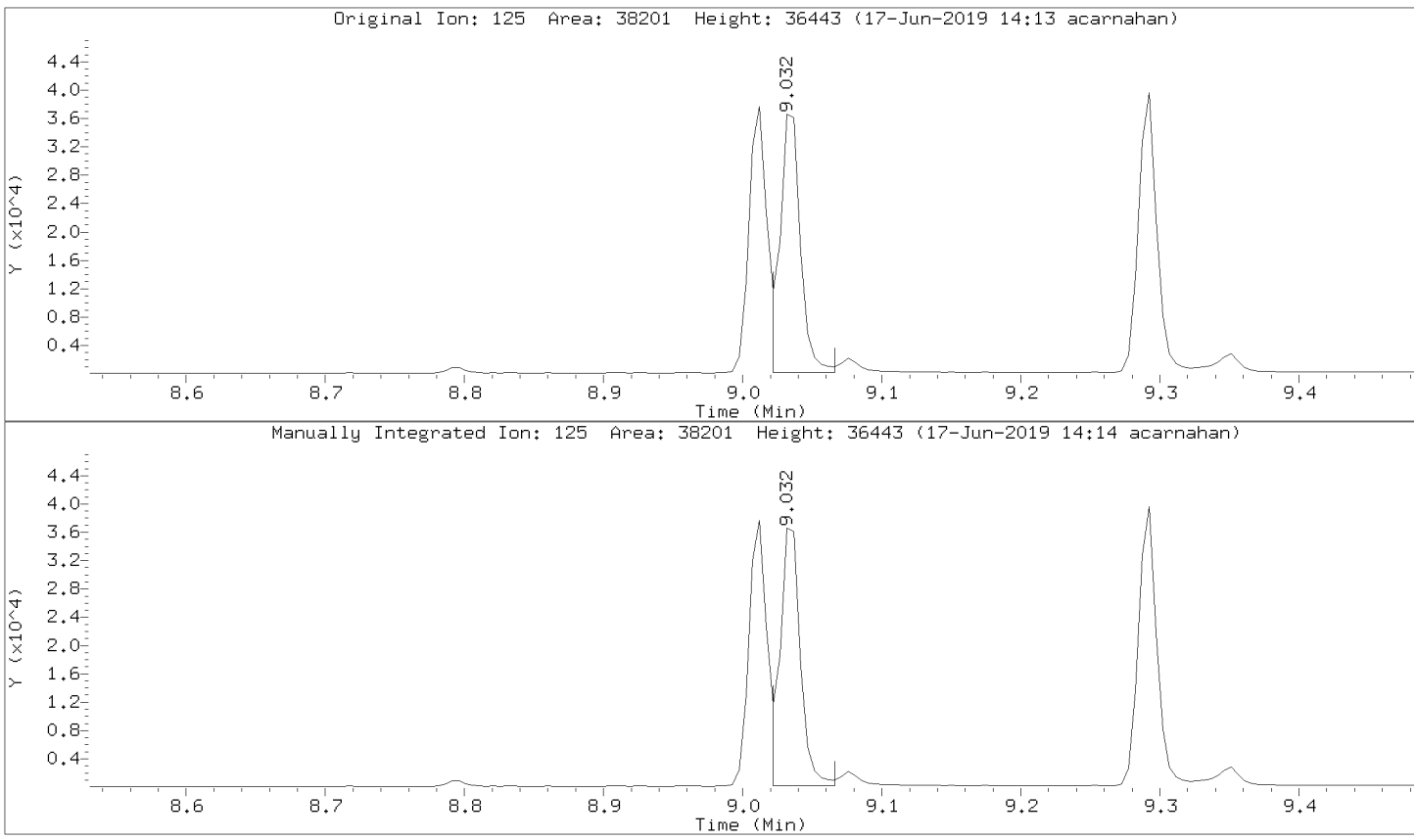


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

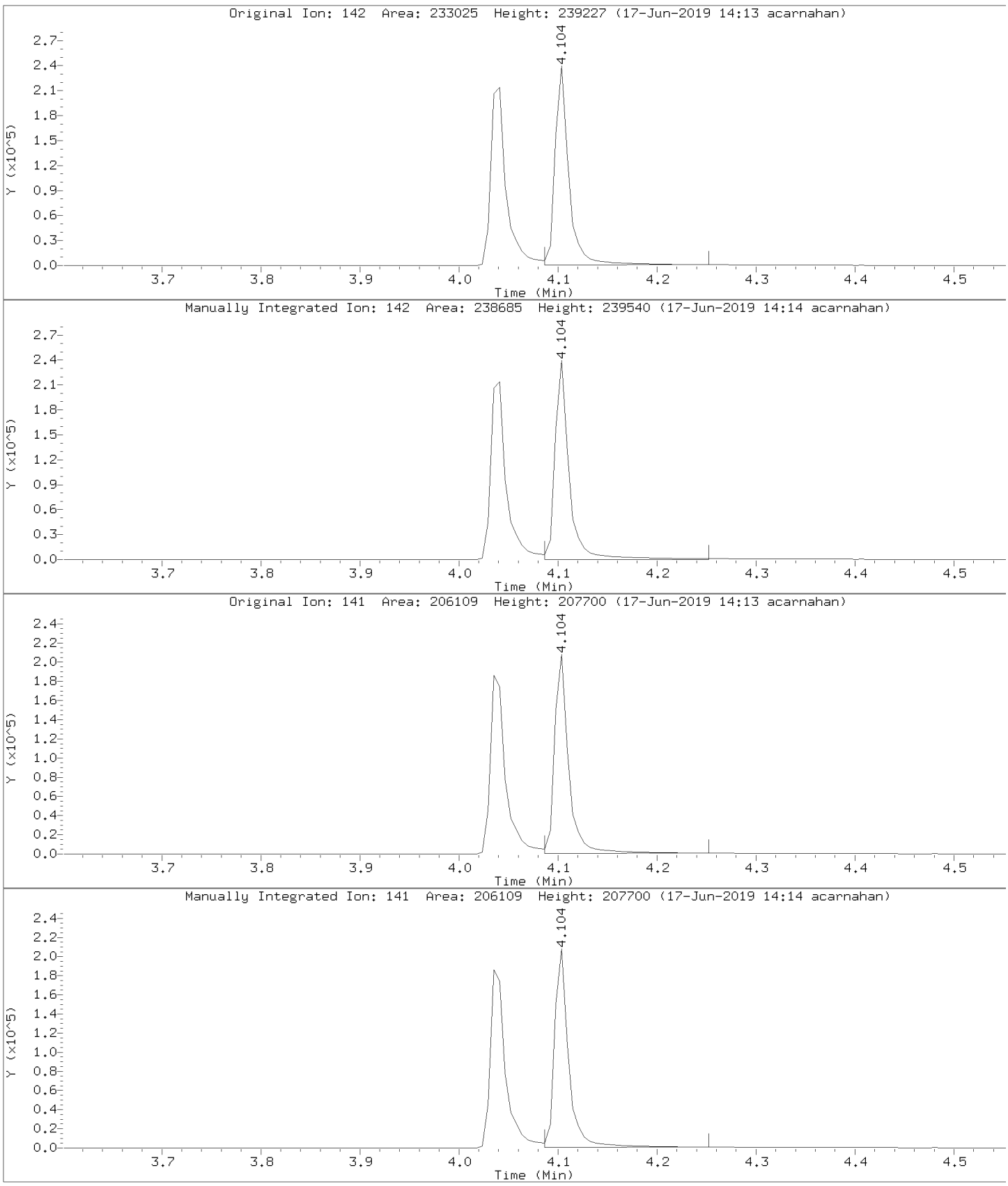


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 17-JUN-2019 13:54
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal5, 89122:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:54 Cal File: m2061719z5.d
Als bottle: 98 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	818407	4.00000		
8 Naphthalene	128	3.595	3.595	(1.003)	937509	5.00000	5.08	
9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	669817	5.00000	5.46	
10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	646947	5.00000	4.92(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	785082	5.00000	5.16	
11 Acenaphthylene	152	4.619	4.619	(0.981)	933922	5.00000	5.20	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	455542	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	591201	5.00000	5.04	
13 Fluorene	166	5.075	5.075	(1.078)	719066	5.00000	5.23	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	827312	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	1015809	5.00000	5.09(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	1058358	5.00000	5.20	
16 Fluoranthene	202	6.742	6.742	(1.173)	1202021	5.00000	5.26	
17 Pyrene	202	6.950	6.945	(1.209)	1214128	5.00000	5.17	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	907889	5.00000	5.17	
18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	1111827	5.00000	5.15	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	789090	4.00000		
19 Chrysene	228	8.080	8.077	(1.003)	1079172	5.00000	4.88(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	1240647	5.00000	5.70	
21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	1218460	5.00000	4.66(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	1114559	5.00000	5.37	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	834161	4.00000		
23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	1137424	5.00000	5.07	
24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	1365851	5.00000	5.04	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	1113977	5.00000	4.99	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

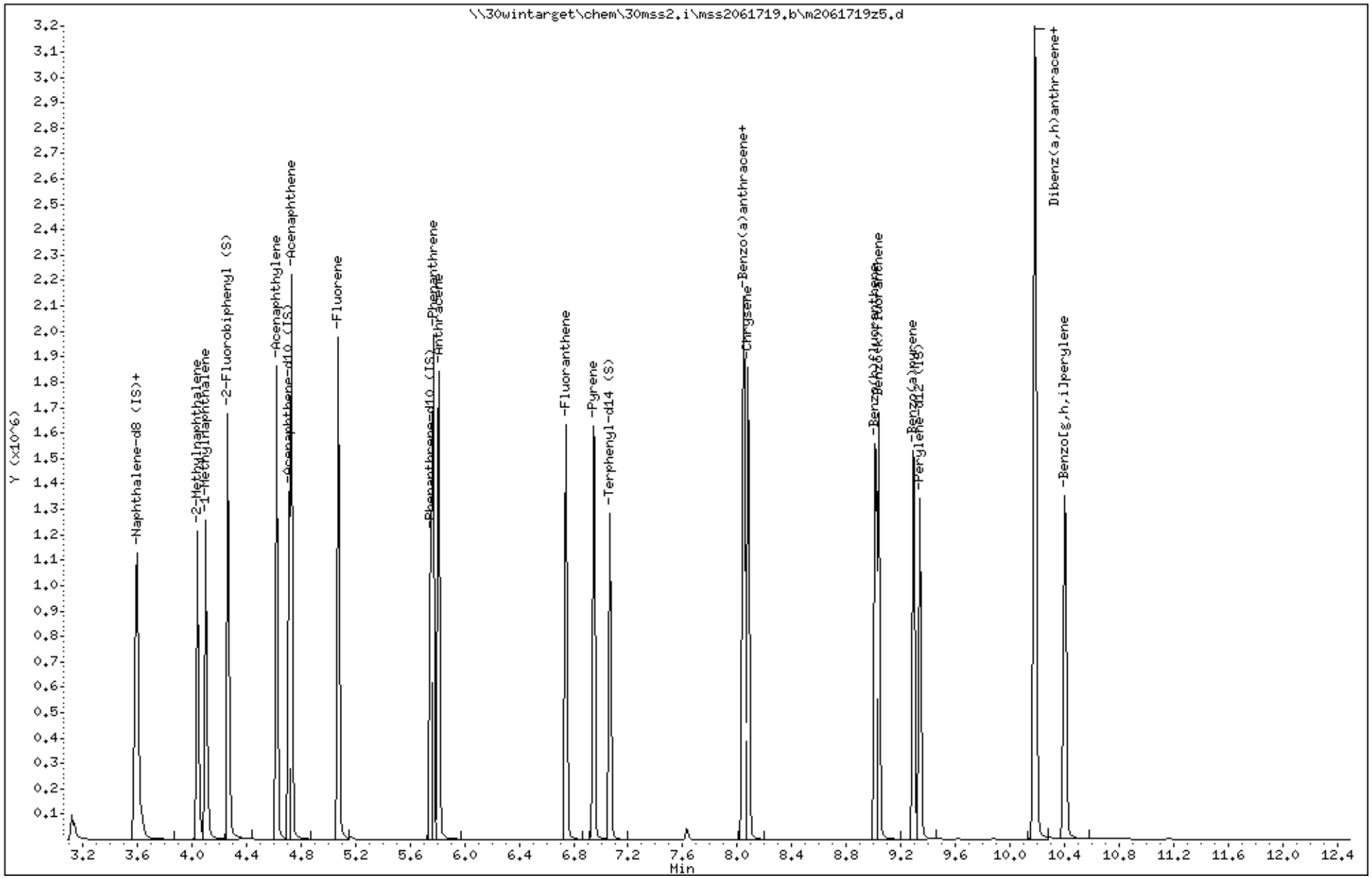
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	5.08	
91-57-6	2-Methylnaphthalene	5.46	
90-12-0	1-Methylnaphthalene	4.92	
208-96-8	Acenaphthylene	5.20	
83-32-9	Acenaphthene	5.04	
86-73-7	Fluorene	5.23	
85-01-8	Phenanthrene	5.09	
120-12-7	Anthracene	5.20	
206-44-0	Fluoranthene	5.26	
129-00-0	Pyrene	5.17	
56-55-3	Benzo(a)anthracene	5.15	
218-01-9	Chrysene	4.88	
205-99-2	Benzo(b)fluoranthene	5.70	
207-08-9	Benzo(k)fluoranthene	4.66	
50-32-8	Benzo(a)pyrene	5.37	
53-70-3	Dibenz(a,h)anthracene	5.07	
193-39-5	Indeno(1,2,3-cd)pyrene	5.04	
191-24-2	Benzo[g,h,i]perylene	4.99	
321-60-8	2-Fluorobiphenyl (S)	5.16	
1718-51-0	Terphenyl-d14 (S)	5.17	

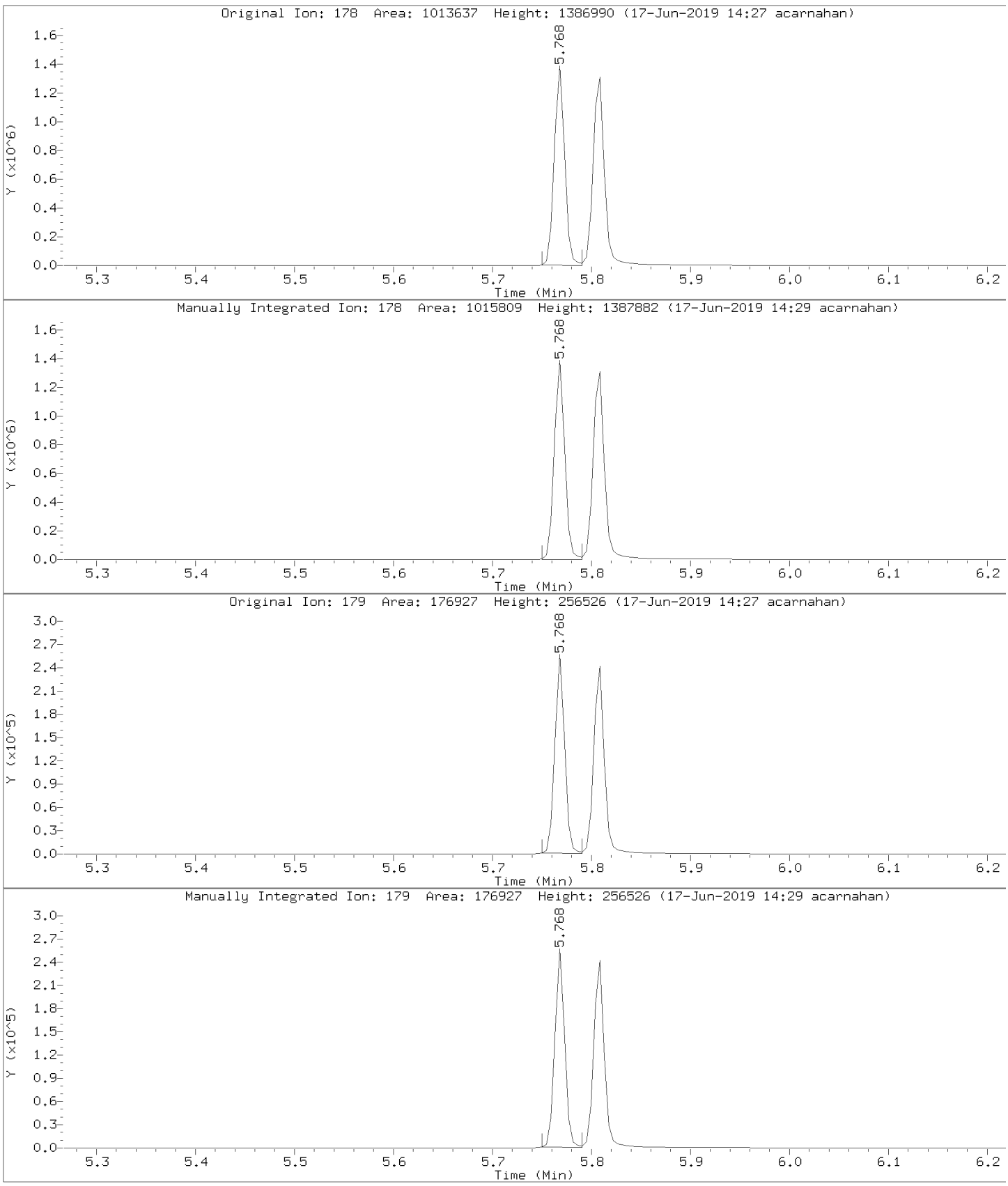
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Date : 17-JUN-2019 13:54
Client ID: CAL5
Sample Info: CAL5, 89122:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

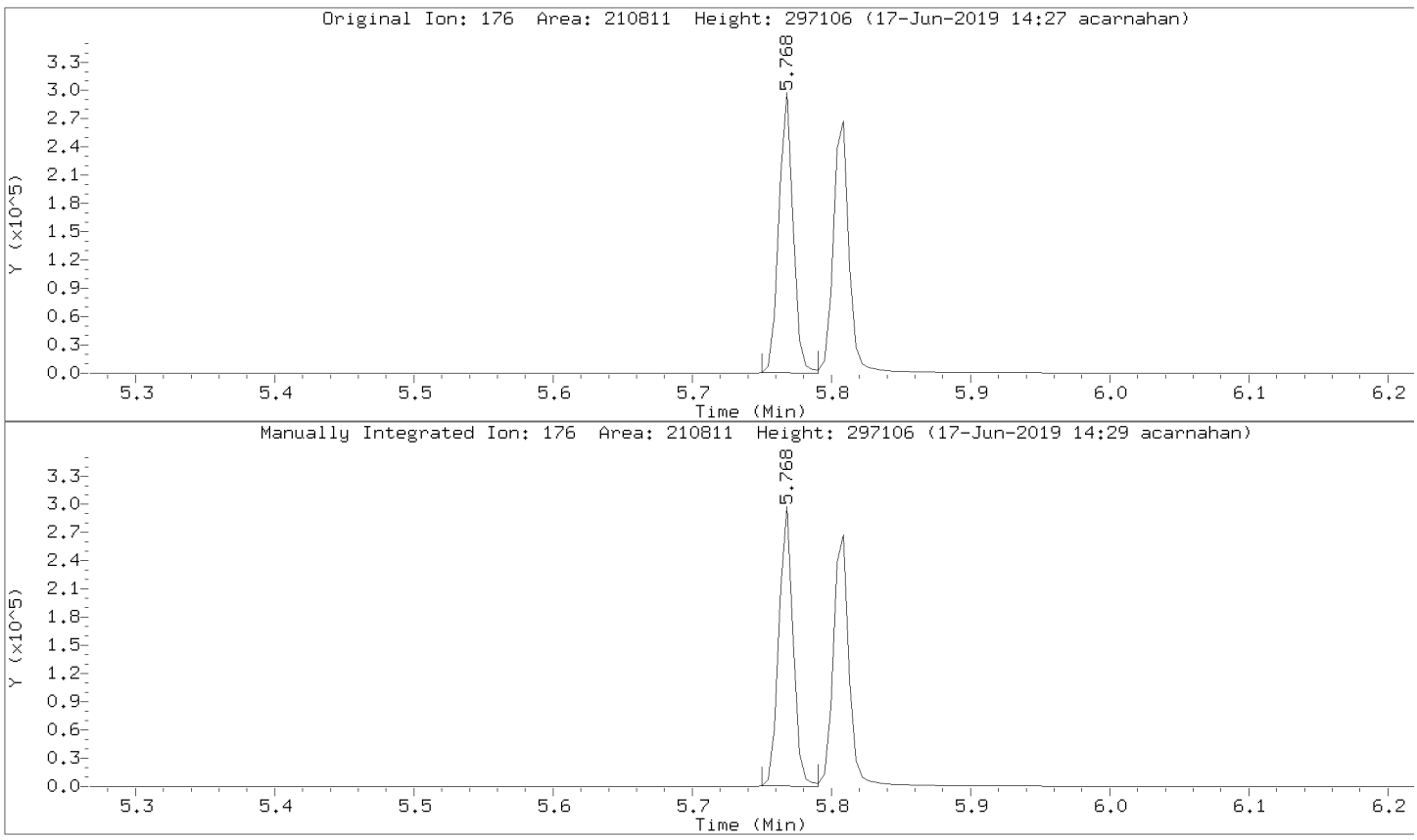


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

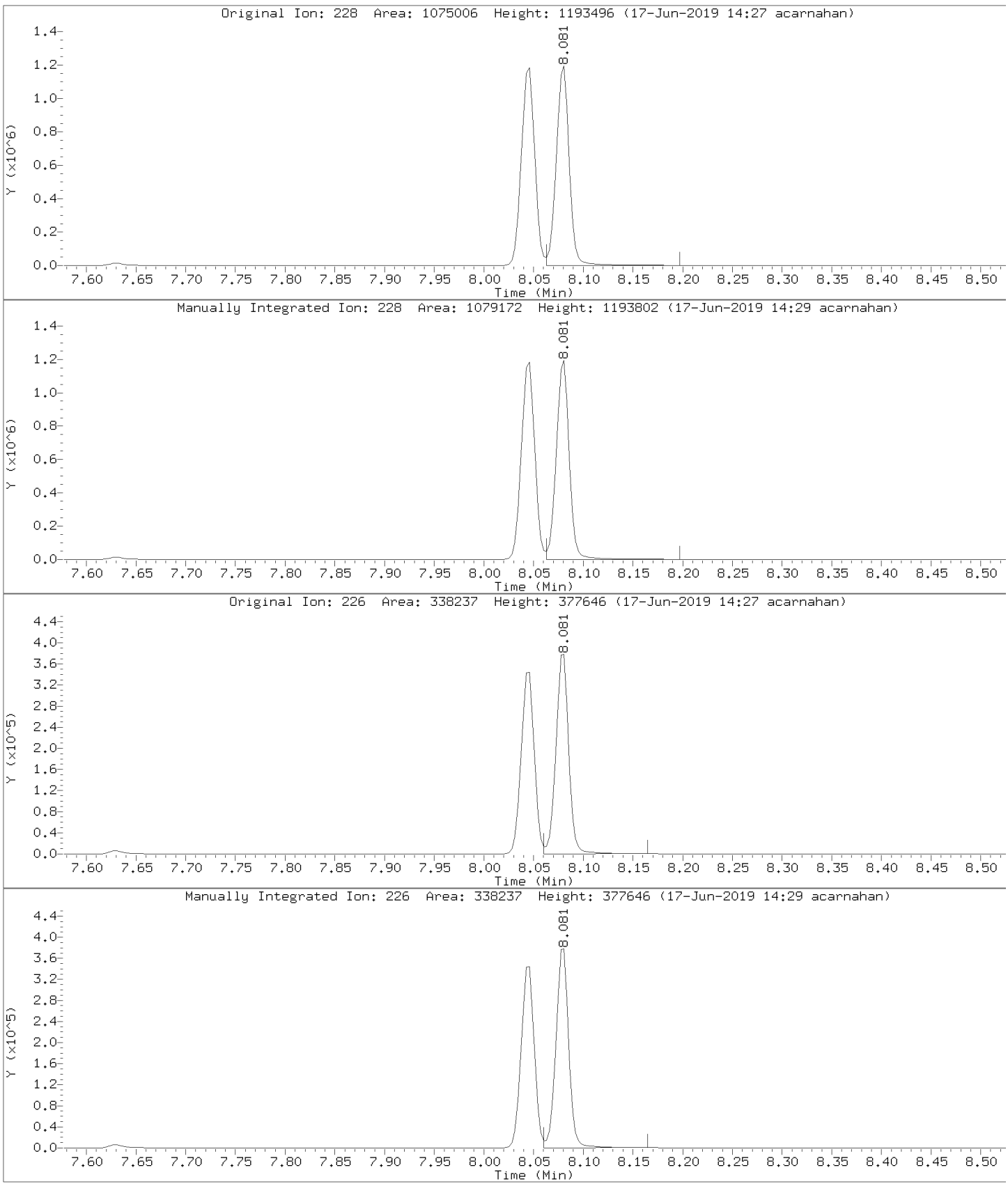


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

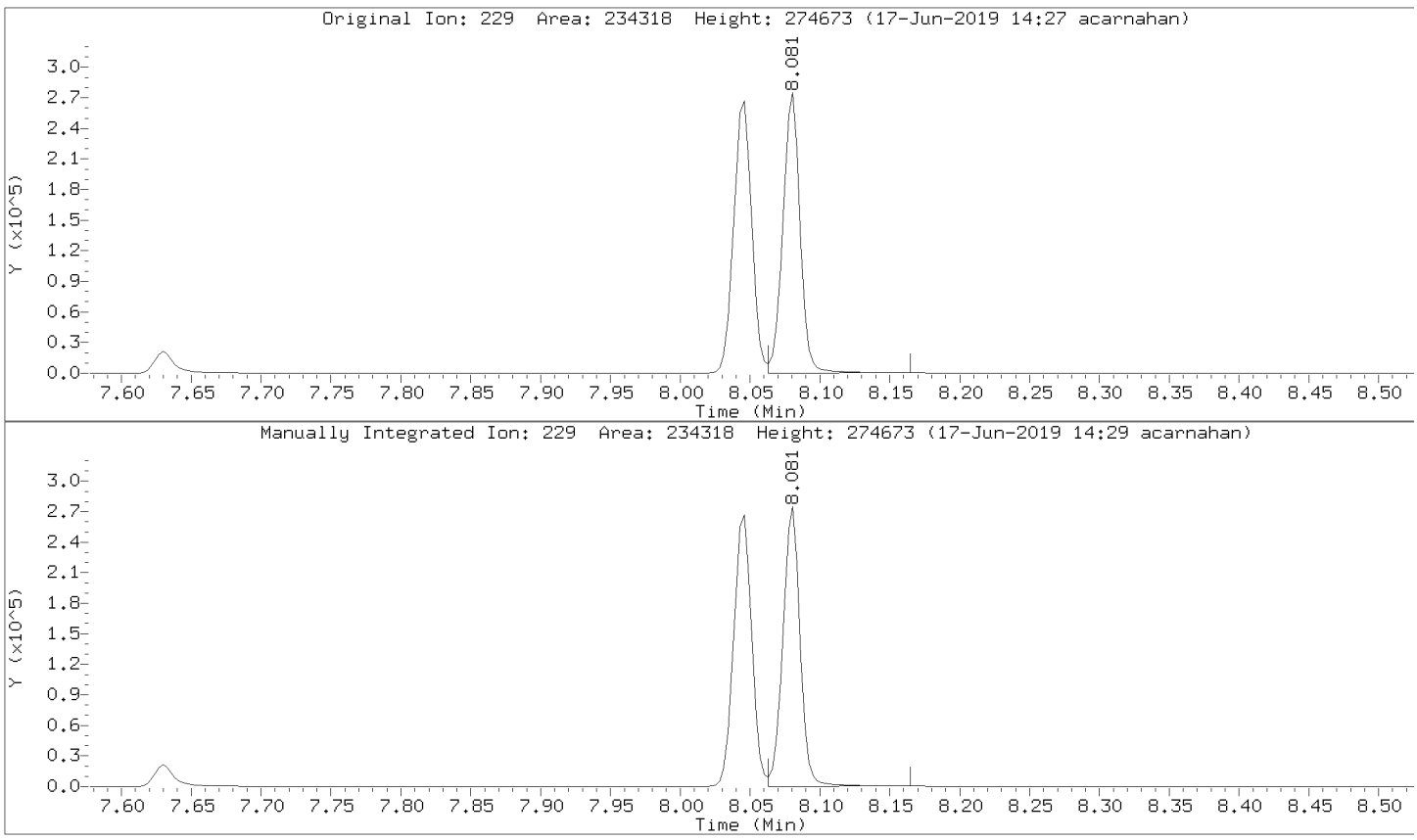


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

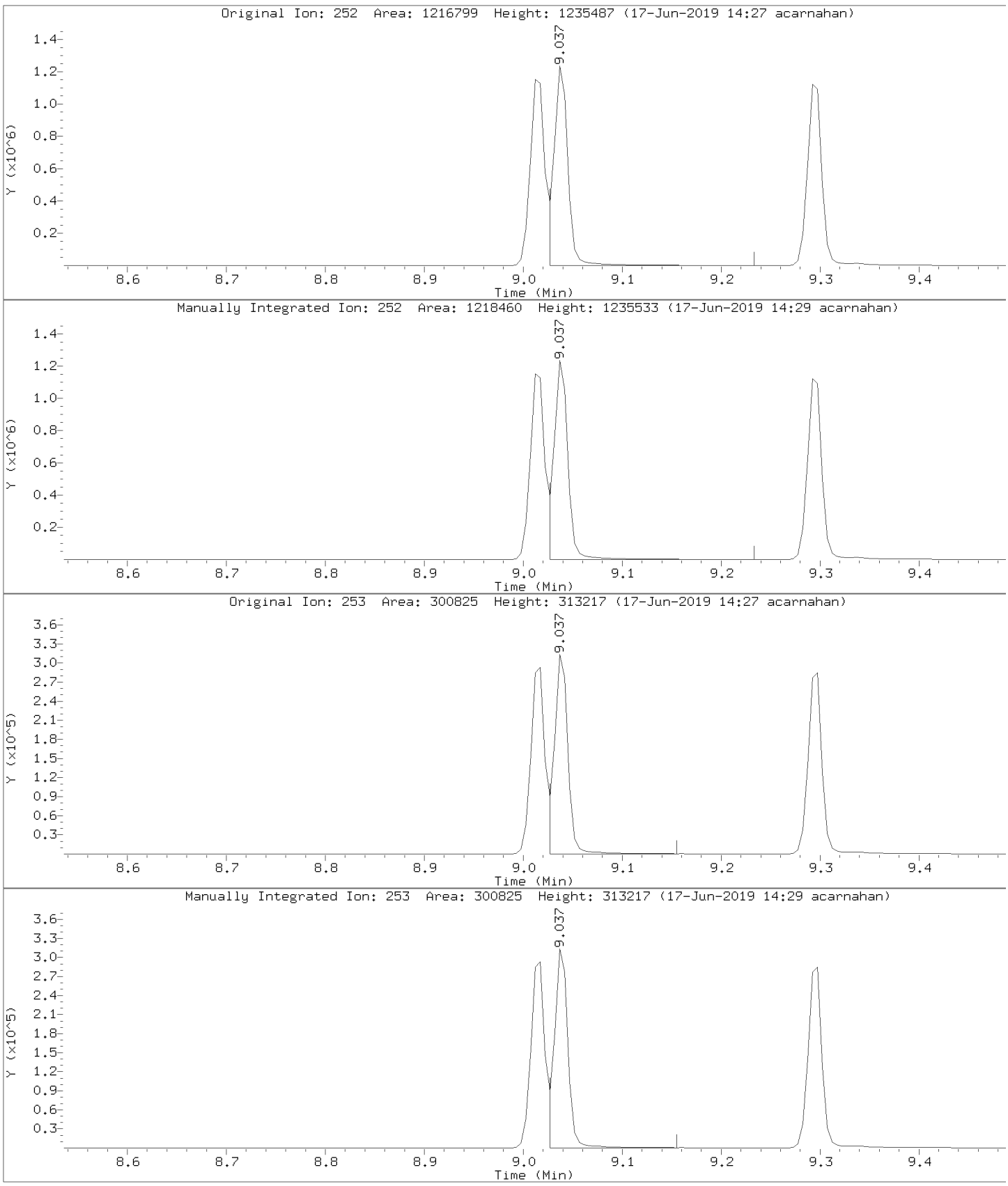


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

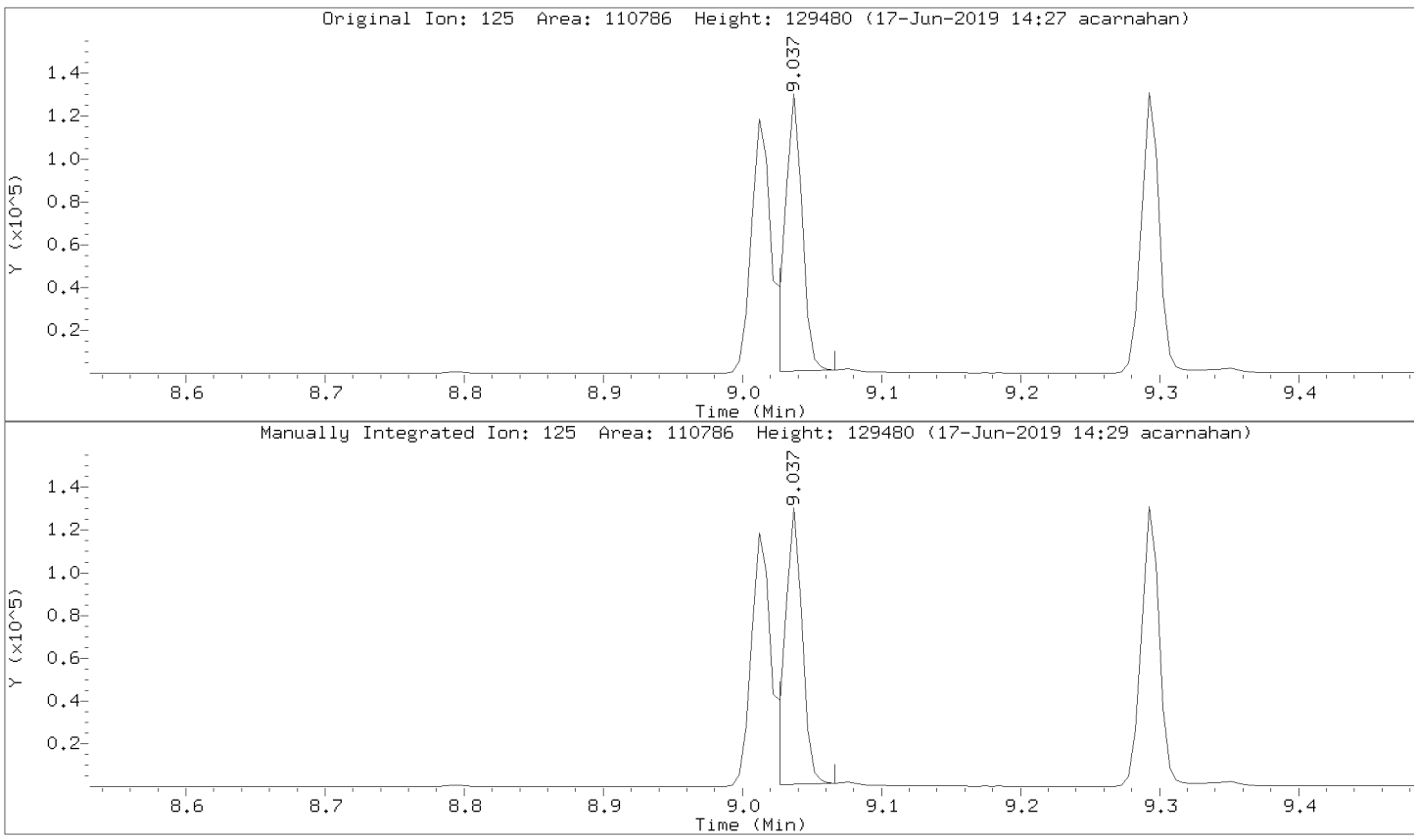


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

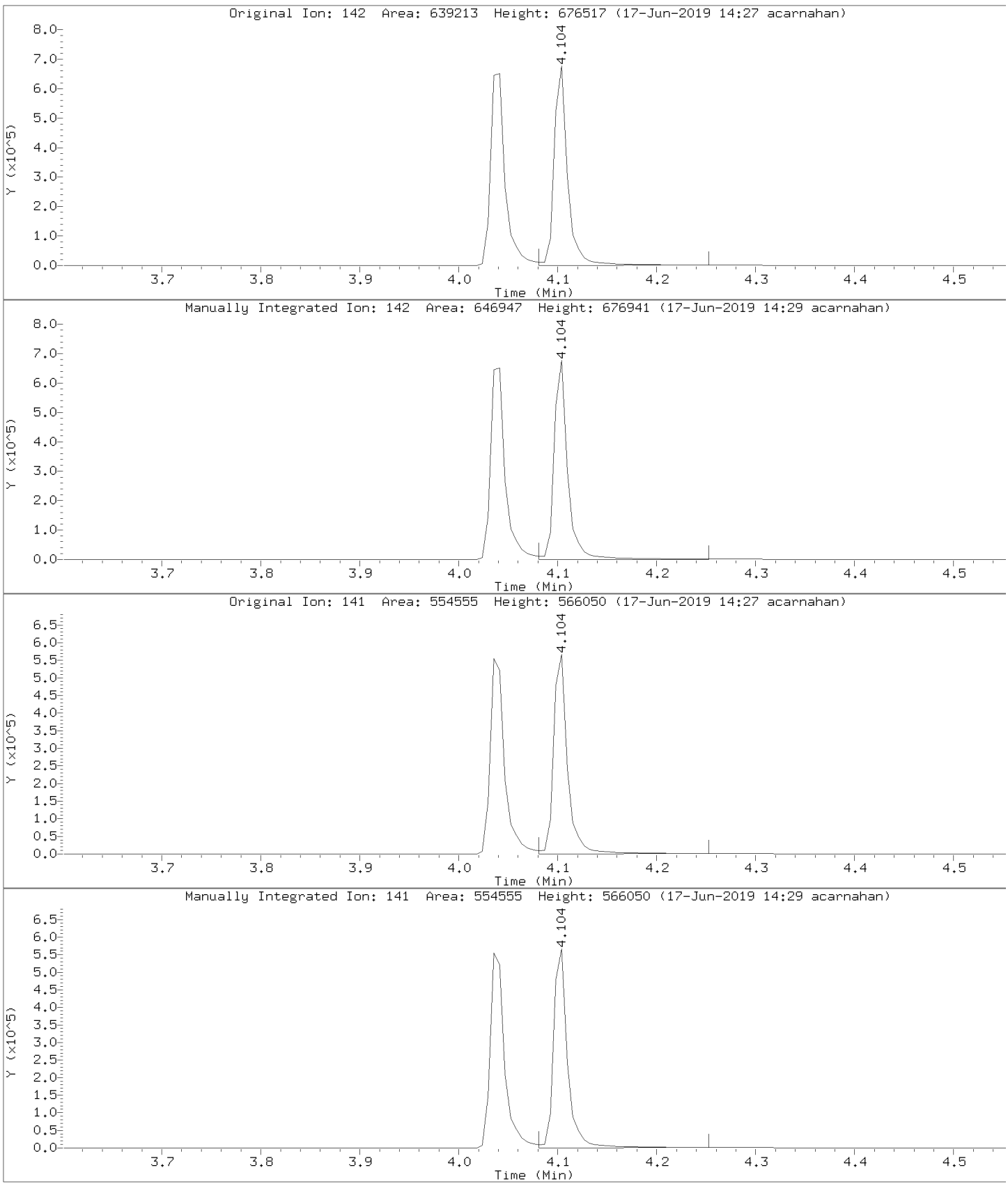


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 17-JUN-2019 14:12
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal6, 89123:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 99 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.583	3.584	(1.000)	673304	4.00000		
	8 Naphthalene	128	3.601	3.595	(1.005)	2497756	20.0000	16.5	
	9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	1834204	20.0000	18.2	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	1712672	20.0000	15.8(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.269	4.263	(0.906)	2062538	20.0000	16.8	
	11 Acenaphthylene	152	4.622	4.619	(0.981)	2462414	20.0000	17.0	
*	2 Acenaphthene-d10 (IS)	164	4.711	4.708	(1.000)	367072	4.00000		
	12 Acenaphthene	153	4.731	4.728	(1.004)	1630483	20.0000	17.3	
	13 Fluorene	166	5.075	5.075	(1.077)	1913488	20.0000	17.3	
*	3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	657442	4.00000		
	14 Phenanthrene	178	5.772	5.768	(1.004)	2634790	20.0000	16.6(M)	BA
	15 Anthracene	178	5.813	5.808	(1.011)	2690768	20.0000	16.6	
	16 Fluoranthene	202	6.747	6.742	(1.173)	3023255	20.0000	16.6(Q)	
	17 Pyrene	202	6.954	6.945	(1.210)	3061817	20.0000	16.4(Q)	
$	7 Terphenyl-d14 (S)	244	7.071	7.067	(1.230)	2303179	20.0000	16.5(Q)	
	18 Benzo(a)anthracene	228	8.048	8.042	(0.999)	2854630	20.0000	16.5	
*	4 Chrysene-d12 (IS)	240	8.060	8.054	(1.000)	631206	4.00000		
	19 Chrysene	228	8.086	8.077	(1.003)	2743717	20.0000	15.5(M)	BA
	20 Benzo(b)fluoranthene	252	9.022	9.012	(0.966)	3015463	20.0000	18.4	
	21 Benzo(k)fluoranthene	252	9.046	9.037	(0.968)	3175149	20.0000	16.2(QM)	BA
	22 Benzo(a)pyrene	252	9.302	9.292	(0.996)	2867657	20.0000	18.4(QM)	GT
*	5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	626877	4.00000		
	23 Dibenz(a,h)anthracene	278	10.196	10.181	(1.091)	3275300	20.0000	19.4	
	24 Indeno(1,2,3-cd)pyrene	276	10.196	10.176	(1.091)	3918466	20.0000	19.2	
	25 Benzo[g,h,i]perylene	276	10.417	10.402	(1.115)	3050587	20.0000	18.2	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Pace Analytical Services, Inc.

TARGET COMPOUNDS

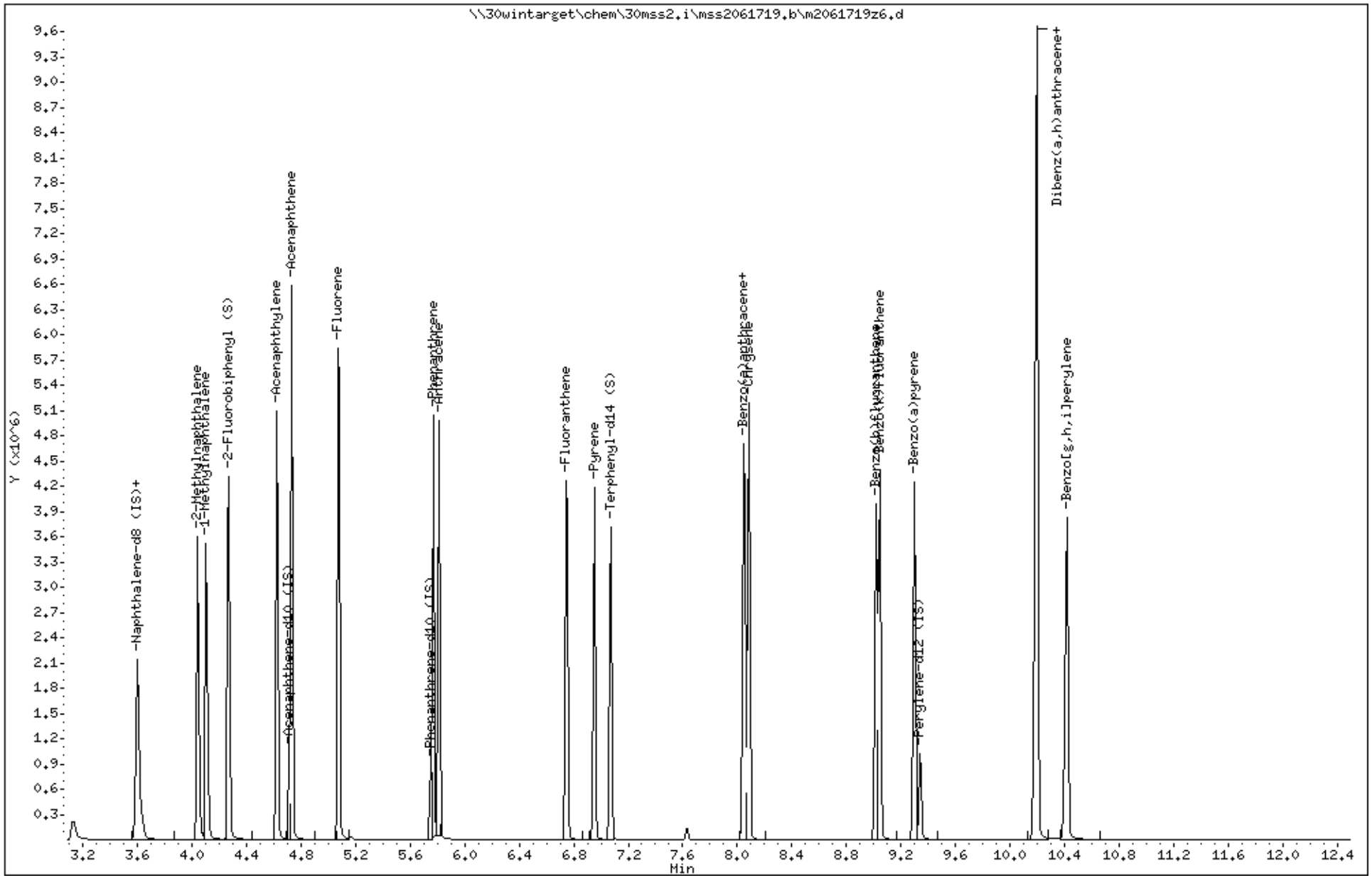
Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	16.5	
91-57-6	2-Methylnaphthalene	18.2	
90-12-0	1-Methylnaphthalene	15.8	
208-96-8	Acenaphthylene	17.0	
83-32-9	Acenaphthene	17.3	
86-73-7	Fluorene	17.3	
85-01-8	Phenanthrene	16.6	
120-12-7	Anthracene	16.6	
206-44-0	Fluoranthene	16.6	
129-00-0	Pyrene	16.4	
56-55-3	Benzo(a)anthracene	16.5	
218-01-9	Chrysene	15.5	
205-99-2	Benzo(b)fluoranthene	18.4	
207-08-9	Benzo(k)fluoranthene	16.2	
50-32-8	Benzo(a)pyrene	18.4	
53-70-3	Dibenz(a,h)anthracene	19.4	
193-39-5	Indeno(1,2,3-cd)pyrene	19.2	
191-24-2	Benzo[g,h,i]perylene	18.2	
321-60-8	2-Fluorobiphenyl (S)	16.8	
1718-51-0	Terphenyl-d14 (S)	16.5	

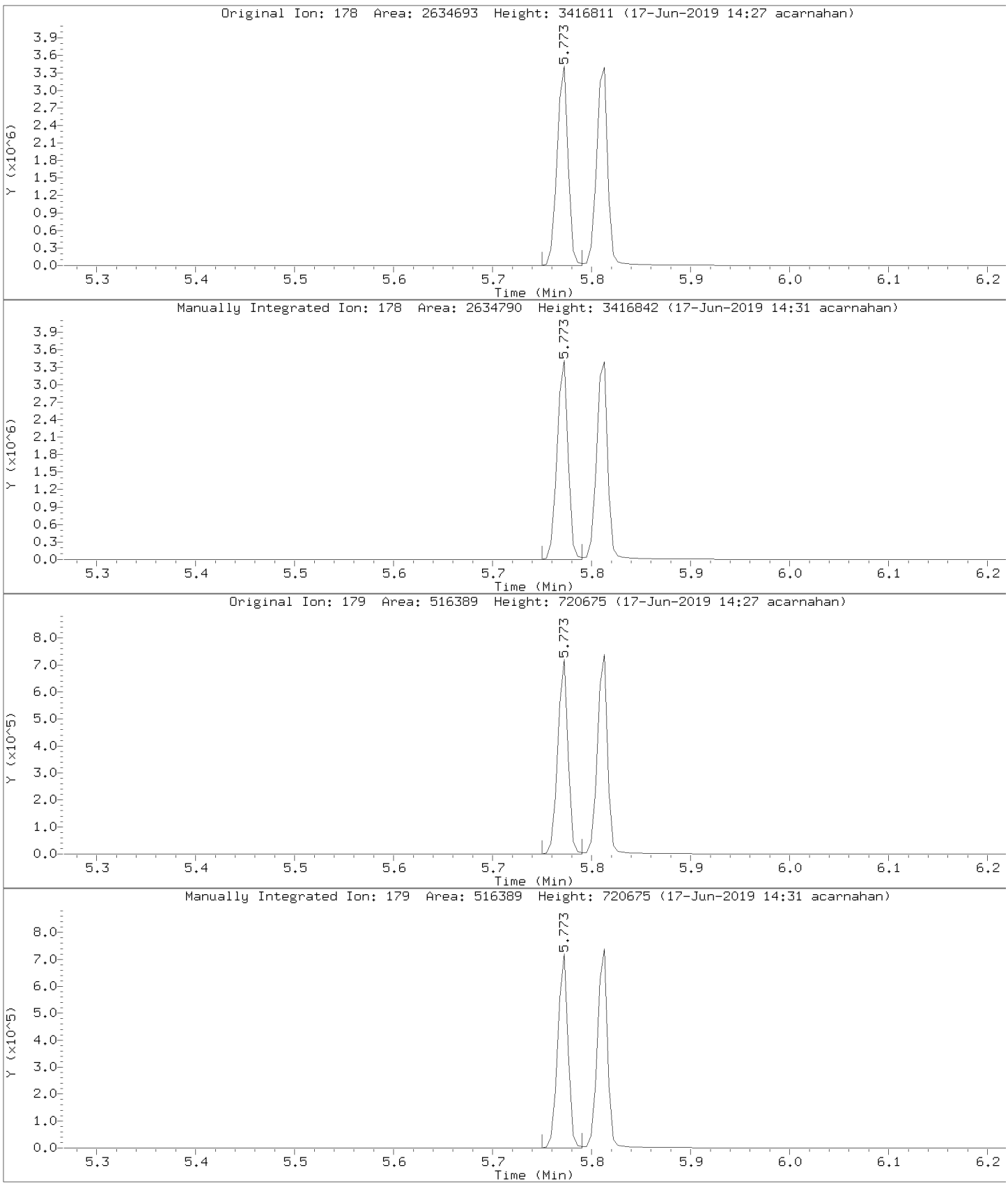
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Date : 17-JUN-2019 14:12
Client ID: CAL6
Sample Info: CAL6, 89123:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

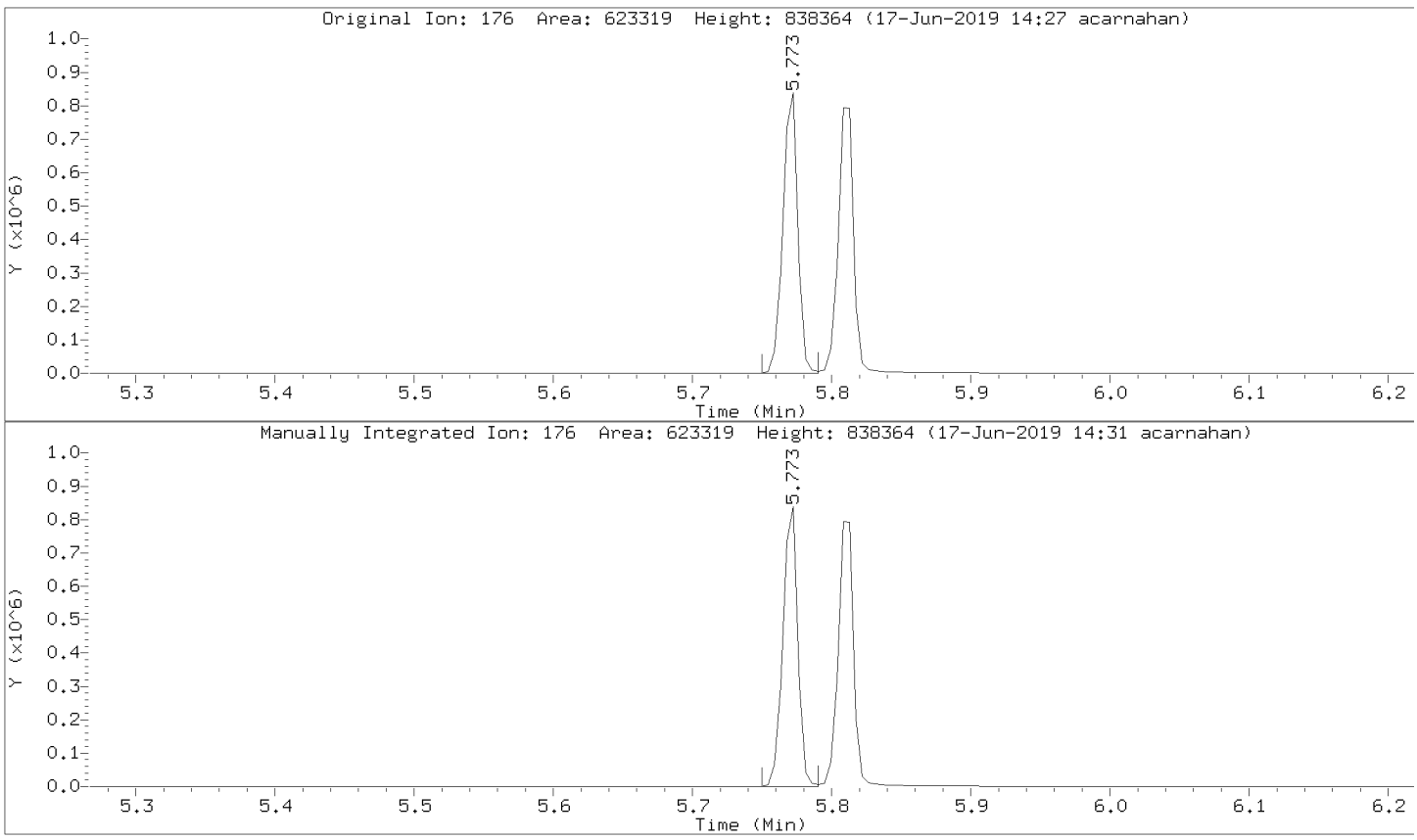


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

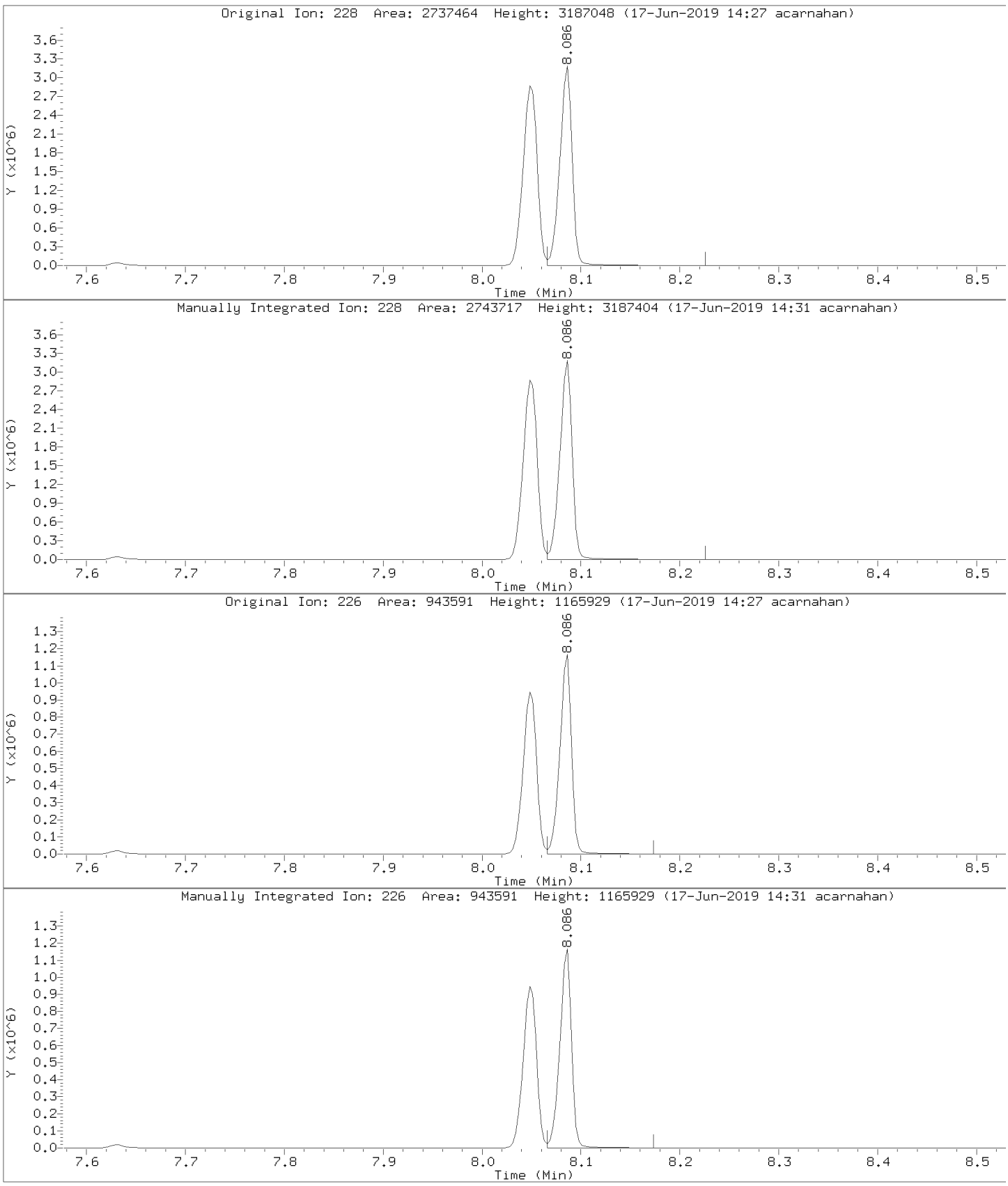


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

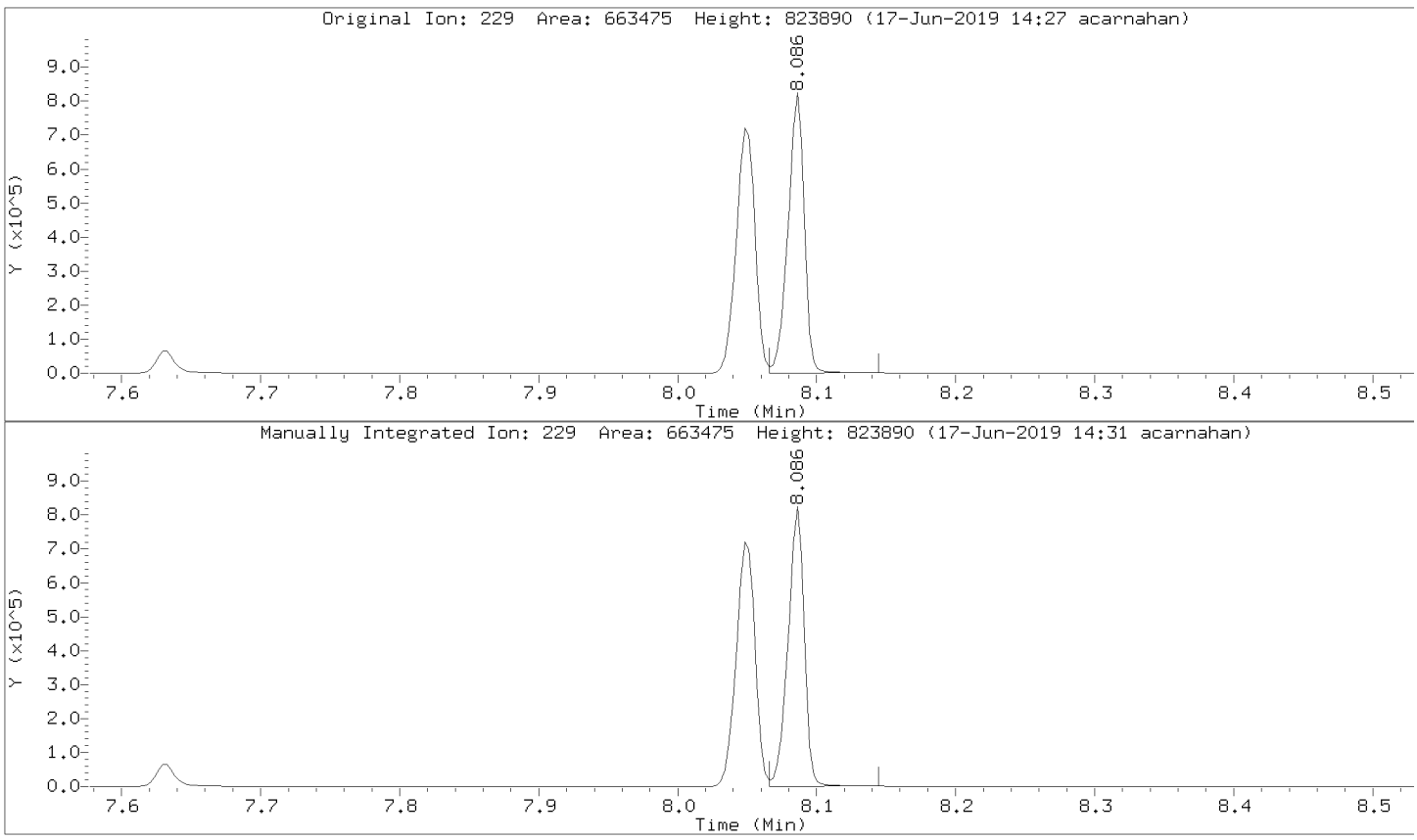


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

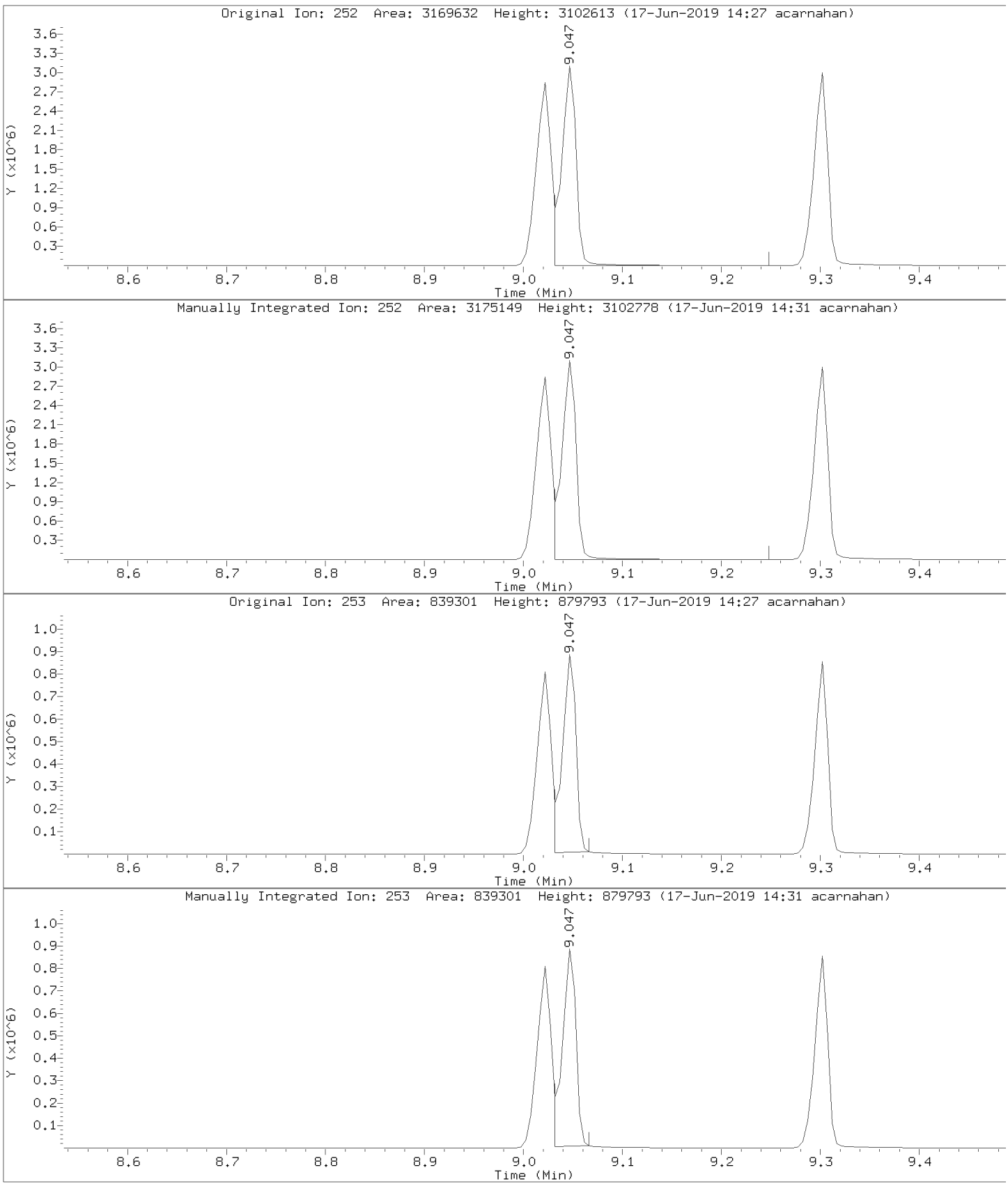


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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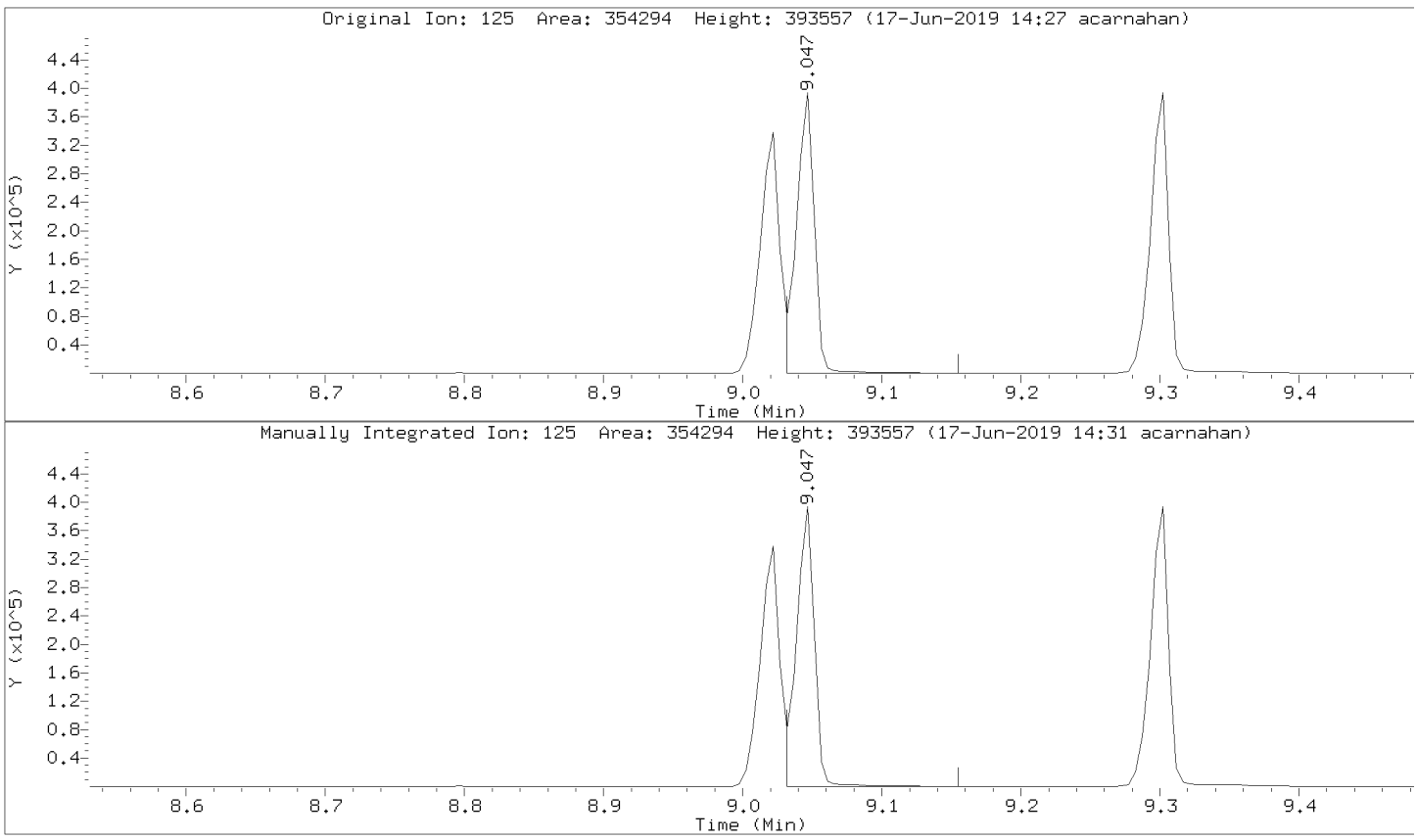
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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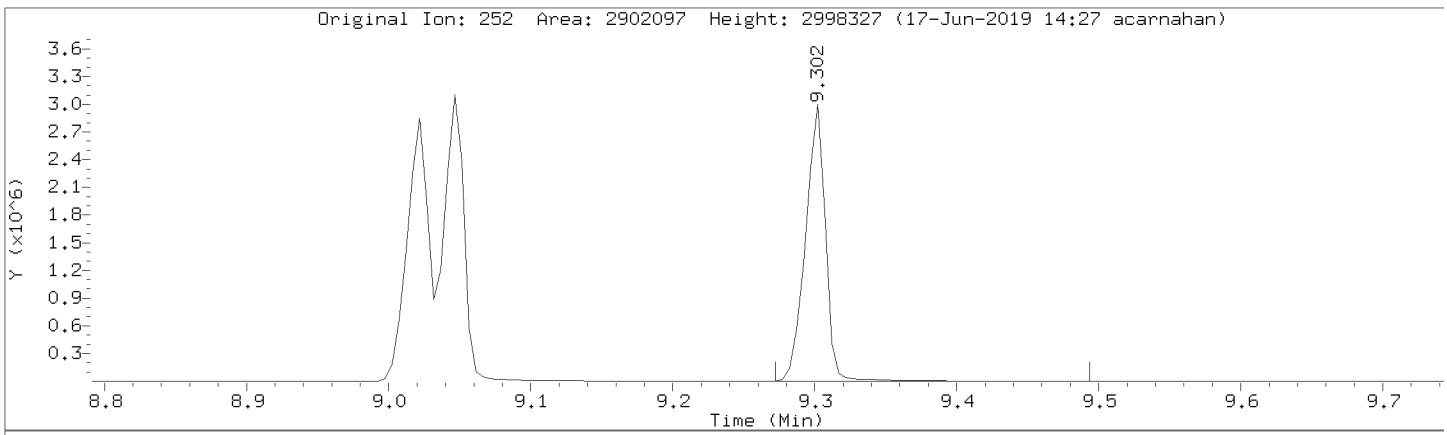
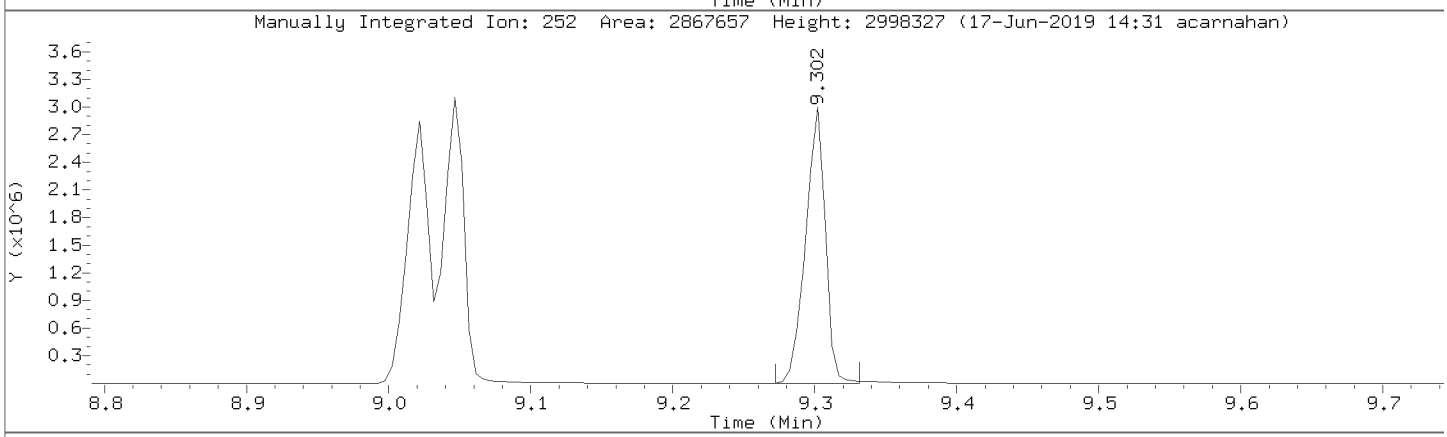
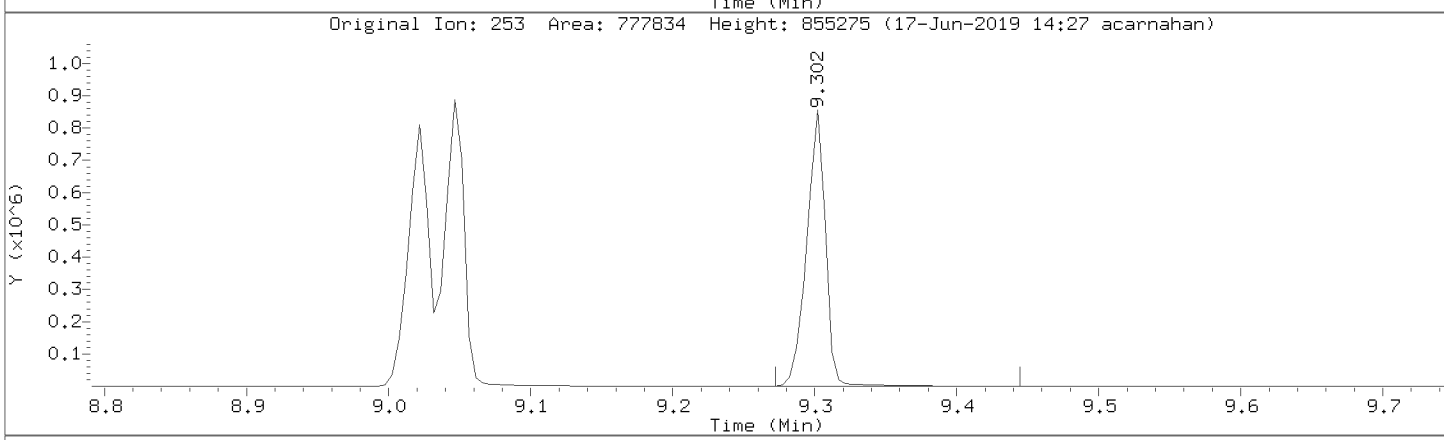
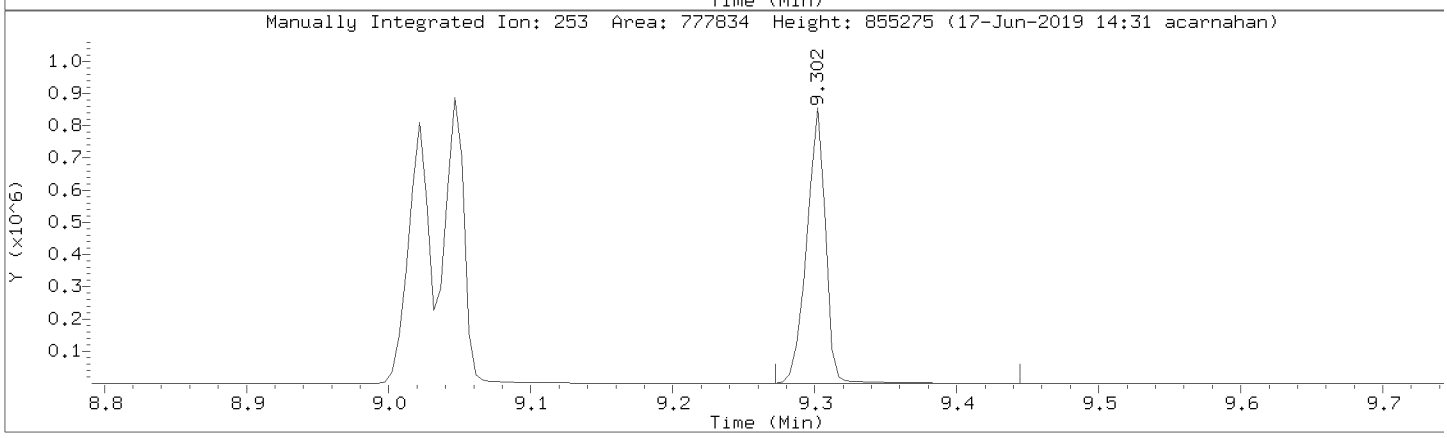
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8









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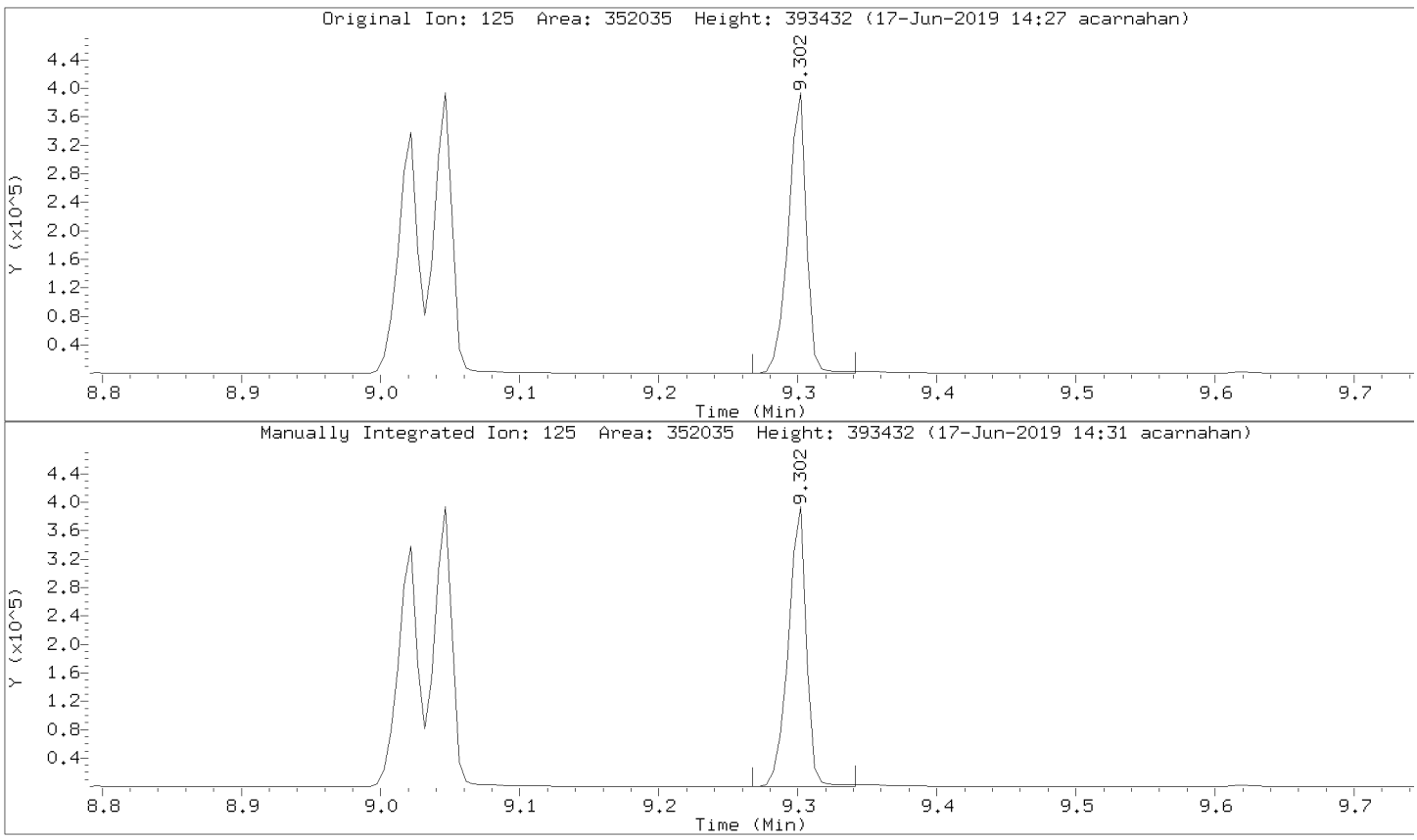
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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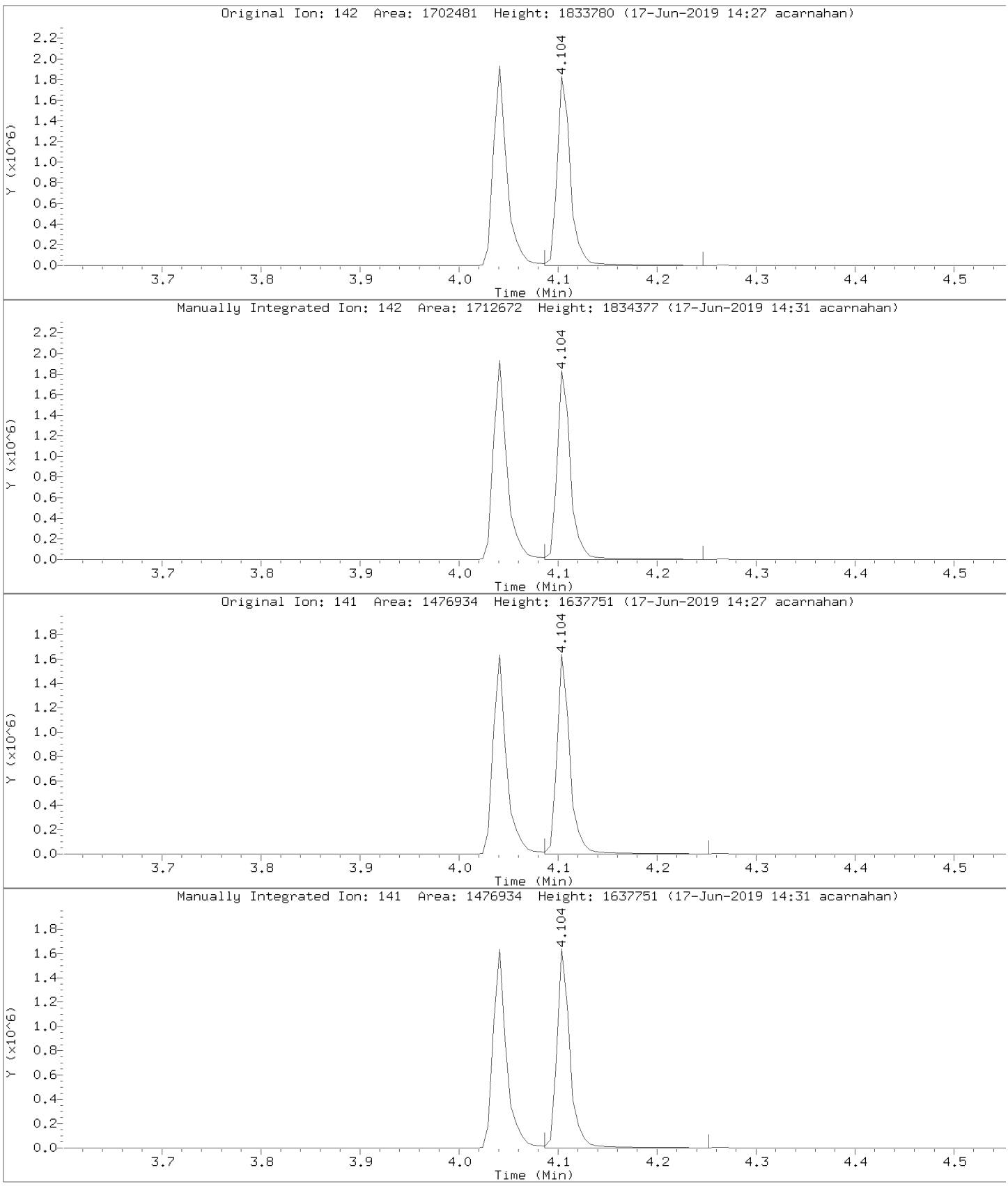
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM INITIAL CALIBRATION DATA

11097246ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 14:30

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2061719.B\M2061719Z7.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30313260

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.02920	1.12364	0.0500	9.1761	30.0000
Acenaphthylene	Averaged	1.57574	1.81745	0.0500	15.3394	30.0000
Anthracene	Averaged	0.98399	1.12216	0.0500	14.0423	30.0000
Benzo(a)anthracene	Averaged	1.09457	1.17869	0.0500	7.6851	30.0000
Benzo(a)pyrene	Averaged	0.99304	1.08308	0.0500	9.0669	30.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.16658	0.0500	11.7558	30.0000
Benzo(g,h,i)perylene	Averaged	1.07081	1.05507	0.0500	-1.4700	30.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.36880	0.0500	9.1421	30.0000
Chrysene	Averaged	1.12111	1.22040	0.0500	8.8559	30.0000
Dibenz(a,h)anthracene	Averaged	1.07618	1.07848	0.0500	0.2139	30.0000
Fluoranthene	Averaged	1.10512	1.22182	0.0500	10.5600	30.0000
Fluorene	Averaged	1.20790	1.37048	0.0500	13.4606	30.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.30441	0.0500	0.2962	30.0000
Naphthalene	Averaged	0.90143	0.98406	0.0500	9.1668	30.0000
Phenanthrene	Averaged	0.96551	1.05249	0.0500	9.0086	30.0000
Pyrene	Averaged	1.13626	1.25544	0.0500	10.4882	30.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.50032	0.0500	12.3735	30.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.94632	0.0500	11.4503	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11234007CCV

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/15/2019 Time: 09:02

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2071519.B\M2071519S1.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30313260

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.02920	1.03061	0.9000	0.1372	20.0000
Acenaphthylene	Averaged	1.57574	1.49070	0.9000	-5.3968	20.0000
Anthracene	Averaged	0.98399	1.03963	0.7000	5.6543	20.0000
Benzo(a)anthracene	Averaged	1.09457	1.13651	0.8000	3.8323	20.0000
Benzo(a)pyrene	Averaged	0.99304	1.06944	0.7000	7.6931	20.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.08964	0.7000	4.3859	20.0000
Benzo(g,h,i)perylene	Averaged	1.07081	0.95575	0.5000	-10.7449	20.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.29244	0.7000	3.0529	20.0000
Chrysene	Averaged	1.12111	1.16750	0.7000	4.1377	20.0000
Dibenz(a,h)anthracene	Averaged	1.07618	0.95048	0.4000	-11.6807	20.0000
Fluoranthene	Averaged	1.10512	1.21496	0.6000	9.9393	20.0000
Fluorene	Averaged	1.20790	1.22166	0.9000	1.1398	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.16697	0.5000	-10.2711	20.0000
Naphthalene	Averaged	0.90143	0.95048	0.7000	5.4410	20.0000
Phenanthrene	Averaged	0.96551	0.98094	0.7000	1.5982	20.0000
Pyrene	Averaged	1.13626	1.21837	0.6000	7.2258	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.34441	0.7000	0.6960	20.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.91995	0.7000	8.3443	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 17-JUN-2019 14:30
Operator : AJC Inst ID: 30mss2.i
Smp Info : icv, 90346:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	630892	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.003)	310419	2.00000	2.18	
	9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	209295	2.00000	2.21	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	213209	2.00000	2.10(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	269858	2.00000	2.25	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	326900	2.00000	2.31	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	359734	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	202106	2.00000	2.18	
	13 Fluorene	166	5.075	5.075	(1.078)	246505	2.00000	2.27	
*	3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	654820	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	344596	2.00000	2.18(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	367407	2.00000	2.28	
	16 Fluoranthene	202	6.742	6.742	(1.173)	400036	2.00000	2.21	
	17 Pyrene	202	6.945	6.945	(1.208)	411043	2.00000	2.21	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	309836	2.00000	2.23	
	18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	363373	2.00000	2.15	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	616573	4.00000		
	19 Chrysene	228	8.077	8.077	(1.003)	376232	2.00000	2.18(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	381872	2.00000	2.24	
	21 Benzo(k)fluoranthene	252	9.037	9.037	(0.968)	448070	2.00000	2.18(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	354541	2.00000	2.18	
*	5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	654689	4.00000		
	23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	353036	2.00000	2.00	
	24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	426991	2.00000	2.00	
	25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	345371	2.00000	1.97	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 17-JUN-2019 14:30
Lab File ID: m2061719z7.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged		<-
8 Naphthalene	0.90143	0.98406	0.050	9.16682	20.00000	Aver		
9 2-Methylnaphthalene	0.59910	0.66349	0.050	10.74777	20.00000	Aver		
10 1-Methylnaphthalene	0.64273	0.67590	0.050	5.16069	20.00000	Aver	(M)	
$ 6 2-Fluorobiphenyl (S)	1.33512	1.50032	0.050	12.37345	20.00000	Aver		
11 Acenaphthylene	1.57574	1.81745	0.050	15.33940	20.00000	Aver		
12 Acenaphthene	1.02920	1.12364	0.050	9.17607	20.00000	Aver		
13 Fluorene	1.20790	1.37048	0.050	13.46059	20.00000	Aver		
14 Phenanthrene	0.96551	1.05249	0.050	9.00861	20.00000	Aver	(M)	
15 Anthracene	0.98399	1.12216	0.050	14.04225	20.00000	Aver		
16 Fluoranthene	1.10512	1.22182	0.050	10.55997	20.00000	Aver		
17 Pyrene	1.13626	1.25544	0.050	10.48818	20.00000	Aver		
$ 7 Terphenyl-d14 (S)	0.84910	0.94632	0.050	11.45027	20.00000	Aver		
18 Benzo(a)anthracene	1.09457	1.17869	0.050	7.68509	20.00000	Aver		
19 Chrysene	1.12111	1.22040	0.050	8.85593	20.00000	Aver	(M)	
20 Benzo(b)fluoranthene	1.04386	1.16658	0.050	11.75575	20.00000	Aver		
21 Benzo(k)fluoranthene	1.25415	1.36880	0.050	9.14207	20.00000	Aver	(M)	
22 Benzo(a)pyrene	0.99304	1.08308	0.050	9.06685	20.00000	Aver		
23 Dibenz(a,h)anthracene	1.07618	1.07848	0.050	0.21391	20.00000	Aver		
24 Indeno(1,2,3-cd)pyrene	1.30056	1.30441	0.050	0.29616	20.00000	Aver		
25 Benzo[g,h,i]perylene	1.07081	1.05507	0.050	-1.46997	20.00000	Aver		

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 8.97299
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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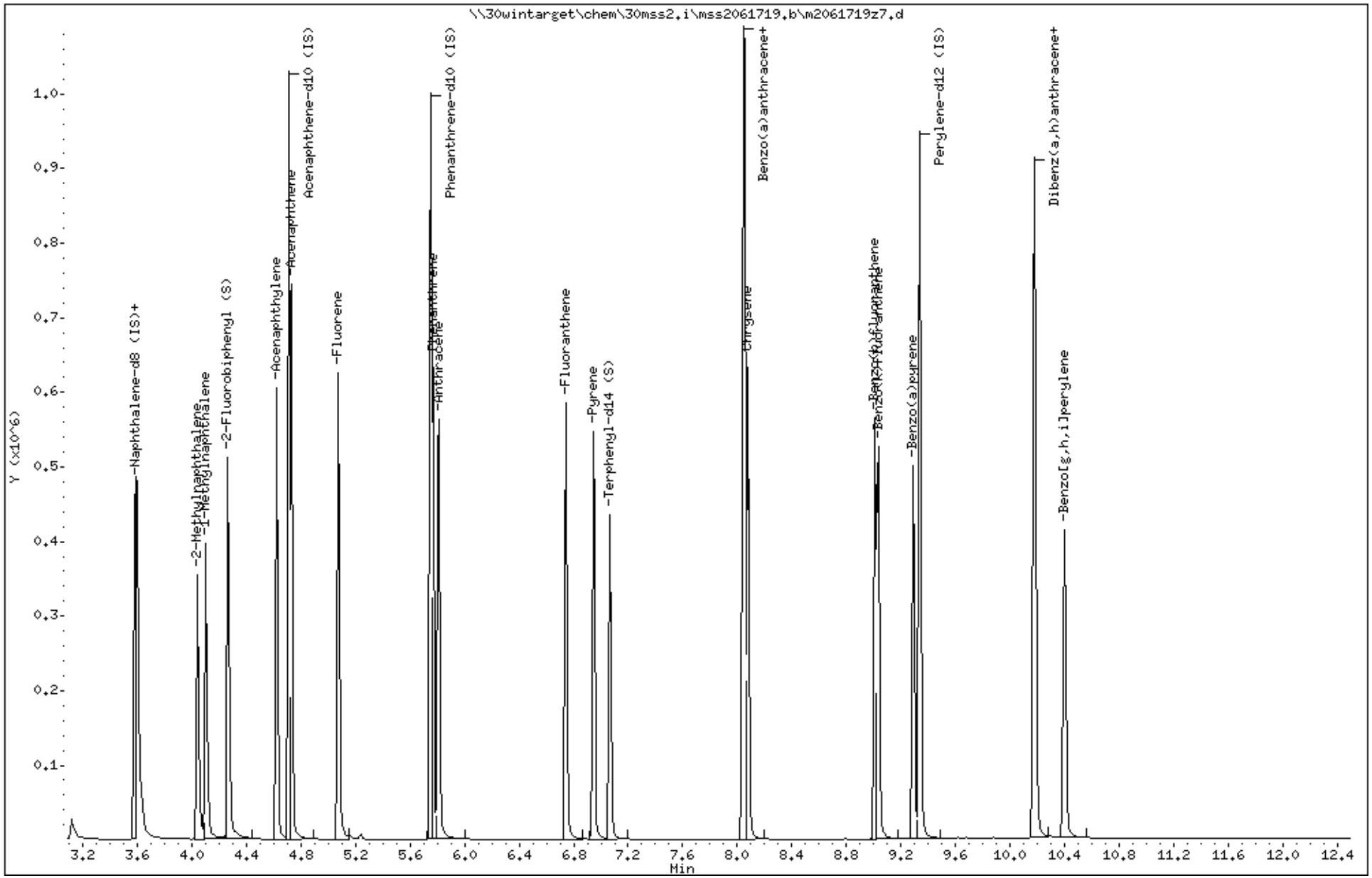
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Date : 17-JUN-2019 14:30
Client ID: ICV
Sample Info: ICV, 90346:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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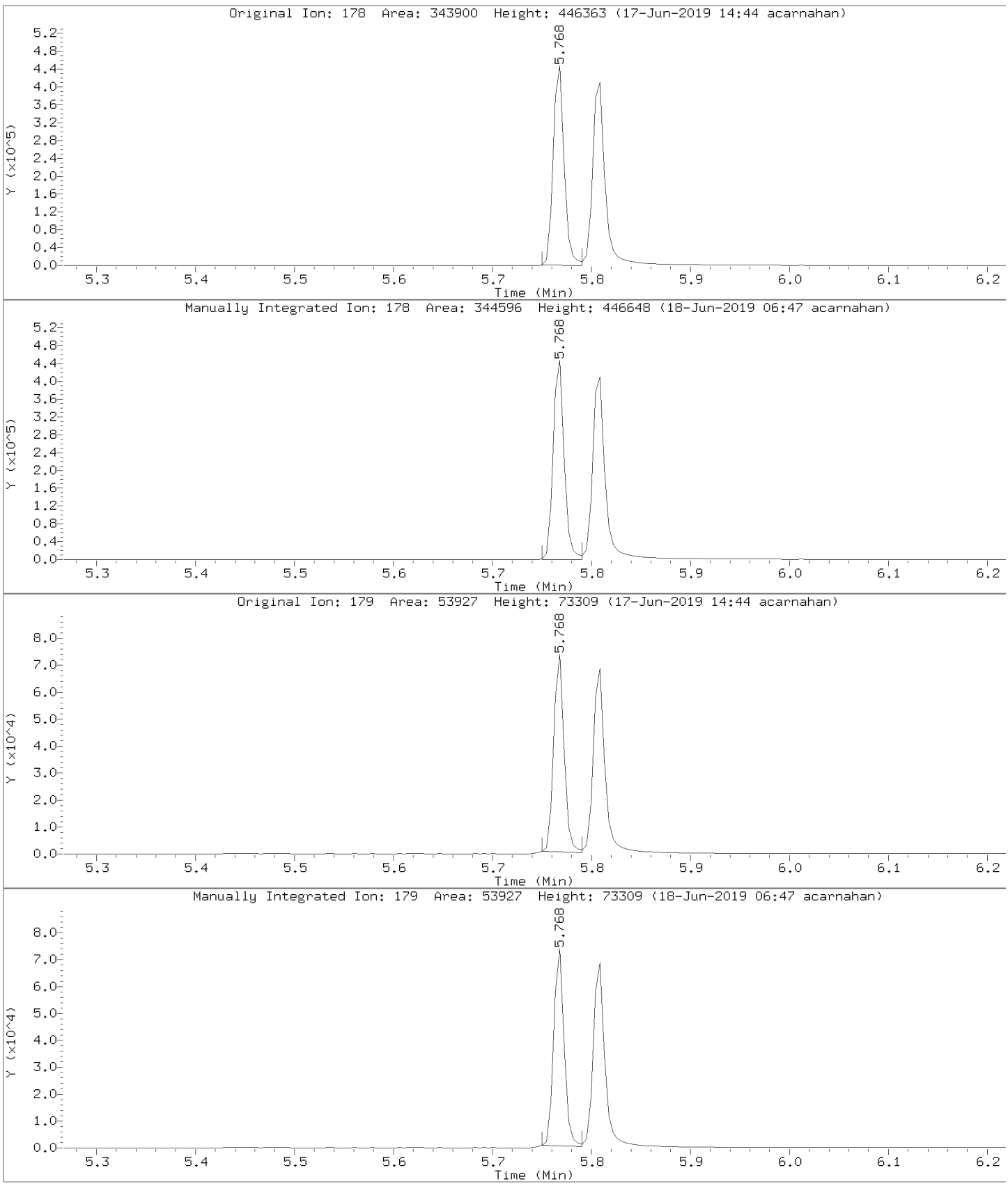
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



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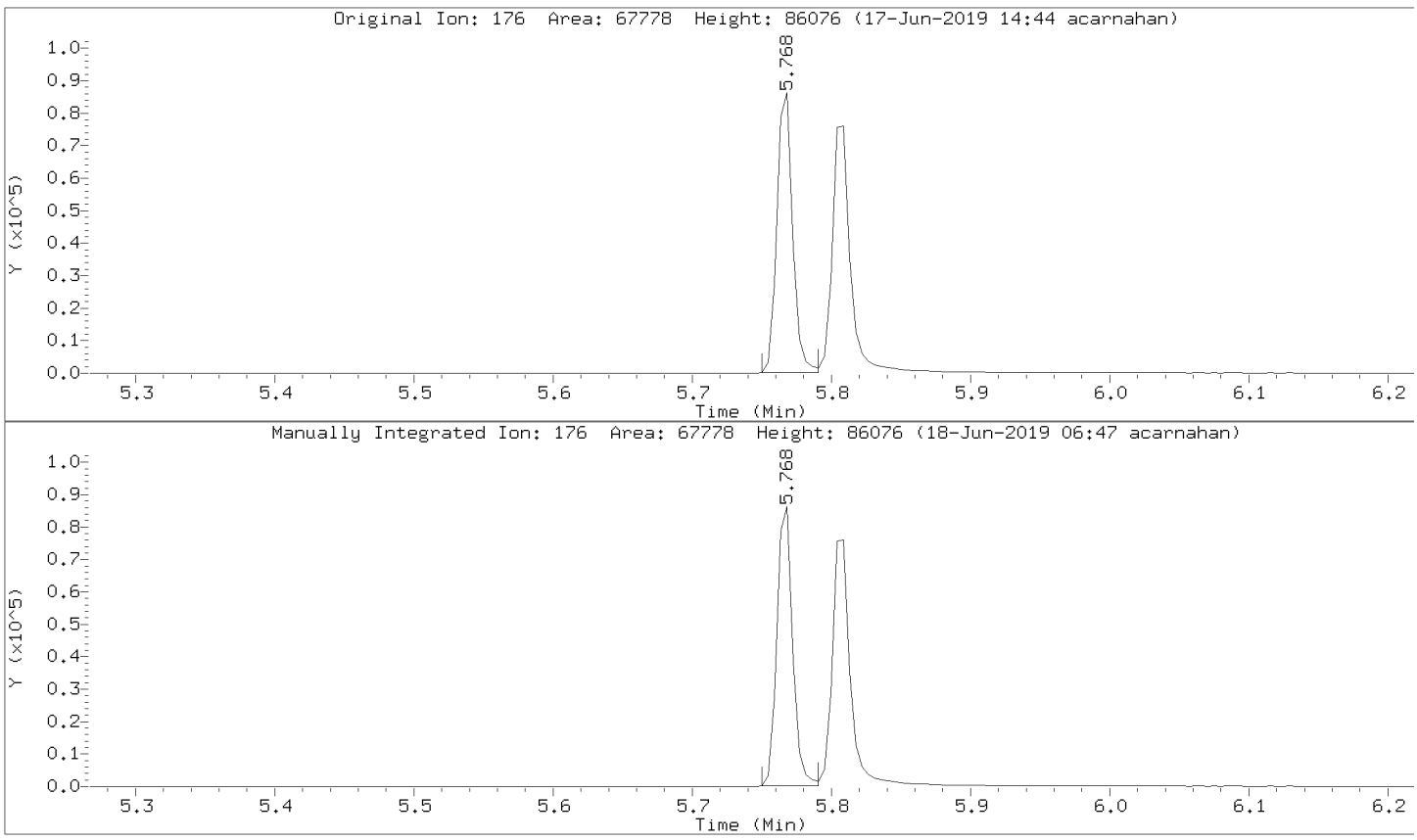
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



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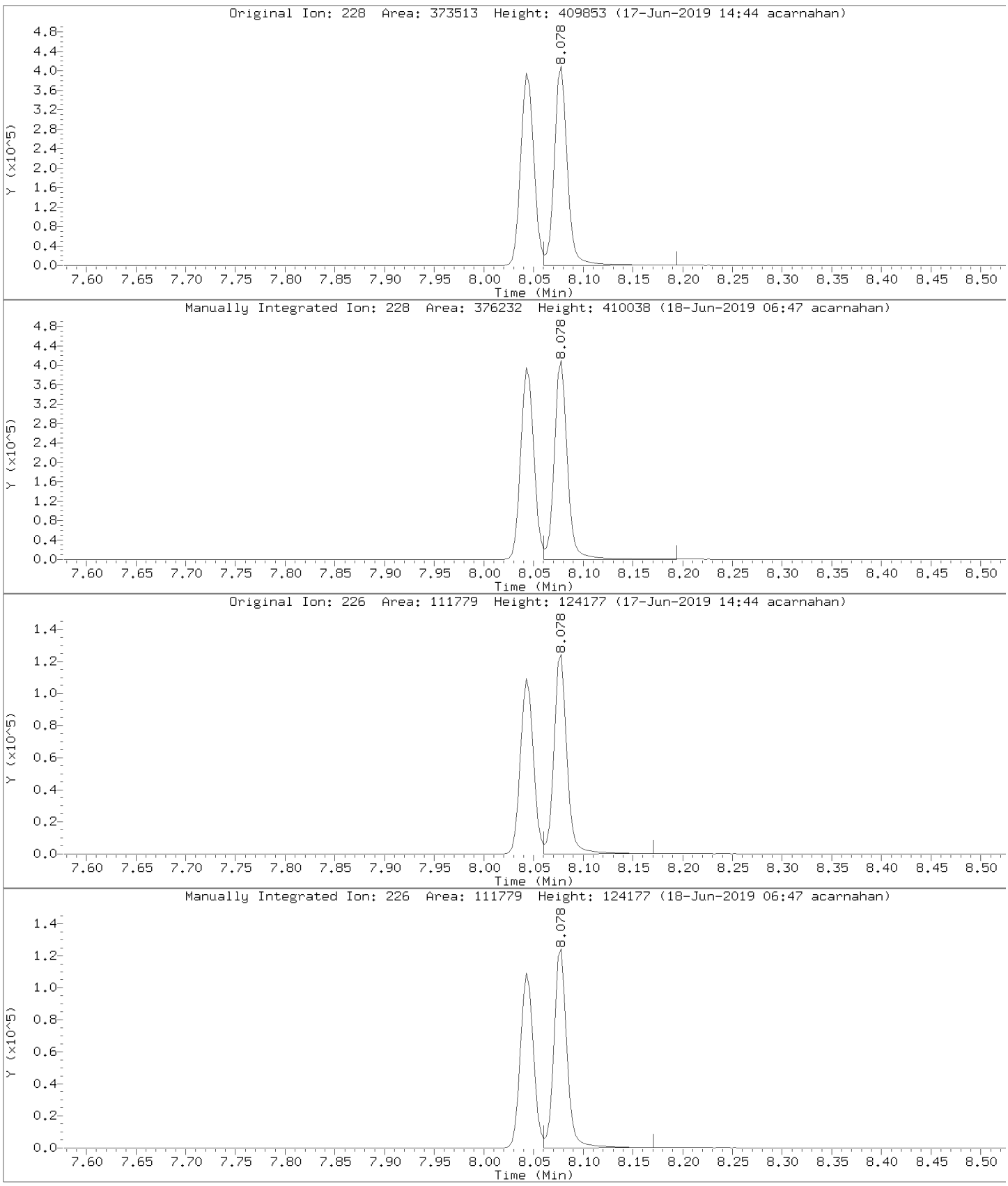
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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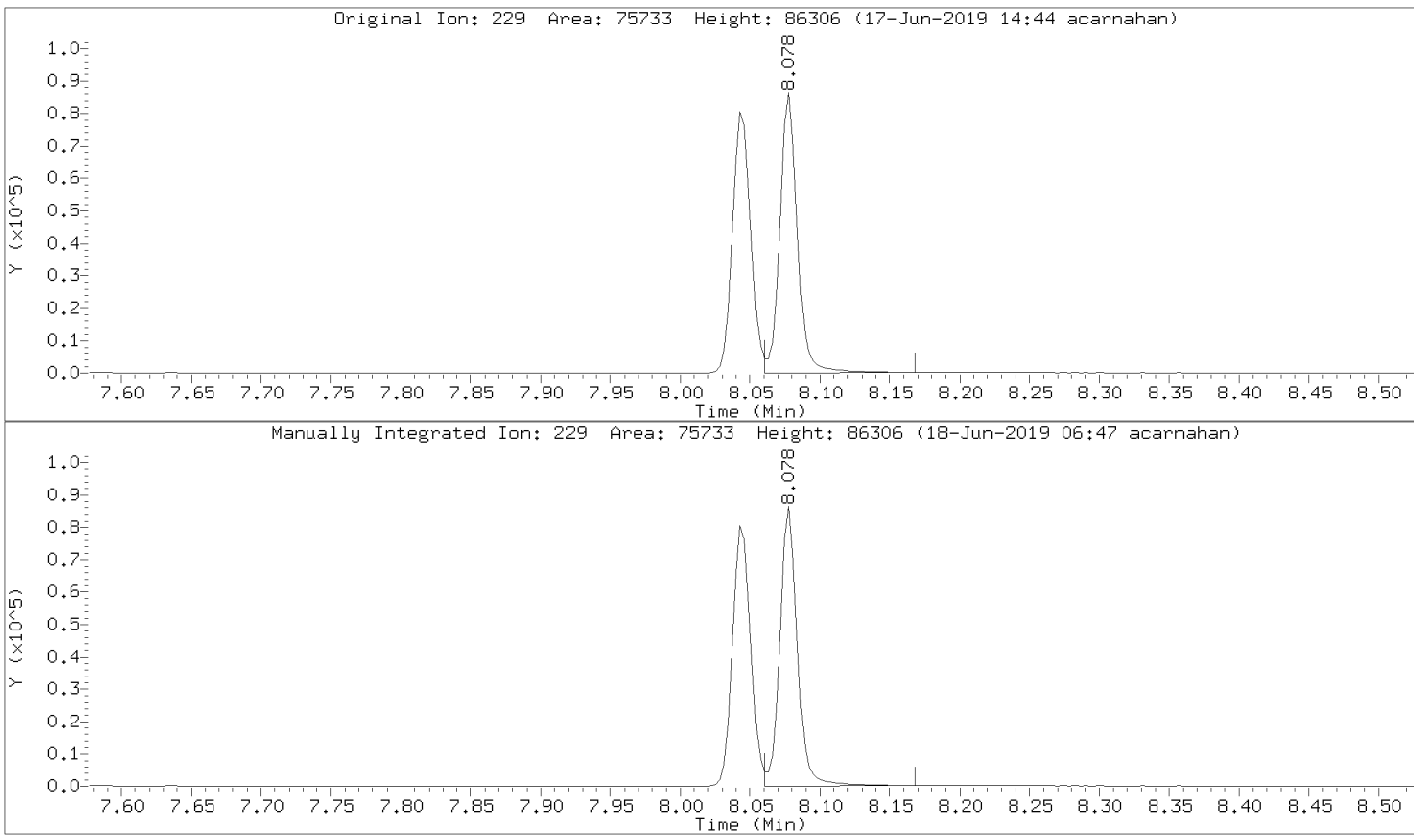
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



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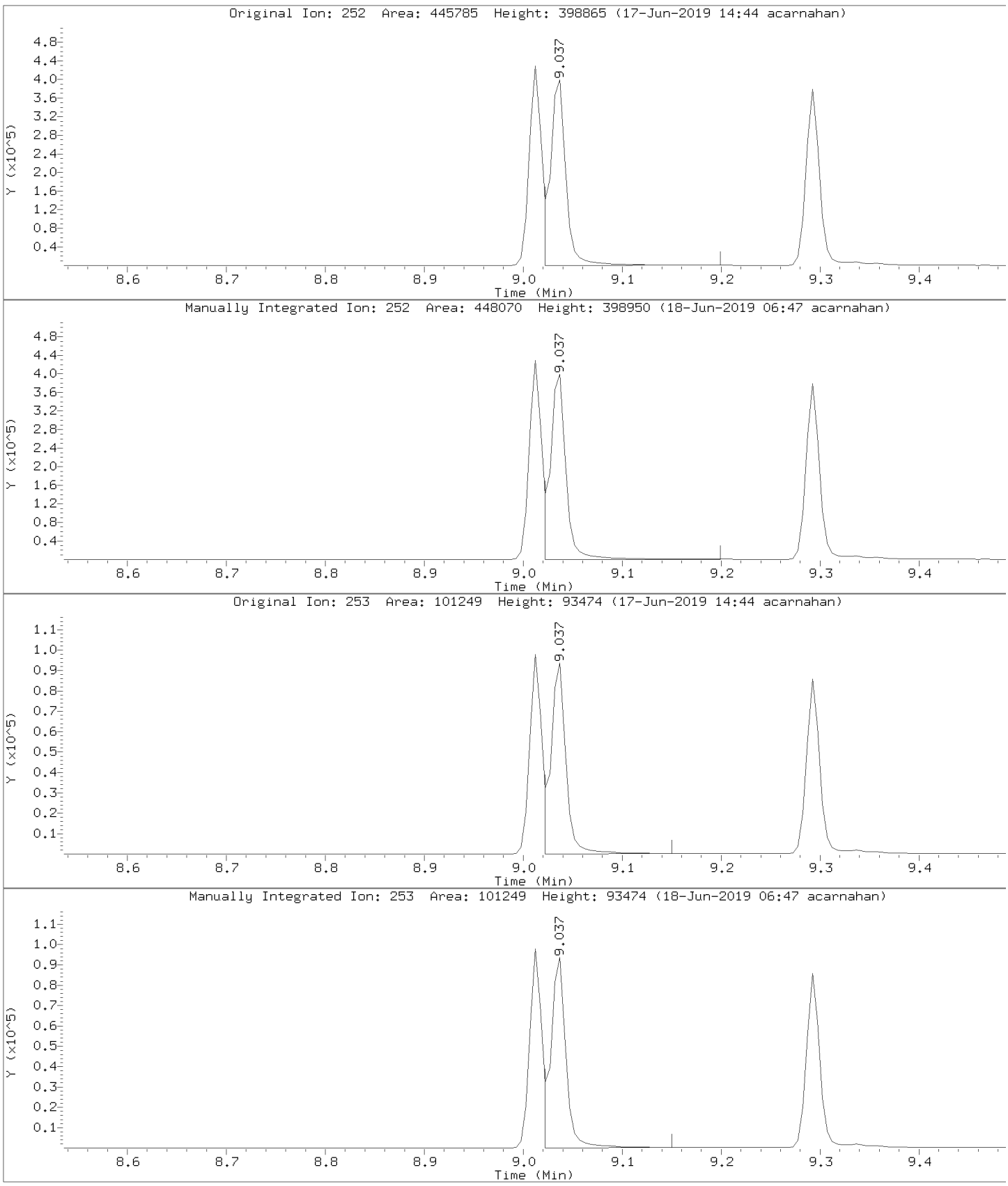
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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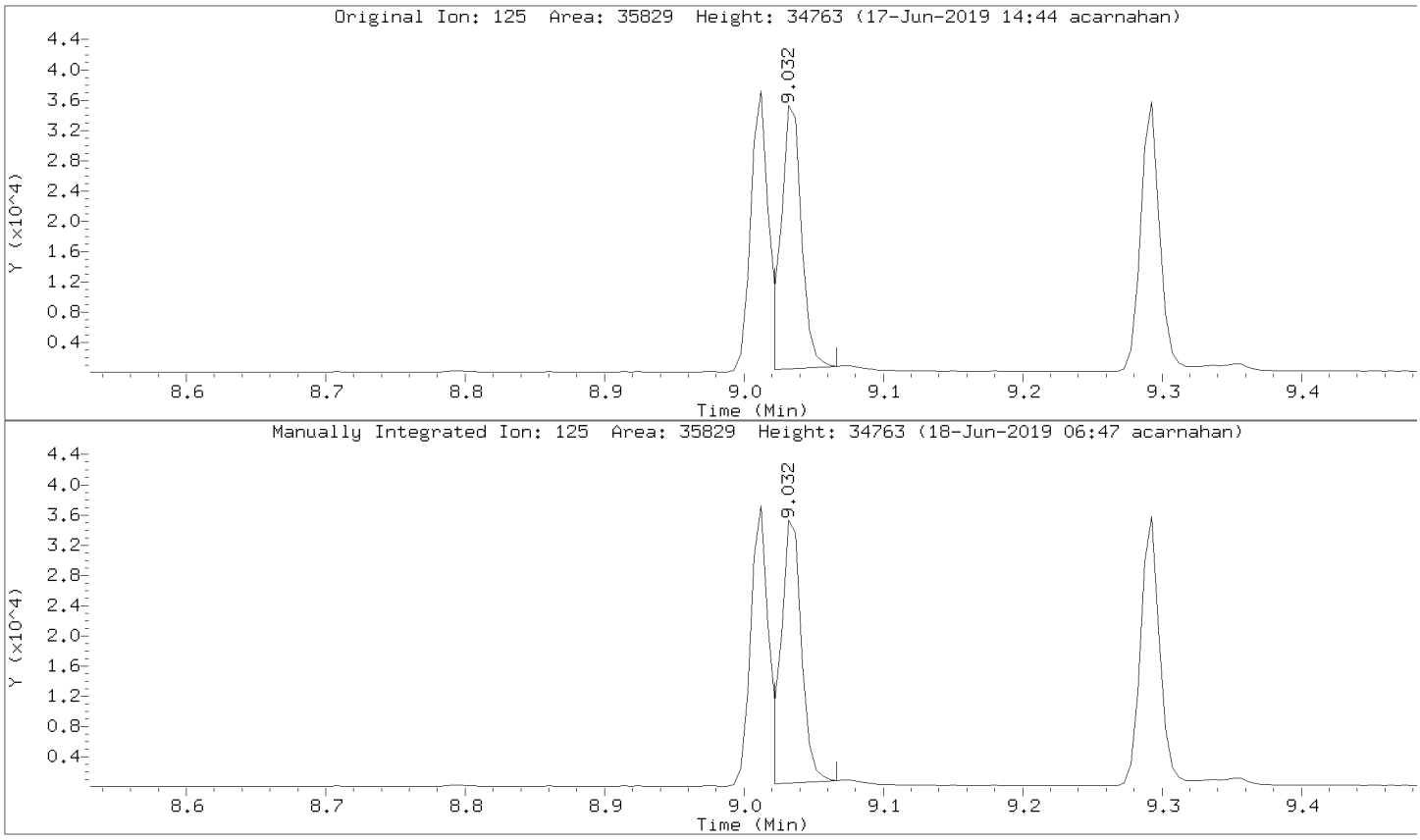
Instrument: 30mss2.i
Lab Sample ID: ICV



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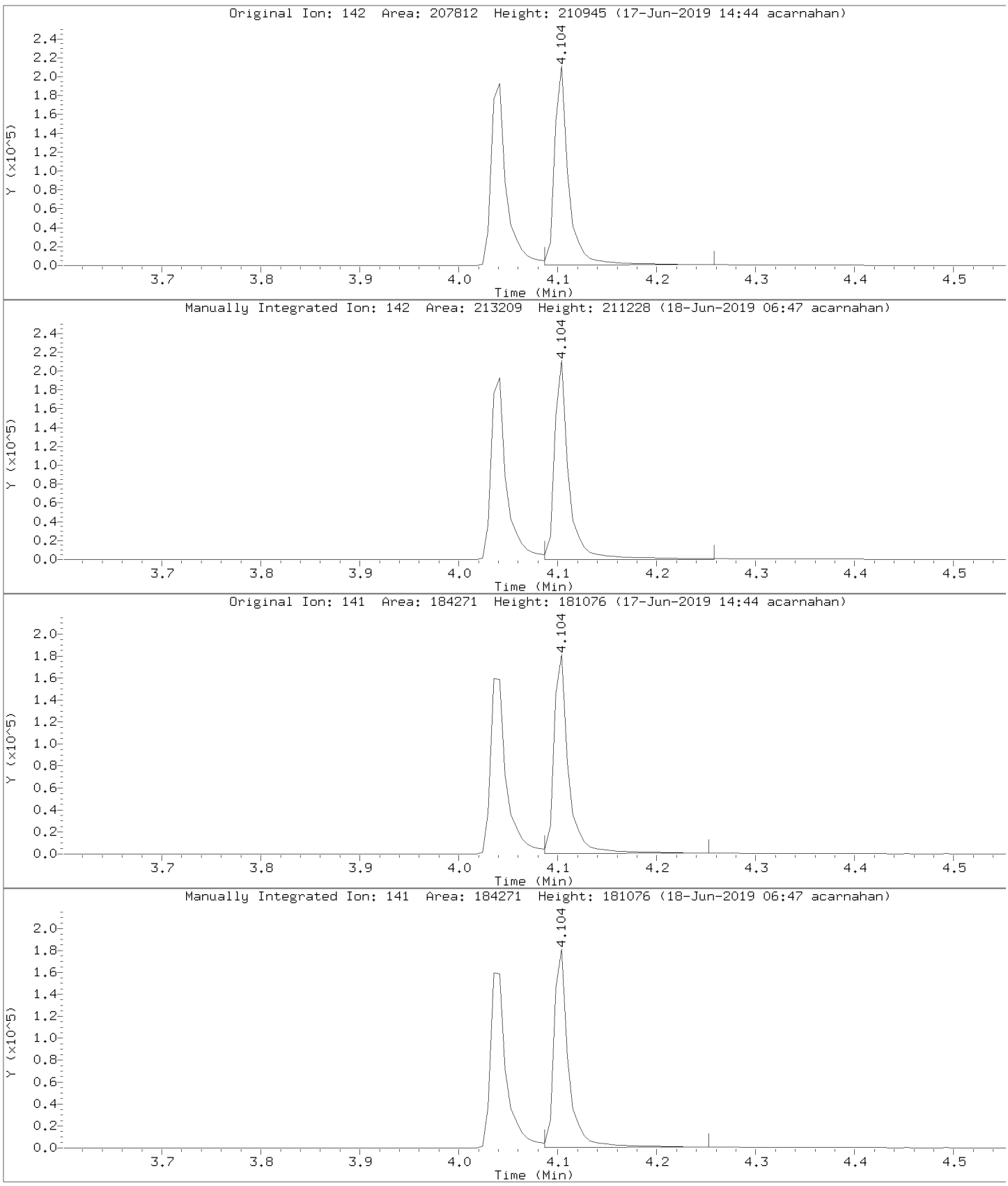
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519s1.d
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Inj Date : 15-JUL-2019 09:02
Operator : DSC Inst ID: 30mss2.i
Smp Info : ccv, 89111:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	602627	4.00000		
	8 Naphthalene	128	3.401	3.401	(1.003)	286392	2.00000	2.11	
	9 2-Methylnaphthalene	142	3.846	3.846	(1.135)	191179	2.00000	2.12	
	10 1-Methylnaphthalene	142	3.909	3.909	(1.153)	199438	2.00000	2.06	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	231263	2.00000	2.01	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	256428	2.00000	1.89	
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	344036	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	177284	2.00000	2.00	
	13 Fluorene	166	4.870	4.870	(1.078)	210148	2.00000	2.02	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	597927	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	293266	2.00000	2.03	
	15 Anthracene	178	5.578	5.578	(1.010)	310810	2.00000	2.11	
	16 Fluoranthene	202	6.490	6.490	(1.175)	363229	2.00000	2.20	
	17 Pyrene	202	6.688	6.688	(1.211)	364248	2.00000	2.14	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	275032	2.00000	2.17	
	18 Benzo(a)anthracene	228	7.772	7.772	(0.999)	322478	2.00000	2.08	
*	4 Chrysene-d12 (IS)	240	7.783	7.783	(1.000)	567486	4.00000		
	19 Chrysene	228	7.807	7.807	(1.003)	331270	2.00000	2.08	
	20 Benzo(b)fluoranthene	252	8.732	8.732	(0.964)	332920	2.00000	2.09	
	21 Benzo(k)fluoranthene	252	8.757	8.757	(0.967)	394879	2.00000	2.06	
	22 Benzo(a)pyrene	252	9.007	9.007	(0.995)	326747	2.00000	2.15	
*	5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	611062	4.00000		
	23 Dibenz(a,h)anthracene	278	9.876	9.876	(1.091)	290400	2.00000	1.77	
	24 Indeno(1,2,3-cd)pyrene	276	9.872	9.872	(1.090)	356547	2.00000	1.79	
	25 Benzo[g,h,i]perylene	276	10.068	10.068	(1.112)	292012	2.00000	1.78	

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 15-JUL-2019 09:02
Lab File ID: m2071519s1.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged	<-
8 Naphthalene	0.90143	0.95048	0.050	5.44104	20.00000	Aver	
9 2-Methylnaphthalene	0.59910	0.63449	0.050	5.90653	20.00000	Aver	
10 1-Methylnaphthalene	0.64273	0.66190	0.050	2.98222	20.00000	Aver	
$ 6 2-Fluorobiphenyl (S)	1.33512	1.34441	0.050	0.69599	20.00000	Aver	
11 Acenaphthylene	1.57574	1.49070	0.050	-5.39681	20.00000	Aver	
12 Acenaphthene	1.02920	1.03061	0.050	0.13718	20.00000	Aver	
13 Fluorene	1.20790	1.22166	0.050	1.13982	20.00000	Aver	
14 Phenanthrene	0.96551	0.98094	0.050	1.59821	20.00000	Aver	
15 Anthracene	0.98399	1.03963	0.050	5.65428	20.00000	Aver	
16 Fluoranthene	1.10512	1.21496	0.050	9.93934	20.00000	Aver	
17 Pyrene	1.13626	1.21837	0.050	7.22585	20.00000	Aver	
$ 7 Terphenyl-d14 (S)	0.84910	0.91995	0.050	8.34435	20.00000	Aver	
18 Benzo(a)anthracene	1.09457	1.13651	0.050	3.83227	20.00000	Aver	
19 Chrysene	1.12111	1.16750	0.050	4.13766	20.00000	Aver	
20 Benzo(b)fluoranthene	1.04386	1.08964	0.050	4.38587	20.00000	Aver	
21 Benzo(k)fluoranthene	1.25415	1.29244	0.050	3.05288	20.00000	Aver	
22 Benzo(a)pyrene	0.99304	1.06944	0.050	7.69305	20.00000	Aver	
23 Dibenz(a,h)anthracene	1.07618	0.95048	0.050	-11.68074	20.00000	Aver	
24 Indeno(1,2,3-cd)pyrene	1.30056	1.16697	0.050	-10.27114	20.00000	Aver	
25 Benzo[g,h,i]perylene	1.07081	0.95575	0.050	-10.74487	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.51301
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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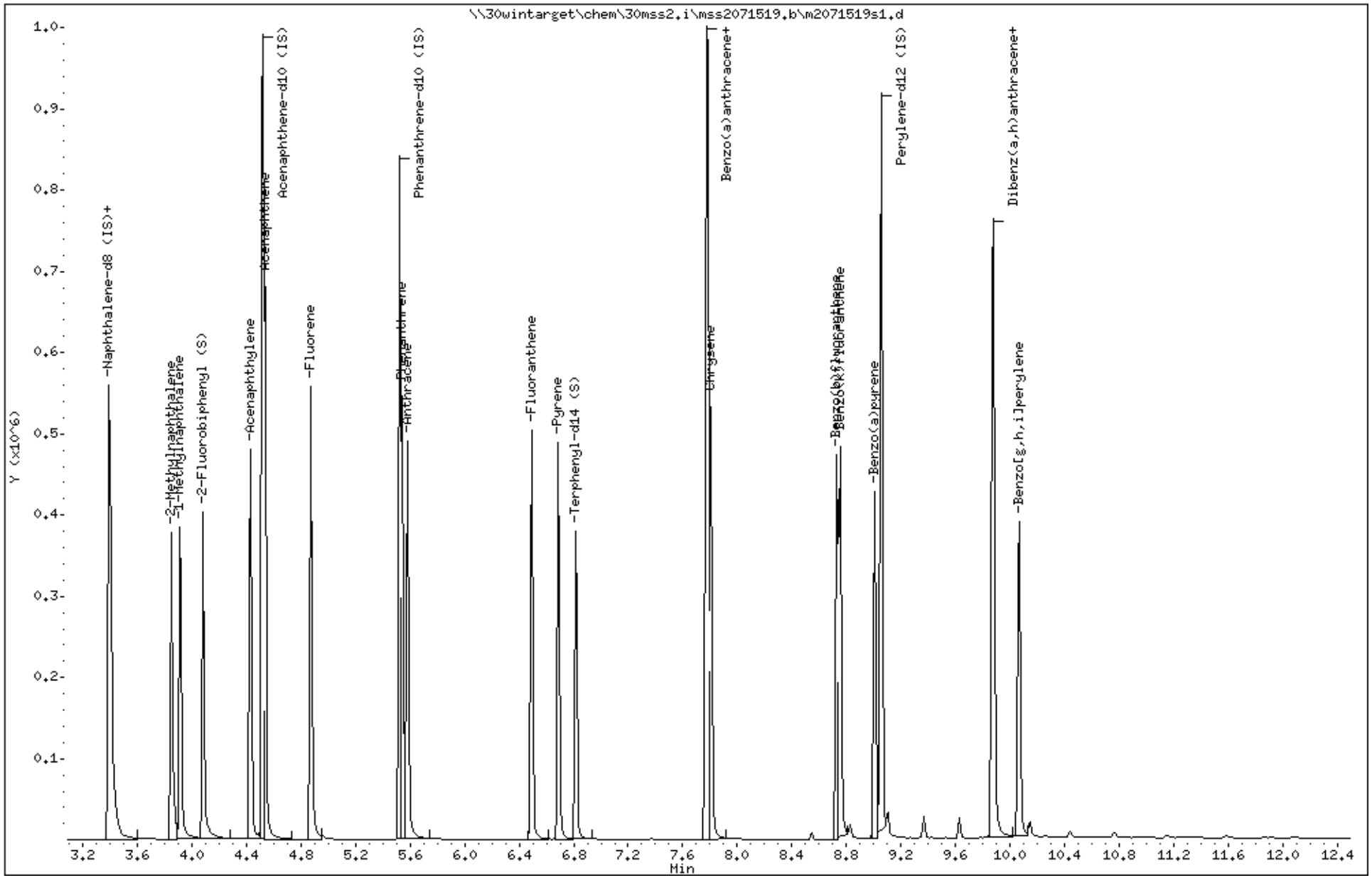
Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519s1.d
Date : 15-JUL-2019 09:02
Client ID: CCV
Sample Info: CCV, 89111:1

Instrument: 30mss2.i

Operator: DSC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m2071519s1.d
Injection Date: 15-JUL-2019 09:02
Instrument: 30mss2.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

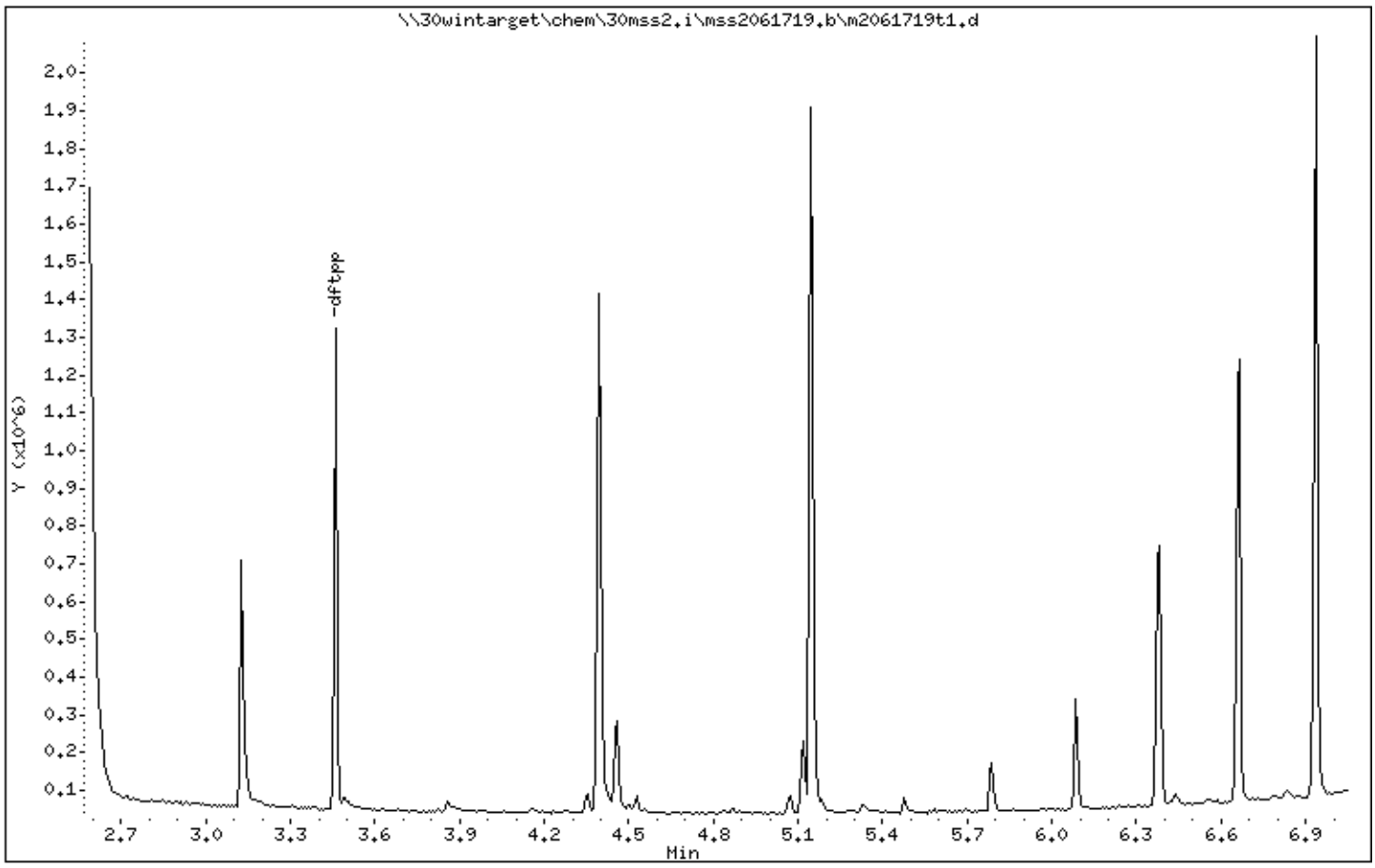
Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

Date : 17-JUN-2019 12:09

Client ID: TUNE

Instrument: 30mss2.i

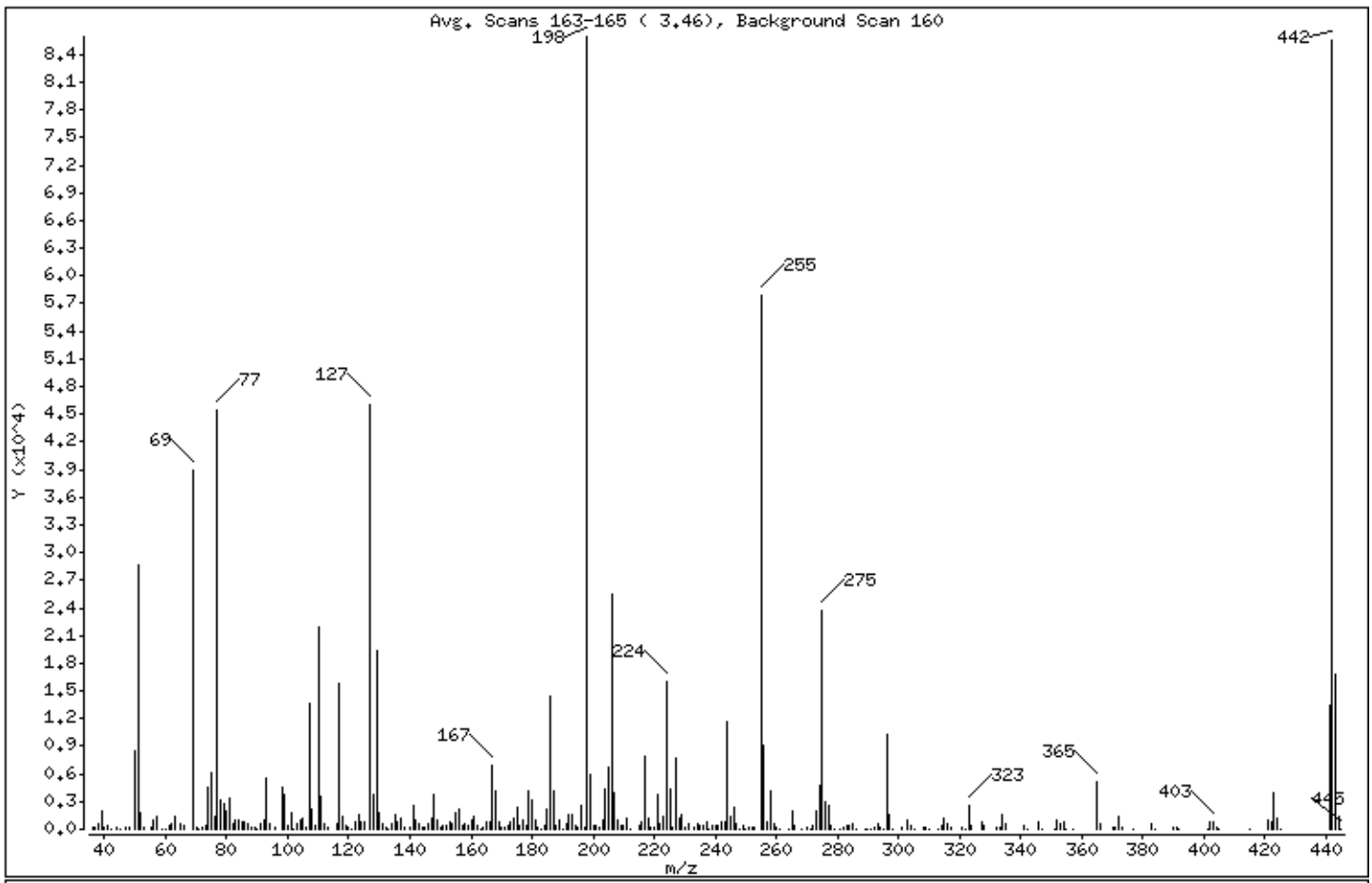
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.25
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.35
70	Less than 2.00% of mass 69	0.12 (0.26)
127	10.00 - 80.00% of mass 198	53.52
197	Less than 2.00% of mass 198	0.14
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	27.69
365	Greater than 1.00% of mass 198	5.98
441	Present, but less than mass 443	15.64
442	50.00 - 110.00% of mass 198	99.44
443	15.00 - 24.00% of mass 442	19.65 (19.76)

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	272	123.00	1571	200.00	435	284.00	327
37.00	177	124.00	869	201.00	322	285.00	534
38.00	499	125.00	765	202.00	229	286.00	54
39.00	1992	127.00	45992	203.00	916	289.00	61
40.00	134	128.00	3781	204.00	4348	290.00	84
41.00	380	129.00	19288	205.00	6622	291.00	51
42.00	95	130.00	1707	206.00	25496	292.00	120
44.00	130	131.00	687	207.00	3886	293.00	564
45.00	61	132.00	152	208.00	919	294.00	158
47.00	110	133.00	27	209.00	389	295.00	58
48.00	209	134.00	565	210.00	489	296.00	10288
50.00	8576	135.00	1606	211.00	1177	297.00	1624
51.00	28576	136.00	851	212.00	94	298.00	61
52.00	1724	137.00	1110	215.00	341	301.00	127
53.00	99	138.00	221	216.00	764	303.00	1001
55.00	267	140.00	288	217.00	7820	304.00	347
56.00	954	141.00	2624	218.00	1157	305.00	55
57.00	1315	142.00	898	219.00	130	308.00	123
59.00	76	143.00	641	220.00	161	309.00	107
60.00	64	144.00	293	221.00	3714	310.00	56
61.00	433	145.00	186	222.00	595	313.00	70
62.00	664	146.00	678	223.00	1442	314.00	482
63.00	1416	147.00	1092	224.00	16023	315.00	1221
65.00	614	148.00	3745	225.00	4257	316.00	593
66.00	367	149.00	990	226.00	203	317.00	100
69.00	38968	150.00	192	227.00	7730	321.00	267
70.00	102	151.00	481	228.00	1150	322.00	58
71.00	67	152.00	307	229.00	1508	323.00	2509
72.00	119	153.00	818	230.00	278	324.00	420
73.00	347	154.00	657	231.00	563	327.00	699
74.00	4470	155.00	1768	233.00	150	328.00	314
75.00	6128	156.00	2185	234.00	562	332.00	188
76.00	1298	157.00	432	235.00	477	333.00	245
77.00	45384	158.00	605	236.00	346	334.00	1634
78.00	3098	159.00	448	237.00	762	335.00	533

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	2773	160.00	939	238.00	58	341.00	405
80.00	1918	161.00	1367	239.00	337	342.00	58
81.00	3280	162.00	320	240.00	338	346.00	774
82.00	622	163.00	71	241.00	334	347.00	88
83.00	1026	164.00	185	242.00	855	351.00	55
84.00	899	165.00	711	243.00	718	352.00	969
85.00	772	166.00	882	244.00	11678	353.00	595
86.00	754	167.00	6895	245.00	1419	354.00	730
87.00	532	168.00	4055	246.00	2405	355.00	35
88.00	145	169.00	738	247.00	650	357.00	57
89.00	270	170.00	267	248.00	56	365.00	5136
90.00	63	171.00	237	249.00	467	366.00	662
91.00	604	172.00	394	250.00	74	370.00	162
92.00	988	173.00	758	251.00	149	371.00	233
93.00	5561	174.00	1174	252.00	159	372.00	1448
94.00	502	175.00	2400	253.00	176	373.00	287
96.00	199	176.00	302	255.00	57936	377.00	76
98.00	4630	177.00	992	256.00	8997	383.00	501
99.00	3729	178.00	365	257.00	854	384.00	67
100.00	344	179.00	4089	258.00	4209	390.00	118
101.00	1857	180.00	3083	259.00	682	391.00	165
102.00	92	181.00	956	260.00	237	392.00	94
103.00	537	182.00	294	261.00	78	401.00	51
104.00	1040	183.00	88	264.00	88	402.00	766
105.00	1201	184.00	393	265.00	1996	403.00	775
106.00	174	185.00	2213	266.00	471	404.00	258
107.00	13681	186.00	14339	268.00	70	405.00	50
108.00	2081	187.00	4209	270.00	114	415.00	52
109.00	385	188.00	429	271.00	73	421.00	932
110.00	22000	189.00	1082	272.00	310	422.00	696
111.00	3615	190.00	58	273.00	1920	423.00	3936
112.00	503	191.00	642	274.00	4756	424.00	1144
113.00	101	192.00	1664	275.00	23792	425.00	82
116.00	517	193.00	1669	276.00	2870	441.00	13441
117.00	15850	194.00	469	277.00	2663	442.00	85456

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1303	195.00	159	278.00	441	443.00	16888
119.00	360	196.00	2596	279.00	63	444.00	1438
120.00	209	197.00	118	281.00	95	445.00	64
121.00	48	198.00	85936	282.00	114		
122.00	863	199.00	6011	283.00	343		

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519t1.d

Date : 15-JUL-2019 08:49

Client ID: TUNE

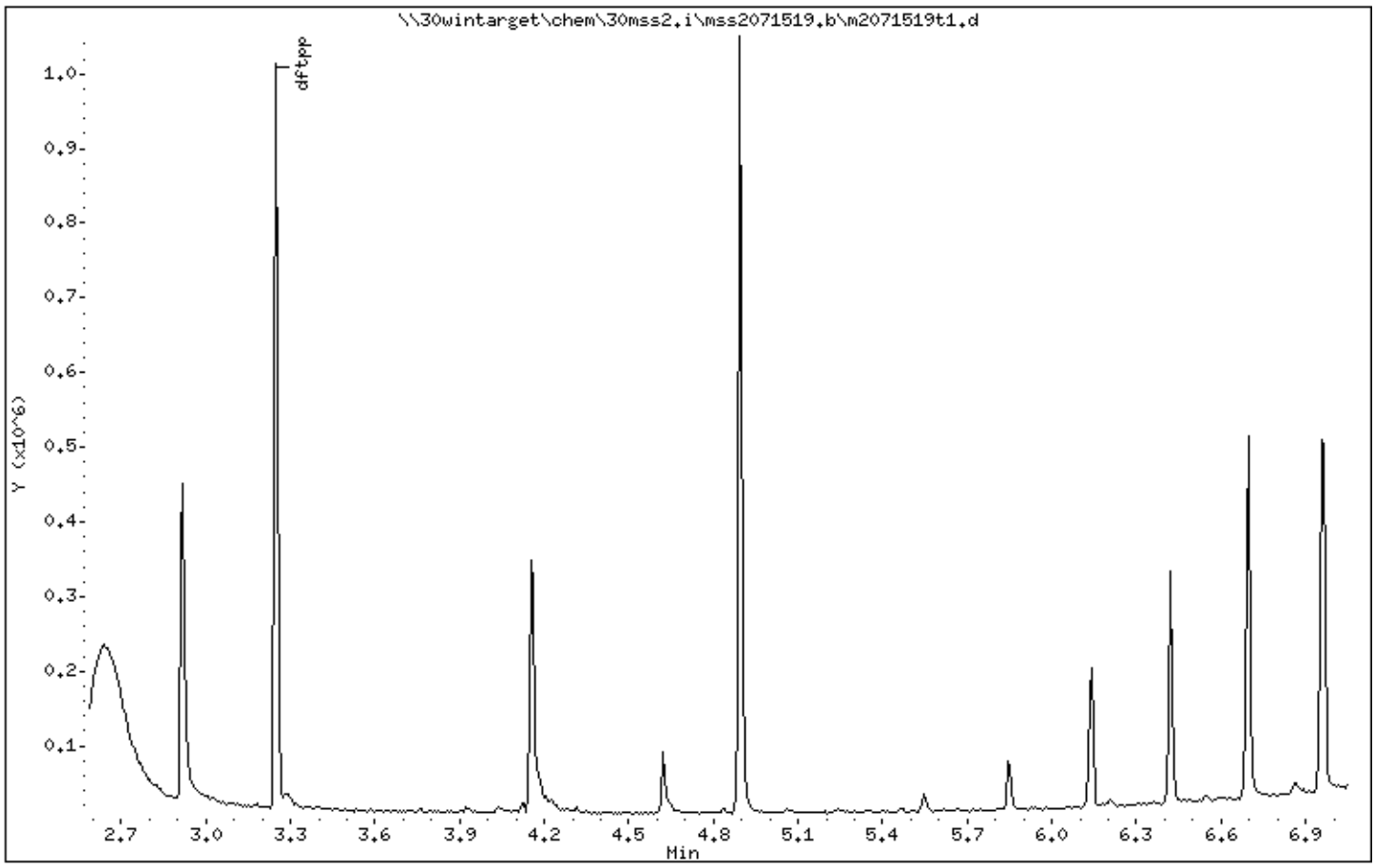
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519t1.d

Date : 15-JUL-2019 08:49

Client ID: TUNE

Instrument: 30mss2.i

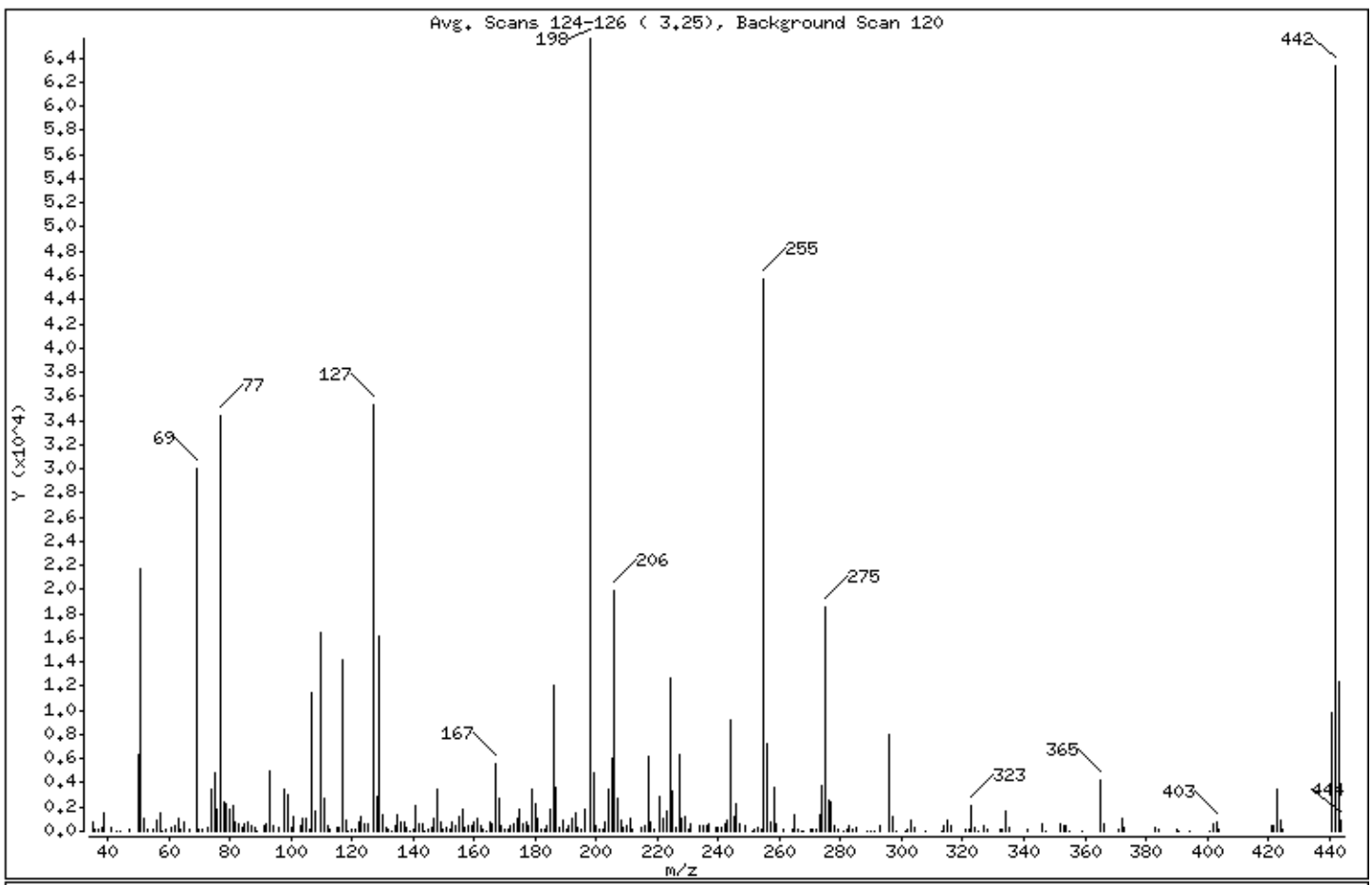
Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.18
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.75
70	Less than 2.00% of mass 69	0.24 (0.53)
127	10.00 - 80.00% of mass 198	53.70
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.43
275	10.00 - 60.00% of mass 198	28.25
365	Greater than 1.00% of mass 198	6.39
441	Present, but less than mass 443	15.03
442	Greater than 50.00% of mass 198	96.63
443	15.00 - 24.00% of mass 442	18.94 (19.60)

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	696	122.00	813	193.00	1434	276.00	2537
36.00	190	123.00	1209	194.00	309	277.00	2370
37.00	135	124.00	665	195.00	81	278.00	419
38.00	288	125.00	570	196.00	1821	279.00	106
39.00	1494	127.00	35232	198.00	65608	281.00	13
41.00	238	128.00	2888	199.00	4877	282.00	187
43.00	26	129.00	16139	200.00	514	283.00	457
44.00	8	130.00	1412	201.00	152	284.00	145
47.00	77	131.00	290	202.00	178	285.00	345
50.00	6368	132.00	163	203.00	735	289.00	60
51.00	21768	133.00	70	204.00	3412	290.00	50
52.00	1033	134.00	463	205.00	6010	291.00	52
53.00	86	135.00	1393	206.00	19912	293.00	440
55.00	107	136.00	738	207.00	2781	296.00	8003
56.00	839	137.00	753	208.00	907	297.00	1189
57.00	1448	138.00	230	209.00	286	298.00	69
58.00	57	139.00	53	210.00	423	301.00	64
59.00	95	140.00	138	211.00	982	302.00	154
61.00	358	141.00	2071	212.00	101	303.00	845
62.00	416	142.00	622	215.00	233	304.00	261
63.00	1004	143.00	544	216.00	511	308.00	69
64.00	196	144.00	51	217.00	6178	313.00	51
65.00	715	145.00	180	218.00	802	314.00	398
67.00	103	146.00	375	219.00	148	315.00	884
69.00	30016	147.00	1046	221.00	2814	316.00	470
70.00	158	148.00	3426	222.00	1067	321.00	193
71.00	132	149.00	737	223.00	1604	322.00	79
73.00	234	150.00	223	224.00	12647	323.00	2186
74.00	3515	151.00	321	225.00	3364	324.00	340
75.00	4804	152.00	133	226.00	248	325.00	52
76.00	1882	153.00	807	227.00	6338	327.00	526
77.00	34336	154.00	430	228.00	1004	328.00	220
78.00	2339	155.00	1217	229.00	1206	332.00	179
79.00	2221	156.00	1741	230.00	121	333.00	161
80.00	1876	157.00	269	231.00	563	334.00	1645

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	2174	158.00	420	234.00	512	335.00	347
82.00	817	159.00	420	235.00	527	341.00	145
83.00	540	160.00	798	236.00	449	346.00	548
84.00	276	161.00	998	237.00	650	347.00	62
85.00	582	162.00	402	239.00	341	352.00	676
86.00	820	163.00	98	240.00	254	353.00	463
87.00	447	164.00	55	241.00	356	354.00	515
88.00	336	165.00	827	242.00	670	355.00	62
89.00	53	166.00	646	243.00	907	359.00	56
91.00	390	167.00	5638	244.00	9157	365.00	4194
92.00	634	168.00	2685	245.00	1164	366.00	635
93.00	4986	169.00	464	246.00	2325	371.00	160
94.00	423	170.00	191	247.00	578	372.00	1106
96.00	283	171.00	107	249.00	418	373.00	356
98.00	3492	172.00	435	251.00	50	383.00	310
99.00	2947	173.00	570	252.00	183	384.00	82
100.00	239	174.00	1122	253.00	273	390.00	82
101.00	1165	175.00	1853	254.00	109	391.00	71
103.00	463	176.00	604	255.00	45728	394.00	50
104.00	1077	177.00	747	256.00	7268	401.00	51
105.00	1105	178.00	505	257.00	679	402.00	555
106.00	155	179.00	3533	258.00	3583	403.00	680
107.00	11515	180.00	2228	259.00	665	404.00	216
108.00	1645	181.00	1047	261.00	102	421.00	508
110.00	16448	182.00	96	264.00	129	422.00	509
111.00	2648	183.00	106	265.00	1419	423.00	3492
112.00	494	184.00	399	266.00	210	424.00	935
113.00	221	185.00	1843	267.00	73	425.00	126
115.00	255	186.00	12027	268.00	61	441.00	9863
116.00	321	187.00	3681	270.00	128	442.00	63400
117.00	14154	188.00	361	271.00	85	443.00	12429
118.00	972	189.00	901	272.00	110	444.00	903
119.00	67	190.00	128	273.00	1305		
120.00	161	191.00	411	274.00	3767		
121.00	78	192.00	1119	275.00	18536		

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y

SAMPLE NO.

BLANK

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 1708423
Date Analyzed: 07/15/2019 09:19
Lab File ID: MSS2071519.B\M207151901.D
Initial wt/vol: 15.04 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	ND	U
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	ND	U
129-00-0	Pyrene	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d
Lab Smp Id: 1708423 Client Smp ID: MB
Inj Date : 15-JUL-2019 09:19
Operator : DSC Inst ID: 30mss2.i
Smp Info : 1708423,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
27	Quinoline	100	Compound Not Detected.						
* 1	Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	567654	4.00000		
8	Naphthalene	128	3.401	3.401	(1.003)	1546	0.01209	0.804	
9	2-Methylnaphthalene	142	3.846	3.846	(1.135)	558	0.00656	0.436	
10	1-Methylnaphthalene	142	3.915	3.909	(1.155)	520	0.00570	0.379	
$ 6	2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	408590	3.67936	245	
11	Acenaphthylene	152	Compound Not Detected.						(D)
* 2	Acenaphthene-d10 (IS)	164	4.517	4.516	(1.000)	332702	4.00000		
12	Acenaphthene	153	4.533	4.536	(1.004)	360	0.00421	0.280(QM)	NI
13	Fluorene	166	Compound Not Detected.						(D)
* 3	Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	570496	4.00000		
14	Phenanthrene	178	5.542	5.542	(1.003)	1254	0.00911	0.605(Q)	
15	Anthracene	178	5.583	5.578	(1.011)	391	0.00279	0.185	
16	Fluoranthene	202	Compound Not Detected.						(D)
17	Pyrene	202	6.688	6.688	(1.211)	564	0.00348	0.231	
$ 7	Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	525724	4.34117	289	
18	Benzo(a)anthracene	228	Compound Not Detected.						(D)
* 4	Chrysene-d12 (IS)	240	7.781	7.783	(1.000)	531820	4.00000		
19	Chrysene	228	7.804	7.807	(1.003)	582	0.00390	0.260(Q)	
20	Benzo(b)fluoranthene	252	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
21 Benzo(k)fluoranthene	252	Compound Not Detected.						(D)
22 Benzo(a)pyrene	252	9.012	9.007	(0.995)	339	0.00254	0.169(Q)	
* 5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	538180	4.00000		
23 Dibenz(a,h)anthracene	278	9.886	9.876	(1.092)	424	0.00293	0.195(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.876	9.872	(1.091)	486	0.00278	0.185	
25 Benzo[g,h,i]perylene	276	10.073	10.068	(1.112)	493	0.00342	0.228(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

Pace Analytical Services, Inc.

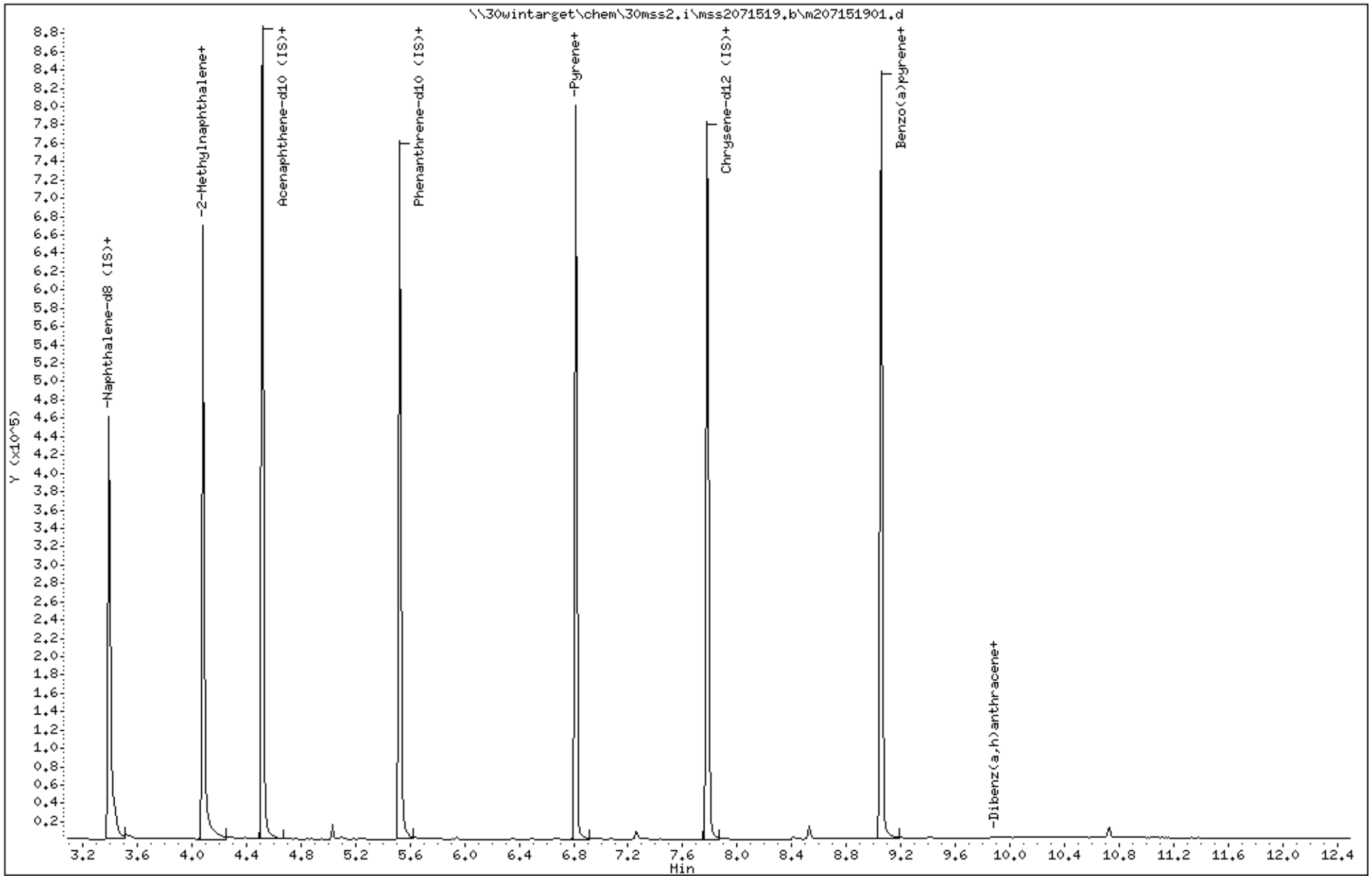
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708423
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14824,

Client SDG: mss2071519.b
Client Smp ID: MB
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: DSC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00997	U
91-20-3	Naphthalene	0.804	
91-57-6	2-Methylnaphthalene	0.436	
90-12-0	1-Methylnaphthalene	0.379	
208-96-8	Acenaphthylene	0.00997	U
83-32-9	Acenaphthene	0.280	
86-73-7	Fluorene	0.00997	U
85-01-8	Phenanthrene	0.605	
120-12-7	Anthracene	0.185	
206-44-0	Fluoranthene	0.00997	U
129-00-0	Pyrene	0.231	
56-55-3	Benzo(a)anthracene	0.00997	U
218-01-9	Chrysene	0.260	
205-99-2	Benzo(b)fluoranthene	0.00997	U
207-08-9	Benzo(k)fluoranthene	0.00997	U
50-32-8	Benzo(a)pyrene	0.169	
53-70-3	Dibenz(a,h)anthracene	0.195	
193-39-5	Indeno(1,2,3-cd)pyrene	0.185	
191-24-2	Benzo[g,h,i]perylene	0.228	
321-60-8	2-Fluorobiphenyl (S)	245	
1718-51-0	Terphenyl-d14 (S)	289	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d
Date : 15-JUL-2019 09:19
Client ID: MB
Instrument: 30mss2.i
Sample Info: 1708423,
Volume Injected (uL): 1.0
Operator: DSC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

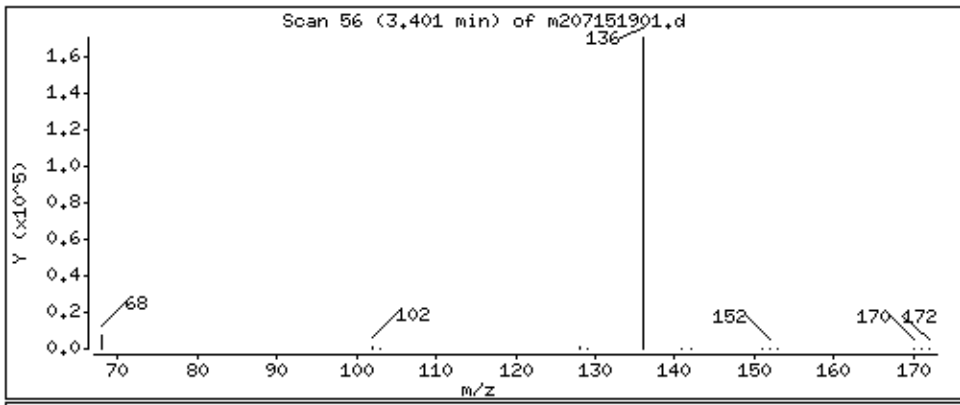
Operator: DSC

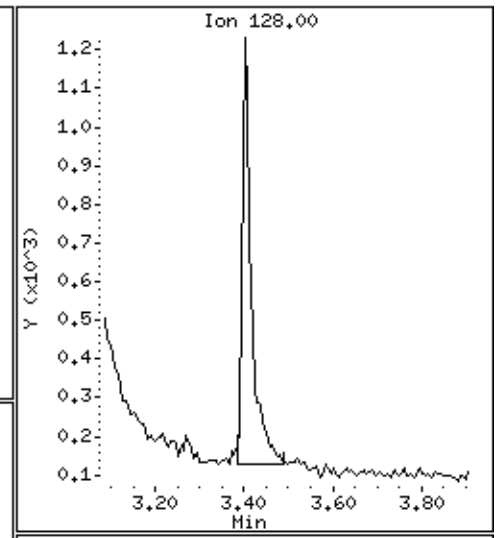
Column phase: RTX-5MS

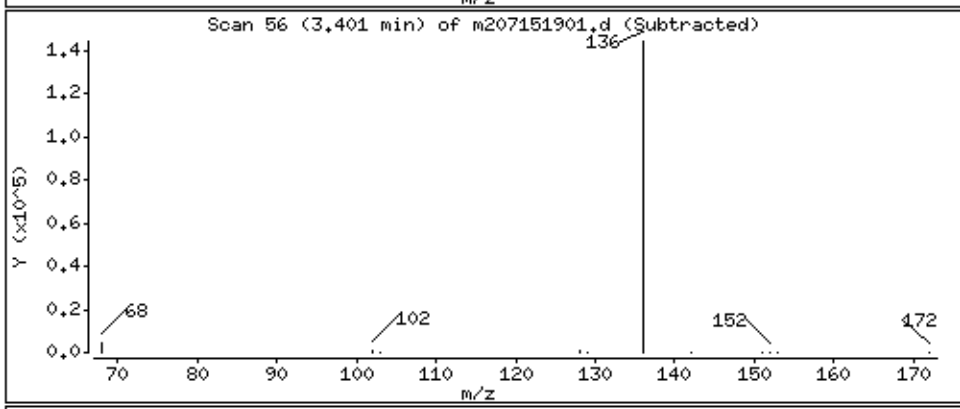
Column diameter: 0.25

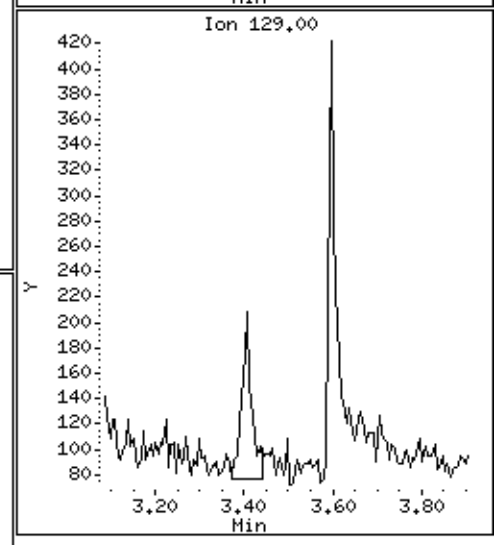
8 Naphthalene

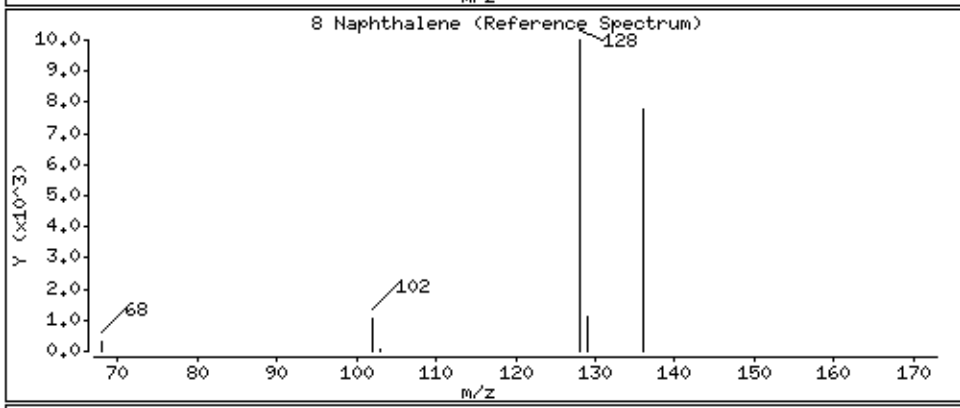
Concentration: 0.804 ug/Kg

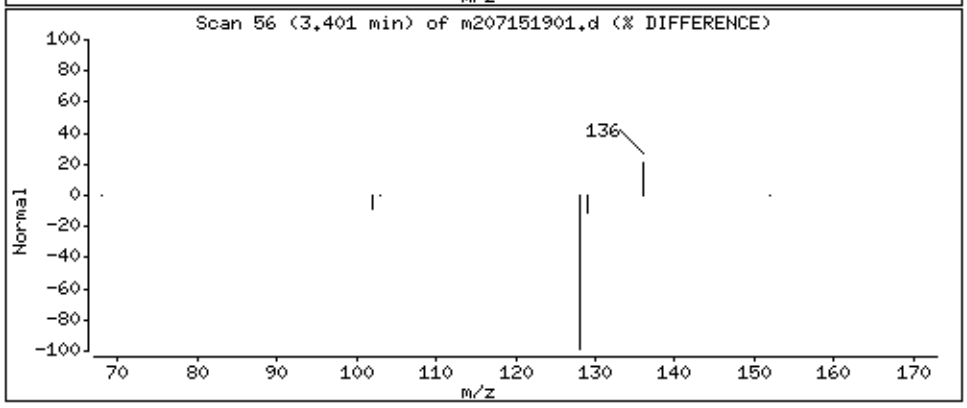












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

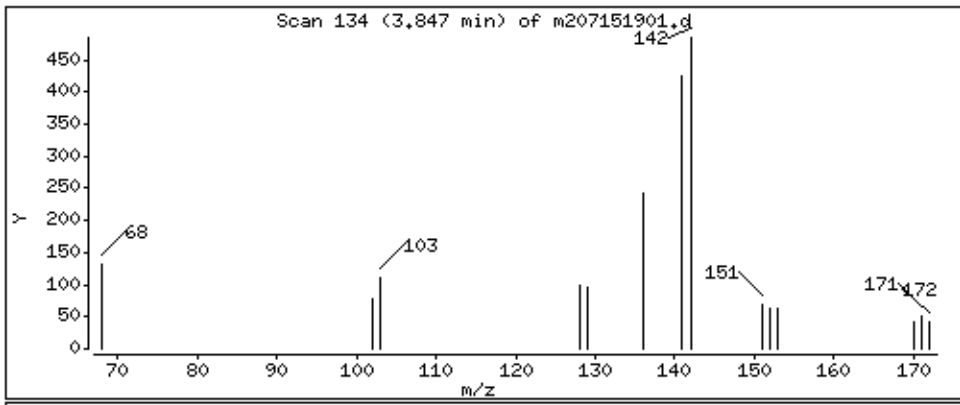
Operator: DSC

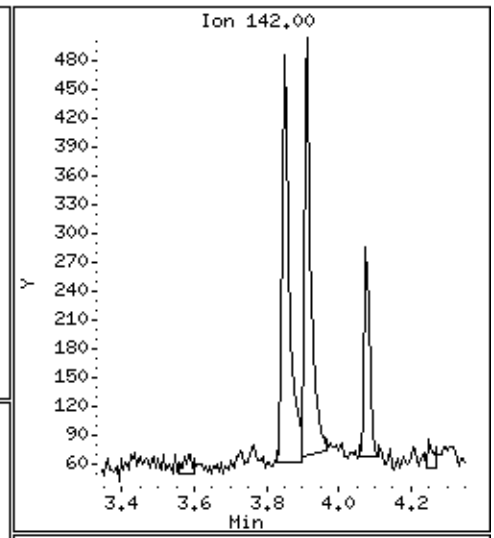
Column phase: RTX-5MS

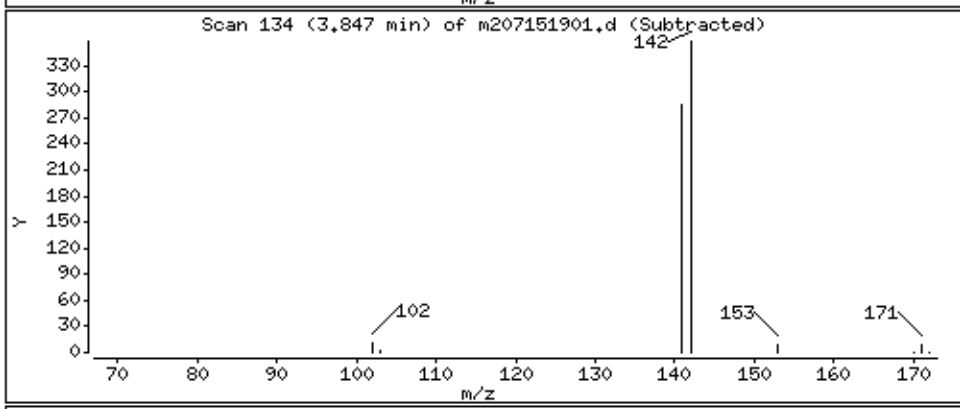
Column diameter: 0.25

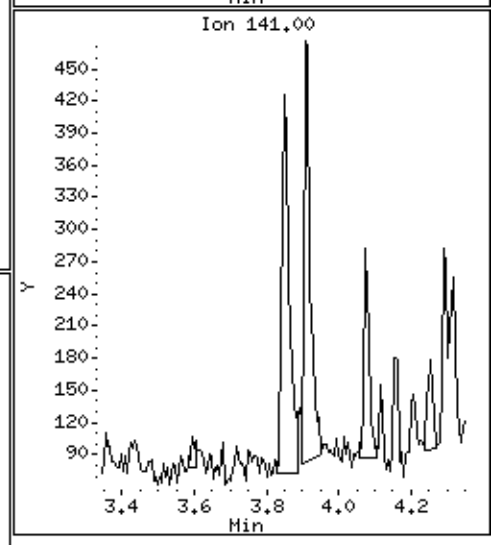
9 2-Methylnaphthalene

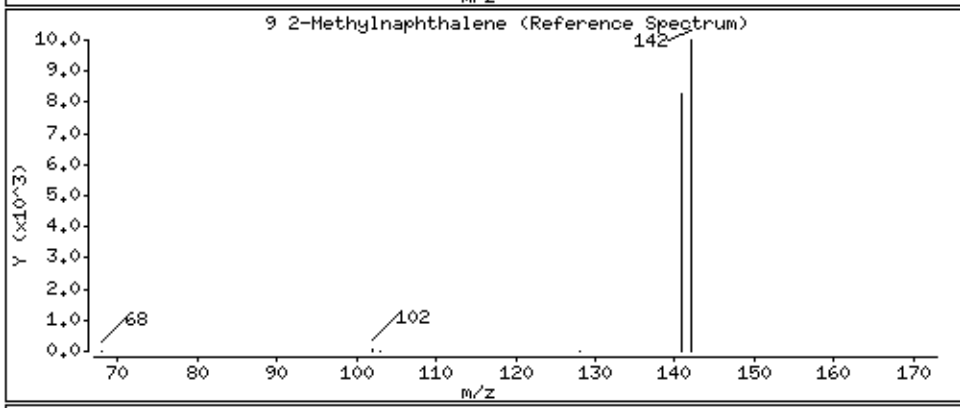
Concentration: 0.436 ug/Kg

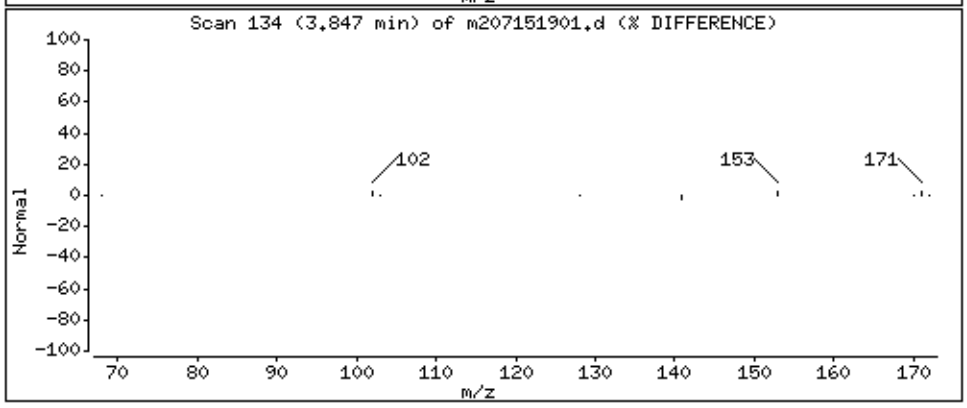












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

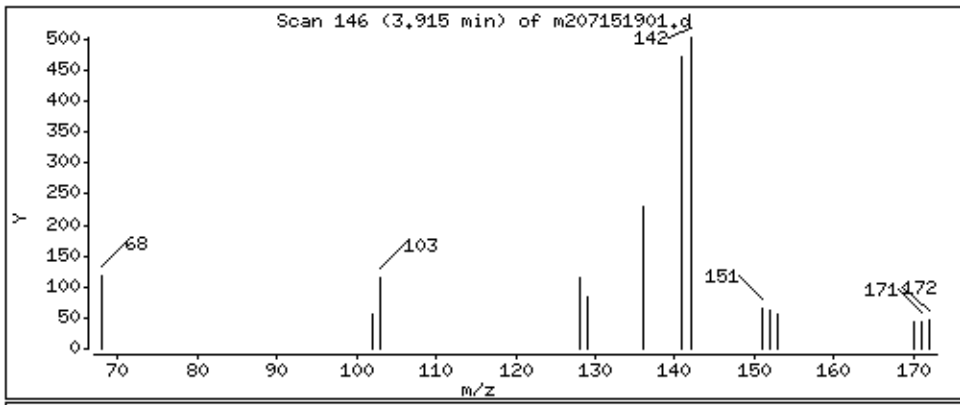
Operator: DSC

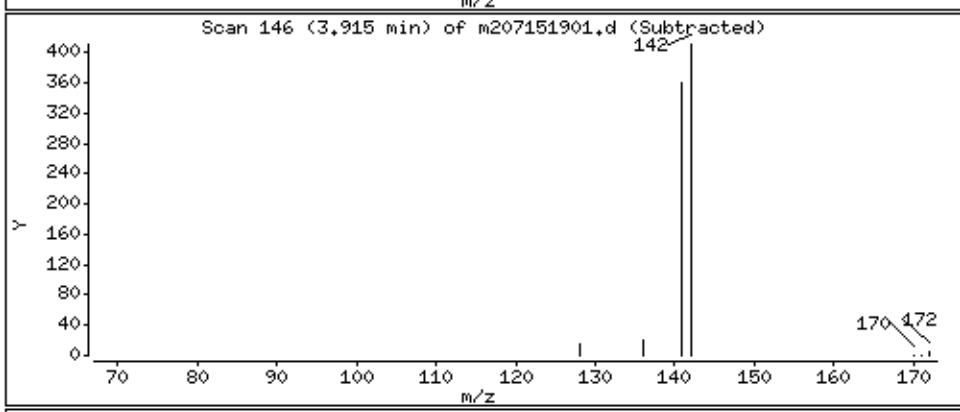
Column phase: RTX-5MS

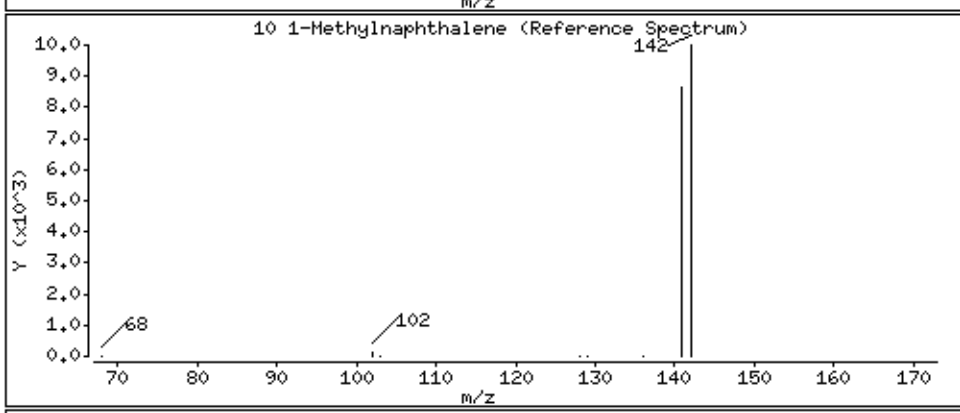
Column diameter: 0.25

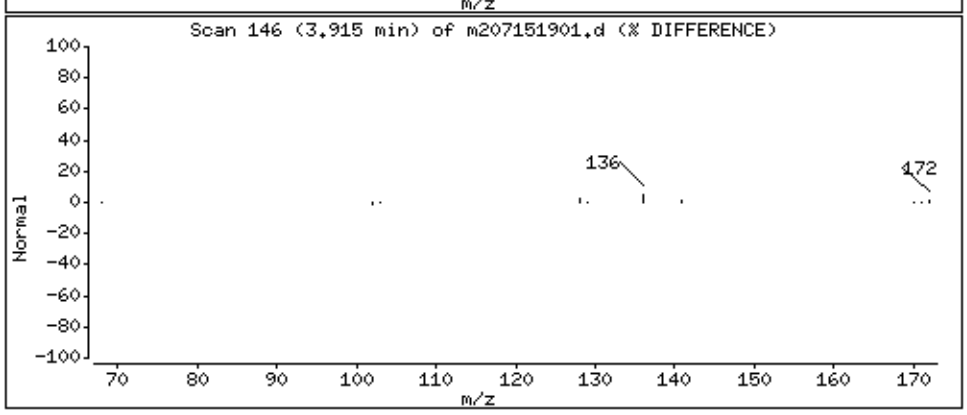
10 1-Methylnaphthalene

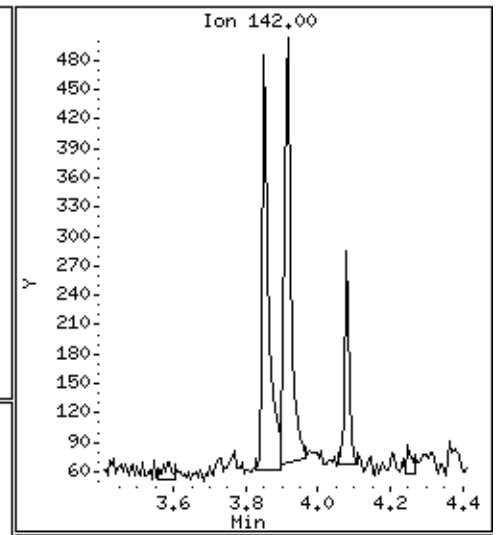
Concentration: 0.379 ug/Kg

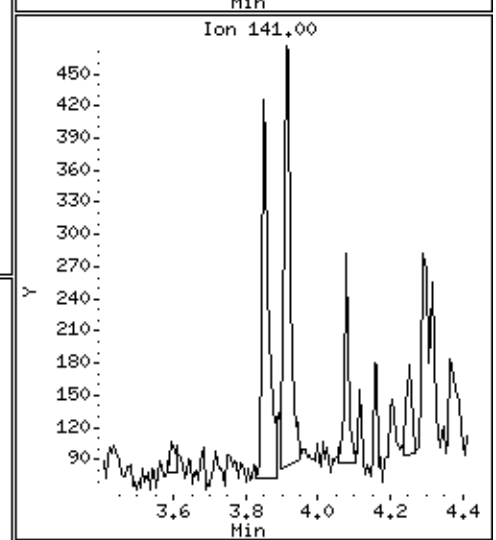












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

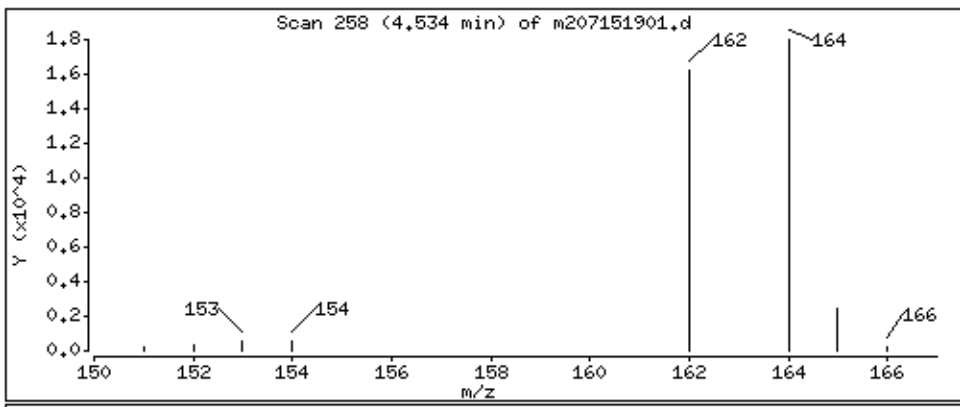
Operator: DSC

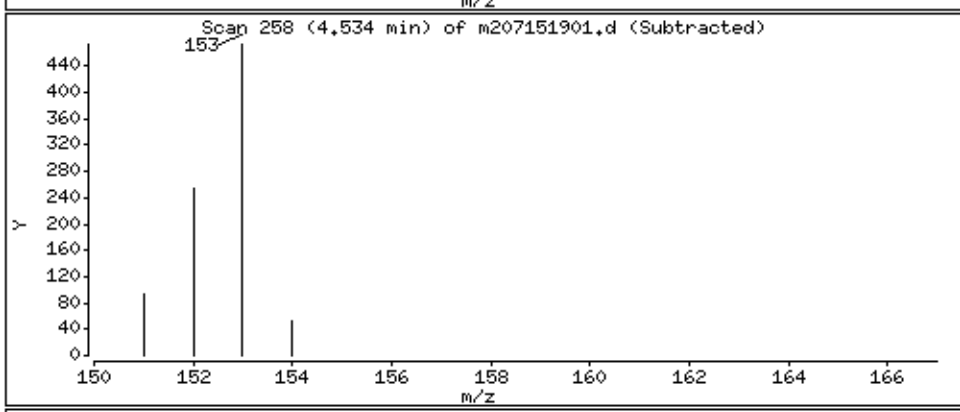
Column phase: RTX-5MS

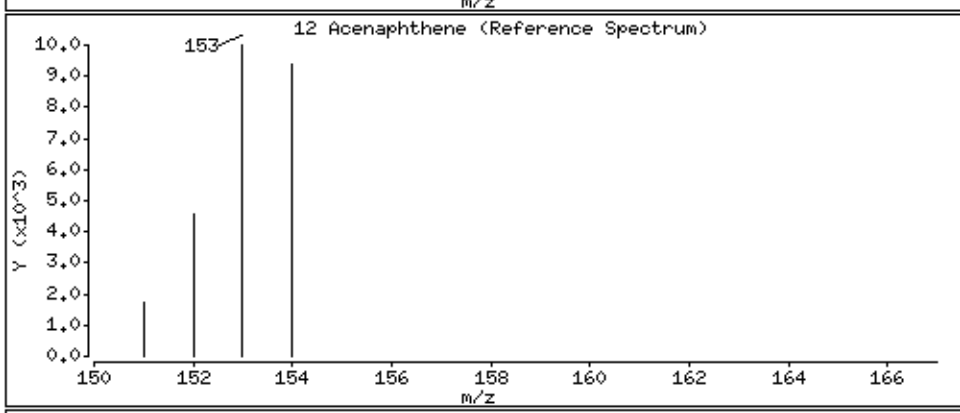
Column diameter: 0.25

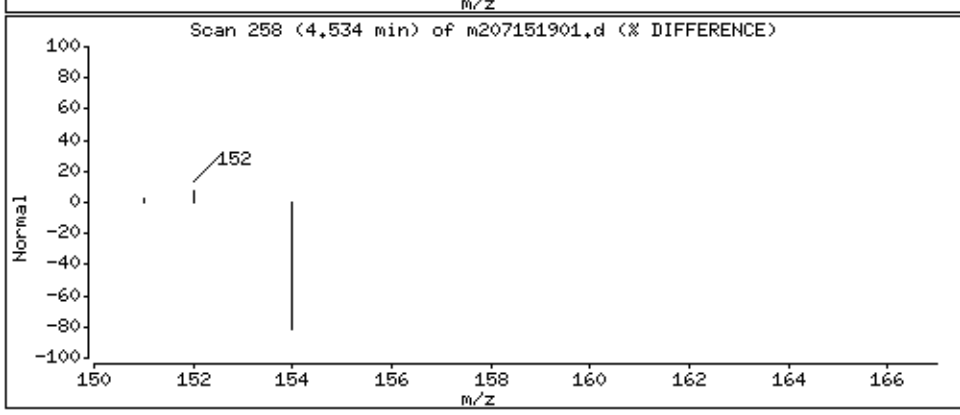
12 Acenaphthene

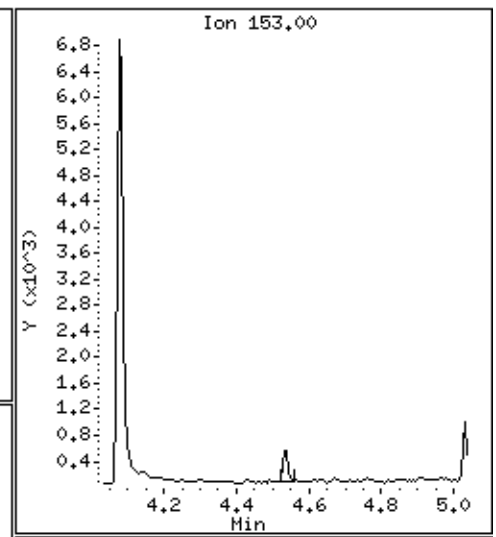
Concentration: 0.280 ug/Kg

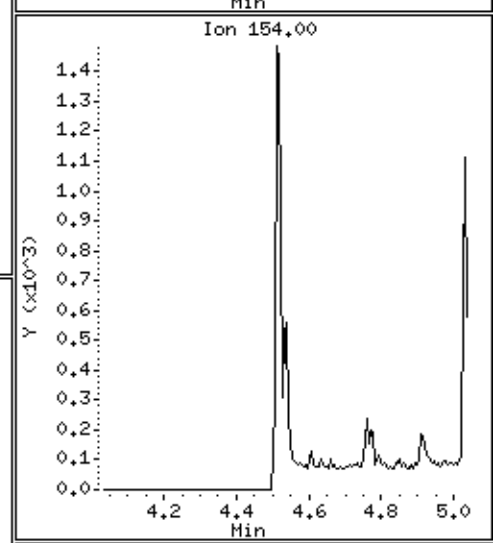


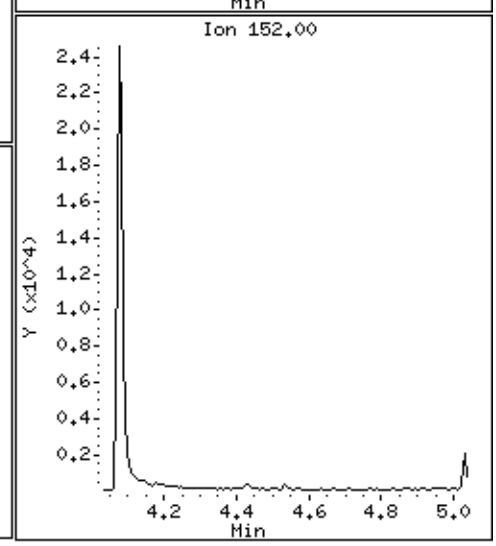












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

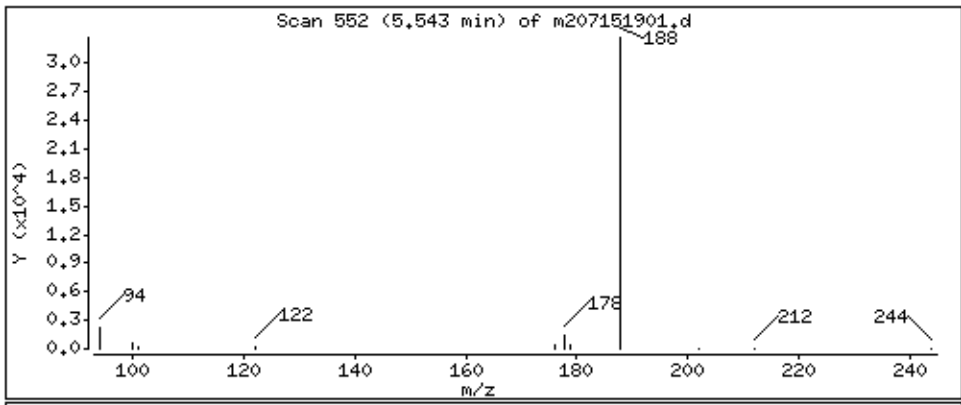
Operator: DSC

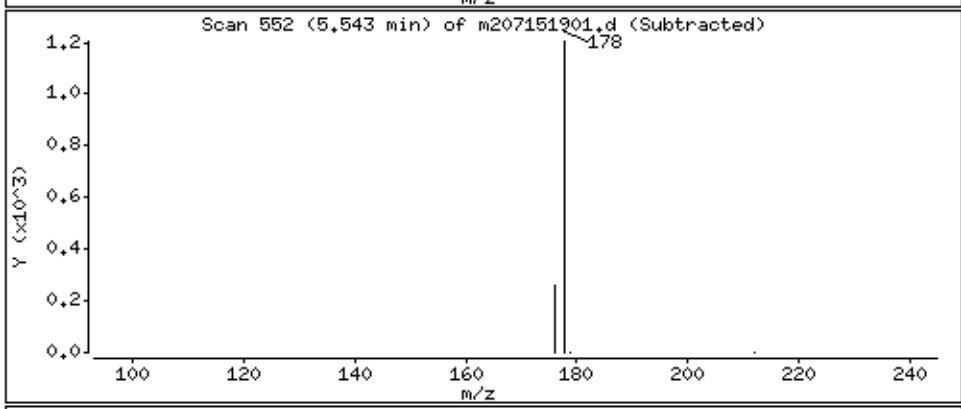
Column phase: RTX-5MS

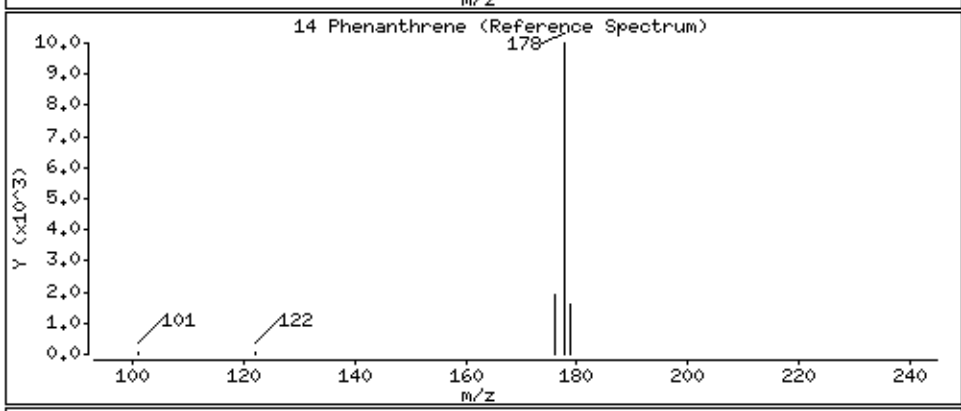
Column diameter: 0.25

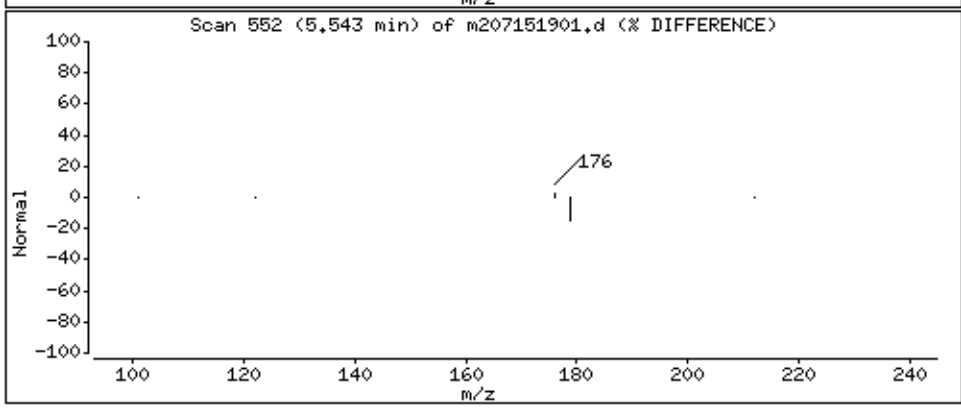
14 Phenanthrene

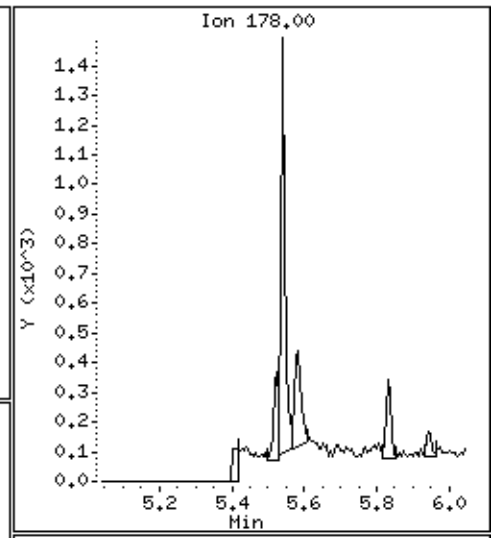
Concentration: 0.605 ug/Kg

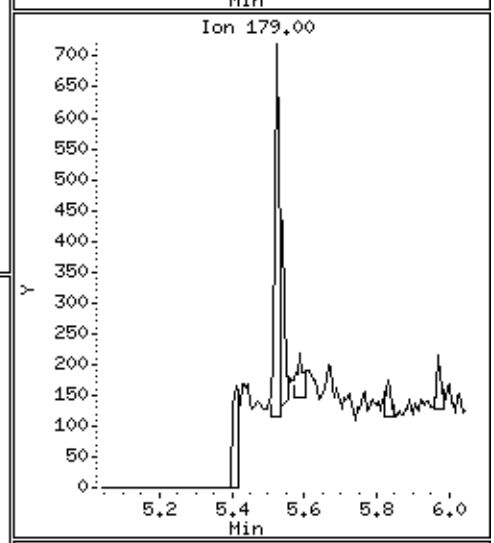


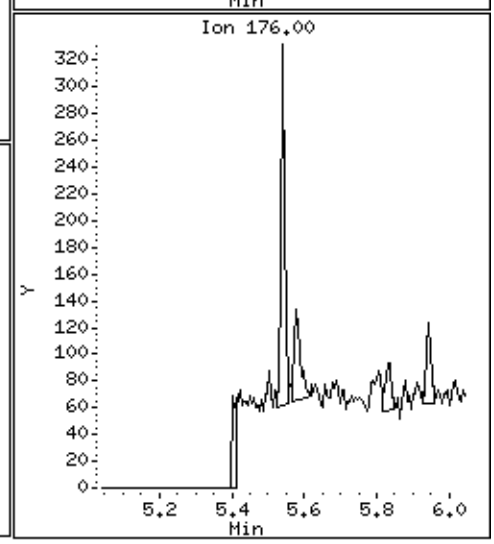












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

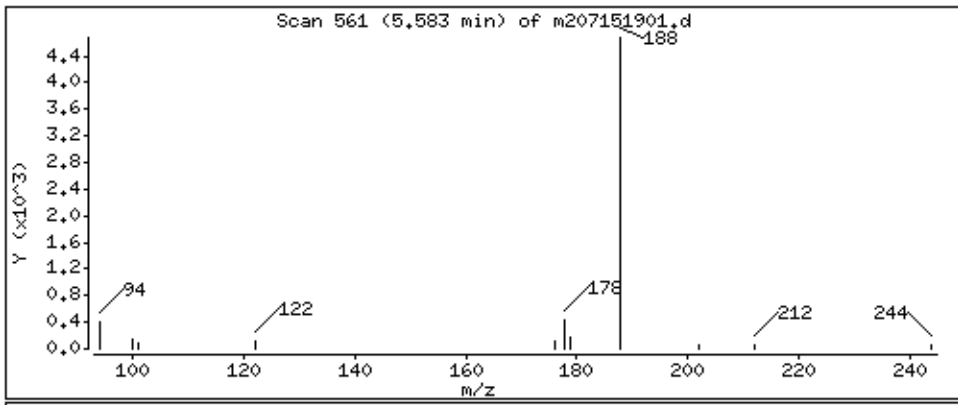
Operator: DSC

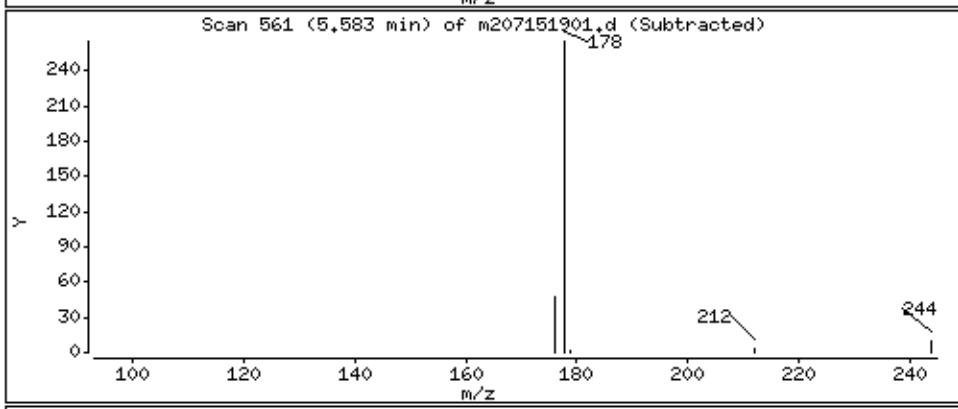
Column phase: RTX-5MS

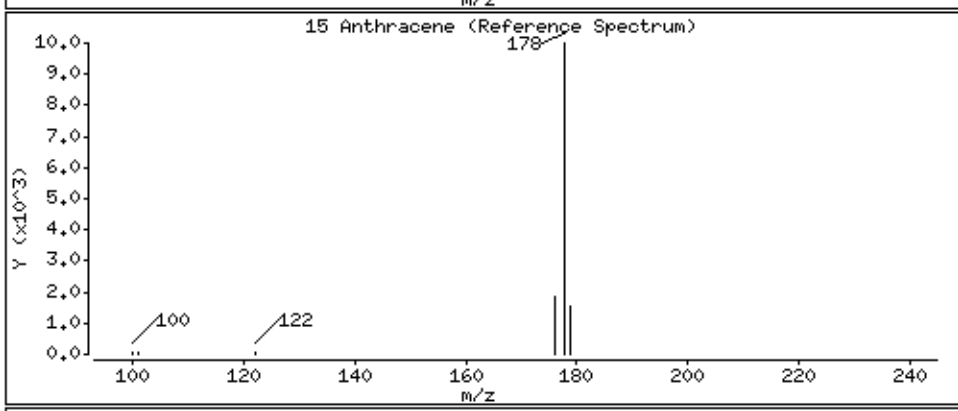
Column diameter: 0.25

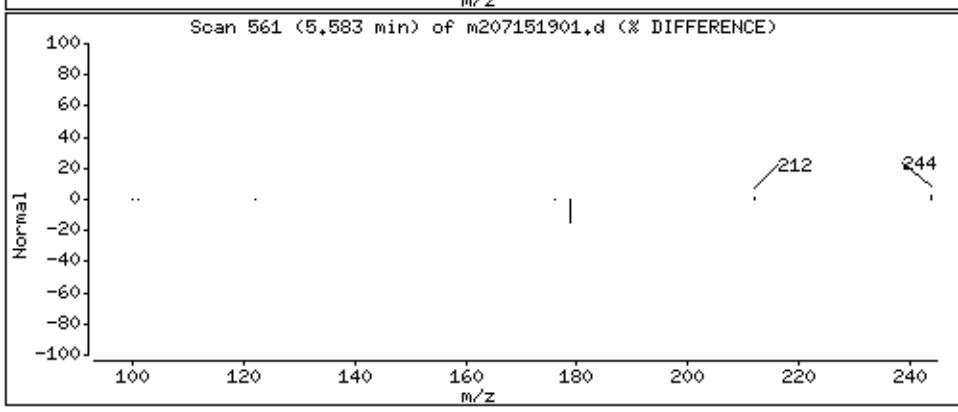
15 Anthracene

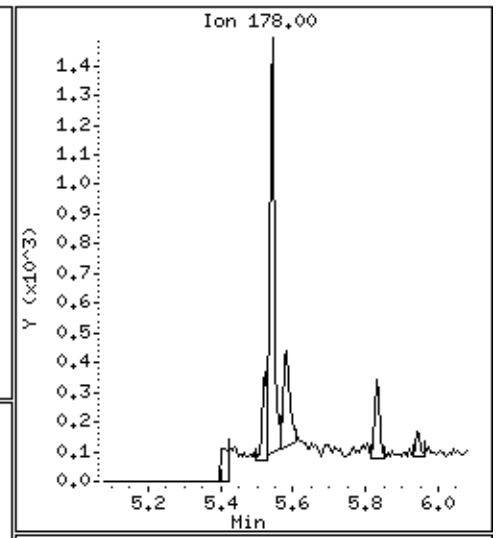
Concentration: 0.185 ug/Kg

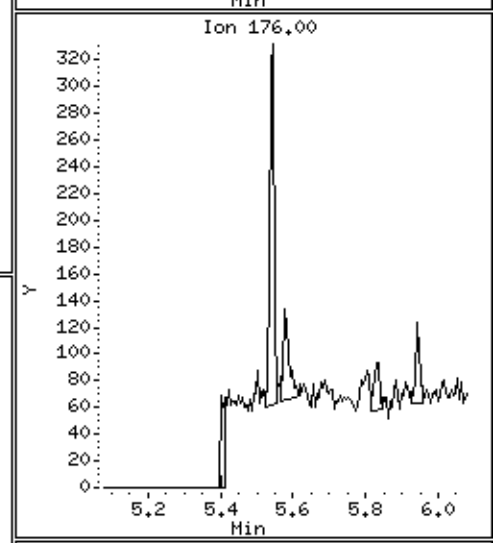


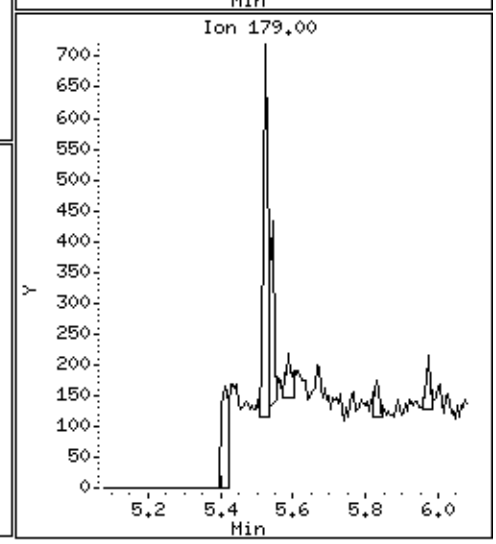












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

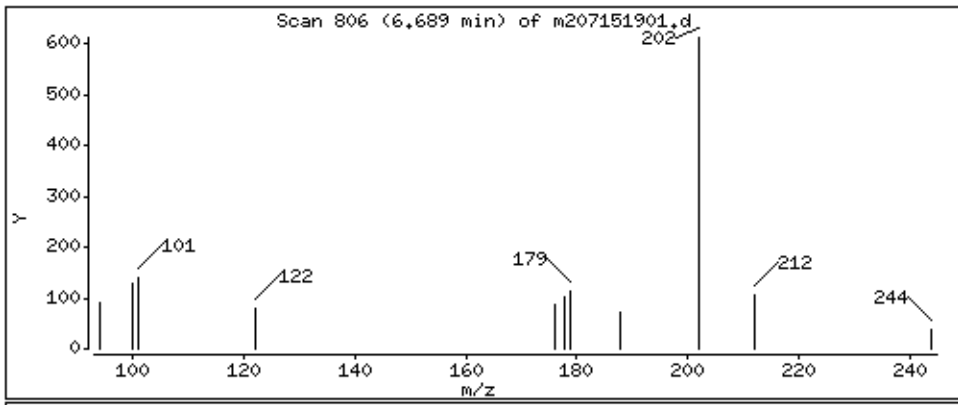
Operator: DSC

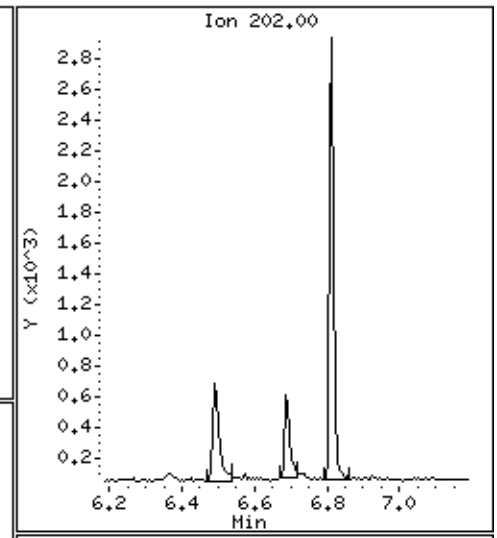
Column phase: RTX-5MS

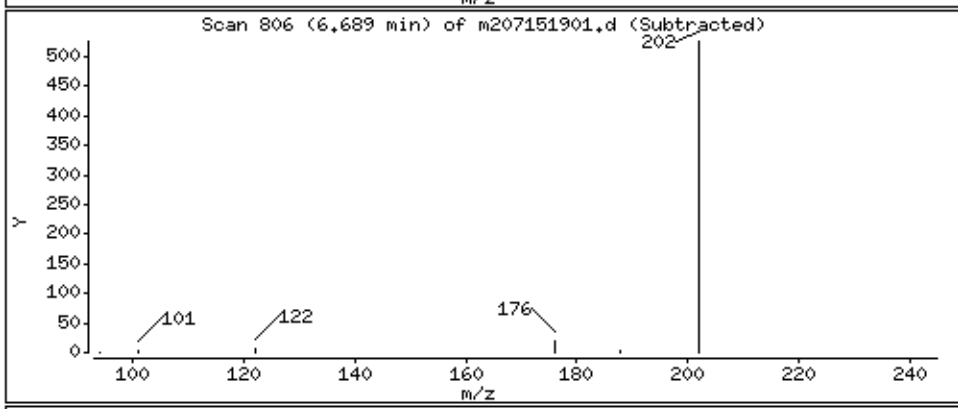
Column diameter: 0.25

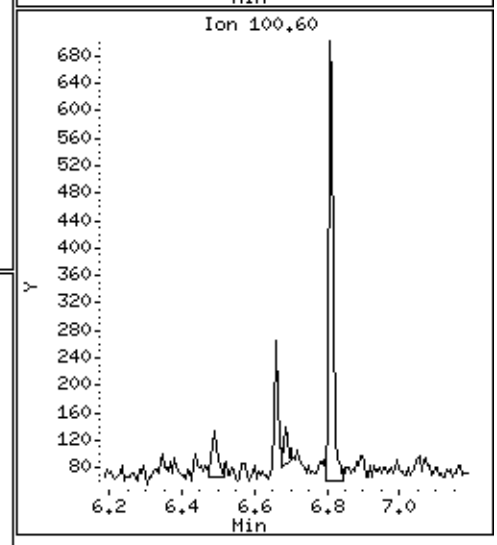
17 Pyrene

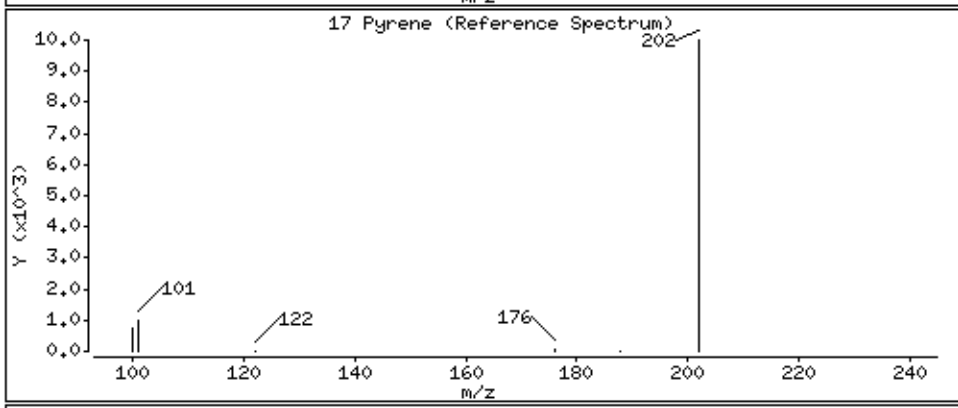
Concentration: 0.231 ug/Kg

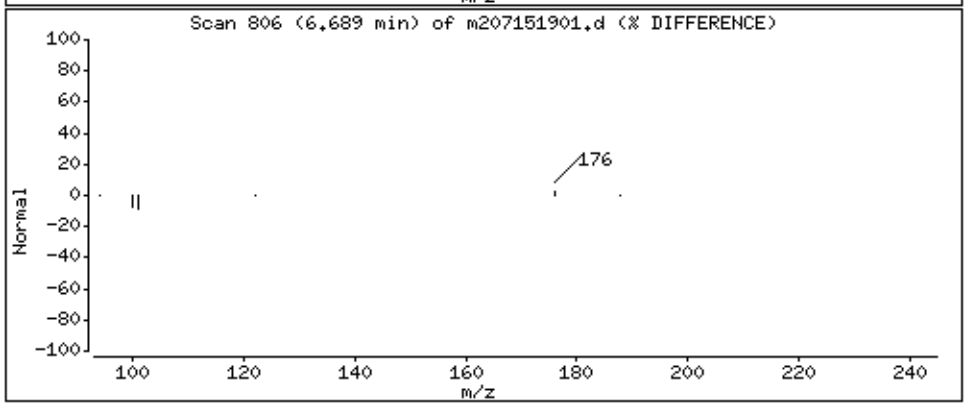












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

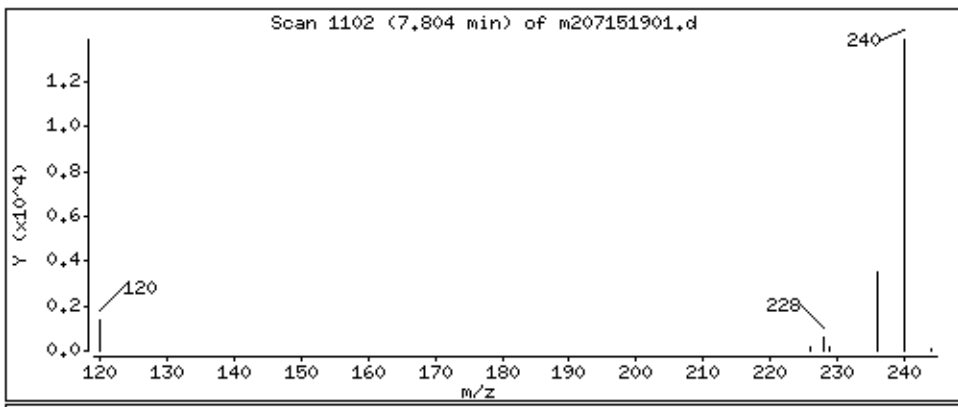
Operator: DSC

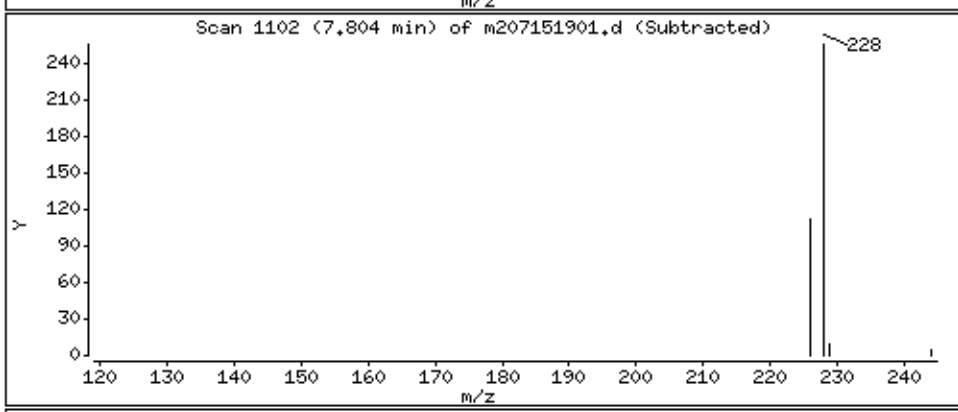
Column phase: RTX-5MS

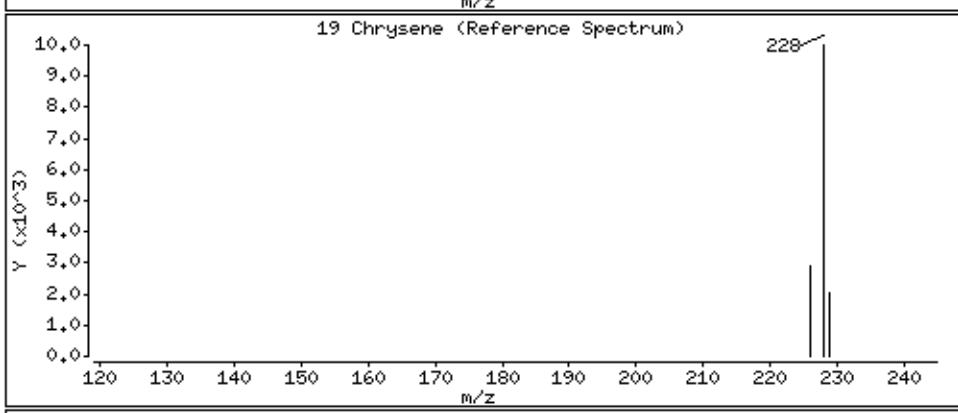
Column diameter: 0.25

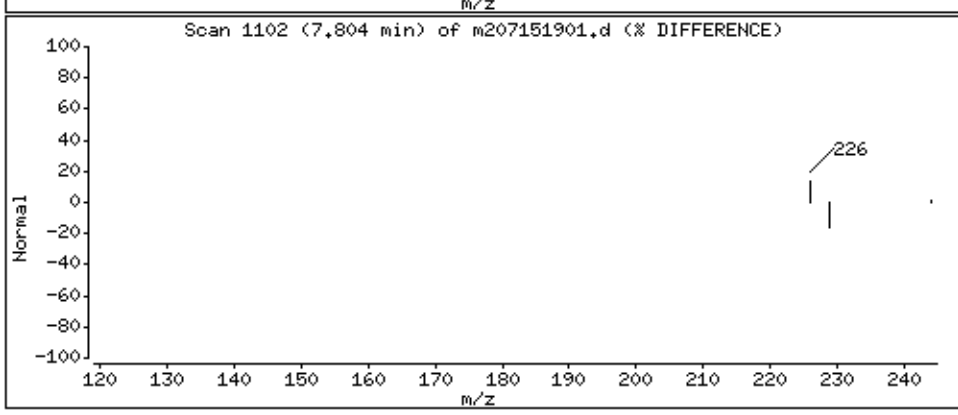
19 Chrysene

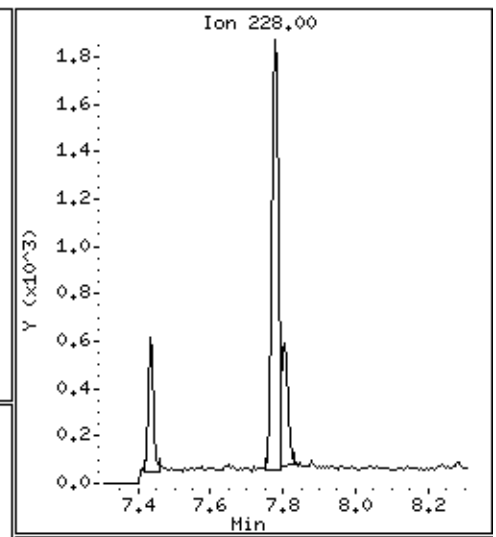
Concentration: 0.260 ug/Kg

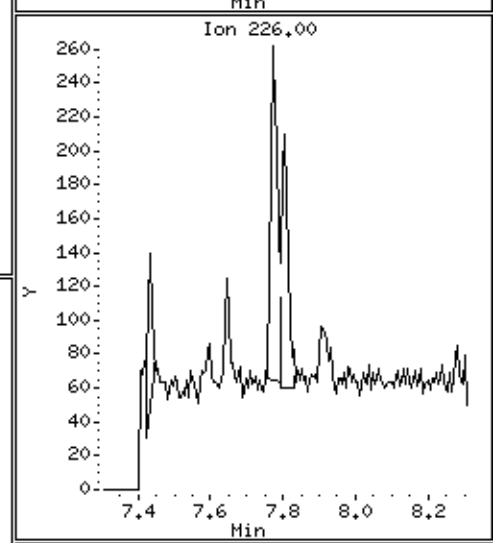


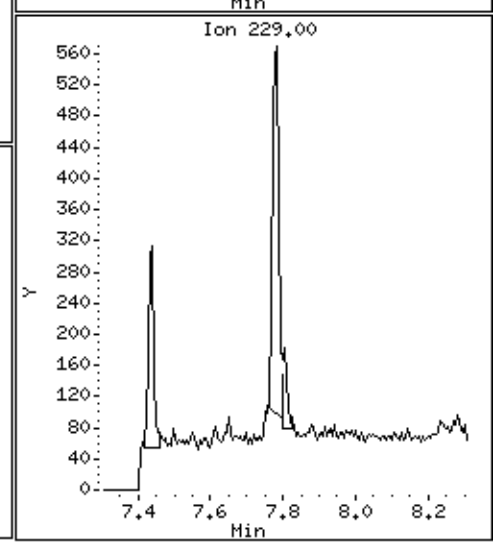












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

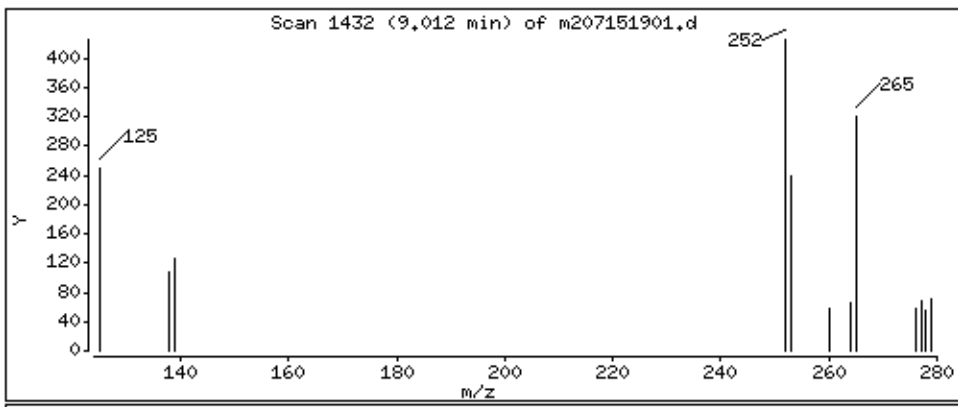
Operator: DSC

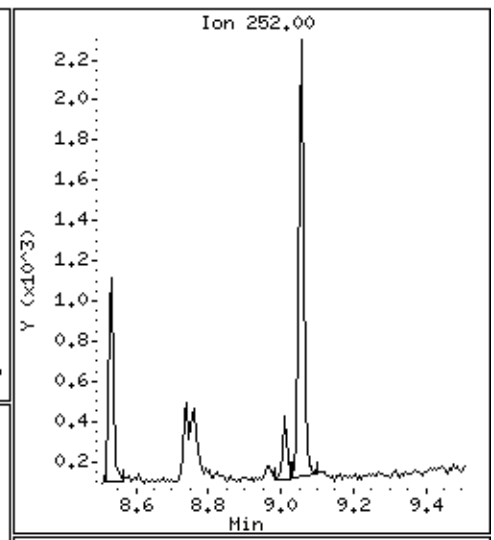
Column phase: RTX-5MS

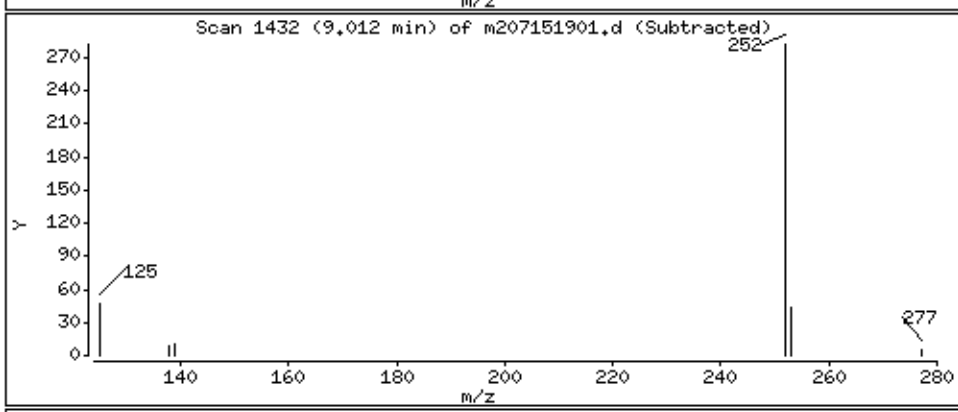
Column diameter: 0.25

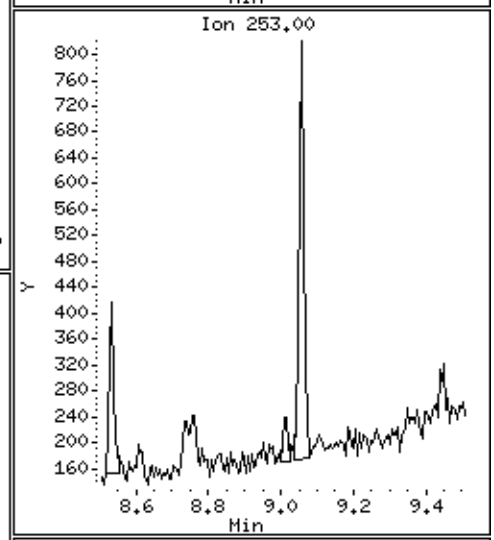
22 Benzo(a)pyrene

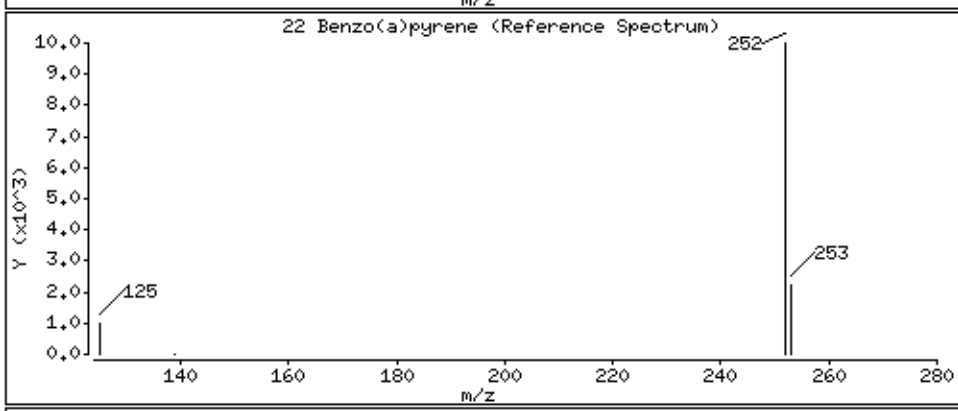
Concentration: 0.169 ug/Kg

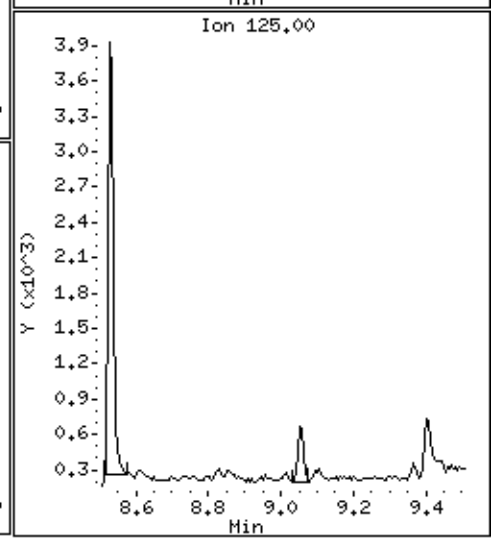


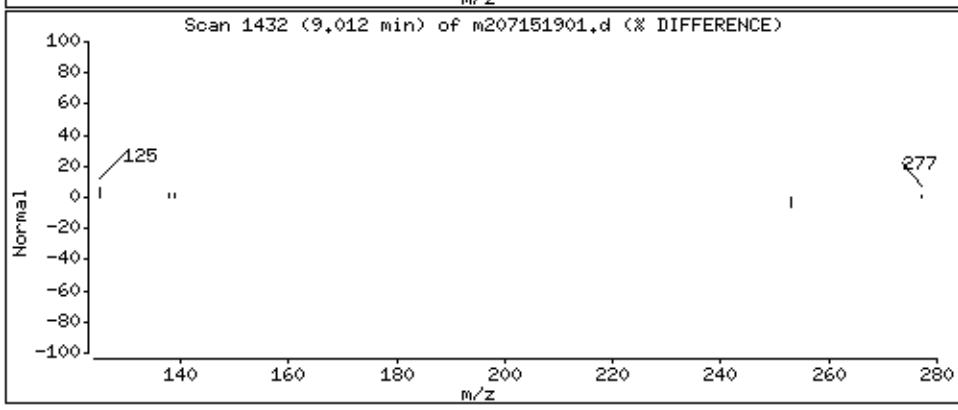












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

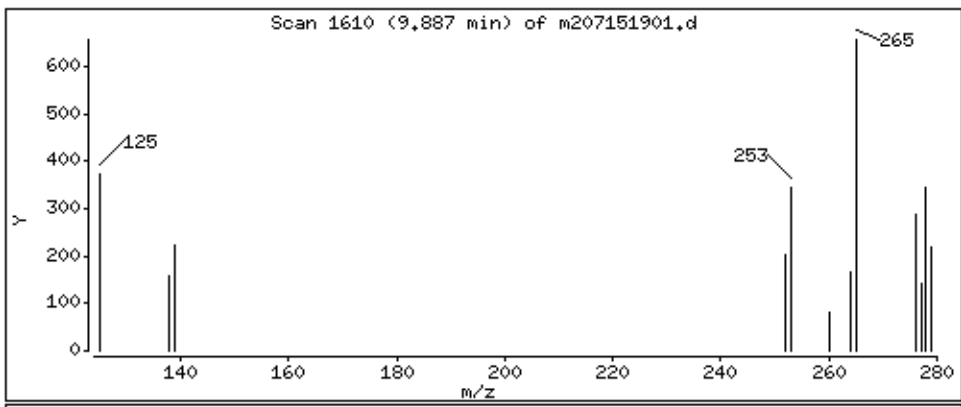
Operator: DSC

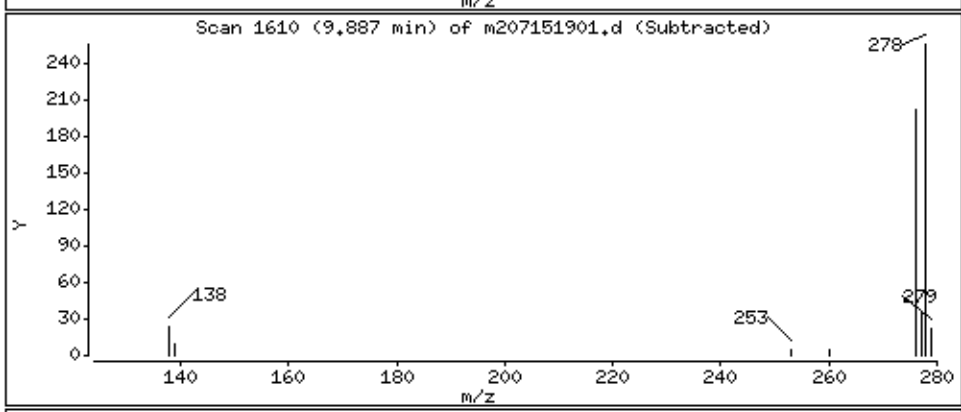
Column phase: RTX-5MS

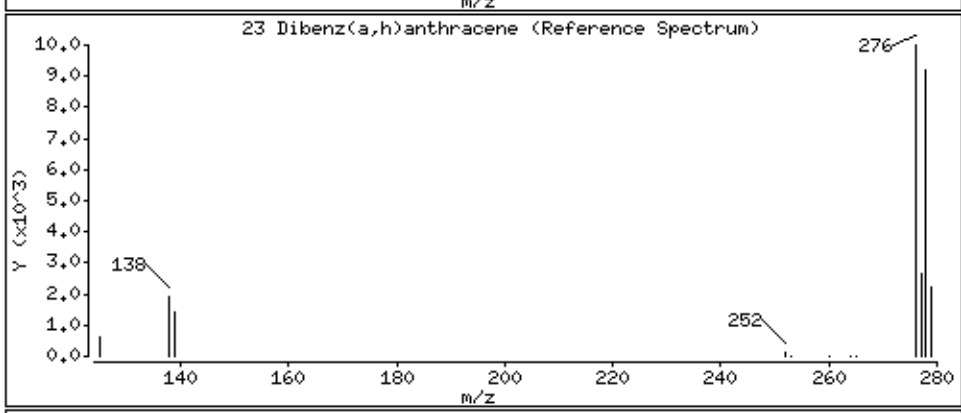
Column diameter: 0.25

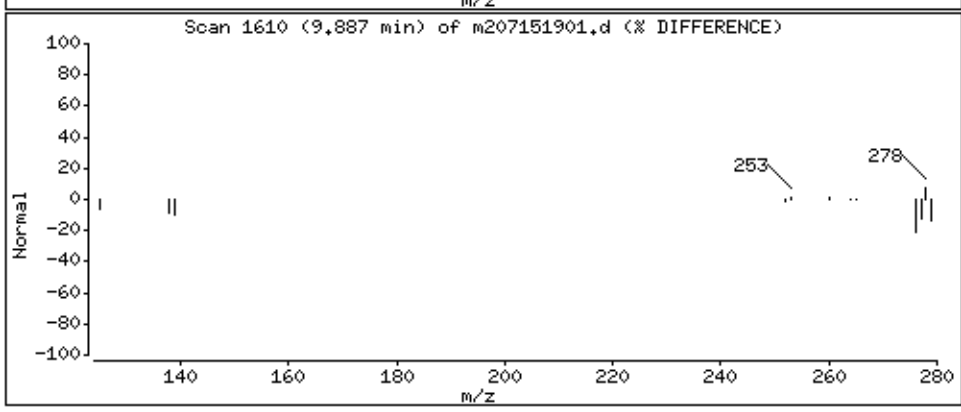
23 Dibenz(a,h)anthracene

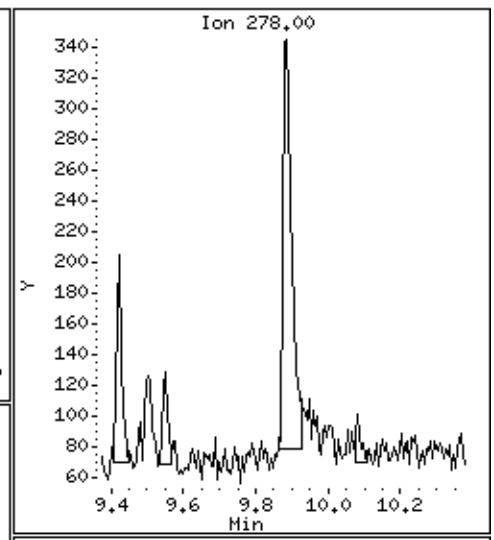
Concentration: 0.195 ug/Kg

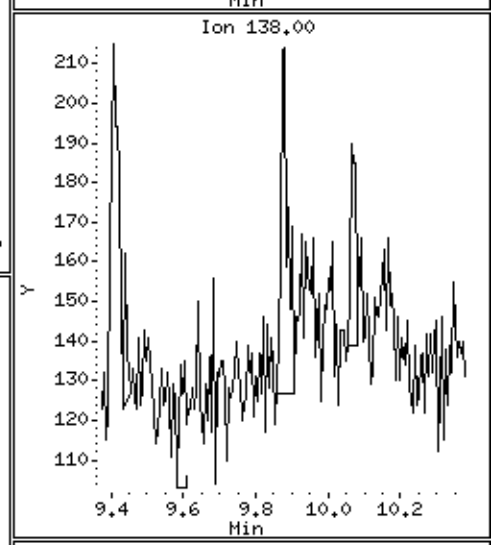


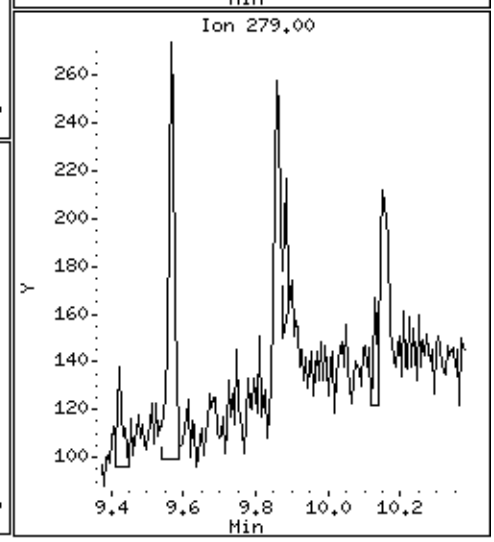












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

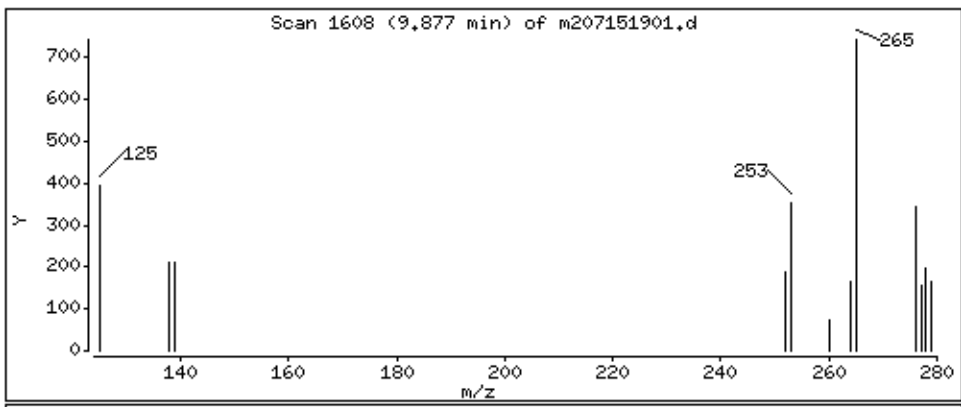
Operator: DSC

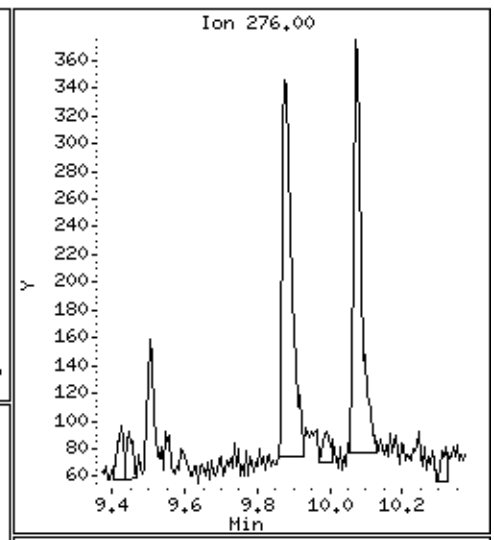
Column phase: RTX-5MS

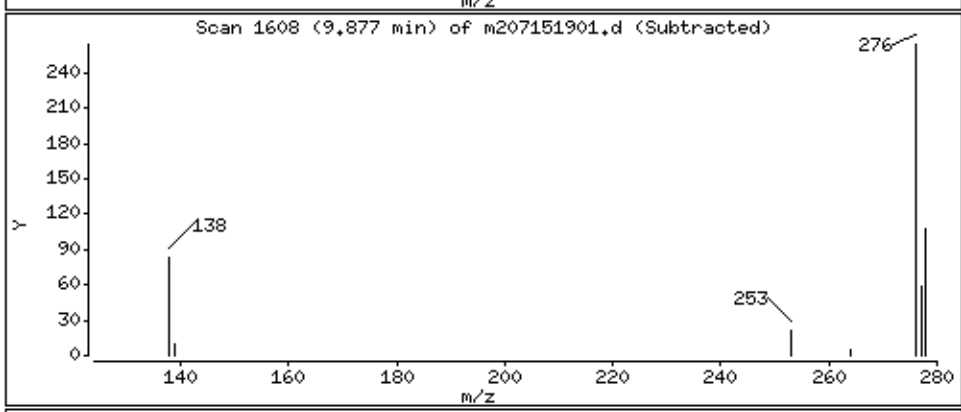
Column diameter: 0.25

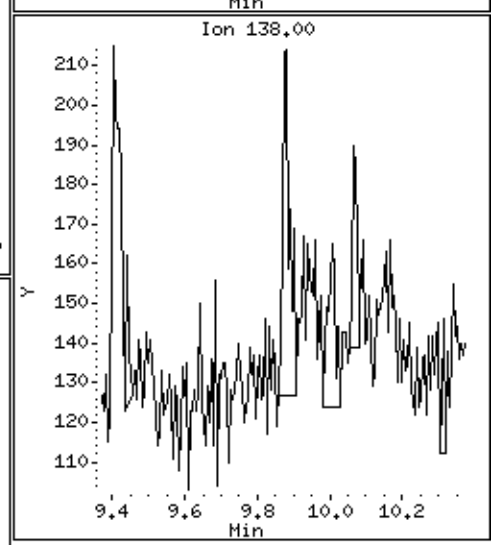
24 Indeno(1,2,3-cd)pyrene

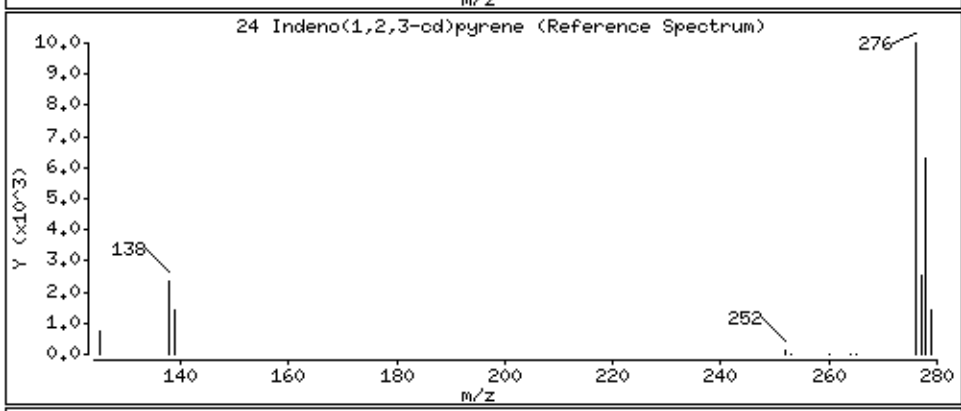
Concentration: 0.185 ug/Kg

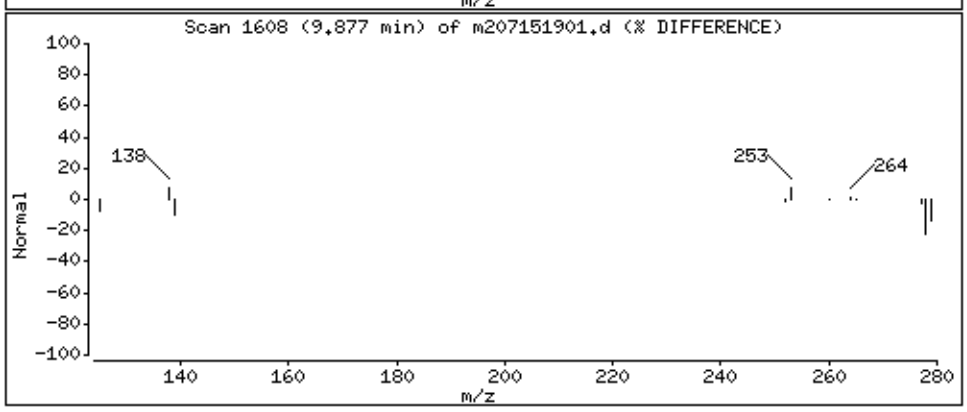












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

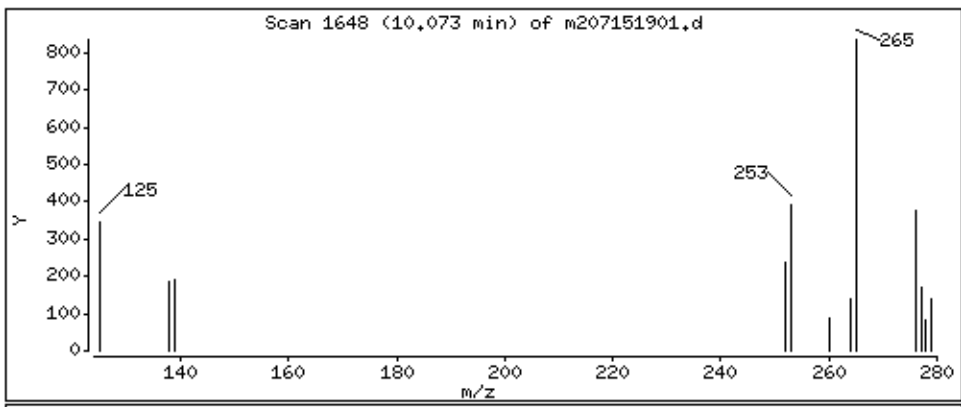
Operator: DSC

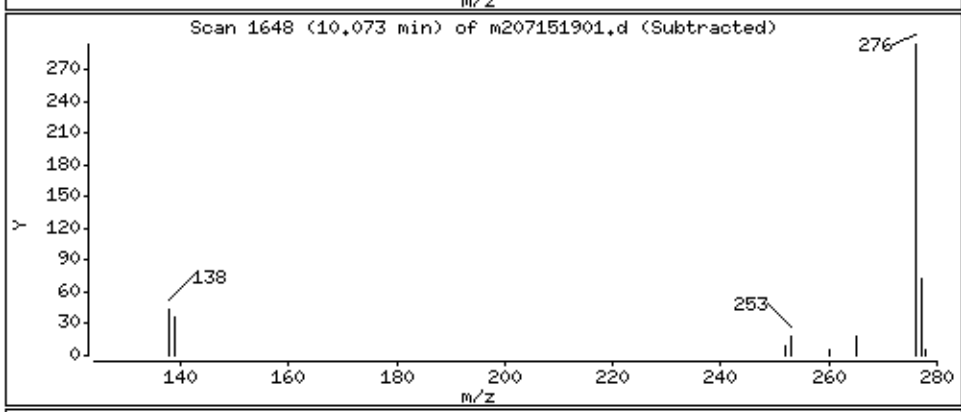
Column phase: RTX-5MS

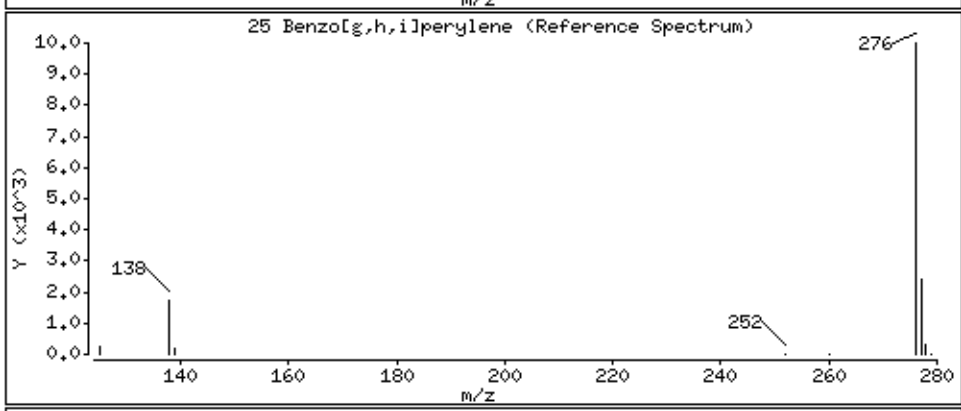
Column diameter: 0.25

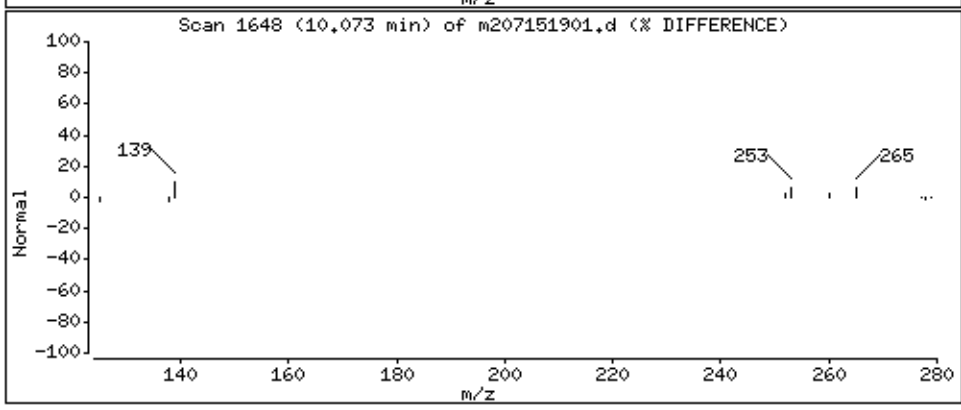
25 Benzo[g,h,i]perylene

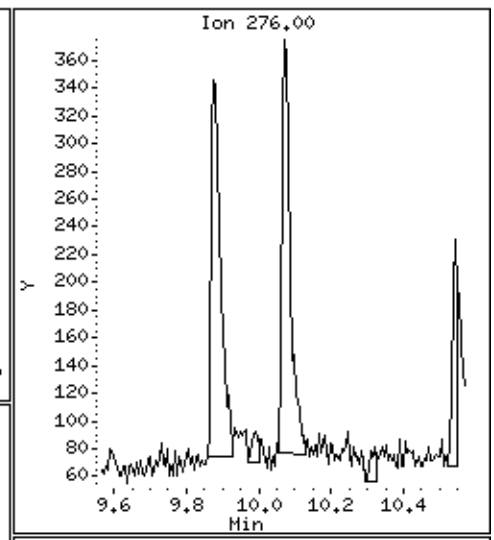
Concentration: 0.228 ug/Kg

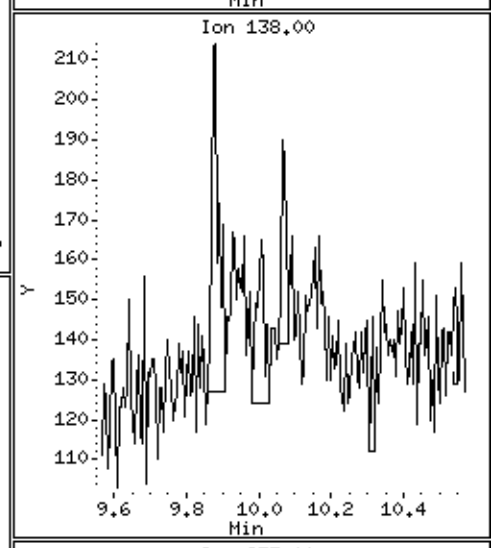


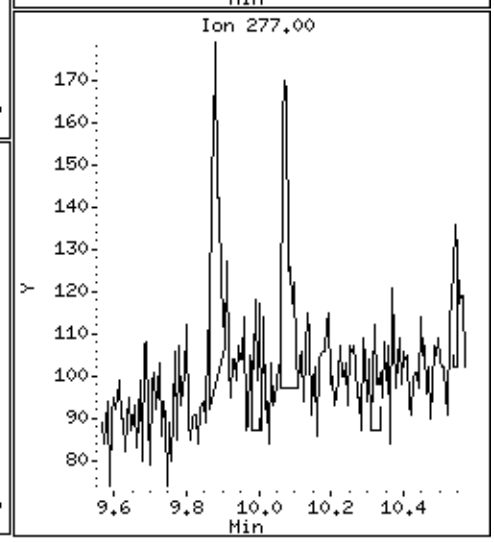












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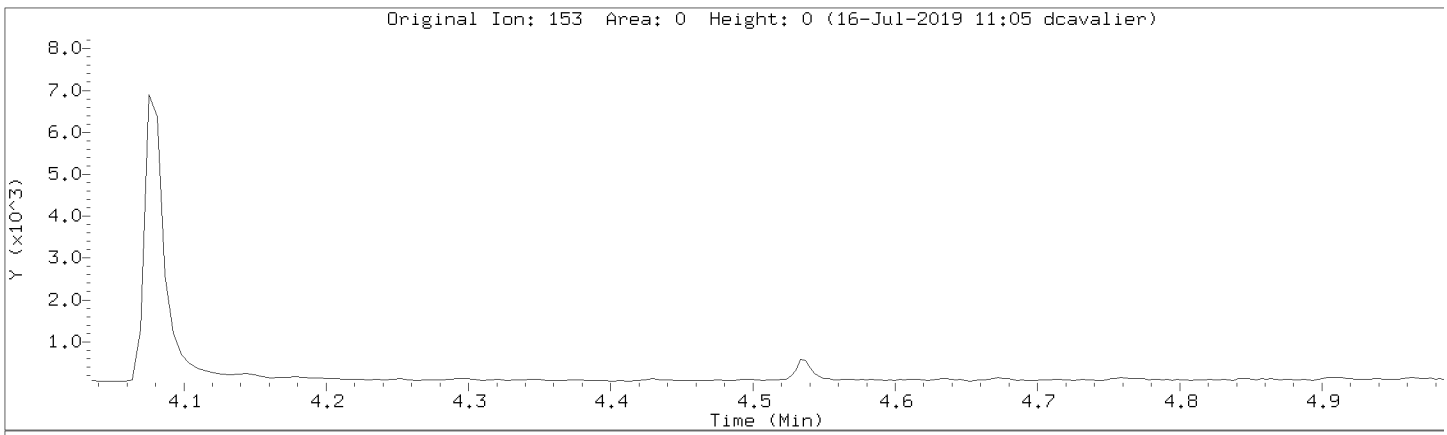
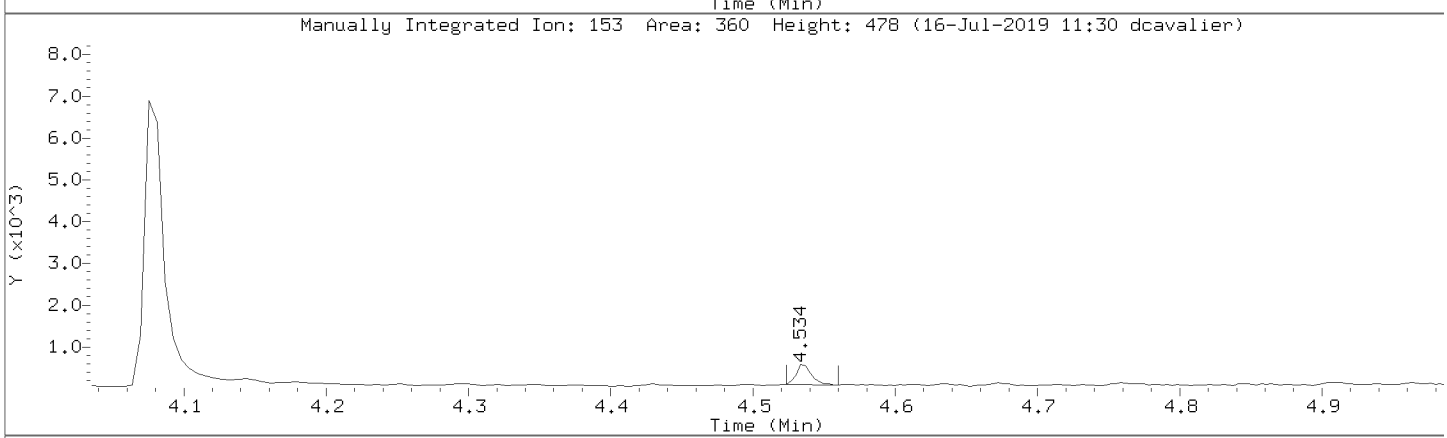
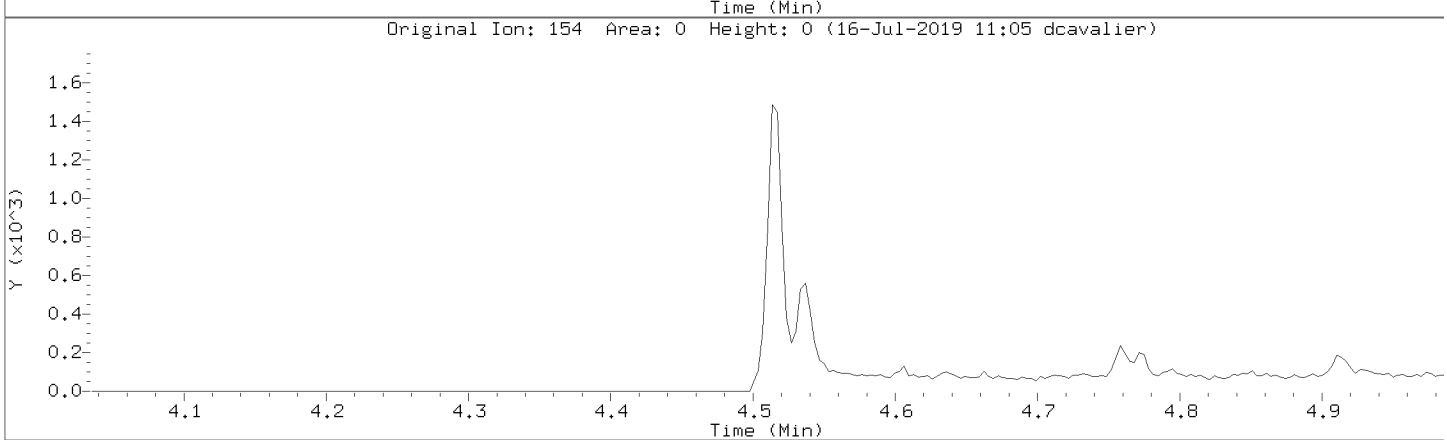
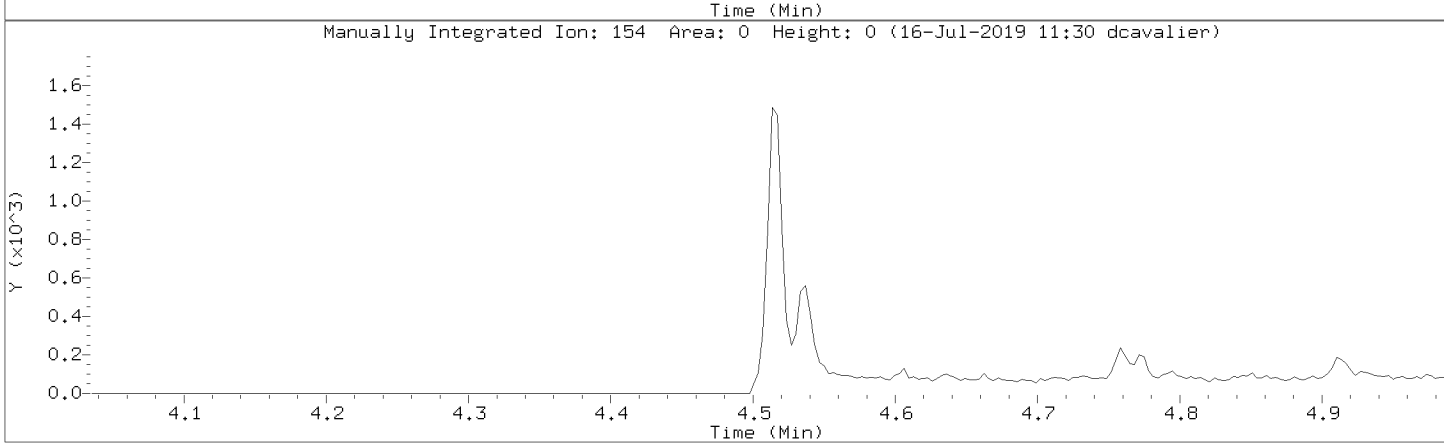
Injection Date: 15-JUL-2019 09:19
Instrument: 30mss2.i
Lab Sample ID: 1708423

Compound: Acenaphthene Review Code: NI
CAS Number: 83-32-9









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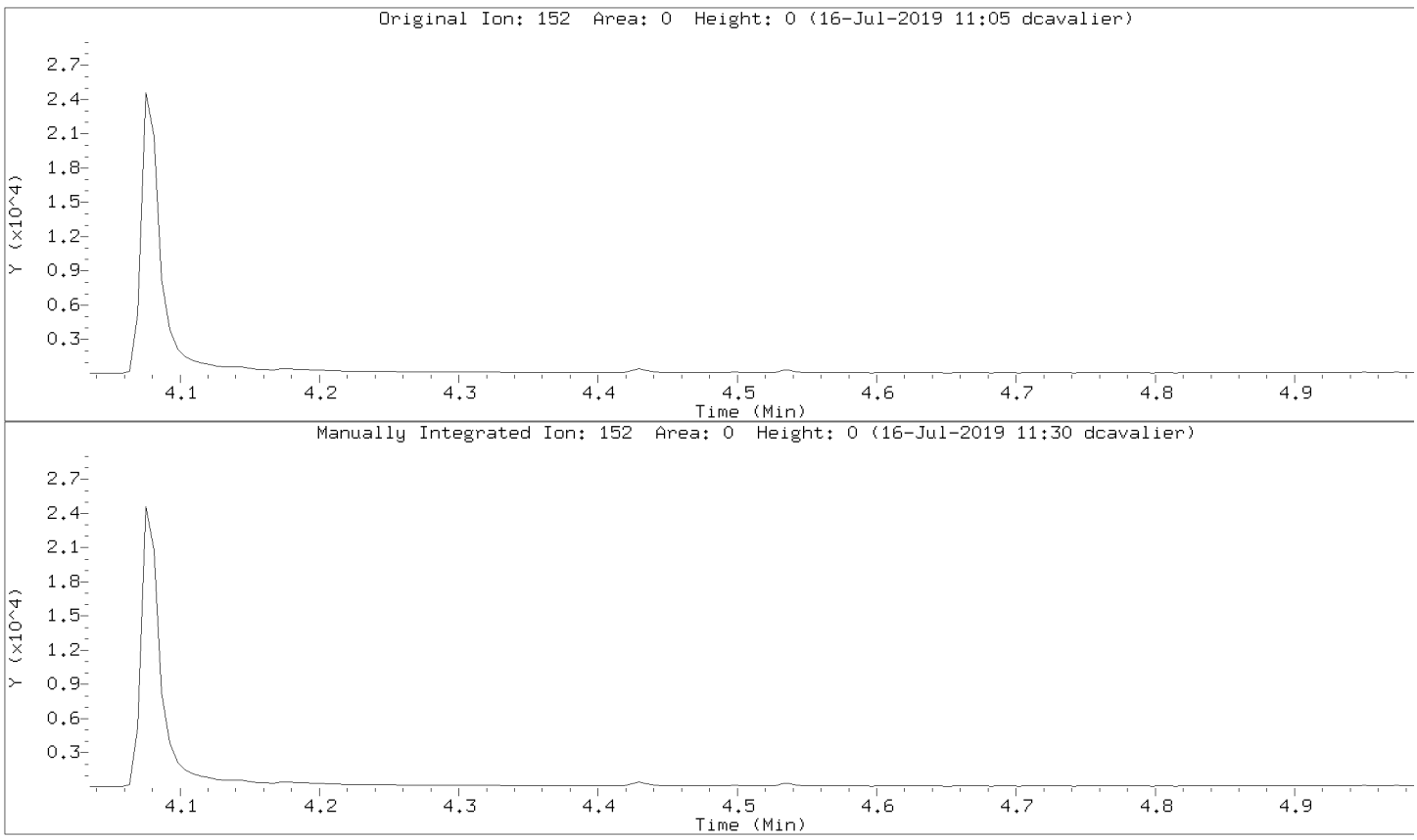
Injection Date: 15-JUL-2019 09:19
Instrument: 30mss2.i
Lab Sample ID: 1708423



SAMPLE NO.

LCS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 1708424
Date Analyzed: 07/15/2019 09:37
Lab File ID: MSS2071519.B\M207151902.D
Initial wt/vol: 15.08 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
83-32-9	Acenaphthene	0.099	
208-96-8	Acenaphthylene	0.097	
120-12-7	Anthracene	0.11	
56-55-3	Benzo(a)anthracene	0.12	
50-32-8	Benzo(a)pyrene	0.12	
205-99-2	Benzo(b)fluoranthene	0.13	
191-24-2	Benzo(g,h,i)perylene	0.097	
207-08-9	Benzo(k)fluoranthene	0.12	
218-01-9	Chrysene	0.12	
53-70-3	Dibenz(a,h)anthracene	0.098	
206-44-0	Fluoranthene	0.12	
86-73-7	Fluorene	0.10	
193-39-5	Indeno(1,2,3-cd)pyrene	0.098	
91-20-3	Naphthalene	0.10	
85-01-8	Phenanthrene	0.11	
129-00-0	Pyrene	0.12	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d
Lab Smp Id: 1708424 Client Smp ID: MBLCS
Inj Date : 15-JUL-2019 09:37
Operator : DSC Inst ID: 30mss2.i
Smp Info : 1708424,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	554997	4.00000		
	8 Naphthalene	128	3.407	3.401	(1.005)	189689	1.51663	100	
	9 2-Methylnaphthalene	142	3.846	3.846	(1.135)	127657	1.53573	102	
	10 1-Methylnaphthalene	142	3.909	3.909	(1.153)	134937	1.51312	100	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	393572	3.68481	244	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	183969	1.45939	96.8	
*	2 Acenaphthene-d10 (IS)	164	4.517	4.516	(1.000)	319999	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	123405	1.49880	99.4	
	13 Fluorene	166	4.870	4.870	(1.078)	151692	1.56980	104	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	548484	4.00000		
	14 Phenanthrene	178	5.538	5.542	(1.002)	213615	1.61350	107	
	15 Anthracene	178	5.578	5.578	(1.010)	227996	1.68979	112	
	16 Fluoranthene	202	6.490	6.490	(1.175)	274205	1.80951	120	
	17 Pyrene	202	6.688	6.688	(1.211)	276394	1.77397	118	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	478811	4.11246	273	
	18 Benzo(a)anthracene	228	7.769	7.772	(0.999)	255647	1.83388	122	
*	4 Chrysene-d12 (IS)	240	7.781	7.783	(1.000)	509433	4.00000		
	19 Chrysene	228	7.804	7.807	(1.003)	252699	1.76981	117	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.732	8.732	(0.964)	261653	1.90168	126	
21 Benzo(k)fluoranthene	252	8.757	8.757	(0.967)	302046	1.82717	121	
22 Benzo(a)pyrene	252	9.007	9.007	(0.995)	234145	1.78884	119	
* 5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	527236	4.00000		
23 Dibenz(a,h)anthracene	278	9.876	9.876	(1.091)	209453	1.47658	97.9	
24 Indeno(1,2,3-cd)pyrene	276	9.872	9.872	(1.090)	253133	1.47664	97.9	
25 Benzo[g,h,i]perylene	276	10.068	10.068	(1.112)	205762	1.45783	96.7	

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

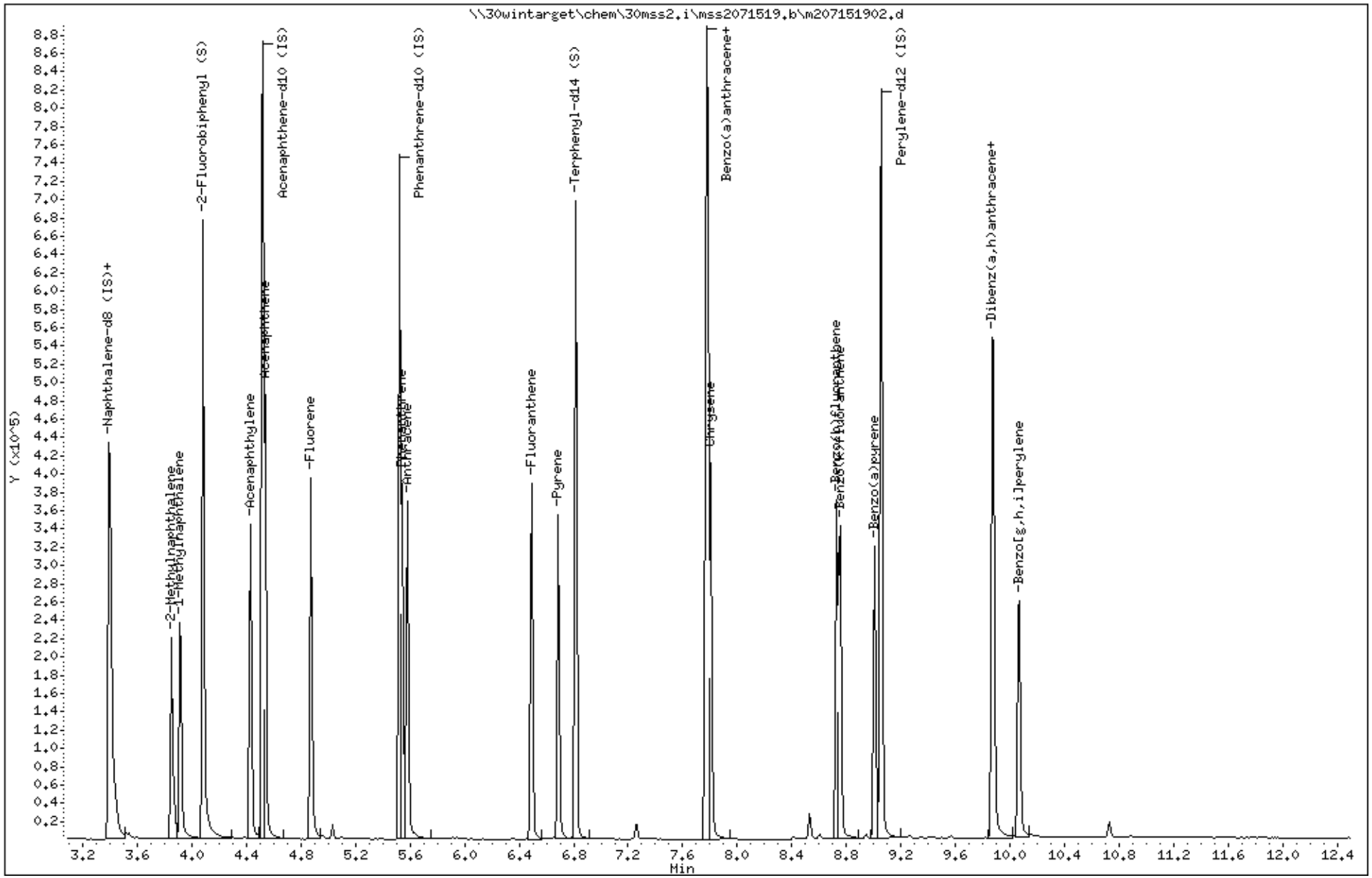
Client Name:
Lab Smp Id: 1708424
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14824,

Client SDG: mss2071519.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: DSC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00995	U
91-20-3	Naphthalene	100	
91-57-6	2-Methylnaphthalene	102	
90-12-0	1-Methylnaphthalene	100	
208-96-8	Acenaphthylene	96.8	
83-32-9	Acenaphthene	99.4	
86-73-7	Fluorene	104	
85-01-8	Phenanthrene	107	
120-12-7	Anthracene	112	
206-44-0	Fluoranthene	120	
129-00-0	Pyrene	118	
56-55-3	Benzo(a)anthracene	122	
218-01-9	Chrysene	117	
205-99-2	Benzo(b)fluoranthene	126	
207-08-9	Benzo(k)fluoranthene	121	
50-32-8	Benzo(a)pyrene	119	
53-70-3	Dibenz(a,h)anthracene	97.9	
193-39-5	Indeno(1,2,3-cd)pyrene	97.9	
191-24-2	Benzo[g,h,i]perylene	96.7	
321-60-8	2-Fluorobiphenyl (S)	244	
1718-51-0	Terphenyl-d14 (S)	273	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d
Date : 15-JUL-2019 09:37
Client ID: MBLCS
Sample Info: 1708424,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: DSC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

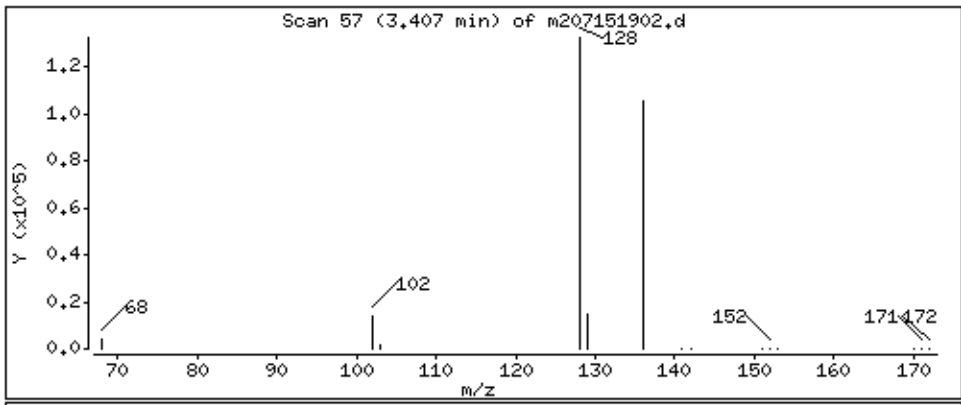
Operator: DSC

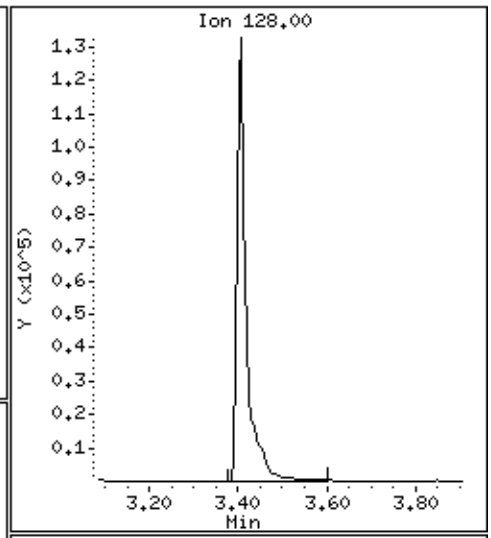
Column phase: RTX-5MS

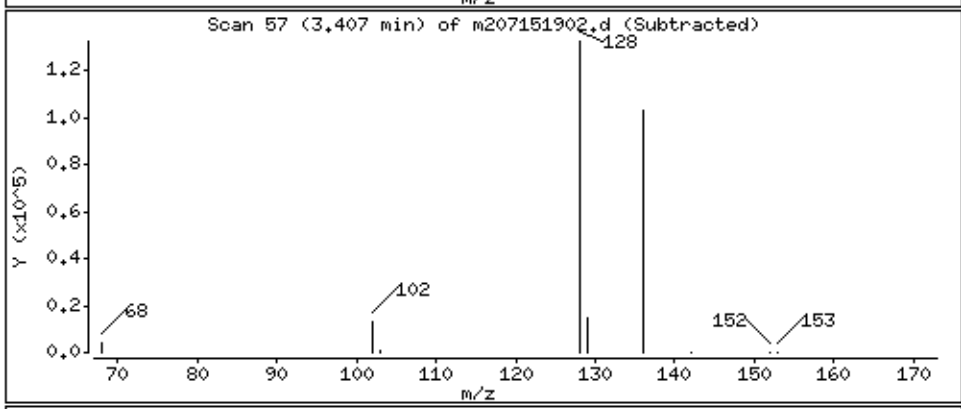
Column diameter: 0.25

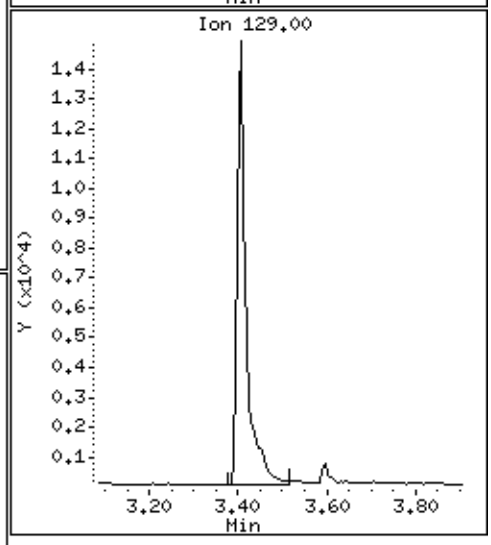
8 Naphthalene

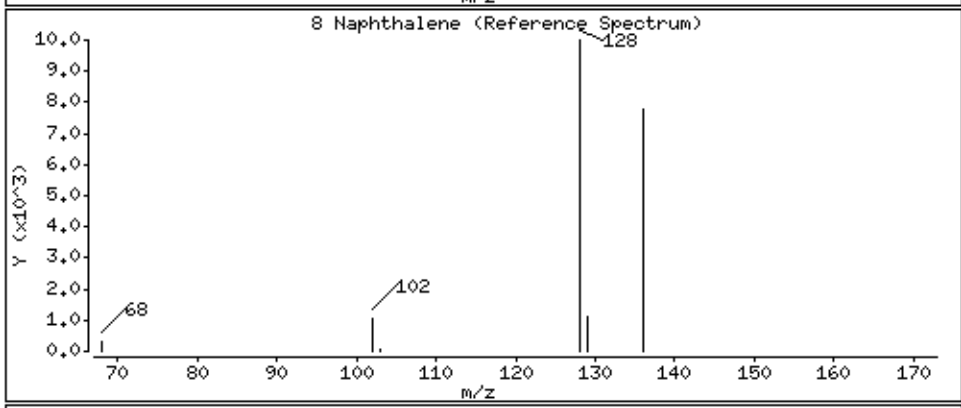
Concentration: 100 ug/Kg

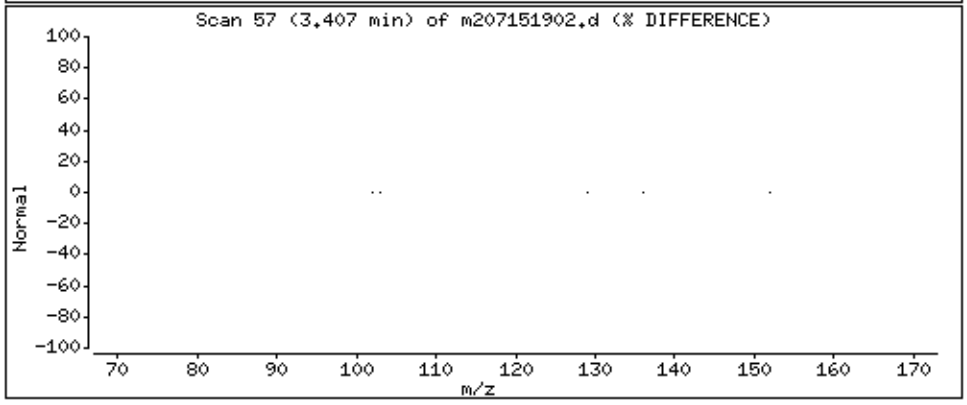












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

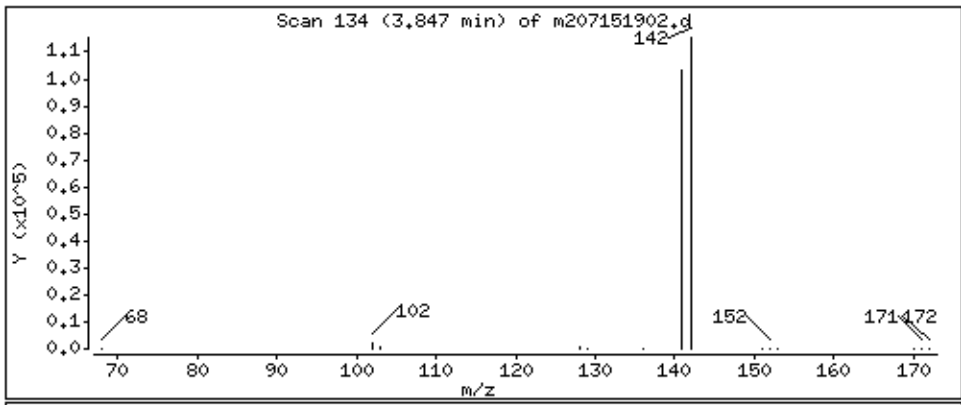
Operator: DSC

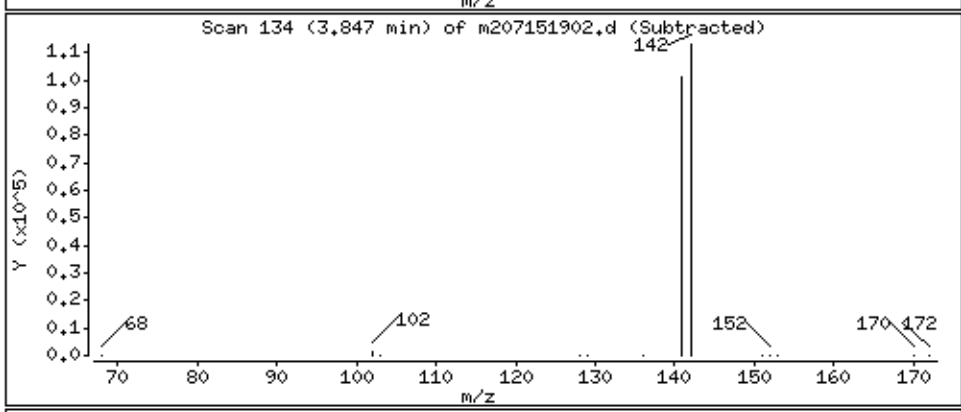
Column phase: RTX-5MS

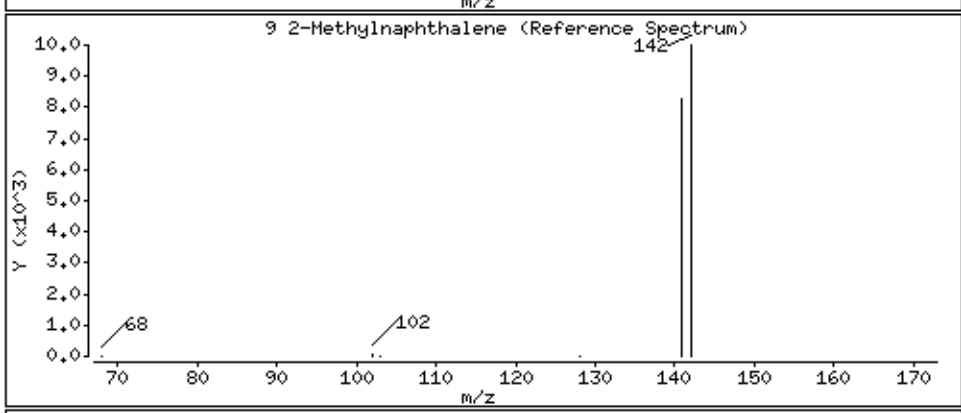
Column diameter: 0.25

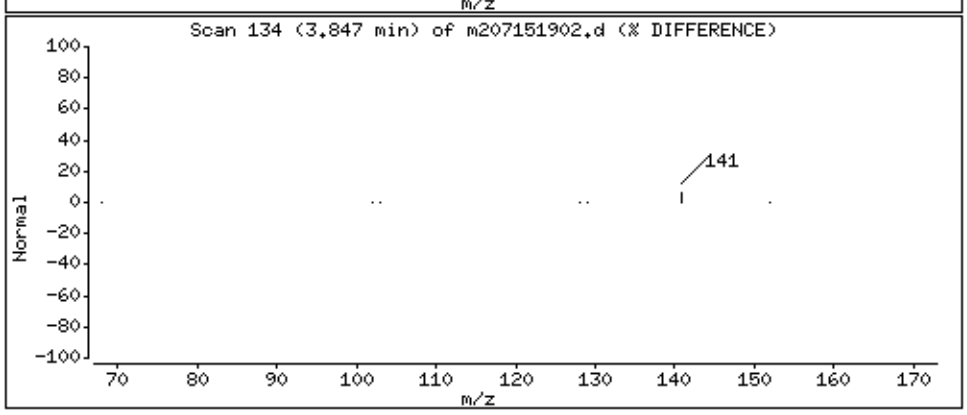
9 2-Methylnaphthalene

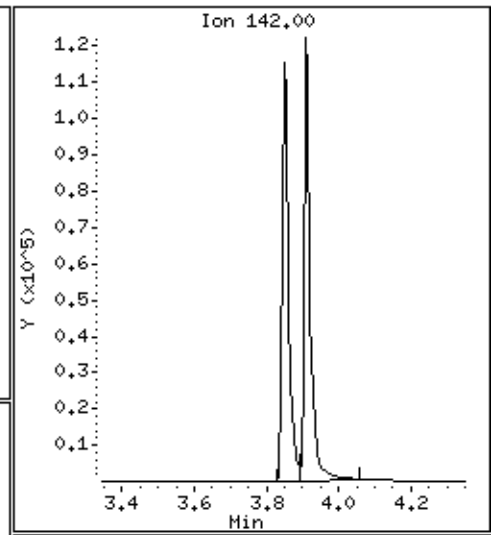
Concentration: 102 ug/Kg

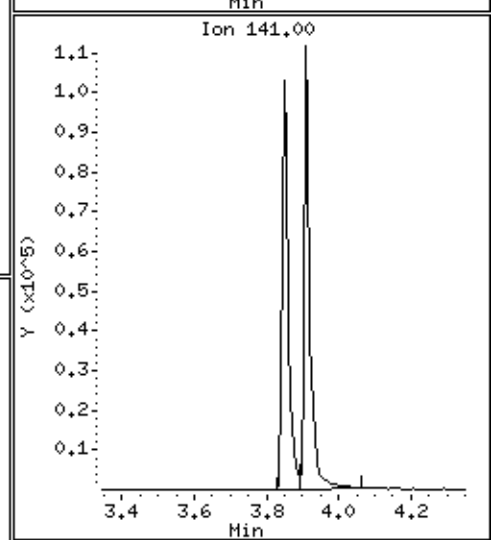












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

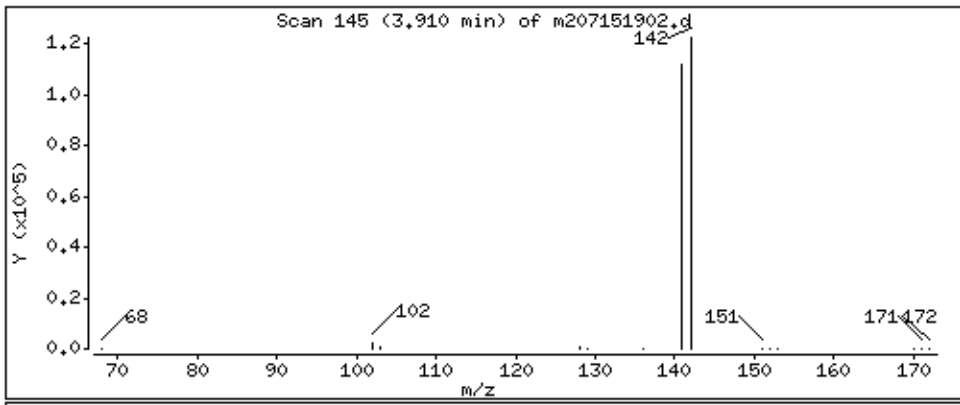
Operator: DSC

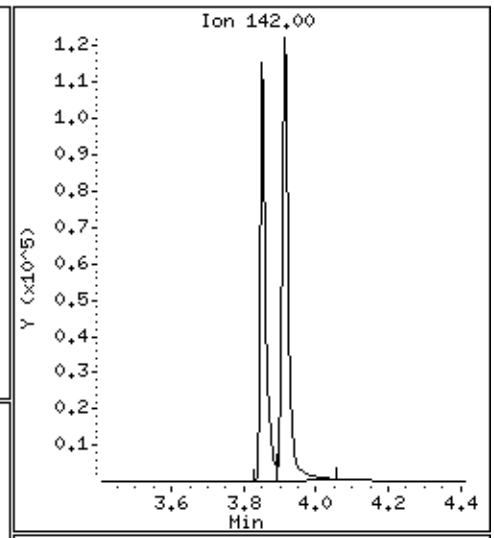
Column phase: RTX-5MS

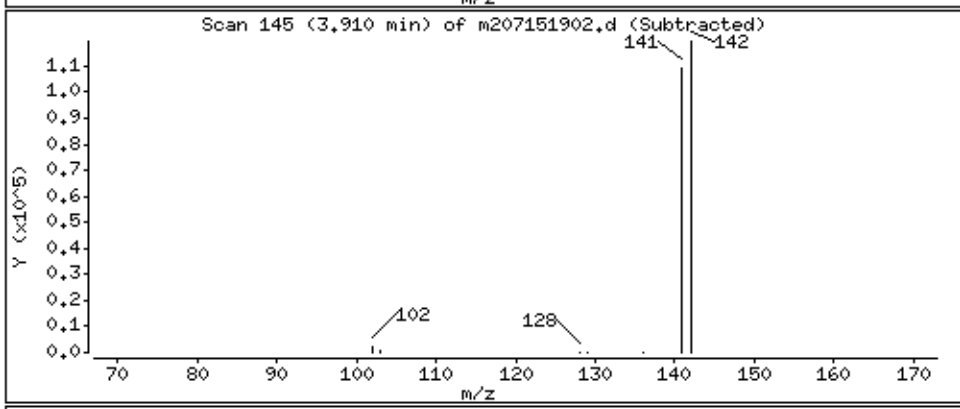
Column diameter: 0.25

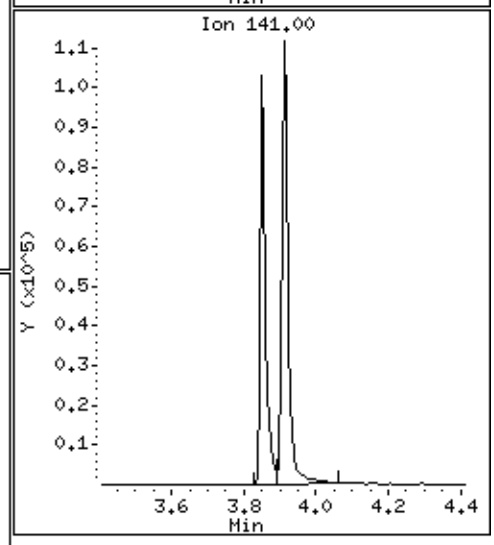
10 1-Methylnaphthalene

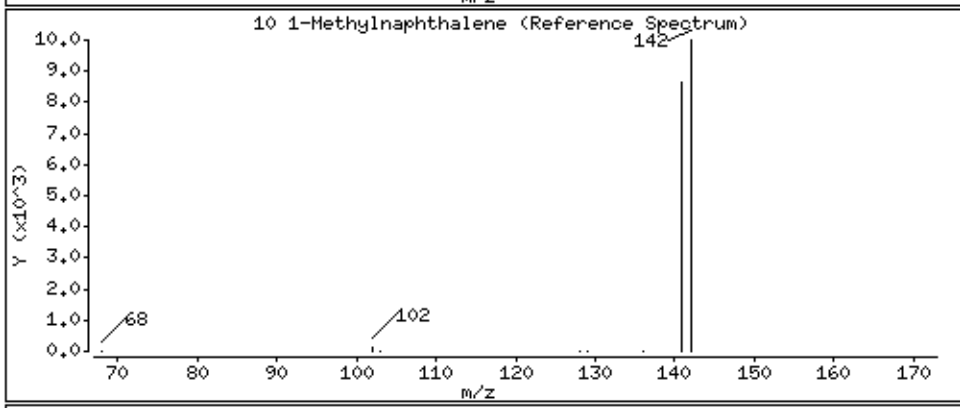
Concentration: 100 ug/Kg

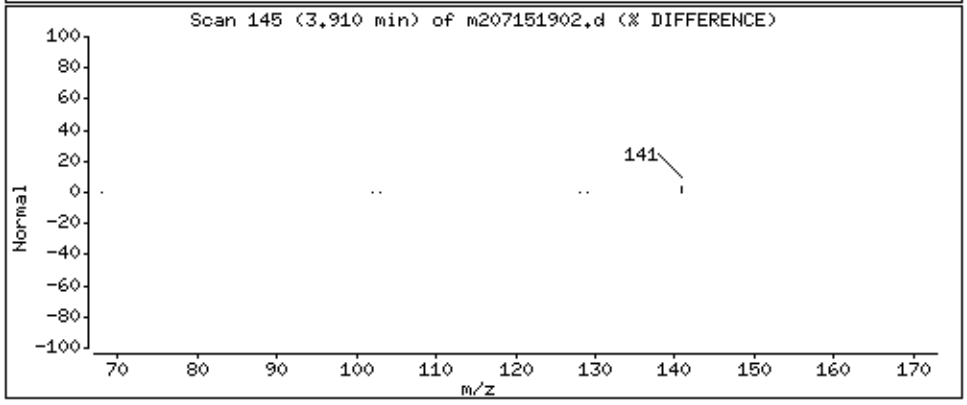












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

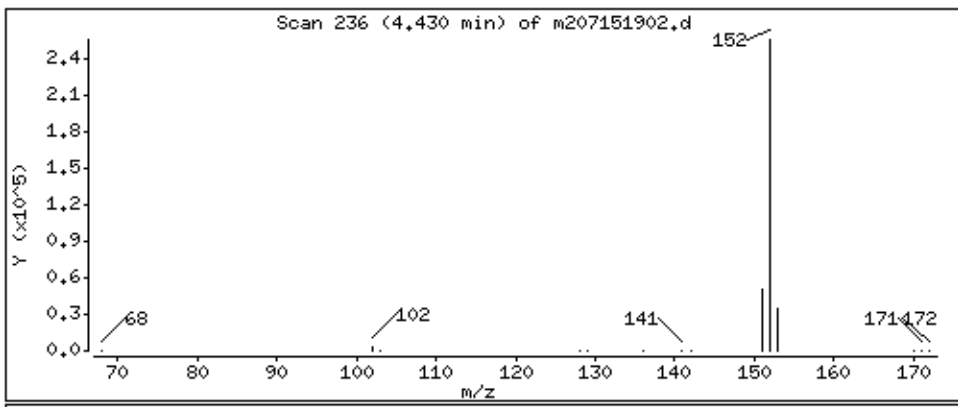
Operator: DSC

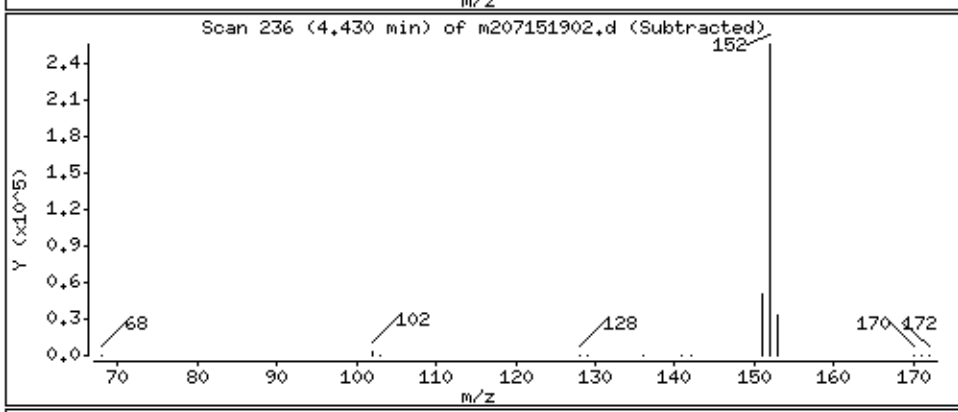
Column phase: RTX-5MS

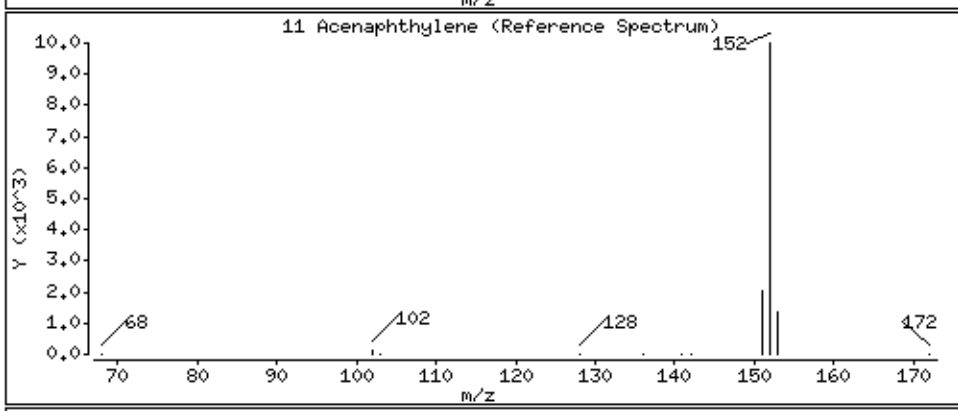
Column diameter: 0.25

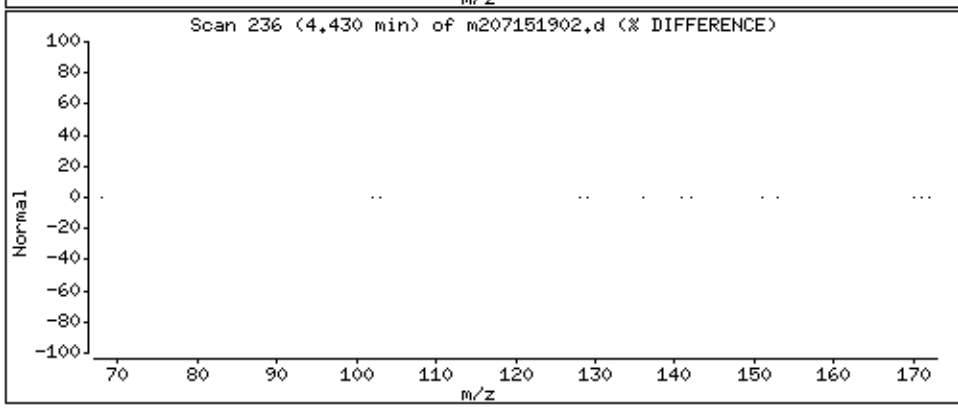
11 Acenaphthylene

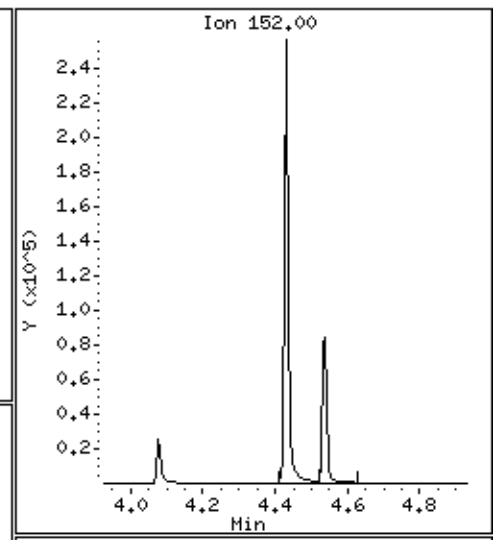
Concentration: 96.8 ug/Kg

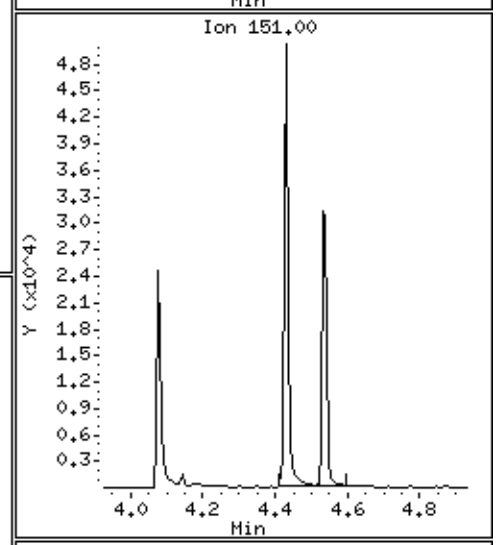


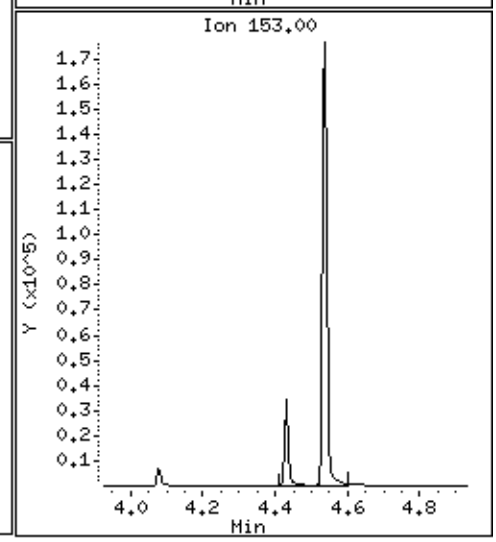












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

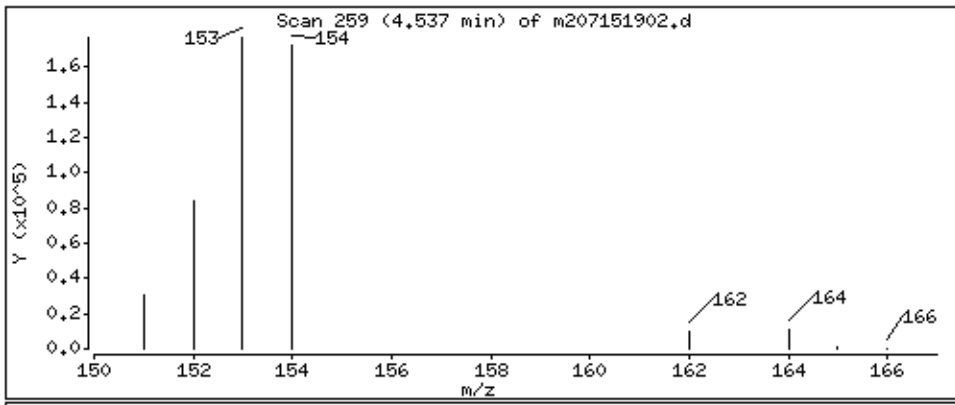
Operator: DSC

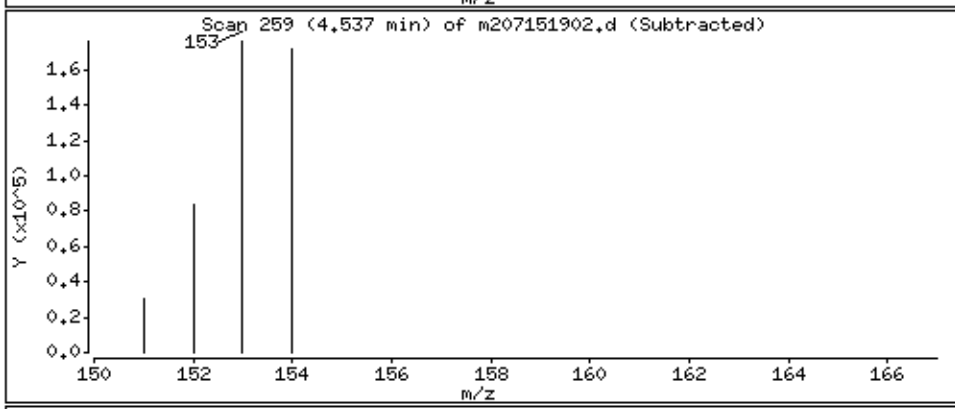
Column phase: RTX-5MS

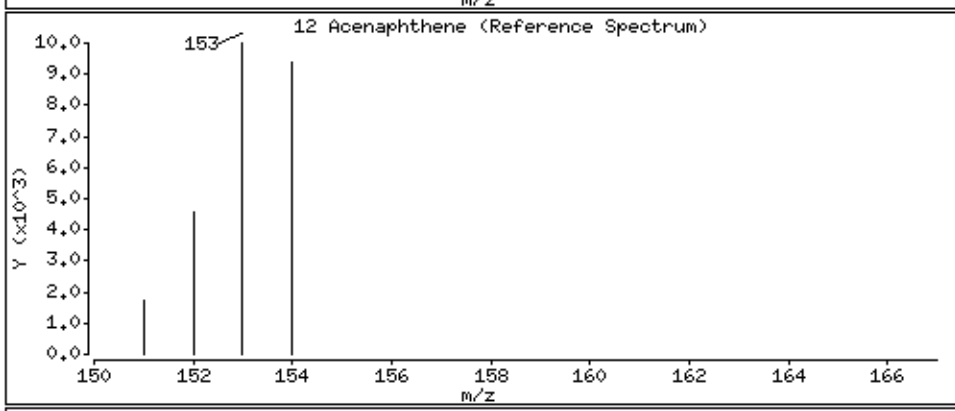
Column diameter: 0.25

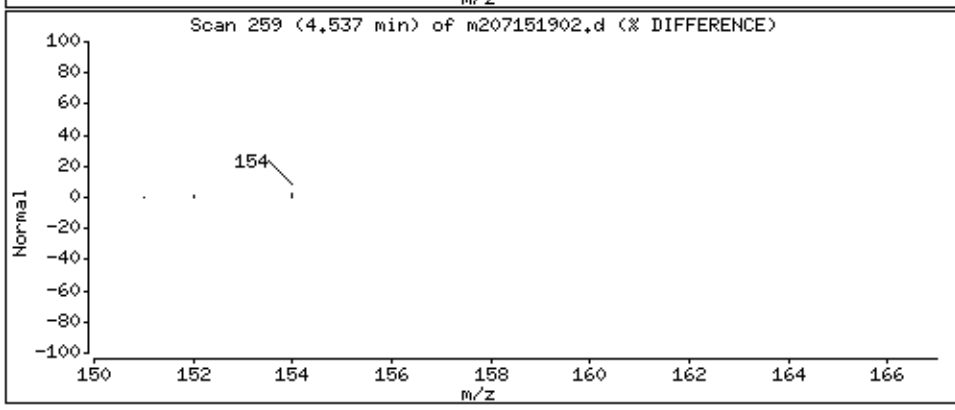
12 Acenaphthene

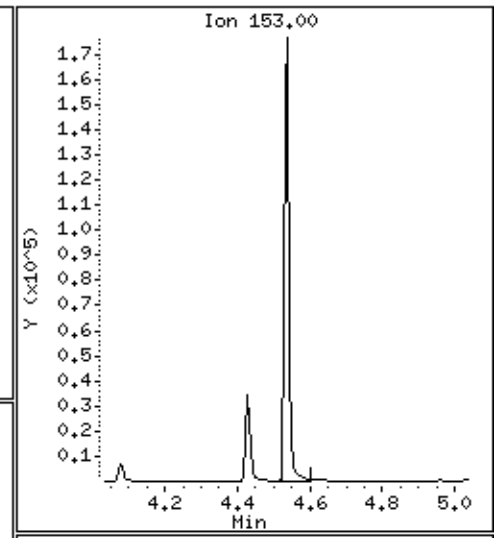
Concentration: 99.4 ug/Kg

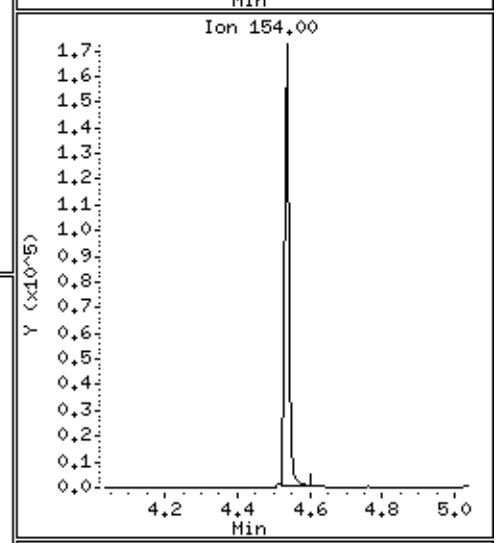


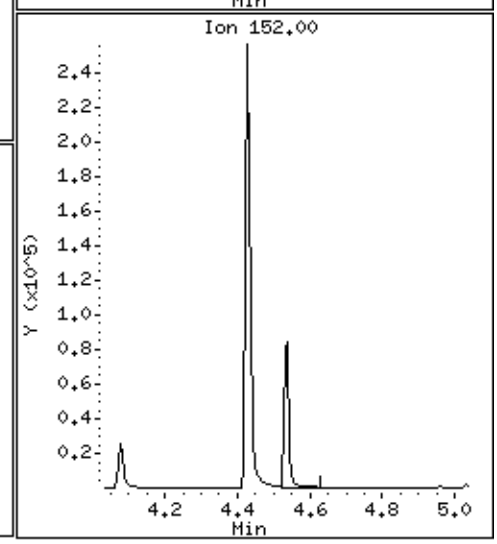












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

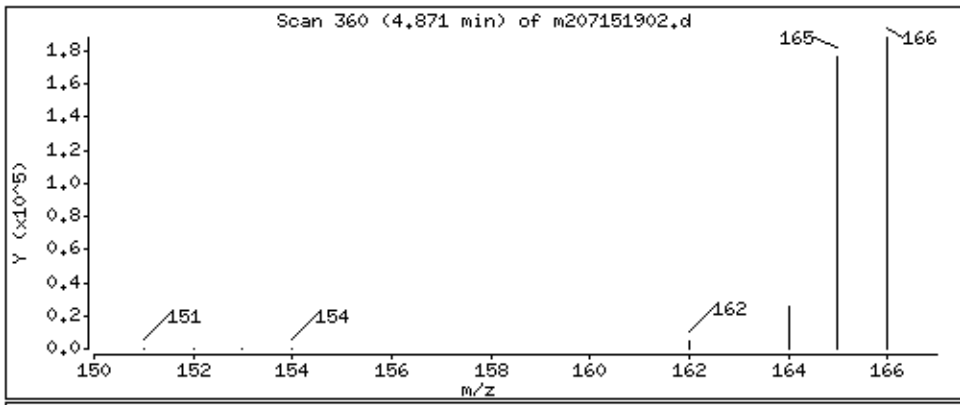
Operator: DSC

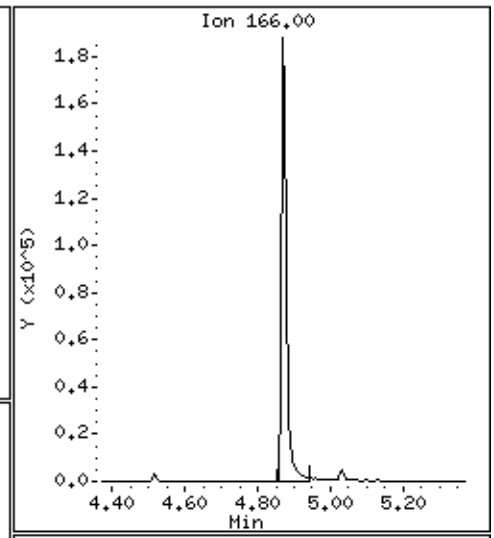
Column phase: RTX-5MS

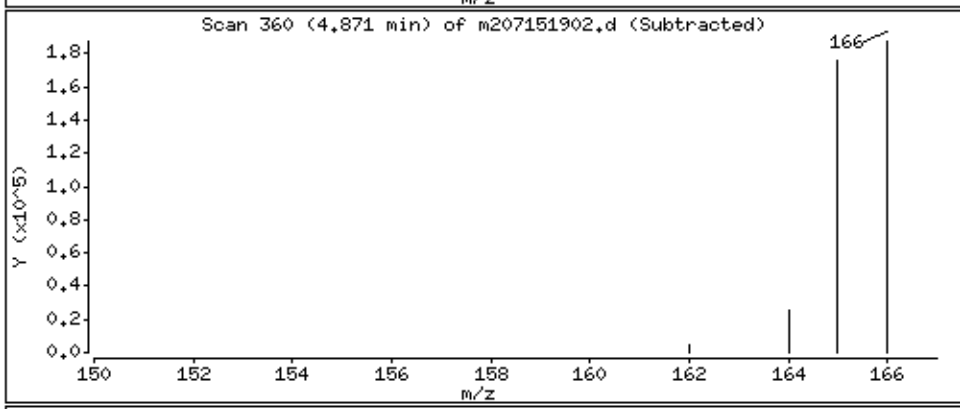
Column diameter: 0.25

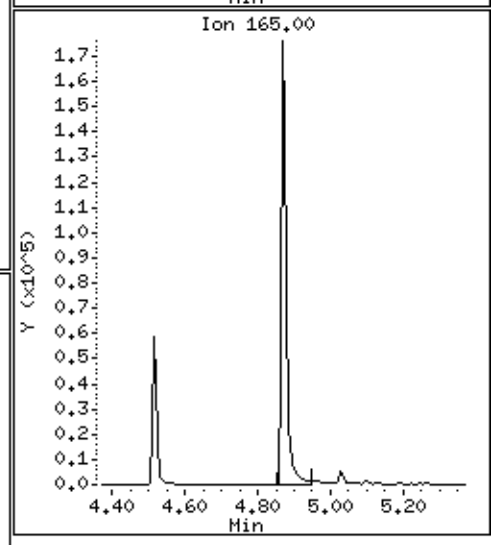
13 Fluorene

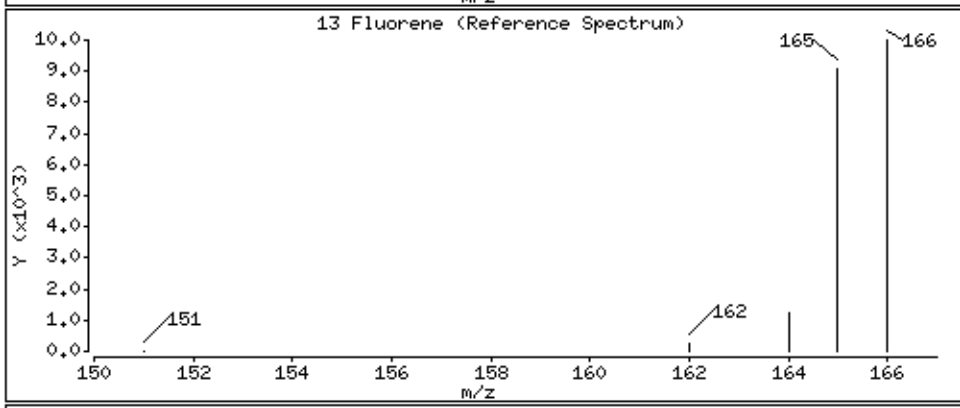
Concentration: 104 ug/Kg

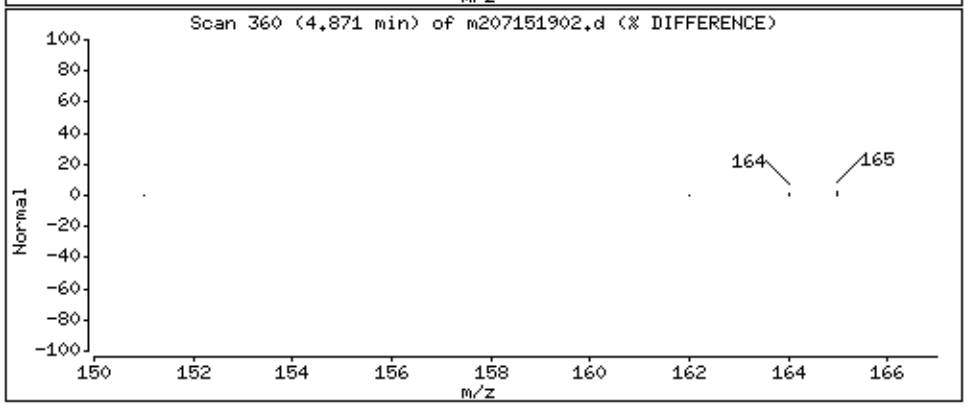












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

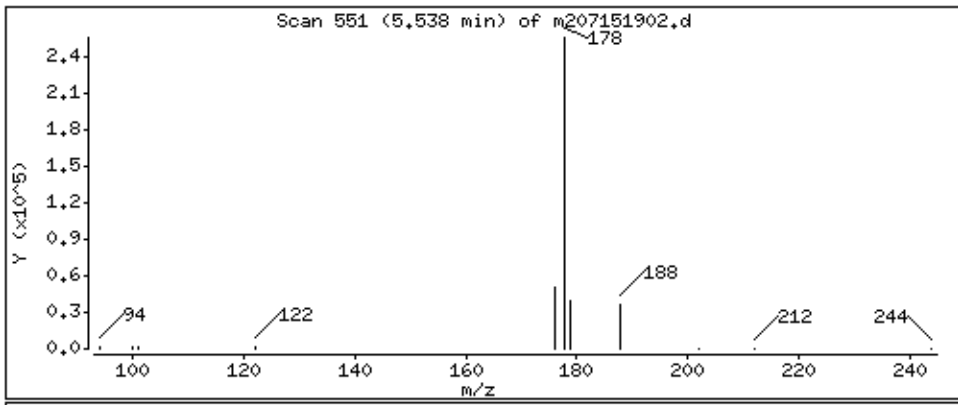
Operator: DSC

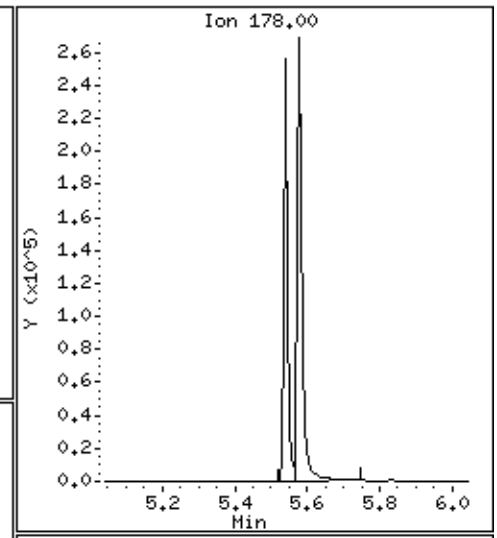
Column phase: RTX-5MS

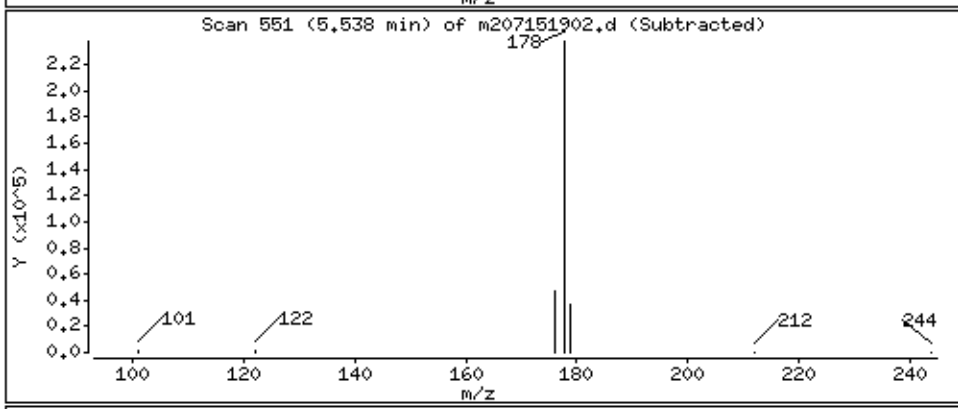
Column diameter: 0.25

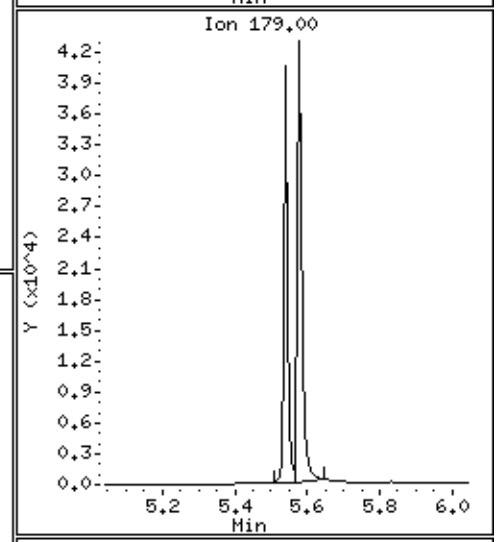
14 Phenanthrene

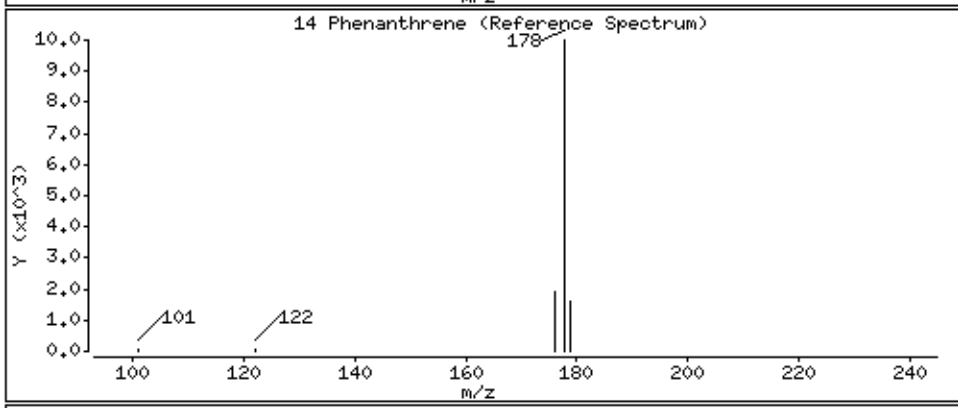
Concentration: 107 ug/Kg

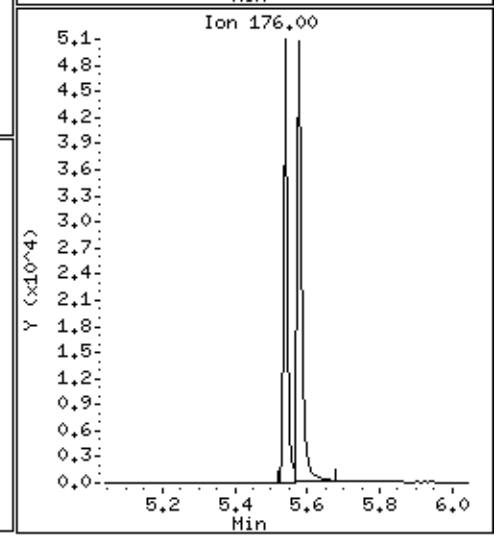


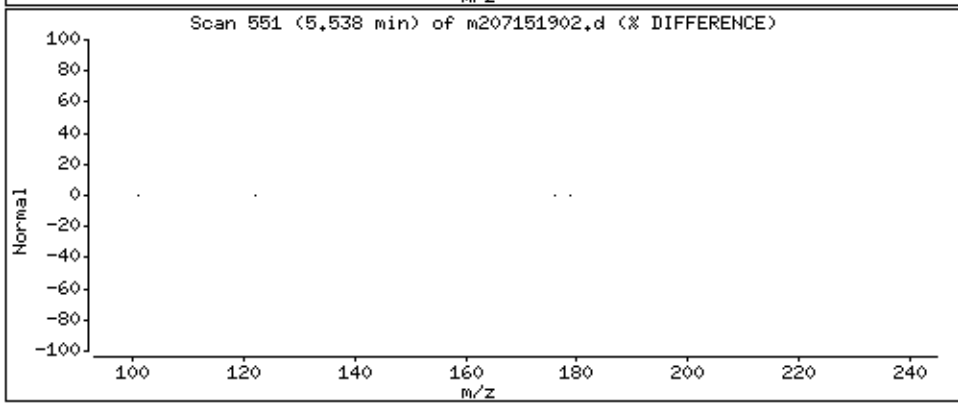












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

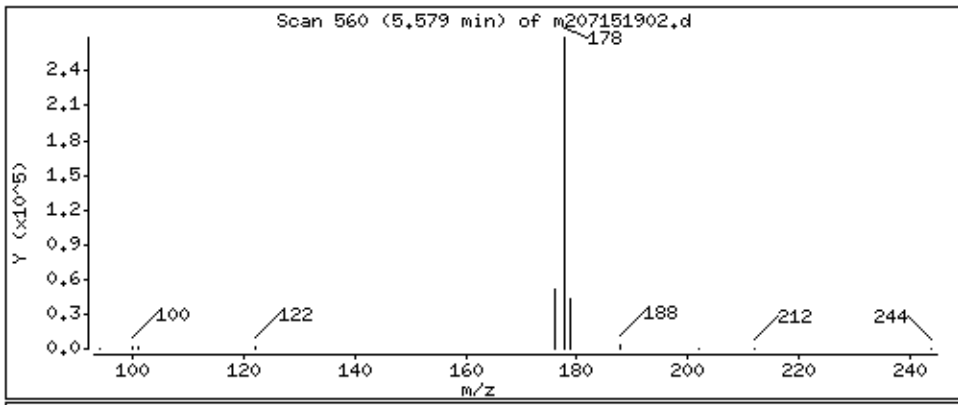
Operator: DSC

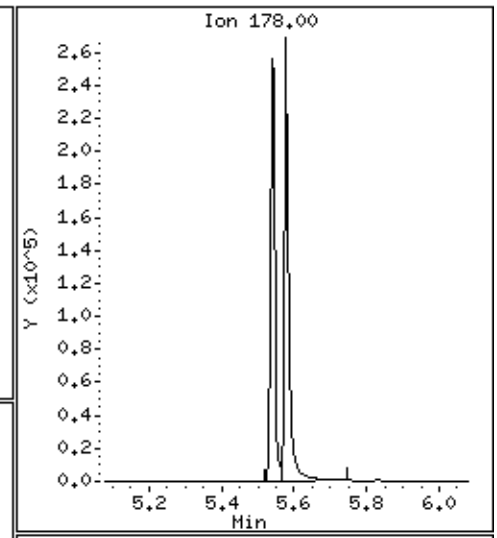
Column phase: RTX-5MS

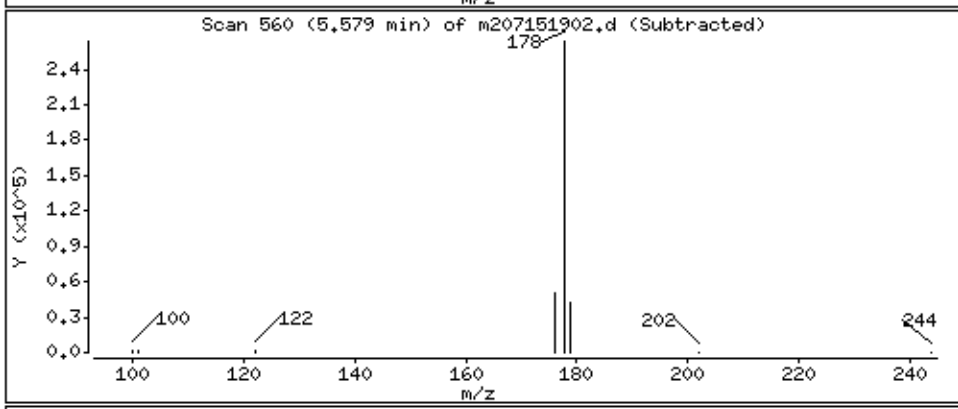
Column diameter: 0.25

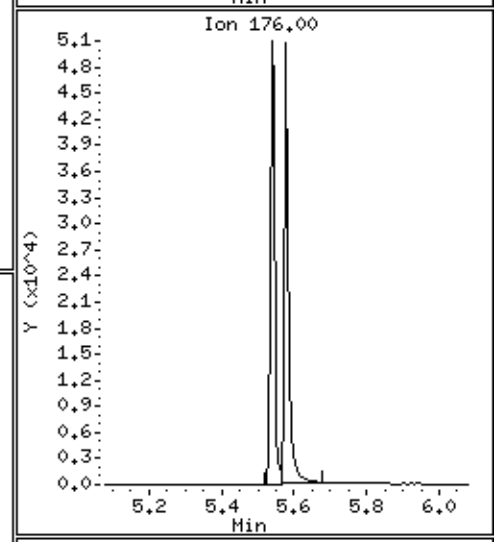
15 Anthracene

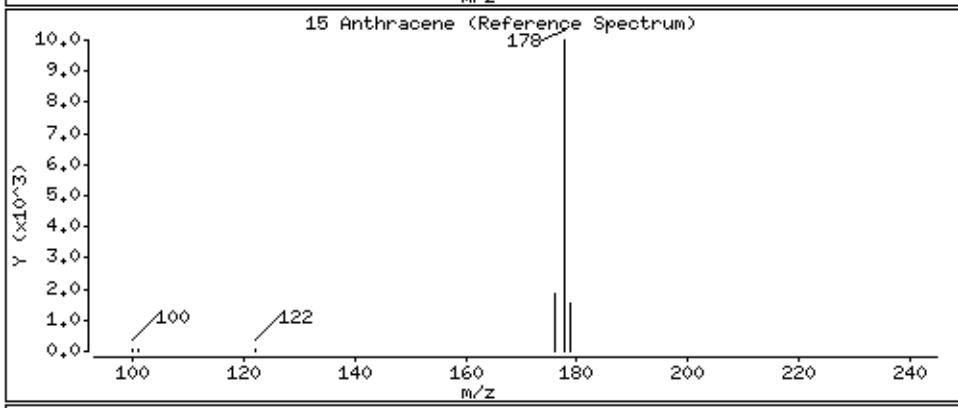
Concentration: 112 ug/Kg

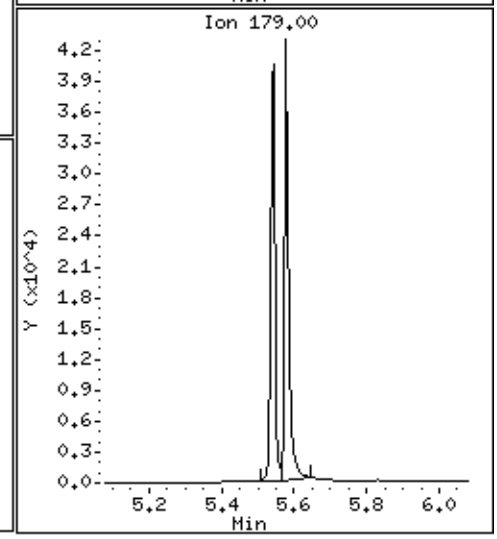


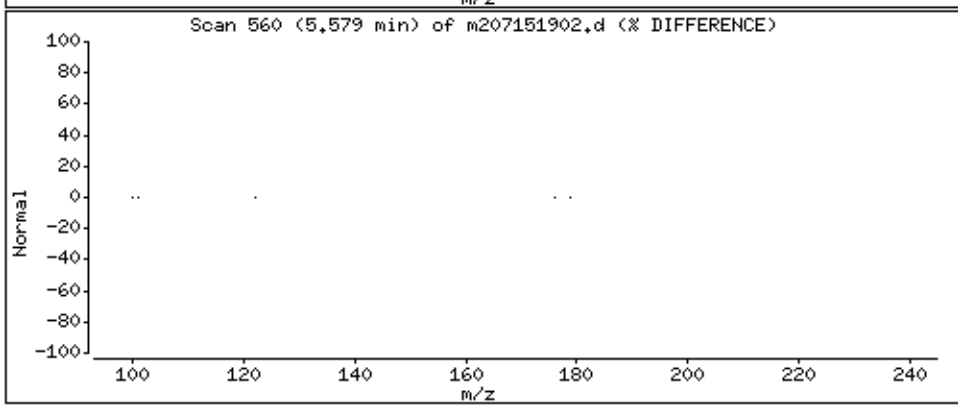












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

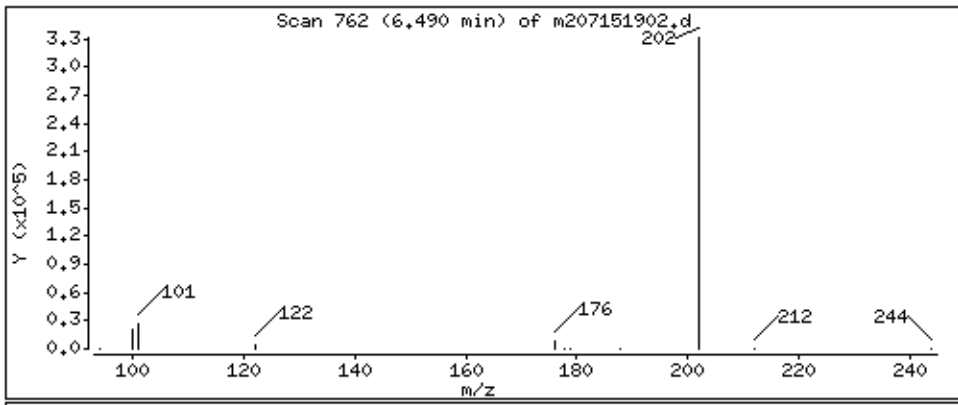
Operator: DSC

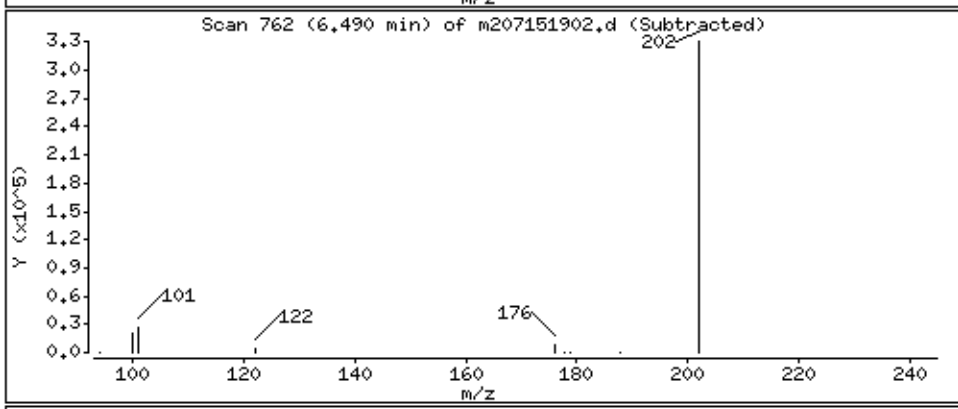
Column phase: RTX-5MS

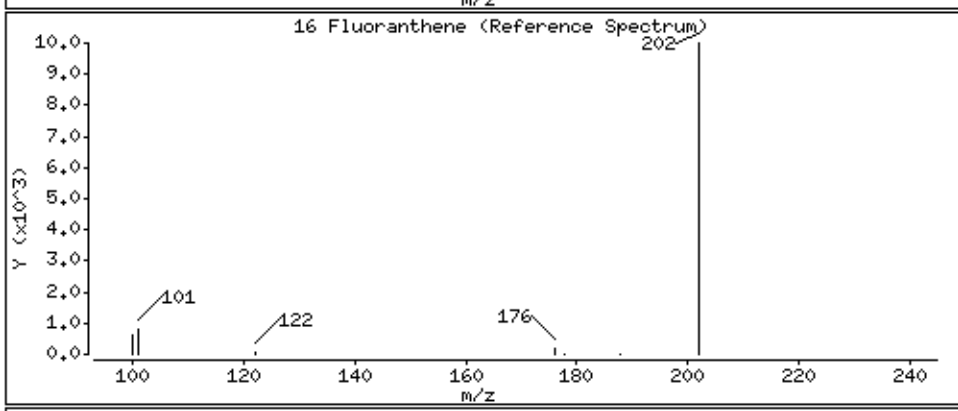
Column diameter: 0.25

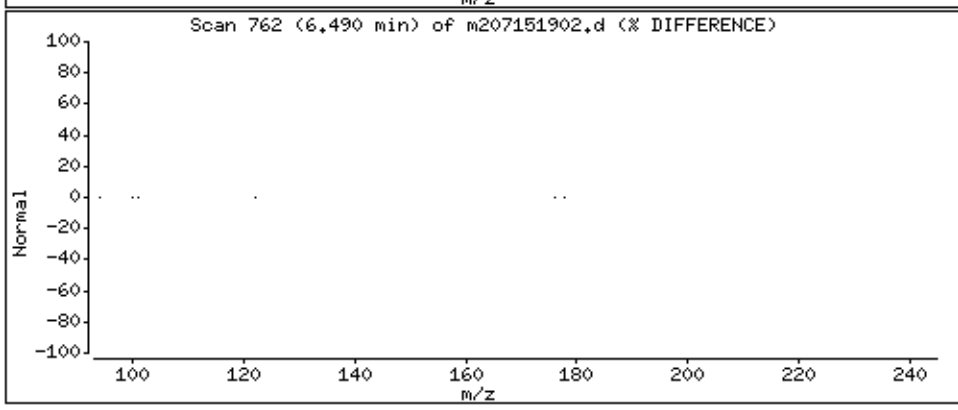
16 Fluoranthene

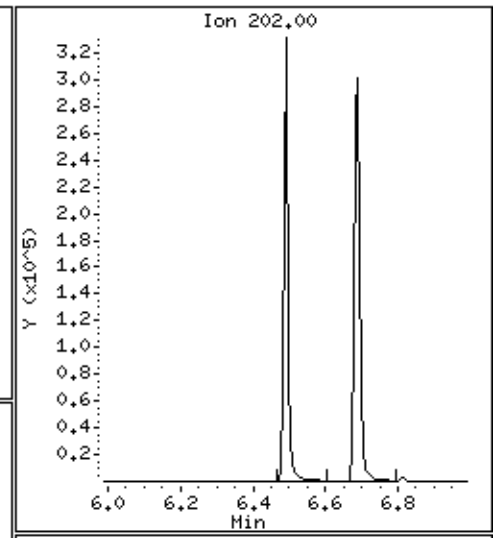
Concentration: 120 ug/Kg

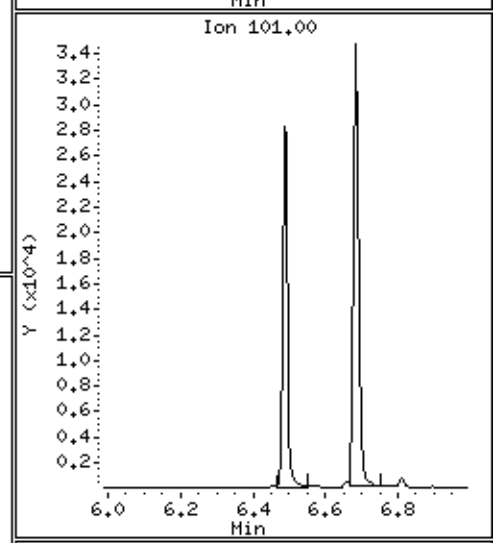


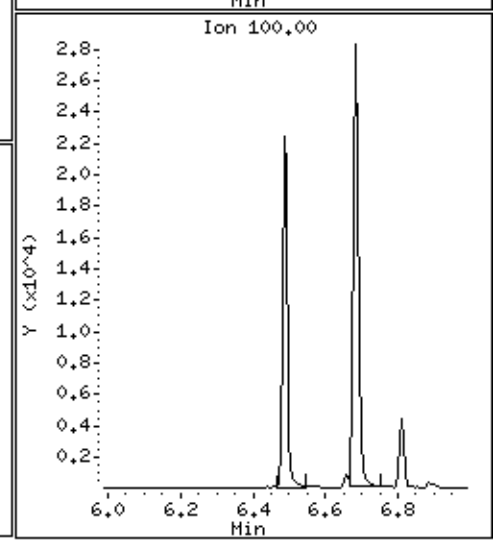












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

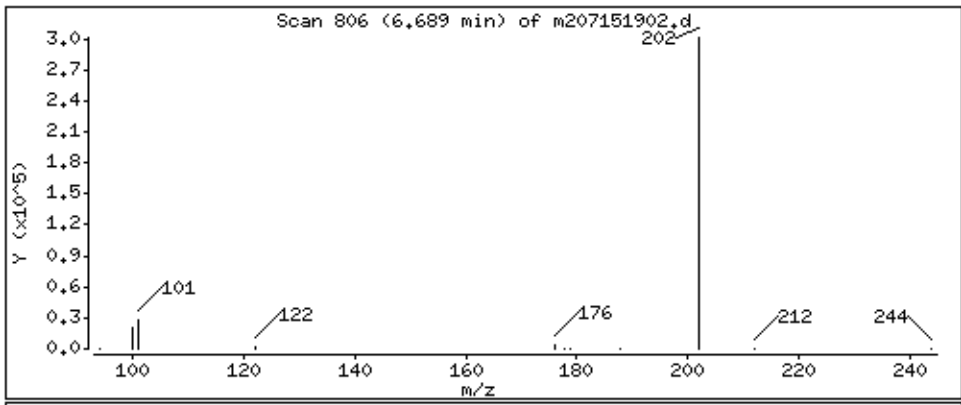
Operator: DSC

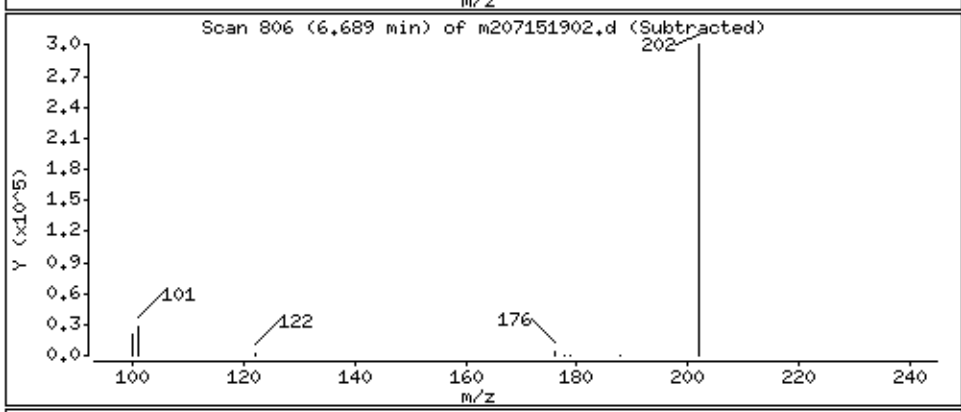
Column phase: RTX-5MS

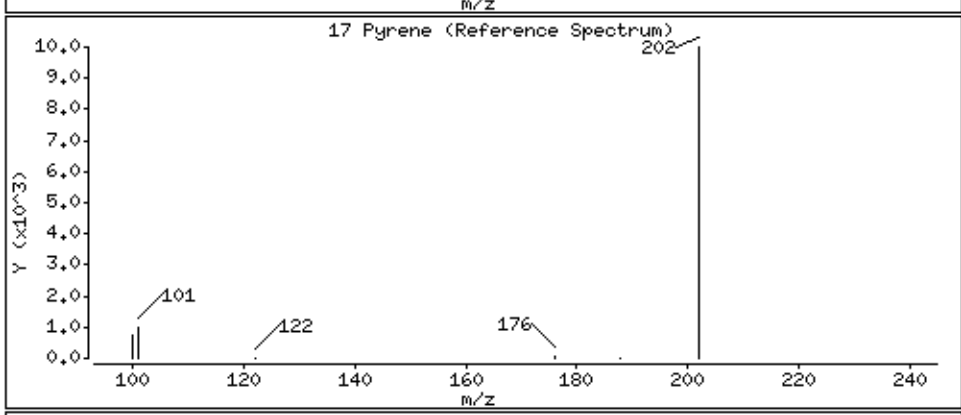
Column diameter: 0.25

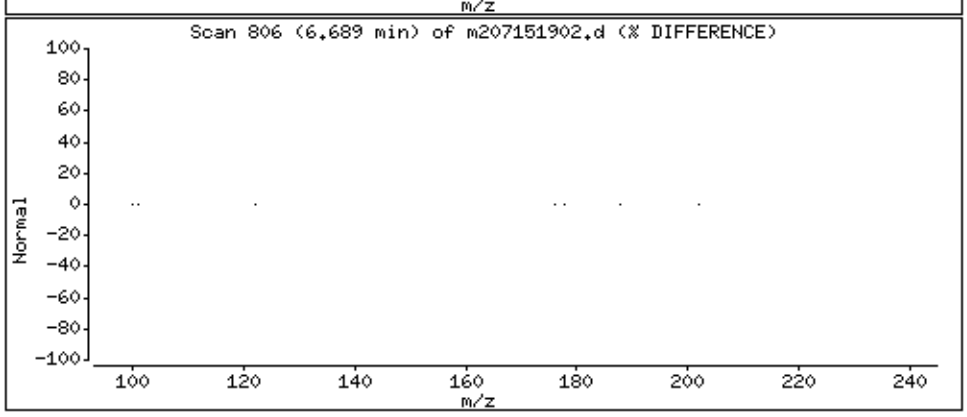
17 Pyrene

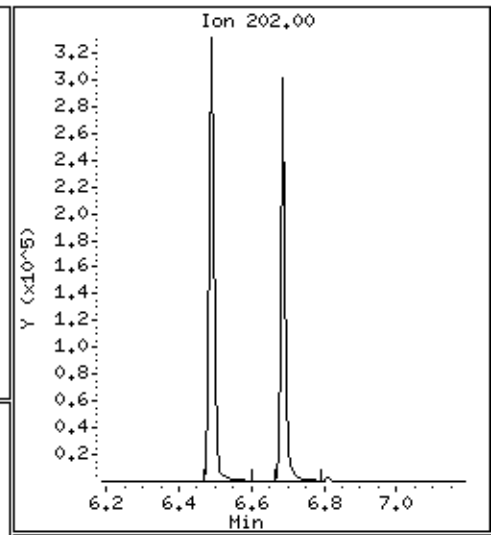
Concentration: 118 ug/Kg

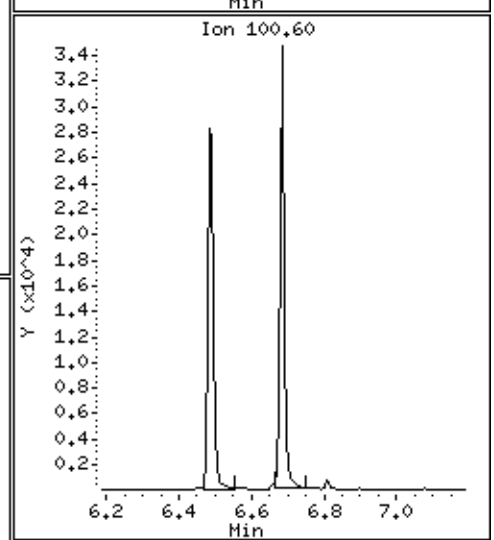












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

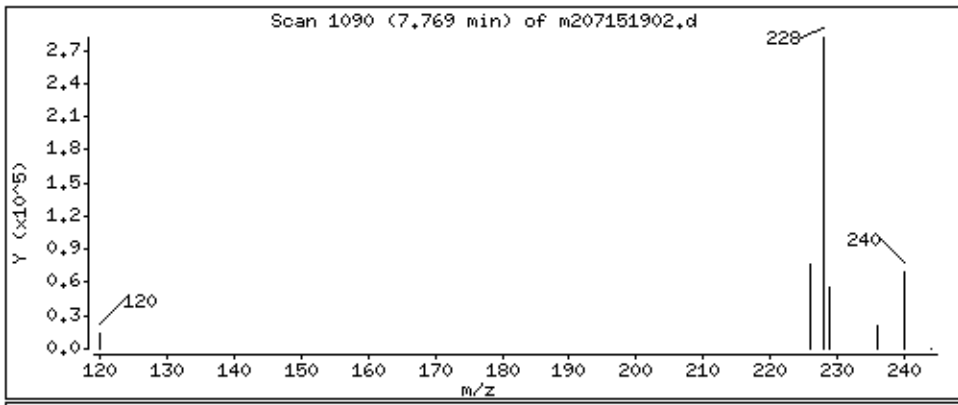
Operator: DSC

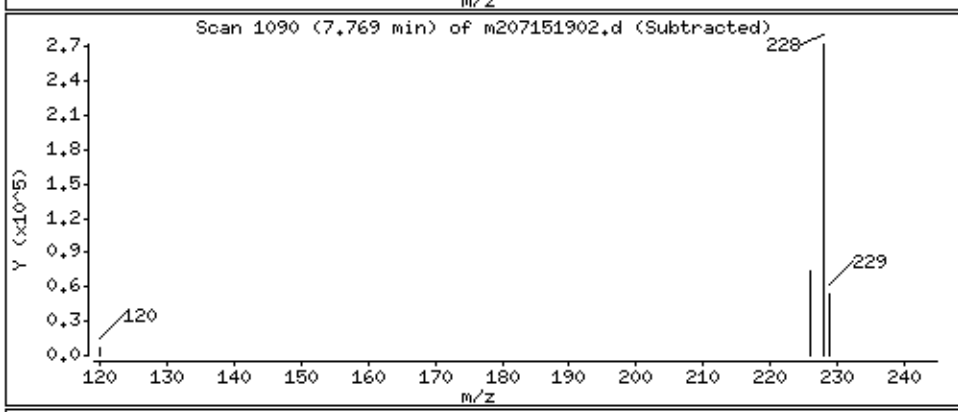
Column phase: RTX-5MS

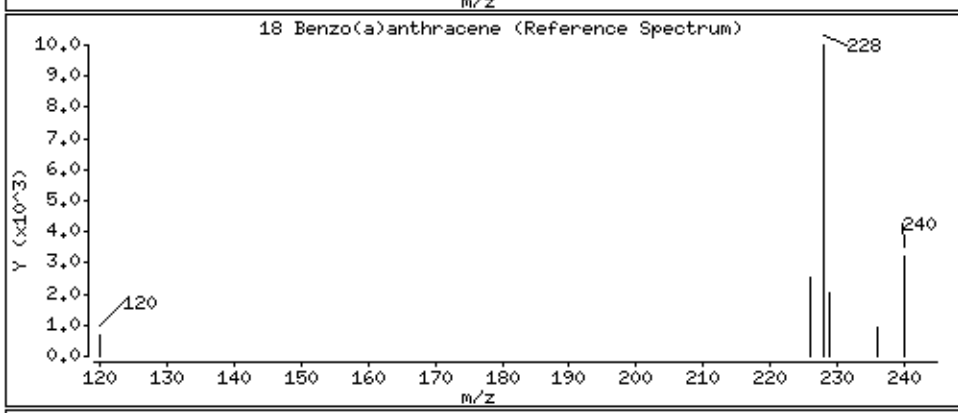
Column diameter: 0.25

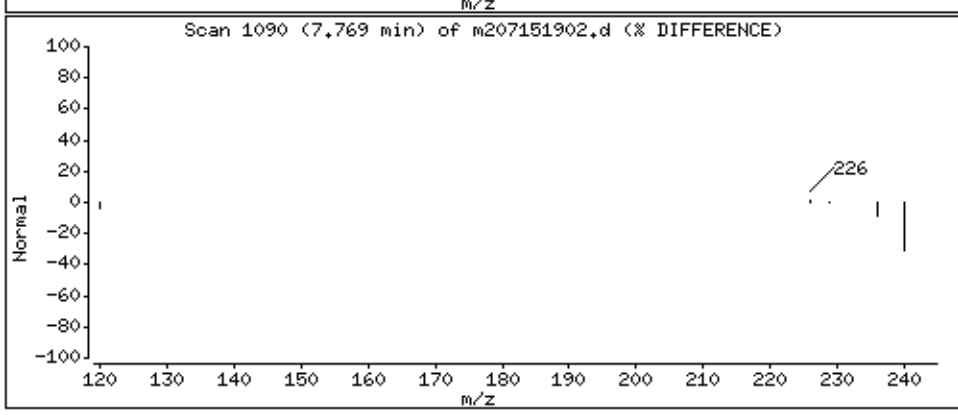
18 Benzo(a)anthracene

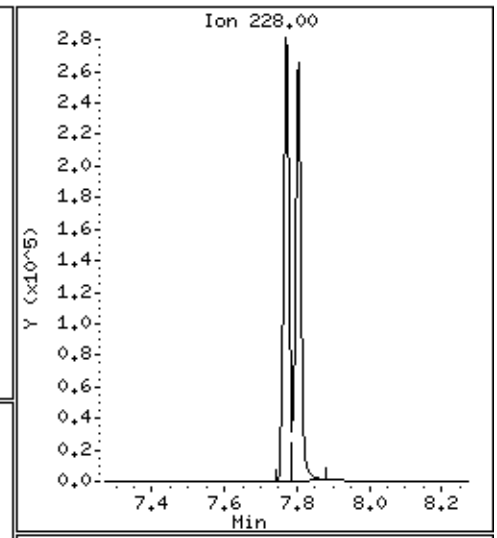
Concentration: 122 ug/Kg

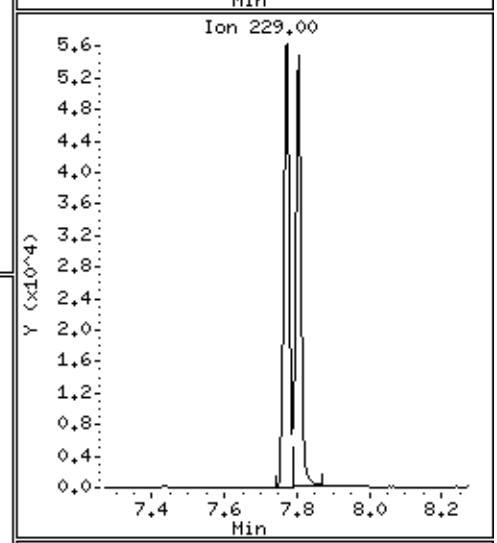


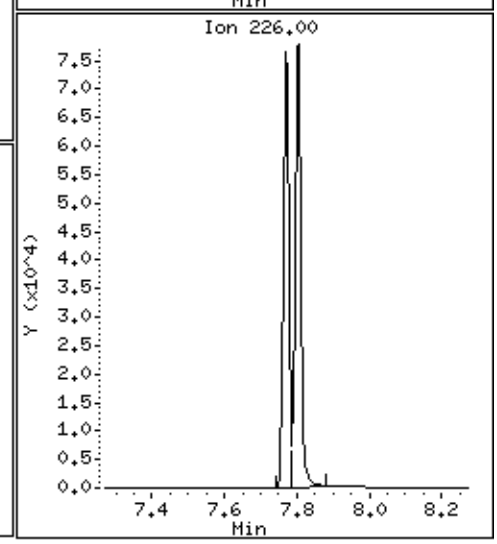












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

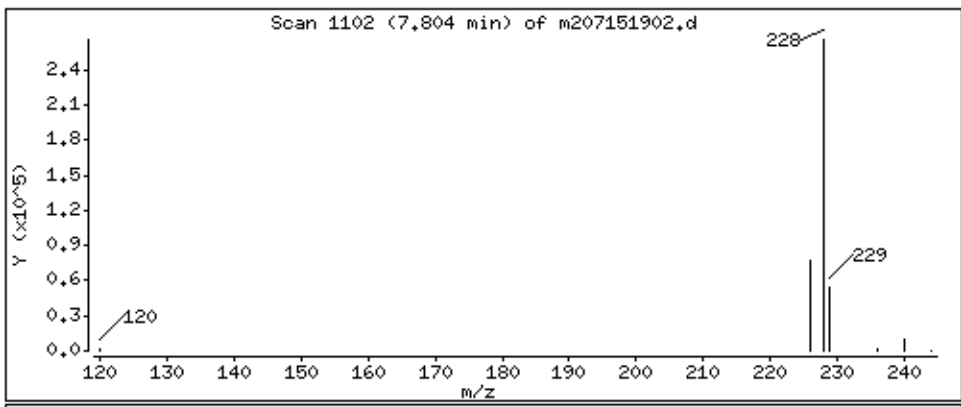
Operator: DSC

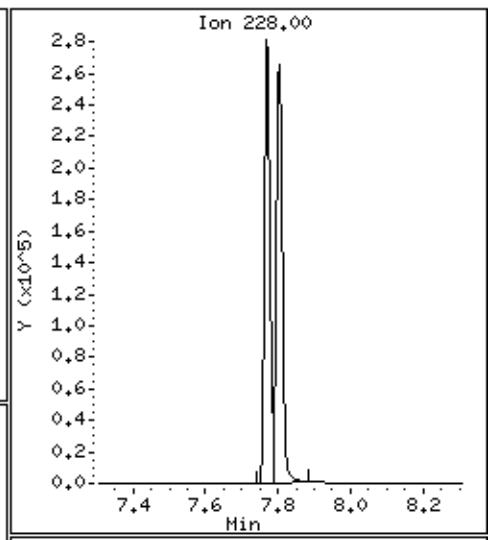
Column phase: RTX-5MS

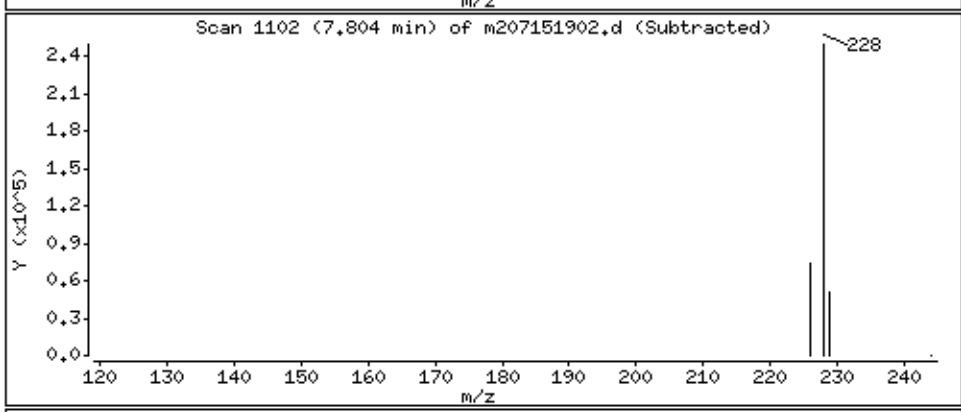
Column diameter: 0.25

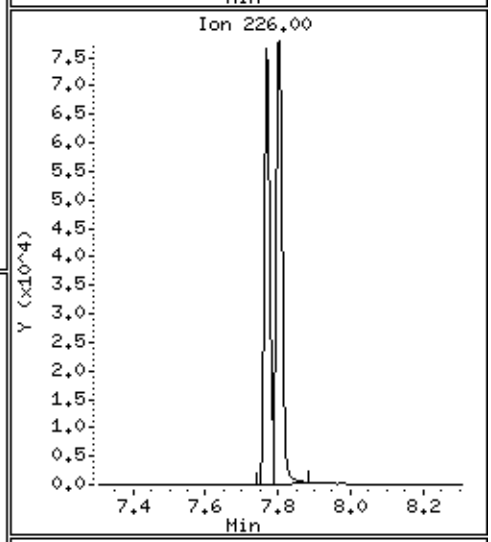
19 Chrysene

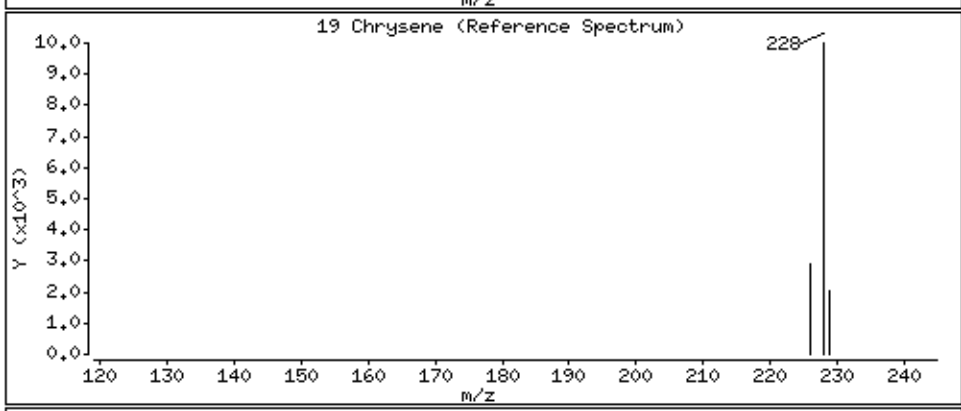
Concentration: 117 ug/Kg

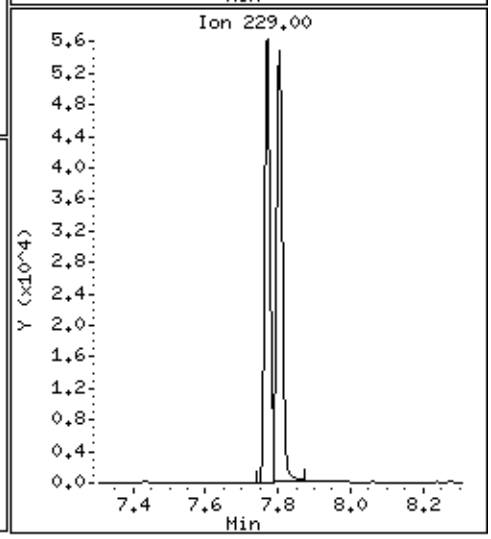


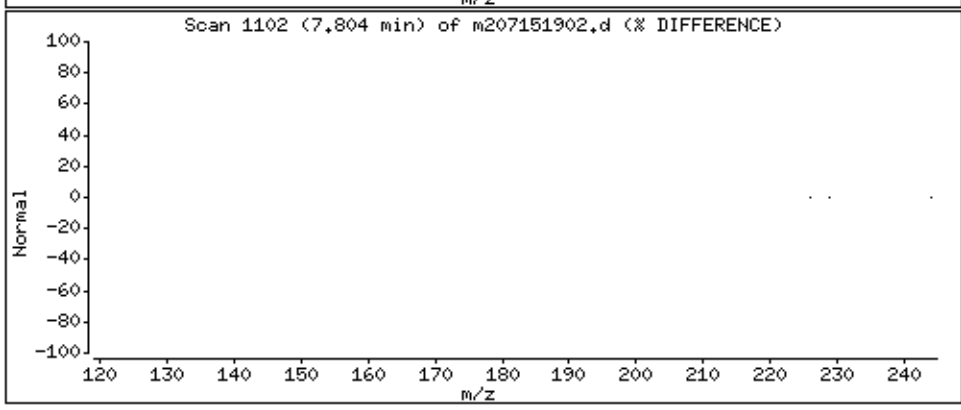












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

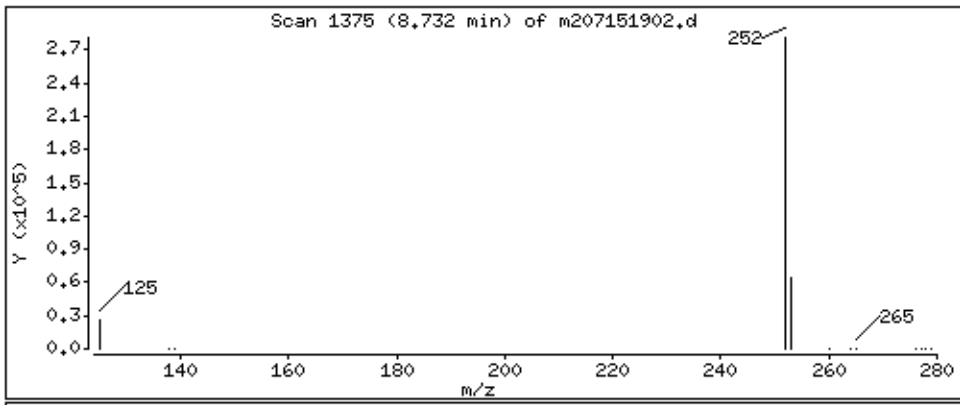
Operator: DSC

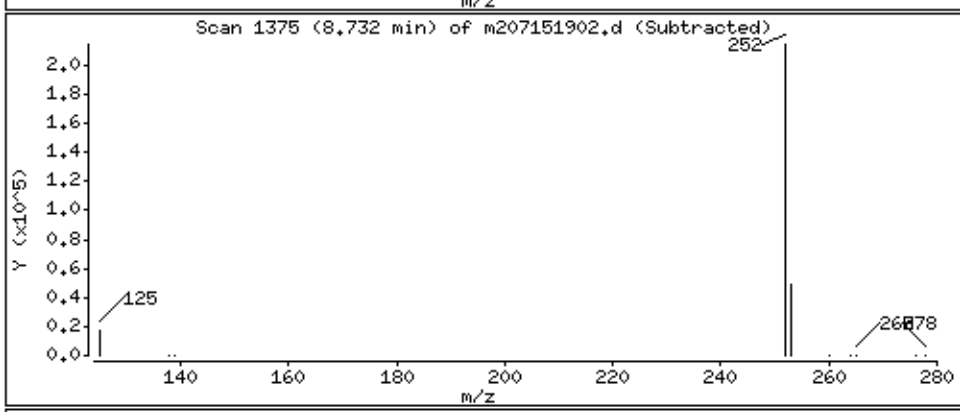
Column phase: RTX-5MS

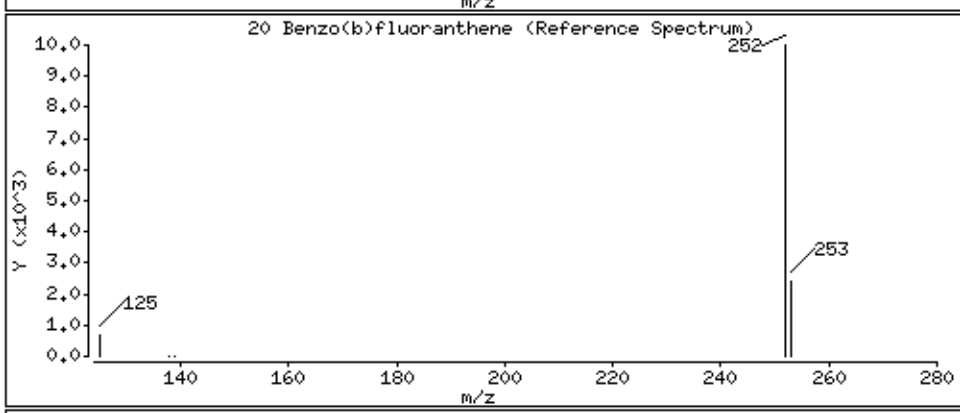
Column diameter: 0.25

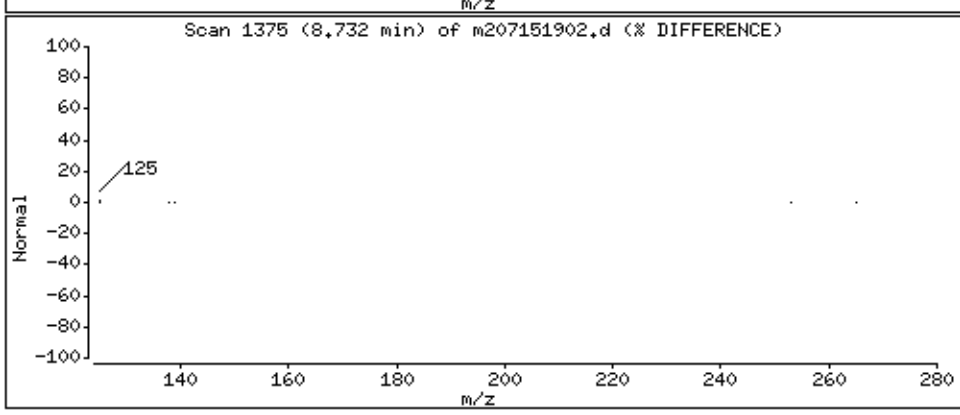
20 Benzo(b)fluoranthene

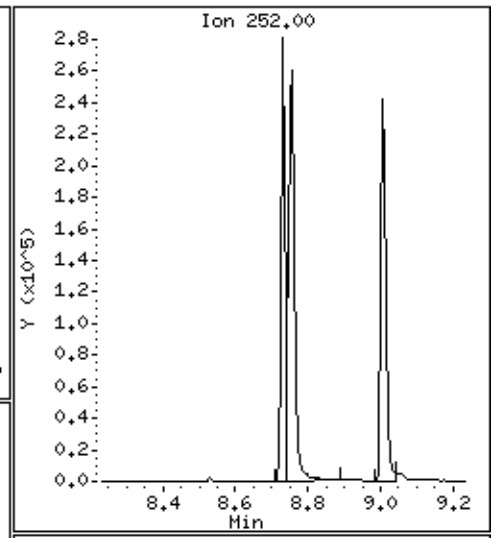
Concentration: 126 ug/Kg

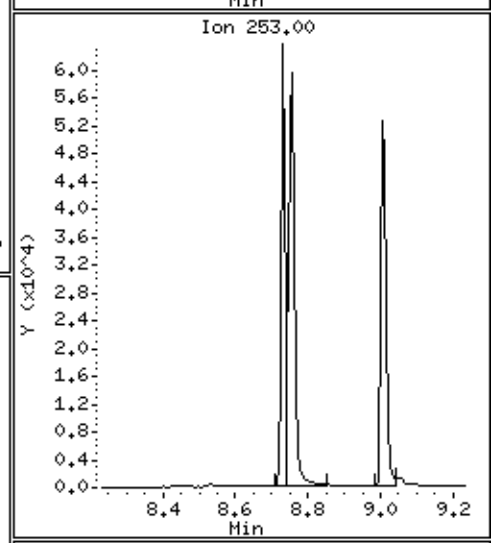


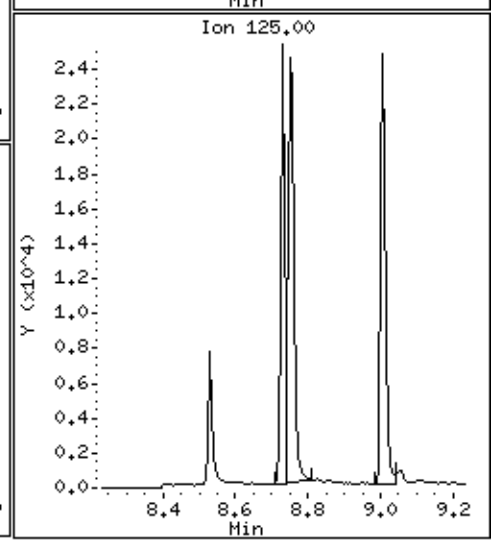












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

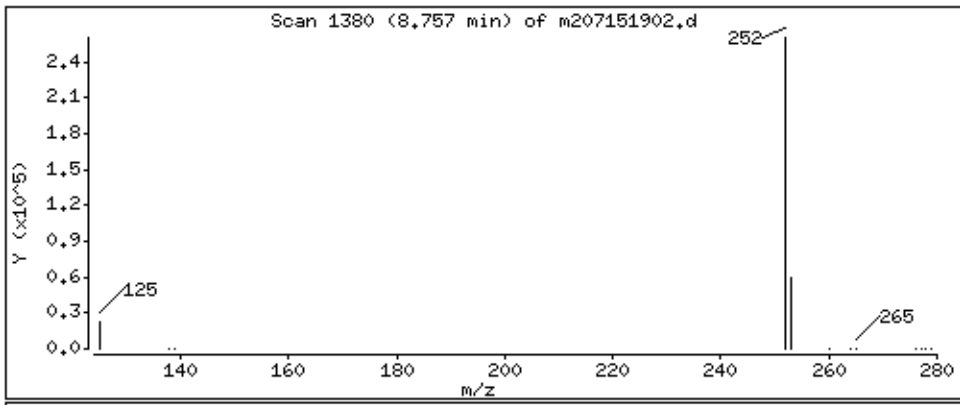
Operator: DSC

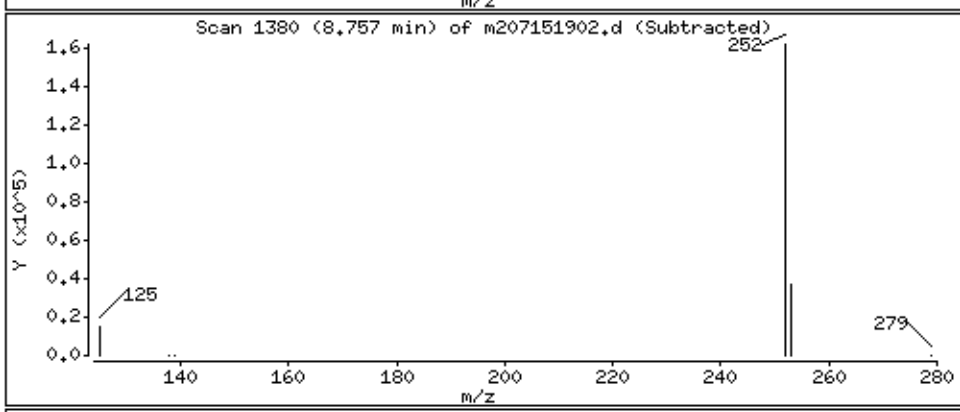
Column phase: RTX-5MS

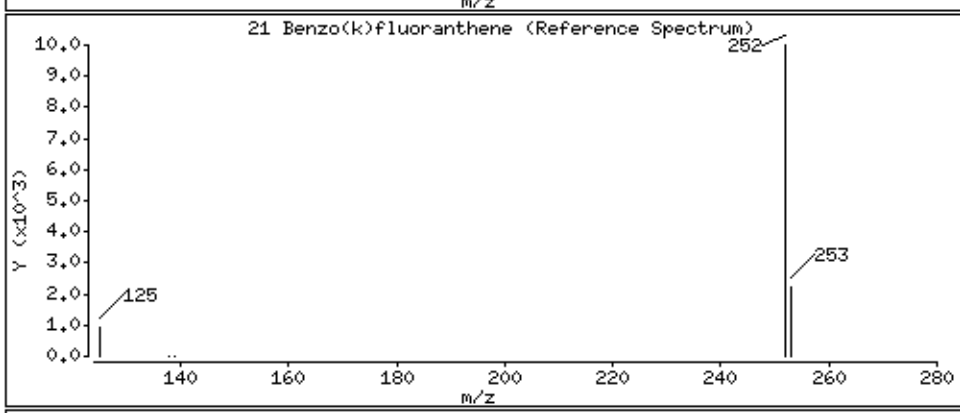
Column diameter: 0.25

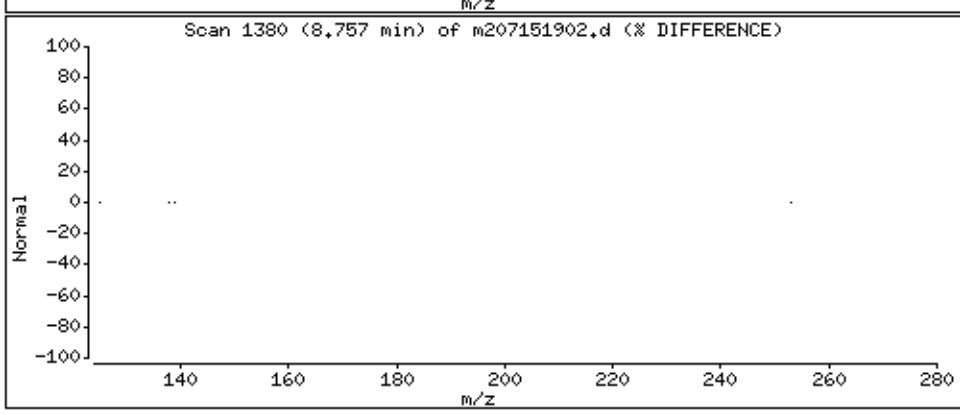
21 Benzo(k)fluoranthene

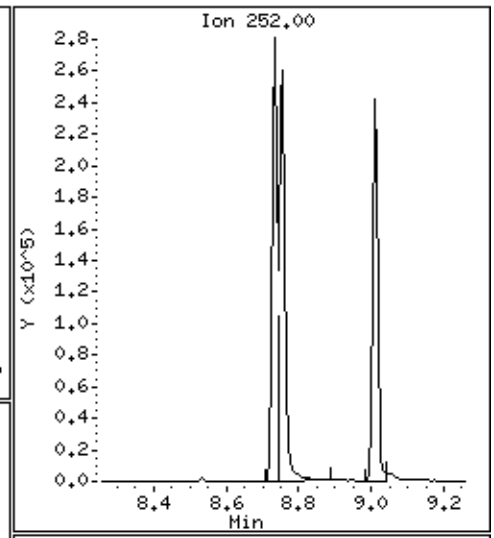
Concentration: 121 ug/Kg

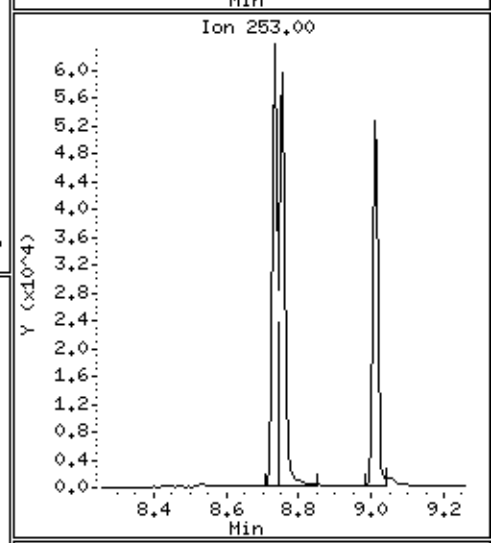


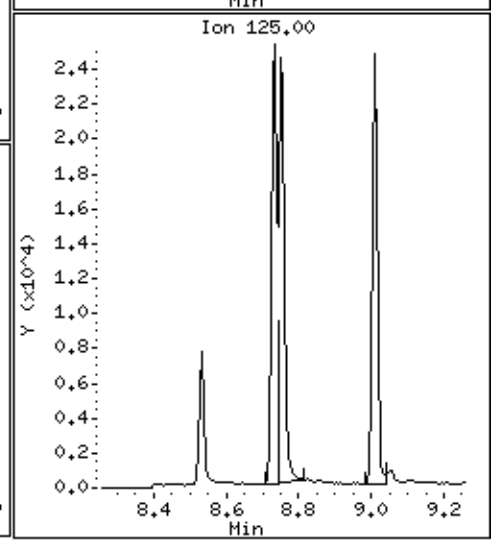












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

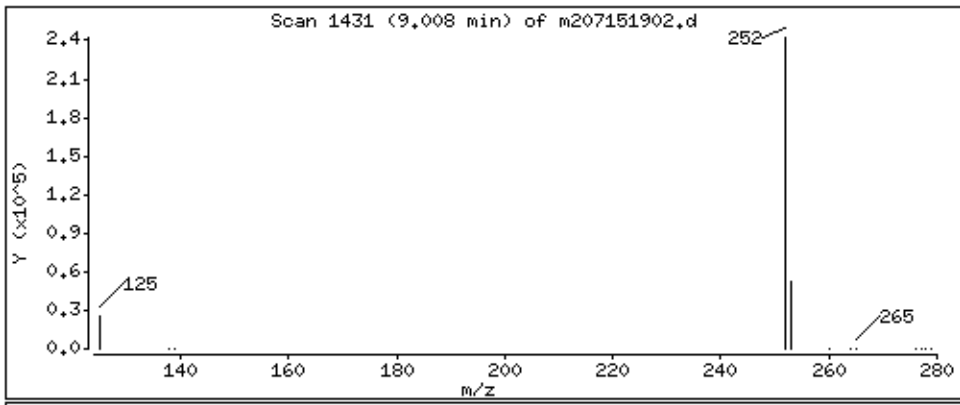
Operator: DSC

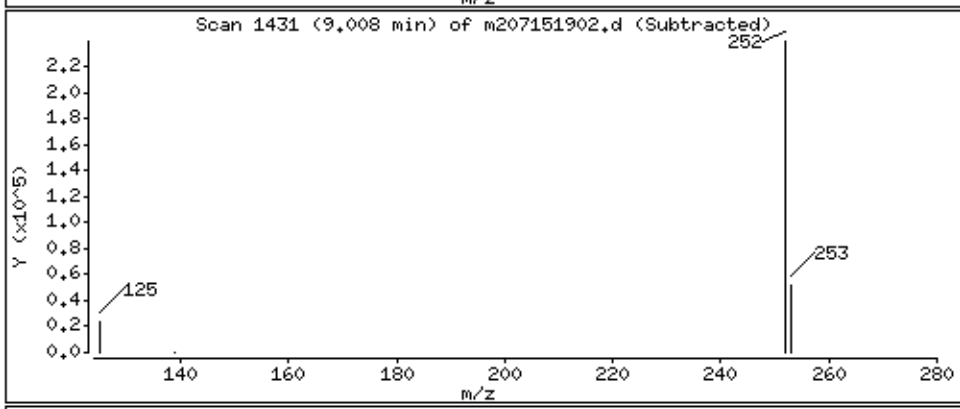
Column phase: RTX-5MS

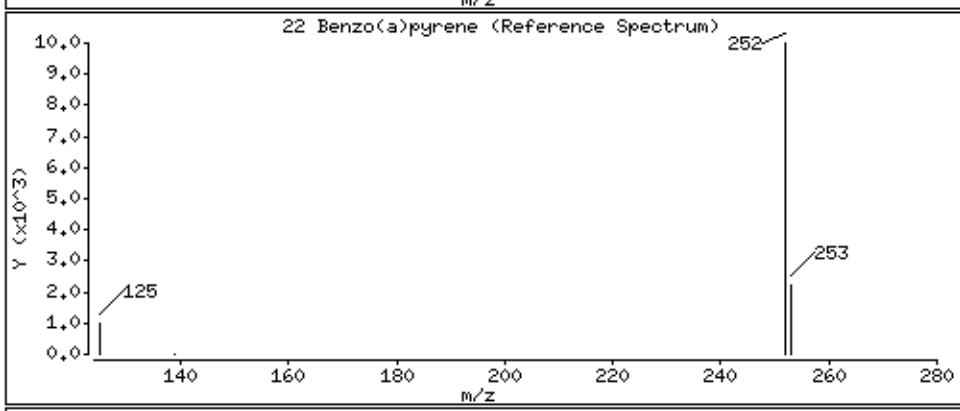
Column diameter: 0.25

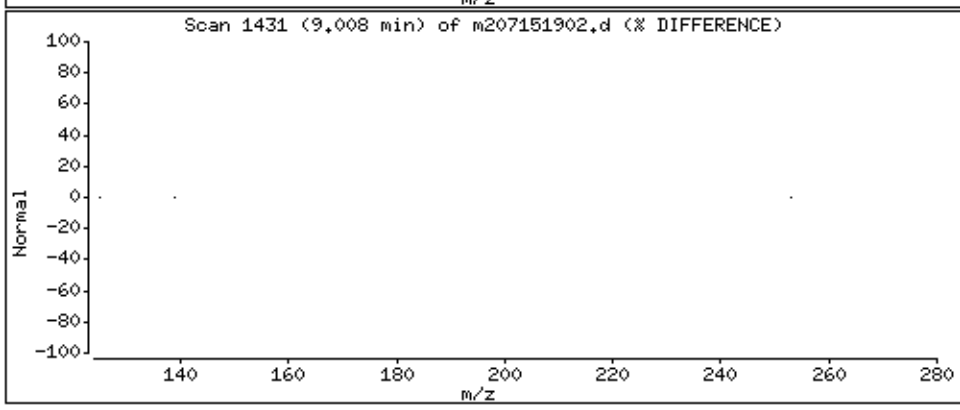
22 Benzo(a)pyrene

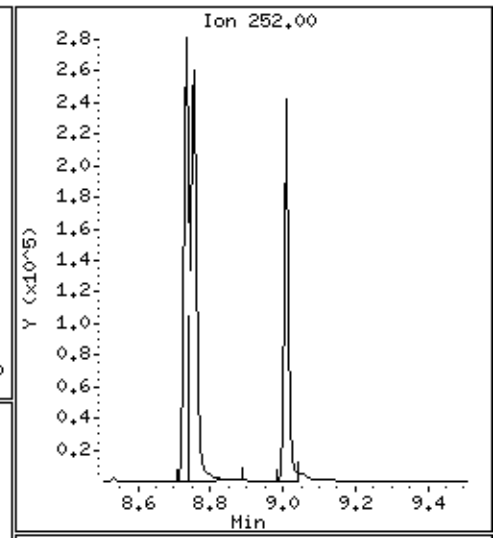
Concentration: 119 ug/Kg

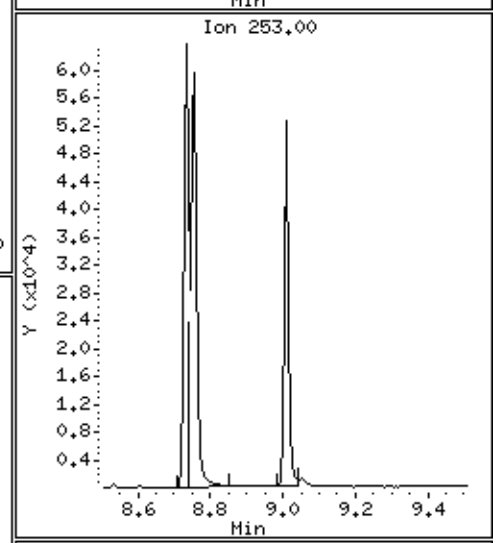


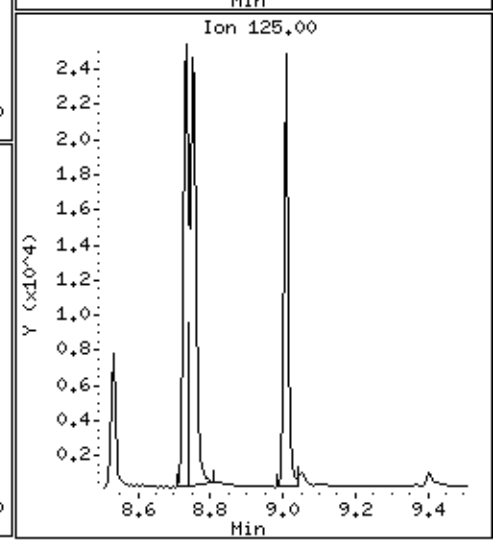












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

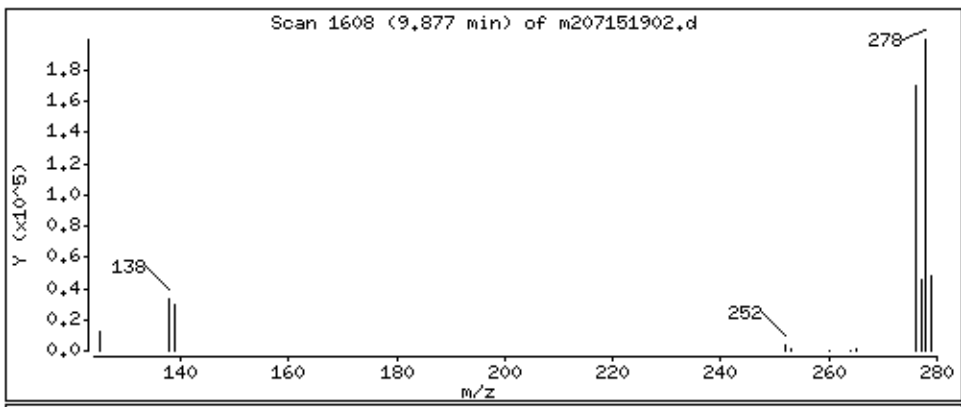
Operator: DSC

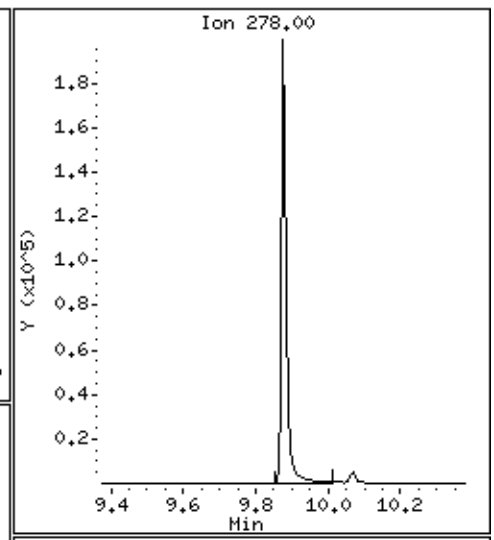
Column phase: RTX-5MS

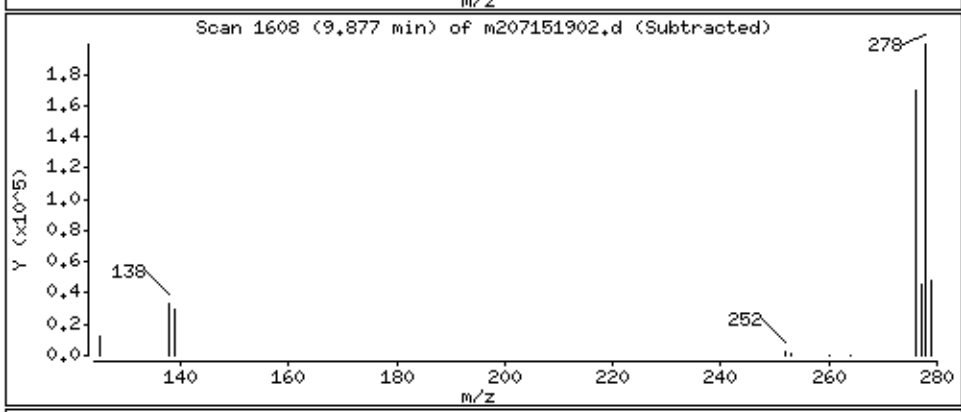
Column diameter: 0.25

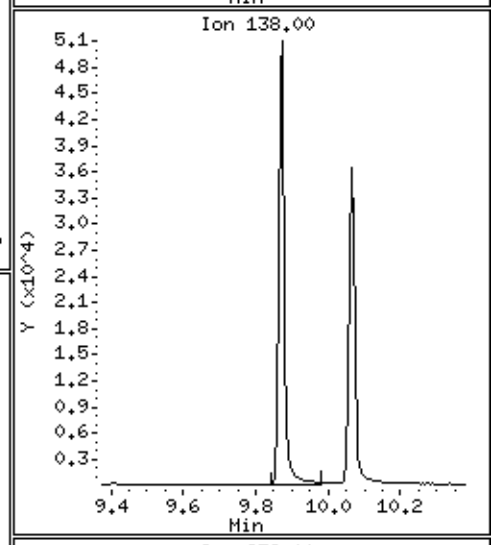
23 Dibenz(a,h)anthracene

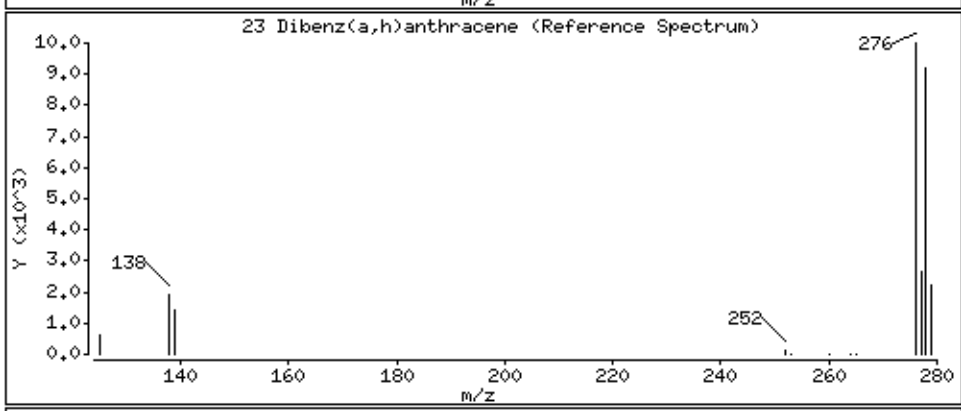
Concentration: 97.9 ug/Kg

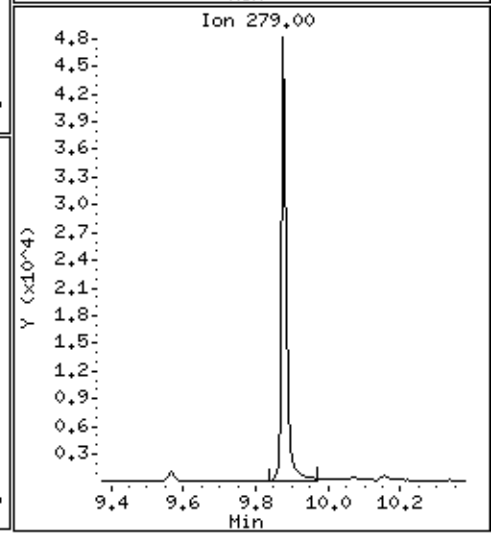


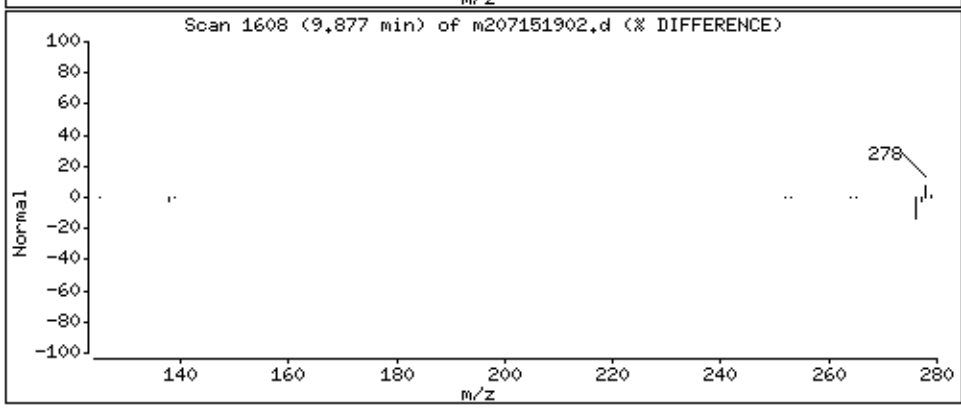












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

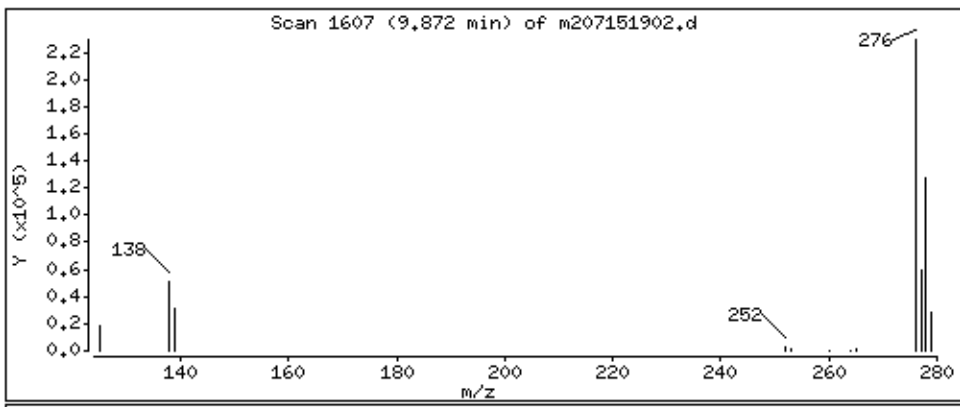
Operator: DSC

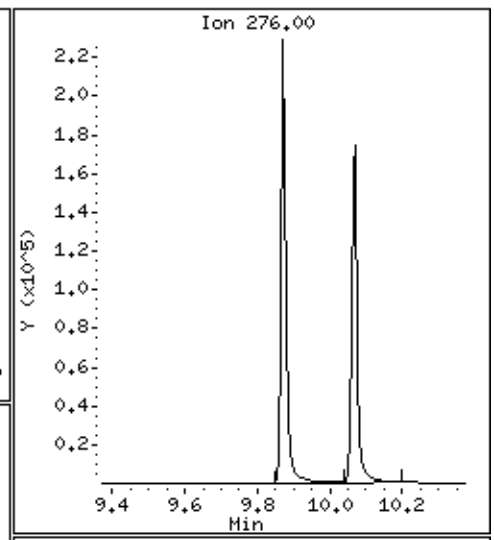
Column phase: RTX-5MS

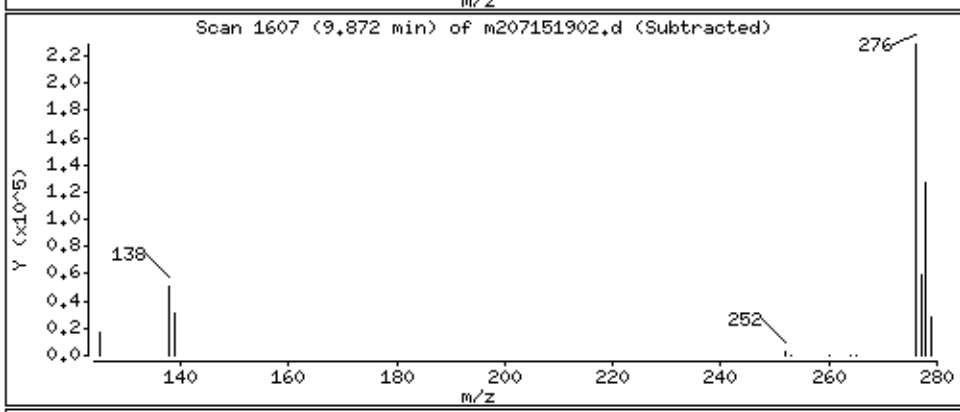
Column diameter: 0.25

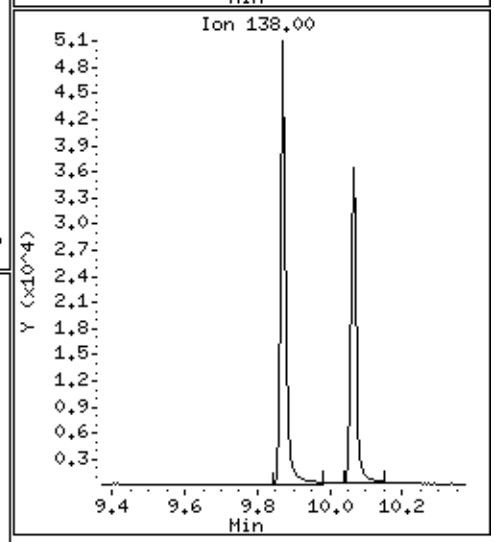
24 Indeno(1,2,3-cd)pyrene

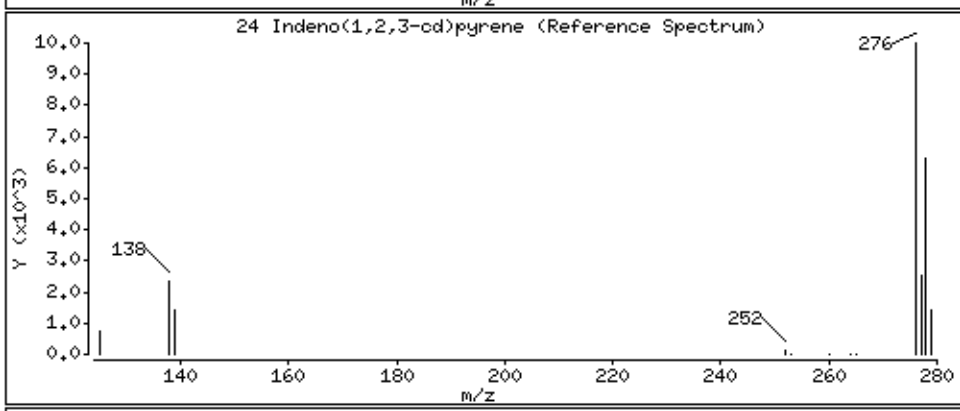
Concentration: 97.9 ug/Kg

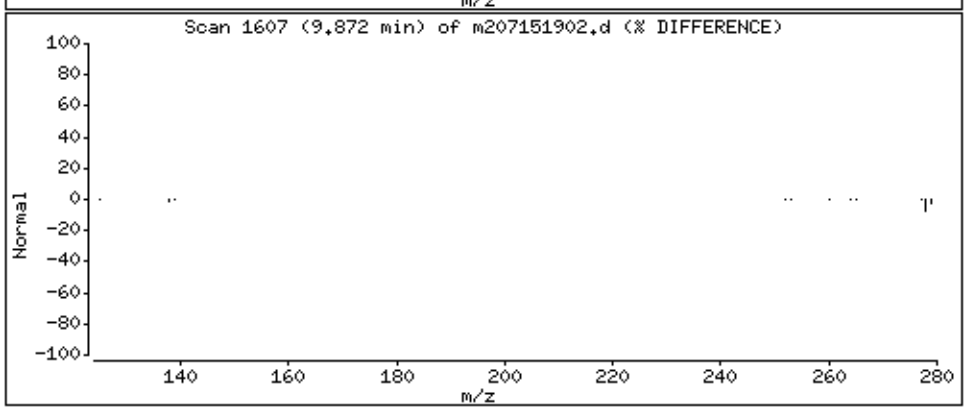












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

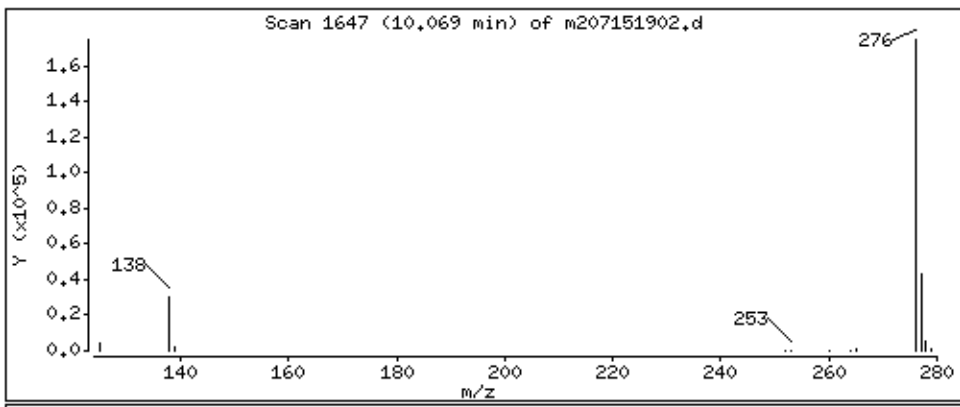
Operator: DSC

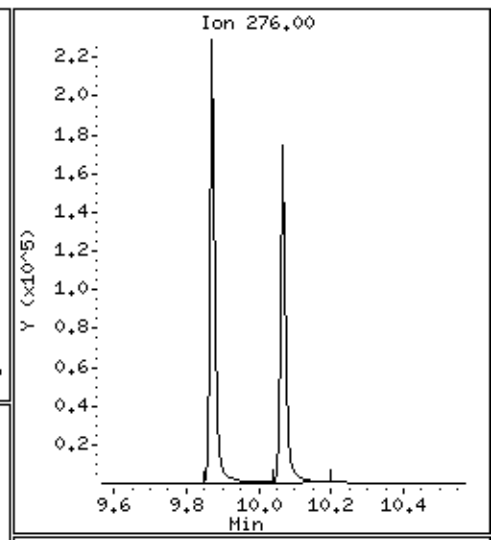
Column phase: RTX-5MS

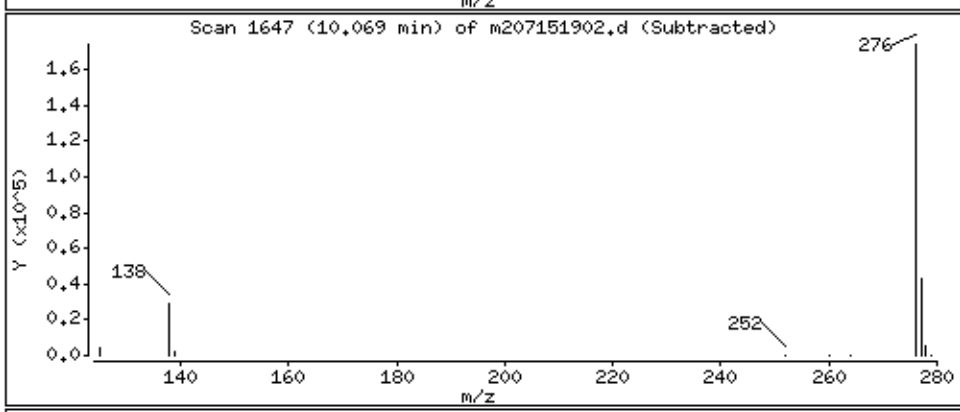
Column diameter: 0.25

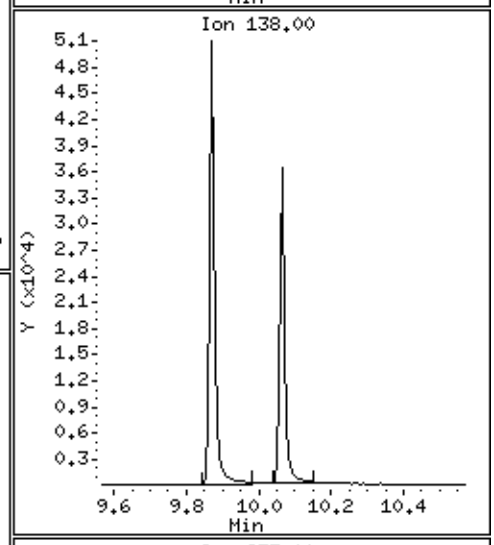
25 Benzo[g,h,i]perylene

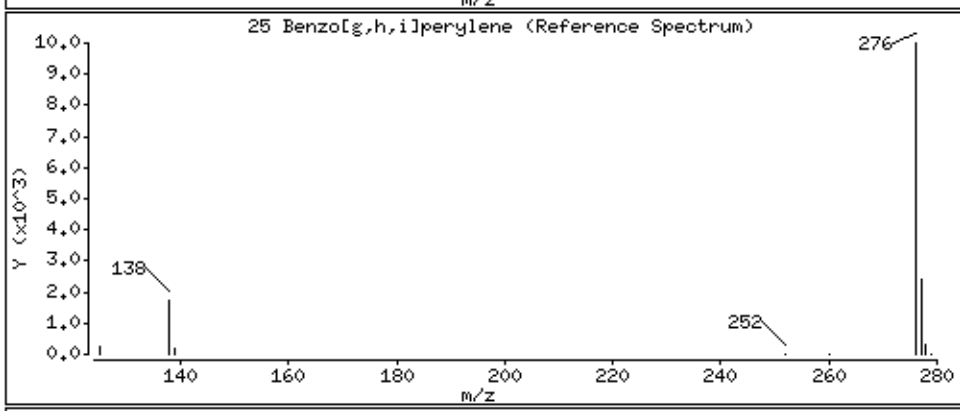
Concentration: 96.7 ug/Kg

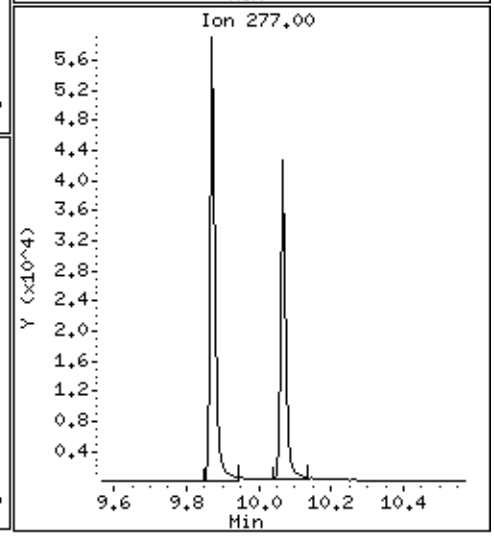


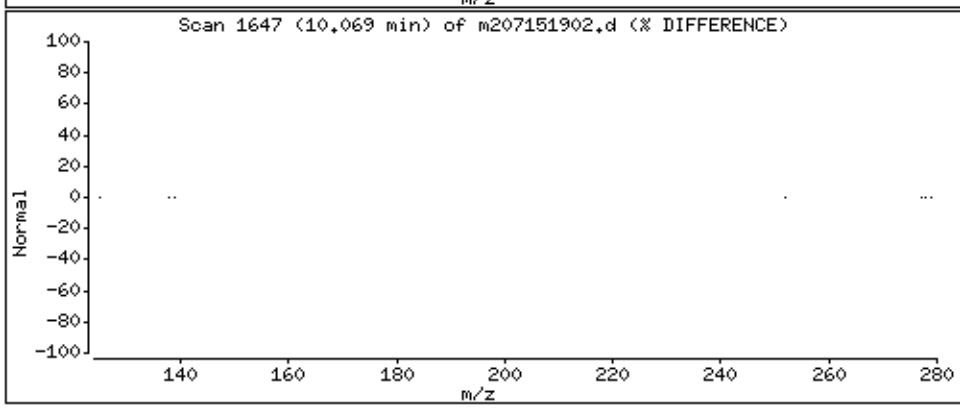












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151902.d
Injection Date: 15-JUL-2019 09:37
Instrument: 30mss2.i
Lab Sample ID: 1708424
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: OEXT 38624/ 351578 PAH-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D by SIM
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	07/12/2019 18:34:45:019	Extraction End Date/Time	07/13/2019 00:20:52:891
Witnessed By		Spiked By	BBR	Spiked By Date	07/12/2019 18:46:50:032	Concentrated By	BBR
Concentrated By Date	07/13/2019 23:05:03:551	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR029
Syringe ID 2	NA	Methylene Chloride	92788	1:1 MeCl/Acetone	92275	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	90972	Gravity Filters	91977	Reviewed By	JPH
Reviewed By Date	07/16/2019 15:57	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	SIM-SPK (mL)	SIM-SS (mL)
8270DSJ_P	BLANK	**1708423**		TVAP006	15.04	1			86555 (.5)
8270DSJ_P	LCS	**1708424**		TVAP006	15.08	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30313260001**		TVAP006	15.43	1			86555 (.5)
8270DSJ_P	PS	**30313260002**		TVAP006	15.23	1			86555 (.5)
8270DSJ_P	PS	**30313260003**		TVAP006	15.1	1			86555 (.5)
8270DSJ_P	PS	**30313516001**		TVAP006	15.04	1			86555 (.5)
8270DSJ_P	MS	**1708425**		TVAP005	15.34	1		85224 (1)	86555 (.5)
8270DSJ_P	MSD	**1708426**		TVAP005	15.35	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30313204001**		TVAP005	15.31	1			86555 (.5)
8270DSJ_P	PS	**30313204002**		TVAP005	15.05	1			86555 (.5)
8270DSJ_P	PS	**30313204003**		TVAP005	15.28	1			86555 (.5)
8270DSJ_P	PS	**30313204004**		TVAP005	15.33	1			86555 (.5)
8270DSJ_P	PS	**30313514001**		TVAP003	15.17	1			86555 (.5)
8270DSJ_P	PS	**30313514002**		TVAP003	15.03	1			86555 (.5)

Standard Notes:

85224: OEXT PAH SIM spike 2 ppm

86555: BNA LL Surrogate 10/15ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2061719r1.d	RT TEST	N/		1	m2053119pahcd	6/17/19	11:48	AJC	
1/m2061719t1.d	TUNE, 79378:1	N/14644	DFTPP	1	8270dsw846tun	6/17/19	12:09	AJC	
1/m2061719s1.d	CCV, 89121:1	N/14644		1	m2053119pahcd	6/17/19	12:21	AJC	
1/m2061719z1.d	CAL1, 89118:1	N/14711	CALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z111.d	CAL1, 89118:1	N/14711	CCALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z2.d	CAL2, 89119:1	N/14711	CALIB_2	1	m2061719pahcd	6/17/19	13:01	AJC	
1/m2061719z3.d	CAL3, 89120:1	N/14711	CALIB_3	1	m2061719pahcd	6/17/19	13:18	AJC	
1/m2061719z4.d	CAL4, 89121:1	N/14711	CALIB_4	1	m2061719pahcd	6/17/19	13:36	AJC	
1/m2061719z5.d	CAL5, 89122:1	N/14711	CALIB_5	1	m2061719pahcd	6/17/19	13:54	AJC	
1/m2061719z6.d	CAL6, 89123:1	N/14711	CALIB_6	1	m2061719pahcd	6/17/19	14:12	AJC	
1/m2061719z7.d	ICV, 90346:1	N/14711	CCALIB_4	1	m2061719pahcd	6/17/19	14:30	AJC	
1/m206171901.d	1690509,	S/14709	BLANK	1	m2061719pahcd	6/17/19	14:49	AJC	
1/m206171902.d	1690510,	S/14709	LCS	1	m2061719pahcd	6/17/19	15:07	AJC	
1/m206171903.d	1689804,	L/14710	BLANK	1	m2061719pahcd	6/17/19	15:25	AJC	
1/m206171904.d	1689805,	L/14710	LCS	1	m2061719pahcd	6/17/19	15:42	AJC	
1/m206171905.d	30299839002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:00	AJC	Btk
1/m206171906.d	1690511,	S/14709	MS	1	m2061719pahcd	6/17/19	16:18	AJC	
1/m206171907.d	1690512,	S/14709	MSD	1	m2061719pahcd	6/17/19	16:36	AJC	
1/m206171908.d	30299839003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:54	AJC	
1/m206171909.d	30299839005,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:12	AJC	Btk
1/m206171910.d	30299839006,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	17:30	AJC	
1/m206171911.d	30299754001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:48	AJC	
1/m206171912.d	30299754002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:05	AJC	
1/m206171913.d	30299808001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:23	AJC	
1/m206171914.d	30299808001x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	18:41	AJC	not needed
1/m206171915.d	30299808002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:59	AJC	
1/m206171916.d	30299808002x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:17	AJC	not needed
1/m206171917.d	30299808003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	19:35	AJC	
1/m206171918.d	30299808003x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:53	AJC	not needed
1/m206171919.d	30298911002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:11	AJC	
1/m206171920.d	30299467001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:29	AJC	
1/m206171921.d	30299467002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:46	AJC	
1/m206171922.d	30299467003,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:04	AJC	Btk

Check Maintenance Items Performed:

- K Changed septum
- K Cleaned liner
- K Replaced/Cleaned gold seal
- K Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: 6/18/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m206171923.d	30299467004,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:22	AJC	not used need dilutions
1/m206171924.d	30299898001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:40	AJC	
1/m206171925.d	30299465001x10,	S/14705	SAMPLE	10	m2061719pahcd	6/17/19	21:58	AJC	
1/m206171926.d	30299465001x100,	S/14705	SAMPLE	100	m2061719pahcd	6/17/19	22:16	AJC	not used Isour

6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: 6/18/19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [G]: \
Misc. Prep Info [L]: NA
Misc. Prep Info [S]: \
ISTD lot: 92890
Tune std: 79378

Method: 8270D SIM
CH_2Cl_2 - 8087
Surr. lot: NA
Cal. std: 89111

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2071519t1.d	TUNE, 79378:1	G/14711	DFTPP	1	8270dsw846tun	7/15/19	08:49	DSC	
1/m2071519s1.d	CCV, 89111:1	N/14711	CCALIB_4	1	m2061719pahcd	7/15/19	09:02	DSC	
1/m207151901.d	1708423,	S/14824	BLANK	1	m2061719pahcd	7/15/19	09:19	DSC	
1/m207151902.d	1708424,	S/14824	LCS	1	m2061719pahcd	7/15/19	09:37	DSC	
1/m207151903.d	1708438,	L/14827	BLANK	1	m2061719pahcd	7/15/19	09:55	DSC	
1/m207151904.d	1708439,	L/14827	LCS	1	m2061719pahcd	7/15/19	10:12	DSC	
1/m207151905.d	30313043011,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	10:30	DSC	
1/m207151906.d	30313204003,	S/14824	SAMPLE	1	m2061719pahcd	7/15/19	10:47	DSC	DAW
1/m207151907.d	30313260001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:05	DSC	
1/m207151908.d	30313260002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:23	DSC	
1/m207151909.d	30313260003X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:40	DSC	
1/m207151910.d	30313516001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:58	DSC	
1/m207151911.d	1708425X10,	S/14824	MS	10	m2061719pahcd	7/15/19	12:16	DSC	
1/m207151912.d	1708426X10,	S/14824	MSD	10	m2061719pahcd	7/15/19	12:33	DSC	
1/m207151913.d	30313204001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	12:51	DSC	
1/m207151914.d	30313204002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:09	DSC	
1/m207151915.d	30313204004X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:26	DSC	
1/m207151916.d	30313514001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:44	DSC	
1/m207151917.d	30313514002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	14:02	DSC	
1/m207151918.d	30312798009,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:20	DSC	
1/m207151919.d	30312798010,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:37	DSC	
1/m207151920.d	30312798011,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:55	DSC	
1/m207151921.d	30312798012,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:13	DSC	
1/m207151922.d	30312798013,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:30	DSC	
1/m207151923.d	30313043005,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:48	DSC	
1/m207151924.d	30313043005X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	16:06	DSC	not used
1/m207151925.d	1708440,	L/14827	MS	1	m2061719pahcd	7/15/19	16:24	DSC	
1/m207151926.d	1708440X100,	L/14827	MS	100	m2061719pahcd	7/15/19	16:41	DSC	not used
1/m207151927.d	1708441,	L/14827	MSD	1	m2061719pahcd	7/15/19	16:59	DSC	
1/m207151928.d	1708441X100,	L/14827	MSD	100	m2061719pahcd	7/15/19	17:17	DSC	not used
1/m207151929.d	30313043001,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	17:35	DSC	
1/m207151930.d	30313043002,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	17:52	DSC	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
✓ No maintenance performed today

Additional Comments: Baked oven

Run Order Verified: [signature] 7/16/19

File Path 1: \\30wintarget\chem\30mss2.i\mss2071519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:21 07/16/2019

Reviewed By/Date: DAW 7-16-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He Method:
Misc. Prep Info [G]:
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Tune std: _____ Cal. std: _____

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m207151931.d	30313043003,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:10	DSC	
1/m207151932.d	30313043004,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:28	DSC	
1/m207151933.d	30313043006,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:45	DSC	
1/m207151934.d	30313043006X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	19:03	DSC	not used
1/m207151935.d	30313043007,	N/1427	SAMPLE	1	m2061719pahcd	7/15/19	19:21	DSC	
1/m207151936.d	30313043008,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	19:38	DSC	
1/m207151937.d	30313043009,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	19:56	DSC	
1/m207151938.d	30313043010,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	20:14	DSC	
1/m207151939.d	30313043001X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	20:32	DSC	not used
1/m207151940.d	30313043002X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	20:49	DSC	↓
1/m207151941.d	30313043003X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	21:07	DSC	missed Tune
1/m207151942.d	30313043004X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	21:24	DSC	↓

jse 7/16/19

File Path 1: \\30wintarget\chem\30mss2.i\mss2071519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:21 07/16/2019

Reviewed By/Date: TAW Page: 2 of 2
7-16-19

PESTICIDES - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30GCSC

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1708463	1708463LB	86	67
1709291	1709291LB	100	82
1709956	1709956LCS	87	65
30313260001	AOC32 Lower-1	86	72
30313260002	AOC32 Lower-2	86	71

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(24-108)
(TCMX) = Tetrachloro-m-xylene (S)	(44-93)

* Values outside of QC Limits

PESTICIDES - FORM III SVOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1709956LCS
Date Extracted: 07/16/2019
Date Analyzed (1): 07/17/2019
Instrument: 30GCSC
LCS Lot No: 90623
Lab File ID: 071719-2.B\2019-07-17-012.D
SDG No.: 30313260

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
gamma-BHC (Lindane)	0.80	0.58	72	58-99
Endrin	1.6	1.2	77	60-103
Heptachlor	0.80	0.51	64	51-104
Heptachlor epoxide	0.80	0.57	72	59-98
Methoxychlor	8.0	5.8	72	58-108

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1710053MS
Date Extracted: 07/16/2019
Date Analyzed (1): 07/17/2019
Instrument: 30GCSC
Lab File ID: 071719-1.B\2019-07-17-019.D
Parent Sample ID: 30313438001
SDG No.: 30313260

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
Endrin	2.0	ND	1.7	83	33-142
Heptachlor	1.0	ND	0.77	77	10-138
Heptachlor epoxide	1.0	ND	0.82	82	39-115
Methoxychlor	10.0	ND	8.4	84	10-158
gamma-BHC (Lindane)	1.0	ND	0.81	81	10-146

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSC Matrix Spike Duplicate - Sample No: 1710054MSD

Lab File ID (2): 071719-1.B\2019-07-17-020.D Date Analyzed (2): 07/17/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Endrin	2.0	1.7	84	1	0-25	33-142
Heptachlor	1.0	0.78	78	1	0-25	10-138
Heptachlor epoxide	1.0	0.82	82	0	0-25	39-115
Methoxychlor	10.0	8.2	82	2	0-25	10-158
gamma-BHC (Lindane)	1.0	0.81	81	0	0-25	10-146

RPD: 0 out of 5 outside limits.

Spike Recovery: 0 out of 5 outside limits.

SAMPLE NO.

1708463LB

PESTICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30GCSC Matrix: Water Lab Sample ID: 1708463

Lab File ID (1): 071719-1.B\2019-07-17-011.D Date Analyzed (1): 07/17/2019 Time (1): 15:23

Lab File ID (2): 071719-2.B\2019-07-17-011.D Date Analyzed (2): 07/17/2019 Time (2): 15:23

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709956LCS	1709956	071719-1.B\2019-07-17-012.D	07/17/2019 15:33
1709956LCS	1709956	071719-2.B\2019-07-17-012.D	07/17/2019 15:33
AOC32 Lower-1	30313260001	071719-1.B\2019-07-17-016.D	07/17/2019 16:12
AOC32 Lower-2	30313260002	071719-1.B\2019-07-17-017.D	07/17/2019 16:22

SAMPLE NO.

1709291LB

PESTICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30GCSC Matrix: Water Lab Sample ID: 1709291

Lab File ID: 071719-1.B\2019-07-17-024.D Date Analyzed: 07/17/2019 Time: 17:30

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1709956LCS	1709956	071719-1.B\2019-07-17-012.D	07/17/2019 15:33
1709956LCS	1709956	071719-2.B\2019-07-17-012.D	07/17/2019 15:33
AOC32 Lower-1	30313260001	071719-1.B\2019-07-17-016.D	07/17/2019 16:12
AOC32 Lower-2	30313260002	071719-1.B\2019-07-17-017.D	07/17/2019 16:22

SAMPLE NO.

AOC32 Lower-1

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 30313260001
Date Analyzed: 07/17/2019 16:12
Lab File ID: 071719-1.B\2019-07-17-016.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-016.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30313260001,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	24545	36024	1.468	64.9615		
0.927	203	448	2.205	0.8078		
0.942	2452	2756	1.124	4.9695		
0.963	3567	2996	0.840	5.4022		
0.998	509	340	0.668	0.6130		
1.034	24	94	3.963	0.1694		
1.045	151	111	0.735	0.2001		
1.082	706	1019	1.444	1.8374		
1.099	10	83	8.384	0.1496		
1.110	220	294	1.338	0.5301		
1.129	38	68	1.800	0.1226		
1.175	57	69	1.209	0.1244		
1.220	47	48	1.027	0.0865		
1.239	66	90	1.370	0.1622		
1.307	8	14	1.847	0.0252		
1.338	37	65	1.743	0.1172		
1.360	48	65	1.343	0.1172		
1.369	23	39	1.675	0.0703		
1.396	6	16	2.698	0.0288		
1.401	5	22	4.159	0.0396		
1.417	64	57	0.887	0.1027		
1.432	11	34	3.214	0.0613		
1.438	7	31	4.348	0.0558		
1.449	34	44	1.277	0.0793		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.456	7	38	5.714	0.0685		
1.461	22	38	1.696	0.0685		
1.470	7	37	5.241	0.0667		
1.482	71	77	1.078	0.1388		
1.497	4	28	7.588	0.0504		
1.500	9	28	3.057	0.0504		
1.507	6	20	3.521	0.0360		
1.516	3	14	4.844	0.0252		
1.613	24	28	1.188	0.0504		
1.652	4	10	2.770	0.0180		
1.678	4	6	1.415	0.0108		
1.700	34	42	1.238	0.0757		
1.734	35	42	1.213	0.0757		
1.745	5	20	3.717	0.0360		
1.750	8	18	2.338	0.0324		
1.760	3	10	3.534	0.0180		
1.766	2	8	3.604	0.0144		
1.825	3	9	3.247	0.0162		
1.885	3643	5044	1.385	9.0951	$ 1 Tetrachloro-m-xylene (S)	
1.920	7	16	2.241	0.0288		
2.046	4	8	2.254	0.0144		
2.101	124	133	1.074	0.2398		
2.191	22	31	1.441	0.0558		
2.208	16	22	1.418	0.0396		
2.220	8	15	1.843	0.0270		
2.286	5	12	2.308	0.0216		
2.315	13	18	1.440	0.0324		
2.461	7	9	1.301	0.0162	3 gamma-BHC (Lindane)	BA
2.510	9	16	1.695	0.0288		
2.566	12	17	1.443	0.0306		
2.603	25	33	1.317	0.0595		
2.626	147	171	1.164	0.3083		
2.787	6	12	1.876	0.0216		
2.829	10	20	1.927	0.0360		
2.854	10	18	1.739	0.0324		
2.861	4	12	3.038	0.0216		
2.904	9	13	1.526	0.0234		
2.960	3	6	2.120	0.0108		
3.049	2	6	2.871	0.0108		
3.113	41	39	0.943	0.0703		
3.128	6	19	3.115	0.0342		
3.135	2	10	4.237	0.0180		
3.184	3	7	2.333	0.0126		
3.188	3	9	3.261	0.0162		
3.205	3	9	3.103	0.0162		
3.208	4	11	2.799	0.0198		
3.356	2	8	3.226	0.0144		
3.608	3	8	2.367	0.0144		
3.694	2	6	2.609	0.0108		
3.712	3	7	2.778	0.0126		
3.733	2	8	3.902	0.0144		
3.784	2	8	3.738	0.0144		
3.790	2	6	2.553	0.0108		
3.812	3	7	2.389	0.0126		
3.955	2	6	2.927	0.0108	14 Endrin	
4.035	3	9	2.980	0.0162		
4.103	4	11	2.895	0.0198		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.106	3	10	3.788	0.0180		
4.186	9	13	1.433	0.0234		
4.236	3	10	3.067	0.0180		
4.238	5	14	2.972	0.0252		
4.341	2	6	2.632	0.0108		
4.975	2	6	2.586	0.0108		
5.078	4	15	3.836	0.0270		
5.081	2	16	7.729	0.0288		
5.085	8	19	2.474	0.0342		
5.096	3	9	3.158	0.0162		
5.438	7	16	2.173	0.0288		
5.521	3	7	2.491	0.0126		
5.533	3	9	3.529	0.0162		
5.549	2	9	4.455	0.0162		
5.558	2	8	3.810	0.0144		
5.561	2	10	4.065	0.0180		
5.645	4280	4044	0.945	7.2920	$ 24 Decachlorobiphenyl (S)	
5.684	5	17	3.353	0.0306		
5.692	4	11	2.965	0.0198		
5.729	3	7	2.745	0.0126		
5.757	2	6	2.913	0.0108		
6.489	2	8	3.941	0.0144		
6.534	2	11	5.314	0.0198		
6.544	3	9	2.885	0.0162		
6.623	2	8	3.320	0.0144		
6.635	2	10	4.484	0.0180		
6.901	2	7	3.211	0.0126		
6.923	3	12	3.540	0.0216		
6.935	3	11	3.514	0.0198		
	41638	55458		100.000		

Total unknown % height = 83.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-016.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30313260001,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.885	-0.001	3642	0.07203	1.44			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.459	2.473	-0.014	6	1e-004	0.00191		(M)	BA
5 Heptachlor					CAS #: 319-86-8			
Compound Not Detected.								
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
3.954	3.957	-0.003	2	4.e-005	0.000800			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
20 Methoxychlor					CAS #: 72-43-5			
Compound Not Detected.								
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								BA
23 Toxaphene					CAS #: 8001-35-2			
Peaks not detected for Quant. or Qual. signal(s).								
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.644	0.000	4279	0.08610	1.72			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260001
Client Smp ID: AOC32 Lower-1
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: WATER
Quant Type: ESTD
Analysis Type: SV
Level: LOW
Data Type: GC MULTI COMP
Operator: TAW
Misc Info: 15826,TCLP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.00191	
319-86-8	Heptachlor	0.0100	U
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.000800	
72-43-5	Methoxychlor	0.100	U
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.44	
----------	Decachlorobiphenyl (S)	1.72	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-016.d

Date : 17-JUL-2019 16:12

Client ID: AOC32 Lower-1

Instrument: 30gcsc.i

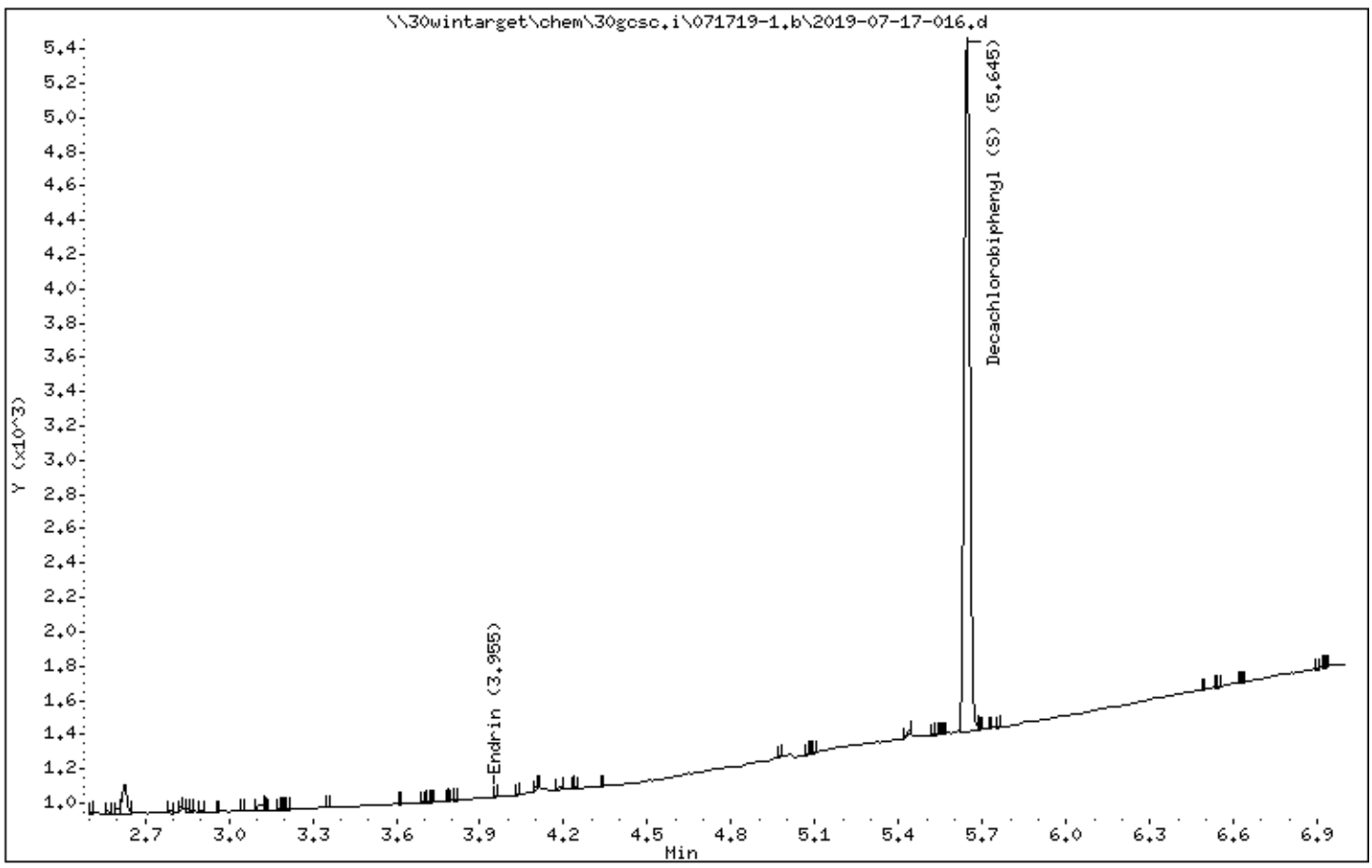
Sample Info: 30313260001,

Volume Injected (uL): 1.0

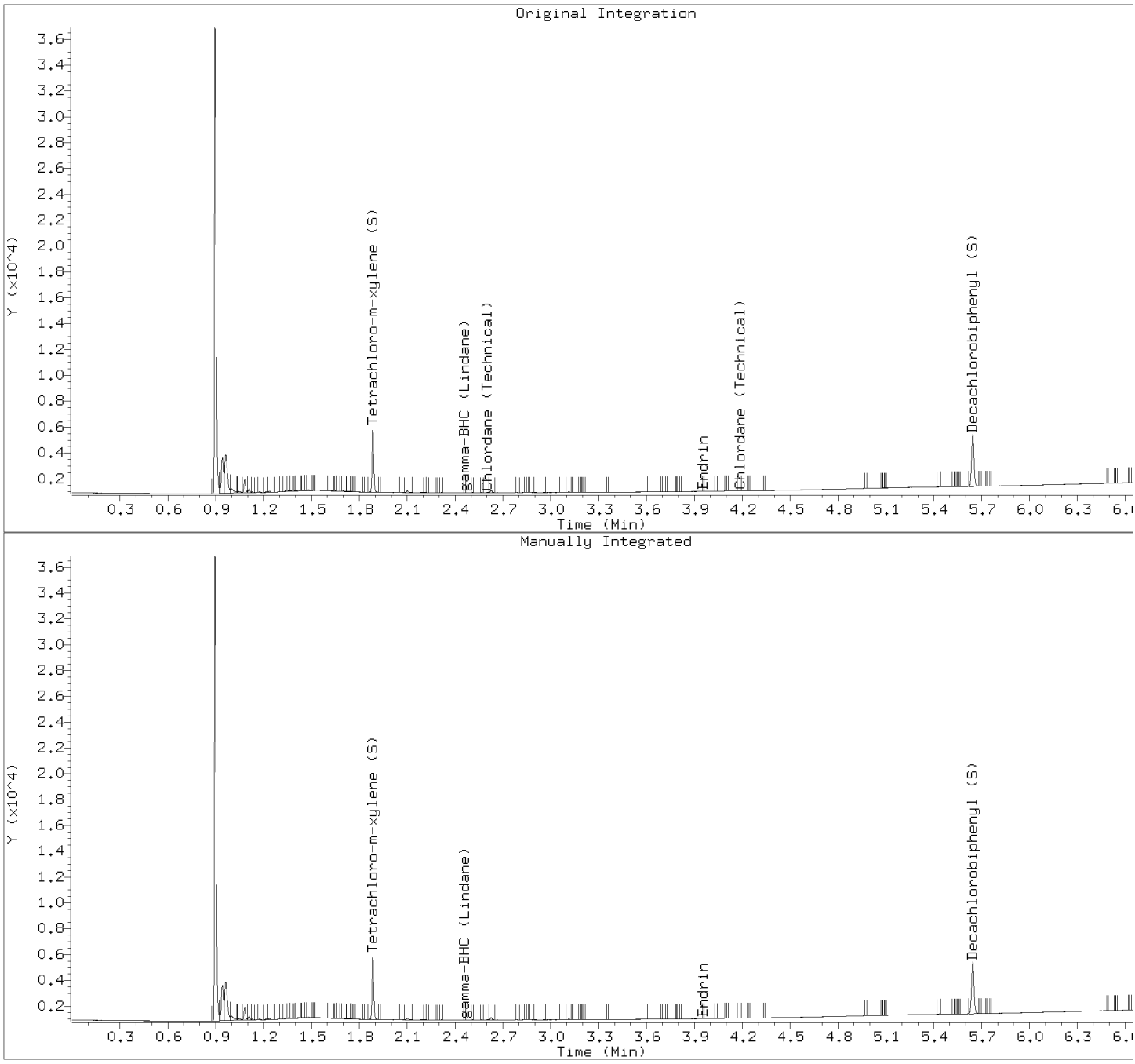
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-016.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUL-2019 16:12 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 30313260001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	4	6
Heptachlor	0	0
Heptachlor epoxide	0	0
Endrin	2	2
Methoxychlor	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	16	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	9	0
Tetrachloro-m-xylene (S)	3642	3642
Decachlorobiphenyl (S)	4279	4279

SAMPLE NO.

AOC32 Lower-2

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 30313260002
Date Analyzed: 07/17/2019 16:22
Lab File ID: 071719-1.B\2019-07-17-017.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-017.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 16:22
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30313260002,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.897	2150	2381	1.107	10.1271		
0.944	2604	2688	1.032	11.4329		
0.965	3181	2873	0.903	12.2198		
0.999	362	283	0.782	1.2036		
1.038	8	16	2.054	0.0680		
1.044	8	16	1.916	0.0680		
1.084	155	238	1.536	1.0122		
1.099	8	26	3.214	0.1105		
1.111	118	171	1.451	0.7273		
1.130	15	35	2.286	0.1488		
1.149	2	6	2.970	0.0255		
1.176	12	22	1.879	0.0935		
1.211	106	101	0.950	0.4295		
1.241	73	86	1.185	0.3657		
1.291	5	17	3.189	0.0723		
1.304	15	27	1.844	0.1148		
1.309	23	34	1.506	0.1446		
1.339	81	90	1.117	0.3827		
1.360	36	80	2.215	0.3402		
1.361	25	81	3.232	0.3445		
1.371	71	70	0.981	0.2977		
1.388	6	45	7.414	0.1913		
1.393	9	44	5.052	0.1871		
1.399	17	47	2.819	0.1999		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.418	193	136	0.706	0.5784		
1.437	15	75	5.109	0.3189		
1.440	12	74	6.424	0.3147		
1.452	72	83	1.156	0.3530		
1.458	23	79	3.430	0.3360		
1.466	41	81	1.998	0.3445		
1.474	20	79	3.946	0.3360		
1.483	103	102	0.992	0.4338		
1.496	31	77	2.503	0.3275		
1.503	16	72	4.388	0.3062		
1.508	36	65	1.820	0.2764		
1.516	21	60	2.808	0.2551		
1.523	22	55	2.499	0.2339		
1.530	7	51	7.275	0.2169		
1.532	7	52	7.386	0.2211		
1.537	28	52	1.828	0.2211		
1.545	22	44	2.028	0.1871		
1.555	19	37	1.941	0.1573		
1.564	12	31	2.677	0.1318		
1.569	6	27	4.341	0.1148		
1.574	12	23	1.871	0.0978		
1.585	5	14	2.708	0.0595		
1.613	2	7	2.954	0.0297		
1.671	11	19	1.681	0.0808		
1.733	9	18	2.032	0.0765		
1.739	4	14	3.884	0.0595		
1.824	3	8	2.656	0.0340		
1.886	3602	4976	1.381	21.1792	$ 1 Tetrachloro-m-xylene (S)	
1.922	4	9	2.452	0.0382		
2.048	8	16	2.018	0.0680		
2.053	3	17	5.763	0.0723		
2.055	3	20	6.270	0.0850		
2.059	8	18	2.198	0.0765		
2.066	3	14	4.321	0.0595		
2.072	2	13	5.439	0.0552		
2.076	5	13	2.680	0.0552		
2.101	92	106	1.150	0.4508		
2.171	4	7	1.768	0.0297		
2.193	7	12	1.664	0.0510		
2.318	22	27	1.233	0.1148		
2.335	3	7	2.703	0.0297		
2.343	2	7	3.415	0.0297		
2.427	2	5	2.083	0.0212		
2.461	3	8	2.500	0.0340		
2.477	3	8	2.787	0.0340	3 gamma-BHC (Lindane)	
2.514	3	7	2.023	0.0297		
2.570	6	9	1.601	0.0382		
2.606	20	30	1.471	0.1275		
2.627	125	150	1.199	0.6379		
2.665	3	9	3.306	0.0382		
2.786	7	13	1.757	0.0552		
2.830	3	6	2.273	0.0255		
2.857	18	22	1.256	0.0935		
2.871	2	8	3.941	0.0340		
2.903	8	13	1.697	0.0552		
2.988	2	5	2.415	0.0212		
3.115	64	45	0.700	0.1913		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.184	2	6	2.459	0.0255		
3.353	8	13	1.729	0.0552		
3.608	2	8	3.361	0.0340		
3.619	2	6	2.985	0.0255		
3.636	2	6	2.532	0.0255		
3.645	2	7	3.111	0.0297		
3.667	3	13	5.078	0.0552		
3.670	5	12	2.419	0.0510		
3.678	3	10	2.899	0.0425		
3.687	5	11	2.119	0.0467		
3.702	3	8	3.200	0.0340		
3.710	3	8	2.899	0.0340		
3.719	2	10	4.651	0.0425		
3.725	3	9	2.744	0.0382		
3.731	3	10	3.650	0.0425		
3.738	4	10	2.857	0.0425		
3.771	9	16	1.804	0.0680		
3.775	4	16	4.360	0.0680		
3.782	3	13	4.114	0.0552		
3.787	2	13	6.250	0.0552		
3.791	3	10	2.941	0.0425		
3.979	11	27	2.385	0.1148	14 Endrin	
3.982	5	31	5.860	0.1318		
3.989	21	39	1.872	0.1658		
3.995	21	37	1.726	0.1573		
4.005	24	33	1.380	0.1403		
4.021	12	21	1.746	0.0893		
4.030	5	14	2.736	0.0595		
4.068	4	7	1.989	0.0297		
4.105	54	48	0.897	0.2041		
4.127	4	11	2.887	0.0467		
4.136	4	10	2.364	0.0425		
4.144	3	9	3.114	0.0382		
4.187	10	17	1.659	0.0723		
4.203	2	6	2.586	0.0255		
4.233	6	14	2.326	0.0595		
4.241	2	8	3.721	0.0340		
4.288	2	7	3.286	0.0297		
4.290	2	11	5.093	0.0467		
4.295	2	13	5.462	0.0552		
4.301	6	13	2.301	0.0552		
4.329	8	19	2.439	0.0808		
4.332	6	18	2.980	0.0765		
4.340	7	21	2.842	0.0893		
4.346	6	18	2.786	0.0765		
4.352	6	16	2.576	0.0680		
4.359	4	14	3.318	0.0595		
4.368	3	12	3.934	0.0510		
4.377	4	10	2.375	0.0425		
4.387	2	9	3.913	0.0382		
4.396	4	8	2.116	0.0340		
4.590	8	20	2.581	0.0850		
4.602	17	28	1.691	0.1190		
4.605	7	28	3.748	0.1190		
4.609	6	28	4.912	0.1190		
4.618	15	28	1.905	0.1190		
4.622	6	29	4.489	0.1233		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.625	4	30	7.772	0.1275		
4.631	14	32	2.292	0.1361		
4.638	17	30	1.795	0.1275		
4.646	5	29	5.380	0.1233		
4.655	16	27	1.716	0.1148		
4.661	11	24	2.218	0.1020	20 Methoxychlor	
4.668	8	25	3.113	0.1063		
4.675	9	24	2.545	0.1020		
4.681	3	21	6.231	0.0893		
4.686	5	20	3.976	0.0850		
4.690	8	19	2.354	0.0808		
4.697	5	19	3.718	0.0808		
4.703	5	20	4.246	0.0850		
4.709	6	19	3.100	0.0808		
4.716	8	21	2.545	0.0893		
4.720	4	20	4.988	0.0850		
4.723	7	20	2.703	0.0850		
4.730	4	17	4.167	0.0723		
4.737	7	19	2.703	0.0808		
4.741	3	17	5.231	0.0723		
4.753	9	17	1.912	0.0723		
4.758	5	17	3.400	0.0723		
4.761	3	15	4.518	0.0637		
4.767	6	14	2.326	0.0595		
4.774	2	13	6.311	0.0552		
4.858	8	6	0.734	0.0255		
4.872	3	7	2.236	0.0297		
4.879	3	9	2.951	0.0382		
4.885	4	14	3.465	0.0595		
4.891	2	10	4.149	0.0425		
5.014	17	23	1.376	0.0978		
5.049	3	9	2.703	0.0382		
5.083	35	39	1.113	0.1658		
5.099	4	21	5.769	0.0893		
5.105	8	19	2.414	0.0808		
5.109	2	19	7.724	0.0808		
5.113	8	20	2.551	0.0850		
5.119	4	17	4.077	0.0723		
5.127	7	16	2.339	0.0680		
5.132	5	18	3.814	0.0765		
5.137	7	19	2.628	0.0808		
5.146	4	17	3.944	0.0723		
5.151	5	17	3.386	0.0723		
5.158	3	17	5.705	0.0723		
5.161	4	17	4.057	0.0723		
5.164	6	18	3.169	0.0765		
5.173	6	21	3.454	0.0893		
5.178	7	20	2.976	0.0850		
5.184	6	20	3.509	0.0850		
5.188	6	18	3.214	0.0765		
5.194	3	19	6.051	0.0808		
5.196	2	18	7.317	0.0765		
5.202	6	16	2.492	0.0680		
5.207	4	17	4.474	0.0723		
5.211	6	17	2.778	0.0723		
5.217	7	18	2.479	0.0765		
5.226	5	17	3.178	0.0723		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.234	6	18	3.025	0.0765		
5.237	4	19	4.835	0.0808		
5.241	5	17	3.672	0.0723		
5.246	4	17	4.404	0.0723		
5.251	4	14	3.341	0.0595		
5.257	3	14	5.447	0.0595		
5.260	3	13	4.727	0.0552		
5.266	6	14	2.269	0.0595		
5.280	4	12	2.733	0.0510		
5.281	3	13	3.858	0.0552		
5.288	4	12	3.343	0.0510		
5.294	2	10	4.651	0.0425		
5.299	4	9	2.571	0.0382		
5.371	2	5	2.347	0.0212		
5.438	18	29	1.575	0.1233		
5.556	2	8	3.653	0.0340		
5.559	3	10	3.717	0.0425		
5.566	4	11	2.564	0.0467		
5.572	2	11	4.681	0.0467		
5.643	4257	3944	0.927	16.7751	$ 24 Decachlorobiphenyl (S)	
5.680	6	16	2.899	0.0680		
5.785	3	8	2.597	0.0340		
5.819	2	10	4.329	0.0425		
5.837	2	6	2.597	0.0255		
5.849	7	11	1.486	0.0467		
5.858	3	11	3.427	0.0467		
5.863	3	11	3.780	0.0467		
5.869	4	16	3.855	0.0680		
5.875	6	15	2.568	0.0637		
5.880	4	12	3.141	0.0510		
5.914	3	15	4.451	0.0637		
5.923	2	16	6.426	0.0680		
5.927	3	16	4.665	0.0680		
5.933	3	15	4.747	0.0637		
5.937	5	16	3.548	0.0680		
5.944	2	13	6.190	0.0552		
5.947	3	14	5.426	0.0595		
5.954	3	13	4.305	0.0552		
5.964	3	13	4.676	0.0552		
5.970	4	11	2.973	0.0467		
5.974	2	13	5.702	0.0552		
5.979	5	16	3.456	0.0680		
5.987	2	10	4.237	0.0425		
5.998	6	10	1.805	0.0425		
6.042	3	8	2.974	0.0340		
6.277	2	9	3.913	0.0382		
6.337	3	9	2.941	0.0382		
6.389	2	8	3.433	0.0340		
6.398	2	11	5.140	0.0467		
6.410	2	8	3.721	0.0340		
6.419	2	9	3.913	0.0382		
6.488	2	10	4.032	0.0425		
6.493	2	9	3.659	0.0382		
6.500	5	12	2.372	0.0510		
6.509	2	14	6.306	0.0595		
6.516	5	18	3.321	0.0765		
6.519	5	19	3.800	0.0808		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.524	4	16	3.941	0.0680		
6.534	11	22	1.947	0.0935		
6.539	3	19	6.271	0.0808		
6.542	4	19	5.234	0.0808		
6.545	3	18	5.696	0.0765		
6.549	4	18	4.276	0.0765		
6.553	6	16	2.768	0.0680		
6.563	3	15	4.451	0.0637		
6.566	5	15	3.226	0.0637		
6.571	2	15	6.383	0.0637		
6.576	4	18	4.306	0.0765		
6.581	4	13	3.266	0.0552		
6.589	4	14	3.500	0.0595		
6.597	2	13	5.532	0.0552		
6.601	4	14	3.774	0.0595		
6.607	2	12	5.172	0.0510		
6.609	4	12	2.804	0.0510		
6.622	3	13	4.194	0.0552		
6.629	3	11	3.198	0.0467		
6.635	4	12	3.315	0.0510		
6.644	3	14	4.192	0.0595		
6.646	2	13	5.285	0.0552		
6.652	3	10	3.846	0.0425		
6.658	3	10	2.899	0.0425		
6.738	3	10	3.311	0.0425		
6.920	2	7	2.941	0.0297		
	19203	23511		100.000		

Total unknown % height = 61.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-017.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 16:22
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30313260002,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	3602	0.07124	1.42			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.477	2.473	0.004	2	3e-005	0.000637			
5 Heptachlor					CAS #: 319-86-8			
Compound Not Detected.								
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
3.979	3.957	0.022	11	0.00022	0.00440			
20 Methoxychlor					CAS #: 72-43-5			
4.661	4.663	-0.002	10	4e-004	0.00817			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								
23 Toxaphene					CAS #: 8001-35-2			
Operator disabled compound identification.								
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.643	5.644	-0.001	4256	0.08564	1.71			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260002
Client Smp ID: AOC32 Lower-2
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: WATER
Quant Type: ESTD
Analysis Type: SV
Level: LOW
Data Type: GC MULTI COMP
Operator: TAW
Misc Info: 15826,TCLP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.000637	
319-86-8	Heptachlor	0.0100	U
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.00440	
72-43-5	Methoxychlor	0.00817	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.42	
----------	Decachlorobiphenyl (S)	1.71	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-017.d

Date : 17-JUL-2019 16:22

Client ID: AOC32 Lower-2

Instrument: 30gcsc.i

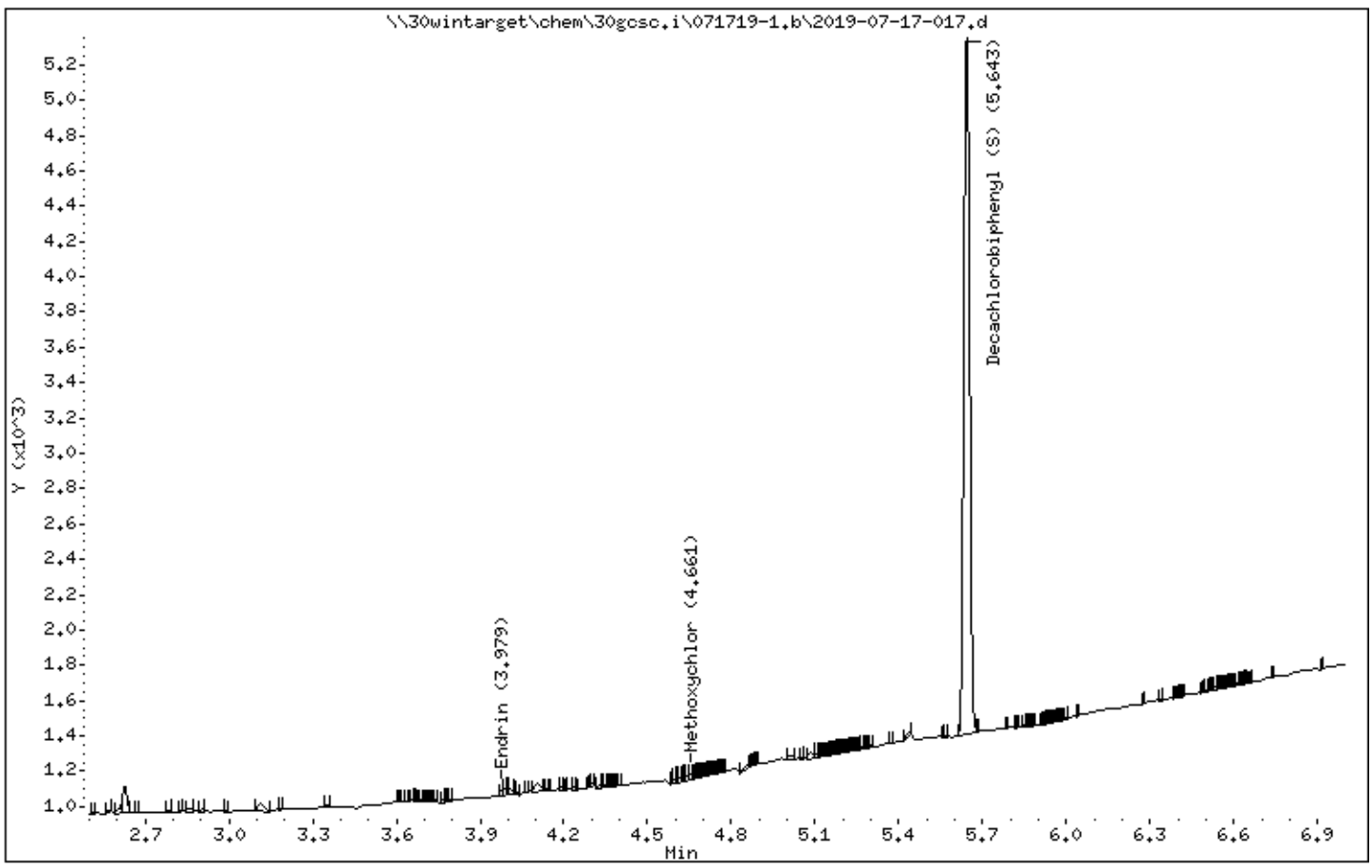
Sample Info: 30313260002,

Volume Injected (uL): 1.0

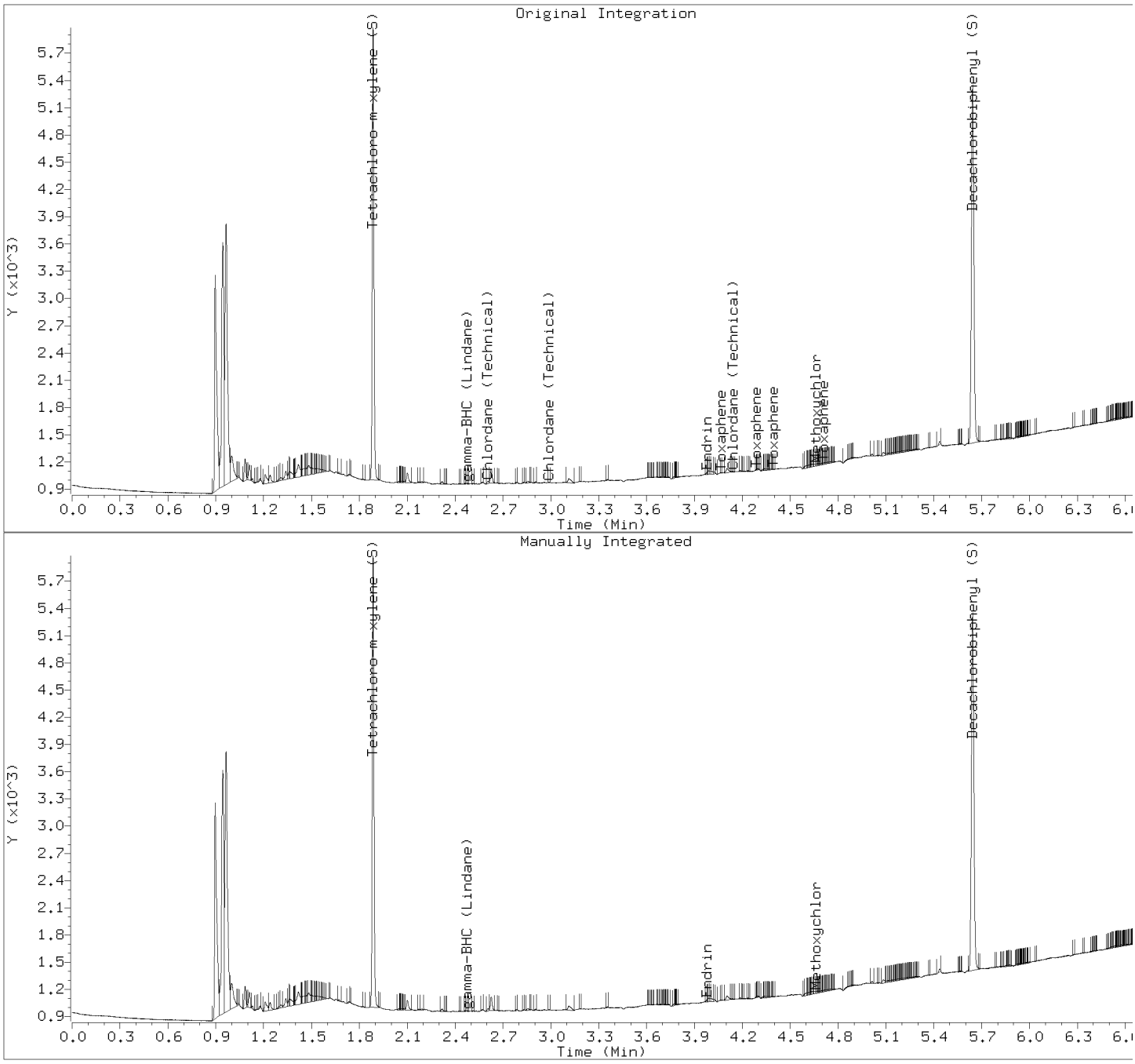
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-017.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 17-JUL-2019 16:22 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 30313260002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	2	2
Heptachlor	0	0
Heptachlor epoxide	0	0
Endrin	11	11
Methoxychlor	10	10
Toxaphene	3	0
Toxaphene	2	0
Toxaphene	2	0
Toxaphene	3	0
Toxaphene	6	0
Chlordane (Technical)	20	0
Chlordane (Technical)	0	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	3602	3602
Decachlorobiphenyl (S)	4256	4256

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	63000.0000	60142.8571	67300.0000	62750.0000	60940.0000	62510.0000
Endrin		Averaged	50400.0000	47928.5714	54500.0000	48150.0000	49440.0000	49650.0000
Heptachlor		Averaged	68800.0000	63714.2857	71000.0000	64350.0000	62180.0000	62190.0000
Heptachlor epoxide		Averaged	58600.0000	56285.7142	62000.0000	56350.0000	54080.0000	54060.0000
Methoxychlor		Averaged	24940.0000	23842.8571	27080.0000	23895.0000	23468.0000	23603.0000
Decachlorobiphenyl		Averaged	55300.0000	49285.7142	54450.0000	49175.0000	45310.0000	44660.0000
Tetrachloro-m-xylene		Averaged	51900.0000	50214.2857	54700.0000	50700.0000	47640.0000	48225.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	3.95			62773.80	
Endrin		Averaged	4.77			50011.42	
Heptachlor		Averaged	5.62		0.00	65372.38	
Heptachlor epoxide		Averaged	5.30		0.00	56895.95	
Methoxychlor		Averaged	5.63			24471.47	
Decachlorobiphenyl		Averaged	8.95			49696.78	
Tetrachloro-m-xylene		Averaged	5.08			50563.21	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	22200.0000	21428.5714	24000.0000	21950.0000	21120.0000	21610.0000
Endrin		Averaged	16800.0000	15428.5714	17300.0000	14975.0000	15140.0000	15120.0000
Heptachlor		Averaged	22200.0000	21285.7142	23700.0000	21050.0000	20360.0000	20290.0000
Heptachlor epoxide		Averaged	21600.0000	20142.8571	21600.0000	19400.0000	18380.0000	18190.0000
Methoxychlor		Averaged	7380.00000	7185.71429	8160.00000	7240.00000	7166.00000	7162.00000
Decachlorobiphenyl		Averaged	17100.0000	16285.7142	17800.0000	15950.0000	14530.0000	14085.0000
Tetrachloro-m-xylene		Averaged	19100.0000	18285.7142	20200.0000	18600.0000	17190.0000	17410.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	4.65			22051.42	
Endrin		Averaged	6.31			15793.92	
Heptachlor		Averaged	6.01			21480.95	
Heptachlor epoxide		Averaged	7.56			19885.47	
Methoxychlor		Averaged	5.27			7382.28	
Decachlorobiphenyl		Averaged	9.01			15958.45	
Tetrachloro-m-xylene		Averaged	6.03			18464.28	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.472	2.472	2.473	2.473	2.472	2.474
Endrin		3.956	3.957	3.957	3.956	3.956	3.958
Heptachlor		2.71	2.711	2.711	2.711	2.711	2.712
Heptachlor epoxide		3.279	3.28	3.28	3.279	3.279	3.28
Methoxychlor		4.663	4.663	4.662	4.663	4.663	4.664
Decachlorobiphenyl		5.645	5.646	5.645	5.644	5.645	5.647
Tetrachloro-m-xylene		1.884	1.884	1.884	1.884	1.884	1.885

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.472	2.442	2.502
Endrin		3.957	3.927	3.987
Heptachlor		2.711	2.681	2.741
Heptachlor epoxide		3.279	3.249	3.309
Methoxychlor		4.662	4.632	4.692
Decachlorobiphenyl		5.646	5.616	5.676
Tetrachloro-m-xylene		1.884	1.854	1.914

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.839	2.839	2.84	2.84	2.839	2.84
Endrin		4.389	4.389	4.389	4.389	4.388	4.389
Heptachlor		3.249	3.249	3.249	3.249	3.249	3.249
Heptachlor epoxide		3.77	3.77	3.77	3.77	3.77	3.771
Methoxychlor		4.947	4.946	4.947	4.947	4.946	4.947
Decachlorobiphenyl		6.336	6.336	6.335	6.334	6.335	6.335
Tetrachloro-m-xylene		2.359	2.359	2.359	2.359	2.358	2.359

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.84	2.81	2.87
Endrin		4.389	4.359	4.419
Heptachlor		3.249	3.219	3.279
Heptachlor epoxide		3.77	3.74	3.8
Methoxychlor		4.947	4.917	4.977
Decachlorobiphenyl		6.334	6.304	6.364
Tetrachloro-m-xylene		2.359	2.329	2.389

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 Calibration Time(s): 14:54

LAB FILE ID

CAL2S = 062719-1.B\2019-06-27-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.057	4.027	4.087	1890.00000
		2	4.153	4.122	4.182	1640.00000
		3	4.286	4.256	4.316	850.00000
		4	4.394	4.363	4.423	640.00000
		5	4.71	4.68	4.74	1290.00000
Decachlorobiphenyl (S)	.014		5.645	5.616	5.676	49285.7142
Tetrachloro-m-xylene	.014		1.884	1.854	1.914	50214.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 06/27/2019 Calibration Time(s): 15:04

LAB FILE ID

CAL2S = 062719-1.B\2019-06-27-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	2.593	2.562	2.622	2060.00000
		2	2.711	2.681	2.741	2980.00000
		3	3.006	2.976	3.036	2100.00000
		4	3.5	3.47	3.53	4760.00000
		5	4.159	4.129	4.189	1720.00000
Decachlorobiphenyl (S)	.014		5.645	5.616	5.676	49285.7142
Tetrachloro-m-xylene	.014		1.884	1.854	1.914	50214.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 Calibration Time(s): 14:54

LAB FILE ID

CAL2S = 062719-2.B\2019-06-27-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.408	4.378	4.438	580.00000
		2	4.566	4.536	4.596	330.00000
		3	4.609	4.579	4.639	270.00000
		4	4.768	4.738	4.798	580.00000
		5	5.143	5.113	5.173	280.00000
Decachlorobiphenyl (S)	.014		6.335	6.304	6.364	16285.7142
Tetrachloro-m-xylene	.014		2.359	2.329	2.389	18285.7142

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 06/27/2019 Calibration Time(s): 15:04

LAB FILE ID

CAL2S = 062719-2.B\2019-06-27-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	3.106	3.076	3.136	900.00000
		2	3.249	3.219	3.279	1010.00000
		3	3.475	3.445	3.505	670.00000
		4	4.019	3.989	4.049	1800.00000
		5	4.019	3.989	4.049	1800.00000
Decachlorobiphenyl (S)	.014		6.336	6.304	6.364	16285.7142
Tetrachloro-m-xylene	.014		2.359	2.329	2.389	18285.7142

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	735	1076	1.463	12.8361		
0.925	4	20	4.831	0.2384		
0.942	606	870	1.437	10.3731		
0.962	620	824	1.330	9.8247		
1.178	3	5	1.930	0.0596		
1.222	2	4	1.619	0.0476		
1.254	7	3	0.424	0.0357		
1.290	3	14	4.590	0.1669		
1.292	2	14	7.000	0.1669		
1.296	3	17	5.667	0.2026		
1.299	3	19	7.063	0.2265		
1.304	8	24	2.959	0.2861		
1.309	6	24	3.902	0.2861		
1.312	4	26	6.533	0.3100		
1.327	25	32	1.277	0.3815		
1.337	37	46	1.255	0.5484		
1.344	9	40	4.410	0.4769		
1.349	9	38	4.343	0.4530		
1.354	9	38	4.082	0.4530		
1.356	8	39	4.756	0.4650		
1.361	8	38	4.762	0.4530		
1.366	11	40	3.742	0.4769		
1.371	16	42	2.710	0.5007		
1.378	20	37	1.860	0.4411		
1.385	8	33	4.371	0.3934		
1.391	9	29	3.349	0.3457		
1.394	5	29	5.894	0.3457		
1.398	8	27	3.431	0.3219		
1.402	6	26	4.333	0.3100		
1.406	8	25	3.324	0.2980		
1.413	2	17	7.143	0.2026		
1.419	6	11	1.954	0.1311		
1.436	4	9	2.244	0.1073		
1.449	3	10	3.922	0.1192		
1.454	3	10	2.882	0.1192		
1.461	5	11	2.157	0.1311		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.482	24	36	1.515	0.4292		
1.602	2	6	2.885	0.0715		
1.885	522	774	1.484	9.2285	$ 1 Tetrachloro-m-xylene (S)	
2.099	6	12	2.083	0.1430		
2.627	67	88	1.314	1.0492		
2.883	3	6	1.780	0.0715		
2.907	5	10	2.066	0.1192		
2.938	2	10	4.329	0.1192		
2.941	3	9	3.309	0.1073		
3.128	12	18	1.559	0.2146		
3.207	2	6	2.609	0.0715		
3.268	3	6	1.869	0.0715		
3.295	8	14	1.663	0.1669		
3.327	3	6	1.818	0.0715		
3.414	3	9	2.616	0.1073		
3.460	12	31	2.585	0.3696		
3.463	21	33	1.555	0.3934		
3.536	6	11	1.923	0.1311		
3.552	7	10	1.391	0.1192		
3.619	16	26	1.658	0.3100		
3.665	9	30	3.282	0.3576		
3.668	16	31	1.928	0.3696		
3.685	35	43	1.236	0.5126		
3.702	49	45	0.914	0.5365		
3.731	46	55	1.190	0.6557		
3.740	28	55	1.974	0.6557		
3.773	10	16	1.550	0.1907		
3.799	10	22	2.128	0.2623		
3.827	67	69	1.036	0.8227		
3.848	24	50	2.063	0.5961		
3.850	22	49	2.200	0.5842		
3.866	49	49	1.000	0.5842		
3.898	23	31	1.357	0.3696		
3.944	52	66	1.262	0.7869		
3.976	30	38	1.252	0.4530		
4.018	47	58	1.229	0.6915		
4.058	189	121	0.640	1.4427	23 Toxaphene	RT
4.078	24	59	2.432	0.7034		
4.097	168	140	0.834	1.6692		
4.114	52	82	1.564	0.9777		
4.153	164	134	0.817	1.5977	23 Toxaphene	RT
4.187	59	63	1.064	0.7511		
4.220	61	50	0.817	0.5961		
4.247	21	35	1.676	0.4173		
4.287	85	82	0.963	0.9777	23 Toxaphene	RT
4.349	89	93	1.047	1.1088		
4.369	32	52	1.630	0.6200		
4.394	65	71	1.095	0.8465	23 Toxaphene	RT
4.420	24	36	1.492	0.4292		
4.433	18	35	1.902	0.4173		
4.456	55	74	1.343	0.8823		
4.510	9	24	2.697	0.2861		
4.513	11	28	2.463	0.3338		
4.539	23	39	1.724	0.4650		
4.570	31	34	1.085	0.4053		
4.589	57	64	1.118	0.7630		
4.611	49	68	1.389	0.8107		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.616	33	66	1.998	0.7869		
4.624	23	57	2.475	0.6796		
4.665	34	45	1.329	0.5365		
4.711	129	135	1.045	1.6096	23 Toxaphene	RT
4.732	32	41	1.293	0.4888		
4.743	21	37	1.798	0.4411		
4.849	18	29	1.597	0.3457		
4.891	23	36	1.594	0.4292		
4.896	20	40	1.996	0.4769		
4.944	11	35	3.208	0.4173		
4.948	19	40	2.077	0.4769		
4.974	7	19	2.901	0.2265		
4.991	7	20	2.732	0.2384		
4.998	7	21	2.958	0.2503		
5.008	10	20	1.936	0.2384		
5.049	4	11	3.107	0.1311		
5.134	8	18	2.242	0.2146		
5.148	6	18	2.980	0.2146		
5.164	6	18	2.903	0.2146		
5.195	9	18	2.029	0.2146		
5.208	7	18	2.514	0.2146		
5.223	7	13	1.847	0.1550		
5.244	5	11	2.407	0.1311		
5.251	3	9	3.396	0.1073		
5.260	3	9	3.297	0.1073		
5.304	4	12	3.038	0.1430		
5.332	4	13	3.421	0.1550		
5.338	4	16	4.000	0.1907		
5.346	3	11	3.860	0.1311		
5.364	3	10	3.984	0.1192		
5.400	2	11	4.603	0.1311		
5.424	3	8	2.508	0.0953		
5.429	3	14	4.590	0.1669		
5.433	3	16	5.714	0.1907		
5.436	5	22	4.255	0.2623		
5.442	5	20	4.435	0.2384		
5.445	8	20	2.597	0.2384		
5.456	3	10	3.817	0.1192		
5.487	2	6	2.655	0.0715		
5.552	3	7	2.745	0.0834		
5.645	517	504	0.974	6.0093	$ 24 Decachlorobiphenyl (S)	
5.674	3	9	2.990	0.1073		
5.702	3	8	3.042	0.0953		
5.852	2	8	3.571	0.0953		
6.089	2	7	3.431	0.0834		
6.176	2	7	3.182	0.0834		
6.183	2	8	3.604	0.0953		
6.240	3	8	3.175	0.0953		
6.282	2	7	3.271	0.0834		
6.288	2	12	5.310	0.1430		
6.344	2	7	3.428	0.0834		
6.483	2	8	3.865	0.0953		
6.518	2	9	4.206	0.1073		
6.614	2	7	3.398	0.0834		
6.952	3	10	3.597	0.1192		
6.979	2	9	4.186	0.1073		
	5812	8387		100.000		

Total unknown % height = 78.3

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Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
23 Toxaphene					CAS #: 8001-35-2			
4.057	4.057	0.000	189	0.10000	0.100	80.00- 120.00	100.00(M)	RT
4.153	4.152	0.001	164	0.10000	0.100	66.77- 106.77	86.81	RT
4.286	4.286	0.000	85	0.10000	0.100	24.97- 64.97	45.05	RT
4.394	4.393	0.001	64	0.10000	0.100	13.86- 53.86	34.30	RT
4.710	4.710	0.000	129	0.10000	0.100	48.25- 88.25	68.32	RT
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	521	0.01400	0.0108			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.645	5.646	-0.001	517	0.01400	0.0108			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,TOX

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
8001-35-2	Toxaphene		
	Peak found at 4.058	0.100	
	Peak found at 4.153	0.100	
	Peak found at 4.287	0.100	
	Peak found at 4.394	0.100	
	Peak found at 4.711	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0108	
	Decachlorobiphenyl (S)	0.0108	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d

Date : 27-JUN-2019 14:54

Client ID: CAL2S

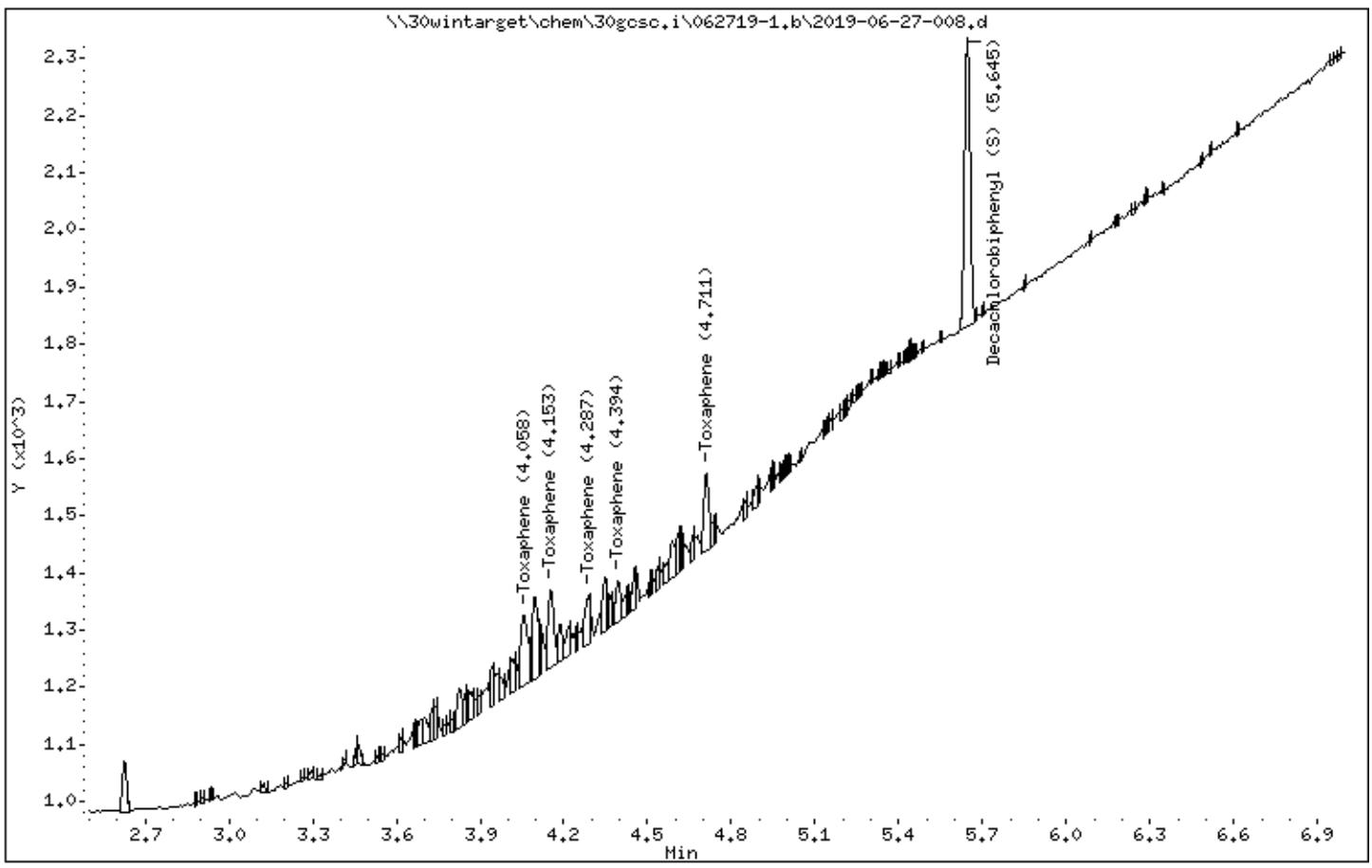
Instrument: 30gcsc.i

Sample Info: CAL2S, 90773:10

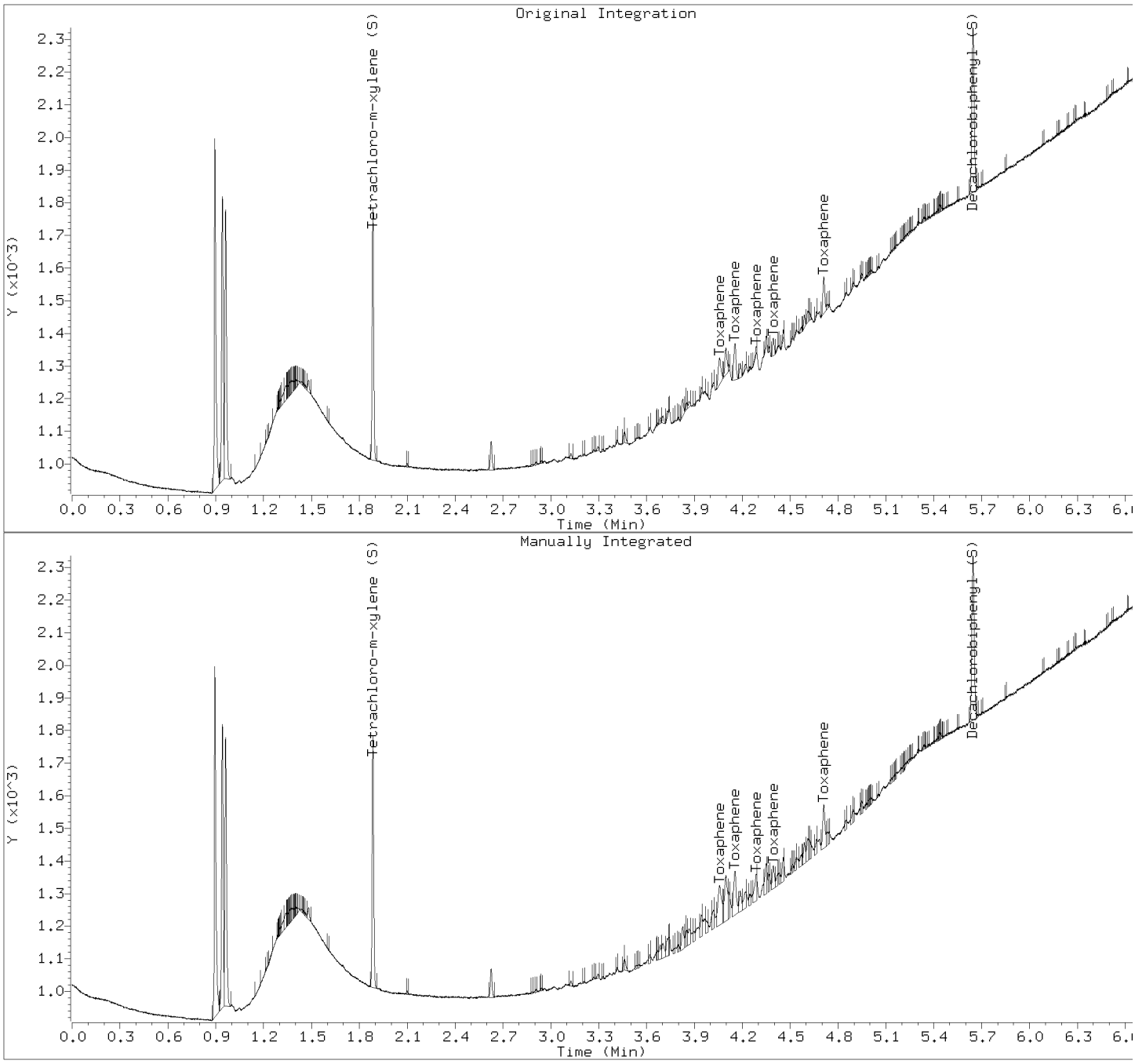
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 27-JUN-2019 14:54 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	93	189
Toxaphene	109	164
Toxaphene	15	85
Toxaphene	38	64
Toxaphene	90	129
Tetrachloro-m-xylene (S)	521	521
Decachlorobiphenyl (S)	517	517

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.062	1	1	1.000	0.0396		
0.209	1	2	1.980	0.0793		
0.481	1	2	1.653	0.0793		
0.730	1	2	1.527	0.0793		
0.866	3	8	3.187	0.3173		
0.873	5	18	3.696	0.7140		
0.878	288	853	2.957	33.8378		
0.909	1	3	2.400	0.1190		
0.948	2	3	1.948	0.1190		
0.981	186	251	1.347	9.9563		
1.010	169	266	1.571	10.5513		
1.282	1	2	1.536	0.0793		
1.306	1	2	1.852	0.0793		
1.357	1	3	2.885	0.1190		
1.366	1	3	2.941	0.1190		
1.399	1	3	2.970	0.1190		
1.419	2	3	1.724	0.1190		
1.910	1	4	3.226	0.1586		
2.359	193	258	1.335	10.2340	$ 1 Tetrachloro-m-xylene (S)	
3.089	3	6	2.207	0.2380		
3.465	2	5	2.008	0.1983		
3.705	6	9	1.415	0.3570		
3.767	4	4	0.995	0.1586		
3.880	5	7	1.331	0.2776		
3.918	9	13	1.404	0.5156		
4.007	3	7	2.167	0.2776		
4.009	2	8	4.545	0.3173		
4.115	8	13	1.544	0.5156		
4.178	12	18	1.462	0.7140		
4.200	14	22	1.618	0.8726		
4.248	9	13	1.526	0.5156		
4.283	12	12	1.038	0.4760		
4.331	44	33	0.750	1.3090		
4.368	32	30	0.943	1.1900		
4.384	16	31	1.973	1.2296		
4.388	16	33	2.110	1.3090		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.408	58	40	0.686	1.5866	23 Toxaphene	RT
4.483	11	15	1.427	0.5950		
4.500	15	20	1.298	0.7933		
4.528	20	27	1.328	1.0710		
4.567	34	34	1.011	1.3486	23 Toxaphene	RT
4.609	28	38	1.362	1.5073	23 Toxaphene	RT
4.718	23	25	1.085	0.9916		
4.768	59	42	0.716	1.6660	23 Toxaphene	RT
4.782	4	15	3.448	0.5950		
4.824	18	29	1.618	1.1503		
4.826	8	29	3.432	1.1503		
4.858	8	15	1.882	0.5950		
4.862	4	14	3.889	0.5553		
4.901	16	17	1.081	0.6743		
5.006	7	11	1.652	0.4363		
5.023	8	16	1.925	0.6346		
5.055	15	24	1.587	0.9520		
5.098	8	18	2.123	0.7140		
5.104	6	17	2.760	0.6743		
5.143	29	37	1.295	1.4676	23 Toxaphene	RT
5.224	4	8	1.869	0.3173		
5.546	11	28	2.550	1.1106		
5.552	13	28	2.212	1.1106		
6.032	1	2	1.653	0.0793		
6.335	11	18	1.595	0.7140	$ 24 Decachlorobiphenyl (S)	
6.517	1	3	2.939	0.1190		
	1478	2521		100.000		

Total unknown % height = 81.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
23 Toxaphene					CAS #: 8001-35-2			
4.408	4.408	0.000	58	0.10000	0.100	0.00- 20.00	100.00(M)	RT
4.566	4.566	0.000	33	0.10000	0.100	0.00- 20.00	57.72	RT
4.609	4.609	0.000	27	0.10000	0.100	0.00- 20.00	47.87	RT
4.768	4.768	0.000	58	0.10000	0.100	0.00- 20.00	100.72	RT
5.143	5.143	0.000	28	0.10000	0.100	0.00- 20.00	49.04	RT
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	193	0.01400	0.0109			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.334	0.001	11	0.01400	0.000822			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

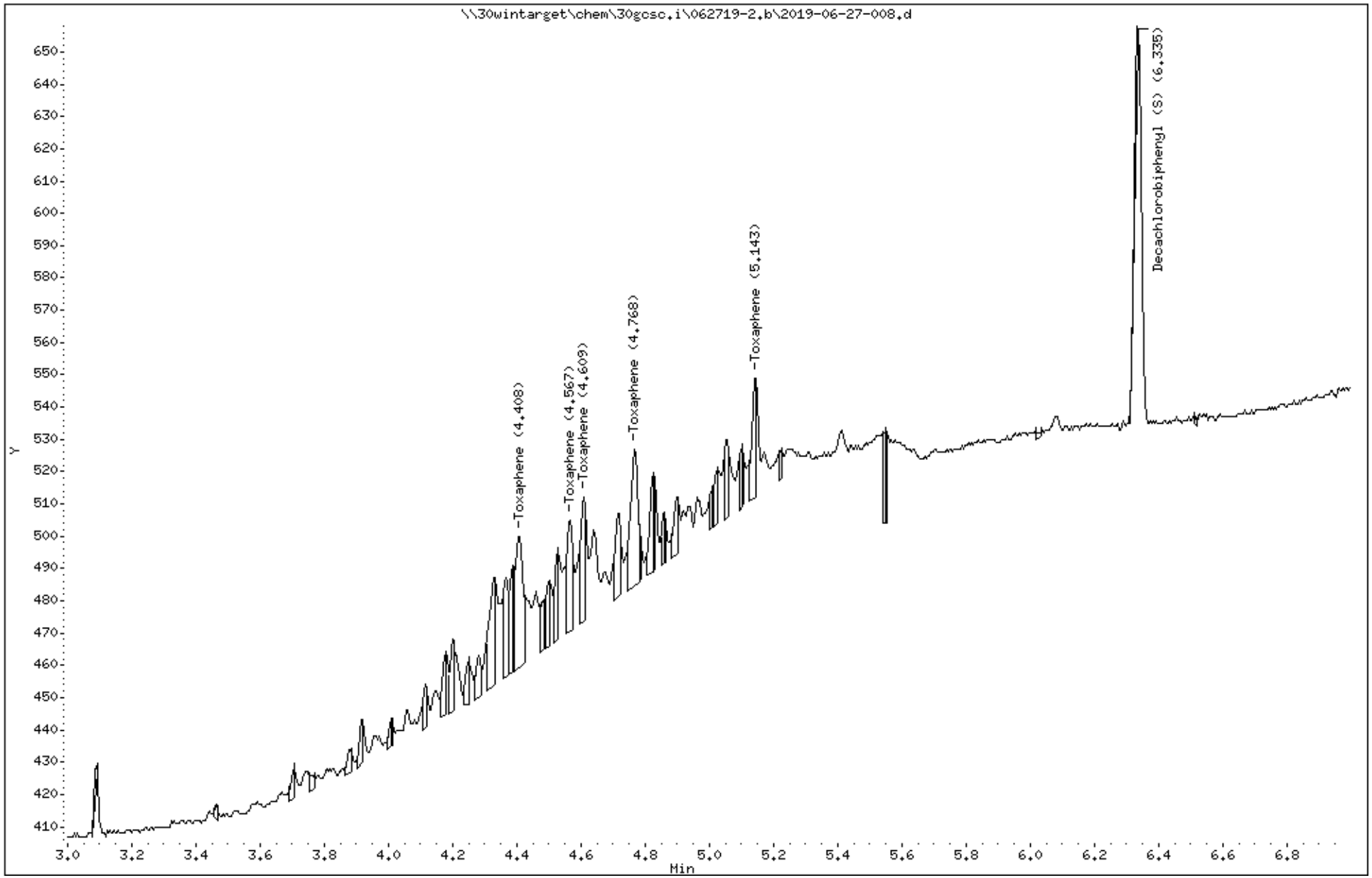
Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,TOX

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

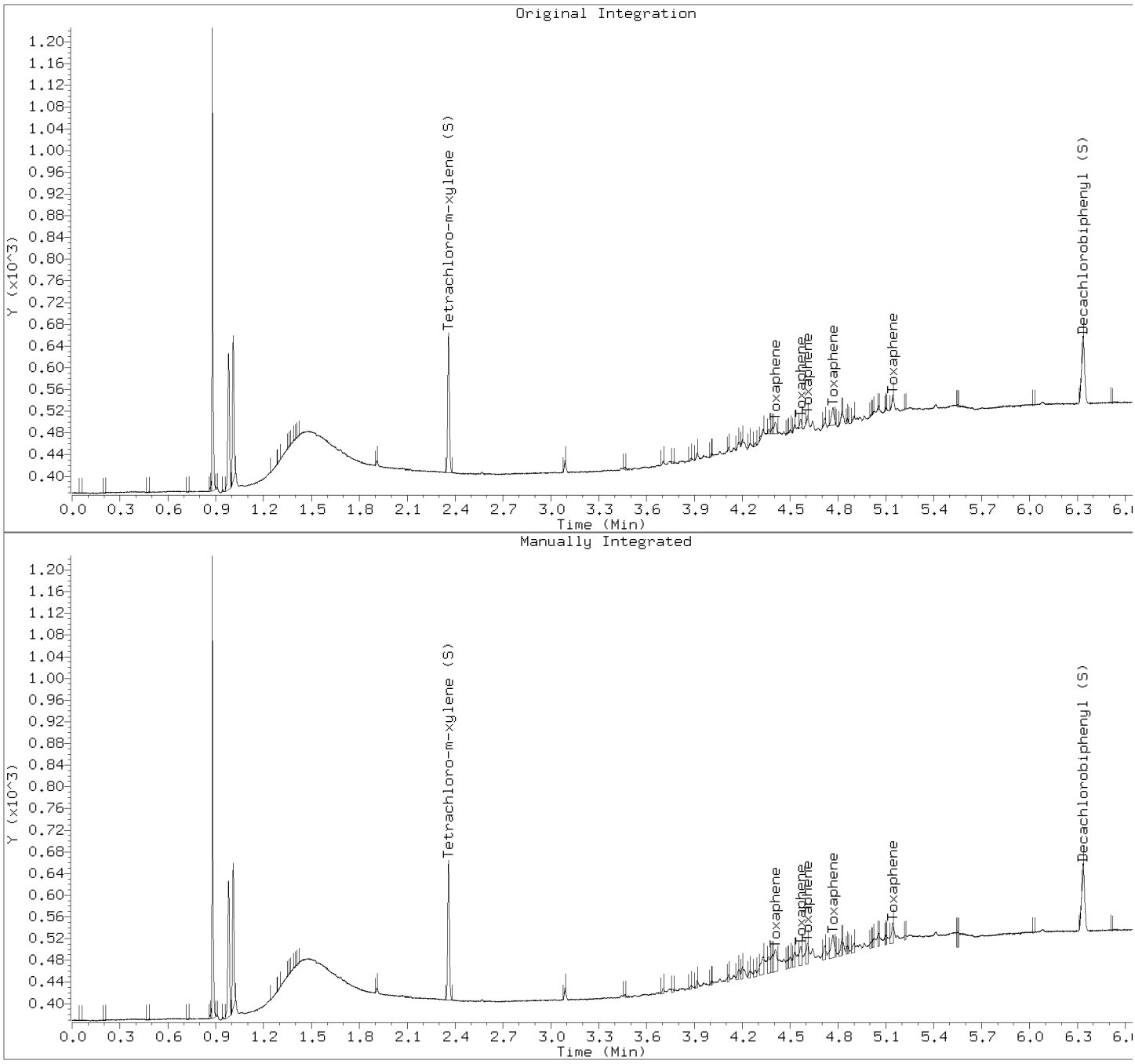
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
8001-35-2	Toxaphene		
	Peak found at 4.408	0.100	
	Peak found at 4.567	0.100	
	Peak found at 4.609	0.100	
	Peak found at 4.768	0.100	
	Peak found at 5.143	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0109	
	Decachlorobiphenyl (S)	0.000822	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Date : 27-JUN-2019 14:54
Client ID: CAL2S
Sample Info: CAL2S, 90773:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 27-JUN-2019 14:54 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	23	58
Toxaphene	10	33
Toxaphene	3	27
Toxaphene	37	58
Toxaphene	2	28
Tetrachloro-m-xylene (S)	193	193
Decachlorobiphenyl (S)	11	11

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	891	1290	1.448	12.9105		
0.942	753	977	1.297	9.7739		
0.963	779	926	1.188	9.2637		
0.996	7	30	4.418	0.3001		
1.001	17	31	1.838	0.3101		
1.016	31	38	1.231	0.3801		
1.044	3	8	3.065	0.0800		
1.178	2	5	2.038	0.0500		
1.240	9	19	2.008	0.1900		
1.275	2	11	5.288	0.1100		
1.289	10	18	1.798	0.1800		
1.316	37	27	0.739	0.2701		
1.331	23	35	1.493	0.3501		
1.334	9	41	4.515	0.4101		
1.339	14	39	2.743	0.3901		
1.343	7	35	4.788	0.3501		
1.349	15	35	2.352	0.3501		
1.355	5	32	6.015	0.3201		
1.359	7	31	4.354	0.3101		
1.367	14	32	2.225	0.3201		
1.373	12	34	2.810	0.3401		
1.377	12	31	2.541	0.3101		
1.385	6	23	3.746	0.2300		
1.388	5	22	4.731	0.2200		
1.393	6	18	2.871	0.1800		
1.400	3	16	4.706	0.1600		
1.406	3	12	4.027	0.1200		
1.440	3	8	2.454	0.0800		
1.448	4	8	1.887	0.0800		
1.458	8	12	1.478	0.1200		
1.472	2	15	6.383	0.1500		
1.482	30	39	1.288	0.3901		
1.498	4	11	2.965	0.1100		
1.505	4	11	2.857	0.1100		
1.512	2	9	3.982	0.0900		
1.520	3	8	2.484	0.0800		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.699	5	10	2.188	0.1000		
1.885	467	682	1.459	6.8227	$ 1 Tetrachloro-m-xylene (S)	
1.920	63	91	1.452	0.9103		
2.099	3	9	3.191	0.0900		
2.102	3	9	3.477	0.0900		
2.150	23	33	1.414	0.3301		
2.191	4	9	2.143	0.0900		
2.415	19	27	1.387	0.2701		
2.498	5	13	2.735	0.1300		
2.555	10	14	1.351	0.1400		
2.564	2	8	3.604	0.0800		
2.593	206	275	1.332	2.7511	22 Chlordane (Technical)	RT
2.624	62	71	1.140	0.7102		
2.712	298	384	1.288	3.8415	22 Chlordane (Technical)	RT
2.770	23	33	1.463	0.3301		
2.789	5	15	3.074	0.1500		
2.792	5	16	3.486	0.1600		
2.925	20	27	1.320	0.2701		
2.947	4	16	4.188	0.1600		
2.949	9	18	2.107	0.1800		
3.006	211	188	0.892	1.8807	22 Chlordane (Technical)	RT
3.048	7	13	1.912	0.1300		
3.085	47	56	1.179	0.5602		
3.103	2	10	4.651	0.1000		
3.106	3	11	4.000	0.1100		
3.128	2	5	2.058	0.0500		
3.149	13	20	1.571	0.2000		
3.236	28	37	1.312	0.3701		
3.293	110	134	1.219	1.3405		
3.311	9	25	2.867	0.2501		
3.330	95	127	1.331	1.2705		
3.373	45	61	1.346	0.6102		
3.436	624	720	1.154	7.2028		
3.447	265	485	1.833	4.8519		
3.467	153	186	1.215	1.8607		
3.500	476	621	1.304	6.2124	22 Chlordane (Technical)	RT
3.529	20	25	1.228	0.2501		
3.603	4	9	2.368	0.0900		
3.644	2	6	2.410	0.0600		
3.683	26	38	1.443	0.3801		
3.729	53	73	1.371	0.7302		
3.778	24	28	1.171	0.2801		
3.878	5	12	2.272	0.1200		
3.911	8	12	1.485	0.1200		
3.932	16	21	1.277	0.2100		
3.941	4	12	3.061	0.1200		
3.978	95	115	1.205	1.1504		
4.001	11	18	1.684	0.1800		
4.035	3	13	4.561	0.1300		
4.037	3	13	4.610	0.1300		
4.052	3	11	4.348	0.1100		
4.059	3	8	2.614	0.0800		
4.085	9	17	1.887	0.1700		
4.090	4	18	4.082	0.1800		
4.104	18	30	1.649	0.3001		
4.107	5	29	6.402	0.2901		
4.110	13	32	2.443	0.3201		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.117	7	29	3.978	0.2901		
4.122	4	18	4.724	0.1800		
4.126	3	13	4.290	0.1300		
4.138	4	16	3.747	0.1600		
4.159	173	200	1.157	2.0008	22 Chlordane (Technical)	RT
4.303	2	6	2.419	0.0600		
4.386	10	30	3.135	0.3001		
4.390	13	30	2.360	0.3001		
4.418	5	9	1.708	0.0900		
4.879	2	6	2.479	0.0600		
4.986	3	7	2.652	0.0700		
5.014	4	6	1.531	0.0600		
5.161	3	6	2.308	0.0600		
5.203	2	4	1.896	0.0400		
5.235	2	8	3.239	0.0800		
5.262	2	7	2.954	0.0700		
5.355	3	8	2.847	0.0800		
5.360	2	10	4.329	0.1000		
5.370	2	8	3.846	0.0800		
5.438	16	21	1.296	0.2100		
5.447	4	16	3.980	0.1600		
5.457	3	9	3.543	0.0900		
5.463	2	10	4.098	0.1000		
5.473	3	12	4.138	0.1200		
5.527	2	6	2.469	0.0600		
5.533	2	8	3.960	0.0800		
5.646	474	459	0.969	4.5918	$ 24 Decachlorobiphenyl (S)	
5.945	2	7	2.905	0.0700		
6.091	2	11	5.140	0.1100		
6.180	2	8	3.524	0.0800		
6.200	2	6	2.740	0.0600		
6.221	3	11	3.780	0.1100		
6.229	2	10	5.000	0.1000		
6.400	2	7	3.153	0.0700		
6.560	2	8	3.571	0.0800		
6.654	2	13	5.372	0.1300		
6.776	2	9	3.947	0.0900		
6.806	2	8	3.636	0.0800		
	7182	9996		100.000		

Total unknown % height = 71.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
2.593	2.592	0.001	206	0.10000	0.100	80.00- 120.00	100.00(M)	RT
2.711	2.711	0.000	298	0.10000	0.100	124.66- 164.66	144.38	RT
3.006	3.006	0.000	210	0.10000	0.100	81.94- 121.94	102.12	RT
3.500	3.500	0.000	476	0.10000	0.100	211.07- 251.07	230.63	RT
4.159	4.159	0.000	172	0.10000	0.100	63.50- 103.50	83.74	RT
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	467	0.01400	0.00978			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.645	5.646	-0.001	473	0.01400	0.0100			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,CHLOR

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
	Chlordane (Technical)		
	Peak found at 2.593	0.100	
	Peak found at 2.712	0.100	
	Peak found at 3.006	0.100	
	Peak found at 3.500	0.100	
	Peak found at 4.159	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.00978	
	Decachlorobiphenyl (S)	0.0100	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d

Date : 27-JUN-2019 15:04

Client ID: CAL2S

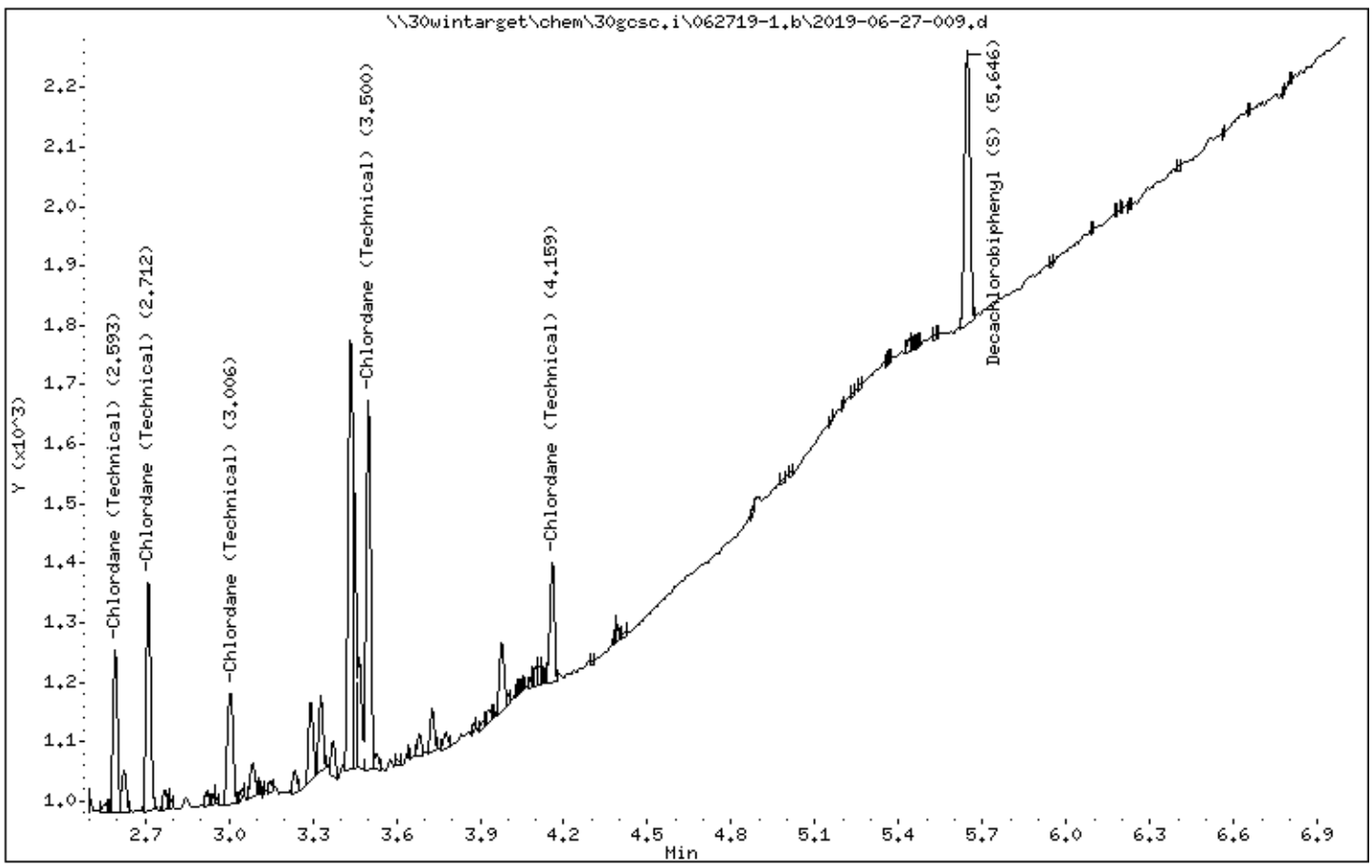
Instrument: 30gcsc.i

Sample Info: CAL2S, 90771:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



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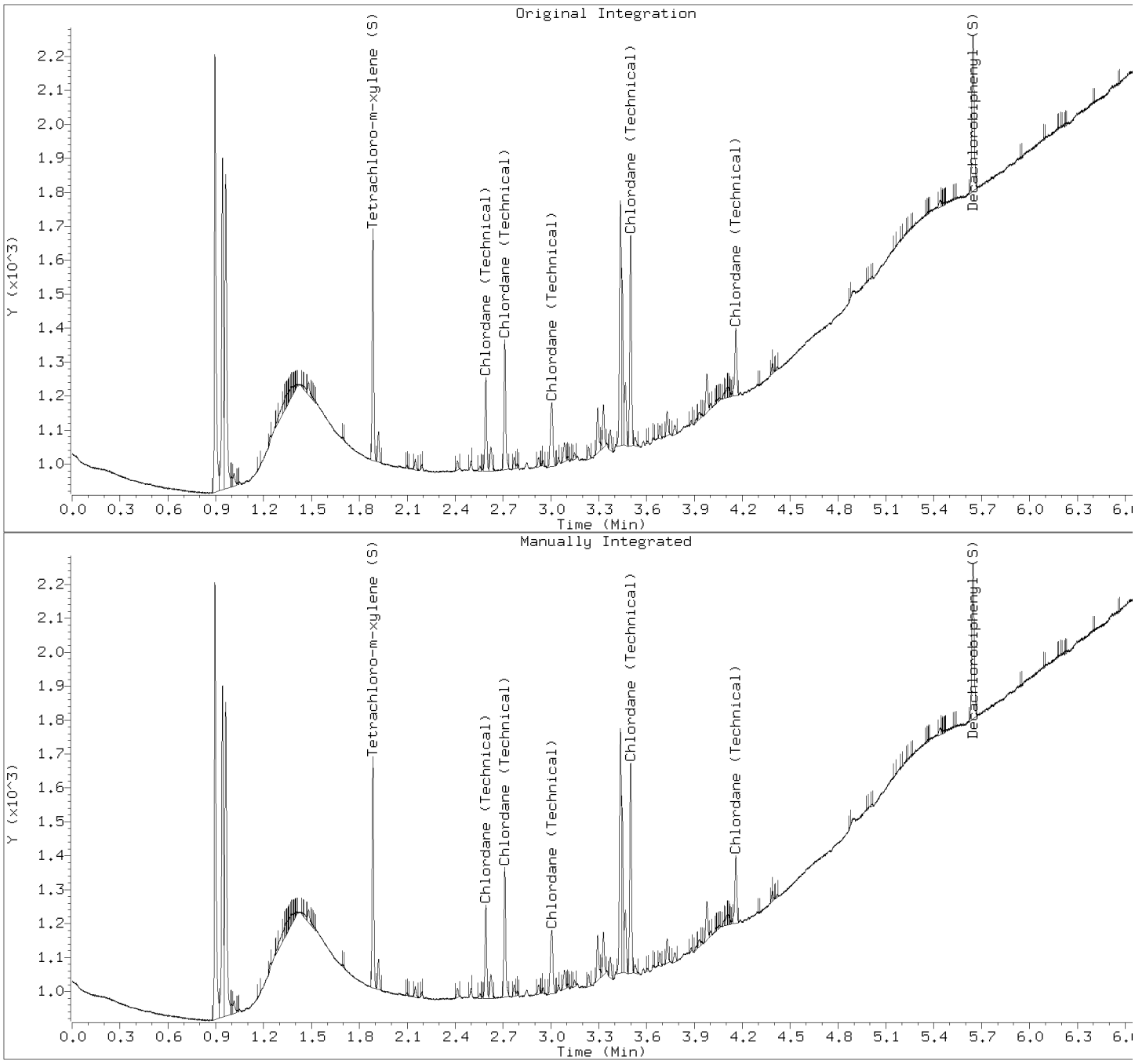
Injection Date: 27-JUN-2019 15:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	206	206
Chlordane (Technical)	298	298
Chlordane (Technical)	210	210
Chlordane (Technical)	476	476
Chlordane (Technical)	172	172
Tetrachloro-m-xylene (S)	467	467
Decachlorobiphenyl (S)	473	473

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.866	3	7	2.422	0.2299		
0.879	343	978	2.847	32.1300		
0.950	3	3	1.020	0.0985		
0.981	224	288	1.286	9.4612		
1.010	190	285	1.504	9.3626		
1.073	2	4	2.020	0.1314		
1.166	1	3	2.542	0.0985		
1.375	2	3	1.293	0.0985		
1.505	1	4	2.703	0.1314		
1.913	2	4	2.007	0.1314		
2.359	181	241	1.329	7.9172	$ 1 Tetrachloro-m-xylene (S)	
2.644	3	5	1.645	0.1642		
3.107	91	100	1.105	3.2851	22 Chlordane (Technical)	RT
3.249	101	124	1.225	4.0735	22 Chlordane (Technical)	RT
3.285	2	4	2.649	0.1314		
3.432	1	5	4.348	0.1642		
3.475	67	86	1.276	2.8252	22 Chlordane (Technical)	RT
3.526	2	4	2.632	0.1314		
3.655	7	12	1.683	0.3942		
3.660	1	10	7.042	0.3285		
3.669	4	6	1.538	0.1971		
3.789	4	12	2.885	0.3942		
3.834	8	10	1.247	0.3285		
3.877	1	3	2.941	0.0985		
3.936	15	19	1.252	0.6241		
3.983	246	255	1.035	8.3771		
4.020	181	214	1.185	7.0302	22 Chlordane (Technical)	RT
4.045	122	144	1.182	4.7306		
4.195	3	7	2.250	0.2299		
4.353	1	4	3.221	0.1314		
4.481	3	9	2.581	0.2956		
4.522	3	4	1.569	0.1314		
4.583	2	4	2.162	0.1314		
4.616	47	57	1.223	1.8725		
4.740	1	2	1.652	0.0657		
4.860	1	4	3.279	0.1314		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.547	1	4	3.419	0.1314		
6.336	153	114	0.744	3.7450	$ 24 Decachlorobiphenyl (S)	
6.804	1	2	1.739	0.0657		
	2026	3044		100.000		

Total unknown % height = 71.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)						CAS #:		
3.106	3.106	0.000	90	0.10000	0.100	0.00- 20.00	100.00(M)	RT
3.249	3.249	0.000	101	0.10000	0.100	0.00- 20.00	111.85	RT
3.475	3.475	0.000	67	0.10000	0.100	0.00- 20.00	74.43	RT
4.019	4.019	0.000	180	0.10000	0.100	0.00- 20.00	199.40	RT
4.019	4.019	0.000	180	0.10000	0.100	0.00- 20.00	198.83	RT
Average of Peak Amounts =					0.10000			
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	181	0.01400	0.0103			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	153	0.01400	0.0102			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

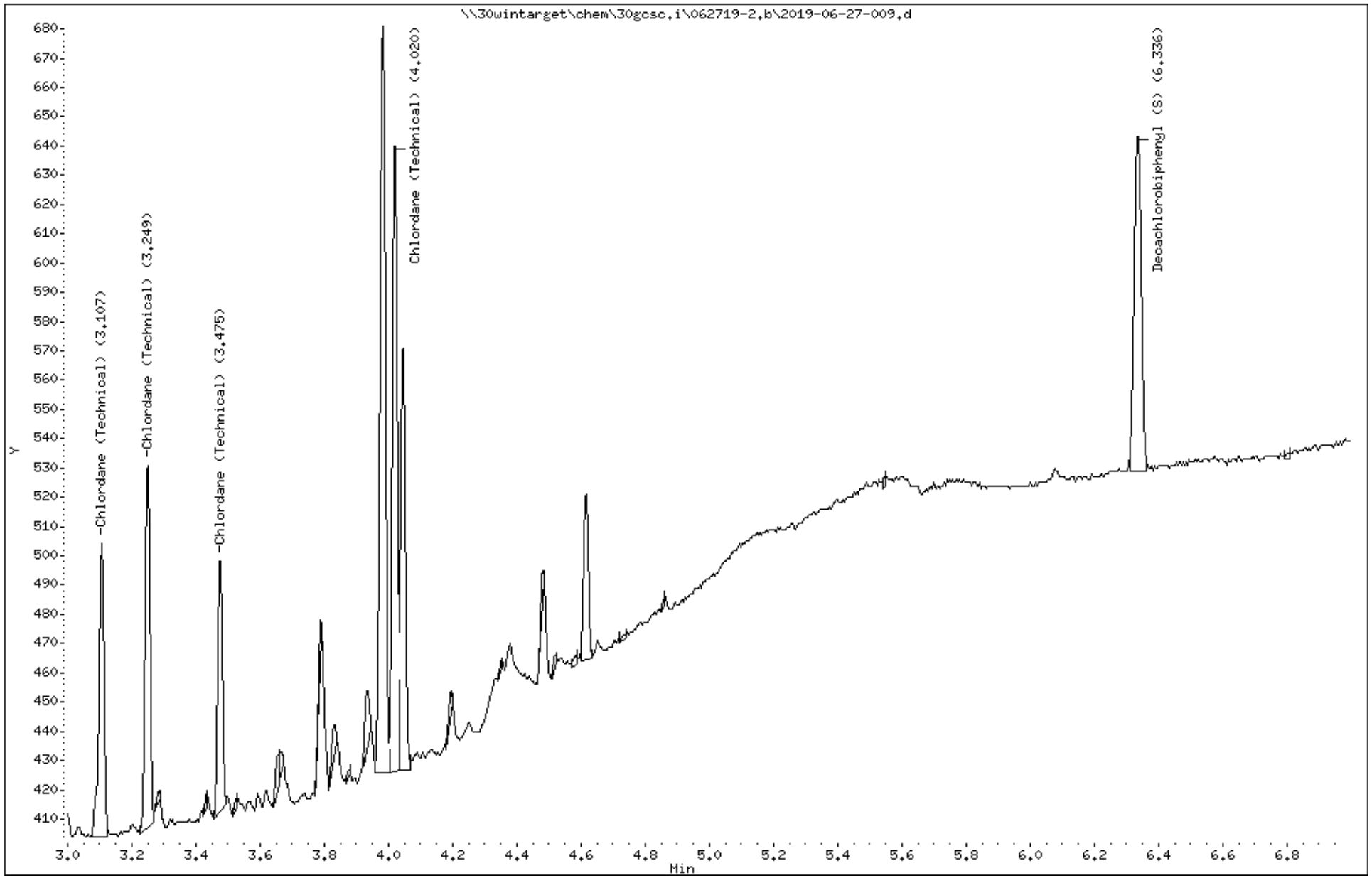
Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,CHLOR

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

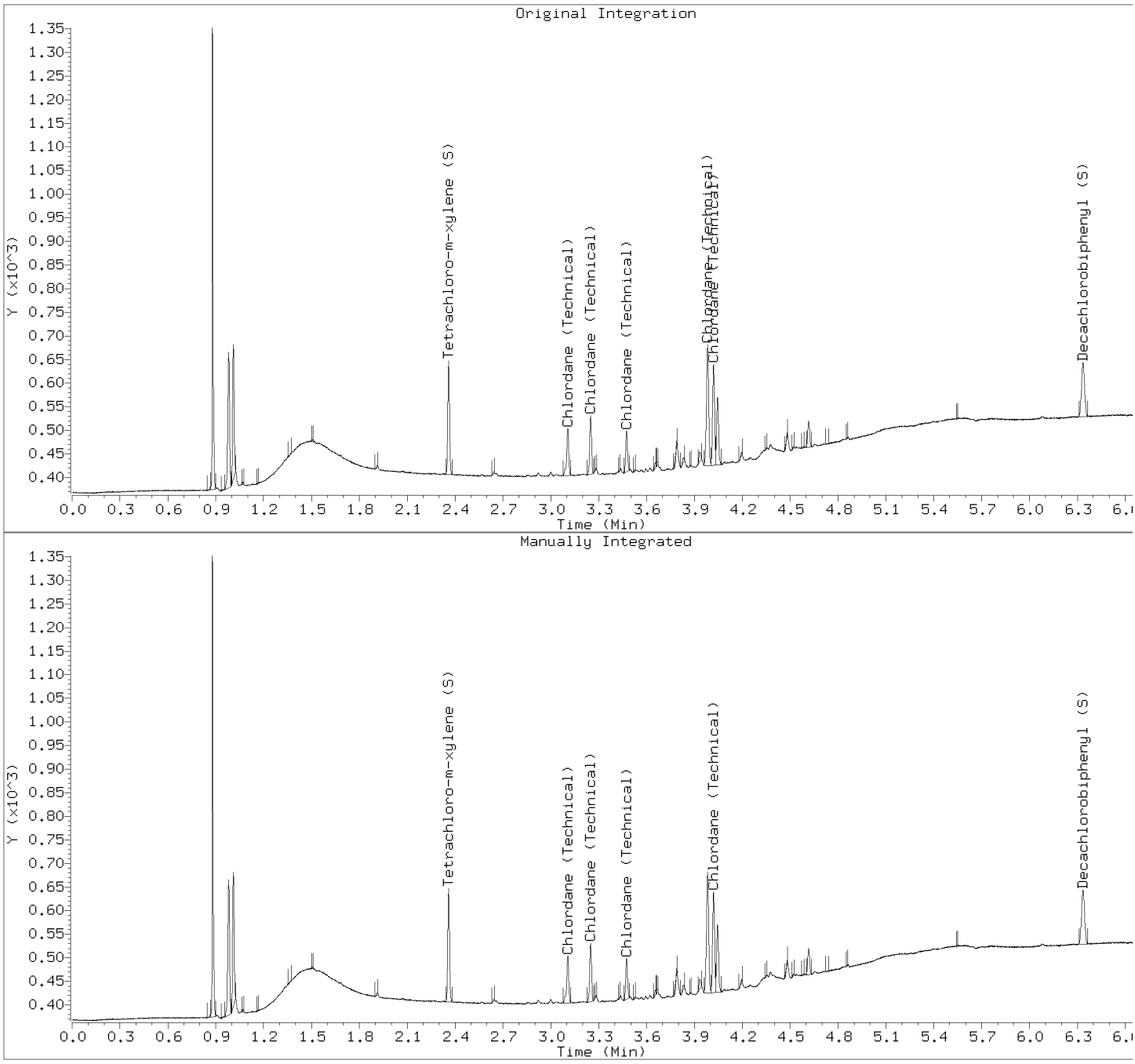
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
	Chlordane (Technical)		
	Peak found at 3.107	0.100	
	Peak found at 3.249	0.100	
	Peak found at 3.475	0.100	
	Peak found at 4.020	0.100	
	Peak found at 4.020	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0103	
	Decachlorobiphenyl (S)	0.0102	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Date : 27-JUN-2019 15:04
Client ID: CAL2S
Sample Info: CAL2S, 90771:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-009.d (ManInt: CHLOR.sub Orig: CHLOR.sub)
Injection Date: 27-JUN-2019 15:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	90	90
Chlordane (Technical)	101	101
Chlordane (Technical)	67	67
Chlordane (Technical)	246	180
Chlordane (Technical)	180	180
Tetrachloro-m-xylene (S)	181	181
Decachlorobiphenyl (S)	153	153

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.298	2	6	2.715	0.0311			
0.879	4	19	4.535	0.0985			
0.887	33	99	3.007	0.5133			
0.911	194	163	0.842	0.8452			
0.942	315	370	1.174	1.9185			
0.962	338	382	1.132	1.9808			
1.001	11	22	1.982	0.1140			
1.005	6	20	3.339	0.1037			
1.013	13	21	1.679	0.1088			
1.304	5	9	1.987	0.0466			
1.311	5	13	2.686	0.0674			
1.317	3	13	3.939	0.0674			
1.323	6	18	2.862	0.0933			
1.332	9	21	2.346	0.1088			
1.340	11	24	2.208	0.1244			
1.343	4	25	6.112	0.1296			
1.349	8	24	2.978	0.1244			
1.357	12	27	2.265	0.1400			
1.362	9	27	3.086	0.1400			
1.371	9	25	2.697	0.1296			
1.373	6	27	4.419	0.1400			
1.376	5	24	4.486	0.1244			
1.382	8	24	3.077	0.1244			
1.386	5	21	4.506	0.1088			
1.393	4	16	3.738	0.0829			
1.400	5	14	2.574	0.0725			
1.402	3	13	3.927	0.0674			
1.408	4	11	2.997	0.0570			
1.885	520	756	1.455	3.9201	$	1 Tetrachloro-m-xylene (S)	
2.100	2	7	3.415	0.0362			
2.238	337	488	1.446	2.5304		2 alpha-BHC	
2.311	2	5	2.415	0.0259			
2.473	315	443	1.406	2.2971		3 gamma-BHC (Lindane)	
2.617	152	207	1.361	1.0733		4 beta-BHC	
2.686	2	6	2.500	0.0311			
2.711	344	448	1.301	2.3230		5 Heptachlor	
2.812	303	410	1.352	2.1260		6 delta-BHC	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.881	2	7	3.125	0.0362		
2.885	2	6	2.941	0.0311		
2.923	289	382	1.322	1.9808	7 Aldrin	
3.058	4	8	2.015	0.0414		
3.280	294	376	1.280	1.9497	8 Heptachlor epoxide	
3.325	8	13	1.616	0.0674		
3.414	3	13	4.319	0.0674		
3.416	3	14	4.106	0.0725		
3.421	3	17	6.391	0.0881		
3.436	286	363	1.267	1.8822	9 gamma-Chlordane	
3.500	294	359	1.220	1.8615	10 alpha-Chlordane	
3.545	272	348	1.279	1.8045	11 Endosulfan I	
3.621	531	660	1.243	3.4223	12 4,4'-DDE	
3.661	8	15	1.834	0.0777		
3.738	586	727	1.241	3.7697	13 Dieldrin	
3.835	5	8	1.724	0.0414		
3.870	2	9	4.072	0.0466		
3.875	2	14	5.761	0.0725		
3.877	8	17	2.076	0.0881		
3.957	504	623	1.236	3.2304	14 Endrin	
4.016	433	525	1.214	2.7223	15 4,4'-DDD	
4.137	500	601	1.202	3.1164	16 Endosulfan II	
4.207	470	575	1.223	2.9815	17 4,4'-DDT	
4.290	430	507	1.180	2.6289	18 Endrin aldehyde	
4.428	491	606	1.235	3.1423	19 Endosulfan sulfate	
4.608	2	7	3.070	0.0362		
4.632	2	8	3.865	0.0414		
4.663	1247	1441	1.155	7.4844	20 Methoxychlor	
4.693	4	17	3.935	0.0881		
4.698	2	12	5.455	0.0622		
4.718	5	8	1.688	0.0414		
4.729	2	6	2.564	0.0311		
4.733	3	9	3.147	0.0466		
4.749	3	9	3.214	0.0466		
4.834	2	15	6.098	0.0777		
4.851	444	528	1.190	2.7378	21 Endrin ketone	
4.875	3	12	4.332	0.0622		
4.880	3	11	3.943	0.0570		
4.890	6	14	2.491	0.0725		
4.897	4	14	3.955	0.0725		
4.901	4	14	3.627	0.0725		
4.905	3	15	4.451	0.0777		
4.911	3	13	4.140	0.0674		
4.914	5	13	2.737	0.0674		
4.924	4	15	3.348	0.0777		
4.930	3	14	4.000	0.0725		
4.938	2	12	6.000	0.0622		
4.944	3	12	4.332	0.0622		
4.948	3	13	4.610	0.0674		
4.956	3	14	4.575	0.0725		
4.962	7	16	2.370	0.0829		
4.967	3	15	5.415	0.0777		
4.969	2	16	7.048	0.0829		
4.975	4	19	4.328	0.0985		
4.980	7	20	2.954	0.1037		
4.983	3	21	7.692	0.1088		
4.987	7	20	2.837	0.1037		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.994	6	21	3.584	0.1088		
4.997	5	20	4.202	0.1037		
5.003	5	22	4.762	0.1140		
5.006	5	25	5.208	0.1296		
5.009	3	26	7.831	0.1348		
5.012	7	26	3.863	0.1348		
5.018	6	24	4.068	0.1244		
5.021	5	24	4.396	0.1244		
5.026	5	19	4.113	0.0985		
5.032	5	18	3.502	0.0933		
5.036	3	16	4.819	0.0829		
5.041	3	13	4.319	0.0674		
5.045	5	15	2.953	0.0777		
5.051	7	19	2.568	0.0985		
5.056	3	19	6.507	0.0985		
5.062	6	21	3.393	0.1088		
5.066	7	22	2.937	0.1140		
5.073	9	24	2.817	0.1244		
5.081	9	27	3.007	0.1400		
5.084	8	29	3.690	0.1503		
5.091	7	28	4.160	0.1451		
5.094	7	30	4.580	0.1555		
5.100	8	28	3.723	0.1451		
5.105	19	32	1.717	0.1659		
5.114	17	33	1.998	0.1711		
5.126	14	37	2.652	0.1918		
5.129	5	38	7.708	0.1970		
5.137	23	43	1.873	0.2229		
5.142	16	42	2.625	0.2177		
5.149	14	46	3.212	0.2385		
5.156	17	44	2.575	0.2281		
5.167	26	48	1.826	0.2488		
5.172	15	48	3.245	0.2488		
5.175	6	49	8.877	0.2540		
5.178	15	49	3.304	0.2540		
5.183	18	50	2.749	0.2592		
5.189	9	51	5.782	0.2644		
5.192	8	51	6.505	0.2644		
5.195	15	50	3.234	0.2592		
5.203	17	54	3.243	0.2800		
5.205	17	54	3.105	0.2800		
5.213	17	54	3.096	0.2800		
5.219	16	55	3.537	0.2851		
5.227	28	56	1.991	0.2903		
5.231	7	55	7.422	0.2851		
5.237	24	57	2.417	0.2955		
5.240	7	55	7.422	0.2851		
5.245	23	56	2.417	0.2903		
5.250	7	55	7.473	0.2851		
5.253	21	57	2.671	0.2955		
5.260	22	57	2.583	0.2955		
5.266	10	56	5.889	0.2903		
5.272	17	53	3.185	0.2748		
5.278	18	54	2.992	0.2800		
5.282	14	56	3.952	0.2903		
5.285	13	57	4.305	0.2955		
5.288	6	55	8.540	0.2851		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.293	13	56	4.275	0.2903		
5.294	9	58	6.502	0.3007		
5.297	12	58	4.758	0.3007		
5.301	10	57	5.740	0.2955		
5.306	20	56	2.844	0.2903		
5.310	9	57	6.455	0.2955		
5.314	16	58	3.708	0.3007		
5.318	17	59	3.533	0.3059		
5.324	16	56	3.419	0.2903		
5.330	19	59	3.046	0.3059		
5.335	20	60	3.041	0.3111		
5.340	28	61	2.211	0.3163		
5.347	14	60	4.415	0.3111		
5.350	5	55	10.185	0.2851		
5.353	13	56	4.220	0.2903		
5.357	17	57	3.428	0.2955		
5.362	13	58	4.306	0.3007		
5.365	7	56	8.421	0.2903		
5.375	35	57	1.643	0.2955		
5.381	29	57	1.983	0.2955		
5.387	11	56	5.128	0.2903		
5.392	20	57	2.882	0.2955		
5.402	31	60	1.949	0.3111		
5.404	16	62	3.815	0.3214		
5.410	13	59	4.387	0.3059		
5.416	33	57	1.703	0.2955		
5.429	29	60	2.102	0.3111		
5.438	32	67	2.113	0.3474		
5.441	25	65	2.621	0.3370		
5.447	7	56	8.537	0.2903		
5.450	25	57	2.269	0.2955		
5.457	7	47	6.528	0.2437		
5.463	22	47	2.095	0.2437		
5.469	17	45	2.699	0.2333		
5.477	11	44	4.026	0.2281		
5.479	5	43	8.740	0.2229		
5.481	10	44	4.476	0.2281		
5.487	15	44	3.010	0.2281		
5.491	5	41	7.565	0.2126		
5.497	15	41	2.750	0.2126		
5.504	17	42	2.455	0.2177		
5.507	9	39	4.305	0.2022		
5.512	7	40	5.857	0.2074		
5.515	7	38	5.213	0.1970		
5.518	11	40	3.795	0.2074		
5.525	13	37	2.757	0.1918		
5.530	6	35	5.814	0.1814		
5.532	8	36	4.506	0.1866		
5.536	12	36	2.958	0.1866		
5.542	4	32	7.767	0.1659		
5.545	9	34	3.790	0.1763		
5.550	8	33	4.280	0.1711		
5.554	12	34	2.801	0.1763		
5.561	5	28	5.821	0.1451		
5.566	7	28	3.977	0.1451		
5.568	5	33	7.082	0.1711		
5.572	6	28	4.674	0.1451		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.575	5	29	6.170	0.1503		
5.580	12	26	2.163	0.1348		
5.586	9	23	2.614	0.1192		
5.594	3	19	5.460	0.0985		
5.597	4	22	5.598	0.1140		
5.602	10	25	2.444	0.1296		
5.612	5	18	3.346	0.0933		
5.616	5	19	4.025	0.0985		
5.620	3	19	6.507	0.0985		
5.646	553	509	0.920	2.6393	$ 24 Decachlorobiphenyl (S)	
5.674	3	14	4.348	0.0725		
5.682	2	10	4.149	0.0518		
5.712	3	8	2.759	0.0414		
5.751	2	8	3.670	0.0414		
5.875	2	9	4.478	0.0466		
6.075	3	11	3.406	0.0570		
6.115	2	9	3.734	0.0466		
6.205	2	8	3.478	0.0414		
6.224	2	6	2.679	0.0311		
6.406	2	11	5.500	0.0570		
6.418	3	10	3.185	0.0518		
6.425	2	9	4.500	0.0466		
6.532	4	12	2.679	0.0622		
6.830	2	8	3.571	0.0414		
6.984	3	10	3.937	0.0518		
	12361	19285		100.000		

Total unknown % height = 38.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	519	0.01000	0.0109			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	337	0.00500	0.00495			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.472	2.472	0.000	315	0.00500	0.00502			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	152	0.00500	0.00513			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	303	0.00500	0.00497			
5 Heptachlor						CAS #: 319-86-8		
2.710	2.711	-0.001	344	0.00500	0.00526			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	289	0.00500	0.00503			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.279	3.279	0.000	293	0.00500	0.00515			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	286	0.00500	0.00504			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	294	0.00500	0.00527			
11 Endosulfan I						CAS #: 959-98-8		
3.544	3.544	0.000	272	0.00500	0.00512			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	530	0.01000	0.00997			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	585	0.01000	0.0102			
14 Endrin						CAS #: 72-20-8		
3.956	3.957	-0.001	504	0.01000	0.0101			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	432	0.01000	0.00973			
16 Endosulfan II						CAS #: 33213-65-9		
4.136	4.137	-0.001	499	0.01000	0.0102			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	470	0.01000	0.0100			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	429	0.01000	0.0102			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	490	0.01000	0.0102			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.662	0.001	1247	0.05000	0.0510			
21 Endrin ketone						CAS #: 53494-70-5		
4.850	4.850	0.000	443	0.01000	0.0104			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.646	-0.001	553	0.01000	0.0117			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00495	
58-89-9	gamma-BHC (Lindane)	0.00502	
319-85-7	beta-BHC	0.00513	
76-44-8	delta-BHC	0.00497	
319-86-8	Heptachlor	0.00526	
309-00-2	Aldrin	0.00503	
1024-57-3	Heptachlor epoxide	0.00515	
5103-74-2	gamma-Chlordane	0.00504	
5103-71-9	alpha-Chlordane	0.00527	
959-98-8	Endosulfan I	0.00512	
72-55-9	4,4'-DDE	0.00997	
60-57-1	Dieldrin	0.0102	
72-20-8	Endrin	0.0101	
72-54-8	4,4'-DDD	0.00973	
33213-65-9	Endosulfan II	0.0102	
50-29-3	4,4'-DDT	0.0100	
7421-36-3	Endrin aldehyde	0.0102	
1031-07-8	Endosulfan sulfate	0.0102	
72-43-5	Methoxychlor	0.0510	
53494-70-5	Endrin ketone	0.0104	
	Tetrachloro-m-xylene (S)	0.0109	
	Decachlorobiphenyl (S)	0.0117	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d

Date : 27-JUN-2019 15:14

Client ID: CAL1

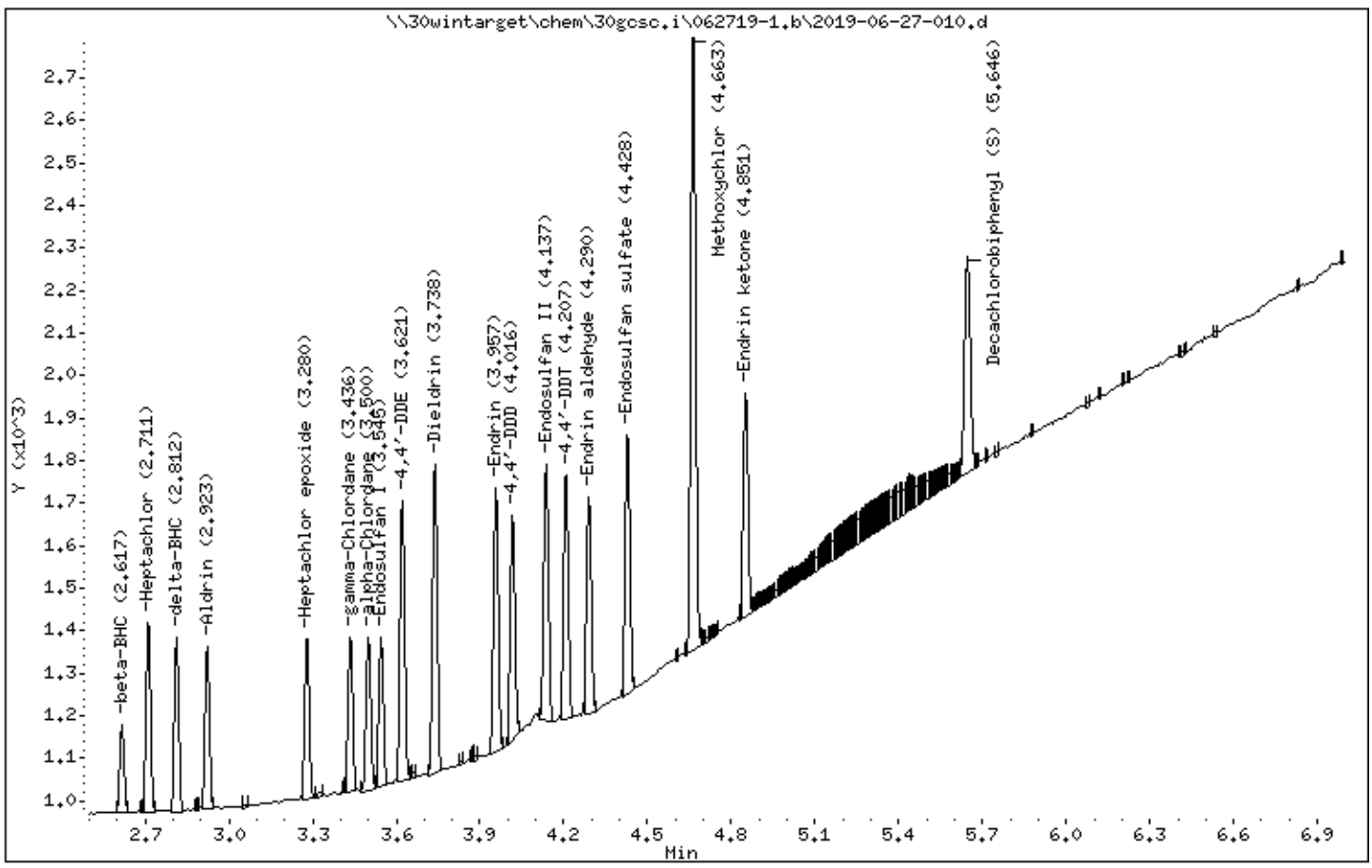
Instrument: 30gcsc.i

Sample Info: CAL1, 92175:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	337	337
beta-BHC	152	152
delta-BHC	303	303
gamma-BHC (Lindane)	315	315
Heptachlor	344	344
Aldrin	289	289
Heptachlor epoxide	293	293
Endosulfan I	272	272
Dieldrin	585	585
4,4'-DDE	530	530
Endrin	504	504
Endosulfan II	499	499
4,4'-DDD	432	432
Endosulfan sulfate	490	490
4,4'-DDT	470	470
Methoxychlor	1247	1247
Endrin ketone	443	443
Endrin aldehyde	429	429
alpha-Chlordane	294	294
gamma-Chlordane	286	286
Tetrachloro-m-xylene (S)	519	519
Decachlorobiphenyl (S)	553	553

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.872	2	10	4.274	0.2394			
0.878	14	65	4.796	1.5565			
0.902	18	24	1.315	0.5747			
0.913	29	27	0.937	0.6465			
0.951	3	5	1.628	0.1197			
0.980	55	77	1.391	1.8438			
1.010	57	92	1.616	2.2030			
1.335	1	3	2.703	0.0718			
1.371	5	4	0.875	0.0957			
1.381	2	6	2.715	0.1436			
1.388	2	4	2.597	0.0957			
1.414	1	3	2.290	0.0718			
1.446	1	3	2.586	0.0718			
1.475	1	3	2.459	0.0718			
2.359	191	257	1.344	6.1542	$	1 Tetrachloro-m-xylene (S)	
2.572	4	4	1.117	0.0957			
2.623	122	162	1.328	3.8793		2 alpha-BHC	
2.840	112	146	1.305	3.4961		3 gamma-BHC (Lindane)	
3.002	60	76	1.266	1.8199		4 beta-BHC	
3.187	114	145	1.276	3.4722		5 delta-BHC	
3.250	112	139	1.243	3.3285		6 Heptachlor	
3.339	1	3	2.885	0.0718			
3.478	104	128	1.233	3.0651		7 Aldrin	
3.562	1	2	1.961	0.0478			
3.771	108	125	1.157	2.9932		8 Heptachlor epoxide	
3.919	3	4	1.333	0.0957			
3.960	2	4	2.273	0.0957			
3.985	100	119	1.189	2.8496		9 gamma-Chlordane	
4.020	97	120	1.233	2.8735		10 alpha-Chlordane	
4.053	95	114	1.206	2.7298		11 Endosulfan I	
4.098	177	219	1.236	5.2442		12 4,4'-DDE	
4.183	2	5	2.155	0.1197			
4.227	196	234	1.196	5.6034		13 Dieldrin	
4.260	1	2	1.852	0.0478			
4.323	1	4	3.846	0.0957			
4.332	2	5	2.793	0.1197			
4.339	2	5	2.500	0.1197			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.390	168	193	1.146	4.6216		14 Endrin	
4.452	152	189	1.247	4.5258		15 4,4'-DDD	
4.562	176	206	1.169	4.9329		16 Endosulfan II	
4.636	151	176	1.164	4.2145		17 Endrin aldehyde	
4.662	104	129	1.239	3.0890		18 4,4'-DDT	
4.826	168	198	1.182	4.7413		19 Endosulfan sulfate	
4.924	1	4	2.759	0.0957			
4.948	369	428	1.159	10.2518		20 Methoxychlor	
5.126	149	164	1.100	3.9272		21 Endrin ketone	
5.554	2	4	1.681	0.0957			
6.023	1	3	2.128	0.0718			
6.085	1	4	3.101	0.0957			
6.337	172	127	0.740	3.0411	$	24 Decachlorobiphenyl (S)	
6.838	1	3	3.000	0.0718			
	3414	4176		100.000			

Total unknown % height = 9.14

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.359	2.359	0.000	191	0.01000	0.0109			
2 alpha-BHC							CAS #: 319-84-6	
2.622	2.623	-0.001	121	0.00500	0.00502			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.839	2.840	-0.001	111	0.00500	0.00503			
4 beta-BHC							CAS #: 319-85-7	
3.001	3.001	0.000	60	0.00500	0.00544			
5 delta-BHC							CAS #: 319-86-8	
3.187	3.187	0.000	113	0.00500	0.00510			
6 Heptachlor							CAS #: 76-44-8	
3.249	3.249	0.000	111	0.00500	0.00517			
7 Aldrin							CAS #: 309-00-2	
3.477	3.477	0.000	103	0.00500	0.00520			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.770	3.770	0.000	108	0.00500	0.00543			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.984	3.983	0.001	100	0.00500	0.00518			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.019	4.020	-0.001	97	0.00500	0.00512			
11 Endosulfan I							CAS #: 959-98-8	
4.053	4.053	0.000	94	0.00500	0.00514			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	177	0.01000	0.00990			
13 Dieldrin						CAS #: 60-57-1		
4.226	4.227	-0.001	195	0.01000	0.0102			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	168	0.01000	0.0106			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	151	0.01000	0.00995			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	176	0.01000	0.0105			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	151	0.01000	0.0104			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	104	0.01000	0.00866			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	167	0.01000	0.0103			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	369	0.05000	0.0500			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	149	0.01000	0.0102			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	171	0.01000	0.0114			

Review Codes Legend

:

Pace Analytical Services, Inc.

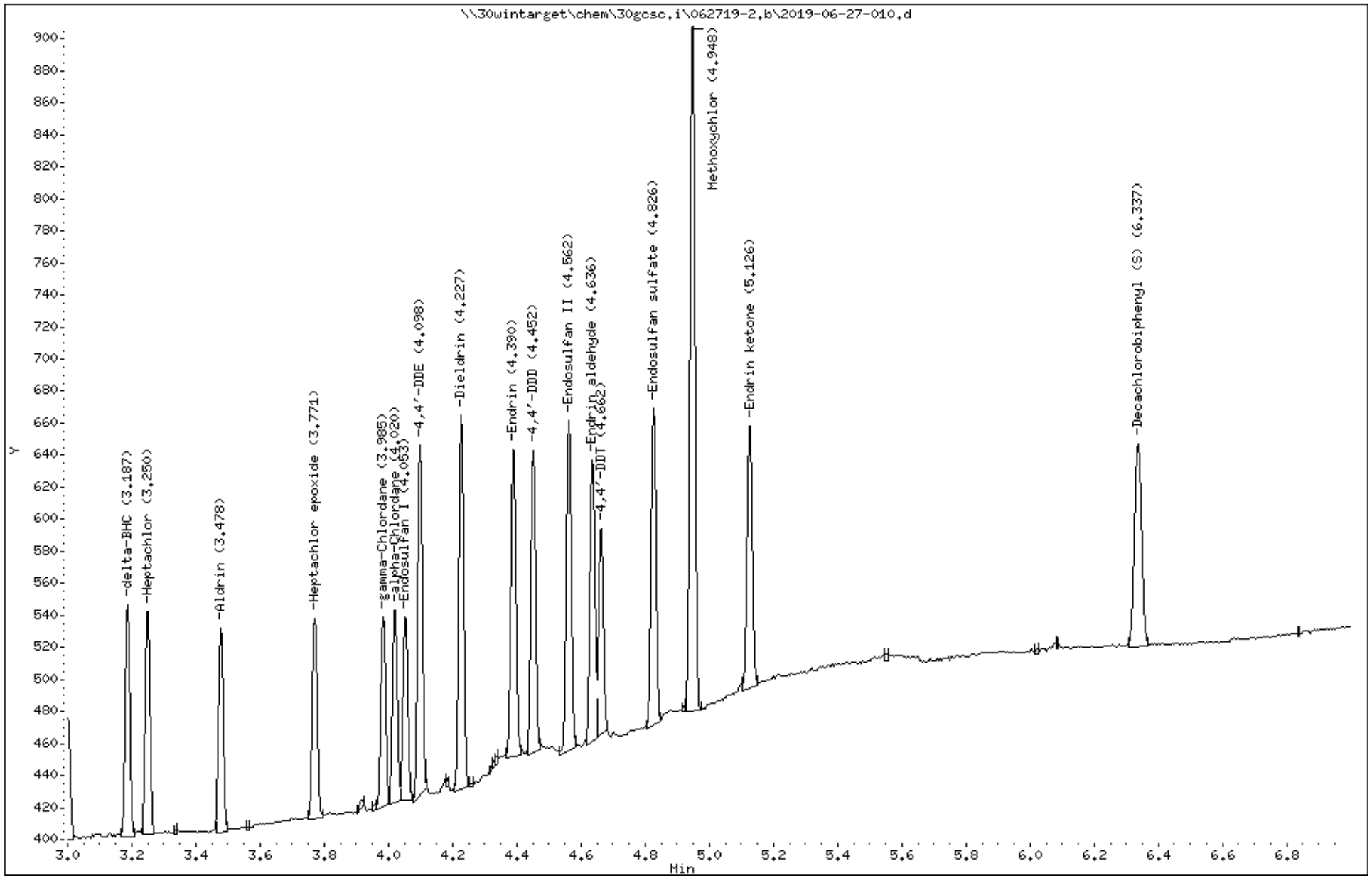
TARGET COMPOUNDS

Client Name: Client SDG: 30GCSC-062719-2
Lab Smp Id: CAL1 Client Smp ID: CAL1
Sample Location: Sample Point:
Sample Date: Date Received:
Sample Matrix: None Quant Type: ESTD
Analysis Type: SV Level:
Data Type: GC MULTI COMP Operator: TAW
Misc Info: 15737,INDA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00502	
58-89-9	gamma-BHC (Lindane)	0.00503	
319-85-7	beta-BHC	0.00544	
319-86-8	delta-BHC	0.00510	
76-44-8	Heptachlor	0.00517	
309-00-2	Aldrin	0.00520	
1024-57-3	Heptachlor epoxide	0.00543	
5103-74-2	gamma-Chlordane	0.00518	
5103-71-9	alpha-Chlordane	0.00512	
959-98-8	Endosulfan I	0.00514	
72-55-9	4,4'-DDE	0.00990	
60-57-1	Dieldrin	0.0102	
72-20-8	Endrin	0.0106	
72-54-8	4,4'-DDD	0.00995	
33213-65-9	Endosulfan II	0.0105	
7421-36-3	Endrin aldehyde	0.0104	
50-29-3	4,4'-DDT	0.00866	
1031-07-8	Endosulfan sulfate	0.0103	
72-43-5	Methoxychlor	0.0500	
53494-70-5	Endrin ketone	0.0102	
	Tetrachloro-m-xylene (S)	0.0109	
	Decachlorobiphenyl (S)	0.0114	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Date : 27-JUN-2019 15:14
Client ID: CAL1
Sample Info: CAL1, 92175:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	121	121
beta-BHC	60	60
delta-BHC	113	113
gamma-BHC (Lindane)	111	111
Heptachlor	111	111
Aldrin	103	103
Heptachlor epoxide	108	108
Endosulfan I	94	94
Dieldrin	195	195
4,4'-DDE	177	177
Endrin	168	168
Endosulfan II	176	176
4,4'-DDD	151	151
Endosulfan sulfate	167	167
4,4'-DDT	104	104
Methoxychlor	369	369
Endrin ketone	149	149
Endrin aldehyde	151	151
alpha-Chlordane	97	97
gamma-Chlordane	100	100
Tetrachloro-m-xylene (S)	191	191
Decachlorobiphenyl (S)	171	171

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	28	84	3.039	0.4589		
0.911	179	155	0.864	0.8468		
0.928	13	75	5.610	0.4097		
0.942	288	359	1.248	1.9614		
0.963	293	363	1.239	1.9832		
0.987	2	11	4.911	0.0600		
1.001	2	7	2.893	0.0382		
1.014	3	7	2.341	0.0382		
1.245	3	4	1.562	0.0218		
1.261	2	3	1.316	0.0163		
1.280	3	8	2.589	0.0437		
1.284	2	8	3.361	0.0437		
1.311	20	19	0.950	0.1038		
1.314	3	20	5.848	0.1092		
1.317	4	22	5.542	0.1201		
1.320	3	22	6.647	0.1201		
1.330	14	26	1.854	0.1420		
1.333	5	29	5.451	0.1584		
1.335	5	31	6.710	0.1693		
1.338	4	30	7.792	0.1639		
1.345	12	30	2.467	0.1639		
1.364	34	35	1.016	0.1912		
1.369	13	40	3.135	0.2185		
1.371	6	42	6.522	0.2294		
1.375	8	40	4.779	0.2185		
1.380	10	35	3.441	0.1912		
1.383	5	33	7.205	0.1802		
1.388	11	33	3.113	0.1802		
1.390	5	33	6.458	0.1802		
1.395	17	32	1.885	0.1748		
1.407	15	31	2.136	0.1693		
1.412	5	25	5.061	0.1365		
1.414	6	27	4.225	0.1475		
1.418	5	23	4.812	0.1256		
1.423	5	20	3.759	0.1092		
1.430	7	16	2.189	0.0874		
1.527	2	7	2.905	0.0382		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.885	703	1015	1.443	5.5455	$ 1 Tetrachloro-m-xylene (S)	
2.238	451	663	1.471	3.6223	2 alpha-BHC	
2.473	422	589	1.396	3.2180	3 gamma-BHC (Lindane)	
2.617	207	280	1.352	1.5298	4 beta-BHC	
2.712	447	599	1.341	3.2726	5 Heptachlor	
2.786	3	5	1.742	0.0273		
2.813	414	543	1.312	2.9667	6 delta-BHC	
2.879	4	7	1.983	0.0382		
2.900	3	8	3.113	0.0437		
2.923	391	518	1.326	2.8301	7 Aldrin	
3.280	395	507	1.285	2.7700	8 Heptachlor epoxide	
3.321	6	9	1.630	0.0491		
3.330	3	9	3.237	0.0491		
3.436	387	495	1.280	2.7044	9 gamma-Chlordane	
3.500	386	493	1.278	2.6935	10 alpha-Chlordane	
3.545	362	453	1.250	2.4750	11 Endosulfan I	
3.622	712	894	1.255	4.8844	12 4,4'-DDE	
3.739	775	961	1.240	5.2505	13 Dieldrin	
3.763	5	11	2.245	0.0600		
3.837	5	8	1.471	0.0437		
3.877	4	10	2.793	0.0546		
3.957	671	833	1.241	4.5511	14 Endrin	
4.017	593	702	1.183	3.8354	15 4,4'-DDD	
4.061	2	6	2.703	0.0327		
4.101	14	27	1.937	0.1475		
4.104	13	27	2.027	0.1475		
4.115	3	14	4.281	0.0764		
4.138	683	825	1.208	4.5074	16 Endosulfan II	
4.208	625	771	1.233	4.2124	17 4,4'-DDT	
4.291	580	707	1.219	3.8627	18 Endrin aldehyde	
4.429	659	816	1.239	4.4582	19 Endosulfan sulfate	
4.664	1670	1956	1.171	10.6925	20 Methoxychlor	
4.696	2	10	4.016	0.0546		
4.723	2	6	2.469	0.0327		
4.852	585	692	1.183	3.7808	21 Endrin ketone	
5.012	2	10	4.016	0.0546		
5.017	2	9	3.830	0.0491		
5.176	2	10	4.464	0.0546		
5.243	2	9	3.629	0.0491		
5.247	3	11	3.207	0.0600		
5.257	4	10	2.801	0.0546		
5.264	3	10	3.115	0.0546		
5.270	3	10	3.106	0.0546		
5.279	2	10	4.808	0.0546		
5.289	2	11	4.741	0.0600		
5.302	2	9	4.348	0.0491		
5.307	3	7	2.065	0.0382		
5.333	4	13	3.186	0.0710		
5.338	3	14	5.091	0.0764		
5.437	2	11	5.140	0.0600		
5.440	4	14	3.944	0.0764		
5.647	690	647	0.937	3.5349	$ 24 Decachlorobiphenyl (S)	
5.705	2	7	3.465	0.0382		
5.776	2	8	3.620	0.0437		
5.839	2	7	3.431	0.0382		
6.011	2	10	4.950	0.0546		
6.090	2	7	3.431	0.0382		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.143	3	8	2.454	0.0437		
6.154	3	10	2.865	0.0546		
6.161	2	9	4.286	0.0491		
6.231	2	8	3.556	0.0437		
6.507	2	7	3.125	0.0382		
6.615	3	11	4.183	0.0600		
6.636	3	14	4.930	0.0764		
6.646	3	11	3.303	0.0600		
6.657	3	10	3.690	0.0546		
6.668	2	6	2.985	0.0327		
6.716	2	8	3.653	0.0437		
6.834	2	8	3.252	0.0437		
6.861	2	7	3.333	0.0382		
6.901	2	12	5.505	0.0655		
6.949	3	13	4.180	0.0710		
6.955	2	11	4.955	0.0600		
6.959	2	10	4.831	0.0546		
6.968	4	13	3.030	0.0710		
6.976	3	10	3.311	0.0546		
6.985	3	9	2.941	0.0491		
	14031	18303		100.000		

Total unknown % height = 12.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	703	0.01400	0.0147			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	450	0.00700	0.00661			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.472	2.472	0.000	421	0.00700	0.00671			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	207	0.00700	0.00699			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	413	0.00700	0.00678			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	446	0.00700	0.00682			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	390	0.00700	0.00679			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	394	0.00700	0.00692			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	386	0.00700	0.00680			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.499	0.001	385	0.00700	0.00690			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	362	0.00700	0.00682			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	712	0.01400	0.0134			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	775	0.01400	0.0135			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	671	0.01400	0.0134			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	593	0.01400	0.0134			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	682	0.01400	0.0139			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	625	0.01400	0.0133			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.290	4.289	0.001	580	0.01400	0.0138			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	658	0.01400	0.0136			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.662	0.001	1669	0.07000	0.0682			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	585	0.01400	0.0137			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.646	0.000	690	0.01400	0.0146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00661	
58-89-9	gamma-BHC (Lindane)	0.00671	
319-85-7	beta-BHC	0.00699	
76-44-8	delta-BHC	0.00678	
319-86-8	Heptachlor	0.00682	
309-00-2	Aldrin	0.00679	
1024-57-3	Heptachlor epoxide	0.00692	
5103-74-2	gamma-Chlordane	0.00680	
5103-71-9	alpha-Chlordane	0.00690	
959-98-8	Endosulfan I	0.00682	
72-55-9	4,4'-DDE	0.0134	
60-57-1	Dieldrin	0.0135	
72-20-8	Endrin	0.0134	
72-54-8	4,4'-DDD	0.0134	
33213-65-9	Endosulfan II	0.0139	
50-29-3	4,4'-DDT	0.0133	
7421-36-3	Endrin aldehyde	0.0138	
1031-07-8	Endosulfan sulfate	0.0136	
72-43-5	Methoxychlor	0.0682	
53494-70-5	Endrin ketone	0.0137	
----------	Tetrachloro-m-xylene (S)	0.0147	
----------	Decachlorobiphenyl (S)	0.0146	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d

Date : 27-JUN-2019 15:24

Client ID: CAL2

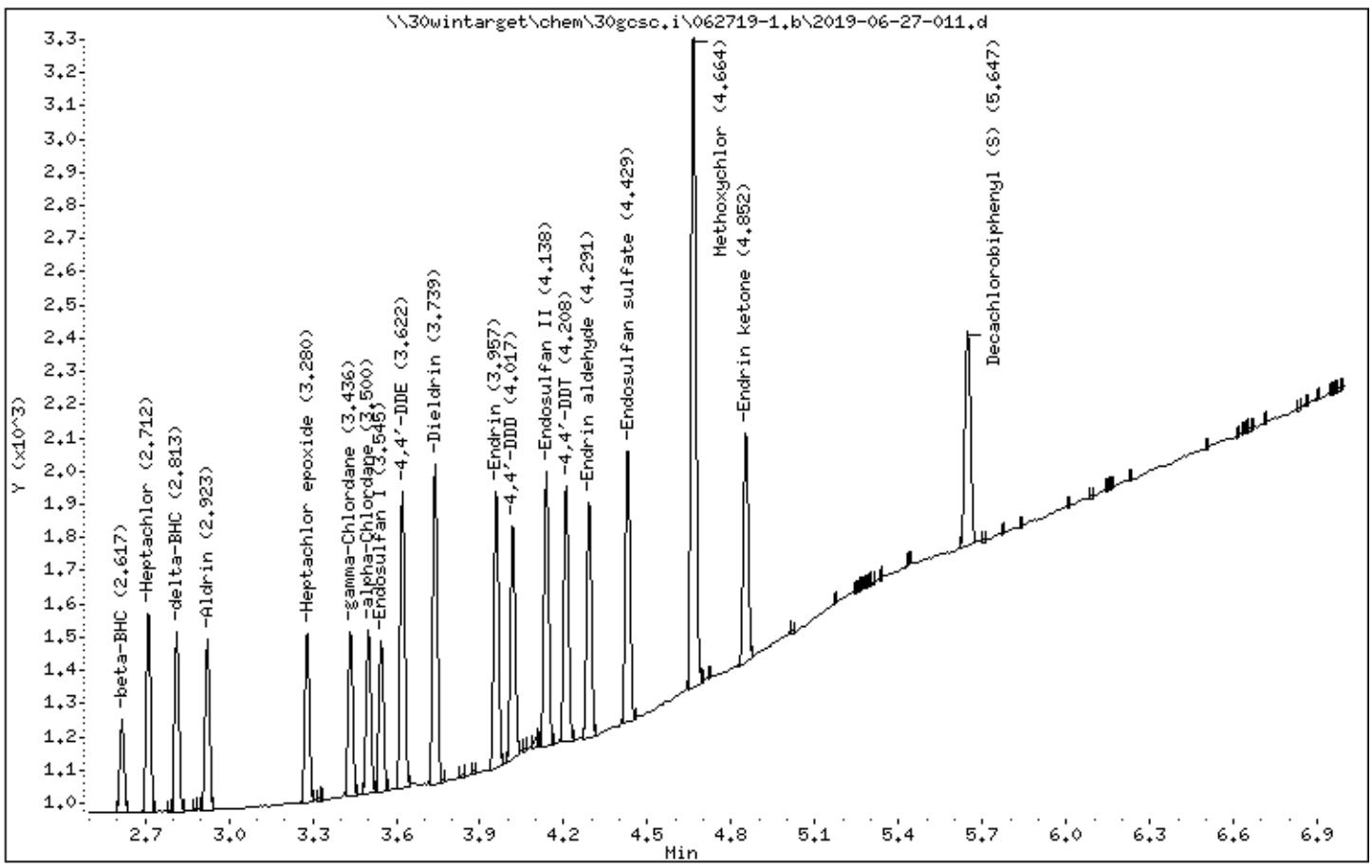
Instrument: 30gcsc.i

Sample Info: CAL2, 92176:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	450	450
beta-BHC	207	207
delta-BHC	413	413
gamma-BHC (Lindane)	421	421
Heptachlor	446	446
Aldrin	390	390
Heptachlor epoxide	394	394
Endosulfan I	362	362
Dieldrin	775	775
4,4'-DDE	712	712
Endrin	671	671
Endosulfan II	682	682
4,4'-DDD	593	593
Endosulfan sulfate	658	658
4,4'-DDT	625	625
Methoxychlor	1669	1669
Endrin ketone	585	585
Endrin aldehyde	580	580
alpha-Chlordane	385	385
gamma-Chlordane	386	386
Tetrachloro-m-xylene (S)	703	703
Decachlorobiphenyl (S)	690	690

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.867	3	8	2.847	0.1462			
0.872	5	14	3.063	0.2559			
0.878	17	77	4.449	1.4079			
0.912	12	7	0.588	0.1279			
0.950	4	7	1.989	0.1279			
0.957	1	6	5.172	0.1097			
0.981	63	78	1.247	1.4262			
1.010	65	95	1.463	1.7370			
1.181	2	3	2.000	0.0548			
1.459	1	2	1.639	0.0365			
2.359	256	343	1.339	6.2717	$	1 Tetrachloro-m-xylene (S)	
2.623	164	219	1.338	4.0043		2 alpha-BHC	
2.840	151	197	1.305	3.6021		3 gamma-BHC (Lindane)	
2.923	1	3	2.521	0.0548			
3.001	80	101	1.269	1.8467		4 beta-BHC	
3.051	1	1	1.000	0.0182			
3.187	153	196	1.285	3.5838		5 delta-BHC	
3.250	150	183	1.224	3.3461		6 Heptachlor	
3.478	138	166	1.206	3.0352		7 Aldrin	
3.771	142	167	1.178	3.0535		8 Heptachlor epoxide	
3.919	2	3	1.948	0.0548			
3.984	134	161	1.201	2.9438		9 gamma-Chlordane	
4.020	133	162	1.218	2.9621		10 alpha-Chlordane	
4.053	129	154	1.197	2.8158		11 Endosulfan I	
4.099	247	303	1.229	5.5403		12 4,4'-DDE	
4.166	1	4	3.419	0.0731			
4.171	2	6	2.804	0.1097			
4.184	3	5	1.603	0.0914			
4.227	263	316	1.201	5.7780		13 Dieldrin	
4.331	2	4	2.424	0.0731			
4.390	217	253	1.167	4.6260		14 Endrin	
4.452	207	251	1.211	4.5895		15 4,4'-DDD	
4.475	1	5	4.762	0.0914			
4.481	1	4	2.899	0.0731			
4.494	1	4	4.000	0.0731			
4.563	234	271	1.157	4.9552		16 Endosulfan II	
4.636	204	236	1.155	4.3152		17 Endrin aldehyde	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.662	154	185	1.204	3.3827		18 4,4'-DDT	
4.749	1	3	2.609	0.0548			
4.827	224	264	1.178	4.8272		19 Endosulfan sulfate	
4.862	1	3	2.913	0.0548			
4.947	503	588	1.168	10.7538		20 Methoxychlor	
5.055	2	4	2.453	0.0731			
5.108	5	7	1.502	0.1279			
5.126	198	225	1.136	4.1140		21 Endrin ketone	
5.552	1	3	2.609	0.0548			
6.337	229	172	0.752	3.1449	$	24 Decachlorobiphenyl (S)	
	4504	5469		100.000			

Total unknown % height = 6.51

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	256	0.01400	0.0146			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	163	0.00700	0.00676			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.839	2.840	-0.001	150	0.00700	0.00680			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	79	0.00700	0.00716			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	152	0.00700	0.00686			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	149	0.00700	0.00694			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	137	0.00700	0.00692			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	141	0.00700	0.00709			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.984	3.983	0.001	134	0.00700	0.00694			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.019	4.020	-0.001	133	0.00700	0.00702			
11 Endosulfan I						CAS #: 959-98-8		
4.052	4.053	-0.001	128	0.00700	0.00700			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	246	0.01400	0.0138			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	263	0.01400	0.0137			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	216	0.01400	0.0137			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	207	0.01400	0.0136			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	234	0.01400	0.0139			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.636	4.635	0.001	204	0.01400	0.0140			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	153	0.01400	0.0127			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	224	0.01400	0.0138			
20 Methoxychlor						CAS #: 72-43-5		
4.946	4.947	-0.001	503	0.07000	0.0681			
21 Endrin ketone						CAS #: 53494-70-5		
5.125	5.125	0.000	198	0.01400	0.0136			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	228	0.01400	0.0151			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

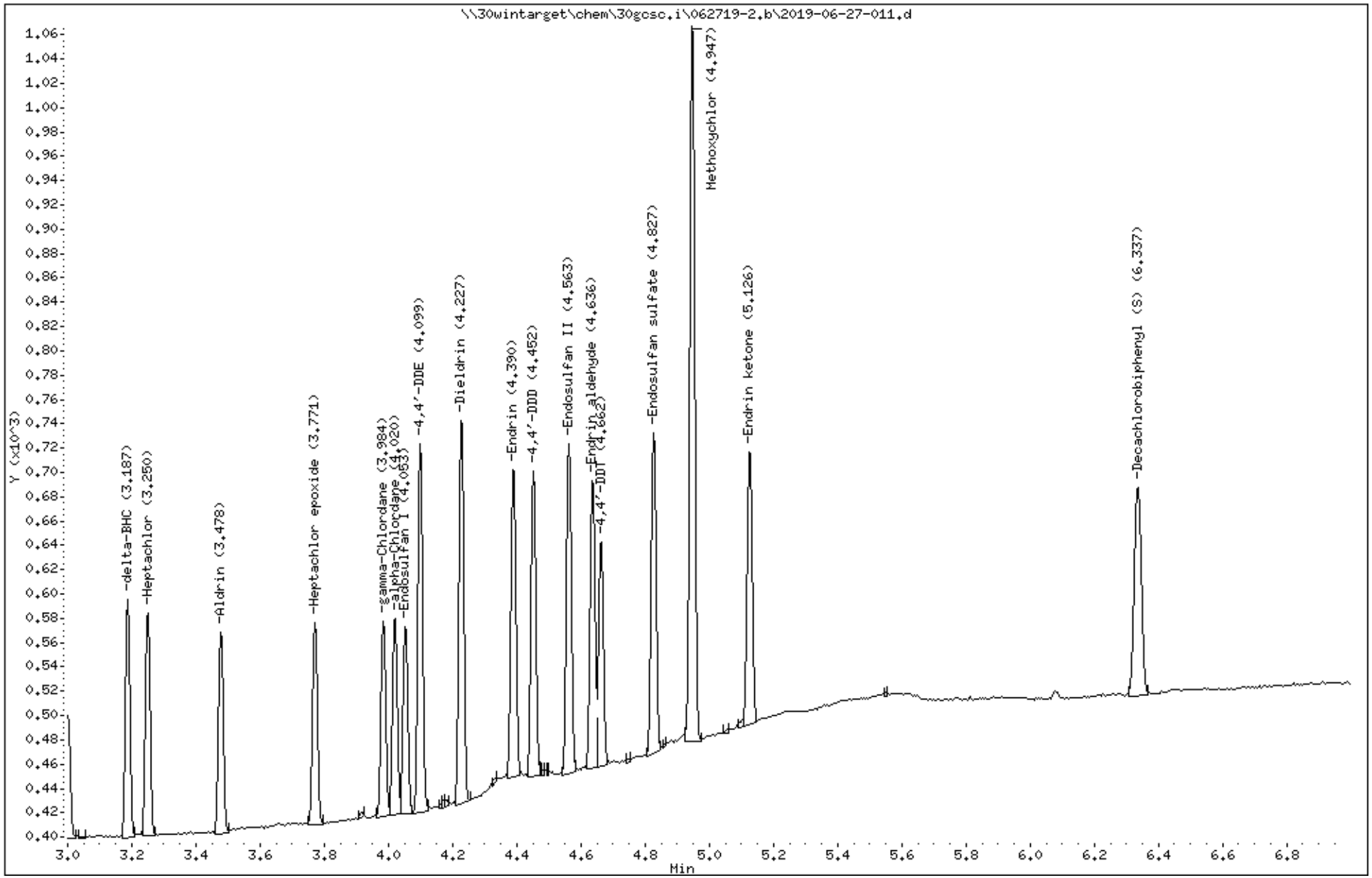
Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00676	
58-89-9	gamma-BHC (Lindane)	0.00680	
319-85-7	beta-BHC	0.00716	
319-86-8	delta-BHC	0.00686	
76-44-8	Heptachlor	0.00694	
309-00-2	Aldrin	0.00692	
1024-57-3	Heptachlor epoxide	0.00709	
5103-74-2	gamma-Chlordane	0.00694	
5103-71-9	alpha-Chlordane	0.00702	
959-98-8	Endosulfan I	0.00700	
72-55-9	4,4'-DDE	0.0138	
60-57-1	Dieldrin	0.0137	
72-20-8	Endrin	0.0137	
72-54-8	4,4'-DDD	0.0136	
33213-65-9	Endosulfan II	0.0139	
7421-36-3	Endrin aldehyde	0.0140	
50-29-3	4,4'-DDT	0.0127	
1031-07-8	Endosulfan sulfate	0.0138	
72-43-5	Methoxychlor	0.0681	
53494-70-5	Endrin ketone	0.0136	
----------	Tetrachloro-m-xylene (S)	0.0146	
----------	Decachlorobiphenyl (S)	0.0151	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Date : 27-JUN-2019 15:24
Client ID: CAL2
Sample Info: CAL2, 92176:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	163	163
beta-BHC	79	79
delta-BHC	152	152
gamma-BHC (Lindane)	150	150
Heptachlor	149	149
Aldrin	137	137
Heptachlor epoxide	141	141
Endosulfan I	128	128
Dieldrin	263	263
4,4'-DDE	246	246
Endrin	216	216
Endosulfan II	234	234
4,4'-DDD	207	207
Endosulfan sulfate	224	224
4,4'-DDT	153	153
Methoxychlor	503	503
Endrin ketone	198	198
Endrin aldehyde	204	204
alpha-Chlordane	133	133
gamma-Chlordane	134	134
Tetrachloro-m-xylene (S)	256	256
Decachlorobiphenyl (S)	228	228

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	25	73	2.975	0.2483		
0.909	206	178	0.865	0.6055		
0.942	379	432	1.139	1.4696		
0.962	426	458	1.074	1.5580		
0.999	33	52	1.596	0.1769		
1.014	98	84	0.854	0.2857		
1.036	10	25	2.538	0.0850		
1.044	10	26	2.608	0.0884		
1.051	3	21	6.122	0.0714		
1.055	8	19	2.267	0.0646		
1.063	5	14	2.881	0.0476		
1.070	3	13	4.887	0.0442		
1.078	2	9	3.913	0.0306		
1.086	3	9	2.903	0.0306		
1.091	3	8	3.113	0.0272		
1.283	5	11	2.099	0.0374		
1.295	9	16	1.697	0.0544		
1.300	5	20	4.320	0.0680		
1.303	2	19	8.756	0.0646		
1.311	12	24	2.057	0.0816		
1.314	4	27	6.905	0.0918		
1.319	7	30	4.237	0.1020		
1.323	9	31	3.433	0.1054		
1.326	4	31	8.447	0.1054		
1.330	8	34	4.009	0.1156		
1.338	16	36	2.207	0.1224		
1.368	71	50	0.708	0.1700		
1.374	25	52	2.055	0.1769		
1.379	21	48	2.303	0.1632		
1.395	33	46	1.388	0.1564		
1.402	15	43	2.880	0.1462		
1.405	9	42	4.805	0.1428		
1.408	8	41	4.846	0.1394		
1.419	20	38	1.857	0.1292		
1.423	11	37	3.491	0.1258		
1.428	12	35	3.038	0.1190		
1.432	5	31	6.526	0.1054		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.435	9	30	3.337	0.1020		
1.440	5	29	6.157	0.0986		
1.443	3	25	7.440	0.0850		
1.445	6	26	4.044	0.0884		
1.451	9	22	2.552	0.0748		
1.460	5	14	2.677	0.0476		
1.465	2	9	3.673	0.0306		
1.884	1094	1585	1.448	5.3920	$ 1 Tetrachloro-m-xylene (S)	
2.098	11	18	1.656	0.0612		
2.105	2	10	4.566	0.0340		
2.139	3	6	1.899	0.0204		
2.238	722	1027	1.422	3.4937	2 alpha-BHC	
2.473	673	941	1.398	3.2012	3 gamma-BHC (Lindane)	
2.617	323	429	1.330	1.4594	4 beta-BHC	
2.661	2	5	2.304	0.0170		
2.711	710	943	1.328	3.2080	5 Heptachlor	
2.812	648	862	1.331	2.9324	6 delta-BHC	
2.899	4	8	1.932	0.0272		
2.922	620	821	1.325	2.7929	7 Aldrin	
3.200	3	10	2.915	0.0340		
3.280	621	798	1.286	2.7147	8 Heptachlor epoxide	
3.352	2	7	3.043	0.0238		
3.362	2	5	2.336	0.0170		
3.435	624	790	1.265	2.6875	9 gamma-Chlordane	
3.500	607	759	1.251	2.5820	10 alpha-Chlordane	
3.545	578	723	1.251	2.4596	11 Endosulfan I	
3.622	1144	1422	1.243	4.8375	12 4,4'-DDE	
3.738	1220	1532	1.255	5.2117	13 Dieldrin	
3.762	3	10	3.030	0.0340		
3.957	1091	1333	1.222	4.5347	14 Endrin	
4.016	953	1136	1.193	3.8646	15 4,4'-DDD	
4.097	4	11	3.107	0.0374		
4.104	6	13	2.138	0.0442		
4.137	1058	1312	1.240	4.4633	16 Endosulfan II	
4.207	1005	1276	1.270	4.3408	17 4,4'-DDT	
4.289	919	1105	1.202	3.7591	18 Endrin aldehyde	
4.428	1058	1293	1.223	4.3987	19 Endosulfan sulfate	
4.591	2	9	4.286	0.0306		
4.595	2	9	4.128	0.0306		
4.598	3	13	4.467	0.0442		
4.604	2	10	4.854	0.0340		
4.609	4	13	3.439	0.0442		
4.627	3	10	2.890	0.0340		
4.638	2	10	4.464	0.0340		
4.663	2709	3139	1.159	10.6852	20 Methoxychlor	
4.697	4	14	3.146	0.0476		
4.713	3	8	2.920	0.0272		
4.721	4	11	2.632	0.0374		
4.782	2	8	3.279	0.0272		
4.851	908	1098	1.209	3.7353	21 Endrin ketone	
4.881	2	7	3.465	0.0238		
4.891	3	11	4.015	0.0374		
4.898	2	8	3.756	0.0272		
5.012	4	15	3.529	0.0510		
5.015	3	15	5.682	0.0510		
5.020	2	10	4.255	0.0340		
5.088	4	10	2.347	0.0340		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.094	2	10	4.587	0.0340		
5.106	3	12	3.871	0.0408		
5.124	7	16	2.343	0.0544		
5.129	3	15	5.435	0.0510		
5.133	4	18	4.196	0.0612		
5.137	3	15	5.338	0.0510		
5.141	3	14	4.035	0.0476		
5.147	7	17	2.568	0.0578		
5.154	4	19	4.556	0.0646		
5.157	4	18	4.009	0.0612		
5.163	3	18	5.980	0.0612		
5.165	6	17	2.686	0.0578		
5.175	5	18	3.930	0.0612		
5.180	4	18	4.813	0.0612		
5.184	4	18	5.070	0.0612		
5.189	5	17	3.520	0.0578		
5.193	3	17	6.115	0.0578		
5.195	2	16	6.897	0.0544		
5.198	4	15	3.432	0.0510		
5.204	3	17	5.705	0.0578		
5.206	2	18	8.867	0.0612		
5.209	2	16	6.478	0.0544		
5.215	2	14	6.140	0.0476		
5.223	6	15	2.389	0.0510		
5.226	3	15	5.792	0.0510		
5.230	5	16	2.974	0.0544		
5.235	2	16	7.729	0.0544		
5.238	3	15	5.837	0.0510		
5.241	2	14	6.335	0.0476		
5.247	4	12	3.261	0.0408		
5.252	3	11	3.188	0.0374		
5.259	4	12	2.679	0.0408		
5.266	2	11	5.164	0.0374		
5.277	3	9	3.557	0.0306		
5.284	3	11	4.382	0.0374		
5.289	3	10	3.175	0.0340		
5.298	3	11	3.679	0.0374		
5.332	3	8	3.125	0.0272		
5.377	2	8	3.721	0.0272		
5.405	3	11	3.806	0.0374		
5.419	2	8	3.404	0.0272		
5.428	4	18	5.085	0.0612		
5.437	14	34	2.396	0.1156		
5.441	17	36	2.139	0.1224		
5.450	3	14	4.389	0.0476		
5.459	3	6	2.247	0.0204		
5.467	2	8	3.604	0.0272		
5.646	1090	1057	0.970	3.5958	$ 24 Decachlorobiphenyl (S)	
5.675	3	12	3.960	0.0408		
5.686	2	7	3.097	0.0238		
5.821	3	8	2.685	0.0272		
5.834	3	10	3.571	0.0340		
5.873	4	11	3.125	0.0374		
5.912	2	7	3.448	0.0238		
5.932	2	10	4.739	0.0340		
6.038	2	6	2.913	0.0204		
6.104	3	8	3.162	0.0272		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.176	2	4	1.869	0.0136		
6.217	2	8	3.687	0.0272		
6.286	2	10	4.032	0.0340		
6.304	3	10	3.436	0.0340		
6.315	2	11	5.069	0.0374		
6.460	3	8	3.150	0.0272		
6.520	2	10	4.673	0.0340		
6.530	3	10	3.356	0.0340		
6.593	2	7	3.153	0.0238		
6.618	4	12	3.243	0.0408		
6.623	2	14	6.512	0.0476		
6.627	4	14	3.655	0.0476		
6.634	2	12	5.742	0.0408		
6.639	4	15	4.011	0.0510		
6.643	5	13	2.434	0.0442		
6.657	6	13	2.200	0.0442		
6.663	4	16	3.571	0.0544		
6.668	2	9	3.704	0.0306		
6.673	2	10	4.274	0.0340		
6.693	2	8	3.883	0.0272		
6.705	2	13	5.652	0.0442		
6.708	2	16	7.306	0.0544		
6.712	3	12	4.580	0.0408		
6.718	3	14	5.469	0.0476		
6.726	6	15	2.385	0.0510		
6.730	3	15	5.597	0.0510		
6.734	3	19	6.835	0.0646		
6.740	5	16	3.433	0.0544		
6.744	3	18	6.429	0.0612		
6.749	6	22	3.654	0.0748		
6.759	4	16	4.199	0.0544		
6.761	2	18	8.654	0.0612		
6.765	5	16	3.194	0.0544		
6.770	3	15	5.415	0.0510		
6.775	8	18	2.329	0.0612		
6.783	4	16	4.255	0.0544		
6.790	5	15	2.793	0.0510		
6.800	5	15	3.268	0.0510		
6.813	3	15	5.282	0.0510		
6.821	3	12	4.380	0.0408		
6.831	4	14	3.365	0.0476		
6.833	3	13	3.746	0.0442		
6.846	3	12	3.750	0.0408		
6.849	4	11	3.047	0.0374		
6.859	2	10	4.310	0.0340		
6.868	3	13	4.437	0.0442		
6.889	3	10	3.509	0.0340		
6.927	2	8	3.333	0.0272		
	22403	29395		100.000		

Total unknown % height = 13.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	1094	0.02000	0.0216			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	722	0.01000	0.0106			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.473	2.472	0.001	673	0.01000	0.0107			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	322	0.01000	0.0109			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	647	0.01000	0.0106			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	710	0.01000	0.0109			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	619	0.01000	0.0108			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	620	0.01000	0.0109			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	624	0.01000	0.0110			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	606	0.01000	0.0109			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	578	0.01000	0.0109			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	1143	0.02000	0.0215			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	1220	0.02000	0.0213			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	1090	0.02000	0.0218			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	952	0.02000	0.0214			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	1058	0.02000	0.0215			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	1005	0.02000	0.0214			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	919	0.02000	0.0219			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	1057	0.02000	0.0219			
20 Methoxychlor						CAS #: 72-43-5		
4.662	4.662	0.000	2708	0.10000	0.111			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	908	0.02000	0.0213			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.646	-0.001	1089	0.02000	0.0219			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0106	
58-89-9	gamma-BHC (Lindane)	0.0107	
319-85-7	beta-BHC	0.0109	
76-44-8	delta-BHC	0.0106	
319-86-8	Heptachlor	0.0109	
309-00-2	Aldrin	0.0108	
1024-57-3	Heptachlor epoxide	0.0109	
5103-74-2	gamma-Chlordane	0.0110	
5103-71-9	alpha-Chlordane	0.0109	
959-98-8	Endosulfan I	0.0109	
72-55-9	4,4'-DDE	0.0215	
60-57-1	Dieldrin	0.0213	
72-20-8	Endrin	0.0218	
72-54-8	4,4'-DDD	0.0214	
33213-65-9	Endosulfan II	0.0215	
50-29-3	4,4'-DDT	0.0214	
7421-36-3	Endrin aldehyde	0.0219	
1031-07-8	Endosulfan sulfate	0.0219	
72-43-5	Methoxychlor	0.111	
53494-70-5	Endrin ketone	0.0213	
	Tetrachloro-m-xylene (S)	0.0216	
	Decachlorobiphenyl (S)	0.0219	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d

Date : 27-JUN-2019 15:33

Client ID: CAL3

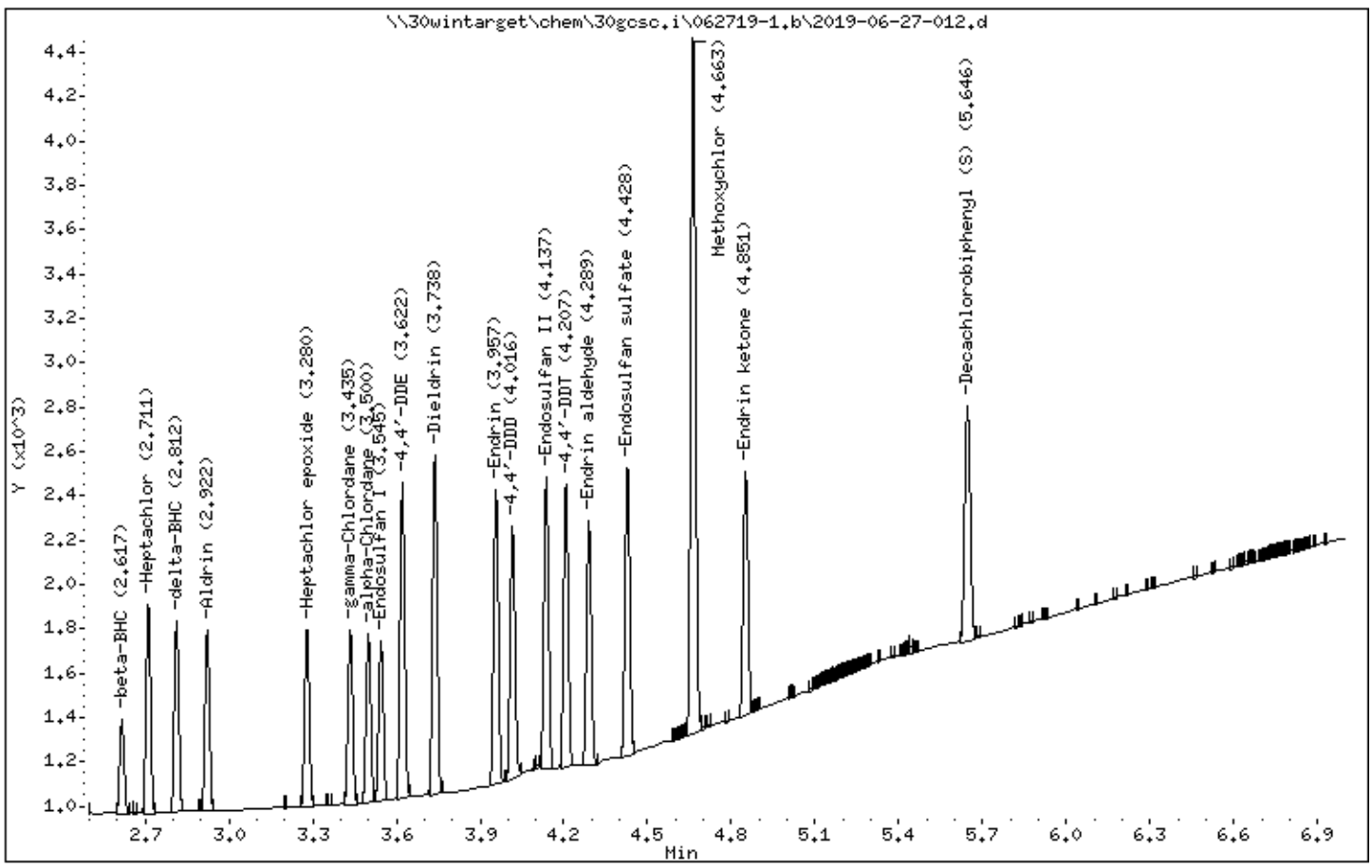
Instrument: 30gcsc.i

Sample Info: CAL3, 92177:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	722	722
beta-BHC	322	322
delta-BHC	647	647
gamma-BHC (Lindane)	673	673
Heptachlor	710	710
Aldrin	619	619
Heptachlor epoxide	620	620
Endosulfan I	578	578
Dieldrin	1220	1220
4,4'-DDE	1143	1143
Endrin	1090	1090
Endosulfan II	1058	1058
4,4'-DDD	952	952
Endosulfan sulfate	1057	1057
4,4'-DDT	1005	1005
Methoxychlor	2708	2708
Endrin ketone	908	908
Endrin aldehyde	919	919
alpha-Chlordane	606	606
gamma-Chlordane	624	624
Tetrachloro-m-xylene (S)	1094	1094
Decachlorobiphenyl (S)	1089	1089

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.866	1	3	2.344	0.0351			
0.878	20	94	4.624	1.1016			
0.910	10	8	0.832	0.0937			
0.950	4	7	1.720	0.0820			
0.981	76	94	1.240	1.1016			
1.010	71	109	1.537	1.2773			
1.024	1	7	5.303	0.0820			
1.058	1	3	2.752	0.0351			
1.071	4	8	1.822	0.0937			
1.338	3	3	1.128	0.0351			
1.371	2	2	1.005	0.0234			
1.434	1	3	2.913	0.0351			
1.451	1	3	2.885	0.0351			
2.359	405	545	1.346	6.3869	$	1 Tetrachloro-m-xylene (S)	
2.571	2	4	1.934	0.0468			
2.623	257	348	1.354	4.0782		2 alpha-BHC	
2.840	240	318	1.324	3.7267		3 gamma-BHC (Lindane)	
2.924	1	2	1.342	0.0234			
3.001	123	155	1.261	1.8164		4 beta-BHC	
3.187	238	310	1.305	3.6329		5 delta-BHC	
3.249	238	292	1.229	3.4220		6 Heptachlor	
3.477	212	263	1.241	3.0821		7 Aldrin	
3.770	217	260	1.200	3.0469		8 Heptachlor epoxide	
3.983	213	254	1.191	2.9766		9 gamma-Chlordane	
4.019	210	247	1.176	2.8946		10 alpha-Chlordane	
4.052	202	239	1.184	2.8008		11 Endosulfan I	
4.099	387	481	1.243	5.6369		12 4,4'-DDE	
4.171	3	4	1.504	0.0468			
4.227	418	504	1.206	5.9064		13 Dieldrin	
4.389	347	410	1.182	4.8048		14 Endrin	
4.451	332	406	1.224	4.7579		15 4,4'-DDD	
4.486	2	4	1.818	0.0468			
4.562	369	435	1.179	5.0978		16 Endosulfan II	
4.635	322	375	1.165	4.3947		17 Endrin aldehyde	
4.662	258	313	1.212	3.6681		18 4,4'-DDT	
4.826	355	420	1.183	4.9220		19 Endosulfan sulfate	
4.947	816	969	1.187	11.3582		20 Methoxychlor	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.062	1	3	2.500	0.0351		
5.100	4	7	1.716	0.0820		
5.126	319	346	1.085	4.0548	21 Endrin ketone	
5.465	1	3	2.222	0.0351		
5.522	1	3	2.326	0.0351		
6.336	357	269	0.754	3.1524	$ 24 Decachlorobiphenyl (S)	
	7045	8533		100.000		

Total unknown % height = 4.38

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	404	0.02000	0.0219			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	257	0.01000	0.0107			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.840	2.840	0.000	240	0.01000	0.0109			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	122	0.01000	0.0111			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	237	0.01000	0.0107			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	237	0.01000	0.0110			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	211	0.01000	0.0107			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	216	0.01000	0.0109			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.983	3.983	0.000	213	0.01000	0.0110			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.018	4.020	-0.002	210	0.01000	0.0111			
11 Endosulfan I						CAS #: 959-98-8		
4.052	4.053	-0.001	201	0.01000	0.0110			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	386	0.02000	0.0216			
13 Dieldrin						CAS #: 60-57-1		
4.226	4.227	-0.001	417	0.02000	0.0217			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	346	0.02000	0.0219			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	331	0.02000	0.0218			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	369	0.02000	0.0219			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	321	0.02000	0.0221			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	258	0.02000	0.0215			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	355	0.02000	0.0220			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	816	0.10000	0.110			
21 Endrin ketone						CAS #: 53494-70-5		
5.125	5.125	0.000	318	0.02000	0.0218			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.335	6.334	0.001	356	0.02000	0.0223			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

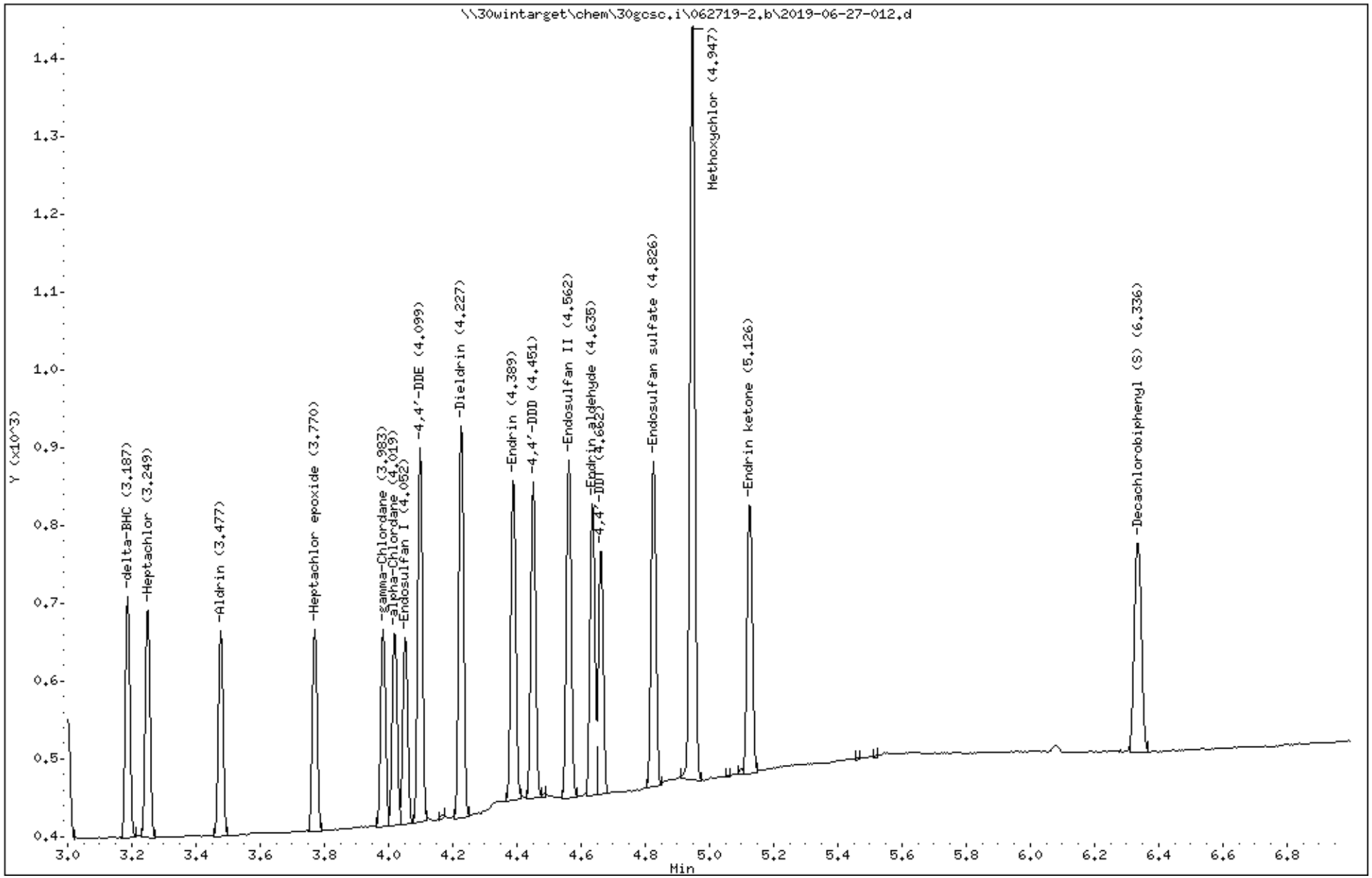
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0107	
58-89-9	gamma-BHC (Lindane)	0.0109	
319-85-7	beta-BHC	0.0111	
319-86-8	delta-BHC	0.0107	
76-44-8	Heptachlor	0.0110	
309-00-2	Aldrin	0.0107	
1024-57-3	Heptachlor epoxide	0.0109	
5103-74-2	gamma-Chlordane	0.0110	
5103-71-9	alpha-Chlordane	0.0111	
959-98-8	Endosulfan I	0.0110	
72-55-9	4,4'-DDE	0.0216	
60-57-1	Dieldrin	0.0217	
72-20-8	Endrin	0.0219	
72-54-8	4,4'-DDD	0.0218	
33213-65-9	Endosulfan II	0.0219	
7421-36-3	Endrin aldehyde	0.0221	
50-29-3	4,4'-DDT	0.0215	
1031-07-8	Endosulfan sulfate	0.0220	
72-43-5	Methoxychlor	0.110	
53494-70-5	Endrin ketone	0.0218	
----------	Tetrachloro-m-xylene (S)	0.0219	
----------	Decachlorobiphenyl (S)	0.0223	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Date : 27-JUN-2019 15:33
Client ID: CAL3
Sample Info: CAL3, 92177:1

Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	257	257
beta-BHC	122	122
delta-BHC	237	237
gamma-BHC (Lindane)	240	240
Heptachlor	237	237
Aldrin	211	211
Heptachlor epoxide	216	216
Endosulfan I	201	201
Dieldrin	417	417
4,4'-DDE	386	386
Endrin	346	346
Endosulfan II	369	369
4,4'-DDD	331	331
Endosulfan sulfate	355	355
4,4'-DDT	258	258
Methoxychlor	816	816
Endrin ketone	318	318
Endrin aldehyde	321	321
alpha-Chlordane	210	210
gamma-Chlordane	213	213
Tetrachloro-m-xylene (S)	404	404
Decachlorobiphenyl (S)	356	356

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.625	2	8	3.846	0.0159			
0.887	14	53	3.796	0.1059			
0.910	223	189	0.847	0.3778			
0.941	341	398	1.168	0.7957			
0.962	336	391	1.164	0.7817			
0.995	2	11	4.583	0.0219			
1.003	8	15	1.956	0.0299			
1.011	3	12	3.550	0.0239			
1.130	2	6	2.899	0.0119			
1.244	2	4	1.876	0.0079			
1.300	4	2	0.556	0.0039			
1.371	6	19	3.193	0.0379			
1.375	3	14	4.294	0.0279			
1.407	2	7	3.070	0.0139			
1.511	3	6	2.216	0.0119			
1.641	2	4	1.702	0.0079			
1.791	3	9	3.192	0.0179			
1.885	2028	2902	1.431	5.8019	$	1 Tetrachloro-m-xylene (S)	RT
1.918	3	8	2.952	0.0159			
2.100	23	34	1.494	0.0679			
2.161	2	7	2.917	0.0139			
2.238	1366	1931	1.414	3.8606		2 alpha-BHC	RT
2.416	3	10	3.322	0.0199			
2.473	1256	1742	1.387	3.4827		3 gamma-BHC (Lindane)	RT
2.617	624	777	1.245	1.5534		4 beta-BHC	RT
2.643	3	9	3.214	0.0179			
2.656	5	9	1.804	0.0179			
2.712	1287	1697	1.318	3.3927		5 Heptachlor	RT
2.813	1212	1625	1.341	3.2488		6 delta-BHC	RT
2.899	7	12	1.664	0.0239			
2.923	1141	1494	1.310	2.9869		7 Aldrin	RT
3.004	2	5	2.183	0.0099			
3.198	2	10	4.926	0.0199			
3.201	6	14	2.443	0.0279			
3.208	2	12	5.607	0.0239			
3.280	1128	1448	1.284	2.8949		8 Heptachlor epoxide	RT
3.435	1129	1416	1.254	2.8309		9 gamma-Chlordane	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.499	1102	1390	1.262	2.7789	10 alpha-Chlordane	RT
3.545	1058	1302	1.230	2.6030	11 Endosulfan I	RT
3.621	2103	2655	1.262	5.3080	12 4,4'-DDE	RT
3.738	2231	2844	1.275	5.6859	13 Dieldrin	RT
3.761	4	15	4.180	0.0299		
3.894	4	8	2.089	0.0159		
3.956	1926	2402	1.247	4.8022	14 Endrin	RT
4.016	1794	2178	1.214	4.3544	15 4,4'-DDD	RT
4.051	7	21	3.226	0.0419		
4.057	6	20	3.384	0.0399		
4.067	13	19	1.473	0.0379		
4.079	8	18	2.362	0.0359		
4.085	3	17	5.862	0.0339		
4.087	3	18	6.569	0.0359		
4.089	3	20	7.874	0.0399		
4.103	50	43	0.855	0.0859		
4.136	1958	2381	1.216	4.7602	16 Endosulfan II	RT
4.173	3	11	4.183	0.0219		
4.177	3	14	5.166	0.0279		
4.183	5	17	3.226	0.0339		
4.187	4	16	4.336	0.0319		
4.207	1838	2233	1.215	4.4643	17 4,4'-DDT	RT
4.243	4	9	2.350	0.0179		
4.251	2	8	3.478	0.0159		
4.289	1661	1987	1.196	3.9725	18 Endrin aldehyde	RT
4.374	4	12	3.270	0.0239		
4.380	3	10	3.731	0.0199		
4.428	1908	2319	1.216	4.6363	19 Endosulfan sulfate	RT
4.565	3	12	4.598	0.0239		
4.568	4	15	3.896	0.0299		
4.573	3	12	3.896	0.0239		
4.663	4779	5796	1.213	11.6039	20 Methoxychlor	RT
4.704	3	10	3.831	0.0199		
4.711	3	10	3.584	0.0199		
4.716	2	12	5.286	0.0239		
4.718	4	13	3.485	0.0259		
4.851	1696	2002	1.181	4.0025	21 Endrin ketone	RT
5.015	19	25	1.335	0.0499		
5.099	2	9	4.054	0.0179		
5.113	3	8	2.540	0.0159		
5.121	4	11	2.872	0.0219		
5.126	2	11	4.490	0.0219		
5.134	3	9	2.894	0.0179		
5.146	3	9	2.913	0.0179		
5.148	3	10	3.650	0.0199		
5.162	3	10	3.247	0.0199		
5.169	2	8	3.828	0.0159		
5.240	2	9	4.018	0.0179		
5.244	2	11	5.314	0.0219		
5.250	4	10	2.475	0.0199		
5.255	2	13	6.280	0.0259		
5.259	2	15	6.383	0.0299		
5.265	6	15	2.542	0.0299		
5.276	4	17	4.239	0.0339		
5.283	7	17	2.270	0.0339		
5.290	2	16	7.273	0.0319		
5.293	5	19	3.878	0.0379		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.298	2	15	7.426	0.0299		
5.299	3	19	5.429	0.0379		
5.304	5	18	3.896	0.0359		
5.309	3	17	5.556	0.0339		
5.312	4	18	4.255	0.0359		
5.318	5	18	3.888	0.0359		
5.325	5	21	4.142	0.0419		
5.332	13	35	2.726	0.0699		
5.335	11	33	3.041	0.0659		
5.341	5	28	6.114	0.0559		
5.344	5	24	4.858	0.0479		
5.347	5	20	3.831	0.0399		
5.354	7	19	2.665	0.0379		
5.361	3	19	6.507	0.0379		
5.363	3	19	6.909	0.0379		
5.366	3	21	6.000	0.0419		
5.370	4	21	5.237	0.0419		
5.373	4	20	5.495	0.0399		
5.380	9	20	2.250	0.0399		
5.386	4	21	4.677	0.0419		
5.390	8	21	2.488	0.0419		
5.395	2	19	8.676	0.0379		
5.399	5	23	4.331	0.0459		
5.402	3	21	7.895	0.0419		
5.407	6	22	3.748	0.0439		
5.410	6	25	4.032	0.0499		
5.416	7	22	3.328	0.0439		
5.439	96	80	0.830	0.1599		
5.451	6	33	5.297	0.0659		
5.456	7	30	4.587	0.0599		
5.461	4	23	5.913	0.0459		
5.463	4	26	7.283	0.0519		
5.466	4	22	5.046	0.0439		
5.471	6	25	4.296	0.0499		
5.474	4	24	5.556	0.0479		
5.477	4	27	7.181	0.0539		
5.483	9	24	2.583	0.0479		
5.488	6	23	3.879	0.0459		
5.492	3	22	6.940	0.0439		
5.496	6	22	3.537	0.0439		
5.502	6	21	3.437	0.0419		
5.506	4	22	4.944	0.0439		
5.513	7	19	2.798	0.0379		
5.519	9	21	2.397	0.0419		
5.525	6	20	3.215	0.0399		
5.533	5	18	3.774	0.0359		
5.538	7	18	2.757	0.0359		
5.544	5	14	2.811	0.0279		
5.554	5	16	3.390	0.0319		
5.558	5	17	3.148	0.0339		
5.562	4	16	4.255	0.0319		
5.568	4	14	3.310	0.0279		
5.574	5	17	3.353	0.0339		
5.581	5	16	3.107	0.0319		
5.586	5	16	3.156	0.0319		
5.594	2	11	4.583	0.0219		
5.599	5	12	2.614	0.0239		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.609	2	13	5.856	0.0259		
5.612	3	13	4.025	0.0259		
5.622	4	12	3.270	0.0239		
5.645	1968	1895	0.963	3.7886	$ 24 Decachlorobiphenyl (S)	RT
5.682	4	13	3.485	0.0259		
5.694	2	8	3.883	0.0159		
5.728	3	8	2.649	0.0159		
5.746	2	8	3.636	0.0159		
5.751	2	7	3.483	0.0139		
5.760	2	10	4.310	0.0199		
5.912	2	11	5.093	0.0219		
5.932	2	11	4.661	0.0219		
5.943	2	9	3.930	0.0179		
5.952	2	12	5.825	0.0239		
6.042	3	9	2.695	0.0179		
6.092	3	9	3.321	0.0179		
6.099	2	9	4.286	0.0179		
6.111	2	12	5.769	0.0239		
6.117	4	10	2.247	0.0199		
6.127	3	11	3.152	0.0219		
6.139	2	8	3.556	0.0159		
6.202	2	8	3.636	0.0159		
6.398	2	8	3.774	0.0159		
6.749	2	11	5.140	0.0219		
6.829	3	12	4.580	0.0239		
6.839	5	12	2.348	0.0239		
6.847	3	11	3.833	0.0219		
6.857	3	12	4.181	0.0239		
6.878	3	9	3.529	0.0179		
6.891	3	12	4.762	0.0239		
6.902	3	16	5.461	0.0319		
6.908	2	14	5.932	0.0279		
6.915	4	16	3.730	0.0319		
6.919	3	14	4.636	0.0279		
6.923	3	14	4.590	0.0279		
6.928	3	12	4.428	0.0239		
6.934	3	14	4.321	0.0279		
6.937	3	13	3.725	0.0259		
6.950	3	11	3.152	0.0219		
6.965	2	11	5.000	0.0219		
6.972	3	11	4.231	0.0219		
	38936	50018		100.000		

Total unknown % height = 7.19

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	2028	0.04000	0.0401		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.238	2.238	0.000	1365	0.02000	0.0200		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.473	2.472	0.001	1255	0.02000	0.0200		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
2.617	2.617	0.000	623	0.02000	0.0210		(M)	RT
6 delta-BHC					CAS #: 76-44-8			
2.812	2.812	0.000	1211	0.02000	0.0199		(M)	RT
5 Heptachlor					CAS #: 319-86-8			
2.711	2.711	0.000	1287	0.02000	0.0197		(M)	RT
7 Aldrin					CAS #: 309-00-2			
2.922	2.922	0.000	1140	0.02000	0.0198		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.279	3.279	0.000	1127	0.02000	0.0198		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.435	3.436	-0.001	1128	0.02000	0.0199		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
3.499	3.499	0.000	1101	0.02000	0.0197		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
3.545	3.544	0.001	1058	0.02000	0.0199		(M)	RT

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.621	3.621	0.000	2103	0.04000	0.0396		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
3.738	3.738	0.000	2230	0.04000	0.0390		(M)	RT
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	1926	0.04000	0.0385		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.015	4.016	-0.001	1793	0.04000	0.0404		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.136	4.137	-0.001	1958	0.04000	0.0399		(M)	RT
17 4,4'-DDT					CAS #: 50-29-3			
4.207	4.208	-0.001	1837	0.04000	0.0391		(M)	RT
18 Endrin aldehyde					CAS #: 7421-36-3			
4.289	4.289	0.000	1661	0.04000	0.0396		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.427	4.428	-0.001	1907	0.04000	0.0395		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.662	0.001	4779	0.20000	0.195		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
4.850	4.850	0.000	1695	0.04000	0.0397		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.646	-0.002	1967	0.04000	0.0396		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0200	
58-89-9	gamma-BHC (Lindane)	0.0200	
319-85-7	beta-BHC	0.0210	
76-44-8	delta-BHC	0.0199	
319-86-8	Heptachlor	0.0197	
309-00-2	Aldrin	0.0198	
1024-57-3	Heptachlor epoxide	0.0198	
5103-74-2	gamma-Chlordane	0.0199	
5103-71-9	alpha-Chlordane	0.0197	
959-98-8	Endosulfan I	0.0199	
72-55-9	4,4'-DDE	0.0396	
60-57-1	Dieldrin	0.0390	
72-20-8	Endrin	0.0385	
72-54-8	4,4'-DDD	0.0404	
33213-65-9	Endosulfan II	0.0399	
50-29-3	4,4'-DDT	0.0391	
7421-36-3	Endrin aldehyde	0.0396	
1031-07-8	Endosulfan sulfate	0.0395	
72-43-5	Methoxychlor	0.195	
53494-70-5	Endrin ketone	0.0397	
----------	Tetrachloro-m-xylene (S)	0.0401	
----------	Decachlorobiphenyl (S)	0.0396	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d

Date : 27-JUN-2019 15:43

Client ID: CAL4

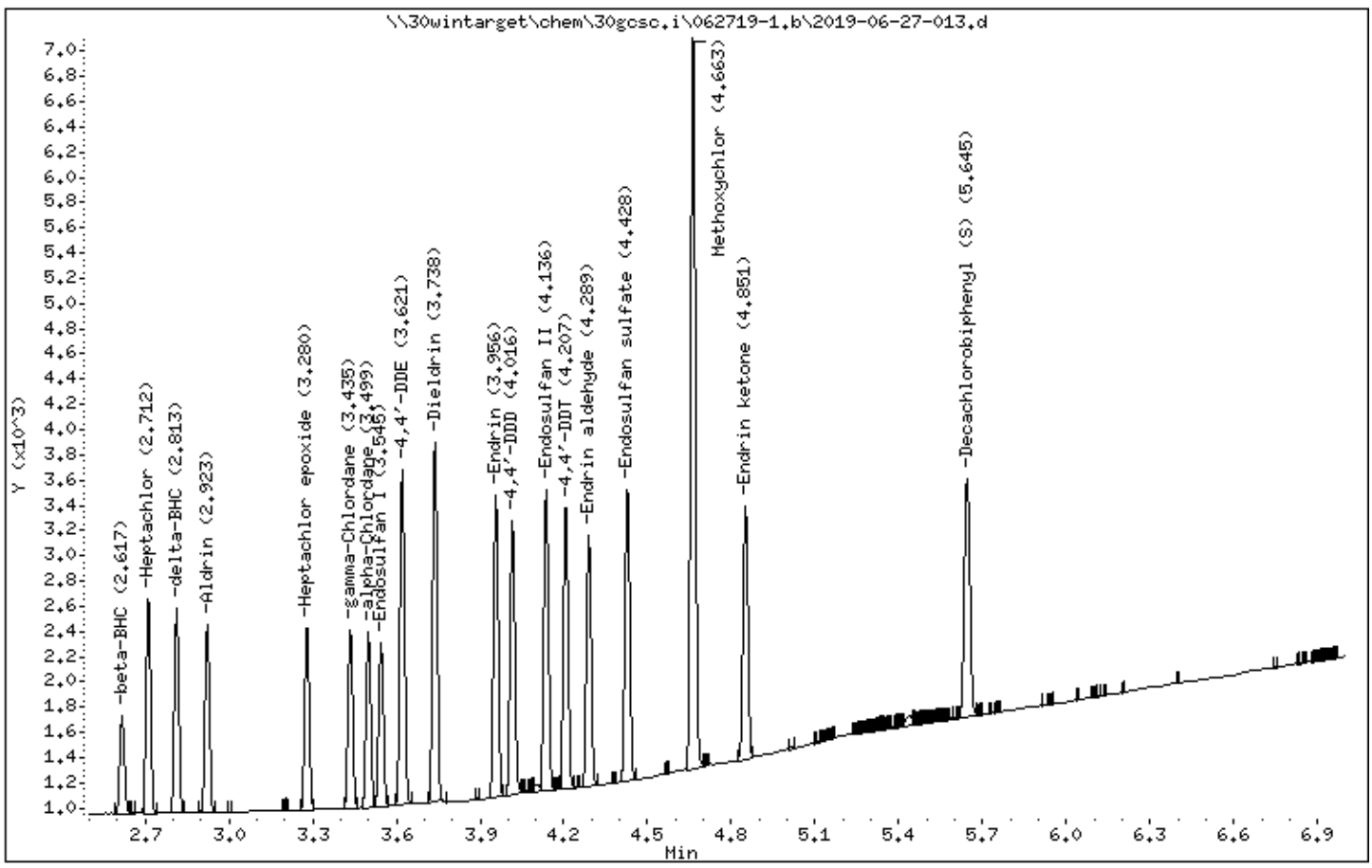
Instrument: 30gcsc.i

Sample Info: CAL4, 92178:1

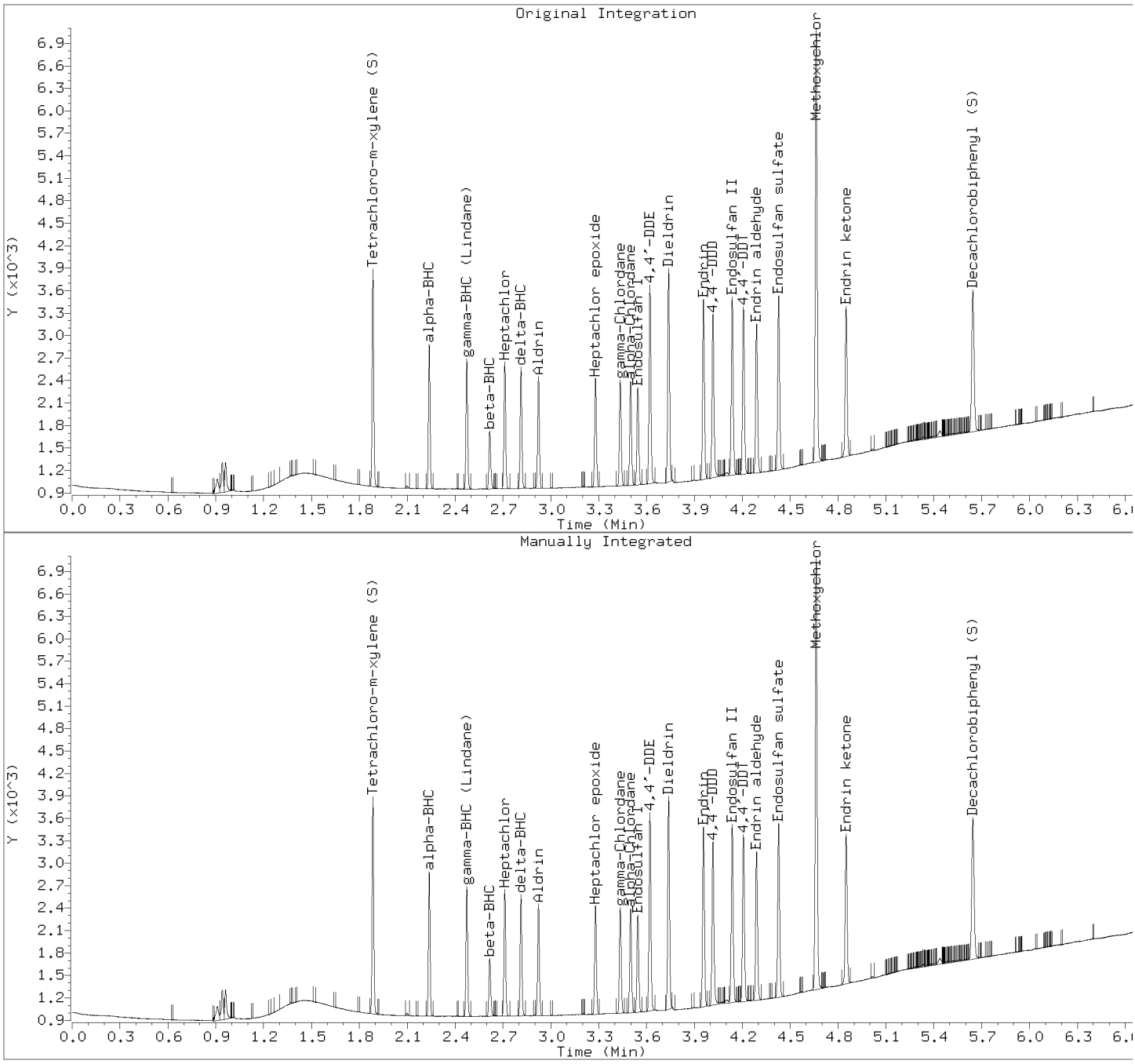
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:43 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1365	1365
beta-BHC	623	623
delta-BHC	1211	1211
gamma-BHC (Lindane)	1255	1255
Heptachlor	1287	1287
Aldrin	1140	1140
Heptachlor epoxide	1127	1127
Endosulfan I	1058	1058
Dieldrin	2230	2230
4,4'-DDE	2103	2103
Endrin	1926	1926
Endosulfan II	1958	1958
4,4'-DDD	1793	1793
Endosulfan sulfate	1907	1907

4,4'-DDT	1837	1837
Methoxychlor	4779	4779
Endrin ketone	1695	1695
Endrin aldehyde	1661	1661
alpha-Chlordane	1101	1101
gamma-Chlordane	1128	1128
Tetrachloro-m-xylene (S)	2028	2028
Decachlorobiphenyl (S)	1967	1967

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT			COMPOUNDS	REVIEW CODE
0.419	1	1	0.775	0.0066				
0.866	1	3	2.492	0.0198				
0.878	29	115	3.990	0.7597				
0.907	4	7	1.720	0.0462				
0.951	5	8	1.709	0.0528				
0.981	70	90	1.284	0.5945				
1.009	66	99	1.510	0.6540				
1.056	1	2	1.695	0.0132				
1.210	1	2	1.980	0.0132				
1.305	1	2	1.734	0.0132				
1.399	1	2	1.538	0.0132				
1.443	2	3	1.613	0.0198				
1.459	2	3	1.442	0.0198				
1.488	1	3	2.239	0.0198				
1.553	2	3	1.579	0.0198				
1.793	1	3	3.000	0.0198				
2.128	2	4	2.548	0.0264				
2.359	745	988	1.327	6.5270	$	1	Tetrachloro-m-xylene (S)	RT
2.569	1	5	4.781	0.0330				
2.623	483	648	1.341	4.2809		2	alpha-BHC	RT
2.840	439	576	1.312	3.8052		3	gamma-BHC (Lindane)	RT
3.001	218	278	1.273	1.8365		4	beta-BHC	RT
3.091	3	5	1.868	0.0330				
3.187	439	568	1.294	3.7523		5	delta-BHC	RT
3.250	421	531	1.260	3.5079		6	Heptachlor	RT
3.321	1	4	3.810	0.0264				
3.478	391	475	1.214	3.1380		7	Aldrin	RT
3.710	3	6	1.824	0.0396				
3.771	388	468	1.205	3.0917		8	Heptachlor epoxide	RT
3.984	384	450	1.171	2.9728		9	gamma-Chlordane	RT
4.020	378	453	1.199	2.9926		10	alpha-Chlordane	RT
4.053	363	436	1.201	2.8803		11	Endosulfan I	RT
4.099	711	873	1.229	5.7673		12	4,4'-DDE	RT
4.170	2	4	1.980	0.0264				
4.227	756	914	1.209	6.0381		13	Dieldrin	RT
4.389	599	705	1.176	4.6574		14	Endrin	RT
4.417	2	5	2.525	0.0330				

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.451	599	727	1.213	4.8028		15 4,4'-DDD	RT
4.562	659	775	1.176	5.1199		16 Endosulfan II	RT
4.635	574	674	1.174	4.4526		17 Endrin aldehyde	RT
4.662	479	583	1.218	3.8514		18 4,4'-DDT	RT
4.826	641	755	1.177	4.9877		19 Endosulfan sulfate	RT
4.863	4	7	1.989	0.0462			
4.916	2	7	4.118	0.0462			
4.947	1448	1683	1.162	11.1205		20 Methoxychlor	RT
5.103	10	17	1.765	0.1123			
5.125	585	662	1.131	4.3733		21 Endrin ketone	RT
5.776	2	4	1.786	0.0264			
6.001	1	3	2.419	0.0198			
6.071	2	6	3.526	0.0396			
6.081	7	12	1.813	0.0792			
6.085	2	10	4.237	0.0660			
6.334	639	470	0.736	3.1049	$	24 Decachlorobiphenyl (S)	RT
	12573	15137		100.000			

Total unknown % height = 2.94

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	744	0.04000	0.0403		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.623	2.623	0.000	483	0.02000	0.0200		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.840	2.840	0.000	439	0.02000	0.0199		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
3.001	3.001	0.000	218	0.02000	0.0198		(M)	RT
5 delta-BHC					CAS #: 319-86-8			
3.187	3.187	0.000	438	0.02000	0.0198		(M)	RT
6 Heptachlor					CAS #: 76-44-8			
3.249	3.249	0.000	421	0.02000	0.0196		(M)	RT
7 Aldrin					CAS #: 309-00-2			
3.477	3.477	0.000	391	0.02000	0.0198		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.770	3.770	0.000	388	0.02000	0.0195		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.983	3.983	0.000	384	0.02000	0.0199		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
4.020	4.020	0.000	377	0.02000	0.0199		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
4.053	4.053	0.000	363	0.02000	0.0199		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.098	4.098	0.000	710	0.04000	0.0397		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
4.227	4.227	0.000	756	0.04000	0.0394		(M)	RT
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	599	0.04000	0.0379		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	599	0.04000	0.0395		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.562	4.562	0.000	659	0.04000	0.0392		(M)	RT
17 Endrin aldehyde					CAS #: 7421-36-3			
4.635	4.635	0.000	574	0.04000	0.0395		(M)	RT
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	478	0.04000	0.0398		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.826	4.826	0.000	641	0.04000	0.0396		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.947	4.947	0.000	1448	0.20000	0.196		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
5.125	5.125	0.000	585	0.04000	0.0401		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.334	6.334	0.000	638	0.04000	0.0400		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

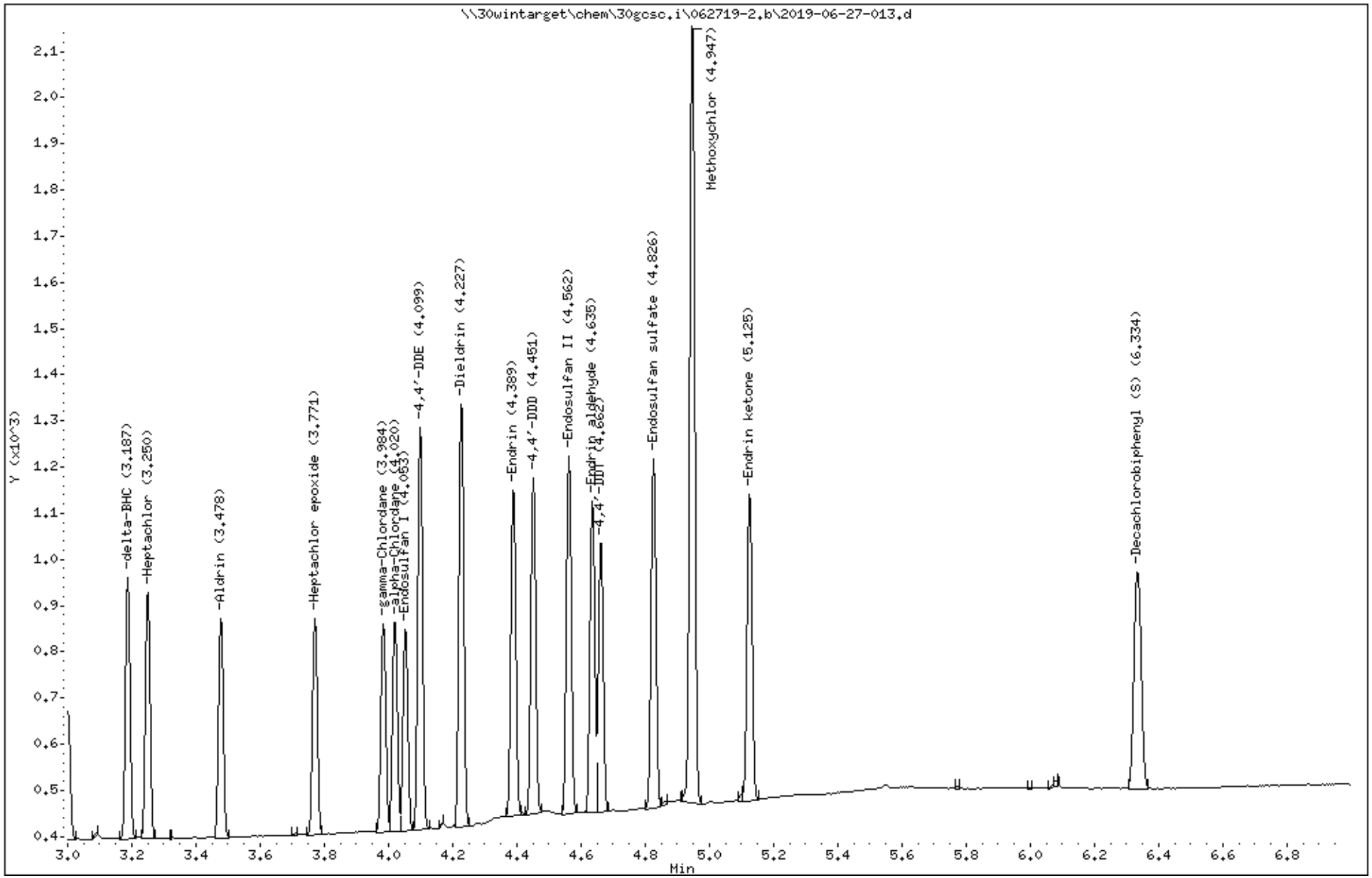
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0200	
58-89-9	gamma-BHC (Lindane)	0.0199	
319-85-7	beta-BHC	0.0198	
319-86-8	delta-BHC	0.0198	
76-44-8	Heptachlor	0.0196	
309-00-2	Aldrin	0.0198	
1024-57-3	Heptachlor epoxide	0.0195	
5103-74-2	gamma-Chlordane	0.0199	
5103-71-9	alpha-Chlordane	0.0199	
959-98-8	Endosulfan I	0.0199	
72-55-9	4,4'-DDE	0.0397	
60-57-1	Dieldrin	0.0394	
72-20-8	Endrin	0.0379	
72-54-8	4,4'-DDD	0.0395	
33213-65-9	Endosulfan II	0.0392	
7421-36-3	Endrin aldehyde	0.0395	
50-29-3	4,4'-DDT	0.0398	
1031-07-8	Endosulfan sulfate	0.0396	
72-43-5	Methoxychlor	0.196	
53494-70-5	Endrin ketone	0.0401	
----------	Tetrachloro-m-xylene (S)	0.0403	
----------	Decachlorobiphenyl (S)	0.0400	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Date : 27-JUN-2019 15:43
Client ID: CAL4
Sample Info: CAL4, 92178:1

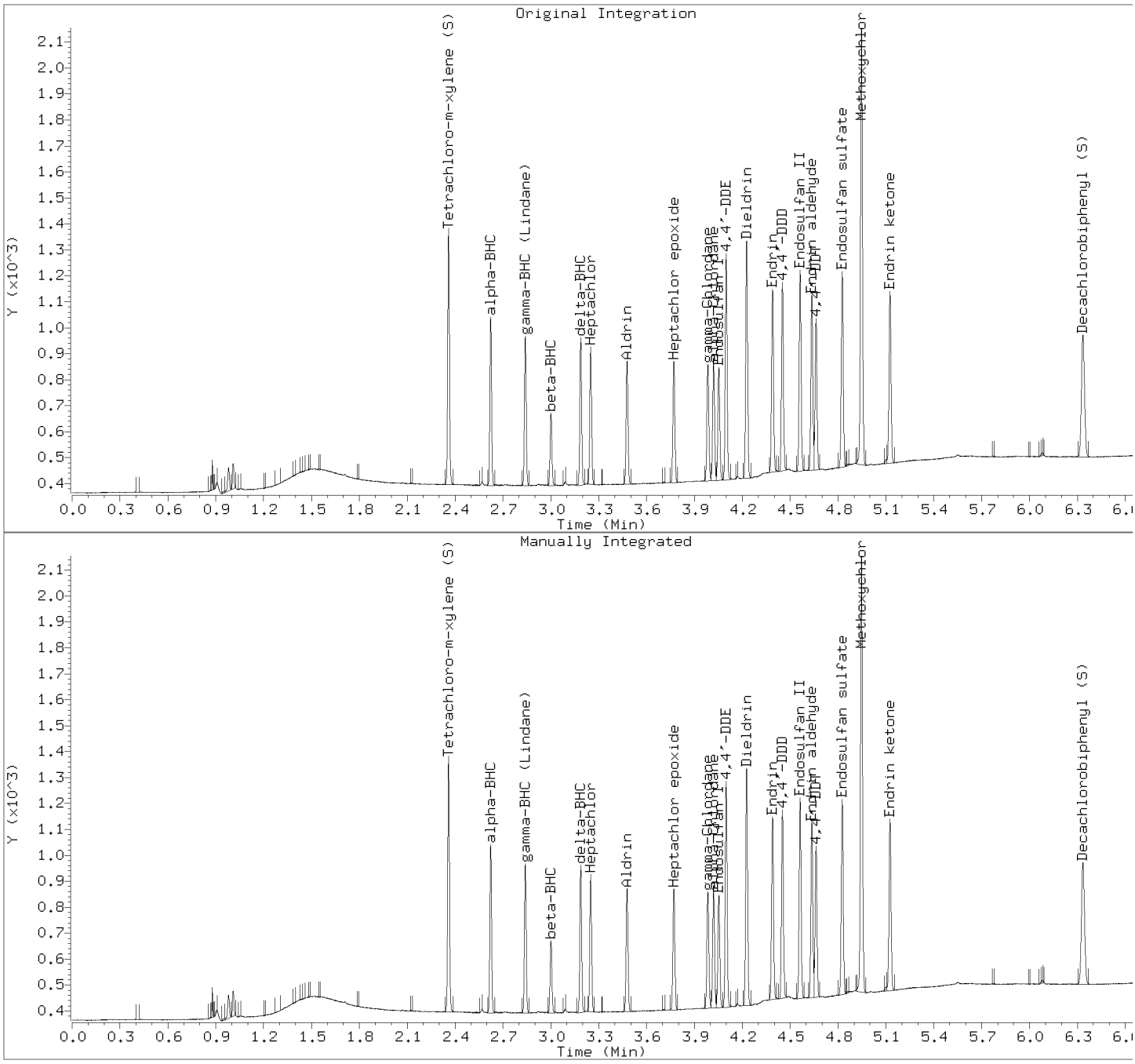
Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:43 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	483	483
beta-BHC	218	218
delta-BHC	438	438
gamma-BHC (Lindane)	439	439
Heptachlor	421	421
Aldrin	391	391
Heptachlor epoxide	388	388
Endosulfan I	363	363
Dieldrin	756	756
4,4'-DDE	710	710
Endrin	599	599
Endosulfan II	659	659
4,4'-DDD	599	599
Endosulfan sulfate	641	641

4,4'-DDT	478	478
Methoxychlor	1448	1448
Endrin ketone	585	585
Endrin aldehyde	574	574
alpha-Chlordane	377	377
gamma-Chlordane	384	384
Tetrachloro-m-xylene (S)	744	744
Decachlorobiphenyl (S)	638	638

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.888	11	50	4.669	0.0427			
0.896	121	211	1.738	0.1802			
0.910	292	317	1.086	0.2708			
0.941	522	599	1.148	0.5118			
0.962	475	566	1.192	0.4836			
1.004	8	17	2.029	0.0145			
1.041	4	11	2.558	0.0093			
1.093	7	9	1.245	0.0076			
1.129	5	10	2.000	0.0085			
1.341	4	2	0.471	0.0017			
1.372	11	21	1.970	0.0179			
1.399	2	9	3.830	0.0076			
1.404	3	12	3.934	0.0102			
1.407	4	16	4.533	0.0136			
1.416	8	20	2.608	0.0170			
1.422	12	26	2.116	0.0222			
1.433	13	23	1.769	0.0196			
1.441	7	24	3.692	0.0205			
1.443	3	24	8.541	0.0205			
1.448	7	31	4.539	0.0264			
1.451	23	37	1.609	0.0316			
1.461	11	26	2.295	0.0222			
1.472	11	24	2.273	0.0205			
1.479	9	26	2.905	0.0222			
1.486	8	22	2.628	0.0187			
1.492	5	18	3.279	0.0153			
1.498	2	15	6.250	0.0128			
1.501	2	15	6.410	0.0128			
1.506	5	13	2.519	0.0111			
1.790	7	13	1.851	0.0111			
1.885	4764	6826	1.433	5.8327	$	1 Tetrachloro-m-xylene (S)	
2.099	58	80	1.384	0.0683			
2.219	4	15	3.363	0.0128			
2.238	3344	4715	1.410	4.0289		2 alpha-BHC	
2.412	3	14	4.965	0.0119			
2.414	11	20	1.776	0.0170			
2.473	3047	4168	1.368	3.5615		3 gamma-BHC (Lindane)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.558	2	6	2.857	0.0051		
2.617	1353	1797	1.328	1.5355	4 beta-BHC	
2.711	3110	4156	1.336	3.5512	5 Heptachlor	
2.813	2985	3994	1.338	3.4128	6 delta-BHC	
2.897	16	24	1.548	0.0205		
2.923	2781	3618	1.301	3.0915	7 Aldrin	
3.003	12	16	1.346	0.0136		
3.116	3	6	2.335	0.0051		
3.157	4	8	1.980	0.0068		
3.201	7	16	2.253	0.0136		
3.280	2705	3401	1.257	2.9061	8 Heptachlor epoxide	
3.435	2728	3460	1.268	2.9565	9 gamma-Chlordane	
3.500	2638	3321	1.259	2.8377	10 alpha-Chlordane	
3.545	2546	3141	1.234	2.6839	11 Endosulfan I	
3.621	5220	6511	1.247	5.5636	12 4,4'-DDE	
3.665	2	10	4.348	0.0085		
3.738	5606	6979	1.245	5.9635	13 Dieldrin	
3.834	2	8	3.941	0.0068		
3.837	3	8	2.469	0.0068		
3.896	10	15	1.476	0.0128		
3.957	4945	6157	1.245	5.2611	14 Endrin	
4.016	4372	5214	1.193	4.4553	15 4,4'-DDD	
4.054	4	13	3.652	0.0111		
4.099	4	15	3.896	0.0128		
4.101	8	20	2.360	0.0170		
4.137	4697	5800	1.235	4.9560	16 Endosulfan II	
4.186	16	28	1.799	0.0239		
4.207	4671	5901	1.263	5.0423	17 4,4'-DDT	
4.290	3995	4930	1.234	4.2126	18 Endrin aldehyde	
4.376	15	24	1.609	0.0205		
4.428	4656	5628	1.209	4.8091	19 Endosulfan sulfate	
4.543	2	7	2.979	0.0059		
4.549	3	7	2.295	0.0059		
4.571	22	29	1.347	0.0247		
4.633	2	7	3.398	0.0059		
4.663	11735	13839	1.179	11.8338	20 Methoxychlor	
4.716	2	8	3.404	0.0068		
4.851	4087	4916	1.203	4.2007	21 Endrin ketone	
5.015	46	58	1.248	0.0495		
5.116	3	9	3.273	0.0076		
5.125	2	11	4.681	0.0093		
5.135	6	14	2.295	0.0119		
5.144	3	12	4.633	0.0102		
5.156	10	17	1.735	0.0145		
5.158	2	16	7.805	0.0136		
5.161	3	17	6.367	0.0145		
5.166	6	18	3.030	0.0153		
5.172	4	20	4.902	0.0170		
5.176	4	19	4.715	0.0162		
5.180	4	17	4.315	0.0145		
5.186	12	22	1.913	0.0187		
5.193	3	21	6.908	0.0179		
5.196	4	22	5.023	0.0187		
5.200	10	24	2.297	0.0205		
5.209	6	20	3.448	0.0170		
5.213	3	21	7.807	0.0179		
5.216	5	22	4.331	0.0187		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.221	8	23	2.864	0.0196		
5.228	6	21	3.697	0.0179		
5.232	5	23	4.220	0.0196		
5.237	9	20	2.273	0.0170		
5.244	5	22	4.681	0.0187		
5.248	2	21	9.545	0.0179		
5.251	9	23	2.602	0.0196		
5.259	4	21	5.072	0.0179		
5.262	4	23	5.913	0.0196		
5.266	6	22	3.487	0.0187		
5.271	5	21	4.234	0.0179		
5.276	5	21	4.234	0.0179		
5.284	9	22	2.552	0.0187		
5.288	4	21	4.784	0.0179		
5.292	6	22	3.509	0.0187		
5.296	4	25	6.631	0.0213		
5.298	5	23	4.299	0.0196		
5.308	10	26	2.697	0.0222		
5.312	12	25	2.153	0.0213		
5.320	4	22	4.922	0.0187		
5.325	9	31	3.452	0.0264		
5.328	4	34	9.140	0.0290		
5.335	20	46	2.276	0.0393		
5.338	20	40	2.024	0.0341		
5.350	5	24	4.412	0.0205		
5.354	7	22	3.064	0.0187		
5.362	6	20	3.150	0.0170		
5.367	3	21	7.216	0.0179		
5.370	4	20	5.291	0.0170		
5.372	5	22	4.391	0.0187		
5.377	3	20	5.764	0.0170		
5.382	7	22	2.949	0.0187		
5.387	4	19	4.419	0.0162		
5.393	4	17	4.156	0.0145		
5.397	4	18	4.500	0.0153		
5.399	4	21	5.048	0.0179		
5.405	4	17	4.416	0.0145		
5.409	4	19	4.822	0.0162		
5.416	7	18	2.695	0.0153		
5.421	5	21	4.217	0.0179		
5.424	4	27	6.136	0.0230		
5.441	157	147	0.939	0.1256		
5.465	3	14	4.682	0.0119		
5.474	4	10	2.639	0.0085		
5.478	3	10	3.205	0.0085		
5.497	3	11	4.183	0.0093		
5.646	4532	4334	0.956	3.7033	$ 24 Decachlorobiphenyl (S)	
6.107	2	10	4.386	0.0085		
6.111	3	9	3.321	0.0076		
6.223	2	7	3.302	0.0059		
6.330	3	6	2.264	0.0051		
6.338	2	7	3.196	0.0059		
6.615	3	6	2.344	0.0051		
6.684	2	8	3.774	0.0068		
6.772	2	9	4.500	0.0076		
6.902	2	11	5.307	0.0093		
6.907	2	11	4.867	0.0093		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.923	3	9	3.000	0.0076		
	92922	117028		100.000		

Total unknown % height = 3.60

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	4764	0.10000	0.0942			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	3343	0.05000	0.0491			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.472	2.472	0.000	3047	0.05000	0.0485			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	1352	0.05000	0.0457			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	2985	0.05000	0.0490			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	3109	0.05000	0.0476			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	2780	0.05000	0.0484			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.279	3.279	0.000	2704	0.05000	0.0475			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.434	3.436	-0.002	2727	0.05000	0.0481			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	2637	0.05000	0.0473			
11 Endosulfan I						CAS #: 959-98-8		
3.544	3.544	0.000	2545	0.05000	0.0479			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.620	3.621	-0.001	5219	0.10000	0.0982			
13 Dieldrin					CAS #: 60-57-1			
3.737	3.738	-0.001	5605	0.10000	0.0979			
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	4944	0.10000	0.0988			
15 4,4'-DDD					CAS #: 72-54-8			
4.015	4.016	-0.001	4371	0.10000	0.0984			
16 Endosulfan II					CAS #: 33213-65-9			
4.136	4.137	-0.001	4696	0.10000	0.0956			
17 4,4'-DDT					CAS #: 50-29-3			
4.207	4.208	-0.001	4671	0.10000	0.0994			
18 Endrin aldehyde					CAS #: 7421-36-3			
4.289	4.289	0.000	3995	0.10000	0.0953			
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.427	4.428	-0.001	4656	0.10000	0.0965			
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.662	0.001	11734	0.50000	0.479			
21 Endrin ketone					CAS #: 53494-70-5			
4.851	4.850	0.001	4087	0.10000	0.0958			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.645	5.646	-0.001	4531	0.10000	0.0912			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0491	
58-89-9	gamma-BHC (Lindane)	0.0485	
319-85-7	beta-BHC	0.0457	
76-44-8	delta-BHC	0.0490	
319-86-8	Heptachlor	0.0476	
309-00-2	Aldrin	0.0484	
1024-57-3	Heptachlor epoxide	0.0475	
5103-74-2	gamma-Chlordane	0.0481	
5103-71-9	alpha-Chlordane	0.0473	
959-98-8	Endosulfan I	0.0479	
72-55-9	4,4'-DDE	0.0982	
60-57-1	Dieldrin	0.0979	
72-20-8	Endrin	0.0988	
72-54-8	4,4'-DDD	0.0984	
33213-65-9	Endosulfan II	0.0956	
50-29-3	4,4'-DDT	0.0994	
7421-36-3	Endrin aldehyde	0.0953	
1031-07-8	Endosulfan sulfate	0.0965	
72-43-5	Methoxychlor	0.479	
53494-70-5	Endrin ketone	0.0958	
	Tetrachloro-m-xylene (S)	0.0942	
	Decachlorobiphenyl (S)	0.0912	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d

Date : 27-JUN-2019 15:53

Client ID: CAL5

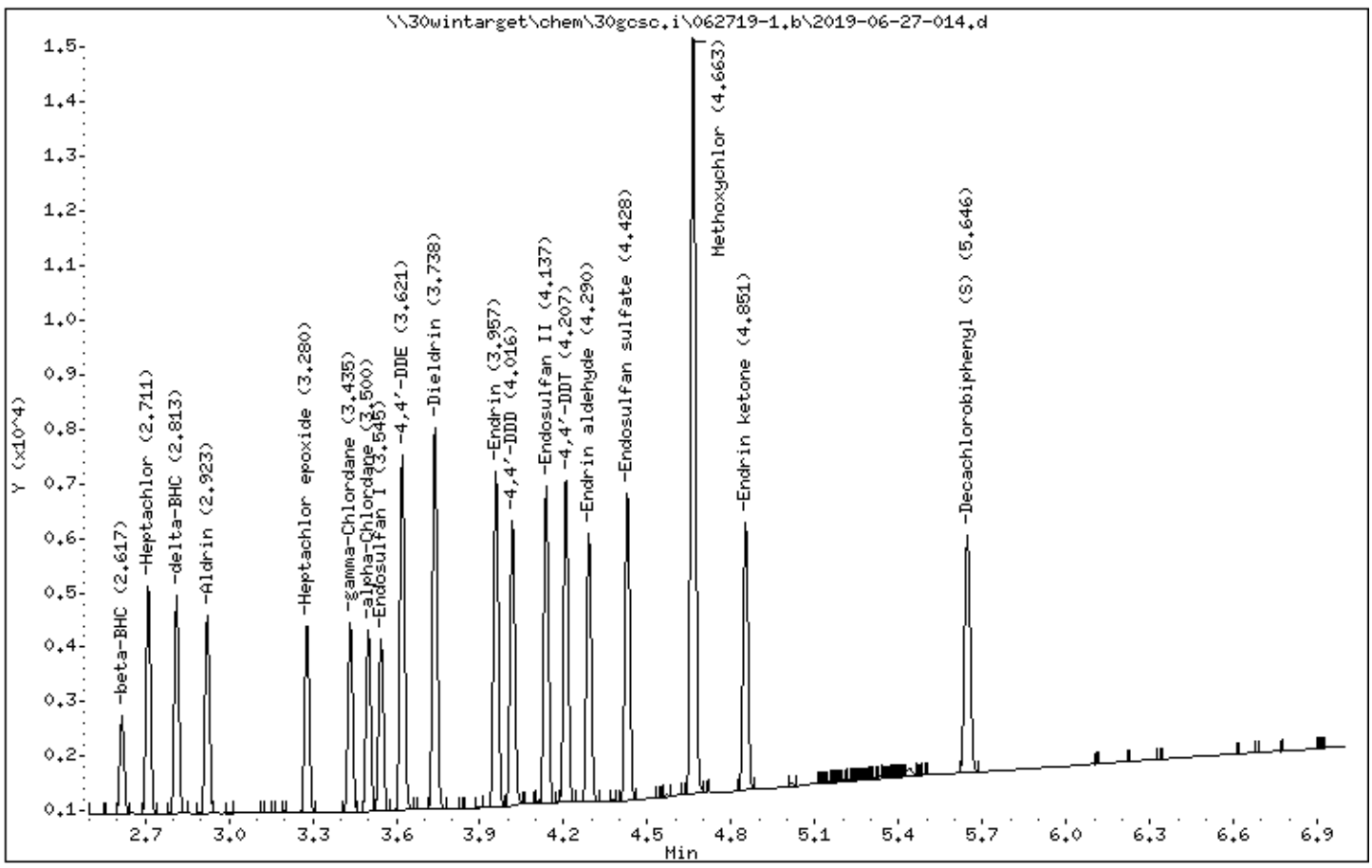
Instrument: 30gcsc.i

Sample Info: CAL5, 92179:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:53 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	3343	3343
beta-BHC	1352	1352
delta-BHC	2985	2985
gamma-BHC (Lindane)	3047	3047
Heptachlor	3109	3109
Aldrin	2780	2780
Heptachlor epoxide	2704	2704
Endosulfan I	2545	2545
Dieldrin	5605	5605
4,4'-DDE	5219	5219
Endrin	4944	4944
Endosulfan II	4696	4696
4,4'-DDD	4371	4371
Endosulfan sulfate	4656	4656
4,4'-DDT	4671	4671
Methoxychlor	11734	11734
Endrin ketone	4087	4087
Endrin aldehyde	3995	3995
alpha-Chlordane	2637	2637
gamma-Chlordane	2727	2727
Tetrachloro-m-xylene (S)	4764	4764
Decachlorobiphenyl (S)	4531	4531

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.170	1	2	1.852	0.0055			
0.592	1	2	1.342	0.0055			
0.864	1	4	3.810	0.0110			
0.879	82	215	2.625	0.5951			
0.907	78	74	0.949	0.2048			
0.952	2	5	2.661	0.0138			
0.981	105	145	1.388	0.4013			
1.010	97	146	1.512	0.4041			
1.431	2	4	1.818	0.0110			
1.438	1	4	3.053	0.0110			
1.710	2	6	2.913	0.0166			
1.797	4	6	1.681	0.0166			
2.130	3	4	1.404	0.0110			
2.359	1719	2298	1.337	6.3612	$	1 Tetrachloro-m-xylene (S)	
2.569	4	9	2.495	0.0249			
2.623	1163	1550	1.333	4.2906		2 alpha-BHC	
2.649	1	3	2.857	0.0083			
2.840	1057	1376	1.302	3.8089		3 gamma-BHC (Lindane)	
3.001	498	634	1.273	1.7550		4 beta-BHC	
3.098	2	3	1.376	0.0083			
3.187	1065	1349	1.267	3.7342		5 delta-BHC	
3.223	12	14	1.131	0.0387			
3.250	1018	1258	1.235	3.4823		6 Heptachlor	
3.478	942	1140	1.210	3.1557		7 Aldrin	
3.710	2	4	1.902	0.0110			
3.742	1	4	3.361	0.0110			
3.771	920	1123	1.221	3.1086		8 Heptachlor epoxide	
3.872	1	2	1.980	0.0055			
3.902	1	3	2.778	0.0083			
3.984	905	1077	1.190	2.9813		9 gamma-Chlordane	
4.020	891	1057	1.187	2.9259		10 alpha-Chlordane	
4.052	860	1014	1.178	2.8069		11 Endosulfan I	
4.099	1733	2118	1.222	5.8629		12 4,4'-DDE	
4.169	22	27	1.253	0.0747			
4.228	1843	2180	1.183	6.0346		13 Dieldrin	
4.275	3	5	1.998	0.0138			
4.308	1	5	4.587	0.0138			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.336	6	6	1.002	0.0166			
4.347	1	4	3.810	0.0110			
4.389	1514	1756	1.160	4.8608		14 Endrin	
4.451	1476	1793	1.215	4.9633		15 4,4'-DDD	
4.487	6	14	2.365	0.0387			
4.495	10	20	1.963	0.0553			
4.500	3	14	4.154	0.0387			
4.562	1586	1859	1.172	5.1460		16 Endosulfan II	
4.635	1366	1593	1.166	4.4096		17 Endrin aldehyde	
4.662	1275	1518	1.191	4.2020		18 4,4'-DDT	
4.700	2	7	3.365	0.0193			
4.706	3	7	2.652	0.0193			
4.826	1532	1763	1.151	4.8802		19 Endosulfan sulfate	
4.867	2	5	2.315	0.0138			
4.910	11	18	1.617	0.0498			
4.914	6	23	3.802	0.0636			
4.947	3584	4165	1.162	11.5323		20 Methoxychlor	
5.004	3	8	2.721	0.0221			
5.126	1398	1549	1.108	4.2878		21 Endrin ketone	
5.549	4	9	2.564	0.0249			
5.552	2	8	5.063	0.0221			
5.611	1	3	2.679	0.0083			
5.768	1	4	3.279	0.0110			
6.082	45	38	0.842	0.1051			
6.335	1454	1068	0.735	2.9564	$	24 Decachlorobiphenyl (S)	
6.526	1	3	2.542	0.0083			
	30335	36125		100.000			

Total unknown % height = 2.45

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.358	2.359	-0.001	1719	0.10000	0.0931			
2 alpha-BHC							CAS #: 319-84-6	
2.623	2.623	0.000	1163	0.05000	0.0482			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.839	2.840	-0.001	1056	0.05000	0.0479			
4 beta-BHC							CAS #: 319-85-7	
3.000	3.001	-0.001	498	0.05000	0.0452			
5 delta-BHC							CAS #: 319-86-8	
3.186	3.187	-0.001	1064	0.05000	0.0480			
6 Heptachlor							CAS #: 76-44-8	
3.249	3.249	0.000	1018	0.05000	0.0474			
7 Aldrin							CAS #: 309-00-2	
3.477	3.477	0.000	941	0.05000	0.0476			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.770	3.770	0.000	919	0.05000	0.0462			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.983	3.983	0.000	905	0.05000	0.0469			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.019	4.020	-0.001	890	0.05000	0.0470			
11 Endosulfan I							CAS #: 959-98-8	
4.052	4.053	-0.001	860	0.05000	0.0470			

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	1732	0.10000	0.0969			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	1843	0.10000	0.0961			
14 Endrin						CAS #: 72-20-8		
4.388	4.389	-0.001	1514	0.10000	0.0958			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	1475	0.10000	0.0972			
16 Endosulfan II						CAS #: 33213-65-9		
4.561	4.562	-0.001	1586	0.10000	0.0943			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	1366	0.10000	0.0940			
18 4,4'-DDT						CAS #: 50-29-3		
4.661	4.662	-0.001	1274	0.10000	0.106			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.825	4.826	-0.001	1531	0.10000	0.0947			
20 Methoxychlor						CAS #: 72-43-5		
4.946	4.947	-0.001	3583	0.50000	0.485			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	1398	0.10000	0.0958			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.335	6.334	0.001	1453	0.10000	0.0910			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

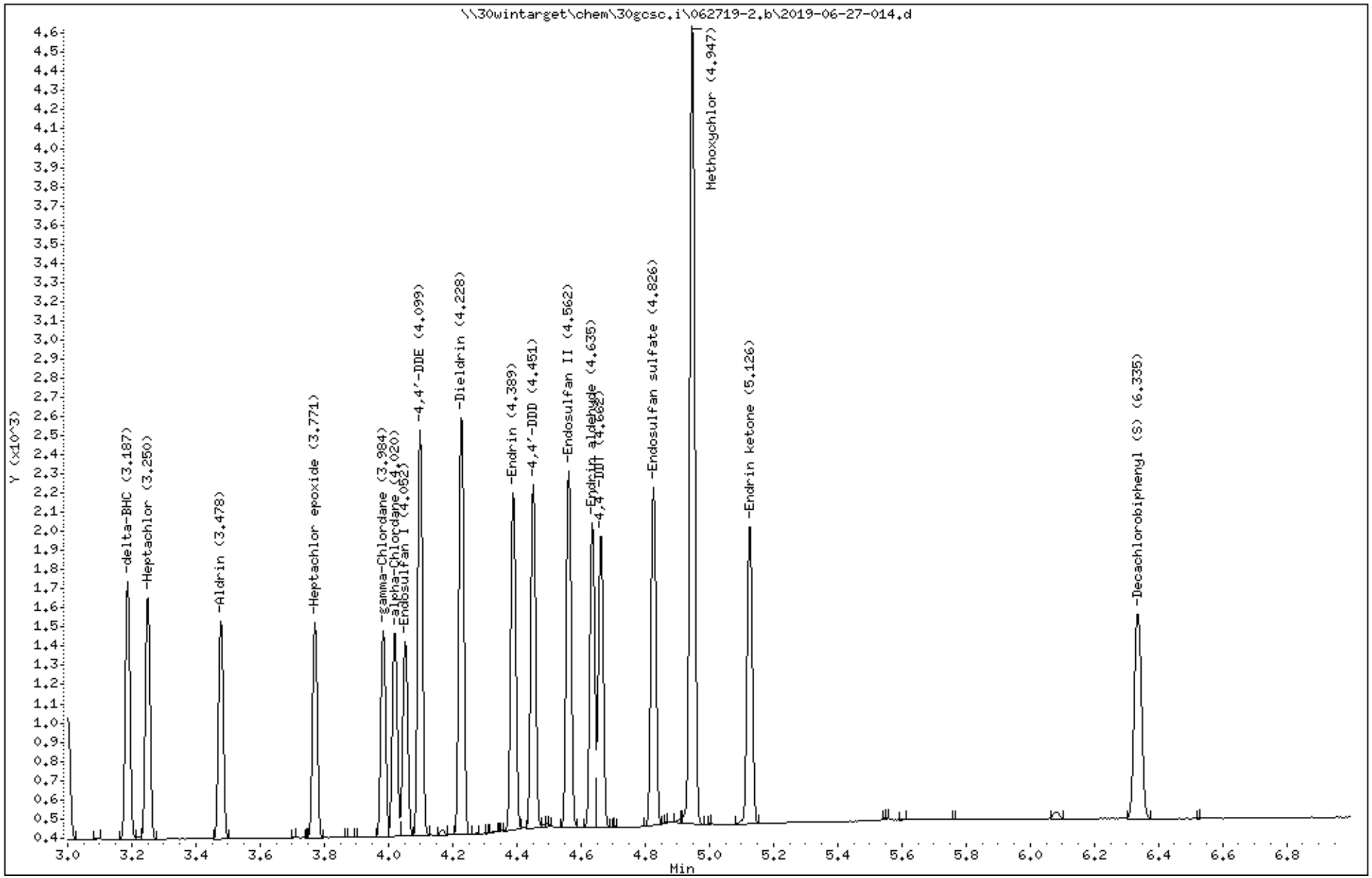
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0482	
58-89-9	gamma-BHC (Lindane)	0.0479	
319-85-7	beta-BHC	0.0452	
319-86-8	delta-BHC	0.0480	
76-44-8	Heptachlor	0.0474	
309-00-2	Aldrin	0.0476	
1024-57-3	Heptachlor epoxide	0.0462	
5103-74-2	gamma-Chlordane	0.0469	
5103-71-9	alpha-Chlordane	0.0470	
959-98-8	Endosulfan I	0.0470	
72-55-9	4,4'-DDE	0.0969	
60-57-1	Dieldrin	0.0961	
72-20-8	Endrin	0.0958	
72-54-8	4,4'-DDD	0.0972	
33213-65-9	Endosulfan II	0.0943	
7421-36-3	Endrin aldehyde	0.0940	
50-29-3	4,4'-DDT	0.106	
1031-07-8	Endosulfan sulfate	0.0947	
72-43-5	Methoxychlor	0.485	
53494-70-5	Endrin ketone	0.0958	
	Tetrachloro-m-xylene (S)	0.0931	
	Decachlorobiphenyl (S)	0.0910	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Date : 27-JUN-2019 15:53
Client ID: CAL5
Sample Info: CAL5, 92179:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:53 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1163	1163
beta-BHC	498	498
delta-BHC	1064	1064
gamma-BHC (Lindane)	1056	1056
Heptachlor	1018	1018
Aldrin	941	941
Heptachlor epoxide	919	919
Endosulfan I	860	860
Dieldrin	1843	1843
4,4'-DDE	1732	1732
Endrin	1514	1514
Endosulfan II	1586	1586
4,4'-DDD	1475	1475
Endosulfan sulfate	1531	1531
4,4'-DDT	1274	1274
Methoxychlor	3583	3583
Endrin ketone	1398	1398
Endrin aldehyde	1366	1366
alpha-Chlordane	890	890
gamma-Chlordane	905	905
Tetrachloro-m-xylene (S)	1719	1719
Decachlorobiphenyl (S)	1453	1453

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	302	454	1.505	0.1941		
0.911	543	566	1.042	0.2420		
0.941	868	901	1.038	0.3853		
0.962	774	784	1.013	0.3352		
1.005	140	110	0.788	0.0470		
1.037	10	25	2.591	0.0106		
1.039	9	28	2.982	0.0119		
1.045	8	25	3.012	0.0106		
1.131	6	11	1.705	0.0047		
1.216	3	4	1.390	0.0017		
1.312	2	7	3.084	0.0029		
1.316	4	10	2.519	0.0042		
1.331	11	27	2.387	0.0115		
1.333	3	27	8.824	0.0115		
1.338	17	32	1.847	0.0136		
1.346	7	26	3.641	0.0111		
1.355	13	30	2.285	0.0128		
1.360	6	35	5.963	0.0149		
1.372	103	112	1.088	0.0478		
1.386	11	46	4.267	0.0196		
1.391	15	46	3.028	0.0196		
1.395	11	45	4.253	0.0192		
1.402	17	49	2.924	0.0209		
1.408	19	48	2.512	0.0205		
1.413	12	49	4.250	0.0209		
1.416	9	52	5.759	0.0222		
1.419	14	54	3.927	0.0230		
1.423	21	55	2.633	0.0235		
1.428	13	51	4.028	0.0218		
1.434	12	50	4.325	0.0213		
1.437	11	51	4.802	0.0218		
1.452	73	70	0.961	0.0299		
1.461	5	47	10.240	0.0200		
1.463	16	48	2.930	0.0205		
1.483	97	83	0.857	0.0354		
1.501	8	25	2.952	0.0106		
1.506	3	21	6.562	0.0089		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.509	7	22	3.022	0.0094		
1.514	4	16	3.874	0.0068		
1.522	2	8	3.404	0.0034		
1.648	3	9	3.203	0.0038		
1.652	3	10	3.241	0.0042		
1.791	17	28	1.682	0.0119		
1.885	9646	13651	1.415	5.8379	$ 1 Tetrachloro-m-xylene (S)	
1.935	3	7	2.473	0.0029		
2.100	115	159	1.387	0.0679		
2.238	6929	9800	1.414	4.1910	2 alpha-BHC	
2.416	26	34	1.284	0.0145		
2.474	6251	8579	1.372	3.6688	3 gamma-BHC (Lindane)	
2.554	3	10	3.135	0.0042		
2.557	3	13	5.118	0.0055		
2.561	8	14	1.804	0.0059		
2.617	2729	3576	1.310	1.5292	4 beta-BHC	
2.654	4	9	2.426	0.0038		
2.712	6220	8124	1.306	3.4742	5 Heptachlor	
2.793	11	19	1.707	0.0081		
2.813	6118	8044	1.315	3.4400	6 delta-BHC	
2.899	25	41	1.650	0.0175		
2.923	5655	7259	1.284	3.1043	7 Aldrin	
2.953	2	5	2.336	0.0021		
3.004	22	28	1.246	0.0119		
3.157	4	10	2.635	0.0042		
3.203	48	62	1.305	0.0265		
3.280	5406	6853	1.268	2.9307	8 Heptachlor epoxide	
3.347	2	5	2.212	0.0021		
3.436	5465	6853	1.254	2.9307	9 gamma-Chlordane	
3.501	5245	6480	1.235	2.7711	10 alpha-Chlordane	
3.546	5095	6387	1.254	2.7314	11 Endosulfan I	
3.622	10623	13420	1.263	5.7391	12 4,4'-DDE	
3.685	3	10	3.521	0.0042		
3.739	11352	14021	1.235	5.9961	13 Dieldrin	
3.802	3	7	2.509	0.0029		
3.838	5	12	2.273	0.0051		
3.897	27	36	1.351	0.0153		
3.958	9931	12132	1.222	5.1882	14 Endrin	
4.017	8951	10888	1.216	4.6562	15 4,4'-DDD	
4.053	28	53	1.864	0.0226		
4.063	8	22	2.828	0.0094		
4.087	7	12	1.821	0.0051		
4.103	15	22	1.495	0.0094		
4.138	9431	11582	1.228	4.9530	16 Endosulfan II	
4.186	32	51	1.573	0.0218		
4.209	9477	11801	1.245	5.0467	17 4,4'-DDT	
4.257	3	8	2.778	0.0034		
4.291	7942	9471	1.193	4.0503	18 Endrin aldehyde	
4.376	39	51	1.305	0.0218		
4.429	9304	11230	1.207	4.8025	19 Endosulfan sulfate	
4.571	13	27	2.024	0.0115		
4.603	4	14	3.365	0.0059		
4.610	13	23	1.738	0.0098		
4.620	7	19	2.919	0.0081		
4.624	4	20	5.602	0.0085		
4.631	7	23	3.067	0.0098		
4.665	23603	28985	1.228	12.4036	20 Methoxychlor	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.720	68	70	1.031	0.0299		
4.852	8247	9851	1.195	4.2128	21 Endrin ketone	
5.016	64	90	1.400	0.0384		
5.059	2	5	2.155	0.0021		
5.199	3	7	2.303	0.0029		
5.219	3	7	2.789	0.0029		
5.335	20	41	2.002	0.0175		
5.338	17	39	2.254	0.0166		
5.408	2	8	3.774	0.0034		
5.413	2	8	3.239	0.0034		
5.440	288	284	0.987	0.1214		
5.465	2	12	5.714	0.0051		
5.468	3	12	4.380	0.0051		
5.474	3	12	4.669	0.0051		
5.478	2	12	4.878	0.0051		
5.492	2	14	5.645	0.0059		
5.499	8	19	2.366	0.0081		
5.505	6	18	2.791	0.0076		
5.517	3	10	3.378	0.0042		
5.525	3	10	3.448	0.0042		
5.551	3	9	3.030	0.0038		
5.647	8933	8631	0.966	3.6910	$ 24 Decachlorobiphenyl (S)	
5.687	4	11	2.657	0.0047		
5.923	2	6	2.542	0.0025		
5.977	3	11	4.231	0.0047		
6.016	2	7	3.271	0.0029		
6.052	3	8	3.162	0.0034		
6.109	6	18	2.990	0.0076		
6.111	2	19	8.297	0.0081		
6.115	4	20	5.348	0.0085		
6.118	6	19	3.021	0.0081		
6.143	2	7	3.333	0.0029		
6.228	2	8	3.376	0.0034		
6.234	2	11	4.803	0.0047		
6.243	4	11	2.594	0.0047		
6.252	3	12	4.706	0.0051		
6.255	2	13	5.991	0.0055		
6.259	3	14	5.072	0.0059		
6.279	5	14	2.998	0.0059		
6.287	3	13	4.745	0.0055		
6.290	3	14	4.473	0.0059		
6.294	4	15	3.513	0.0064		
6.301	3	13	4.483	0.0055		
6.308	3	13	3.812	0.0055		
6.313	3	12	3.509	0.0051		
6.325	6	13	2.338	0.0055		
6.338	3	12	3.834	0.0051		
6.350	3	14	4.620	0.0059		
6.354	3	14	4.545	0.0059		
6.357	2	14	6.965	0.0059		
6.364	3	15	5.357	0.0064		
6.367	6	17	2.724	0.0072		
6.380	5	16	3.239	0.0068		
6.385	3	12	4.196	0.0051		
6.393	2	12	5.286	0.0051		
6.404	3	10	3.378	0.0042		
6.409	4	12	2.941	0.0051		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.422	3	11	3.437	0.0047		
6.435	2	10	4.545	0.0042		
6.456	3	9	2.744	0.0038		
6.462	2	10	4.348	0.0042		
6.566	2	6	3.000	0.0025		
6.781	2	10	4.717	0.0042		
	186917	233834		100.000		

Total unknown % height = 2.65

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.885	1.884	0.001	9645	0.20000	0.191			
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	6928	0.10000	0.102			(A)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.474	2.472	0.002	6251	0.10000	0.0996			
4 beta-BHC						CAS #: 319-85-7		
2.617	2.617	0.000	2729	0.10000	0.0922			
6 delta-BHC						CAS #: 76-44-8		
2.813	2.812	0.001	6118	0.10000	0.100			(A)
5 Heptachlor						CAS #: 319-86-8		
2.712	2.711	0.001	6219	0.10000	0.0951			
7 Aldrin						CAS #: 309-00-2		
2.923	2.922	0.001	5655	0.10000	0.0985			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	5406	0.10000	0.0950			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.436	3.436	0.000	5464	0.10000	0.0963			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.499	0.001	5245	0.10000	0.0940			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	5095	0.10000	0.0959			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.622	3.621	0.001	10623	0.20000	0.200			
13 Dieldrin					CAS #: 60-57-1			
3.739	3.738	0.001	11351	0.20000	0.198			
14 Endrin					CAS #: 72-20-8			
3.958	3.957	0.001	9930	0.20000	0.198			
15 4,4'-DDD					CAS #: 72-54-8			
4.016	4.016	0.000	8951	0.20000	0.202		(A)	
16 Endosulfan II					CAS #: 33213-65-9			
4.137	4.137	0.000	9430	0.20000	0.192			
17 4,4'-DDT					CAS #: 50-29-3			
4.208	4.208	0.000	9477	0.20000	0.202		(A)	
18 Endrin aldehyde					CAS #: 7421-36-3			
4.290	4.289	0.001	7941	0.20000	0.189			
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.429	4.428	0.001	9304	0.20000	0.193			
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.662	0.002	23603	1.00000	0.964			
21 Endrin ketone					CAS #: 53494-70-5			
4.852	4.850	0.002	8246	0.20000	0.193			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.647	5.646	0.001	8932	0.20000	0.180			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.102	E
58-89-9	gamma-BHC (Lindane)	0.0996	
319-85-7	beta-BHC	0.0922	
76-44-8	delta-BHC	0.100	E
319-86-8	Heptachlor	0.0951	
309-00-2	Aldrin	0.0985	
1024-57-3	Heptachlor epoxide	0.0950	
5103-74-2	gamma-Chlordane	0.0963	
5103-71-9	alpha-Chlordane	0.0940	
959-98-8	Endosulfan I	0.0959	
72-55-9	4,4'-DDE	0.200	
60-57-1	Dieldrin	0.198	
72-20-8	Endrin	0.198	
72-54-8	4,4'-DDD	0.202	E
33213-65-9	Endosulfan II	0.192	
50-29-3	4,4'-DDT	0.202	E
7421-36-3	Endrin aldehyde	0.189	
1031-07-8	Endosulfan sulfate	0.193	
72-43-5	Methoxychlor	0.964	
53494-70-5	Endrin ketone	0.193	
	Tetrachloro-m-xylene (S)	0.191	
	Decachlorobiphenyl (S)	0.180	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d

Date : 27-JUN-2019 16:02

Client ID: CAL6

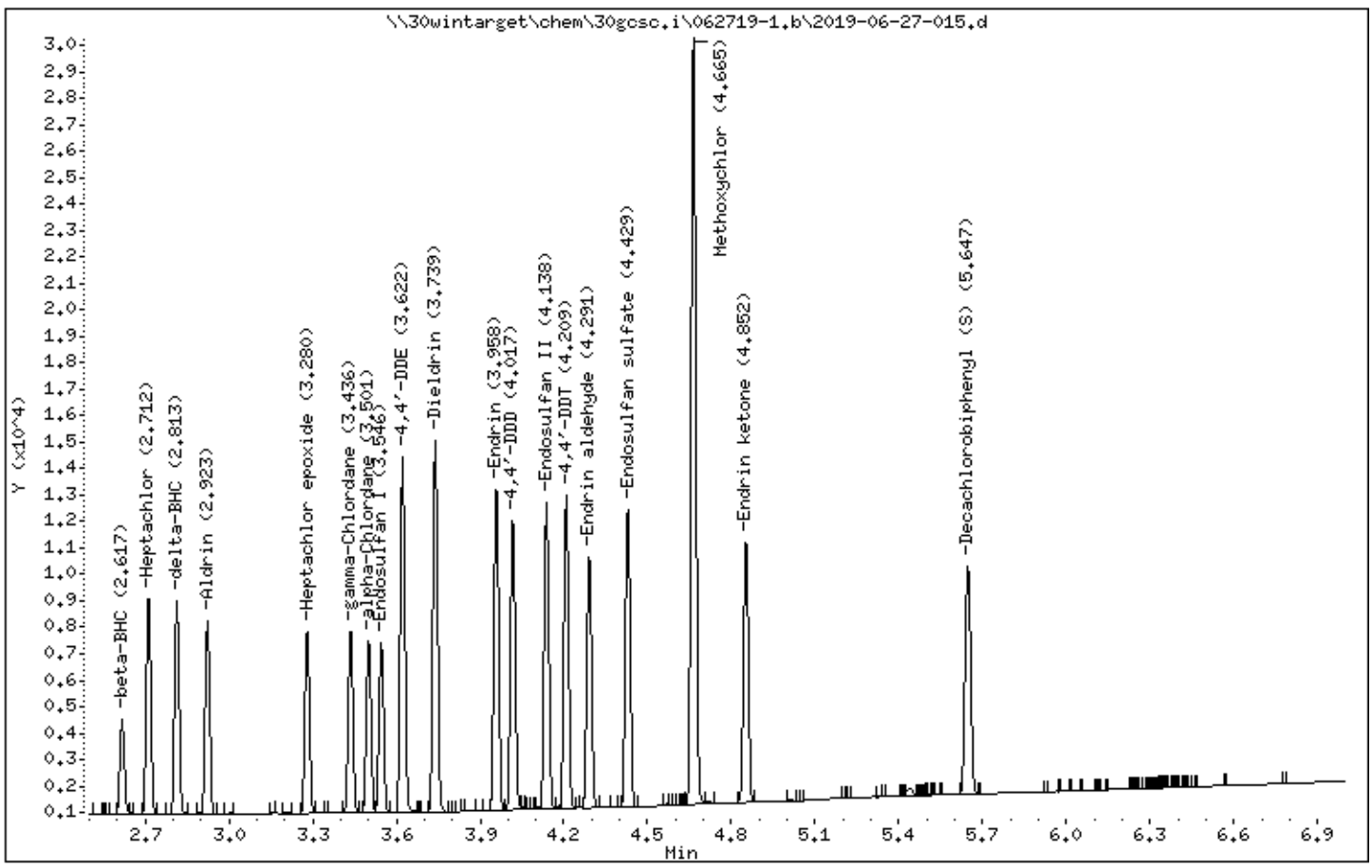
Instrument: 30gcsc.i

Sample Info: CAL6, 92180:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:02 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	6928	6928
beta-BHC	2729	2729
delta-BHC	6118	6118
gamma-BHC (Lindane)	6251	6251
Heptachlor	6219	6219
Aldrin	5655	5655
Heptachlor epoxide	5406	5406
Endosulfan I	5095	5095
Dieldrin	11351	11351
4,4'-DDE	10623	10623
Endrin	9930	9930
Endosulfan II	9430	9430
4,4'-DDD	8951	8951
Endosulfan sulfate	9304	9304
4,4'-DDT	9477	9477
Methoxychlor	23603	23603
Endrin ketone	8246	8246
Endrin aldehyde	7941	7941
alpha-Chlordane	5245	5245
gamma-Chlordane	5464	5464
Tetrachloro-m-xylene (S)	9645	9645
Decachlorobiphenyl (S)	8932	8932

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.227	1	2	1.439	0.0027			
0.865	1	4	2.740	0.0055			
0.879	155	335	2.165	0.4637			
0.906	144	138	0.957	0.1910			
0.954	25	30	1.193	0.0415			
0.982	169	216	1.280	0.2990			
1.010	178	214	1.204	0.2962			
1.055	13	17	1.292	0.0235			
1.105	1	4	3.030	0.0055			
1.315	1	3	2.727	0.0041			
1.338	1	3	2.290	0.0041			
1.369	1	3	2.322	0.0041			
1.429	2	5	2.315	0.0069			
1.559	3	7	2.121	0.0096			
1.602	1	3	2.885	0.0041			
1.710	3	9	2.928	0.0124			
1.795	2	4	1.818	0.0055			
1.912	14	20	1.474	0.0276			
2.129	3	5	1.736	0.0069			
2.359	3483	4645	1.334	6.4302	$	1 Tetrachloro-m-xylene (S)	
2.570	43	58	1.349	0.0802			
2.623	2402	3260	1.357	4.5129		2 alpha-BHC	
2.716	2	6	2.760	0.0083			
2.840	2161	2846	1.317	3.9398		3 gamma-BHC (Lindane)	
2.922	2	5	2.212	0.0069			
3.001	980	1247	1.272	1.7262		4 beta-BHC	
3.093	5	7	1.493	0.0096			
3.187	2181	2807	1.287	3.8858		5 delta-BHC	
3.223	19	24	1.267	0.0332			
3.250	2029	2491	1.227	3.4483		6 Heptachlor	
3.323	2	4	1.923	0.0055			
3.398	2	4	2.020	0.0055			
3.449	1	2	1.980	0.0027			
3.478	1908	2323	1.218	3.2158		7 Aldrin	
3.579	5	8	1.649	0.0110			
3.710	12	17	1.396	0.0235			
3.743	3	6	1.840	0.0083			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.747	1	5	4.098	0.0069			
3.771	1819	2172	1.194	3.0067		8 Heptachlor epoxide	
3.984	1807	2170	1.201	3.0040		9 gamma-Chlordane	
4.020	1760	2092	1.188	2.8960		10 alpha-Chlordane	
4.053	1713	1988	1.161	2.7520		11 Endosulfan I	
4.099	3521	4346	1.234	6.0163		12 4,4'-DDE	
4.170	38	48	1.258	0.0664			
4.228	3722	4411	1.185	6.1062		13 Dieldrin	
4.277	2	3	1.508	0.0041			
4.304	1	6	5.769	0.0083			
4.312	3	7	2.071	0.0096			
4.332	1	4	3.008	0.0055			
4.389	3025	3551	1.174	4.9157		14 Endrin	
4.420	2	9	5.455	0.0124			
4.452	2981	3688	1.237	5.1054		15 4,4'-DDD	
4.495	2	6	3.077	0.0083			
4.563	3172	3688	1.163	5.1054		16 Endosulfan II	
4.602	2	6	3.529	0.0083			
4.608	2	7	3.211	0.0096			
4.636	2698	3115	1.154	4.3121		17 Endrin aldehyde	
4.662	2631	3165	1.203	4.3814		18 4,4'-DDT	
4.703	3	6	2.174	0.0083			
4.756	1	3	2.540	0.0041			
4.826	3039	3550	1.168	4.9143		19 Endosulfan sulfate	
4.863	11	14	1.331	0.0193			
4.871	1	5	4.587	0.0069			
4.947	7162	8072	1.127	11.1776		20 Methoxychlor	
5.006	13	17	1.304	0.0235			
5.032	1	3	2.308	0.0041			
5.126	2804	3167	1.129	4.3841		21 Endrin ketone	
5.298	1	3	2.586	0.0041			
5.317	2	3	1.449	0.0041			
5.553	9	12	1.285	0.0166			
5.676	3	7	2.574	0.0096			
5.685	2	5	2.404	0.0069			
5.691	2	5	2.994	0.0069			
5.775	4	6	1.453	0.0083			
6.083	89	72	0.811	0.0996			
6.176	1	3	2.564	0.0041			
6.335	2818	2015	0.715	2.7894	$	24 Decachlorobiphenyl (S)	
	60832	72237		100.000			

Total unknown % height = 1.97

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	3482	0.20000	0.188			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	2402	0.10000	0.0996			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.840	2.840	0.000	2161	0.10000	0.0980			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	980	0.10000	0.0889			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	2180	0.10000	0.0984			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	2029	0.10000	0.0944			
7 Aldrin						CAS #: 309-00-2		
3.478	3.477	0.001	1907	0.10000	0.0964			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.771	3.770	0.001	1819	0.10000	0.0915			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.984	3.983	0.001	1807	0.10000	0.0936			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.020	4.020	0.000	1760	0.10000	0.0929			
11 Endosulfan I						CAS #: 959-98-8		
4.053	4.053	0.000	1712	0.10000	0.0937			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.099	4.098	0.001	3521	0.20000	0.197			
13 Dieldrin					CAS #: 60-57-1			
4.227	4.227	0.000	3722	0.20000	0.194			
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	3024	0.20000	0.191			
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	2981	0.20000	0.196			
16 Endosulfan II					CAS #: 33213-65-9			
4.562	4.562	0.000	3171	0.20000	0.188			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.636	4.635	0.001	2698	0.20000	0.186			
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	2631	0.20000	0.219			(A)
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.826	4.826	0.000	3039	0.20000	0.188			
20 Methoxychlor					CAS #: 72-43-5			
4.947	4.947	0.000	7162	1.00000	0.970			
21 Endrin ketone					CAS #: 53494-70-5			
5.126	5.125	0.001	2804	0.20000	0.192			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.334	0.001	2817	0.20000	0.176			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

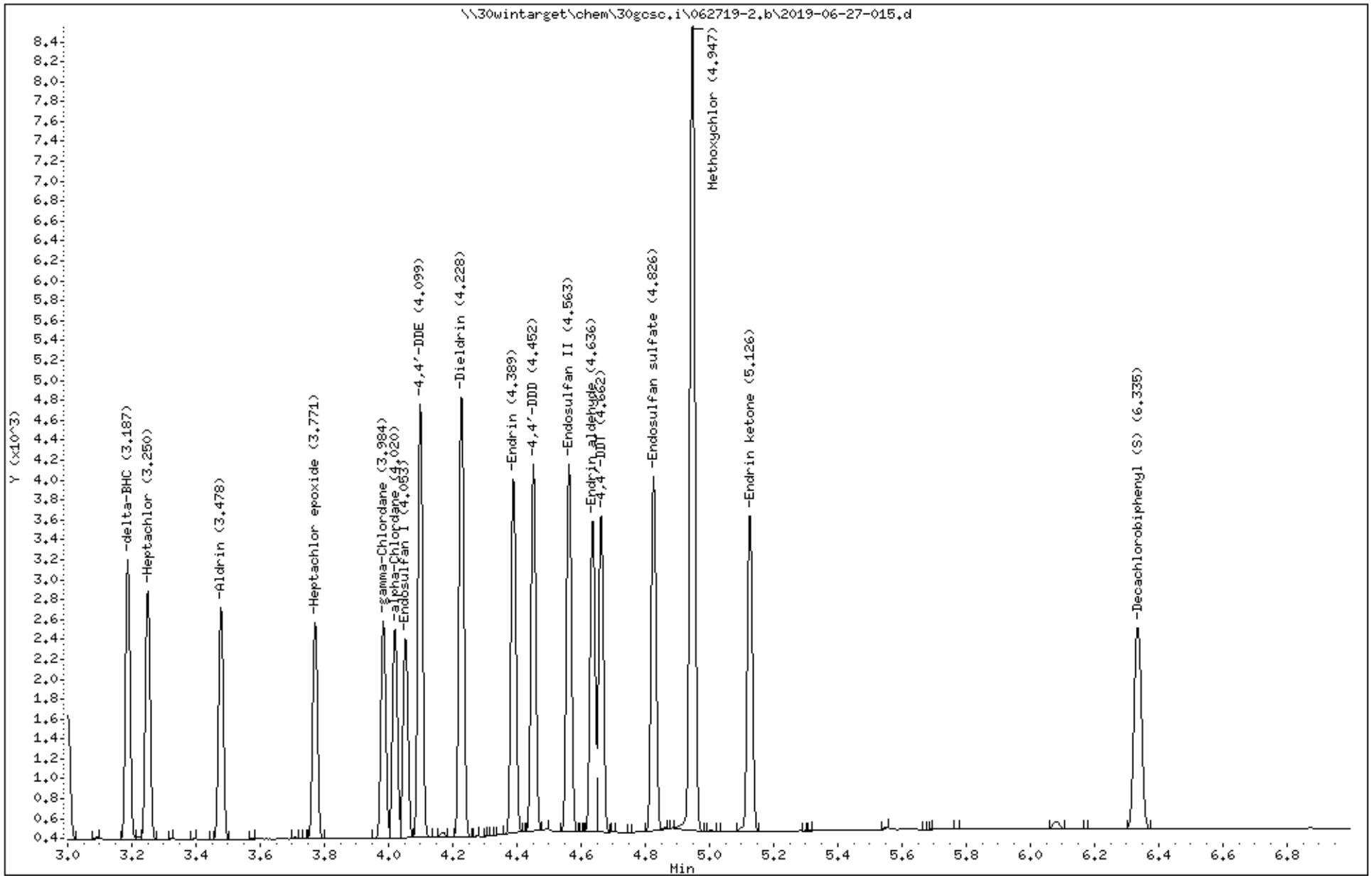
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0996	
58-89-9	gamma-BHC (Lindane)	0.0980	
319-85-7	beta-BHC	0.0889	
319-86-8	delta-BHC	0.0984	
76-44-8	Heptachlor	0.0944	
309-00-2	Aldrin	0.0964	
1024-57-3	Heptachlor epoxide	0.0915	
5103-74-2	gamma-Chlordane	0.0936	
5103-71-9	alpha-Chlordane	0.0929	
959-98-8	Endosulfan I	0.0937	
72-55-9	4,4'-DDE	0.197	
60-57-1	Dieldrin	0.194	
72-20-8	Endrin	0.191	
72-54-8	4,4'-DDD	0.196	
33213-65-9	Endosulfan II	0.188	
7421-36-3	Endrin aldehyde	0.186	
50-29-3	4,4'-DDT	0.219	E
1031-07-8	Endosulfan sulfate	0.188	
72-43-5	Methoxychlor	0.970	
53494-70-5	Endrin ketone	0.192	
----------	Tetrachloro-m-xylene (S)	0.188	
----------	Decachlorobiphenyl (S)	0.176	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Date : 27-JUN-2019 16:02
Client ID: CAL6
Sample Info: CAL6, 92180:1

Column phase: ZB-CLPesticides-2

Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:02 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	2402	2402
beta-BHC	980	980
delta-BHC	2180	2180
gamma-BHC (Lindane)	2161	2161
Heptachlor	2029	2029
Aldrin	1907	1907
Heptachlor epoxide	1819	1819
Endosulfan I	1712	1712
Dieldrin	3722	3722
4,4'-DDE	3521	3521
Endrin	3024	3024
Endosulfan II	3171	3171
4,4'-DDD	2981	2981
Endosulfan sulfate	3039	3039
4,4'-DDT	2631	2631
Methoxychlor	7162	7162
Endrin ketone	2804	2804
Endrin aldehyde	2698	2698
alpha-Chlordane	1760	1760
gamma-Chlordane	1807	1807
Tetrachloro-m-xylene (S)	3482	3482
Decachlorobiphenyl (S)	2817	2817

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11160516PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/27/2019 Time: 14:45
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 062719-1.B\2019-06-27-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT % 0.74
Endrin %Breakdown: 2.51

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11160533PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/27/2019 Time: 14:45
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 062719-2.B\2019-06-27-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT % 1.29
Endrin %Breakdown: 3.53

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11254795PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 07/17/2019 Time: 14:44
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 071719-1.B\2019-07-17-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	1.01	Endrin %Breakdown:	1.21

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11254793PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 07/17/2019 Time: 14:44
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 071719-2.B\2019-07-17-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	1.31	Endrin %Breakdown:	0.84

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11254794PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 07/17/2019 Time: 17:49
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 071719-1.B\2019-07-17-026.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	2.93	Endrin %Breakdown:	5.35

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11254790PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 07/17/2019 Time: 17:49
Contract: Former EPT-Soil IRM
SDG: 30313260
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 071719-2.B\2019-07-17-026.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	3.66	Endrin %Breakdown:	9.35

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11174181ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/27/2019 Time: 16:12

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 062719-1.B\2019-06-27-016.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.473	2.442	2.502	62773.8095	59100.0000	-5.8525
Endrin		Averaged	3.957	3.927	3.987	50011.4285	47250.0000	-5.5216
Heptachlor		Averaged	2.711	2.681	2.741	65372.3809	62300.0000	-4.6998
Heptachlor epoxide		Averaged	3.28	3.249	3.309	56895.9523	54300.0000	-4.5626
Methoxychlor		Averaged	4.664	4.632	4.692	24471.4761	23505.0000	-3.9494
Decachlorobiphenyl		Averaged	5.646	5.616	5.676	49696.7857	49125.0000	-1.1505
Tetrachloro-m-xylene		Averaged	1.885	1.854	1.914	50563.2142	48225.0000	-4.6243

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11174182ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/27/2019 Time: 16:12

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 062719-2.B\2019-06-27-016.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.84	2.81	2.87	22051.4285	20600.0000	-6.5820
Endrin		Averaged	4.389	4.359	4.419	15793.9285	14750.0000	-6.6097
Heptachlor		Averaged	3.249	3.219	3.279	21480.9523	20450.0000	-4.7994
Heptachlor epoxide		Averaged	3.77	3.74	3.8	19885.4761	18600.0000	-6.4644
Methoxychlor		Averaged	4.947	4.917	4.977	7382.28571	7170.00000	-2.8756
Decachlorobiphenyl		Averaged	6.336	6.304	6.364	15958.4523	15950.0000	-0.0530
Tetrachloro-m-xylene		Averaged	2.359	2.329	2.389	18464.2857	17525.0000	-5.0870

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11254789CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 15:14

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 071719-1.B\2019-07-17-010.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.473	2.443	2.503	62773.8095	67600.0000	7.6882
Endrin		Averaged	3.957	3.927	3.987	50011.4285	56475.0000	12.9242
Heptachlor		Averaged	2.711	2.681	2.741	65372.3809	70800.0000	8.3026
Heptachlor epoxide		Averaged	3.279	3.249	3.309	56895.9523	61650.0000	8.3557
Methoxychlor		Averaged	4.663	4.633	4.693	24471.4761	27120.0000	10.8229
Decachlorobiphenyl		Averaged	5.644	5.614	5.674	49696.7857	60125.0000	20.9837
Tetrachloro-m-xylene		Averaged	1.885	1.855	1.915	50563.2142	54225.0000	7.2420

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11254791CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 15:14

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 071719-2.B\2019-07-17-010.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.838	2.808	2.868	22051.4285	22600.0000	2.4877
Endrin		Averaged	4.387	4.357	4.417	15793.9285	16950.0000	7.3197
Heptachlor		Averaged	3.248	3.218	3.278	21480.9523	20500.0000	-4.5666
Heptachlor epoxide		Averaged	3.769	3.739	3.799	19885.4761	20300.0000	2.0846
Methoxychlor		Averaged	4.945	4.915	4.975	7382.28571	6915.00000	-6.3298
Decachlorobiphenyl		Averaged	6.333	6.303	6.363	15958.4523	18900.0000	18.4325
Tetrachloro-m-xylene		Averaged	2.358	2.328	2.388	18464.2857	19350.0000	4.7969

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11254786CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 17:59

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 071719-1.B\2019-07-17-027.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.473	2.443	2.503	62773.8095	70750.0000	12.7062
Endrin		Averaged	3.956	3.927	3.987	50011.4285	53525.0000	7.0255
Heptachlor		Averaged	2.711	2.681	2.741	65372.3809	71250.0000	8.9910
Heptachlor epoxide		Averaged	3.279	3.249	3.309	56895.9523	64350.0000	13.1012
Methoxychlor		Averaged	4.663	4.633	4.693	24471.4761	24740.0000	1.0973
Decachlorobiphenyl		Averaged	5.642	5.614	5.674	49696.7857	60525.0000	21.7886
Tetrachloro-m-xylene		Averaged	1.885	1.855	1.915	50563.2142	57375.0000	13.4718

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11254792CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 17:59

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 071719-2.B\2019-07-17-027.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.839	2.808	2.868	22051.4285	23700.0000	7.4760
Endrin		Averaged	4.387	4.357	4.417	15793.9285	15625.0000	-1.0696
Heptachlor		Averaged	3.248	3.218	3.278	21480.9523	21350.0000	-0.6096
Heptachlor epoxide		Averaged	3.769	3.739	3.799	19885.4761	21000.0000	5.6047
Methoxychlor		Averaged	4.944	4.915	4.975	7382.28571	6515.00000	-11.7482
Decachlorobiphenyl		Averaged	6.331	6.303	6.363	15958.4523	18825.0000	17.9626
Tetrachloro-m-xylene		Averaged	2.358	2.328	2.388	18464.2857	20350.0000	10.2128

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	33	124	3.711	0.4160		
0.894	21	50	2.369	0.1677		
0.912	36	44	1.209	0.1476		
0.923	9	36	4.128	0.1207		
0.941	626	837	1.337	2.8080		
0.962	634	784	1.236	2.6302		
1.003	44	39	0.893	0.1308		
1.011	25	35	1.407	0.1174		
1.196	5	4	0.887	0.0134		
1.222	2	6	2.679	0.0201		
1.261	5	3	0.627	0.0100		
1.281	9	12	1.282	0.0402		
1.285	3	16	6.250	0.0536		
1.294	9	21	2.323	0.0704		
1.297	2	22	9.016	0.0738		
1.299	4	23	5.502	0.0771		
1.305	8	25	3.189	0.0838		
1.311	7	24	3.347	0.0805		
1.316	7	26	3.824	0.0872		
1.320	6	26	4.444	0.0872		
1.330	17	30	1.742	0.1006		
1.337	15	32	2.128	0.1073		
1.342	10	29	2.959	0.0972		
1.350	6	19	3.120	0.0637		
1.359	3	15	4.870	0.0503		
1.361	2	16	7.207	0.0536		
1.373	8	14	1.651	0.0469		
1.398	4	9	2.486	0.0301		
1.407	3	9	2.703	0.0301		
1.412	3	10	2.865	0.0335		
1.422	4	11	2.444	0.0369		
1.431	3	9	3.237	0.0301		
1.438	2	7	3.057	0.0234		
1.479	3	10	3.106	0.0335		
1.580	2	5	2.183	0.0167		
1.884	1176	1723	1.465	5.7805	$ 1 Tetrachloro-m-xylene (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.098	13	22	1.679	0.0738		
2.238	799	1150	1.439	3.8581	2 alpha-BHC	
2.473	758	1058	1.396	3.5495	3 gamma-BHC (Lindane)	
2.617	423	494	1.167	1.6573	4 beta-BHC	
2.904	5	10	2.045	0.0335		
2.907	4	12	3.371	0.0402		
3.324	2	6	2.830	0.0201		
3.349	4	8	2.046	0.0268		
3.357	2	7	3.241	0.0234		
3.622	18	23	1.249	0.0771	12 4,4'-DDE	BA
3.957	3113	3788	1.217	12.7084	14 Endrin	
4.014	27	40	1.508	0.1341	15 4,4'-DDD	BA
4.079	2	9	3.982	0.0301		
4.082	3	13	4.114	0.0436		
4.086	5	16	3.548	0.0536		
4.101	19	23	1.203	0.0771		
4.110	5	16	3.213	0.0536		
4.117	2	12	5.128	0.0402		
4.207	5876	7300	1.242	24.4908	17 4,4'-DDT	
4.291	24	30	1.266	0.1006	18 Endrin aldehyde	BA
4.325	4	9	2.432	0.0301		
4.551	2	4	1.786	0.0134		
4.616	2	7	3.500	0.0234		
4.663	7275	8801	1.210	29.5359	20 Methoxychlor	
4.716	5	12	2.252	0.0402		
4.832	4	17	3.981	0.0570		
4.838	7	21	3.153	0.0704		
4.851	58	71	1.226	0.2381	21 Endrin ketone	BA
4.898	4	9	2.267	0.0301		
4.901	2	9	4.369	0.0301		
4.950	3	9	2.913	0.0301		
4.955	3	10	3.509	0.0335		
4.958	4	12	3.077	0.0402		
4.967	3	12	4.545	0.0402		
4.971	3	15	4.918	0.0503		
4.975	3	14	4.230	0.0469		
4.983	6	14	2.393	0.0469		
4.986	5	16	3.265	0.0536		
4.992	2	16	7.306	0.0536		
4.995	4	18	4.511	0.0603		
4.998	5	17	3.491	0.0570		
5.007	3	12	4.511	0.0402		
5.040	2	7	3.111	0.0234		
5.049	3	10	3.650	0.0335		
5.056	3	12	4.511	0.0402		
5.059	3	12	4.167	0.0402		
5.066	4	10	2.793	0.0335		
5.081	3	13	4.362	0.0436		
5.086	4	15	4.155	0.0503		
5.090	3	15	4.886	0.0503		
5.093	3	16	6.154	0.0536		
5.097	3	18	5.143	0.0603		
5.101	7	20	2.789	0.0670		
5.112	7	18	2.550	0.0603		
5.115	3	18	5.678	0.0603		
5.118	6	20	3.604	0.0670		
5.126	5	18	3.502	0.0603		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.129	4	22	5.556	0.0738		
5.133	4	21	5.371	0.0704		
5.136	2	20	9.050	0.0670		
5.138	4	21	5.426	0.0704		
5.143	4	18	4.545	0.0603		
5.152	10	21	2.160	0.0704		
5.163	12	22	1.781	0.0738		
5.173	9	21	2.268	0.0704		
5.176	6	23	3.716	0.0771		
5.184	7	23	3.329	0.0771		
5.188	6	23	3.802	0.0771		
5.192	4	23	5.808	0.0771		
5.198	8	24	2.906	0.0805		
5.205	8	24	3.046	0.0805		
5.208	4	21	5.949	0.0704		
5.210	3	23	9.020	0.0771		
5.212	3	24	7.869	0.0805		
5.217	7	23	3.506	0.0771		
5.221	6	22	3.748	0.0738		
5.232	11	20	1.838	0.0670		
5.236	5	20	4.367	0.0670		
5.241	5	22	4.555	0.0738		
5.244	3	21	6.000	0.0704		
5.247	3	22	8.365	0.0738		
5.252	10	21	2.119	0.0704		
5.258	3	19	6.934	0.0637		
5.263	7	19	2.665	0.0637		
5.268	3	17	5.537	0.0570		
5.272	2	15	6.608	0.0503		
5.275	5	14	3.070	0.0469		
5.284	3	15	5.660	0.0503		
5.288	3	14	4.348	0.0469		
5.291	2	14	5.983	0.0469		
5.297	3	12	3.582	0.0402		
5.301	4	12	2.697	0.0402		
5.311	3	7	2.662	0.0234		
5.330	2	7	3.333	0.0234		
5.349	3	9	2.875	0.0301		
5.435	3	11	3.235	0.0369		
5.441	2	10	4.386	0.0335		
5.645	1236	1210	0.979	4.0594	$ 24 Decachlorobiphenyl (S)	
5.700	2	7	3.333	0.0234		
5.794	2	7	3.030	0.0234		
5.819	2	11	5.069	0.0369		
5.854	3	6	2.326	0.0201		
5.866	3	10	3.636	0.0335		
5.885	2	11	4.418	0.0369		
5.905	3	12	4.598	0.0402		
5.912	3	11	3.667	0.0369		
5.924	3	10	3.546	0.0335		
6.030	2	8	3.347	0.0268		
6.039	2	9	4.054	0.0301		
6.061	2	7	3.465	0.0234		
6.191	2	9	4.128	0.0301		
6.223	2	11	4.661	0.0369		
6.316	2	9	4.412	0.0301		
6.374	2	8	3.478	0.0268		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.424	5	12	2.620	0.0402		
6.472	2	7	3.070	0.0234		
6.553	2	8	3.292	0.0268		
6.571	2	7	3.196	0.0234		
6.726	4	13	3.202	0.0436		
6.736	3	11	3.679	0.0369		
6.740	4	15	3.836	0.0503		
6.749	3	16	4.893	0.0536		
6.757	3	11	3.207	0.0369		
6.761	3	9	2.679	0.0301		
6.767	3	12	3.670	0.0402		
6.773	3	12	3.704	0.0402		
6.780	3	10	3.333	0.0335		
6.786	2	12	5.381	0.0402		
6.802	2	12	5.742	0.0402		
6.810	3	12	4.412	0.0402		
6.819	3	14	5.036	0.0469		
6.839	3	9	3.333	0.0301		
6.852	2	11	5.069	0.0369		
6.856	3	9	3.422	0.0301		
	22856	29807		100.000		

Total unknown % height = 13.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	1175	0.02324	0.0232		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.237	2.238	-0.001	799	0.01174	0.0117			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.472	2.472	0.000	757	0.01206	0.0120		(R)	
4 beta-BHC					CAS #: 319-85-7			
2.616	2.617	-0.001	423	0.01429	0.0143		(R)	
12 4,4'-DDE					CAS #: 72-55-9			
3.621	3.621	0.000	18	3e-004	0.000339		(M)	BA
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	3112	0.06223	0.0622		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.013	4.016	-0.003	26	6e-004	0.000585		(M)	BA
17 4,4'-DDT					CAS #: 50-29-3			
4.206	4.208	-0.002	5875	0.12504	0.125		(R)	
18 Endrin aldehyde					CAS #: 7421-36-3			
4.291	4.289	0.002	23	5e-004	0.000549		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.662	4.662	0.000	7275	0.29728	0.297			
21 Endrin ketone					CAS #: 53494-70-5			
4.849	4.850	-0.001	57	0.00134	0.00134		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.646	-0.002	1236	0.02487	0.0249			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-062719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0117	
58-89-9	gamma-BHC (Lindane)	0.0120	
319-85-7	beta-BHC	0.0143	
72-55-9	4,4'-DDE	0.000339	
72-20-8	Endrin	0.0622	
72-54-8	4,4'-DDD	0.000585	
50-29-3	4,4'-DDT	0.125	
7421-36-3	Endrin aldehyde	0.000549	
72-43-5	Methoxychlor	0.297	
53494-70-5	Endrin ketone	0.00134	
----------	Tetrachloro-m-xylene (S)	0.0232	
----------	Decachlorobiphenyl (S)	0.0249	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d

Date : 27-JUN-2019 14:45

Client ID: PEM

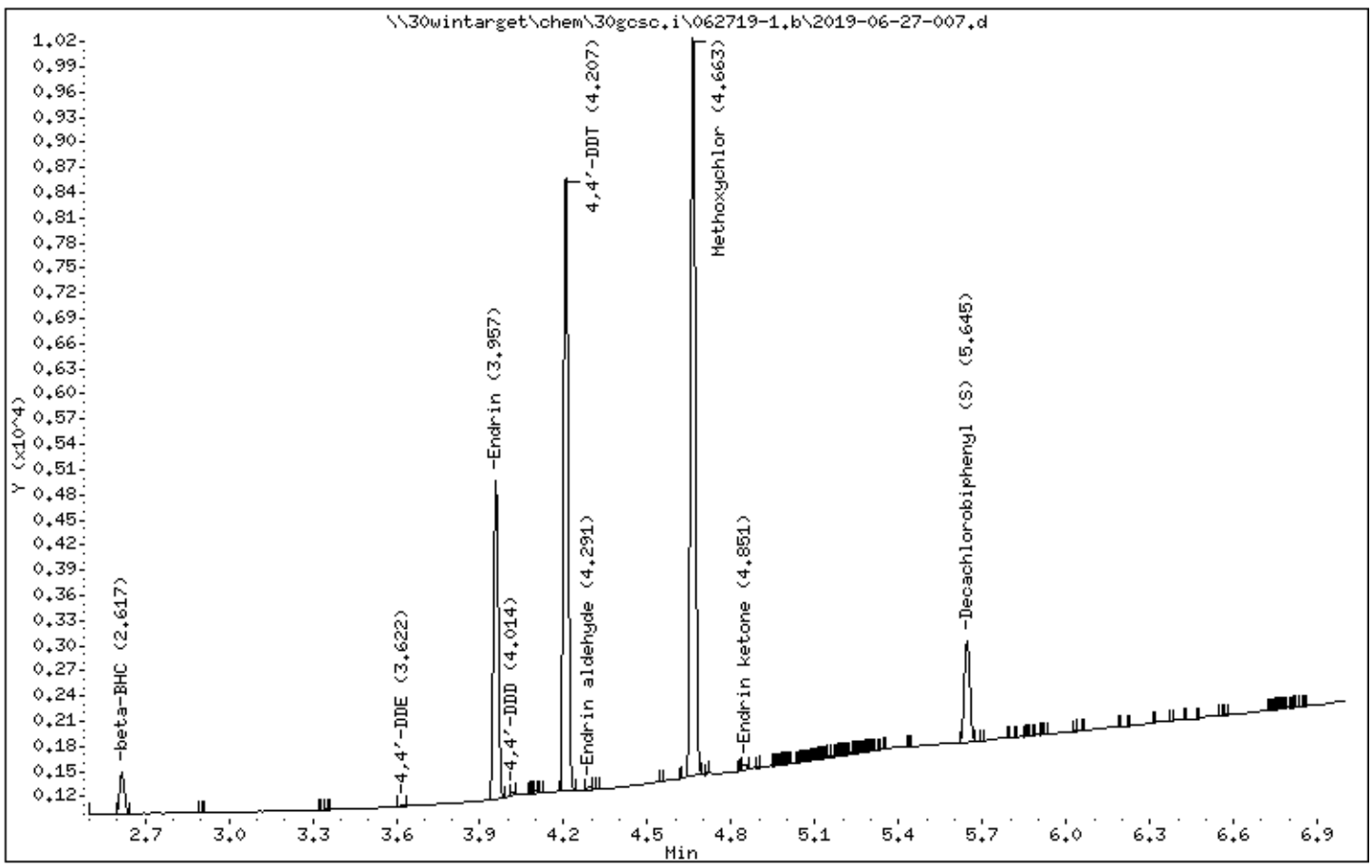
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

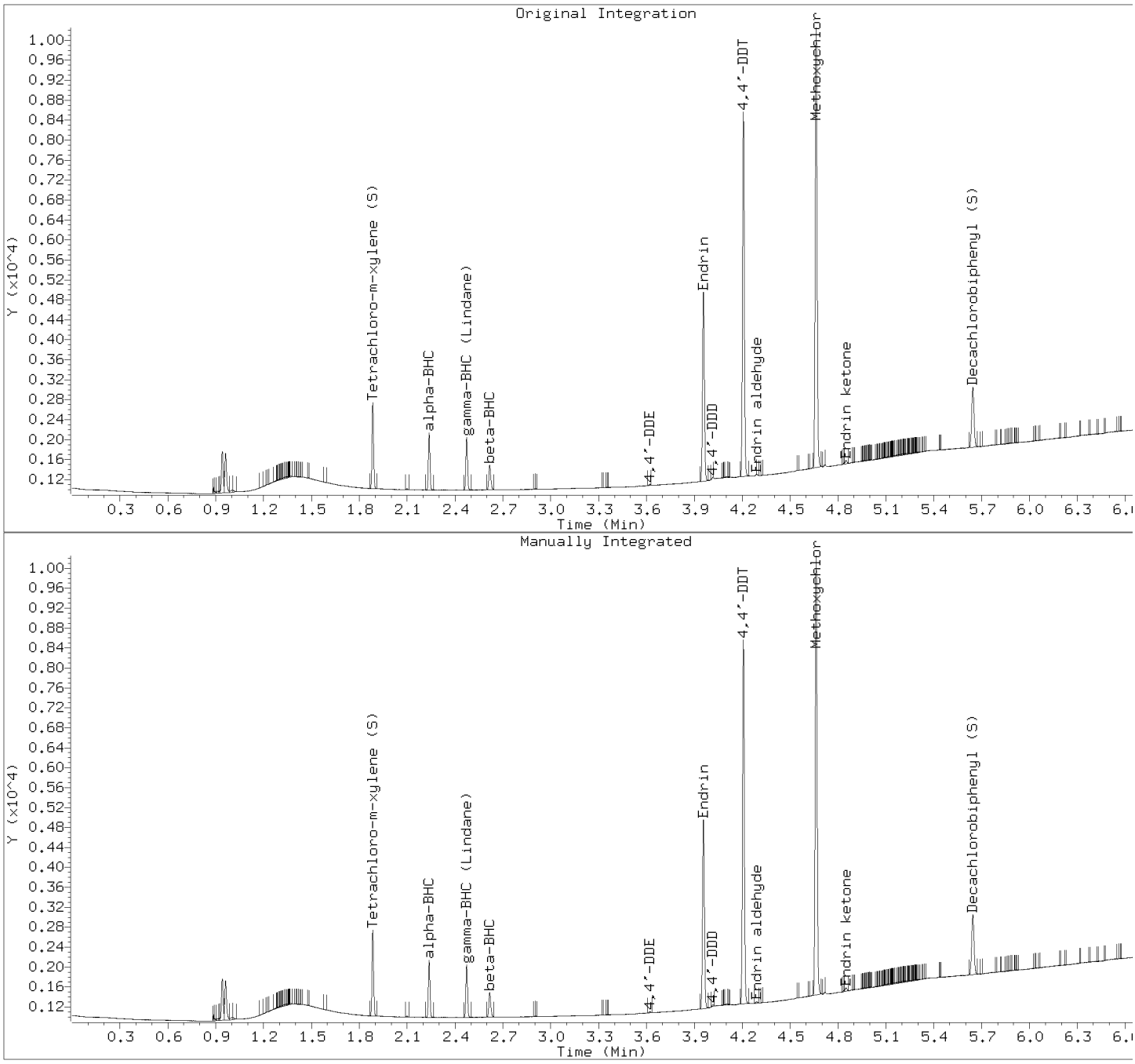
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 27-JUN-2019 14:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	6	26
Methoxychlor	7275	7275
gamma-BHC (Lindane)	757	757
beta-BHC	423	423
4,4'-DDE	12	18
Endrin	3112	3112
Endrin aldehyde	2	23
4,4'-DDT	5875	5875
Endrin ketone	51	57
alpha-BHC	799	799
Tetrachloro-m-xylene (S)	1175	1175
Decachlorobiphenyl (S)	1236	1236

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.163	1	2	1.460	0.0234			
0.407	1	1	0.962	0.0117			
0.836	1	6	4.412	0.0704			
0.840	1	7	5.600	0.0822			
0.844	1	8	6.504	0.0939			
0.848	2	9	3.982	0.1057			
0.854	2	10	4.505	0.1174			
0.873	24	46	1.907	0.5402			
0.878	44	142	3.242	1.6678			
0.914	13	11	0.859	0.1291			
0.921	1	7	6.542	0.0822			
0.980	182	236	1.295	2.7719			
1.009	179	255	1.423	2.9950			
1.026	13	26	1.933	0.3053			
1.298	1	3	2.941	0.0352			
1.340	7	7	1.026	0.0822			
1.353	5	10	1.976	0.1174			
1.356	2	10	5.780	0.1174			
1.372	9	11	1.242	0.1291			
1.385	8	10	1.203	0.1174			
1.396	6	11	1.780	0.1291			
1.405	7	11	1.667	0.1291			
1.419	6	10	1.650	0.1174			
1.426	5	9	1.833	0.1057			
1.434	3	8	2.540	0.0939			
1.439	1	7	6.364	0.0822			
1.448	2	5	3.247	0.0587			
1.910	2	5	3.246	0.0587			
2.359	432	573	1.326	6.7300	$	1 Tetrachloro-m-xylene (S)	
2.570	1	4	3.200	0.0469			
2.623	281	377	1.342	4.4280		2 alpha-BHC	
2.840	265	342	1.291	4.0169		3 gamma-BHC (Lindane)	
3.001	133	170	1.283	1.9967		4 beta-BHC	
3.091	18	23	1.311	0.2701			
4.098	8	8	1.030	0.0939		12 4,4'-DDE	BA
4.326	1	4	2.834	0.0469			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.390	956	1096	1.146	12.8729		14 Endrin	
4.452	15	17	1.155	0.1996		15 4,4'-DDD	BA
4.618	1	5	3.425	0.0587			
4.636	14	22	1.619	0.2583		17 Endrin aldehyde	
4.640	4	22	5.069	0.2583			
4.663	1608	1952	1.214	22.9269		18 4,4'-DDT	
4.761	1	3	2.775	0.0352			
4.863	4	7	1.934	0.0822			
4.947	2215	2635	1.190	30.9517		20 Methoxychlor	
5.003	3	9	3.237	0.1057			
5.007	3	10	3.546	0.1174			
5.104	10	12	1.195	0.1409			
5.125	23	24	1.067	0.2818		21 Endrin ketone	BA
5.290	1	4	3.604	0.0469			
5.865	2	3	1.974	0.0352			
6.305	1	4	3.125	0.0469			
6.334	413	305	0.739	3.5823	$	24 Decachlorobiphenyl (S)	
	6941	8514		100.000			

Total unknown % height = 11.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	432	0.02340	0.0234		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.622	2.623	-0.001	280	0.01162	0.0116			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.839	2.840	-0.001	264	0.01197	0.0120			
4 beta-BHC					CAS #: 319-85-7			
3.000	3.001	-0.001	132	0.01197	0.0120			
12 4,4'-DDE					CAS #: 72-55-9			
4.097	4.098	-0.001	7	4e-004	0.000392		(M)	BA
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	956	0.06053	0.0605		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	14	9e-004	0.000922		(M)	BA
17 Endrin aldehyde					CAS #: 7421-36-3			
4.635	4.635	0.000	13	9e-004	0.000894			
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	1607	0.13378	0.134		(R)	
20 Methoxychlor					CAS #: 72-43-5			
4.946	4.947	-0.001	2214	0.29991	0.300			
21 Endrin ketone					CAS #: 53494-70-5			
5.124	5.125	-0.001	22	0.00151	0.00151		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.334	6.334	0.000	412	0.02582	0.0258			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

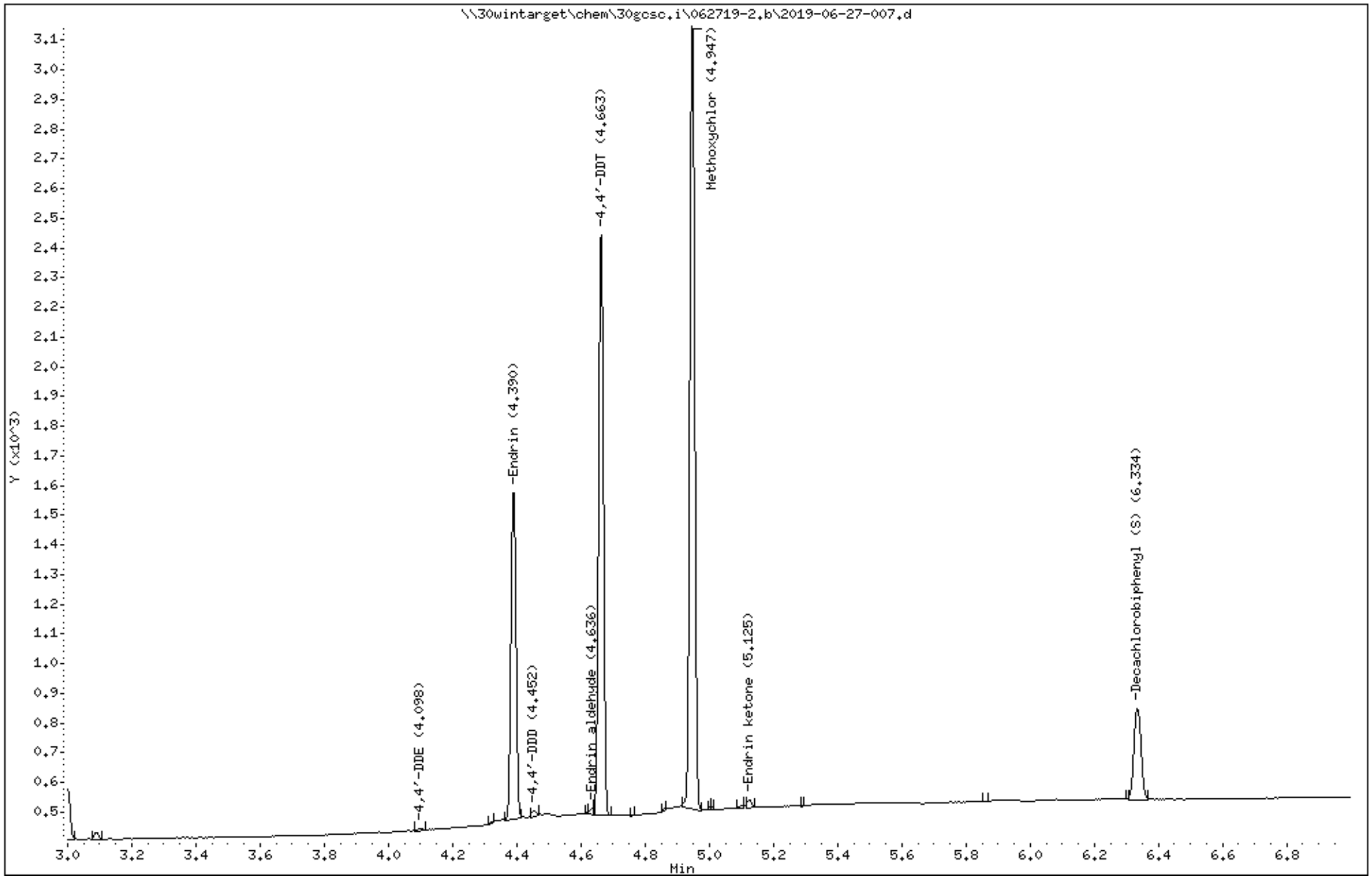
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-062719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

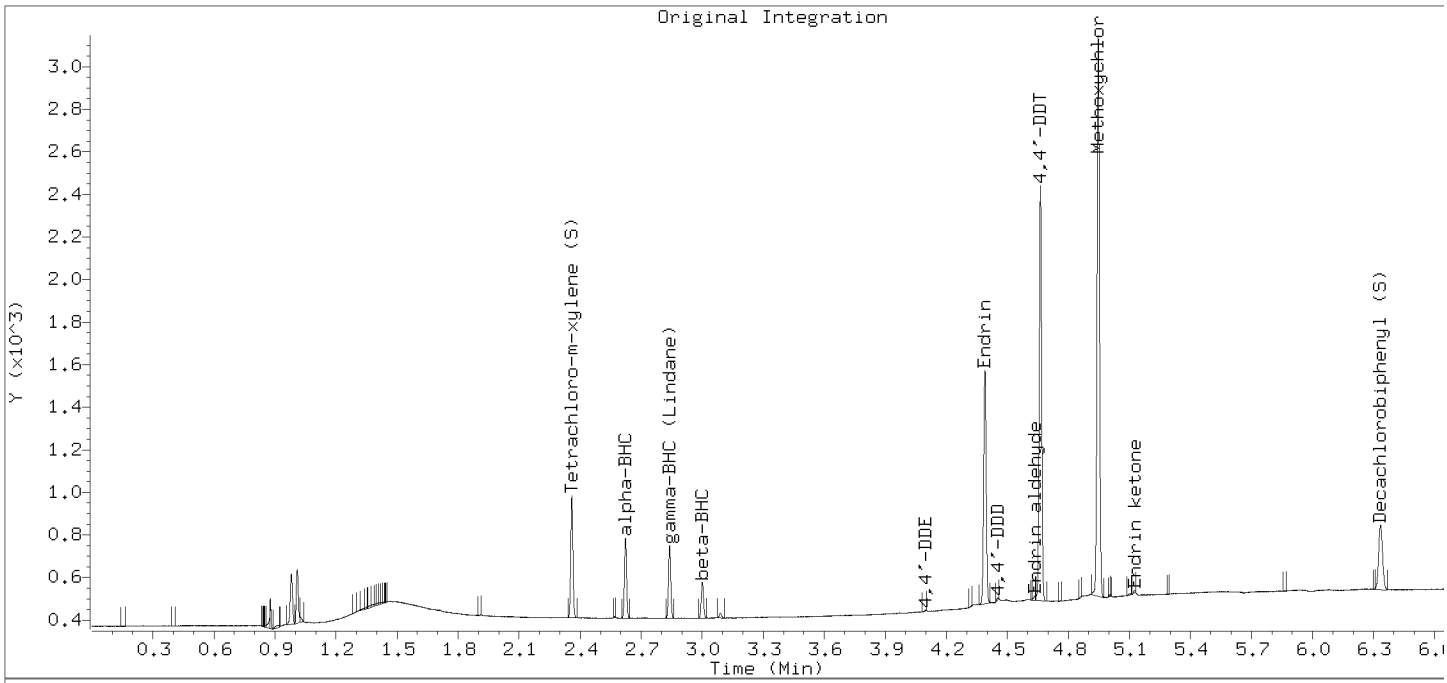
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0116	
58-89-9	gamma-BHC (Lindane)	0.0120	
319-85-7	beta-BHC	0.0120	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0605	
72-54-8	4,4'-DDD	0.000922	
7421-36-3	Endrin aldehyde	0.000894	
50-29-3	4,4'-DDT	0.134	
72-43-5	Methoxychlor	0.300	
53494-70-5	Endrin ketone	0.00151	
----------	Tetrachloro-m-xylene (S)	0.0234	
----------	Decachlorobiphenyl (S)	0.0258	

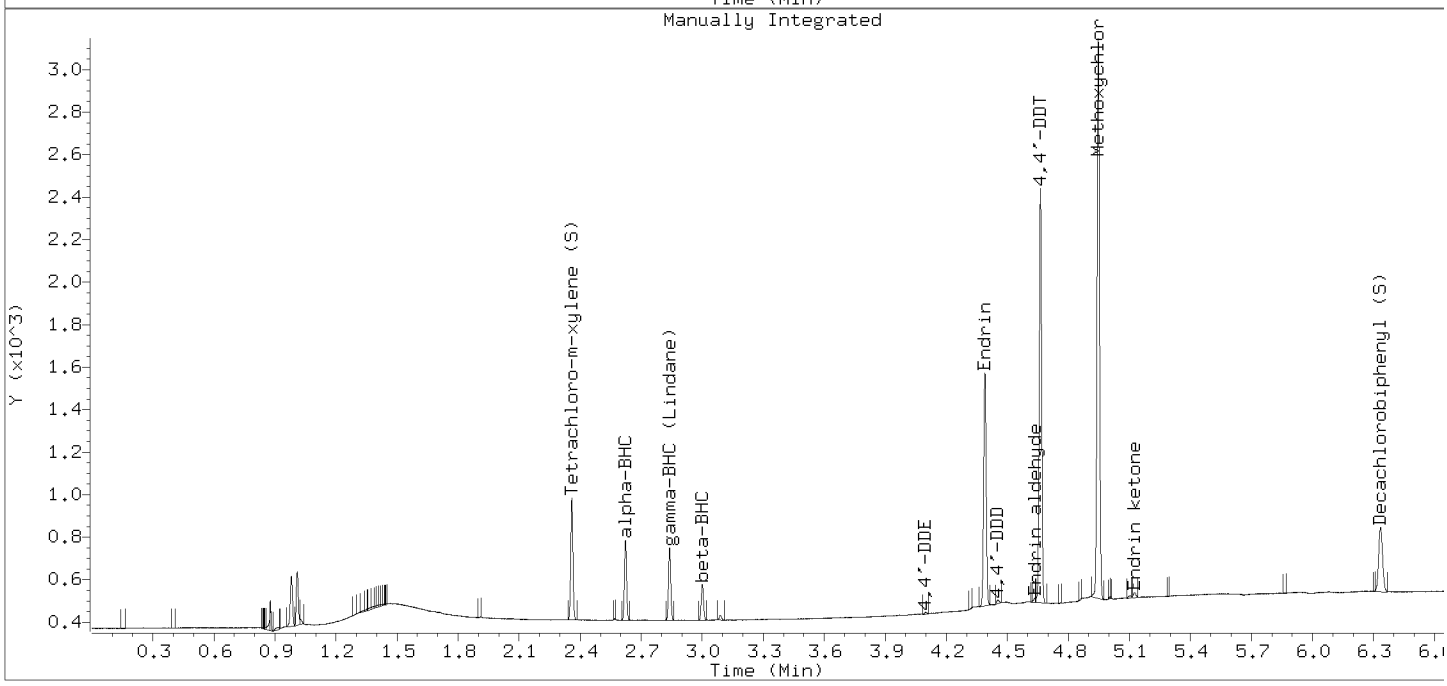
Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Date : 27-JUN-2019 14:45
Client ID: PEM
Sample Info: PEM, 89577:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 27-JUN-2019 14:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM





Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	280	280
beta-BHC	132	132
gamma-BHC (Lindane)	264	264
4,4'-DDE	1	7
Endrin	956	956
4,4'-DDD	5	14
4,4'-DDT	1607	1607
Methoxychlor	2214	2214
Endrin ketone	4	22
Endrin aldehyde	13	13
Tetrachloro-m-xylene (S)	432	432
Decachlorobiphenyl (S)	412	412

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	31	101	3.306	0.2056		
0.894	5	19	3.838	0.0386		
0.913	39	54	1.397	0.1099		
0.924	11	33	2.984	0.0672		
0.942	596	768	1.288	1.5639		
0.962	615	733	1.192	1.4927		
1.015	18	26	1.476	0.0529		
1.306	2	2	0.893	0.0040		
1.335	8	16	2.094	0.0325		
1.339	4	16	3.747	0.0325		
1.346	3	15	4.658	0.0305		
1.349	2	15	6.303	0.0305		
1.353	4	16	4.520	0.0325		
1.372	42	38	0.915	0.0773		
1.382	4	28	6.573	0.0570		
1.384	5	30	6.036	0.0610		
1.388	8	27	3.600	0.0549		
1.393	4	26	7.046	0.0529		
1.395	7	31	4.566	0.0631		
1.400	6	31	4.777	0.0631		
1.404	12	33	2.663	0.0672		
1.409	7	35	4.902	0.0712		
1.412	4	32	8.377	0.0651		
1.418	12	35	2.874	0.0712		
1.421	6	36	5.742	0.0733		
1.425	10	36	3.462	0.0733		
1.428	6	37	5.958	0.0753		
1.431	6	36	6.429	0.0733		
1.436	10	36	3.472	0.0733		
1.441	11	36	3.200	0.0733		
1.448	15	38	2.555	0.0773		
1.452	18	40	2.201	0.0814		
1.459	9	32	3.661	0.0651		
1.464	7	32	4.604	0.0651		
1.470	8	27	3.405	0.0549		
1.475	7	30	4.431	0.0610		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
1.477	4	32	8.815	0.0651			
1.482	22	40	1.840	0.0814			
1.489	7	23	3.367	0.0468			
1.499	5	14	2.887	0.0285			
1.504	4	13	3.234	0.0264			
1.693	2	6	2.830	0.0122			
1.699	3	7	2.397	0.0142			
1.885	1929	2761	1.431	5.6226	$	1 Tetrachloro-m-xylene (S)	
2.047	4	7	1.983	0.0142			
2.100	25	34	1.348	0.0692			
2.238	1283	1849	1.441	3.7654		2 alpha-BHC	
2.473	1183	1647	1.393	3.3540		3 gamma-BHC (Lindane)	
2.617	617	757	1.226	1.5415		4 beta-BHC	
2.647	2	8	3.493	0.0162			
2.658	3	9	3.061	0.0183			
2.712	1246	1622	1.301	3.3031		5 Heptachlor	
2.813	1208	1594	1.320	3.2461		6 delta-BHC	
2.898	13	18	1.415	0.0366			
2.923	1105	1433	1.297	2.9182		7 Aldrin	
3.084	2	6	2.469	0.0122			
3.206	4	7	1.795	0.0142			
3.280	1087	1401	1.289	2.8530		8 Heptachlor epoxide	
3.331	4	13	3.562	0.0264			
3.335	8	15	2.000	0.0305			
3.348	2	9	4.286	0.0183			
3.353	2	8	3.433	0.0162			
3.436	1097	1372	1.250	2.7940		9 gamma-Chlordane	
3.500	1075	1339	1.246	2.7268		10 alpha-Chlordane	
3.546	1023	1259	1.230	2.5638		11 Endosulfan I	
3.622	2057	2535	1.232	5.1624		12 4,4'-DDE	
3.655	4	12	3.252	0.0244			
3.663	3	8	3.030	0.0162			
3.739	2212	2765	1.250	5.6307		13 Dieldrin	
3.772	2	8	3.865	0.0162			
3.957	1890	2351	1.244	4.7876		14 Endrin	
4.017	1689	2064	1.222	4.2032		15 4,4'-DDD	
4.065	5	11	2.350	0.0224			
4.105	22	26	1.174	0.0529			
4.137	1954	2361	1.208	4.8080		16 Endosulfan II	
4.208	1840	2276	1.237	4.6349		17 4,4'-DDT	
4.290	1589	1955	1.231	3.9812		18 Endrin aldehyde	
4.428	1908	2404	1.260	4.8956		19 Endosulfan sulfate	
4.664	4702	5540	1.178	11.2890		20 Methoxychlor	
4.700	5	16	3.524	0.0325			
4.717	15	25	1.645	0.0509			
4.725	3	13	4.114	0.0264			
4.852	1997	2366	1.185	4.8182		21 Endrin ketone	
4.999	3	7	2.381	0.0142			
5.141	2	5	2.083	0.0101			
5.175	4	9	2.158	0.0183			
5.185	3	11	3.492	0.0224			
5.191	2	9	3.947	0.0183			
5.200	4	12	2.691	0.0244			
5.205	4	10	2.674	0.0203			
5.383	2	8	3.448	0.0162			
5.397	3	8	3.019	0.0162			
5.408	2	8	3.704	0.0162			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.413	3	8	2.899	0.0162		
5.436	4	17	4.645	0.0346		
5.440	5	20	4.149	0.0407		
5.443	2	18	8.911	0.0366		
5.445	3	15	4.451	0.0305		
5.584	2	7	3.286	0.0142		
5.646	1966	1865	0.949	3.7979	$ 24 Decachlorobiphenyl (S)	
5.787	2	7	3.333	0.0142		
6.027	2	8	3.306	0.0162		
6.154	2	5	2.193	0.0101		
6.233	3	8	2.395	0.0162		
6.243	3	10	3.378	0.0203		
6.247	3	9	3.409	0.0183		
6.268	2	9	3.797	0.0183		
6.292	4	9	2.267	0.0183		
6.304	3	11	3.385	0.0224		
6.310	3	10	3.460	0.0203		
6.319	3	11	3.416	0.0224		
6.325	2	11	5.000	0.0224		
6.331	3	11	3.860	0.0224		
6.369	2	10	4.831	0.0203		
6.374	2	10	4.975	0.0203		
6.396	2	11	4.825	0.0224		
6.482	2	10	4.926	0.0203		
6.494	2	10	4.902	0.0203		
6.578	2	10	4.219	0.0203		
6.590	3	12	4.706	0.0244		
6.602	5	14	3.017	0.0285		
6.612	4	10	2.451	0.0203		
6.617	4	16	4.408	0.0325		
6.623	3	16	5.654	0.0325		
6.626	2	15	6.818	0.0305		
6.628	3	18	7.059	0.0366		
6.631	2	15	6.726	0.0305		
6.635	2	13	5.830	0.0264		
6.648	5	14	3.030	0.0285		
6.653	2	12	5.556	0.0244		
6.656	2	15	6.098	0.0305		
6.661	3	15	4.934	0.0305		
6.669	3	13	3.824	0.0264		
6.684	2	9	4.265	0.0183		
6.688	2	10	5.000	0.0203		
6.694	2	11	4.721	0.0224		
6.699	2	11	5.116	0.0224		
6.710	2	6	2.521	0.0122		
6.862	2	9	3.965	0.0183		
6.877	2	11	4.681	0.0224		
6.905	2	8	3.463	0.0162		
	38551	49105		100.000		

Total unknown % height = 7.30

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.885	1.884	0.001	1929	0.04000	0.0382			
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	1283	0.02000	0.0188			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.473	2.472	0.001	1182	0.02000	0.0188			
4 beta-BHC						CAS #: 319-85-7		
2.617	2.617	0.000	617	0.02000	0.0208			
6 delta-BHC						CAS #: 76-44-8		
2.813	2.812	0.001	1207	0.02000	0.0198			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	1246	0.02000	0.0191			
7 Aldrin						CAS #: 309-00-2		
2.923	2.922	0.001	1104	0.02000	0.0192			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	1086	0.02000	0.0191			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	1097	0.02000	0.0193			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.499	0.001	1074	0.02000	0.0192			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	1023	0.02000	0.0193			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.622	3.621	0.001	2057	0.04000	0.0387			
13 Dieldrin						CAS #: 60-57-1		
3.739	3.738	0.001	2212	0.04000	0.0386			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	1890	0.04000	0.0378			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	1689	0.04000	0.0380			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	1954	0.04000	0.0398			
17 4,4'-DDT						CAS #: 50-29-3		
4.208	4.208	0.000	1839	0.04000	0.0391			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.290	4.289	0.001	1588	0.04000	0.0379			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	1908	0.04000	0.0395			
20 Methoxychlor						CAS #: 72-43-5		
4.664	4.662	0.002	4701	0.20000	0.192			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	1996	0.04000	0.0468			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.646	0.000	1965	0.04000	0.0395			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 27-JUN-2019 16:12
Lab File ID: 2019-06-27-016. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m

			MIN		MAX	CURVE	QC
COMPOUND	RRF / AMOUNT	RF0.020	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS
$ 1 Tetrachloro-m-xylene (S)	50563	48225	0.000	-4.62434	20.00000	Aver	
2 alpha-BHC	68046	64150	0.000	-5.72547	20.00000	Aver	
3 gamma-BHC (Lindane)	62774	59100	0.000	-5.85246	20.00000	Aver	
4 beta-BHC	29609	30850	0.000	4.19280	20.00000	Aver	
6 delta-BHC	60955	60350	0.000	-0.99254	20.00000	Aver	
5 Heptachlor	65372	62300	0.000	-4.69981	20.00000	Aver	
7 Aldrin	57427	55200	0.000	-3.87860	20.00000	Aver	
8 Heptachlor epoxide	56896	54300	0.000	-4.56263	20.00000	Aver	
9 gamma-Chlordane	56720	54850	0.000	-3.29771	20.00000	Aver	
10 alpha-Chlordane	55773	53700	0.000	-3.71743	20.00000	Aver	
11 Endosulfan I	53111	51150	0.000	-3.69175	20.00000	Aver	
12 4,4'-DDE	53148	51425	0.000	-3.24163	20.00000	Aver	
13 Dieldrin	57235	55300	0.000	-3.38140	20.00000	Aver	
14 Endrin	50011	47250	0.000	-5.52160	20.00000	Aver	
15 4,4'-DDD	44408	42225	0.000	-4.91548	20.00000	Aver	
16 Endosulfan II	49096	48850	0.000	-0.50048	20.00000	Aver	
17 4,4'-DDT	46985	45975	0.000	-2.15061	20.00000	Aver	
18 Endrin aldehyde	41910	39700	0.000	-5.27267	20.00000	Aver	
19 Endosulfan sulfate	48268	47700	0.000	-1.17574	20.00000	Aver	
20 Methoxychlor	24471	23505	0.000	-3.94940	20.00000	Aver	
21 Endrin ketone	42660	49900	0.000	16.97108	20.00000	Aver	
$ 24 Decachlorobiphenyl (S)	49697	49125	0.000	-1.15055	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 2.42560
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d

Date : 27-JUN-2019 16:12

Client ID: ICV

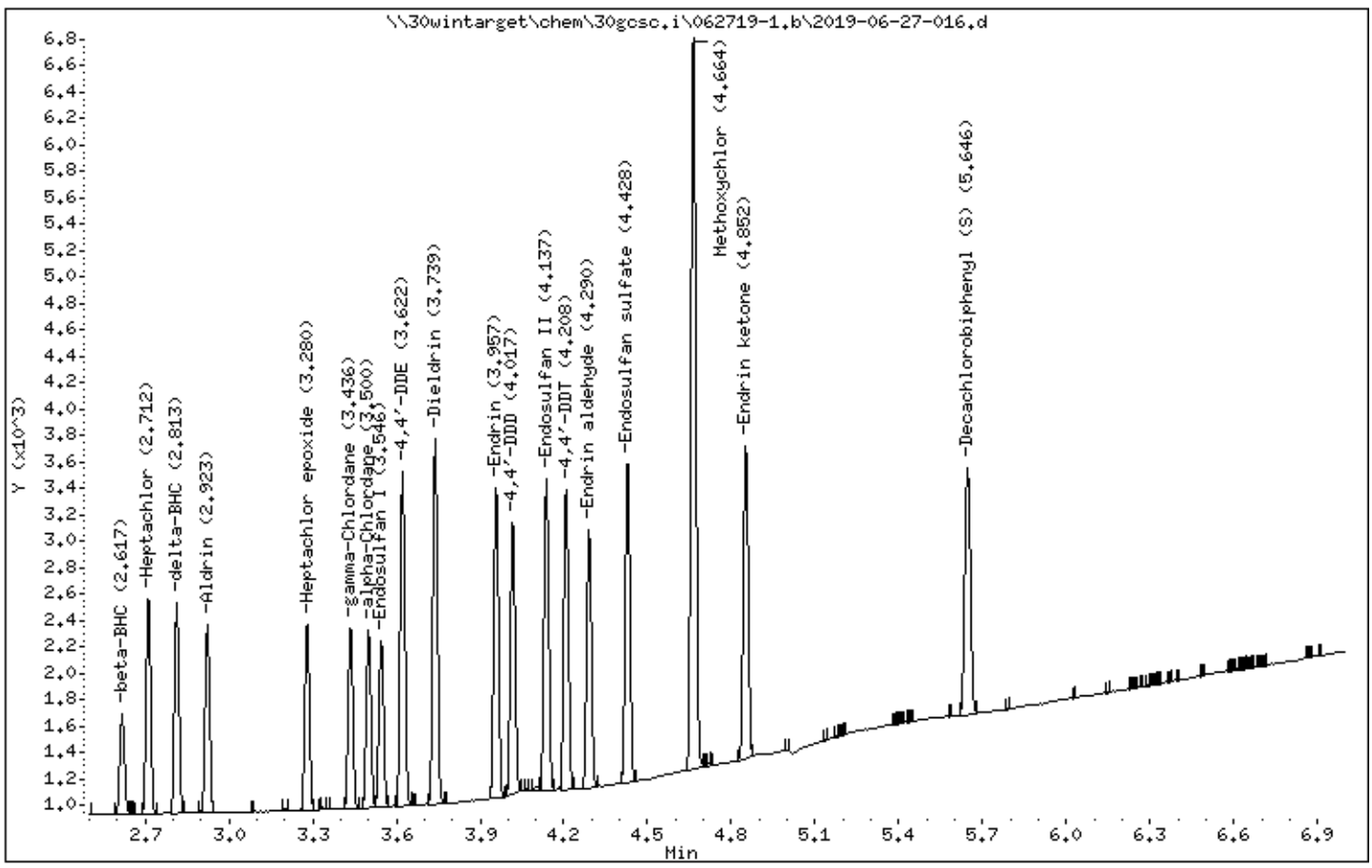
Instrument: 30gcsc.i

Sample Info: ICV, 89858:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-016.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:12 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: ICV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1283	1283
beta-BHC	617	617
delta-BHC	1207	1207
gamma-BHC (Lindane)	1182	1182
Heptachlor	1246	1246
Aldrin	1104	1104
Heptachlor epoxide	1086	1086
Endosulfan I	1023	1023
Dieldrin	2212	2212
4,4'-DDE	2057	2057
Endrin	1890	1890
Endosulfan II	1954	1954
4,4'-DDD	1689	1689
Endosulfan sulfate	1908	1908
4,4'-DDT	1839	1839
Methoxychlor	4701	4701
Endrin ketone	1996	1996
Endrin aldehyde	1588	1588
alpha-Chlordane	1074	1074
gamma-Chlordane	1097	1097
Tetrachloro-m-xylene (S)	1929	1929
Decachlorobiphenyl (S)	1965	1965

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.874	16	29	1.778	0.1910			
0.879	28	100	3.632	0.6588			
0.917	8	4	0.481	0.0263			
0.981	170	212	1.245	1.3967			
1.010	158	224	1.421	1.4758			
1.071	2	4	1.606	0.0263			
1.386	1	2	1.786	0.0131			
1.448	4	5	1.333	0.0329			
1.457	1	4	3.077	0.0263			
1.470	1	4	2.740	0.0263			
1.913	2	6	3.061	0.0395			
2.205	1	2	1.429	0.0131			
2.359	702	935	1.332	6.1602	$	1 Tetrachloro-m-xylene (S)	
2.569	2	5	2.451	0.0329			
2.623	448	600	1.339	3.9530		2 alpha-BHC	
2.840	412	547	1.327	3.6039		3 gamma-BHC (Lindane)	
3.001	209	271	1.297	1.7854		4 beta-BHC	
3.090	2	4	2.180	0.0263			
3.187	434	560	1.291	3.6895		5 delta-BHC	
3.225	5	7	1.284	0.0461			
3.250	410	497	1.213	3.2744		6 Heptachlor	
3.477	377	456	1.209	3.0043		7 Aldrin	
3.647	1	2	1.852	0.0131			
3.771	372	448	1.203	2.9516		8 Heptachlor epoxide	
3.851	2	3	1.899	0.0197			
3.858	1	4	3.704	0.0263			
3.984	371	445	1.199	2.9318		9 gamma-Chlordane	
4.020	370	431	1.165	2.8396		10 alpha-Chlordane	
4.053	352	412	1.172	2.7144		11 Endosulfan I	
4.099	690	839	1.216	5.5277		12 4,4'-DDE	
4.170	2	4	1.957	0.0263			
4.228	730	877	1.201	5.7780		13 Dieldrin	
4.313	1	3	2.459	0.0197			
4.329	2	4	2.594	0.0263			
4.342	1	3	2.970	0.0197			
4.389	590	699	1.184	4.6053		14 Endrin	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.452	577	708	1.227	4.6646		15 4,4'-DDD	
4.562	663	797	1.202	5.2510		16 Endosulfan II	
4.636	554	650	1.173	4.2825		17 Endrin aldehyde	
4.663	489	588	1.203	3.8740		18 4,4'-DDT	
4.826	643	733	1.141	4.8293		19 Endosulfan sulfate	
4.867	10	12	1.147	0.0790			
4.870	2	12	5.970	0.0790			
4.874	3	13	5.039	0.0856			
4.879	5	13	2.642	0.0856			
4.885	4	12	3.409	0.0790			
4.889	2	12	5.556	0.0790			
4.912	18	17	0.945	0.1120			
4.947	1434	1679	1.171	11.0652		20 Methoxychlor	
5.004	4	9	2.009	0.0592			
5.103	6	12	1.869	0.0790			
5.126	685	777	1.134	5.1192		21 Endrin ketone	
5.499	1	3	2.521	0.0197			
5.557	1	2	1.980	0.0131			
5.620	1	3	2.941	0.0197			
5.682	4	6	1.500	0.0395			
5.689	1	5	4.132	0.0329			
6.336	639	461	0.722	3.0372	$	24 Decachlorobiphenyl (S)	
6.651	1	2	1.980	0.0131			
	12627	15178		100.000			

Total unknown % height = 5.06

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.359	2.359	0.000	701	0.04000	0.0380			
2 alpha-BHC							CAS #: 319-84-6	
2.623	2.623	0.000	447	0.02000	0.0185			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.840	2.840	0.000	412	0.02000	0.0187			
4 beta-BHC							CAS #: 319-85-7	
3.001	3.001	0.000	208	0.02000	0.0189			
5 delta-BHC							CAS #: 319-86-8	
3.187	3.187	0.000	433	0.02000	0.0195			
6 Heptachlor							CAS #: 76-44-8	
3.249	3.249	0.000	409	0.02000	0.0190			
7 Aldrin							CAS #: 309-00-2	
3.477	3.477	0.000	377	0.02000	0.0190			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.770	3.770	0.000	372	0.02000	0.0187			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.984	3.983	0.001	371	0.02000	0.0192			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.019	4.020	-0.001	369	0.02000	0.0195			
11 Endosulfan I							CAS #: 959-98-8	
4.053	4.053	0.000	351	0.02000	0.0192			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.099	4.098	0.001	689	0.04000	0.0385			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	730	0.04000	0.0381			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	590	0.04000	0.0374			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	576	0.04000	0.0380			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	663	0.04000	0.0394			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.636	4.635	0.001	554	0.04000	0.0381			
18 4,4'-DDT						CAS #: 50-29-3		
4.663	4.662	0.001	488	0.04000	0.0406			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	642	0.04000	0.0397			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	1434	0.20000	0.194			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	685	0.04000	0.0469			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	638	0.04000	0.0400			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

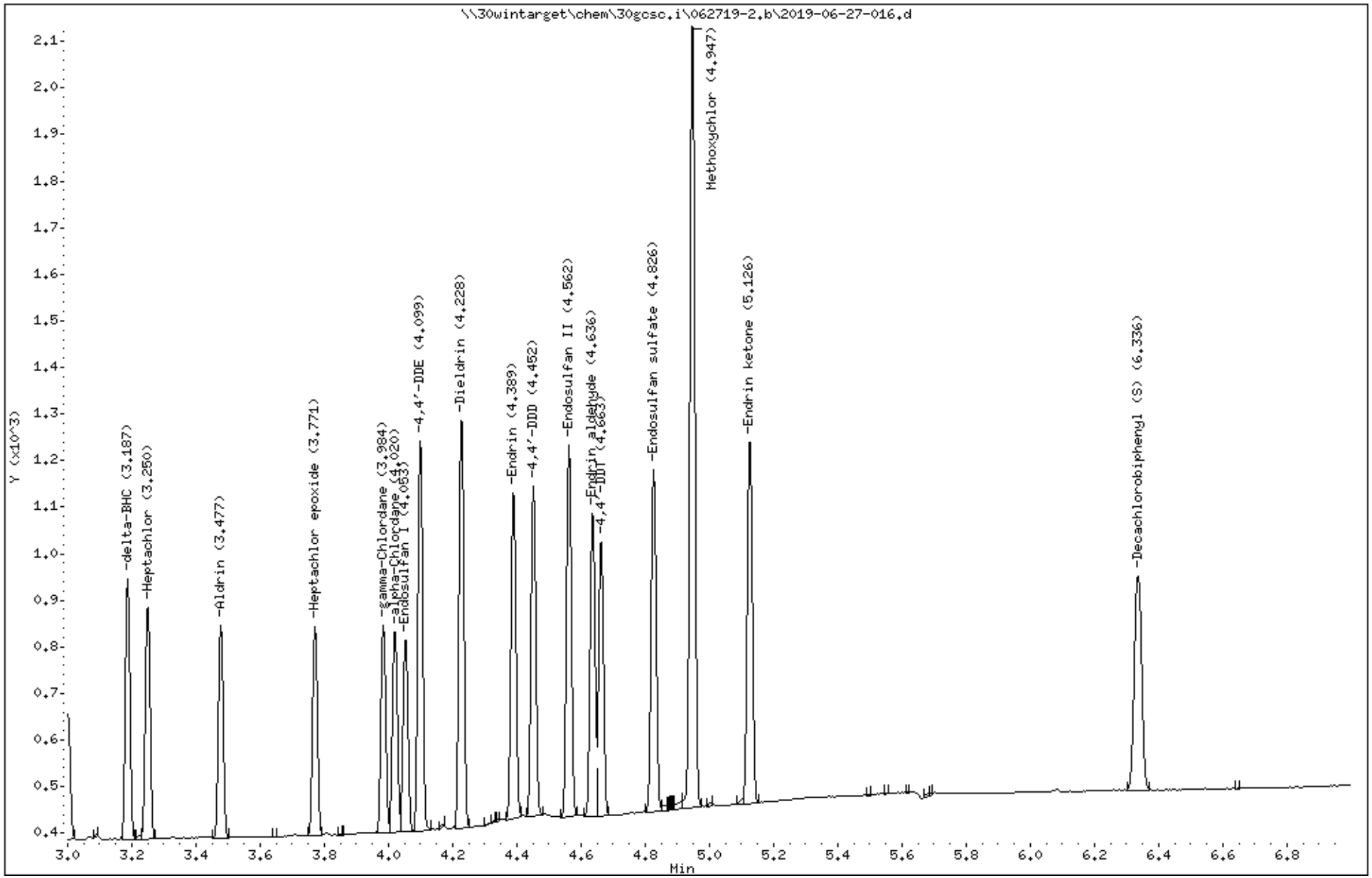
Instrument ID: 30gcsc.i Injection Date: 27-JUN-2019 16:12
Lab File ID: 2019-06-27-016. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m

			MIN		MAX	CURVE	QC
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS
$ 1 Tetrachloro-m-xylene (S)	18464	17525	0.000	-5.08704	20.00000	Aver	
2 alpha-BHC	24103	22350	0.000	-7.27149	20.00000	Aver	
3 gamma-BHC (Lindane)	22051	20600	0.000	-6.58202	20.00000	Aver	
4 beta-BHC	11024	10400	0.000	-5.66282	20.00000	Aver	
5 delta-BHC	22166	21650	0.000	-2.32663	20.00000	Aver	
6 Heptachlor	21481	20450	0.000	-4.79938	20.00000	Aver	
7 Aldrin	19785	18850	0.000	-4.72695	20.00000	Aver	
8 Heptachlor epoxide	19885	18600	0.000	-6.46440	20.00000	Aver	
9 gamma-Chlordane	19302	18550	0.000	-3.89668	20.00000	Aver	
10 alpha-Chlordane	18942	18450	0.000	-2.59569	20.00000	Aver	
11 Endosulfan I	18276	17550	0.000	-3.97217	20.00000	Aver	
12 4,4'-DDE	17874	17225	0.000	-3.63315	20.00000	Aver	
13 Dieldrin	19179	18250	0.000	-4.84526	20.00000	Aver	
14 Endrin	15794	14750	0.000	-6.60968	20.00000	Aver	
15 4,4'-DDD	15178	14400	0.000	-5.12346	20.00000	Aver	
16 Endosulfan II	16826	16575	0.000	-1.49007	20.00000	Aver	
17 Endrin aldehyde	14537	13850	0.000	-4.72525	20.00000	Aver	
18 4,4'-DDT	12012	12200	0.000	1.56289	20.00000	Aver	
19 Endosulfan sulfate	16163	16050	0.000	-0.70118	20.00000	Aver	
20 Methoxychlor	7382	7170	0.000	-2.87561	20.00000	Aver	
21 Endrin ketone	14595	17125	0.000	17.33757	20.00000	Aver	
$ 24 Decachlorobiphenyl (S)	15958	15950	0.000	-0.05296	20.00000	Aver	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Date : 27-JUN-2019 16:12
Client ID: ICV
Sample Info: ICV, 89858:10

Instrument: 30gcsc.i

Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-016.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:12 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: ICV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	447	447
beta-BHC	208	208
delta-BHC	433	433
gamma-BHC (Lindane)	412	412
Heptachlor	409	409
Aldrin	377	377
Heptachlor epoxide	372	372
Endosulfan I	351	351
Dieldrin	730	730
4,4'-DDE	689	689
Endrin	590	590
Endosulfan II	663	663
4,4'-DDD	576	576
Endosulfan sulfate	642	642
4,4'-DDT	488	488
Methoxychlor	1434	1434
Endrin ketone	685	685
Endrin aldehyde	554	554
alpha-Chlordane	369	369
gamma-Chlordane	371	371
Tetrachloro-m-xylene (S)	701	701
Decachlorobiphenyl (S)	638	638

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 14:44
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.890	37	118	3.151	0.3885			
0.896	75	138	1.850	0.4544			
0.944	626	740	1.182	2.4368			
0.965	647	699	1.080	2.3018			
1.001	10	15	1.487	0.0493			
1.016	6	11	1.800	0.0362			
1.343	11	12	1.064	0.0395			
1.394	3	9	3.321	0.0296			
1.408	2	6	2.791	0.0197			
1.412	2	9	4.128	0.0296			
1.424	3	7	2.527	0.0230			
1.457	2	5	2.174	0.0164			
1.485	39	49	1.247	0.1613			
1.501	3	10	2.865	0.0329			
1.506	5	11	2.386	0.0362			
1.514	5	11	2.183	0.0362			
1.528	4	10	2.841	0.0329			
1.534	3	10	3.030	0.0329			
1.542	4	10	2.688	0.0329			
1.550	3	10	3.205	0.0329			
1.560	2	8	3.791	0.0263			
1.699	2	10	4.255	0.0329			
1.703	6	13	2.019	0.0428			
1.886	1290	1722	1.334	5.6706	$	1 Tetrachloro-m-xylene (S)	
1.922	3	7	2.310	0.0230			
2.099	17	22	1.322	0.0724			
2.239	881	1232	1.398	4.0570		2 alpha-BHC	
2.474	837	1131	1.351	3.7244		3 gamma-BHC (Lindane)	
2.619	527	515	0.976	1.6959		4 beta-BHC	
2.660	3	7	2.389	0.0230			
2.904	5	15	2.778	0.0493			
2.906	9	18	1.903	0.0592			
3.054	4	8	1.786	0.0263			
3.089	3	6	1.858	0.0197			
3.209	2	6	2.632	0.0197			
3.623	31	37	1.179	0.1218		12 4,4'-DDE	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.639	3	8	3.030	0.0263		
3.958	3600	4414	1.226	14.5355	14 Endrin	
3.989	2	8	3.347	0.0263		
4.019	37	43	1.175	0.1416	15 4,4'-DDD	
4.035	3	10	3.125	0.0329		
4.084	2	5	2.381	0.0164		
4.108	20	24	1.176	0.0790		
4.117	5	17	3.195	0.0559		
4.125	2	9	4.327	0.0296		
4.180	5	16	3.320	0.0526		
4.209	6555	7714	1.177	25.4025	17 4,4'-DDT	
4.260	9	19	2.095	0.0625		
4.292	6	9	1.544	0.0296	18 Endrin aldehyde	
4.324	2	9	4.265	0.0296		
4.327	4	10	2.322	0.0329		
4.601	2	8	3.361	0.0263		
4.623	3	9	3.093	0.0296		
4.629	3	11	4.365	0.0362		
4.632	3	13	4.693	0.0428		
4.664	8145	9327	1.145	30.7182	20 Methoxychlor	
4.717	87	77	0.889	0.2535		
4.744	3	11	3.459	0.0362		
4.853	39	50	1.272	0.1646	21 Endrin ketone	
5.016	3	7	2.273	0.0230		
5.104	2	7	2.823	0.0230		
5.109	2	5	2.347	0.0164		
5.128	2	9	3.913	0.0296		
5.143	4	9	2.466	0.0296		
5.156	5	10	2.188	0.0329		
5.160	2	10	4.167	0.0329		
5.165	3	11	3.427	0.0362		
5.178	3	13	3.824	0.0428		
5.183	6	14	2.504	0.0461		
5.192	4	12	3.361	0.0395		
5.195	4	12	3.226	0.0395		
5.206	5	14	2.682	0.0461		
5.213	3	11	3.986	0.0362		
5.219	4	11	2.895	0.0362		
5.228	2	10	4.762	0.0329		
5.238	3	10	3.559	0.0329		
5.241	3	11	4.183	0.0362		
5.248	2	9	3.673	0.0296		
5.259	2	8	3.774	0.0263		
5.278	2	8	3.902	0.0263		
5.303	2	6	2.679	0.0197		
5.647	1555	1476	0.949	4.8605	$ 24 Decachlorobiphenyl (S)	
5.680	2	8	3.880	0.0263		
5.964	2	7	3.004	0.0230		
6.083	3	7	2.071	0.0230		
6.556	3	10	3.509	0.0329		
6.564	2	10	4.292	0.0329		
6.572	3	8	3.042	0.0263		
6.579	2	10	4.831	0.0329		
6.585	4	11	2.949	0.0362		
6.599	6	12	1.878	0.0395		
6.602	2	12	5.941	0.0395		
6.606	2	10	4.950	0.0329		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.611	3	11	3.618	0.0362		
6.643	3	11	3.245	0.0362		
6.655	3	11	3.929	0.0362		
6.674	3	11	4.183	0.0362		
6.693	2	8	3.478	0.0263		
6.751	3	9	3.462	0.0296		
6.883	3	10	3.378	0.0329		
6.932	3	9	2.804	0.0296		
6.947	2	10	4.673	0.0329		
6.969	2	11	4.955	0.0362		
	25341	30367		100.000		

Total unknown % height = 8.88

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 14:44
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.886	1.885	0.001	1290	0.02551	0.0255			(R)
2 alpha-BHC						CAS #: 319-84-6		
2.239	2.238	0.001	881	0.01295	0.0129			(R)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.474	2.473	0.001	837	0.01333	0.0133			(R)
4 beta-BHC						CAS #: 319-85-7		
2.619	2.617	0.002	527	0.01780	0.0178			(R)
12 4,4'-DDE						CAS #: 72-55-9		
3.622	3.622	0.000	31	6e-004	0.000583			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	3600	0.07198	0.0720			(R)
15 4,4'-DDD						CAS #: 72-54-8		
4.019	4.017	0.002	36	8e-004	0.000811			
17 4,4'-DDT						CAS #: 50-29-3		
4.208	4.207	0.001	6555	0.13951	0.140			(R)
18 Endrin aldehyde						CAS #: 7421-36-3		
4.292	4.289	0.003	5	1e-004	0.000119			
20 Methoxychlor						CAS #: 72-43-5		
4.664	4.663	0.001	8145	0.33284	0.333			(R)
21 Endrin ketone						CAS #: 53494-70-5		
4.853	4.851	0.002	39	9e-004	0.000914			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.646	5.644	0.002	1555	0.03129	0.0313			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-071719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0129	
58-89-9	gamma-BHC (Lindane)	0.0133	
319-85-7	beta-BHC	0.0178	
72-55-9	4,4'-DDE	0.000583	
72-20-8	Endrin	0.0720	
72-54-8	4,4'-DDD	0.000811	
50-29-3	4,4'-DDT	0.140	
7421-36-3	Endrin aldehyde	0.000119	
72-43-5	Methoxychlor	0.333	
53494-70-5	Endrin ketone	0.000914	
----------	Tetrachloro-m-xylene (S)	0.0255	
----------	Decachlorobiphenyl (S)	0.0313	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-007.d

Date : 17-JUL-2019 14:44

Client ID: PEM

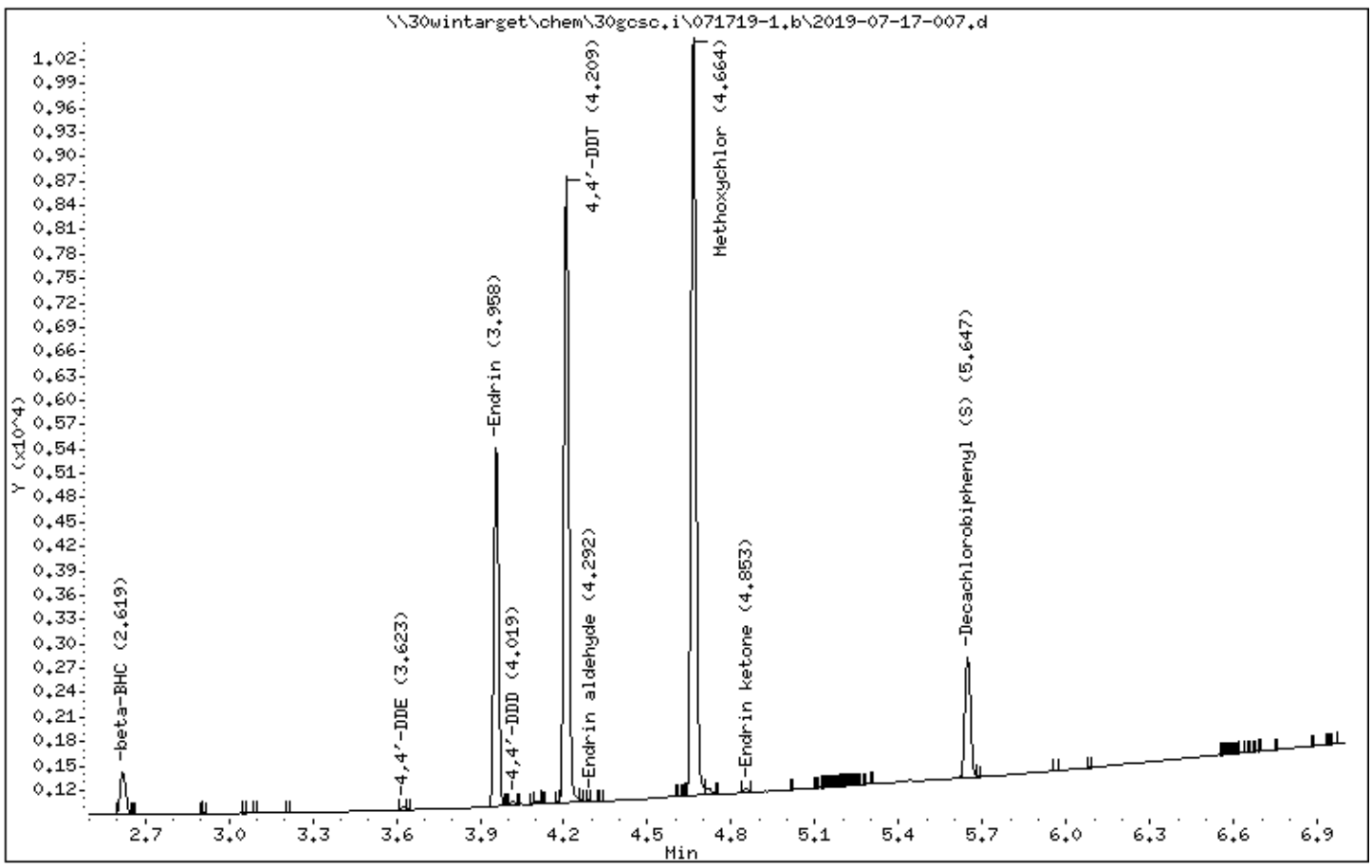
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUL-2019 14:44 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	36	36
Methoxychlor	8145	8145
gamma-BHC (Lindane)	837	837
beta-BHC	527	527
4,4'-DDE	31	31
Endrin	3600	3600
Endrin aldehyde	5	5
4,4'-DDT	6555	6555
Endrin ketone	39	39
alpha-BHC	881	881
Tetrachloro-m-xylene (S)	1290	1290
Decachlorobiphenyl (S)	1555	1555

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 14:44
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.881	98	212	2.165	2.6266			
0.945	1	3	2.362	0.0371			
0.984	225	262	1.165	3.2461			
1.012	243	284	1.171	3.5187			
1.404	1	3	2.703	0.0371			
1.426	1	3	2.143	0.0371			
1.548	4	6	1.519	0.0743			
1.560	1	4	3.077	0.0495			
1.712	1	3	2.913	0.0371			
1.913	3	7	2.134	0.0867			
2.077	1	4	2.963	0.0495			
2.359	459	602	1.312	7.4588	$	1 Tetrachloro-m-xylene (S)	
2.567	3	8	3.077	0.0991			
2.571	2	7	3.846	0.0867			
2.623	298	393	1.320	4.8692		2 alpha-BHC	
2.716	1	4	3.306	0.0495			
2.840	280	360	1.285	4.4604		3 gamma-BHC (Lindane)	
3.000	129	170	1.316	2.1063		4 beta-BHC	
3.088	4	13	3.566	0.1610			
3.752	1	2	1.818	0.0247			
4.099	8	9	1.172	0.1115		12 4,4'-DDE	BA
4.388	1067	1232	1.155	15.2645		14 Endrin	
4.452	12	14	1.193	0.1734		15 4,4'-DDD	BA
4.492	2	4	2.235	0.0495			
4.611	0	3	8.333	0.0371		17 Endrin aldehyde	BA
4.661	1362	1669	1.225	20.6789		18 4,4'-DDT	
4.812	1	3	2.437	0.0371			
4.877	30	24	0.807	0.2973			
4.886	7	22	3.279	0.2725			
4.893	9	24	2.556	0.2973			
4.899	8	26	3.159	0.3221			
4.945	2131	2288	1.074	28.3508		20 Methoxychlor	
5.002	1	4	3.636	0.0495			
5.124	10	12	1.210	0.1486		21 Endrin ketone	BA
5.190	2	4	2.581	0.0495			
5.213	1	4	3.419	0.0495			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.293	1	3	2.041	0.0371		
5.617	2	5	2.778	0.0619		
5.645	1	4	3.922	0.0495		
5.681	1	4	3.670	0.0495		
5.722	1	4	3.604	0.0495		
6.080	2	4	2.247	0.0495		
6.333	479	355	0.741	4.3984	$ 24 Decachlorobiphenyl (S)	
	6894	8071		100.000		

Total unknown % height = 11.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 14:44
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.358	0.001	458	0.02480	0.0248		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.623	2.622	0.001	297	0.01232	0.0123		(R)	
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.839	2.838	0.001	280	0.01270	0.0127		(R)	
4 beta-BHC					CAS #: 319-85-7			
3.000	3.000	0.000	129	0.01170	0.0117			
12 4,4'-DDE					CAS #: 72-55-9			
4.099	4.097	0.002	7	4e-004	0.000392		(M)	BA
14 Endrin					CAS #: 72-20-8			
4.388	4.387	0.001	1066	0.06749	0.0675		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.450	0.001	11	7e-004	0.000725		(M)	BA
17 Endrin aldehyde					CAS #: 7421-36-3			
4.611	4.633	-0.022	0	0.000	0.000		(M)	BA
18 4,4'-DDT					CAS #: 50-29-3			
4.661	4.660	0.001	1361	0.11330	0.113			
20 Methoxychlor					CAS #: 72-43-5			
4.945	4.945	0.000	2131	0.28866	0.289			
21 Endrin ketone					CAS #: 53494-70-5			
5.124	5.124	0.000	9	6e-004	0.000617		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.333	6.333	0.000	478	0.02995	0.0300			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-071719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

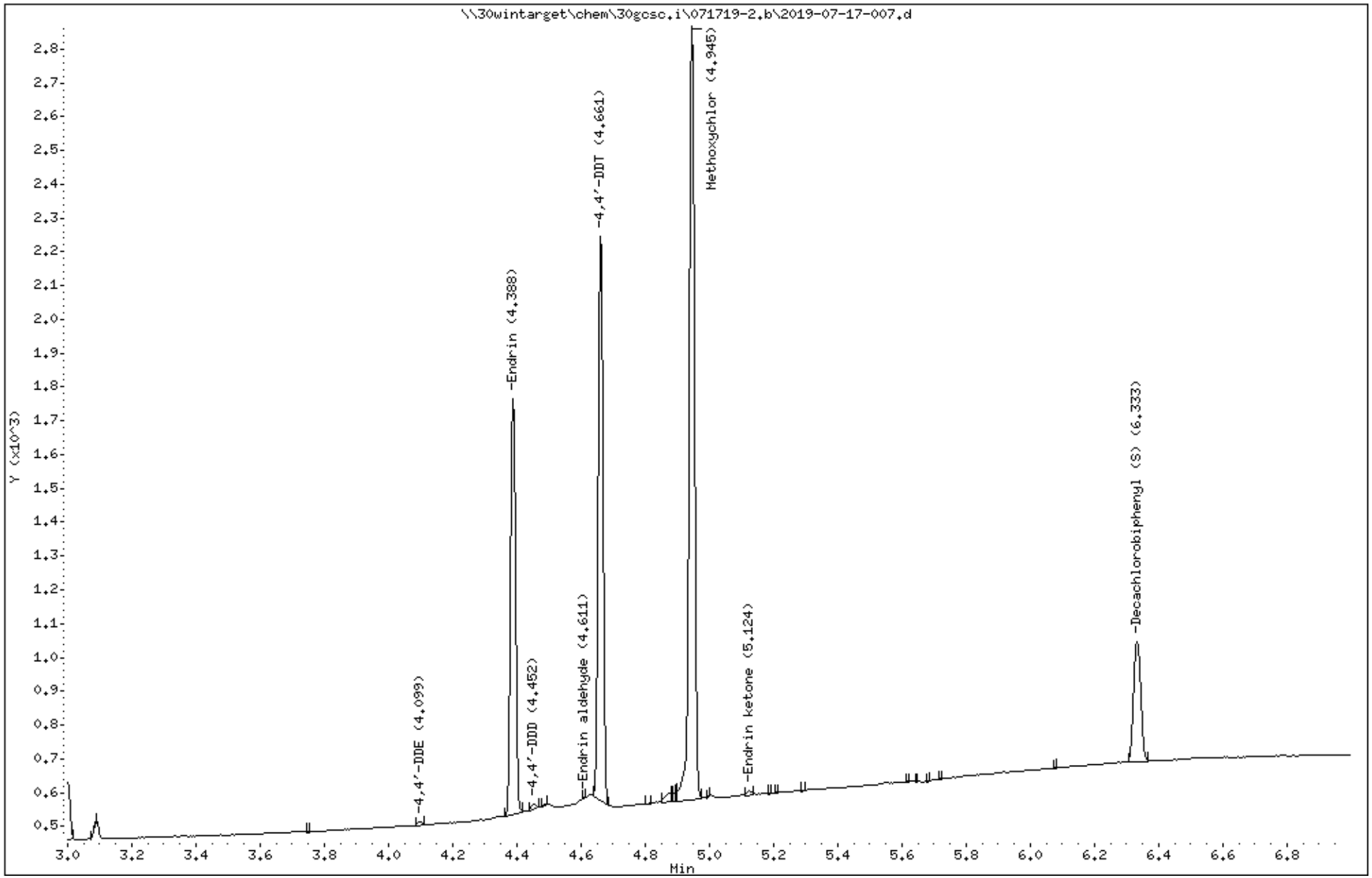
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0123	
58-89-9	gamma-BHC (Lindane)	0.0127	
319-85-7	beta-BHC	0.0117	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0675	
72-54-8	4,4'-DDD	0.000725	
7421-36-3	Endrin aldehyde	0.000	
50-29-3	4,4'-DDT	0.113	
72-43-5	Methoxychlor	0.289	
53494-70-5	Endrin ketone	0.000617	
----------	Tetrachloro-m-xylene (S)	0.0248	
----------	Decachlorobiphenyl (S)	0.0300	

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-007.d
Date : 17-JUL-2019 14:44
Client ID: PEM
Sample Info: PEM, 89577:10

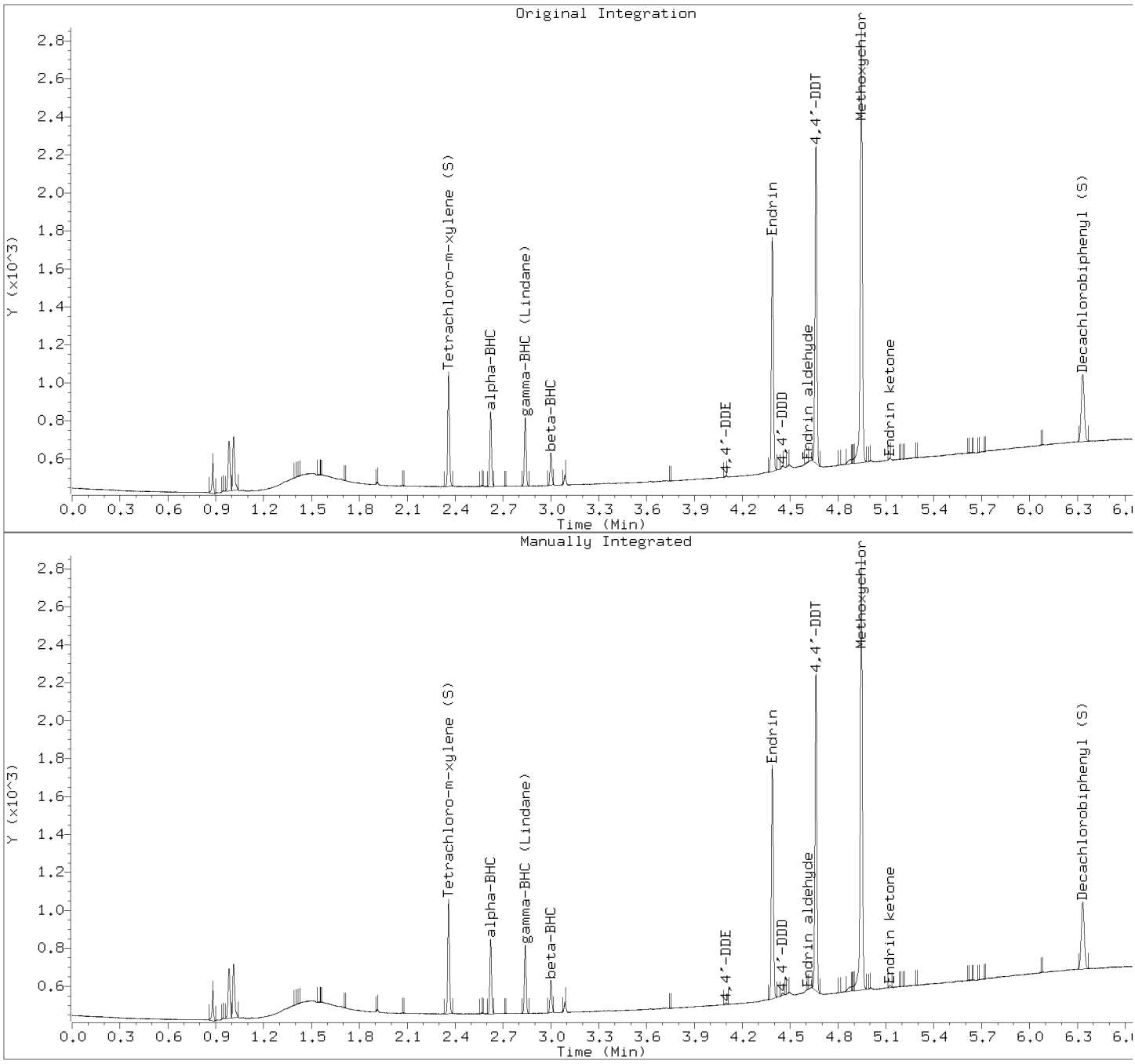
Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUL-2019 14:44 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	297	297
beta-BHC	129	129
gamma-BHC (Lindane)	280	280
4,4'-DDE	3	7
Endrin	1066	1066
4,4'-DDD	2	11
4,4'-DDT	1361	1361
Methoxychlor	2131	2131
Endrin ketone	2	9
Endrin aldehyde	2	0
Tetrachloro-m-xylene (S)	458	458
Decachlorobiphenyl (S)	478	478

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.092	2	6	2.927	0.0108			
0.896	1422	1735	1.220	3.1234			
0.943	417	474	1.137	0.8533			
0.963	513	575	1.122	1.0351			
0.999	12	19	1.563	0.0342			
1.008	4	13	3.611	0.0234			
1.326	2	0	0.000	0.0000			
1.373	7	10	1.350	0.0180			
1.408	2	8	3.448	0.0144			
1.414	3	9	3.488	0.0162			
1.422	2	6	2.899	0.0108			
1.475	3	7	2.448	0.0126			
1.483	3	7	2.713	0.0126			
1.494	4	8	1.966	0.0144			
1.653	2	5	2.101	0.0090			
1.789	4	9	2.320	0.0162			
1.885	2169	2928	1.350	5.2711	$	1 Tetrachloro-m-xylene (S)	RT
2.101	28	36	1.287	0.0648			
2.219	3	10	2.967	0.0180			
2.238	1468	2039	1.389	3.6706		2 alpha-BHC	RT
2.415	2	5	2.193	0.0090			
2.473	1352	1824	1.349	3.2836		3 gamma-BHC (Lindane)	RT
2.618	693	776	1.120	1.3969		4 beta-BHC	RT
2.649	4	14	3.989	0.0252			
2.653	6	15	2.613	0.0270			
2.660	4	10	2.358	0.0180			
2.677	2	6	2.817	0.0108			
2.711	1417	1846	1.303	3.3232		5 Heptachlor	RT
2.814	1267	1594	1.258	2.8695		6 delta-BHC	RT
2.901	6	13	2.022	0.0234			
2.923	1243	1609	1.295	2.8965		7 Aldrin	RT
3.004	3	9	2.711	0.0162			
3.202	4	8	2.192	0.0144			
3.280	1233	1570	1.273	2.8263		8 Heptachlor epoxide	RT
3.435	1243	1553	1.249	2.7957		9 gamma-Chlordane	RT
3.500	1206	1502	1.246	2.7039		10 alpha-Chlordane	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.546	1163	1447	1.244	2.6049		11 Endosulfan I	RT
3.623	2234	2533	1.134	4.5600		12 4,4'-DDE	RT
3.661	6	16	2.524	0.0288			
3.738	2503	3074	1.228	5.5339		13 Dieldrin	RT
3.834	3	10	2.861	0.0180			
3.836	3	9	3.125	0.0162			
3.898	4	9	2.284	0.0162			
3.957	2259	2764	1.224	4.9758		14 Endrin	RT
4.018	1878	2136	1.137	3.8453		15 4,4'-DDD	RT
4.060	3	12	4.669	0.0216			
4.105	23	42	1.819	0.0756			
4.109	24	43	1.776	0.0774			
4.137	2162	2612	1.208	4.7022		16 Endosulfan II	RT
4.208	2075	2507	1.208	4.5132		17 4,4'-DDT	RT
4.290	1818	2164	1.190	3.8957		18 Endrin aldehyde	RT
4.428	2157	2563	1.188	4.6140		19 Endosulfan sulfate	RT
4.501	2	8	3.922	0.0144			
4.567	2	12	5.556	0.0216			
4.573	5	11	2.124	0.0198			
4.593	22	30	1.376	0.0540			
4.664	5424	6309	1.163	11.3597		20 Methoxychlor	RT
4.710	3	10	3.484	0.0180			
4.715	2	9	4.327	0.0162			
4.813	3	9	3.041	0.0162			
4.851	1932	2299	1.190	4.1387		21 Endrin ketone	RT
4.890	5	12	2.609	0.0216			
4.896	3	9	2.913	0.0162			
4.903	2	9	3.913	0.0162			
4.909	2	7	3.030	0.0126			
5.013	8	16	2.005	0.0288			
5.141	2	7	2.869	0.0126			
5.161	2	6	2.553	0.0108			
5.182	3	9	2.922	0.0162			
5.188	3	9	3.297	0.0162			
5.208	4	13	3.631	0.0234			
5.210	5	16	3.101	0.0288			
5.219	3	9	3.571	0.0162			
5.335	6	12	1.926	0.0216			
5.440	86	83	0.969	0.1494			
5.645	2406	2253	0.937	4.0559	$	24 Decachlorobiphenyl (S)	RT
5.718	4	10	2.717	0.0180			
5.722	2	11	4.911	0.0198			
5.728	2	12	5.021	0.0216			
5.731	2	12	4.938	0.0216			
5.747	4	7	1.786	0.0126			
5.753	2	8	3.556	0.0144			
5.789	3	7	2.672	0.0126			
6.051	2	6	2.817	0.0108			
6.114	2	6	2.620	0.0108			
6.263	2	7	3.365	0.0126			
6.277	6	17	2.782	0.0306			
6.282	8	17	2.249	0.0306			
6.290	6	16	2.597	0.0288			
6.299	2	11	4.977	0.0198			
6.326	2	12	5.106	0.0216			
6.333	9	17	1.912	0.0306			
6.339	4	18	4.749	0.0324			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.346	8	19	2.464	0.0342		
6.351	6	17	2.619	0.0306		
6.358	3	19	6.762	0.0342		
6.360	5	18	3.564	0.0324		
6.368	6	16	2.568	0.0288		
6.373	3	16	5.333	0.0288		
6.379	4	15	3.731	0.0270		
6.383	4	19	4.726	0.0342		
6.389	7	22	3.207	0.0396		
6.394	5	23	4.323	0.0414		
6.397	7	26	3.741	0.0468		
6.405	9	28	3.087	0.0504		
6.408	4	25	5.580	0.0450		
6.412	5	24	4.878	0.0432		
6.415	7	25	3.639	0.0450		
6.419	2	23	9.237	0.0414		
6.425	8	20	2.525	0.0360		
6.431	10	24	2.444	0.0432		
6.439	12	23	1.920	0.0414		
6.448	6	22	3.819	0.0396		
6.451	6	24	3.704	0.0432		
6.457	4	22	4.977	0.0396		
6.461	5	22	4.167	0.0396		
6.467	11	19	1.727	0.0342		
6.475	3	19	5.460	0.0342		
6.477	2	19	8.120	0.0342		
6.480	4	21	5.585	0.0378		
6.486	6	21	3.286	0.0378		
6.490	3	22	6.414	0.0396		
6.494	6	23	3.616	0.0414		
6.499	6	27	4.839	0.0486		
6.501	10	28	2.878	0.0504		
6.507	2	23	9.200	0.0414		
6.509	8	25	3.298	0.0450		
6.515	5	24	4.388	0.0432		
6.522	6	22	3.514	0.0396		
6.525	3	21	6.158	0.0378		
6.528	4	22	6.094	0.0396		
6.531	4	26	5.778	0.0468		
6.536	10	25	2.500	0.0450		
6.544	9	26	2.968	0.0468		
6.549	10	27	2.769	0.0486		
6.555	8	29	3.576	0.0522		
6.559	6	27	4.900	0.0486		
6.564	9	29	3.229	0.0522		
6.568	3	26	10.400	0.0468		
6.570	7	27	3.930	0.0486		
6.574	2	25	10.288	0.0450		
6.577	5	26	5.210	0.0468		
6.579	9	26	2.928	0.0468		
6.586	3	25	8.865	0.0450		
6.589	5	27	5.085	0.0486		
6.592	11	29	2.759	0.0522		
6.599	11	29	2.695	0.0522		
6.609	8	25	2.976	0.0450		
6.612	6	27	4.592	0.0486		
6.616	6	26	4.312	0.0468		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.620	5	25	5.447	0.0450		
6.625	7	25	3.531	0.0450		
6.628	4	26	6.220	0.0468		
6.633	8	25	2.998	0.0450		
6.637	10	28	2.764	0.0504		
6.644	6	27	4.206	0.0486		
6.651	8	24	2.993	0.0432		
6.656	11	26	2.464	0.0468		
6.663	5	23	4.251	0.0414		
6.667	4	22	6.061	0.0396		
6.669	3	22	6.647	0.0396		
6.673	6	23	3.979	0.0414		
6.678	6	23	3.932	0.0414		
6.683	8	23	2.854	0.0414		
6.689	2	15	7.463	0.0270		
6.691	5	18	3.352	0.0324		
6.749	3	11	3.492	0.0198		
6.752	4	12	3.077	0.0216		
6.759	3	13	4.483	0.0234		
6.766	2	10	4.115	0.0180		
6.769	3	12	3.692	0.0216		
6.779	3	9	3.309	0.0162		
6.799	2	7	3.415	0.0126		
6.817	3	14	4.795	0.0252		
6.822	4	16	4.071	0.0288		
6.826	3	20	6.289	0.0360		
6.831	5	16	3.131	0.0288		
6.838	6	17	2.716	0.0306		
6.843	2	16	7.143	0.0288		
6.846	3	20	6.061	0.0360		
6.849	4	14	3.349	0.0252		
6.855	2	12	5.263	0.0216		
6.868	4	11	2.887	0.0198		
6.879	3	10	3.279	0.0180		
6.921	2	11	5.263	0.0198		
6.931	2	10	4.926	0.0180		
6.934	3	10	3.509	0.0180		
6.987	2	7	3.111	0.0126		
	44588	55548		100.000		

Total unknown % height = 10.2

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	2169	0.04000	0.0429		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.238	2.238	0.000	1467	0.02000	0.0216		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.473	2.473	0.000	1352	0.02000	0.0215		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
2.617	2.617	0.000	692	0.02000	0.0234		(M)	RT
6 delta-BHC					CAS #: 76-44-8			
2.813	2.813	0.000	1266	0.02000	0.0208		(M)	RT
5 Heptachlor					CAS #: 319-86-8			
2.711	2.711	0.000	1416	0.02000	0.0217		(M)	RT
7 Aldrin					CAS #: 309-00-2			
2.922	2.922	0.000	1242	0.02000	0.0216		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.279	3.279	0.000	1233	0.02000	0.0217		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.435	3.435	0.000	1243	0.02000	0.0219		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
3.500	3.500	0.000	1205	0.02000	0.0216		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
3.545	3.545	0.000	1163	0.02000	0.0219		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.622	3.622	0.000	2234	0.04000	0.0420		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
3.738	3.738	0.000	2502	0.04000	0.0437		(M)	RT
14 Endrin					CAS #: 72-20-8			
3.957	3.957	0.000	2259	0.04000	0.0452		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.017	4.017	0.000	1877	0.04000	0.0423		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.137	4.137	0.000	2162	0.04000	0.0440		(M)	RT
17 4,4'-DDT					CAS #: 50-29-3			
4.207	4.207	0.000	2075	0.04000	0.0442		(M)	RT
18 Endrin aldehyde					CAS #: 7421-36-3			
4.289	4.289	0.000	1818	0.04000	0.0434		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.427	4.427	0.000	2157	0.04000	0.0447		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	5424	0.20000	0.222		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
4.851	4.851	0.000	1931	0.04000	0.0453		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.644	0.000	2405	0.04000	0.0484		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUL-2019 15:14
Lab File ID: 2019-07-17-010. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m

COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$ 1 Tetrachloro-m-xylene (S)	50563	54225	0.000	7.24200	20.00000	Aver	(M)	
2 alpha-BHC	68046	73350	0.000	7.79480	20.00000	Aver	(M)	
3 gamma-BHC (Lindane)	62774	67600	0.000	7.68822	20.00000	Aver	(M)	
4 beta-BHC	29609	34600	0.000	16.85805	20.00000	Aver	(M)	
6 delta-BHC	60955	63300	0.000	3.84710	20.00000	Aver	(M)	
5 Heptachlor	65372	70800	0.000	8.30262	20.00000	Aver	(M)	
7 Aldrin	57427	62100	0.000	8.13657	20.00000	Aver	(M)	
8 Heptachlor epoxide	56896	61650	0.000	8.35569	20.00000	Aver	(M)	
9 gamma-Chlordane	56720	62150	0.000	9.57242	20.00000	Aver	(M)	
10 alpha-Chlordane	55773	60250	0.000	8.02654	20.00000	Aver	(M)	
11 Endosulfan I	53111	58150	0.000	9.48827	20.00000	Aver	(M)	
12 4,4'-DDE	53148	55850	0.000	5.08420	20.00000	Aver	(M)	
13 Dieldrin	57235	62550	0.000	9.28559	20.00000	Aver	(M)	
14 Endrin	50011	56475	0.000	12.92419	20.00000	Aver	(M)	
15 4,4'-DDD	44408	46925	0.000	5.66824	20.00000	Aver	(M)	
16 Endosulfan II	49096	54050	0.000	10.09108	20.00000	Aver	(M)	
17 4,4'-DDT	46985	51875	0.000	10.40646	20.00000	Aver	(M)	
18 Endrin aldehyde	41910	45450	0.000	8.44729	20.00000	Aver	(M)	
19 Endosulfan sulfate	48268	53925	0.000	11.72114	20.00000	Aver	(M)	
20 Methoxychlor	24471	27120	0.000	10.82290	20.00000	Aver	(M)	
21 Endrin ketone	42660	48275	0.000	13.16190	20.00000	Aver	(M)	
$ 24 Decachlorobiphenyl (S)	49697	60125	0.000	20.98368	20.00000	Aver	(M)	<-

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 18.06695
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-010.d

Date : 17-JUL-2019 15:14

Client ID: CCV

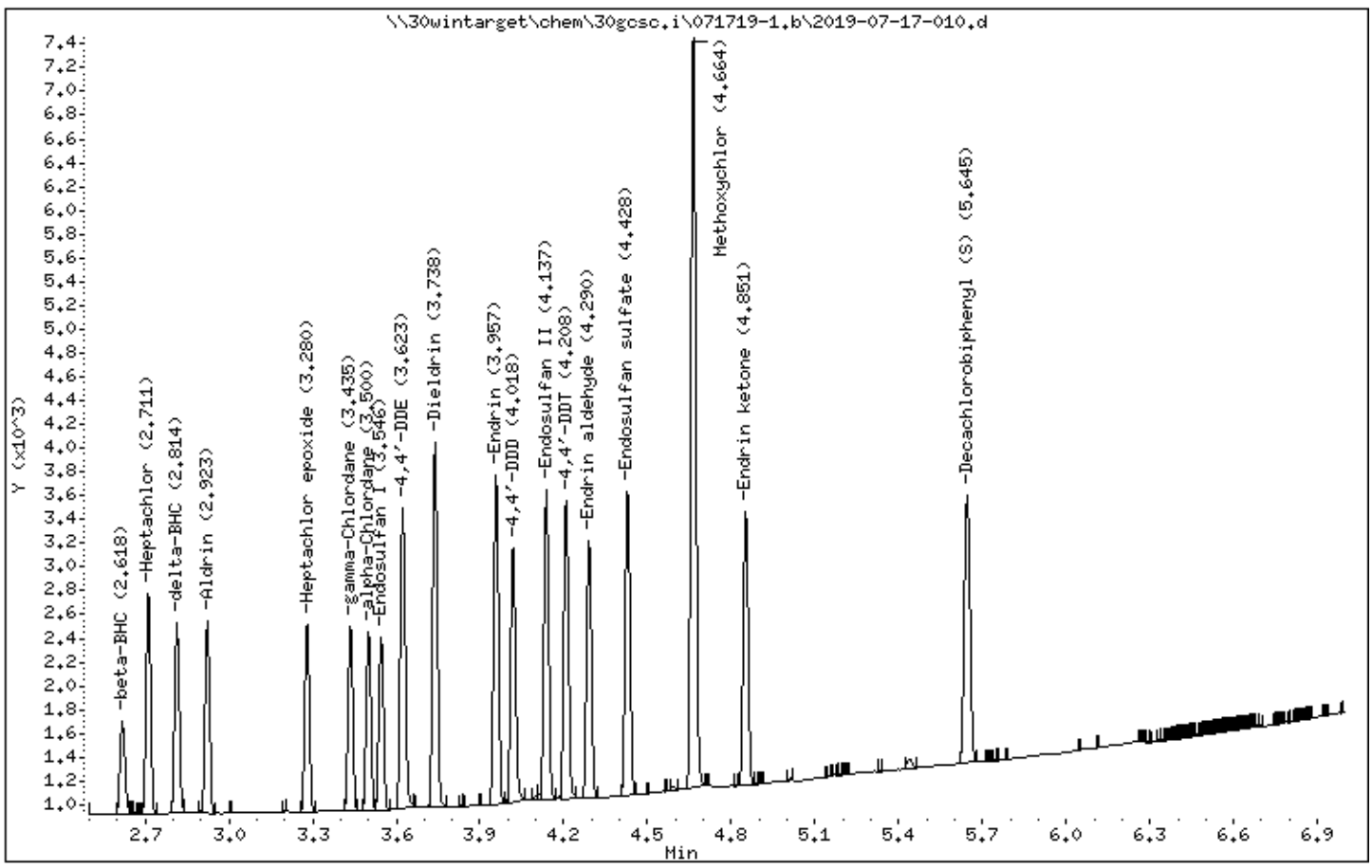
Instrument: 30gcsc.i

Sample Info: CCV, 93869:1

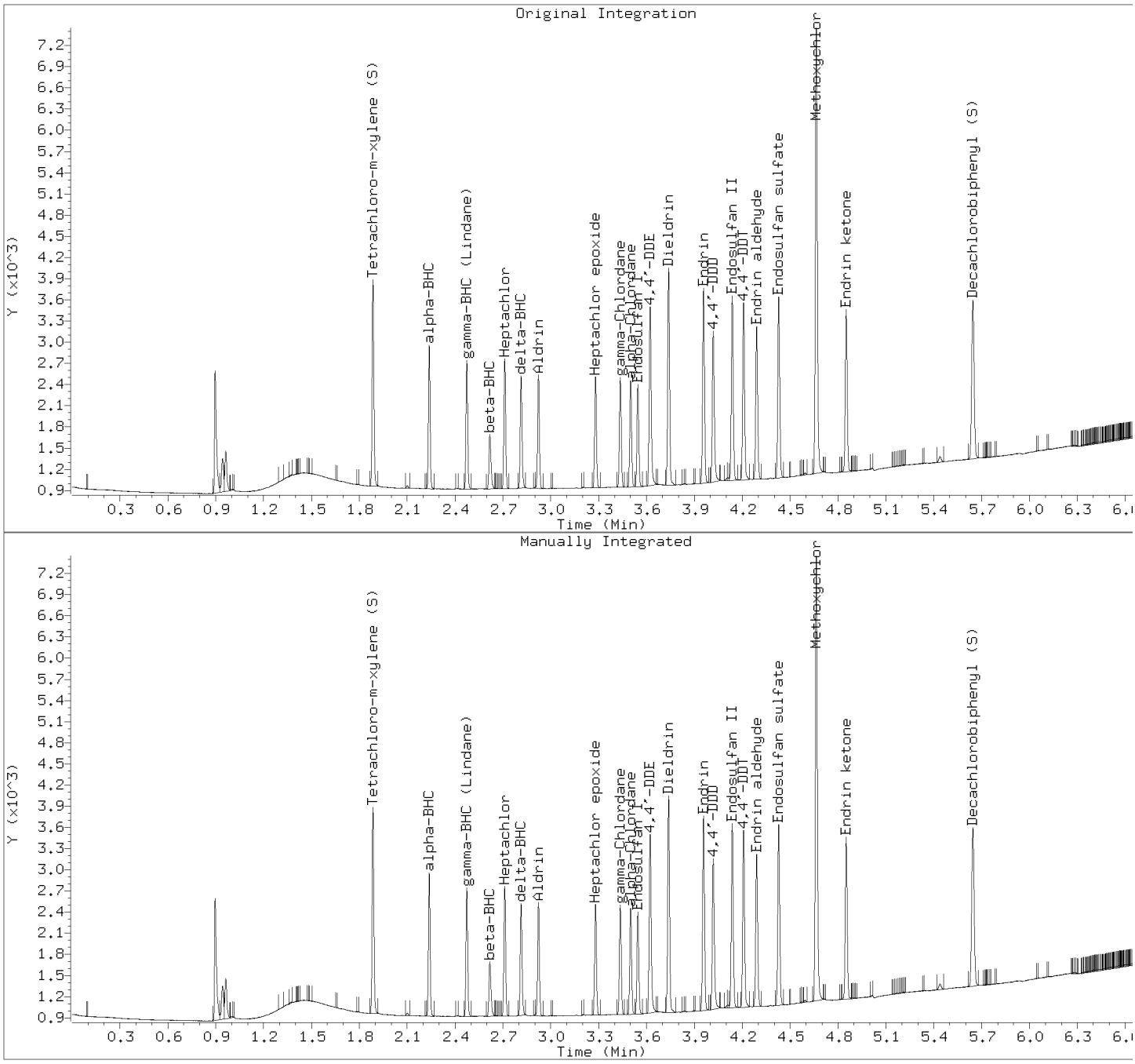
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUL-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1467	1467
beta-BHC	692	692
delta-BHC	1266	1266
gamma-BHC (Lindane)	1352	1352
Heptachlor	1416	1416
Aldrin	1242	1242
Heptachlor epoxide	1233	1233
Endosulfan I	1163	1163
Dieldrin	2502	2502
4,4'-DDE	2234	2234
Endrin	2259	2259
Endosulfan II	2162	2162
4,4'-DDD	1877	1877
Endosulfan sulfate	2157	2157

4,4'-DDT	2075	2075
Methoxychlor	5424	5424
Endrin ketone	1931	1931
Endrin aldehyde	1818	1818
alpha-Chlordane	1205	1205
gamma-Chlordane	1243	1243
Tetrachloro-m-xylene (S)	2169	2169
Decachlorobiphenyl (S)	2405	2405

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.178	1	2	1.887	0.0117			
0.866	2	5	2.591	0.0293			
0.881	734	1479	2.015	8.6800			
0.953	2	5	2.459	0.0293			
0.983	128	163	1.278	0.9566			
1.012	112	153	1.370	0.8979			
1.057	2	4	2.083	0.0234			
1.274	1	2	1.750	0.0117			
1.332	2	4	2.244	0.0234			
1.472	2	2	1.170	0.0117			
2.130	2	3	1.796	0.0176			
2.359	774	1006	1.300	5.9041	$	1 Tetrachloro-m-xylene (S)	RT
2.570	4	9	2.009	0.0528			
2.623	497	660	1.329	3.8734		2 alpha-BHC	RT
2.839	453	596	1.317	3.4978		3 gamma-BHC (Lindane)	RT
2.921	1	4	3.704	0.0234			
3.000	218	278	1.276	1.6315		4 beta-BHC	RT
3.089	3	8	3.141	0.0469			
3.135	1	3	2.609	0.0176			
3.186	449	580	1.291	3.4039		5 delta-BHC	RT
3.223	1	4	2.985	0.0234			
3.226	1	4	3.704	0.0234			
3.249	410	511	1.245	2.9990		6 Heptachlor	RT
3.476	408	496	1.215	2.9109		7 Aldrin	RT
3.638	1	3	2.113	0.0176			
3.712	1	2	1.504	0.0117			
3.744	1	3	2.041	0.0176			
3.770	406	493	1.213	2.8933		8 Heptachlor epoxide	RT
3.983	394	472	1.198	2.7701		9 gamma-Chlordane	RT
4.019	391	468	1.198	2.7466		10 alpha-Chlordane	RT
4.052	378	453	1.198	2.6586		11 Endosulfan I	RT
4.098	773	926	1.198	5.4345		12 4,4'-DDE	RT
4.168	2	5	2.686	0.0293			
4.226	803	966	1.203	5.6693		13 Dieldrin	RT
4.295	1	4	2.881	0.0234			
4.388	678	785	1.157	4.6070		14 Endrin	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.450	630	752	1.194	4.4134		15 4,4'-DDD	RT
4.478	2	8	3.738	0.0469			
4.482	1	5	4.630	0.0293			
4.561	711	836	1.176	4.9063		16 Endosulfan II	RT
4.589	2	7	3.825	0.0410			
4.596	2	7	3.196	0.0410			
4.600	2	9	4.110	0.0528			
4.604	2	8	4.301	0.0469			
4.606	2	10	6.369	0.0586			
4.609	1	9	6.716	0.0528			
4.634	622	702	1.128	4.1199		17 Endrin aldehyde	RT
4.661	425	495	1.165	2.9051		18 4,4'-DDT	RT
4.739	4	6	1.463	0.0352			
4.825	669	775	1.158	4.5483		19 Endosulfan sulfate	RT
4.873	3	2	0.775	0.0117			
4.894	2	7	3.804	0.0410			
4.945	1383	1515	1.095	8.8950		20 Methoxychlor	RT
5.099	16	19	1.219	0.1115			
5.124	585	643	1.099	3.7736		21 Endrin ketone	RT
5.314	3	8	2.817	0.0469			
5.318	2	8	3.540	0.0469			
5.321	2	7	3.977	0.0410			
5.548	2	6	2.439	0.0352			
5.634	1	3	2.830	0.0176			
5.671	2	5	3.289	0.0293			
5.677	3	7	2.745	0.0410			
5.681	1	8	6.061	0.0469			
5.690	3	7	2.326	0.0410			
5.693	1	7	5.983	0.0410			
5.698	2	8	4.678	0.0469			
5.703	1	7	5.147	0.0410			
5.706	1	6	4.651	0.0352			
5.712	1	5	3.731	0.0293			
5.917	1	4	3.478	0.0234			
6.079	4	5	1.179	0.0293			
6.289	1	5	4.902	0.0293			
6.333	757	553	0.731	3.2454	$	24 Decachlorobiphenyl (S)	RT
6.510	1	4	3.052	0.0234			
	13892	17039		100.000			

Total unknown % height = 12.2

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-010.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.358	2.358	0.000	774	0.04000	0.0419		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.622	2.622	0.000	496	0.02000	0.0206		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.838	2.838	0.000	452	0.02000	0.0205		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
3.000	3.000	0.000	217	0.02000	0.0197		(M)	RT
5 delta-BHC					CAS #: 319-86-8			
3.185	3.185	0.000	449	0.02000	0.0202		(M)	RT
6 Heptachlor					CAS #: 76-44-8			
3.248	3.248	0.000	410	0.02000	0.0191		(M)	RT
7 Aldrin					CAS #: 309-00-2			
3.476	3.476	0.000	408	0.02000	0.0206		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.769	3.769	0.000	406	0.02000	0.0204		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.982	3.982	0.000	394	0.02000	0.0204		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
4.018	4.018	0.000	390	0.02000	0.0206		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
4.051	4.051	0.000	378	0.02000	0.0207		(M)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.097	4.097	0.000	773	0.04000	0.0432		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
4.225	4.225	0.000	802	0.04000	0.0418		(M)	RT
14 Endrin					CAS #: 72-20-8			
4.387	4.387	0.000	678	0.04000	0.0429		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.450	4.450	0.000	629	0.04000	0.0414		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.560	4.560	0.000	710	0.04000	0.0422		(M)	RT
17 Endrin aldehyde					CAS #: 7421-36-3			
4.633	4.633	0.000	622	0.04000	0.0428		(M)	RT
18 4,4'-DDT					CAS #: 50-29-3			
4.660	4.660	0.000	424	0.04000	0.0353		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.824	4.824	0.000	669	0.04000	0.0414		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.945	4.945	0.000	1383	0.20000	0.187		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
5.124	5.124	0.000	584	0.04000	0.0400		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.333	6.333	0.000	756	0.04000	0.0474		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUL-2019 15:14
Lab File ID: 2019-07-17-010. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m

			MIN		MAX	CURVE	QC
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS
$ 1 Tetrachloro-m-xylene (S)	18464	19350	0.000	4.79691	20.00000	Aver	(M)
2 alpha-BHC	24103	24800	0.000	2.89338	20.00000	Aver	(M)
3 gamma-BHC (Lindane)	22051	22600	0.000	2.48769	20.00000	Aver	(M)
4 beta-BHC	11024	10850	0.000	-1.58093	20.00000	Aver	(M)
5 delta-BHC	22166	22450	0.000	1.28255	20.00000	Aver	(M)
6 Heptachlor	21481	20500	0.000	-4.56661	20.00000	Aver	(M)
7 Aldrin	19785	20400	0.000	3.10717	20.00000	Aver	(M)
8 Heptachlor epoxide	19885	20300	0.000	2.08456	20.00000	Aver	(M)
9 gamma-Chlordane	19302	19700	0.000	2.06121	20.00000	Aver	(M)
10 alpha-Chlordane	18942	19500	0.000	2.94765	20.00000	Aver	(M)
11 Endosulfan I	18276	18900	0.000	3.41458	20.00000	Aver	(M)
12 4,4'-DDE	17874	19325	0.000	8.11549	20.00000	Aver	(M)
13 Dieldrin	19179	20050	0.000	4.53987	20.00000	Aver	(M)
14 Endrin	15794	16950	0.000	7.31972	20.00000	Aver	(M)
15 4,4'-DDD	15178	15725	0.000	3.60650	20.00000	Aver	(M)
16 Endosulfan II	16826	17750	0.000	5.49329	20.00000	Aver	(M)
17 Endrin aldehyde	14537	15550	0.000	6.96913	20.00000	Aver	(M)
18 4,4'-DDT	12012	10600	0.000	-11.75684	20.00000	Aver	(M)
19 Endosulfan sulfate	16163	16725	0.000	3.47494	20.00000	Aver	(M)
20 Methoxychlor	7382	6915	0.000	-6.32982	20.00000	Aver	(M)
21 Endrin ketone	14595	14600	0.000	0.03671	20.00000	Aver	(M)
$ 24 Decachlorobiphenyl (S)	15958	18900	0.000	18.43254	20.00000	Aver	(M)

QC Flag Legend

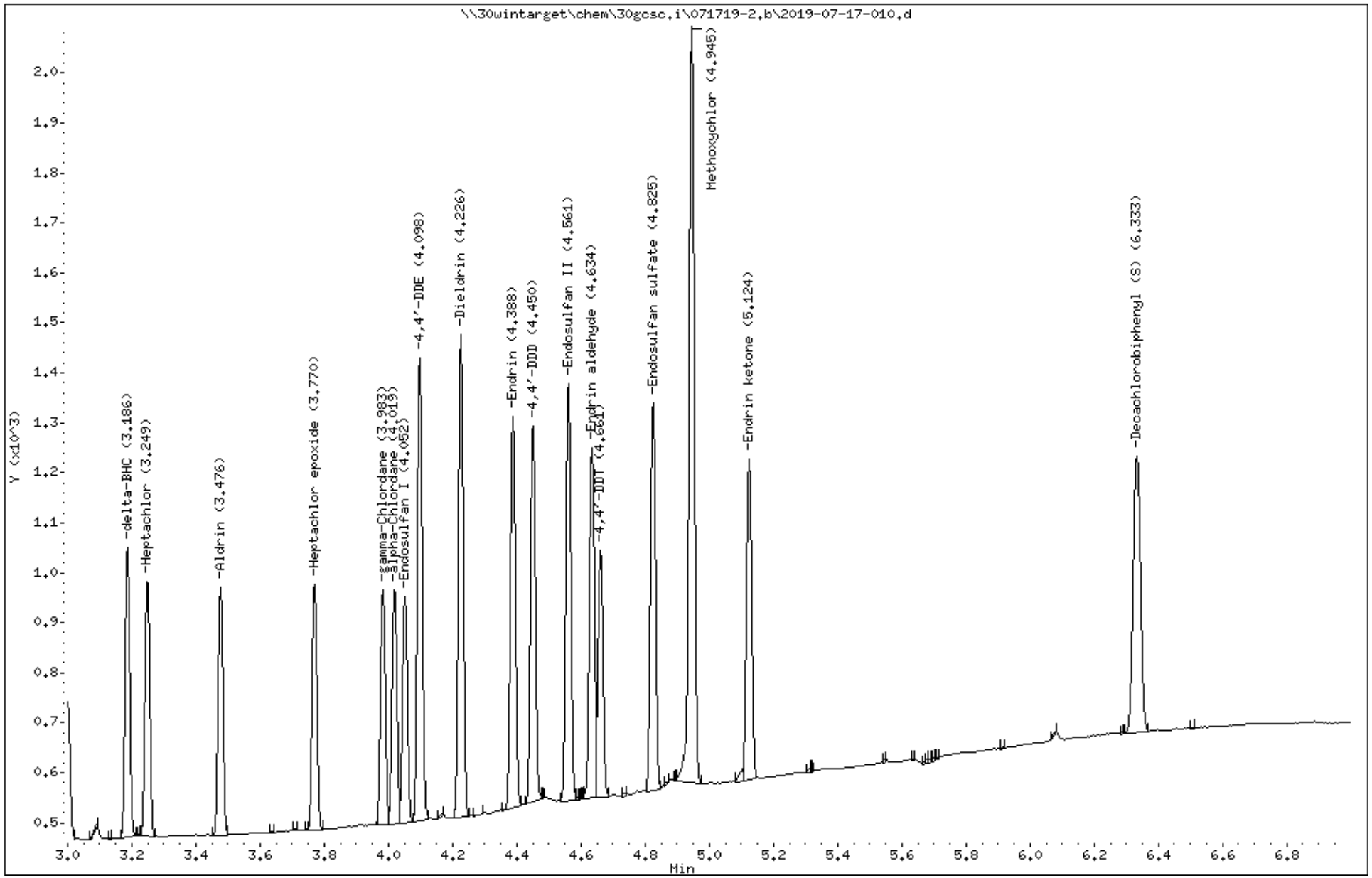
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-010.d
Date : 17-JUL-2019 15:14
Client ID: CCV
Sample Info: CCV, 93869:1

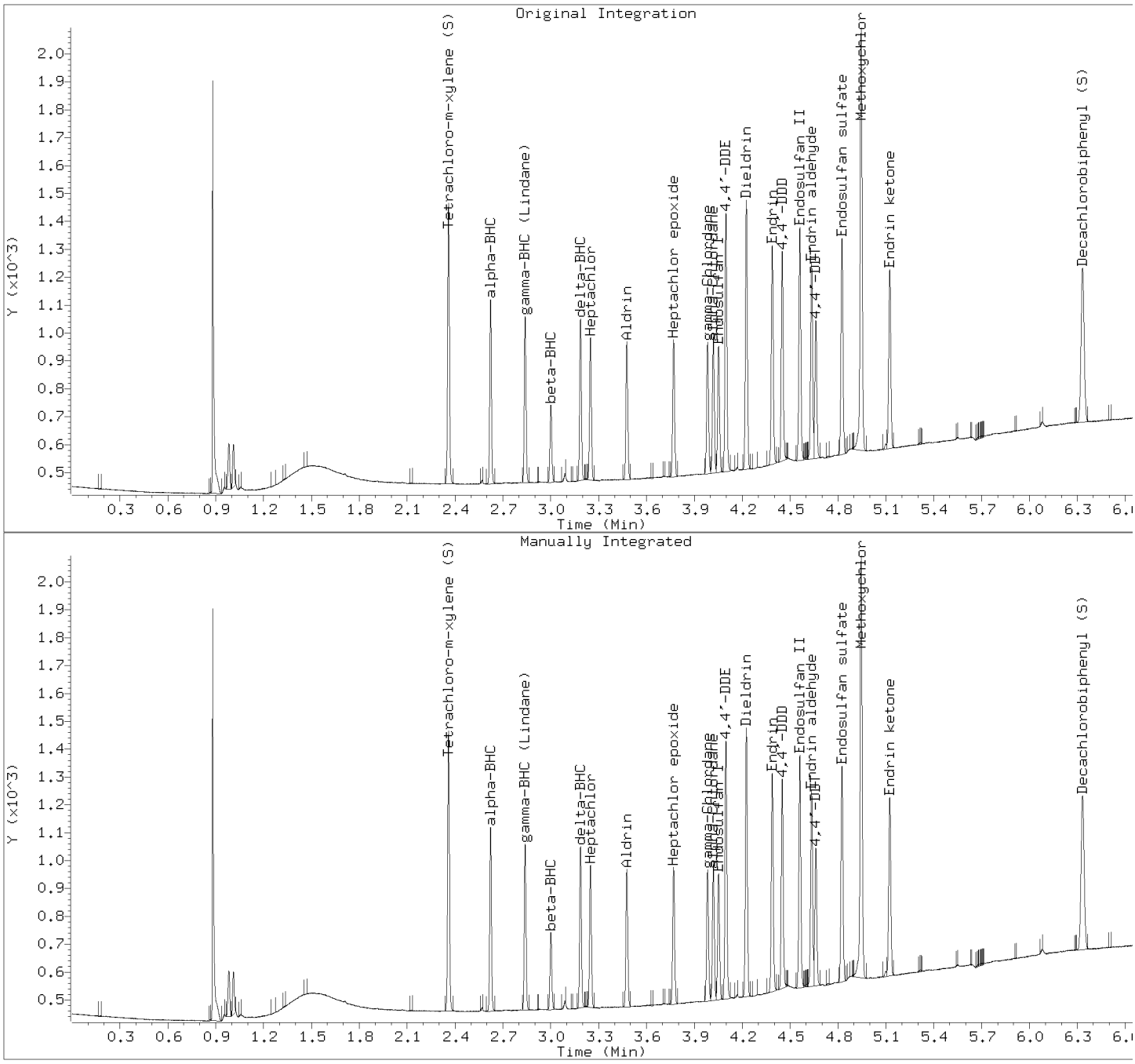
Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUL-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	496	496
beta-BHC	217	217
delta-BHC	449	449
gamma-BHC (Lindane)	452	452
Heptachlor	410	410
Aldrin	408	408
Heptachlor epoxide	406	406
Endosulfan I	378	378
Dieldrin	802	802
4,4'-DDE	773	773
Endrin	678	678
Endosulfan II	710	710
4,4'-DDD	629	629
Endosulfan sulfate	669	669

4,4'-DDT	424	424
Methoxychlor	1383	1383
Endrin ketone	584	584
Endrin aldehyde	622	622
alpha-Chlordane	390	390
gamma-Chlordane	394	394
Tetrachloro-m-xylene (S)	774	774
Decachlorobiphenyl (S)	756	756

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-026.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 17:49
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 26 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.889	46	146	3.179	0.4687			
0.895	129	160	1.238	0.5137			
0.943	562	700	1.246	2.2476			
0.963	558	650	1.165	2.0870			
0.992	6	12	2.162	0.0385			
0.998	3	11	3.704	0.0353			
1.186	4	14	3.618	0.0449			
1.189	6	15	2.479	0.0481			
1.199	2	7	3.043	0.0224			
1.240	3	8	3.124	0.0256			
1.243	3	9	2.913	0.0288			
1.338	15	23	1.507	0.0738			
1.371	6	11	1.771	0.0353			
1.410	2	6	2.913	0.0192			
1.426	8	11	1.325	0.0353			
1.436	6	12	2.087	0.0385			
1.440	3	11	4.044	0.0353			
1.452	8	15	1.784	0.0481			
1.456	4	14	3.581	0.0449			
1.464	4	11	2.517	0.0353			
1.483	55	66	1.194	0.2119			
1.509	3	6	1.875	0.0192			
1.537	4	9	2.088	0.0288			
1.556	3	8	3.113	0.0256			
1.701	5	9	1.863	0.0288			
1.885	1409	1901	1.349	6.1039	$	1 Tetrachloro-m-xylene (S)	
2.100	20	27	1.329	0.0866			
2.238	971	1342	1.383	4.3090		2 alpha-BHC	
2.347	2	5	2.347	0.0160			
2.473	920	1220	1.326	3.9172		3 gamma-BHC (Lindane)	
2.619	579	561	0.970	1.8013		4 beta-BHC	
2.736	2	5	2.500	0.0160			
2.905	25	28	1.117	0.0899			
2.936	2	5	2.392	0.0160			
3.053	3	7	2.357	0.0224			
3.083	6	9	1.544	0.0288			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.208	13	17	1.272	0.0545			
3.560	7	9	1.368	0.0288			
3.624	37	36	0.963	0.1155		12 4,4'-DDE	
3.643	3	9	3.475	0.0288			
3.654	2	8	3.376	0.0256			
3.660	3	7	2.222	0.0224			
3.668	2	6	2.727	0.0192			
3.957	3648	4463	1.223	14.3302		14 Endrin	
4.017	163	186	1.143	0.5972		15 4,4'-DDD	
4.083	3	8	2.319	0.0256			
4.108	8	16	1.968	0.0513			
4.112	6	15	2.362	0.0481			
4.183	7	18	2.490	0.0577			
4.208	6592	7848	1.191	25.1990		17 4,4'-DDT	
4.290	70	81	1.152	0.2600		18 Endrin aldehyde	
4.325	3	6	2.304	0.0192			
4.633	3	9	2.655	0.0288			
4.663	8205	9374	1.143	30.1030		20 Methoxychlor	
4.718	76	72	0.950	0.2311			
4.736	5	14	2.662	0.0449			
4.748	4	11	2.895	0.0353			
4.838	21	39	1.853	0.1252			
4.851	136	159	1.166	0.5105		21 Endrin ketone	
4.888	2	6	2.632	0.0192			
4.900	2	6	2.970	0.0192			
5.182	3	6	2.353	0.0192			
5.435	4	14	3.627	0.0449			
5.436	3	17	5.802	0.0545			
5.441	7	14	2.112	0.0449			
5.644	1662	1571	0.945	5.0443	$	24 Decachlorobiphenyl (S)	
5.680	4	14	3.302	0.0449			
5.686	3	12	3.647	0.0385			
5.694	2	7	3.084	0.0224			
6.774	3	7	2.208	0.0224			
6.848	2	5	2.232	0.0160			
	26103	31144		100.000			

Total unknown % height = 7.71

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-026.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 17:49
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 26 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	1409	0.02787	0.0279			(R)
2 alpha-BHC					CAS #: 319-84-6			
2.238	2.238	0.000	970	0.01426	0.0142			(R)
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.472	2.473	-0.001	919	0.01464	0.0146			(R)
4 beta-BHC					CAS #: 319-85-7			
2.618	2.617	0.001	578	0.01952	0.0195			(R)
12 4,4'-DDE					CAS #: 72-55-9			
3.624	3.622	0.002	37	7.e-004	0.000696			
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	3648	0.07294	0.0729			(R)
15 4,4'-DDD					CAS #: 72-54-8			
4.017	4.017	0.000	162	0.00365	0.00365			
17 4,4'-DDT					CAS #: 50-29-3			
4.207	4.207	0.000	6591	0.14028	0.140			(R)
18 Endrin aldehyde					CAS #: 7421-36-3			
4.289	4.289	0.000	70	0.00167	0.00167			
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	8204	0.33525	0.335			(R)
21 Endrin ketone					CAS #: 53494-70-5			
4.850	4.851	-0.001	136	0.00319	0.00319			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.644	0.000	1661	0.03342	0.0334			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-071719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0142	
58-89-9	gamma-BHC (Lindane)	0.0146	
319-85-7	beta-BHC	0.0195	
72-55-9	4,4'-DDE	0.000696	
72-20-8	Endrin	0.0729	
72-54-8	4,4'-DDD	0.00365	
50-29-3	4,4'-DDT	0.140	
7421-36-3	Endrin aldehyde	0.00167	
72-43-5	Methoxychlor	0.335	
53494-70-5	Endrin ketone	0.00319	
----------	Tetrachloro-m-xylene (S)	0.0279	
----------	Decachlorobiphenyl (S)	0.0334	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-026.d

Date : 17-JUL-2019 17:49

Client ID: PEM

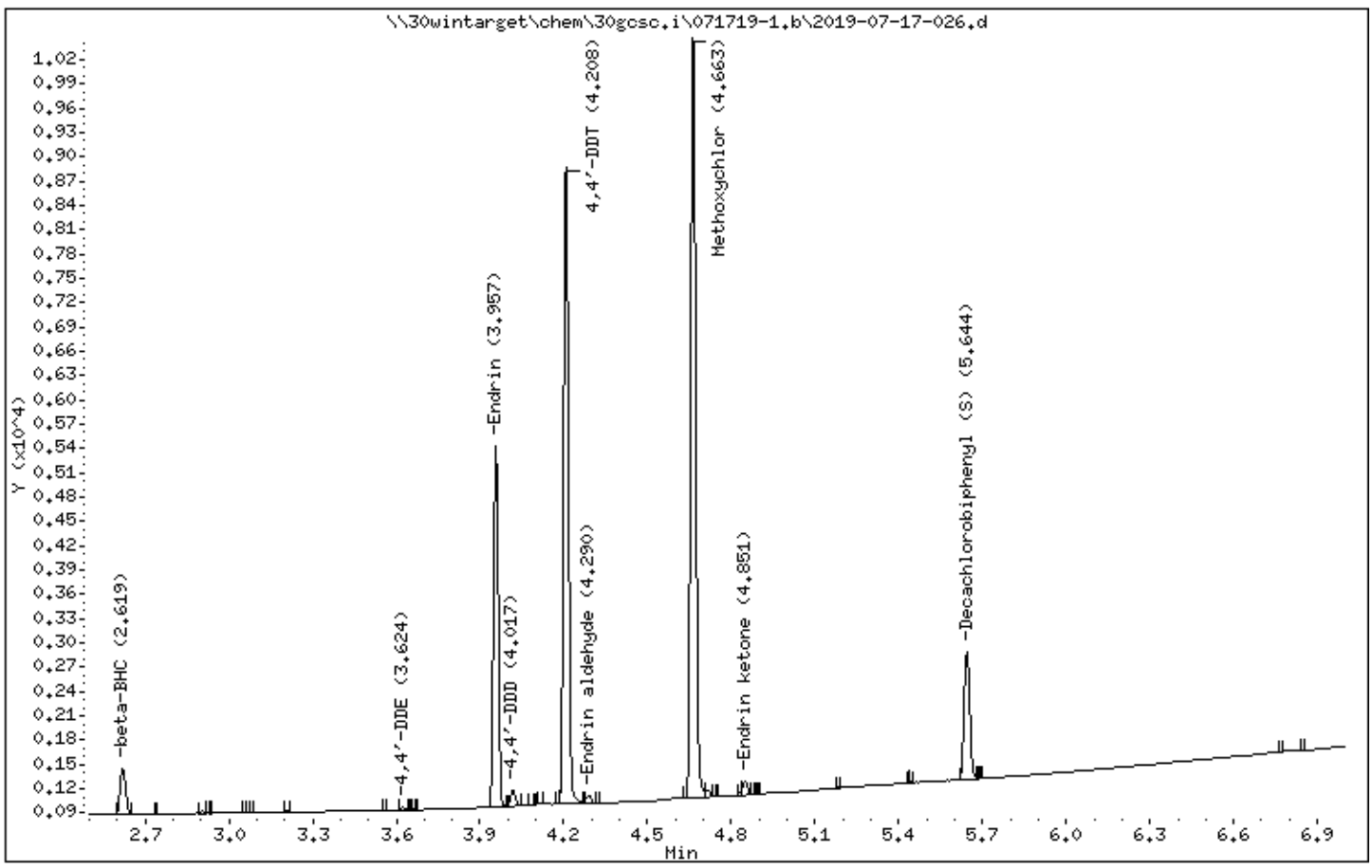
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-026.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUL-2019 17:49 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	162	162
Methoxychlor	8204	8204
gamma-BHC (Lindane)	919	919
beta-BHC	578	578
4,4'-DDE	37	37
Endrin	3648	3648
Endrin aldehyde	70	70
4,4'-DDT	6591	6591
Endrin ketone	136	136
alpha-BHC	970	970
Tetrachloro-m-xylene (S)	1409	1409
Decachlorobiphenyl (S)	1661	1661

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-026.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 17:49
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.880	96	230	2.392	2.6421			
0.905	1	3	2.703	0.0344			
0.948	8	9	1.190	0.1033			
0.982	205	248	1.212	2.8489			
1.011	199	255	1.280	2.9293			
1.381	1	3	2.564	0.0344			
1.430	1	3	2.655	0.0344			
1.494	2	3	1.754	0.0344			
1.542	1	6	5.556	0.0689			
1.547	2	6	3.947	0.0689			
1.560	3	3	1.195	0.0344			
1.627	1	3	2.586	0.0344			
1.683	2	5	2.500	0.0574			
1.688	1	5	4.902	0.0574			
1.911	3	7	2.645	0.0804			
2.359	505	658	1.303	7.5588	$	1 Tetrachloro-m-xylene (S)	
2.623	328	433	1.320	4.9741		2 alpha-BHC	
2.839	303	402	1.325	4.6180		3 gamma-BHC (Lindane)	
3.001	144	187	1.298	2.1481		4 beta-BHC	
3.068	1	2	1.835	0.0229			
3.089	52	64	1.231	0.7352			
3.177	1	4	3.150	0.0459			
3.621	2	3	1.948	0.0344			
3.725	2	3	1.705	0.0344			
4.061	1	3	2.500	0.0344			
4.101	8	10	1.304	0.1148		12 4,4'-DDE	
4.388	1077	1254	1.165	14.4055		14 Endrin	
4.417	1	6	4.762	0.0689			
4.451	51	64	1.261	0.7352		15 4,4'-DDD	
4.488	1	4	3.175	0.0459			
4.495	1	3	2.290	0.0344			
4.558	3	6	1.905	0.0689			
4.568	3	6	2.182	0.0689			
4.580	6	10	1.818	0.1148			
4.582	2	11	4.933	0.1263			
4.586	2	13	6.019	0.1493			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.594	6	17	2.755	0.1952			
4.608	18	24	1.371	0.2757			
4.613	6	25	3.900	0.2871			
4.634	69	58	0.843	0.6662		17 Endrin aldehyde	
4.661	1501	1717	1.144	19.7242		18 4,4'-DDT	
4.691	1	4	2.837	0.0459			
4.862	1	3	2.066	0.0344			
4.883	1	4	3.883	0.0459			
4.895	1	5	4.098	0.0574			
4.901	2	10	4.808	0.1148			
4.906	4	16	4.233	0.1838			
4.945	2174	2412	1.110	27.7111		20 Methoxychlor	
5.001	2	7	3.226	0.0804			
5.004	1	6	4.110	0.0689			
5.101	9	15	1.738	0.1723			
5.123	43	47	1.092	0.5399		21 Endrin ketone	BA
5.580	1	4	3.571	0.0459			
5.749	1	3	2.190	0.0344			
6.076	1	3	2.970	0.0344			
6.083	1	4	2.920	0.0459			
6.285	1	3	2.830	0.0344			
6.331	513	383	0.746	4.3997	$	24 Decachlorobiphenyl (S)	
	7379	8705		100.000			

Total unknown % height = 12.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-026.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 17-JUL-2019 17:49
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 26 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.358	2.358	0.000	505	0.02735	0.0274		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.622	2.622	0.000	328	0.01361	0.0136		(R)	
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.839	2.838	0.001	303	0.01374	0.0137		(R)	
4 beta-BHC					CAS #: 319-85-7			
3.000	3.000	0.000	144	0.01306	0.0131		(R)	
12 4,4'-DDE					CAS #: 72-55-9			
4.100	4.097	0.003	7	4e-004	0.000392			
14 Endrin					CAS #: 72-20-8			
4.387	4.387	0.000	1076	0.06813	0.0681		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.450	0.001	50	0.00329	0.00329			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.633	4.633	0.000	68	0.00468	0.00468			
18 4,4'-DDT					CAS #: 50-29-3			
4.660	4.660	0.000	1501	0.12496	0.125		(R)	
20 Methoxychlor					CAS #: 72-43-5			
4.944	4.945	-0.001	2173	0.29435	0.294			
21 Endrin ketone					CAS #: 53494-70-5			
5.122	5.124	-0.002	43	0.00295	0.00295		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.331	6.333	-0.002	513	0.03215	0.0321			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

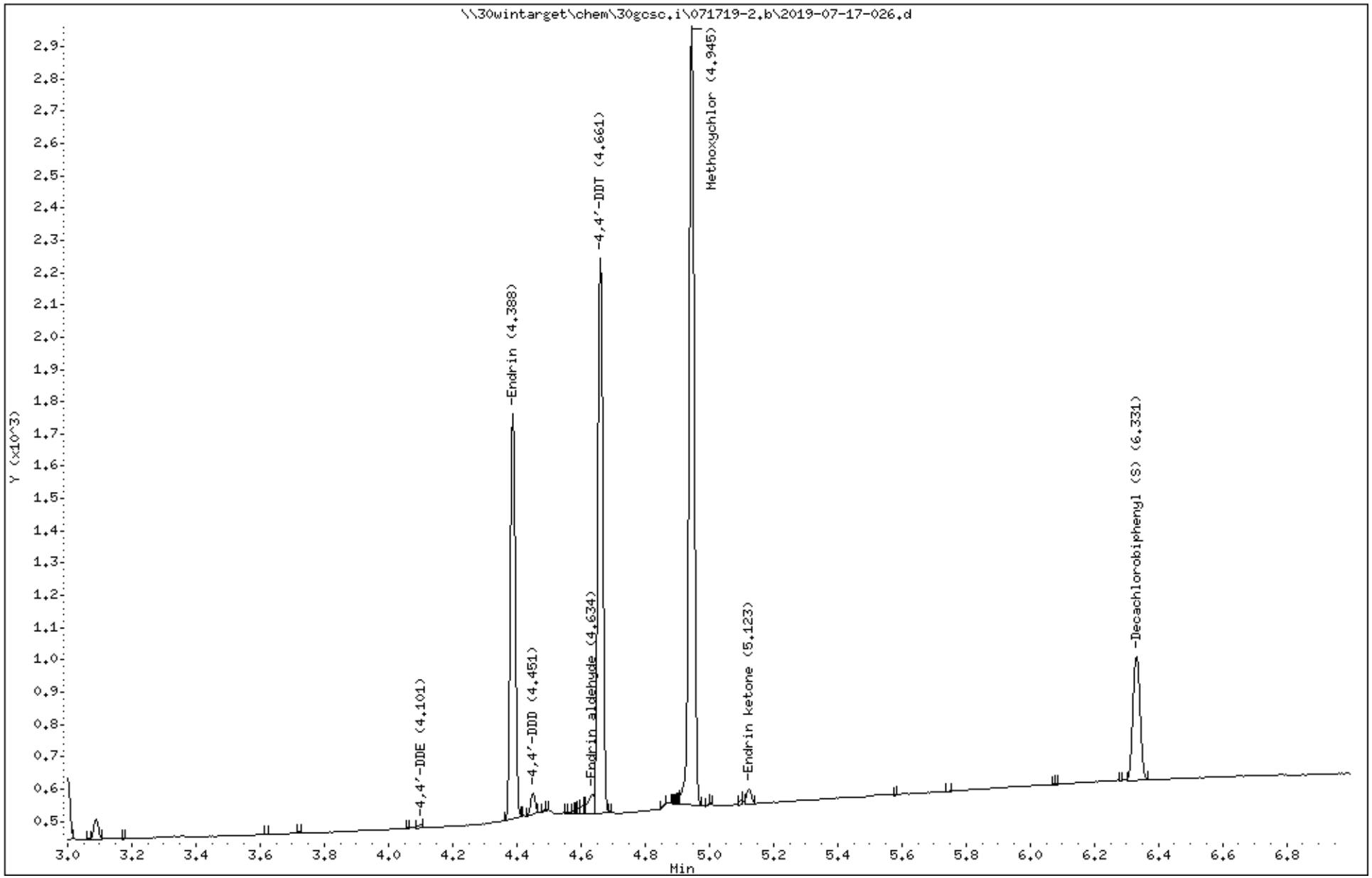
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-071719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

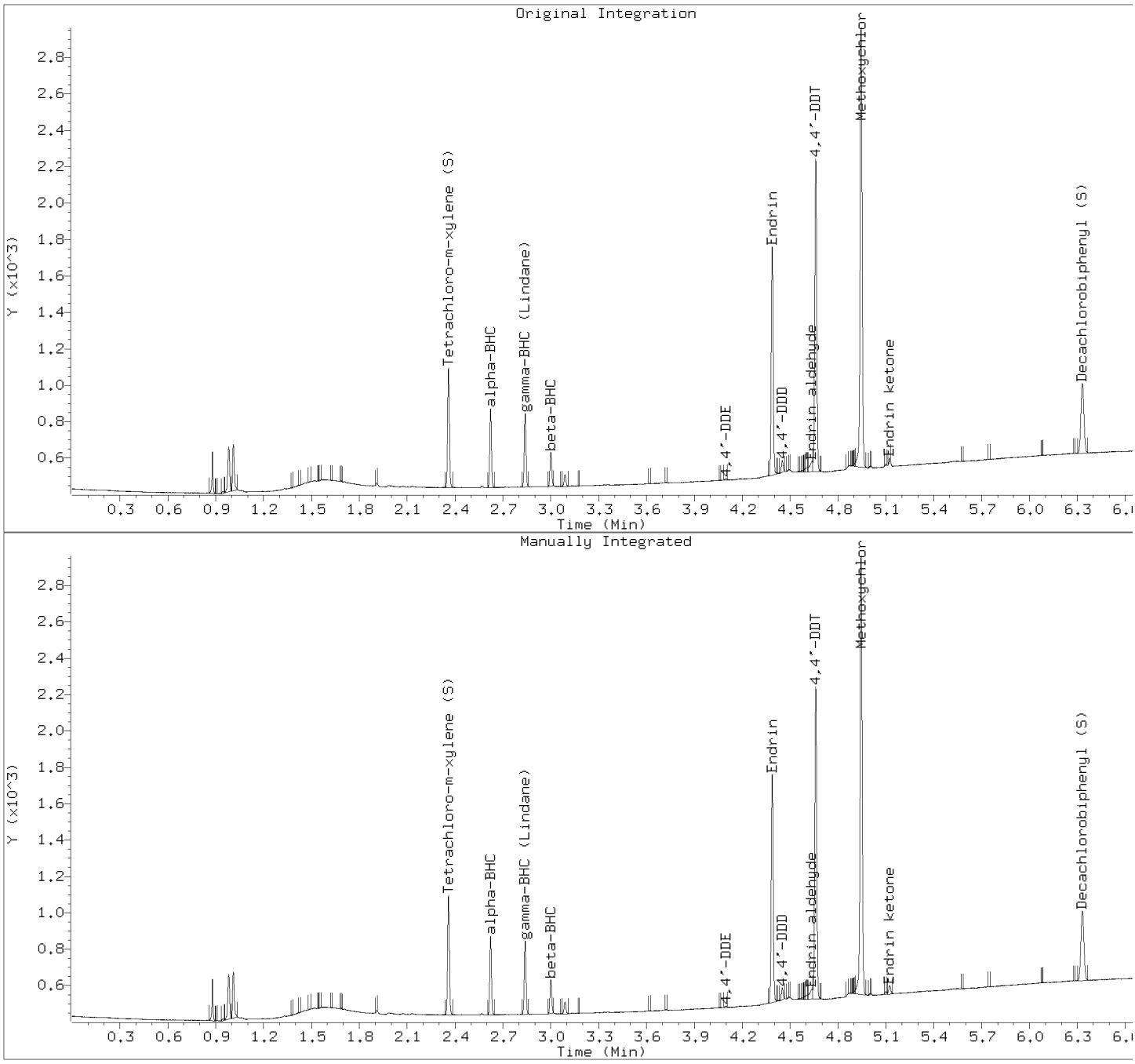
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0136	
58-89-9	gamma-BHC (Lindane)	0.0137	
319-85-7	beta-BHC	0.0131	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0681	
72-54-8	4,4'-DDD	0.00329	
7421-36-3	Endrin aldehyde	0.00468	
50-29-3	4,4'-DDT	0.125	
72-43-5	Methoxychlor	0.294	
53494-70-5	Endrin ketone	0.00295	
----------	Tetrachloro-m-xylene (S)	0.0274	
----------	Decachlorobiphenyl (S)	0.0321	

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-026.d
Date : 17-JUL-2019 17:49
Client ID: PEM
Sample Info: PEM, 89577:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-026.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 17-JUL-2019 17:49 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	328	328
beta-BHC	144	144
gamma-BHC (Lindane)	303	303
4,4'-DDE	7	7
Endrin	1076	1076
4,4'-DDD	50	50
4,4'-DDT	1501	1501
Methoxychlor	2173	2173
Endrin ketone	6	43
Endrin aldehyde	68	68
Tetrachloro-m-xylene (S)	505	505
Decachlorobiphenyl (S)	513	513

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-027.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 17:59
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	1391	1726	1.241	3.2626		
0.942	329	387	1.176	0.7315		
0.962	431	496	1.152	0.9376		
0.997	4	12	3.270	0.0226		
1.001	2	13	5.628	0.0245		
1.004	5	12	2.459	0.0226		
1.220	3	6	1.887	0.0113		
1.338	2	6	2.985	0.0113		
1.373	29	27	0.934	0.0510		
1.389	3	16	5.498	0.0302		
1.390	2	17	6.939	0.0321		
1.399	7	18	2.426	0.0340		
1.401	2	21	9.417	0.0396		
1.411	13	23	1.800	0.0434		
1.416	7	25	3.411	0.0472		
1.429	20	30	1.485	0.0567		
1.438	17	33	1.924	0.0623		
1.451	27	40	1.460	0.0756		
1.455	15	41	2.782	0.0775		
1.461	8	39	4.750	0.0737		
1.468	16	40	2.483	0.0756		
1.473	11	40	3.697	0.0756		
1.482	26	45	1.739	0.0850		
1.491	22	42	1.878	0.0793		
1.496	11	40	3.643	0.0756		
1.500	5	41	7.455	0.0775		
1.513	46	47	1.013	0.0888		
1.521	6	38	5.938	0.0718		
1.524	14	37	2.666	0.0699		
1.530	6	35	5.942	0.0661		
1.534	10	35	3.490	0.0661		
1.540	5	30	6.479	0.0567		
1.543	7	32	4.482	0.0604		
1.547	11	29	2.754	0.0548		
1.553	12	27	2.328	0.0510		
1.561	7	20	2.928	0.0378		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.566	4	18	4.157	0.0340		
1.571	5	15	2.953	0.0283		
1.579	3	11	3.679	0.0207		
1.651	9	16	1.746	0.0302		
1.792	4	10	2.392	0.0189		
1.886	2295	3027	1.319	5.7220	$ 1 Tetrachloro-m-xylene (S)	
1.924	3	11	3.274	0.0207		
2.101	27	38	1.406	0.0718		
2.239	1546	2102	1.359	3.9734	2 alpha-BHC	
2.414	3	7	2.317	0.0132		
2.474	1415	1861	1.315	3.5178	3 gamma-BHC (Lindane)	
2.618	750	789	1.052	1.4914	4 beta-BHC	
2.652	3	10	3.049	0.0189		
2.658	2	10	4.098	0.0189		
2.712	1426	1846	1.295	3.4895	5 Heptachlor	
2.791	2	7	2.917	0.0132		
2.814	1352	1606	1.188	3.0358	6 delta-BHC	
2.902	13	31	2.445	0.0586		
2.923	1325	1702	1.284	3.2173	7 Aldrin	
3.002	3	7	2.652	0.0132		
3.204	9	13	1.482	0.0245		
3.280	1287	1617	1.256	3.0566	8 Heptachlor epoxide	
3.435	1289	1606	1.246	3.0358	9 gamma-Chlordane	
3.500	1248	1542	1.235	2.9148	10 alpha-Chlordane	
3.545	1205	1486	1.233	2.8090	11 Endosulfan I	
3.623	2285	2401	1.051	4.5386	12 4,4'-DDE	
3.676	3	11	3.819	0.0207		
3.738	2587	3149	1.217	5.9526	13 Dieldrin	
3.801	2	7	3.398	0.0132		
3.834	6	12	1.977	0.0226		
3.957	2142	2600	1.214	4.9148	14 Endrin	
4.019	1843	1909	1.036	3.6086	15 4,4'-DDD	
4.062	7	14	1.894	0.0264		
4.099	4	13	3.291	0.0245		
4.101	6	18	2.990	0.0340		
4.106	7	17	2.388	0.0321		
4.137	2184	2515	1.152	4.7541	16 Endosulfan II	
4.208	1862	2181	1.171	4.1227	17 4,4'-DDT	
4.289	1863	2167	1.163	4.0963	18 Endrin aldehyde	
4.427	2202	2569	1.166	4.8562	19 Endosulfan sulfate	
4.543	3	8	2.827	0.0151		
4.570	2	7	2.823	0.0132		
4.593	25	28	1.141	0.0529		
4.664	4949	5336	1.078	10.0918	20 Methoxychlor	
4.714	18	36	1.948	0.0680		
4.723	11	24	2.180	0.0453		
4.735	2	14	5.668	0.0264		
4.739	3	14	4.130	0.0264		
4.743	2	12	5.310	0.0226		
4.747	2	10	4.762	0.0189		
4.850	1966	2246	1.143	4.2456	21 Endrin ketone	
4.893	10	16	1.537	0.0302		
5.015	20	28	1.380	0.0529		
5.084	2	4	1.786	0.0075		
5.132	4	8	2.089	0.0151		
5.181	3	9	2.857	0.0170		
5.187	3	8	2.462	0.0151		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.210	11	16	1.440	0.0302		
5.218	4	10	2.532	0.0189		
5.234	2	9	4.206	0.0170		
5.332	9	23	2.596	0.0434		
5.335	4	23	6.037	0.0434		
5.338	8	22	2.654	0.0415		
5.438	81	77	0.952	0.1455		
5.467	3	9	2.778	0.0170		
5.490	2	8	3.865	0.0151		
5.504	3	9	2.980	0.0170		
5.511	3	9	2.813	0.0170		
5.643	2421	2189	0.904	4.1379	$ 24 Decachlorobiphenyl (S)	
5.679	6	17	2.673	0.0321		
6.071	2	7	2.917	0.0132		
6.113	3	7	2.365	0.0132		
6.243	3	8	2.432	0.0151		
6.325	2	8	3.756	0.0151		
6.337	2	8	3.376	0.0151		
6.353	3	8	3.162	0.0151		
6.368	3	8	2.572	0.0151		
6.519	2	7	3.226	0.0132		
6.752	3	10	3.484	0.0189		
6.757	2	10	4.566	0.0189		
6.768	2	9	3.629	0.0170		
6.775	3	9	3.600	0.0170		
6.780	3	9	3.571	0.0170		
6.791	3	10	3.690	0.0189		
6.794	2	11	5.314	0.0207		
6.853	2	6	2.913	0.0113		
	44392	52901		100.000		

Total unknown % height = 8.42

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-027.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 17:59
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	2295	0.04000	0.0454			
2 alpha-BHC					CAS #: 319-84-6			
2.238	2.238	0.000	1546	0.02000	0.0227			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.473	2.473	0.000	1415	0.02000	0.0225			
4 beta-BHC					CAS #: 319-85-7			
2.618	2.617	0.001	750	0.02000	0.0253			
6 delta-BHC					CAS #: 76-44-8			
2.814	2.813	0.001	1351	0.02000	0.0222			
5 Heptachlor					CAS #: 319-86-8			
2.711	2.711	0.000	1425	0.02000	0.0218			
7 Aldrin					CAS #: 309-00-2			
2.922	2.922	0.000	1325	0.02000	0.0231			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.279	3.279	0.000	1287	0.02000	0.0226			
9 gamma-Chlordane					CAS #: 5103-74-2			
3.435	3.435	0.000	1289	0.02000	0.0227			
10 alpha-Chlordane					CAS #: 5103-71-9			
3.499	3.500	-0.001	1248	0.02000	0.0224			
11 Endosulfan I					CAS #: 959-98-8			
3.544	3.545	-0.001	1204	0.02000	0.0227			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.623	3.622	0.001	2284	0.04000	0.0430			
13 Dieldrin						CAS #: 60-57-1		
3.737	3.738	-0.001	2587	0.04000	0.0452			
14 Endrin						CAS #: 72-20-8		
3.956	3.957	-0.001	2141	0.04000	0.0428			
15 4,4'-DDD						CAS #: 72-54-8		
4.018	4.017	0.001	1842	0.04000	0.0415			
16 Endosulfan II						CAS #: 33213-65-9		
4.136	4.137	-0.001	2183	0.04000	0.0445			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.207	0.000	1861	0.04000	0.0396			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	1862	0.04000	0.0444			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.427	4.427	0.000	2202	0.04000	0.0456			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.663	0.000	4948	0.20000	0.202			
21 Endrin ketone						CAS #: 53494-70-5		
4.849	4.851	-0.002	1965	0.04000	0.0461			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.642	5.644	-0.002	2421	0.04000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUL-2019 17:59
Lab File ID: 2019-07-17-027. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m

	COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$	1 Tetrachloro-m-xylene (S)	50563	57375	0.000	13.47182	20.00000	Aver		
	2 alpha-BHC	68046	77300	0.000	13.59970	20.00000	Aver		
	3 gamma-BHC (Lindane)	62774	70750	0.000	12.70624	20.00000	Aver		
	4 beta-BHC	29609	37500	0.000	26.65251	20.00000	Aver		<-
	6 delta-BHC	60955	67550	0.000	10.81946	20.00000	Aver		
	5 Heptachlor	65372	71250	0.000	8.99098	20.00000	Aver		
	7 Aldrin	57427	66250	0.000	15.36309	20.00000	Aver		
	8 Heptachlor epoxide	56896	64350	0.000	13.10119	20.00000	Aver		
	9 gamma-Chlordane	56720	64450	0.000	13.62740	20.00000	Aver		
	10 alpha-Chlordane	55773	62400	0.000	11.88142	20.00000	Aver		
	11 Endosulfan I	53111	60200	0.000	13.34813	20.00000	Aver		
	12 4,4'-DDE	53148	57100	0.000	7.43613	20.00000	Aver		
	13 Dieldrin	57235	64675	0.000	12.99833	20.00000	Aver		
	14 Endrin	50011	53525	0.000	7.02554	20.00000	Aver		
	15 4,4'-DDD	44408	46050	0.000	3.69787	20.00000	Aver		
	16 Endosulfan II	49096	54575	0.000	11.16042	20.00000	Aver		
	17 4,4'-DDT	46985	46525	0.000	-0.98004	20.00000	Aver		
	18 Endrin aldehyde	41910	46550	0.000	11.07197	20.00000	Aver		
	19 Endosulfan sulfate	48268	55050	0.000	14.05190	20.00000	Aver		
	20 Methoxychlor	24471	24740	0.000	1.09729	20.00000	Aver		
	21 Endrin ketone	42660	49125	0.000	15.15439	20.00000	Aver		
$	24 Decachlorobiphenyl (S)	49697	60525	0.000	21.78856	20.00000	Aver		<-

Average %D / Drift Results.

Calculated Average %D/Drift = 18.06695
Maximun Average %D/Drift = 15.00000
* Failed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-027.d

Date : 17-JUL-2019 17:59

Client ID: CCV

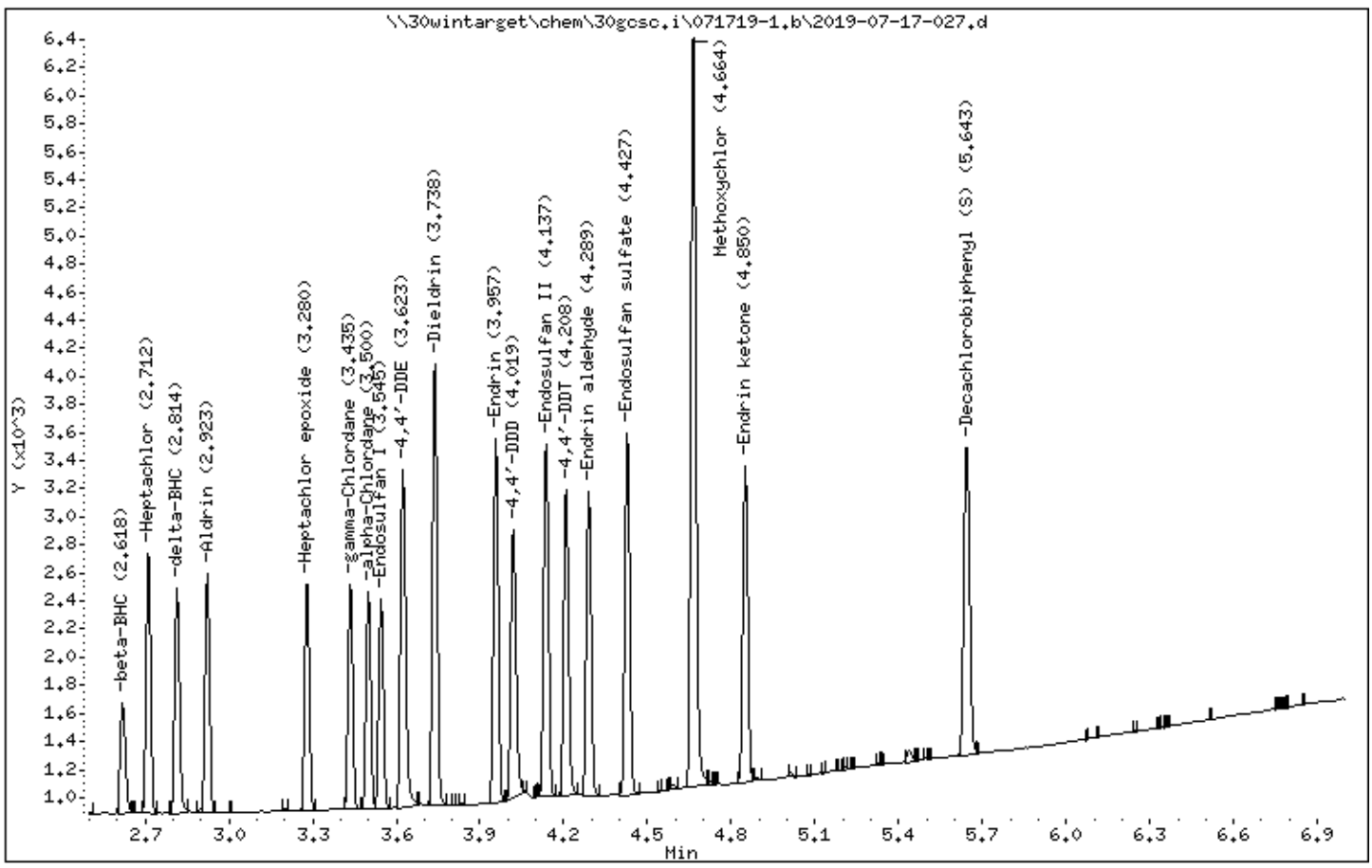
Instrument: 30gcsc.i

Sample Info: CCV, 93869:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-027.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUL-2019 17:59 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1546	1546
beta-BHC	750	750
delta-BHC	1351	1351
gamma-BHC (Lindane)	1415	1415
Heptachlor	1425	1425
Aldrin	1325	1325
Heptachlor epoxide	1287	1287
Endosulfan I	1204	1204
Dieldrin	2587	2587
4,4'-DDE	2284	2284
Endrin	2141	2141
Endosulfan II	2183	2183
4,4'-DDD	1842	1842
Endosulfan sulfate	2202	2202
4,4'-DDT	1861	1861
Methoxychlor	4948	4948
Endrin ketone	1965	1965
Endrin aldehyde	1862	1862
alpha-Chlordane	1248	1248
gamma-Chlordane	1289	1289
Tetrachloro-m-xylene (S)	2295	2295
Decachlorobiphenyl (S)	2421	2421

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-027.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 17:59
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.866	2	5	2.907	0.0288			
0.880	592	1469	2.482	8.4922			
0.955	18	21	1.186	0.1213			
0.982	118	148	1.250	0.8551			
1.011	88	122	1.392	0.7049			
1.052	1	4	3.101	0.0231			
1.330	1	3	2.143	0.0173			
1.486	2	4	2.597	0.0231			
1.519	3	4	1.408	0.0231			
1.523	1	5	4.386	0.0288			
1.710	1	6	4.839	0.0346			
1.713	1	6	5.310	0.0346			
1.775	1	5	4.587	0.0288			
1.914	4	7	1.724	0.0404			
2.130	1	3	2.350	0.0173			
2.205	1	2	2.000	0.0115			
2.359	815	1074	1.318	6.2059	$	1 Tetrachloro-m-xylene (S)	
2.623	522	706	1.352	4.0795		2 alpha-BHC	
2.840	474	612	1.290	3.5363		3 gamma-BHC (Lindane)	
2.923	1	5	4.386	0.0288			
3.001	233	291	1.247	1.6814		4 beta-BHC	
3.030	1	3	2.885	0.0173			
3.089	42	49	1.163	0.2831			
3.186	478	604	1.263	3.4901		5 delta-BHC	
3.219	5	9	1.931	0.0520			
3.224	2	8	4.233	0.0462			
3.248	427	518	1.213	2.9931		6 Heptachlor	
3.358	2	5	2.325	0.0288			
3.477	426	523	1.227	3.0220		7 Aldrin	
3.707	1	5	4.464	0.0288			
3.770	421	505	1.200	2.9180		8 Heptachlor epoxide	
3.983	412	487	1.182	2.8140		9 gamma-Chlordane	
4.018	407	488	1.199	2.8198		10 alpha-Chlordane	
4.052	392	470	1.200	2.7158		11 Endosulfan I	
4.098	792	930	1.174	5.3738		12 4,4'-DDE	
4.133	1	3	2.174	0.0173			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.167	2	5	2.577	0.0288			
4.225	826	1000	1.211	5.7783		13 Dieldrin	
4.388	626	739	1.181	4.2701		14 Endrin	
4.450	653	788	1.206	4.5533		15 4,4'-DDD	
4.480	1	6	4.918	0.0346			
4.561	722	856	1.186	4.9462		16 Endosulfan II	
4.588	1	5	4.950	0.0288			
4.592	1	5	4.274	0.0288			
4.600	2	7	4.268	0.0404			
4.634	631	721	1.143	4.1661		17 Endrin aldehyde	
4.660	408	489	1.199	2.8256		18 4,4'-DDT	
4.734	1	4	3.419	0.0231			
4.740	1	4	3.390	0.0231			
4.824	681	814	1.196	4.7035		19 Endosulfan sulfate	
4.864	1	3	2.482	0.0173			
4.893	4	7	1.667	0.0404			
4.945	1303	1427	1.095	8.2456		20 Methoxychlor	
5.102	22	28	1.248	0.1617			
5.124	605	679	1.123	3.9234		21 Endrin ketone	
5.188	1	3	2.885	0.0173			
5.316	2	6	3.797	0.0346			
5.367	2	5	2.762	0.0288			
5.436	1	3	2.885	0.0173			
5.545	2	5	2.674	0.0288			
5.549	1	5	4.274	0.0288			
5.620	1	4	3.150	0.0231			
5.765	2	5	3.226	0.0288			
6.074	2	6	2.446	0.0346			
6.079	1	5	4.098	0.0288			
6.332	754	559	0.741	3.2300	$	24 Decachlorobiphenyl (S)	
6.383	1	4	3.774	0.0231			
	13952	17306		100.000			

Total unknown % height = 11.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-027.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 17:59
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 93869:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.358	2.358	0.000	814	0.04000	0.0441			
2 alpha-BHC							CAS #: 319-84-6	
2.622	2.622	0.000	522	0.02000	0.0216			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.839	2.838	0.001	474	0.02000	0.0215			
4 beta-BHC							CAS #: 319-85-7	
3.000	3.000	0.000	233	0.02000	0.0211			
5 delta-BHC							CAS #: 319-86-8	
3.186	3.185	0.001	478	0.02000	0.0216			
6 Heptachlor							CAS #: 76-44-8	
3.248	3.248	0.000	427	0.02000	0.0199			
7 Aldrin							CAS #: 309-00-2	
3.476	3.476	0.000	426	0.02000	0.0215			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.769	3.769	0.000	420	0.02000	0.0211			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.982	3.982	0.000	411	0.02000	0.0213			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.018	4.018	0.000	406	0.02000	0.0214			
11 Endosulfan I							CAS #: 959-98-8	
4.051	4.051	0.000	391	0.02000	0.0214			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.097	4.097	0.000	792	0.04000	0.0443			
13 Dieldrin						CAS #: 60-57-1		
4.225	4.225	0.000	825	0.04000	0.0430			
14 Endrin						CAS #: 72-20-8		
4.387	4.387	0.000	625	0.04000	0.0396			
15 4,4'-DDD						CAS #: 72-54-8		
4.449	4.450	-0.001	653	0.04000	0.0430			
16 Endosulfan II						CAS #: 33213-65-9		
4.560	4.560	0.000	721	0.04000	0.0428			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.634	4.633	0.001	630	0.04000	0.0433			
18 4,4'-DDT						CAS #: 50-29-3		
4.660	4.660	0.000	407	0.04000	0.0339			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.824	4.824	0.000	680	0.04000	0.0421			
20 Methoxychlor						CAS #: 72-43-5		
4.944	4.945	-0.001	1303	0.20000	0.176			
21 Endrin ketone						CAS #: 53494-70-5		
5.123	5.124	-0.001	604	0.04000	0.0414			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.331	6.333	-0.002	753	0.04000	0.0472			

Review Codes Legend

:

Pace Analytical Services, Inc.

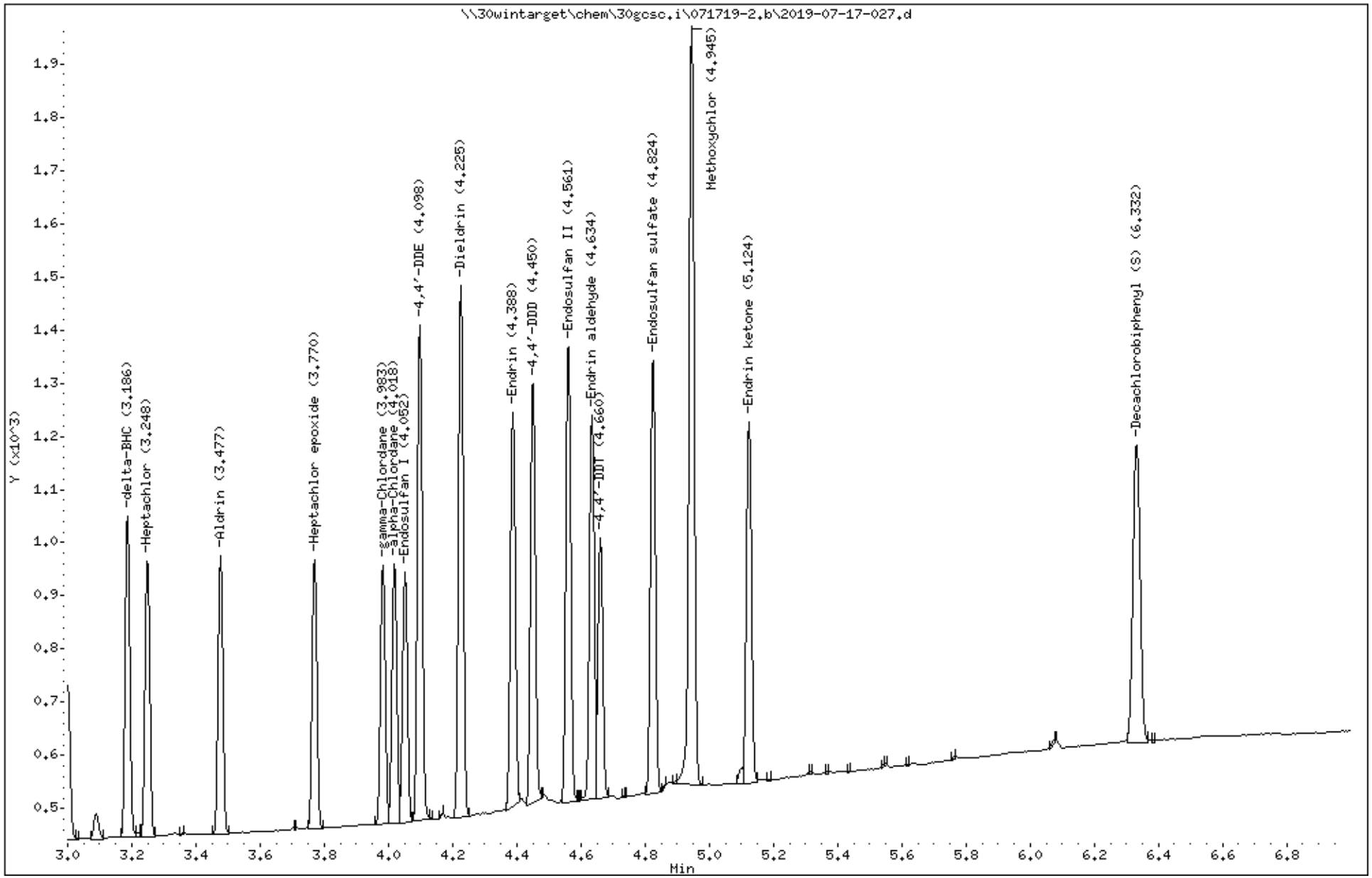
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 17-JUL-2019 17:59
Lab File ID: 2019-07-17-027. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m

			MIN		MAX	CURVE	QC
COMPOUND	RRF / AMOUNT	RF0.000	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS
$ 1 Tetrachloro-m-xylene (S)	18464	20350	0.000	10.21277	20.00000	Aver	
2 alpha-BHC	24103	26100	0.000	8.28699	20.00000	Aver	
3 gamma-BHC (Lindane)	22051	23700	0.000	7.47603	20.00000	Aver	
4 beta-BHC	11024	11650	0.000	5.67578	20.00000	Aver	
5 delta-BHC	22166	23900	0.000	7.82418	20.00000	Aver	
6 Heptachlor	21481	21350	0.000	-0.60962	20.00000	Aver	
7 Aldrin	19785	21300	0.000	7.65602	20.00000	Aver	
8 Heptachlor epoxide	19885	21000	0.000	5.60471	20.00000	Aver	
9 gamma-Chlordane	19302	20550	0.000	6.46486	20.00000	Aver	
10 alpha-Chlordane	18942	20300	0.000	7.17114	20.00000	Aver	
11 Endosulfan I	18276	19550	0.000	6.97117	20.00000	Aver	
12 4,4'-DDE	17874	19800	0.000	10.77292	20.00000	Aver	
13 Dieldrin	19179	20625	0.000	7.53789	20.00000	Aver	
14 Endrin	15794	15625	0.000	-1.06958	20.00000	Aver	
15 4,4'-DDD	15178	16325	0.000	7.55969	20.00000	Aver	
16 Endosulfan II	16826	18025	0.000	7.12770	20.00000	Aver	
17 Endrin aldehyde	14537	15750	0.000	8.34493	20.00000	Aver	
18 4,4'-DDT	12012	10175	0.000	-15.29489	20.00000	Aver	
19 Endosulfan sulfate	16163	17000	0.000	5.17633	20.00000	Aver	
20 Methoxychlor	7382	6515	0.000	-11.74820	20.00000	Aver	
21 Endrin ketone	14595	15100	0.000	3.46262	20.00000	Aver	
$ 24 Decachlorobiphenyl (S)	15958	18825	0.000	17.96257	20.00000	Aver	

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-027.d
Date : 17-JUL-2019 17:59
Client ID: CCV
Sample Info: CCV, 93869:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-027.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 17-JUL-2019 17:59 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	522	522
beta-BHC	233	233
delta-BHC	478	478
gamma-BHC (Lindane)	474	474
Heptachlor	427	427
Aldrin	426	426
Heptachlor epoxide	420	420
Endosulfan I	391	391
Dieldrin	825	825
4,4'-DDE	792	792
Endrin	625	625
Endosulfan II	721	721
4,4'-DDD	653	653
Endosulfan sulfate	680	680
4,4'-DDT	407	407
Methoxychlor	1303	1303
Endrin ketone	604	604
Endrin aldehyde	630	630
alpha-Chlordane	406	406
gamma-Chlordane	411	411
Tetrachloro-m-xylene (S)	814	814
Decachlorobiphenyl (S)	753	753

SAMPLE NO.

LCS

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received:
Matrix: Water
SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 1709956
Date Analyzed: 07/17/2019 15:33
Lab File ID: 071719-2.B\2019-07-17-012.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.58	
72-20-8	Endrin	1.2	
76-44-8	Heptachlor	0.51	
1024-57-3	Heptachlor epoxide	0.57	
72-43-5	Methoxychlor	5.8	

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-012.d
Lab Smp Id: 1709956 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709956,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	84125	122553	1.457	59.6646		
0.941	2341	2602	1.111	1.2665		
0.962	3708	2789	0.752	1.3576		
1.032	45	61	1.344	0.0296		
1.082	290	433	1.494	0.2107		
1.109	192	214	1.116	0.1041		
1.129	33	58	1.762	0.0282		
1.158	4	9	2.302	0.0043		
1.184	3	7	2.745	0.0034		
1.209	85	110	1.294	0.0535		
1.239	75	95	1.262	0.0462		
1.303	12	19	1.529	0.0092		
1.339	51	74	1.448	0.0360		
1.359	9	24	2.561	0.0116		
1.362	4	24	5.769	0.0116		
1.366	4	22	5.542	0.0107		
1.369	7	22	3.086	0.0107		
1.416	56	65	1.156	0.0316		
1.449	15	19	1.293	0.0092		
1.481	14	42	2.899	0.0204		
1.482	23	48	2.084	0.0233		
1.506	3	9	2.922	0.0043		
1.651	11	18	1.647	0.0087		
1.672	59	82	1.401	0.0399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.790	19	27	1.432	0.0131		
1.885	3398	4699	1.383	2.2873	$ 1 Tetrachloro-m-xylene (S)	
1.922	2	10	4.854	0.0048		
2.099	47	60	1.275	0.0292		
2.192	38	56	1.472	0.0272		
2.209	3	8	2.484	0.0038		
2.238	1983	2773	1.398	1.3498		
2.316	7	16	2.273	0.0077		
2.413	4	7	1.663	0.0034		
2.473	1918	2575	1.343	1.2534	3 gamma-BHC (Lindane)	
2.569	25	26	1.049	0.0126		
2.617	1084	1197	1.104	0.5826		
2.650	3	21	6.667	0.0102		
2.659	27	32	1.186	0.0155		
2.671	4	10	2.632	0.0048		
2.711	1866	2425	1.299	1.1804	5 Heptachlor	
2.788	11	18	1.575	0.0087		
2.813	1879	2422	1.289	1.1789		
2.854	6	12	2.164	0.0058		
2.900	23	34	1.481	0.0165		
2.922	1594	2080	1.305	1.0124		
3.117	13	22	1.717	0.0107		
3.122	12	21	1.815	0.0102		
3.203	70	85	1.220	0.0413		
3.280	1766	2250	1.274	1.0952	8 Heptachlor epoxide	
3.334	14	24	1.709	0.0116		
3.435	1784	2260	1.267	1.1001		
3.500	1718	2132	1.241	1.0378		
3.545	1534	1923	1.253	0.9360		
3.593	26	36	1.374	0.0175		
3.622	3278	4029	1.229	1.9612		
3.738	3501	4457	1.273	2.1695		
3.894	5	15	3.254	0.0073		
3.897	3	15	4.601	0.0073		
3.910	25	30	1.209	0.0146		
3.956	3275	4064	1.241	1.9782	14 Endrin	
3.991	2	12	5.607	0.0058		
3.996	3	12	3.727	0.0058		
4.017	2833	3224	1.138	1.5693		
4.052	34	55	1.634	0.0267		
4.064	21	38	1.849	0.0184		
4.077	10	23	2.393	0.0111		
4.086	8	22	2.591	0.0107		
4.093	5	20	3.676	0.0097		
4.109	58	57	0.984	0.0277		
4.137	2942	3480	1.183	1.6939		
4.172	4	23	6.117	0.0111		
4.178	13	27	2.035	0.0131		
4.184	7	26	3.785	0.0126		
4.207	3115	3707	1.190	1.8044		
4.250	3	16	5.479	0.0077		
4.256	6	18	2.922	0.0087		
4.261	12	25	2.070	0.0121		
4.268	5	20	4.425	0.0097		
4.290	2419	2868	1.186	1.3960		
4.324	10	21	2.053	0.0102		
4.428	3340	3950	1.183	1.9227		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.581	143	108	0.755	0.0525		
4.663	7930	9303	1.173	4.5284	20 Methoxychlor	
4.717	9	21	2.386	0.0102		
4.851	3388	4031	1.190	1.9621		
4.887	3	8	2.685	0.0038		
4.894	2	10	4.082	0.0048		
5.012	3	6	2.326	0.0029		
5.079	2	9	4.478	0.0043		
5.084	8	18	2.320	0.0087		
5.090	2	12	5.970	0.0058		
5.107	3	9	2.786	0.0043		
5.119	5	10	2.033	0.0048		
5.134	4	10	2.463	0.0048		
5.138	3	11	4.247	0.0053		
5.149	3	11	4.247	0.0053		
5.153	3	11	3.607	0.0053		
5.159	5	13	2.808	0.0063		
5.169	5	15	3.247	0.0073		
5.174	2	15	6.048	0.0073		
5.178	2	14	6.306	0.0068		
5.182	5	14	2.559	0.0068		
5.188	3	14	4.605	0.0068		
5.193	2	11	5.164	0.0053		
5.197	3	12	3.960	0.0058		
5.200	3	11	3.943	0.0053		
5.212	4	15	3.371	0.0073		
5.217	2	13	5.485	0.0063		
5.222	3	14	4.811	0.0068		
5.227	5	22	4.104	0.0107		
5.231	9	24	2.658	0.0116		
5.237	9	21	2.400	0.0102		
5.245	3	14	4.106	0.0068		
5.256	6	12	1.855	0.0058		
5.264	4	10	2.841	0.0048		
5.274	2	11	4.933	0.0053		
5.281	2	9	3.719	0.0043		
5.284	3	9	2.624	0.0043		
5.290	2	10	4.032	0.0048		
5.301	3	10	3.300	0.0048		
5.311	5	8	1.706	0.0038		
5.347	2	7	2.881	0.0034		
5.437	10	23	2.402	0.0111		
5.439	7	25	3.823	0.0121		
5.644	4414	4087	0.926	1.9894	$ 24 Decachlorobiphenyl (S)	
5.679	3	14	4.192	0.0068		
6.204	2	6	2.985	0.0029		
6.328	3	9	3.462	0.0043		
6.345	3	9	3.409	0.0043		
6.353	3	9	2.647	0.0043		
6.364	3	10	3.012	0.0048		
6.369	2	8	3.556	0.0038		
6.378	2	8	3.810	0.0038		
6.397	3	9	3.488	0.0043		
6.507	2	12	4.858	0.0058		
6.534	3	10	3.817	0.0048		
6.538	3	10	3.289	0.0048		
6.544	2	11	4.527	0.0053		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.550	3	10	3.650	0.0048		
6.558	3	11	4.044	0.0053		
6.578	3	9	3.147	0.0043		
6.582	2	11	4.955	0.0053		
6.585	3	11	3.416	0.0053		
6.594	5	9	1.969	0.0043		
6.604	4	9	2.290	0.0043		
6.613	2	11	5.366	0.0053		
6.623	2	10	4.016	0.0048		
6.631	2	12	5.240	0.0058		
6.642	3	7	2.564	0.0034		
6.739	3	12	3.478	0.0058		
6.752	2	11	4.803	0.0053		
6.761	3	11	3.226	0.0053		
6.764	3	11	4.280	0.0053		
6.779	3	9	3.203	0.0043		
6.786	3	9	3.309	0.0043		
6.864	4	10	2.809	0.0048		
6.872	3	13	4.377	0.0063		
6.888	2	10	4.444	0.0048		
6.893	4	11	3.064	0.0053		
6.897	3	11	3.704	0.0053		
6.921	11	19	1.724	0.0092		
6.927	5	20	4.228	0.0097		
6.931	6	22	3.514	0.0107		
6.937	6	21	3.426	0.0102		
6.941	8	20	2.389	0.0097		
6.953	3	13	4.779	0.0063		
	153162	205433		100.000		

Total unknown % height = 85.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-012.d
Lab Smp Id: 1709956 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709956,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.885	-0.001	3397	0.06718	1.34			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.472	2.473	-0.001	1917	0.03054	0.611			(R)
5 Heptachlor					CAS #: 319-86-8			
2.710	2.711	-0.001	1866	0.02854	0.571			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.279	3.279	0.000	1765	0.03102	0.620			
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	3274	0.06547	1.31			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	7930	0.32405	6.48			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.644 5.644 0.000 4414 0.08882 1.78

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709956
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15826,tclp

Client SDG: 071719-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 16-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.611	
319-86-8	Heptachlor	0.571	
1024-57-3	Heptachlor epoxide	0.620	
72-20-8	Endrin	1.31	
72-43-5	Methoxychlor	6.48	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.34	
----------	Decachlorobiphenyl (S)	1.78	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-012.d

Date : 17-JUL-2019 15:33

Client ID: MBLCS

Instrument: 30gcsc.i

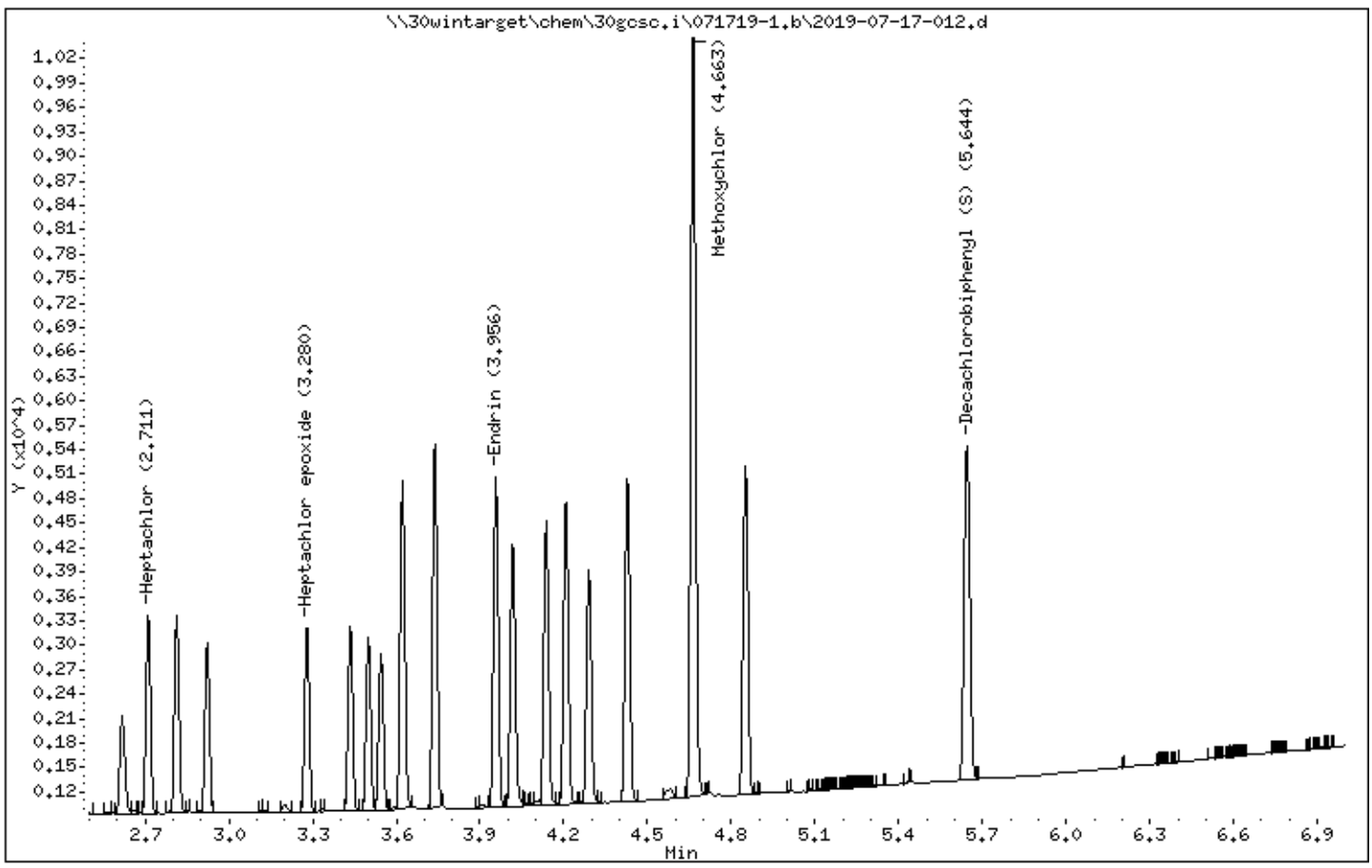
Sample Info: 1709956,

Volume Injected (uL): 1.0

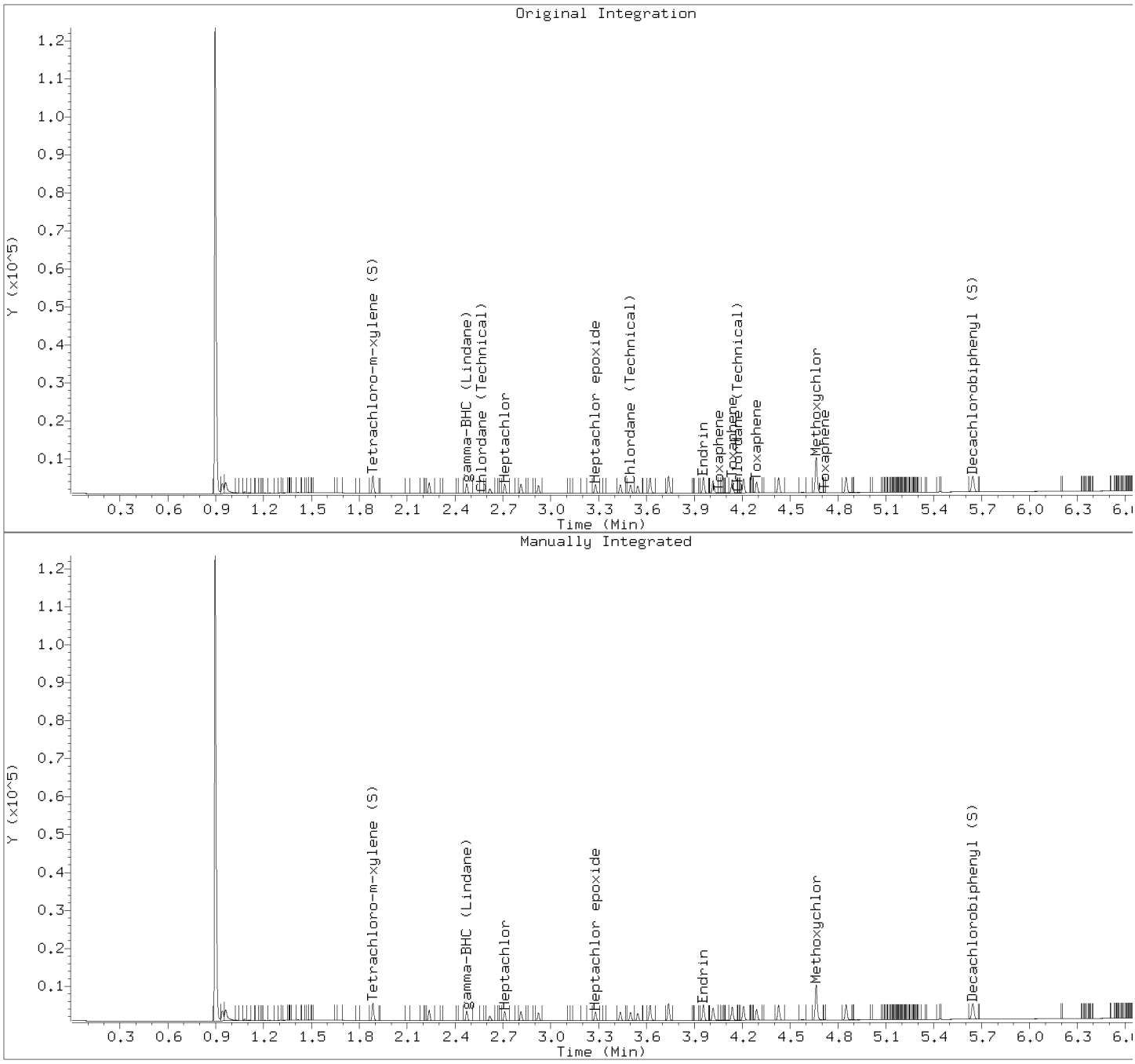
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-012.d (ManInt: tclp.sub Orig: tclp.sub)
Injection Date: 17-JUL-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1709956



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	1917	1917
Heptachlor	1866	1866
Heptachlor epoxide	1765	1765
Endrin	3274	3274
Methoxychlor	7930	7930
Toxaphene	33	0
Toxaphene	2941	0
Toxaphene	2419	0
Toxaphene	0	0
Toxaphene	8	0
Chlordane (Technical)	24	0
Chlordane (Technical)	1866	0
Chlordane (Technical)	0	0
Chlordane (Technical)	1718	0

Chlordane (Technical)	3	0
Tetrachloro-m-xylene (S)	3397	3397
Decachlorobiphenyl (S)	4414	4414

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-012.d
Lab Smp Id: 1709956 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709956,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.880	35263	81483	2.311	76.1721		
0.933	48	64	1.326	0.0598		
0.949	57	67	1.178	0.0626		
0.980	1069	1123	1.051	1.0497		
1.010	1363	1233	0.905	1.1525		
1.058	45	58	1.278	0.0542		
1.073	121	134	1.105	0.1252		
1.140	3	9	2.734	0.0084		
1.175	109	154	1.408	0.1439		
1.226	5	9	1.987	0.0084		
1.278	7	8	1.096	0.0074		
1.301	3	6	1.724	0.0056		
1.326	20	23	1.175	0.0214		
1.350	29	47	1.624	0.0439		
1.382	1	5	3.788	0.0046		
1.431	7	7	0.940	0.0065		
1.437	2	7	4.217	0.0065		
1.455	33	34	1.042	0.0317		
1.553	1	2	1.574	0.0018		
1.582	5	7	1.471	0.0065		
1.685	9	14	1.505	0.0130		
1.797	2	4	2.338	0.0037		
1.912	3	7	2.381	0.0065		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.023	1	4	2.857	0.0037		
2.070	3	6	2.055	0.0056		
2.128	2	4	1.932	0.0037		
2.145	1	3	2.857	0.0028		
2.323	1	4	3.200	0.0037		
2.327	2	4	2.198	0.0037		
2.359	1209	1591	1.316	1.4872	$ 1 Tetrachloro-m-xylene (S)	
2.453	1	2	1.493	0.0018		
2.567	1	7	4.679	0.0065		
2.569	1	7	6.422	0.0065		
2.623	677	901	1.332	0.8422		
2.684	16	21	1.288	0.0196		
2.703	1	2	1.961	0.0018		
2.716	3	5	1.695	0.0046		
2.797	1	3	2.222	0.0028		
2.839	637	817	1.284	0.7637	3 gamma-BHC (Lindane)	
3.000	331	404	1.220	0.3776		
3.068	7	11	1.639	0.0102		
3.090	48	57	1.193	0.0532		
3.186	678	860	1.269	0.8039		
3.223	11	15	1.389	0.0140		
3.230	2	12	7.317	0.0112		
3.248	552	678	1.228	0.6337	6 Heptachlor	
3.283	3	6	2.230	0.0056		
3.477	521	640	1.229	0.5982		
3.708	3	6	2.158	0.0056		
3.769	571	697	1.221	0.6515	8 Heptachlor epoxide	
3.910	2	4	2.632	0.0037		
3.932	1	2	2.000	0.0018		
3.982	572	683	1.194	0.6384		
4.018	567	670	1.183	0.6262		
4.051	500	595	1.189	0.5561		
4.097	1115	1370	1.228	1.2806		
4.167	2	5	2.674	0.0046		
4.225	1148	1356	1.181	1.2675		
4.321	2	4	2.299	0.0037		
4.388	972	1131	1.163	1.0572	14 Endrin	
4.450	922	1120	1.215	1.0469		
4.561	932	1103	1.183	1.0310		
4.634	794	911	1.148	0.8515		
4.661	645	773	1.198	0.7225		
4.747	1	2	1.538	0.0018		
4.792	1	5	3.546	0.0046		
4.798	2	6	3.614	0.0056		
4.802	1	6	5.217	0.0056		
4.824	1052	1213	1.153	1.1338		
4.857	4	15	3.916	0.0140		
4.865	9	20	2.350	0.0186		
4.869	7	20	2.837	0.0186		
4.873	5	22	4.435	0.0205		
4.878	6	23	3.789	0.0214		
4.882	5	23	4.348	0.0214		
4.895	21	37	1.754	0.0345		
4.897	13	38	2.919	0.0355		
4.945	2141	2285	1.067	2.1359	20 Methoxychlor	
5.003	3	6	2.027	0.0056		
5.093	1	5	4.630	0.0046		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.097	1	7	5.000	0.0065		
5.102	2	10	4.237	0.0093		
5.124	1052	1185	1.126	1.1077		
6.183	1	3	2.883	0.0028		
6.205	2	2	1.325	0.0018		
6.331	1386	1042	0.752	0.9740	$ 24 Decachlorobiphenyl (S)	
6.485	1	4	3.509	0.0037		
	57381	106978		100.000		

Total unknown % height = 92.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-012.d
Lab Smp Id: 1709956 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709956,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.358	2.358	0.000	1209	0.06548	1.31			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.839	2.838	0.001	636	0.02884	0.577			(R)
6 Heptachlor					CAS #: 76-44-8			
3.248	3.248	0.000	551	0.02565	0.513			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.769	3.769	0.000	570	0.02866	0.573			
14 Endrin					CAS #: 72-20-8			
4.387	4.387	0.000	972	0.06154	1.23			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.944	4.945	-0.001	2140	0.28988	5.80			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

RT	EXP RT	DLT RT	RESPONSE	ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
6.331	6.333	-0.002	1386	0.08685	1.74			

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

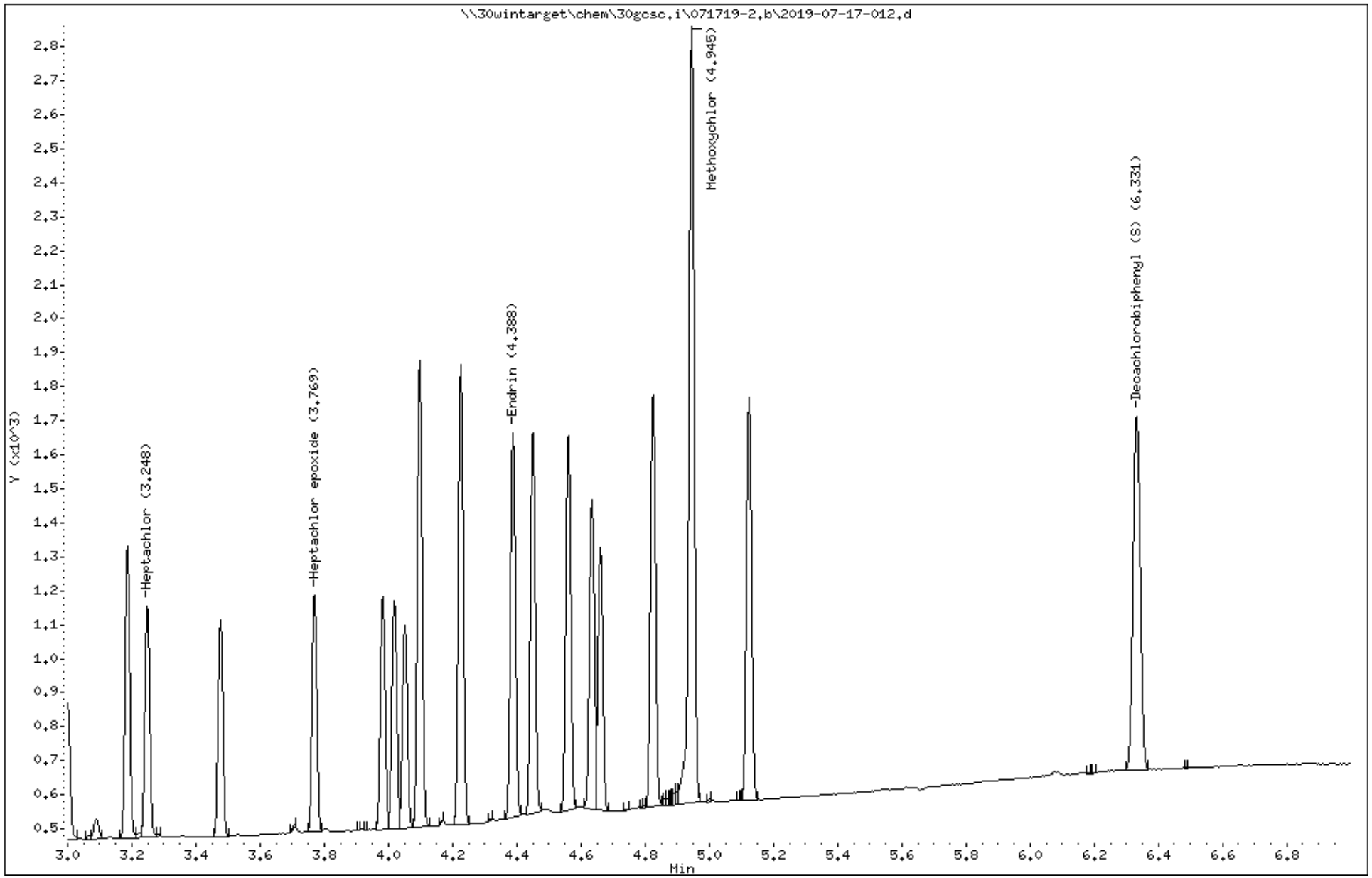
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709956
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15826,tclp

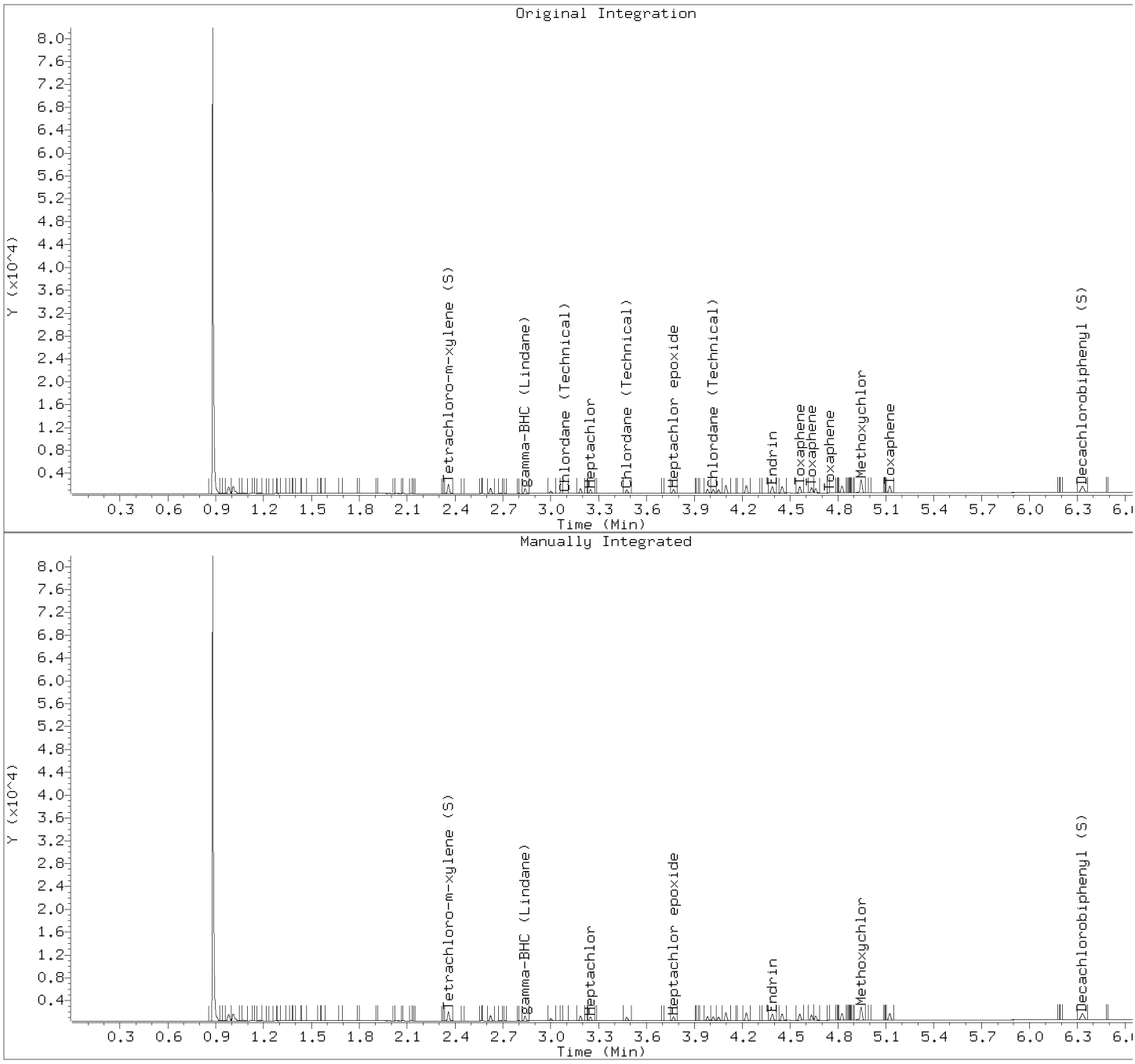
Client SDG: 071719-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 16-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.577	
76-44-8	Heptachlor	0.513	
1024-57-3	Heptachlor epoxide	0.573	
72-20-8	Endrin	1.23	
72-43-5	Methoxychlor	5.80	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.31	
----------	Decachlorobiphenyl (S)	1.74	

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-012.d
Date : 17-JUL-2019 15:33
Client ID: MBLCS
Instrument: 30gcsc.i
Sample Info: 1709956,
Volume Injected (uL): 1.0
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-012.d (ManInt: tclp.sub Orig: tclp.sub)
Injection Date: 17-JUL-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1709956



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	636	636
Heptachlor	551	551
Heptachlor epoxide	570	570
Endrin	972	972
Methoxychlor	2140	2140
Toxaphene	972	0
Toxaphene	932	0
Toxaphene	793	0
Toxaphene	1	0
Toxaphene	1052	0
Chlordane (Technical)	47	0
Chlordane (Technical)	551	0
Chlordane (Technical)	520	0
Chlordane (Technical)	566	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1209	1209
Decachlorobiphenyl (S)	1386	1386

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/12/2019 15:32
Matrix: Water SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 1708463
Date Analyzed: 07/17/2019 15:23
Lab File ID: 071719-1.B\2019-07-17-011.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-011.d
Lab Smp Id: 1708463 Client Smp ID: LB for HBN 351589 [
Inj Date : 17-JUL-2019 15:23
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1708463,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	11086	14397	1.299	45.9492		
0.942	2468	2544	1.031	8.1187		
0.963	3251	2732	0.840	8.7186		
0.998	366	267	0.730	0.8520		
1.031	30	78	2.586	0.2489		
1.044	131	93	0.709	0.2967		
1.082	578	818	1.414	2.6104		
1.110	176	214	1.218	0.6829		
1.130	37	60	1.634	0.1914		
1.211	32	42	1.296	0.1340		
1.240	48	64	1.329	0.2042		
1.308	47	44	0.941	0.1404		
1.338	31	51	1.653	0.1627		
1.359	9	17	1.981	0.0542		
1.366	4	16	4.255	0.0510		
1.372	11	23	2.136	0.0734		
1.416	10	20	1.906	0.0638		
1.451	5	10	1.859	0.0319		
1.627	2	5	2.400	0.0159		
1.652	3	13	5.118	0.0414		
1.655	5	15	2.964	0.0478		
1.672	3	9	2.634	0.0287		
1.696	3	7	2.295	0.0223		
1.885	3498	4748	1.357	15.1523	$ 1 Tetrachloro-m-xylene (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.922	11	18	1.695	0.0574		
1.939	2	7	3.125	0.0223		
1.946	2	6	2.804	0.0191		
2.048	7	10	1.335	0.0319		
2.056	2	8	3.292	0.0255		
2.077	3	8	2.867	0.0255		
2.100	51	64	1.261	0.2042		
2.316	4	10	2.695	0.0319		
2.320	5	11	2.263	0.0351		
2.567	20	25	1.230	0.0797		
2.605	11	27	2.571	0.0861		
2.609	6	22	3.537	0.0702		
2.627	138	171	1.238	0.5457		
2.787	7	12	1.775	0.0382		
2.856	25	32	1.290	0.1021		
2.904	11	17	1.561	0.0542		
2.910	3	13	4.000	0.0414		
3.110	3	11	3.448	0.0351		
3.126	23	22	0.948	0.0702		
3.471	2	7	3.211	0.0223		
3.480	3	9	3.203	0.0287		
3.489	3	8	2.500	0.0255		
3.494	2	8	3.902	0.0255		
3.507	2	7	2.834	0.0223		
3.513	2	7	3.318	0.0223		
3.525	2	7	2.834	0.0223		
3.534	2	6	2.830	0.0191		
3.547	2	7	3.431	0.0223		
3.773	3	8	3.089	0.0255		
3.969	2	5	2.252	0.0159	14 Endrin	
4.108	51	44	0.855	0.1404		
4.125	9	22	2.511	0.0702		
4.132	5	17	3.125	0.0542		
4.140	7	15	2.242	0.0478		
4.149	3	11	3.481	0.0351		
4.155	4	12	3.279	0.0382		
4.161	5	12	2.330	0.0382		
4.187	4	11	2.670	0.0351		
4.339	5	8	1.774	0.0255		
4.354	3	9	3.475	0.0287		
4.363	2	8	3.252	0.0255		
4.397	4	7	1.624	0.0223		
4.432	4	8	2.192	0.0255		
4.652	2	8	3.636	0.0255		
4.663	3	9	3.435	0.0287	20 Methoxychlor	
4.669	3	8	3.137	0.0255		
4.699	3	8	2.581	0.0255		
4.706	3	9	2.703	0.0287		
4.723	2	10	4.785	0.0319		
4.736	2	9	4.163	0.0287		
4.879	2	9	4.072	0.0287		
4.887	3	10	2.994	0.0319		
4.894	3	10	3.040	0.0319		
4.965	2	6	2.913	0.0191		
4.975	5	10	1.835	0.0319		
4.983	2	7	3.097	0.0223		
5.012	6	18	3.203	0.0574		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.014	7	20	3.040	0.0638		
5.080	3	17	6.343	0.0542		
5.083	3	18	7.031	0.0574		
5.086	6	18	3.243	0.0574		
5.091	2	9	4.245	0.0287		
5.312	3	10	3.040	0.0319		
5.364	2	6	2.970	0.0191		
5.439	18	28	1.515	0.0893		
5.645	4352	3985	0.916	12.7174	$ 24 Decachlorobiphenyl (S)	
5.728	2	6	2.679	0.0191		
6.150	2	7	3.084	0.0223		
6.242	2	7	3.483	0.0223		
6.251	3	8	2.730	0.0255		
6.306	2	7	3.286	0.0223		
6.316	2	6	2.804	0.0191		
6.683	2	8	3.922	0.0255		
	26754	31335		100.000		

Total unknown % height = 72.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-011.d
Lab Smp Id: 1708463 Client Smp ID: LB for HBN 351589 [
Inj Date : 17-JUL-2019 15:23
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1708463,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.885	1.885	0.000	3497	0.06916	1.38			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
Compound Not Detected.								
5 Heptachlor					CAS #: 319-86-8			
Compound Not Detected.								
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
3.969	3.957	0.012	2	4.e-005	0.000800			
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.663	0.000	2	8e-005	0.00163			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.645 5.644 0.001 4352 0.08757 1.75

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708463
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15826,tclp

Client SDG: 071719-1.b
Client Smp ID: LB for HBN 351589 [
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
319-86-8	Heptachlor	0.0100	U
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.000800	
72-43-5	Methoxychlor	0.00163	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.38	
----------	Decachlorobiphenyl (S)	1.75	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-011.d

Date : 17-JUL-2019 15:23

Client ID: LB for HBN 351589 [

Instrument: 30gcsc.i

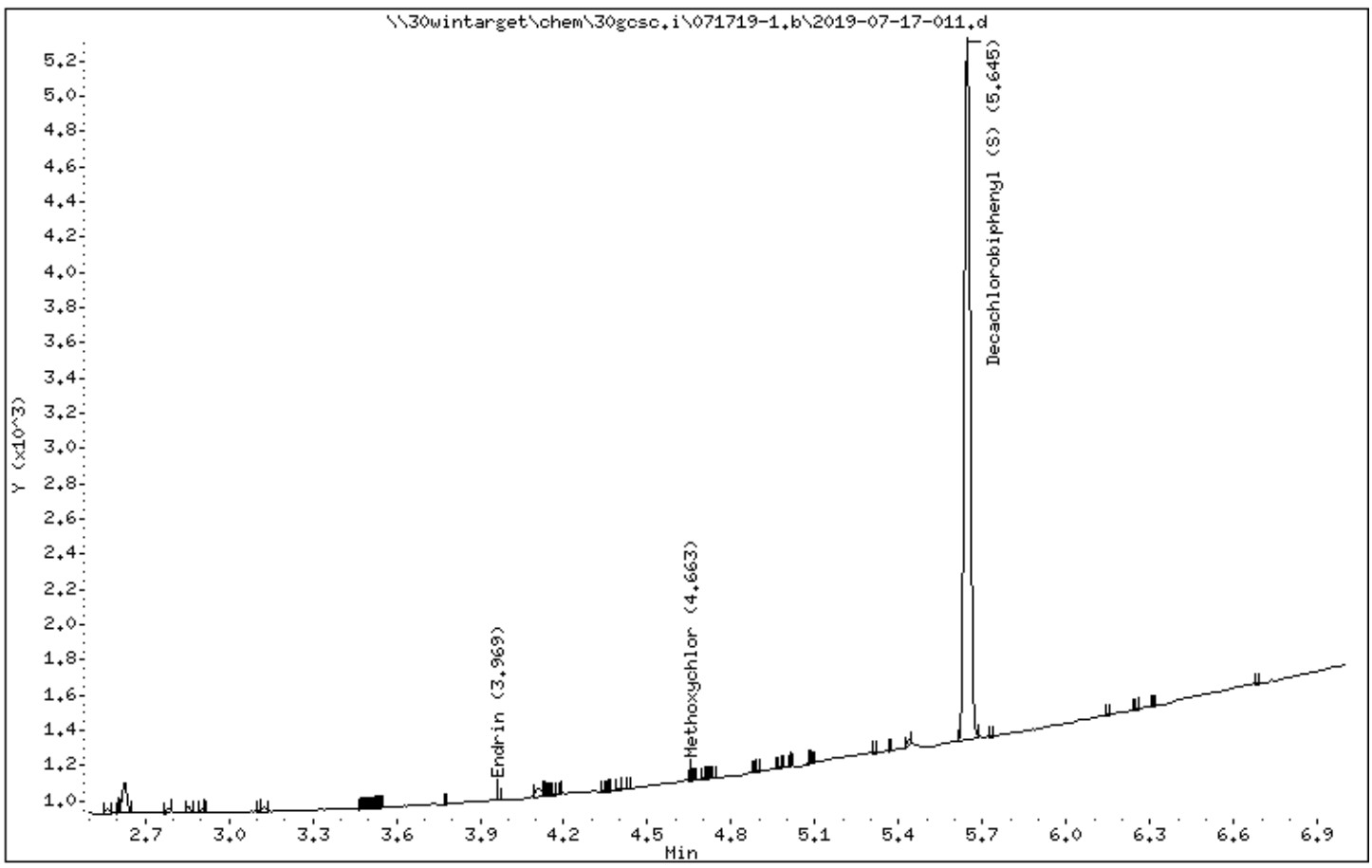
Sample Info: 1708463,

Volume Injected (uL): 1.0

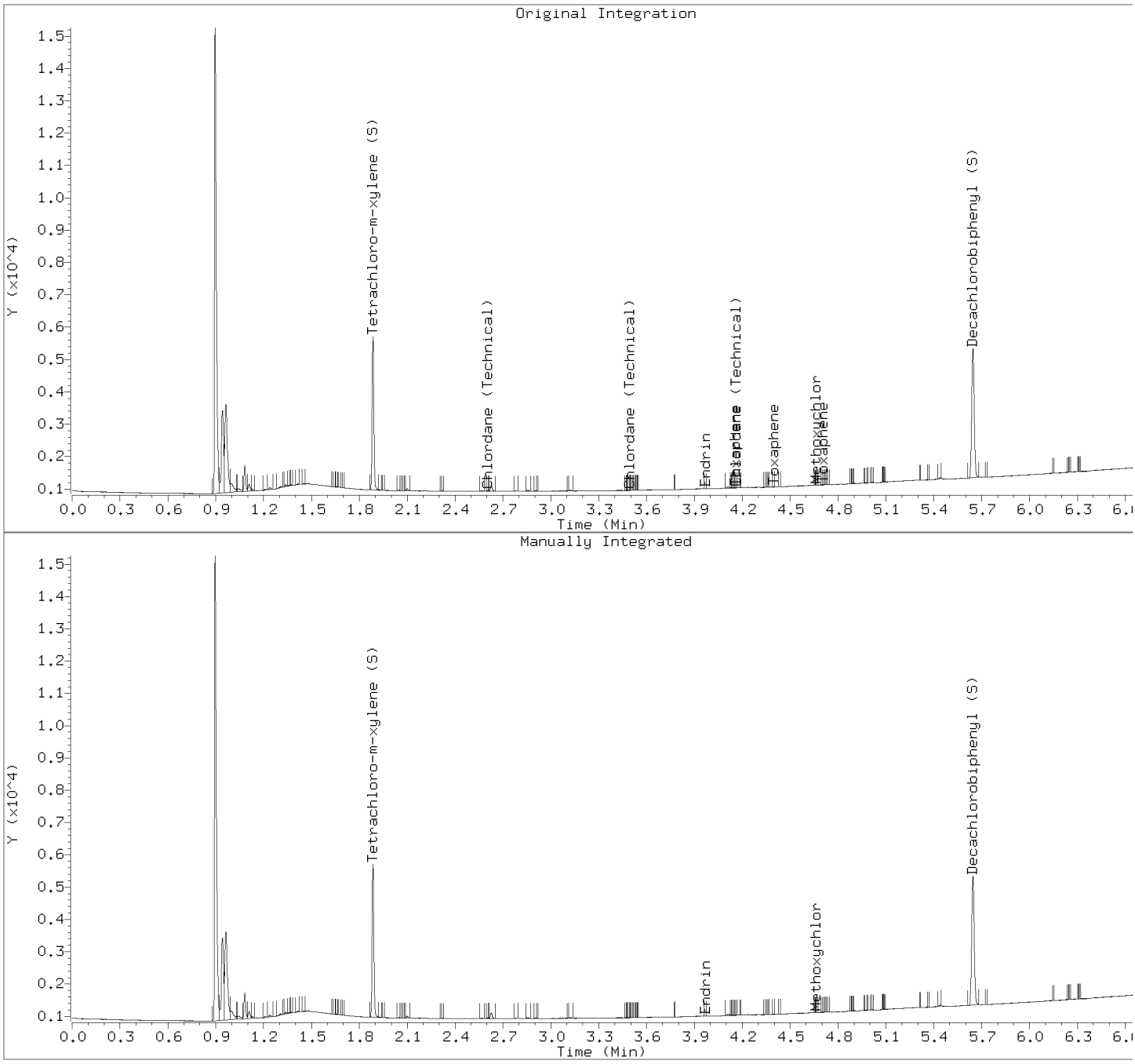
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-011.d (ManInt: tclp.sub Orig: tclp.sub)
Injection Date: 17-JUL-2019 15:23 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1708463



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	0	0
Heptachlor epoxide	0	0
Endrin	2	2
Methoxychlor	2	2
Toxaphene	0	0
Toxaphene	3	0
Toxaphene	0	0
Toxaphene	4	0
Toxaphene	3	0
Chlordane (Technical)	10	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0
Chlordane (Technical)	2	0

Chlordane (Technical)	5	0
Tetrachloro-m-xylene (S)	3497	3497
Decachlorobiphenyl (S)	4352	4352

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/12/2019 15:32
Matrix: Water
SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 1708463
Date Analyzed: 07/17/2019 15:23
Lab File ID: 071719-2.B\2019-07-17-011.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
72-20-8	Endrin	ND	U
72-43-5	Methoxychlor	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-011.d
Lab Smp Id: 1708463 Client Smp ID: LB for HBN 351589 [
Inj Date : 17-JUL-2019 15:23
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1708463,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.880	4607	10933	2.373	64.2764		
0.906	465	470	1.010	2.7630		
0.936	26	35	1.371	0.2057		
0.950	41	50	1.219	0.2939		
0.981	1015	1090	1.073	6.4079		
1.011	1314	1238	0.942	7.2780		
1.059	15	24	1.616	0.1410		
1.074	2	5	2.732	0.0293		
1.142	2	4	2.632	0.0235		
1.176	160	225	1.404	1.3227		
1.250	1	3	2.381	0.0176		
1.269	2	5	2.775	0.0293		
1.327	23	19	0.813	0.1116		
1.352	4	8	1.941	0.0470		
1.380	1	4	3.627	0.0235		
1.429	4	8	1.923	0.0470		
1.434	3	8	2.703	0.0470		
1.454	29	29	1.004	0.1704		
1.578	2	5	2.193	0.0293		
1.685	2	6	2.586	0.0352		
1.748	1	3	2.500	0.0176		
1.913	3	7	2.303	0.0411		
1.990	1	3	2.143	0.0176		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.031	1	4	2.703	0.0235		
2.077	1	4	3.200	0.0235		
2.359	1237	1629	1.317	9.5767	$ 1 Tetrachloro-m-xylene (S)	
2.569	13	18	1.438	0.1058		
2.713	1	4	3.810	0.0235		
2.872	1	2	2.000	0.0117		
3.068	2	3	1.852	0.0176		
3.089	41	52	1.281	0.3057		
3.265	6	12	1.881	0.0705	6 Heptachlor	BA
3.454	1	2	1.869	0.0117		
3.531	1	2	1.852	0.0117		
4.239	1	4	3.279	0.0235		
4.287	1	3	2.564	0.0176		
4.397	2	4	1.681	0.0235	14 Endrin	
4.888	1	5	4.386	0.0293		
4.898	2	5	2.347	0.0293		
5.548	2	6	3.191	0.0352		
5.550	1	6	4.110	0.0352		
5.617	3	6	1.899	0.0352		
5.855	1	4	3.738	0.0235		
6.075	5	12	2.303	0.0705		
6.078	2	12	5.911	0.0705		
6.082	4	12	2.752	0.0705		
6.087	2	8	4.598	0.0470		
6.332	1373	1005	0.732	5.9082	$ 24 Decachlorobiphenyl (S)	
6.890	1	4	3.604	0.0235		
	10432	17010		100.000		

Total unknown % height = 84.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-011.d
Lab Smp Id: 1708463 Client Smp ID: LB for HBN 351589 [
Inj Date : 17-JUL-2019 15:23
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1708463,
Misc Info : 15826,tclp
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-2.b\cr8081062719abm.m
Meth Date : 18-Jul-2019 09:50 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO		REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:				
2.358	2.358	0.000	1237	0.06699	1.34				
3 gamma-BHC (Lindane)					CAS #: 58-89-9				
Compound Not Detected.									
6 Heptachlor					CAS #: 76-44-8				
3.264	3.248	0.016	6	3e-004	0.00559			(M)	BA
8 Heptachlor epoxide					CAS #: 1024-57-3				
Compound Not Detected.									
14 Endrin					CAS #: 72-20-8				
4.397	4.387	0.010	2	1e-004	0.00253				

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

20 Methoxychlor CAS #: 72-43-5

Compound Not Detected.

---

22 Chlordane (Technical) CAS #:

Operator disabled compound identification. BA

---

23 Toxaphene CAS #: 8001-35-2

Peaks not detected for Quant. or Qual. signal(s).

$ 24 Decachlorobiphenyl (S) CAS #:

6.331 6.333 -0.002 1372 0.08597 1.72

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

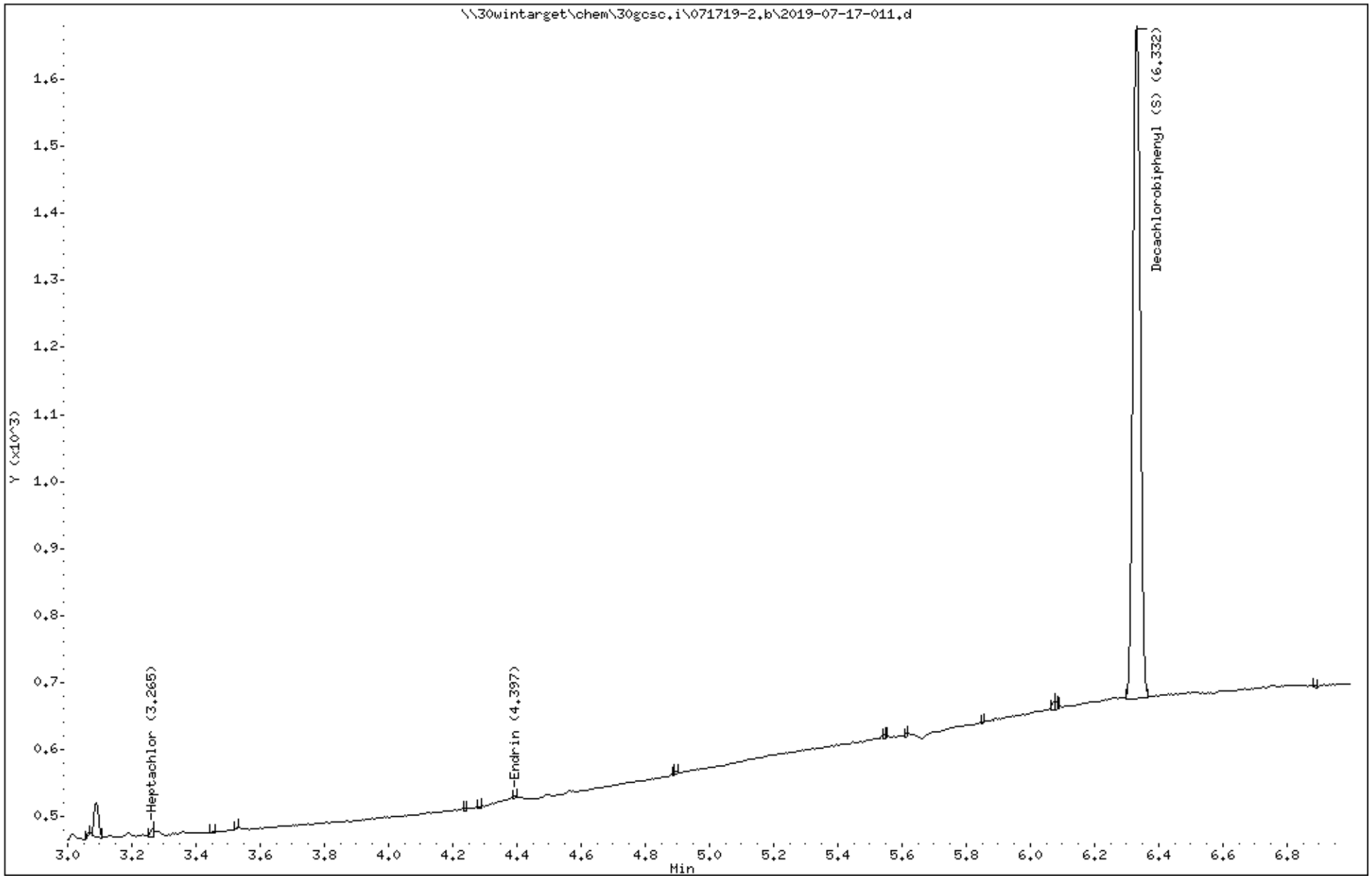
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708463
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15826,tclp

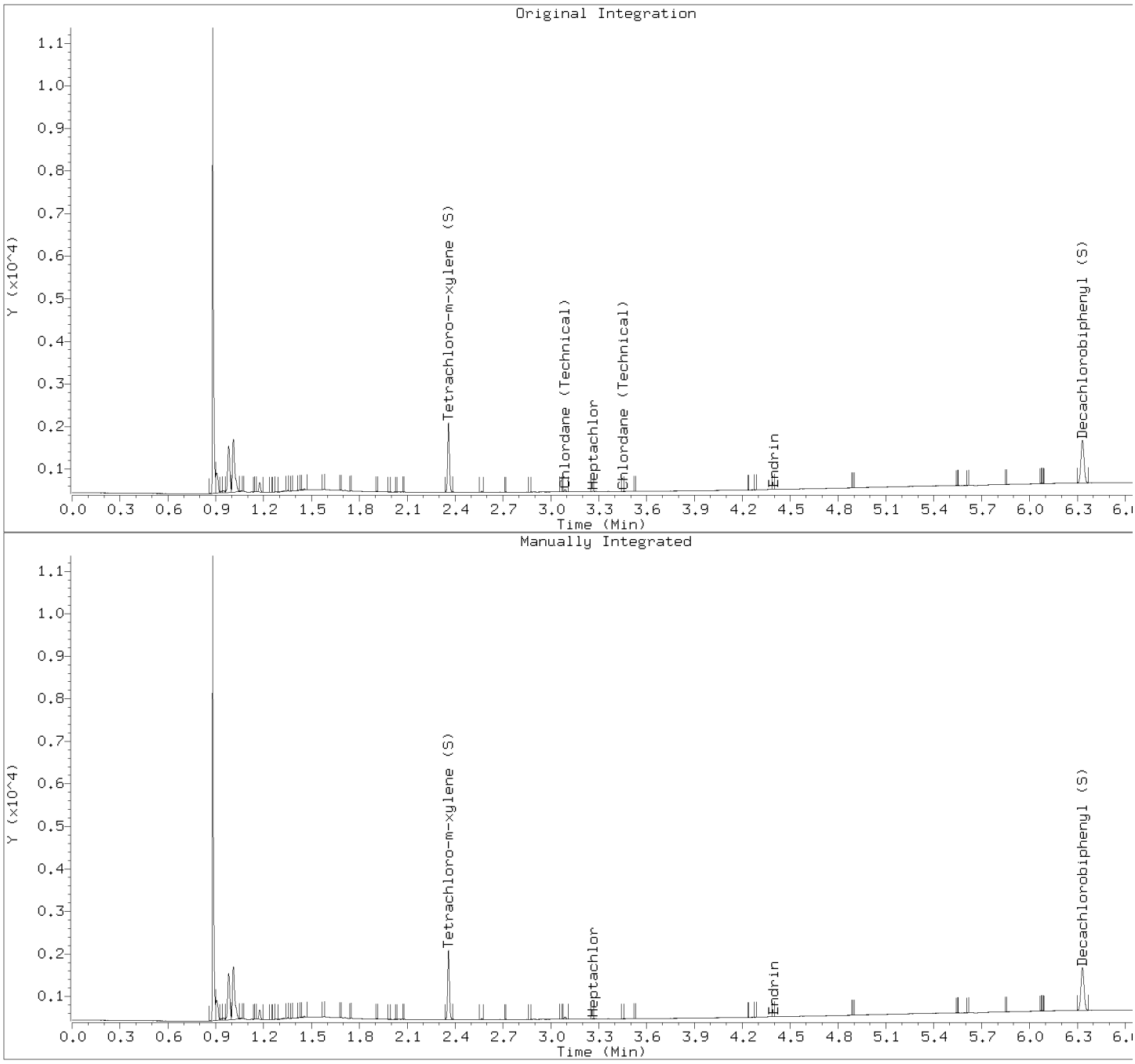
Client SDG: 071719-1.b
Client Smp ID: LB for HBN 351589 [
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
76-44-8	Heptachlor	0.00559	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.00253	
72-43-5	Methoxychlor	0.100	U
	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
	Tetrachloro-m-xylene (S)	1.34	
	Decachlorobiphenyl (S)	1.72	

Data File: \\30wintarget\chem\30gcsc.i\071719-2.b\2019-07-17-011.d
Date : 17-JUL-2019 15:23
Client ID: LB for HBN 351589 [
Instrument: 30gcsc.i
Sample Info: 1708463,
Volume Injected (uL): 1.0
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\071719-2.b/2019-07-17-011.d (ManInt: tclp.sub Orig: tclp.sub)
Injection Date: 17-JUL-2019 15:23 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1708463



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	1	6
Heptachlor epoxide	0	0
Endrin	2	2
Methoxychlor	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	40	0
Chlordane (Technical)	1	0
Chlordane (Technical)	1	0
Chlordane (Technical)	0	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1237	1237
Decachlorobiphenyl (S)	1372	1372

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/15/2019 10:58
Matrix: Water
SDG No.: 30313260
Date Extracted: 07/16/2019 09:09
Lab Sample ID: 1709291
Date Analyzed: 07/17/2019 17:30
Lab File ID: 071719-1.B\2019-07-17-024.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-024.d
Lab Smp Id: 1709291 Client Smp ID: LB for HBN 351733 [
Inj Date : 17-JUL-2019 17:30
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709291,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.892	87980	262994	2.989	88.8108		
0.922	1473	18319	12.438	6.1858		
0.960	997	1500	1.504	0.5065		
1.081	405	647	1.597	0.2184		
1.109	84	140	1.669	0.0472		
1.130	39	72	1.841	0.0243		
1.157	28	35	1.264	0.0118		
1.185	3	7	2.677	0.0023		
1.212	69	71	1.028	0.0239		
1.238	53	65	1.237	0.0219		
1.304	15	25	1.694	0.0084		
1.338	68	108	1.582	0.0364		
1.358	9	21	2.275	0.0070		
1.370	3	10	3.086	0.0033		
1.418	35	45	1.298	0.0151		
1.446	3	8	2.963	0.0027		
1.482	30	42	1.404	0.0141		
1.615	251	289	1.150	0.0975		
1.652	11	19	1.740	0.0064		
1.673	5	11	2.272	0.0037		
1.728	3	12	4.545	0.0040		
1.734	9	17	1.826	0.0057		
1.764	3	7	2.670	0.0023		
1.885	4143	5705	1.377	1.9264	$ 1 Tetrachloro-m-xylene (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.987	4	11	2.918	0.0037		
2.100	61	79	1.293	0.0266		
2.117	3	11	3.860	0.0037		
2.160	3	6	2.239	0.0020		
2.178	2	7	2.941	0.0023		
2.191	5	11	2.361	0.0037		
2.195	2	11	4.490	0.0037		
2.209	19	24	1.273	0.0081		
2.218	8	19	2.349	0.0064		
2.318	8	14	1.832	0.0047		
2.335	5	7	1.486	0.0023		
2.464	2	7	3.068	0.0023	3 gamma-BHC (Lindane)	
2.567	8	13	1.724	0.0043		
2.602	53	74	1.398	0.0249		
2.626	271	301	1.109	0.1016		
2.722	2	5	2.262	0.0016	5 Heptachlor	
2.735	2	9	3.766	0.0030		
2.740	5	11	2.107	0.0037		
2.784	5	17	3.527	0.0057		
2.785	14	24	1.715	0.0081		
2.856	24	31	1.285	0.0104		
2.903	5	11	2.056	0.0037		
2.963	3	9	3.435	0.0030		
3.115	3	12	3.540	0.0040		
3.120	3	12	4.669	0.0040		
3.124	5	13	2.381	0.0043		
3.170	4	6	1.493	0.0020		
3.184	8	15	1.856	0.0050		
3.190	5	13	2.605	0.0043		
3.212	3	9	3.203	0.0030		
3.332	3	7	2.692	0.0023		
3.336	3	8	2.667	0.0027		
3.351	11	14	1.261	0.0047		
3.361	4	10	2.841	0.0033		
3.379	4	7	1.750	0.0023		
3.384	3	9	3.237	0.0030		
3.955	5	8	1.717	0.0027	14 Endrin	
3.963	2	7	2.869	0.0023		
3.980	2	7	3.302	0.0023		
3.992	2	6	2.778	0.0020		
4.069	4	9	2.093	0.0030		
4.077	3	8	2.367	0.0027		
4.105	53	43	0.806	0.0145		
4.127	3	11	3.618	0.0037		
4.137	2	8	3.653	0.0027		
4.146	2	6	2.970	0.0020		
4.190	2	7	3.398	0.0023		
4.348	2	8	3.540	0.0027		
4.351	3	9	3.030	0.0030		
4.360	2	8	3.791	0.0027		
4.366	3	7	2.692	0.0023		
4.586	3	14	4.331	0.0047		
4.588	3	13	4.626	0.0043		
4.890	2	5	2.262	0.0016		
4.974	2	9	3.982	0.0030		
4.981	3	9	2.848	0.0030		
5.009	2	9	3.965	0.0030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.012	5	13	2.708	0.0043		
5.080	3	13	4.025	0.0043		
5.084	5	14	2.811	0.0047		
5.229	2	7	3.271	0.0023		
5.437	51	48	0.945	0.0162		
5.481	2	10	4.878	0.0033		
5.516	2	6	2.620	0.0020		
5.616	2	10	4.386	0.0033		
5.643	4952	4595	0.928	1.5516	$ 24 Decachlorobiphenyl (S)	
5.685	5	14	2.960	0.0047		
5.783	2	6	2.941	0.0020		
5.860	2	10	4.386	0.0033		
5.867	2	9	4.167	0.0030		
5.876	2	9	4.186	0.0030		
6.043	2	6	2.765	0.0020		
6.049	2	6	2.740	0.0020		
6.061	2	6	2.490	0.0020		
6.338	4	9	2.278	0.0030		
6.357	2	10	4.167	0.0033		
6.361	3	10	3.953	0.0033		
6.366	2	11	5.263	0.0037		
6.372	4	13	3.412	0.0043		
6.382	3	9	3.103	0.0030		
6.389	3	10	3.165	0.0033		
6.396	4	9	2.228	0.0030		
6.406	3	8	2.778	0.0027		
6.415	4	10	2.681	0.0033		
6.487	2	7	3.483	0.0023		
6.568	2	9	4.054	0.0030		
6.911	2	7	3.318	0.0023		
6.926	2	6	2.871	0.0020		
6.930	2	8	3.810	0.0027		
	101485	296145		100.000		

Total unknown % height = 96.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-024.d
Lab Smp Id: 1709291 Client Smp ID: LB for HBN 351733 [
Inj Date : 17-JUL-2019 17:30
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1709291,
Misc Info : 15826,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\071719-1.b\cf8081062719abm.m
Meth Date : 18-Jul-2019 10:18 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.885	-0.001	4143	0.08194	1.64			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.463	2.473	-0.010	2	3e-005	0.000637			
5 Heptachlor					CAS #: 319-86-8			
2.721	2.711	0.010	2	3e-005	0.000612			
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
3.954	3.957	-0.003	4	8.e-005	0.00160			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

20 Methoxychlor CAS #: 72-43-5

Compound Not Detected.

---

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.643 5.644 -0.001 4951 0.09962 1.99

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1709291
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15826,TCLP

Client SDG: 071719-1.b
Client Smp ID: LB for HBN 351733 [
Sample Point:
Date Received: 15-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.000637	
319-86-8	Heptachlor	0.000612	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.00160	
72-43-5	Methoxychlor	0.100	U
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.64	
----------	Decachlorobiphenyl (S)	1.99	

Data File: \\30wintarget\chem\30gcsc.i\071719-1.b\2019-07-17-024.d

Date : 17-JUL-2019 17:30

Client ID: LB for HBN 351733 [

Instrument: 30gcsc.i

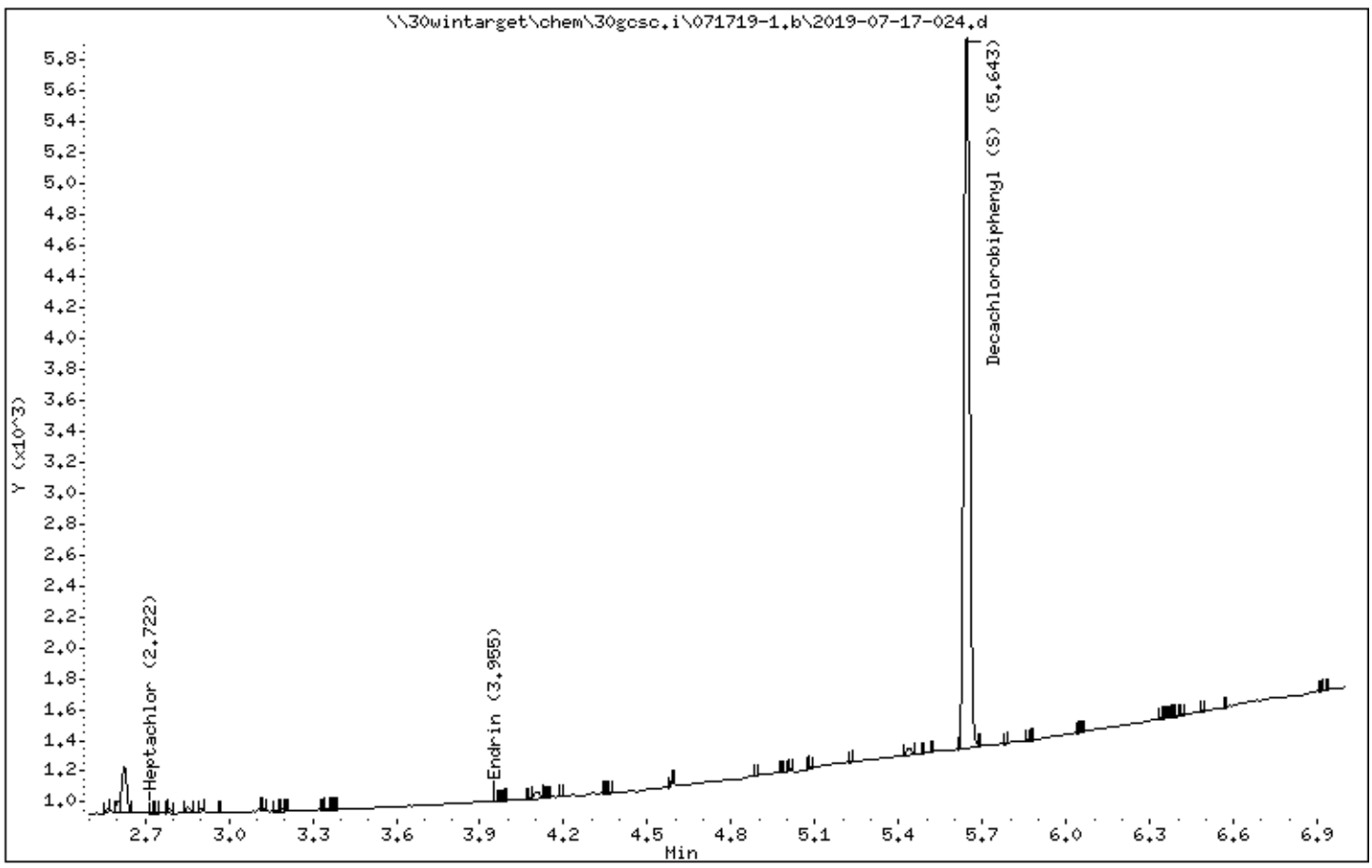
Sample Info: 1709291,

Volume Injected (uL): 1.0

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53

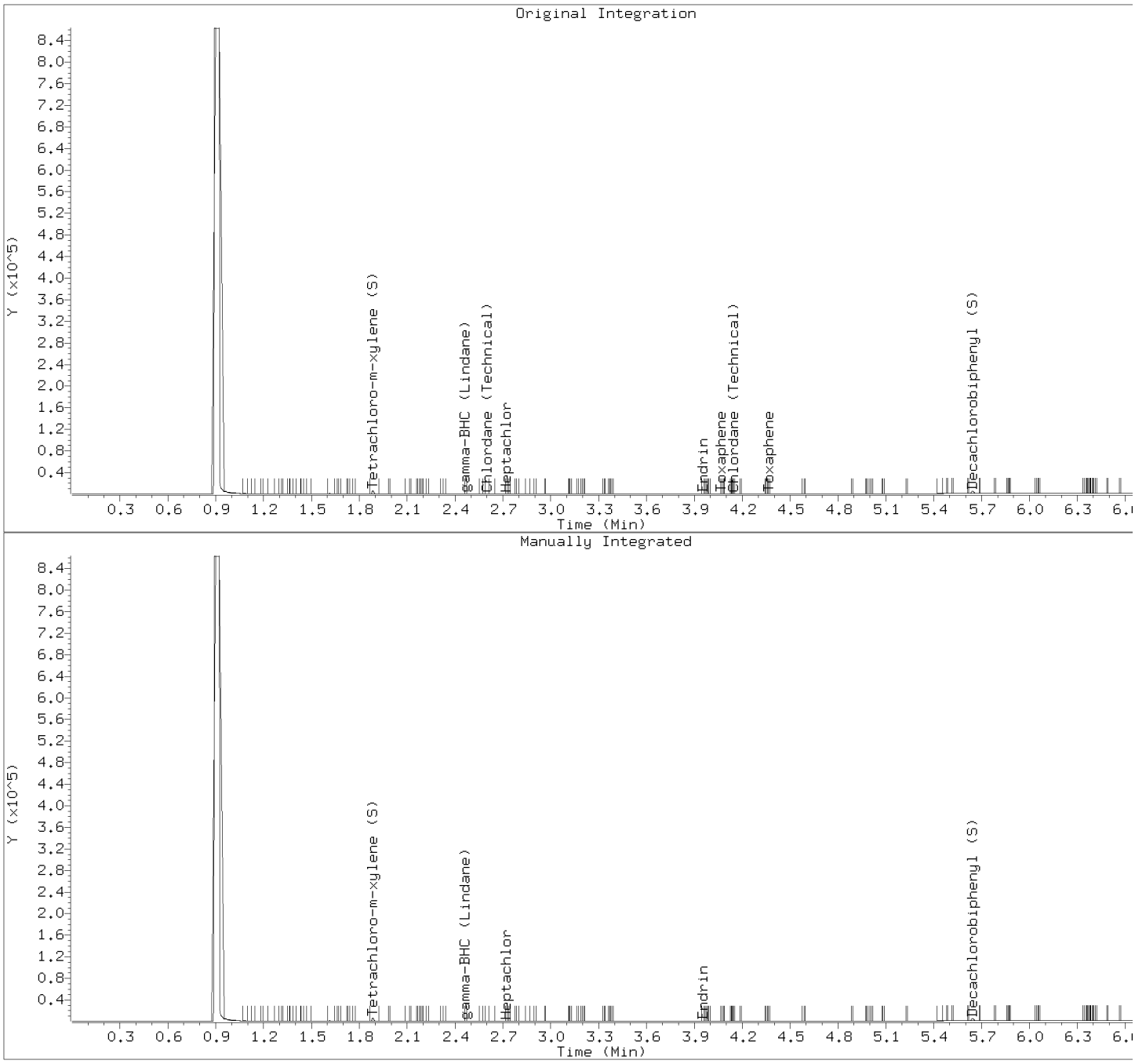


Data File: \\30wintarget\chem\30gcsc.i\071719-1.b/2019-07-17-024.d (ManInt: TCLP.sub Orig: TCLP.sub)

Injection Date: 17-JUL-2019 17:30 Operator: TAW

Instrument: 30gcsc.i

Lab Sample ID: 1709291



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	2	2
Heptachlor	2	2
Heptachlor epoxide	0	0
Endrin	4	4
Methoxychlor	0	0
Toxaphene	4	0
Toxaphene	2	0
Toxaphene	0	0
Toxaphene	2	0
Toxaphene	0	0
Chlordane (Technical)	52	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	4143	4143
Decachlorobiphenyl (S)	4951	4951

SAMPLE NO.

LCS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1709956 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47298	0.61	5.7
	2	2.83932	0.58	
Endrin	1	3.95632	1.3	6.2
	2	4.38798	1.2	
Heptachlor	1	2.71098	0.57	10.7
	2	3.24832	0.51	
Heptachlor epoxide	1	3.27965	0.62	7.9
	2	3.76932	0.57	
Methoxychlor	1	4.66332	6.5	11.1
	2	4.94498	5.8	

SAMPLE NO.

MS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1710053 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47267	0.81	
	2	2.47267		
Endrin	1	3.956	1.7	
	2	3.956		
Heptachlor	1	2.71067	0.77	
	2	2.71067		
Heptachlor epoxide	1	3.279	0.82	
	2	3.279		
Methoxychlor	1	4.66133	8.4	
	2	4.66133		

SAMPLE NO.

MSD

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1710054 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSC Instrument ID (2): Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47332	0.81	
	2	2.47332		
Endrin	1	3.95632	1.7	
	2	3.95632		
Heptachlor	1	2.71132	0.78	
	2	2.71132		
Heptachlor epoxide	1	3.27932	0.82	
	2	3.27932		
Methoxychlor	1	4.66298	8.2	
	2	4.66298		

Prep Log Report

Batch Information: TCLP 8727/351589; 8728/351593

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/14/2019 08:59:35:873	Tumbler Start Temp. (C)	20.6
Tumbler End Temp. (C)	22.6	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1708463**	Y		M	30TBL5	HP001	Other			4.88		0	0
TCLP	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
TCLP	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
TCLP	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
TCLP	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
TCLP	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
TCLP	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
TCLP	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100
TCLP	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
TCLP	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
TCLP	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
TCLP	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
TCLP	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100
1311MET_L	LB	**1708468**	Y		M	30TBL5	HP001	Other	Y	Y	4.88	1.83	0	0
1311MET_L	PS	**30312796001**	Y		N	30TBL5	HP001	Other	Y	Y	5.38	1.83	5	11.4
1311MET_L	PS	**30312796002**	Y		O	30TBL5	HP001	Other	Y	Y	2.68		5	100
1311MET_L	PS	**30312590007**	N		P	30TBL5	HP001	Other	Y	Y	8.07	1.84	5	100
1311MET_L	PS	**30312957001**	Y		Q	30TBL5	HP001	Other	Y	Y	5.54	1.82	5	100
1311MET_L	PS	**30313243001**	Y		R	30TBL5	HP001	Other	Y	Y	10.34	2.11	5	100
1311MET_L	PS	**30313260001**	Y		S	30TBL5	HP001	Other	Y	Y	8.33	1.98	5	100
1311MET_L	PS	**30313260002**	Y		T	30TBL5	HP001	Other	Y	Y	8.01	1.9	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313260003**	Y		U	30TBL5	HP001	Other	Y	Y	8.12	1.94	5	100
1311MET_L	PS	**30313438001**	Y		V	30TBL5	HP001	Other	Y	Y	8.84	1.94	5	100
1311MET_L	PS	**30313438003**	Y		A	30TBL5	HP001	Other	Y	Y	8.84	1.89	5	100
1311MET_L	PS	**30313438005**	Y		B	30TBL5	HP001	Other	Y	Y	9.09	1.87	5	100
1311MET_L	PS	**30313438007**	Y		C	30TBL5	HP001	Other	Y	Y	8.72	1.86	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1708463**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359				
TCLP	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064		475.8	477	1.2
TCLP	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600				
TCLP	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31						
TCLP	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332				
TCLP	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370				
TCLP	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987				
TCLP	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523				
TCLP	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563				
TCLP	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467				
TCLP	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835				
TCLP	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179				
1311MET_L	LB	**1708468**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:41:359	Y			
1311MET_L	PS	**30312796001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.88	07/15/2019 11:54:42:064	Y	475.8	477	1.2
1311MET_L	PS	**30312796002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	4.12	07/15/2019 11:54:42:600	Y			
1311MET_L	PS	**30312590007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31			Y			
1311MET_L	PS	**30312957001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.60	07/15/2019 12:20:04:332	Y			
1311MET_L	PS	**30313243001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	8.81	07/15/2019 12:22:05:370	Y			
1311MET_L	PS	**30313260001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.38	07/15/2019 12:40:05:987	Y			
1311MET_L	PS	**30313260002**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.22	07/15/2019 13:20:06:523	Y			
1311MET_L	PS	**30313260003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.59	07/15/2019 13:40:06:998	Y			
1311MET_L	PS	**30313438001**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.59	07/15/2019 13:50:07:563	Y			
1311MET_L	PS	**30313438003**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	6.12	07/15/2019 14:00:09:467	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30313438005**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.67	07/15/2019 14:20:08:835	Y			
1311MET_L	PS	**30313438007**	92410 ()	TCLP 1	93429 ()	72915 ()	07/14/2019 14:38:52	07/15/2019 08:38:31	5.85	07/15/2019 14:20:10:179	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1708463**								2000	
TCLP	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
TCLP	PS	**30312796002**								2000	wood dust
TCLP	PS	**30312590007**								2000	clay/rock
TCLP	PS	**30312957001**								2000	1*
TCLP	PS	**30313243001**								2000	clay
TCLP	PS	**30313260001**								2000	soil/rock
TCLP	PS	**30313260002**								2000	soil/rock
TCLP	PS	**30313260003**								2000	soil/rock
TCLP	PS	**30313438001**								2000	mud/rock
TCLP	PS	**30313438003**								2000	mud/rock
TCLP	PS	**30313438005**								2000	mud/rock
TCLP	PS	**30313438007**								2000	mud/rock
1311MET_L	LB	**1708468**								2000	
1311MET_L	PS	**30312796001**	601.9	600.7	496.2	1085.5	589.3	11.4	1.90	228.00	water
1311MET_L	PS	**30312796002**								2000	wood dust
1311MET_L	PS	**30312590007**								2000	clay/rock
1311MET_L	PS	**30312957001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313243001**								2000	clay
1311MET_L	PS	**30313260001**								2000	soil/rock
1311MET_L	PS	**30313260002**								2000	soil/rock
1311MET_L	PS	**30313260003**								2000	soil/rock
1311MET_L	PS	**30313438001**								2000	mud/rock
1311MET_L	PS	**30313438003**								2000	mud/rock
1311MET_L	PS	**30313438005**								2000	mud/rock
1311MET_L	PS	**30313438007**								2000	mud/rock

Sample Notes:

1*: gel/rock/fabric

Prep Log Report

Batch Information: OEXT 38649/38650/38653 Pest/PCB

Template Version: F-PA-O-004-Rev.00 (5May2016)

Prep Method	EPA 3510C	Analysis Method	EPA 8081B	Extracted By	ZEM	Extracted Date/Time	07/16/2019 09:09:20:696
Extraction End Date/Time	07/16/2019 13:51:44:289	Dispenser ID 1	BTD011	Syringe ID 1	SYR033	Spiked By	ZEM
Spiked By Date	07/16/2019 10:28:45:990	Concentrated By	ZEM	Concentrated By Date	07/16/2019 12:05:24:008	Conc. Method	Turbovap
Methylene Chloride	92788	Hexane	None Added	Sodium Sulfate	88419	1:1 H2SO4	None Added
10N Sodium Hydroxide	None Added	Gravity Filters	91977	Reviewed By	JPD	Reviewed By Date	07/17/2019 07:51
Batch Notes	A Matrix Spike/Matrix Duplicate was not performed for batch,38649, due to insufficient sample volume.						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
8081BST_P	LB	**1708463**		TVAP006	250	5-9	5			91910 (.5)	
8081BST_P	LCS	**1709956**		TVAP006	250	5-9	5		90623 (1)	91910 (.5)	
8081BST_P	PS	**30312796001**		TVAP006	250	5-9	5	1*		91910 (.5)	
8081BST_P	PS	**30312796002**		TVAP006	250	5-9	5			91910 (.5)	
8081BST_P	PS	**30313243001**		TVAP006	250	5-9	5	1*		91910 (.5)	
8081BST_P	PS	**30313260001**		TVAP005	250	5-9	5			91910 (.5)	
8081BST_P	PS	**30313260002**		TVAP005	250	5-9	5			91910 (.5)	
8081BST_P	PS	**30313438001**		TVAP005	250	5-9	5			91910 (.5)	
8081BST_P	MS	**1710053**		TVAP004	200	5-9	5	2*	90623 (1)	91910 (.5)	
8081BST_P	MSD	**1710054**		TVAP004	200	5-9	5	2*	90623 (1)	91910 (.5)	
8081BST_P	PS	**30313438003**		TVAP005	250	5-9	5			91910 (.5)	
8081BST_P	PS	**30313438005**		TVAP005	250	5-9	5			91910 (.5)	
8081BST_P	PS	**30313438007**		TVAP003	250	5-9	5			91910 (.5)	
8081BST_P	LB	**1709291**		TVAP003	250	5-9	5			91910 (.5)	
8081BST_P	PS	**50230174001**		TVAP003	250	5-9	5			91910 (.5)	
6083 WC_P	BLANK	**1709931**		TVAP003	1000	5-9	5			91910 (.5)	
6083 WC_P	LCS	**1709932**		TVAP003	1000	5-9	5			91910 (.5)	93101 (1)

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
6083 WC_P	PS	**30313309006**		TVAP003	1030	5-9	5			91910 (.5)	
6083 WC_P	MS	**1709933**		TVAP007	1025	5-9	5			91910 (.5)	93101 (1)
6083 WC_P	MSD	**1709934**		TVAP007	1015	5-9	5			91910 (.5)	93101 (1)
6083 WC_P	PS	**30313526001**		TVAP007	990	5-9	5	1*		91910 (.5)	
6083 WC_P	PS	**30313572001**		TVAP007	995	5-9	5	1*		91910 (.5)	
6083 WC_P	PS	**40190928001**		TVAP007	1025	5-9	5			91910 (.5)	
6083 WP_P	BLANK	**1709925**		TVAP007	1000	5-9	5			91910 (.5)	
6083 WP_P	LCS	**1709926**		TVAP004	1000	5-9	5		90623 (1)	91910 (.5)	
6083 WP_P	PS	**30313309006**		TVAP004	1030	5-9	5			91910 (.5)	
6083 WP_P	PS	**30313526001**		TVAP004	990	5-9	5	1*		91910 (.5)	
6083 WP_P	PS	**30313572001**		TVAP004	995	5-9	5	1*		91910 (.5)	

Sample Notes:

1*: Centrifuged

2*: Limited Volume

Standard Notes:

90623: OEXT Pesticide Spike 0.2/0.4/2 ppm

91910: OEXT Pesticide Surrogate 1 ppm

93101: oext AROCLOR 2.5 ppm spike methanol

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA

Surr. lot:
Cal. std: NA Hexanes 9/16/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-27-001.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	13:46	TAW	
1/2019-06-27-002.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	13:56	TAW	
1/2019-06-27-003.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:06	TAW	
1/2019-06-27-004.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:16	TAW	
1/2019-06-27-005.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:25	TAW	
1/2019-06-27-006.d	hexane	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:35	TAW	
1/2019-06-27-007.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	6/27/19	14:45	TAW	
1/2019-06-27-008.d	CAL2S, 90773:10	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	14:54	TAW	
1/2019-06-27-009.d	CAL2S, 90771:10	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	15:04	TAW	
1/2019-06-27-010.d	CAL1, 92175:1	N/15737	CALIB_1	1	cf8081062719abm	6/27/19	15:14	TAW	
1/2019-06-27-010llc.d	CAL1, 92175:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	15:14	TAW	
1/2019-06-27-011.d	CAL2, 92176:1	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	15:24	TAW	
1/2019-06-27-012.d	CAL3, 92177:1	N/15737	CALIB_3	1	cf8081062719abm	6/27/19	15:33	TAW	
1/2019-06-27-013.d	CAL4, 92178:1	N/15737	CALIB_4	1	cf8081062719abm	6/27/19	15:43	TAW	
1/2019-06-27-014.d	CAL5, 92179:1	N/15737	CALIB_5	1	cf8081062719abm	6/27/19	15:53	TAW	
1/2019-06-27-015.d	CAL6, 92180:1	N/15737	CALIB_6	1	cf8081062719abm	6/27/19	16:02	TAW	
1/2019-06-27-016.d	ICV, 89858:10	N/15738	CCALIB_4	1	cf8081062719abm	6/27/19	16:12	TAW	
1/2019-06-27-017.d	30297831001,	L/15647	SAMPLE	1	cf8081062719abm	6/27/19	16:22	TAW	
1/2019-06-27-018.d	30297831002,	L/15647	SAMPLE	1	cf8081062719abm	6/27/19	16:32	TAW	
1/2019-06-27-019.d	30297825001,	S/15634	SAMPLE	1	cf8081062719abm	6/27/19	16:41	TAW	
1/2019-06-27-020.d	30297825002,	S/15634	SAMPLE	1	cf8081062719abm	6/27/19	16:51	TAW	
1/2019-06-27-021.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	6/27/19	17:01	TAW	
1/2019-06-27-022.d	CCV, 92178:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	17:10	TAW	
1/2019-06-27-023.d	1695571,	L/15718	BLANK	1	cf8081062719abm	6/27/19	17:20	TAW	
1/2019-06-27-024.d	1695572,	L/15718	LCS	1	cf8081062719abm	6/27/19	17:30	TAW	
1/2019-06-27-025.d	30300421001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	17:39	TAW	
1/2019-06-27-026.d	30300657001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	17:49	TAW	
1/2019-06-27-027.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	17:59	TAW	
1/2019-06-27-028.d	30300655001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	18:09	TAW	
1/2019-06-27-029.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	18:18	TAW	
1/2019-06-27-030.d	30300656001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	18:28	TAW	
1/2019-06-27-031.d	1695573,	L/15718	MS	1	cf8081062719abm	6/27/19	18:38	TAW	
1/2019-06-27-032.d	1695574,	L/15718	MSD	1	cf8081062719abm	6/27/19	18:47	TAW	

Check Maintenance Items Performed:

- X Changed septum
- 4 Cleaned liner
- ___ Replaced/Cleaned gold seal
- ___ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- X Other minor parts replaced
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: DTW 6-28-19

File Path 1: \\30wintarget\chem\30gcsc.i\062719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:44 06/28/2019

Reviewed By/Date: 7/26/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: NA Surr. lot: NA Hexanes # 91618

Tune std: NA Cal. std:

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-27-033.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	18:57	TAW	
1/2019-06-27-034.d	30300656002,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	19:07	TAW	
1/2019-06-27-035.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	19:17	TAW	
1/2019-06-27-036.d	1697549,	L/15729	LCS	1	cf8081062719abm	6/27/19	19:26	TAW	
1/2019-06-27-037.d	1696432,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:36	TAW	
1/2019-06-27-038.d	30300192001,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:46	TAW	
1/2019-06-27-039.d	30300768001,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:55	TAW	
1/2019-06-27-040.d	30300762002,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	20:05	TAW	
1/2019-06-27-041.d	1697550,	L/15729	MS	1	cf8081062719abm	6/27/19	20:15	TAW	
1/2019-06-27-042.d	1697551,	L/15729	MSD	1	cf8081062719abm	6/27/19	20:24	TAW	
1/2019-06-27-043.d	CCV, 92178:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	20:34	TAW	
1/2019-06-27-044.d	PEM, 89577:10	N/15455	blank	1	cf8081062719abm	6/27/19	20:44	TAW	
1/2019-06-27-045.d	CCV,92280:1	N/15455	CCALIB_4	1	cf8081chlor050319abm	6/27/19	20:54	TAW	
1/2019-06-27-046.d	1695990,	L/15724	BLANK	1	cf8081chlor050319abm	6/27/19	21:03	TAW	
1/2019-06-27-047.d	1695991,	L/15724	LCS	1	cf8081chlor050319abm	6/27/19	21:13	TAW	
1/2019-06-27-048.d	30300602001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:23	TAW	
1/2019-06-27-049.d	30300602003,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:32	TAW	
1/2019-06-27-050.d	30300602005,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:42	TAW	
1/2019-06-27-051.d	30300602006,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:52	TAW	
1/2019-06-27-052.d	30300602010,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:01	TAW	
1/2019-06-27-053.d	30300606001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:11	TAW	
1/2019-06-27-054.d	30300606002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:21	TAW	
1/2019-06-27-055.d	30310127001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:31	TAW	
1/2019-06-27-056.d	30310127002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:40	TAW	
1/2019-06-27-057.d	30310128001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:50	TAW	
1/2019-06-27-058.d	30310128002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	23:00	TAW	
1/2019-06-27-059.d	CCV,92280:1	N/15455	CCALIB_4	1	cf8081chlor050319abm	6/27/19	23:09	TAW	
1/2019-06-27-060.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	23:19	TAW	

TAW 6.28.19

File Path 1: \\30wintarget\chem\30gcsc.i\062719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 14:44 06/28/2019

Reviewed By/Date: 6/28/19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: 8011
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Tune std: NA Cal. std: NA Hexanes #9/1618

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-07-17-001.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	7/17/19	13:46	TAW	
1/2019-07-17-002.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	7/17/19	13:56	TAW	
1/2019-07-17-003.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	7/17/19	14:05	TAW	
1/2019-07-17-004.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	7/17/19	14:15	TAW	
1/2019-07-17-005.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	7/17/19	14:25	TAW	
1/2019-07-17-006.d	hexane	N/	SAMPLE	1	cf8081062719abm	7/17/19	14:35	TAW	
1/2019-07-17-007.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	7/17/19	14:44	TAW	
1/2019-07-17-008.d	CAL2S, 90773:10	N/15737	CALIB_2	1	cf8081062719abm	7/17/19	14:54	TAW	
1/2019-07-17-009.d	CAL2S, 90771:10	N/15737	CALIB_2	1	cf8081062719abm	7/17/19	15:04	TAW	
1/2019-07-17-010.d	CCV, 93869:1	N/15737	CCALIB_4	1	cf8081062719abm	7/17/19	15:14	TAW	
1/2019-07-17-011.d	1708463,	L/15826	SAMPLE	1	cf8081062719abm	7/17/19	15:23	TAW	
1/2019-07-17-012.d	1709956,	L/15826	LCS	1	cf8081062719abm	7/17/19	15:33	TAW	
1/2019-07-17-013.d	30312796001,	L/15826	SAMPLE	1	cf8081062719abm	7/17/19	15:43	TAW	
1/2019-07-17-014.d	30312796002,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	15:52	TAW	
1/2019-07-17-015.d	30313243001,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	16:02	TAW	
1/2019-07-17-016.d	30313260001,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	16:12	TAW	
1/2019-07-17-017.d	30313260002,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	16:22	TAW	
1/2019-07-17-018.d	30313438001,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	16:31	TAW	
1/2019-07-17-019.d	1710053,	S/15826	MS	1	cf8081062719abm	7/17/19	16:41	TAW	
1/2019-07-17-020.d	1710054,	S/15826	MSD	1	cf8081062719abm	7/17/19	16:51	TAW	
1/2019-07-17-021.d	30313438003,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	17:00	TAW	
1/2019-07-17-022.d	30313438005,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	17:10	TAW	
1/2019-07-17-023.d	30313438007,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	17:20	TAW	
1/2019-07-17-024.d	1709291,	L/15826	SAMPLE	1	cf8081062719abm	7/17/19	17:30	TAW	
1/2019-07-17-025.d	50230174001,	S/15826	SAMPLE	1	cf8081062719abm	7/17/19	17:39	TAW	
1/2019-07-17-026.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	7/17/19	17:49	TAW	
1/2019-07-17-027.d	CCV, 93869:1	N/15737	CCALIB_4	1	cf8081062719abm	7/17/19	17:59	TAW	
1/2019-07-17-028.d	30313572001,	L/15825	SAMPLE	1	cf8081062719abm	7/17/19	18:08	TAW	
1/2019-07-17-029.d	30313526001,	L/15825	SAMPLE	1	cf8081062719abm	7/17/19	18:18	TAW	
1/2019-07-17-030.d	30313309006,	L/15825	SAMPLE	1	cf8081062719abm	7/17/19	18:28	TAW	
1/2019-07-17-031.d	1709926,	L/15825	LCS	1	cf8081062719abm	7/17/19	18:37	TAW	
1/2019-07-17-032.d	1709925,	L/15825	BLANK	1	cf8081062719abm	7/17/19	18:47	TAW	
1/2019-07-17-033.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	7/17/19	18:57	TAW	

Check Maintenance Items Performed:

- [ ] Changed septum
- [ ] Cleaned liner
- [ ] Replaced/Cleaned gold seal
- [ ] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [x] Other minor parts replaced glass wool
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: TAW 7-18-19

File Path 1: \\30wintarget\chem\30gcsc.i\071719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:19 07/18/2019

Reviewed By/Date: 7/18/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: 8011

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA Hexanes #91618

Tune std: NA Cal. std: NA

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-07-17-034.d	CCV, 93869:1	N/15737	CCALIB_4	1	cf8081062719abm	7/17/19	19:07	TAW	
1/2019-07-17-035.d	30312996004x10,	S/15799	SAMPLE	10	cf8081062719abm	7/17/19	19:16	TAW	
1/2019-07-17-036.d	30312996003x10,	S/15799	SAMPLE	10	cf8081062719abm	7/17/19	19:26	TAW	
1/2019-07-17-037.d	30312996002x10,	S/15799	SAMPLE	10	cf8081062719abm	7/17/19	19:36	TAW	
1/2019-07-17-038.d	30312996001x10,	S/15799	SAMPLE	10	cf8081062719abm	7/17/19	19:45	TAW	
1/2019-07-17-039.d	1707387x10,	S/15799	MS	10	cf8081062719abm	7/17/19	19:55	TAW	
1/2019-07-17-040.d	1707388x10,	S/15799	MSD	10	cf8081062719abm	7/17/19	20:05	TAW	
1/2019-07-17-041.d	1707386,	S/15799	LCS	1	cf8081062719abm	7/17/19	20:15	TAW	
1/2019-07-17-042.d	1707385,	S/15799	BLANK	1	cf8081062719abm	7/17/19	20:24	TAW	
1/2019-07-17-043.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	7/17/19	20:34	TAW	
1/2019-07-17-044.d	CCV, 93869:1	N/15737	CCALIB_4	1	cf8081062719abm	7/17/19	20:44	TAW	
1/2019-07-17-045.d	50229881001x10,	L/15796	SAMPLE	10	cf8081062719abm	7/17/19	20:53	TAW	
1/2019-07-17-046.d	30312849001x10,	L/15796	SAMPLE	10	cf8081062719abm	7/17/19	21:03	TAW	
1/2019-07-17-047.d	1706804,	L/15796	LCS	1	cf8081062719abm	7/17/19	21:13	TAW	
1/2019-07-17-048.d	1706803,	L/15796	BLANK	1	cf8081062719abm	7/17/19	21:22	TAW	
1/2019-07-17-049.d	CCV, 93869:1	N/15737	CCALIB_4	1	cf8081062719abm	7/17/19	21:32	TAW	
1/2019-07-17-050.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	7/17/19	21:42	TAW	
1/2019-07-17-051.d	PRIMER	L/	SAMPLE	1	cf8011070919	7/17/19	21:57	TAW	
1/2019-07-17-052.d	PRIMER	L/	SAMPLE	1	cf8011070919	7/17/19	22:10	TAW	
1/2019-07-17-053.d	PRIMER	L/	SAMPLE	1	cf8011070919	7/17/19	22:22	TAW	
1/2019-07-17-054.d	PRIMER	L/	SAMPLE	1	cf8011070919	7/17/19	22:35	TAW	
1/2019-07-17-055.d	PRIMER	L/	SAMPLE	1	cf8011070919	7/17/19	22:48	TAW	
1/2019-07-17-056.d	hexane	L/	SAMPLE	1	cf8011070919	7/17/19	23:00	TAW	
1/2019-07-17-057.d	CCV, 93871:2	L/15786	CCALIB_4	1	cf8011070919	7/17/19	23:13	TAW	
1/2019-07-17-058.d	CCB,93870:2,1578	L/15786	SAMPLE	1	cf8011070919	7/17/19	23:26	TAW	
1/2019-07-17-059.d	1711181,	L/15829	BLANK	1	cf8011070919	7/17/19	23:38	TAW	
1/2019-07-17-060.d	1711182,	L/15829	LCS	1	cf8011070919	7/17/19	23:51	TAW	
1/2019-07-18-061.d	30313947001,	L/15829	SAMPLE	1	cf8011070919	7/18/19	00:03	TAW	
1/2019-07-18-062.d	1711183,	L/15829	MS	1	cf8011070919	7/18/19	00:16	TAW	
1/2019-07-18-063.d	1711184,	L/15829	MSD	1	cf8011070919	7/18/19	00:29	TAW	
1/2019-07-18-064.d	30313947002,	L/15829	SAMPLE	1	cf8011070919	7/18/19	00:41	TAW	
1/2019-07-18-065.d	CCV, 93871:2	L/15786	CCALIB_4	1	cf8011070919	7/18/19	00:54	TAW	
1/2019-07-18-066.d	CCB,93870:2,1578	L/15786	SAMPLE	1	cf8011070919	7/18/19	01:07	TAW	

File Path 1: \\30wintarget\chem\30gcsc.i\071719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:19 07/18/2019

Reviewed By/Date: 7/18/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: 8011

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: NA Surr. lot:

Tune std: NA Cal. std: NA Hexanes #-9/6/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-07-18-067.d	hexane	L/	SAMPLE	1	cf8011070919	7/18/19	01:19	TAW	

TAW
7-18-19

File Path 1: \\30wintarget\chem\30gcsc.i\071719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:19 07/18/2019

Reviewed By/Date: 7/18/19 Page: 3 of 3

PCB - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30GCSD

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1707389	1707389BLANK	90	80
1707390	1707390LCS	84	76
1707391	1707391MS	111	84
1707392	1707392MSD	144*	99
30313260001	AOC32 Lower-1	104	80
30313260002	AOC32 Lower-2	94	75
30313260003	AOC27	70	56

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(38-139)
(TCMX) = Tetrachloro-m-xylene (S)	(34-114)

* Values outside of QC Limits

PCB - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1707390LCS
Date Extracted: 07/11/2019
Date Analyzed (1): 07/17/2019
Instrument: 30GCSD
LCS Lot No: 88418
Lab File ID: D071719-2.B\D071719000031.D
SDG No.: 30313260

COMPOUND	AMOUNT ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	0.17	0.13	77	61-105
PCB-1260 (Aroclor 1260)	0.17	0.13	80	70-100

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1707391MS
Date Extracted: 07/11/2019
Date Analyzed (1): 07/17/2019
Instrument: 30GCSD
Lab File ID: D071719-2.B\D071719000033.D
Parent Sample ID: AOC32 Lower-1
SDG No.: 30313260

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	MS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	0.19	ND	0.20	107	24-137
PCB-1260 (Aroclor 1260)	0.19	ND	0.68	359	19-156

Spike Recovery: 1 out of 2 outside limits.

PCB - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSD Matrix Spike Duplicate - Sample No: 1707392MSD

Lab File ID (2): D071719-1.B\D071719000034.D Date Analyzed (2): 07/17/2019

COMPOUND	SPIKE ADDED (mg/kg)	MSD CONCENTRATION (mg/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
PCB-1016 (Aroclor 1016)	0.19	0.24	126	16	0-25	24-137
PCB-1260 (Aroclor 1260)	0.19	0.85	447	22	0-25	19-156

RPD: 0 out of 2 outside limits.

Spike Recovery: 1 out of 2 outside limits.

SAMPLE NO.

1707389BLANK

PCB - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313260 Contract: Former EPT-Soil IRM

Instrument ID: 30GCSD Matrix: Solid Lab Sample ID: 1707389

Lab File ID (1): D071719-1.B\D071719000030.D Date Analyzed (1): 07/17/2019 Time (1): 18:31

Lab File ID (2): D071719-2.B\D071719000030.D Date Analyzed (2): 07/17/2019 Time (2): 18:31

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1707390LCS	1707390	D071719-1.B\D071719000031.D	07/17/2019 18:40
1707390LCS	1707390	D071719-2.B\D071719000031.D	07/17/2019 18:40
AOC32 Lower-1	30313260001	D071719-1.B\D071719000032.D	07/17/2019 18:48
AOC32 Lower-1	30313260001	D071719-2.B\D071719000032.D	07/17/2019 18:48
1707391MS	1707391	D071719-1.B\D071719000033.D	07/17/2019 18:57
1707391MS	1707391	D071719-2.B\D071719000033.D	07/17/2019 18:57
1707392MSD	1707392	D071719-1.B\D071719000034.D	07/17/2019 19:05
1707392MSD	1707392	D071719-2.B\D071719000034.D	07/17/2019 19:05
AOC32 Lower-2	30313260002	D071719-1.B\D071719000036.D	07/17/2019 19:22
AOC32 Lower-2	30313260002	D071719-2.B\D071719000036.D	07/17/2019 19:22
AOC27	30313260003	D071719-1.B\D071719000037.D	07/17/2019 19:31
AOC27	30313260003	D071719-2.B\D071719000037.D	07/17/2019 19:31

SAMPLE NO.

AOC32 Lower-1

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 30313260001

Date Analyzed: 07/17/2019 18:48 Lab File ID: D071719-2.B\D071719000032.D

Initial wt/vol: 15.3 g Final wt/vol: 5 mL Dilution: 10 Instrument: 30GCSD Percent Moisture: 13.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	0.74	
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000032.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 18:48
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260001x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	80062	29869	0.373	14.547		
1.166	208	175	0.842	0.084		
1.210	8223	6728	0.818	3.263	$ 10 Tetrachloro-m-xylene (S)	BA
1.452	602	474	0.787	0.229		
1.610	505	362	0.717	0.175		
1.694	1069	803	0.751	0.389		
2.032	269	231	0.858	0.112		
2.425	6280	4874	0.776	2.364	6 PCB-1254 (Aroclor 1254)	BA
2.469	1273	1121	0.880	0.543		
2.507	2007	1914	0.954	0.928	6 PCB-1254 (Aroclor 1254)	BA
2.542	1056	1024	0.970	0.496		
2.589	754	635	0.843	0.308		
2.643	4206	2725	0.648	1.321		
2.671	853	819	0.960	0.397		
2.725	1077	1056	0.981	0.512		
2.761	701	783	1.117	0.379		
2.788	10095	8526	0.845	4.135	6 PCB-1254 (Aroclor 1254)	BA
2.826	1244	1045	0.840	0.506		
2.847	609	535	0.878	0.259		
2.882	4172	3592	0.861	1.742		
2.921	1131	1074	0.950	0.520	6 PCB-1254 (Aroclor 1254)	BA
2.952	1089	1022	0.938	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.992	6438	4145	0.644	2.010		
3.054	341	306	0.897	0.148		
3.101	1018	1470	1.444	0.713		
3.115	3141	2781	0.885	1.348		
3.149	3604	3066	0.851	1.487		
3.186	1576	1347	0.855	0.653		
3.224	10701	7765	0.726	3.766	6 PCB-1254 (Aroclor 1254)	BA
3.283	1418	1097	0.774	0.532		
3.334	777	520	0.669	0.252		
3.363	475	418	0.879	0.202		
3.436	593	716	1.208	0.347		
3.457	2925	2633	0.900	1.277		
3.496	649	596	0.919	0.289		
3.530	21298	15818	0.743	7.672		
3.581	3007	2211	0.735	1.072		
3.635	5827	4197	0.720	2.035		
3.721	5228	3444	0.659	1.670		
3.801	3164	2769	0.875	1.343		
3.829	5141	3577	0.696	1.735		
3.850	2674	2329	0.871	1.129		
3.945	1669	1565	0.937	0.759		
3.956	1305	1626	1.246	0.788		
4.000	196	240	1.224	0.116		
4.034	5373	3761	0.700	1.824		
4.072	805	752	0.934	0.364		
4.095	1411	909	0.644	0.440		
4.116	237	475	2.005	0.230		
4.146	776	852	1.098	0.413		
4.176	578	470	0.814	0.227		
4.215	173	258	1.492	0.125		
4.243	14079	9074	0.645	4.401		
4.301	399	647	1.621	0.313		
4.334	895	696	0.778	0.337		
4.377	224	264	1.177	0.128		
4.396	240	284	1.183	0.137		
4.419	283	287	1.013	0.139		
4.496	6977	5836	0.836	2.830	$ 11 Decachlorobiphenyl (S)	BA
4.524	769	815	1.059	0.395		
4.585	7813	3539	0.453	1.716		
4.635	288	406	1.407	0.196		
4.679	4602	3800	0.826	1.843		
4.708	721	757	1.050	0.367		
4.744	6871	4879	0.710	2.366		
4.848	548	750	1.368	0.363		
4.868	302	548	1.812	0.265		
4.912	107	400	3.722	0.194		
4.927	492	544	1.105	0.263		
4.958	1053	797	0.757	0.386		
5.030	4934	2452	0.497	1.189		
5.083	176	458	2.603	0.222		
5.108	267	352	1.320	0.170		
5.140	116	266	2.287	0.129		
5.153	64	304	4.720	0.147		
5.205	16	65	4.109	0.031		
5.214	41	99	2.390	0.048		
5.245	449	422	0.940	0.204		
5.266	851	765	0.899	0.371		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.293	127	427	3.367	0.207		
5.299	240	439	1.830	0.212		
5.339	112	217	1.932	0.105		
5.368	21	137	6.408	0.066		
5.403	731	731	1.000	0.354		
5.447	601	504	0.838	0.244		
5.492	1006	961	0.956	0.466		
5.500	1657	995	0.600	0.482		
5.579	3628	1193	0.329	0.578		
5.649	4353	2015	0.463	0.977		
5.716	1994	1508	0.756	0.731		
5.774	2294	1059	0.462	0.513		
5.823	95	530	5.607	0.257		
5.855	12766	3586	0.281	1.739		
5.944	158	797	5.060	0.386		
5.958	1109	914	0.824	0.443		
6.003	138	536	3.885	0.259		
6.007	148	534	3.596	0.259		
6.036	192	558	2.903	0.270		
6.041	205	580	2.832	0.281		
6.063	156	527	3.386	0.255		
6.121	73	371	5.099	0.179		
6.148	1285	942	0.733	0.456		
6.179	134	675	5.046	0.327		
6.214	186	587	3.159	0.284		
6.218	226	602	2.667	0.292		
6.235	172	519	3.011	0.251		
6.252	285	516	1.813	0.250		
6.328	197	325	1.647	0.157		
6.335	171	382	2.238	0.185		
6.339	155	417	2.698	0.202		
6.395	51	185	3.652	0.089		
6.407	56	168	3.013	0.081		
6.418	39	169	4.300	0.081		
6.423	49	183	3.736	0.088		
6.450	35	128	3.710	0.062		
6.466	26	103	3.986	0.049		
6.483	27	69	2.522	0.033		
6.489	15	62	4.047	0.030		
	308494	206157		100.000		

Total unknown % height = 82.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000032.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 18:48
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260001x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.425	2.425	0.000	6279	0.34629	1.31	80.00- 120.00	100.00(aM)	BA
2.507	2.509	-0.002	2007	0.10163	0.385	69.31- 103.97	31.96	BA
2.787	2.791	-0.004	10095	0.32092	1.22	167.74- 251.61	160.77	BA
2.921	2.924	-0.003	1130	0.05574	0.211	9.03- 13.54	18.00	BA
3.223	3.226	-0.003	10701	0.39319	1.49	278.88- 418.31	170.43	BA
Average of Peak Concentrations =					0.923			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.211	-0.001	8222	0.01617	0.00613		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.497	-0.001	6977	0.02079	0.00788		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

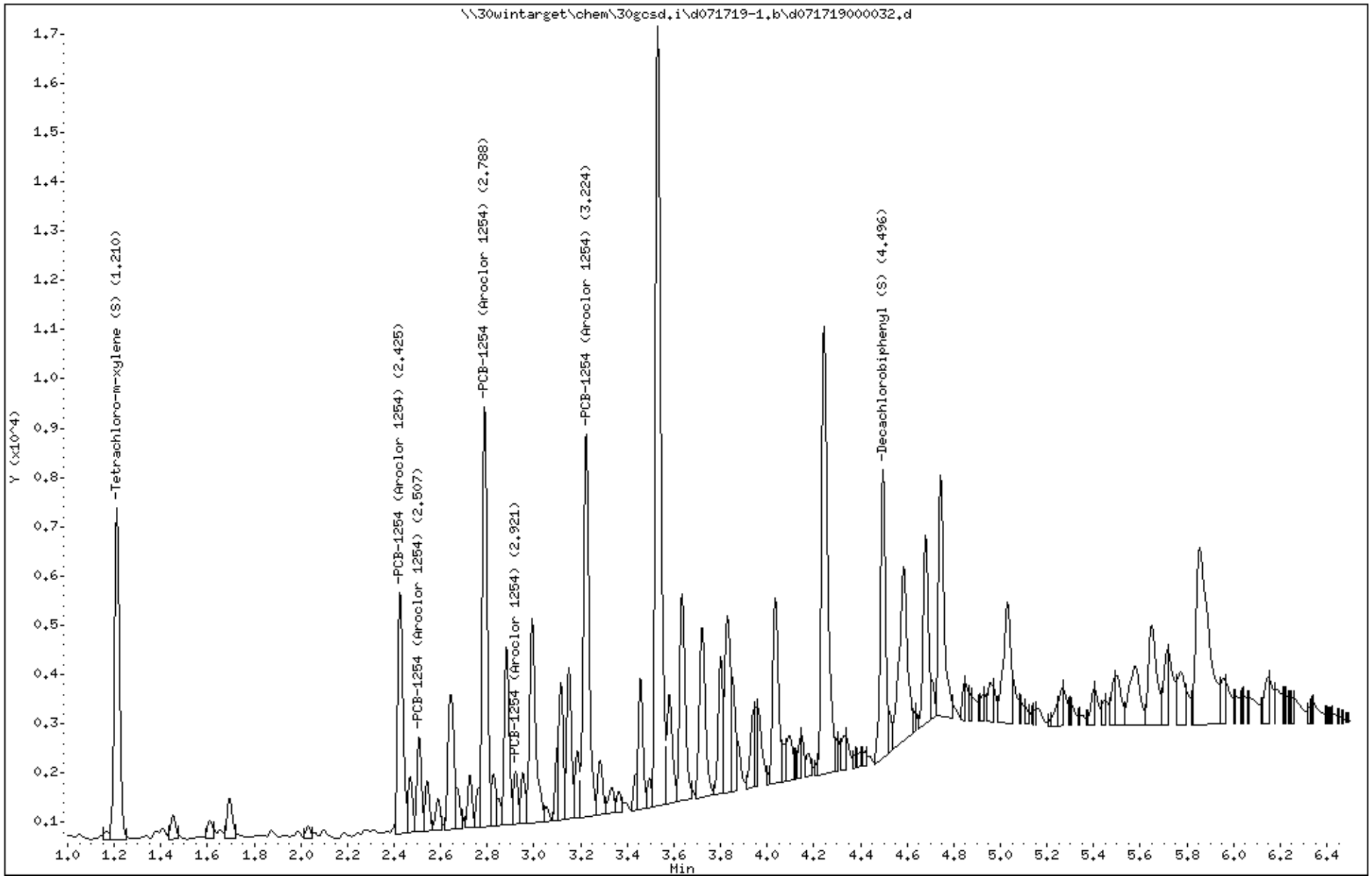
Client Name: WSP Environment & E
Lab Smp Id: 30313260001
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: 30313260
Client Smp ID: AOC32 Lower-1
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	383	U
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.425	1.31	J
	Peak found at 2.507	0.385	J
	Peak found at 2.788	1.22	J
	Peak found at 2.921	0.211	J
	Peak found at 3.224	1.49	J
	Average of Peak Amounts =	0.923	J
11096-82-5	PCB-1260 (Aroclor 1260)	383	U
877-09-8	Tetrachloro-m-xylene (S)	0.00613	J
2051-24-3	Decachlorobiphenyl (S)	0.00788	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000032.d
Date : 17-JUL-2019 18:48
Client ID: A0C32 Lower-1
Sample Info: 30313260001X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32

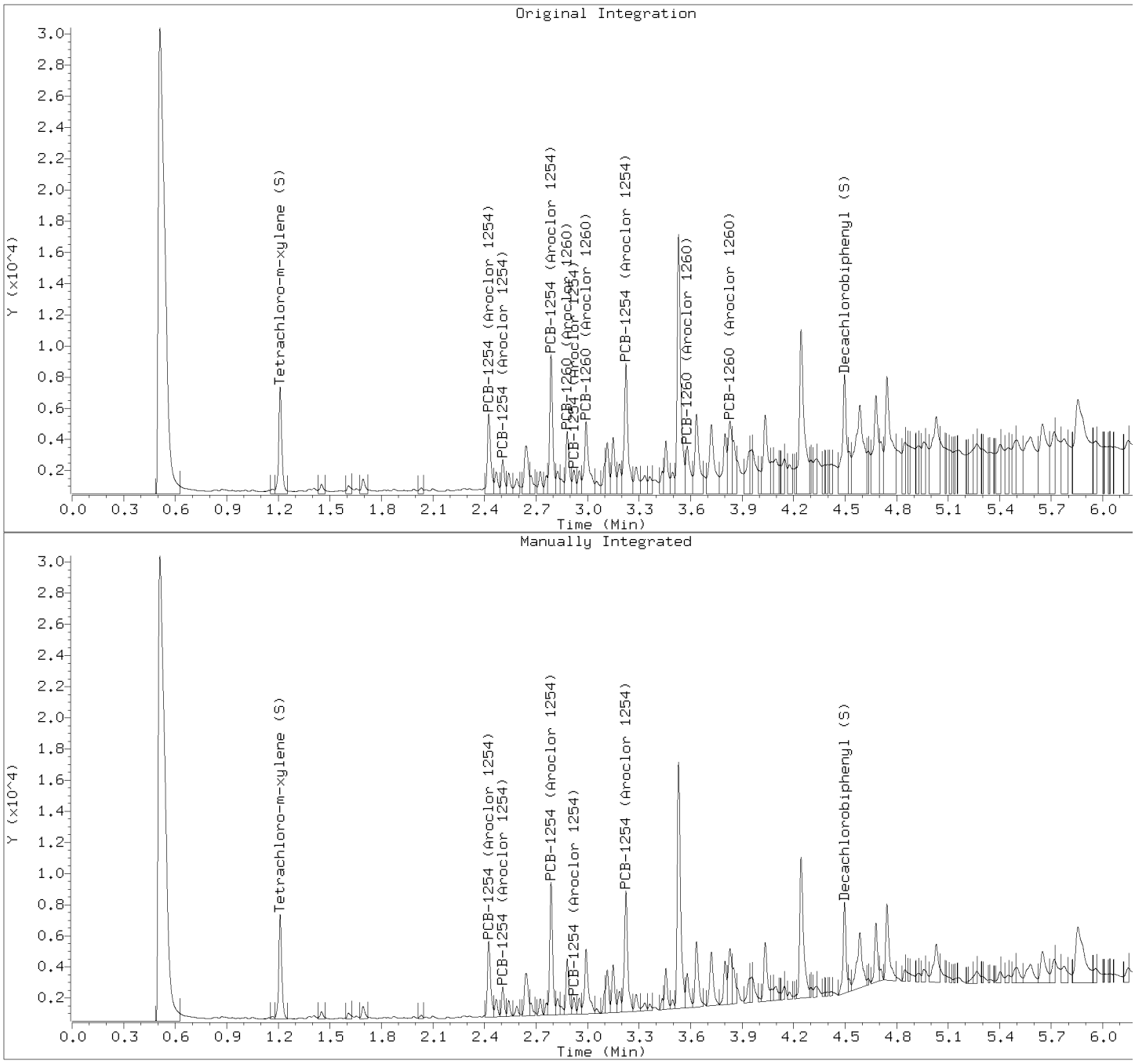


Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000032.d (ManInt: tcl.sub Orig: tcl.sub)

Injection Date: 17-JUL-2019 18:48 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 30313260001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	7066	6279
PCB-1254 (Aroclor 1254)	2636	2007
PCB-1254 (Aroclor 1254)	11171	10095
PCB-1254 (Aroclor 1254)	1900	1130
PCB-1254 (Aroclor 1254)	13031	10701
PCB-1260 (Aroclor 1260)	11171	0
PCB-1260 (Aroclor 1260)	5263	0
PCB-1260 (Aroclor 1260)	8566	0
PCB-1260 (Aroclor 1260)	5248	0
PCB-1260 (Aroclor 1260)	7129	0
Tetrachloro-m-xylene (S)	8759	8222
Decachlorobiphenyl (S)	12991	6977

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000032.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 18:48
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260001x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	72855	35079	0.481	19.423		
1.583	7291	6511	0.893	3.594	$ 10 Tetrachloro-m-xylene (S)	BA
1.829	400	387	0.967	0.213		
1.973	1441	919	0.638	0.507		
2.432	225	205	0.912	0.113		
2.552	145	132	0.908	0.072		
2.697	4106	3079	0.750	1.699		
2.809	1893	1710	0.903	0.943	6 PCB-1254 (Aroclor 1254)	BA
2.858	425	441	1.037	0.243		
2.893	50	77	1.528	0.042		
2.917	356	518	1.454	0.285		
2.935	2271	2288	1.008	1.263		
2.950	2697	2399	0.890	1.324	6 PCB-1254 (Aroclor 1254)	BA
2.971	607	914	1.507	0.504		
2.988	1457	1202	0.825	0.663		
3.044	287	199	0.694	0.109		
3.079	444	596	1.342	0.329		
3.096	2022	1609	0.796	0.888		
3.131	1300	1110	0.854	0.612		
3.165	1145	793	0.693	0.437		
3.192	5898	5492	0.931	3.031	6 PCB-1254 (Aroclor 1254)	BA
3.239	614	699	1.138	0.385		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.254	1078	712	0.660	0.393		
3.301	3762	3366	0.895	1.858		
3.335	401	396	0.989	0.218		
3.363	1078	884	0.820	0.487		
3.384	1581	1352	0.855	0.746	6 PCB-1254 (Aroclor 1254)	BA
3.428	915	724	0.791	0.399		
3.471	3270	3351	1.025	1.849		
3.495	4467	3945	0.883	2.177		
3.551	2065	1558	0.755	0.860		
3.592	401	589	1.470	0.325		
3.620	1396	950	0.681	0.524		
3.654	7762	6893	0.888	3.805	6 PCB-1254 (Aroclor 1254)	BA
3.678	1473	1468	0.997	0.810		
3.714	899	799	0.889	0.441		
3.752	543	438	0.807	0.241		
3.792	148	148	0.999	0.081		
3.840	22051	15840	0.718	8.743		
3.930	5661	3673	0.649	2.027		
3.972	259	354	1.369	0.195		
4.020	4441	2161	0.487	1.192		
4.050	2362	1916	0.811	1.057		
4.071	396	846	2.136	0.467		
4.141	3683	2451	0.665	1.352		
4.183	2638	2044	0.775	1.128		
4.238	1724	1476	0.856	0.814		
4.277	7315	3933	0.538	2.171		
4.363	1480	782	0.528	0.431		
4.404	1109	760	0.685	0.419		
4.444	229	297	1.297	0.163		
4.455	511	380	0.744	0.209		
4.516	12908	7903	0.612	4.362		
4.583	1042	668	0.641	0.368		
4.610	1443	841	0.583	0.464		
4.670	122	157	1.291	0.086		
4.677	74	160	2.153	0.088		
4.681	45	164	3.663	0.090		
4.711	424	473	1.117	0.261		
4.746	766	779	1.017	0.430		
4.775	584	495	0.848	0.273		
4.797	185	198	1.073	0.109		
4.835	762	717	0.941	0.395		
4.875	6722	4735	0.704	2.613		
4.950	7574	6344	0.838	3.502	$ 11 Decachlorobiphenyl (S)	BA
5.009	3872	2721	0.703	1.502		
5.043	980	1110	1.133	0.612		
5.098	22	161	7.379	0.088		
5.116	402	459	1.141	0.253		
5.148	3	17	5.397	0.009		
5.157	28	77	2.736	0.042		
5.164	46	109	2.379	0.060		
5.191	289	345	1.192	0.190		
5.200	185	378	2.039	0.208		
5.213	565	412	0.729	0.227		
5.271	3701	1527	0.413	0.842		
5.310	114	579	5.067	0.319		
5.323	1721	797	0.463	0.439		
5.376	57	261	4.609	0.144		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.387	230	337	1.463	0.186		
5.443	21	66	3.155	0.036		
5.468	12	39	3.140	0.021		
5.480	33	65	1.987	0.035		
5.487	16	65	3.954	0.035		
5.494	23	75	3.322	0.041		
5.503	36	107	2.953	0.059		
5.516	22	99	4.537	0.054		
5.530	33	120	3.630	0.066		
5.551	573	529	0.923	0.292		
5.587	109	233	2.136	0.128		
5.607	79	243	3.081	0.134		
5.612	123	270	2.187	0.149		
5.654	17	61	3.563	0.033		
5.696	6	39	6.373	0.021		
5.704	19	52	2.740	0.028		
5.713	21	74	3.527	0.040		
5.723	14	63	4.481	0.034		
5.732	15	74	4.862	0.040		
5.766	807	563	0.698	0.310		
5.813	27	158	5.835	0.087		
5.862	2142	928	0.433	0.512		
5.944	1521	992	0.652	0.547		
6.026	2156	1406	0.652	0.776		
6.082	1584	1184	0.748	0.653		
6.158	74	311	4.223	0.171		
6.178	106	323	3.034	0.178		
6.198	495	570	1.150	0.314		
6.204	269	634	2.357	0.349		
6.208	170	668	3.938	0.368		
6.217	438	709	1.617	0.391		
6.224	229	731	3.197	0.403		
6.301	5474	3277	0.599	1.808		
6.413	271	552	2.035	0.304		
6.423	173	550	3.184	0.303		
6.434	180	573	3.183	0.316		
6.478	161	482	2.990	0.266		
6.485	293	499	1.701	0.275		
	255635	181153		100.000		

Total unknown % height = 83.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000032.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 17-JUL-2019 18:48
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260001x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.809	2.816	-0.007	1893	0.12867	0.488	80.00- 120.00	100.00(aM)	BA
2.949	2.958	-0.009	2696	0.11742	0.445	124.85- 187.28	142.46	BA
3.192	3.198	-0.006	5898	0.24312	0.921	131.92- 197.88	311.58	BA
3.383	3.392	-0.009	1581	0.08484	0.322	101.34- 152.01	83.53	BA
3.653	3.660	-0.007	7761	0.40830	1.55	103.36- 155.04	410.02	BA
Average of Peak Concentrations =					0.744			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.582	1.583	-0.001	7291	0.01605	0.00608		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	7573	0.02385	0.00904		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

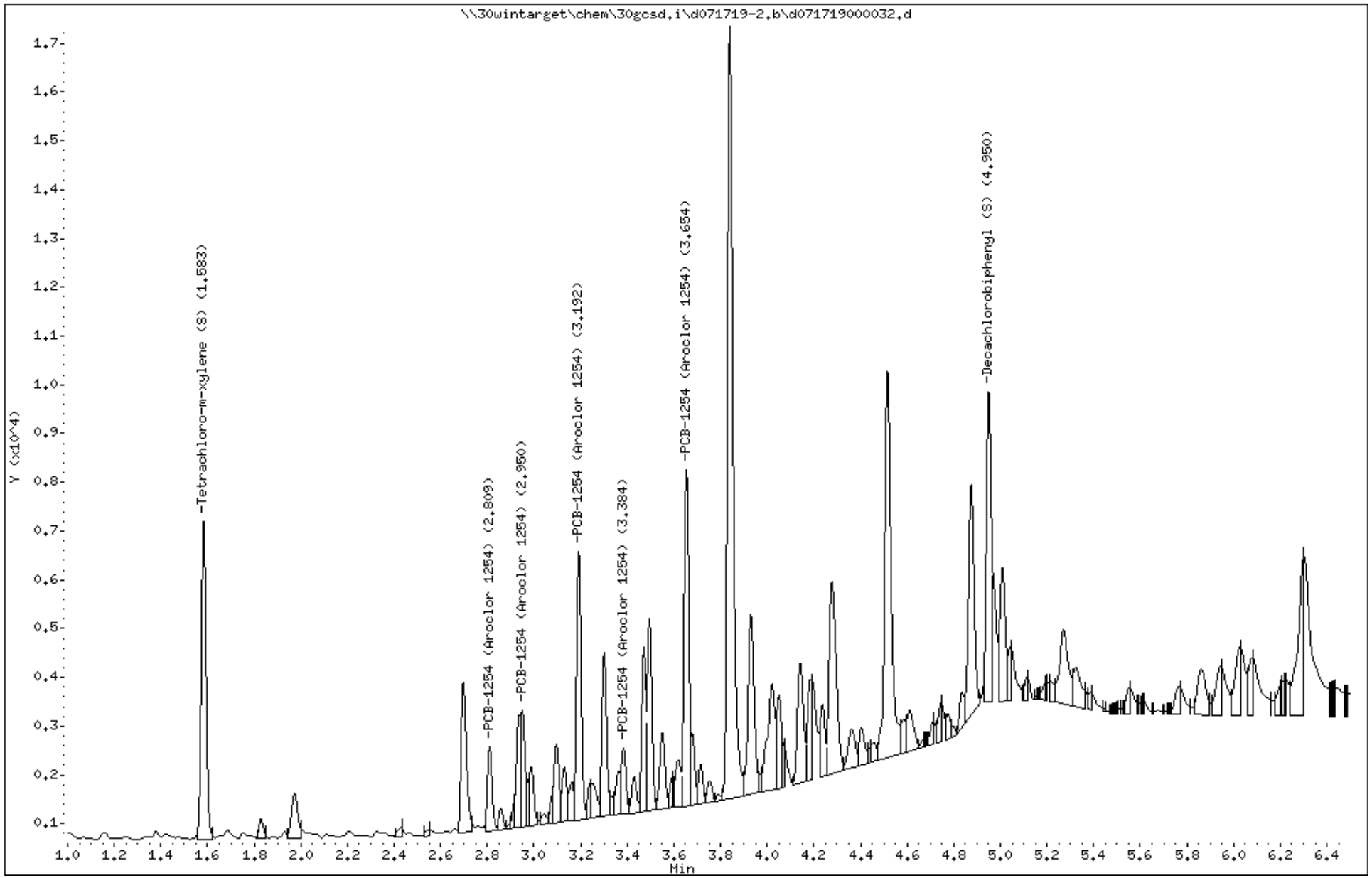
Pace Analytical Services, Inc.

TARGET COMPOUNDS

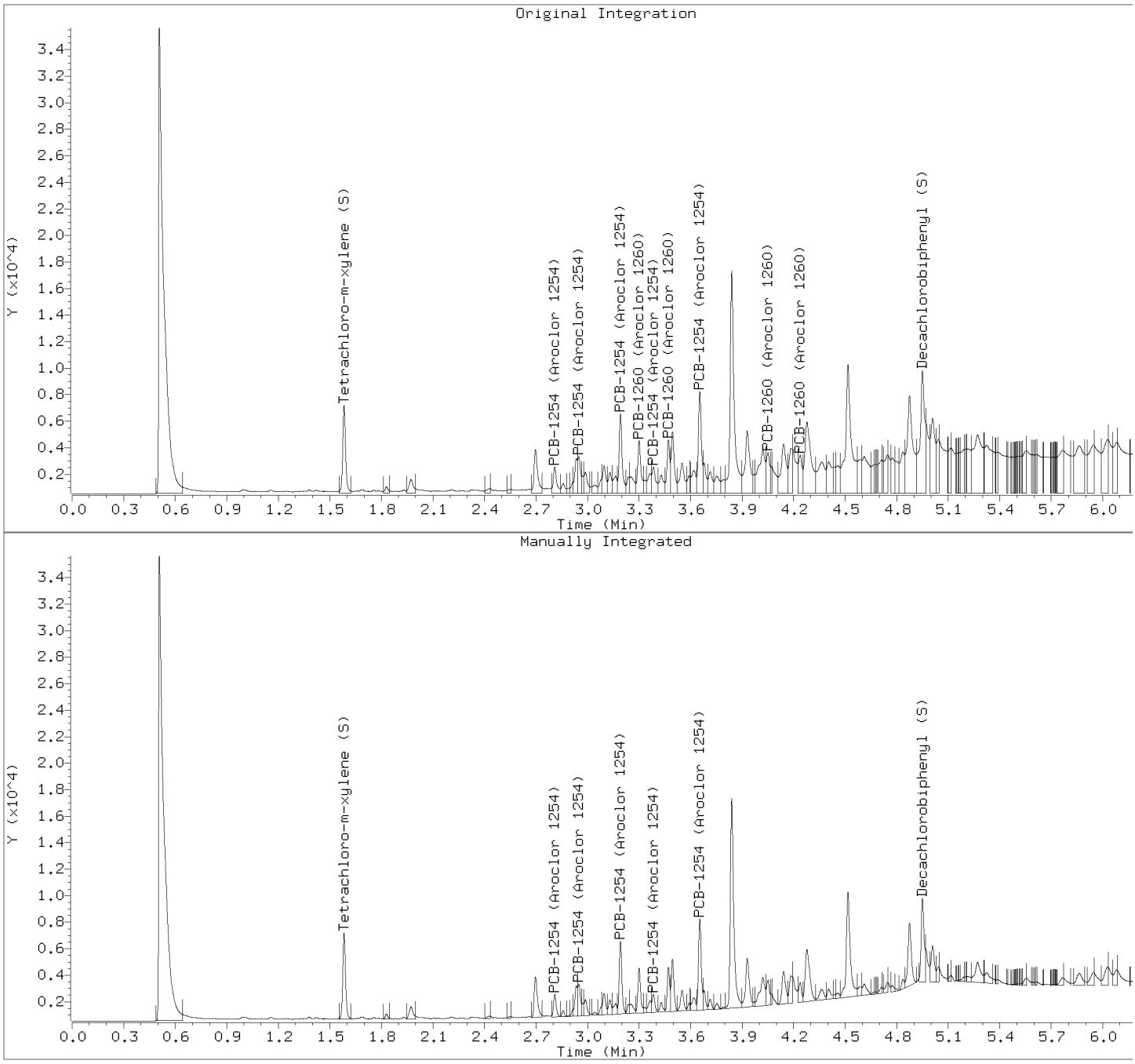
Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260001
Client Smp ID: AOC32 Lower-1
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ESTD
Analysis Type: GCMULT
Level: LOW
Data Type: GC MULTI COMP
Operator: CWB
Misc Info: 15800,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	383	U
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.809	0.488	J
	Peak found at 2.950	0.445	J
	Peak found at 3.192	0.921	J
	Peak found at 3.384	0.322	J
	Peak found at 3.654	1.55	J
	Average of Peak Amounts =	0.745	J
11096-82-5	PCB-1260 (Aroclor 1260)	383	U
877-09-8	Tetrachloro-m-xylene (S)	0.00608	J
2051-24-3	Decachlorobiphenyl (S)	0.00904	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000032.d
Date : 17-JUL-2019 18:48
Client ID: A0C32 Lower-1
Instrument: 30gcsd.i
Sample Info: 30313260001X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000032.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:48 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313260001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	2841	1893
PCB-1254 (Aroclor 1254)	3221	2696
PCB-1254 (Aroclor 1254)	7407	5898
PCB-1254 (Aroclor 1254)	3016	1581
PCB-1254 (Aroclor 1254)	9568	7761
PCB-1260 (Aroclor 1260)	5340	0
PCB-1260 (Aroclor 1260)	4484	0
PCB-1260 (Aroclor 1260)	9568	0
PCB-1260 (Aroclor 1260)	4285	0
PCB-1260 (Aroclor 1260)	4173	0
Tetrachloro-m-xylene (S)	7781	7291
Decachlorobiphenyl (S)	18546	7573

SAMPLE NO.

AOC32 Lower-2

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 30313260002

Date Analyzed: 07/17/2019 19:22 Lab File ID: D071719-2.B\D071719000036.D

Initial wt/vol: 15.01 g Final wt/vol: 5 mL Dilution: 10 Instrument: 30GCSD Percent Moisture: 14.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	0.55	
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000036.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 19:22
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260002x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	718805	862778	1.200	83.752		
0.872	363	323	0.891	0.031		
1.166	220	182	0.827	0.017		
1.211	7626	6214	0.815	0.602	$ 10 Tetrachloro-m-xylene (S)	BA
1.322	66	92	1.397	0.008		
1.380	183	178	0.973	0.017		
1.407	189	253	1.341	0.024		
1.451	611	389	0.637	0.037		
1.609	226	321	1.420	0.031		
1.655	130	181	1.391	0.017		
1.694	1033	756	0.732	0.073		
1.874	102	157	1.544	0.015		
1.989	99	154	1.548	0.014		
2.032	143	171	1.194	0.016		
2.100	118	170	1.445	0.016		
2.186	55	84	1.532	0.008		
2.247	72	92	1.271	0.008		
2.278	115	142	1.236	0.013		
2.401	62	96	1.539	0.009		
2.426	5384	4191	0.778	0.406	6 PCB-1254 (Aroclor 1254)	BA
2.469	931	837	0.899	0.081		
2.507	1420	1366	0.962	0.132	6 PCB-1254 (Aroclor 1254)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.542	787	777	0.988	0.075		
2.589	518	430	0.830	0.041		
2.642	4029	2656	0.659	0.257		
2.671	570	633	1.111	0.061		
2.695	300	315	1.052	0.030		
2.725	842	803	0.953	0.077		
2.762	475	651	1.371	0.063		
2.788	8514	6817	0.801	0.661	6 PCB-1254 (Aroclor 1254)	BA
2.826	546	837	1.534	0.081		
2.846	312	563	1.807	0.054		
2.883	2908	2492	0.857	0.241		
2.921	857	810	0.945	0.078	6 PCB-1254 (Aroclor 1254)	BA
2.953	803	765	0.953	0.074		
2.992	4608	2893	0.628	0.280		
3.054	614	532	0.866	0.051		
3.116	2894	1910	0.660	0.185		
3.149	3380	2878	0.851	0.279		
3.187	1175	961	0.818	0.093		
3.224	7717	5422	0.703	0.525	6 PCB-1254 (Aroclor 1254)	BA
3.284	1157	889	0.768	0.086		
3.333	545	555	1.019	0.053		
3.362	182	287	1.578	0.027		
3.391	124	177	1.431	0.017		
3.435	406	475	1.170	0.046		
3.457	2167	1885	0.870	0.182		
3.494	372	491	1.321	0.047		
3.530	18044	13553	0.751	1.314		
3.581	2087	1539	0.738	0.149		
3.634	5022	3657	0.728	0.354		
3.721	5306	3404	0.642	0.330		
3.801	3016	2560	0.849	0.248		
3.830	4293	3004	0.700	0.291		
3.850	2536	2159	0.851	0.209		
3.872	997	938	0.940	0.090		
3.949	2350	1431	0.609	0.138		
3.957	1880	1423	0.757	0.138		
4.035	4638	3397	0.732	0.329		
4.073	710	612	0.862	0.059		
4.095	1176	758	0.644	0.073		
4.118	214	439	2.053	0.042		
4.145	1048	726	0.693	0.070		
4.176	488	426	0.873	0.041		
4.216	136	229	1.689	0.022		
4.243	12004	7857	0.655	0.762		
4.303	633	588	0.929	0.057		
4.330	751	656	0.874	0.063		
4.374	124	261	2.111	0.025		
4.379	142	273	1.921	0.026		
4.397	380	304	0.800	0.029		
4.411	54	220	4.042	0.021		
4.417	168	248	1.479	0.024		
4.495	6320	5320	0.842	0.515	$ 11 Decachlorobiphenyl (S)	BA
4.522	662	801	1.210	0.077		
4.585	7765	3141	0.404	0.304		
4.632	480	645	1.343	0.062		
4.678	4662	3405	0.730	0.330		
4.706	1238	1064	0.860	0.103		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.743	5651	4139	0.732	0.401		
4.793	217	451	2.081	0.043		
4.846	492	701	1.424	0.067		
4.890	256	458	1.791	0.044		
4.904	67	375	5.623	0.036		
4.921	502	604	1.204	0.058		
4.955	527	769	1.460	0.074		
4.961	585	820	1.402	0.079		
4.989	155	570	3.673	0.055		
5.030	7130	3033	0.425	0.294		
5.131	100	319	3.192	0.030		
5.137	71	328	4.650	0.031		
5.140	88	347	3.923	0.033		
5.147	155	367	2.372	0.035		
5.156	83	331	3.983	0.032		
5.188	9	58	6.591	0.005		
5.198	29	75	2.577	0.007		
5.205	39	107	2.724	0.010		
5.212	65	164	2.512	0.015		
5.227	203	264	1.299	0.025		
5.242	306	371	1.213	0.035		
5.263	601	625	1.039	0.060		
5.290	60	432	7.252	0.041		
5.301	364	539	1.482	0.052		
5.340	208	323	1.551	0.031		
5.373	53	110	2.061	0.010		
5.400	434	527	1.214	0.051		
5.422	88	319	3.621	0.030		
5.440	386	466	1.207	0.045		
5.446	293	499	1.704	0.048		
5.490	700	719	1.027	0.069		
5.498	1084	764	0.705	0.074		
5.531	39	184	4.703	0.017		
5.575	1555	1036	0.666	0.100		
5.580	1491	1060	0.711	0.102		
5.617	85	290	3.417	0.028		
5.648	4110	1842	0.448	0.178		
5.693	181	577	3.196	0.055		
5.718	3201	1381	0.431	0.133		
5.772	1132	988	0.873	0.095		
5.814	216	528	2.443	0.051		
5.820	102	520	5.079	0.050		
5.823	95	538	5.654	0.052		
5.854	11709	3432	0.293	0.332		
5.938	157	723	4.613	0.070		
5.943	223	763	3.419	0.074		
5.957	914	924	1.011	0.089		
5.963	1364	928	0.680	0.090		
6.003	139	541	3.880	0.052		
6.023	237	483	2.042	0.046		
6.032	74	472	6.359	0.045		
6.042	96	490	5.100	0.047		
6.045	111	514	4.637	0.049		
6.049	316	528	1.672	0.051		
6.071	214	474	2.212	0.045		
6.075	183	493	2.700	0.047		
6.103	264	383	1.453	0.037		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.112	113	387	3.430	0.037		
6.118	141	406	2.875	0.039		
6.143	2574	1032	0.401	0.100		
6.183	348	554	1.591	0.053		
6.190	225	544	2.414	0.052		
6.206	102	518	5.096	0.050		
6.216	177	565	3.200	0.054		
6.219	276	580	2.104	0.056		
6.226	292	581	1.988	0.056		
6.235	143	560	3.913	0.054		
6.258	261	530	2.030	0.051		
6.304	51	326	6.350	0.031		
6.312	47	343	7.247	0.033		
6.325	316	431	1.363	0.041		
6.333	240	486	2.021	0.047		
6.339	611	495	0.811	0.048		
6.396	30	117	3.966	0.011		
6.405	26	117	4.560	0.011		
6.419	83	156	1.888	0.015		
6.433	60	156	2.603	0.015		
6.462	12	52	4.452	0.005		
	929408	1031071		100.000		

Total unknown % height = 97.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000036.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 19:22
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260002x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
Operator disabled compound identification.								BA
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.425	2.425	0.000	5384	0.29693	1.15	80.00- 120.00	100.00(aM)	BA
2.507	2.509	-0.002	1420	0.07191	0.279	69.31- 103.97	26.37	BA
2.787	2.791	-0.004	8513	0.27063	1.05	167.74- 251.61	158.12	BA
2.921	2.924	-0.003	857	0.04228	0.164	9.03- 13.54	15.92	BA
3.223	3.226	-0.003	7716	0.28351	1.10	278.88- 418.31	143.32	BA
Average of Peak Concentrations =					0.750			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.211	-0.001	7626	0.01499	0.00583		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.495	4.497	-0.002	6320	0.01883	0.00732		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

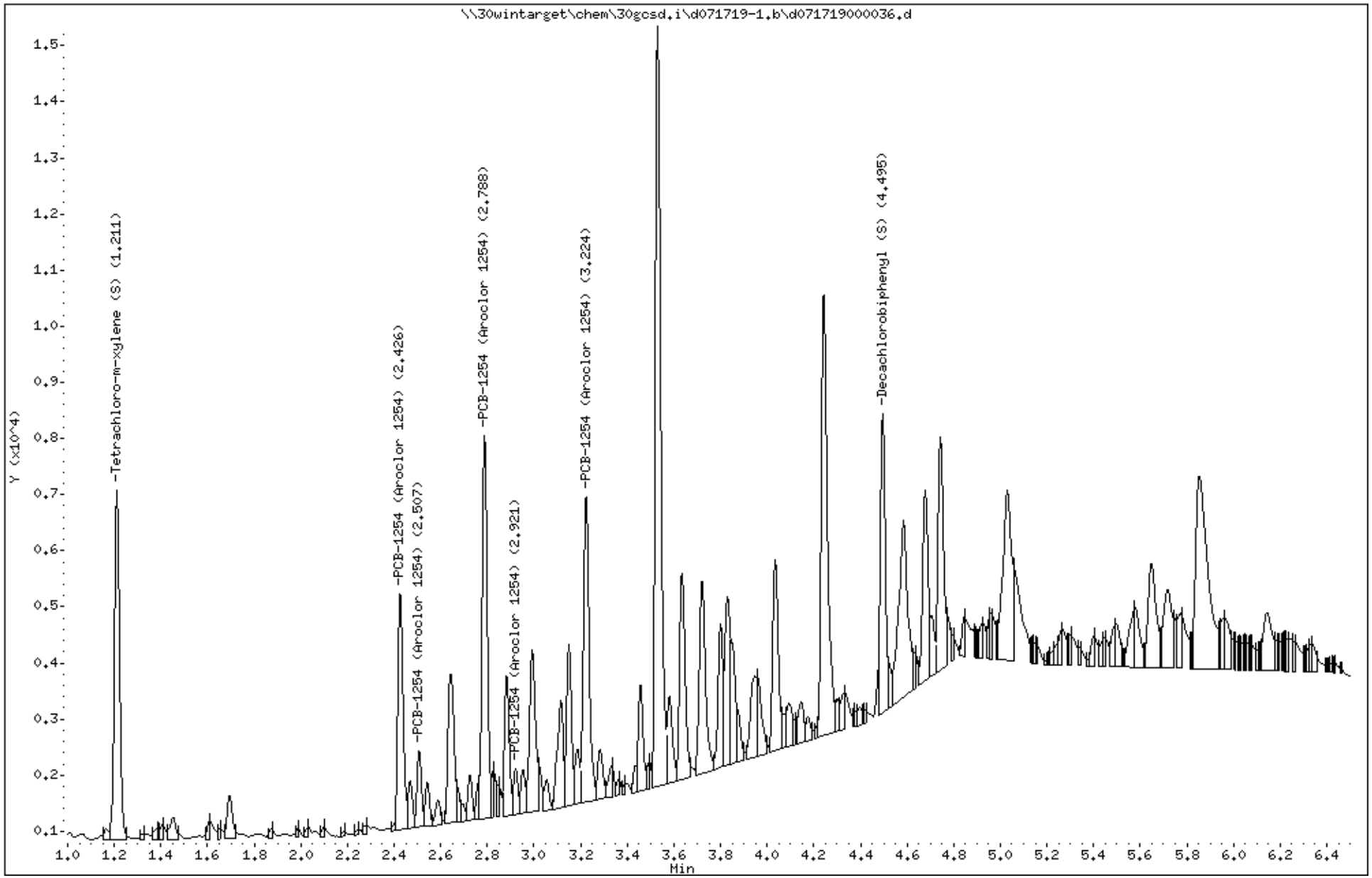
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313260
Lab Smp Id: 30313260002
Client Smp ID: AOC32 Lower-2
Sample Location:
Sample Point:
Sample Date: 10-JUL-2019
Date Received: 11-JUL-2019
Sample Matrix: SOIL
Quant Type: ESTD
Analysis Type: GCMULT
Level: LOW
Data Type: GC MULTI COMP
Operator: CWB
Misc Info: 15800,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	385	U
11104-28-2	PCB-1221 (Aroclor 1221)	782	U
11141-16-5	PCB-1232 (Aroclor 1232)	385	U
53469-21-9	PCB-1242 (Aroclor 1242)	385	U
12672-29-6	PCB-1248 (Aroclor 1248)	385	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.426	1.15	J
	Peak found at 2.507	0.279	J
	Peak found at 2.787	1.05	J
	Peak found at 2.921	0.164	J
	Peak found at 3.224	1.10	J
	Average of Peak Amounts =	0.749	J
11096-82-5	PCB-1260 (Aroclor 1260)	385	U
877-09-8	Tetrachloro-m-xylene (S)	0.00583	J
2051-24-3	Decachlorobiphenyl (S)	0.00732	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000036.d
Date : 17-JUL-2019 19:22
Client ID: A0C32 Lower-2
Instrument: 30gcsd.i
Sample Info: 30313260002X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32

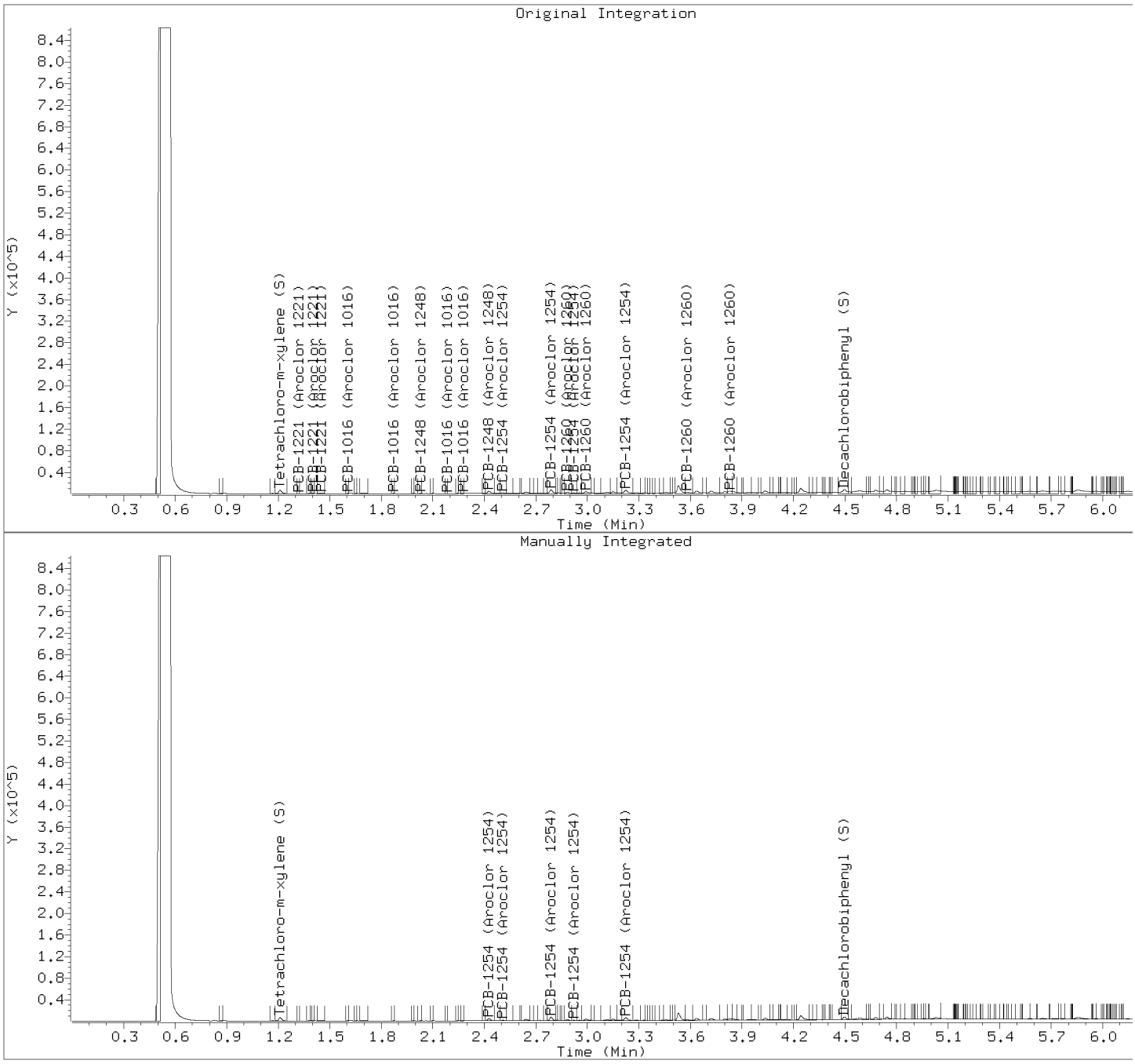


Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000036.d (ManInt: tcl.sub Orig: tcl.sub)

Injection Date: 17-JUL-2019 19:22 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 30313260002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	598	0
PCB-1016 (Aroclor 1016)	438	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	390	0
PCB-1016 (Aroclor 1016)	539	0
PCB-1221 (Aroclor 1221)	391	0
PCB-1221 (Aroclor 1221)	474	0
PCB-1221 (Aroclor 1221)	1479	0
PCB-1232 (Aroclor 1232)	1479	0
PCB-1232 (Aroclor 1232)	598	0
PCB-1232 (Aroclor 1232)	438	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	390	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	438	0
PCB-1248 (Aroclor 1248)	620	0
PCB-1248 (Aroclor 1248)	390	0
PCB-1248 (Aroclor 1248)	539	0
PCB-1248 (Aroclor 1248)	6941	0
PCB-1254 (Aroclor 1254)	6941	5384
PCB-1254 (Aroclor 1254)	2646	1420
PCB-1254 (Aroclor 1254)	10606	8513
PCB-1254 (Aroclor 1254)	2259	857
PCB-1254 (Aroclor 1254)	11675	7716
PCB-1260 (Aroclor 1260)	10606	0
PCB-1260 (Aroclor 1260)	4813	0
PCB-1260 (Aroclor 1260)	7341	0
PCB-1260 (Aroclor 1260)	5530	0
PCB-1260 (Aroclor 1260)	7244	0
Tetrachloro-m-xylene (S)	9004	7626
Decachlorobiphenyl (S)	15754	6320

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000036.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 19:22
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260002x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	653445	862907	1.321	46.289		
0.573	352373	862333	2.447	46.175		
0.995	355	337	0.949	0.018		
1.159	276	229	0.831	0.012		
1.380	267	215	0.807	0.011		
1.583	6997	6089	0.870	0.326	$ 10 Tetrachloro-m-xylene (S)	
1.689	173	191	1.104	0.010		
1.755	121	185	1.533	0.009		
1.830	305	294	0.965	0.015		
1.932	98	137	1.402	0.007		
1.973	1271	837	0.658	0.044		
2.207	101	151	1.495	0.008		
2.326	102	142	1.390	0.007		
2.416	103	148	1.435	0.007		
2.551	150	121	0.806	0.006		
2.627	88	117	1.328	0.006		
2.656	60	105	1.747	0.005		
2.697	3841	2837	0.739	0.151		
2.764	100	119	1.187	0.006		
2.809	1399	1240	0.886	0.066	6 PCB-1254 (Aroclor 1254)	BA
2.858	263	286	1.088	0.015		
2.894	70	87	1.246	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.915	217	364	1.676	0.019		
2.935	2322	2244	0.967	0.120		
2.943	1894	1883	0.994	0.100	6 PCB-1254 (Aroclor 1254)	BA
2.974	563	887	1.575	0.047		
2.988	1455	1080	0.742	0.057		
3.043	168	165	0.980	0.008		
3.097	2209	1575	0.713	0.084		
3.130	1154	896	0.777	0.047		
3.164	770	575	0.747	0.030		
3.192	4353	3990	0.917	0.213	6 PCB-1254 (Aroclor 1254)	BA
3.240	377	423	1.121	0.022		
3.254	497	451	0.907	0.024		
3.301	2745	2386	0.869	0.127		
3.335	258	373	1.443	0.019		
3.362	1108	896	0.809	0.047		
3.384	1148	1018	0.887	0.054	6 PCB-1254 (Aroclor 1254)	BA
3.429	523	483	0.923	0.025		
3.447	242	304	1.257	0.016		
3.471	2216	2266	1.022	0.121		
3.495	3770	3347	0.888	0.179		
3.551	1448	1098	0.758	0.058		
3.593	335	377	1.124	0.020		
3.619	1118	687	0.614	0.036		
3.654	5479	4847	0.885	0.259	6 PCB-1254 (Aroclor 1254)	BA
3.678	1032	992	0.961	0.053		
3.715	759	664	0.875	0.035		
3.755	308	415	1.346	0.022		
3.792	222	210	0.946	0.011		
3.840	18968	13508	0.712	0.723		
3.930	5024	3273	0.651	0.175		
3.972	306	383	1.253	0.020		
3.980	105	379	3.621	0.020		
3.997	1025	915	0.892	0.048		
4.020	3039	2016	0.663	0.107		
4.050	1739	1409	0.810	0.075		
4.072	1097	828	0.755	0.044		
4.142	3339	2196	0.658	0.117		
4.184	1803	1812	1.005	0.097		
4.193	800	1840	2.300	0.098		
4.213	777	1009	1.299	0.054		
4.238	1532	1180	0.770	0.063		
4.277	6969	3697	0.531	0.197		
4.364	1529	797	0.521	0.042		
4.404	1136	781	0.688	0.041		
4.428	145	280	1.929	0.014		
4.441	99	262	2.640	0.014		
4.458	540	396	0.733	0.021		
4.490	491	650	1.324	0.034		
4.516	10220	6721	0.658	0.359		
4.562	224	578	2.578	0.030		
4.567	181	617	3.410	0.033		
4.583	934	921	0.986	0.049		
4.611	1502	934	0.622	0.050		
4.668	126	188	1.489	0.010		
4.674	59	195	3.328	0.010		
4.681	162	236	1.453	0.012		
4.710	520	504	0.969	0.026		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.745	1310	779	0.595	0.041		
4.774	267	434	1.624	0.023		
4.794	70	172	2.460	0.009		
4.814	4	23	5.959	0.001		
4.835	696	675	0.970	0.036		
4.874	6527	4070	0.624	0.217		
4.912	105	447	4.239	0.023		
4.949	7562	5996	0.793	0.321	$ 11 Decachlorobiphenyl (S)	
4.967	3048	2590	0.850	0.138		
5.009	3921	2598	0.663	0.139		
5.042	1215	1247	1.026	0.066		
5.078	164	427	2.610	0.022		
5.114	518	547	1.055	0.029		
5.150	23	81	3.497	0.004		
5.157	48	126	2.619	0.006		
5.164	39	133	3.453	0.007		
5.168	37	142	3.850	0.007		
5.174	50	166	3.330	0.008		
5.183	138	276	2.000	0.014		
5.186	122	288	2.353	0.015		
5.205	41	264	6.448	0.014		
5.213	58	272	4.689	0.014		
5.219	73	295	4.052	0.015		
5.247	369	441	1.195	0.023		
5.271	2947	1411	0.479	0.075		
5.308	113	479	4.249	0.025		
5.316	239	563	2.360	0.030		
5.323	974	632	0.649	0.033		
5.381	39	206	5.223	0.011		
5.386	93	234	2.524	0.012		
5.390	109	253	2.313	0.013		
5.419	31	132	4.317	0.007		
5.425	34	122	3.538	0.006		
5.429	63	136	2.169	0.007		
5.436	47	131	2.778	0.007		
5.457	14	60	4.323	0.003		
5.463	17	53	3.127	0.002		
5.468	11	59	5.608	0.003		
5.476	30	110	3.633	0.005		
5.481	37	128	3.428	0.006		
5.485	39	168	4.274	0.008		
5.494	160	228	1.428	0.012		
5.505	61	226	3.720	0.012		
5.532	62	195	3.151	0.010		
5.554	745	498	0.668	0.026		
5.577	48	308	6.393	0.016		
5.599	549	549	1.001	0.029		
5.606	261	638	2.443	0.034		
5.610	333	683	2.050	0.036		
5.650	103	247	2.396	0.013		
5.680	29	89	3.123	0.004		
5.693	38	81	2.117	0.004		
5.702	23	90	3.979	0.004		
5.717	108	183	1.699	0.009		
5.722	66	208	3.149	0.011		
5.728	74	234	3.149	0.012		
5.740	169	353	2.092	0.018		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.755	389	525	1.350	0.028		
5.814	8	47	6.104	0.002		
5.830	9	51	5.449	0.002		
5.860	920	748	0.813	0.040		
5.939	891	771	0.865	0.041		
5.943	252	802	3.180	0.042		
5.993	56	196	3.530	0.010		
6.027	1430	995	0.696	0.053		
6.057	111	515	4.643	0.027		
6.077	711	806	1.134	0.043		
6.079	373	825	2.213	0.044		
6.129	71	158	2.215	0.008		
6.142	24	125	5.119	0.006		
6.146	62	115	1.858	0.006		
6.161	21	73	3.470	0.003		
6.170	21	71	3.329	0.003		
6.179	19	68	3.625	0.003		
6.204	304	329	1.081	0.017		
6.207	74	346	4.687	0.018		
6.222	238	433	1.819	0.023		
6.241	106	283	2.665	0.015		
6.263	466	614	1.318	0.032		
6.300	7378	2925	0.396	0.156		
6.402	43	168	3.919	0.008		
6.407	34	173	5.134	0.009		
6.417	57	177	3.116	0.009		
6.428	49	182	3.719	0.009		
6.435	111	203	1.835	0.010		
6.476	23	102	4.450	0.005		
	1173360	1867510		100.000		

Total unknown % height = 98.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000036.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 17-JUL-2019 19:22
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260002x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
	RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1	PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			

Peaks not detected for Quant. or Qual. signal(s).

2	PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			

Peaks not detected for Quant. or Qual. signal(s).

3	PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			

Operator disabled compound identification.

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.808	2.816	-0.008	1399	0.09509	0.370	80.00- 120.00	100.00(aM)	BA
2.943	2.958	-0.015	1893	0.08245	0.320	124.85- 187.28	135.31	BA
3.191	3.198	-0.007	4353	0.17943	0.697	131.92- 197.88	311.15	BA
3.383	3.392	-0.009	1147	0.06155	0.239	101.34- 152.01	82.04	BA
3.653	3.660	-0.007	5478	0.28819	1.12	103.36- 155.04	391.63	BA
Average of Peak Concentrations =					0.549			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.582	1.583	-0.001	6997	0.01541	0.00599		(aR)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.949	4.950	-0.001	7561	0.02382	0.00926		(aRM)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

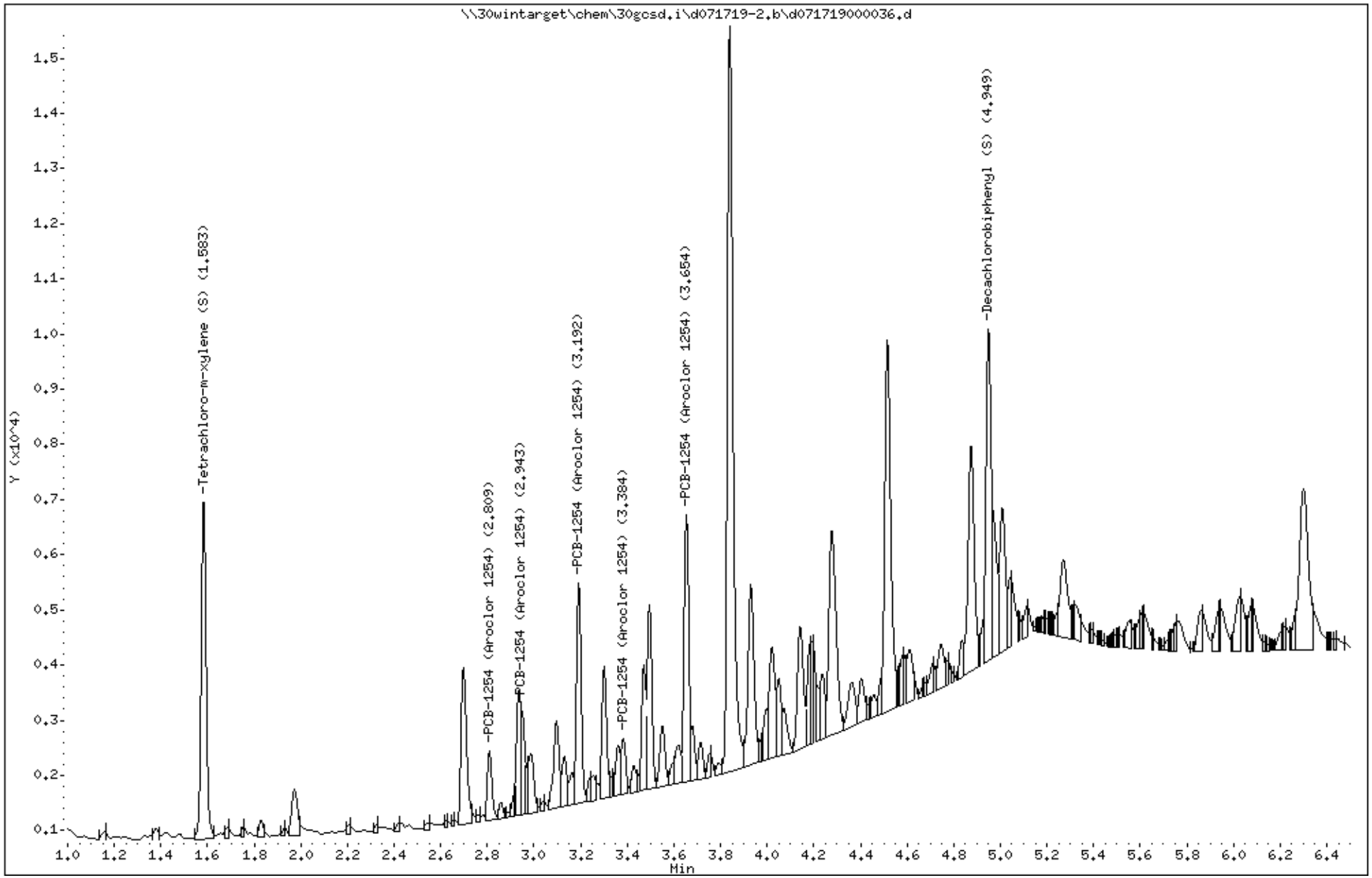
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30313260002
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

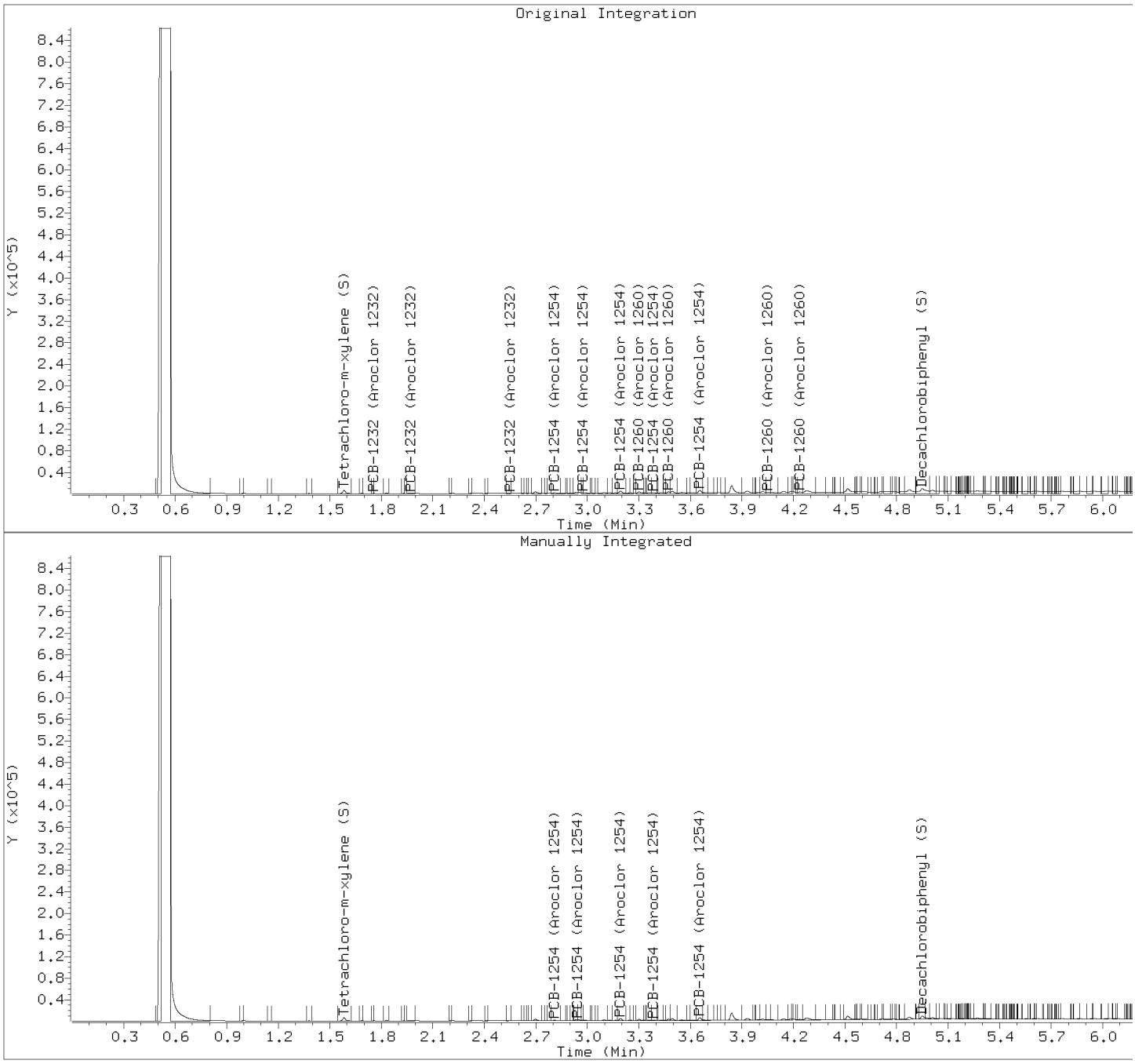
Client SDG: 30313260
Client Smp ID: AOC32 Lower-2
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	385	U
11104-28-2	PCB-1221 (Aroclor 1221)	782	U
11141-16-5	PCB-1232 (Aroclor 1232)	385	U
53469-21-9	PCB-1242 (Aroclor 1242)	385	U
12672-29-6	PCB-1248 (Aroclor 1248)	385	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.809	0.370	J
	Peak found at 2.943	0.320	J
	Peak found at 3.192	0.697	J
	Peak found at 3.383	0.239	J
	Peak found at 3.654	1.12	J
	Average of Peak Amounts =	0.549	J
11096-82-5	PCB-1260 (Aroclor 1260)	385	U
877-09-8	Tetrachloro-m-xylene (S)	0.00599	J
2051-24-3	Decachlorobiphenyl (S)	0.00926	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000036.d
Date : 17-JUL-2019 19:22
Client ID: A0C32 Lower-2
Instrument: 30gcsd.i
Sample Info: 30313260002X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000036.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 19:22 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313260002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	411	0
PCB-1232 (Aroclor 1232)	2288	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	840	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	3409	1399
PCB-1254 (Aroclor 1254)	1036	1893
PCB-1254 (Aroclor 1254)	7144	4353
PCB-1254 (Aroclor 1254)	3198	1147
PCB-1254 (Aroclor 1254)	8506	5478
PCB-1260 (Aroclor 1260)	5396	0
PCB-1260 (Aroclor 1260)	4110	0
PCB-1260 (Aroclor 1260)	8506	0
PCB-1260 (Aroclor 1260)	4511	0
PCB-1260 (Aroclor 1260)	5129	0
Tetrachloro-m-xylene (S)	8384	6997
Decachlorobiphenyl (S)	28161	7561

SAMPLE NO.

AOC27

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM
Date Received: 07/11/2019 09:30
Matrix: Solid
SDG No.: 30313260
Date Extracted: 07/11/2019 21:12
Lab Sample ID: 30313260003
Date Analyzed: 07/17/2019 19:31
Lab File ID: D071719-2.B\D071719000037.D
Initial wt/vol: 15.04 g
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSD
Percent Moisture: 4.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	0.060	
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000037.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 17-JUL-2019 19:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260003,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	4.319	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	100988	32474	0.322	6.219		
0.670	1114	1092	0.980	0.209		
0.717	3044	1401	0.460	0.268		
0.817	3838	1812	0.472	0.347		
0.876	11763	4555	0.387	0.872		
0.957	596	722	1.212	0.138		
1.046	171	173	1.009	0.033		
1.074	573	521	0.909	0.099		
1.143	934	656	0.702	0.125		
1.211	57736	46878	0.812	9.079	$ 10 Tetrachloro-m-xylene (S)	BA
1.294	185	264	1.427	0.050		
1.315	350	295	0.843	0.056		
1.340	287	263	0.915	0.050		
1.377	1129	799	0.708	0.153		
1.408	494	413	0.836	0.079		
1.453	304	279	0.918	0.053		
1.476	203	263	1.294	0.050		
1.524	137	166	1.215	0.031		
1.555	206	275	1.334	0.052		
1.631	22452	16466	0.733	3.153		
1.694	3648	2871	0.787	0.549		
1.807	1434	1217	0.848	0.233		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.825	1218	1194	0.980	0.228		
1.873	447	418	0.936	0.080		
1.903	550	443	0.805	0.084		
1.926	499	366	0.734	0.070		
1.967	325	385	1.185	0.073		
1.989	765	522	0.683	0.099		
2.031	533	546	1.024	0.104		
2.061	653	504	0.772	0.096		
2.099	587	464	0.790	0.088		
2.154	259	256	0.989	0.049		
2.185	571	465	0.814	0.089		
2.206	175	291	1.667	0.055		
2.247	607	375	0.618	0.071		
2.283	1050	705	0.671	0.135		
2.313	437	409	0.935	0.078		
2.326	208	381	1.828	0.072		
2.333	82	349	4.239	0.066		
2.342	213	368	1.727	0.070		
2.359	432	444	1.028	0.085		
2.368	242	438	1.812	0.083		
2.402	572	660	1.153	0.126		
2.427	10671	8875	0.832	1.699	6 PCB-1254 (Aroclor 1254)	CO
2.446	3351	2516	0.751	0.481		
2.507	1883	1685	0.895	0.322	6 PCB-1254 (Aroclor 1254)	CO
2.542	898	782	0.871	0.149		
2.561	72	335	4.658	0.064		
2.589	1054	591	0.561	0.113		
2.612	420	448	1.066	0.085		
2.643	9129	5948	0.652	1.139		
2.691	353	463	1.312	0.088		
2.725	2403	1803	0.750	0.345		
2.787	11043	7449	0.675	1.426	6 PCB-1254 (Aroclor 1254)	CO
2.848	1175	1001	0.852	0.191		
2.884	1839	1580	0.859	0.302		
2.921	4292	3091	0.720	0.591	6 PCB-1254 (Aroclor 1254)	CO
2.955	1056	991	0.939	0.189		
2.993	4959	2629	0.530	0.503		
3.023	2733	1862	0.681	0.356		
3.057	1865	1268	0.680	0.242		
3.116	4219	2142	0.508	0.410		
3.148	5653	3764	0.666	0.720		
3.187	870	872	1.003	0.166		
3.224	7535	5622	0.746	1.076	6 PCB-1254 (Aroclor 1254)	CO
3.285	1474	1210	0.821	0.231		
3.335	2027	1392	0.687	0.266		
3.367	3961	2309	0.583	0.442		
3.402	2327	1560	0.670	0.298		
3.439	1426	1335	0.936	0.255		
3.457	3012	2057	0.683	0.393		
3.491	2091	1206	0.577	0.230		
3.531	43208	33832	0.783	6.479		
3.582	2345	2040	0.870	0.390		
3.608	29	110	3.783	0.021		
3.635	11654	8566	0.735	1.640		
3.677	207	339	1.636	0.064		
3.685	159	282	1.778	0.054		
3.721	13068	8603	0.658	1.647		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.801	8502	5609	0.660	1.074		
3.833	10134	6641	0.655	1.271		
3.851	4922	4779	0.971	0.915		
3.875	3200	2338	0.731	0.447		
3.945	4535	3215	0.709	0.615		
3.954	1678	3035	1.808	0.581		
4.035	9473	6525	0.689	1.249		
4.066	785	1689	2.151	0.323		
4.071	518	1772	3.422	0.339		
4.077	680	1817	2.670	0.347		
4.079	471	1843	3.911	0.352		
4.083	287	1810	6.307	0.346		
4.085	290	1829	6.306	0.350		
4.092	1371	2032	1.482	0.389		
4.108	299	1679	5.619	0.321		
4.123	2436	2005	0.823	0.383		
4.143	3734	2358	0.631	0.451		
4.176	2227	1636	0.735	0.313		
4.197	383	906	2.363	0.173		
4.201	334	867	2.594	0.166		
4.208	199	841	4.230	0.161		
4.212	525	849	1.616	0.162		
4.244	28938	20171	0.697	3.862		
4.301	1027	1002	0.976	0.191		
4.313	99	629	6.374	0.120		
4.316	125	647	5.160	0.123		
4.329	676	970	1.436	0.185		
4.340	1528	1090	0.713	0.208		
4.382	726	718	0.989	0.137		
4.398	627	642	1.023	0.122		
4.419	1210	894	0.739	0.171		
4.437	318	496	1.561	0.094		
4.498	47022	41994	0.893	8.042	$ 11 Decachlorobiphenyl (S)	BA
4.547	1145	1502	1.312	0.287		
4.586	12433	6040	0.486	1.156		
4.626	108	500	4.628	0.095		
4.635	620	736	1.188	0.140		
4.680	8451	6942	0.821	1.329		
4.709	2887	2414	0.836	0.462		
4.745	12586	8941	0.710	1.712		
4.773	2686	2350	0.875	0.450		
4.798	688	1394	2.027	0.266		
4.815	1715	1412	0.823	0.270		
4.846	2442	2310	0.946	0.442		
4.866	863	2070	2.398	0.396		
4.874	1398	2079	1.487	0.398		
4.886	2515	1963	0.781	0.375		
4.921	1356	1748	1.289	0.334		
4.924	967	1818	1.879	0.348		
4.959	2706	2501	0.924	0.478		
5.032	15938	5070	0.318	0.970		
5.067	1154	2933	2.541	0.561		
5.075	792	2840	3.585	0.543		
5.079	4905	2904	0.592	0.556		
5.136	324	1277	3.943	0.244		
5.141	410	1318	3.212	0.252		
5.148	576	1436	2.492	0.275		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.153	1608	1526	0.949	0.292		
5.195	174	387	2.226	0.074		
5.217	975	815	0.836	0.156		
5.228	206	825	4.000	0.157		
5.244	1027	1317	1.282	0.252		
5.249	862	1384	1.605	0.265		
5.260	240	1356	5.646	0.259		
5.267	1098	1547	1.409	0.296		
5.281	1025	1497	1.460	0.286		
5.303	2907	1660	0.571	0.317		
5.342	823	863	1.049	0.165		
5.351	328	785	2.392	0.150		
5.377	252	602	2.390	0.115		
5.387	308	718	2.333	0.137		
5.399	793	1366	1.724	0.261		
5.401	1742	1439	0.826	0.275		
5.430	245	784	3.206	0.150		
5.454	2913	1535	0.527	0.293		
5.473	215	991	4.613	0.189		
5.486	887	1369	1.544	0.262		
5.494	667	1526	2.286	0.292		
5.500	1008	1680	1.667	0.321		
5.530	169	787	4.665	0.150		
5.534	153	774	5.071	0.148		
5.558	1607	1708	1.063	0.327		
5.562	422	1787	4.239	0.342		
5.580	5900	2820	0.478	0.540		
5.651	9987	4490	0.450	0.859		
5.719	6126	3030	0.495	0.580		
5.741	539	2090	3.880	0.400		
5.745	1007	2118	2.104	0.405		
5.752	1142	2108	1.846	0.403		
5.763	599	2017	3.368	0.386		
5.773	3826	2135	0.558	0.408		
5.815	150	844	5.621	0.161		
5.818	156	878	5.642	0.168		
5.824	367	946	2.579	0.181		
5.855	25592	7616	0.298	1.458		
5.955	2422	2006	0.828	0.384		
5.962	3837	2026	0.528	0.387		
6.038	514	910	1.772	0.174		
6.043	205	947	4.630	0.181		
6.048	723	998	1.381	0.191		
6.070	343	862	2.516	0.165		
6.077	630	959	1.523	0.183		
6.084	530	950	1.793	0.181		
6.116	172	735	4.281	0.140		
6.149	3503	2381	0.680	0.455		
6.200	295	1166	3.946	0.223		
6.205	367	1171	3.189	0.224		
6.214	634	1255	1.979	0.240		
6.218	771	1295	1.680	0.248		
6.238	170	1073	6.311	0.205		
6.247	881	1096	1.244	0.209		
6.281	277	753	2.722	0.144		
6.292	423	727	1.718	0.139		
6.317	224	556	2.487	0.106		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.325	252	607	2.411	0.116		
6.329	124	634	5.126	0.121		
6.333	429	662	1.545	0.126		
6.374	145	326	2.254	0.062		
6.381	239	329	1.378	0.063		
6.400	40	167	4.219	0.031		
6.408	71	200	2.819	0.038		
6.413	81	221	2.733	0.042		
6.419	115	229	1.985	0.043		
6.442	71	163	2.301	0.031		
6.458	27	95	3.460	0.018		
6.467	48	116	2.430	0.022		
6.479	12	58	4.670	0.011		
6.492	14	58	4.155	0.011		
6.496	25	94	3.837	0.018		
	702068	522167		100.000		

Total unknown % height = 77.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000037.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 17-JUL-2019 19:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260003,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	4.319	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Operator disabled compound identification. BA

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									CO
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
2.427	2.425	0.002	10671	0.58852	0.204	80.00- 120.00	100.00	(aM)	CO
2.507	2.509	-0.002	1883	0.09535	0.0331	69.31- 103.97	13.48		CO
2.787	2.791	-0.004	11043	0.35106	0.122	167.74- 251.61	79.04		CO
2.920	2.924	-0.004	4291	0.21167	0.0735	9.03- 13.54	30.72		CO
3.224	3.226	-0.002	7534	0.27682	0.0962	278.88- 418.31	53.93		CO
Average of Peak Concentrations =					0.106				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
Operator disabled compound identification.									BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.211	1.211	0.000	57735	0.11352	0.0394			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.497	4.497	0.000	47022	0.14009	0.0487			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Pace Analytical Services, Inc.

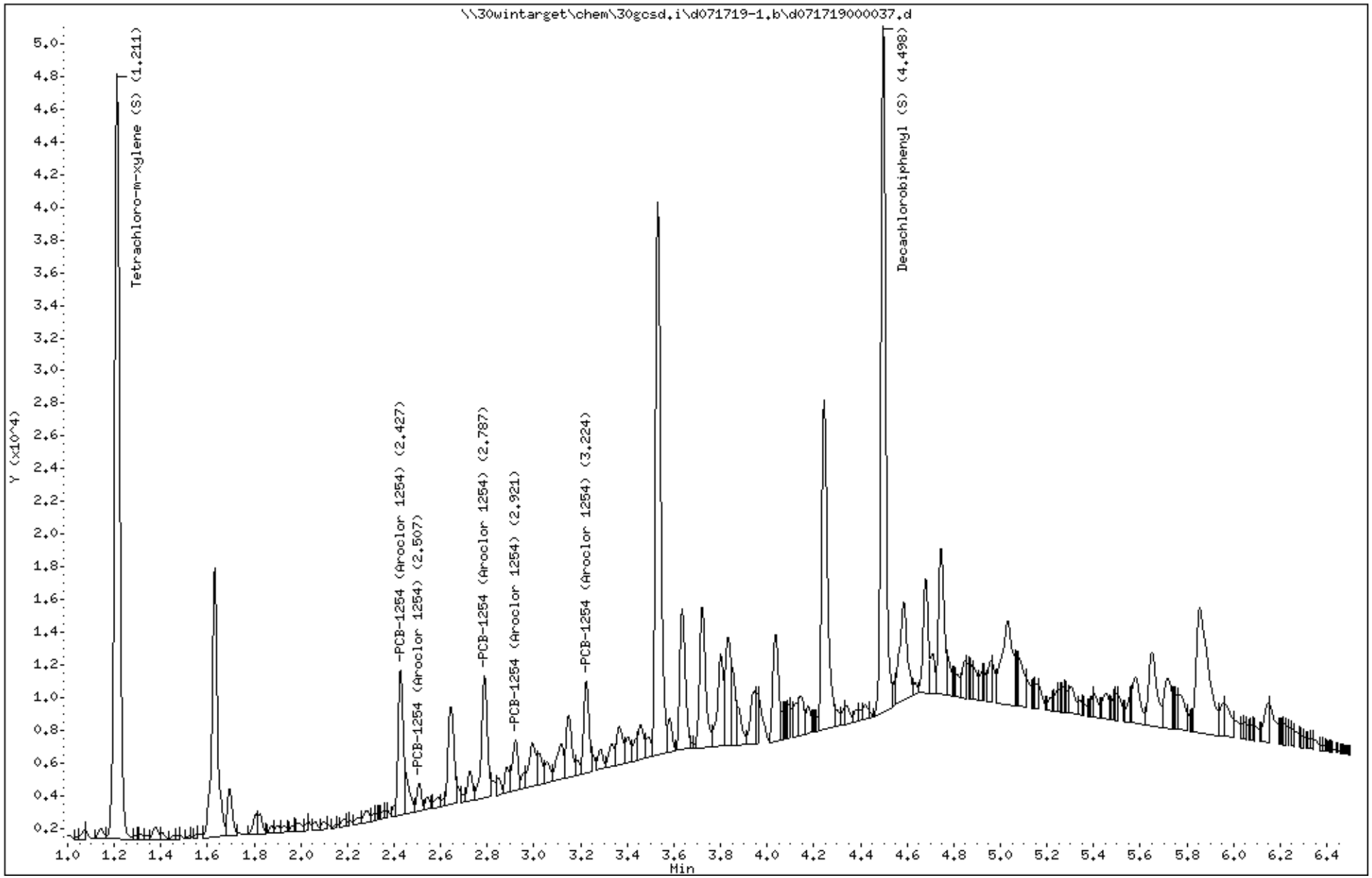
TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30313260003
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

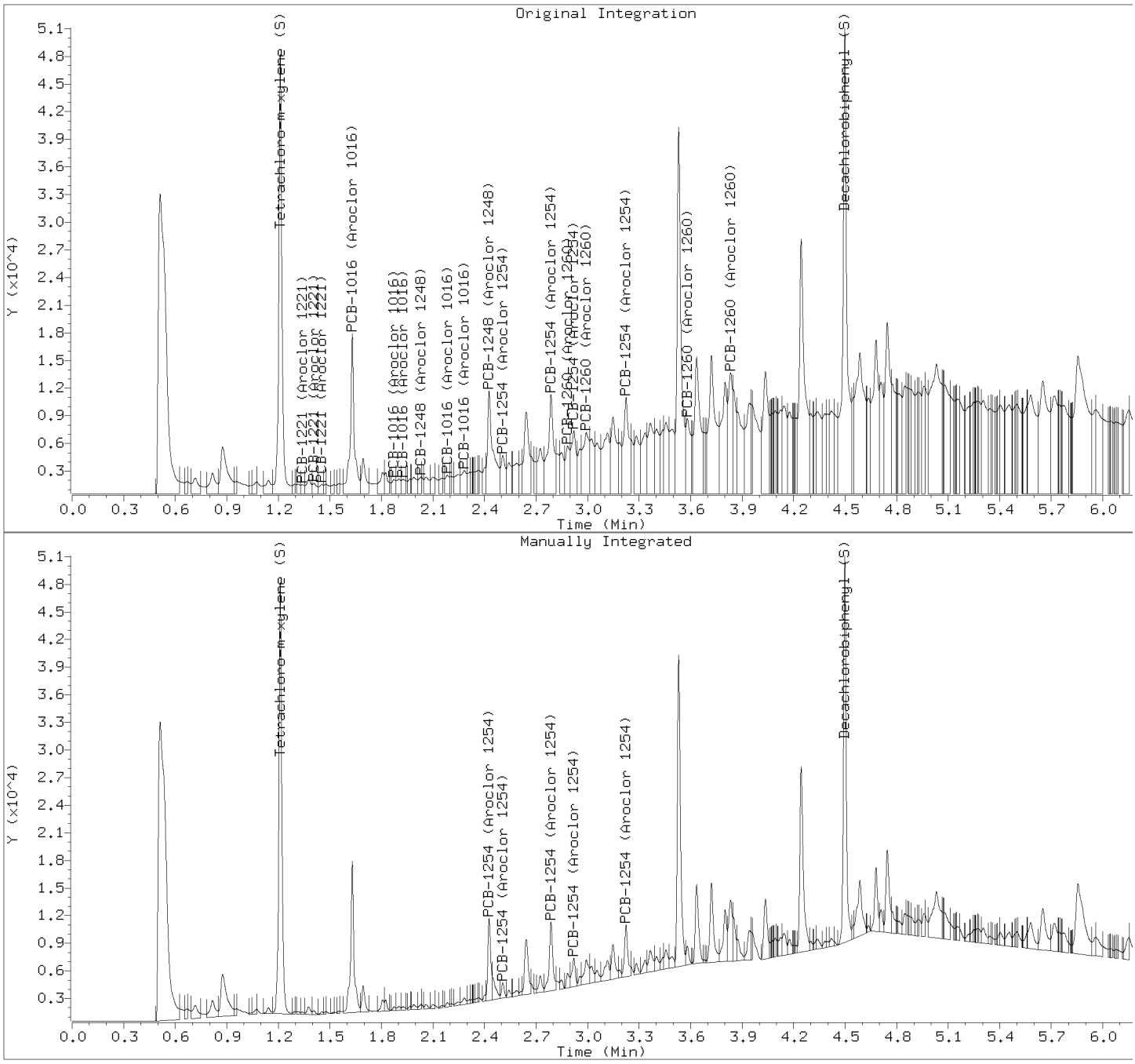
Client SDG: 30313260
Client Smp ID: AOC27
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	34.5	U
11104-28-2	PCB-1221 (Aroclor 1221)	70.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	34.5	U
53469-21-9	PCB-1242 (Aroclor 1242)	34.5	U
12672-29-6	PCB-1248 (Aroclor 1248)	34.5	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.427	0.204	J
	Peak found at 2.507	0.0331	J
	Peak found at 2.787	0.122	J
	Peak found at 2.921	0.0735	J
	Peak found at 3.224	0.0962	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)	34.5	U
877-09-8	Tetrachloro-m-xylene (S)	0.0394	J
2051-24-3	Decachlorobiphenyl (S)	0.0487	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000037.d
Date : 17-JUL-2019 19:31
Client ID: A0C27
Instrument: 30gcsd.i
Sample Info: 30313260003,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000037.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 19:31 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313260003



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	27769	0
PCB-1016 (Aroclor 1016)	2464	0
PCB-1016 (Aroclor 1016)	2541	0
PCB-1016 (Aroclor 1016)	3375	0
PCB-1016 (Aroclor 1016)	5313	0
PCB-1221 (Aroclor 1221)	1346	0
PCB-1221 (Aroclor 1221)	2027	0
PCB-1221 (Aroclor 1221)	1702	0
PCB-1232 (Aroclor 1232)	1702	0
PCB-1232 (Aroclor 1232)	27769	0
PCB-1232 (Aroclor 1232)	2464	0
PCB-1232 (Aroclor 1232)	2541	0
PCB-1232 (Aroclor 1232)	3375	0
PCB-1242 (Aroclor 1242)	1702	0

PCB-1242 (Aroclor 1242)	27769	0
PCB-1242 (Aroclor 1242)	2464	0
PCB-1242 (Aroclor 1242)	2541	0
PCB-1242 (Aroclor 1242)	3375	0
PCB-1248 (Aroclor 1248)	2464	0
PCB-1248 (Aroclor 1248)	2316	0
PCB-1248 (Aroclor 1248)	3375	0
PCB-1248 (Aroclor 1248)	5313	0
PCB-1248 (Aroclor 1248)	25453	0
PCB-1254 (Aroclor 1254)	25453	10671
PCB-1254 (Aroclor 1254)	7442	1883
PCB-1254 (Aroclor 1254)	24954	11043
PCB-1254 (Aroclor 1254)	13927	4291
PCB-1254 (Aroclor 1254)	22612	7534
PCB-1260 (Aroclor 1260)	24954	0
PCB-1260 (Aroclor 1260)	8466	0
PCB-1260 (Aroclor 1260)	16498	0
PCB-1260 (Aroclor 1260)	15840	0
PCB-1260 (Aroclor 1260)	22510	0
Tetrachloro-m-xylene (S)	63042	57735
Decachlorobiphenyl (S)	87681	47022

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000037.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 17-JUL-2019 19:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260003,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	4.319	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	76288	36663	0.481	8.310		
0.638	1917	1250	0.652	0.283		
0.729	1116	720	0.645	0.163		
0.812	1293	746	0.577	0.169		
0.950	1533	910	0.594	0.206		
0.997	9224	4011	0.435	0.909		
1.068	4026	1956	0.486	0.443		
1.160	607	418	0.688	0.094		
1.238	1057	457	0.432	0.103		
1.308	368	256	0.696	0.058		
1.360	514	467	0.908	0.105		
1.378	744	566	0.761	0.128		
1.401	132	321	2.425	0.072		
1.418	982	683	0.695	0.154		
1.535	358	229	0.640	0.051		
1.584	51228	46378	0.905	10.628	$ 10 Tetrachloro-m-xylene (S)	BA
1.646	142	206	1.447	0.046		
1.688	217	241	1.113	0.054		
1.754	716	647	0.903	0.146		
1.788	308	294	0.956	0.066		
1.831	82	175	2.134	0.039		
1.874	839	661	0.788	0.149		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.969	7050	4132	0.586	0.936		
2.045	832	572	0.688	0.129		
2.093	14119	14154	1.002	3.208		
2.181	587	435	0.741	0.098		
2.224	2434	1373	0.564	0.311		
2.294	39	86	2.227	0.019		
2.326	839	633	0.755	0.143		
2.363	193	216	1.120	0.048		
2.386	109	141	1.295	0.031		
2.418	281	369	1.314	0.083		
2.438	1512	1223	0.809	0.277		
2.520	311	301	0.967	0.068		
2.551	241	286	1.185	0.064		
2.592	172	206	1.201	0.046		
2.596	81	219	2.705	0.049		
2.618	13	60	4.573	0.013		
2.625	36	90	2.522	0.020		
2.636	50	99	1.969	0.022		
2.663	275	284	1.032	0.064		
2.668	60	278	4.647	0.063		
2.697	8434	6750	0.800	1.530		
2.730	3108	2057	0.662	0.466		
2.787	97	491	5.068	0.111		
2.817	1997	1635	0.819	0.370	6 PCB-1254 (Aroclor 1254)	BA
2.821	1503	1606	1.069	0.364		
2.857	473	469	0.992	0.106		
2.880	70	150	2.144	0.034		
2.890	205	189	0.921	0.042		
2.935	4965	4444	0.895	1.007		
2.946	1794	2618	1.459	0.593	6 PCB-1254 (Aroclor 1254)	BA
2.974	3377	1785	0.529	0.404		
3.020	38	164	4.341	0.037		
3.026	50	181	3.631	0.041		
3.040	586	671	1.145	0.152		
3.096	4325	3195	0.739	0.724		
3.130	2378	1678	0.706	0.380		
3.166	657	609	0.928	0.138		
3.192	4382	3356	0.766	0.760	6 PCB-1254 (Aroclor 1254)	BA
3.238	349	471	1.348	0.106		
3.257	220	411	1.865	0.093		
3.301	4746	2261	0.476	0.512		
3.328	110	620	5.616	0.140		
3.334	573	699	1.219	0.158		
3.363	1781	1487	0.835	0.337		
3.386	3898	3031	0.778	0.687	6 PCB-1254 (Aroclor 1254)	BA
3.417	90	383	4.244	0.086		
3.432	535	637	1.191	0.144		
3.441	397	591	1.491	0.133		
3.472	2311	2184	0.945	0.495		
3.499	6110	3837	0.628	0.869		
3.556	6308	3197	0.507	0.724		
3.592	327	979	2.997	0.221		
3.611	1185	1205	1.017	0.273		
3.616	708	1204	1.700	0.272		
3.623	205	1145	5.599	0.259		
3.630	894	1212	1.356	0.274		
3.654	4861	3879	0.798	0.879	6 PCB-1254 (Aroclor 1254)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.677	1824	1268	0.695	0.287		
3.717	1806	1371	0.759	0.310		
3.757	953	759	0.797	0.172		
3.791	712	675	0.948	0.153		
3.840	45564	32322	0.709	7.326		
3.908	3974	2843	0.715	0.644		
3.930	13866	8450	0.609	1.915		
3.977	1094	1590	1.453	0.360		
3.992	1755	2142	1.221	0.485		
3.995	383	2139	5.587	0.484		
3.998	387	2163	5.591	0.490		
4.020	9488	5951	0.627	1.348		
4.049	3373	2984	0.885	0.676		
4.072	3549	2130	0.600	0.482		
4.142	5613	3666	0.653	0.830		
4.183	3476	3852	1.108	0.873		
4.189	1946	3791	1.949	0.859		
4.220	2157	2209	1.024	0.500		
4.239	3139	2372	0.756	0.537		
4.278	16277	8332	0.512	1.888		
4.330	414	646	1.560	0.146		
4.364	3552	1881	0.530	0.426		
4.406	1943	1638	0.843	0.371		
4.433	16	84	5.138	0.019		
4.442	79	159	2.006	0.036		
4.462	168	256	1.521	0.058		
4.516	25802	17724	0.687	4.017		
4.568	336	694	2.063	0.157		
4.586	1303	1367	1.049	0.309		
4.591	484	1261	2.607	0.285		
4.602	499	1225	2.454	0.277		
4.613	1969	1662	0.844	0.376		
4.629	1302	1222	0.938	0.276		
4.654	43	223	5.134	0.050		
4.662	289	412	1.426	0.093		
4.674	303	422	1.391	0.095		
4.688	258	439	1.705	0.099		
4.696	62	406	6.574	0.092		
4.710	917	936	1.021	0.212		
4.745	1730	1806	1.044	0.409		
4.775	117	307	2.632	0.069		
4.778	137	330	2.415	0.074		
4.800	919	765	0.833	0.173		
4.834	1311	1224	0.934	0.277		
4.876	12784	8254	0.646	1.870		
4.908	447	1299	2.905	0.294		
4.914	266	1224	4.609	0.277		
4.950	55490	41913	0.755	9.500	$ 11 Decachlorobiphenyl (S)	BA
5.010	11118	6889	0.620	1.561		
5.046	4584	2524	0.551	0.572		
5.078	1109	1051	0.948	0.238		
5.096	159	624	3.913	0.141		
5.113	1197	1151	0.962	0.260		
5.156	39	135	3.432	0.030		
5.162	30	166	5.582	0.037		
5.171	23	135	5.804	0.030		
5.184	281	590	2.098	0.133		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.191	714	842	1.179	0.190		
5.202	184	851	4.628	0.192		
5.211	647	1107	1.711	0.250		
5.267	4026	2529	0.628	0.573		
5.290	304	1116	3.671	0.252		
5.299	370	1115	3.016	0.252		
5.308	845	1320	1.563	0.299		
5.314	345	1343	3.891	0.304		
5.321	1020	1527	1.497	0.346		
5.345	199	1005	5.041	0.227		
5.361	177	812	4.589	0.184		
5.369	308	753	2.444	0.170		
5.389	246	637	2.587	0.144		
5.411	187	440	2.354	0.099		
5.416	214	465	2.177	0.105		
5.431	222	379	1.707	0.085		
5.445	92	163	1.774	0.036		
5.467	4	39	9.512	0.008		
5.471	17	104	6.198	0.023		
5.474	60	147	2.447	0.033		
5.493	232	373	1.605	0.084		
5.498	98	401	4.104	0.090		
5.503	130	440	3.381	0.099		
5.508	138	484	3.512	0.109		
5.531	187	493	2.635	0.111		
5.538	245	746	3.047	0.169		
5.548	601	1066	1.774	0.241		
5.552	601	1144	1.902	0.259		
5.574	660	827	1.252	0.187		
5.591	101	526	5.194	0.119		
5.596	184	621	3.368	0.140		
5.602	168	618	3.683	0.140		
5.612	260	683	2.624	0.154		
5.616	753	720	0.956	0.163		
5.636	364	516	1.420	0.116		
5.651	121	312	2.573	0.070		
5.669	32	152	4.778	0.034		
5.683	56	157	2.822	0.035		
5.691	20	104	5.076	0.023		
5.696	30	133	4.502	0.030		
5.702	65	216	3.336	0.048		
5.707	73	272	3.735	0.061		
5.710	64	308	4.812	0.069		
5.714	78	343	4.418	0.077		
5.718	142	414	2.908	0.093		
5.729	65	345	5.275	0.078		
5.733	83	370	4.444	0.083		
5.737	89	434	4.875	0.098		
5.758	1077	1243	1.154	0.281		
5.765	1026	1465	1.427	0.332		
5.804	48	358	7.472	0.081		
5.809	134	397	2.960	0.089		
5.816	280	455	1.625	0.103		
5.836	13	99	7.355	0.022		
5.860	1613	1380	0.856	0.312		
5.891	49	279	5.713	0.063		
5.897	181	279	1.546	0.063		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.943	1755	1610	0.917	0.364		
5.947	2019	1682	0.833	0.381		
5.973	687	763	1.111	0.172		
6.027	3284	2271	0.691	0.514		
6.054	258	1108	4.291	0.251		
6.080	5146	2140	0.416	0.485		
6.138	68	246	3.616	0.055		
6.143	46	225	4.933	0.051		
6.146	30	225	7.583	0.051		
6.151	145	274	1.889	0.062		
6.159	105	303	2.881	0.068		
6.165	87	308	3.525	0.069		
6.169	198	383	1.934	0.086		
6.181	159	356	2.246	0.080		
6.192	100	374	3.756	0.084		
6.202	362	606	1.672	0.137		
6.206	176	652	3.704	0.147		
6.216	412	750	1.822	0.170		
6.221	342	805	2.351	0.182		
6.227	923	818	0.886	0.185		
6.302	21249	6738	0.317	1.527		
6.395	190	368	1.934	0.083		
6.406	91	344	3.799	0.077		
6.411	195	351	1.804	0.079		
6.425	83	335	4.028	0.075		
6.431	155	386	2.494	0.087		
6.435	90	427	4.749	0.096		
6.440	308	443	1.438	0.100		
6.455	106	265	2.496	0.060		
6.468	104	193	1.857	0.043		
6.484	38	117	3.071	0.026		
6.488	35	172	4.920	0.038		
6.496	153	309	2.025	0.070		
	569126	441160		100.000		

Total unknown % height = 76.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000037.d
Lab Smp Id: 30313260003 Client Smp ID: AOC27
Inj Date : 17-JUL-2019 19:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313260003,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	4.319	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
2.817	2.816	0.001	1997	0.13574	0.0472	80.00- 120.00	100.00	(aM)	BA
2.946	2.958	-0.012	1794	0.07814	0.0271	124.85- 187.28	89.82		BA
3.192	3.198	-0.006	4382	0.18063	0.0628	131.92- 197.88	219.39		BA
3.385	3.392	-0.007	3898	0.20917	0.0727	101.34- 152.01	195.16		BA
3.653	3.660	-0.007	4861	0.25573	0.0888	103.36- 155.04	243.37		BA
Average of Peak Concentrations =					0.0597				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
Operator disabled compound identification.									BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.584	1.583	0.001	51227	0.11279	0.0392			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.950	4.950	0.000	55489	0.17479	0.0607			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

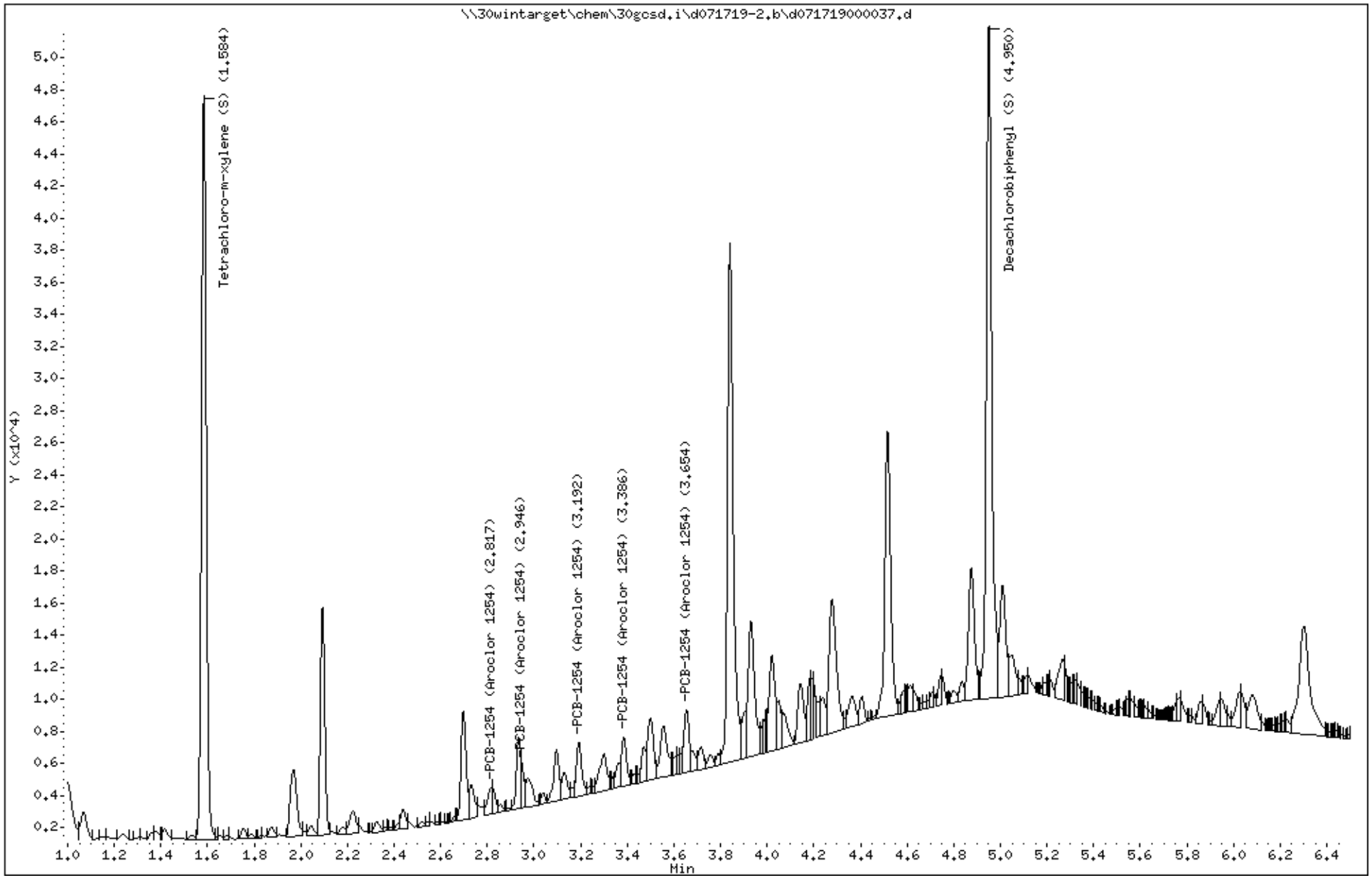
Client Name: WSP Environment & E
Lab Smp Id: 30313260003
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: 30313260
Client Smp ID: AOC27
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

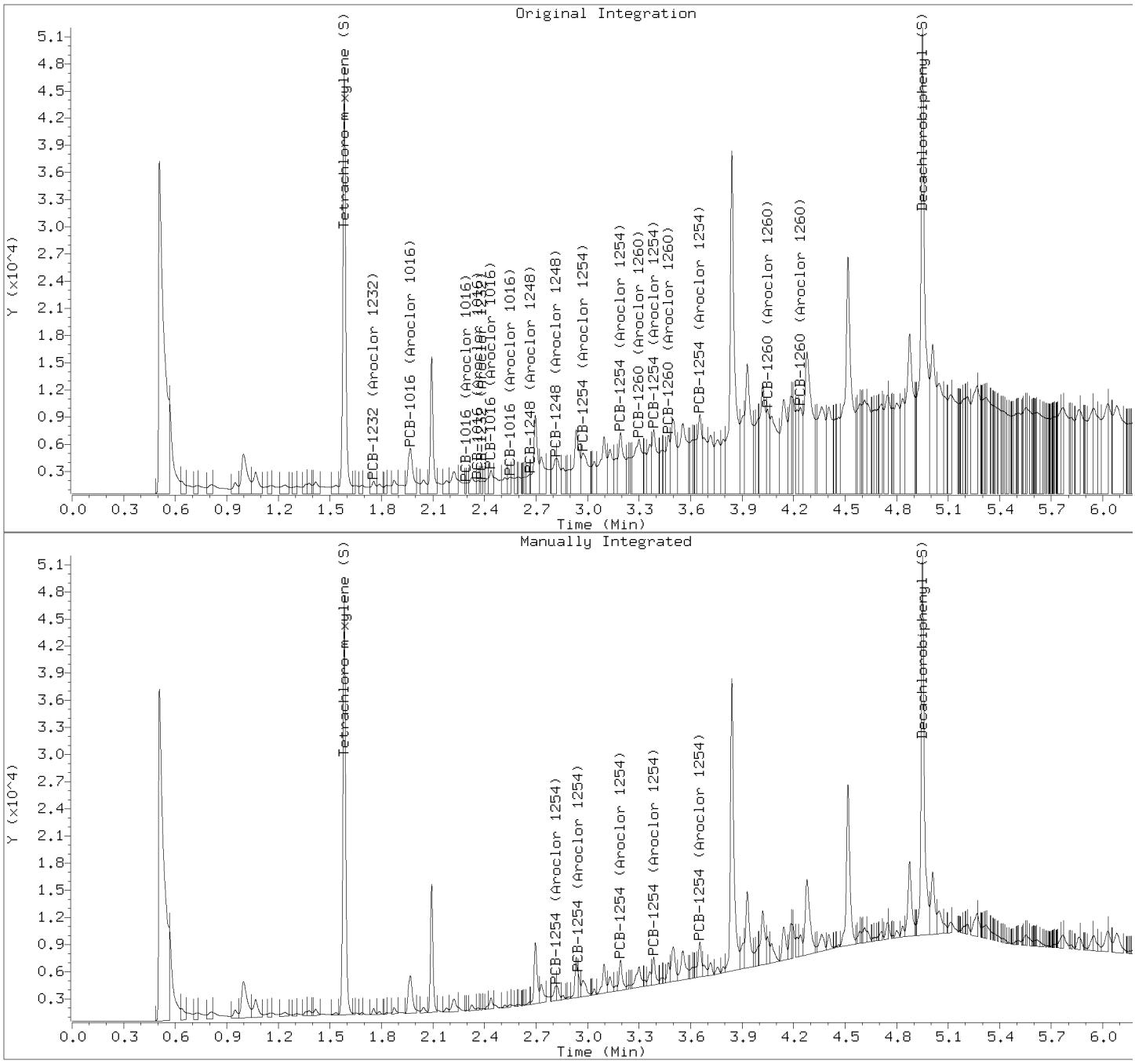
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	34.5	U
11104-28-2	PCB-1221 (Aroclor 1221)	70.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	34.5	U
53469-21-9	PCB-1242 (Aroclor 1242)	34.5	U
12672-29-6	PCB-1248 (Aroclor 1248)	34.5	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.0472	J
	Peak found at 2.946	0.0271	J
	Peak found at 3.192	0.0628	J
	Peak found at 3.386	0.0727	J
	Peak found at 3.653	0.0888	J
	Average of Peak Amounts =	0.0597	J
11096-82-5	PCB-1260 (Aroclor 1260)	34.5	U
877-09-8	Tetrachloro-m-xylene (S)	0.0392	J
2051-24-3	Decachlorobiphenyl (S)	0.0607	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000037.d
Date : 17-JUL-2019 19:31
Client ID: A0C27
Sample Info: 30313260003,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000037.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 19:31 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313260003



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10498	0
PCB-1016 (Aroclor 1016)	642	0
PCB-1016 (Aroclor 1016)	1435	0
PCB-1016 (Aroclor 1016)	4247	0
PCB-1016 (Aroclor 1016)	2019	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	2512	0
PCB-1232 (Aroclor 1232)	10498	0
PCB-1232 (Aroclor 1232)	642	0
PCB-1232 (Aroclor 1232)	1123	0
PCB-1232 (Aroclor 1232)	2019	0
PCB-1242 (Aroclor 1242)	2512	0

PCB-1242 (Aroclor 1242)	10498	0
PCB-1242 (Aroclor 1242)	642	0
PCB-1242 (Aroclor 1242)	1123	0
PCB-1242 (Aroclor 1242)	2019	0
PCB-1248 (Aroclor 1248)	642	0
PCB-1248 (Aroclor 1248)	4247	0
PCB-1248 (Aroclor 1248)	2019	0
PCB-1248 (Aroclor 1248)	416	0
PCB-1248 (Aroclor 1248)	6159	0
PCB-1254 (Aroclor 1254)	6159	1997
PCB-1254 (Aroclor 1254)	12785	1794
PCB-1254 (Aroclor 1254)	15043	4382
PCB-1254 (Aroclor 1254)	14410	3898
PCB-1254 (Aroclor 1254)	14633	4861
PCB-1260 (Aroclor 1260)	19807	0
PCB-1260 (Aroclor 1260)	9438	0
PCB-1260 (Aroclor 1260)	14633	0
PCB-1260 (Aroclor 1260)	11676	0
PCB-1260 (Aroclor 1260)	14255	0
Tetrachloro-m-xylene (S)	54566	51227
Decachlorobiphenyl (S)	98503	55489

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	22540.0000	22230.0000	21392.0000	19192.0000	18984.0000	18890.0000
Aroclor 1016	2	Averaged	43500.0000	43750.0000	43260.0000	39226.0000	39092.0000	39181.0000
Aroclor 1016	3	Averaged	17140.0000	17250.0000	17860.0000	15984.0000	15840.0000	15863.0000
Aroclor 1016	4	Averaged	13880.0000	13740.0000	13392.0000	11948.0000	11832.0000	11847.0000
Aroclor 1016	5	Averaged	11480.0000	11670.0000	11500.0000	10462.0000	10352.0000	10413.0000
Aroclor 1260	1	Averaged	20240.0000	19880.0000	19216.0000	17454.0000	17265.3333	17209.0000
Aroclor 1260	2	Averaged	25840.0000	25620.0000	24580.0000	22258.0000	21990.6666	22006.0000
Aroclor 1260	3	Averaged	32320.0000	31990.0000	30820.0000	27894.0000	27562.6666	27470.0000
Aroclor 1260	4	Averaged	52780.0000	52700.0000	52052.0000	47812.0000	47833.3333	48049.0000
Aroclor 1260	5	Averaged	37860.0000	38060.0000	37704.0000	34632.0000	34656.0000	34551.0000
Decachlorobiphenyl		Averaged	349700.000	346600.000	343440.000	321030.000	325840.000	327295.000
Tetrachloro-m-xylene		Averaged	527100.000	528550.000	527200.000	484540.000	489013.333	495225.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	8.30			20538.00	
Aroclor 1016	2	Averaged	5.76			41334.83	
Aroclor 1016	3	Averaged	5.22			16656.16	
Aroclor 1016	4	Averaged	7.80			12773.16	
Aroclor 1016	5	Averaged	5.73			10979.50	
Aroclor 1260	1	Averaged	7.51			18544.05	
Aroclor 1260	2	Averaged	7.75			23715.77	
Aroclor 1260	3	Averaged	7.70			29676.11	
Aroclor 1260	4	Averaged	5.06			50204.38	
Aroclor 1260	5	Averaged	4.93			36243.83	
Decachlorobiphenyl		Averaged	3.66			335650.83	
Tetrachloro-m-xylene		Averaged	4.15			508604.72	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	12380.0000	12280.0000	11732.0000	10726.0000	10609.3333	10632.0000
Aroclor 1016	2	Averaged	22240.0000	22580.0000	22892.0000	21028.0000	21001.3333	21107.0000
Aroclor 1016	3	Averaged	10820.0000	11370.0000	11380.0000	10476.0000	10508.0000	10544.0000
Aroclor 1016	4	Averaged	10860.0000	10590.0000	10408.0000	9400.00000	9325.33333	9299.00000
Aroclor 1016	5	Averaged	10460.0000	10510.0000	10324.0000	9384.00000	9380.00000	9352.00000
Aroclor 1260	1	Averaged	21400.0000	21340.0000	21336.0000	19330.0000	19288.0000	19228.0000
Aroclor 1260	2	Averaged	25740.0000	25610.0000	25440.0000	23134.0000	23177.3333	23036.0000
Aroclor 1260	3	Averaged	28140.0000	28770.0000	31652.0000	29034.0000	29032.0000	29124.0000
Aroclor 1260	4	Averaged	43820.0000	44440.0000	44696.0000	41430.0000	41808.0000	41957.0000
Aroclor 1260	5	Averaged	26460.0000	26700.0000	26908.0000	25068.0000	24990.6666	25092.0000
Decachlorobiphenyl		Averaged	329300.000	325400.000	325900.000	305140.000	308640.000	310400.000
Tetrachloro-m-xylene		Averaged	472800.000	469600.000	469140.000	433280.000	438260.000	441975.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.35			11393.22	
Aroclor 1016	2	Averaged	3.94			21808.05	
Aroclor 1016	3	Averaged	3.91			10849.66	
Aroclor 1016	4	Averaged	7.16			9980.38	
Aroclor 1016	5	Averaged	5.89			9901.66	
Aroclor 1260	1	Averaged	5.60			20320.33	
Aroclor 1260	2	Averaged	5.59			24356.22	
Aroclor 1260	3	Averaged	4.13			29292.00	
Aroclor 1260	4	Averaged	3.38			43025.16	
Aroclor 1260	5	Averaged	3.51			25869.77	
Decachlorobiphenyl		Averaged	3.31		0.00	317463.33	
Tetrachloro-m-xylene		Averaged	3.99		0.00	454175.83	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.631	1.631	1.631	1.631	1.632	1.632
Aroclor 1016	2	1.878	1.878	1.878	1.878	1.879	1.879
Aroclor 1016	3	1.932	1.932	1.932	1.932	1.933	1.932
Aroclor 1016	4	2.188	2.188	2.188	2.188	2.189	2.189
Aroclor 1016	5	2.277	2.277	2.277	2.277	2.278	2.278
Aroclor 1260	1	2.798	2.797	2.797	2.797	2.798	2.798
Aroclor 1260	2	2.885	2.885	2.885	2.885	2.886	2.886
Aroclor 1260	3	2.995	2.994	2.995	2.995	2.995	2.995
Aroclor 1260	4	3.584	3.583	3.584	3.583	3.584	3.585
Aroclor 1260	5	3.827	3.826	3.826	3.826	3.826	3.827
Decachlorobiphenyl		4.501	4.5	4.501	4.5	4.501	4.501
Tetrachloro-m-xylene		1.21	1.21	1.21	1.21	1.212	1.211

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.631	1.601	1.661
Aroclor 1016	2	1.878	1.848	1.908
Aroclor 1016	3	1.932	1.902	1.962
Aroclor 1016	4	2.188	2.158	2.218
Aroclor 1016	5	2.277	2.247	2.307
Aroclor 1260	1	2.797	2.767	2.827
Aroclor 1260	2	2.885	2.855	2.915
Aroclor 1260	3	2.995	2.965	3.025
Aroclor 1260	4	3.584	3.554	3.614
Aroclor 1260	5	3.826	3.796	3.856
Decachlorobiphenyl		4.501	4.471	4.531
Tetrachloro-m-xylene		1.21	1.18	1.24

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.963	1.964	1.963	1.964	1.964	1.964
Aroclor 1016	2	2.286	2.286	2.286	2.286	2.287	2.286
Aroclor 1016	3	2.374	2.374	2.374	2.374	2.375	2.374
Aroclor 1016	4	2.47	2.47	2.47	2.47	2.471	2.471
Aroclor 1016	5	2.56	2.56	2.56	2.56	2.561	2.561
Aroclor 1260	1	3.309	3.309	3.309	3.308	3.309	3.309
Aroclor 1260	2	3.479	3.479	3.478	3.479	3.479	3.479
Aroclor 1260	3	3.663	3.663	3.662	3.662	3.663	3.663
Aroclor 1260	4	4.06	4.059	4.06	4.059	4.06	4.06
Aroclor 1260	5	4.247	4.247	4.247	4.247	4.248	4.248
Decachlorobiphenyl		4.959	4.959	4.96	4.959	4.959	4.961
Tetrachloro-m-xylene		1.586	1.586	1.586	1.587	1.587	1.587

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.963	1.933	1.993
Aroclor 1016	2	2.286	2.256	2.316
Aroclor 1016	3	2.374	2.344	2.404
Aroclor 1016	4	2.47	2.44	2.5
Aroclor 1016	5	2.56	2.53	2.59
Aroclor 1260	1	3.309	3.279	3.339
Aroclor 1260	2	3.478	3.448	3.508
Aroclor 1260	3	3.662	3.632	3.692
Aroclor 1260	4	4.06	4.03	4.09
Aroclor 1260	5	4.247	4.217	4.277
Decachlorobiphenyl		4.96	4.93	4.99
Tetrachloro-m-xylene		1.586	1.556	1.616

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-1.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.344	1.314	1.374	6424.00000
Aroclor 1221	.25	2	1.4	1.37	1.43	3800.00000
Aroclor 1221	.25	3	1.44	1.41	1.47	13644.0000
Decachlorobiphenyl (S)	.05		4.499	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-1.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.44	1.41	1.47	11544.0000
Aroclor 1232	.25	2	1.631	1.601	1.661	9880.00000
Aroclor 1232	.25	3	1.878	1.848	1.908	18436.0000
Aroclor 1232	.25	4	1.932	1.902	1.962	7344.00000
Aroclor 1232	.25	5	2.188	2.158	2.218	5264.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-1.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.44	1.41	1.47	7464.00000
Aroclor 1242	.25	2	1.631	1.601	1.661	15736.0000
Aroclor 1242	.25	3	1.878	1.848	1.908	31628.0000
Aroclor 1242	.25	4	1.932	1.902	1.962	12420.0000
Aroclor 1242	.25	5	2.188	2.158	2.218	9852.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-1.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	1.877	1.847	1.907	23488.0000
Aroclor 1248	.25	2	2.035	2.005	2.065	15488.0000
Aroclor 1248	.25	3	2.188	2.158	2.218	15912.0000
Aroclor 1248	.25	4	2.277	2.247	2.307	13976.0000
Aroclor 1248	.25	5	2.428	2.398	2.458	22740.0000
Decachlorobiphenyl (S)	.05		4.501	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-1.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.425	2.395	2.455	18132.0000
Aroclor 1254	.25	2	2.509	2.479	2.539	19748.0000
Aroclor 1254	.25	3	2.791	2.761	2.821	31456.0000
Aroclor 1254	.25	4	2.924	2.894	2.954	20272.0000
Aroclor 1254	.25	5	3.226	3.196	3.256	27216.0000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-2.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.67	1.64	1.7	5224.00000
Aroclor 1221	.25	2	1.712	1.682	1.742	3332.00000
Aroclor 1221	.25	3	1.761	1.731	1.791	12984.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-2.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.761	1.731	1.791	10988.0000
Aroclor 1232	.25	2	1.963	1.933	1.993	5164.00000
Aroclor 1232	.25	3	2.286	2.256	2.316	9684.00000
Aroclor 1232	.25	4	2.374	2.344	2.404	4784.00000
Aroclor 1232	.25	5	2.56	2.53	2.59	4028.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-2.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.761	1.731	1.791	7560.00000
Aroclor 1242	.25	2	1.963	1.933	1.993	8744.00000
Aroclor 1242	.25	3	2.286	2.256	2.316	16784.0000
Aroclor 1242	.25	4	2.374	2.344	2.404	8376.00000
Aroclor 1242	.25	5	2.56	2.53	2.59	7736.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.586	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-2.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	2.285	2.255	2.315	12308.0000
Aroclor 1248	.25	2	2.438	2.408	2.468	11556.0000
Aroclor 1248	.25	3	2.56	2.53	2.59	13084.0000
Aroclor 1248	.25	4	2.666	2.636	2.696	10252.0000
Aroclor 1248	.25	5	2.834	2.804	2.864	20392.0000
Decachlorobiphenyl (S)	.05		4.958	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313260

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-2.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.816	2.786	2.846	14712.0000
Aroclor 1254	.25	2	2.958	2.928	2.988	22960.0000
Aroclor 1254	.25	3	3.198	3.168	3.228	24260.0000
Aroclor 1254	.25	4	3.392	3.362	3.422	18636.0000
Aroclor 1254	.25	5	3.66	3.63	3.69	19008.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.570	1203	768	0.638	1.611		
1.028	1158	867	0.749	1.819		
1.210	25243	21163	0.838	44.428	$ 10 Tetrachloro-m-xylene (S)	
1.267	572	404	0.706	0.847		
1.344	1607	1382	0.860	2.900	2 PCB-1221 (Aroclor 1221)	
1.375	317	327	1.030	0.686		
1.400	950	874	0.920	1.834	2 PCB-1221 (Aroclor 1221)	
1.440	3412	2903	0.851	6.092	2 PCB-1221 (Aroclor 1221)	
1.633	290	409	1.413	0.858		
1.693	510	501	0.982	1.051		
1.827	198	198	0.998	0.415		
1.879	442	357	0.808	0.749		
1.932	201	185	0.918	0.388		
3.369	1370	1113	0.812	2.335		
4.248	55	68	1.234	0.142		
4.343	73	117	1.608	0.245		
4.500	16180	15900	0.983	33.371	$ 11 Decachlorobiphenyl (S)	
5.557	6	20	3.425	0.041		
5.725	13	44	3.390	0.092		
6.494	11	46	4.028	0.096		
	53812	47646		100.000		

Total unknown % height = 11.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.344	1.344	0.000	1606	0.25000	0.250	80.00- 120.00	100.00	
1.400	1.400	0.000	950	0.25000	0.250	47.32- 70.98	59.12	
1.440	1.440	0.000	3411	0.25000	0.250	169.91- 254.87	212.30	
Average of Peak Amounts =					0.25000			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25242	0.05000	0.0500			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.499	4.501	-0.002	16180	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

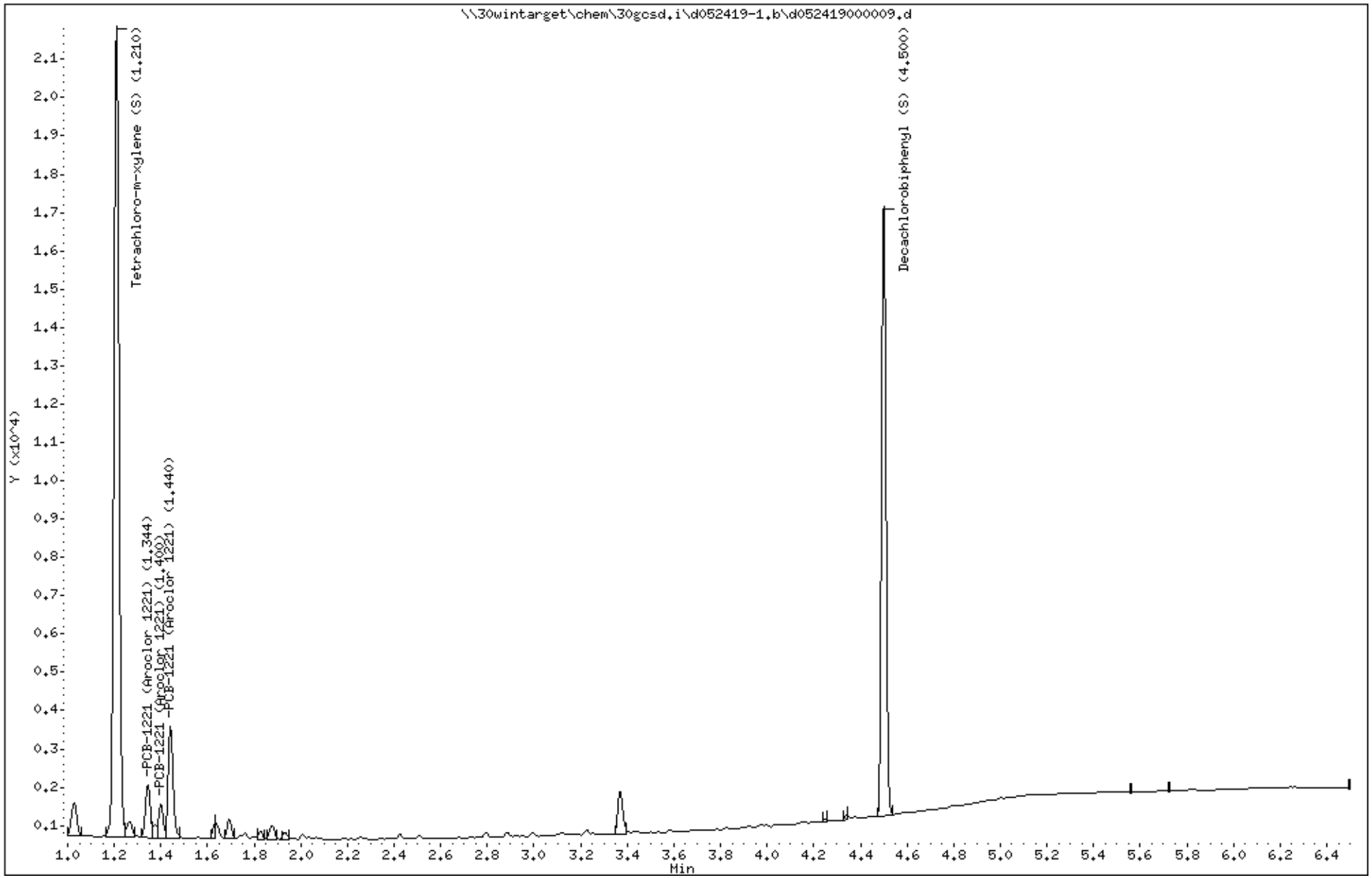
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

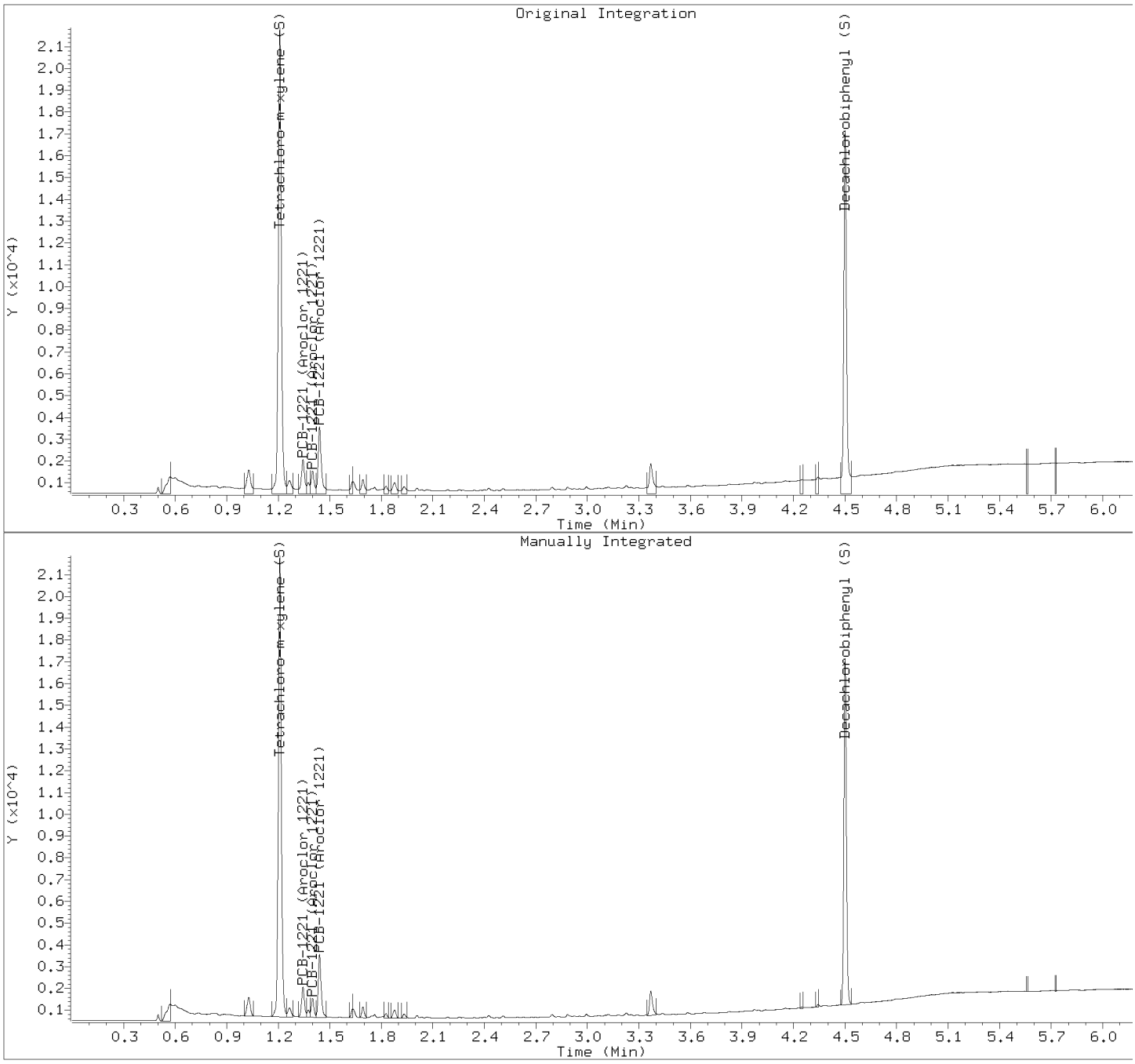
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11104-28-2	PCB-1221 (Aroclor 1221)		
	Peak found at 1.344	0.250	
	Peak found at 1.400	0.250	
	Peak found at 1.440	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0500	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	2088	1606
PCB-1221 (Aroclor 1221)	1298	950
PCB-1221 (Aroclor 1221)	3973	3411
Tetrachloro-m-xylene (S)	26230	25242
Decachlorobiphenyl (S)	18966	16180

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	930	1271	1.367	2.497		
0.568	790	576	0.729	1.131		
0.591	848	789	0.930	1.550		
0.625	622	713	1.147	1.401		
0.655	595	685	1.152	1.346		
0.729	917	598	0.652	1.175		
1.076	94	119	1.261	0.233		
1.255	1060	855	0.807	1.680		
1.474	339	308	0.909	0.605		
1.527	453	408	0.900	0.801		
1.556	154	195	1.266	0.383		
1.586	22320	21120	0.946	41.532	$ 10 Tetrachloro-m-xylene (S)	
1.670	1307	954	0.730	1.874	2 PCB-1221 (Aroclor 1221)	
1.713	833	801	0.961	1.574	2 PCB-1221 (Aroclor 1221)	
1.761	3246	3023	0.931	5.940	2 PCB-1221 (Aroclor 1221)	
1.811	124	126	1.017	0.247		
1.965	169	169	1.002	0.332		
2.018	166	173	1.045	0.339		
2.076	552	503	0.911	0.988		
2.225	135	218	1.613	0.428		
2.268	104	179	1.715	0.351		
2.287	234	248	1.059	0.487		
2.307	179	184	1.026	0.361		
2.817	46	74	1.611	0.145		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.959	64	87	1.351	0.170		
3.309	50	86	1.704	0.169		
3.478	42	83	1.968	0.163		
3.662	46	77	1.691	0.151		
3.913	1159	904	0.780	1.776		
4.314	10	29	2.912	0.056		
4.491	44	81	1.820	0.159		
4.601	13	44	3.326	0.086		
4.754	18	51	2.875	0.100		
4.794	11	41	3.612	0.080		
4.808	83	119	1.437	0.233		
4.959	15365	14265	0.928	28.033	$ 11 Decachlorobiphenyl (S)	
5.105	30	61	2.012	0.119		
5.119	20	62	3.134	0.121		
5.160	7	25	3.602	0.049		
5.400	11	34	3.047	0.066		
5.588	6	31	5.228	0.060		
5.615	4	18	4.176	0.035		
5.672	4	20	5.141	0.039		
5.743	4	19	5.191	0.037		
5.808	7	26	3.969	0.051		
5.826	23	54	2.360	0.106		
5.833	13	57	4.439	0.112		
5.896	1	8	6.015	0.015		
5.958	3	16	5.128	0.031		
5.970	3	19	5.556	0.037		
5.974	7	22	3.343	0.043		
6.129	13	34	2.640	0.066		
6.139	7	32	4.378	0.062		
6.185	9	44	5.029	0.086		
6.292	14	43	2.992	0.084		
6.332	9	39	4.230	0.076		
6.379	4	17	4.156	0.033		
6.410	10	22	2.196	0.043		
6.427	5	27	5.066	0.053		
	53338	50886		100.000		

Total unknown % height = 21.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.670	1.670	0.000	1306	0.25000	0.250	80.00- 120.00	100.00	(a)
1.712	1.712	0.000	833	0.25000	0.250	51.03- 76.54	63.76	
1.761	1.761	0.000	3246	0.25000	0.250	198.84- 298.25	248.48	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22319	0.05000	0.0496			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	15364	0.05000	0.0489			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

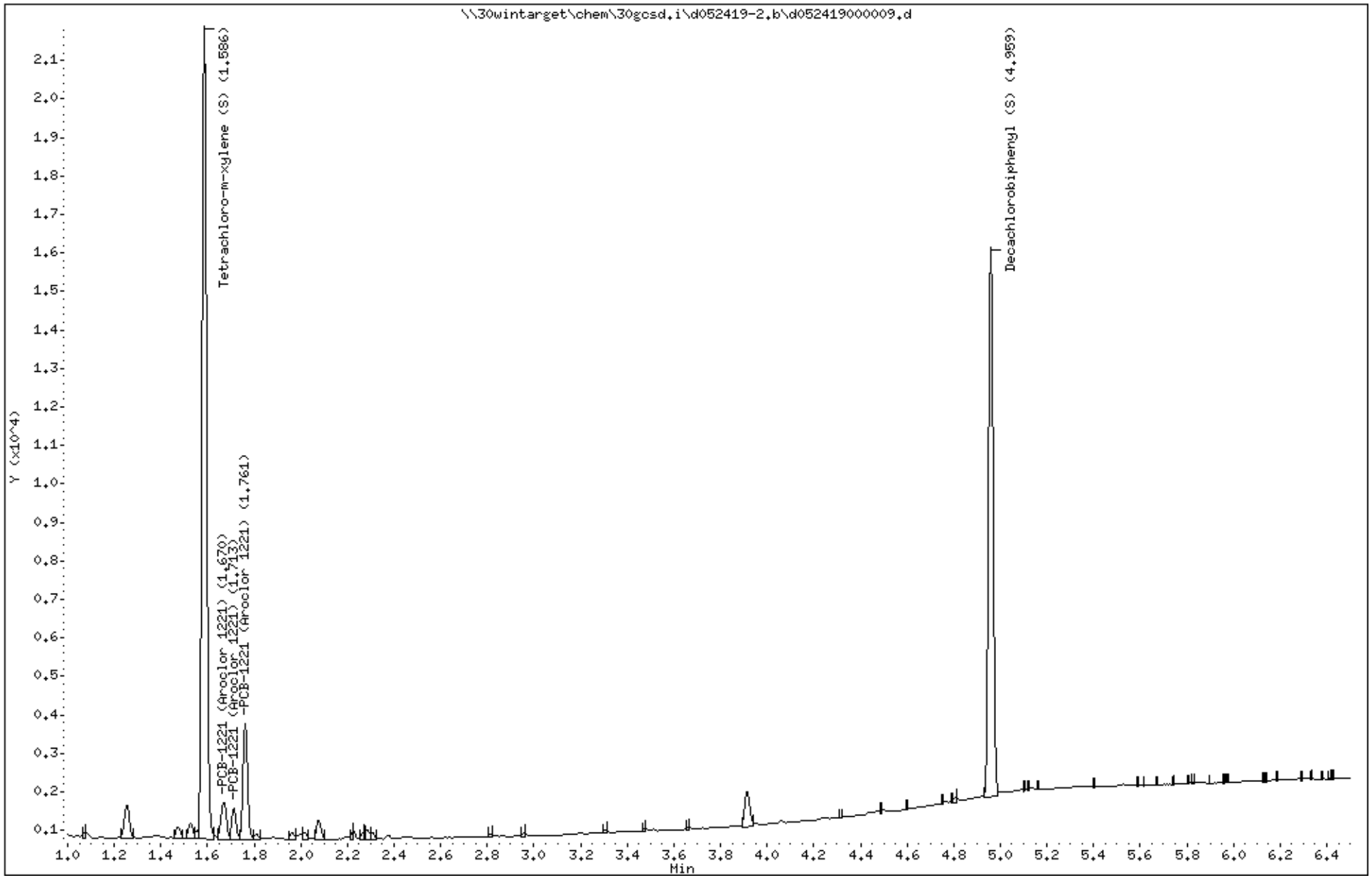
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

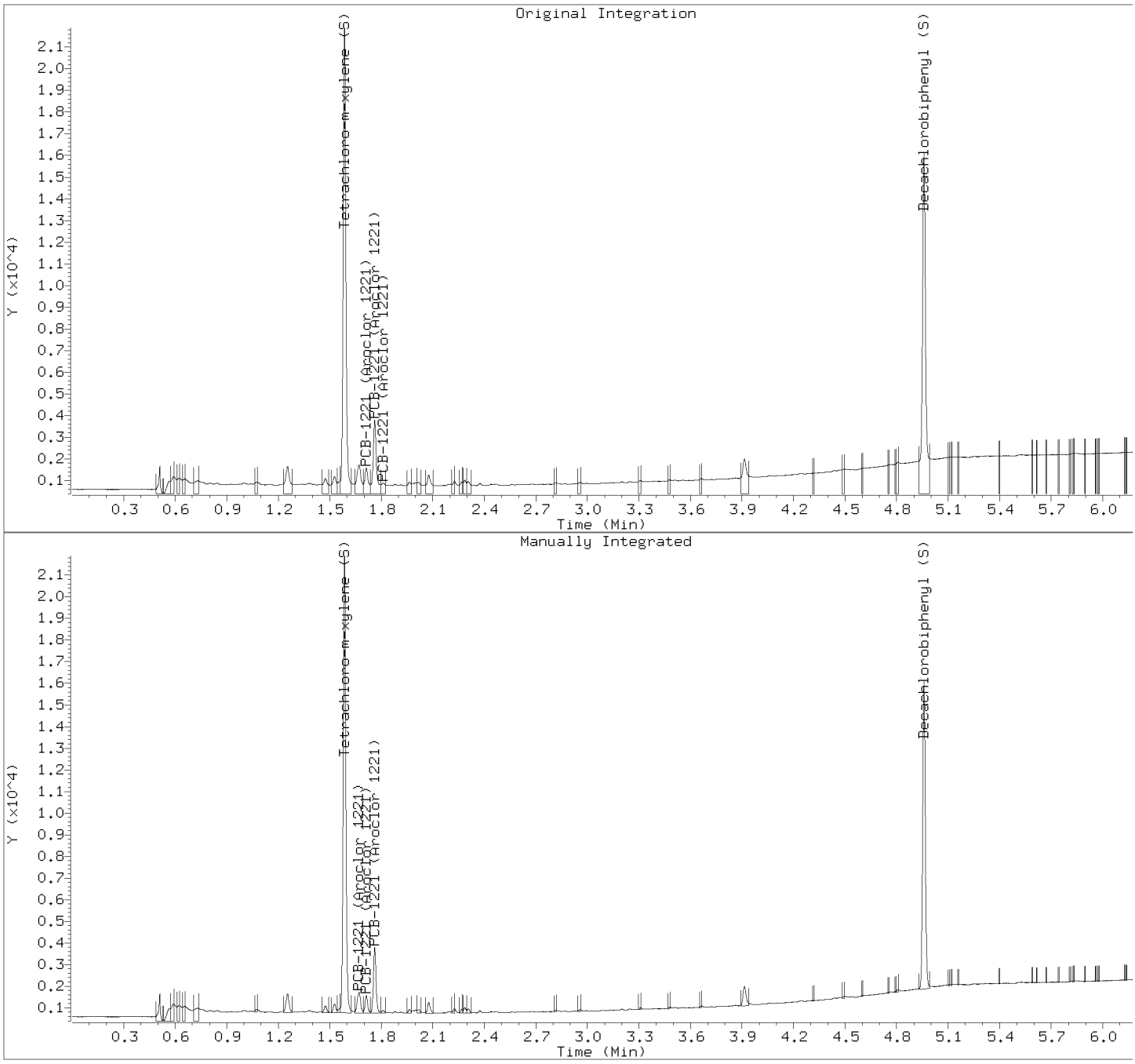
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11104-28-2	PCB-1221 (Aroclor 1221)		J
	Peak found at 1.670	0.250	J
	Peak found at 1.713	0.250	J
	Peak found at 1.761	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0489	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87759:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	1792	1306
PCB-1221 (Aroclor 1221)	4594	833
PCB-1221 (Aroclor 1221)	693	3246
Tetrachloro-m-xylene (S)	23804	22319
Decachlorobiphenyl (S)	20789	15364

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	20125	7843	0.390	10.304		
1.028	809	545	0.674	0.716		
1.209	25188	21207	0.842	27.884	$ 10 Tetrachloro-m-xylene (S)	
1.266	471	341	0.723	0.448		
1.344	1077	926	0.860	1.216		
1.399	742	690	0.930	0.906		
1.440	2887	2487	0.862	3.267	3 PCB-1232 (Aroclor 1232)	
1.631	2470	1847	0.748	2.426	3 PCB-1232 (Aroclor 1232)	
1.693	644	484	0.752	0.635		
1.745	589	717	1.218	0.942		
1.760	963	952	0.989	1.250		
1.806	422	460	1.091	0.604		
1.824	400	389	0.973	0.511		
1.878	4610	3531	0.766	4.639	3 PCB-1232 (Aroclor 1232)	
1.932	1837	1712	0.932	2.249	3 PCB-1232 (Aroclor 1232)	
2.008	1092	1208	1.106	1.587		
2.035	1232	1136	0.922	1.492		
2.062	854	936	1.095	1.229		
2.077	901	887	0.985	1.165		
2.188	1317	1413	1.073	1.856	3 PCB-1232 (Aroclor 1232)	
2.212	523	559	1.068	0.734		
2.239	386	446	1.156	0.585		
2.255	403	461	1.144	0.605		
2.277	1188	1159	0.976	1.522		
2.345	382	371	0.972	0.487		
2.375	757	821	1.085	1.078		
2.401	1308	1406	1.075	1.847		
2.429	1512	1536	1.016	2.018		
2.509	306	297	0.969	0.390		
2.560	828	762	0.920	1.001		
2.580	790	691	0.875	0.907		
2.791	397	410	1.032	0.538		
2.924	252	272	1.078	0.357		
3.147	248	264	1.067	0.346		
3.370	1075	878	0.817	1.153		
3.973	78	130	1.662	0.170		
4.037	64	109	1.705	0.143		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.342	38	76	1.999	0.099		
4.500	15691	15466	0.986	20.320	$ 11 Decachlorobiphenyl (S)	
4.812	43	65	1.527	0.085		
4.861	59	111	1.886	0.145		
5.175	25	64	2.607	0.084		
5.312	4	17	4.048	0.022		
6.022	5	19	3.862	0.024		
6.104	2	11	5.189	0.014		
	94993	76112		100.000		

Total unknown % height = 37.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.440	1.440	0.000	2886	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	2470	0.25000	0.250	68.47- 102.70	85.58	
1.878	1.878	0.000	4609	0.25000	0.250	127.76- 191.64	159.70	
1.932	1.932	0.000	1836	0.25000	0.250	50.89- 76.34	63.64	
2.188	2.188	0.000	1316	0.25000	0.250	36.48- 54.72	45.62	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25188	0.05000	0.0499			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15691	0.05000	0.0474			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

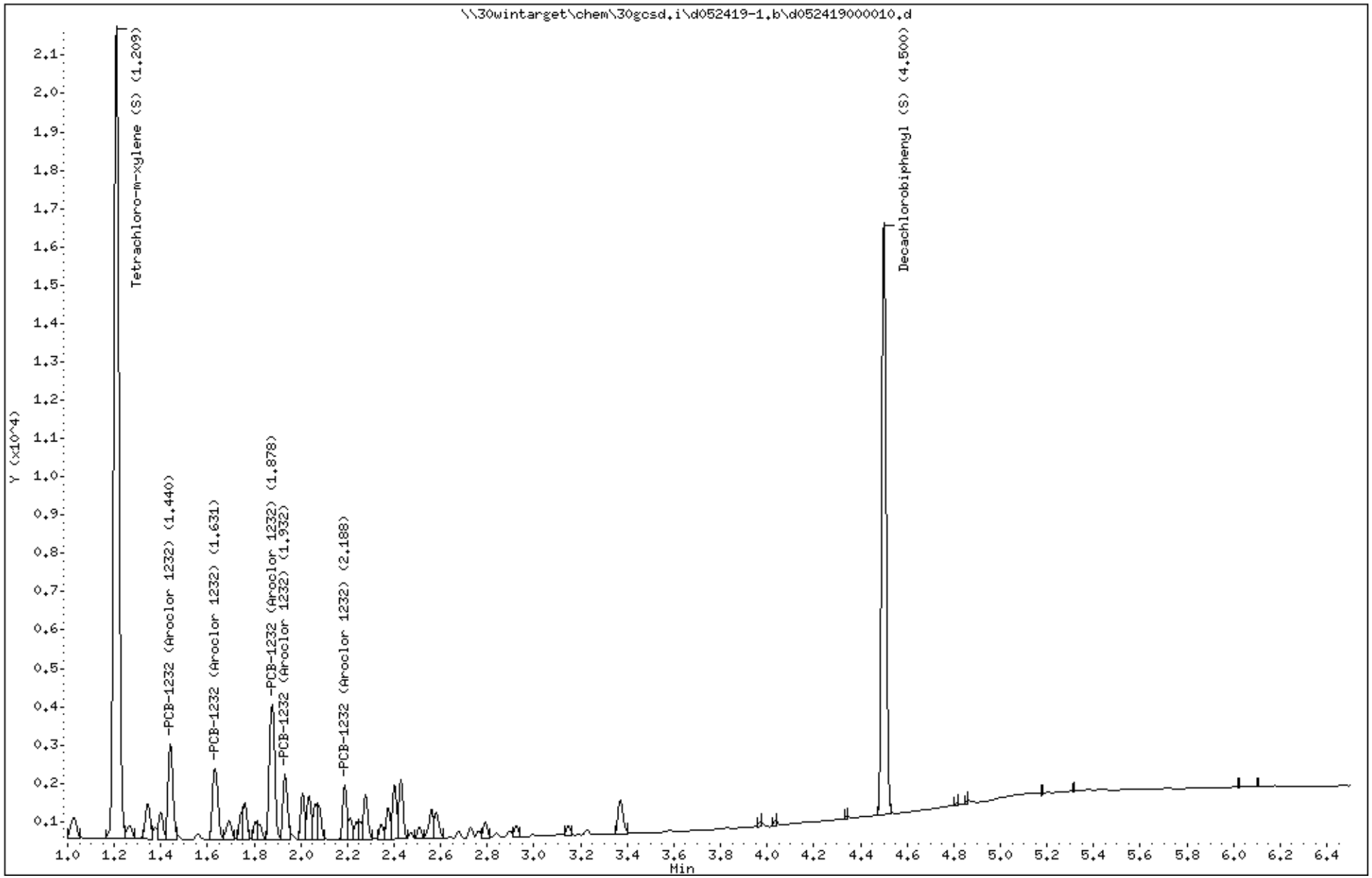
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

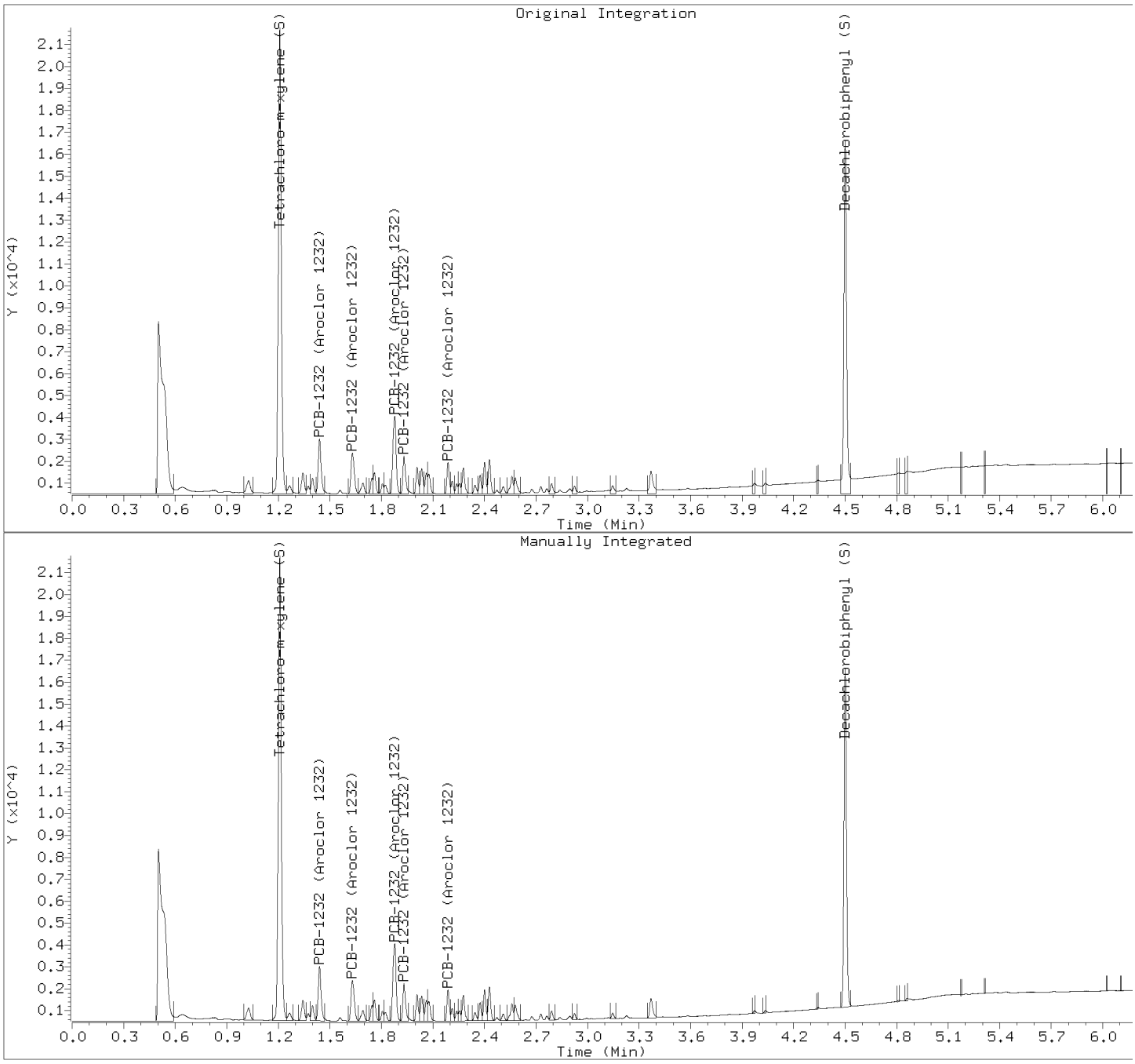
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11141-16-5	PCB-1232 (Aroclor 1232)		
	Peak found at 1.440	0.250	
	Peak found at 1.631	0.250	
	Peak found at 1.878	0.250	
	Peak found at 1.932	0.250	
	Peak found at 2.188	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0499	
2051-24-3	Decachlorobiphenyl (S)	0.0474	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	2894	2886
PCB-1232 (Aroclor 1232)	2445	2470
PCB-1232 (Aroclor 1232)	4582	4609
PCB-1232 (Aroclor 1232)	1816	1836
PCB-1232 (Aroclor 1232)	1303	1316
Tetrachloro-m-xylene (S)	25279	25188
Decachlorobiphenyl (S)	17912	15691

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	14746	21069	1.429	24.274		
0.561	8655	3518	0.406	4.053		
1.254	664	513	0.773	0.591		
1.527	369	332	0.899	0.382		
1.585	22405	21075	0.941	24.307	$ 10 Tetrachloro-m-xylene (S)	
1.669	937	664	0.709	0.765		
1.712	651	626	0.961	0.721		
1.761	2747	2583	0.940	2.975	3 PCB-1232 (Aroclor 1232)	
1.963	1291	1344	1.041	1.548	3 PCB-1232 (Aroclor 1232)	
1.983	830	785	0.946	0.904		
2.075	1571	1091	0.695	1.256		
2.200	377	390	1.036	0.449		
2.223	372	361	0.971	0.415		
2.268	1696	1935	1.141	2.229		
2.286	2421	2469	1.020	2.844	3 PCB-1232 (Aroclor 1232)	
2.306	1587	1559	0.983	1.796		
2.375	1196	1121	0.937	1.291	3 PCB-1232 (Aroclor 1232)	
2.438	849	865	1.019	0.996		
2.470	1008	1025	1.017	1.180		
2.499	377	356	0.945	0.410		
2.561	1007	1031	1.023	1.187	3 PCB-1232 (Aroclor 1232)	
2.590	566	500	0.884	0.576		
2.616	360	372	1.035	0.428		
2.668	1274	777	0.610	0.895		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.835	1885	1254	0.665	1.444		
2.864	1157	1157	1.000	1.333		
2.953	911	826	0.906	0.951		
2.986	670	559	0.834	0.644		
3.199	313	311	0.993	0.358		
3.393	232	230	0.992	0.264		
3.563	183	195	1.068	0.224		
3.914	846	685	0.809	0.789		
4.438	69	101	1.468	0.116		
4.491	65	99	1.534	0.114		
4.809	67	78	1.172	0.089		
4.959	14837	13952	0.940	16.074	$ 11 Decachlorobiphenyl (S)	
5.070	4	19	4.241	0.021		
5.077	6	22	3.566	0.025		
5.099	2	13	5.328	0.014		
5.293	40	99	2.496	0.114		
5.298	43	122	2.851	0.140		
5.407	25	63	2.571	0.072		
5.546	18	44	2.431	0.050		
5.637	12	53	4.369	0.061		
5.698	35	58	1.657	0.066		
5.842	26	80	3.033	0.092		
5.891	23	67	2.949	0.077		
5.898	21	85	3.965	0.097		
6.074	11	34	3.134	0.039		
6.186	20	55	2.691	0.063		
6.254	11	38	3.612	0.043		
6.284	12	32	2.710	0.036		
6.351	8	31	3.865	0.035		
6.390	8	28	3.665	0.032		
6.419	8	23	2.879	0.026		
6.484	6	22	3.723	0.025		
	89528	86796		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.761	1.761	0.000	2747	0.25000	0.250	80.00- 120.00	100.00(a)	
1.963	1.963	0.000	1291	0.25000	0.250	37.60- 56.40	47.00	
2.286	2.286	0.000	2421	0.25000	0.250	70.51- 105.76	88.13	
2.374	2.374	0.000	1196	0.25000	0.250	34.83- 52.25	43.54	
2.560	2.560	0.000	1007	0.25000	0.250	29.33- 43.99	36.67	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22405	0.05000	0.0497		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14837	0.05000	0.0475		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

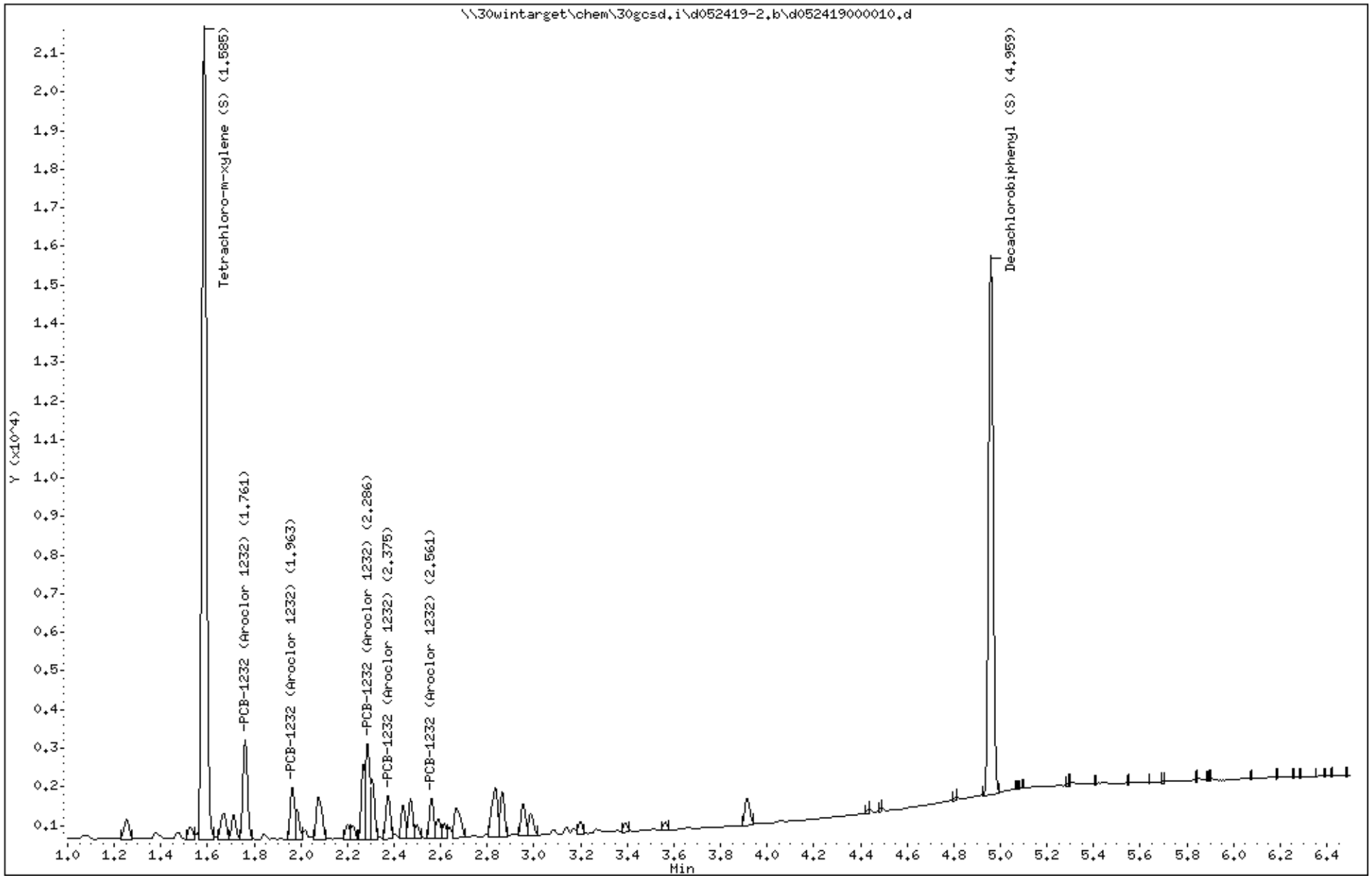
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

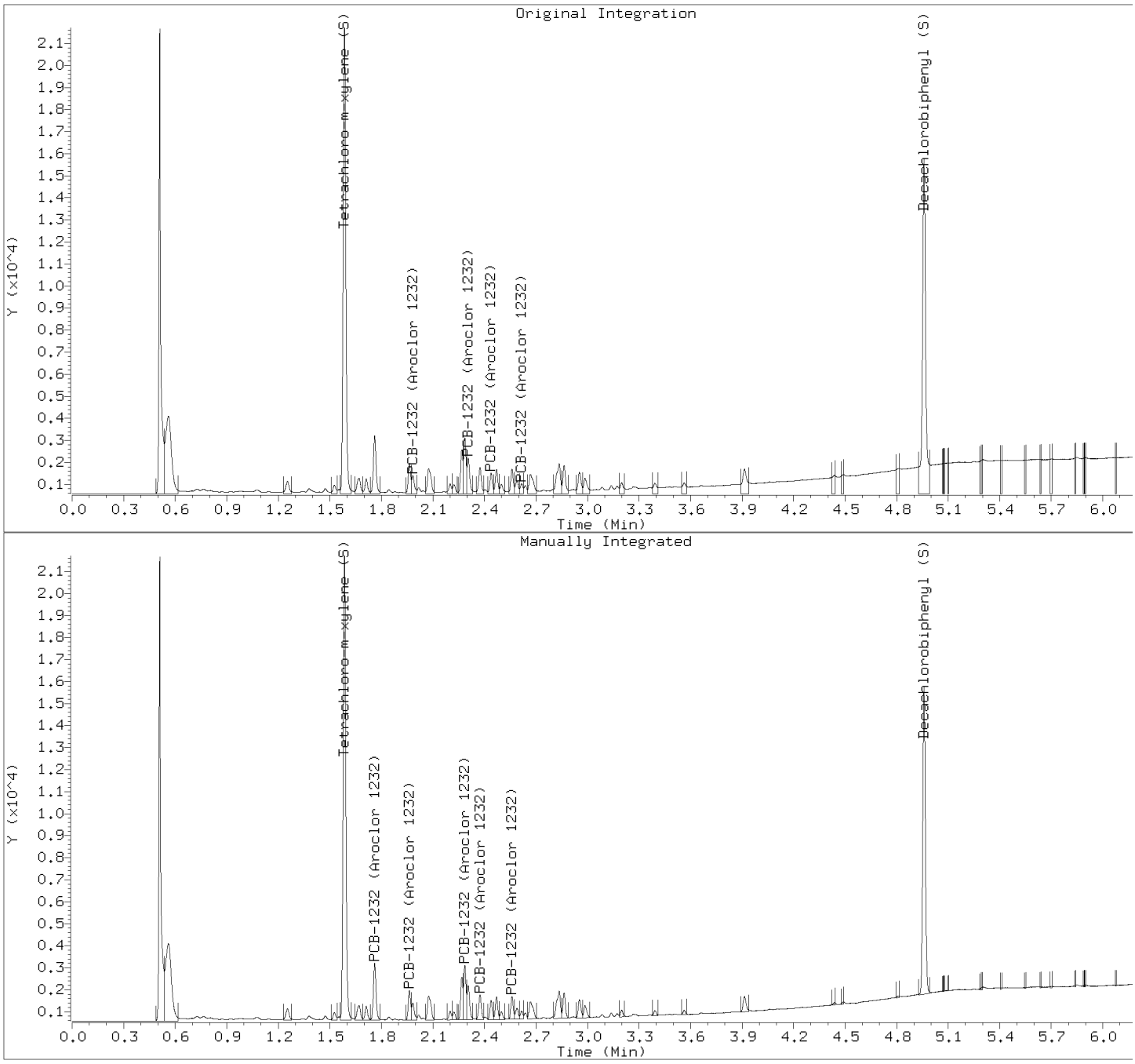
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11141-16-5	PCB-1232 (Aroclor 1232)		J
	Peak found at 1.761	0.250	J
	Peak found at 1.963	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0497	J
2051-24-3	Decachlorobiphenyl (S)	0.0475	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	0	2747
PCB-1232 (Aroclor 1232)	895	1291
PCB-1232 (Aroclor 1232)	1690	2421
PCB-1232 (Aroclor 1232)	977	1196
PCB-1232 (Aroclor 1232)	476	1007
Tetrachloro-m-xylene (S)	22563	22405
Decachlorobiphenyl (S)	19679	14837

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	888	1019	1.148	1.099		
0.542	3967	1653	0.417	1.783		
1.210	25115	21526	0.857	23.252	$ 10 Tetrachloro-m-xylene (S)	
1.344	482	372	0.772	0.401		
1.376	327	313	0.957	0.337		
1.400	396	377	0.952	0.406		
1.441	1866	1715	0.919	1.850	4 PCB-1242 (Aroclor 1242)	
1.632	3934	3022	0.768	3.261	4 PCB-1242 (Aroclor 1242)	
1.694	662	397	0.600	0.428		
1.745	993	1222	1.231	1.318		
1.760	1615	1594	0.987	1.720		
1.807	682	747	1.096	0.806		
1.826	848	790	0.932	0.852		
1.879	7907	6059	0.766	6.538	4 PCB-1242 (Aroclor 1242)	
1.933	3105	2897	0.933	3.126	4 PCB-1242 (Aroclor 1242)	
2.008	1829	2054	1.123	2.216		
2.036	2351	2205	0.938	2.379		
2.063	1580	1769	1.120	1.909		
2.077	1763	1705	0.967	1.839		
2.189	2463	2663	1.081	2.873	4 PCB-1242 (Aroclor 1242)	
2.213	975	1038	1.064	1.120		
2.239	728	832	1.143	0.897		
2.255	642	746	1.162	0.805		
2.278	2289	2243	0.980	2.420		
2.346	718	694	0.967	0.748		
2.375	1480	1611	1.089	1.738		
2.402	2512	2709	1.078	2.923		
2.429	2940	2945	1.002	3.178		
2.473	291	316	1.084	0.341		
2.510	678	658	0.970	0.710		
2.560	1663	1457	0.876	1.572		
2.581	1611	1355	0.841	1.462		
2.676	366	388	1.061	0.418		
2.728	605	637	1.052	0.687		
2.763	384	424	1.104	0.457		
2.791	882	936	1.061	1.010		
2.898	401	370	0.923	0.399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.924	672	726	1.080	0.783		
3.147	634	655	1.033	0.706		
3.228	297	279	0.940	0.301		
3.369	1107	913	0.825	0.985		
3.973	80	139	1.735	0.150		
4.038	61	97	1.583	0.104		
4.344	83	130	1.571	0.140		
4.500	16201	15974	0.986	17.238	$ 11 Decachlorobiphenyl (S)	
4.815	69	85	1.225	0.091		
4.862	94	147	1.563	0.158		
5.242	35	62	1.790	0.066		
	101271	92665		100.000		

Total unknown % height = 41.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)						CAS #: 53469-21-9		
1.440	1.440	0.000	1866	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	3934	0.25000	0.250	168.66- 252.99	210.80	
1.878	1.878	0.000	7907	0.25000	0.250	338.99- 508.49	423.71	
1.932	1.932	0.000	3105	0.25000	0.250	133.12- 199.68	166.40	
2.188	2.188	0.000	2463	0.25000	0.250	105.59- 158.39	131.98	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25115	0.05000	0.0498			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	16201	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

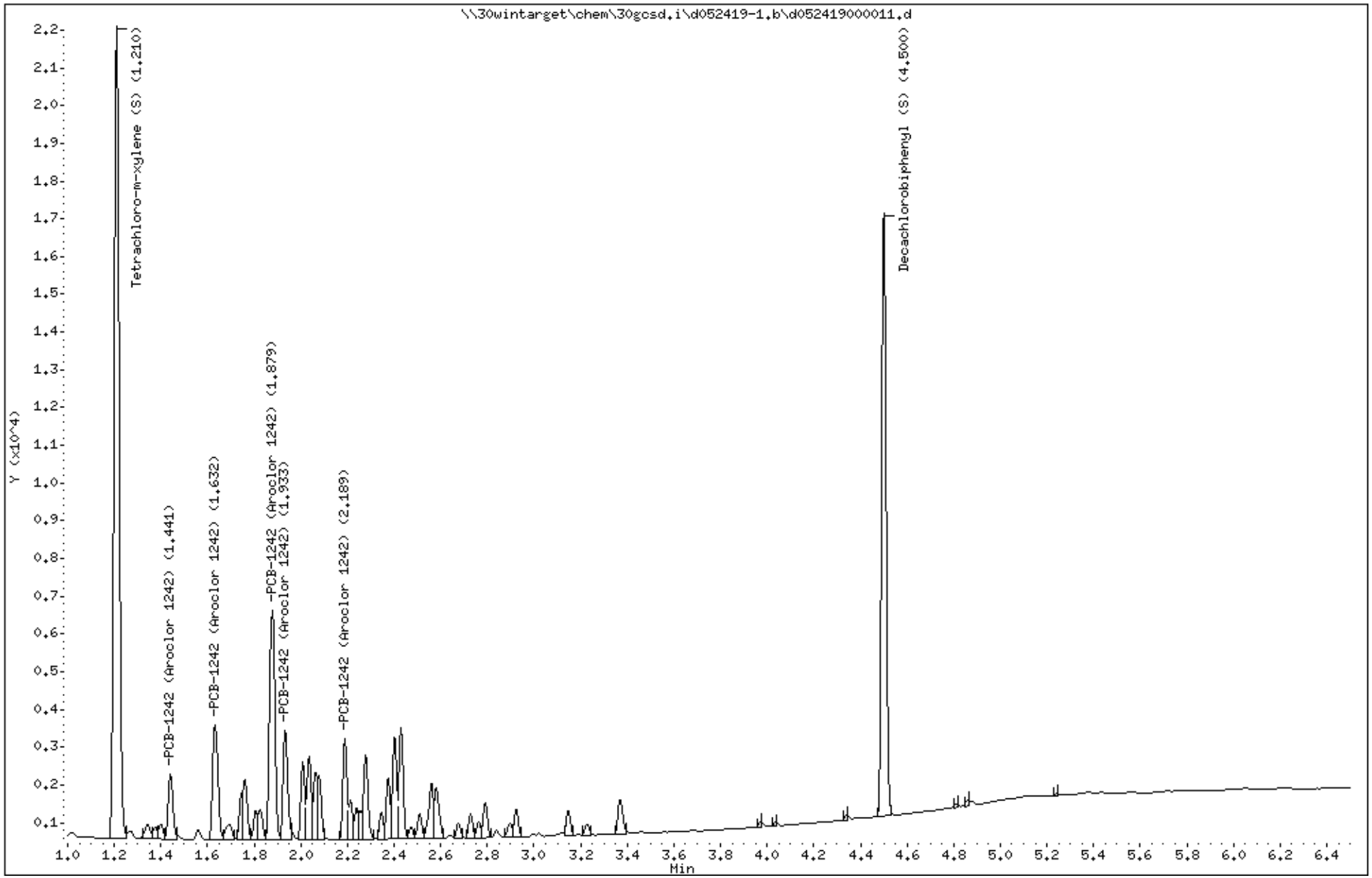
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

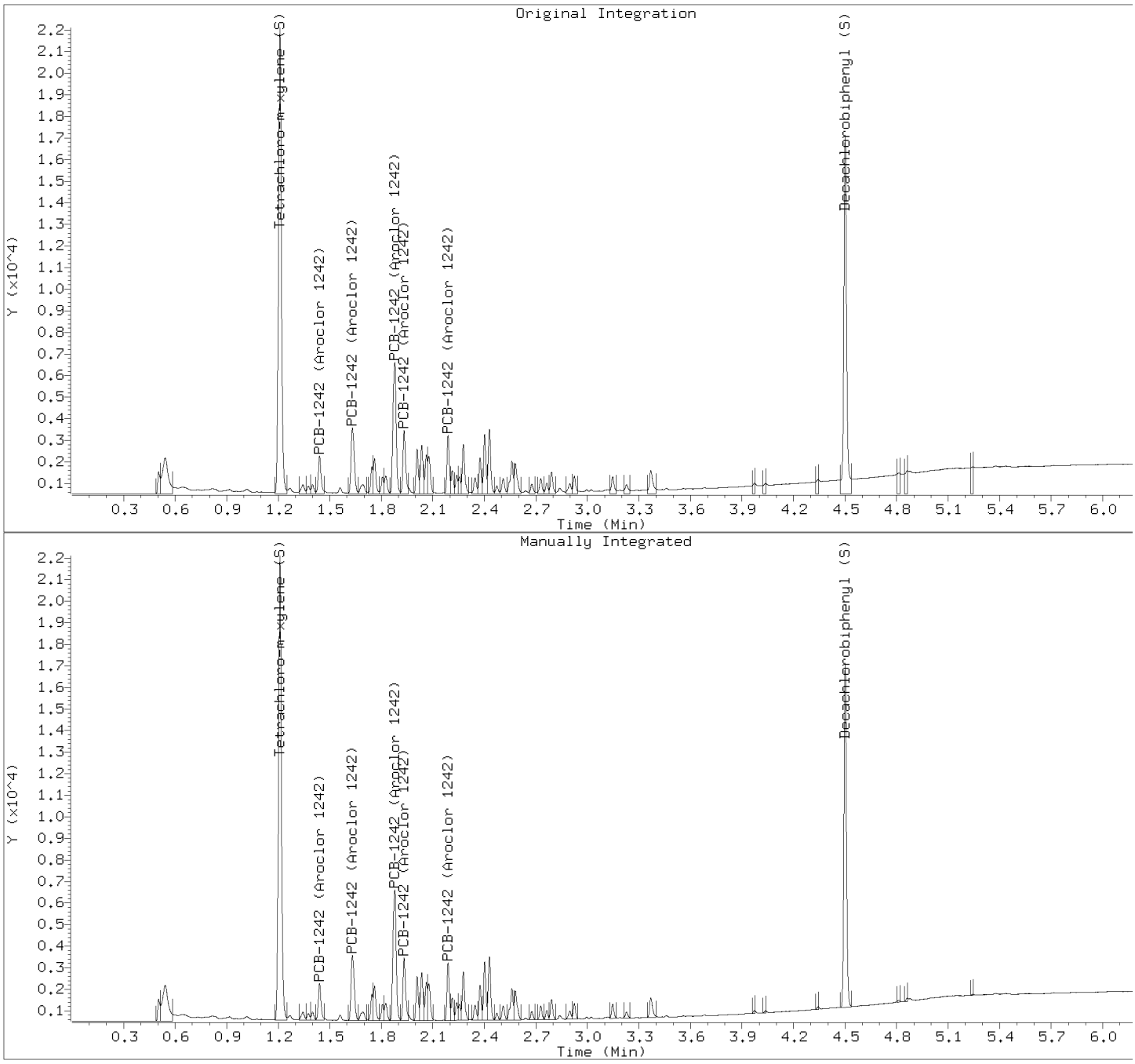
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
53469-21-9	PCB-1242 (Aroclor 1242)		
	Peak found at 1.441	0.250	
	Peak found at 1.632	0.250	
	Peak found at 1.879	0.250	
	Peak found at 1.933	0.250	
	Peak found at 2.189	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0498	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	1944	1866
PCB-1242 (Aroclor 1242)	4007	3934
PCB-1242 (Aroclor 1242)	7984	7907
PCB-1242 (Aroclor 1242)	3160	3105
PCB-1242 (Aroclor 1242)	2499	2463
Tetrachloro-m-xylene (S)	25294	25115
Decachlorobiphenyl (S)	18530	16201

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	1852	3928	2.120	4.544		
0.565	3768	1764	0.468	2.040		
1.586	22524	21344	0.948	24.730	$ 10 Tetrachloro-m-xylene (S)	
1.713	356	335	0.941	0.387		
1.762	1891	1795	0.949	2.076	4 PCB-1242 (Aroclor 1242)	
1.964	2187	2301	1.052	2.661	4 PCB-1242 (Aroclor 1242)	
1.984	1316	1328	1.009	1.536		
2.019	286	285	0.996	0.329		
2.076	2352	1514	0.644	1.751		
2.201	608	637	1.047	0.736		
2.225	866	816	0.942	0.943		
2.269	2958	3429	1.159	3.966		
2.286	4197	4259	1.015	4.927	4 PCB-1242 (Aroclor 1242)	
2.306	2716	2634	0.970	3.047		
2.375	2094	1934	0.924	2.237	4 PCB-1242 (Aroclor 1242)	
2.439	1649	1689	1.024	1.953		
2.471	1938	1966	1.014	2.274		
2.499	738	674	0.913	0.779		
2.561	1934	1991	1.029	2.303	4 PCB-1242 (Aroclor 1242)	
2.590	1072	957	0.893	1.107		
2.617	676	703	1.039	0.813		
2.639	535	545	1.018	0.630		
2.667	2420	1515	0.626	1.752		
2.835	3753	2447	0.652	2.830		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.864	2278	2280	1.001	2.637		
2.954	1870	1662	0.889	1.922		
2.987	1403	1114	0.794	1.288		
3.086	320	304	0.950	0.351		
3.139	452	449	0.993	0.519		
3.173	373	346	0.927	0.400		
3.199	741	733	0.989	0.847		
3.268	233	244	1.048	0.282		
3.393	608	583	0.959	0.674		
3.563	511	511	0.999	0.591		
3.661	81	133	1.636	0.153		
3.914	859	703	0.819	0.813		
4.439	78	101	1.287	0.116		
4.490	42	81	1.914	0.093		
4.809	109	117	1.072	0.135		
4.960	15347	14225	0.927	16.456	$ 11 Decachlorobiphenyl (S)	
5.116	8	26	3.202	0.030		
5.250	60	70	1.165	0.080		
5.298	88	143	1.617	0.165		
5.438	19	51	2.727	0.058		
5.554	13	49	3.687	0.056		
5.564	20	57	2.830	0.065		
5.600	20	78	3.881	0.090		
5.684	26	91	3.515	0.105		
5.823	36	152	4.274	0.175		
5.846	151	242	1.607	0.279		
5.892	64	208	3.267	0.240		
5.940	42	121	2.866	0.139		
6.008	24	105	4.303	0.121		
6.058	38	88	2.313	0.101		
6.067	28	85	3.040	0.098		
6.103	30	67	2.260	0.077		
6.209	14	63	4.605	0.072		
6.215	18	57	3.120	0.065		
6.228	22	62	2.821	0.071		
6.245	29	63	2.207	0.072		
6.257	15	57	3.810	0.065		
6.395	5	26	5.000	0.030		
6.421	7	29	3.973	0.033		
6.427	7	29	4.252	0.033		
6.454	6	28	4.930	0.032		
6.487	5	18	3.333	0.020		
	90787	86441		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
1.761	1.761	0.000	1890	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	2186	0.25000	0.250	92.53- 138.79	115.68	
2.286	2.286	0.000	4196	0.25000	0.250	177.61- 266.41	221.99	
2.374	2.374	0.000	2094	0.25000	0.250	88.63- 132.95	110.77	
2.560	2.560	0.000	1934	0.25000	0.250	81.86- 122.79	102.32	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	22523	0.05000	0.0499			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15346	0.05000	0.0488			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

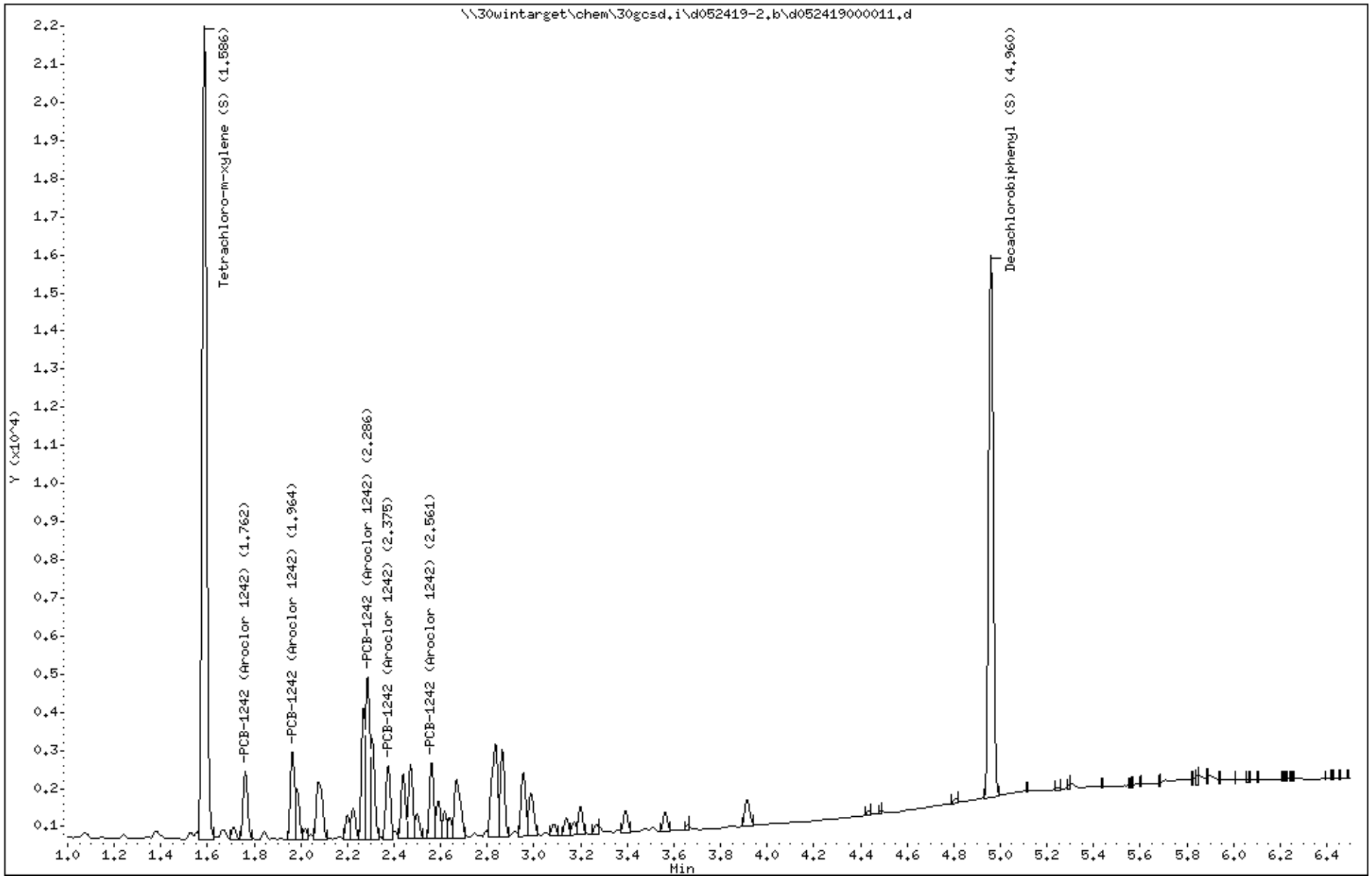
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

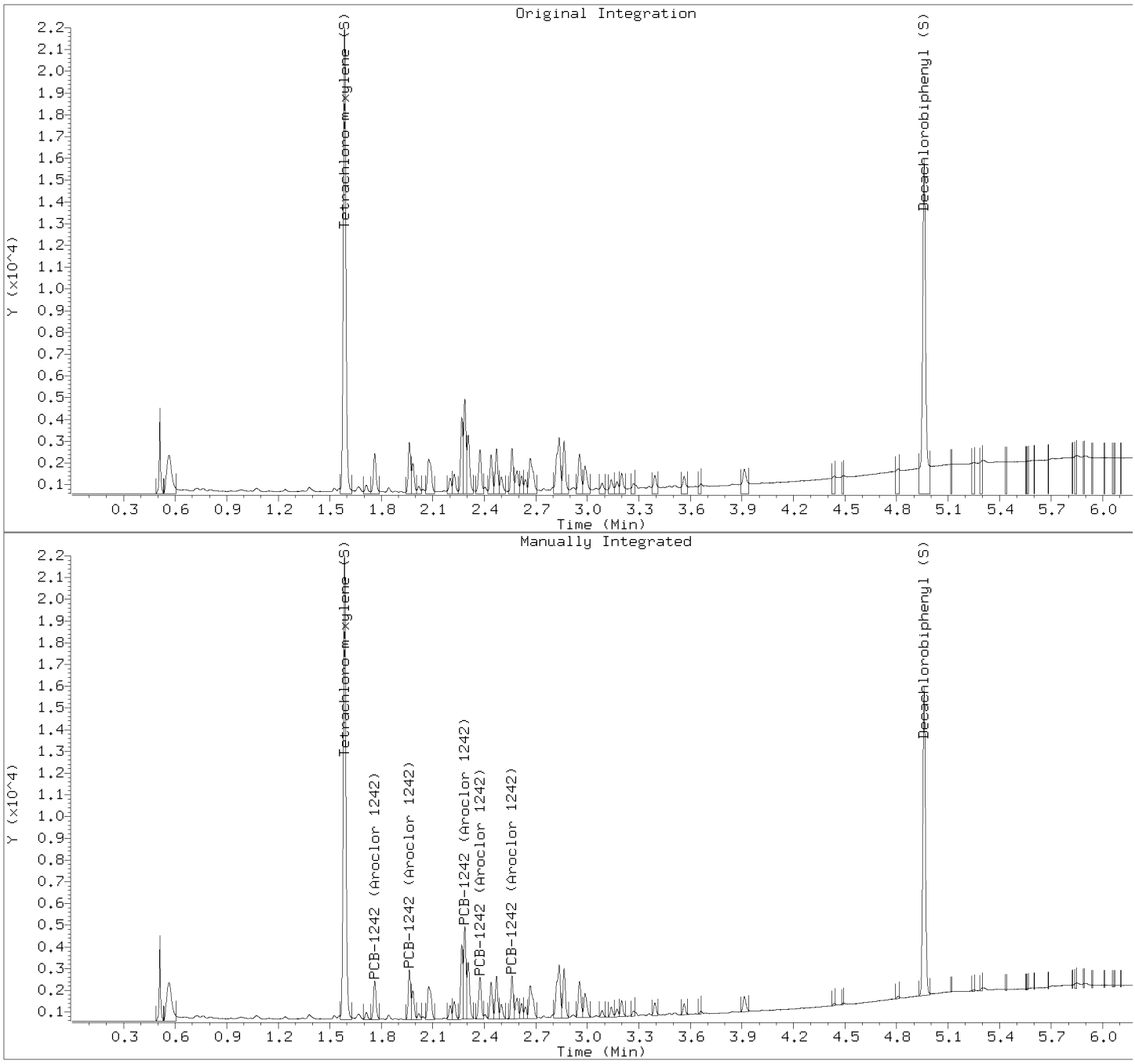
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
53469-21-9	PCB-1242 (Aroclor 1242)		J
	Peak found at 1.762	0.250	J
	Peak found at 1.964	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0499	J
2051-24-3	Decachlorobiphenyl (S)	0.0488	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86155:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	0	1890
PCB-1242 (Aroclor 1242)	0	2186
PCB-1242 (Aroclor 1242)	0	4196
PCB-1242 (Aroclor 1242)	0	2094
PCB-1242 (Aroclor 1242)	0	1934
Tetrachloro-m-xylene (S)	22784	22523
Decachlorobiphenyl (S)	19977	15346

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.547	410	285	0.696	0.272		
0.591	1961	869	0.443	0.831		
1.209	25304	21596	0.853	20.687	$ 10 Tetrachloro-m-xylene (S)	
1.375	330	314	0.953	0.300		
1.630	2043	1645	0.805	1.574		
1.745	604	688	1.140	0.658		
1.759	623	648	1.041	0.620		
1.877	5873	4432	0.755	4.241	5 PCB-1248 (Aroclor 1248)	
1.932	1842	1857	1.008	1.777		
2.008	1026	1159	1.130	1.109		
2.035	3872	3728	0.963	3.567	5 PCB-1248 (Aroclor 1248)	
2.062	2562	2771	1.082	2.651		
2.077	2603	2553	0.981	2.443		
2.188	3978	4280	1.076	4.096	5 PCB-1248 (Aroclor 1248)	
2.212	1465	1554	1.061	1.487		
2.238	1603	1404	0.876	1.343		
2.278	3494	3512	1.005	3.361	5 PCB-1248 (Aroclor 1248)	
2.345	1118	1064	0.951	1.018		
2.375	2668	2892	1.084	2.767		
2.401	4715	5070	1.075	4.852		
2.429	5685	5656	0.995	5.412	5 PCB-1248 (Aroclor 1248)	
2.473	720	754	1.047	0.721		
2.510	1507	1530	1.015	1.464		
2.546	715	1228	1.718	1.175		
2.560	2540	2575	1.014	2.464		
2.580	3063	2362	0.771	2.260		
2.676	899	932	1.037	0.891		
2.728	1487	1548	1.041	1.481		
2.763	940	1040	1.106	0.995		
2.791	2374	2440	1.028	2.335		
2.839	390	304	0.780	0.290		
2.898	1054	914	0.867	0.874		
2.924	1708	1784	1.044	1.707		
2.995	254	262	1.030	0.250		
3.147	1608	1676	1.042	1.603		
3.227	586	503	0.858	0.481		
3.369	1557	1267	0.814	1.212		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.584	218	231	1.061	0.221		
3.826	120	195	1.623	0.186		
4.152	48	83	1.731	0.079		
4.501	14933	14702	0.985	14.069	$ 11 Decachlorobiphenyl (S)	
4.814	46	73	1.584	0.069		
4.863	84	112	1.340	0.107		
	110629	104492		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
1.877	1.877	0.000	5872	0.25000	0.250	80.00- 120.00	100.00	
2.035	2.035	0.000	3872	0.25000	0.250	52.75- 79.13	65.94	
2.188	2.188	0.000	3978	0.25000	0.250	54.20- 81.29	67.75	
2.277	2.277	0.000	3494	0.25000	0.250	47.60- 71.40	59.50	
2.428	2.428	0.000	5685	0.25000	0.250	77.45- 116.18	96.81	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25304	0.05000	0.0501			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	14932	0.05000	0.0455			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

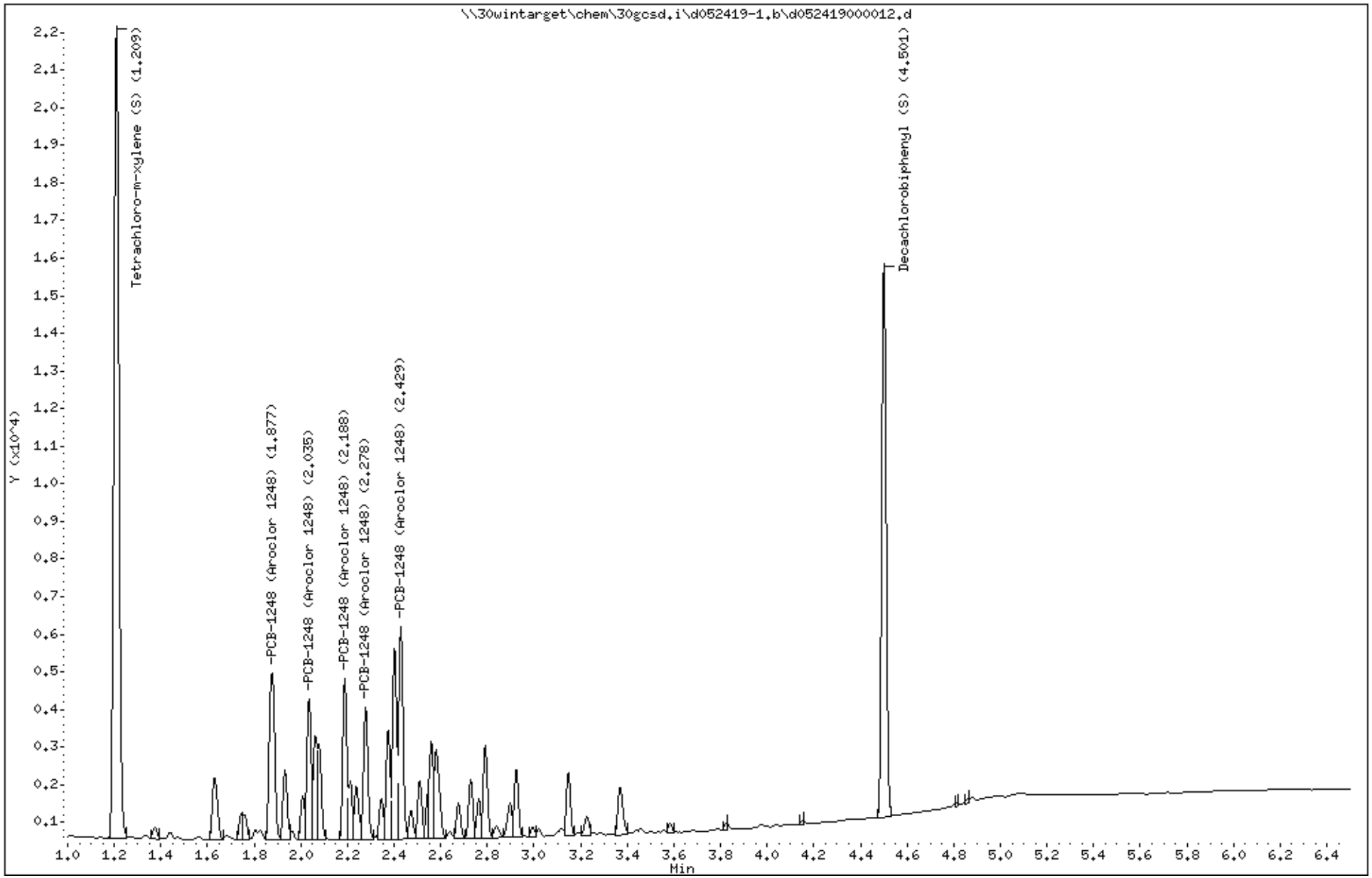
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

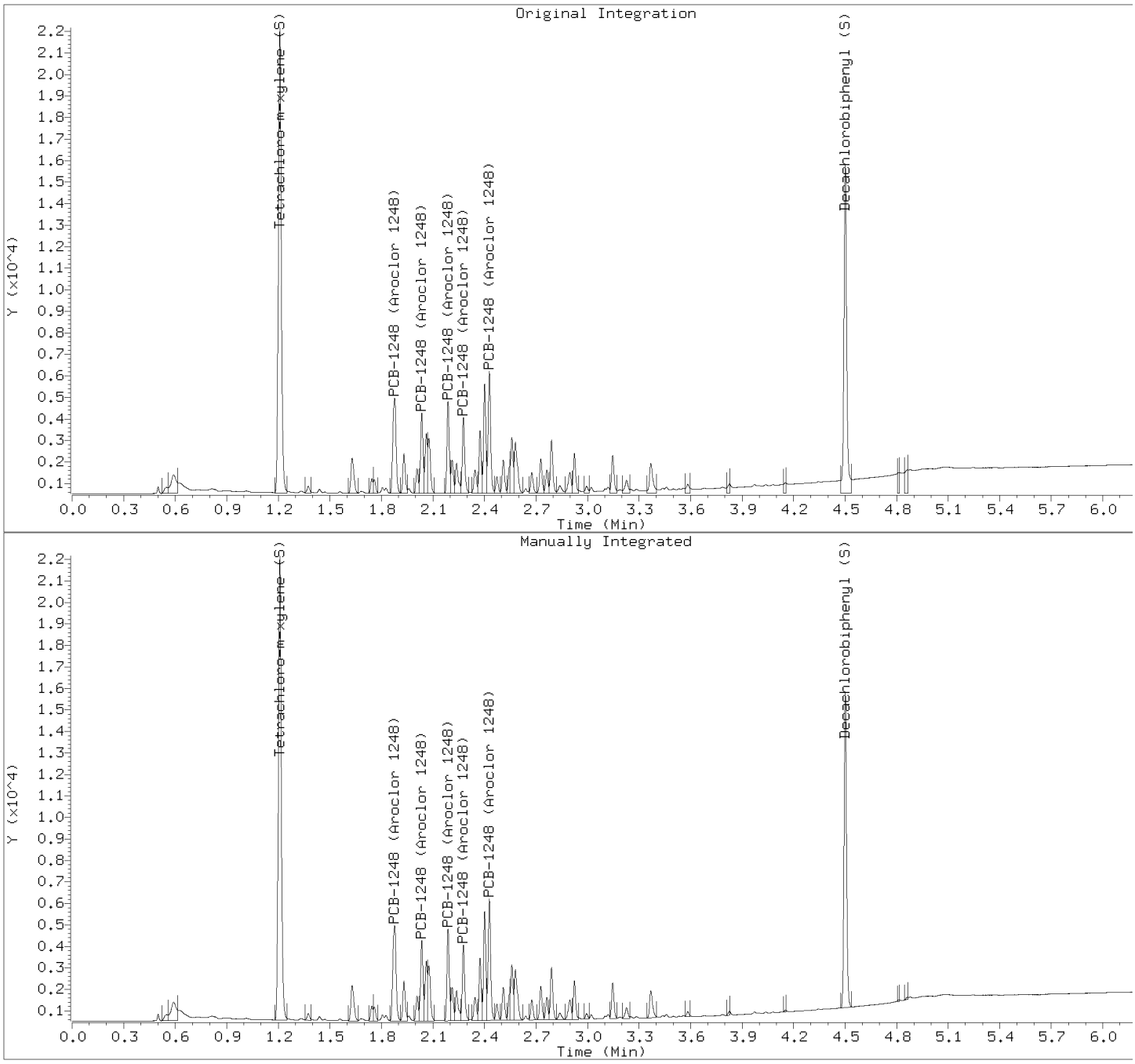
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12672-29-6	PCB-1248 (Aroclor 1248)		
	Peak found at 1.877	0.250	
	Peak found at 2.035	0.250	
	Peak found at 2.188	0.250	
	Peak found at 2.278	0.250	
	Peak found at 2.429	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0501	
2051-24-3	Decachlorobiphenyl (S)	0.0455	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	5857	5872
PCB-1248 (Aroclor 1248)	3850	3872
PCB-1248 (Aroclor 1248)	3962	3978
PCB-1248 (Aroclor 1248)	3506	3494
PCB-1248 (Aroclor 1248)	5722	5685
Tetrachloro-m-xylene (S)	25444	25304
Decachlorobiphenyl (S)	17105	14932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1037	1478	1.426	1.516		
0.566	599	506	0.844	0.519		
0.622	2352	967	0.411	0.991		
0.731	810	520	0.642	0.533		
1.073	437	412	0.943	0.422		
1.554	106	120	1.132	0.123		
1.586	22644	21310	0.941	21.891	$ 10 Tetrachloro-m-xylene (S)	
1.759	422	413	0.980	0.423		
1.964	1242	1288	1.037	1.321		
1.984	503	537	1.068	0.550		
2.086	1028	667	0.649	0.684		
2.200	221	228	1.033	0.233		
2.226	267	258	0.967	0.264		
2.268	2429	2724	1.122	2.794		
2.285	3077	3079	1.001	3.158	5 PCB-1248 (Aroclor 1248)	CO
2.305	1406	1362	0.968	1.397		
2.373	1495	1298	0.868	1.331		
2.404	254	256	1.007	0.262		
2.439	2890	2979	1.031	3.055	5 PCB-1248 (Aroclor 1248)	CO
2.471	2921	2975	1.018	3.051		
2.499	1241	1169	0.942	1.199		
2.560	3272	3401	1.039	3.488	5 PCB-1248 (Aroclor 1248)	CO
2.590	1462	1370	0.937	1.405		
2.616	1135	1167	1.028	1.197		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.638	638	671	1.052	0.688		
2.666	2564	2457	0.958	2.520	5 PCB-1248 (Aroclor 1248)	CO
2.682	377	1053	2.794	1.080		
2.798	144	234	1.624	0.240		
2.823	2237	3262	1.458	3.346		
2.835	5098	4585	0.899	4.703	5 PCB-1248 (Aroclor 1248)	CO
2.864	4276	4244	0.993	4.353		
2.922	278	263	0.945	0.269		
2.954	3760	3287	0.874	3.371		
2.987	2726	1999	0.733	2.050		
3.051	125	169	1.354	0.173		
3.085	771	744	0.965	0.763		
3.138	1142	1107	0.969	1.135		
3.172	934	878	0.940	0.900		
3.199	1971	1962	0.996	2.012		
3.268	821	598	0.729	0.613		
3.308	172	178	1.036	0.182		
3.357	119	197	1.662	0.202		
3.392	1463	1426	0.975	1.462		
3.478	227	214	0.943	0.219		
3.505	115	156	1.362	0.160		
3.563	1359	1348	0.992	1.382		
3.661	355	328	0.925	0.336		
3.845	84	115	1.363	0.117		
3.913	1239	992	0.800	1.017		
4.060	123	181	1.468	0.185		
4.247	90	130	1.441	0.133		
4.494	52	69	1.334	0.070		
4.617	50	86	1.709	0.088		
4.803	6	24	4.068	0.024		
4.959	14059	13126	0.934	13.464	$ 11 Decachlorobiphenyl (S)	
5.246	14	56	3.886	0.057		
5.298	55	102	1.841	0.104		
5.366	8	37	4.695	0.037		
5.489	13	44	3.364	0.045		
5.677	9	37	4.322	0.037		
5.711	15	64	4.148	0.065		
5.728	14	49	3.518	0.050		
5.767	9	43	4.694	0.044		
5.810	12	34	2.916	0.034		
5.833	12	45	3.886	0.046		
5.839	15	51	3.488	0.052		
5.891	24	69	2.844	0.070		
5.899	41	83	2.025	0.085		
6.162	9	42	4.924	0.043		
6.184	11	46	4.144	0.047		
6.233	20	50	2.498	0.051		
6.361	5	27	5.895	0.027		
6.404	5	21	4.303	0.021		
6.427	7	21	3.211	0.021		
	100918	97488		100.000		

Total unknown % height = 47.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
2.285	2.285	0.000	3077	0.25000	0.250	80.00- 120.00	100.00(aM)	CO
2.438	2.438	0.000	2889	0.25000	0.250	75.11- 112.67	93.92	CO
2.560	2.560	0.000	3271	0.25000	0.250	85.04- 127.57	106.33	CO
2.666	2.666	0.000	2563	0.25000	0.250	66.64- 99.95	83.31	CO
2.834	2.834	0.000	5098	0.25000	0.250	132.54- 198.82	165.68	CO
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22643	0.05000	0.0502			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.958	4.960	-0.002	14059	0.05000	0.0454		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
:

Pace Analytical Services, Inc.

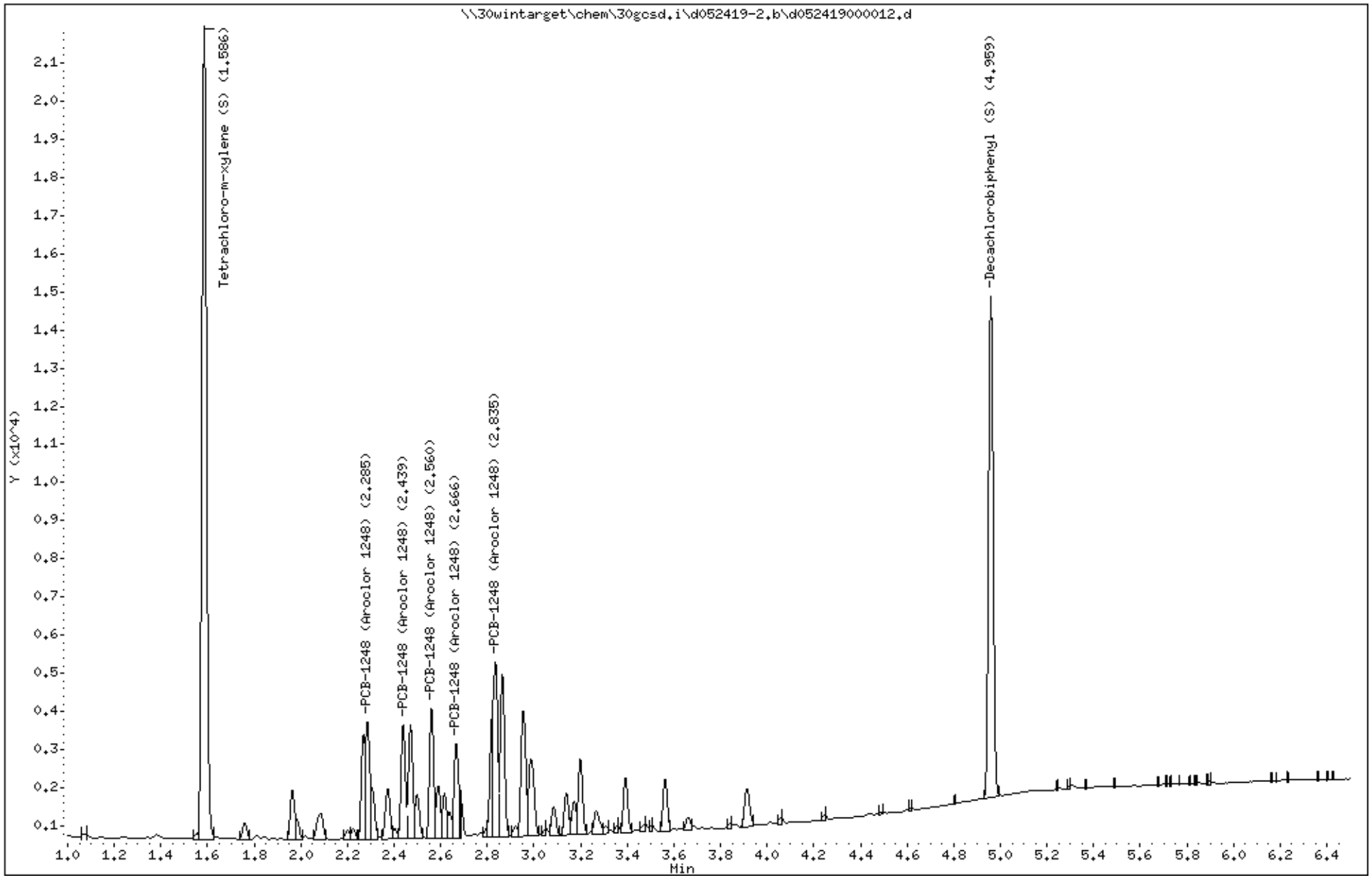
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

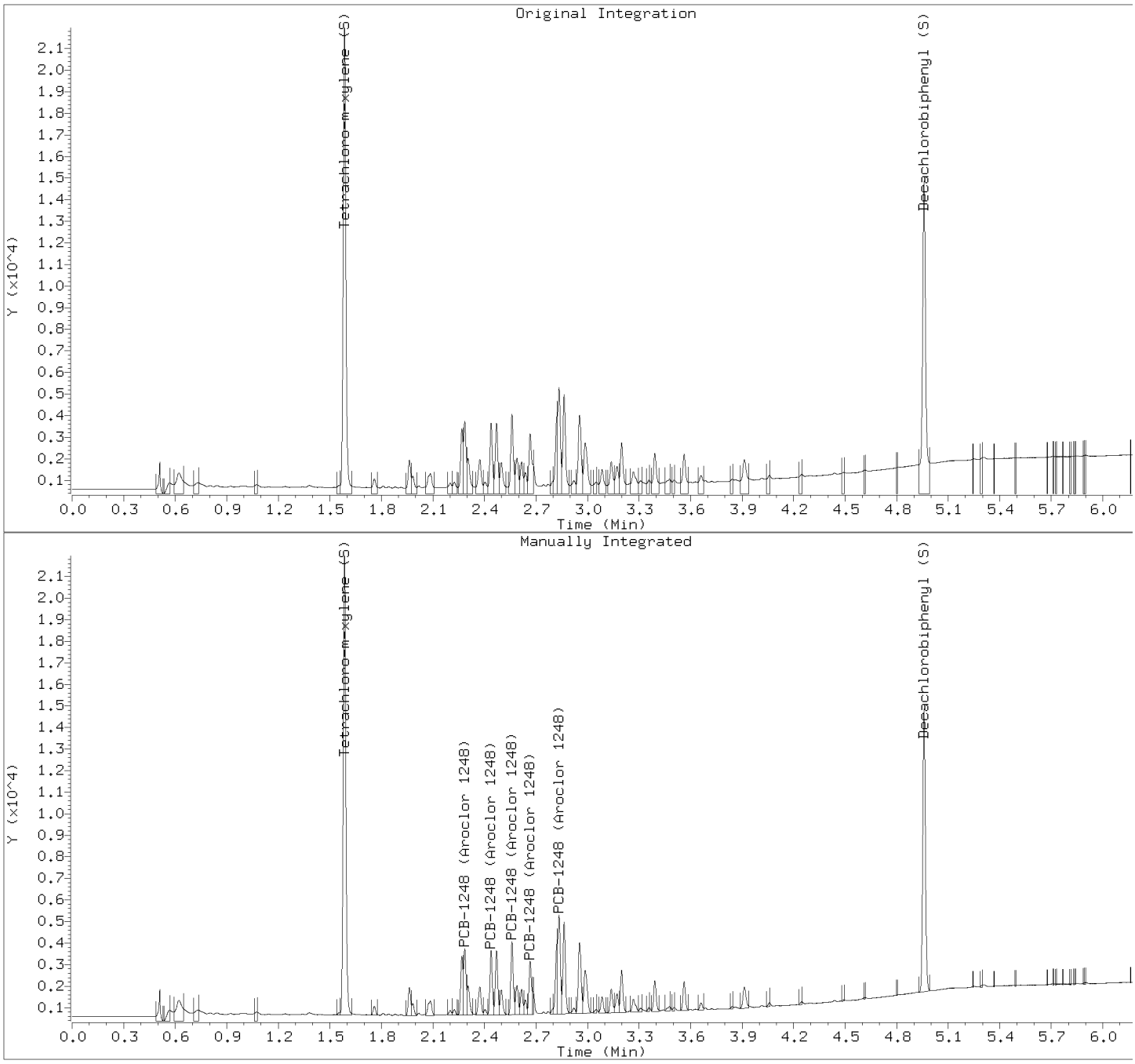
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12672-29-6	PCB-1248 (Aroclor 1248)		J
	Peak found at 2.285	0.250	J
	Peak found at 2.439	0.250	J
	Peak found at 2.560	0.250	J
	Peak found at 2.666	0.250	J
	Peak found at 2.835	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0502	
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86156:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	0	3077
PCB-1248 (Aroclor 1248)	0	2889
PCB-1248 (Aroclor 1248)	0	3271
PCB-1248 (Aroclor 1248)	0	2563
PCB-1248 (Aroclor 1248)	0	5098
Tetrachloro-m-xylene (S)	23722	22643
Decachlorobiphenyl (S)	18977	14059

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	489	461	0.942	0.405		
0.714	8162	4394	0.538	3.868		
1.021	285	217	0.761	0.191		
1.210	23752	20379	0.858	17.965	$ 10 Tetrachloro-m-xylene (S)	
1.314	813	677	0.833	0.596		
2.036	2429	2585	1.064	2.276		
2.062	911	778	0.854	0.685		
2.188	1434	1519	1.059	1.337		
2.278	529	568	1.073	0.500		
2.375	619	683	1.103	0.601		
2.402	2084	2328	1.117	2.049		
2.426	4533	4510	0.995	3.970	6 PCB-1254 (Aroclor 1254)	
2.473	1615	1715	1.062	1.510		
2.510	4937	5186	1.050	4.566	6 PCB-1254 (Aroclor 1254)	
2.545	2421	2257	0.932	1.987		
2.594	1826	1716	0.940	1.510		
2.639	369	388	1.051	0.341		
2.677	1826	1912	1.047	1.683		
2.729	3904	4052	1.038	3.567		
2.763	1190	1309	1.100	1.152		
2.792	7865	7801	0.992	6.868	6 PCB-1254 (Aroclor 1254)	
2.830	744	756	1.016	0.665		
2.852	340	303	0.890	0.266		
2.887	3770	2864	0.760	2.521		
2.924	5069	5258	1.037	4.629	6 PCB-1254 (Aroclor 1254)	
2.955	607	634	1.045	0.558		
2.995	3354	3095	0.923	2.725		
3.103	929	1210	1.302	1.065		
3.120	2124	2106	0.992	1.854		
3.148	3435	3276	0.954	2.884		
3.191	849	793	0.934	0.698		
3.227	6804	5419	0.796	4.771	6 PCB-1254 (Aroclor 1254)	
3.284	650	623	0.958	0.548		
3.369	1759	1478	0.840	1.301		
3.438	274	336	1.228	0.295		
3.460	1686	1660	0.985	1.461		
3.500	194	198	1.023	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.533	211	234	1.108	0.206		
3.558	958	1019	1.063	0.897		
3.584	945	758	0.802	0.667		
3.826	740	716	0.968	0.630		
3.973	268	265	0.987	0.233		
4.037	37	65	1.772	0.057		
4.500	15002	14730	0.982	12.969	$ 11 Decachlorobiphenyl (S)	
4.813	62	94	1.527	0.082		
4.862	99	144	1.450	0.126		
5.242	77	86	1.113	0.075		
5.666	5	19	3.740	0.016		
	122986	113574		100.000		

Total unknown % height = 44.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.425	2.425	0.000	4533	0.25000	0.250	80.00- 120.00	100.00	
2.509	2.509	0.000	4937	0.25000	0.250	87.13- 130.69	108.91	
2.791	2.791	0.000	7864	0.25000	0.250	138.79- 208.18	173.49	
2.924	2.924	0.000	5068	0.25000	0.250	89.44- 134.16	111.82	
3.226	3.226	0.000	6804	0.25000	0.250	120.08- 180.12	150.10	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	23751	0.05000	0.0475			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15001	0.05000	0.0457			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

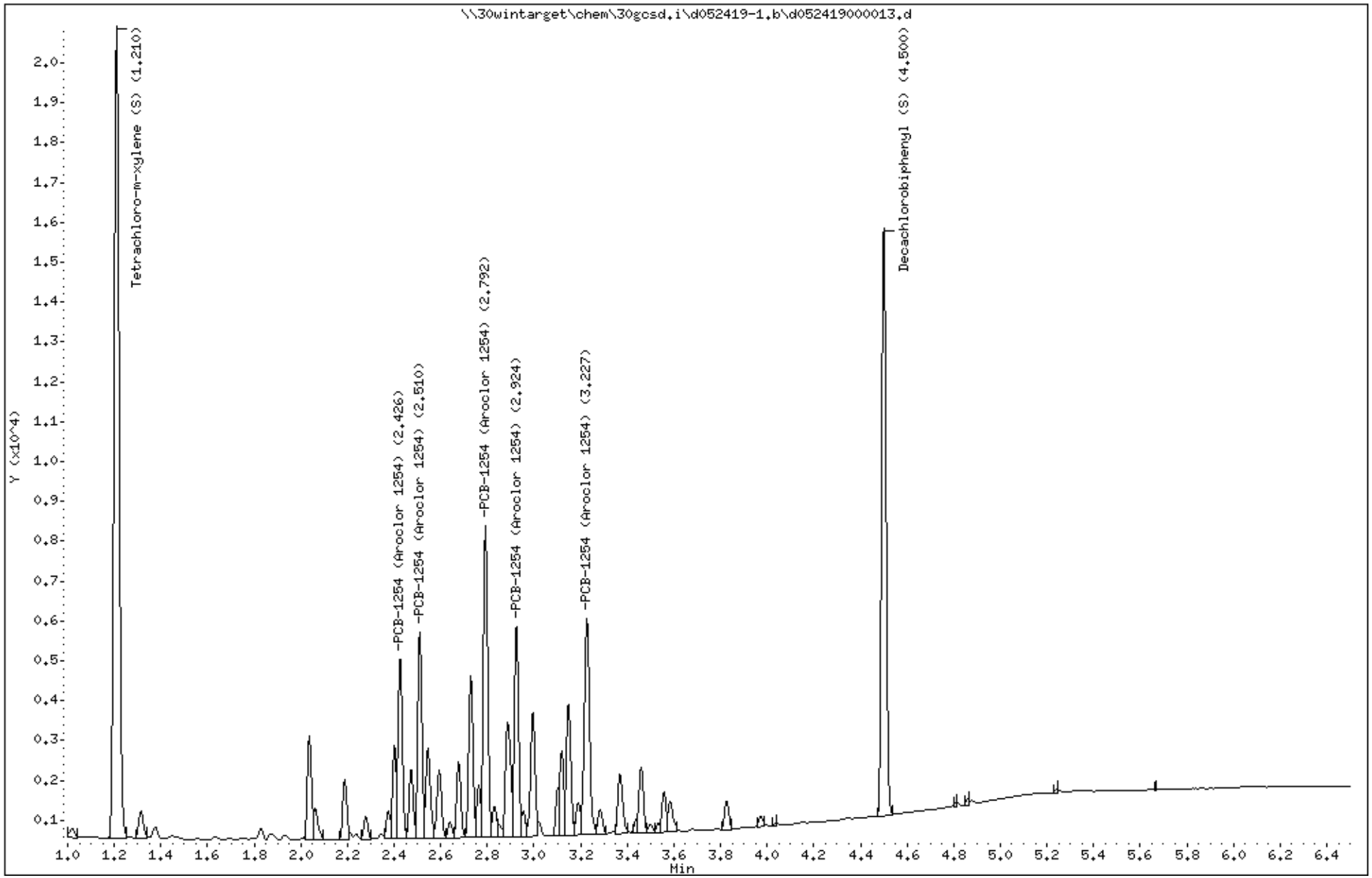
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

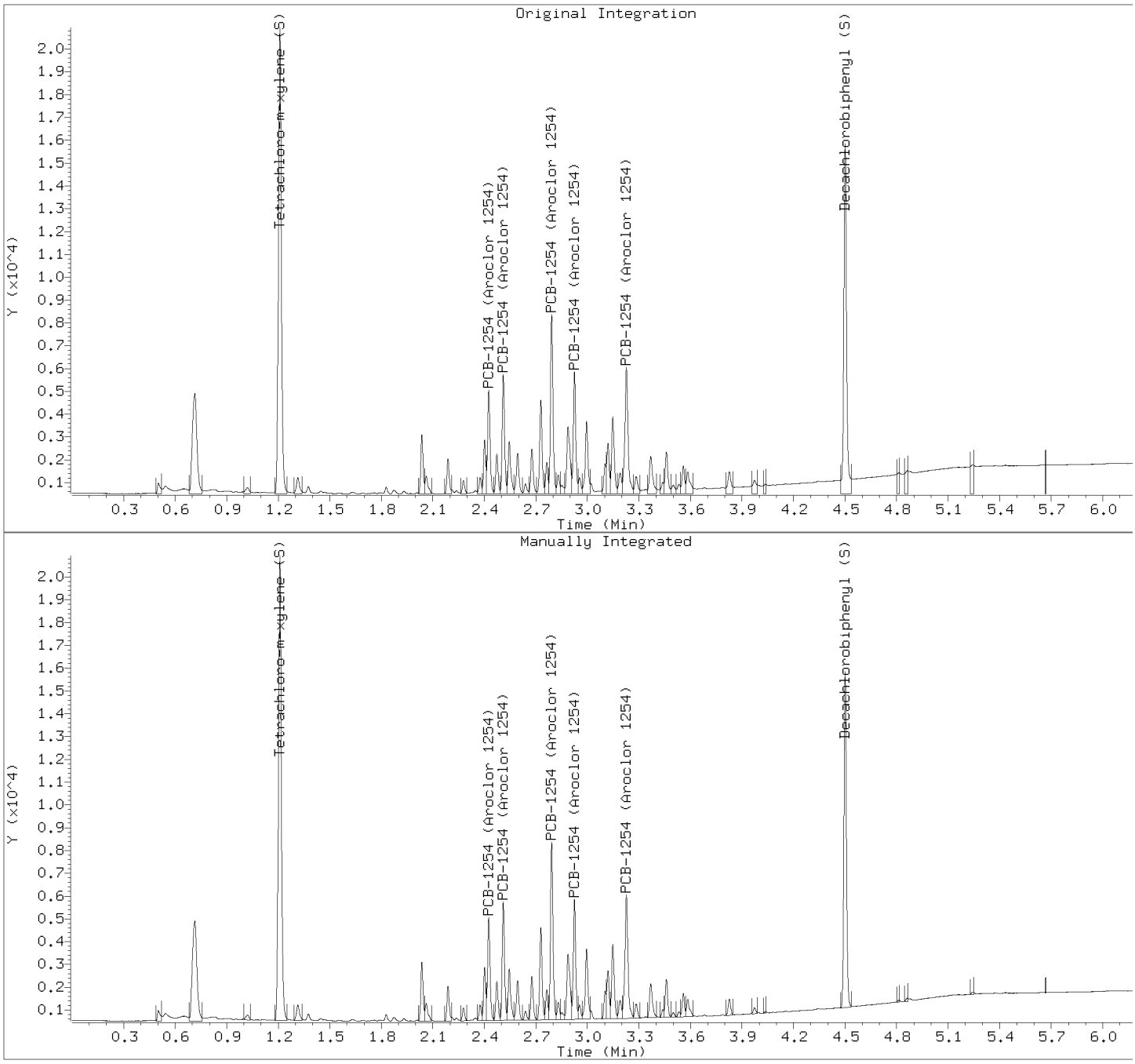
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11097-69-1	PCB-1254 (Aroclor 1254)		
	Peak found at 2.426	0.250	
	Peak found at 2.510	0.250	
	Peak found at 2.792	0.250	
	Peak found at 2.924	0.250	
	Peak found at 3.227	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0475	
2051-24-3	Decachlorobiphenyl (S)	0.0457	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	4578	4533
PCB-1254 (Aroclor 1254)	5002	4937
PCB-1254 (Aroclor 1254)	8012	7864
PCB-1254 (Aroclor 1254)	5215	5068
PCB-1254 (Aroclor 1254)	7278	6804
Tetrachloro-m-xylene (S)	23868	23751
Decachlorobiphenyl (S)	17224	15001

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	1164	1715	1.474	1.697		
0.565	444	358	0.806	0.354		
0.827	7649	4268	0.558	4.225		
1.249	181	204	1.130	0.201		
1.586	22006	20206	0.918	20.034	$ 10 Tetrachloro-m-xylene (S)	
1.759	291	293	1.006	0.290		
2.227	300	303	1.011	0.299		
2.439	2119	2167	1.023	2.145		
2.471	646	636	0.984	0.629		
2.561	1221	1245	1.020	1.232		
2.666	475	470	0.990	0.465		
2.817	3678	3626	0.986	3.589	6 PCB-1254 (Aroclor 1254)	
2.835	1933	2141	1.107	2.119		
2.865	1134	1119	0.986	1.107		
2.922	850	875	1.029	0.866		
2.959	5741	5239	0.913	5.186	6 PCB-1254 (Aroclor 1254)	
2.996	1983	1873	0.945	1.854		
3.051	384	329	0.856	0.325		
3.085	1567	1535	0.980	1.519		
3.139	3176	3105	0.978	3.073		
3.172	1572	1261	0.802	1.248		
3.199	6066	6090	1.004	6.028	6 PCB-1254 (Aroclor 1254)	
3.247	474	551	1.161	0.545		
3.266	1387	1035	0.746	1.024		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.308	2472	2083	0.843	2.062		
3.358	432	406	0.940	0.401		
3.392	4660	4537	0.974	4.491	6 PCB-1254 (Aroclor 1254)	
3.436	559	506	0.906	0.500		
3.479	2580	2455	0.952	2.430		
3.503	1726	1658	0.961	1.641		
3.562	3359	3014	0.897	2.983		
3.599	444	436	0.981	0.431		
3.628	664	535	0.805	0.529		
3.661	4753	4405	0.927	4.360	6 PCB-1254 (Aroclor 1254)	
3.686	1200	1214	1.012	1.201		
3.721	108	167	1.540	0.165		
3.758	86	144	1.673	0.142		
3.844	1446	1362	0.942	1.348		
3.914	1326	1009	0.761	0.998		
3.951	92	144	1.564	0.142		
4.015	861	845	0.981	0.836		
4.042	128	177	1.385	0.175		
4.060	624	581	0.931	0.575		
4.246	497	491	0.988	0.486		
4.437	173	179	1.036	0.177		
4.808	44	58	1.332	0.057		
4.929	5	17	3.184	0.016		
4.959	14086	13364	0.949	13.229	$ 11 Decachlorobiphenyl (S)	
5.069	7	21	3.070	0.020		
5.084	5	19	3.682	0.018		
5.237	4	21	4.839	0.020		
5.299	89	128	1.433	0.126		
5.626	7	32	4.469	0.031		
5.697	29	71	2.442	0.070		
5.701	34	85	2.468	0.084		
5.846	23	70	3.101	0.069		
5.893	65	110	1.682	0.108		
6.033	8	26	3.148	0.025		
	109038	101014		100.000		

Total unknown % height = 43.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.816	2.816	0.000	3678	0.25000	0.250	80.00- 120.00	100.00	(a)
2.958	2.958	0.000	5740	0.25000	0.250	124.85- 187.28	156.08	
3.198	3.198	0.000	6065	0.25000	0.250	131.92- 197.88	164.91	
3.392	3.392	0.000	4659	0.25000	0.250	101.34- 152.01	126.69	
3.660	3.660	0.000	4752	0.25000	0.250	103.36- 155.04	129.22	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22005	0.05000	0.0490			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14085	0.05000	0.0454			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

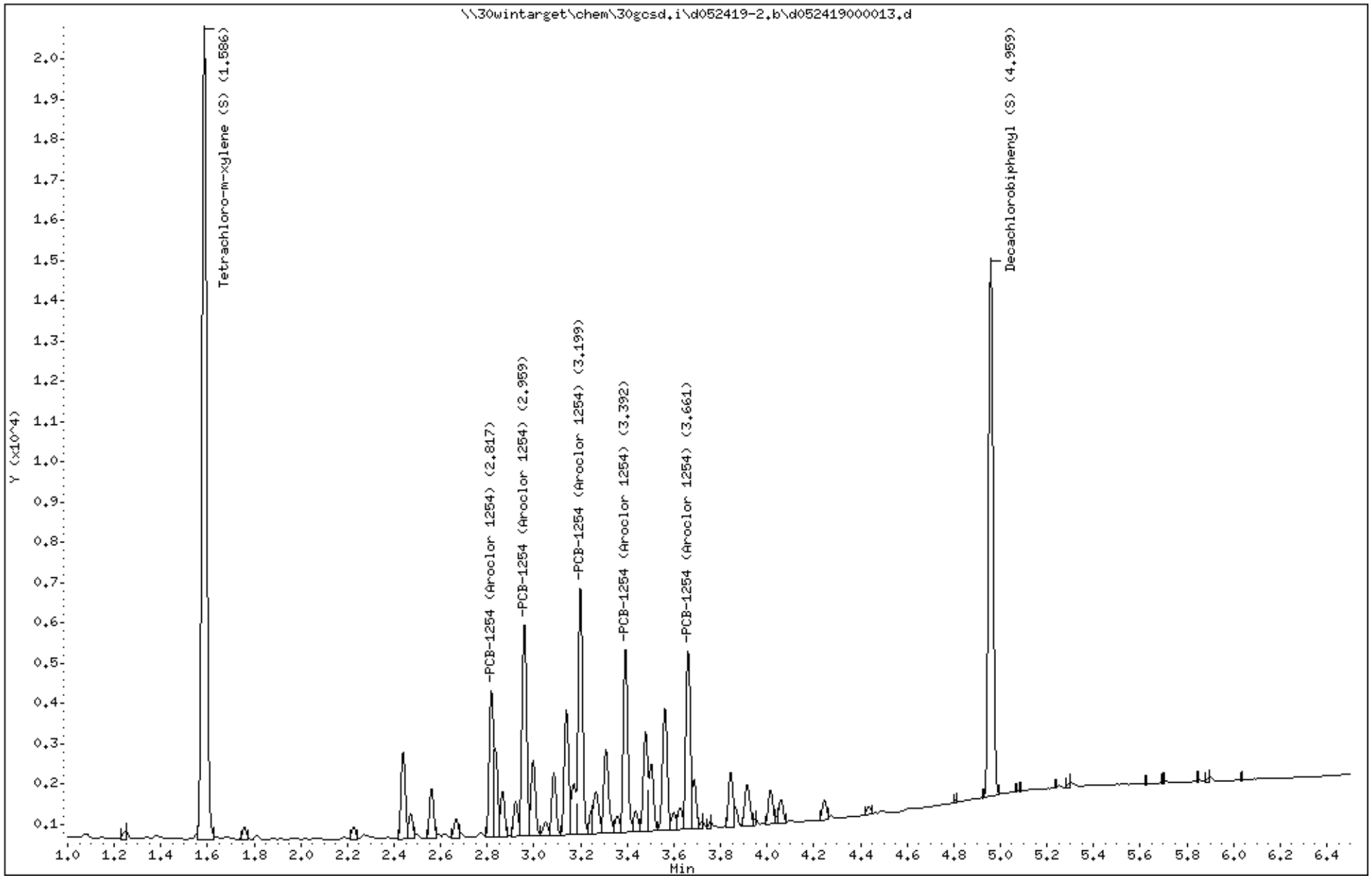
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

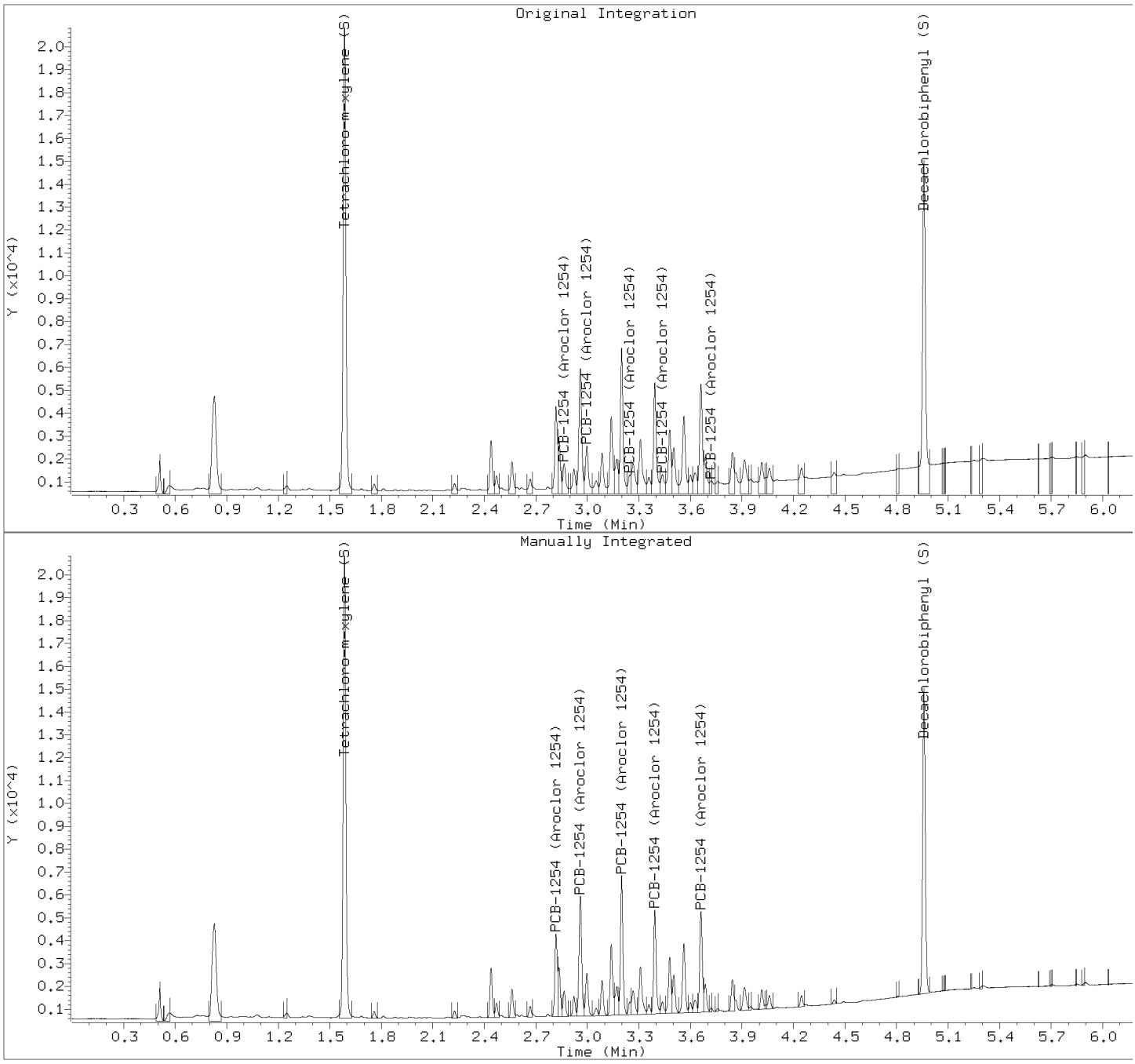
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.250	J
	Peak found at 2.959	0.250	J
	Peak found at 3.199	0.250	J
	Peak found at 3.392	0.250	J
	Peak found at 3.661	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0490	J
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	1571	3678
PCB-1254 (Aroclor 1254)	2610	5740
PCB-1254 (Aroclor 1254)	856	6065
PCB-1254 (Aroclor 1254)	1174	4659
PCB-1254 (Aroclor 1254)	461	4752
Tetrachloro-m-xylene (S)	22568	22005
Decachlorobiphenyl (S)	18623	14085

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	163989	77594	0.473	10.304		
0.837	1101	563	0.511	0.074		
1.212	99045	89696	0.906	11.946	$ 10 Tetrachloro-m-xylene (S)	
1.269	1347	988	0.734	0.131		
1.346	1767	1653	0.935	0.219		
1.377	1210	1227	1.014	0.162		
1.401	1865	1808	0.969	0.240		
1.442	9228	8406	0.911	1.116		
1.561	1227	1227	1.000	0.162		
1.632	18891	14503	0.768	1.926	1 PCB-1016 (Aroclor 1016)	
1.684	1037	1607	1.550	0.213		
1.694	2195	1812	0.826	0.240		
1.746	4850	5957	1.228	0.791		
1.761	7815	7709	0.986	1.023		
1.807	3320	3706	1.116	0.492		
1.823	2515	2601	1.034	0.345		
1.879	39182	30016	0.766	3.986	1 PCB-1016 (Aroclor 1016)	
1.933	15863	14197	0.895	1.885	1 PCB-1016 (Aroclor 1016)	
2.009	9085	10037	1.105	1.332		
2.036	11482	10735	0.935	1.425		
2.063	7459	8446	1.132	1.121		
2.078	8737	8070	0.924	1.071		
2.189	11848	12683	1.071	1.684	1 PCB-1016 (Aroclor 1016)	
2.213	4656	4939	1.061	0.655		
2.239	3692	3980	1.078	0.528		
2.255	1844	2434	1.320	0.323		
2.279	10413	10338	0.993	1.372	1 PCB-1016 (Aroclor 1016)	
2.346	2819	2803	0.994	0.372		
2.376	1617	1713	1.060	0.227		
2.402	2060	2315	1.124	0.307		
2.426	7917	7713	0.974	1.024		
2.473	1070	1132	1.058	0.150		
2.510	6862	7215	1.051	0.958		
2.594	567	441	0.778	0.058		
2.729	1046	1106	1.057	0.146		
2.798	17210	15294	0.889	2.031	7 PCB-1260 (Aroclor 1260)	
2.831	6293	6226	0.989	0.826		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	22006	22517	1.023	2.990	7 PCB-1260 (Aroclor 1260)	
2.924	1021	1052	1.030	0.139		
2.955	3598	3783	1.051	0.502		
2.996	27471	27628	1.006	3.669	7 PCB-1260 (Aroclor 1260)	
3.103	11008	12423	1.129	1.649		
3.122	14586	13517	0.927	1.795		
3.191	8268	6270	0.758	0.832		
3.228	29959	22713	0.758	3.016		
3.255	20426	20197	0.989	2.682		
3.289	11424	11438	1.001	1.519		
3.379	4271	3995	0.935	0.530		
3.440	22050	20396	0.925	2.708		
3.501	11106	11068	0.997	1.469		
3.535	8849	8475	0.958	1.125		
3.559	1841	2288	1.243	0.303		
3.586	48049	48506	1.010	6.441	7 PCB-1260 (Aroclor 1260)	
3.621	992	1027	1.036	0.136		
3.680	1684	1672	0.993	0.222		
3.759	642	695	1.082	0.092		
3.787	9403	9634	1.025	1.279		
3.828	34551	32963	0.954	4.377	7 PCB-1260 (Aroclor 1260)	
3.974	1729	1724	0.997	0.228		
4.037	405	437	1.079	0.058		
4.080	4865	4917	1.011	0.653		
4.154	11552	11199	0.969	1.487		
4.344	3935	3938	1.001	0.522		
4.393	54	96	1.788	0.012		
4.502	65460	65368	0.999	8.681	$ 11 Decachlorobiphenyl (S)	
4.815	145	149	1.026	0.019		
	874471	752975		100.000		

Total unknown % height = 49.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE		RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.632	1.631	0.001	18890	1.00000	0.920	80.00-	120.00	100.00	
1.879	1.878	0.001	39181	1.00000	0.948	162.66-	243.99	207.41	
1.932	1.932	0.000	15863	1.00000	0.952	63.55-	95.32	83.97	
2.189	2.188	0.001	11847	1.00000	0.927	49.13-	73.70	62.72	
2.278	2.277	0.001	10413	1.00000	0.948	42.04-	63.06	55.12	
Average of Peak Amounts =					0.93900				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
2.798	2.797	0.001	17209	1.00000	0.928	80.00-	120.00	100.00	
2.886	2.885	0.001	22006	1.00000	0.928	101.69-	152.53	127.87	
2.995	2.995	0.000	27470	1.00000	0.926	125.91-	188.87	159.62	
3.585	3.584	0.001	48049	1.00000	0.957	212.47-	318.70	279.20	
3.827	3.826	0.001	34551	1.00000	0.953	152.61-	228.91	200.77	
Average of Peak Amounts =					0.93840				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.211	1.210	0.001	99045	0.20000	0.195				
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3			
4.501	4.501	0.000	65459	0.20000	0.195				

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

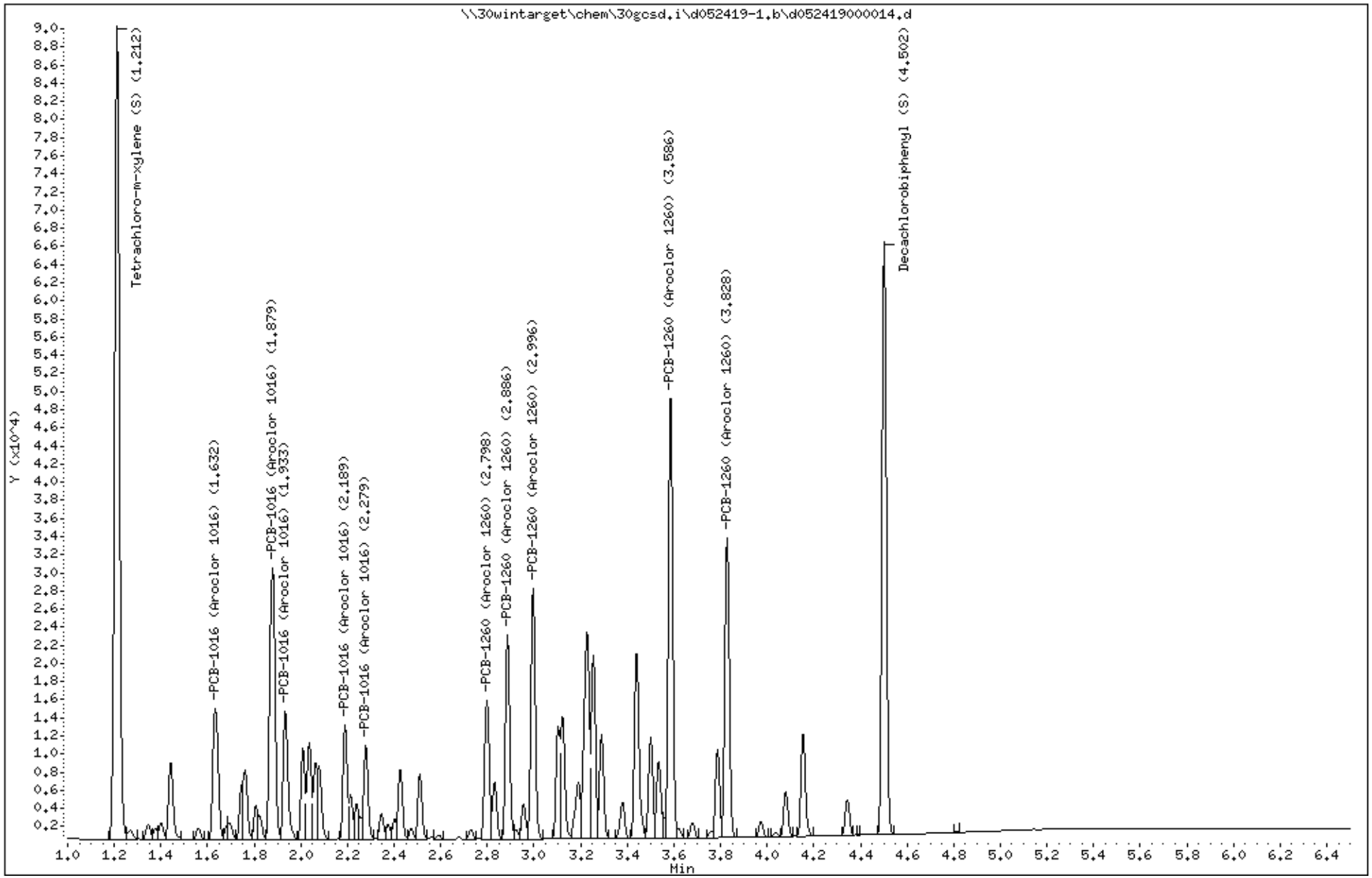
Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

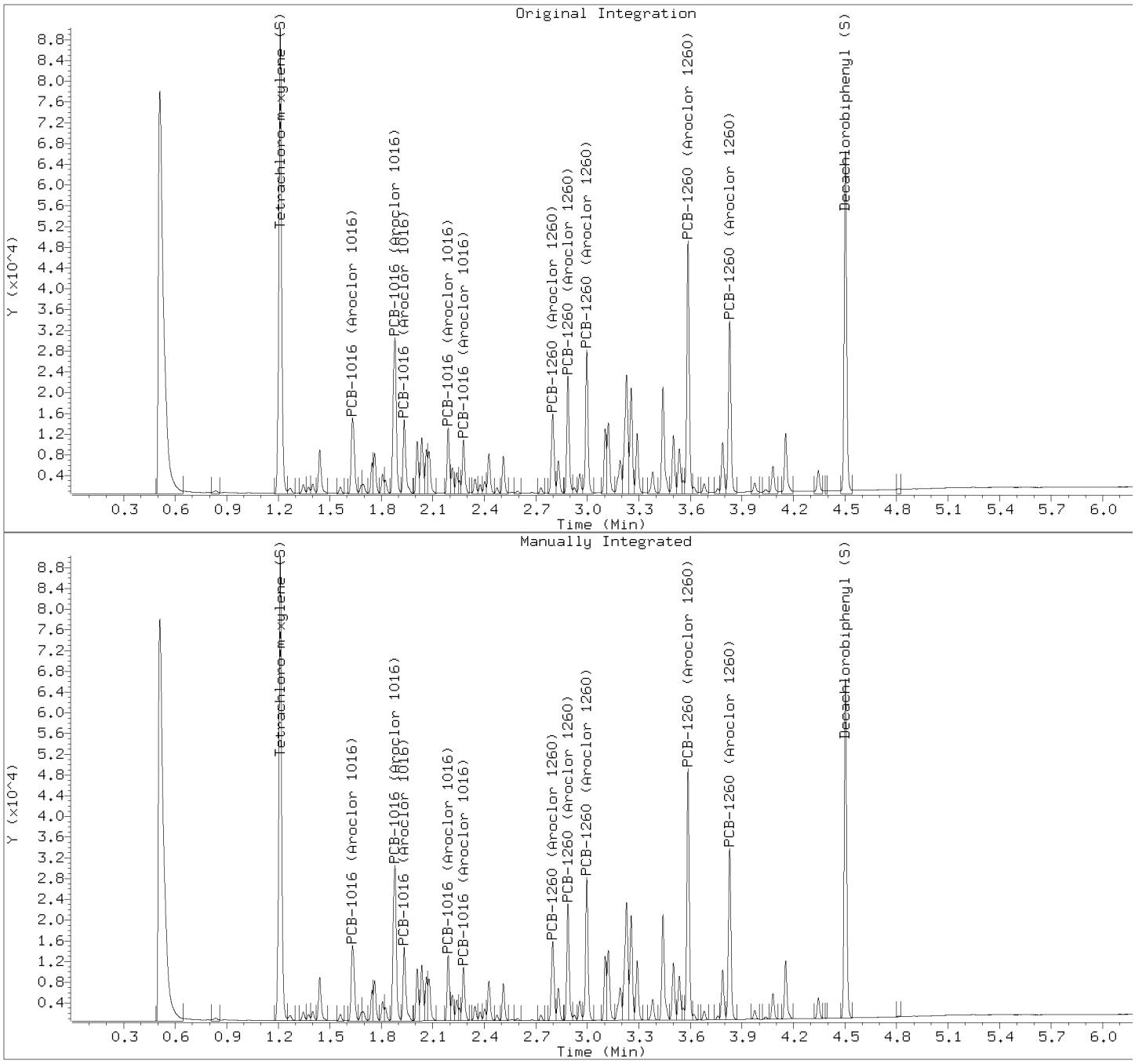
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.920	
	Peak found at 1.879	0.948	
	Peak found at 1.933	0.952	
	Peak found at 2.189	0.927	
	Peak found at 2.279	0.948	
	Average of Peak Amounts =	0.939	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.928	
	Peak found at 2.886	0.928	
	Peak found at 2.996	0.926	
	Peak found at 3.586	0.957	
	Peak found at 3.828	0.953	
	Average of Peak Amounts =	0.938	
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.195	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Sample Info: CAL6A, 87260:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	19009	18890
PCB-1016 (Aroclor 1016)	39317	39181
PCB-1016 (Aroclor 1016)	16020	15863
PCB-1016 (Aroclor 1016)	11911	11847
PCB-1016 (Aroclor 1016)	10527	10413
PCB-1260 (Aroclor 1260)	17378	17209
PCB-1260 (Aroclor 1260)	22259	22006
PCB-1260 (Aroclor 1260)	27877	27470
PCB-1260 (Aroclor 1260)	48628	48049
PCB-1260 (Aroclor 1260)	35616	34551
Tetrachloro-m-xylene (S)	99385	99045
Decachlorobiphenyl (S)	67924	65459

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	149851	90841	0.606	13.260		
0.649	2822	1416	0.502	0.205		
1.084	845	493	0.583	0.071		
1.528	951	877	0.923	0.127		
1.588	88396	86158	0.975	12.534	$ 10 Tetrachloro-m-xylene (S)	
1.668	1009	1195	1.185	0.173		
1.713	1695	1633	0.963	0.237		
1.763	8974	8653	0.964	1.258		
1.844	1111	1097	0.988	0.159		
1.964	10633	11154	1.049	1.622	1 PCB-1016 (Aroclor 1016)	
1.984	6311	6483	1.027	0.943		
2.019	1352	1366	1.011	0.198		
2.042	574	601	1.046	0.087		
2.076	11562	7468	0.646	1.086		
2.165	289	296	1.024	0.043		
2.201	2853	3143	1.102	0.457		
2.222	2279	2183	0.958	0.317		
2.269	14717	16943	1.151	2.464		
2.287	21107	21659	1.026	3.150	1 PCB-1016 (Aroclor 1016)	
2.306	13407	13101	0.977	1.905		
2.375	10544	9846	0.934	1.432	1 PCB-1016 (Aroclor 1016)	
2.404	988	1017	1.029	0.147		
2.439	7970	8304	1.042	1.208		
2.471	9299	9543	1.026	1.388	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	3713	3349	0.902	0.487		
2.561	9353	9634	1.030	1.401	1 PCB-1016 (Aroclor 1016)	
2.590	5197	4643	0.893	0.675		
2.617	3280	3350	1.021	0.487		
2.639	2522	2607	1.034	0.379		
2.667	10392	6925	0.666	1.007		
2.744	294	290	0.986	0.042		
2.818	8781	6460	0.736	0.939		
2.865	1455	1444	0.992	0.210		
2.922	658	673	1.023	0.097		
2.960	6563	6266	0.955	0.911		
3.139	761	891	1.171	0.129		
3.161	3301	3188	0.966	0.463		
3.199	2799	2830	1.011	0.411		
3.247	12512	9901	0.791	1.440		
3.277	2380	2630	1.105	0.382		
3.310	19229	19103	0.993	2.779	7 PCB-1260 (Aroclor 1260)	
3.391	1904	1768	0.928	0.257		
3.437	3126	3060	0.979	0.445		
3.479	23036	23099	1.003	3.360	7 PCB-1260 (Aroclor 1260)	
3.503	6549	6557	1.001	0.953		
3.557	15922	10892	0.684	1.584		
3.587	2209	2167	0.981	0.315		
3.631	2322	2097	0.903	0.305		
3.663	29125	22702	0.779	3.302	7 PCB-1260 (Aroclor 1260)	
3.722	17668	16726	0.947	2.433		
3.758	9485	9200	0.970	1.338		
3.840	3823	4234	1.107	0.615		
3.863	18296	17394	0.951	2.530		
3.897	990	1080	1.091	0.157		
3.923	8757	8535	0.975	1.241		
3.952	5402	4964	0.919	0.722		
3.981	455	478	1.051	0.069		
4.015	4872	4533	0.930	0.659		
4.061	41958	40037	0.954	5.824	7 PCB-1260 (Aroclor 1260)	
4.102	2242	2140	0.954	0.311		
4.248	25092	22192	0.884	3.228	7 PCB-1260 (Aroclor 1260)	
4.274	3303	4163	1.260	0.605		
4.296	11338	9552	0.842	1.389		
4.437	1030	983	0.954	0.143		
4.462	576	567	0.985	0.082		
4.497	4722	4354	0.922	0.633		
4.618	9821	9357	0.953	1.361		
4.660	566	524	0.926	0.076		
4.809	3678	3463	0.941	0.503		
4.909	16	48	3.015	0.006		
4.961	62081	60118	0.968	8.745	$ 11 Decachlorobiphenyl (S)	
5.251	127	144	1.132	0.020		
5.415	18	65	3.569	0.009		
5.494	26	52	1.990	0.007		
5.693	12	42	3.443	0.006		
5.700	14	47	3.431	0.006		
5.727	18	45	2.481	0.006		
5.943	5	22	4.135	0.003		
5.997	12	34	2.921	0.004		
6.051	9	26	2.975	0.003		
6.096	8	34	4.342	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.239	11	43	3.843	0.006		
6.257	9	38	4.199	0.005		
6.299	8	39	4.987	0.005		
6.319	7	33	4.694	0.004		
6.347	5	27	5.019	0.003		
6.351	6	31	4.829	0.004		
6.376	7	28	4.223	0.004		
	783395	687388		100.000		

Total unknown % height = 51.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.964	1.963	0.001	10632	1.00000	0.933	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	21107	1.00000	0.968	152.31- 228.47	198.51	
2.374	2.374	0.000	10544	1.00000	0.972	75.27- 112.91	99.17	
2.471	2.470	0.001	9299	1.00000	0.932	68.58- 102.86	87.46	
2.561	2.560	0.001	9352	1.00000	0.944	68.26- 102.40	87.96	
Average of Peak Amounts =					0.94980			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	19228	1.00000	0.946	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	23036	1.00000	0.946	88.62- 132.94	119.80	
3.663	3.662	0.001	29124	1.00000	0.994	120.10- 180.15	151.46	
4.060	4.060	0.000	41957	1.00000	0.975	171.60- 257.41	218.20	
4.248	4.247	0.001	25092	1.00000	0.970	103.64- 155.46	130.49	
Average of Peak Amounts =					0.96620			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.587	1.586	0.001	88395	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.961	4.960	0.001	62080	0.20000	0.196			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

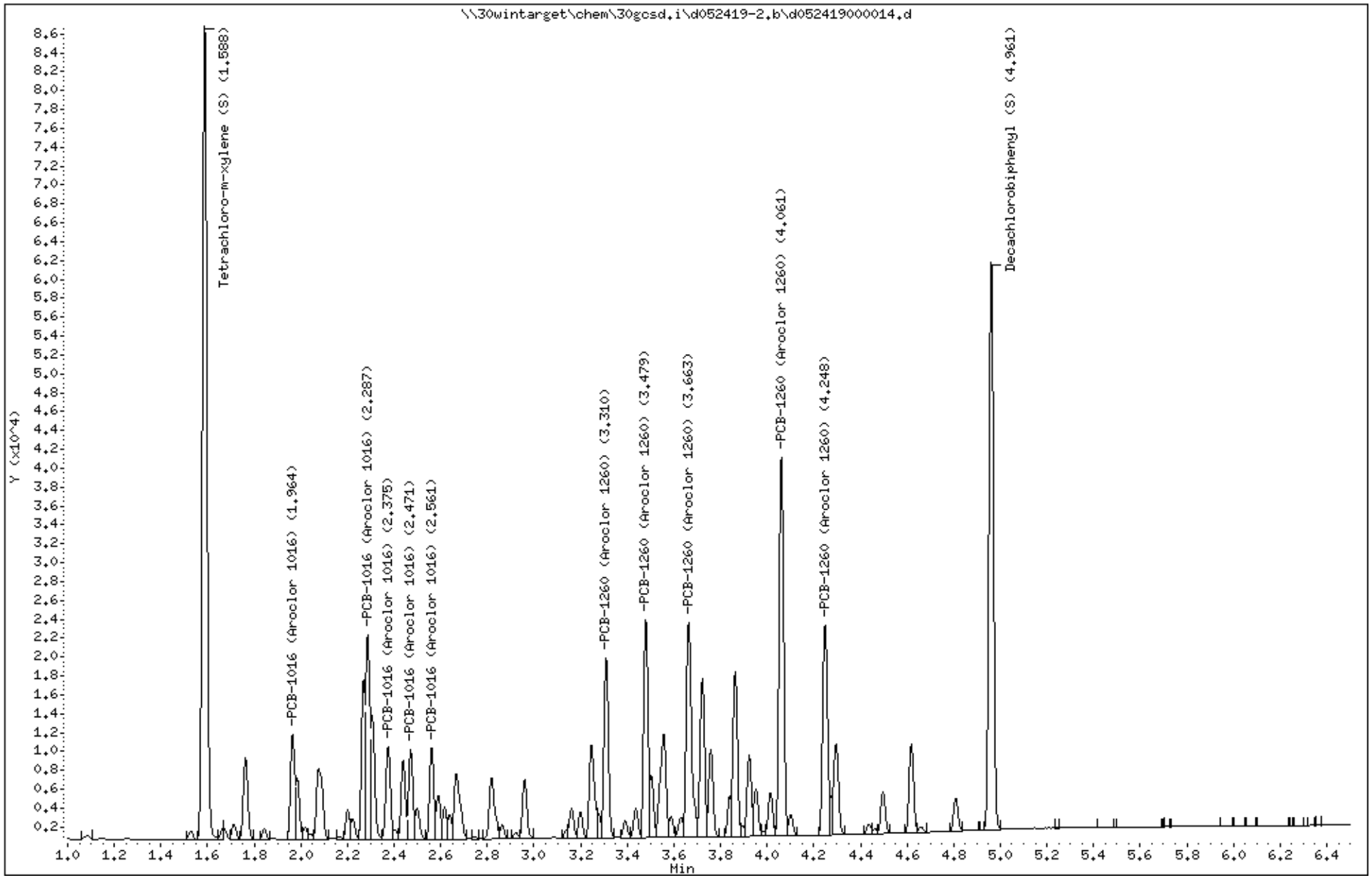
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

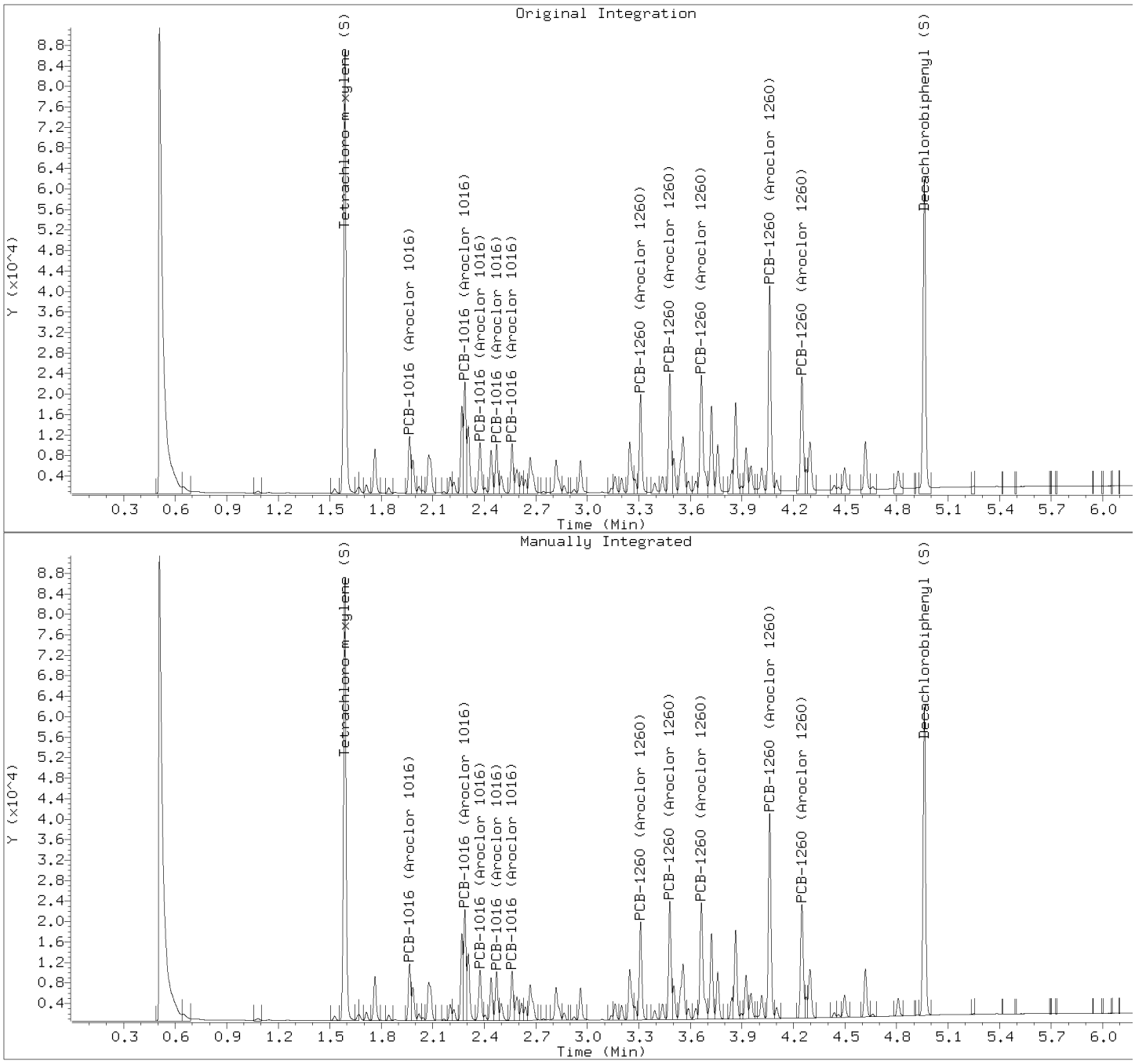
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.933	J
	Peak found at 2.287	0.968	J
	Peak found at 2.375	0.972	J
	Peak found at 2.471	0.932	J
	Peak found at 2.561	0.944	J
	Average of Peak Amounts =	0.950	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.310	0.946	J
	Peak found at 3.479	0.946	J
	Peak found at 3.663	0.994	J
	Peak found at 4.061	0.975	J
	Peak found at 4.248	0.970	J
	Average of Peak Amounts =	0.966	J
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.196	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Instrument: 30gcsd.i
Sample Info: CAL6A, 87260:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10758	10632
PCB-1016 (Aroclor 1016)	21025	21107
PCB-1016 (Aroclor 1016)	10868	10544
PCB-1016 (Aroclor 1016)	9511	9299
PCB-1016 (Aroclor 1016)	9646	9352
PCB-1260 (Aroclor 1260)	20026	19228
PCB-1260 (Aroclor 1260)	23650	23036
PCB-1260 (Aroclor 1260)	30352	29124
PCB-1260 (Aroclor 1260)	43504	41957
PCB-1260 (Aroclor 1260)	26725	25092
Tetrachloro-m-xylene (S)	88860	88395
Decachlorobiphenyl (S)	66819	62080

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	124890	55990	0.448	9.951		
0.838	796	485	0.609	0.086		
1.212	73352	67144	0.915	11.964	$ 10 Tetrachloro-m-xylene (S)	
1.269	1008	753	0.747	0.133		
1.346	1348	1284	0.953	0.228		
1.377	906	925	1.021	0.164		
1.401	1395	1373	0.985	0.244		
1.442	6790	6443	0.949	1.145		
1.561	909	927	1.019	0.164		
1.632	14239	11025	0.774	1.959	1 PCB-1016 (Aroclor 1016)	
1.685	808	1197	1.481	0.212		
1.694	1579	1358	0.860	0.241		
1.746	3638	4512	1.240	0.801		
1.761	5885	5863	0.996	1.042		
1.807	2448	2780	1.135	0.494		
1.823	1734	1879	1.084	0.333		
1.879	29319	22726	0.775	4.039	1 PCB-1016 (Aroclor 1016)	
1.933	11880	10655	0.897	1.893	1 PCB-1016 (Aroclor 1016)	
2.009	6798	7627	1.122	1.355		
2.036	8633	8100	0.938	1.439		
2.063	5698	6339	1.113	1.126		
2.078	6418	6130	0.955	1.089		
2.189	8874	9626	1.085	1.710	1 PCB-1016 (Aroclor 1016)	
2.213	3467	3773	1.088	0.670		
2.239	2728	2983	1.094	0.530		
2.255	1398	1825	1.306	0.324		
2.278	7765	7667	0.987	1.362	1 PCB-1016 (Aroclor 1016)	
2.345	2070	2047	0.989	0.363		
2.375	1181	1268	1.074	0.225		
2.402	1534	1748	1.140	0.310		
2.426	5909	5854	0.991	1.040		
2.473	778	842	1.082	0.149		
2.510	5144	5457	1.061	0.969		
2.594	401	322	0.803	0.057		
2.729	765	819	1.070	0.145		
2.798	12950	11669	0.901	2.073	7 PCB-1260 (Aroclor 1260)	
2.831	4691	4729	1.008	0.840		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	16494	17146	1.040	3.047	7 PCB-1260 (Aroclor 1260)	
2.924	741	772	1.042	0.137		
2.955	2687	2808	1.045	0.499		
2.995	20673	20619	0.997	3.664	7 PCB-1260 (Aroclor 1260)	
3.103	8216	9306	1.133	1.653		
3.121	11043	10096	0.914	1.794		
3.190	6092	4532	0.744	0.805		
3.227	22720	17189	0.757	3.054		
3.254	15319	15148	0.989	2.692		
3.289	8586	8517	0.992	1.513		
3.379	3180	3014	0.948	0.535		
3.439	16194	14815	0.915	2.633		
3.500	8372	8286	0.990	1.472		
3.533	6682	6393	0.957	1.136		
3.557	1394	1717	1.231	0.305		
3.585	35876	35949	1.002	6.389	7 PCB-1260 (Aroclor 1260)	
3.619	748	773	1.033	0.137		
3.678	1251	1255	1.003	0.223		
3.757	493	532	1.078	0.094		
3.786	7116	7261	1.020	1.290		
3.827	25993	24671	0.949	4.384	7 PCB-1260 (Aroclor 1260)	
3.973	1367	1321	0.966	0.234		
4.036	369	363	0.984	0.064		
4.078	3714	3754	1.011	0.667		
4.153	8615	8183	0.950	1.454		
4.343	2947	2931	0.994	0.520		
4.501	48876	49059	1.004	8.719	$ 11 Decachlorobiphenyl (S)	
4.814	72	101	1.409	0.017		
	655956	562655		100.000		

Total unknown % height = 48.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	14238	0.75000	0.693	80.00- 120.00	100.00	
1.879	1.878	0.001	29319	0.75000	0.709	162.66- 243.99	205.91	
1.933	1.932	0.001	11880	0.75000	0.713	63.55- 95.32	83.44	
2.189	2.188	0.001	8874	0.75000	0.695	49.13- 73.70	62.32	
2.278	2.277	0.001	7764	0.75000	0.707	42.04- 63.06	54.53	
Average of Peak Amounts =					0.70340			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	12949	0.75000	0.698	80.00- 120.00	100.00	
2.886	2.885	0.001	16493	0.75000	0.695	101.69- 152.53	127.37	
2.995	2.995	0.000	20672	0.75000	0.696	125.91- 188.87	159.64	
3.584	3.584	0.000	35875	0.75000	0.714	212.47- 318.70	277.04	
3.826	3.826	0.000	25992	0.75000	0.717	152.61- 228.91	200.72	
Average of Peak Amounts =					0.70400			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.212	1.210	0.002	73352	0.15000	0.144			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	48876	0.15000	0.146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

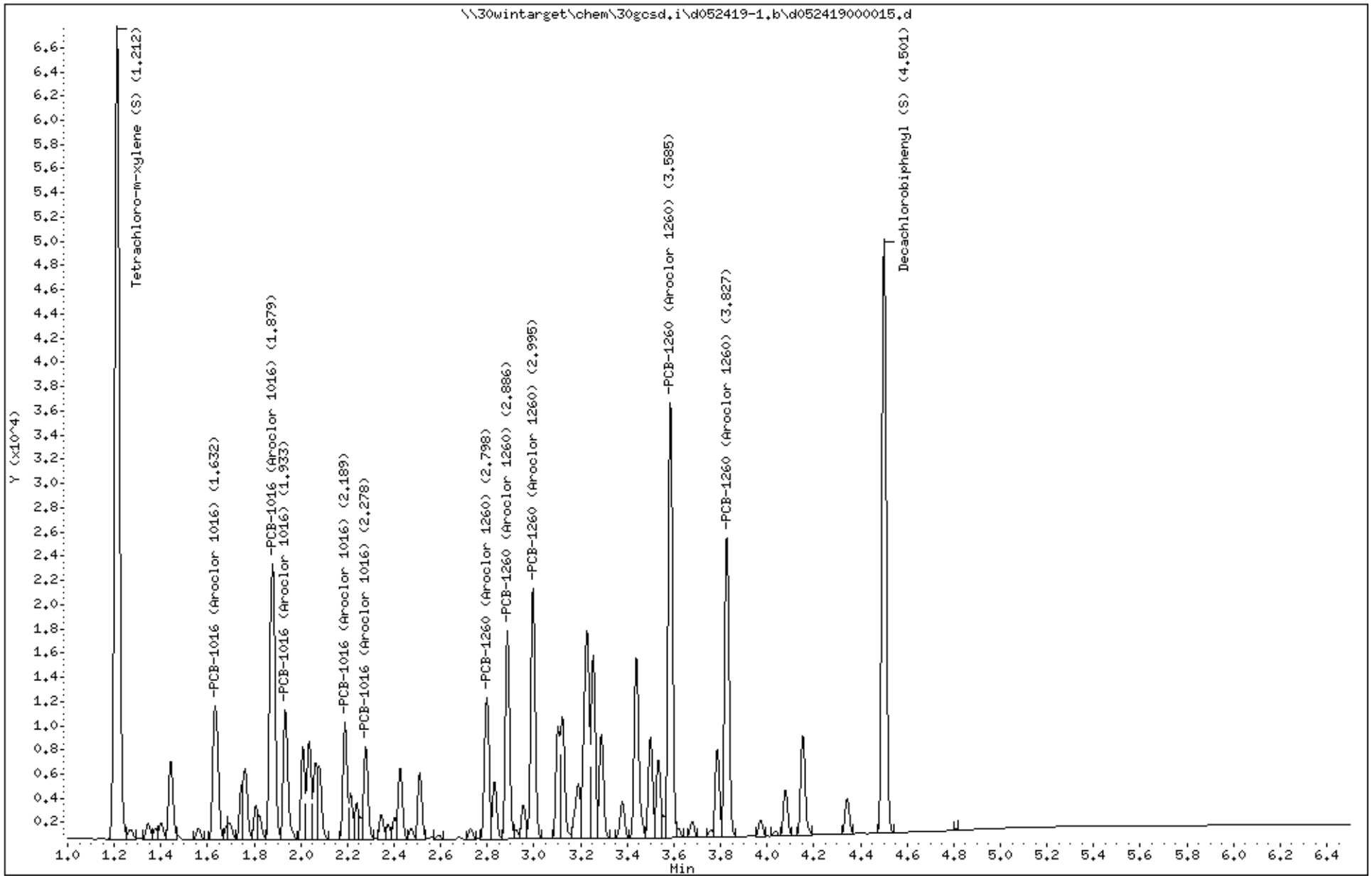
Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

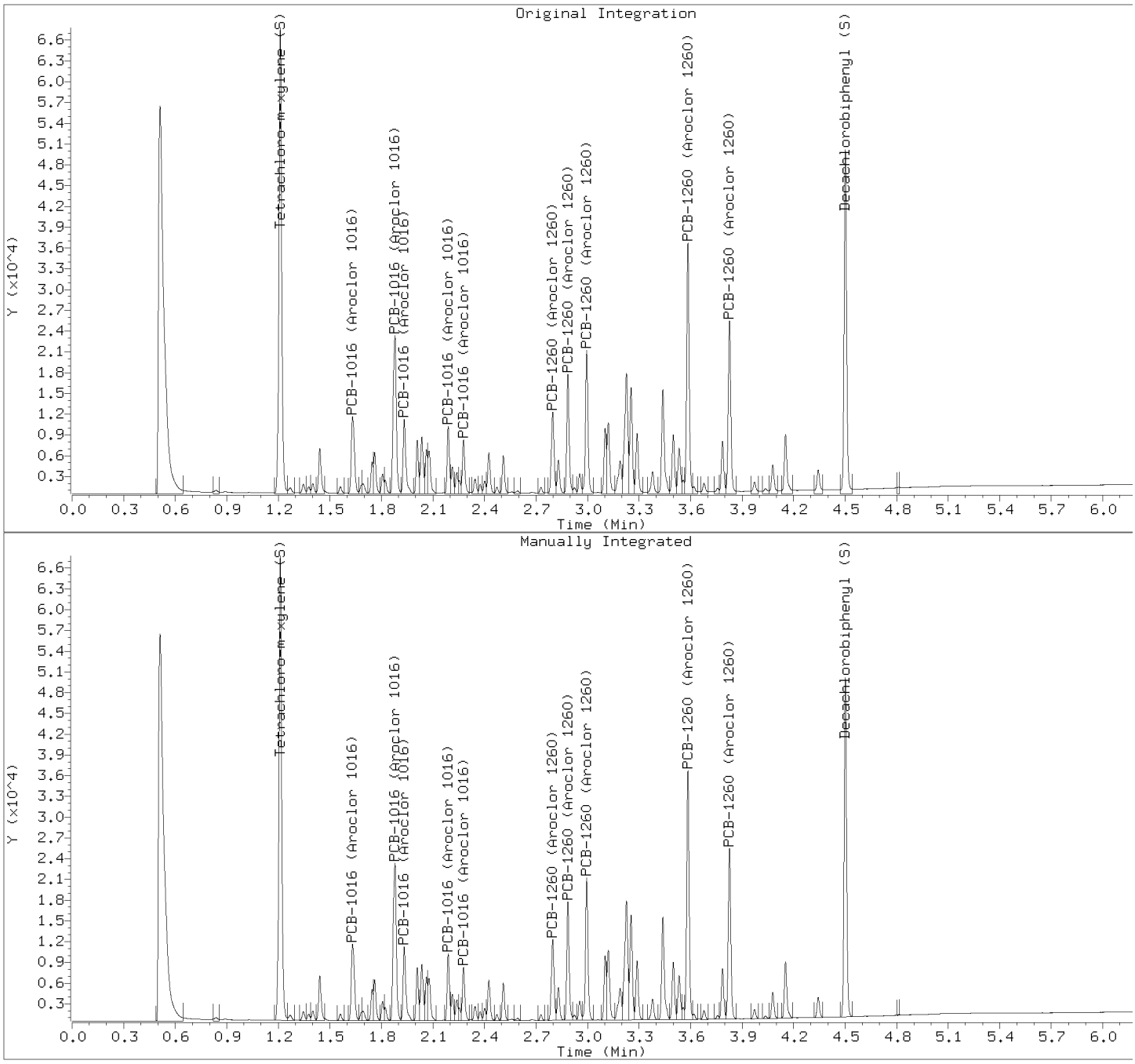
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.693	
	Peak found at 1.879	0.709	
	Peak found at 1.933	0.713	
	Peak found at 2.189	0.695	
	Peak found at 2.278	0.707	
	Average of Peak Amounts =	0.703	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.698	
	Peak found at 2.886	0.695	
	Peak found at 2.995	0.696	
	Peak found at 3.585	0.714	
	Peak found at 3.827	0.717	
	Average of Peak Amounts =	0.704	
877-09-8	Tetrachloro-m-xylene (S)	0.144	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Sample Info: CAL5A, 88856:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	14486	14238
PCB-1016 (Aroclor 1016)	29588	29319
PCB-1016 (Aroclor 1016)	12194	11880
PCB-1016 (Aroclor 1016)	9020	8874
PCB-1016 (Aroclor 1016)	7980	7764
PCB-1260 (Aroclor 1260)	13214	12949
PCB-1260 (Aroclor 1260)	16845	16493
PCB-1260 (Aroclor 1260)	21180	20672
PCB-1260 (Aroclor 1260)	36496	35875
PCB-1260 (Aroclor 1260)	27021	25992
Tetrachloro-m-xylene (S)	73821	73352
Decachlorobiphenyl (S)	51341	48876

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	114218	65304	0.572	12.804		
0.650	2510	1202	0.479	0.234		
1.084	734	427	0.582	0.083		
1.529	722	666	0.923	0.130		
1.588	65739	65002	0.989	12.702	$ 10 Tetrachloro-m-xylene (S)	
1.669	1346	896	0.666	0.175		
1.714	1284	1252	0.975	0.244		
1.763	6745	6578	0.975	1.285		
1.844	825	826	1.002	0.161		
1.965	7957	8509	1.069	1.662	1 PCB-1016 (Aroclor 1016)	
1.985	4783	4913	1.027	0.960		
2.019	1003	1022	1.019	0.199		
2.043	410	440	1.074	0.085		
2.076	8639	5590	0.647	1.092		
2.165	201	220	1.096	0.042		
2.201	2146	2347	1.094	0.458		
2.222	1467	1522	1.037	0.297		
2.269	11031	12633	1.145	2.468		
2.287	15752	16204	1.029	3.166	1 PCB-1016 (Aroclor 1016)	
2.307	10098	9870	0.977	1.928		
2.375	7882	7417	0.941	1.449	1 PCB-1016 (Aroclor 1016)	
2.405	725	756	1.042	0.147		
2.439	5999	6244	1.041	1.220		
2.471	6994	7201	1.030	1.407	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	2726	2507	0.920	0.489		
2.561	7035	7267	1.033	1.420	1 PCB-1016 (Aroclor 1016)	
2.590	3865	3499	0.905	0.683		
2.617	2433	2488	1.023	0.486		
2.639	1890	1980	1.048	0.386		
2.667	7766	5195	0.669	1.015		
2.744	221	216	0.975	0.042		
2.818	6590	4928	0.748	0.962		
2.864	1089	1092	1.003	0.213		
2.922	491	512	1.042	0.100		
2.960	4910	4738	0.965	0.925		
3.139	582	668	1.147	0.130		
3.161	2472	2429	0.983	0.474		
3.199	2122	2122	1.000	0.414		
3.246	9390	7380	0.786	1.442		
3.277	1796	2016	1.122	0.393		
3.309	14466	14176	0.980	2.770	7 PCB-1260 (Aroclor 1260)	
3.392	1423	1327	0.933	0.259		
3.437	2372	2292	0.966	0.447		
3.479	17384	17210	0.990	3.362	7 PCB-1260 (Aroclor 1260)	
3.503	5133	5091	0.992	0.994		
3.556	11923	8241	0.691	1.610		
3.587	1680	1585	0.944	0.309		
3.631	1744	1608	0.922	0.314		
3.663	21775	16839	0.773	3.290	7 PCB-1260 (Aroclor 1260)	
3.722	13250	12501	0.943	2.442		
3.758	7099	6979	0.983	1.363		
3.840	2853	3139	1.100	0.613		
3.863	13744	13045	0.949	2.549		
3.897	729	793	1.088	0.154		
3.923	6570	6448	0.981	1.260		
3.952	4024	3768	0.936	0.736		
3.981	340	352	1.035	0.068		
4.014	3635	3408	0.938	0.665		
4.060	31357	29815	0.951	5.826	7 PCB-1260 (Aroclor 1260)	
4.101	1677	1565	0.933	0.305		
4.248	18743	17066	0.911	3.334	7 PCB-1260 (Aroclor 1260)	
4.274	2410	3136	1.301	0.612		
4.295	8545	7010	0.820	1.369		
4.437	746	718	0.962	0.140		
4.462	409	411	1.005	0.080		
4.496	3524	3244	0.921	0.633		
4.618	7393	7044	0.953	1.376		
4.661	434	402	0.927	0.078		
4.808	2780	2613	0.940	0.510		
4.908	19	45	2.330	0.008		
4.960	46297	43353	0.936	8.471	$ 11 Decachlorobiphenyl (S)	
5.109	10	33	3.337	0.006		
5.245	49	106	2.153	0.020		
5.296	25	65	2.644	0.012		
5.378	25	80	3.172	0.015		
5.503	19	46	2.429	0.008		
5.607	13	34	2.652	0.006		
5.627	8	31	3.744	0.006		
5.978	2	10	5.208	0.001		
6.195	9	23	2.447	0.004		
6.347	6	16	2.544	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	589229	511746		100.000		

Total unknown % height = 51.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.964	1.963	0.001	7957	0.75000	0.698	80.00- 120.00	100.00(a)	
2.287	2.286	0.001	15751	0.75000	0.722	152.31- 228.47	197.96	
2.375	2.374	0.001	7881	0.75000	0.726	75.27- 112.91	99.05	
2.471	2.470	0.001	6994	0.75000	0.701	68.58- 102.86	87.90	
2.561	2.560	0.001	7035	0.75000	0.710	68.26- 102.40	88.41	
Average of Peak Amounts =					0.71140			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	14466	0.75000	0.712	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	17383	0.75000	0.714	88.62- 132.94	120.17	
3.663	3.662	0.001	21774	0.75000	0.743	120.10- 180.15	150.52	
4.060	4.060	0.000	31356	0.75000	0.729	171.60- 257.41	216.76	
4.248	4.247	0.001	18743	0.75000	0.724	103.64- 155.46	129.56	
Average of Peak Amounts =					0.72440			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.587	1.586	0.001	65739	0.15000	0.145			
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	46296	0.15000	0.146			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

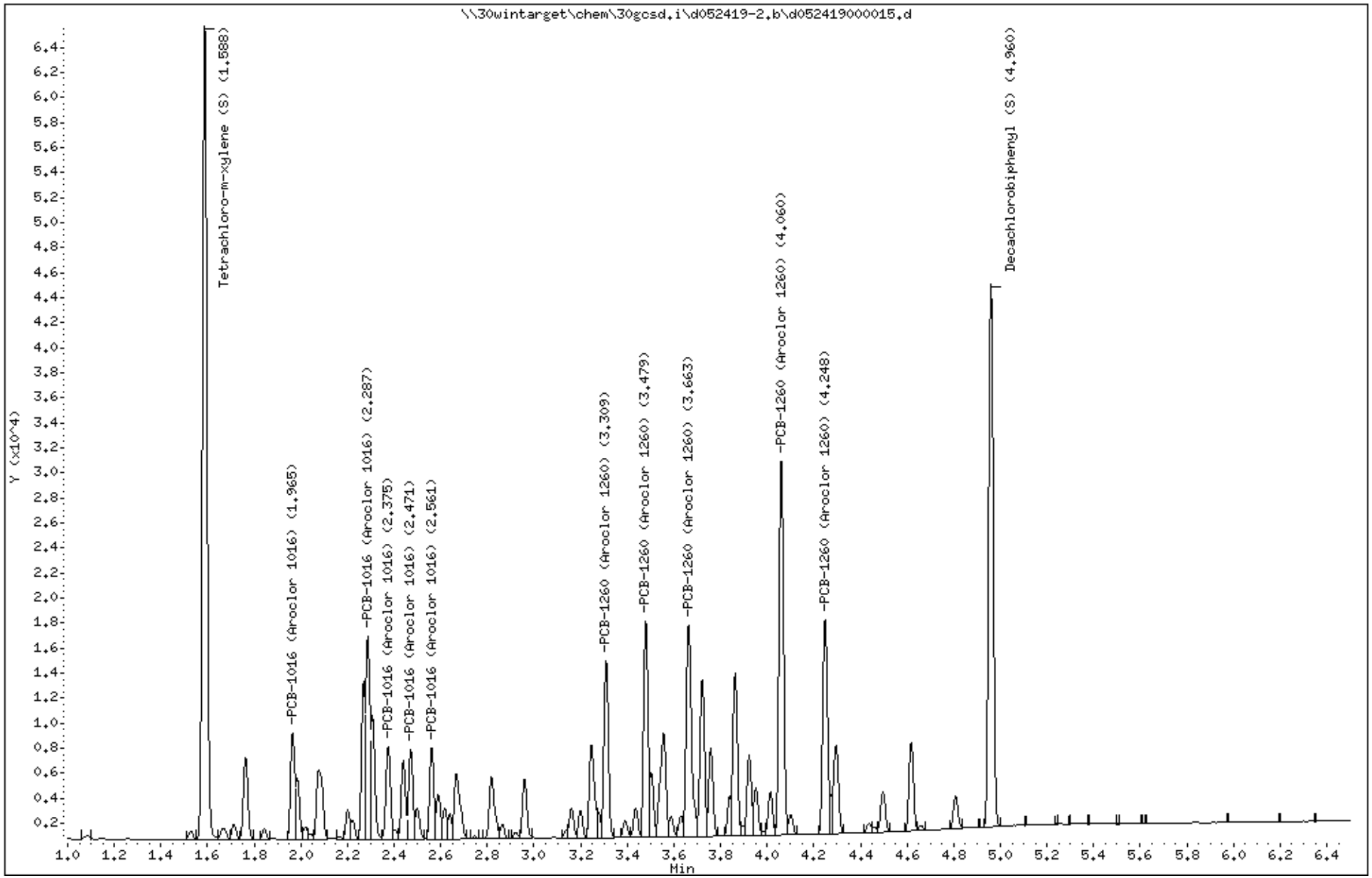
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

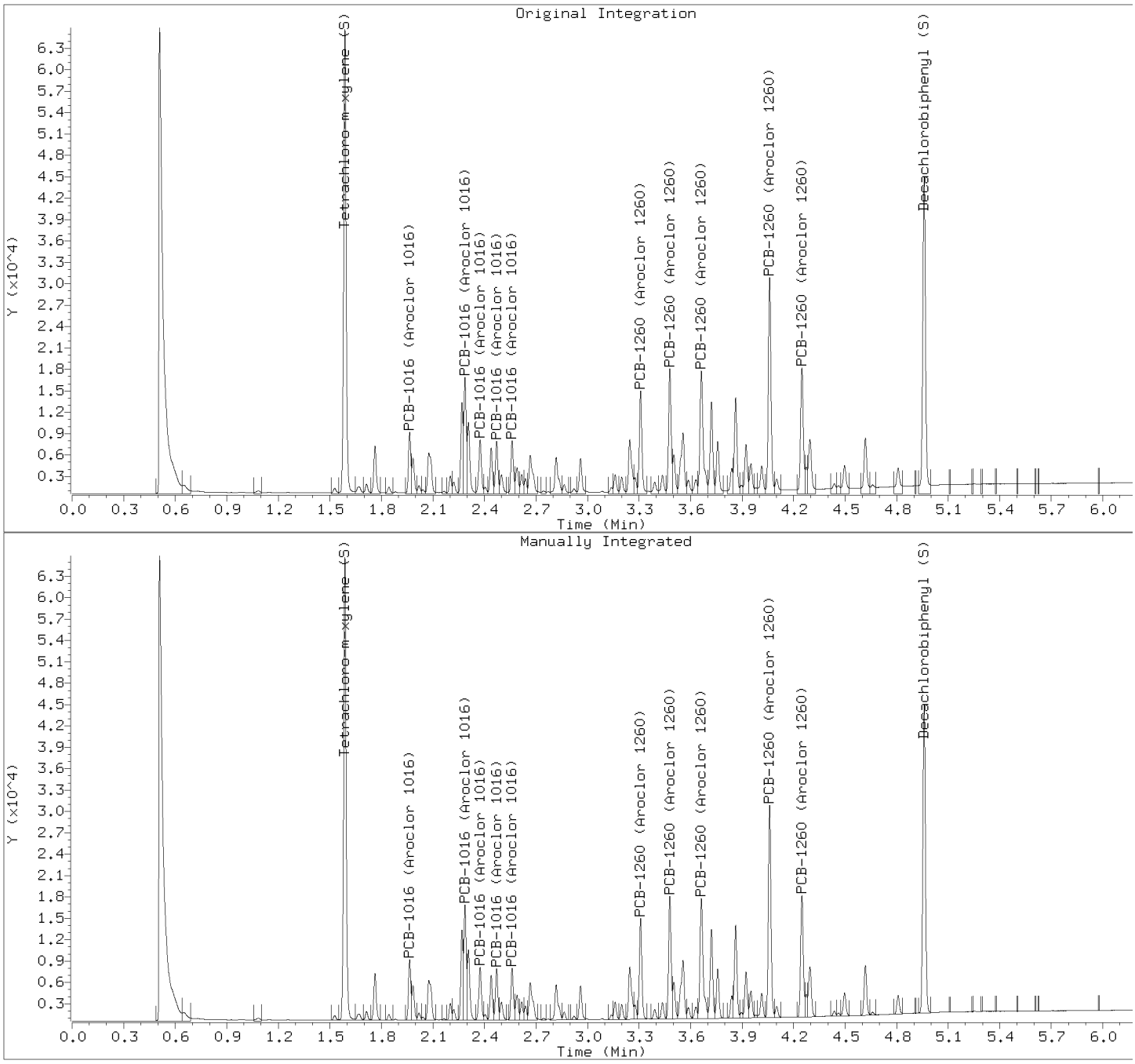
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.698	J
	Peak found at 2.287	0.722	J
	Peak found at 2.375	0.726	J
	Peak found at 2.471	0.701	J
	Peak found at 2.561	0.710	J
	Average of Peak Amounts =	0.711	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.712	J
	Peak found at 3.479	0.714	J
	Peak found at 3.663	0.743	J
	Peak found at 4.060	0.729	J
	Peak found at 4.248	0.724	J
	Average of Peak Amounts =	0.724	J
877-09-8	Tetrachloro-m-xylene (S)	0.145	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Instrument: 30gcsd.i
Sample Info: CAL5A, 88856:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8169	7957
PCB-1016 (Aroclor 1016)	15765	15751
PCB-1016 (Aroclor 1016)	8282	7881
PCB-1016 (Aroclor 1016)	7261	6994
PCB-1016 (Aroclor 1016)	7379	7035
PCB-1260 (Aroclor 1260)	15309	14466
PCB-1260 (Aroclor 1260)	18034	17383
PCB-1260 (Aroclor 1260)	23023	21774
PCB-1260 (Aroclor 1260)	32901	31356
PCB-1260 (Aroclor 1260)	20253	18743
Tetrachloro-m-xylene (S)	66379	65739
Decachlorobiphenyl (S)	51016	46296

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	75763	32966	0.435	8.921		
1.211	48455	42969	0.887	11.660	$ 10 Tetrachloro-m-xylene (S)	
1.269	678	504	0.743	0.136		
1.345	919	844	0.918	0.228		
1.376	592	603	1.019	0.163		
1.401	946	909	0.961	0.245		
1.441	4578	4287	0.936	1.160		
1.561	614	622	1.013	0.168		
1.632	9596	7333	0.764	1.984	1 PCB-1016 (Aroclor 1016)	
1.684	568	803	1.413	0.217		
1.694	1038	901	0.868	0.243		
1.746	2449	2986	1.219	0.808		
1.761	3945	3925	0.995	1.062		
1.807	1682	1855	1.103	0.502		
1.823	1125	1251	1.112	0.338		
1.879	19614	14933	0.761	4.041	1 PCB-1016 (Aroclor 1016)	
1.932	7993	7153	0.895	1.935	1 PCB-1016 (Aroclor 1016)	
2.009	4529	5069	1.119	1.371		
2.036	5856	5416	0.925	1.465		
2.062	3801	4273	1.124	1.156		
2.077	4393	4112	0.936	1.112		
2.189	5974	6480	1.085	1.753	1 PCB-1016 (Aroclor 1016)	
2.213	2358	2493	1.057	0.674		
2.239	1842	2020	1.097	0.546		
2.254	950	1235	1.301	0.334		
2.278	5231	5196	0.993	1.406	1 PCB-1016 (Aroclor 1016)	
2.345	1418	1428	1.007	0.386		
2.375	798	845	1.059	0.228		
2.401	1035	1181	1.141	0.319		
2.425	3994	3930	0.984	1.063		
2.473	532	576	1.084	0.155		
2.510	3489	3694	1.059	0.999		
2.729	509	560	1.099	0.151		
2.798	8727	7755	0.889	2.098	7 PCB-1260 (Aroclor 1260)	
2.830	3164	3173	1.003	0.858		
2.885	11129	11445	1.028	3.097	7 PCB-1260 (Aroclor 1260)	
2.924	512	521	1.017	0.140		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	1826	1922	1.053	0.520		
2.995	13948	14016	1.005	3.793	7 PCB-1260 (Aroclor 1260)	
3.103	5448	6210	1.140	1.680		
3.121	7441	6879	0.925	1.861		
3.190	4254	3180	0.748	0.860		
3.227	15419	11631	0.754	3.147		
3.254	10354	10307	0.995	2.789		
3.289	5787	5754	0.994	1.557		
3.378	2163	2010	0.929	0.543		
3.439	11320	10452	0.923	2.828		
3.500	5662	5563	0.983	1.505		
3.533	4498	4323	0.961	1.169		
3.557	913	1145	1.254	0.309		
3.584	23907	24026	1.005	6.501	7 PCB-1260 (Aroclor 1260)	
3.620	494	517	1.046	0.139		
3.679	839	850	1.013	0.230		
3.758	325	359	1.103	0.097		
3.786	4778	4853	1.016	1.313		
3.827	17316	16137	0.932	4.367	7 PCB-1260 (Aroclor 1260)	
3.973	937	900	0.960	0.243		
4.037	269	251	0.934	0.067		
4.078	2492	2459	0.987	0.665		
4.153	5882	5594	0.951	1.513		
4.343	1967	1945	0.989	0.526		
4.501	32103	31909	0.994	8.635	$ 11 Decachlorobiphenyl (S)	
4.815	58	81	1.403	0.021		
	431196	369519		100.000		

Total unknown % height = 48.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	9596	0.50000	0.467	80.00- 120.00	100.00	
1.878	1.878	0.000	19613	0.50000	0.474	162.66- 243.99	204.39	
1.932	1.932	0.000	7992	0.50000	0.480	63.55- 95.32	83.29	
2.188	2.188	0.000	5974	0.50000	0.468	49.13- 73.70	62.26	
2.277	2.277	0.000	5231	0.50000	0.476	42.04- 63.06	54.51	
Average of Peak Amounts =					0.47300			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	8727	0.50000	0.471	80.00- 120.00	100.00	
2.885	2.885	0.000	11129	0.50000	0.469	101.69- 152.53	127.52	
2.995	2.995	0.000	13947	0.50000	0.470	125.91- 188.87	159.82	
3.583	3.584	-0.001	23906	0.50000	0.476	212.47- 318.70	273.93	
3.826	3.826	0.000	17316	0.50000	0.478	152.61- 228.91	198.42	
Average of Peak Amounts =					0.47280			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	48454	0.10000	0.0953			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	32103	0.10000	0.0956			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

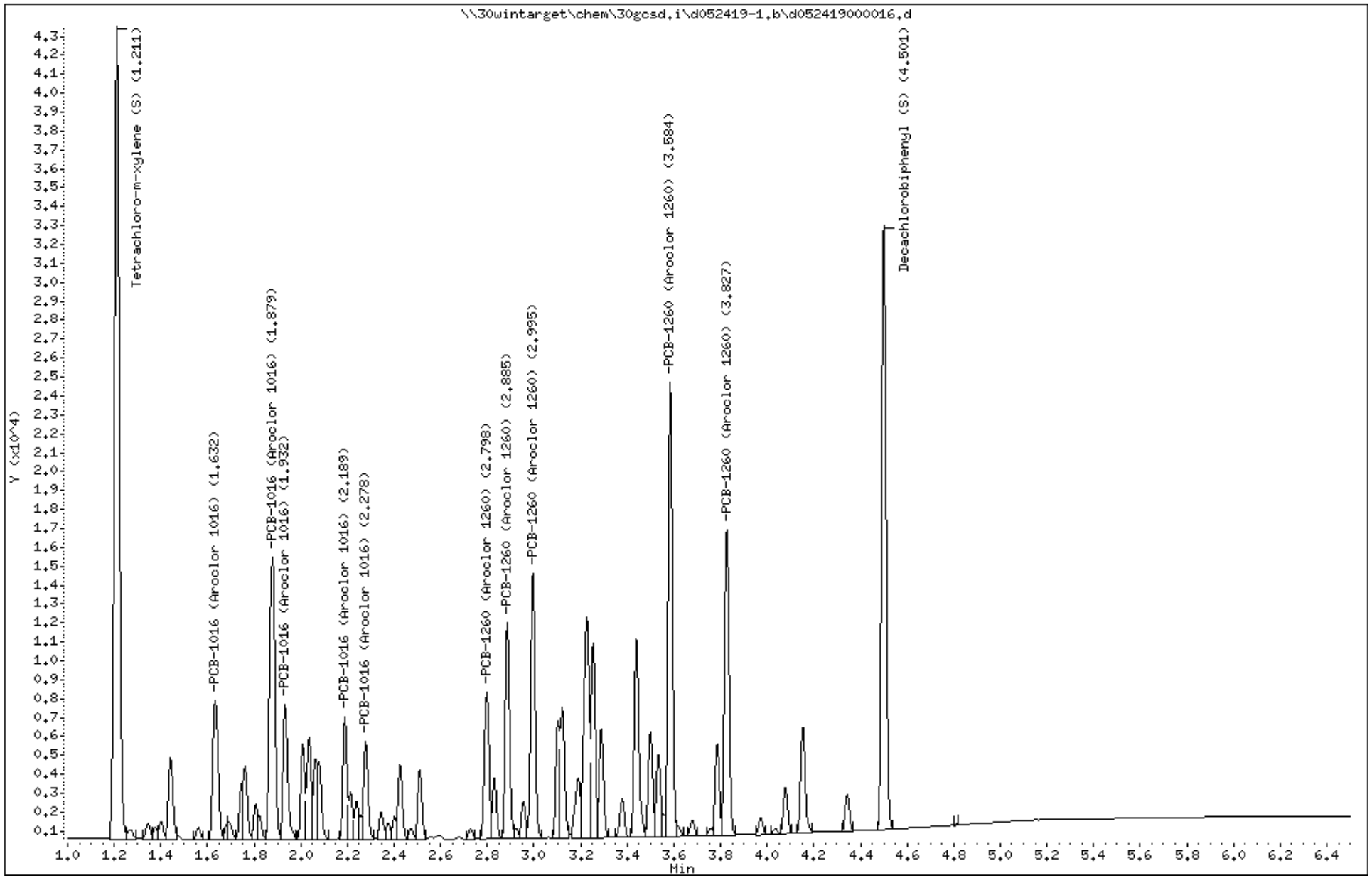
Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

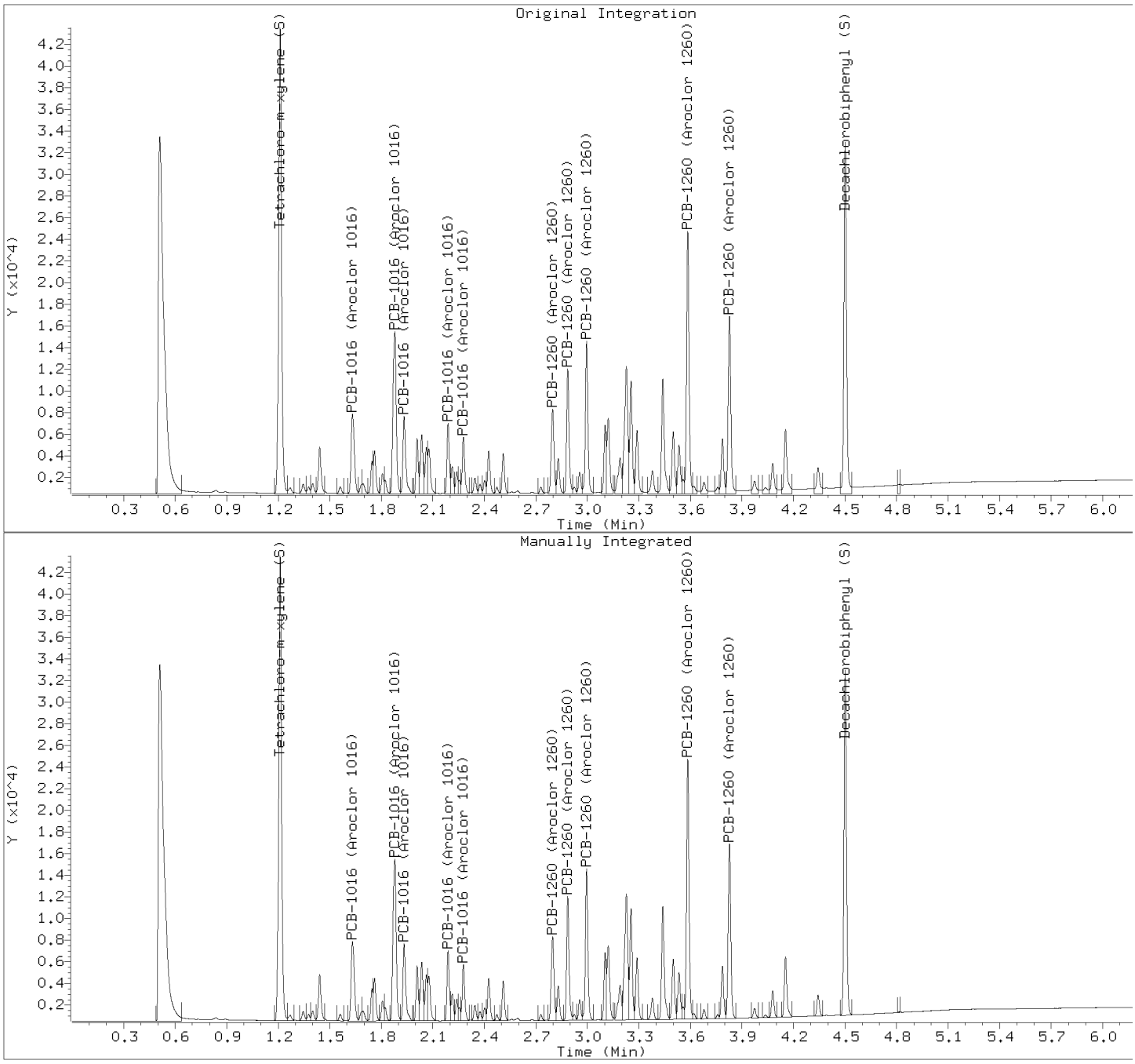
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.467	
	Peak found at 1.879	0.474	
	Peak found at 1.932	0.480	
	Peak found at 2.189	0.468	
	Peak found at 2.278	0.476	
	Average of Peak Amounts =	0.473	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.471	
	Peak found at 2.885	0.469	
	Peak found at 2.995	0.470	
	Peak found at 3.584	0.476	
	Peak found at 3.827	0.478	
	Average of Peak Amounts =	0.473	
877-09-8	Tetrachloro-m-xylene (S)	0.0953	
2051-24-3	Decachlorobiphenyl (S)	0.0956	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Sample Info: CAL4A, 88855:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	9633	9596
PCB-1016 (Aroclor 1016)	19667	19613
PCB-1016 (Aroclor 1016)	8054	7992
PCB-1016 (Aroclor 1016)	6002	5974
PCB-1016 (Aroclor 1016)	5283	5231
PCB-1260 (Aroclor 1260)	8853	8727
PCB-1260 (Aroclor 1260)	11312	11129
PCB-1260 (Aroclor 1260)	14232	13947
PCB-1260 (Aroclor 1260)	24394	23906
PCB-1260 (Aroclor 1260)	18143	17316
Tetrachloro-m-xylene (S)	48625	48454
Decachlorobiphenyl (S)	34248	32103

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	69759	39591	0.568	11.836		
0.649	1454	741	0.510	0.221		
1.085	410	262	0.639	0.078		
1.528	484	442	0.914	0.132		
1.587	43329	41735	0.963	12.513	$ 10 Tetrachloro-m-xylene (S)	
1.667	459	592	1.290	0.176		
1.713	855	827	0.967	0.247		
1.763	4499	4349	0.967	1.300		
1.844	546	546	1.000	0.163		
1.964	5363	5665	1.056	1.693	1 PCB-1016 (Aroclor 1016)	
1.984	3162	3255	1.030	0.973		
2.019	673	683	1.015	0.204		
2.042	270	292	1.080	0.087		
2.077	5775	3750	0.649	1.121		
2.202	1447	1551	1.072	0.463		
2.222	945	991	1.049	0.296		
2.269	7263	8396	1.156	2.510		
2.287	10514	10655	1.013	3.185	1 PCB-1016 (Aroclor 1016)	
2.307	6761	6604	0.977	1.974		
2.375	5238	4900	0.935	1.464	1 PCB-1016 (Aroclor 1016)	
2.404	487	506	1.039	0.151		
2.439	4017	4162	1.036	1.244		
2.471	4701	4761	1.013	1.423	1 PCB-1016 (Aroclor 1016)	
2.500	1820	1658	0.911	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.561	4692	4853	1.034	1.450	1 PCB-1016 (Aroclor 1016)	
2.590	2608	2329	0.893	0.696		
2.617	1626	1675	1.030	0.500		
2.638	1258	1303	1.036	0.389		
2.667	5178	3417	0.660	1.021		
2.818	4396	3270	0.744	0.977		
2.864	713	727	1.020	0.217		
2.922	326	335	1.027	0.100		
2.960	3258	3146	0.966	0.940		
3.139	391	461	1.178	0.137		
3.161	1686	1600	0.949	0.478		
3.199	1421	1409	0.991	0.421		
3.246	6272	4938	0.787	1.476		
3.278	1206	1323	1.097	0.395		
3.309	9665	9547	0.988	2.854	7 PCB-1260 (Aroclor 1260)	
3.391	979	889	0.908	0.265		
3.437	1583	1530	0.966	0.457		
3.479	11568	11638	1.006	3.479	7 PCB-1260 (Aroclor 1260)	
3.503	3562	3429	0.963	1.025		
3.556	7929	5512	0.695	1.647		
3.587	1120	1067	0.953	0.318		
3.631	1160	1068	0.920	0.319		
3.663	14518	11294	0.778	3.376	7 PCB-1260 (Aroclor 1260)	
3.722	8846	8381	0.947	2.505		
3.758	4729	4558	0.964	1.362		
3.840	1918	2060	1.074	0.615		
3.863	9126	8593	0.942	2.568		
3.897	506	541	1.070	0.161		
3.923	4396	4272	0.972	1.277		
3.951	2705	2519	0.931	0.753		
3.981	214	240	1.122	0.071		
4.014	2420	2246	0.928	0.671		
4.060	20715	20032	0.967	5.988	7 PCB-1260 (Aroclor 1260)	
4.101	1108	1036	0.935	0.309		
4.248	12535	11233	0.896	3.358	7 PCB-1260 (Aroclor 1260)	
4.273	1551	2073	1.336	0.619		
4.295	5654	4653	0.823	1.391		
4.436	491	476	0.970	0.142		
4.462	257	266	1.035	0.079		
4.496	2331	2145	0.920	0.641		
4.617	4895	4718	0.964	1.410		
4.660	272	261	0.958	0.078		
4.808	1856	1737	0.936	0.519		
4.960	30515	28490	0.934	8.517	$ 11 Decachlorobiphenyl (S)	
5.053	20	70	3.455	0.020		
5.180	10	30	2.927	0.008		
5.249	34	59	1.749	0.017		
5.550	10	29	2.906	0.008		
5.800	6	16	2.560	0.004		
5.808	4	14	3.878	0.004		
5.992	2	11	4.583	0.003		
6.134	5	24	4.388	0.007		
6.174	8	33	4.044	0.009		
	384484	334490		100.000		

Total unknown % height = 50.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	5363	0.50000	0.471	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	10514	0.50000	0.482	152.31- 228.47	196.04	
2.374	2.374	0.000	5238	0.50000	0.483	75.27- 112.91	97.67	
2.470	2.470	0.000	4700	0.50000	0.471	68.58- 102.86	87.65	
2.560	2.560	0.000	4692	0.50000	0.474	68.26- 102.40	87.49	
Average of Peak Amounts =					0.47620			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.308	3.309	-0.001	9665	0.50000	0.476	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	11567	0.50000	0.475	88.62- 132.94	119.68	
3.662	3.662	0.000	14517	0.50000	0.496	120.10- 180.15	150.20	
4.059	4.060	-0.001	20715	0.50000	0.481	171.60- 257.41	214.33	
4.247	4.247	0.000	12534	0.50000	0.484	103.64- 155.46	129.69	
Average of Peak Amounts =					0.48240			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	43328	0.10000	0.0954			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	30514	0.10000	0.0961			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

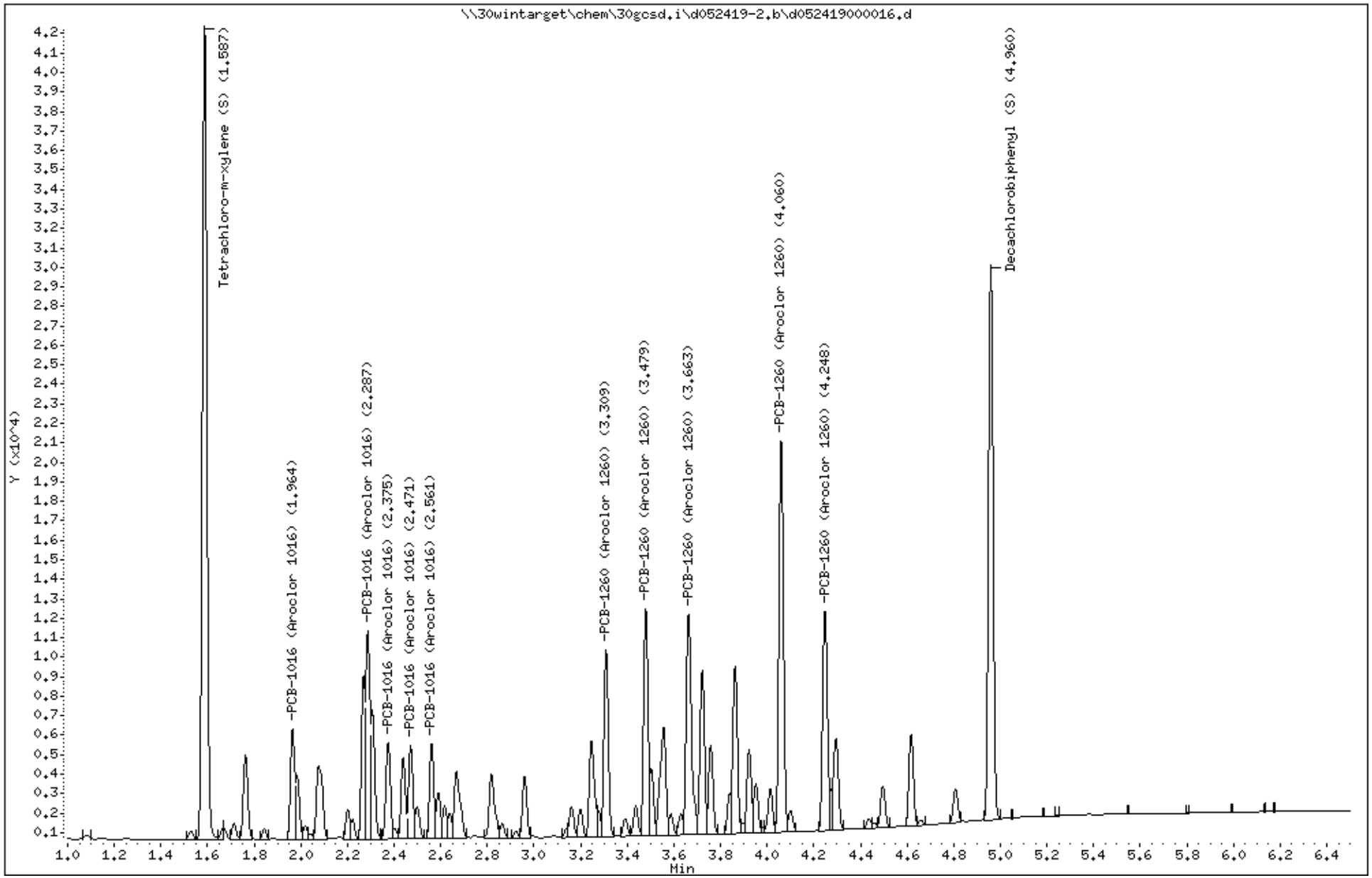
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

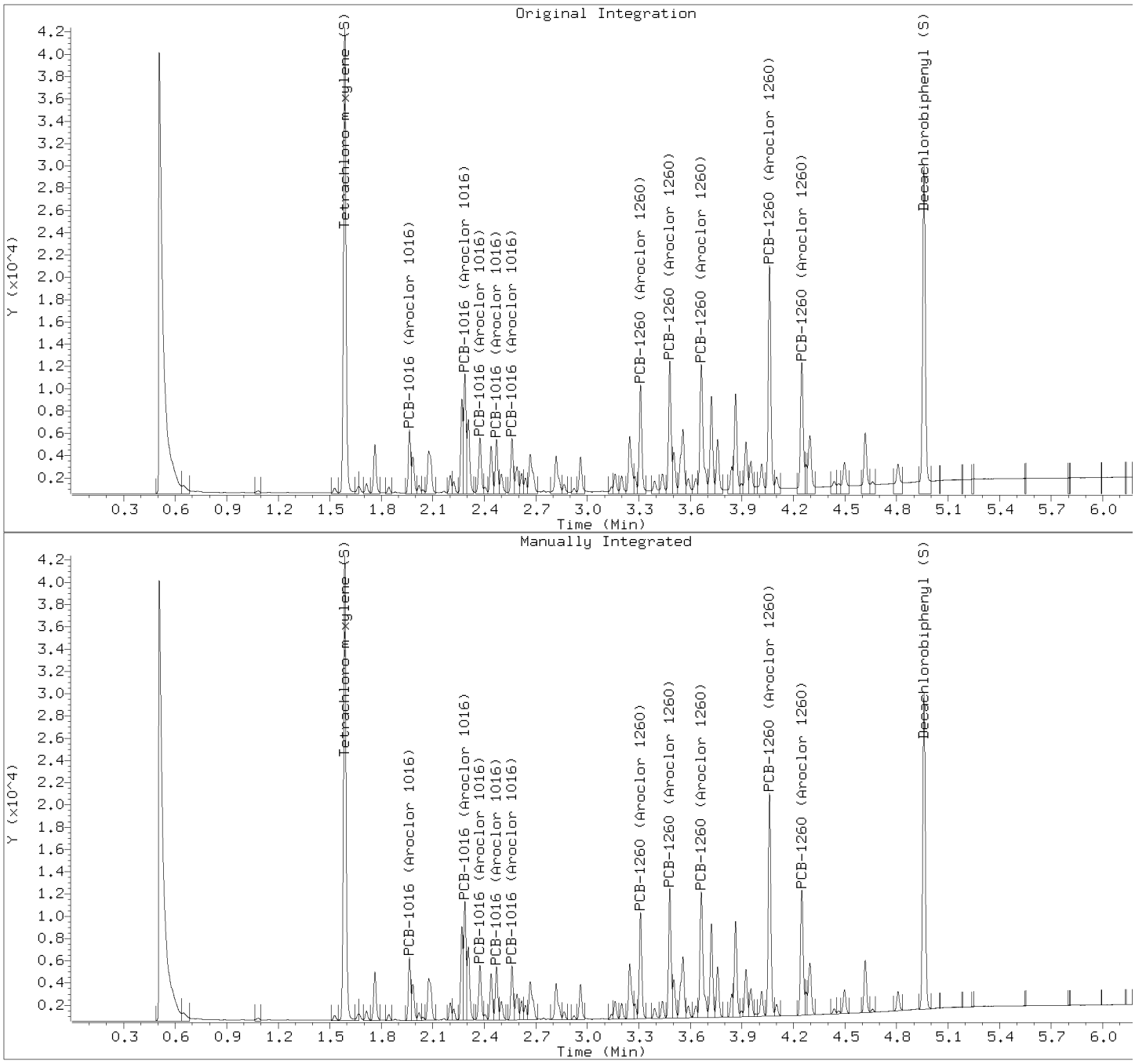
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.471	J
	Peak found at 2.287	0.482	J
	Peak found at 2.375	0.483	J
	Peak found at 2.471	0.471	J
	Peak found at 2.561	0.474	J
	Average of Peak Amounts =	0.476	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.476	J
	Peak found at 3.479	0.475	J
	Peak found at 3.663	0.496	J
	Peak found at 4.060	0.481	J
	Peak found at 4.248	0.484	J
	Average of Peak Amounts =	0.482	J
877-09-8	Tetrachloro-m-xylene (S)	0.0954	
2051-24-3	Decachlorobiphenyl (S)	0.0961	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Instrument: 30gcsd.i
Sample Info: CAL4A, 88855:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5458	5363
PCB-1016 (Aroclor 1016)	10510	10514
PCB-1016 (Aroclor 1016)	5484	5238
PCB-1016 (Aroclor 1016)	4877	4700
PCB-1016 (Aroclor 1016)	4922	4692
PCB-1260 (Aroclor 1260)	10289	9665
PCB-1260 (Aroclor 1260)	12108	11567
PCB-1260 (Aroclor 1260)	15587	14517
PCB-1260 (Aroclor 1260)	22087	20715
PCB-1260 (Aroclor 1260)	13972	12534
Tetrachloro-m-xylene (S)	43665	43328
Decachlorobiphenyl (S)	34931	30514

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	37809	15680	0.415	7.881		
1.210	26361	23522	0.892	11.848	$ 10 Tetrachloro-m-xylene (S)	RT
1.269	368	279	0.759	0.140		
1.345	496	469	0.946	0.235		
1.401	529	510	0.965	0.256		
1.441	2529	2351	0.930	1.181		
1.631	5348	4118	0.770	2.069	1 PCB-1016 (Aroclor 1016)	RT
1.693	921	528	0.573	0.265		
1.745	1353	1662	1.228	0.835		
1.761	2215	2185	0.986	1.098		
1.807	913	1035	1.134	0.520		
1.825	945	886	0.938	0.445		
1.879	10816	8305	0.768	4.174	1 PCB-1016 (Aroclor 1016)	RT
1.933	4465	3961	0.887	1.990	1 PCB-1016 (Aroclor 1016)	RT
2.009	2518	2798	1.111	1.406		
2.036	3250	3056	0.940	1.536		
2.062	2186	2412	1.103	1.212		
2.077	2437	2297	0.942	1.154		
2.189	3349	3625	1.082	1.822	1 PCB-1016 (Aroclor 1016)	RT
2.213	1310	1411	1.077	0.709		
2.239	1066	1139	1.069	0.572		
2.255	529	692	1.309	0.347		
2.278	2876	2864	0.996	1.439	1 PCB-1016 (Aroclor 1016)	RT
2.345	789	794	1.006	0.399		
2.375	439	477	1.086	0.239		
2.402	566	641	1.132	0.322		
2.426	2197	2186	0.995	1.098		
2.510	1917	2027	1.057	1.018		
2.798	4804	4253	0.885	2.137	7 PCB-1260 (Aroclor 1260)	RT
2.831	1717	1750	1.019	0.879		
2.886	6145	6397	1.041	3.215	7 PCB-1260 (Aroclor 1260)	RT
2.924	266	281	1.056	0.141		
2.955	1004	1063	1.059	0.534		
2.995	7705	7690	0.998	3.865	7 PCB-1260 (Aroclor 1260)	RT
3.103	3017	3411	1.131	1.714		
3.121	4072	3759	0.923	1.889		
3.190	2384	1751	0.734	0.880		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.227	8392	6321	0.753	3.177		
3.254	5691	5642	0.991	2.835		
3.289	3195	3167	0.991	1.591		
3.379	1212	1098	0.906	0.551		
3.439	6270	5788	0.923	2.909		
3.500	3143	3100	0.986	1.558		
3.533	2415	2327	0.964	1.169		
3.557	500	618	1.236	0.310		
3.584	13013	13118	1.008	6.593	7 PCB-1260 (Aroclor 1260)	RT
3.620	262	279	1.065	0.140		
3.679	453	468	1.032	0.235		
3.757	176	197	1.117	0.099		
3.786	2612	2639	1.010	1.326		
3.827	9426	8673	0.920	4.359	7 PCB-1260 (Aroclor 1260)	RT
3.972	500	496	0.991	0.249		
4.036	95	147	1.545	0.073		
4.079	1377	1352	0.982	0.679		
4.153	3194	3109	0.973	1.562		
4.343	1050	1069	1.018	0.537		
4.501	17173	17078	0.994	8.584	$ 11 Decachlorobiphenyl (S)	RT
	231763	198951		100.000		

Total unknown % height = 47.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.631	1.631	0.000	5348	0.25000	0.260	80.00- 120.00	100.00	(M)	RT
1.878	1.878	0.000	10815	0.25000	0.262	162.66- 243.99	202.22		RT
1.932	1.932	0.000	4465	0.25000	0.268	63.55- 95.32	83.49		RT
2.188	2.188	0.000	3348	0.25000	0.262	49.13- 73.70	62.60		RT
2.277	2.277	0.000	2875	0.25000	0.262	42.04- 63.06	53.76		RT
Average of Peak Amounts =					0.26280				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.797	0.000	4804	0.25000	0.259	80.00- 120.00	100.00	(M)	RT
2.885	2.885	0.000	6145	0.25000	0.259	101.69- 152.53	127.91		RT
2.995	2.995	0.000	7705	0.25000	0.260	125.91- 188.87	160.38		RT
3.584	3.584	0.000	13013	0.25000	0.259	212.47- 318.70	270.86		RT
3.826	3.826	0.000	9426	0.25000	0.260	152.61- 228.91	196.20		RT
Average of Peak Amounts =					0.25940				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.210	0.000	26360	0.05000	0.0518			(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.501	4.501	0.000	17172	0.05000	0.0512			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

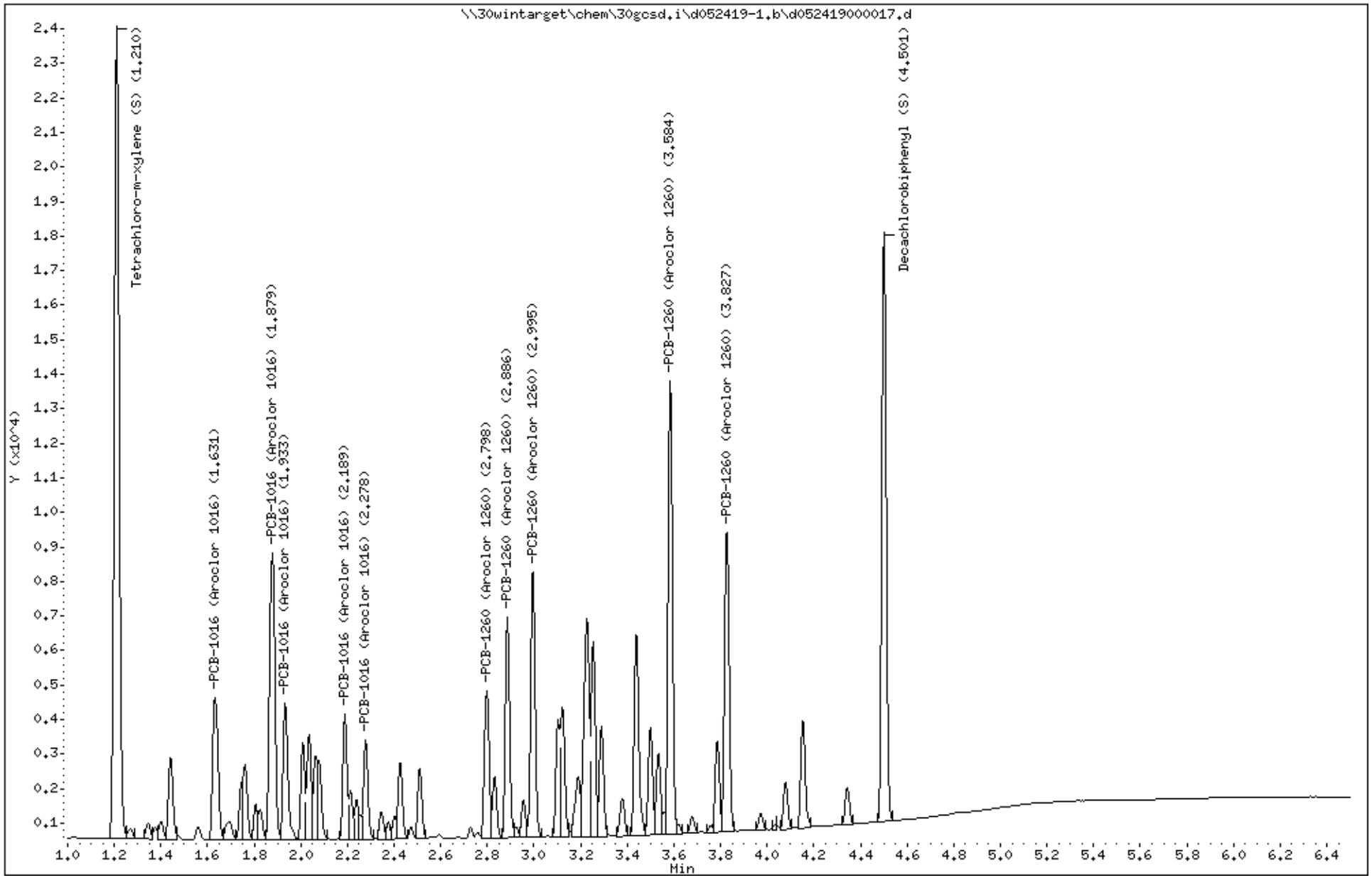
Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

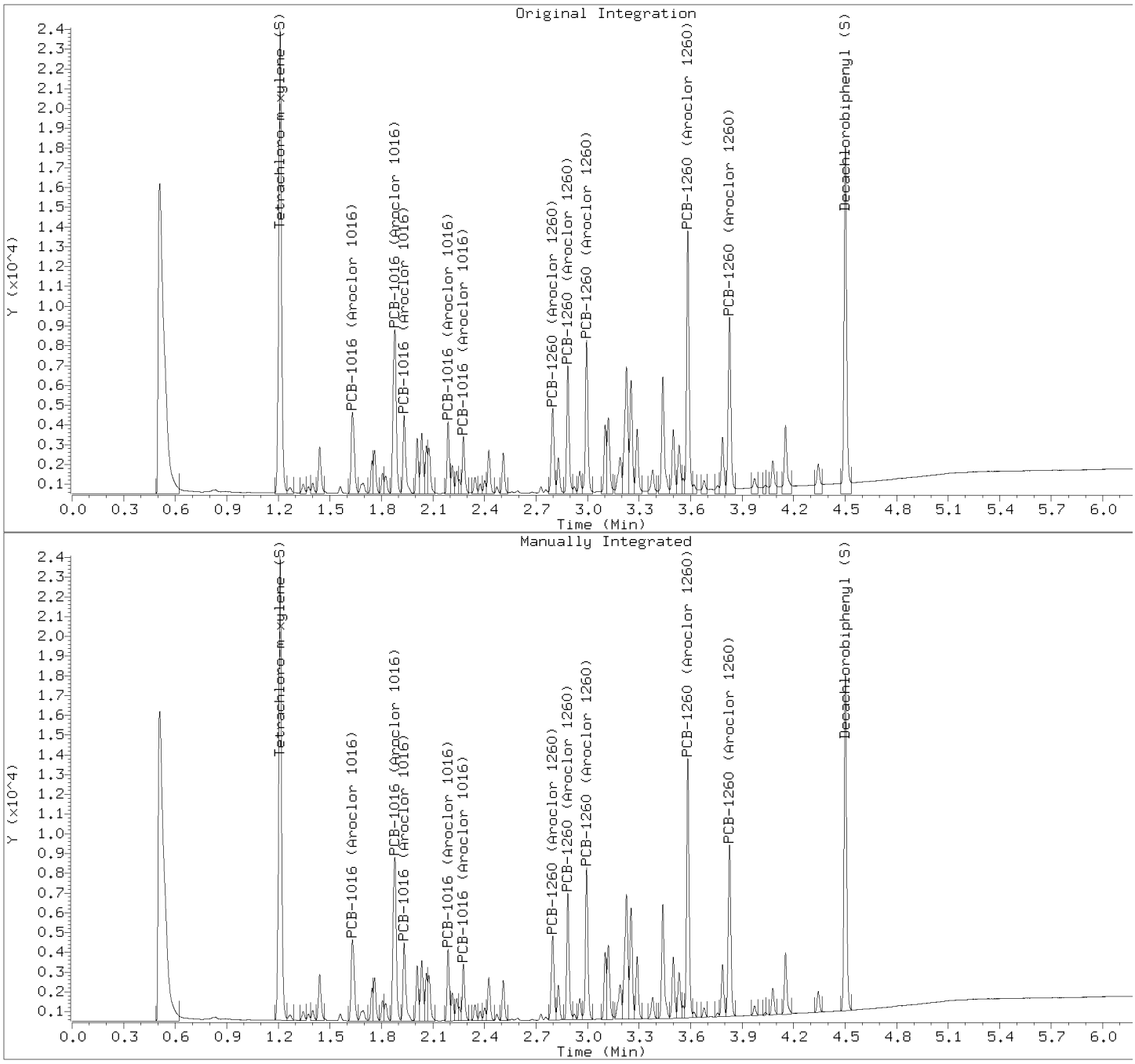
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.631	0.260	
	Peak found at 1.879	0.262	
	Peak found at 1.933	0.268	
	Peak found at 2.189	0.262	
	Peak found at 2.278	0.262	
	Average of Peak Amounts =	0.263	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.259	
	Peak found at 2.886	0.259	
	Peak found at 2.995	0.260	
	Peak found at 3.584	0.259	
	Peak found at 3.827	0.260	
	Average of Peak Amounts =	0.259	
877-09-8	Tetrachloro-m-xylene (S)	0.0518	
2051-24-3	Decachlorobiphenyl (S)	0.0512	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Sample Info: CAL3A, 88854:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5340	5348
PCB-1016 (Aroclor 1016)	10807	10815
PCB-1016 (Aroclor 1016)	4455	4465
PCB-1016 (Aroclor 1016)	3342	3348
PCB-1016 (Aroclor 1016)	2895	2875
PCB-1260 (Aroclor 1260)	4934	4804
PCB-1260 (Aroclor 1260)	6324	6145
PCB-1260 (Aroclor 1260)	7944	7705
PCB-1260 (Aroclor 1260)	13461	13013
PCB-1260 (Aroclor 1260)	10168	9426
Tetrachloro-m-xylene (S)	26476	26360
Decachlorobiphenyl (S)	19084	17172

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	35242	19909	0.565	11.087		
1.528	280	249	0.888	0.138		
1.586	23458	22708	0.968	12.680	$ 10 Tetrachloro-m-xylene (S)	RT
1.713	473	456	0.965	0.253		
1.762	2470	2400	0.972	1.336		
1.843	297	304	1.024	0.169		
1.964	2934	3126	1.065	1.740	1 PCB-1016 (Aroclor 1016)	RT
1.984	1796	1807	1.006	1.006		
2.019	374	377	1.007	0.209		
2.076	3188	2051	0.643	1.142		
2.201	774	847	1.095	0.471		
2.224	898	848	0.945	0.472		
2.268	4040	4695	1.162	2.614		
2.286	5723	5864	1.025	3.265	1 PCB-1016 (Aroclor 1016)	RT
2.306	3665	3630	0.991	2.021		
2.375	2846	2654	0.933	1.478	1 PCB-1016 (Aroclor 1016)	RT
2.404	265	274	1.033	0.152		
2.439	2246	2336	1.040	1.300		
2.471	2603	2658	1.021	1.480	1 PCB-1016 (Aroclor 1016)	RT
2.499	1007	930	0.924	0.517		
2.561	2582	2684	1.040	1.494	1 PCB-1016 (Aroclor 1016)	RT
2.589	1425	1281	0.899	0.713		
2.617	881	921	1.045	0.512		
2.639	687	716	1.043	0.398		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.667	2825	1897	0.672	1.056		
2.818	2441	1786	0.732	0.994		
2.864	396	401	1.013	0.223		
2.960	1803	1741	0.966	0.969		
3.138	232	261	1.126	0.145		
3.161	943	899	0.953	0.500		
3.199	795	781	0.982	0.434		
3.246	3441	2692	0.782	1.499		
3.277	665	735	1.106	0.409		
3.309	5335	5251	0.984	2.924	7 PCB-1260 (Aroclor 1260)	RT
3.391	540	494	0.914	0.275		
3.436	893	856	0.958	0.476		
3.479	6361	6449	1.014	3.591	7 PCB-1260 (Aroclor 1260)	RT
3.502	1884	1861	0.988	1.036		
3.556	4326	2998	0.693	1.669		
3.587	618	591	0.956	0.329		
3.631	647	581	0.898	0.323		
3.663	7914	6204	0.784	3.455	7 PCB-1260 (Aroclor 1260)	RT
3.721	4843	4626	0.955	2.576		
3.757	2568	2482	0.967	1.382		
3.839	1035	1098	1.061	0.611		
3.862	4961	4737	0.955	2.638		
3.897	274	296	1.080	0.164		
3.922	2387	2337	0.979	1.301		
3.952	1467	1327	0.905	0.739		
4.014	1268	1187	0.936	0.661		
4.060	11174	10647	0.953	5.929	7 PCB-1260 (Aroclor 1260)	RT
4.101	597	560	0.937	0.311		
4.248	6727	6099	0.907	3.396	7 PCB-1260 (Aroclor 1260)	RT
4.273	879	1104	1.256	0.614		
4.296	3021	2540	0.841	1.414		
4.437	155	250	1.616	0.139		
4.462	88	137	1.551	0.076		
4.497	1243	1157	0.931	0.644		
4.618	2663	2576	0.967	1.434		
4.660	136	157	1.153	0.087		
4.809	1011	937	0.927	0.521		
4.960	16295	15018	0.922	8.363	$ 11 Decachlorobiphenyl (S)	RT
5.729	5	18	3.797	0.010		
5.764	5	19	4.185	0.010		
5.983	4	17	4.696	0.009		
6.069	8	31	3.865	0.017		
	205024	179560		100.000		

Total unknown % height = 50.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	2933	0.25000	0.257	80.00- 120.00	100.00(aM)	RT
2.286	2.286	0.000	5723	0.25000	0.262	152.31- 228.47	195.07	RT
2.374	2.374	0.000	2845	0.25000	0.262	75.27- 112.91	96.97	RT
2.470	2.470	0.000	2602	0.25000	0.261	68.58- 102.86	88.69	RT
2.560	2.560	0.000	2581	0.25000	0.261	68.26- 102.40	87.97	RT
Average of Peak Amounts =					0.26060			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	5334	0.25000	0.262	80.00- 120.00	100.00(aM)	RT
3.478	3.478	0.000	6360	0.25000	0.261	88.62- 132.94	119.22	RT
3.662	3.662	0.000	7913	0.25000	0.270	120.10- 180.15	148.33	RT
4.060	4.060	0.000	11174	0.25000	0.260	171.60- 257.41	209.45	RT
4.247	4.247	0.000	6727	0.25000	0.260	103.64- 155.46	126.09	RT
Average of Peak Amounts =					0.26260			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	23457	0.05000	0.0516		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16295	0.05000	0.0513		(M)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

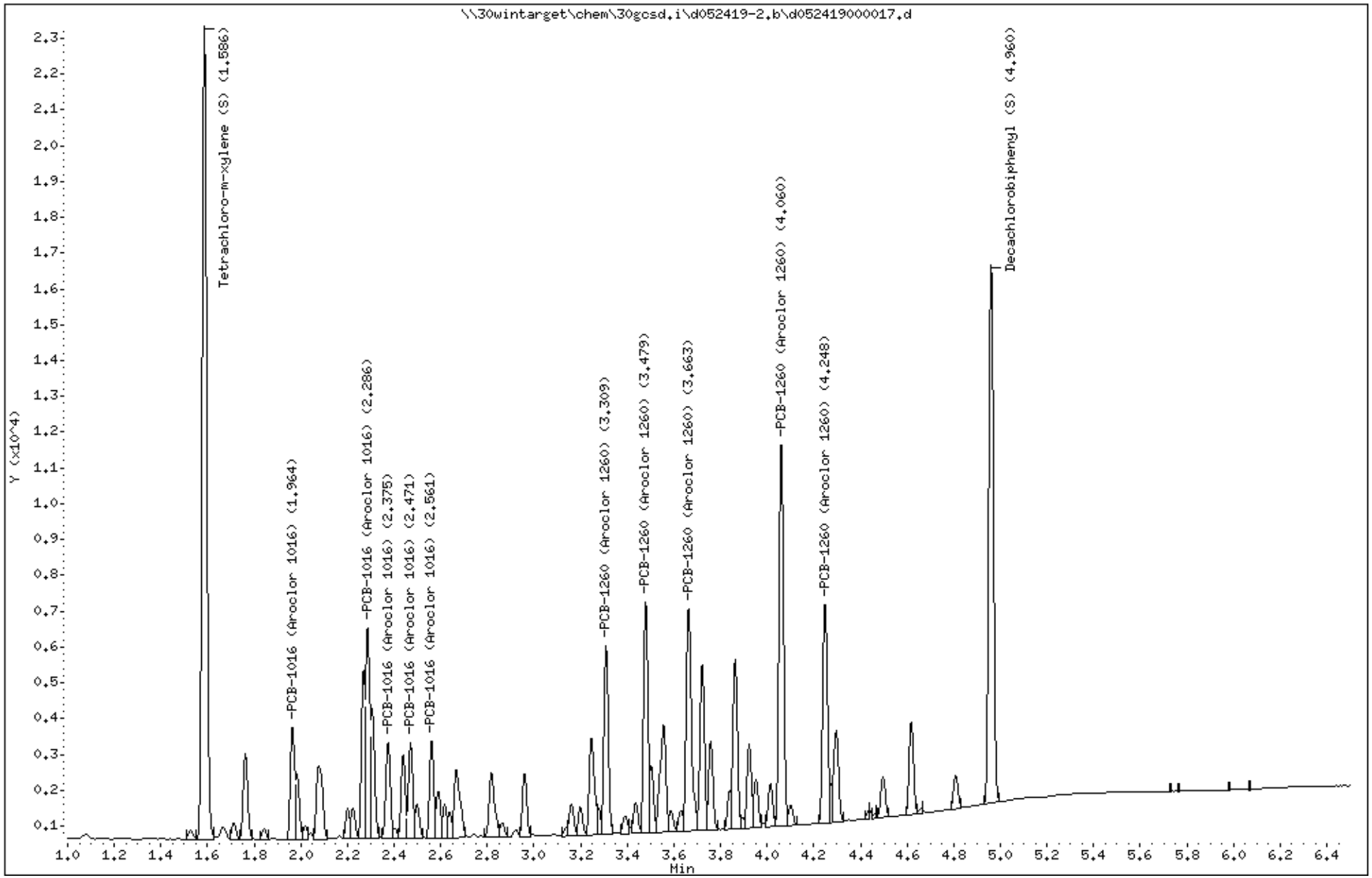
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

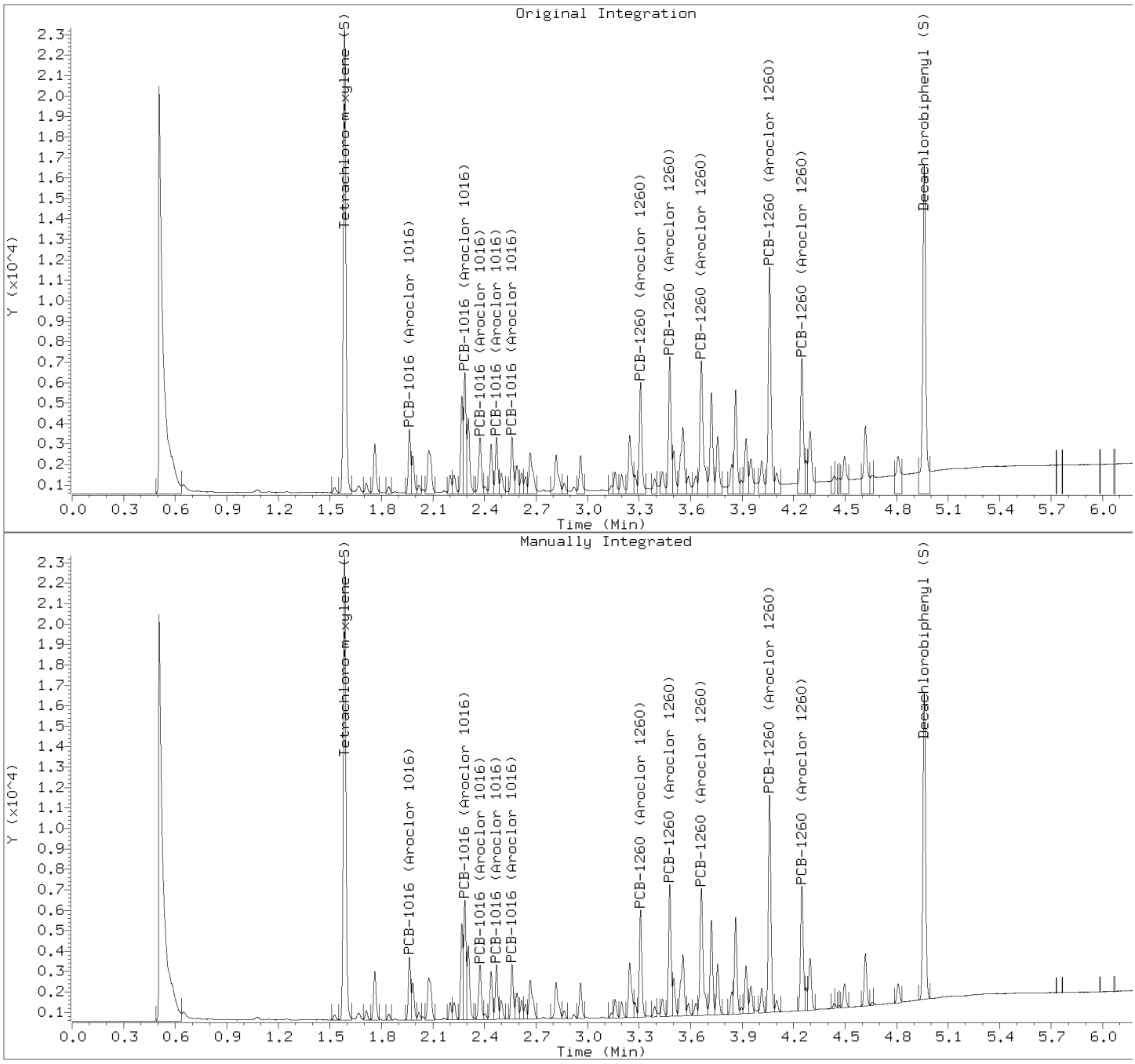
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.257	J
	Peak found at 2.286	0.262	J
	Peak found at 2.375	0.262	J
	Peak found at 2.471	0.261	J
	Peak found at 2.561	0.261	J
	Average of Peak Amounts =	0.261	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.262	J
	Peak found at 3.479	0.261	J
	Peak found at 3.663	0.270	J
	Peak found at 4.060	0.260	J
	Peak found at 4.248	0.260	J
	Average of Peak Amounts =	0.263	J
877-09-8	Tetrachloro-m-xylene (S)	0.0516	
2051-24-3	Decachlorobiphenyl (S)	0.0513	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Instrument: 30gcsd.i
Sample Info: CAL3A, 88854:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3009	2933
PCB-1016 (Aroclor 1016)	5753	5723
PCB-1016 (Aroclor 1016)	3054	2845
PCB-1016 (Aroclor 1016)	2756	2602
PCB-1016 (Aroclor 1016)	2779	2581
PCB-1260 (Aroclor 1260)	5883	5334
PCB-1260 (Aroclor 1260)	6861	6360
PCB-1260 (Aroclor 1260)	8895	7913
PCB-1260 (Aroclor 1260)	12486	11174
PCB-1260 (Aroclor 1260)	8067	6727
Tetrachloro-m-xylene (S)	23677	23457
Decachlorobiphenyl (S)	20662	16295

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	16733	6708	0.401	8.553		
1.211	10571	9451	0.894	12.072	$ 10 Tetrachloro-m-xylene (S)	
1.441	1046	982	0.939	1.252		
1.632	2224	1709	0.768	2.179	1 PCB-1016 (Aroclor 1016)	
1.746	554	680	1.227	0.867		
1.761	901	894	0.992	1.139		
1.807	368	423	1.150	0.539		
1.879	4376	3380	0.772	4.309	1 PCB-1016 (Aroclor 1016)	
1.932	1725	1634	0.947	2.083	1 PCB-1016 (Aroclor 1016)	
2.008	1007	1131	1.123	1.442		
2.036	1356	1260	0.929	1.606		
2.062	887	1002	1.130	1.277		
2.078	988	957	0.969	1.220		
2.188	1375	1478	1.075	1.884	1 PCB-1016 (Aroclor 1016)	
2.213	537	583	1.086	0.743		
2.239	425	463	1.089	0.590		
2.278	1167	1178	1.009	1.502	1 PCB-1016 (Aroclor 1016)	
2.425	901	914	1.014	1.165		
2.510	793	857	1.080	1.092		
2.797	1988	1762	0.886	2.246	7 PCB-1260 (Aroclor 1260)	
2.831	703	716	1.018	0.912		
2.885	2563	2622	1.023	3.343	7 PCB-1260 (Aroclor 1260)	
2.955	426	451	1.058	0.575		
2.995	3200	3162	0.988	4.031	7 PCB-1260 (Aroclor 1260)	
3.103	1224	1408	1.150	1.795		
3.122	1695	1581	0.932	2.015		
3.190	983	731	0.744	0.932		
3.227	3413	2567	0.752	3.273		
3.253	2331	2359	1.012	3.008		
3.289	1290	1278	0.990	1.629		
3.378	466	438	0.940	0.558		
3.439	2527	2297	0.909	2.928		
3.500	1281	1266	0.988	1.614		
3.533	996	965	0.969	1.230		
3.584	5271	5313	1.008	6.774	7 PCB-1260 (Aroclor 1260)	
3.786	1068	1078	1.009	1.374		
3.827	3806	3600	0.946	4.590	7 PCB-1260 (Aroclor 1260)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.973	200	202	1.009	0.257		
4.079	539	546	1.014	0.696		
4.153	1227	1221	0.995	1.556		
4.343	429	429	1.001	0.547		
4.501	6933	6747	0.973	8.603	$ 11 Decachlorobiphenyl (S)	
	92494	78423		100.000		

Total unknown % height = 46.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	2223	0.10000	0.108	80.00- 120.00	100.00	
1.878	1.878	0.000	4375	0.10000	0.106	162.66- 243.99	196.76	
1.932	1.932	0.000	1725	0.10000	0.104	63.55- 95.32	77.58	
2.188	2.188	0.000	1374	0.10000	0.108	49.13- 73.70	61.82	
2.277	2.277	0.000	1167	0.10000	0.106	42.04- 63.06	52.50	
Average of Peak Amounts =					0.10640			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	1988	0.10000	0.107	80.00- 120.00	100.00	
2.885	2.885	0.000	2562	0.10000	0.108	101.69- 152.53	128.89	
2.994	2.995	-0.001	3199	0.10000	0.108	125.91- 188.87	160.94	
3.583	3.584	-0.001	5270	0.10000	0.105	212.47- 318.70	265.09	
3.826	3.826	0.000	3806	0.10000	0.105	152.61- 228.91	191.43	
Average of Peak Amounts =					0.10660			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	10571	0.02000	0.0208			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	6932	0.02000	0.0206			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

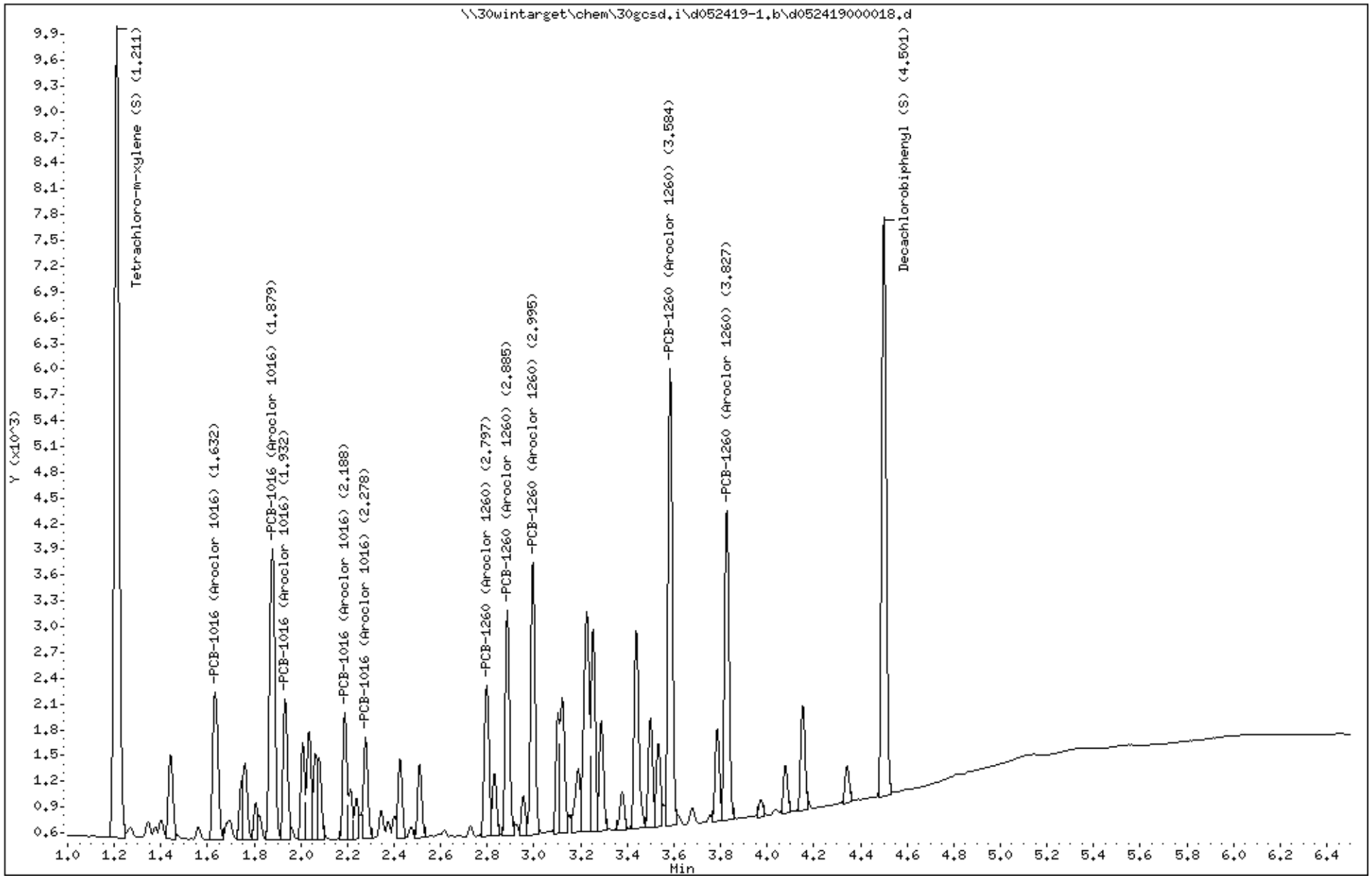
Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

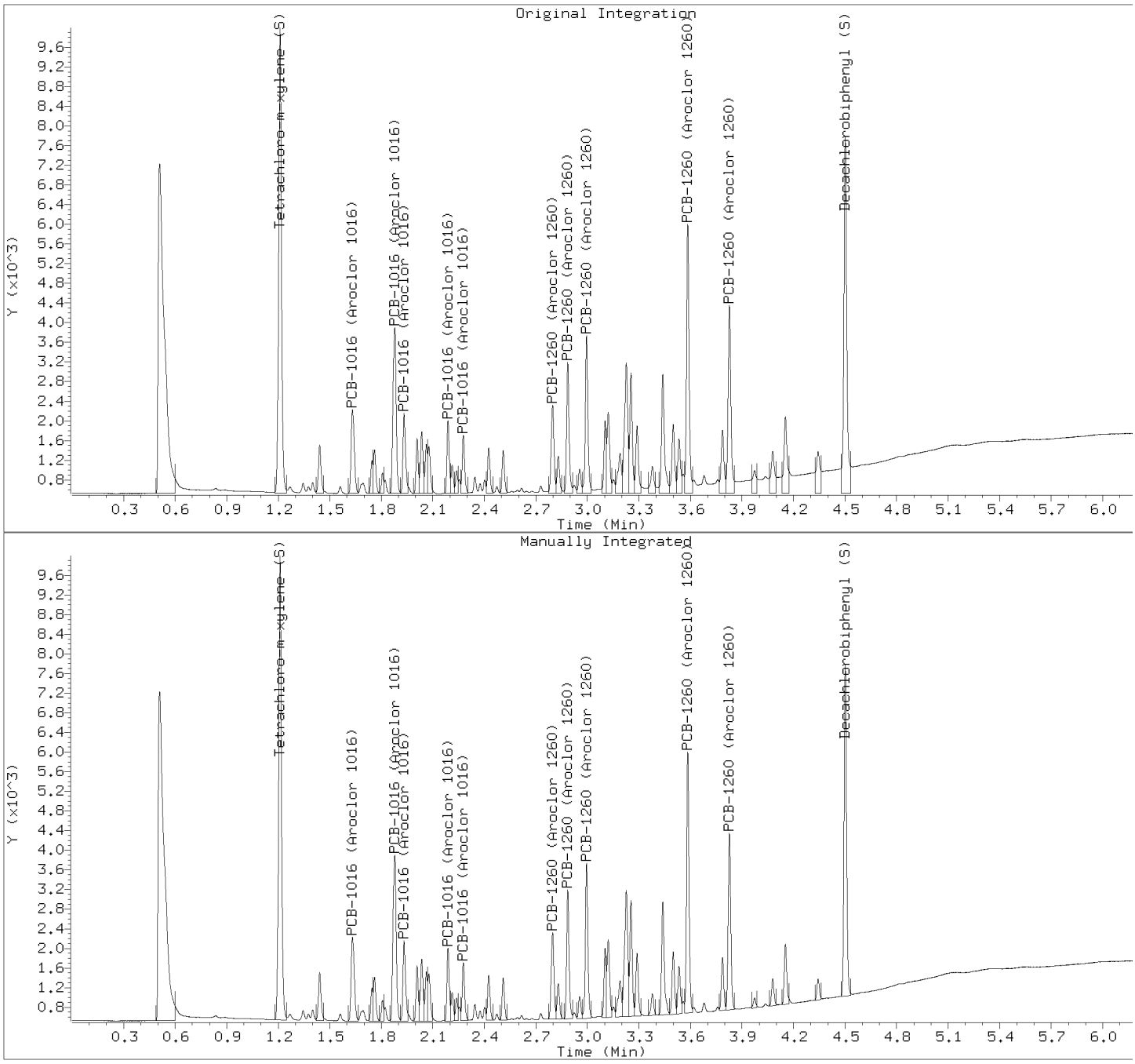
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.108	
	Peak found at 1.879	0.106	
	Peak found at 1.932	0.104	
	Peak found at 2.188	0.108	
	Peak found at 2.278	0.106	
	Average of Peak Amounts =	0.106	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.797	0.107	
	Peak found at 2.885	0.108	
	Peak found at 2.995	0.108	
	Peak found at 3.584	0.105	
	Peak found at 3.827	0.105	
	Average of Peak Amounts =	0.107	
877-09-8	Tetrachloro-m-xylene (S)	0.0208	
2051-24-3	Decachlorobiphenyl (S)	0.0206	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Sample Info: CAL2A, 88853:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2206	2223
PCB-1016 (Aroclor 1016)	4356	4375
PCB-1016 (Aroclor 1016)	1710	1725
PCB-1016 (Aroclor 1016)	1367	1374
PCB-1016 (Aroclor 1016)	1173	1167
PCB-1260 (Aroclor 1260)	2078	1988
PCB-1260 (Aroclor 1260)	2682	2562
PCB-1260 (Aroclor 1260)	3365	3199
PCB-1260 (Aroclor 1260)	5719	5270
PCB-1260 (Aroclor 1260)	4468	3806
Tetrachloro-m-xylene (S)	10649	10571
Decachlorobiphenyl (S)	8661	6932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	12555	9011	0.718	12.185		
0.565	1251	1243	0.994	1.680		
0.583	2098	1129	0.538	1.526		
1.587	9393	9098	0.969	12.330	$ 10 Tetrachloro-m-xylene (S)	
1.762	1000	973	0.973	1.315		
1.964	1229	1297	1.055	1.753	1 PCB-1016 (Aroclor 1016)	
1.984	714	737	1.032	0.996		
2.076	807	841	1.043	1.137		
2.201	317	344	1.087	0.465		
2.269	1623	1874	1.155	2.534		
2.286	2259	2342	1.037	3.167	1 PCB-1016 (Aroclor 1016)	
2.306	1489	1437	0.965	1.943		
2.375	1137	1074	0.944	1.452	1 PCB-1016 (Aroclor 1016)	
2.439	918	949	1.033	1.283		
2.470	1060	1080	1.019	1.460	1 PCB-1016 (Aroclor 1016)	
2.499	402	378	0.940	0.511		
2.561	1052	1094	1.040	1.479	1 PCB-1016 (Aroclor 1016)	
2.590	574	512	0.893	0.692		
2.617	355	370	1.042	0.500		
2.639	275	283	1.029	0.382		
2.667	880	762	0.866	1.030		
2.818	785	712	0.907	0.962		
2.960	772	734	0.951	0.992		
3.161	369	356	0.964	0.481		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.199	296	311	1.051	0.420		
3.246	1376	1078	0.784	1.457		
3.277	243	283	1.162	0.382		
3.309	2135	2112	0.989	2.856	7 PCB-1260 (Aroclor 1260)	
3.392	207	199	0.961	0.269		
3.437	332	333	1.002	0.450		
3.480	2562	2542	0.992	3.437	7 PCB-1260 (Aroclor 1260)	
3.503	832	838	1.007	1.133		
3.556	1686	1145	0.679	1.548		
3.588	225	217	0.964	0.293		
3.632	149	223	1.497	0.301		
3.663	2877	2427	0.843	3.282	7 PCB-1260 (Aroclor 1260)	
3.722	1928	1864	0.967	2.520		
3.758	1009	1011	1.002	1.367		
3.840	396	432	1.091	0.584		
3.863	1979	1853	0.936	2.505		
3.897	102	117	1.142	0.158		
3.923	961	952	0.990	1.287		
3.952	569	531	0.933	0.718		
4.014	486	466	0.959	0.630		
4.060	4445	4204	0.946	5.685	7 PCB-1260 (Aroclor 1260)	
4.102	147	227	1.542	0.306		
4.248	2671	2363	0.885	3.195	7 PCB-1260 (Aroclor 1260)	
4.273	349	449	1.288	0.607		
4.296	1207	1022	0.847	1.382		
4.437	71	106	1.502	0.143		
4.497	488	456	0.934	0.616		
4.618	1058	1021	0.965	1.380		
4.658	37	56	1.524	0.075		
4.809	380	368	0.967	0.497		
4.960	6509	6069	0.932	8.207	$ 11 Decachlorobiphenyl (S)	
5.279	6	21	3.333	0.028		
6.139	5	20	4.348	0.027		
	81035	73946		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	1228	0.10000	0.108	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	2258	0.10000	0.104	152.31- 228.47	183.79	
2.374	2.374	0.000	1137	0.10000	0.105	75.27- 112.91	92.56	
2.470	2.470	0.000	1059	0.10000	0.106	68.58- 102.86	86.23	
2.560	2.560	0.000	1051	0.10000	0.106	68.26- 102.40	85.59	
Average of Peak Amounts =					0.10580			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	2134	0.10000	0.105	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	2561	0.10000	0.105	88.62- 132.94	120.00	
3.663	3.662	0.001	2877	0.10000	0.0982	120.10- 180.15	134.78	
4.059	4.060	-0.001	4444	0.10000	0.103	171.60- 257.41	208.19	
4.247	4.247	0.000	2670	0.10000	0.103	103.64- 155.46	125.11	
Average of Peak Amounts =					0.10284			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	9392	0.02000	0.0207		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	6508	0.02000	0.0205		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

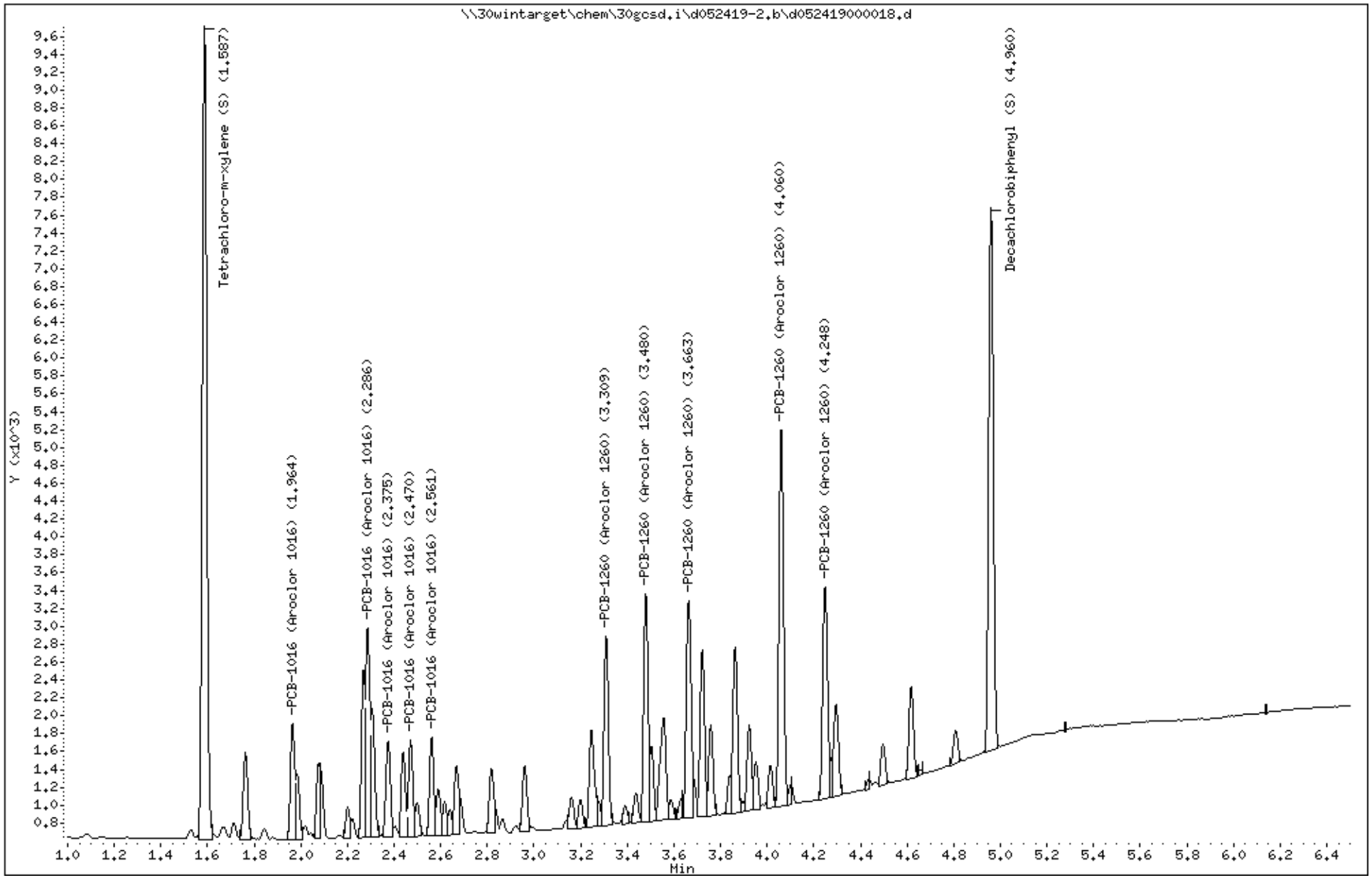
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

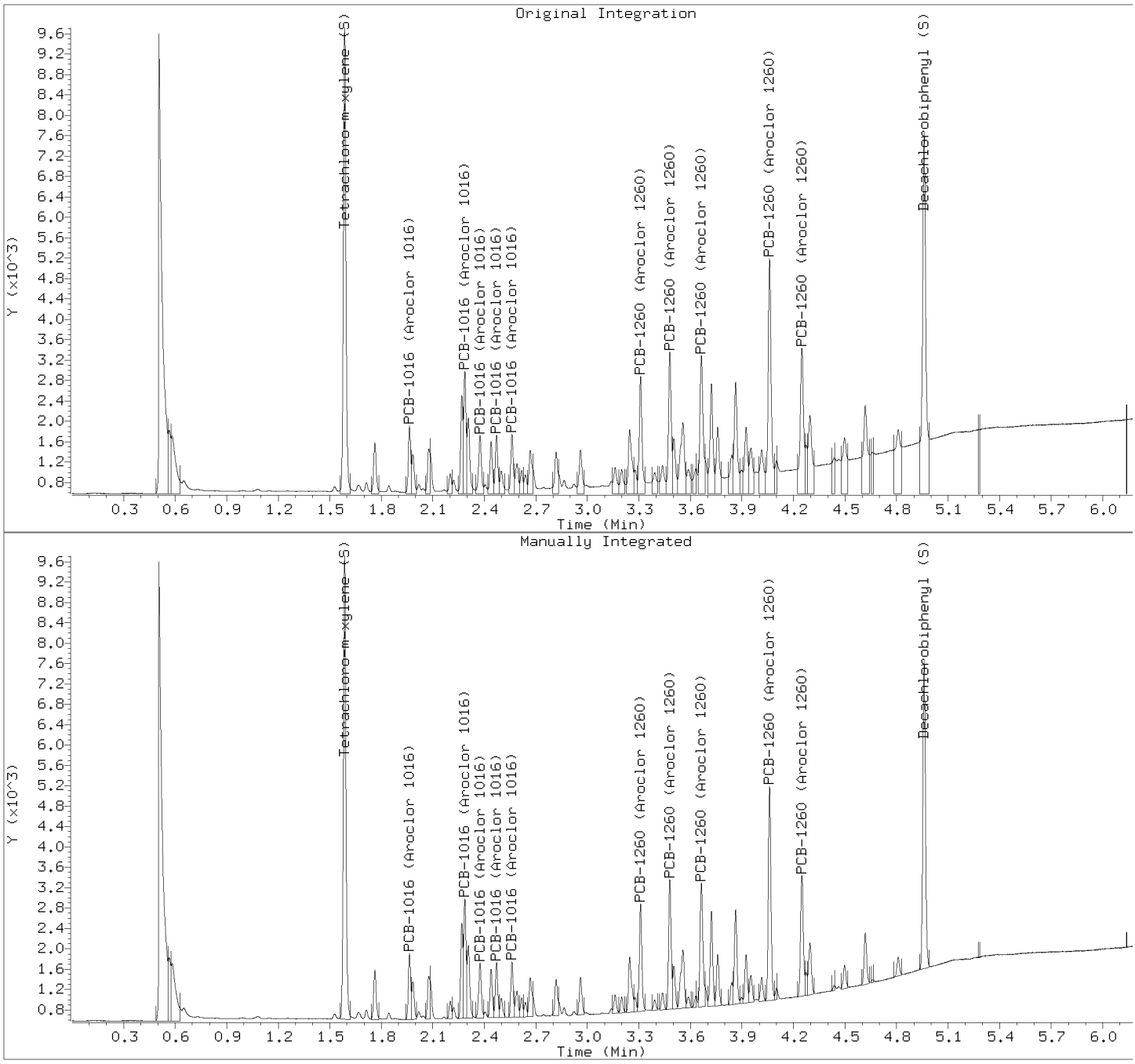
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.108	J
	Peak found at 2.286	0.104	J
	Peak found at 2.375	0.105	J
	Peak found at 2.470	0.106	J
	Peak found at 2.561	0.106	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.105	J
	Peak found at 3.480	0.105	J
	Peak found at 3.663	0.0982	J
	Peak found at 4.060	0.103	J
	Peak found at 4.248	0.103	J
	Average of Peak Amounts =	0.103	J
877-09-8	Tetrachloro-m-xylene (S)	0.0207	J
2051-24-3	Decachlorobiphenyl (S)	0.0205	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Instrument: 30gcsd.i
Sample Info: CAL2A, 88853:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1279	1228
PCB-1016 (Aroclor 1016)	2300	2258
PCB-1016 (Aroclor 1016)	1288	1137
PCB-1016 (Aroclor 1016)	1178	1059
PCB-1016 (Aroclor 1016)	1198	1051
PCB-1260 (Aroclor 1260)	2628	2134
PCB-1260 (Aroclor 1260)	3065	2561
PCB-1260 (Aroclor 1260)	3541	2877
PCB-1260 (Aroclor 1260)	5705	4444
PCB-1260 (Aroclor 1260)	3935	2670
Tetrachloro-m-xylene (S)	9501	9392
Decachlorobiphenyl (S)	9842	6508

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	9429	3422	0.363	8.960		
1.210	5272	4675	0.887	12.257	$ 10 Tetrachloro-m-xylene (S)	
1.441	524	497	0.948	1.301		
1.632	1128	871	0.772	2.280	1 PCB-1016 (Aroclor 1016)	
1.760	446	450	1.009	1.178		
1.879	2175	1662	0.764	4.351	1 PCB-1016 (Aroclor 1016)	
1.932	858	829	0.966	2.170	1 PCB-1016 (Aroclor 1016)	
2.008	500	560	1.119	1.466		
2.036	685	647	0.945	1.694		
2.063	462	509	1.102	1.332		
2.078	488	490	1.004	1.283		
2.189	695	751	1.081	1.966	1 PCB-1016 (Aroclor 1016)	
2.278	574	583	1.015	1.526	1 PCB-1016 (Aroclor 1016)	
2.426	452	460	1.017	1.204		
2.510	405	438	1.082	1.146		
2.798	1012	896	0.885	2.346	7 PCB-1260 (Aroclor 1260)	
2.831	354	364	1.030	0.953		
2.886	1293	1347	1.042	3.527	7 PCB-1260 (Aroclor 1260)	
2.955	214	224	1.044	0.586		
2.996	1617	1612	0.997	4.220	7 PCB-1260 (Aroclor 1260)	
3.103	602	681	1.131	1.783		
3.122	865	801	0.926	2.097		
3.190	501	366	0.731	0.958		
3.227	1708	1298	0.760	3.398		
3.254	1191	1181	0.992	3.092		
3.289	654	658	1.007	1.722		
3.379	219	216	0.985	0.565		
3.439	1183	1134	0.959	2.969		
3.500	640	633	0.989	1.657		
3.534	490	476	0.972	1.246		
3.584	2640	2633	0.998	6.894	7 PCB-1260 (Aroclor 1260)	
3.786	538	549	1.020	1.437		
3.827	1894	1813	0.957	4.747	7 PCB-1260 (Aroclor 1260)	
4.080	257	268	1.043	0.701		
4.153	606	615	1.016	1.610		
4.343	134	219	1.640	0.573		
4.501	3497	3363	0.962	8.805	$ 11 Decachlorobiphenyl (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	46199	38191		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	1127	0.05000	0.0549	80.00- 120.00	100.00	
1.878	1.878	0.000	2175	0.05000	0.0526	162.66- 243.99	192.87	
1.932	1.932	0.000	857	0.05000	0.0514	63.55- 95.32	76.07	
2.188	2.188	0.000	694	0.05000	0.0543	49.13- 73.70	61.59	
2.277	2.277	0.000	574	0.05000	0.0523	42.04- 63.06	50.92	
Average of Peak Amounts =					0.05310			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	1012	0.05000	0.0546	80.00- 120.00	100.00	
2.885	2.885	0.000	1292	0.05000	0.0545	101.69- 152.53	127.74	
2.995	2.995	0.000	1616	0.05000	0.0544	125.91- 188.87	159.77	
3.584	3.584	0.000	2639	0.05000	0.0526	212.47- 318.70	260.81	
3.827	3.826	0.001	1893	0.05000	0.0522	152.61- 228.91	187.11	
Average of Peak Amounts =					0.05366			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	5271	0.01000	0.0104			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	3497	0.01000	0.0104			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

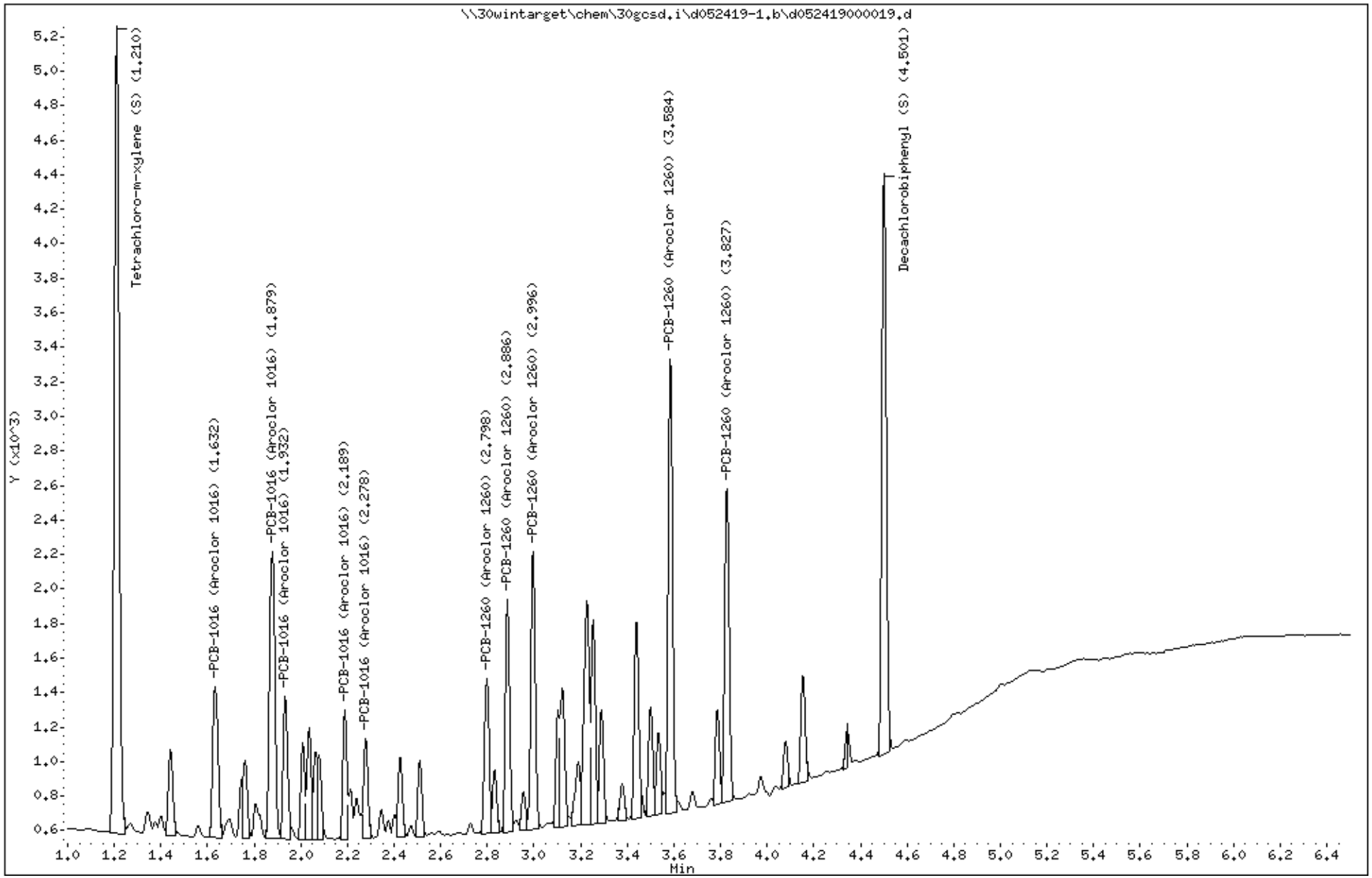
Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

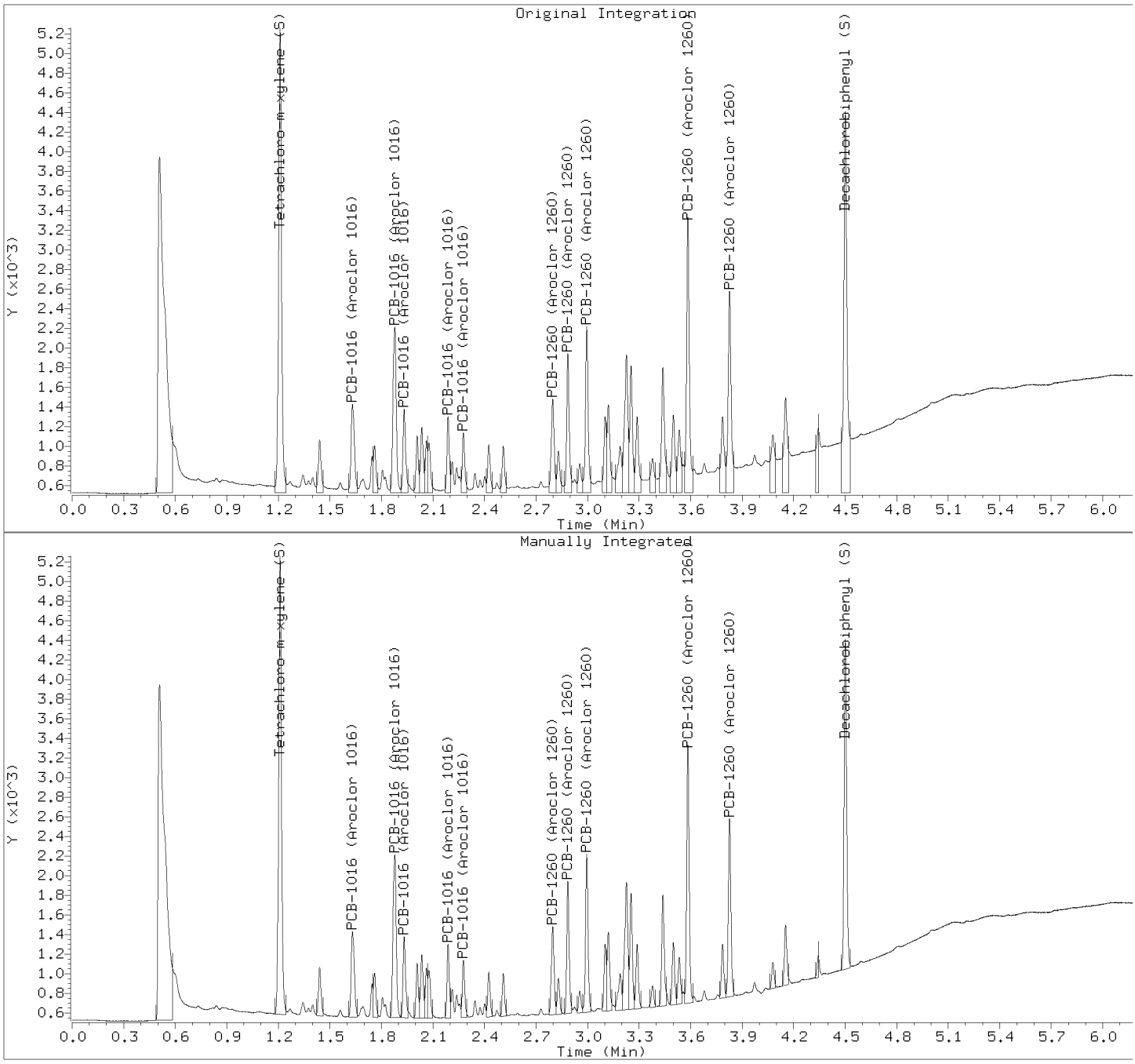
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.0549	
	Peak found at 1.879	0.0526	
	Peak found at 1.932	0.0514	
	Peak found at 2.189	0.0543	
	Peak found at 2.278	0.0523	
	Average of Peak Amounts =	0.0531	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.0546	
	Peak found at 2.886	0.0545	
	Peak found at 2.996	0.0544	
	Peak found at 3.584	0.0526	
	Peak found at 3.827	0.0522	
	Average of Peak Amounts =	0.0537	
877-09-8	Tetrachloro-m-xylene (S)	0.0104	
2051-24-3	Decachlorobiphenyl (S)	0.0104	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Sample Info: CAL1A, 88852:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1224	1127
PCB-1016 (Aroclor 1016)	2273	2175
PCB-1016 (Aroclor 1016)	919	857
PCB-1016 (Aroclor 1016)	737	694
PCB-1016 (Aroclor 1016)	629	574
PCB-1260 (Aroclor 1260)	1157	1012
PCB-1260 (Aroclor 1260)	1470	1292
PCB-1260 (Aroclor 1260)	1854	1616
PCB-1260 (Aroclor 1260)	3155	2639
PCB-1260 (Aroclor 1260)	2569	1893
Tetrachloro-m-xylene (S)	5489	5271
Decachlorobiphenyl (S)	5094	3497

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	6542	5060	0.773	13.893		
0.567	981	915	0.932	2.507		
0.585	1777	1034	0.582	2.834		
1.586	4728	4498	0.951	12.328	$ 10 Tetrachloro-m-xylene (S)	
1.762	486	485	0.998	1.329		
1.964	619	647	1.045	1.773	1 PCB-1016 (Aroclor 1016)	
1.984	360	373	1.036	1.022		
2.076	378	426	1.128	1.167		
2.268	797	925	1.160	2.535		
2.287	1112	1156	1.039	3.168	1 PCB-1016 (Aroclor 1016)	
2.306	723	717	0.991	1.965		
2.375	542	519	0.958	1.422	1 PCB-1016 (Aroclor 1016)	
2.439	457	475	1.039	1.301		
2.470	544	549	1.010	1.504	1 PCB-1016 (Aroclor 1016)	
2.560	524	550	1.050	1.507	1 PCB-1016 (Aroclor 1016)	
2.590	280	252	0.899	0.690		
2.667	406	373	0.920	1.022		
2.817	383	365	0.952	1.000		
2.960	355	355	1.001	0.973		
3.162	171	174	1.020	0.476		
3.246	672	537	0.799	1.471		
3.309	1071	1058	0.988	2.899	7 PCB-1260 (Aroclor 1260)	
3.479	1287	1252	0.972	3.431	7 PCB-1260 (Aroclor 1260)	
3.503	365	376	1.030	1.030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.556	840	563	0.671	1.543		
3.632	111	108	0.976	0.296		
3.663	1408	1212	0.861	3.322	7 PCB-1260 (Aroclor 1260)	
3.722	953	906	0.951	2.483		
3.758	496	493	0.993	1.351		
3.840	201	213	1.061	0.583		
3.863	976	935	0.958	2.562		
3.923	473	459	0.970	1.258		
3.951	287	273	0.951	0.748		
4.014	235	227	0.966	0.622		
4.060	2192	2097	0.957	5.747	7 PCB-1260 (Aroclor 1260)	
4.103	87	106	1.218	0.290		
4.248	1324	1190	0.899	3.261	7 PCB-1260 (Aroclor 1260)	
4.295	596	499	0.837	1.367		
4.437	30	54	1.784	0.148		
4.497	254	234	0.921	0.641		
4.618	508	496	0.977	1.359		
4.809	195	190	0.972	0.520		
4.960	3293	3051	0.926	8.362	$ 11 Decachlorobiphenyl (S)	
5.291	7	25	3.765	0.068		
5.663	11	28	2.593	0.076		
5.787	2	8	4.494	0.021		
5.934	3	3	1.163	0.008		
6.188	7	21	2.846	0.057		
6.234	8	22	2.764	0.060		
	40055	36484		100.000		

Total unknown % height = 51.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	619	0.05000	0.0543	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	1112	0.05000	0.0510	152.31- 228.47	179.71	
2.374	2.374	0.000	541	0.05000	0.0499	75.27- 112.91	87.51	
2.470	2.470	0.000	543	0.05000	0.0544	68.58- 102.86	87.83	
2.560	2.560	0.000	523	0.05000	0.0528	68.26- 102.40	84.60	
Average of Peak Amounts =				0.05248				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	1070	0.05000	0.0526	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	1287	0.05000	0.0528	88.62- 132.94	120.24	
3.663	3.662	0.001	1407	0.05000	0.0480	120.10- 180.15	131.46	
4.060	4.060	0.000	2191	0.05000	0.0509	171.60- 257.41	204.67	
4.247	4.247	0.000	1323	0.05000	0.0511	103.64- 155.46	123.61	
Average of Peak Amounts =				0.05108				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	4728	0.01000	0.0104		(a)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	3293	0.01000	0.0104		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

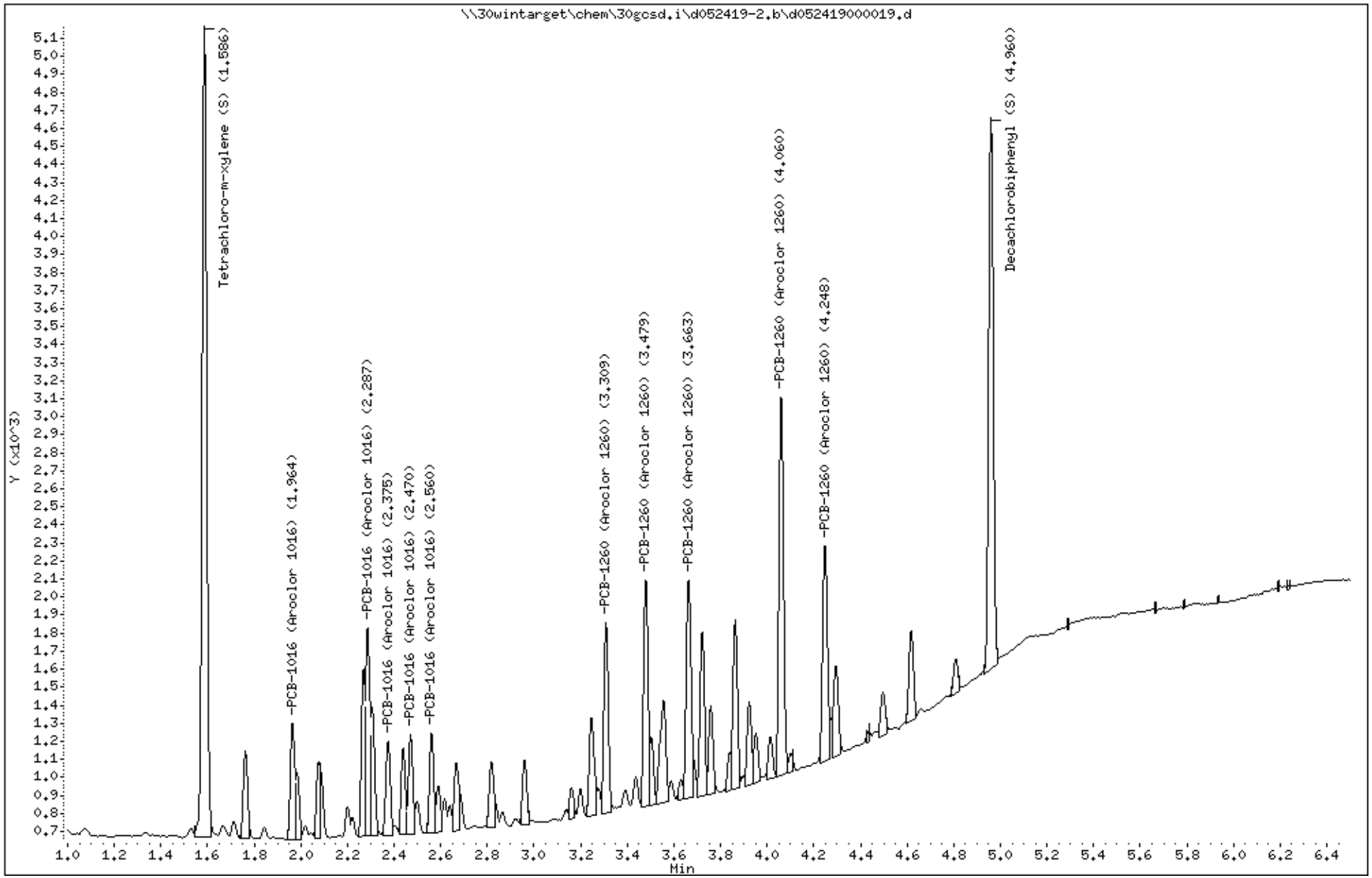
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

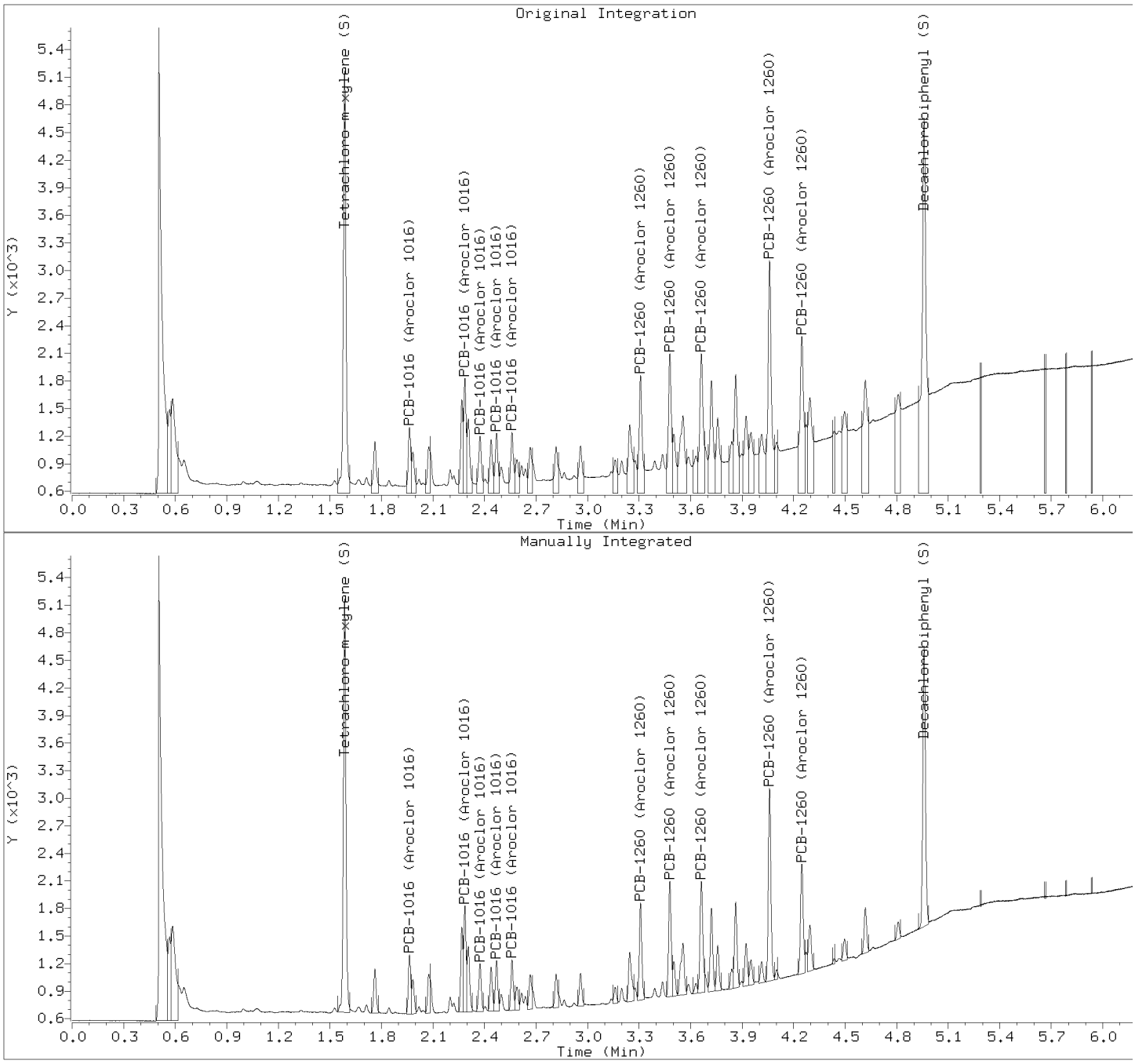
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.0543	J
	Peak found at 2.287	0.0510	J
	Peak found at 2.375	0.0499	J
	Peak found at 2.470	0.0544	J
	Peak found at 2.560	0.0528	J
	Average of Peak Amounts =	0.0525	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.0526	J
	Peak found at 3.479	0.0528	J
	Peak found at 3.663	0.0480	J
	Peak found at 4.060	0.0509	J
	Peak found at 4.248	0.0511	J
	Average of Peak Amounts =	0.0511	J
877-09-8	Tetrachloro-m-xylene (S)	0.0104	J
2051-24-3	Decachlorobiphenyl (S)	0.0104	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Instrument: 30gcsd.i
Sample Info: CAL1A, 88852:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	750	619
PCB-1016 (Aroclor 1016)	1222	1112
PCB-1016 (Aroclor 1016)	777	541
PCB-1016 (Aroclor 1016)	749	543
PCB-1016 (Aroclor 1016)	750	523
PCB-1260 (Aroclor 1260)	1629	1070
PCB-1260 (Aroclor 1260)	1847	1287
PCB-1260 (Aroclor 1260)	2144	1407
PCB-1260 (Aroclor 1260)	3520	2191
PCB-1260 (Aroclor 1260)	2605	1323
Tetrachloro-m-xylene (S)	5104	4728
Decachlorobiphenyl (S)	6898	3293

SAMPLE NO.

10982565ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-1.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.631	1.601	1.661	20538.0000	21604.0000	5.1904
Aroclor 1016	2	Averaged	1.878	1.848	1.908	41334.8333	44156.0000	6.8252
Aroclor 1016	3	Averaged	1.931	1.902	1.962	16656.1666	17236.0000	3.4812
Aroclor 1016	4	Averaged	2.187	2.158	2.218	12773.1666	13440.0000	5.2206
Aroclor 1016	5	Averaged	2.277	2.247	2.307	10979.5000	10340.0000	-5.8245
Aroclor 1260	1	Averaged	2.796	2.767	2.827	18544.0555	20096.0000	8.3690
Aroclor 1260	2	Averaged	2.884	2.855	2.915	23715.7777	23532.0000	-0.7749
Aroclor 1260	3	Averaged	2.994	2.965	3.025	29676.1111	29232.0000	-1.4965
Aroclor 1260	4	Averaged	3.583	3.554	3.614	50204.3888	49736.0000	-0.9330
Aroclor 1260	5	Averaged	3.826	3.796	3.856	36243.8333	37228.0000	2.7154
Decachlorobiphenyl		Averaged	4.5	4.471	4.531	335650.833	344620.000	13.7909
Tetrachloro-m-xylene		Averaged	1.21	1.18	1.24	508604.722	531440.000	4.8280

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10982548ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-2.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.963	1.933	1.993	11393.2222	11928.0000	4.6938
Aroclor 1016	2	Averaged	2.286	2.256	2.316	21808.0555	23348.0000	7.0614
Aroclor 1016	3	Averaged	2.374	2.344	2.404	10849.6666	11568.0000	6.6208
Aroclor 1016	4	Averaged	2.47	2.44	2.5	9980.38889	10672.0000	6.9297
Aroclor 1016	5	Averaged	2.56	2.53	2.59	9901.66667	10468.0000	5.7196
Aroclor 1260	1	Averaged	3.309	3.279	3.339	20320.3333	20036.0000	-1.3993
Aroclor 1260	2	Averaged	3.479	3.448	3.508	24356.2222	23864.0000	-2.0209
Aroclor 1260	3	Averaged	3.662	3.632	3.692	29292.0000	28836.0000	-1.5567
Aroclor 1260	4	Averaged	4.06	4.03	4.09	43025.1666	42548.0000	-1.1090
Aroclor 1260	5	Averaged	4.248	4.217	4.277	25869.7777	26776.0000	3.5030
Decachlorobiphenyl		Averaged	4.96	4.93	4.99	317463.333	326040.000	26.1248
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	474220.000	5.3381

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254102CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 18:23

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-1.B\D071719000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.6	1.66	20538.0000	21012.0000	2.3079
Aroclor 1016	2	Averaged	1.876	1.846	1.906	41334.8333	41684.0000	0.8447
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	17380.0000	4.3457
Aroclor 1016	4	Averaged	2.185	2.155	2.215	12773.1666	12484.0000	-2.2639
Aroclor 1016	5	Averaged	2.274	2.244	2.304	10979.5000	11304.0000	2.9555
Aroclor 1260	1	Averaged	2.793	2.764	2.824	18544.0555	17896.0000	-3.4947
Aroclor 1260	2	Averaged	2.881	2.851	2.911	23715.7777	22996.0000	-3.0350
Aroclor 1260	3	Averaged	2.991	2.962	3.022	29676.1111	28420.0000	-4.2327
Aroclor 1260	4	Averaged	3.581	3.551	3.611	50204.3888	48000.0000	-4.3908
Aroclor 1260	5	Averaged	3.824	3.794	3.854	36243.8333	34548.0000	-4.6790
Decachlorobiphenyl		Averaged	4.496	4.467	4.527	335650.833	319000.000	-4.9608
Tetrachloro-m-xylene		Averaged	1.21	1.181	1.241	508604.722	522340.000	2.7006

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254104CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 18:23

Instrument ID: 30GCSD GC Column: Col 2 Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-2.B\D071719000029.D Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11352.0000	-0.3618
Aroclor 1016	2	Averaged	2.28	2.25	2.31	21808.0555	22072.0000	1.2103
Aroclor 1016	3	Averaged	2.368	2.338	2.398	10849.6666	10824.0000	-0.2366
Aroclor 1016	4	Averaged	2.464	2.433	2.493	9980.38889	9844.00000	-1.3666
Aroclor 1016	5	Averaged	2.553	2.524	2.584	9901.66667	9596.00000	-3.0870
Aroclor 1260	1	Averaged	3.3	3.27	3.33	20320.3333	19304.0000	-5.0016
Aroclor 1260	2	Averaged	3.471	3.441	3.501	24356.2222	22840.0000	-6.2252
Aroclor 1260	3	Averaged	3.655	3.624	3.684	29292.0000	28408.0000	-3.0179
Aroclor 1260	4	Averaged	4.052	4.022	4.082	43025.1666	40332.0000	-6.2595
Aroclor 1260	5	Averaged	4.239	4.209	4.269	25869.7777	24236.0000	-6.3154
Decachlorobiphenyl		Averaged	4.95	4.92	4.98	317463.333	297960.000	-6.1435
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	459820.000	1.2427

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254103CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 22:21

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-1.B\D071719000057.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.6	1.66	20538.0000	21884.0000	6.5537
Aroclor 1016	2	Averaged	1.877	1.846	1.906	41334.8333	43524.0000	5.2962
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	18092.0000	8.6204
Aroclor 1016	4	Averaged	2.186	2.155	2.215	12773.1666	12960.0000	1.4627
Aroclor 1016	5	Averaged	2.275	2.244	2.304	10979.5000	11804.0000	7.5094
Aroclor 1260	1	Averaged	2.794	2.764	2.824	18544.0555	18680.0000	0.7331
Aroclor 1260	2	Averaged	2.882	2.851	2.911	23715.7777	23996.0000	1.1816
Aroclor 1260	3	Averaged	2.992	2.962	3.022	29676.1111	29372.0000	-1.0248
Aroclor 1260	4	Averaged	3.581	3.551	3.611	50204.3888	50540.0000	0.6685
Aroclor 1260	5	Averaged	3.824	3.794	3.854	36243.8333	36248.0000	0.0115
Decachlorobiphenyl		Averaged	4.497	4.467	4.527	335650.833	337080.000	0.4258
Tetrachloro-m-xylene		Averaged	1.211	1.181	1.241	508604.722	543460.000	6.8531

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254113CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 22:21

Instrument ID: 30GCSD GC Column: Col 2 Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-2.B\D071719000057.D Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313260

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11824.0000	3.7810
Aroclor 1016	2	Averaged	2.28	2.25	2.31	21808.0555	23804.0000	9.1523
Aroclor 1016	3	Averaged	2.369	2.338	2.398	10849.6666	11488.0000	5.8834
Aroclor 1016	4	Averaged	2.464	2.433	2.493	9980.38889	10460.0000	4.8055
Aroclor 1016	5	Averaged	2.553	2.524	2.584	9901.66667	10184.0000	2.8514
Aroclor 1260	1	Averaged	3.301	3.27	3.33	20320.3333	20460.0000	0.6873
Aroclor 1260	2	Averaged	3.471	3.441	3.501	24356.2222	24064.0000	-1.1998
Aroclor 1260	3	Averaged	3.655	3.624	3.684	29292.0000	30144.0000	2.9086
Aroclor 1260	4	Averaged	4.052	4.022	4.082	43025.1666	42580.0000	-1.0347
Aroclor 1260	5	Averaged	4.239	4.209	4.269	25869.7777	25416.0000	-1.7541
Decachlorobiphenyl		Averaged	4.949	4.92	4.98	317463.333	315640.000	-0.5743
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	480840.000	5.8709

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	10408	4009	0.385	2.152		
0.836	550	302	0.549	0.162		
1.210	26573	23583	0.887	12.692	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	344	262	0.761	0.140		
1.345	451	425	0.942	0.228		
1.400	483	471	0.975	0.252		
1.441	2399	2234	0.931	1.199		
1.632	5401	4154	0.769	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.693	564	496	0.880	0.266		
1.745	1366	1691	1.238	0.907		
1.760	2228	2203	0.989	1.182		
1.806	933	1053	1.129	0.565		
1.823	748	767	1.026	0.411		
1.878	11040	8493	0.769	4.560	1 PCB-1016 (Aroclor 1016)	BA
1.932	4310	4048	0.939	2.173	1 PCB-1016 (Aroclor 1016)	BA
2.008	2532	2834	1.119	1.521		
2.035	3429	3192	0.931	1.713		
2.062	2232	2481	1.111	1.332		
2.077	2421	2348	0.970	1.260		
2.188	3360	3631	1.081	1.949	1 PCB-1016 (Aroclor 1016)	BA
2.212	1294	1374	1.062	0.737		
2.238	988	1047	1.060	0.562		
2.278	2586	2572	0.995	1.381	1 PCB-1016 (Aroclor 1016)	BA
2.345	633	654	1.033	0.351		
2.374	395	432	1.094	0.231		
2.401	599	688	1.149	0.369		
2.425	2325	2310	0.993	1.240		
2.472	392	427	1.089	0.229		
2.510	2230	2325	1.043	1.248		
2.728	611	642	1.050	0.344		
2.796	5024	4347	0.865	2.334	7 PCB-1260 (Aroclor 1260)	BA
2.830	1719	1691	0.984	0.907		
2.885	5883	5982	1.017	3.211	7 PCB-1260 (Aroclor 1260)	BA
2.923	700	714	1.020	0.383		
2.954	1011	1047	1.035	0.562		
2.995	7309	7167	0.981	3.848	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.102	2838	3226	1.137	1.732		
3.121	4001	3738	0.934	2.007		
3.189	2317	1745	0.753	0.936		
3.227	8318	6392	0.768	3.432		
3.253	5447	5442	0.999	2.922		
3.288	3066	3057	0.997	1.641		
3.378	1187	1074	0.905	0.576		
3.439	6083	5407	0.889	2.903		
3.500	2929	2843	0.971	1.526		
3.533	2272	2228	0.981	1.196		
3.557	620	717	1.157	0.384		
3.584	12435	12505	1.006	6.714	7 PCB-1260 (Aroclor 1260)	BA
3.619	244	268	1.098	0.143		
3.679	487	500	1.028	0.268		
3.758	187	208	1.114	0.111		
3.785	2820	2892	1.026	1.552		
3.827	9308	8646	0.929	4.642	7 PCB-1260 (Aroclor 1260)	BA
3.973	350	353	1.010	0.189		
4.037	36	120	3.363	0.064		
4.079	1362	1393	1.023	0.747		
4.153	3518	3396	0.965	1.823		
4.344	864	879	1.017	0.471		
4.501	17232	17116	0.993	9.190	$ 11 Decachlorobiphenyl (S)	BA
	203390	186241		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	5401	0.25000	0.263	80.00- 120.00	100.00(M)	BA
1.878	1.878	0.000	11039	0.25000	0.267	162.66- 243.99	204.40	BA
1.931	1.932	-0.001	4309	0.25000	0.259	63.55- 95.32	79.79	BA
2.187	2.188	-0.001	3360	0.25000	0.263	49.13- 73.70	62.22	BA
2.277	2.277	0.000	2585	0.25000	0.235	42.04- 63.06	47.87	BA
		Average of Peak Amounts =			0.25740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.797	-0.001	5024	0.25000	0.271	80.00- 120.00	100.00(M)	BA
2.884	2.885	-0.001	5883	0.25000	0.248	101.69- 152.53	117.10	BA
2.994	2.995	-0.001	7308	0.25000	0.246	125.91- 188.87	145.46	BA
3.583	3.584	-0.001	12434	0.25000	0.248	212.47- 318.70	247.49	BA
3.826	3.826	0.000	9307	0.25000	0.257	152.61- 228.91	185.26	BA
		Average of Peak Amounts =			0.25400			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	26572	0.05000	0.0522		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.501	-0.001	17231	0.05000	0.0513		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21536	0.010	4.85929	20.00000	Aver	(M)
(2)	41335	44144	0.010	6.79612	20.00000	Aver	(M)
(3)	16656	17228	0.010	3.43316	20.00000	Aver	(M)
(4)	12773	13456	0.010	5.34584	20.00000	Aver	(M)
(5)	10980	10404	0.010	-5.24159	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20368	0.010	9.83574	20.00000	Aver	(M)
(2)	23716	23980	0.010	1.11412	20.00000	Aver	(M)
(3)	29676	29996	0.010	1.07793	20.00000	Aver	(M)
(4)	50204	51380	0.010	2.34165	20.00000	Aver	(M)
(5)	36244	40068	0.010	10.55122	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	533160	0.010	4.82797	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	381940	0.010	13.79087	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.33939
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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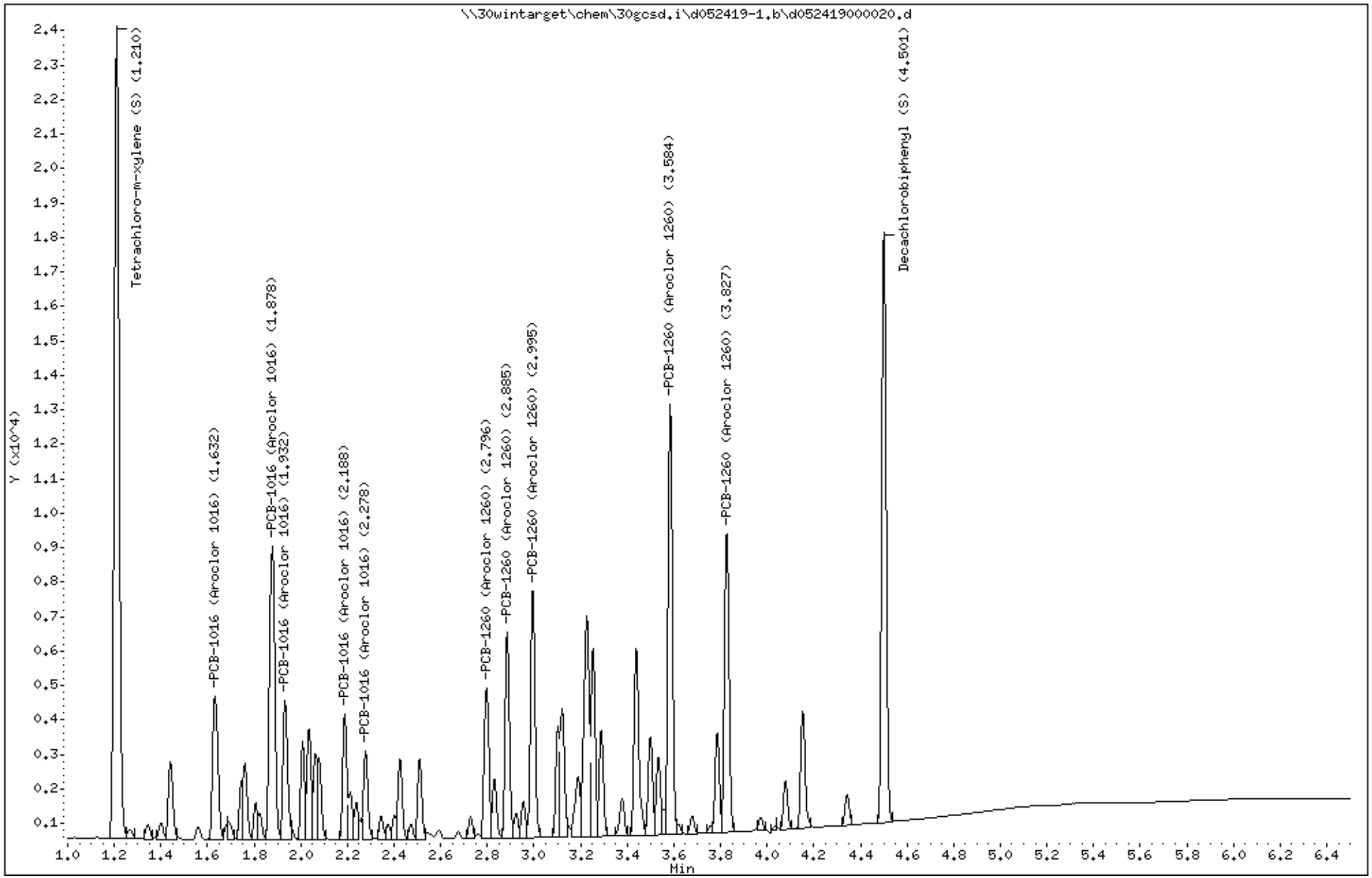
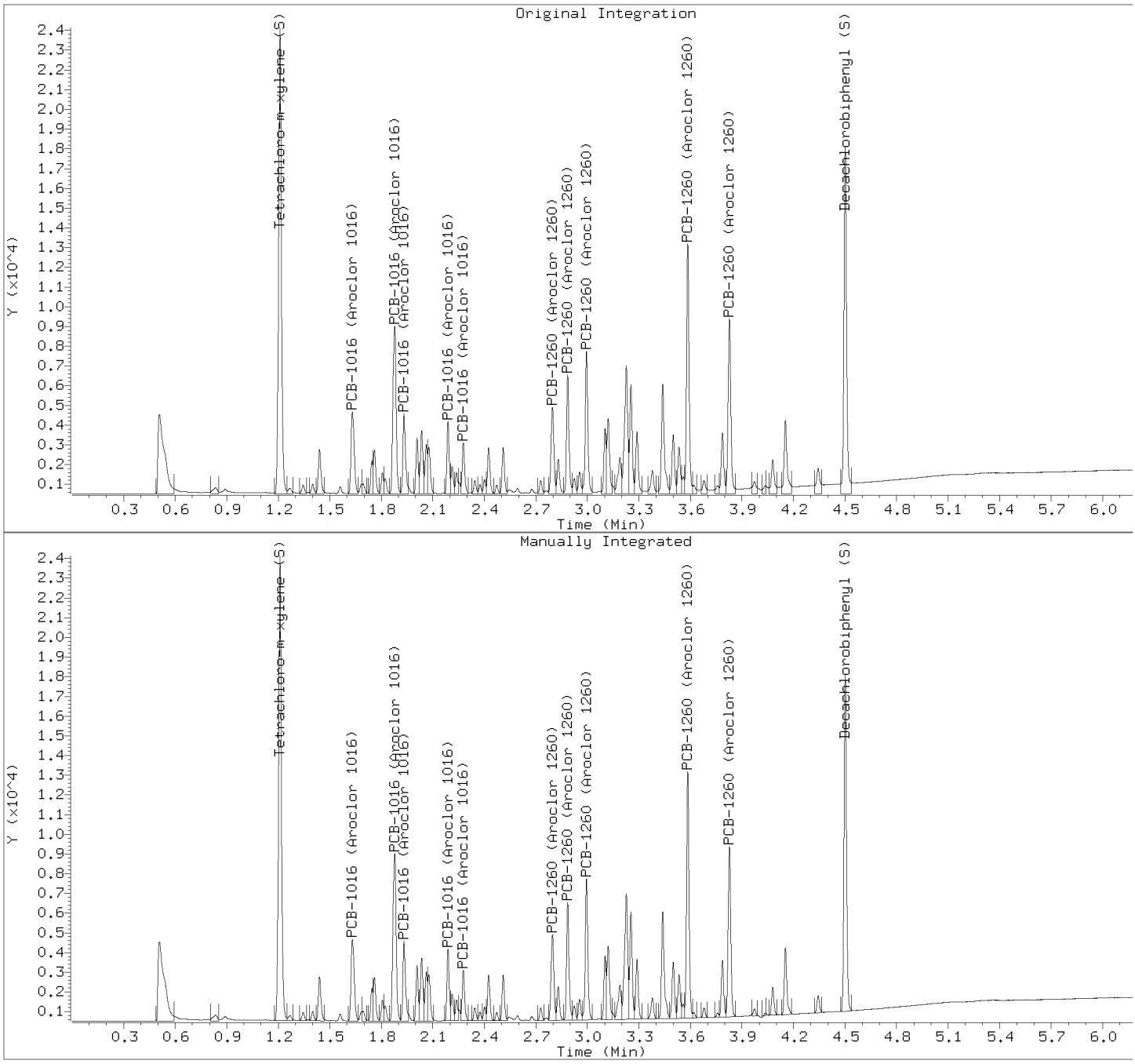
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5384	5401
PCB-1016 (Aroclor 1016)	11036	11039
PCB-1016 (Aroclor 1016)	4307	4309
PCB-1016 (Aroclor 1016)	3364	3360
PCB-1016 (Aroclor 1016)	2601	2585
PCB-1260 (Aroclor 1260)	5092	5024
PCB-1260 (Aroclor 1260)	5995	5883
PCB-1260 (Aroclor 1260)	7499	7308
PCB-1260 (Aroclor 1260)	12845	12434
PCB-1260 (Aroclor 1260)	10017	9307
Tetrachloro-m-xylene (S)	26658	26572
Decachlorobiphenyl (S)	19097	17231

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7506	5663	0.754	3.403		
0.567	1001	888	0.887	0.533		
0.583	1293	830	0.642	0.498		
1.084	490	306	0.625	0.183		
1.587	23711	23008	0.970	13.864	$ 10 Tetrachloro-m-xylene (S)	BA
1.713	427	423	0.991	0.254		
1.762	2107	2062	0.979	1.239		
1.844	299	302	1.011	0.181		
1.964	2982	3217	1.079	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.984	1804	1824	1.011	1.096		
2.019	367	375	1.021	0.225		
2.076	3211	2053	0.639	1.234		
2.201	789	869	1.101	0.522		
2.222	669	652	0.975	0.391		
2.269	4131	4766	1.154	2.864		
2.287	5838	5985	1.025	3.597	1 PCB-1016 (Aroclor 1016)	BA
2.306	3730	3665	0.983	2.202		
2.375	2892	2731	0.944	1.641	1 PCB-1016 (Aroclor 1016)	BA
2.404	270	284	1.051	0.170		
2.439	2379	2464	1.036	1.481		
2.470	2668	2714	1.017	1.631	1 PCB-1016 (Aroclor 1016)	BA
2.499	985	940	0.954	0.565		
2.561	2618	2705	1.033	1.625	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.590	1406	1262	0.898	0.758		
2.617	824	867	1.052	0.521		
2.638	623	655	1.052	0.393		
2.667	2404	1700	0.707	1.021		
2.817	2471	1871	0.757	1.124		
2.865	407	419	1.028	0.251		
2.922	248	258	1.038	0.155		
2.959	2140	2042	0.954	1.227		
3.086	162	164	1.015	0.098		
3.139	454	498	1.096	0.299		
3.160	942	865	0.918	0.519		
3.199	1209	1215	1.005	0.730		
3.246	3223	2461	0.764	1.479		
3.277	621	701	1.128	0.421		
3.309	5010	4937	0.985	2.967	7 PCB-1260 (Aroclor 1260)	BA
3.392	874	833	0.953	0.500		
3.436	857	841	0.981	0.505		
3.479	5967	5953	0.998	3.578	7 PCB-1260 (Aroclor 1260)	BA
3.503	1838	1812	0.986	1.089		
3.557	4166	2837	0.681	1.705		
3.587	601	543	0.904	0.326		
3.631	668	587	0.879	0.352		
3.662	7210	6095	0.845	3.663	7 PCB-1260 (Aroclor 1260)	BA
3.722	4629	4373	0.945	2.628		
3.758	2440	2351	0.964	1.413		
3.841	1113	1212	1.089	0.728		
3.863	4749	4380	0.922	2.632		
3.897	309	327	1.059	0.196		
3.923	2214	2198	0.993	1.321		
3.952	1419	1300	0.916	0.781		
4.014	1364	1241	0.910	0.745		
4.060	10638	10114	0.951	6.079	7 PCB-1260 (Aroclor 1260)	BA
4.101	616	586	0.951	0.352		
4.249	6695	5905	0.882	3.549	7 PCB-1260 (Aroclor 1260)	BA
4.274	811	1103	1.360	0.662		
4.296	3285	2731	0.831	1.641		
4.438	103	151	1.467	0.090		
4.464	108	147	1.363	0.088		
4.497	1332	1222	0.917	0.734		
4.589	13	6	0.462	0.003		
4.618	2928	2811	0.960	1.689		
4.661	181	173	0.957	0.103		
4.810	815	772	0.947	0.464		
4.961	16302	15071	0.924	9.058	$ 11 Decachlorobiphenyl (S)	BA
5.307	10	24	2.434	0.014		
5.867	2	2	1.266	0.001		
6.462	7	27	3.982	0.016		
	178574	166369		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.963	1.963	0.000	2982	0.25000	0.262	80.00- 120.00	100.00	(aM)	BA
2.286	2.286	0.000	5837	0.25000	0.268	152.31- 228.47	195.74		BA
2.374	2.374	0.000	2892	0.25000	0.266	75.27- 112.91	96.97		BA
2.470	2.470	0.000	2668	0.25000	0.267	68.58- 102.86	89.47		BA
2.560	2.560	0.000	2617	0.25000	0.264	68.26- 102.40	87.78		BA
Average of Peak Amounts =					0.26540				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.309	3.309	0.000	5009	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
3.479	3.478	0.001	5966	0.25000	0.245	88.62- 132.94	119.11		BA
3.662	3.662	0.000	7209	0.25000	0.246	120.10- 180.15	143.92		BA
4.060	4.060	0.000	10637	0.25000	0.247	171.60- 257.41	212.36		BA
4.248	4.247	0.001	6694	0.25000	0.259	103.64- 155.46	133.66		BA
Average of Peak Amounts =					0.24860				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.586	0.000	23711	0.05000	0.0522			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16302	0.05000	0.0514		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
1 PCB-1016 (Aroclor 1016)(1)	11393	12188	0.010	6.97588	20.00000	Aver	(aM)	
(2)	21808	23452	0.010	7.53824	20.00000	Aver	(aM)	
(3)	10850	12364	0.010	13.95742	20.00000	Aver	(aM)	
(4)	9980	11280	0.010	13.02165	20.00000	Aver	(aM)	
(5)	9902	11244	0.010	13.55664	20.00000	Aver	(aM)	
7 PCB-1260 (Aroclor 1260)(1)	20320	22268	0.010	9.58482	20.00000	Aver	(aM)	
(2)	24356	25920	0.010	6.42044	20.00000	Aver	(aM)	
(3)	29292	31588	0.010	7.83832	20.00000	Aver	(aM)	
(4)	43025	47496	0.010	10.39121	20.00000	Aver	(aM)	
(5)	25870	31948	0.010	23.49546	20.00000	Aver	(aM)	<-
$ 10 Tetrachloro-m-xylene (S)	454176	478420	0.010	5.33806	20.00000	Aver	(M)	
$ 11 Decachlorobiphenyl (S)	317463	400400	0.010	26.12480	20.00000	Aver	(M)	<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.84432
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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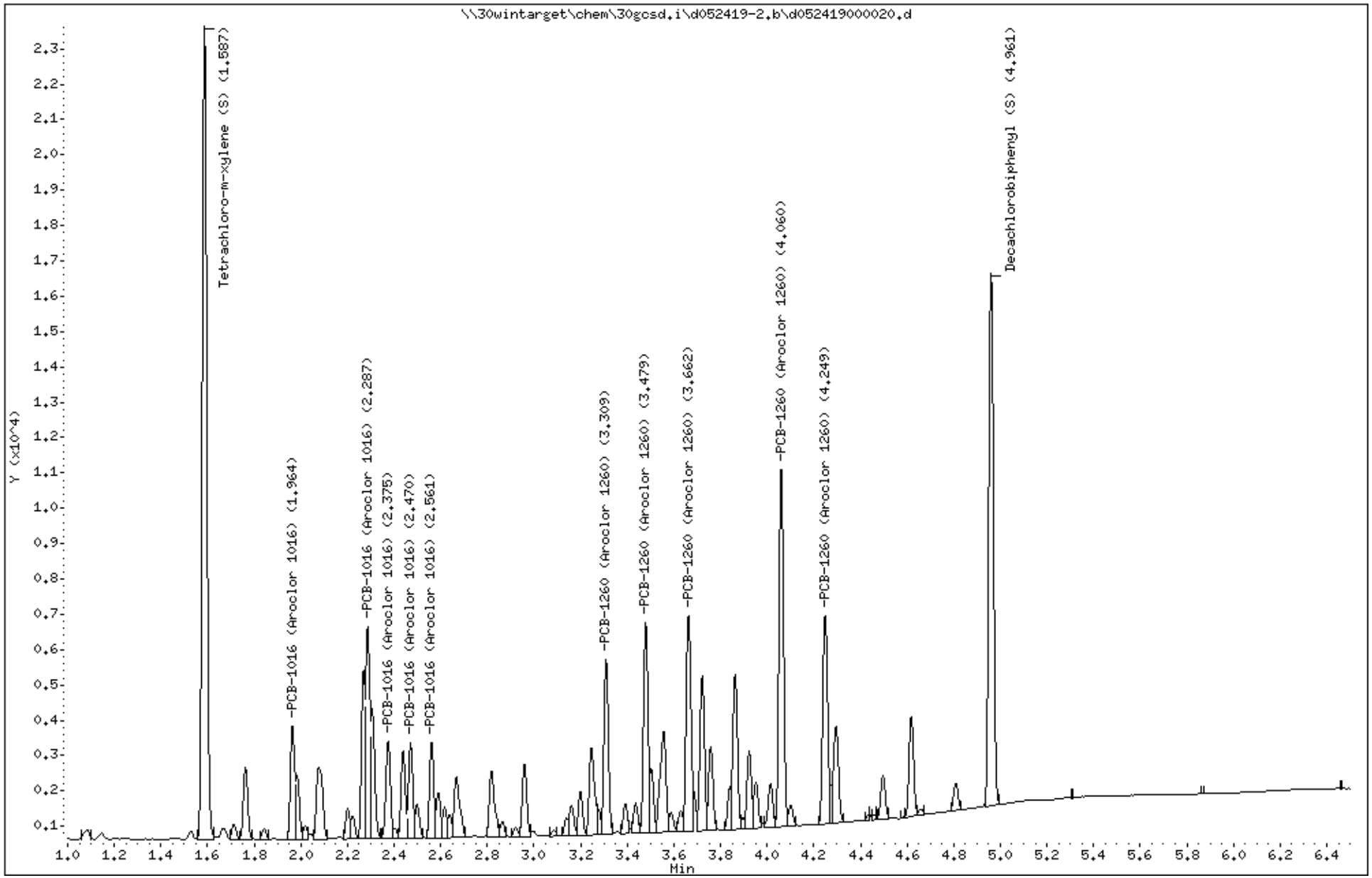
Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32

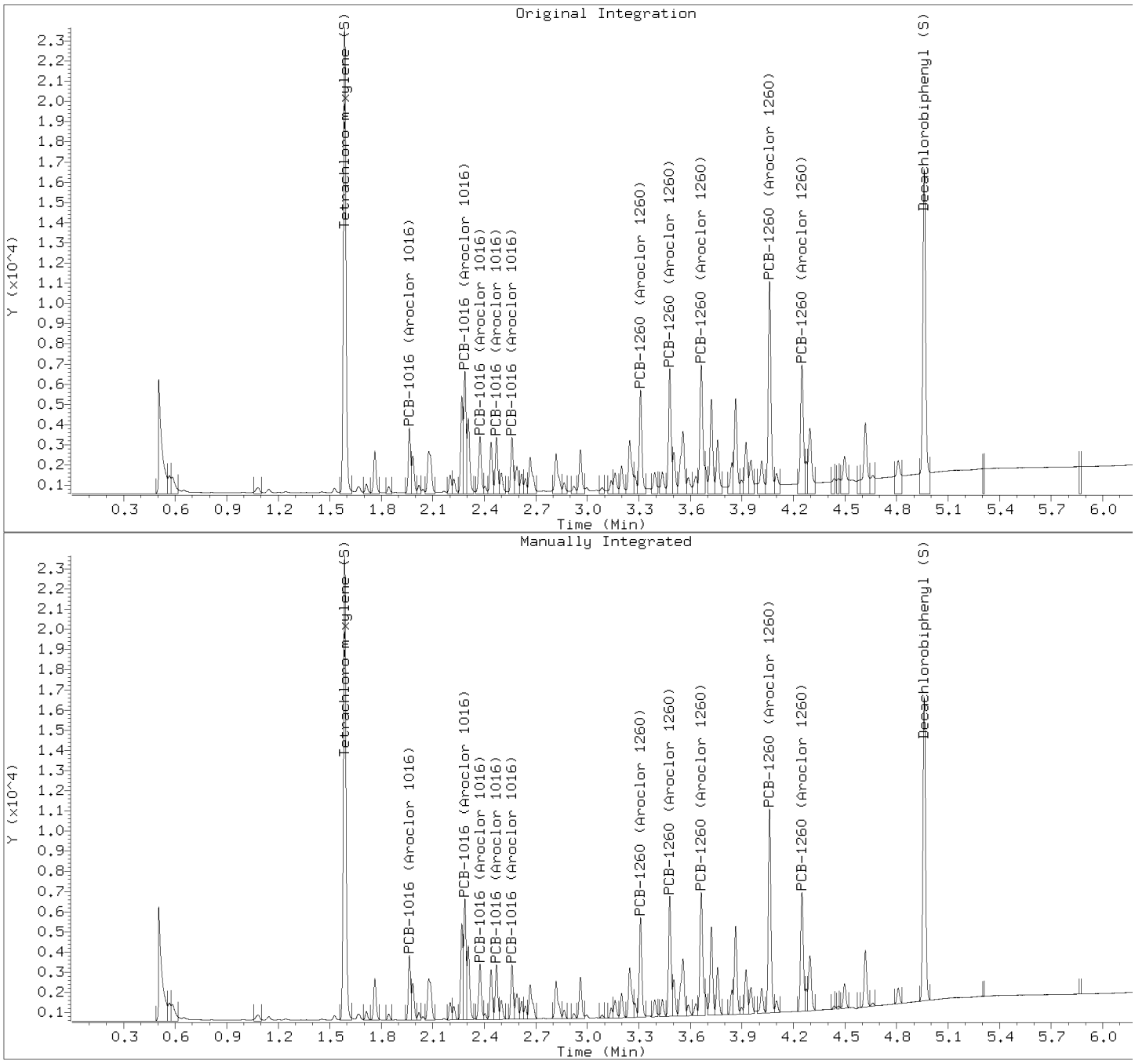


Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)

Injection Date: 24-MAY-2019 15:42 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3047	2982
PCB-1016 (Aroclor 1016)	5863	5837
PCB-1016 (Aroclor 1016)	3091	2892
PCB-1016 (Aroclor 1016)	2820	2668
PCB-1016 (Aroclor 1016)	2811	2617
PCB-1260 (Aroclor 1260)	5567	5009
PCB-1260 (Aroclor 1260)	6480	5966
PCB-1260 (Aroclor 1260)	7897	7209
PCB-1260 (Aroclor 1260)	11874	10637
PCB-1260 (Aroclor 1260)	7987	6694
Tetrachloro-m-xylene (S)	23921	23711
Decachlorobiphenyl (S)	20020	16302

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	4218	2883	0.683	1.743		
0.531	1266	2546	2.011	1.539		
1.211	26118	20692	0.792	12.549	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	389	293	0.753	0.177		
1.344	495	426	0.861	0.257		
1.376	310	292	0.942	0.176		
1.400	525	466	0.888	0.281		
1.440	2491	2080	0.835	1.257		
1.559	323	306	0.948	0.185		
1.630	5254	3691	0.703	2.232	1 PCB-1016 (Aroclor 1016)	BA
1.693	331	450	1.360	0.272		
1.744	1188	1478	1.244	0.893		
1.758	2275	1979	0.870	1.196		
1.805	855	885	1.035	0.535		
1.821	804	748	0.930	0.452		
1.877	10421	7321	0.703	4.427	1 PCB-1016 (Aroclor 1016)	BA
1.930	4345	3359	0.773	2.031	1 PCB-1016 (Aroclor 1016)	BA
2.006	2303	2303	1.000	1.392		
2.033	3142	2674	0.851	1.617		
2.060	1983	2123	1.070	1.284		
2.074	2461	2143	0.871	1.296		
2.186	3121	3076	0.985	1.860	1 PCB-1016 (Aroclor 1016)	BA
2.209	1252	1247	0.996	0.754		
2.236	1369	961	0.702	0.581		
2.275	2826	2460	0.870	1.487	1 PCB-1016 (Aroclor 1016)	BA
2.342	740	669	0.904	0.404		
2.372	400	391	0.978	0.236		
2.399	492	531	1.080	0.321		
2.422	2112	1872	0.886	1.132		
2.469	268	265	0.990	0.160		
2.507	1808	1734	0.959	1.048		
2.726	259	255	0.985	0.154		
2.794	4475	3732	0.834	2.257	7 PCB-1260 (Aroclor 1260)	BA
2.827	1660	1521	0.916	0.919		
2.882	5749	5435	0.945	3.287	7 PCB-1260 (Aroclor 1260)	BA
2.921	261	251	0.963	0.151		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.952	945	894	0.946	0.540		
2.992	7105	6573	0.925	3.975	7 PCB-1260 (Aroclor 1260)	BA
3.100	2562	2862	1.117	1.730		
3.117	3798	3394	0.894	2.052		
3.187	2092	1490	0.712	0.901		
3.223	7554	5545	0.734	3.353		
3.250	5310	4917	0.926	2.973		
3.286	2913	2711	0.931	1.639		
3.376	1068	927	0.868	0.560		
3.435	5657	4951	0.875	2.994		
3.496	2750	2602	0.946	1.573		
3.530	2137	1923	0.900	1.163		
3.555	366	492	1.344	0.297		
3.581	12001	11321	0.943	6.847	7 PCB-1260 (Aroclor 1260)	BA
3.675	386	377	0.978	0.228		
3.754	100	172	1.712	0.104		
3.783	2353	2235	0.950	1.351		
3.824	8637	7800	0.903	4.717	7 PCB-1260 (Aroclor 1260)	BA
3.969	391	383	0.980	0.231		
4.033	4	62	14.419	0.037		
4.076	1153	1120	0.971	0.677		
4.150	2857	2580	0.903	1.560		
4.341	966	895	0.926	0.541		
4.497	15951	15132	0.949	9.151	$ 11 Decachlorobiphenyl (S)	BA
4.725	14	33	2.409	0.019		
4.808	38	60	1.584	0.036		
5.298	13	31	2.338	0.018		
5.307	9	33	3.708	0.019		
5.358	11	46	4.182	0.027		
5.645	10	24	2.439	0.014		
6.226	32	120	3.743	0.072		
6.318	19	78	4.110	0.047		
6.466	5	21	4.339	0.012		
	187498	165342		100.000		

Total unknown % height = 45.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.630	1.630	0.000	5253	0.25000	0.256	80.00- 120.00	100.00	(M)	BA
1.876	1.876	0.000	10421	0.25000	0.252	159.11- 238.66	198.35		BA
1.930	1.930	0.000	4345	0.25000	0.261	66.14- 99.21	82.70		BA
2.185	2.185	0.000	3121	0.25000	0.244	47.38- 71.07	59.41		BA
2.274	2.274	0.000	2826	0.25000	0.257	43.15- 64.73	53.79		BA
	Average of Peak Amounts =				0.25400				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.793	2.794	-0.001	4474	0.25000	0.241	80.00- 120.00	100.00	(M)	BA
2.881	2.881	0.000	5749	0.25000	0.242	102.77- 154.15	128.50		BA
2.991	2.992	-0.001	7105	0.25000	0.239	125.79- 188.69	158.81		BA
3.581	3.581	0.000	12000	0.25000	0.239	216.45- 324.67	268.22		BA
3.824	3.824	0.000	8637	0.25000	0.238	155.24- 232.86	193.05		BA
	Average of Peak Amounts =				0.23980				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.211	-0.001	26117	0.05000	0.0514			(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.496	4.497	-0.001	15950	0.05000	0.0475			(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 18:23
Lab File ID: d071719000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21012	0.010	2.30792	20.00000	Aver	(M)
(2)	41335	41684	0.010	0.84473	20.00000	Aver	(M)
(3)	16656	17380	0.010	4.34574	20.00000	Aver	(M)
(4)	12773	12484	0.010	-2.26386	20.00000	Aver	(M)
(5)	10980	11304	0.010	2.95551	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17896	0.010	-3.49468	20.00000	Aver	(M)
(2)	23716	22996	0.010	-3.03502	20.00000	Aver	(M)
(3)	29676	28420	0.010	-4.23273	20.00000	Aver	(M)
(4)	50204	48000	0.010	-4.39083	20.00000	Aver	(M)
(5)	36244	34548	0.010	-4.67896	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	522340	0.010	2.70058	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	319000	0.010	-4.96076	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.36173
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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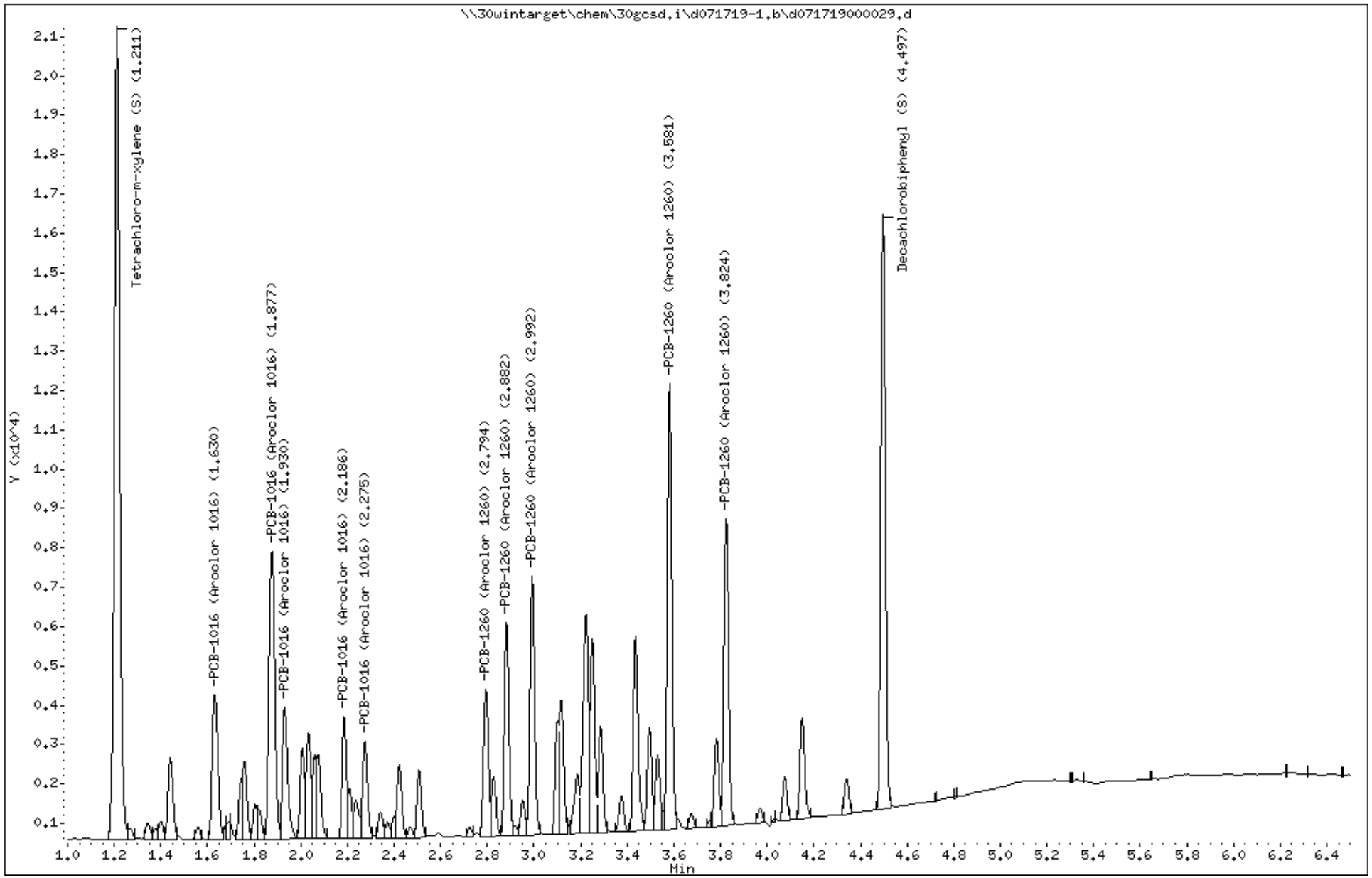
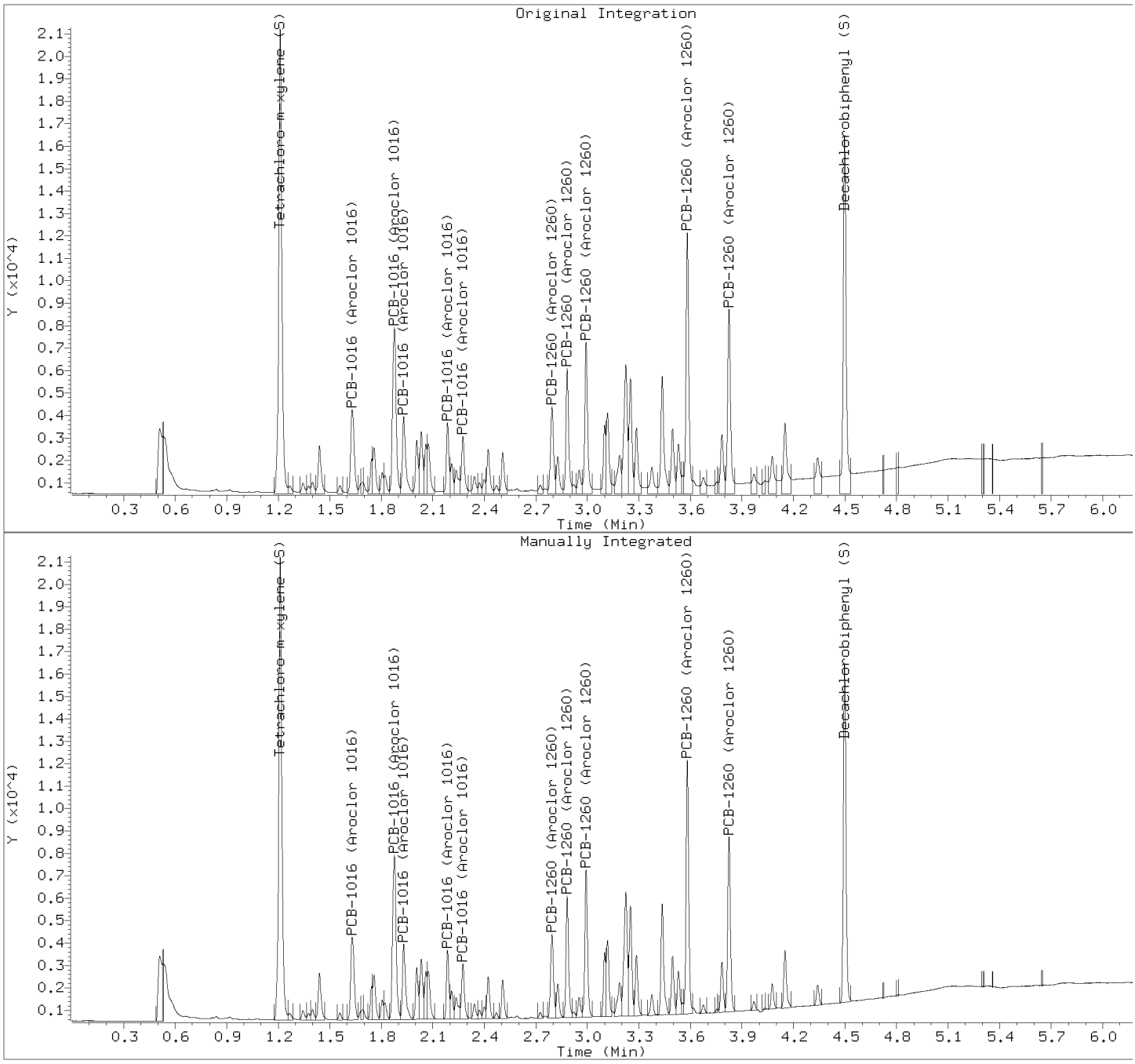
Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Date : 17-JUL-2019 18:23
Client ID: CCV
Sample Info: CCV, 93951:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 18:23 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5440	5253
PCB-1016 (Aroclor 1016)	10668	10421
PCB-1016 (Aroclor 1016)	4640	4345
PCB-1016 (Aroclor 1016)	3295	3121
PCB-1016 (Aroclor 1016)	3077	2826
PCB-1260 (Aroclor 1260)	4827	4474
PCB-1260 (Aroclor 1260)	6216	5749
PCB-1260 (Aroclor 1260)	7721	7105
PCB-1260 (Aroclor 1260)	12935	12000
PCB-1260 (Aroclor 1260)	9989	8637
Tetrachloro-m-xylene (S)	26343	26117
Decachlorobiphenyl (S)	19137	15950

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	6012	3387	0.563	2.267		
0.567	1893	1430	0.755	0.957		
0.584	2593	1241	0.479	0.830		
1.525	261	228	0.874	0.152		
1.583	22991	20436	0.889	13.733	$ 10 Tetrachloro-m-xylene (S)	BA
1.709	467	414	0.887	0.277		
1.758	2424	2136	0.881	1.429		
1.838	292	274	0.937	0.183		
1.959	2839	2798	0.986	1.873	1 PCB-1016 (Aroclor 1016)	BA
1.978	1784	1707	0.957	1.142		
2.013	369	342	0.926	0.228		
2.072	2061	1857	0.901	1.243		
2.195	709	736	1.039	0.492		
2.217	651	600	0.921	0.401		
2.263	3672	4119	1.122	2.757		
2.281	5518	5175	0.938	3.464	1 PCB-1016 (Aroclor 1016)	BA
2.300	3665	3356	0.916	2.246		
2.369	2706	2290	0.846	1.533	1 PCB-1016 (Aroclor 1016)	BA
2.432	2097	2032	0.969	1.360		
2.464	2461	2353	0.956	1.575	1 PCB-1016 (Aroclor 1016)	BA
2.492	951	834	0.877	0.558		
2.554	2400	2336	0.973	1.563	1 PCB-1016 (Aroclor 1016)	BA
2.583	1320	1148	0.870	0.768		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.610	825	806	0.977	0.539		
2.631	629	627	0.998	0.419		
2.660	2606	1602	0.615	1.072		
2.810	2223	1545	0.695	1.034		
2.857	353	327	0.927	0.218		
2.953	1621	1497	0.923	1.002		
3.132	164	206	1.255	0.137		
3.153	851	772	0.907	0.516		
3.192	681	639	0.939	0.427		
3.238	3077	2330	0.757	1.559		
3.268	274	641	2.341	0.429		
3.301	4827	4577	0.948	3.064	7 PCB-1260 (Aroclor 1260)	BA
3.383	248	389	1.571	0.260		
3.429	741	716	0.966	0.479		
3.472	5711	5468	0.958	3.660	7 PCB-1260 (Aroclor 1260)	BA
3.494	1719	1703	0.991	1.140		
3.548	3808	2500	0.656	1.673		
3.579	516	487	0.944	0.326		
3.624	526	473	0.899	0.316		
3.655	7103	5416	0.763	3.625	7 PCB-1260 (Aroclor 1260)	BA
3.713	4317	4044	0.937	2.707		
3.750	2273	2165	0.952	1.449		
3.832	886	944	1.065	0.631		
3.854	4491	4107	0.914	2.749		
3.887	229	251	1.098	0.168		
3.915	2139	2007	0.938	1.343		
3.943	1299	1179	0.908	0.789		
4.007	1102	1009	0.916	0.675		
4.053	10083	9246	0.917	6.189	7 PCB-1260 (Aroclor 1260)	BA
4.093	535	490	0.916	0.328		
4.240	6060	5494	0.907	3.677	7 PCB-1260 (Aroclor 1260)	BA
4.268	729	980	1.344	0.656		
4.287	2844	2254	0.792	1.508		
4.428	334	274	0.819	0.183		
4.455	134	180	1.344	0.120		
4.489	1345	1078	0.802	0.721		
4.584	92	90	0.974	0.060		
4.610	2660	2289	0.861	1.532		
4.653	166	193	1.164	0.129		
4.703	14	51	3.632	0.034		
4.745	15	58	3.882	0.038		
4.801	948	830	0.876	0.555		
4.877	12	37	3.112	0.024		
4.884	14	35	2.456	0.023		
4.921	8	30	3.769	0.020		
4.950	14899	13658	0.917	9.143	$ 11 Decachlorobiphenyl (S)	BA
5.022	7	22	3.254	0.014		
5.043	18	39	2.191	0.026		
5.088	6	21	3.246	0.014		
5.101	4	25	5.952	0.016		
5.114	7	23	3.433	0.015		
5.177	18	80	4.372	0.053		
5.238	16	56	3.491	0.037		
5.255	21	64	3.071	0.042		
5.299	39	128	3.269	0.085		
5.324	40	157	3.962	0.105		
5.471	11	42	3.737	0.028		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.512	15	47	3.206	0.031		
5.531	14	59	4.338	0.039		
5.616	26	89	3.402	0.059		
5.626	39	81	2.073	0.054		
5.636	17	73	4.340	0.048		
5.671	15	57	3.725	0.038		
5.847	26	60	2.302	0.040		
5.874	19	69	3.653	0.046		
5.886	16	77	4.834	0.051		
5.929	14	60	4.345	0.040		
5.934	18	60	3.286	0.040		
5.939	25	60	2.354	0.040		
5.951	27	74	2.791	0.049		
5.964	15	71	4.837	0.047		
6.061	19	52	2.698	0.034		
6.100	6	28	4.762	0.018		
6.108	5	25	5.071	0.016		
6.146	16	50	3.161	0.033		
6.161	30	66	2.174	0.044		
6.170	21	64	3.059	0.042		
6.254	17	85	4.994	0.056		
6.277	16	89	5.447	0.059		
6.298	32	82	2.576	0.054		
6.324	22	91	4.110	0.060		
6.365	45	98	2.182	0.065		
6.434	48	87	1.801	0.058		
6.495	9	41	4.734	0.027		
	167023	149375		100.000		

Total unknown % height = 46.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.958	1.958	0.000	2838	0.25000	0.249	80.00- 120.00	100.00	(aM)	BA
2.280	2.280	0.000	5518	0.25000	0.253	161.06- 241.58	194.43		BA
2.368	2.368	0.000	2706	0.25000	0.249	77.73- 116.59	95.35		BA
2.464	2.463	0.001	2461	0.25000	0.246	70.77- 106.16	86.72		BA
2.553	2.554	-0.001	2399	0.25000	0.242	68.90- 103.36	84.56		BA
Average of Peak Amounts =					0.24780				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.300	3.300	0.000	4826	0.25000	0.237	80.00- 120.00	100.00	(aM)	BA
3.471	3.471	0.000	5710	0.25000	0.234	94.09- 141.14	118.32		BA
3.655	3.654	0.001	7102	0.25000	0.242	117.87- 176.80	147.16		BA
4.052	4.052	0.000	10083	0.25000	0.234	166.49- 249.74	208.93		BA
4.239	4.239	0.000	6059	0.25000	0.234	99.38- 149.07	125.57		BA
Average of Peak Amounts =					0.23620				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.583	1.583	0.000	22991	0.05000	0.0506			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	14898	0.05000	0.0469		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 18:23
Lab File ID: d071719000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11352	0.010	-0.36181	20.00000	Aver	(aM)
(2)	21808	22072	0.010	1.21031	20.00000	Aver	(aM)
(3)	10850	10824	0.010	-0.23657	20.00000	Aver	(aM)
(4)	9980	9844	0.010	-1.36657	20.00000	Aver	(aM)
(5)	9902	9596	0.010	-3.08702	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	19304	0.010	-5.00156	20.00000	Aver	(aM)
(2)	24356	22840	0.010	-6.22519	20.00000	Aver	(aM)
(3)	29292	28408	0.010	-3.01789	20.00000	Aver	(aM)
(4)	43025	40332	0.010	-6.25951	20.00000	Aver	(aM)
(5)	25870	24236	0.010	-6.31539	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	459820	0.010	1.24273	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	297960	0.010	-6.14349	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.37528
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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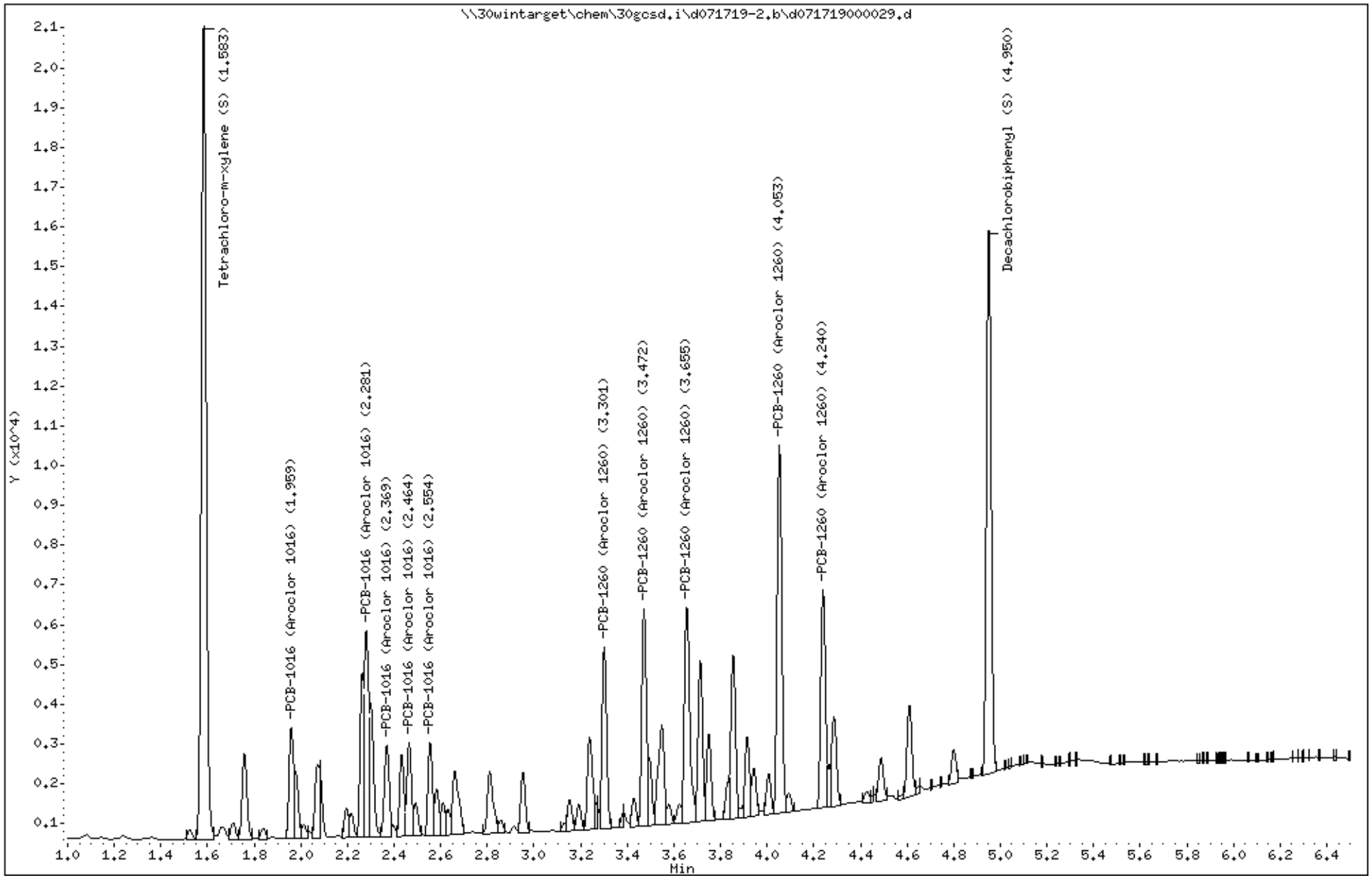
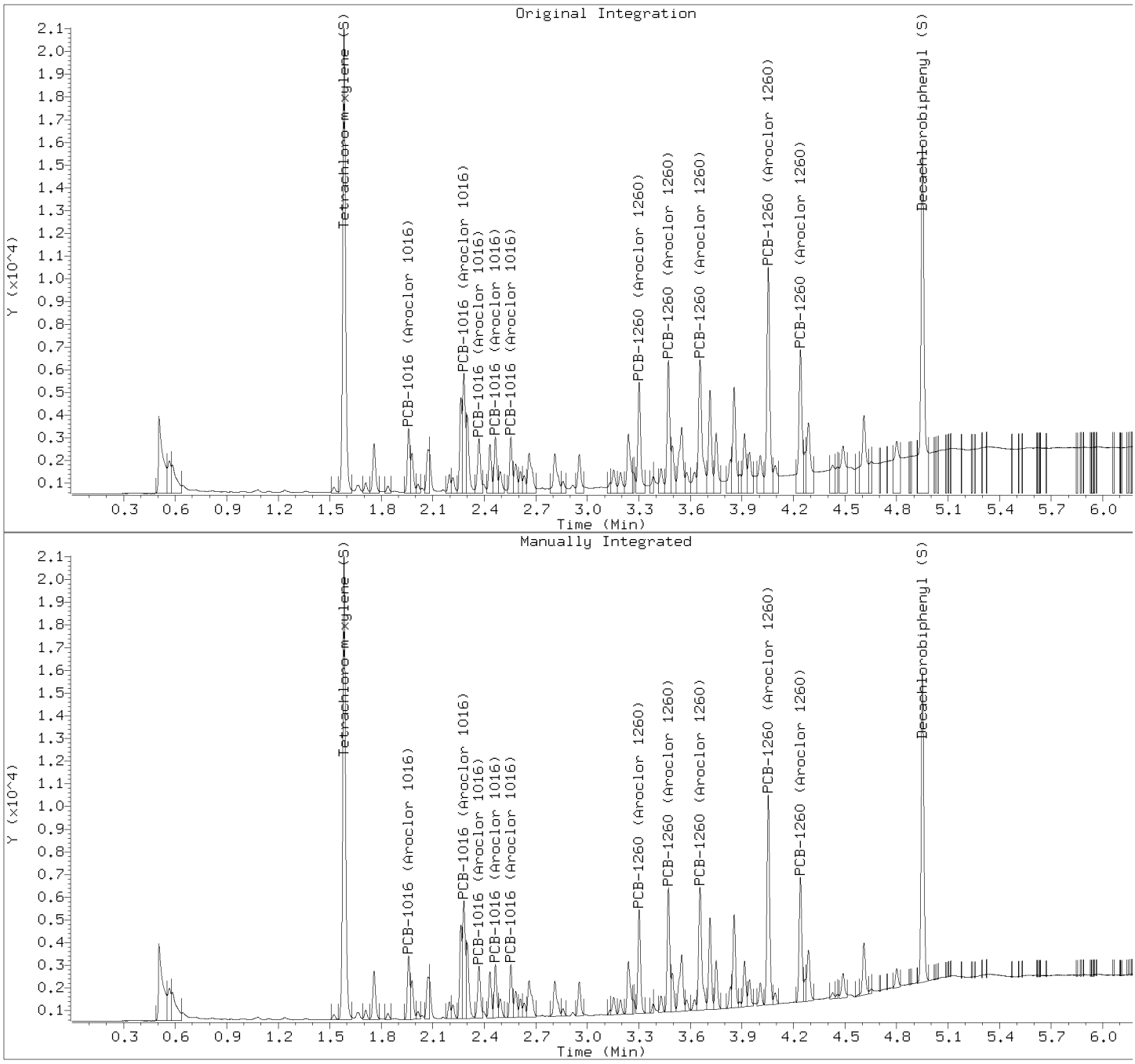
Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Date : 17-JUL-2019 18:23
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93951:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 18:23 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2945	2838
PCB-1016 (Aroclor 1016)	5594	5518
PCB-1016 (Aroclor 1016)	3031	2706
PCB-1016 (Aroclor 1016)	2697	2461
PCB-1016 (Aroclor 1016)	2708	2399
PCB-1260 (Aroclor 1260)	5780	4826
PCB-1260 (Aroclor 1260)	6560	5710
PCB-1260 (Aroclor 1260)	8761	7102
PCB-1260 (Aroclor 1260)	12252	10083
PCB-1260 (Aroclor 1260)	8221	6059
Tetrachloro-m-xylene (S)	23219	22991
Decachlorobiphenyl (S)	21259	14898

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 22:21
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	4141	2891	0.698	1.682		
0.534	1803	2666	1.478	1.551		
1.212	27174	21403	0.788	12.485	$ 10 Tetrachloro-m-xylene (S)	BA
1.345	516	438	0.849	0.254		
1.377	332	302	0.909	0.175		
1.400	535	487	0.910	0.283		
1.441	2635	2175	0.825	1.265		
1.559	328	310	0.945	0.180		
1.631	5472	3828	0.700	2.227	1 PCB-1016 (Aroclor 1016)	BA
1.693	902	476	0.528	0.276		
1.744	1266	1535	1.212	0.893		
1.759	2362	2076	0.879	1.208		
1.805	891	914	1.026	0.531		
1.822	761	733	0.963	0.426		
1.877	10881	7688	0.707	4.473	1 PCB-1016 (Aroclor 1016)	BA
1.931	4523	3505	0.775	2.039	1 PCB-1016 (Aroclor 1016)	BA
2.006	2401	2407	1.003	1.400		
2.033	3271	2784	0.851	1.620		
2.060	2105	2200	1.045	1.280		
2.075	2530	2206	0.872	1.283		
2.186	3241	3212	0.991	1.869	1 PCB-1016 (Aroclor 1016)	BA
2.210	1318	1292	0.980	0.751		
2.236	1423	1016	0.714	0.591		
2.275	2952	2567	0.870	1.493	1 PCB-1016 (Aroclor 1016)	BA
2.342	771	695	0.901	0.404		
2.372	424	405	0.954	0.235		
2.399	502	554	1.104	0.322		
2.423	2217	1923	0.868	1.119		
2.470	277	277	0.998	0.161		
2.507	1885	1806	0.958	1.050		
2.726	267	266	0.995	0.154		
2.795	4671	3865	0.828	2.249	7 PCB-1260 (Aroclor 1260)	BA
2.827	1719	1561	0.908	0.908		
2.882	6000	5732	0.955	3.335	7 PCB-1260 (Aroclor 1260)	BA
2.921	265	256	0.967	0.148		
2.952	973	930	0.956	0.541		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.993	7344	6724	0.916	3.912	7 PCB-1260 (Aroclor 1260)	BA
3.100	2679	2978	1.111	1.732		
3.117	3981	3556	0.893	2.069		
3.187	2182	1557	0.714	0.906		
3.224	7901	5801	0.734	3.375		
3.251	5604	5135	0.916	2.988		
3.286	3028	2869	0.948	1.669		
3.376	1095	972	0.888	0.565		
3.436	5931	5257	0.886	3.059		
3.496	2875	2656	0.924	1.545		
3.531	2216	2020	0.912	1.175		
3.556	412	531	1.290	0.309		
3.582	12636	11965	0.947	6.962	7 PCB-1260 (Aroclor 1260)	BA
3.675	418	408	0.977	0.237		
3.756	163	177	1.086	0.103		
3.783	2467	2366	0.959	1.376		
3.824	9062	8122	0.896	4.726	7 PCB-1260 (Aroclor 1260)	BA
3.970	448	412	0.919	0.239		
4.034	5	61	11.553	0.035		
4.076	1215	1173	0.965	0.682		
4.151	3041	2815	0.926	1.638		
4.341	1013	950	0.938	0.552		
4.497	16854	15930	0.945	9.270	$ 11 Decachlorobiphenyl (S)	BA
6.098	3	13	4.498	0.007		
6.190	4	15	3.472	0.008		
	196312	171844		100.000		

Total unknown % height = 45.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 22:21
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.630	0.000	5471	0.25000	0.266	80.00- 120.00	100.00(M)	BA
1.877	1.876	0.001	10881	0.25000	0.263	159.11- 238.66	198.86	BA
1.930	1.930	0.000	4523	0.25000	0.272	66.14- 99.21	82.66	BA
2.186	2.185	0.001	3240	0.25000	0.254	47.38- 71.07	59.22	BA
2.275	2.274	0.001	2951	0.25000	0.269	43.15- 64.73	53.95	BA
		Average of Peak Amounts =			0.26480			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.794	2.794	0.000	4670	0.25000	0.252	80.00- 120.00	100.00(M)	BA
2.882	2.881	0.001	5999	0.25000	0.253	102.77- 154.15	128.46	BA
2.992	2.992	0.000	7343	0.25000	0.247	125.79- 188.69	157.24	BA
3.581	3.581	0.000	12635	0.25000	0.252	216.45- 324.67	270.56	BA
3.824	3.824	0.000	9062	0.25000	0.250	155.24- 232.86	194.05	BA
		Average of Peak Amounts =			0.25080			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.211	0.000	27173	0.05000	0.0534		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.497	4.497	0.000	16854	0.05000	0.0502		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 22:21
Lab File ID: d071719000057.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21884	0.010	6.55371	20.00000	Aver	(M)
(2)	41335	43524	0.010	5.29618	20.00000	Aver	(M)
(3)	16656	18092	0.010	8.62043	20.00000	Aver	(M)
(4)	12773	12960	0.010	1.46270	20.00000	Aver	(M)
(5)	10980	11804	0.010	7.50945	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	18680	0.010	0.73309	20.00000	Aver	(M)
(2)	23716	23996	0.010	1.18159	20.00000	Aver	(M)
(3)	29676	29372	0.010	-1.02477	20.00000	Aver	(M)
(4)	50204	50540	0.010	0.66849	20.00000	Aver	(M)
(5)	36244	36248	0.010	0.01150	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	543460	0.010	6.85312	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	337080	0.010	0.42579	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.

Calculated Average %D/Drift = 3.36173
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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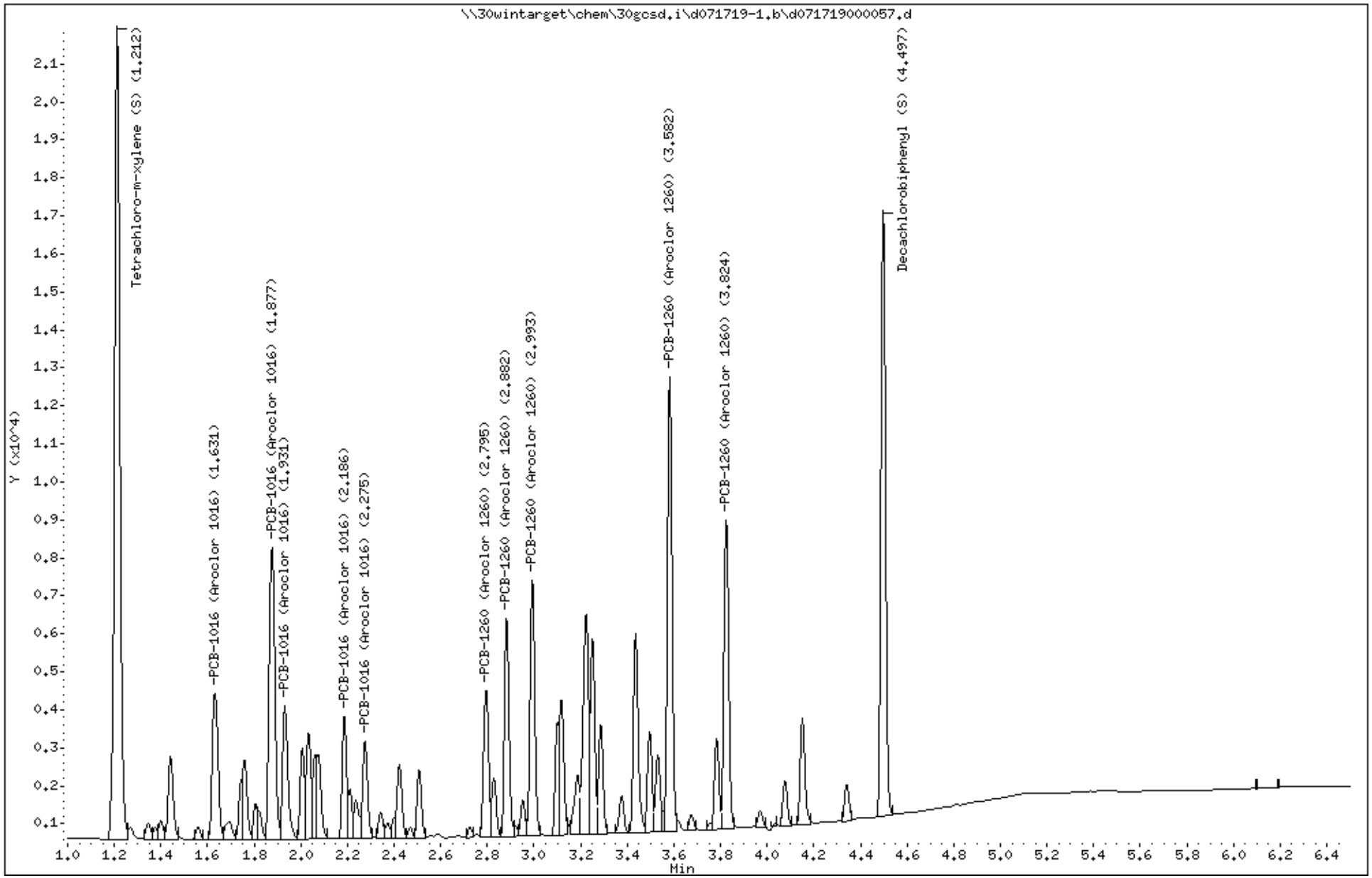
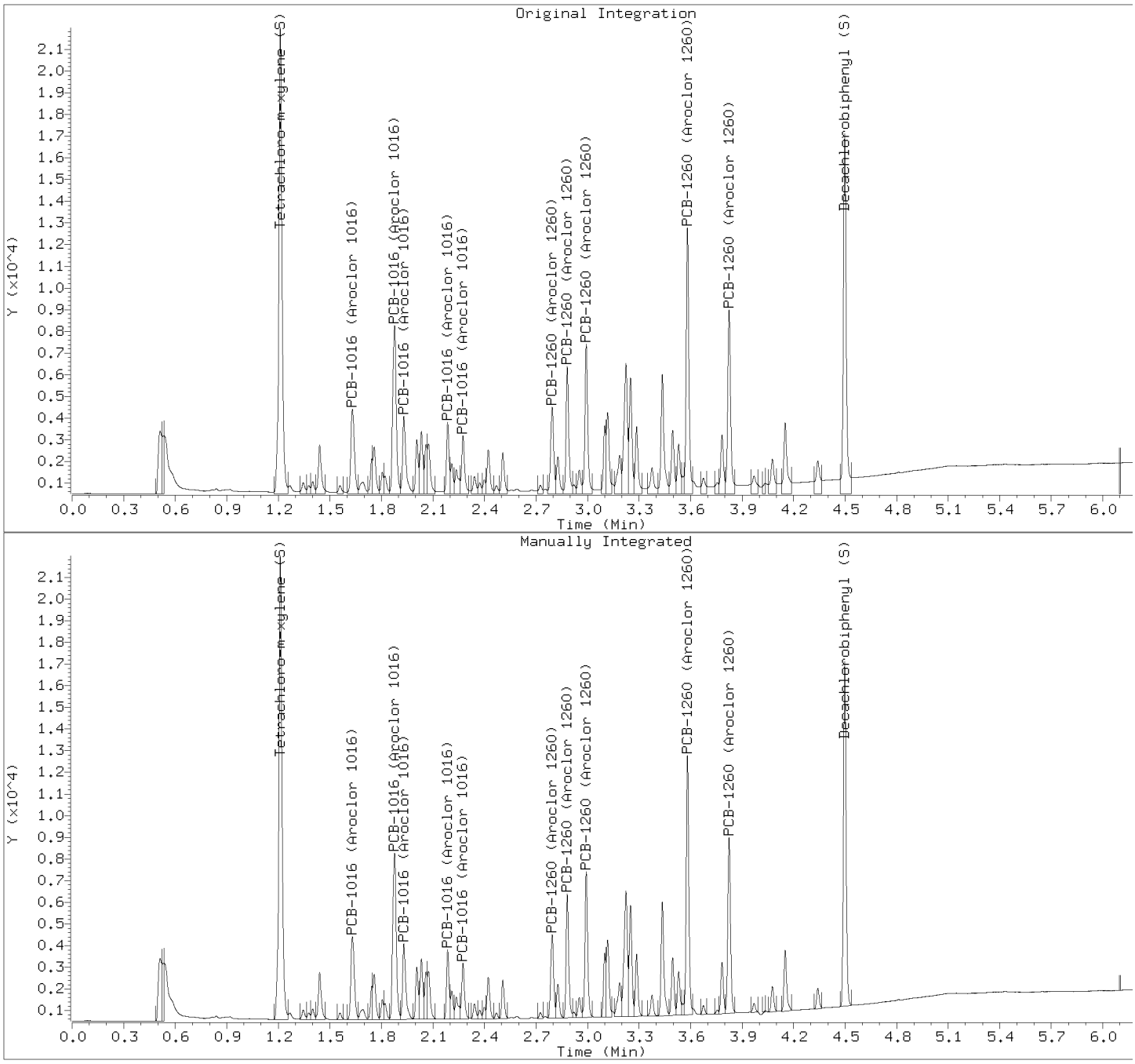
Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000057.d
Date : 17-JUL-2019 22:21
Client ID: CCV
Sample Info: CCV, 93951:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000057.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 22:21 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5702	5471
PCB-1016 (Aroclor 1016)	11157	10881
PCB-1016 (Aroclor 1016)	4851	4523
PCB-1016 (Aroclor 1016)	3422	3240
PCB-1016 (Aroclor 1016)	3210	2951
PCB-1260 (Aroclor 1260)	5016	4670
PCB-1260 (Aroclor 1260)	6461	5999
PCB-1260 (Aroclor 1260)	7923	7343
PCB-1260 (Aroclor 1260)	13485	12635
PCB-1260 (Aroclor 1260)	10219	9062
Tetrachloro-m-xylene (S)	27512	27173
Decachlorobiphenyl (S)	19476	16854

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 22:21
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	6130	3201	0.522	2.079		
0.566	2022	1563	0.773	1.015		
0.584	2895	1365	0.471	0.886		
1.583	24042	20923	0.870	13.640	$ 10 Tetrachloro-m-xylene (S)	BA
1.665	297	314	1.056	0.204		
1.709	478	430	0.900	0.279		
1.758	2533	2248	0.887	1.460		
1.839	308	285	0.925	0.185		
1.959	2957	2948	0.997	1.915	1 PCB-1016 (Aroclor 1016)	BA
1.978	1900	1788	0.941	1.161		
2.014	391	364	0.931	0.236		
2.071	1844	1938	1.051	1.259		
2.196	771	782	1.014	0.508		
2.217	634	596	0.941	0.387		
2.263	3760	4263	1.134	2.770		
2.281	5952	5478	0.920	3.559	1 PCB-1016 (Aroclor 1016)	BA
2.300	3831	3512	0.917	2.282		
2.369	2873	2399	0.835	1.558	1 PCB-1016 (Aroclor 1016)	BA
2.432	2216	2147	0.969	1.395		
2.464	2616	2443	0.934	1.587	1 PCB-1016 (Aroclor 1016)	BA
2.492	1009	873	0.865	0.567		
2.554	2547	2459	0.965	1.597	1 PCB-1016 (Aroclor 1016)	BA
2.583	1388	1209	0.871	0.785		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.610	881	858	0.973	0.557		
2.631	673	663	0.985	0.430		
2.660	2773	1697	0.612	1.102		
2.810	2332	1622	0.695	1.053		
2.858	377	351	0.931	0.228		
2.952	1710	1575	0.921	1.023		
3.132	192	226	1.178	0.146		
3.152	907	811	0.894	0.526		
3.191	744	688	0.925	0.447		
3.238	3315	2452	0.740	1.593		
3.269	579	679	1.173	0.441		
3.301	5115	4812	0.941	3.126	7 PCB-1260 (Aroclor 1260)	BA
3.384	486	418	0.860	0.271		
3.429	805	761	0.946	0.494		
3.471	6016	5790	0.962	3.762	7 PCB-1260 (Aroclor 1260)	BA
3.495	1853	1817	0.981	1.180		
3.548	4080	2662	0.652	1.729		
3.579	568	538	0.946	0.349		
3.624	590	518	0.878	0.336		
3.655	7536	5656	0.751	3.675	7 PCB-1260 (Aroclor 1260)	BA
3.713	4578	4209	0.919	2.734		
3.750	2421	2307	0.953	1.499		
3.832	918	999	1.089	0.649		
3.854	4792	4281	0.893	2.781		
3.888	264	285	1.079	0.185		
3.915	2269	2126	0.937	1.381		
3.943	1395	1240	0.889	0.805		
4.007	1181	1046	0.886	0.679		
4.052	10646	9767	0.917	6.346	7 PCB-1260 (Aroclor 1260)	BA
4.093	583	528	0.906	0.343		
4.240	6354	5669	0.892	3.683	7 PCB-1260 (Aroclor 1260)	BA
4.267	785	1033	1.315	0.671		
4.287	2970	2369	0.798	1.539		
4.427	323	270	0.836	0.175		
4.456	196	173	0.882	0.112		
4.489	1273	1080	0.849	0.701		
4.576	57	25	0.440	0.016		
4.609	2498	2334	0.934	1.516		
4.653	105	141	1.349	0.091		
4.799	934	851	0.912	0.552		
4.949	15782	14289	0.905	9.284	$ 11 Decachlorobiphenyl (S)	BA
5.021	12	40	3.445	0.025		
5.050	12	38	3.193	0.024		
5.071	14	44	3.163	0.028		
5.132	4	20	4.926	0.012		
5.356	14	50	3.577	0.032		
5.437	13	55	4.160	0.035		
5.483	16	47	2.963	0.030		
5.545	16	61	3.798	0.039		
5.655	20	60	3.036	0.038		
5.724	15	60	4.057	0.038		
5.809	10	45	4.573	0.029		
5.820	10	46	4.591	0.029		
6.043	8	21	2.724	0.013		
6.145	4	17	4.304	0.011		
6.219	5	27	5.000	0.017		
6.258	12	35	2.944	0.022		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.287	9	35	3.924	0.022		
6.362	11	50	4.409	0.032		
	175453	153895		100.000		

Total unknown % height = 46.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000057.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 22:21
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 57 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.958	1.958	0.000	2956	0.25000	0.259	80.00- 120.00	100.00	(aM)	BA
2.280	2.280	0.000	5951	0.25000	0.273	161.06- 241.58	201.32		BA
2.369	2.368	0.001	2872	0.25000	0.265	77.73- 116.59	97.16		BA
2.464	2.463	0.001	2615	0.25000	0.262	70.77- 106.16	88.46		BA
2.553	2.554	-0.001	2546	0.25000	0.257	68.90- 103.36	86.16		BA
	Average of Peak Amounts =				0.26320				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.301	3.300	0.001	5115	0.25000	0.252	80.00- 120.00	100.00	(aM)	BA
3.471	3.471	0.000	6016	0.25000	0.247	94.09- 141.14	117.61		BA
3.655	3.654	0.001	7536	0.25000	0.257	117.87- 176.80	147.33		BA
4.052	4.052	0.000	10645	0.25000	0.247	166.49- 249.74	208.12		BA
4.239	4.239	0.000	6354	0.25000	0.246	99.38- 149.07	124.22		BA
	Average of Peak Amounts =				0.24980				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.583	1.583	0.000	24042	0.05000	0.0529			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.949	4.950	-0.001	15782	0.05000	0.0497		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 22:21
Lab File ID: d071719000057.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11824	0.010	3.78100	20.00000	Aver	(aM)
(2)	21808	23804	0.010	9.15233	20.00000	Aver	(aM)
(3)	10850	11488	0.010	5.88344	20.00000	Aver	(aM)
(4)	9980	10460	0.010	4.80554	20.00000	Aver	(aM)
(5)	9902	10184	0.010	2.85137	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	20460	0.010	0.68732	20.00000	Aver	(aM)
(2)	24356	24064	0.010	-1.19978	20.00000	Aver	(aM)
(3)	29292	30144	0.010	2.90864	20.00000	Aver	(aM)
(4)	43025	42580	0.010	-1.03467	20.00000	Aver	(aM)
(5)	25870	25416	0.010	-1.75408	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	480840	0.010	5.87089	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	315640	0.010	-0.57434	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.37528
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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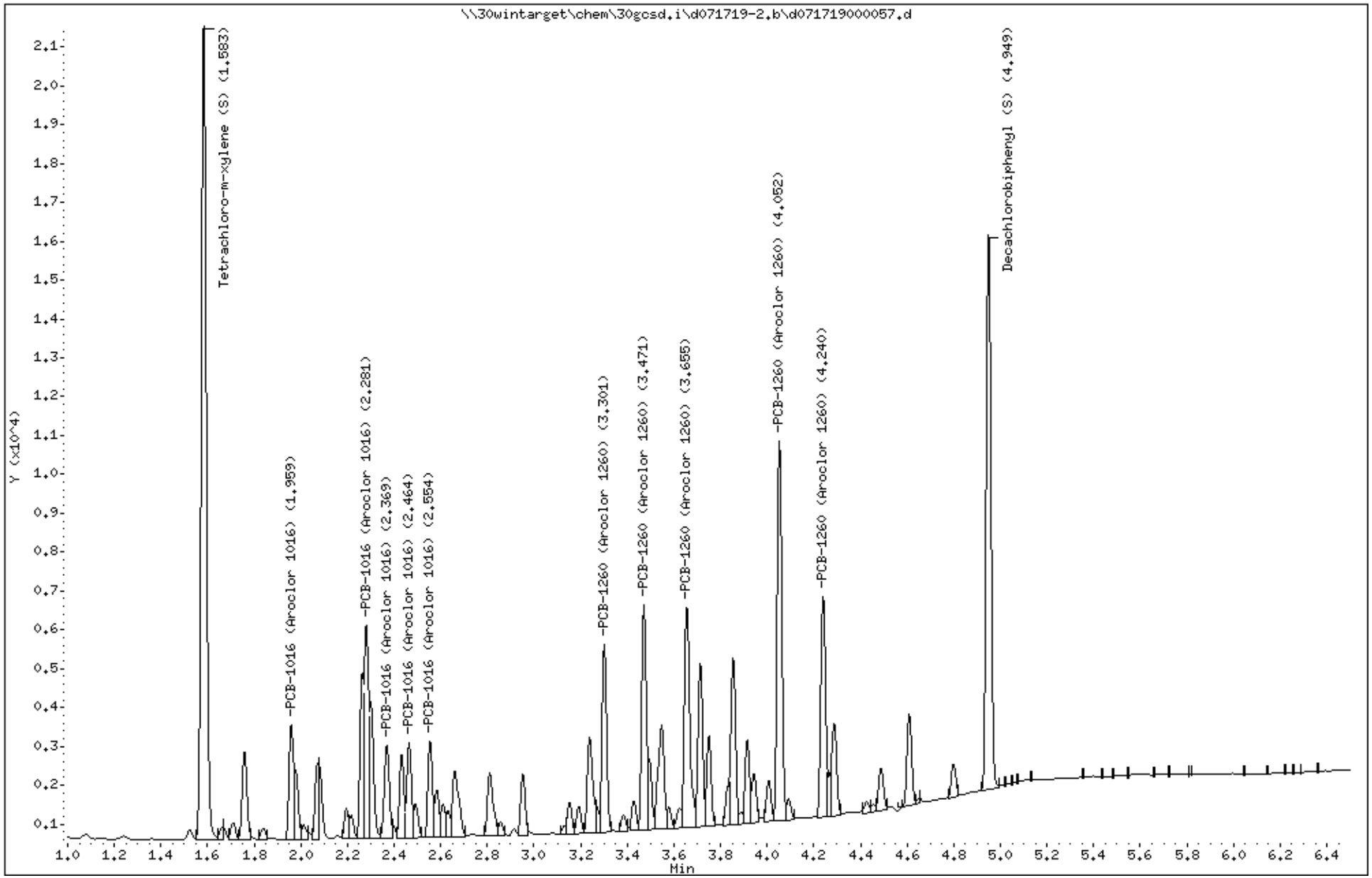
Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000057.d
Date : 17-JUL-2019 22:21
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93951:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32

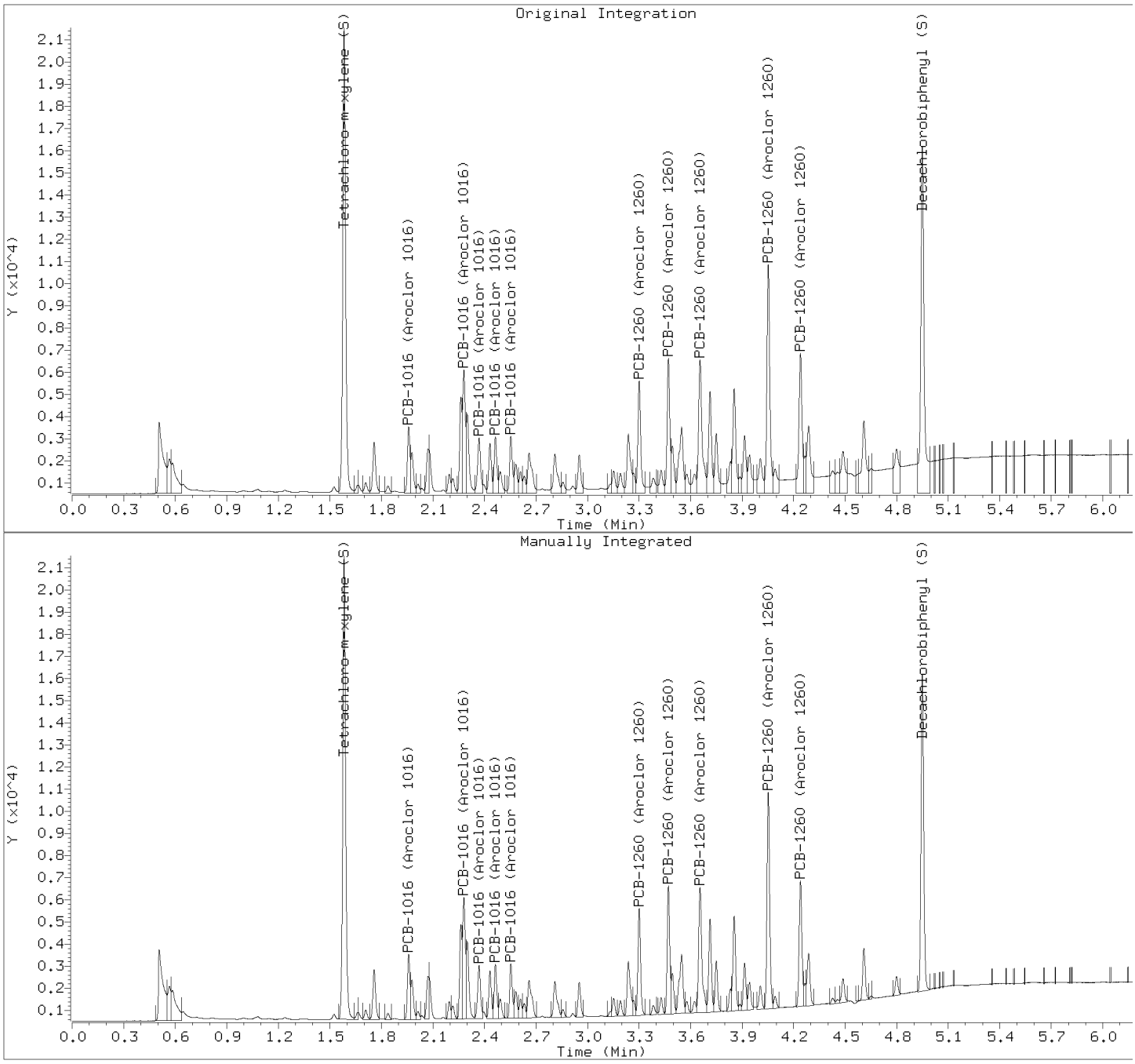


Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000057.d (ManInt: ar1660.sub Orig: ar1660.sub)

Injection Date: 17-JUL-2019 22:21 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3059	2956
PCB-1016 (Aroclor 1016)	6007	5951
PCB-1016 (Aroclor 1016)	3144	2872
PCB-1016 (Aroclor 1016)	2813	2615
PCB-1016 (Aroclor 1016)	2804	2546
PCB-1260 (Aroclor 1260)	5877	5115
PCB-1260 (Aroclor 1260)	6689	6016
PCB-1260 (Aroclor 1260)	8832	7536
PCB-1260 (Aroclor 1260)	12333	10645
PCB-1260 (Aroclor 1260)	8070	6354
Tetrachloro-m-xylene (S)	24401	24042
Decachlorobiphenyl (S)	21644	15782

SAMPLE NO.

BLANK

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707389

Date Analyzed: 07/17/2019 18:31 Lab File ID: D071719-2.B\D071719000030.D

Initial wt/vol: 15.07 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000030.d
Lab Smp Id: 1707389 Client Smp ID: MB
Inj Date : 17-JUL-2019 18:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707389,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	55093	20751	0.377	13.903		
0.840	398	458	1.150	0.306		
0.869	1108	774	0.699	0.518		
1.212	81163	65006	0.801	43.565	$ 10 Tetrachloro-m-xylene (S)	BA
1.376	1237	948	0.766	0.635		
1.826	590	547	0.927	0.366		
3.970	131	203	1.549	0.136		
4.038	52	48	0.927	0.032		
4.341	419	391	0.934	0.261		
4.498	61412	59667	0.972	39.977	$ 11 Decachlorobiphenyl (S)	BA
4.894	26	62	2.374	0.041		
5.197	9	35	3.747	0.023		
5.490	23	50	2.212	0.033		
5.742	4	20	5.000	0.013		
5.792	27	65	2.406	0.043		
5.887	29	98	3.424	0.065		
6.104	13	32	2.467	0.021		
6.114	8	34	4.048	0.022		
6.191	3	11	4.231	0.007		
6.313	7	23	3.453	0.015		
6.382	2	12	6.383	0.008		
6.487	3	15	5.319	0.010		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	201755	149250		100.000		

Total unknown % height = 16.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000030.d
Lab Smp Id: 1707389 Client Smp ID: MB
Inj Date : 17-JUL-2019 18:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707389,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.211	0.000	81162	0.15958	0.0529		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.498	4.497	0.001	61412	0.18296	0.0607		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

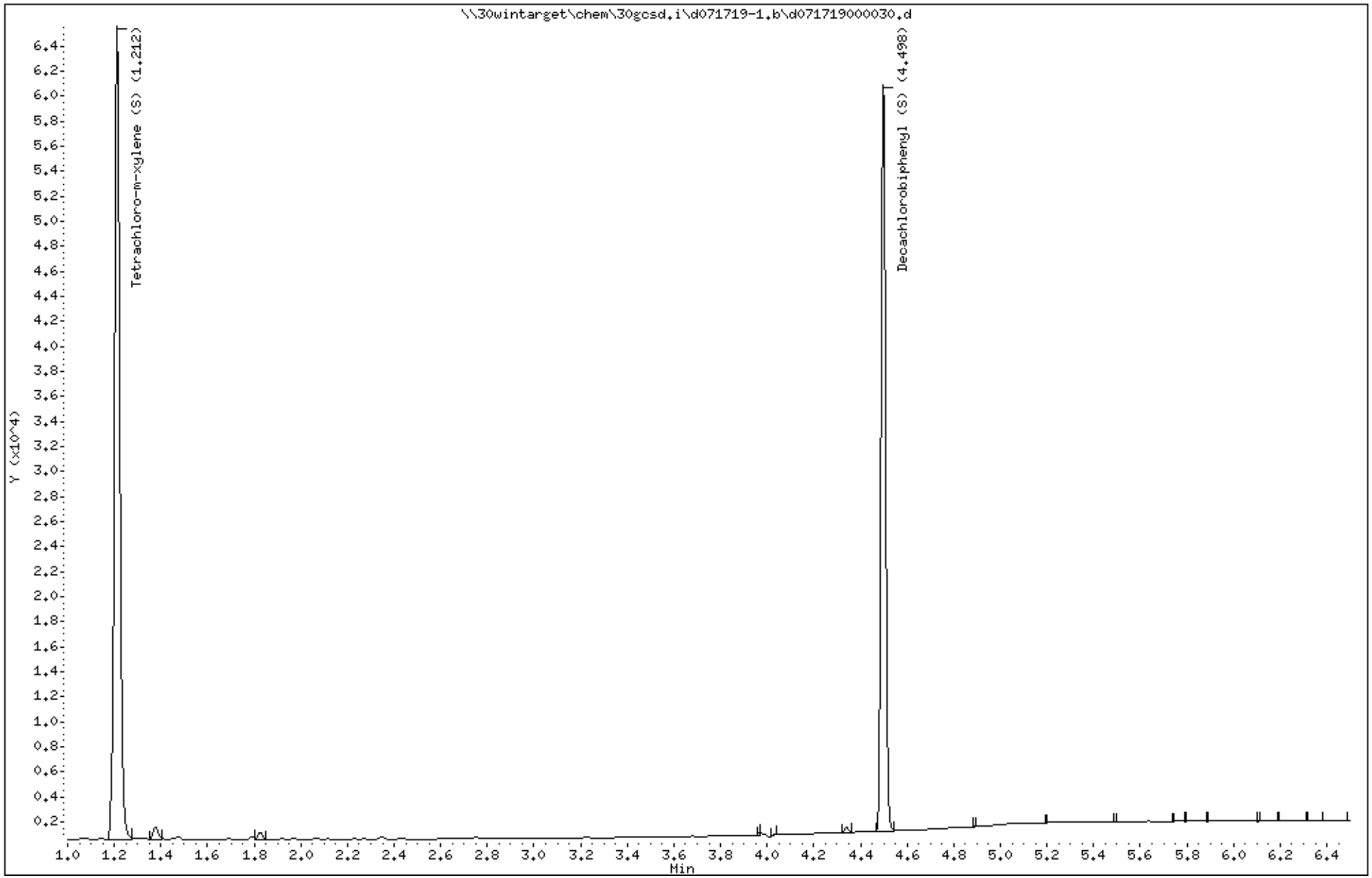
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1707389
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

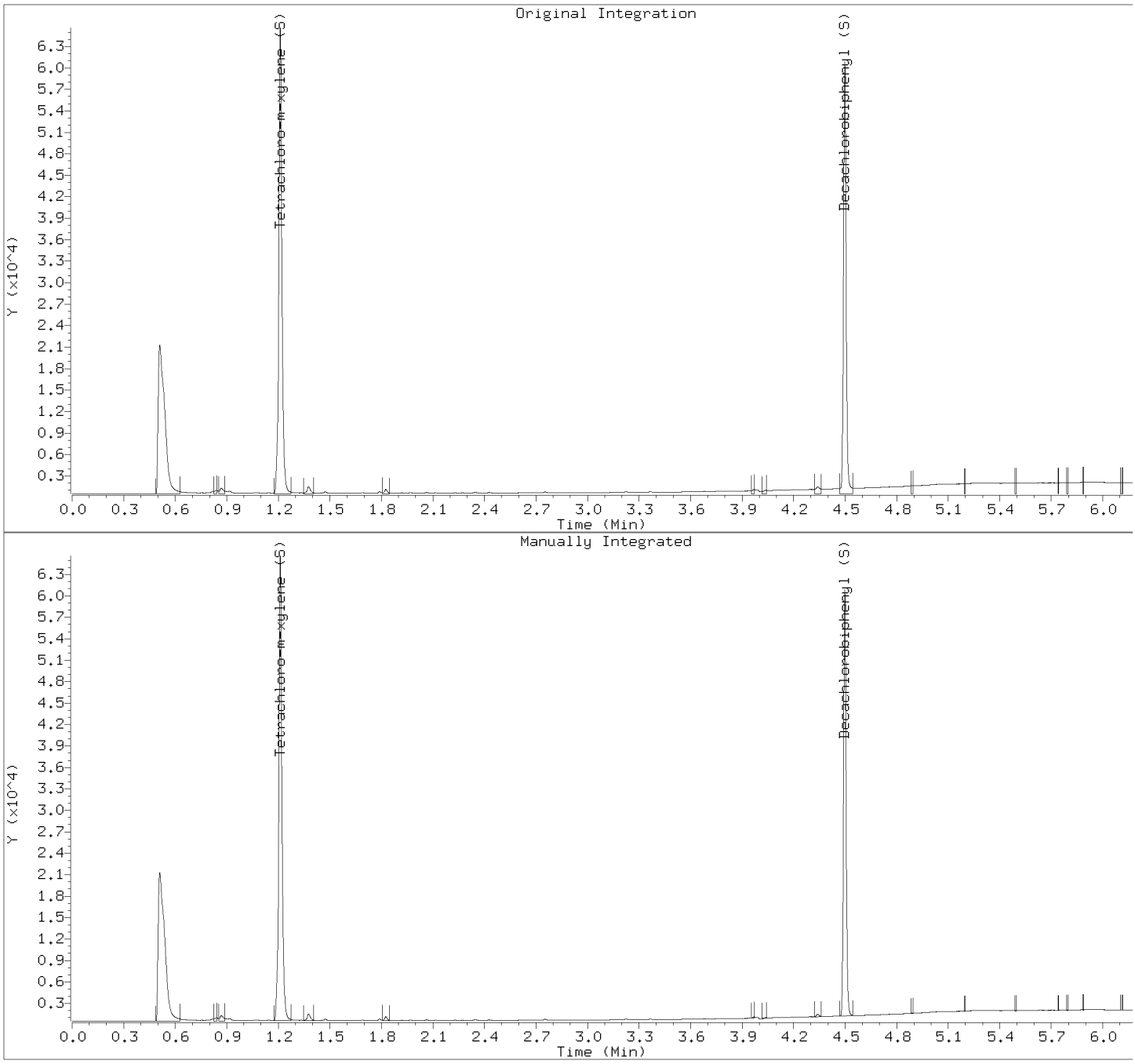
Client SDG: d071719-1.b
Client Smp ID: MB
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0529	J
2051-24-3	Decachlorobiphenyl (S)	0.0607	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000030.d
Date : 17-JUL-2019 18:31
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1707389,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000030.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:31 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707389



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	81552	81162
Decachlorobiphenyl (S)	64580	61412

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000030.d
Lab Smp Id: 1707389 Client Smp ID: MB
Inj Date : 17-JUL-2019 18:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707389,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	51486	23584	0.458	16.056		
0.990	1169	626	0.536	0.426		
1.082	751	401	0.534	0.273		
1.584	72486	63852	0.881	43.496	$ 10 Tetrachloro-m-xylene (S)	BA
1.755	922	869	0.943	0.591		
2.181	266	258	0.971	0.175		
2.220	508	488	0.960	0.332		
3.505	65	93	1.427	0.063		
4.429	180	171	0.949	0.116		
4.483	102	121	1.184	0.082		
4.597	182	33	0.181	0.022		
4.756	11	31	2.892	0.021		
4.800	370	337	0.912	0.229		
4.951	57338	53664	0.936	36.536	$ 11 Decachlorobiphenyl (S)	BA
5.041	9	36	4.072	0.024		
5.078	31	81	2.608	0.055		
5.103	34	112	3.259	0.076		
5.155	32	118	3.690	0.080		
5.183	28	105	3.780	0.071		
5.282	27	130	4.741	0.088		
5.298	38	149	3.958	0.101		
5.306	70	151	2.158	0.102		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.363	44	162	3.707	0.110		
5.492	31	77	2.473	0.052		
5.499	20	76	3.751	0.051		
5.507	36	78	2.181	0.053		
5.530	23	84	3.632	0.057		
5.605	24	79	3.319	0.053		
5.689	20	57	2.841	0.038		
5.728	14	66	4.828	0.044		
5.784	24	65	2.746	0.044		
5.793	34	67	1.985	0.045		
5.890	19	49	2.608	0.033		
5.927	23	55	2.371	0.037		
5.933	12	57	4.952	0.038		
5.999	13	56	4.389	0.038		
6.022	10	51	5.010	0.034		
6.099	9	35	4.108	0.023		
6.109	9	34	3.757	0.023		
6.124	16	38	2.356	0.025		
6.214	14	38	2.650	0.025		
6.226	11	42	3.787	0.028		
6.303	9	45	5.263	0.030		
6.310	23	53	2.346	0.036		
6.393	4	26	6.280	0.017		
6.419	3	18	5.521	0.012		
6.425	4	19	4.398	0.012		
6.434	7	19	2.905	0.012		
6.457	7	23	3.134	0.015		
	186566	146879		100.000		

Total unknown % height = 20.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000030.d
Lab Smp Id: 1707389 Client Smp ID: MB
Inj Date : 17-JUL-2019 18:31
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707389,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.584	1.583	0.001	72486	0.15960	0.0530		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	57338	0.18061	0.0599		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

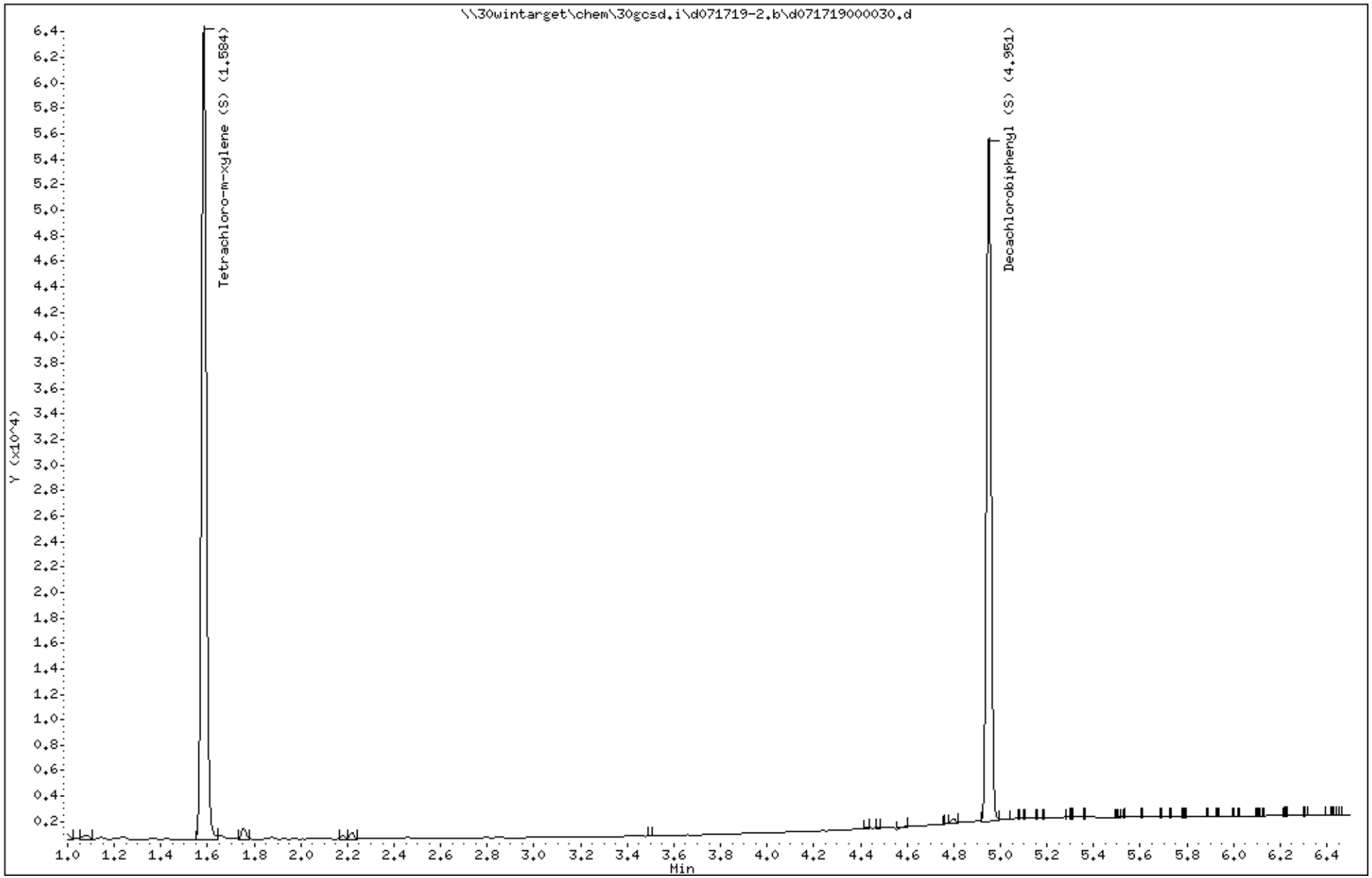
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1707389
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

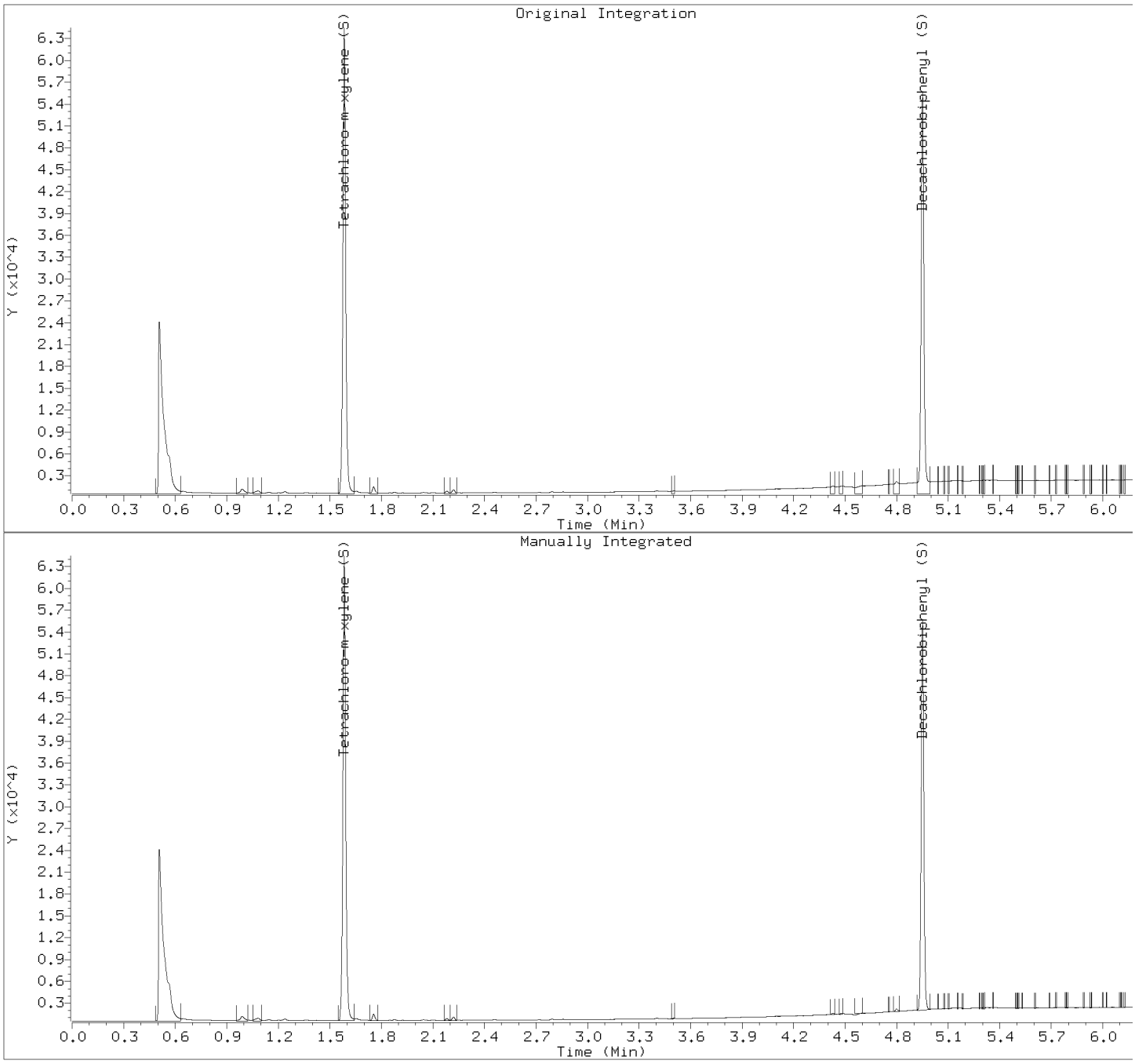
Client SDG: d071719-2.b
Client Smp ID: MB
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0530	J
2051-24-3	Decachlorobiphenyl (S)	0.0599	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000030.d
Date : 17-JUL-2019 18:31
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1707389,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000030.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:31 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707389



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	72815	72486
Decachlorobiphenyl (S)	64018	57338

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707390

Date Analyzed: 07/17/2019 18:40 Lab File ID: D071719-1.B\D071719000031.D

Initial wt/vol: 15 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
11096-82-5	PCB-1260 (Aroclor 1260)	0.13	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000031.d
Lab Smp Id: 1707390 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 18:40
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707390,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	694351	862848	1.243	42.159		
0.574	281506	862427	3.064	42.108		
0.818	592	535	0.903	0.026		
0.839	463	604	1.304	0.029		
0.869	1547	985	0.637	0.048		
0.917	636	456	0.717	0.022		
1.212	77295	61888	0.801	3.021	$ 10 Tetrachloro-m-xylene (S)	BA
1.344	754	596	0.791	0.029		
1.377	1072	909	0.848	0.044		
1.399	781	717	0.918	0.035		
1.440	3659	3015	0.824	0.147		
1.559	489	451	0.923	0.022		
1.630	7646	5450	0.713	0.266	1 PCB-1016 (Aroclor 1016)	BA
1.691	1399	769	0.550	0.037		
1.744	1789	2188	1.223	0.106		
1.757	3148	2771	0.880	0.135		
1.805	1475	1379	0.935	0.067		
1.823	1888	1634	0.866	0.079		
1.876	15816	11137	0.704	0.543	1 PCB-1016 (Aroclor 1016)	BA
1.930	6812	5128	0.753	0.250	1 PCB-1016 (Aroclor 1016)	BA
2.006	3575	3567	0.998	0.174		
2.033	4680	4028	0.861	0.196		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.060	3006	3239	1.078	0.158		
2.074	3620	3240	0.895	0.158		
2.185	4742	4653	0.981	0.227	1 PCB-1016 (Aroclor 1016)	BA
2.209	1926	1900	0.986	0.092		
2.236	1551	1501	0.968	0.073		
2.251	815	1087	1.334	0.053		
2.274	4591	3952	0.861	0.192	1 PCB-1016 (Aroclor 1016)	BA
2.343	1377	1173	0.852	0.057		
2.372	1129	1095	0.970	0.053		
2.399	1541	1619	1.050	0.079		
2.423	4557	3883	0.852	0.189		
2.469	605	585	0.967	0.028		
2.507	3316	3184	0.960	0.155		
2.557	175	165	0.943	0.008		
2.589	406	309	0.760	0.015		
2.725	580	568	0.980	0.027		
2.794	7640	6337	0.829	0.309	7 PCB-1260 (Aroclor 1260)	BA
2.827	2709	2462	0.909	0.120		
2.882	9457	8954	0.947	0.437	7 PCB-1260 (Aroclor 1260)	BA
2.921	570	541	0.950	0.026		
2.951	1556	1491	0.958	0.072		
2.992	11480	10437	0.909	0.509	7 PCB-1260 (Aroclor 1260)	BA
3.099	4261	4879	1.145	0.238		
3.117	6738	5854	0.869	0.285		
3.187	3328	2388	0.718	0.116		
3.224	13096	9653	0.737	0.471		
3.250	8759	8273	0.945	0.403		
3.285	4710	4415	0.937	0.215		
3.375	1894	1572	0.830	0.076		
3.435	9160	7799	0.851	0.380		
3.496	4383	4267	0.974	0.208		
3.530	3282	3034	0.924	0.148		
3.555	746	936	1.255	0.045		
3.581	19806	18561	0.937	0.906	7 PCB-1260 (Aroclor 1260)	BA
3.675	708	676	0.955	0.033		
3.755	292	306	1.048	0.014		
3.783	4249	4112	0.968	0.200		
3.824	14475	13018	0.899	0.635	7 PCB-1260 (Aroclor 1260)	BA
3.969	637	561	0.880	0.027		
4.035	85	80	0.945	0.003		
4.076	1812	1782	0.983	0.087		
4.150	5006	4554	0.910	0.222		
4.340	1409	1331	0.945	0.064		
4.498	56780	53957	0.950	2.634	$ 11 Decachlorobiphenyl (S)	BA
4.897	46	69	1.507	0.003		
5.048	25	52	2.104	0.002		
5.900	14	50	3.569	0.002		
5.964	23	65	2.840	0.003		
	1344443	2048101		100.000		

Total unknown % height = 90.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000031.d
Lab Smp Id: 1707390 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 18:40
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707390,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.630	0.000	7646	0.37229	0.124	80.00- 120.00	100.00(aM)	BA
1.875	1.876	-0.001	15815	0.38261	0.128	159.11- 238.66	206.84	BA
1.929	1.930	-0.001	6811	0.40892	0.136	66.14- 99.21	89.09	BA
2.185	2.185	0.000	4742	0.37125	0.124	47.38- 71.07	62.02	BA
2.273	2.274	-0.001	4591	0.41814	0.139	43.15- 64.73	60.04	BA
Average of Peak Concentrations =					0.130			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.793	2.794	-0.001	7640	0.41199	0.137	80.00- 120.00	100.00(aM)	BA
2.881	2.881	0.000	9457	0.39876	0.133	102.77- 154.15	123.78	BA
2.992	2.992	0.000	11480	0.38684	0.129	125.79- 188.69	150.26	BA
3.581	3.581	0.000	19805	0.39449	0.131	216.45- 324.67	259.23	BA
3.823	3.824	-0.001	14475	0.39938	0.133	155.24- 232.86	189.47	BA
Average of Peak Concentrations =					0.133			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.211	0.000	77294	0.15197	0.0506		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.497	4.497	0.000	56779	0.16916	0.0564		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

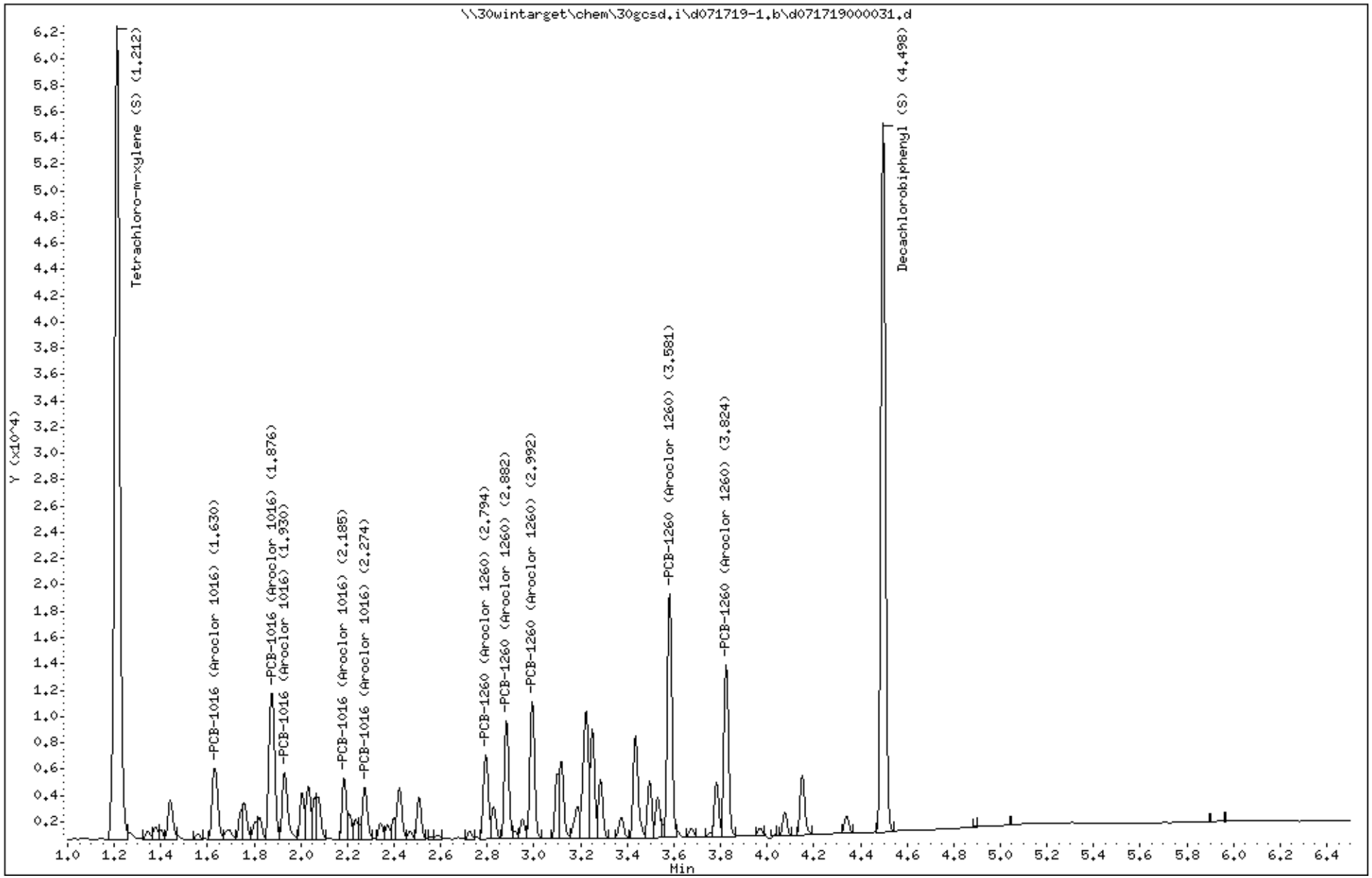
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1707390
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

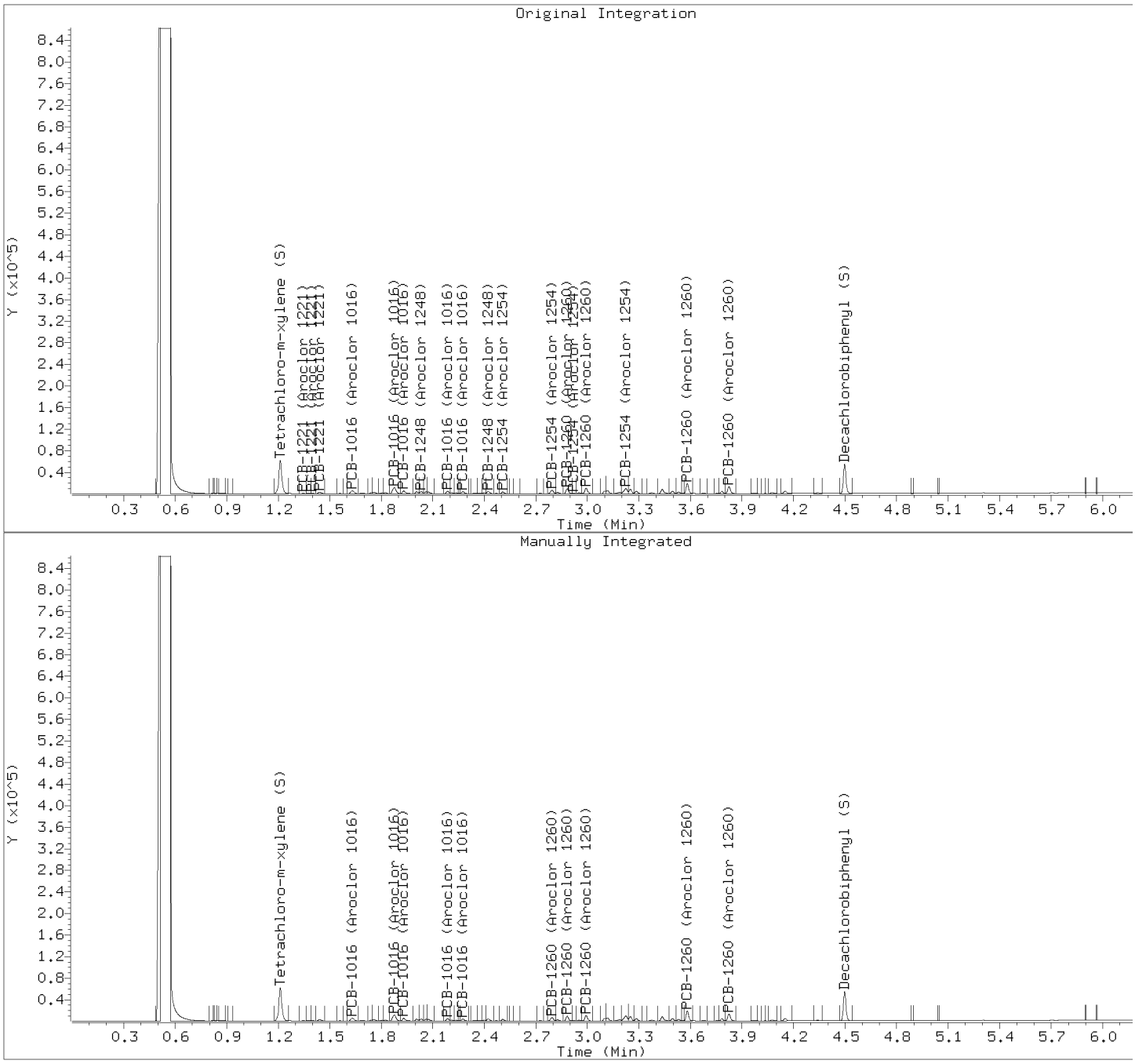
Client SDG: d071719-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.630	0.124	J
	Peak found at 1.876	0.128	J
	Peak found at 1.930	0.136	J
	Peak found at 2.185	0.124	J
	Peak found at 2.274	0.139	J
	Average of Peak Amounts =	0.130	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.794	0.137	J
	Peak found at 2.882	0.133	J
	Peak found at 2.992	0.129	J
	Peak found at 3.581	0.131	J
	Peak found at 3.824	0.133	J
	Average of Peak Amounts =	0.133	J
877-09-8	Tetrachloro-m-xylene (S)	0.0506	J
2051-24-3	Decachlorobiphenyl (S)	0.0564	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000031.d
Date : 17-JUL-2019 18:40
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1707390,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000031.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:40 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707390



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8034	7646
PCB-1016 (Aroclor 1016)	16233	15815
PCB-1016 (Aroclor 1016)	7309	6811
PCB-1016 (Aroclor 1016)	5001	4742
PCB-1016 (Aroclor 1016)	4949	4591
PCB-1221 (Aroclor 1221)	1005	0
PCB-1221 (Aroclor 1221)	952	0
PCB-1221 (Aroclor 1221)	3975	0
PCB-1232 (Aroclor 1232)	3975	0
PCB-1232 (Aroclor 1232)	8034	0
PCB-1232 (Aroclor 1232)	16233	0
PCB-1232 (Aroclor 1232)	7309	0
PCB-1232 (Aroclor 1232)	5001	0
PCB-1242 (Aroclor 1242)	3975	0

PCB-1242 (Aroclor 1242)	8034	0
PCB-1242 (Aroclor 1242)	16233	0
PCB-1242 (Aroclor 1242)	7309	0
PCB-1242 (Aroclor 1242)	5001	0
PCB-1248 (Aroclor 1248)	16233	0
PCB-1248 (Aroclor 1248)	4855	0
PCB-1248 (Aroclor 1248)	5001	0
PCB-1248 (Aroclor 1248)	4949	0
PCB-1248 (Aroclor 1248)	4913	0
PCB-1254 (Aroclor 1254)	4913	0
PCB-1254 (Aroclor 1254)	3697	0
PCB-1254 (Aroclor 1254)	8054	0
PCB-1254 (Aroclor 1254)	820	0
PCB-1254 (Aroclor 1254)	13542	0
PCB-1260 (Aroclor 1260)	8054	7640
PCB-1260 (Aroclor 1260)	9966	9457
PCB-1260 (Aroclor 1260)	12145	11480
PCB-1260 (Aroclor 1260)	20597	19805
PCB-1260 (Aroclor 1260)	15662	14475
Tetrachloro-m-xylene (S)	77906	77294
Decachlorobiphenyl (S)	59842	56779

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707390

Date Analyzed: 07/17/2019 18:40 Lab File ID: D071719-2.B\D071719000031.D

Initial wt/vol: 15 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	0.13	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000031.d
Lab Smp Id: 1707390 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 18:40
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707390,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	613633	862901	1.406	42.837		
0.577	316808	862362	2.722	42.763		
0.991	1733	797	0.460	0.039		
1.082	993	462	0.465	0.022		
1.239	520	362	0.696	0.017		
1.525	382	333	0.872	0.016		
1.584	69512	61672	0.887	3.058	$ 10 Tetrachloro-m-xylene (S)	BA
1.661	510	544	1.066	0.026		
1.709	740	625	0.845	0.030		
1.758	4012	3526	0.879	0.174		
1.839	554	431	0.777	0.021		
1.959	4340	4295	0.990	0.212	1 PCB-1016 (Aroclor 1016)	BA
1.978	2651	2564	0.967	0.127		
2.013	561	527	0.939	0.026		
2.040	386	330	0.856	0.016		
2.072	4923	2834	0.576	0.140		
2.195	1359	1184	0.871	0.058		
2.218	1565	1451	0.927	0.071		
2.263	5622	6200	1.103	0.307		
2.281	8149	7806	0.958	0.387	1 PCB-1016 (Aroclor 1016)	BA
2.300	5865	5097	0.869	0.252		
2.369	4234	3561	0.841	0.176	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.397	429	447	1.041	0.022		
2.432	3275	3191	0.974	0.158		
2.464	4010	3735	0.931	0.185	1 PCB-1016 (Aroclor 1016)	BA
2.492	1441	1258	0.873	0.062		
2.554	3747	3622	0.967	0.179	1 PCB-1016 (Aroclor 1016)	BA
2.583	2054	1783	0.868	0.088		
2.610	1336	1292	0.967	0.064		
2.631	979	991	1.012	0.049		
2.660	4457	2613	0.586	0.129		
2.811	5295	3200	0.604	0.158		
2.858	1212	1117	0.922	0.055		
2.915	325	321	0.987	0.015		
2.952	3135	2846	0.908	0.141		
3.131	418	476	1.140	0.023		
3.152	1439	1314	0.913	0.065		
3.192	1453	1366	0.940	0.067		
3.238	5216	3998	0.767	0.198		
3.269	963	1087	1.128	0.053		
3.301	8106	7657	0.945	0.379	7 PCB-1260 (Aroclor 1260)	BA
3.384	1012	819	0.809	0.040		
3.429	1293	1234	0.954	0.061		
3.472	9412	9143	0.971	0.453	7 PCB-1260 (Aroclor 1260)	BA
3.494	2939	2846	0.968	0.141		
3.548	6552	4349	0.664	0.215		
3.579	902	839	0.930	0.041		
3.623	1011	883	0.873	0.043		
3.655	12427	9403	0.757	0.466	7 PCB-1260 (Aroclor 1260)	BA
3.713	7166	6559	0.915	0.325		
3.750	3760	3567	0.949	0.176		
3.832	1479	1693	1.145	0.083		
3.854	7538	6670	0.885	0.330		
3.888	456	491	1.077	0.024		
3.915	3695	3443	0.932	0.170		
3.943	2183	1905	0.873	0.094		
3.971	139	191	1.377	0.009		
4.007	1921	1732	0.902	0.085		
4.052	16794	15432	0.919	0.765	7 PCB-1260 (Aroclor 1260)	BA
4.093	971	857	0.883	0.042		
4.240	10196	9058	0.888	0.449	7 PCB-1260 (Aroclor 1260)	BA
4.267	1080	1596	1.478	0.079		
4.287	4969	3964	0.798	0.196		
4.429	385	325	0.844	0.016		
4.455	180	254	1.415	0.012		
4.488	2084	1783	0.856	0.088		
4.610	3881	3934	1.014	0.195		
4.652	120	195	1.625	0.009		
4.800	1330	1210	0.910	0.060		
4.855	10	35	3.458	0.001		
4.908	20	56	2.742	0.002		
4.950	53490	48968	0.915	2.428	$ 11 Decachlorobiphenyl (S)	BA
5.032	9	36	4.072	0.001		
5.050	14	40	2.845	0.001		
5.109	14	29	2.057	0.001		
5.265	29	70	2.426	0.003		
5.276	31	92	2.987	0.004		
5.293	29	118	4.037	0.005		
5.298	27	117	4.333	0.005		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.368	145	162	1.119	0.008		
5.559	12	52	4.506	0.002		
5.659	4	18	4.724	0.000		
5.681	3	16	4.692	0.000		
5.743	8	27	3.285	0.001		
5.948	4	23	6.407	0.001		
6.081	0	3	6.122	0.000		
6.167	5	24	4.444	0.001		
6.185	7	18	2.624	0.000		
6.243	9	35	4.051	0.001		
6.427	6	28	4.991	0.001		
6.476	7	31	4.223	0.001		
6.481	11	34	3.195	0.001		
	1258111	2016585		100.000		

Total unknown % height = 90.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000031.d
Lab Smp Id: 1707390 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 18:40
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707390,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.958	1.958	0.000	4339	0.38084	0.127	80.00- 120.00	100.00(aM)	BA
2.280	2.280	0.000	8148	0.37362	0.124	161.06- 241.58	187.77	BA
2.368	2.368	0.000	4233	0.39015	0.130	77.73- 116.59	97.56	BA
2.463	2.463	0.000	4010	0.40179	0.134	70.77- 106.16	92.40	BA
2.553	2.554	-0.001	3747	0.37842	0.126	68.90- 103.36	86.35	BA
		Average of Peak Concentrations =			0.128			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.301	3.300	0.001	8105	0.39886	0.133	80.00- 120.00	100.00(aM)	BA
3.471	3.471	0.000	9412	0.38643	0.129	94.09- 141.14	116.13	BA
3.654	3.654	0.000	12427	0.42425	0.141	117.87- 176.80	153.33	BA
4.052	4.052	0.000	16794	0.39033	0.130	166.49- 249.74	207.21	BA
4.240	4.239	0.001	10196	0.39413	0.131	99.38- 149.07	125.80	BA
Average of Peak Concentrations =					0.133			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.583	1.583	0.000	69512	0.15305	0.0510		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	53490	0.16849	0.0562		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the
    analyst.

Pace Analytical Services, Inc.

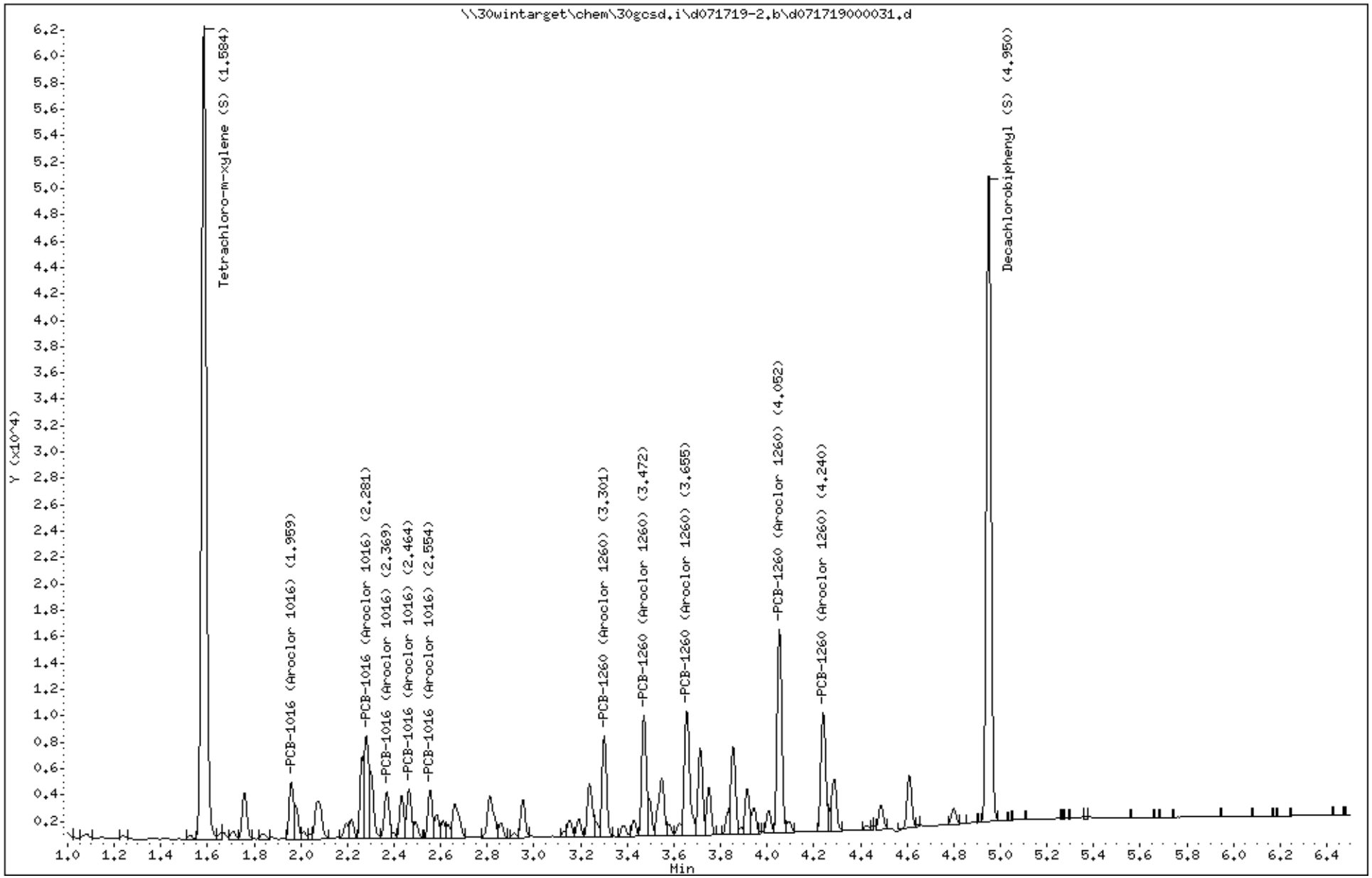
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1707390
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

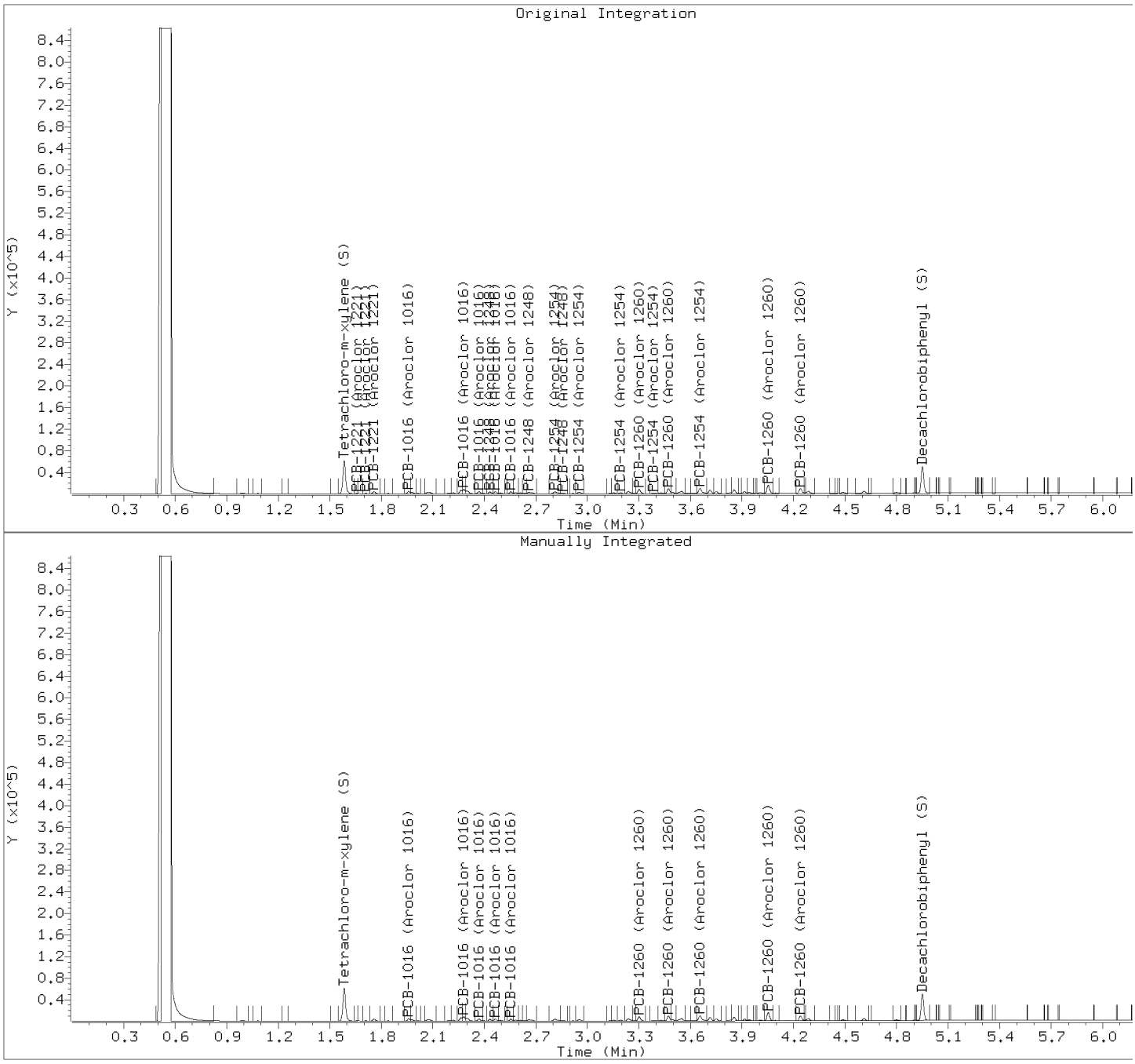
Client SDG: d071719-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.959	0.127	J
	Peak found at 2.281	0.124	J
	Peak found at 2.369	0.130	J
	Peak found at 2.464	0.134	J
	Peak found at 2.554	0.126	J
	Average of Peak Amounts =	0.128	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.301	0.133	J
	Peak found at 3.471	0.129	J
	Peak found at 3.655	0.141	J
	Peak found at 4.052	0.130	J
	Peak found at 4.240	0.131	J
	Average of Peak Amounts =	0.133	J
877-09-8	Tetrachloro-m-xylene (S)	0.0510	J
2051-24-3	Decachlorobiphenyl (S)	0.0562	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000031.d
Date : 17-JUL-2019 18:40
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1707390,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000031.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:40 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707390



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	4503	4339
PCB-1016 (Aroclor 1016)	8219	8148
PCB-1016 (Aroclor 1016)	4615	4233
PCB-1016 (Aroclor 1016)	4287	4010
PCB-1016 (Aroclor 1016)	4108	3747
PCB-1221 (Aroclor 1221)	608	0
PCB-1221 (Aroclor 1221)	938	0
PCB-1221 (Aroclor 1221)	4282	0
PCB-1232 (Aroclor 1232)	4282	0
PCB-1232 (Aroclor 1232)	4503	0
PCB-1232 (Aroclor 1232)	8219	0
PCB-1232 (Aroclor 1232)	4615	0
PCB-1232 (Aroclor 1232)	4108	0
PCB-1242 (Aroclor 1242)	4282	0

PCB-1242 (Aroclor 1242)	4503	0
PCB-1242 (Aroclor 1242)	8219	0
PCB-1242 (Aroclor 1242)	4615	0
PCB-1242 (Aroclor 1242)	4108	0
PCB-1248 (Aroclor 1248)	8219	0
PCB-1248 (Aroclor 1248)	3572	0
PCB-1248 (Aroclor 1248)	4108	0
PCB-1248 (Aroclor 1248)	5059	0
PCB-1248 (Aroclor 1248)	1655	0
PCB-1254 (Aroclor 1254)	6073	0
PCB-1254 (Aroclor 1254)	3714	0
PCB-1254 (Aroclor 1254)	2072	0
PCB-1254 (Aroclor 1254)	1855	0
PCB-1254 (Aroclor 1254)	13763	0
PCB-1260 (Aroclor 1260)	9000	8105
PCB-1260 (Aroclor 1260)	10107	9412
PCB-1260 (Aroclor 1260)	13763	12427
PCB-1260 (Aroclor 1260)	18516	16794
PCB-1260 (Aroclor 1260)	12028	10196
Tetrachloro-m-xylene (S)	69947	69512
Decachlorobiphenyl (S)	59819	53490

SAMPLE NO.

MS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707391

Date Analyzed: 07/17/2019 18:57 Lab File ID: D071719-2.B\D071719000033.D

Initial wt/vol: 15.29 g Final wt/vol: 5 mL Dilution: 10 Instrument: 30GCSD Percent Moisture: 13.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	0.20	
11096-82-5	PCB-1260 (Aroclor 1260)	0.68	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000033.d
Lab Smp Id: 1707391 Client Smp ID: AOC32 Lower-1MS
Inj Date : 17-JUL-2019 18:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707391x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 33 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.290	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	718497	862857	1.201	44.952		
0.568	285691	862403	3.019	44.868		
1.165	210	177	0.842	0.009		
1.211	8580	7005	0.816	0.364	$ 10 Tetrachloro-m-xylene (S)	BA
1.382	205	238	1.161	0.012		
1.406	397	287	0.723	0.014		
1.450	1014	580	0.572	0.030		
1.610	381	431	1.132	0.022		
1.630	1386	804	0.580	0.041	1 PCB-1016 (Aroclor 1016)	BA
1.694	1075	746	0.694	0.038		
1.743	269	284	1.057	0.014		
1.758	397	353	0.889	0.018		
1.876	1910	1379	0.722	0.071	1 PCB-1016 (Aroclor 1016)	BA
1.930	758	625	0.825	0.032	1 PCB-1016 (Aroclor 1016)	BA
2.005	528	405	0.767	0.021		
2.032	783	669	0.854	0.034		
2.059	452	451	0.997	0.023		
2.185	614	608	0.990	0.031	1 PCB-1016 (Aroclor 1016)	BA
2.209	246	239	0.972	0.012		
2.237	151	211	1.399	0.010		
2.275	711	543	0.764	0.028	1 PCB-1016 (Aroclor 1016)	BA
2.311	108	143	1.328	0.007		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.342	102	151	1.485	0.007		
2.371	96	167	1.733	0.008		
2.399	205	261	1.275	0.013		
2.425	6215	4870	0.784	0.253		
2.469	1228	1125	0.916	0.058		
2.507	2168	2101	0.969	0.109		
2.541	1014	990	0.976	0.051		
2.589	715	603	0.844	0.031		
2.641	3886	2594	0.668	0.134		
2.672	729	743	1.019	0.038		
2.725	1082	1068	0.987	0.055		
2.761	628	801	1.276	0.041		
2.788	11147	8936	0.802	0.464	7 PCB-1260 (Aroclor 1260)	BA
2.826	1604	1331	0.830	0.069		
2.882	4968	4368	0.879	0.227	7 PCB-1260 (Aroclor 1260)	BA
2.921	1215	1135	0.934	0.059		
2.952	1219	1160	0.952	0.060		
2.991	7500	5038	0.672	0.262	7 PCB-1260 (Aroclor 1260)	BA
3.053	463	383	0.827	0.019		
3.100	1348	1892	1.403	0.098		
3.116	3648	3185	0.873	0.165		
3.149	3675	3090	0.841	0.160		
3.186	1811	1530	0.845	0.079		
3.223	11139	8480	0.761	0.441		
3.247	1490	1759	1.180	0.091		
3.284	1833	1468	0.801	0.076		
3.333	726	499	0.687	0.025		
3.364	608	433	0.712	0.022		
3.435	1333	1450	1.088	0.075		
3.456	3045	2748	0.902	0.142		
3.495	1131	1038	0.918	0.054		
3.530	20495	15454	0.754	0.804		
3.580	4728	3942	0.834	0.205	7 PCB-1260 (Aroclor 1260)	BA
3.634	5299	3883	0.733	0.202		
3.721	5204	3449	0.663	0.179		
3.800	3594	2848	0.792	0.148		
3.826	6958	4549	0.654	0.236	7 PCB-1260 (Aroclor 1260)	BA
3.849	2729	2423	0.888	0.126		
3.945	1886	1604	0.850	0.083		
3.955	799	1646	2.060	0.085		
4.035	5457	3872	0.710	0.201		
4.073	1083	874	0.807	0.045		
4.093	477	871	1.826	0.045		
4.148	1703	1258	0.739	0.065		
4.175	529	454	0.858	0.023		
4.243	15060	9831	0.653	0.511		
4.299	769	647	0.842	0.033		
4.337	1619	769	0.475	0.040		
4.379	213	242	1.136	0.012		
4.393	87	259	2.988	0.013		
4.398	150	282	1.881	0.014		
4.420	203	290	1.429	0.015		
4.496	7454	6232	0.836	0.324	$ 11 Decachlorobiphenyl (S)	BA
4.525	896	927	1.035	0.048		
4.585	9345	3907	0.418	0.203		
4.632	528	753	1.426	0.039		
4.679	6117	4345	0.710	0.226		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.705	1580	1392	0.881	0.072		
4.743	7317	5301	0.724	0.275		
4.848	762	768	1.007	0.039		
4.888	162	489	3.009	0.025		
4.924	606	548	0.904	0.028		
4.958	955	903	0.945	0.046		
4.991	74	468	6.362	0.024		
5.032	7473	2987	0.400	0.155		
5.138	340	474	1.392	0.024		
5.202	15	58	3.943	0.003		
5.205	19	75	3.898	0.003		
5.211	32	100	3.165	0.005		
5.216	29	131	4.561	0.006		
5.219	35	163	4.711	0.008		
5.229	120	235	1.966	0.012		
5.242	298	429	1.441	0.022		
5.265	1661	784	0.472	0.040		
5.297	194	438	2.254	0.022		
5.340	50	201	3.991	0.010		
5.346	117	214	1.832	0.011		
5.379	13	86	6.667	0.004		
5.403	1192	673	0.565	0.035		
5.434	153	360	2.349	0.018		
5.446	309	486	1.573	0.025		
5.491	961	933	0.971	0.048		
5.496	285	968	3.402	0.050		
5.577	2316	1345	0.581	0.069		
5.649	4748	2235	0.471	0.116		
5.716	1927	1648	0.855	0.085		
5.773	2734	1043	0.381	0.054		
5.817	115	526	4.585	0.027		
5.855	13971	3975	0.285	0.206		
5.935	189	867	4.592	0.045		
5.954	1142	1052	0.921	0.054		
5.958	293	1052	3.592	0.054		
6.003	158	663	4.197	0.034		
6.024	251	603	2.403	0.031		
6.037	450	655	1.457	0.034		
6.118	84	426	5.087	0.022		
6.146	2895	1203	0.416	0.062		
6.180	578	777	1.344	0.040		
6.215	301	689	2.287	0.035		
6.246	305	577	1.894	0.030		
6.334	407	402	0.988	0.020		
6.394	20	76	3.774	0.003		
6.419	24	83	3.490	0.004		
6.439	15	68	4.632	0.003		
	1263389	1922075		100.000		

Total unknown % height = 97.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000033.d
Lab Smp Id: 1707391 Client Smp ID: AOC32 Lower-1MS
Inj Date : 17-JUL-2019 18:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707391x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 33 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.290	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.628	1.630	-0.002	1386	0.06748	0.256	80.00- 120.00	100.00(aM)	BA
1.875	1.876	-0.001	1909	0.04618	0.175	159.11- 238.66	137.73	BA
1.929	1.930	-0.001	757	0.04545	0.172	66.14- 99.21	54.62	BA
2.185	2.185	0.000	614	0.04807	0.182	47.38- 71.07	44.30	BA
2.274	2.274	0.000	710	0.06467	0.245	43.15- 64.73	51.29	BA
		Average of Peak Concentrations =			0.206			

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.787	2.794	-0.007	11146	0.60106	2.28	80.00- 120.00	100.00(aM)	BA
2.881	2.881	0.000	4967	0.20944	0.794	102.77- 154.15	44.56	BA
2.991	2.992	-0.001	7500	0.25273	0.958	125.79- 188.69	67.29	BA
3.580	3.581	-0.001	4728	0.09418	0.357	216.45- 324.67	42.42	BA
3.825	3.824	0.001	6958	0.19198	0.728	155.24- 232.86	62.43	BA
Average of Peak Concentrations =					1.02			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.211	-0.001	8580	0.01687	0.00640		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.497	-0.001	7454	0.02221	0.00842		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.
    :

Pace Analytical Services, Inc.

TARGET COMPOUNDS

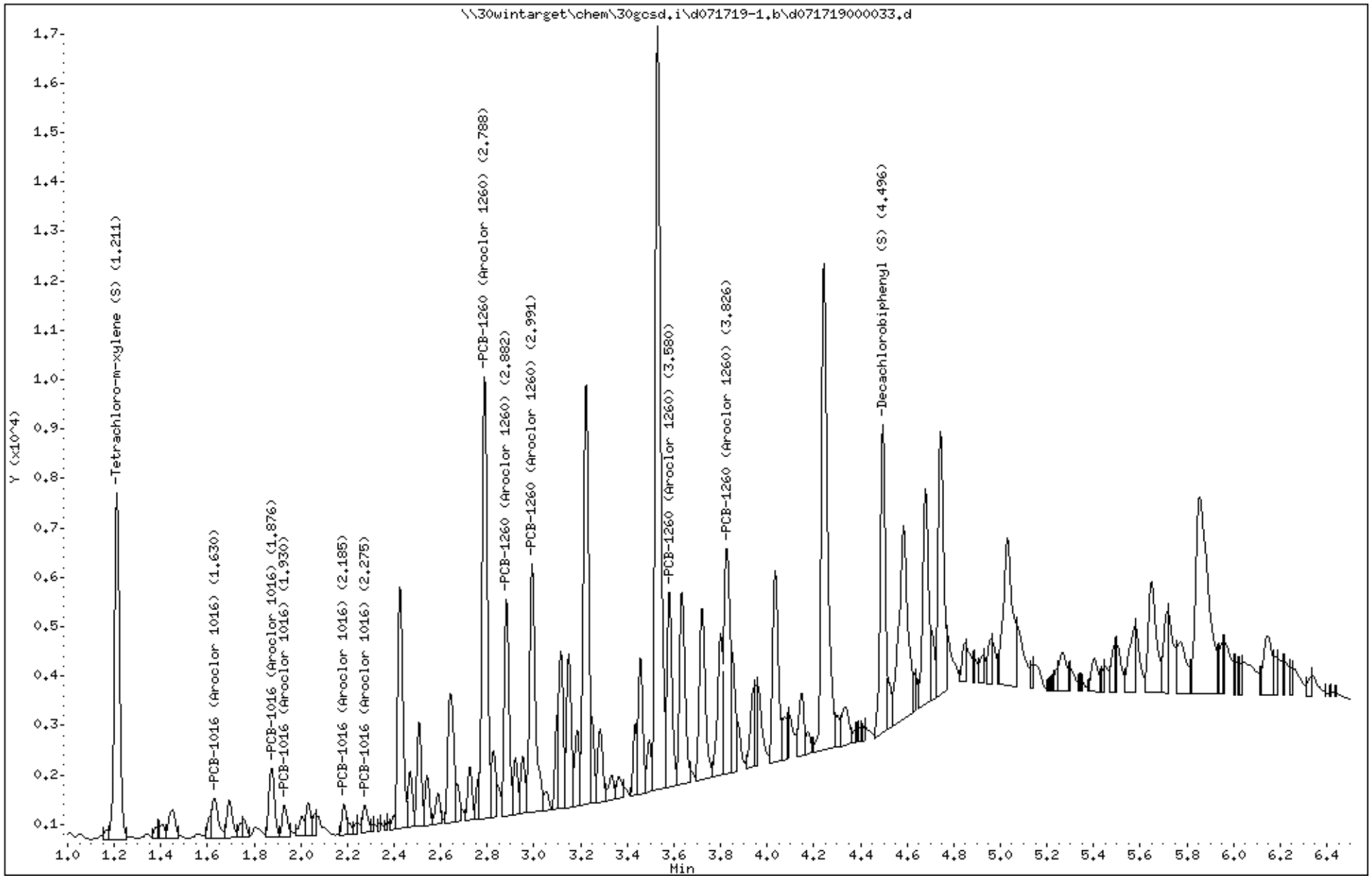
Client Name:
Lab Smp Id: 1707391
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: d071719-1.b
Client Smp ID: AOC32 Lower-1MS
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.629	0.256	J
	Peak found at 1.875	0.175	J
	Peak found at 1.929	0.172	J
	Peak found at 2.185	0.182	J
	Peak found at 2.275	0.245	J
	Average of Peak Amounts =	0.206	J
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)	383	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.788	2.28	J
	Peak found at 2.882	0.794	J
	Peak found at 2.991	0.958	J
	Peak found at 3.580	0.357	J
	Peak found at 3.826	0.728	J
	Average of Peak Amounts =	1.02	J
877-09-8	Tetrachloro-m-xylene (S)	0.00640	J
2051-24-3	Decachlorobiphenyl (S)	0.00842	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000033.d
Date : 17-JUL-2019 18:57
Client ID: A0C32 Lower-1MS
Sample Info: 1707391X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32

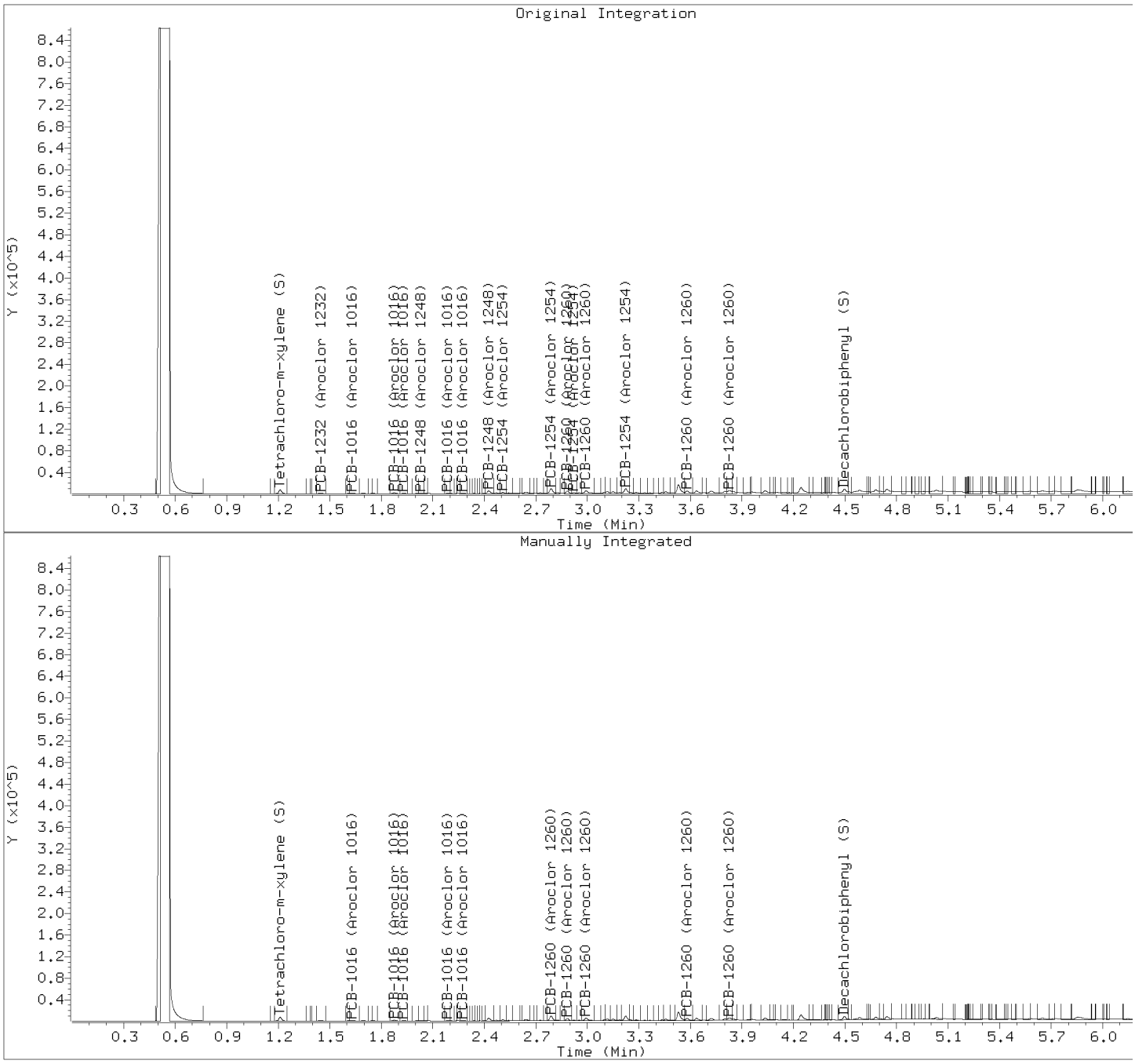


Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000033.d (ManInt: tcl.sub Orig: tcl.sub)

Injection Date: 17-JUL-2019 18:57 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 1707391



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2015	1386
PCB-1016 (Aroclor 1016)	2662	1909
PCB-1016 (Aroclor 1016)	1318	757
PCB-1016 (Aroclor 1016)	1100	614
PCB-1016 (Aroclor 1016)	1440	710
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	1553	0
PCB-1232 (Aroclor 1232)	2015	0
PCB-1232 (Aroclor 1232)	2662	0
PCB-1232 (Aroclor 1232)	1318	0
PCB-1232 (Aroclor 1232)	1100	0
PCB-1242 (Aroclor 1242)	1553	0

PCB-1242 (Aroclor 1242)	2015	0
PCB-1242 (Aroclor 1242)	2662	0
PCB-1242 (Aroclor 1242)	1318	0
PCB-1242 (Aroclor 1242)	1100	0
PCB-1248 (Aroclor 1248)	2662	0
PCB-1248 (Aroclor 1248)	1202	0
PCB-1248 (Aroclor 1248)	1100	0
PCB-1248 (Aroclor 1248)	1440	0
PCB-1248 (Aroclor 1248)	7388	0
PCB-1254 (Aroclor 1254)	7388	0
PCB-1254 (Aroclor 1254)	3139	0
PCB-1254 (Aroclor 1254)	12848	0
PCB-1254 (Aroclor 1254)	2397	0
PCB-1254 (Aroclor 1254)	13476	0
PCB-1260 (Aroclor 1260)	12848	11146
PCB-1260 (Aroclor 1260)	6641	4967
PCB-1260 (Aroclor 1260)	10704	7500
PCB-1260 (Aroclor 1260)	8029	4728
PCB-1260 (Aroclor 1260)	9998	6958
Tetrachloro-m-xylene (S)	9268	8580
Decachlorobiphenyl (S)	15309	7454

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000033.d
Lab Smp Id: 1707391 Client Smp ID: AOC32 Lower-1MS
Inj Date : 17-JUL-2019 18:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707391x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 33 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.290	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	621551	862941	1.388	83.556		
1.160	406	318	0.783	0.030		
1.583	7661	6798	0.887	0.657	$ 10 Tetrachloro-m-xylene (S)	BA
1.687	164	168	1.027	0.016		
1.758	457	413	0.904	0.039		
1.831	411	359	0.873	0.034		
1.932	89	99	1.114	0.009		
1.965	713	935	1.311	0.090	1 PCB-1016 (Aroclor 1016)	BA
1.974	1474	1082	0.734	0.104		
2.071	263	356	1.354	0.034		
2.199	149	173	1.158	0.016		
2.263	632	705	1.115	0.068		
2.280	889	863	0.971	0.083	1 PCB-1016 (Aroclor 1016)	BA
2.300	538	527	0.979	0.050		
2.369	542	424	0.782	0.041	1 PCB-1016 (Aroclor 1016)	BA
2.433	637	526	0.826	0.050		
2.465	498	449	0.902	0.043	1 PCB-1016 (Aroclor 1016)	BA
2.493	91	146	1.601	0.014		
2.554	640	506	0.790	0.048	1 PCB-1016 (Aroclor 1016)	BA
2.583	145	217	1.494	0.020		
2.610	97	146	1.500	0.014		
2.630	154	152	0.984	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.660	424	352	0.831	0.034		
2.697	3794	2812	0.741	0.272		
2.810	2231	1941	0.870	0.187		
2.858	457	486	1.064	0.047		
2.895	58	84	1.449	0.008		
2.915	378	500	1.323	0.048		
2.935	2151	2249	1.045	0.217		
2.951	2919	2542	0.871	0.245		
2.988	2233	1305	0.584	0.126		
3.041	187	170	0.910	0.016		
3.078	398	543	1.365	0.052		
3.096	1848	1517	0.821	0.146		
3.131	1226	1075	0.877	0.103		
3.163	1156	777	0.672	0.075		
3.192	5893	5537	0.940	0.535		
3.238	593	976	1.646	0.094		
3.300	4478	3974	0.888	0.384	7 PCB-1260 (Aroclor 1260)	BA
3.333	244	437	1.792	0.042		
3.362	1138	914	0.803	0.088		
3.384	1645	1412	0.859	0.136		
3.428	1093	831	0.760	0.080		
3.471	4135	4241	1.026	0.410	7 PCB-1260 (Aroclor 1260)	BA
3.495	4724	4184	0.886	0.404		
3.550	2730	2027	0.743	0.196		
3.591	401	591	1.472	0.057		
3.619	1464	1013	0.692	0.097		
3.653	8666	7688	0.887	0.743	7 PCB-1260 (Aroclor 1260)	BA
3.679	1486	1521	1.023	0.147		
3.713	1514	1383	0.913	0.133		
3.750	839	739	0.881	0.071		
3.790	188	186	0.990	0.017		
3.839	22257	15364	0.690	1.486		
3.930	5858	3561	0.608	0.344		
3.972	356	389	1.093	0.037		
4.019	4424	2179	0.493	0.210		
4.051	4250	3412	0.803	0.330	7 PCB-1260 (Aroclor 1260)	BA
4.068	842	982	1.167	0.094		
4.142	3602	2364	0.656	0.228		
4.186	1753	1930	1.101	0.186		
4.193	2349	1971	0.839	0.190		
4.239	2934	2364	0.806	0.228	7 PCB-1260 (Aroclor 1260)	BA
4.277	8328	4357	0.523	0.421		
4.362	1527	818	0.536	0.079		
4.405	1020	793	0.777	0.076		
4.457	400	369	0.923	0.035		
4.491	692	827	1.195	0.080		
4.516	12582	8438	0.671	0.816		
4.565	431	588	1.365	0.056		
4.586	939	826	0.879	0.079		
4.609	2421	1379	0.570	0.133		
4.663	74	142	1.910	0.013		
4.667	44	164	3.746	0.015		
4.675	38	162	4.315	0.015		
4.681	51	178	3.518	0.017		
4.691	31	165	5.245	0.015		
4.711	469	532	1.135	0.051		
4.749	1516	908	0.599	0.087		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.775	686	548	0.799	0.053		
4.798	315	306	0.971	0.029		
4.835	783	765	0.976	0.074		
4.874	6902	4797	0.695	0.464		
4.925	147	340	2.309	0.032		
4.950	8306	6868	0.827	0.664	$ 11 Decachlorobiphenyl (S)	CO
4.966	3166	2824	0.892	0.273		
5.009	4675	3059	0.654	0.295		
5.043	1996	1192	0.597	0.115		
5.115	715	508	0.710	0.049		
5.144	16	59	3.676	0.005		
5.153	23	103	4.566	0.009		
5.161	94	191	2.038	0.018		
5.166	55	196	3.573	0.018		
5.174	51	210	4.139	0.020		
5.183	140	313	2.232	0.030		
5.189	166	399	2.397	0.038		
5.195	307	442	1.438	0.042		
5.212	275	480	1.747	0.046		
5.236	68	436	6.427	0.042		
5.269	2379	1897	0.797	0.183		
5.322	774	891	1.151	0.086		
5.376	76	325	4.275	0.031		
5.386	149	367	2.460	0.035		
5.432	42	101	2.430	0.009		
5.471	10	40	4.008	0.003		
5.480	27	88	3.250	0.008		
5.492	65	135	2.082	0.013		
5.495	31	149	4.831	0.014		
5.499	38	170	4.464	0.016		
5.506	73	202	2.775	0.019		
5.511	109	225	2.072	0.021		
5.524	77	212	2.755	0.020		
5.553	1403	673	0.480	0.065		
5.581	85	292	3.450	0.028		
5.590	59	301	5.131	0.029		
5.593	114	331	2.896	0.032		
5.599	93	344	3.718	0.033		
5.602	77	359	4.676	0.034		
5.606	83	397	4.773	0.038		
5.613	329	467	1.422	0.045		
5.668	33	144	4.377	0.013		
5.671	42	151	3.577	0.014		
5.687	17	112	6.780	0.010		
5.702	45	113	2.503	0.010		
5.714	51	131	2.583	0.012		
5.718	41	157	3.861	0.015		
5.724	71	180	2.551	0.017		
5.727	41	192	4.717	0.018		
5.734	67	225	3.356	0.021		
5.764	1136	723	0.636	0.069		
5.861	2017	899	0.446	0.086		
5.907	63	188	3.005	0.018		
5.940	1087	983	0.904	0.095		
5.943	397	1013	2.552	0.097		
6.025	1782	1383	0.776	0.133		
6.077	1394	1168	0.838	0.112		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.147	91	141	1.557	0.013		
6.208	542	466	0.860	0.045		
6.217	294	509	1.731	0.049		
6.221	638	527	0.826	0.050		
6.301	10383	3431	0.330	0.331		
6.380	234	404	1.725	0.039		
6.411	99	256	2.595	0.024		
6.422	37	236	6.410	0.022		
6.434	122	269	2.199	0.026		
6.479	18	131	7.460	0.012		
6.492	48	107	2.231	0.010		
	833847	1033713		100.000		

Total unknown % height = 96.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000033.d
Lab Smp Id: 1707391 Client Smp ID: AOC32 Lower-1MS
Inj Date : 17-JUL-2019 18:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707391x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 33 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.290	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.965	1.958	0.007	713	0.06258	0.237	80.00- 120.00	100.00(aM)	BA
2.280	2.280	0.000	889	0.04076	0.154	161.06- 241.58	41.02	BA
2.368	2.368	0.000	542	0.04996	0.189	77.73- 116.59	25.01	BA
2.463	2.463	0.000	497	0.04980	0.189	70.77- 106.16	22.93	BA
2.553	2.554	-0.001	640	0.06464	0.245	68.90- 103.36	29.55	BA
Average of Peak Concentrations =					0.203			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									CO
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									CO
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.300	3.300	0.000	4477	0.22032	0.836	80.00- 120.00	100.00	(aM)	BA
3.470	3.471	-0.001	4135	0.16977	0.644	94.09- 141.14	92.36		BA
3.653	3.654	-0.001	8665	0.29581	1.12	117.87- 176.80	193.54		BA
4.050	4.052	-0.002	4249	0.09876	0.374	166.49- 249.74	113.29		BA
4.238	4.239	-0.001	2933	0.11338	0.430	99.38- 149.07	65.53		BA
Average of Peak Concentrations =					0.681				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.583	1.583	0.000	7660	0.01687	0.00640			(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.949	4.950	-0.001	8305	0.02616	0.00992			(aRM)	CO

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

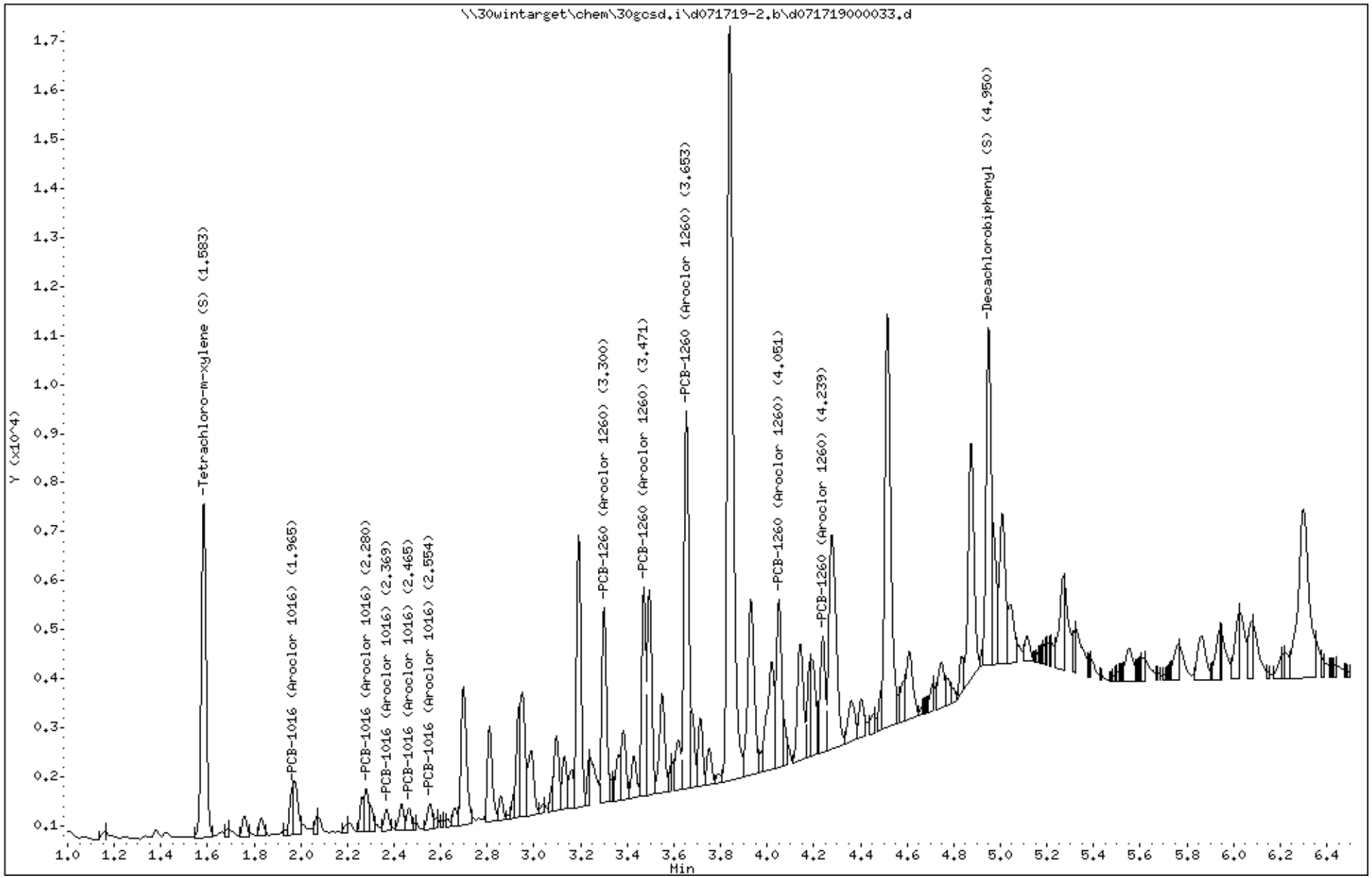
Client Name:
Lab Smp Id: 1707391
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: d071719-2.b
Client Smp ID: AOC32 Lower-1MS
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

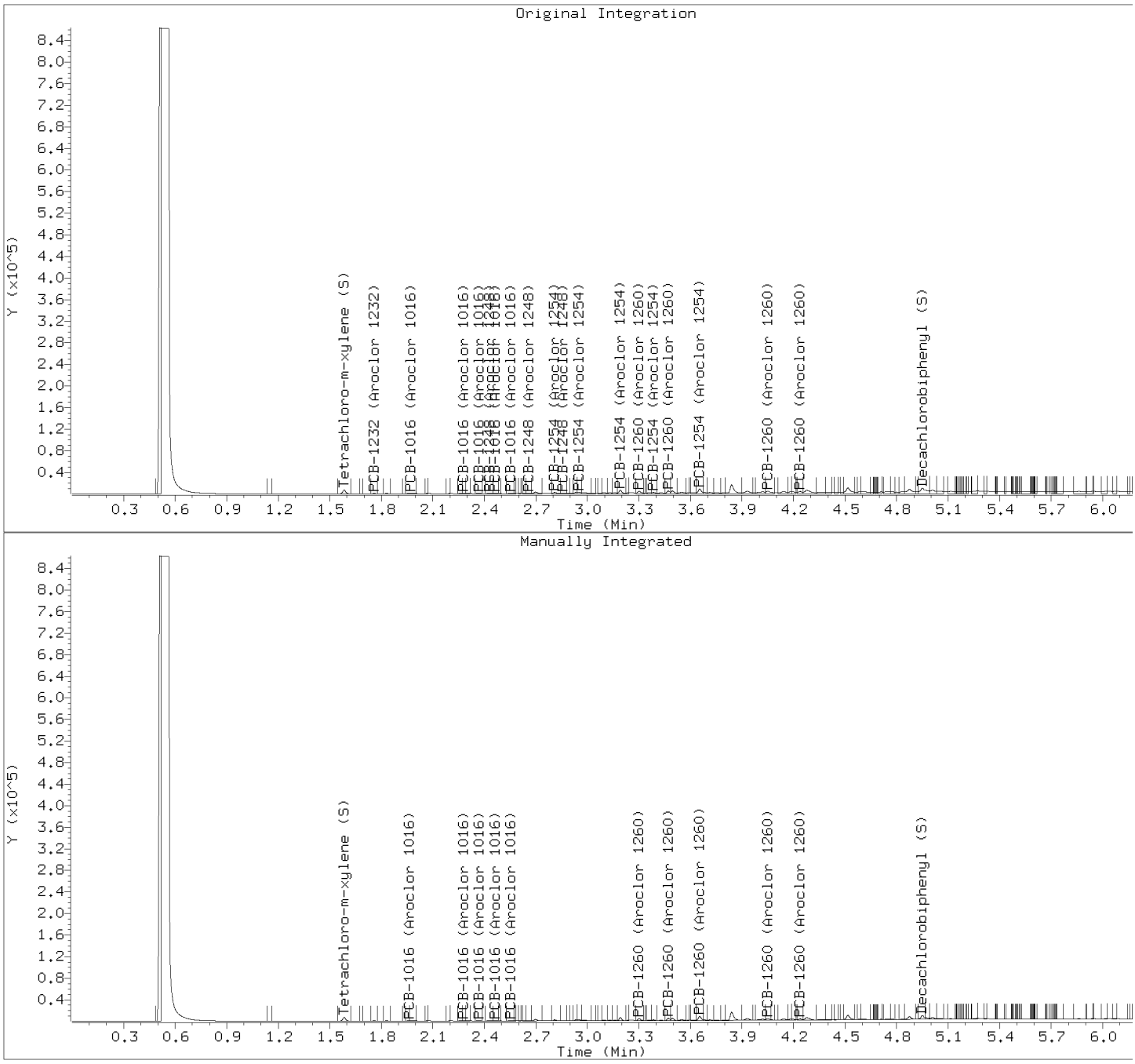
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.237	J
	Peak found at 2.280	0.154	J
	Peak found at 2.369	0.189	J
	Peak found at 2.464	0.189	J
	Peak found at 2.553	0.245	J
	Average of Peak Amounts =	0.203	J
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)	383	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.300	0.836	J
	Peak found at 3.471	0.644	J
	Peak found at 3.653	1.12	J
	Peak found at 4.051	0.374	J
	Peak found at 4.239	0.430	J
	Average of Peak Amounts =	0.681	J
877-09-8	Tetrachloro-m-xylene (S)	0.00640	J
2051-24-3	Decachlorobiphenyl (S)	0.00992	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000033.d
Date : 17-JUL-2019 18:57
Client ID: A0C32 Lower-1MS
Sample Info: 1707391X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000033.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 18:57 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707391



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3073	713
PCB-1016 (Aroclor 1016)	1289	889
PCB-1016 (Aroclor 1016)	1334	542
PCB-1016 (Aroclor 1016)	1189	497
PCB-1016 (Aroclor 1016)	1626	640
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	935	0
PCB-1232 (Aroclor 1232)	3073	0
PCB-1232 (Aroclor 1232)	1289	0
PCB-1232 (Aroclor 1232)	1334	0
PCB-1232 (Aroclor 1232)	1626	0
PCB-1242 (Aroclor 1242)	935	0

PCB-1242 (Aroclor 1242)	3073	0
PCB-1242 (Aroclor 1242)	1289	0
PCB-1242 (Aroclor 1242)	1334	0
PCB-1242 (Aroclor 1242)	1626	0
PCB-1248 (Aroclor 1248)	1289	0
PCB-1248 (Aroclor 1248)	1537	0
PCB-1248 (Aroclor 1248)	1626	0
PCB-1248 (Aroclor 1248)	1249	0
PCB-1248 (Aroclor 1248)	1618	0
PCB-1254 (Aroclor 1254)	3880	0
PCB-1254 (Aroclor 1254)	3852	0
PCB-1254 (Aroclor 1254)	8290	0
PCB-1254 (Aroclor 1254)	3607	0
PCB-1254 (Aroclor 1254)	11383	0
PCB-1260 (Aroclor 1260)	6868	4477
PCB-1260 (Aroclor 1260)	6048	4135
PCB-1260 (Aroclor 1260)	11383	8665
PCB-1260 (Aroclor 1260)	10376	4249
PCB-1260 (Aroclor 1260)	6870	2933
Tetrachloro-m-xylene (S)	8548	7660
Decachlorobiphenyl (S)	26278	8305

SAMPLE NO.

MSD

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707392

Date Analyzed: 07/17/2019 19:05 Lab File ID: D071719-1.B\D071719000034.D

Initial wt/vol: 15.28 g Final wt/vol: 5 mL Dilution: 10 Instrument: 30GCSD Percent Moisture: 13.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	0.24	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000034.d
Lab Smp Id: 1707392 Client Smp ID: AOC32 Lower-1MSD
Inj Date : 17-JUL-2019 19:05
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707392x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 34 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.280	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.504	630367	862808	1.369	42.856		
0.584	333348	862401	2.587	42.758		
0.873	355	391	1.100	0.019		
1.147	85	89	1.053	0.004		
1.167	260	214	0.822	0.010		
1.211	10037	8261	0.823	0.409	$ 10 Tetrachloro-m-xylene (S)	BA
1.382	187	224	1.195	0.011		
1.406	246	325	1.319	0.016		
1.451	1176	690	0.587	0.034		
1.611	470	546	1.163	0.027		
1.629	1650	936	0.567	0.046	1 PCB-1016 (Aroclor 1016)	BA
1.694	1713	1259	0.735	0.062		
1.743	304	324	1.064	0.016		
1.758	429	402	0.936	0.019		
1.806	154	216	1.406	0.010		
1.876	2285	1652	0.723	0.081	1 PCB-1016 (Aroclor 1016)	BA
1.930	875	721	0.824	0.035	1 PCB-1016 (Aroclor 1016)	BA
1.992	153	209	1.364	0.010		
2.006	526	482	0.917	0.023		
2.033	862	738	0.856	0.036		
2.060	511	523	1.024	0.025		
2.098	153	262	1.714	0.012		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.185	684	699	1.023	0.034	1 PCB-1016 (Aroclor 1016)	BA
2.209	260	261	1.004	0.012		
2.243	229	257	1.124	0.012		
2.275	799	633	0.793	0.031	1 PCB-1016 (Aroclor 1016)	BA
2.312	189	216	1.143	0.010		
2.342	110	162	1.473	0.008		
2.372	155	182	1.175	0.009		
2.399	221	301	1.361	0.014		
2.426	9787	7760	0.793	0.384		
2.469	1477	1328	0.899	0.065		
2.507	2423	2344	0.968	0.116		
2.542	1138	1132	0.995	0.056		
2.590	761	636	0.835	0.031		
2.644	6389	4221	0.661	0.209		
2.726	1154	1159	1.004	0.057		
2.788	15367	11444	0.745	0.567	7 PCB-1260 (Aroclor 1260)	BA
2.826	2035	1671	0.821	0.082		
2.844	245	819	3.345	0.040		
2.882	5863	5165	0.881	0.256	7 PCB-1260 (Aroclor 1260)	BA
2.921	1333	1258	0.943	0.062		
2.952	1514	1396	0.922	0.069		
2.992	8684	6080	0.700	0.301	7 PCB-1260 (Aroclor 1260)	BA
3.052	391	552	1.413	0.027		
3.101	1658	2269	1.368	0.112		
3.116	4374	3762	0.860	0.186		
3.149	4398	3690	0.839	0.182		
3.187	2165	1830	0.845	0.090		
3.224	14192	10314	0.727	0.511		
3.284	2295	1849	0.806	0.091		
3.335	933	651	0.698	0.032		
3.364	372	529	1.421	0.026		
3.435	1648	1773	1.076	0.087		
3.457	3719	3234	0.870	0.160		
3.496	1368	1224	0.895	0.060		
3.530	31553	24425	0.774	1.211		
3.581	5825	4762	0.818	0.236	7 PCB-1260 (Aroclor 1260)	BA
3.635	8744	6400	0.732	0.317		
3.721	8962	5933	0.662	0.294		
3.800	5231	4167	0.797	0.206		
3.828	9337	6057	0.649	0.300	7 PCB-1260 (Aroclor 1260)	BA
3.849	3597	3444	0.958	0.170		
3.873	1573	1490	0.947	0.073		
3.946	2703	2285	0.845	0.113		
3.949	458	2306	5.031	0.114		
3.958	3833	2406	0.628	0.119		
4.035	8399	6068	0.722	0.300		
4.075	1706	1306	0.765	0.064		
4.093	827	1335	1.613	0.066		
4.118	570	714	1.254	0.035		
4.148	2337	1677	0.718	0.083		
4.174	380	654	1.720	0.032		
4.197	92	238	2.575	0.011		
4.243	20539	13562	0.660	0.672		
4.301	1172	957	0.817	0.047		
4.330	951	1078	1.133	0.053		
4.335	415	1103	2.659	0.054		
4.368	70	278	3.990	0.013		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.380	376	422	1.122	0.020		
4.394	358	443	1.236	0.021		
4.419	350	405	1.157	0.020		
4.496	9668	7822	0.809	0.387	$ 11 Decachlorobiphenyl (S)	BA
4.523	1345	1380	1.026	0.068		
4.568	2991	2827	0.945	0.140		
4.585	10744	5679	0.529	0.281		
4.633	1178	1058	0.898	0.052		
4.679	9496	7083	0.746	0.351		
4.707	2921	2476	0.848	0.122		
4.744	11108	8357	0.752	0.414		
4.769	2566	1915	0.746	0.094		
4.827	8	51	6.399	0.002		
4.846	684	999	1.460	0.049		
4.868	188	643	3.417	0.031		
4.874	124	632	5.107	0.031		
4.882	343	627	1.829	0.031		
4.922	710	696	0.980	0.034		
4.958	1297	1251	0.965	0.062		
4.992	310	785	2.532	0.038		
5.030	9810	4598	0.469	0.227		
5.104	499	823	1.651	0.040		
5.125	182	546	2.998	0.027		
5.131	140	547	3.908	0.027		
5.139	250	596	2.380	0.029		
5.141	135	624	4.612	0.030		
5.145	177	646	3.641	0.032		
5.149	206	654	3.174	0.032		
5.191	7	36	5.302	0.001		
5.198	18	67	3.718	0.003		
5.204	27	96	3.492	0.004		
5.207	21	112	5.437	0.005		
5.210	24	147	6.133	0.007		
5.215	51	175	3.430	0.008		
5.218	41	195	4.755	0.009		
5.251	908	710	0.782	0.035		
5.267	2055	1086	0.528	0.053		
5.300	450	634	1.409	0.031		
5.337	118	279	2.368	0.013		
5.373	40	69	1.716	0.003		
5.401	705	878	1.245	0.043		
5.447	615	618	1.006	0.030		
5.451	274	637	2.329	0.031		
5.493	1308	1225	0.936	0.060		
5.495	521	1253	2.406	0.062		
5.577	3380	1839	0.544	0.091		
5.650	6856	3253	0.475	0.161		
5.717	5882	2455	0.417	0.121		
5.772	3820	1593	0.417	0.078		
5.854	22968	7009	0.305	0.347		
5.933	365	1226	3.361	0.060		
5.936	222	1245	5.619	0.061		
5.954	1518	1520	1.001	0.075		
5.959	581	1537	2.646	0.076		
6.008	603	942	1.563	0.046		
6.035	878	896	1.020	0.044		
6.042	235	918	3.910	0.045		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.065	250	854	3.417	0.042		
6.068	189	871	4.601	0.043		
6.097	346	656	1.896	0.032		
6.117	353	661	1.873	0.032		
6.121	164	700	4.266	0.034		
6.146	4681	1864	0.398	0.092		
6.182	513	1087	2.118	0.053		
6.206	194	980	5.040	0.048		
6.215	305	1030	3.375	0.051		
6.251	276	930	3.367	0.046		
6.308	89	414	4.660	0.020		
6.315	174	469	2.700	0.023		
6.338	1869	846	0.453	0.041		
6.378	114	314	2.750	0.015		
6.415	116	228	1.965	0.011		
6.418	65	238	3.640	0.011		
6.430	117	234	2.001	0.011		
6.468	53	143	2.685	0.007		
6.492	9	49	5.202	0.002		
	1336285	2016922		100.000		

Total unknown % height = 97.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000034.d
Lab Smp Id: 1707392 Client Smp ID: AOC32 Lower-1MSD
Inj Date : 17-JUL-2019 19:05
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707392x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 34 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.280	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.628	1.630	-0.002	1650	0.08034	0.305	80.00- 120.00	100.00(aM)	BA
1.876	1.876	0.000	2285	0.05528	0.210	159.11- 238.66	138.48	BA
1.929	1.930	-0.001	874	0.05247	0.199	66.14- 99.21	52.97	BA
2.185	2.185	0.000	683	0.05347	0.203	47.38- 71.07	41.43	BA
2.274	2.274	0.000	798	0.07268	0.276	43.15- 64.73	48.40	BA
Average of Peak Concentrations =					0.238			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.787	2.794	-0.007	15367	0.82868	3.14	80.00- 120.00	100.00(aM)	BA
2.882	2.881	0.001	5863	0.24722	0.938	102.77- 154.15	38.15	BA
2.992	2.992	0.000	8683	0.29259	1.11	125.79- 188.69	56.50	BA
3.580	3.581	-0.001	5824	0.11601	0.440	216.45- 324.67	37.90	BA
3.827	3.824	0.003	9337	0.25762	0.978	155.24- 232.86	60.76	BA
Average of Peak Concentrations =					1.32			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.211	0.000	10037	0.01973	0.00749		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.497	-0.001	9668	0.02880	0.0109		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.
    :

Pace Analytical Services, Inc.

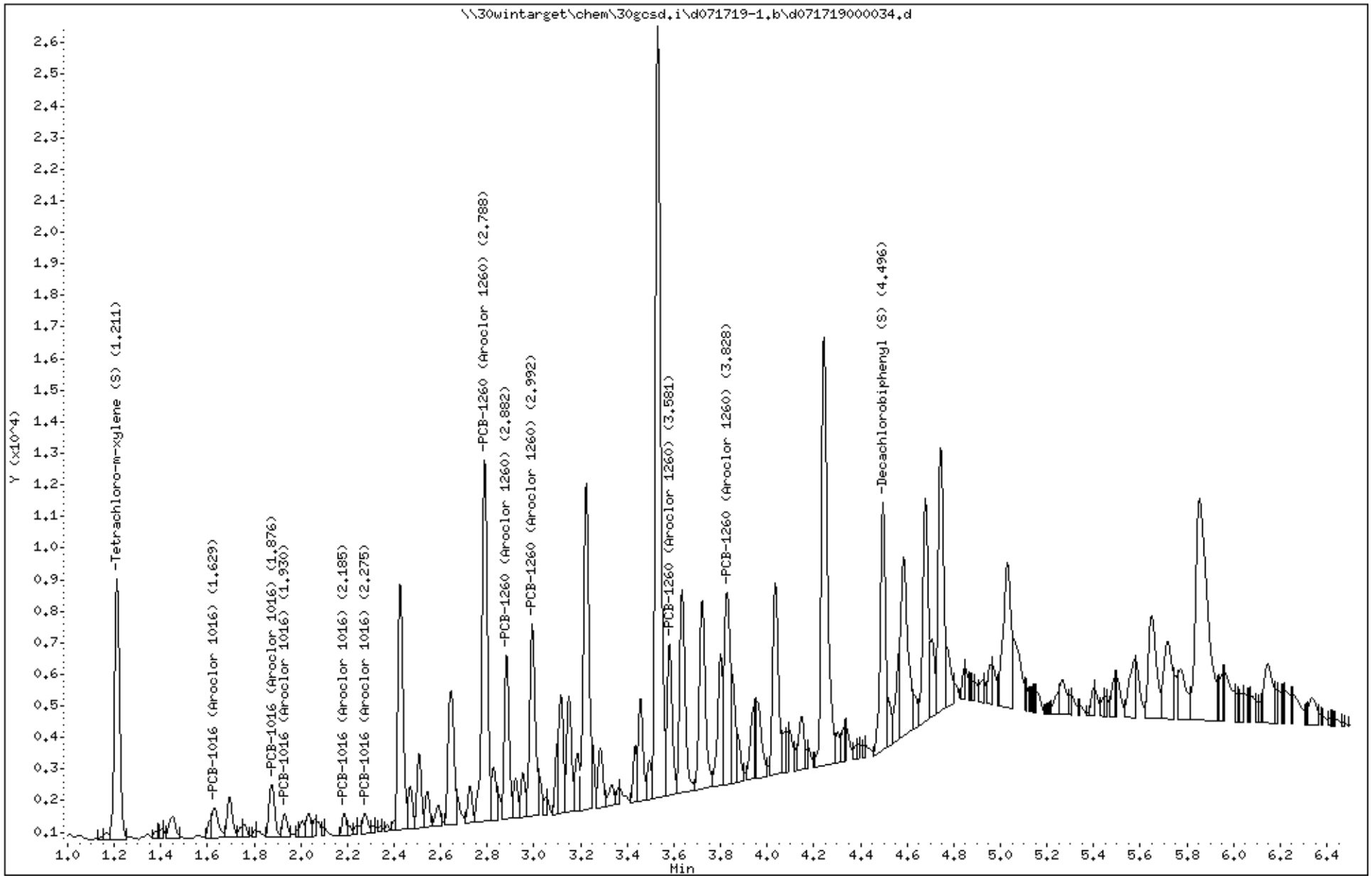
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1707392
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: d071719-1.b
Client Smp ID: AOC32 Lower-1MSD
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.628	0.305	J
	Peak found at 1.876	0.210	J
	Peak found at 1.930	0.199	J
	Peak found at 2.185	0.203	J
	Peak found at 2.275	0.276	J
	Average of Peak Amounts =	0.239	J
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)	383	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.788	3.14	J
	Peak found at 2.882	0.938	J
	Peak found at 2.992	1.11	J
	Peak found at 3.581	0.440	J
	Peak found at 3.828	0.978	J
	Average of Peak Amounts =	1.32	J
877-09-8	Tetrachloro-m-xylene (S)	0.00749	J
2051-24-3	Decachlorobiphenyl (S)	0.0109	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000034.d
Date : 17-JUL-2019 19:05
Client ID: A0C32 Lower-1MSD
Instrument: 30gcsd.i
Sample Info: 1707392X10,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32

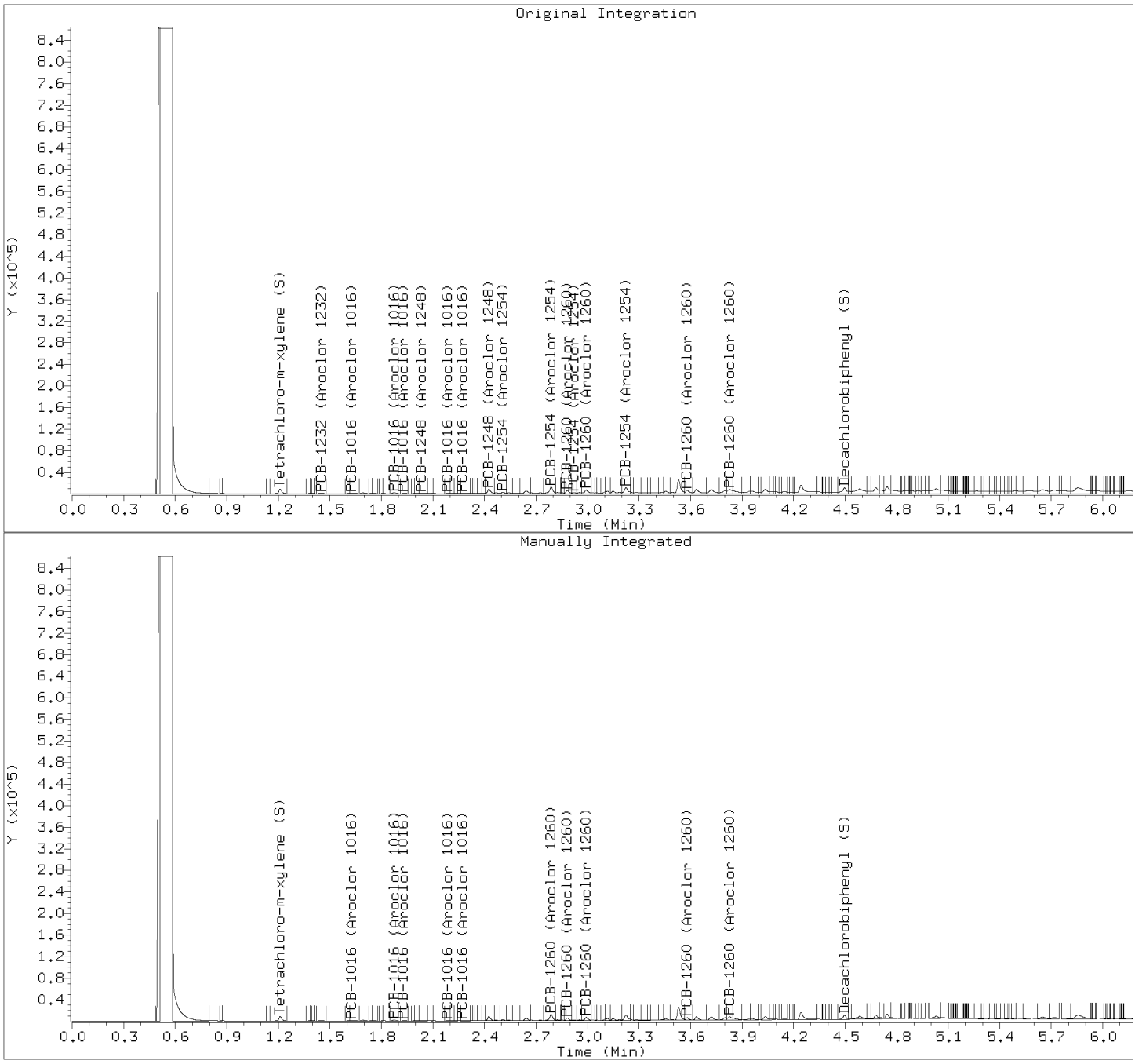


Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000034.d (ManInt: tcl.sub Orig: tcl.sub)

Injection Date: 17-JUL-2019 19:05 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 1707392



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2607	1650
PCB-1016 (Aroclor 1016)	3414	2285
PCB-1016 (Aroclor 1016)	1689	874
PCB-1016 (Aroclor 1016)	1378	683
PCB-1016 (Aroclor 1016)	1779	798
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	2024	0
PCB-1232 (Aroclor 1232)	2607	0
PCB-1232 (Aroclor 1232)	3414	0
PCB-1232 (Aroclor 1232)	1689	0
PCB-1232 (Aroclor 1232)	1378	0
PCB-1242 (Aroclor 1242)	2024	0

PCB-1242 (Aroclor 1242)	2607	0
PCB-1242 (Aroclor 1242)	3414	0
PCB-1242 (Aroclor 1242)	1689	0
PCB-1242 (Aroclor 1242)	1378	0
PCB-1248 (Aroclor 1248)	3414	0
PCB-1248 (Aroclor 1248)	1445	0
PCB-1248 (Aroclor 1248)	1378	0
PCB-1248 (Aroclor 1248)	1779	0
PCB-1248 (Aroclor 1248)	11451	0
PCB-1254 (Aroclor 1254)	11451	0
PCB-1254 (Aroclor 1254)	3784	0
PCB-1254 (Aroclor 1254)	18705	0
PCB-1254 (Aroclor 1254)	2905	0
PCB-1254 (Aroclor 1254)	17790	0
PCB-1260 (Aroclor 1260)	18705	15367
PCB-1260 (Aroclor 1260)	8162	5863
PCB-1260 (Aroclor 1260)	11914	8683
PCB-1260 (Aroclor 1260)	10292	5824
PCB-1260 (Aroclor 1260)	13373	9337
Tetrachloro-m-xylene (S)	11058	10037
Decachlorobiphenyl (S)	20347	9668

SAMPLE NO.

MSD

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Date Received: 07/11/2019 09:30 Matrix: Solid SDG No.: 30313260

Date Extracted: 07/11/2019 21:12 Lab Sample ID: 1707392

Date Analyzed: 07/17/2019 19:05 Lab File ID: D071719-2.B\D071719000034.D

Initial wt/vol: 15.28 g Final wt/vol: 5 mL Dilution: 10 Instrument: 30GCSD Percent Moisture: 13.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/kg	Q
11096-82-5	PCB-1260 (Aroclor 1260)	0.85	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000034.d
Lab Smp Id: 1707392 Client Smp ID: AOC32 Lower-1MSD
Inj Date : 17-JUL-2019 19:05
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707392x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 34 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.280	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	594695	862944	1.451	44.085		
0.589	392409	862365	2.198	43.987		
0.993	432	407	0.942	0.020		
1.160	333	256	0.769	0.013		
1.380	249	222	0.892	0.011		
1.424	126	131	1.042	0.006		
1.583	8989	8073	0.898	0.411	$ 10 Tetrachloro-m-xylene (S)	BA
1.689	193	223	1.157	0.011		
1.757	560	509	0.908	0.025		
1.830	556	483	0.868	0.024		
1.931	194	170	0.875	0.008		
1.965	902	1343	1.489	0.068	1 PCB-1016 (Aroclor 1016)	BA
1.973	2351	1727	0.735	0.088		
2.071	715	451	0.631	0.023		
2.197	183	244	1.331	0.012		
2.263	789	850	1.078	0.043		
2.280	1071	1067	0.997	0.054	1 PCB-1016 (Aroclor 1016)	BA
2.300	672	642	0.955	0.032		
2.368	715	532	0.745	0.027	1 PCB-1016 (Aroclor 1016)	BA
2.432	808	593	0.734	0.030		
2.464	650	569	0.875	0.029	1 PCB-1016 (Aroclor 1016)	BA
2.492	217	193	0.889	0.009		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.553	858	634	0.739	0.032	1 PCB-1016 (Aroclor 1016)	BA
2.583	186	270	1.454	0.013		
2.609	124	198	1.602	0.010		
2.629	120	201	1.671	0.010		
2.660	522	421	0.806	0.021		
2.697	7066	5299	0.750	0.270		
2.762	113	154	1.369	0.007		
2.809	2609	2236	0.857	0.114		
2.858	563	588	1.045	0.029		
2.892	124	138	1.111	0.007		
2.935	4145	3510	0.847	0.179		
2.949	3180	3098	0.974	0.158		
2.986	3639	1885	0.518	0.096		
3.043	288	255	0.885	0.013		
3.097	3531	2524	0.715	0.128		
3.131	1489	1295	0.870	0.066		
3.163	1405	935	0.665	0.047		
3.192	6944	6545	0.943	0.333		
3.239	1512	1178	0.779	0.060		
3.301	5713	4827	0.845	0.246	7 PCB-1260 (Aroclor 1260)	BA
3.334	596	652	1.093	0.033		
3.362	1654	1335	0.807	0.068		
3.383	1956	1669	0.853	0.085		
3.429	1372	1021	0.744	0.052		
3.471	4941	5024	1.017	0.256	7 PCB-1260 (Aroclor 1260)	BA
3.495	5787	5060	0.874	0.258		
3.550	3339	2443	0.732	0.124		
3.592	886	742	0.838	0.037		
3.620	1384	1250	0.903	0.063		
3.653	10505	9266	0.882	0.472	7 PCB-1260 (Aroclor 1260)	BA
3.678	1847	1863	1.009	0.095		
3.713	1986	1792	0.902	0.091		
3.751	1135	936	0.825	0.047		
3.791	316	286	0.906	0.014		
3.839	33547	24413	0.728	1.245		
3.930	9083	5790	0.637	0.295		
3.974	484	581	1.201	0.029		
4.020	7441	3892	0.523	0.198		
4.051	5247	4256	0.811	0.217	7 PCB-1260 (Aroclor 1260)	BA
4.067	1621	1466	0.904	0.074		
4.142	5301	3479	0.656	0.177		
4.184	3284	2883	0.878	0.147		
4.238	3940	3009	0.764	0.153	7 PCB-1260 (Aroclor 1260)	BA
4.277	12295	6610	0.538	0.337		
4.362	2638	1378	0.522	0.070		
4.404	1778	1185	0.667	0.060		
4.437	190	409	2.147	0.020		
4.442	137	443	3.234	0.022		
4.457	495	594	1.201	0.030		
4.490	1015	1126	1.110	0.057		
4.516	17115	11666	0.682	0.595		
4.585	2339	1284	0.549	0.065		
4.610	3210	1855	0.578	0.094		
4.663	110	227	2.073	0.011		
4.665	42	246	5.807	0.012		
4.670	90	257	2.860	0.013		
4.677	100	284	2.848	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.711	1102	737	0.669	0.037		
4.747	2493	1512	0.606	0.077		
4.774	936	803	0.858	0.040		
4.793	122	371	3.037	0.018		
4.835	1309	1216	0.929	0.062		
4.874	9853	7019	0.712	0.358		
4.949	17075	8867	0.519	0.452	$ 11 Decachlorobiphenyl (S)	BA
5.008	7352	5014	0.682	0.255		
5.042	1755	1900	1.083	0.096		
5.077	155	497	3.209	0.025		
5.116	1267	840	0.663	0.042		
5.150	98	204	2.073	0.010		
5.154	45	242	5.414	0.012		
5.162	216	354	1.638	0.018		
5.168	78	364	4.681	0.018		
5.188	645	721	1.118	0.036		
5.192	243	776	3.193	0.039		
5.196	482	798	1.656	0.040		
5.206	339	778	2.298	0.039		
5.216	692	778	1.125	0.039		
5.270	7565	2886	0.381	0.147		
5.322	1366	1435	1.050	0.073		
5.376	105	491	4.666	0.025		
5.379	101	517	5.113	0.026		
5.385	410	571	1.391	0.029		
5.429	102	187	1.828	0.009		
5.450	8	36	4.380	0.001		
5.455	4	28	7.330	0.001		
5.460	13	47	3.610	0.002		
5.471	23	70	3.057	0.003		
5.480	73	160	2.185	0.008		
5.484	46	193	4.199	0.009		
5.491	58	222	3.821	0.011		
5.496	62	232	3.736	0.011		
5.500	76	244	3.197	0.012		
5.505	65	269	4.113	0.013		
5.516	186	303	1.632	0.015		
5.523	72	312	4.348	0.015		
5.548	1067	865	0.810	0.044		
5.580	96	450	4.711	0.022		
5.588	215	494	2.295	0.025		
5.599	411	619	1.506	0.031		
5.604	176	641	3.651	0.032		
5.610	277	727	2.622	0.037		
5.615	461	735	1.594	0.037		
5.667	53	247	4.657	0.012		
5.714	133	229	1.720	0.011		
5.720	90	266	2.966	0.013		
5.743	558	589	1.056	0.030		
5.761	1134	1005	0.886	0.051		
5.810	42	130	3.100	0.006		
5.819	17	101	5.893	0.005		
5.824	37	116	3.161	0.005		
5.833	24	133	5.588	0.006		
5.861	2798	1257	0.449	0.064		
5.904	75	280	3.735	0.014		
5.940	2281	1410	0.618	0.071		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.993	96	376	3.930	0.019		
6.026	3066	2081	0.679	0.106		
6.079	4393	1753	0.399	0.089		
6.132	87	230	2.643	0.011		
6.146	78	167	2.130	0.008		
6.164	81	127	1.559	0.006		
6.173	35	122	3.478	0.006		
6.201	489	583	1.191	0.029		
6.205	173	649	3.755	0.033		
6.209	160	680	4.259	0.034		
6.214	236	718	3.045	0.036		
6.219	256	785	3.063	0.040		
6.223	995	814	0.818	0.041		
6.300	18970	6151	0.324	0.313		
6.418	105	362	3.438	0.018		
6.423	114	364	3.191	0.018		
6.435	86	368	4.260	0.018		
6.441	122	398	3.260	0.020		
6.447	222	393	1.773	0.020		
6.472	92	230	2.512	0.011		
	1297537	1960496		100.000		

Total unknown % height = 97.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000034.d
Lab Smp Id: 1707392 Client Smp ID: AOC32 Lower-1MSD
Inj Date : 17-JUL-2019 19:05
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1707392x10,
Misc Info : 15800,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 34 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.280	Weigth of sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.964	1.958	0.006	901	0.07908	0.300	80.00- 120.00	100.00(aM)	BA
2.280	2.280	0.000	1070	0.04906	0.186	161.06- 241.58	118.76	BA
2.368	2.368	0.000	714	0.06581	0.250	77.73- 116.59	79.25	BA
2.464	2.463	0.001	650	0.06513	0.247	70.77- 106.16	72.14	BA
2.553	2.554	-0.001	857	0.08655	0.328	68.90- 103.36	95.23	BA
Average of Peak Concentrations =					0.262			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.300	3.300	0.000	5712	0.28110	1.07	80.00- 120.00	100.00(aM)	BA
3.471	3.471	0.000	4941	0.20286	0.770	94.09- 141.14	86.50	BA
3.653	3.654	-0.001	10504	0.35860	1.36	117.87- 176.80	183.89	BA
4.051	4.052	-0.001	5247	0.12195	0.463	166.49- 249.74	91.86	BA
4.238	4.239	-0.001	3939	0.15226	0.578	99.38- 149.07	68.97	BA
Average of Peak Concentrations =					0.848			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.583	1.583	0.000	8988	0.01979	0.00751		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.949	4.950	-0.001	17074	0.05378	0.0204		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

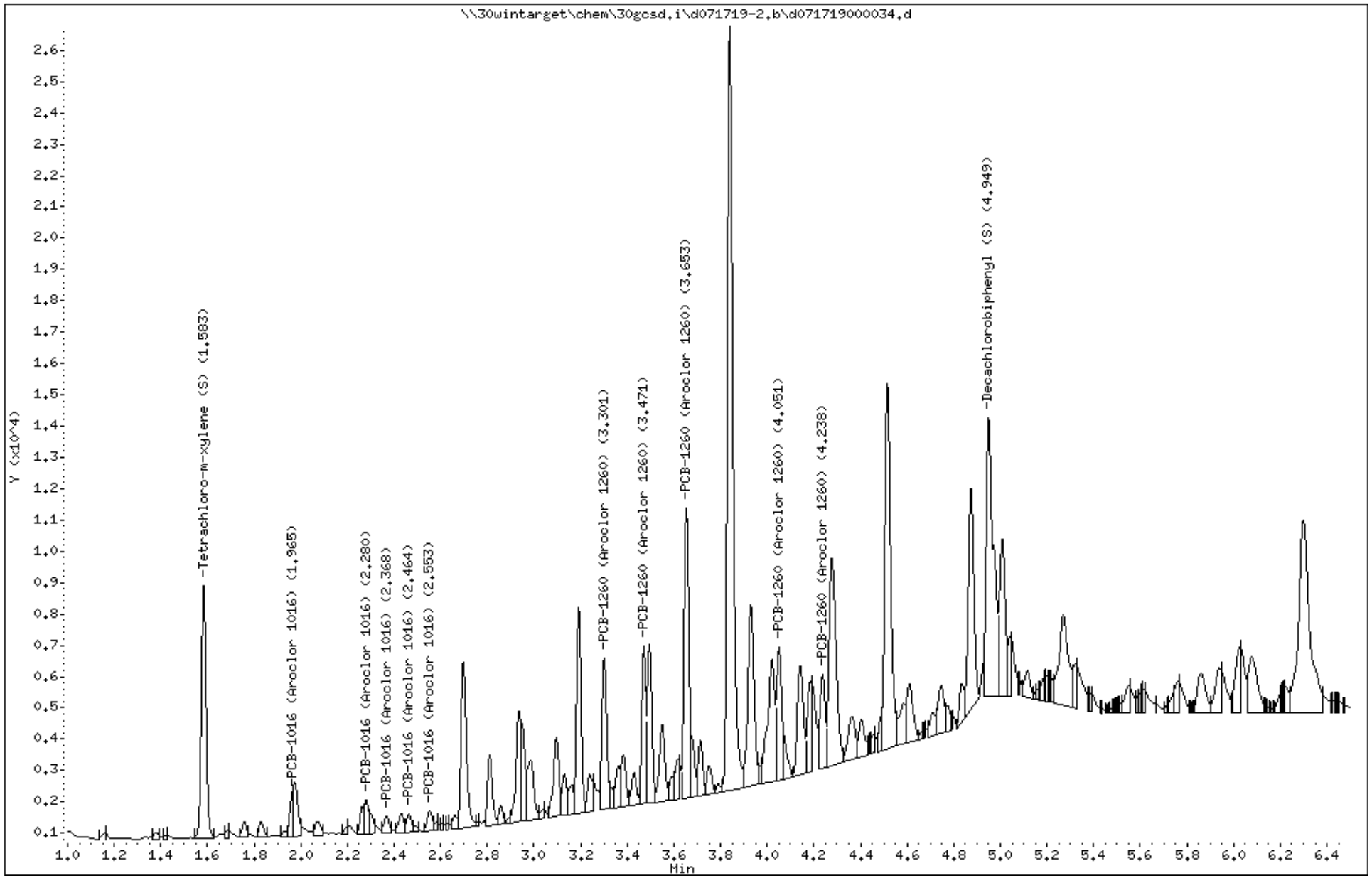
Client Name:
Lab Smp Id: 1707392
Sample Location:
Sample Date: 10-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15800,

Client SDG: d071719-2.b
Client Smp ID: AOC32 Lower-1MSD
Sample Point:
Date Received: 11-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

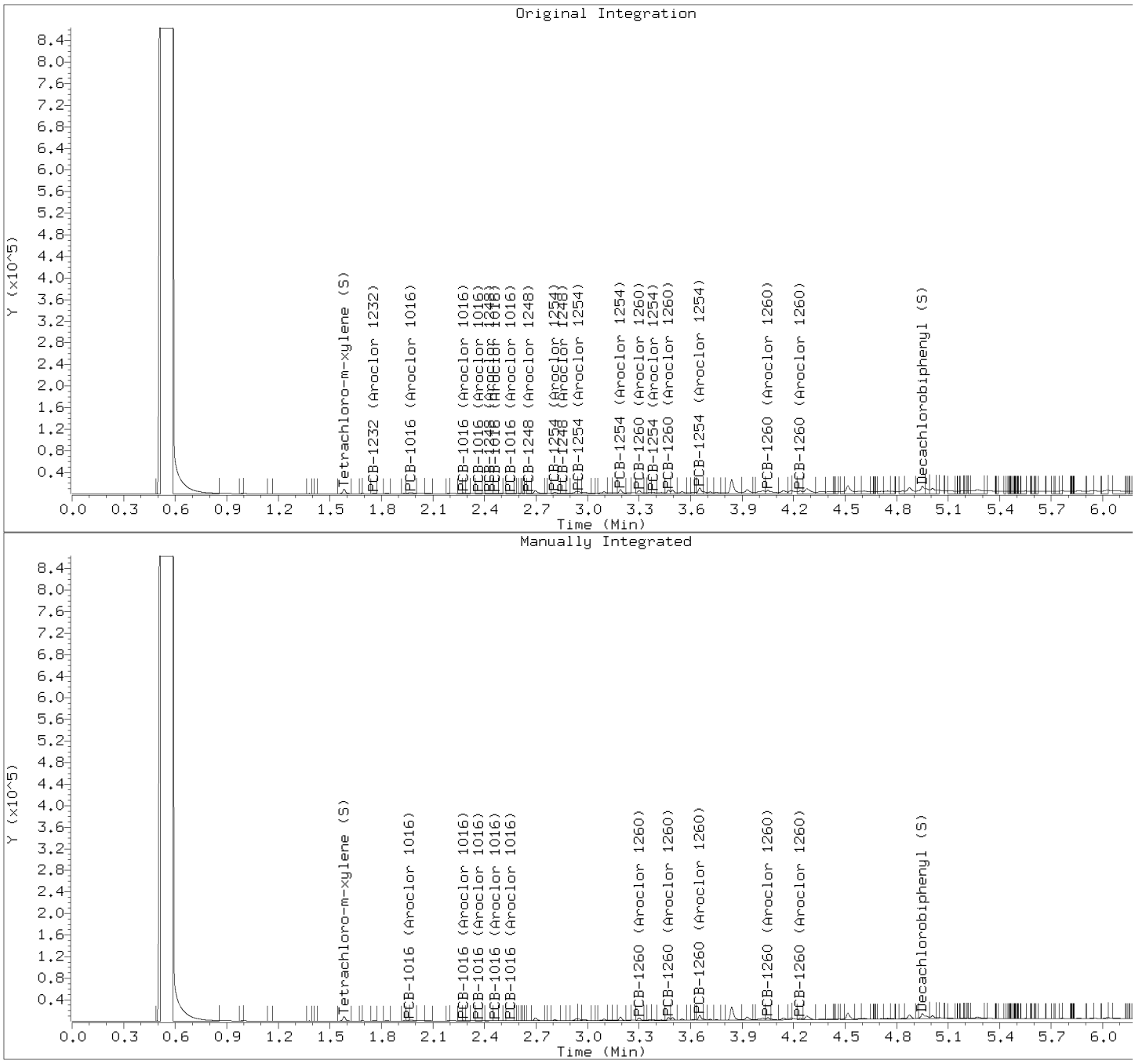
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.300	J
	Peak found at 2.280	0.186	J
	Peak found at 2.368	0.250	J
	Peak found at 2.464	0.247	J
	Peak found at 2.553	0.328	J
	Average of Peak Amounts =	0.262	J
11104-28-2	PCB-1221 (Aroclor 1221)	777	U
11141-16-5	PCB-1232 (Aroclor 1232)	383	U
53469-21-9	PCB-1242 (Aroclor 1242)	383	U
12672-29-6	PCB-1248 (Aroclor 1248)	383	U
11097-69-1	PCB-1254 (Aroclor 1254)	383	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.301	1.07	J
	Peak found at 3.471	0.770	J
	Peak found at 3.653	1.36	J
	Peak found at 4.051	0.463	J
	Peak found at 4.238	0.578	J
	Average of Peak Amounts =	0.848	J
877-09-8	Tetrachloro-m-xylene (S)	0.00751	J
2051-24-3	Decachlorobiphenyl (S)	0.0204	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000034.d
Date : 17-JUL-2019 19:05
Client ID: A0C32 Lower-1MSD
Sample Info: 1707392X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000034.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 19:05 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1707392



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	4424	901
PCB-1016 (Aroclor 1016)	1586	1070
PCB-1016 (Aroclor 1016)	1787	714
PCB-1016 (Aroclor 1016)	1542	650
PCB-1016 (Aroclor 1016)	2187	857
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	1193	0
PCB-1232 (Aroclor 1232)	4424	0
PCB-1232 (Aroclor 1232)	1586	0
PCB-1232 (Aroclor 1232)	1787	0
PCB-1232 (Aroclor 1232)	2187	0
PCB-1242 (Aroclor 1242)	1193	0

PCB-1242 (Aroclor 1242)	4424	0
PCB-1242 (Aroclor 1242)	1586	0
PCB-1242 (Aroclor 1242)	1787	0
PCB-1242 (Aroclor 1242)	2187	0
PCB-1248 (Aroclor 1248)	1586	0
PCB-1248 (Aroclor 1248)	2037	0
PCB-1248 (Aroclor 1248)	2187	0
PCB-1248 (Aroclor 1248)	1590	0
PCB-1248 (Aroclor 1248)	2025	0
PCB-1254 (Aroclor 1254)	4828	0
PCB-1254 (Aroclor 1254)	4204	0
PCB-1254 (Aroclor 1254)	10019	0
PCB-1254 (Aroclor 1254)	4445	0
PCB-1254 (Aroclor 1254)	14088	0
PCB-1260 (Aroclor 1260)	8960	5712
PCB-1260 (Aroclor 1260)	7417	4941
PCB-1260 (Aroclor 1260)	14088	10504
PCB-1260 (Aroclor 1260)	16430	5247
PCB-1260 (Aroclor 1260)	9022	3939
Tetrachloro-m-xylene (S)	10241	8988
Decachlorobiphenyl (S)	26946	17074

SAMPLE NO.

LCS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1707390 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63032	130	1.5
	2	2.55398	0.13	
PCB-1260 (Aroclor 1260)	1	2.79365	0.13	0.13
	2	4.24032	133	

SAMPLE NO.

MS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1707391 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.62865	206	1.5
	2	2.55332	0.20	
PCB-1260 (Aroclor 1260)	1	2.78798	1020	40.2
	2	4.23898	0.68	

SAMPLE NO.

MSD

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 1707392 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.62833	0.24	9.5
	2	2.553	262	
PCB-1260 (Aroclor 1260)	1	2.78767	1320	43.7
	2	4.23833	0.85	

SAMPLE NO.

AOC32 Lower-1

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260001 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019

Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.42533	0.92	21.4
	2	3.65367	0.74	

SAMPLE NO.

AOC32 Lower-2

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM

Lab Sample ID: 30313260002 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019

Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.42565	0.75	30.9
	2	3.65365	0.55	

SAMPLE NO.

AOC27

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM
Lab Sample ID: 30313260003 SDG No.: 30313260 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.427	0.11	55.7
	2	3.65333	0.060	

Prep Log Report

Batch Information: OEXT 38611/ 351378 Pest-SL+ 38613/351381

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8081B
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	07/11/2019 21:12:17:443	Extraction End Date/Time	07/12/2019 00:50:37:444
Witnessed By		Spiked By	BBR	Spiked By Date	07/11/2019 22:16:10:692	Concentrated By	BBR
Concentrated By Date	07/11/2019 23:45:58:975	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Dispenser ID 2	BTD011
Syringe ID 1	SYR029	Methylene Chloride	92788	1:1 MeCl/Acetone	92275	Hexane	91806
Ottawa Sand	87302	Hydromatrix	84270	Sodium Sulfate	90972	Gravity Filters	91977
Reviewed By	JPH	Reviewed By Date	07/16/2019 15:56	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
8081BSM_P	BLANK	**1707385**		TVAP006	15.07	5			91910 (1)	
8081BSM_P	LCS	**1707386**		TVAP006	15.05	5		90623 (1)	91910 (1)	
8081BSM_P	PS	**30312996001**		TVAP006	15.18	5			91910 (1)	
8081BSM_P	MS	**1707387**		TVAP006	15.22	5		90623 (1)	91910 (1)	
8081BSM_P	MSD	**1707388**		TVAP006	15.23	5		90623 (1)	91910 (1)	
8081BSM_P	PS	**30312996002**		TVAP006	15.3	5			91910 (1)	
8081BSM_P	PS	**30312996003**		TVAP005	15.08	5			91910 (1)	
8081BSM_P	PS	**30312996004**		TVAP005	15.26	5			91910 (1)	
8082ASM_P	BLANK	**1707389**		TVAP005	15.07	5			91910 (1)	
8082ASM_P	LCS	**1707390**		TVAP005	15	5			91910 (1)	88418 (1)
8082ASM_P	PS	**30313260001**		TVAP005	15.3	5			91910 (1)	
8082ASM_P	MS	**1707391**		TVAP005	15.29	5			91910 (1)	88418 (1)
8082ASM_P	MSD	**1707392**		TVAP003	15.28	5			91910 (1)	88418 (1)
8082ASM_P	PS	**30313260002**		TVAP003	15.01	5			91910 (1)	
8082ASM_P	PS	**30313260003**		TVAP003	15.04	5			91910 (1)	
8082ASM_P	PS	**30312995001**		TVAP003	15.28	5			91910 (1)	
8082ASM_P	PS	**30312996001**		TVAP003	15.18	5			91910 (1)	
8082ASM_P	PS	**30312996002**		TVAP003	15.3	5			91910 (1)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	PS	**30312996003**		TVAP007	15.08	5			91910 (1)	
8082ASM_P	PS	**30312996004**		TVAP007	15.26	5			91910 (1)	

Standard Notes:

88418: oext AROCLOR 2.5 ppm spike methanol **90623: OEXT Pesticide Spike 0.2/0.4/2 ppm** **91910: OEXT Pesticide Surrogate 1 ppm**

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexane 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:00	CWB	
1/d052419000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:08	CWB	
1/d052419000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:17	CWB	
1/d052419000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:25	CWB	
1/d052419000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:34	CWB	
1/d052419000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:42	CWB	
1/d052419000007.d	CAL3S, 86571:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:51	CWB	
1/d052419000008.d	CAL3S, 86574:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:59	CWB	
1/d052419000009.d	CAL3S, 87759:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:08	CWB	
1/d052419000010.d	CAL3S, 87760:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:16	CWB	
1/d052419000011.d	CAL3S, 86155:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:25	CWB	
1/d052419000012.d	CAL3S, 86156:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:33	CWB	
1/d052419000013.d	CAL3S, 86172:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:42	CWB	
1/d052419000014.d	CAL6A, 87260:1	N/15570	CALIB_6	1	df8082.new608.052419	5/24/19	14:50	CWB	
1/d052419000015.d	CAL5A, 88856:1	N/15570	CALIB_5	1	df8082.new608.052419	5/24/19	14:59	CWB	
1/d052419000016.d	CAL4A, 88855:1	N/15570	CALIB_4	1	df8082.new608.052419	5/24/19	15:07	CWB	
1/d052419000017.d	CAL3A, 88854:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	15:16	CWB	
1/d052419000018.d	CAL2A, 88853:1	N/15570	CALIB_2	1	df8082.new608.052419	5/24/19	15:25	CWB	
1/d052419000019.d	CAL1A, 88852:1	N/15570	CALIB_1	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000019llc.d	CAL1A, 88852:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000020.d	ICV, 85333:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:42	CWB	
1/d052419000021.d	1672979,	L/15564	BLANK	1	df8082.new608.052419	5/24/19	15:50	CWB	
1/d052419000022.d	1672980,	L/15564	LCS	1	df8082.new608.052419	5/24/19	15:59	CWB	
1/d052419000023.d	30294592008,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:07	CWB	
1/d052419000024.d	30294597001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:16	CWB	
1/d052419000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:24	CWB	
1/d052419000026.d	30294597002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:33	CWB	
1/d052419000027.d	30294597003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:41	CWB	
1/d052419000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:50	CWB	
1/d052419000029.d	30294598004,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:58	CWB	
1/d052419000030.d	30294598005,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:07	CWB	
1/d052419000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:15	CWB	
1/d052419000032.d	30295167003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:24	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000033.d	30294501001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:32	CWB	
1/d052419000034.d	1672981,	L/15564	MS	1	df8082.new608.052419	5/24/19	17:41	CWB	
1/d052419000035.d	1672982,	L/15564	MSD	1	df8082.new608.052419	5/24/19	17:49	CWB	
1/d052419000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:58	CWB	
1/d052419000037.d	30294838001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:06	CWB	
1/d052419000038.d	30295070001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:15	CWB	
1/d052419000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:23	CWB	
1/d052419000040.d	30295070002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:32	CWB	
1/d052419000041.d	30295070003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:40	CWB	
1/d052419000042.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:49	CWB	
1/d052419000043.d	30296109004X5,	L/15567	SAMPLE	5	df8082.new608.052419	5/24/19	18:57	CWB	
1/d052419000044.d	30296109006X10,	L/15567	SAMPLE	10	df8082.new608.052419	5/24/19	19:06	CWB	
1/d052419000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	19:14	CWB	
1/d052419000046.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	19:23	CWB	
1/d052419000047.d	1672973,	L/15563	BLANK	1	df8082.new608.052419	5/24/19	19:31	CWB	
1/d052419000048.d	1672974,	L/15563	LCS	1	df8082.new608.052419	5/24/19	19:40	CWB	
1/d052419000049.d	30294501003,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:48	CWB	
1/d052419000050.d	30295057002,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:57	CWB	
1/d052419000051.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:05	CWB	
1/d052419000052.d	1672975,	L/15563	MS	1	df8082.new608.052419	5/24/19	20:14	CWB	
1/d052419000053.d	1672976,	L/15563	MSD	1	df8082.new608.052419	5/24/19	20:22	CWB	
1/d052419000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:31	CWB	
1/d052419000055.d	1671804,	L/15549	BLANK	1	df8082.new608.052419	5/24/19	20:39	CWB	
1/d052419000056.d	1671805,	L/15549	LCS	1	df8082.new608.052419	5/24/19	20:48	CWB	
1/d052419000057.d	30294948001,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	20:56	CWB	
1/d052419000058.d	30294948002,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:05	CWB	
1/d052419000059.d	30294948003,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:13	CWB	
1/d052419000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:22	CWB	
1/d052419000061.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	21:30	CWB	
1/d052419000062.d	30295597001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:39	CWB	
1/d052419000063.d	30295596001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:47	CWB	
1/d052419000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:56	CWB	
1/d052419000065.d	30295167001X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:04	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJG 5-28-19 Page: 2 of 3

* all sample nitrates were acid cleaned *

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000066.d	30295167002X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:13	CWB	
1/d052419000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:21	CWB	
1/d052419000068.d	30295167005X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:30	CWB	
1/d052419000069.d	30295167006X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:38	CWB	
1/d052419000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:47	CWB	
1/d052419000071.d	30295167007X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:55	CWB	
1/d052419000072.d	30295167008X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:04	CWB	
1/d052419000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:12	CWB	
1/d052419000074.d	30295167009X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:21	CWB	
1/d052419000075.d	30295167010X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:29	CWB	
1/d052419000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:38	CWB	
1/d052419000077.d	30295167011X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:46	CWB	
1/d052419000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:55	CWB	
1/d052419000079.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/25/19	00:04	CWB	
1/d052419000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/25/19	00:12	CWB	

CWB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

SJC 5-28-19

Reviewed By/Date: _____ Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot: NA
Tune std: NA Cal. std: NA

1:1 H_2SO_4 79621
hexanes 91618

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071719000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:24	CWB	
1/d071719000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:33	CWB	
1/d071719000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:41	CWB	
1/d071719000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:50	CWB	
1/d071719000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:58	CWB	
1/d071719000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	15:07	CWB	
1/d071719000007.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	15:15	CWB	
1/d071719000008.d	1706805,	L/15797	BLANK	1	df8082.new608.052419	7/17/19	15:24	CWB	
1/d071719000009.d	1706806,	L/15797	LCS	1	df8082.new608.052419	7/17/19	15:33	CWB	
1/d071719000010.d	30312849001,	L/15797	SAMPLE	1	df8082.new608.052419	7/17/19	15:41	CWB	
1/d071719000011.d	50229881001,	L/15797	SAMPLE	1	df8082.new608.052419	7/17/19	15:50	CWB	
1/d071719000012.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	15:58	CWB	
1/d071719000013.d	1709039,	L/15815	BLANK	1	df8082.new608.052419	7/17/19	16:07	CWB	
1/d071719000014.d	1709040,	L/15815	LCS	1	df8082.new608.052419	7/17/19	16:15	CWB	
1/d071719000015.d	30313176001,	L/15815	SAMPLE	1	df8082.new608.052419	7/17/19	16:24	CWB	
1/d071719000016.d	1709041,	L/15815	MS	1	df8082.new608.052419	7/17/19	16:32	CWB	
1/d071719000017.d	1709042,	L/15815	MSD	1	df8082.new608.052419	7/17/19	16:41	CWB	
1/d071719000018.d	30313175001,	L/15815	SAMPLE	1	df8082.new608.052419	7/17/19	16:49	CWB	
1/d071719000019.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	16:58	CWB	
1/d071719000020.d	1709524,	S/15821	BLANK	1	df8082.new608.052419	7/17/19	17:06	CWB	
1/d071719000021.d	1709525,	S/15821	LCS	1	df8082.new608.052419	7/17/19	17:15	CWB	
1/d071719000022.d	50230174001,	S/15821	SAMPLE	1	df8082.new608.052419	7/17/19	17:23	CWB	
1/d071719000023.d	1709526,	S/15821	MS	1	df8082.new608.052419	7/17/19	17:32	CWB	
1/d071719000024.d	1709527,	S/15821	MSD	1	df8082.new608.052419	7/17/19	17:40	CWB	
1/d071719000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	17:49	CWB	
1/d071719000026.d	30313514001X20,	S/15808	SAMPLE	20	df8082.new608.052419	7/17/19	17:57	CWB	
1/d071719000027.d	30312237008X5,	L/15813	SAMPLE	5	df8082.new608.052419	7/17/19	18:06	CWB	
1/d071719000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	18:14	CWB	
1/d071719000029.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	18:23	CWB	
1/d071719000030.d	1707389,	S/15800	BLANK	1	df8082.new608.052419	7/17/19	18:31	CWB	
1/d071719000031.d	1707390,	S/15800	LCS	1	df8082.new608.052419	7/17/19	18:40	CWB	
1/d071719000032.d	30313260001X10,	S/15800	SAMPLE	10	df8082.new608.052419	7/17/19	18:48	CWB	
1/d071719000033.d	1707391X10,	S/15800	MS	10	df8082.new608.052419	7/17/19	18:57	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 7-18-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d071719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:35 07/18/2019

Reviewed By/Date: DAW 7-18-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

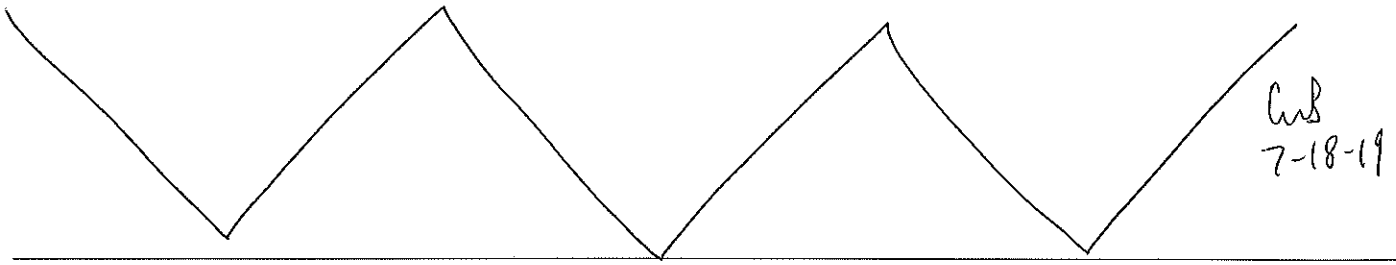
Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexane 91618 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071719000034.d	1707392X10,	S/15800	MSD	10	df8082.new608.052419	7/17/19	19:05	CWB	
1/d071719000035.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	19:14	CWB	
1/d071719000036.d	30313260002X10,	S/15800	SAMPLE	10	df8082.new608.052419	7/17/19	19:22	CWB	
1/d071719000037.d	30313260003,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	19:31	CWB	
1/d071719000038.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	19:39	CWB	
1/d071719000039.d	30312995001,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	19:48	CWB	
1/d071719000040.d	30312996001X5,	S/15800	SAMPLE	5	df8082.new608.052419	7/17/19	19:56	CWB	
1/d071719000041.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:05	CWB	
1/d071719000042.d	30312996002X5,	S/15800	SAMPLE	5	df8082.new608.052419	7/17/19	20:13	CWB	
1/d071719000043.d	30312996003,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	20:22	CWB	
1/d071719000044.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:30	CWB	
1/d071719000045.d	30312996004,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	20:39	CWB	
1/d071719000046.d	30313269001,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	20:47	CWB	
1/d071719000047.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:56	CWB	
1/d071719000048.d	30313269002,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:04	CWB	
1/d071719000049.d	30313269003,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:13	CWB	
1/d071719000050.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	21:21	CWB	
1/d071719000051.d	30313269004,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:30	CWB	
1/d071719000052.d	30313269005,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:38	CWB	
1/d071719000053.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	21:47	CWB	
1/d071719000054.d	30313269006,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:55	CWB	
1/d071719000055.d	30313269007,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	22:04	CWB	
1/d071719000056.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	22:12	CWB	
1/d071719000057.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	22:21	CWB	
1/d071719000058.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	22:30	CWB	



CWB 7-18-19

File Path 1: \\30wintarget\chem\30gcsd.i\d071719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:35 07/18/2019

Reviewed By/Date: JAW 7-18-19 Page: 2 of 2

Prep Log Report

Batch Information: PMST 8679/352261

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	VAK	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 | Corr | Date/Time | Init	105.0 | 105.0 | 07/17/2019 16:46 | VAK	Oven Temp Out1 | Corr | Date/Time | Init	105.0 | 105.0 | 07/18/2019 09:09 | VAK
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30311855001**	Y			86.87	13.13	07/17/2019 14:58:38	12.57	1.06	14.31	12.57	M	
DRY WEIGHT	DUP	**1711236**	Y			88.45	11.55	07/17/2019 14:58:45	11.46	1.05	12.82	11.46	M	
DRY WEIGHT	PS	**30311855002**	Y			85.19	14.81	07/17/2019 14:58:52	10.48	1.05	12.12	10.48	M	
DRY WEIGHT	DUP	**1711237**	Y			87.43	12.57	07/17/2019 14:58:58	16.64	1.06	18.88	16.64	M	
DRY WEIGHT	PS	**30311855003**	Y			85.61	14.39	07/17/2019 14:59:04	18.33	1.08	21.23	18.33	M	
DRY WEIGHT	PS	**30311855004**	Y			86.67	13.33	07/17/2019 14:59:11	17.25	1.06	19.74	17.25	M	
DRY WEIGHT	PS	**30311971001**	Y			21.22	78.78	07/17/2019 14:59:18	3.18	1.05	11.09	3.18	M	
DRY WEIGHT	PS	**30311994001**	Y			94.69	5.309	07/17/2019 14:59:24	23.86	1.03	25.14	23.86	M	
DRY WEIGHT	PS	**30311994002**	Y			98.03	1.973	07/17/2019 14:59:30	22.42	1.06	22.85	22.42	M	
DRY WEIGHT	PS	**30311994003**	Y			87.40	12.60	07/17/2019 14:59:36	13.05	1.05	14.78	13.05	M	
DRY WEIGHT	PS	**30311994004**	Y			93.70	6.304	07/17/2019 14:59:41	29.43	1.04	31.34	29.43	M	
DRY WEIGHT	PS	**30312076002**	Y			25.03	74.97	07/17/2019 14:59:47	3.25	1.07	9.78	3.25	M	
DRY WEIGHT	PS	**30312106002**	Y			81.00	19.00	07/17/2019 14:59:52	17.83	1.03	21.77	17.83	M	
DRY WEIGHT	PS	**30312796002**	Y			69.43	30.57	07/17/2019 15:00:04	4.83	1.06	6.49	4.83	M	
DRY WEIGHT	PS	**30312447001**	Y			38.75	61.25	07/17/2019 15:00:09	7.26	1.06	17.06	7.26	M	
DRY WEIGHT	PS	**30312746001**	Y			81.84	18.16	07/17/2019 15:00:15	7.39	1.08	8.79	7.39	M	
DRY WEIGHT	PS	**30312746002**	Y			80.54	19.46	07/17/2019 15:00:20	8.57	1.08	10.38	8.57	M	
DRY WEIGHT	PS	**30313243001**	Y			36.32	63.68	07/17/2019 15:00:25	4.07	1.07	9.33	4.07	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30313260001**	Y			86.23	13.77	07/17/2019 15:00:33	7.51	1.06	8.54	7.51	M	
DRY WEIGHT	PS	**30313260002**	Y			85.71	14.29	07/17/2019 15:00:38	6.76	1.06	7.71	6.76	M	
DRY WEIGHT	PS	**30313260003**	Y			95.68	4.319	07/17/2019 15:00:47	13.92	1.07	14.5	13.92	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 7097609

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 19, 2019

Rachel Christner
Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601

RE: Project: 30313260
Pace Project No.: 7097609

Dear Rachel Christner:
Enclosed are the analytical results for sample(s) received by the laboratory on July 16, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicolette Lovari

Nicolette M. Lovari
nicolette.lovari@pacelabs.com
(631)694-3040
Project Manager

Enclosures

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: 30313260
Pace Project No.: 7097609

Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747
New York Certification #: 10478 Primary Accrediting Body
New Jersey Certification #: NY158
Pennsylvania Certification #: 68-00350
Connecticut Certification #: PH-0435
Maryland Certification #: 208
Rhode Island Certification #: LAO00340
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE SUMMARY

Project: 30313260
Pace Project No.: 7097609

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30313260001	**AOC32 Lower-1**	Solid	07/10/19 08:05	07/16/19 10:50
30313260002	**AOC32 Lower-2**	Solid	07/10/19 08:20	07/16/19 10:50

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: 30313260
Pace Project No.: 7097609

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30313260001	**AOC32 Lower-1**	EPA 8151A	MJM	3
30313260002	**AOC32 Lower-2**	EPA 8151A	MJM	3

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 30313260
Pace Project No.: 7097609

Sample: AOC32 Lower-1 **Lab ID: 30313260001** Collected: 07/10/19 08:05 Received: 07/16/19 10:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A							
	Leachate Method/Date: EPA 1311; 07/16/19 21:10							
2,4-D	ND	mg/L	0.0050	1	07/17/19 10:00	07/18/19 21:08	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	1	07/17/19 10:00	07/18/19 21:08	93-72-1	
Surrogates								
2,4-DCAA (S)	55	%	36-121	1	07/17/19 10:00	07/18/19 21:08	19719-28-9	
	Analytical Method: ASTM D2216-92M							
Percent Moisture	**13.8**	%	0.10	1		07/18/19 09:30		

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 30313260
Pace Project No.: 7097609

Sample: AOC32 Lower-2 **Lab ID: 30313260002** Collected: 07/10/19 08:20 Received: 07/16/19 10:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8151 Chlorinate Herbicide TCLP	Analytical Method: EPA 8151A Preparation Method: EPA 8151A Leachate Method/Date: EPA 1311; 07/16/19 21:10							
2,4-D	ND	mg/L	0.0050	1	07/17/19 10:00	07/18/19 21:42	94-75-7	
2,4,5-TP (Silvex)	ND	mg/L	0.0025	1	07/17/19 10:00	07/18/19 21:42	93-72-1	
Surrogates								
2,4-DCAA (S)	58	%	36-121	1	07/17/19 10:00	07/18/19 21:42	19719-28-9	
	Analytical Method: ASTM D2216-92M							
Percent Moisture	**14.3**	%	0.10	1		07/18/19 09:30		

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 30313260
Pace Project No.: 7097609

QC Batch: 122170 Analysis Method: EPA 8151A
QC Batch Method: EPA 8151A Analysis Description: 8151 GCS Herbicides TCLP
Associated Lab Samples: 30313260001, 30313260002

METHOD BLANK: 581721 Matrix: Water
Associated Lab Samples: 30313260001, 30313260002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.0025	07/18/19 20:34	
2,4-D	mg/L	ND	0.0050	07/18/19 20:34	
2,4-DCAA (S)	%	64	36-121	07/18/19 20:34	

LABORATORY CONTROL SAMPLE: 581836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	0.01	0.0053	53	44-157	
2,4-D	mg/L	0.03	0.017	58	47-152	
2,4-DCAA (S)	%			55	36-121	

MATRIX SPIKE SAMPLE: 581837

Parameter	Units	30313260001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	mg/L	ND	0.01	0.0065	65	48-113	
2,4-D	mg/L	ND	0.03	0.021	68	39-111	
2,4-DCAA (S)	%				71	36-121	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: 30313260
Pace Project No.: 7097609

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 30313260
Pace Project No.: 7097609

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30313260001	**AOC32 Lower-1**	EPA 8151A	122170	EPA 8151A	122517
30313260002	**AOC32 Lower-2**	EPA 8151A	122170	EPA 8151A	122517

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Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: ☒ Yes ☐ No

Workorder: 30313260 **Workorder Name:** Former EPT-Soil IRM **Owner Received Date:** 7/11/2019 **Results Requested By:** 7/18/2019

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040

Requested Analysis

WO#:7097609

7097609

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	8151 TCLP Herbicides	USE ONLY
1	AOC32 Lower-1	PS	7/10/2019 08:05	30313260001	Solid	1	X	
2	AOC32 Lower-2	PS	7/10/2019 08:20	30313260002	Solid	1	X	
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	M Sa	7-15-19 [illegible]	[illegible]	
2				
3				

Comments

Sample is TCLP extract

Cooler Temperature on Receipt 3.1 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.*
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services - 1638 Roseytown Rd, Suites 2,3,4, Greensburg, PA 15601

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 11 Stanwix Street, Suite 950, Pittsburgh, PA 15222

Project Name: Former EPT - Soil IRM

WSP USA Contact Name: Dave Rykaczewski

Project Location: Ithaca, NY

WSP USA Contact E-mail: Dave.Rykaczewski@wsp.com

Project Number & Task: 31401545.001

WSP USA Contact Phone: 412-375-0282

Sampler(s) Name(s): Dan Cummings

Sampler(s) Signature(s):

No. 008851

Laboratory Name & Location: Pace Analytical - Greensburg, PA

Laboratory Project Manager: Rachel Christner

Requested Turn-Around-Time: ~~Standard~~ pac ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 ~~WD~~ Day

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs, TCLP SVOCs	TCLP Herbicides, TCLP Pesticides	Reactive Sulfide	Reactive Cyanide	Total PCBs	Total PAHs	% Solids (Moisture Content)	Ignitability/Flashpoint		Sample Comments
ACC32 Lower-1	S			7/10/19	0805	5	X	X	X	X	X	X	X	X	X		001
ACC32 Lower-2	S				0820	5	X	X	X	X	X	X	X	X	X		002
Bldg 15A Sewer/TPs	S					5	X	X		X	X	X	X	X	X		Discarded
ACC27	S			↓	1100	5	X	X		X	X	X	X	X	X		003

WO#:7097609
PM: NML Due Date: 07/18/19
CLIENT: PACE-PA

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	7/10/19	1645	FedEx	7/10/19	1645		
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
				7-11-19	0920		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Face Analytical

Client Name: WSP

Project # 30313260

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label MJS
LIMS Login MJS

Tracking #: 773842110555

Custody Seal on Cooler/Box Present: ☑ yes ☐ no MJS7-1179 Seals intact: ☑ yes ☐ no

Thermometer Used 9 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.4 °C Correction Factor: +0.1 °C Final Temp: 5.5 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# N/A — Date and Initials of person examining contents: MJS 7-1179
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓	✓		4. MJS7-1179
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:		✓		6. Encore kits received out of hold
Short Hold Time Analysis (<72hr remaining):	✓			7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, (Non-aqueous matrix)			✓	16.
All containers meet method preservation requirements.	✓			Initial when completed MJS — Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:			✓	18.
Trip Blank Custody Seals Present			✓	
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: — Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Sample Condition Upon Receipt

Pace Analytical

WO#: 7097609
PM: NML Due Date: 07/18/19
CLIENT: PACE-PA

Client Name: PACE-PA Projec

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 4942 9663 0664

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☑ Ziploc ☐ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: +0.2

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 2.9 Cooler Temperature Corrected (°C): 3.1 Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☑ N/A, water sample) Date and Initials of person examining contents: DL 7/16/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples orignate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix SL WT OIL	☑Yes	☐No		12.
All containers needing preservation have been checked pH paper Lot #	☐Yes	☐No	☑N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐Yes	☐No	☑N/A	Sample #
				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination: KI starch test strips Lot # Residual chlorine strips Lot #	☐Yes	☐No	☑N/A	14. Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

HERBICIDES - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - New York SDG No.: 7097609 Contract: 30313260

Instrument ID: 70GCS3

LAB SAMPLE ID	SAMPLE NAME	DCPA
581721	581721LB	64
581836	581836LCS	55
581837	581837MS	71
30313260001	AOC32 Lower-1	55
30313260002	AOC32 Lower-2	58

QC LIMITS
(36-121)

(DCPA) = 2,4-DCAA (S)

* Values outside of QC Limits

HERBICIDES - FORM III SVOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - New York
Lab Sample ID: 581836LCS
Date Extracted: 07/17/2019
Date Analyzed (1): 07/18/2019
Instrument: 70GCS3
LCS Lot No: 69831
Lab File ID: 071819-2.B\316972.D
SDG No.: 7097609

COMPOUND	AMOUNT ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS %REC	QC LIMITS REC.
2,4-D	0.030	0.017	58	47-152
2,4,5-TP (Silvex)	0.010	0.0053	53	44-157

Spike Recovery: 0 out of 2 outside limits.

08/01/2019 3:27

HERBICIDES - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - New York

Matrix Spike - Sample No: 581837MS

Date Extracted: 07/17/2019

Date Analyzed (1): 07/18/2019

Instrument: 70GCS3

Lab File ID: 071819-1.B\316974.D

Parent Sample ID: AOC32 Lower-1

SDG No.: 7097609

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS %REC	QC LIMITS REC.
2,4,5-TP (Silvex)	0.010	ND	0.0065	65	48-113
2,4-D	0.030	ND	0.021	68	39-111

Spike Recovery: 0 out of 2 outside limits.

08/01/2019 3:27

SAMPLE NO.

581721LB

HERBICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - New York SDG No.: 7097609 Contract: 30313260

Instrument ID: 70GCS3 Matrix: Water Lab Sample ID: 581721

Lab File ID (1): 071819-1.B\316971.D Date Analyzed (1): 07/18/2019 Time (1): 20:34

Lab File ID (2): 071819-2.B\316971.D Date Analyzed (2): 07/18/2019 Time (2): 20:34

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
581836LCS	581836	071819-1.B\316972.D	07/18/2019 20:51
581836LCS	581836	071819-2.B\316972.D	07/18/2019 20:51
AOC32 Lower-1	30313260001	071819-1.B\316973.D	07/18/2019 21:08
AOC32 Lower-1	30313260001	071819-2.B\316973.D	07/18/2019 21:08
581837MS	581837	071819-1.B\316974.D	07/18/2019 21:25
581837MS	581837	071819-2.B\316974.D	07/18/2019 21:25
AOC32 Lower-2	30313260002	071819-1.B\316975.D	07/18/2019 21:42
AOC32 Lower-2	30313260002	071819-2.B\316975.D	07/18/2019 21:42

SAMPLE NO.

AOC32 Lower-1

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 30313260001
Date Analyzed: 07/18/2019 21:08
Lab File ID: 071819-1.B\316973.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	ND	U

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316973.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 18-JUL-2019 21:08
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 30313260001,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 12:41 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.103	6.105	-0.002	265299730	0.64321	74.6	
3 2,4-D	6.841	6.835	0.006	2534309	0.00502	0.582	
5 2,4,5-TP (Silvex)	7.324	7.344	-0.020	118517	4e-005	0.00477	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316973.d

Page 2

Date : 18-JUL-2019 21:08

Client ID: AOC32 Lower-1

Instrument: 70gcs3.i

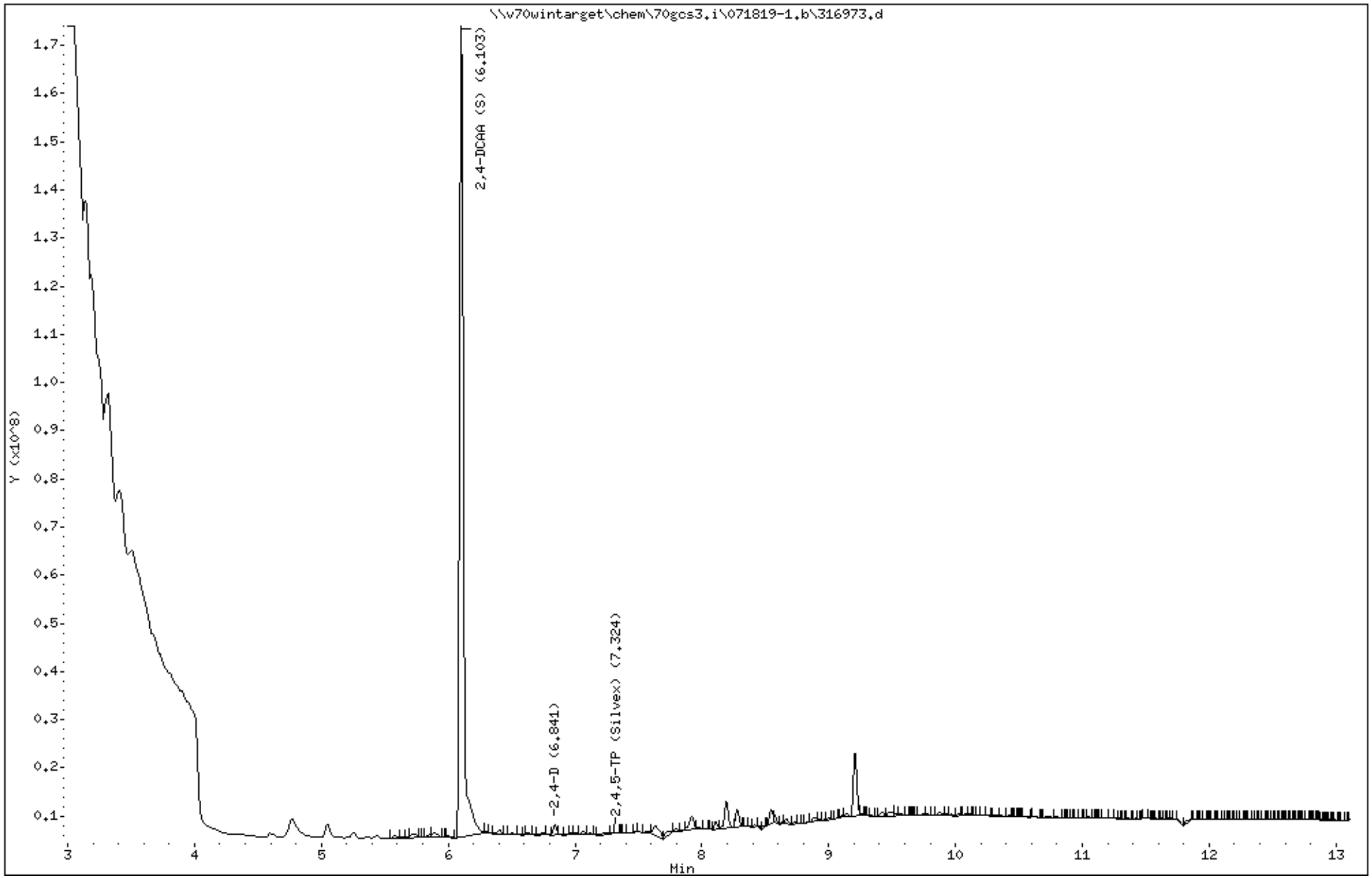
Sample Info: 30313260001,

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316973.d
Injection Date: 18-JUL-2019 21:08
Instrument: 70gcs3.i
Lab Sample ID: 30313260001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC32 Lower-1

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 30313260001
Date Analyzed: 07/18/2019 21:08
Lab File ID: 071819-2.B\316973.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316973.d
Lab Smp Id: 30313260001 Client Smp ID: AOC32 Lower-1
Inj Date : 18-JUL-2019 21:08
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 30313260001,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 12:43 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	5.973	5.975	-0.002	45391401	0.54571	63.3	
3	2,4-D	6.681	6.709	-0.028	188352	0.00170	0.198	
5	2,4,5-TP (Silvex)	7.184	7.182	0.002	59590	1e-004	0.0125	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316973.d

Page 2

Date : 18-JUL-2019 21:08

Client ID: AOC32 Lower-1

Instrument: 70gcs3.i

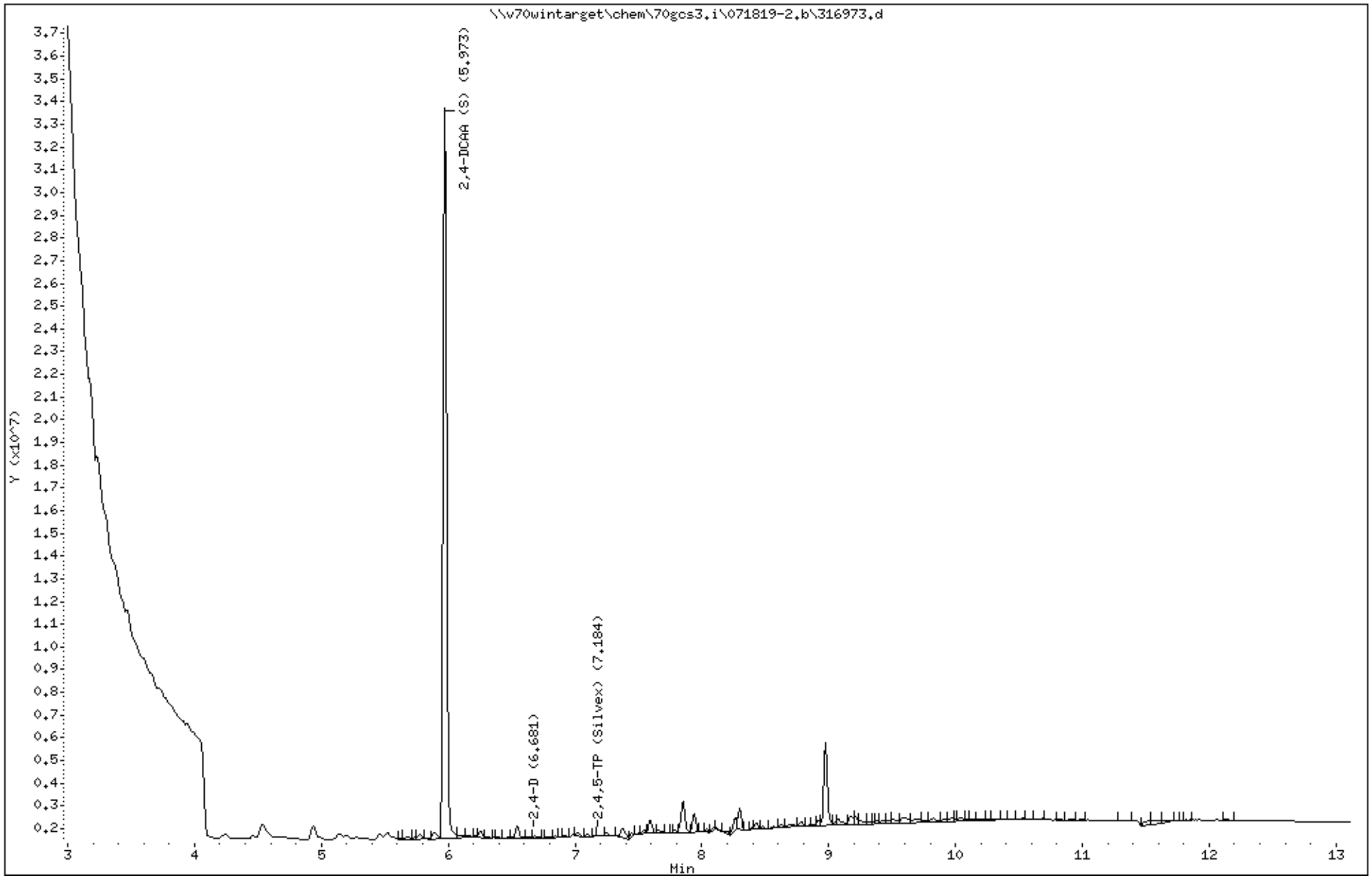
Sample Info: 30313260001,

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES2

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316973.d
Injection Date: 18-JUL-2019 21:08
Instrument: 70gcs3.i
Lab Sample ID: 30313260001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC32 Lower-2

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 30313260002
Date Analyzed: 07/18/2019 21:42
Lab File ID: 071819-1.B\316975.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	ND	U

08/01/2019 3:29

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316975.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 18-JUL-2019 21:42
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 30313260002,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 12:41 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

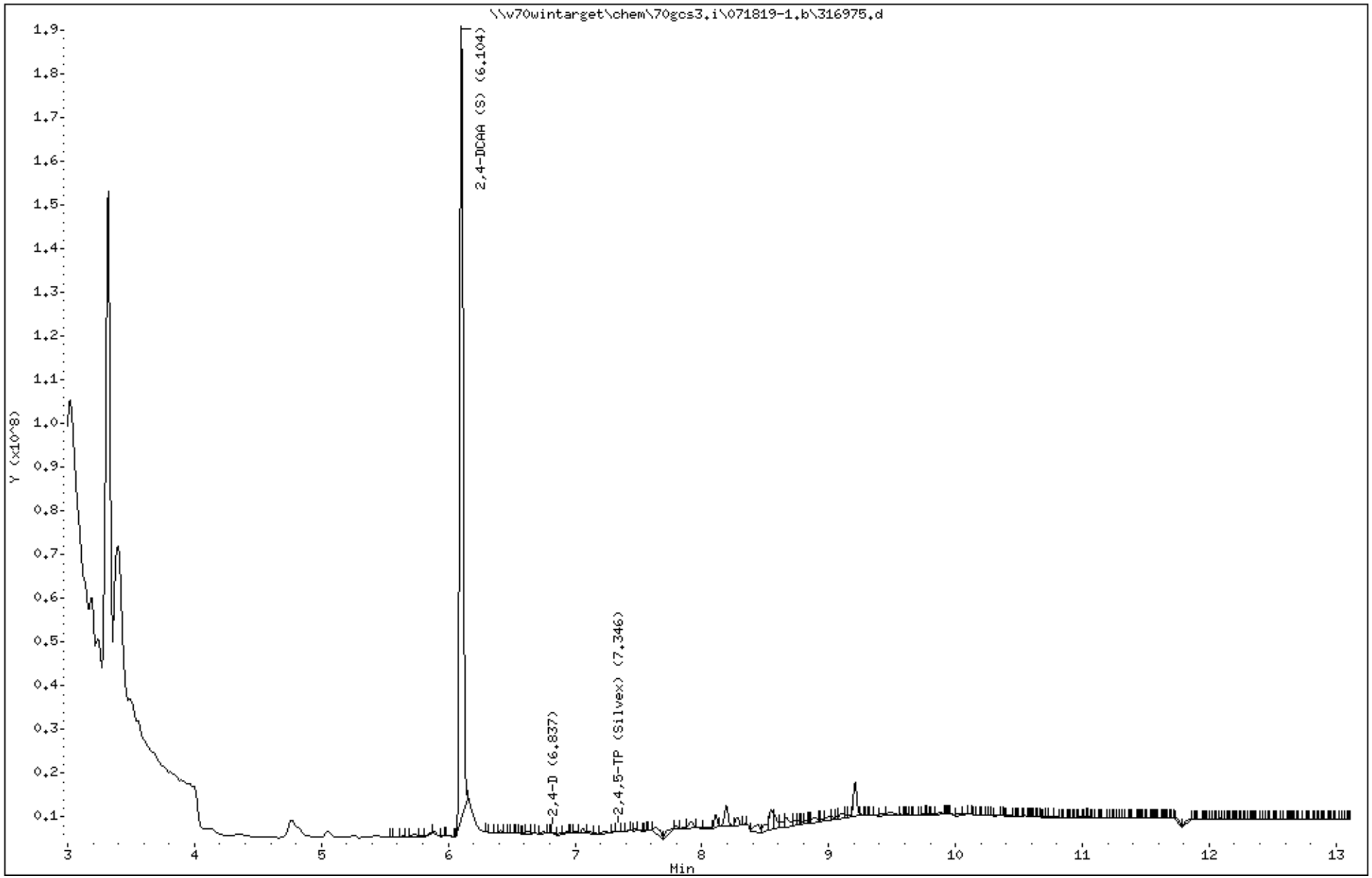
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.103	6.105	-0.002	240427641	0.58291	68.0	
3 2,4-D	6.837	6.835	0.002	551220	0.00109	0.127	
5 2,4,5-TP (Silvex)	7.345	7.344	0.001	141064	5e-005	0.00572	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316975.d
Date : 18-JUL-2019 21:42
Client ID: A0C32 Lower-2
Sample Info: 30313260002,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316975.d
Injection Date: 18-JUL-2019 21:42
Instrument: 70gcs3.i
Lab Sample ID: 30313260002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

AOC32 Lower-2

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 30313260002
Date Analyzed: 07/18/2019 21:42
Lab File ID: 071819-2.B\316975.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316975.d
Lab Smp Id: 30313260002 Client Smp ID: AOC32 Lower-2
Inj Date : 18-JUL-2019 21:42
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 30313260002,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 12:43 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	14.286	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$	1 2,4-DCAA (S)	5.973	5.975	-0.002	49000638	0.58910	68.7	
	3 2,4-D	6.681	6.709	-0.028	120044	0.00109	0.127	
	5 2,4,5-TP (Silvex)	7.188	7.182	0.006	253632	5e-004	0.0535	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316975.d

Page 2

Date : 18-JUL-2019 21:42

Client ID: AOC32 Lower-2

Instrument: 70gcs3.i

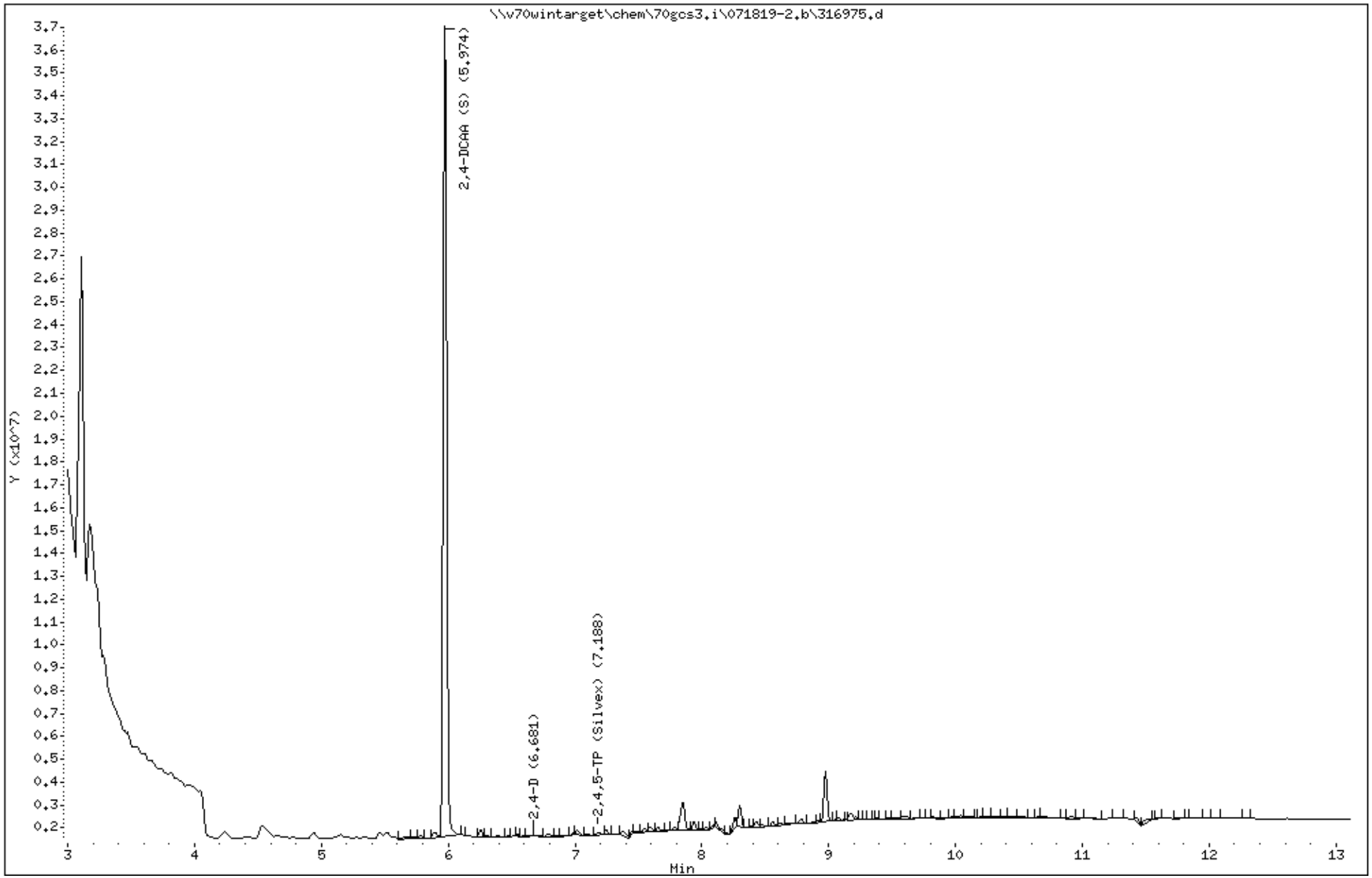
Sample Info: 30313260002,

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES2

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316975.d
Injection Date: 18-JUL-2019 21:42
Instrument: 70gcs3.i
Lab Sample ID: 30313260002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 1 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-1.B\316968.D CAL2 = 071819-1.B\316967.D CAL3 = 071819-1.B\316966.D

CAL4 = 071819-1.B\316965.D CAL5 = 071819-1.B\316964.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
2,4-D		Averaged	550125740.	502352880.	517240000.	461192647.	492674138.
2,4,5-TP (Silvex)		Averaged	2962139560	2784352540	3068087880	2814662460	2765906515
2,4-DCAA (S)		Averaged	431088680.	381609644.	423956893.	382687308.	442957573.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

HERBICIDES - FORM VI SVOA-2

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 1 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-1.B\316968.D CAL2 = 071819-1.B\316967.D CAL3 = 071819-1.B\316966.D

CAL4 = 071819-1.B\316965.D CAL5 = 071819-1.B\316964.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
2,4-D		Averaged	6.46			504717081.	
2,4,5-TP (Silvex)		Averaged	4.54			2879029791	
2,4-DCAA (S)		Averaged	6.90			412460019.	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 2 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-2.B\316968.D CAL2 = 071819-2.B\316967.D CAL3 = 071819-2.B\316966.D

CAL4 = 071819-2.B\316965.D CAL5 = 071819-2.B\316964.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
2,4-D		Averaged	128733200.	112459290.	110918970.	97744727.5	102839420.
2,4,5-TP (Silvex)		Averaged	581413000.	534742500.	568080230.	520093930.	561882067.
2,4-DCAA (S)		Averaged	90425420.0	80391222.0	84081944.0	76166324.5	84831453.7

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

HERBICIDES - FORM VI SVOA-2

HERBICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 2 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-2.B\316968.D CAL2 = 071819-2.B\316967.D CAL3 = 071819-2.B\316966.D

CAL4 = 071819-2.B\316965.D CAL5 = 071819-2.B\316964.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
2,4-D		Averaged	10.68			110539121.	
2,4,5-TP (Silvex)		Averaged	4.54			553242345.	
2,4-DCAA (S)		Averaged	6.39			83179272.8	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 1 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-1.B\316968.D CAL2 = 071819-1.B\316967.D CAL3 = 071819-1.B\316966.D

CAL4 = 071819-1.B\316965.D CAL5 = 071819-1.B\316964.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
2,4-D		6.834	6.834	6.833	6.832	6.831	6.835	6.795	6.875
2,4,5-TP (Silvex)		7.343	7.342	7.342	7.342	7.341	7.344	7.304	7.384
2,4-DCAA (S)		6.103	6.103	6.103	6.102	6.102	6.105	6.065	6.145

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

HERBICIDES - FORM VI SVOA-1

HERBICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - New York Instrument ID: 70GCS3 GC Column: Col 2 SDG No.: 7097609

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 18:35 19:43

LAB FILE ID

CAL1 = 071819-2.B\316968.D CAL2 = 071819-2.B\316967.D CAL3 = 071819-2.B\316966.D

CAL4 = 071819-2.B\316965.D CAL5 = 071819-2.B\316964.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
2,4-D		6.709	6.708	6.707	6.705	6.703	6.709	6.679	6.739
2,4,5-TP (Silvex)		7.183	7.182	7.182	7.18	7.179	7.182	7.137	7.227
2,4-DCAA (S)		5.972	5.973	5.972	5.971	5.969	5.975	5.945	6.005

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316964.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 18-JUL-2019 18:35
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal5, 72575:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS		
Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.102	6.105	-0.003	1771830292	4.00000	4.30(A)	
2 Dicamba	6.242	6.245	-0.003	440733209	0.24000	0.247(AM)	
3 2,4-D	6.831	6.835	-0.004	394139311	0.80000	0.781	
4 Pentachlorophenol	7.065	7.066	-0.001	1274936874	0.16000	0.165(A)	
5 2,4,5-TP (Silvex)	7.341	7.344	-0.003	1106362606	0.40000	0.384	
6 2,4,5-T	7.502	7.507	-0.005	1100683084	0.40000	0.423(A)	
7 2,4-DB	7.800	7.806	-0.006	246088057	0.80000	0.867(A)	
8 Picloram	8.352	8.358	-0.006	1433993181	0.40000	0.478(A)	
9 Dinoseb	8.429	8.429	0.000	629830966	0.32000	0.276	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

:

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316964.d

Page 2

Date : 18-JUL-2019 18:35

Client ID: CAL5

Instrument: 70gcs3.i

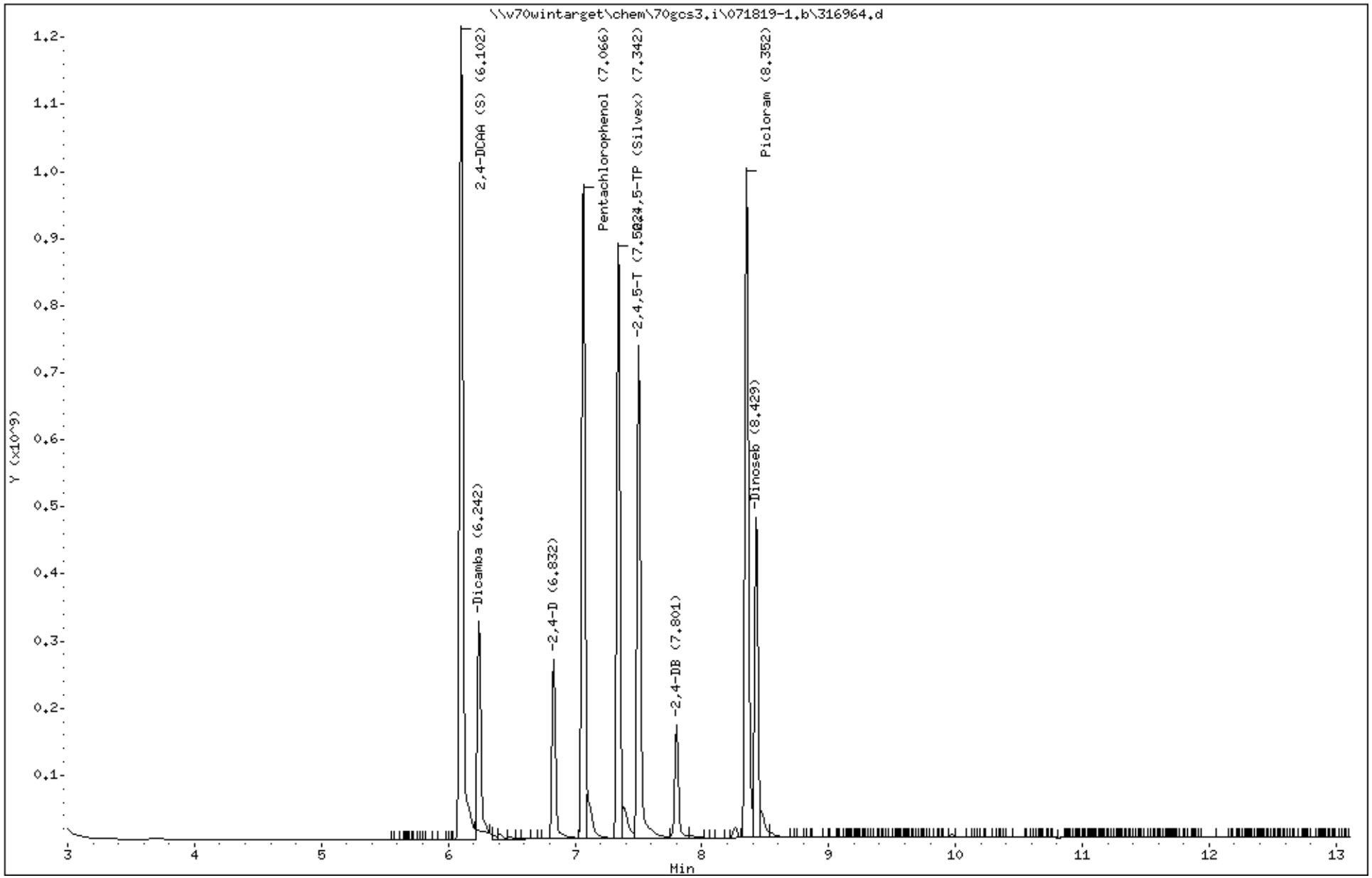
Sample Info: CAL5, 72575:1

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



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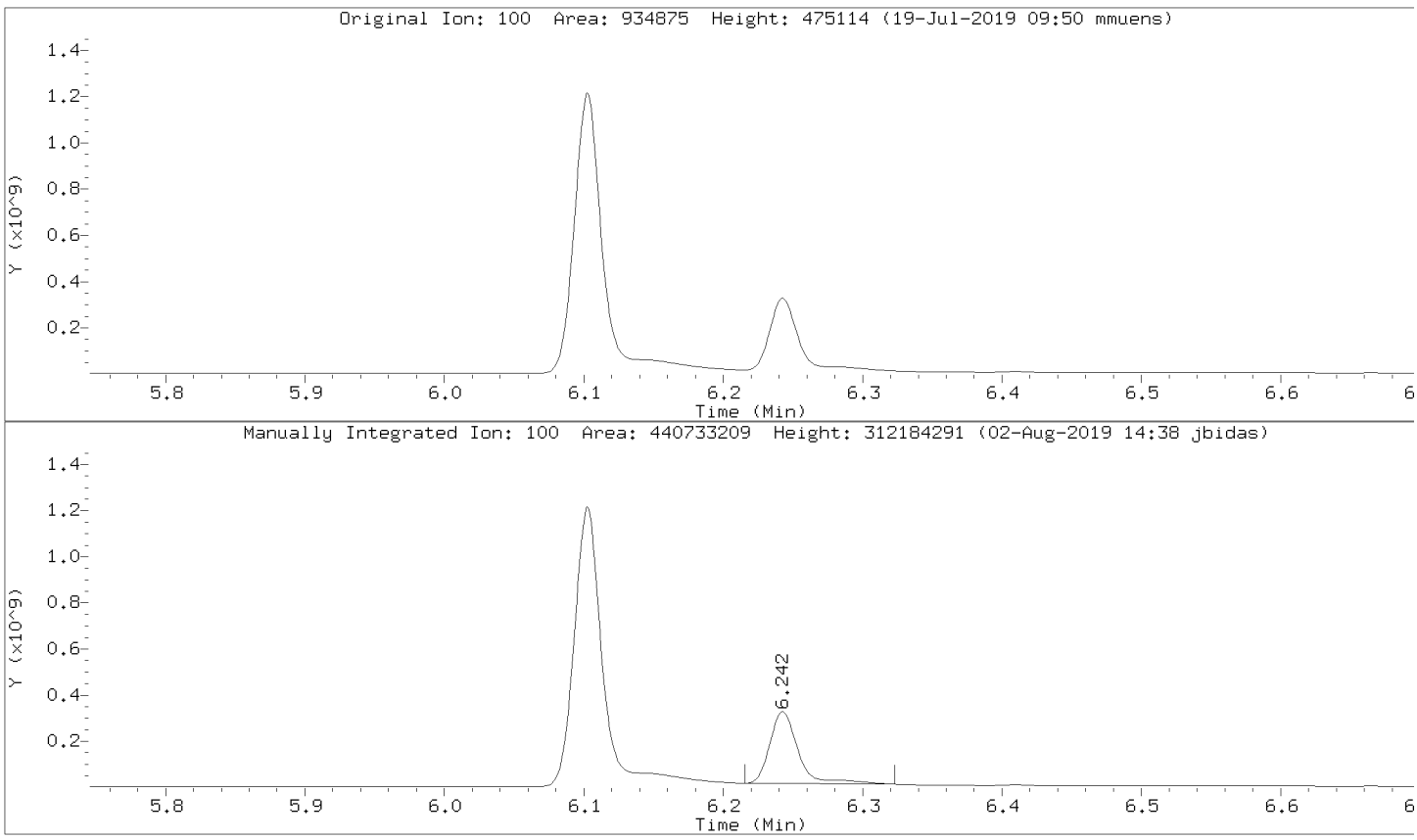
Injection Date: 18-JUL-2019 18:35
Instrument: 70gcs3.i
Lab Sample ID: CAL5

Compound: Dicamba Review Code:
CAS Number: 319-84-6



Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316964.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 18-JUL-2019 18:35
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal5, 72575:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 18:35 Cal File: 316964.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

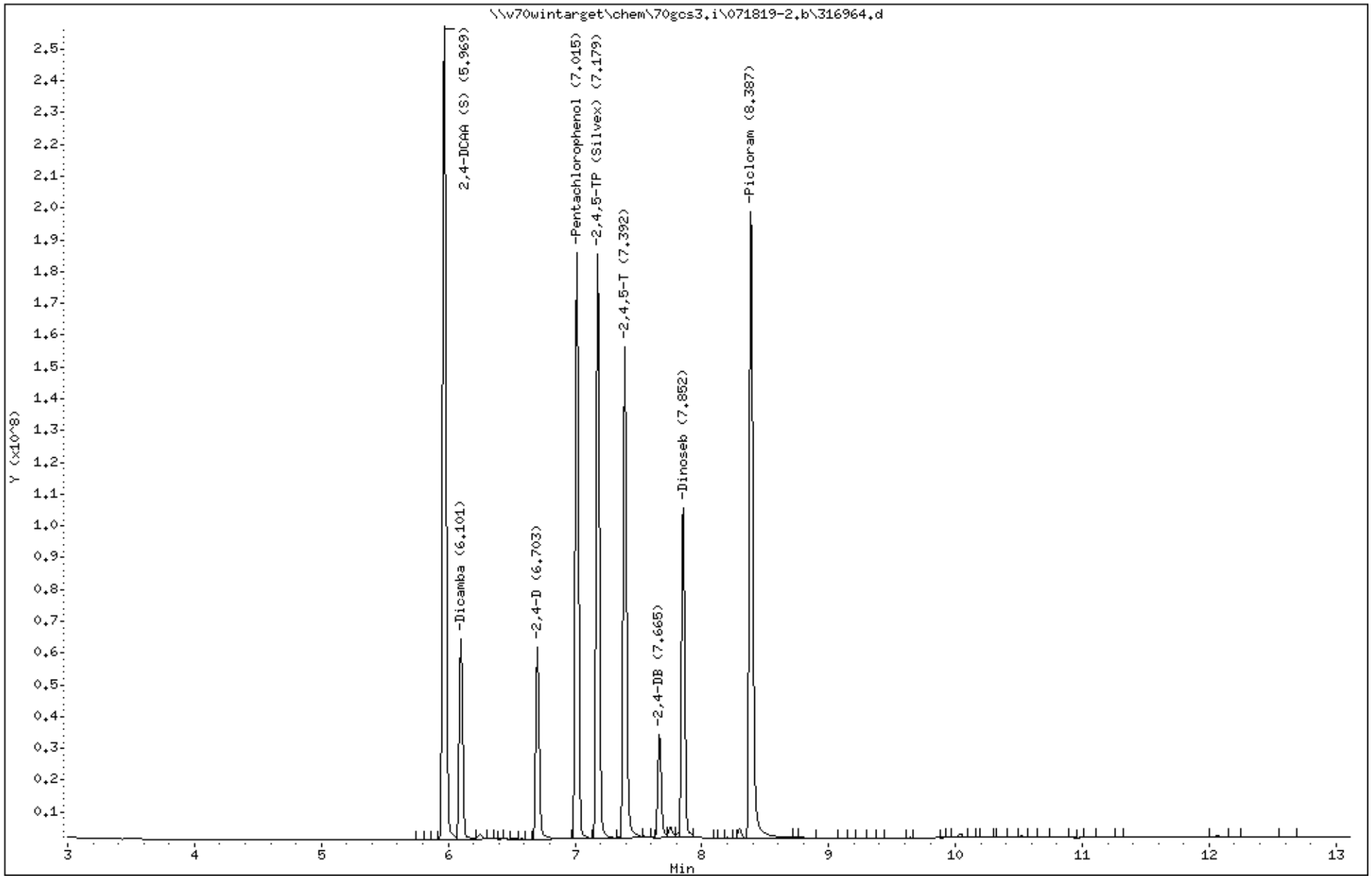
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	5.969	5.975	-0.006	339325815	4.00000	4.08(A)	
2 Dicamba	6.100	6.104	-0.004	85612550	0.24000	0.234	
3 2,4-D	6.703	6.709	-0.006	82271536	0.80000	0.744	
4 Pentachlorophenol	7.014	7.017	-0.003	229365412	0.16000	0.166(A)	
5 2,4,5-TP (Silvex)	7.179	7.182	-0.003	224752827	0.40000	0.406(A)	
6 2,4,5-T	7.392	7.399	-0.007	203119592	0.40000	0.398	
7 2,4-DB	7.664	7.672	-0.008	44485158	0.80000	0.725	
9 Dinoseb	7.852	7.855	-0.003	128605132	0.32000	0.298	
8 Picloram	8.386	8.393	-0.007	289904209	0.40000	0.418(A)	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316964.d
Date : 18-JUL-2019 18:35
Client ID: CAL5
Instrument: 70gcs3.i
Sample Info: CAL5, 72575:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316964.d
Injection Date: 18-JUL-2019 18:35
Instrument: 70gcs3.i
Lab Sample ID: CAL5
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

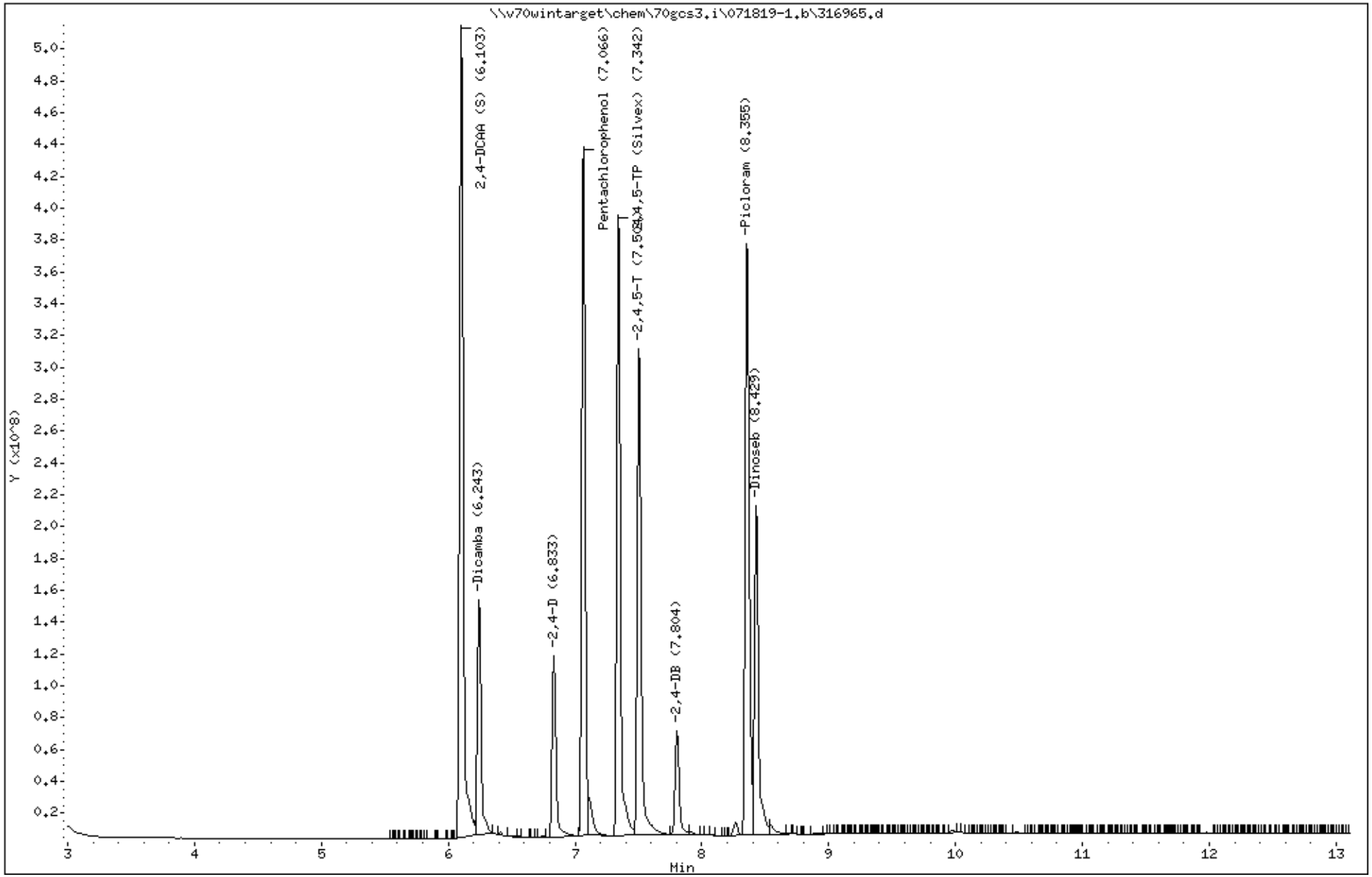
Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316965.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 18-JUL-2019 18:52
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal4, 66434:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.102	6.105	-0.003	765374616	2.00000	1.86	
2	Dicamba	6.242	6.245	-0.003	227434793	0.12000	0.128	
3	2,4-D	6.832	6.835	-0.003	184477059	0.40000	0.366	
4	Pentachlorophenol	7.066	7.066	0.000	563832082	0.08000	0.0729	
5	2,4,5-TP (Silvex)	7.342	7.344	-0.002	562932492	0.20000	0.196	
6	2,4,5-T	7.503	7.507	-0.004	497476642	0.20000	0.191	
7	2,4-DB	7.803	7.806	-0.003	112541452	0.40000	0.397	
8	Picloram	8.355	8.358	-0.003	608998958	0.20000	0.203	
9	Dinoseb	8.428	8.429	-0.001	341232835	0.16000	0.150	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316965.d
Date : 18-JUL-2019 18:52
Client ID: CAL4
Instrument: 70gcs3.i
Sample Info: CAL4, 66434:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316965.d
Injection Date: 18-JUL-2019 18:52
Instrument: 70gcs3.i
Lab Sample ID: CAL4
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

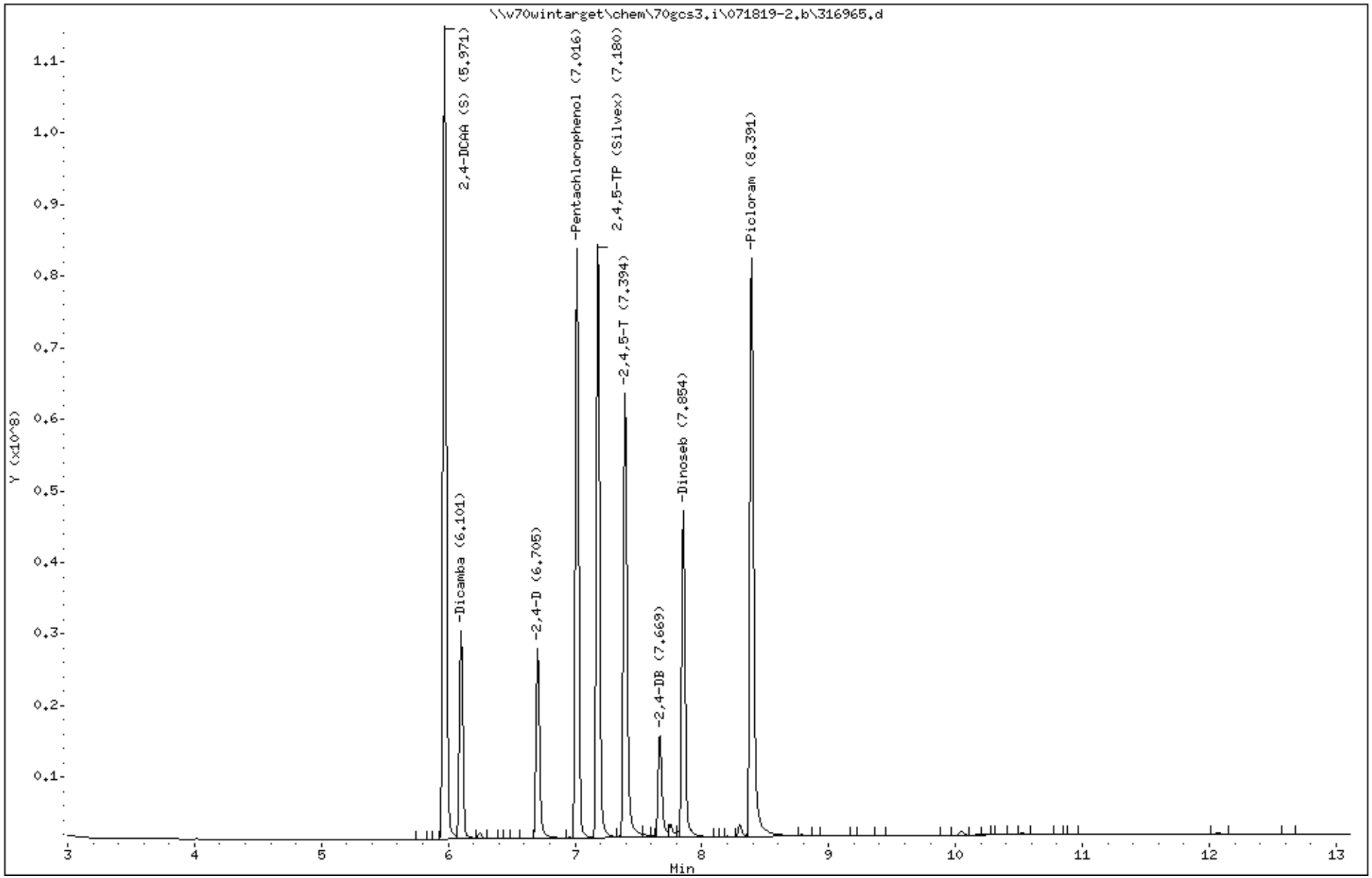
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316965.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 18-JUL-2019 18:52
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal4, 66434:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 18:52 Cal File: 316965.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	5.971	5.975	-0.004	152332649	2.00000	1.83	
2	Dicamba	6.101	6.104	-0.003	39717100	0.12000	0.108	
3	2,4-D	6.705	6.709	-0.004	39097891	0.40000	0.354	
4	Pentachlorophenol	7.016	7.017	-0.001	104918215	0.08000	0.0762	
5	2,4,5-TP (Silvex)	7.180	7.182	-0.002	104018786	0.20000	0.188	
6	2,4,5-T	7.394	7.399	-0.005	95510039	0.20000	0.187	
7	2,4-DB	7.668	7.672	-0.004	22873277	0.40000	0.373	
9	Dinoseb	7.853	7.855	-0.002	63292633	0.16000	0.147	
8	Picloram	8.391	8.393	-0.002	133324665	0.20000	0.192	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316965.d
Date : 18-JUL-2019 18:52
Client ID: CAL4
Instrument: 70gcs3.i
Sample Info: CAL4, 66434:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316965.d
Injection Date: 18-JUL-2019 18:52
Instrument: 70gcs3.i
Lab Sample ID: CAL4
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316966.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 18-JUL-2019 19:08
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal3, 68183:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.103	6.105	-0.002	423956893	1.00000	1.03(M)	BA
2	Dicamba	6.243	6.245	-0.002	105851035	0.06000	0.0594(M)	BA
3	2,4-D	6.833	6.835	-0.002	103448000	0.20000	0.205	
4	Pentachlorophenol	7.066	7.066	0.000	332789161	0.04000	0.0430	
5	2,4,5-TP (Silvex)	7.342	7.344	-0.002	306808788	0.10000	0.106	
6	2,4,5-T	7.505	7.507	-0.002	273665598	0.10000	0.105	
7	2,4-DB	7.805	7.806	-0.001	58202620	0.20000	0.205	
8	Picloram	8.357	8.358	-0.001	308158796	0.10000	0.103	
9	Dinoseb	8.430	8.429	0.001	193216255	0.08000	0.0847	

QC Flag Legend

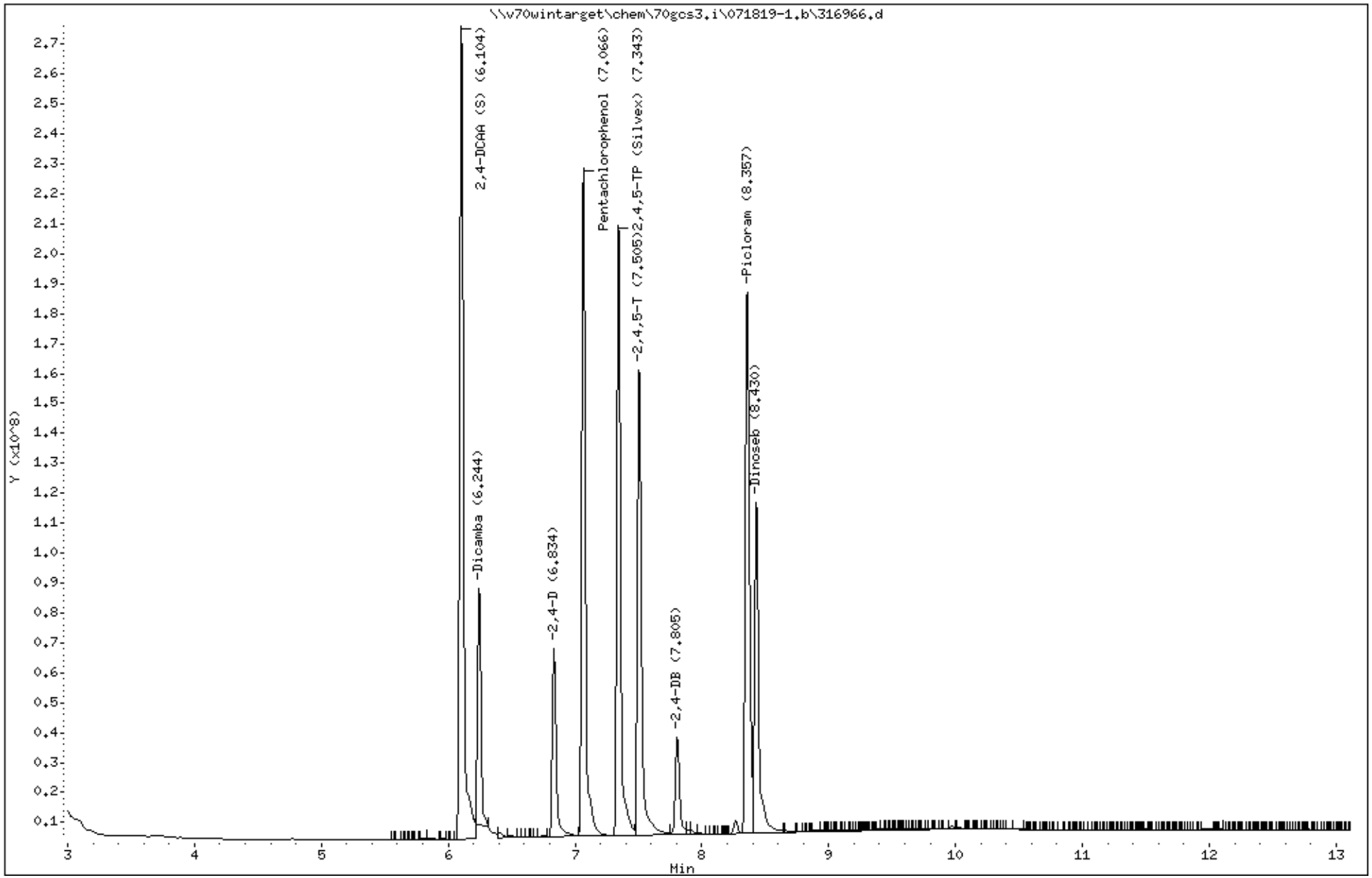
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

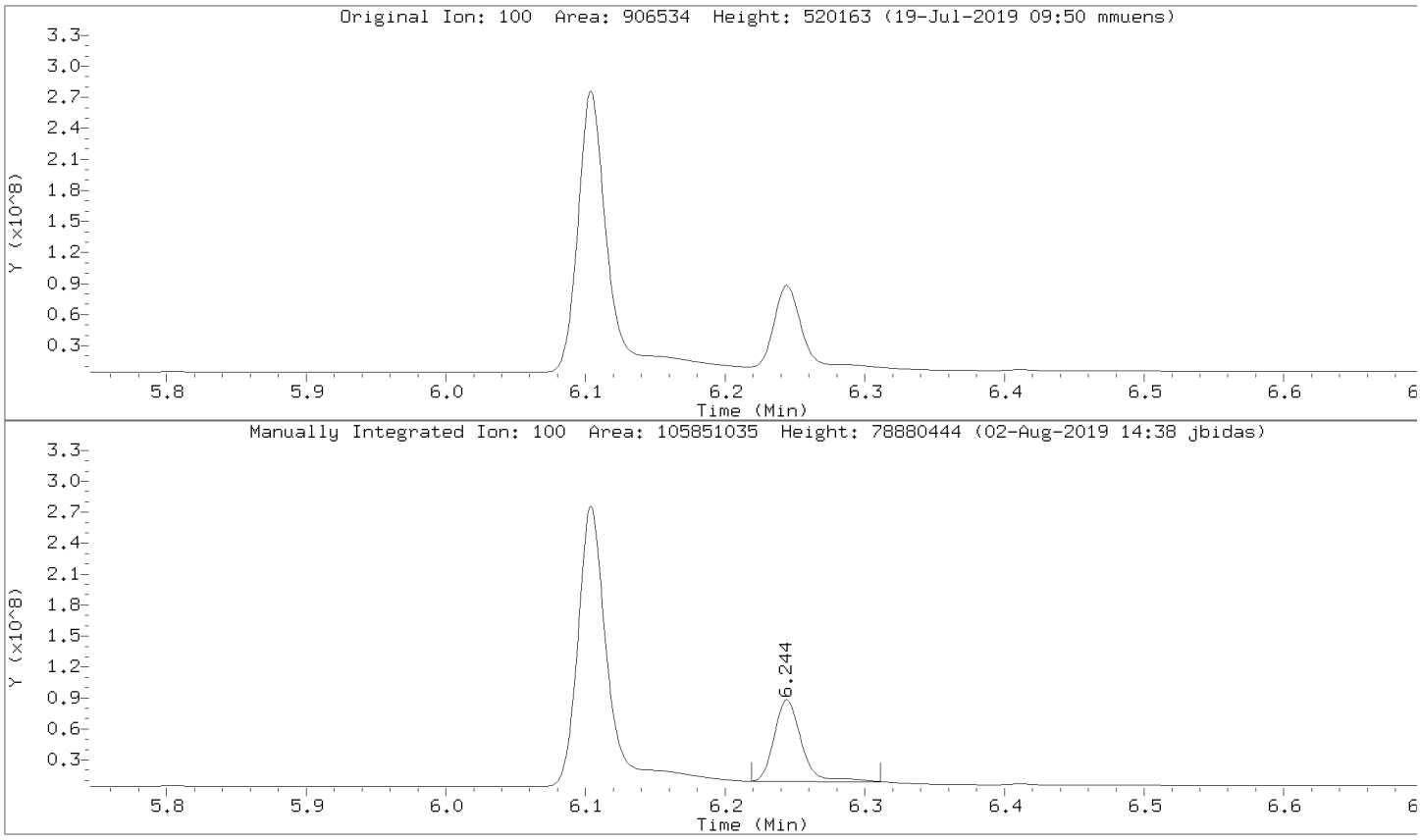
Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316966.d
Date : 18-JUL-2019 19:08
Client ID: CAL3
Sample Info: CAL3, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



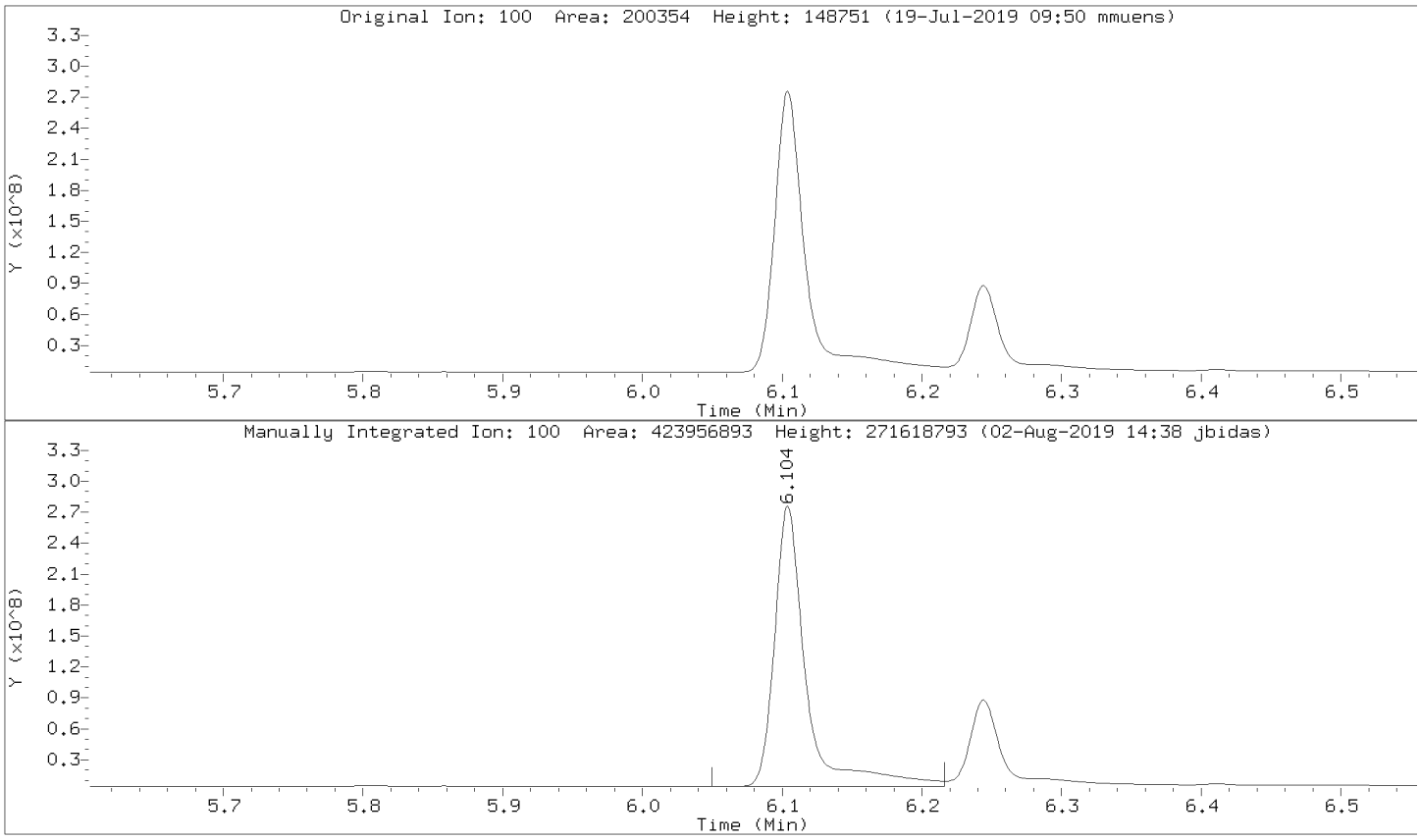
Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316966.d
Injection Date: 18-JUL-2019 19:08
Instrument: 70gcs3.i
Lab Sample ID: CAL3

Compound: Dicamba Review Code: BA
CAS Number: 319-84-6



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316966.d
Injection Date: 18-JUL-2019 19:08
Instrument: 70gcs3.i
Lab Sample ID: CAL3

Compound: 2,4-DCAA (S) Review Code: BA
CAS Number:



Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316966.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 18-JUL-2019 19:08
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal3, 68183:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:08 Cal File: 316966.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

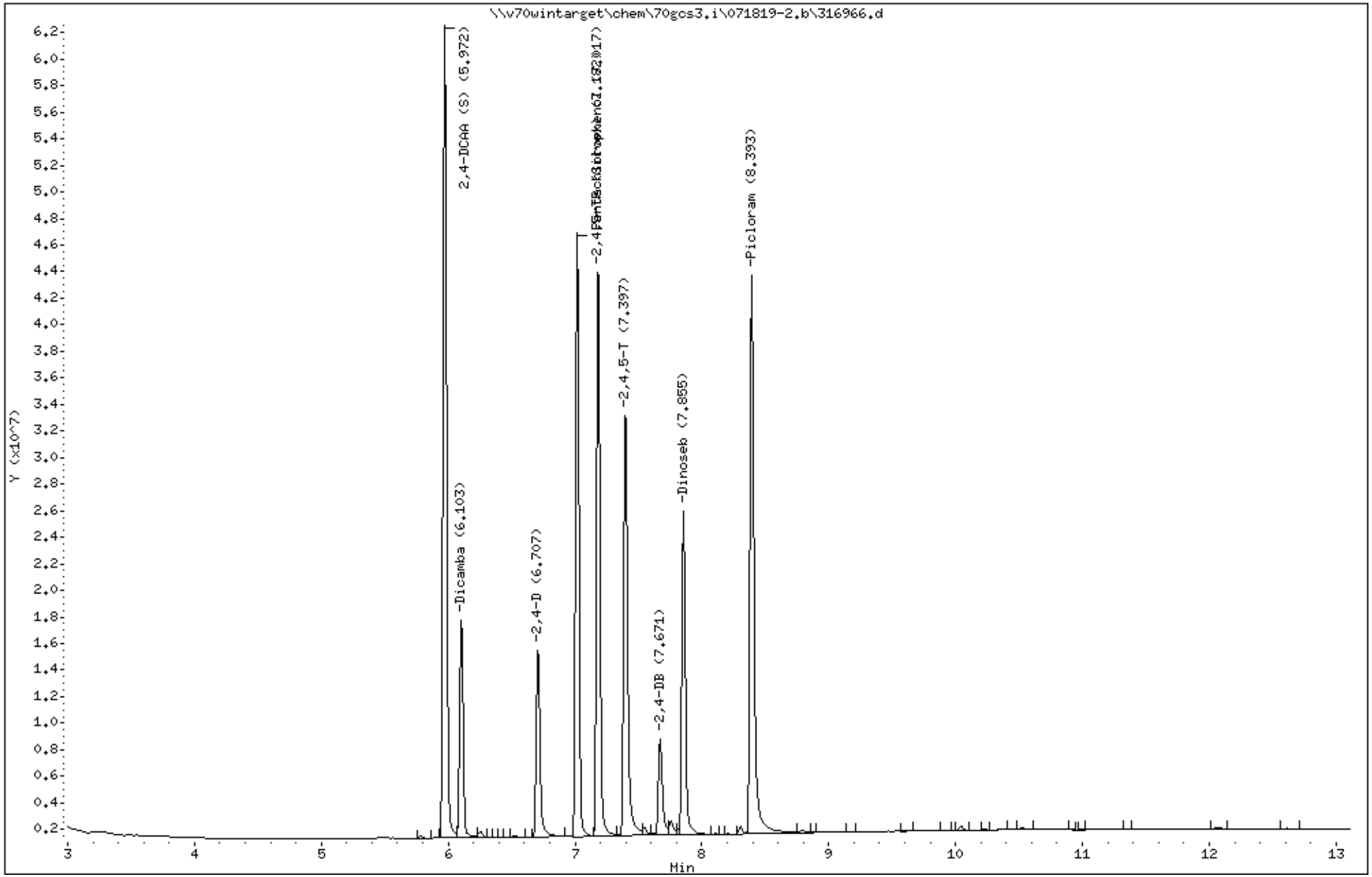
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	5.972	5.975	-0.003	84081944	1.00000	1.01	
2 Dicamba	6.102	6.104	-0.002	22360780	0.06000	0.0610	
3 2,4-D	6.707	6.709	-0.002	22183794	0.20000	0.201	
4 Pentachlorophenol	7.017	7.017	0.000	56839035	0.04000	0.0413	
5 2,4,5-TP (Silvex)	7.182	7.182	0.000	56808023	0.10000	0.103	
6 2,4,5-T	7.397	7.399	-0.002	52186419	0.10000	0.102	
7 2,4-DB	7.671	7.672	-0.001	12224867	0.20000	0.199	
9 Dinoseb	7.854	7.855	-0.001	34625585	0.08000	0.0802	
8 Picloram	8.392	8.393	-0.001	71776421	0.10000	0.103	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316966.d
Date : 18-JUL-2019 19:08
Client ID: CAL3
Sample Info: CAL3, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316966.d
Injection Date: 18-JUL-2019 19:08
Instrument: 70gcs3.i
Lab Sample ID: CAL3
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316967.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 18-JUL-2019 19:26
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal2, 66433:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.103	6.105	-0.002	190804822	0.50000	0.463(M)	
2	Dicamba	6.243	6.245	-0.002	51500696	0.03000	0.0289(M)	
3	2,4-D	6.834	6.835	-0.001	50235288	0.10000	0.0995	
4	Pentachlorophenol	7.066	7.066	0.000	149654401	0.02000	0.0193	
5	2,4,5-TP (Silvex)	7.342	7.344	-0.002	139217627	0.05000	0.0484	
6	2,4,5-T	7.508	7.507	0.001	120596344	0.05000	0.0464	
7	2,4-DB	7.809	7.806	0.003	25333140	0.10000	0.0893	
8	Picloram	8.362	8.358	0.004	128186608	0.05000	0.0427	
9	Dinoseb	8.429	8.429	0.000	90398049	0.04000	0.0396	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316967.d

Page 2

Date : 18-JUL-2019 19:26

Client ID: CAL2

Instrument: 70gcs3.i

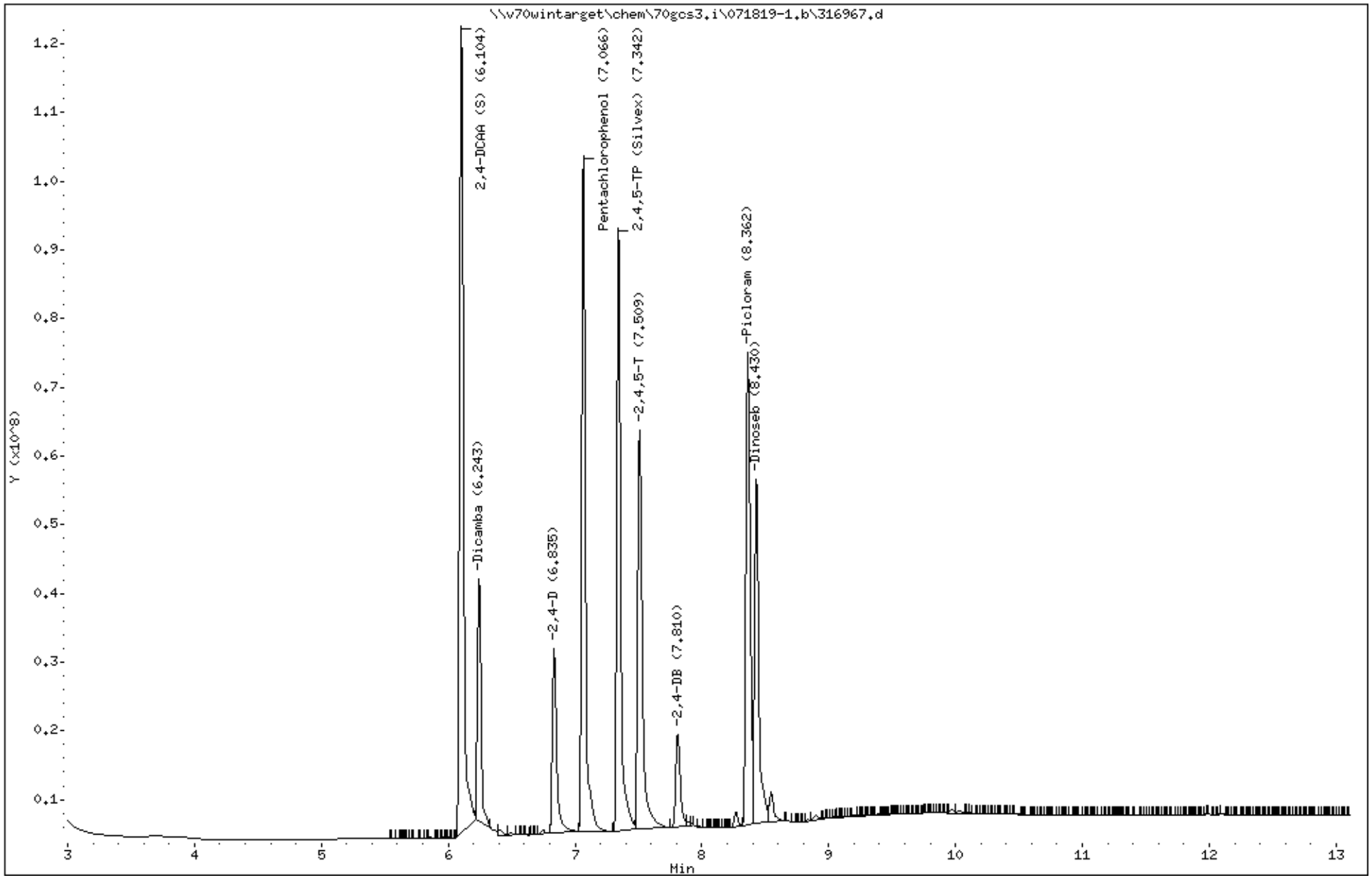
Sample Info: CAL2, 66433:1

Volume Injected (uL): 1.0

Operator: MJM

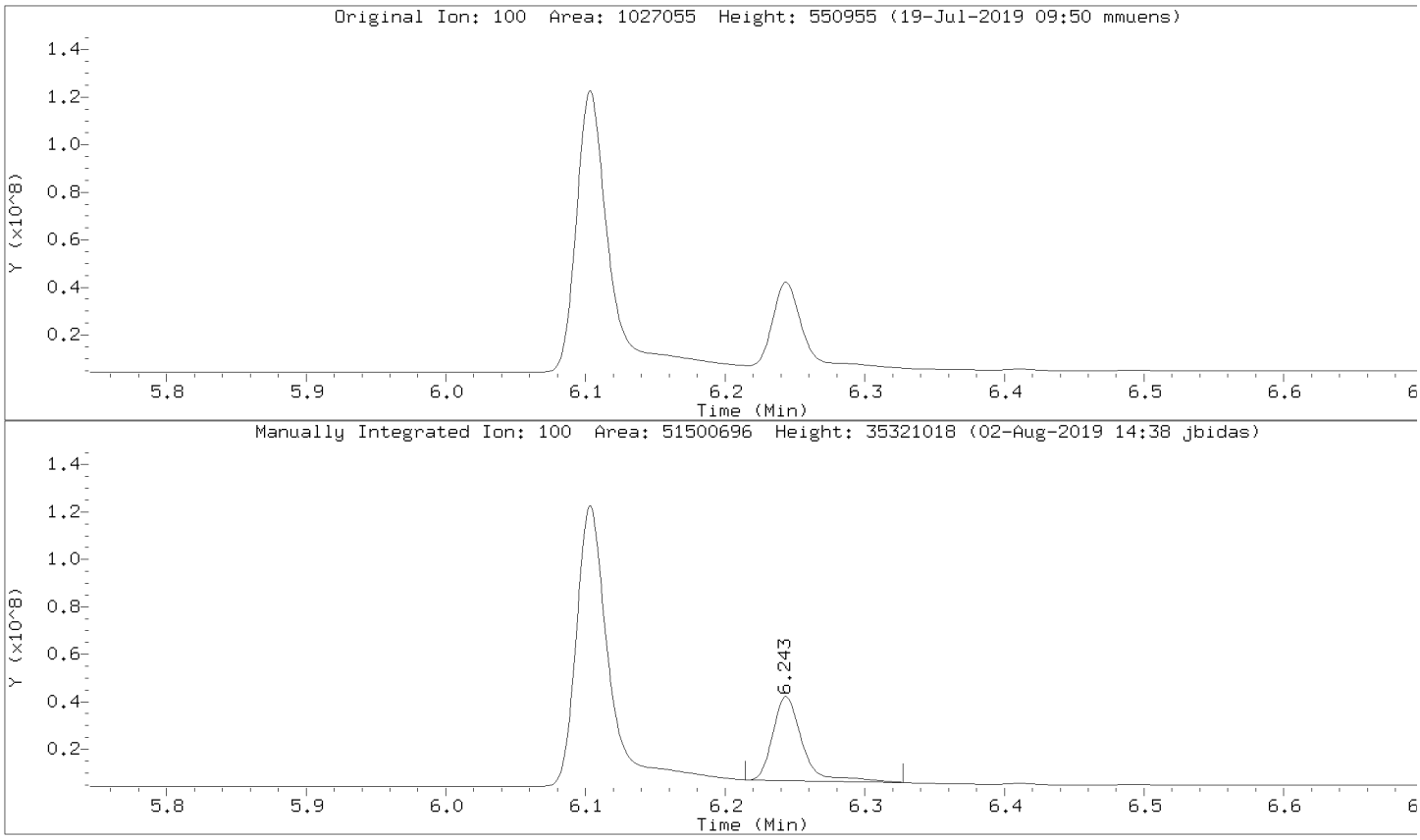
Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



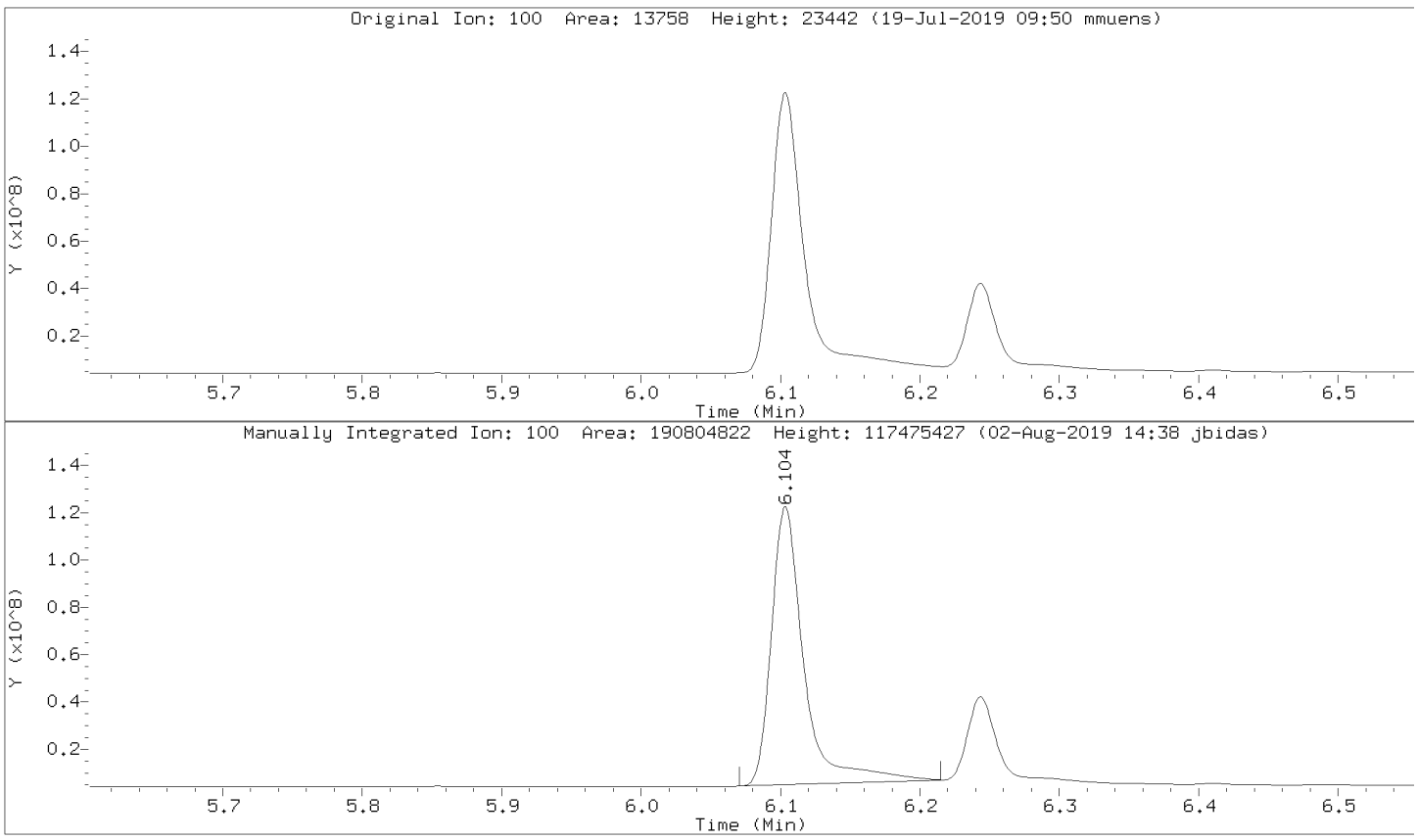
Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316967.d
Injection Date: 18-JUL-2019 19:26
Instrument: 70gcs3.i
Lab Sample ID: CAL2

Compound: Dicamba Review Code:
CAS Number: 319-84-6



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316967.d
Injection Date: 18-JUL-2019 19:26
Instrument: 70gcs3.i
Lab Sample ID: CAL2

Compound: 2,4-DCAA (S) Review Code:
CAS Number:



Pace Analytical Services, Inc.

SW846 8151A

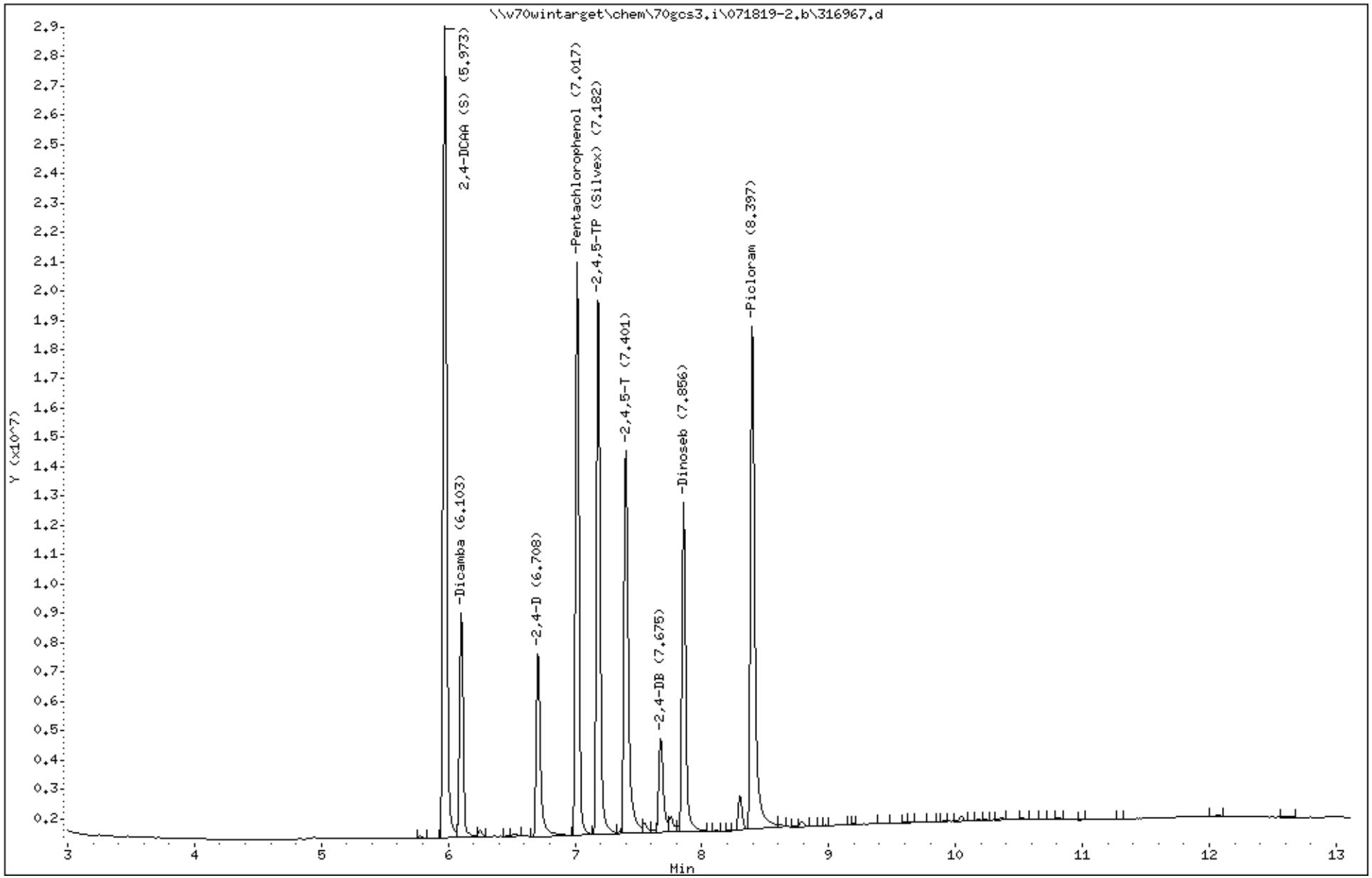
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316967.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 18-JUL-2019 19:26
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal2, 66433:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:26 Cal File: 316967.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	5.973	5.975	-0.002	40195611	0.50000	0.483	
2 Dicamba	6.103	6.104	-0.001	10924544	0.03000	0.0298	
3 2,4-D	6.708	6.709	-0.001	11245929	0.10000	0.102	
4 Pentachlorophenol	7.017	7.017	0.000	26205387	0.02000	0.0190	
5 2,4,5-TP (Silvex)	7.182	7.182	0.000	26737125	0.05000	0.0483	
6 2,4,5-T	7.400	7.399	0.001	24554723	0.05000	0.0482	
7 2,4-DB	7.674	7.672	0.002	6246396	0.10000	0.102	
9 Dinoseb	7.856	7.855	0.001	17229468	0.04000	0.0399	
8 Picloram	8.397	8.393	0.004	32197272	0.05000	0.0464	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316967.d
Date : 18-JUL-2019 19:26
Client ID: CAL2
Instrument: 70gcs3.i
Sample Info: CAL2, 66433:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316967.d
Injection Date: 18-JUL-2019 19:26
Instrument: 70gcs3.i
Lab Sample ID: CAL2
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

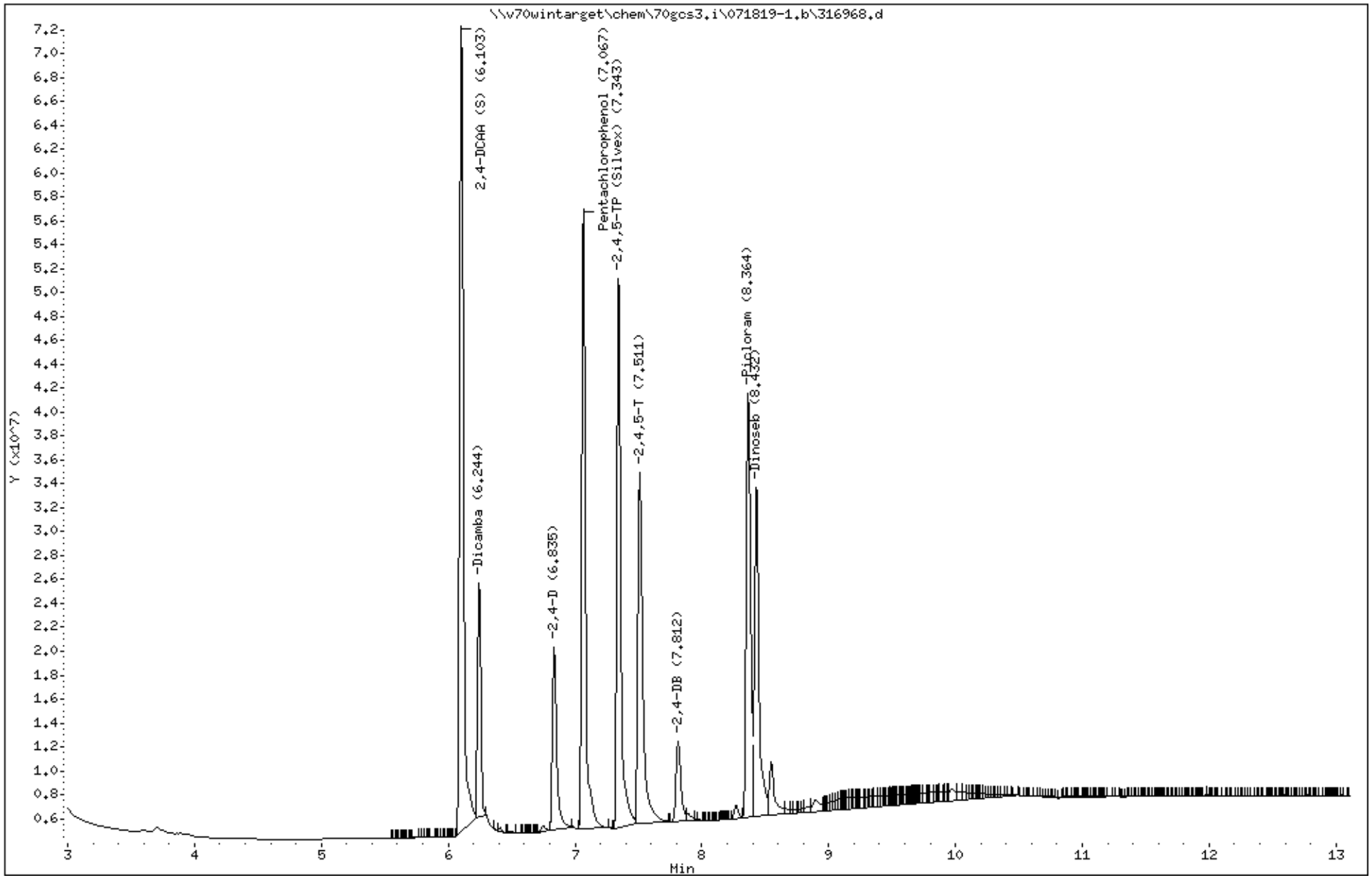
Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316968.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 18-JUL-2019 19:43
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal1, 66431:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.103	6.105	-0.002	107772170	0.25000	0.261	
2 Dicamba	6.244	6.245	-0.001	25546871	0.01500	0.0143	
3 2,4-D	6.834	6.835	-0.001	27506287	0.05000	0.0545	
4 Pentachlorophenol	7.066	7.066	0.000	78683593	0.01000	0.0102	
5 2,4,5-TP (Silvex)	7.343	7.344	-0.001	74053489	0.02500	0.0257	
6 2,4,5-T	7.510	7.507	0.003	65188983	0.02500	0.0251	
7 2,4-DB	7.812	7.806	0.006	14267050	0.05000	0.0503	
8 Picloram	8.364	8.358	0.006	68008692	0.02500	0.0227	
9 Dinoseb	8.431	8.429	0.002	52553375	0.02000	0.0230	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316968.d
Date : 18-JUL-2019 19:43
Client ID: CAL1
Instrument: 70gcs3.i
Sample Info: CAL1, 66431:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



1987 of 12048

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316968.d
Injection Date: 18-JUL-2019 19:43
Instrument: 70gcs3.i
Lab Sample ID: CAL1
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316968.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 18-JUL-2019 19:43
Operator : MJM Inst ID: 70gcs3.i
Smp Info : cal1, 66431:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	5.972	5.975	-0.003	22606355	0.25000	0.272	
2	Dicamba	6.103	6.104	-0.001	6103013	0.01500	0.0167	
3	2,4-D	6.709	6.709	0.000	6436660	0.05000	0.0582	
4	Pentachlorophenol	7.017	7.017	0.000	14078909	0.01000	0.0102	
5	2,4,5-TP (Silvex)	7.183	7.182	0.001	14535325	0.02500	0.0263	
6	2,4,5-T	7.401	7.399	0.002	13748246	0.02500	0.0270	
7	2,4-DB	7.677	7.672	0.005	3513895	0.05000	0.0573	
9	Dinoseb	7.856	7.855	0.001	9949468	0.02000	0.0230	
8	Picloram	8.399	8.393	0.006	17961737	0.02500	0.0259	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316968.d

Page 2

Date : 18-JUL-2019 19:43

Client ID: CAL1

Instrument: 70gcs3.i

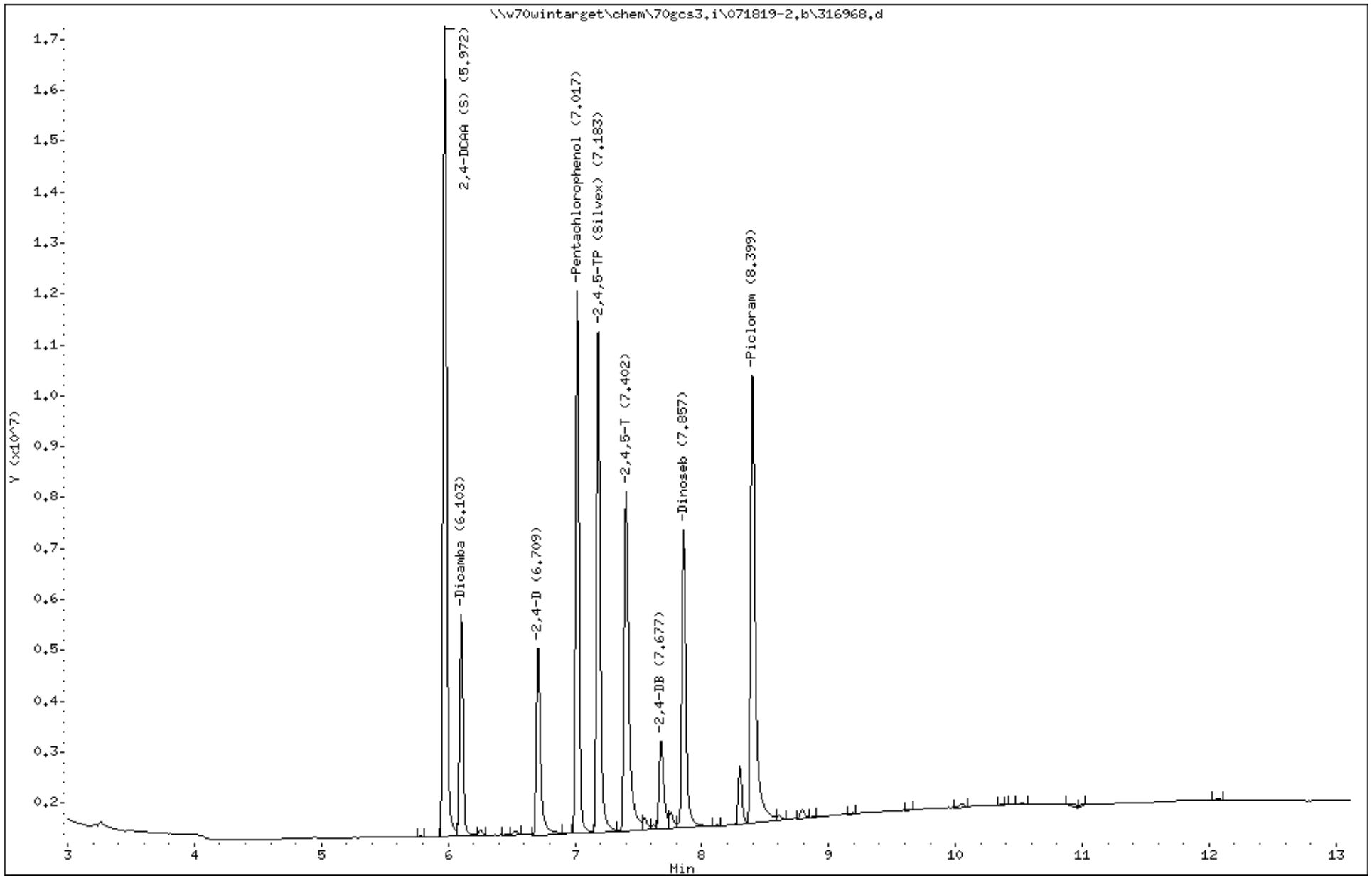
Sample Info: CAL1, 66431:1

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES2

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316968.d
Injection Date: 18-JUL-2019 19:43
Instrument: 70gcs3.i
Lab Sample ID: CAL1
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316970.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 18-JUL-2019 20:17
Operator : MJM Inst ID: 70gcs3.i
Smp Info : pblk, 72011:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

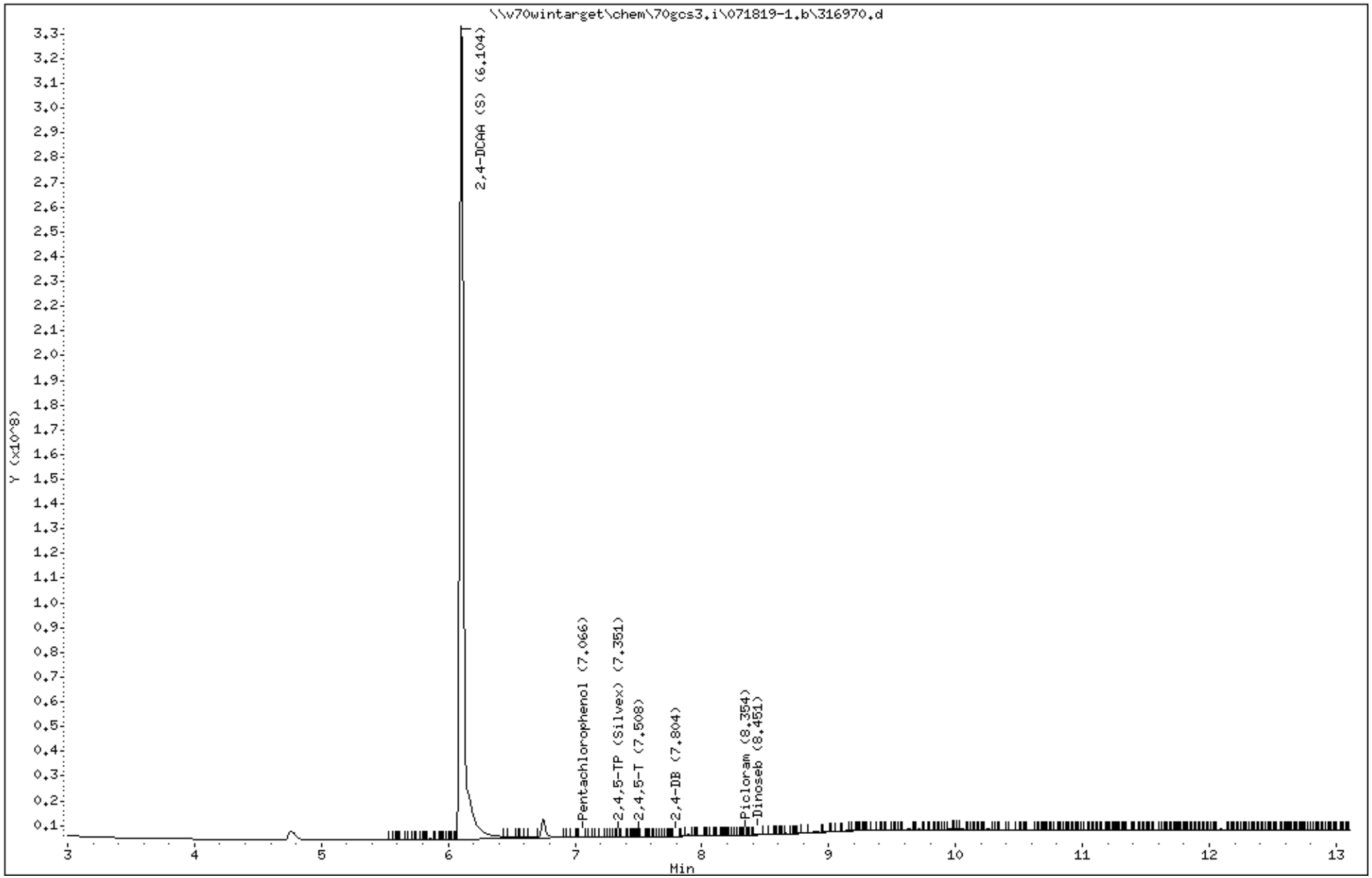
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.103	6.105	-0.002	565714042	1.37156	457(R)	
2	Dicamba	Compound Not Detected.						
3	2,4-D	Compound Not Detected.						
4	Pentachlorophenol	7.066	7.066	0.000	87277	1e-005	0.00376	
5	2,4,5-TP (Silvex)	7.351	7.344	0.007	11575	4.e-006	0.00134	
6	2,4,5-T	7.508	7.507	0.001	2995	1e-006	0.000384	
7	2,4-DB	7.803	7.806	-0.003	88423	3e-004	0.104	
8	Picloram	8.353	8.358	-0.005	3820	1e-006	0.000424	
9	Dinoseb	8.451	8.429	0.022	124565	5e-005	0.0182	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316970.d
Date : 18-JUL-2019 20:17
Client ID: PBLK
Instrument: 70gcs3.i
Sample Info: PBLK, 72011:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316970.d
Injection Date: 18-JUL-2019 20:17
Instrument: 70gcs3.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Service Inc.

SW846 8151A

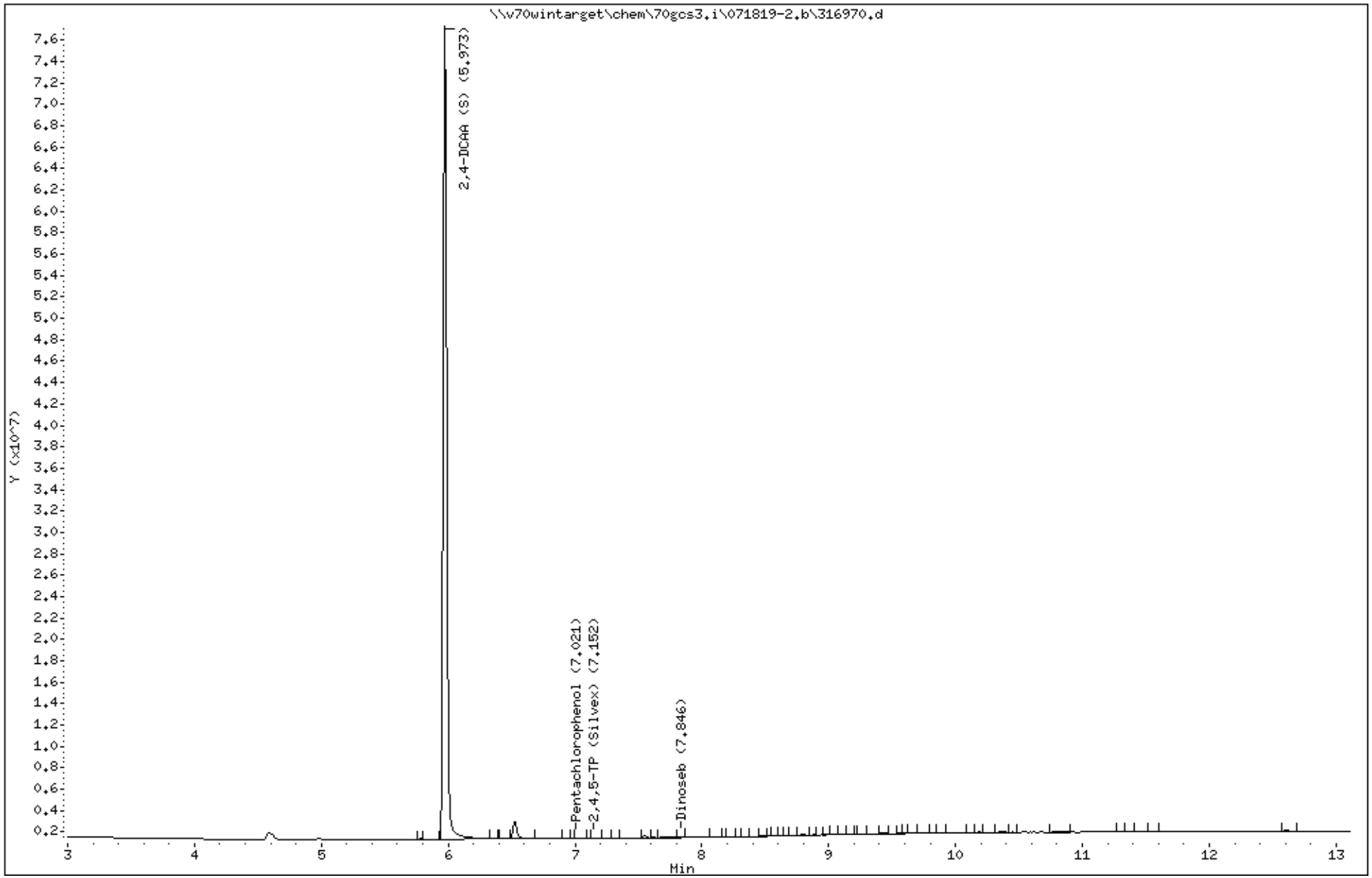
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316970.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 18-JUL-2019 20:17
Operator : MJM Inst ID: 70gcs3.i
Smp Info : pblk, 72011:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	5.973	5.975	-0.002	108801376	1.30803	436	
2	Dicamba	Compound Not Detected.						
3	2,4-D	Compound Not Detected.						
4	Pentachlorophenol	7.020	7.017	0.003	45282	3e-005	0.0110	
5	2,4,5-TP (Silvex)	7.152	7.182	-0.030	47644	9e-005	0.0287	
6	2,4,5-T	Compound Not Detected.						
7	2,4-DB	Compound Not Detected.						
9	Dinoseb	7.846	7.855	-0.009	32126	7e-005	0.0248	
8	Picloram	Compound Not Detected.						

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316970.d
Date : 18-JUL-2019 20:17
Client ID: PBLK
Instrument: 70gcs3.i
Sample Info: PBLK, 72011:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316970.d
Injection Date: 18-JUL-2019 20:17
Instrument: 70gcs3.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316984.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 19-JUL-2019 00:15
Operator : MJM Inst ID: 70gcs3.i
Smp Info : pblk, 72011:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

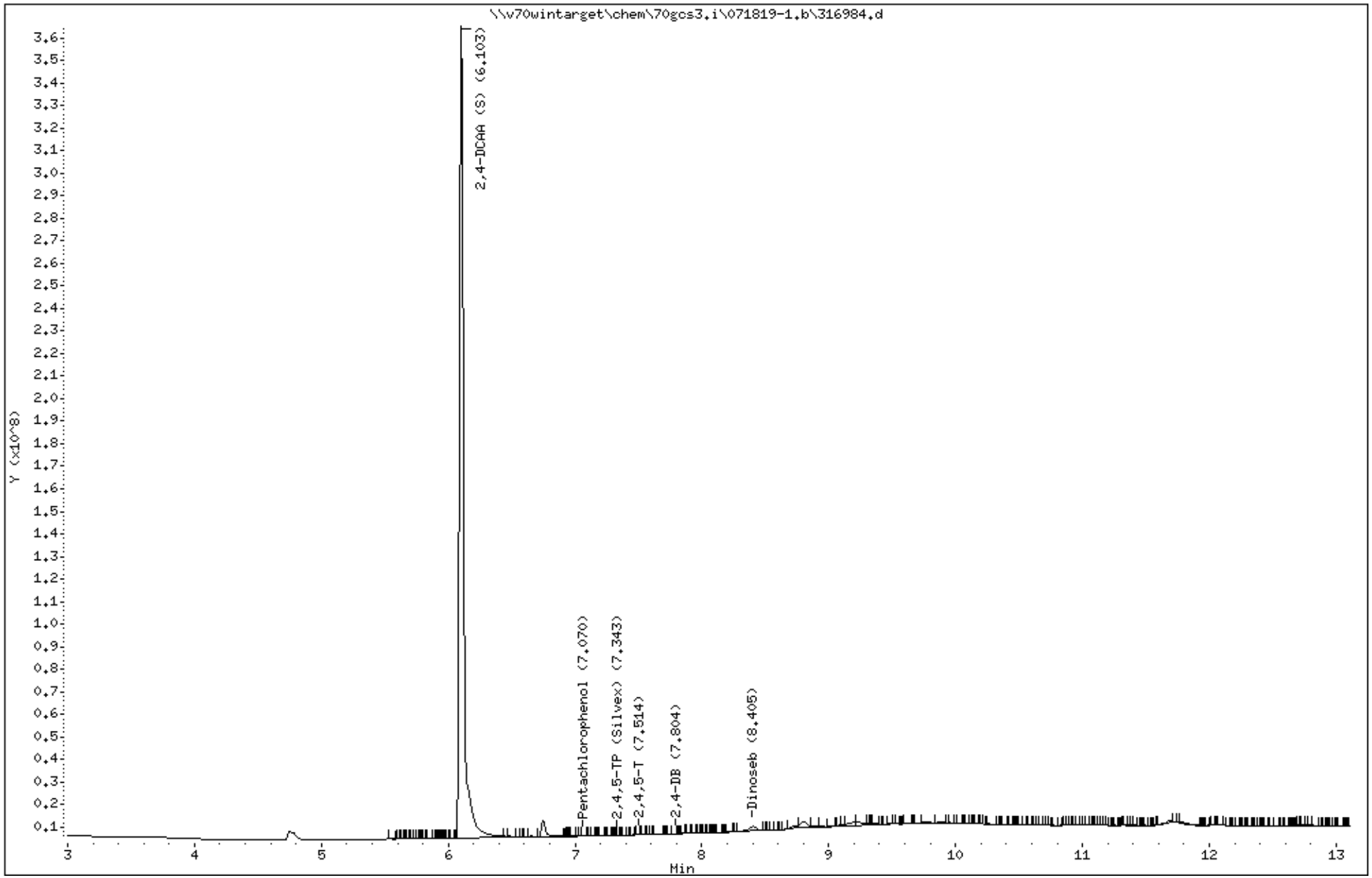
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.103	6.105	-0.002	617874294	1.49802	499(R)	
2	Dicamba	Compound Not Detected.						
3	2,4-D	Compound Not Detected.						
4	Pentachlorophenol	7.070	7.066	0.004	293549	4e-005	0.0126	
5	2,4,5-TP (Silvex)	7.342	7.344	-0.002	3808	1e-006	0.000441	
6	2,4,5-T	7.514	7.507	0.007	4356	2e-006	0.000559	
7	2,4-DB	7.804	7.806	-0.002	4827	2e-005	0.00567	
8	Picloram	Compound Not Detected.						
9	Dinoseb	8.405	8.429	-0.024	7069593	0.00310	1.03	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316984.d
Date : 19-JUL-2019 00:15
Client ID: PBLK
Instrument: 70gcs3.i
Sample Info: PBLK, 72011:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316984.d
Injection Date: 19-JUL-2019 00:15
Instrument: 70gcs3.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316984.d
Lab Smp Id: PBLK Client Smp ID: PBLK
Inj Date : 19-JUL-2019 00:15
Operator : MJM Inst ID: 70gcs3.i
Smp Info : pblk, 72011:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	5.971	5.975	-0.004	120141154	1.44436	481(R)	
2 Dicamba	Compound Not Detected.						
3 2,4-D	Compound Not Detected.						
4 Pentachlorophenol	Compound Not Detected.						
5 2,4,5-TP (Silvex)	7.155	7.182	-0.027	61655	1e-004	0.0371	
6 2,4,5-T	Compound Not Detected.						
7 2,4-DB	Compound Not Detected.						
9 Dinoseb	7.847	7.855	-0.008	29949	7e-005	0.0231	
8 Picloram	Compound Not Detected.						

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316984.d

Page 2

Date : 19-JUL-2019 00:15

Client ID: PBLK

Instrument: 70gcs3.i

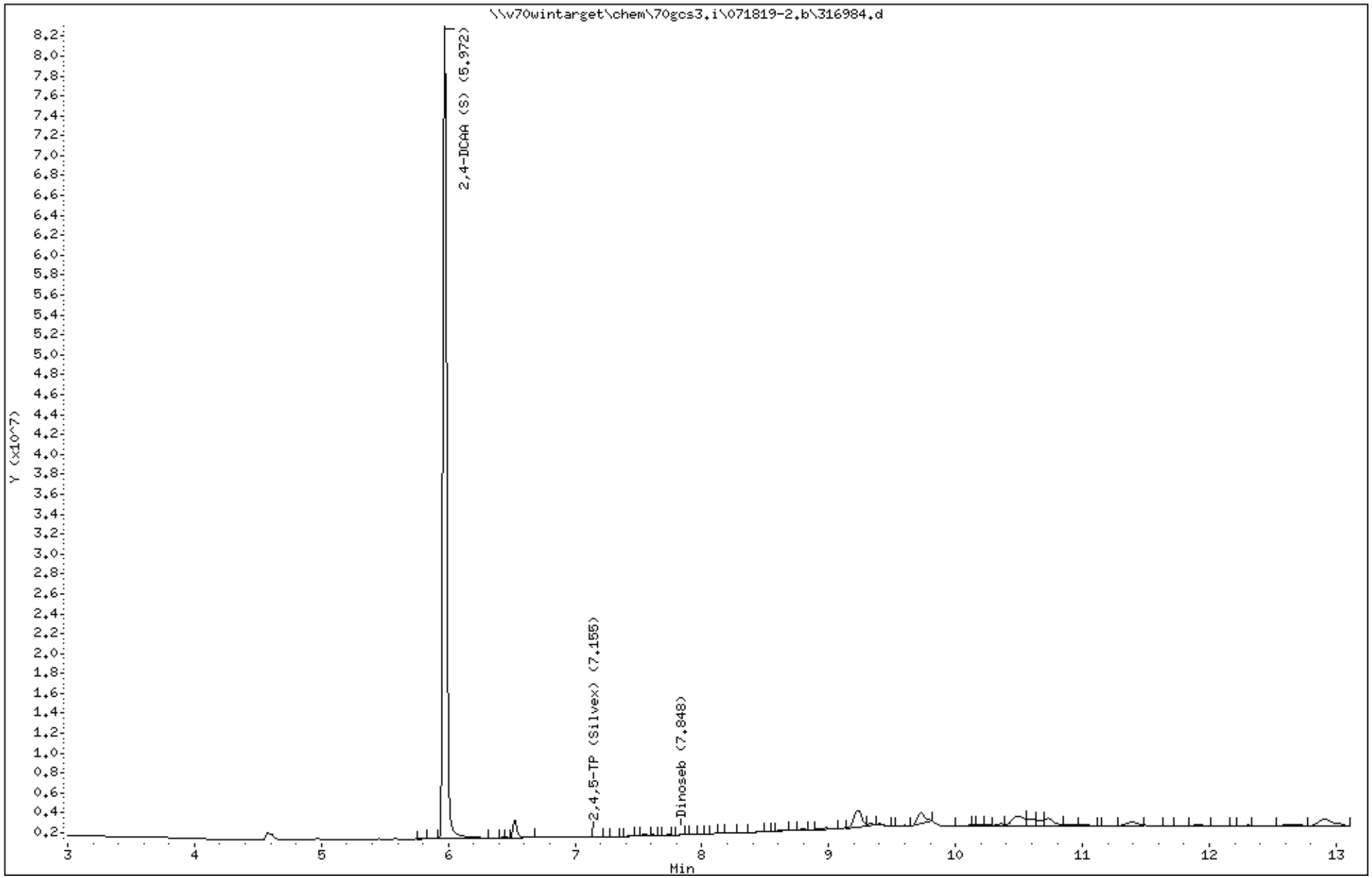
Sample Info: PBLK, 72011:1

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES2

Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316984.d
Injection Date: 19-JUL-2019 00:15
Instrument: 70gcs3.i
Lab Sample ID: PBLK
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

12074579ICV

Lab Name: Pace Analytical - New York Calibration Date: 07/18/2019 Time: 20:00

Instrument ID: 70GCS3 GC Column: Col 1 Init. Calib. Date(s): 07/18/2019 07/18/2019

Lab File ID: 071819-1.B\316969.D Init. Calib. Time(s): 18:35 20:00

SDG No.: 7097609

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	6.834	6.795	6.875	504717081.	282024270.	11.1994
2,4,5-TP (Silvex)		Averaged	7.342	7.304	7.384	2879029791	1672255140	16.1680
2,4-DCAA (S)		Averaged	6.103	6.065	6.145	412460019.	494670716.	19.9318

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:26

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

12074572ICV

Lab Name: Pace Analytical - New York Calibration Date: 07/18/2019 Time: 20:00

Instrument ID: 70GCS3 GC Column: Col 2 Init. Calib. Date(s): 07/18/2019 07/18/2019

Lab File ID: 071819-2.B\316969.D Init. Calib. Time(s): 18:35 20:00

SDG No.: 7097609

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	6.708	6.679	6.739	110539121.	65783625.0	18.4311
2,4,5-TP (Silvex)		Averaged	7.182	7.137	7.227	553242345.	324683280.	17.3747
2,4-DCAA (S)		Averaged	5.972	5.945	6.005	83179272.8	98657017.0	18.6077

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:27

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

12074573CCV

Lab Name: Pace Analytical - New York Calibration Date: 07/19/2019 Time: 00:32

Instrument ID: 70GCS3 GC Column: Col 1 Init. Calib. Date(s): 07/18/2019 07/18/2019

Lab File ID: 071819-1.B\316985.D Init. Calib. Time(s): 18:35 20:00

SDG No.: 7097609

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	6.836	6.795	6.875	504717081.	494238200.	-2.0762
2,4,5-TP (Silvex)		Averaged	7.344	7.304	7.384	2879029791	2955096270	2.6421
2,4-DCAA (S)		Averaged	6.105	6.065	6.145	412460019.	391812339.	-5.0060

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:27

SAMPLE NO.

HERBICIDES - FORM VII SVOA-1
HERBICIDES CALIBRATION VERIFICATION SUMMARY

12074582CCV

Lab Name: Pace Analytical - New York
Calibration Date: 07/19/2019 Time: 00:32

Instrument ID: 70GCS3 GC Column: Col 2
Init. Calib. Date(s): 07/18/2019 07/18/2019

Lab File ID: 071819-2.B\316985.D
Init. Calib. Time(s): 18:35 20:00

SDG No.: 7097609

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
2,4-D		Averaged	6.709	6.679	6.739	110539121.	106961745.	-3.2363
2,4,5-TP (Silvex)		Averaged	7.183	7.137	7.227	553242345.	561897000.	1.5644
2,4-DCAA (S)		Averaged	5.974	5.945	6.005	83179272.8	83134516.0	-0.0538

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/05/2019 7:27

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316969.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 18-JUL-2019 20:00
Operator : MJM Inst ID: 70gcs3.i
Smp Info : icv, 66027:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	6.103	6.105	-0.002	494670716	1.00000	1.20(M)	CO
2	Dicamba	6.243	6.245	-0.002	125148571	0.05000	0.0702(M)	CO
3	2,4-D	6.834	6.835	-0.001	56404854	0.10050	0.112(M)	BA
4	Pentachlorophenol	7.066	7.066	0.000	444942449	0.05000	0.0575	
5	2,4,5-TP (Silvex)	7.342	7.344	-0.002	167225514	0.05000	0.0581	
6	2,4,5-T	7.504	7.507	-0.003	182308875	0.05000	0.0701	
7	2,4-DB	7.803	7.806	-0.003	123554881	0.40150	0.435	
8	Picloram	8.357	8.358	-0.001	172675386	0.05000	0.0576(M)	
9	Dinoseb	8.429	8.429	0.000	207968654	0.10000	0.0912(M)	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316969.d

Page 3

Date : 18-JUL-2019 20:00

Client ID: ICV

Instrument: 70gcs3.i

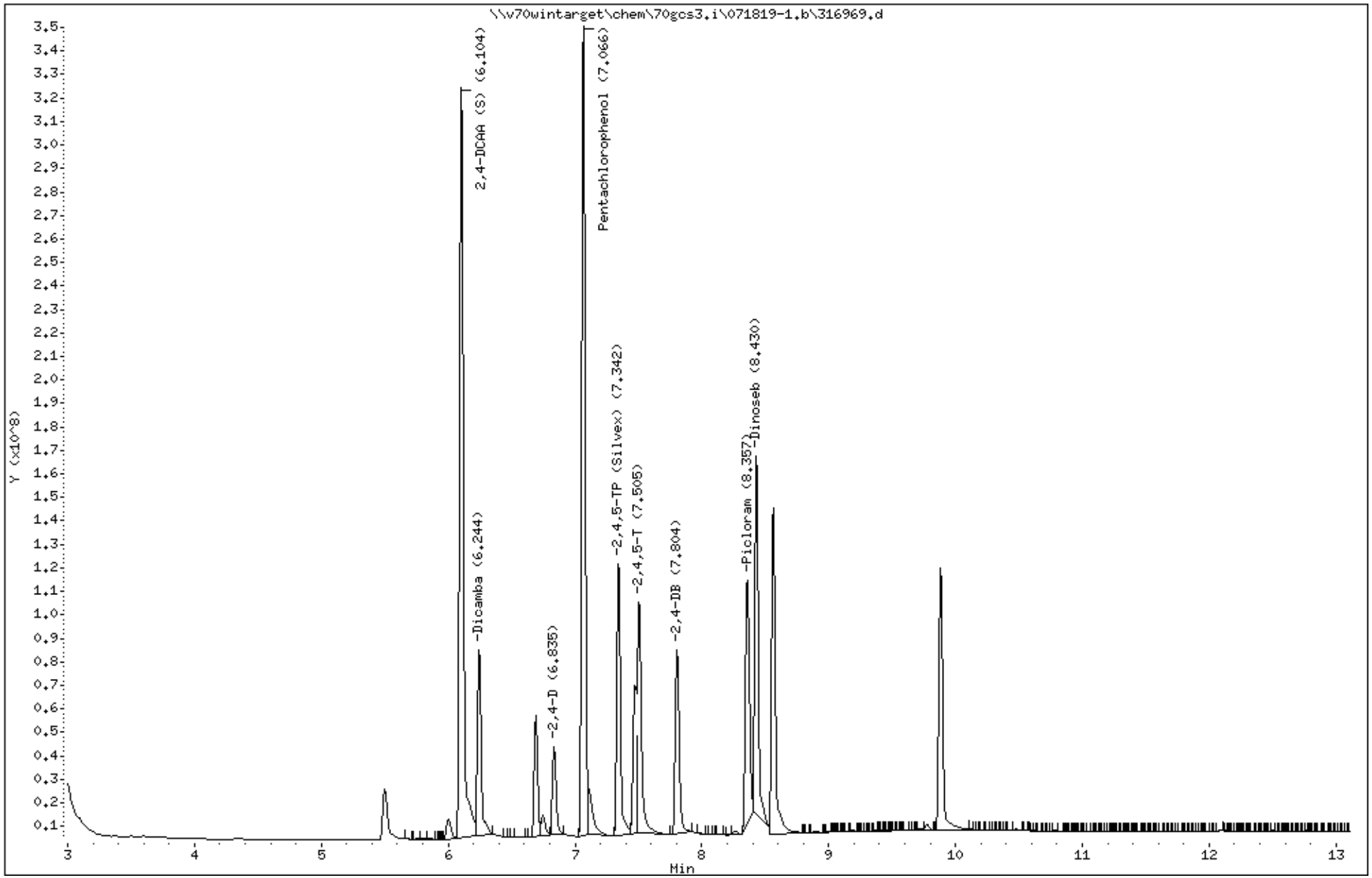
Sample Info: ICV, 66027:1

Volume Injected (uL): 1.0

Operator: MJM

Column phase: RTX-CLPESTICIDES

Column diameter: 0.32



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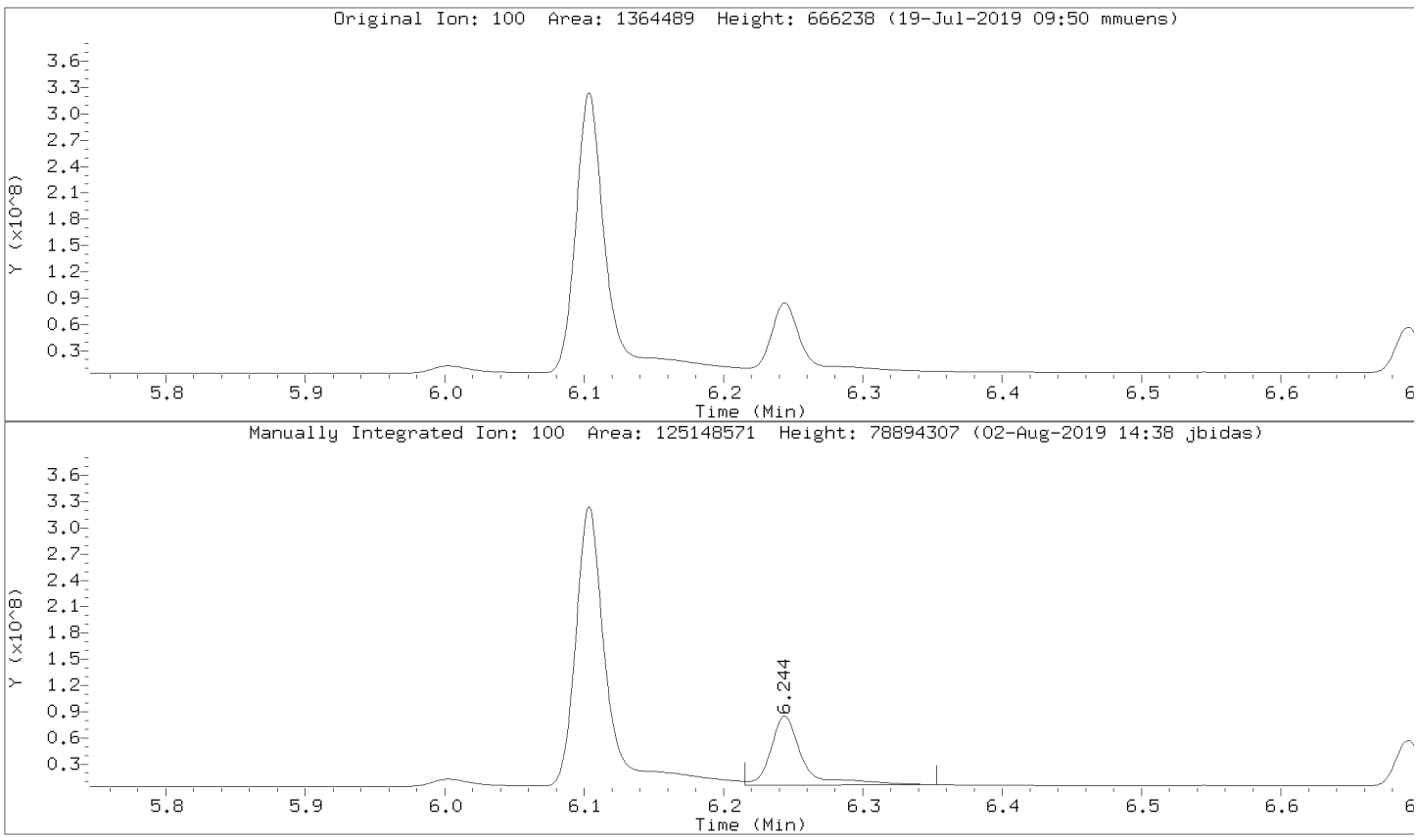
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV

Compound: Dicamba Review Code: CO
CAS Number: 319-84-6



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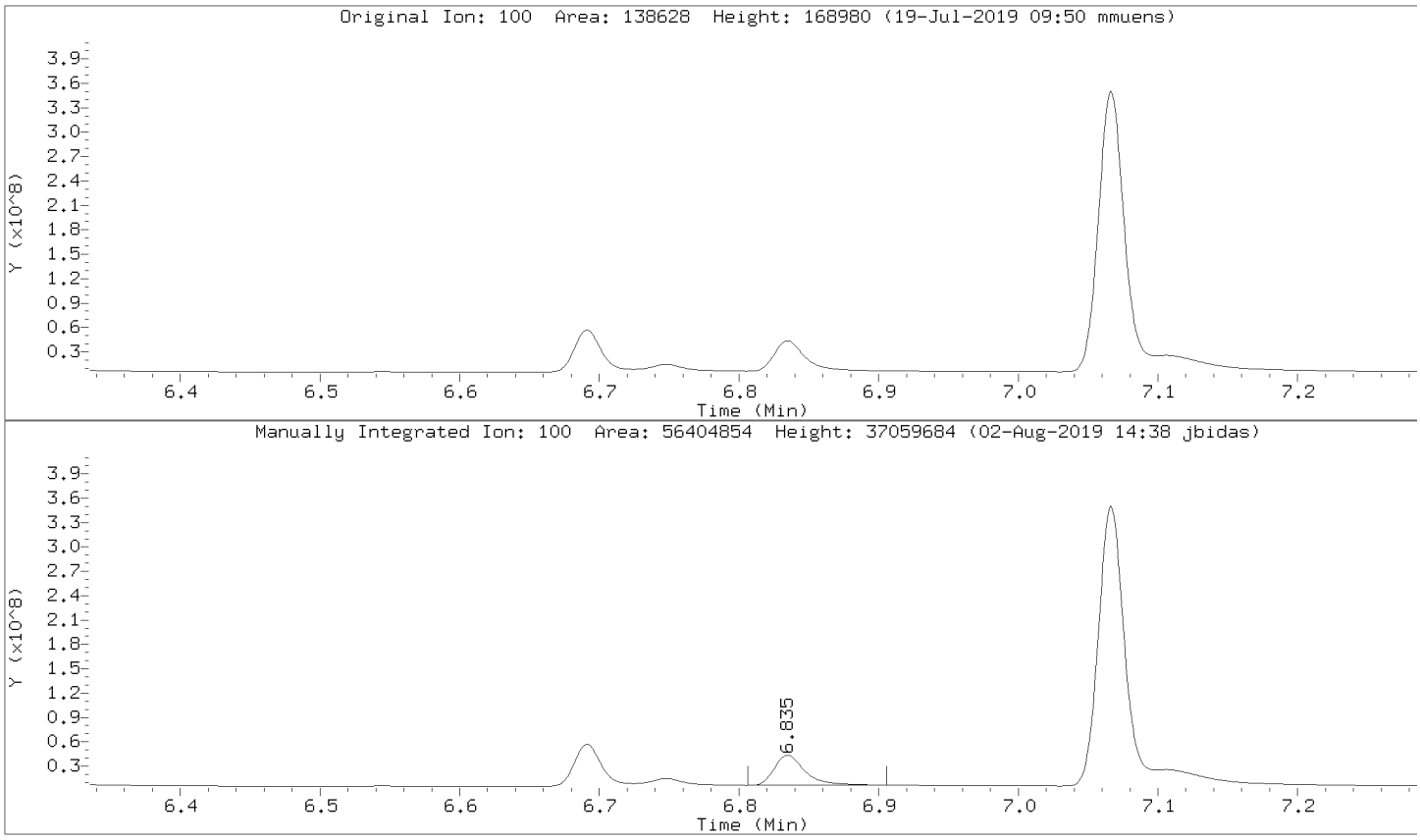
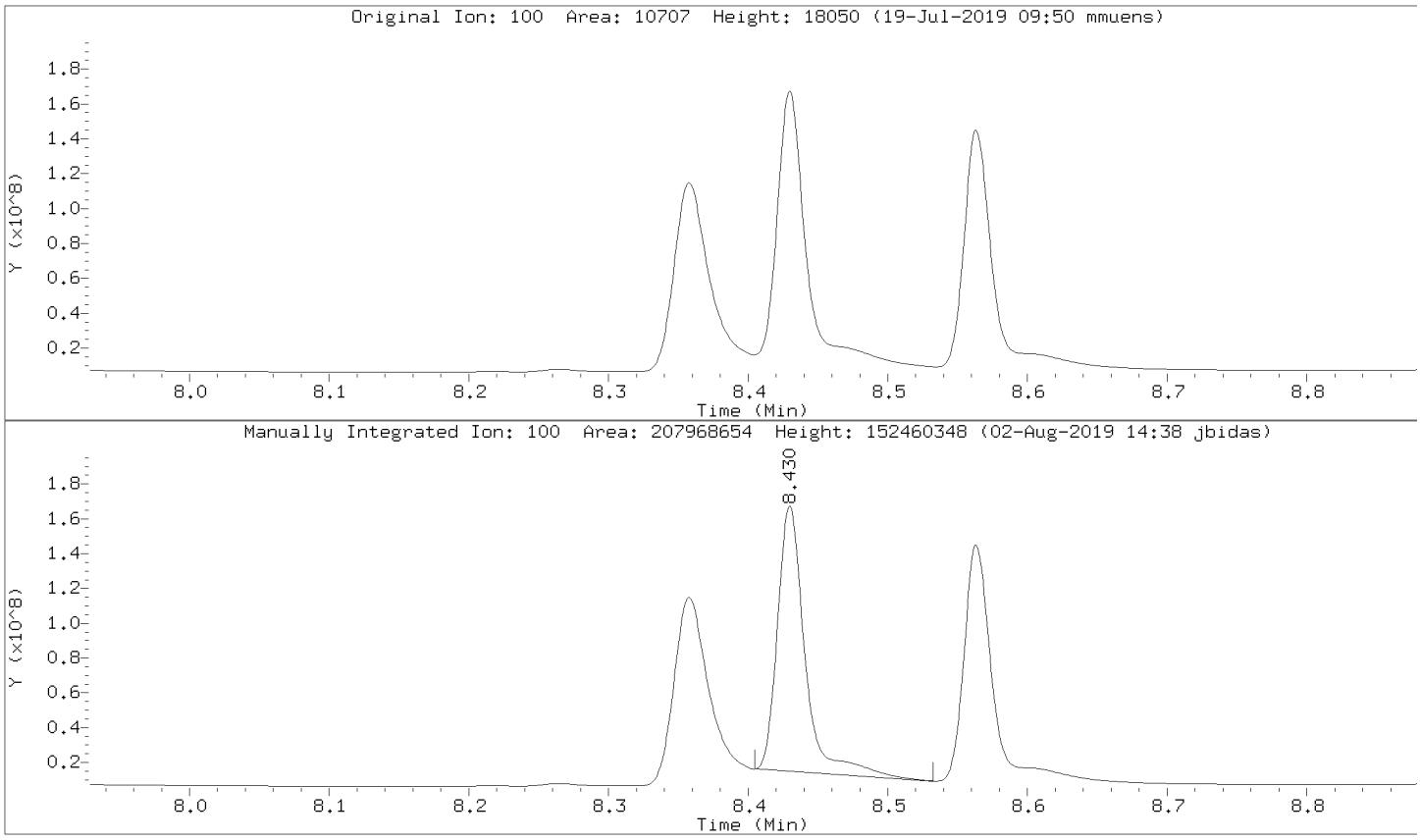
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV

Compound: 2,4-D Review Code: BA
CAS Number: 58-89-9



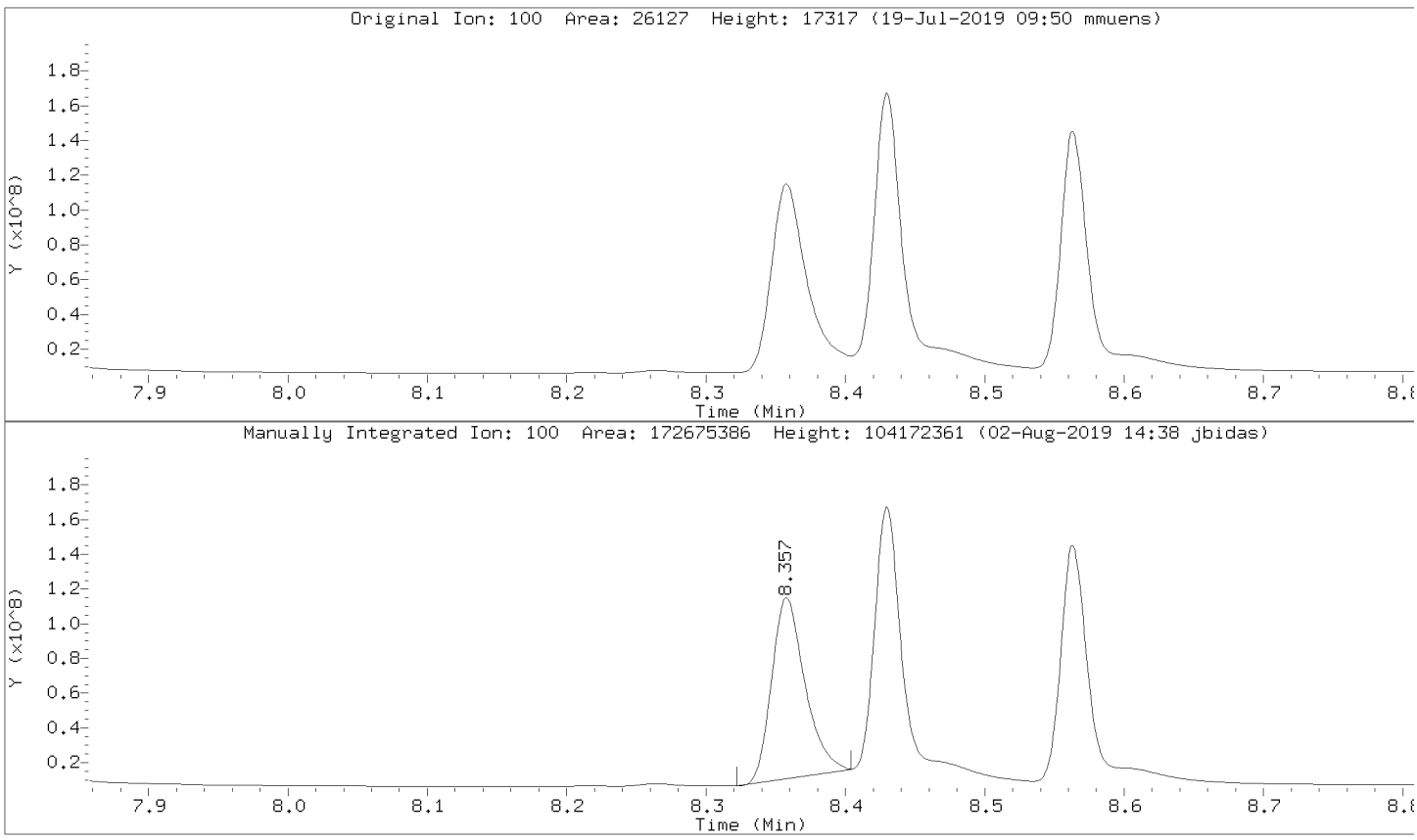
Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316969.d
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV

Compound: Dinoseb Review Code:
CAS Number: 1024-57-3



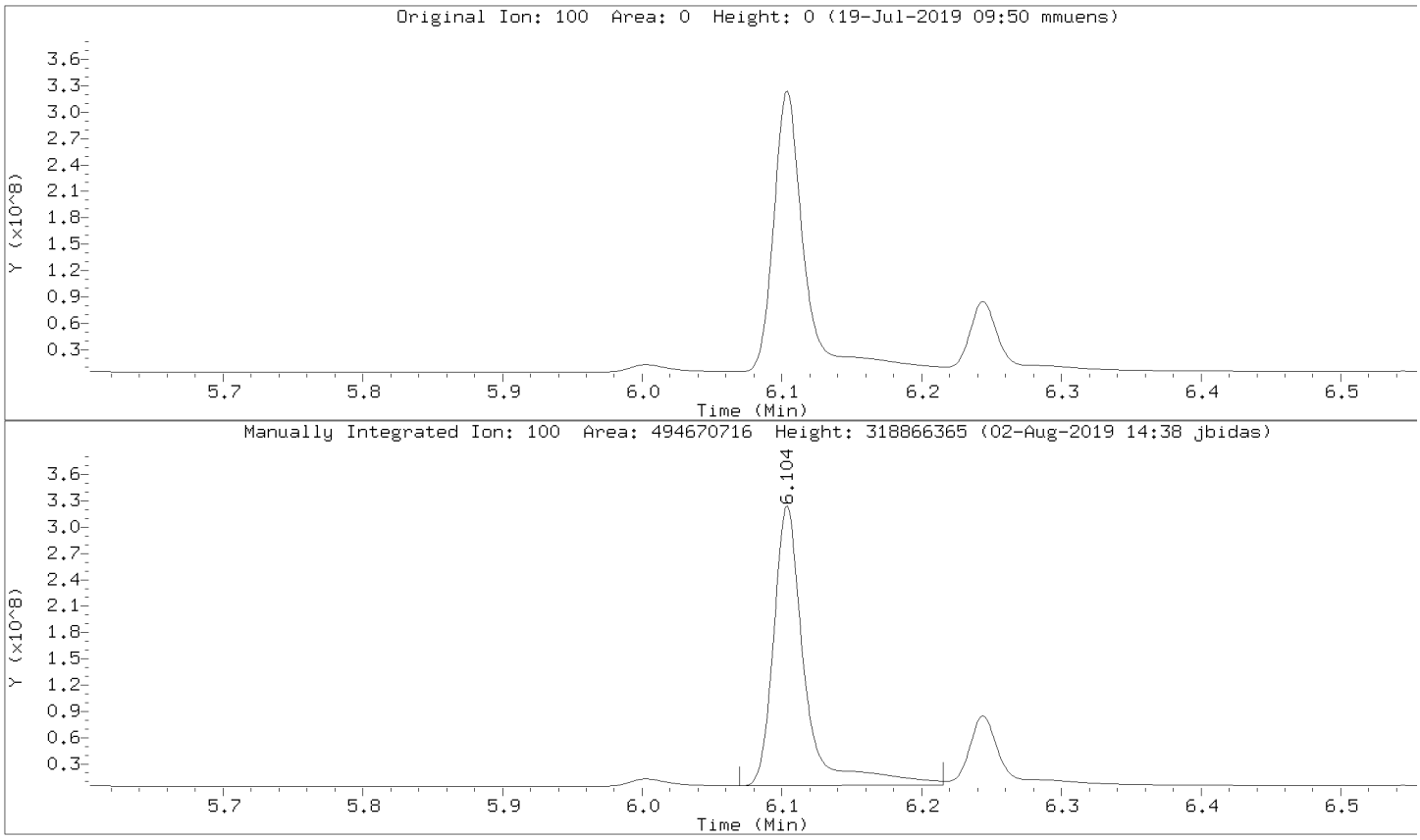
Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316969.d
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV

Compound: Picloram Review Code:
CAS Number:



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316969.d
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV

Compound: 2,4-DCAA (S) Review Code: CO
CAS Number:



Pace Analytical Services, Inc.

SW846 8151A

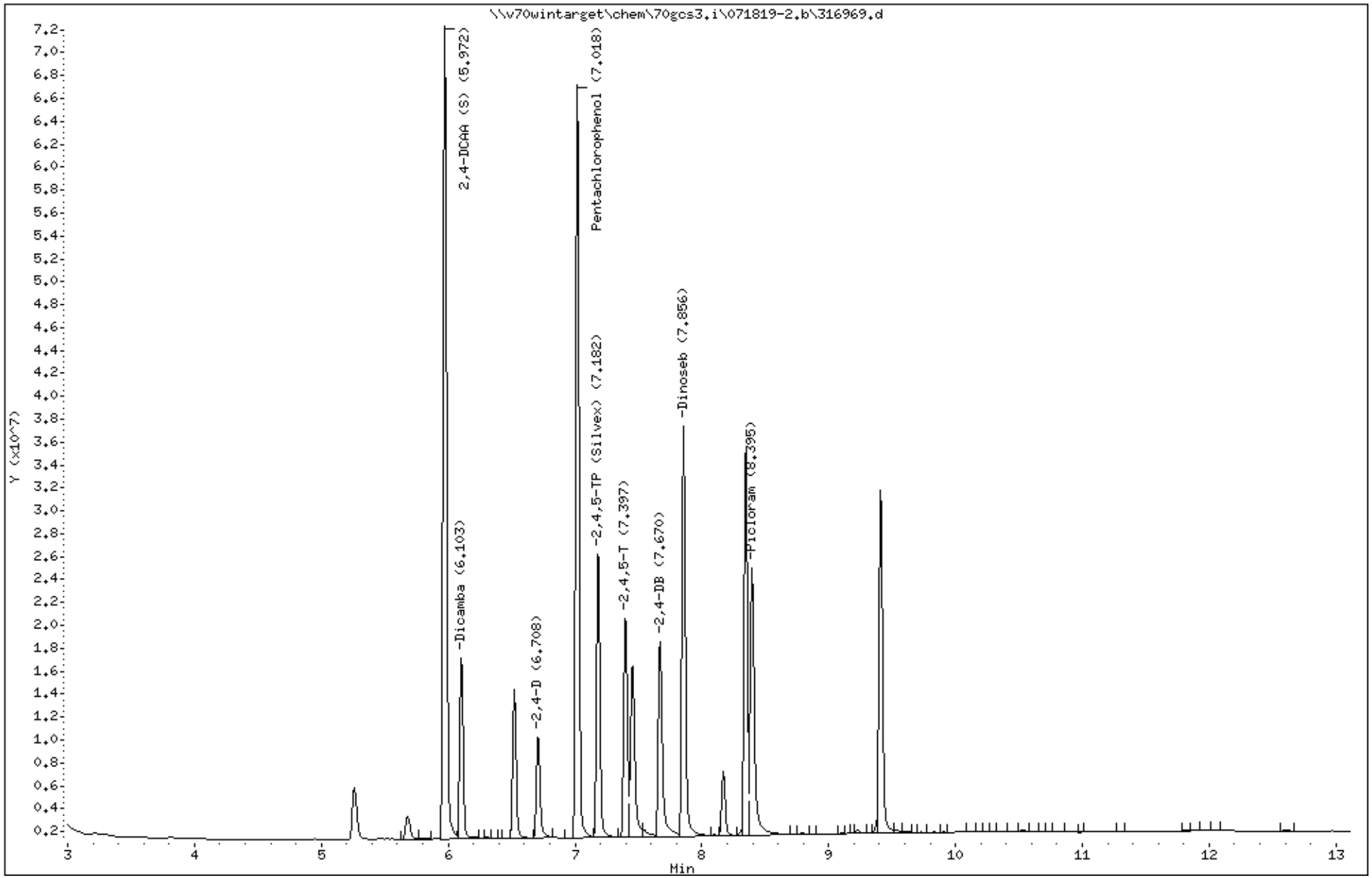
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316969.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 18-JUL-2019 20:00
Operator : MJM Inst ID: 70gcs3.i
Smp Info : icv, 66027:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1	2,4-DCAA (S)	5.972	5.975	-0.003	98657017	1.00000	1.19	
2	Dicamba	6.103	6.104	-0.001	21307291	0.05000	0.0582	
3	2,4-D	6.708	6.709	-0.001	13156725	0.10050	0.119	
4	Pentachlorophenol	7.018	7.017	0.001	84164069	0.05000	0.0611	
5	2,4,5-TP (Silvex)	7.182	7.182	0.000	32468328	0.05000	0.0587	
6	2,4,5-T	7.397	7.399	-0.002	28229893	0.05000	0.0554	
7	2,4-DB	7.669	7.672	-0.003	29504466	0.40150	0.481	
9	Dinoseb	7.855	7.855	0.000	49914460	0.10050	0.116	
8	Picloram	8.394	8.393	0.001	42656720	0.05000	0.0614	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316969.d
Date : 18-JUL-2019 20:00
Client ID: ICV
Instrument: 70gcs3.i
Sample Info: ICV, 66027:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316969.d
Injection Date: 18-JUL-2019 20:00
Instrument: 70gcs3.i
Lab Sample ID: ICV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316985.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-JUL-2019 00:32
Operator : MJM Inst ID: 70gcs3.i
Smp Info : ccv, 68183:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

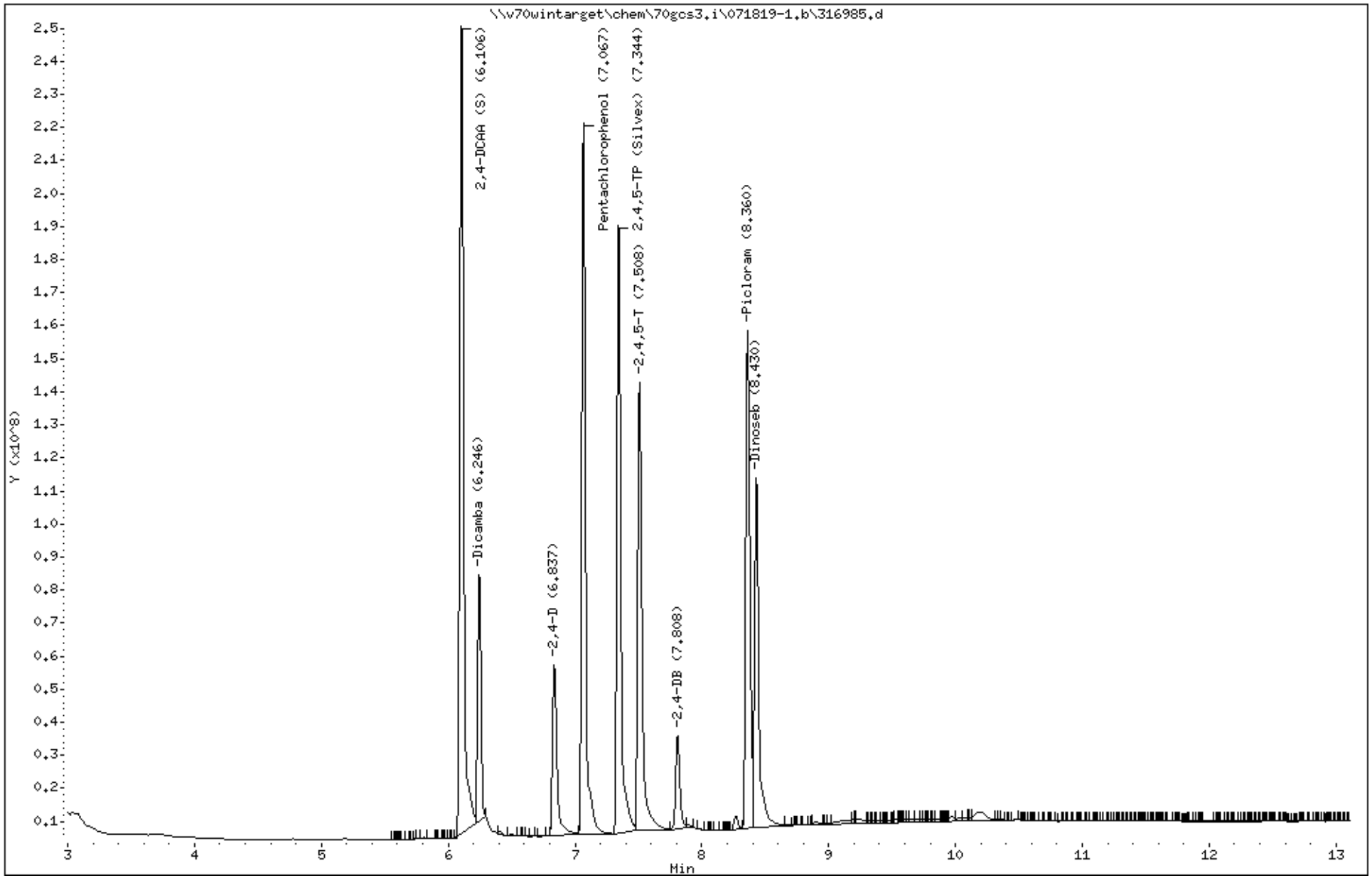
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.105	6.105	0.000	391812339	1.00000	0.950	
2 Dicamba	6.245	6.245	0.000	97927317	0.06000	0.0549	
3 2,4-D	6.836	6.835	0.001	98847640	0.20000	0.196	
4 Pentachlorophenol	7.066	7.066	0.000	325926131	0.04000	0.0421	
5 2,4,5-TP (Silvex)	7.344	7.344	0.000	295509627	0.10000	0.103	
6 2,4,5-T	7.508	7.507	0.001	251072196	0.10000	0.0966	
7 2,4-DB	7.808	7.806	0.002	47172649	0.20000	0.166	
8 Picloram	8.359	8.358	0.001	267146938	0.10000	0.0891	
9 Dinoseb	8.429	8.429	0.000	187856423	0.08000	0.0824	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316985.d
Date : 19-JUL-2019 00:32
Client ID: CCV
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316985.d
Injection Date: 19-JUL-2019 00:32
Instrument: 70gcs3.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

SW846 8151A

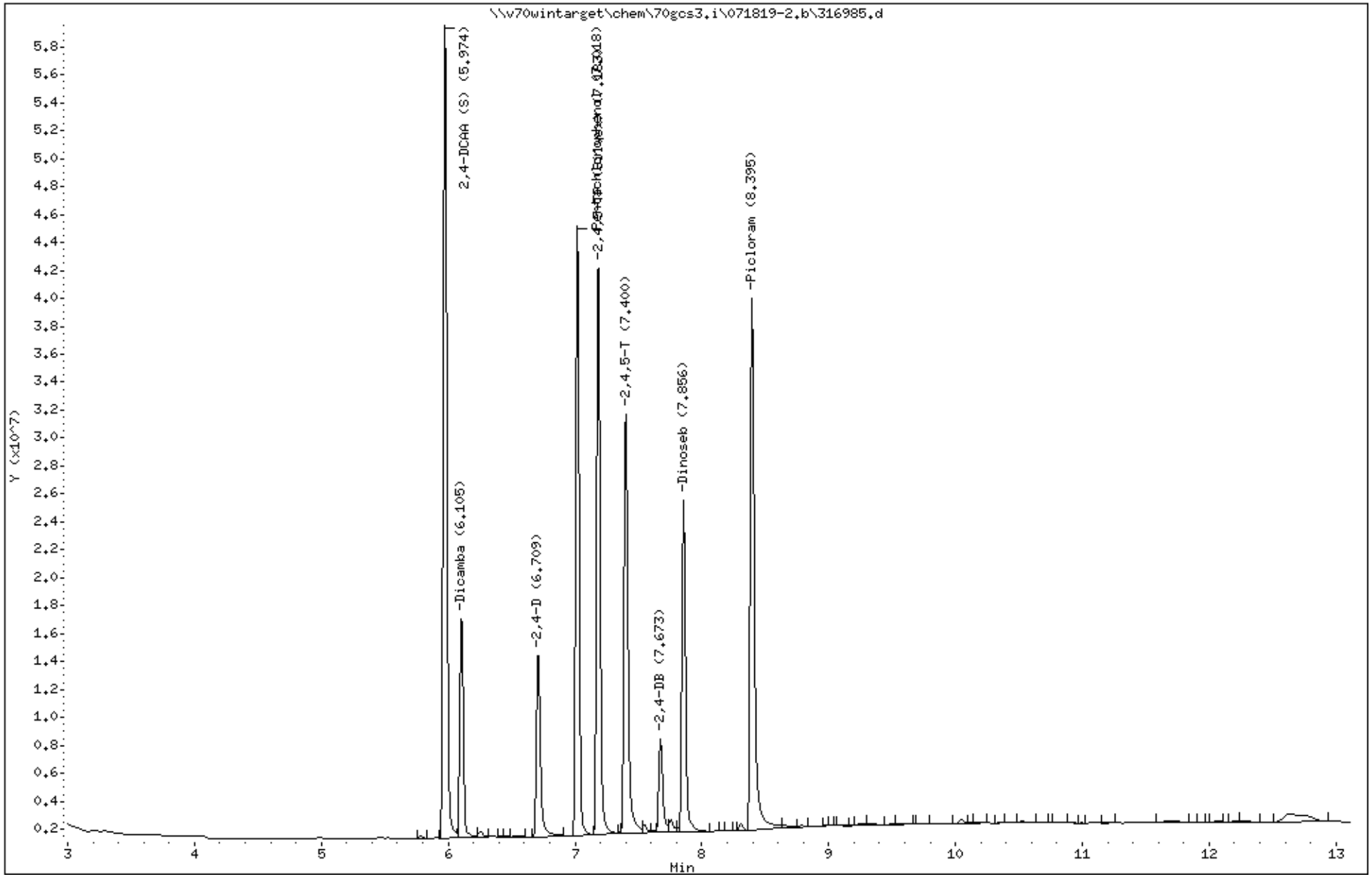
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316985.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-JUL-2019 00:32
Operator : MJM Inst ID: 70gcs3.i
Smp Info : ccv, 68183:1
Misc Info : 7392,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 13:42 jbidas Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of Sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

						AMOUNTS		
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	REVIEW CODE
$	1 2,4-DCAA (S)	5.974	5.975	-0.001	83134516	1.00000	0.999	
	2 Dicamba	6.104	6.104	0.000	22371021	0.06000	0.0611	
	3 2,4-D	6.709	6.709	0.000	21392349	0.20000	0.194	
	4 Pentachlorophenol	7.018	7.017	0.001	56689051	0.04000	0.0412	
	5 2,4,5-TP (Silvex)	7.183	7.182	0.001	56189700	0.10000	0.102	
	6 2,4,5-T	7.399	7.399	0.000	50181309	0.10000	0.0985	
	7 2,4-DB	7.673	7.672	0.001	11208067	0.20000	0.183	
	9 Dinoseb	7.855	7.855	0.000	34136198	0.08000	0.0791	
	8 Picloram	8.394	8.393	0.001	66883235	0.10000	0.0963	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316985.d
Date : 19-JUL-2019 00:32
Client ID: CCV
Instrument: 70gcs3.i
Sample Info: CCV, 68183:1
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316985.d
Injection Date: 19-JUL-2019 00:32
Instrument: 70gcs3.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received:
Matrix: Water
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581836
Date Analyzed: 07/18/2019 20:51
Lab File ID: 071819-1.B\316972.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	0.0053	

08/01/2019 3:29

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316972.d
Lab Smp Id: 581836 Client Smp ID: MBLCS
Inj Date : 18-JUL-2019 20:51
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581836,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 12:41 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

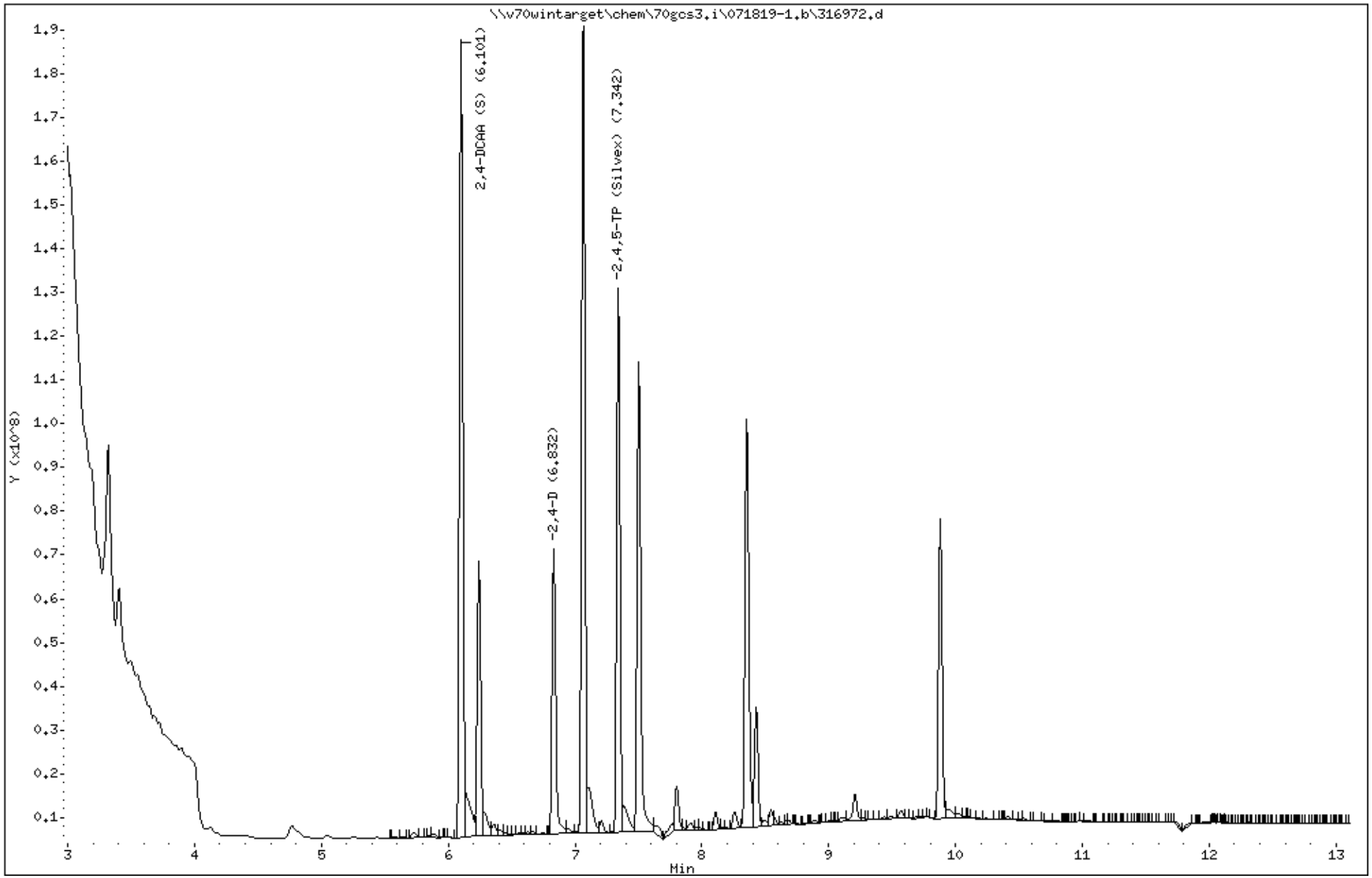
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
Compounds		RT	EXP RT	DLT RT	RESPONSE			
$	1 2,4-DCAA (S)	6.100	6.105	-0.005	238136502	0.57736	57.7	
	3 2,4-D	6.832	6.835	-0.003	95064211	0.18835	18.8	
	5 2,4,5-TP (Silvex)	7.341	7.344	-0.003	153093405	0.05318	5.32	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316972.d
Date : 18-JUL-2019 20:51
Client ID: MBLCS
Sample Info: 581836,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316972.d
Injection Date: 18-JUL-2019 20:51
Instrument: 70gcs3.i
Lab Sample ID: 581836
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received:
Matrix: Water
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581836
Date Analyzed: 07/18/2019 20:51
Lab File ID: 071819-2.B\316972.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	0.017	

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316972.d
Lab Smp Id: 581836 Client Smp ID: MBLCS
Inj Date : 18-JUL-2019 20:51
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581836,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 12:43 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

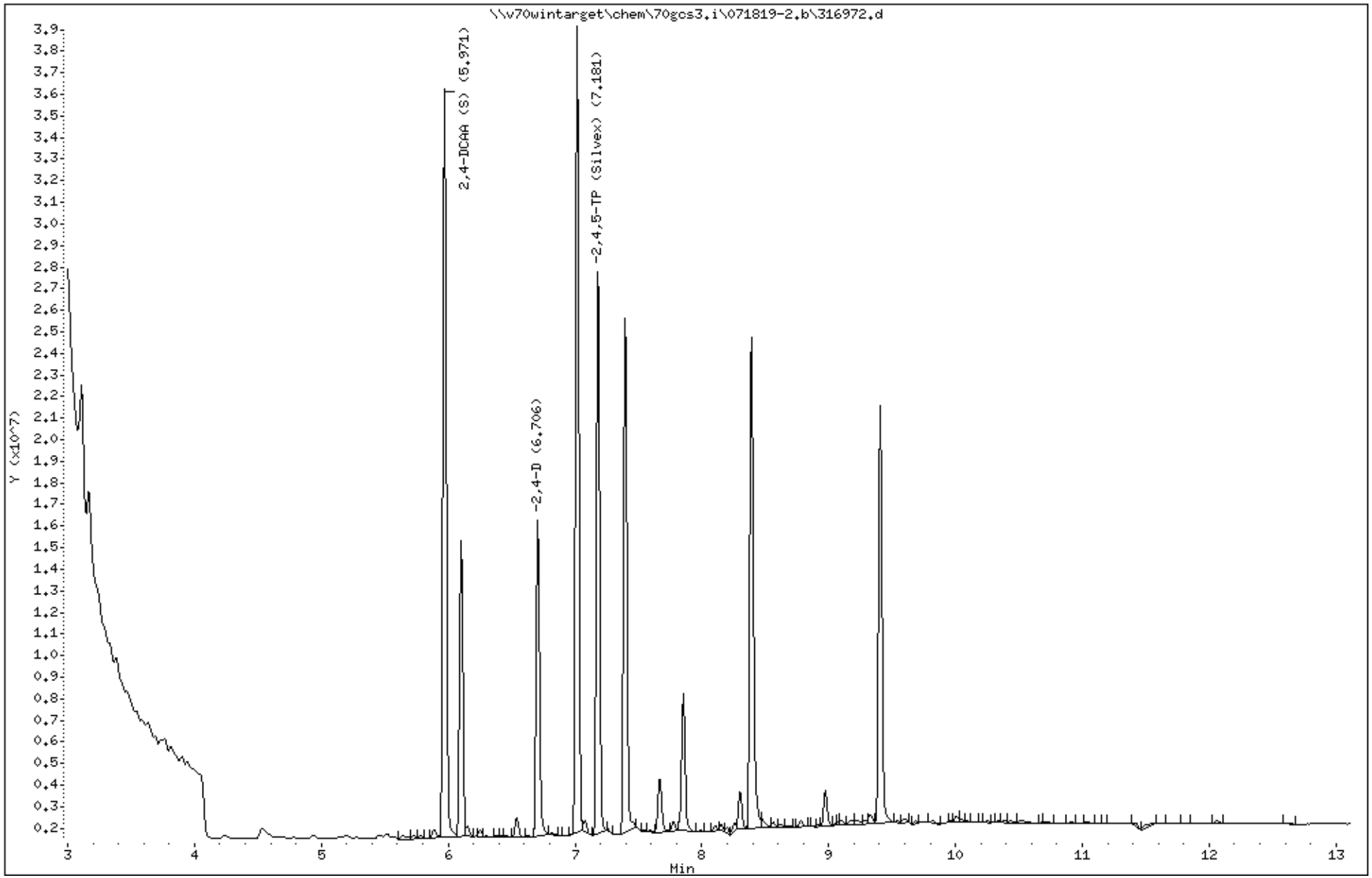
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

						CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
Compounds		RT	EXP RT	DLT RT	RESPONSE			
$	1 2,4-DCAA (S)	5.970	5.975	-0.005	45434491	0.54622	54.6	
	3 2,4-D	6.705	6.709	-0.004	19101601	0.17280	17.3	
	5 2,4,5-TP (Silvex)	7.180	7.182	-0.002	31307198	0.05659	5.66	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316972.d
Date : 18-JUL-2019 20:51
Client ID: MBLCS
Sample Info: 581836,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316972.d
Injection Date: 18-JUL-2019 20:51
Instrument: 70gcs3.i
Lab Sample ID: 581836
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581837
Date Analyzed: 07/18/2019 21:25
Lab File ID: 071819-1.B\316974.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	0.0065	

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316974.d
Lab Smp Id: 581837 Client Smp ID: AOC32 Lower-1MS
Inj Date : 18-JUL-2019 21:25
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581837,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 12:41 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

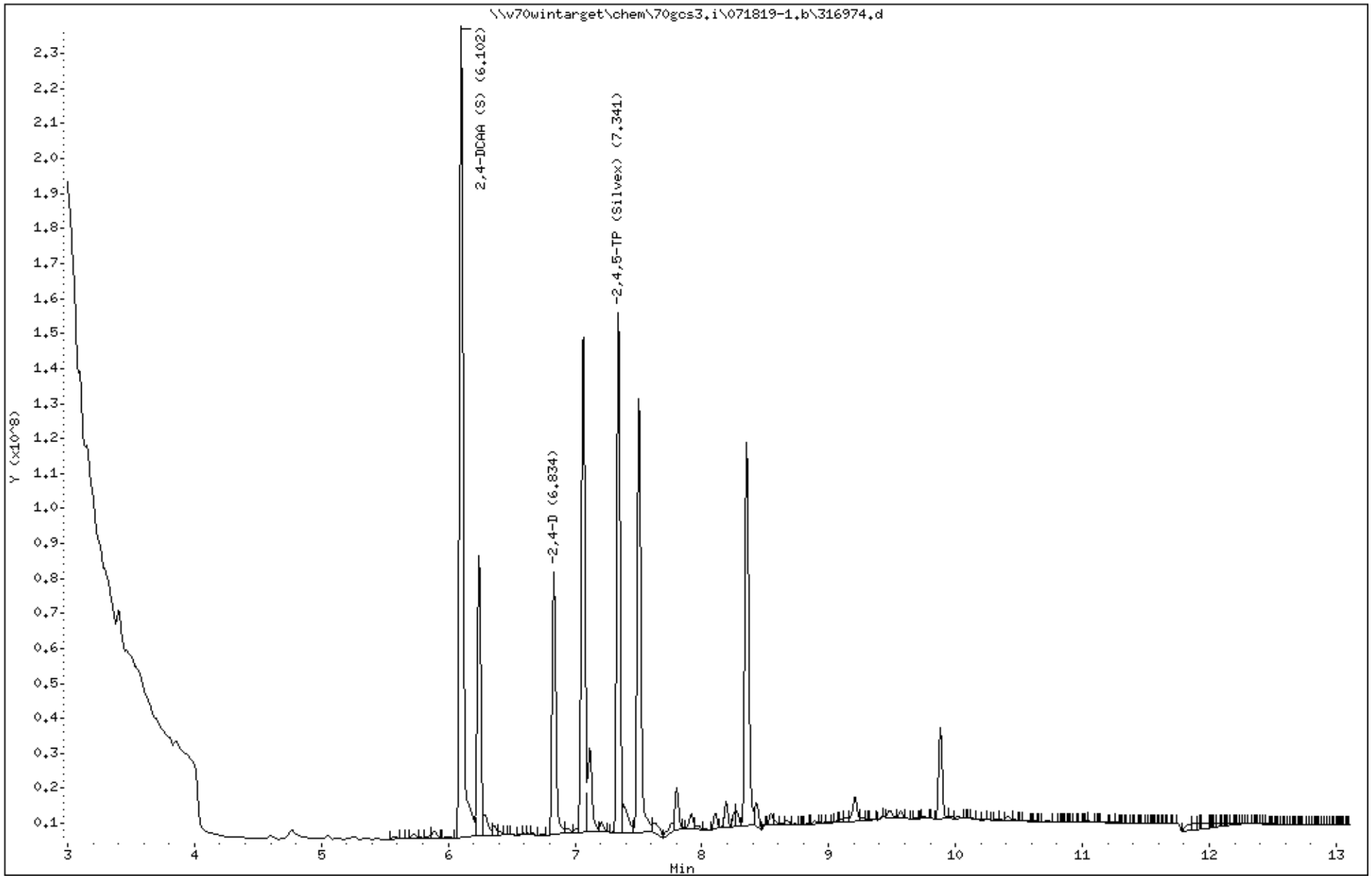
Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.102	6.105	-0.003	348943354	0.84601	98.1	
3 2,4-D	6.833	6.835	-0.002	111004690	0.21993	25.5	
5 2,4,5-TP (Silvex)	7.341	7.344	-0.003	186343026	0.06472	7.51	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316974.d
Date : 18-JUL-2019 21:25
Client ID: A0C32 Lower-1MS
Sample Info: 581837,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316974.d
Injection Date: 18-JUL-2019 21:25
Instrument: 70gcs3.i
Lab Sample ID: 581837
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 10:50
Matrix: Solid
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581837
Date Analyzed: 07/18/2019 21:25
Lab File ID: 071819-2.B\316974.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	0.021	

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

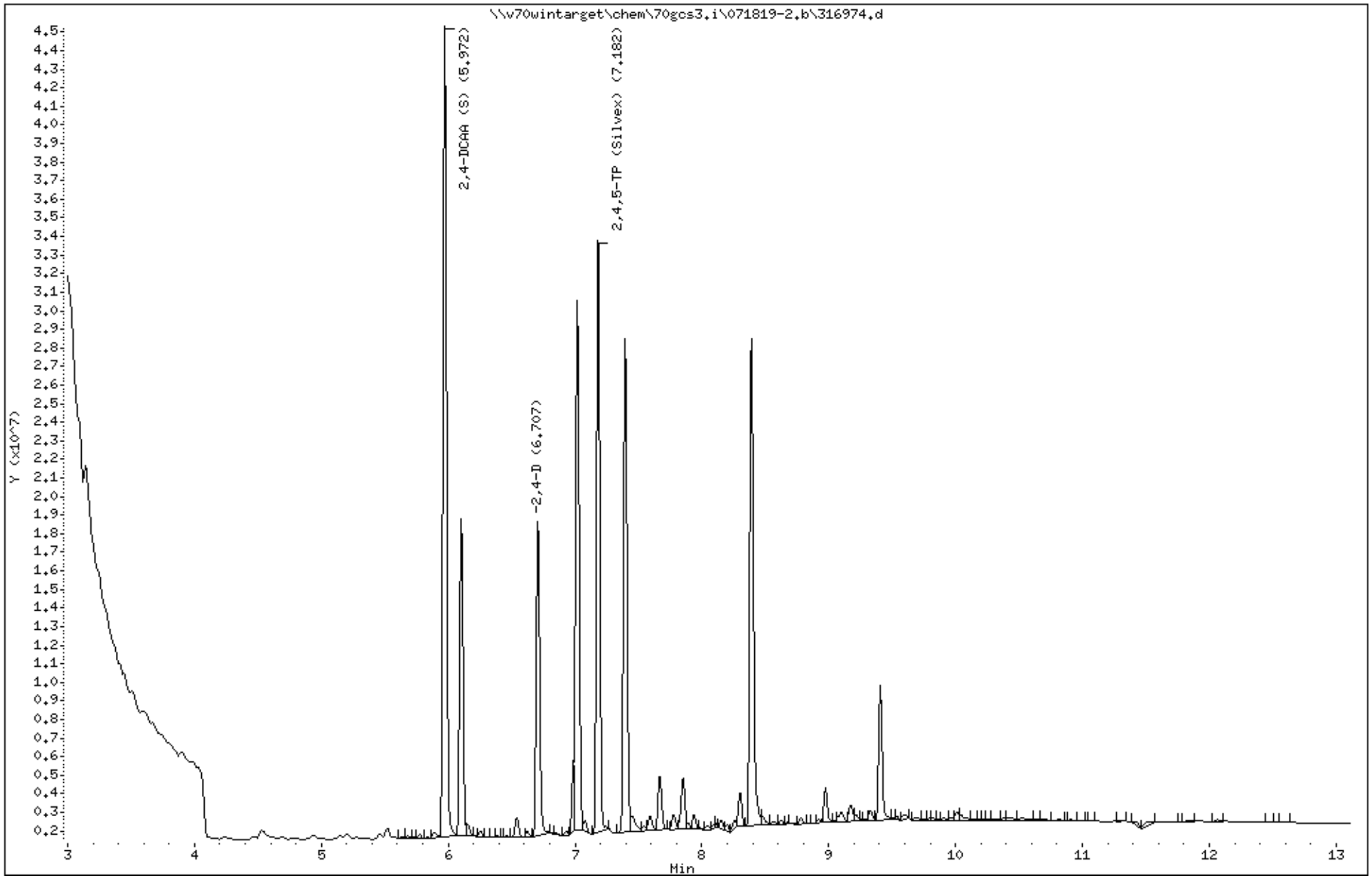
Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316974.d
Lab Smp Id: 581837 Client Smp ID: AOC32 Lower-1MS
Inj Date : 18-JUL-2019 21:25
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581837,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 12:43 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weight of Sample extracted (g)
M	13.770	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW CODE
$	1 2,4-DCAA (S)	5.972	5.975	-0.003	58754549	0.70636	81.9	
	3 2,4-D	6.707	6.709	-0.002	22727294	0.20560	23.8	
	5 2,4,5-TP (Silvex)	7.182	7.182	0.000	38217046	0.06908	8.01	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316974.d
Date : 18-JUL-2019 21:25
Client ID: A0C32 Lower-1MS
Instrument: 70gcs3.i
Sample Info: 581837,
Volume Injected (uL): 1.0
Operator: MJM
Column phase: RTX-CLPESTICIDES2
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316974.d
Injection Date: 18-JUL-2019 21:25
Instrument: 70gcs3.i
Lab Sample ID: 581837
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 21:08
Matrix: Water
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581721
Date Analyzed: 07/18/2019 20:34
Lab File ID: 071819-1.B\316971.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
93-72-1	2,4,5-TP (Silvex)	ND	U

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-1.b\316971.d
Lab Smp Id: 581721 Client Smp ID: LB for HBN 122128 [
Inj Date : 18-JUL-2019 20:34
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581721,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-1.b\8151A0718(7284).m
Meth Date : 19-Jul-2019 12:41 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

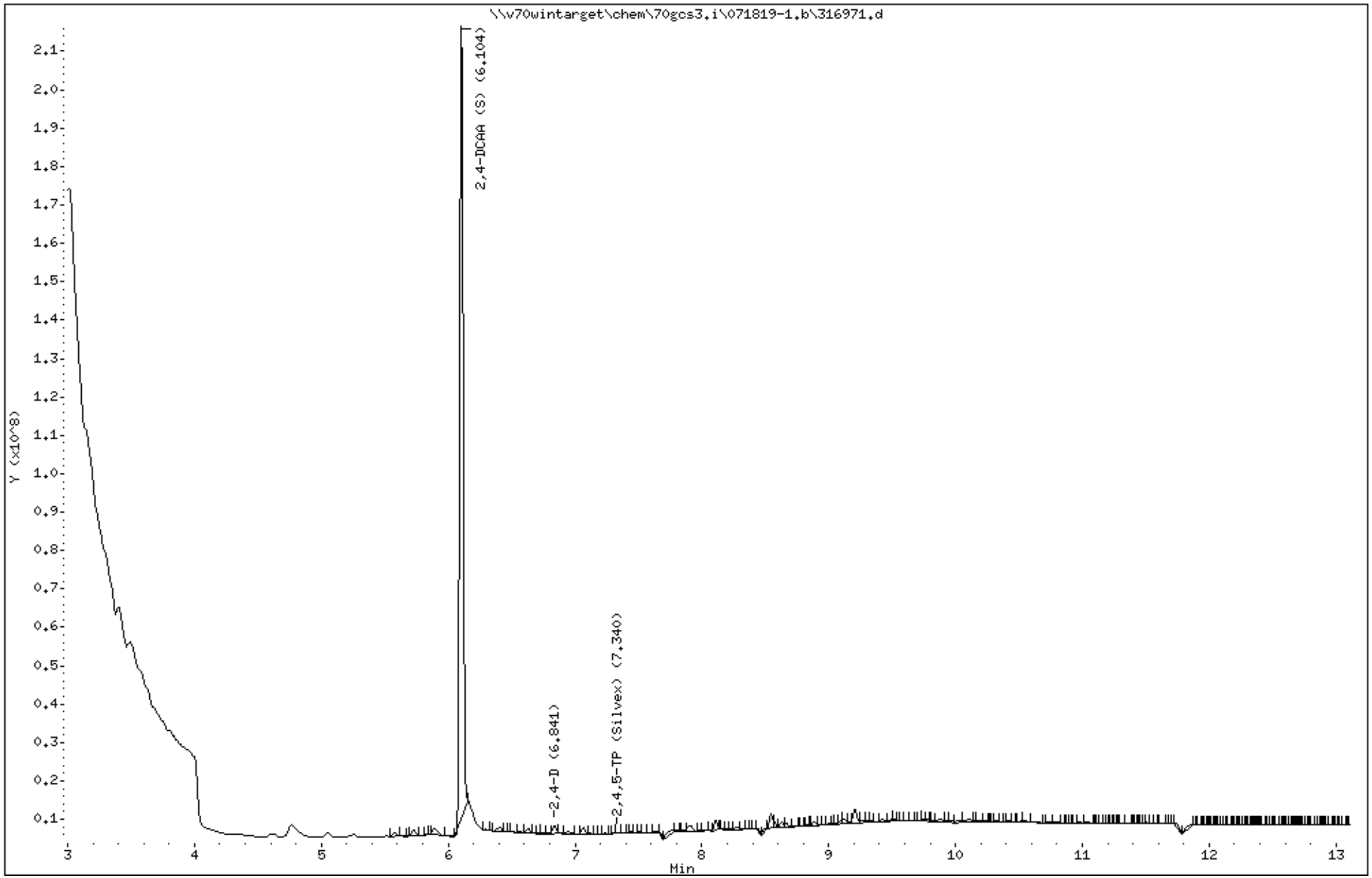
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$ 1 2,4-DCAA (S)	6.103	6.105	-0.002	272728641	0.66122	66.1	
3 2,4-D	6.840	6.835	0.005	2745724	0.00544	0.544	
5 2,4,5-TP (Silvex)	7.339	7.344	-0.005	205128	7e-005	0.00712	

Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b\316971.d
Date : 18-JUL-2019 20:34
Client ID: LB for HBN 122128 [
Sample Info: 581721,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-1.b/316971.d
Injection Date: 18-JUL-2019 20:34
Instrument: 70gcs3.i
Lab Sample ID: 581721
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LB

HERBICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - New York
Contract: 30313260
Date Received: 07/16/2019 21:08
Matrix: Water
SDG No.: 7097609
Date Extracted: 07/17/2019 10:00
Lab Sample ID: 581721
Date Analyzed: 07/18/2019 20:34
Lab File ID: 071819-2.B\316971.D
Initial wt/vol: 100 mL
Final wt/vol: 10 mL
Dilution: 1
Instrument: 70GCS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: mg/L	Q
94-75-7	2,4-D	ND	U

08/01/2019 3:28

Pace Analytical Service Inc.

SW846 8151A

Data file : \\v70wintarget\chem\70gcs3.i\071819-2.b\316971.d
Lab Smp Id: 581721 Client Smp ID: LB for HBN 122128 [
Inj Date : 18-JUL-2019 20:34
Operator : MJM Inst ID: 70gcs3.i
Smp Info : 581721,
Misc Info : 7282,
Comment : SW846 8151A
Method : \\v70wintarget\chem\70gcs3.i\071819-2.b\8151B0718(7284).m
Meth Date : 19-Jul-2019 12:43 mmuens Quant Type: ESTD
Cal Date : 18-JUL-2019 19:43 Cal File: 316968.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP8151ST.sub
Target Version: RC10A
Processing Host: 70SVOA3WS10B6

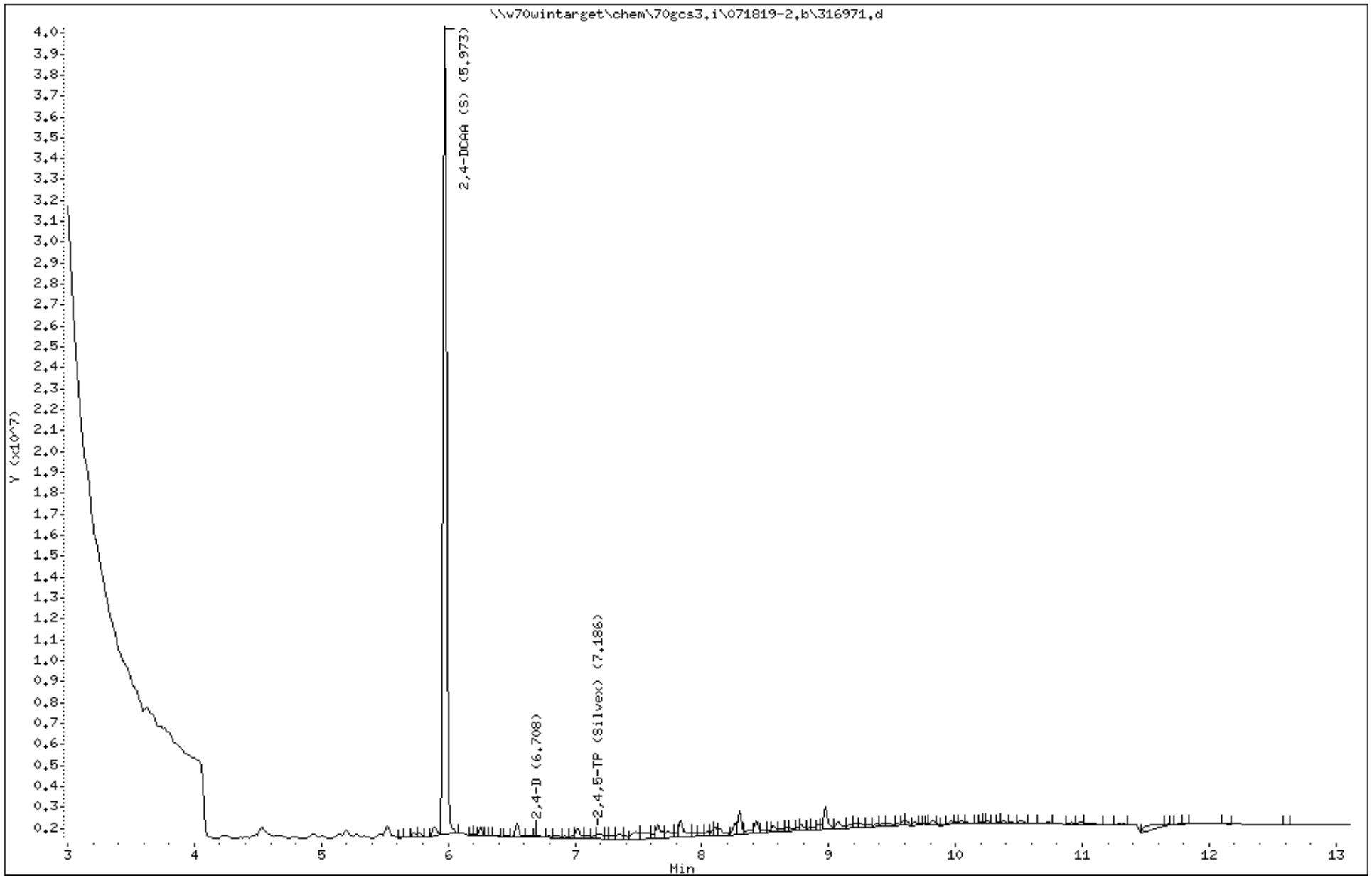
Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)	REVIEW CODE
$	1 2,4-DCAA (S)	5.973	5.975	-0.002	53570798	0.64404	64.4	
	3 2,4-D	6.708	6.709	-0.001	200951	0.00182	0.182	
	5 2,4,5-TP (Silvex)	7.186	7.182	0.004	790240	0.00143	0.143	

Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b\316971.d
Date : 18-JUL-2019 20:34
Client ID: LB for HBN 122128 [
Sample Info: 581721,
Volume Injected (uL): 1.0
Column phase: RTX-CLPESTICIDES2

Instrument: 70gcs3.i
Operator: MJM
Column diameter: 0.32



Data File: \\v70wintarget\chem\70gcs3.i\071819-2.b/316971.d
Injection Date: 18-JUL-2019 20:34
Instrument: 70gcs3.i
Lab Sample ID: 581721
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

10A - FORM X HERB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - New York Contract: 30313260
Lab Sample ID: 581836 SDG No.: 7097609 Date(s) Analyzed: 07/18/2019
Instrument ID (1): 70GCS3 Instrument ID (2): 70GCS3 Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/L	RPD
2,4-D	1	6.83237	0.019	8.6
	2	6.7057	0.017	
2,4,5-TP (Silvex)	1	7.34153	0.0053	6.2
	2	7.1807	0.0057	

SAMPLE NO.

MS

10A - FORM X HERB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - New York Contract: 30313260
Lab Sample ID: 581837 SDG No.: 7097609 Date(s) Analyzed: 07/18/2019
Instrument ID (1): 70GCS3 Instrument ID (2): 70GCS3 Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: mg/L	RPD
2,4-D	1	6.83388	0.022	6.7
	2	6.70722	0.021	
2,4,5-TP (Silvex)	1	7.34138	0.0065	6.5
	2	7.18222	0.0069	

Prep Log Report

Batch Information: OEXT-8151ST_P-7988

Template Version: F-LI-O-017-Rev.01 (08Aug2017)

Prep Method	EPA 8151A	Analysis Method	EPA 8151A	Extracted By	RKS	Extracted Date/Time	07/17/2019 10:00:05:523
Spiked By	RKS	Spiked By Date/Time	07/17/2019 10:00:15:187	Witnessed By		Shaker ID	TUMBLER002
Shaker Start Date/Time	07/17/2019 17:00:23:971	Shaker End Date/Time	07/17/2019 18:00:29:906	Turbovap ID	TVAP002	Methylene Chloride	69034
Methanol	72350	Sodium Sulfate	71959	Sodium Chloride	72312	6 N NaOH	70946
Ethyl Ether	72009	H2SO4 Solution	70524	Hexane	72522	Iso-Octane	33925
Silica Gel	63721	KOH Solution	71365	Diazald Solution	69764	Reviewed By	
Reviewed By Date		Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Volume (mL)	Adjusted pH	Adjusted pH	Final Volume (mL)	Sulfur Cleaned	Sample Notes	8151-SPK (uL)	8151-SS (uL)
8151 ST_P	LB	**581721**	100	12	2	10	No			69830 (100)
8151 ST_P	LCS	**581836**	100	12	2	10	No		69831 (100)	69830 (100)
8151 ST_P	PS	**30313260001**	100	12	2	10	No			69830 (100)
8151 ST_P	MS	**581837**	100	12	2	10	No		69831 (100)	69830 (100)
8151 ST_P	PS	**30313260002**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30313438001**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30313438003**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30313438005**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30313438007**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30312796001**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30312796002**	100	12	2	10	No			69830 (100)
8151 ST_P	PS	**30313243001**	100	12	2	10	No			69830 (100)

Standard Notes:

69830: OEXT 8151-SS **69831: OEXT 8151-SPK**

Prep Log Report

Batch Information: TCLP-2170

Template Version: F-LI-O-019-Rev.02 (16Jan2019)

Prep Method	EPA 1311	Extracted By	HMB	Witnessed By		Instrument	
Hot Plate ID		Thermometer ID		pH Meter ID		Probe ID	
Room Thermo ID		Room Temp Correction Factor (C)		Room Temp Min | Corr | Init		Room Temp Max | Corr | Init	
Acceptance Range:	Room Temp 21.0-25.0 C	Tumbler Rotational Rate (rev/min)		Leachate Start Date/Time		Leachate End Date/Time	
Total Time Tumbled (hours)		Batch Notes		Reviewed By		Reviewed By Date	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Analytical Parameters	Tumbler ID	Initial pH	1 N HCL (mL)	pH After Adding HCl	Wet Sample Weight (g)	Dry Sample Weight (g)	Filtrate Weight (g)	% Solids	Dry Weight Leached (g)	Fluid pH
TCLP	LB	**581721**	Y				66783 (3.5)							
TCLP	PS	**30312796001**	Y				66783 (3.5)							
TCLP	PS	**30312796002**	Y				66783 (3.5)							
TCLP	PS	**30313260001**	Y				66783 (3.5)							
TCLP	PS	**30313260002**	Y				66783 (3.5)							
TCLP	PS	**30313438001**	Y				66783 (3.5)							
TCLP	PS	**30313438003**	Y				66783 (3.5)							
TCLP	PS	**30313438005**	Y				66783 (3.5)							
TCLP	PS	**30313438007**	Y				66783 (3.5)							
TCLP	PS	**30313243001**	Y				66783 (3.5)							

QC Rule	Sample Type	Lab Sample ID	TCLP Extraction Fluid 1 (mL)	TCLP Extraction Fluid 2 (mL)	Extracted pH	Acid Washed TCLP filters (Std. Units)	TCLP filters ()	Sample Notes
TCLP	LB	**581721**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30312796001**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30312796002**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313260001**	72040 ()	70653 ()		57601 ()	31215 ()	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP Extraction Fluid 1 (mL)	TCLP Extraction Fluid 2 (mL)	Extracted pH	Acid Washed TCLP filters (Std. Units)	TCLP filters ()	Sample Notes
TCLP	PS	**30313260002**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313438001**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313438003**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313438005**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313438007**	72040 ()	70653 ()		57601 ()	31215 ()	1*
TCLP	PS	**30313243001**	72040 ()	70653 ()		57601 ()	31215 ()	1*

Sample Notes:

1*: Leachate from PA lab.

INSTRUMENT RUN LOG
Pace Analytical Service Inc.

Instrument: 70gcs3.i
Column RTX-CLPESTICIDES 30m X 0.32mm Helium Method: SW846 8151A
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot:
Lot:
Tune std: _____ Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	Method/Sublist	Date	Time	Oper	Comments
1/316964.d	CAL5, 72575:1	S/7284	CALIB_5	1	8151A0718(7284	7/18/19	18:35	MJM	
1/316965.d	CAL4, 66434:1	S/7284	CALIB_4	1	8151A0718(7284	7/18/19	18:52	MJM	
1/316966.d	CAL3, 68183:1	S/7284	CALIB_3	1	8151A0718(7284	7/18/19	19:08	MJM	
1/316967.d	CAL2, 66433:1	S/7284	CALIB_2	1	8151A0718(7284	7/18/19	19:26	MJM	
1/316968.d	CAL1, 66431:1	S/7284	CALIB_1	1	8151A0718(7284	7/18/19	19:43	MJM	Dicamba + 345 T high ✓ / PCP + Picloram high ✓
1/316969.d	ICV, 66027:1	S/7284	CCALIB_6	1	8151A0718(7284	7/18/19	20:00	MJM	
1/316970.d	PBLK, 72011:1	S/7284	SAMPLE	1	8151A0718(7284	7/18/19	20:17	MJM	137 / 130
1/316971.d	581721,	L/7282	SAMPLE	1	8151A0718(7284	7/18/19	20:34	MJM	66 / 64
1/316972.d	581836,	L/7282	LCS	1	8151A0718(7284	7/18/19	20:51	MJM	57 ✓ / 54 ✓
1/316973.d	30313260001,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	21:08	MJM	64 / 54
1/316974.d	581837,	S/7282	MS	1	8151A0718(7284	7/18/19	21:25	MJM	84 ✓ / 70 ✓
1/316975.d	30313260002,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	21:42	MJM	58 / 58
1/316976.d	30313438001,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	21:59	MJM	72 / 62
1/316977.d	30313438003,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	22:16	MJM	63 / 53
1/316978.d	30313438005,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	22:33	MJM	52 / 53
1/316979.d	30313438007,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	22:50	MJM	76 / 66
1/316980.d	30312796001,	L/7282	SAMPLE	1	8151A0718(7284	7/18/19	23:07	MJM	72 / 70
1/316981.d	30312796002,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	23:24	MJM	69 / 69
1/316982.d	30313243001,	S/7282	SAMPLE	1	8151A0718(7284	7/18/19	23:41	MJM	66 / 58
1/316983.d	METHYLCHECK	S/	METHSPIKE	1	8151A0718(7284	7/18/19	23:58	MJM	109 ✓ / ✓ 106
1/316984.d	PBLK, 72011:1	S/7284	SAMPLE	1	8151A0718(7284	7/19/19	00:15	MJM	149 / 144
1/316985.d	CCV, 68183:1	S/7284	CCALIB_3	1	8151A0718(7284	7/19/19	00:32	MJM	94 ✓ / ✓ 99
1/316986.d	581834,	L/7281	BLANK	1	8151A0718(7284	7/19/19	00:49	MJM	79 / 75
1/316987.d	581835,	L/7281	LCS	1	8151A0718(7284	7/19/19	01:06	MJM	86 ✓ / ✓ 81
1/316988.d	7095877002,	L/7281	SAMPLE	1	8151A0718(7284	7/19/19	01:23	MJM	78 / 75
1/316989.d	30313572001,	L/7281	SAMPLE	1	8151A0718(7284	7/19/19	01:40	MJM	81 / 78
1/316990.d	METHYLCHECK	S/	SAMPLE	1	8151A0718(7284	7/19/19	01:57	MJM	96 ✓ / ✓ 113
1/316991.d	PBLK, 72011:1	S/7284	SAMPLE	1	8151A0718(7284	7/19/19	02:14	MJM	141 / 138
1/316992.d	CCV, 68183:1	S/7284	CCALIB_3	1	8151A0718(7284	7/19/19	02:31	MJM	105 ✓ / ✓ 104 Dicamba high

progress

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\v70wintarget\chem\70gcs3.i\071819-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:32 07/19/2019

Reviewed By/Date: JKB 7/19/19 Page: 1 of 1

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30313514

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 24, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on July 12, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revision 1 - This report replaces the July 19, 2019 report. This project was revised on July 24, 2019 to add pH analysis. (Greensburg, PA)

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Samantha Bayura for
Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30313514001	**Sewer-1**	Solid	07/11/19 13:05	07/12/19 09:30
30313514002	**Sewer-2**	Solid	07/11/19 13:15	07/12/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30313514001	**Sewer-1**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	KAS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	DSC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	CMR	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA
30313514002	**Sewer-2**	EPA 8082A	CWB	10	PASI-PA
		EPA 6010C	KAS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	DSC	17	PASI-PA
		EPA 8270D	EAC	18	PASI-PA
		EPA 8260C	JEW	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	CMR	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.
- Sewer-2 (Lab ID: 30313514002)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 351580

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- Sewer-1 (Lab ID: 30313514001)
  - Decachlorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 352095

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30313326001,30313514001

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1710591)
  - Mercury

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 351578

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30313516001

R1: RPD value was outside control limits.

- MSD (Lab ID: 1708426)
  - Acenaphthylene
  - Naphthalene

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3535A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 352244

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- LB (Lab ID: 1710027)
  - 2-Butanone (MEK)
- LCS (Lab ID: 1711155)
  - 2-Butanone (MEK)
- MS (Lab ID: 1711153)
  - 2-Butanone (MEK)
- MSD (Lab ID: 1711154)
  - 2-Butanone (MEK)
- Sewer-1 (Lab ID: 30313514001)
  - 2-Butanone (MEK)
- Sewer-2 (Lab ID: 30313514002)
  - 2-Butanone (MEK)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 352244

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 1711155)
  - 2-Butanone (MEK)

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- Sewer-1 (Lab ID: 30313514001)
- Sewer-2 (Lab ID: 30313514002)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Method: **SM 4500S2F-2011**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: July 24, 2019

General Information:
2 samples were analyzed for SM 4500S2F-2011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-1 **Lab ID: 30313514001** Collected: 07/11/19 13:05 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	357	220	20	07/12/19 19:04	07/17/19 17:57	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	357	317	20	07/12/19 19:04	07/17/19 17:57	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	357	325	20	07/12/19 19:04	07/17/19 17:57	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	357	261	20	07/12/19 19:04	07/17/19 17:57	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	357	205	20	07/12/19 19:04	07/17/19 17:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**4300**	ug/kg	357	190	20	07/12/19 19:04	07/17/19 17:57	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	357	203	20	07/12/19 19:04	07/17/19 17:57	11096-82-5	
PCB, Total	**4300**	ug/kg	3220	2020	20	07/12/19 19:04	07/17/19 17:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	87	%.	34-114		20	07/12/19 19:04	07/17/19 17:57	877-09-8	
Decachlorobiphenyl (S)	197	%.	38-139		20	07/12/19 19:04	07/17/19 17:57	2051-24-3	S4
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.92; Final pH: 6.57								
Arsenic	ND	mg/L	0.025	0.010	1	07/16/19 14:42	07/18/19 10:52	7440-38-2	
Barium	**0.92**	mg/L	0.050	0.0034	1	07/16/19 14:42	07/18/19 10:52	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	07/16/19 14:42	07/18/19 10:52	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	07/16/19 14:42	07/18/19 10:52	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	07/16/19 14:42	07/18/19 11:06	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	07/16/19 14:42	07/18/19 10:52	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	07/16/19 14:42	07/18/19 10:52	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.92; Final pH: 6.57								
Mercury	ND	ug/L	1.0	0.030	1	07/16/19 16:24	07/17/19 04:52	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	ND	ug/kg	72.8	5.2	10	07/12/19 18:34	07/15/19 13:44	208-96-8	
Anthracene	**96.2**	ug/kg	72.8	6.6	10	07/12/19 18:34	07/15/19 13:44	120-12-7	
Benzo(a)anthracene	**330**	ug/kg	72.8	8.5	10	07/12/19 18:34	07/15/19 13:44	56-55-3	
Benzo(a)pyrene	**271**	ug/kg	72.8	4.5	10	07/12/19 18:34	07/15/19 13:44	50-32-8	
Benzo(b)fluoranthene	**384**	ug/kg	72.8	8.7	10	07/12/19 18:34	07/15/19 13:44	205-99-2	
Benzo(g,h,i)perylene	**134**	ug/kg	72.8	11.0	10	07/12/19 18:34	07/15/19 13:44	191-24-2	
Benzo(k)fluoranthene	**116**	ug/kg	72.8	12.2	10	07/12/19 18:34	07/15/19 13:44	207-08-9	
Chrysene	**456**	ug/kg	72.8	3.8	10	07/12/19 18:34	07/15/19 13:44	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	72.8	16.2	10	07/12/19 18:34	07/15/19 13:44	53-70-3	
Fluoranthene	**639**	ug/kg	72.8	5.5	10	07/12/19 18:34	07/15/19 13:44	206-44-0	
Fluorene	ND	ug/kg	72.8	6.7	10	07/12/19 18:34	07/15/19 13:44	86-73-7	
Indeno(1,2,3-cd)pyrene	**87.4**	ug/kg	72.8	13.8	10	07/12/19 18:34	07/15/19 13:44	193-39-5	
Naphthalene	**141**	ug/kg	72.8	14.1	10	07/12/19 18:34	07/15/19 13:44	91-20-3	
Phenanthrene	**929**	ug/kg	72.8	6.4	10	07/12/19 18:34	07/15/19 13:44	85-01-8	
Pyrene	**1250**	ug/kg	72.8	8.2	10	07/12/19 18:34	07/15/19 13:44	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	68	%.	43-97		10	07/12/19 18:34	07/15/19 13:44	321-60-8	
Terphenyl-d14 (S)	81	%.	56-106		10	07/12/19 18:34	07/15/19 13:44	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-1 **Lab ID: 30313514001** Collected: 07/11/19 13:05 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.92; Final pH: 6.57								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	07/17/19 10:25	07/19/19 00:52	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	07/17/19 10:25	07/19/19 00:52	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	07/17/19 10:25	07/19/19 00:52	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	07/17/19 10:25	07/19/19 00:52	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	07/17/19 10:25	07/19/19 00:52	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	07/17/19 10:25	07/19/19 00:52	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	07/17/19 10:25	07/19/19 00:52		
Nitrobenzene	ND	ug/L	100	42.6	1	07/17/19 10:25	07/19/19 00:52	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	07/17/19 10:25	07/19/19 00:52	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	07/17/19 10:25	07/19/19 00:52	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	07/17/19 10:25	07/19/19 00:52	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	07/17/19 10:25	07/19/19 00:52	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	83	%.	61-105		1	07/17/19 10:25	07/19/19 00:52	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	56-90		1	07/17/19 10:25	07/19/19 00:52	321-60-8	
Terphenyl-d14 (S)	68	%.	32-90		1	07/17/19 10:25	07/19/19 00:52	1718-51-0	
Phenol-d6 (S)	87	%.	64-101		1	07/17/19 10:25	07/19/19 00:52	13127-88-3	
2-Fluorophenol (S)	92	%.	61-116		1	07/17/19 10:25	07/19/19 00:52	367-12-4	
2,4,6-Tribromophenol (S)	76	%.	55-108		1	07/17/19 10:25	07/19/19 00:52	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/16/19 14:47								
Benzene	ND	ug/L	50.0	8.7	10		07/17/19 21:14	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/17/19 21:14	78-93-3	CH,L1
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/17/19 21:14	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/17/19 21:14	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/17/19 21:14	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/17/19 21:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/17/19 21:14	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/17/19 21:14	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/17/19 21:14	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/17/19 21:14	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%.	70-130		10		07/17/19 21:14	17060-07-0	
Toluene-d8 (S)	105	%.	70-130		10		07/17/19 21:14	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	70-130		10		07/17/19 21:14	460-00-4	
Dibromofluoromethane (S)	103	%.	70-130		10		07/17/19 21:14	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.0**	%	0.10	0.10	1		07/18/19 15:56		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		07/18/19 11:02		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-1 **Lab ID: 30313514001** Collected: 07/11/19 13:05 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.4**	Std. Units	2.0	2.0	1		07/22/19 21:31		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.1	0.44	1	07/16/19 10:15	07/17/19 15:13		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	11.1	11.1	1	07/16/19 10:15	07/16/19 17:07		

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-2 **Lab ID: 30313514002** Collected: 07/11/19 13:15 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	169	104	10	07/12/19 19:04	07/17/19 00:26	12674-11-2	ED
PCB-1221 (Aroclor 1221)	ND	ug/kg	169	150	10	07/12/19 19:04	07/17/19 00:26	11104-28-2	ED
PCB-1232 (Aroclor 1232)	ND	ug/kg	169	154	10	07/12/19 19:04	07/17/19 00:26	11141-16-5	ED
PCB-1242 (Aroclor 1242)	ND	ug/kg	169	123	10	07/12/19 19:04	07/17/19 00:26	53469-21-9	ED
PCB-1248 (Aroclor 1248)	ND	ug/kg	169	97.1	10	07/12/19 19:04	07/17/19 00:26	12672-29-6	ED
PCB-1254 (Aroclor 1254)	ND	ug/kg	169	90.0	10	07/12/19 19:04	07/17/19 00:26	11097-69-1	ED
PCB-1260 (Aroclor 1260)	ND	ug/kg	169	96.0	10	07/12/19 19:04	07/17/19 00:26	11096-82-5	ED
PCB, Total	ND	ug/kg	1520	953	10	07/12/19 19:04	07/17/19 00:26	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	90	%.	34-114		10	07/12/19 19:04	07/17/19 00:26	877-09-8	
Decachlorobiphenyl (S)	100	%.	38-139		10	07/12/19 19:04	07/17/19 00:26	2051-24-3	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.38; Final pH: 6.81								
Arsenic	ND	mg/L	0.025	0.010	1	07/16/19 14:42	07/18/19 11:01	7440-38-2	
Barium	**0.27**	mg/L	0.050	0.0034	1	07/16/19 14:42	07/18/19 11:01	7440-39-3	
Cadmium	ND	mg/L	0.015	0.0017	1	07/16/19 14:42	07/18/19 11:01	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	07/16/19 14:42	07/18/19 11:01	7440-47-3	
Lead	ND	mg/L	0.12	0.12	5	07/16/19 14:42	07/18/19 11:19	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	07/16/19 14:42	07/18/19 11:01	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	07/16/19 14:42	07/18/19 11:01	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.38; Final pH: 6.81								
Mercury	ND	ug/L	1.0	0.030	1	07/16/19 16:24	07/17/19 04:57	7439-97-6	
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	ND	ug/kg	68.1	4.9	10	07/12/19 18:34	07/15/19 14:02	208-96-8	
Anthracene	**234**	ug/kg	68.1	6.2	10	07/12/19 18:34	07/15/19 14:02	120-12-7	
Benzo(a)anthracene	**690**	ug/kg	68.1	8.0	10	07/12/19 18:34	07/15/19 14:02	56-55-3	
Benzo(a)pyrene	**573**	ug/kg	68.1	4.3	10	07/12/19 18:34	07/15/19 14:02	50-32-8	
Benzo(b)fluoranthene	**806**	ug/kg	68.1	8.2	10	07/12/19 18:34	07/15/19 14:02	205-99-2	
Benzo(g,h,i)perylene	**234**	ug/kg	68.1	10.3	10	07/12/19 18:34	07/15/19 14:02	191-24-2	
Benzo(k)fluoranthene	**335**	ug/kg	68.1	11.4	10	07/12/19 18:34	07/15/19 14:02	207-08-9	
Chrysene	**664**	ug/kg	68.1	3.5	10	07/12/19 18:34	07/15/19 14:02	218-01-9	
Dibenz(a,h)anthracene	**94.4**	ug/kg	68.1	15.1	10	07/12/19 18:34	07/15/19 14:02	53-70-3	
Fluoranthene	**1210**	ug/kg	68.1	5.2	10	07/12/19 18:34	07/15/19 14:02	206-44-0	
Fluorene	**76.6**	ug/kg	68.1	6.3	10	07/12/19 18:34	07/15/19 14:02	86-73-7	
Indeno(1,2,3-cd)pyrene	**220**	ug/kg	68.1	13.0	10	07/12/19 18:34	07/15/19 14:02	193-39-5	
Naphthalene	**77.7**	ug/kg	68.1	13.2	10	07/12/19 18:34	07/15/19 14:02	91-20-3	
Phenanthrene	**872**	ug/kg	68.1	6.0	10	07/12/19 18:34	07/15/19 14:02	85-01-8	
Pyrene	**1040**	ug/kg	68.1	7.6	10	07/12/19 18:34	07/15/19 14:02	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	79	%.	43-97		10	07/12/19 18:34	07/15/19 14:02	321-60-8	
Terphenyl-d14 (S)	85	%.	56-106		10	07/12/19 18:34	07/15/19 14:02	1718-51-0	

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-2 **Lab ID: 30313514002** Collected: 07/11/19 13:15 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A								
	Leachate Method/Date: EPA 1311; 07/15/19 16:28 Initial pH: 8.38; Final pH: 6.81								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	07/17/19 10:25	07/19/19 01:14	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	07/17/19 10:25	07/19/19 01:14	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	07/17/19 10:25	07/19/19 01:14	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	07/17/19 10:25	07/19/19 01:14	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	07/17/19 10:25	07/19/19 01:14	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	07/17/19 10:25	07/19/19 01:14	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	07/17/19 10:25	07/19/19 01:14		
Nitrobenzene	ND	ug/L	100	42.6	1	07/17/19 10:25	07/19/19 01:14	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	07/17/19 10:25	07/19/19 01:14	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	07/17/19 10:25	07/19/19 01:14	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	07/17/19 10:25	07/19/19 01:14	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	07/17/19 10:25	07/19/19 01:14	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	83	%.	61-105		1	07/17/19 10:25	07/19/19 01:14	4165-60-0	
2-Fluorobiphenyl (S)	76	%.	56-90		1	07/17/19 10:25	07/19/19 01:14	321-60-8	
Terphenyl-d14 (S)	69	%.	32-90		1	07/17/19 10:25	07/19/19 01:14	1718-51-0	
Phenol-d6 (S)	89	%.	64-101		1	07/17/19 10:25	07/19/19 01:14	13127-88-3	
2-Fluorophenol (S)	91	%.	61-116		1	07/17/19 10:25	07/19/19 01:14	367-12-4	
2,4,6-Tribromophenol (S)	75	%.	55-108		1	07/17/19 10:25	07/19/19 01:14	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 07/16/19 14:47								
Benzene	ND	ug/L	50.0	8.7	10		07/17/19 22:32	71-43-2	
2-Butanone (MEK)	ND	ug/L	100	9.1	10		07/17/19 22:32	78-93-3	CH,L1
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		07/17/19 22:32	56-23-5	
Chlorobenzene	ND	ug/L	50.0	7.8	10		07/17/19 22:32	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		07/17/19 22:32	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		07/17/19 22:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		07/17/19 22:32	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		07/17/19 22:32	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		07/17/19 22:32	79-01-6	
Vinyl chloride	ND	ug/L	50.0	21.5	10		07/17/19 22:32	75-01-4	
Surrogates									
1,2-Dichloroethane-d4 (S)	96	%.	70-130		10		07/17/19 22:32	17060-07-0	
Toluene-d8 (S)	105	%.	70-130		10		07/17/19 22:32	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130		10		07/17/19 22:32	460-00-4	
Dibromofluoromethane (S)	101	%.	70-130		10		07/17/19 22:32	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**1.8**	%	0.10	0.10	1		07/18/19 15:56		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		07/18/19 11:06		

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Sample: Sewer-2 **Lab ID: 30313514002** Collected: 07/11/19 13:15 Received: 07/12/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**8.6**	Std. Units	2.0	2.0	1		07/22/19 21:32		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.0	0.41	1	07/16/19 10:15	07/17/19 15:16		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	10.3	10.3	1	07/16/19 10:15	07/16/19 17:07		

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352095 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1710588 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	07/17/19 04:21	

METHOD BLANK: 1709293 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	07/17/19 04:24	

METHOD BLANK: 1709294 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	07/17/19 04:26	

LABORATORY CONTROL SAMPLE: 1710589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	100	80-120	

MATRIX SPIKE SAMPLE: 1710591

Parameter	Units	30313326001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	1.5	60	75-125	ML

MATRIX SPIKE SAMPLE: 1710593

Parameter	Units	30313514001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	98	75-125	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

SAMPLE DUPLICATE: 1710590

Parameter	Units	30313326001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 1710592

Parameter	Units	30313514001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352029 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1710350 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	07/18/19 10:46	
Barium	mg/L	ND	0.050	0.0034	07/18/19 10:46	
Cadmium	mg/L	ND	0.015	0.0017	07/18/19 10:46	
Chromium	mg/L	ND	0.025	0.0017	07/18/19 10:46	
Lead	mg/L	ND	0.025	0.025	07/18/19 10:46	
Selenium	mg/L	ND	0.040	0.027	07/18/19 10:46	
Silver	mg/L	ND	0.030	0.0072	07/18/19 10:46	

METHOD BLANK: 1709293 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	07/18/19 10:50	
Barium	mg/L	ND	0.050	0.0034	07/18/19 10:50	
Cadmium	mg/L	ND	0.015	0.0017	07/18/19 10:50	
Chromium	mg/L	ND	0.025	0.0017	07/18/19 10:50	
Lead	mg/L	ND	0.050	0.049	07/18/19 11:04	
Selenium	mg/L	ND	0.040	0.027	07/18/19 10:50	
Silver	mg/L	ND	0.030	0.0072	07/18/19 10:50	

LABORATORY CONTROL SAMPLE: 1710351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.47	95	80-120	
Barium	mg/L	0.5	0.50	99	80-120	
Cadmium	mg/L	0.5	0.50	101	80-120	
Chromium	mg/L	0.5	0.49	99	80-120	
Lead	mg/L	0.5	0.50	101	80-120	
Selenium	mg/L	0.5	0.50	100	80-120	
Silver	mg/L	0.25	0.26	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1710353 1710354

Parameter	Units	30313514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.56	0.54	112	108	75-125	4	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1710353 1710354

Parameter	Units	30313514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.92	0.5	0.5	1.4	1.4	91	98	75-125	2	20	
Cadmium	mg/L	ND	0.5	0.5	0.57	0.55	113	108	75-125	4	20	
Chromium	mg/L	ND	0.5	0.5	0.49	0.48	98	96	75-125	3	20	
Lead	mg/L	ND	0.5	0.5	0.54	0.51	108	103	75-125	5	20	
Selenium	mg/L	ND	0.5	0.5	0.59	0.56	117	112	75-125	4	20	
Silver	mg/L	ND	0.25	0.25	0.29	0.30	117	119	75-125	2	20	

SAMPLE DUPLICATE: 1710352

Parameter	Units	30313514001 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	0.92	0.92	1	20	
Cadmium	mg/L	ND	.008J		20	
Chromium	mg/L	ND	ND		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352244 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1710027 Matrix: Solid
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	07/17/19 15:38	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	07/17/19 15:38	
2-Butanone (MEK)	ug/L	ND	100	9.1	07/17/19 15:38	CH
Benzene	ug/L	ND	50.0	8.7	07/17/19 15:38	
Carbon tetrachloride	ug/L	ND	50.0	17.2	07/17/19 15:38	
Chlorobenzene	ug/L	ND	50.0	7.8	07/17/19 15:38	
Chloroform	ug/L	ND	50.0	15.0	07/17/19 15:38	
Tetrachloroethene	ug/L	ND	50.0	17.3	07/17/19 15:38	
Trichloroethene	ug/L	ND	50.0	14.7	07/17/19 15:38	
Vinyl chloride	ug/L	ND	50.0	21.5	07/17/19 15:38	
1,2-Dichloroethane-d4 (S)	%.	99	70-130		07/17/19 15:38	
4-Bromofluorobenzene (S)	%.	100	70-130		07/17/19 15:38	
Dibromofluoromethane (S)	%.	104	70-130		07/17/19 15:38	
Toluene-d8 (S)	%.	106	70-130		07/17/19 15:38	

LABORATORY CONTROL SAMPLE: 1711155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	16.5	82	45-124	
1,2-Dichloroethane	ug/L	20	16.4	82	57-110	
2-Butanone (MEK)	ug/L	20	26.1	131	46-117	CH,L1
Benzene	ug/L	20	17.0	85	63-110	
Carbon tetrachloride	ug/L	20	14.6	73	59-114	
Chlorobenzene	ug/L	20	18.7	93	70-130	
Chloroform	ug/L	20	17.0	85	65-108	
Tetrachloroethene	ug/L	20	16.8	84	64-114	
Trichloroethene	ug/L	20	18.4	92	61-112	
Vinyl chloride	ug/L	20	18.4	92	54-142	
1,2-Dichloroethane-d4 (S)	%.			98	70-130	
4-Bromofluorobenzene (S)	%.			99	70-130	
Dibromofluoromethane (S)	%.			99	70-130	
Toluene-d8 (S)	%.			107	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1711153 1711154

Parameter	Units	30313514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	174	167	87	84	10-133	4	30	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1711153 1711154

Parameter	Units	30313514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	179	182	90	91	24-111	2	30	
2-Butanone (MEK)	ug/L	ND	200	200	228	262	114	131	10-175	14	30	CH
Benzene	ug/L	ND	200	200	212	205	106	102	15-121	4	30	
Carbon tetrachloride	ug/L	ND	200	200	177	171	88	86	20-125	3	30	
Chlorobenzene	ug/L	ND	200	200	245	248	110	112	10-122	1	30	
Chloroform	ug/L	ND	200	200	203	213	96	100	27-117	5	30	
Tetrachloroethene	ug/L	ND	200	200	211	215	106	107	13-125	2	30	
Trichloroethene	ug/L	ND	200	200	216	223	108	111	10-133	3	30	
Vinyl chloride	ug/L	ND	200	200	169	167	85	84	10-133	1	30	
1,2-Dichloroethane-d4 (S)	%.						93	85	70-130			
4-Bromofluorobenzene (S)	%.						100	98	70-130			
Dibromofluoromethane (S)	%.						100	98	70-130			
Toluene-d8 (S)	%.						105	108	70-130			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 351580 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1708433 Matrix: Solid
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	16.6	10.3	07/16/19 21:27	
PCB-1221 (Aroclor 1221)	ug/kg	ND	16.6	14.7	07/16/19 21:27	
PCB-1232 (Aroclor 1232)	ug/kg	ND	16.6	15.1	07/16/19 21:27	
PCB-1242 (Aroclor 1242)	ug/kg	ND	16.6	12.1	07/16/19 21:27	
PCB-1248 (Aroclor 1248)	ug/kg	ND	16.6	9.6	07/16/19 21:27	
PCB-1254 (Aroclor 1254)	ug/kg	ND	16.6	8.9	07/16/19 21:27	
PCB-1260 (Aroclor 1260)	ug/kg	ND	16.6	9.5	07/16/19 21:27	
Decachlorobiphenyl (S)	%.	92	38-139		07/16/19 21:27	
Tetrachloro-m-xylene (S)	%.	88	34-114		07/16/19 21:27	

LABORATORY CONTROL SAMPLE: 1708434

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	166	137	83	61-105	
PCB-1260 (Aroclor 1260)	ug/kg	166	141	85	70-100	
Decachlorobiphenyl (S)	%.			96	38-139	
Tetrachloro-m-xylene (S)	%.			85	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1708435 1708436

Parameter	Units	30313438001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	200	199	176	183	88	91	24-137	4	25	
PCB-1260 (Aroclor 1260)	ug/kg	ND	200	199	197	207	92	97	19-156	5	25	
Decachlorobiphenyl (S)	%.						90	97	38-139			
Tetrachloro-m-xylene (S)	%.						82	86	34-114			

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REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 351578 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1708423 Matrix: Solid
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthylene	ug/kg	ND	6.7	0.48	07/15/19 09:19	
Anthracene	ug/kg	ND	6.7	0.61	07/15/19 09:19	
Benzo(a)anthracene	ug/kg	ND	6.7	0.78	07/15/19 09:19	
Benzo(a)pyrene	ug/kg	ND	6.7	0.42	07/15/19 09:19	
Benzo(b)fluoranthene	ug/kg	ND	6.7	0.80	07/15/19 09:19	
Benzo(g,h,i)perylene	ug/kg	ND	6.7	1.0	07/15/19 09:19	
Benzo(k)fluoranthene	ug/kg	ND	6.7	1.1	07/15/19 09:19	
Chrysene	ug/kg	ND	6.7	0.35	07/15/19 09:19	
Dibenz(a,h)anthracene	ug/kg	ND	6.7	1.5	07/15/19 09:19	
Fluoranthene	ug/kg	ND	6.7	0.51	07/15/19 09:19	
Fluorene	ug/kg	ND	6.7	0.62	07/15/19 09:19	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.7	1.3	07/15/19 09:19	
Naphthalene	ug/kg	ND	6.7	1.3	07/15/19 09:19	
Phenanthrene	ug/kg	ND	6.7	0.59	07/15/19 09:19	
Pyrene	ug/kg	ND	6.7	0.75	07/15/19 09:19	
2-Fluorobiphenyl (S)	%.	74	43-97		07/15/19 09:19	
Terphenyl-d14 (S)	%.	87	56-106		07/15/19 09:19	

LABORATORY CONTROL SAMPLE: 1708424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthylene	ug/kg	133	96.8	73	42-109	
Anthracene	ug/kg	133	112	84	54-110	
Benzo(a)anthracene	ug/kg	133	122	92	59-119	
Benzo(a)pyrene	ug/kg	133	119	89	55-125	
Benzo(b)fluoranthene	ug/kg	133	126	95	54-131	
Benzo(g,h,i)perylene	ug/kg	133	96.7	73	54-122	
Benzo(k)fluoranthene	ug/kg	133	121	91	57-123	
Chrysene	ug/kg	133	117	88	62-111	
Dibenz(a,h)anthracene	ug/kg	133	97.9	74	60-124	
Fluoranthene	ug/kg	133	120	90	60-116	
Fluorene	ug/kg	133	104	78	49-110	
Indeno(1,2,3-cd)pyrene	ug/kg	133	97.9	74	59-122	
Naphthalene	ug/kg	133	101	76	42-97	
Phenanthrene	ug/kg	133	107	81	52-107	
Pyrene	ug/kg	133	118	89	60-117	
2-Fluorobiphenyl (S)	%.			74	43-97	
Terphenyl-d14 (S)	%.			82	56-106	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1708425 1708426

Parameter	Units	30313516001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthylene	ug/kg	0.42 mg/kg	152	152	466	375	28	-32	26-144	22	20	M6,R1
Anthracene	ug/kg	0.63 mg/kg	152	152	791	842	104	138	10-166	6	20	
Benzo(a)anthracene	ug/kg	2.2 mg/kg	152	152	2740	2720	362	346	10-175	1	20	M6
Benzo(a)pyrene	ug/kg	1.9 mg/kg	152	152	2340	2370	286	308	10-175	1	20	M6
Benzo(b)fluoranthene	ug/kg	2.9 mg/kg	152	152	3470	3520	360	390	10-175	1	20	M6
Benzo(g,h,i)perylene	ug/kg	0.85 mg/kg	152	152	1030	1040	122	126	10-171	1	20	
Benzo(k)fluoranthene	ug/kg	1.1 mg/kg	152	152	1450	1430	238	224	10-160	1	20	M6
Chrysene	ug/kg	2.1 mg/kg	152	152	2450	2590	224	315	10-175	5	20	M6
Dibenz(a,h)anthracene	ug/kg	0.34 mg/kg	152	152	481	499	94	106	10-149	4	20	
Fluoranthene	ug/kg	4.1 mg/kg	152	152	4700	4840	407	500	10-175	3	20	M6
Fluorene	ug/kg	0.17 mg/kg	152	152	240	284	47	76	31-136	17	20	
Indeno(1,2,3-cd)pyrene	ug/kg	0.85 mg/kg	152	152	966	1090	77	161	10-151	12	20	M6
Naphthalene	ug/kg	0.59 mg/kg	152	152	406	329	-122	-173	10-149	21	20	M6,R1
Phenanthrene	ug/kg	1.8 mg/kg	152	152	2030	2240	120	260	10-175	10	20	M6
Pyrene	ug/kg	3.6 mg/kg	152	152	4170	4200	403	422	10-175	1	20	M6
2-Fluorobiphenyl (S)	%.						49	63	43-97			
Terphenyl-d14 (S)	%.						73	84	56-106			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352229 Analysis Method: EPA 8270D
QC Batch Method: EPA 3535A Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1710028 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	07/17/19 20:20	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	07/17/19 20:20	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	07/17/19 20:20	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	07/17/19 20:20	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	07/17/19 20:20	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	07/17/19 20:20	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	07/17/19 20:20	
Hexachlorobenzene	ug/L	ND	100	22.8	07/17/19 20:20	
Hexachloroethane	ug/L	ND	200	55.5	07/17/19 20:20	
Nitrobenzene	ug/L	ND	100	42.6	07/17/19 20:20	
Pentachlorophenol	ug/L	ND	5000	25.6	07/17/19 20:20	
Pyridine	ug/L	ND	250	19.3	07/17/19 20:20	
2,4,6-Tribromophenol (S)	%.	85	55-108		07/17/19 20:20	
2-Fluorobiphenyl (S)	%.	61	56-90		07/17/19 20:20	
2-Fluorophenol (S)	%.	81	61-116		07/17/19 20:20	
Nitrobenzene-d5 (S)	%.	80	61-105		07/17/19 20:20	
Phenol-d6 (S)	%.	84	64-101		07/17/19 20:20	
Terphenyl-d14 (S)	%.	59	32-90		07/17/19 20:20	

LABORATORY CONTROL SAMPLE: 1711100

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	235J	47	38-85	
2,4,5-Trichlorophenol	ug/L	500	408J	82	60-110	
2,4,6-Trichlorophenol	ug/L	500	418	84	62-110	
2,4-Dinitrotoluene	ug/L	500	381	76	51-102	
2-Methylphenol(o-Cresol)	ug/L	500	419J	84	60-106	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	877J	88	64-106	
Hexachloro-1,3-butadiene	ug/L	500	229	46	27-97	
Hexachlorobenzene	ug/L	500	275	55	36-66	
Hexachloroethane	ug/L	500	222	44	37-89	
Nitrobenzene	ug/L	500	430	86	64-108	
Pentachlorophenol	ug/L	500	445J	89	47-107	
Pyridine	ug/L	500	198J	40	20-54	
2,4,6-Tribromophenol (S)	%.			87	55-108	
2-Fluorobiphenyl (S)	%.			70	56-90	
2-Fluorophenol (S)	%.			80	61-116	
Nitrobenzene-d5 (S)	%.			85	61-105	
Phenol-d6 (S)	%.			84	64-101	
Terphenyl-d14 (S)	%.			68	32-90	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1711101 1711102

Parameter	Units	30313313001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	ND	500	500	274J	256J	55	51	51-85		20	
2,4,5-Trichlorophenol	ug/L	ND	500	500	443J	435J	89	87	65-108		20	
2,4,6-Trichlorophenol	ug/L	ND	500	500	429	421	86	84	61-110	2	20	
2,4-Dinitrotoluene	ug/L	ND	500	500	394	396	79	79	52-106	0	20	
2-Methylphenol(o-Cresol)	ug/L	ND	500	500	441J	435J	88	87	65-105		20	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	1000	1000	918J	909J	92	91	69-106		20	
Hexachloro-1,3-butadiene	ug/L	ND	500	500	271	250	54	50	44-90	8	20	
Hexachlorobenzene	ug/L	ND	500	500	297	299	59	60	36-68	1	20	
Hexachloroethane	ug/L	ND	500	500	274	252	55	50	48-94	8	20	
Nitrobenzene	ug/L	ND	500	500	439	432	88	86	66-106	2	20	
Pentachlorophenol	ug/L	ND	500	500	446J	439J	89	88	49-120		20	
Pyridine	ug/L	ND	500	500	116J	105J	23	21	10-72		20	
2,4,6-Tribromophenol (S)	%.						87	87	55-108			
2-Fluorobiphenyl (S)	%.						71	69	56-90			
2-Fluorophenol (S)	%.						83	83	61-116			
Nitrobenzene-d5 (S)	%.						85	85	61-105			
Phenol-d6 (S)	%.						87	88	64-101			
Terphenyl-d14 (S)	%.						75	74	32-90			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352527 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30313514001, 30313514002

SAMPLE DUPLICATE: 1712540

Parameter	Units	30312358001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	42.0	37.9	10	20	

SAMPLE DUPLICATE: 1712541

Parameter	Units	30313279002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.6	19.5	0	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352414 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1712144 Matrix: Water
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		07/18/19 09:02	

SAMPLE DUPLICATE: 1712145

Parameter	Units	30313331001 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 352977 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30313514001, 30313514002

SAMPLE DUPLICATE: 1714721

Parameter	Units	30313514001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	8.4	8.4	0	10	H3

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 351918 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1709959 Matrix: Solid
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	0.99	0.40	07/17/19 15:02	

LABORATORY CONTROL SAMPLE: 1709960

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	101	ND	0	0-8	

SAMPLE DUPLICATE: 1709961

Parameter	Units	30313655001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	H1

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

QC Batch: 351922 Analysis Method: SM 4500S2F-2011
QC Batch Method: SW-846 7.3.4.2 Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30313514001, 30313514002

METHOD BLANK: 1709976 Matrix: Solid
Associated Lab Samples: 30313514001, 30313514002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	9.9	9.9	07/16/19 17:07	

LABORATORY CONTROL SAMPLE: 1709977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	201	40.3	20	0-52	

SAMPLE DUPLICATE: 1709978

Parameter	Units	30313655001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	H3

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QUALIFIERS

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
ED	Due to the extract's physical characteristics, the analysis was performed at dilution.
H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT Site-Soil IRM-Revised Report
Pace Project No.: 30313514

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30313514001	**Sewer-1**	EPA 3546	351580	EPA 8082A	351626
30313514002	**Sewer-2**	EPA 3546	351580	EPA 8082A	351626
30313514001	**Sewer-1**	EPA 3005A	352029	EPA 6010C	352132
30313514002	**Sewer-2**	EPA 3005A	352029	EPA 6010C	352132
30313514001	**Sewer-1**	EPA 7470A	352095	EPA 7470A	352125
30313514002	**Sewer-2**	EPA 7470A	352095	EPA 7470A	352125
30313514001	**Sewer-1**	EPA 3546	351578	EPA 8270D by SIM	351625
30313514002	**Sewer-2**	EPA 3546	351578	EPA 8270D by SIM	351625
30313514001	**Sewer-1**	EPA 3535A	352229	EPA 8270D	352289
30313514002	**Sewer-2**	EPA 3535A	352229	EPA 8270D	352289
30313514001	**Sewer-1**	EPA 8260C	352244		
30313514002	**Sewer-2**	EPA 8260C	352244		
30313514001	**Sewer-1**	ASTM D2974-87	352527		
30313514002	**Sewer-2**	ASTM D2974-87	352527		
30313514001	**Sewer-1**	EPA 1010	352414		
30313514002	**Sewer-2**	EPA 1010	352414		
30313514001	**Sewer-1**	EPA 9045D	352977		
30313514002	**Sewer-2**	EPA 9045D	352977		
30313514001	**Sewer-1**	SW-846 7.3.3.2	351918	EPA 9014	352113
30313514002	**Sewer-2**	SW-846 7.3.3.2	351918	EPA 9014	352113
30313514001	**Sewer-1**	SW-846 7.3.4.2	351922	SM 4500S2F-2011	352111
30313514002	**Sewer-2**	SW-846 7.3.4.2	351922	SM 4500S2F-2011	352111

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CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 11 Stanwix St, Suite 950, Pittsburgh, PA 15222

Project Name: Former EPT - Soil IRM

Project Location: Ithaca, NY

Project Number & Task: 3140545.001

Sampler(s) Name(s): Daniel Cummings

WSP USA Contact Name: Dave Rykaczewski

WSP USA Contact E-mail: Dave.Rykaczewski@wsp.com

WSP USA Contact Phone: 412-375-0282

Sampler(s) Signature(s):

No. 008844

Laboratory Name & Location: Pace - Greensburg, PA

Laboratory Project Manager: Rachel Christner

Requested Turn-Around-Time: ☐ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 ~~HR~~ Day

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TCLP RCRA 8 Metals	TCLP VOCs	TCLP SVOCs	Reactive Sulfide	Reactive Cyanide	Total PCBs	Total PAHs	% Solids (Moisture Content)	Ignitability	Sample Comments
Sewer - 1	S			7/11/19	1305	5	X	X	X	X	X	X	X	X	X	001
Sewer - 2	S			7/11/19	1315	5	X	X	X	X	X	X	X	X	X	002

WO# : 30313514

30313514

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	7/11/19	1645	FedEx	7/1/19	1645		
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
				7/2/19	0930		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: WSP Project # 30313514

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label ET
LIMS Login ET

Tracking #: 7738 4210 9724

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Thermometer Used 11 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 2.4 °C Correction Factor: 0.0 °C Final Temp: 2.4 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# N/A	Date and Initials of person examining contents: ET 7-12-19
Chain of Custody Present:	✓			1.	
Chain of Custody Filled Out:	✓			2.	
Chain of Custody Relinquished:	✓			3.	
Sampler Name & Signature on COC:	✓			4.	
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.	
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:	✓			8.	
Sufficient Volume:	✓			9.	
Correct Containers Used:	✓			10.	
-Pace Containers Used:		✓			
Containers Intact:	✓			11.	
Orthophosphate field filtered			✓	12.	
Hex Cr Aqueous sample field filtered			✓	13.	
Organic Samples checked for dechlorination:			✓	14.	
Filtered volume received for Dissolved tests			✓	15.	
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.	
All containers meet method preservation requirements.	✓			Initial when completed ET	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):			✓	17.	
Trip Blank Present:		✓		18.	
Trip Blank Custody Seals Present		✓			
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed:	Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

Sewer-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	07/18/2019 10:52
7440-39-3	Barium	0.92		mg/L	1	07/18/2019 10:52
7440-43-9	Cadmium	ND	U	mg/L	1	07/18/2019 10:52
7440-47-3	Chromium	ND	U	mg/L	1	07/18/2019 10:52
7439-92-1	Lead	ND	U	mg/L	5	07/18/2019 11:06
7782-49-2	Selenium	ND	U	mg/L	1	07/18/2019 10:52
7440-22-4	Silver	ND	U	mg/L	1	07/18/2019 10:52

SAMPLE NO.

Sewer-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	07/18/2019 11:01
7440-39-3	Barium	0.27		mg/L	1	07/18/2019 11:01
7440-43-9	Cadmium	ND	U	mg/L	1	07/18/2019 11:01
7440-47-3	Chromium	ND	U	mg/L	1	07/18/2019 11:01
7439-92-1	Lead	ND	U	mg/L	5	07/18/2019 11:19
7782-49-2	Selenium	ND	U	mg/L	1	07/18/2019 11:01
7440-22-4	Silver	ND	U	mg/L	1	07/18/2019 11:01

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 92647

Continuing Calibration Verification Source: 92858

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	07/18/2019 10:31				07/18/2019 10:36			07/18/2019 11:08			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	2000	2000	99.8	90-110	1000	1020	101.6	1000	995	99.5	90-110
Barium	2000	2020	100.8	90-110	1000	1010	100.7	1000	1020	102.2	90-110
Cadmium	2000	2060	103.0	90-110	1000	1030	102.8	1000	1010	100.8	90-110
Chromium	2000	2090	104.4	90-110	1000	1010	101.2	1000	1020	101.5	90-110
Lead	2000	2140	106.8	90-110	1000	1020	101.9	1000	1000	100.4	90-110
Selenium	2000	2050	102.4	90-110	1000	1030	103.4	1000	1010	101.1	90-110
Silver	1000	1050	105.2	90-110	500	506	101.2	500	502	100.4	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 92858

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification						
	07/18/2019 11:21			07/18/2019 12:01			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Arsenic	1000	1010	100.9	1000	962	96.2	90-110
Barium	1000	1020	102.0	1000	1040	103.7	90-110
Cadmium	1000	1020	101.6	1000	968	96.8	90-110
Chromium	1000	1010	101.1	1000	1020	102.1	90-110
Lead	1000	1010	100.6	1000	958	95.8	90-110
Selenium	1000	1010	101.2	1000	959	95.9	90-110
Silver	500	502	100.3	500	507	101.4	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 92277 Analysis Date/Time: 07/18/2019 10:42

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.2	83.1	70-130
Barium	10.0	10.4	104.3	70-130
Cadmium	3.0	3.1	101.8	70-130
Chromium	5.0	5.0	99.9	70-130
Lead	5.0	5.2	104.2	70-130
Selenium	8.0	8.5	106.2	70-130
Silver	6.0	6.6	110.0	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 92277 Analysis Date/Time: 07/18/2019 11:35

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.8	95.1	70-130
Barium	10.0	10.2	101.7	70-130
Cadmium	3.0	3.1	102.2	70-130
Chromium	5.0	5.2	103.9	70-130
Lead	5.0	5.0	99.5	70-130
Selenium	8.0	8.6	107.9	70-130
Silver	6.0	6.6	110.0	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	07/18/2019 10:33	C	07/18/2019 11:10	C	07/18/2019 11:23	C	07/18/2019 12:03	C	1710350	C
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	ND	U
Barium	0.68	U	0.68	U	0.68	U	0.68	U	ND	U
Cadmium	0.34	U	0.34	U	0.34	U	0.34	U	ND	U
Chromium	0.35	U	0.35	U	0.35	U	0.35	U	ND	U
Lead	4.9	U	4.9	U	4.9	U	4.9	U	ND	U
Selenium	5.5	U	5.5	U	5.5	U	5.5	U	ND	U
Silver	1.4	U	1.4	U	1.4	U	1.4	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1709293	C
Arsenic									ND	U
Barium									ND	U
Cadmium									ND	U
Chromium									ND	U
Lead										
Selenium									ND	U
Silver									ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1709293	C
Arsenic										
Barium										
Cadmium										
Chromium										
Lead									ND	U
Selenium										
Silver										

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 07/18/2019 10:38

ICS Source: 92158,92279 Solution AB Run Date: 07/18/2019 10:40

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	52280	104.6	52640	105.3	80-120
Arsenic			-0.7362		1.09		
Barium		500	0.1398		516.3	103.3	80-120
Cadmium		1000	0.5144		1032	103.2	80-120
Calcium	50000	50000	51770	103.5	52160	104.3	80-120
Chromium		500	-0.0858		515.2	103	80-120
Iron	20000	20000	20390	102	20530	102.7	80-120
Lead		1000	-1.692		1016	101.6	80-120
Magnesium	50000	50000	51680	103.4	52070	104.1	80-120
Selenium			-1.532		-0.5979		
Silver		1000	-0.2952		1065	106.5	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Solution A Run Date: 07/18/2019 11:26

ICS Source: 92158,92279 Solution AB Run Date: 07/18/2019 11:29

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	52520	105	52030	104.1	80-120
Arsenic			-0.3418		1.341		
Barium		500	-0.093		511.4	102.3	80-120
Cadmium		1000	0.4614		1026	102.6	80-120
Calcium	50000	50000	51490	103	51280	102.6	80-120
Chromium		500	-0.2201		510.5	102.1	80-120
Iron	20000	20000	20380	101.9	20210	101.1	80-120
Lead		1000	-1.767		1002	100.2	80-120
Magnesium	50000	50000	51030	102.1	50880	101.8	80-120
Selenium			-2.029		-0.6452		
Silver		1000	-0.313		1061	106.1	80-120

SAMPLE NO.

1710353MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: Sewer-1

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.56	ND	0.50	112
Barium	mg/L	75-125	1.4	0.92	0.50	91
Cadmium	mg/L	75-125	0.57	ND	0.50	113
Chromium	mg/L	75-125	0.49	ND	0.50	98
Lead	mg/L	75-125	0.54	ND	0.50	108
Selenium	mg/L	75-125	0.59	ND	0.50	117
Silver	mg/L	75-125	0.29	ND	0.25	117

SAMPLE NO.

1710354MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: Sewer-1

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.54	ND	0.50	108
Barium	mg/L	75-125	1.4	0.92	0.50	98
Cadmium	mg/L	75-125	0.55	ND	0.50	108
Chromium	mg/L	75-125	0.48	ND	0.50	96
Lead	mg/L	75-125	0.51	ND	0.50	103
Selenium	mg/L	75-125	0.56	ND	0.50	112
Silver	mg/L	75-125	0.30	ND	0.25	119

SAMPLE NO.

1710352DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	ND	
Barium	20	0.92	0.92	1
Cadmium	20	ND	0.008J	
Chromium	20	ND	ND	
Lead	20	ND	ND	
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1710354MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	0.56	0.54	4
Barium	20	1.4	1.4	2
Cadmium	20	0.57	0.55	4
Chromium	20	0.49	0.48	3
Lead	20	0.54	0.51	5
Selenium	20	0.59	0.56	4
Silver	20	0.29	0.30	2

SAMPLE NO.

1710351LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	mg/L	0.50	0.47	95	80	120
Barium	mg/L	0.50	0.50	99	80	120
Cadmium	mg/L	0.50	0.50	101	80	120
Chromium	mg/L	0.50	0.49	99	80	120
Lead	mg/L	0.50	0.50	101	80	120
Selenium	mg/L	0.50	0.50	100	80	120
Silver	mg/L	0.25	0.26	103	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Lead	5.0	4.9	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Instrument ID: 30ICP2

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Arsenic	0.025	0.010	11/14/2018
Barium	0.050	0.0034	11/14/2018
Cadmium	0.015	0.0017	11/14/2018
Chromium	0.025	0.0017	11/14/2018
Lead	0.025	0.025	11/14/2018
Selenium	0.040	0.027	11/14/2018
Silver	0.030	0.0072	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	7	V	-0.000010	0.000000	No
			Mn	0.000224	0.000000	No
			Cu	-0.000017	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.001213	0.000000	No
			Zr	0.006142	0.000000	No
			Fe	0.000009	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.335136	0.000000	No
			Zr	0.011123	0.000000	No
			Ca	0.000126	0.000000	No
			V	0.000716	0.000000	No
			Fe	-0.000080	0.000000	No
As 189.042 {478}	☒	8	Be	0.000082	0.000000	No
			Al	-0.000010	0.000000	No
			V	0.000009	0.000000	No
			Cr	-0.005878	0.000000	No
			Fe	-0.000008	0.000000	No
			Co	0.000030	0.000000	No
			Mo	0.000055	0.000000	No
			Tl	0.000011	0.000000	No
B 208.959 {461}	☒	4	Ti	0.000132	0.000000	No
			Mo	0.023149	0.000000	No
			Si	0.000180	0.000000	No
			V	0.002695	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	0.000136	0.000000	No
			Mo	-0.000019	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.006748	0.000000	No
Cd 228.802 {447}	☒	4	V	0.000070	0.000000	No
			Fe	0.000000	0.000000	No
			Ni	-0.000009	0.000000	No
			As	0.010303	0.000000	No
Co 228.616 {447}	☒	4	Ti	0.002208	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.004109	0.000000	No
			Ni	0.000111	0.000000	No
Cr 267.716 {126}	☒	2	Al	0.000006	0.000000	No
			Mn	0.000260	0.000000	No
Cu 324.754 {104}	☒	5	K	0.000004	0.000000	No
			V	-0.000071	0.000000	No
			Fe	-0.000155	0.000000	No
			Co	-0.000531	0.000000	No
			Mo	0.000478	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.002210	0.000000	No
			Mo	-0.000957	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000004	0.000000	No
Mo 202.030 {467}	☒	1	V	0.000400	0.000000	No
Na 818.326 { 41}	☒	1	Fe	0.001190	0.000000	No
Ni 231.604 {446}	☒	None				
P 177.495 {490}	☒	2	Ni	0.001261	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.003153	0.000000	No
Pb 220.353 {453}	☒	6	Al	0.000276	0.000000	No
			Si	0.000044	0.000000	No
			Mn	0.000090	0.000000	No
			Fe	0.000021	0.000000	No
			Cu	0.000517	0.000000	No
			Mo	-0.001816	0.000000	No
S 182.034 {485}	☒	8	Al	-0.000089	0.000000	No
			Mn	0.004470	0.000000	No
			Ti	-0.000441	0.000000	No
			V	-0.000354	0.000000	No
			Ni	-0.000410	0.000000	No
			Ca	0.000007	0.000000	No
			Fe	-0.000155	0.000000	No
			Mo	-0.007427	0.000000	No
Sb 206.833 {463}	☒	6	Al	-0.000007	0.000000	No
			Cr	0.024085	0.000000	No
			Fe	0.000007	0.000000	No
			Mo	-0.004113	0.000000	No
			Zr	-0.000778	0.000000	No
			Ti	0.001270	0.000000	No
Se 196.090 {472}	☒	3	Al	-0.000003	0.000000	No
			Mn	0.000486	0.000000	No
			Mo	0.000145	0.000000	No
Si 251.611 {134}	☒	2	V	0.052413	0.000000	No
			Mo	0.010972	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000015	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000218	0.000000	No
			Mo	0.000136	0.000000	No
			Ca	0.000007	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.001394	0.000000	No
			V	-0.012857	0.000000	No
			Cr	0.000322	0.000000	No
			Mn	0.001221	0.000000	No
			Fe	0.000008	0.000000	No
			Co	0.000561	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000258	0.000000	No
			Cr	-0.004547	0.000000	No
			Mn	-0.001050	0.000000	No
			Fe	-0.000004	0.000000	No
			Mo	-0.000036	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000244	0.000000	No
			Mn	0.000036	0.000000	No
			Fe	-0.000003	0.000000	No
			Co	0.000004	0.000000	No
			Ni	-0.000002	0.000000	No
			Mo	0.000153	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Effective Date:11/21/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	50000
Lead	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 3005A Batch: MPRP 26217

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1709293	1709293LB	07/16/2019	50	50
1710350	1710350BLANK	07/16/2019	50	50
1710351	1710351LCS	07/16/2019	50	50
1710352	1710352DUP	07/16/2019	50	50
1710353	1710353MS	07/16/2019	50	50
1710354	1710354MSD	07/16/2019	50	50
30313514001	Sewer-1	07/16/2019	50	50
30313514002	Sewer-2	07/16/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 07/18/2019 10:27 End Date: 07/18/2019 12:03

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Pb	Se
11259484CAL0	11259484CAL0	1	07/18/2019	10:27	X	X	X	X	X	X	X
11259485CAL1	11259485CAL1	1	07/18/2019	10:29	X	X	X	X	X	X	X
11259486ICV	11259486ICV	1	07/18/2019	10:31	X	X	X	X	X	X	X
11259487ICB	11259487ICB	1	07/18/2019	10:33	X	X	X	X	X	X	X
11259488CCV	11259488CCV	1	07/18/2019	10:36	X	X	X	X	X	X	X
11259489ICSA	11259489ICSA	1	07/18/2019	10:38	X	X	X	X	X	X	X
11259490ICSAB	11259490ICSAB	1	07/18/2019	10:40	X	X	X	X	X	X	X
11259491CRDL	11259491CRDL	1	07/18/2019	10:42	X	X	X	X	X	X	X
1710350BLANK	1710350	1	07/18/2019	10:46	X	X	X	X	X	X	X
1710351LCS	1710351	1	07/18/2019	10:48	X	X	X	X	X	X	X
1709293LB	1709293	1	07/18/2019	10:50	X	X	X	X	X		X
Sewer-1	30313514001	1	07/18/2019	10:52	X	X	X	X	X		X
1710352DUP	1710352	1	07/18/2019	10:55	X	X	X	X	X		X
1710353MS	1710353	1	07/18/2019	10:57	X	X	X	X	X		X
1710354MSD	1710354	1	07/18/2019	10:59	X	X	X	X	X		X
Sewer-2	30313514002	1	07/18/2019	11:01	X	X	X	X	X		X
1709293LB	1709293	2	07/18/2019	11:04						X	
Sewer-1	30313514001	5	07/18/2019	11:06						X	
11259492CCV	11259492CCV	1	07/18/2019	11:08	X	X	X	X	X	X	X
11259493CCB	11259493CCB	1	07/18/2019	11:10	X	X	X	X	X	X	X
1710352DUP	1710352	5	07/18/2019	11:13						X	
1710353MS	1710353	5	07/18/2019	11:15						X	
1710354MSD	1710354	5	07/18/2019	11:17						X	
Sewer-2	30313514002	5	07/18/2019	11:19						X	
11259494CCV	11259494CCV	1	07/18/2019	11:21	X	X	X	X	X	X	X
11259495CCB	11259495CCB	1	07/18/2019	11:23	X	X	X	X	X	X	X
11259496ICSA	11259496ICSA	1	07/18/2019	11:26	X	X	X	X	X	X	X
11259497ICSAB	11259497ICSAB	1	07/18/2019	11:29	X	X	X	X	X	X	X
11259498CRDL	11259498CRDL	1	07/18/2019	11:35	X	X	X	X	X	X	X
11259499CCV	11259499CCV	1	07/18/2019	12:01	X	X	X	X	X	X	X
11259500CCB	11259500CCB	1	07/18/2019	12:03	X	X	X	X	X	X	X

Sample Name: CAL0 Acquired: 7/18/2019 10:27:13 Type: Cal
Method: Pace-65002-2-CETAC1(v1766) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0011**	**-.0003**	**.0003**	**.0024**	**.0001**	**.0014**
Stddev	.0000	.0002	.0002	.0001	.0002	.0000	.0000
%RSD	9.355	20.09	59.70	28.58	7.901	21.61	.2226
#1	-.0001	.0010	-.0002	.0002	.0025	.0001	.0014
#2	-.0001	.0013	-.0004	.0004	.0023	.0001	.0014

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0006**	**.0001**	**.0007**	**.0001**	**3897.**	**.0014**
Stddev	.0001	.0001	.0000	.0001	.0000	10.	.0003
%RSD	115.7	16.23	37.29	15.49	39.78	.2691	20.03
#1	.0002	-.0006	.0001	.0008	.0001	3890.	.0016
#2	.0000	-.0007	.0001	.0007	.0001	3905.	.0012

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**-.0002**	**.0000**	**.0008**	**-.0033**	**-.0001**	**.0001**
Stddev	.0002	.0001	.0000	.0004	.0005	.0001	.0000
%RSD	115.5	54.71	82.39	45.59	14.72	49.79	1.539
#1	-.0000	-.0001	.0001	.0011	-.0036	-.0002	.0001
#2	-.0003	-.0002	.0000	.0006	-.0029	-.0001	.0001

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**-.0003**	**.0001**	**.0001**	**.0003**	**.0002**	**.0008**
Stddev	.0000	.0001	.0001	.0001	.0000	.0001	.0001
%RSD	21.38	23.47	122.8	44.54	9.327	32.85	6.736
#1	-.0001	-.0003	.0001	.0002	.0002	.0001	.0008
#2	-.0001	-.0002	.0000	.0001	.0003	.0002	.0008

Sample Name: CAL0 Acquired: 7/18/2019 10:27:13 Type: Cal
Method: Pace-65002-2-CETAC1(v1766) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**-.0006**	**.0001**	**6855.**	**103000.**	**20920.**	**.0004**
Stddev	.0000	.0000	.0000	.	523.	344.	.0002
%RSD	8.097	1.648	16.45	.0063	.5076	1.646	54.60
#1	-.0003	-.0005	.0001	6855.	102600.	20680.	.0006
#2	-.0003	-.0006	.0002	6855.	103400.	21160.	.0003

Elem	Zr3391
Units	Cts/S
Avg	**-.0004**
Stddev	.0002
%RSD	56.14
#1	-.0002
#2	-.0005

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3897.4**	**6855.1**	**103000.**	**20921.**
Stddev	10.5	.4	523.	344.
%RSD	.26910	.00633	.50757	1.6460
#1	3890.0	6855.4	102630.	20677.
#2	3904.8	6854.8	103370.	21164.

Sample Name: CAL1 Acquired: 7/18/2019 10:29:39 Type: Cal
Method: Pace-65002-2-CETAC1(v1766) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1675**	**1.316**	**.1657**	**.4374**	**8.014**	**8.335**	**1.527**	**4.404**
Stddev	.0018	.007	.0018	.0066	.035	.031	.006	.039
%RSD	1.047	.5307	1.080	1.511	.4361	.3716	.3865	.8828
#1	.1663	1.311	.1644	.4328	7.989	8.313	1.523	4.376
#2	.1688	1.321	.1669	.4421	8.039	8.357	1.532	4.431

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.276**	**.3780**	**.3300**	**.9012**	**3375.**	**.6486**	**1.365**	**.2609**
Stddev	.028	.0026	.0006	.0019	3.	.0082	.009	.0002
%RSD	.6565	.6766	.1671	.2090	.0816	1.267	.6427	.0716
#1	4.256	.3762	.3296	.8999	3373.	.6428	1.358	.2608
#2	4.296	.3798	.3304	.9025	3377.	.6544	1.371	.2610

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.098**	**1.862**	**.0889**	**1.145**	**.1477**	**.9568**	**.8146**	**.2583**
Stddev	.005	.020	.0013	.010	.0018	.0074	.0075	.0032
%RSD	.4273	1.069	1.495	.9123	1.232	.7760	.9216	1.242
#1	1.095	1.848	.0880	1.137	.1464	.9516	.8093	.2561
#2	1.101	1.876	.0899	1.152	.1490	.9621	.8199	.2606

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1155**	**.3114**	**.4438**	**13.79**	**.8898**	**.3921**	**.5195**	**6604.**
Stddev	.0019	.0015	.0032	.20	.0065	.0044	.0037	10.
%RSD	1.658	.4753	.7143	1.442	.7271	1.117	.7153	.1507
#1	.1141	.3104	.4415	13.93	.8852	.3890	.5169	6611.
#2	.1168	.3125	.4460	13.65	.8943	.3952	.5221	6597.

Sample Name: CAL1 Acquired: 7/18/2019 10:29:39 Type: Cal
Method: Pace-65002-2-CETAC1(v1766) Mode: IR Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**98950.**	**21380.**	**2.548**	**.5648**
Stddev	130.	37.	.012	.0009
%RSD	.1309	.1709	.4793	.1521
#1	98860.	21350.	2.539	.5642
#2	99040.	21400.	2.556	.5654

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3374.6**	**6603.7**	**98953.**	**21379.**
Stddev	2.8	9.9	130.	37.
%RSD	.08162	.15067	.13094	.17093
#1	3372.6	6610.8	98861.	21353.
#2	3376.5	6596.7	99045.	21404.

Sample Name: ICV Acquired: 7/18/2019 10:31:44 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1052.**	**20120.**	**1996.**	**2063.**	**2015.**	**1984.**	**20310.**	**2061.**	**2021.**
Stddev	15.	588.	9.	14.	58.	11.	587.	17.	14.
%RSD	1.384	2.920	.4643	.6671	2.881	.5383	2.887	.8317	.7097
#1	1042.	19710.	1990.	2054.	1974.	1992.	19900.	2049.	2011.
#2	1062.	20540.	2003.	2073.	2056.	1976.	20730.	2073.	2031.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2089.**	**2001.**	**20180.**	**84.43**	**20440.**	**2034.**	**20130.**	**2003.**	**2098.**
Stddev	22.	56.	566.	.28	817.	67.	458.	49.	22.
%RSD	1.067	2.789	2.805	.3335	3.999	3.282	2.274	2.429	1.033
#1	2073.	1961.	19780.	84.63	19860.	1987.	19810.	1969.	2083.
#2	2104.	2040.	20580.	84.23	21020.	2082.	20460.	2037.	2113.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20580.**	**2042.**	**2044.**	**2135.**	**20710.**	**2052.**	**2047.**	**10120.**	**2074.**
Stddev	617.	18.	17.	16.	134.	26.	20.	275.	17.
%RSD	3.000	.8700	.8091	.7557	.6485	1.269	.9979	2.714	.8071
#1	20140.	2030.	2032.	2124.	20620.	2034.	2033.	9930.	2062.
#2	21010.	2055.	2055.	2147.	20810.	2071.	2062.	10320.	2086.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 7/18/2019 10:31:44 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1996.**	**2054.**	**2016.**	**2118.**	**94.47**	**93.54**	**101.2**	**2062.**	**2012.**
Stddev	50.	26.	37.	26.	.28	.24	.1	14.	51.
%RSD	2.501	1.260	1.837	1.214	.3010	.2579	.1125	.6595	2.511
#1	1961.	2035.	1990.	2099.	94.67	93.71	101.3	2052.	1976.
#2	2031.	2072.	2042.	2136.	94.27	93.37	101.2	2071.	2048.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3290.7**	**6475.8**	**96350.**	**21181.**
Stddev	11.0	19.5	248.	24.
%RSD	.33348	.30102	.25787	.11250
#1	3298.5	6489.6	96525.	21198.
#2	3283.0	6462.0	96174.	21165.

Sample Name: ICB Acquired: 7/18/2019 10:33:53 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0829**	**-3.830**	**.8649**	**1.167**	**.1584**	**.2657**	**5.404**	**.0275**	**-.1241**
Stddev	.0101	2.780	.9358	.035	.0854	.0781	1.653	.1368	.2813
%RSD	12.22	72.59	108.2	2.958	53.91	29.39	30.59	497.1	226.7
#1	-.0900	-5.795	1.527	1.142	.2187	.3209	6.573	-.0692	.0748
#2	-.0757	-1.864	.2032	1.191	.0980	.2105	4.235	.1242	-.3230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0379**	**-.0898**	**6.074**	**102.2**	**22.14**	**.2430**	**10.60**	**.2937**	**1.511**
Stddev	.1068	.2331	1.378	.2	2.65	.4787	3.93	.2859	.100
%RSD	281.6	259.5	22.69	.1760	11.97	197.0	37.10	97.34	6.584
#1	.0376	.0750	7.048	102.0	24.01	.5815	13.38	.4958	1.582
#2	-.1134	-.2547	5.100	102.3	20.26	-.0955	7.818	.0916	1.441
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**74.77**	**-.0557**	**.8245**	**.0786**	**1.583**	**-1.662**	**1.576**	**1.621**	**-.1123**
Stddev	96.28	.0071	1.328	.5507	1.912	.388	4.044	1.642	.1851
%RSD	128.8	12.78	161.0	700.6	120.8	23.33	256.6	101.3	164.8
#1	142.8	-.0507	1.763	.4680	2.935	-1.937	-1.283	2.783	-.2432
#2	6.692	-.0607	-.1142	-.3108	.2312	-1.388	4.435	.4601	.0185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 7/18/2019 10:33:53 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3199	.4225	1.211	.1097	101.8	101.8	102.4	.1799	.1800
Stddev	.0505	.1196	.070	.1688	.2	.1	.0	.1141	.1221
%RSD	15.80	28.31	5.803	153.8	.2195	.0805	.0107	63.39	67.82
#1	.3556	.5071	1.161	.2291	101.7	101.8	102.4	.2606	.2663
#2	.2841	.3379	1.261	-.0096	102.0	101.9	102.4	.0993	.0937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3981.2	6981.6	104890.	21420.
Stddev	7.0	15.3	84.	2.
%RSD	.17599	.21949	.08049	.01072
#1	3976.2	6970.8	104830.	21418.
#2	3986.2	6992.4	104950.	21421.

Sample Name: CCV Acquired: 7/18/2019 10:36:08 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.9**	**9947.**	**1016.**	**1050.**	**1007.**	**1011.**	**10060.**	**1028.**	**1018.**
Stddev	7.9	41.	14.	13.	6.	6.	83.	13.	10.
%RSD	1.559	.4164	1.393	1.245	.6309	.5611	.8230	1.216	.9744
#1	500.3	9918.	1006.	1041.	1003.	1007.	10010.	1019.	1011.
#2	511.4	9976.	1026.	1059.	1012.	1015.	10120.	1036.	1025.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1012.**	**1011.**	**10040.**	**88.30**	**9998.**	**998.1**	**10020.**	**1012.**	**1003.**
Stddev	9.	6.	49.	.02	168.	8.1	75.	6.	10.
%RSD	.9193	.6003	.4836	.0175	1.683	.8076	.7434	.6056	.9722
#1	1006.	1007.	10010.	88.29	9879.	992.4	9971.	1008.	995.8
#2	1019.	1016.	10070.	88.31	10120.	1004.	10080.	1016.	1010.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10150.**	**1050.**	**1029.**	**1019.**	**10160.**	**1013.**	**1034.**	**4987.**	**1029.**
Stddev	136.	11.	10.	9.	128.	12.	19.	34.	11.
%RSD	1.338	1.015	.9683	.8703	1.255	1.227	1.810	.6809	1.103
#1	10050.	1042.	1022.	1013.	10070.	1004.	1020.	4963.	1021.
#2	10240.	1057.	1036.	1026.	10250.	1021.	1047.	5011.	1037.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/18/2019 10:36:08 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1018.**	**991.4**	**1034.**	**1013.**	**95.48**	**94.87**	**100.0**	**1041.**	**994.2**
Stddev	6.	11.5	22.	13.	.01	.14	.3	10.	5.9
%RSD	.5938	1.160	2.112	1.244	.0081	.1488	.3201	1.0000	.5960
#1	1014.	983.3	1018.	1005.	95.48	94.77	99.80	1033.	990.0
#2	1023.	999.6	1049.	1022.	95.49	94.97	100.3	1048.	998.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3441.4**	**6545.6**	**97717.**	**20926.**
Stddev	.6	.5	145.	67.
%RSD	.01747	.00813	.14879	.32006
#1	3441.0	6545.2	97614.	20878.
#2	3441.9	6546.0	97820.	20973.

Sample Name: ICSA Acquired: 7/18/2019 10:38:10 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2952**	**52280.**	**-.7362**	**.7427**	**.1398**	**.1622**	**51770.**	**.5144**	**-.3166**
Stddev	.1537	255.	1.336	.1089	.0482	.0341	237.	.1112	.0763
%RSD	52.05	.4879	181.4	14.66	34.46	21.02	.4573	21.61	24.12
#1	-.1865	52100.	-1.681	.6657	.1058	.1863	51600.	.5930	-.3705
#2	-.4038	52460.	.2082	.8197	.1739	.1381	51940.	.4358	-.2626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0858**	**1.465**	**20390.**	**84.61**	**-9.220**	**.9093**	**51680.**	**-.0147**	**.8682**
Stddev	.0963	.279	126.	.02	4.173	.8572	95.	.1499	.7837
%RSD	112.2	19.06	.6158	.0274	45.26	94.27	.1832	1018.	90.26
#1	-.1539	1.662	20300.	84.60	-12.17	1.515	51620.	.0913	1.422
#2	-.0178	1.268	20480.	84.63	-6.269	.3032	51750.	-.1207	.3141
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.16**	**.4309**	**1.049**	**-1.692**	**-6.631**	**-2.318**	**-1.532**	**5.706**	**.5877**
Stddev	62.57	.2528	1.234	1.124	1.758	1.488	1.447	1.610	.5859
%RSD	164.0	58.67	117.7	66.42	26.51	64.20	94.40	28.22	99.71
#1	82.40	.6097	1.922	-2.486	-7.874	-3.370	-2.555	6.844	.1733
#2	-6.081	.2521	.1761	-.8971	-5.388	-1.266	-.5094	4.568	1.002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 7/18/2019 10:38:10 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1026**	**.4255**	**-.5265**	**.4852**	**93.91**	**93.11**	**100.0**	**.3681**	**.1323**
Stddev	.0603	.0044	.2793	.0714	.13	.06	.1	.0355	.0278
%RSD	58.72	1.023	53.05	14.71	.1335	.0633	.1228	9.655	20.98
#1	-.0600	.4224	-.3290	.5357	93.99	93.07	99.95	.3932	.1127
#2	-.1452	.4286	-.7240	.4347	93.82	93.15	100.1	.3430	.1519
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3297.8**	**6437.3**	**95904.**	**20929.**
Stddev	.9	8.6	61.	26.
%RSD	.02737	.13348	.06327	.12281
#1	3297.1	6443.4	95861.	20911.
#2	3298.4	6431.3	95947.	20947.

Sample Name: ICSAB Acquired: 7/18/2019 10:40:23 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1065.**	**52640.**	**1.090**	**-.9258**	**516.3**	**526.5**	**52160.**	**1032.**	**508.9**
Stddev	6.	390.	.521	.0639	4.2	2.9	389.	7.	2.7
%RSD	.5245	.7406	47.78	6.900	.8137	.5482	.7464	.7071	.5325
#1	1061.	52370.	1.459	-.8806	513.3	524.4	51890.	1027.	507.0
#2	1069.	52920.	.7219	-.9710	519.3	528.5	52440.	1037.	510.8
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**515.2**	**514.5**	**20530.**	**84.60**	**.9408**	**.8239**	**52070.**	**510.7**	**.5853**
Stddev	.8	4.0	131.	.28	.3938	.0622	438.	2.8	.1812
%RSD	.1456	.7836	.6370	.3347	41.85	7.546	.8420	.5489	30.96
#1	514.7	511.7	20440.	84.40	.6624	.7799	51760.	508.8	.7134
#2	515.8	517.4	20630.	84.80	1.219	.8679	52380.	512.7	.4571
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.27**	**1015.**	**-2.181**	**1016.**	**-8.559**	**-3.437**	**-.5979**	**-16.31**	**.8834**
Stddev	37.17	7.	.708	11.	.490	.271	.5439	.78	.1214
%RSD	72.49	.7089	32.46	1.063	5.720	7.886	90.97	4.804	13.74
#1	24.99	1010.	-2.682	1009.	-8.213	-3.245	-.9826	-16.86	.9692
#2	77.55	1021.	-1.681	1024.	-8.906	-3.628	-.2133	-15.75	.7976
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 7/18/2019 10:40:23 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.2808	.2997	1.018	521.8	93.84	92.91	100.3	1019.	.0212
Stddev	.0063	.0223	.437	.5	.11	.30	.2	8.	.3603
%RSD	2.252	7.429	42.93	.0923	.1182	.3200	.1593	.8269	1697.
#1	-.2763	.3154	1.327	521.5	93.76	92.70	100.2	1013.	-.2335
#2	-.2853	.2839	.7087	522.2	93.92	93.12	100.4	1025.	.2760
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3297.3	6433.0	95704.	20982.
Stddev	11.0	7.6	306.	33.
%RSD	.33472	.11820	.32002	.15930
#1	3289.5	6427.6	95487.	20959.
#2	3305.1	6438.4	95920.	21006.

Sample Name: CRDL Acquired: 7/18/2019 10:42:32 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.602**	**58.90**	**4.154**	**52.92**	**10.43**	**1.105**	**1051.**	**3.054**	**4.662**
Stddev	.194	2.48	.704	.34	.07	.031	6.	.028	.171
%RSD	2.935	4.208	16.96	.6497	.6349	2.775	.5258	.9098	3.672
#1	6.465	57.15	3.655	52.67	10.39	1.127	1055.	3.035	4.541
#2	6.739	60.65	4.652	53.16	10.48	1.084	1047.	3.074	4.783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.997**	**5.277**	**76.25**	**98.24**	**503.1**	**41.21**	**228.5**	**5.163**	**19.17**
Stddev	.024	.481	1.05	.33	9.3	.07	.8	.082	.50
%RSD	.4695	9.108	1.371	.3405	1.842	.1673	.3691	1.581	2.605
#1	5.014	5.617	75.51	98.48	496.5	41.16	229.1	5.105	18.82
#2	4.981	4.937	76.98	98.01	509.6	41.26	227.9	5.220	19.52
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1058.**	**10.65**	**50.25**	**5.210**	**50.25**	**5.312**	**8.492**	**103.7**	**52.50**
Stddev	53.	.28	.85	.848	.81	1.192	1.694	3.0	1.18
%RSD	5.000	2.661	1.689	16.28	1.613	22.44	19.95	2.909	2.244
#1	1020.	10.45	50.85	4.610	50.82	6.155	9.690	105.8	51.67
#2	1095.	10.85	49.65	5.810	49.68	4.469	7.294	101.5	53.33
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 7/18/2019 10:42:32 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.288**	**5.003**	**9.873**	**5.187**	**99.46**	**99.45**	**101.9**	**10.32**	**66.33**
Stddev	.043	.144	1.102	.184	.09	.03	.4	.04	.67
%RSD	.8181	2.878	11.17	3.537	.0869	.0264	.4069	.3905	1.017
#1	5.257	4.901	9.093	5.057	99.52	99.43	101.6	10.30	65.85
#2	5.319	5.105	10.65	5.317	99.39	99.47	102.2	10.35	66.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3828.9**	**6817.8**	**102440.**	**21313.**
Stddev	13.0	5.9	27.	87.
%RSD	.34054	.08694	.02643	.40688
#1	3838.1	6822.0	102420.	21251.
#2	3819.7	6813.6	102460.	21374.

Sample Name: 1710350_27008 Acquired: 7/18/2019 10:46:24 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1689**	**-8.544**	**1.006**	**-.0783**	**-.0962**	**-.0303**	**3.649**	**-.0430**	**.0378**
Stddev	.2287	2.921	1.343	.8412	.0029	.0076	4.658	.0135	.2058
%RSD	135.4	34.19	133.4	1075.	3.013	25.04	127.7	31.30	544.0
#1	-.0072	-6.479	1.955	-.6731	-.0983	-.0357	6.942	-.0525	.1834
#2	-.3306	-10.61	.0569	.5166	-.0942	-.0250	.3550	-.0335	-.1077

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1851**	**.0932**	**2.328**	**98.89**	**-8.804**	**-.0374**	**8.074**	**-.0304**	**-.1985**
Stddev	.0364	.7473	.035	.06	19.17	.3703	.585	.0752	.0449
%RSD	19.65	801.7	1.519	.0633	217.7	990.1	7.244	247.3	22.62
#1	.1594	.6217	2.303	98.93	4.750	.2244	7.661	-.0836	-.2303
#2	.2108	-.4352	2.353	98.84	-22.36	-.2992	8.488	.0228	-.1668

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**58.98**	**.0047**	**.8175**	**.6812**	**1.935**	**-1.050**	**1.081**	**.9393**	**-.4535**
Stddev	55.39	.0229	.0816	1.138	1.732	.518	.160	1.058	.1786
%RSD	93.92	486.3	9.983	167.1	89.50	49.31	14.82	112.7	39.37
#1	19.81	.0209	.8752	-.1237	.7105	-.6839	1.194	.1909	-.5798
#2	98.15	-.0115	.7598	1.486	3.160	-1.416	.9678	1.688	-.3273

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0110**	**.4035**	**.5178**	**-.0350**	**99.01**	**99.89**	**102.8**	**2.564**	**.4604**
Stddev	.0136	.0008	.8660	.0497	.19	.05	.1	.148	.1439
%RSD	123.5	.1979	167.3	142.0	.1918	.0459	.1063	5.768	31.24
#1	.0014	.4029	-.0946	.0001	99.15	99.92	102.8	2.668	.3587
#2	.0206	.4041	1.130	-.0701	98.88	99.85	102.7	2.459	.5621

Sample Name: 1710350_27008 Acquired: 7/18/2019 10:46:24 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3854.1	6787.5	102890.	21498.
Stddev	2.4	13.0	47.	23.
%RSD	.06327	.19180	.04593	.10630
#1	3855.8	6796.7	102920.	21514.
#2	3852.4	6778.3	102850.	21482.

Sample Name: 1710351_27008 Acquired: 7/18/2019 10:48:35 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**258.7**	**5069.**	**474.9**	**520.0**	**497.2**	**498.4**	**5163.**	**502.6**	**471.8**
Stddev	3.1	.	4.0	9.1	1.0	1.3	12.	3.6	2.4
%RSD	1.218	.0035	.8518	1.744	.2078	.2608	.2250	.7256	.5135
#1	256.5	5068.	472.0	513.6	496.5	497.5	5155.	500.0	470.0
#2	260.9	5069.	477.7	526.4	498.0	499.3	5172.	505.2	473.5

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**493.0**	**495.1**	**5135.**	**92.15**	**5091.**	**493.9**	**5086.**	**495.1**	**496.2**
Stddev	4.7	.4	11.	.40	48.	.3	5.	.5	3.6
%RSD	.9523	.0709	.2113	.4331	.9369	.0597	.1073	.1047	.7345
#1	489.7	494.8	5127.	91.87	5057.	493.7	5082.	494.7	493.6
#2	496.3	495.3	5143.	92.43	5124.	494.1	5090.	495.4	498.7

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5235.**	**506.8**	**489.3**	**504.5**	**5113.**	**514.9**	**499.9**	**2543.**	**525.2**
Stddev	14.	5.2	3.1	.1	46.	4.9	4.6	4.	2.9
%RSD	.2768	1.034	.6351	.0142	.9092	.9524	.9112	.1412	.5602
#1	5225.	503.1	487.1	504.6	5080.	511.4	496.7	2541.	523.1
#2	5246.	510.5	491.5	504.5	5146.	518.3	503.2	2546.	527.2

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.1**	**497.8**	**486.0**	**494.8**	**97.17**	**97.69**	**102.4**	**499.9**	**512.9**
Stddev	1.3	4.6	3.1	4.7	.02	.16	.8	1.9	.3
%RSD	.2615	.9252	.6468	.9546	.0169	.1677	.7626	.3849	.0625
#1	503.1	494.5	483.7	491.5	97.16	97.57	101.8	498.5	512.7
#2	505.0	501.0	488.2	498.2	97.18	97.80	102.9	501.2	513.1

Sample Name: 1710351_27008 Acquired: 7/18/2019 10:48:35 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3591.4	6661.3	100620.	21417.
Stddev	15.6	1.1	169.	163.
%RSD	.43312	.01688	.16773	.76258
#1	3580.4	6660.5	100500.	21301.
#2	3602.4	6662.1	100740.	21532.

Sample Name: 1709293_27008 Acquired: 7/18/2019 10:50:36 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3501**	**2.267**	**1.970**	**7.066**	**3.201**	**.0886**	**77.92**
Stddev	.2178	2.843	1.473	.012	.028	.0003	2.03
%RSD	62.22	125.4	74.77	.1661	.8778	.3870	2.602
#1	.1961	4.277	3.011	7.074	3.221	.0883	76.49
#2	.5041	.2565	.9284	7.058	3.181	.0888	79.35

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0866**	**-1.530**	**2.163**	**.9561**	**23.84**	**66.87**	**275.6**
Stddev	.0403	.017	.005	1.415	1.61	.17	50.9
%RSD	46.58	1.098	.2480	148.0	6.754	.2588	18.45
#1	.1151	-1.518	2.159	1.957	24.98	66.75	239.7
#2	.0581	-1.542	2.167	-.0444	22.70	67.00	311.6

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.438**	**23.11**	**.6429**	**1.523**	**1394000.**	**2.252**	**113.0**
Stddev	1.003	3.52	.1929	.205	3548.	.069	.5
%RSD	69.75	15.23	30.00	13.45	.2545	3.040	.4312
#1	.7288	25.59	.7793	1.378	1391000.	2.203	112.7
#2	2.148	20.62	.5066	1.667	1396000.	2.300	113.4

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.642**	**27.08**	**.0816**	**4.142**	**20.51**	**1.718**	**.6320**
Stddev	.286	.30	3.145	2.230	1.19	.380	.0201
%RSD	17.41	1.122	3852.	53.85	5.788	22.11	3.176
#1	1.845	27.29	2.305	2.564	21.35	1.450	.6178
#2	1.440	26.86	-2.142	5.719	19.67	1.987	.6462

Sample Name: 1709293_27008 Acquired: 7/18/2019 10:50:36 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0932	-.5566	-.2767	79.36	77.92	96.11	6.484
Stddev	.0278	.7245	.0287	.03	.06	.66	.048
%RSD	29.86	130.2	10.37	.0399	.0824	.6874	.7445
#1	.0735	-1.069	-.2970	79.34	77.96	95.65	6.450
#2	.1129	-.0443	-.2564	79.38	77.87	96.58	6.518

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.5846
Stddev	.1562
%RSD	26.71
#1	.6950
#2	.4742

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2606.3	5440.2	80259.	20108.
Stddev	6.7	2.2	66.	138.
%RSD	.25883	.03990	.08236	.68740
#1	2601.5	5438.7	80306.	20010.
#2	2611.1	5441.7	80213.	20205.

Sample Name: 30313514001_27008 Acquired: 7/18/2019 10:52:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.572**	**-19.01**	**1.281**	**204.4**	**917.2**	**-.3463**	**728200.**
Stddev	.171	3.16	1.625	.0	15.2	.0437	11940.
%RSD	10.84	16.63	126.8	.0039	1.655	12.62	1.640
#1	-1.452	-16.77	2.430	204.4	906.5	-.3154	719800.
#2	-1.693	-21.24	.1320	204.4	927.9	-.3772	736700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.146**	**60.52**	**.5955**	**28.68**	**18.35**	**61.46**	**10530.**
Stddev	.086	.24	.1492	1.19	3.19	.29	293.
%RSD	1.054	.3904	25.05	4.167	17.36	.4736	2.783
#1	8.085	60.35	.4900	27.84	16.10	61.25	10320.
#2	8.206	60.69	.7010	29.53	20.60	61.66	10730.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**122.6**	**12870.**	**3388.**	**85.74**	**1479000.**	**688.7**	**61.99**
Stddev	1.9	180.	51.	.44	29360.	.4	.27
%RSD	1.588	1.398	1.499	.5104	1.986	.0558	.4408
#1	121.2	12740.	3352.	86.05	1458000.	689.0	62.19
#2	124.0	13000.	3424.	85.43	1499000.	688.4	61.80

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7584**	**57060.**	**-4.729**	**4.116**	**12070.**	**1.498**	**1959.**
Stddev	.7326	85.	1.721	.156	208.	.435	31.
%RSD	96.59	.1487	36.39	3.780	1.721	29.00	1.557
#1	-1.276	57000.	-5.946	4.006	11930.	1.806	1937.
#2	-.2404	57120.	-3.512	4.226	12220.	1.191	1980.

Sample Name: 30313514001_27008 Acquired: 7/18/2019 10:52:48 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.9742	-2.909	1.167	75.04	74.95	93.74	143.9
Stddev	.0030	.755	.116	.38	.29	.37	.1
%RSD	.3100	25.95	9.922	.5120	.3850	.3907	.0688
#1	-.9763	-3.443	1.249	74.77	74.74	94.00	143.8
#2	-.9721	-2.375	1.085	75.31	75.15	93.48	143.9

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	1.799
Stddev	.121
%RSD	6.729
#1	1.885
#2	1.714

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2395.3	5144.1	77196.	19611.
Stddev	11.3	26.3	297.	77.
%RSD	.47361	.51197	.38500	.39072
#1	2387.3	5125.4	76986.	19665.
#2	2403.3	5162.7	77406.	19557.

Sample Name: 1710352_27008 Acquired: 7/18/2019 10:55:08 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.440**	**-20.34**	**4.998**	**204.5**	**922.3**	**-.3161**	**731200.**
Stddev	.045	3.07	3.328	1.2	22.8	.0379	15660.
%RSD	3.098	15.11	66.59	.5743	2.472	11.98	2.141
#1	-1.408	-22.52	7.351	203.7	906.2	-.3429	720200.
#2	-1.471	-18.17	2.645	205.4	938.4	-.2894	742300.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.015**	**60.30**	**1.180**	**28.14**	**19.99**	**60.82**	**10660.**
Stddev	.251	.30	.062	.16	1.55	.04	360.
%RSD	3.133	.4935	5.231	.5786	7.750	.0647	3.376
#1	7.837	60.09	1.224	28.02	18.90	60.79	10410.
#2	8.192	60.51	1.137	28.25	21.09	60.85	10920.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**125.5**	**12920.**	**3399.**	**86.08**	**1491000.**	**688.0**	**58.80**
Stddev	4.7	185.	67.	.72	40510.	.6	.92
%RSD	3.779	1.429	1.974	.8334	2.717	.0873	1.570
#1	122.1	12790.	3351.	85.57	1462000.	687.6	59.45
#2	128.8	13050.	3446.	86.59	1520000.	688.5	58.15

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.790**	**57400.**	**-2.626**	**.6790**	**12140.**	**2.311**	**1929.**
Stddev	1.592	160.	1.156	1.166	258.	.300	32.
%RSD	57.05	.2792	44.04	171.6	2.125	12.98	1.645
#1	-3.915	57520.	-1.808	1.503	11960.	2.099	1907.
#2	-1.664	57290.	-3.444	-.1451	12320.	2.523	1951.

Sample Name: 1710352_27008 Acquired: 7/18/2019 10:55:08 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.024**	**-2.092**	**1.291**	**74.40**	**74.35**	**92.81**	**141.3**
Stddev	.267	.903	.039	.24	.17	.05	.2
%RSD	26.06	43.19	3.031	.3161	.2326	.0493	.1129
#1	-.8349	-2.731	1.264	74.24	74.47	92.78	141.2
#2	-1.212	-1.453	1.319	74.57	74.23	92.85	141.4

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**1.110**
Stddev	.836
%RSD	75.29
#1	1.701
#2	.5191

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2370.4**	**5100.3**	**76584.**	**19417.**
Stddev	1.5	16.1	178.	10.
%RSD	.06473	.31612	.23256	.04929
#1	2369.4	5088.9	76710.	19410.
#2	2371.5	5111.7	76458.	19424.

Sample Name: 1710353_27008 Acquired: 7/18/2019 10:57:28 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**291.4**	**5051.**	**561.2**	**724.7**	**1372.**	**490.5**	**702000.**
Stddev	4.8	85.	11.3	3.8	32.	10.6	22290.
%RSD	1.661	1.680	2.005	.5184	2.365	2.156	3.175
#1	288.0	4991.	553.2	722.0	1349.	483.1	686200.
#2	294.9	5111.	569.1	727.3	1395.	498.0	717700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**571.3**	**585.4**	**492.8**	**535.7**	**4802.**	**60.25**	**15550.**
Stddev	6.1	2.3	6.9	10.4	87.	.16	631.
%RSD	1.069	.3851	1.398	1.948	1.807	.2644	4.059
#1	567.0	583.8	488.0	528.3	4741.	60.36	15100.
#2	575.6	586.9	497.7	543.0	4864.	60.13	15990.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**645.9**	**17100.**	**3744.**	**666.0**	**1425000.**	**1168.**	**643.2**
Stddev	18.9	337.	87.	4.7	45140.	3.	3.9
%RSD	2.931	1.968	2.327	.7083	3.168	.2413	.6065
#1	632.6	16860.	3682.	662.7	1393000.	1166.	640.5
#2	659.3	17330.	3805.	669.3	1457000.	1170.	646.0

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.7**	**63580.**	**545.0**	**587.1**	**14310.**	**471.8**	**2349.**
Stddev	3.0	674.	1.3	6.0	340.	3.1	58.
%RSD	.5761	1.060	.2392	1.028	2.373	.6676	2.487
#1	512.6	63100.	546.0	582.9	14070.	469.6	2307.
#2	516.8	64050.	544.1	591.4	14550.	474.0	2390.

Sample Name: 1710353_27008 Acquired: 7/18/2019 10:57:28 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	496.1	443.0	519.5	74.23	75.20	93.05	635.5
Stddev	6.6	1.1	8.0	.12	.08	.17	2.0
%RSD	1.321	.2468	1.549	.1565	.1069	.1861	.3122
#1	491.5	442.3	513.8	74.31	75.15	93.17	634.1
#2	500.8	443.8	525.2	74.15	75.26	92.93	636.9

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	483.7
Stddev	12.4
%RSD	2.569
#1	474.9
#2	492.5

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2348.1	5088.6	77462.	19467.
Stddev	6.2	8.0	83.	36.
%RSD	.26440	.15647	.10691	.18610
#1	2352.5	5094.3	77404.	19492.
#2	2343.7	5083.0	77521.	19441.

Sample Name: 1710354_27008 Acquired: 7/18/2019 10:59:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**297.3**	**5054.**	**541.4**	**725.6**	**1405.**	**484.4**	**731500.**
Stddev	3.9	106.	3.4	2.3	28.	5.9	8389.
%RSD	1.299	2.097	.6333	.3133	1.984	1.212	1.147
#1	294.6	4979.	543.8	723.9	1385.	480.3	725600.
#2	300.1	5129.	538.9	727.2	1425.	488.6	737500.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**550.1**	**563.1**	**480.6**	**528.5**	**4796.**	**60.04**	**16080.**
Stddev	2.0	1.3	4.6	9.7	99.	.22	507.
%RSD	.3682	.2241	.9601	1.838	2.064	.3598	3.156
#1	548.7	562.3	477.4	521.7	4726.	59.89	15720.
#2	551.5	564.0	483.9	535.4	4866.	60.19	16440.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**646.0**	**17480.**	**3870.**	**668.3**	**1487000.**	**1155.**	**628.8**
Stddev	15.9	271.	54.	2.3	32230.	4.	2.0
%RSD	2.457	1.552	1.405	.3432	2.168	.3287	.3233
#1	634.8	17290.	3832.	666.6	1464000.	1153.	627.4
#2	657.2	17670.	3908.	669.9	1509000.	1158.	630.2

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**492.7**	**64330.**	**547.2**	**564.5**	**14860.**	**472.5**	**2448.**
Stddev	.3	232.	.6	1.8	288.	.3	62.
%RSD	.0690	.3601	.1153	.3167	1.939	.0609	2.522
#1	492.5	64170.	547.7	563.3	14660.	472.3	2404.
#2	493.0	64490.	546.8	565.8	15060.	472.7	2492.

Sample Name: 1710354_27008 Acquired: 7/18/2019 10:59:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.8**	**422.4**	**508.5**	**73.90**	**74.83**	**93.78**	**615.6**
Stddev	5.1	.8	5.0	.27	.12	.45	3.8
%RSD	1.008	.1892	.9930	.3623	.1570	.4782	.6213
#1	503.2	422.9	505.0	73.71	74.91	94.10	612.9
#2	510.4	421.8	512.1	74.09	74.74	93.47	618.3

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**506.1**
Stddev	7.2
%RSD	1.427
#1	501.0
#2	511.2

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2340.0**	**5065.9**	**77074.**	**19620.**
Stddev	8.4	18.4	121.	94.
%RSD	.35984	.36232	.15703	.47821
#1	2334.0	5052.9	77160.	19686.
#2	2345.9	5078.9	76989.	19554.

Sample Name: 30313514002_27008 Acquired: 7/18/2019 11:01:55 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.401**	**-15.47**	**3.415**	**62.83**	**266.2**	**-.3153**	**844100.**
Stddev	.475	6.12	2.413	.34	2.2	.0297	9172.
%RSD	33.88	39.53	70.67	.5380	.8267	9.431	1.087
#1	-1.736	-11.14	1.708	63.06	264.7	-.2943	837600.
#2	-1.065	-19.79	5.121	62.59	267.8	-.3363	850600.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.747**	**13.07**	**4.496**	**7.525**	**469.3**	**60.21**	**12320.**
Stddev	.022	.19	.020	.065	1.4	.10	182.
%RSD	.7846	1.439	.4425	.8666	.2961	.1653	1.476
#1	2.732	13.20	4.482	7.478	470.3	60.14	12190.
#2	2.762	12.93	4.510	7.571	468.4	60.28	12440.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**47.06**	**15990.**	**2806.**	**29.76**	**1494000.**	**43.55**	**69.66**
Stddev	1.05	94.	14.	.16	15250.	.19	1.87
%RSD	2.240	.5894	.4855	.5484	1.021	.4452	2.680
#1	46.32	15920.	2797.	29.87	1483000.	43.41	68.34
#2	47.81	16060.	2816.	29.64	1505000.	43.69	70.98

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3261**	**170600.**	**-4.926**	**7.001**	**6399.**	**2.276**	**1991.**
Stddev	.4022	12.	.937	2.346	45.	.171	6.
%RSD	123.4	.0071	19.01	33.52	.7069	7.506	.3055
#1	-.0417	170600.	-4.264	5.342	6367.	2.155	1986.
#2	-.6105	170600.	-5.588	8.660	6431.	2.397	1995.

Sample Name: 30313514002_27008 Acquired: 7/18/2019 11:01:55 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-1.065	-4.034	1.557	73.35	73.70	92.31	63.16
Stddev	.164	.115	.392	.46	.11	.27	.04
%RSD	15.44	2.857	25.15	.6235	.1551	.2958	.0638
#1	-1.181	-3.952	1.280	73.03	73.62	92.12	63.13
#2	-.9489	-4.115	1.834	73.68	73.78	92.50	63.19

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	2.062
Stddev	.515
%RSD	24.96
#1	2.426
#2	1.698

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2346.6	5028.4	75912.	19312.
Stddev	3.9	31.4	118.	57.
%RSD	.16528	.62352	.15513	.29578
#1	2343.9	5006.2	75829.	19271.
#2	2349.4	5050.6	75996.	19352.

Sample Name: 1709293_27008 Acquired: 7/18/2019 11:04:17 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3209**	**-3.309**	**.5064**	**3.010**	**1.590**	**-.0140**	**307.5**	**-.1404**
Stddev	.2594	.038	.3236	.921	.016	.0183	68.5	.0629
%RSD	80.84	1.160	63.89	30.60	1.010	130.1	22.27	44.80
#1	.5044	-3.282	.7352	3.662	1.579	-.0269	355.9	-.1849
#2	.1375	-3.336	.2776	2.359	1.601	-.0011	259.1	-.0959

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.264**	**.9614**	**-.2079**	**12.20**	**74.23**	**233.3**	**2.587**	**16.52**
Stddev	.020	.1777	1.099	2.15	.24	17.7	.271	1.80
%RSD	1.561	18.48	528.8	17.62	.3255	7.584	10.48	10.87
#1	-1.277	1.087	.5693	13.72	74.05	245.8	2.396	15.25
#2	-1.250	.8358	-.9851	10.68	74.40	220.8	2.779	17.79

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.058**	**.2872**	**699100.**	**1.283**	**56.04**	**.6626**	**27.33**	**-1.203**
Stddev	.198	.6467	16540.	.001	.21	.5528	5.00	1.071
%RSD	18.69	225.2	2.366	.0389	.3809	83.42	18.30	89.02
#1	1.198	-.1700	687400.	1.283	56.19	1.053	30.86	-.4456
#2	.9182	.7445	710800.	1.283	55.89	.2718	23.79	-1.960

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.026**	**12.67**	**1.482**	**.8556**	**-.0497**	**1.847**	**-.3654**	**86.75**
Stddev	1.706	2.84	.489	.1264	.0135	1.204	.0299	.23
%RSD	166.3	22.40	33.02	14.77	27.15	65.16	8.188	.2624
#1	-.1805	14.67	1.136	.9449	-.0593	.9960	-.3442	86.59
#2	2.232	10.66	1.828	.7662	-.0402	2.698	-.3865	86.91

Sample Name: 1709293_27008 Acquired: 7/18/2019 11:04:17 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X2

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**84.28**	**97.37**	**3.252**	**.2321**
Stddev	.08	.42	.164	.1617
%RSD	.0900	.4339	5.050	69.66
#1	84.23	97.07	3.136	.1178
#2	84.33	97.67	3.368	.3464

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2892.8**	**5947.0**	**86812.**	**20371.**
Stddev	9.4	15.6	78.	88.
%RSD	.32545	.26236	.09002	.43391
#1	2886.2	5936.0	86757.	20308.
#2	2899.5	5958.0	86867.	20433.

Sample Name: 30313514001_27008 Acquired: 7/18/2019 11:06:30 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5827**	**-1.627**	**1.336**	**42.62**	**180.9**	**-.0779**	**153900.**	**1.505**
Stddev	.0591	1.872	.130	.16	4.9	.0055	3885.	.044
%RSD	10.15	115.1	9.752	.3821	2.722	7.007	2.524	2.938
#1	-.6245	-.3028	1.429	42.50	177.4	-.0818	151200.	1.474
#2	-.5409	-2.951	1.244	42.73	184.4	-.0741	156700.	1.536

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.91**	**.3741**	**5.969**	**2.656**	**76.60**	**1995.**	**22.26**	**2705.**
Stddev	.16	.0760	.482	.715	.06	63.	.28	62.
%RSD	1.378	20.32	8.073	26.93	.0810	3.135	1.247	2.285
#1	11.80	.4278	5.629	2.151	76.64	1950.	22.06	2661.
#2	12.03	.3203	6.310	3.162	76.56	2039.	22.46	2749.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**692.8**	**15.49**	**290000.**	**148.4**	**12.89**	**-.3627**	**11550.**	**-.5439**
Stddev	13.3	.23	8324.	.8	1.64	.1448	62.	.0934
%RSD	1.922	1.471	2.871	.5532	12.68	39.94	.5400	17.18
#1	683.4	15.33	284100.	147.8	11.73	-.4651	11500.	-.6100
#2	702.2	15.65	295900.	149.0	14.05	-.2602	11590.	-.4779

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-4.016**	**2408.**	**1.120**	**395.5**	**-.0206**	**.1210**	**.0141**	**88.27**
Stddev	.372	46.	.591	9.5	.3017	1.638	.0605	.19
%RSD	9.269	1.918	52.79	2.413	1464.	1354.	428.6	.2160
#1	-3.753	2375.	1.537	388.8	.1927	1.279	-.0287	88.41
#2	-4.280	2441.	.7016	402.3	-.2340	-1.037	.0569	88.14

Sample Name: 30313514001_27008 Acquired: 7/18/2019 11:06:30 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**87.82**	**97.81**	**30.05**	**.0098**
Stddev	.10	.67	.10	.5445
%RSD	.1082	.6874	.3359	5537.
#1	87.76	97.34	29.98	.3949
#2	87.89	98.29	30.12	-.3752

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2985.4**	**6051.3**	**90460.**	**20463.**
Stddev	2.4	13.1	98.	141.
%RSD	.08098	.21599	.10816	.68740
#1	2987.1	6060.6	90391.	20363.
#2	2983.7	6042.1	90529.	20562.

Sample Name: CCV Acquired: 7/18/2019 11:08:44 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.0**	**10050.**	**994.8**	**1016.**	**1022.**	**1026.**	**10220.**	**1008.**	**998.9**
Stddev	2.7	10.	11.9	12.	2.	.	8.	11.	12.4
%RSD	.5450	.0983	1.198	1.167	.2384	.0470	.0777	1.051	1.242
#1	500.0	10040.	986.3	1007.	1020.	1026.	10210.	1000.	990.1
#2	503.9	10060.	1003.	1024.	1024.	1027.	10220.	1015.	1008.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1015.**	**1025.**	**10150.**	**89.31**	**10100.**	**1015.**	**10150.**	**1025.**	**984.2**
Stddev	5.	3.	11.	.09	44.	3.	26.	.	8.8
%RSD	.4961	.2878	.1067	.1037	.4393	.2926	.2557	.0108	.8916
#1	1012.	1023.	10140.	89.24	10070.	1013.	10170.	1025.	978.0
#2	1019.	1028.	10150.	89.37	10130.	1017.	10140.	1025.	990.4
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10500.**	**1026.**	**1009.**	**1004.**	**9939.**	**989.0**	**1011.**	**5080.**	**1012.**
Stddev	131.	10.	16.	10.	108.	14.7	17.	5.	9.
%RSD	1.248	1.013	1.543	.9897	1.083	1.485	1.718	.0972	.8584
#1	10410.	1019.	997.6	997.0	9862.	978.6	999.2	5084.	1006.
#2	10600.	1033.	1020.	1011.	10010.	999.3	1024.	5077.	1018.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/18/2019 11:08:44 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1034.**	**990.7**	**1014.**	**1012.**	**97.08**	**95.96**	**100.3**	**1026.**	**1023.**
Stddev	2.	4.3	15.	3.	.13	.13	.5	11.	2.
%RSD	.1938	.4296	1.491	.3109	.1365	.1403	.5141	1.044	.2341
#1	1033.	987.7	1003.	1010.	96.98	96.05	99.92	1018.	1025.
#2	1036.	993.7	1025.	1014.	97.17	95.86	100.6	1033.	1021.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3480.6**	**6654.6**	**98839.**	**20979.**
Stddev	3.6	9.1	139.	108.
%RSD	.10370	.13651	.14031	.51407
#1	3478.0	6648.2	98937.	20903.
#2	3483.1	6661.0	98741.	21056.

Sample Name: CCB Acquired: 7/18/2019 11:10:46 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0318**	**-3.194**	**-.2008**	**-.1306**	**.1447**	**.1345**	**11.47**	**-.0222**	**-.0478**
Stddev	.1696	1.809	.8198	.1809	.0052	.0473	.19	.0154	.0661
%RSD	532.8	56.63	408.4	138.5	3.561	35.19	1.665	69.26	138.2
#1	-.1517	-4.473	.3789	-.2586	.1411	.1680	11.34	-.0113	-.0011
#2	.0881	-1.915	-.7804	-.0027	.1484	.1010	11.61	-.0330	-.0945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1362**	**.0174**	**1.556**	**99.09**	**42.46**	**.7246**	**7.458**	**.2210**	**.5370**
Stddev	.1673	.8626	.798	.23	2.74	1.418	2.427	.1103	.0117
%RSD	122.9	4962.	51.31	.2284	6.463	195.7	32.54	49.91	2.188
#1	.2545	-.5925	2.120	99.25	44.40	1.727	5.742	.2990	.5286
#2	.0179	.6273	.9912	98.93	40.52	-.2780	9.174	.1430	.5453
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**106.1**	**.1585**	**.9494**	**-.2615**	**.4591**	**-.6254**	**2.667**	**1.066**	**-.2906**
Stddev	33.5	.1799	.2915	.6943	.5942	.6700	.545	.828	.0032
%RSD	31.52	113.4	30.70	265.5	129.4	107.1	20.45	77.66	1.084
#1	82.49	.0314	1.156	-.7524	.0390	-.1517	3.053	1.651	-.2883
#2	129.8	.2857	.7433	.2294	.8793	-1.099	2.282	.4804	-.2928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/18/2019 11:10:46 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1907	.3477	.9846	-.0319	98.93	99.23	100.6	.0007	-.0228
Stddev	.0408	.1536	1.685	.0019	.42	.12	.2	.0730	.4031
%RSD	21.38	44.18	171.1	6.080	.4205	.1217	.2137	11070.	1767.
#1	.2195	.4563	2.176	-.0305	99.22	99.14	100.8	.0523	-.3078
#2	.1619	.2391	-.2067	-.0333	98.64	99.31	100.5	-.0510	.2622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3861.9	6781.8	102210.	21054.
Stddev	8.8	28.5	124.	45.
%RSD	.22842	.42051	.12172	.21370
#1	3868.1	6802.0	102120.	21086.
#2	3855.6	6761.6	102290.	21022.

Sample Name: 1710352_27008 Acquired: 7/18/2019 11:13:02 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3712**	**-4.342**	**1.568**	**42.31**	**182.6**	**-.0791**	**154500.**	**1.520**
Stddev	.0235	7.819	1.296	.20	1.5	.0017	684.	.132
%RSD	6.340	180.1	82.65	.4836	.8427	2.204	.4426	8.696
#1	-.3545	-9.870	.6515	42.45	181.5	-.0803	154000.	1.426
#2	-.3878	1.187	2.484	42.16	183.7	-.0778	155000.	1.613

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**11.73**	**.3249**	**5.881**	**1.663**	**75.87**	**1965.**	**22.79**	**2736.**
Stddev	.13	.0057	.144	1.373	.01	40.	.42	.
%RSD	1.069	1.741	2.444	82.56	.0141	2.045	1.836	.0127
#1	11.64	.3289	5.983	.6924	75.87	1937.	23.09	2736.
#2	11.82	.3209	5.780	2.634	75.86	1994.	22.50	2735.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**696.9**	**15.04**	**291900.**	**146.8**	**12.83**	**-1.986**	**11460.**	**-1.726**
Stddev	.7	.35	2660.	.4	.60	.576	106.	.611
%RSD	.0976	2.359	.9114	.2933	4.694	29.02	.9283	35.39
#1	696.4	15.29	290000.	147.1	12.41	-1.579	11380.	-1.294
#2	697.4	14.78	293800.	146.5	13.26	-2.394	11530.	-2.158

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7145**	**2425.**	**.8390**	**398.4**	**-.2009**	**1.308**	**.2730**	**87.42**
Stddev	7.584	9.	.3797	2.2	.0668	.867	.0056	.14
%RSD	1061.	.3841	45.26	.5630	33.27	66.27	2.057	.1590
#1	4.648	2431.	.5705	396.8	-.2481	1.922	.2690	87.32
#2	-6.077	2418.	1.107	400.0	-.1536	.6954	.2769	87.52

Sample Name: 1710352_27008 Acquired: 7/18/2019 11:13:02 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**86.97**	**98.00**	**30.11**	**-.1214**
Stddev	.29	.55	.05	.3913
%RSD	.3365	.5633	.1616	322.3
#1	86.76	97.61	30.08	-.3981
#2	87.18	98.39	30.15	.1553

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2956.8**	**5992.7**	**89580.**	**20503.**
Stddev	.4	9.5	301.	115.
%RSD	.01413	.15899	.33652	.56328
#1	2957.1	5986.0	89367.	20421.
#2	2956.5	5999.5	89793.	20585.

Sample Name: 1710353_27008 Acquired: 7/18/2019 11:15:15 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**53.32**	**1026.**	**105.3**	**145.8**	**282.2**	**103.0**	**154100.**	**110.2**
Stddev	.16	10.	3.2	.5	2.5	.7	1293.	.4
%RSD	.3008	.9714	3.048	.3186	.8855	.6504	.8392	.3225
#1	53.20	1019.	103.0	145.4	280.4	102.5	153200.	110.0
#2	53.43	1033.	107.5	146.1	283.9	103.5	155000.	110.5

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**115.6**	**103.3**	**109.1**	**1014.**	**76.41**	**3020.**	**126.7**	**3704.**
Stddev	.5	.9	1.5	12.	.29	66.	2.2	2.
%RSD	.4145	.8845	1.354	1.203	.3761	2.196	1.723	.0643
#1	115.3	102.7	108.1	1006.	76.20	2973.	125.2	3706.
#2	115.9	104.0	110.2	1023.	76.61	3067.	128.3	3703.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**793.0**	**117.2**	**290200.**	**248.8**	**125.7**	**108.3**	**12580.**	**102.4**
Stddev	5.6	.2	3521.	1.6	1.3	.3	89.	.1
%RSD	.7081	.1422	1.213	.6607	1.017	.2926	.7114	.1332
#1	789.1	117.1	287800.	247.7	126.6	108.5	12510.	102.3
#2	797.0	117.3	292700.	250.0	124.8	108.1	12640.	102.5

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**109.4**	**2967.**	**99.83**	**497.9**	**101.7**	**88.48**	**105.7**	**88.59**
Stddev	.6	5.	.47	5.0	1.3	1.32	1.8	.37
%RSD	.5904	.1627	.4727	1.007	1.242	1.492	1.677	.4136
#1	109.8	2964.	99.49	494.4	100.8	89.41	104.4	88.33
#2	108.9	2970.	100.2	501.5	102.6	87.55	106.9	88.85

Sample Name: 1710353_27008 Acquired: 7/18/2019 11:15:15 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**88.39**	**98.76**	**133.8**	**84.67**
Stddev	.18	.32	.8	1.38
%RSD	.2016	.3214	.6069	1.629
#1	88.52	98.53	133.3	83.70
#2	88.27	98.98	134.4	85.65

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2977.8**	**6072.7**	**91047.**	**20661.**
Stddev	11.2	25.1	184.	66.
%RSD	.37613	.41357	.20164	.32138
#1	2969.9	6054.9	91177.	20614.
#2	2985.7	6090.5	90917.	20707.

Sample Name: 1710354_27008 Acquired: 7/18/2019 11:17:19 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**53.14**	**989.4**	**102.4**	**148.2**	**275.2**	**96.82**	**152800.**	**105.9**
Stddev	.81	11.8	2.5	1.3	3.6	.74	1235.	.3
%RSD	1.516	1.190	2.398	.8809	1.300	.7607	.8084	.2994
#1	52.57	981.0	100.6	147.3	272.6	96.30	151900.	105.6
#2	53.71	997.7	104.1	149.2	277.7	97.34	153700.	106.1

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**111.7**	**98.84**	**103.6**	**976.8**	**75.95**	**2954.**	**120.1**	**3617.**
Stddev	.4	2.06	3.2	1.6	.08	56.	1.1	25.
%RSD	.3454	2.089	3.055	.1650	.1040	1.908	.8970	.6953
#1	112.0	97.38	101.4	978.0	76.01	2915.	119.4	3600.
#2	111.4	100.3	105.8	975.7	75.90	2994.	120.9	3635.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**781.3**	**118.3**	**287700.**	**246.9**	**122.4**	**102.9**	**12760.**	**106.1**
Stddev	7.8	.2	4268.	.7	2.1	1.2	149.	.2
%RSD	.9954	.1598	1.483	.2861	1.735	1.161	1.169	.1875
#1	775.8	118.1	284700.	247.4	123.9	103.7	12650.	106.0
#2	786.8	118.4	290700.	246.4	120.9	102.0	12860.	106.3

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**107.5**	**2949.**	**101.3**	**489.8**	**101.7**	**86.64**	**101.1**	**88.03**
Stddev	2.6	17.	.3	6.6	1.9	3.21	1.6	.09
%RSD	2.454	.5773	.3049	1.341	1.841	3.699	1.629	.1054
#1	105.7	2937.	101.5	485.2	100.4	84.37	99.93	88.10
#2	109.4	2961.	101.0	494.4	103.0	88.90	102.3	87.97

Sample Name: 1710354_27008 Acquired: 7/18/2019 11:17:19 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**87.68**	**98.37**	**130.7**	**89.56**
Stddev	.04	1.18	.0	.98
%RSD	.0442	1.197	.0070	1.091
#1	87.66	97.54	130.7	88.87
#2	87.71	99.21	130.7	90.25

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2960.2**	**6034.8**	**90316.**	**20580.**
Stddev	3.1	6.4	40.	246.
%RSD	.10402	.10535	.04416	1.1969
#1	2962.4	6039.3	90288.	20406.
#2	2958.1	6030.3	90344.	20755.

Sample Name: 30313514002_27008 Acquired: 7/18/2019 11:19:24 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2805**	**-12.00**	**-1.666**	**13.06**	**52.10**	**-.0889**	**177900.**	**.3986**
Stddev	.1301	2.05	.940	.33	.65	.0309	1445.	.0743
%RSD	46.37	17.11	56.45	2.508	1.245	34.76	.8121	18.64
#1	-.1885	-10.55	-2.330	13.29	51.65	-.0670	176900.	.3460
#2	-.3725	-13.46	-1.001	12.83	52.56	-.1107	179000.	.4511

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.283**	**1.012**	**.7145**	**93.54**	**75.31**	**2270.**	**7.479**	**3300.**
Stddev	.208	.065	.8248	1.27	.30	37.	.450	24.
%RSD	9.108	6.404	115.4	1.362	.3980	1.647	6.022	.7194
#1	2.430	.9658	1.298	94.44	75.52	2244.	7.798	3284.
#2	2.136	1.057	.1312	92.64	75.10	2297.	7.161	3317.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**571.5**	**5.617**	**291100.**	**9.299**	**14.68**	**.2220**	**34480.**	**-3.710**
Stddev	5.6	.290	4393.	.073	.28	1.007	301.	1.229
%RSD	.9820	5.165	1.509	.7813	1.885	453.7	.8717	33.12
#1	567.5	5.822	288000.	9.248	14.87	-.4903	34270.	-4.579
#2	575.4	5.411	294200.	9.351	14.48	.9344	34690.	-2.841

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0419**	**1266.**	**.5024**	**403.6**	**-.0605**	**.5677**	**.0939**	**86.46**
Stddev	.2708	7.	.1507	5.8	.0747	.2981	.0202	.01
%RSD	645.7	.5398	30.00	1.449	123.5	52.51	21.54	.0069
#1	.1496	1261.	.6090	399.4	-.0077	.7785	.0796	86.46
#2	-.2335	1271.	.3958	407.7	-.1133	.3569	.1082	86.46

Sample Name: 30313514002_27008 Acquired: 7/18/2019 11:19:24 Type: Unk
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment: X5

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**86.88**	**99.15**	**13.10**	**.2160**
Stddev	.01	.93	.06	.9805
%RSD	.0077	.9424	.4516	453.9
#1	86.88	98.49	13.15	.9093
#2	86.88	99.81	13.06	-.4773

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2935.1**	**5926.9**	**89490.**	**20743.**
Stddev	11.7	.4	7.	195.
%RSD	.39798	.00689	.00770	.94236
#1	2943.3	5927.2	89485.	20605.
#2	2926.8	5926.6	89494.	20881.

Sample Name: CCV Acquired: 7/18/2019 11:21:37 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**501.6**	**10050.**	**1009.**	**1024.**	**1020.**	**1015.**	**10130.**	**1016.**	**1003.**
Stddev	3.9	41.	7.	3.	2.	2.	1.	8.	8.
%RSD	.7770	.4078	.6737	.2956	.2355	.1537	.0071	.8308	.8391
#1	498.8	10020.	1004.	1022.	1019.	1014.	10130.	1010.	997.3
#2	504.3	10080.	1014.	1026.	1022.	1016.	10130.	1022.	1009.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1011.**	**1022.**	**10080.**	**88.64**	**10110.**	**1018.**	**10010.**	**1012.**	**985.3**
Stddev	4.	5.	29.	.21	63.	4.	6.	2.	10.4
%RSD	.3680	.5137	.2843	.2381	.6212	.4091	.0558	.1538	1.050
#1	1008.	1019.	10060.	88.79	10060.	1015.	10010.	1011.	978.0
#2	1013.	1026.	10100.	88.50	10150.	1021.	10010.	1013.	992.6
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10560.**	**1030.**	**1014.**	**1006.**	**10040.**	**993.4**	**1012.**	**5032.**	**1015.**
Stddev	36.	7.	6.	11.	94.	8.4	4.	5.	3.
%RSD	.3393	.7048	.5777	1.057	.9380	.8407	.3695	.0945	.3430
#1	10530.	1025.	1010.	998.4	9970.	987.5	1009.	5029.	1012.
#2	10580.	1036.	1018.	1013.	10100.	999.3	1014.	5035.	1017.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/18/2019 11:21:37 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1029.	988.6	1019.	1007.	96.28	95.71	100.5	1026.	1039.
Stddev	3.	4.0	11.	4.	.12	.31	.5	3.	7.
%RSD	.2725	.4014	1.042	.3544	.1273	.3270	.5231	.3162	.6771
#1	1027.	985.8	1011.	1004.	96.20	95.49	100.2	1024.	1044.
#2	1031.	991.4	1026.	1009.	96.37	95.93	100.9	1029.	1034.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3454.8	6600.3	98587.	21033.
Stddev	8.2	8.4	322.	110.
%RSD	.23811	.12728	.32699	.52314
#1	3460.7	6594.4	98359.	20955.
#2	3449.0	6606.3	98815.	21111.

Sample Name: CCB Acquired: 7/18/2019 11:23:39 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1964	1.257	-.6554	.7155	.0317	.1079	9.811	-.0223	.0556
Stddev	.0088	5.800	1.268	.5295	.0063	.0077	4.239	.0202	.0573
%RSD	4.489	461.6	193.5	74.01	19.80	7.166	43.21	90.79	103.1
#1	.1902	-2.845	.2414	.3411	.0362	.1024	12.81	-.0366	.0151
#2	.2027	5.358	-1.552	1.090	.0273	.1134	6.813	-.0080	.0961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0249	.5851	1.622	98.64	14.55	.1846	16.25	.2355	.3618
Stddev	.0178	1.309	2.599	.10	1.30	.2486	5.40	.0944	.1511
%RSD	71.42	223.7	160.3	.0979	8.921	134.7	33.23	40.08	41.76
#1	-.0123	1.511	3.460	98.71	13.63	.0088	20.07	.1687	.4687
#2	-.0375	-.3403	-.2163	98.58	15.47	.3604	12.43	.3022	.2550
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-17.17	.1608	.4249	.9626	1.737	-1.368	.5167	1.181	-.0449
Stddev	66.11	.2281	.3344	.7831	2.397	.529	1.119	3.441	.5389
%RSD	385.0	141.9	78.72	81.36	138.0	38.68	216.5	291.3	1201.
#1	29.57	-.0005	.6613	1.516	3.432	-.9939	1.308	-1.252	-.4260
#2	-63.91	.3220	.1884	.4088	.0424	-1.742	-.2742	3.614	.3362
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/18/2019 11:23:39 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1451**	**.1637**	**.1090**	**-.1318**	**98.59**	**99.00**	**101.2**	**.1414**	**.1591**
Stddev	.0327	.1468	.1369	.0210	.33	.11	.4	.1122	.0306
%RSD	22.50	89.69	125.5	15.93	.3372	.1151	.3615	79.36	19.24
#1	.1682	.0599	.2059	-.1170	98.82	98.92	100.9	.2207	.1807
#2	.1220	.2675	.0122	-.1467	98.35	99.08	101.4	.0620	.1374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3844.6**	**6758.1**	**101970.**	**21162.**
Stddev	3.8	22.8	117.	76.
%RSD	.09790	.33721	.11510	.36148
#1	3847.2	6774.2	101890.	21108.
#2	3841.9	6742.0	102060.	21216.

Sample Name: ICSA Acquired: 7/18/2019 11:26:13 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3130**	**52520.**	**-.3418**	**-.6665**	**-.0930**	**-.0385**	**51490.**	**.4614**	**-.0124**
Stddev	.1246	168.	1.125	.1696	.0654	.0099	223.	.1720	.0022
%RSD	39.81	.3192	329.2	25.45	70.33	25.81	.4326	37.28	17.74
#1	-.2249	52400.	.4538	-.5466	-.0468	-.0315	51340.	.3397	-.0109
#2	-.4011	52640.	-1.137	-.7864	-.1393	-.0455	51650.	.5830	-.0140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2201**	**1.733**	**20380.**	**85.04**	**16.11**	**1.321**	**51030.**	**-.0157**	**-.1067**
Stddev	.0493	.477	37.	.19	6.47	.426	182.	.1619	.0004
%RSD	22.40	27.53	.1794	.2261	40.14	32.22	.3566	1033.	.3437
#1	-.2550	1.396	20360.	84.90	11.54	1.622	50900.	-.1301	-.1064
#2	-.1852	2.070	20410.	85.17	20.69	1.020	51160.	.0988	-.1069
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-8.161**	**.3949**	**.2017**	**-1.767**	**-6.045**	**-1.046**	**-2.029**	**1.008**	**.4337**
Stddev	55.97	.0755	2.582	.498	1.101	.404	1.470	1.496	.0026
%RSD	685.8	19.11	1280.	28.20	18.21	38.58	72.46	148.4	.6010
#1	31.41	.3415	2.028	-2.119	-6.823	-1.332	-3.069	-.0498	.4318
#2	-47.73	.4482	-1.624	-1.415	-5.267	-.7609	-.9897	2.066	.4355
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 7/18/2019 11:26:13 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2623**	**.4346**	**-1.109**	**.4578**	**94.40**	**93.85**	**100.4**	**.2331**	**-.0378**
Stddev	.0059	.0942	1.176	.0497	.44	.24	.0	.0178	.3330
%RSD	2.258	21.67	106.0	10.86	.4640	.2511	.0422	7.640	880.9
#1	-.2665	.5012	-.2777	.4929	94.09	93.68	100.4	.2457	.1976
#2	-.2581	.3680	-1.941	.4226	94.71	94.01	100.4	.2205	-.2732
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3314.3**	**6471.3**	**96665.**	**21002.**
Stddev	7.5	30.0	243.	9.
%RSD	.22606	.46405	.25106	.04222
#1	3309.0	6450.0	96494.	20995.
#2	3319.6	6492.5	96837.	21008.

Sample Name: ICSAB Acquired: 7/18/2019 11:29:04 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1061.**	**52030.**	**1.341**	**-2.572**	**511.4**	**517.9**	**51280.**	**1026.**	**502.0**
Stddev	10.	614.	1.052	.142	6.5	4.9	726.	4.	3.2
%RSD	.9484	1.179	78.45	5.539	1.270	.9545	1.416	.3877	.6288
#1	1054.	51590.	2.085	-2.472	506.8	514.4	50770.	1029.	504.2
#2	1068.	52460.	.5970	-2.673	516.0	521.4	51790.	1024.	499.8
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**510.5**	**509.0**	**20210.**	**85.05**	**8.219**	**.8306**	**50880.**	**501.3**	**-.1399**
Stddev	3.2	4.8	266.	.10	8.094	.0932	584.	4.5	.0149
%RSD	.6288	.9403	1.316	.1163	98.47	11.22	1.147	.8975	10.62
#1	508.2	505.6	20020.	85.12	13.94	.8965	50470.	498.1	-.1504
#2	512.7	512.4	20400.	84.98	2.496	.7647	51290.	504.5	-.1294
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-23.90**	**1002.**	**.0090**	**1002.**	**-11.58**	**-4.052**	**-.6452**	**-20.76**	**.3210**
Stddev	204.8	8.	1.036	6.	1.31	.871	1.335	3.30	.2744
%RSD	857.0	.8372	11560.	.5618	11.30	21.49	206.9	15.89	85.49
#1	-168.7	1008.	.7419	1006.	-10.65	-4.668	.2989	-18.43	.1270
#2	120.9	995.7	-.7239	997.7	-12.50	-3.436	-1.589	-23.10	.5151
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 7/18/2019 11:29:04 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.3081	.3378	.1674	516.0	94.52	94.35	101.3	1004.	-.3111
Stddev	.0009	.0069	.0196	4.9	.02	.02	.0	8.	.2724
%RSD	.2941	2.046	11.73	.9438	.0187	.0247	.0155	.8066	87.58
#1	-.3075	.3427	.1535	512.5	94.53	94.36	101.3	1010.	-.1184
#2	-.3088	.3329	.1813	519.4	94.50	94.33	101.3	998.2	-.5037
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3314.8	6479.1	97181.	21195.
Stddev	3.9	1.2	24.	3.
%RSD	.11627	.01866	.02470	.01550
#1	3317.6	6480.0	97198.	21193.
#2	3312.1	6478.3	97164.	21197.

Sample Name: CRDL Acquired: 7/18/2019 11:35:38 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.602**	**46.14**	**4.754**	**51.40**	**10.17**	**.9690**	**1024.**	**3.066**	**4.731**
Stddev	.046	3.52	.446	.04	.33	.0350	27.	.049	.114
%RSD	.6912	7.639	9.375	.0815	3.266	3.612	2.627	1.610	2.412
#1	6.635	48.64	4.439	51.37	9.940	.9442	1005.	3.101	4.811
#2	6.570	43.65	5.069	51.43	10.41	.9937	1043.	3.031	4.650
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.197**	**4.276**	**72.26**	**97.06**	**512.9**	**40.57**	**211.8**	**4.871**	**19.52**
Stddev	.031	.030	.33	.09	2.2	1.68	8.4	.028	.24
%RSD	.5987	.7061	.4594	.0908	.4259	4.151	3.963	.5797	1.248
#1	5.175	4.297	72.02	96.99	514.4	39.38	205.9	4.851	19.69
#2	5.219	4.254	72.49	97.12	511.3	41.76	217.8	4.891	19.34
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1106.**	**10.47**	**50.78**	**4.974**	**49.64**	**6.217**	**8.634**	**101.3**	**53.26**
Stddev	27.	.04	.58	.531	1.83	.347	.628	1.2	.03
%RSD	2.411	.3513	1.144	10.67	3.695	5.586	7.271	1.202	.0576
#1	1125.	10.44	51.19	4.599	50.94	6.463	9.078	102.2	53.24
#2	1088.	10.50	50.37	5.350	48.35	5.972	8.190	100.5	53.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 7/18/2019 11:35:38 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.178**	**5.164**	**8.739**	**4.968**	**98.52**	**99.50**	**100.3**	**10.30**	**68.64**
Stddev	.136	.092	.855	.122	.14	.00	.4	.20	1.70
%RSD	2.631	1.775	9.780	2.445	.1389	.0018	.4369	1.989	2.481
#1	5.082	5.099	9.343	4.882	98.42	99.50	100.0	10.45	67.43
#2	5.274	5.229	8.134	5.054	98.61	99.50	100.6	10.16	69.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3782.6**	**6753.4**	**102490.**	**20990.**
Stddev	3.4	9.4	2.	92.
%RSD	.09083	.13886	.00182	.43686
#1	3780.2	6746.8	102490.	20925.
#2	3785.1	6760.1	102490.	21055.

Sample Name: CCV Acquired: 7/18/2019 12:01:22 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.9**	**10170.**	**962.2**	**959.9**	**1037.**	**1031.**	**10300.**	**967.9**	**952.2**
Stddev	1.5	21.	5.4	2.0	.	1.	24.	2.4	1.7
%RSD	.2972	.2082	.5630	.2123	.0413	.0707	.2294	.2456	.1794
#1	505.9	10190.	966.0	961.4	1037.	1031.	10310.	969.6	953.4
#2	508.0	10160.	958.4	958.5	1037.	1030.	10280.	966.2	950.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1021.**	**1036.**	**10240.**	**93.20**	**10320.**	**1027.**	**10250.**	**1031.**	**932.2**
Stddev	2.	2.	36.	.55	64.	3.	1.	.	1.0
%RSD	.1537	.1830	.3489	.5908	.6238	.3228	.0098	.0109	.1115
#1	1022.	1037.	10260.	92.81	10280.	1025.	10250.	1032.	933.0
#2	1020.	1034.	10210.	93.59	10370.	1029.	10250.	1031.	931.5
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10490.**	**976.0**	**967.6**	**958.3**	**9586.**	**940.5**	**959.1**	**5129.**	**966.5**
Stddev	178.	3.5	.8	.9	8.	.3	2.6	1.	.6
%RSD	1.694	.3559	.0785	.0991	.0822	.0332	.2686	.0206	.0620
#1	10360.	978.5	968.2	957.6	9592.	940.3	957.3	5129.	966.9
#2	10610.	973.6	967.1	958.9	9581.	940.8	960.9	5128.	966.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 7/18/2019 12:01:22 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1043.**	**996.4**	**969.4**	**1014.**	**101.5**	**96.06**	**99.34**	**979.6**	**1005.**
Stddev	1.	.1	.2	.	.8	.64	.58	4.1	3.
%RSD	.1082	.0113	.0221	.0476	.7869	.6692	.5882	.4158	.3183
#1	1042.	996.3	969.5	1015.	101.0	95.61	98.92	982.4	1003.
#2	1043.	996.5	969.2	1014.	102.1	96.52	99.75	976.7	1007.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3632.2**	**6960.5**	**98949.**	**20782.**
Stddev	21.5	54.8	662.	122.
%RSD	.59084	.78691	.66920	.58824
#1	3617.1	6921.7	98481.	20695.
#2	3647.4	6999.2	99418.	20868.

Sample Name: CCB Acquired: 7/18/2019 12:03:24 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0128**	**-.6486**	**.2970**	**-.1950**	**.0943**	**.1278**	**3.579**	**-.0707**	**.1412**
Stddev	.0295	.4384	1.153	.5744	.1612	.0515	.398	.0405	.0457
%RSD	230.0	67.59	388.1	294.6	170.9	40.33	11.11	57.30	32.38
#1	.0080	-.3386	1.112	.2112	.2083	.1642	3.861	-.0994	.1735
#2	-.0337	-.9585	-.5181	-.6011	-.0197	.0913	3.298	-.0421	.1088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0411**	**-.4918**	**2.965**	**98.20**	**5.227**	**.6334**	**7.709**	**.0622**	**.3394**
Stddev	.2516	.2429	3.027	.08	1.177	.3122	6.632	.1114	.2757
%RSD	612.1	49.39	102.1	.0856	22.51	49.29	86.04	179.0	81.23
#1	-.2191	-.3200	.8242	98.26	4.395	.4127	12.40	-.0165	.5343
#2	.1368	-.6635	5.105	98.14	6.059	.8541	3.019	.1410	.1444
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**40.28**	**.2800**	**1.527**	**.4245**	**5.509**	**-.9944**	**-.0317**	**5.180**	**-.3218**
Stddev	88.90	.0155	1.016	.9071	1.232	.3346	.0948	.836	.1264
%RSD	220.7	5.531	66.57	213.7	22.37	33.65	299.1	16.13	39.29
#1	-22.58	.2690	2.246	-.2168	4.637	-.7578	.0354	4.589	-.4113
#2	103.1	.2909	.8082	1.066	6.380	-1.231	-.0988	5.771	-.2324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 7/18/2019 12:03:24 Type: QC
Method: Pace-65002-2-CETAC1(v1766) Mode: CONC Corr. Factor: 1.000000
User: Kerri Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1595	.2263	1.228	-.0635	98.51	98.61	99.19	.2419	.5123
Stddev	.0383	.1287	.903	.2045	.07	.20	.23	.1718	.4923
%RSD	24.02	56.85	73.54	321.9	.0677	.2059	.2347	71.02	96.08
#1	.1866	.3173	1.867	-.2081	98.46	98.47	99.36	.3634	.8604
#2	.1324	.1354	.5897	.0811	98.56	98.76	99.03	.1204	.1643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3827.4	6752.9	101570.	20752.
Stddev	3.3	4.6	209.	49.
%RSD	.08558	.06768	.20594	.23468
#1	3829.7	6749.7	101430.	20786.
#2	3825.0	6756.2	101720.	20717.

Prep Log Report

Batch Information: TCLP 8730/351733; 8731/351735

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	SHD	Extracted Date/Time	07/15/2019 16:28:28:709	Tumbler Start Temp. (C)	21.5
Tumbler End Temp. (C)	24.5	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By	VAK	Reviewed By Date	07/29/2019 10:39		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1709291**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
TCLP	PS	**30313234001**	Y		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
TCLP	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y		7.42	1.77	5	100
TCLP	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
TCLP	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
TCLP	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
TCLP	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
TCLP	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
TCLP	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
TCLP	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
TCLP	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
TCLP	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
TCLP	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
TCLP	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
TCLP	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	LB	**1709293**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
1311MET_L	LB	**1709294**	N		1	30TBL5	HP001				4.96	4.96	5	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y	Y	7.42	1.77	5	100
1311MET_L	PS	**30313234001**	N		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
1311MET_L	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
1311MET_L	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
1311MET_L	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
1311MET_L	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
1311MET_L	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
1311MET_L	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
1311MET_L	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
1311MET_L	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
1311MET_L	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
1311MET_L	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
1311MET_L	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
1311MET_L	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	PS	**30313627001**	N		2	30TBL5	HP001	Other	Y	Y	10.5	1.62	5	100
1311MET_L	PS	**30313628001**	N		3	30TBL5	HP001	Other	Y	Y	11.27	9.34	5	100
1311MET_L	PS	**30312286001**	N		4	30TBL5	HP001	Other	Y	Y	10.3	2.05	5	33

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1709291**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735				
TCLP	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735		483	458.3	-24.7
TCLP	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735		476.1	477.5	1.4
TCLP	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735				
TCLP	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735				
TCLP	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735				
TCLP	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735				
TCLP	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735				
TCLP	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735				
TCLP	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735				
TCLP	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735				
TCLP	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735		475.8	484.4	8.6
TCLP	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735		475.8	484.4	8.6
TCLP	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735				
TCLP	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735				
TCLP	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735				
1311MET_L	LB	**1709293**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735	Y			
1311MET_L	LB	**1709294**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.72	07/16/2019 10:04:56:735	Y			
1311MET_L	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735	Y	476.1	477.5	1.4
1311MET_L	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735	Y	483	458.3	-24.7
1311MET_L	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735	Y			
1311MET_L	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735	Y			
1311MET_L	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735	Y			
1311MET_L	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735	Y			
1311MET_L	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735	Y			
1311MET_L	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735	Y			
1311MET_L	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735	Y			
1311MET_L	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735	Y			
1311MET_L	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735	Y	475.8	484.4	8.6

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735	Y	475.8	484.4	8.6
1311MET_L	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735	Y			
1311MET_L	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735	Y			
1311MET_L	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735	Y			
1311MET_L	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735	Y			
1311MET_L	PS	**30313627001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.03	07/16/2019 10:06:56:735	Y			
1311MET_L	PS	**30313628001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.14	07/16/2019 10:08:56:735	Y			
1311MET_L	PS	**30312286001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 10:10:56:735	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1709291**								2000	
TCLP	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
TCLP	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
TCLP	PS	**30312639001**								2000	sand
TCLP	PS	**30312463001**								2000	dirt
TCLP	PS	**30312591001**								2000	rock
TCLP	PS	**30312593001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**50230174001**								2000	rock
TCLP	PS	**30313326001**								2000	dirt
TCLP	PS	**30313331001**								2000	rock
TCLP	PS	**30313756001**								2000	rock
TCLP	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30313514001**								2000	rock
TCLP	PS	**30313514002**								2000	rock
TCLP	PS	**30313553001**								2000	1*
TCLP	PS	**30313635001**								2000	plastic
1311MET_L	LB	**1709293**								2000	
1311MET_L	LB	**1709294**								2000	
1311MET_L	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
1311MET_L	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
1311MET_L	PS	**30312639001**								2000	sand
1311MET_L	PS	**30312463001**								2000	dirt
1311MET_L	PS	**30312591001**								2000	rock
1311MET_L	PS	**30312593001**								2000	rock
1311MET_L	PS	**50230174001**								2000	rock
1311MET_L	PS	**30313326001**								2000	dirt
1311MET_L	PS	**30313756001**								2000	rock
1311MET_L	PS	**30313331001**								2000	rock
1311MET_L	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30313514001**								2000	rock
1311MET_L	PS	**30313514002**								2000	rock
1311MET_L	PS	**30313553001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313635001**								2000	plastic
1311MET_L	PS	**30313627001**								2000	dirt
1311MET_L	PS	**30313628001**								2000	dirt
1311MET_L	PS	**30312286001**								2000	plastic

Sample Notes:

1*: wood shavings

Prep Log Report

Batch Information: MPRP 352029-3005 B TCLP

Template Version: F-PA-I-001-Rev.00 (5May2016)

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	07/16/2019 14:42:26:607
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	95.8	Correction Factor (C)	-0.3
Corrected Temp. (C)	95.50	Therm. Position	2.5	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	07/16/2019 15:13:57:102
Digestion End Time	07/16/2019 20:25:13:857	Digestion Vessel	91657	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B ST_P	BLANK	**1710350**	Water	Yes	50	91162 (1)	93055 (2.5)	50					
3005B ST_P	LCS	**1710351**	Water	Yes	50	91162 (1)	93055 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30313514001**	Solid	Yes	50	91162 (1)	93055 (2.5)	50					
3005B ST_P	DUP	**1710352**	Solid	Yes	50	91162 (1)	93055 (2.5)	50					
3005B ST_P	MS	**1710353**	Solid	Yes	50	91162 (1)	93055 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	MSD	**1710354**	Solid	Yes	50	91162 (1)	93055 (2.5)	50			87420 (125)	87421 (125)	87422 (125)
3005B ST_P	PS	**30313514002**	Solid	Yes	50	91162 (1)	93055 (2.5)	50					
3005B ST_P	LB	**1709293**	Water	Yes	50	91162 (1)	93055 (2.5)	50		EF 1G 7/15			

Standard Notes:

87420: 6010-SPK1 ICP **87421: 6010-SPK2 ICP** **87422: 6010-SPK3 ICP**

SAMPLE NO.

Sewer-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	07/17/2019 04:52

SAMPLE NO.

Sewer-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	07/17/2019 04:57

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 93827

Continuing Calibration Verification Source: 93825

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	07/17/2019 04:13				07/17/2019 04:15			07/17/2019 04:37			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	0.97	97.0	90-110	5.0	5.0	101.0	5.0	5.1	101.4	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 93825

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification			
	07/17/2019 04:58			Control Limit
Analyte	True	Found	%R	
Mercury	5.0	5.1	101.4	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

CRDL Check Standard Source: 92678,93822,93865 Analysis Date/Time: 07/17/2019 04:19

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.16	80.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	07/17/2019 04:18	C	07/17/2019 04:40	C	07/17/2019 05:01	C		C	1710588	C
Mercury	0.030	U	0.030	U	0.030	U			ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1709293	C
Mercury									ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1709294	C
Mercury									ND	U

SAMPLE NO.

1710591MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: 30313326001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	1.5	ND	2.5	60*

* Spike Recovery outside QC Limits

SAMPLE NO.

1710593MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Basis: Wet Parent Sample ID: Sewer-1

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.4	ND	2.5	98

SAMPLE NO.

1710590DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1710592DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1710589LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	1.0	100	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	1.0	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 7470A Batch: MERP 10946

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1709293	1709293LB	07/16/2019	25	25
1709294	1709294LB	07/16/2019	25	25
1710588	1710588BLANK	07/16/2019	25	25
1710589	1710589LCS	07/16/2019	25	25
1710590	1710590DUP	07/16/2019	25	25
1710591	1710591MS	07/16/2019	25	25
1710592	1710592DUP	07/16/2019	25	25
1710593	1710593MS	07/16/2019	25	25
30313514001	Sewer-1	07/16/2019	25	25
30313514002	Sewer-2	07/16/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 07/17/2019 04:01 End Date: 07/17/2019 05:01

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11246180CAL0	11246180CAL0	1	07/17/2019	04:01	X
11246181CAL1	11246181CAL1	1	07/17/2019	04:03	X
11246182CAL2	11246182CAL2	1	07/17/2019	04:04	X
11246183CAL3	11246183CAL3	1	07/17/2019	04:06	X
11246184CAL4	11246184CAL4	1	07/17/2019	04:08	X
11246185CAL5	11246185CAL5	1	07/17/2019	04:10	X
11246186ICV	11246186ICV	1	07/17/2019	04:13	X
11246187CCV	11246187CCV	1	07/17/2019	04:15	X
11246188ICB	11246188ICB	1	07/17/2019	04:18	X
11246189CRDL	11246189CRDL	1	07/17/2019	04:19	X
1710588BLANK	1710588	1	07/17/2019	04:21	X
1710589LCS	1710589	1	07/17/2019	04:23	X
1709293LB	1709293	1	07/17/2019	04:24	X
1709294LB	1709294	1	07/17/2019	04:26	X
30313326001	30313326001	1	07/17/2019	04:28	X
1710590DUP	1710590	1	07/17/2019	04:29	X
1710591MS	1710591	1	07/17/2019	04:31	X
11246190CCV	11246190CCV	1	07/17/2019	04:37	X
11246191CCB	11246191CCB	1	07/17/2019	04:40	X
Sewer-1	30313514001	1	07/17/2019	04:52	X
1710592DUP	1710592	1	07/17/2019	04:53	X
1710593MS	1710593	1	07/17/2019	04:55	X
Sewer-2	30313514002	1	07/17/2019	04:57	X
11246192CCV	11246192CCV	1	07/17/2019	04:58	X
11246193CCB	11246193CCB	1	07/17/2019	05:01	X

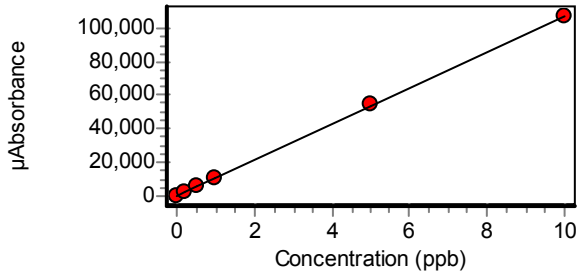
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg071719A.wsz
Date Started: 7/6/2016 3:55:19 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	07/17/19 04:01:43 am	0.00	39	90.80		1.00	1.00
											1.00	
	Replicates	81.6	50.2	0.7	22.2							
CAL1					STD	07/17/19 04:03:19 am	0.20	1848	1.49		1.00	1.00
											1.00	
	Replicates	1845.8	1830.0	1888.0	1829.5							
CAL2					STD	07/17/19 04:04:56 am	0.50	5453	1.50		1.00	1.00
											1.00	
	Replicates	5344.4	5438.8	5504.6	5525.8							
CAL3					STD	07/17/19 04:06:34 am	1.00	11009	0.74		1.00	1.00
											1.00	
	Replicates	10955.3	10982.0	10968.6	11131.0							
CAL4					STD	07/17/19 04:08:12 am	5.00	54550	0.81		1.00	1.00
											1.00	
	Replicates	53927.5	54551.9	54797.2	54922.4							
CAL5					STD	07/17/19 04:10:56 am	10.00	106264	0.79		1.00	1.00
											1.00	
	Replicates	105097.3	106210.9	106782.7	106967.0							

Calibration

Equation: A = 187.878 + 10660.870C
R2: 0.99982
SEE: 647.3365
Flags:



ICV					ICV	07/17/19 04:13:46 am	0.97	10486	1.60		1.00	1.00
	% Recovery	96.60									1.00	
	Replicates	10261.9	10467.0	10563.0	10653.6							
CCV					CCV	07/17/19 04:15:25 am	5.05	53992	0.95		1.00	1.00
	% Recovery	100.94									1.00	
	Replicates	53281.7	53957.1	54332.0	54398.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
ICB					ICB	07/17/19 04:18:15 am	-0.01	80	53.37		1.00	1.00
											1.00	
	Replicates	68.8	120.2	24.7	104.9							
CRDL					CRDL	07/17/19 04:19:55 am	0.16	1944	1.56		1.00	1.00
	% Recovery	82.34									1.00	
	Replicates	1952.5	1913.7	1925.9	1981.9							
1710588_12372					PBK	07/17/19 04:21:32 am	-0.01	83	14.70		1.00	1.00
											1.00	
	Replicates	94.1	88.5	82.2	66.0							
1710589_12372					LCS	07/17/19 04:23:10 am	1.00	10818	1.23		1.00	1.00
	% Recovery	99.71									1.00	
	Replicates	10650.0	10773.1	10928.3	10921.5							
1709293_12372					MB	07/17/19 04:24:47 am	-0.01	33	88.57		1.00	1.00
											1.00	
	Replicates	32.3	-8.0	56.0	50.7							
1709294_12372					MB	07/17/19 04:26:25 am	-0.01	102	16.38		1.00	1.00
											1.00	
	Replicates	109.0	103.8	77.7	115.7							
30313326001_12372					UNK	07/17/19 04:28:04 am	-0.02	1	755.72		1.00	1.00
											1.00	
	Replicates	46.1	-55.4	5.7	8.1							
1710590_12372					DUP	07/17/19 04:29:41 am	-0.01	55	28.04		1.00	1.00
		RPD	0.00								1.00	
	Replicates	48.6	45.2	48.9	78.4							
1710591_12372					MSK	07/17/19 04:31:19 am	1.49	16036	0.58	N	1.00	1.00
	% Recovery	60.16									1.00	
	Replicates	15898.9	16068.3	16073.1	16103.9							
30313233001_12372					UNK	07/17/19 04:32:57 am	-0.01	50	82.64		1.00	1.00
											1.00	
	Replicates	89.8	60.5	-8.3	59.2							
30313234001_12372					UNK	07/17/19 04:34:36 am	-0.02	-33	89.10		1.00	1.00
											1.00	
	Replicates	5.9	-65.0	-33.8	-38.3							
30312463001_12372					UNK	07/17/19 04:36:14 am	-0.01	70	29.73		1.00	1.00
											1.00	
	Replicates	85.7	87.4	60.6	44.6							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	07/17/19 04:37:54 am	5.07	54186	1.04		1.00	1.00
	% Recovery	101.30									1.00	
	Replicates	53407.4	54153.7	54481.7	54701.0							
CCB					CCB	07/17/19 04:40:42 am	-0.01	113	26.63		1.00	1.00
											1.00	
	Replicates	80.4	148.9	124.4	97.9							
50230174001_12372					UNK	07/17/19 04:42:20 am	-0.01	64	37.61		1.00	1.00
											1.00	
	Replicates	61.1	31.7	76.1	87.4							
30313756001_12372					UNK	07/17/19 04:43:58 am	-0.01	83	46.70		1.00	1.00
											1.00	
	Replicates	121.7	71.2	104.6	34.1							
30313331001_12372					UNK	07/17/19 04:45:37 am	-0.01	51	47.20		1.00	1.00
											1.00	
	Replicates	72.7	16.9	60.9	53.2							
30312591001_12372					UNK	07/17/19 04:47:15 am	-0.02	26	119.24		1.00	1.00
											1.00	
	Replicates	24.6	-17.5	49.2	48.9							
30312593001_12372					UNK	07/17/19 04:48:54 am	-0.02	18	250.16		1.00	1.00
											1.00	
	Replicates	-23.4	-13.7	35.9	73.3							
30312639001_12372					UNK	07/17/19 04:50:33 am	-0.01	109	8.31		1.00	1.00
											1.00	
	Replicates	116.0	102.1	100.3	117.6							
30313514001_12372					UNK	07/17/19 04:52:11 am	-0.01	33	64.70		1.00	1.00
											1.00	
	Replicates	54.9	7.0	44.7	24.9							
1710592_12372					DUP	07/17/19 04:53:50 am	-0.01	89	58.36		1.00	1.00
		RPD	0.00								1.00	
	Replicates	72.9	94.6	156.2	31.9							
1710593_12372					MSK	07/17/19 04:55:29 am	2.45	26291	1.21		1.00	1.00
	% Recovery	98.52									1.00	
	Replicates	25907.0	26165.8	26478.0	26614.5							
30313514002_12372					UNK	07/17/19 04:57:08 am	-0.01	95	20.61		1.00	1.00
											1.00	
	Replicates	110.6	94.0	109.0	68.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	07/17/19 04:58:48 am	5.07	54189	1.02		1.00	1.00
	% Recovery	101.31									1.00	
	Replicates	53431.2	54134.8	54520.8	54669.9							
CCB					CCB	07/17/19 05:01:35 am	-0.01	96	46.87		1.00	1.00
											1.00	
	Replicates	81.3	151.2	107.2	44.2							
30313553001_12372					UNK	07/17/19 05:03:13 am	-0.01	92	12.46		1.00	1.00
											1.00	
	Replicates	95.9	88.3	105.3	78.3							
30313635001_12372					UNK	07/17/19 05:04:52 am	-0.01	49	72.79		1.00	1.00
											1.00	
	Replicates	8.8	70.5	30.3	86.3							
1710595_12373					PBK	07/17/19 05:06:31 am	-0.01	71	45.90		1.00	1.00
											1.00	
	Replicates	108.3	31.2	82.5	62.0							
1710596_12373					LCS	07/17/19 05:08:11 am	0.96	10378	0.99		1.00	1.00
	% Recovery	95.59									1.00	
	Replicates	10244.6	10351.3	10450.6	10466.6							
30313914009_12373					UNK	07/17/19 05:09:50 am	-0.01	63	76.43		1.00	1.00
											1.00	
	Replicates	-3.6	108.6	63.6	81.6							
1710597_12373					DUP	07/17/19 05:11:29 am	-0.01	56	84.02		1.00	1.00
			RPD	0.00							1.00	
	Replicates	-10.5	100.2	62.3	73.3							
1710598_12373					MSK	07/17/19 05:13:08 am	2.63	28280	1.21		1.00	1.00
	% Recovery	105.87									1.00	
	Replicates	27792.8	28290.0	28480.7	28555.0							
1710599_12373					MSDUP	07/17/19 05:14:48 am	2.66	28505	1.13		1.00	1.00
	% Recovery	106.72	RPD	0.80							1.00	
	Replicates	28067.7	28465.5	28690.0	28794.8							
30313021005_12373					UNK	07/17/19 05:16:28 am	-0.01	61	36.46		1.00	1.00
											1.00	
	Replicates	32.2	60.3	65.9	86.3							
1710605_12374					PBK	07/17/19 05:18:08 am	-0.01	52	80.94		1.00	1.00
											1.00	
	Replicates	53.6	-7.2	89.1	72.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	07/17/19 05:19:47 am	5.05	54027	1.19		1.00	1.00
	% Recovery	101.00									1.00	
	Replicates	53161.5	53944.7	54381.4	54621.4							
CCB					CCB	07/17/19 05:22:32 am	-0.01	114	11.36		1.00	1.00
											1.00	
	Replicates	132.6	103.7	111.2	107.5							
1710606_12374					LCS	07/17/19 05:24:11 am	0.95	10339	1.12		1.00	1.00
	% Recovery	95.22									1.00	
	Replicates	10174.0	10342.7	10420.0	10420.0							
30313399001_12374					UNK	07/17/19 05:25:50 am	-0.01	40	78.03		1.00	1.00
											1.00	
	Replicates	80.1	22.0	9.6	48.1							
1710607_12374					DUP	07/17/19 05:27:30 am	-0.01	73	47.30		1.00	1.00
			RPD 0.00								1.00	
	Replicates	64.5	40.2	121.9	65.9							
1710608_12374					MSK	07/17/19 05:29:10 am	2.55	27350	1.12		1.00	1.00
	% Recovery	102.47									1.00	
	Replicates	26940.7	27291.1	27549.7	27619.2							
1710611_12375					PBK	07/17/19 05:30:51 am	-0.02	21	169.95		1.00	1.00
											1.00	
	Replicates	-22.9	58.8	10.6	36.0							
1710612_12375					LCS	07/17/19 05:32:30 am	0.95	10294	1.66		1.00	1.00
	% Recovery	94.80									1.00	
	Replicates	10058.3	10362.5	10296.6	10459.0							
30313914009_12375					UNK	07/17/19 05:34:10 am	4.05	43327	1.30		1.00	1.00
											1.00	
	Replicates	42600.2	43185.8	43657.7	43864.7							
1710613_12375					DUP	07/17/19 05:37:47 am	4.06	43501	1.33		1.00	1.00
			RPD 0.40								1.00	
	Replicates	42725.0	43408.0	43841.8	44030.3							
1710614_12375					MSK	07/17/19 05:39:27 am	5.71	61111	1.35	N	1.00	1.00
	% Recovery	66.72									1.00	
	Replicates	60023.2	60945.6	61569.6	61904.4							
1710615_12375					MSDUP	07/17/19 05:42:10 am	5.63	60157	1.25	D	1.00	1.00
	% Recovery	63.15	RPD 1.58								1.00	
	Replicates	59165.6	60007.4	60576.1	60880.6							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
											ODF	
CCV					CCV	07/17/19 05:44:53 am	5.06	54174	1.27		1.00	1.00
	% Recovery	101.28									1.00	
	Replicates	53236.5	54121.3	54513.0	54826.5							
CCB					CCB	07/17/19 05:47:39 am	-0.01	80	51.54		1.00	1.00
											1.00	
	Replicates	95.1	20.1	114.4	91.7							
30313021005_12375					UNK	07/17/19 05:49:19 am	0.00	195	9.45		1.00	1.00
											1.00	
	Replicates	200.3	169.8	213.8	198.0							
30313269008_12375					UNK	07/17/19 05:50:59 am	-0.01	56	47.75		1.00	1.00
											1.00	
	Replicates	20.0	55.6	63.3	83.8							
30313539001_12375					UNK	07/17/19 05:52:39 am	-0.01	109	20.76		1.00	1.00
											1.00	
	Replicates	124.5	91.1	87.5	131.5							
CCV					CCV	07/17/19 05:54:18 am	5.04	53892	1.30		1.00	1.00
	% Recovery	100.75									1.00	
	Replicates	52955.7	53815.1	54211.4	54587.4							
CCB					CCB	07/17/19 05:57:00 am	-0.01	87	18.26		1.00	1.00
											1.00	
	Replicates	89.5	106.2	67.7	84.2							

Prep Log Report

Batch Information: TCLP 8730/351733; 8731/351735

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	SHD	Extracted Date/Time	07/15/2019 16:28:28:709	Tumbler Start Temp. (C)	21.5
Tumbler End Temp. (C)	24.5	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By	VAK	Reviewed By Date	07/29/2019 10:39		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1709291**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
TCLP	PS	**30313234001**	Y		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
TCLP	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y		7.42	1.77	5	100
TCLP	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
TCLP	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
TCLP	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
TCLP	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
TCLP	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
TCLP	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
TCLP	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
TCLP	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
TCLP	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
TCLP	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
TCLP	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
TCLP	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	LB	**1709293**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
1311MET_L	LB	**1709294**	N		1	30TBL5	HP001				4.96	4.96	5	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y	Y	7.42	1.77	5	100
1311MET_L	PS	**30313234001**	N		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
1311MET_L	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
1311MET_L	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
1311MET_L	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
1311MET_L	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
1311MET_L	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
1311MET_L	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
1311MET_L	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
1311MET_L	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
1311MET_L	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
1311MET_L	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
1311MET_L	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
1311MET_L	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	PS	**30313627001**	N		2	30TBL5	HP001	Other	Y	Y	10.5	1.62	5	100
1311MET_L	PS	**30313628001**	N		3	30TBL5	HP001	Other	Y	Y	11.27	9.34	5	100
1311MET_L	PS	**30312286001**	N		4	30TBL5	HP001	Other	Y	Y	10.3	2.05	5	33

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1709291**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735				
TCLP	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735		483	458.3	-24.7
TCLP	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735		476.1	477.5	1.4
TCLP	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735				
TCLP	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735				
TCLP	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735				
TCLP	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735				
TCLP	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735				
TCLP	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735				
TCLP	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735				
TCLP	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735				
TCLP	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735		475.8	484.4	8.6
TCLP	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735		475.8	484.4	8.6
TCLP	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735				
TCLP	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735				
TCLP	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735				
1311MET_L	LB	**1709293**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735	Y			
1311MET_L	LB	**1709294**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.72	07/16/2019 10:04:56:735	Y			
1311MET_L	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735	Y	476.1	477.5	1.4
1311MET_L	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735	Y	483	458.3	-24.7
1311MET_L	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735	Y			
1311MET_L	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735	Y			
1311MET_L	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735	Y			
1311MET_L	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735	Y			
1311MET_L	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735	Y			
1311MET_L	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735	Y			
1311MET_L	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735	Y			
1311MET_L	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735	Y			
1311MET_L	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735	Y	475.8	484.4	8.6

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735	Y	475.8	484.4	8.6
1311MET_L	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735	Y			
1311MET_L	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735	Y			
1311MET_L	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735	Y			
1311MET_L	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735	Y			
1311MET_L	PS	**30313627001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.03	07/16/2019 10:06:56:735	Y			
1311MET_L	PS	**30313628001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.14	07/16/2019 10:08:56:735	Y			
1311MET_L	PS	**30312286001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 10:10:56:735	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1709291**								2000	
TCLP	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
TCLP	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
TCLP	PS	**30312639001**								2000	sand
TCLP	PS	**30312463001**								2000	dirt
TCLP	PS	**30312591001**								2000	rock
TCLP	PS	**30312593001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**50230174001**								2000	rock
TCLP	PS	**30313326001**								2000	dirt
TCLP	PS	**30313331001**								2000	rock
TCLP	PS	**30313756001**								2000	rock
TCLP	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30313514001**								2000	rock
TCLP	PS	**30313514002**								2000	rock
TCLP	PS	**30313553001**								2000	1*
TCLP	PS	**30313635001**								2000	plastic
1311MET_L	LB	**1709293**								2000	
1311MET_L	LB	**1709294**								2000	
1311MET_L	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
1311MET_L	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
1311MET_L	PS	**30312639001**								2000	sand
1311MET_L	PS	**30312463001**								2000	dirt
1311MET_L	PS	**30312591001**								2000	rock
1311MET_L	PS	**30312593001**								2000	rock
1311MET_L	PS	**50230174001**								2000	rock
1311MET_L	PS	**30313326001**								2000	dirt
1311MET_L	PS	**30313756001**								2000	rock
1311MET_L	PS	**30313331001**								2000	rock
1311MET_L	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30313514001**								2000	rock
1311MET_L	PS	**30313514002**								2000	rock
1311MET_L	PS	**30313553001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313635001**								2000	plastic
1311MET_L	PS	**30313627001**								2000	dirt
1311MET_L	PS	**30313628001**								2000	dirt
1311MET_L	PS	**30312286001**								2000	plastic

Sample Notes:

1*: wood shavings

Prep Log Report

Batch Information: MERP 352095-7470 TCLP

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	07/16/2019 16:24:21:072
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	94	Correction Factor (C)	-0.2
Corrected Temp. (C)	93.80	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	2.5	Digestion Start Time	07/16/2019 17:55:01:656
Digestion End Time	07/16/2019 19:55:03:701	Digestion Vessel	91657	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	BLANK	**1710588**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	LCS	**1710589**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313326001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	DUP	**1710590**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	MS	**1710591**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			93325 (.25)
7470 ST_P	PS	**30313233001**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313234001**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25		1*	
7470 ST_P	PS	**30312463001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**50230174001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313756001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313331001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30312591001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30312593001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30312639001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313514001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	DUP	**1710592**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	MS	**1710593**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			93325 (.25)
7470 ST_P	PS	**30313514002**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313553001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	PS	**30313635001**	Y	Solid	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25			
7470 ST_P	LB	**1709293**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25		EF 1G 7/15	
7470 ST_P	LB	**1709294**	Y	Water	Yes	25	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	25		EF 1P 7/15	
HG WATER_Q	CAL0	**CAL0**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	CAL1	**CAL1**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	CAL2	**CAL2**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	CAL3	**CAL3**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	CAL4	**CAL4**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	CAL5	**CAL5**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			
HG WATER_Q	ICV	**ICV**	Y	Water	Yes	1	91162 (0.625)	92983 (1.25)	93496 (3.75)	90456 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	BLANK	**1710588**		
7470 ST_P	LCS	**1710589**	90501 (.1)	
7470 ST_P	PS	**30313326001**		
7470 ST_P	DUP	**1710590**		
7470 ST_P	MS	**1710591**		
7470 ST_P	PS	**30313233001**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	PS	**30313234001**		
7470 ST_P	PS	**30312463001**		
7470 ST_P	PS	**50230174001**		
7470 ST_P	PS	**30313756001**		
7470 ST_P	PS	**30313331001**		
7470 ST_P	PS	**30312591001**		
7470 ST_P	PS	**30312593001**		
7470 ST_P	PS	**30312639001**		
7470 ST_P	PS	**30313514001**		
7470 ST_P	DUP	**1710592**		
7470 ST_P	MS	**1710593**		
7470 ST_P	PS	**30313514002**		
7470 ST_P	PS	**30313553001**		
7470 ST_P	PS	**30313635001**		
7470 ST_P	LB	**1709293**		
7470 ST_P	LB	**1709294**		
HG WATER_Q	CAL0	**CAL0**		93821 (1)
HG WATER_Q	CAL1	**CAL1**		93822 (1)
HG WATER_Q	CAL2	**CAL2**		93823 (1)
HG WATER_Q	CAL3	**CAL3**		93824 (1)
HG WATER_Q	CAL4	**CAL4**		93825 (1)
HG WATER_Q	CAL5	**CAL5**		93826 (1)
HG WATER_Q	ICV	**ICV**		93827 (1)

Sample Notes:

1*: Sample reacts with HNO3.

Standard Notes:

93821: CALO **93822: CAL1**

93823: CAL2 **93824: CAL3** **93825: CAL4** **93826: CAL5**

Prep Log Report

93827: Hg ICV Source 2

SAMPLE NO.

Sewer-1

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514001 Percent Moisture: 9.0

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	07/17/2019 15:13
	Flashpoint	>200		deg F	1	07/18/2019 11:02
	Sulfide, Reactive	ND	U	mg/kg	1	07/16/2019 17:07
	pH in water at 25 degrees C	8.4		Std. Units	1	07/22/2019 21:31

SAMPLE NO.

Sewer-2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Lab Sample ID: 30313514002 Percent Moisture: 1.8

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	07/17/2019 15:16
	Flashpoint	>200		deg F	1	07/18/2019 11:06
	Sulfide, Reactive	ND	U	mg/kg	1	07/16/2019 17:07
	pH in water at 25 degrees C	8.6		Std. Units	1	07/22/2019 21:32

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 68828

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	07/22/2019 14:36			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	4.0	4.0	99.5	98.75-101.25
pH in water at 25 degrees C		4.0		98.75-101.25

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 84019

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	07/22/2019 14:36			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	7.0	7.0	100.1	98.5-101.43
pH in water at 25 degrees C		7.0		98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification				Continuing Calibration Verification						
					07/22/2019 18:22			07/22/2019 19:02			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
pH at 25 Degrees C					7.0	7.0	100.1	7.0	7.0	99.9	98.5-101.43

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification									
	07/22/2019 21:04			07/22/2019 21:06			07/22/2019 21:14			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	100.3	7.0	7.0	100.3	7.0	7.0	99.7	98.5-101.43
pH in water at 25 degrees C							7.0	7.0	99.7	98.5-101.43

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification						
	07/22/2019 21:25			07/22/2019 21:35			Control Limit
Analyte	True	Found	%R	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	99.4	7.0	7.0	100.1	98.5-101.43
pH in water at 25 degrees C	7.0	7.0	99.4	7.0	7.0	100.1	98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source: 93936

Continuing Calibration Verification Source: 93934

Concentration Units: mg/L Instrument ID: 30WTA5

	Initial Calibration Verification				Continuing Calibration Verification						
	07/17/2019 14:31				07/17/2019 14:33			07/17/2019 14:48			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Cyanide	0.1	0.092	91.6	90-110	0.2	0.20	99.2	0.2	0.19	97.3	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 93934

Concentration Units: mg/L Instrument ID: 30WTA5

	Continuing Calibration Verification									
	07/17/2019 15:00			07/17/2019 15:14			07/17/2019 15:26			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Cyanide	0.2	0.18	91.6	0.2	0.19	94.5	0.2	0.19	94.6	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Water Instrument ID: 30WET6

Method Blank Concentration Units: deg F

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1712144	C
Flashpoint									>200	

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WET0

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1709976	C
Sulfide, Reactive									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Solid Instrument ID: 30WTA5

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank (mg/L)		Continuing Calibration Blank (mg/L)						Method Blank	
	07/17/2019 14:32	C	07/17/2019 14:49	C	07/17/2019 15:01	C	07/17/2019 15:15	C	1709959	C
Cyanide	0.0016	U	-0.0022	J	0.0016	U	0.0016	U		
Cyanide, Reactive									ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract : Former EPT Site-Soil IRM

Method Blank Matrix: Instrument ID: 30WTA5

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)					
		C	07/17/2019 15:27	C		C		C
Cyanide			-0.0019	J				
Cyanide, Reactive								

SAMPLE NO.

1714721DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: Std. Units

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
pH in water at 25 degrees C	10	8.4	8.4	0

SAMPLE NO.

1709961DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	ND	ND	

SAMPLE NO.

1709978DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	ND	ND	

SAMPLE NO.

1709960LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Cyanide, Reactive	mg/kg	101	ND	0	0	8

SAMPLE NO.

1709977LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Sulfide, Reactive	mg/kg	201	40.3	20	0	52

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Instrument ID: 30WET0

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Sulfide, Reactive	10.0	10.0	06/07/2019

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Instrument ID: 30WETG

Concentration Units: Std. Units

Analyte	PQL	MDL	MDL Date
pH in water at 25 degrees	2.0	2.0	11/06/2016

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: None Instrument ID: 30WTA5

Concentration Units: mg/L

Analyte	PQL	IDL	IDL Date
Cyanide	0.01	0.0016	01/01/2007

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Instrument ID: 30WTA5

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Cyanide, Reactive	1.0	0.40	11/06/2016

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 9045D Batch: WET 51291

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1714721	1714721DUP	07/22/2019	20.05	20
30313514001	Sewer-1	07/22/2019	20.01	20
30313514002	Sewer-2	07/22/2019	20.01	20

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.3.2 Batch: WETA 43338

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1709959	1709959BLANK	07/16/2019	10.08	50
1709960	1709960LCS	07/16/2019	9.93	50
1709961	1709961DUP	07/16/2019	9.98	50
30313514001	Sewer-1	07/16/2019	9.93	50
30313514002	Sewer-2	07/16/2019	9.93	50

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: SW-846 7.3.4.2 Batch: WETA 43342

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1709976	1709976BLANK	07/16/2019	10.08	200
1709977	1709977LCS	07/16/2019	9.93	200
1709978	1709978DUP	07/16/2019	9.98	200
30313514001	Sewer-1	07/16/2019	9.93	200
30313514002	Sewer-2	07/16/2019	9.93	200

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Preparation Method: EPA 1010 Batch: WET 51223

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1712144	1712144BLANK	07/18/2019	1	1
1712145	1712145DUP	07/18/2019	1	1
30313514001	Sewer-1	07/18/2019	1	1
30313514002	Sewer-2	07/18/2019	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET6 Analysis Method: EPA 1010

Start Date: 07/18/2019 09:02 End Date: 07/18/2019 11:06

Sample Name	Lab Sample ID	D/F	Date	Time	flpt
1712144BLANK	1712144	1	07/18/2019	09:02	X
30313331001	30313331001	1	07/18/2019	09:37	X
1712145DUP	1712145	1	07/18/2019	10:02	X
Sewer-1	30313514001	1	07/18/2019	11:02	X
Sewer-2	30313514002	1	07/18/2019	11:06	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WET0 Analysis Method: SM 4500S2F-2011

Start Date: 07/16/2019 17:07 End Date: 07/16/2019 17:07

Sample Name	Lab Sample ID	D/F	Date	Time	rS
1709976BLANK	1709976	1	07/16/2019	17:07	X
1709977LCS	1709977	1	07/16/2019	17:07	X
1709978DUP	1709978	1	07/16/2019	17:07	X
30313655001	30313655001	1	07/16/2019	17:07	X
Sewer-1	30313514001	1	07/16/2019	17:07	X
Sewer-2	30313514002	1	07/16/2019	17:07	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WETG Analysis Method: EPA 9045D

Start Date: 07/22/2019 14:27 End Date: 07/22/2019 21:35

Sample Name	Lab Sample ID	D/F	Date	Time	pH 25	pH 25
11271791CAL1	11271791CAL1	1	07/22/2019	14:27	X	X
11271792CAL2	11271792CAL2	1	07/22/2019	14:28	X	X
11271793CAL3	11271793CAL3	1	07/22/2019	14:30	X	X
11271797CAL4	11271797CAL4	1	07/22/2019	14:30	X	X
11271795CAL5	11271795CAL5	1	07/22/2019	14:35	X	X
11271796ICVA	11271796ICVA	1	07/22/2019	14:36	X	X
11271794ICVB	11271794ICVB	1	07/22/2019	14:36	X	X
11273728CCV	11273728CCV	1	07/22/2019	18:22	X	
11273727CCV	11273727CCV	1	07/22/2019	19:02	X	
11273730CCV	11273730CCV	1	07/22/2019	21:04	X	
11273729CCV	11273729CCV	1	07/22/2019	21:06	X	
11273813CCV	11273813CCV	1	07/22/2019	21:14	X	X
11273815CCV	11273815CCV	1	07/22/2019	21:25	X	X
Sewer-1	30313514001	1	07/22/2019	21:31		X
1714721DUP	1714721	1	07/22/2019	21:31		X
Sewer-2	30313514002	1	07/22/2019	21:32		X
11273814CCV	11273814CCV	1	07/22/2019	21:35	X	X

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30WTA5 Analysis Method: EPA 9014

Start Date: 07/17/2019 14:24 End Date: 07/17/2019 15:27

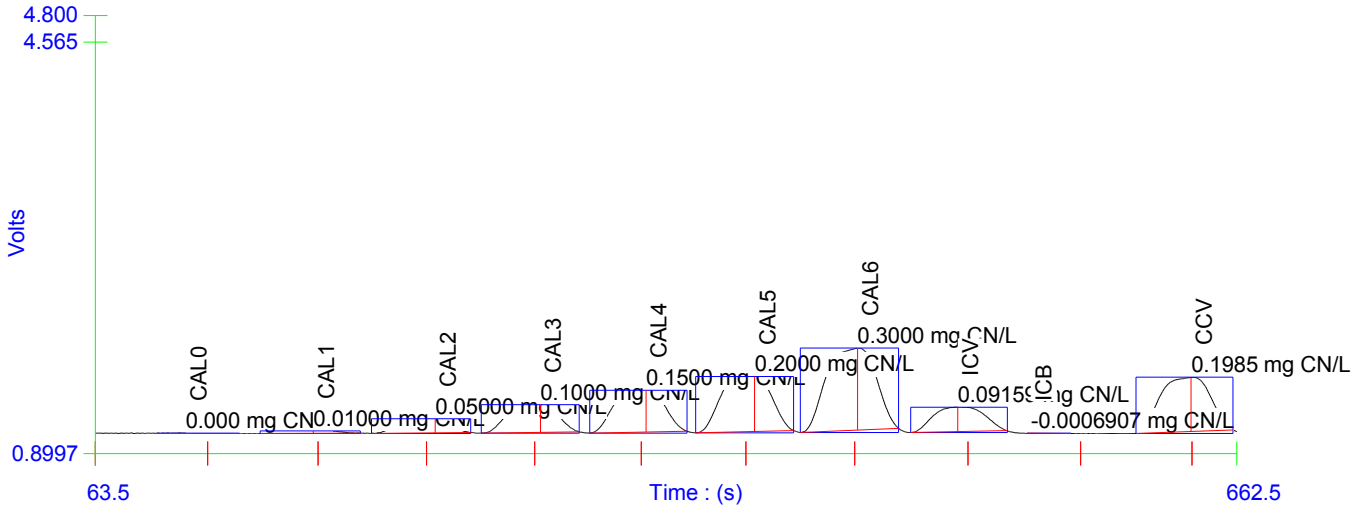
Sample Name	Lab Sample ID	D/F	Date	Time	CN	rCN
11250224CAL0	11250224CAL0	1	07/17/2019	14:24	X	
11250225CAL1	11250225CAL1	1	07/17/2019	14:25	X	
11250226CAL2	11250226CAL2	1	07/17/2019	14:26	X	
11250227CAL3	11250227CAL3	1	07/17/2019	14:27	X	
11250228CAL4	11250228CAL4	1	07/17/2019	14:28	X	
11250229CAL5	11250229CAL5	1	07/17/2019	14:29	X	
11250230CAL6	11250230CAL6	1	07/17/2019	14:30	X	
11250231ICV	11250231ICV	1	07/17/2019	14:31	X	
11250232ICB	11250232ICB	1	07/17/2019	14:32	X	
11250233CCV	11250233CCV	1	07/17/2019	14:33	X	
11250234CCV	11250234CCV	1	07/17/2019	14:48	X	
11250235CCB	11250235CCB	1	07/17/2019	14:49	X	
11250236CCV	11250236CCV	1	07/17/2019	15:00	X	
11250237CCB	11250237CCB	1	07/17/2019	15:01	X	
1709959BLANK	1709959	1	07/17/2019	15:02		X
1709960LCS	1709960	1	07/17/2019	15:03		X
30313655001	30313655001	1	07/17/2019	15:04		X
1709961DUP	1709961	1	07/17/2019	15:05		X
Sewer-1	30313514001	1	07/17/2019	15:13		X
11250513CCV	11250513CCV	1	07/17/2019	15:14	X	
11250514CCB	11250514CCB	1	07/17/2019	15:15	X	
Sewer-2	30313514002	1	07/17/2019	15:16		X
11250238CCV	11250238CCV	1	07/17/2019	15:26	X	
11250239CCB	11250239CCB	1	07/17/2019	15:27	X	

Original Run Filename: OM_7-17-2019_02-23-20PM.OMN Created: 7/17/2019 2:23:20 PM
Original Run Author's Signature: [lachatuser]
Current Run Filename: OM_7-17-2019_02-23-20PM.OMN Last Modified: 7/17/2019 3:52:46 PM
Current Run Author's Signature: [lachatuser]
Description: 10-107-04-1-C

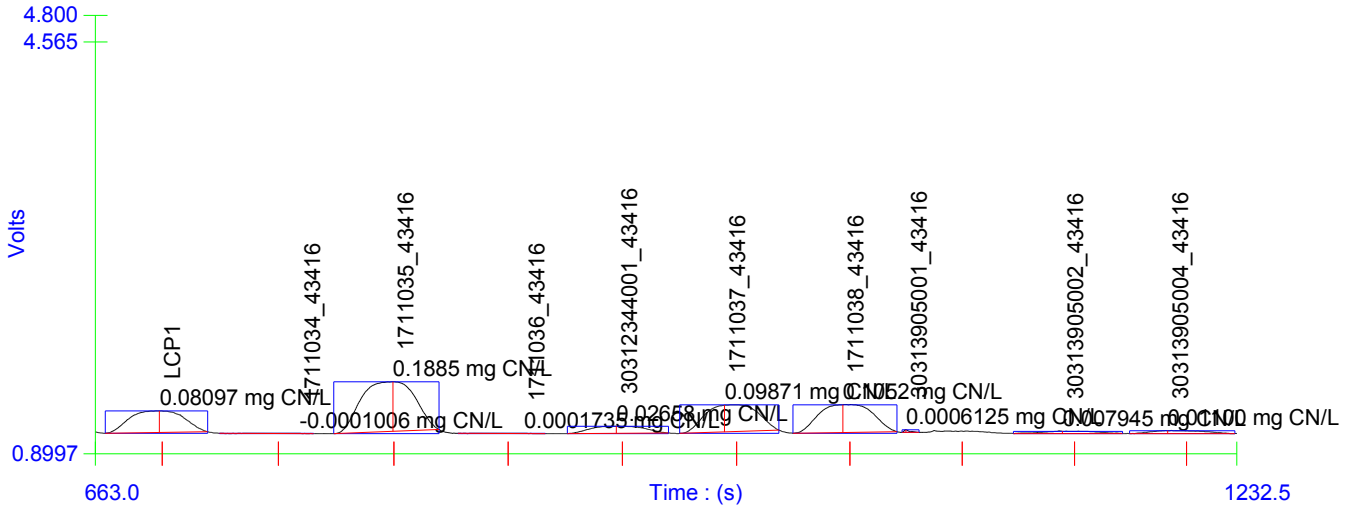
Sample	Channel 1 Cyanide			Detection Time	MDF
	Conc. (mg CN/L)	Area (V.s)	Height (V)		
CAL0	0.000	0.03218	0.001929	7/17/2019@2:24:26 PM	
CAL1	0.01000	0.6892	0.02245	7/17/2019@2:25:25 PM	
CAL2	0.05000	3.732	0.1259	7/17/2019@2:26:23 PM	
CAL3	0.1000	7.351	0.2476	7/17/2019@2:27:21 PM	
CAL4	0.1500	11.07	0.3700	7/17/2019@2:28:17 PM	
CAL5	0.2000	14.79	0.4899	7/17/2019@2:29:13 PM	
CAL6	0.3000	21.95	0.7296	7/17/2019@2:30:08 PM	
ICV	0.09159	6.747	0.2178	7/17/2019@2:31:05 PM	
Known Conc:	0.1000				
Calibration:	Table/Fig. : 1				
ICB	-0.0006907	-0.01929	-0.001689	7/17/2019@2:32:05 PM	
Known Conc:	0.000				
CCV	0.1985	14.59	0.4807	7/17/2019@2:33:04 PM	
Known Conc:	0.2000				
LCP1	0.08097	5.969	0.1900	7/17/2019@2:34:03 PM	1.00
1711034_43416	-0.0001006	0.02399	0.002390	7/17/2019@2:35:01 PM	1.00
1711035_43416	0.1885	13.86	0.4422	7/17/2019@2:35:58 PM	1.00
1711036_43416	0.0001735	0.04408	0.002041	7/17/2019@2:36:56 PM	1.00
30312344001_43416	0.02658	1.980	0.06290	7/17/2019@2:37:53 PM	1.00
1711037_43416	0.09871	7.269	0.2377	7/17/2019@2:38:50 PM	1.00
1711038_43416	0.1052	7.744	0.2468	7/17/2019@2:39:47 PM	1.00
30313905001_43416	0.0006125	0.07628	0.02460	7/17/2019@2:40:44 PM	1.00
30313905002_43416	0.007945	0.6139	0.02015	7/17/2019@2:41:40 PM	1.00
30313905004_43416	0.01100	0.8379	0.02717	7/17/2019@2:42:37 PM	1.00
30313309001_43416	0.05713	4.221	0.1353	7/17/2019@2:43:33 PM	1.00
30313309002_43416	0.005426	0.4293	0.01566	7/17/2019@2:44:28 PM	1.00
30313309003_43416	0.001256	0.1235	0.004598	7/17/2019@2:45:24 PM	1.00
30313309004_43416	0.0007407	0.08568	0.003375	7/17/2019@2:46:19 PM	1.00
30313618001_43416	0.006356	0.4975	0.01569	7/17/2019@2:47:14 PM	1.00
CCV	0.1946	14.30	0.4731	7/17/2019@2:48:11 PM	
Known Conc:	0.2000				
CCB	-0.002207	-0.1305	-0.005121	7/17/2019@2:49:10 PM	
Known Conc:	0.000				
30313625001_43416	0.008148	0.6289	0.02025	7/17/2019@2:50:09 PM	1.00
1711039_43416	0.08931	6.580	0.2108	7/17/2019@2:51:07 PM	1.00
1711040_43416	0.09101	6.705	0.2156	7/17/2019@2:52:04 PM	1.00
30313625002_43416	0.002147	0.1888	0.007884	7/17/2019@2:53:01 PM	1.00
30313625003_43416	0.007387	0.5731	0.02095	7/17/2019@2:53:58 PM	1.00
30313625004_43416	0.003038	0.2542	0.008527	7/17/2019@2:54:55 PM	1.00
30313710001_43416	0.003358	0.2776	0.009150	7/17/2019@2:55:52 PM	1.00
30312639002_43416	0.0003768	0.05899	0.002732	7/17/2019@2:56:48 PM	1.00
30313769001_43416	0.001748	0.1596	0.005132	7/17/2019@2:57:44 PM	1.00
30313721001_43416	0.001205	0.1197	0.004560	7/17/2019@2:58:40 PM	1.00
30313767001_43416	1.468	107.7	3.362	7/17/2019@2:59:35 PM	1.00
CCV	0.1832	13.47	0.4510	7/17/2019@3:00:32 PM	
Known Conc:	0.2000				
CCB	-0.001552	-0.08241	-0.004994	7/17/2019@3:01:32 PM	
Known Conc:	0.000				
1709959_43376	0.0002863	0.05236	0.002382	7/17/2019@3:02:29 PM	1.00
1709960_43376	0.0001275	0.04071	0.001985	7/17/2019@3:03:25 PM	1.00
30313655001_43376	-0.0001798	0.01818	0.001729	7/17/2019@3:04:19 PM	1.00
1709961_43376	-0.0002035	0.01644	0.001254	7/17/2019@3:05:14 PM	1.00
50230174001_43376	3.476e-5	0.03391	0.001962	7/17/2019@3:06:10 PM	1.00
50230043005_43376	4.545e-5	0.03470	0.002183	7/17/2019@3:07:08 PM	1.00
30313438001_43376	-2.142e-5	0.02979	0.001803	7/17/2019@3:08:05 PM	1.00
30313438003_43376	-0.0001624	0.01945	0.001726	7/17/2019@3:09:03 PM	1.00
30313438005_43376	0.0002973	0.05317	0.002177	7/17/2019@3:10:00 PM	1.00

30313438007_43376	0.001200	0.1194	0.02590	7/17/2019@3:10:56 PM	1.00
30313749001_43376	6.110e-5	0.03585	0.001943	7/17/2019@3:11:53 PM	1.00
30313751001_43376	0.0002385	0.04886	0.002140	7/17/2019@3:12:49 PM	1.00
30313514001_43376	0.0004605	0.06513	0.002664	7/17/2019@3:13:45 PM	1.00
CCV	0.1890	13.89	0.4546	7/17/2019@3:14:42 PM	
Known Conc:	0.2000				
CCB	-0.0004932	-0.004803	-0.001003	7/17/2019@3:15:42 PM	
Known Conc:	0.000				
30313514002_43376	0.0003948	0.06031	0.002774	7/17/2019@3:16:39 PM	1.00
30313635001_43376	0.0004687	0.06574	0.002334	7/17/2019@3:17:35 PM	1.00
30313750001_43376	0.0003875	0.05978	0.002010	7/17/2019@3:18:30 PM	1.00
30313785001_43376	0.0004204	0.06220	0.003047	7/17/2019@3:19:25 PM	1.00
30313145001_43376	0.0002855	0.05230	0.002369	7/17/2019@3:20:20 PM	1.00
30313599001_43376	-6.914e-5	0.02629	0.001653	7/17/2019@3:21:15 PM	1.00
30313575001_43376	-9.508e-5	0.02439	0.001598	7/17/2019@3:22:11 PM	1.00
30313284001_43376	3.682e-6	0.03164	0.002697	7/17/2019@3:23:09 PM	1.00
30313347001_43376	1.549e-5	0.03250	0.001729	7/17/2019@3:24:06 PM	1.00
30313347002_43376	6.790e-5	0.03634	0.001797	7/17/2019@3:25:03 PM	1.00
CCV	0.1892	13.90	0.4530	7/17/2019@3:26:01 PM	
Known Conc:	0.2000				
CCB	-0.001911	-0.1088	-0.004599	7/17/2019@3:27:00 PM	
Known Conc:	0.000				
30313767001_43416	0.07844	5.783	0.1859	7/17/2019@3:27:58 PM	20.00
CCV	0.1912	14.06	0.4557	7/17/2019@3:28:55 PM	
Known Conc:	0.2000				
CCB	-0.001871	-0.1058	-0.004671	7/17/2019@3:29:55 PM	
Known Conc:	0.000				
1711070_43423	0.0001103	0.03945	0.001957	7/17/2019@3:30:53 PM	1.00
1711071_43423	0.6110	44.84	1.413	7/17/2019@3:31:50 PM	1.00
10482944001_43423	-0.006279	-0.4290	-0.01586	7/17/2019@3:32:46 PM	1.00
1711072_43423	0.0003731	0.05872	0.002934	7/17/2019@3:33:43 PM	1.00
30314122001_43423	-8.591e-5	0.02507	0.001957	7/17/2019@3:34:39 PM	1.00
30314122002_43423	0.0003032	0.05360	0.002250	7/17/2019@3:35:35 PM	1.00
30314228001_43423	-3.990e-5	0.02844	0.001661	7/17/2019@3:36:30 PM	1.00
30314228002_43423	-0.0004961	-0.005010	-0.0009553	7/17/2019@3:37:26 PM	1.00
30314228003_43423	-0.0008351	-0.02987	-0.001831	7/17/2019@3:38:21 PM	1.00
30313347003_43423	-0.0005854	-0.01156	0.001033	7/17/2019@3:39:15 PM	1.00
30313353001_43423	7.465e-5	0.03684	0.002158	7/17/2019@3:40:11 PM	1.00
92436361001_43423	0.0004963	0.06775	0.002930	7/17/2019@3:41:07 PM	1.00
92436361002_43423	-0.0001110	0.02323	0.001861	7/17/2019@3:42:04 PM	1.00
CCV	0.1897	13.94	0.4528	7/17/2019@3:43:04 PM	
Known Conc:	0.2000				
CCB	-0.0003060	0.008924	0.001937	7/17/2019@3:44:02 PM	
Known Conc:	0.000				
1711071_43423	0.05008	3.704	0.1200	7/17/2019@3:45:00 PM	10.00
30313631001_43423	-0.0001332	0.02160	0.002151	7/17/2019@3:45:57 PM	1.00
30314227001_43423	-9.863e-5	0.02413	0.001738	7/17/2019@3:46:54 PM	1.00
10482824001_43423	-4.124e-6	0.03106	0.001795	7/17/2019@3:47:51 PM	1.00
92436834001_43423	3.118e-5	0.03365	0.001645	7/17/2019@3:48:48 PM	1.00
CCV	0.1878	13.81	0.4517	7/17/2019@3:49:46 PM	
Known Conc:	0.2000				
CCB	-0.0001786	0.01827	0.001527	7/17/2019@3:50:45 PM	
Known Conc:	0.000				

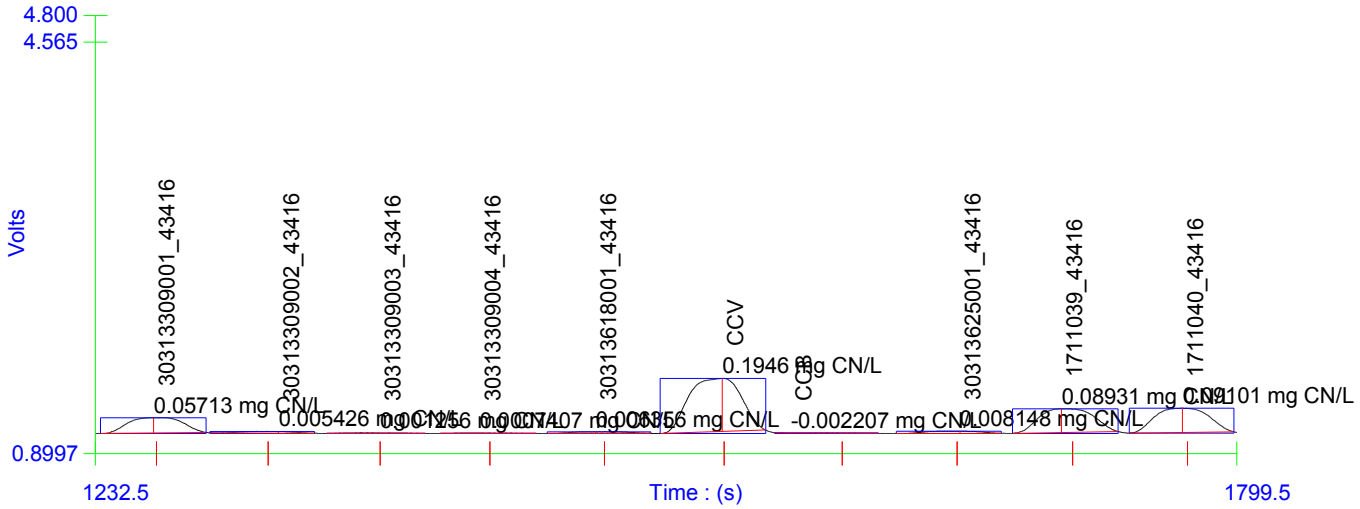
Channel 1 (Cyanide) - Set: 1 / 10



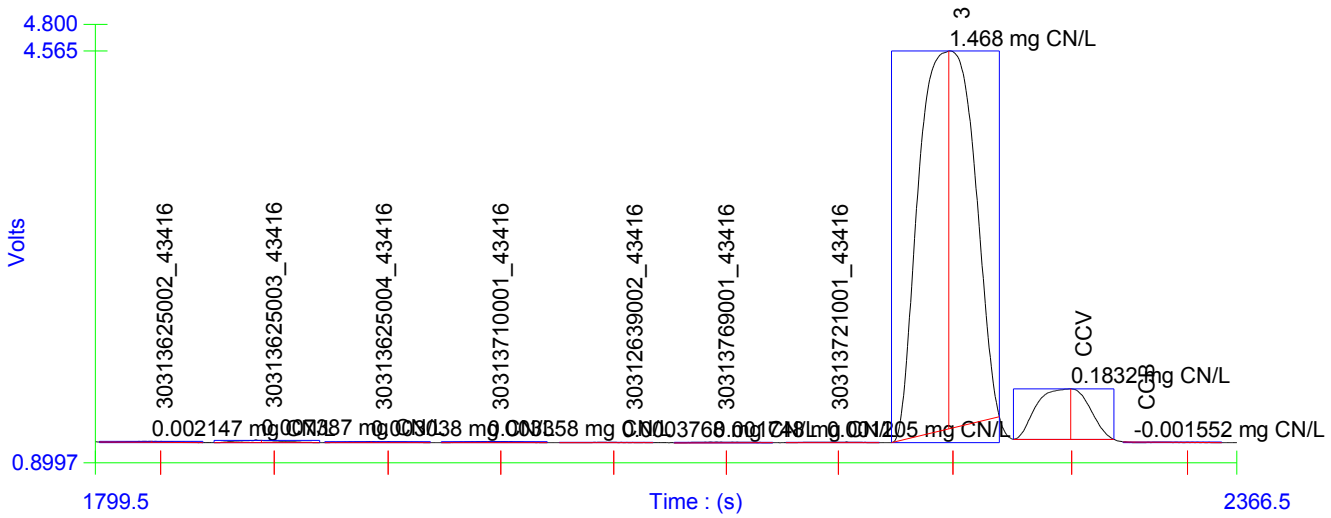
Channel 1 (Cyanide) - Set: 2 / 10



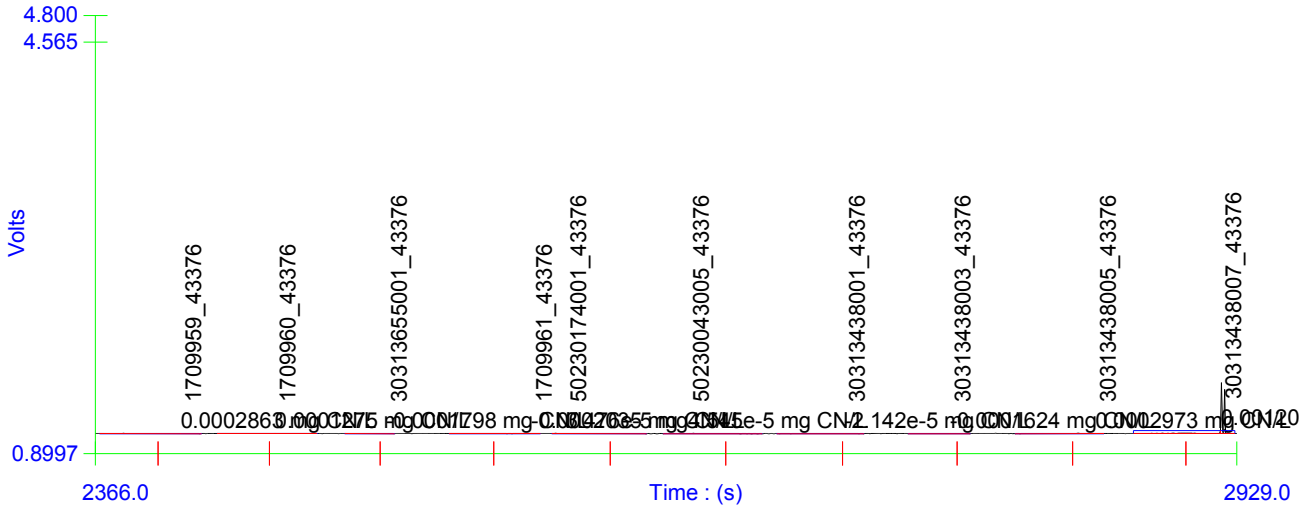
Channel 1 (Cyanide) - Set: 3 / 10



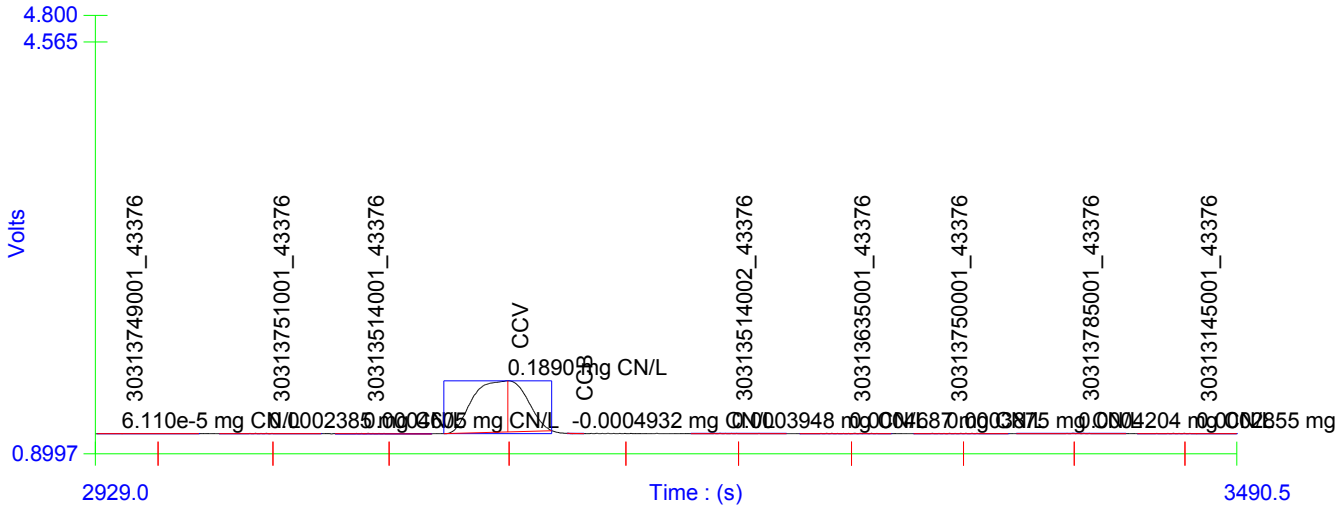
Channel 1 (Cyanide) - Set: 4 / 10



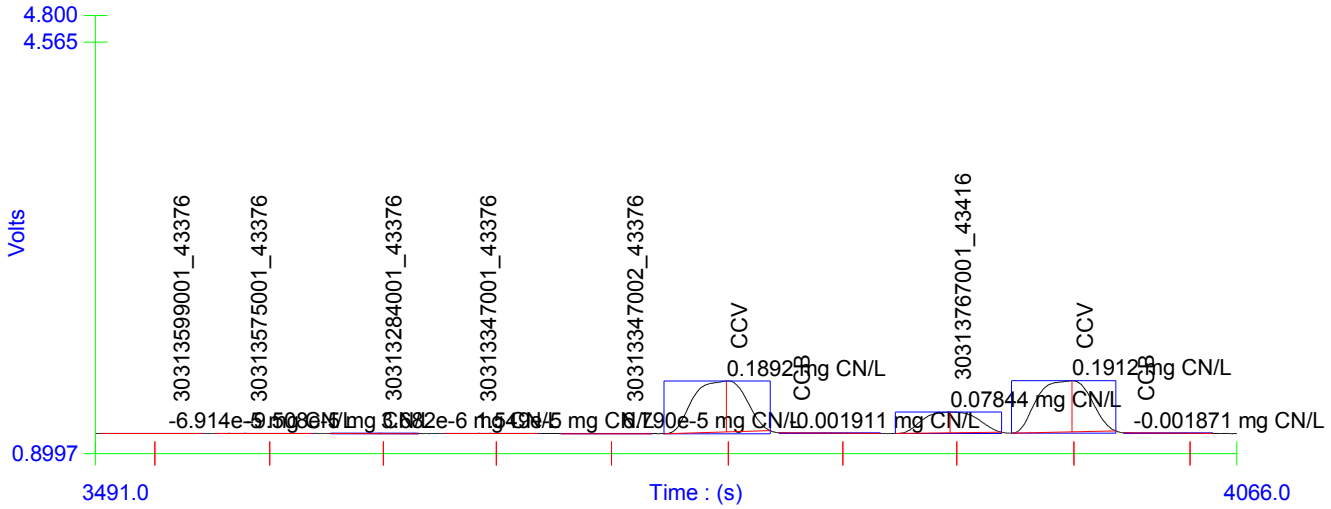
Channel 1 (Cyanide) - Set: 5 / 10



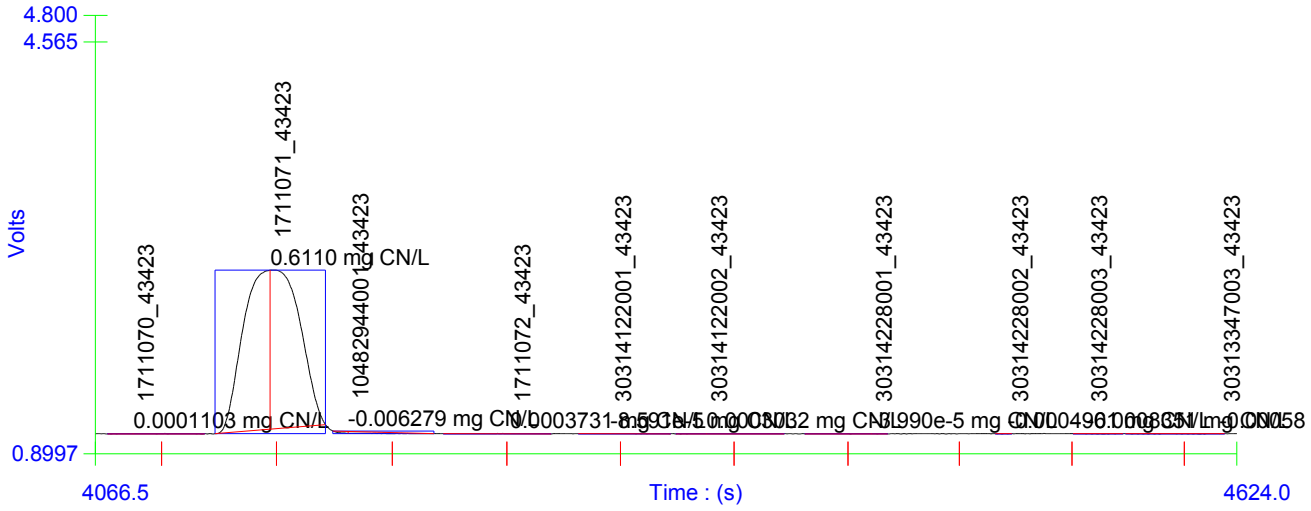
Channel 1 (Cyanide) - Set: 6 / 10



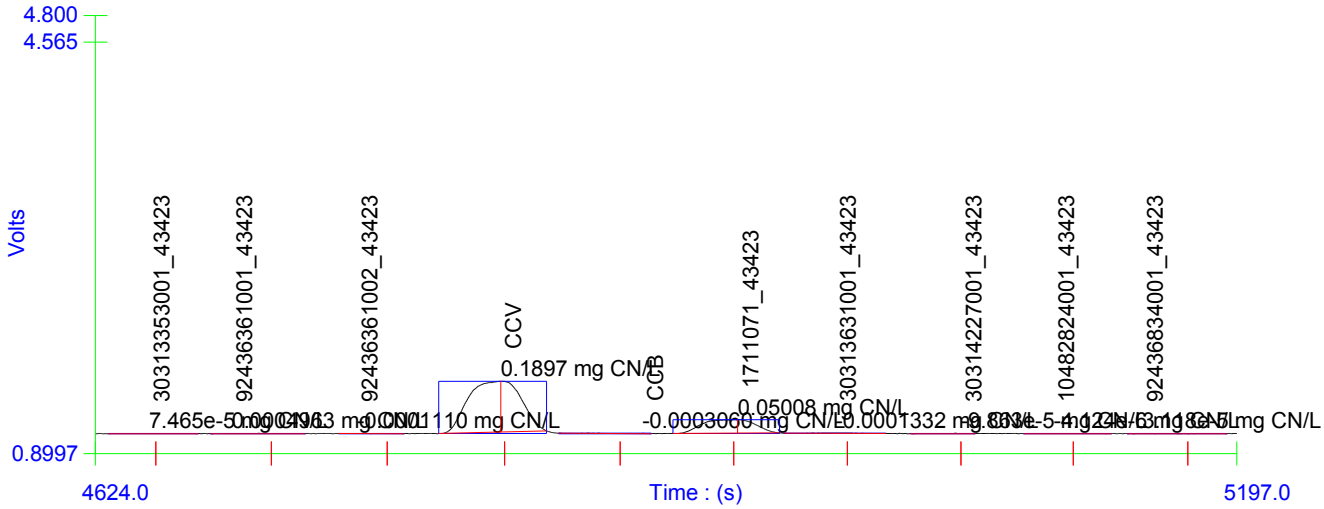
Channel 1 (Cyanide) - Set: 7 / 10



Channel 1 (Cyanide) - Set: 8 / 10



Channel 1 (Cyanide) - Set: 9 / 10



Channel 1 (Cyanide) - Set: 10 / 10

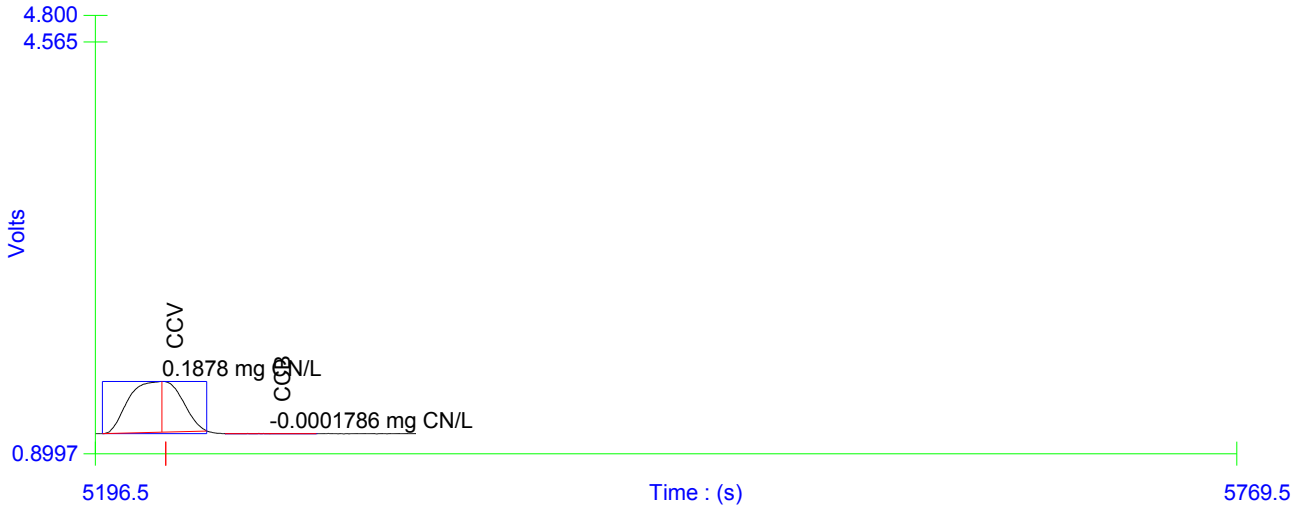


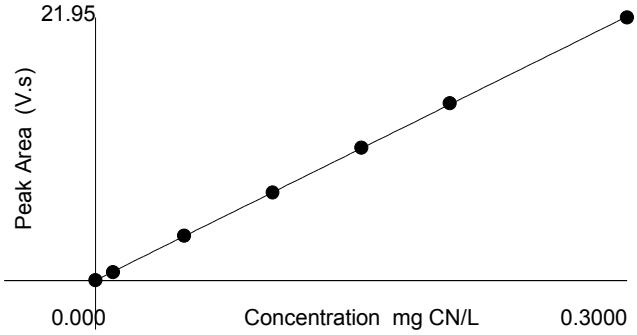
Table : 1 (Cyanide)

	Known Conc. (mg CN/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg CN/L)	Detection Date	Detection Time
1	0.3000	1	21.95	0.7296	0.0	0.4	0.2988	7/17/2019	2:30:08 PM
2	0.2000	1	14.79	0.4899	0.0	-0.6	0.2013	7/17/2019	2:29:13 PM
3	0.1500	1	11.07	0.3700	0.0	-0.4	0.1506	7/17/2019	2:28:17 PM
4	0.1000	1	7.351	0.2476	0.0	0.2	0.09983	7/17/2019	2:27:21 PM
5	0.05000	1	3.732	0.1259	0.0	-0.9	0.05047	7/17/2019	2:26:23 PM
6	0.01000	1	0.6892	0.02245	0.0	9.9	0.008971	7/17/2019	2:25:25 PM
7	0.000	1	0.03218	0.001929			1.114e-5	7/17/2019	2:24:26 PM

Author: Cody Ray, Paul Stanko

Date : 7/17/2019

Figure : 1 (Cyanide)



Area = 73.32 * Conc + 0.03192
Conc = 0.01364 * Area - 0.0004277
Correlation Coefficient (r) = 0.99997

Weighting : None

Prep Log Report

Batch Information: WET 352414 flashpoint2

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	170327318	Correction Factor (F)	0	Barometric Pressure (in Hg)	28.79
Corrected Barometric Pressure Factor (F)	1.7240	Instrument	30WET6	Analyzed By	CMR	p-Xylene	93223
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	07/18/2019 13:55						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVA	**CCVA**	N	07/18/2019 08:40:17	Nonaqueous liquid	79.2	80.92	
1010 W	BLANK	**1712144**	N	07/18/2019 09:01:04	Water	>200	>200	
1010 W	PS	**30312371002**	Y	07/18/2019 09:37:41	Water	>200	>200	
1010 W	PS	**30313438001**	Y	07/18/2019 10:08:13	Solid	>200	>200	
1010 W	PS	**30313438005**	Y	07/18/2019 10:35:17	Solid	>200	>200	
1010 W	PS	**30313514001**	Y	07/18/2019 11:02:41	Solid	>200	>200	
1010 W	PS	**30313635001**	Y	07/18/2019 11:25:03	Solid	154.4	156.12	
1010 W	PS	**30312463001**	Y	07/18/2019 11:55:21	Solid	>200	>200	

Prep Log Report

Batch Information: WET 352414 flashpoint3

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	180063467	Correction Factor (F)	-0.1	Barometric Pressure (in Hg)	28.79
Corrected Barometric Pressure Factor (F)	1.7240	Instrument	30WET6	Analyzed By	CMR	p-Xylene	93223
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	07/18/2019 13:55						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVB	**CCVB**	N	07/18/2019 08:42:08	Nonaqueous liquid	78.4	80.02	
1010 W	BLANK	**1712144**	Y	07/18/2019 09:02:06	Water	>200	>200	
1010 W	PS	**30312371001**	Y	07/18/2019 09:24:29	Water	>200	>200	
1010 W	PS	**30313331001**	Y	07/18/2019 09:37:30	Solid	>200	>200	
1010 W	DUP	**1712145**	Y	07/18/2019 10:02:34	Solid	>200	>200	
1010 W	PS	**30313438003**	Y	07/18/2019 10:29:24	Solid	>200	>200	
1010 W	PS	**30313438007**	Y	07/18/2019 10:47:40	Solid	>200	>200	
1010 W	PS	**30313514002**	Y	07/18/2019 11:06:47	Solid	>200	>200	
1010 W	PS	**30313553001**	Y	07/18/2019 11:29:26	Solid	>200	>200	
1010 W	PS	**30313599001**	Y	07/18/2019 12:31:15	Solid	>200	>200	
1010 W	PS	**30314502002**	Y	07/18/2019 11:58:17	Water	>200	>200	

Prep Log Report

Batch Information: WETA 351918/351922 Rx_P

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.3.2	Extracted By	EKM	Extracted Date/Time	07/16/2019 10:15:25:655	Instrument	30BA14
Date/Time On	07/16/2019 13:02:45:488	Date/Time Off	07/16/2019 15:20:24:160	Lead Acetate Solution	92567	Sulfuric Acid	89890
10N Sodium Hydroxide	90173	Reviewed By	BKH	Reviewed By Date	07/17/2019 10:43	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	BLANK	**1709959**	10.08	50	No			
734S S2_P	BLANK	**1709976**	10.08	200	No			
733C S_P	LCS	**1709960**	9.93	50	No		84021 (1)	
734S S2_P	LCS	**1709977**	9.93	200	No			91573 (2)
733C S_P	PS	**30313655001**	9.96	50	No			
734S S2_P	PS	**30313655001**	9.96	200	No			
733C S_P	DUP	**1709961**	9.98	50	No			
734S S2_P	DUP	**1709978**	9.98	200	No			
733C S_P	PS	**50230174001**	7.37	50	No			
734S S2_P	PS	**50230174001**	7.37	200	No			
733C S_P	PS	**50230043005**	9.96	50	No			
734S S2_P	PS	**50230043005**	9.96	200	No			
733C S_P	PS	**30313438001**	10.08	50	No			
734S S2_P	PS	**30313438001**	10.08	200	No			
733C S_P	PS	**30313438003**	9.94	50	No			
734S S2_P	PS	**30313438003**	9.94	200	No			
733C S_P	PS	**30313438005**	9.99	50	No			
734S S2_P	PS	**30313438005**	9.99	200	No			
733C S_P	PS	**30313438007**	10.06	50	No			
734S S2_P	PS	**30313438007**	10.06	200	No			
733C S_P	PS	**30313749001**	10	50	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	PS	**30313749001**	10	200	No			
733C S_P	PS	**30313751001**	9.95	50	No			
734S S2_P	PS	**30313751001**	9.95	200	No			
733C S_P	PS	**30313514001**	9.93	50	No			
734S S2_P	PS	**30313514001**	9.93	200	No			
733C S_P	PS	**30313514002**	9.93	50	No			
734S S2_P	PS	**30313514002**	9.93	200	No			
733C S_P	PS	**30313635001**	9.98	50	No			
734S S2_P	PS	**30313635001**	9.98	200	No			
733C S_P	PS	**30313750001**	9.97	50	No			
734S S2_P	PS	**30313750001**	9.97	200	No			
733C S_P	PS	**30313785001**	9.96	50	No			
734S S2_P	PS	**30313785001**	9.96	200	No			
733C S_P	PS	**30313145001**	10.01	50	No			
734S S2_P	PS	**30313145001**	10.01	200	No			
733C S_P	PS	**30313599001**	10.06	50	No			
734S S2_P	PS	**30313599001**	10.06	200	No			
733C S_P	PS	**30313575001**	9.95	50	No			
734S S2_P	PS	**30313575001**	9.95	200	No			
733C S_P	PS	**30313284001**	10.03	50	No			
734S S2_P	PS	**30313284001**	10.03	200	No			
733C S_P	PS	**30313347001**	9.99	50	No			
734S S2_P	PS	**30313347001**	9.99	200	No			
733C S_P	PS	**30313347002**	9.98	50	No			
734S S2_P	PS	**30313347002**	9.98	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 352111 Rx Sulfide

Template Version: F-PA-I-032-Rev.00 (05Nov2016)

Analysis Method	SM 4500S2F-2011	Analyzed By	PAS	Instrument	30WET0	1:1 HCl (mL)	92091 (2)
Starch Indicator Solution (mL)	84280 (1)	Reviewed By	BKH	Reviewed By Date	07/17/2019 10:43	Batch Notes	PIP004 & WC20-174-14

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	BLANK	**1709976**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	LCS	**1709977**	Y	07/16/2019 17:07:14	200	88037 (5)	0	4	74724 (4.00)	2.00	20.1410	40.2820	
734S S2	PS	**30313655001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0803	0.0000	
734S S2	DUP	**1709978**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0401	0.0000	
734S S2	PS	**50230174001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	27.1370	0.0000	
734S S2	PS	**50230043005**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0803	0.0000	
734S S2	PS	**30313438001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30313438003**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.1207	0.0000	
734S S2	PS	**30313438005**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0200	0.0000	
734S S2	PS	**30313438007**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8807	0.0000	
734S S2	PS	**30313749001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30313751001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.1005	0.0000	
734S S2	PS	**30313514001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.1410	0.0000	
734S S2	PS	**30313514002**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.1410	0.0000	
734S S2	PS	**30313635001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0401	0.0000	
734S S2	PS	**30313750001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0602	0.0000	
734S S2	PS	**30313785001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0803	0.0000	
734S S2	PS	**30313145001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30313599001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8807	0.0000	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	PS	**30313575001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.1005	0.0000	
734S S2	PS	**30313284001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	
734S S2	PS	**30313347001**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0200	0.0000	
734S S2	PS	**30313347002**	Y	07/16/2019 17:07:14	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0401	0.0000	

Prep Log Report

Batch Information: WET 352954 PH CURVE 07222019

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	PH CURVE	Daily Cal Slope	99.825	Cal Date/Time	07/22/2019 14:24:28:196	Analyzed By	ZMH
Instrument	30WETG	Reviewed By	BKH	Reviewed By Date	07/23/2019 09:17	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Notes	CAL-STD
WET pH_Q	CAL1	**CAL1**	Y		07/22/2019 14:27:41		2.02	2.02	2.02			91373 (1)
WET pH_Q	CAL2	**CAL2**	Y		07/22/2019 14:28:59		4.08	4.08	4.08			76233 (1)
WET pH_Q	CAL3	**CAL3**	Y		07/22/2019 14:30:33		7.01	7.01	7.01			80724 (1)
WET pH_Q	CAL4	**CAL4**	Y		07/22/2019 14:30:42		9.84	9.84	9.84			67950 (1)
WET pH_Q	CAL5	**CAL5**	Y		07/22/2019 14:35:45		12.86	12.86	12.86			80723 (1)
WET pH_Q	ICVA	**ICVA**	Y		07/22/2019 14:36:50		3.98	3.98	3.98			68828 (1)
WET pH_Q	ICVB	**ICVB**	Y		07/22/2019 14:36:54		7.01	7.01	7.01			84019 (1)

Standard Notes:

67950: WET pH 10.0 Buffer
68828: 2nd pH 4 buffer
76233: WET 1st pH 4.0
80723: WET pH 13.0 Buffer
80724: WET pH 7.0 Buffer / CCV
84019: WC29-186-7 ICVB
91373: WET pH 2.0 Buffer

Prep Log Report

Batch Information: WET 352974 352976 352977 PH

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	SM 4500H+B-2011	Daily Cal Slope	99.825	Cal Date/Time	07/22/2019 19:51:26:747	Analyzed By	ZMH
Instrument	30WETG	Balance ID	30BA14	Shaker On ID | Date/Time | Init	07/22/2019 19:51:28:382 | 07/22/2019 19:51 | ZMH	Shaker Off Date/Time | Init	07/22/2019 19:56 | ZMH
Reviewed By	BKH	Reviewed By Date	07/23/2019 14:45	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		07/22/2019 21:14:44		6.98	7.02	6.98	20.3			80724 (1)
4500H+B	PS	**30315136002**	Y		07/22/2019 21:16:05	Water	7.3	7.28	7.3	19.4			
4500H+B	DUP	**1714718**	Y		07/22/2019 21:16:59	Water	7.33	7.31	7.33	19.6			
4500H+B	PS	**30315136005**	Y		07/22/2019 21:18:28	Water	8.43	8.41	8.43	19.7			
4500H+B	PS	**30315220001**	Y		07/22/2019 21:19:13	Water	7.25	7.3	7.25	18.4			
4500H+B	PS	**30315223001**	Y		07/22/2019 21:20:06	Water	7.1	7.08	7.1	18.2			
4500H+B	PS	**30315223002**	Y		07/22/2019 21:21:46	Water	7.22	7.2	7.22	18.1			
4500H+B	PS	**30315225001**	Y		07/22/2019 21:24:05	Water	7.16	7.21	7.16	18.3			
4500H+B	PS	**30315225002**	Y		07/22/2019 21:25:23	Water	7.08	7.12	7.08	18.2			
WET pH_Q	CCV	**CCV**	Y		07/22/2019 21:25:56		6.96	6.99	6.96	20.6			80724 (1)
9045 S	PS	**30315163001**	Y		07/22/2019 21:27:30	Solid	12.6	12.58	12.6	20.4	19.95		
9045 S	DUP	**1714720**	Y		07/22/2019 21:28:17	Solid	12.63	12.6	12.63	20.9	20.03		
9045 S	PS	**30315229001**	Y		07/22/2019 21:29:42	Solid	9.14	9.16	9.14	21.1	19.97		
9045 S	OQS	**30315244001**	Y		07/22/2019 21:30:21	Solid	8.7	8.74	8.7	20.4	19.99		
9045D S	PS	**30313514001**	Y		07/22/2019 21:31:13	Solid	8.39	8.42	8.39	20.5	20.01		
9045D S	DUP	**1714721**	Y		07/22/2019 21:31:43	Solid	8.35	8.37	8.35	20.6	20.05		
9045D S	PS	**30313514002**	Y		07/22/2019 21:32:54	Solid	8.56	8.54	8.56	20.7	20.01		
9045 S	PS	**30315267001**	Y		07/22/2019 21:34:26	Solid	8.85	8.87	8.85	19.2	20		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		07/22/2019 21:35:17		7.01	7.03	7.01	21.2			80724 (1)

Standard Notes:

80724: WET pH 7.0 Buffer / CCV

Prep Log Report

Batch Information: WETA 351918/351922 Rx_P

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.3.2	Extracted By	EKM	Extracted Date/Time	07/16/2019 10:15:25:655	Instrument	30BA14
Date/Time On	07/16/2019 13:02:45:488	Date/Time Off	07/16/2019 15:20:24:160	Lead Acetate Solution	92567	Sulfuric Acid	89890
10N Sodium Hydroxide	90173	Reviewed By	BKH	Reviewed By Date	07/17/2019 10:43	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	BLANK	**1709959**	10.08	50	No			
734S S2_P	BLANK	**1709976**	10.08	200	No			
733C S_P	LCS	**1709960**	9.93	50	No		84021 (1)	
734S S2_P	LCS	**1709977**	9.93	200	No			91573 (2)
733C S_P	PS	**30313655001**	9.96	50	No			
734S S2_P	PS	**30313655001**	9.96	200	No			
733C S_P	DUP	**1709961**	9.98	50	No			
734S S2_P	DUP	**1709978**	9.98	200	No			
733C S_P	PS	**50230174001**	7.37	50	No			
734S S2_P	PS	**50230174001**	7.37	200	No			
733C S_P	PS	**50230043005**	9.96	50	No			
734S S2_P	PS	**50230043005**	9.96	200	No			
733C S_P	PS	**30313438001**	10.08	50	No			
734S S2_P	PS	**30313438001**	10.08	200	No			
733C S_P	PS	**30313438003**	9.94	50	No			
734S S2_P	PS	**30313438003**	9.94	200	No			
733C S_P	PS	**30313438005**	9.99	50	No			
734S S2_P	PS	**30313438005**	9.99	200	No			
733C S_P	PS	**30313438007**	10.06	50	No			
734S S2_P	PS	**30313438007**	10.06	200	No			
733C S_P	PS	**30313749001**	10	50	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	PS	**30313749001**	10	200	No			
733C S_P	PS	**30313751001**	9.95	50	No			
734S S2_P	PS	**30313751001**	9.95	200	No			
733C S_P	PS	**30313514001**	9.93	50	No			
734S S2_P	PS	**30313514001**	9.93	200	No			
733C S_P	PS	**30313514002**	9.93	50	No			
734S S2_P	PS	**30313514002**	9.93	200	No			
733C S_P	PS	**30313635001**	9.98	50	No			
734S S2_P	PS	**30313635001**	9.98	200	No			
733C S_P	PS	**30313750001**	9.97	50	No			
734S S2_P	PS	**30313750001**	9.97	200	No			
733C S_P	PS	**30313785001**	9.96	50	No			
734S S2_P	PS	**30313785001**	9.96	200	No			
733C S_P	PS	**30313145001**	10.01	50	No			
734S S2_P	PS	**30313145001**	10.01	200	No			
733C S_P	PS	**30313599001**	10.06	50	No			
734S S2_P	PS	**30313599001**	10.06	200	No			
733C S_P	PS	**30313575001**	9.95	50	No			
734S S2_P	PS	**30313575001**	9.95	200	No			
733C S_P	PS	**30313284001**	10.03	50	No			
734S S2_P	PS	**30313284001**	10.03	200	No			
733C S_P	PS	**30313347001**	9.99	50	No			
734S S2_P	PS	**30313347001**	9.99	200	No			
733C S_P	PS	**30313347002**	9.98	50	No			
734S S2_P	PS	**30313347002**	9.98	200	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

91573: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 352113/352335/352284 CN

Template Version: F-PA-I-040-Rev.03 (03Apr2019)

Prep Method	SW-846 7.3.3.2	Analysis Method	EPA 9014	Prepared By	PAS	Prep Date Date/Time	07/17/2019 16:10:27:021
Instrument	30wta5	Chloramine-T Soln. (CN)	93928	NaOH Soln.	None Added	Pyridine-Barbituric Acid Reage	93124
Reviewed By	BKH	Reviewed By Date	07/17/2019 17:04	Batch Notes	Instrument Traceability		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
WETA CN_Q	CCV	**CCV**				No			93934 (1)
WETA CN_Q	CCB	**CCB**				No			93929 (1)
WETA CN_Q	CAL0	**CAL0**				No			93929 (1)
WETA CN_Q	CAL1	**CAL1**				No			93930 (1)
WETA CN_Q	CAL2	**CAL2**				No			93931 (1)
WETA CN_Q	CAL3	**CAL3**				No			93932 (1)
WETA CN_Q	CAL4	**CAL4**				No			93933 (1)
WETA CN_Q	CAL5	**CAL5**				No			93934 (1)
WETA CN_Q	CAL6	**CAL6**				No			93935 (1)
WETA CN_Q	ICB	**ICB**				No			93929 (1)
WETA CN_Q	ICV	**ICV**				No			93936 (1)
733C S2	BLANK	**1709959**		10.08	50	No	Solid		
733C S2	LCS	**1709960**		9.93	50	No	Solid		
733C S2	PS	**30313655001**		9.96	50	No	Solid		
733C S2	DUP	**1709961**		9.98	50	No	Solid		
733C S2	PS	**50230174001**		7.37	50	No	Solid		
733C S2	PS	**50230043005**		9.96	50	No	Water		
733C S2	PS	**30313438001**		10.08	50	No	Solid		
733C S2	PS	**30313438003**		9.94	50	No	Solid		
733C S2	PS	**30313438005**		9.99	50	No	Solid		
733C S2	PS	**30313438007**		10.06	50	No	Solid		
733C S2	PS	**30313749001**		10	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**30313751001**		9.95	50	No	Solid		
733C S2	PS	**30313514001**		9.93	50	No	Solid		
733C S2	PS	**30313514002**		9.93	50	No	Solid		
733C S2	PS	**30313635001**		9.98	50	No	Solid		
733C S2	PS	**30313750001**		9.97	50	No	Solid		
733C S2	PS	**30313785001**		9.96	50	No	Solid		
733C S2	PS	**30313145001**		10.01	50	No	Solid		
733C S2	PS	**30313599001**		10.06	50	No	Solid		
733C S2	PS	**30313575001**		9.95	50	No	Solid		
733C S2	PS	**30313284001**		10.03	50	No	Solid		
733C S2	PS	**30313347001**		9.99	50	No	Water		
733C S2	PS	**30313347002**		9.98	50	No	Water		
733C S2	BLANK	**1711070**		9.92	50	No	Solid		
733C S2	LCS	**1711071**		9.92	50	No	Solid		
733C S2	PS	**10482944001**		9.99	50	No	Water		
733C S2	DUP	**1711072**		10	50	No	Water		
733C S2	PS	**30314122001**		10.04	50	No	Solid		
733C S2	PS	**30314122002**		10.03	50	No	Solid		
733C S2	PS	**30314228001**		9.98	50	No	Solid		
733C S2	PS	**30314228002**		10.04	50	No	Solid		
733C S2	PS	**30314228003**		10.03	50	No	Solid		
733C S2	PS	**30313347003**		10.07	50	No	Water		
733C S2	PS	**30313353001**		10.04	50	No	Solid		
733C S2	PS	**92436361001**		9.97	50	No	Solid		
733C S2	PS	**92436361002**		9.95	50	No	Solid		
733C S2	PS	**30313631001**		9.92	50	No	Solid		
733C S2	PS	**30314227001**		10.08	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**92436834001**		10.03	50	No	Solid		
733C S2	PS	**10482824001**		10.07	50	No	Solid		
4500CNE W2	BLANK	**1711034**		6	6	No	Water		
4500CNE W2	BLANK	**1711036**		6	6	No	Water		
4500CNE W2	LCS	**1711035**		6	6	No	Water		
4500CNE W2	MS	**1711037**		6	6	No	Water		
4500CNE W2	MS	**1711039**		6	6	No	Water		
4500CNE W2	MSD	**1711038**		6	6	No	Water		
4500CNE W2	MSD	**1711040**		6	6	No	Water		
4500CNE W2	OQS	**30313309001**		6	6	No	Water		
4500CNE W2	OQS	**30313309002**		6	6	No	Water		
4500CNE W2	OQS	**30313309003**		6	6	No	Water		
4500CNE W2	OQS	**30313309004**		6	6	No	Water		
4500CNE W2	PS	**30312344001**		6	6	No	Water		
4500CNE W2	PS	**30312639002**		6	6	No	Water		
4500CNE W2	PS	**30313618001**		6	6	No	Water		
4500CNE W2	PS	**30313625001**		6	6	No	Water		
4500CNE W2	PS	**30313625002**		6	6	No	Water		
4500CNE W2	PS	**30313625003**		6	6	No	Water		
4500CNE W2	PS	**30313625004**		6	6	No	Water		
4500CNE W2	PS	**30313710001**		6	6	No	Water		
4500CNE W2	PS	**30313721001**		6	6	No	Water		
4500CNE W2	PS	**30313767001**		6	6	No	Water		
4500CNE W2	PS	**30313769001**		6	6	No	Water		
4500CNE W2	PS	**30313905001**		6	6	No	Water		
4500CNE W2	PS	**30313905002**		6	6	No	Water		
4500CNE W2	PS	**30313905004**		6	6	No	Water		

Prep Log Report

Standard Notes:

93929: WET CN CAL0
93930: WET-CN-CAL1
93931: WET-CN-CAL2
93932: WET-CN-CAL3
93933: WET-CN-CAL4
93934: WET-CN-CAL5
93935: WET-CN-CAL6
93936: CN ICV

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6B

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1710027	1710027LB	99	100	104	106
1711153	1711153MS	93	100	100	105
1711154	1711154MSD	85	98	98	108
1711155	1711155LCS	98	99	99	107
30313514001	Sewer-1	97	100	103	105
30313514002	Sewer-2	96	98	101	105

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1711155LCS
Date Extracted: 07/17/2019
Date Analyzed (1): 07/17/2019
Instrument: 30MV6B
LCS Lot No: 93903
Lab File ID: 6190717.B\2.B\60717016-45395.D
SDG No.: 30313514

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	17.0	85	63-110
2-Butanone (MEK)	20.0	26.1	131	46-117
Carbon tetrachloride	20.0	14.6	73	59-114
Chlorobenzene	20.0	18.7	93	70-130
Chloroform	20.0	17.0	85	65-108
1,2-Dichloroethane	20.0	16.4	82	57-110
1,1-Dichloroethene	20.0	16.5	82	45-124
Tetrachloroethene	20.0	16.8	84	64-114
Trichloroethene	20.0	18.4	92	61-112
Vinyl chloride	20.0	18.4	92	54-142

Spike Recovery: 1 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1711153MS
Date Extracted: 07/17/2019
Date Analyzed (1): 07/17/2019
Instrument: 30MV6B
Lab File ID: 6190717.B\2.B\60717050.D
Parent Sample ID: Sewer-1
SDG No.: 30313514

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	174	87	10-133
1,2-Dichloroethane	200	ND	179	90	24-111
2-Butanone (MEK)	200	ND	228	114	10-175
Benzene	200	ND	212	106	15-121
Carbon tetrachloride	200	ND	177	88	20-125
Chlorobenzene	200	ND	245	110	10-122
Chloroform	200	ND	203	96	27-117
Tetrachloroethene	200	ND	211	106	13-125
Trichloroethene	200	ND	216	108	10-133
Vinyl chloride	200	ND	169	85	10-133

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV6B Matrix Spike Duplicate - Sample No: 1711154MSD

Lab File ID (2): 6190717.B\2.B\60717052.D Date Analyzed (2): 07/17/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	167	84	4	0-30	10-133
1,2-Dichloroethane	200	182	91	2	0-30	24-111
2-Butanone (MEK)	200	262	131	14	0-30	10-175
Benzene	200	205	102	4	0-30	15-121
Carbon tetrachloride	200	171	86	3	0-30	20-125
Chlorobenzene	200	248	112	1	0-30	10-122
Chloroform	200	213	100	5	0-30	27-117
Tetrachloroethene	200	215	107	2	0-30	13-125
Trichloroethene	200	223	111	3	0-30	10-133
Vinyl chloride	200	167	84	1	0-30	10-133

RPD: 0 out of 10 outside limits.

Spike Recovery: 0 out of 10 outside limits.

SAMPLE NO.

1710027LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MV6B Matrix: Solid Lab Sample ID: 1710027

Lab File ID: 6190717.B\2.B\60717022-45395.D Date Analyzed: 07/17/2019 Time: 15:38

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1711155LCS	1711155	6190717.B\2.B\60717016-45395.D	07/17/2019 14:21
Sewer-1	30313514001	6190717.B\2.B\60717048.D	07/17/2019 21:14
1711153MS	1711153	6190717.B\2.B\60717050.D	07/17/2019 21:40
1711154MSD	1711154	6190717.B\2.B\60717052.D	07/17/2019 22:06
Sewer-2	30313514002	6190717.B\2.B\60717054.D	07/17/2019 22:32

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: 6190514.B\2.B\60514008.D BFB Injection Date: 05/14/2019
Instrument ID: 30MV6B BFB Injection Time: 14:56

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	18.22	
75	30.00 - 60.00% of mass 95	45.64	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.38	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	94.68	
175	5.00 - 9.00% of mass 174	6.96	(7.35)[1]
176	95.00 - 101.00% of mass 174	90.61	(95.71)[1]
177	5.00 - 9.00% of mass 176	5.95	(6.57)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11043346CAL1	11043346CAL1	6190514.B\2.B\60514010.D	05/14/2019	15:22
11043087CAL2	11043087CAL2	6190514.B\2.B\60514012.D	05/14/2019	15:48
11043083CAL3	11043083CAL3	6190514.B\2.B\60514014.D	05/14/2019	16:13
11043080CAL4	11043080CAL4	6190514.B\2.B\60514016.D	05/14/2019	16:39
11043084CAL5	11043084CAL5	6190514.B\2.B\60514018.D	05/14/2019	17:05
11043082CAL6	11043082CAL6	6190514.B\2.B\60514020.D	05/14/2019	17:31
11043086CAL7	11043086CAL7	6190514.B\2.B\60514022.D	05/14/2019	17:57
11043079CAL8	11043079CAL8	6190514.B\2.B\60514024.D	05/14/2019	18:23
11043085ICV	11043085ICV	6190514.B\2.B\60514028.D	05/14/2019	19:14

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: 6190717.B\2.B\60717010.D BFB Injection Date: 07/17/2019
Instrument ID: 30MV6B BFB Injection Time: 13:03

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	20.03	
75	30.00 - 60.00% of mass 95	46.33	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.57	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	84.80	
175	5.00 - 9.00% of mass 174	6.79	(8.01)[1]
176	95.00 - 101.00% of mass 174	85.45	(100.77)[1]
177	5.00 - 9.00% of mass 176	5.53	(6.47)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11254009CCV	11254009CCV	6190717.B\2.B\60717012.D	07/17/2019	13:29
1711155LCS	1711155LCS	6190717.B\2.B\60717016-45395.D	07/17/2019	14:21
1710027LB	1710027LB	6190717.B\2.B\60717022-45395.D	07/17/2019	15:38
Sewer-1	30313514001	6190717.B\2.B\60717048.D	07/17/2019	21:14
1711153MS	1711153MS	6190717.B\2.B\60717050.D	07/17/2019	21:40
1711154MSD	1711154MSD	6190717.B\2.B\60717052.D	07/17/2019	22:06
Sewer-2	30313514002	6190717.B\2.B\60717054.D	07/17/2019	22:32

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11254009CCV Date Analyzed: 07/17/2019

Instrument ID: 30MV6B GC Column: Col 1 Time Analyzed: 13:29

Lab File ID: 6190717.B\2.B\60717012.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		337423	5.885	197328	6.87	425041	4.521
UPPER LIMIT		674846	6.385	394656	7.37	850082	5.021
LOWER LIMIT		168711.5	5.385	98664	6.37	212520.5	4.021
LAB SAMPLE ID	SAMPLE NO.						
1710027	1710027LB	335933	5.884	192406	6.87	398075	4.521
1711153	1711153MS	324162	5.885	187140	6.87	396180	4.521
1711154	1711154MSD	320677	5.885	192130	6.87	402963	4.521
1711155	1711155LCS	333683	5.884	194383	6.87	416570	4.521
30313514001	Sewer-1	339300	5.885	195296	6.87	398228	4.521
30313514002	Sewer-2	338233	5.884	195909	6.87	396658	4.521

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

Sewer-1

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 07/12/2019 09:30 Matrix: Solid SDG No.: 30313514

Date Extracted: 07/17/2019 21:14 Lab Sample ID: 30313514001

Date Analyzed: 07/17/2019 21:14 Lab File ID: 6190717.B\2.B\60717048.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 17-JUL-2019 21:14
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 30313514001x10
Misc Info : 45395
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	3.930	3.930	(0.869)	5430	1.24456	12.4(aQ)	
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	102156	30.8653	30.9	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.373	4.376	(0.967)	95219	29.0288	29.0	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	398228	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	391926	31.3508	31.4	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	339300	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	20453	2.45970	24.6(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	143509	29.9976	30.0	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Report Date: 18-Jul-2019 09:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	195296	30.0000		
95 1,4-Dichlorobenzene	146	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717048.d
Lab Smp Id: 30313514001
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: Sewer-1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	398228	-6.31
71 Chlorobenzene-d5	337423	168712	674846	339300	0.56
94 1,4-Dichlorobenze	197328	98664	394656	195296	-1.03

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30313514
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30313514001
Client Smp ID: Sewer-1
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	30.9	102.88	0-130
$ 45 1,2-Dichloroethane	30.0	29.0	96.76	0-138
$ 58 Toluene-d8 (S)	30.0	31.4	104.50	0-124
$ 79 4-Bromofluorobenze	30.0	30.0	99.99	0-124

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

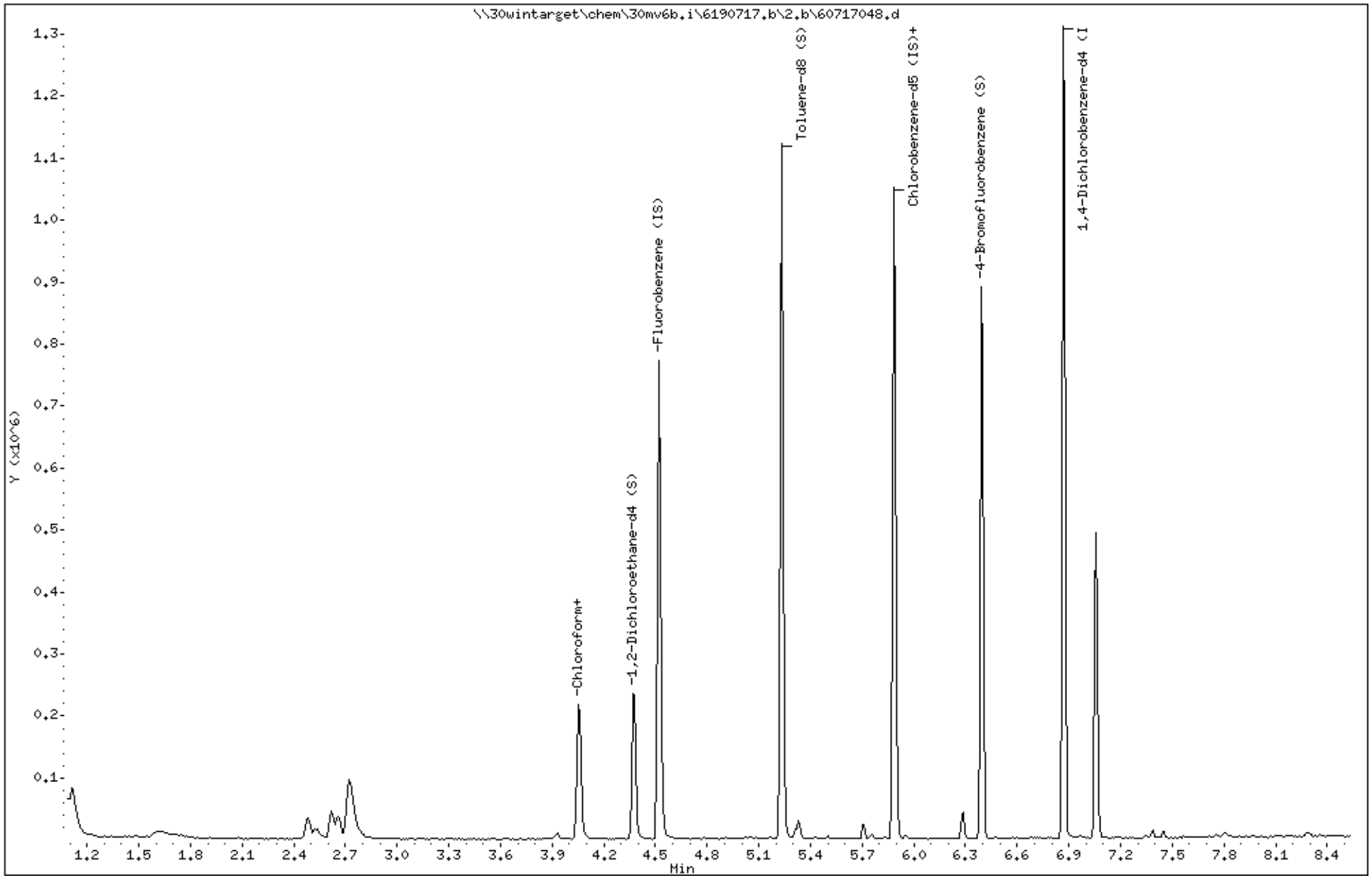
Client Name: WSP Environment & E
Client SDG: 30313514
Lab Smp Id: 30313514001
Client Smp ID: Sewer-1
Sample Location:
Sample Point:
Sample Date: 11-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45395

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
67-66-3	Chloroform	12.4	J
108-90-7	Chlorobenzene	24.6	J
1868-53-7	Dibromofluoromethane (S)	30.9	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.0	
2037-26-5	Toluene-d8 (S)	31.4	
460-00-4	4-Bromofluorobenzene (S)	30.0	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d
Date : 17-JUL-2019 21:14
Client ID: Sewer-1
Sample Info: 30313514001X10

Instrument: 30mv6b.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d

Date : 17-JUL-2019 21:14

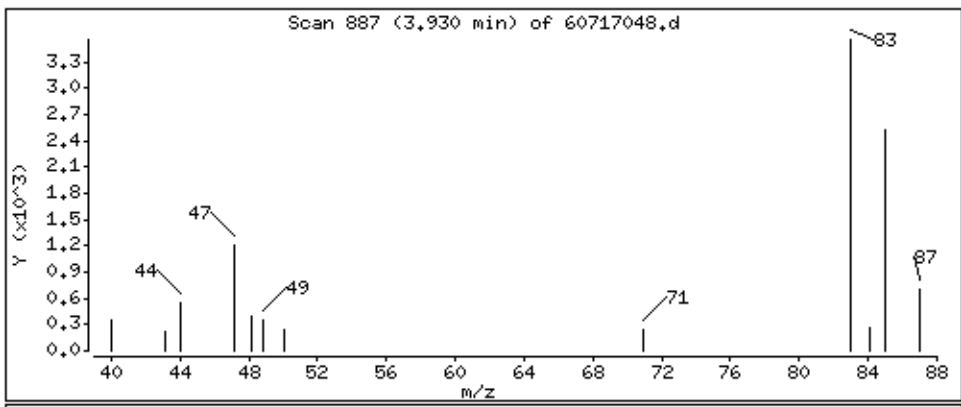
Client ID: Sewer-1 Instrument: 30mv6b.i

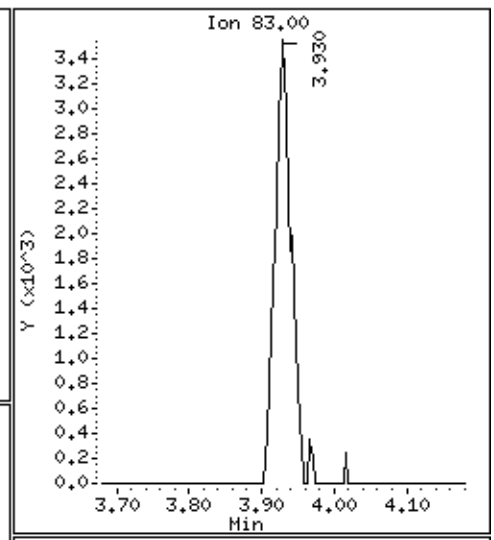
Sample Info: 30313514001X10

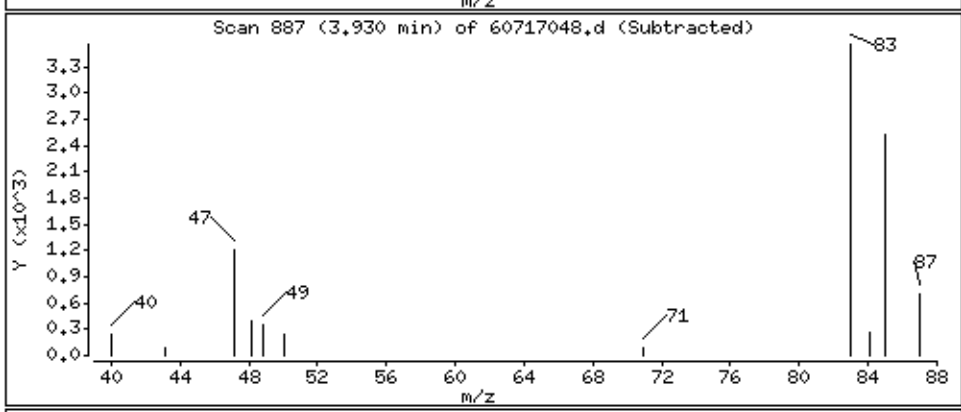
Operator: JEW

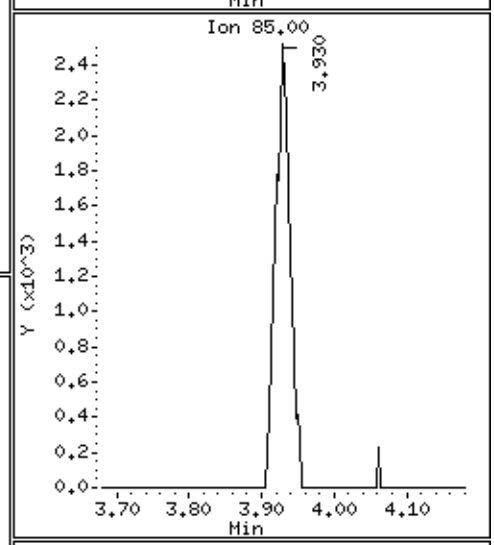
Column phase: RTX-VMS Column diameter: 0.18

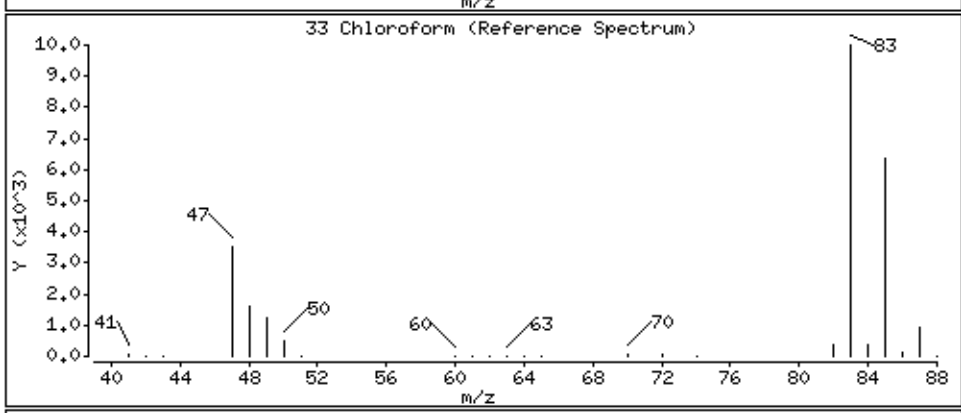
33 Chloroform Concentration: 12.4 ug/kg

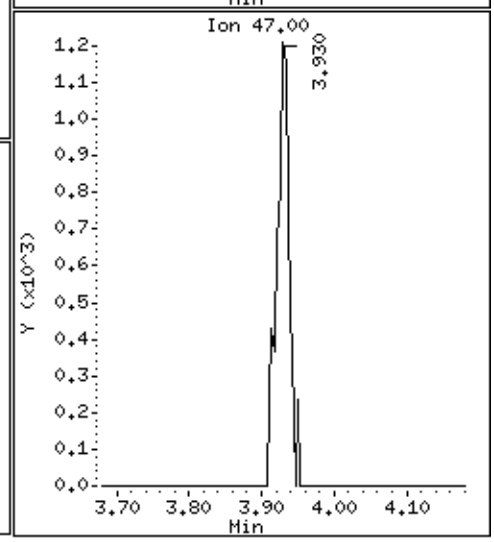


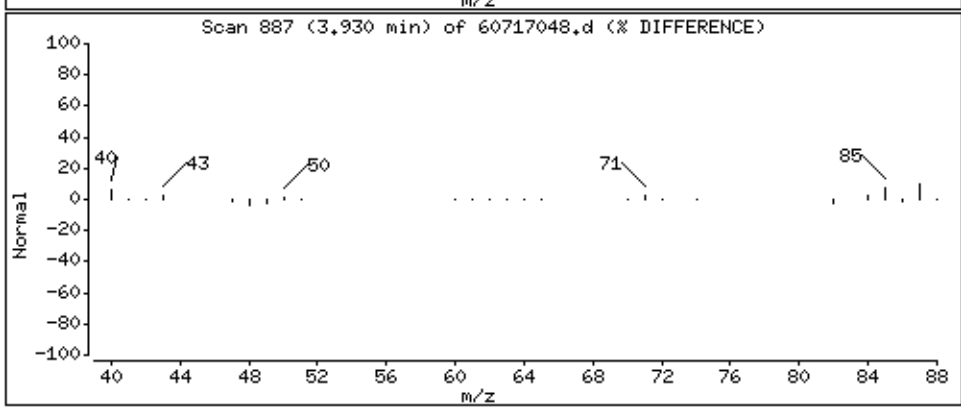












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717048.d

Date : 17-JUL-2019 21:14

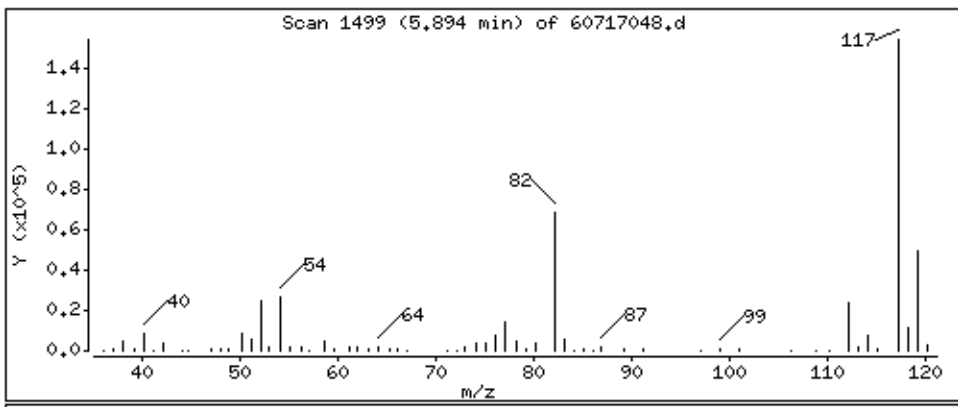
Client ID: Sewer-1 Instrument: 30mv6b.i

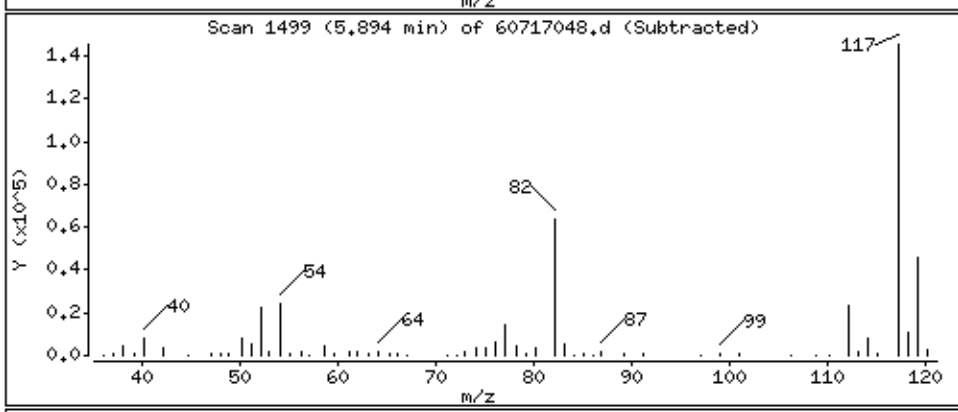
Sample Info: 30313514001X10

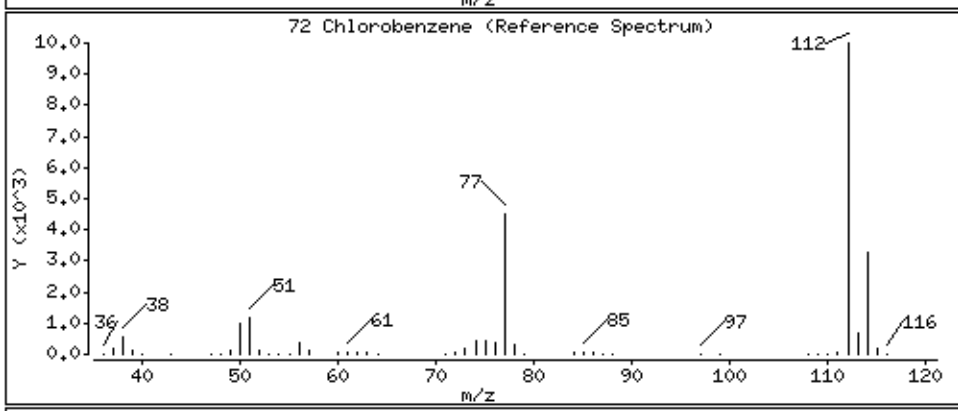
Operator: JEW

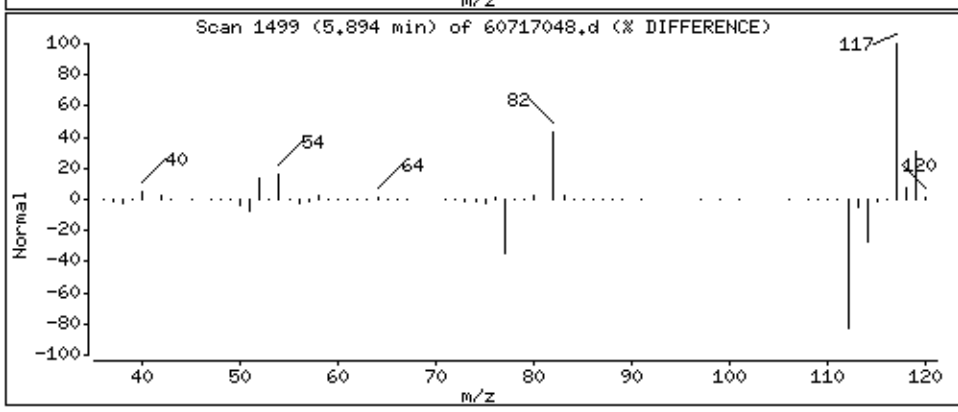
Column phase: RTX-VMS Column diameter: 0.18

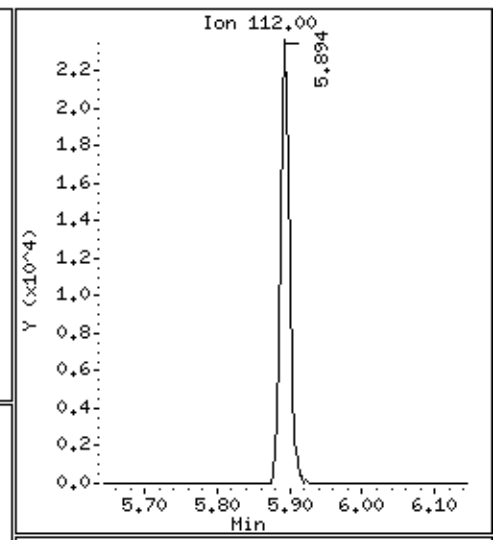
72 Chlorobenzene Concentration: 24.6 ug/kg

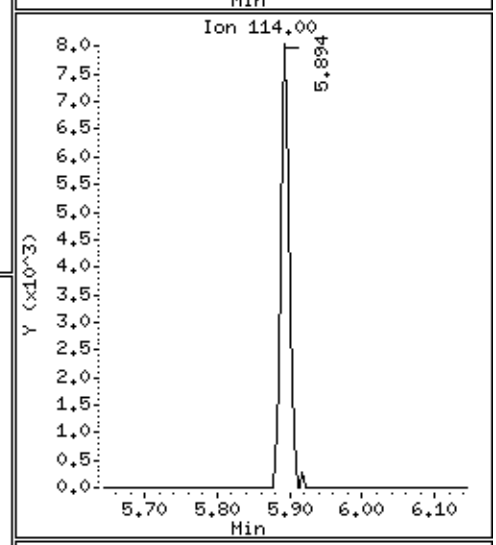


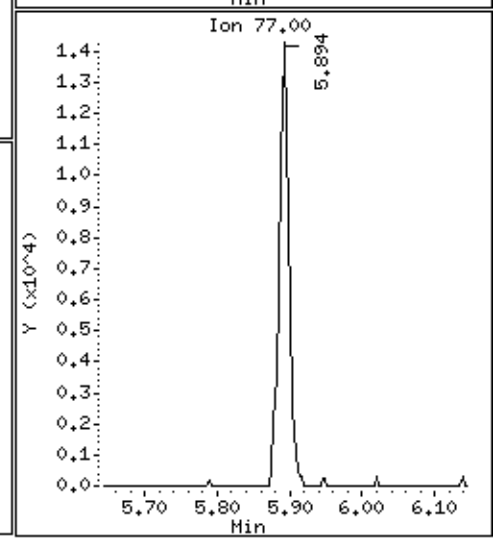












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717048.d
Injection Date: 17-JUL-2019 21:14
Instrument: 30mv6b.i
Lab Sample ID: 30313514001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

Sewer-2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 07/12/2019 09:30 Matrix: Solid SDG No.: 30313514

Date Extracted: 07/17/2019 22:32 Lab Sample ID: 30313514002

Date Analyzed: 07/17/2019 22:32 Lab File ID: 6190717.B\2.B\60717054.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Lab Smp Id: 30313514002 Client Smp ID: Sewer-2
Inj Date : 17-JUL-2019 22:32
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 30313514002x10
Misc Info : 45395
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	3.923	3.930	(0.868)	5244	1.20669	12.1(aQM)	LT
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	100091	30.3611	30.4	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.373	4.376	(0.967)	93617	28.6534	28.6	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	396658	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	392430	31.4902	31.5	
	59 Toluene	91	5.252	5.256	(0.893)	2380	0.21319	2.13(a)	
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	338233	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	12037	1.45215	14.5(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	141235	29.4298	29.4	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Report Date: 18-Jul-2019 09:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	195909	30.0000		
95 1,4-Dichlorobenzene	146	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717054.d
Lab Smp Id: 30313514002
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: Sewer-2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	396658	-6.68
71 Chlorobenzene-d5	337423	168712	674846	338233	0.24
94 1,4-Dichlorobenze	197328	98664	394656	195909	-0.72

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30313514
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30313514002
Client Smp ID: Sewer-2
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	30.4	101.20	0-130
$ 45 1,2-Dichloroethane	30.0	28.6	95.51	0-138
$ 58 Toluene-d8 (S)	30.0	31.5	104.97	0-124
$ 79 4-Bromofluorobenze	30.0	29.4	98.10	0-124

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

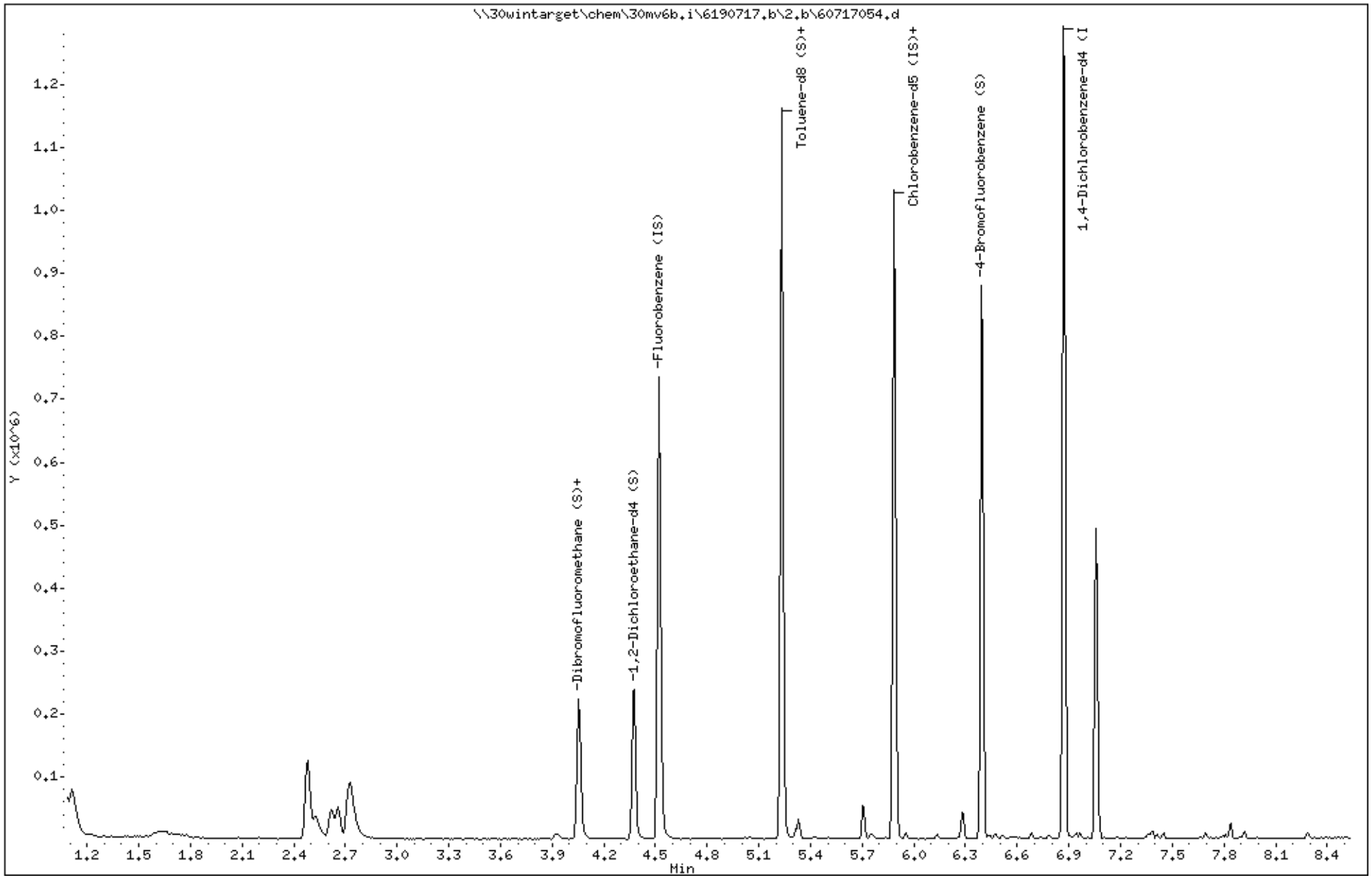
Client Name: WSP Environment & E
Client SDG: 30313514
Lab Smp Id: 30313514002
Client Smp ID: Sewer-2
Sample Location:
Sample Point:
Sample Date: 11-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45395

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
67-66-3	Chloroform	12.1	J
108-88-3	Toluene	2.13	J
108-90-7	Chlorobenzene	14.5	J
1868-53-7	Dibromofluoromethane (S)	30.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.6	
2037-26-5	Toluene-d8 (S)	31.5	
460-00-4	4-Bromofluorobenzene (S)	29.4	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d
Date : 17-JUL-2019 22:32
Client ID: Sewer-2
Sample Info: 30313514002X10

Instrument: 30mv6b.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d

Date : 17-JUL-2019 22:32

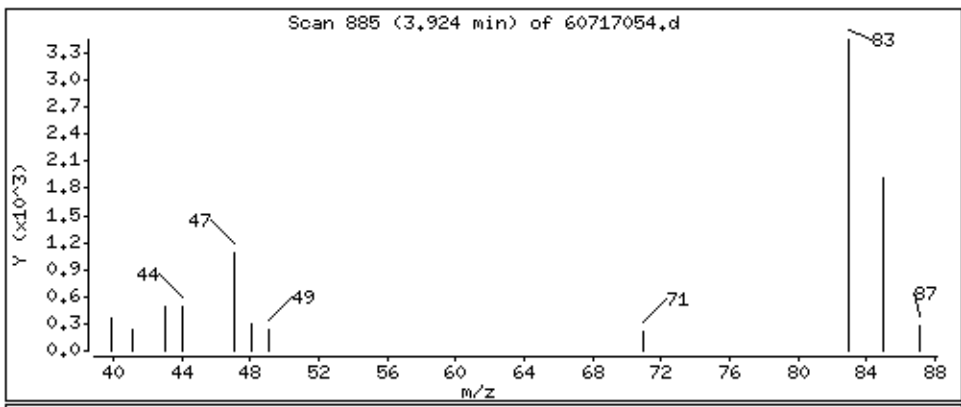
Client ID: Sewer-2 Instrument: 30mv6b.i

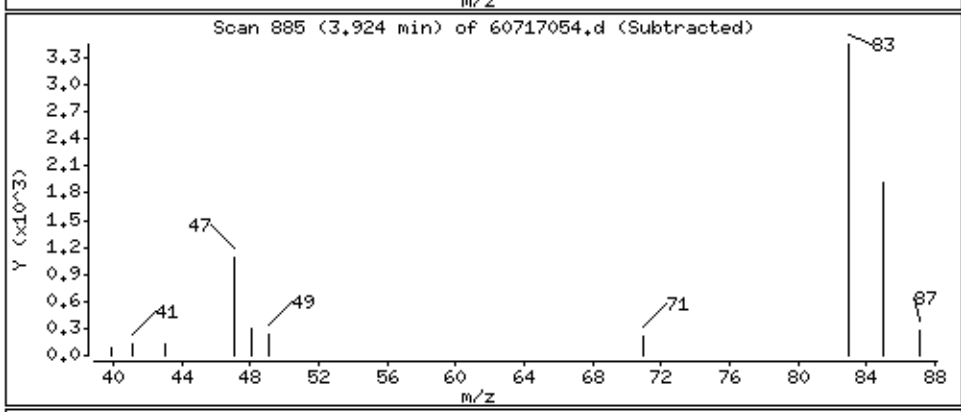
Sample Info: 30313514002X10

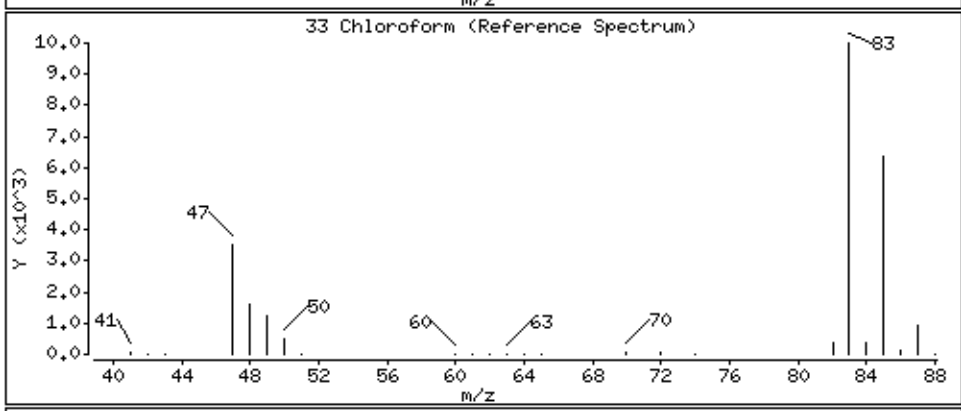
Operator: JEW

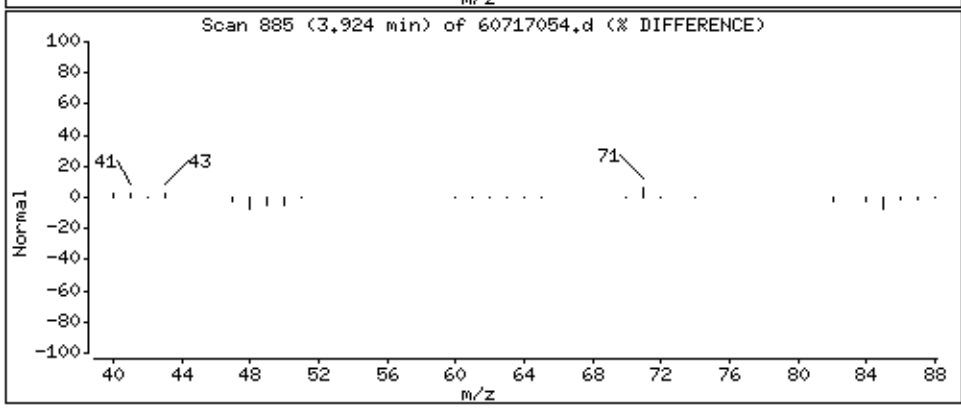
Column phase: RTX-VMS Column diameter: 0.18

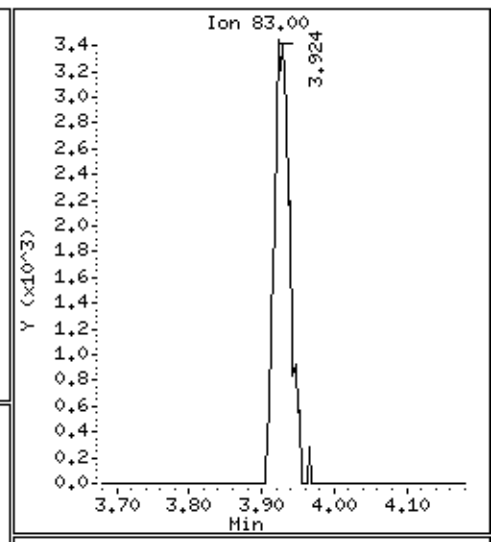
33 Chloroform Concentration: 12.1 ug/kg

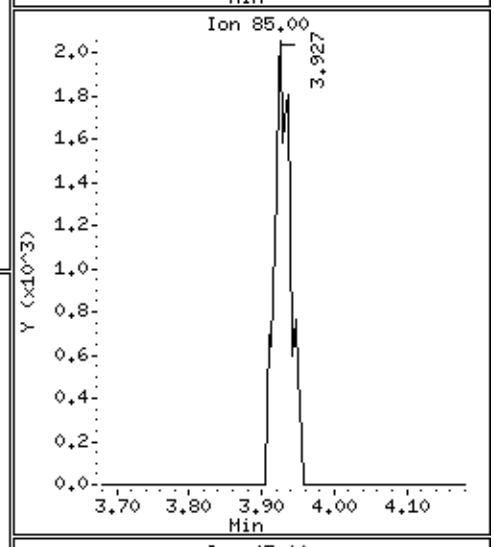


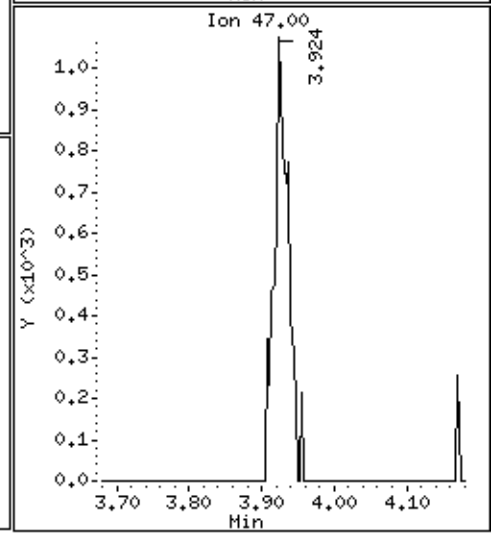












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d

Date : 17-JUL-2019 22:32

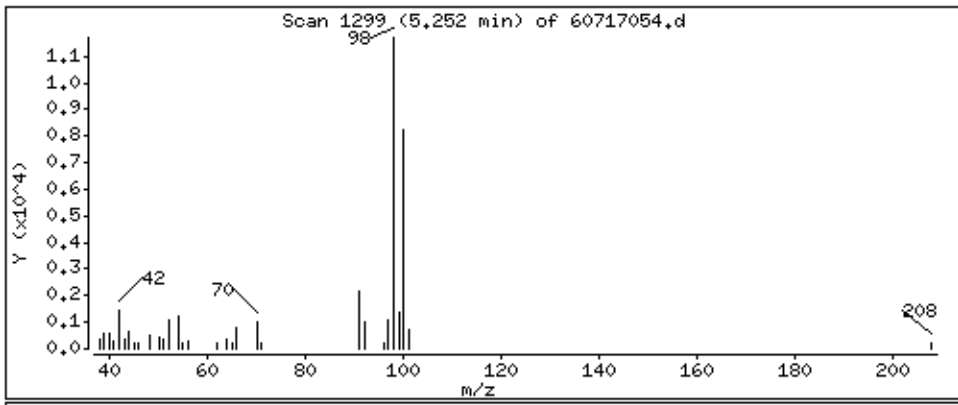
Client ID: Sewer-2 Instrument: 30mv6b.i

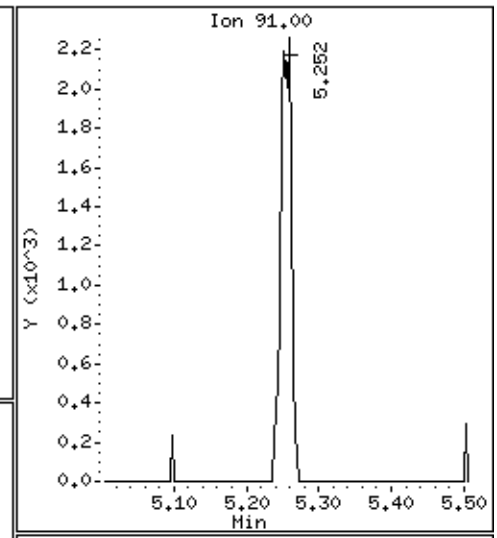
Sample Info: 30313514002X10

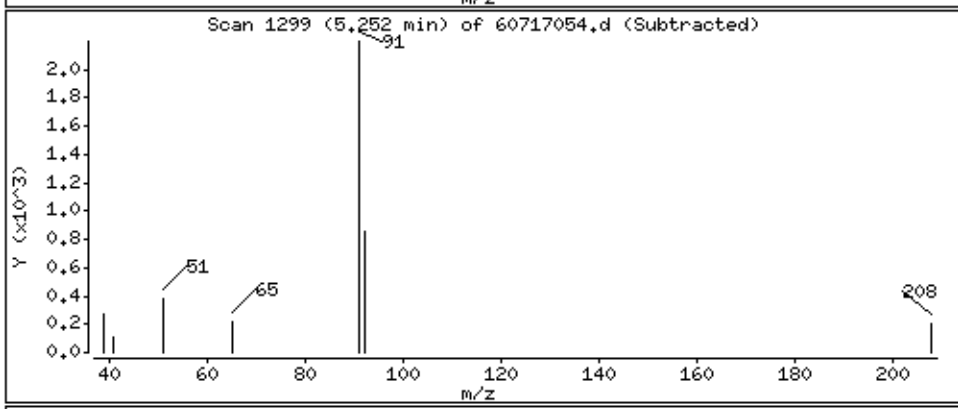
Operator: JEW

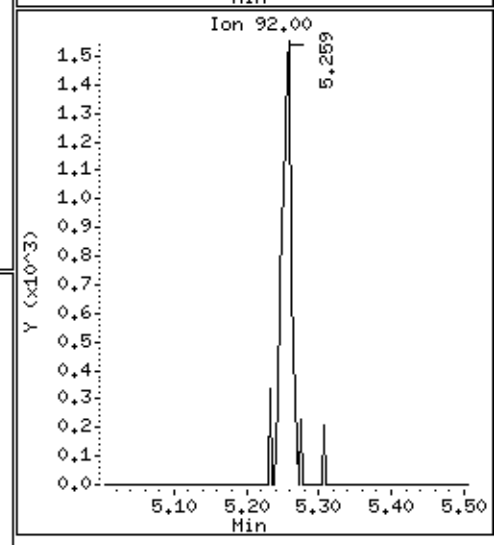
Column phase: RTX-VMS Column diameter: 0.18

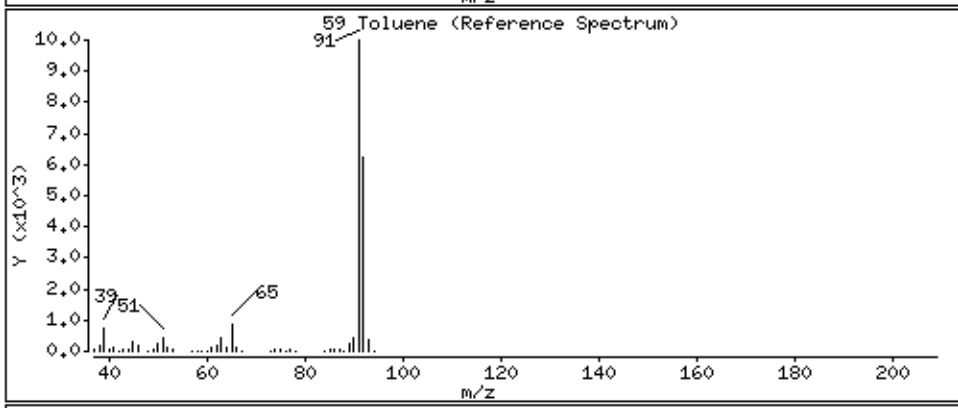
59 Toluene Concentration: 2.13 ug/kg

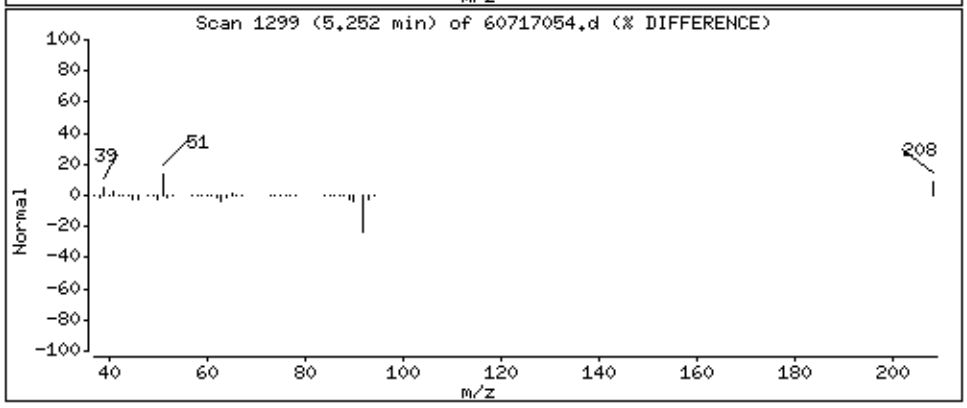












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717054.d

Date : 17-JUL-2019 22:32

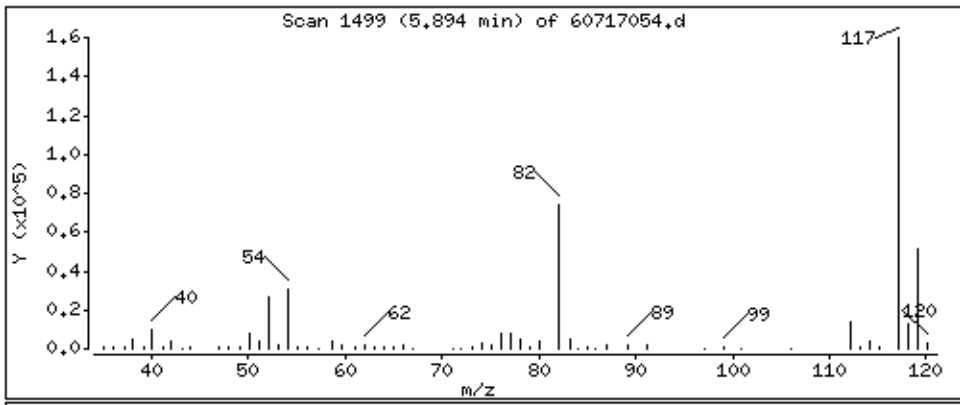
Client ID: Sewer-2 Instrument: 30mv6b.i

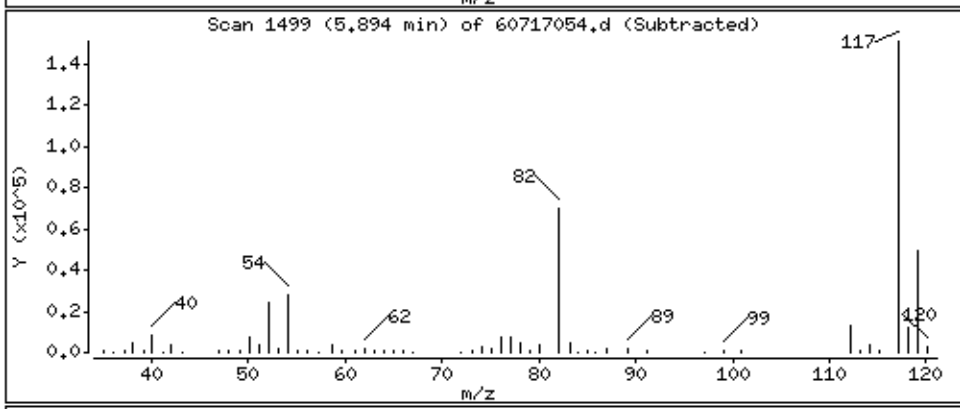
Sample Info: 30313514002X10

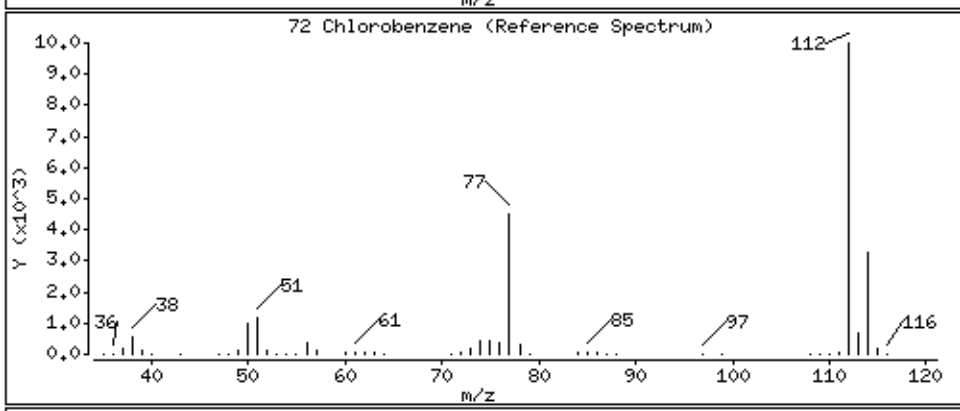
Operator: JEW

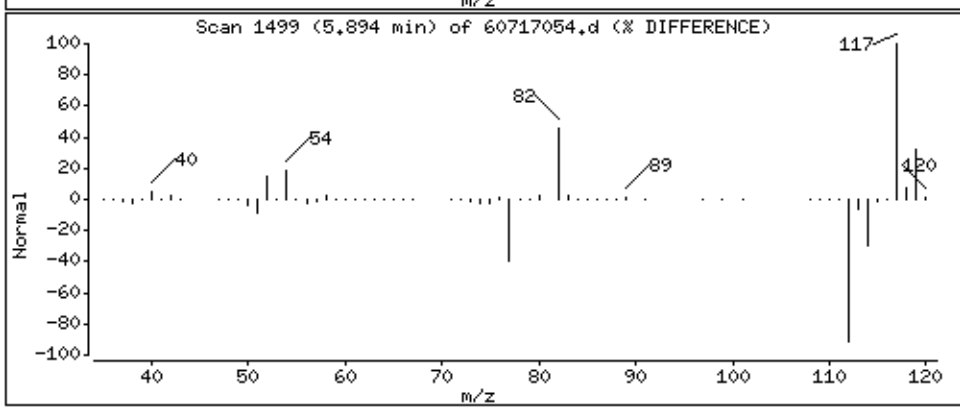
Column phase: RTX-VMS Column diameter: 0.18

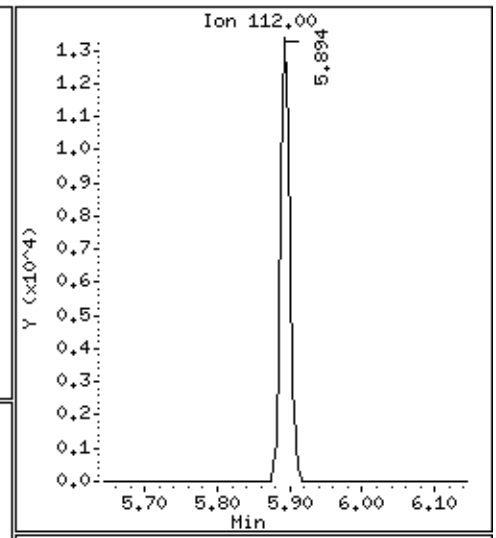
72 Chlorobenzene Concentration: 14.5 ug/kg

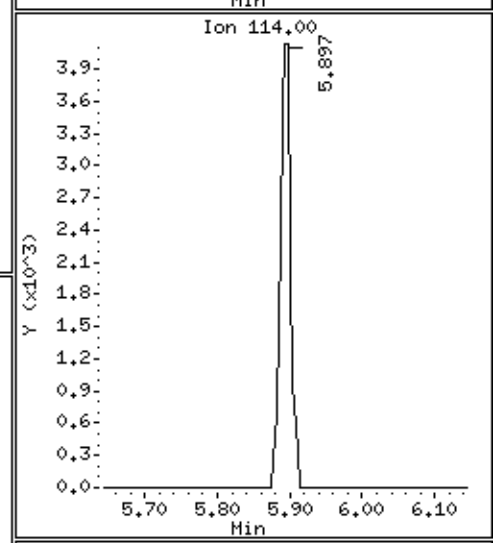


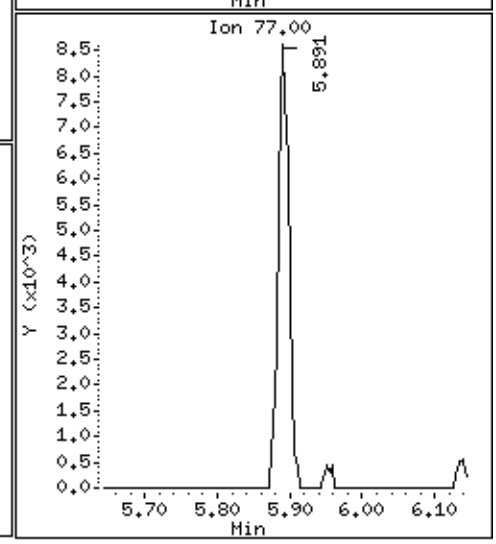












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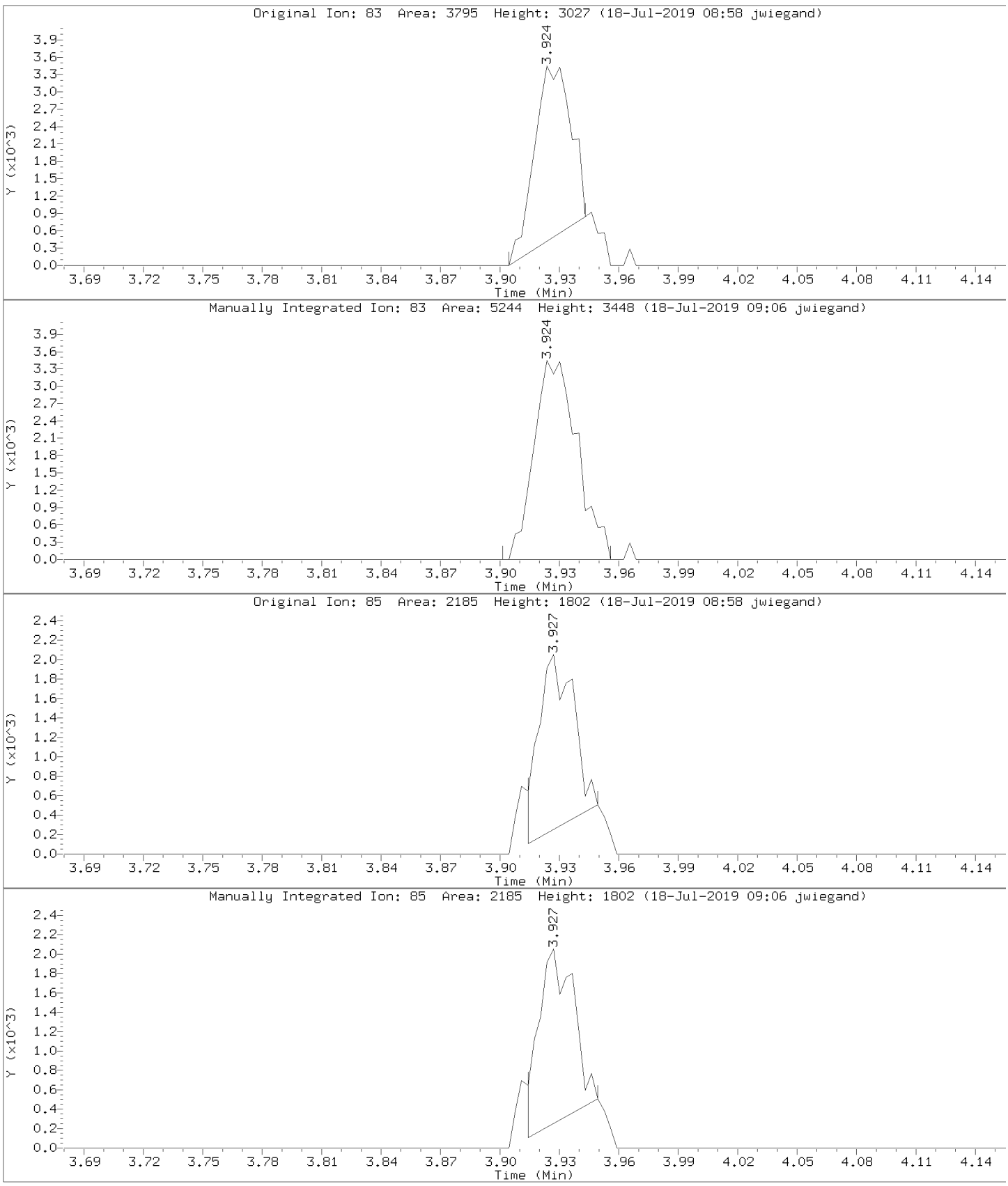
Injection Date: 17-JUL-2019 22:32
Instrument: 30mv6b.i
Lab Sample ID: 30313514002

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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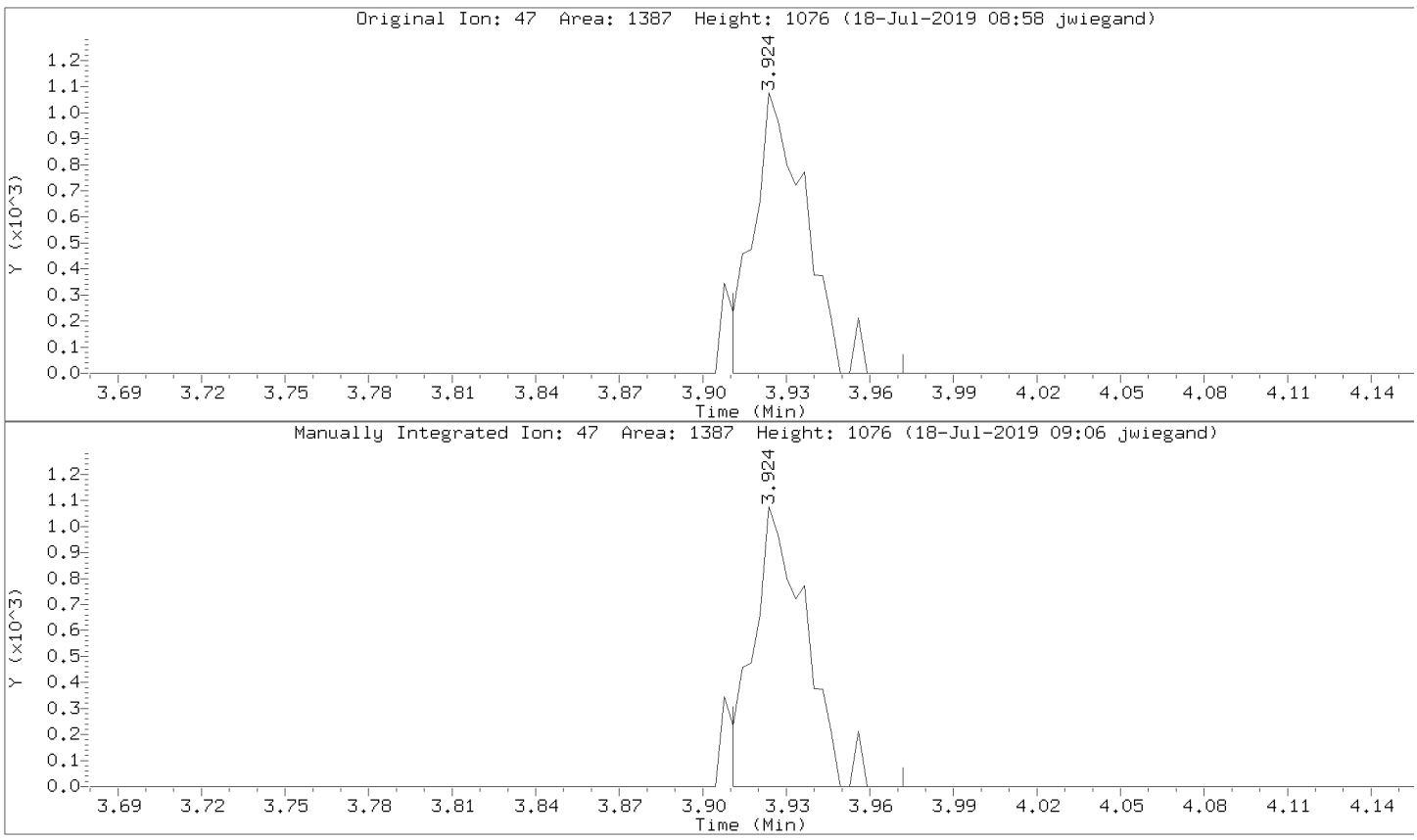
Injection Date: 17-JUL-2019 22:32
Instrument: 30mv6b.i
Lab Sample ID: 30313514002



MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6B GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:22 18:23

LAB FILE ID

CAL1 = 6190514.B\2.B\60514010.D CAL2 = 6190514.B\2.B\60514012.D CAL3 = 6190514.B\2.B\60514014.D

CAL4 = 6190514.B\2.B\60514016.D CAL5 = 6190514.B\2.B\60514018.D CAL6 = 6190514.B\2.B\60514020.D

CAL7 = 6190514.B\2.B\60514022.D CAL8 = 6190514.B\2.B\60514024.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Benzene	Quadratic	0.44998	0.77451	0.76388	0.74454	0.76677	0.73556
2-Butanone (MEK)	Averaged		0.12418	0.13290	0.11111	0.10914	0.11920
Carbon tetrachloride	Averaged		0.28757	0.26011	0.29624	0.29300	0.28190
Chlorobenzene	Averaged		0.73850	0.73541	0.76957	0.77369	0.75153
Chloroform	Averaged		0.37548	0.35068	0.33729	0.33154	0.31732
1,2-Dichloroethane	Averaged		0.30040	0.28739	0.27644	0.26951	0.26335
1,1-Dichloroethene	Averaged		0.30962	0.28945	0.27102	0.26755	0.27782
Tetrachloroethene	Averaged		0.27348	0.25293	0.30306	0.31434	0.30321
Trichloroethene	Averaged		0.24424	0.24243	0.25107	0.25411	0.24032
Vinyl chloride	Averaged		0.27316	0.25252	0.25242	0.24880	0.23576
4-Bromofluorobenzene (S)	Averaged		0.73589	0.75021	0.73785	0.73155	0.72585
Dibromofluoromethane (S)	Averaged		0.25870	0.25998	0.25198	0.24677	0.24163
1,2-Dichloroethane-d4 (S)	Averaged		0.25474	0.26267	0.24221	0.24232	0.24295
Toluene-d8 (S)	Averaged		1.09432	1.11192	1.10939	1.11518	1.11186

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6B GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:22 18:23

LAB FILE ID

CAL1 = 6190514.B\2.B\60514010.D CAL2 = 6190514.B\2.B\60514012.D CAL3 = 6190514.B\2.B\60514014.D

CAL4 = 6190514.B\2.B\60514016.D CAL5 = 6190514.B\2.B\60514018.D CAL6 = 6190514.B\2.B\60514020.D

CAL7 = 6190514.B\2.B\60514022.D CAL8 = 6190514.B\2.B\60514024.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Benzene	Quadratic	0.65494	0.68094
2-Butanone (MEK)	Averaged	0.11231	0.11389
Carbon tetrachloride	Averaged	0.24900	0.26581
Chlorobenzene	Averaged	0.68276	0.69502
Chloroform	Averaged	0.28549	0.30297
1,2-Dichloroethane	Averaged	0.24539	0.25119
1,1-Dichloroethene	Averaged	0.24215	0.25965
Tetrachloroethene	Averaged	0.26860	0.27935
Trichloroethene	Averaged	0.21412	0.22156
Vinyl chloride	Averaged	0.20235	0.21455
4-Bromofluorobenzene (S)	Averaged	0.73626	0.72660
Dibromofluoromethane (S)	Averaged	0.24537	0.24090
1,2-Dichloroethane-d4 (S)	Averaged	0.23991	0.24495
Toluene-d8 (S)	Averaged	1.10845	1.08621

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6B GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/14/2019 05/14/2019 Calibration Time(s): 15:22 18:23

LAB FILE ID

CAL1 = 6190514.B\2.B\60514010.D CAL2 = 6190514.B\2.B\60514012.D CAL3 = 6190514.B\2.B\60514014.D

CAL4 = 6190514.B\2.B\60514016.D CAL5 = 6190514.B\2.B\60514018.D CAL6 = 6190514.B\2.B\60514020.D

CAL7 = 6190514.B\2.B\60514022.D CAL8 = 6190514.B\2.B\60514024.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Benzene	Quadratic		0.99892	0.05503390	0.66799	0.00050
2-Butanone (MEK)	Averaged	7.24710			0.11753	
Carbon tetrachloride	Averaged	6.52949			0.27623	
Chlorobenzene	Averaged	4.74607			0.73521	
Chloroform	Averaged	9.13706			0.32868	
1,2-Dichloroethane	Averaged	7.18985			0.27053	
1,1-Dichloroethene	Averaged	7.87680			0.27389	
Tetrachloroethene	Averaged	7.81989			0.28500	
Trichloroethene	Averaged	6.25779			0.23827	
Vinyl chloride	Averaged	10.16853			0.23993	
4-Bromofluorobenzene (S)	Averaged	1.12208			0.73489	
Dibromofluoromethane (S)	Averaged	3.10958			0.24933	
1,2-Dichloroethane-d4 (S)	Averaged	3.38990			0.24711	
Toluene-d8 (S)	Averaged	0.97466			1.10533	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 14-MAY-2019 15:22
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal1, 87714:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.212	1.212	(0.268)	3476	2.50000	1.26(aQ)	
2 Chloromethane	50	1.327	1.328	(0.294)	2080	2.50000	0.540(aQ)	
3 Vinyl chloride	62	1.375	1.376	(0.304)	4398	2.50000	1.24(aQ)	
4 Bromomethane	94	1.568	1.569	(0.347)	3076	2.50000	1.76(a)	
5 Chloroethane	64	1.639	1.639	(0.362)	4158	2.50000	1670(AQ)	
6 Trichlorofluoromethane	101	1.722	1.723	(0.381)	5522	2.50000	1.42(a)	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	6333	2.50000	2.54	
8 Ethanol	45	2.017	2.017	(0.294)	2356	25.0000	(aQ)	
9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	5972	2.50000	1.48(a)	
10 1,1,2-Trichlorotrifluoroethane	151	2.078	2.079	(0.459)	2303	2.50000	1.20(a)	
11 Carbon disulfide	76	2.088	2.088	(0.462)	11438	2.50000	1.58(a)	
12 Iodomethane	142	2.165	2.165	(0.479)	2445	2.50000	0.919(a)	
13 Acrolein	56	2.300	2.300	(0.508)	933	2.50000	1.93(aQ)	
14 Allyl chloride	41	2.396	2.396	(0.530)	20396	12.5000	6.19(Q)	
15 Methylene Chloride	49	2.486	2.486	(0.550)	24562	2.50000	(aQ)	
16 Acetone	43	2.531	2.531	(0.560)	16934	2.50000	9.18(Q)	
17 trans-1,2-Dichloroethene	61	2.601	2.602	(0.575)	3458	2.50000	0.886(aQ)	
18 Methyl acetate	74	2.621	2.621	(0.579)	2452	2.50000	2.76	
19 n-Hexane	86	2.662	2.663	(0.589)	23914	2.50000	0.641(aQ)	
20 Methyl-tert-butyl ether	73	2.701	2.701	(0.597)	18490	2.50000	2.22(aQ)	
21 tert-Butyl Alcohol	59	2.778	2.778	(0.614)	7886	12.5000	11.8(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.922	2.923	(0.646)	4926	12.5000	14.8(Q)	
	23 Diisopropyl ether	45	3.031	3.032	(0.670)	17742	2.50000	1.95(a)	
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	3.160	3.160	(0.699)	8748	2.50000	1.72(aQ)	
	26 Acrylonitrile	53	3.240	3.240	(0.716)	1045	2.50000	1.000(aQ)	
	27 Ethyl-tert-butyl ether	59	3.404	3.404	(0.752)	20448	2.50000	2.10(aQ)	
	28 Vinyl acetate	43	3.429	3.430	(0.758)	15030	2.50000	2.19(a)	
	29 cis-1,2-Dichloroethene	61	3.708	3.709	(0.820)	7009	2.50000	1.76(aQ)	
	30 2,2-Dichloropropane	77	3.789	3.789	(0.838)	7021	2.50000	1.64(aQ)	
	31 Cyclohexane	56	3.862	3.863	(0.854)	8757	2.50000	1.94(aQ)	
	32 Bromochloromethane	130	3.866	3.866	(0.855)	4004	2.50000	1.92(a)	
	33 Chloroform	83	3.930	3.930	(0.869)	9552	2.50000	1.97(aQ)	
	34 Carbon tetrachloride	117	4.016	4.017	(0.888)	5402	2.50000	1.33(a)	
	35 Ethyl acetate	43	4.032	4.033	(0.891)	627	2.50000	(aQ)	
	36 Tetrahydrofuran	42	4.045	4.046	(0.894)	4493	2.50000	0.633(aQ)	
$	37 Dibromofluoromethane (S)	111	4.058	4.059	(0.897)	114343	30.0000	31.1	
	38 1,1,1-Trichloroethane	97	4.068	4.067	(0.899)	7064	2.50000	1.55(aQ)	
	39 2-Butanone (MEK)	43	4.138	4.139	(0.915)	1078	2.50000	0.622(aQ)	
	40 1,1-Dichloropropene	75	4.142	4.142	(0.916)	4314	2.50000	1.17(a)	
	41 Benzene	78	4.296	4.296	(0.950)	16585	2.50000	(a)	
	42 Propionitrile	54	4.321	4.322	(0.955)	2727	2.50000	4.86(Q)	
	43 Methacrylonitrile	41	4.324	4.325	(0.956)	4287	2.50000	2.55(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	16306	2.50000	2.10(aQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	115017	30.0000	31.6	
	46 Isobutanol	43	4.437	4.437	(0.981)	2757	12.5000	12.3(Q)	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.975)	8652	2.50000	2.17(aQ)	
*	48 Fluorobenzene (IS)	96	4.523	4.524	(1.000)	442291	30.0000		
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	6834	2.50000	(a)	
	50 Trichloroethene	95	4.607	4.607	(0.783)	5049	2.50000	1.62(a)	
	51 Dibromomethane	174	4.809	4.810	(1.063)	4745	2.50000	2.13(a)	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.072)	5075	2.50000	1.74(aQ)	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	7951	2.50000	2.16(aQ)	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	5493	2.50000	2.68(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.973	4.973	(1.099)	630	25.0000	12.7(Q)	
	56 2-Chloroethylvinyl ether	63	5.130	5.130	(1.134)	1249	2.50000	1.63(aQ)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	8686	2.50000	1.88(a)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	425298	30.0000	29.5	
	59 Toluene	91	5.255	5.256	(0.893)	22445	2.50000	1.74(a)	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	13848	12.5000	11.9(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	8982	2.50000	2.66(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	5079	2.50000	1.37(a)	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	8917	2.50000	1.93(a)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	7186	2.50000	2.55(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	7306	2.50000	2.64(Q)	
	66 Dibromochloromethane	129	5.576	5.576	(0.947)	7170	2.50000	2.00(a)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	9551	2.50000	2.11(a)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	6070	2.50000	2.04(a)	
	69 2-Hexanone	43	5.756	5.756	(0.978)	7863	2.50000	2.84(Q)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	7987	2.50000	1.55(a)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	391238	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	16045	2.50000	1.67(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	6866	2.50000	1.82(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	21067	5.00000	3.26	
	75 o-Xylene	106	6.138	6.138	(1.043)	11509	2.50000	1.78(a)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	76 Styrene	104	6.160	6.160	(1.046)	20539	2.50000	1.83(a)	
	77 Bromoform	173	6.186	6.186	(0.900)	5965	2.50000	2.15(a)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	26049	2.50000	1.67(a)	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	168086	30.0000	30.5	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	29500	2.50000	1.66(a)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	13511	2.50000	2.08(a)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	9974	2.50000	2.54	
	83 1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	24273	2.50000	1.74(a)	
	84 2-Chlorotoluene	126	6.519	6.520	(0.949)	7516	2.50000	1.78(a)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	3403	2.50000	2.47(a)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	3862	2.50000	3.21(Q)	
	87 Cyclohexanone	55	6.568	6.568	(0.956)	4371	12.5000	13.6(Q)	
	88 4-Chlorotoluene	126	6.590	6.590	(0.959)	7607	2.50000	1.71(a)	
	89 tert-Butylbenzene	119	6.654	6.655	(0.968)	21371	2.50000	1.71(a)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	26677	2.50000	1.87(a)	
	91 sec-Butylbenzene	105	6.731	6.732	(0.979)	28062	2.50000	1.61(a)	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	26653	2.50000	1.67(a)	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	17629	2.50000	1.93(a)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	224950	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	18530	2.50000	1.99(aQ)	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	21179	2.50000	1.65(a)	
	97 1,2-Dichlorobenzene	146	7.065	7.065	(1.028)	17709	2.50000	2.02(a)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	7.058	7.059	(1.027)	86093	30.0000	30.1	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.077)	3140	2.50000	2.48(a)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	11805	2.50000	1.91(a)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	4694	2.50000	1.21(a)	
	101 1,2,4-Trichlorobenzene	180	7.697	7.698	(1.120)	10880	2.50000	2.15(a)	
	102 Naphthalene	128	7.838	7.839	(1.141)	52330	2.50000	4.16	
	103 1,2,3-Trichlorobenzene	180	7.918	7.919	(1.152)	8632	2.50000	3.51	
	104 2-Methylnaphthalene	142	8.287	8.287	(1.206)	3237	2.50000	2.50	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate
peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514010.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	442291	0.32
71 Chlorobenzene-d5	378709	189355	757418	391238	3.31
94 1,4-Dichlorobenze	227359	113680	454718	224950	-1.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	1.26	J
74-87-3	Chloromethane	0.540	J
75-01-4	Vinyl chloride	1.24	J
74-83-9	Bromomethane	1.76	J
75-00-3	Chloroethane	1670	E
75-69-4	Trichlorofluoromethane	1.42	J
60-29-7	Diethyl ether (Ethyl ether)	2.54	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	1.48	J
76-13-1	1,1,2-Trichlorotrifluoroetha	1.20	J
75-15-0	Carbon disulfide	1.58	J
74-88-4	Iodomethane	0.919	J
107-02-8	Acrolein	1.93	J
107-05-1	Allyl chloride	6.19	
75-09-2	Methylene Chloride	0.000	J
67-64-1	Acetone	9.18	
156-60-5	trans-1,2-Dichloroethene	0.886	J
79-20-9	Methyl acetate	2.76	
110-54-3	n-Hexane	0.641	J
1634-04-4	Methyl-tert-butyl ether	2.22	J
75-65-0	tert-Butyl Alcohol	11.8	
75-05-8	Acetonitrile	14.8	
108-20-3	Diisopropyl ether	1.95	J
75-34-3	1,1-Dichloroethane	1.72	J
107-13-1	Acrylonitrile	1.000	J
637-92-3	Ethyl-tert-butyl ether	2.10	J
108-05-4	Vinyl acetate	2.19	J
156-59-2	cis-1,2-Dichloroethene	1.76	J
594-20-7	2,2-Dichloropropane	1.64	J
110-82-7	Cyclohexane	1.94	J
74-97-5	Bromochloromethane	1.92	J
67-66-3	Chloroform	1.97	J
56-23-5	Carbon tetrachloride	1.33	J
141-78-6	Ethyl acetate	0.000	J
109-99-9	Tetrahydrofuran	0.633	J
71-55-6	1,1,1-Trichloroethane	1.55	J
78-93-3	2-Butanone (MEK)	0.622	J
563-58-6	1,1-Dichloropropene	1.17	J
71-43-2	Benzene	0.000	J
107-12-0	Propionitrile	4.86	
126-98-7	Methacrylonitrile	2.55	
994-05-8	tert-Amylmethyl ether	2.10	J

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	12.3	
107-06-2	1,2-Dichloroethane	2.17	J
108-87-2	Methylcyclohexane	0.000	J
79-01-6	Trichloroethene	1.62	J
74-95-3	Dibromomethane	2.13	J
78-87-5	1,2-Dichloropropane	1.74	J
75-27-4	Bromodichloromethane	2.16	J
80-62-6	Methyl methacrylate	2.68	
123-91-1	1,4-Dioxane (p-Dioxane)	12.7	
110-75-8	2-Chloroethylvinyl ether	1.63	J
10061-01-5	cis-1,3-Dichloropropene	1.88	J
108-88-3	Toluene	1.74	J
79-46-9	2-Nitropropane	11.9	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.66	
127-18-4	Tetrachloroethene	1.37	J
10061-02-6	trans-1,3-Dichloropropene	1.93	J
97-63-2	Ethyl methacrylate	2.55	
79-00-5	1,1,2-Trichloroethane	2.64	
124-48-1	Dibromochloromethane	2.00	J
142-28-9	1,3-Dichloropropane	2.11	J
106-93-4	1,2-Dibromoethane (EDB)	2.04	J
591-78-6	2-Hexanone	2.84	
100-41-4	Ethylbenzene	1.55	J
108-90-7	Chlorobenzene	1.67	J
630-20-6	1,1,1,2-Tetrachloroethane	1.82	J
7816-60-0	m&p-Xylene	3.26	
95-47-6	o-Xylene	1.78	J
100-42-5	Styrene	1.83	J
75-25-2	Bromoform	2.15	J
98-82-8	Isopropylbenzene (Cumene)	1.67	J
103-65-1	n-Propylbenzene	1.66	J
108-86-1	Bromobenzene	2.08	J
79-34-5	1,1,2,2-Tetrachloroethane	2.54	
108-67-8	1,3,5-Trimethylbenzene	1.74	J
95-49-8	2-Chlorotoluene	1.78	J
96-18-4	1,2,3-Trichloropropane	2.47	J
110-57-6	trans-1,4-Dichloro-2-butene	3.21	
108-94-1	Cyclohexanone	13.6	
106-43-4	4-Chlorotoluene	1.71	J
98-06-6	tert-Butylbenzene	1.71	J
95-63-6	1,2,4-Trimethylbenzene	1.87	J
135-98-8	sec-Butylbenzene	1.61	J

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Report Date: 07-Jun-2019 10:50

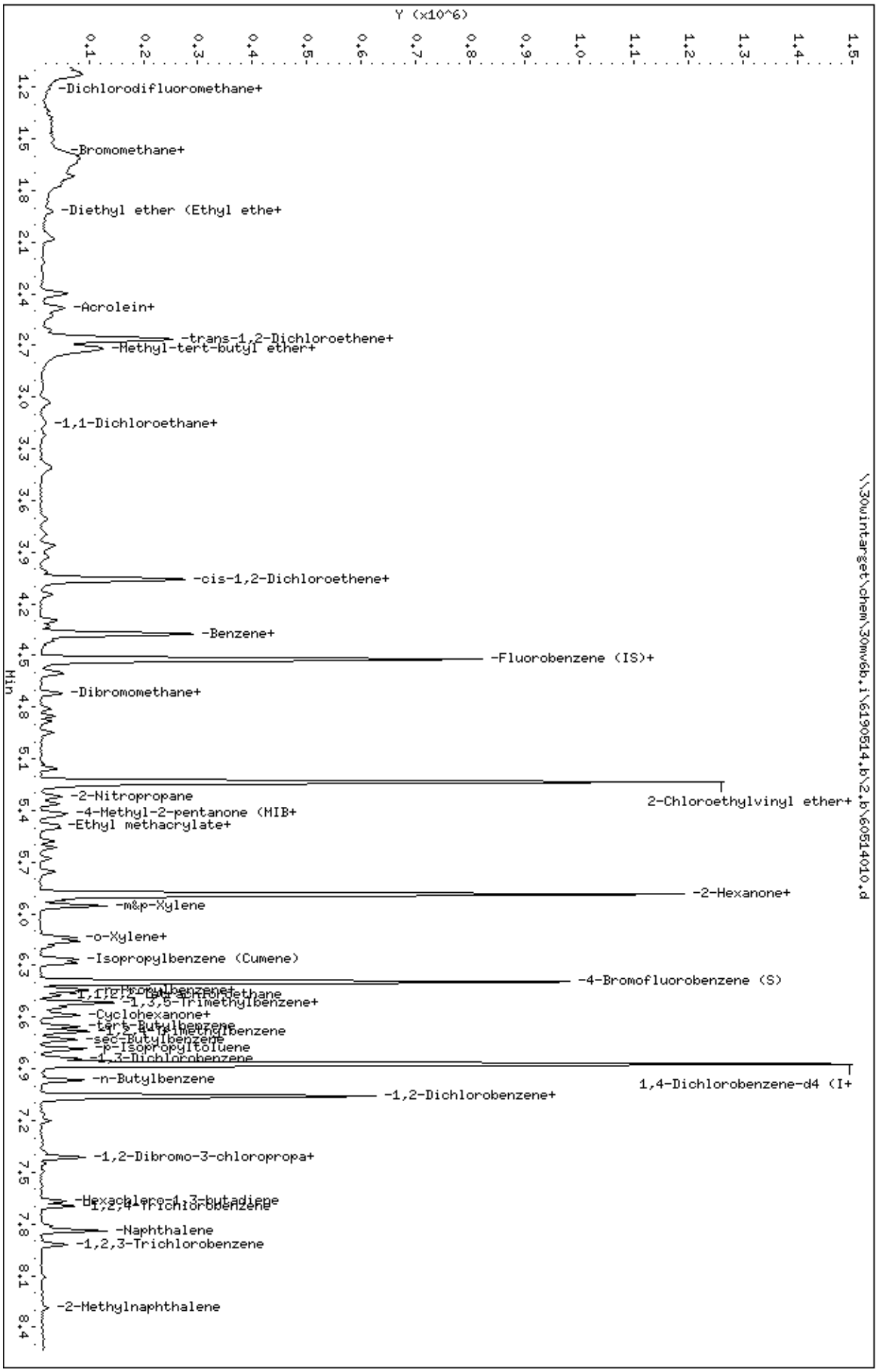
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

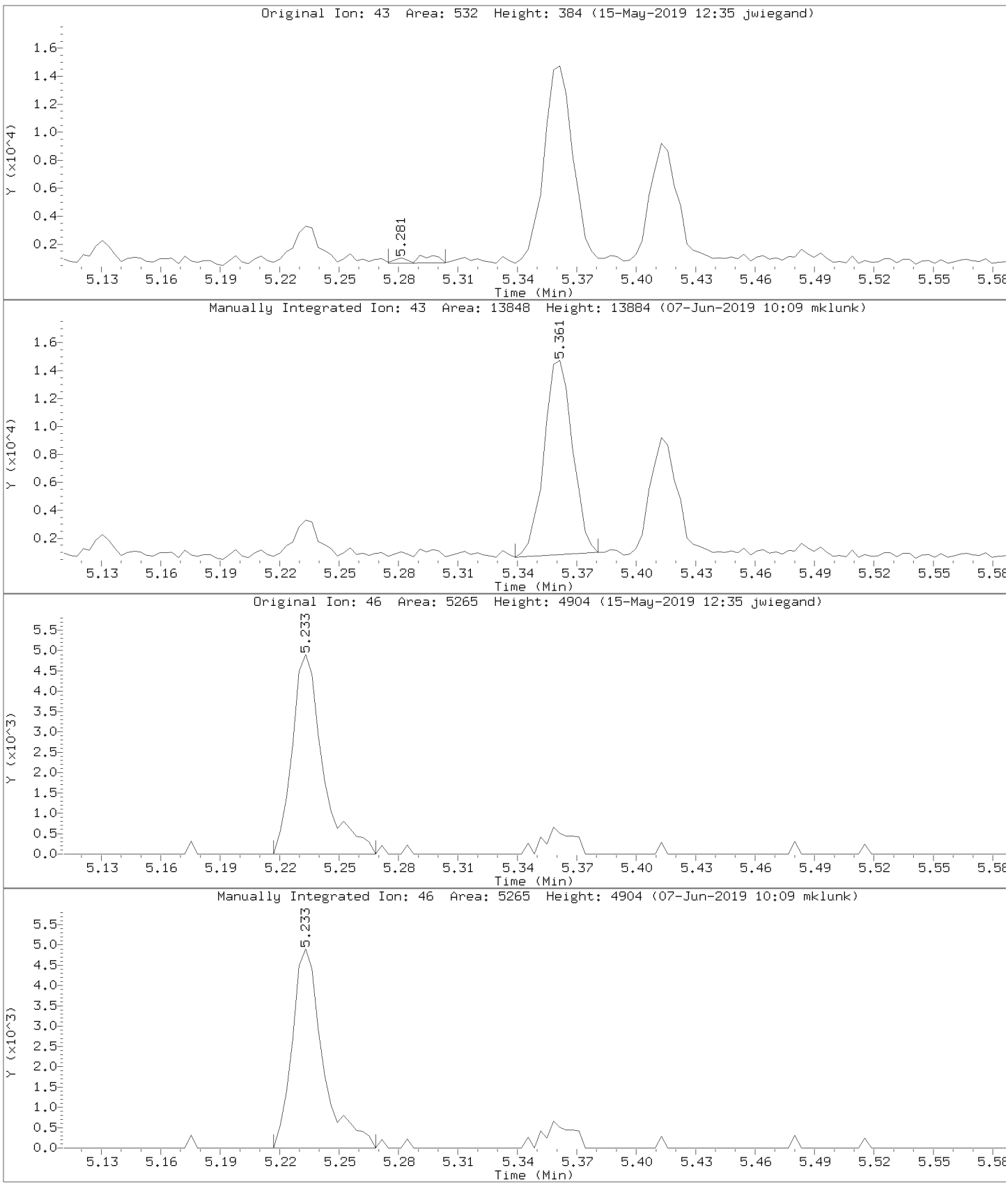
Client SDG: 30MV6B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	1.67	J
541-73-1	1,3-Dichlorobenzene	1.93	J
106-46-7	1,4-Dichlorobenzene	1.99	J
104-51-8	n-Butylbenzene	1.65	J
95-50-1	1,2-Dichlorobenzene	2.02	J
96-12-8	1,2-Dibromo-3-chloropropane	2.48	J
108-70-3	1,3,5-Trichlorobenzene	1.91	J
87-68-3	Hexachloro-1,3-butadiene	1.21	J
120-82-1	1,2,4-Trichlorobenzene	2.15	J
91-20-3	Naphthalene	4.16	
87-61-6	1,2,3-Trichlorobenzene	3.51	
91-57-6	2-Methylnaphthalene	2.50	
1868-53-7	Dibromofluoromethane (S)	31.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.6	
2037-26-5	Toluene-d8 (S)	29.5	
460-00-4	4-Bromofluorobenzene (S)	30.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.1	


Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
Date : 14-MAY-2019 15:22
Client ID: CAL1
Sample Info: CAL1, 87714:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
Y (x10^6)
Min
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514010.d
-Dichlorodifluoromethane+
-Bromomethane+
-Diethyl ether (Ethyl ethe+
-Acrolein+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether+
-1,1-Dichloroethane+
-cis-1,2-Dichloroethene+
-Benzene+
-Fluorobenzene (IS)+
-Dibromomethane+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
2-Chloroethylvinyl ether+
-2-Hexanone+
-m&p-Xylene
-o-Xylene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514010.d
Injection Date: 14-MAY-2019 15:22
Instrument: 30mv6b.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 14-MAY-2019 15:48
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal2, 87715:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 15:48 Cal File: 60514012.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	12775	5.00000	4.75(aQ)	
2 Chloromethane	50	1.334	1.328	(0.295)	22289	5.00000	5.92(Q)	
3 Vinyl chloride	62	1.376	1.376	(0.304)	19677	5.00000	5.69	
4 Bromomethane	94	1.571	1.569	(0.347)	9920	5.00000	5.82	
5 Chloroethane	64	1.639	1.639	(0.362)	13450	5.00000	6.32(QM)	GT
6 Trichlorofluoromethane	101	1.725	1.723	(0.382)	20941	5.00000	5.50	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	13117	5.00000	5.40	
8 Ethanol	45	2.037	2.017	(0.296)	4580	50.0000	(aQ)	
9 1,1-Dichloroethene	61	2.059	2.056	(0.455)	22303	5.00000	5.65	
10 1,1,2-Trichlorotrifluoroethane	151	2.078	2.079	(0.460)	9447	5.00000	5.04	
11 Carbon disulfide	76	2.085	2.088	(0.461)	39949	5.00000	5.64	
12 Iodomethane	142	2.168	2.165	(0.479)	11362	5.00000	4.37	
13 Acrolein	56	2.300	2.300	(0.508)	1354	5.00000	6.96(QM)	NI
14 Allyl chloride	41	2.399	2.396	(0.530)	89996	25.0000	28.0	
15 Methylene Chloride	49	2.486	2.486	(0.550)	39806	5.00000	8.61	
16 Acetone	43	2.531	2.531	(0.560)	12385	5.00000	9.11(QM)	LT
17 trans-1,2-Dichloroethene	61	2.608	2.602	(0.577)	20473	5.00000	5.37	
18 Methyl acetate	74	2.624	2.621	(0.580)	4545	5.00000	5.24	
19 n-Hexane	86	2.662	2.663	(0.589)	22250	5.00000	12.5	
20 Methyl-tert-butyl ether	73	2.695	2.701	(0.596)	42777	5.00000	5.25(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.788	2.778	(0.616)	17380	25.0000	26.6	
	22 Acetonitrile	41	2.932	2.923	(0.648)	8815	25.0000	27.2(Q)	
	23 Diisopropyl ether	45	3.028	3.032	(0.669)	47308	5.00000	5.32	
	24 Chloroprene	53	3.131	3.131	(0.692)	13590	5.00000	5.76	
	25 1,1-Dichloroethane	63	3.157	3.160	(0.698)	27721	5.00000	5.58	
	26 Acrylonitrile	53	3.227	3.240	(0.713)	5159	5.00000	5.05(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.401	3.404	(0.752)	48138	5.00000	5.07(Q)	
	28 Vinyl acetate	43	3.420	3.430	(0.756)	36542	5.00000	5.46	
	29 cis-1,2-Dichloroethene	61	3.709	3.709	(0.820)	21043	5.00000	5.40	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.838)	21257	5.00000	5.08(Q)	
	31 Cyclohexane	56	3.863	3.863	(0.854)	24254	5.00000	5.51	
	32 Bromochloromethane	130	3.869	3.866	(0.855)	10530	5.00000	5.16	
	33 Chloroform	83	3.930	3.930	(0.869)	27047	5.00000	5.71(Q)	
	34 Carbon tetrachloride	117	4.017	4.017	(0.888)	20715	5.00000	5.20(M)	LT
	35 Ethyl acetate	43	4.039	4.033	(0.893)	3868	5.00000	11.0(QM)	NI
	36 Tetrahydrofuran	42	4.049	4.046	(0.895)	8543	5.00000	7.26	
$	37 Dibromofluoromethane (S)	111	4.058	4.059	(0.897)	111811	30.0000	31.1	
	38 1,1,1-Trichloroethane	97	4.062	4.067	(0.898)	24687	5.00000	5.53	
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	8945	5.00000	5.28(QM)	LT
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	18463	5.00000	5.13	
	41 Benzene	78	4.296	4.296	(0.950)	55791	5.00000	5.29	
	42 Propionitrile	54	4.328	4.322	(0.957)	3290	5.00000	6.18(Q)	
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	8616	5.00000	5.24(Q)	
	44 tert-Amylmethyl ether	73	4.366	4.363	(0.965)	38605	5.00000	5.09	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	110099	30.0000	30.9	
	46 Isobutanol	43	4.437	4.437	(0.981)	5397	25.0000	24.7(Q)	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.975)	21639	5.00000	5.55(Q)	
*	48 Fluorobenzene (IS)	96	4.524	4.524	(1.000)	432204	30.0000		
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	19330	5.00000	4.45	
	50 Trichloroethene	95	4.610	4.607	(0.783)	15285	5.00000	5.12	
	51 Dibromomethane	174	4.809	4.810	(1.063)	11153	5.00000	5.14	
	52 1,2-Dichloropropane	63	4.854	4.851	(1.073)	15097	5.00000	5.29	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	19447	5.00000	5.42	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	9926	5.00000	4.97	
	55 1,4-Dioxane (p-Dioxane)	88	4.983	4.973	(1.101)	2671	50.0000	55.2(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.130	(1.134)	3883	5.00000	5.19	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	23113	5.00000	5.12	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	410909	30.0000	29.7	
	59 Toluene	91	5.255	5.256	(0.893)	65195	5.00000	5.26	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	30266	25.0000	26.6	
	61 4-Methyl-2-pentanone (MIBK)	43	5.413	5.413	(1.196)	17700	5.00000	5.37	
	62 Tetrachloroethene	166	5.422	5.419	(0.921)	17115	5.00000	4.80	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	22673	5.00000	5.11	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	13996	5.00000	5.18(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	13448	5.00000	5.06(Q)	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	16902	5.00000	4.90	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	21422	5.00000	4.93	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	14862	5.00000	5.08	
	69 2-Hexanone	43	5.756	5.756	(0.978)	14316	5.00000	5.38	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	24107	5.00000	4.88	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	375494	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	46217	5.00000	5.02	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.920	(1.005)	17881	5.00000	4.94	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	62974	10.0000	10.2	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.138	(1.043)	30816	5.00000	4.97	
76	Styrene	104	6.160	6.160	(1.046)	54501	5.00000	5.06	
77	Bromoform	173	6.186	6.186	(0.900)	13825	5.00000	5.08	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	76453	5.00000	4.99	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	162638	30.0000	30.0	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	86315	5.00000	4.94	
81	Bromobenzene	77	6.449	6.446	(0.938)	33092	5.00000	5.18	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	20825	5.00000	5.40	
83	1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	68665	5.00000	5.01	
84	2-Chlorotoluene	126	6.516	6.520	(0.948)	20744	5.00000	5.00(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	6794	5.00000	5.01	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	6158	5.00000	5.21	
87	Cyclohexanone	55	6.568	6.568	(0.956)	8824	25.0000	28.0(Q)	
88	4-Chlorotoluene	126	6.587	6.590	(0.958)	21570	5.00000	4.93	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	59239	5.00000	4.83	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	69385	5.00000	4.96	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	80564	5.00000	4.71	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	73505	5.00000	4.68	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	44432	5.00000	4.95	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	221009	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	46844	5.00000	5.11	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	58808	5.00000	4.65	
97	1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	43353	5.00000	5.04	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	84573	30.0000	30.1	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	6364	5.00000	5.12	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	29096	5.00000	4.78	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	12046	5.00000	4.13	
101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	24325	5.00000	4.90	
102	Naphthalene	128	7.838	7.839	(1.141)	75885	5.00000	6.48	
103	1,2,3-Trichlorobenzene	180	7.919	7.919	(1.152)	15963	5.00000	4.88	
104	2-Methylnaphthalene	142	8.291	8.287	(1.206)	6273	5.00000	5.80	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514012.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	432204	-1.96
71 Chlorobenzene-d5	378709	189355	757418	375494	-0.85
94 1,4-Dichlorobenze	227359	113680	454718	221009	-2.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	4.75	J
74-87-3	Chloromethane	5.92	
75-01-4	Vinyl chloride	5.69	
74-83-9	Bromomethane	5.82	
75-00-3	Chloroethane	6.32	
75-69-4	Trichlorofluoromethane	5.50	
60-29-7	Diethyl ether (Ethyl ether)	5.40	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	5.65	
76-13-1	1,1,2-Trichlorotrifluoroetha	5.04	
75-15-0	Carbon disulfide	5.64	
74-88-4	Iodomethane	4.37	
107-02-8	Acrolein	6.96	
107-05-1	Allyl chloride	28.0	
75-09-2	Methylene Chloride	8.61	
67-64-1	Acetone	9.11	
156-60-5	trans-1,2-Dichloroethene	5.37	
79-20-9	Methyl acetate	5.24	
110-54-3	n-Hexane	12.5	
1634-04-4	Methyl-tert-butyl ether	5.25	
75-65-0	tert-Butyl Alcohol	26.6	
75-05-8	Acetonitrile	27.2	
108-20-3	Diisopropyl ether	5.32	
126-99-8	Chloroprene	5.76	
75-34-3	1,1-Dichloroethane	5.58	
107-13-1	Acrylonitrile	5.05	
637-92-3	Ethyl-tert-butyl ether	5.07	
108-05-4	Vinyl acetate	5.46	
156-59-2	cis-1,2-Dichloroethene	5.40	
594-20-7	2,2-Dichloropropane	5.08	
110-82-7	Cyclohexane	5.51	
74-97-5	Bromochloromethane	5.16	
67-66-3	Chloroform	5.71	
56-23-5	Carbon tetrachloride	5.20	
141-78-6	Ethyl acetate	11.0	
109-99-9	Tetrahydrofuran	7.26	
71-55-6	1,1,1-Trichloroethane	5.53	
78-93-3	2-Butanone (MEK)	5.28	
563-58-6	1,1-Dichloropropene	5.13	
71-43-2	Benzene	5.29	
107-12-0	Propionitrile	6.18	
126-98-7	Methacrylonitrile	5.24	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	5.09	
78-83-1	Isobutanol	24.7	
107-06-2	1,2-Dichloroethane	5.55	
108-87-2	Methylcyclohexane	4.45	
79-01-6	Trichloroethene	5.12	
74-95-3	Dibromomethane	5.14	
78-87-5	1,2-Dichloropropane	5.29	
75-27-4	Bromodichloromethane	5.42	
80-62-6	Methyl methacrylate	4.97	
123-91-1	1,4-Dioxane (p-Dioxane)	55.2	
110-75-8	2-Chloroethylvinyl ether	5.19	
10061-01-5	cis-1,3-Dichloropropene	5.12	
108-88-3	Toluene	5.26	
79-46-9	2-Nitropropane	26.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.37	
127-18-4	Tetrachloroethene	4.80	
10061-02-6	trans-1,3-Dichloropropene	5.11	
97-63-2	Ethyl methacrylate	5.18	
79-00-5	1,1,2-Trichloroethane	5.06	
124-48-1	Dibromochloromethane	4.90	
142-28-9	1,3-Dichloropropane	4.93	
106-93-4	1,2-Dibromoethane (EDB)	5.08	
591-78-6	2-Hexanone	5.38	
100-41-4	Ethylbenzene	4.88	
108-90-7	Chlorobenzene	5.02	
630-20-6	1,1,1,2-Tetrachloroethane	4.94	
7816-60-0	m&p-Xylene	10.2	
95-47-6	o-Xylene	4.97	
100-42-5	Styrene	5.06	
75-25-2	Bromoform	5.08	
98-82-8	Isopropylbenzene (Cumene)	4.99	
103-65-1	n-Propylbenzene	4.94	
108-86-1	Bromobenzene	5.18	
79-34-5	1,1,2,2-Tetrachloroethane	5.40	
108-67-8	1,3,5-Trimethylbenzene	5.01	
95-49-8	2-Chlorotoluene	5.00	
96-18-4	1,2,3-Trichloropropane	5.01	
110-57-6	trans-1,4-Dichloro-2-butene	5.21	
108-94-1	Cyclohexanone	28.0	
106-43-4	4-Chlorotoluene	4.93	
98-06-6	tert-Butylbenzene	4.83	
95-63-6	1,2,4-Trimethylbenzene	4.96	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Report Date: 07-Jun-2019 10:50

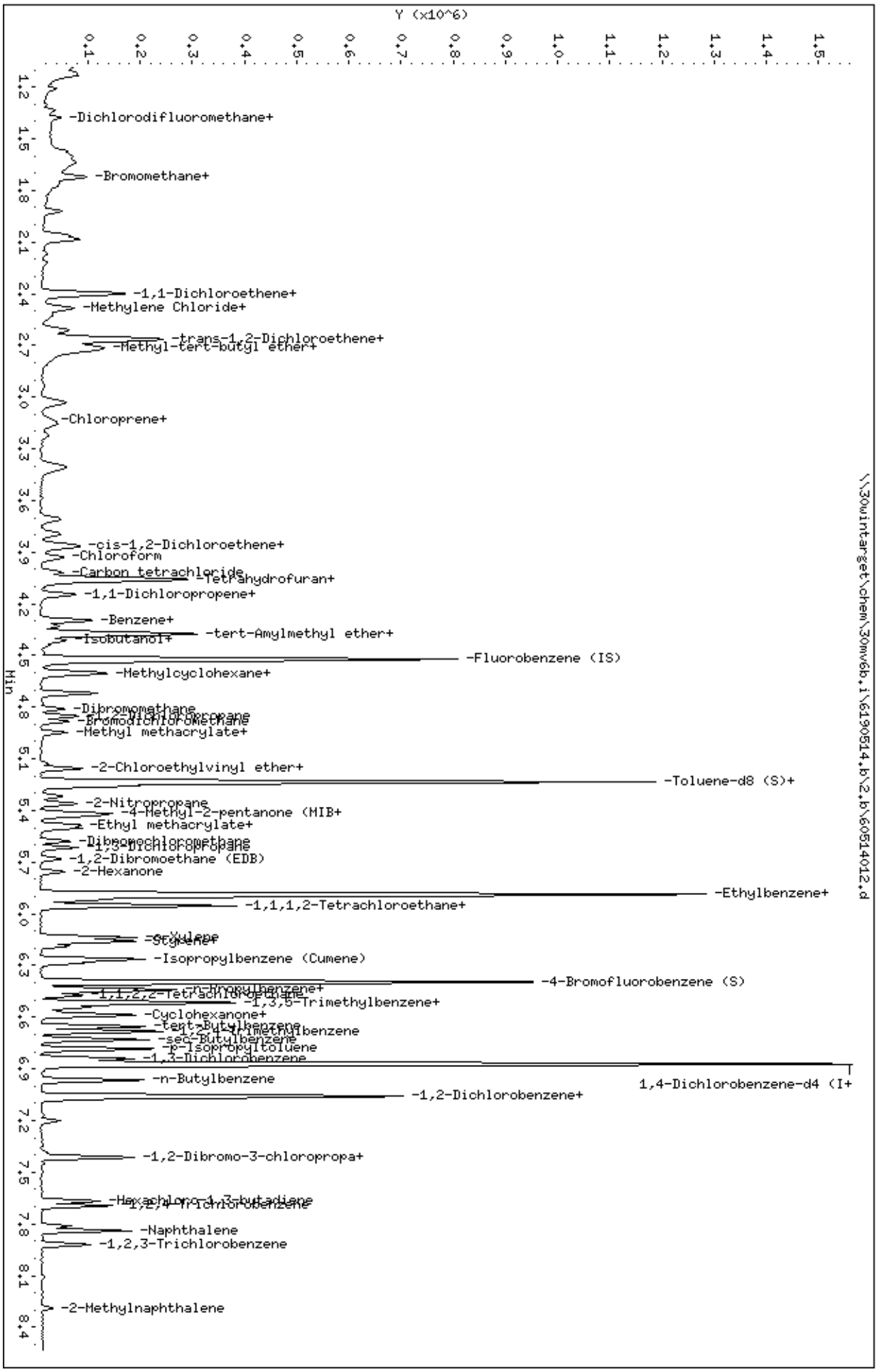
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	4.71	
99-87-6	p-Isopropyltoluene	4.68	
541-73-1	1,3-Dichlorobenzene	4.95	
106-46-7	1,4-Dichlorobenzene	5.11	
104-51-8	n-Butylbenzene	4.65	
95-50-1	1,2-Dichlorobenzene	5.04	
96-12-8	1,2-Dibromo-3-chloropropane	5.12	
108-70-3	1,3,5-Trichlorobenzene	4.78	
87-68-3	Hexachloro-1,3-butadiene	4.13	
120-82-1	1,2,4-Trichlorobenzene	4.90	
91-20-3	Naphthalene	6.48	
87-61-6	1,2,3-Trichlorobenzene	4.88	
91-57-6	2-Methylnaphthalene	5.80	
1868-53-7	Dibromofluoromethane (S)	31.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.9	
2037-26-5	Toluene-d8 (S)	29.7	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.1	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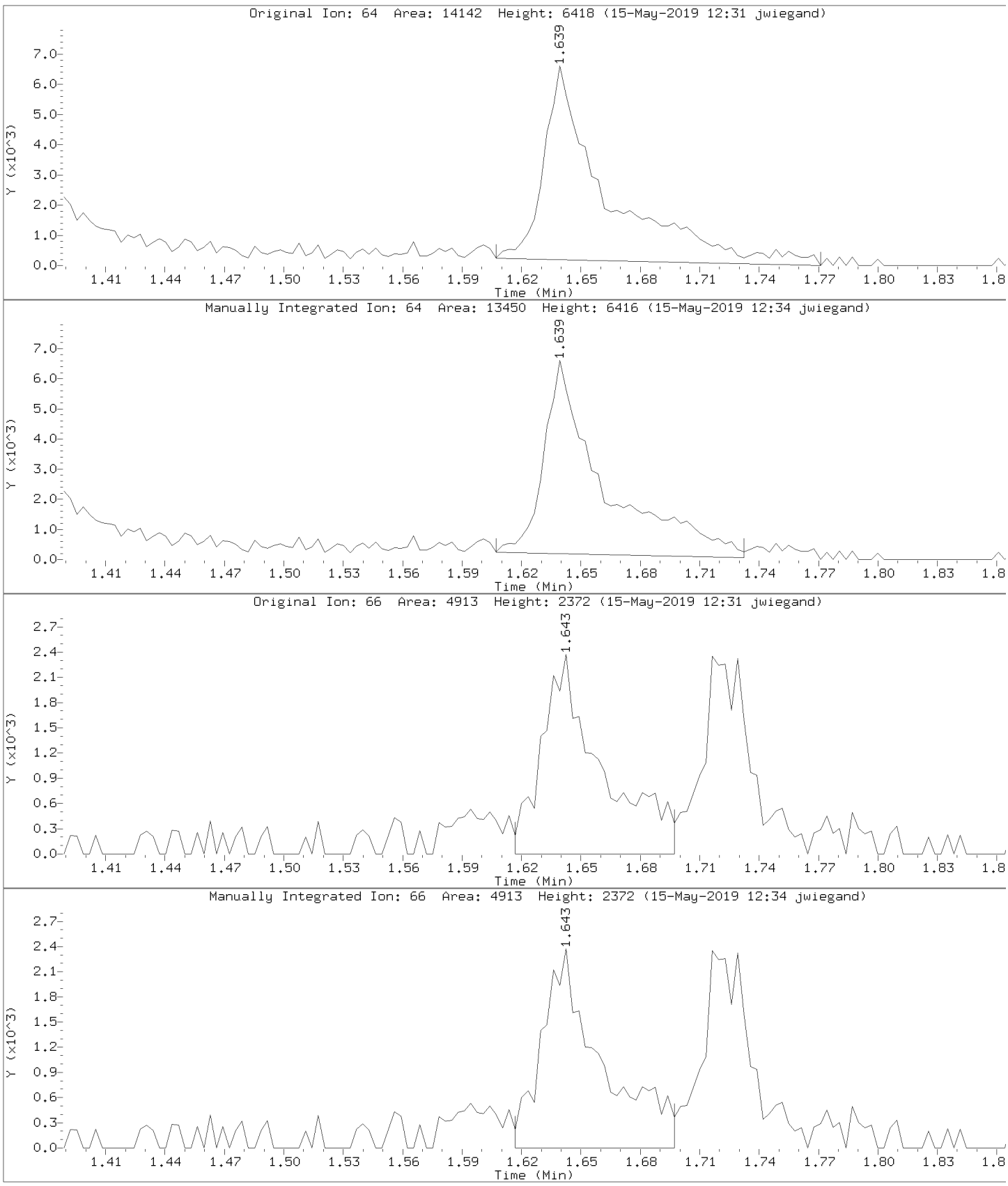
Date : 14-MAY-2019 15:48
Client ID: CAL2
Sample Info: CAL2, 87715:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514012.d
Y (x10^6)
Min
-Dichlorodifluoromethane+
-Bromomethane+
-1,1-Dichloroethene+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether+
-Chloroprene+
-cis-1,2-Dichloroethene+
-Chloroform
-Carbon tetrachloride
-Tetrahydrofuran+
-1,1-Dichloropropene+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether+
-Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-1,1,1,2-Tetrachloroethane+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514012.d
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Chloroethane Review Code: GT
CAS Number: 75-00-3



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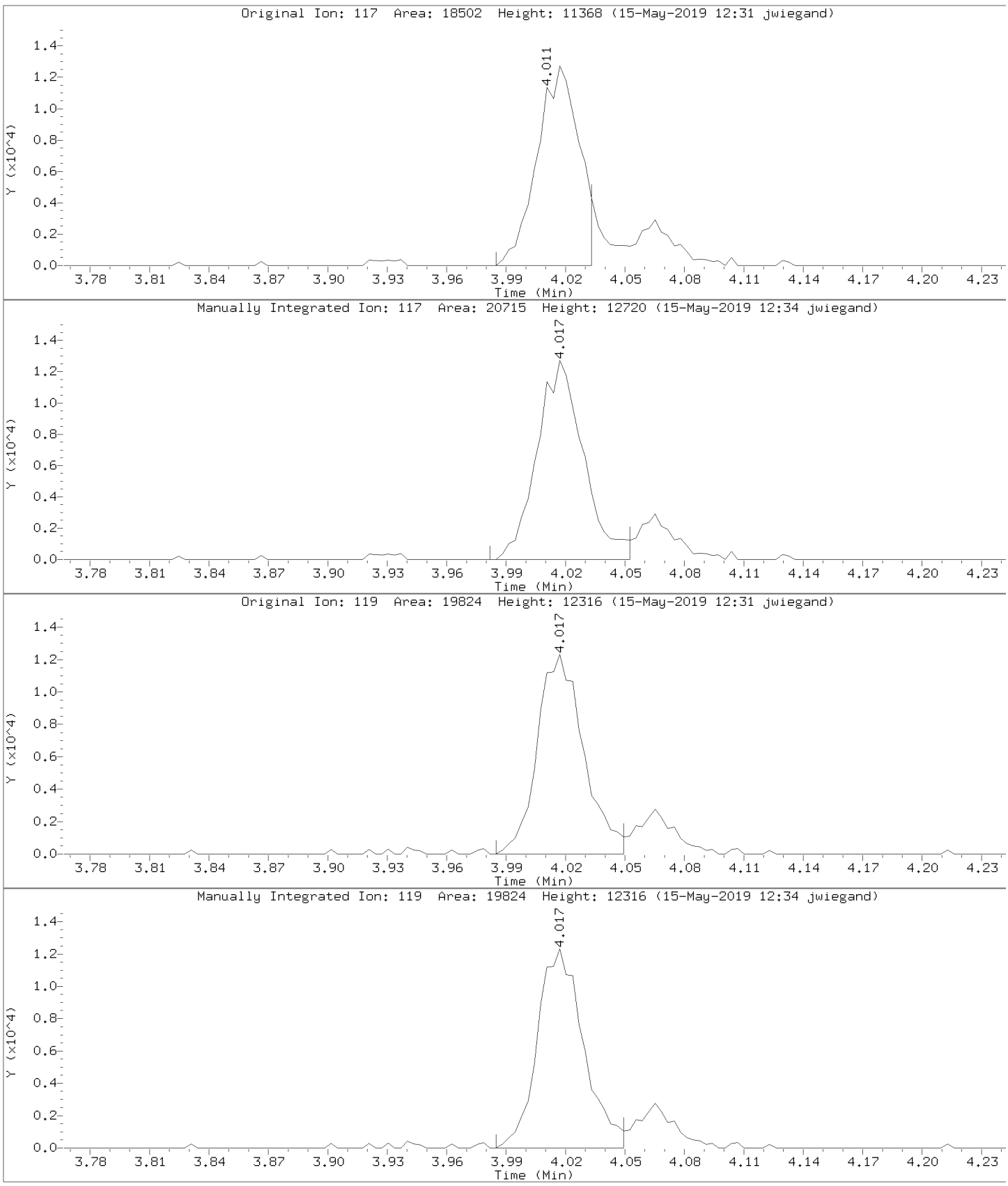
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Carbon tetrachloride Review Code: LT
CAS Number: 56-23-5



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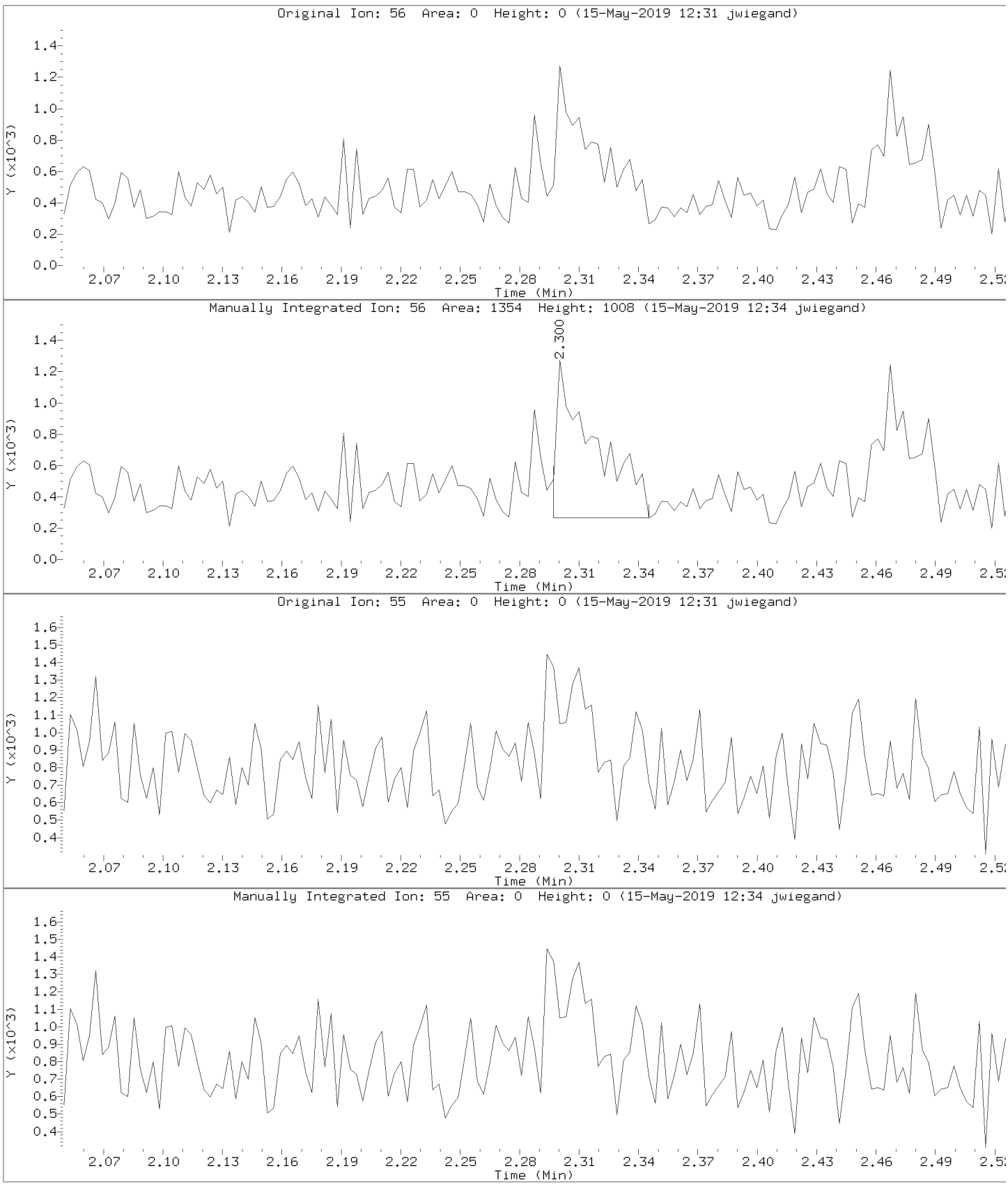
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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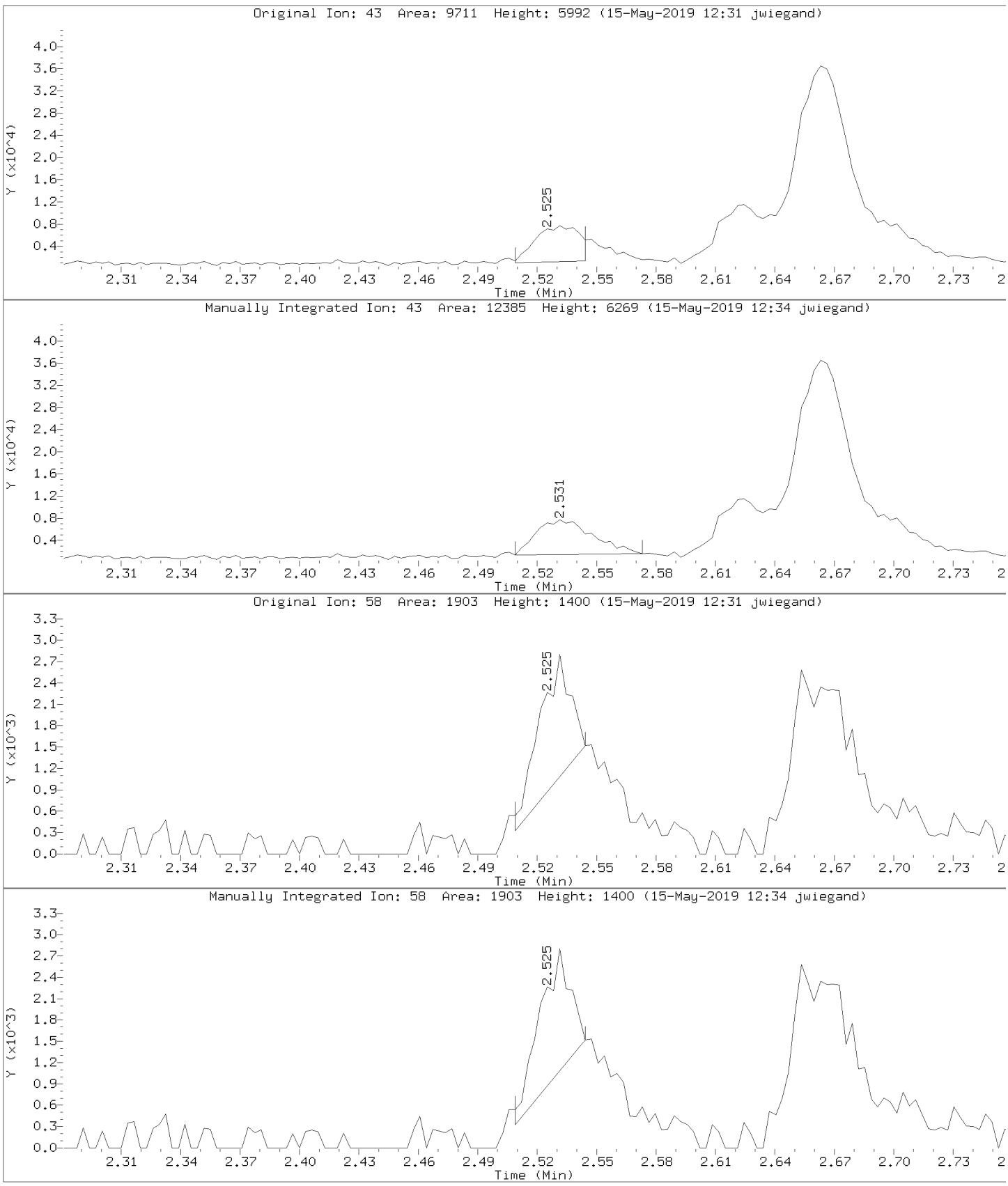
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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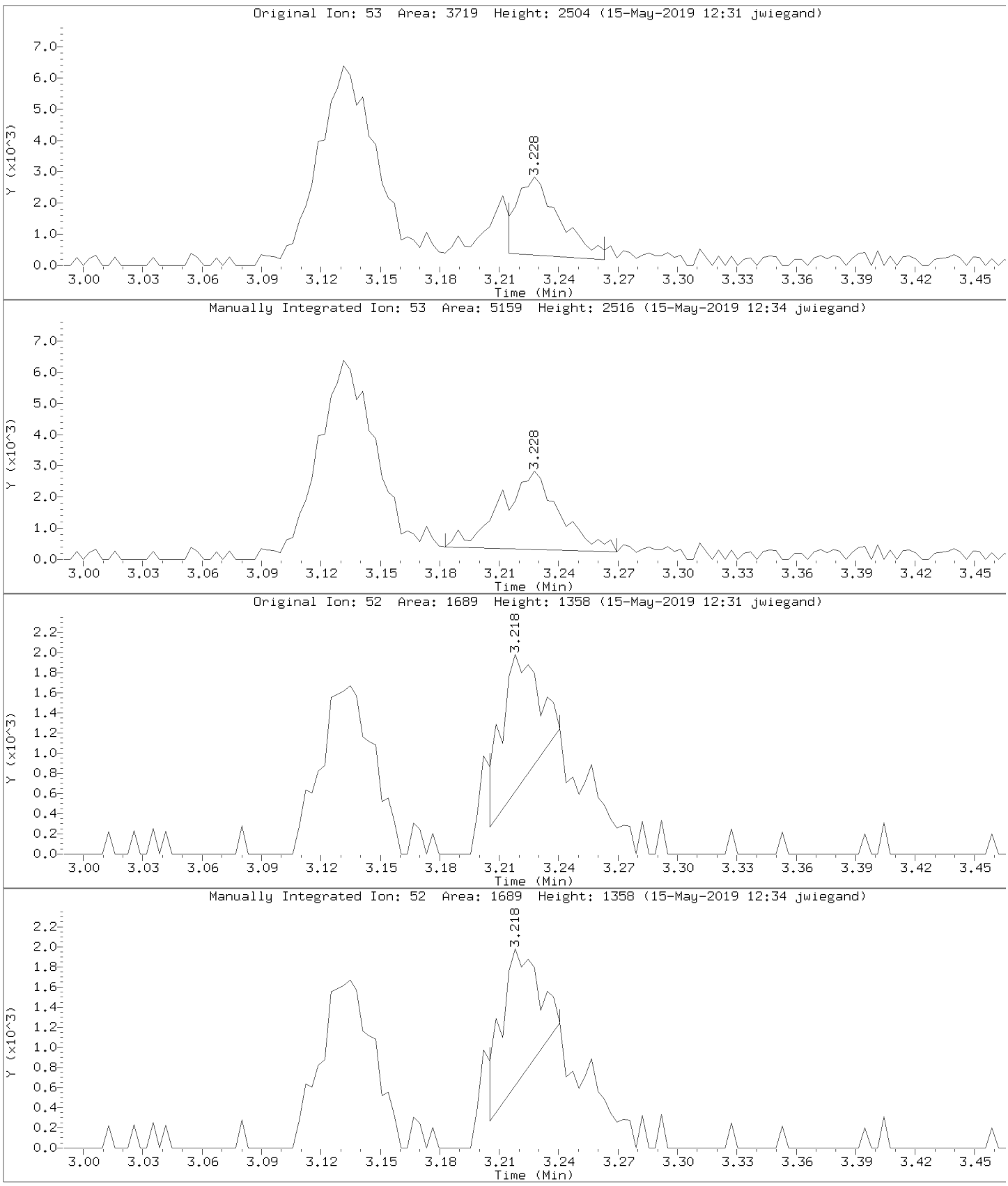
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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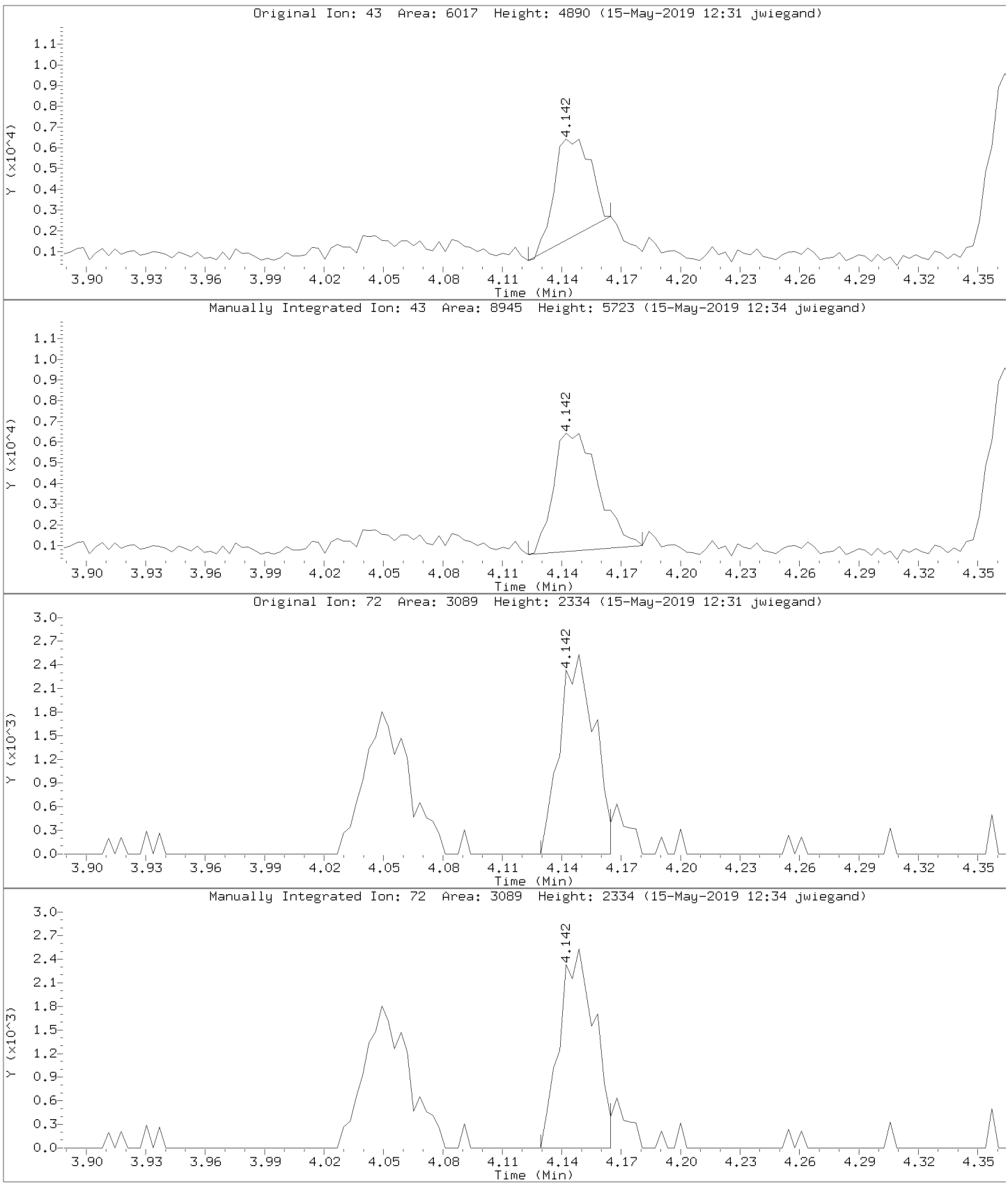
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3



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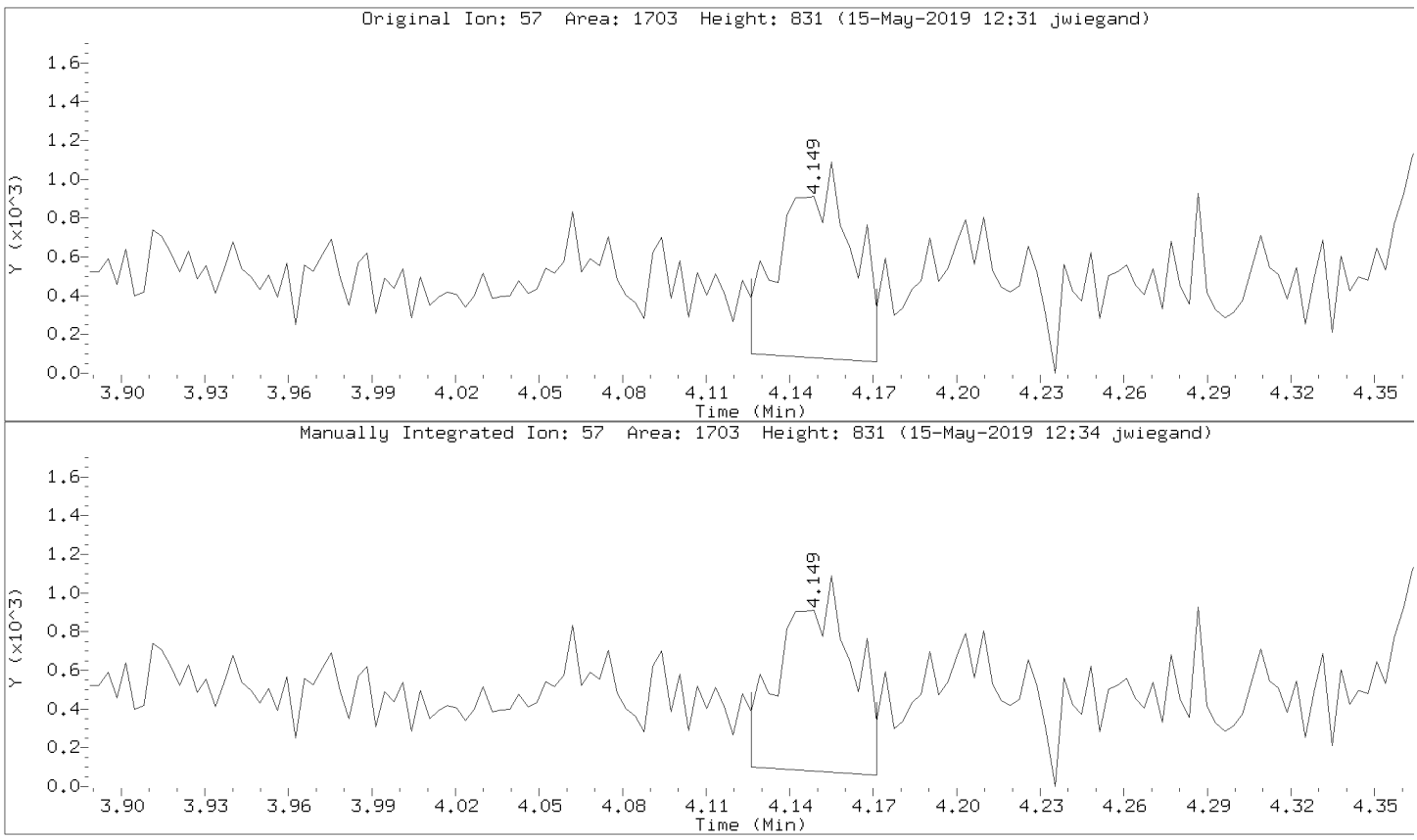
Instrument: 30mv6b.i
Lab Sample ID: CAL2



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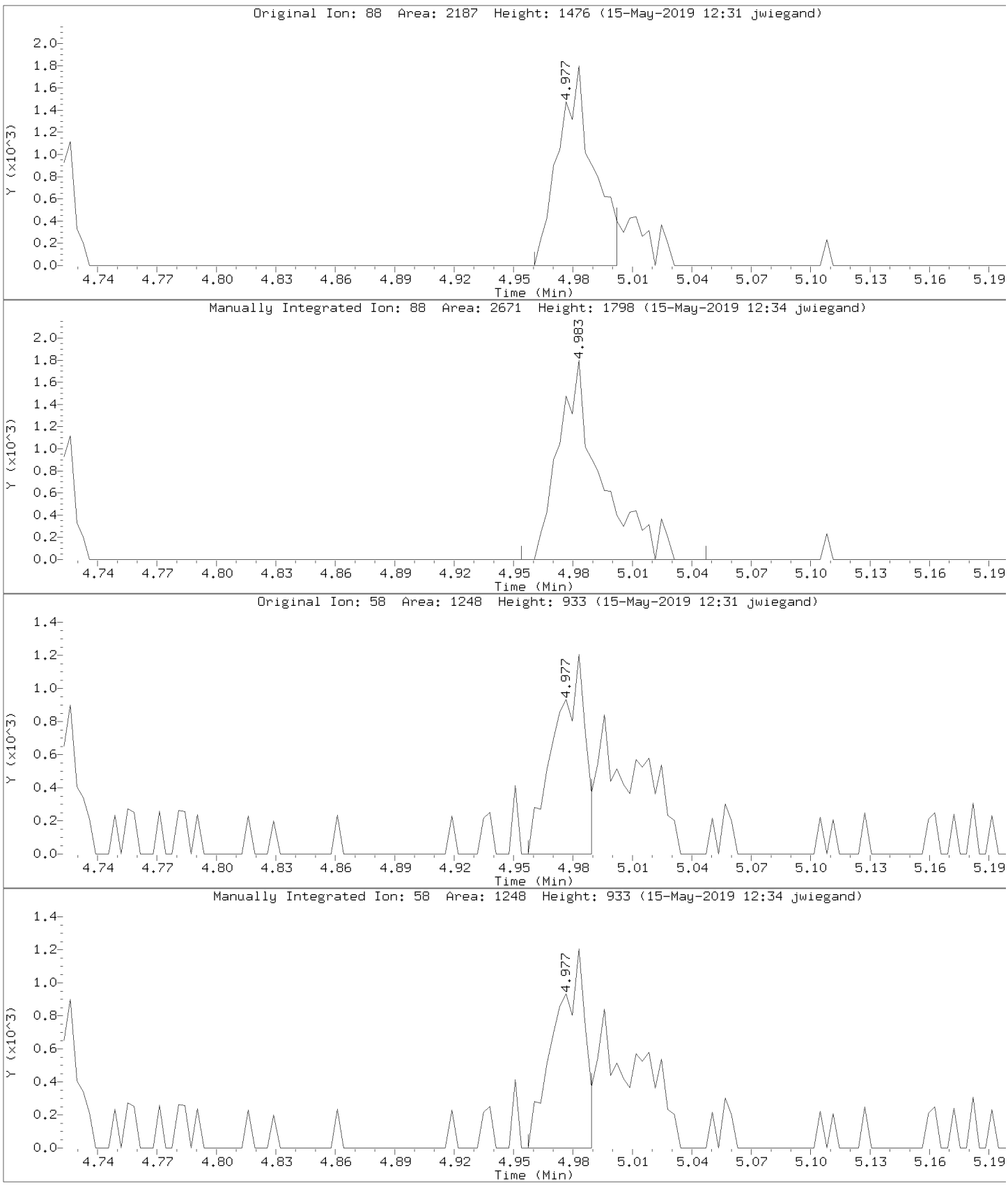
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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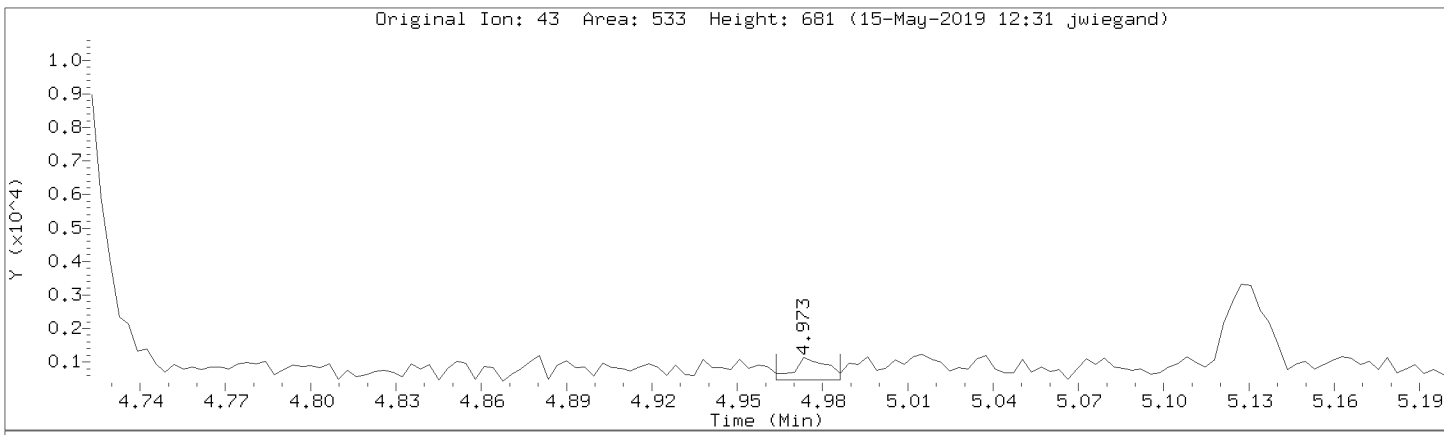
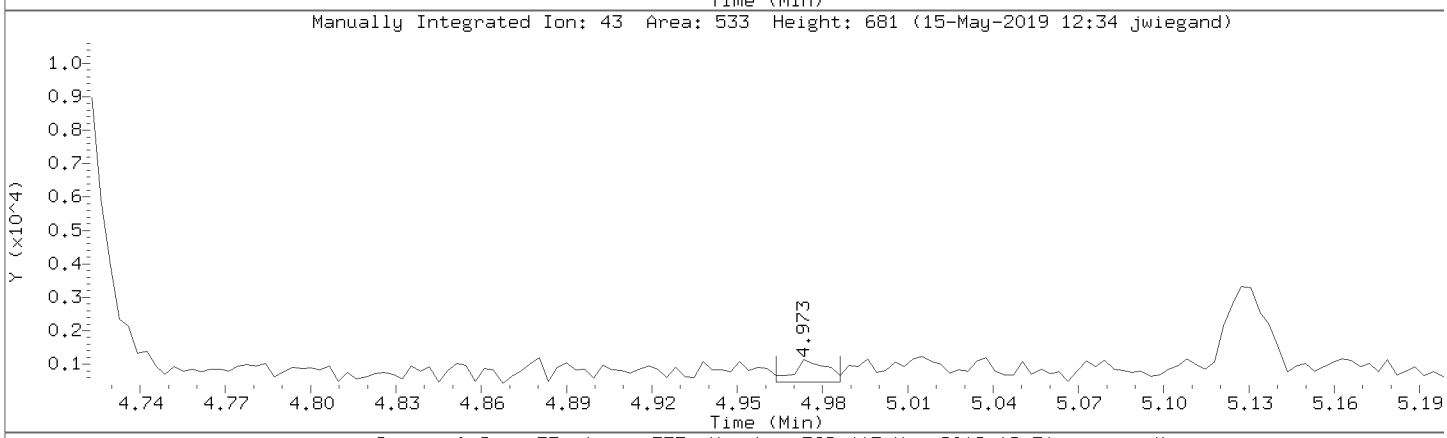
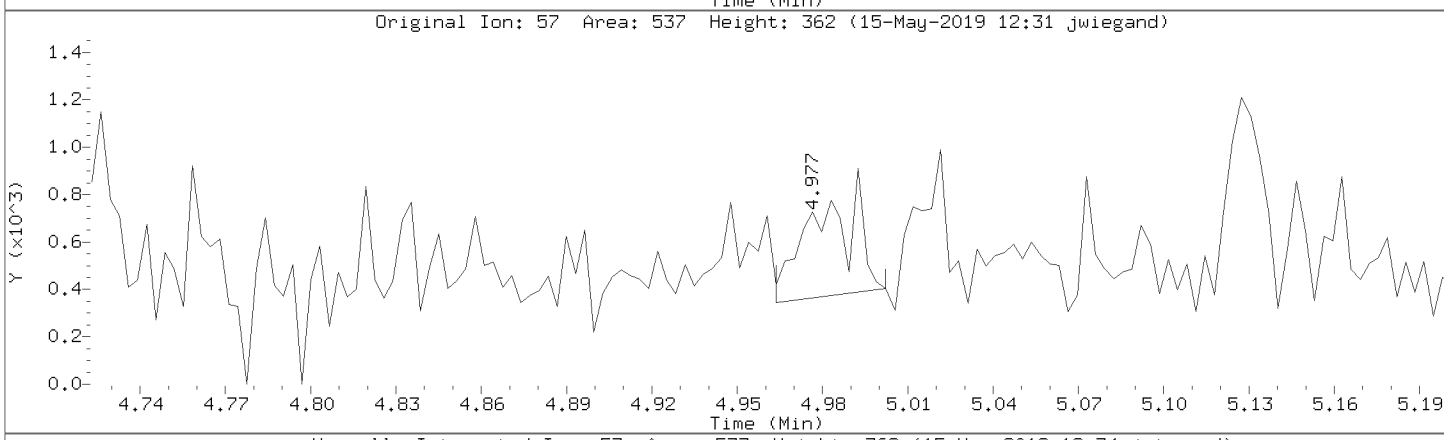
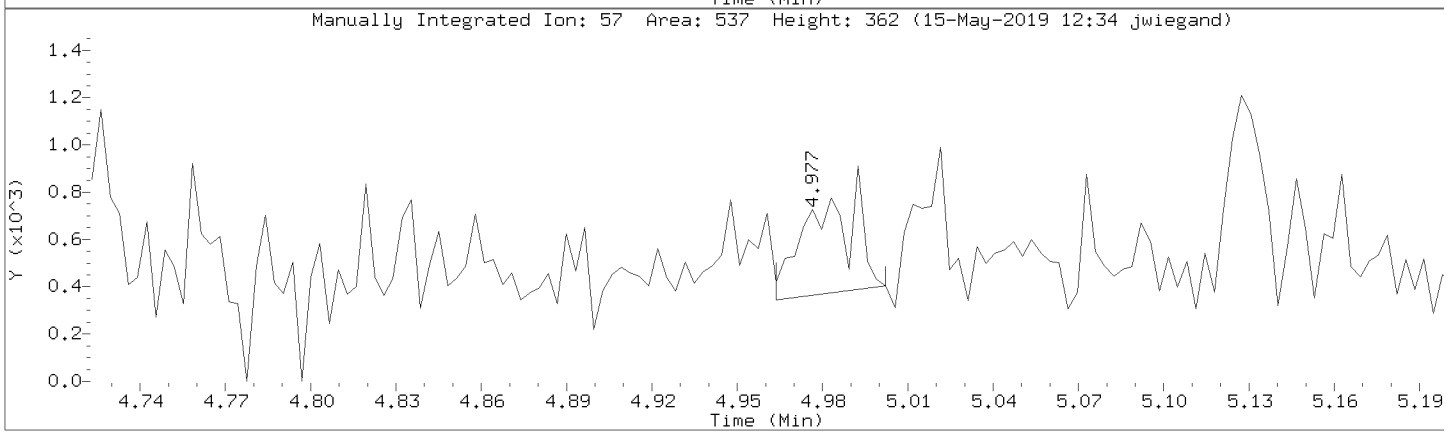
Lab Sample ID: CAL2









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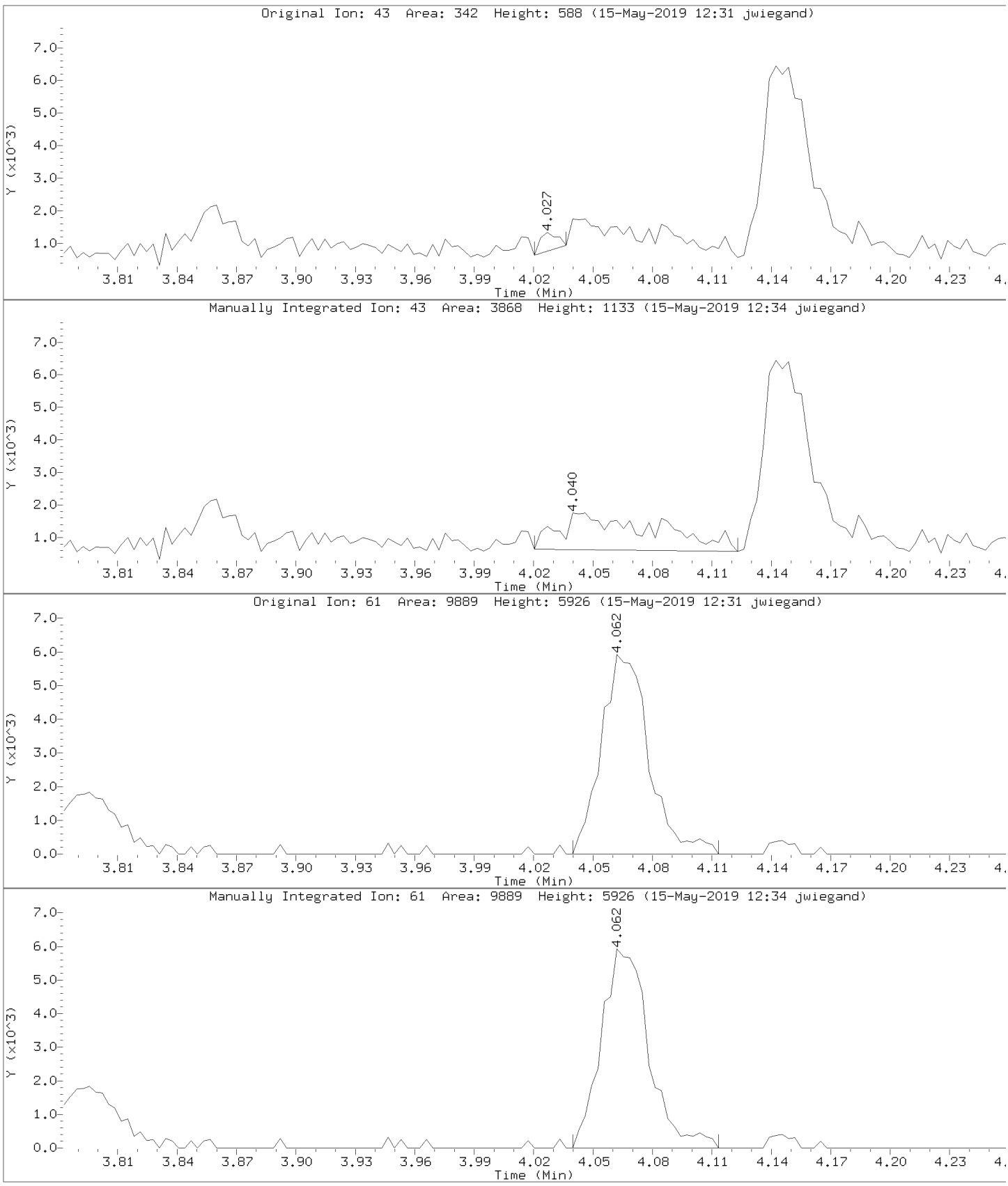
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2

Compound: Ethyl acetate Review Code: NI
CAS Number: 141-78-6



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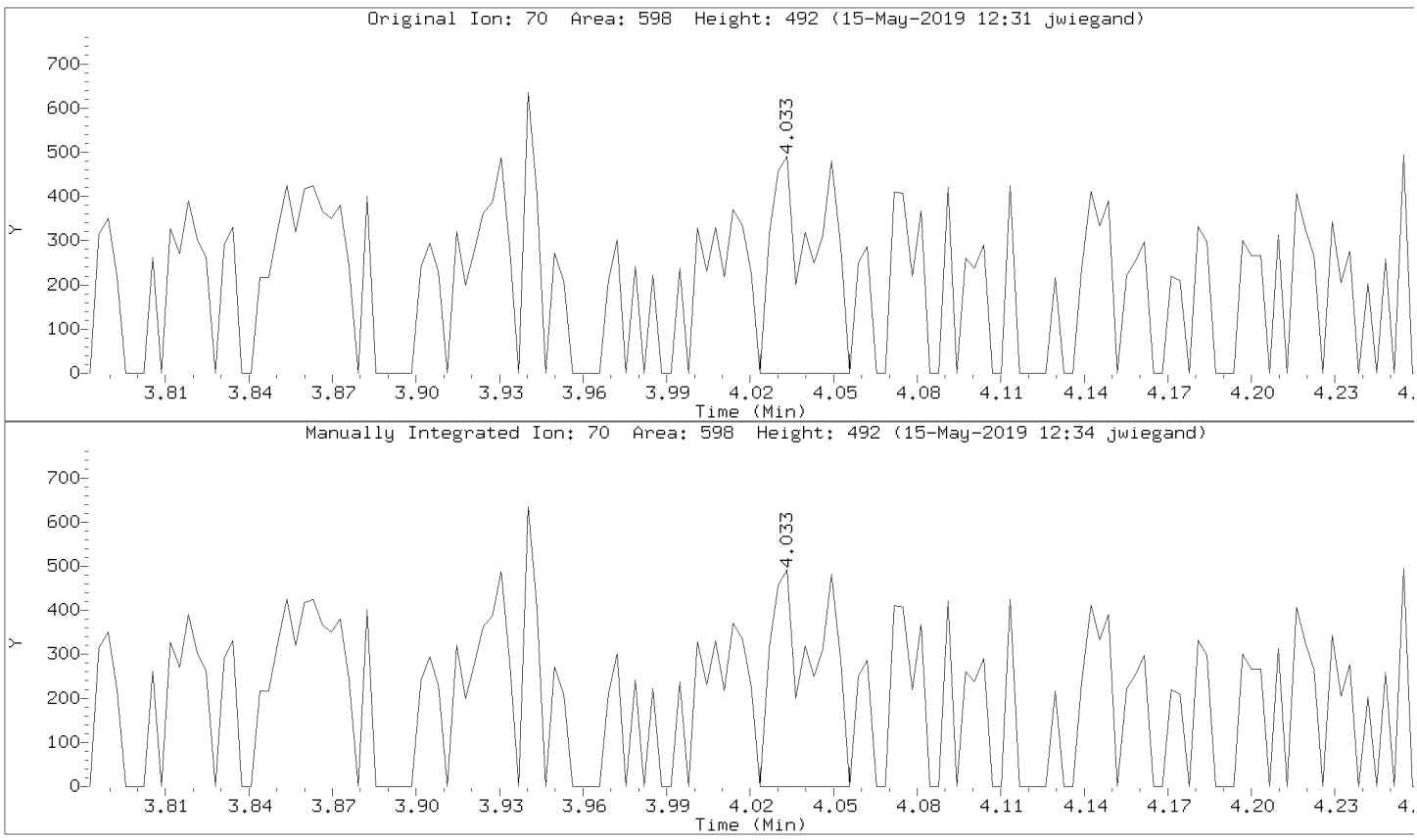
Injection Date: 14-MAY-2019 15:48
Instrument: 30mv6b.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 14-MAY-2019 16:13
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal3, 87716:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 16:13 Cal File: 60514014.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	26253	10.0000	9.63(QM)	LT
2 Chloromethane	50	1.337	1.328	(0.296)	42029	10.0000	11.5(M)	LT
3 Vinyl chloride	62	1.376	1.376	(0.304)	36547	10.0000	10.8	
4 Bromomethane	94	1.568	1.569	(0.347)	17661	10.0000	10.6	
5 Chloroethane	64	1.639	1.639	(0.362)	22606	10.0000	11.2(M)	LT
6 Trichlorofluoromethane	101	1.722	1.723	(0.381)	41120	10.0000	10.9	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	25520	10.0000	10.6	
8 Ethanol	45	2.030	2.017	(0.295)	6344	100.000	(aQ)	
9 1,1-Dichloroethene	61	2.059	2.056	(0.455)	41892	10.0000	10.8	
10 1,1,2-Trichlorotrifluoroethane	151	2.082	2.079	(0.460)	16342	10.0000	8.69(Q)	
11 Carbon disulfide	76	2.088	2.088	(0.462)	72762	10.0000	10.5	
12 Iodomethane	142	2.165	2.165	(0.479)	26143	10.0000	9.80	
13 Acrolein	56	2.303	2.300	(0.509)	1967	10.0000	10.8(M)	LT
14 Allyl chloride	41	2.399	2.396	(0.530)	174969	50.0000	55.2	
15 Methylene Chloride	49	2.489	2.486	(0.550)	52763	10.0000	12.9	
16 Acetone	43	2.528	2.531	(0.559)	19155	10.0000	16.2(Q)	
17 trans-1,2-Dichloroethene	61	2.608	2.602	(0.577)	38345	10.0000	10.1	
18 Methyl acetate	74	2.617	2.621	(0.579)	9214	10.0000	10.6	
19 n-Hexane	86	2.666	2.663	(0.589)	25370	10.0000	18.9	
20 Methyl-tert-butyl ether	73	2.694	2.701	(0.596)	86317	10.0000	10.6(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.784	2.778	(0.616)	34454	50.0000	53.1	
	22 Acetonitrile	41	2.922	2.923	(0.646)	17773	50.0000	55.3(Q)	
	23 Diisopropyl ether	45	3.028	3.032	(0.669)	91633	10.0000	10.4	
	24 Chloroprene	53	3.134	3.131	(0.693)	23374	10.0000	10.1	
	25 1,1-Dichloroethane	63	3.163	3.160	(0.699)	53571	10.0000	10.9	
	26 Acrylonitrile	53	3.227	3.240	(0.713)	9875	10.0000	9.64(M)	LT
	27 Ethyl-tert-butyl ether	59	3.404	3.404	(0.752)	97071	10.0000	10.2(Q)	
	28 Vinyl acetate	43	3.420	3.430	(0.756)	69597	10.0000	10.5	
	29 cis-1,2-Dichloroethene	61	3.708	3.709	(0.820)	41166	10.0000	10.7	
	30 2,2-Dichloropropane	77	3.795	3.789	(0.839)	44334	10.0000	10.6	
	31 Cyclohexane	56	3.863	3.863	(0.854)	34098	10.0000	7.84	
	32 Bromochloromethane	130	3.869	3.866	(0.855)	21890	10.0000	10.7	
	33 Chloroform	83	3.930	3.930	(0.869)	50754	10.0000	10.9	
	34 Carbon tetrachloride	117	4.017	4.017	(0.888)	37646	10.0000	9.48	
	35 Ethyl acetate	43	4.042	4.033	(0.894)	2995	10.0000	10.7(Q)	
	36 Tetrahydrofuran	42	4.049	4.046	(0.895)	12248	10.0000	11.2	
$	37 Dibromofluoromethane (S)	111	4.058	4.059	(0.897)	112882	30.0000	31.5	
	38 1,1,1-Trichloroethane	97	4.065	4.067	(0.899)	47205	10.0000	10.7	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.916)	19235	10.0000	11.4(Q)	
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	34852	10.0000	9.69	
	41 Benzene	78	4.296	4.296	(0.950)	110558	10.0000	10.5	
	42 Propionitrile	54	4.325	4.322	(0.956)	6406	10.0000	12.5	
	43 Methacrylonitrile	41	4.331	4.325	(0.957)	16799	10.0000	10.2(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	77222	10.0000	10.2	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	114049	30.0000	32.0	
	46 Isobutanol	43	4.437	4.437	(0.981)	10064	50.0000	45.7(Q)	
	47 1,2-Dichloroethane	62	4.414	4.412	(0.976)	41595	10.0000	10.8	
*	48 Fluorobenzene (IS)	96	4.524	4.524	(1.000)	434195	30.0000		
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	29984	10.0000	6.74	
	50 Trichloroethene	95	4.607	4.607	(0.783)	30354	10.0000	10.2	
	51 Dibromomethane	174	4.806	4.810	(1.062)	22758	10.0000	10.5	
	52 1,2-Dichloropropane	63	4.854	4.851	(1.073)	29609	10.0000	10.4	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	37798	10.0000	10.6	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	21059	10.0000	10.5	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.973	(1.100)	4988	100.000	104(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.133)	7470	10.0000	10.0	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	47213	10.0000	10.4	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	417660	30.0000	30.1	
	59 Toluene	91	5.255	5.256	(0.893)	124982	10.0000	10.2	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	59659	50.0000	52.8	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	33650	10.0000	10.3	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	31669	10.0000	8.82	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	43911	10.0000	9.93	
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	27011	10.0000	10.0	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	26312	10.0000	9.91	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	34509	10.0000	9.98	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	43494	10.0000	9.98	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	30667	10.0000	10.5	
	69 2-Hexanone	43	5.756	5.756	(0.978)	27515	10.0000	10.5	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	46952	10.0000	9.47	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	375620	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	92078	10.0000	10.0	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.920	(1.005)	35456	10.0000	9.78	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	118600	20.0000	19.2	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	59339	10.0000	9.57	
	76 Styrene	104	6.160	6.160	(1.046)	105486	10.0000	9.80	
	77 Bromoform	173	6.186	6.186	(0.900)	27331	10.0000	10.1	
	78 Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	139815	10.0000	9.12	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	165851	30.0000	30.6	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	156623	10.0000	8.95	
	81 Bromobenzene	77	6.446	6.446	(0.938)	62759	10.0000	9.89	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	39282	10.0000	10.3	
	83 1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	122594	10.0000	8.95	
	84 2-Chlorotoluene	126	6.516	6.520	(0.948)	39167	10.0000	9.44	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	13886	10.0000	10.2	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	12356	10.0000	10.5	
	87 Cyclohexanone	55	6.568	6.568	(0.956)	17109	50.0000	55.3	
	88 4-Chlorotoluene	126	6.587	6.590	(0.958)	40269	10.0000	9.18	
	89 tert-Butylbenzene	119	6.654	6.655	(0.968)	102261	10.0000	8.29	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	126266	10.0000	9.01	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	134682	10.0000	7.80	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	125320	10.0000	7.89	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	84909	10.0000	9.44	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	221072	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	85585	10.0000	9.37	
	96 n-Butylbenzene	91	6.966	6.966	(1.014)	94462	10.0000	7.39	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	83240	10.0000	9.69	
$	161 1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	84521	30.0000	30.1	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	12309	10.0000	9.94	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	51716	10.0000	8.44	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	19719	10.0000	6.57	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	43273	10.0000	8.69	
	102 Naphthalene	128	7.838	7.839	(1.141)	128870	10.0000	11.6	
	103 1,2,3-Trichlorobenzene	180	7.922	7.919	(1.153)	30789	10.0000	9.36	
	104 2-Methylnaphthalene	142	8.288	8.287	(1.206)	10722	10.0000	10.2	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514014.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	434195	-1.51
71 Chlorobenzene-d5	378709	189355	757418	375620	-0.82
94 1,4-Dichlorobenze	227359	113680	454718	221072	-2.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	9.63	
74-87-3	Chloromethane	11.5	
75-01-4	Vinyl chloride	10.8	
74-83-9	Bromomethane	10.6	
75-00-3	Chloroethane	11.2	
75-69-4	Trichlorofluoromethane	10.9	
60-29-7	Diethyl ether (Ethyl ether)	10.6	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	10.8	
76-13-1	1,1,2-Trichlorotrifluoroetha	8.69	
75-15-0	Carbon disulfide	10.5	
74-88-4	Iodomethane	9.80	
107-02-8	Acrolein	10.8	
107-05-1	Allyl chloride	55.2	
75-09-2	Methylene Chloride	12.9	
67-64-1	Acetone	16.2	
156-60-5	trans-1,2-Dichloroethene	10.1	
79-20-9	Methyl acetate	10.6	
110-54-3	n-Hexane	18.9	
1634-04-4	Methyl-tert-butyl ether	10.6	
75-65-0	tert-Butyl Alcohol	53.1	
75-05-8	Acetonitrile	55.3	
108-20-3	Diisopropyl ether	10.4	
126-99-8	Chloroprene	10.1	
75-34-3	1,1-Dichloroethane	10.9	
107-13-1	Acrylonitrile	9.64	
637-92-3	Ethyl-tert-butyl ether	10.2	
108-05-4	Vinyl acetate	10.5	
156-59-2	cis-1,2-Dichloroethene	10.7	
594-20-7	2,2-Dichloropropane	10.6	
110-82-7	Cyclohexane	7.84	
74-97-5	Bromochloromethane	10.7	
67-66-3	Chloroform	10.9	
56-23-5	Carbon tetrachloride	9.48	
141-78-6	Ethyl acetate	10.7	
109-99-9	Tetrahydrofuran	11.2	
71-55-6	1,1,1-Trichloroethane	10.7	
78-93-3	2-Butanone (MEK)	11.4	
563-58-6	1,1-Dichloropropene	9.69	
71-43-2	Benzene	10.5	
107-12-0	Propionitrile	12.5	
126-98-7	Methacrylonitrile	10.2	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	10.2	
78-83-1	Isobutanol	45.7	
107-06-2	1,2-Dichloroethane	10.8	
108-87-2	Methylcyclohexane	6.74	
79-01-6	Trichloroethene	10.2	
74-95-3	Dibromomethane	10.5	
78-87-5	1,2-Dichloropropane	10.4	
75-27-4	Bromodichloromethane	10.6	
80-62-6	Methyl methacrylate	10.5	
123-91-1	1,4-Dioxane (p-Dioxane)	104	
110-75-8	2-Chloroethylvinyl ether	10.0	
10061-01-5	cis-1,3-Dichloropropene	10.4	
108-88-3	Toluene	10.2	
79-46-9	2-Nitropropane	52.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.3	
127-18-4	Tetrachloroethene	8.82	
10061-02-6	trans-1,3-Dichloropropene	9.93	
97-63-2	Ethyl methacrylate	10.0	
79-00-5	1,1,2-Trichloroethane	9.91	
124-48-1	Dibromochloromethane	9.98	
142-28-9	1,3-Dichloropropane	9.98	
106-93-4	1,2-Dibromoethane (EDB)	10.5	
591-78-6	2-Hexanone	10.5	
100-41-4	Ethylbenzene	9.47	
108-90-7	Chlorobenzene	10.0	
630-20-6	1,1,1,2-Tetrachloroethane	9.78	
7816-60-0	m&p-Xylene	19.2	
95-47-6	o-Xylene	9.57	
100-42-5	Styrene	9.80	
75-25-2	Bromoform	10.1	
98-82-8	Isopropylbenzene (Cumene)	9.12	
103-65-1	n-Propylbenzene	8.95	
108-86-1	Bromobenzene	9.89	
79-34-5	1,1,2,2-Tetrachloroethane	10.3	
108-67-8	1,3,5-Trimethylbenzene	8.95	
95-49-8	2-Chlorotoluene	9.44	
96-18-4	1,2,3-Trichloropropane	10.2	
110-57-6	trans-1,4-Dichloro-2-butene	10.5	
108-94-1	Cyclohexanone	55.3	
106-43-4	4-Chlorotoluene	9.18	
98-06-6	tert-Butylbenzene	8.29	
95-63-6	1,2,4-Trimethylbenzene	9.01	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Report Date: 07-Jun-2019 10:50

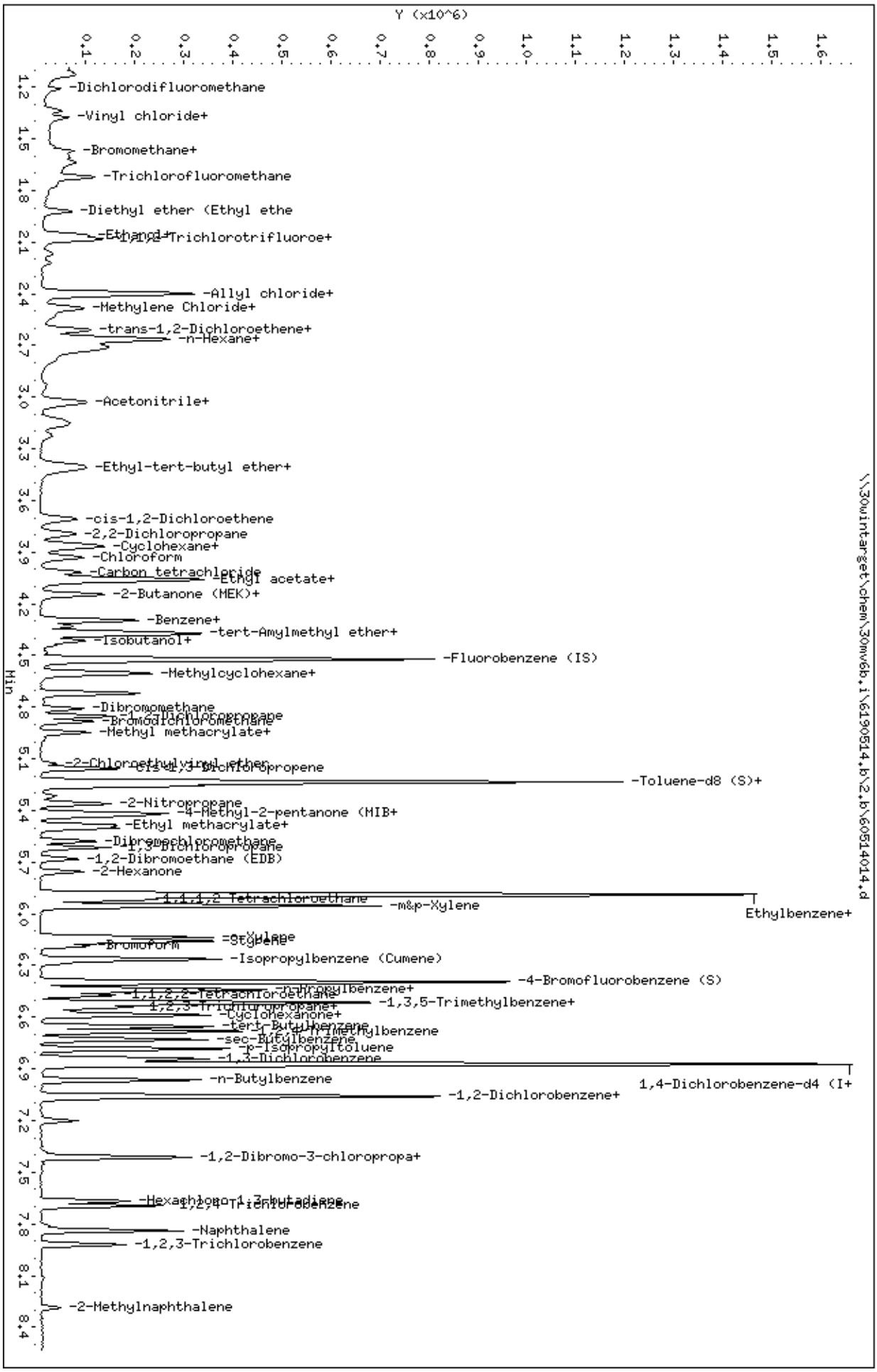
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	7.80	
99-87-6	p-Isopropyltoluene	7.89	
541-73-1	1,3-Dichlorobenzene	9.44	
106-46-7	1,4-Dichlorobenzene	9.37	
104-51-8	n-Butylbenzene	7.39	
95-50-1	1,2-Dichlorobenzene	9.69	
96-12-8	1,2-Dibromo-3-chloropropane	9.94	
108-70-3	1,3,5-Trichlorobenzene	8.44	
87-68-3	Hexachloro-1,3-butadiene	6.57	
120-82-1	1,2,4-Trichlorobenzene	8.69	
91-20-3	Naphthalene	11.6	
87-61-6	1,2,3-Trichlorobenzene	9.36	
91-57-6	2-Methylnaphthalene	10.2	
1868-53-7	Dibromofluoromethane (S)	31.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.0	
2037-26-5	Toluene-d8 (S)	30.1	
460-00-4	4-Bromofluorobenzene (S)	30.6	
----------	1,2-Dichlorobenzene-d4 (S)	30.1	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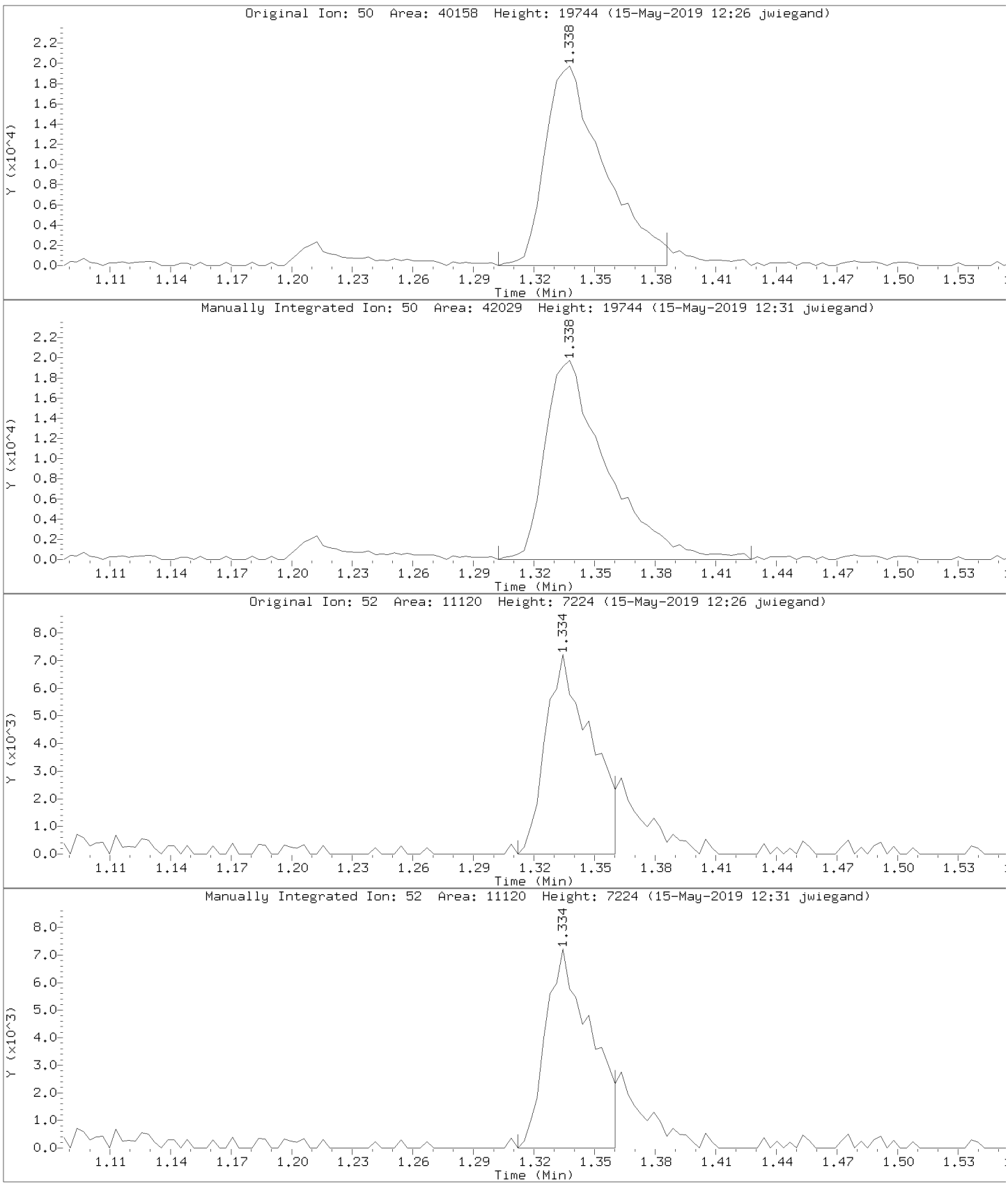
Date : 14-MAY-2019 16:13
Client ID: CAL3
Sample Info: CAL3, 87716:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514014.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Vinyl chloride+
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-m&p-Xylene
Ethylbenzene+
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514014.d
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: Chloromethane Review Code: LT
CAS Number: 74-87-3



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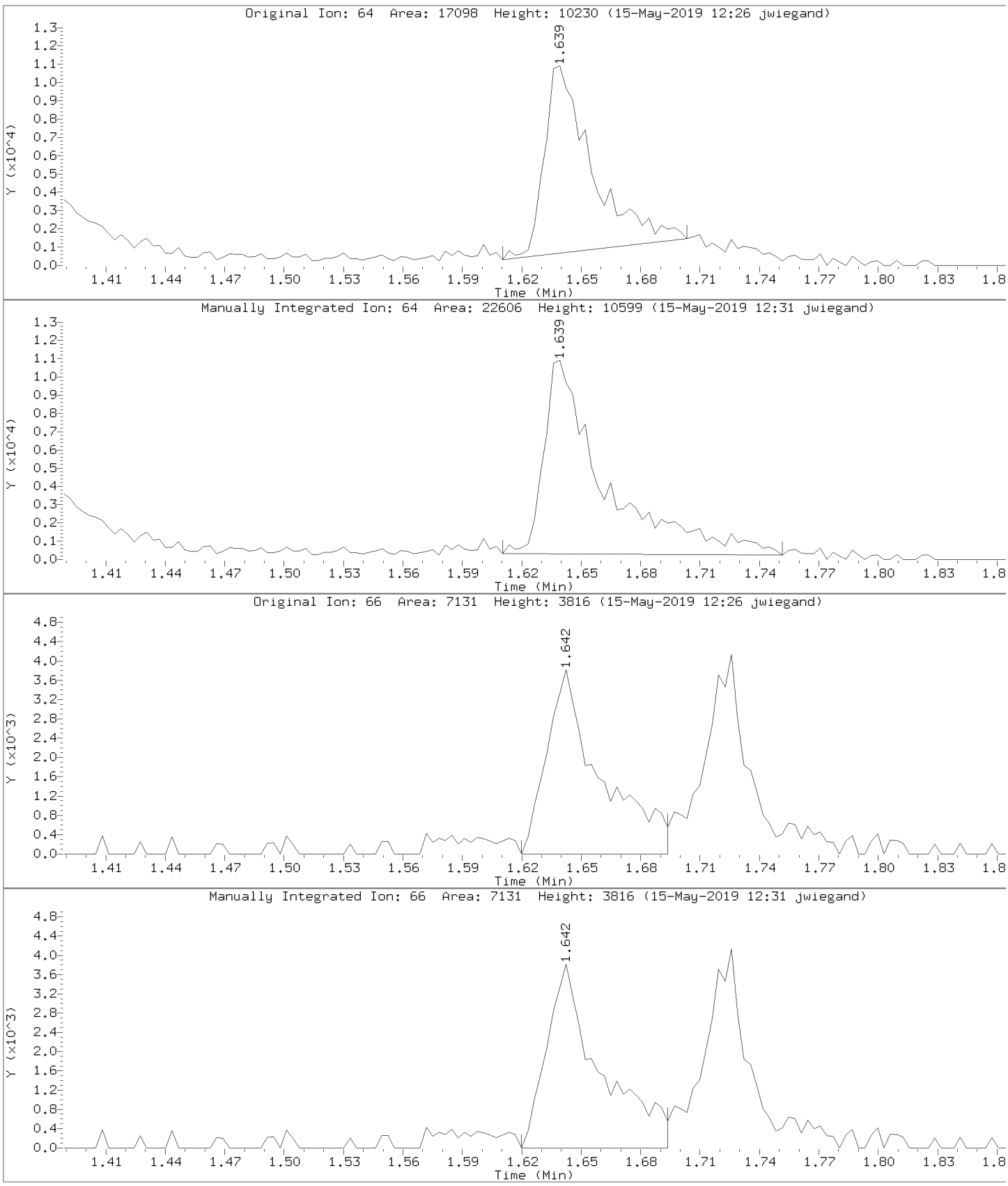
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



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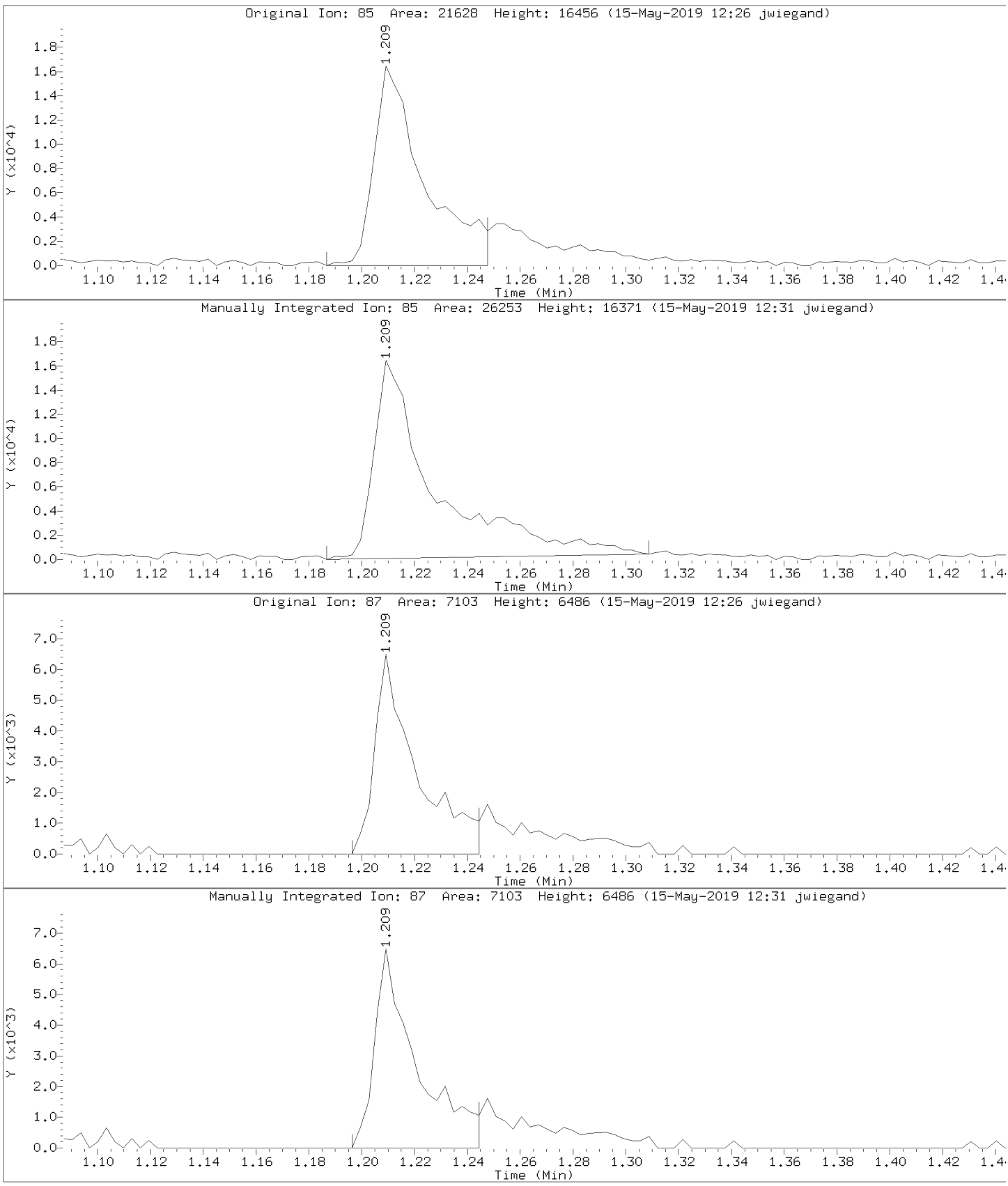
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-69-4



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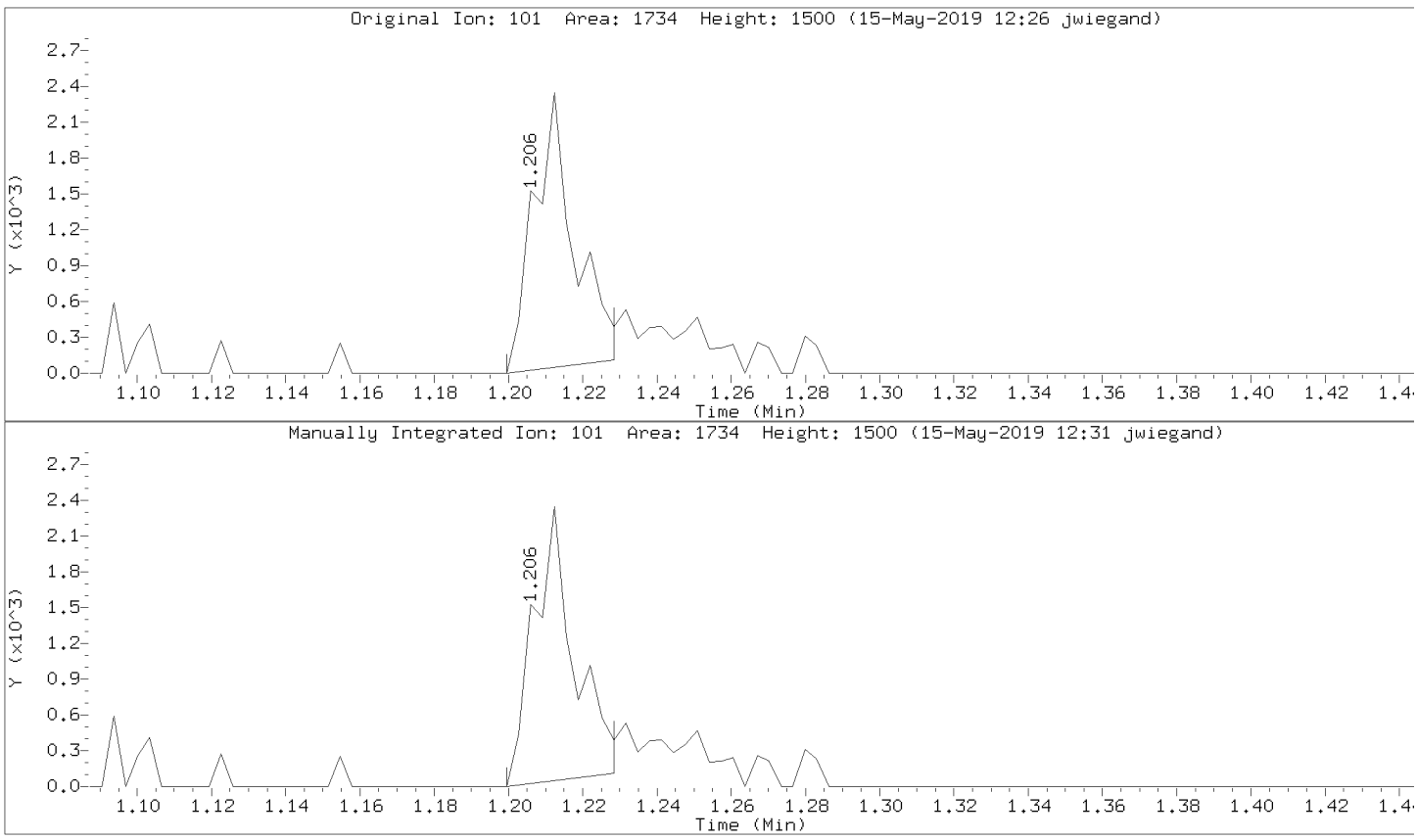
Instrument: 30mv6b.i
Lab Sample ID: CAL3



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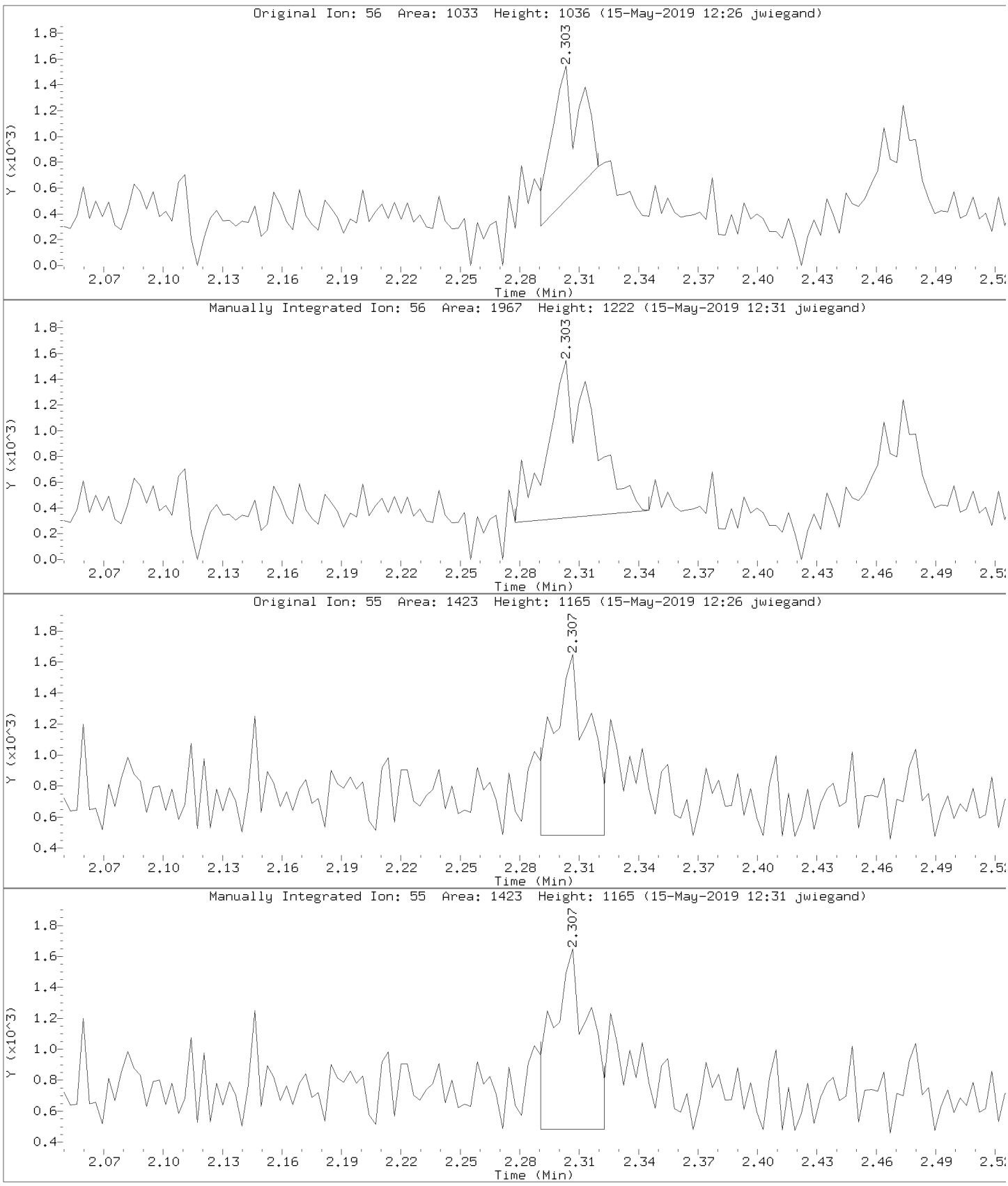
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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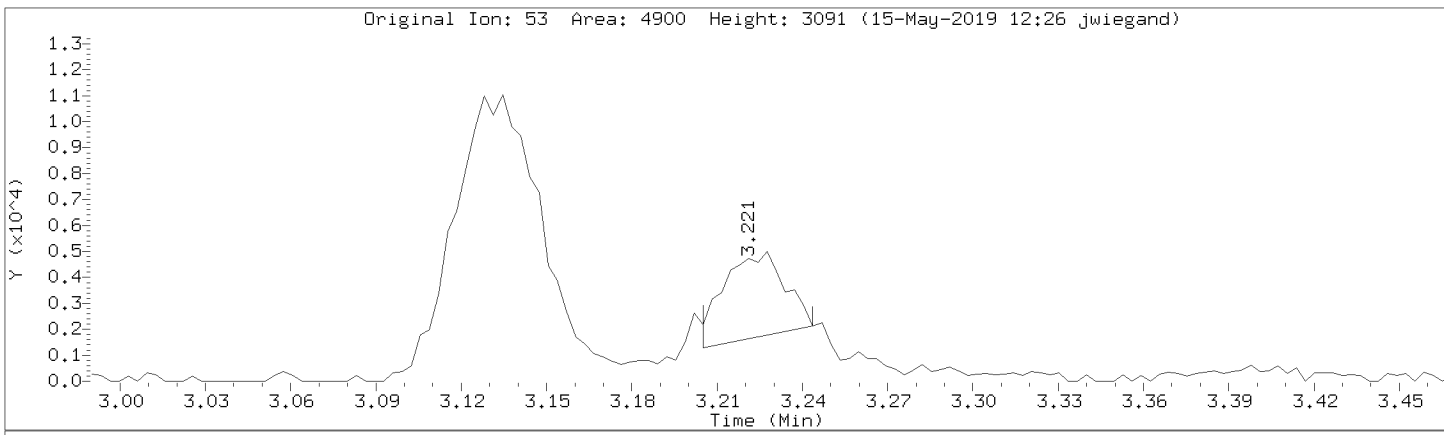
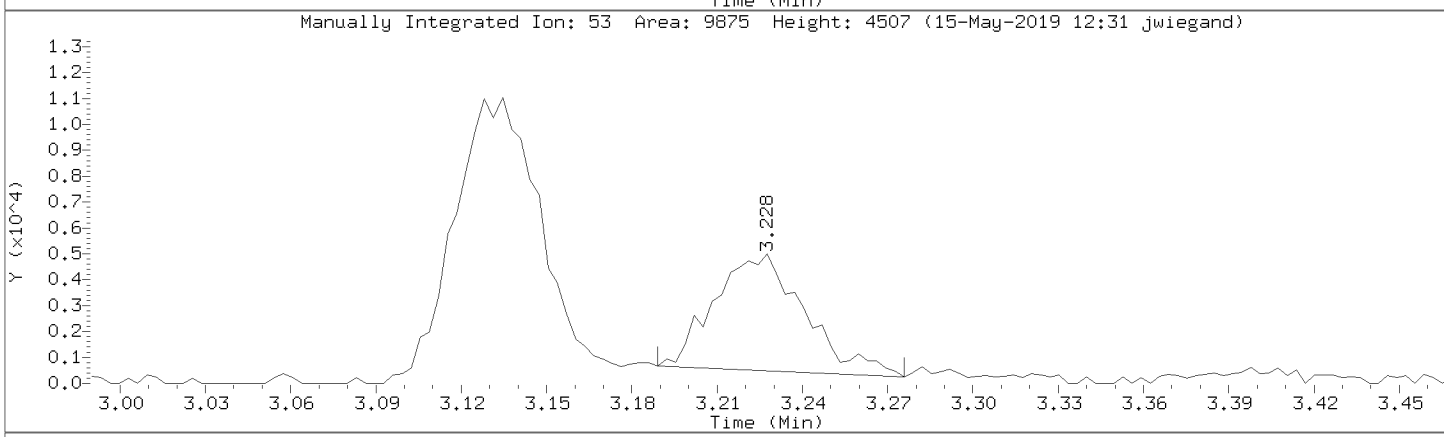
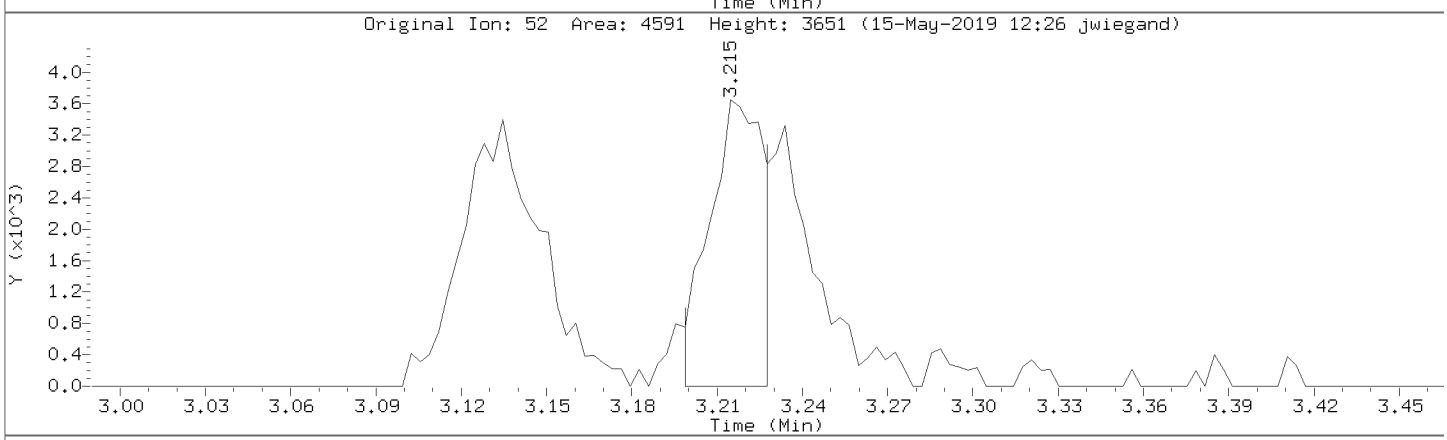
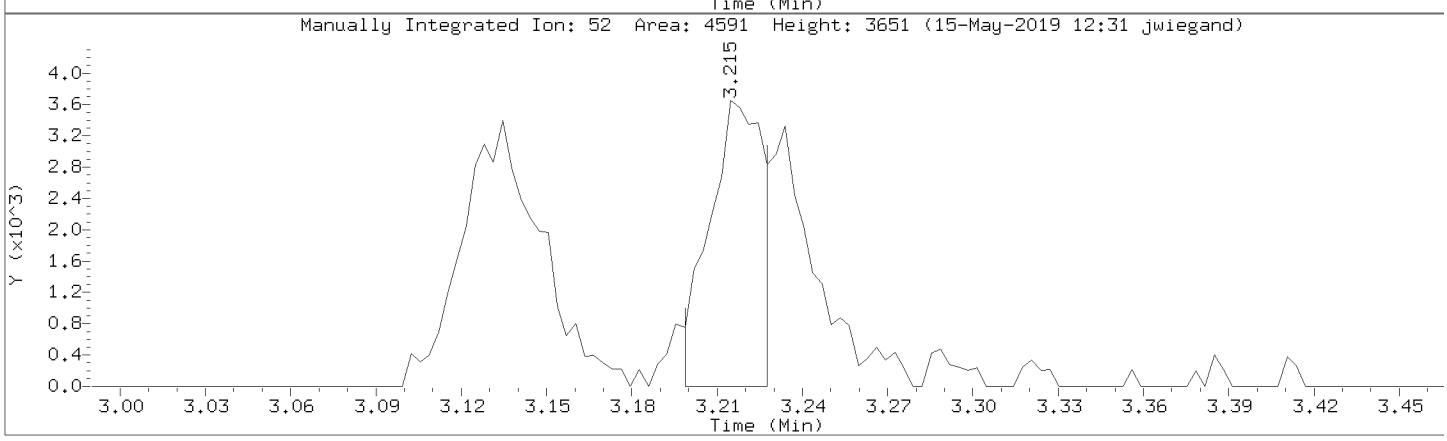
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



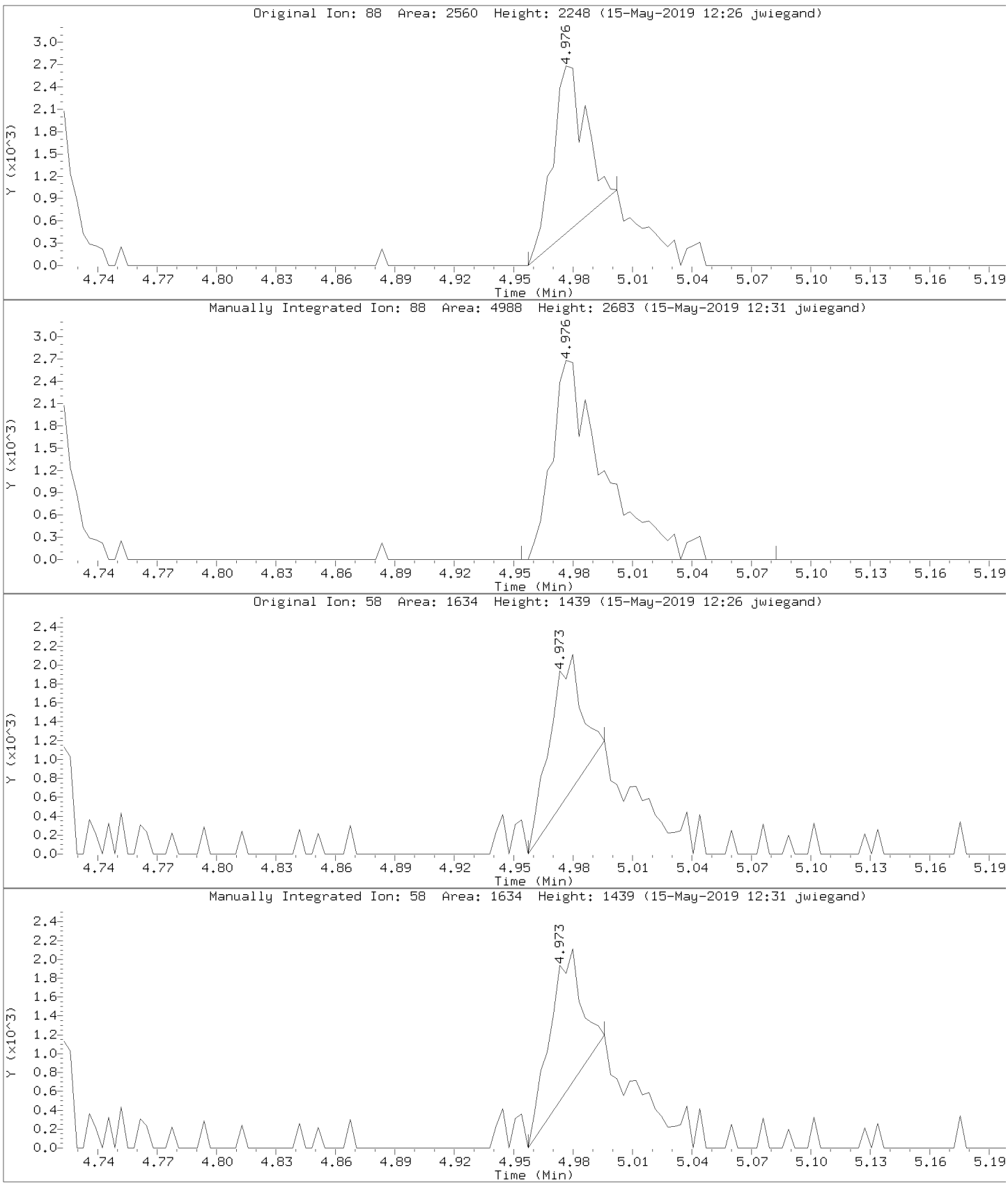






Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514014.d
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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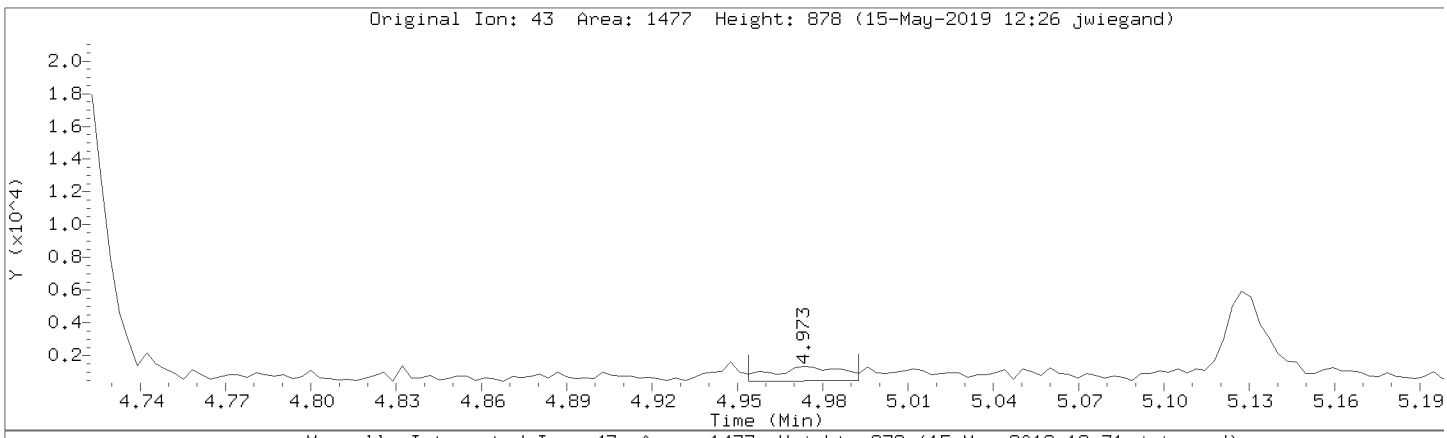
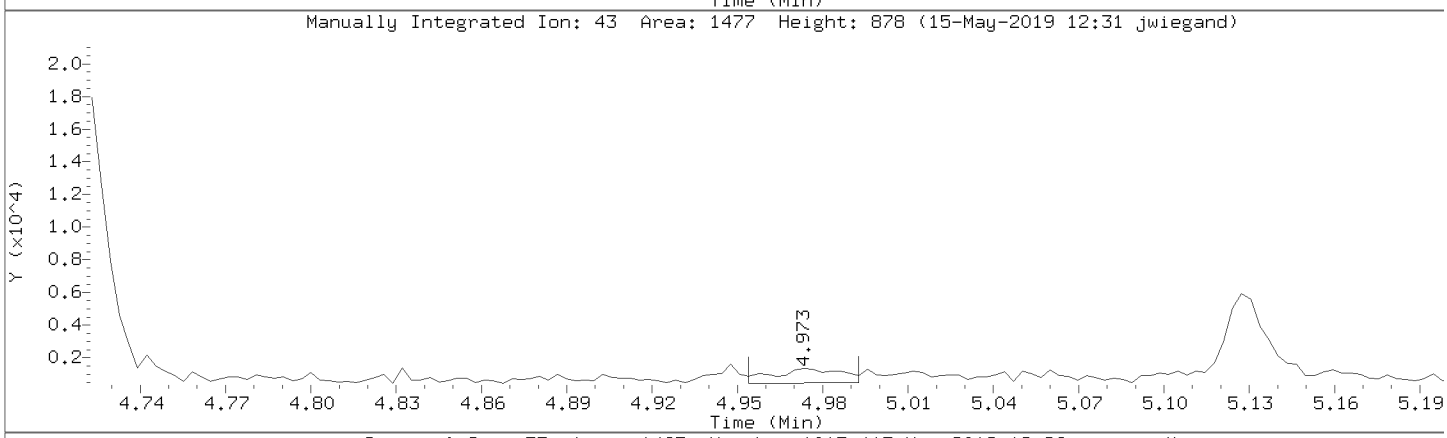
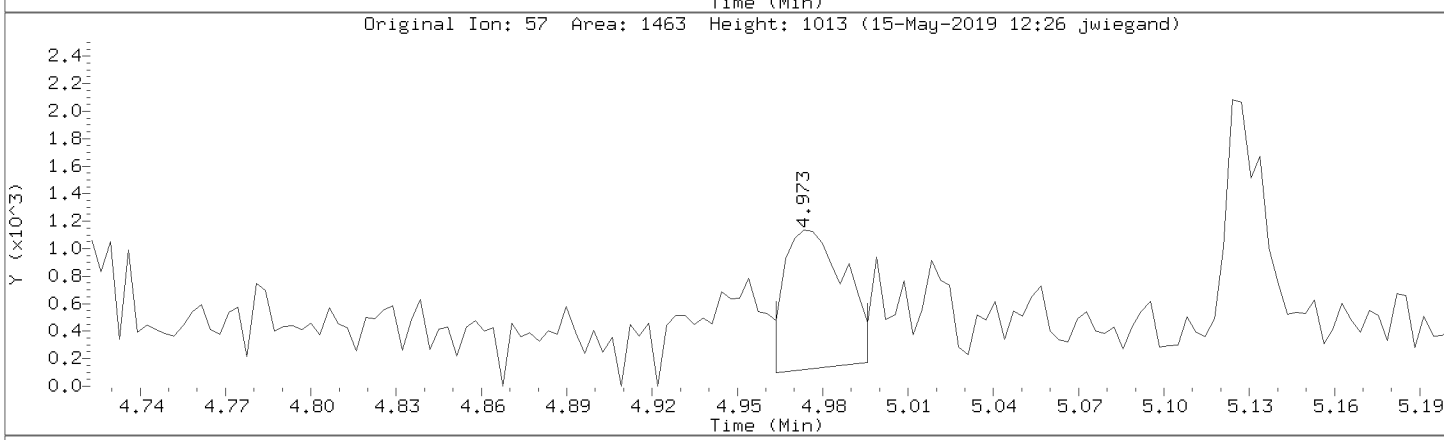
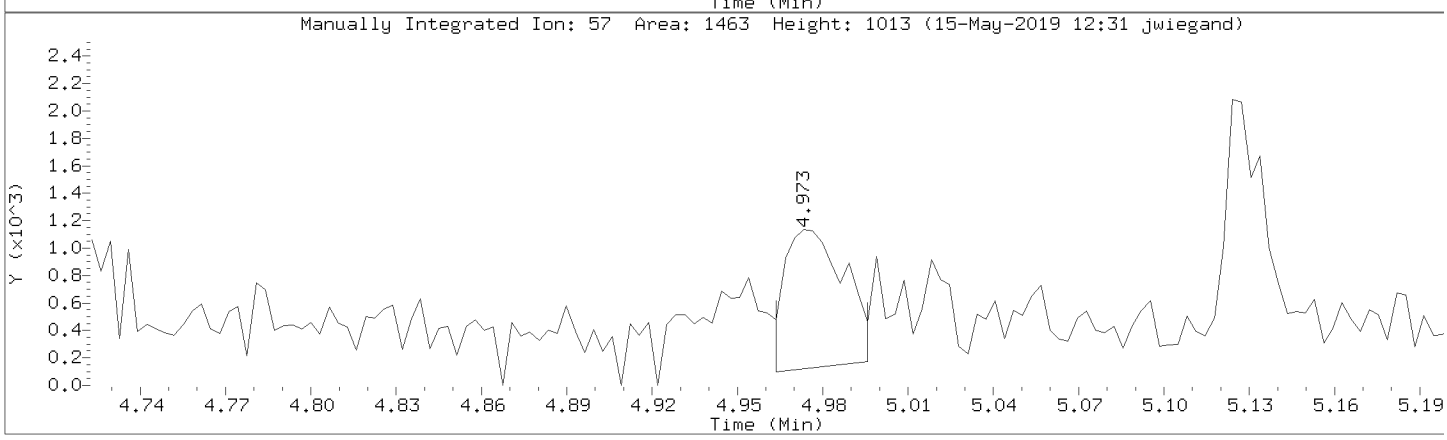
Injection Date: 14-MAY-2019 16:13
Instrument: 30mv6b.i
Lab Sample ID: CAL3









Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 14-MAY-2019 16:39
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal4, 87717:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 16:39 Cal File: 60514016.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	63677	20.0000	22.6(M)	LT
2 Chloromethane	50	1.334	1.328	(0.295)	80874	20.0000	22.1	
3 Vinyl chloride	62	1.376	1.376	(0.304)	75129	20.0000	21.9	
4 Bromomethane	94	1.571	1.569	(0.347)	32426	20.0000	19.2	
5 Chloroethane	64	1.639	1.639	(0.362)	45324	20.0000	22.4(M)	LT
6 Trichlorofluoromethane	101	1.722	1.723	(0.381)	86299	20.0000	22.7	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	51179	20.0000	20.9	
8 Ethanol	45	2.030	2.017	(0.295)	12644	200.000	(a)	
9 1,1-Dichloroethene	61	2.059	2.056	(0.455)	80667	20.0000	20.6	
10 1,1,2-Trichlorotrifluoroethane	151	2.082	2.079	(0.460)	41467	20.0000	20.9	
11 Carbon disulfide	76	2.085	2.088	(0.461)	149589	20.0000	21.1	
12 Iodomethane	142	2.168	2.165	(0.479)	56139	20.0000	20.4	
13 Acrolein	56	2.306	2.300	(0.510)	3131	20.0000	16.9(M)	LT
14 Allyl chloride	41	2.396	2.396	(0.530)	341935	100.000	107	
15 Methylene Chloride	49	2.486	2.486	(0.550)	98862	20.0000	25.0	
16 Acetone	43	2.534	2.531	(0.560)	27208	20.0000	25.6(M)	LT
17 trans-1,2-Dichloroethene	61	2.608	2.602	(0.577)	80092	20.0000	20.6	
18 Methyl acetate	74	2.621	2.621	(0.579)	17594	20.0000	20.0	
19 n-Hexane	86	2.662	2.663	(0.589)	37201	20.0000	32.9	
20 Methyl-tert-butyl ether	73	2.694	2.701	(0.596)	166410	20.0000	20.2	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		REVIEW C
	21 tert-Butyl Alcohol	59	2.784	2.778	(0.616)	64689	100.000	98.2		
	22 Acetonitrile	41	2.929	2.923	(0.647)	35634	100.000	110		
	23 Diisopropyl ether	45	3.031	3.032	(0.670)	187228	20.0000	20.8		
	24 Chloroprene	53	3.128	3.131	(0.691)	52351	20.0000	22.1		
	25 1,1-Dichloroethane	63	3.157	3.160	(0.698)	105459	20.0000	21.4		
	26 Acrylonitrile	53	3.221	3.240	(0.712)	21752	20.0000	20.5		
	27 Ethyl-tert-butyl ether	59	3.400	3.404	(0.752)	201622	20.0000	20.7		
	28 Vinyl acetate	43	3.423	3.430	(0.757)	138842	20.0000	20.6		
	29 cis-1,2-Dichloroethene	61	3.709	3.709	(0.820)	82161	20.0000	21.0		
	30 2,2-Dichloropropane	77	3.792	3.789	(0.838)	93699	20.0000	22.0		
	31 Cyclohexane	56	3.859	3.863	(0.853)	102465	20.0000	22.0		
	32 Bromochloromethane	130	3.869	3.866	(0.855)	42032	20.0000	20.4		
	33 Chloroform	83	3.933	3.930	(0.869)	100390	20.0000	21.4		
	34 Carbon tetrachloride	117	4.013	4.017	(0.887)	88171	20.0000	21.4		
	35 Ethyl acetate	43	4.042	4.033	(0.894)	5111	20.0000	17.9		
	36 Tetrahydrofuran	42	4.045	4.046	(0.894)	23750	20.0000	21.6		
$	37 Dibromofluoromethane (S)	111	4.058	4.059	(0.897)	112499	30.0000	30.8		
	38 1,1,1-Trichloroethane	97	4.065	4.067	(0.899)	98370	20.0000	22.0		
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	33071	20.0000	19.6		
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	78572	20.0000	21.1		
	41 Benzene	78	4.296	4.296	(0.950)	221603	20.0000	20.8		
	42 Propionitrile	54	4.325	4.322	(0.956)	11237	20.0000	22.4		
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	34135	20.0000	20.3		
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	157066	20.0000	20.2		
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	108137	30.0000	30.0		
	46 Isobutanol	43	4.440	4.437	(0.982)	19813	100.000	86.0	(M)	LT
	47 1,2-Dichloroethane	62	4.414	4.412	(0.976)	82280	20.0000	21.2		
*	48 Fluorobenzene (IS)	96	4.524	4.524	(1.000)	446458	30.0000			
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	99796	20.0000	20.5		
	50 Trichloroethene	95	4.607	4.607	(0.783)	63275	20.0000	21.2		
	51 Dibromomethane	174	4.809	4.810	(1.063)	45416	20.0000	20.5		
	52 1,2-Dichloropropane	63	4.851	4.851	(1.072)	60838	20.0000	21.0		
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	75780	20.0000	21.0		
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	40689	20.0000	19.9		
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.973	(1.100)	9452	200.000	194	(M)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.133)	14402	20.0000	18.7		
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	94953	20.0000	20.6		
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	419384	30.0000	30.1		
	59 Toluene	91	5.255	5.256	(0.893)	259722	20.0000	21.1		
	60 2-Nitropropane	43	5.361	5.361	(1.185)	117618	100.000	102		
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	66820	20.0000	20.0		
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	76378	20.0000	20.6		
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	88943	20.0000	20.0		
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	54039	20.0000	20.0		
	65 1,1,2-Trichloroethane	97	5.499	5.503	(0.934)	54219	20.0000	20.3		
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	69912	20.0000	20.1		
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	89990	20.0000	20.5		
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	58593	20.0000	20.1		
	69 2-Hexanone	43	5.756	5.756	(0.978)	51743	20.0000	19.8		
	70 Ethylbenzene	106	5.894	5.894	(1.001)	105715	20.0000	21.0		
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	378032	30.0000			
	72 Chlorobenzene	112	5.894	5.894	(1.001)	193948	20.0000	21.0		
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	74376	20.0000	20.3		
	74 m&p-Xylene	106	5.952	5.955	(1.011)	266757	40.0000	42.5		

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	129878	20.0000	20.6	
	76 Styrene	104	6.160	6.160	(1.046)	224816	20.0000	20.7	
	77 Bromoform	173	6.186	6.186	(0.900)	54446	20.0000	19.6	
	78 Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	348223	20.0000	21.8	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	166863	30.0000	30.2	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	396802	20.0000	21.7	
	81 Bromobenzene	77	6.446	6.446	(0.938)	136990	20.0000	21.0	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	79016	20.0000	20.4	
	83 1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	305359	20.0000	21.4	
	84 2-Chlorotoluene	126	6.516	6.520	(0.948)	91809	20.0000	21.4	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	28184	20.0000	20.4	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	23233	20.0000	19.5	
	87 Cyclohexanone	55	6.568	6.568	(0.956)	30454	100.000	98.4	
	88 4-Chlorotoluene	126	6.587	6.590	(0.958)	96198	20.0000	21.1	
	89 tert-Butylbenzene	119	6.654	6.655	(0.968)	279843	20.0000	21.4	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	311647	20.0000	21.3	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	398707	20.0000	21.6	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	363608	20.0000	21.5	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	196341	20.0000	21.1	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	226148	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	201104	20.0000	21.3	
	96 n-Butylbenzene	91	6.966	6.966	(1.014)	289083	20.0000	21.0	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	185710	20.0000	21.0	
$	161 1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	85892	30.0000	29.9	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	24702	20.0000	19.5	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	138763	20.0000	21.5	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	70210	20.0000	21.4	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	115538	20.0000	22.1	
	102 Naphthalene	128	7.838	7.839	(1.141)	263658	20.0000	23.9	
	103 1,2,3-Trichlorobenzene	180	7.922	7.919	(1.153)	78569	20.0000	23.1	
	104 2-Methylnaphthalene	142	8.288	8.287	(1.206)	25756	20.0000	24.2	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514016.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	446458	1.27
71 Chlorobenzene-d5	378709	189355	757418	378032	-0.18
94 1,4-Dichlorobenze	227359	113680	454718	226148	-0.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	22.6	
74-87-3	Chloromethane	22.1	
75-01-4	Vinyl chloride	21.9	
74-83-9	Bromomethane	19.2	
75-00-3	Chloroethane	22.4	
75-69-4	Trichlorofluoromethane	22.7	
60-29-7	Diethyl ether (Ethyl ether)	20.9	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	20.6	
76-13-1	1,1,2-Trichlorotrifluoroetha	20.9	
75-15-0	Carbon disulfide	21.1	
74-88-4	Iodomethane	20.4	
107-02-8	Acrolein	16.9	
107-05-1	Allyl chloride	107	
75-09-2	Methylene Chloride	25.0	
67-64-1	Acetone	25.6	
156-60-5	trans-1,2-Dichloroethene	20.6	
79-20-9	Methyl acetate	20.0	
110-54-3	n-Hexane	32.9	
1634-04-4	Methyl-tert-butyl ether	20.2	
75-65-0	tert-Butyl Alcohol	98.2	
75-05-8	Acetonitrile	110	
108-20-3	Diisopropyl ether	20.8	
126-99-8	Chloroprene	22.1	
75-34-3	1,1-Dichloroethane	21.4	
107-13-1	Acrylonitrile	20.5	
637-92-3	Ethyl-tert-butyl ether	20.7	
108-05-4	Vinyl acetate	20.6	
156-59-2	cis-1,2-Dichloroethene	21.0	
594-20-7	2,2-Dichloropropane	22.0	
110-82-7	Cyclohexane	22.0	
74-97-5	Bromochloromethane	20.4	
67-66-3	Chloroform	21.4	
56-23-5	Carbon tetrachloride	21.4	
141-78-6	Ethyl acetate	17.9	
109-99-9	Tetrahydrofuran	21.6	
71-55-6	1,1,1-Trichloroethane	22.0	
78-93-3	2-Butanone (MEK)	19.6	
563-58-6	1,1-Dichloropropene	21.1	
71-43-2	Benzene	20.8	
107-12-0	Propionitrile	22.4	
126-98-7	Methacrylonitrile	20.3	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	20.2	
78-83-1	Isobutanol	86.0	
107-06-2	1,2-Dichloroethane	21.2	
108-87-2	Methylcyclohexane	20.5	
79-01-6	Trichloroethene	21.2	
74-95-3	Dibromomethane	20.5	
78-87-5	1,2-Dichloropropane	21.0	
75-27-4	Bromodichloromethane	21.0	
80-62-6	Methyl methacrylate	19.9	
123-91-1	1,4-Dioxane (p-Dioxane)	194	
110-75-8	2-Chloroethylvinyl ether	18.7	
10061-01-5	cis-1,3-Dichloropropene	20.6	
108-88-3	Toluene	21.1	
79-46-9	2-Nitropropane	102	
108-10-1	4-Methyl-2-pentanone (MIBK)	20.0	
127-18-4	Tetrachloroethene	20.6	
10061-02-6	trans-1,3-Dichloropropene	20.0	
97-63-2	Ethyl methacrylate	20.0	
79-00-5	1,1,2-Trichloroethane	20.3	
124-48-1	Dibromochloromethane	20.1	
142-28-9	1,3-Dichloropropane	20.5	
106-93-4	1,2-Dibromoethane (EDB)	20.1	
591-78-6	2-Hexanone	19.8	
100-41-4	Ethylbenzene	21.0	
108-90-7	Chlorobenzene	21.0	
630-20-6	1,1,1,2-Tetrachloroethane	20.3	
7816-60-0	m&p-Xylene	42.5	
95-47-6	o-Xylene	20.6	
100-42-5	Styrene	20.7	
75-25-2	Bromoform	19.6	
98-82-8	Isopropylbenzene (Cumene)	21.8	
103-65-1	n-Propylbenzene	21.7	
108-86-1	Bromobenzene	21.0	
79-34-5	1,1,2,2-Tetrachloroethane	20.4	
108-67-8	1,3,5-Trimethylbenzene	21.4	
95-49-8	2-Chlorotoluene	21.4	
96-18-4	1,2,3-Trichloropropane	20.4	
110-57-6	trans-1,4-Dichloro-2-butene	19.5	
108-94-1	Cyclohexanone	98.4	
106-43-4	4-Chlorotoluene	21.1	
98-06-6	tert-Butylbenzene	21.4	
95-63-6	1,2,4-Trimethylbenzene	21.3	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Report Date: 07-Jun-2019 10:50

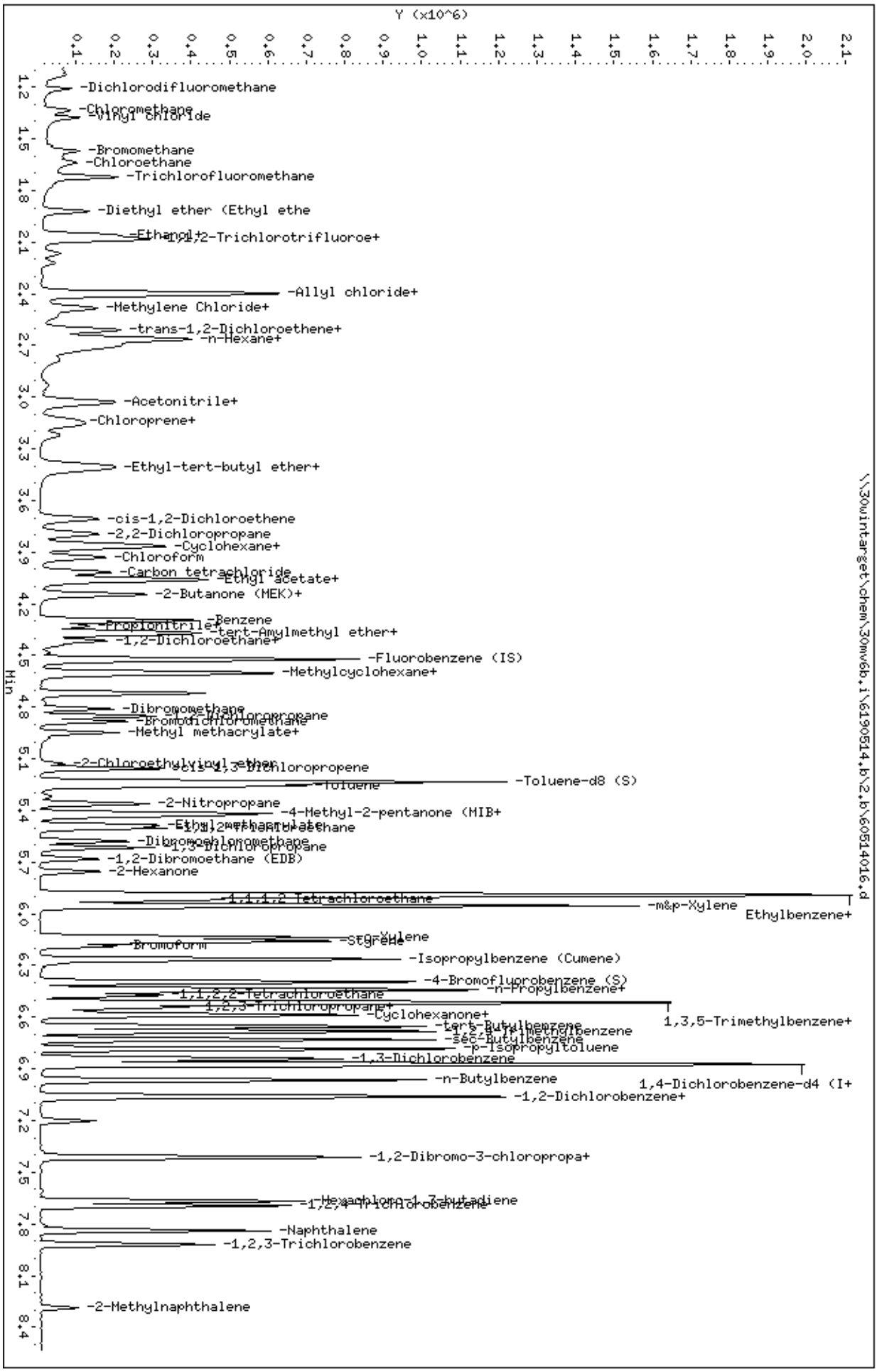
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

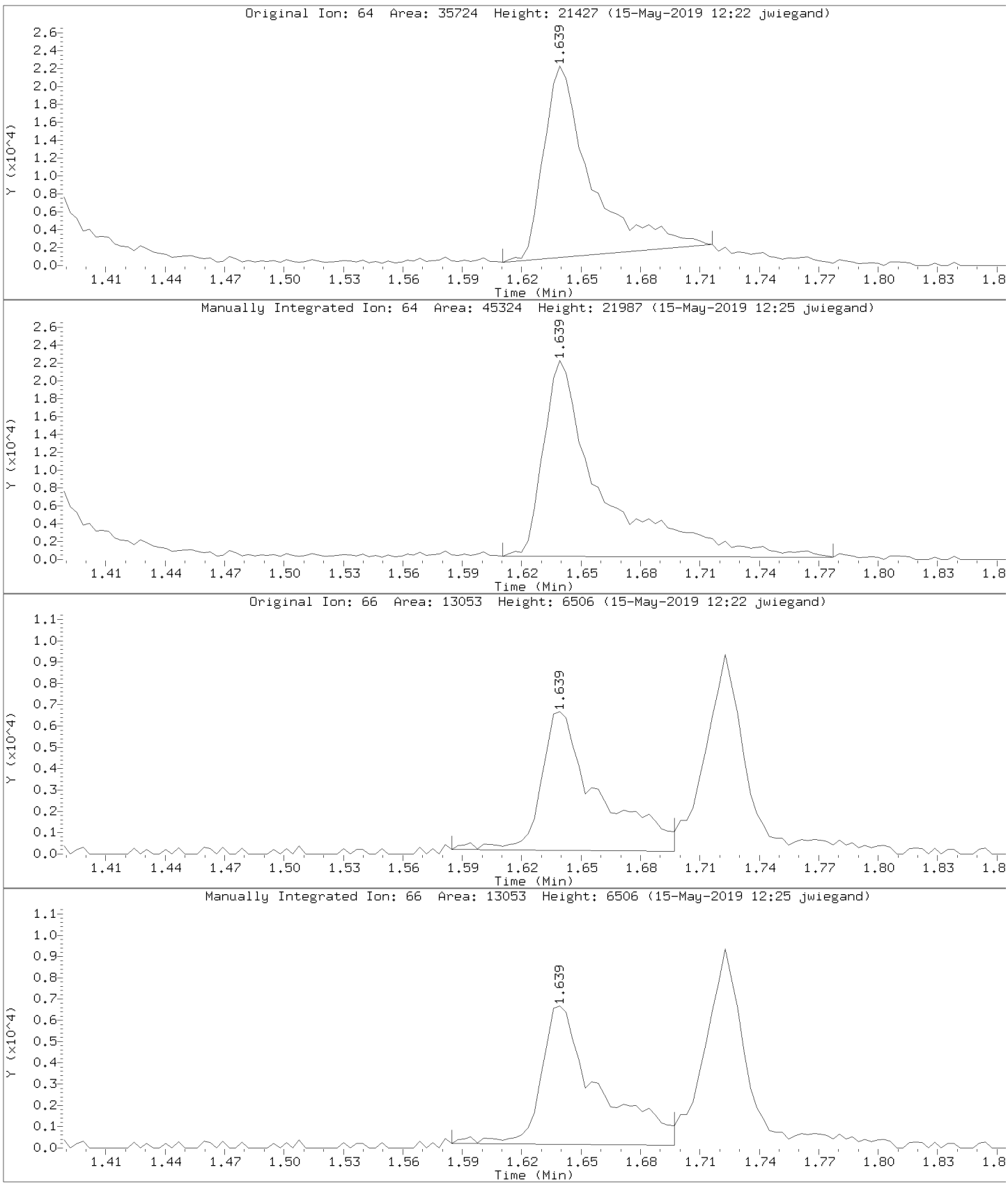
Client SDG: 30MV6B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.6	
99-87-6	p-Isopropyltoluene	21.5	
541-73-1	1,3-Dichlorobenzene	21.1	
106-46-7	1,4-Dichlorobenzene	21.3	
104-51-8	n-Butylbenzene	21.0	
95-50-1	1,2-Dichlorobenzene	21.0	
96-12-8	1,2-Dibromo-3-chloropropane	19.5	
108-70-3	1,3,5-Trichlorobenzene	21.5	
87-68-3	Hexachloro-1,3-butadiene	21.4	
120-82-1	1,2,4-Trichlorobenzene	22.1	
91-20-3	Naphthalene	23.9	
87-61-6	1,2,3-Trichlorobenzene	23.1	
91-57-6	2-Methylnaphthalene	24.2	
1868-53-7	Dibromofluoromethane (S)	30.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.1	
460-00-4	4-Bromofluorobenzene (S)	30.2	
----------	1,2-Dichlorobenzene-d4 (S)	29.9	


Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Date : 14-MAY-2019 16:39
Client ID: CAL4
Sample Info: CAL4, 87717:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514016.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropene
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-trans-1,3-Dichloropropene
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone+
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514016.d
Injection Date: 14-MAY-2019 16:39
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



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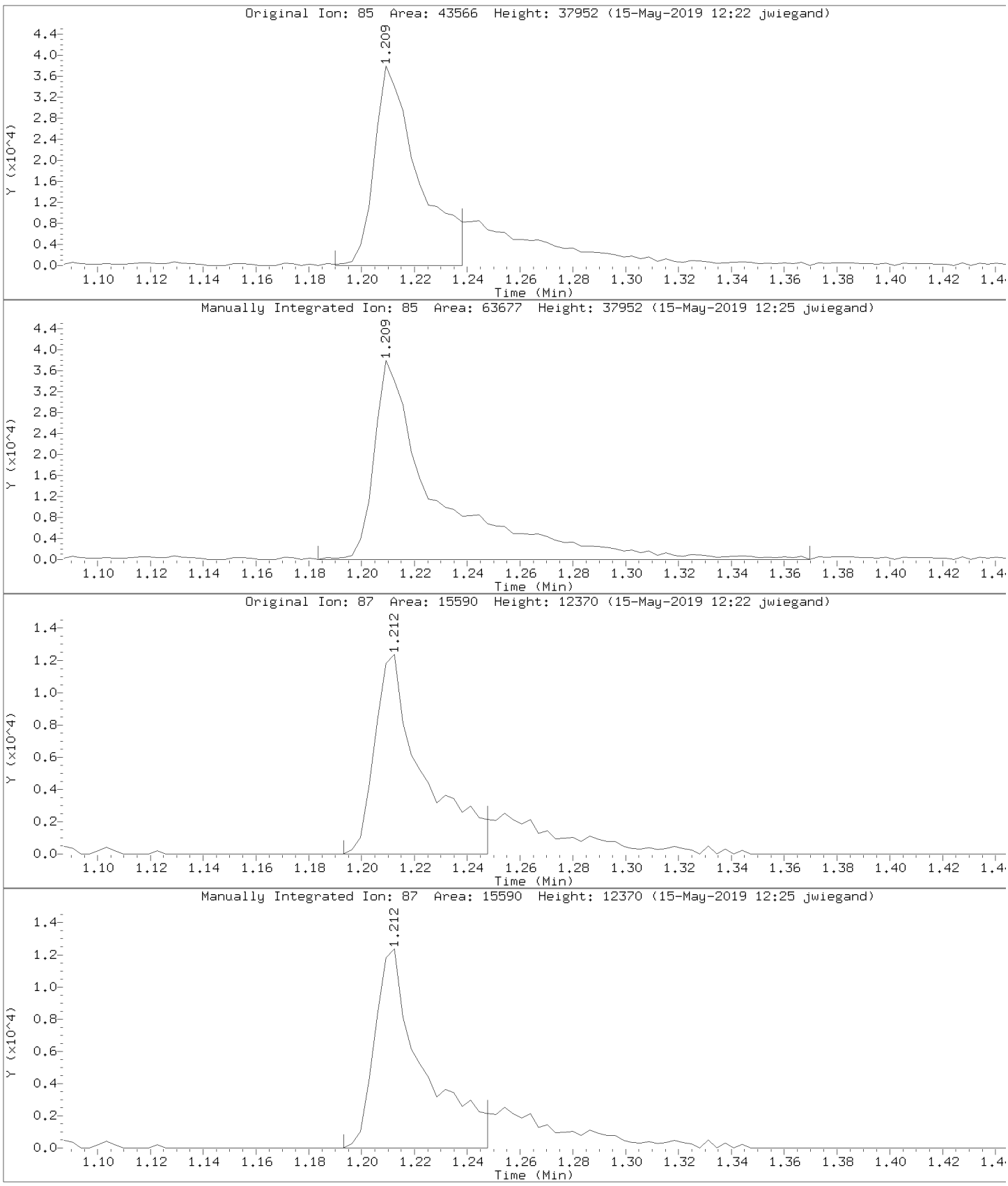
Injection Date: 14-MAY-2019 16:39
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-69-4



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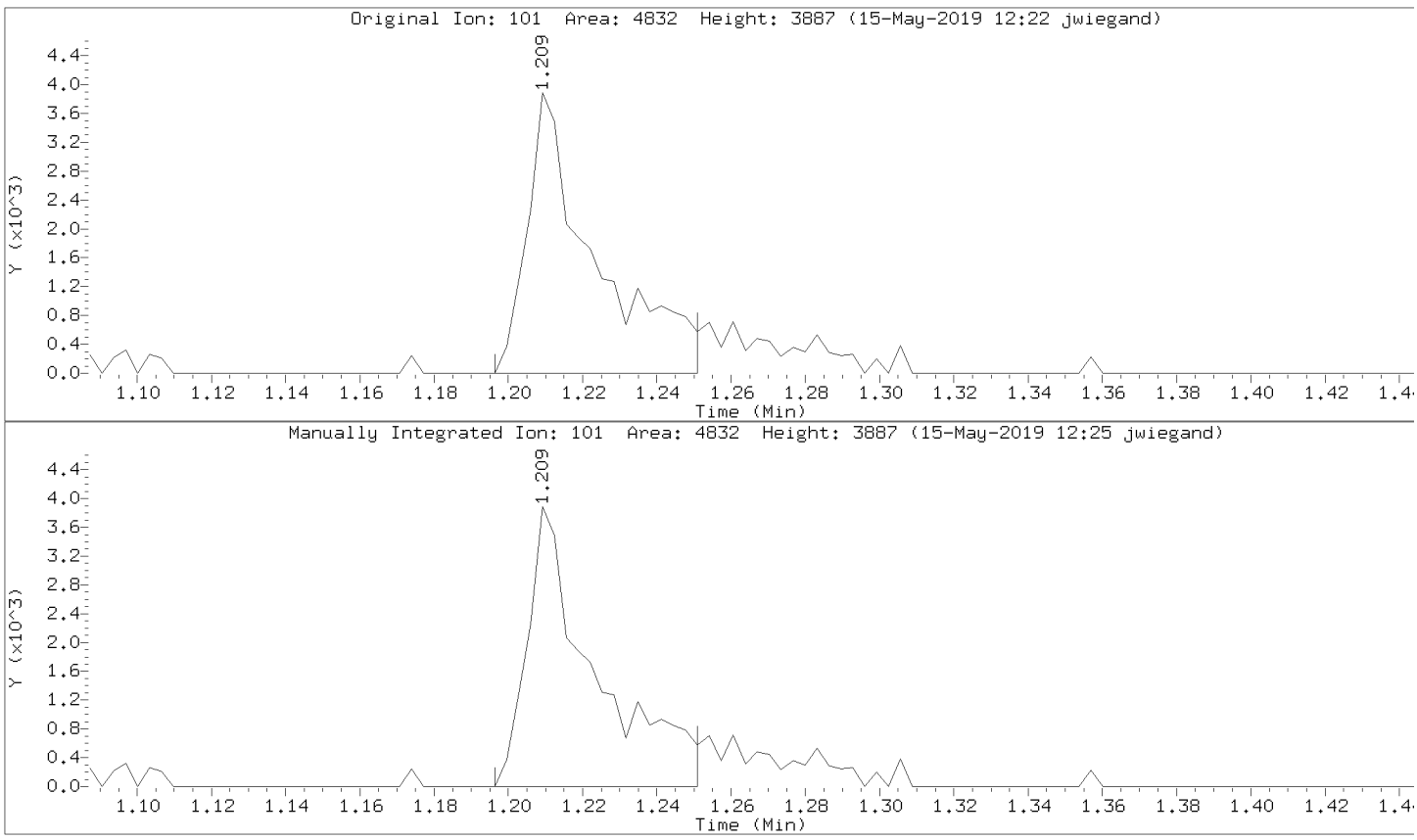
Lab Sample ID: CAL4



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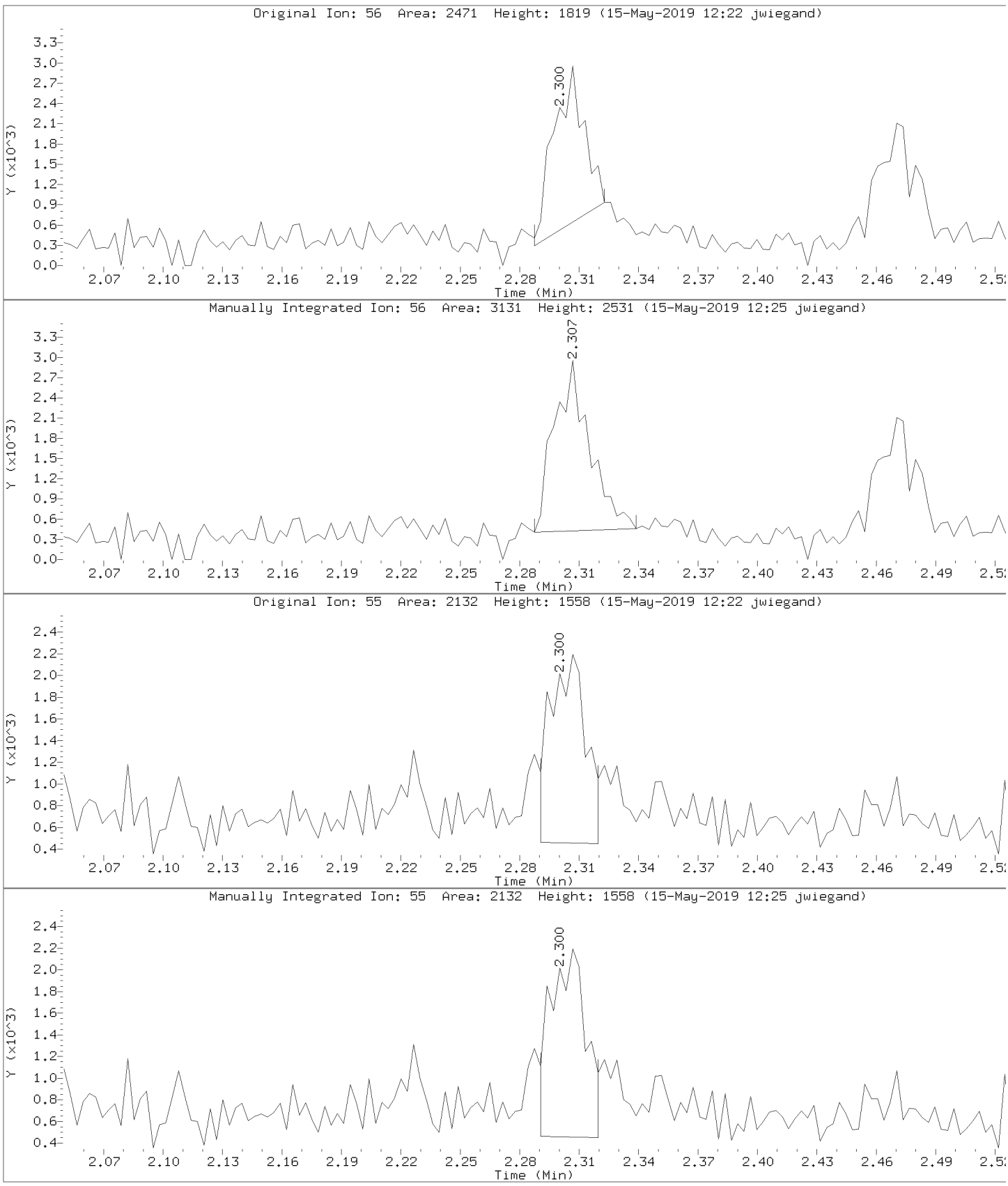
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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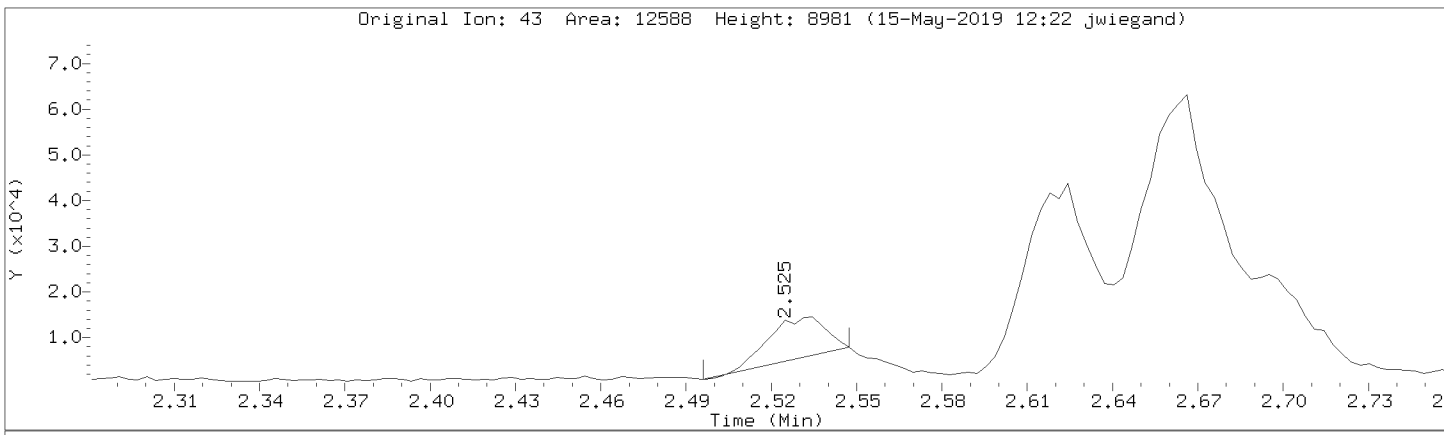
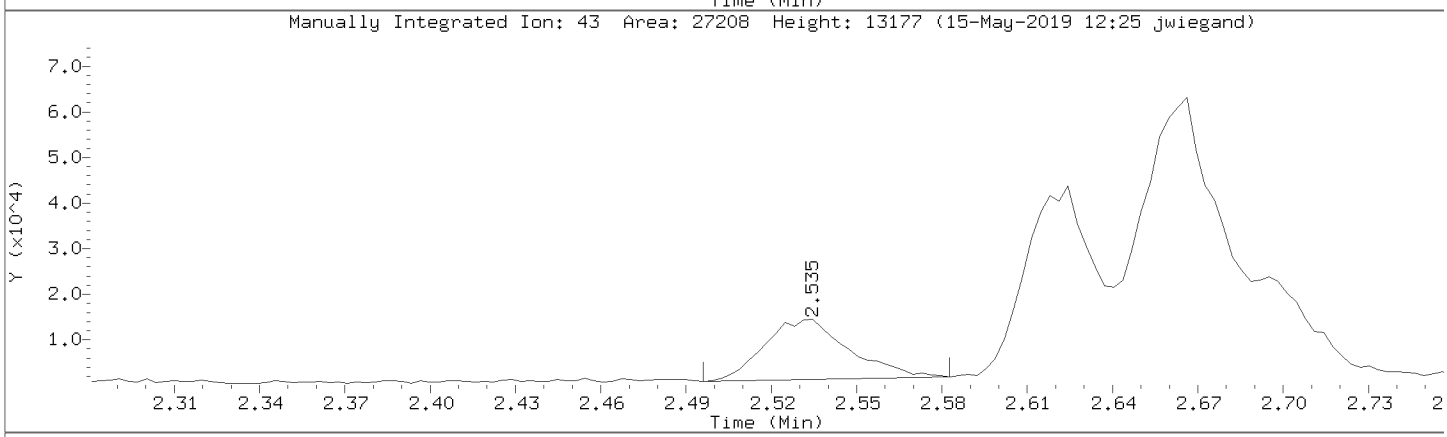
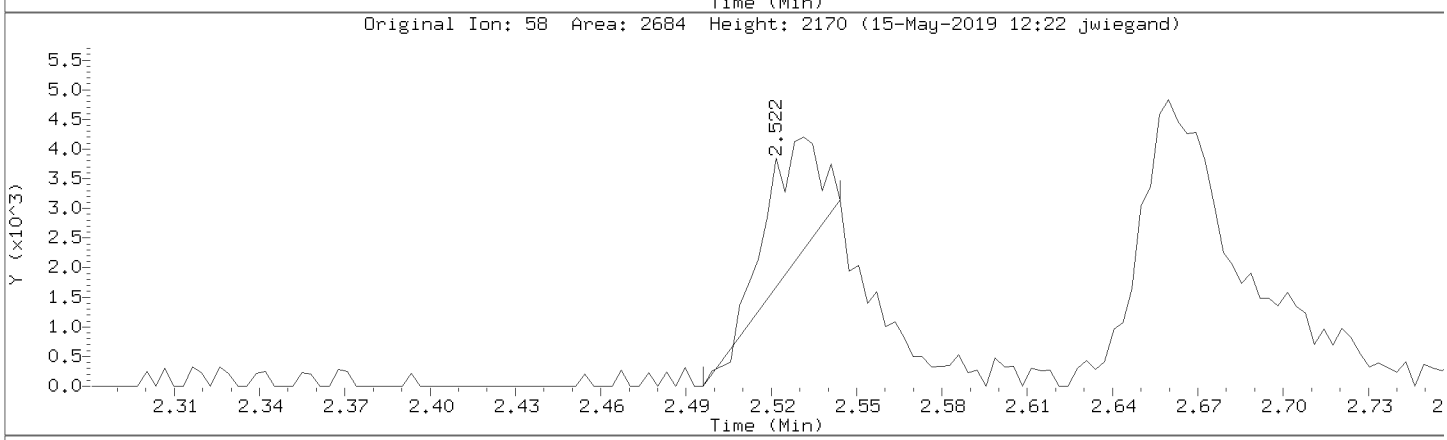
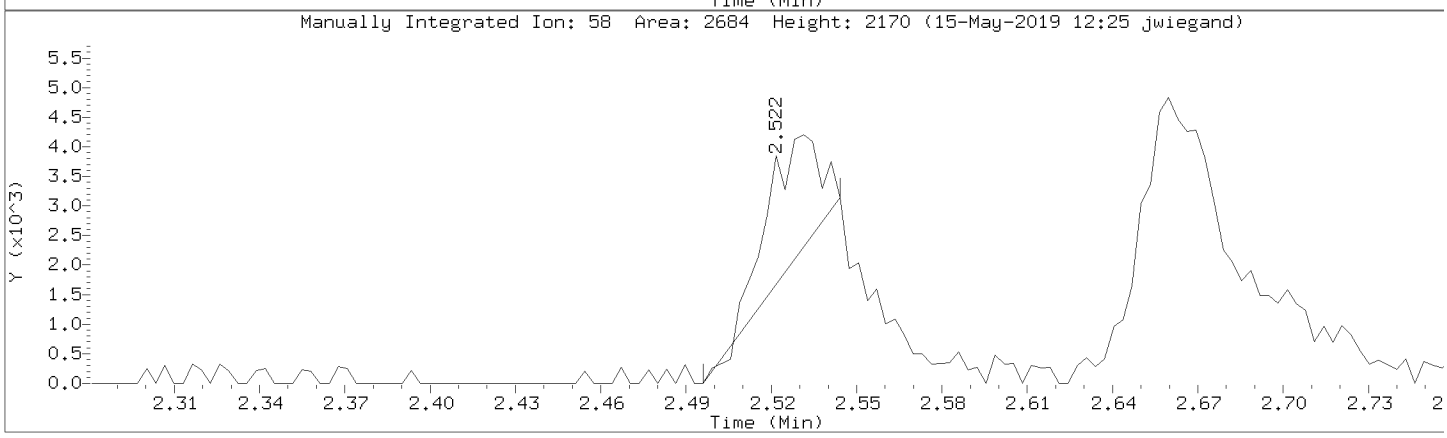
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: Acetone Review Code: LT
CAS Number: 67-64-1









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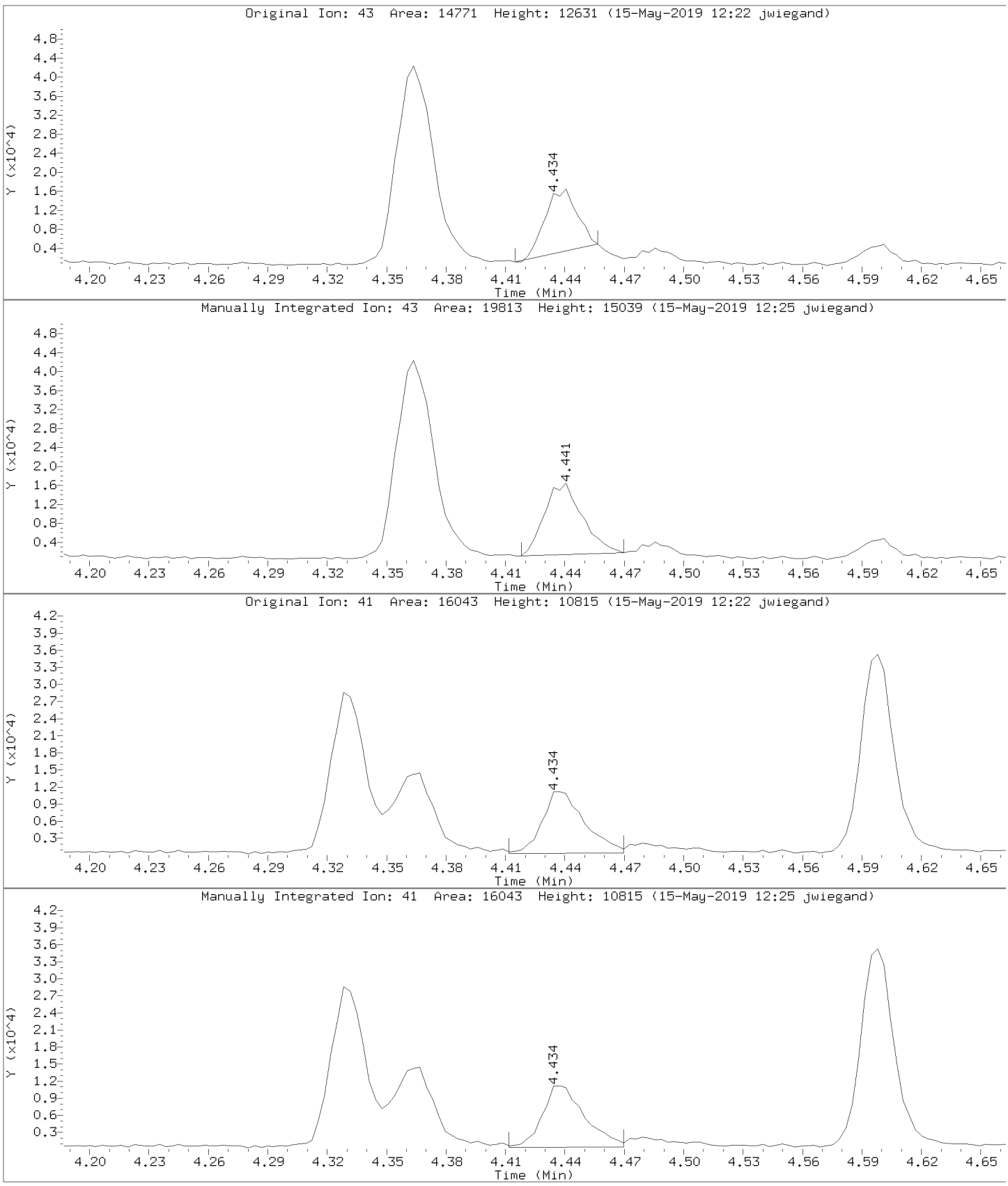
Injection Date: 14-MAY-2019 16:39
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: Isobutanol Review Code: LT
CAS Number: 78-83-1



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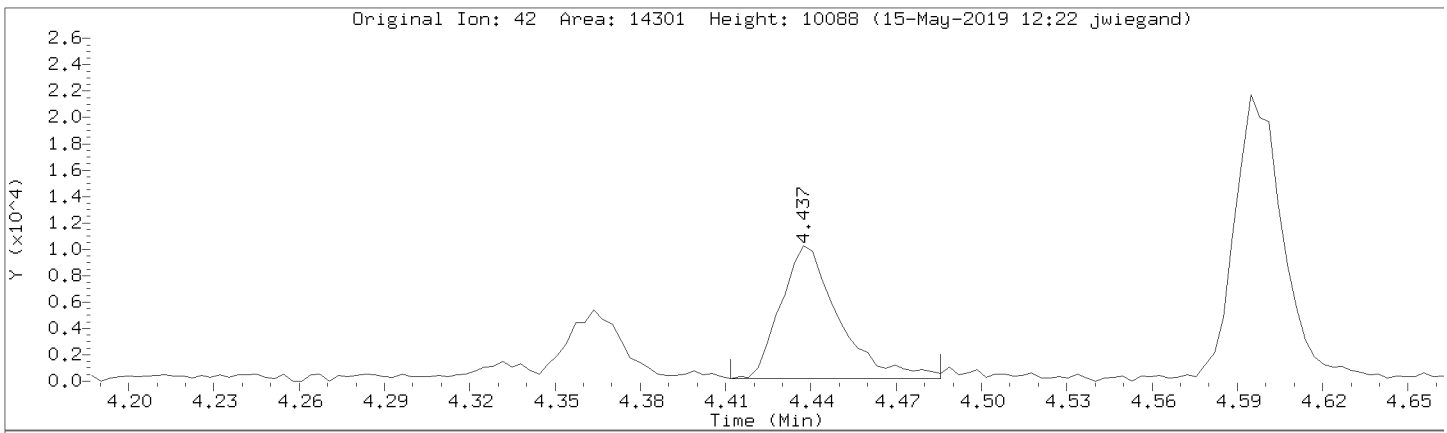
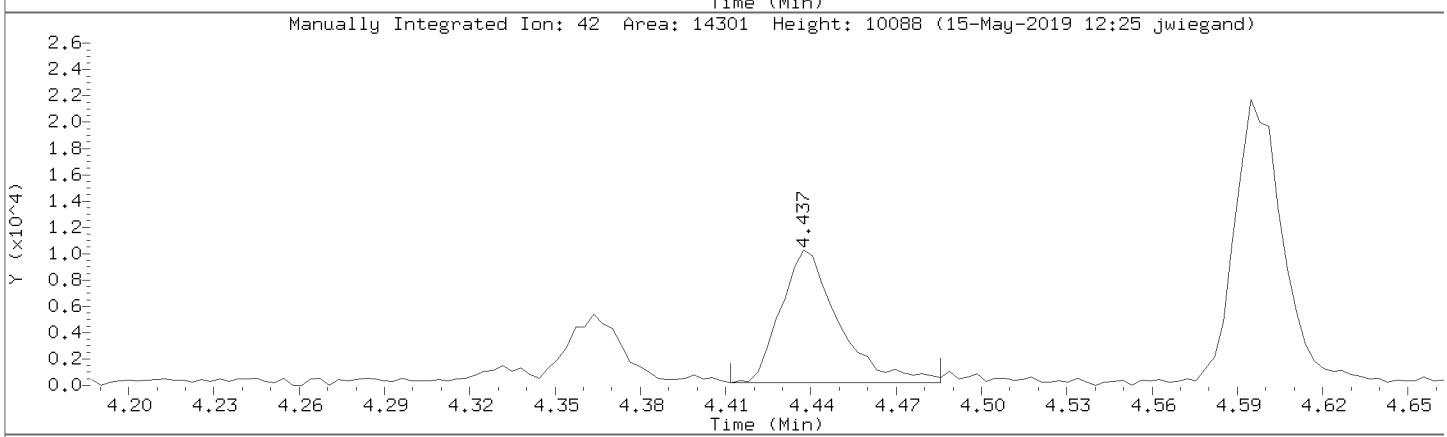
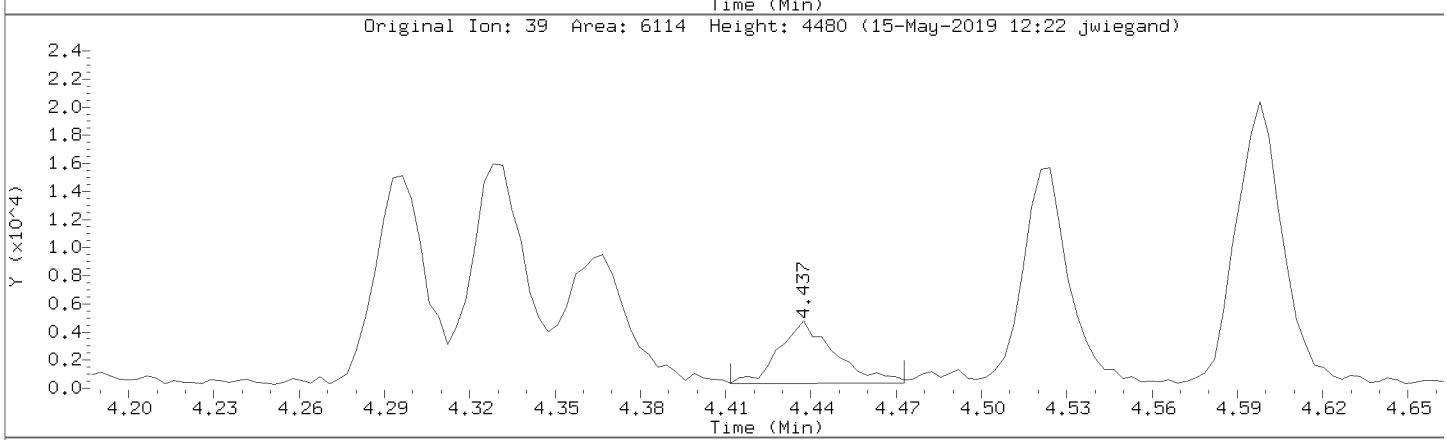
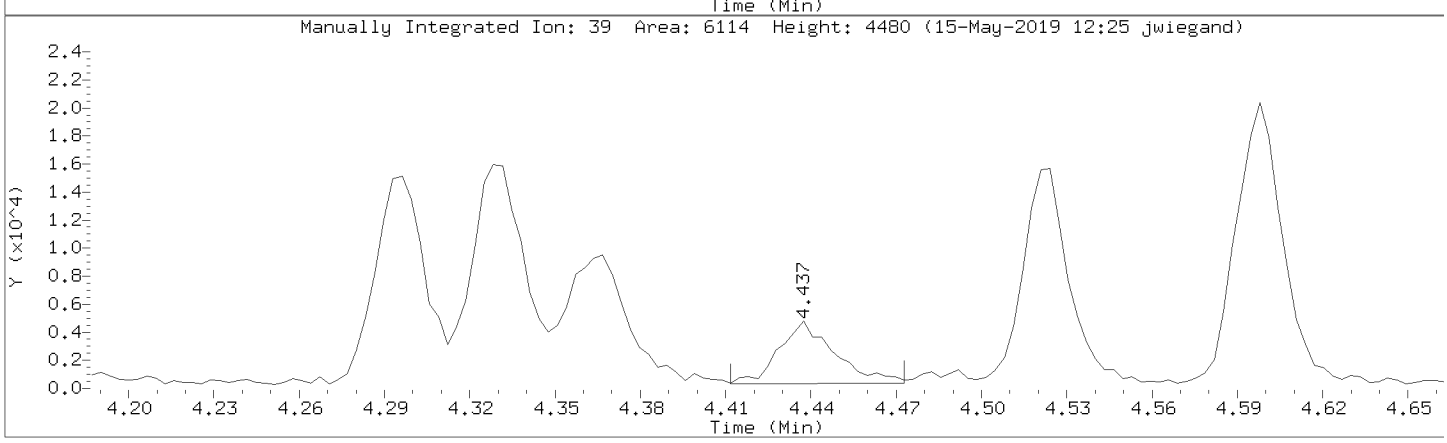
Injection Date: 14-MAY-2019 16:39
Instrument: 30mv6b.i
Lab Sample ID: CAL4









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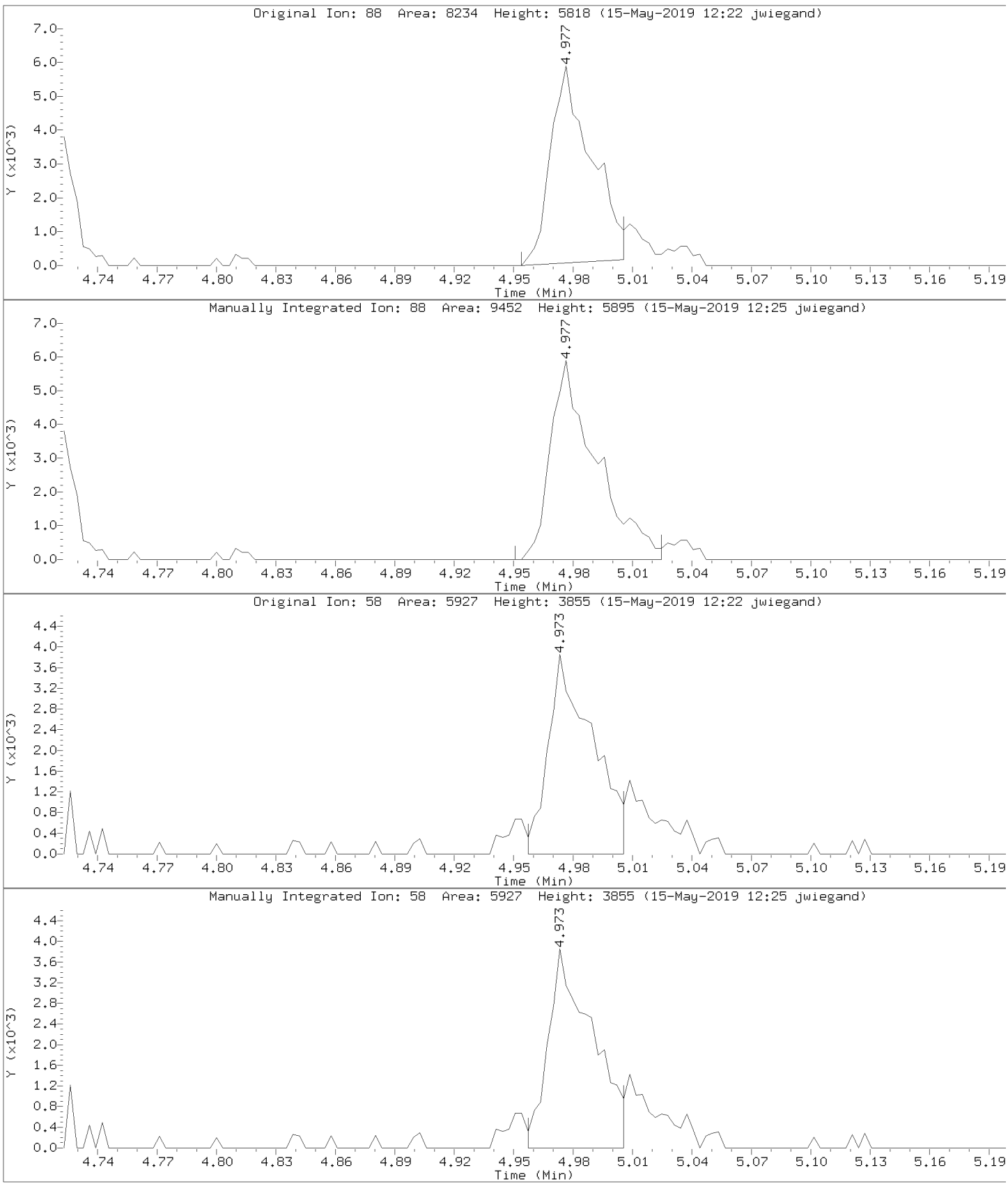
Injection Date: 14-MAY-2019 16:39
Instrument: 30mv6b.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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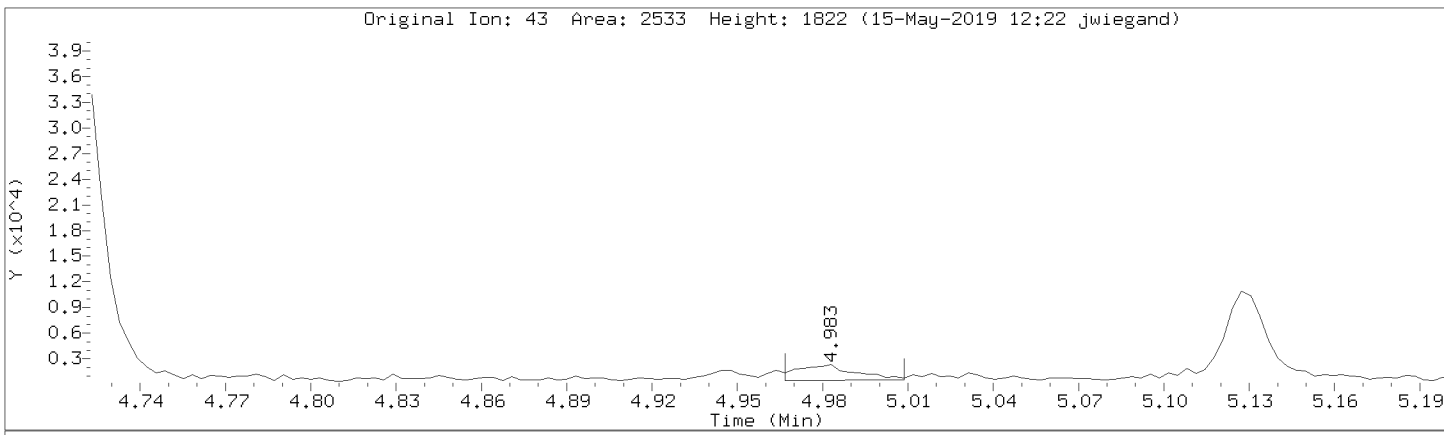
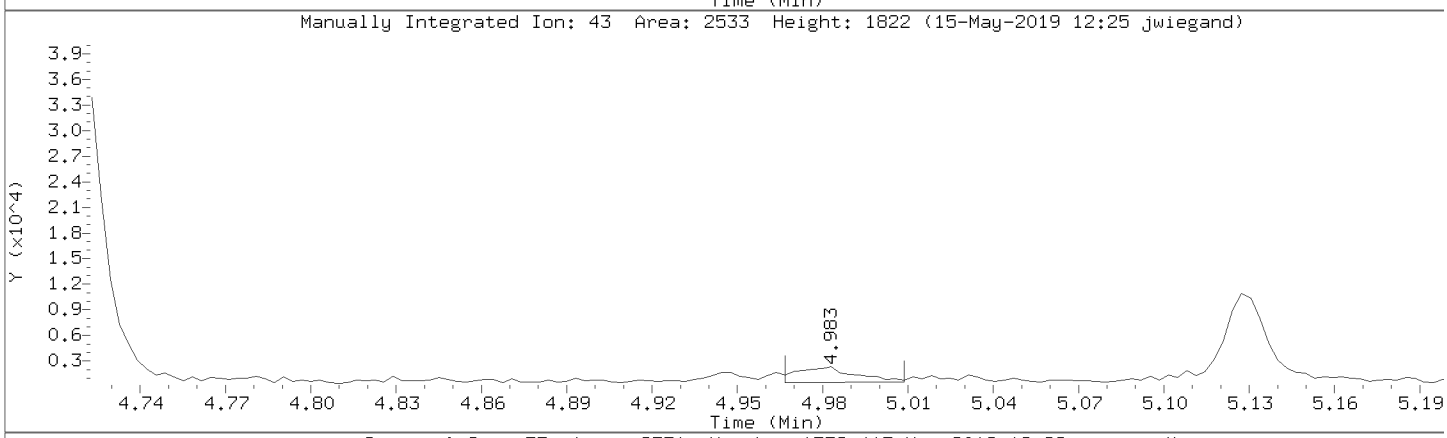
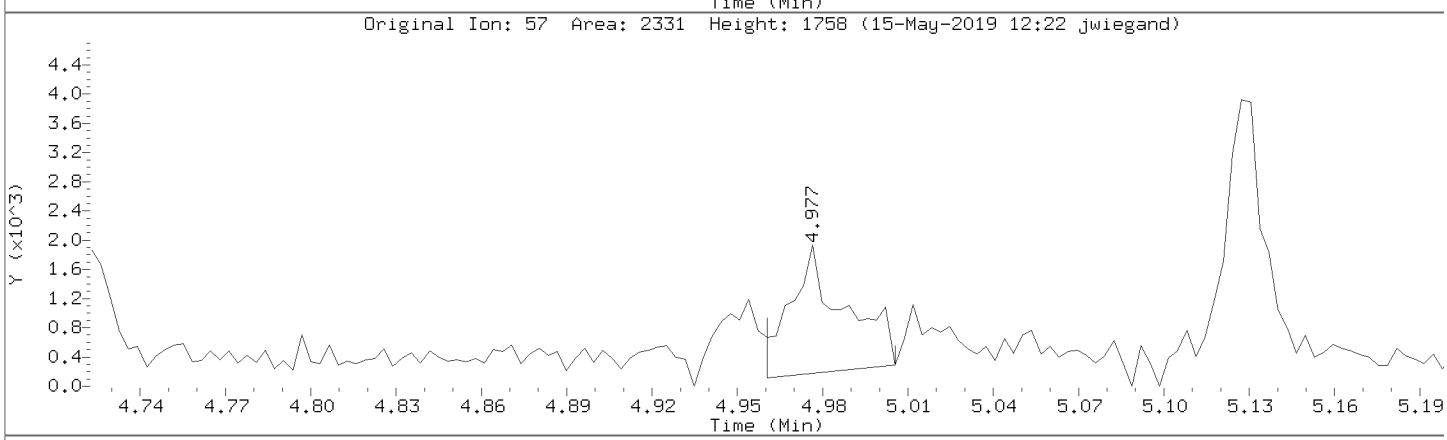
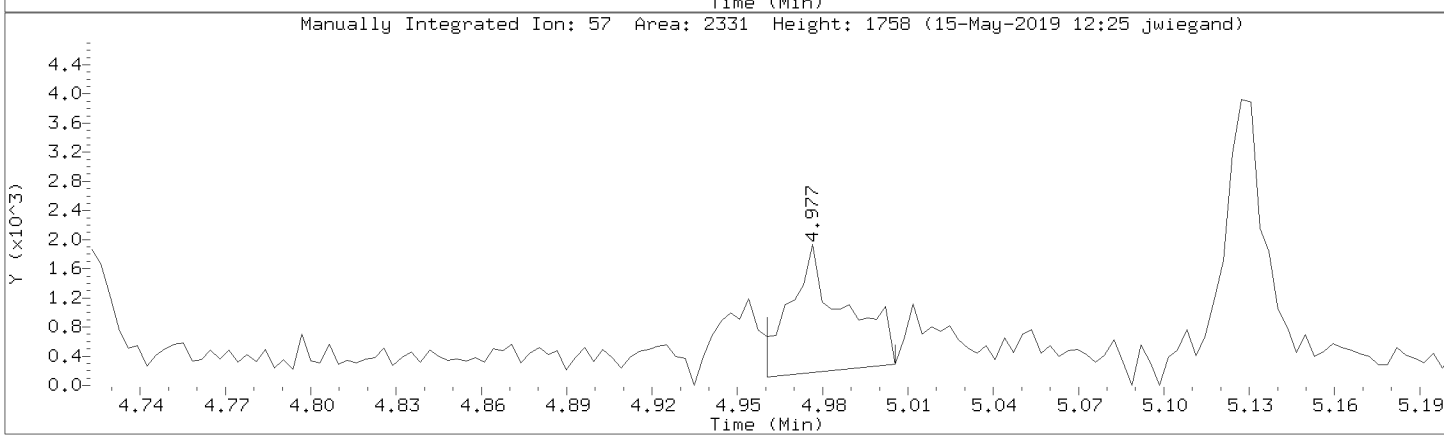
Instrument: 30mv6b.i
Lab Sample ID: CAL4









Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 14-MAY-2019 17:05
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal5, 87718:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 17:05 Cal File: 60514018.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.209	1.212	(0.267)	150887	50.0000	54.0(QM)	LT
2	Chloromethane	50	1.334	1.328	(0.295)	195518	50.0000	53.6(Q)	
3	Vinyl chloride	62	1.376	1.376	(0.304)	189436	50.0000	55.2(Q)	
4	Bromomethane	94	1.568	1.569	(0.347)	89883	50.0000	51.4(Q)	
5	Chloroethane	64	1.636	1.639	(0.362)	99881	50.0000	50.2(Q)	
6	Trichlorofluoromethane	101	1.719	1.723	(0.380)	213712	50.0000	56.9(Q)	
7	Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	128137	50.0000	51.7(Q)	
8	Ethanol	45	2.030	2.017	(0.295)	30569	500.000	(aQ)	
9	1,1-Dichloroethene	61	2.056	2.056	(0.455)	203711	50.0000	51.1(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.082	2.079	(0.460)	109307	50.0000	54.5(QM)	LT
11	Carbon disulfide	76	2.085	2.088	(0.461)	386114	50.0000	54.0(Q)	
12	Iodomethane	142	2.165	2.165	(0.479)	148279	50.0000	52.9(Q)	
13	Acrolein	56	2.303	2.300	(0.509)	10833	50.0000	55.2(Q)	
14	Allyl chloride	41	2.399	2.396	(0.530)	886386	250.000	276(Q)	
15	Methylene Chloride	49	2.486	2.486	(0.550)	219143	50.0000	57.7(Q)	
16	Acetone	43	2.531	2.531	(0.560)	58344	50.0000	57.9(Q)	
17	trans-1,2-Dichloroethene	61	2.608	2.602	(0.577)	213443	50.0000	54.2(Q)	
18	Methyl acetate	74	2.621	2.621	(0.579)	45731	50.0000	50.9(Q)	
19	n-Hexane	86	2.662	2.663	(0.589)	59573	50.0000	61.4(Q)	
20	Methyl-tert-butyl ether	73	2.695	2.701	(0.596)	433313	50.0000	51.6(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.791	2.778	(0.617)	172915	250.000	255(Q)	
	22 Acetonitrile	41	2.929	2.923	(0.647)	86333	250.000	268(Q)	
	23 Diisopropyl ether	45	3.028	3.032	(0.669)	472876	50.0000	51.7(Q)	
	24 Chloroprene	53	3.131	3.131	(0.692)	129551	50.0000	54.9(Q)	
	25 1,1-Dichloroethane	63	3.160	3.160	(0.699)	259155	50.0000	52.2(Q)	
	26 Acrylonitrile	53	3.218	3.240	(0.711)	46930	50.0000	43.5(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.400	3.404	(0.752)	516511	50.0000	52.2(Q)	
	28 Vinyl acetate	43	3.420	3.430	(0.756)	353878	50.0000	51.7(Q)	
	29 cis-1,2-Dichloroethene	61	3.705	3.709	(0.819)	213101	50.0000	53.8(Q)	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.838)	233026	50.0000	54.7(Q)	
	31 Cyclohexane	56	3.859	3.863	(0.853)	249946	50.0000	53.7(Q)	
	32 Bromochloromethane	130	3.869	3.866	(0.855)	110428	50.0000	52.5(Q)	
	33 Chloroform	83	3.930	3.930	(0.869)	252435	50.0000	53.6(Q)	
	34 Carbon tetrachloride	117	4.017	4.017	(0.888)	223090	50.0000	53.8(Q)	
	35 Ethyl acetate	43	4.039	4.033	(0.893)	16919	50.0000	56.6(Q)	
	36 Tetrahydrofuran	42	4.042	4.046	(0.894)	57430	50.0000	52.2(Q)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.896)	112737	30.0000	30.4(Q)	
	38 1,1,1-Trichloroethane	97	4.065	4.067	(0.899)	244056	50.0000	54.9(Q)	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.916)	83102	50.0000	48.0(Q)	
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	205176	50.0000	54.6(Q)	
	41 Benzene	78	4.296	4.296	(0.950)	583823	50.0000	54.0(Q)	
	42 Propionitrile	54	4.321	4.322	(0.955)	25375	50.0000	50.9(QM)	LT
	43 Methacrylonitrile	41	4.331	4.325	(0.957)	87821	50.0000	51.4(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	407415	50.0000	51.3(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	110704	30.0000	30.0(Q)	
	46 Isobutanol	43	4.437	4.437	(0.981)	60761	250.000	249(Q)	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.975)	205209	50.0000	52.4(Q)	
*	48 Fluorobenzene (IS)	96	4.524	4.524	(1.000)	456842	30.0000	(Q)	
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	259106	50.0000	52.3(Q)	
	50 Trichloroethene	95	4.607	4.607	(0.783)	161912	50.0000	54.6(Q)	
	51 Dibromomethane	174	4.809	4.810	(1.063)	114838	50.0000	51.1(Q)	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.072)	153732	50.0000	52.5(Q)	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	191913	50.0000	52.6(Q)	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	105280	50.0000	50.2(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.973	(1.101)	25868	500.000	515(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.133)	40288	50.0000	50.4(Q)	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	243270	50.0000	52.0(Q)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	426342	30.0000	30.3(Q)	
	59 Toluene	91	5.255	5.256	(0.893)	661634	50.0000	53.8(Q)	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	299105	250.000	256(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	169829	50.0000	49.6(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	200289	50.0000	53.9(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	236281	50.0000	52.4(Q)	
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	143191	50.0000	52.4(Q)	
	65 1,1,2-Trichloroethane	97	5.499	5.503	(0.934)	140512	50.0000	52.1(Q)	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	181021	50.0000	51.5(Q)	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	230377	50.0000	52.2(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	150520	50.0000	51.2(Q)	
	69 2-Hexanone	43	5.753	5.756	(0.977)	135805	50.0000	51.2(Q)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	269956	50.0000	53.6(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	382308	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	492981	50.0000	53.3(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.920	(1.005)	191348	50.0000	51.8(Q)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	674259	100.000	108(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.138	(1.043)	337799	50.0000	53.5(Q)	
76	Styrene	104	6.160	6.160	(1.046)	575289	50.0000	52.8(Q)	
77	Bromoform	173	6.186	6.186	(0.900)	144644	50.0000	50.3(Q)	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	881289	50.0000	54.7(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.394	6.398	(0.930)	170729	30.0000	30.1(Q)	
80	n-Propylbenzene	91	6.436	6.440	(0.937)	1023449	50.0000	55.4(Q)	
81	Bromobenzene	77	6.446	6.446	(0.938)	346979	50.0000	52.4(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	203010	50.0000	51.1(Q)	
83	1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	786440	50.0000	54.2(Q)	
84	2-Chlorotoluene	126	6.516	6.520	(0.948)	231054	50.0000	53.1(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	72882	50.0000	51.5(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	64820	50.0000	52.5(Q)	
87	Cyclohexanone	55	6.568	6.568	(0.956)	85040	250.000	265(Q)	
88	4-Chlorotoluene	126	6.587	6.590	(0.958)	249290	50.0000	53.7(Q)	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	718374	50.0000	54.4(Q)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	801344	50.0000	54.0(Q)	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	1030358	50.0000	55.3(Q)	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	939718	50.0000	54.8(Q)	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	506023	50.0000	53.4(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	233380	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	509645	50.0000	53.1(Q)	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	758023	50.0000	54.0(Q)	
97	1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	480022	50.0000	53.3(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	89878	30.0000	30.3(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.077)	67508	50.0000	51.2(Q)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	359090	50.0000	54.8(Q)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	187442	50.0000	56.4(Q)	
101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	297370	50.0000	56.6(Q)	
102	Naphthalene	128	7.838	7.839	(1.141)	647033	50.0000	59.7(Q)	
103	1,2,3-Trichlorobenzene	180	7.919	7.919	(1.152)	205821	50.0000	60.9(Q)	
104	2-Methylnaphthalene	142	8.288	8.287	(1.206)	65447	50.0000	64.1(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514018.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	456842	3.62
71 Chlorobenzene-d5	378709	189355	757418	382308	0.95
94 1,4-Dichlorobenze	227359	113680	454718	233380	2.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	54.0	
74-87-3	Chloromethane	53.6	
75-01-4	Vinyl chloride	55.2	
74-83-9	Bromomethane	51.4	
75-00-3	Chloroethane	50.2	
75-69-4	Trichlorofluoromethane	56.9	
60-29-7	Diethyl ether (Ethyl ether)	51.7	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	51.1	
76-13-1	1,1,2-Trichlorotrifluoroetha	54.5	
75-15-0	Carbon disulfide	54.0	
74-88-4	Iodomethane	52.9	
107-02-8	Acrolein	55.2	
107-05-1	Allyl chloride	276	
75-09-2	Methylene Chloride	57.7	
67-64-1	Acetone	57.9	
156-60-5	trans-1,2-Dichloroethene	54.2	
79-20-9	Methyl acetate	50.9	
110-54-3	n-Hexane	61.4	
1634-04-4	Methyl-tert-butyl ether	51.6	
75-65-0	tert-Butyl Alcohol	255	
75-05-8	Acetonitrile	268	
108-20-3	Diisopropyl ether	51.7	
126-99-8	Chloroprene	54.9	
75-34-3	1,1-Dichloroethane	52.2	
107-13-1	Acrylonitrile	43.5	
637-92-3	Ethyl-tert-butyl ether	52.2	
108-05-4	Vinyl acetate	51.7	
156-59-2	cis-1,2-Dichloroethene	53.8	
594-20-7	2,2-Dichloropropane	54.7	
110-82-7	Cyclohexane	53.7	
74-97-5	Bromochloromethane	52.5	
67-66-3	Chloroform	53.6	
56-23-5	Carbon tetrachloride	53.8	
141-78-6	Ethyl acetate	56.6	
109-99-9	Tetrahydrofuran	52.2	
71-55-6	1,1,1-Trichloroethane	54.9	
78-93-3	2-Butanone (MEK)	48.0	
563-58-6	1,1-Dichloropropene	54.6	
71-43-2	Benzene	54.0	
107-12-0	Propionitrile	50.9	
126-98-7	Methacrylonitrile	51.4	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	51.3	
78-83-1	Isobutanol	249	
107-06-2	1,2-Dichloroethane	52.4	
108-87-2	Methylcyclohexane	52.3	
79-01-6	Trichloroethene	54.6	
74-95-3	Dibromomethane	51.1	
78-87-5	1,2-Dichloropropane	52.5	
75-27-4	Bromodichloromethane	52.6	
80-62-6	Methyl methacrylate	50.2	
123-91-1	1,4-Dioxane (p-Dioxane)	515	
110-75-8	2-Chloroethylvinyl ether	50.4	
10061-01-5	cis-1,3-Dichloropropene	52.0	
108-88-3	Toluene	53.8	
79-46-9	2-Nitropropane	256	
108-10-1	4-Methyl-2-pentanone (MIBK)	49.6	
127-18-4	Tetrachloroethene	53.9	
10061-02-6	trans-1,3-Dichloropropene	52.4	
97-63-2	Ethyl methacrylate	52.4	
79-00-5	1,1,2-Trichloroethane	52.1	
124-48-1	Dibromochloromethane	51.5	
142-28-9	1,3-Dichloropropane	52.2	
106-93-4	1,2-Dibromoethane (EDB)	51.2	
591-78-6	2-Hexanone	51.2	
100-41-4	Ethylbenzene	53.6	
108-90-7	Chlorobenzene	53.3	
630-20-6	1,1,1,2-Tetrachloroethane	51.8	
7816-60-0	m&p-Xylene	108	
95-47-6	o-Xylene	53.5	
100-42-5	Styrene	52.8	
75-25-2	Bromoform	50.3	
98-82-8	Isopropylbenzene (Cumene)	54.7	
103-65-1	n-Propylbenzene	55.4	
108-86-1	Bromobenzene	52.4	
79-34-5	1,1,2,2-Tetrachloroethane	51.1	
108-67-8	1,3,5-Trimethylbenzene	54.2	
95-49-8	2-Chlorotoluene	53.1	
96-18-4	1,2,3-Trichloropropane	51.5	
110-57-6	trans-1,4-Dichloro-2-butene	52.5	
108-94-1	Cyclohexanone	265	
106-43-4	4-Chlorotoluene	53.7	
98-06-6	tert-Butylbenzene	54.4	
95-63-6	1,2,4-Trimethylbenzene	54.0	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Report Date: 07-Jun-2019 10:51

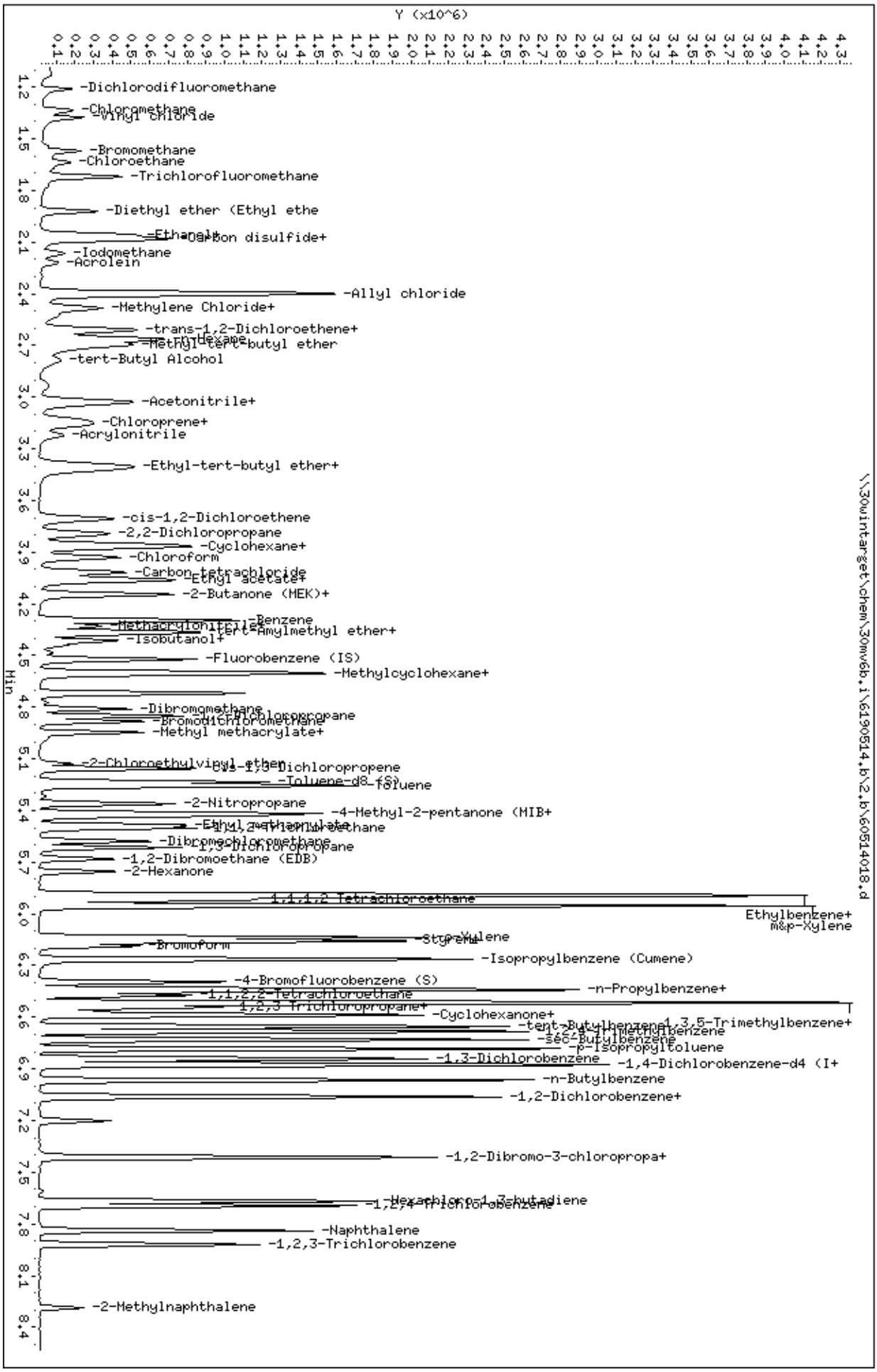
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	55.3	
99-87-6	p-Isopropyltoluene	54.8	
541-73-1	1,3-Dichlorobenzene	53.4	
106-46-7	1,4-Dichlorobenzene	53.1	
104-51-8	n-Butylbenzene	54.0	
95-50-1	1,2-Dichlorobenzene	53.3	
96-12-8	1,2-Dibromo-3-chloropropane	51.2	
108-70-3	1,3,5-Trichlorobenzene	54.8	
87-68-3	Hexachloro-1,3-butadiene	56.4	
120-82-1	1,2,4-Trichlorobenzene	56.6	
91-20-3	Naphthalene	59.7	
87-61-6	1,2,3-Trichlorobenzene	60.9	
91-57-6	2-Methylnaphthalene	64.1	
1868-53-7	Dibromofluoromethane (S)	30.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.3	
460-00-4	4-Bromofluorobenzene (S)	30.1	
----------	1,2-Dichlorobenzene-d4 (S)	30.3	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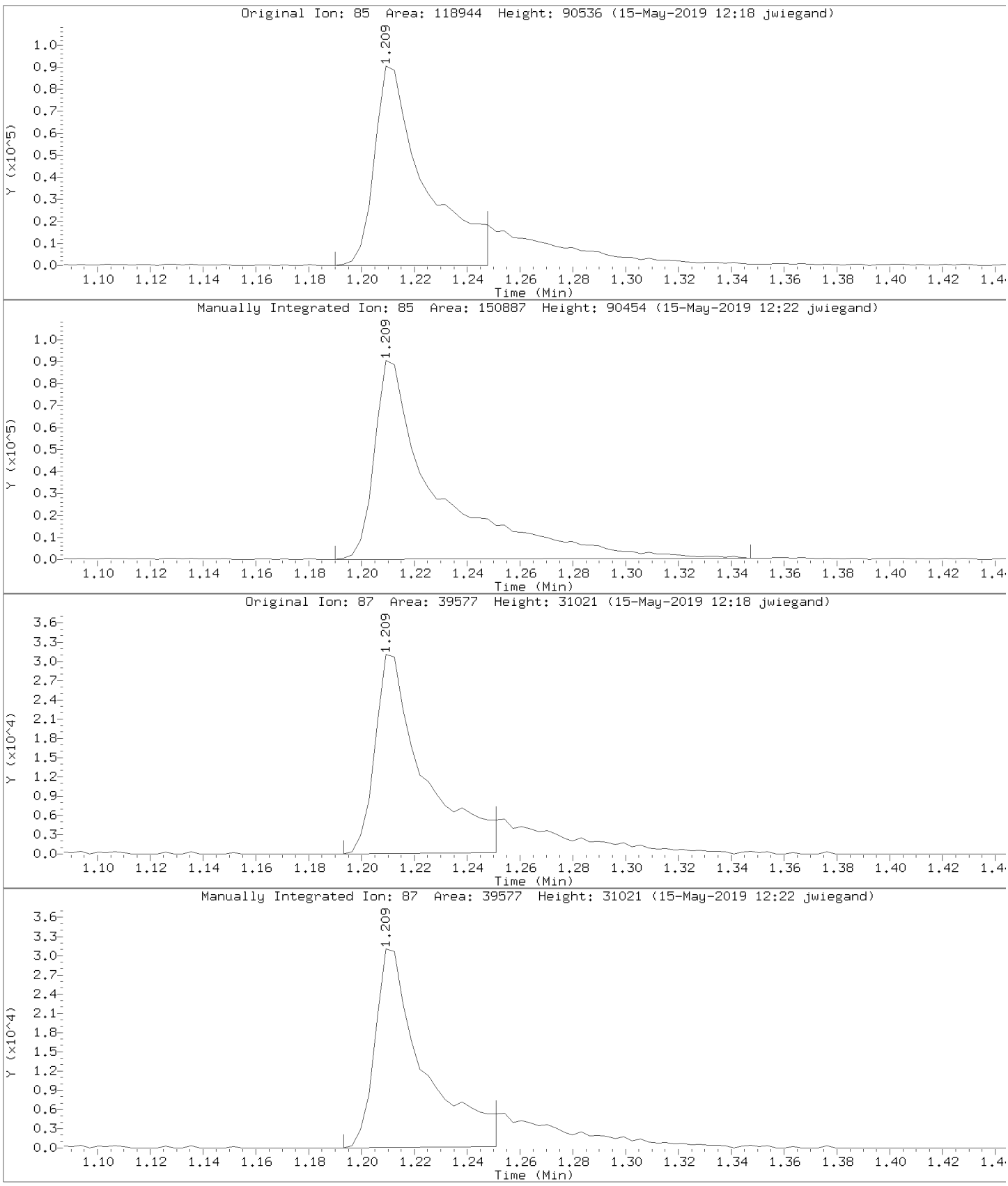
Date : 14-MAY-2019 17:05
Client ID: CAL5
Sample Info: CAL5, 87718:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514018.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Carbon disulfide+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone+
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514018.d
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-69-4



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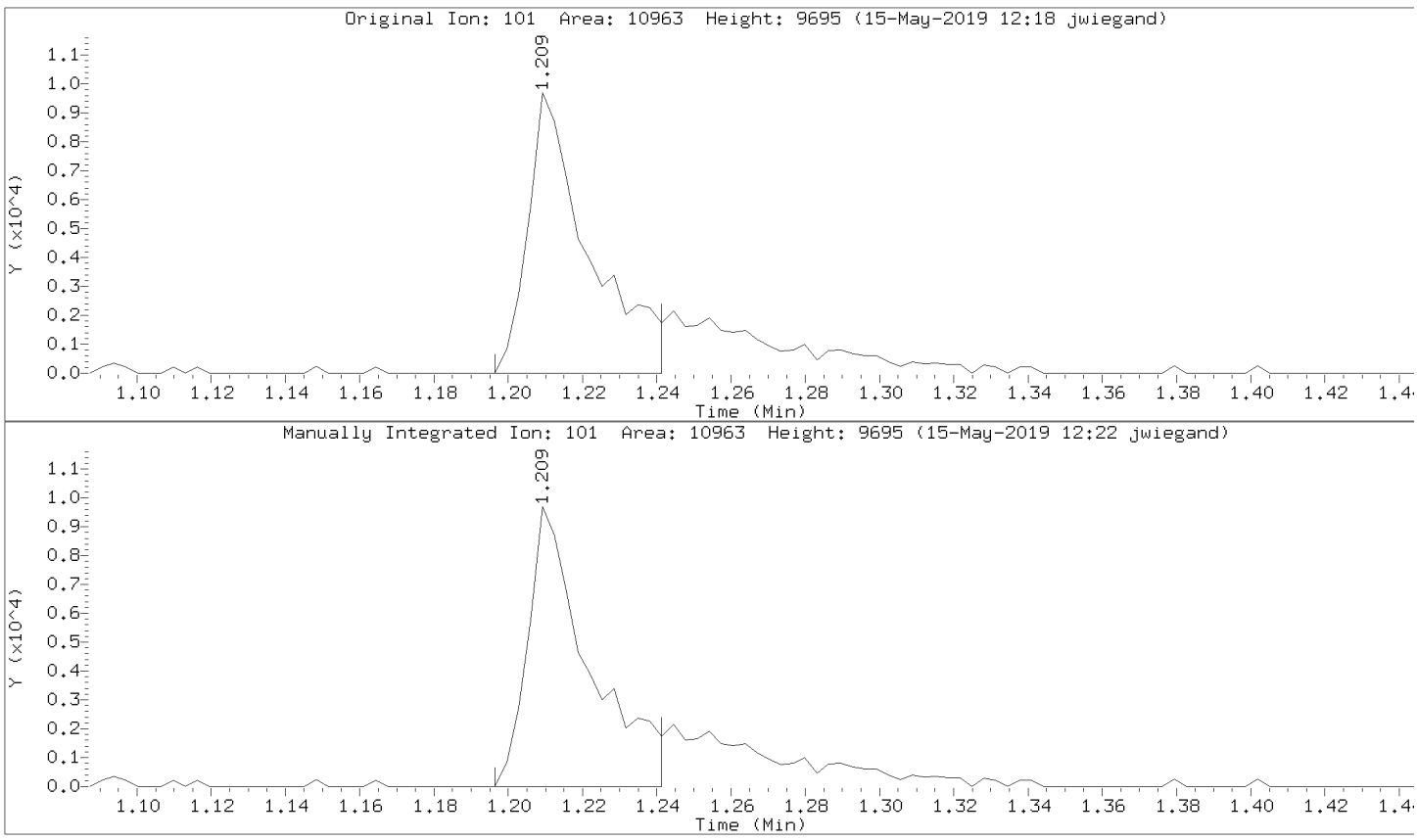
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5



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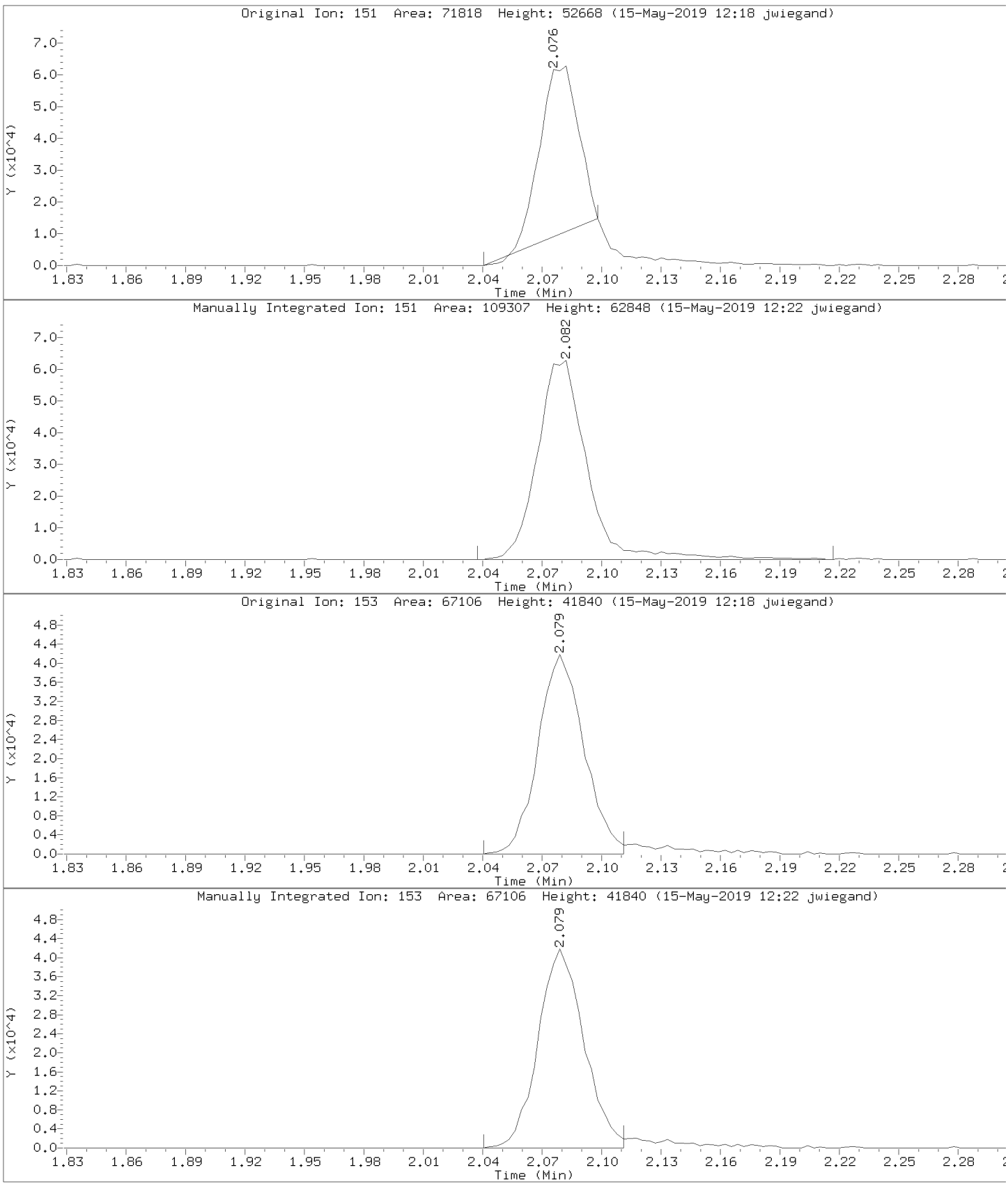
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1



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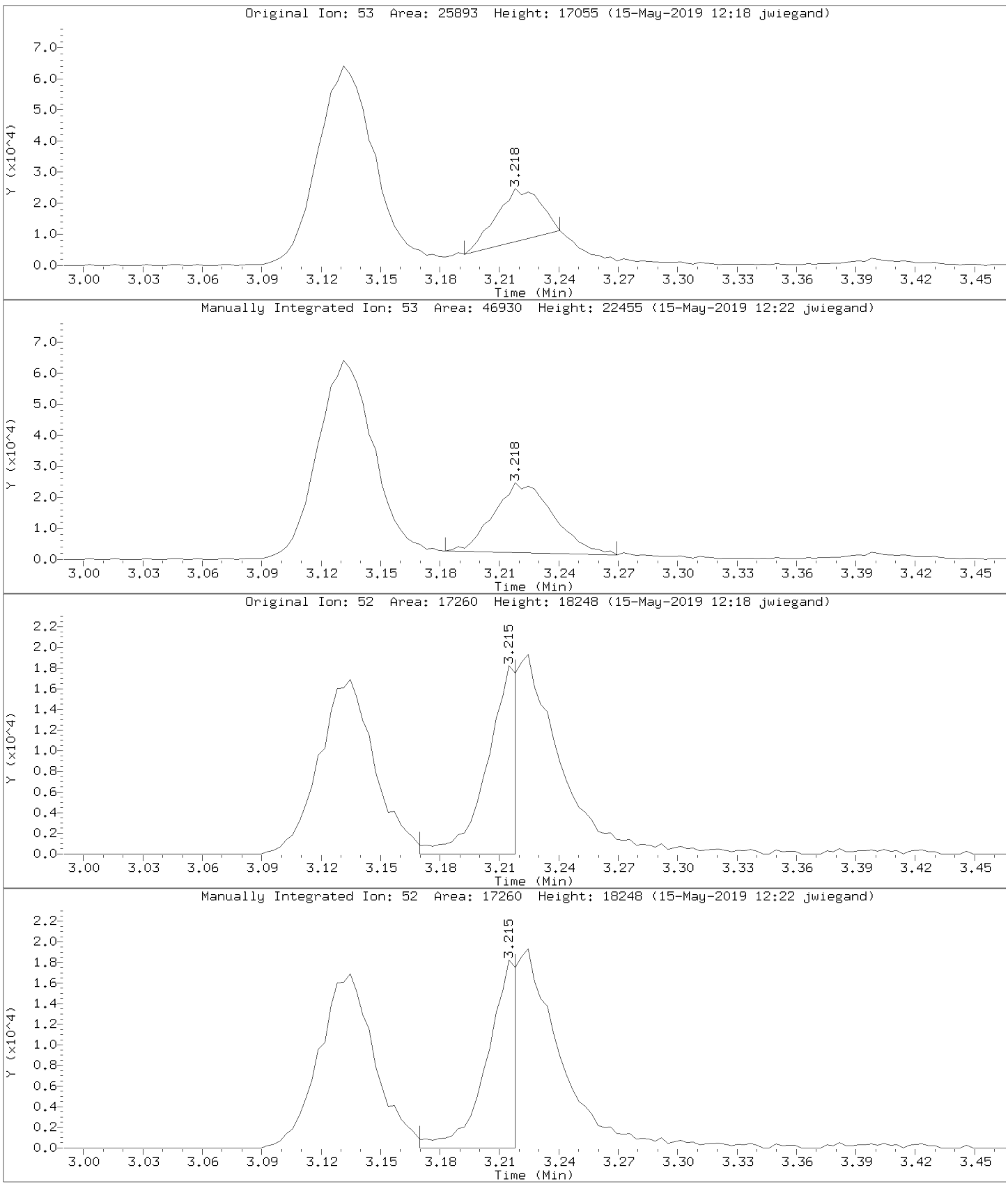
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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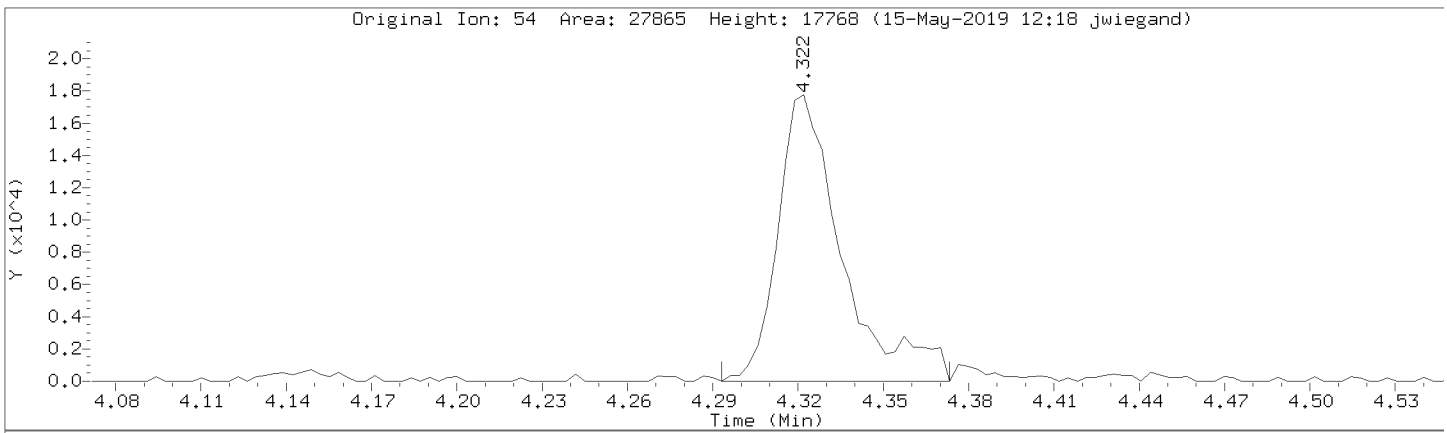
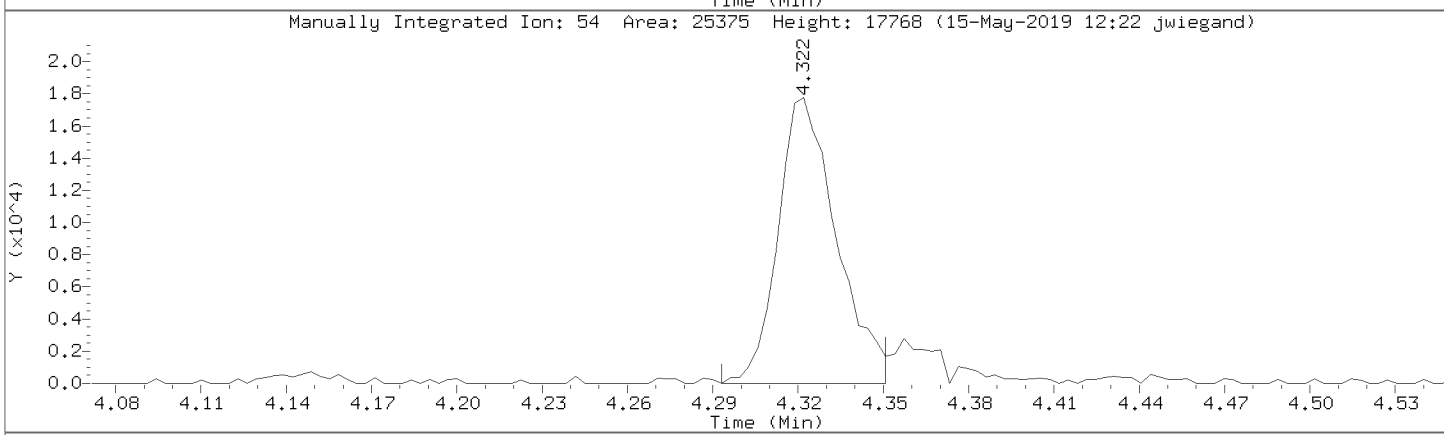
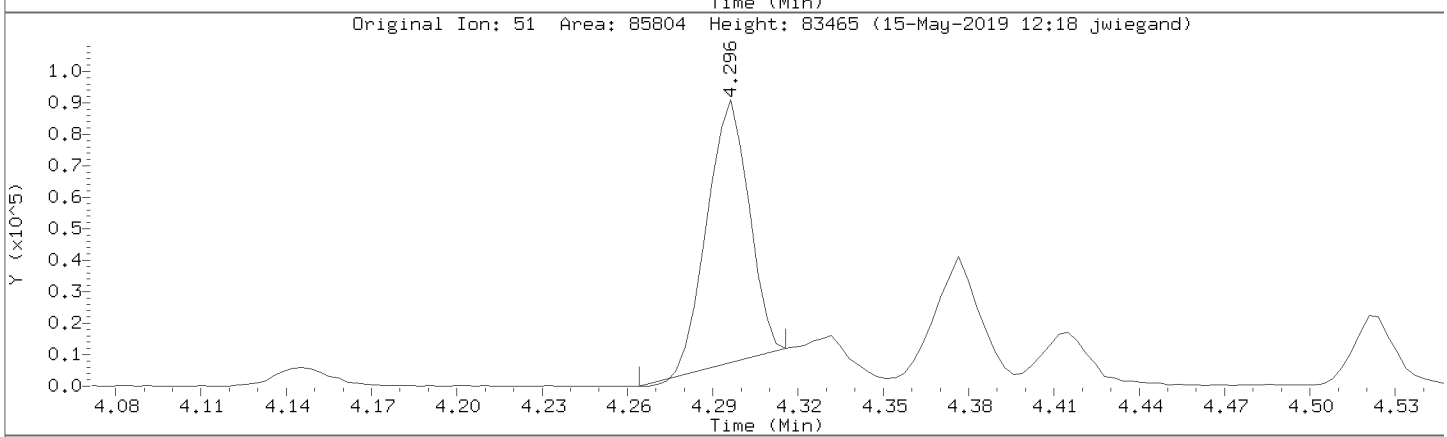
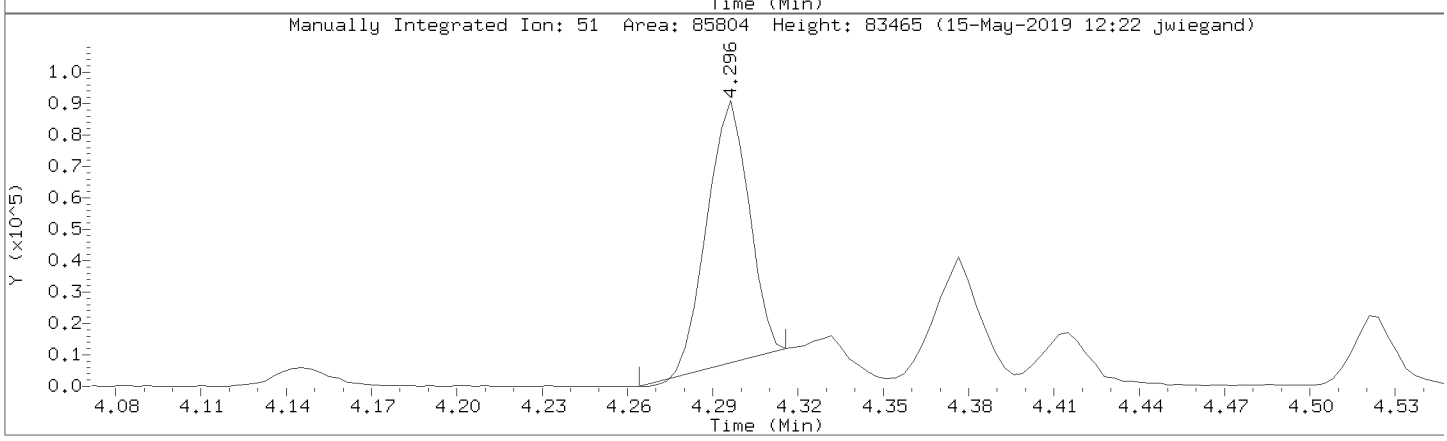
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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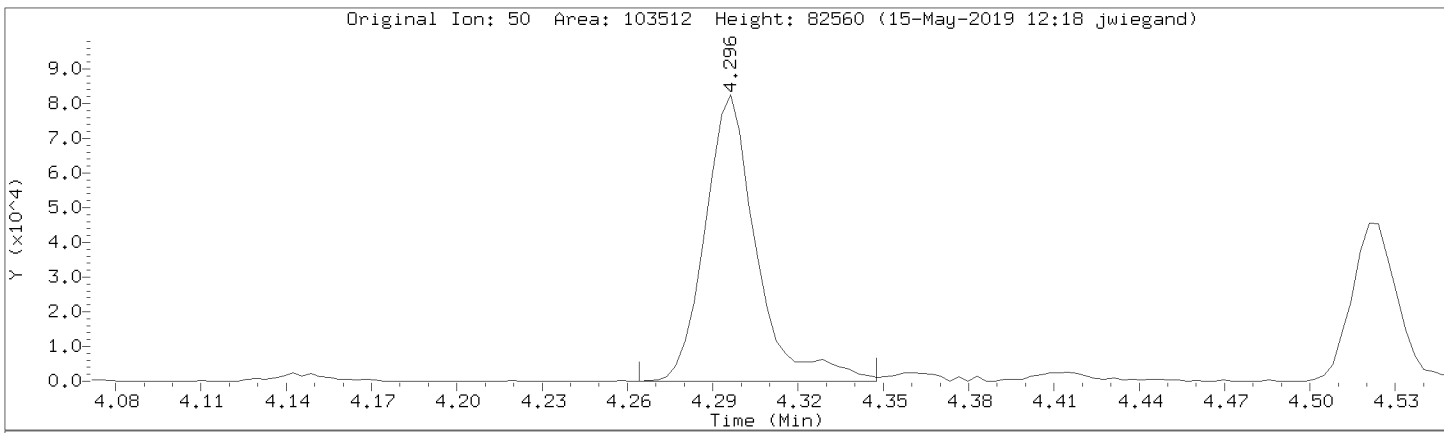
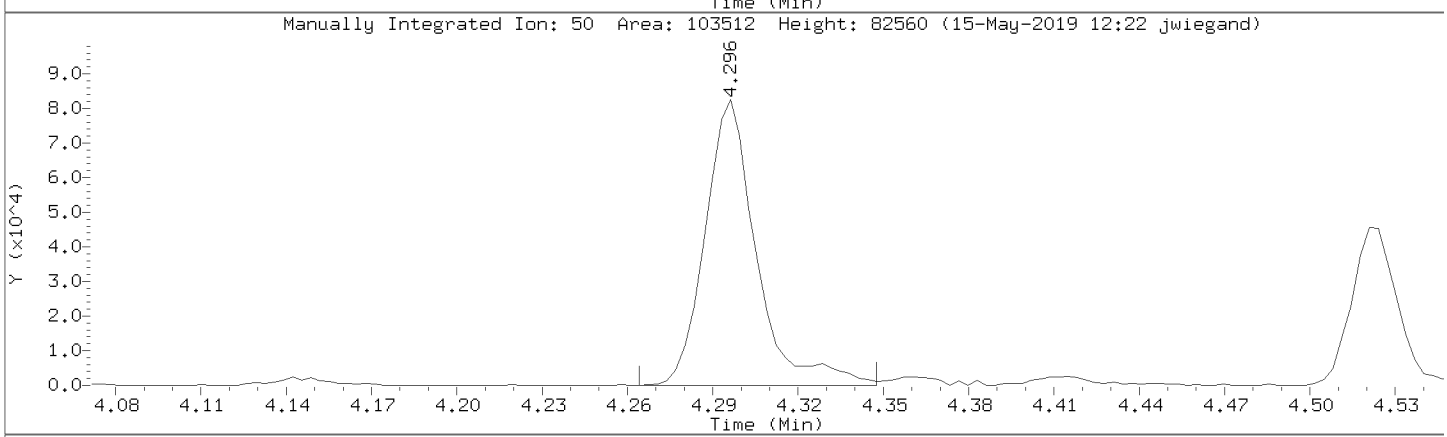
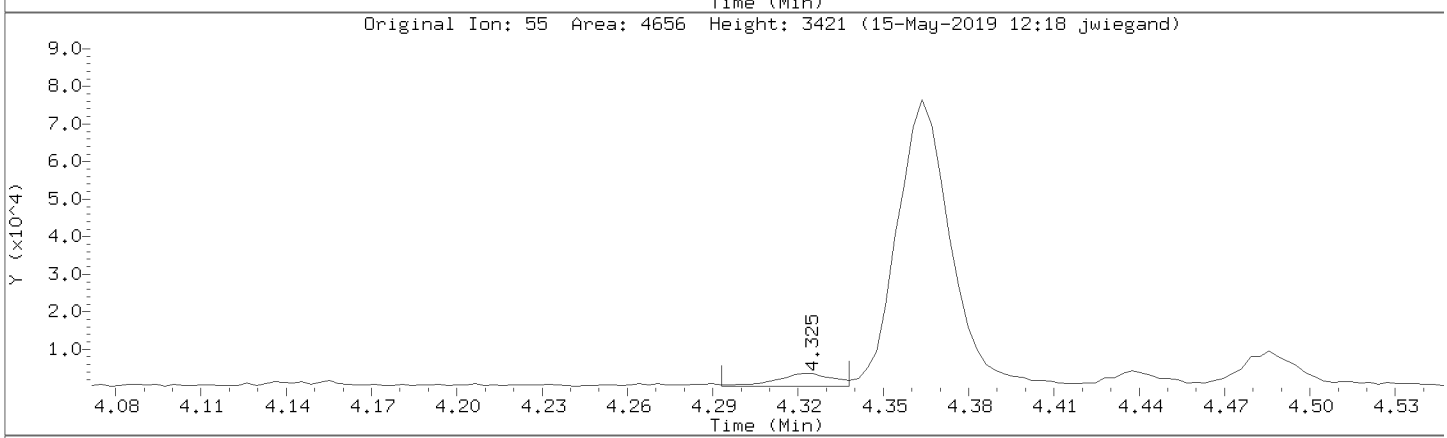
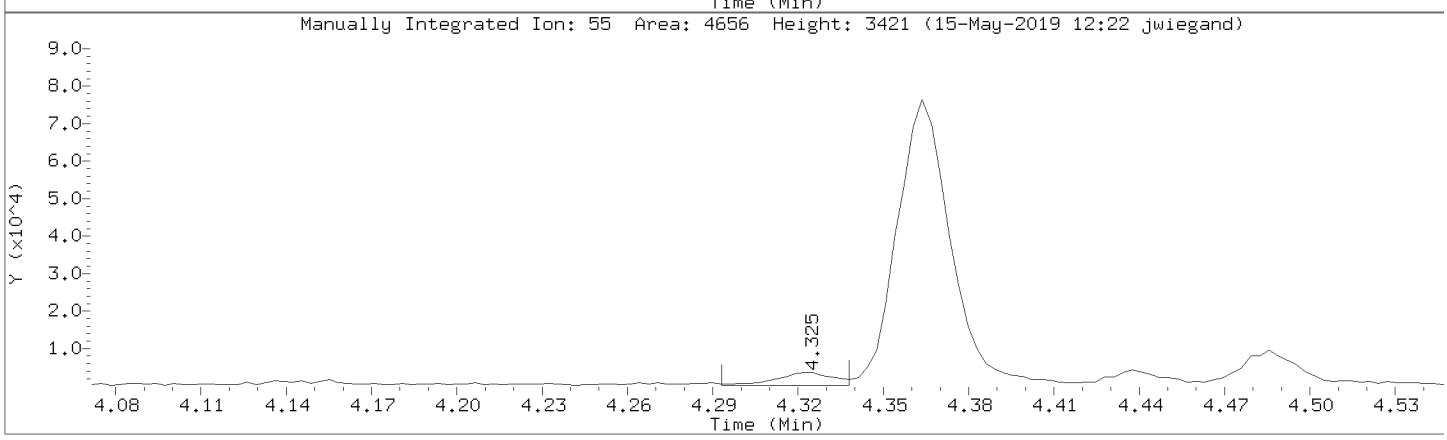
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5



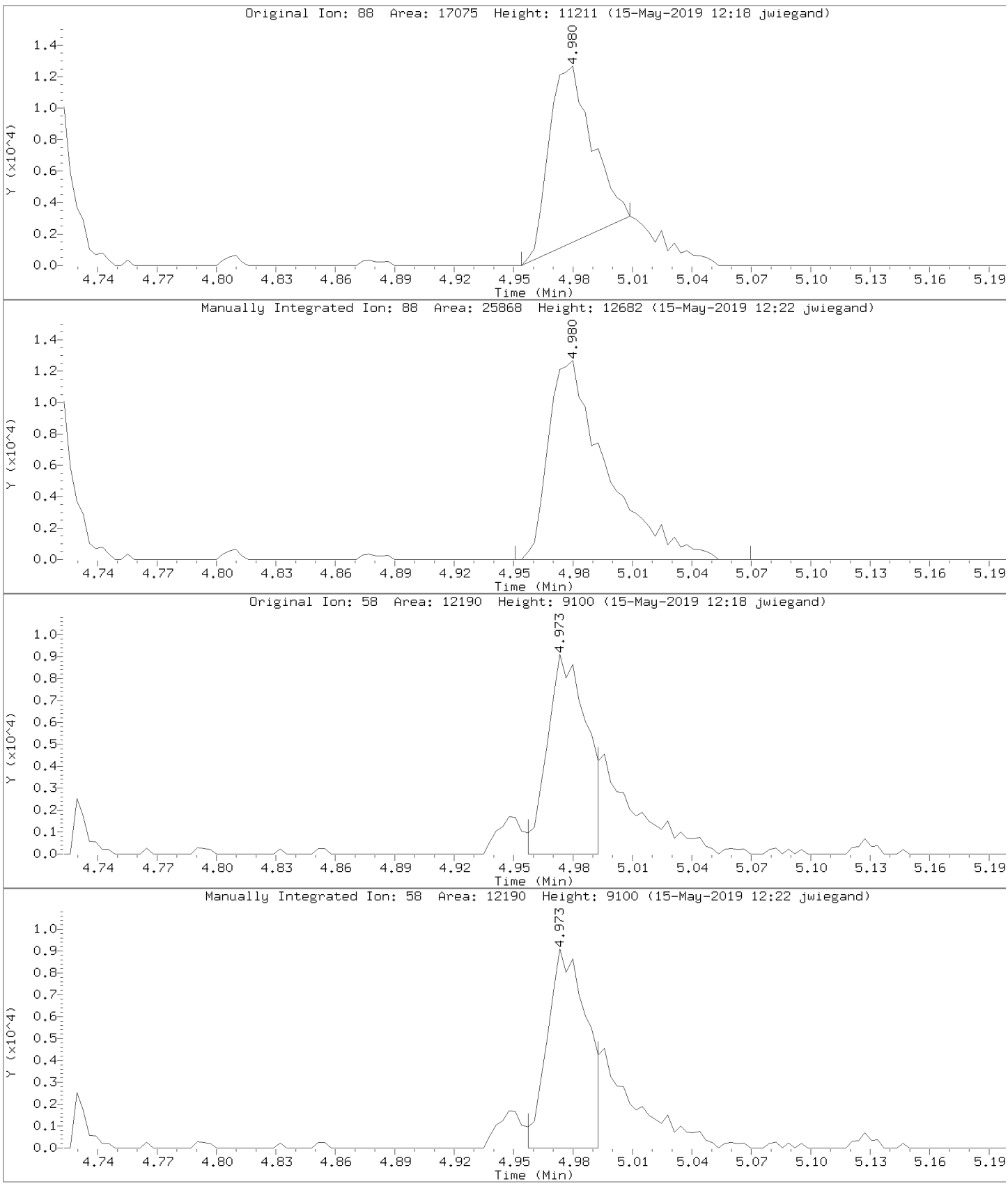






Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514018.d
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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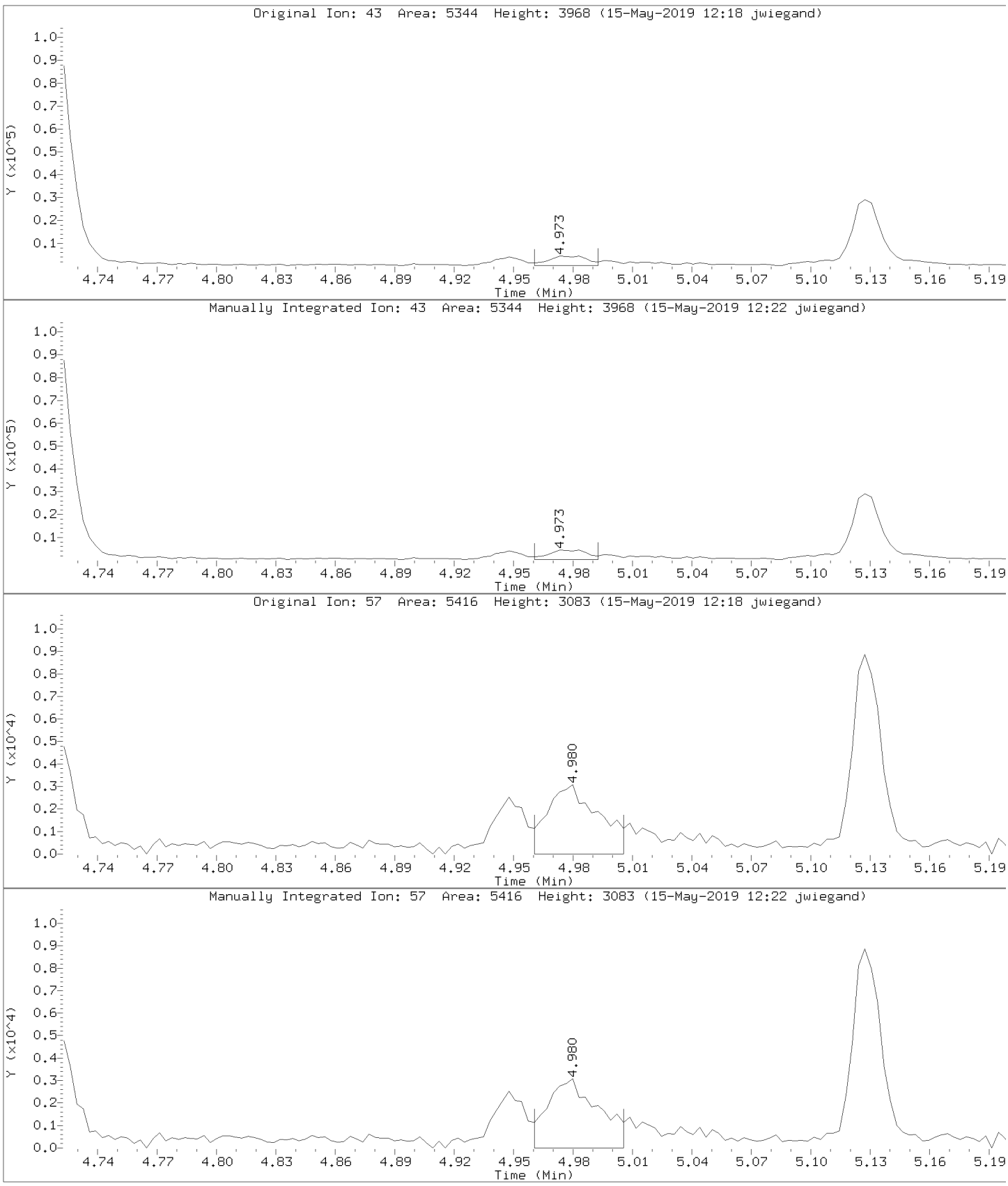
Injection Date: 14-MAY-2019 17:05
Instrument: 30mv6b.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 14-MAY-2019 17:31
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal6, 87719:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 17:31 Cal File: 60514020.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	289231	100.000	105(Q)	
2 Chloromethane	50	1.334	1.328	(0.295)	383733	100.000	106(Q)	
3 Vinyl chloride	62	1.376	1.376	(0.304)	363968	100.000	108(Q)	
4 Bromomethane	94	1.568	1.569	(0.347)	181283	100.000	103(Q)	
5 Chloroethane	64	1.632	1.639	(0.361)	223091	100.000	111(Q)	
6 Trichlorofluoromethane	101	1.716	1.723	(0.379)	406854	100.000	112(Q)	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	261706	100.000	105(Q)	
8 Ethanol	45	2.033	2.017	(0.296)	62698	1000.00	(aQ)	
9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	428906	100.000	107(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.075	2.079	(0.459)	206800	100.000	105(Q)	
11 Carbon disulfide	76	2.081	2.088	(0.460)	746506	100.000	106(Q)	
12 Iodomethane	142	2.162	2.165	(0.478)	311200	100.000	112(Q)	
13 Acrolein	56	2.303	2.300	(0.509)	20213	100.000	105(Q)	
14 Allyl chloride	41	2.396	2.396	(0.530)	1722672	500.000	550(Q)	
15 Methylene Chloride	49	2.483	2.486	(0.549)	382048	100.000	104(Q)	
16 Acetone	43	2.527	2.531	(0.559)	105481	100.000	109(Q)	
17 trans-1,2-Dichloroethene	61	2.605	2.602	(0.576)	410096	100.000	106(Q)	
18 Methyl acetate	74	2.617	2.621	(0.579)	95022	100.000	105(Q)	
19 n-Hexane	86	2.662	2.663	(0.589)	105213	100.000	116(Q)	
20 Methyl-tert-butyl ether	73	2.691	2.701	(0.595)	876143	100.000	104(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.791	2.778	(0.617)	353367	500.000	518(Q)	
	22 Acetonitrile	41	2.929	2.923	(0.647)	171214	500.000	536(Q)	
	23 Diisopropyl ether	45	3.028	3.032	(0.669)	956522	100.000	104(Q)	
	24 Chloroprene	53	3.131	3.131	(0.692)	245128	100.000	106(Q)	
	25 1,1-Dichloroethane	63	3.156	3.160	(0.698)	525334	100.000	106(Q)	
	26 Acrylonitrile	53	3.221	3.240	(0.712)	112449	100.000	98.6(Q)	
	27 Ethyl-tert-butyl ether	59	3.400	3.404	(0.752)	1023160	100.000	103(Q)	
	28 Vinyl acetate	43	3.416	3.430	(0.755)	713501	100.000	104(Q)	
	29 cis-1,2-Dichloroethene	61	3.708	3.709	(0.820)	413346	100.000	106(Q)	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.838)	447324	100.000	107(Q)	
	31 Cyclohexane	56	3.859	3.863	(0.853)	489293	100.000	106(Q)	
	32 Bromochloromethane	130	3.866	3.866	(0.855)	219504	100.000	105(Q)	
	33 Chloroform	83	3.930	3.930	(0.869)	489894	100.000	105(Q)	
	34 Carbon tetrachloride	117	4.016	4.017	(0.888)	435211	100.000	106(Q)	
	35 Ethyl acetate	43	4.039	4.033	(0.893)	30185	100.000	104(Q)	
	36 Tetrahydrofuran	42	4.042	4.046	(0.894)	113473	100.000	103(Q)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.896)	111912	30.0000	29.9(Q)	
	38 1,1,1-Trichloroethane	97	4.065	4.067	(0.899)	465095	100.000	107(Q)	
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	184031	100.000	104(Q)	
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	391166	100.000	106(Q)	
	41 Benzene	78	4.296	4.296	(0.950)	1135576	100.000	106(Q)	
	42 Propionitrile	54	4.321	4.322	(0.955)	48993	100.000	97.5(QM)	LT
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	175965	100.000	102(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	821779	100.000	103(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	112520	30.0000	30.0(Q)	
	46 Isobutanol	43	4.437	4.437	(0.981)	127317	500.000	514(Q)	
	47 1,2-Dichloroethane	62	4.414	4.412	(0.976)	406570	100.000	104(Q)	
*	48 Fluorobenzene (IS)	96	4.523	4.524	(1.000)	463149	30.0000	(Q)	
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	519194	100.000	105(Q)	
	50 Trichloroethene	95	4.607	4.607	(0.783)	312897	100.000	107(Q)	
	51 Dibromomethane	174	4.809	4.810	(1.063)	232354	100.000	103(Q)	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.072)	303245	100.000	104(Q)	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	379061	100.000	104(Q)	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	215929	100.000	102(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.973	(1.100)	52484	1000.00	1040(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.133)	78571	100.000	97.3(Q)	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	488076	100.000	104(Q)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	434289	30.0000	30.3(Q)	
	59 Toluene	91	5.255	5.256	(0.893)	1319207	100.000	108(Q)	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	605625	500.000	514(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	355713	100.000	102(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	394775	100.000	107(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	470664	100.000	104(Q)	
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	283090	100.000	103(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	283010	100.000	104(Q)	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	367032	100.000	103(Q)	
	67 1,3-Dichloropropane	76	5.614	5.618	(0.954)	462480	100.000	104(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	308099	100.000	104(Q)	
	69 2-Hexanone	43	5.756	5.756	(0.978)	278010	100.000	103(Q)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	531873	100.000	106(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	390597	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	978484	100.000	106(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	384114	100.000	103(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	1328206	200.000	214(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75	o-Xylene	106	6.138	6.138	(1.043)	662633	100.000	105(Q)	
	76	Styrene	104	6.160	6.160	(1.046)	1161416	100.000	106(Q)	
	77	Bromoform	173	6.186	6.186	(0.900)	301942	100.000	102(Q)	
	78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	1735098	100.000	107(Q)	
$	79	4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	175497	30.0000	29.8(Q)	
	80	n-Propylbenzene	91	6.439	6.440	(0.937)	1996568	100.000	108(Q)	
	81	Bromobenzene	77	6.446	6.446	(0.938)	700090	100.000	104(Q)	
	82	1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	419319	100.000	103(Q)	
	83	1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	1560596	100.000	107(Q)	
	84	2-Chlorotoluene	126	6.516	6.520	(0.948)	461066	100.000	104(Q)	
	85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	146897	100.000	101(Q)	
	86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	132546	100.000	105(Q)	
	87	Cyclohexanone	55	6.568	6.568	(0.956)	168667	500.000	518(Q)	
	88	4-Chlorotoluene	126	6.587	6.590	(0.958)	490776	100.000	105(Q)	
	89	tert-Butylbenzene	119	6.654	6.655	(0.968)	1412992	100.000	106(Q)	
	90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	1593530	100.000	106(Q)	
	91	sec-Butylbenzene	105	6.728	6.732	(0.979)	2033628	100.000	109(Q)	
	92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	1859848	100.000	108(Q)	
	93	1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	1010545	100.000	105(Q)	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	241782	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	1030988	100.000	106(Q)	
	96	n-Butylbenzene	91	6.965	6.966	(1.014)	1516191	100.000	107(Q)	
	97	1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	956295	100.000	105(Q)	
$	161	1,2-Dichlorobenzene-d4 (S)	152	7.058	7.059	(1.027)	92348	30.0000	30.1(Q)	
	98	1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	139615	100.000	103(Q)	
	99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	707246	100.000	108(Q)	
	100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	363806	100.000	110(Q)	
	101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	587404	100.000	113(Q)	
	102	Naphthalene	128	7.838	7.839	(1.141)	1211668	100.000	115(Q)	
	103	1,2,3-Trichlorobenzene	180	7.918	7.919	(1.152)	390570	100.000	120(Q)	
	104	2-Methylnaphthalene	142	8.287	8.287	(1.206)	106058	100.000	117(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514020.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	463149	5.05
71 Chlorobenzene-d5	378709	189355	757418	390597	3.14
94 1,4-Dichlorobenze	227359	113680	454718	241782	6.34

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	105	
74-87-3	Chloromethane	106	
75-01-4	Vinyl chloride	108	
74-83-9	Bromomethane	103	
75-00-3	Chloroethane	111	
75-69-4	Trichlorofluoromethane	112	
60-29-7	Diethyl ether (Ethyl ether)	105	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	107	
76-13-1	1,1,2-Trichlorotrifluoroetha	105	
75-15-0	Carbon disulfide	106	
74-88-4	Iodomethane	112	
107-02-8	Acrolein	105	
107-05-1	Allyl chloride	550	
75-09-2	Methylene Chloride	104	
67-64-1	Acetone	109	
156-60-5	trans-1,2-Dichloroethene	106	
79-20-9	Methyl acetate	105	
110-54-3	n-Hexane	116	
1634-04-4	Methyl-tert-butyl ether	104	
75-65-0	tert-Butyl Alcohol	518	
75-05-8	Acetonitrile	536	
108-20-3	Diisopropyl ether	104	
126-99-8	Chloroprene	106	
75-34-3	1,1-Dichloroethane	106	
107-13-1	Acrylonitrile	98.6	
637-92-3	Ethyl-tert-butyl ether	103	
108-05-4	Vinyl acetate	104	
156-59-2	cis-1,2-Dichloroethene	106	
594-20-7	2,2-Dichloropropane	107	
110-82-7	Cyclohexane	106	
74-97-5	Bromochloromethane	105	
67-66-3	Chloroform	105	
56-23-5	Carbon tetrachloride	106	
141-78-6	Ethyl acetate	104	
109-99-9	Tetrahydrofuran	103	
71-55-6	1,1,1-Trichloroethane	107	
78-93-3	2-Butanone (MEK)	104	
563-58-6	1,1-Dichloropropene	106	
71-43-2	Benzene	106	
107-12-0	Propionitrile	97.5	
126-98-7	Methacrylonitrile	102	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	103	
78-83-1	Isobutanol	514	
107-06-2	1,2-Dichloroethane	104	
108-87-2	Methylcyclohexane	105	
79-01-6	Trichloroethene	107	
74-95-3	Dibromomethane	103	
78-87-5	1,2-Dichloropropane	104	
75-27-4	Bromodichloromethane	104	
80-62-6	Methyl methacrylate	102	
123-91-1	1,4-Dioxane (p-Dioxane)	1040	
110-75-8	2-Chloroethylvinyl ether	97.3	
10061-01-5	cis-1,3-Dichloropropene	104	
108-88-3	Toluene	108	
79-46-9	2-Nitropropane	514	
108-10-1	4-Methyl-2-pentanone (MIBK)	102	
127-18-4	Tetrachloroethene	107	
10061-02-6	trans-1,3-Dichloropropene	104	
97-63-2	Ethyl methacrylate	103	
79-00-5	1,1,2-Trichloroethane	104	
124-48-1	Dibromochloromethane	103	
142-28-9	1,3-Dichloropropane	104	
106-93-4	1,2-Dibromoethane (EDB)	104	
591-78-6	2-Hexanone	103	
100-41-4	Ethylbenzene	106	
108-90-7	Chlorobenzene	106	
630-20-6	1,1,1,2-Tetrachloroethane	103	
7816-60-0	m&p-Xylene	214	
95-47-6	o-Xylene	105	
100-42-5	Styrene	106	
75-25-2	Bromoform	102	
98-82-8	Isopropylbenzene (Cumene)	107	
103-65-1	n-Propylbenzene	108	
108-86-1	Bromobenzene	104	
79-34-5	1,1,2,2-Tetrachloroethane	103	
108-67-8	1,3,5-Trimethylbenzene	107	
95-49-8	2-Chlorotoluene	104	
96-18-4	1,2,3-Trichloropropane	101	
110-57-6	trans-1,4-Dichloro-2-butene	105	
108-94-1	Cyclohexanone	518	
106-43-4	4-Chlorotoluene	105	
98-06-6	tert-Butylbenzene	106	
95-63-6	1,2,4-Trimethylbenzene	106	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Report Date: 07-Jun-2019 10:51

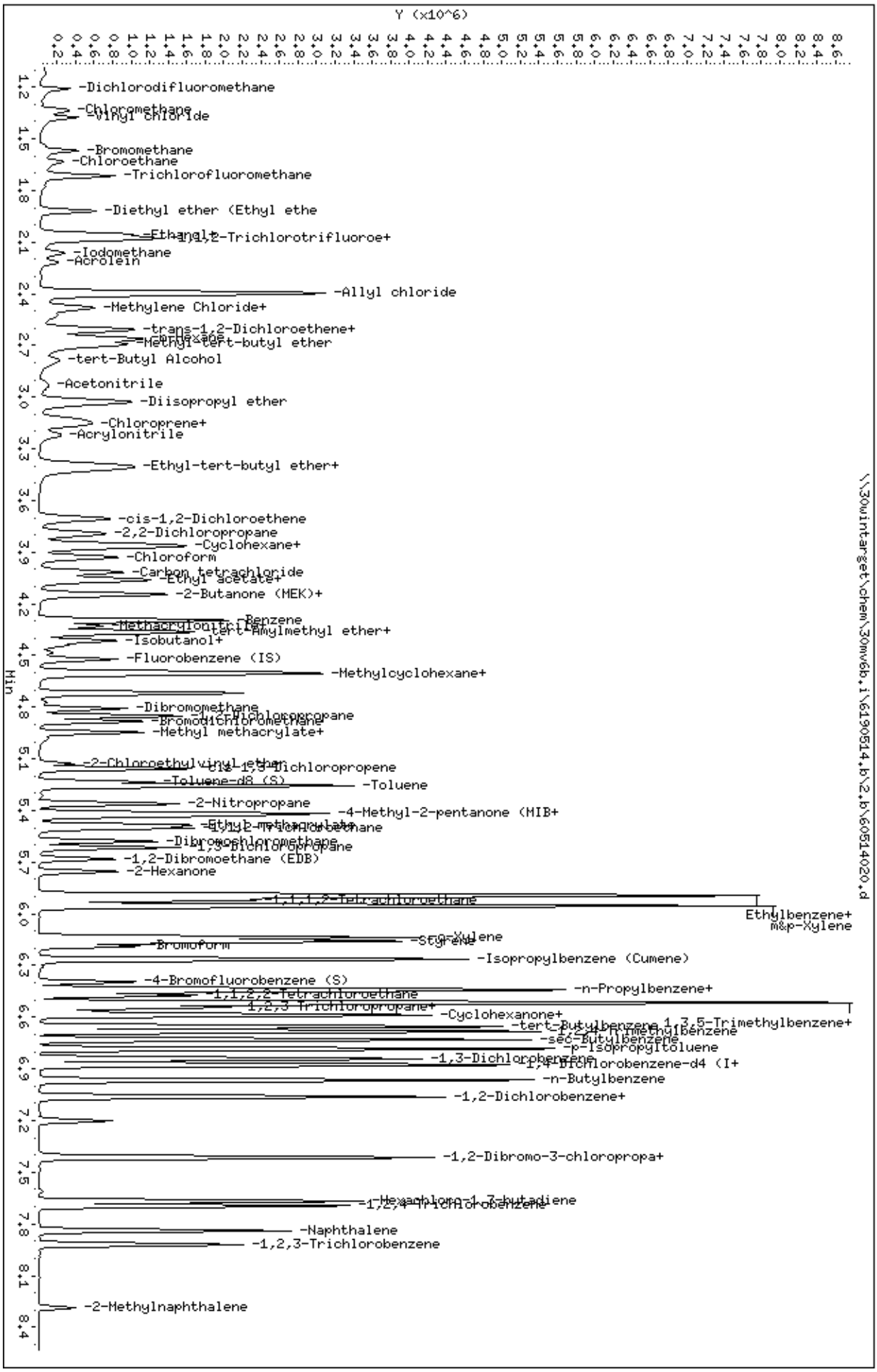
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	109	
99-87-6	p-Isopropyltoluene	108	
541-73-1	1,3-Dichlorobenzene	105	
106-46-7	1,4-Dichlorobenzene	106	
104-51-8	n-Butylbenzene	107	
95-50-1	1,2-Dichlorobenzene	105	
96-12-8	1,2-Dibromo-3-chloropropane	103	
108-70-3	1,3,5-Trichlorobenzene	108	
87-68-3	Hexachloro-1,3-butadiene	110	
120-82-1	1,2,4-Trichlorobenzene	113	
91-20-3	Naphthalene	115	
87-61-6	1,2,3-Trichlorobenzene	120	
91-57-6	2-Methylnaphthalene	117	
1868-53-7	Dibromofluoromethane (S)	29.9	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.3	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.1	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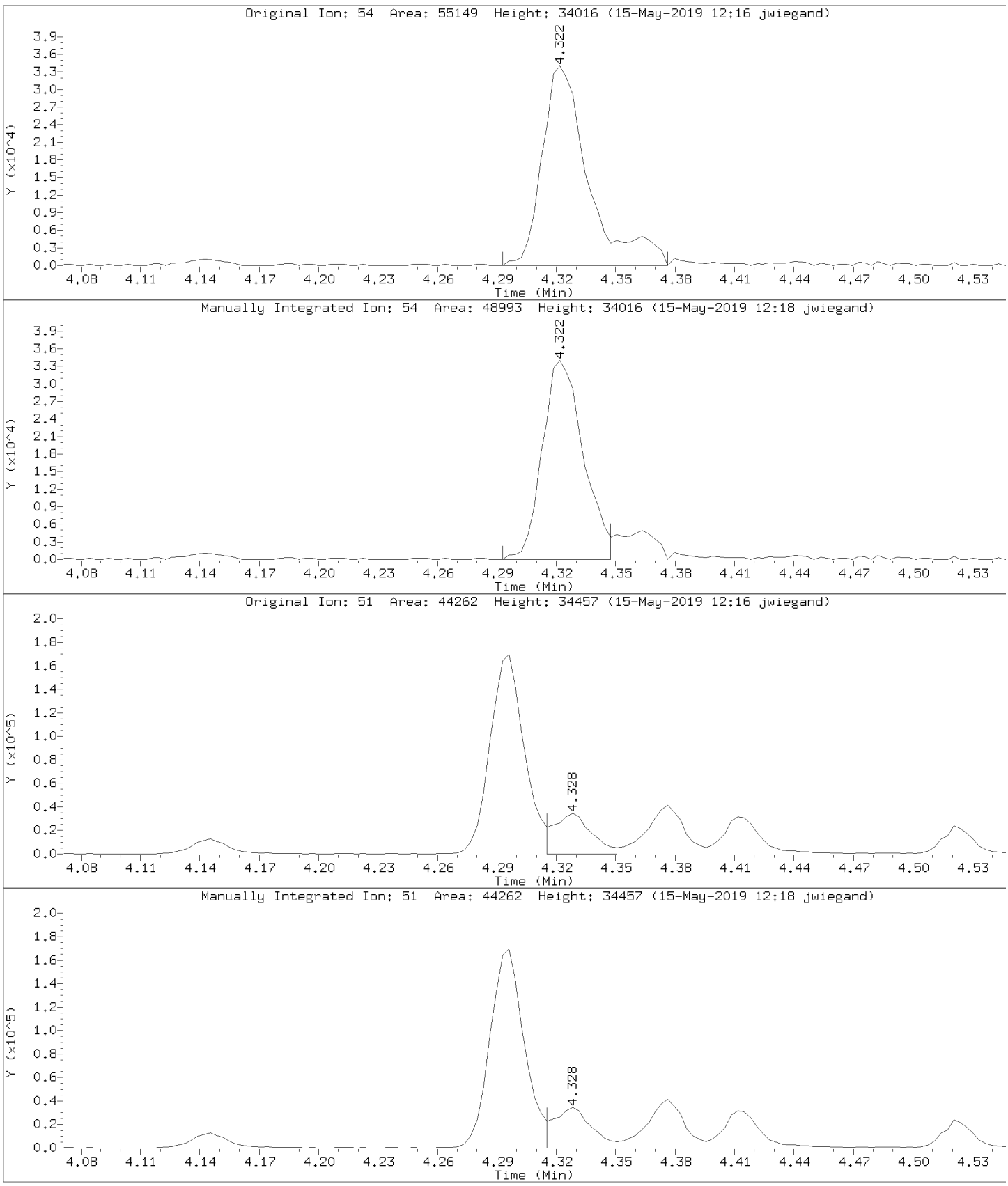
Date : 14-MAY-2019 17:31
Client ID: CAL6
Sample Info: CAL6, 87719:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514020.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514020.d
Injection Date: 14-MAY-2019 17:31
Instrument: 30mv6b.i
Lab Sample ID: CAL6

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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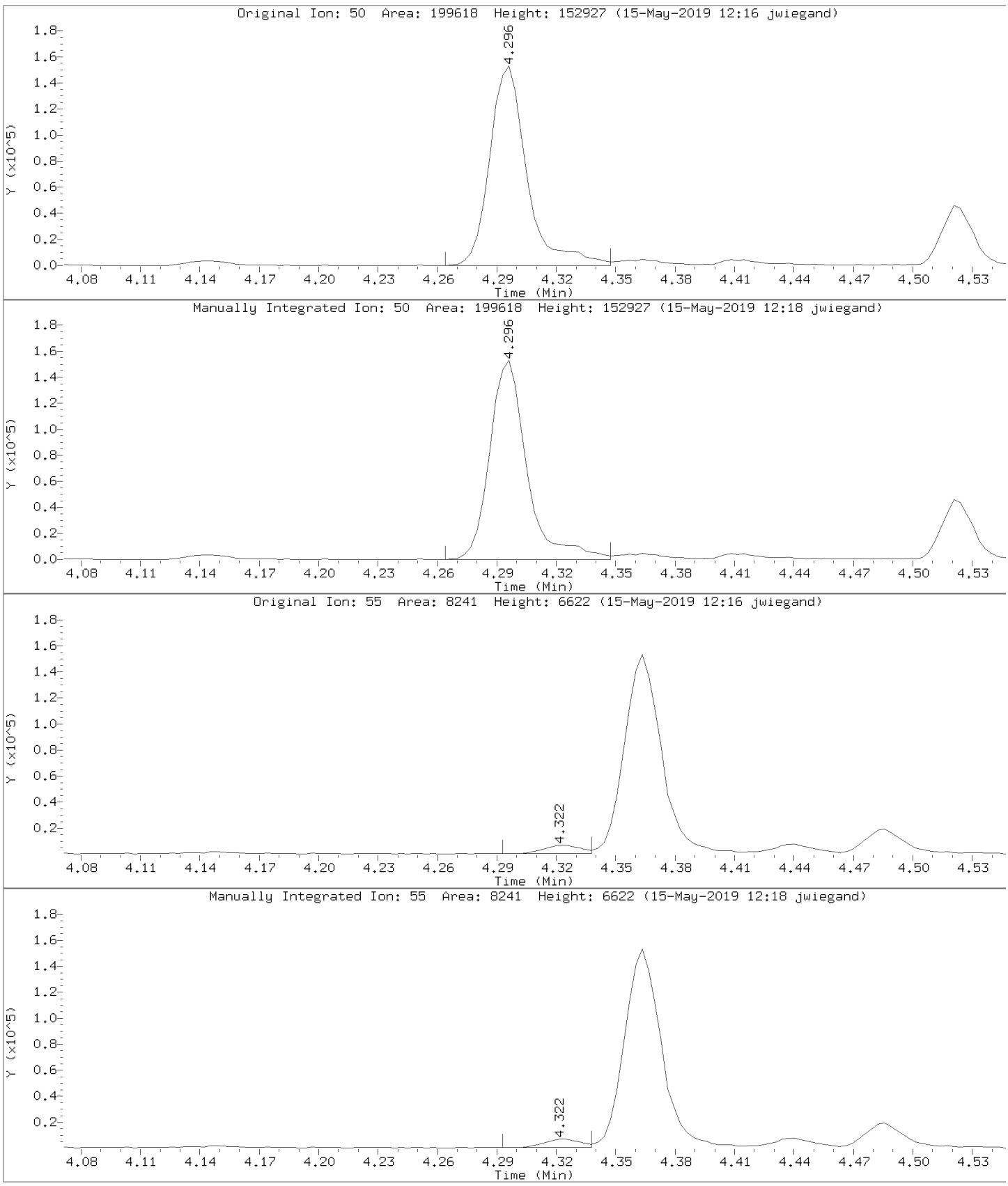
Instrument: 30mv6b.i
Lab Sample ID: CAL6



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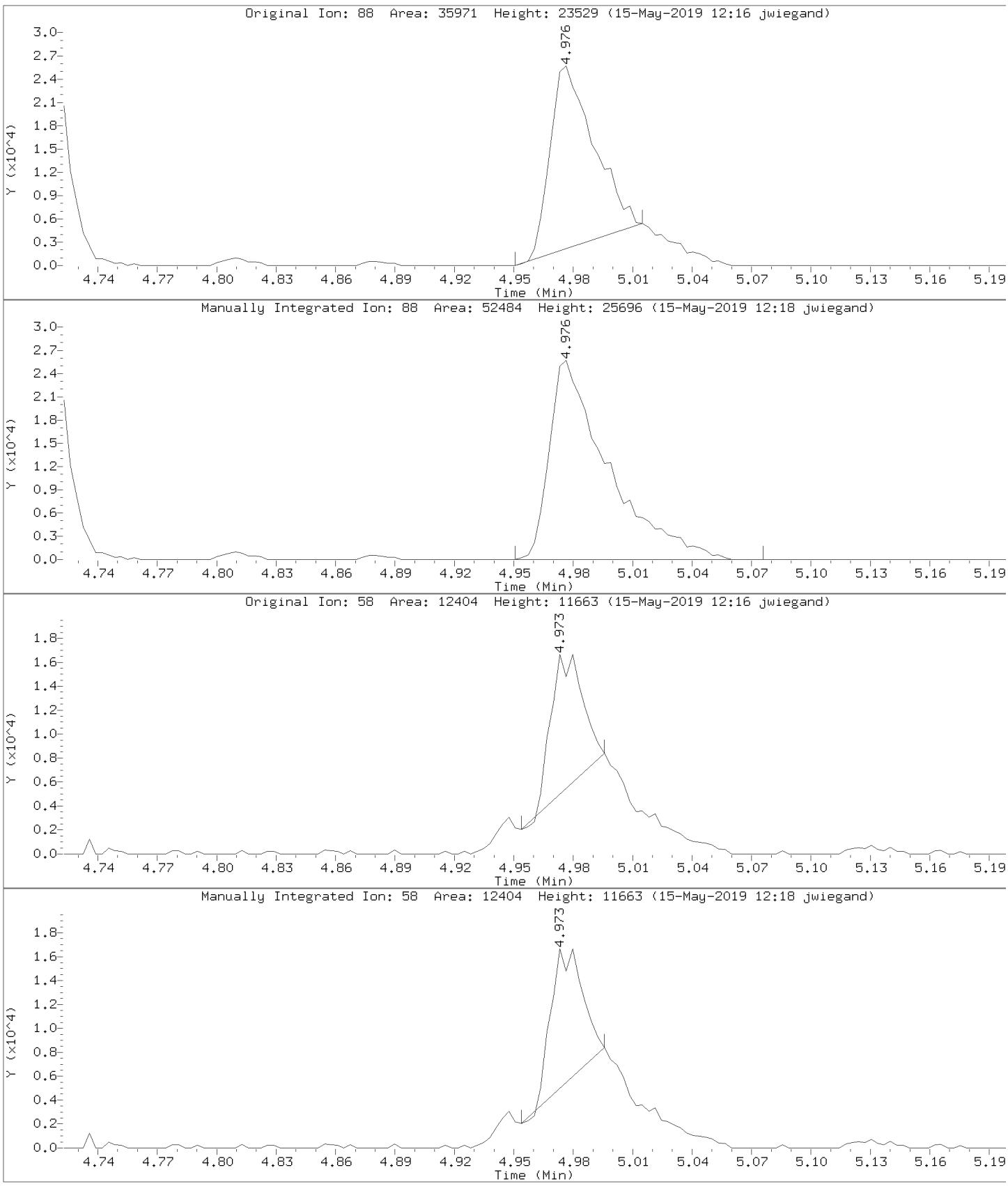
Injection Date: 14-MAY-2019 17:31
Instrument: 30mv6b.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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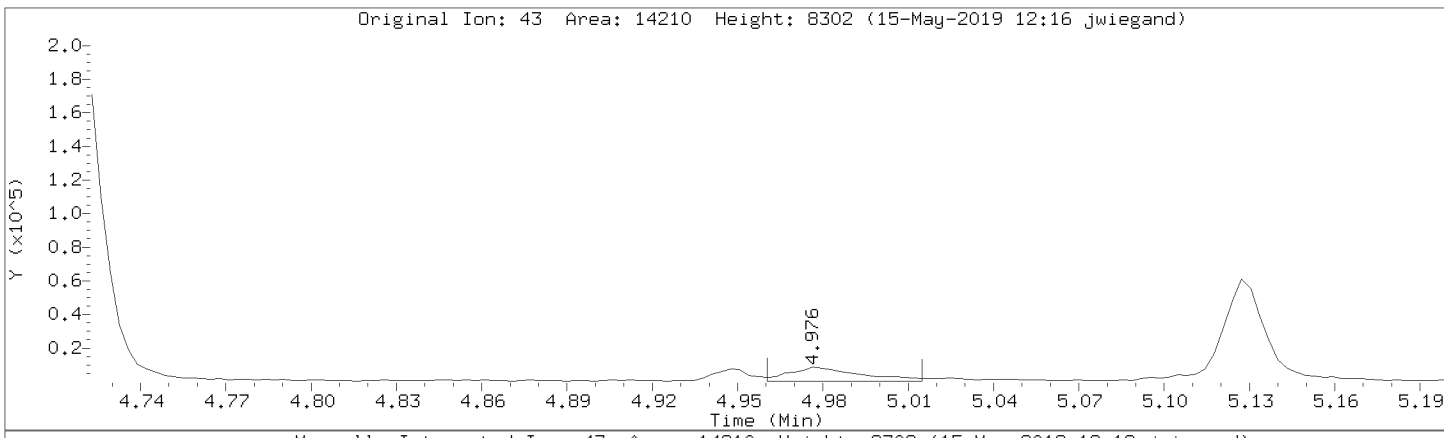
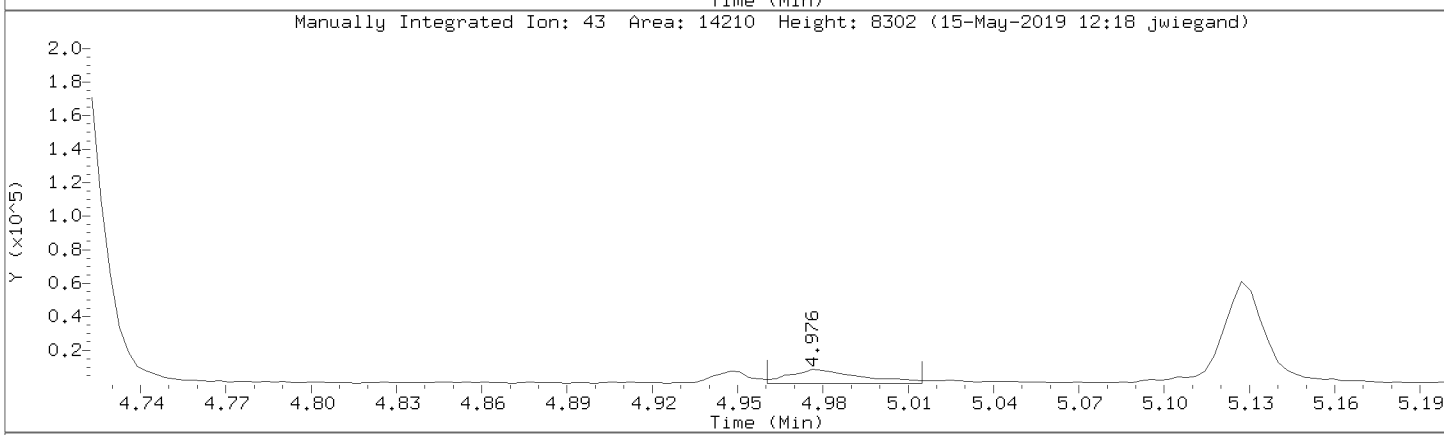
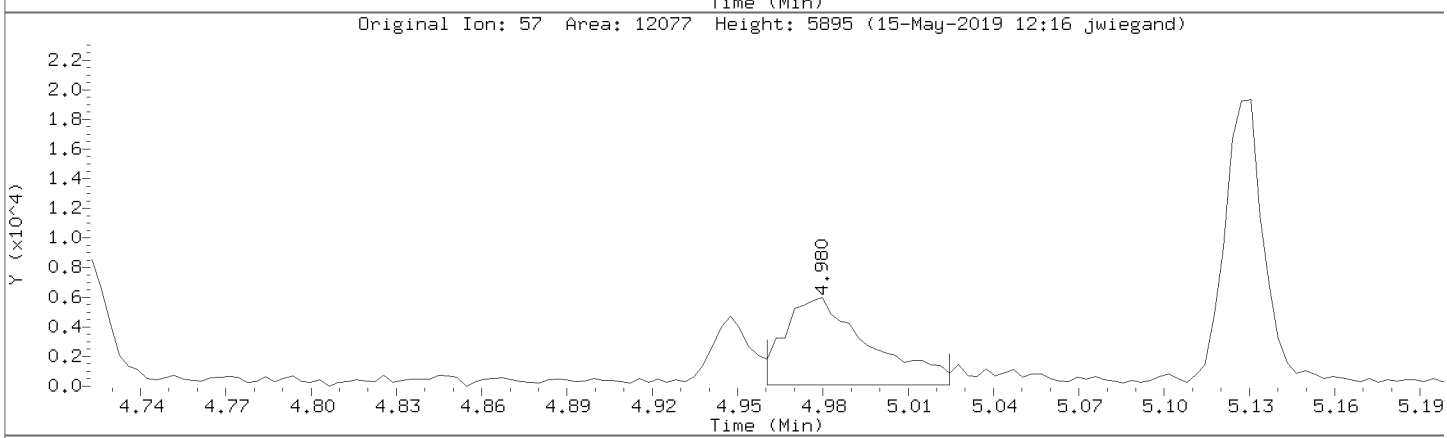
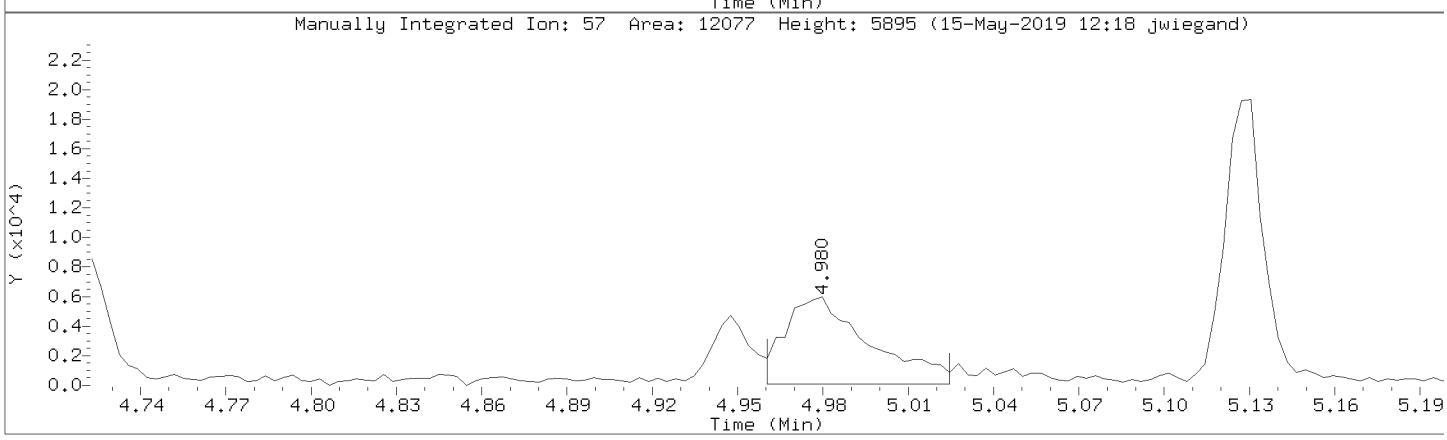
Injection Date: 14-MAY-2019 17:31
Instrument: 30mv6b.i
Lab Sample ID: CAL6









Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 14-MAY-2019 17:57
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal7, 87720:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 17:57 Cal File: 60514022.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	523360	200.000	194(QM)	LT
2 Chloromethane	50	1.331	1.328	(0.294)	675128	200.000	193(Q)	
3 Vinyl chloride	62	1.376	1.376	(0.304)	626297	200.000	194(Q)	
4 Bromomethane	94	1.568	1.569	(0.347)	328832	200.000	190(Q)	
5 Chloroethane	64	1.632	1.639	(0.361)	358656	200.000	200(Q)	
6 Trichlorofluoromethane	101	1.709	1.723	(0.378)	740160	200.000	216(Q)	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	488901	200.000	202(Q)	
8 Ethanol	45	2.043	2.017	(0.297)	117715	2000.00	(aQ)	
9 1,1-Dichloroethene	61	2.053	2.056	(0.454)	749489	200.000	193(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.072	2.079	(0.458)	377266	200.000	195(Q)	
11 Carbon disulfide	76	2.078	2.088	(0.460)	1327149	200.000	193(Q)	
12 Iodomethane	142	2.159	2.165	(0.478)	553339	200.000	210(Q)	
13 Acrolein	56	2.300	2.300	(0.509)	36586	200.000	195(QM)	LT
14 Allyl chloride	41	2.393	2.396	(0.529)	2901910	1000.00	972(Q)	
15 Methylene Chloride	49	2.479	2.486	(0.549)	711926	200.000	199(Q)	
16 Acetone	43	2.528	2.531	(0.559)	178262	200.000	192(QM)	LT
17 trans-1,2-Dichloroethene	61	2.605	2.602	(0.576)	736764	200.000	195(Q)	
18 Methyl acetate	74	2.617	2.621	(0.579)	175185	200.000	198(Q)	
19 n-Hexane	86	2.659	2.663	(0.588)	159670	200.000	190(Q)	
20 Methyl-tert-butyl ether	73	2.691	2.701	(0.595)	1645585	200.000	198(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.797	2.778	(0.619)	672343	1000.00	1000(Q)	
	22 Acetonitrile	41	2.929	2.923	(0.648)	315797	1000.00	1020(Q)	
	23 Diisopropyl ether	45	3.031	3.032	(0.671)	1776492	200.000	198(Q)	
	24 Chloroprene	53	3.128	3.131	(0.692)	436787	200.000	194(Q)	
	25 1,1-Dichloroethane	63	3.157	3.160	(0.698)	940171	200.000	195(Q)	
	26 Acrylonitrile	53	3.218	3.240	(0.712)	222660	200.000	193(Q)	
	27 Ethyl-tert-butyl ether	59	3.397	3.404	(0.752)	1914495	200.000	197(Q)	
	28 Vinyl acetate	43	3.420	3.430	(0.757)	1358049	200.000	202(Q)	
	29 cis-1,2-Dichloroethene	61	3.705	3.709	(0.820)	748877	200.000	196(Q)	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.839)	797540	200.000	197(Q)	
	31 Cyclohexane	56	3.859	3.863	(0.854)	871420	200.000	195(Q)	
	32 Bromochloromethane	130	3.869	3.866	(0.856)	405877	200.000	198(Q)	
	33 Chloroform	83	3.930	3.930	(0.869)	883634	200.000	194(Q)	
	34 Carbon tetrachloride	117	4.013	4.017	(0.888)	770706	200.000	193(Q)	
	35 Ethyl acetate	43	4.039	4.033	(0.894)	55400	200.000	195(Q)	
	36 Tetrahydrofuran	42	4.042	4.046	(0.894)	215190	200.000	198(Q)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	113919	30.0000	30.3(Q)	
	38 1,1,1-Trichloroethane	97	4.061	4.067	(0.898)	831928	200.000	197(Q)	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.917)	347606	200.000	198(Q)	
	40 1,1-Dichloropropene	75	4.145	4.142	(0.917)	696122	200.000	194(Q)	
	41 Benzene	78	4.296	4.296	(0.950)	2027141	200.000	196(Q)	
	42 Propionitrile	54	4.321	4.322	(0.956)	106475	200.000	209(Q)	
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	332702	200.000	196(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	1562487	200.000	198(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.968)	111383	30.0000	29.7(Q)	
	46 Isobutanol	43	4.440	4.437	(0.982)	248673	1000.00	1020(Q)	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.976)	759533	200.000	198(Q)	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	464272	30.0000	(Q)	
	49 Methylcyclohexane	83	4.597	4.598	(1.017)	935166	200.000	193(Q)	
	50 Trichloroethene	95	4.607	4.607	(0.783)	560222	200.000	196(Q)	
	51 Dibromomethane	174	4.809	4.810	(1.064)	440947	200.000	197(Q)	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.073)	559622	200.000	195(Q)	
	53 Bromodichloromethane	83	4.883	4.883	(1.080)	698369	200.000	196(Q)	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	414385	200.000	196(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.973	(1.101)	99042	2000.00	2000(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.134)	155904	200.000	190(Q)	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.141)	896043	200.000	195(Q)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	435012	30.0000	30.3(Q)	
	59 Toluene	91	5.255	5.256	(0.893)	2364887	200.000	200(Q)	
	60 2-Nitropropane	43	5.361	5.361	(1.186)	1159166	1000.00	996(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.197)	674035	200.000	196(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	702758	200.000	196(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	889598	200.000	199(Q)	
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	542105	200.000	199(Q)	
	65 1,1,2-Trichloroethane	97	5.499	5.503	(0.934)	529949	200.000	198(Q)	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	696995	200.000	198(Q)	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	867654	200.000	199(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	582996	200.000	198(Q)	
	69 2-Hexanone	43	5.756	5.756	(0.978)	531135	200.000	200(Q)	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	959850	200.000	196(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	392450	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	1786323	200.000	198(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	723692	200.000	196(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	2396461	400.000	397(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.138	(1.043)	1213593	200.000	197(Q)	
76	Styrene	104	6.160	6.160	(1.046)	2090536	200.000	196(Q)	
77	Bromoform	173	6.186	6.186	(0.900)	580298	200.000	198(Q)	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	3115368	200.000	202(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	176590	30.0000	30.2(Q)	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	3571171	200.000	204(Q)	
81	Bromobenzene	77	6.446	6.446	(0.938)	1304353	200.000	198(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.475	6.472	(0.942)	794970	200.000	199(Q)	
83	1,3,5-Trimethylbenzene	105	6.516	6.513	(0.948)	2834241	200.000	202(Q)	
84	2-Chlorotoluene	126	6.516	6.520	(0.948)	845699	200.000	197(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	284300	200.000	198(Q)	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	251106	200.000	207(Q)	
87	Cyclohexanone	55	6.571	6.568	(0.956)	314864	1000.00	993(Q)	
88	4-Chlorotoluene	126	6.587	6.590	(0.958)	895394	200.000	197(Q)	
89	tert-Butylbenzene	119	6.654	6.655	(0.968)	2537280	200.000	199(Q)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	2905693	200.000	202(Q)	
91	sec-Butylbenzene	105	6.731	6.732	(0.979)	3613263	200.000	205(Q)	
92	p-Isopropyltoluene	119	6.786	6.783	(0.987)	3317918	200.000	203(Q)	
93	1,3-Dichlorobenzene	146	6.844	6.841	(0.996)	1844086	200.000	199(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	239846	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	1878943	200.000	200(Q)	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	2718360	200.000	201(Q)	
97	1,2-Dichlorobenzene	146	7.065	7.065	(1.028)	1770741	200.000	200(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	91198	30.0000	30.0(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	269937	200.000	204(Q)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	1286017	200.000	206(Q)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	640144	200.000	206(Q)	
101	1,2,4-Trichlorobenzene	180	7.697	7.698	(1.120)	1050581	200.000	217(Q)	
102	Naphthalene	128	7.838	7.839	(1.141)	2155606	200.000	224(Q)	
103	1,2,3-Trichlorobenzene	180	7.922	7.919	(1.153)	685481	200.000	237(Q)	
104	2-Methylnaphthalene	142	8.288	8.287	(1.206)	150048	200.000	200(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
    :

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514022.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	464272	5.31
71 Chlorobenzene-d5	378709	189355	757418	392450	3.63
94 1,4-Dichlorobenze	227359	113680	454718	239846	5.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.07
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	194	
74-87-3	Chloromethane	193	
75-01-4	Vinyl chloride	194	
74-83-9	Bromomethane	190	
75-00-3	Chloroethane	200	
75-69-4	Trichlorofluoromethane	216	
60-29-7	Diethyl ether (Ethyl ether)	202	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	193	
76-13-1	1,1,2-Trichlorotrifluoroetha	195	
75-15-0	Carbon disulfide	193	
74-88-4	Iodomethane	210	
107-02-8	Acrolein	195	
107-05-1	Allyl chloride	972	
75-09-2	Methylene Chloride	199	
67-64-1	Acetone	192	
156-60-5	trans-1,2-Dichloroethene	195	
79-20-9	Methyl acetate	198	
110-54-3	n-Hexane	190	
1634-04-4	Methyl-tert-butyl ether	198	
75-65-0	tert-Butyl Alcohol	1000	
75-05-8	Acetonitrile	1020	
108-20-3	Diisopropyl ether	198	
126-99-8	Chloroprene	194	
75-34-3	1,1-Dichloroethane	195	
107-13-1	Acrylonitrile	193	
637-92-3	Ethyl-tert-butyl ether	197	
108-05-4	Vinyl acetate	202	
156-59-2	cis-1,2-Dichloroethene	196	
594-20-7	2,2-Dichloropropane	197	
110-82-7	Cyclohexane	195	
74-97-5	Bromochloromethane	198	
67-66-3	Chloroform	194	
56-23-5	Carbon tetrachloride	193	
141-78-6	Ethyl acetate	195	
109-99-9	Tetrahydrofuran	198	
71-55-6	1,1,1-Trichloroethane	197	
78-93-3	2-Butanone (MEK)	198	
563-58-6	1,1-Dichloropropene	194	
71-43-2	Benzene	196	
107-12-0	Propionitrile	209	
126-98-7	Methacrylonitrile	196	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	198	
78-83-1	Isobutanol	1020	
107-06-2	1,2-Dichloroethane	198	
108-87-2	Methylcyclohexane	193	
79-01-6	Trichloroethene	196	
74-95-3	Dibromomethane	197	
78-87-5	1,2-Dichloropropane	195	
75-27-4	Bromodichloromethane	196	
80-62-6	Methyl methacrylate	196	
123-91-1	1,4-Dioxane (p-Dioxane)	2000	
110-75-8	2-Chloroethylvinyl ether	190	
10061-01-5	cis-1,3-Dichloropropene	195	
108-88-3	Toluene	200	
79-46-9	2-Nitropropane	996	
108-10-1	4-Methyl-2-pentanone (MIBK)	196	
127-18-4	Tetrachloroethene	196	
10061-02-6	trans-1,3-Dichloropropene	199	
97-63-2	Ethyl methacrylate	199	
79-00-5	1,1,2-Trichloroethane	198	
124-48-1	Dibromochloromethane	198	
142-28-9	1,3-Dichloropropane	199	
106-93-4	1,2-Dibromoethane (EDB)	198	
591-78-6	2-Hexanone	200	
100-41-4	Ethylbenzene	196	
108-90-7	Chlorobenzene	198	
630-20-6	1,1,1,2-Tetrachloroethane	196	
7816-60-0	m&p-Xylene	397	
95-47-6	o-Xylene	197	
100-42-5	Styrene	196	
75-25-2	Bromoform	198	
98-82-8	Isopropylbenzene (Cumene)	202	
103-65-1	n-Propylbenzene	204	
108-86-1	Bromobenzene	198	
79-34-5	1,1,2,2-Tetrachloroethane	199	
108-67-8	1,3,5-Trimethylbenzene	202	
95-49-8	2-Chlorotoluene	197	
96-18-4	1,2,3-Trichloropropane	198	
110-57-6	trans-1,4-Dichloro-2-butene	207	
108-94-1	Cyclohexanone	993	
106-43-4	4-Chlorotoluene	197	
98-06-6	tert-Butylbenzene	199	
95-63-6	1,2,4-Trimethylbenzene	202	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Report Date: 07-Jun-2019 10:51

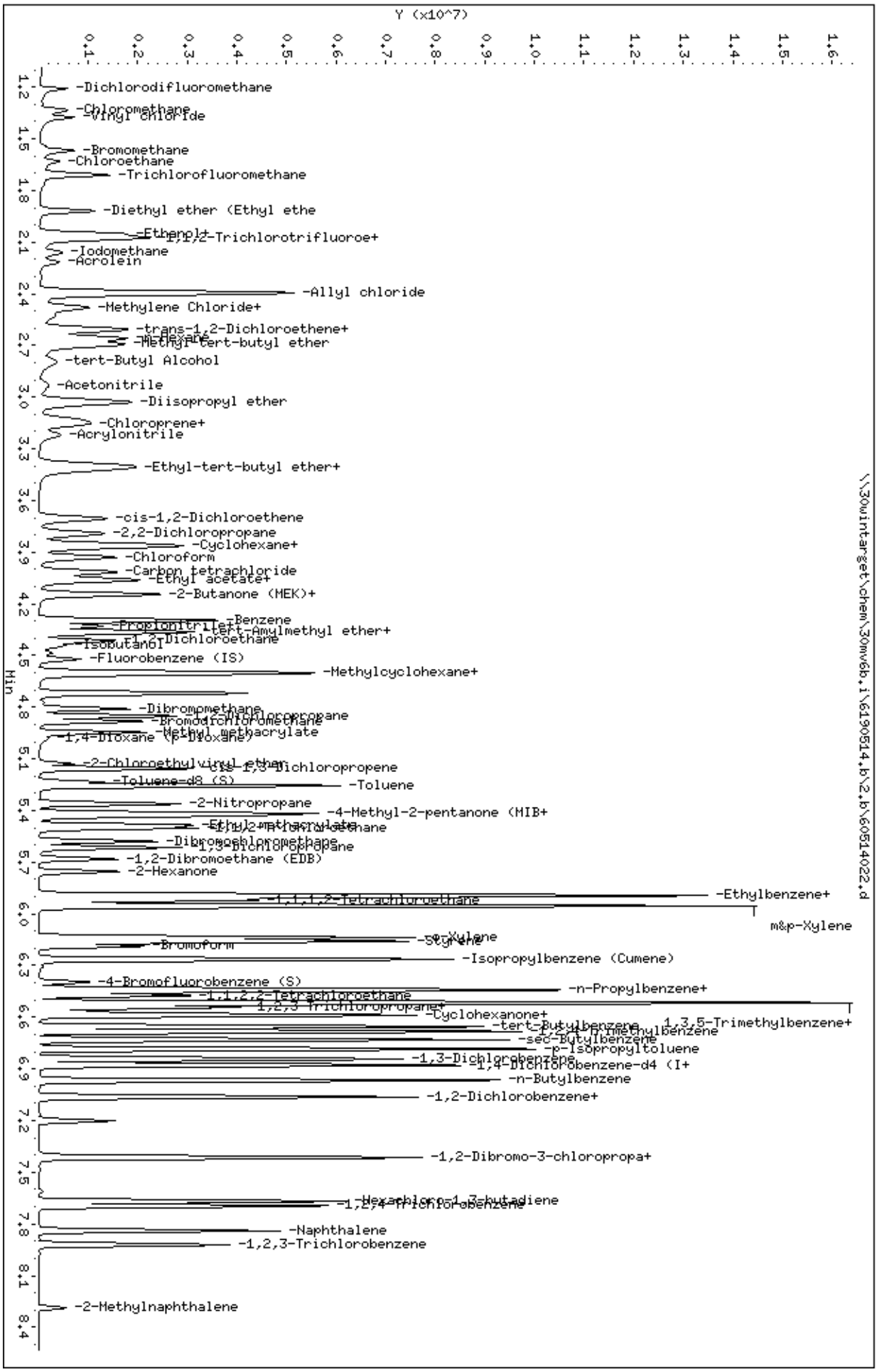
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	205	
99-87-6	p-Isopropyltoluene	203	
541-73-1	1,3-Dichlorobenzene	199	
106-46-7	1,4-Dichlorobenzene	200	
104-51-8	n-Butylbenzene	201	
95-50-1	1,2-Dichlorobenzene	200	
96-12-8	1,2-Dibromo-3-chloropropane	204	
108-70-3	1,3,5-Trichlorobenzene	206	
87-68-3	Hexachloro-1,3-butadiene	206	
120-82-1	1,2,4-Trichlorobenzene	217	
91-20-3	Naphthalene	224	
87-61-6	1,2,3-Trichlorobenzene	237	
91-57-6	2-Methylnaphthalene	200	
1868-53-7	Dibromofluoromethane (S)	30.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.7	
2037-26-5	Toluene-d8 (S)	30.3	
460-00-4	4-Bromofluorobenzene (S)	30.2	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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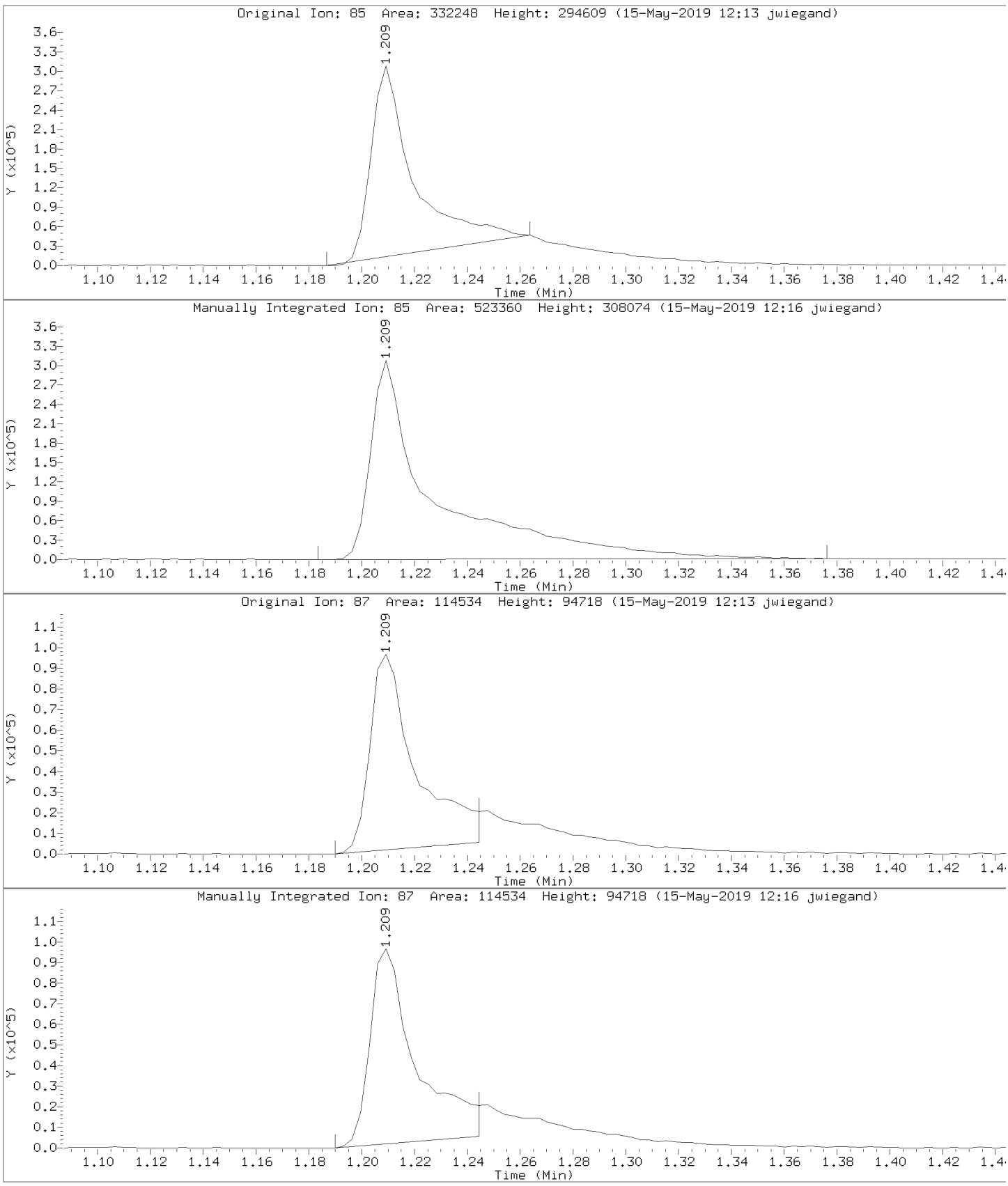
Date : 14-MAY-2019 17:57
Client ID: CAL7
Sample Info: CAL7, 87720:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514022.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Propionitrile
-Benzene
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibrommethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514022.d
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-69-4



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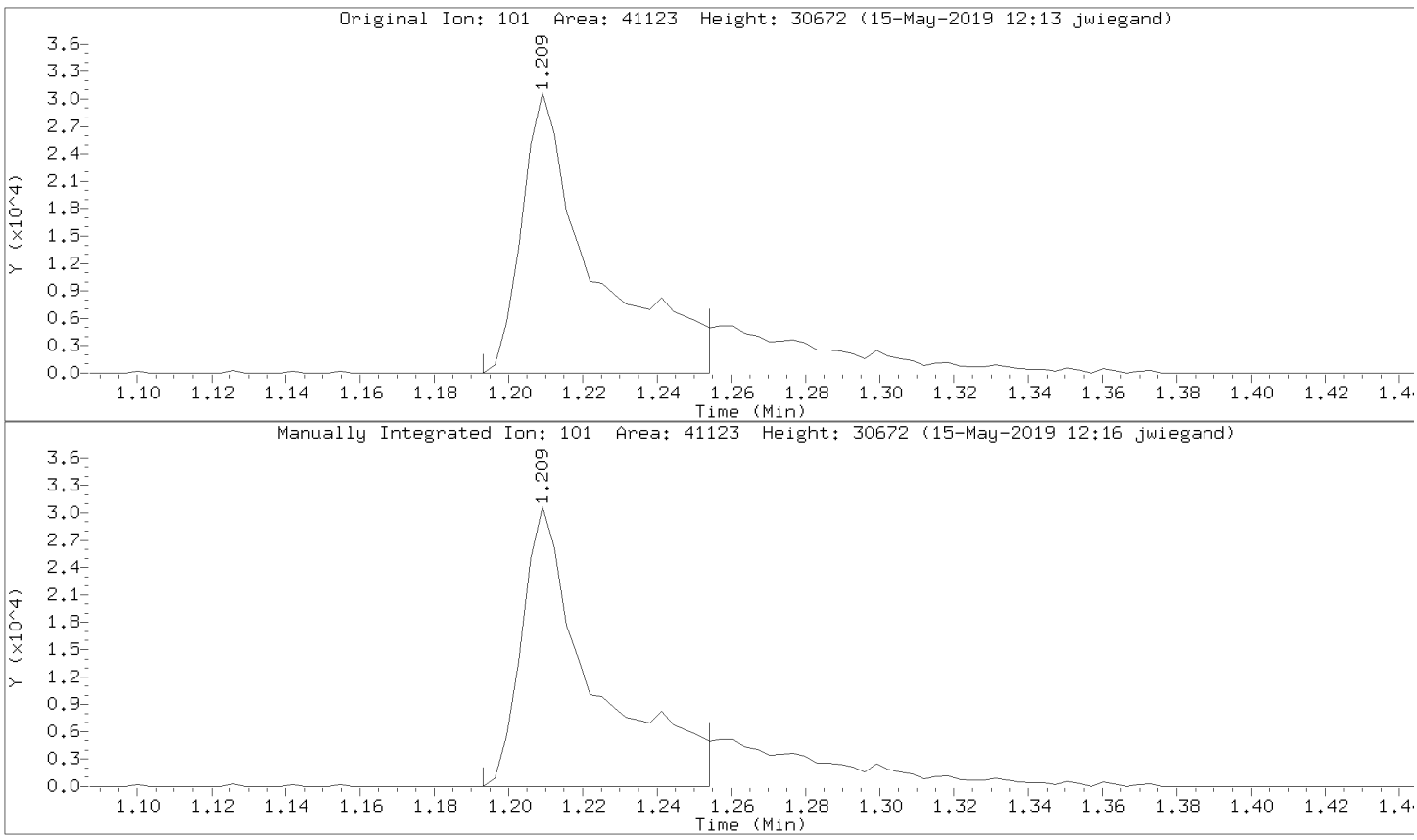
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7



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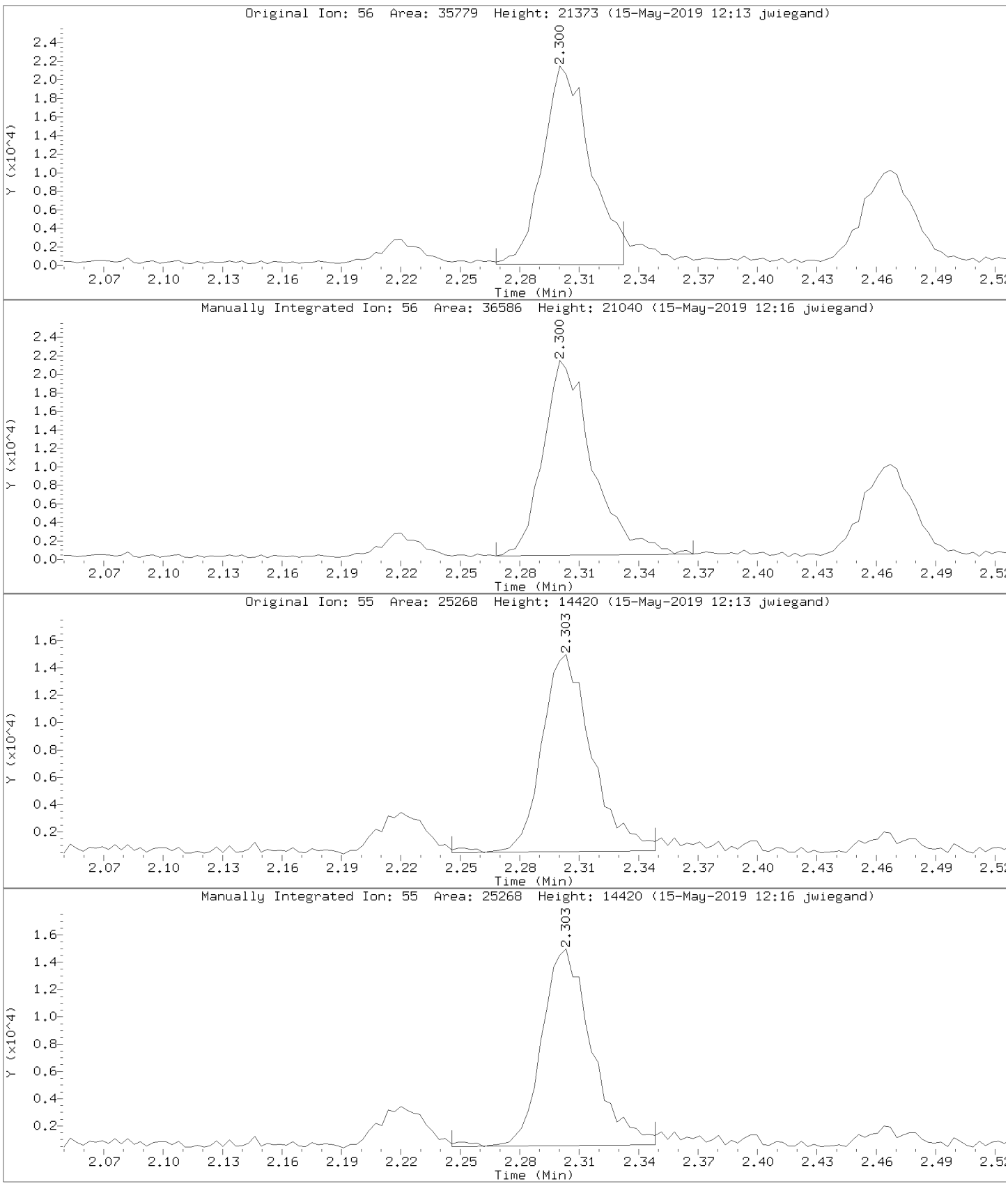
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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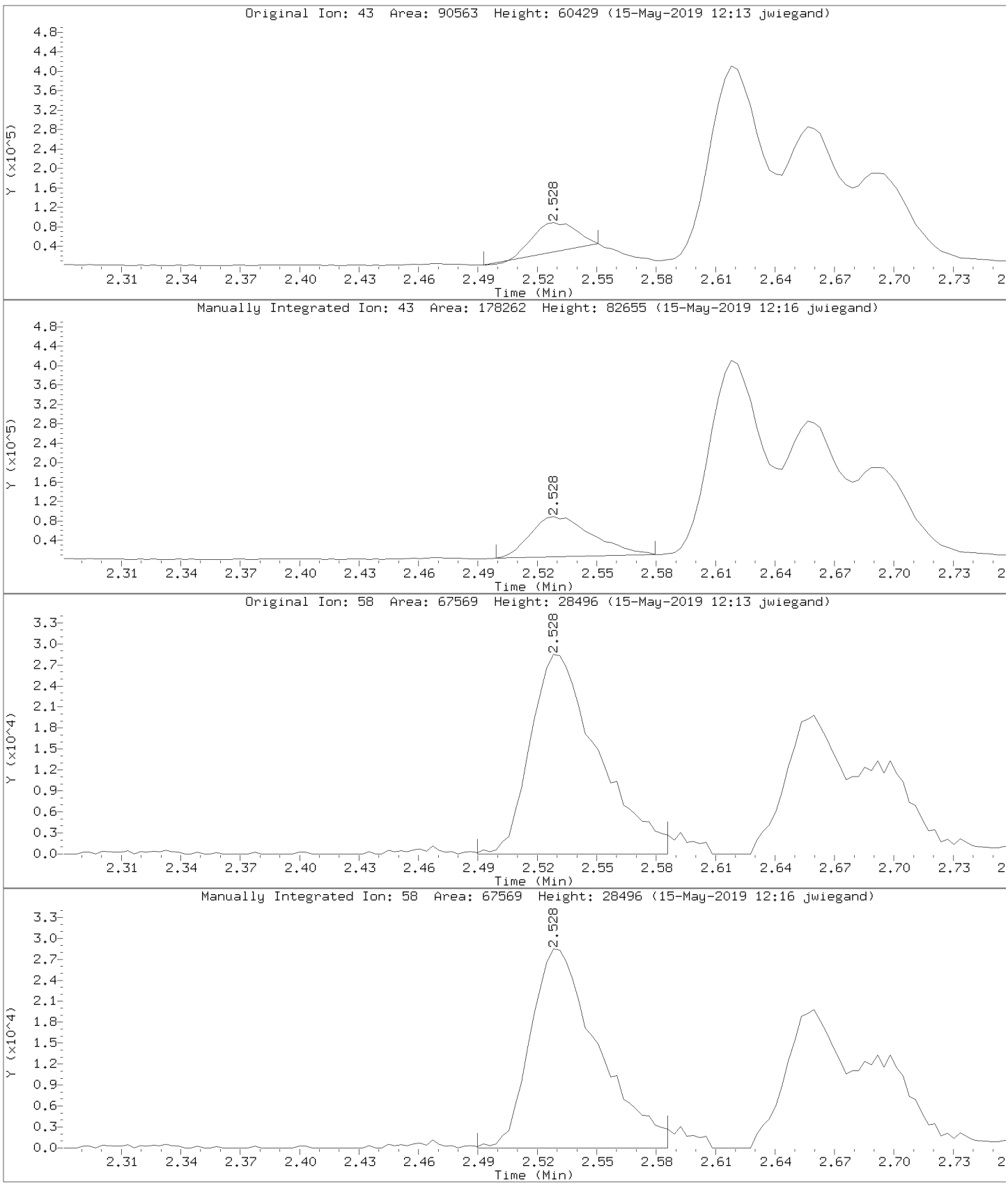
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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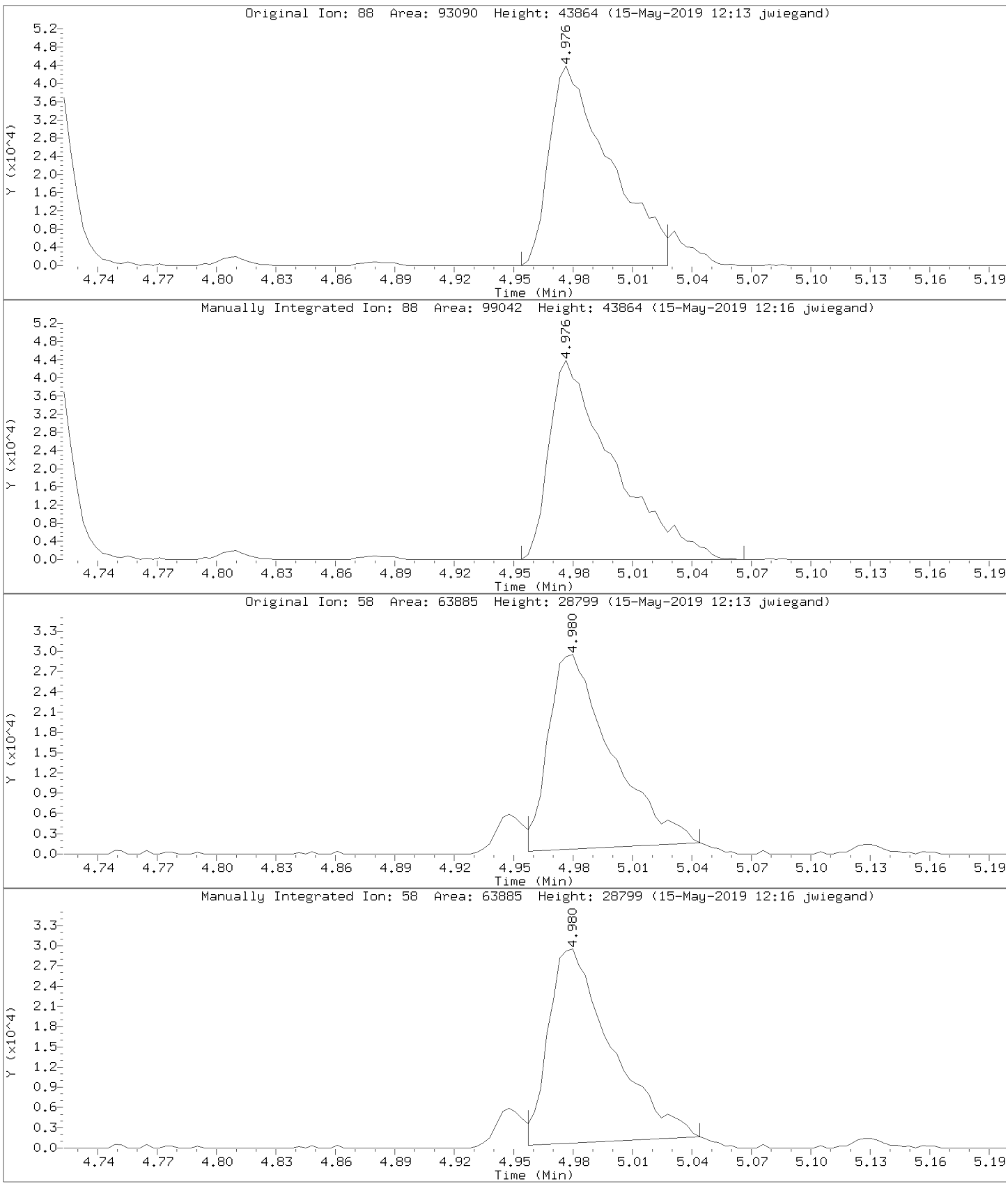
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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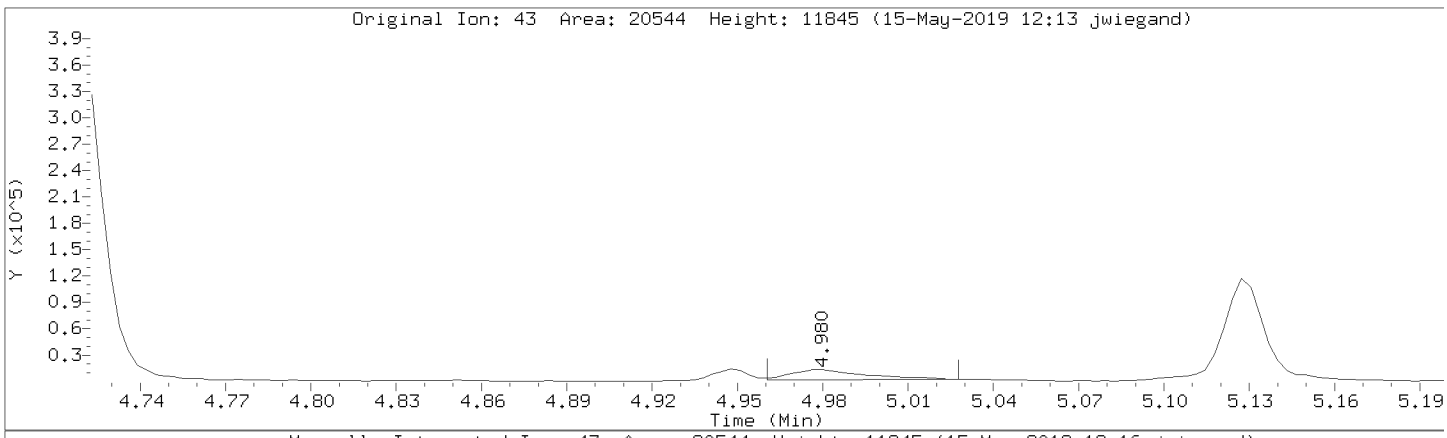
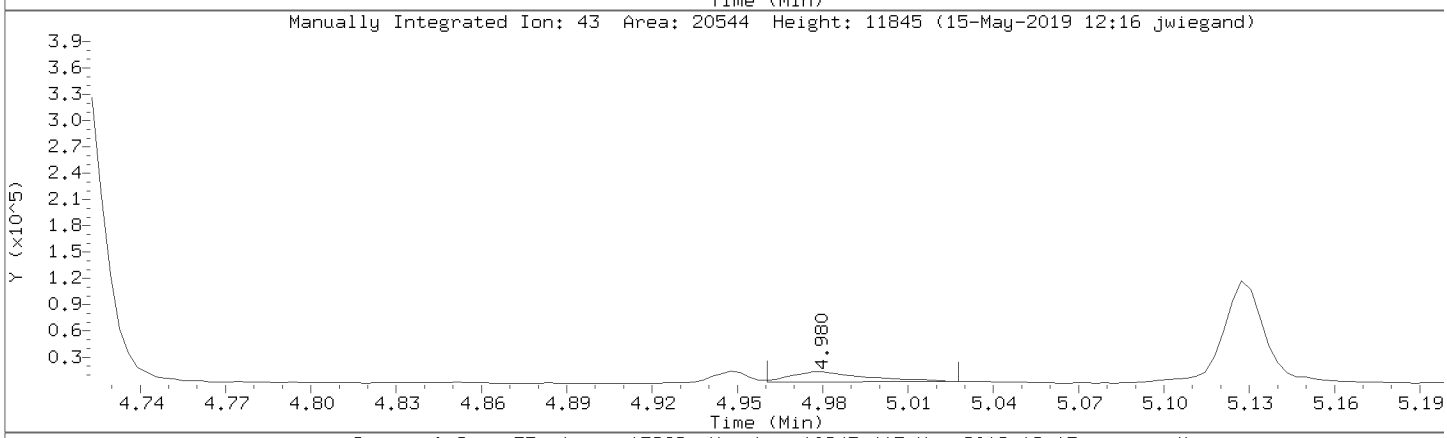
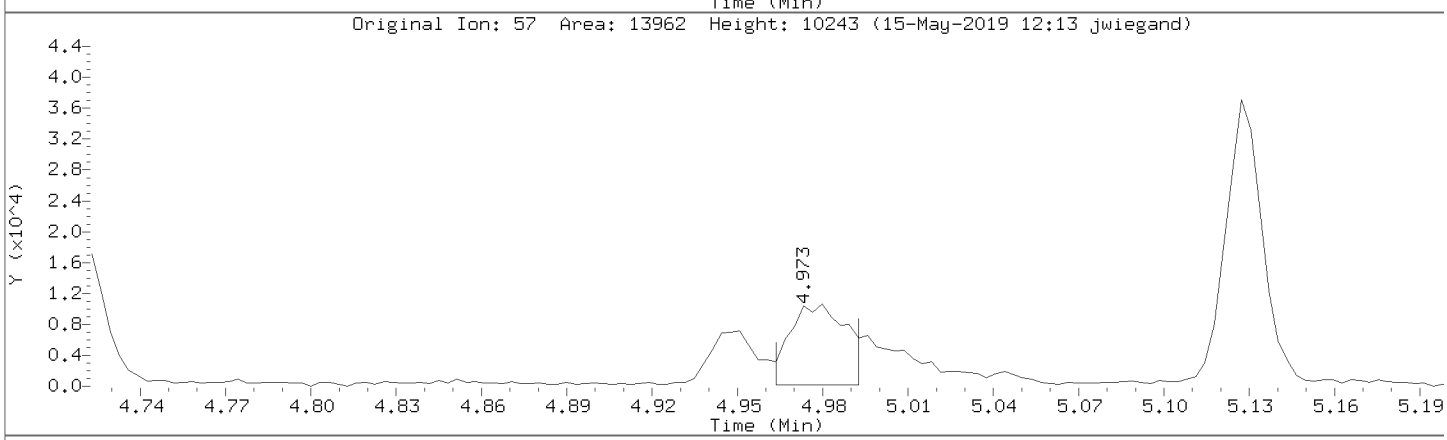
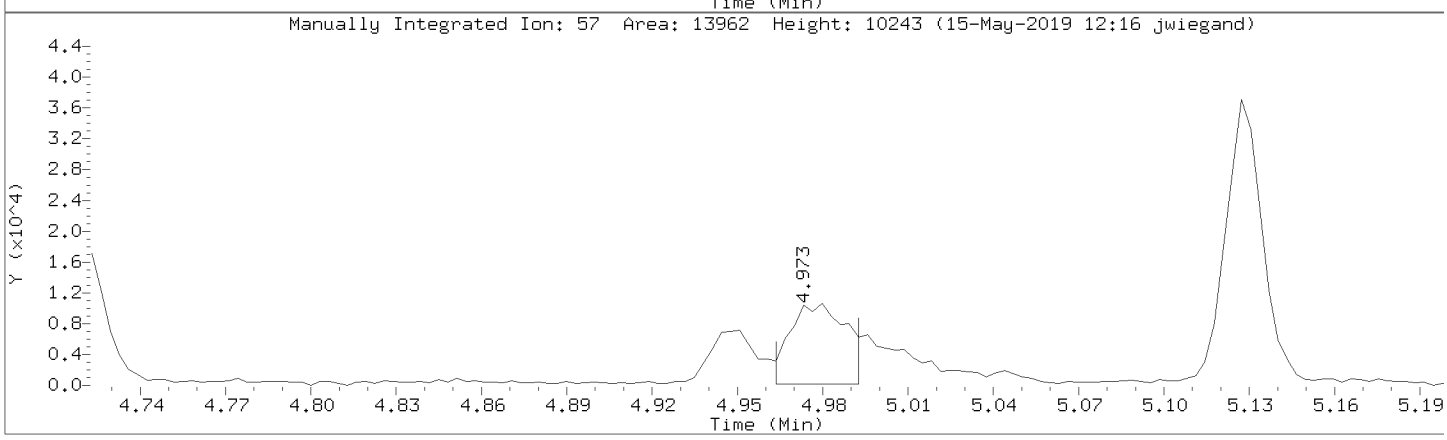
Injection Date: 14-MAY-2019 17:57
Instrument: 30mv6b.i
Lab Sample ID: CAL7









Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 14-MAY-2019 18:23
Operator : JEW Inst ID: 30mv6b.i
Smp Info : cal8, 87721:1
Misc Info : 44460,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 18:23 Cal File: 60514024.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.205	1.212	(0.267)	1154840	400.000	400(QM)	LT
2 Chloromethane	50	1.331	1.328	(0.294)	1501117	400.000	400(Q)	
3 Vinyl chloride	62	1.372	1.376	(0.304)	1378165	400.000	400(Q)	
4 Bromomethane	94	1.565	1.569	(0.346)	754107	400.000	400(AQ)	
5 Chloroethane	64	1.626	1.639	(0.360)	665036	400.000	(aQ)	
6 Trichlorofluoromethane	101	1.700	1.723	(0.376)	1304616	400.000	400(Q)	
7 Diethyl ether (Ethyl ether)	59	1.918	1.922	(0.424)	995785	400.000	400(Q)	
8 Ethanol	45	2.072	2.017	(0.302)	198324	4000.00	(aQ)	
9 1,1-Dichloroethene	61	2.043	2.056	(0.452)	1667882	400.000	400(AQ)	
10 1,1,2-Trichlorotrifluoroethane	151	2.065	2.079	(0.457)	820421	400.000	400(Q)	
11 Carbon disulfide	76	2.072	2.088	(0.458)	2945779	400.000	400(AQ)	
12 Iodomethane	142	2.155	2.165	(0.477)	1034905	400.000	400(Q)	
13 Acrolein	56	2.303	2.300	(0.509)	79730	400.000	400(Q)	
14 Allyl chloride	41	2.389	2.396	(0.529)	6369809	2000.00	2000(Q)	
15 Methylene Chloride	49	2.476	2.486	(0.548)	1494991	400.000	400(Q)	
16 Acetone	43	2.531	2.531	(0.560)	400338	400.000	400(AQ)	
17 trans-1,2-Dichloroethene	61	2.598	2.602	(0.575)	1609041	400.000	400(Q)	
18 Methyl acetate	74	2.617	2.621	(0.579)	370086	400.000	400(Q)	
19 n-Hexane	86	2.653	2.663	(0.587)	366143	400.000	400(Q)	
20 Methyl-tert-butyl ether	73	2.694	2.701	(0.596)	3464960	400.000	400(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.807	2.778	(0.621)	1390251	2000.00	2000(AQ)	
	22 Acetonitrile	41	2.932	2.923	(0.649)	626110	2000.00	2000(Q)	
	23 Diisopropyl ether	45	3.028	3.032	(0.670)	3770610	400.000	400(Q)	
	24 Chloroprene	53	3.124	3.131	(0.691)	964913	400.000	400(AQ)	
	25 1,1-Dichloroethane	63	3.153	3.160	(0.698)	2052695	400.000	400(Q)	
	26 Acrylonitrile	53	3.221	3.240	(0.713)	493926	400.000	400(Q)	
	27 Ethyl-tert-butyl ether	59	3.400	3.404	(0.752)	4110695	400.000	400(AQ)	
	28 Vinyl acetate	43	3.420	3.430	(0.757)	2767883	400.000	400(AQ)	
	29 cis-1,2-Dichloroethene	61	3.705	3.709	(0.820)	1607973	400.000	400(Q)	
	30 2,2-Dichloropropane	77	3.789	3.789	(0.838)	1703605	400.000	400(Q)	
	31 Cyclohexane	56	3.856	3.863	(0.853)	1904907	400.000	400(AQ)	
	32 Bromochloromethane	130	3.869	3.866	(0.856)	861814	400.000	400(AQ)	
	33 Chloroform	83	3.930	3.930	(0.869)	1946148	400.000	400(Q)	
	34 Carbon tetrachloride	117	4.013	4.017	(0.888)	1707460	400.000	400(AQ)	
	35 Ethyl acetate	43	4.042	4.033	(0.894)	120917	400.000	400(Q)	
	36 Tetrahydrofuran	42	4.042	4.046	(0.894)	453047	400.000	400(AQ)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	116061	30.0000	30.0(Q)	
	38 1,1,1-Trichloroethane	97	4.061	4.067	(0.898)	1783795	400.000	400(Q)	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.917)	731602	400.000	400(AQ)	
	40 1,1-Dichloropropene	75	4.142	4.142	(0.916)	1531369	400.000	400(Q)	
	41 Benzene	78	4.296	4.296	(0.950)	4374074	400.000	400(Q)	
	42 Propionitrile	54	4.324	4.322	(0.957)	202434	400.000	400(QM)	CO
	43 Methacrylonitrile	41	4.331	4.325	(0.958)	720096	400.000	400(Q)	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	3308638	400.000	400(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.968)	118009	30.0000	30.0(Q)	
	46 Isobutanol	43	4.450	4.437	(0.984)	499851	2000.00	2000(QM)	CO
	47 1,2-Dichloroethane	62	4.414	4.412	(0.977)	1613552	400.000	400(Q)	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	481772	30.0000	(Q)	
	49 Methylcyclohexane	83	4.597	4.598	(1.017)	2073498	400.000	400(AQ)	
	50 Trichloroethene	95	4.607	4.607	(0.783)	1241610	400.000	400(Q)	
	51 Dibromomethane	174	4.809	4.810	(1.064)	943328	400.000	400(AQ)	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.073)	1217993	400.000	400(AQ)	
	53 Bromodichloromethane	83	4.883	4.883	(1.080)	1506426	400.000	400(AQ)	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	893485	400.000	400(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.973	(1.101)	205743	4000.00	4000(AQM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.130	(1.135)	357233	400.000	400(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.141)	1950391	400.000	400(AQ)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	456519	30.0000	30.0(Q)	
	59 Toluene	91	5.255	5.256	(0.893)	5073167	400.000	400(Q)	
	60 2-Nitropropane	43	5.364	5.361	(1.187)	2423140	2000.00	2000(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.415	5.413	(1.198)	1459752	400.000	400(Q)	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	1565443	400.000	400(AQ)	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	1922772	400.000	400(AQ)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	1170009	400.000	400(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	1154669	400.000	400(AQ)	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	1520967	400.000	400(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	1883412	400.000	400(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	1268686	400.000	400(Q)	
	69 2-Hexanone	43	5.756	5.756	(0.978)	1140033	400.000	400(Q)	
	70 Ethylbenzene	106	5.897	5.894	(1.002)	2140744	400.000	400(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	420288	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	3894759	400.000	400(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	1608760	400.000	400(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	5204386	800.000	800(Q)	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.137	6.138	(1.043)	2687867	400.000	400(Q)	
	76 Styrene	104	6.160	6.160	(1.046)	4636123	400.000	400(AQ)	
	77 Bromoform	173	6.189	6.186	(0.901)	1269144	400.000	400(Q)	
	78 Isopropylbenzene (Cumene)	105	6.266	6.263	(0.912)	6570447	400.000	400(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	187055	30.0000	30.0(Q)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	7385043	400.000	400(AQ)	
	81 Bromobenzene	77	6.449	6.446	(0.938)	2848686	400.000	400(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.474	6.472	(0.942)	1727469	400.000	400(Q)	
	83 1,3,5-Trimethylbenzene	105	6.516	6.513	(0.948)	5938605	400.000	400(Q)	
	84 2-Chlorotoluene	126	6.519	6.520	(0.949)	1865122	400.000	400(Q)	
	85 1,2,3-Trichloropropane	110	6.542	6.539	(0.952)	619586	400.000	400(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.548	6.546	(0.953)	501852	400.000	400(Q)	
	87 Cyclohexanone	55	6.574	6.568	(0.957)	685260	2000.00	2000(Q)	
	88 4-Chlorotoluene	126	6.590	6.590	(0.959)	1977399	400.000	400(Q)	
	89 tert-Butylbenzene	119	6.657	6.655	(0.969)	5517879	400.000	400(AQ)	
	90 1,2,4-Trimethylbenzene	105	6.686	6.684	(0.973)	6092561	400.000	400(Q)	
	91 sec-Butylbenzene	105	6.731	6.732	(0.979)	7387667	400.000	400(Q)	
	92 p-Isopropyltoluene	119	6.786	6.783	(0.987)	6914663	400.000	400(Q)	
	93 1,3-Dichlorobenzene	146	6.843	6.841	(0.996)	3994718	400.000	400(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	257437	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.882	6.879	(1.001)	4029398	400.000	400(AQ)	
	96 n-Butylbenzene	91	6.969	6.966	(1.014)	5768343	400.000	400(Q)	
	97 1,2-Dichlorobenzene	146	7.065	7.065	(1.028)	3788851	400.000	400(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	7.058	7.059	(1.027)	97711	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	556555	400.000	400(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	2611476	400.000	400(AQ)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	1288183	400.000	400(Q)	
	101 1,2,4-Trichlorobenzene	180	7.697	7.698	(1.120)	1893854	400.000	400(Q)	
	102 Naphthalene	128	7.841	7.839	(1.141)	3633521	400.000	400(Q)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.919	(1.153)	1015221	400.000	400(Q)	
	104 2-Methylnaphthalene	142	8.287	8.287	(1.206)	138338	400.000	(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
    :
  CO: Indicates that the analyst had to split two co-eluting peaks
      apart that were not (or could not be) separated by the computer
      system.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514024.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Calibration Date: 14-MAY-2019
Calibration Time: 19:14
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	440864	220432	881728	481772	9.28
71 Chlorobenzene-d5	378709	189355	757418	420288	10.98
94 1,4-Dichlorobenze	227359	113680	454718	257437	13.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.07
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-69-4	Dichlorodifluoromethane	400	
74-87-3	Chloromethane	400	
75-01-4	Vinyl chloride	400	
74-83-9	Bromomethane	400	E
75-00-3	Chloroethane	0.000	J
75-69-4	Trichlorofluoromethane	400	
60-29-7	Diethyl ether (Ethyl ether)	400	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	400	E
76-13-1	1,1,2-Trichlorotrifluoroetha	400	
75-15-0	Carbon disulfide	400	E
74-88-4	Iodomethane	400	
107-02-8	Acrolein	400	
107-05-1	Allyl chloride	2000	
75-09-2	Methylene Chloride	400	
67-64-1	Acetone	400	E
156-60-5	trans-1,2-Dichloroethene	400	
79-20-9	Methyl acetate	400	
110-54-3	n-Hexane	400	
1634-04-4	Methyl-tert-butyl ether	400	
75-65-0	tert-Butyl Alcohol	2000	E
75-05-8	Acetonitrile	2000	
108-20-3	Diisopropyl ether	400	
126-99-8	Chloroprene	400	E
75-34-3	1,1-Dichloroethane	400	
107-13-1	Acrylonitrile	400	
637-92-3	Ethyl-tert-butyl ether	400	E
108-05-4	Vinyl acetate	400	E
156-59-2	cis-1,2-Dichloroethene	400	
594-20-7	2,2-Dichloropropane	400	
110-82-7	Cyclohexane	400	E
74-97-5	Bromochloromethane	400	E
67-66-3	Chloroform	400	
56-23-5	Carbon tetrachloride	400	E
141-78-6	Ethyl acetate	400	
109-99-9	Tetrahydrofuran	400	E
71-55-6	1,1,1-Trichloroethane	400	
78-93-3	2-Butanone (MEK)	400	E
563-58-6	1,1-Dichloropropene	400	
71-43-2	Benzene	400	
107-12-0	Propionitrile	400	
126-98-7	Methacrylonitrile	400	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	400	
78-83-1	Isobutanol	2000	
107-06-2	1,2-Dichloroethane	400	
108-87-2	Methylcyclohexane	400	E
79-01-6	Trichloroethene	400	
74-95-3	Dibromomethane	400	E
78-87-5	1,2-Dichloropropane	400	E
75-27-4	Bromodichloromethane	400	E
80-62-6	Methyl methacrylate	400	
123-91-1	1,4-Dioxane (p-Dioxane)	4000	E
110-75-8	2-Chloroethylvinyl ether	400	
10061-01-5	cis-1,3-Dichloropropene	400	E
108-88-3	Toluene	400	
79-46-9	2-Nitropropane	2000	
108-10-1	4-Methyl-2-pentanone (MIBK)	400	
127-18-4	Tetrachloroethene	400	E
10061-02-6	trans-1,3-Dichloropropene	400	E
97-63-2	Ethyl methacrylate	400	
79-00-5	1,1,2-Trichloroethane	400	E
124-48-1	Dibromochloromethane	400	
142-28-9	1,3-Dichloropropane	400	
106-93-4	1,2-Dibromoethane (EDB)	400	
591-78-6	2-Hexanone	400	
100-41-4	Ethylbenzene	400	
108-90-7	Chlorobenzene	400	
630-20-6	1,1,1,2-Tetrachloroethane	400	
7816-60-0	m&p-Xylene	800	
95-47-6	o-Xylene	400	
100-42-5	Styrene	400	E
75-25-2	Bromoform	400	
98-82-8	Isopropylbenzene (Cumene)	400	
103-65-1	n-Propylbenzene	400	E
108-86-1	Bromobenzene	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	
108-67-8	1,3,5-Trimethylbenzene	400	
95-49-8	2-Chlorotoluene	400	
96-18-4	1,2,3-Trichloropropane	400	
110-57-6	trans-1,4-Dichloro-2-butene	400	
108-94-1	Cyclohexanone	2000	
106-43-4	4-Chlorotoluene	400	
98-06-6	tert-Butylbenzene	400	E
95-63-6	1,2,4-Trimethylbenzene	400	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Report Date: 07-Jun-2019 10:51

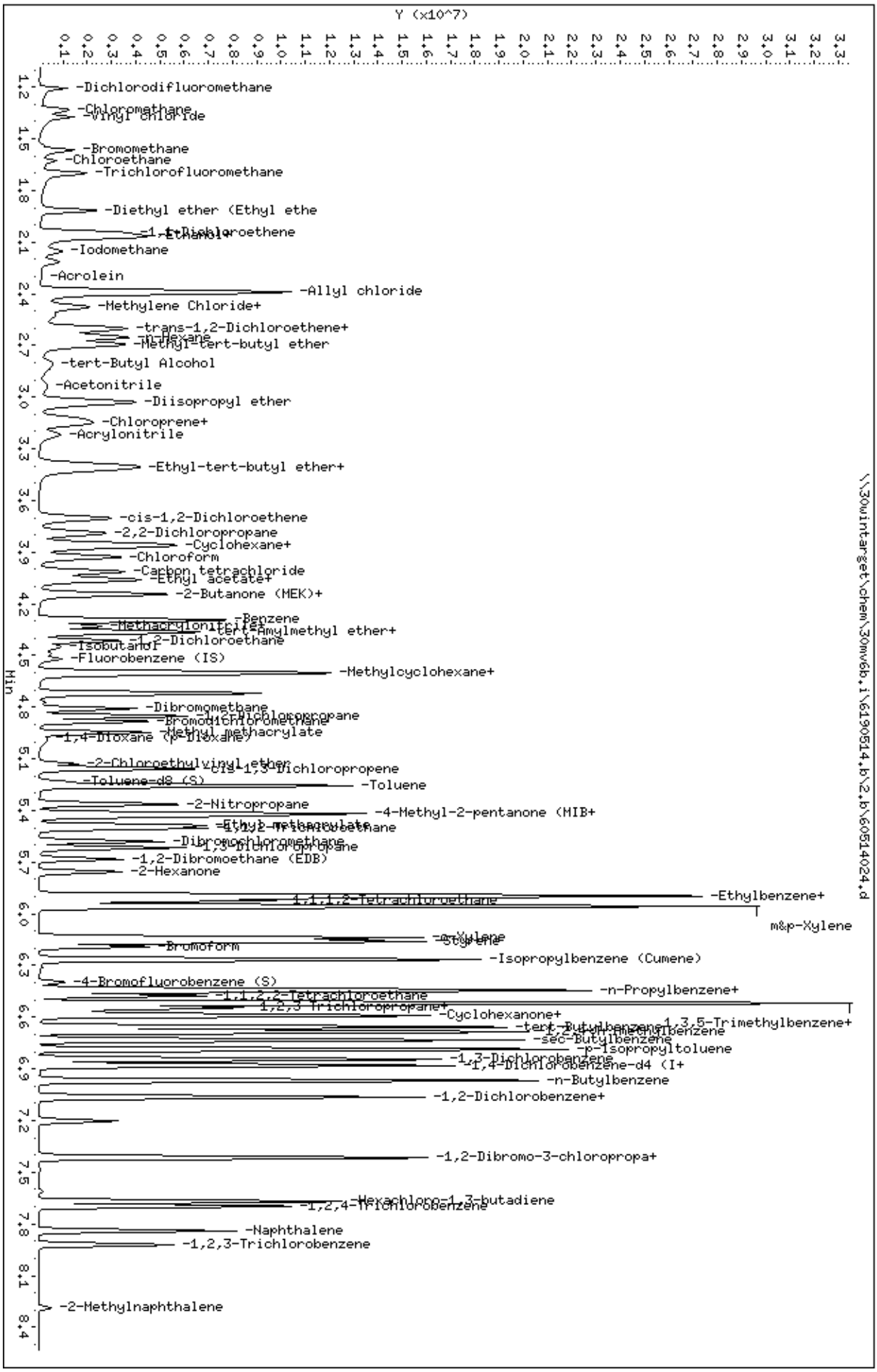
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 44460,

Client SDG: 30MV6B-2
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	400	
99-87-6	p-Isopropyltoluene	400	
541-73-1	1,3-Dichlorobenzene	400	
106-46-7	1,4-Dichlorobenzene	400	E
104-51-8	n-Butylbenzene	400	
95-50-1	1,2-Dichlorobenzene	400	
96-12-8	1,2-Dibromo-3-chloropropane	400	
108-70-3	1,3,5-Trichlorobenzene	400	E
87-68-3	Hexachloro-1,3-butadiene	400	
120-82-1	1,2,4-Trichlorobenzene	400	
91-20-3	Naphthalene	400	
87-61-6	1,2,3-Trichlorobenzene	400	
91-57-6	2-Methylnaphthalene	0.000	J
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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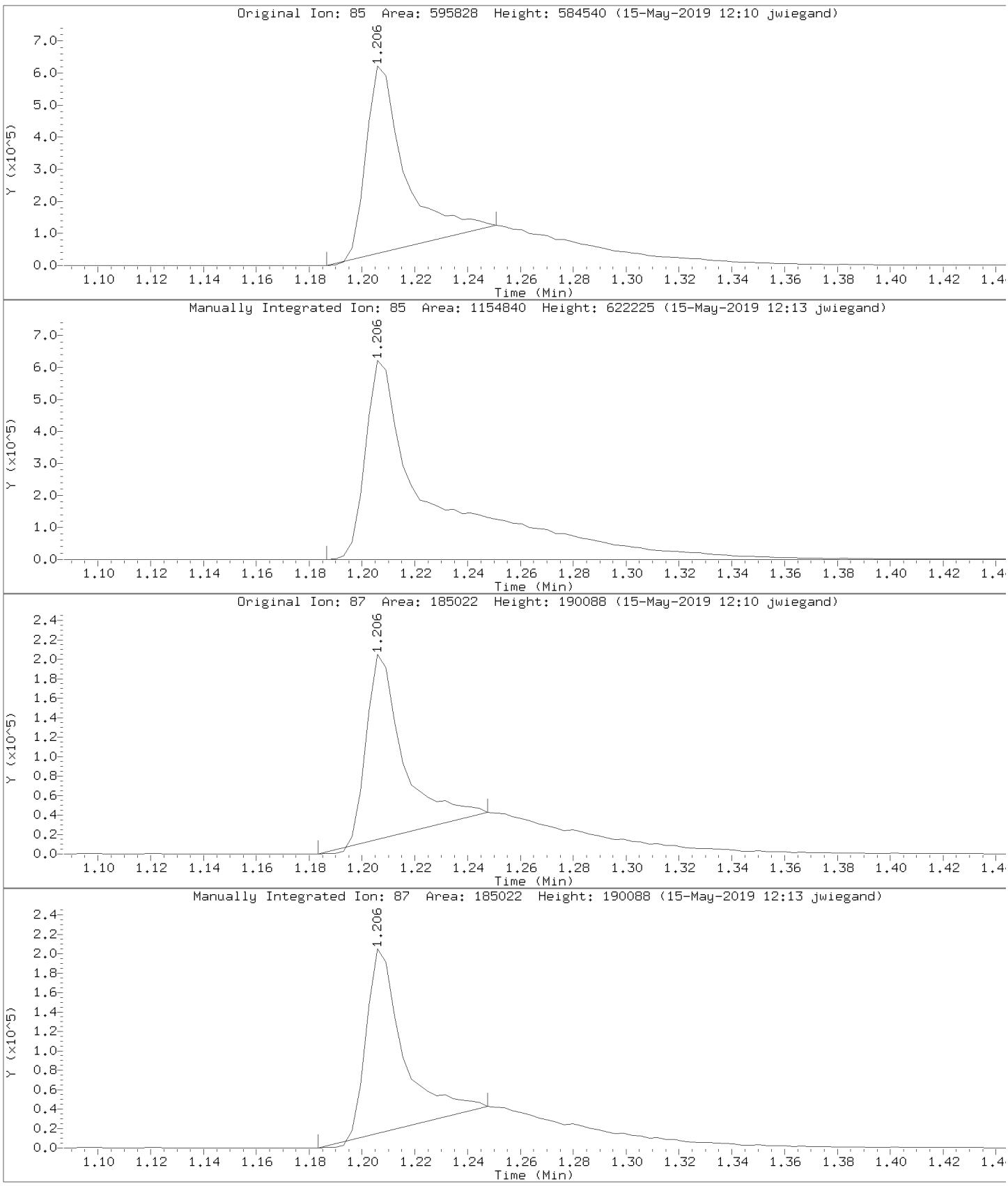
Date : 14-MAY-2019 18:23
Client ID: CAL8
Sample Info: CAL8, 8772:1
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514024.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514024.d
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-69-4



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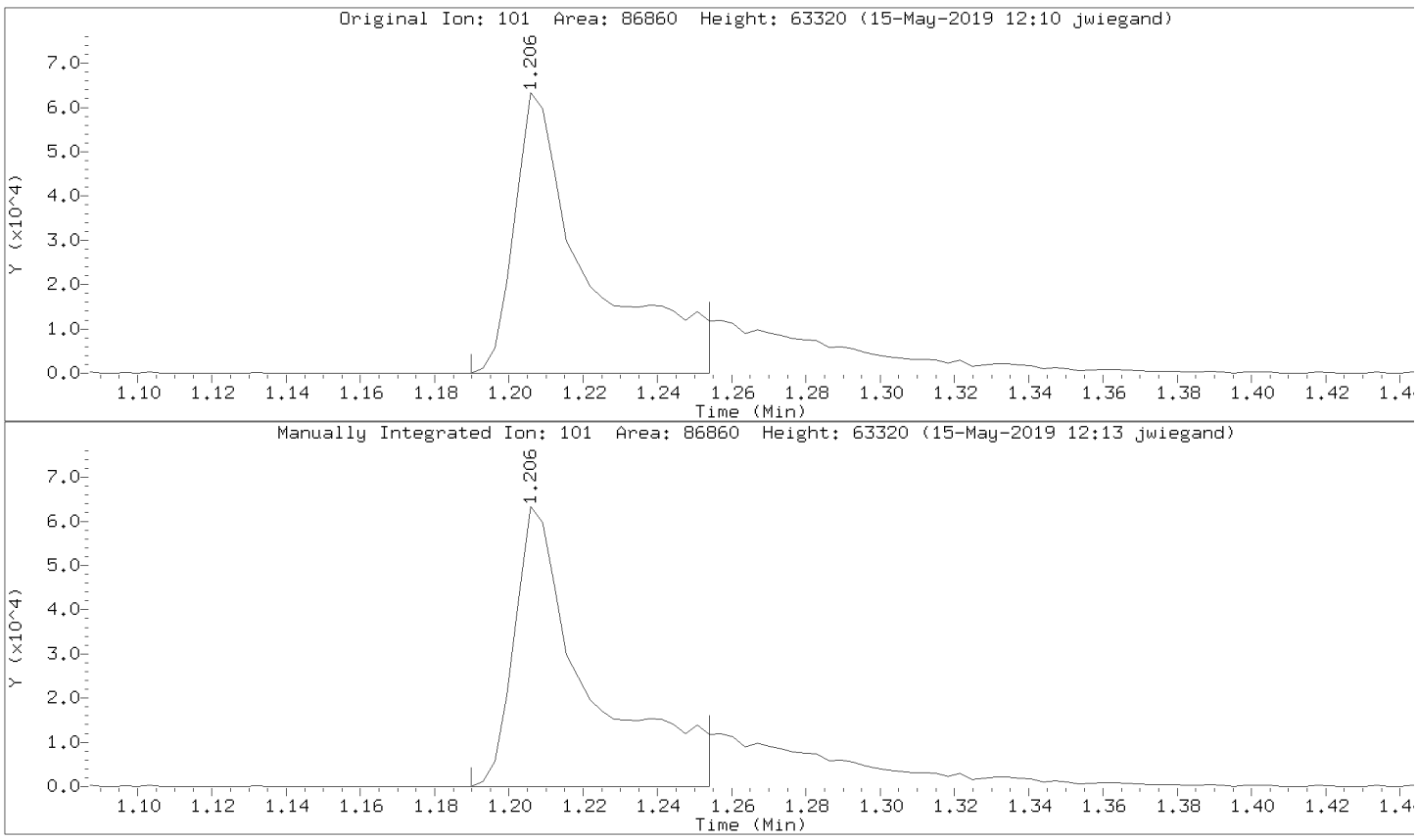
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8



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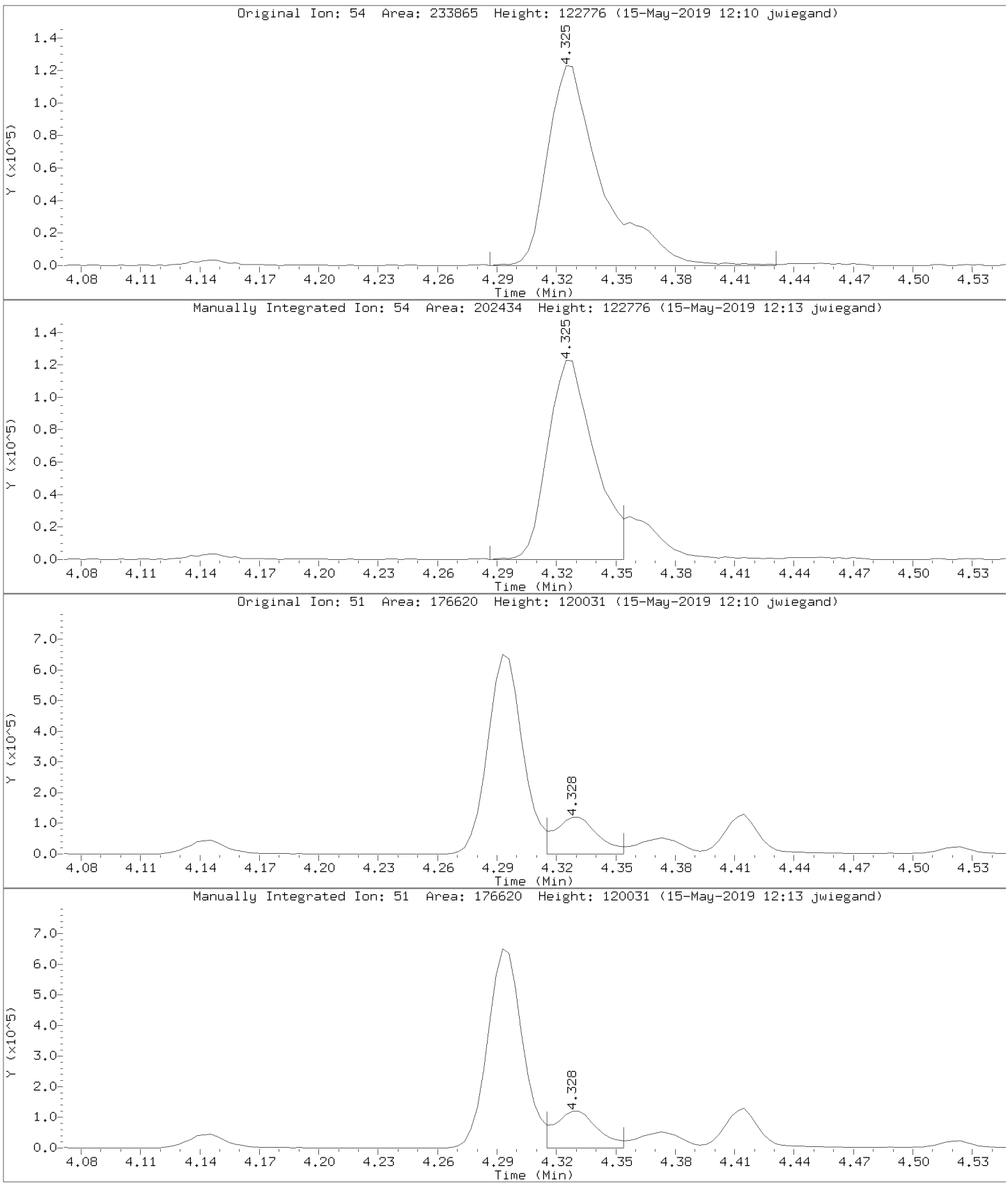
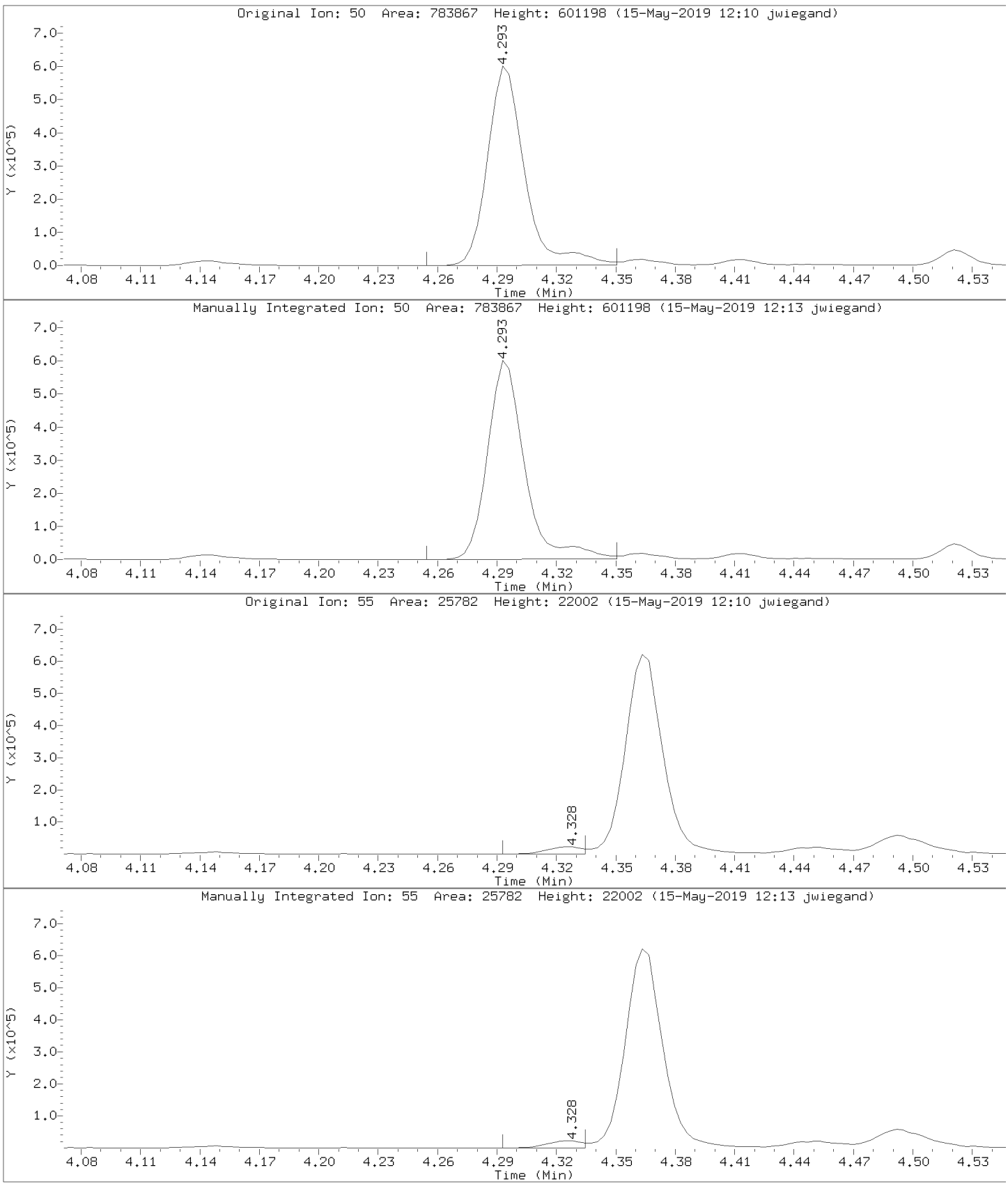
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8

Compound: Propionitrile Review Code: CO
CAS Number: 107-12-0



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514024.d
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8



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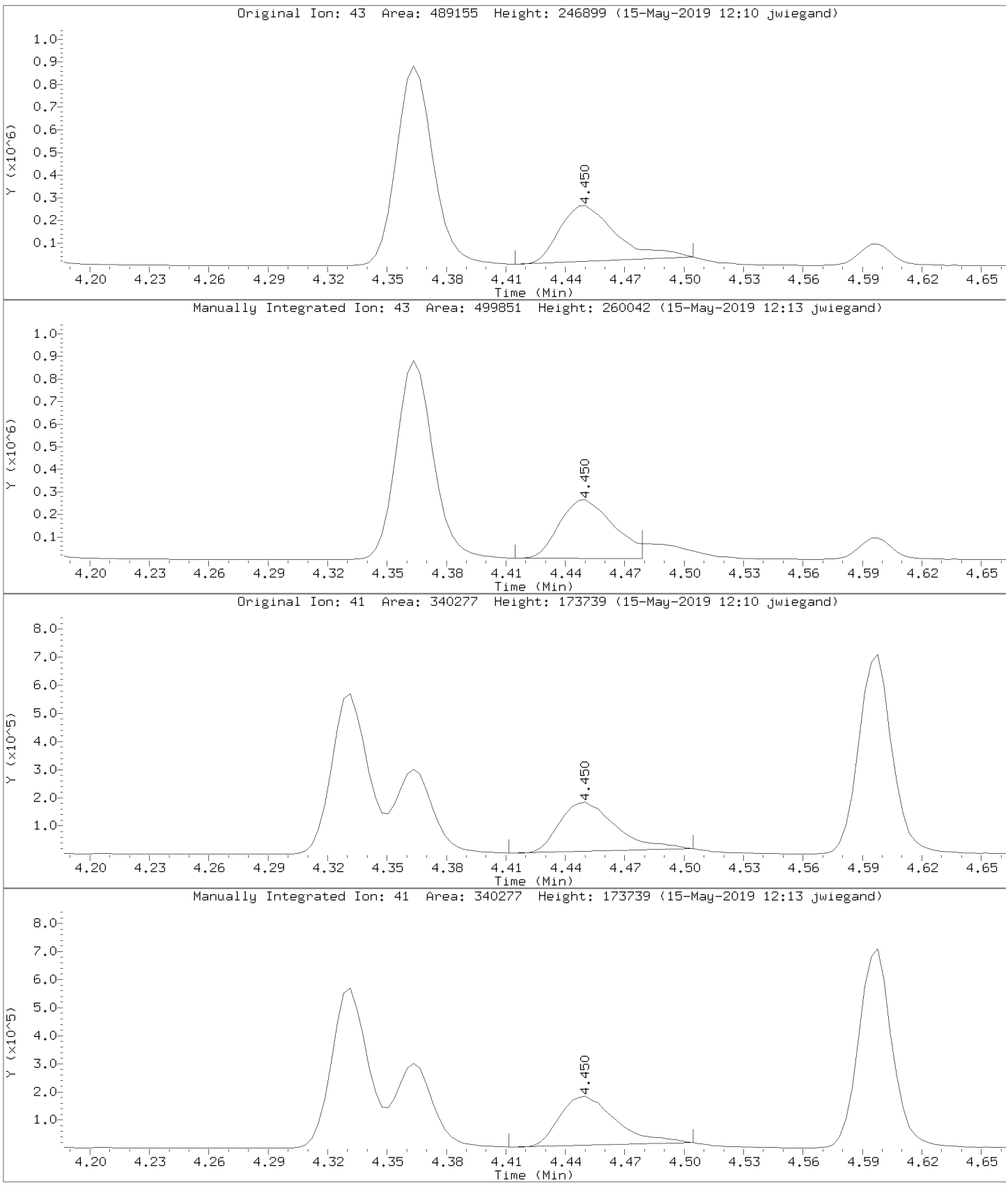
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: CO
CAS Number: 78-83-1



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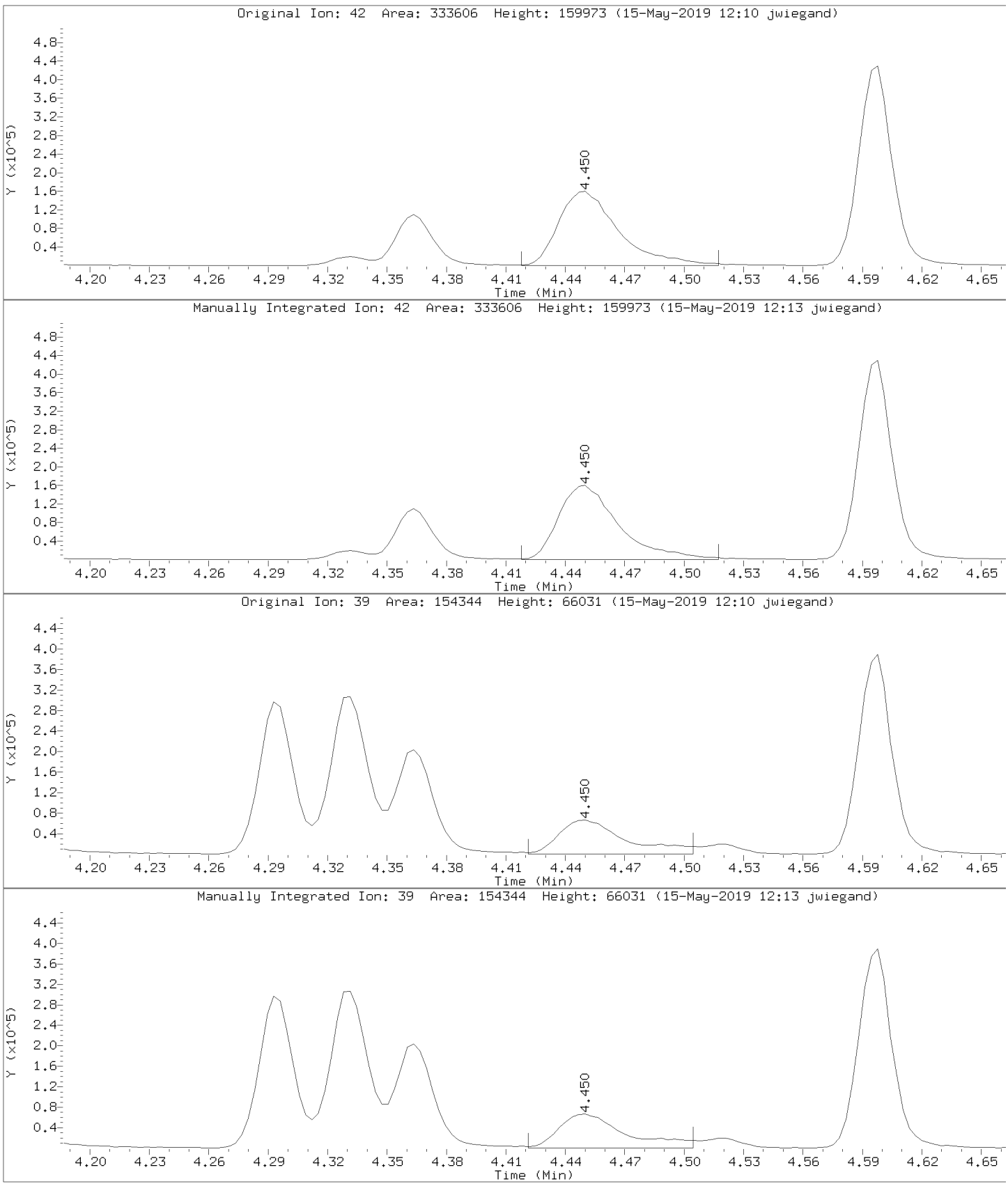
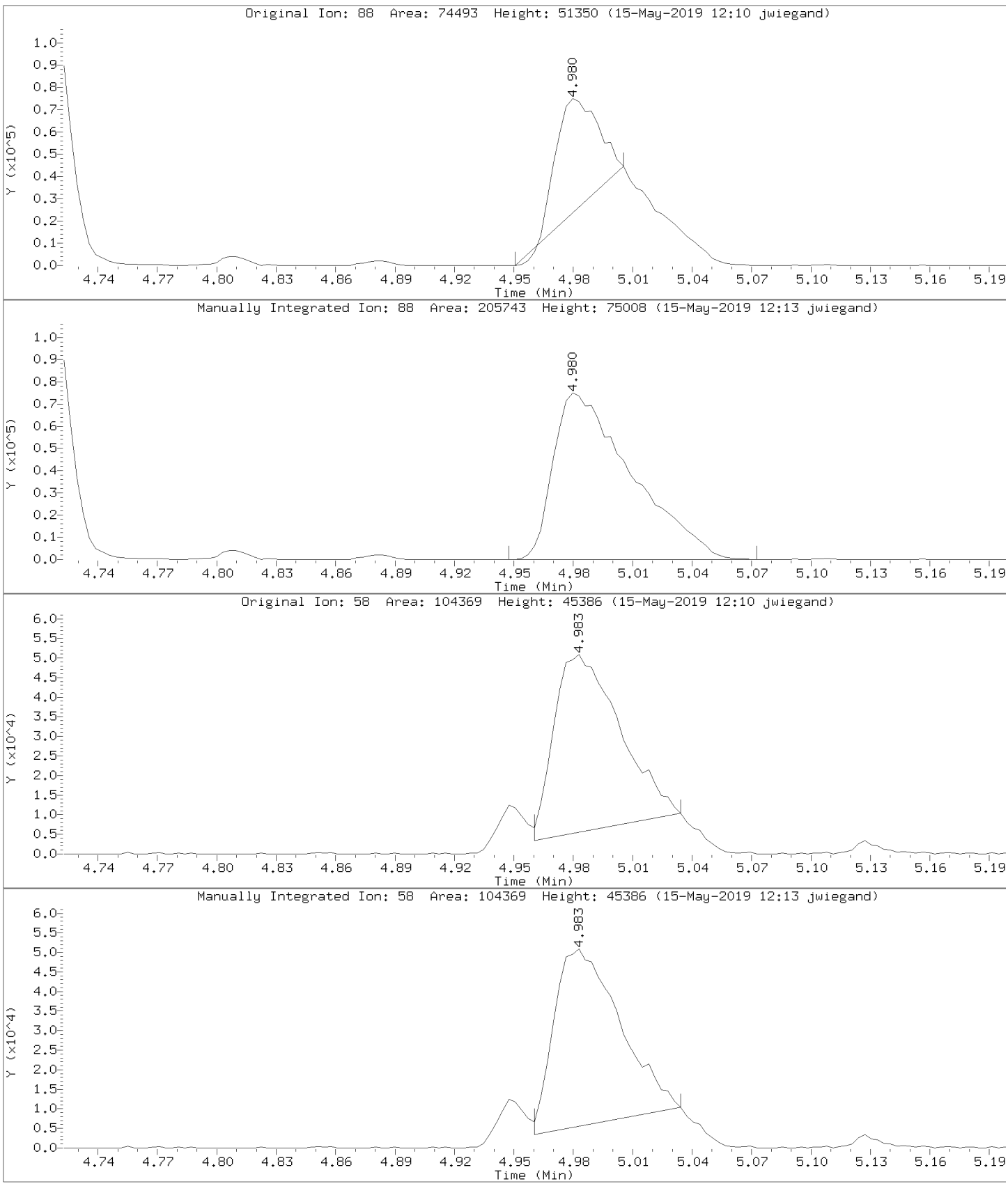
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8

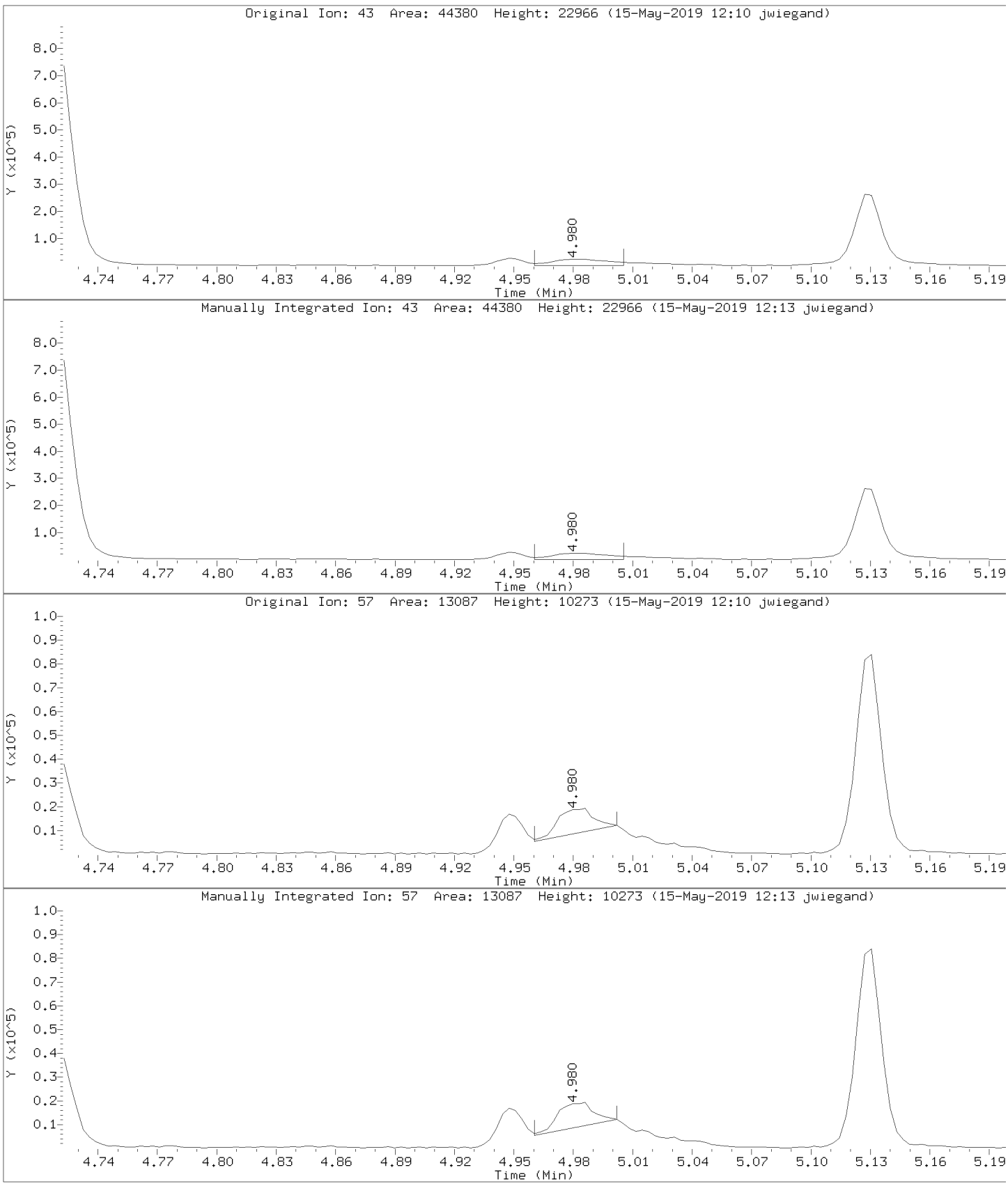


Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514024.d
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514024.d
Injection Date: 14-MAY-2019 18:23
Instrument: 30mv6b.i
Lab Sample ID: CAL8



SAMPLE NO.

11043085ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 05/14/2019 Time: 19:14

Instrument ID: 30MV6B GC Column: Col 1 Init. Calib. Date(s): 05/14/2019 05/14/2019

Lab File ID: 6190514.B\2.B\60514028.D Init. Calib. Time(s): 15:22 18:23

SDG No.: 30313514

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Quadratic	20	17.83223	0.0100	-10.8388	30.0000
2-Butanone (MEK)	Averaged	0.11753	0.12274	0.0100	4.4312	30.0000
Carbon tetrachloride	Averaged	0.27623	0.25547	0.0100	-7.5153	30.0000
Chlorobenzene	Averaged	0.73521	0.69297	0.3000	-5.7448	30.0000
Chloroform	Averaged	0.32868	0.29862	0.0100	-9.1469	30.0000
1,2-Dichloroethane	Averaged	0.27053	0.25166	0.0100	-6.9756	30.0000
1,1-Dichloroethene	Averaged	0.27389	0.22100	0.0100	-19.3115	30.0000
Tetrachloroethene	Averaged	0.28500	0.27751	0.0100	-2.6279	30.0000
Trichloroethene	Averaged	0.23827	0.21765	0.0100	-8.6534	30.0000
Vinyl chloride	Averaged	0.23993	0.22051	0.0100	-8.0944	30.0000
4-Bromofluorobenzene (S)	Averaged	0.73489	0.74023	0.0100	0.7263	30.0000
Dibromofluoromethane (S)	Averaged	0.24933	0.24617	0.0100	-1.2688	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.24711	0.25994	0.0100	5.1953	30.0000
Toluene-d8 (S)	Averaged	1.10533	1.09152	0.0100	-1.2499	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254009CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 13:29

Instrument ID: 30MV6B GC Column: Col 1 Init. Calib. Date(s): 05/14/2019 05/14/2019

Lab File ID: 6190717.B\2.B\60717012.D Init. Calib. Time(s): 15:22 18:23

SDG No.: 30313514

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Quadratic	50	54.45589	0.0100	8.9118	20.0000
2-Butanone (MEK)	Averaged	0.11753	0.16509	0.0100	40.4629	20.0000
Carbon tetrachloride	Averaged	0.27623	0.24950	0.0100	-9.6789	20.0000
Chlorobenzene	Averaged	0.73521	0.81229	0.3000	10.4838	20.0000
Chloroform	Averaged	0.32868	0.32564	0.0100	-0.9249	20.0000
1,2-Dichloroethane	Averaged	0.27053	0.26394	0.0100	-2.4366	20.0000
1,1-Dichloroethene	Averaged	0.27389	0.27987	0.0100	2.1810	20.0000
Tetrachloroethene	Averaged	0.28500	0.29598	0.0100	3.8546	20.0000
Trichloroethene	Averaged	0.23827	0.26021	0.0100	9.2111	20.0000
Vinyl chloride	Averaged	0.23993	0.27035	0.0100	12.6767	20.0000
4-Bromofluorobenzene (S)	Averaged	0.73489	0.73365	0.0100	-0.1689	20.0000
Dibromofluoromethane (S)	Averaged	0.24933	0.25224	0.0100	1.1639	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.24711	0.22547	0.0100	-8.7559	20.0000
Toluene-d8 (S)	Averaged	1.10533	1.18819	0.0100	7.4966	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 14-MAY-2019 19:14
Operator : JEW Inst ID: 30mv6b.i
Smp Info : icv, 87722:1
Misc Info : 44460,
Comment   :
Method   : \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Meth Date : 07-Jun-2019 10:09 mklunk Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	55839	20.0000	20.3(Q)	
2 Chloromethane	50	1.331	1.328	(0.294)	75239	20.0000	19.6	
3 Vinyl chloride	62	1.376	1.376	(0.304)	64811	20.0000	18.4	
4 Bromomethane	94	1.568	1.569	(0.347)	28530	20.0000	16.4(M)	LT
5 Chloroethane	64	1.639	1.639	(0.362)	45395	20.0000	20.3	
6 Trichlorofluoromethane	101	1.722	1.723	(0.381)	82483	20.0000	21.2	
7 Diethyl ether (Ethyl ether)	59	1.921	1.922	(0.425)	48453	20.0000	19.5	
8 Ethanol	45	2.043	2.017	(0.297)	12252	200.000	(a)	
9 1,1-Dichloroethene	61	2.059	2.056	(0.455)	64954	20.0000	16.1	
10 1,1,2-Trichlorotrifluoroethane	151	2.078	2.079	(0.460)	37598	20.0000	19.7	
11 Carbon disulfide	76	2.085	2.088	(0.461)	125405	20.0000	17.4	
12 Iodomethane	142	2.168	2.165	(0.479)	38497	20.0000	14.5	
13 Acrolein	56	2.303	2.300	(0.509)	4931	20.0000	25.0(M)	WP
14 Allyl chloride	41	2.399	2.396	(0.530)	349997	100.000	107	
15 Methylene Chloride	49	2.486	2.486	(0.550)	88656	20.0000	18.3	
16 Acetone	43	2.531	2.531	(0.560)	25923	20.0000	19.5(M)	LT
17 trans-1,2-Dichloroethene	61	2.605	2.602	(0.576)	65892	20.0000	16.9	
18 Methyl acetate	74	2.624	2.621	(0.580)	14760	20.0000	16.7	
19 n-Hexane	86	2.662	2.663	(0.589)	33508	20.0000	16.4	
20 Methyl-tert-butyl ether	73	2.694	2.701	(0.596)	160975	20.0000	19.4	
21 tert-Butyl Alcohol	59	2.791	2.778	(0.617)	68892	100.000	103	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.932	2.923	(0.648)	35165	100.000	106	
	23 Diisopropyl ether	45	3.031	3.032	(0.670)	172991	20.0000	19.1	
	24 Chloroprene	53	3.134	3.131	(0.693)	40988	20.0000	17.0	
	25 1,1-Dichloroethane	63	3.160	3.160	(0.699)	93974	20.0000	18.5	
	26 Acrylonitrile	53	3.217	3.240	(0.711)	17222	20.0000	16.5(M)	LT
	27 Ethyl-tert-butyl ether	59	3.400	3.404	(0.752)	170618	20.0000	17.6	
	28 Vinyl acetate	43	3.426	3.430	(0.757)	135378	20.0000	19.8	
	29 cis-1,2-Dichloroethene	61	3.705	3.709	(0.819)	70356	20.0000	17.7	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.838)	74368	20.0000	17.4	
	31 Cyclohexane	56	3.859	3.863	(0.853)	84761	20.0000	18.9	
	32 Bromochloromethane	130	3.869	3.866	(0.855)	39232	20.0000	18.8	
	33 Chloroform	83	3.930	3.930	(0.869)	87766	20.0000	18.2	
	34 Carbon tetrachloride	117	4.016	4.017	(0.888)	75086	20.0000	18.5	
	35 Ethyl acetate	43	4.026	4.033	(0.890)	11219	20.0000	37.4(M)	LT
	36 Tetrahydrofuran	42	4.042	4.046	(0.894)	23660	20.0000	19.7	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.896)	108528	30.0000	29.6	
	38 1,1,1-Trichloroethane	97	4.065	4.067	(0.899)	82927	20.0000	18.2	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.916)	36075	20.0000	20.9	
	40 1,1-Dichloropropene	75	4.145	4.142	(0.916)	66312	20.0000	18.1	
	41 Benzene	78	4.296	4.296	(0.950)	199388	20.0000	17.8	
	42 Propionitrile	54	4.325	4.322	(0.956)	10378	20.0000	19.8(M)	LT
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	26816	20.0000	16.0	
	44 tert-Amylmethyl ether	73	4.363	4.363	(0.965)	154737	20.0000	20.0	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.967)	114600	30.0000	31.6	
	46 Isobutanol	43	4.437	4.437	(0.981)	25180	100.000	113	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.975)	73964	20.0000	18.6	
*	48 Fluorobenzene (IS)	96	4.523	4.524	(1.000)	440864	30.0000		
	49 Methylcyclohexane	83	4.597	4.598	(1.016)	85537	20.0000	17.6	
	50 Trichloroethene	95	4.607	4.607	(0.783)	54950	20.0000	18.3	
	51 Dibromomethane	174	4.809	4.810	(1.063)	40911	20.0000	18.5	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.072)	53619	20.0000	18.4	
	53 Bromodichloromethane	83	4.883	4.883	(1.079)	71923	20.0000	19.6	
	54 Methyl methacrylate	69	4.947	4.947	(1.094)	38514	20.0000	18.9	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.973	(1.101)	10054	200.000	204(M)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.133)	12767	20.0000	16.7	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.140)	87403	20.0000	19.0	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	413367	30.0000	29.6	
	59 Toluene	91	5.255	5.256	(0.893)	236356	20.0000	18.9	
	60 2-Nitropropane	43	5.361	5.361	(1.185)	123961	100.000	107	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.413	(1.196)	66963	20.0000	19.9	
	62 Tetrachloroethene	166	5.419	5.419	(0.920)	70063	20.0000	19.5	
	63 trans-1,3-Dichloropropene	75	5.432	5.432	(0.923)	85870	20.0000	19.2	
	64 Ethyl methacrylate	41	5.483	5.487	(0.931)	45145	20.0000	16.6	
	65 1,1,2-Trichloroethane	97	5.499	5.503	(0.934)	51314	20.0000	19.1	
	66 Dibromochloromethane	129	5.579	5.576	(0.948)	66004	20.0000	19.0	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	82129	20.0000	18.7	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.682	(0.965)	54969	20.0000	19.1	
	69 2-Hexanone	43	5.756	5.756	(0.978)	51763	20.0000	19.3	
	70 Ethylbenzene	106	5.894	5.894	(1.001)	94124	20.0000	18.9	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	378709	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	174957	20.0000	18.8	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	67332	20.0000	18.4	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	237373	40.0000	38.0	
	75 o-Xylene	106	6.138	6.138	(1.043)	118148	20.0000	18.9	

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.160	(1.046)	207711	20.0000	19.1	
	77 Bromoform	173	6.186	6.186	(0.900)	53289	20.0000	19.0	
	78 Isopropylbenzene (Cumene)	105	6.263	6.263	(0.911)	303827	20.0000	19.3	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	168297	30.0000	30.2	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	352841	20.0000	19.6	
	81 Bromobenzene	77	6.446	6.446	(0.938)	125759	20.0000	19.2	
	82 1,1,2,2-Tetrachloroethane	83	6.475	6.472	(0.942)	73039	20.0000	18.4	
	83 1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	272199	20.0000	19.3	
	84 2-Chlorotoluene	126	6.516	6.520	(0.948)	82200	20.0000	19.3	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	27491	20.0000	19.7	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.952)	26634	20.0000	21.9	
	87 Cyclohexanone	55	6.568	6.568	(0.956)	36280	100.000	112	
	88 4-Chlorotoluene	126	6.587	6.590	(0.958)	86391	20.0000	19.2	
	89 tert-Butylbenzene	119	6.654	6.655	(0.968)	252363	20.0000	20.0	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	279973	20.0000	19.4	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	356824	20.0000	20.3	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	328239	20.0000	20.3	
	93 1,3-Dichlorobenzene	146	6.840	6.841	(0.995)	178966	20.0000	19.4	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	227359	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	184081	20.0000	19.5	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	261733	20.0000	20.1	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	174036	20.0000	19.7	
$	161 1,2-Dichlorobenzene-d4 (S)	152	7.059	7.059	(1.027)	87230	30.0000	30.2	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	25379	20.0000	19.8	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	130379	20.0000	20.8	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	61713	20.0000	18.1	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	109392	20.0000	21.4	
	102 Naphthalene	128	7.838	7.839	(1.141)	265974	20.0000	20.9	
	103 1,2,3-Trichlorobenzene	180	7.922	7.919	(1.153)	78715	20.0000	20.3	
	104 2-Methylnaphthalene	142	8.288	8.287	(1.206)	34749	20.0000	27.6	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60514028.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-MAY-2019
Calibration Time: 16:39
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m
Misc Info: 44460,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	446458	223229	892916	440864	-1.25
71 Chlorobenzene-d5	378032	189016	756064	378709	0.18
94 1,4-Dichlorobenze	226148	113074	452296	227359	0.54

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 14-MAY-2019 19:14
Lab File ID: 60514028.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.18672	0.18999	0.18999	0.010	1.74783	20.00000	Aver	(Q)	
2 Chloromethane	0.26124	0.25599	0.25599	0.100	-2.00877	20.00000	Aver		
3 Vinyl chloride	0.23993	0.22051	0.22051	0.010	-8.09442	20.00000	Aver		
4 Bromomethane	0.11826	0.09707	0.09707	0.010	-17.91484	20.00000	Aver	(M)	
5 Chloroethane	20.00000	20.26636	0.15445	0.010	1.33179	20.00000	Quad		
6 Trichlorofluoromethane	0.26446	0.28064	0.28064	0.010	6.11868	20.00000	Aver		
7 Diethyl ether (Ethyl ether)	0.16874	0.16486	0.16486	0.010	-2.29916	20.00000	Aver		
8 Ethanol	++++	0.00808	0.00808	0.010	++++	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.27389	0.22100	0.22100	0.010	-19.31151	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.13007	0.12792	0.12792	0.010	-1.65112	20.00000	Aver		
11 Carbon disulfide	0.49113	0.42668	0.42668	0.010	-13.12340	20.00000	Aver		
12 Iodomethane	0.18045	0.13098	0.13098	0.010	-27.41526	20.00000	Aver		<-
13 Acrolein	20.00000	25.01762	0.01678	0.010	25.08811	20.00000	Quad	(M)	<-
14 Allyl chloride	0.22332	0.23817	0.23817	0.010	6.64704	20.00000	Aver		
15 Methylene Chloride	20.00000	18.30735	0.30164	0.010	-8.46324	20.00000	Line		
16 Acetone	20.00000	19.47113	0.08820	0.010	-2.64434	20.00000	Line	(M)	
17 trans-1,2-Dichloroethene	0.26468	0.22419	0.22419	0.010	-15.29590	20.00000	Aver		
18 Methyl acetate	0.06024	0.05022	0.05022	0.010	-16.63694	20.00000	Aver		
19 n-Hexane	20.00000	16.43910	0.11401	0.010	-17.80452	20.00000	Quad		
20 Methyl-tert-butyl ether	0.56529	0.54770	0.54770	0.010	-3.11101	20.00000	Aver		
21 tert-Butyl Alcohol	0.04532	0.04688	0.04688	0.010	3.43430	20.00000	Aver		
22 Acetonitrile	0.02253	0.02393	0.02393	0.010	6.19222	20.00000	Aver		
23 Diisopropyl ether	0.61721	0.58859	0.58859	0.010	-4.63827	20.00000	Aver		
24 Chloroprene	0.16376	0.13946	0.13946	0.010	-14.83909	20.00000	Aver		
25 1,1-Dichloroethane	0.34475	0.31974	0.31974	0.100	-7.25495	20.00000	Aver		
26 Acrylonitrile	0.07089	0.05860	0.05860	0.010	-17.34276	20.00000	Aver	(M)	
27 Ethyl-tert-butyl ether	0.65942	0.58051	0.58051	0.010	-11.96658	20.00000	Aver		
28 Vinyl acetate	0.46446	0.46061	0.46061	0.010	-0.82885	20.00000	Aver		
29 cis-1,2-Dichloroethene	0.27036	0.23938	0.23938	0.010	-11.45751	20.00000	Aver		
30 2,2-Dichloropropane	0.29070	0.25303	0.25303	0.010	-12.95842	20.00000	Aver		
31 Cyclohexane	0.30569	0.28839	0.28839	0.010	-5.65976	20.00000	Aver		
32 Bromochloromethane	0.14159	0.13348	0.13348	0.010	-5.72780	20.00000	Aver		
33 Chloroform	0.32868	0.29862	0.29862	0.010	-9.14694	20.00000	Aver		
34 Carbon tetrachloride	0.27623	0.25547	0.25547	0.010	-7.51534	20.00000	Aver		
35 Ethyl acetate	20.00000	37.39015	0.03817	0.010	86.95076	20.00000	Quad	(M)	<-
36 Tetrahydrofuran	20.00000	19.69269	0.08050	0.010	-1.53653	20.00000	Quad		
$ 37 Dibromofluoromethane (S)	0.24933	0.24617	0.24617	0.010	-1.26884	20.00000	Aver		
38 1,1,1-Trichloroethane	0.30966	0.28215	0.28215	0.010	-8.88435	20.00000	Aver		
39 2-Butanone (MEK)	0.11753	0.12274	0.12274	0.010	4.43121	20.00000	Aver		
40 1,1-Dichloropropene	0.24961	0.22562	0.22562	0.010	-9.60955	20.00000	Aver		
41 Benzene	20.00000	17.83223	0.67840	0.010	-10.83885	20.00000	Quad		

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 14-MAY-2019 19:14
Lab File ID: 60514028.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	20.00000	19.84214	0.03531	0.010	-0.78929	20.00000	Quad	(M)	
43 Methacrylonitrile	0.11418	0.09124	0.09124	0.010	-20.09388	20.00000	Aver		<-
44 tert-Amylmethyl ether	0.52635	0.52648	0.52648	0.010	0.02412	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.24711	0.25994	0.25994	0.010	5.19527	20.00000	Aver		
46 Isobutanol	0.01518	0.01713	0.01713	0.010	12.84328	20.00000	Aver		
47 1,2-Dichloroethane	0.27053	0.25166	0.25166	0.010	-6.97561	20.00000	Aver		
49 Methylcyclohexane	20.00000	17.64645	0.29103	0.010	-11.76774	20.00000	Quad		
50 Trichloroethene	0.23827	0.21765	0.21765	0.010	-8.65340	20.00000	Aver		
51 Dibromomethane	0.15076	0.13920	0.13920	0.010	-7.66925	20.00000	Aver		
52 1,2-Dichloropropane	0.19819	0.18243	0.18243	0.010	-7.94872	20.00000	Aver		
53 Bromodichloromethane	0.24907	0.24471	0.24471	0.010	-1.74846	20.00000	Aver		
54 Methyl methacrylate	0.13873	0.13104	0.13104	0.010	-5.54366	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00336	0.00342	0.00342	0.010	1.76642	20.00000	Aver	(M)	<-
56 2-Chloroethylvinyl ether	0.05196	0.04344	0.04344	0.010	-16.39415	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.31355	0.29738	0.29738	0.010	-5.15765	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.10533	1.09152	1.09152	0.010	-1.24989	20.00000	Aver		
59 Toluene	0.99019	0.93616	0.93616	0.010	-5.45573	20.00000	Aver		
60 2-Nitropropane	0.07898	0.08435	0.08435	0.010	6.79970	20.00000	Aver		
61 4-Methyl-2-pentanone (MIBK)	0.22874	0.22784	0.22784	0.010	-0.39618	20.00000	Aver		
62 Tetrachloroethene	0.28500	0.27751	0.27751	0.010	-2.62789	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.35448	0.34012	0.34012	0.010	-4.05252	20.00000	Aver		
64 Ethyl methacrylate	0.21599	0.17881	0.17881	0.010	-17.21349	20.00000	Aver		
65 1,1,2-Trichloroethane	0.21238	0.20325	0.20325	0.010	-4.30106	20.00000	Aver		
66 Dibromochloromethane	0.27527	0.26143	0.26143	0.010	-5.02878	20.00000	Aver		
67 1,3-Dichloropropane	0.34732	0.32530	0.32530	0.010	-6.34045	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.22790	0.21772	0.21772	0.010	-4.46423	20.00000	Aver		
69 2-Hexanone	0.21242	0.20502	0.20502	0.010	-3.48105	20.00000	Aver		
70 Ethylbenzene	0.39439	0.37281	0.37281	0.010	-5.47215	20.00000	Aver		
72 Chlorobenzene	0.73521	0.69297	0.69297	0.300	-5.74480	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.28900	0.26669	0.26669	0.010	-7.72099	20.00000	Aver		
74 m&p-Xylene	0.49535	0.47010	0.47010	0.010	-5.09908	20.00000	Aver		
75 o-Xylene	0.49490	0.46796	0.46796	0.010	-5.44190	20.00000	Aver		
76 Styrene	0.86095	0.82271	0.82271	0.010	-4.44210	20.00000	Aver		
77 Bromoform	0.36950	0.35157	0.35157	0.100	-4.85215	20.00000	Aver		
78 Isopropylbenzene (Cumene)	2.08053	2.00450	2.00450	0.010	-3.65468	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.73489	0.74023	0.74023	0.010	0.72634	20.00000	Aver		
80 n-Propylbenzene	2.37058	2.32787	2.32787	0.010	-1.80185	20.00000	Aver		
81 Bromobenzene	0.86644	0.82969	0.82969	0.010	-4.24053	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.52360	0.48187	0.48187	0.300	-7.96843	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.85915	1.79583	1.79583	0.010	-3.40572	20.00000	Aver		
84 2-Chlorotoluene	0.56314	0.54231	0.54231	0.010	-3.69865	20.00000	Aver		
85 1,2,3-Trichloropropane	0.18397	0.18137	0.18137	0.010	-1.41078	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Report Date: 07-Jun-2019 10:51

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 14-MAY-2019 19:14
Lab File ID: 60514028.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\msv6051419b.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.16047	0.17572	0.17572	0.010	9.50002	20.00000	Aver		
87 Cyclohexanone	0.04281	0.04787	0.04787	0.010	11.83487	20.00000	Aver		
88 4-Chlorotoluene	0.59372	0.56996	0.56996	0.010	-4.00085	20.00000	Aver		
89 tert-Butylbenzene	1.66379	1.66496	1.66496	0.010	0.07038	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.89912	1.84712	1.84712	0.010	-2.73813	20.00000	Aver		
91 sec-Butylbenzene	2.32052	2.35414	2.35414	0.010	1.44886	20.00000	Aver		
92 p-Isopropyltoluene	2.13157	2.16556	2.16556	0.010	1.59423	20.00000	Aver		
93 1,3-Dichlorobenzene	1.21895	1.18073	1.18073	0.010	-3.13606	20.00000	Aver		
95 1,4-Dichlorobenzene	1.24364	1.21447	1.21447	0.010	-2.34558	20.00000	Aver		
96 n-Butylbenzene	1.71521	1.72678	1.72678	0.010	0.67443	20.00000	Aver		
97 1,2-Dichlorobenzene	1.16717	1.14820	1.14820	0.010	-1.62553	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	0.38166	0.38367	0.38367	0.010	0.52472	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.16877	0.16744	0.16744	0.010	-0.79044	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.82542	0.86017	0.86017	0.010	4.21107	20.00000	Aver		
100 Hexachloro-1,3-butadiene	20.00000	18.10090	0.40715	0.010	-9.49550	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.67373	0.72171	0.72171	0.010	7.12265	20.00000	Aver		
102 Naphthalene	1.67879	1.75476	1.75476	0.010	4.52538	20.00000	Aver		
103 1,2,3-Trichlorobenzene	20.00000	20.29792	0.51932	0.010	1.48958	20.00000	Quad		
104 2-Methylnaphthalene	20.00000	27.65384	0.22926	0.010	38.26918	20.00000	Quad		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 7.76485
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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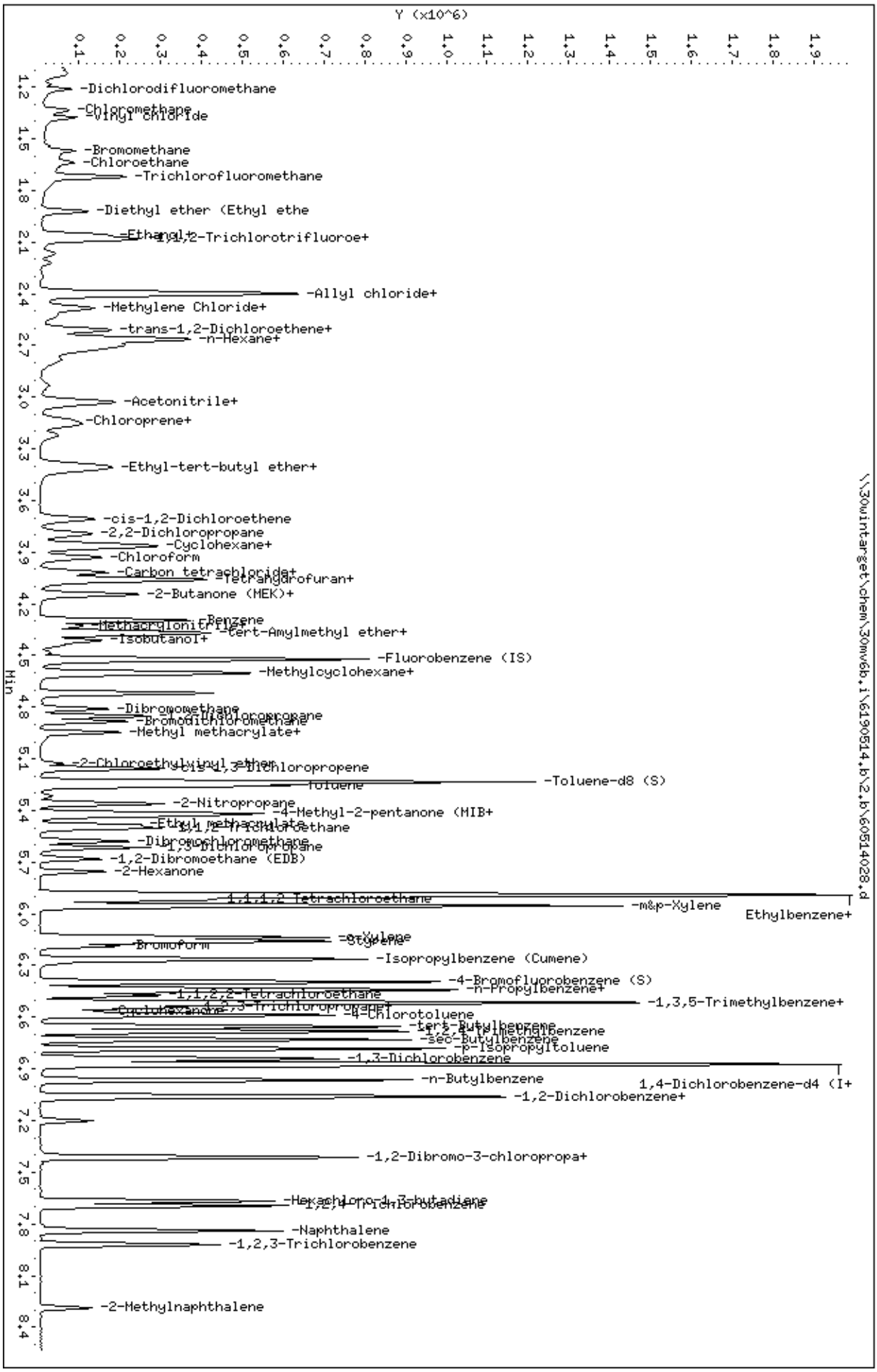
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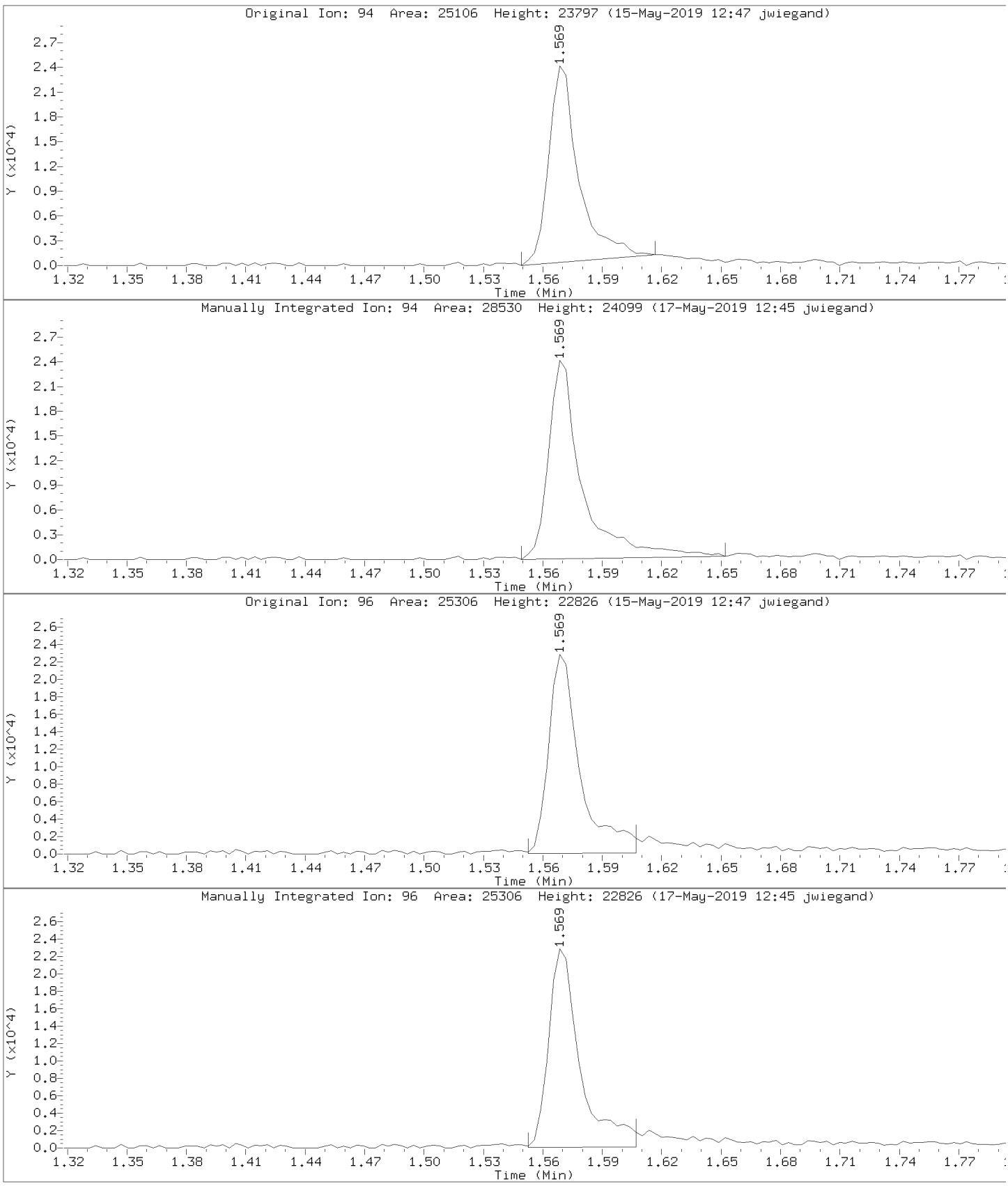
Date : 14-MAY-2019 19:14
Client ID: ICV
Sample Info: ICV, 877221
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514028.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-2-Butanone (MEK)+
-Benzene
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Methyl methacrylate+
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

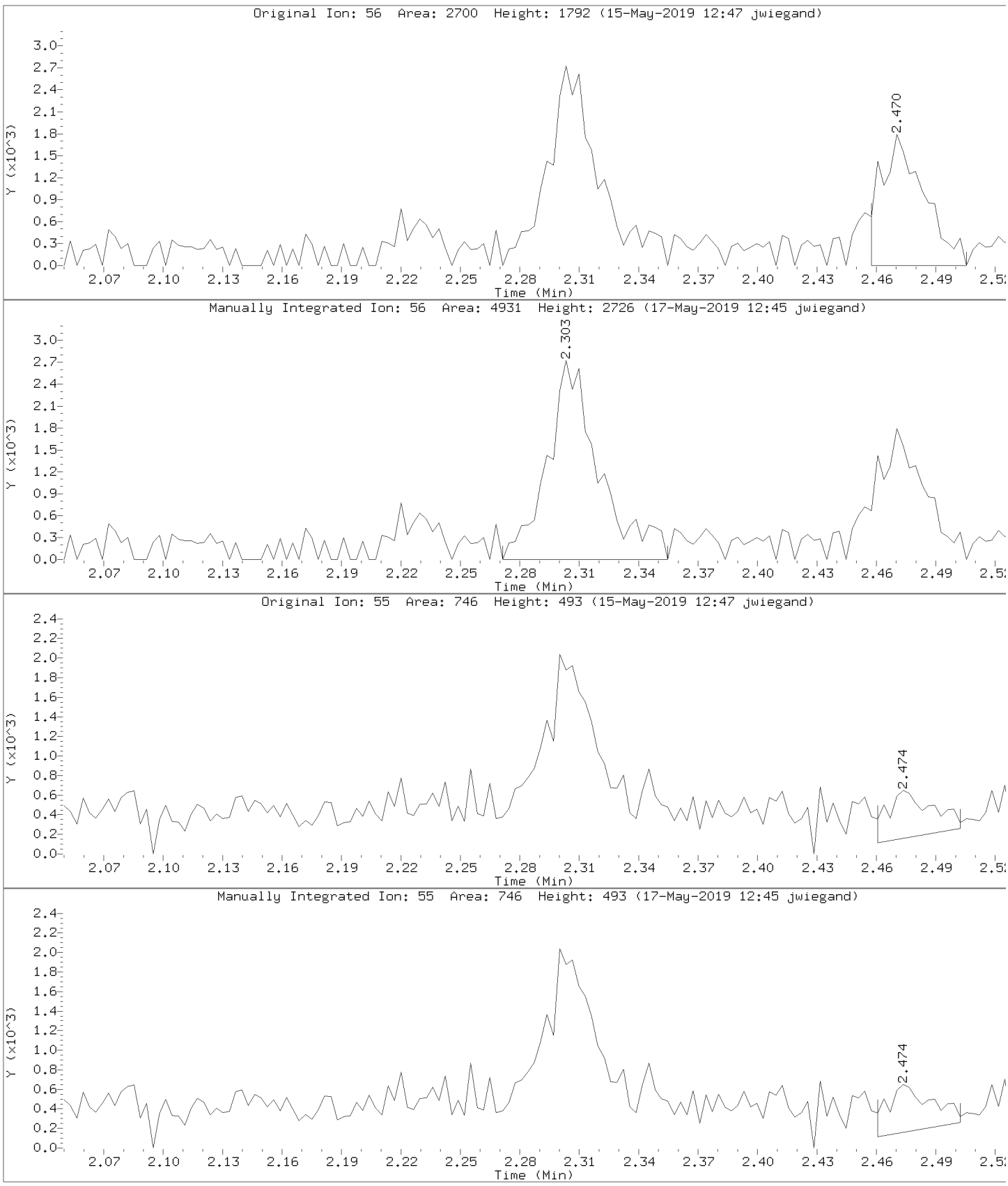
Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514028.d
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Bromomethane Review Code: LT
CAS Number: 74-83-9



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514028.d
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Acrolein Review Code: WP
CAS Number: 107-02-8



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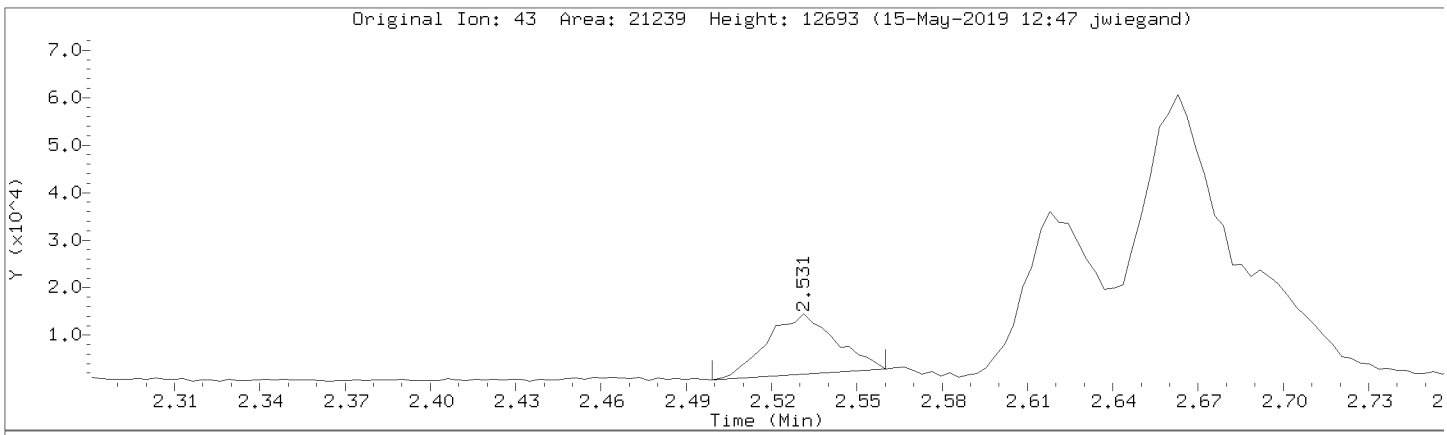
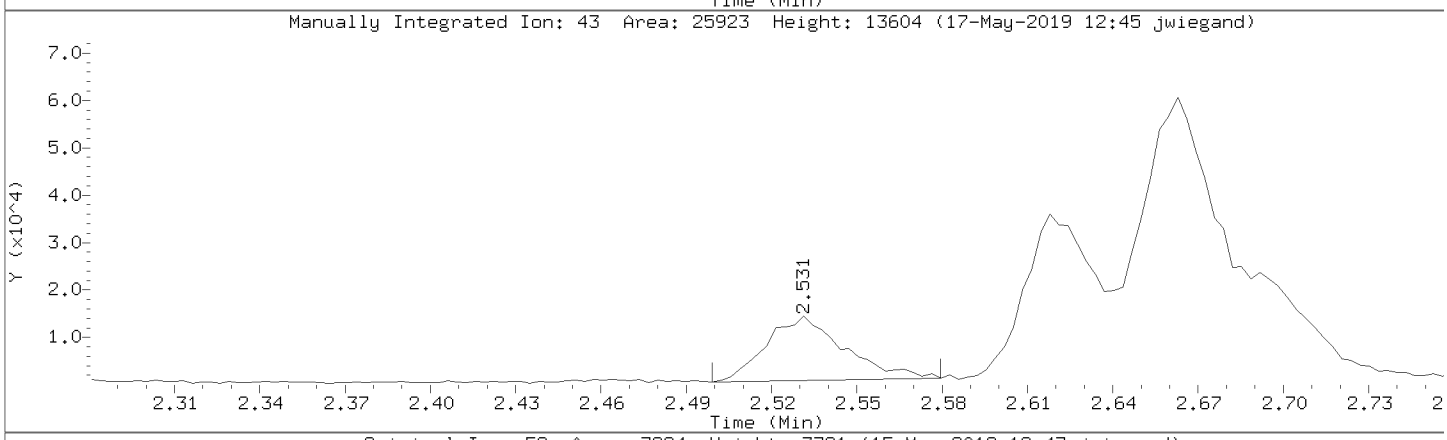
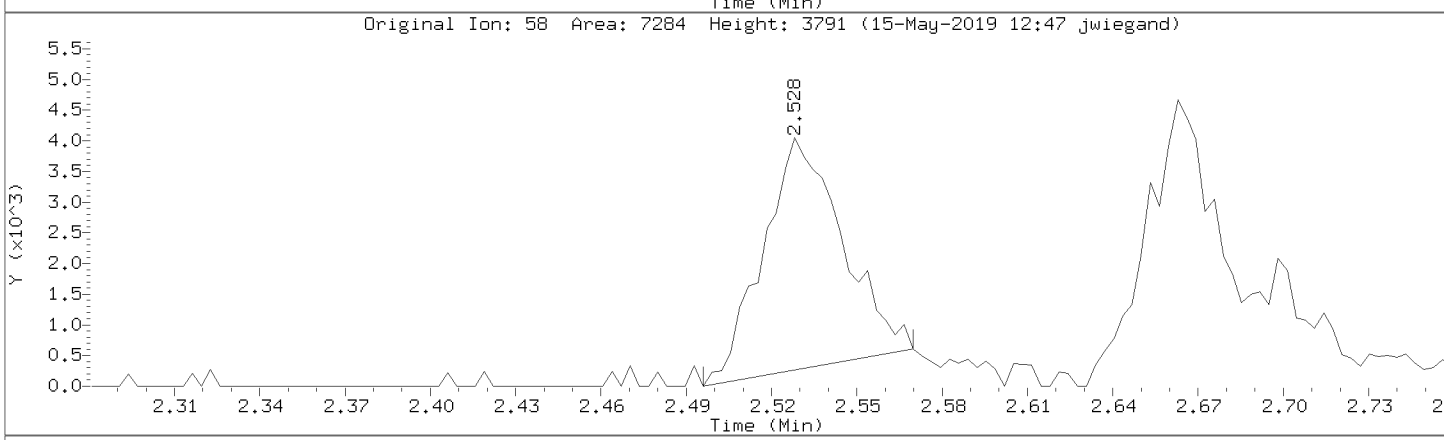
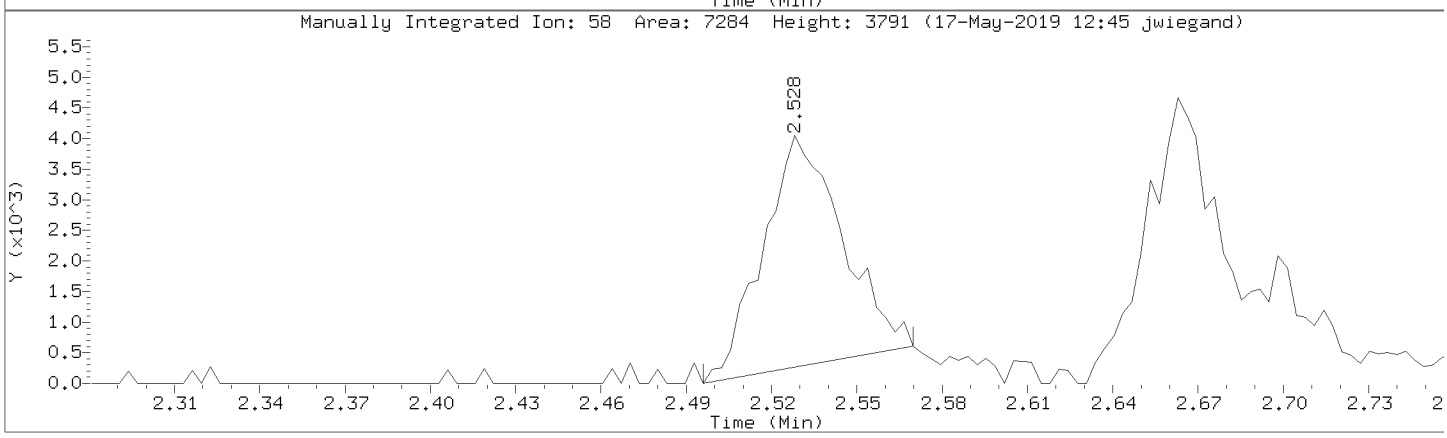
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



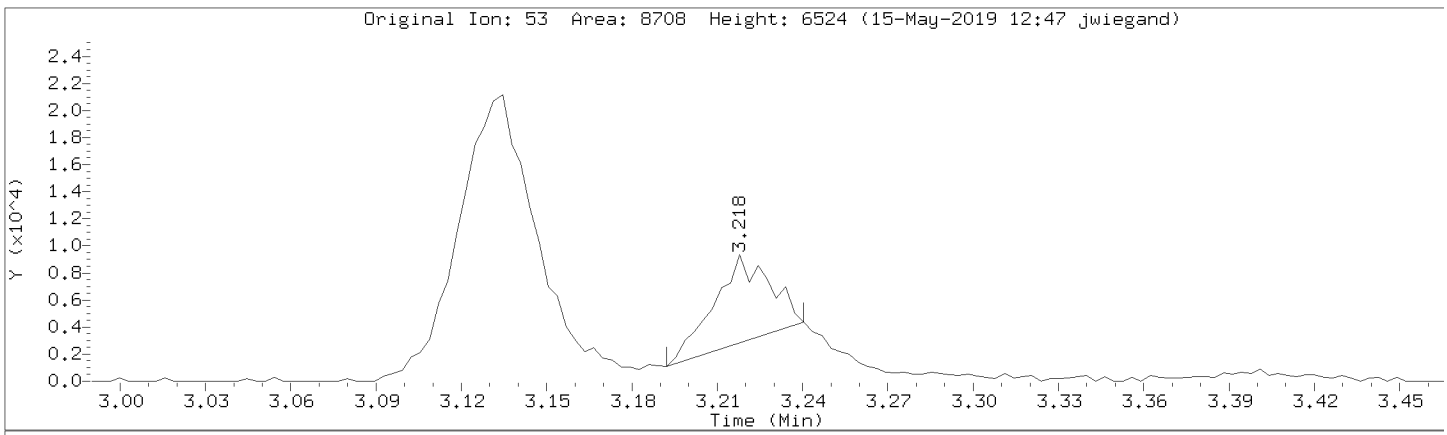


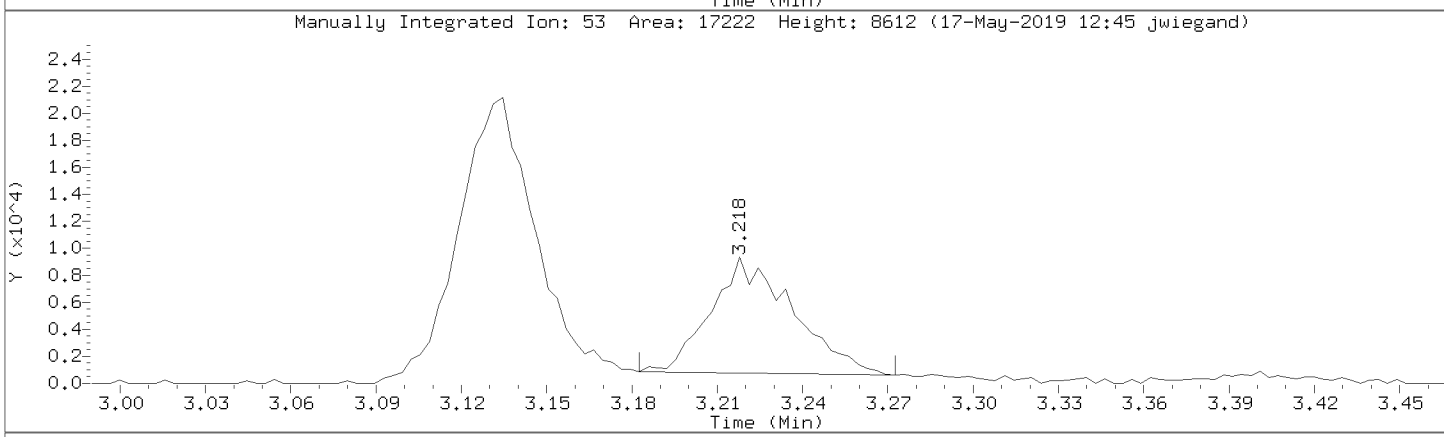


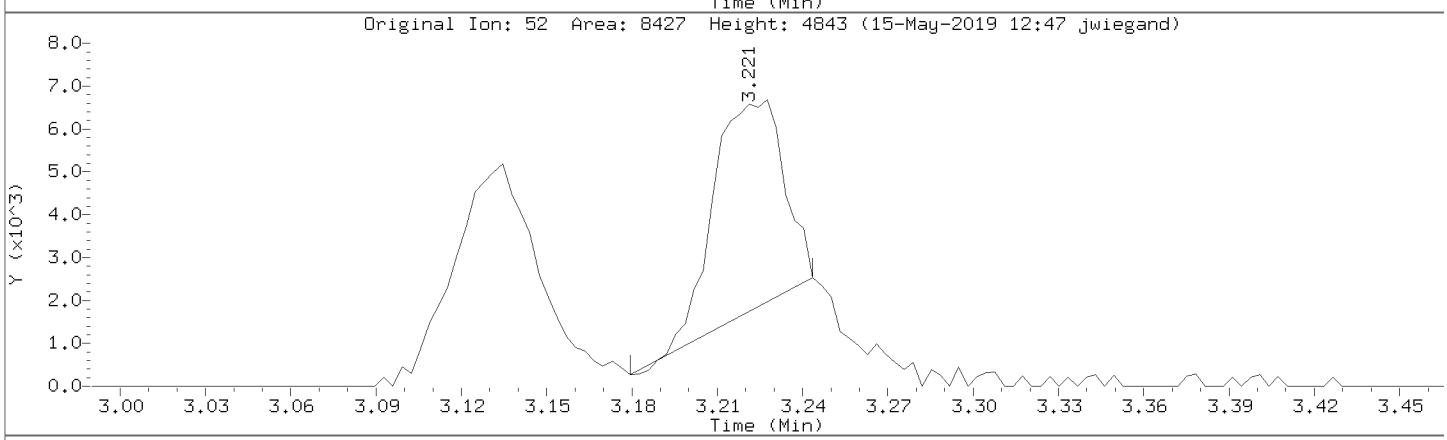


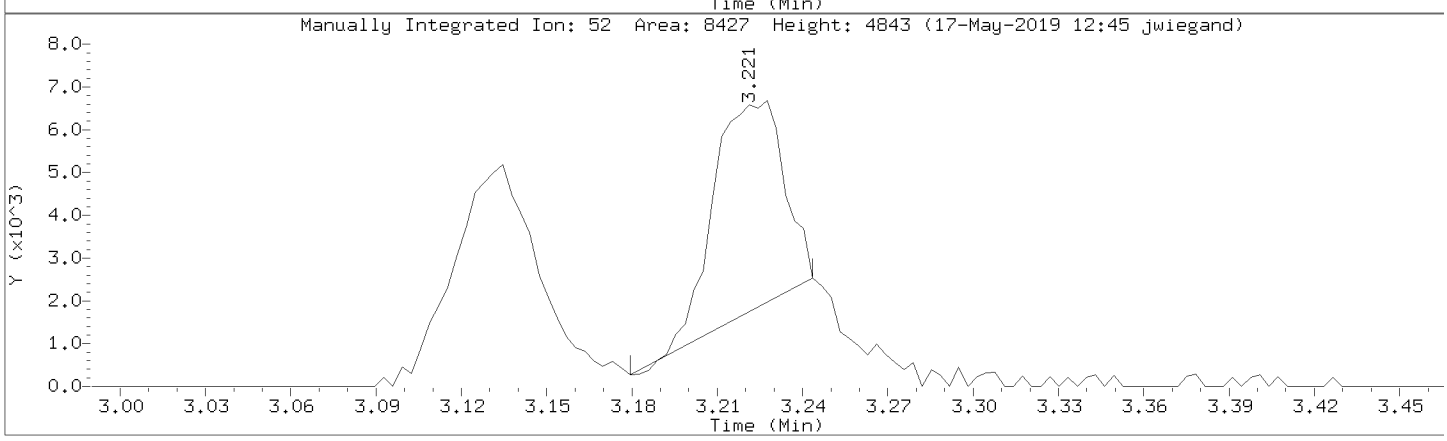
Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514028.d
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



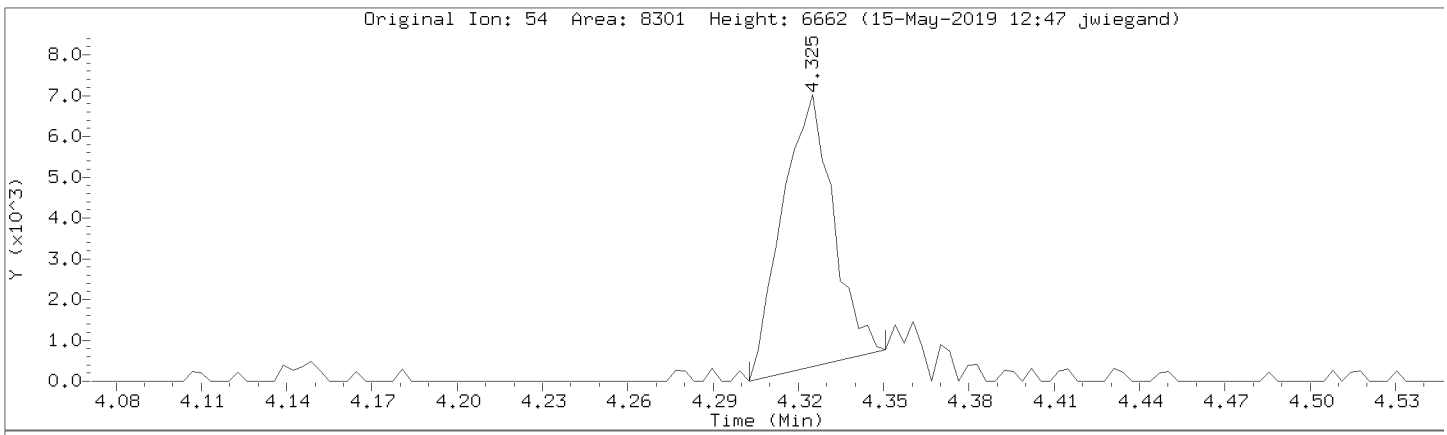


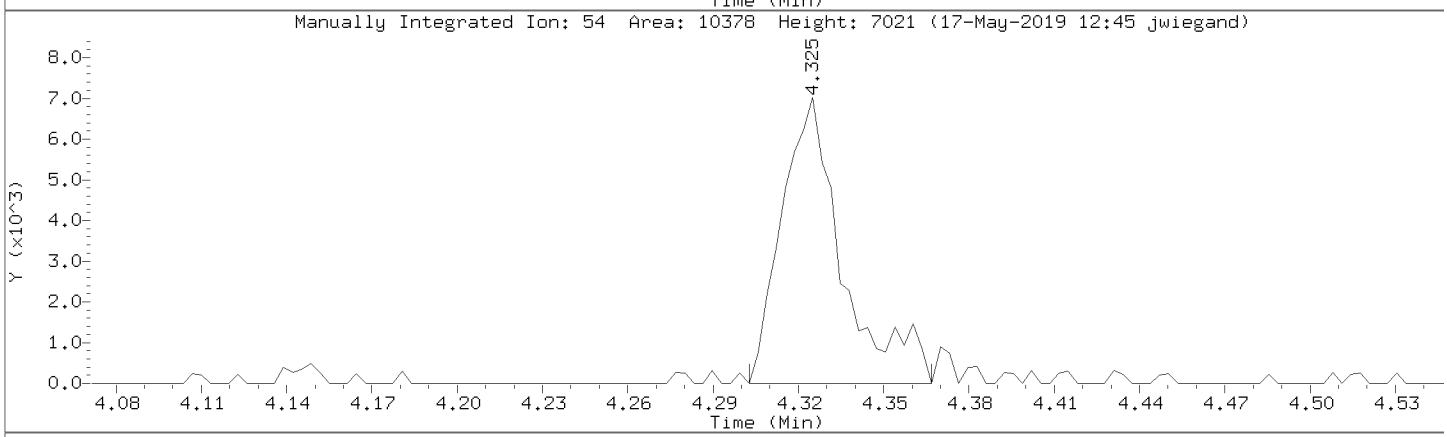


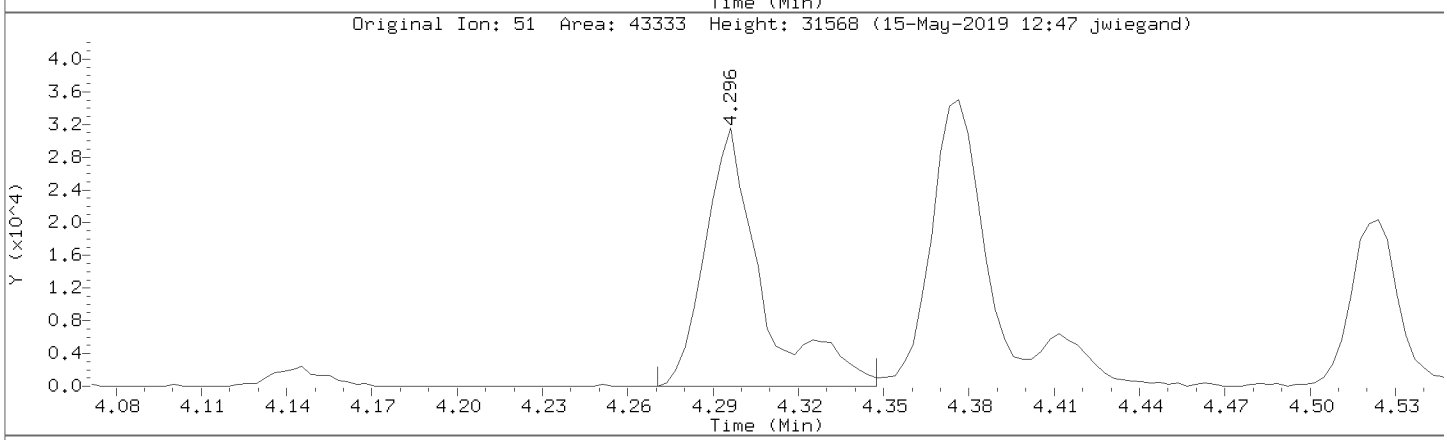


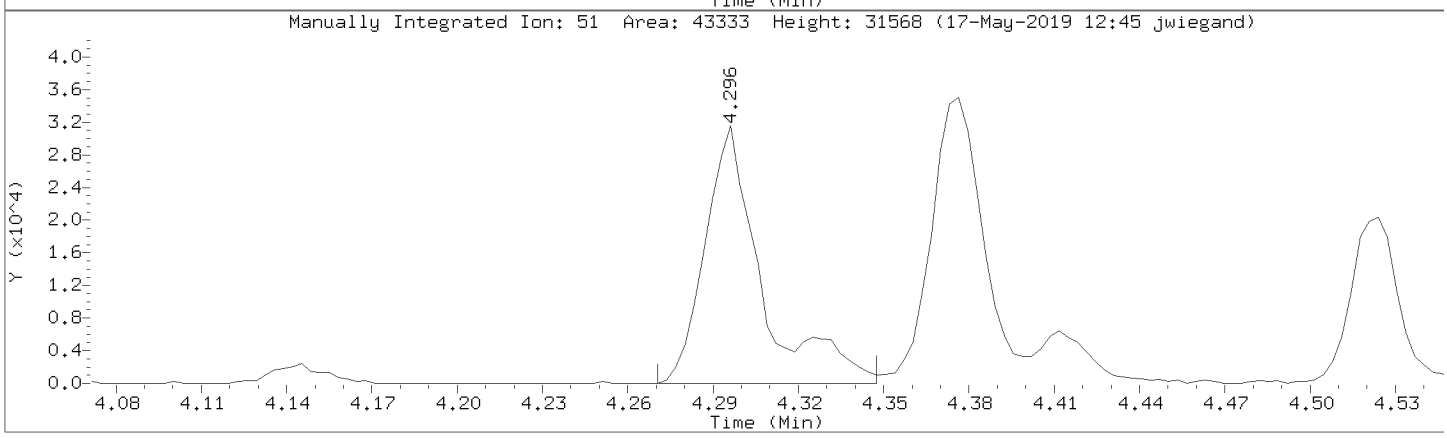
Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514028.d
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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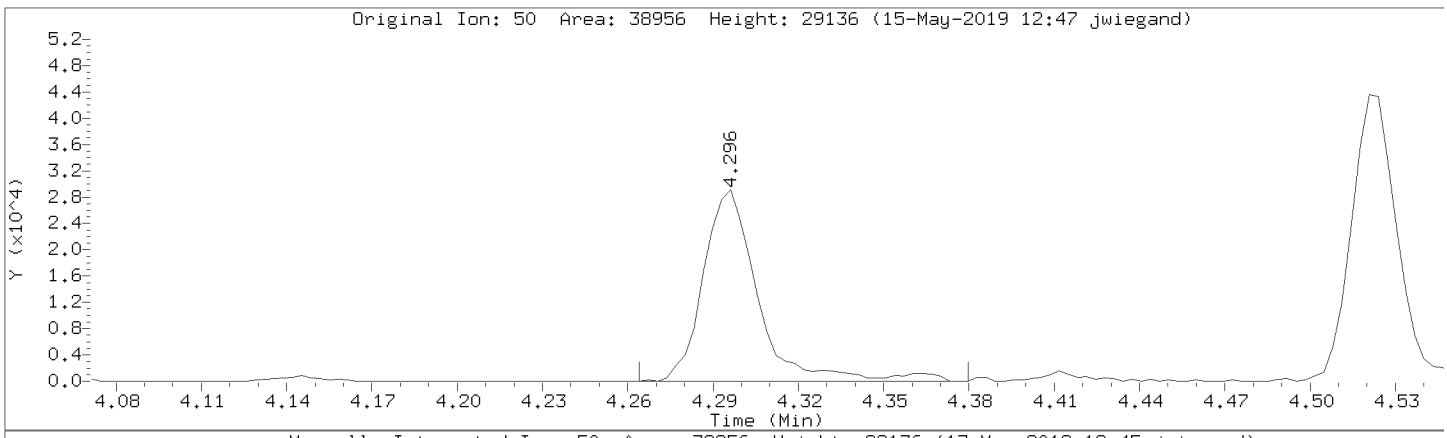
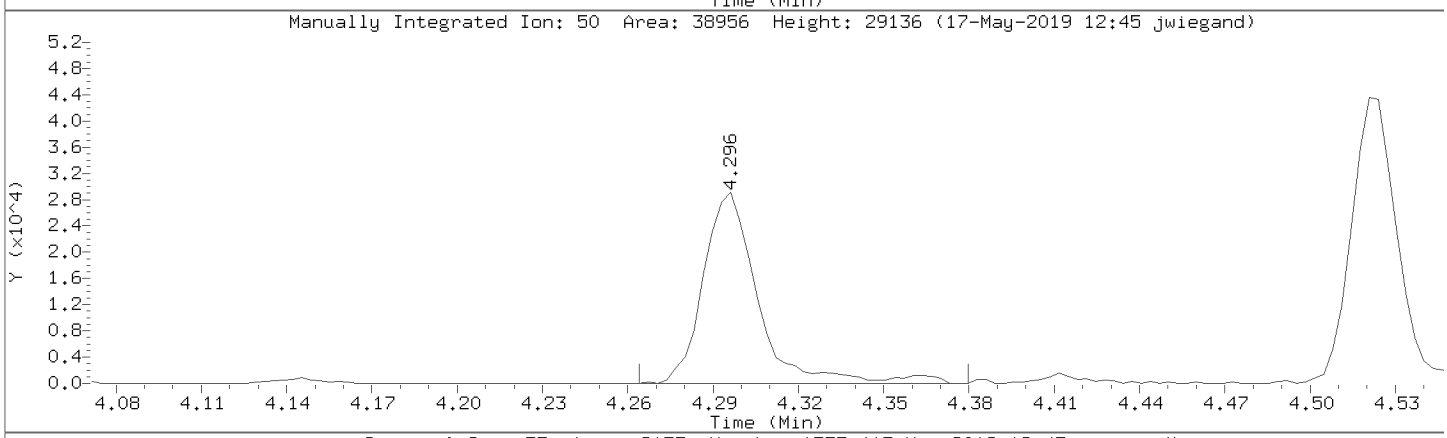
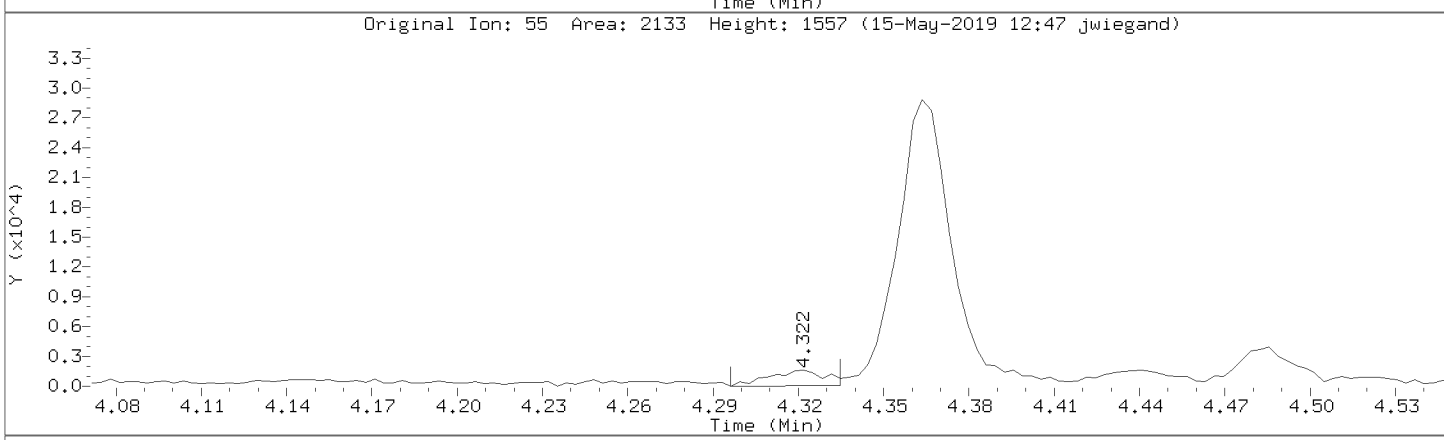
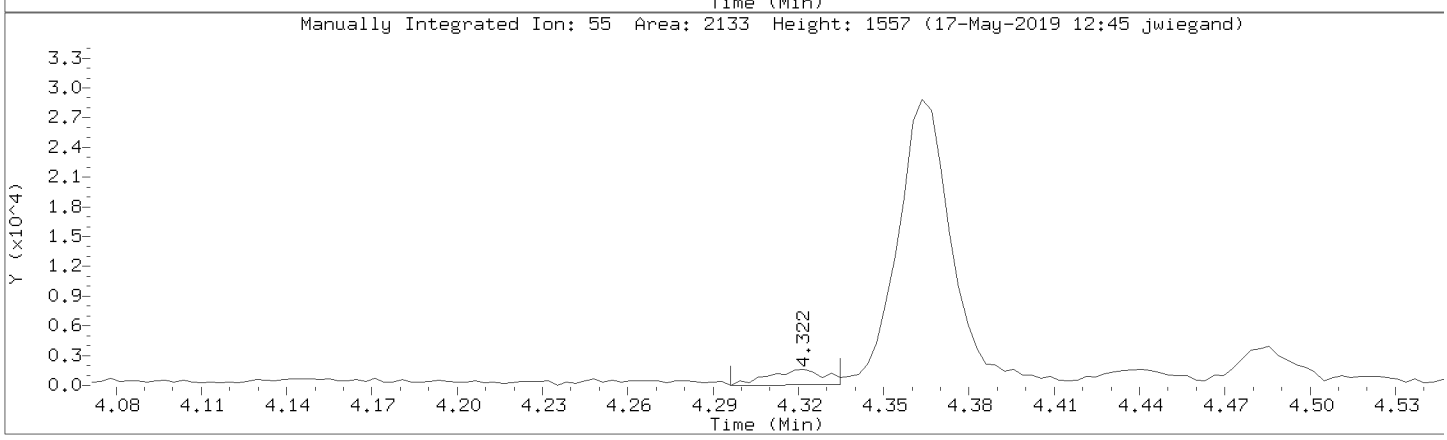
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV



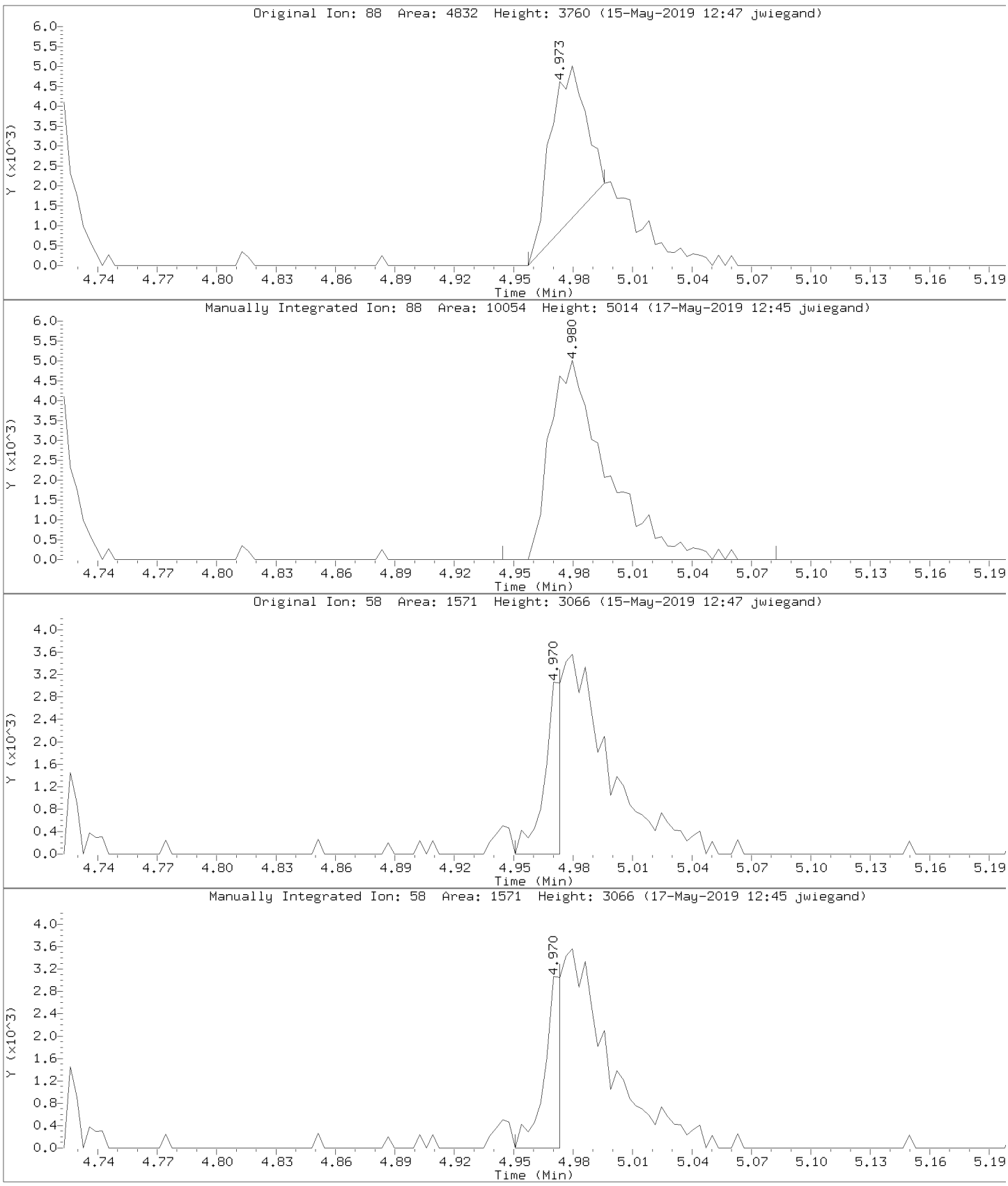






Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b/60514028.d
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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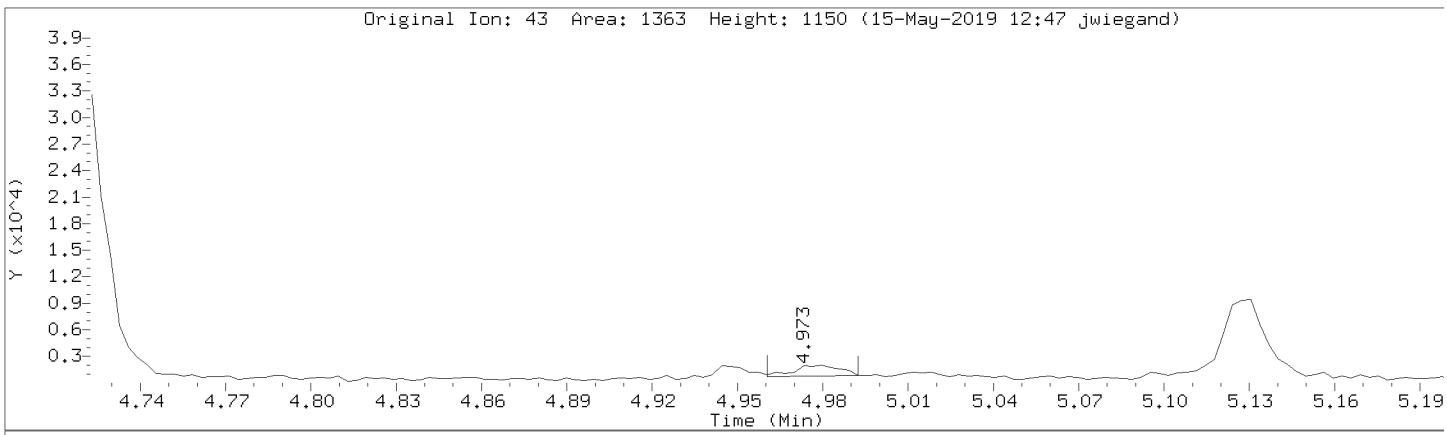
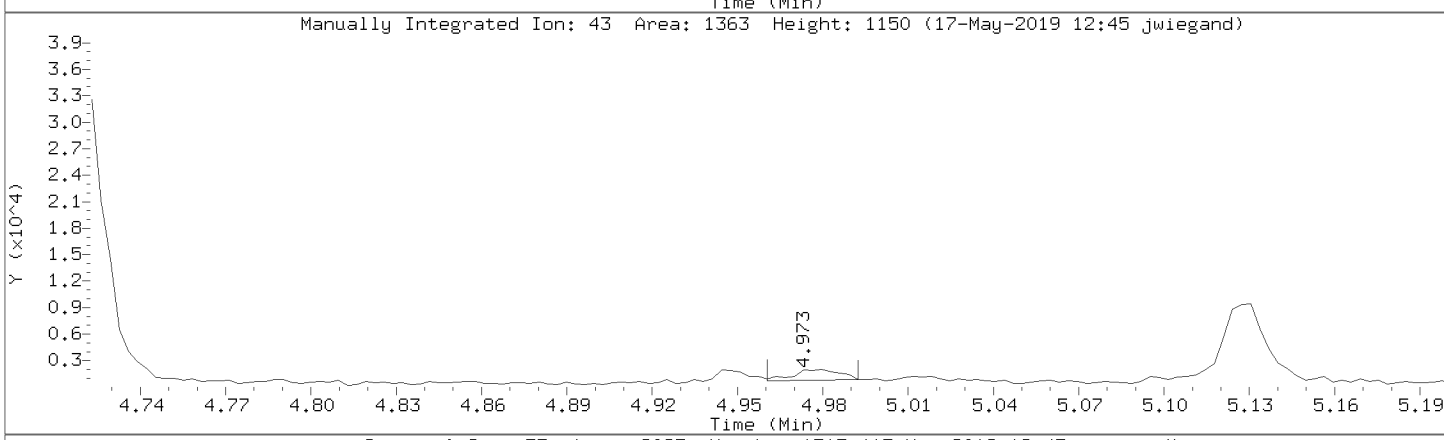
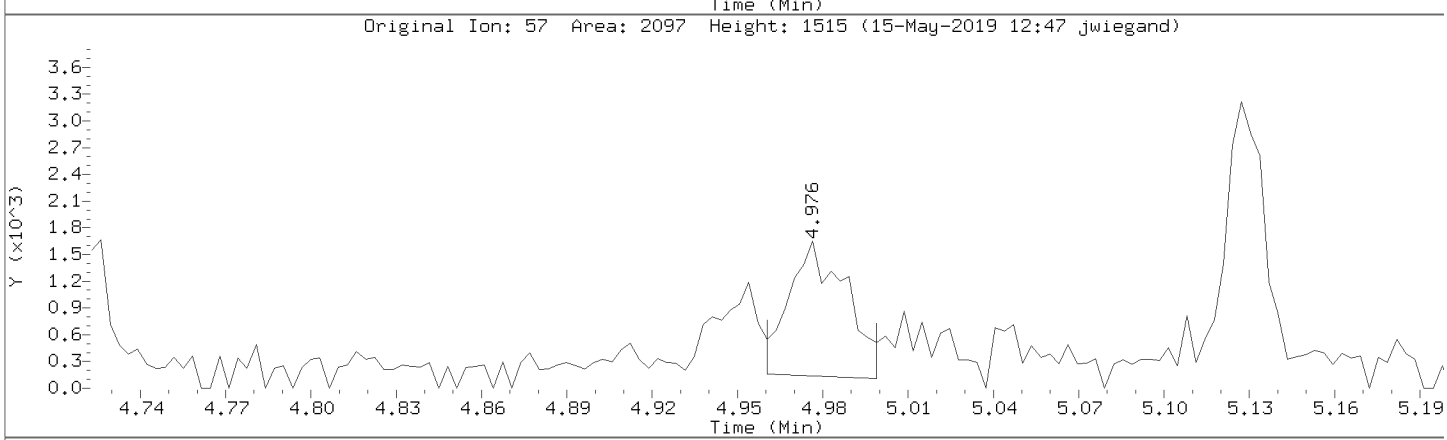
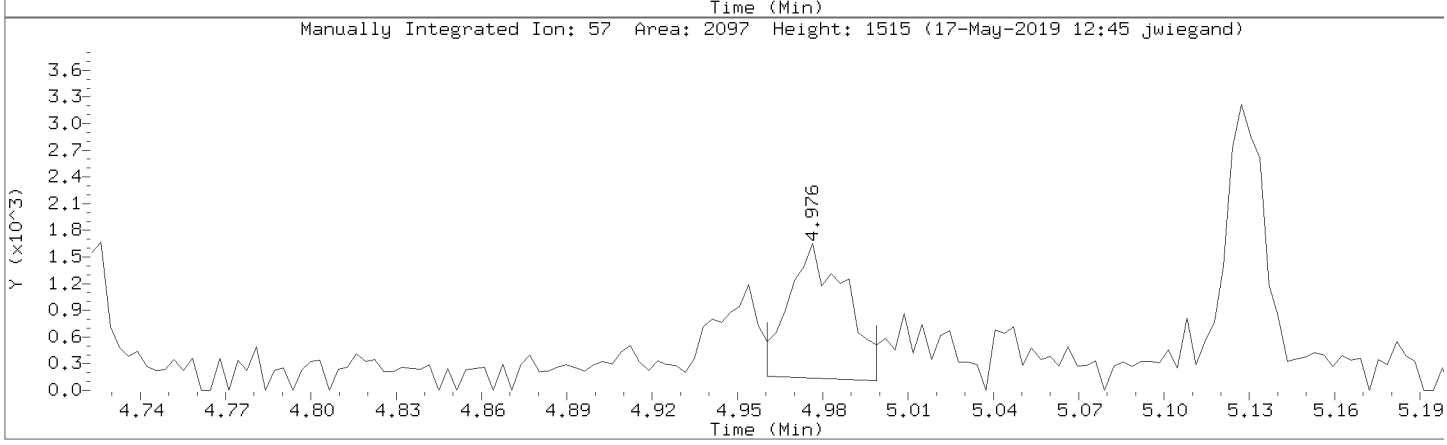
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV









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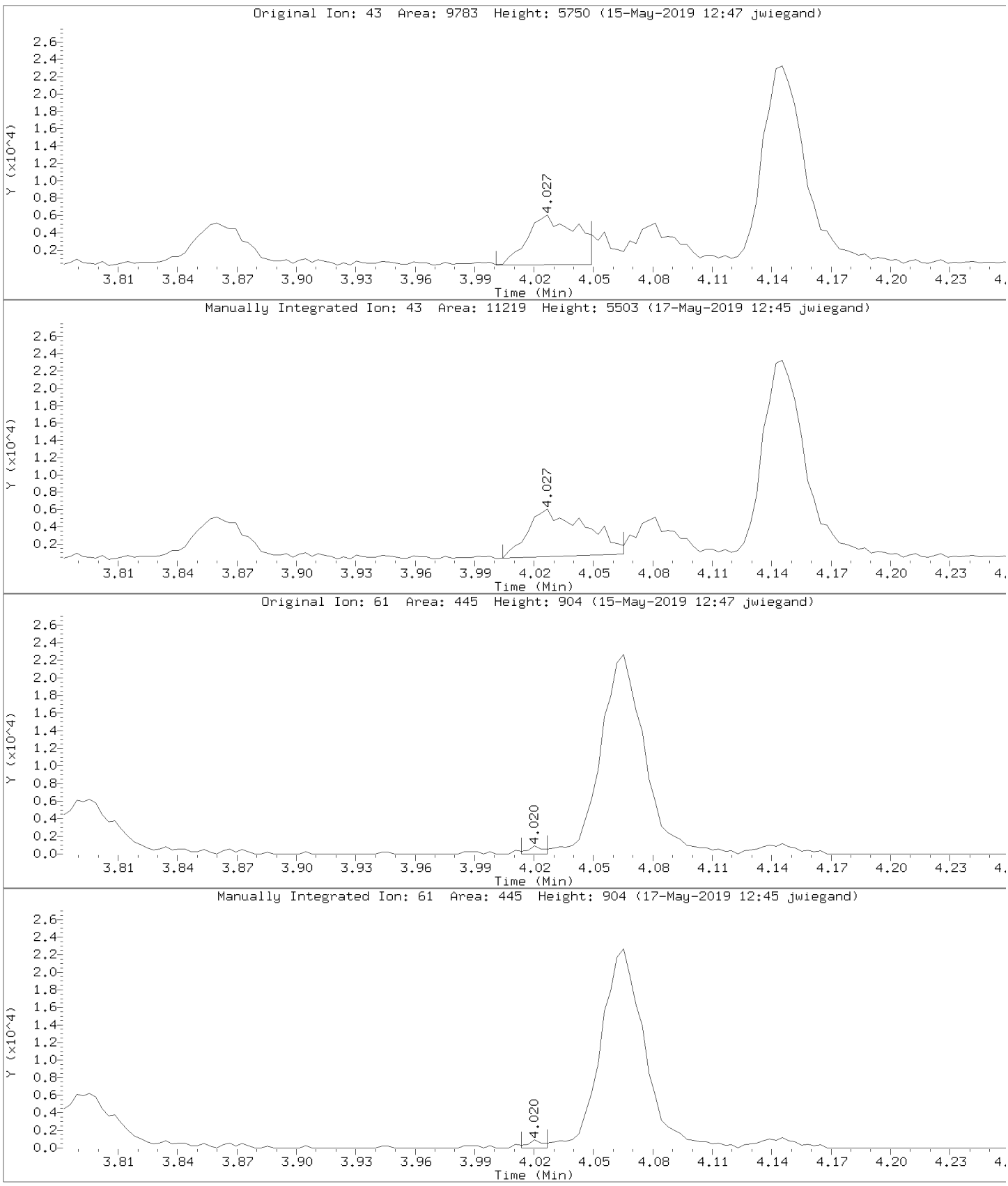
Injection Date: 14-MAY-2019 19:14
Instrument: 30mv6b.i
Lab Sample ID: ICV

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



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Injection Date: 14-MAY-2019 19:14
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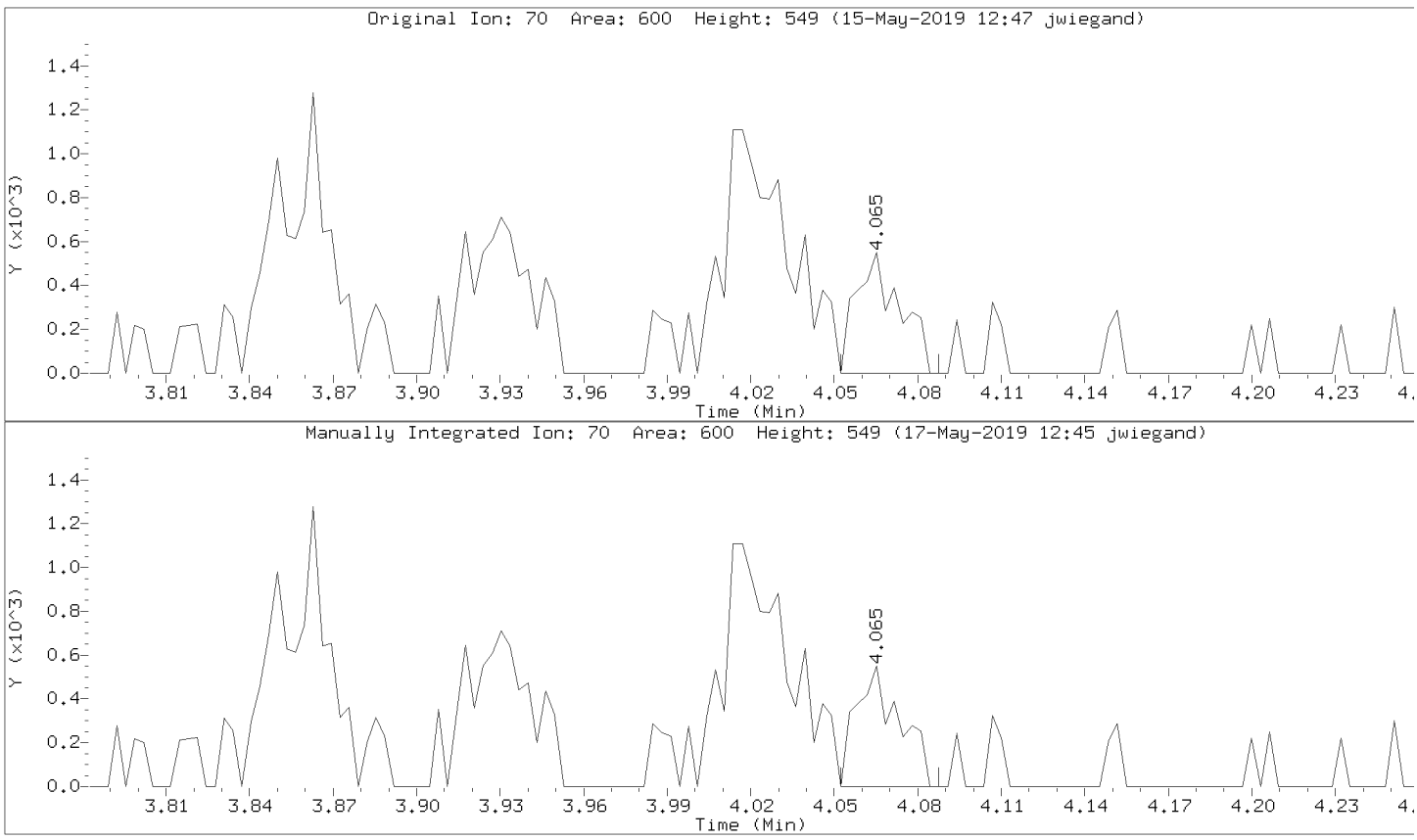
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 13:29
Operator : JEW Inst ID: 30mv6b.i
Smp Info : ccv, 93901:1
Misc Info : 44460,
Comment   :
Method   : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.209	1.212	(0.267)	111767	50.0000	42.2(Q)	
2 Chloromethane	50	1.334	1.328	(0.295)	211777	50.0000	57.2	
3 Vinyl chloride	62	1.376	1.376	(0.304)	191517	50.0000	56.3	
4 Bromomethane	94	1.565	1.569	(0.346)	52889	50.0000	31.6	
5 Chloroethane	64	1.632	1.639	(0.361)	87402	50.0000	44.1(M)	LT
6 Trichlorofluoromethane	101	1.716	1.723	(0.380)	190877	50.0000	50.9	
7 Diethyl ether (Ethyl ether)	59	1.918	1.922	(0.424)	149027	50.0000	62.3	
8 Ethanol	45	2.027	2.017	(0.295)	29955	500.000	(a)	
9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	198258	50.0000	51.1	
10 1,1,2-Trichlorotrifluoroethane	151	2.078	2.079	(0.460)	101391	50.0000	55.0	
11 Carbon disulfide	76	2.082	2.088	(0.461)	374303	50.0000	53.8	
12 Iodomethane	142	2.162	2.165	(0.478)	115342	50.0000	45.1	
13 Acrolein	56	2.303	2.300	(0.510)	19606	50.0000	113(M)	LT
14 Allyl chloride	41	2.396	2.396	(0.530)	1323928	250.000	418	
15 Methylene Chloride	49	2.479	2.486	(0.549)	230713	50.0000	63.5	
16 Acetone	43	2.524	2.531	(0.559)	66688	50.0000	68.7(M)	LT
17 trans-1,2-Dichloroethene	61	2.605	2.602	(0.576)	194045	50.0000	51.7	
18 Methyl acetate	74	2.621	2.621	(0.580)	27477	50.0000	32.2	
19 n-Hexane	86	2.662	2.663	(0.589)	40812	50.0000	30.6	
20 Methyl-tert-butyl ether	73	2.694	2.701	(0.596)	437277	50.0000	54.6	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.788	2.778	(0.617)	196976	250.000	307	
	22 Acetonitrile	41	2.926	2.923	(0.647)	129544	250.000	406	
	23 Diisopropyl ether	45	3.028	3.032	(0.670)	614118	50.0000	70.2	
	24 Chloroprene	53	3.131	3.131	(0.693)	227915	50.0000	98.2	
	25 1,1-Dichloroethane	63	3.153	3.160	(0.698)	255148	50.0000	52.2	
	26 Acrylonitrile	53	3.218	3.240	(0.712)	79685	50.0000	79.3	
	27 Ethyl-tert-butyl ether	59	3.397	3.404	(0.752)	540902	50.0000	57.9	
	28 Vinyl acetate	43	3.420	3.430	(0.757)	471320	50.0000	71.6	
	29 cis-1,2-Dichloroethene	61	3.702	3.709	(0.819)	205870	50.0000	53.7	
	30 2,2-Dichloropropane	77	3.792	3.789	(0.839)	196509	50.0000	47.7	
	31 Cyclohexane	56	3.856	3.863	(0.853)	305610	50.0000	70.6	
	32 Bromochloromethane	130	3.869	3.866	(0.856)	99535	50.0000	49.6	
	33 Chloroform	83	3.927	3.930	(0.869)	230684	50.0000	49.5	
	34 Carbon tetrachloride	117	4.013	4.017	(0.888)	176744	50.0000	45.2	
	35 Ethyl acetate	43	4.023	4.033	(0.890)	212925	50.0000	756(A)	
	36 Tetrahydrofuran	42	4.039	4.046	(0.894)	90483	50.0000	89.1	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	107211	30.0000	30.3	
	38 1,1,1-Trichloroethane	97	4.061	4.067	(0.898)	207645	50.0000	47.3	
	39 2-Butanone (MEK)	43	4.145	4.139	(0.917)	116951	50.0000	70.2	
	40 1,1-Dichloropropene	75	4.142	4.142	(0.916)	181439	50.0000	51.3	
	41 Benzene	78	4.293	4.296	(0.950)	539463	50.0000	54.4	
	42 Propionitrile	54	4.318	4.322	(0.955)	34358	50.0000	70.0	
	43 Methacrylonitrile	41	4.328	4.325	(0.957)	119979	50.0000	74.2	
	44 tert-Amylmethyl ether	73	4.360	4.363	(0.965)	436396	50.0000	58.5	
$	45 1,2-Dichloroethane-d4 (S)	65	4.373	4.376	(0.967)	95834	30.0000	27.4	
	46 Isobutanol	43	4.437	4.437	(0.982)	87362	250.000	406	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.976)	186972	50.0000	48.8	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	425041	30.0000		
	49 Methylcyclohexane	83	4.594	4.598	(1.016)	254727	50.0000	57.4	
	50 Trichloroethene	95	4.604	4.607	(0.782)	146336	50.0000	54.6	
	51 Dibromomethane	174	4.809	4.810	(1.064)	100269	50.0000	46.9	
	52 1,2-Dichloropropane	63	4.851	4.851	(1.073)	158749	50.0000	56.5	
	53 Bromodichloromethane	83	4.880	4.883	(1.079)	175651	50.0000	49.8	
	54 Methyl methacrylate	69	4.944	4.947	(1.094)	123079	50.0000	62.6	
	55 1,4-Dioxane (p-Dioxane)	88	4.973	4.973	(1.100)	26609	500.000	559(M)	LT
	56 2-Chloroethylvinyl ether	63	5.127	5.130	(1.134)	47221	50.0000	64.1	
	57 cis-1,3-Dichloropropene	75	5.156	5.159	(1.141)	236030	50.0000	53.1	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	400924	30.0000	32.2	
	59 Toluene	91	5.255	5.256	(0.893)	628334	50.0000	56.4	
	60 2-Nitropropane	43	5.358	5.361	(1.185)	278999	250.000	249	
	61 4-Methyl-2-pentanone (MIBK)	43	5.409	5.413	(1.197)	230571	50.0000	71.1	
	62 Tetrachloroethene	166	5.419	5.419	(0.921)	166452	50.0000	51.9	
	63 trans-1,3-Dichloropropene	75	5.428	5.432	(0.923)	224267	50.0000	56.2	
	64 Ethyl methacrylate	41	5.483	5.487	(0.932)	183067	50.0000	75.4	
	65 1,1,2-Trichloroethane	97	5.499	5.503	(0.935)	134663	50.0000	56.4	
	66 Dibromochloromethane	129	5.576	5.576	(0.948)	160594	50.0000	51.9	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	224759	50.0000	57.5	
	68 1,2-Dibromoethane (EDB)	107	5.679	5.682	(0.965)	142748	50.0000	55.7	
	69 2-Hexanone	43	5.753	5.756	(0.978)	181830	50.0000	76.1	
	70 Ethylbenzene	106	5.894	5.894	(1.002)	242564	50.0000	54.7	
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	337423	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	456808	50.0000	55.2	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.920	(1.005)	171854	50.0000	52.9	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	617559	100.000	111	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.134	6.138	(1.043)	306989	50.0000	55.2	
76	Styrene	104	6.157	6.160	(1.046)	552260	50.0000	57.0	
77	Bromoform	173	6.186	6.186	(0.900)	118657	50.0000	48.8	
78	Isopropylbenzene (Cumene)	105	6.263	6.263	(0.912)	798607	50.0000	58.4	
$ 79	4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	144769	30.0000	29.9	
80	n-Propylbenzene	91	6.436	6.440	(0.937)	949483	50.0000	60.9	
81	Bromobenzene	77	6.446	6.446	(0.938)	322339	50.0000	56.6	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.472	(0.942)	205924	50.0000	59.8	
83	1,3,5-Trimethylbenzene	105	6.513	6.513	(0.948)	703291	50.0000	57.5	
84	2-Chlorotoluene	126	6.516	6.520	(0.949)	205893	50.0000	55.6	
85	1,2,3-Trichloropropane	110	6.536	6.539	(0.951)	67968	50.0000	56.2	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.546	(0.953)	70352	50.0000	66.6	
87	Cyclohexanone	55	6.568	6.568	(0.956)	195647	250.000	695	
88	4-Chlorotoluene	126	6.587	6.590	(0.959)	218700	50.0000	56.0	
89	tert-Butylbenzene	119	6.654	6.655	(0.969)	623057	50.0000	56.9	
90	1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	723237	50.0000	57.9	
91	sec-Butylbenzene	105	6.728	6.732	(0.979)	916233	50.0000	60.0	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	811944	50.0000	57.9	
93	1,3-Dichlorobenzene	146	6.840	6.841	(0.996)	440580	50.0000	55.0	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	197328	30.0000		
95	1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	449797	50.0000	55.0	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	706599	50.0000	62.6	
97	1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	421742	50.0000	54.9	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	7.055	7.059	(1.027)	77920	30.0000	31.0	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	59714	50.0000	53.8	
99	1,3,5-Trichlorobenzene	180	7.412	7.415	(1.079)	314979	50.0000	58.0	
100	Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	165711	50.0000	57.3	
101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	283156	50.0000	63.9	
102	Naphthalene	128	7.838	7.839	(1.141)	690287	50.0000	62.5	
103	1,2,3-Trichlorobenzene	180	7.919	7.919	(1.153)	215493	50.0000	64.2	
104	2-Methylnaphthalene	142	8.294	8.287	(1.207)	94530	50.0000	109	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately
integrated to an area less than what it should be (e.g., Peak
area was cut).

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717012.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 16-JUL-2019
Calibration Time: 10:36
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 44460,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	446458	223229	892916	425041	-4.80
71 Chlorobenzene-d5	378032	189016	756064	337423	-10.74
94 1,4-Dichlorobenze	226148	113074	452296	197328	-12.74

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.07
71 Chlorobenzene-d5	5.89	5.39	6.39	5.88	-0.05
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 17-JUL-2019 13:29
Lab File ID: 60717012.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.18672	0.15777	0.15777	0.010	-15.50424	20.00000	Aver	(Q)	
	2 Chloromethane	0.26124	0.29895	0.29895	0.100	14.43445	20.00000	Aver		
	3 Vinyl chloride	0.23993	0.27035	0.27035	0.010	12.67675	20.00000	Aver		
	4 Bromomethane	0.11826	0.07466	0.07466	0.010	-36.86618	20.00000	Aver		<-
	5 Chloroethane	50.00000	44.10226	0.12338	0.010	-11.79548	20.00000	Quad	(M)	
	6 Trichlorofluoromethane	0.26446	0.26945	0.26945	0.010	1.88606	20.00000	Aver		
	7 Diethyl ether (Ethyl ether)	0.16874	0.21037	0.21037	0.010	24.67415	20.00000	Aver		<-
	8 Ethanol	++++	0.00911	0.00911	0.010	++++	20.00000	Aver	(a)	<-
	9 1,1-Dichloroethene	0.27389	0.27987	0.27987	0.010	2.18102	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.13007	0.14313	0.14313	0.010	10.03679	20.00000	Aver		
	11 Carbon disulfide	0.49113	0.52838	0.52838	0.010	7.58335	20.00000	Aver		
	12 Iodomethane	0.18045	0.16282	0.16282	0.010	-9.77234	20.00000	Aver		
	13 Acrolein	50.00000	113	0.02768	0.010	126	20.00000	Quad	(M)	<-
	14 Allyl chloride	0.22332	0.37378	0.37378	0.010	67.37195	20.00000	Aver		<-
	15 Methylene Chloride	50.00000	63.48174	0.32568	0.010	26.96347	20.00000	Line		<-
	16 Acetone	50.00000	68.70594	0.09414	0.010	37.41188	20.00000	Line	(M)	<-
	17 trans-1,2-Dichloroethene	0.26468	0.27392	0.27392	0.010	3.49230	20.00000	Aver		
	18 Methyl acetate	0.06024	0.03879	0.03879	0.010	-35.61415	20.00000	Aver		<-
	19 n-Hexane	50.00000	30.55933	0.05761	0.010	-38.88133	20.00000	Quad		<-
	20 Methyl-tert-butyl ether	0.56529	0.61727	0.61727	0.010	9.19592	20.00000	Aver		
	21 tert-Butyl Alcohol	0.04532	0.05561	0.05561	0.010	22.69954	20.00000	Aver		<-
	22 Acetonitrile	0.02253	0.03657	0.03657	0.010	62.30548	20.00000	Aver		<-
	23 Diisopropyl ether	0.61721	0.86691	0.86691	0.010	40.45468	20.00000	Aver		<-
	24 Chloroprene	0.16376	0.32173	0.32173	0.010	96.46729	20.00000	Aver		<-
	25 1,1-Dichloroethane	0.34475	0.36017	0.36017	0.100	4.47419	20.00000	Aver		
	26 Acrylonitrile	0.07089	0.11249	0.11249	0.010	58.67470	20.00000	Aver		<-
	27 Ethyl-tert-butyl ether	0.65942	0.76355	0.76355	0.010	15.79108	20.00000	Aver		
	28 Vinyl acetate	0.46446	0.66533	0.66533	0.010	43.24746	20.00000	Aver		<-
	29 cis-1,2-Dichloroethene	0.27036	0.29061	0.29061	0.010	7.49233	20.00000	Aver		
	30 2,2-Dichloropropane	0.29070	0.27740	0.27740	0.010	-4.57616	20.00000	Aver		
	31 Cyclohexane	0.30569	0.43141	0.43141	0.010	41.12445	20.00000	Aver		<-
	32 Bromochloromethane	0.14159	0.14051	0.14051	0.010	-0.76776	20.00000	Aver		
	33 Chloroform	0.32868	0.32564	0.32564	0.010	-0.92490	20.00000	Aver		
	34 Carbon tetrachloride	0.27623	0.24950	0.24950	0.010	-9.67890	20.00000	Aver		
	35 Ethyl acetate	50.00000	756	0.30057	0.010	1412	20.00000	Quad	(A)	<-
	36 Tetrahydrofuran	50.00000	89.12621	0.12773	0.010	78.25241	20.00000	Quad		<-
$	37 Dibromofluoromethane (S)	0.24933	0.25224	0.25224	0.010	1.16390	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.30966	0.29312	0.29312	0.010	-5.34309	20.00000	Aver		
	39 2-Butanone (MEK)	0.11753	0.16509	0.16509	0.010	40.46293	20.00000	Aver		<-
	40 1,1-Dichloropropene	0.24961	0.25612	0.25612	0.010	2.61122	20.00000	Aver		
	41 Benzene	50.00000	54.45589	0.76152	0.010	8.91178	20.00000	Quad		

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 17-JUL-2019 13:29
Lab File ID: 60717012.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	50.00000	70.05289	0.04850	0.010	40.10579	20.00000	Quad		<-
43 Methacrylonitrile	0.11418	0.16937	0.16937	0.010	48.32867	20.00000	Aver		<-
44 tert-Amylmethyl ether	0.52635	0.61603	0.61603	0.010	17.03752	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.24711	0.22547	0.22547	0.010	-8.75585	20.00000	Aver		
46 Isobutanol	0.01518	0.02466	0.02466	0.010	62.43378	20.00000	Aver		<-
47 1,2-Dichloroethane	0.27053	0.26394	0.26394	0.010	-2.43662	20.00000	Aver		
49 Methylcyclohexane	50.00000	57.44815	0.35958	0.010	14.89630	20.00000	Quad		
50 Trichloroethene	0.23827	0.26021	0.26021	0.010	9.21110	20.00000	Aver		
51 Dibromomethane	0.15076	0.14154	0.14154	0.010	-6.11272	20.00000	Aver		
52 1,2-Dichloropropane	0.19819	0.22409	0.22409	0.010	13.07222	20.00000	Aver		
53 Bromodichloromethane	0.24907	0.24795	0.24795	0.010	-0.44662	20.00000	Aver		
54 Methyl methacrylate	0.13873	0.17374	0.17374	0.010	25.23631	20.00000	Aver		<-
55 1,4-Dioxane (p-Dioxane)	0.00336	0.00376	0.00376	0.010	11.74497	20.00000	Aver	(M)	<-
56 2-Chloroethylvinyl ether	0.05196	0.06666	0.06666	0.010	28.29709	20.00000	Aver		<-
57 cis-1,3-Dichloropropene	0.31355	0.33319	0.33319	0.010	6.26176	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.10533	1.18819	1.18819	0.010	7.49662	20.00000	Aver		
59 Toluene	0.99019	1.11729	1.11729	0.010	12.83662	20.00000	Aver		
60 2-Nitropropane	0.07898	0.07877	0.07877	0.010	-0.27101	20.00000	Aver		
61 4-Methyl-2-pentanone (MIBK)	0.22874	0.32548	0.32548	0.010	42.29170	20.00000	Aver		<-
62 Tetrachloroethene	0.28500	0.29598	0.29598	0.010	3.85461	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.35448	0.39879	0.39879	0.010	12.49894	20.00000	Aver		
64 Ethyl methacrylate	0.21599	0.32553	0.32553	0.010	50.71307	20.00000	Aver		<-
65 1,1,2-Trichloroethane	0.21238	0.23946	0.23946	0.010	12.74842	20.00000	Aver		
66 Dibromochloromethane	0.27527	0.28557	0.28557	0.010	3.73899	20.00000	Aver		
67 1,3-Dichloropropane	0.34732	0.39966	0.39966	0.010	15.07038	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.22790	0.25383	0.25383	0.010	11.38049	20.00000	Aver		
69 2-Hexanone	0.21242	0.32333	0.32333	0.010	52.21226	20.00000	Aver		<-
70 Ethylbenzene	0.39439	0.43132	0.43132	0.010	9.36458	20.00000	Aver		
72 Chlorobenzene	0.73521	0.81229	0.81229	0.300	10.48381	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.28900	0.30559	0.30559	0.010	5.73822	20.00000	Aver		
74 m&p-Xylene	0.49535	0.54907	0.54907	0.010	10.84306	20.00000	Aver		
75 o-Xylene	0.49490	0.54588	0.54588	0.010	10.30270	20.00000	Aver		
76 Styrene	0.86095	0.98202	0.98202	0.010	14.06216	20.00000	Aver		
77 Bromoform	0.36950	0.36079	0.36079	0.100	-2.35765	20.00000	Aver		
78 Isopropylbenzene (Cumene)	2.08053	2.42826	2.42826	0.010	16.71342	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.73489	0.73365	0.73365	0.010	-0.16894	20.00000	Aver		
80 n-Propylbenzene	2.37058	2.88702	2.88702	0.010	21.78531	20.00000	Aver		<-
81 Bromobenzene	0.86644	0.98011	0.98011	0.010	13.11988	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.52360	0.62614	0.62614	0.300	19.58381	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.85915	2.13844	2.13844	0.010	15.02265	20.00000	Aver		
84 2-Chlorotoluene	0.56314	0.62604	0.62604	0.010	11.16948	20.00000	Aver		
85 1,2,3-Trichloropropane	0.18397	0.20667	0.20667	0.010	12.33803	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Report Date: 18-Jul-2019 09:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6b.i Injection Date: 17-JUL-2019 13:29
Lab File ID: 60717012.d Init. Cal. Date(s): 14-MAY-2019 14-MAY-2019
Analysis Type: SOIL Init. Cal. Times: 15:22 18:23
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.16047	0.21391	0.21391	0.010	33.30231	20.00000	Aver		<-
87 Cyclohexanone	0.04281	0.11898	0.11898	0.010	178	20.00000	Aver		<-
88 4-Chlorotoluene	0.59372	0.66498	0.66498	0.010	12.00337	20.00000	Aver		
89 tert-Butylbenzene	1.66379	1.89448	1.89448	0.010	13.86521	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.89912	2.19909	2.19909	0.010	15.79519	20.00000	Aver		
91 sec-Butylbenzene	2.32052	2.78592	2.78592	0.010	20.05562	20.00000	Aver		<-
92 p-Isopropyltoluene	2.13157	2.46882	2.46882	0.010	15.82128	20.00000	Aver		
93 1,3-Dichlorobenzene	1.21895	1.33964	1.33964	0.010	9.90053	20.00000	Aver		
95 1,4-Dichlorobenzene	1.24364	1.36766	1.36766	0.010	9.97221	20.00000	Aver		
96 n-Butylbenzene	1.71521	2.14850	2.14850	0.010	25.26137	20.00000	Aver		<-
97 1,2-Dichlorobenzene	1.16717	1.28236	1.28236	0.010	9.86860	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	0.38166	0.39488	0.39488	0.010	3.46164	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.16877	0.18157	0.18157	0.010	7.58175	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.82542	0.95773	0.95773	0.010	16.03026	20.00000	Aver		
100 Hexachloro-1,3-butadiene	50.00000	57.33449	0.50386	0.010	14.66898	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.67373	0.86097	0.86097	0.010	27.79238	20.00000	Aver		<-
102 Naphthalene	1.67879	2.09890	2.09890	0.010	25.02466	20.00000	Aver		<-
103 1,2,3-Trichlorobenzene	50.00000	64.22826	0.65523	0.010	28.45652	20.00000	Quad		<-
104 2-Methylnaphthalene	50.00000	109	0.28743	0.010	118	20.00000	Quad		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 36.90033
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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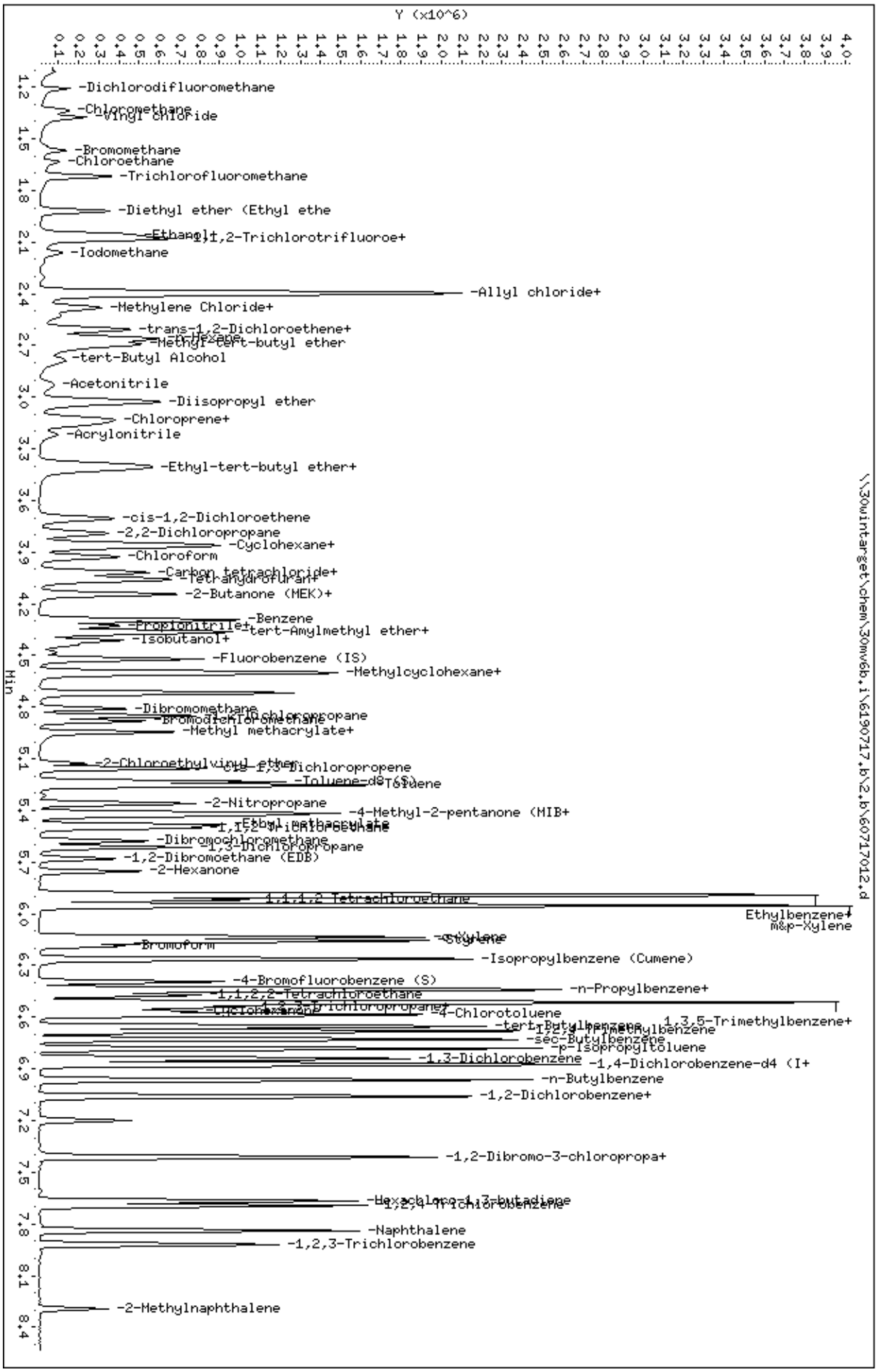
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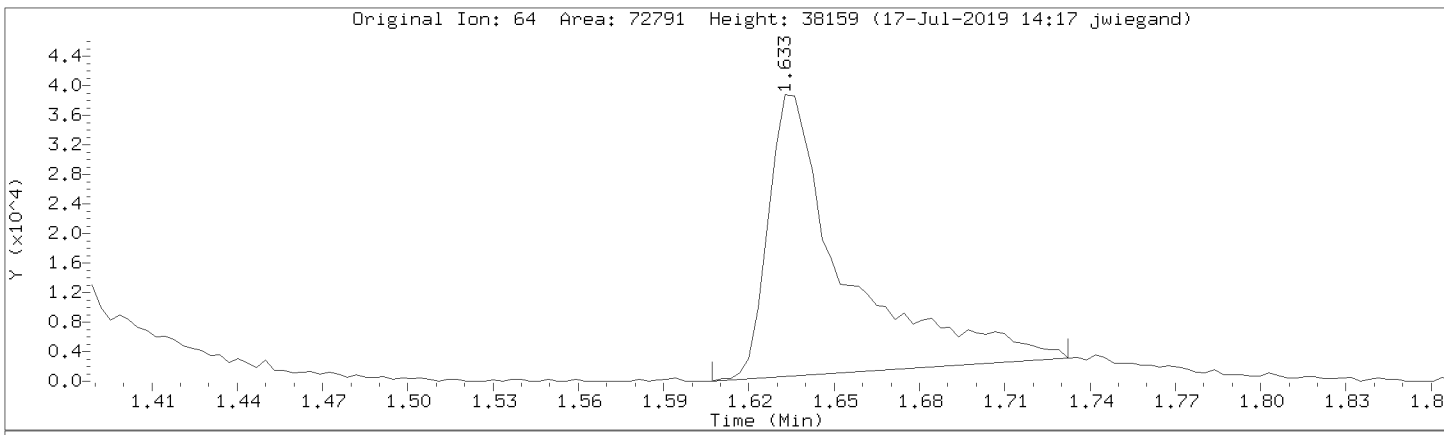
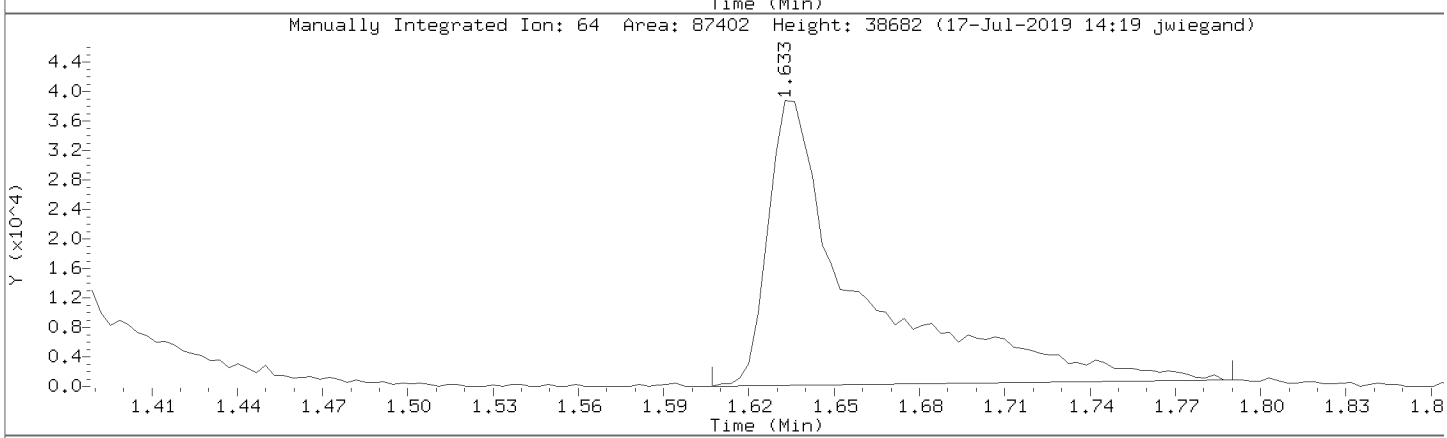
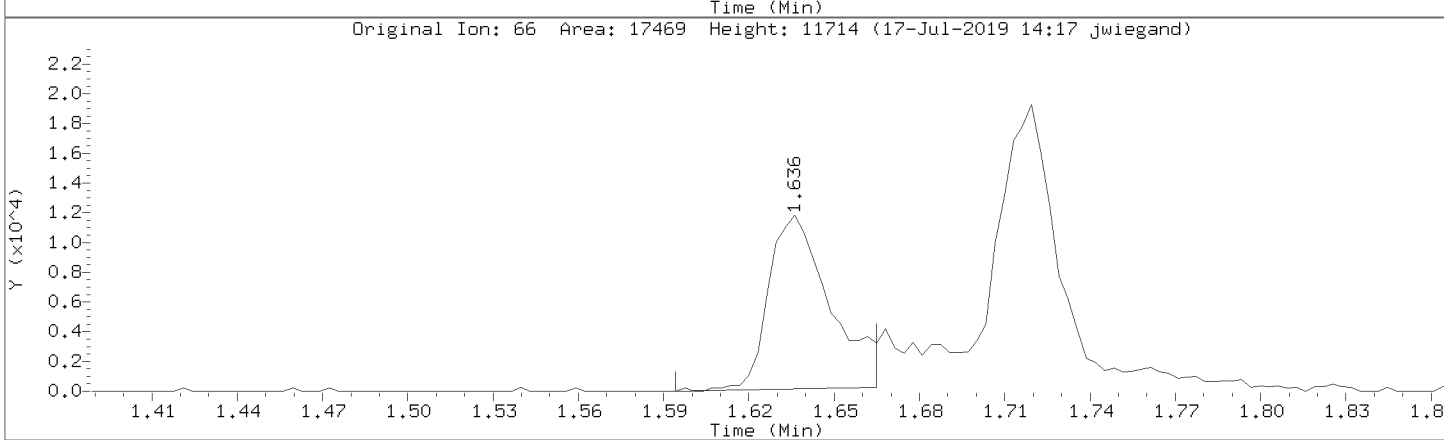
Date : 17-JUL-2019 13:29
Client ID: CCV
Sample Info: CCV, 9390111
Column phase: RTX-VMS
Instrument: 30mv6b.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717012.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8(S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

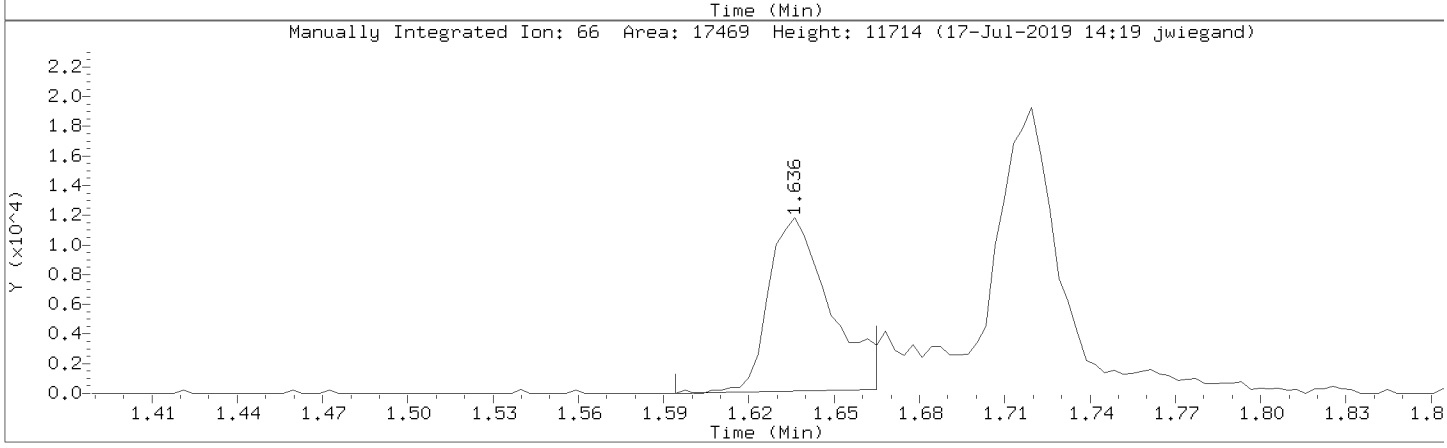
Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717012.d
Injection Date: 17-JUL-2019 13:29
Instrument: 30mv6b.i
Lab Sample ID: CCV

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3



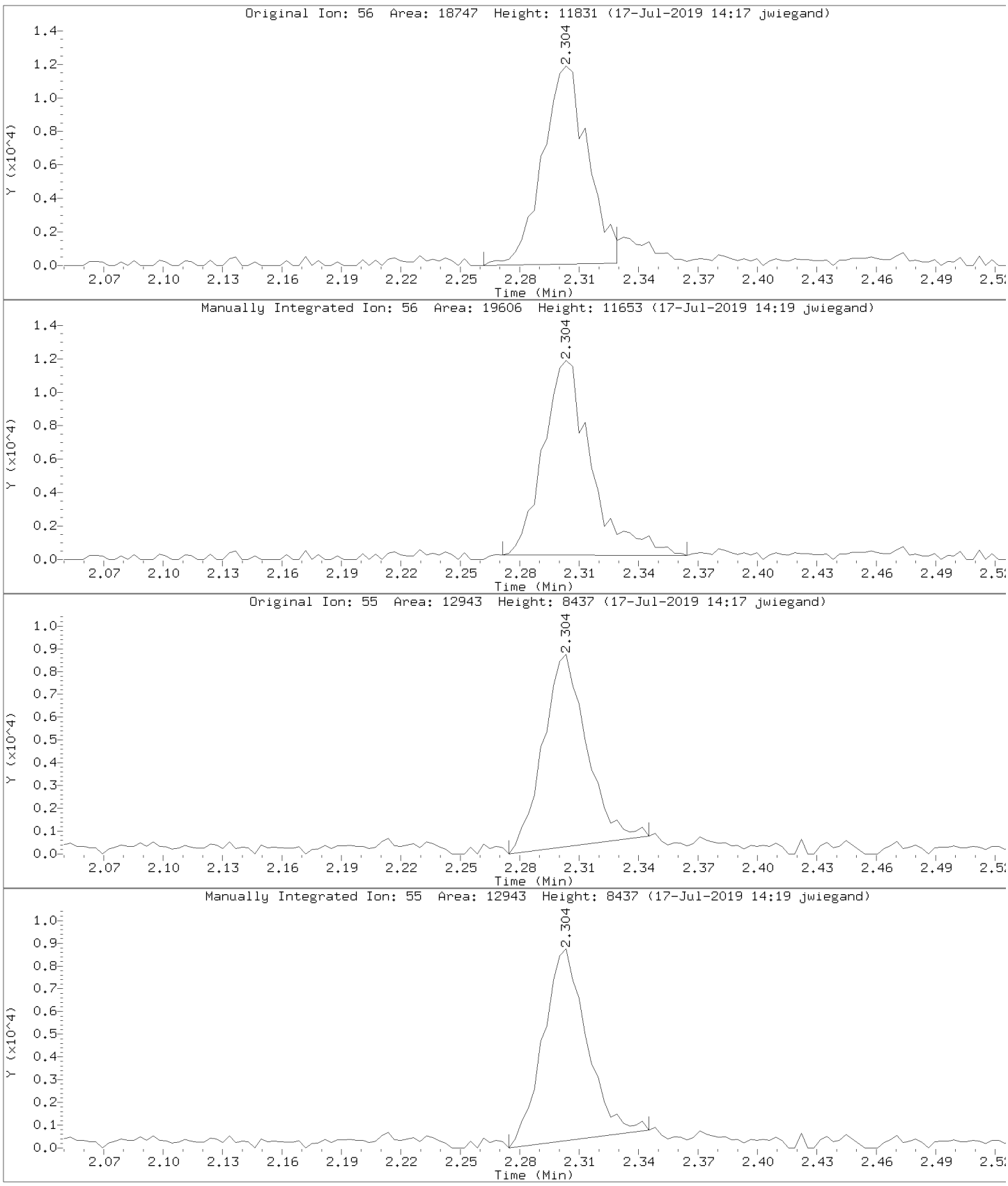






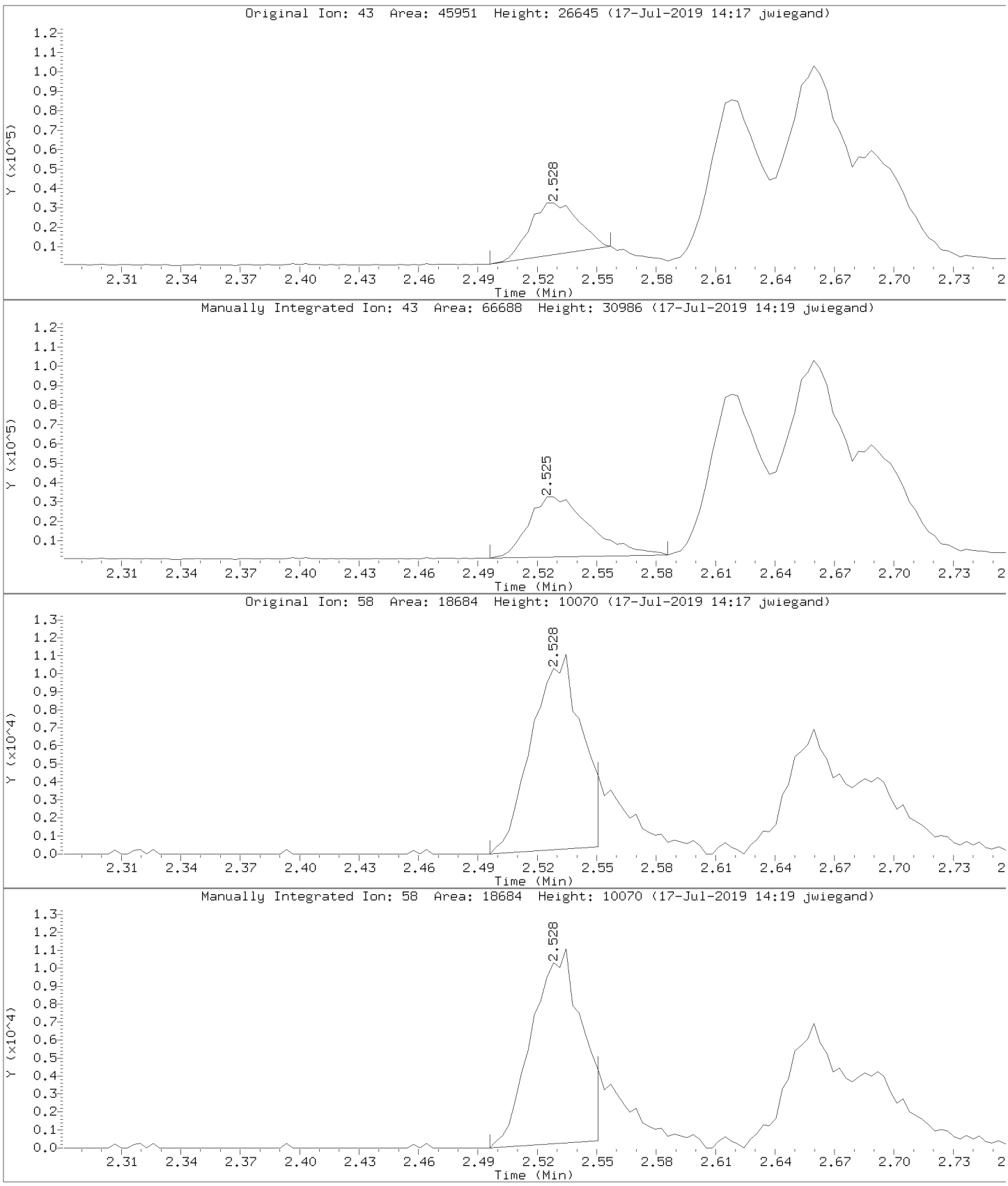
Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717012.d
Injection Date: 17-JUL-2019 13:29
Instrument: 30mv6b.i
Lab Sample ID: CCV

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



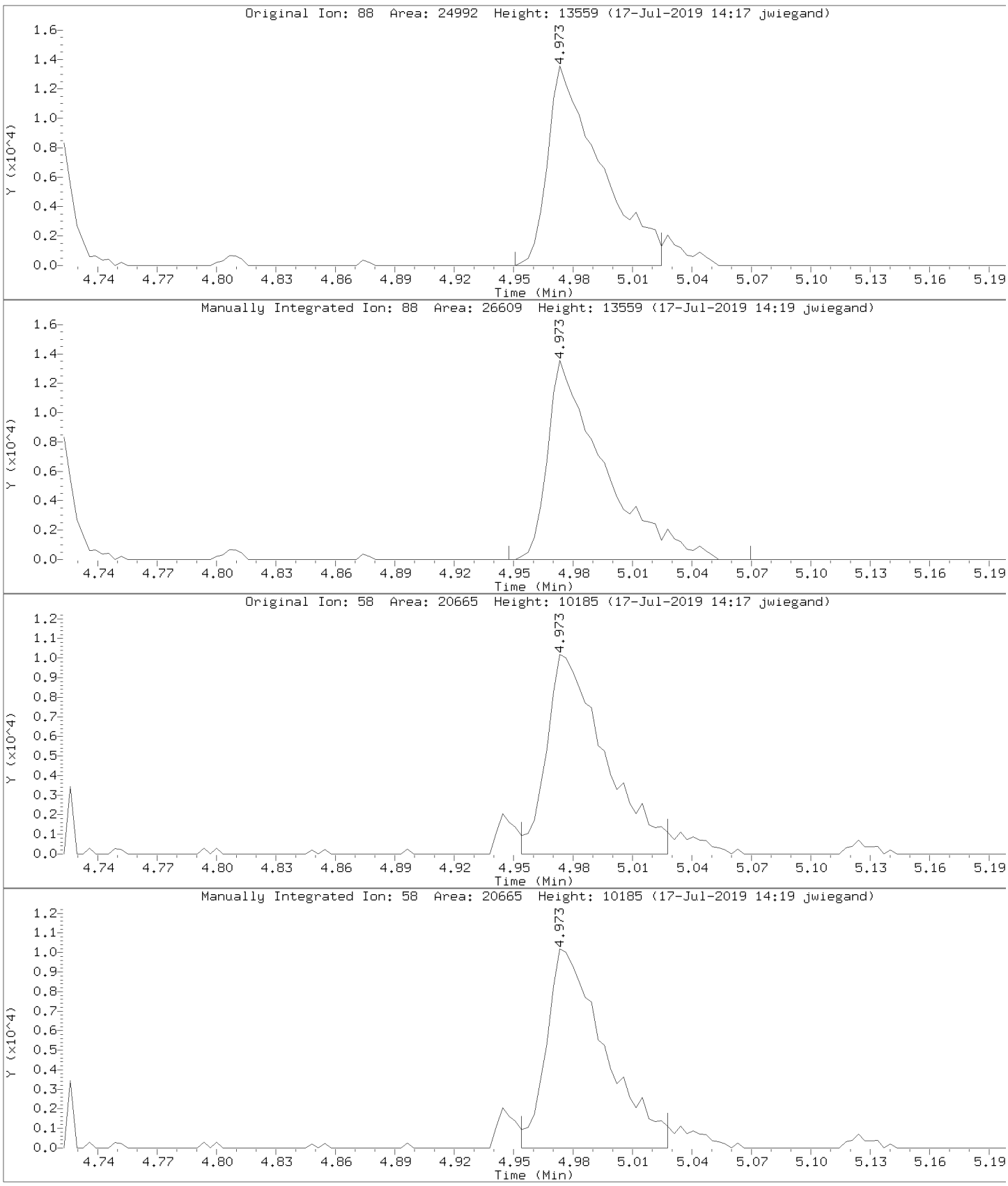
Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717012.d
Injection Date: 17-JUL-2019 13:29
Instrument: 30mv6b.i
Lab Sample ID: CCV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717012.d
Injection Date: 17-JUL-2019 13:29
Instrument: 30mv6b.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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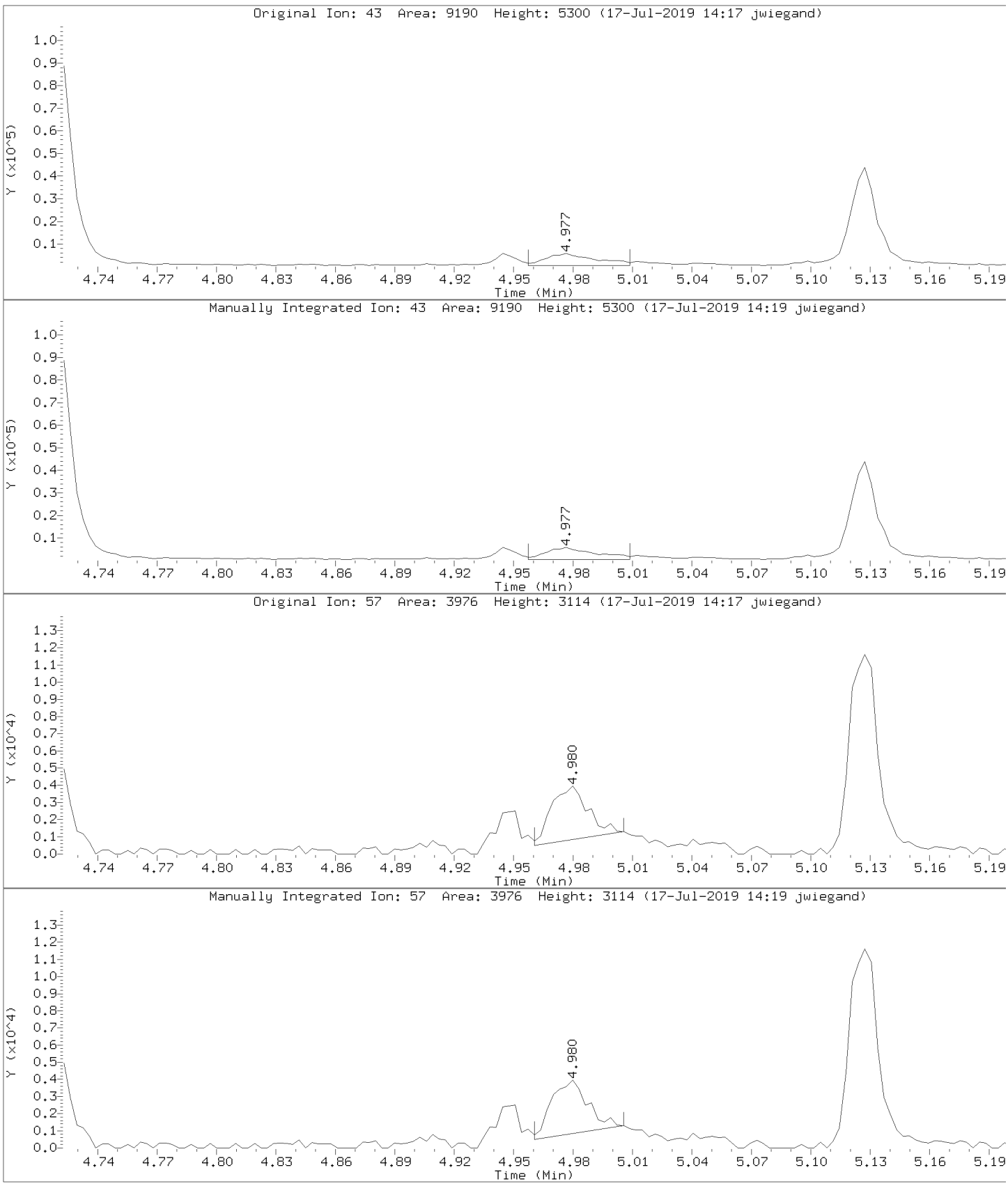
Injection Date: 17-JUL-2019 13:29
Instrument: 30mv6b.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514008.d

Page 1

Date : 14-MAY-2019 14:56

Client ID: TUNE

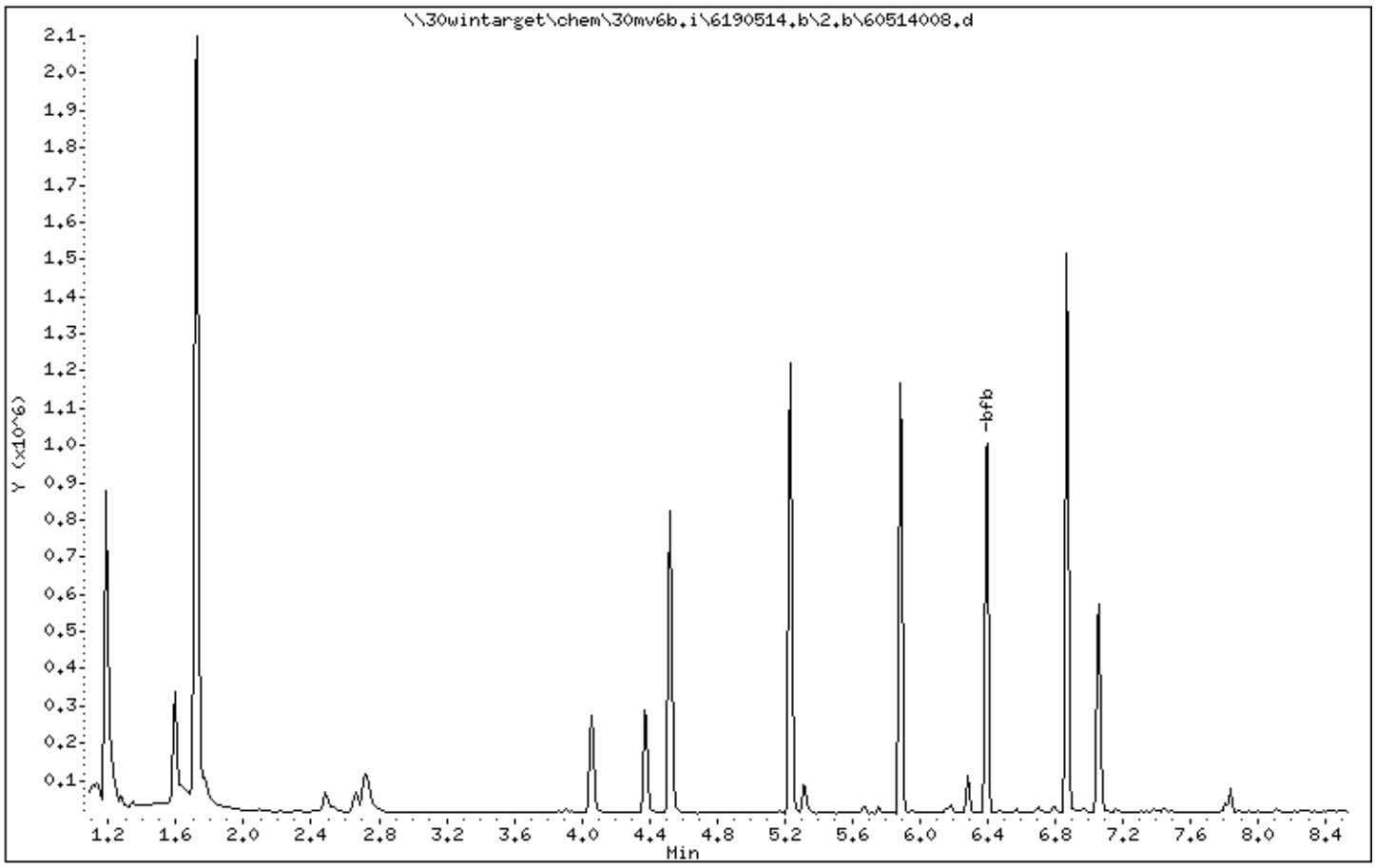
Instrument: 30mv6b.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6b.i\6190514.b\2.b\60514008.d

Date : 14-MAY-2019 14:56

Client ID: TUNE

Instrument: 30mv6b.i

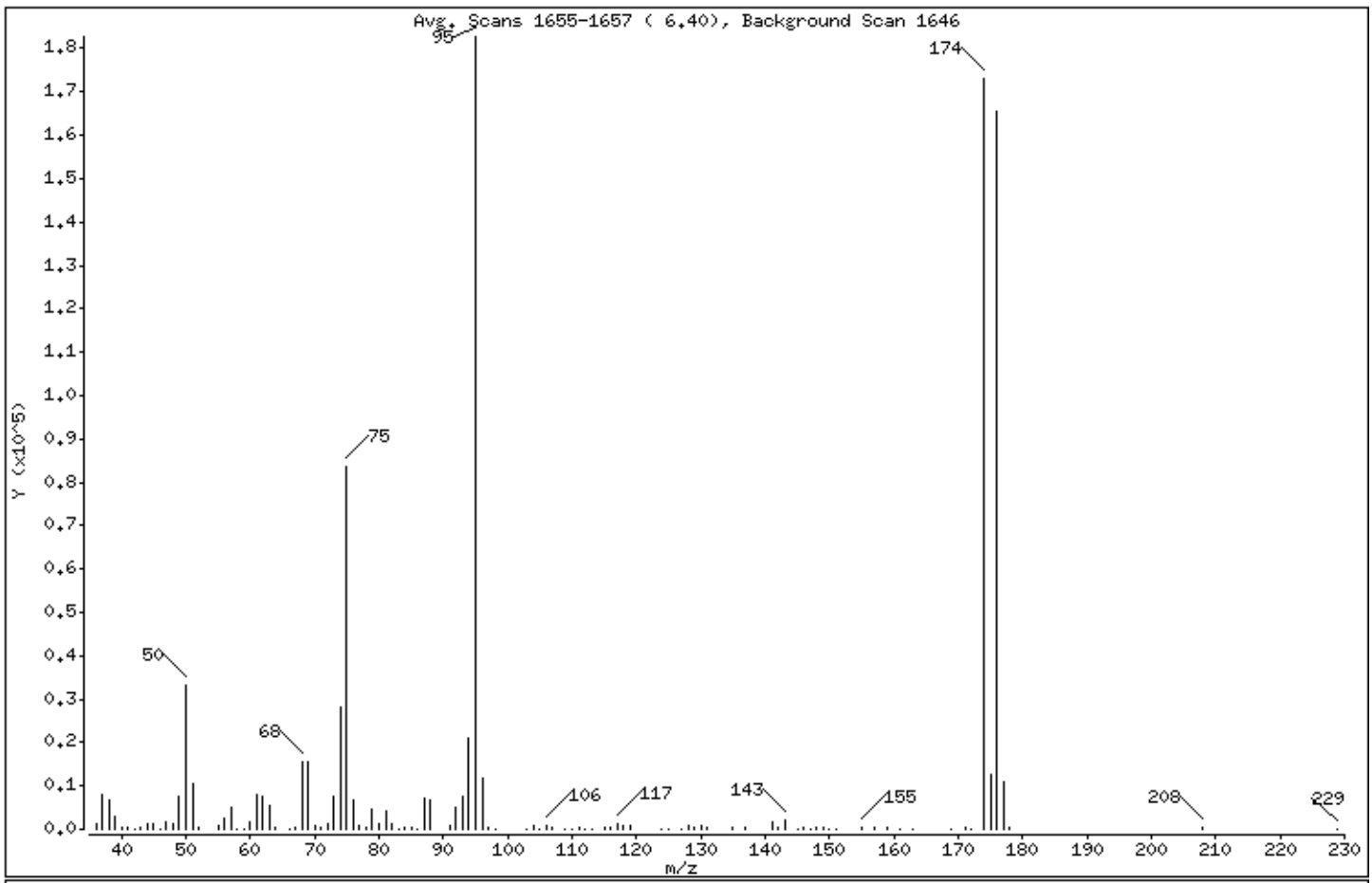
Sample Info: TUNE, 84349:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.22
75	30.00 - 60.00% of mass 95	45.64
96	5.00 - 9.00% of mass 95	6.38
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	94.68
175	5.00 - 9.00% of mass 174	6.96 (7.35)
176	95.00 - 101.00% of mass 174	90.61 (95.71)
177	5.00 - 9.00% of mass 176	5.95 (6.57)

Date : 14-MAY-2019 14:56

Client ID: TUNE Instrument: 30mv6b.i

Sample Info: TUNE, 84349:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60514008.d
Spectrum: Avg. Scans 1655-1657 (6.40), Background Scan 1646
Location of Maximum: 95.00
Number of points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1452	66.00	67	95.00	182720	137.00	236
37.00	8093	67.00	216	96.00	11655	141.00	1747
38.00	6669	68.00	15499	97.00	399	142.00	307
39.00	2833	69.00	15417	98.00	39	143.00	2041
40.00	394	70.00	894	103.00	107	145.00	207
41.00	250	71.00	441	104.00	863	146.00	291
42.00	145	72.00	1363	105.00	3	147.00	162
43.00	410	73.00	7402	106.00	911	148.00	609
44.00	1178	74.00	28304	107.00	349	149.00	224
45.00	1373	75.00	83392	109.00	76	150.00	138
46.00	193	76.00	6720	110.00	70	151.00	67
47.00	1836	77.00	1037	111.00	280	155.00	485
48.00	1099	78.00	621	112.00	127	157.00	375
49.00	7650	79.00	4713	113.00	153	159.00	369
50.00	33288	80.00	1250	115.00	251	161.00	78
51.00	10514	81.00	4211	116.00	574	163.00	76
52.00	622	82.00	1120	117.00	1311	169.00	67
55.00	790	83.00	118	118.00	827	171.00	358
56.00	2638	84.00	334	119.00	922	172.00	79
57.00	4952	85.00	286	124.00	124	174.00	172992
58.00	115	86.00	181	125.00	123	175.00	12720
59.00	110	87.00	7016	127.00	72	176.00	165568
60.00	1696	88.00	6716	128.00	840	177.00	10875
61.00	7790	91.00	710	129.00	571	178.00	228
62.00	7699	92.00	4904	130.00	709	208.00	299
63.00	5655	93.00	7708	131.00	278	229.00	66
64.00	503	94.00	20992	135.00	449		

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717010.d

Date : 17-JUL-2019 13:03

Client ID: TUNE

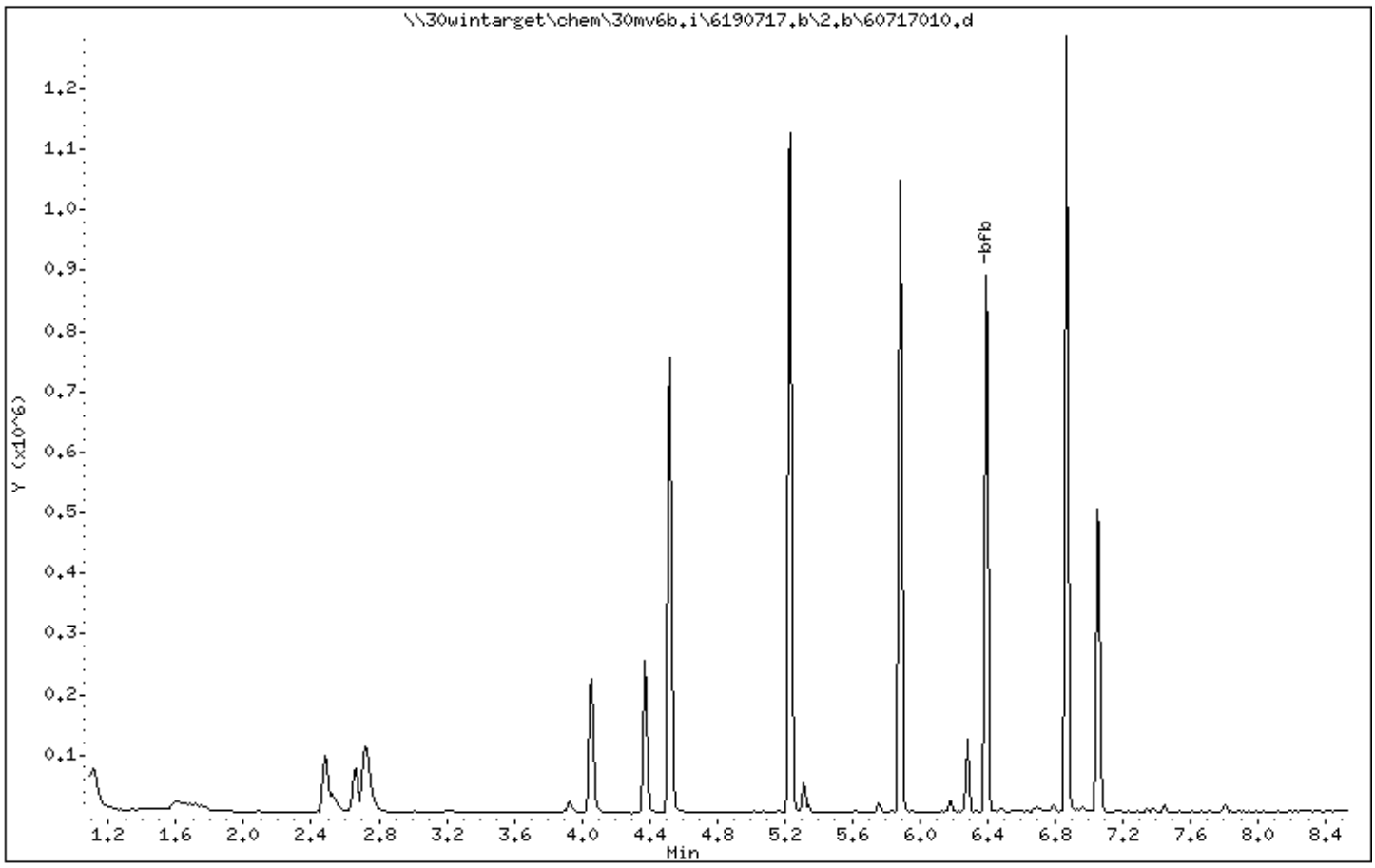
Instrument: 30mv6b.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717010.d

Date : 17-JUL-2019 13:03

Client ID: TUNE

Instrument: 30mv6b.i

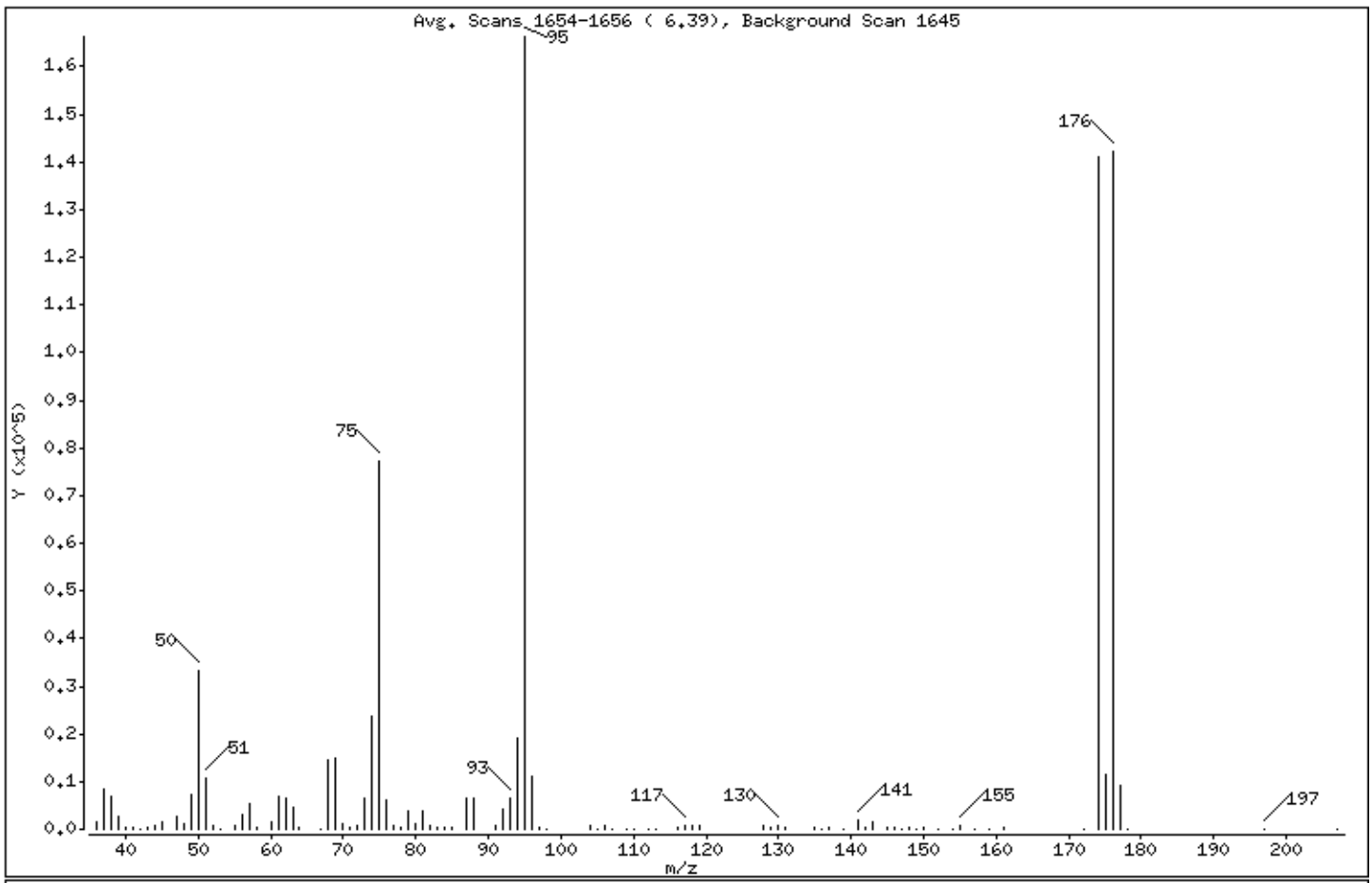
Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.03
75	30.00 - 60.00% of mass 95	46.33
96	5.00 - 9.00% of mass 95	6.57
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	84.80
175	5.00 - 9.00% of mass 174	6.79 (8.01)
176	95.00 - 101.00% of mass 174	85.45 (100.77)
177	5.00 - 9.00% of mass 176	5.53 (6.47)

Date : 17-JUL-2019 13:03

Client ID: TUNE Instrument: 30mv6b.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60717010.d
Spectrum: Avg. Scans 1654-1656 (6.39), Background Scan 1645
Location of Maximum: 95.00
Number of points: 98

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1405	64.00	561	94.00	19248	141.00	1914
37.00	8539	67.00	177	95.00	166272	142.00	390
38.00	7051	68.00	14441	96.00	10930	143.00	1657
39.00	2538	69.00	14825	97.00	356	145.00	206
40.00	302	70.00	1236	98.00	82	146.00	352
41.00	541	71.00	555	104.00	783	147.00	105
42.00	102	72.00	885	105.00	70	148.00	402
43.00	510	73.00	6528	106.00	698	149.00	83
44.00	704	74.00	23864	107.00	99	150.00	210
45.00	1609	75.00	77040	109.00	119	152.00	131
47.00	2755	76.00	6204	110.00	82	154.00	80
48.00	1030	77.00	704	112.00	79	155.00	625
49.00	7193	78.00	419	113.00	145	157.00	155
50.00	33296	79.00	3720	116.00	466	159.00	70
51.00	10555	80.00	1256	117.00	926	161.00	302
52.00	632	81.00	3898	118.00	618	172.00	92
53.00	179	82.00	718	119.00	903	174.00	140992
55.00	726	83.00	279	128.00	604	175.00	11291
56.00	3038	84.00	195	129.00	376	176.00	142080
57.00	5236	85.00	416	130.00	612	177.00	9189
58.00	381	87.00	6558	131.00	225	178.00	169
60.00	1611	88.00	6629	135.00	379	197.00	116
61.00	7013	91.00	599	136.00	85	207.00	69
62.00	6569	92.00	4191	137.00	496		
63.00	4723	93.00	6669	139.00	72		

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Water SDG No.: 30313514

Date Extracted: 07/17/2019 14:21 Lab Sample ID: 1711155

Date Analyzed: 07/17/2019 14:21 Lab File ID: 6190717.B\2.B\60717016-45395.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	17.0	
78-93-3	2-Butanone (MEK)	26.1	
56-23-5	Carbon tetrachloride	14.6	
108-90-7	Chlorobenzene	18.7	
67-66-3	Chloroform	17.0	
107-06-2	1,2-Dichloroethane	16.4	
75-35-4	1,1-Dichloroethene	16.5	
127-18-4	Tetrachloroethene	16.8	
79-01-6	Trichloroethene	18.4	
75-01-4	Vinyl chloride	18.4	

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Lab Smp Id: 1711155 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 14:21
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 1711155,93903:5,,
Misc Info : 45395,
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
	3 Vinyl Chloride	62	1.375	1.376	(0.304)	61244	18.3824	18.4	
	9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	62609	16.4622	16.5	
	33 Chloroform	83	3.927	3.930	(0.869)	77433	16.9663	17.0	
	34 Carbon Tetrachloride	117	4.013	4.017	(0.888)	55822	14.5533	14.6	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	102855	29.7082	29.7	
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	42662	26.1404	26.1	
	41 Benzene	78	4.296	4.296	(0.950)	180558	16.9874	17.0	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.968)	101154	29.4803	29.5	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.976)	61741	16.4360	16.4	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	416570	30.0000		
	50 Trichloroethene	95	4.607	4.607	(0.783)	48770	18.4026	18.4	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	393123	31.9759	32.0	
	59 Toluene	91	5.255	5.256	(0.893)	210023	19.0694	19.1	
	62 Tetrachloroethene	166	5.419	5.419	(0.921)	53333	16.8245	16.8	
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	333683	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	152824	18.6882	18.7	
	70 Ethylbenzene	106	5.894	5.894	(1.002)	77938	17.7668	17.8	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	197040	35.7623	35.8	
	75 o-Xylene	106	6.134	6.138	(1.043)	99175	18.0167	18.0	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	141943	29.8096	29.8	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	194383	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	144359	17.9147	17.9	

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

QC Flag Legend

Review Codes Legend

:

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717016-45395.d
Lab Smp Id: 1711155
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395,

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	416570	-1.99
71 Chlorobenzene-d5	337423	168712	674846	333683	-1.11
94 1,4-Dichlorobenze	197328	98664	394656	194383	-1.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1711155 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	18.4	91.91	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	16.5	82.31	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichlor	20.0	0.000	*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	0.000	*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroe	20.0	0.000	*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	17.0	84.83	70-130
34 Carbon Tetrachlori	20.0	14.6	72.77	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	26.1	130.70	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	17.0	84.94	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	16.4	82.18	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	18.4	92.01	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	19.1	95.35	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	16.8	84.12	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	17.8	88.83	70-130
72 Chlorobenzene	20.0	18.7	93.44	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	35.8	89.41	50-150
75 o-Xylene	20.0	18.0	90.08	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenzen	20.0	17.9	89.57	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	29.7	99.03	0-130

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	29.5	98.27	0-130
$ 58 Toluene-d8 (S)	30.0	32.0	106.59	0-130
$ 79 4-Bromofluorobenze	30.0	29.8	99.37	0-130

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

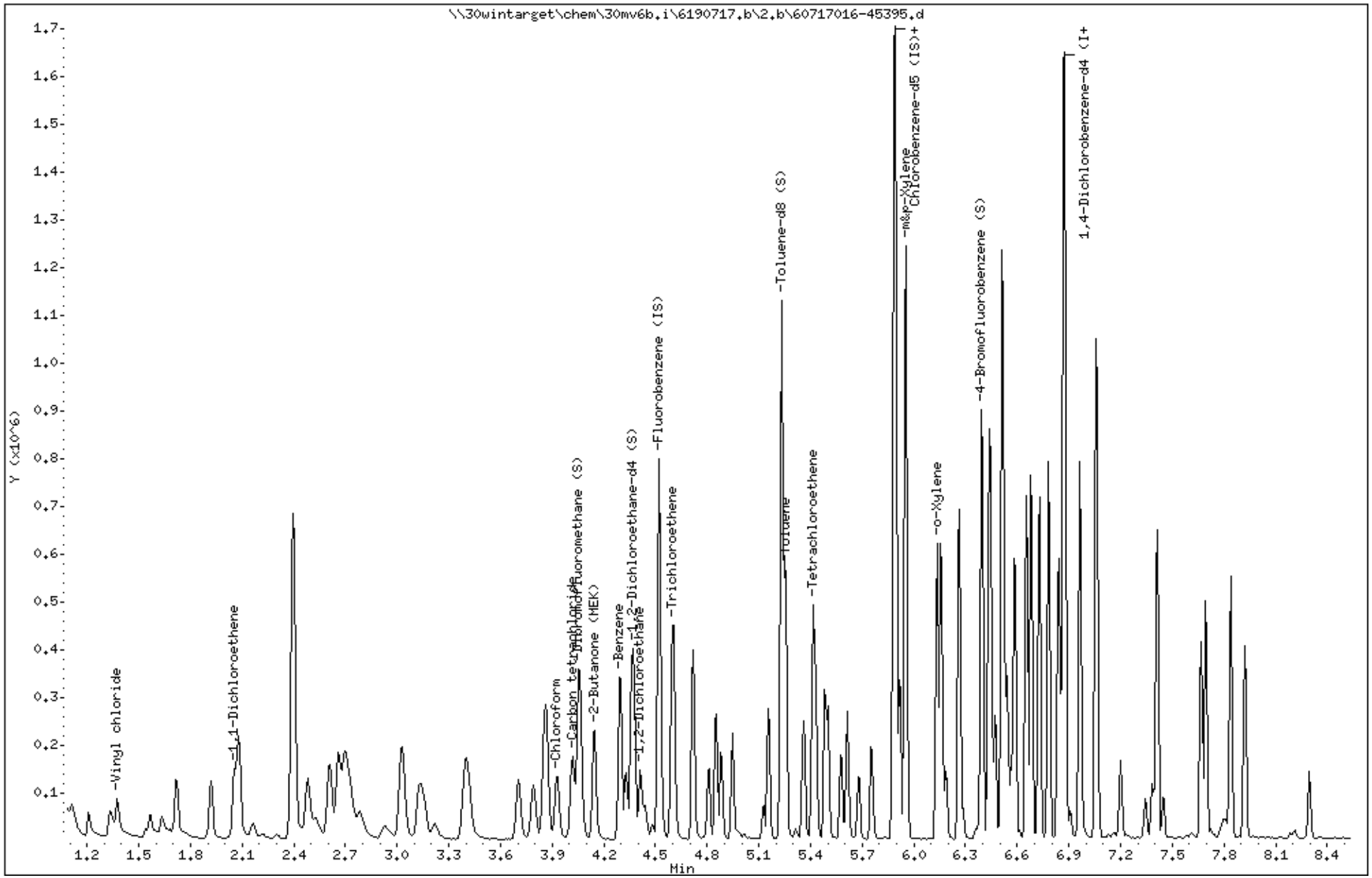
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1711155
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45395,

Client SDG: 2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 17-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Vinyl Chloride	18.4	
75-35-4	1,1-Dichloroethene	16.5	
67-66-3	Chloroform	17.0	
56-23-5	Carbon Tetrachloride	14.6	
78-93-3	2-Butanone (MEK)	26.1	
71-43-2	Benzene	17.0	
107-06-2	1,2-Dichloroethane	16.4	
79-01-6	Trichloroethene	18.4	
108-88-3	Toluene	19.1	
127-18-4	Tetrachloroethene	16.8	
108-90-7	Chlorobenzene	18.7	
100-41-4	Ethylbenzene	17.8	
7816-60-0	m&p-Xylene	35.8	
95-47-6	o-Xylene	18.0	
106-46-7	1,4-Dichlorobenzene	17.9	
1868-53-7	Dibromofluoromethane (S)	29.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.5	
2037-26-5	Toluene-d8 (S)	32.0	
460-00-4	4-Bromofluorobenzene (S)	29.8	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d
Date : 17-JUL-2019 14:21
Client ID: MBLCS
Instrument: 30mv6b.i
Sample Info: 1711155,93903:5,,
Purge Volume: 5.0
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

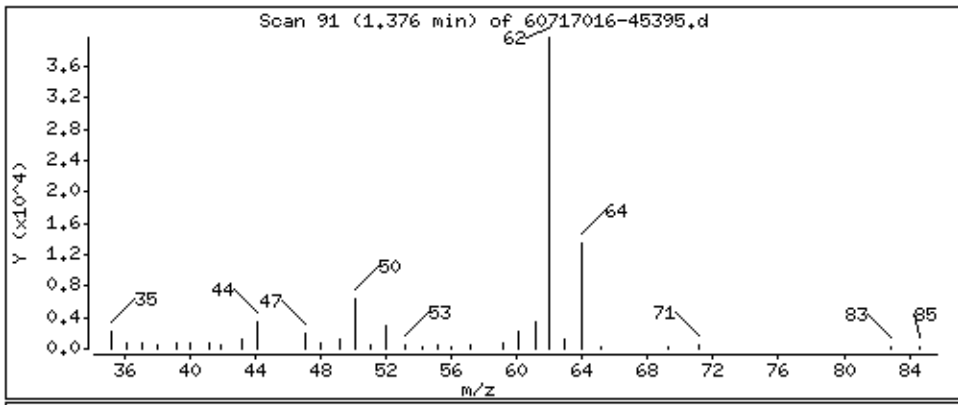
Operator: JEW

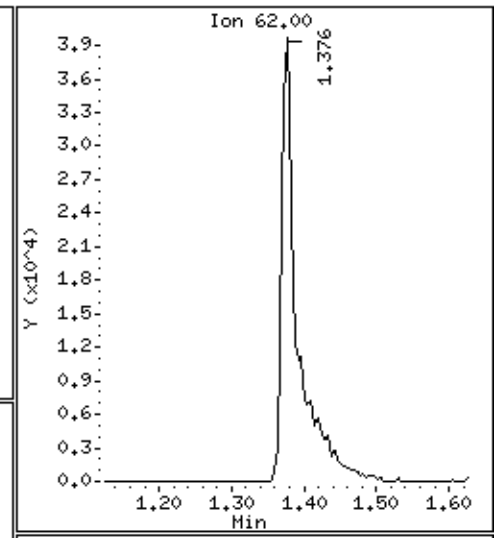
Column phase: RTX-VMS

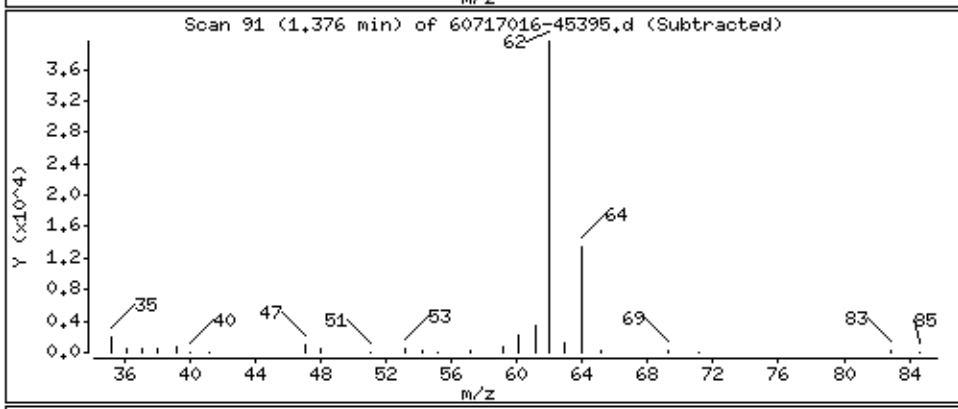
Column diameter: 0.18

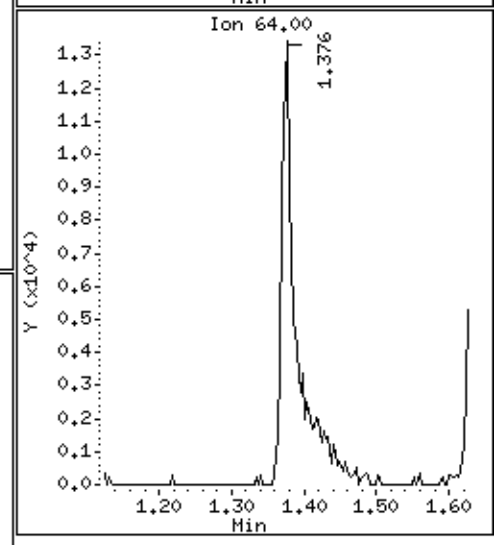
3 Vinyl Chloride

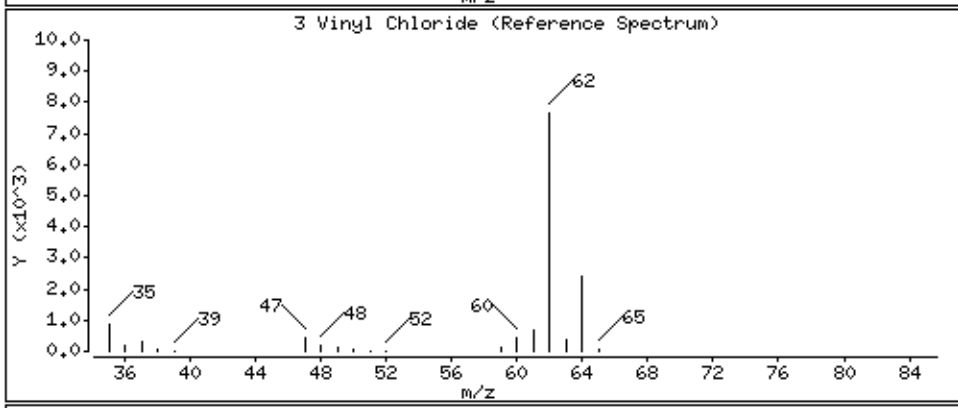
Concentration: 18.4 ug/L

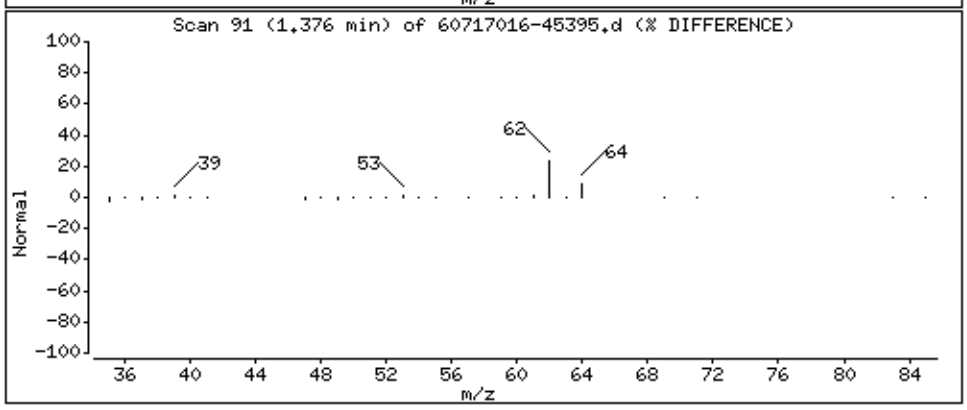












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

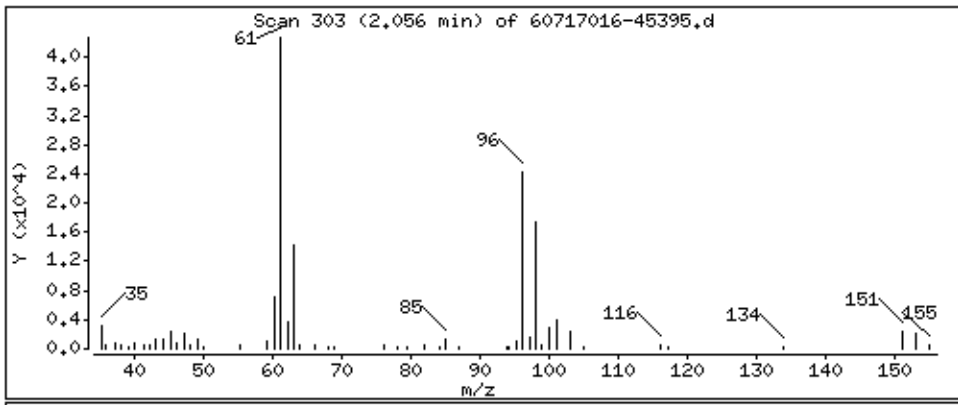
Operator: JEW

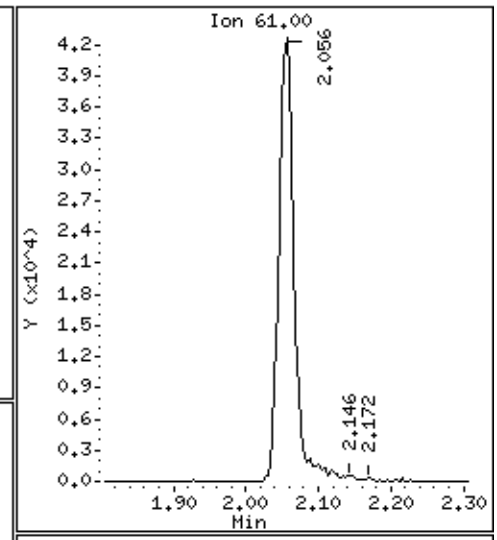
Column phase: RTX-VMS

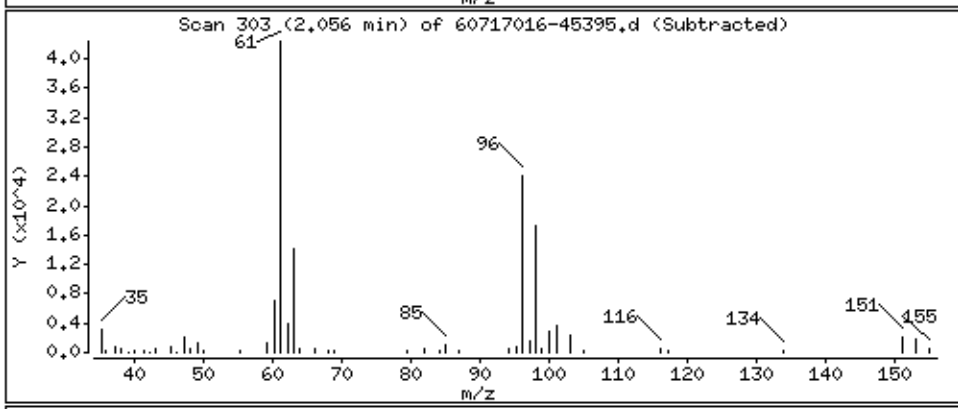
Column diameter: 0.18

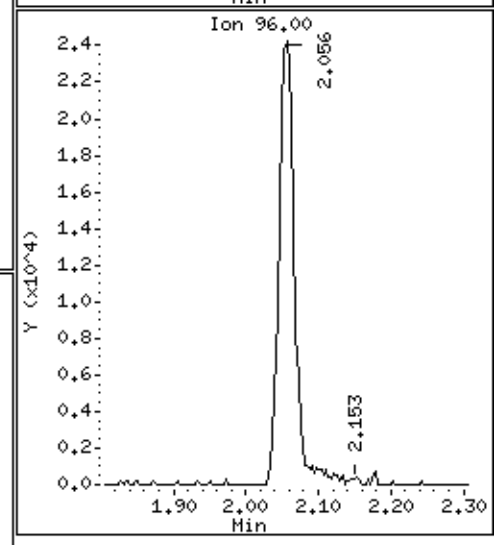
9 1,1-Dichloroethene

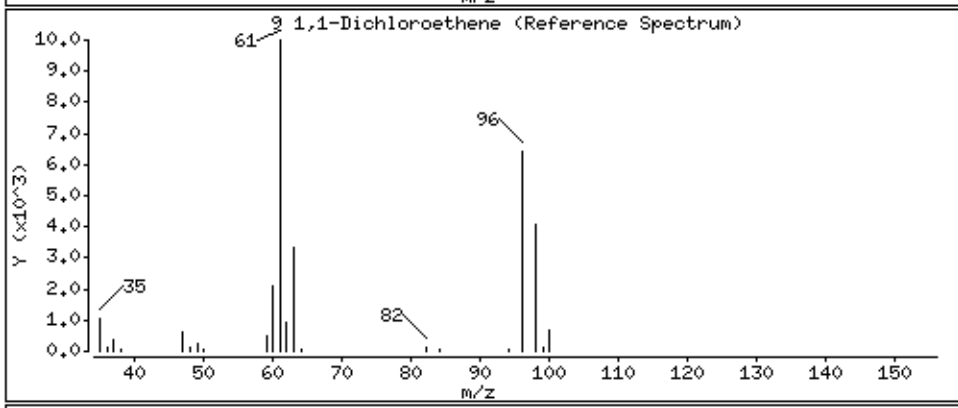
Concentration: 16.5 ug/L

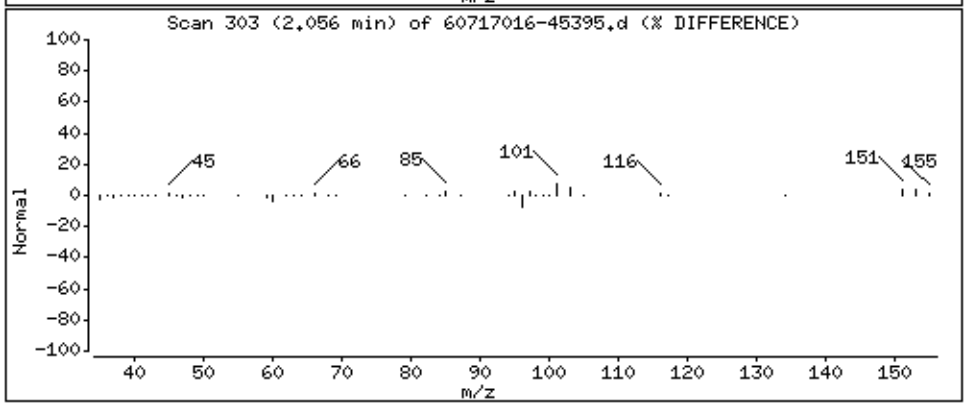












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

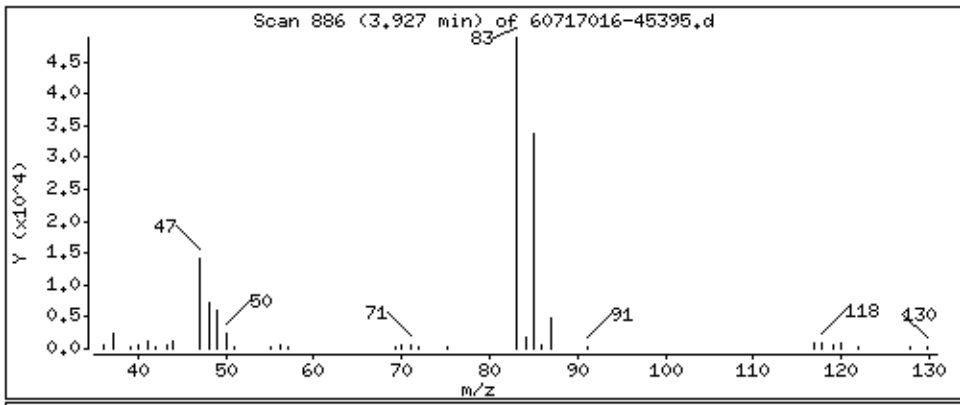
Operator: JEW

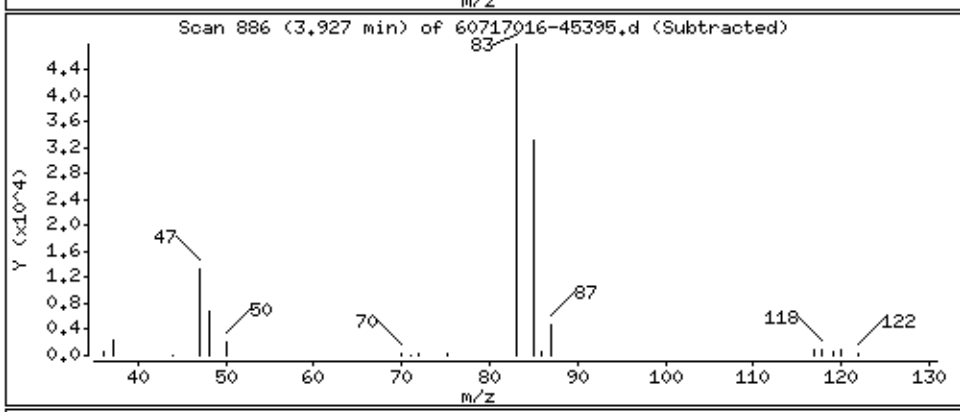
Column phase: RTX-VMS

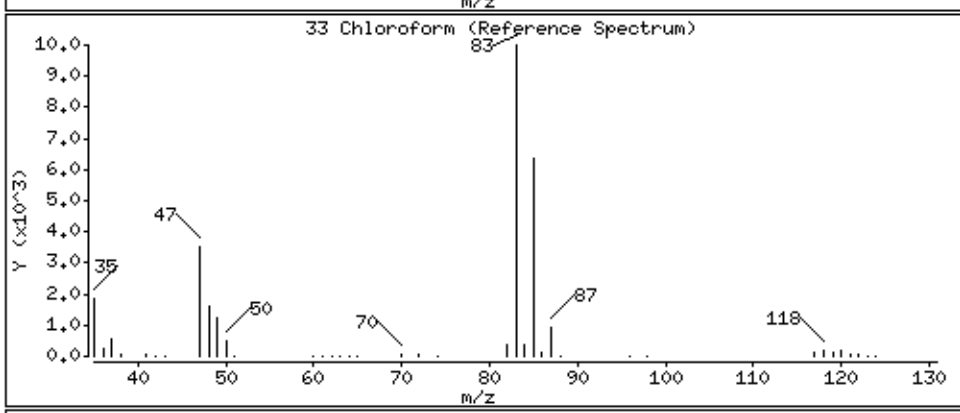
Column diameter: 0.18

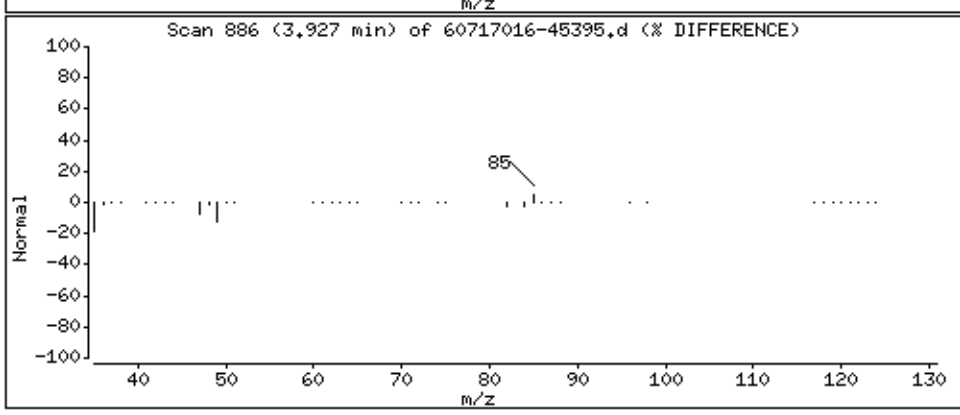
33 Chloroform

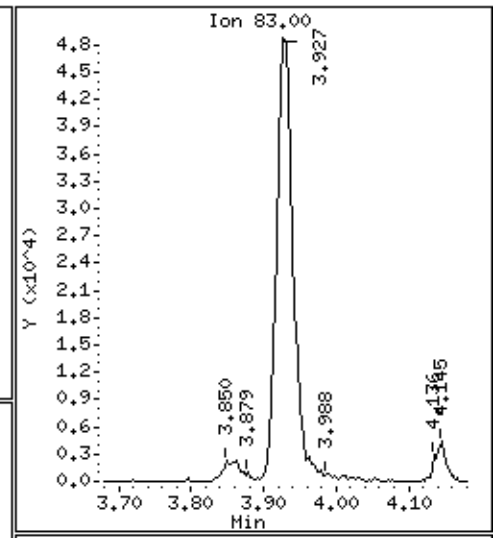
Concentration: 17.0 ug/L

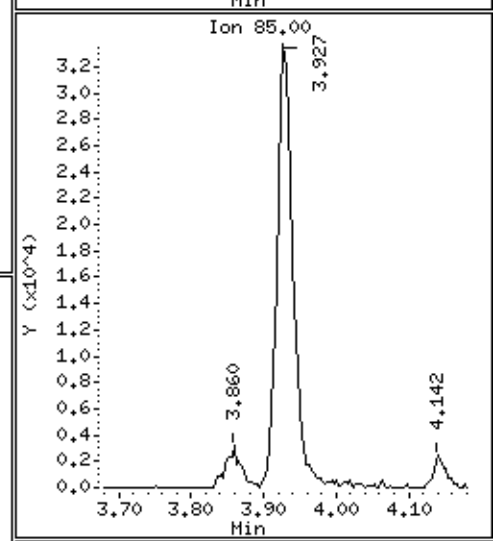


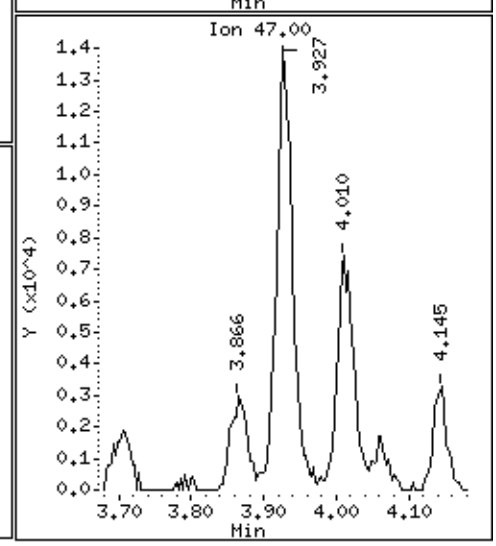












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

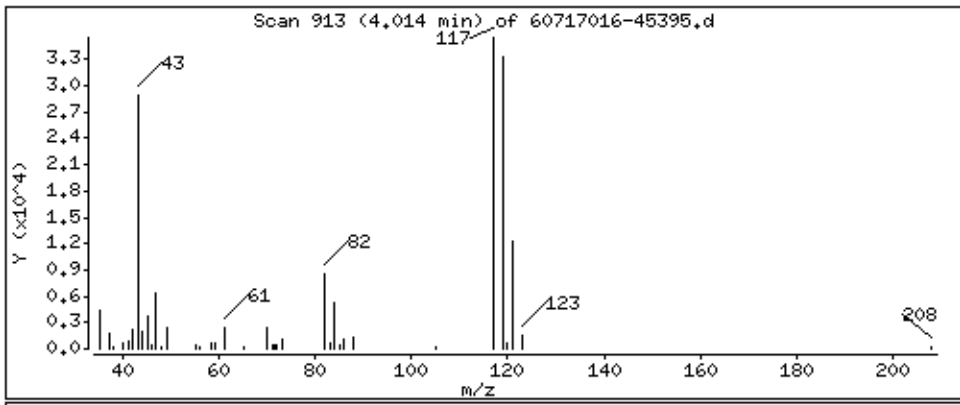
Operator: JEW

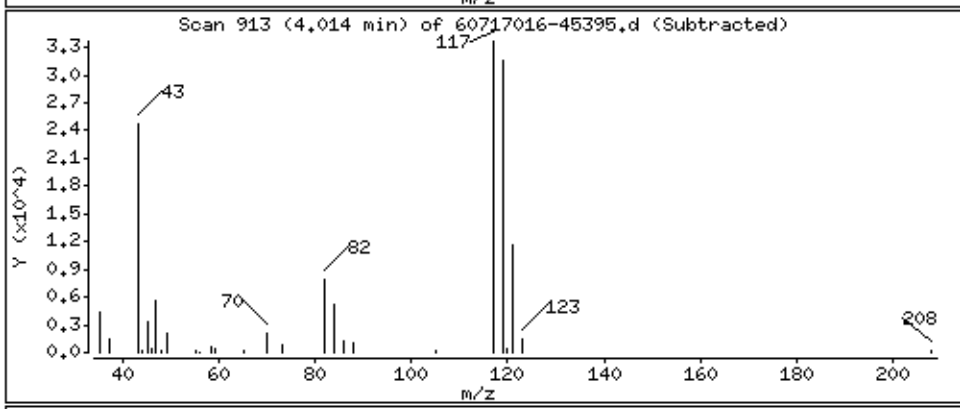
Column phase: RTX-VMS

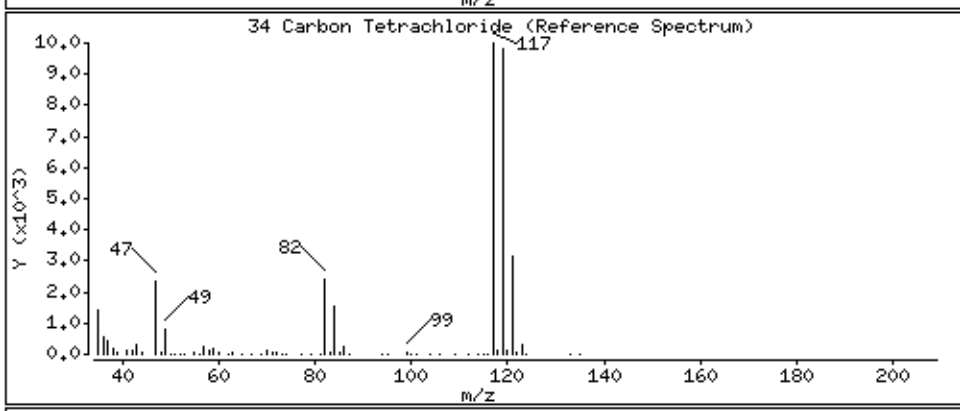
Column diameter: 0.18

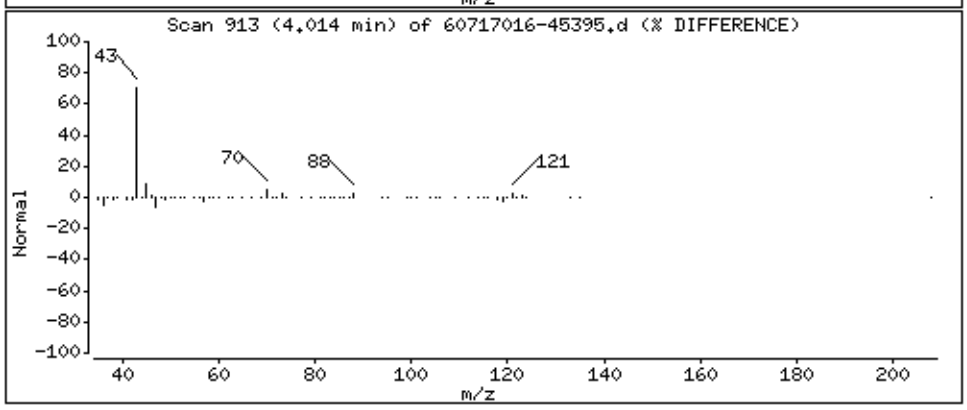
34 Carbon Tetrachloride

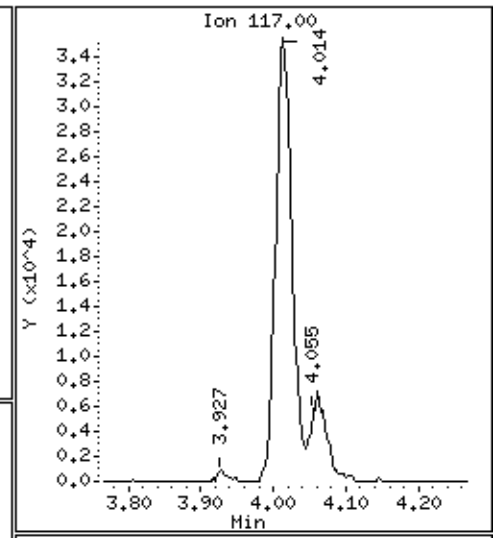
Concentration: 14.6 ug/L

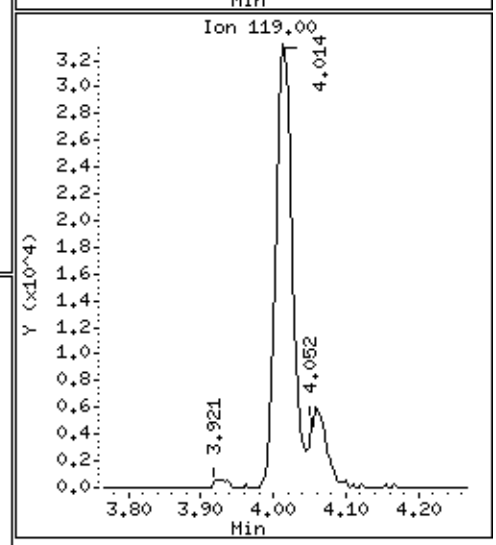












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

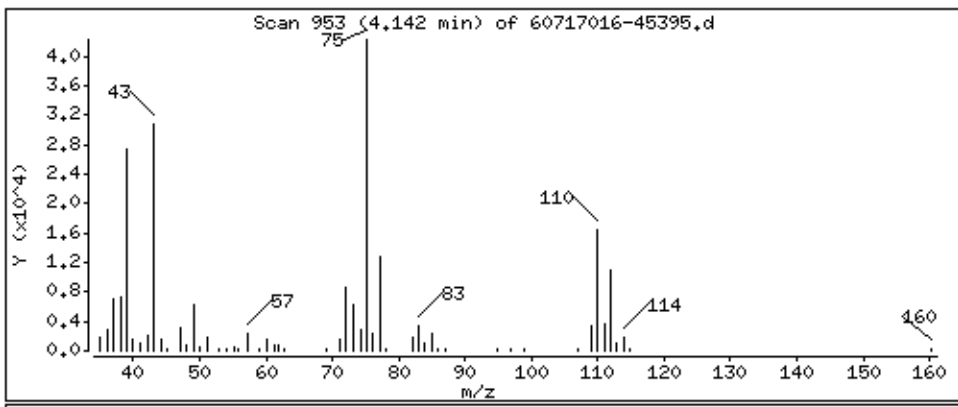
Operator: JEW

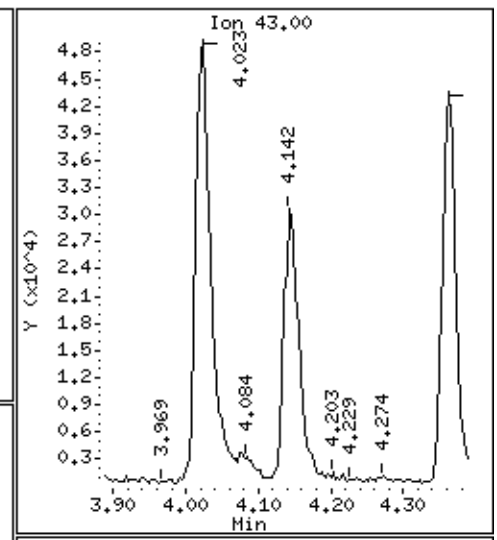
Column phase: RTX-VMS

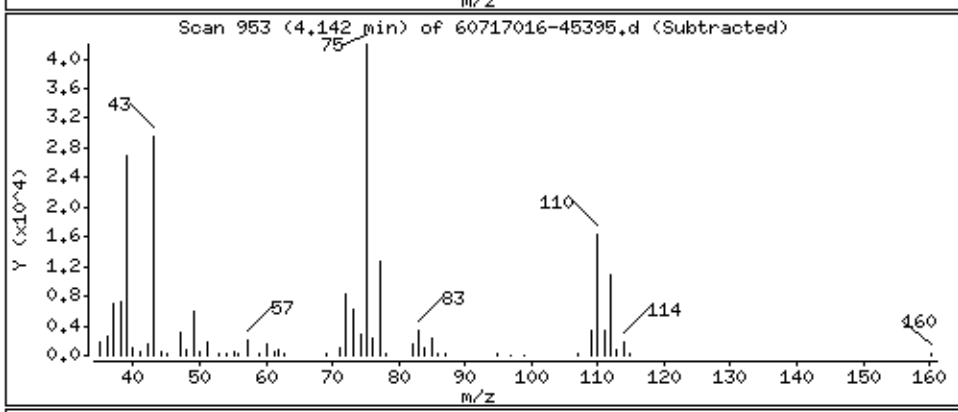
Column diameter: 0.18

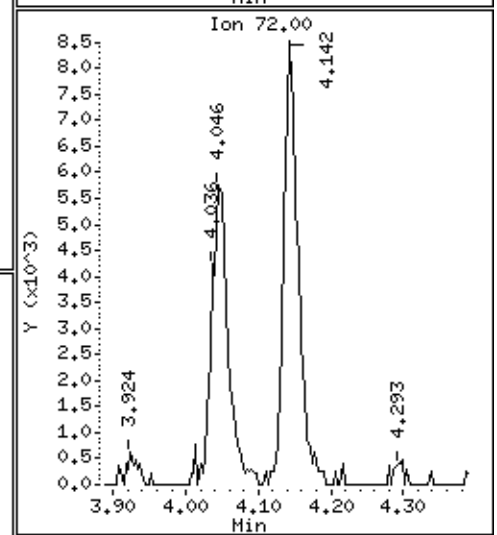
39 2-Butanone (MEK)

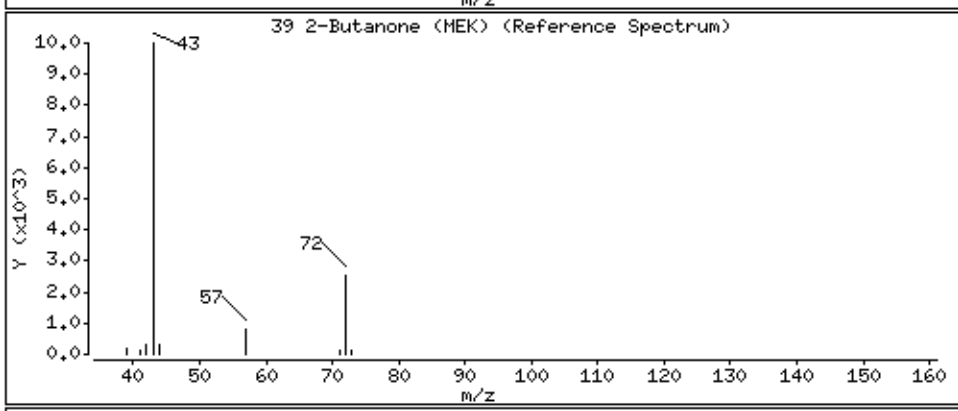
Concentration: 26.1 ug/L

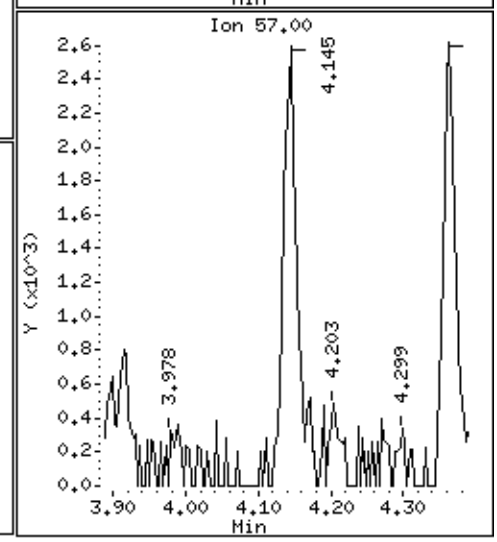


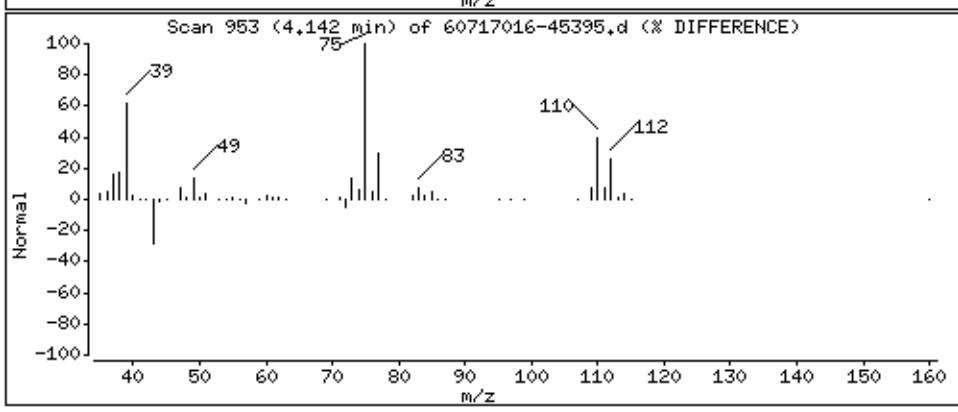












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Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

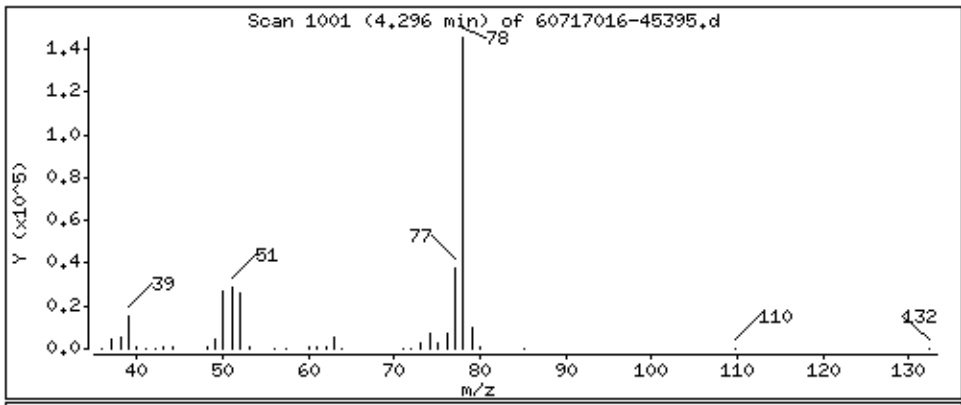
Operator: JEW

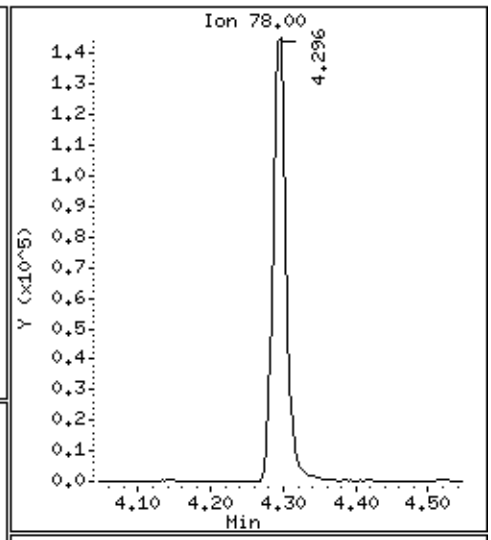
Column phase: RTX-VMS

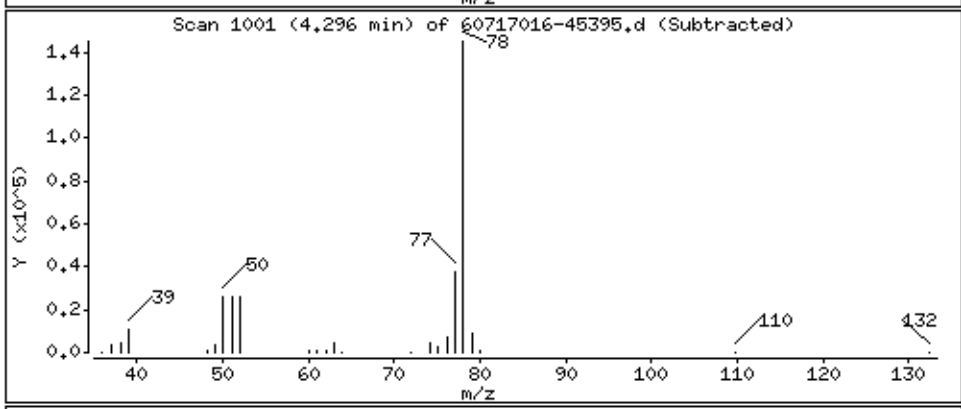
Column diameter: 0.18

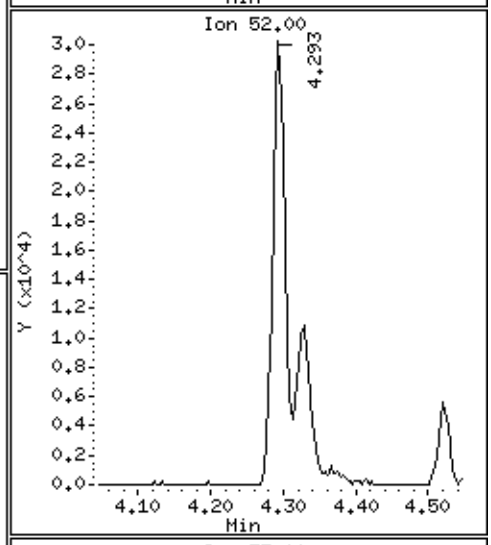
41 Benzene

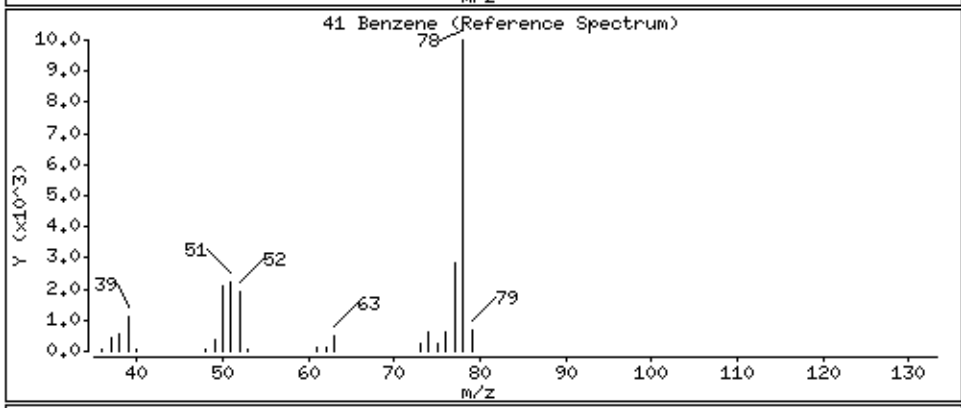
Concentration: 17.0 ug/L

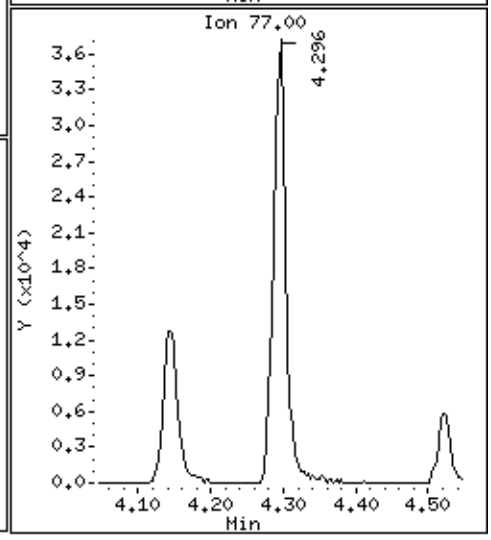


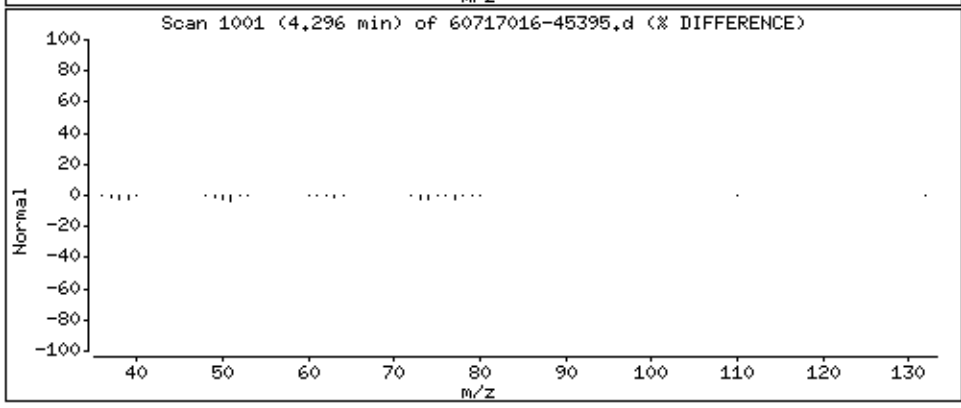












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

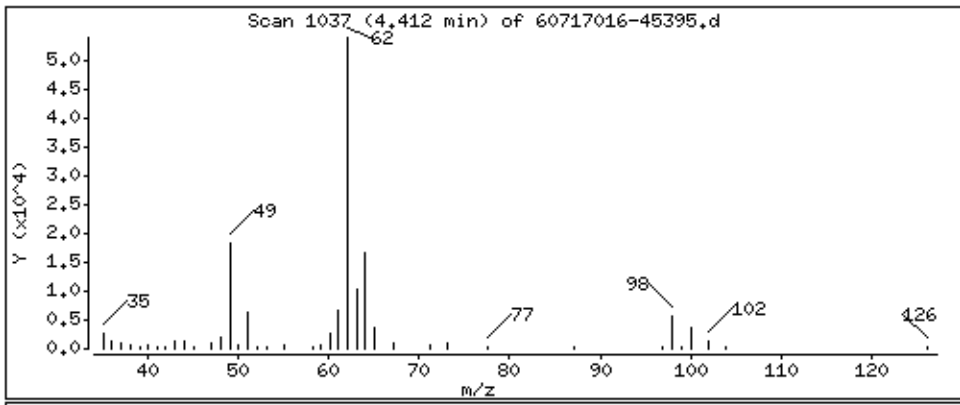
Operator: JEW

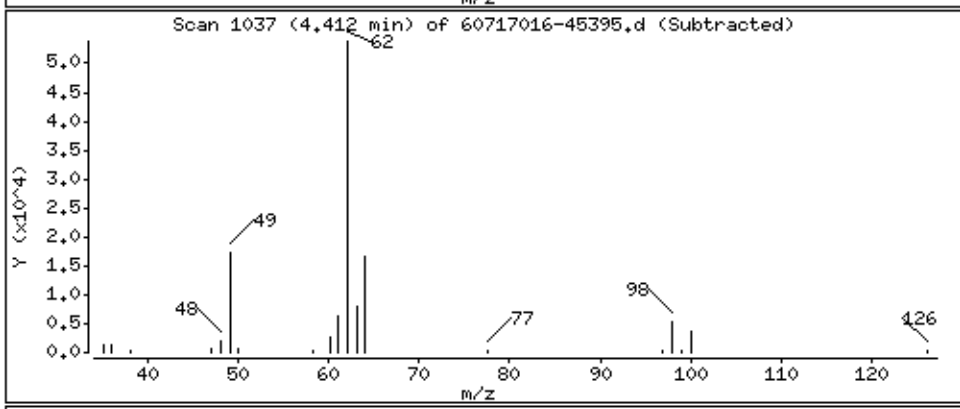
Column phase: RTX-VMS

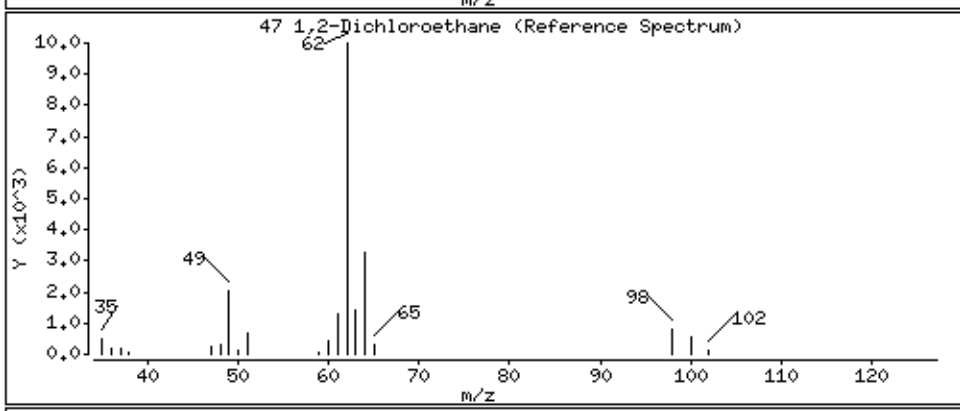
Column diameter: 0.18

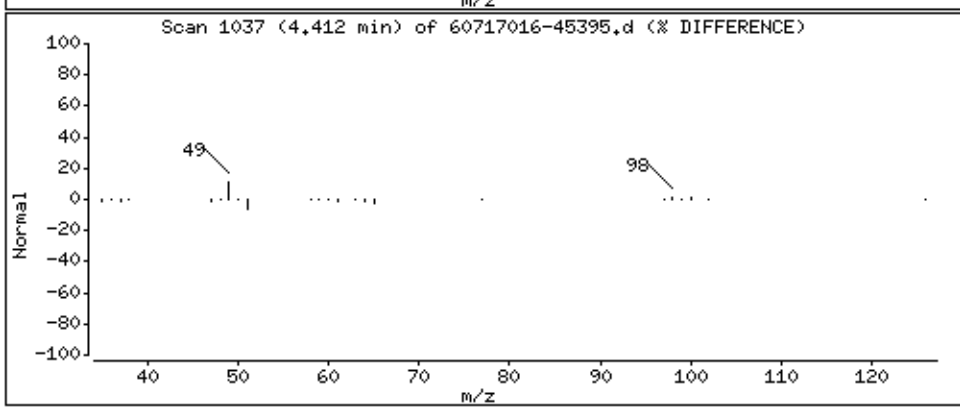
47 1,2-Dichloroethane

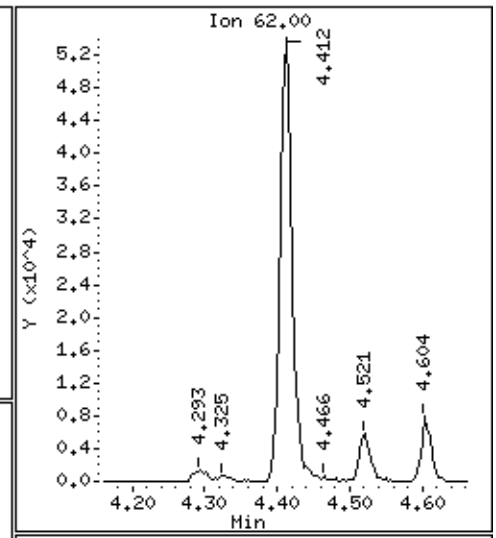
Concentration: 16.4 ug/L

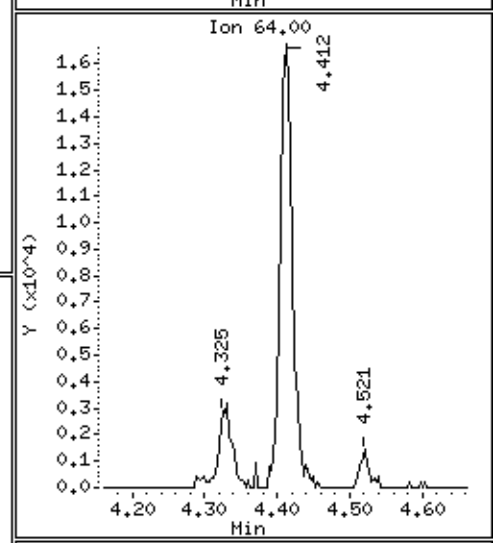


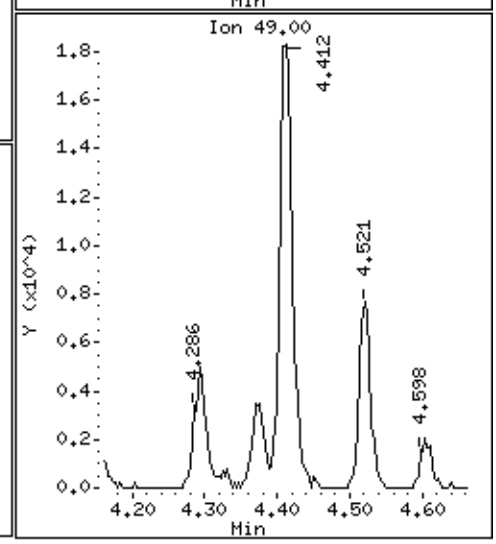












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

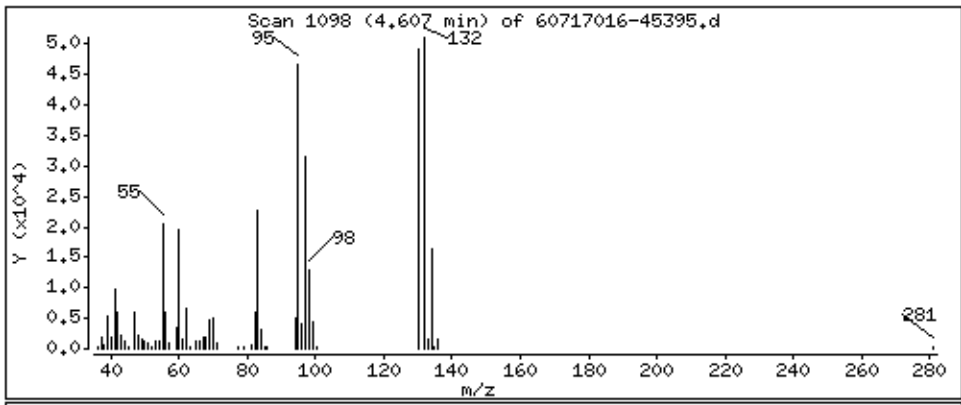
Operator: JEW

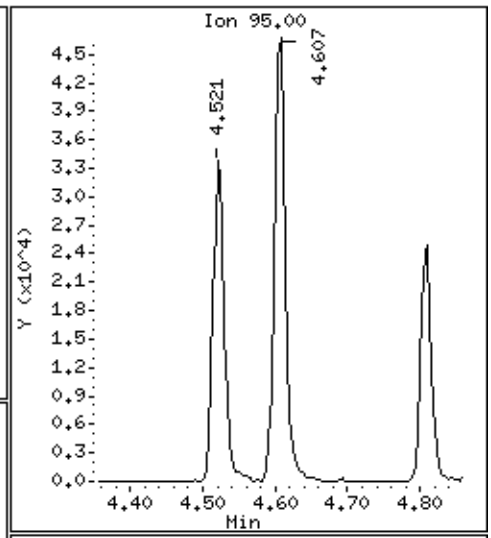
Column phase: RTX-VMS

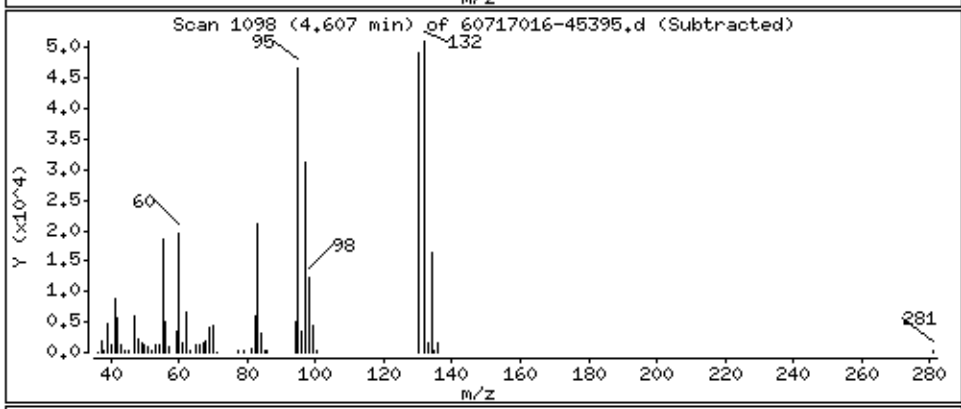
Column diameter: 0.18

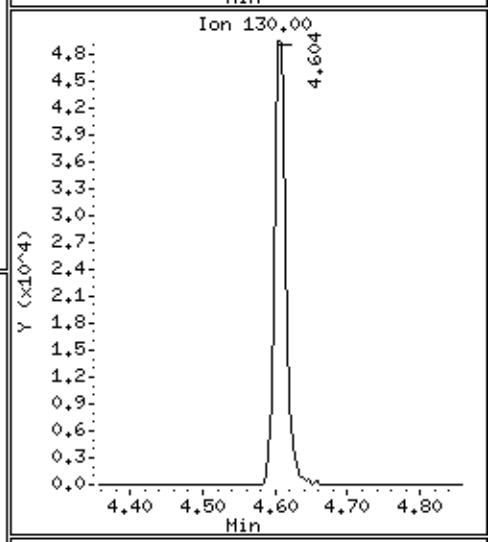
50 Trichloroethene

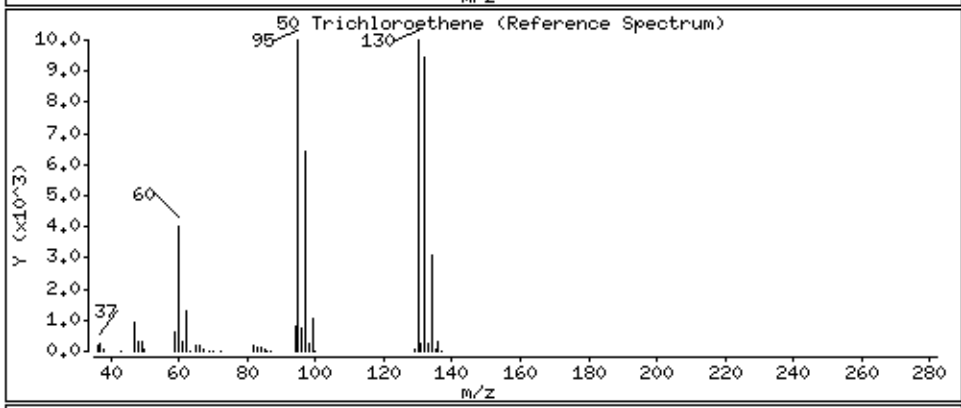
Concentration: 18.4 ug/L

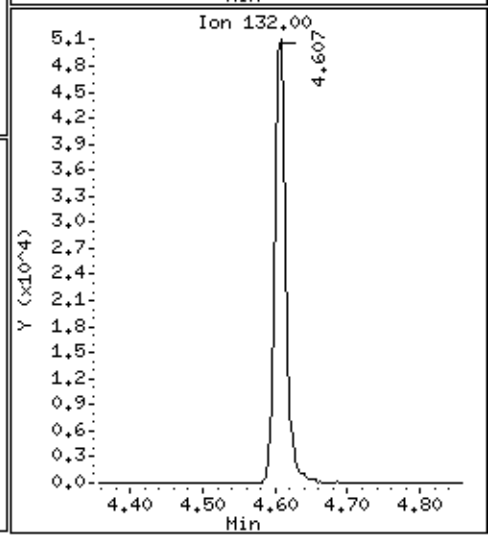


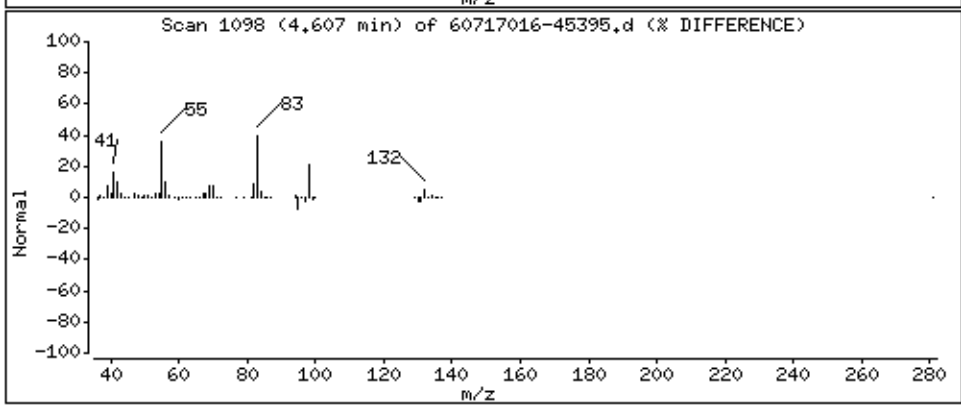












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

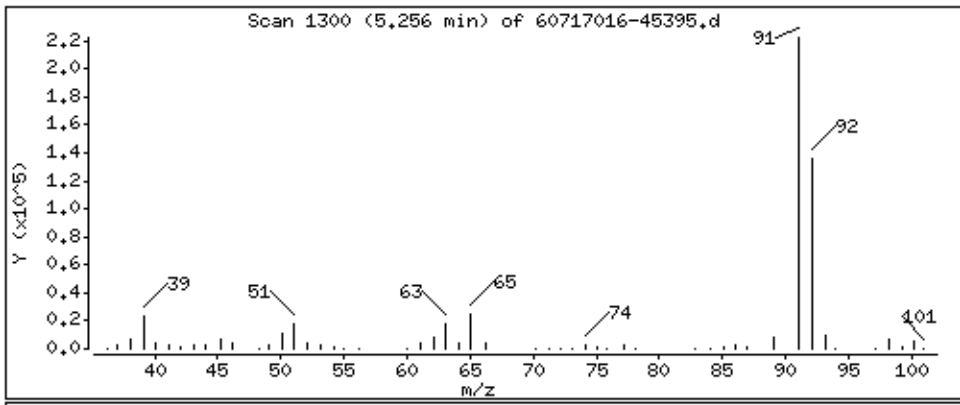
Operator: JEW

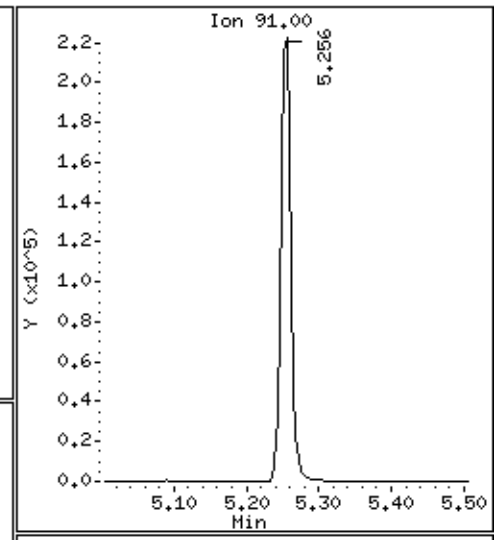
Column phase: RTX-VMS

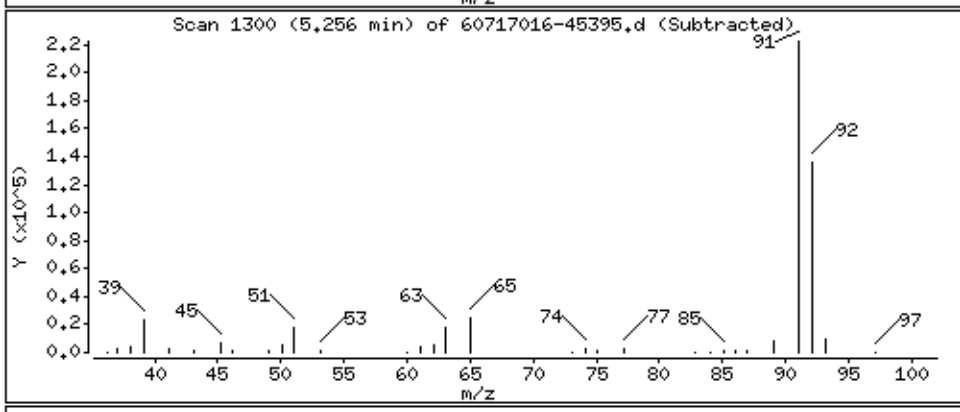
Column diameter: 0.18

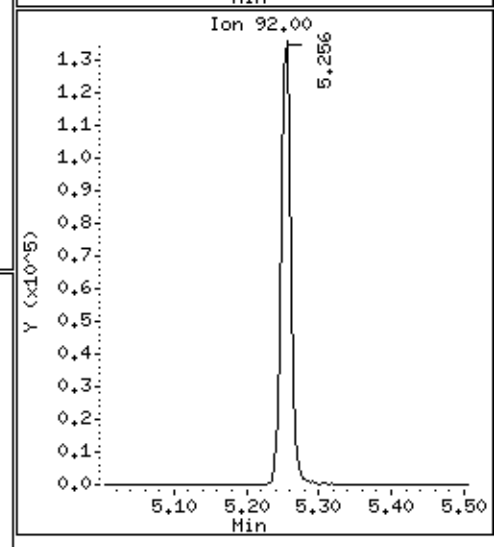
59 Toluene

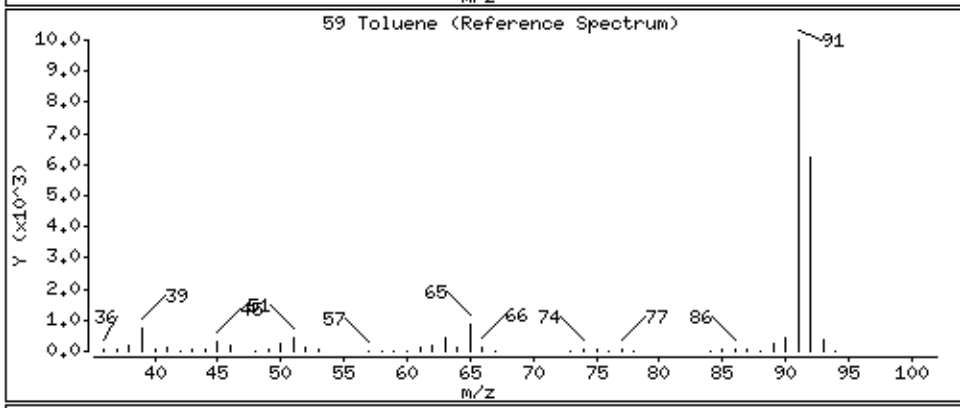
Concentration: 19.1 ug/L

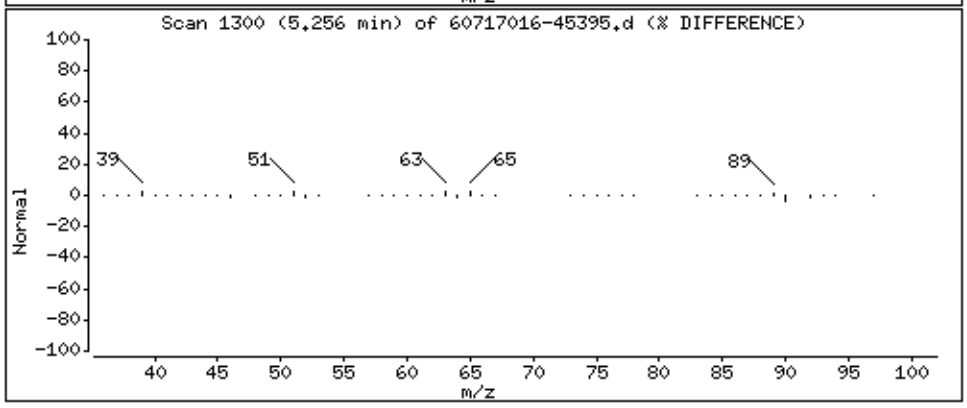












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

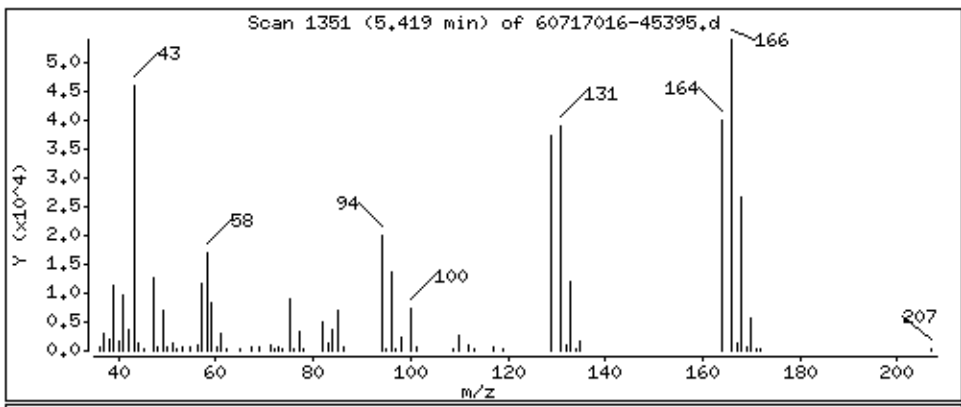
Operator: JEW

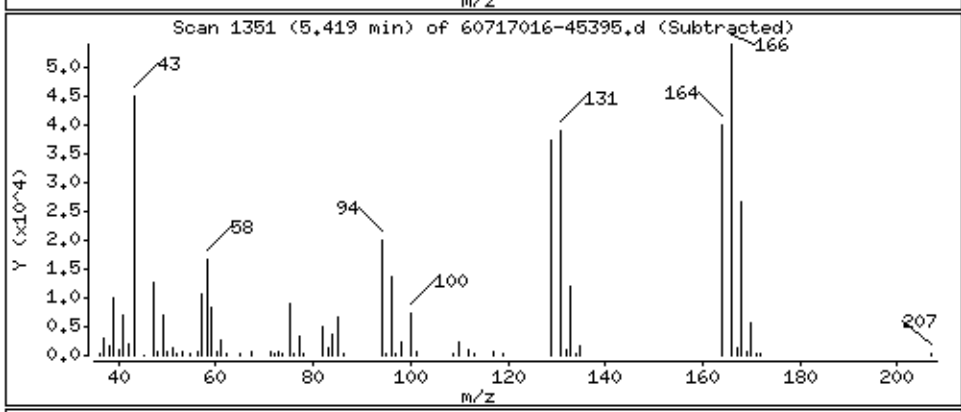
Column phase: RTX-VMS

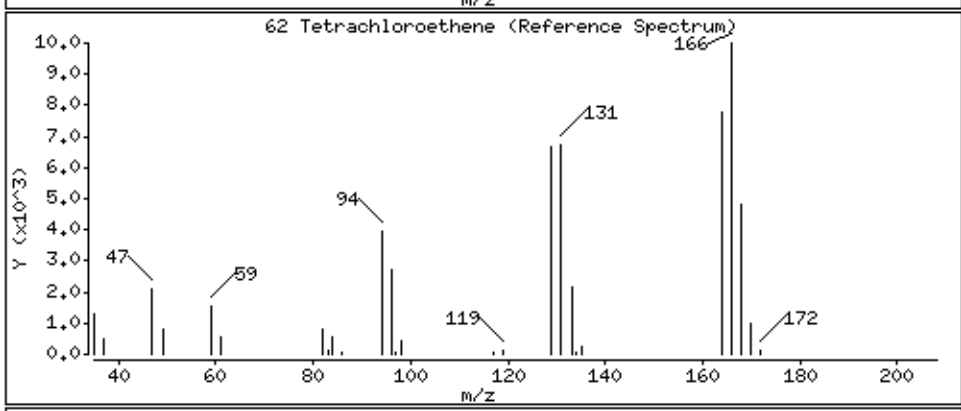
Column diameter: 0.18

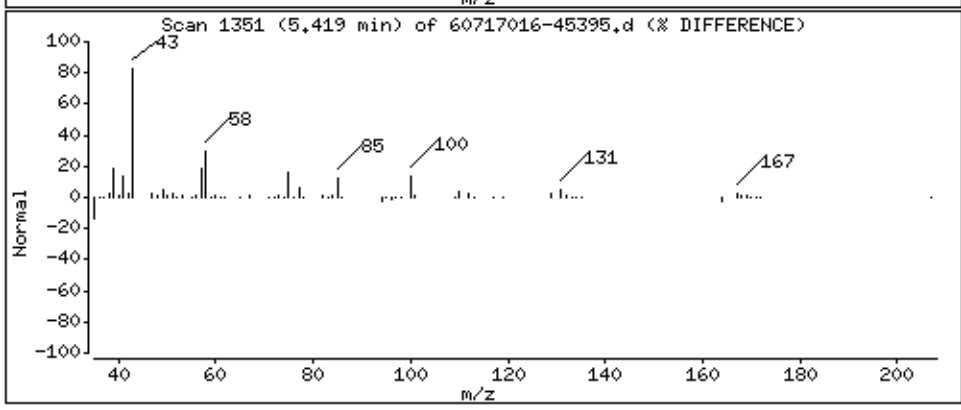
62 Tetrachloroethene

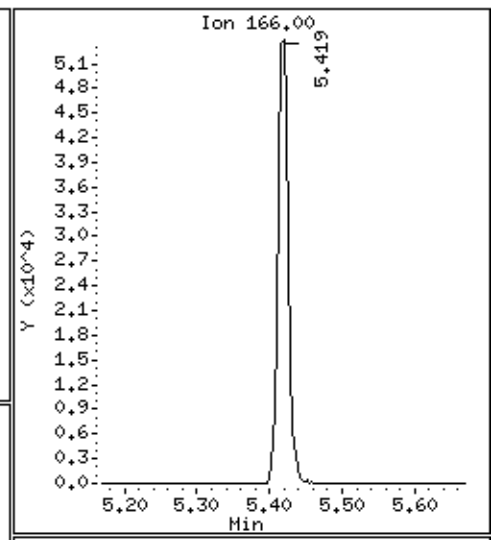
Concentration: 16.8 ug/L

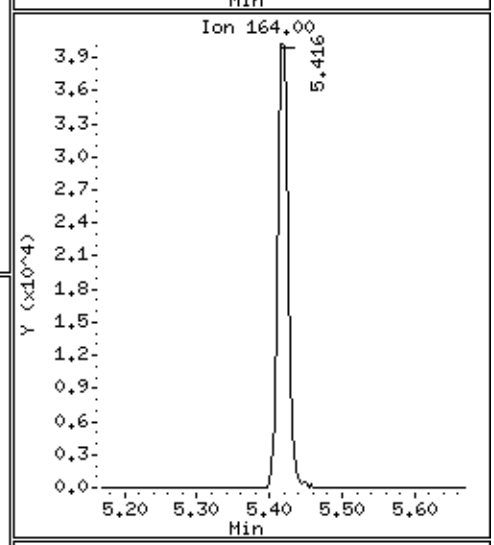


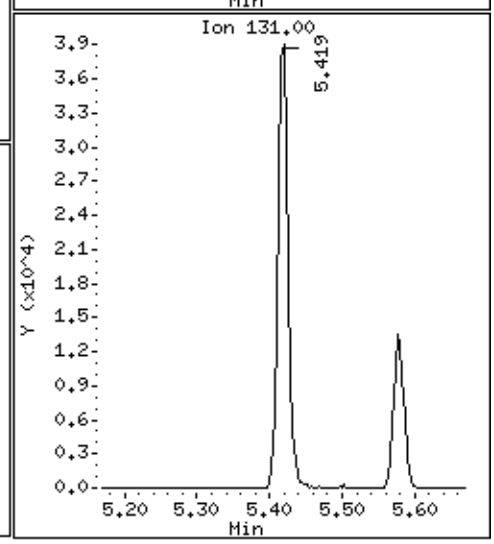












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

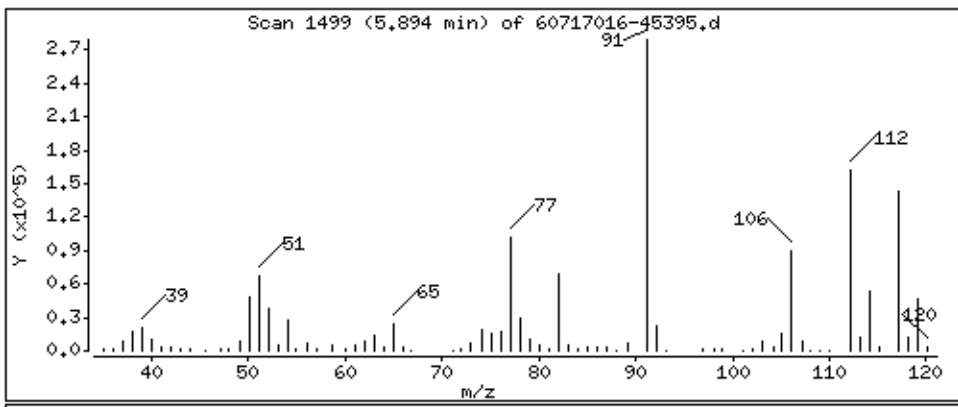
Operator: JEW

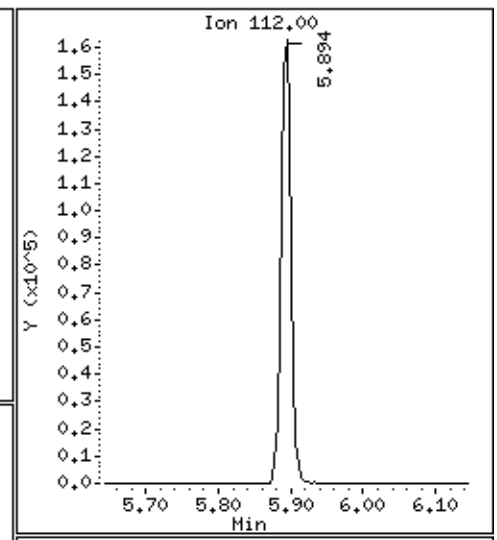
Column phase: RTX-VMS

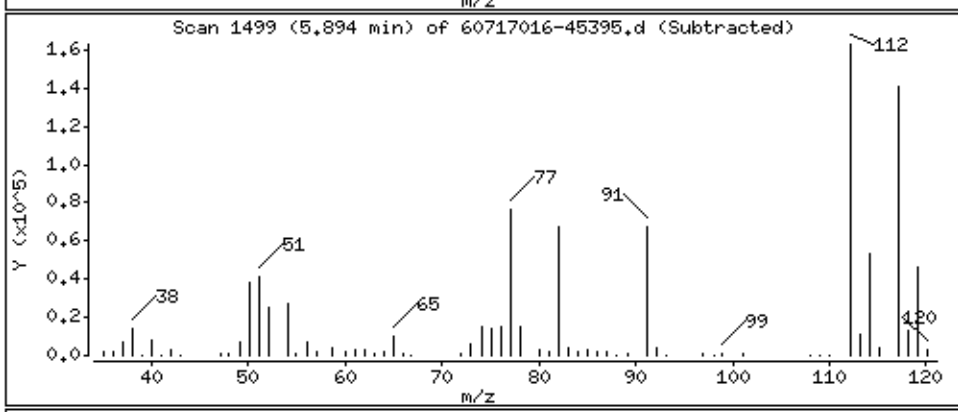
Column diameter: 0.18

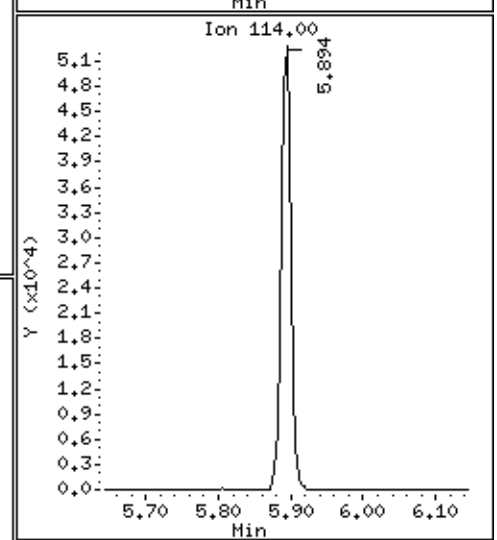
72 Chlorobenzene

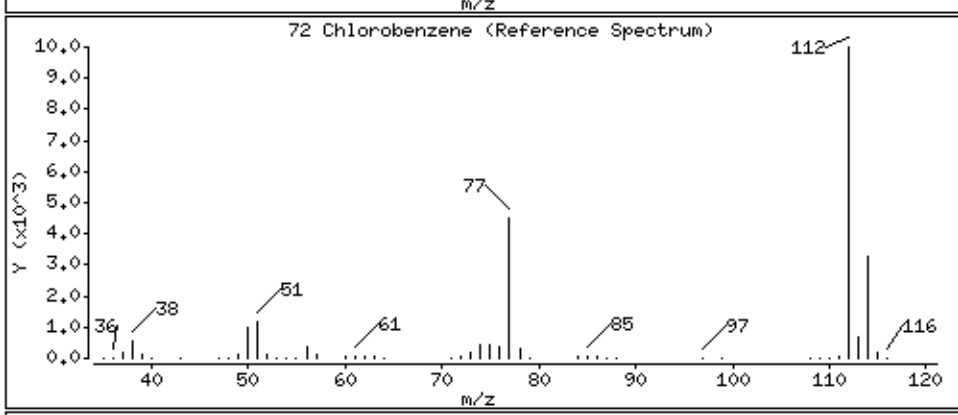
Concentration: 18.7 ug/L

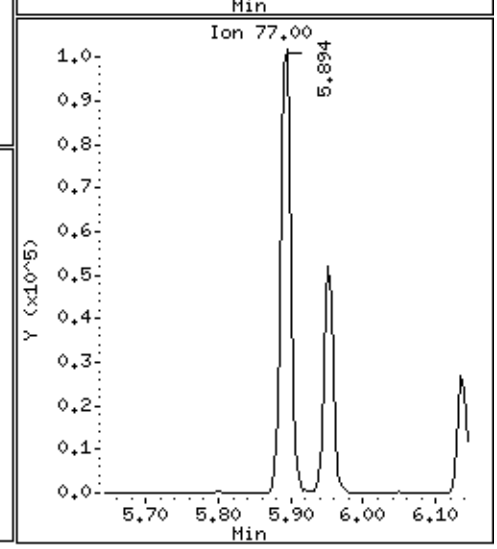


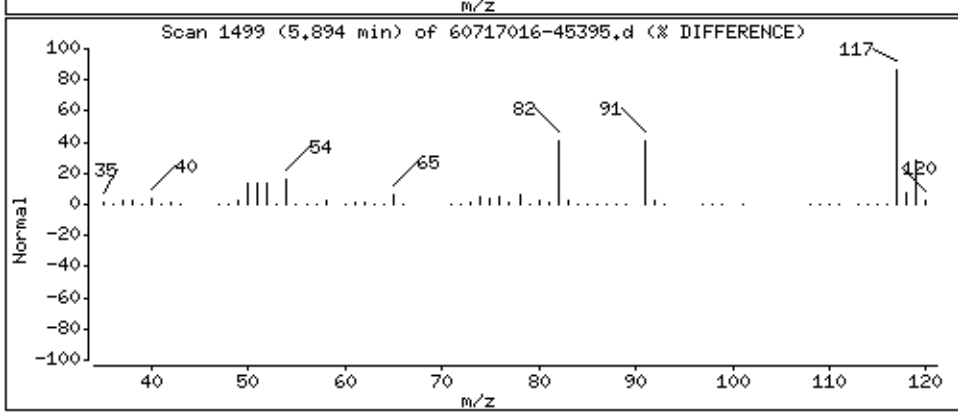












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

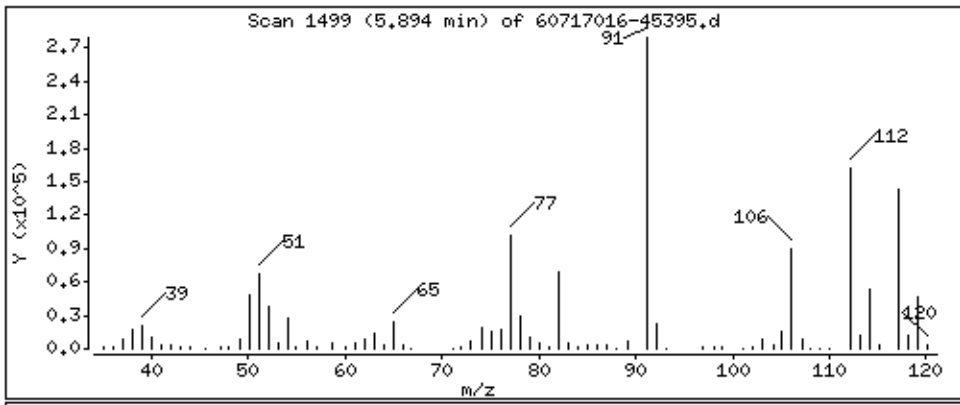
Operator: JEW

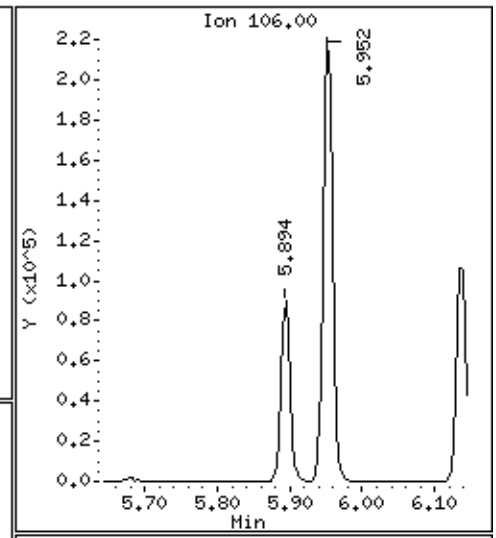
Column phase: RTX-VMS

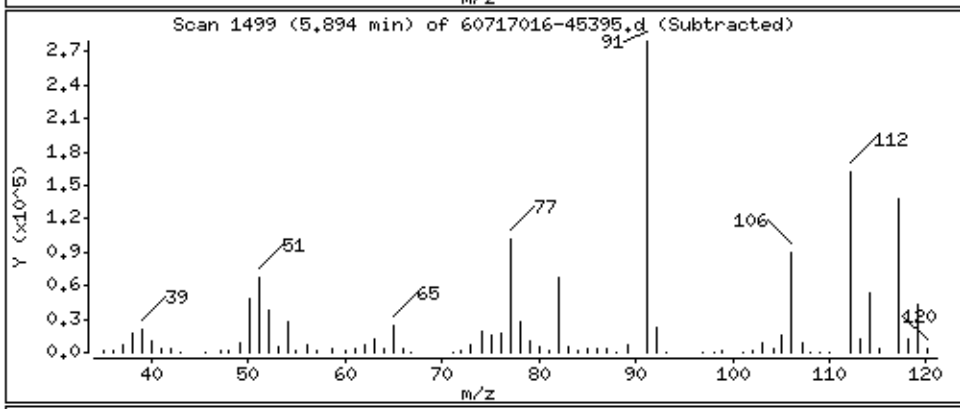
Column diameter: 0.18

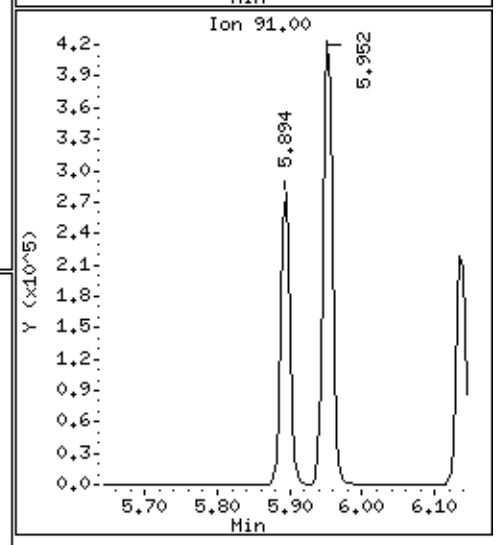
70 Ethylbenzene

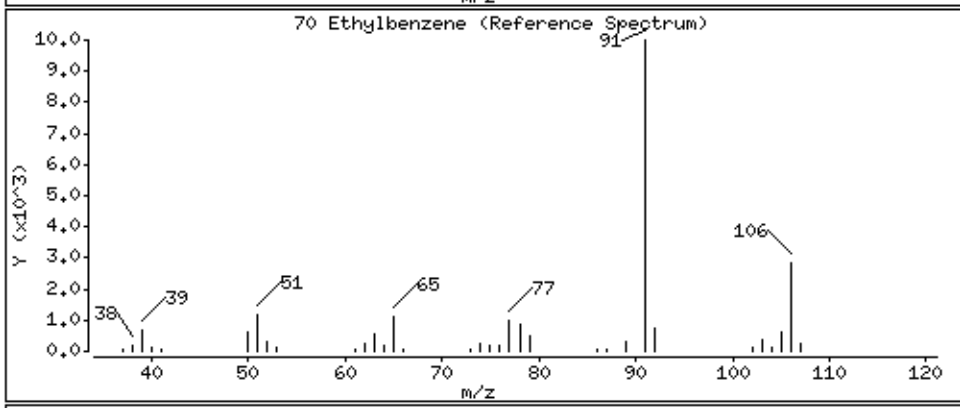
Concentration: 17.8 ug/L

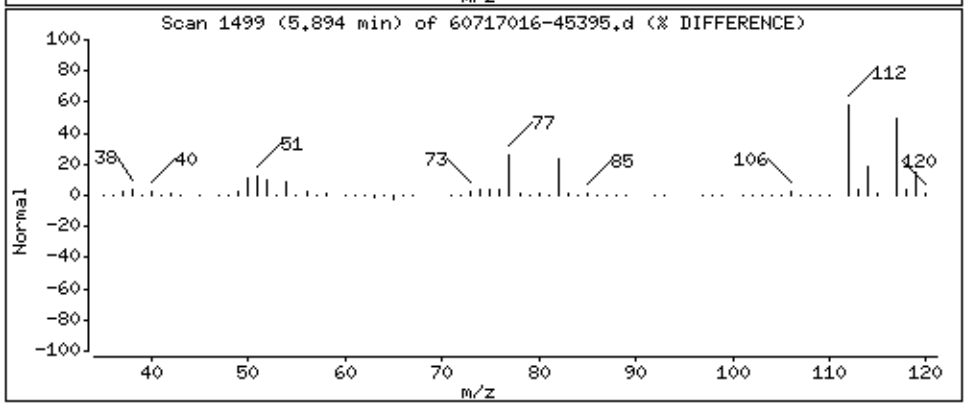












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

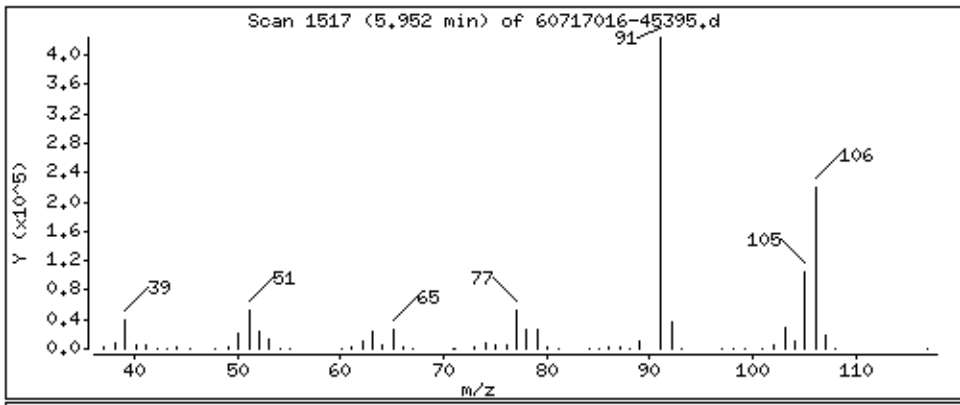
Operator: JEW

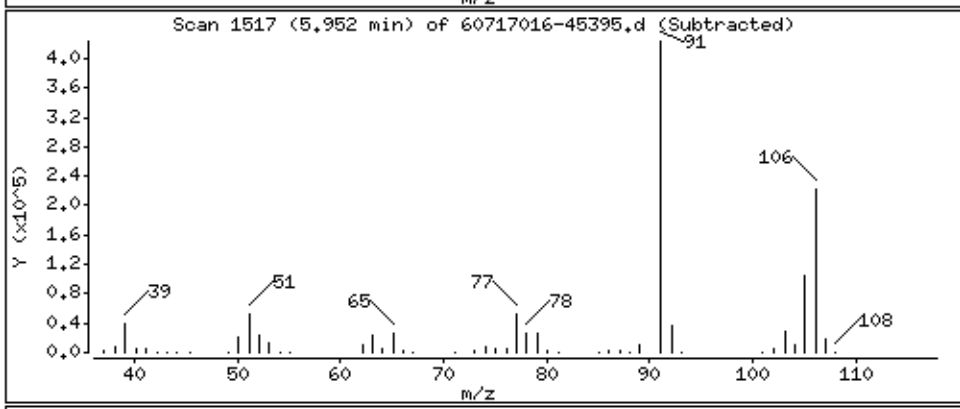
Column phase: RTX-VMS

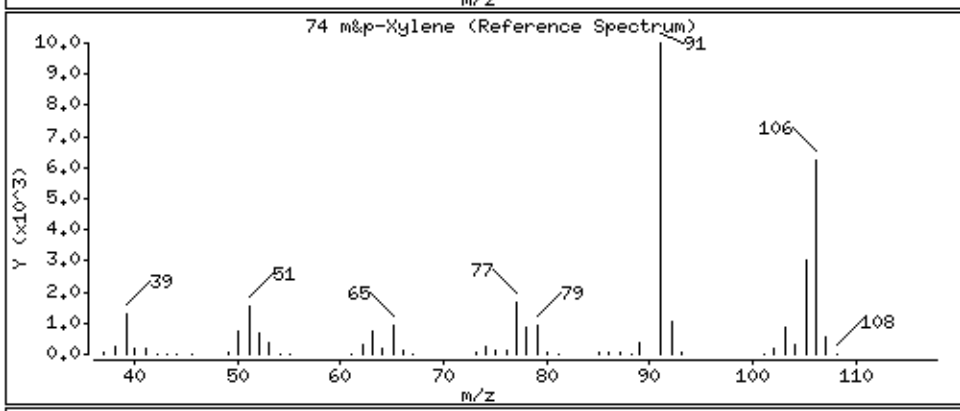
Column diameter: 0.18

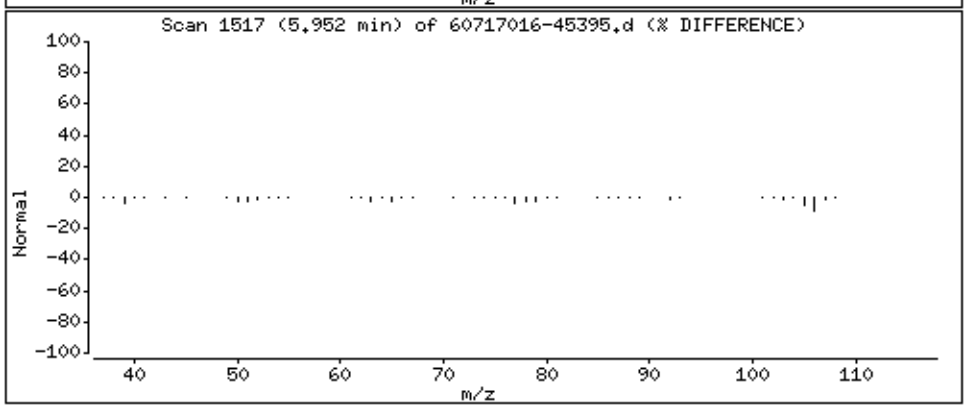
74 m&p-Xylene

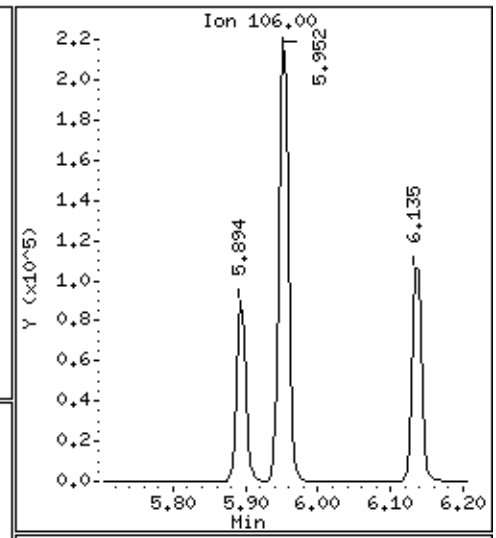
Concentration: 35.8 ug/L

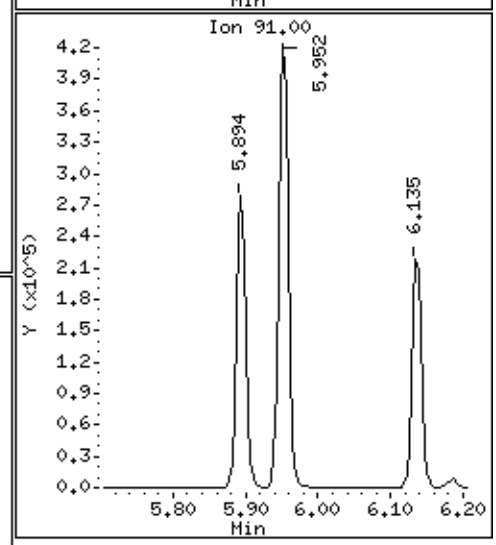












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

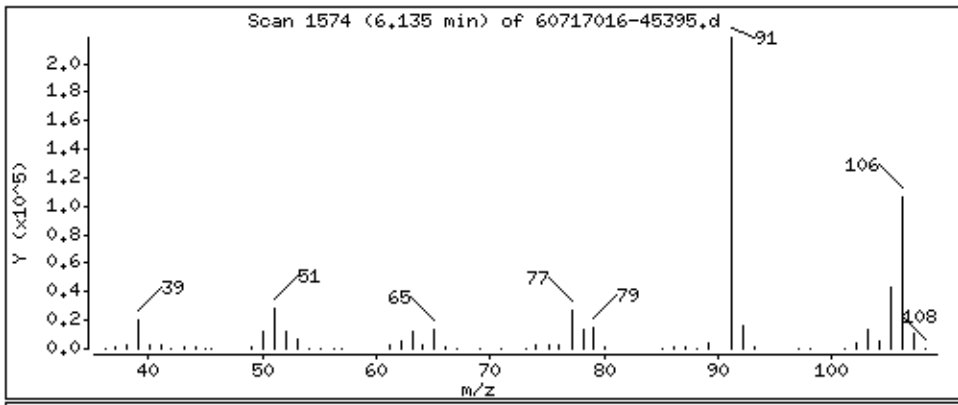
Operator: JEW

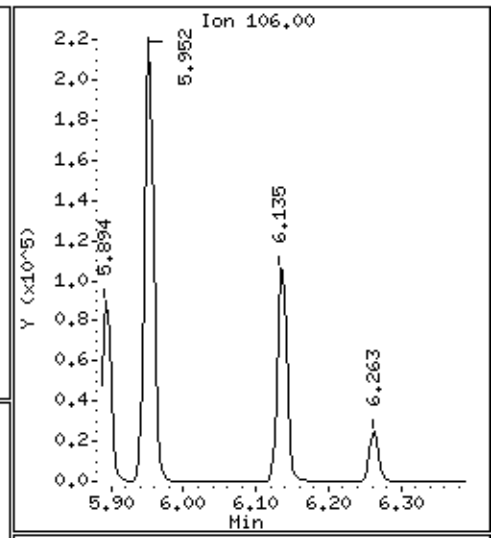
Column phase: RTX-VMS

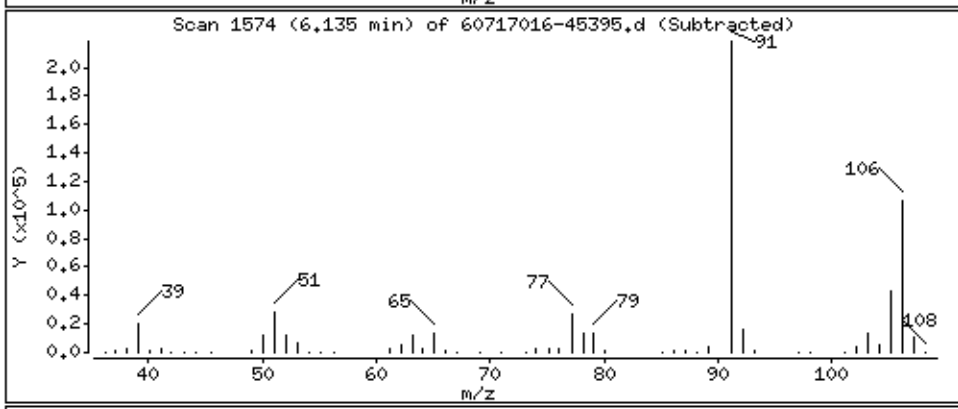
Column diameter: 0.18

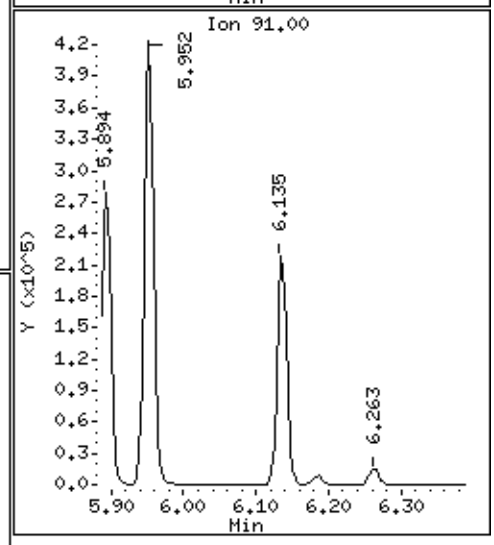
75 o-Xylene

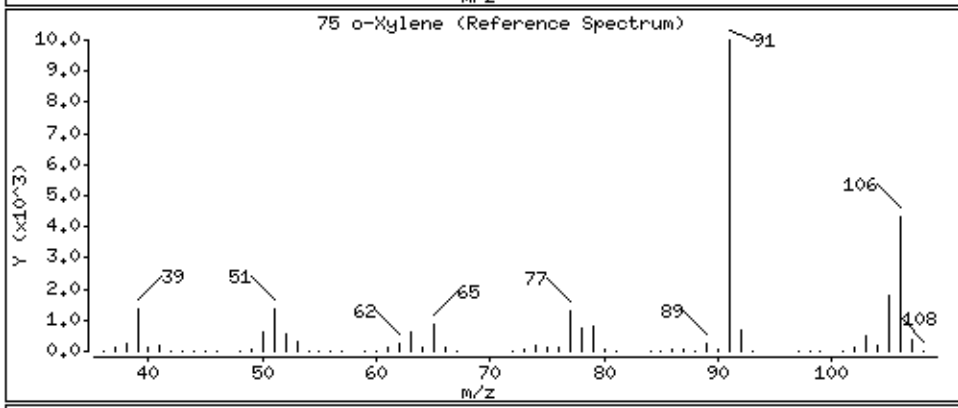
Concentration: 18.0 ug/L

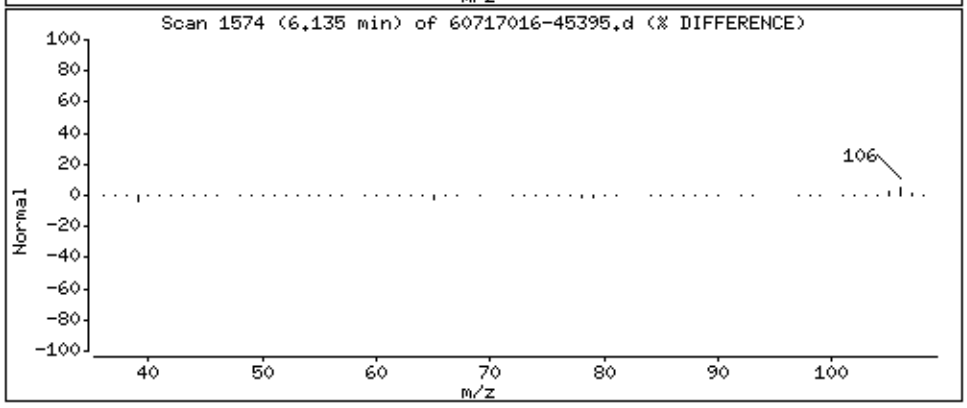












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717016-45395.d

Date : 17-JUL-2019 14:21

Client ID: MBLCS

Instrument: 30mv6b.i

Sample Info: 1711155,93903:5,,

Purge Volume: 5.0

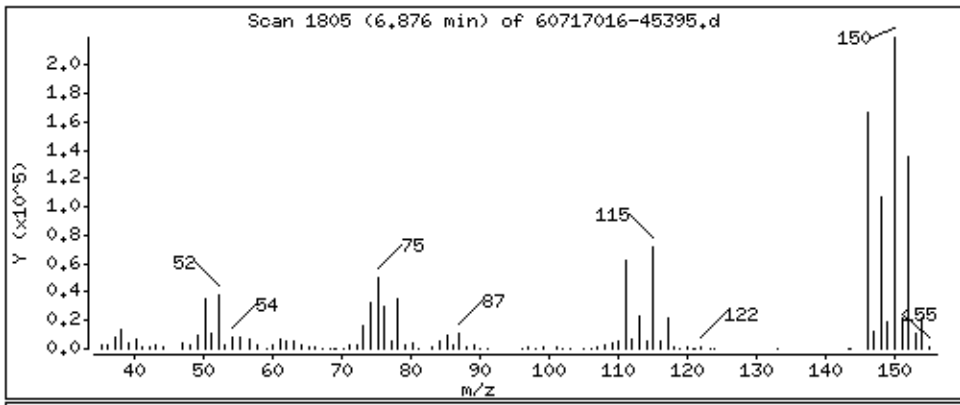
Operator: JEW

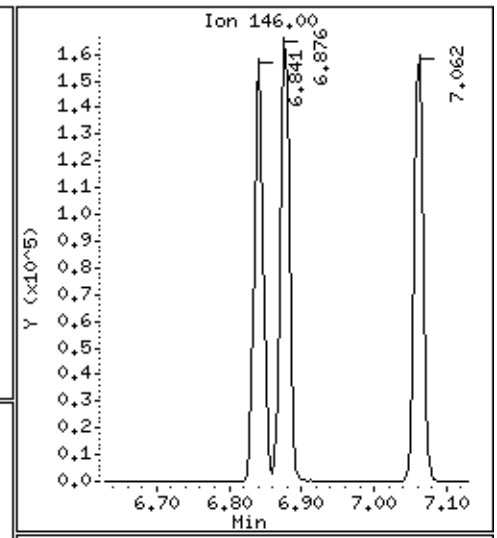
Column phase: RTX-VMS

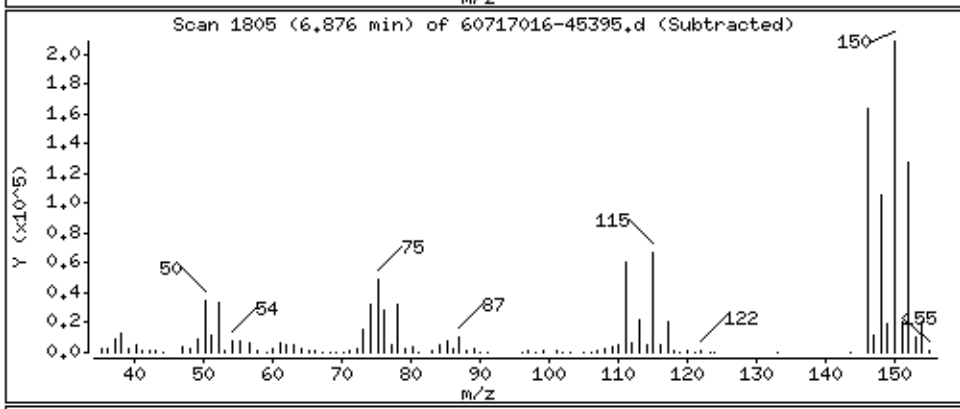
Column diameter: 0.18

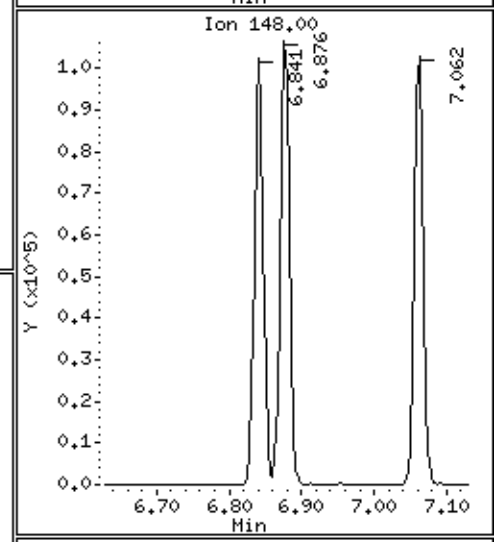
95 1,4-Dichlorobenzene

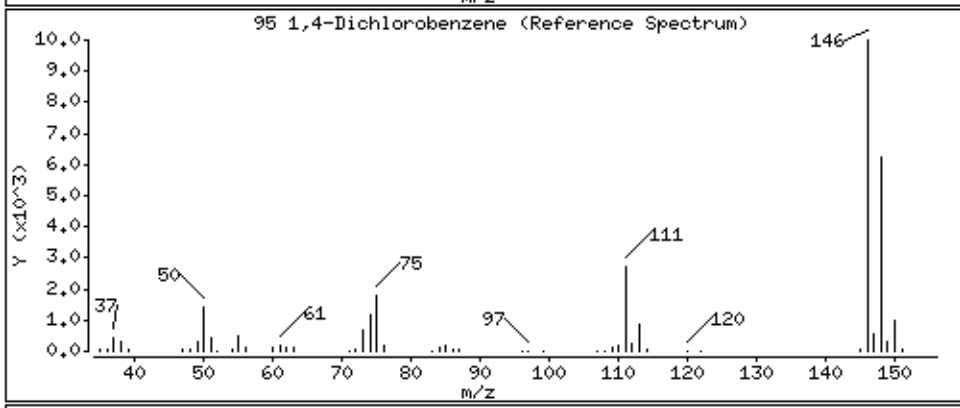
Concentration: 17.9 ug/L

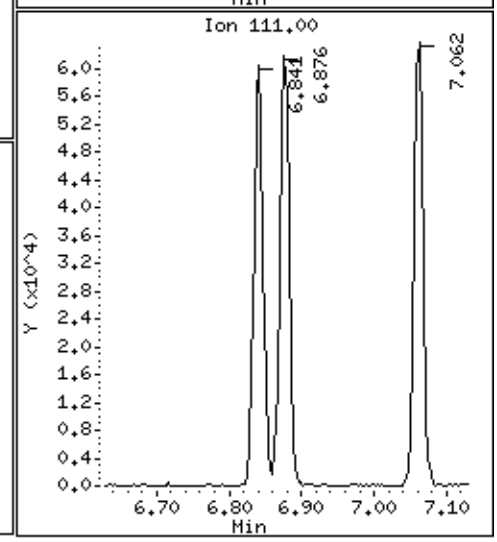


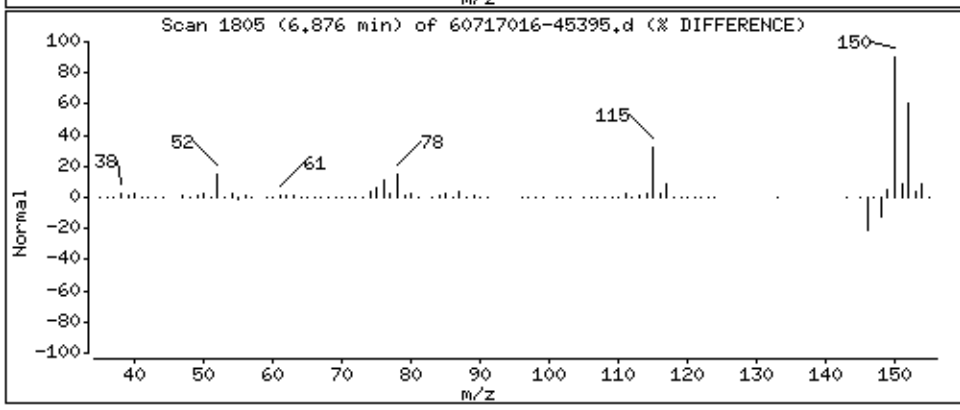












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Injection Date: 17-JUL-2019 14:21
Instrument: 30mv6b.i
Lab Sample ID: 1711155
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 07/12/2019 09:30 Matrix: Solid SDG No.: 30313514

Date Extracted: 07/17/2019 21:40 Lab Sample ID: 1711153

Date Analyzed: 07/17/2019 21:40 Lab File ID: 6190717.B\2.B\60717050.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	212	
78-93-3	2-Butanone (MEK)	228	
56-23-5	Carbon tetrachloride	177	
108-90-7	Chlorobenzene	245	
67-66-3	Chloroform	203	
107-06-2	1,2-Dichloroethane	179	
75-35-4	1,1-Dichloroethene	174	
127-18-4	Tetrachloroethene	211	
79-01-6	Trichloroethene	216	
75-01-4	Vinyl chloride	169	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Lab Smp Id: 1711153 Client Smp ID: Sewer-1MS
Inj Date : 17-JUL-2019 21:40
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 1711153x10
Misc Info : 45395
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.376	1.376	(0.304)	53599	16.9158	169(R)	
	9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	62781	17.3571	174(R)	
	33 Chloroform	83	3.930	3.930	(0.869)	88308	20.3449	203(R)	
	34 Carbon Tetrachloride	117	4.010	4.017	(0.887)	64512	17.6845	177(R)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	98313	29.8577	29.8	
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	35368	22.7864	228(RM)	LT
	41 Benzene	78	4.293	4.296	(0.950)	208855	21.1931	212(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.376	4.376	(0.968)	90963	27.8747	27.9	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.976)	63999	17.9140	179(R)	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	396180	30.0000		
	50 Trichloroethene	95	4.607	4.607	(0.783)	55541	21.5731	216(R)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	376709	31.5408	31.5	
	59 Toluene	91	5.255	5.256	(0.893)	243038	22.7152	227(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.921)	65083	21.1343	211(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	324162	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	194450	24.4768	245(R)	
	70 Ethylbenzene	106	5.894	5.894	(1.002)	92837	21.7848	218(R)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	233268	43.5811	436(R)	
	75 o-Xylene	106	6.135	6.138	(1.043)	112881	21.1090	211(R)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	137512	29.9967	30.0	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	187140	30.0000		
95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	163048	21.0172	210(R)	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717050.d
Lab Smp Id: 1711153
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: Sewer-1MS
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	396180	-6.79
71 Chlorobenzene-d5	337423	168712	674846	324162	-3.93
94 1,4-Dichlorobenze	197328	98664	394656	187140	-5.16

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1711153 Client Smp ID: Sewer-1MS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1	Dichlorodifluorom	20.0	0.000	*	70-130
2	Chloromethane	20.0	0.000	*	70-130
3	Vinyl Chloride	20.0	169	845.79*	70-130
4	Bromomethane	20.0	0.000	*	70-130
5	Chloroethane	20.0	0.000	*	70-130
6	Trichlorofluorome	20.0	0.000	*	70-130
8	Ethanol	200	0.000	*	10-175
9	1,1-Dichloroethene	20.0	174	867.85*	70-130
10	1,1,2-Trichlorotr	20.0	0.000	*	50-150
11	Carbon disulfide	20.0	0.000	*	70-130
12	Iodomethane	50.0	0.000	*	70-130
13	Acrolein	20.0	0.000	*	70-130
14	Allyl chloride	50.0	0.000	*	70-130
15	Methylene Chloride	20.0	0.000	*	70-130
16	Acetone	20.0	0.000	*	70-130
17	trans-1,2-Dichlor	20.0	0.000	*	70-130
18	Methyl acetate	20.0	0.000	*	70-130
19	n-Hexane	20.0	0.000	*	50-150
20	Methyl-tert-butyl	20.0	0.000	*	50-150
22	Acetonitrile	50.0	0.000	*	70-130
23	Diisopropyl ether	20.0	0.000	*	70-130
24	Chloroprene	20.0	0.000	*	70-130
25	1,1-Dichloroethane	20.0	0.000	*	70-130
26	Acrylonitrile	20.0	0.000	*	70-130
27	Ethyl-tert-butyl	20.0	0.000	*	50-150
28	Vinyl acetate	20.0	0.000	*	70-130
29	cis-1,2-Dichloroe	20.0	0.000	*	70-130
30	2,2-Dichloropropa	20.0	0.000	*	70-130
31	Cyclohexane	20.0	0.000	*	70-130
32	Bromochloromethane	20.0	0.000	*	70-130
33	Chloroform	20.0	203	1017.24*	70-130
34	Carbon Tetrachlori	20.0	177	884.23*	70-130
35	Ethyl acetate	20.0	0.000	*	70-130
36	Tetrahydrofuran	20.0	0.000	*	70-130
38	1,1,1-Trichloroet	20.0	0.000	*	70-130
39	2-Butanone (MEK)	20.0	228	1139.32*	50-150
40	1,1-Dichloroprope	20.0	0.000	*	70-130
41	Benzene	20.0	212	1059.65*	70-130
42	Propionitrile	20.0	0.000	*	70-130
43	Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	179	895.70*	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	216	1078.65*	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	227	1135.76*	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	211	1056.71*	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	218	1089.24*	70-130
72 Chlorobenzene	20.0	245	1223.84*	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	436	1089.53*	50-150
75 o-Xylene	20.0	211	1055.45*	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenzen	20.0	210	1050.86*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	29.8	99.53	0-130

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	27.9	92.92	0-138
$ 58 Toluene-d8 (S)	30.0	31.5	105.14	0-124
$ 79 4-Bromofluorobenze	30.0	30.0	99.99	0-124

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1711153
Sample Location:
Sample Date: 11-JUL-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45395

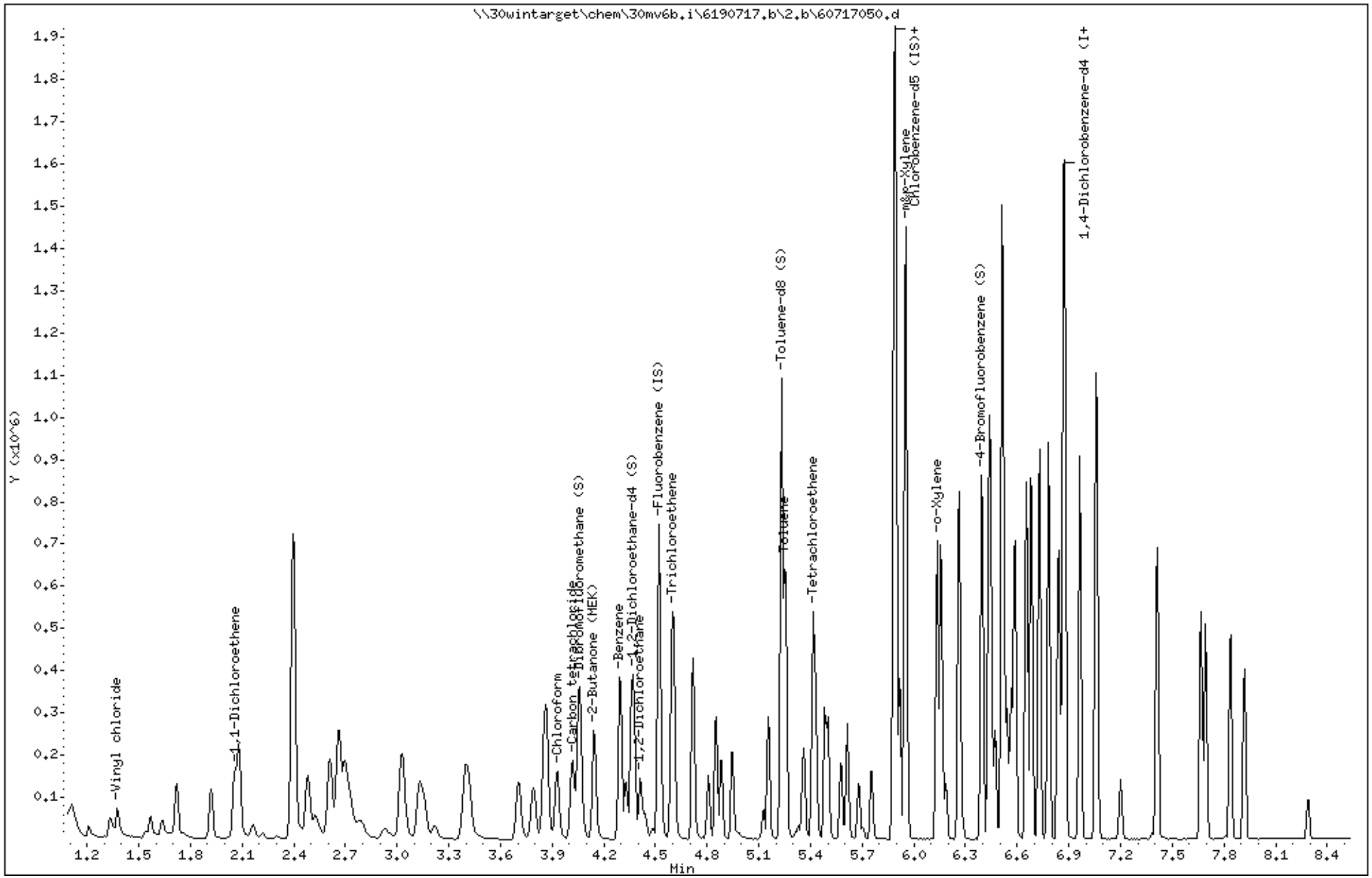
Client SDG: 2.b
Client Smp ID: Sewer-1MS
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	169	
75-35-4	1,1-Dichloroethene	174	
67-66-3	Chloroform	203	
56-23-5	Carbon Tetrachloride	177	
78-93-3	2-Butanone (MEK)	228	
71-43-2	Benzene	212	
107-06-2	1,2-Dichloroethane	179	
79-01-6	Trichloroethene	216	
108-88-3	Toluene	227	
127-18-4	Tetrachloroethene	211	
108-90-7	Chlorobenzene	245	
100-41-4	Ethylbenzene	218	
7816-60-0	m&p-Xylene	436	
95-47-6	o-Xylene	211	
106-46-7	1,4-Dichlorobenzene	210	
1868-53-7	Dibromofluoromethane (S)	29.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	27.9	
2037-26-5	Toluene-d8 (S)	31.5	
460-00-4	4-Bromofluorobenzene (S)	30.0	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d
Date : 17-JUL-2019 21:40
Client ID: Sewer-1MS
Sample Info: 1711153X10

Instrument: 30mv6b.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

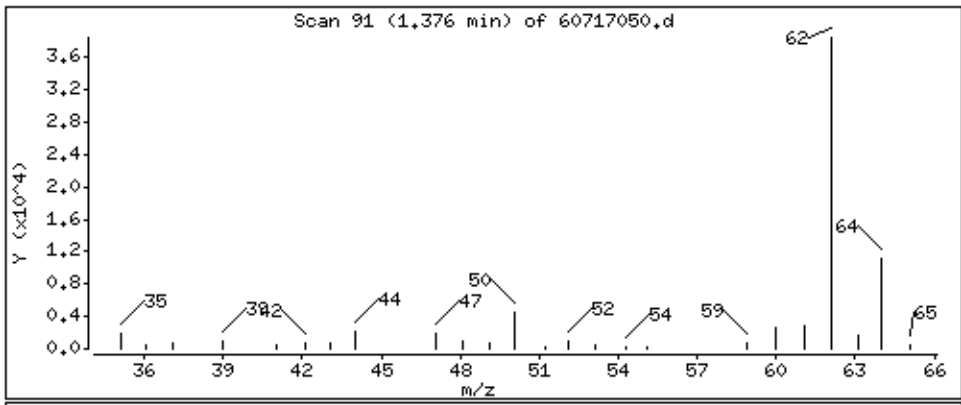
Operator: JEW

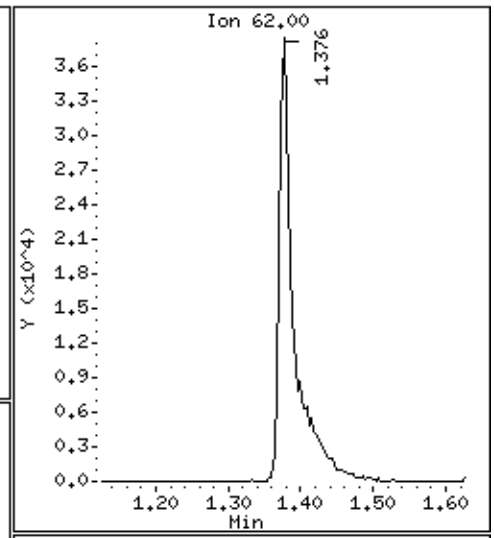
Column phase: RTX-VMS

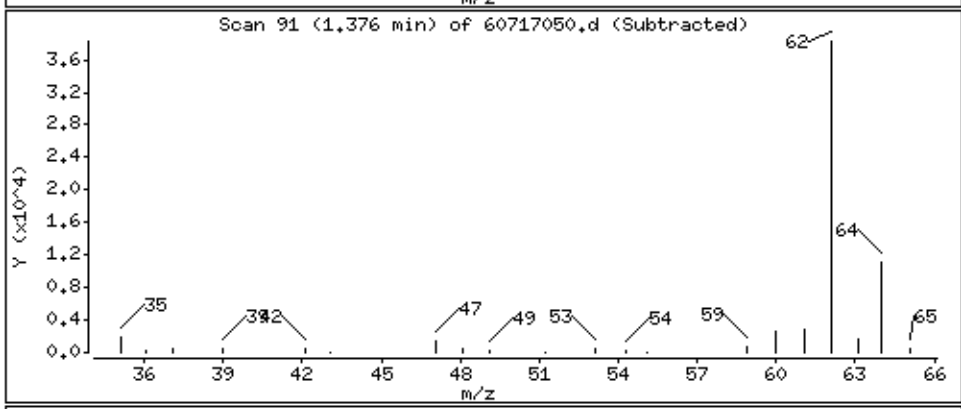
Column diameter: 0.18

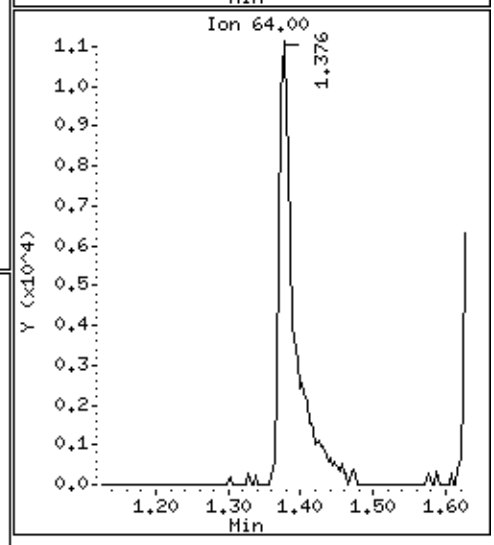
3 Vinyl Chloride

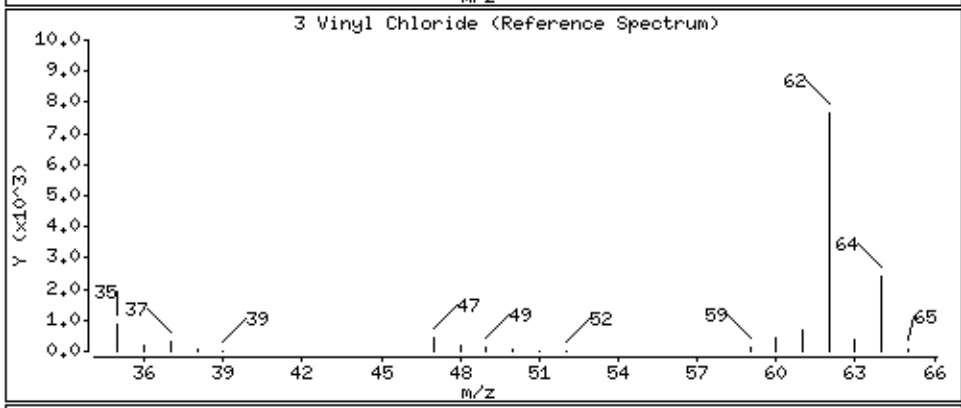
Concentration: 169 ug/kg

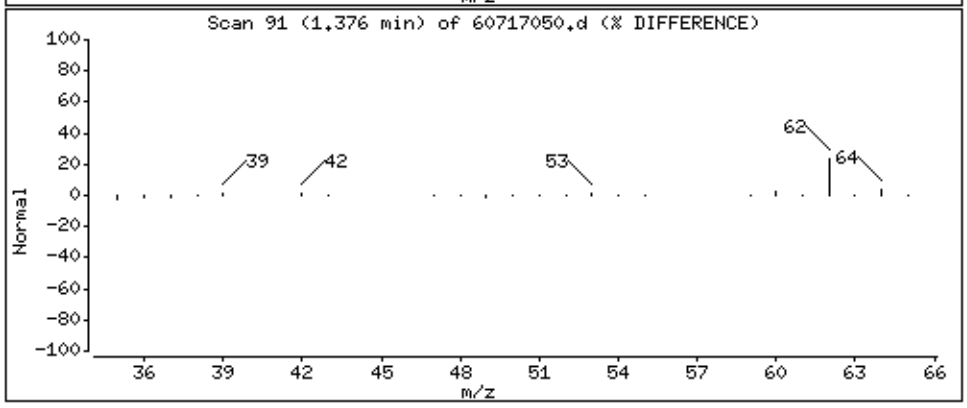












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

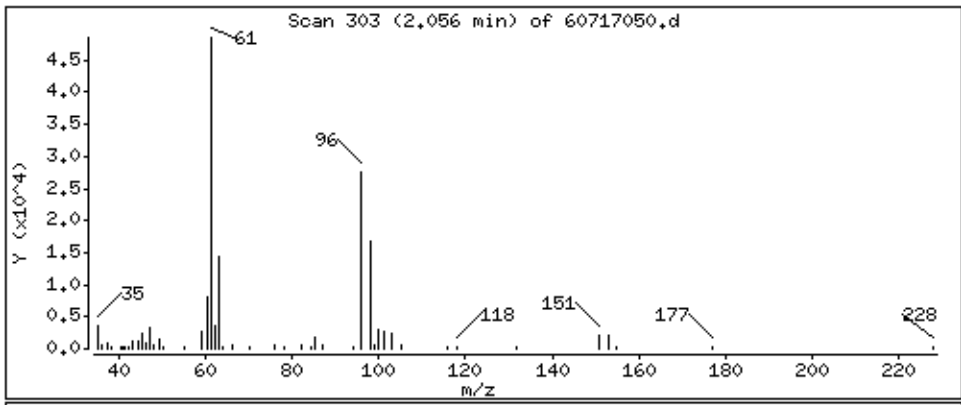
Operator: JEW

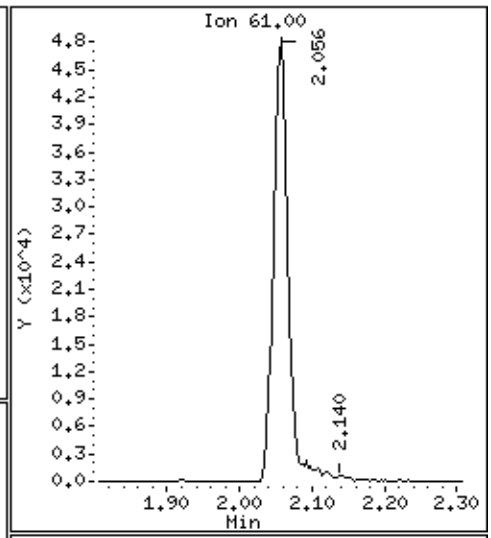
Column phase: RTX-VMS

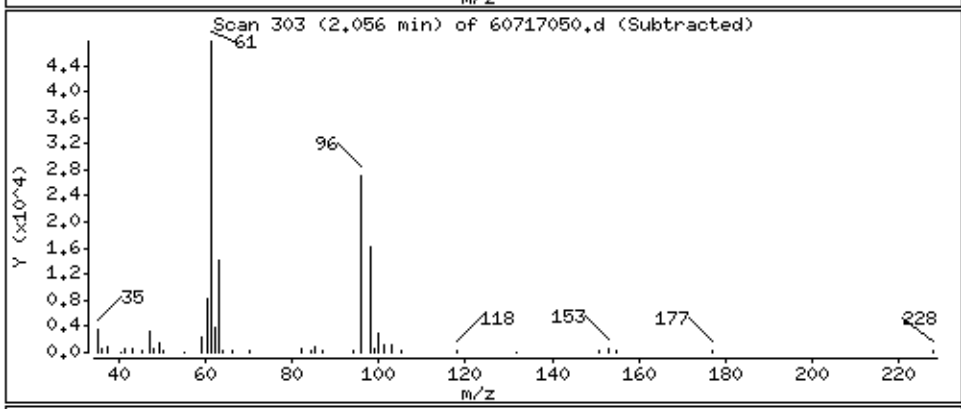
Column diameter: 0.18

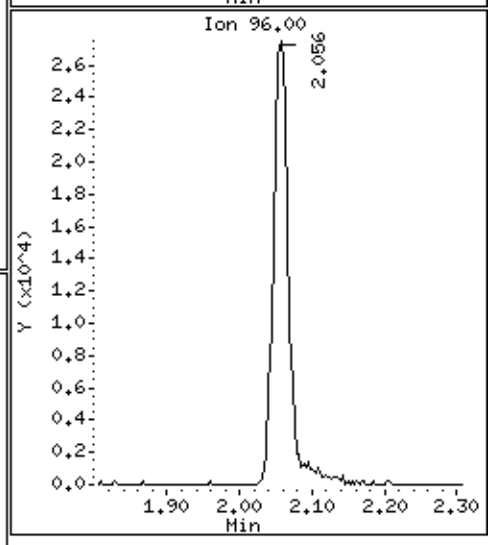
9 1,1-Dichloroethene

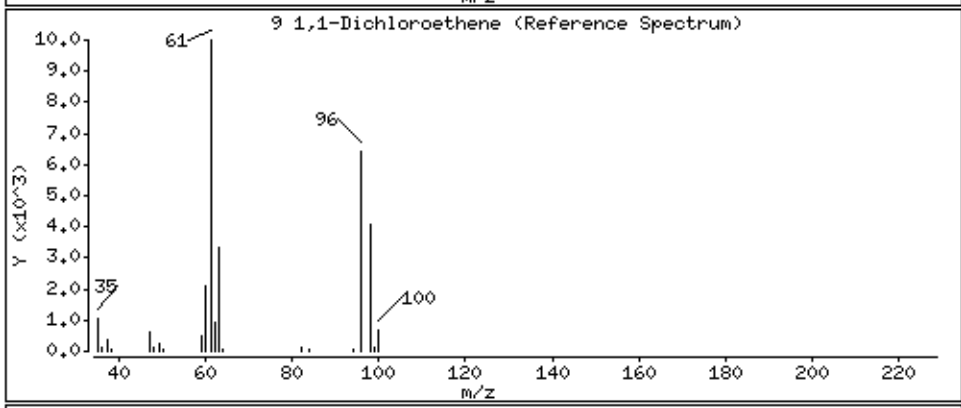
Concentration: 174 ug/kg

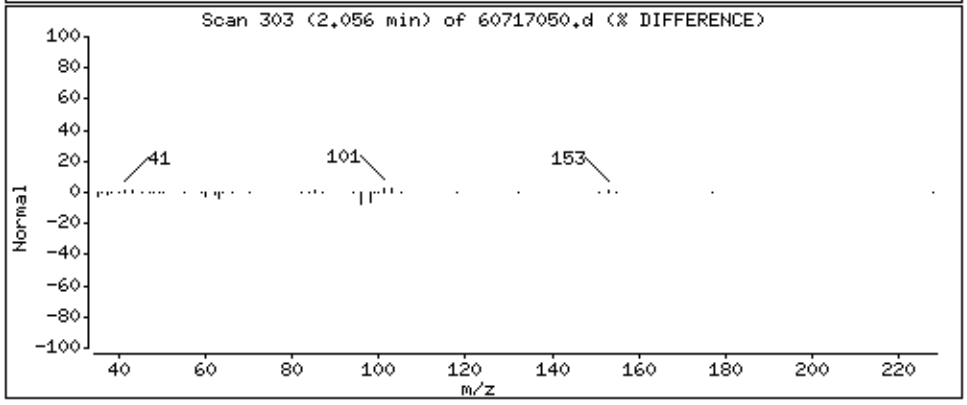












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

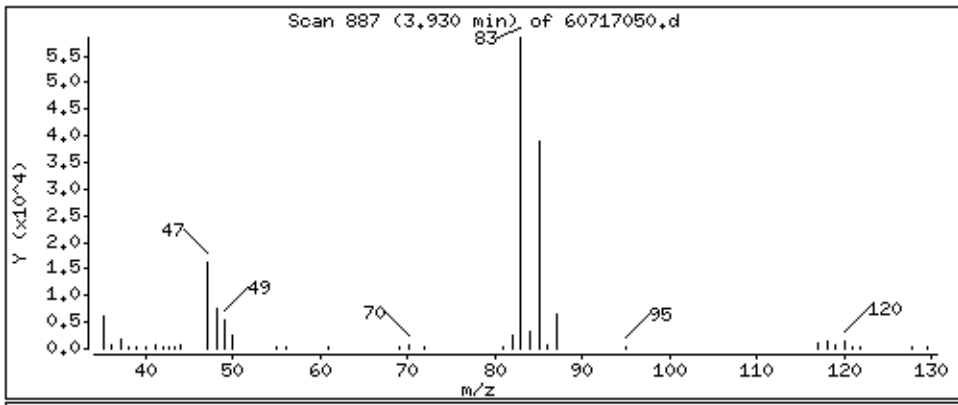
Operator: JEW

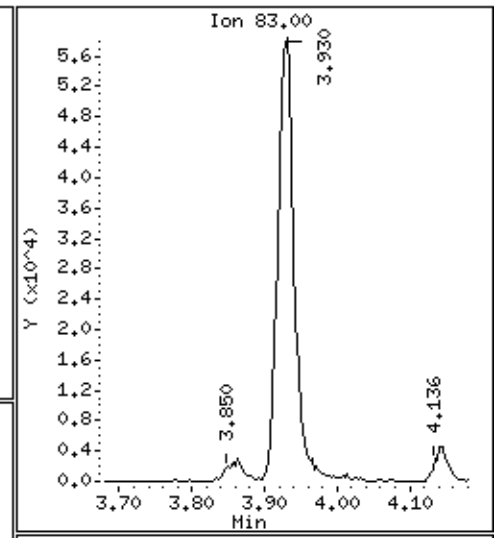
Column phase: RTX-VMS

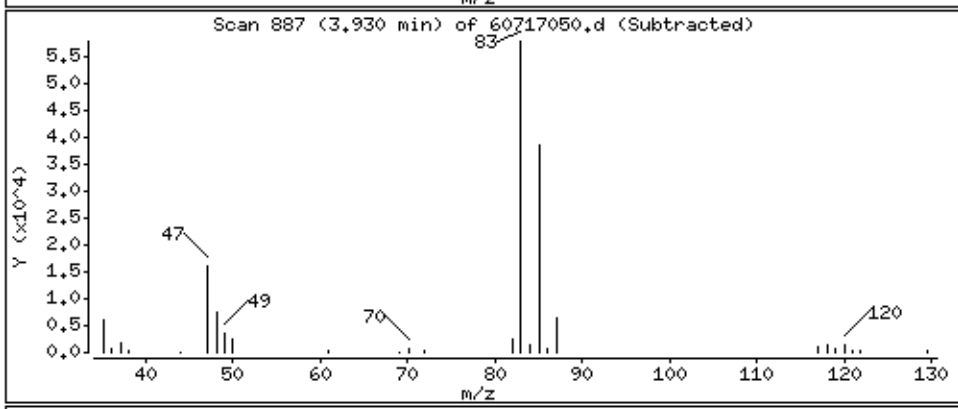
Column diameter: 0.18

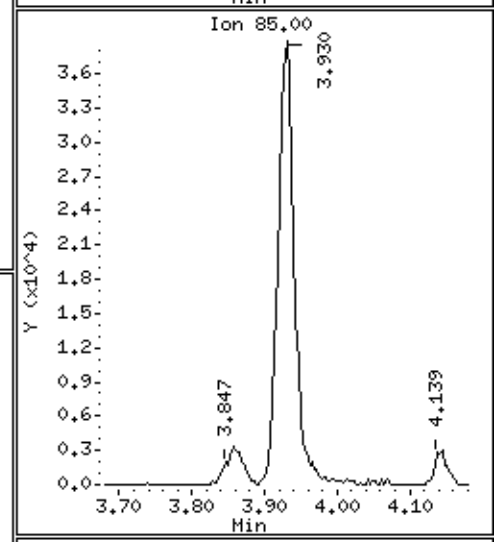
33 Chloroform

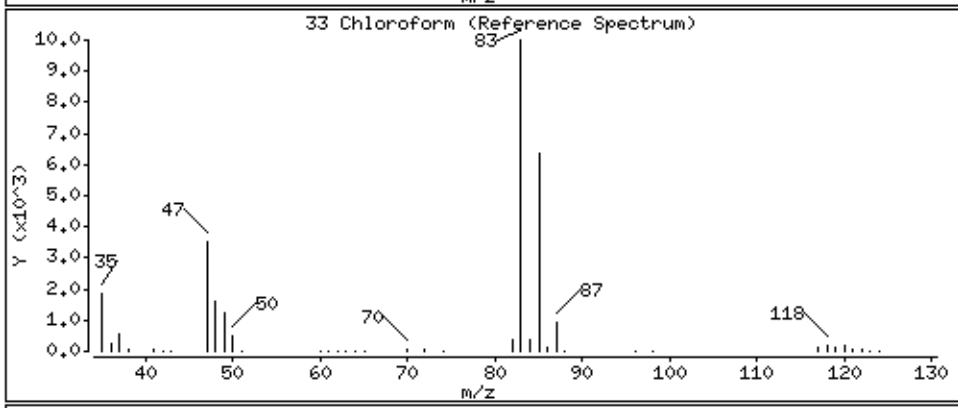
Concentration: 203 ug/kg

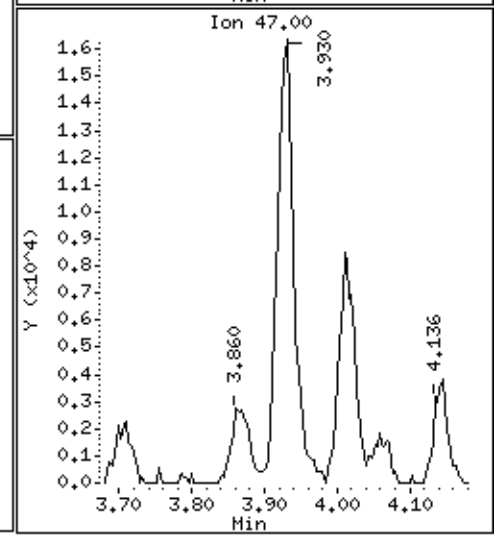


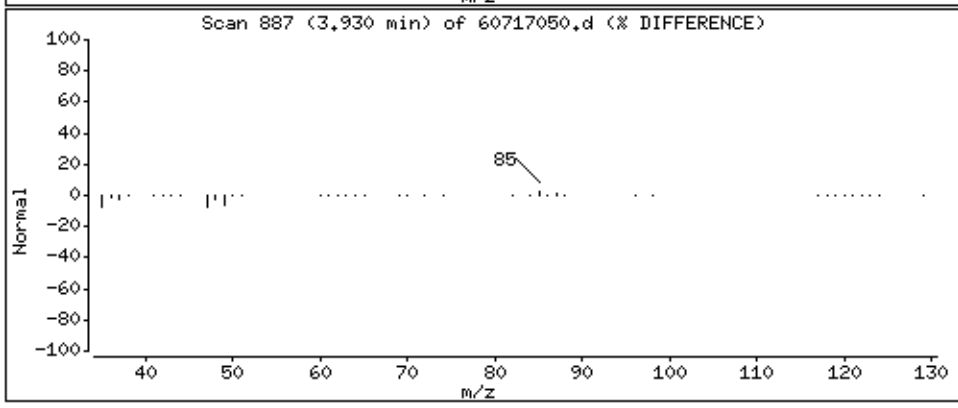












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

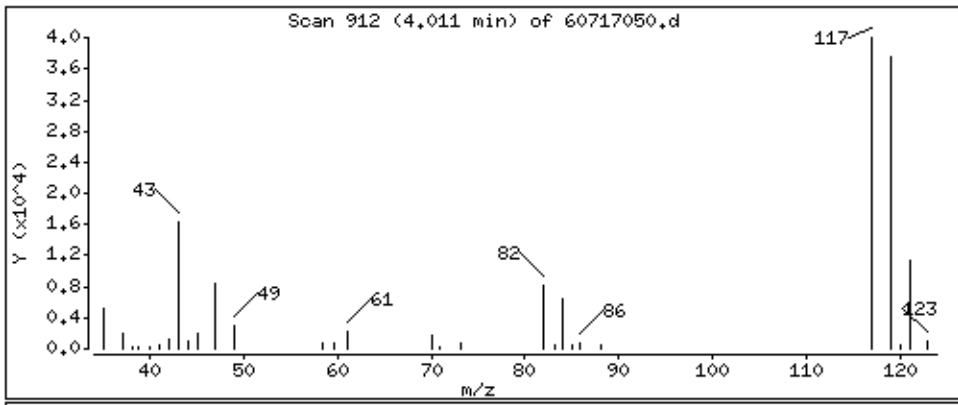
Operator: JEW

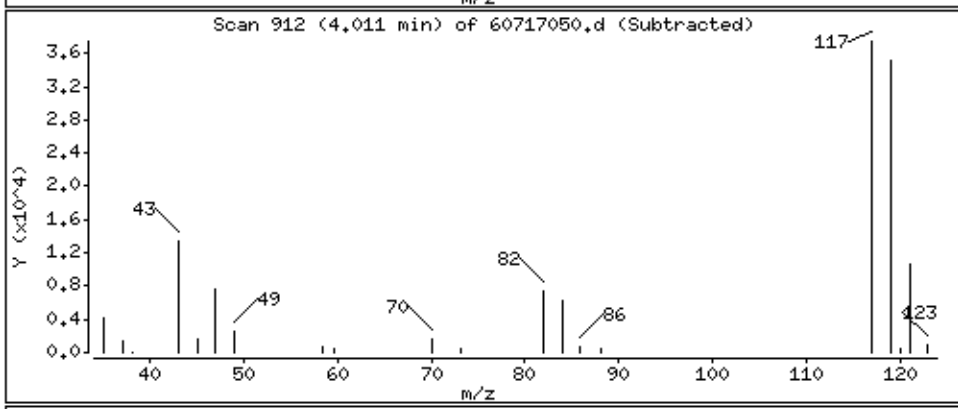
Column phase: RTX-VMS

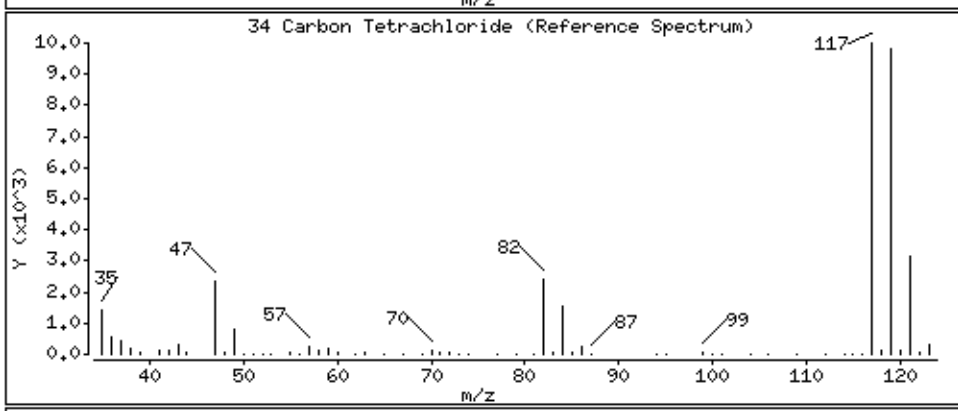
Column diameter: 0.18

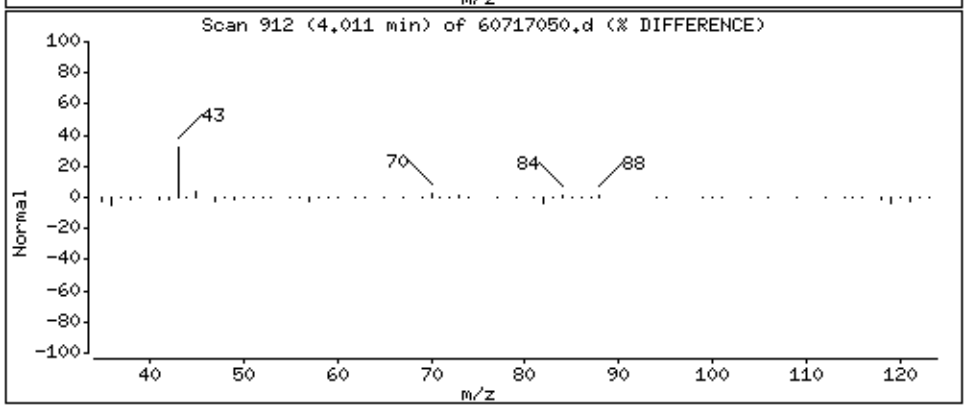
34 Carbon Tetrachloride

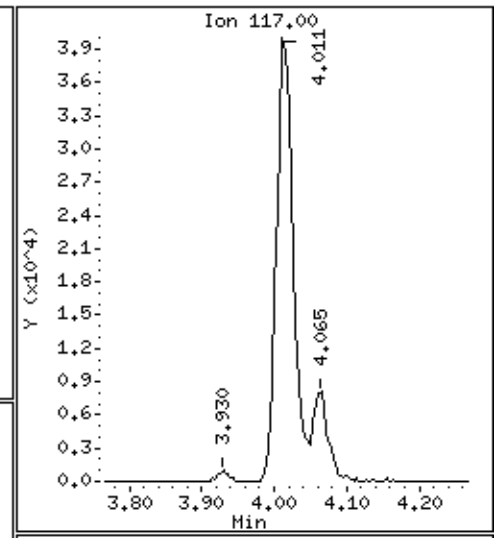
Concentration: 177 ug/kg

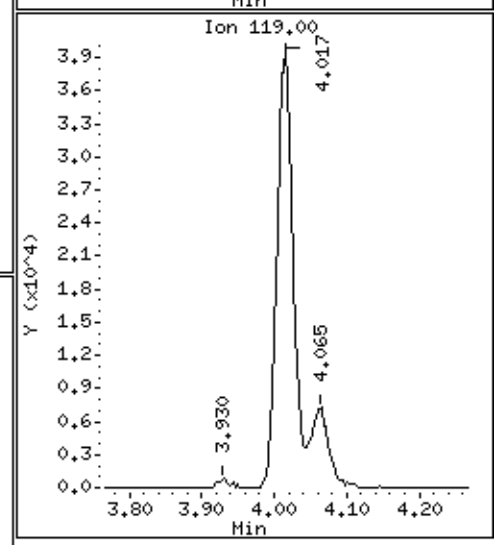












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Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

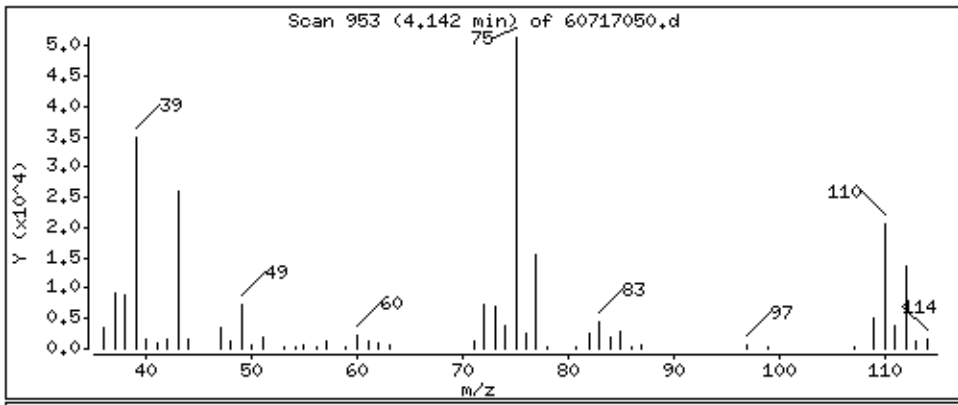
Operator: JEW

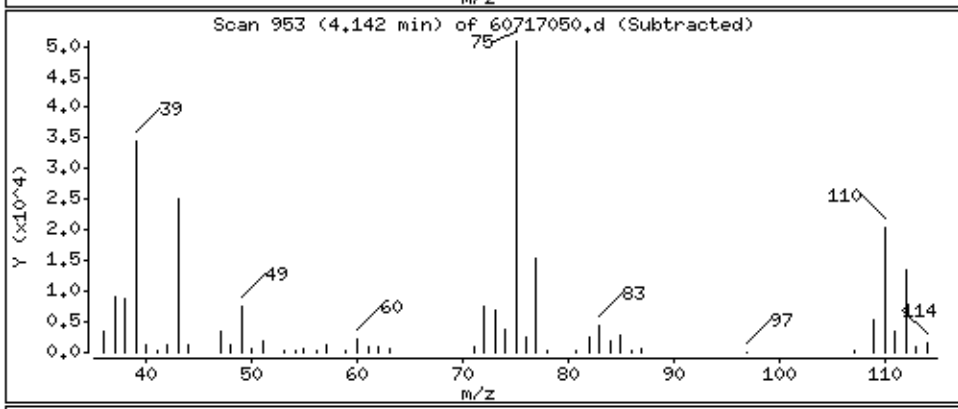
Column phase: RTX-VMS

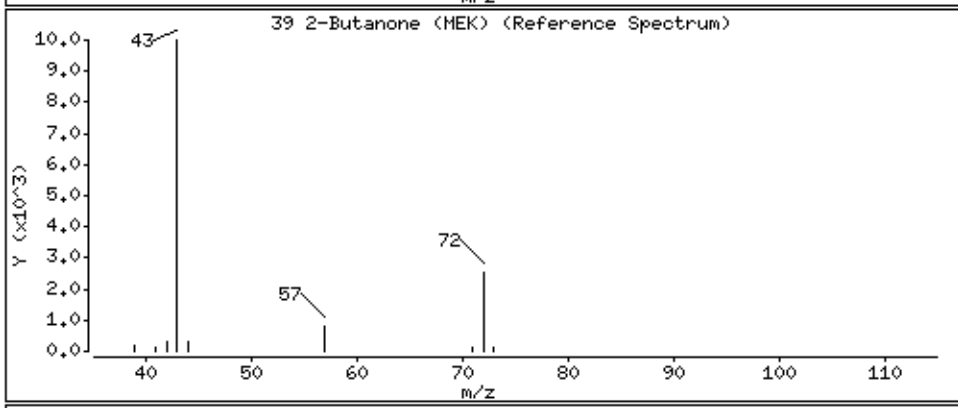
Column diameter: 0.18

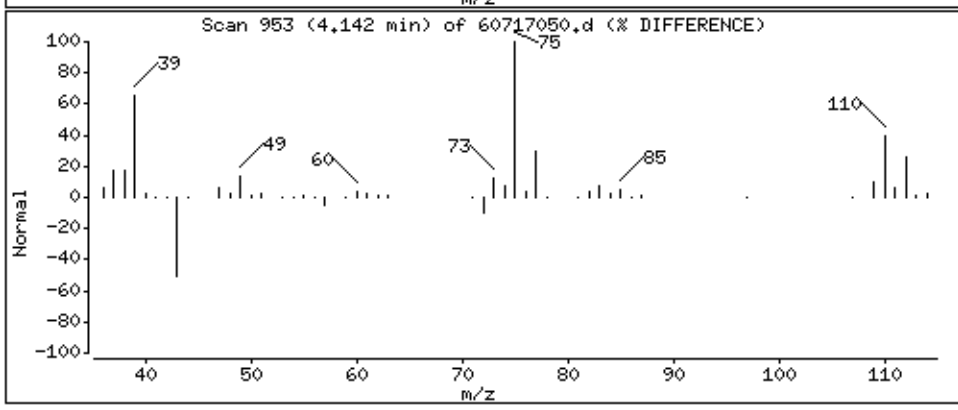
39 2-Butanone (MEK)

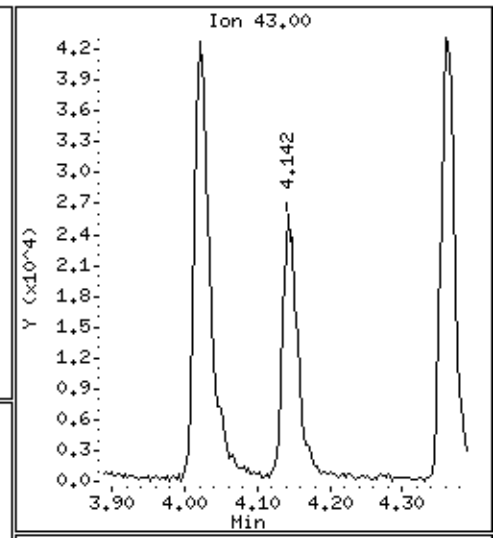
Concentration: 228 ug/kg

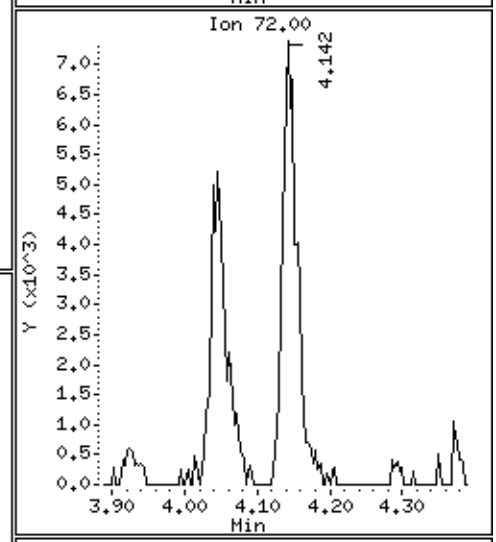


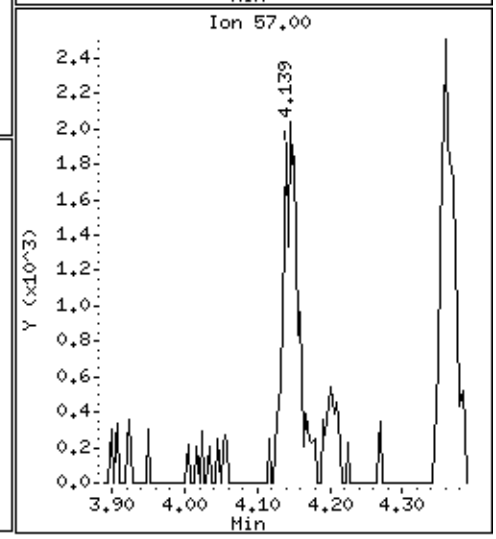












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

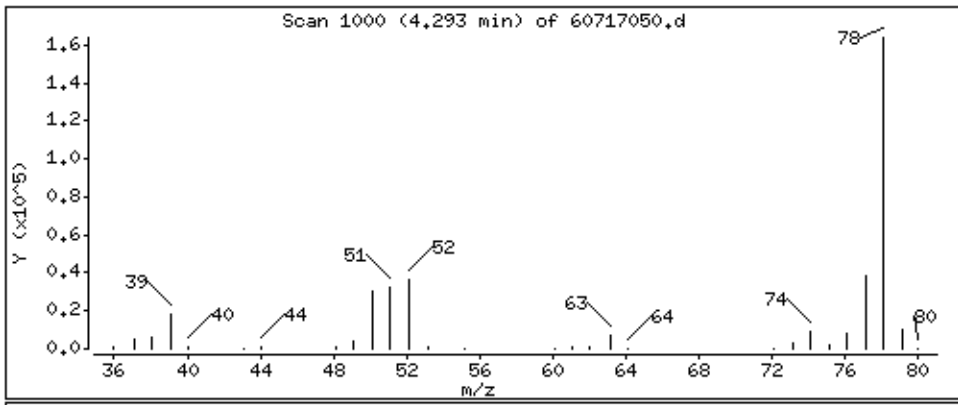
Operator: JEW

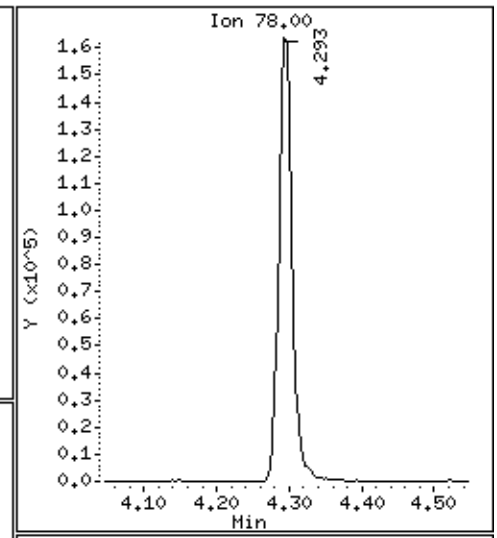
Column phase: RTX-VMS

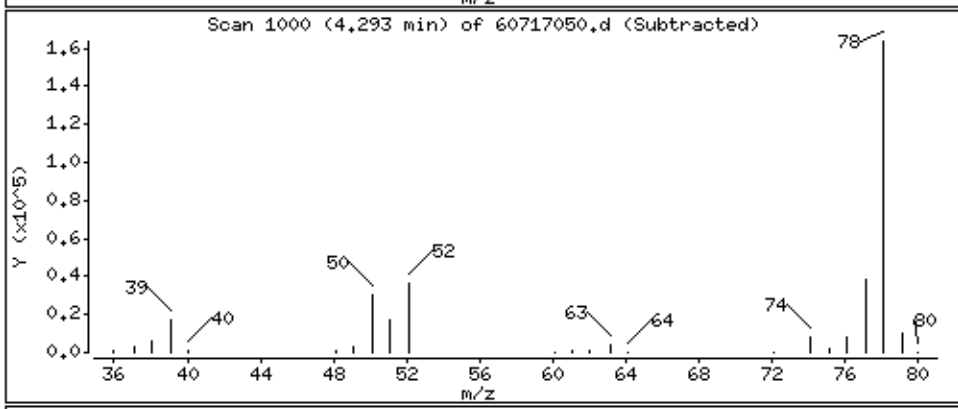
Column diameter: 0.18

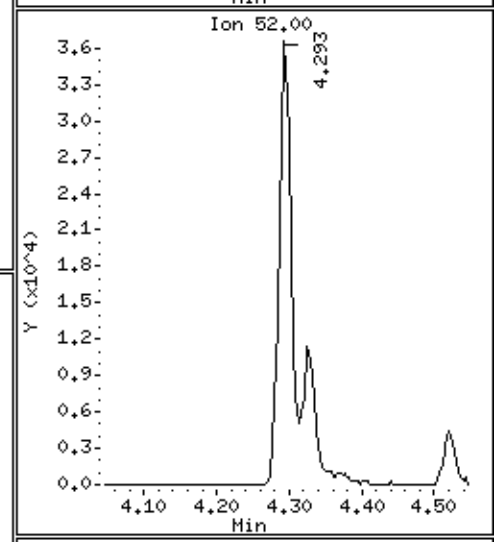
41 Benzene

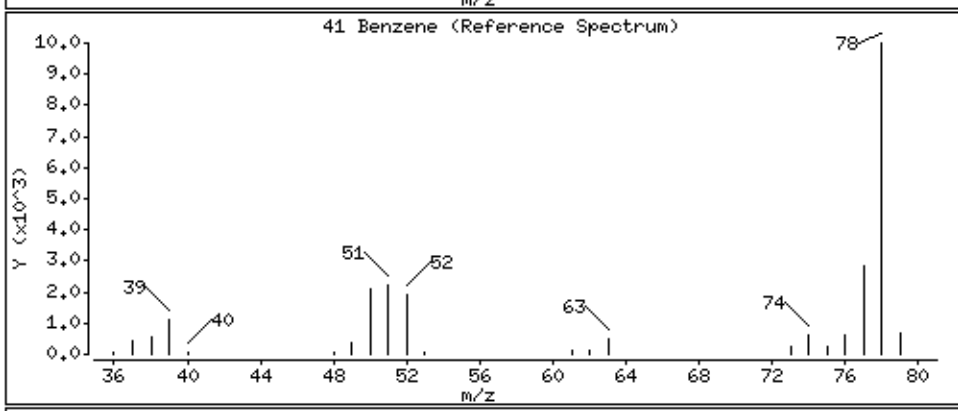
Concentration: 212 ug/kg

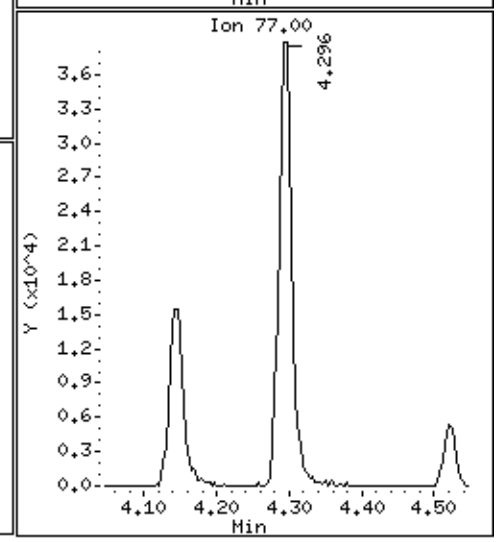


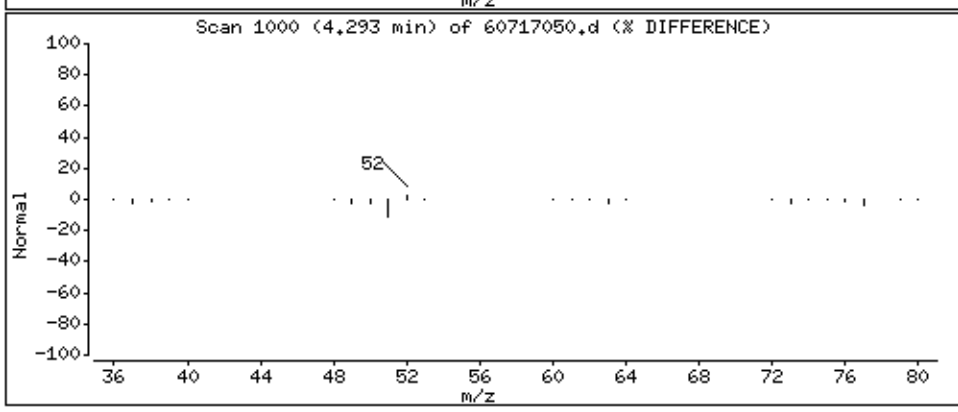












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

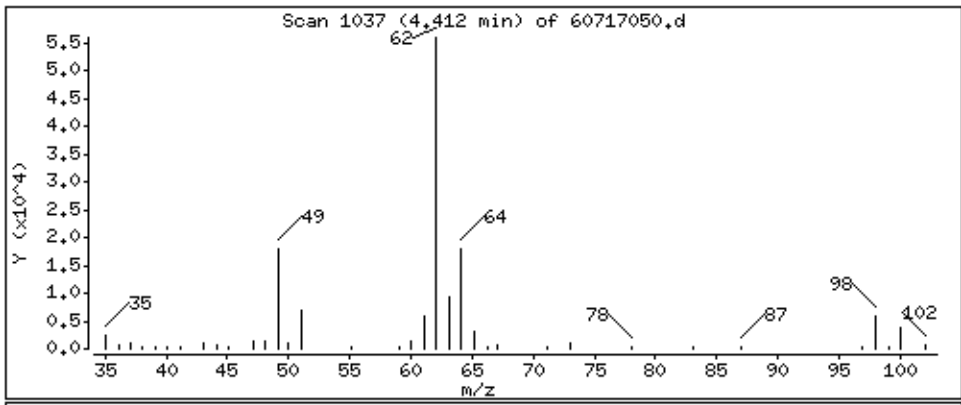
Operator: JEW

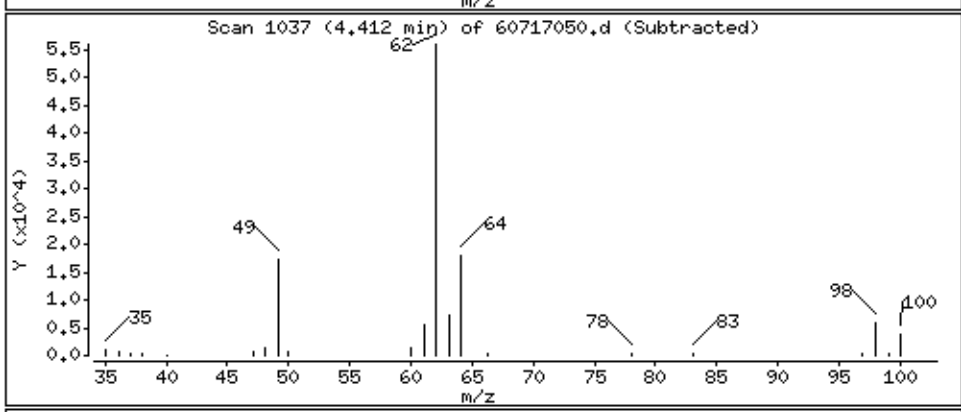
Column phase: RTX-VMS

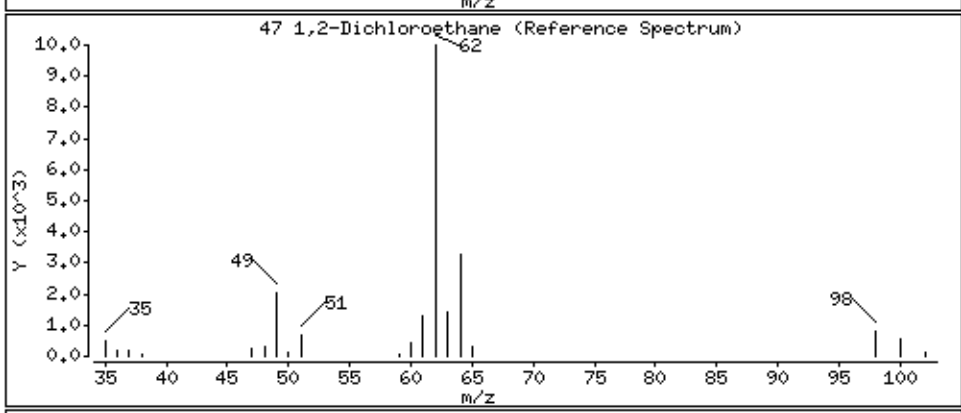
Column diameter: 0.18

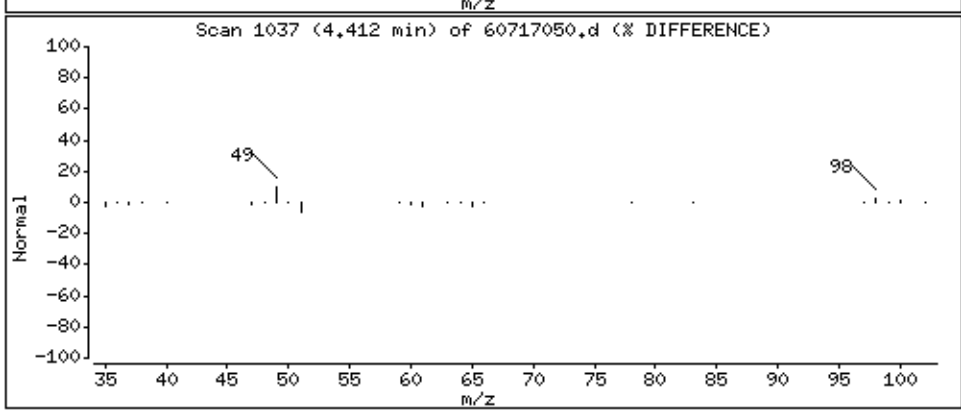
47 1,2-Dichloroethane

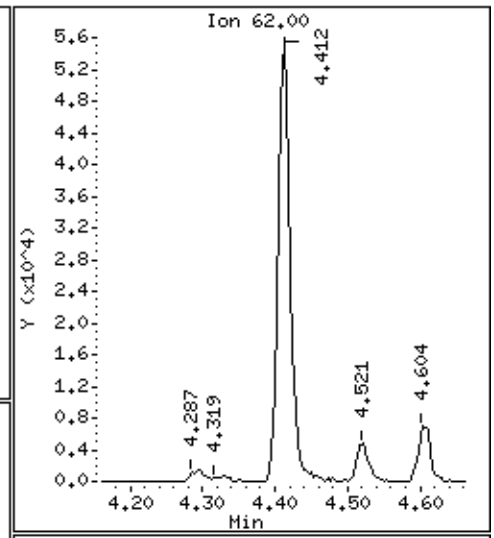
Concentration: 179 ug/kg

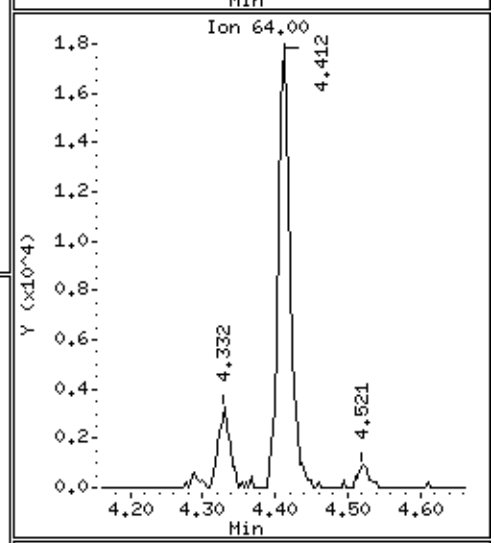


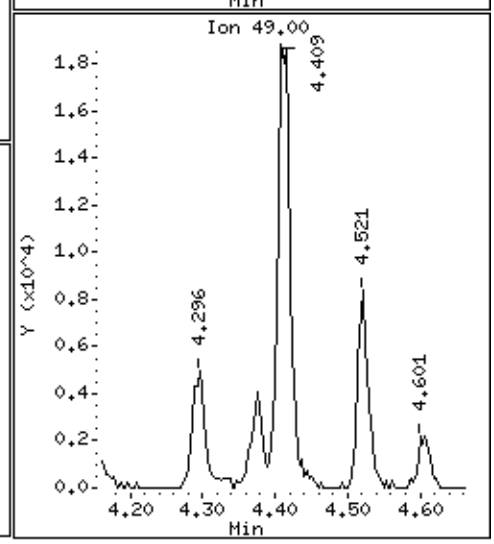












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

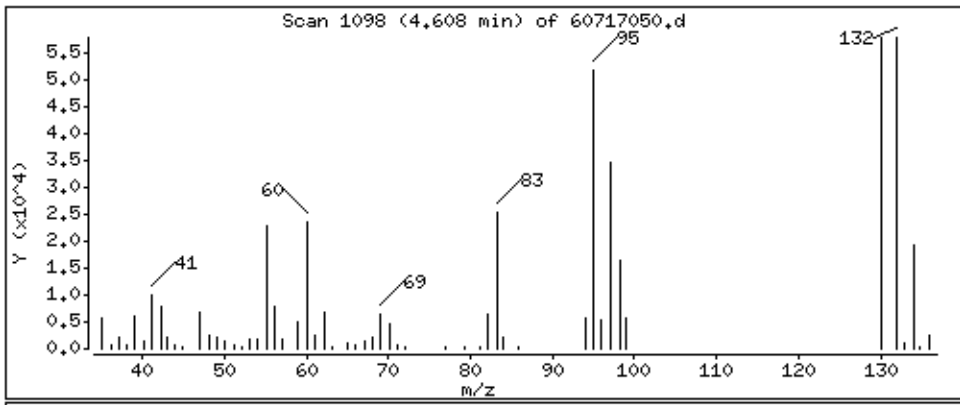
Operator: JEW

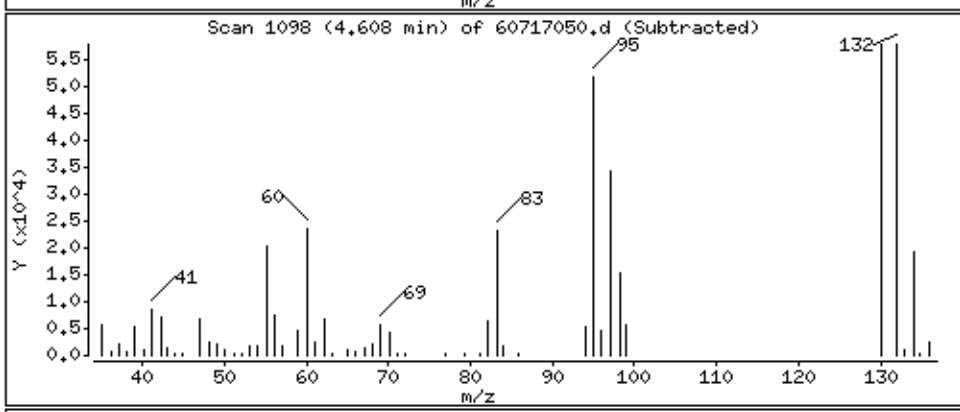
Column phase: RTX-VMS

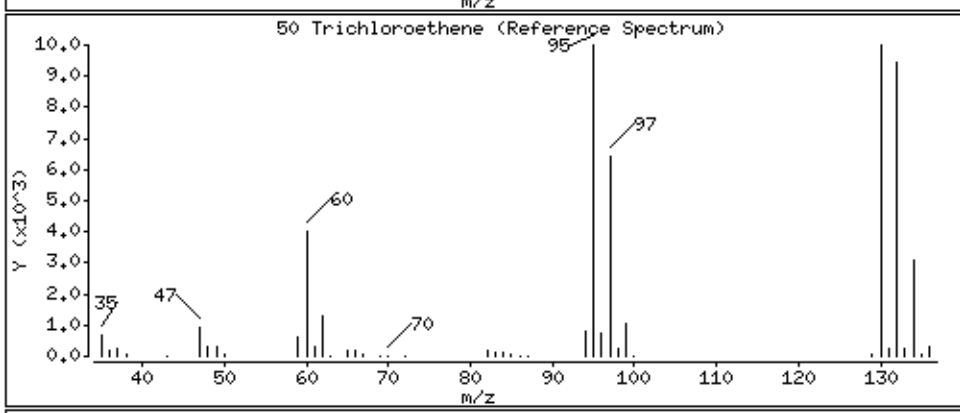
Column diameter: 0.18

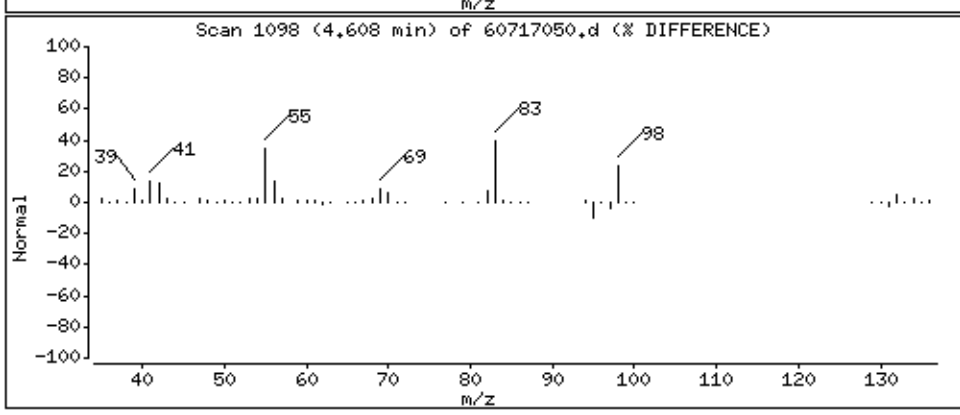
50 Trichloroethene

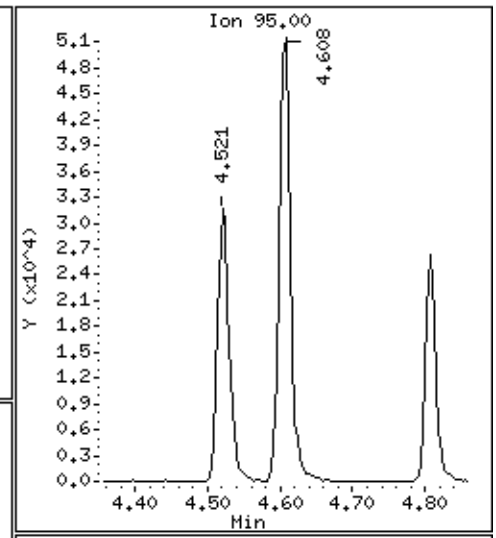
Concentration: 216 ug/kg

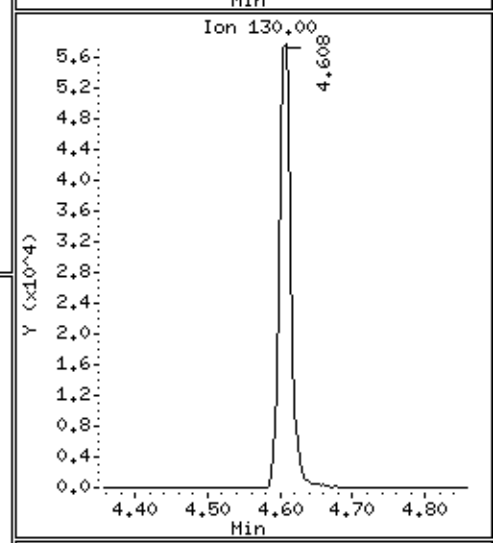


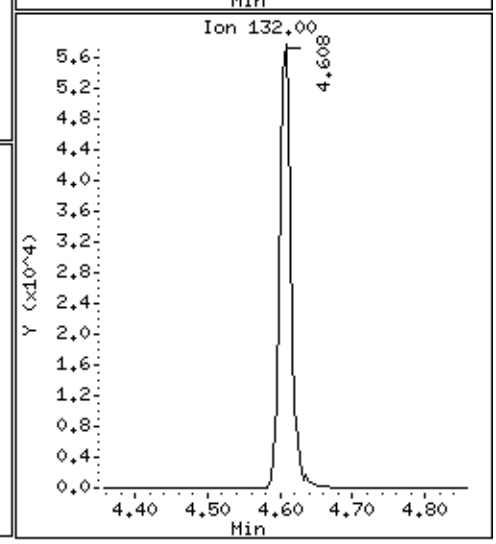












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

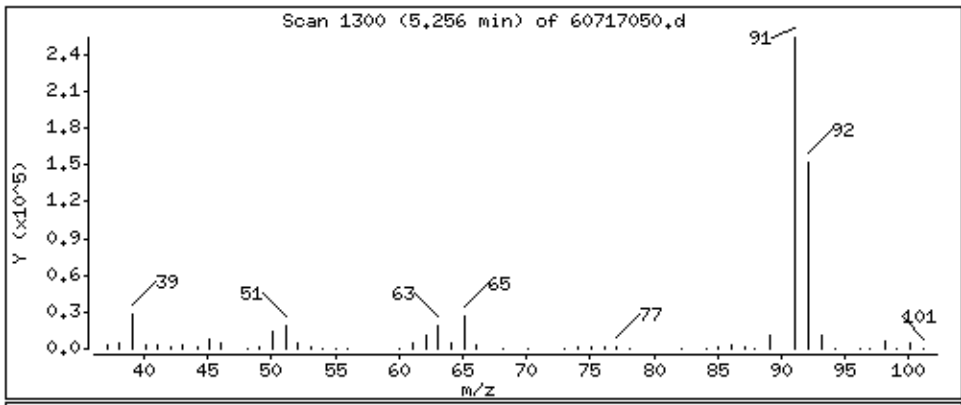
Operator: JEW

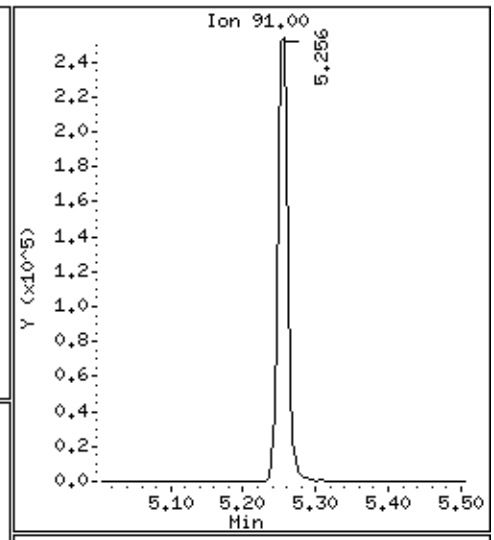
Column phase: RTX-VMS

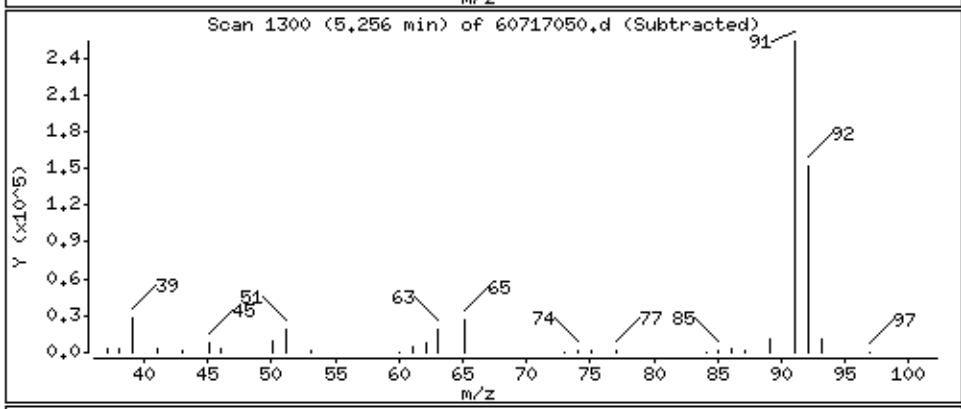
Column diameter: 0.18

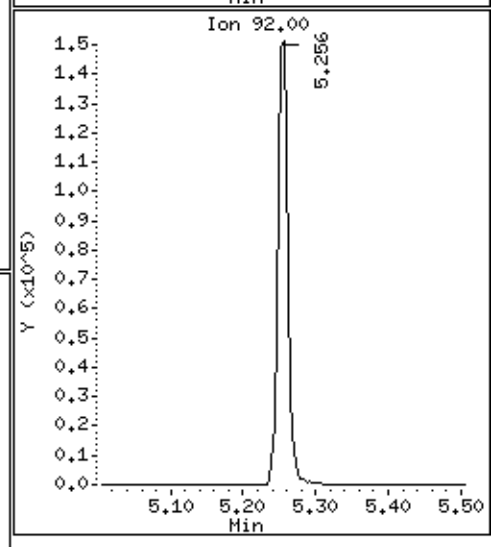
59 Toluene

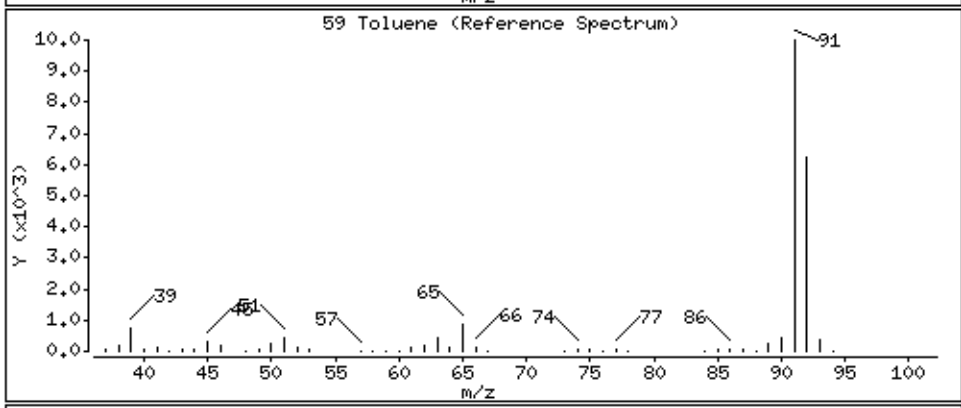
Concentration: 227 ug/kg

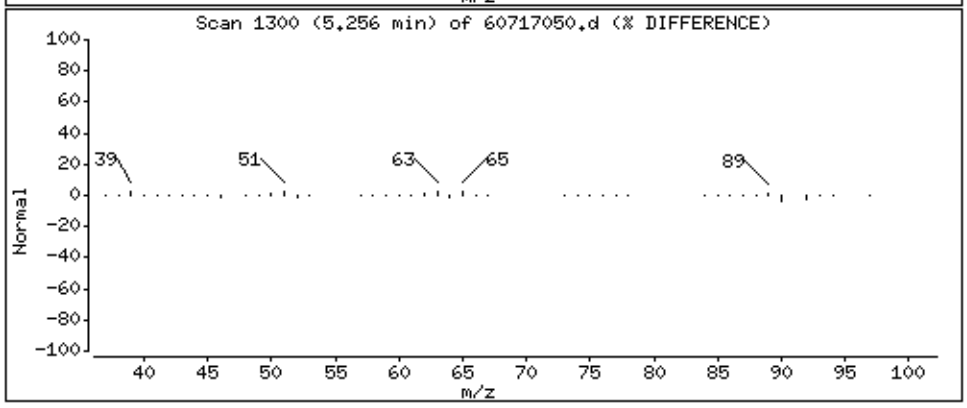












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

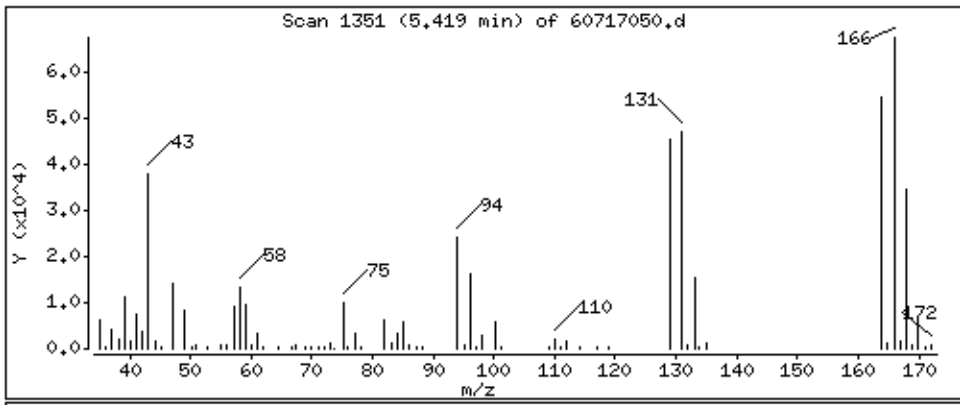
Operator: JEW

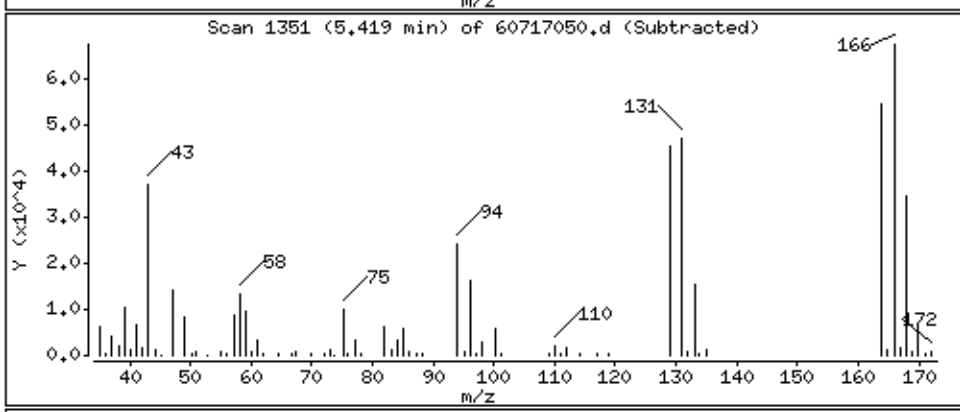
Column phase: RTX-VMS

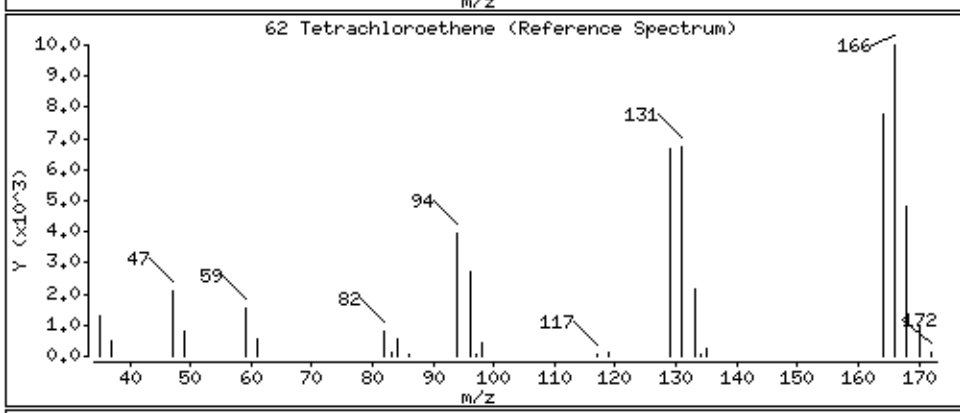
Column diameter: 0.18

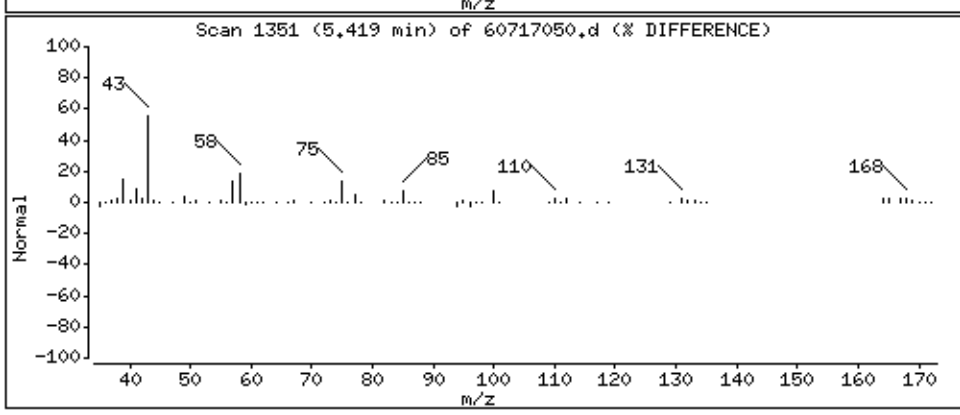
62 Tetrachloroethene

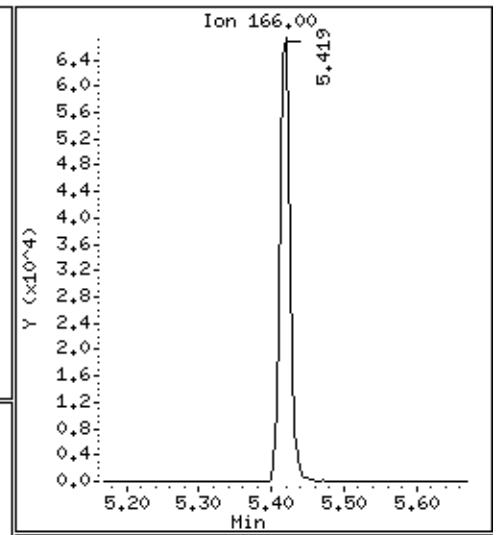
Concentration: 211 ug/kg

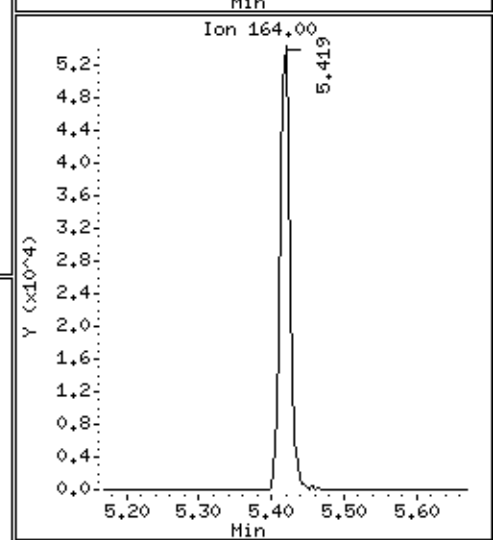


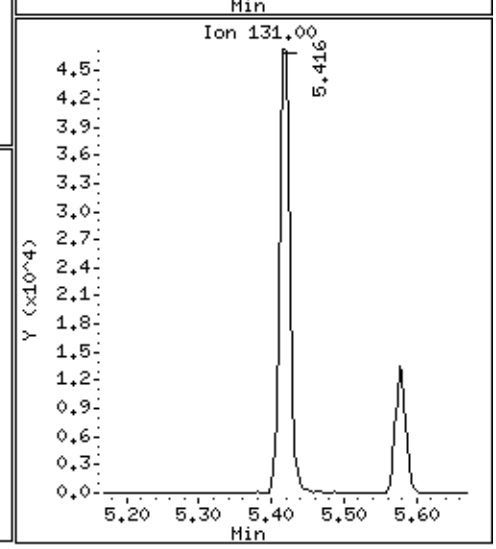












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

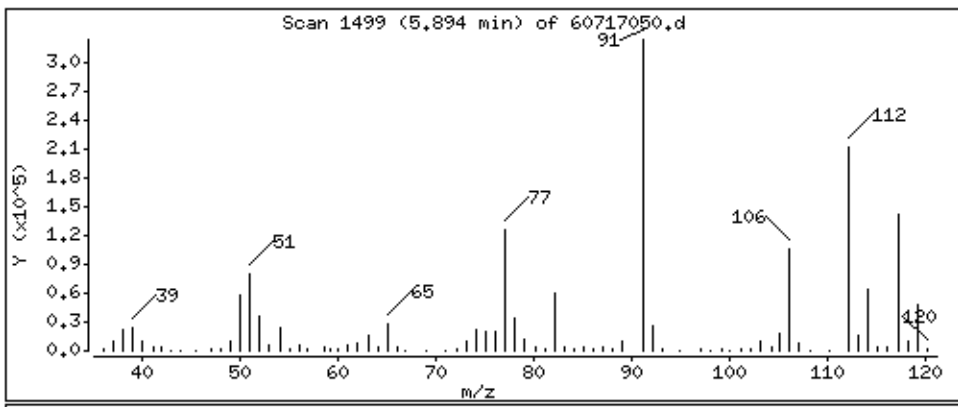
Operator: JEW

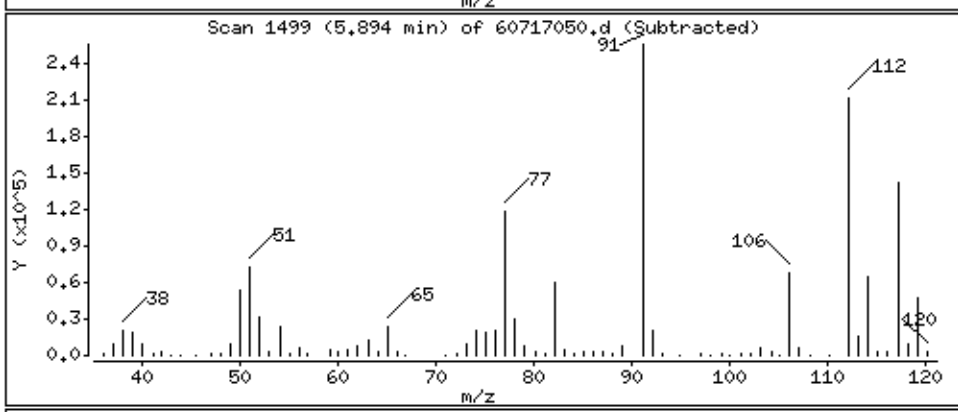
Column phase: RTX-VMS

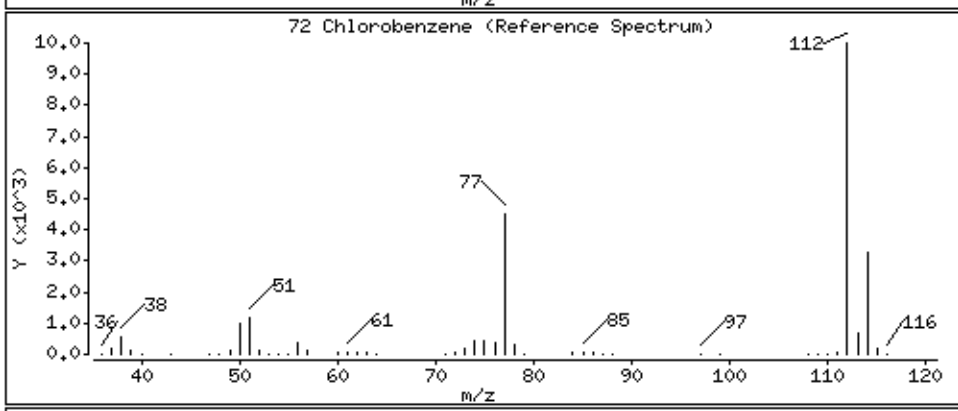
Column diameter: 0.18

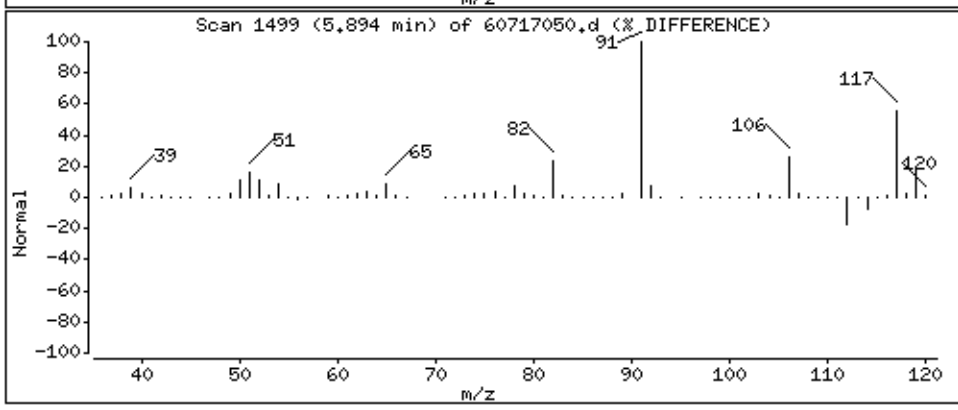
72 Chlorobenzene

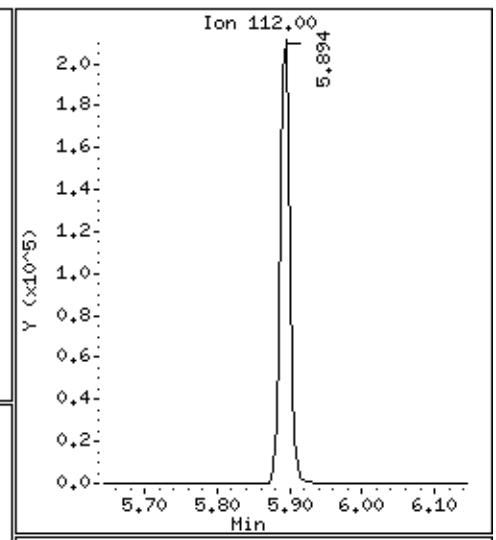
Concentration: 245 ug/kg

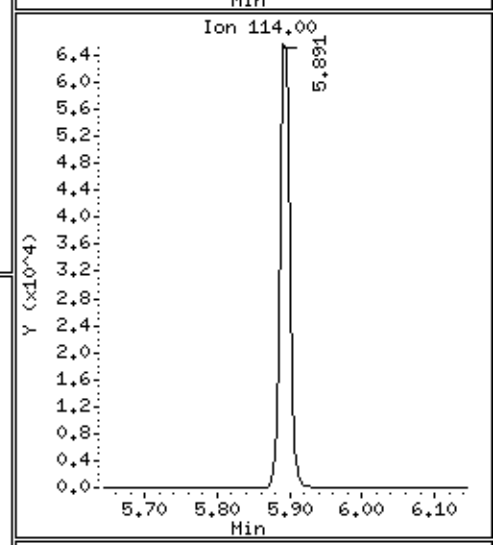


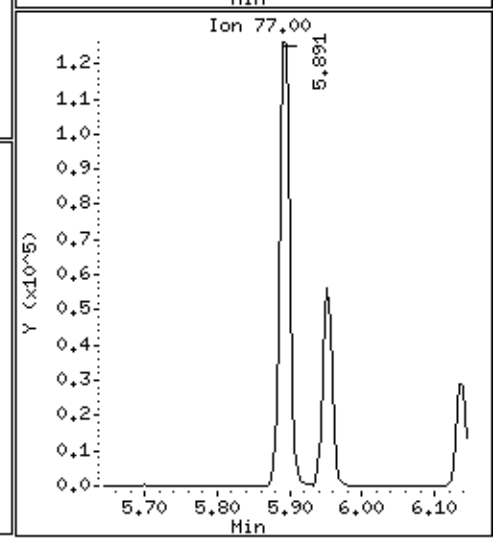












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

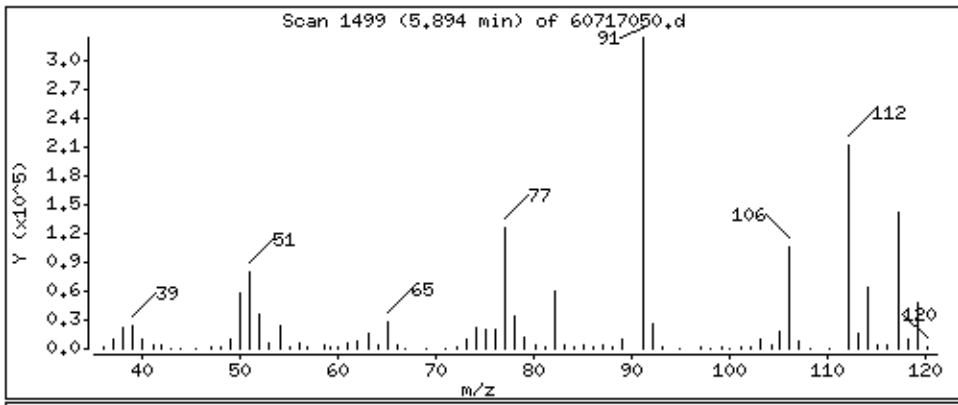
Operator: JEW

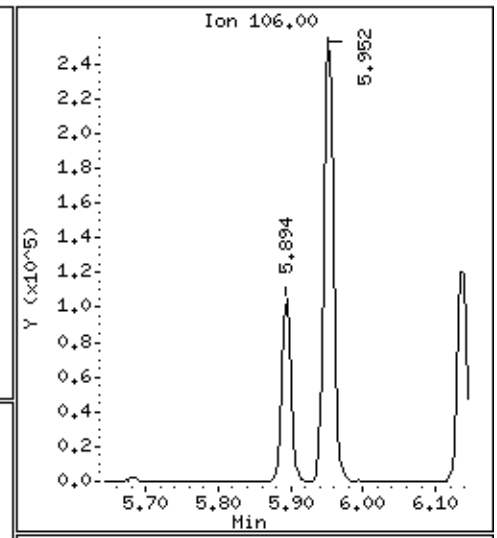
Column phase: RTX-VMS

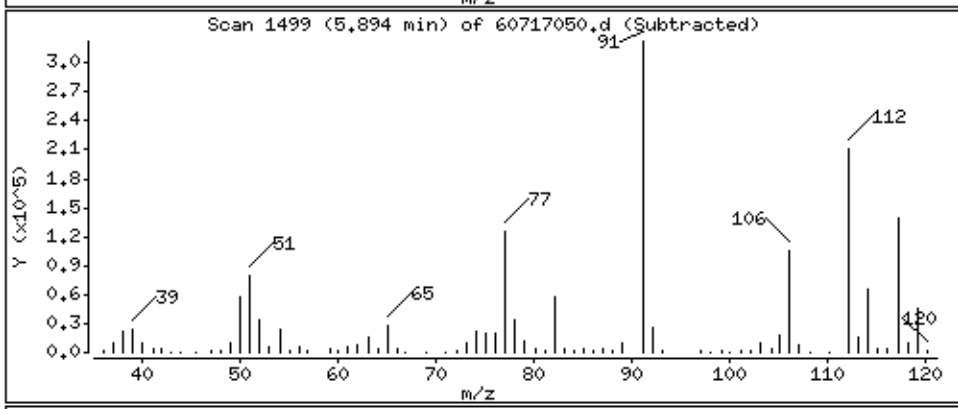
Column diameter: 0.18

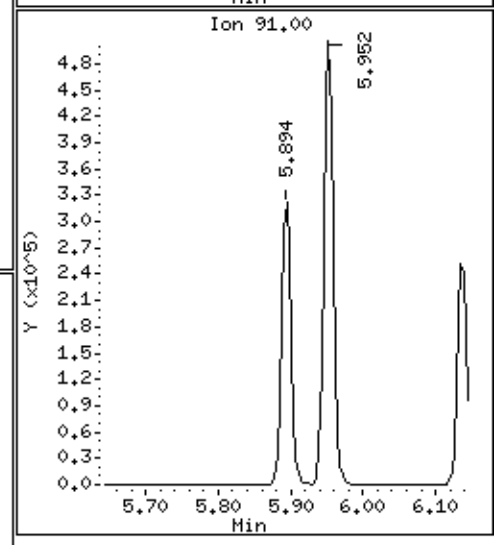
70 Ethylbenzene

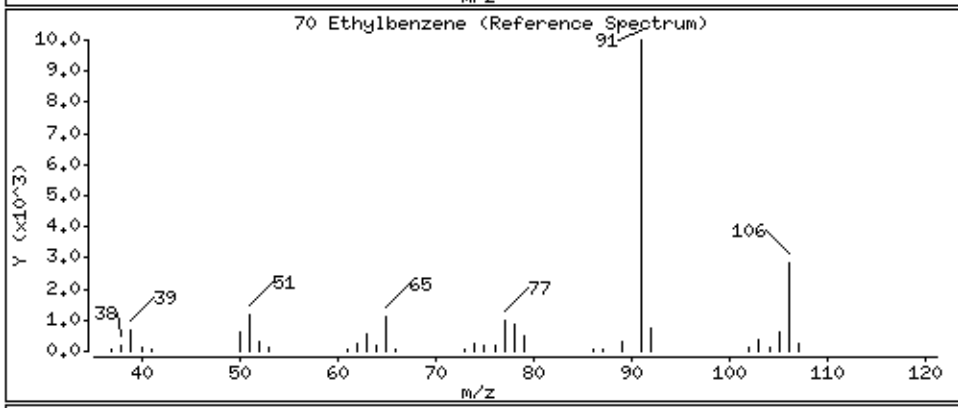
Concentration: 218 ug/kg

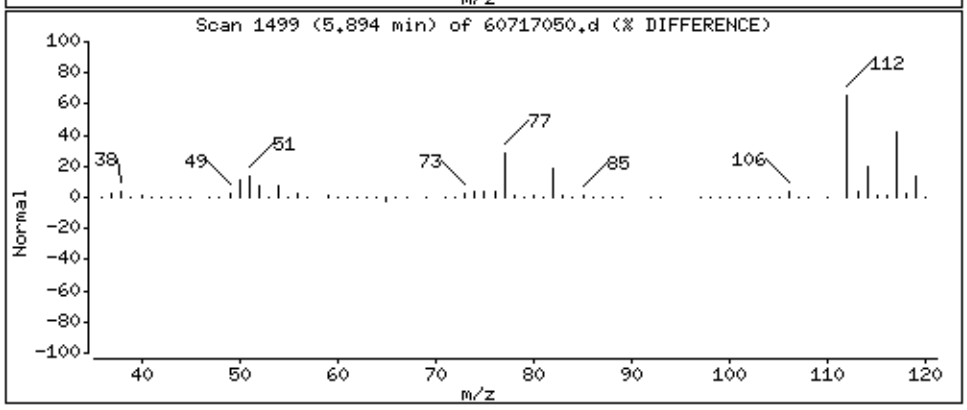












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

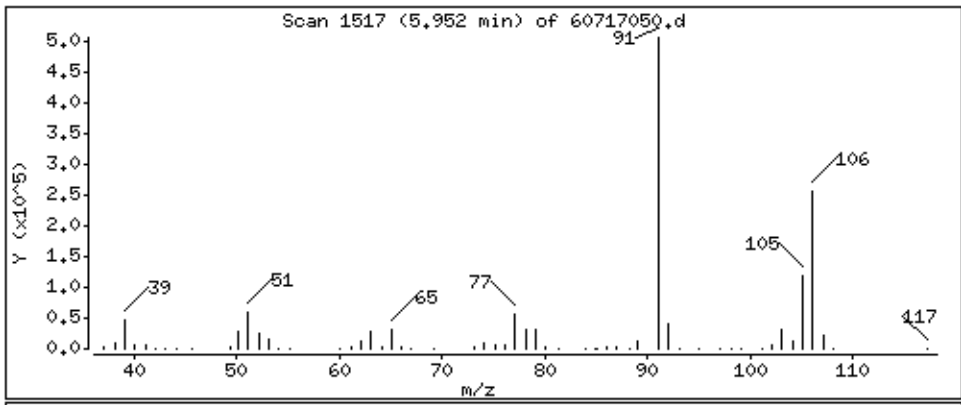
Operator: JEW

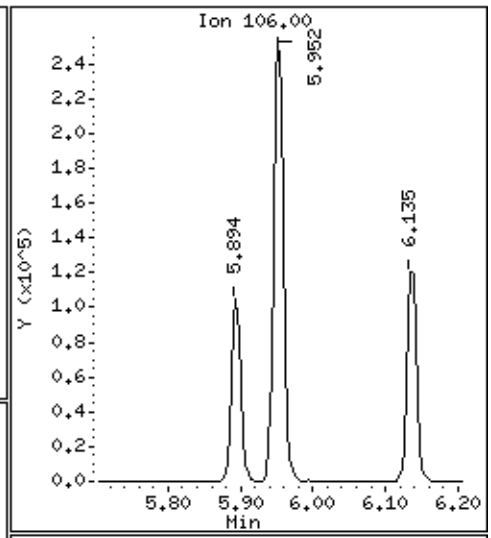
Column phase: RTX-VMS

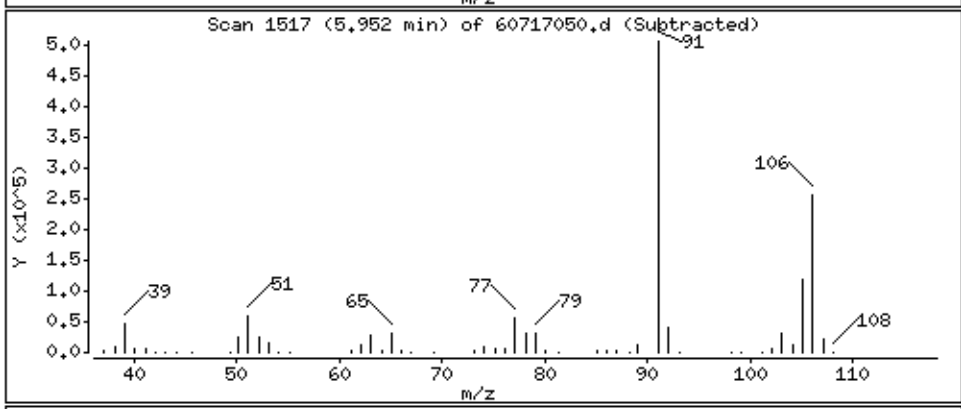
Column diameter: 0.18

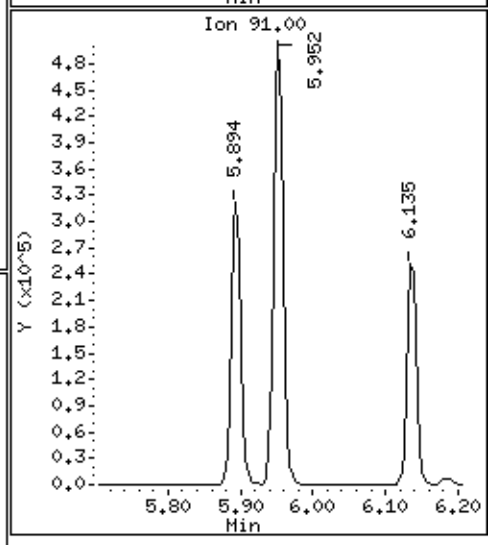
74 m&p-Xylene

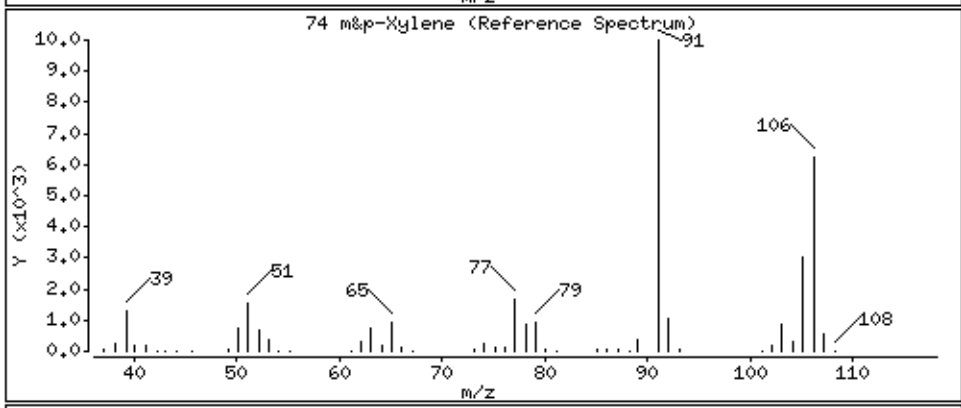
Concentration: 436 ug/kg

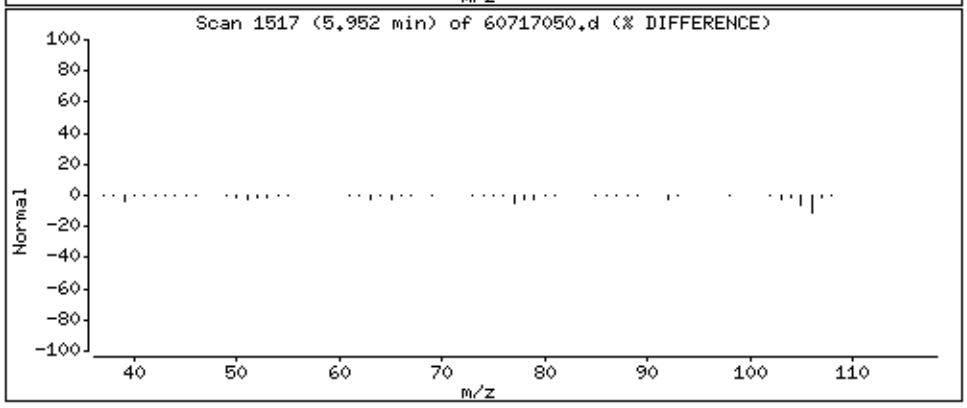












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

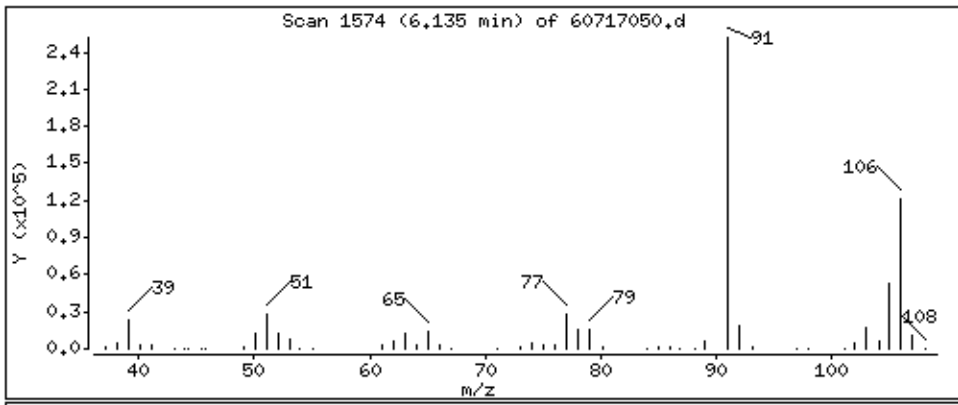
Operator: JEW

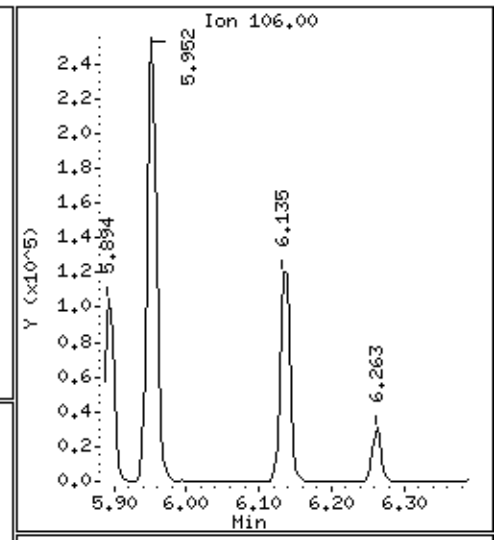
Column phase: RTX-VMS

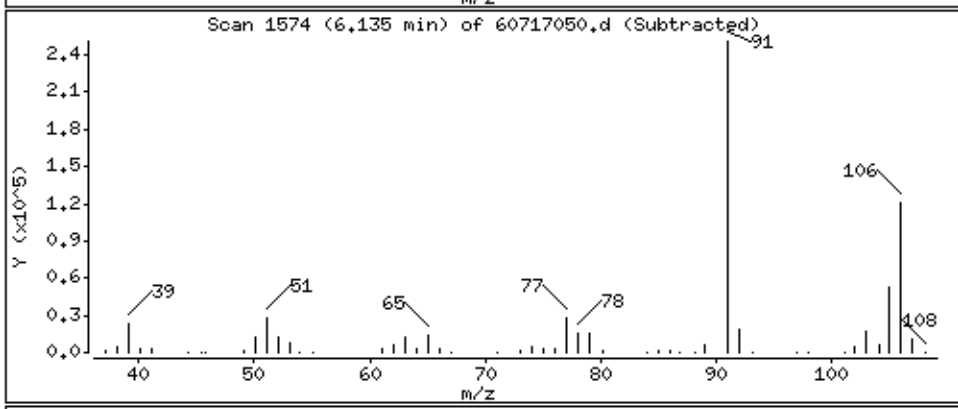
Column diameter: 0.18

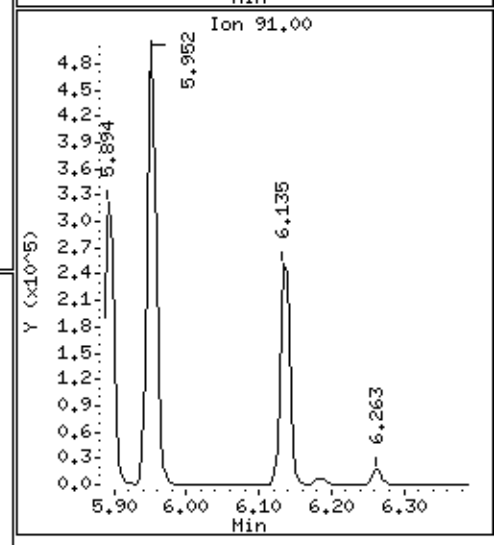
75 o-Xylene

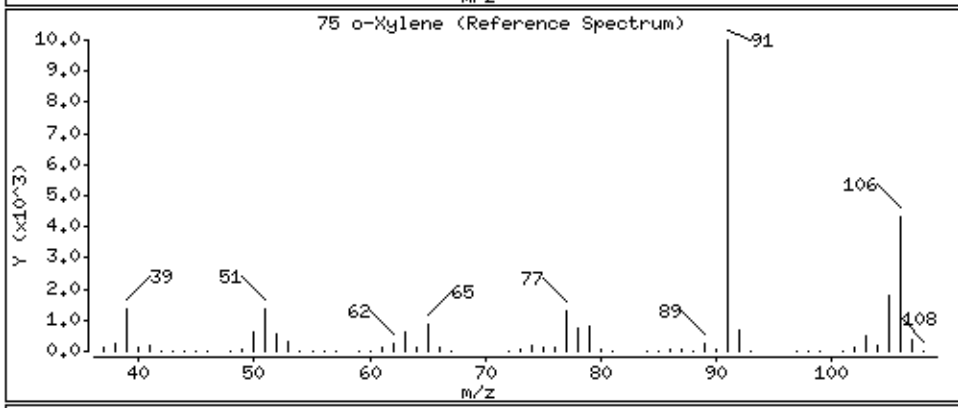
Concentration: 211 ug/kg

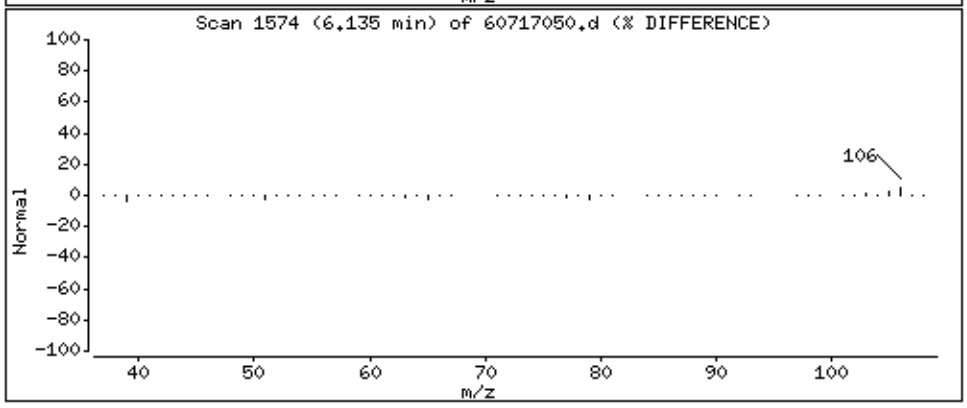












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717050.d

Date : 17-JUL-2019 21:40

Client ID: Sewer-1MS

Instrument: 30mv6b.i

Sample Info: 1711153X10

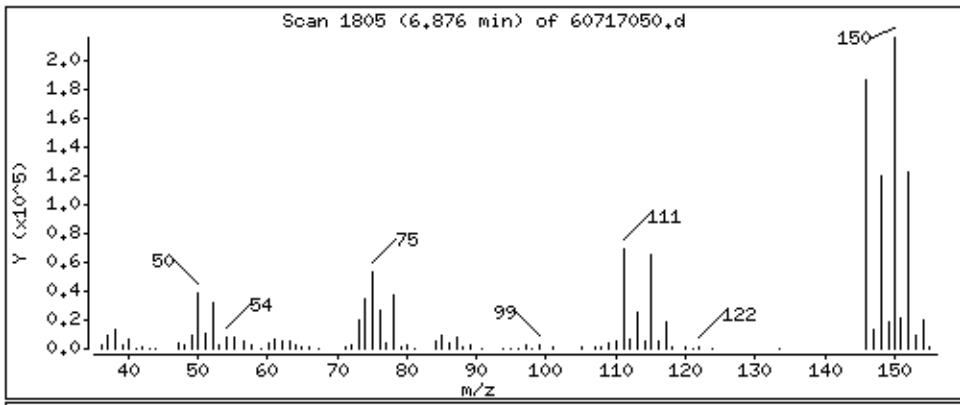
Operator: JEW

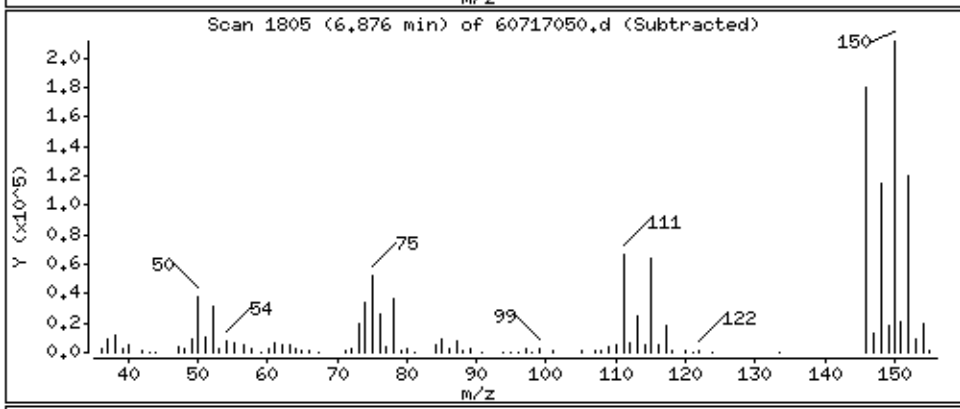
Column phase: RTX-VMS

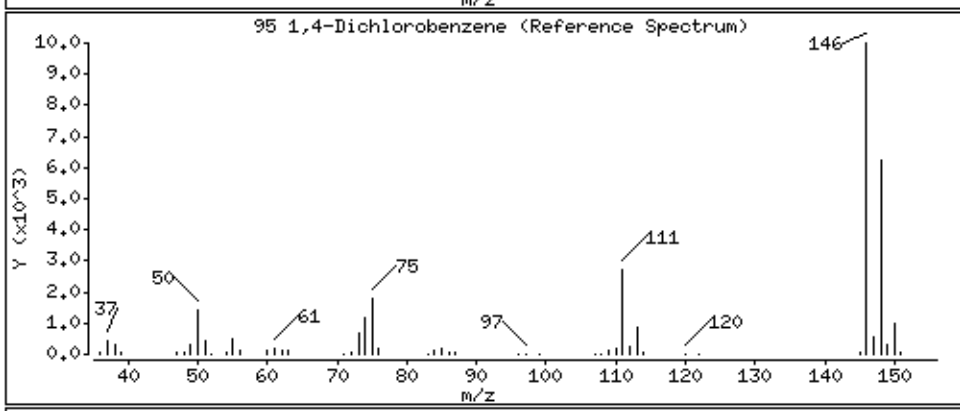
Column diameter: 0.18

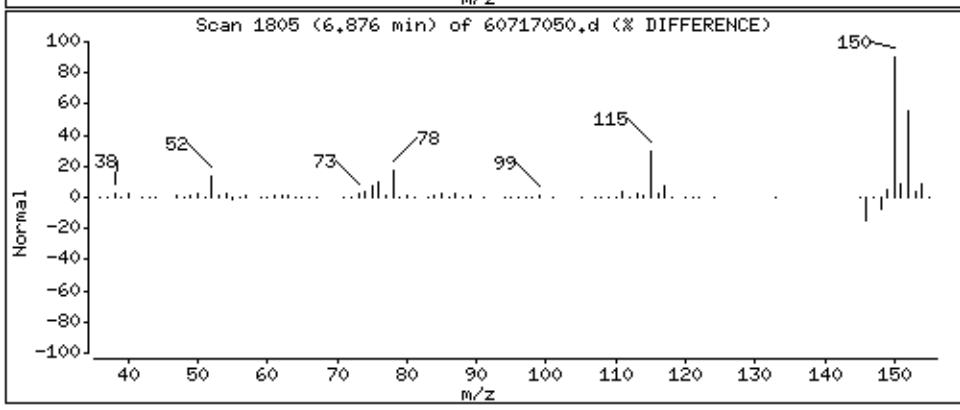
95 1,4-Dichlorobenzene

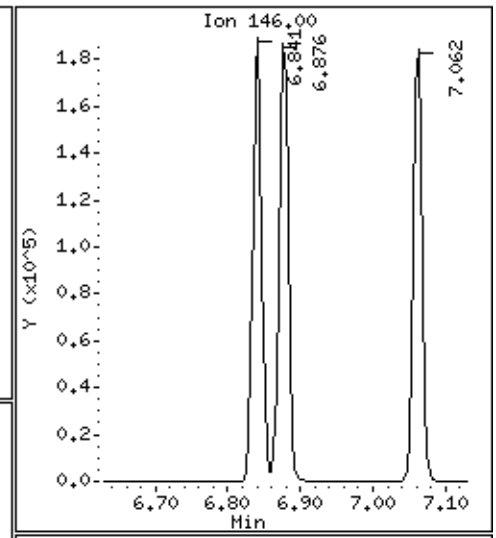
Concentration: 210 ug/kg

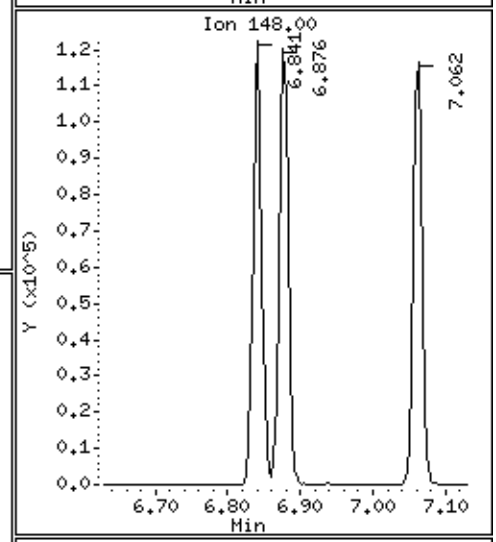


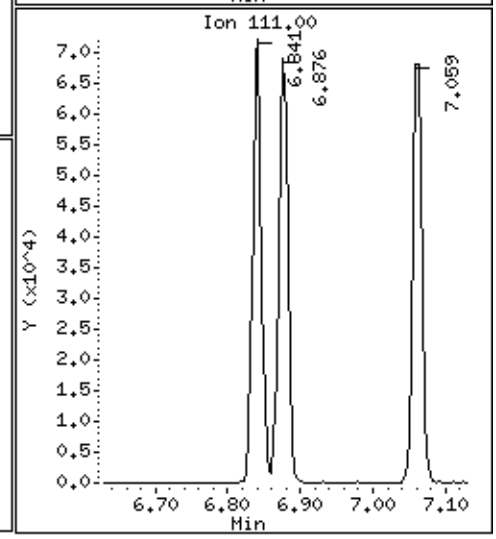






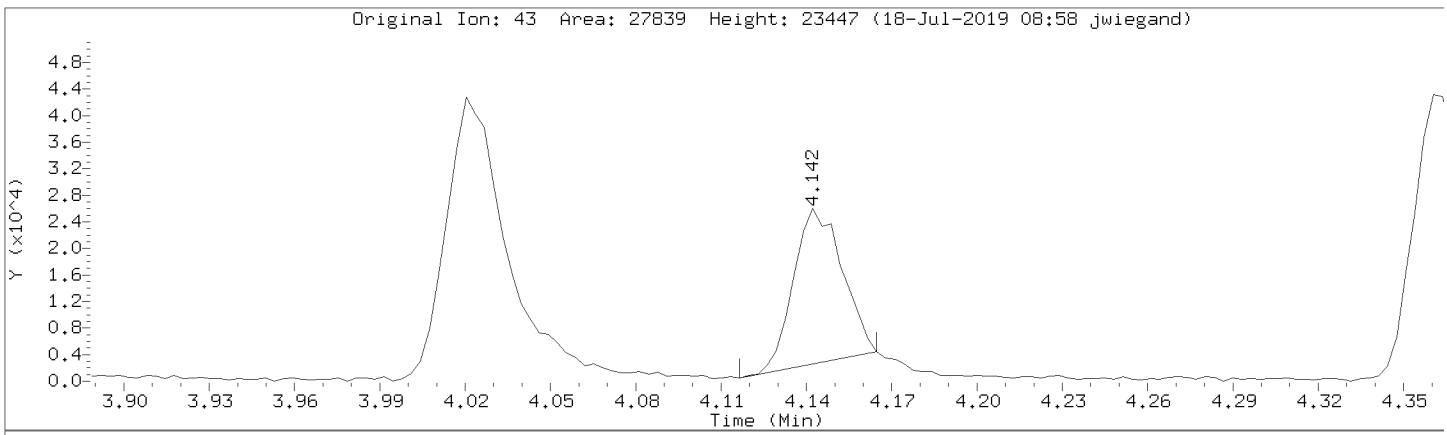


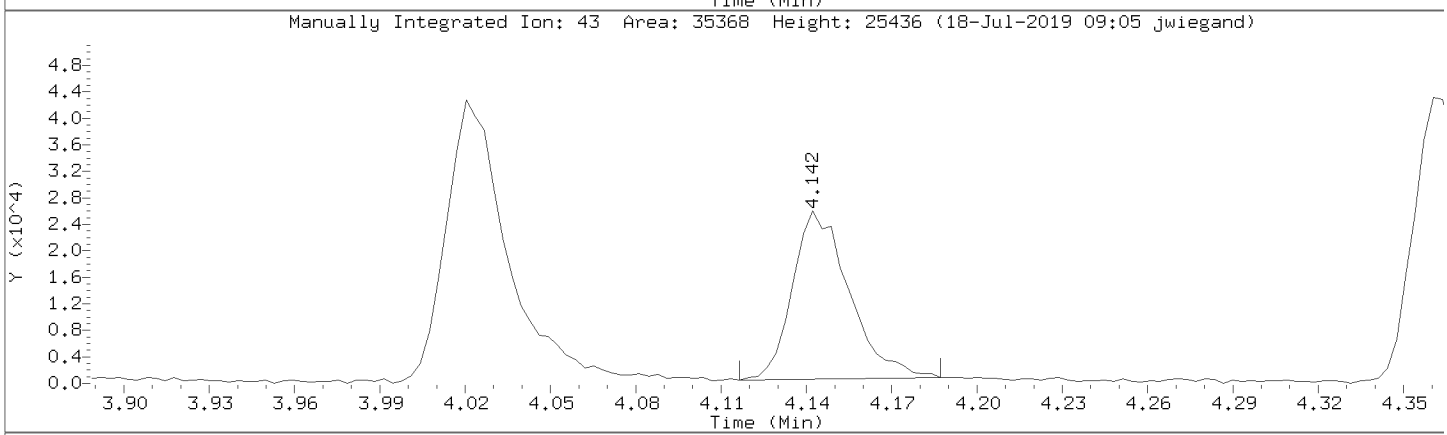


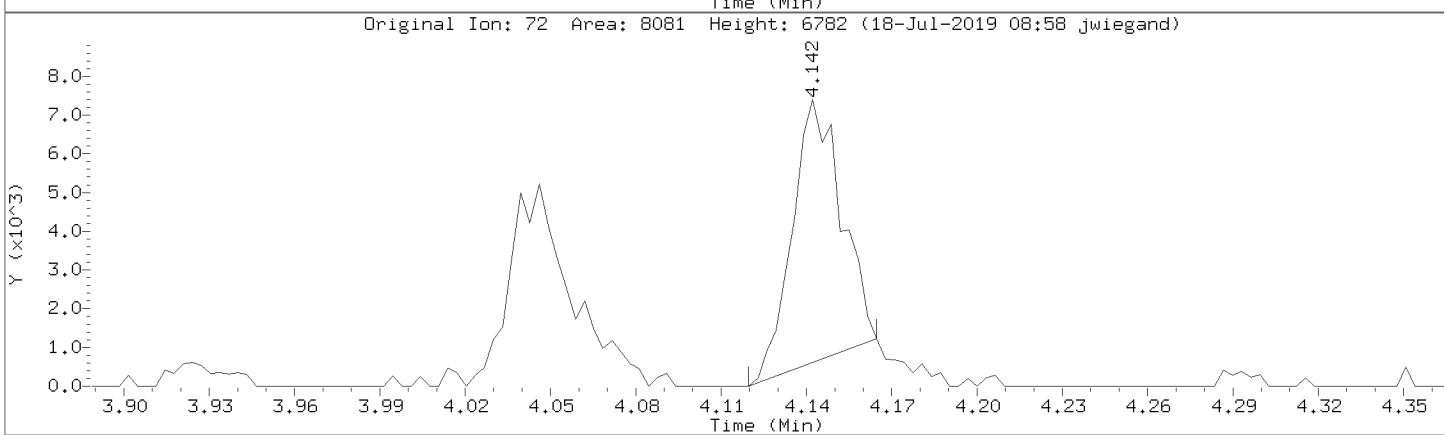


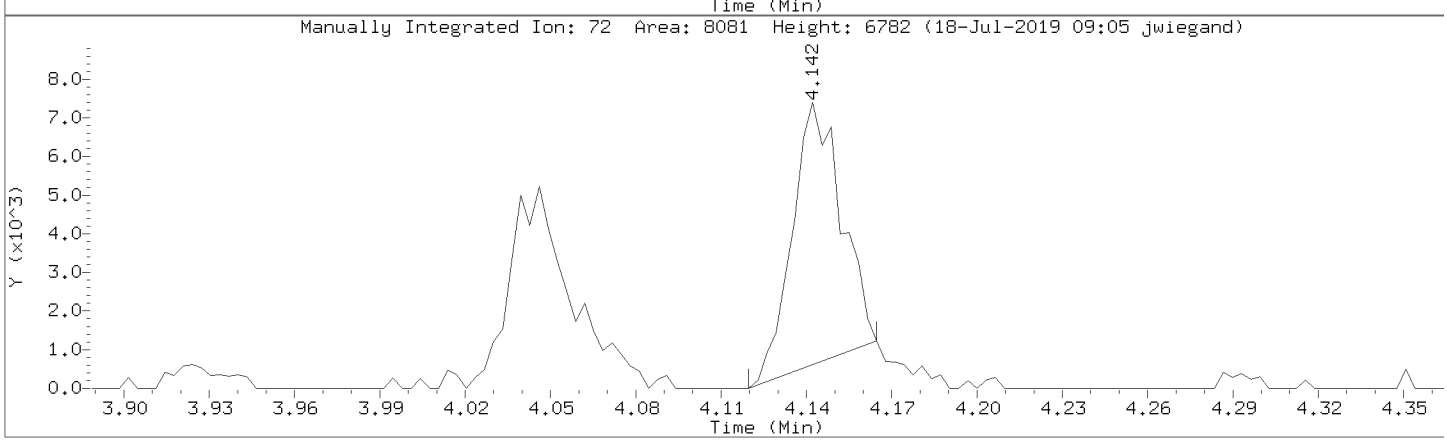
Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717050.d
Injection Date: 17-JUL-2019 21:40
Instrument: 30mv6b.i
Lab Sample ID: 1711153

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3

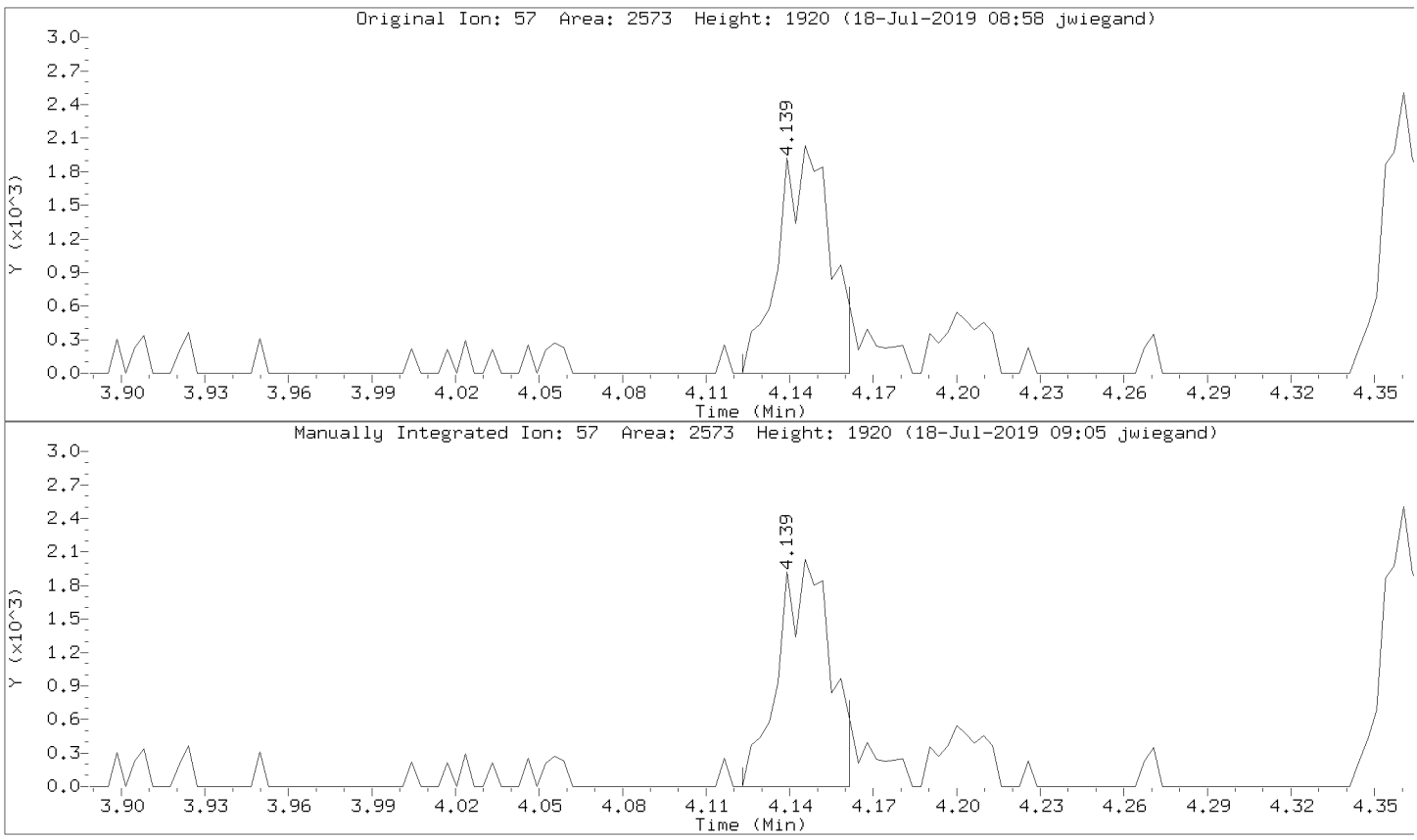








Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717050.d
Injection Date: 17-JUL-2019 21:40
Instrument: 30mv6b.i
Lab Sample ID: 1711153



SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 07/16/2019 08:58 Matrix: Solid SDG No.: 30313514

Date Extracted: 07/17/2019 15:38 Lab Sample ID: 1710027

Date Analyzed: 07/17/2019 15:38 Lab File ID: 6190717.B\2.B\60717022-45395.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Lab Smp Id: 1710027 Client Smp ID: LB for HBN 351934 [
Inj Date : 17-JUL-2019 15:38
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 1710027x10
Misc Info : 45395
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	103588	31.3100	31.3	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.373	4.376	(0.967)	97159	29.6316	29.6	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	398075	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	392249	31.6911	31.7	
	59 Toluene	91	5.252	5.256	(0.893)	2245	0.20247	2.02(a)	
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	335933	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	32466	3.94354	39.4(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	141095	29.9360	29.9	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	192406	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Report Date: 18-Jul-2019 09:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717022-45395.d
Lab Smp Id: 1710027
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: LB for HBN 351
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	398075	-6.34
71 Chlorobenzene-d5	337423	168712	674846	335933	-0.44
94 1,4-Dichlorobenze	197328	98664	394656	192406	-2.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	-0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1710027 Client Smp ID: LB for HBN 351934 [
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	31.3	104.37	0-130
$ 45 1,2-Dichloroethane	30.0	29.6	98.77	0-138
$ 58 Toluene-d8 (S)	30.0	31.7	105.64	0-124
$ 79 4-Bromofluorobenze	30.0	29.9	99.79	0-124

Data File: ...arget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1710027
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45395

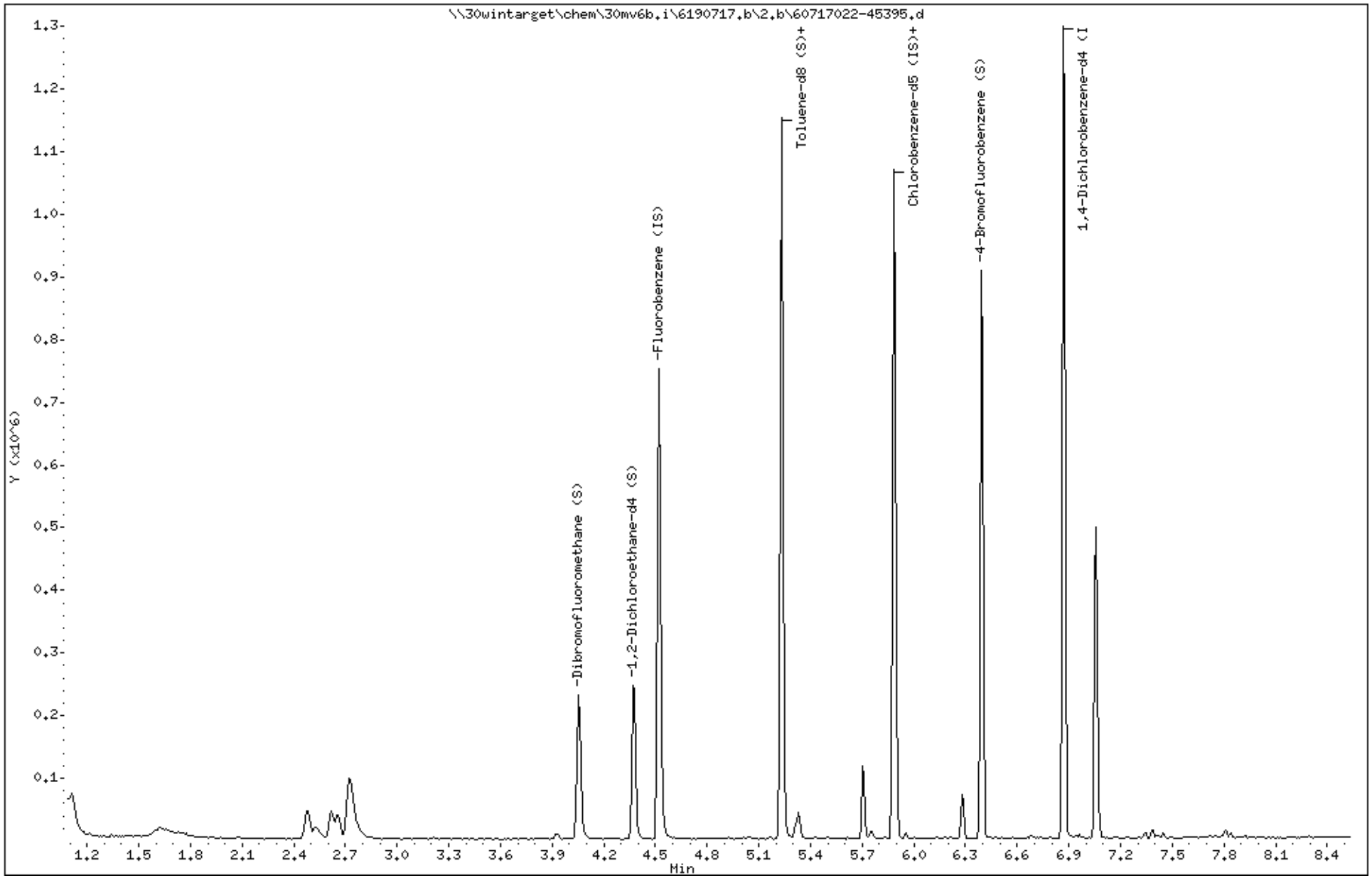
Client SDG: 2.b
Client Smp ID: LB for HBN 351934 [
Sample Point:
Date Received: 16-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-88-3	Toluene	2.02	J
108-90-7	Chlorobenzene	39.4	J
1868-53-7	Dibromofluoromethane (S)	31.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.6	
2037-26-5	Toluene-d8 (S)	31.7	
460-00-4	4-Bromofluorobenzene (S)	29.9	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d
Date : 17-JUL-2019 15:38
Client ID: LB for HBN 351934 [
Sample Info: 1710027X10

Instrument: 30mv6b.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d

Date : 17-JUL-2019 15:38

Client ID: LB for HBN 351934 [

Instrument: 30mv6b.i

Sample Info: 1710027X10

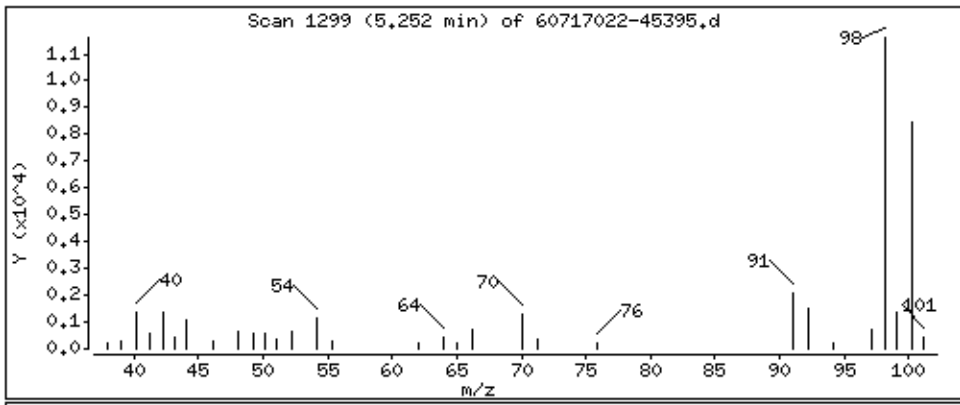
Operator: JEW

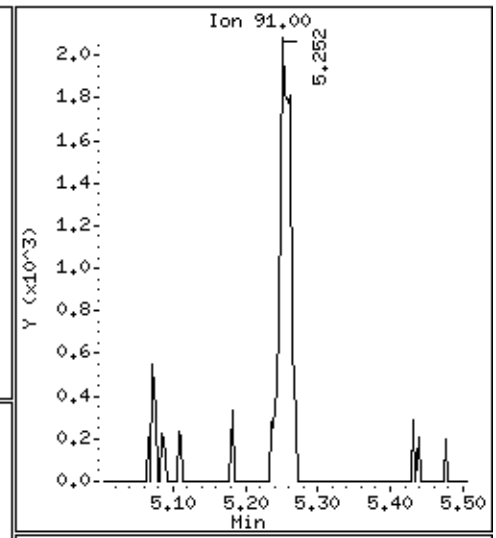
Column phase: RTX-VMS

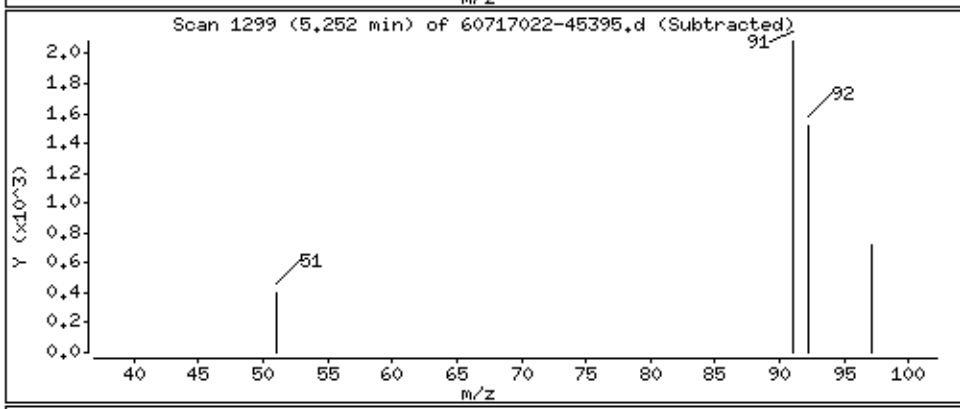
Column diameter: 0.18

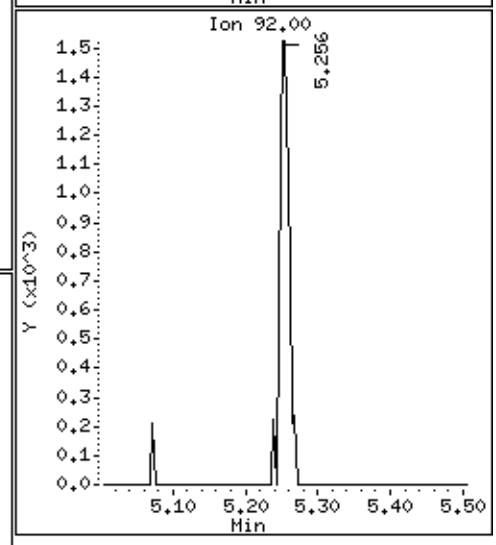
59 Toluene

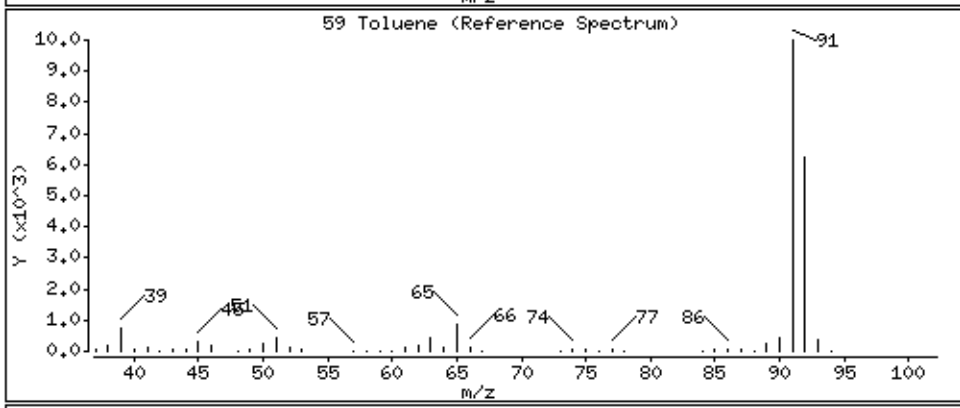
Concentration: 2.02 ug/kg

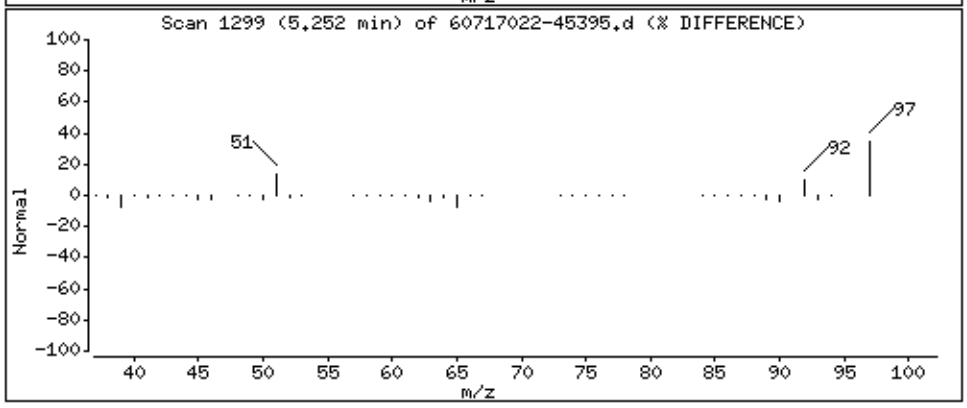












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717022-45395.d

Date : 17-JUL-2019 15:38

Client ID: LB for HBN 351934 [

Instrument: 30mv6b.i

Sample Info: 1710027X10

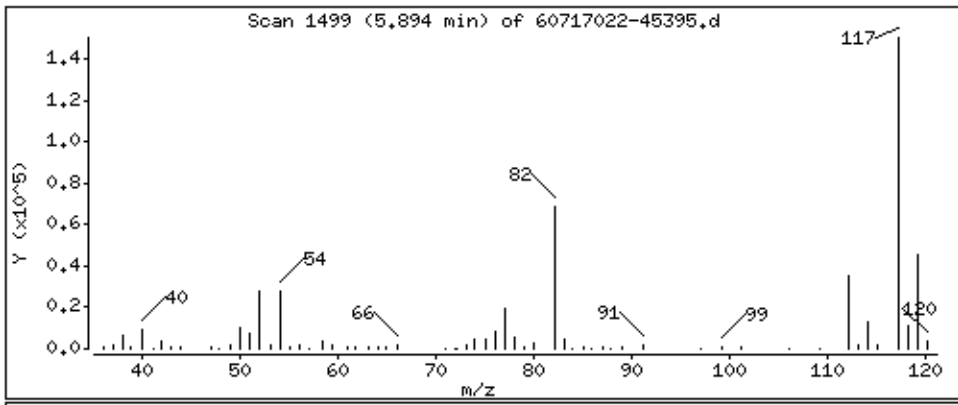
Operator: JEW

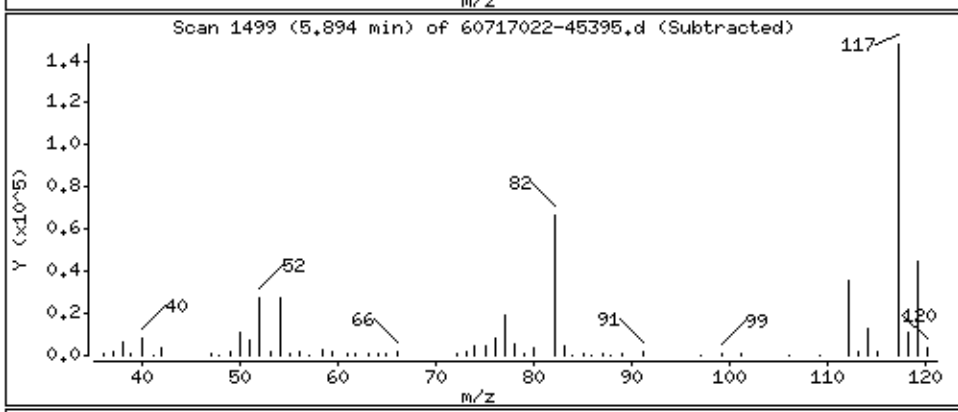
Column phase: RTX-VMS

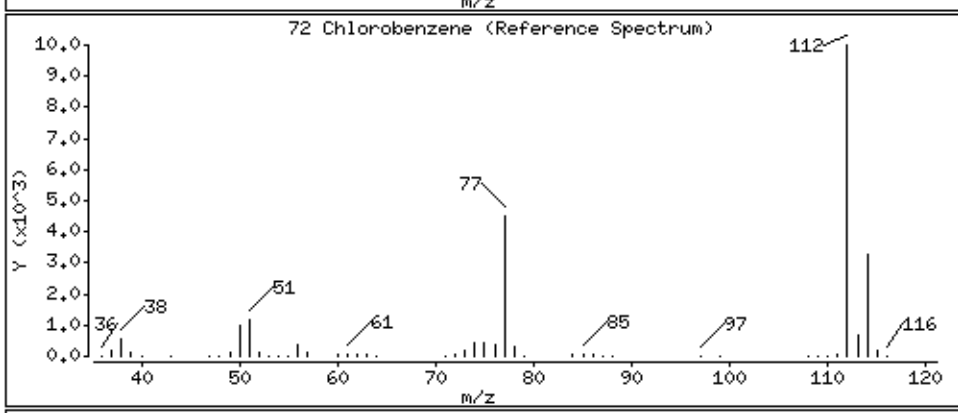
Column diameter: 0.18

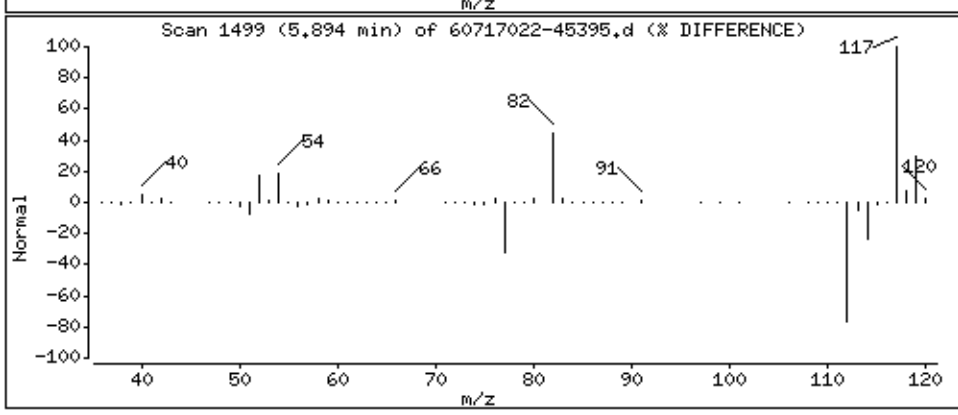
72 Chlorobenzene

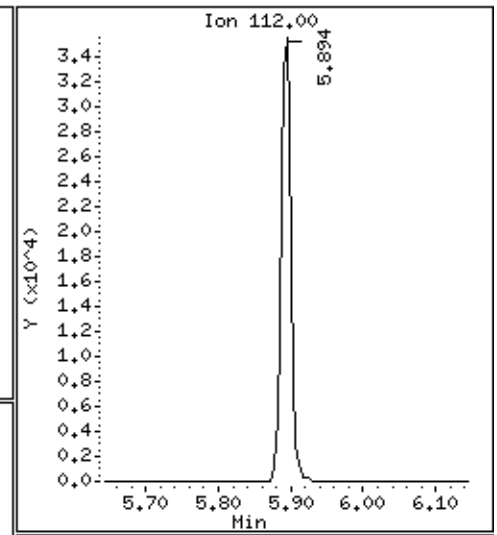
Concentration: 39.4 ug/kg

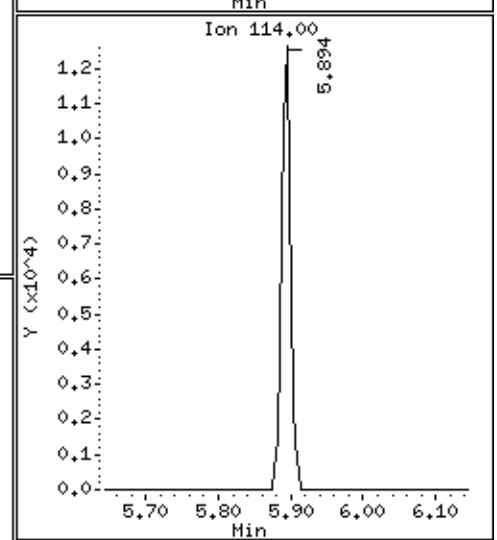


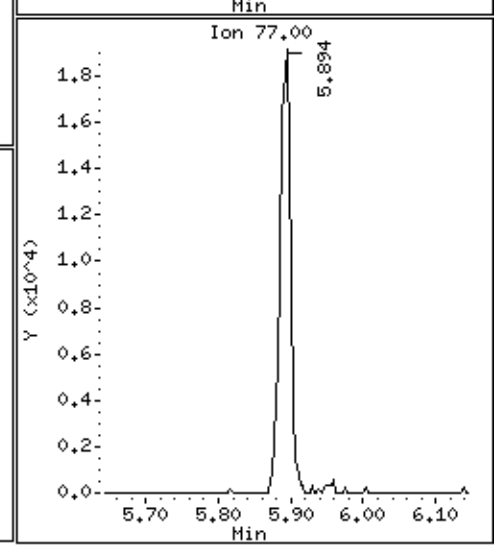












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717022-45395.d
Injection Date: 17-JUL-2019 15:38
Instrument: 30mv6b.i
Lab Sample ID: 1710027
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: 07/12/2019 09:30 Matrix: Solid SDG No.: 30313514

Date Extracted: 07/17/2019 22:06 Lab Sample ID: 1711154

Date Analyzed: 07/17/2019 22:06 Lab File ID: 6190717.B\2.B\60717052.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	205	
78-93-3	2-Butanone (MEK)	262	
56-23-5	Carbon tetrachloride	171	
108-90-7	Chlorobenzene	248	
67-66-3	Chloroform	213	
107-06-2	1,2-Dichloroethane	182	
75-35-4	1,1-Dichloroethene	167	
127-18-4	Tetrachloroethene	215	
79-01-6	Trichloroethene	223	
75-01-4	Vinyl chloride	167	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Lab Smp Id: 1711154 Client Smp ID: Sewer-1MSD
Inj Date : 17-JUL-2019 22:06
Operator : JEW Inst ID: 30mv6b.i
Smp Info : 1711154x10
Misc Info : 45395
Comment :
Method : \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Meth Date : 18-Jul-2019 08:57 jwiegand Quant Type: ISTD
Cal Date : 14-MAY-2019 15:22 Cal File: 60514010.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.376	1.376	(0.304)	53861	16.7123	167(R)	
	9 1,1-Dichloroethene	61	2.056	2.056	(0.455)	61483	16.7121	167(R)	
	33 Chloroform	83	3.930	3.930	(0.869)	93978	21.2867	213(R)	
	34 Carbon Tetrachloride	117	4.013	4.017	(0.888)	63615	17.1451	171(R)	
$	37 Dibromofluoromethane (S)	111	4.055	4.059	(0.897)	98628	29.4492	29.4	
	39 2-Butanone (MEK)	43	4.142	4.139	(0.916)	41287	26.1521	262(R)	
	41 Benzene	78	4.293	4.296	(0.950)	205854	20.4608	205(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.373	4.376	(0.967)	85098	25.6384	25.6	
	47 1,2-Dichloroethane	62	4.411	4.412	(0.976)	66098	18.1901	182(R)	
*	48 Fluorobenzene (IS)	96	4.520	4.524	(1.000)	402963	30.0000		
	50 Trichloroethene	95	4.604	4.607	(0.782)	56778	22.2932	223(R)	
$	58 Toluene-d8 (S)	98	5.233	5.233	(0.889)	384450	32.5387	32.5	
	59 Toluene	91	5.255	5.256	(0.893)	247143	23.3499	233(R)	
	62 Tetrachloroethene	166	5.419	5.419	(0.921)	65459	21.4874	215(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.884	5.888	(1.000)	320677	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.002)	195042	24.8182	248(R)	
	70 Ethylbenzene	106	5.894	5.894	(1.002)	91666	21.7438	217(R)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	237891	44.9278	449(R)	
	75 o-Xylene	106	6.135	6.138	(1.043)	117519	22.2151	222(R)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	138215	29.3670	29.4	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
* 94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	192130	30.0000		
95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	166187	20.8654	209(R)	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6b.i
Lab File ID: 60717052.d
Lab Smp Id: 1711154
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

Calibration Date: 17-JUL-2019
Calibration Time: 13:29
Client Smp ID: Sewer-1MSD
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	425041	212521	850082	402963	-5.19
71 Chlorobenzene-d5	337423	168712	674846	320677	-4.96
94 1,4-Dichlorobenze	197328	98664	394656	192130	-2.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.52	4.02	5.02	4.52	0.00
71 Chlorobenzene-d5	5.88	5.38	6.38	5.88	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 2.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1711154 Client Smp ID: Sewer-1MSD
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: MSD
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclp.sub
Method File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\msv6051419b.m
Misc Info: 45395

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1	Dichlorodifluorom	20.0	0.000	*	70-130
2	Chloromethane	20.0	0.000	*	70-130
3	Vinyl Chloride	20.0	167	835.62*	70-130
4	Bromomethane	20.0	0.000	*	70-130
5	Chloroethane	20.0	0.000	*	70-130
6	Trichlorofluorome	20.0	0.000	*	70-130
8	Ethanol	200	0.000	*	10-175
9	1,1-Dichloroethene	20.0	167	835.60*	70-130
10	1,1,2-Trichlorotr	20.0	0.000	*	50-150
11	Carbon disulfide	20.0	0.000	*	70-130
12	Iodomethane	50.0	0.000	*	70-130
13	Acrolein	20.0	0.000	*	70-130
14	Allyl chloride	50.0	0.000	*	70-130
15	Methylene Chloride	20.0	0.000	*	70-130
16	Acetone	20.0	0.000	*	70-130
17	trans-1,2-Dichlor	20.0	0.000	*	70-130
18	Methyl acetate	20.0	0.000	*	70-130
19	n-Hexane	20.0	0.000	*	50-150
20	Methyl-tert-butyl	20.0	0.000	*	50-150
22	Acetonitrile	50.0	0.000	*	70-130
23	Diisopropyl ether	20.0	0.000	*	70-130
24	Chloroprene	20.0	0.000	*	70-130
25	1,1-Dichloroethane	20.0	0.000	*	70-130
26	Acrylonitrile	20.0	0.000	*	70-130
27	Ethyl-tert-butyl	20.0	0.000	*	50-150
28	Vinyl acetate	20.0	0.000	*	70-130
29	cis-1,2-Dichloroe	20.0	0.000	*	70-130
30	2,2-Dichloropropa	20.0	0.000	*	70-130
31	Cyclohexane	20.0	0.000	*	70-130
32	Bromochloromethane	20.0	0.000	*	70-130
33	Chloroform	20.0	213	1064.34*	70-130
34	Carbon Tetrachlori	20.0	171	857.25*	70-130
35	Ethyl acetate	20.0	0.000	*	70-130
36	Tetrahydrofuran	20.0	0.000	*	70-130
38	1,1,1-Trichloroet	20.0	0.000	*	70-130
39	2-Butanone (MEK)	20.0	262	1307.61*	50-150
40	1,1-Dichloroprope	20.0	0.000	*	70-130
41	Benzene	20.0	205	1023.04*	70-130
42	Propionitrile	20.0	0.000	*	70-130
43	Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	182	909.50*	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	223	1114.66*	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	233	1167.49*	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	215	1074.37*	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	217	1087.19*	70-130
72 Chlorobenzene	20.0	248	1240.91*	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	449	1123.19*	50-150
75 o-Xylene	20.0	222	1110.76*	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylbe	20.0	0.000	*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylbe	20.0	0.000	*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenzen	20.0	209	1043.27*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	0.000	*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	29.4	98.16	0-130

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	25.6	85.46	0-138
$ 58 Toluene-d8 (S)	30.0	32.5	108.46	0-124
$ 79 4-Bromofluorobenze	30.0	29.4	97.89	0-124

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Report Date: 18-Jul-2019 09:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1711154
Sample Location:
Sample Date: 11-JUL-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45395

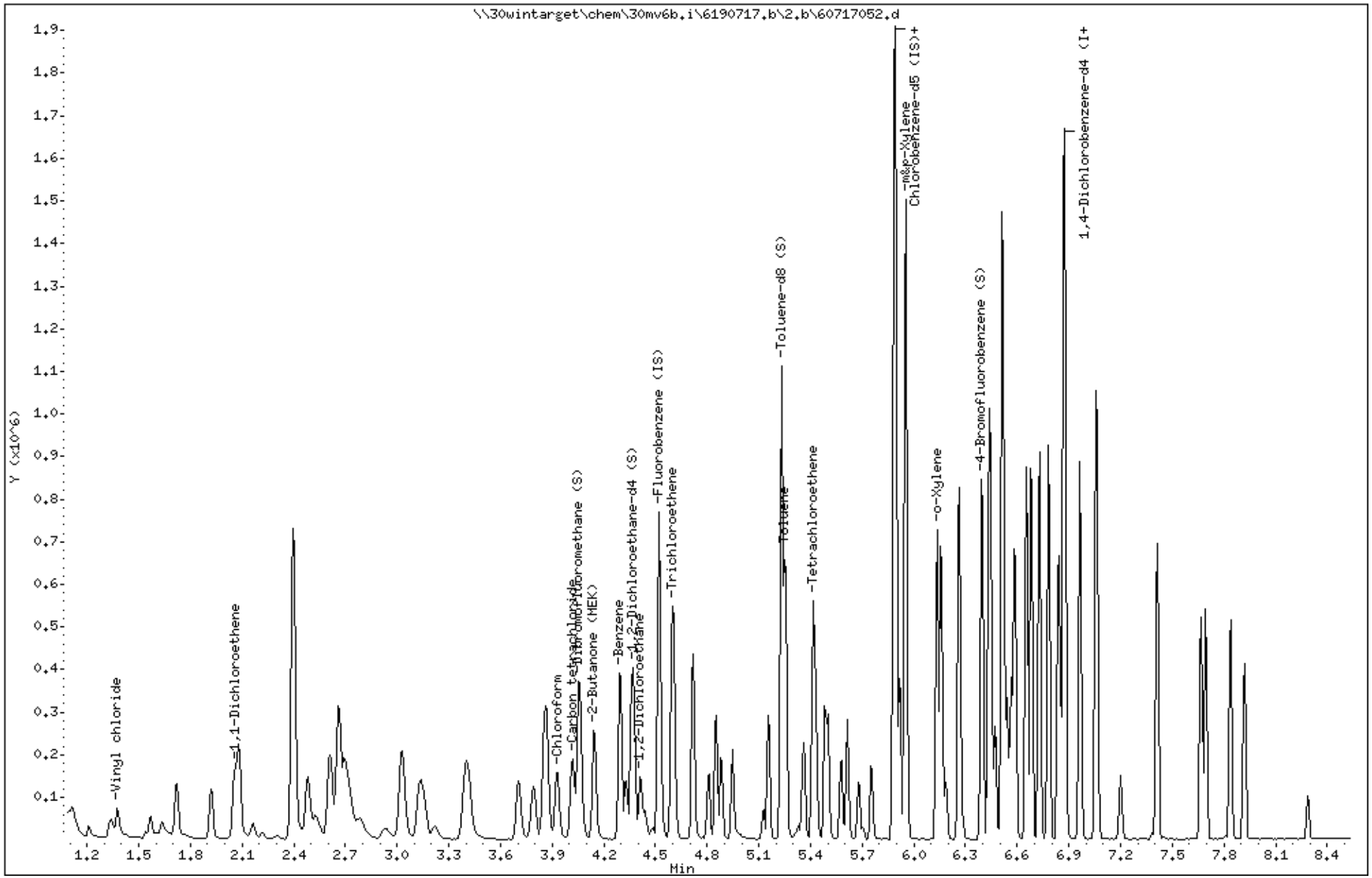
Client SDG: 2.b
Client Smp ID: Sewer-1MSD
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	167	
75-35-4	1,1-Dichloroethene	167	
67-66-3	Chloroform	213	
56-23-5	Carbon Tetrachloride	171	
78-93-3	2-Butanone (MEK)	262	
71-43-2	Benzene	205	
107-06-2	1,2-Dichloroethane	182	
79-01-6	Trichloroethene	223	
108-88-3	Toluene	233	
127-18-4	Tetrachloroethene	215	
108-90-7	Chlorobenzene	248	
100-41-4	Ethylbenzene	217	
7816-60-0	m&p-Xylene	449	
95-47-6	o-Xylene	222	
106-46-7	1,4-Dichlorobenzene	209	
1868-53-7	Dibromofluoromethane (S)	29.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	25.6	
2037-26-5	Toluene-d8 (S)	32.5	
460-00-4	4-Bromofluorobenzene (S)	29.4	

Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d
Date : 17-JUL-2019 22:06
Client ID: Sewer-1MSD
Sample Info: 1711154X10

Instrument: 30mv6b.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

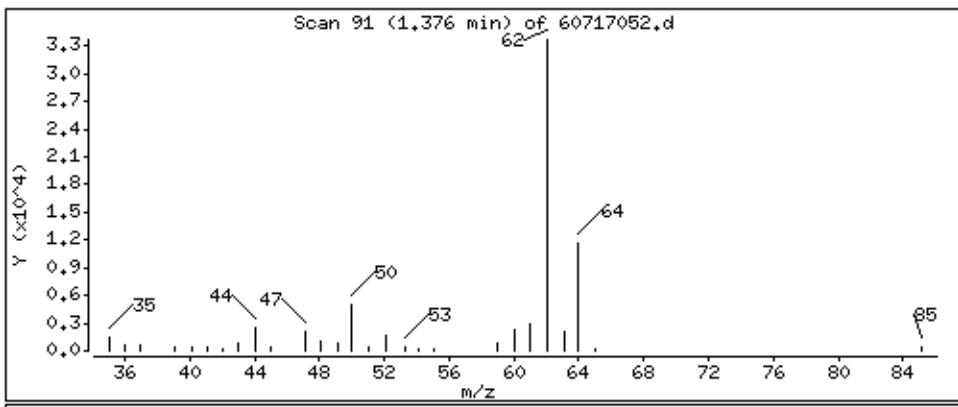
Operator: JEW

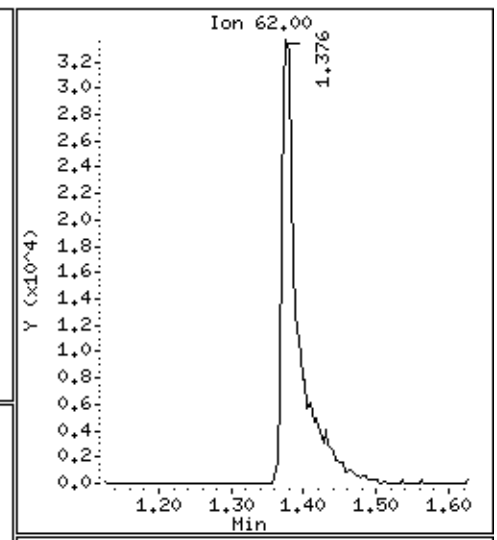
Column phase: RTX-VMS

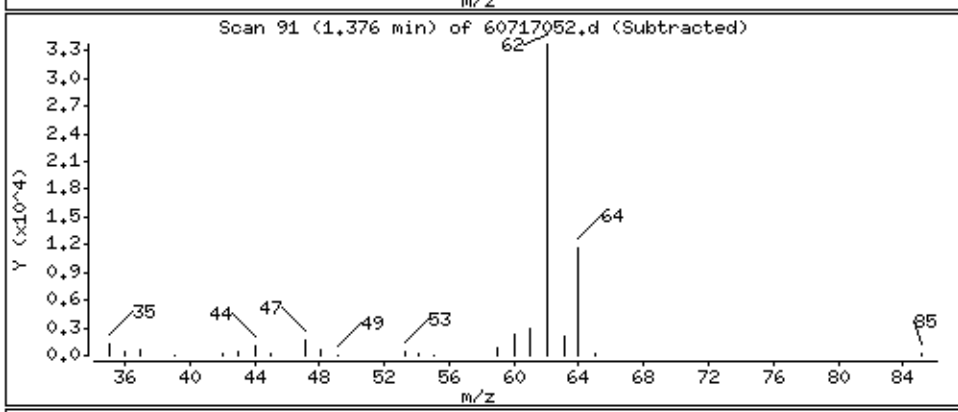
Column diameter: 0.18

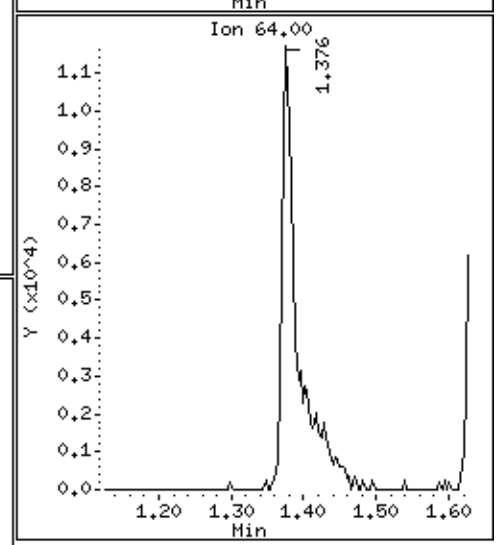
3 Vinyl Chloride

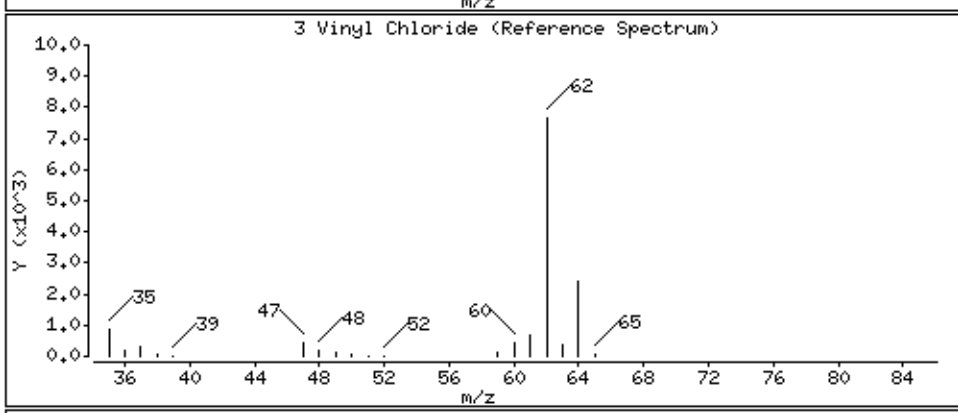
Concentration: 167 ug/kg

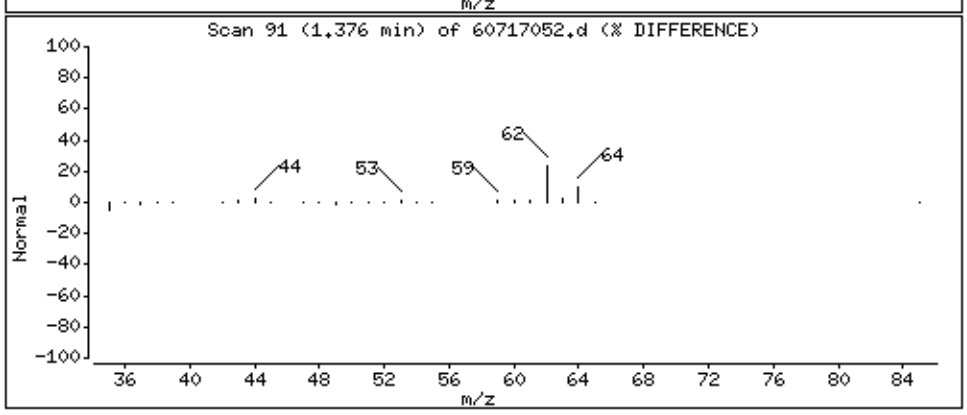












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Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

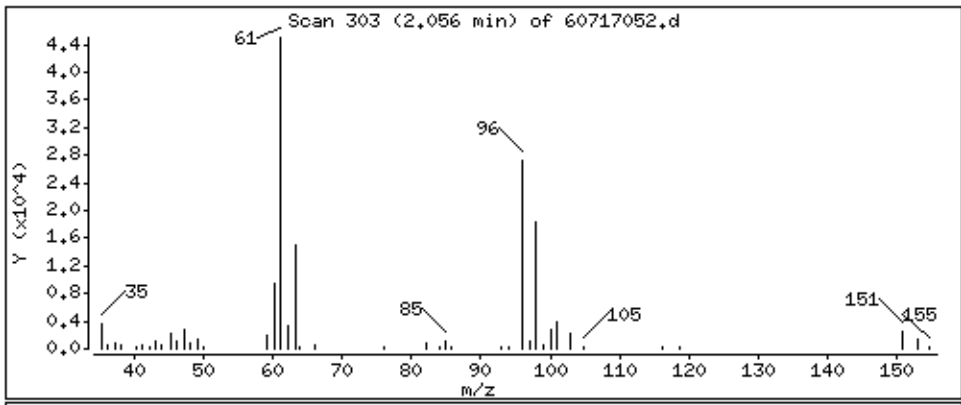
Operator: JEW

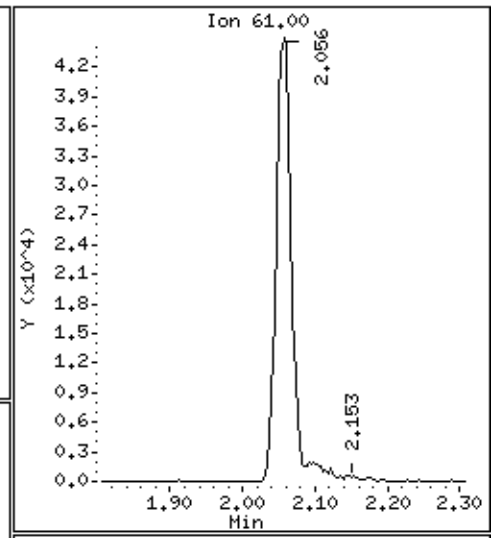
Column phase: RTX-VMS

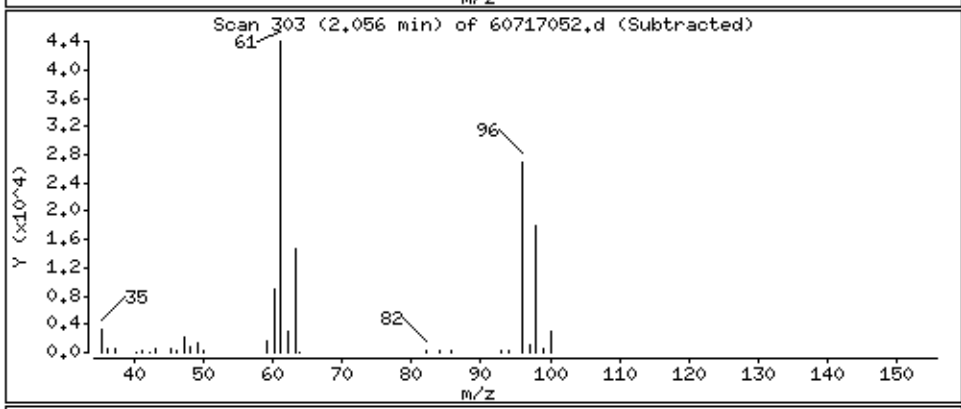
Column diameter: 0.18

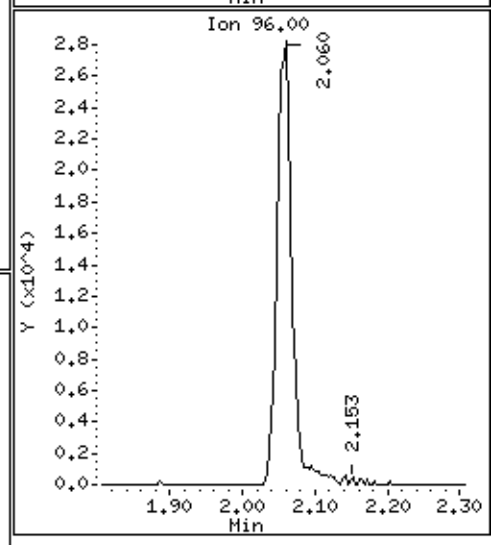
9 1,1-Dichloroethene

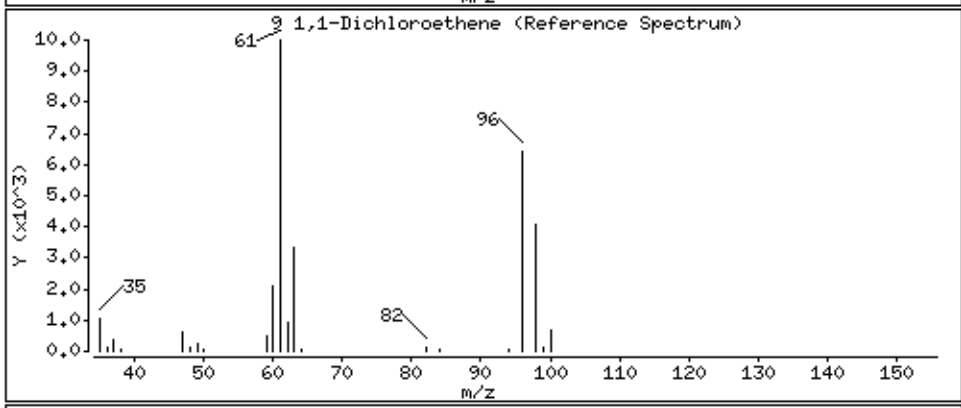
Concentration: 167 ug/kg

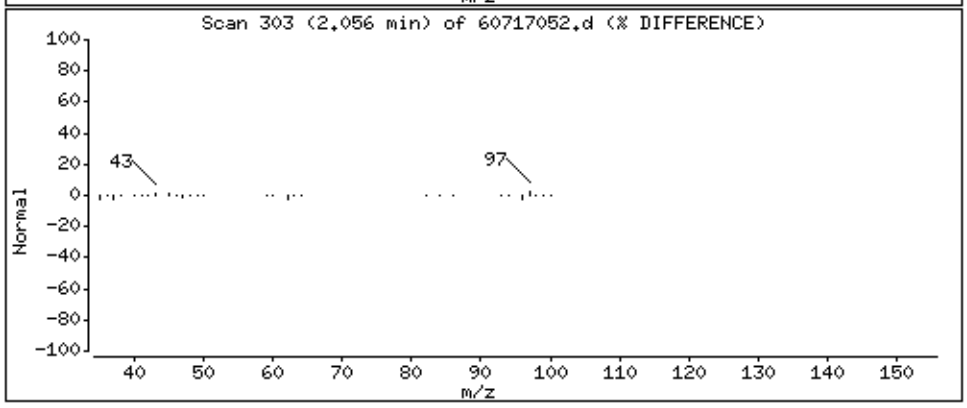












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

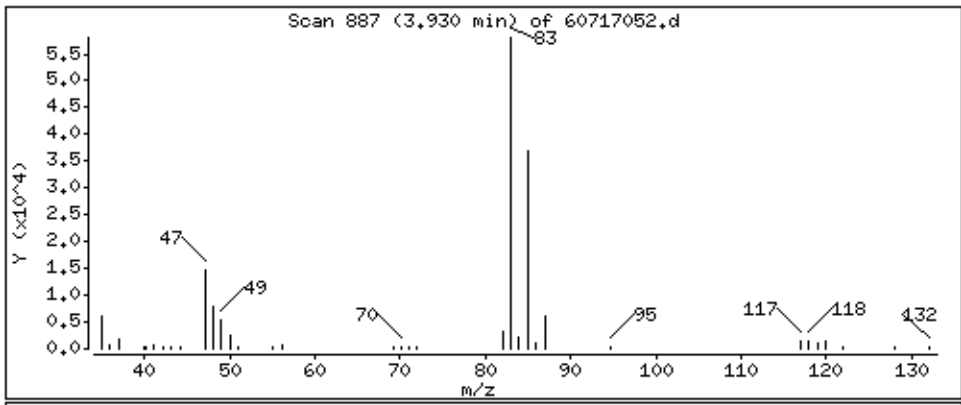
Operator: JEW

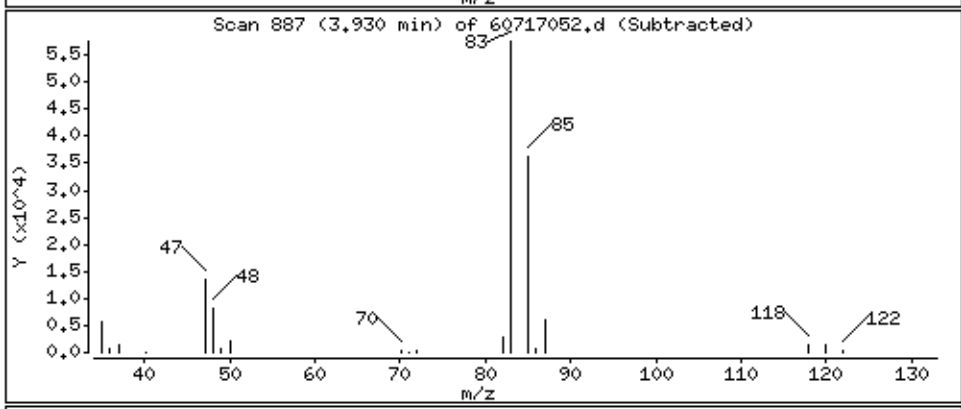
Column phase: RTX-VMS

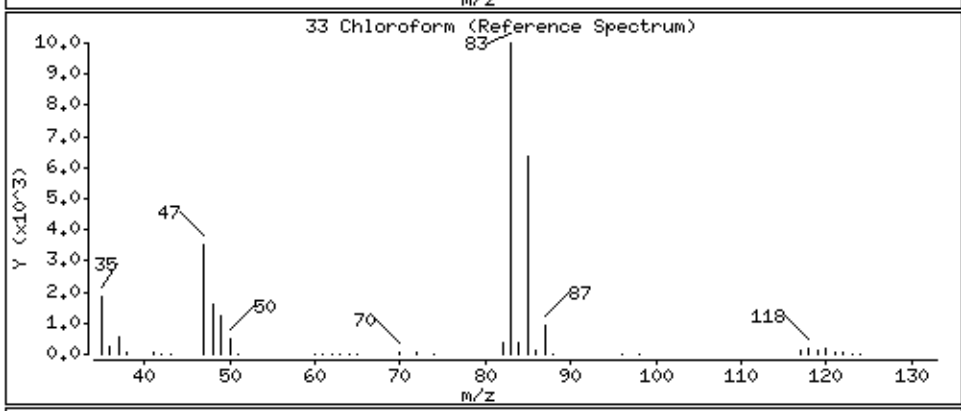
Column diameter: 0.18

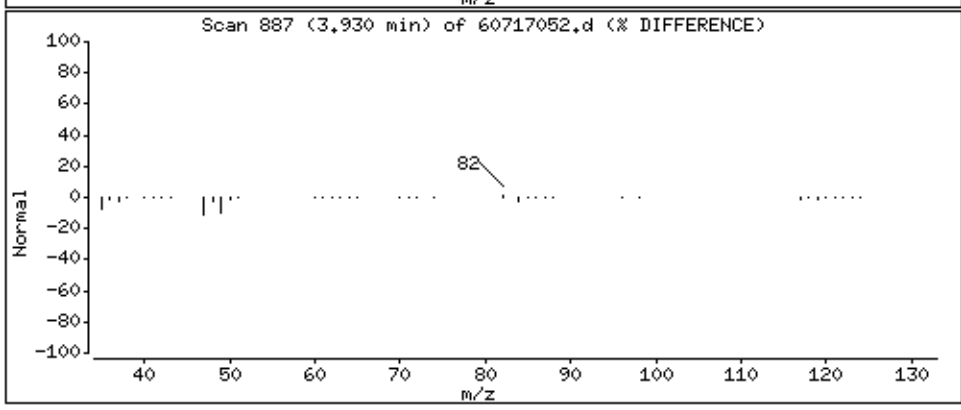
33 Chloroform

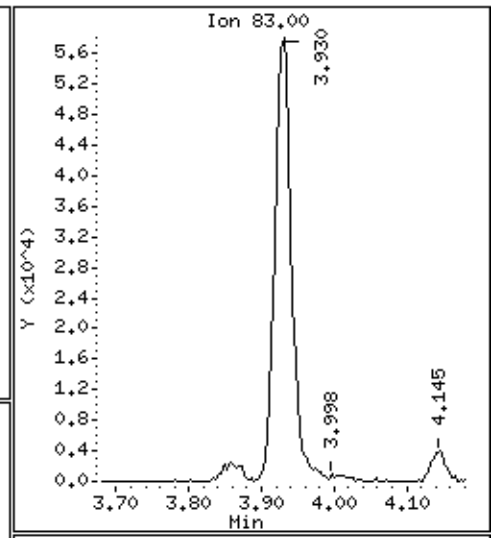
Concentration: 213 ug/kg

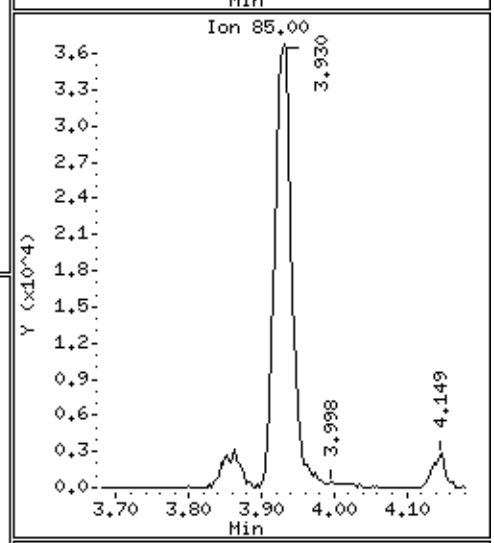


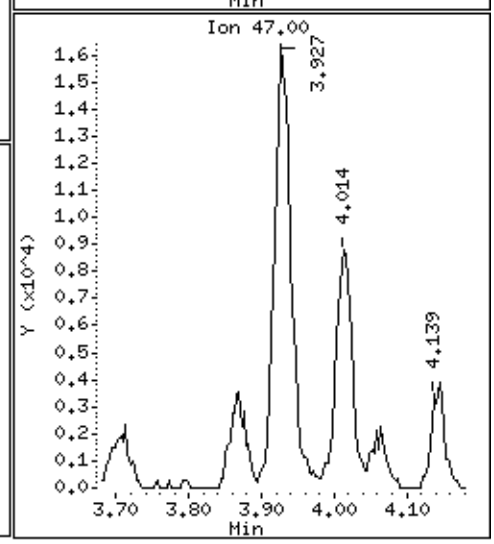












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

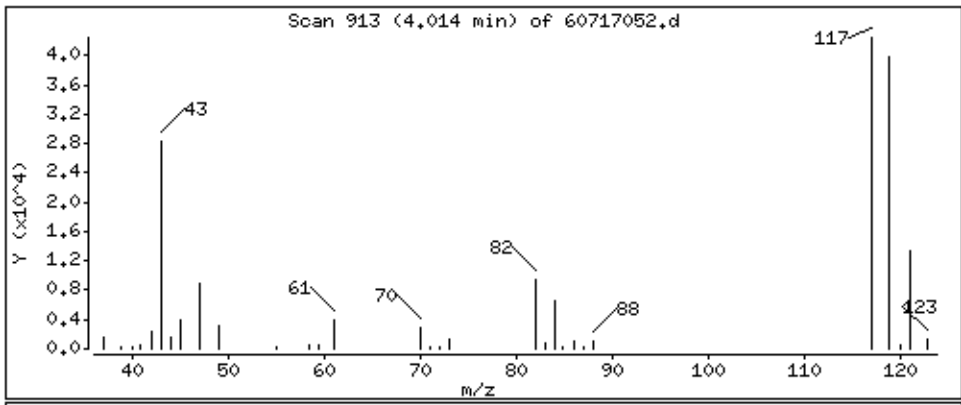
Operator: JEW

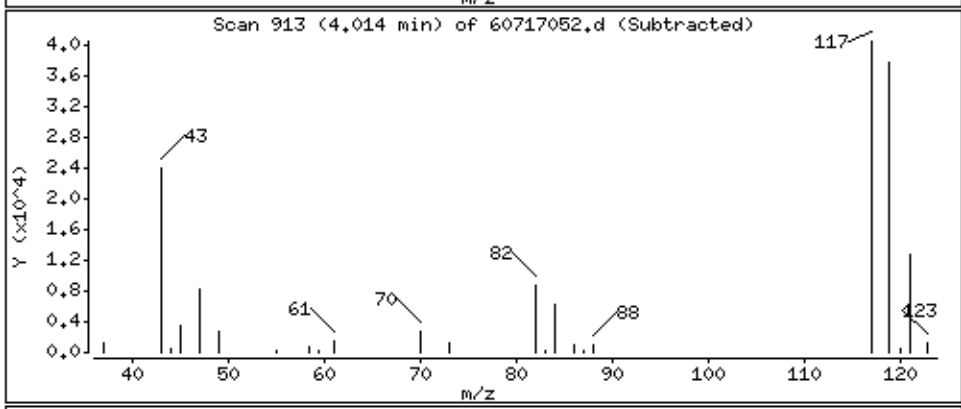
Column phase: RTX-VMS

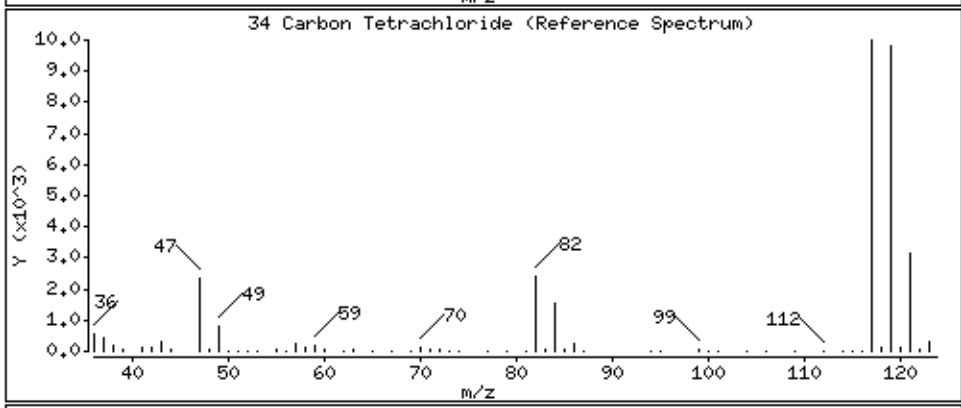
Column diameter: 0.18

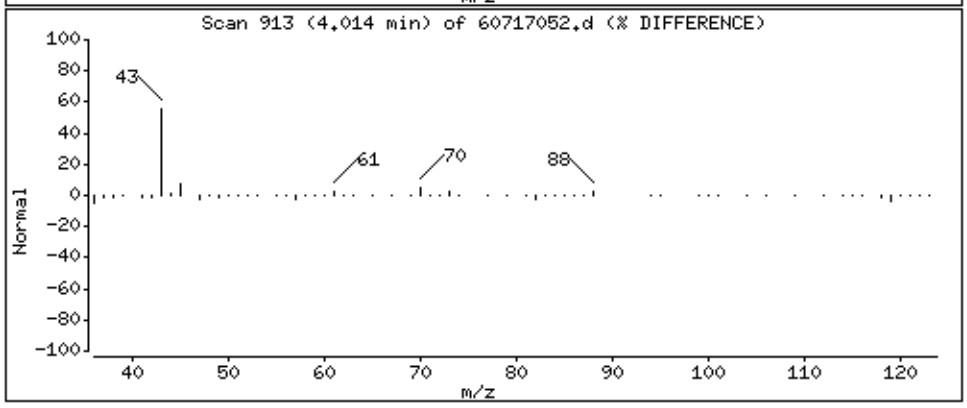
34 Carbon Tetrachloride

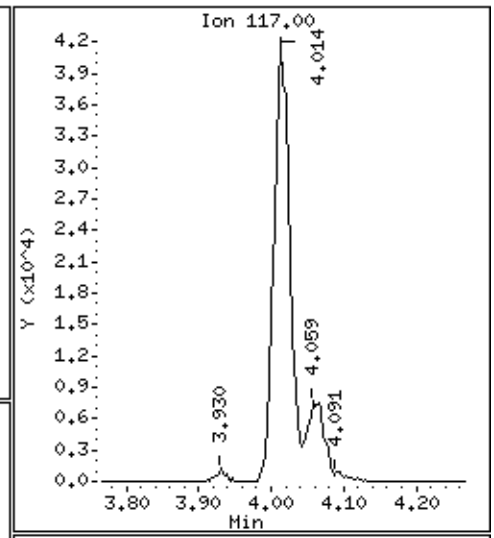
Concentration: 171 ug/kg

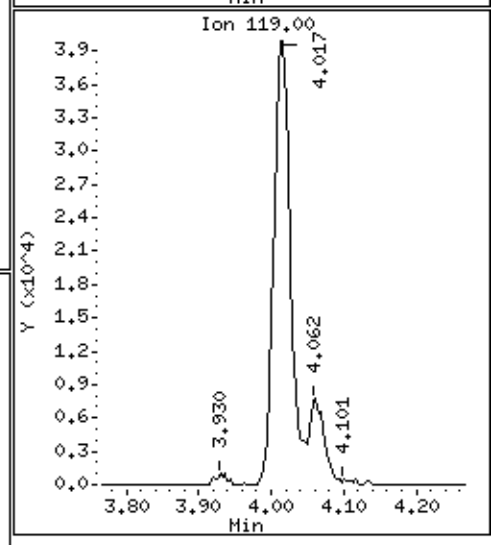












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

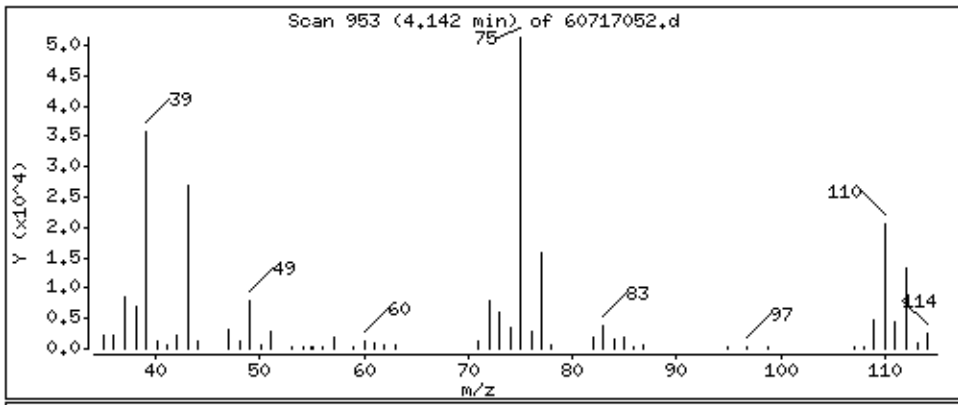
Operator: JEW

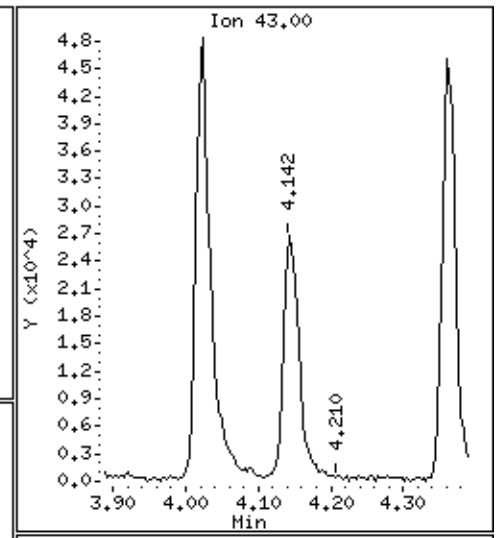
Column phase: RTX-VMS

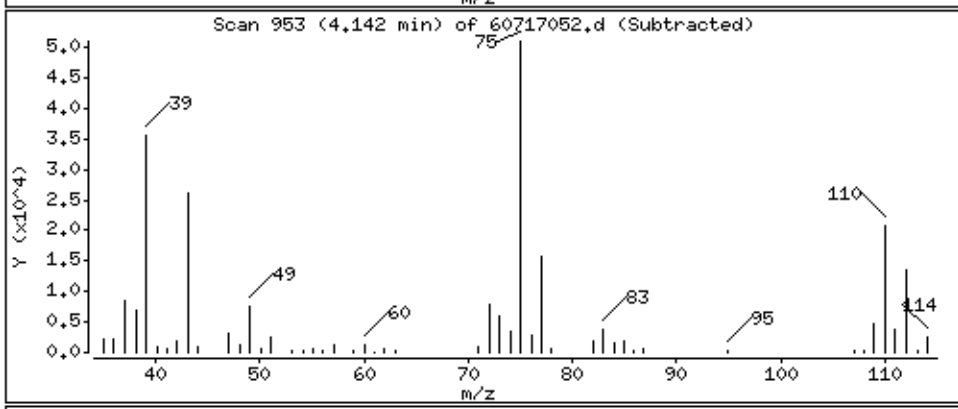
Column diameter: 0.18

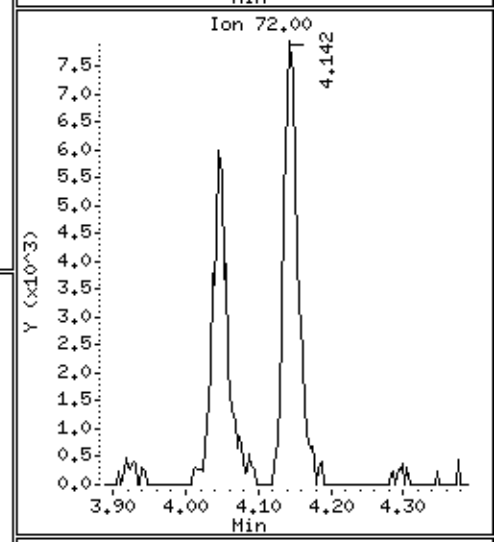
39 2-Butanone (MEK)

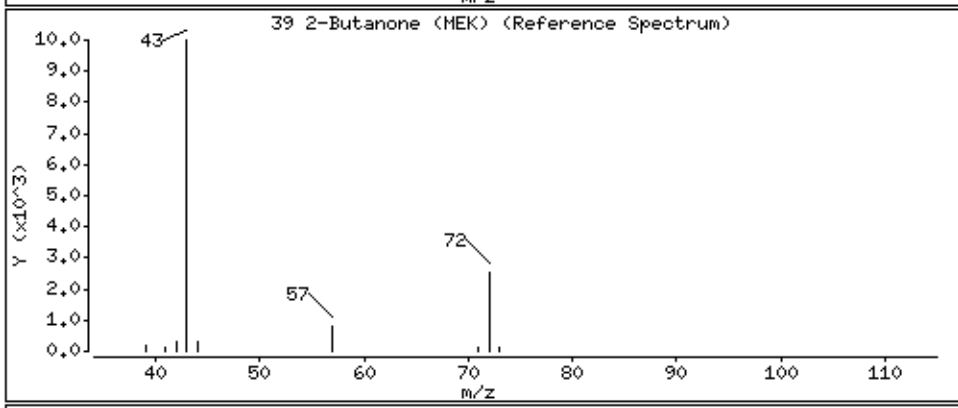
Concentration: 262 ug/kg

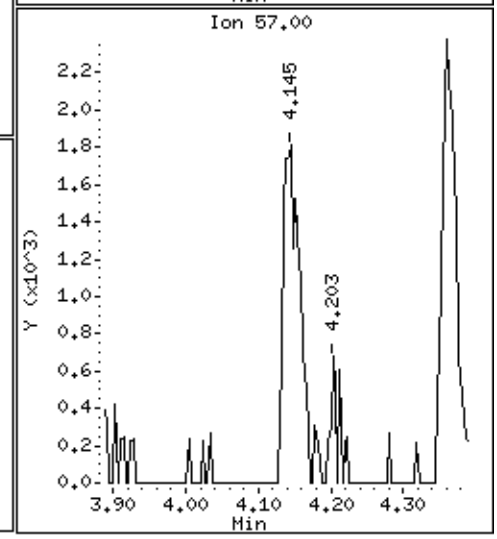


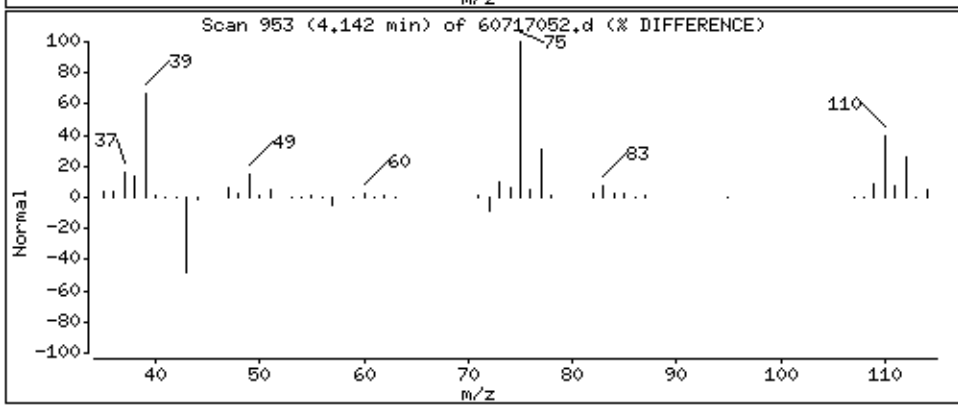












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

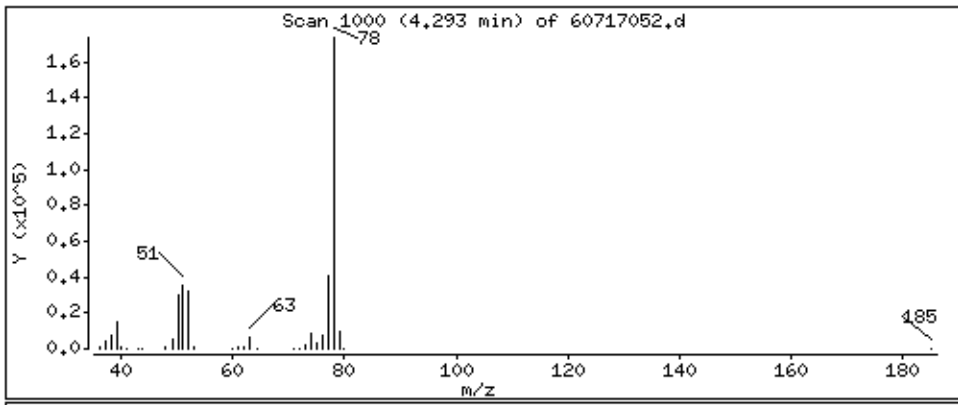
Operator: JEW

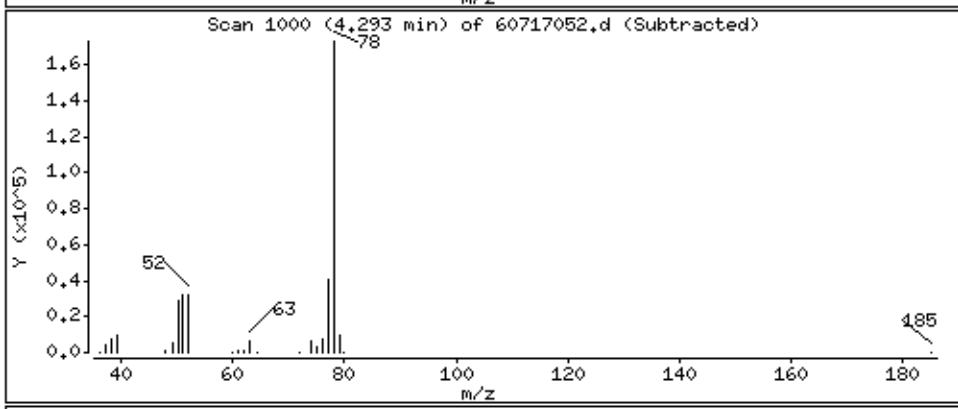
Column phase: RTX-VMS

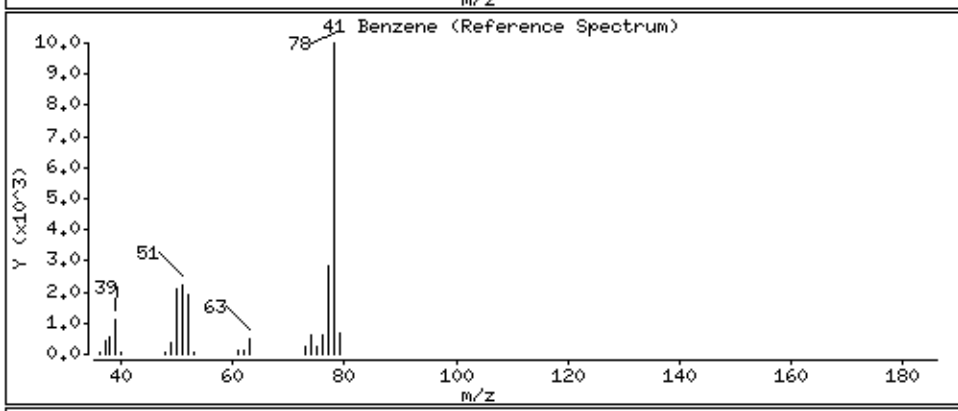
Column diameter: 0.18

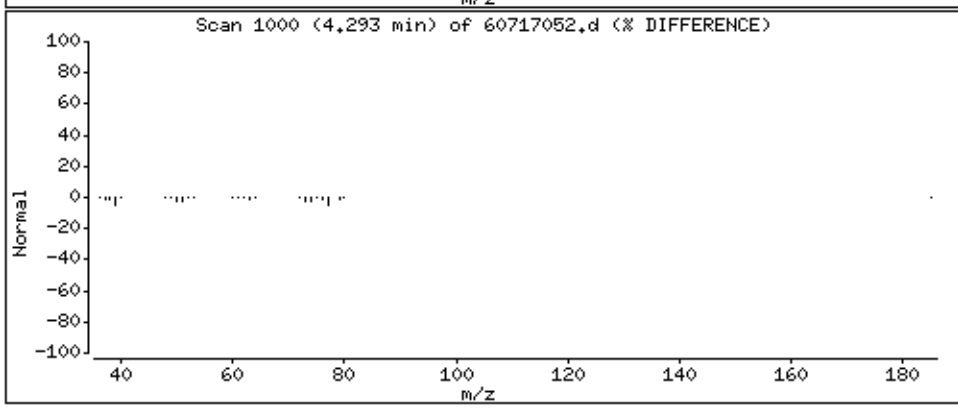
41 Benzene

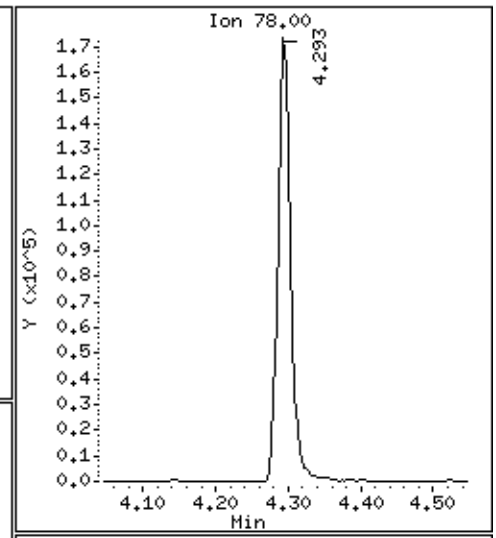
Concentration: 205 ug/kg

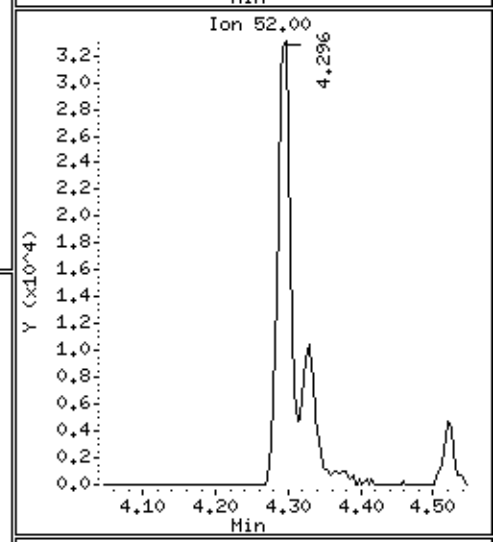


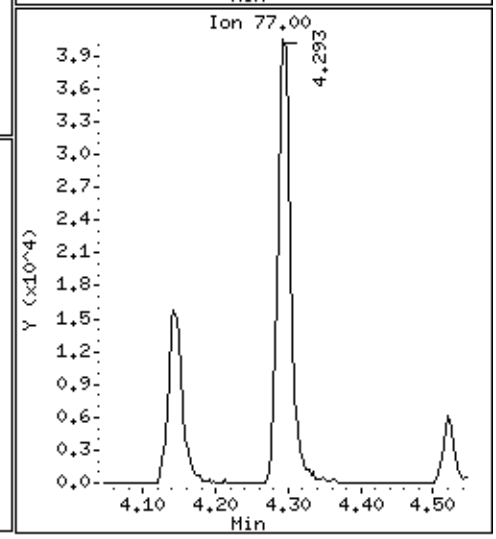












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Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

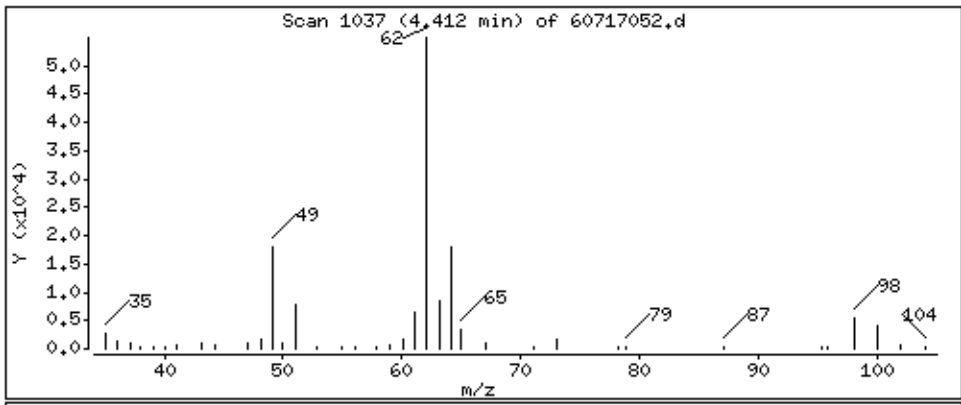
Operator: JEW

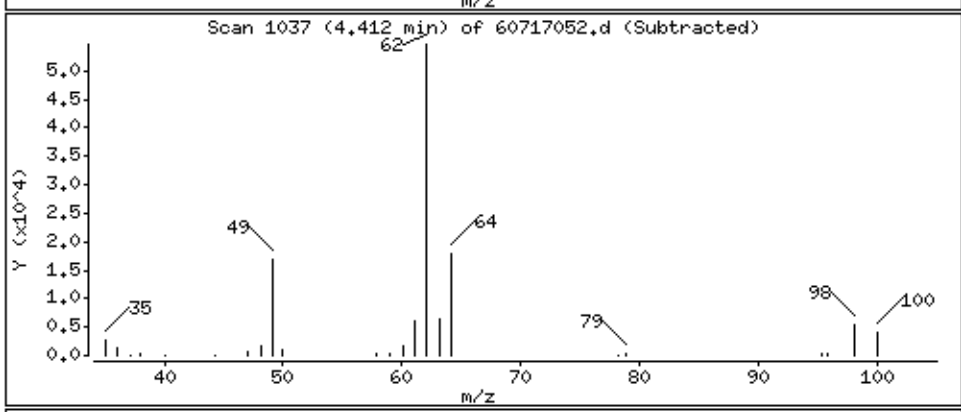
Column phase: RTX-VMS

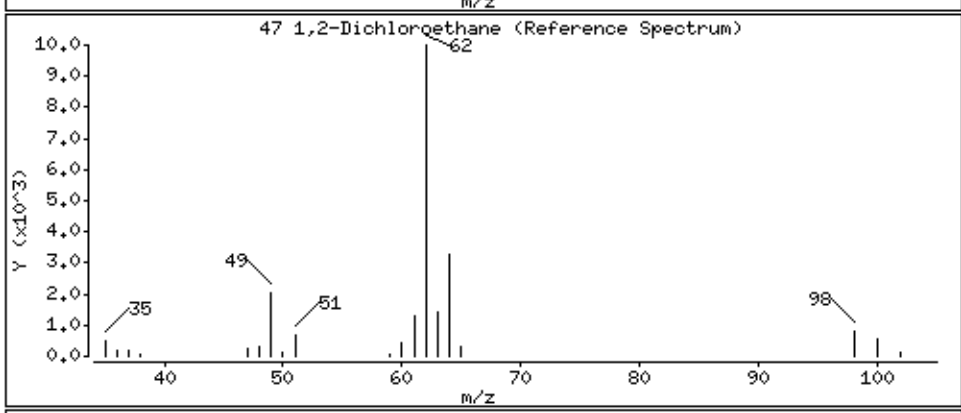
Column diameter: 0.18

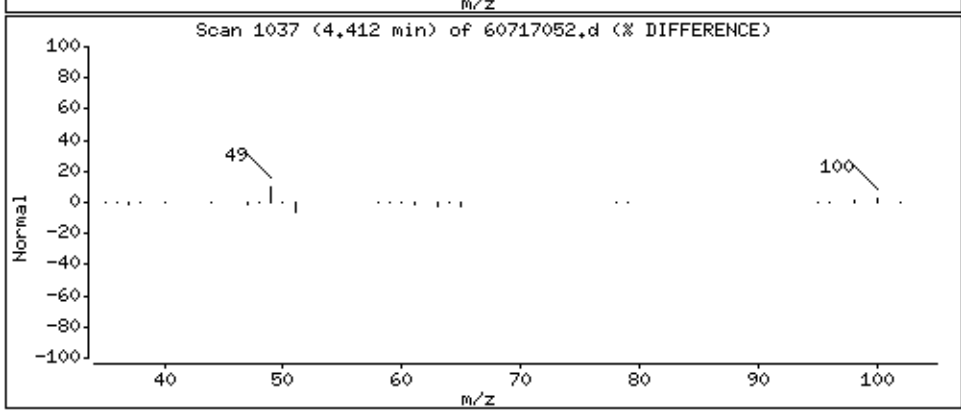
47 1,2-Dichloroethane

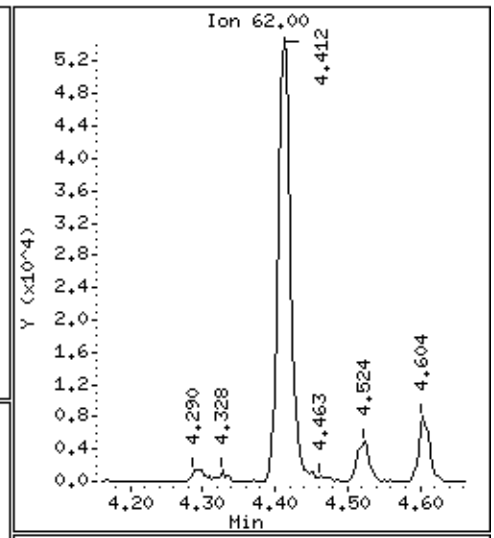
Concentration: 182 ug/kg

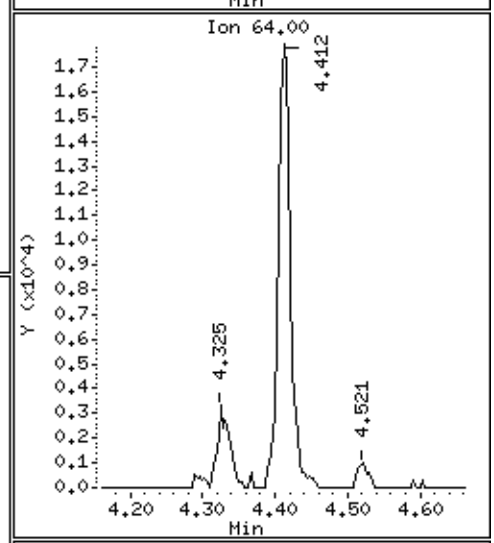


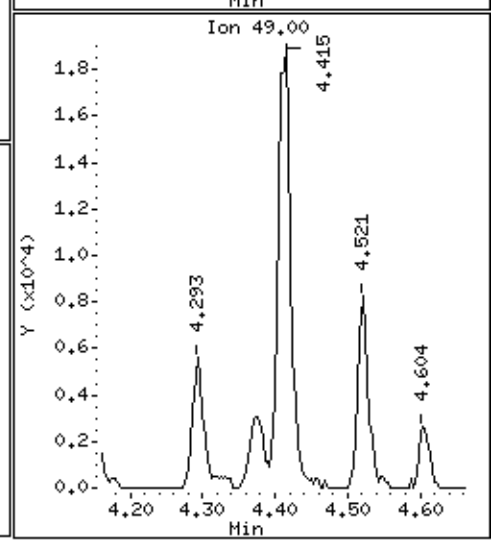












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

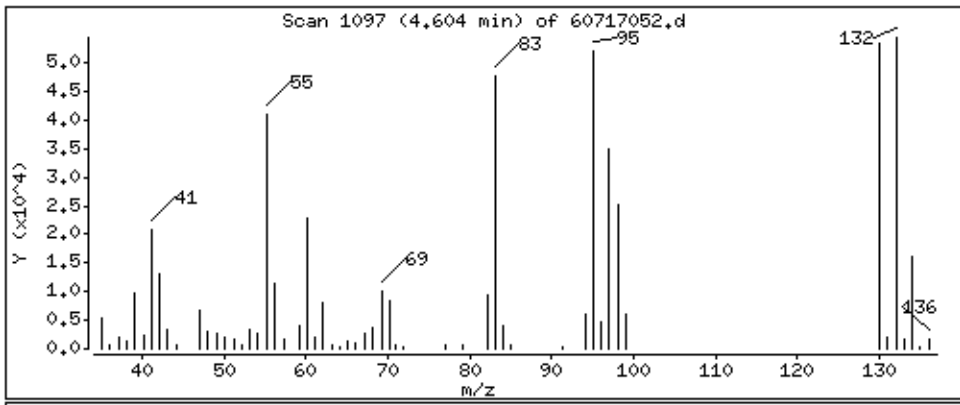
Operator: JEW

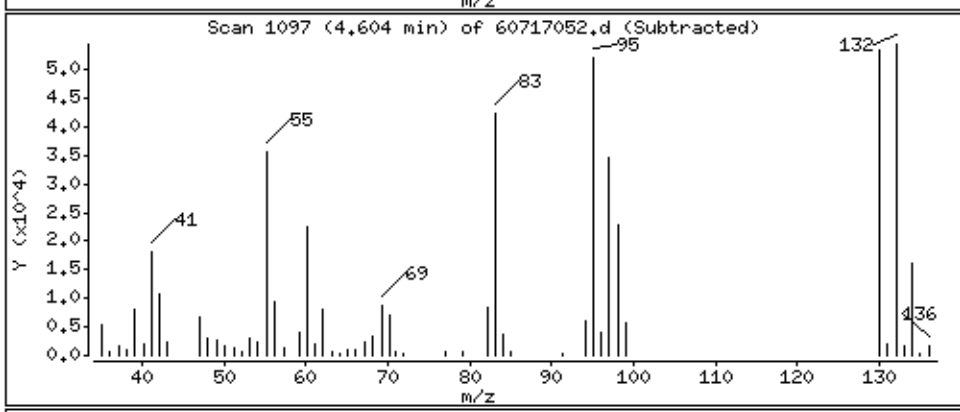
Column phase: RTX-VMS

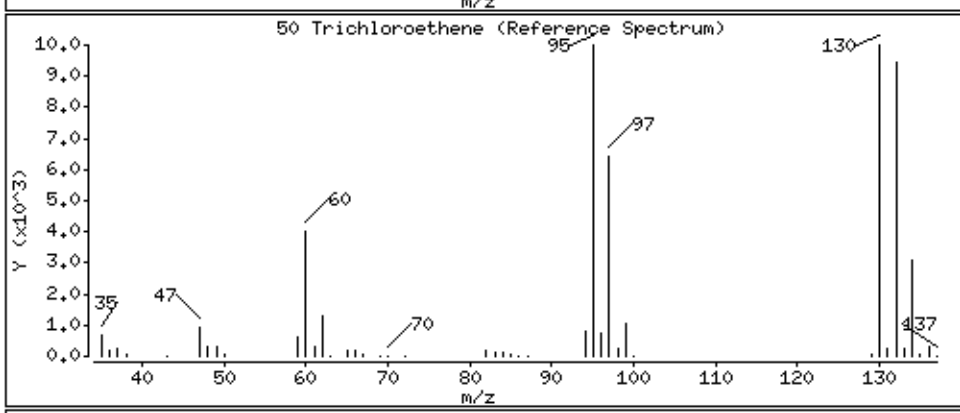
Column diameter: 0.18

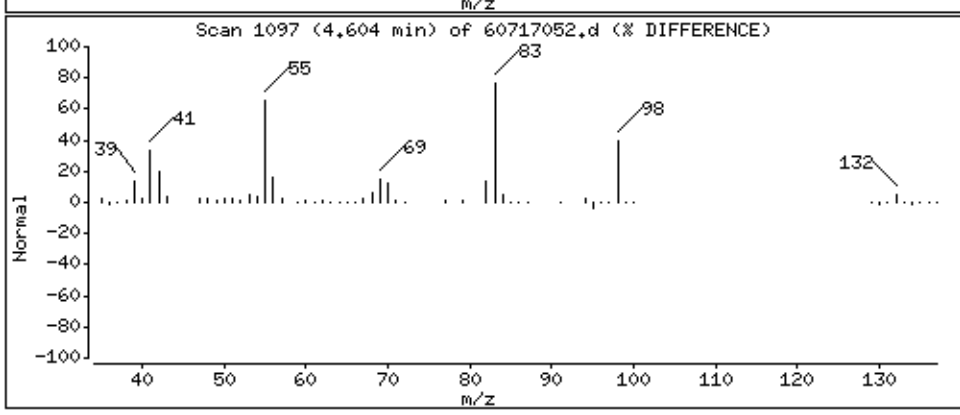
50 Trichloroethene

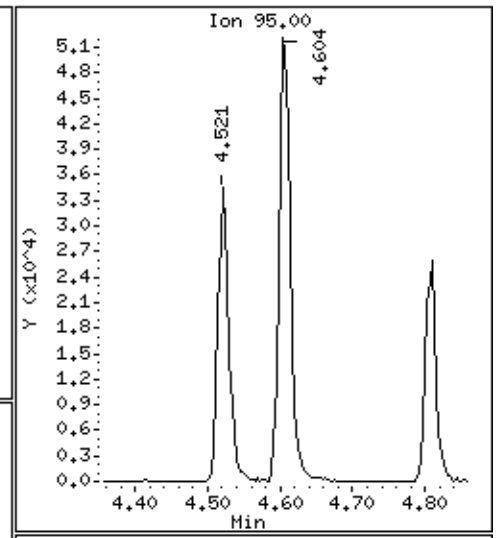
Concentration: 223 ug/kg

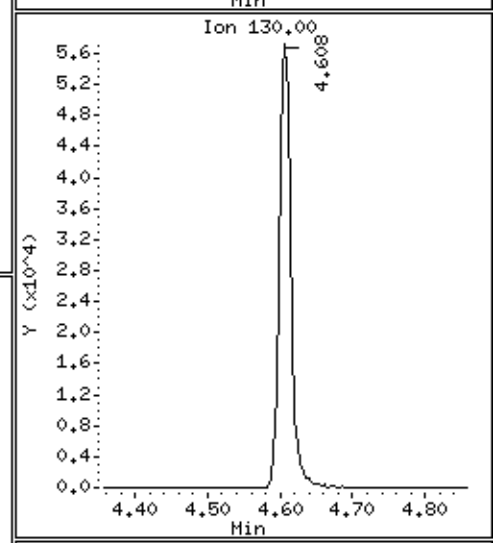


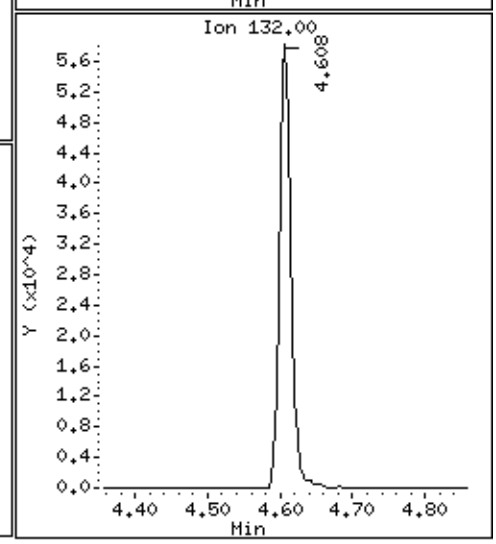












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

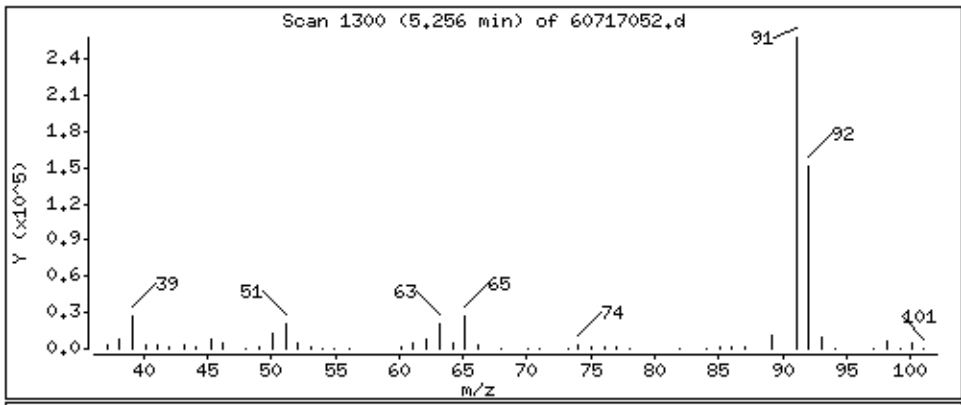
Operator: JEW

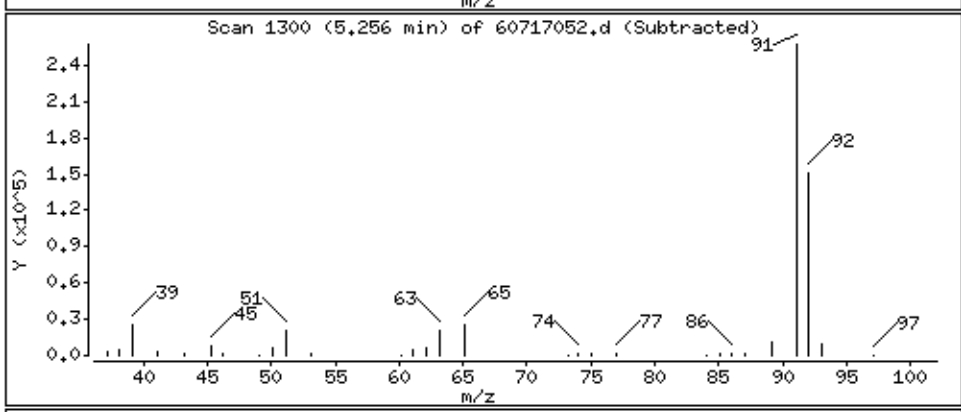
Column phase: RTX-VMS

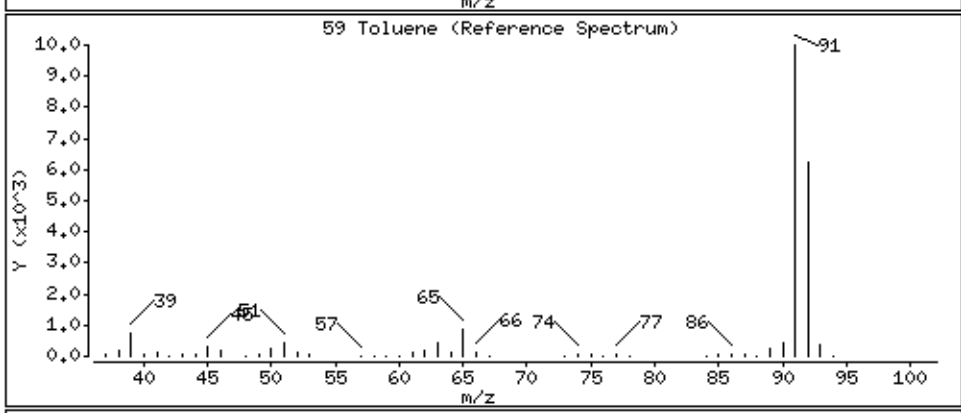
Column diameter: 0.18

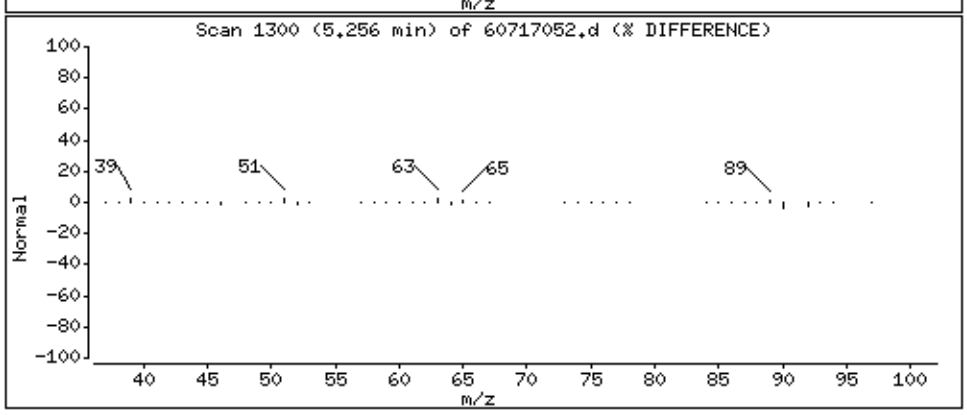
59 Toluene

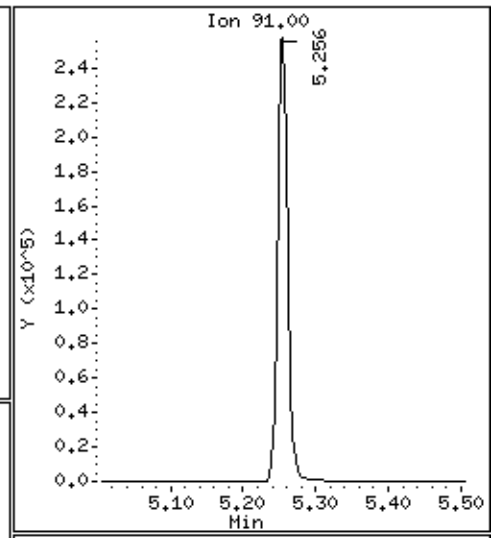
Concentration: 233 ug/kg

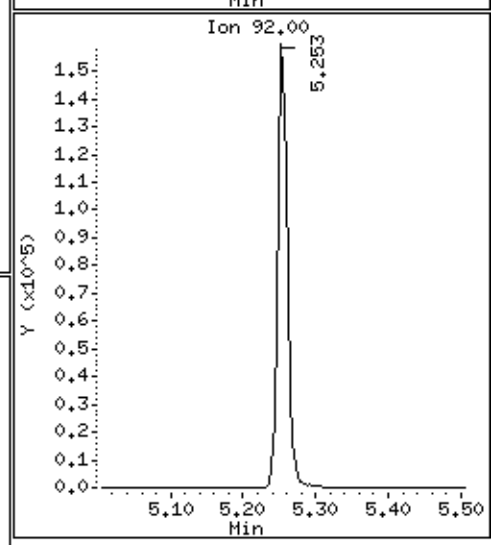












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

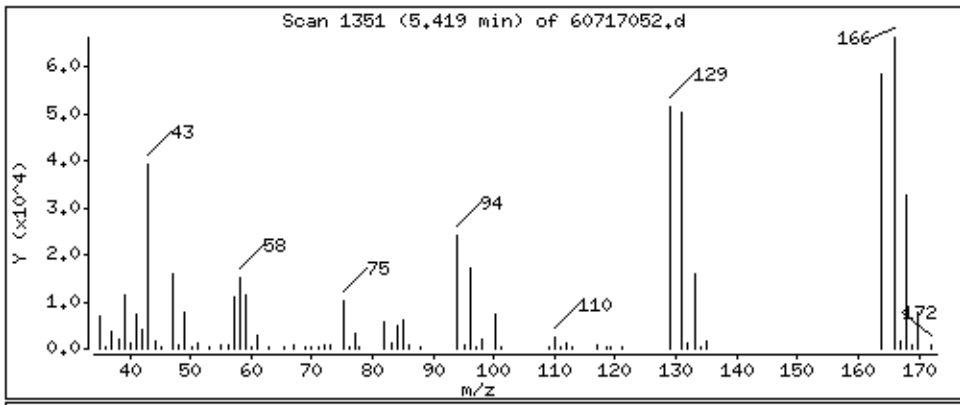
Operator: JEW

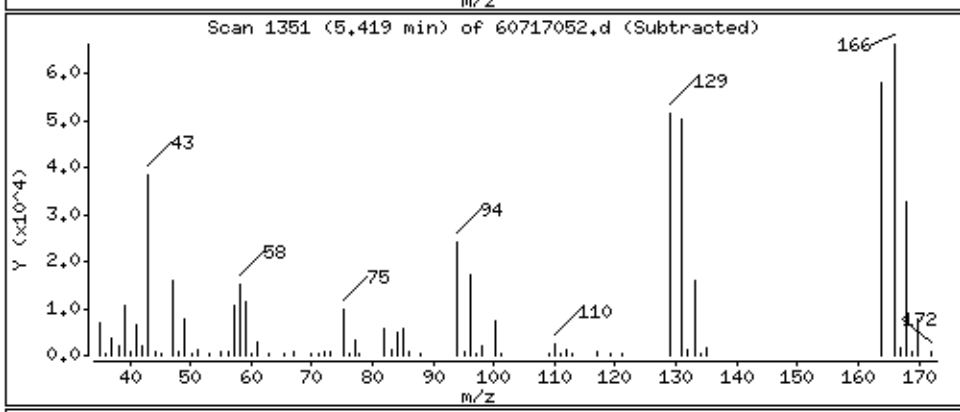
Column phase: RTX-VMS

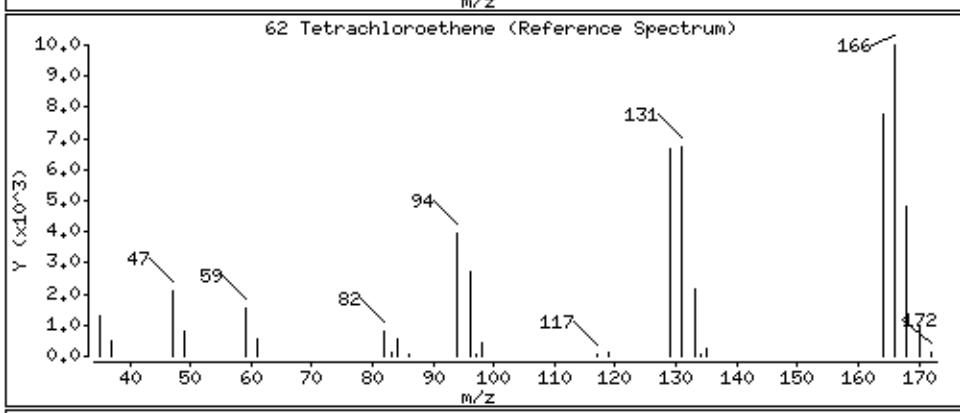
Column diameter: 0.18

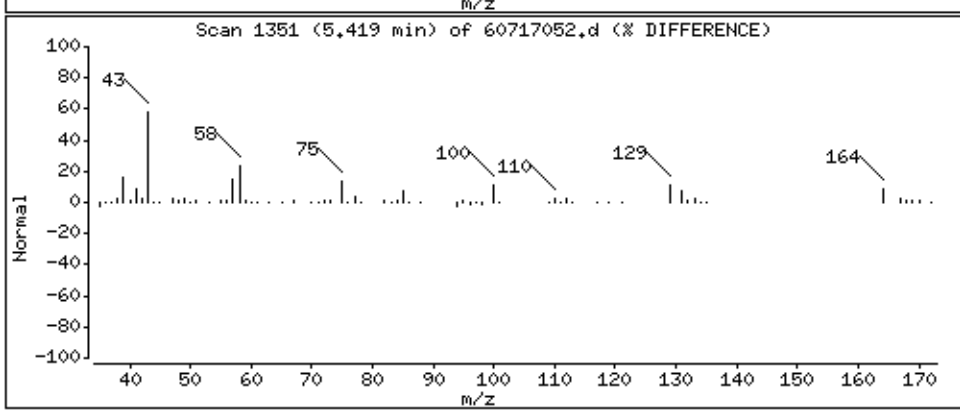
62 Tetrachloroethene

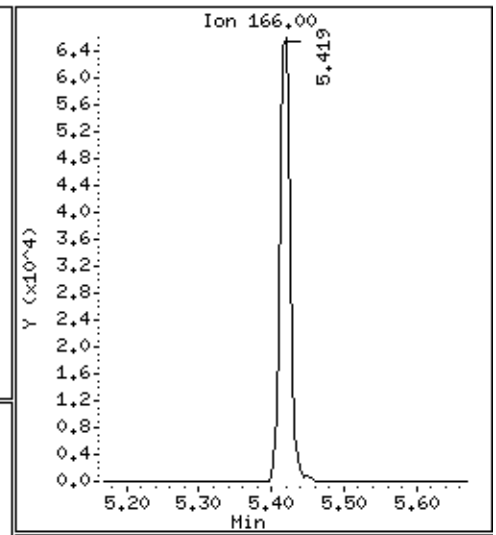
Concentration: 215 ug/kg

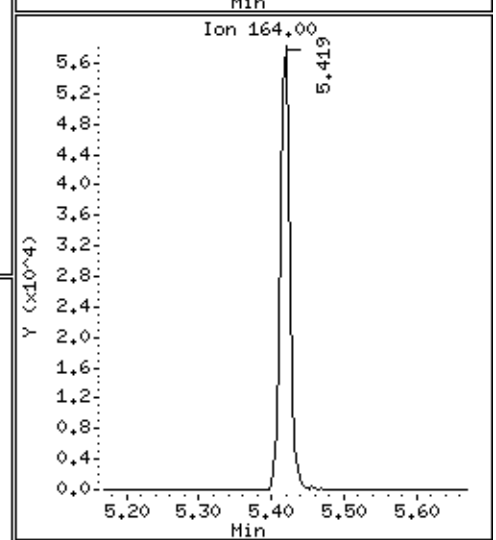


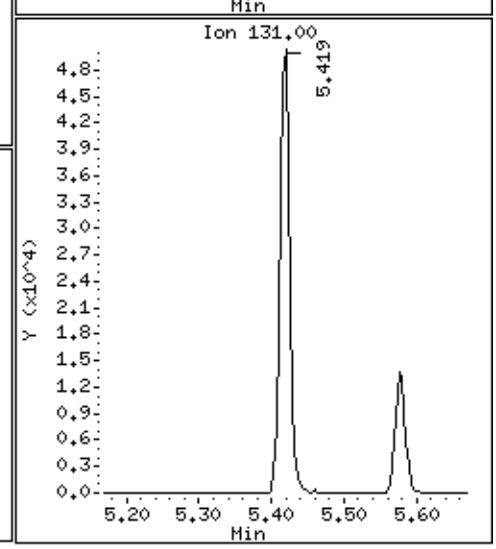












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

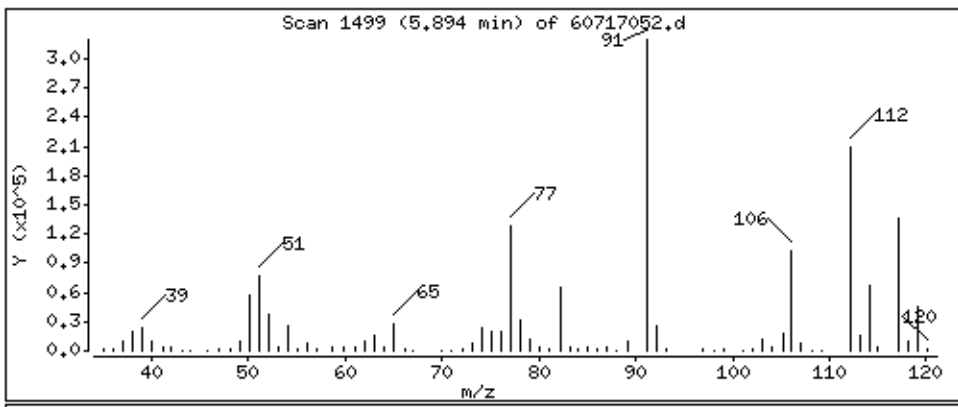
Operator: JEW

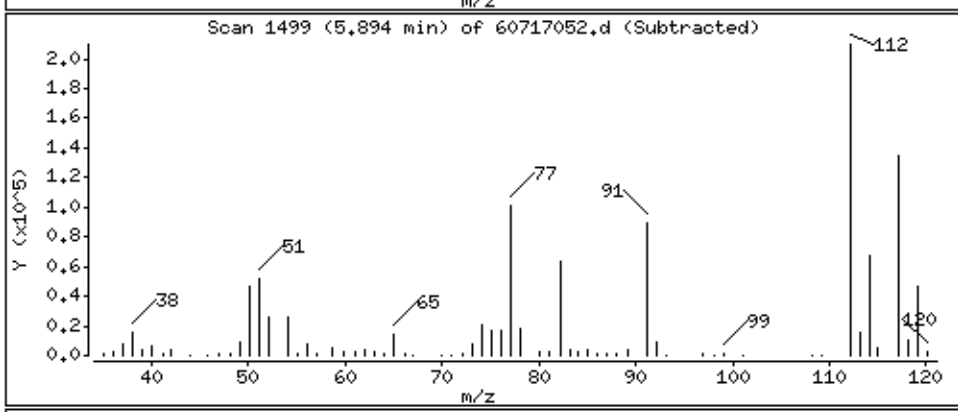
Column phase: RTX-VMS

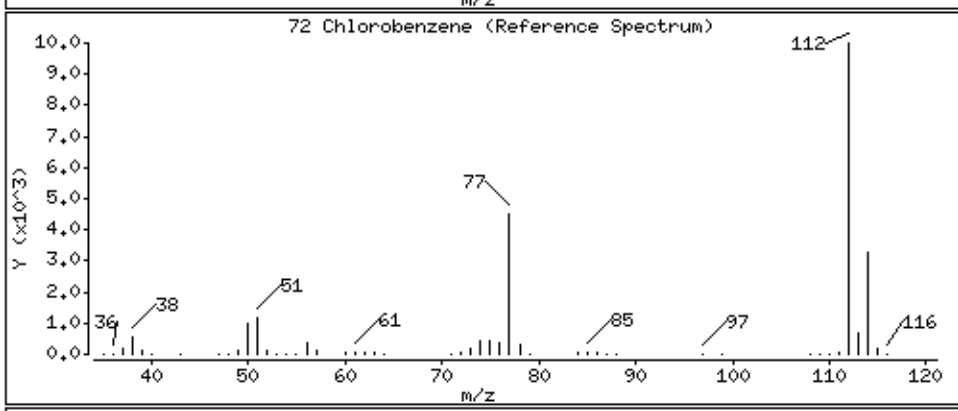
Column diameter: 0.18

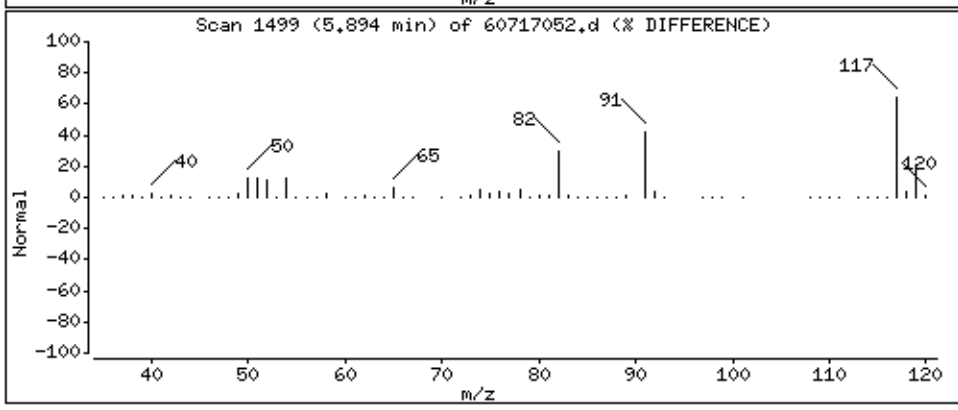
72 Chlorobenzene

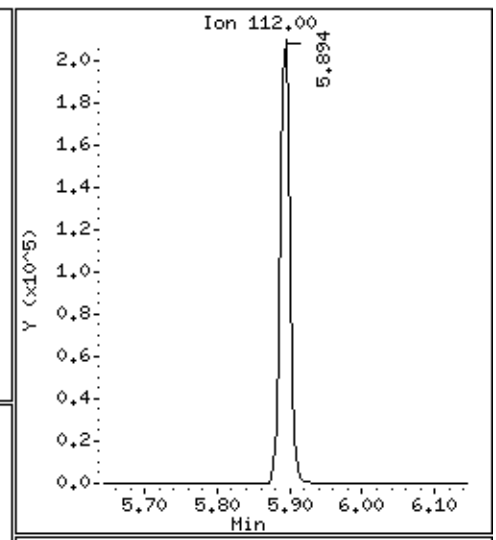
Concentration: 248 ug/kg

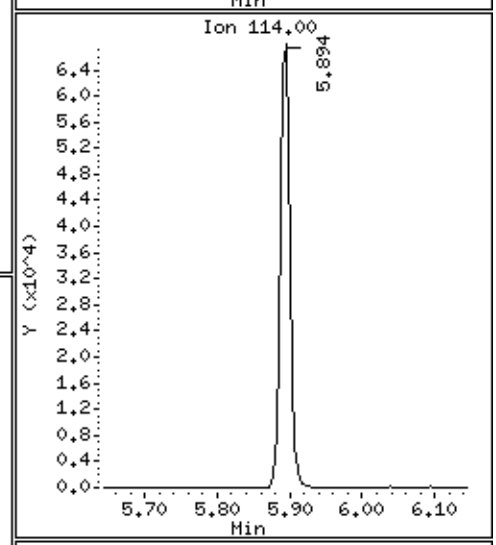


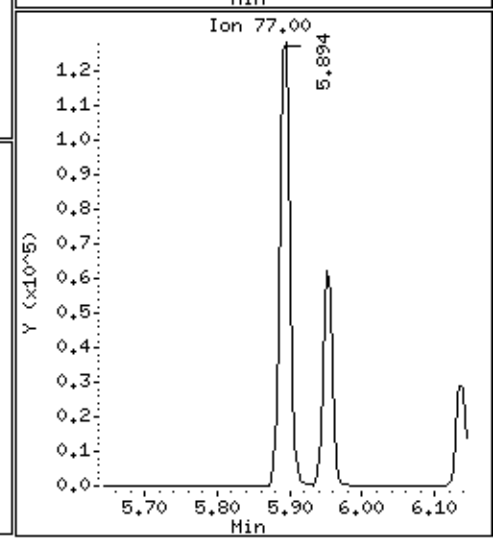












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

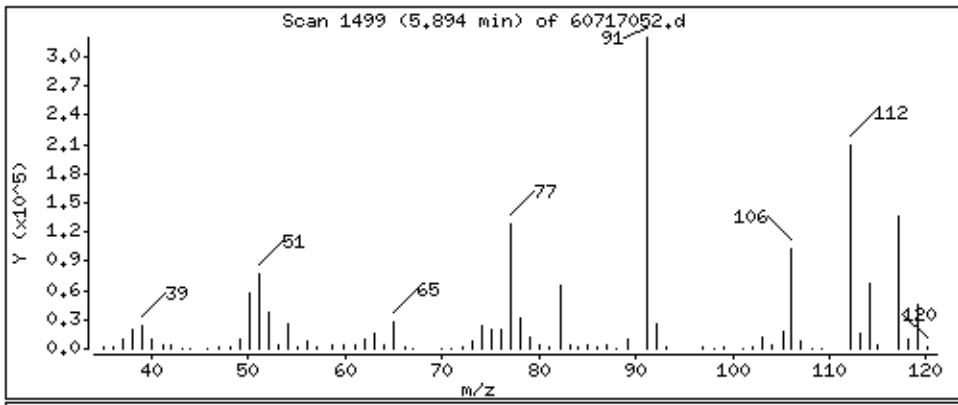
Operator: JEW

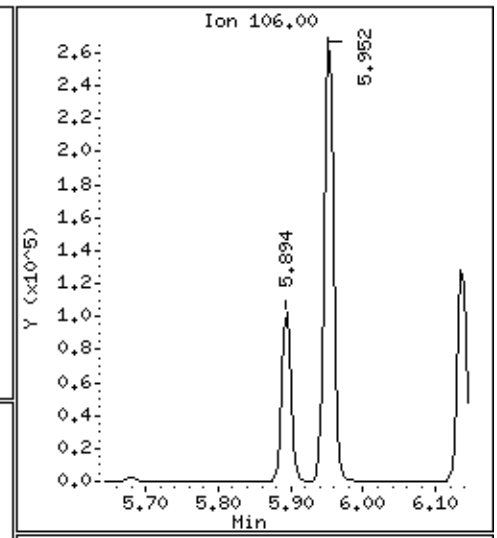
Column phase: RTX-VMS

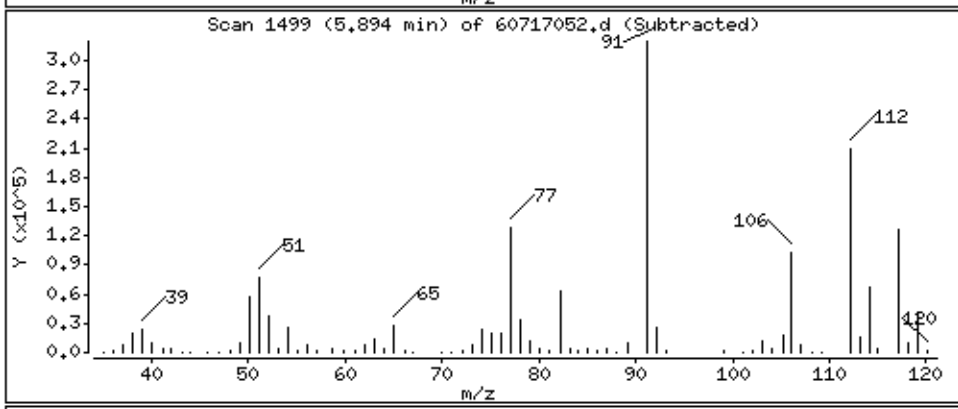
Column diameter: 0.18

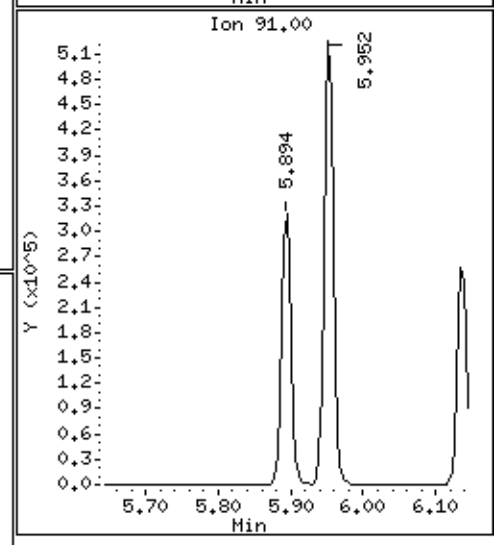
70 Ethylbenzene

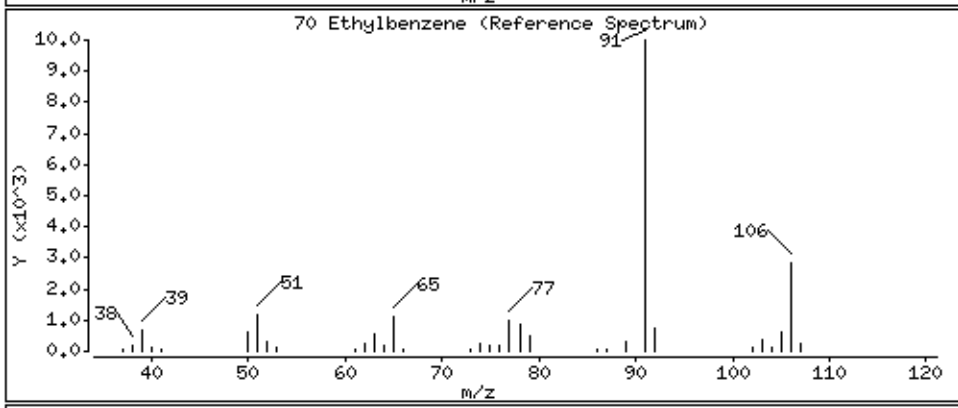
Concentration: 217 ug/kg

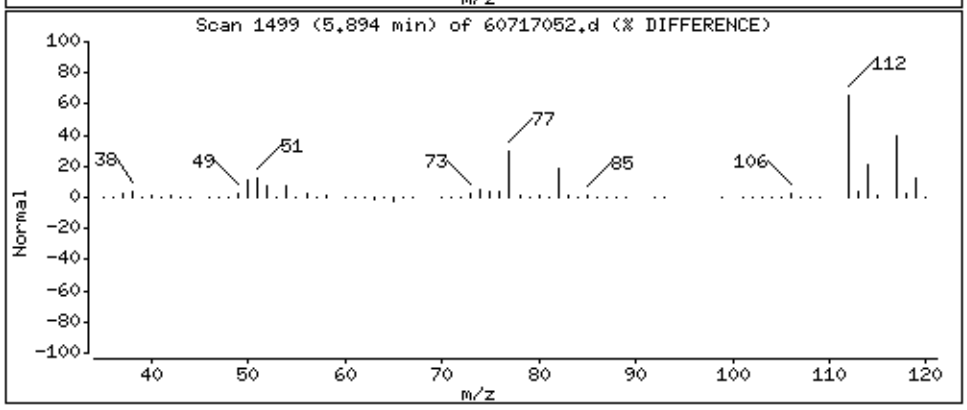












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

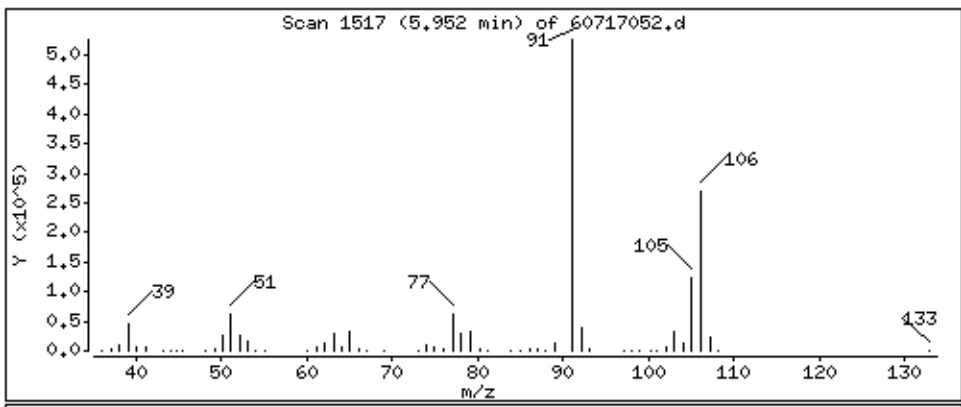
Operator: JEW

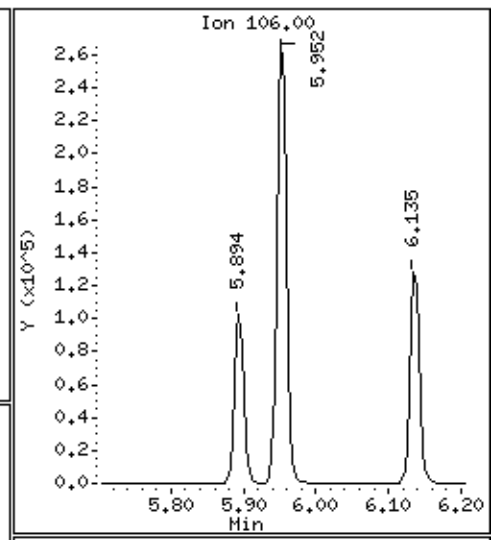
Column phase: RTX-VMS

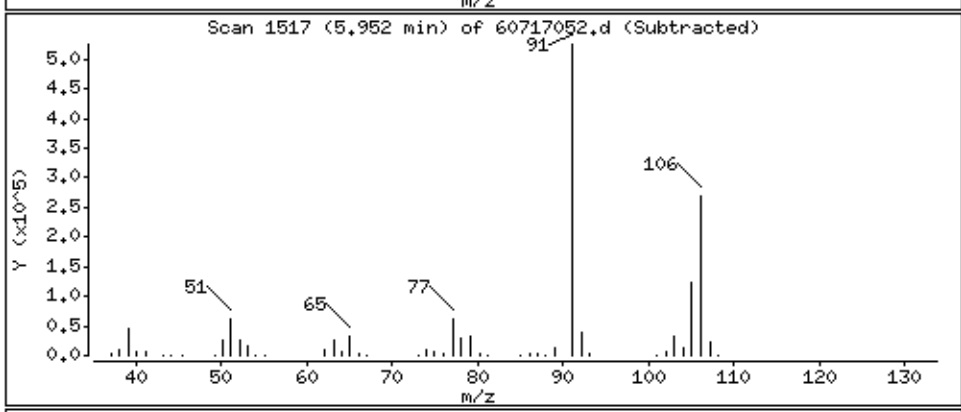
Column diameter: 0.18

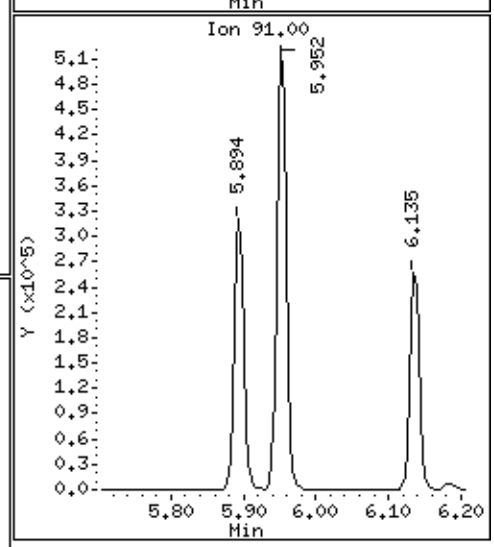
74 m&p-Xylene

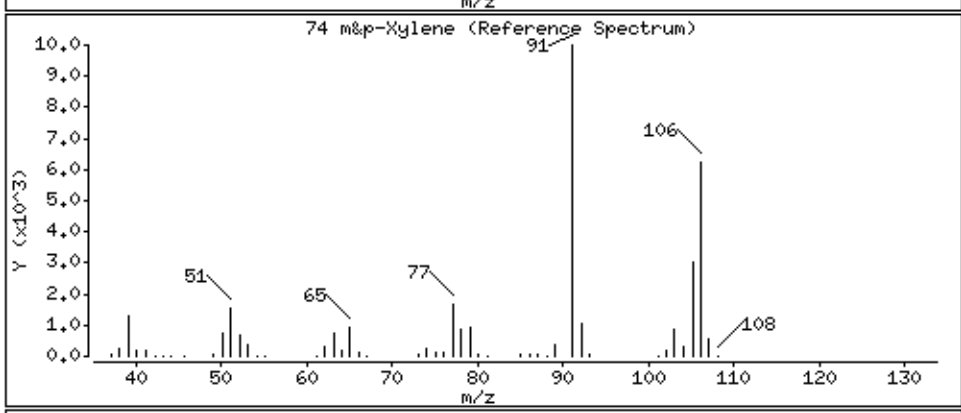
Concentration: 449 ug/kg

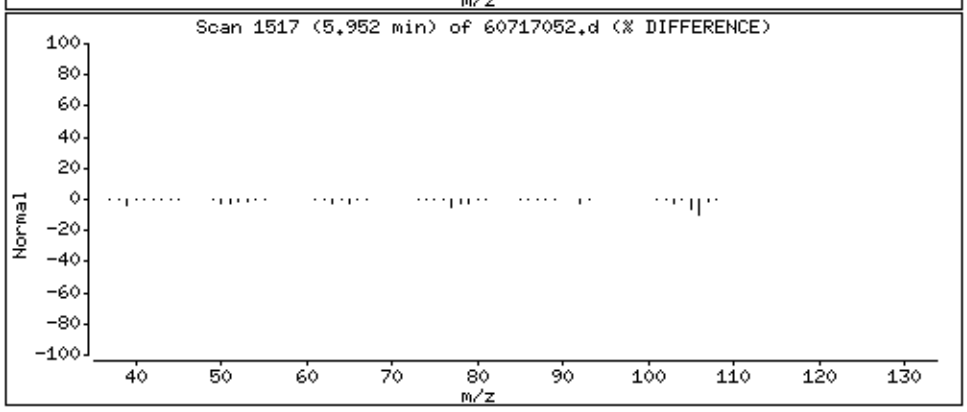












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

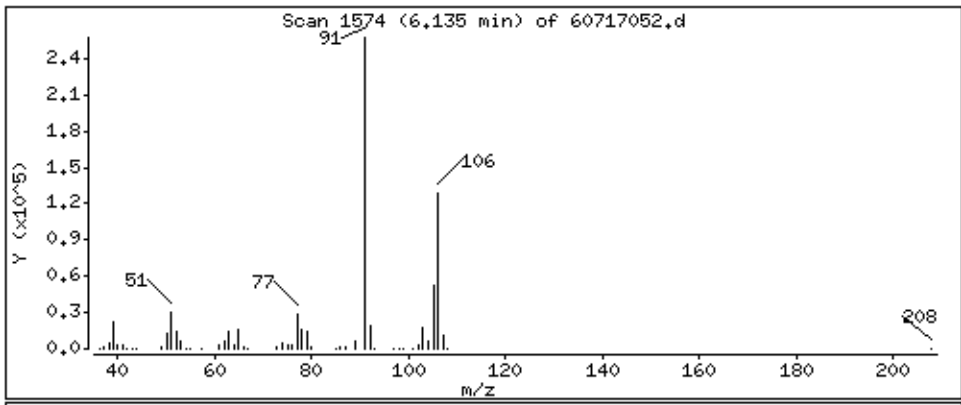
Operator: JEW

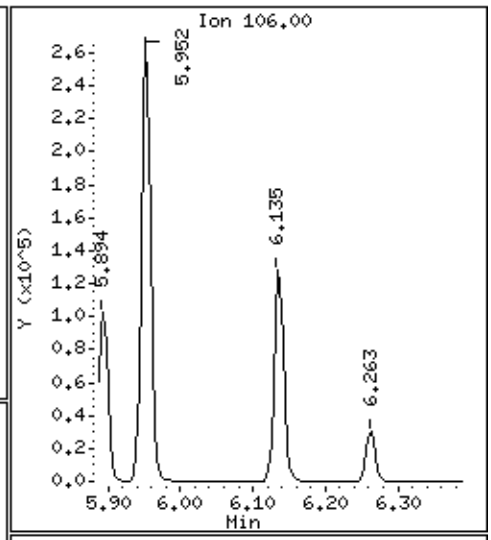
Column phase: RTX-VMS

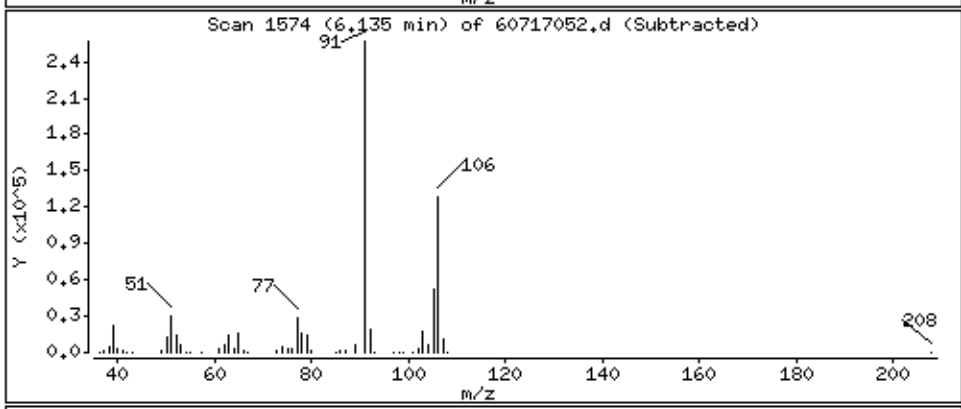
Column diameter: 0.18

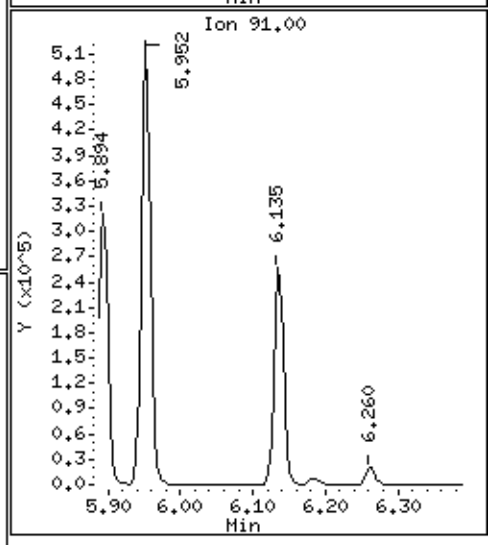
75 o-Xylene

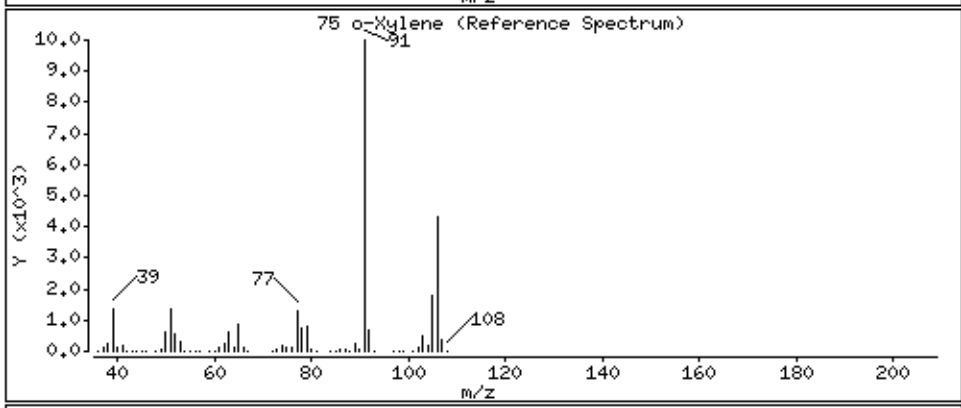
Concentration: 222 ug/kg

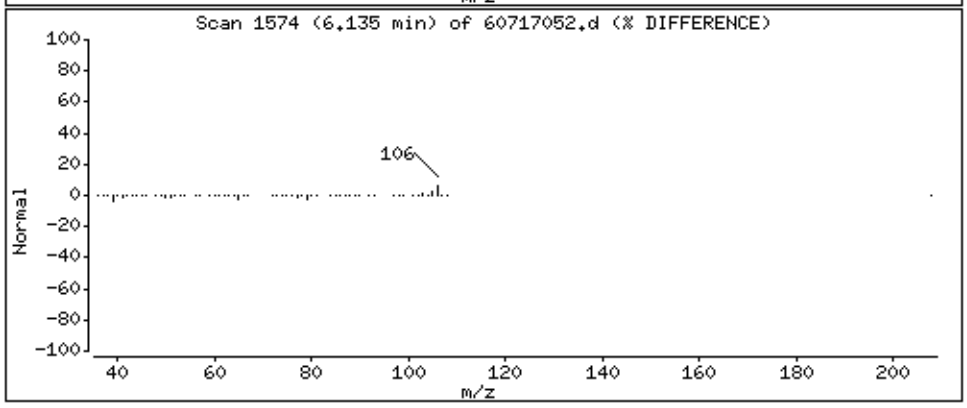












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b\60717052.d

Date : 17-JUL-2019 22:06

Client ID: Sewer-1MSD

Instrument: 30mv6b.i

Sample Info: 1711154X10

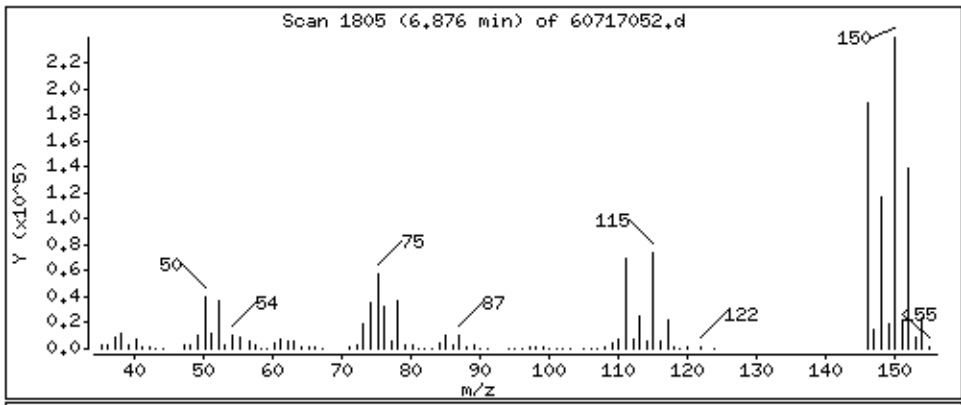
Operator: JEW

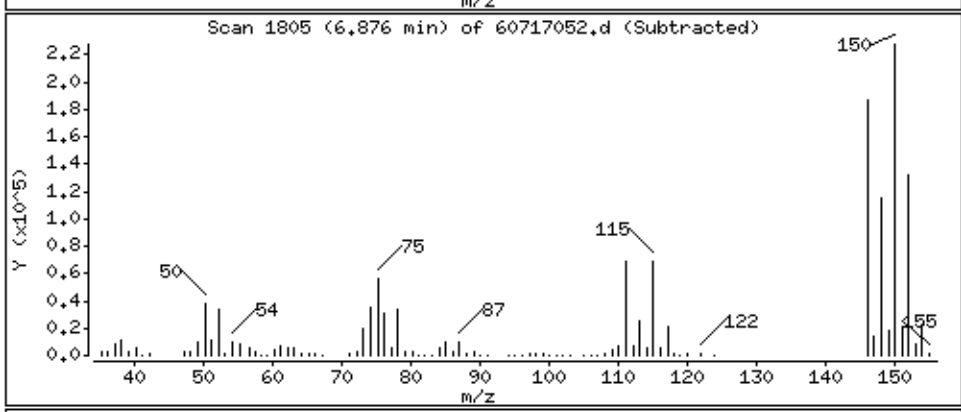
Column phase: RTX-VMS

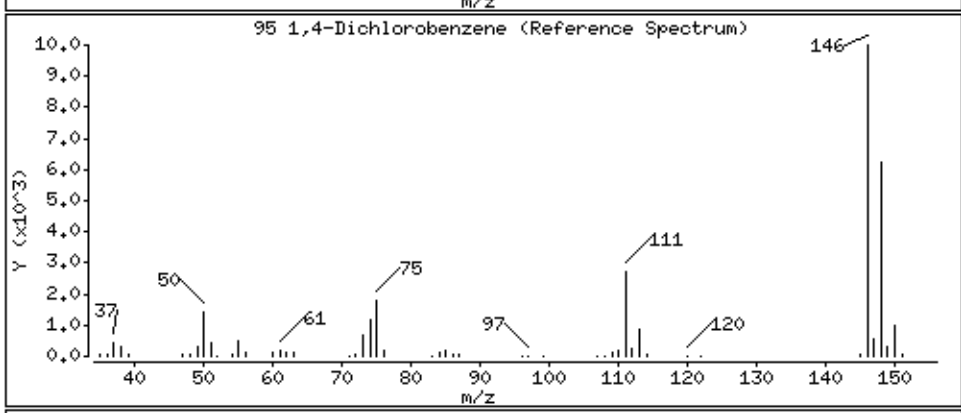
Column diameter: 0.18

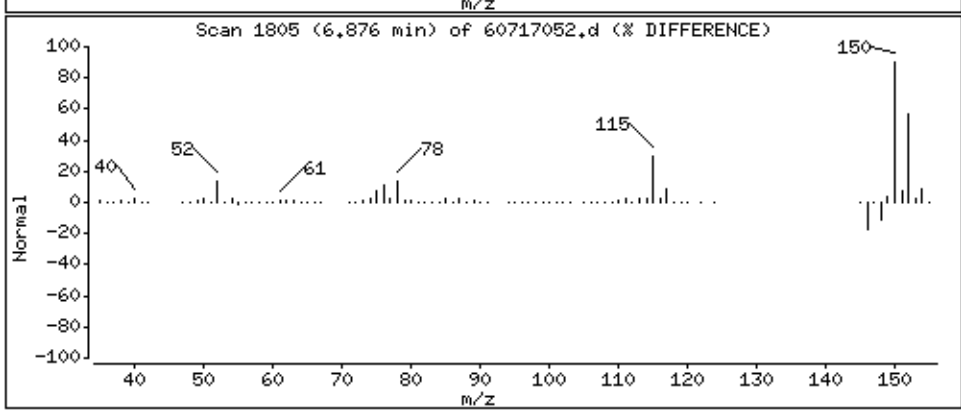
95 1,4-Dichlorobenzene

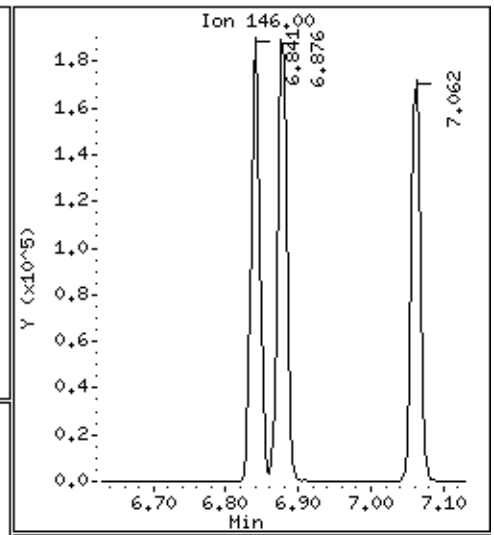
Concentration: 209 ug/kg

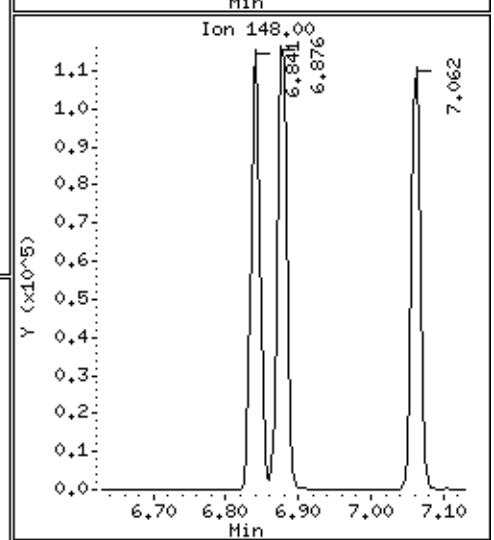


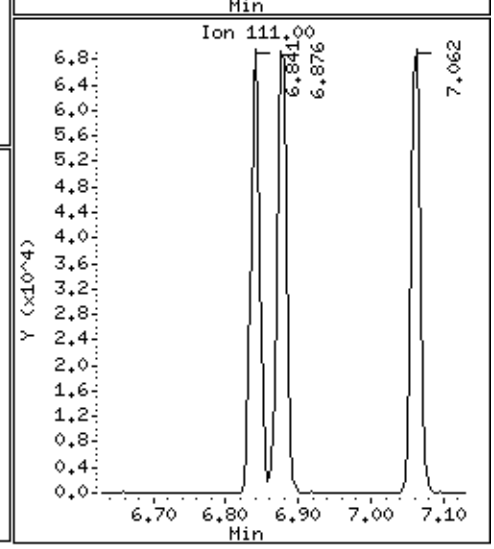












Data File: \\30wintarget\chem\30mv6b.i\6190717.b\2.b/60717052.d
Injection Date: 17-JUL-2019 22:06
Instrument: 30mv6b.i
Lab Sample ID: 1711154
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: ZHE 8733/351934

Template Version: F-PA-O-010-Rev.02 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	07/16/2019 14:47:00:890	Tedlar Bag	92996
Tumbler Start Temp. (C)	20.7	Tumbler End Temp. (C)	22.4	Tumbler Rotational Rate (rev/min)	30	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Batch Notes	
Reviewed By		Reviewed By Date					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	TCLP Matrix	Actual sample Weight (g) used	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time
ZHETCLP	LB	**1710027**	Y		17	30TBL3			92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30312371001**	Y		1	30TBL3	Water	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30312371002**	Y		2	30TBL3	Water	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30312463001**	Y		3	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30312591001**	Y		4	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30312593001**	Y		5	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313313001**	Y		6	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313514001**	Y		7	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313514002**	Y		9	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313553001**	Y		10	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313635001**	Y		11	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18
ZHETCLP	PS	**30313599001**	Y		12	30TBL3	Other	10	92410 ()	TCLP 1	93798 ()	72915 ()	07/16/2019 15:50:48	07/17/2019 08:15:18

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	LB	**1710027**	Y	10	10		07/17/2019 09:46:43:284							

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	PS	**30312371001**	Y	10	10		07/17/2019 09:46:43:284					79.3	10.3	86
ZHETCLP	PS	**30312371002**	Y	10	10		07/17/2019 09:50:43:284					73.3	10.1	81.5
ZHETCLP	PS	**30312463001**	Y	10	10		07/17/2019 09:52:43:284							
ZHETCLP	PS	**30312591001**	Y	10	10		07/17/2019 10:00:43:284							
ZHETCLP	PS	**30312593001**	Y	10	10		07/17/2019 10:10:43:284							
ZHETCLP	PS	**30313313001**	Y	10	10		07/17/2019 10:15:43:284							
ZHETCLP	PS	**30313514001**	Y	10	10		07/17/2019 10:20:43:284							
ZHETCLP	PS	**30313514002**	Y	10	10		07/17/2019 10:26:43:284							
ZHETCLP	PS	**30313553001**	Y	10	10		07/17/2019 10:30:43:284							
ZHETCLP	PS	**30313635001**	Y	10	10		07/17/2019 10:35:43:284							
ZHETCLP	PS	**30313599001**	Y	10	10		07/17/2019 10:46:43:284							

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	LB	**1710027**				400	
ZHETCLP	PS	**30312371001**	75.7	3.6	4.54	72.00	water

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	PS	**30312371002**	71.4	1.9	2.59	38.00	water
ZHETCLP	PS	**30312463001**				200	clay
ZHETCLP	PS	**30312591001**				200	mud/rock
ZHETCLP	PS	**30312593001**				200	mud/rock
ZHETCLP	PS	**30313313001**				200	clay/rock
ZHETCLP	PS	**30313514001**				200	rock/dust
ZHETCLP	PS	**30313514002**				200	rock/dust
ZHETCLP	PS	**30313553001**				200	mulch
ZHETCLP	PS	**30313635001**				200	1*
ZHETCLP	PS	**30313599001**				200	dirt/rock

Sample Notes:

1*: plastic squares

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6b.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [S]:
ISTD lot: 84349:10 Surr. lot:
Tune std: _____ Cal. std: see curve

Instrument name..... 30MV6B

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60514002.d	blk	S/	SAMPLE	1	< 2	msv6050619b	5/14/19	12:55	JEW	
1/60514004.d	blk	S/	SAMPLE	1	< 2	msv6050619b	5/14/19	13:21	JEW	
1/60514006.d	blk	S/	SAMPLE	1	< 2	msv6050619b	5/14/19	14:30	JEW	
1/60514008.d	TUNE, 84349:10	S/44460	BFB	1	7	bfb390	5/14/19	14:56	JEW	
1/60514010.d	CAL1, 87714:1	S/44460	CALIB_1	1	< 2	msv6051419b	5/14/19	15:22	JEW	
1/60514012.d	CAL2, 87715:1	S/44460	CALIB_2	1	< 2	msv6051419b	5/14/19	15:48	JEW	
1/6051401211.d	CAL2, 87715:1	S/44460	SAMPLE	1	< 2	msv6051419b	5/14/19	15:48	JEW	
1/60514014.d	CAL3, 87716:1	S/44460	CALIB_3	1	< 2	msv6051419b	5/14/19	16:13	JEW	
1/60514016.d	CAL4, 87717:1	S/44460	CALIB_4	1	< 2	msv6051419b	5/14/19	16:39	JEW	
1/60514018.d	CAL5, 87718:1	S/44460	CALIB_5	1	< 2	msv6051419b	5/14/19	17:05	JEW	
1/60514020.d	CAL6, 87719:1	S/44460	CALIB_6	1	< 2	msv6051419b	5/14/19	17:31	JEW	
1/60514022.d	CAL7, 87720:1	S/44460	CALIB_7	1	< 2	msv6051419b	5/14/19	17:57	JEW	
1/60514024.d	CAL8, 87721:1	S/44460	CALIB_8	1	< 2	msv6051419b	5/14/19	18:23	JEW	
1/60514026.d	blk	S/	SAMPLE	1	< 2	msv6051419b	5/14/19	18:48	JEW	
1/60514028.d	ICV, 87722:1	S/44460	CCALIB_4	1	< 2	msv6051419b	5/14/19	19:14	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv6b.i\6190514.b\2.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:41 05/22/2019

Reviewed By/Date: [illegible] 5-22-19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6b.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 93190:10 Surr. lot:
Tune std: ↓ Cal. std: 93901

Instrument name..... 30MV6B

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60717002.d	blk	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	11:11	JEW	
1/60717004.d	blk	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	11:37	JEW	
1/60717006.d	blk	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	12:07	JEW	
1/60717008.d	blk	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	12:38	JEW	
1/60717010.d	TUNE, 93190:10	S/44460	BFB	1	7	bfb390	7/17/19	13:03	JEW	
1/60717012.d	CCV, 93901:1	S/44460	CCALIB_5	1	< 2	msv6051419b	7/17/19	13:29	JEW	
1/60717014.d	LLCHECK,93902:1,	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	13:55	JEW	
1/60717016-45394.d	1711146,93903:5,	L/45394	LCS	1	< 2	msv6051419b	7/17/19	14:21	JEW	
1/60717016-45395.d	1711155,93903:5,	L/45395	LCS	1	< 2	msv6051419b	7/17/19	14:21	JEW	
1/60717018.d	MBLKX50	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	14:47	JEW	
1/60717020.d	VBLK	S/	SAMPLE	1	< 2	msv6051419b	7/17/19	15:13	JEW	
1/60717022-45394.d	1710027X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	15:38	JEW	
1/60717022-45395.d	1710027X10	S/45395	SAMPLE	10	< 2	msv6051419b	7/17/19	15:38	JEW	
1/60717024.d	30313313001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	16:04	JEW	
1/60717026.d	1711147X10	S/45394	MS	10	< 2	msv6051419b	7/17/19	16:30	JEW	
1/60717028.d	1711148X10	S/45394	MSD	10	< 2	msv6051419b	7/17/19	16:56	JEW	
1/60717030.d	30313553001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	17:22	JEW	
1/60717032.d	30313635001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	17:47	JEW	
1/60717034.d	30312371001X10	L/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	18:13	JEW	
1/60717036.d	1711149X10	L/45394	MS	10	< 2	msv6051419b	7/17/19	18:39	JEW	
1/60717038.d	30312371002X10	L/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	19:05	JEW	
1/60717040.d	30312463001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	19:31	JEW	
1/60717042.d	30313599001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	19:57	JEW	
1/60717044.d	30312591001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	20:22	JEW	pp
1/60717046.d	30312593001X10	S/45394	SAMPLE	10	< 2	msv6051419b	7/17/19	20:48	JEW	pp
1/60717048.d	30313514001X10	S/45395	SAMPLE	10	< 2	msv6051419b	7/17/19	21:14	JEW	
1/60717050.d	1711153X10	S/45395	MS	10	< 2	msv6051419b	7/17/19	21:40	JEW	
1/60717052.d	1711154X10	S/45395	MSD	10	< 2	msv6051419b	7/17/19	22:06	JEW	
1/60717054.d	30313514002X10	S/45395	SAMPLE	10	< 2	msv6051419b	7/17/19	22:32	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: ARD

File Path 1: \\30wintarget\chem\30mv6b.i\6190717.b\2.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:14 07/18/2019

Reviewed By/Date: JEW 7/18/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1710028	1710028LB	85	61	81	80	84	59
1711100	1711100LCS	87	70	80	85	84	68
30313514001	Sewer-1	76	77	92	83	87	68
30313514002	Sewer-2	75	76	91	83	89	69

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1711100LCS
Date Extracted: 07/17/2019
Date Analyzed (1): 07/17/2019
Instrument: 30MSS1
LCS Lot No: 90624
Lab File ID: MSS1071719.B\M1071710.D
SDG No.: 30313514

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	235J	47	38-85
2,4-Dinitrotoluene	500	381	76	51-102
Hexachloro-1,3-butadiene	500	229	46	27-97
Hexachlorobenzene	500	275	55	36-66
Hexachloroethane	500	222	44	37-89
2-Methylphenol(o-Cresol)	500	419J	84	60-106
3&4-Methylphenol(m&p Cresol)	1000	877J	88	64-106
Nitrobenzene	500	430	86	64-108
Pentachlorophenol	500	445J	89	47-107
Pyridine	500	198J	40	20-54
2,4,5-Trichlorophenol	500	408J	82	60-110
2,4,6-Trichlorophenol	500	418	84	62-110

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1711101MS
Date Extracted: 07/17/2019
Date Analyzed (1): 07/17/2019
Instrument: 30MSS1
Lab File ID: MSS1071719.B\M1071715.D
Parent Sample ID: 30313313001
SDG No.: 30313514

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	ND	274J	55	51-85
2,4,5-Trichlorophenol	500	ND	443J	89	65-108
2,4,6-Trichlorophenol	500	ND	429	86	61-110
2,4-Dinitrotoluene	500	ND	394	79	52-106
2-Methylphenol(o-Cresol)	500	ND	441J	88	65-105
3&4-Methylphenol(m&p Cresol)	1000	ND	918J	92	69-106
Hexachloro-1,3-butadiene	500	ND	271	54	44-90
Hexachlorobenzene	500	ND	297	59	36-68
Hexachloroethane	500	ND	274	55	48-94
Nitrobenzene	500	ND	439	88	66-106
Pentachlorophenol	500	ND	446J	89	49-120
Pyridine	500	ND	116J	23	10-72

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1711102MSD

Lab File ID (2): MSS1071719.B\M1071716.D Date Analyzed (2): 07/17/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,4-Dichlorobenzene	500	256J	51		0-20	51-85
2,4,5-Trichlorophenol	500	435J	87		0-20	65-108
2,4,6-Trichlorophenol	500	421	84	2	0-20	61-110
2,4-Dinitrotoluene	500	396	79	0	0-20	52-106
2-Methylphenol(o-Cresol)	500	435J	87		0-20	65-105
3&4-Methylphenol(m&p Cresol)	1000	909J	91		0-20	69-106
Hexachloro-1,3-butadiene	500	250	50	8	0-20	44-90
Hexachlorobenzene	500	299	60	1	0-20	36-68
Hexachloroethane	500	252	50	8	0-20	48-94
Nitrobenzene	500	432	86	2	0-20	66-106
Pentachlorophenol	500	439J	88		0-20	49-120
Pyridine	500	105J	21		0-20	10-72

RPD: 0 out of 6 outside limits.

Spike Recovery: 0 out of 12 outside limits.

SAMPLE NO.

1710028LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS1 Matrix: Water Lab Sample ID: 1710028

Lab File ID: MSS1071719.B\M1071709.D Date Analyzed: 07/17/2019 Time: 20:20

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1711100LCS	1711100	MSS1071719.B\M1071710.D	07/17/2019 20:43
Sewer-1	30313514001	MSS1071819.B\M1071816.D	07/19/2019 00:52
Sewer-2	30313514002	MSS1071819.B\M1071817.D	07/19/2019 01:14

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1071519.B\M10715T4.D DFTPP Injection Date: 07/15/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 09:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	48.01	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	46.49	
70	Less than 2.00% of mass 69	0.17	(0.37)[1]
127	40.00 - 60.00% of mass 198	55.40	
197	Less than 1.00% of mass 198	0.10	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	7.14	
275	10.00 - 30.00% of mass 198	24.35	
365	Greater than 1.00% of mass 198	3.46	
441	Present, but less than mass 443	12.64	
442	Greater than 40.00% of mass 198	88.06	
443	17.00 - 23.00% of mass 442	16.99	(19.30)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11239667CAL7	11239667CAL7	MSS1071519.B\M10715Y1.D	07/15/2019	09:21
11239663CAL6	11239663CAL6	MSS1071519.B\M10715Y2.D	07/15/2019	09:43
11239662CAL5	11239662CAL5	MSS1071519.B\M10715Y3.D	07/15/2019	10:06
11239666CAL4	11239666CAL4	MSS1071519.B\M10715Y4.D	07/15/2019	10:28
11239661CAL3	11239661CAL3	MSS1071519.B\M10715Y5.D	07/15/2019	10:51
11239665CAL2	11239665CAL2	MSS1071519.B\M10715Y6.D	07/15/2019	11:13
11239664CAL1	11239664CAL1	MSS1071519.B\M10715Y7.D	07/15/2019	11:36
11239660ICV	11239660ICV	MSS1071519.B\M10715Y8.D	07/15/2019	11:59

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1071719.B\M10717T1.D DFTPP Injection Date: 07/17/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 13:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	39.78	
68	Less than 2.00% of mass 69	0.09	(0.22)[1]
69	Mass 69 relative abundance	41.98	
70	Less than 2.00% of mass 69	0.20	(0.48)[1]
127	40.00 - 60.00% of mass 198	53.42	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.78	
275	10.00 - 30.00% of mass 198	24.20	
365	Greater than 1.00% of mass 198	2.65	
441	Present, but less than mass 443	11.53	
442	Greater than 40.00% of mass 198	82.96	
443	17.00 - 23.00% of mass 442	16.60	(20.01)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11255044CCV	11255044CCV	MSS1071719.B\M10717S2.D	07/17/2019	13:51
1710028LB	1710028LB	MSS1071719.B\M1071709.D	07/17/2019	20:20
1711100LCS	1711100LCS	MSS1071719.B\M1071710.D	07/17/2019	20:43

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS1071819.B\M10718T1.D DFTPP Injection Date: 07/18/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 15:02

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	38.49	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	38.72	
70	Less than 2.00% of mass 69	0.15	(0.40)[1]
127	40.00 - 60.00% of mass 198	51.69	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.63	
275	10.00 - 30.00% of mass 198	25.08	
365	Greater than 1.00% of mass 198	3.16	
441	Present, but less than mass 443	13.86	
442	Greater than 40.00% of mass 198	95.18	
443	17.00 - 23.00% of mass 442	18.23	(19.15)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11261996CAL7	11261996CAL7	MSS1071819.B\M10718Y1.D	07/18/2019	16:11
11262002CAL6	11262002CAL6	MSS1071819.B\M10718Y2.D	07/18/2019	16:33
11262001CAL5	11262001CAL5	MSS1071819.B\M10718Y3.D	07/18/2019	16:56
11261999CAL4	11261999CAL4	MSS1071819.B\M10718Y4.D	07/18/2019	17:19
11262000CAL3	11262000CAL3	MSS1071819.B\M10718Y5.D	07/18/2019	17:42
11261995CAL2	11261995CAL2	MSS1071819.B\M10718Y6.D	07/18/2019	18:05
11261997CAL1	11261997CAL1	MSS1071819.B\M10718Y7.D	07/18/2019	18:28
11261998ICV	11261998ICV	MSS1071819.B\M10718Y8.D	07/18/2019	18:51
Sewer-1	30313514001	MSS1071819.B\M1071816.D	07/19/2019	00:52
Sewer-2	30313514002	MSS1071819.B\M1071817.D	07/19/2019	01:14

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11255044CCV Date Analyzed: 07/17/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 13:51

Lab File ID: MSS1071719.B\M10717S2.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		1268788	5.857	1951956	9.939	581173	3.443	2349435	4.431
UPPER LIMIT		2537576	6.357	3903912	10.439	1162346	3.943	4698870	4.931
LOWER LIMIT		634394	5.357	975978	9.439	290586.5	2.943	1174717.5	3.931
LAB SAMPLE ID	SAMPLE NO.								
1710028	1710028LB	1267680	5.854	1892219	9.936	601887	3.44	2411070	4.428
1711100	1711100LCS	1294144	5.853	1892923	9.934	619576	3.443	2411849	4.432

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11255044CCV Date Analyzed: 07/17/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 13:51

Lab File ID: MSS1071719.B\M10717S2.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		2118855	7.15	1863495	11.274
UPPER LIMIT		4237710	7.65	3726990	11.774
LOWER LIMIT		1059427.5	6.65	931747.5	10.774
LAB SAMPLE ID	SAMPLE NO.				
1710028	1710028LB	2096211	7.147	1916776	11.271
1711100	1711100LCS	2124964	7.145	1879625	11.269

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11261999CAL4 Date Analyzed: 07/18/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 17:19

Lab File ID: MSS1071819.B\M10718Y4.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		1197448	5.752	1785477	9.802	556634	3.343	2247348	4.331
UPPER LIMIT		2394896	6.252	3570954	10.302	1113268	3.843	4494696	4.831
LOWER LIMIT		598724	5.252	892738.5	9.302	278317	2.843	1123674	3.831
LAB SAMPLE ID	SAMPLE NO.								
30313514001	Sewer-1	1219829	5.743	1712610	9.792	566405	3.339	2274319	4.322
30313514002	Sewer-2	1205950	5.741	1695532	9.79	557927	3.337	2273390	4.32

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11261999CAL4 Date Analyzed: 07/18/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 17:19

Lab File ID: MSS1071819.B\M10718Y4.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		2002950	7.002	1787973	11.132
UPPER LIMIT		4005900	7.502	3575946	11.632
LOWER LIMIT		1001475	6.502	893986.5	10.632
LAB SAMPLE ID	SAMPLE NO.				
30313514001	Sewer-1	2041937	6.993	1280771	11.128
30313514002	Sewer-2	2039845	6.991	1305080	11.126

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Sewer-1

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/17/2019 10:25
Lab Sample ID: 30313514001
Date Analyzed: 07/19/2019 00:52
Lab File ID: MSS1071819.B\M1071816.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m1071816.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 19-JUL-2019 00:52
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30313514001
Misc Info : 14841
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 18:28 Cal File: m10718y7.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.452	2.456	(0.734)	1207256	6.88937	689	
$	4 Phenol-d6 (S)	99	3.114	3.118	(0.933)	1439955	6.55574	656	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.339	3.343	(1.000)	566405	4.00000		
	12 1,4-Dichlorobenzene	146	3.349	3.354	(1.003)	189	8e-004	0.0812	
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						(D)
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.777	3.781	(0.874)	390085	4.16169	416	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
*	30 Naphthalene-d8 (IS)	136	4.321	4.326	(1.000)	2274319	4.00000		
	31 Naphthalene	128	4.338	4.342	(1.004)	1304	0.00247	0.246	
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.203	5.207	(0.906)	1465203	3.86581	386	
*	50 Acenaphthene-d10 (IS)	164	5.742	5.747	(1.000)	1219829	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	6.389	6.393	(0.914)	334996	5.67176	567	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	6.993	6.997	(1.000)	2041937	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.739	8.738	(0.893)	1362014	3.42420	342	
* 82 Chrysene-d12 (IS)	240	9.792	9.796	(1.000)	1712610	4.00000		
* 88 Perylene-d12 (IS)	264	11.127	11.132	(1.000)	1280771	4.00000		

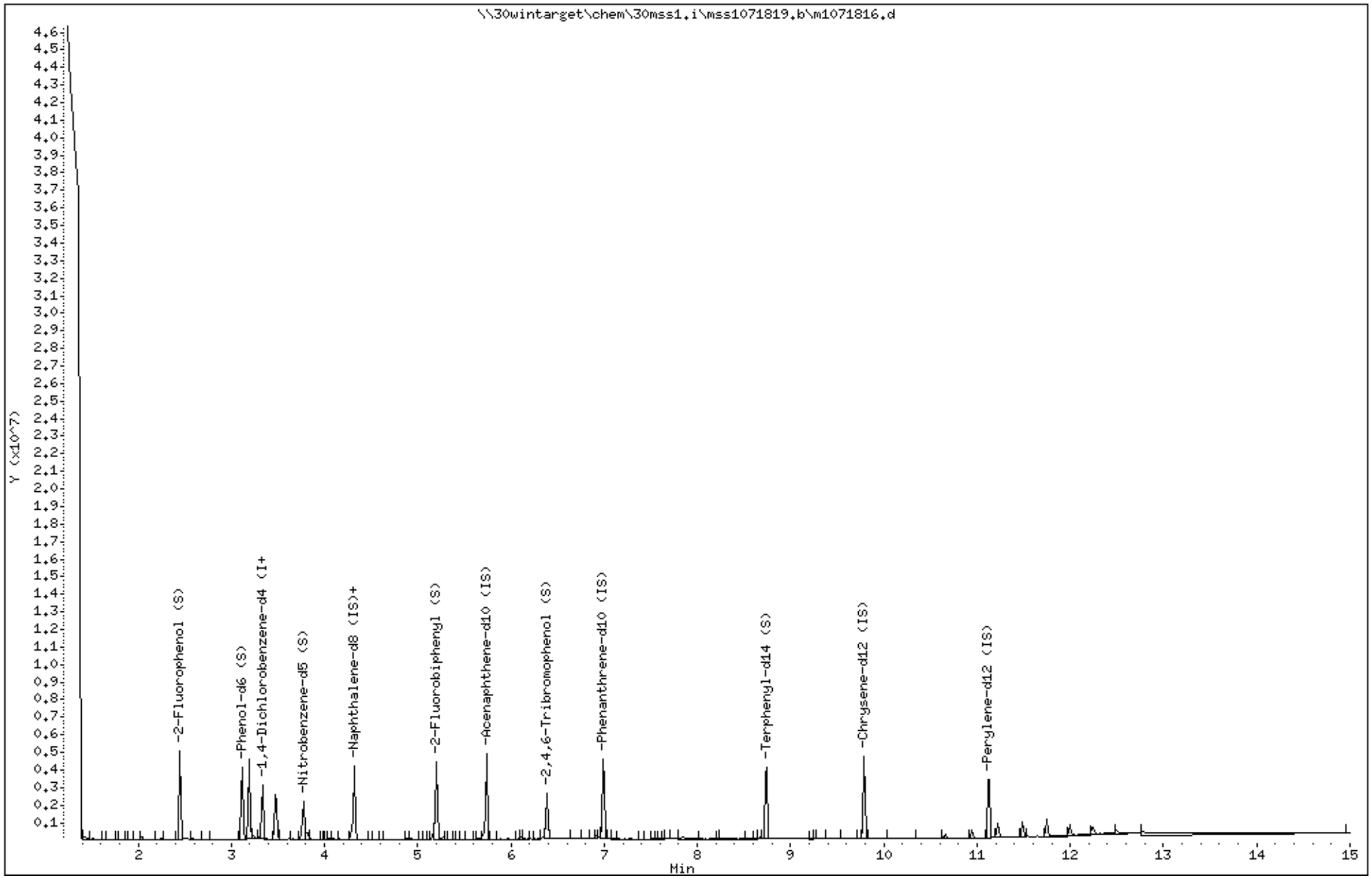
QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071816.d
Date : 19-JUL-2019 00:52
Client ID: Sewer-1
Instrument: 30mss1.i
Sample Info: 30313514001
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071816.d

Date : 19-JUL-2019 00:52

Client ID: Sewer-1

Instrument: 30mss1.i

Sample Info: 30313514001

Volume Injected (uL): 1.0

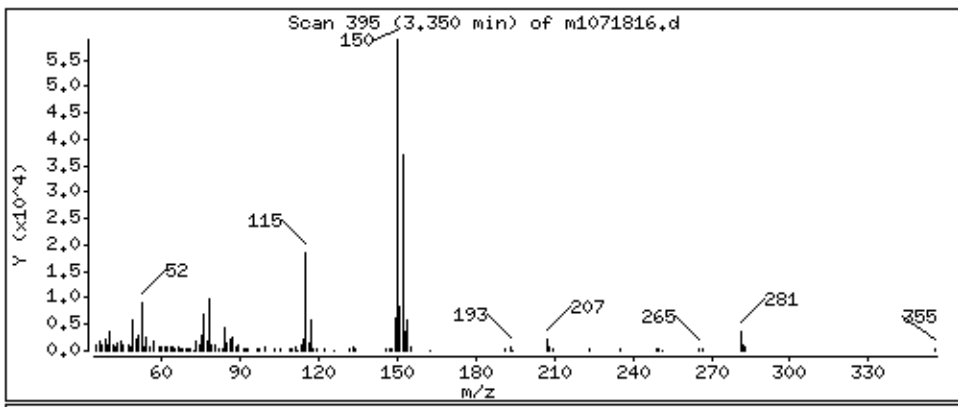
Operator: EAC

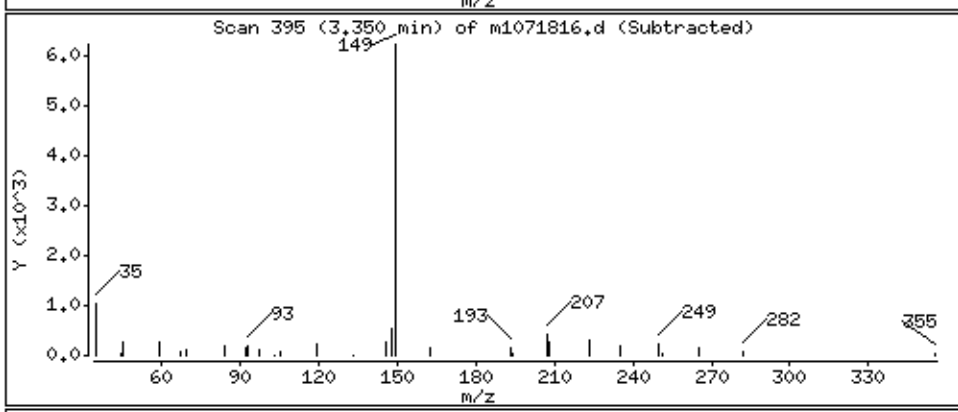
Column phase: RTX-5MS

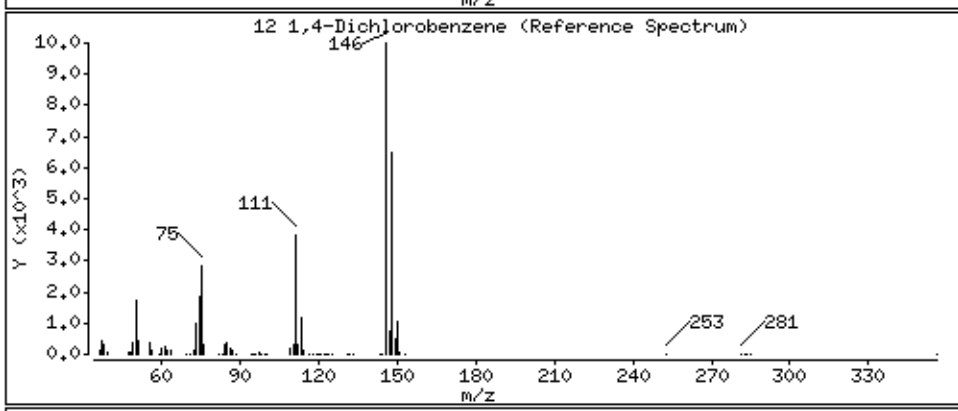
Column diameter: 0.18

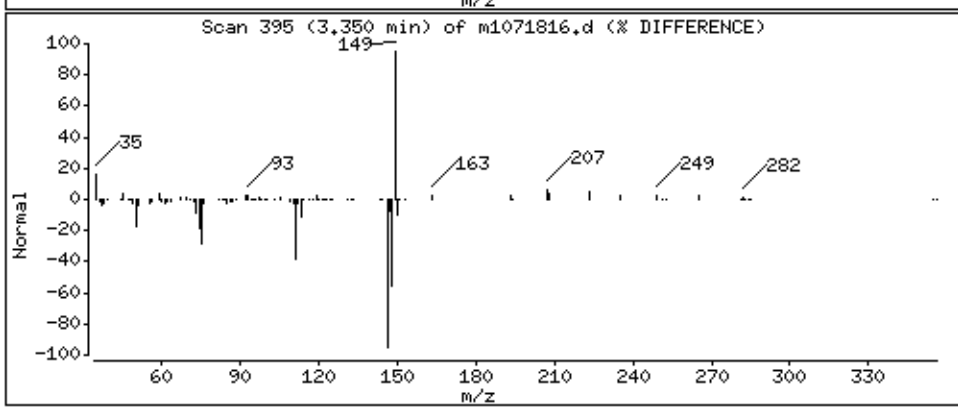
12 1,4-Dichlorobenzene

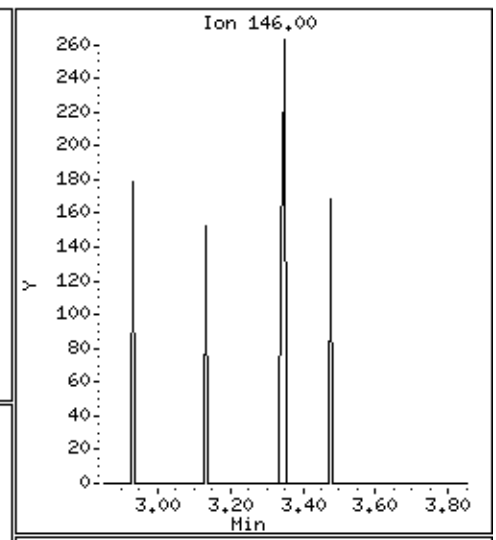
Concentration: 0.0812 ug/Kg

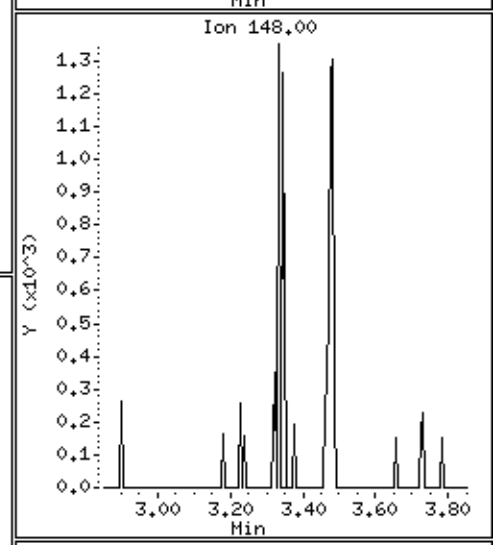


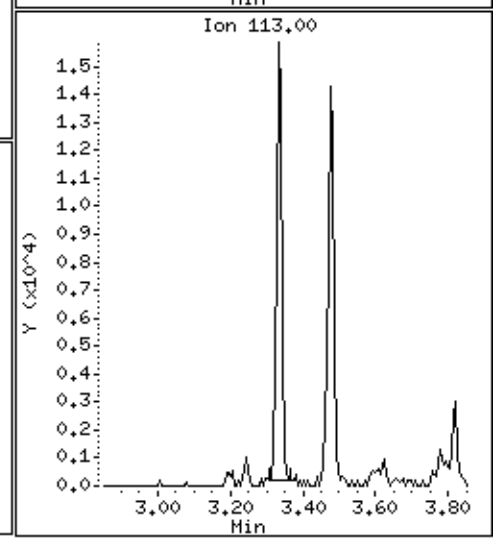












Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071816.d

Date : 19-JUL-2019 00:52

Client ID: Sewer-1

Instrument: 30mss1.i

Sample Info: 30313514001

Volume Injected (uL): 1.0

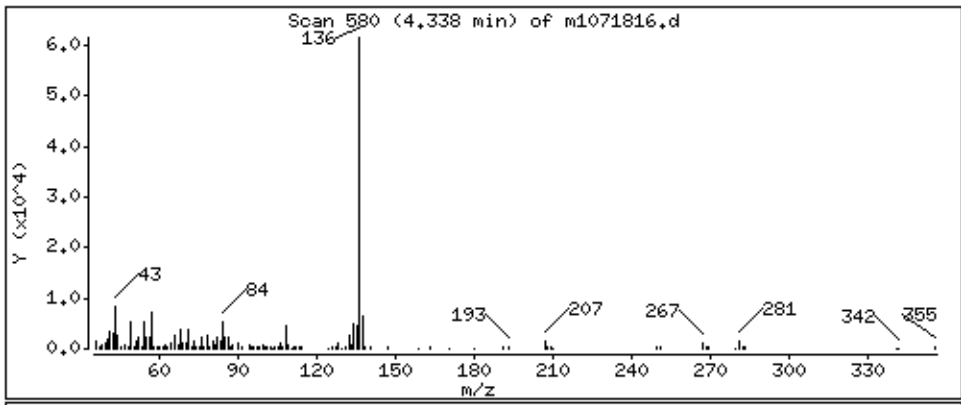
Operator: EAC

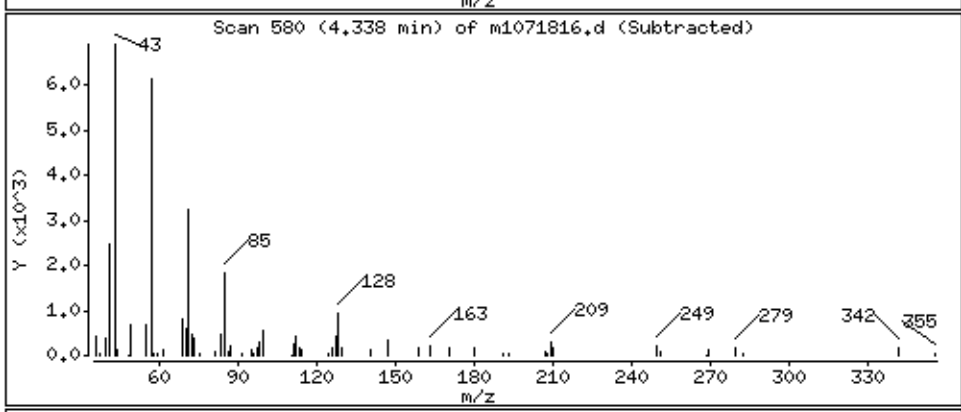
Column phase: RTX-5MS

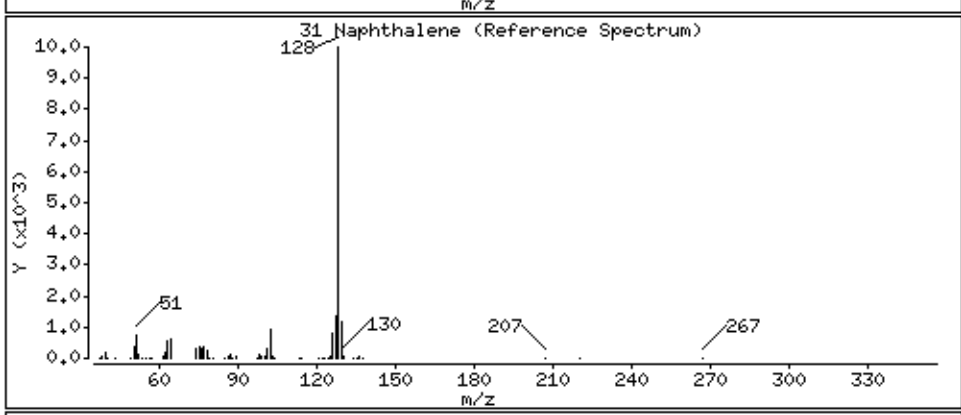
Column diameter: 0.18

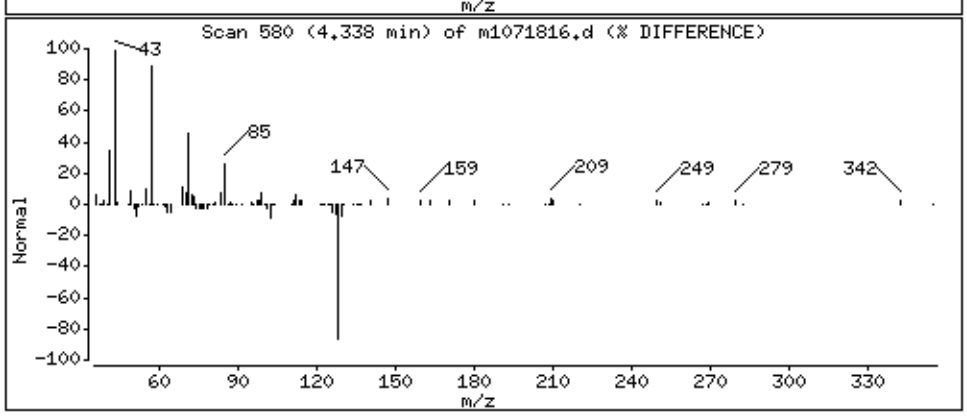
31 Naphthalene

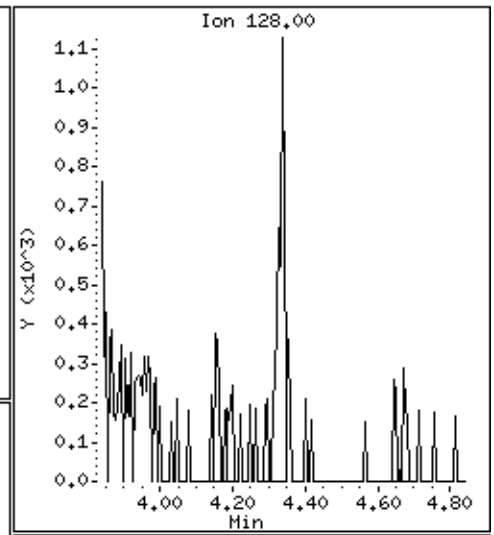
Concentration: 0.246 ug/Kg

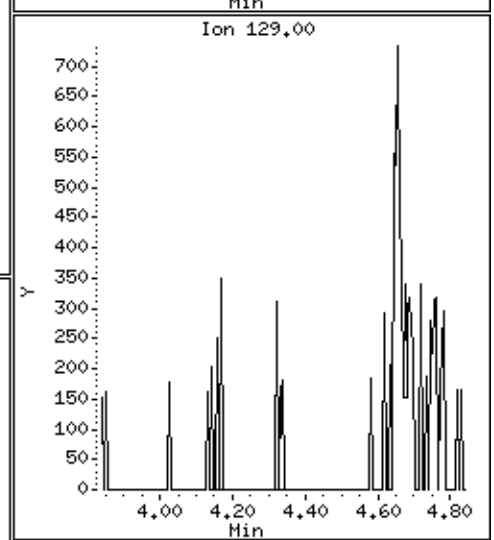












Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m1071816.d
Injection Date: 19-JUL-2019 00:52
Instrument: 30mss1.i
Lab Sample ID: 30313514001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Sewer-2

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/17/2019 10:25
Lab Sample ID: 30313514002
Date Analyzed: 07/19/2019 01:14
Lab File ID: MSS1071819.B\M1071817.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m1071817.d
Lab Smp Id: 30313514002 Client Smp ID: Sewer-2
Inj Date : 19-JUL-2019 01:14
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30313514002
Misc Info : 14841
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 18:28 Cal File: m10718y7.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.450	2.456	(0.734)	1173216	6.79685	680	
$	4 Phenol-d6 (S)	99	3.117	3.118	(0.934)	1437306	6.64312	664	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.337	3.343	(1.000)	557927	4.00000		
	12 1,4-Dichlorobenzene	146	3.347	3.354	(1.003)	62	0.00027	0.0270	
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						(D)
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.780	3.781	(0.875)	387922	4.14030	414	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
*	30 Naphthalene-d8 (IS)	136	4.319	4.326	(1.000)	2273390	4.00000		
	31 Naphthalene	128	4.341	4.342	(1.005)	959	0.00181	0.181	
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.201	5.207	(0.906)	1427647	3.81008	381	
*	50 Acenaphthene-d10 (IS)	164	5.740	5.747	(1.000)	1205950	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	6.387	6.393	(0.914)	330695	5.60468	560	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	6.991	6.997	(1.000)	2039845	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.737	8.738	(0.892)	1349132	3.42598	342	
* 82 Chrysene-d12 (IS)	240	9.790	9.796	(1.000)	1695532	4.00000		
* 88 Perylene-d12 (IS)	264	11.125	11.132	(1.000)	1305080	4.00000		

QC Flag Legend

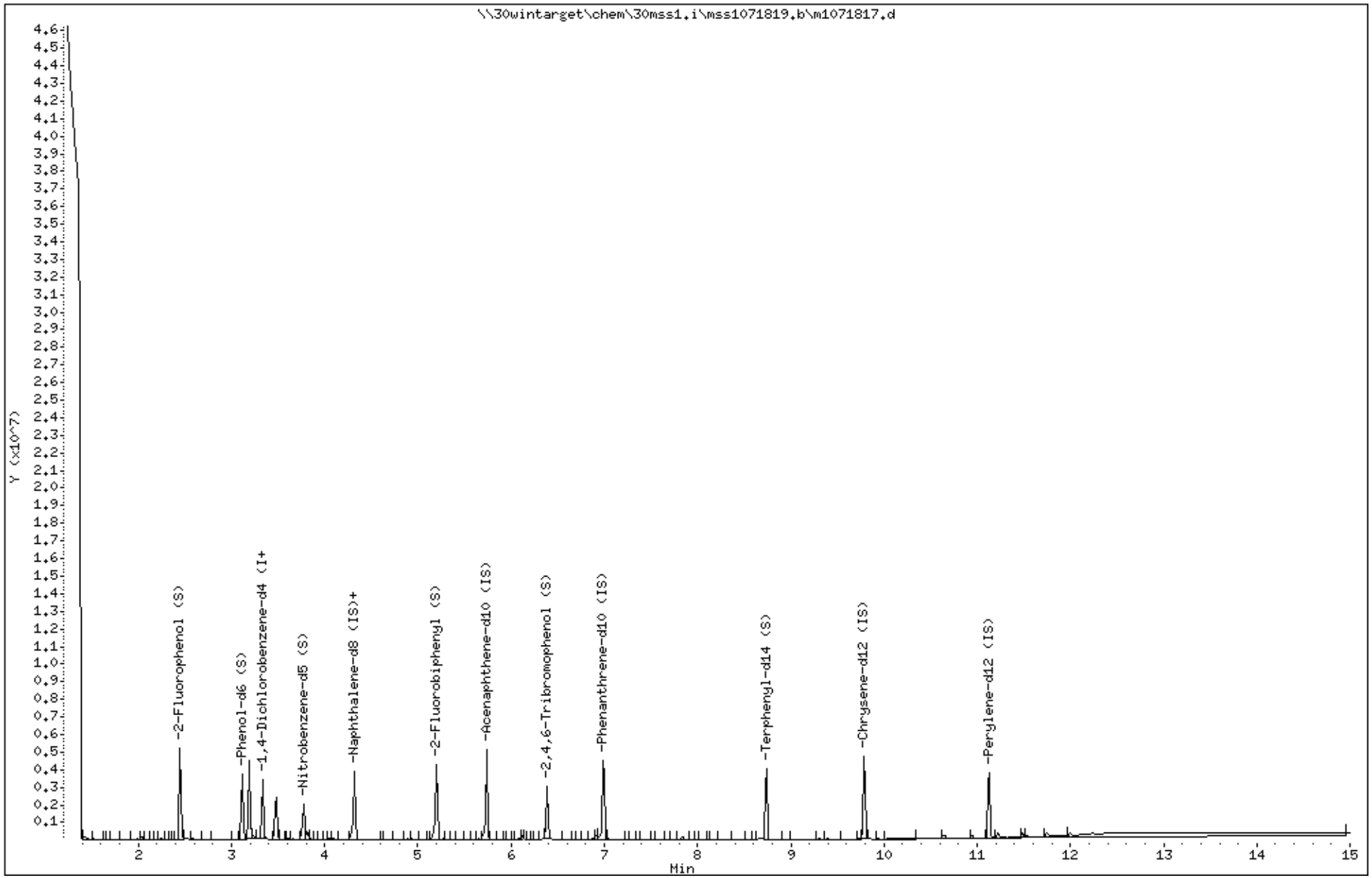
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071817.d
Date : 19-JUL-2019 01:14
Client ID: Sewer-2
Sample Info: 30313514002
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071817.d

Date : 19-JUL-2019 01:14

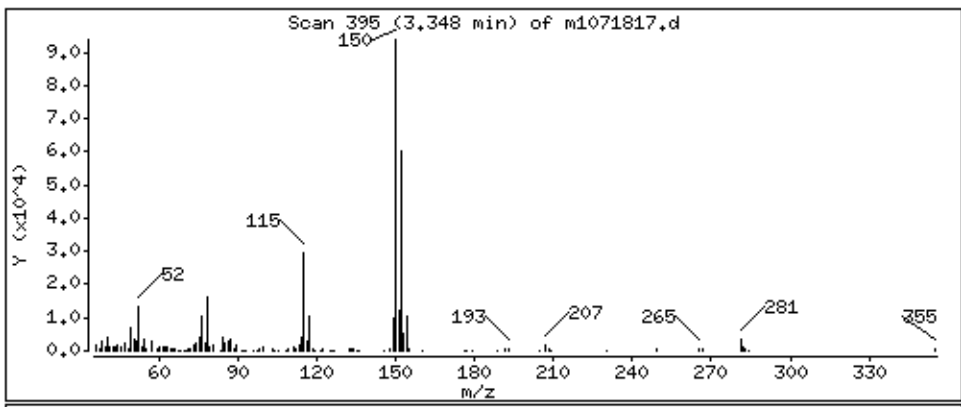
Client ID: Sewer-2 Instrument: 30mss1.i

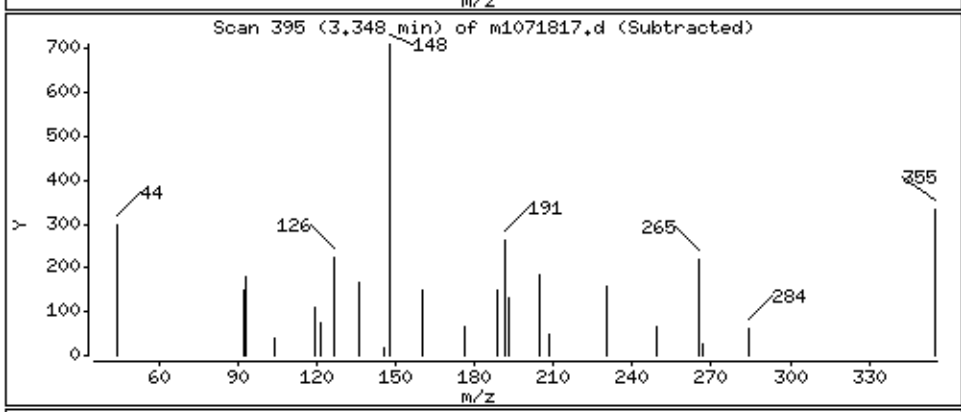
Sample Info: 30313514002

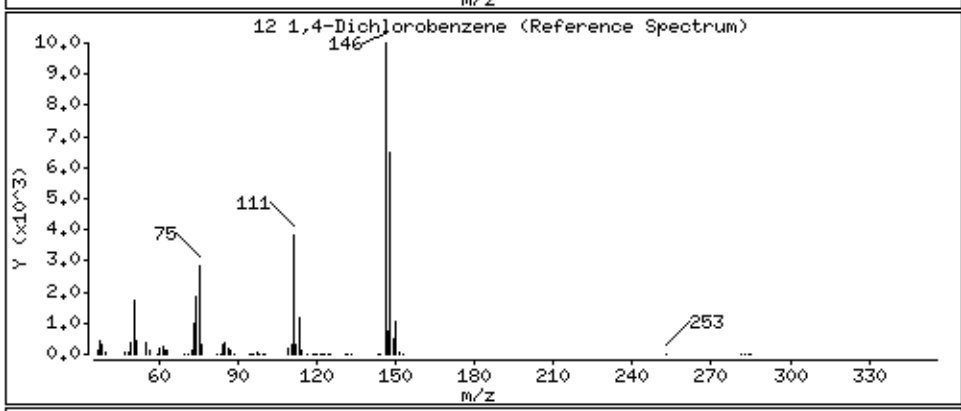
Volume Injected (uL): 1.0 Operator: EAC

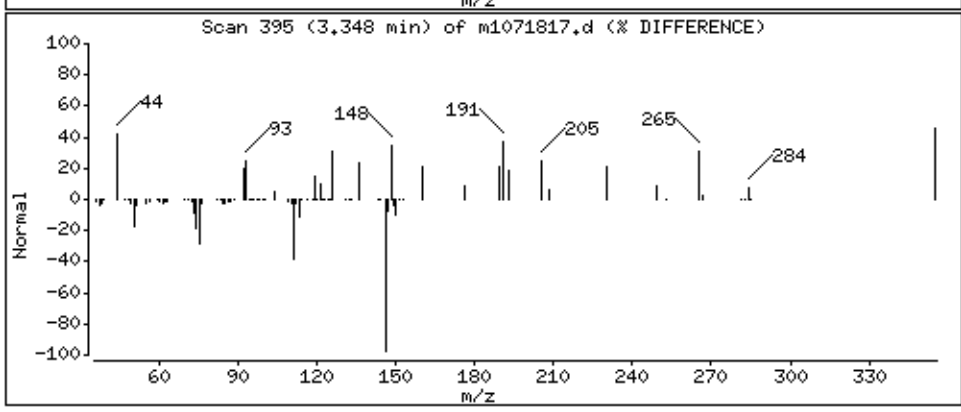
Column phase: RTX-5MS Column diameter: 0.18

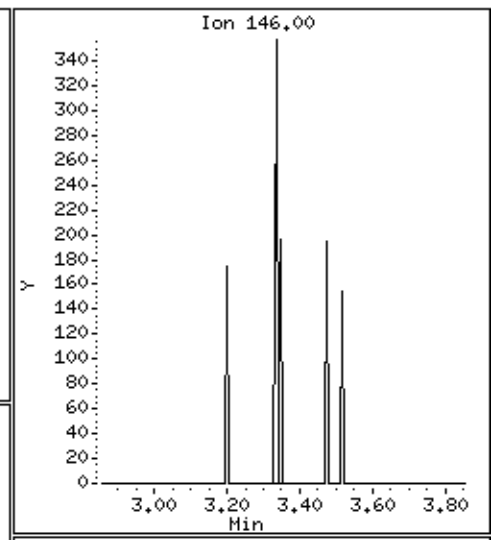
12 1,4-Dichlorobenzene Concentration: 0.0270 ug/Kg

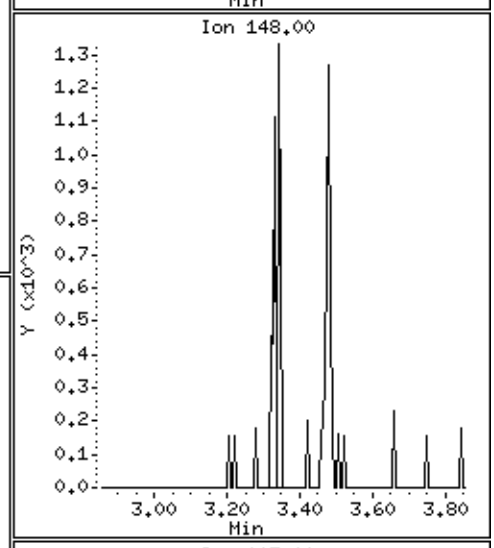


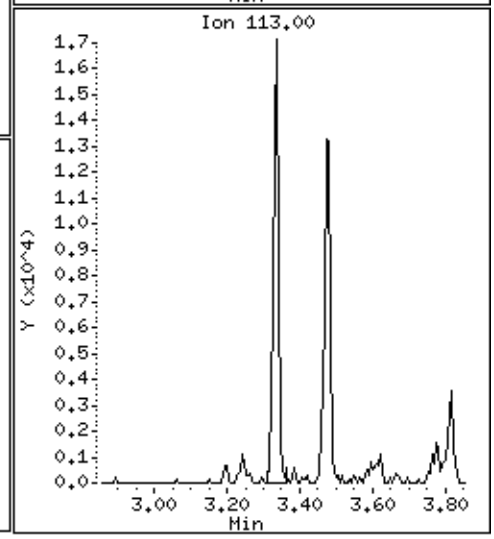












Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m1071817.d

Date : 19-JUL-2019 01:14

Client ID: Sewer-2

Instrument: 30mss1.i

Sample Info: 30313514002

Volume Injected (uL): 1.0

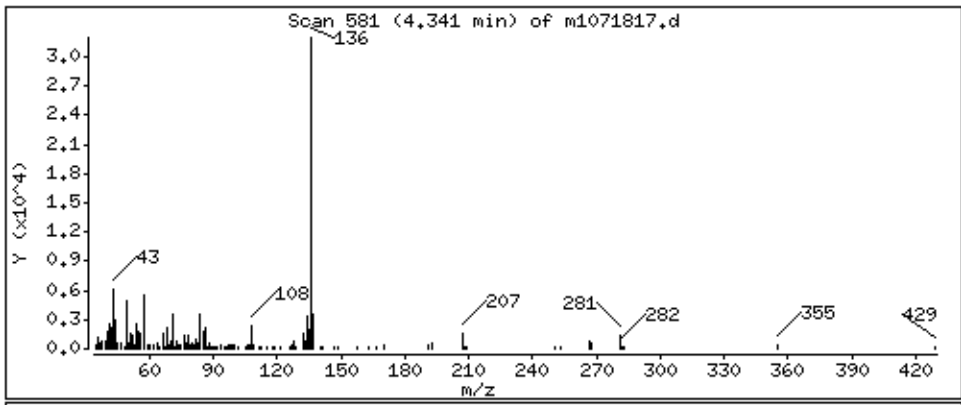
Operator: EAC

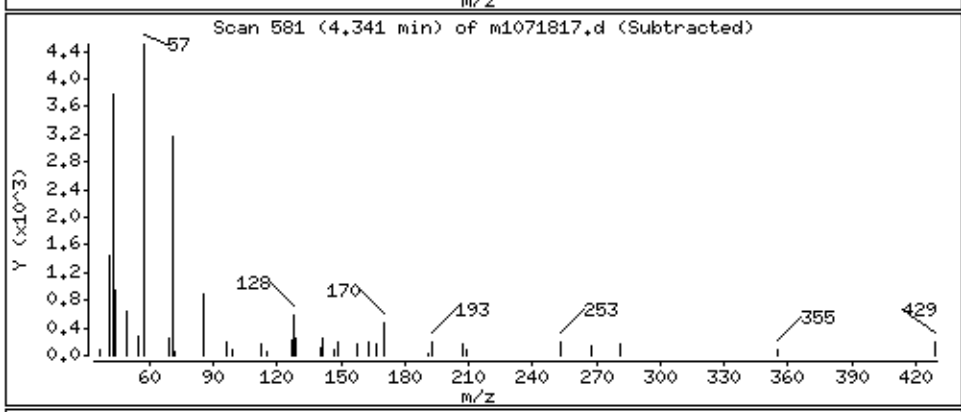
Column phase: RTX-5MS

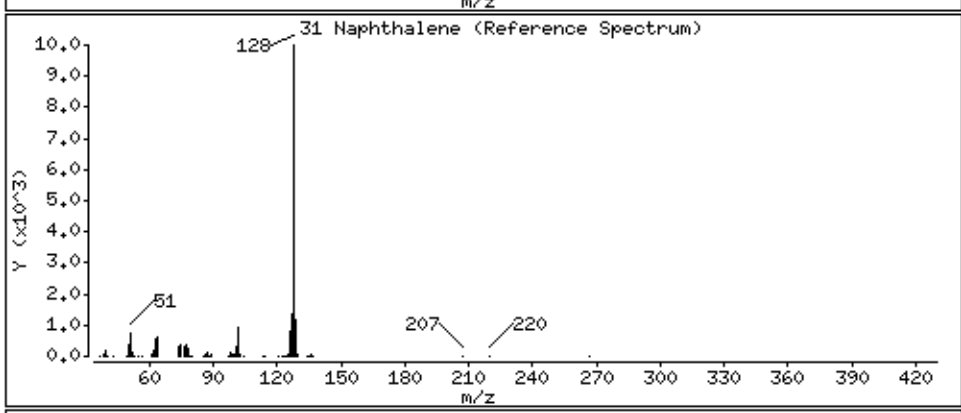
Column diameter: 0.18

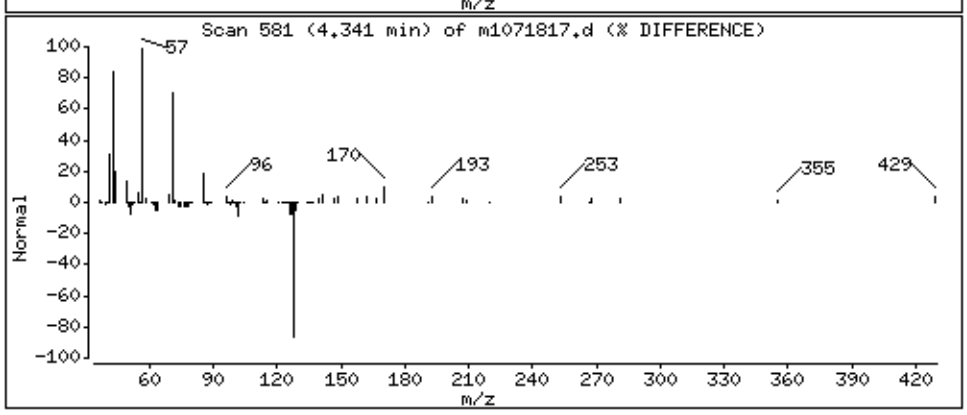
31 Naphthalene

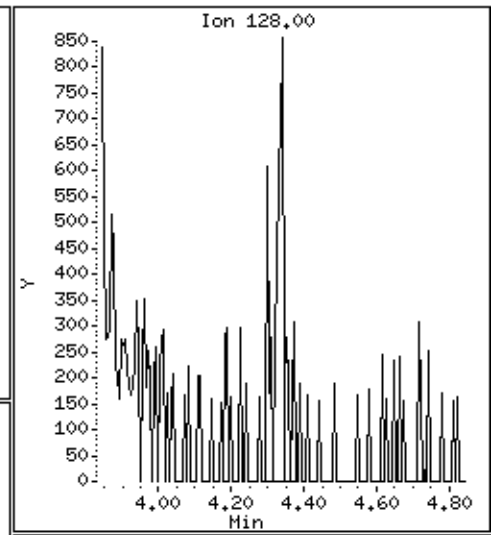
Concentration: 0.181 ug/Kg

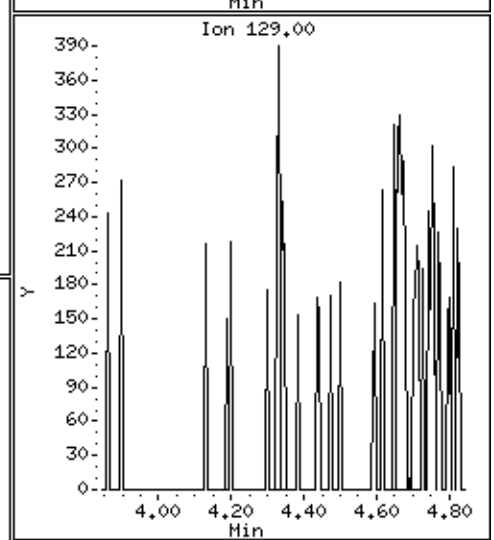












Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m1071817.d
Injection Date: 19-JUL-2019 01:14
Instrument: 30mss1.i
Lab Sample ID: 30313514002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 07/15/2019 07/15/2019 Calibration Time(s): 09:21 11:36

LAB FILE ID

CAL1 = MSS1071519.B\M10715Y7.D CAL2 = MSS1071519.B\M10715Y6.D CAL3 = MSS1071519.B\M10715Y5.D

CAL4 = MSS1071519.B\M10715Y4.D CAL5 = MSS1071519.B\M10715Y3.D CAL6 = MSS1071519.B\M10715Y2.D

CAL7 = MSS1071519.B\M10715Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.78889	1.72117	1.60637	1.62823	1.70773	1.61190
2,4-Dinitrotoluene	Averaged	0.39117	0.36562	0.39623	0.39030	0.39337	0.37669
Hexachloro-1,3-butadiene	Averaged	0.16836	0.15783	0.15829	0.15714	0.15926	0.15678
Hexachlorobenzene	Averaged	0.22864	0.21311	0.20877	0.20597	0.21573	0.21580
Hexachloroethane	Averaged	0.60486	0.57400	0.57055	0.58410	0.60341	0.58308
2-Methylphenol(o-Cresol)	Averaged	1.43657	1.29487	1.27654	1.29873	1.32429	1.27799
3&4-Methylphenol(m&p Cresol)	Averaged	1.43238	1.35270	1.32786	1.30874	1.31940	1.27563
Nitrobenzene	Averaged	0.35466	0.34757	0.33690	0.33525	0.32923	0.32017
Pentachlorophenol	Averaged	0.10942	0.10615	0.12202	0.12907	0.12947	0.14032
Pyridine	Averaged	1.85763	1.79501	1.69777	1.65460	1.63325	1.64643
2,4,5-Trichlorophenol	Averaged	0.33438	0.32864	0.34544	0.33484	0.36280	0.35173
2,4,6-Trichlorophenol	Averaged	0.40934	0.39315	0.38620	0.38754	0.37355	0.37423
2-Fluorobiphenyl (S)	Averaged	1.45037	1.32239	1.26657	1.19971	1.16435	1.09497
2-Fluorophenol (S)	Averaged	1.57038	1.37142	1.24291	1.33179	1.22458	1.29790
Nitrobenzene-d5 (S)	Averaged	0.16488	0.16331	0.16518	0.16608	0.16629	0.16416
Phenol-d6 (S)	Averaged	1.82179	1.55713	1.53826	1.51111	1.56050	1.48776
Terphenyl-d14 (S)	Averaged	1.02530	0.99793	0.98085	0.97479	0.89081	0.87880
2,4,6-Tribromophenol (S)	Averaged	0.10221	0.10227	0.10576	0.10719	0.10923	0.11503

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 07/15/2019 07/15/2019 Calibration Time(s): 09:21 11:36

LAB FILE ID

CAL1 = MSS1071519.B\M10715Y7.D CAL2 = MSS1071519.B\M10715Y6.D CAL3 = MSS1071519.B\M10715Y5.D

CAL4 = MSS1071519.B\M10715Y4.D CAL5 = MSS1071519.B\M10715Y3.D CAL6 = MSS1071519.B\M10715Y2.D

CAL7 = MSS1071519.B\M10715Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.55295	4.93773			1.65961	
2,4-Dinitrotoluene	Averaged	0.37488	3.01220			0.38404	
Hexachloro-1,3-butadiene	Averaged	0.15644	2.62029			0.15916	
Hexachlorobenzene	Averaged	0.21783	3.39026			0.21512	
Hexachloroethane	Averaged	0.56073	2.82520			0.58296	
2-Methylphenol(o-Cresol)	Averaged	1.22269	5.05937			1.30452	
3&4-Methylphenol(m&p Cresol)	Averaged	1.02887	9.74852			1.29223	
Nitrobenzene	Averaged	0.30788	4.76474			0.33310	
Pentachlorophenol	Averaged	0.13610	10.36020			0.12465	
Pyridine	Averaged	1.56561	5.95484			1.69290	
2,4,5-Trichlorophenol	Averaged	0.35057	3.50192			0.34406	
2,4,6-Trichlorophenol	Averaged	0.37128	3.51926			0.38504	
2-Fluorobiphenyl (S)	Averaged	1.04550	11.35808			1.22055	
2-Fluorophenol (S)	Averaged	1.24554	9.04041			1.32636	
Nitrobenzene-d5 (S)	Averaged	0.16176	0.97109			0.16452	
Phenol-d6 (S)	Averaged	1.46447	7.64585			1.56300	
Terphenyl-d14 (S)	Averaged	0.77020	9.60178			0.93124	
2,4,6-Tribromophenol (S)	Averaged	0.11383	4.73648			0.10793	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 16:11 18:28

LAB FILE ID

CAL1 = MSS1071819.B\M10718Y7.D CAL2 = MSS1071819.B\M10718Y6.D CAL3 = MSS1071819.B\M10718Y5.D

CAL4 = MSS1071819.B\M10718Y4.D CAL5 = MSS1071819.B\M10718Y3.D CAL6 = MSS1071819.B\M10718Y2.D

CAL7 = MSS1071819.B\M10718Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.74593	1.59914	1.57390	1.59972	1.73779	1.48768
2,4-Dinitrotoluene	Averaged	0.38497	0.38415	0.38874	0.39633	0.38192	0.39167
Hexachloro-1,3-butadiene	Averaged	0.16413	0.15857	0.15804	0.15477	0.15989	0.15730
Hexachlorobenzene	Averaged	0.23843	0.21667	0.21311	0.21149	0.21985	0.22345
Hexachloroethane	Averaged	0.56634	0.57514	0.57394	0.56252	0.58410	0.57666
2-Methylphenol(o-Cresol)	Averaged	1.36130	1.30437	1.31681	1.28063	1.28217	1.27452
3&4-Methylphenol(m&p Cresol)	Averaged	1.44267	1.38457	1.35657	1.32277	1.31310	1.31499
Nitrobenzene	Averaged	0.35415	0.34163	0.34786	0.33437	0.33285	0.33172
Pentachlorophenol	Averaged	0.10935	0.11495	0.11280	0.13265	0.13656	0.13957
Pyridine	Averaged	1.28987	1.33366	1.31357	1.27322	1.00980	1.30966
2,4,5-Trichlorophenol	Averaged	0.36223	0.33822	0.34600	0.33802	0.35445	0.33612
2,4,6-Trichlorophenol	Averaged	0.40328	0.40046	0.39410	0.39803	0.36398	0.40117
2-Fluorobiphenyl (S)	Averaged	1.43636	1.33857	1.28671	1.22183	1.16522	1.16628
2-Fluorophenol (S)	Averaged	1.30611	1.27751	1.29515	1.25499	1.15628	1.23314
Nitrobenzene-d5 (S)	Averaged	0.16753	0.16124	0.16702	0.16414	0.16336	0.16708
Phenol-d6 (S)	Averaged	1.64380	1.57906	1.55956	1.54483	1.52823	1.51345
Terphenyl-d14 (S)	Averaged	0.99245	1.00156	0.95974	0.90645	0.88588	0.91869
2,4,6-Tribromophenol (S)	Averaged	0.11094	0.10951	0.11098	0.11474	0.11798	0.12448

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 07/18/2019 07/18/2019 Calibration Time(s): 16:11 18:28

LAB FILE ID

CAL1 = MSS1071819.B\M10718Y7.D CAL2 = MSS1071819.B\M10718Y6.D CAL3 = MSS1071819.B\M10718Y5.D

CAL4 = MSS1071819.B\M10718Y4.D CAL5 = MSS1071819.B\M10718Y3.D CAL6 = MSS1071819.B\M10718Y2.D

CAL7 = MSS1071819.B\M10718Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.76247	6.40665			1.64380	
2,4-Dinitrotoluene	Averaged	0.37599	1.72802			0.38625	
Hexachloro-1,3-butadiene	Averaged	0.15973	1.80759			0.15892	
Hexachlorobenzene	Averaged	0.22028	4.06269			0.22047	
Hexachloroethane	Averaged	0.58076	1.32318			0.57421	
2-Methylphenol(o-Cresol)	Averaged	1.27225	2.46753			1.29886	
3&4-Methylphenol(m&p Cresol)	Averaged	1.25959	4.39611			1.34204	
Nitrobenzene	Averaged	0.31100	4.13030			0.33623	
Pentachlorophenol	Averaged	0.14084	10.83731			0.12668	
Pyridine	Averaged		9.71193			1.25496	
2,4,5-Trichlorophenol	Averaged	0.35370	2.90471			0.34696	
2,4,6-Trichlorophenol	Averaged	0.35841	4.87353			0.38849	
2-Fluorobiphenyl (S)	Averaged	1.08496	9.62138			1.24285	
2-Fluorophenol (S)	Averaged	1.13947	5.33610			1.23752	
Nitrobenzene-d5 (S)	Averaged	0.16361	1.44716			0.16485	
Phenol-d6 (S)	Averaged	1.48927	3.25019			1.55117	
Terphenyl-d14 (S)	Averaged	0.83836	6.35668			0.92902	
2,4,6-Tribromophenol (S)	Averaged	0.12129	4.96237			0.11570	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 15-JUL-2019 09:21
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14828,93073:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 09:21 Cal File: m10715y1.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.721	1.700	(0.478)	3398159	20.0000	19.1	
	2 Pyridine	79	1.694	1.689	(0.470)	5006904	20.0000	18.9	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.751)	3983312	20.0000	18.7	
$	4 Phenol-d6 (S)	99	3.366	3.351	(0.935)	4683453	20.0000	19.4	
	5 Benzaldehyde	77	3.291	3.281	(0.914)	3737900	20.0000	21.4(A)	
	6 Phenol	94	3.377	3.361	(0.938)	5010149	20.0000	18.7	
	7 Aniline	66	3.398	3.383	(0.944)	2159397	20.0000	19.6	
	8 bis(2-Chloroethyl)ether	63	3.436	3.425	(0.954)	3073128	20.0000	20.2(A)	
	9 2-Chlorophenol	128	3.473	3.463	(0.964)	4323924	20.0000	19.7	
	10 1,3-Dichlorobenzene	146	3.574	3.570	(0.993)	4408035	20.0000	18.1	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.601	3.596	(1.000)	639612	4.00000		
	12 1,4-Dichlorobenzene	146	3.617	3.607	(1.004)	4966421	20.0000	19.1(M)	LT
	13 Benzyl Alcohol	79	3.729	3.719	(1.036)	3556037	20.0000	20.5(A)	
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.043)	4468797	20.0000	19.3	
	15 2-Methylphenol(o-Cresol)	108	3.815	3.810	(1.059)	3910232	20.0000	18.8	
	16 bis(2-Chloroisopropyl)ether	45	3.842	3.837	(1.067)	6178043	20.0000	17.8	
	17 3&4-Methylphenol(m&p Cresol)	108	3.938	3.917	(1.093)	3290383	20.0000	15.7(H)	
	18 N-Nitroso-di-n-propylamine	70	3.964	3.938	(1.101)	3003458	20.0000	18.8	
	19 Acetophenone	105	3.932	3.922	(1.092)	4972295	20.0000	17.6	
	20 Hexachloroethane	117	3.991	3.986	(1.108)	1793243	20.0000	19.2	
$	21 Nitrobenzene-d5 (S)	128	4.050	4.040	(0.881)	2075997	20.0000	19.5	
	22 Nitrobenzene	77	4.066	4.050	(0.885)	3951202	20.0000	18.4	
	23 Isophorone	82	4.253	4.232	(0.926)	7175189	20.0000	18.2	
	24 2,4-Dimethylphenol	107	4.344	4.333	(0.945)	3993908	20.0000	19.0	
	25 2-Nitrophenol	139	4.312	4.301	(0.938)	2314348	20.0000	19.1	
	26 Benzoic acid	105	4.472	4.376	(0.973)	2832521	20.0000	0.228(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.418	4.408	(0.962)	4446255	20.0000	18.6	
	28 2,4-Dichlorophenol	162	4.493	4.483	(0.978)	3327910	20.0000	18.9	
	29 1,2,4-Trichlorobenzene	180	4.563	4.558	(0.993)	3633977	20.0000	19.1	
*	30 Naphthalene-d8 (IS)	136	4.595	4.590	(1.000)	2566688	4.00000		
	31 Naphthalene	128	4.611	4.606	(1.003)	8978139	20.0000	15.4	
	32 4-Chloroaniline	65	4.664	4.659	(1.015)	1353256	20.0000	19.4	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	2007667	20.0000	19.9	
	34 Caprolactam	55	4.969	4.894	(1.081)	1643611	20.0000	17.5(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.060	5.049	(1.101)	3427437	20.0000	19.2(M)	LT
	36	2-Methylnaphthalene	142	5.166	5.162	(1.124)	7312325	20.0000	17.1	
	37	1-Methylnaphthalene	142	5.252	5.247	(1.143)	6866478	20.0000	17.2	
	38	Hexachlorocyclopentadiene	237	5.353	5.348	(0.888)	2479020	20.0000	20.6(AM)	LT
	39	1,2,4,5-Tetrachlorobenzene	216	5.337	5.327	(0.885)	3222865	20.0000	19.6	
	40	2,4,6-Trichlorophenol	196	5.417	5.407	(0.898)	2510555	20.0000	19.2	
	41	2,4,5-Trichlorophenol	196	5.450	5.439	(0.903)	2370498	20.0000	20.9(A)	
$	42	2-Fluorobiphenyl (S)	172	5.482	5.471	(0.909)	7069498	20.0000	17.4	
	43	Biphenyl (Diphenyl)	154	5.551	5.541	(0.920)	7520566	20.0000	16.5(M)	LT
	44	2-Chloronaphthalene	164	5.562	5.551	(0.922)	2447504	20.0000	20.1(A)	
	45	2-Nitroaniline	138	5.669	5.653	(0.940)	2708792	20.0000	18.9	
	46	Dimethylphthalate	163	5.845	5.829	(0.969)	6550420	20.0000	17.9	
	47	2,6-Dinitrotoluene	165	5.898	5.883	(0.978)	1969417	20.0000	19.8	
	48	Acenaphthylene	152	5.909	5.899	(0.980)	8614937	20.0000	15.4	
	49	3-Nitroaniline	65	6.010	5.990	(0.996)	2330248	20.0000	20.6(A)	
*	50	Acenaphthene-d10 (IS)	164	6.032	6.022	(1.000)	1352368	4.00000		
	51	2,4-Dinitrophenol	184	6.091	6.075	(1.010)	1191872	20.0000	19.6	
	52	Acenaphthene	153	6.059	6.048	(1.004)	6343657	20.0000	17.4	
	53	4-Nitrophenol	109	6.149	6.123	(1.019)	1035197	20.0000	0.116(M)	LT
	54	2,4-Dinitrotoluene	165	6.219	6.198	(1.031)	2534852	20.0000	19.2	
	55	Dibenzofuran	168	6.187	6.176	(1.026)	8041787	20.0000	16.3	
	56	2,3,4,6-Tetrachlorophenol	232	6.320	6.315	(1.048)	1944396	20.0000	20.1(A)	
	57	Diethylphthalate	149	6.422	6.406	(1.065)	6787884	20.0000	17.0	
	58	4-Chlorophenylphenyl ether	204	6.465	6.460	(1.072)	3752938	20.0000	18.9	
	59	Fluorene	166	6.470	6.460	(1.073)	7181297	20.0000	17.6	
	60	4-Nitroaniline	108	6.529	6.492	(1.082)	1150406	20.0000	19.7(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.561	6.534	(0.889)	1537699	20.0000	19.6	
	62	N-Nitrosodiphenylamine	169	6.577	6.556	(0.891)	6343144	20.0000	18.0	
	63	Azobenzene	77	6.598	6.588	(0.894)	6569916	20.0000	17.6	
	64	1,2-Diphenylhydrazine	77	6.598	6.588	(0.894)	6569916	20.0000	17.6	
$	65	2,4,6-Tribromophenol (S)	330	6.689	6.679	(0.907)	1269597	20.0000	21.2(A)	
	66	4-Bromophenylphenyl ether	248	6.903	6.892	(0.936)	2400095	20.0000	20.6(A)	
	67	Hexachlorobenzene	284	7.063	7.053	(0.957)	2429521	20.0000	21.2(A)	
	68	Atrazine	200	7.132	7.106	(0.967)	2265696	20.0000	19.1	
	69	Pentachlorophenol	266	7.250	7.240	(0.983)	1517914	20.0000	21.1(A)	
*	70	Phenanthrene-d10 (IS)	188	7.378	7.368	(1.000)	2230644	4.00000		
	71	Phenanthrene	178	7.410	7.395	(1.004)	10094097	20.0000	16.8	
	72	Anthracene	178	7.458	7.437	(1.011)	9955947	20.0000	17.4	
	73	Carbazole	167	7.634	7.614	(1.035)	8674353	20.0000	16.3	
	74	Di-n-butylphthalate	149	8.078	8.068	(1.095)	9912218	20.0000	16.2	
	75	Fluoranthene	202	8.676	8.666	(1.176)	9496296	20.0000	16.3	
	76	Pyrene	202	8.911	8.896	(0.877)	9481501	20.0000	14.9	
$	77	Terphenyl-d14 (S)	244	9.093	9.083	(0.894)	7685748	20.0000	15.8	
	78	Butylbenzylphthalate	149	9.643	9.633	(0.949)	5367366	20.0000	18.1	
	79	3,3'-Dichlorobenzidine	252	10.151	10.135	(0.998)	4117834	20.0000	20.0	
	80	bis(2-Ethylhexyl)phthalate	149	10.257	10.253	(1.009)	6951018	20.0000	17.1	
	81	Benzo(a)anthracene	228	10.151	10.135	(0.998)	9949876	20.0000	17.8	
*	82	Chrysene-d12 (IS)	240	10.167	10.151	(1.000)	1995784	4.00000		
	83	Chrysene	228	10.199	10.178	(1.003)	9228915	20.0000	17.9	
	84	Di-n-octylphthalate	149	10.840	10.835	(0.942)	10248519	20.0000	19.0	
	85	Benzo(b)fluoranthene	252	11.182	11.161	(0.972)	9699309	20.0000	19.7	
	86	Benzo(k)fluoranthene	252	11.208	11.182	(0.974)	8573764	20.0000	17.8	
	87	Benzo(a)pyrene	252	11.459	11.444	(0.996)	8097109	20.0000	18.0	
*	88	Perylene-d12 (IS)	264	11.502	11.492	(1.000)	1681771	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.352	12.325	(1.074)	7900185	20.0000	16.4	
90 Dibenz(a,h)anthracene	278	12.357	12.336	(1.074)	6491854	20.0000	16.1	
91 Benzo(g,h,i)perylene	276	12.555	12.528	(1.091)	6356557	20.0000	15.3	

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y1.d
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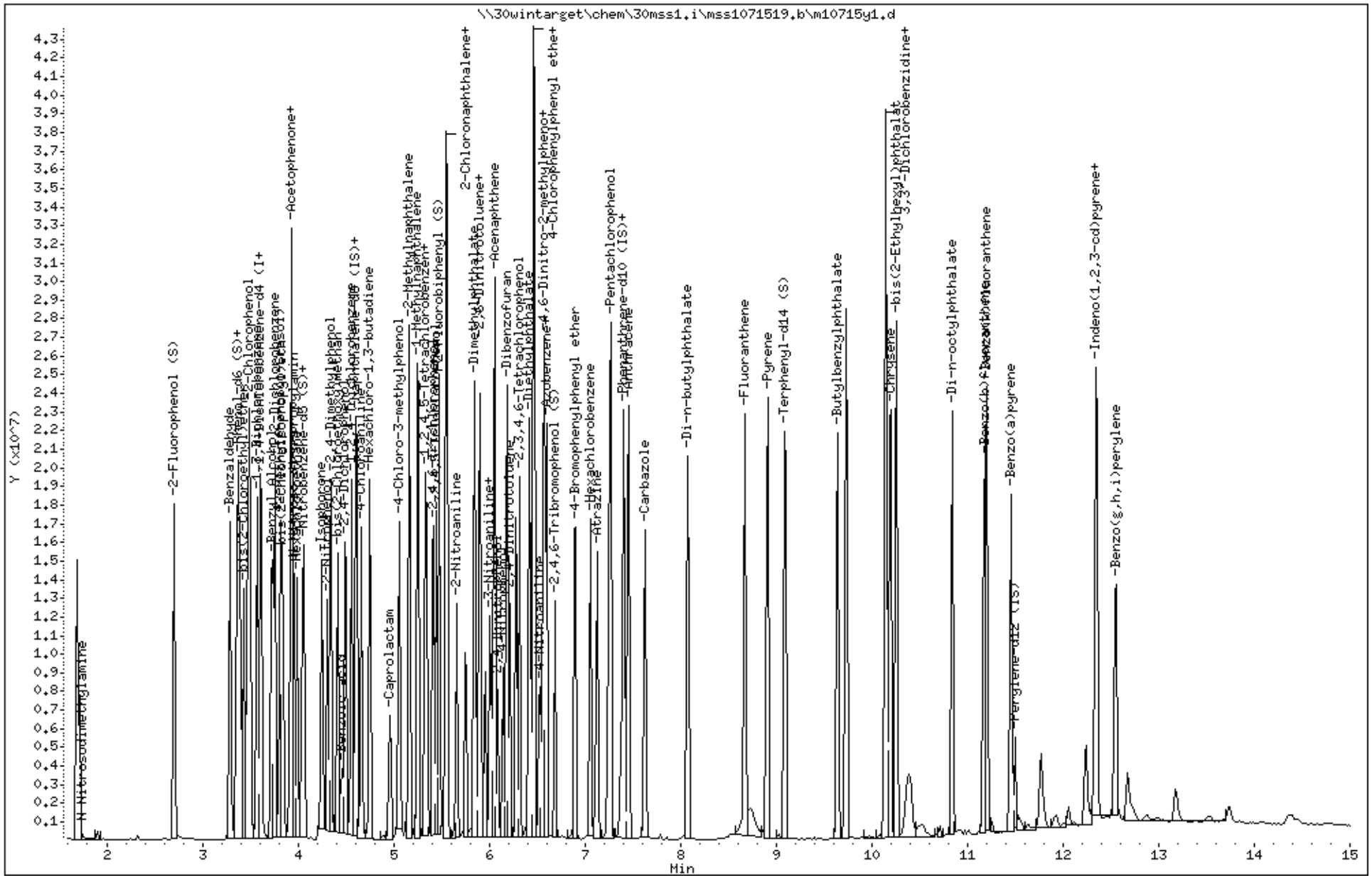
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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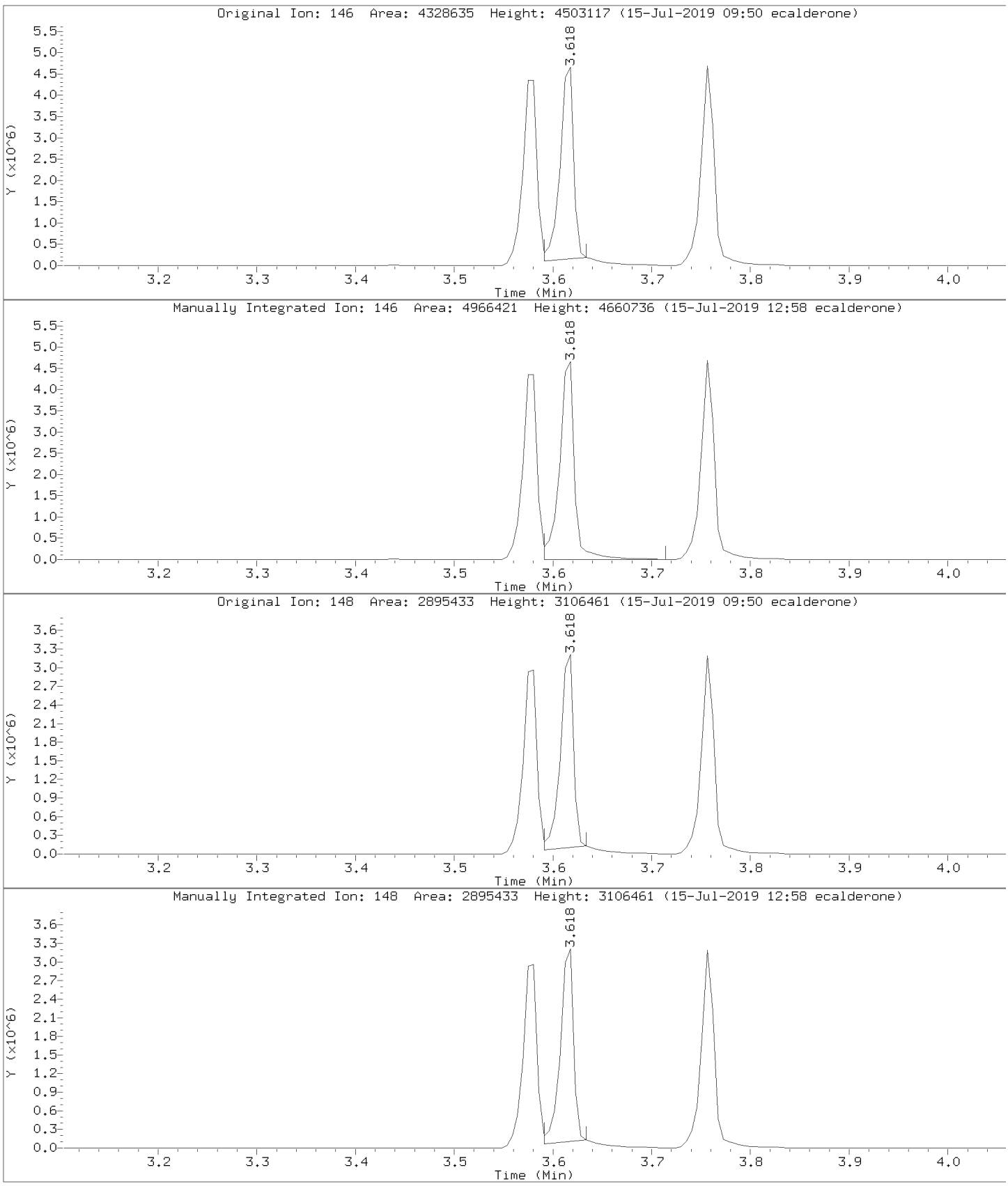
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7



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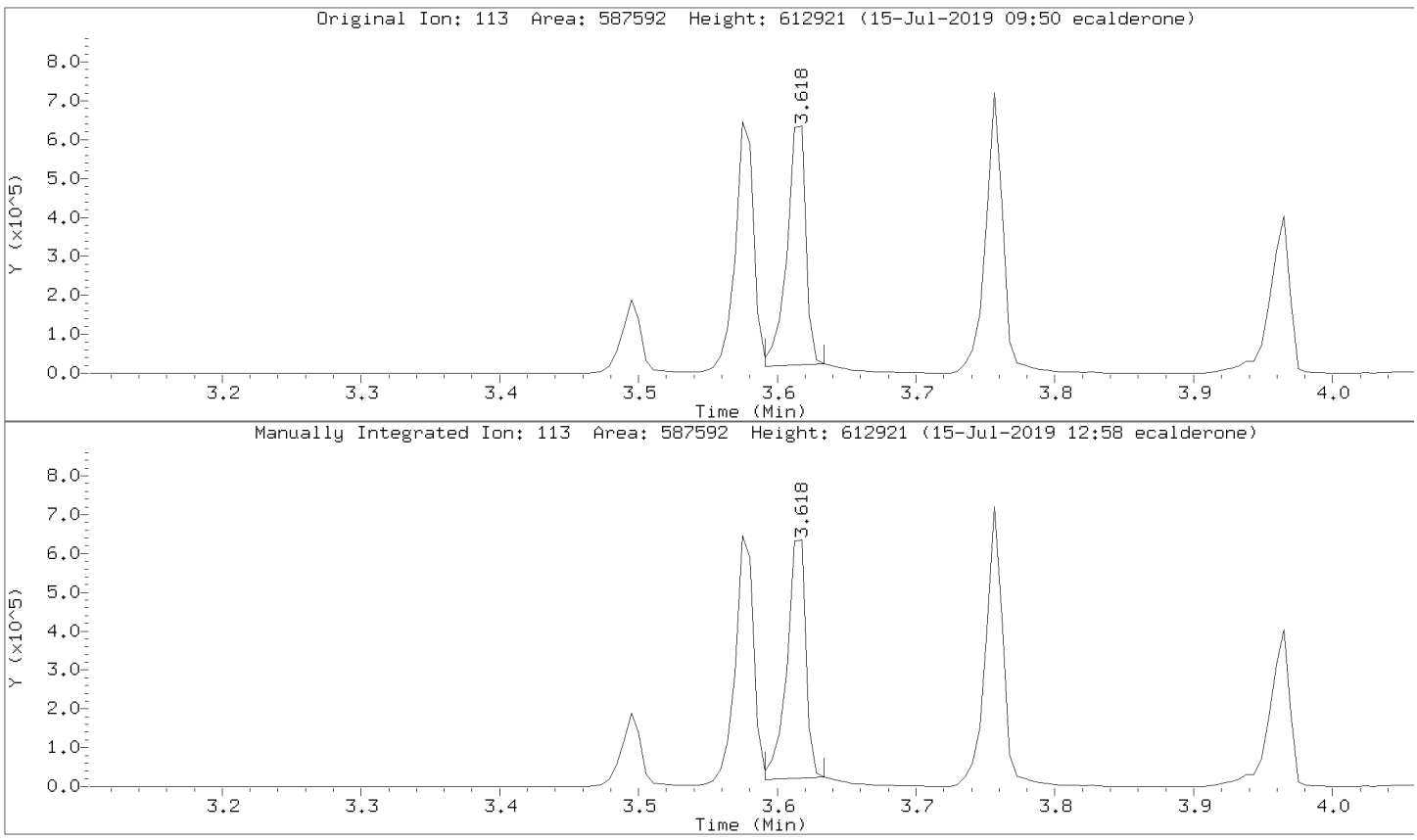

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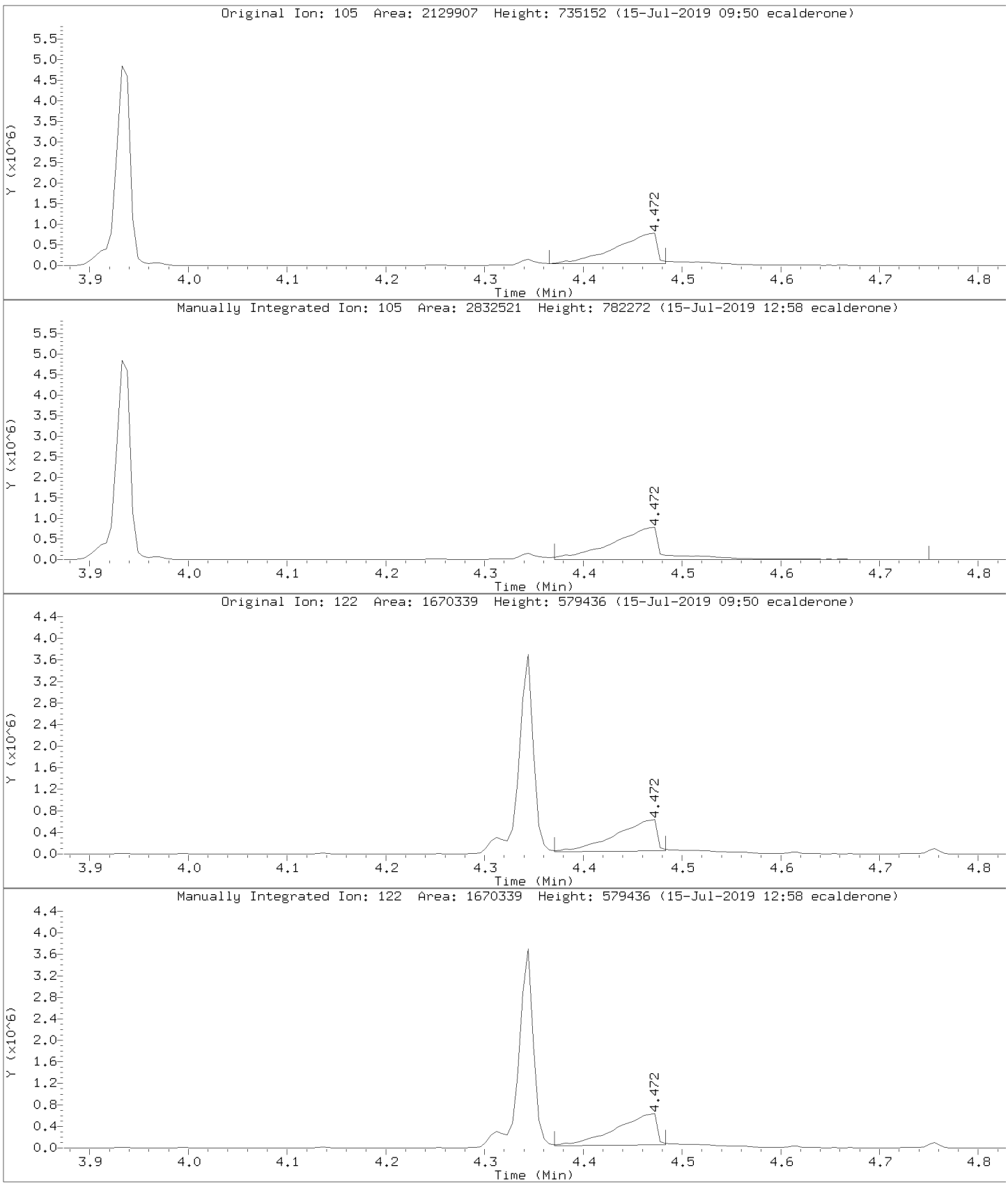
Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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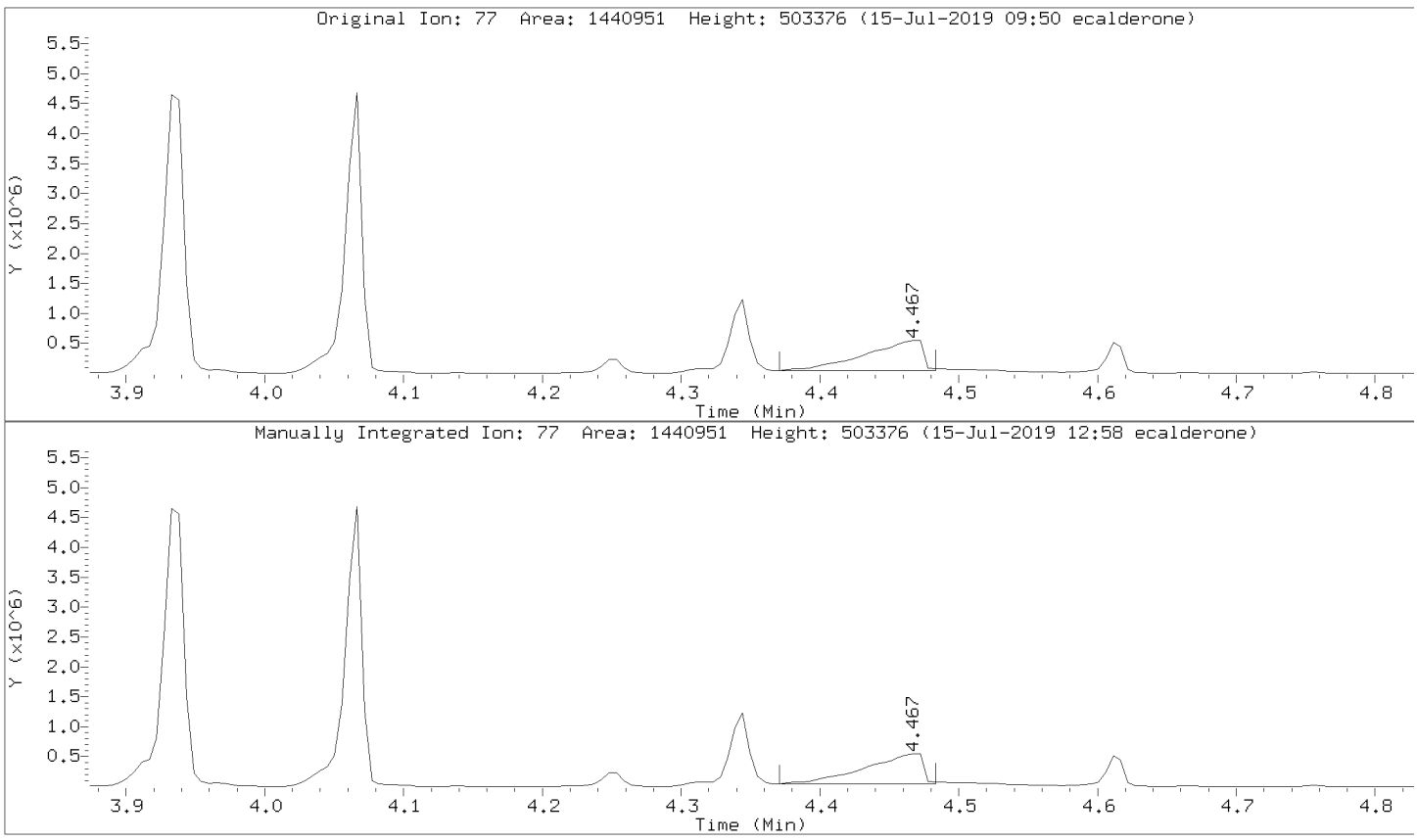
Lab Sample ID: CAL7



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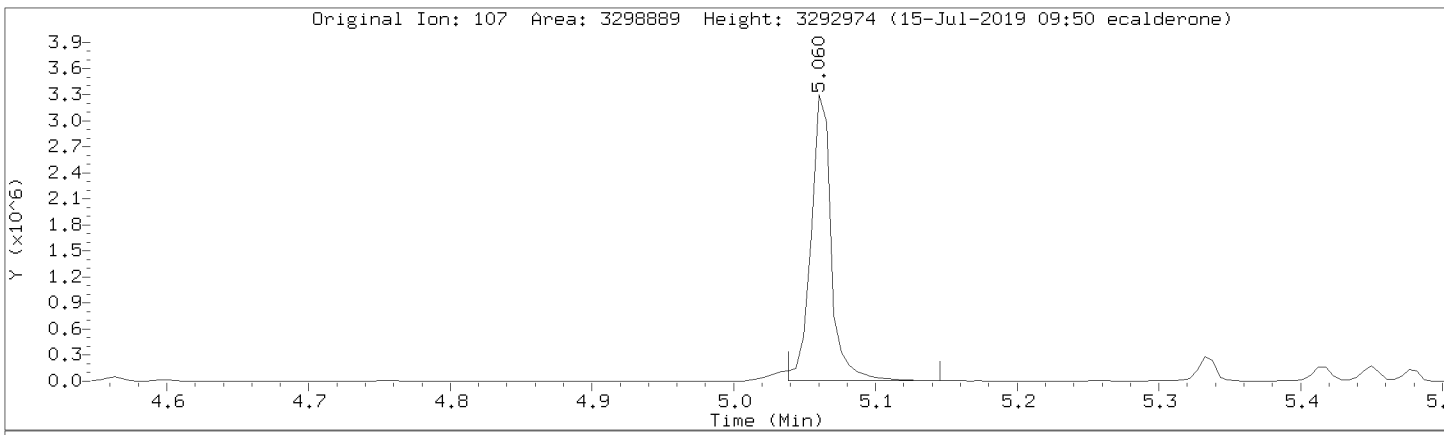
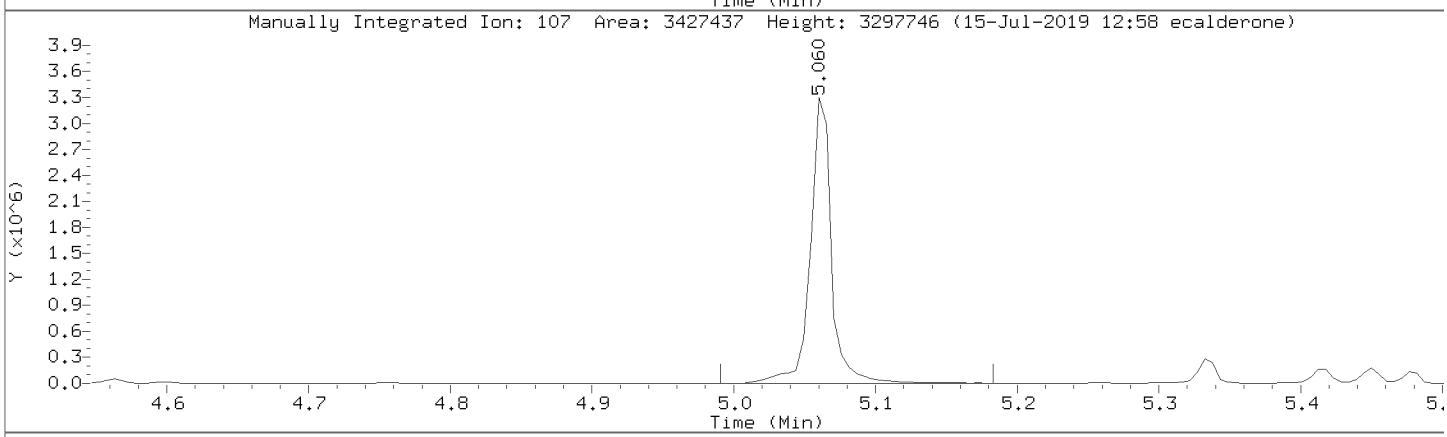
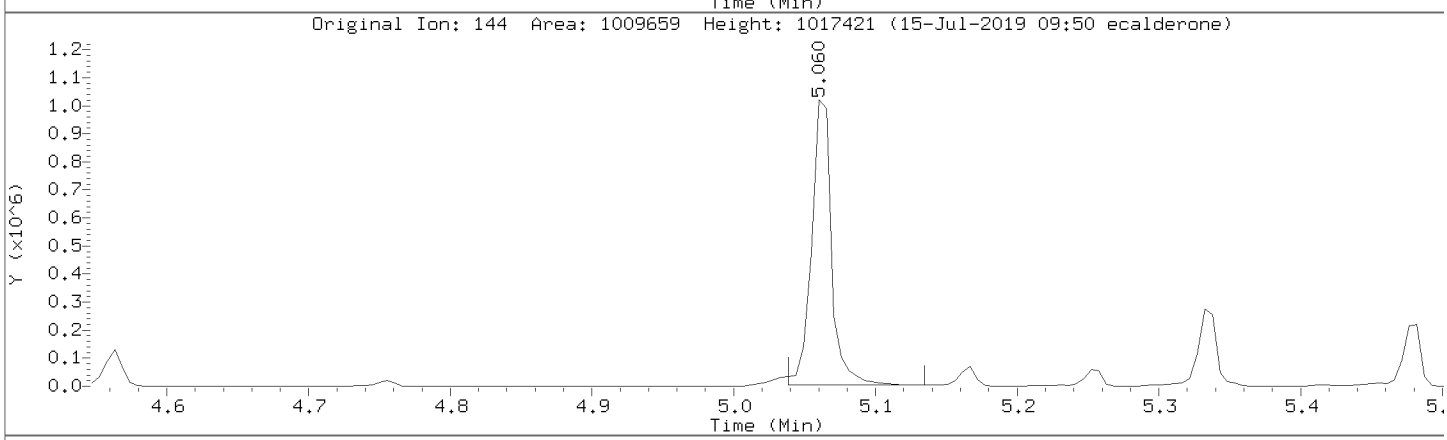
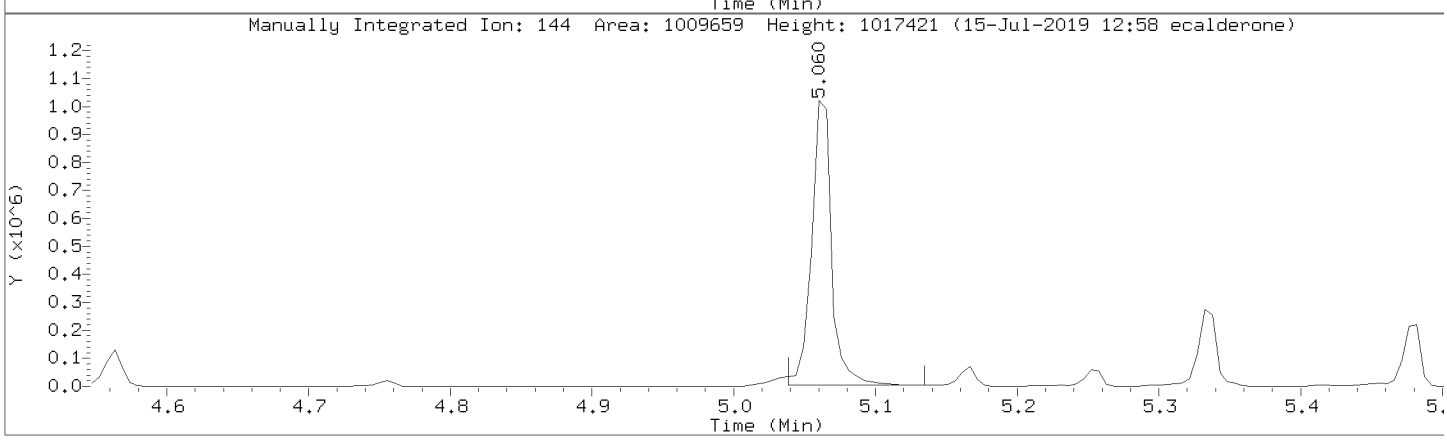
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Chloro-3-methylphenol Review Code: LT
CAS Number: 59-50-7









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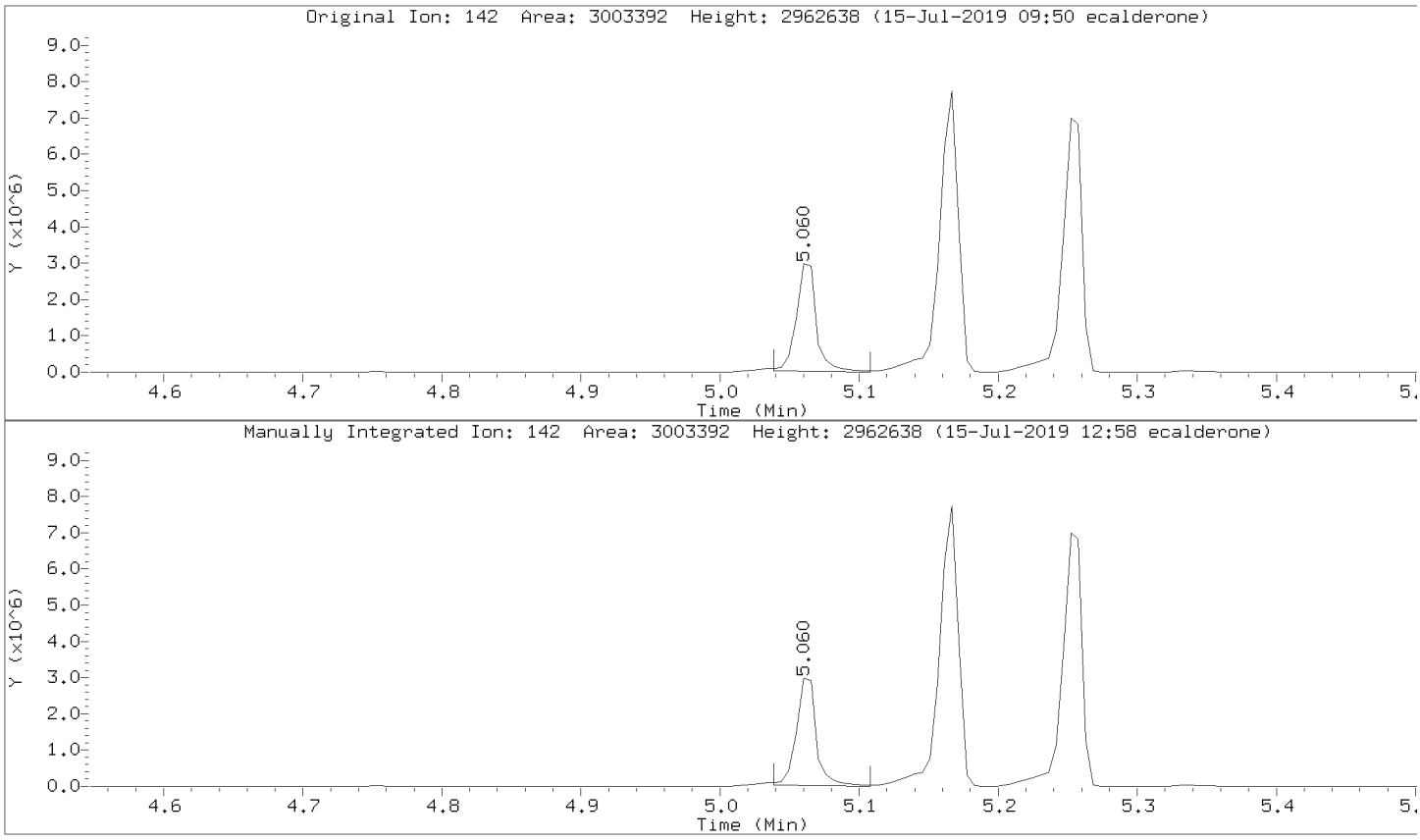
Lab Sample ID: CAL7



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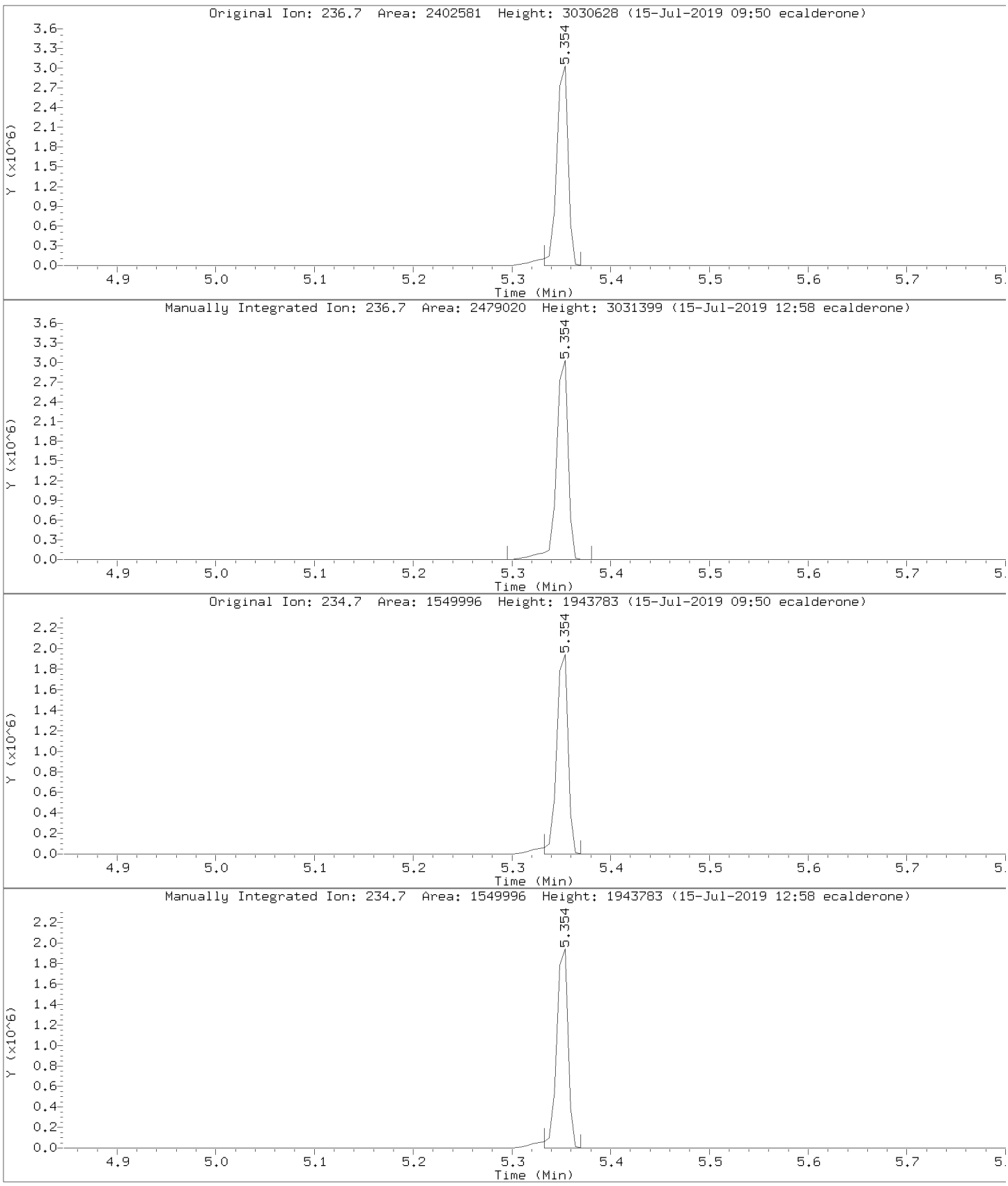
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4



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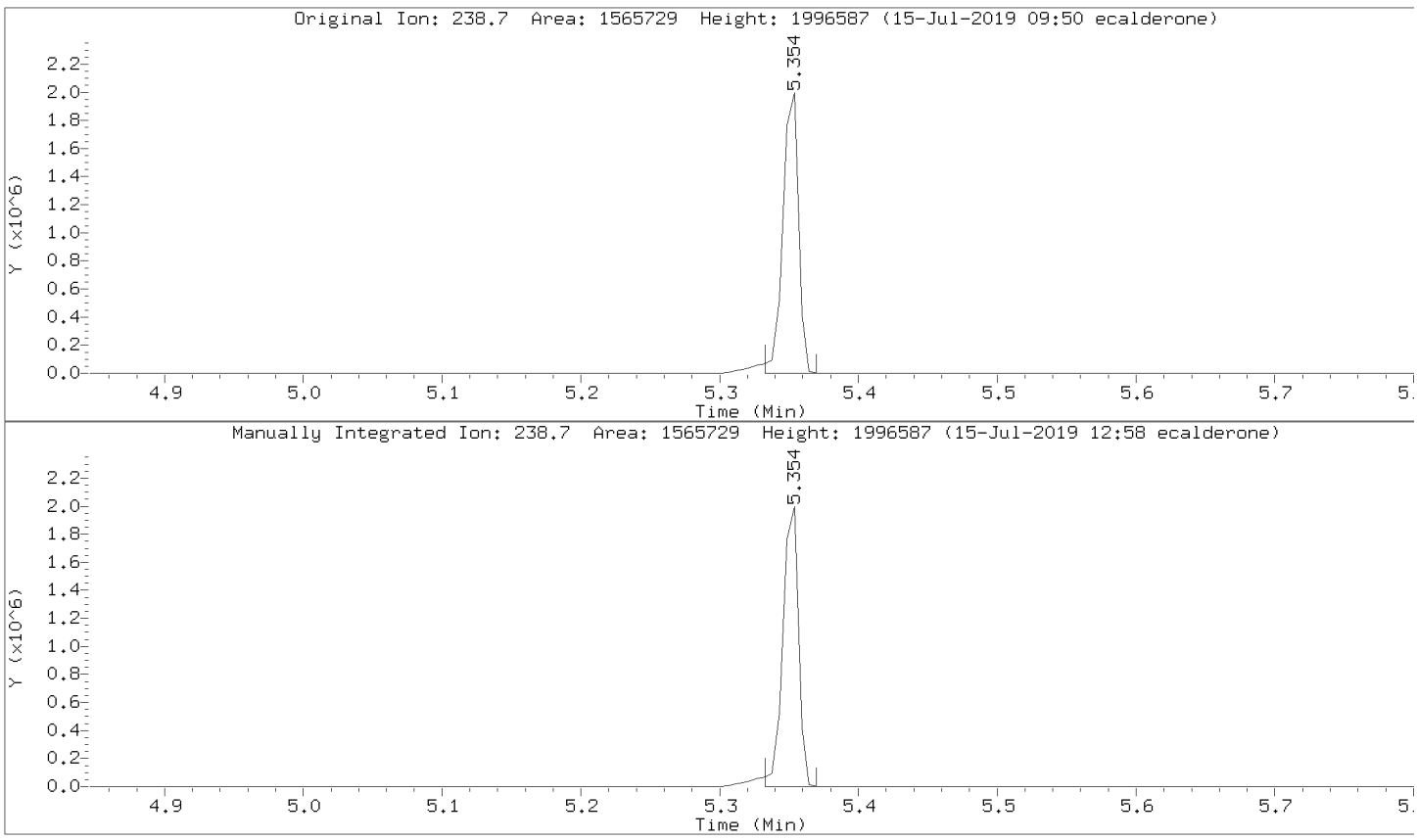
Lab Sample ID: CAL7



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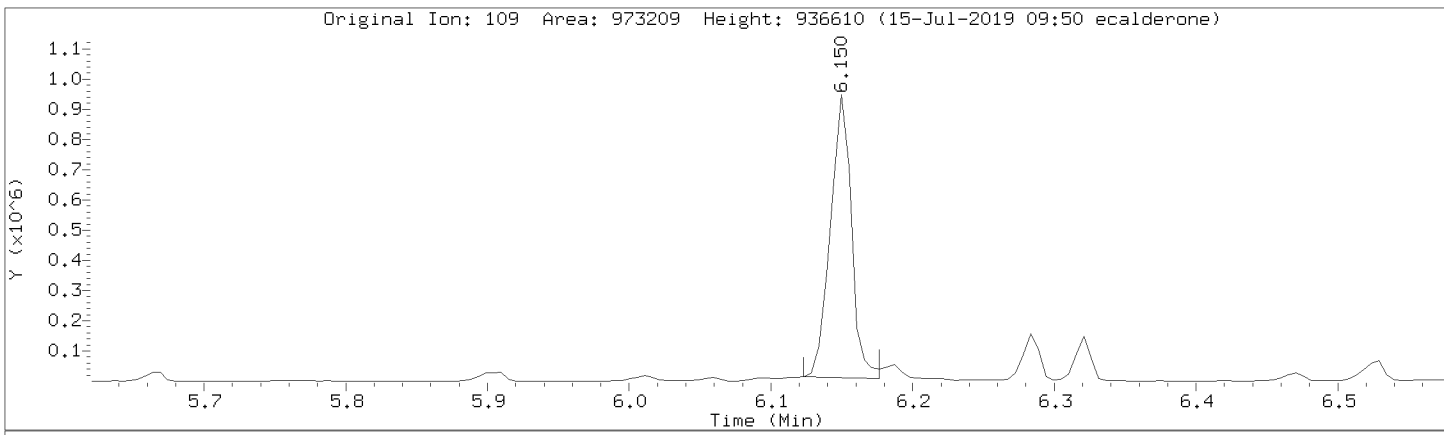
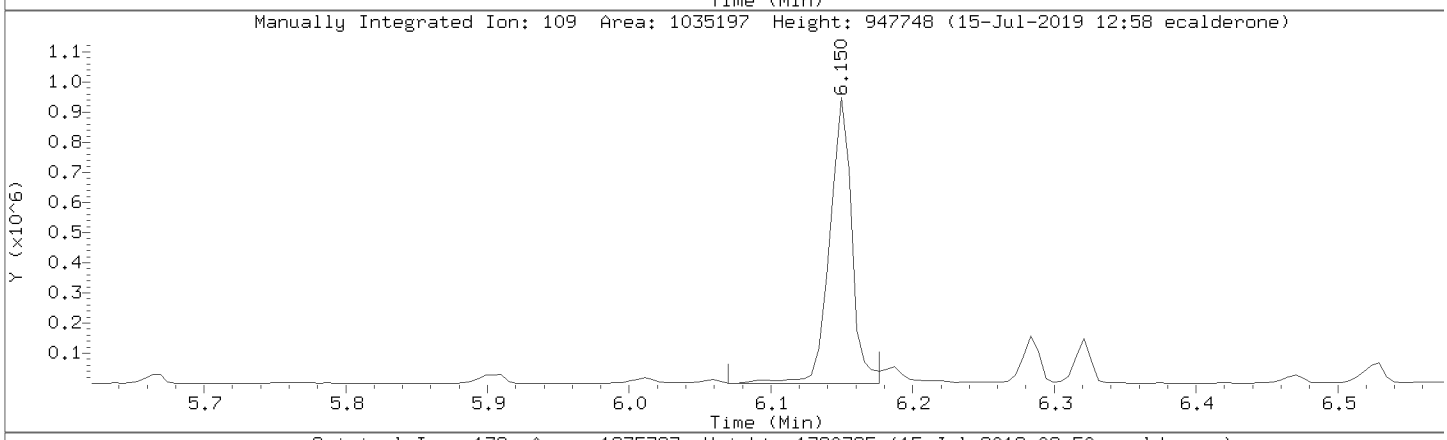
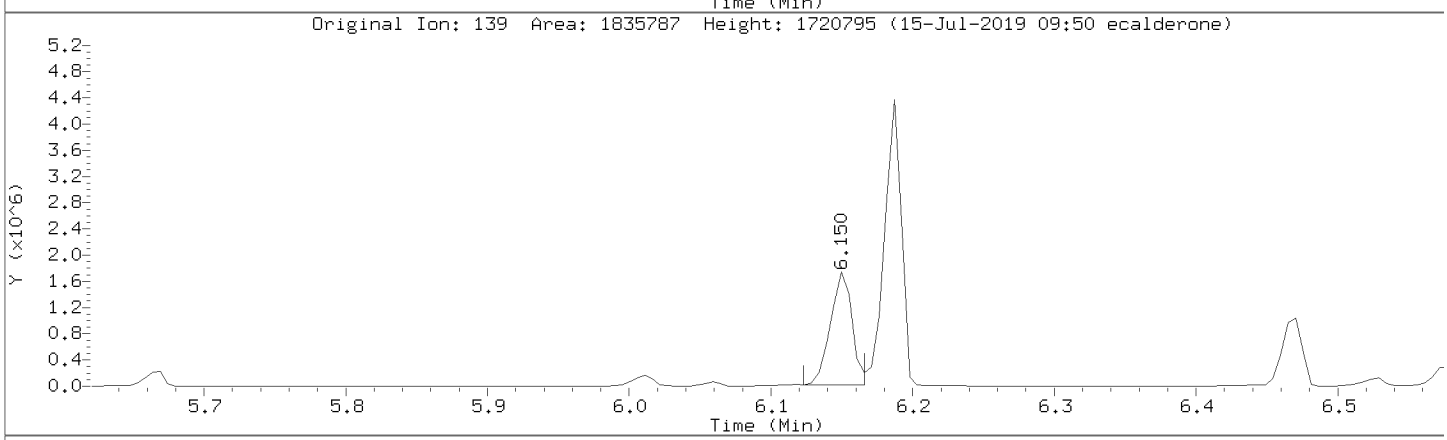
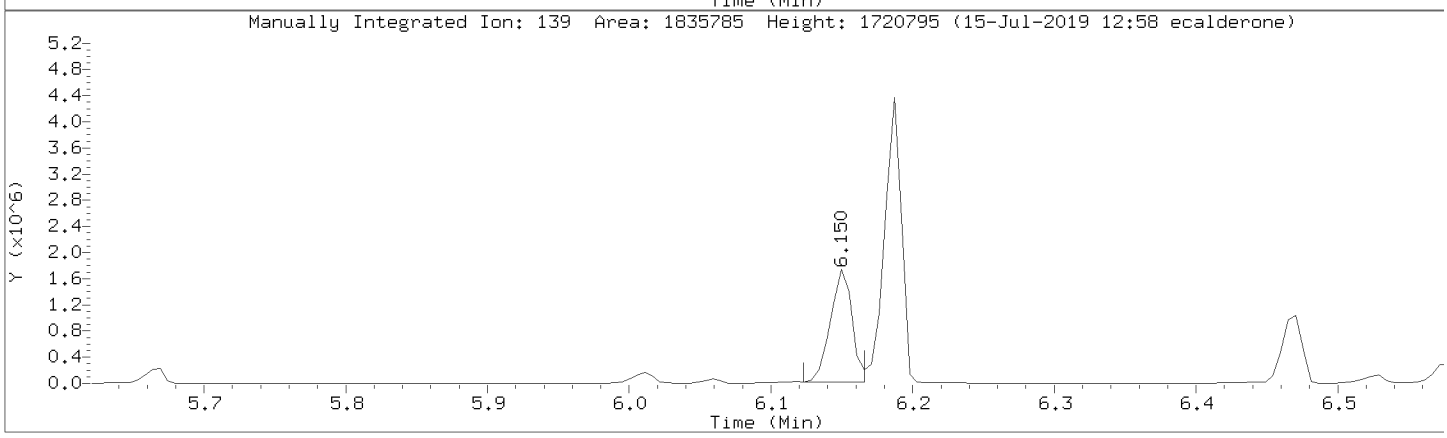
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7









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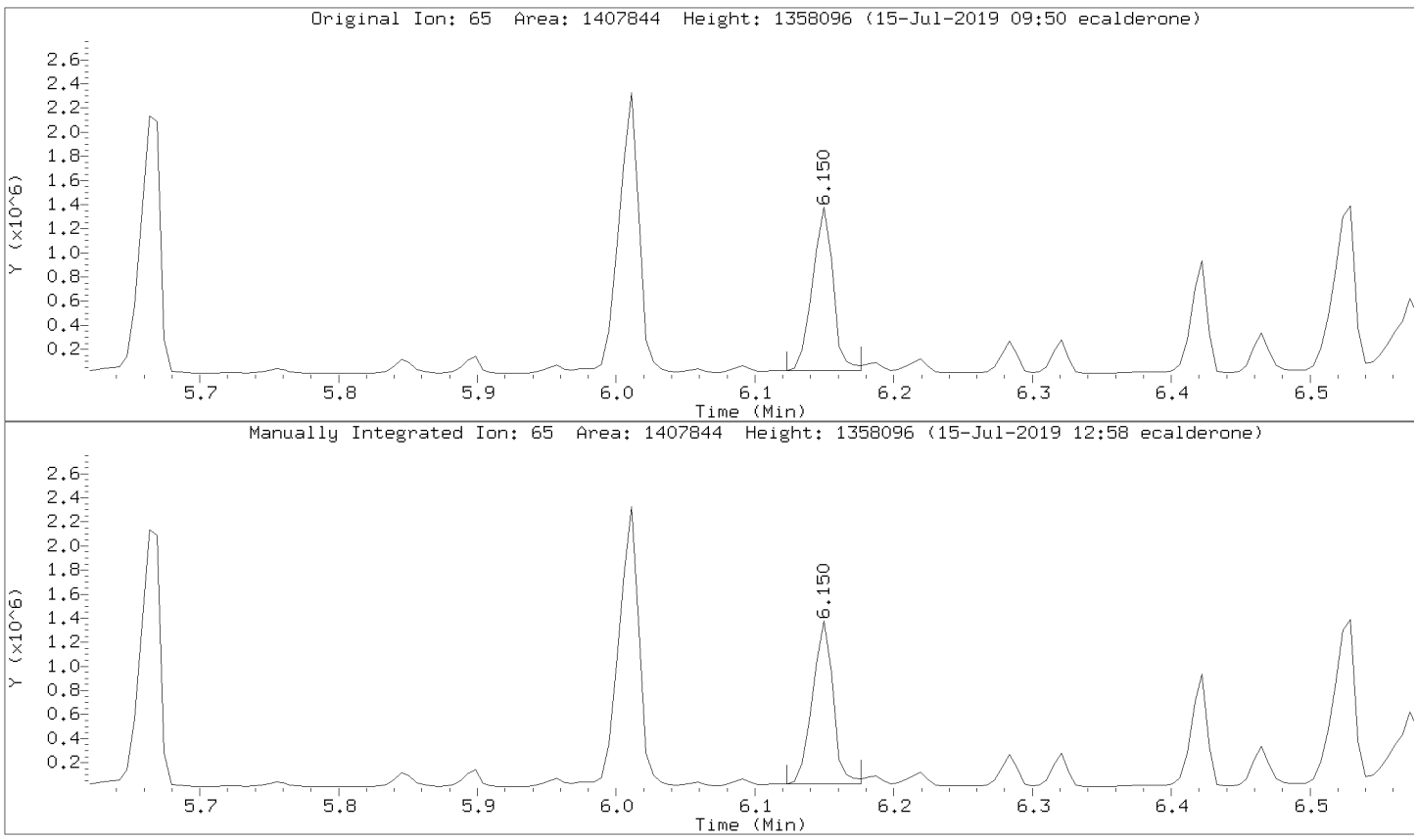
Lab Sample ID: CAL7



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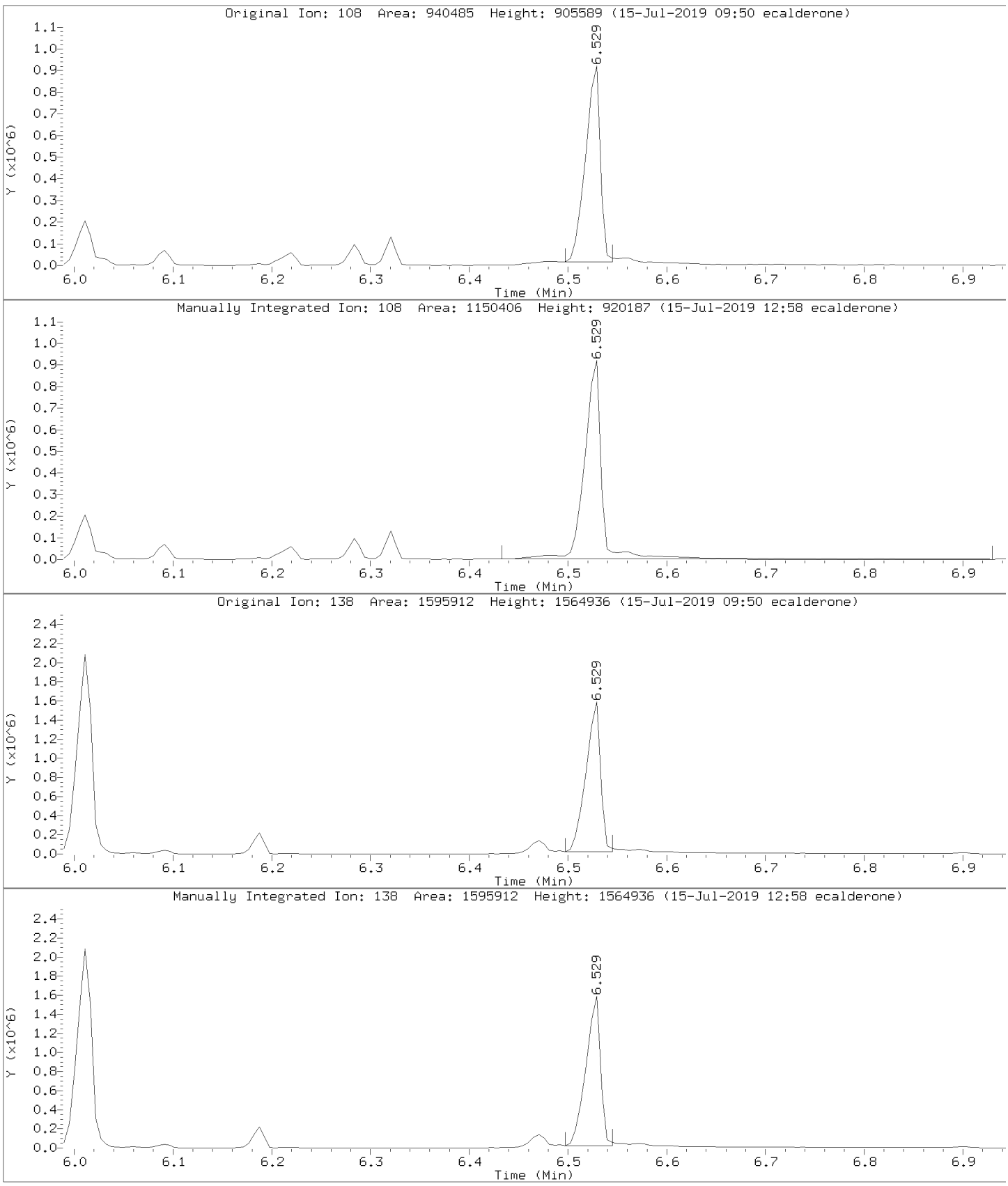
Injection Date: 15-JUL-2019 09:21
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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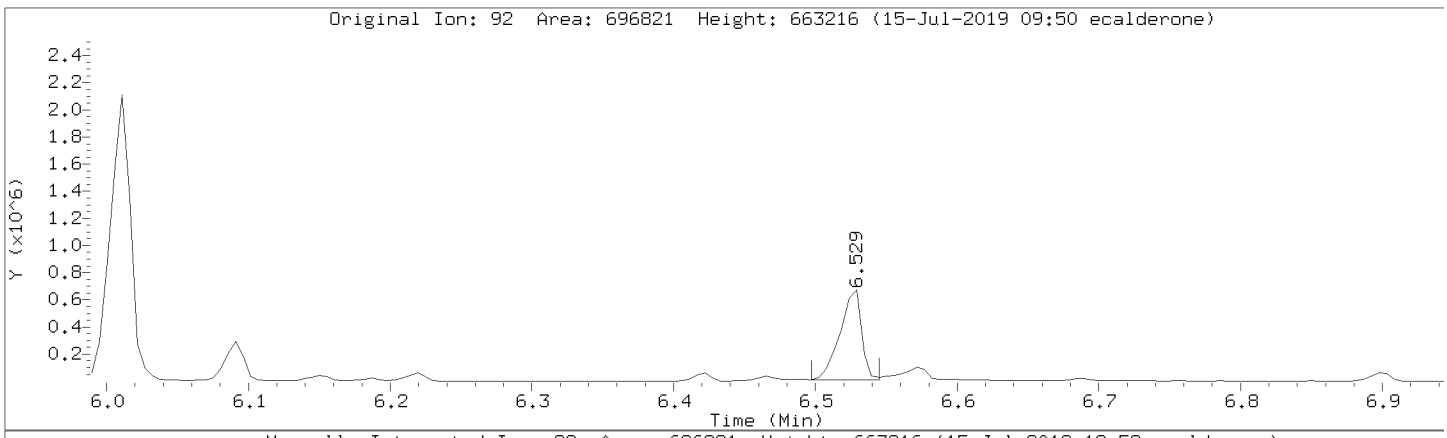
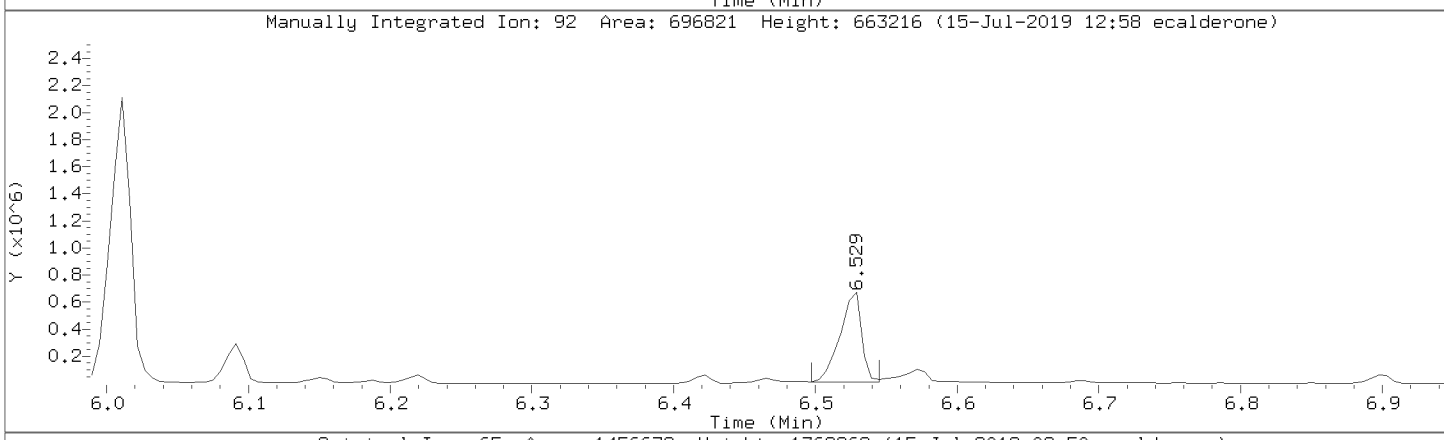
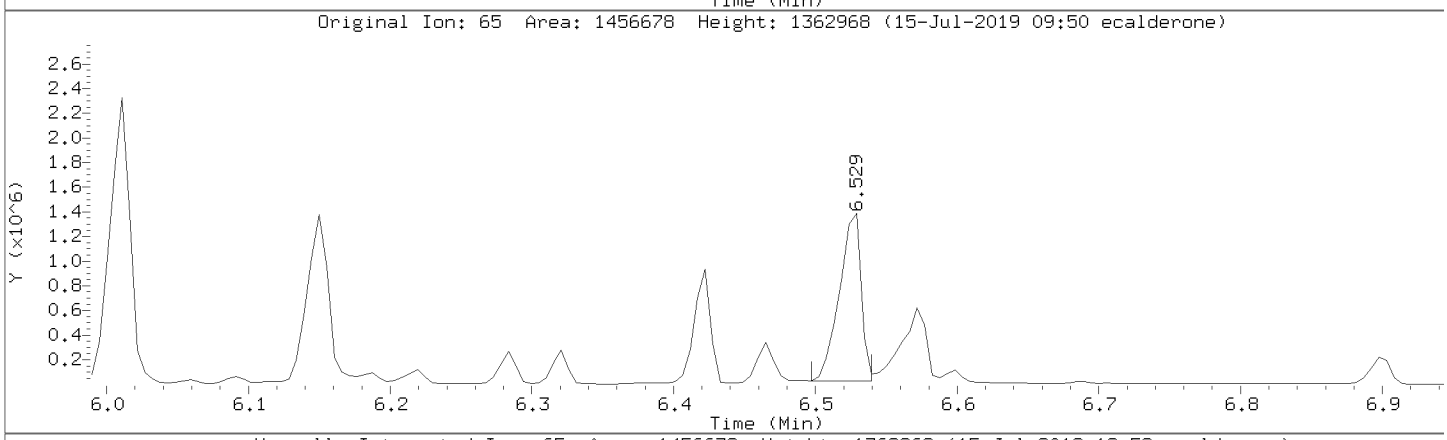
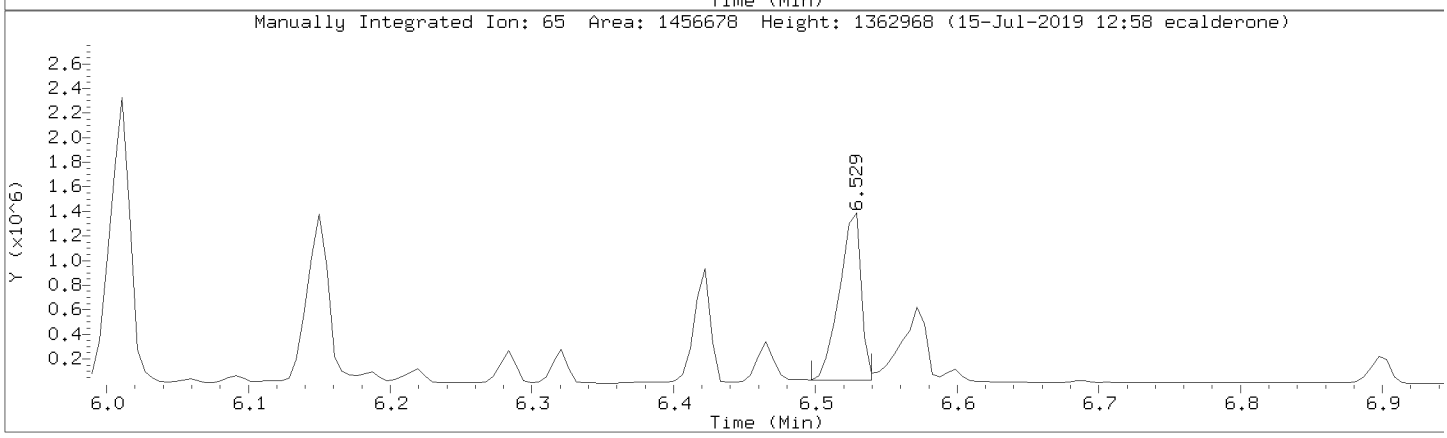
Instrument: 30mss1.i
Lab Sample ID: CAL7









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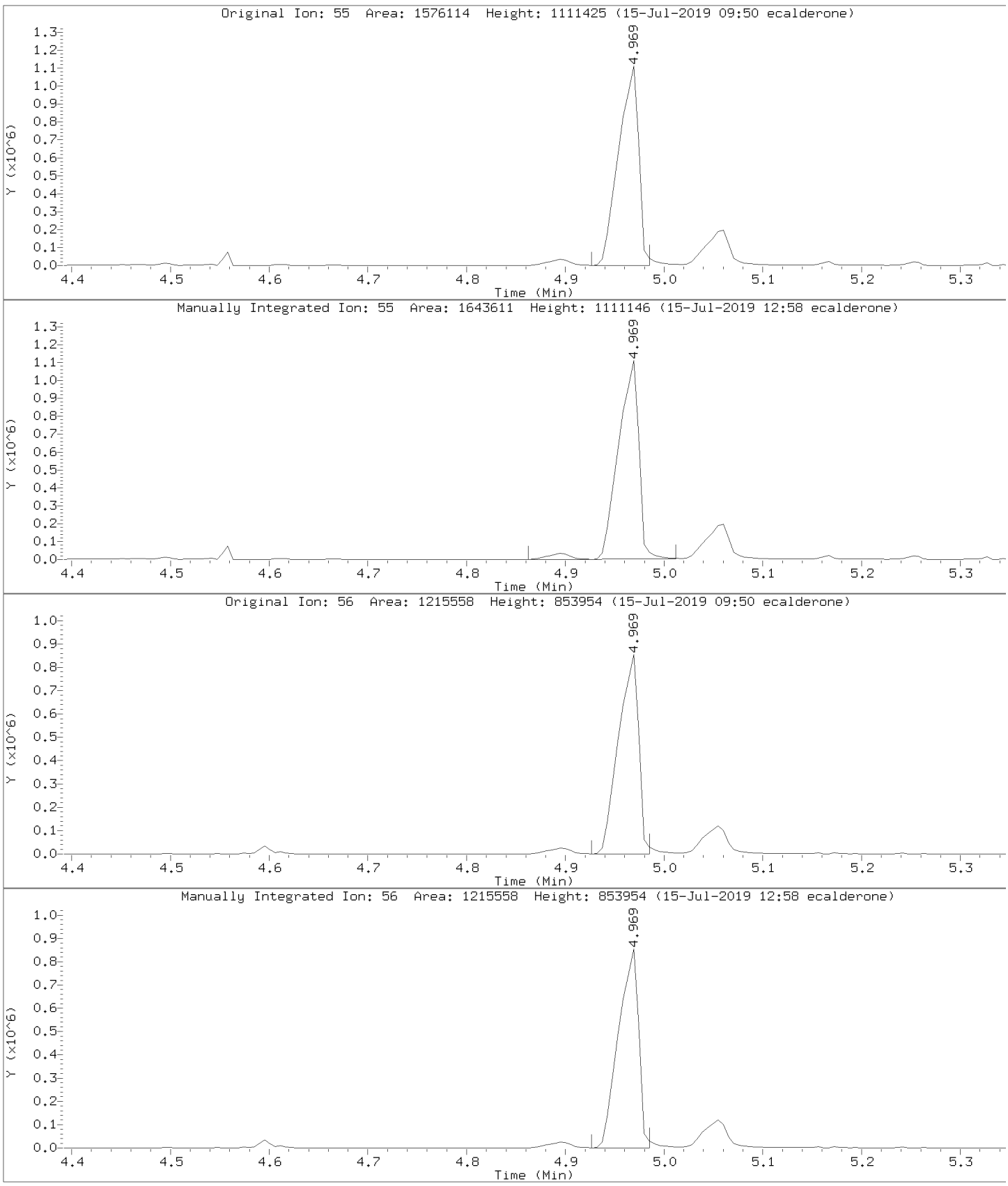
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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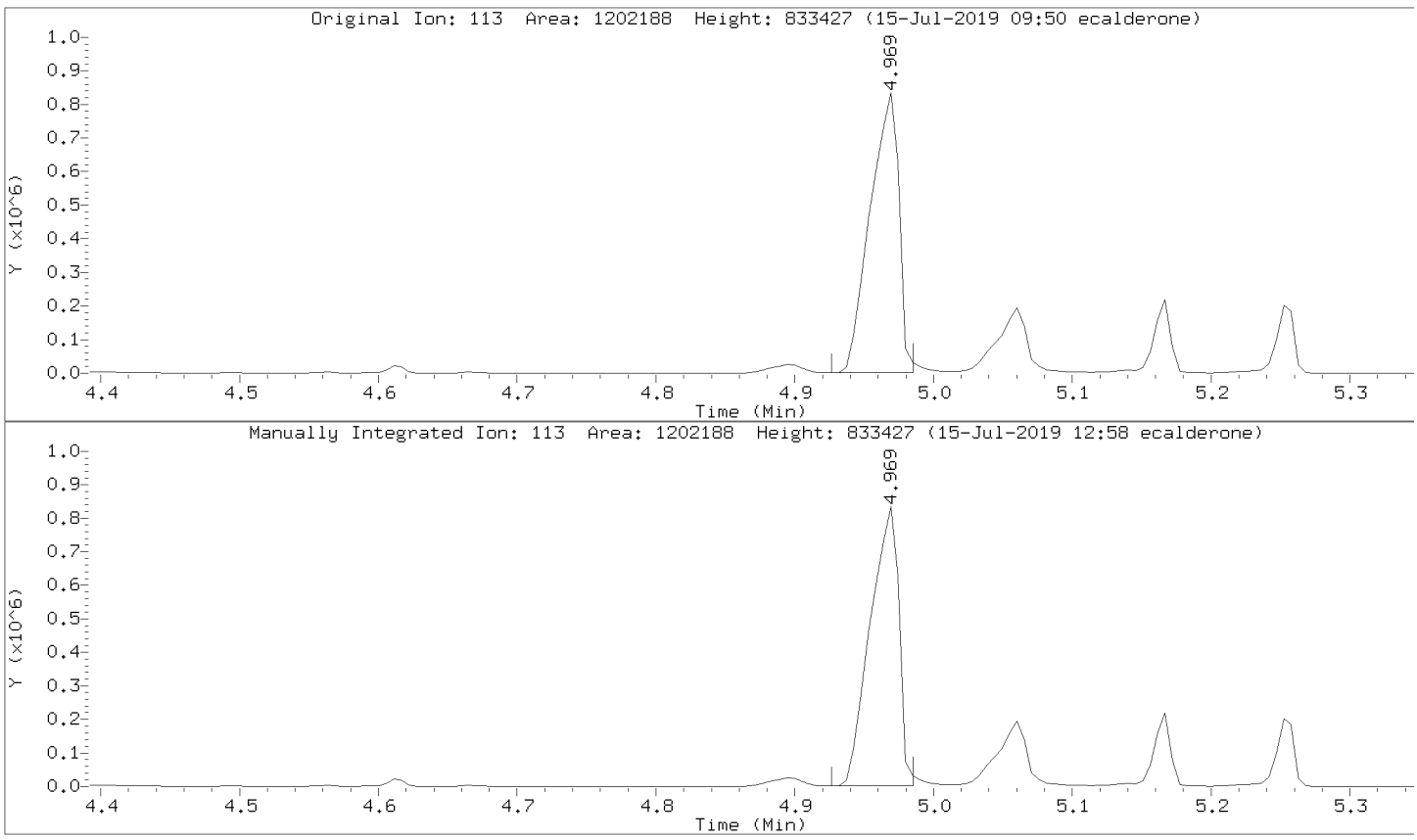
Lab Sample ID: CAL7



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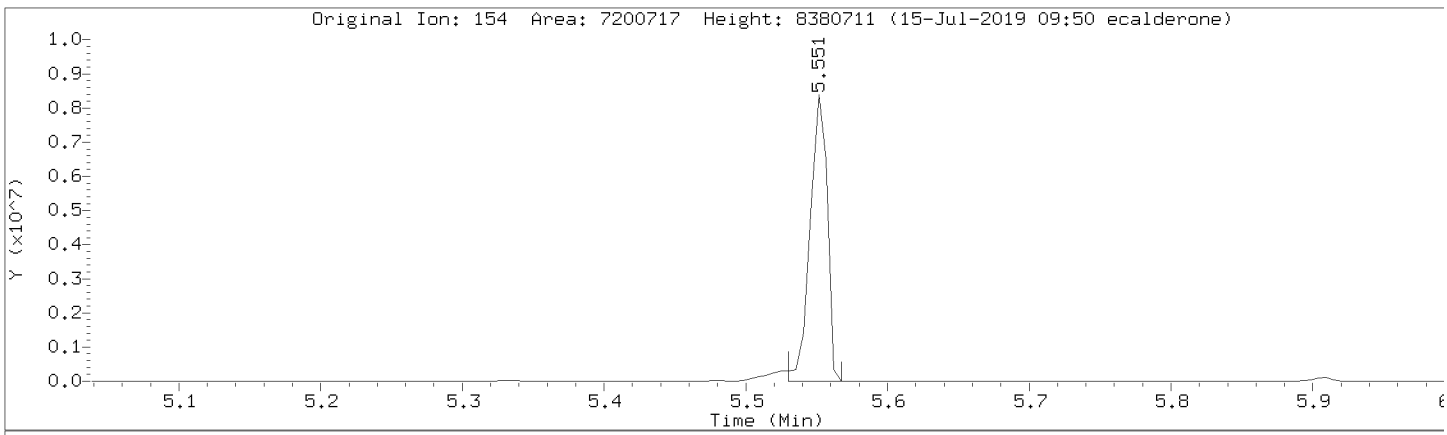
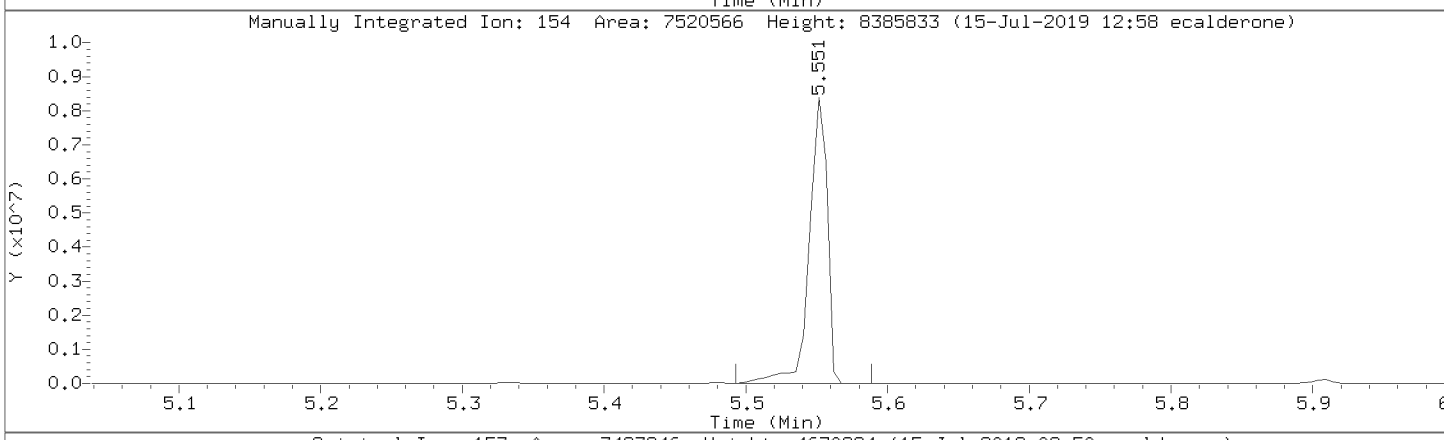
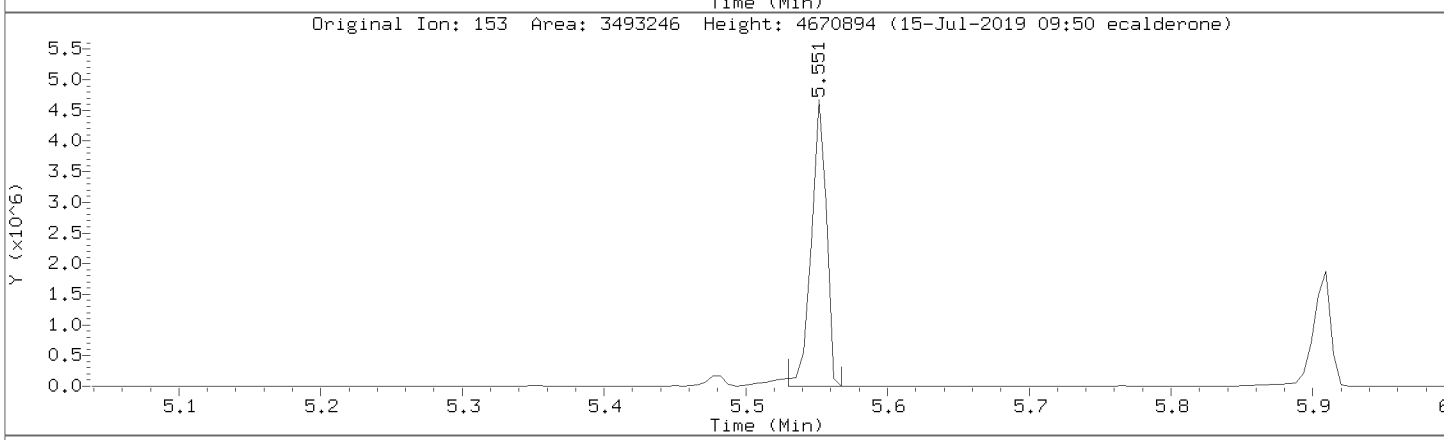
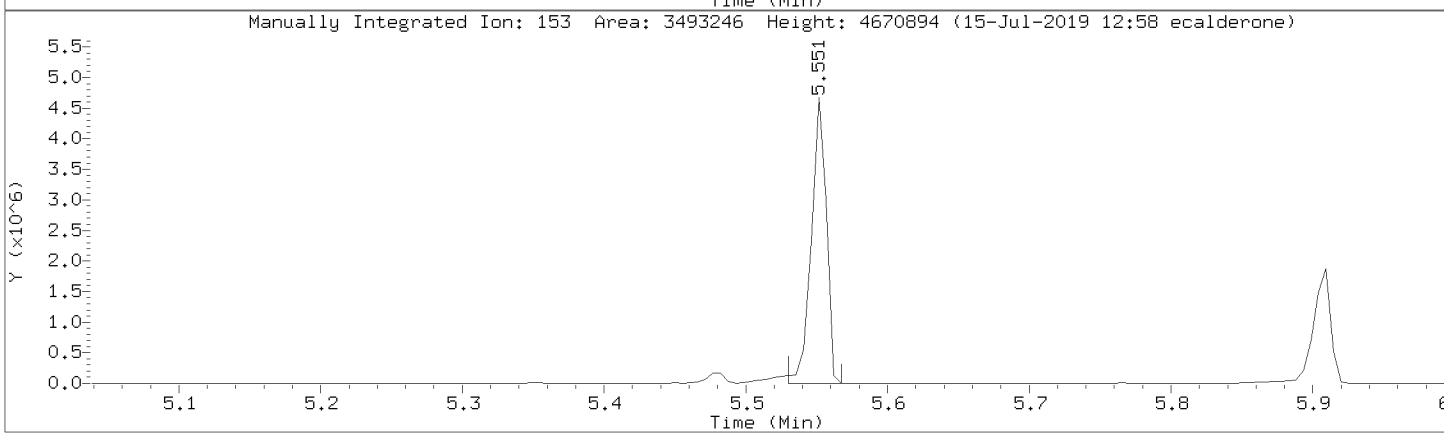
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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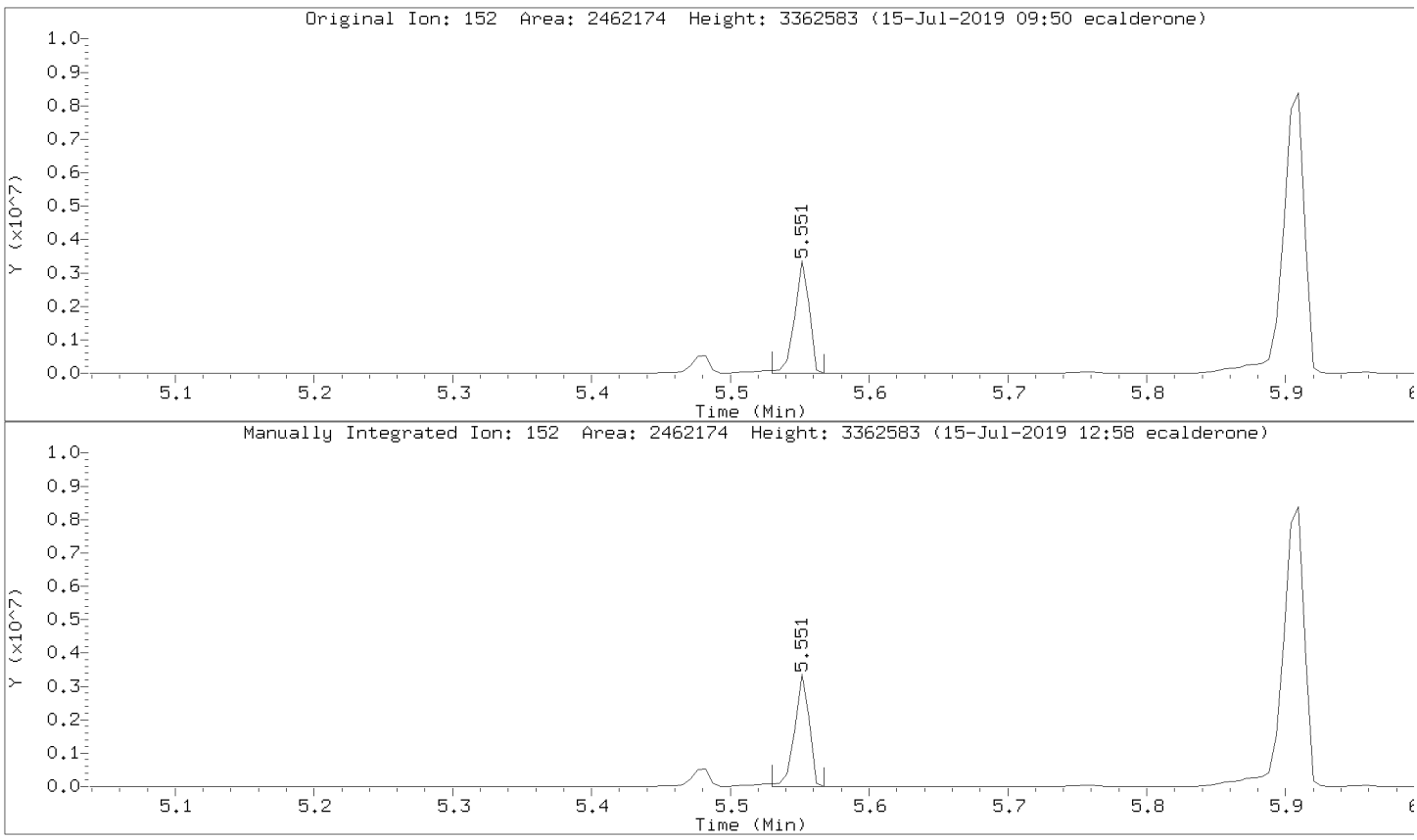
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y2.d
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Inj Date : 15-JUL-2019 09:43
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14828,93074:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 09:43 Cal File: m10715y2.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.719	1.700	(0.478)	2802284	16.0000	16.4	
	2 Pyridine	79	1.692	1.689	(0.470)	4152972	16.0000	16.4	
$	3 2-Fluorophenol (S)	112	2.702	2.704	(0.751)	3273847	16.0000	16.1	
$	4 Phenol-d6 (S)	99	3.364	3.351	(0.935)	3752745	16.0000	16.0	
	5 Benzaldehyde	77	3.289	3.281	(0.914)	2689338	16.0000	15.1	
	6 Phenol	94	3.375	3.361	(0.938)	3997736	16.0000	15.6	
	7 Aniline	66	3.391	3.383	(0.942)	1865106	16.0000	17.3	
	8 bis(2-Chloroethyl)ether	63	3.434	3.425	(0.954)	2386299	16.0000	15.8	
	9 2-Chlorophenol	128	3.471	3.463	(0.964)	3465169	16.0000	16.2	
	10 1,3-Dichlorobenzene	146	3.573	3.570	(0.993)	3602809	16.0000	15.7	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.599	3.596	(1.000)	630604	4.00000		
	12 1,4-Dichlorobenzene	146	3.610	3.607	(1.003)	4065892	16.0000	16.2	
	13 Benzyl Alcohol	79	3.722	3.719	(1.034)	2727640	16.0000	15.8	
	14 1,2-Dichlorobenzene	146	3.754	3.751	(1.043)	3628047	16.0000	16.2	
	15 2-Methylphenol(o-Cresol)	108	3.813	3.810	(1.059)	3223627	16.0000	16.2	
	16 bis(2-Chloroisopropyl)ether	45	3.840	3.837	(1.067)	5246549	16.0000	16.2	
	17 3&4-Methylphenol(m&p Cresol)	108	3.930	3.917	(1.092)	3217669	16.0000	17.5	
	18 N-Nitroso-di-n-propylamine	70	3.957	3.938	(1.099)	2466893	16.0000	16.2	
	19 Acetophenone	105	3.930	3.922	(1.092)	4244787	16.0000	16.2	
	20 Hexachloroethane	117	3.989	3.986	(1.108)	1470768	16.0000	16.3	
$	21 Nitrobenzene-d5 (S)	128	4.048	4.040	(0.881)	1722042	16.0000	16.0	
	22 Nitrobenzene	77	4.059	4.050	(0.884)	3358599	16.0000	15.9	
	23 Isophorone	82	4.246	4.232	(0.924)	6105236	16.0000	15.9	
	24 2,4-Dimethylphenol	107	4.336	4.333	(0.944)	3313619	16.0000	15.8	
	25 2-Nitrophenol	139	4.304	4.301	(0.937)	1907373	16.0000	15.8	
	26 Benzoic acid	105	4.454	4.376	(0.970)	2231855	16.0000	3.90(MH)	LT
	27 bis(2-Chloroethoxy)methane	93	4.411	4.408	(0.960)	3775508	16.0000	16.0	
	28 2,4-Dichlorophenol	162	4.491	4.483	(0.978)	2802210	16.0000	16.0	
	29 1,2,4-Trichlorobenzene	180	4.561	4.558	(0.993)	3013783	16.0000	15.8	
*	30 Naphthalene-d8 (IS)	136	4.593	4.590	(1.000)	2622488	4.00000		
	31 Naphthalene	128	4.609	4.606	(1.003)	8458459	16.0000	16.0	
	32 4-Chloroaniline	65	4.662	4.659	(1.015)	1110615	16.0000	15.8	
	33 Hexachloro-1,3-butadiene	225	4.753	4.755	(1.035)	1644624	16.0000	16.0	
	34 Caprolactam	55	4.951	4.894	(1.078)	1335674	16.0000	13.9(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.058	5.049	(1.101)	2869473	16.0000	16.0	
	36 2-Methylnaphthalene	142	5.164	5.162	(1.124)	6383045	16.0000	15.8	
	37 1-Methylnaphthalene	142	5.250	5.247	(1.143)	5992796	16.0000	15.8	
	38 Hexachlorocyclopentadiene	237	5.346	5.348	(0.887)	2029236	16.0000	15.9	
	39 1,2,4,5-Tetrachlorobenzene	216	5.330	5.327	(0.884)	2693289	16.0000	15.9	
	40 2,4,6-Trichlorophenol	196	5.416	5.407	(0.898)	2110572	16.0000	15.8	
	41 2,4,5-Trichlorophenol	196	5.448	5.439	(0.903)	1983658	16.0000	16.4	
$	42 2-Fluorobiphenyl (S)	172	5.474	5.471	(0.908)	6175311	16.0000	15.6	
	43 Biphenyl (Diphenyl)	154	5.549	5.541	(0.920)	6873429	16.0000	15.8	
	44 2-Chloronaphthalene	164	5.560	5.551	(0.922)	2046885	16.0000	16.1	
	45 2-Nitroaniline	138	5.661	5.653	(0.939)	2306191	16.0000	15.9	
	46 Dimethylphthalate	163	5.843	5.829	(0.969)	5910739	16.0000	16.3	
	47 2,6-Dinitrotoluene	165	5.891	5.883	(0.977)	1636933	16.0000	15.9	
	48 Acenaphthylene	152	5.907	5.899	(0.980)	8187737	16.0000	15.8	
	49 3-Nitroaniline	65	6.003	5.990	(0.996)	1896205	16.0000	15.8	
*	50 Acenaphthene-d10 (IS)	164	6.030	6.022	(1.000)	1409927	4.00000		
	51 2,4-Dinitrophenol	184	6.083	6.075	(1.009)	1035952	16.0000	16.5	
	52 Acenaphthene	153	6.057	6.048	(1.004)	5556141	16.0000	15.6	
	53 4-Nitrophenol	109	6.142	6.123	(1.019)	866153	16.0000	0.0935(M)	LT
	54 2,4-Dinitrotoluene	165	6.212	6.198	(1.030)	2124449	16.0000	15.8	
	55 Dibenzofuran	168	6.185	6.176	(1.026)	7178596	16.0000	15.4	
	56 2,3,4,6-Tetrachlorophenol	232	6.318	6.315	(1.048)	1588955	16.0000	15.7	
	57 Diethylphthalate	149	6.420	6.406	(1.065)	6015672	16.0000	15.6	
	58 4-Chlorophenylphenyl ether	204	6.463	6.460	(1.072)	3076628	16.0000	15.3	
	59 Fluorene	166	6.468	6.460	(1.073)	6243924	16.0000	15.6	
	60 4-Nitroaniline	108	6.521	6.492	(1.081)	955781	16.0000	15.8(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.553	6.534	(0.888)	1366336	16.0000	16.9	
	62 N-Nitrosodiphenylamine	169	6.569	6.556	(0.891)	5487172	16.0000	15.8	
	63 Azobenzene	77	6.596	6.588	(0.894)	5731150	16.0000	15.7	
	64 1,2-Diphenylhydrazine	77	6.596	6.588	(0.894)	5731150	16.0000	15.7	
$	65 2,4,6-Tribromophenol (S)	330	6.687	6.679	(0.907)	1066880	16.0000	16.6	
	66 4-Bromophenylphenyl ether	248	6.901	6.892	(0.936)	1973833	16.0000	16.1	
	67 Hexachlorobenzene	284	7.061	7.053	(0.957)	2001538	16.0000	16.3	
	68 Atrazine	200	7.130	7.106	(0.967)	1905935	16.0000	15.8	
	69 Pentachlorophenol	266	7.248	7.240	(0.983)	1301521	16.0000	16.9(A)	
*	70 Phenanthrene-d10 (IS)	188	7.376	7.368	(1.000)	2318774	4.00000		
	71 Phenanthrene	178	7.403	7.395	(1.004)	8995244	16.0000	15.7	
	72 Anthracene	178	7.451	7.437	(1.010)	8497995	16.0000	15.3	
	73 Carbazole	167	7.627	7.614	(1.034)	8036919	16.0000	16.0	
	74 Di-n-butylphthalate	149	8.076	8.068	(1.095)	9271122	16.0000	16.1	
	75 Fluoranthene	202	8.674	8.666	(1.176)	9037001	16.0000	16.4	
	76 Pyrene	202	8.904	8.896	(0.876)	9075489	16.0000	15.6	
$	77 Terphenyl-d14 (S)	244	9.091	9.083	(0.895)	7361325	16.0000	16.1	
	78 Butylbenzylphthalate	149	9.641	9.633	(0.949)	4722902	16.0000	16.0	
	79 3,3'-Dichlorobenzidine	252	10.143	10.135	(0.998)	3512498	16.0000	16.2	
	80 bis(2-Ethylhexyl)phthalate	149	10.256	10.253	(1.009)	6063154	16.0000	15.4	
	81 Benzo(a)anthracene	228	10.143	10.135	(0.998)	8532512	16.0000	15.4	
*	82 Chrysene-d12 (IS)	240	10.159	10.151	(1.000)	2094152	4.00000		
	83 Chrysene	228	10.191	10.178	(1.003)	7857441	16.0000	15.3	
	84 Di-n-octylphthalate	149	10.838	10.835	(0.942)	8756441	16.0000	14.1	
	85 Benzo(b)fluoranthene	252	11.180	11.161	(0.972)	9657677	16.0000	16.8	
	86 Benzo(k)fluoranthene	252	11.201	11.182	(0.974)	7537907	16.0000	14.0	
	87 Benzo(a)pyrene	252	11.457	11.444	(0.996)	7985804	16.0000	15.9	
*	88 Perylene-d12 (IS)	264	11.500	11.492	(1.000)	1982668	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.350	12.325	(1.074)	9833989	16.0000	19.0	
90 Dibenz(a,h)anthracene	278	12.355	12.336	(1.074)	7679058	16.0000	17.9	
91 Benzo(g,h,i)perylene	276	12.558	12.528	(1.092)	8129069	16.0000	18.8	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y2.d
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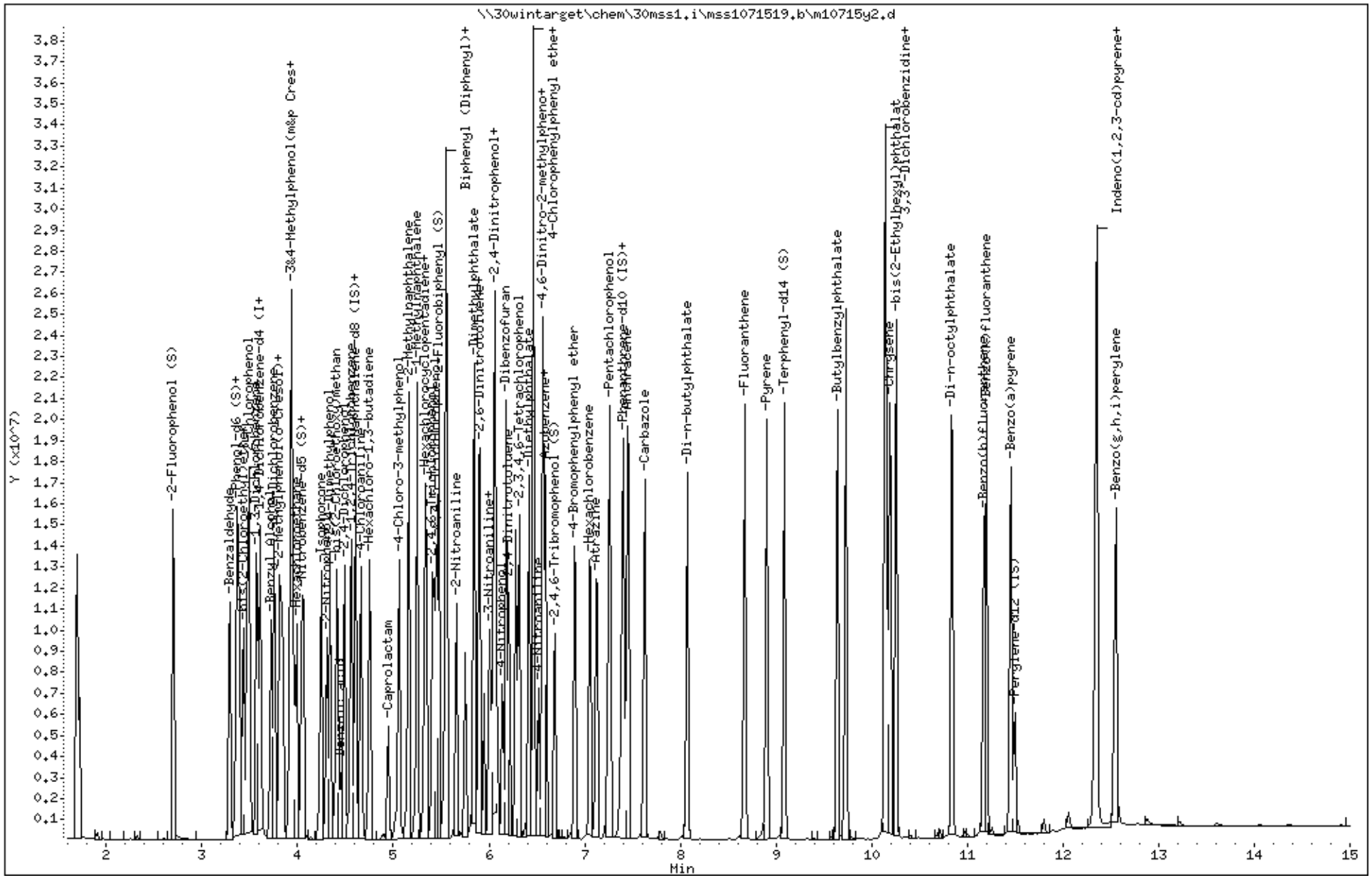
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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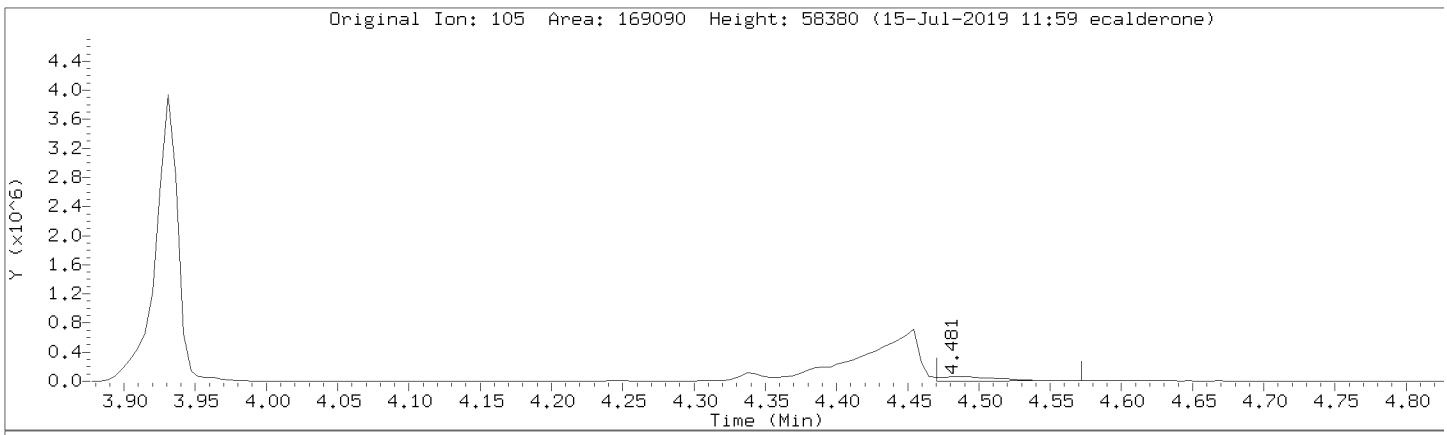
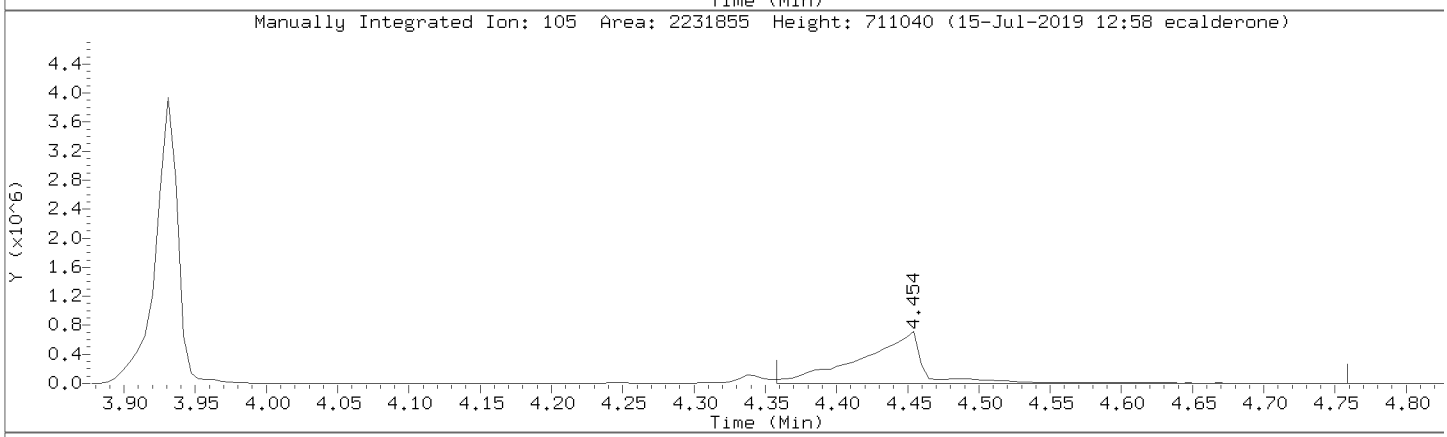
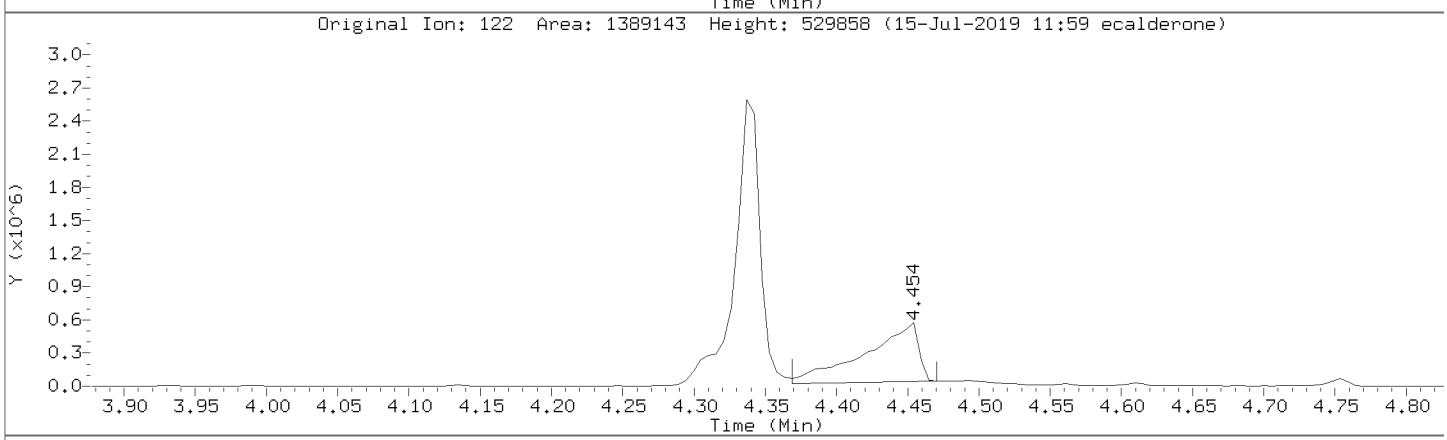
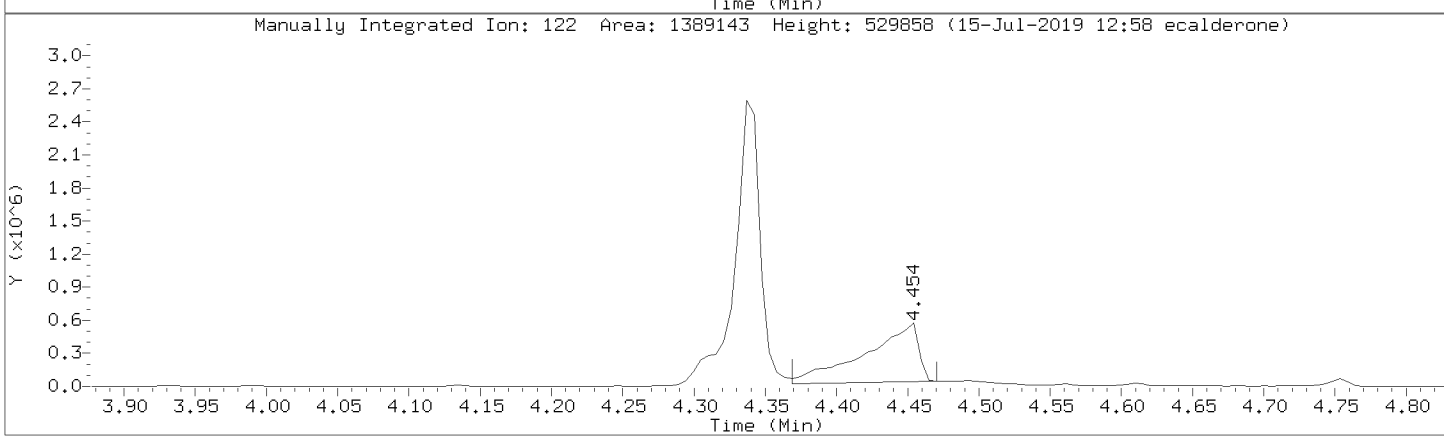
Injection Date: 15-JUL-2019 09:43
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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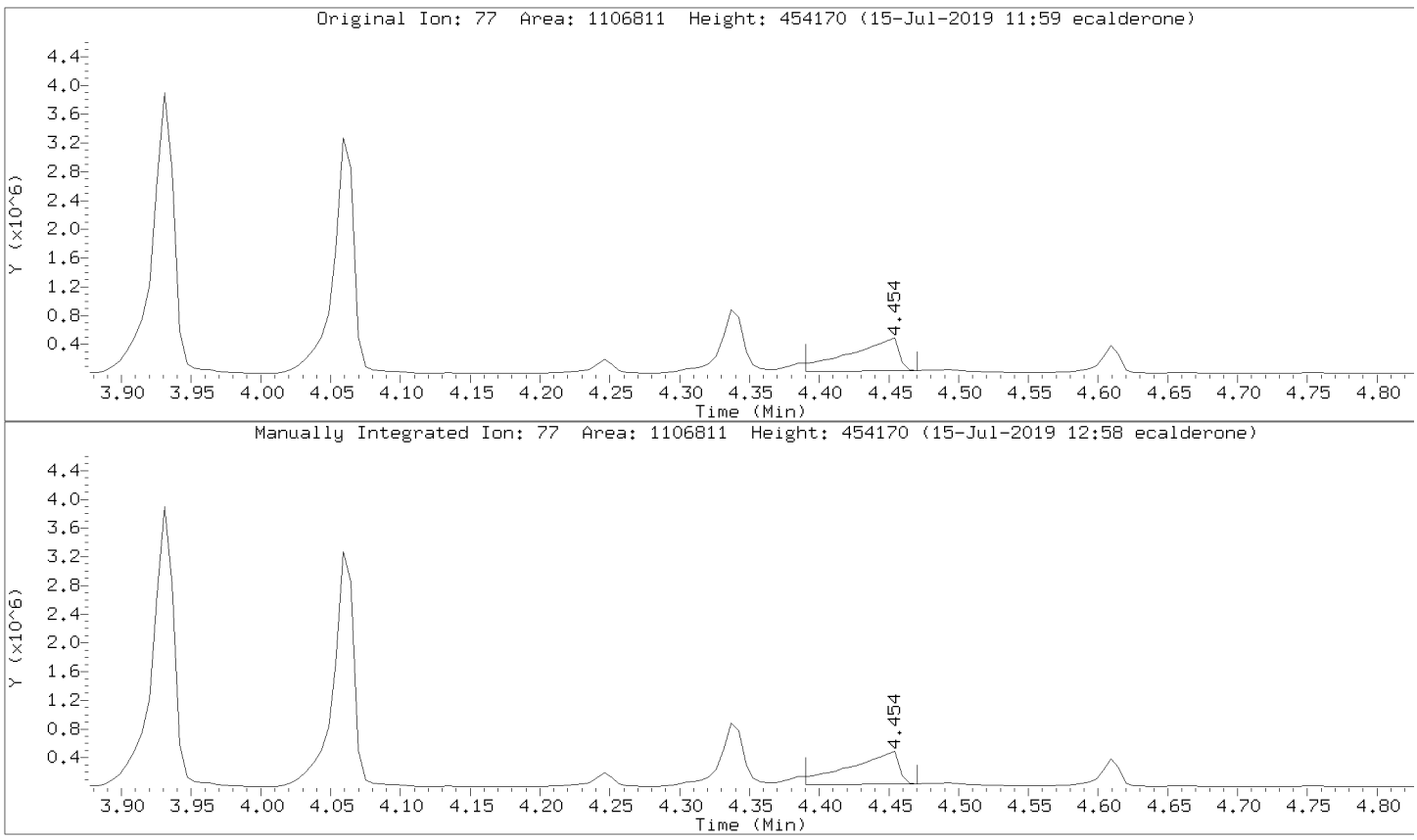
Instrument: 30mss1.i
Lab Sample ID: CAL6



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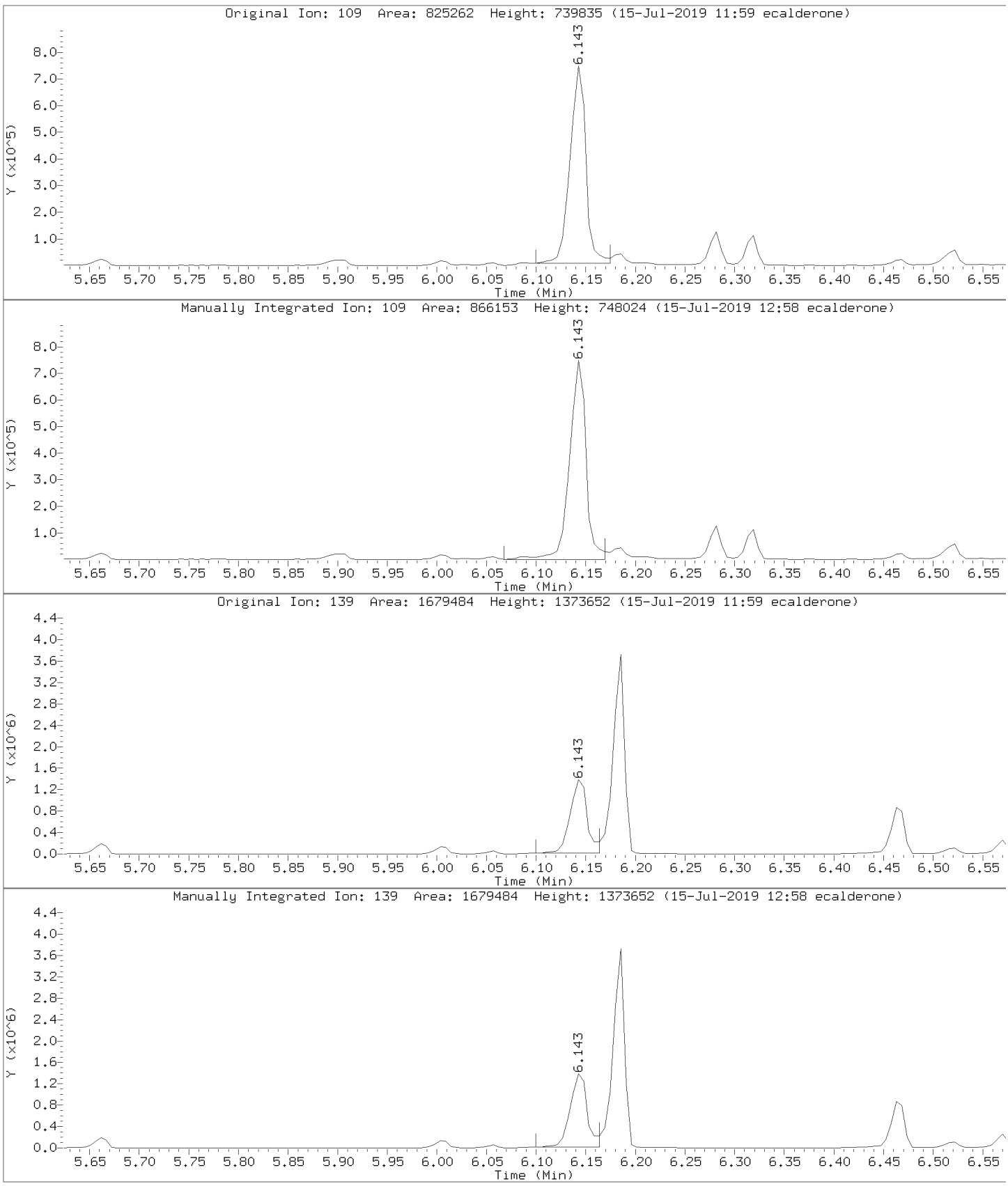
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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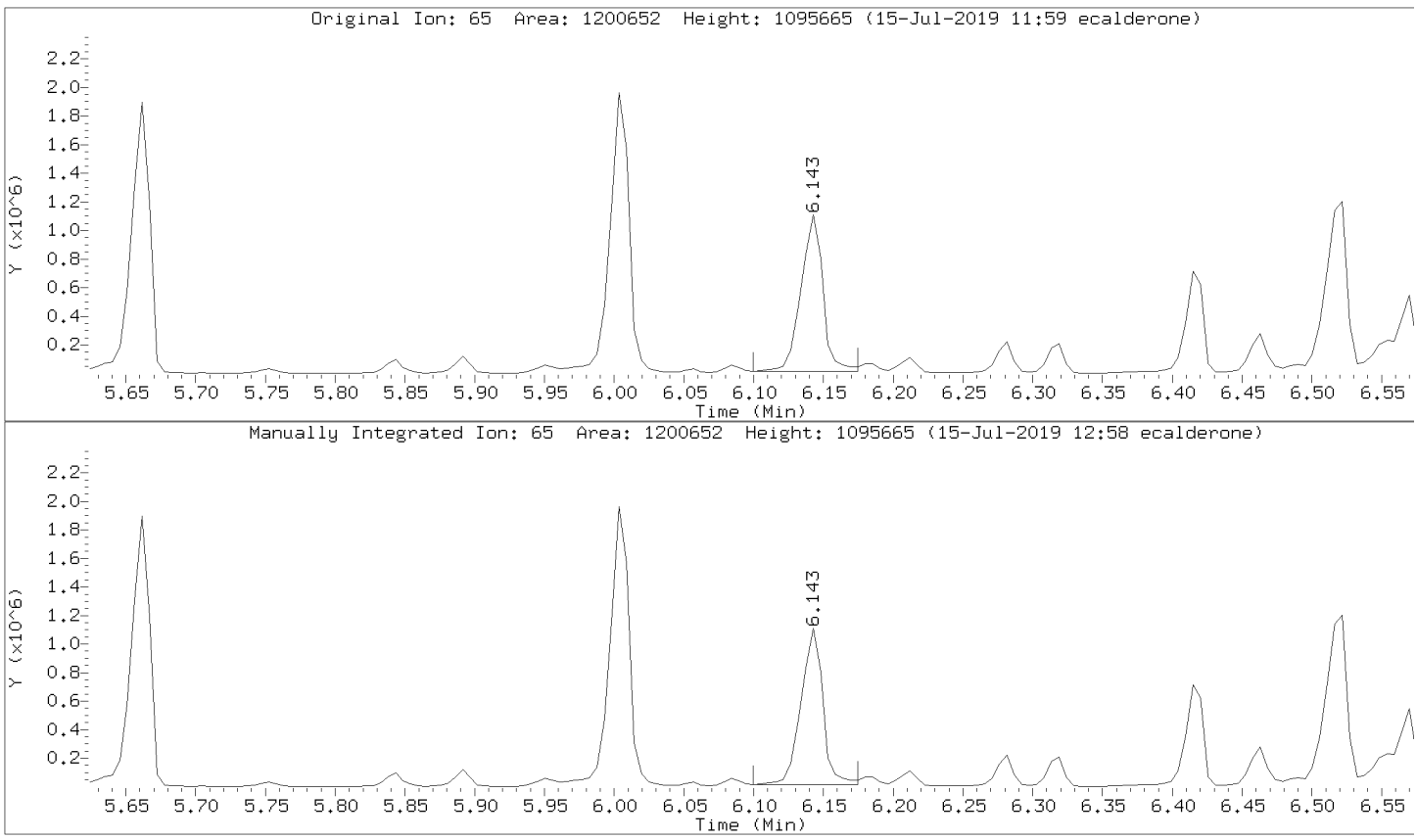
Lab Sample ID: CAL6



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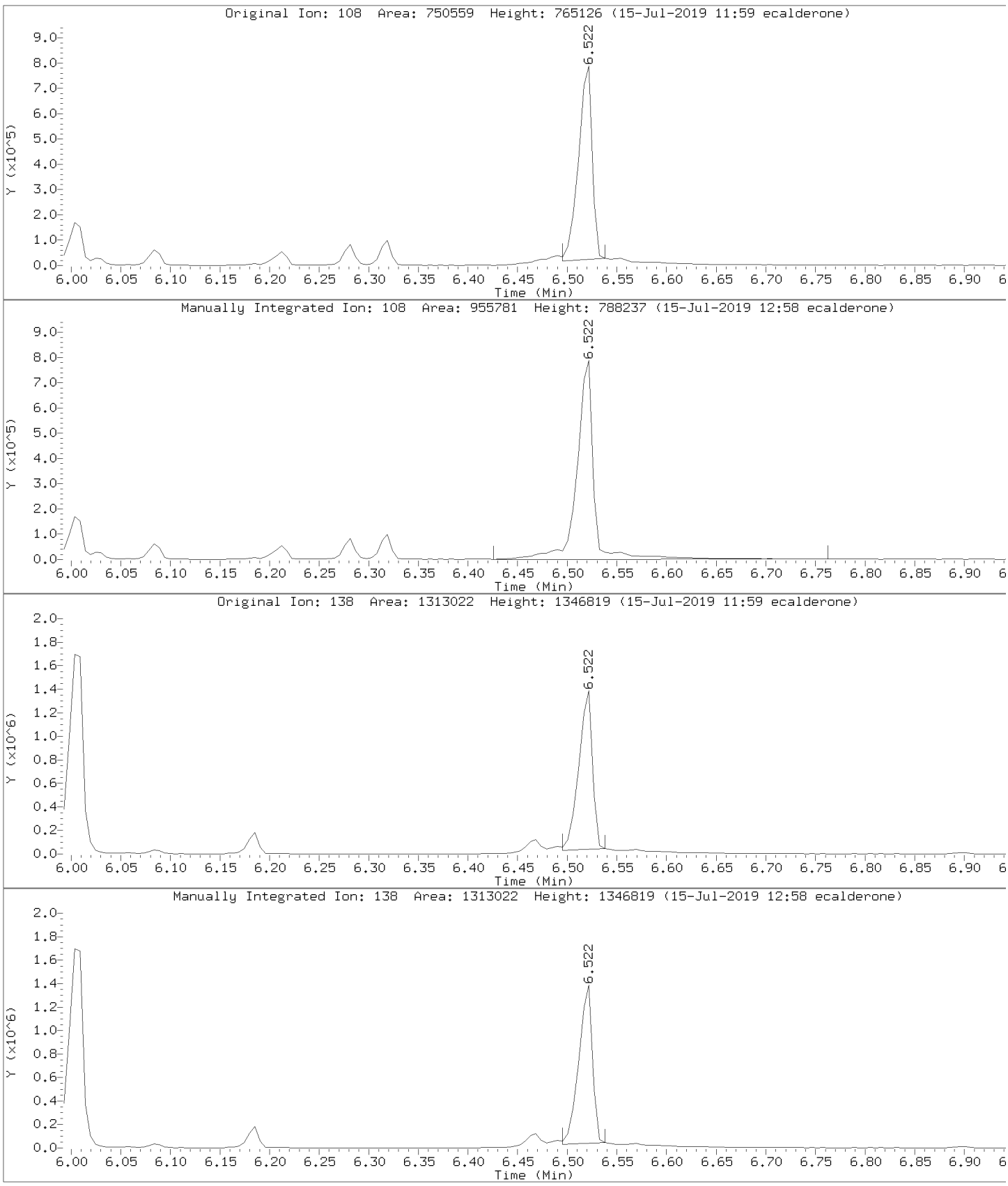
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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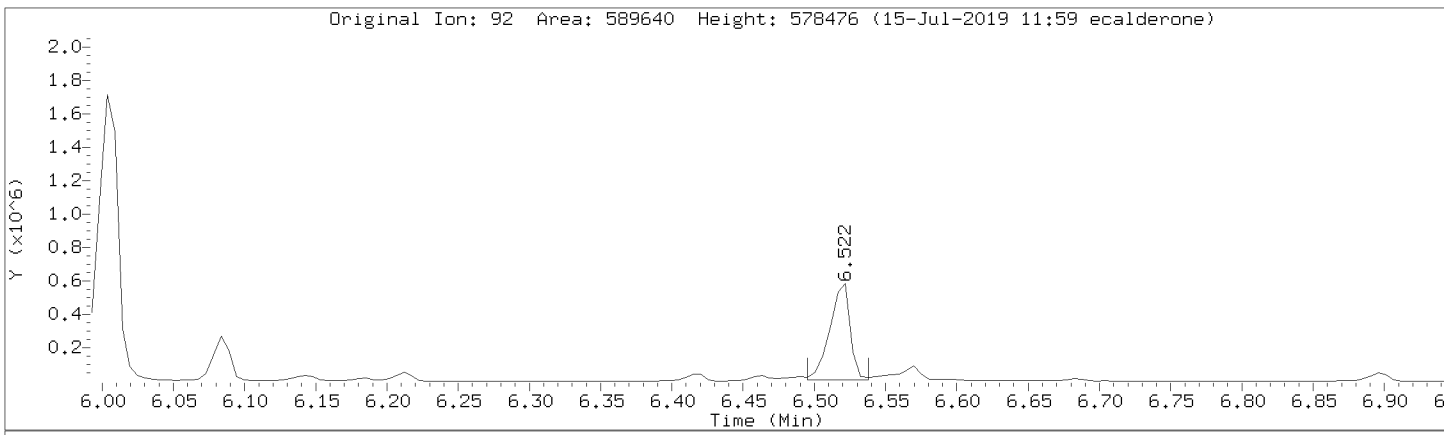
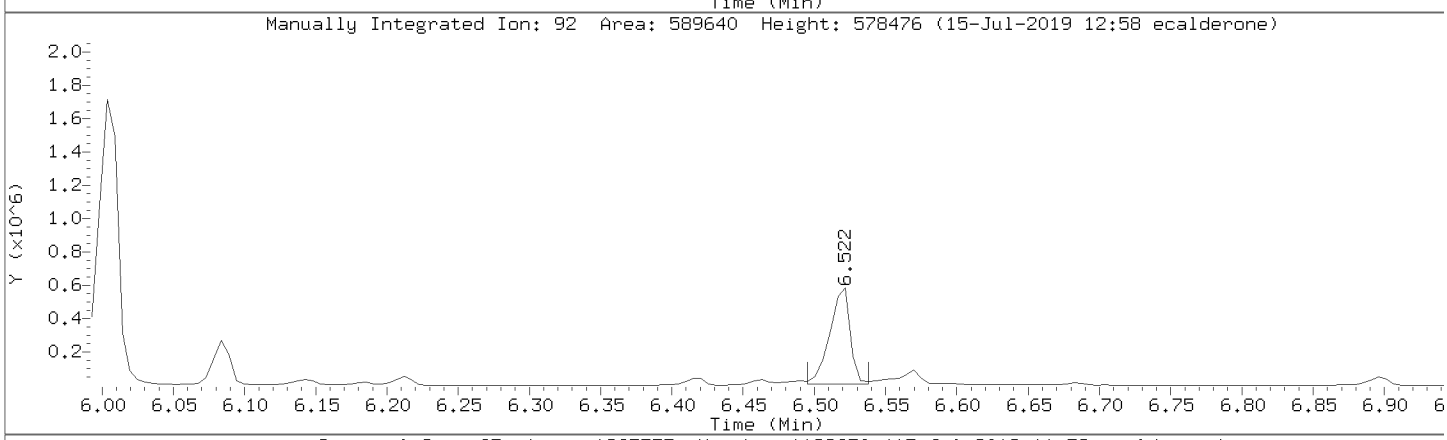
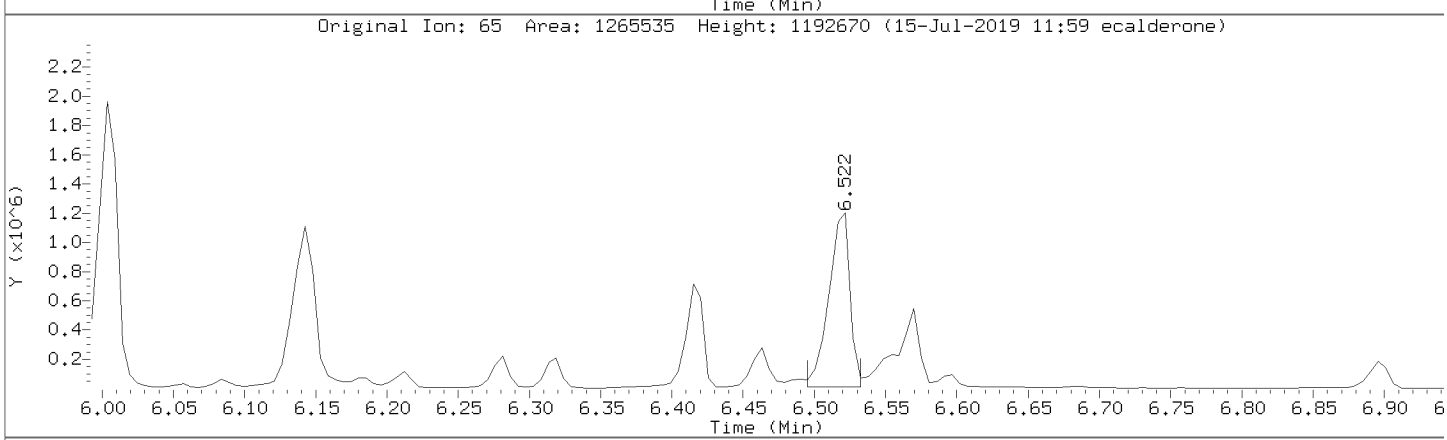
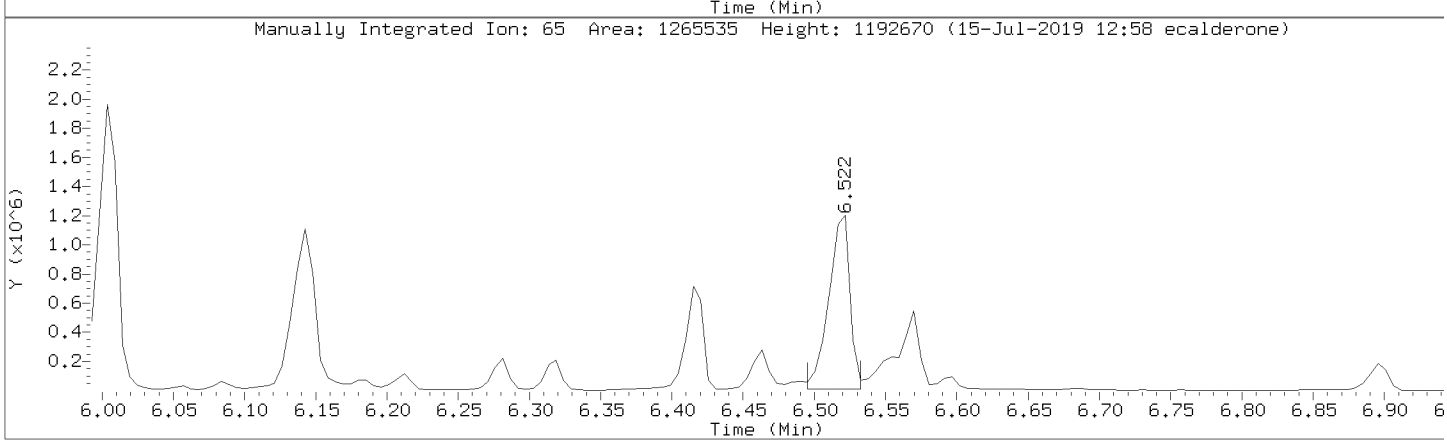
Lab Sample ID: CAL6









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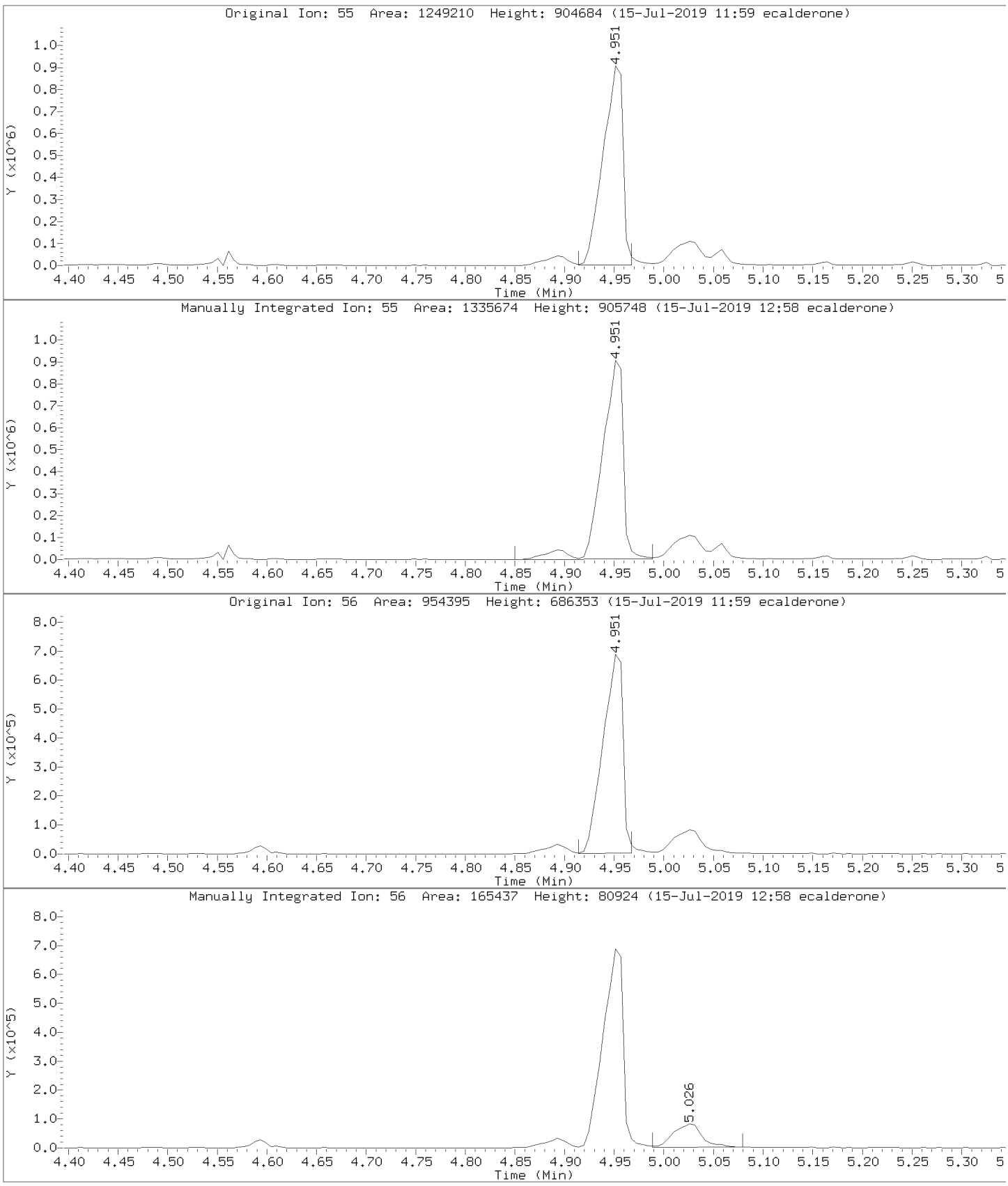
Injection Date: 15-JUL-2019 09:43
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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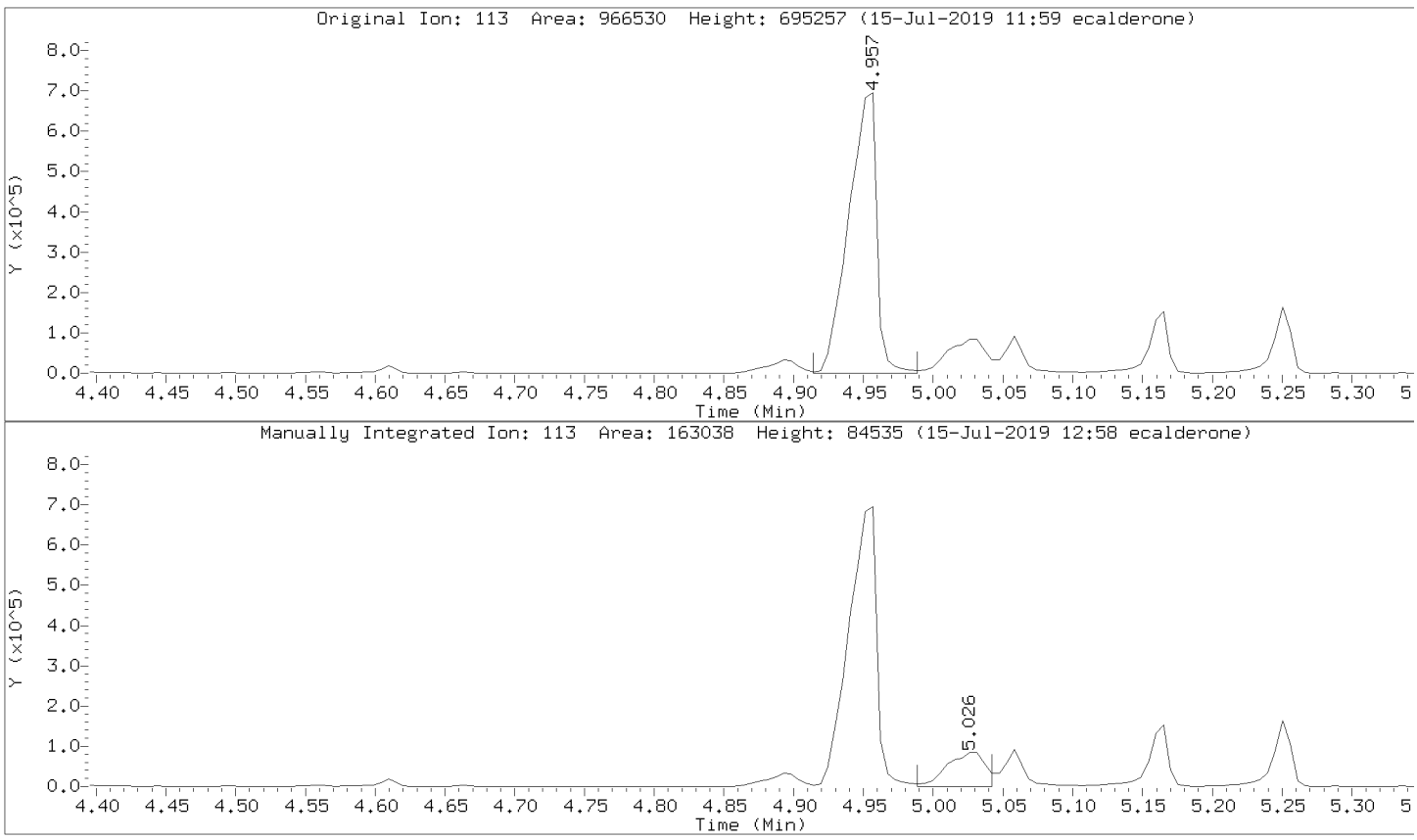
Instrument: 30mss1.i
Lab Sample ID: CAL6



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Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y3.d
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Inj Date : 15-JUL-2019 10:06
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14828,93075:1
Comment :
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
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Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.721	1.700	(0.478)	1944154	12.0000	11.8	
	2 Pyridine	79	1.694	1.689	(0.470)	2943776	12.0000	12.1	
$	3 2-Fluorophenol (S)	112	2.709	2.704	(0.752)	2207196	12.0000	11.4	
$	4 Phenol-d6 (S)	99	3.366	3.351	(0.935)	2812660	12.0000	12.6	
	5 Benzaldehyde	77	3.291	3.281	(0.914)	2057485	12.0000	12.3	
	6 Phenol	94	3.371	3.361	(0.936)	2903471	12.0000	12.0	
	7 Aniline	66	3.398	3.383	(0.944)	1464000	12.0000	13.9	
	8 bis(2-Chloroethyl)ether	63	3.436	3.425	(0.954)	1783142	12.0000	12.4	
	9 2-Chlorophenol	128	3.473	3.463	(0.964)	2577474	12.0000	12.6	
	10 1,3-Dichlorobenzene	146	3.580	3.570	(0.994)	2734568	12.0000	12.6	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.601	3.596	(1.000)	600802	4.00000		
	12 1,4-Dichlorobenzene	146	3.617	3.607	(1.004)	3078016	12.0000	12.8	
	13 Benzyl Alcohol	79	3.724	3.719	(1.034)	1995855	12.0000	12.2	
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.043)	2733524	12.0000	12.7	
	15 2-Methylphenol(o-Cresol)	108	3.815	3.810	(1.059)	2386905	12.0000	12.5	
	16 bis(2-Chloroisopropyl)ether	45	3.842	3.837	(1.067)	3951347	12.0000	12.8	
	17 3&4-Methylphenol(m&p Cresol)	108	3.932	3.917	(1.092)	2378087	12.0000	13.1	
	18 N-Nitroso-di-n-propylamine	70	3.959	3.938	(1.099)	1832798	12.0000	12.6	
	19 Acetophenone	105	3.932	3.922	(1.092)	3215404	12.0000	12.8	
	20 Hexachloroethane	117	3.991	3.986	(1.108)	1087590	12.0000	12.6	
$	21 Nitrobenzene-d5 (S)	128	4.050	4.040	(0.881)	1268309	12.0000	12.2	
	22 Nitrobenzene	77	4.061	4.050	(0.884)	2511087	12.0000	12.3	
	23 Isophorone	82	4.248	4.232	(0.924)	4572479	12.0000	12.3	
	24 2,4-Dimethylphenol	107	4.338	4.333	(0.944)	2455253	12.0000	12.2	
	25 2-Nitrophenol	139	4.306	4.301	(0.937)	1435696	12.0000	12.3	
	26 Benzoic acid	105	4.445	4.376	(0.967)	1604439	12.0000	12.2(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.413	4.408	(0.960)	2791922	12.0000	12.2	
	28 2,4-Dichlorophenol	162	4.493	4.483	(0.978)	2091620	12.0000	12.3	
	29 1,2,4-Trichlorobenzene	180	4.563	4.558	(0.993)	2261320	12.0000	12.3	
*	30 Naphthalene-d8 (IS)	136	4.595	4.590	(1.000)	2542404	4.00000		
	31 Naphthalene	128	4.611	4.606	(1.003)	6510994	12.0000	12.7	
	32 4-Chloroaniline	65	4.664	4.659	(1.015)	814960	12.0000	12.0	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	1214714	12.0000	12.2	
	34 Caprolactam	55	4.942	4.894	(1.076)	1126479	12.0000	12.1(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.054	5.049	(1.100)	2085095	12.0000	12.0	
	36 2-Methylnaphthalene	142	5.166	5.162	(1.124)	4833567	12.0000	12.4	
	37 1-Methylnaphthalene	142	5.252	5.247	(1.143)	4491658	12.0000	12.3	
	38 Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	1441740	12.0000	11.9	
	39 1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	1974997	12.0000	12.2	
	40 2,4,6-Trichlorophenol	196	5.412	5.407	(0.898)	1509371	12.0000	11.9	
	41 2,4,5-Trichlorophenol	196	5.444	5.439	(0.903)	1465925	12.0000	12.6	
$	42 2-Fluorobiphenyl (S)	172	5.476	5.471	(0.909)	4704608	12.0000	12.5	
	43 Biphenyl (Diphenyl)	154	5.546	5.541	(0.920)	5241260	12.0000	12.7(M)	LT
	44 2-Chloronaphthalene	164	5.556	5.551	(0.922)	1496449	12.0000	12.3	
	45 2-Nitroaniline	138	5.663	5.653	(0.940)	1696279	12.0000	12.2	
	46 Dimethylphthalate	163	5.839	5.829	(0.969)	4485730	12.0000	12.9	
	47 2,6-Dinitrotoluene	165	5.893	5.883	(0.978)	1233584	12.0000	12.6	
	48 Acenaphthylene	152	5.904	5.899	(0.980)	6306699	12.0000	12.8	
	49 3-Nitroaniline	65	6.005	5.990	(0.996)	1428560	12.0000	12.5	
*	50 Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1346853	4.00000		
	51 2,4-Dinitrophenol	184	6.085	6.075	(1.010)	714582	12.0000	11.8	
	52 Acenaphthene	153	6.053	6.048	(1.004)	4266028	12.0000	12.7	
	53 4-Nitrophenol	109	6.139	6.123	(1.019)	620067	12.0000	3.01(M)	LT
	54 2,4-Dinitrotoluene	165	6.208	6.198	(1.030)	1589431	12.0000	12.4	
	55 Dibenzofuran	168	6.181	6.176	(1.026)	5500154	12.0000	12.5	
	56 2,3,4,6-Tetrachlorophenol	232	6.320	6.315	(1.049)	1198168	12.0000	12.5	
	57 Diethylphthalate	149	6.416	6.406	(1.065)	4680510	12.0000	12.8	
	58 4-Chlorophenylphenyl ether	204	6.465	6.460	(1.073)	2349815	12.0000	12.4	
	59 Fluorene	166	6.465	6.460	(1.073)	4638996	12.0000	12.2	
	60 4-Nitroaniline	108	6.513	6.492	(1.081)	633713	12.0000	11.0(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.545	6.534	(0.888)	928607	12.0000	11.6	
	62 N-Nitrosodiphenylamine	169	6.566	6.556	(0.891)	4049873	12.0000	12.0	
	63 Azobenzene	77	6.593	6.588	(0.894)	4437616	12.0000	12.6	
	64 1,2-Diphenylhydrazine	77	6.593	6.588	(0.894)	4437616	12.0000	12.6	
$	65 2,4,6-Tribromophenol (S)	330	6.684	6.679	(0.907)	740019	12.0000	11.7	
	66 4-Bromophenylphenyl ether	248	6.897	6.892	(0.936)	1465738	12.0000	12.2	
	67 Hexachlorobenzene	284	7.058	7.053	(0.957)	1461556	12.0000	12.1	
	68 Atrazine	200	7.122	7.106	(0.966)	1425143	12.0000	12.2	
	69 Pentachlorophenol	266	7.244	7.240	(0.983)	877160	12.0000	11.5	
*	70 Phenanthrene-d10 (IS)	188	7.373	7.368	(1.000)	2258266	4.00000		
	71 Phenanthrene	178	7.405	7.395	(1.004)	6777307	12.0000	12.2	
	72 Anthracene	178	7.453	7.437	(1.011)	6682093	12.0000	12.5	
	73 Carbazole	167	7.624	7.614	(1.034)	5965181	12.0000	12.2	
	74 Di-n-butylphthalate	149	8.073	8.068	(1.095)	7215618	12.0000	12.8	
	75 Fluoranthene	202	8.671	8.666	(1.176)	6508223	12.0000	12.0	
	76 Pyrene	202	8.906	8.896	(0.876)	6721853	12.0000	12.8	
$	77 Terphenyl-d14 (S)	244	9.093	9.083	(0.895)	5086280	12.0000	12.2	
	78 Butylbenzylphthalate	149	9.638	9.633	(0.948)	3386625	12.0000	12.6	
	79 3,3'-Dichlorobenzidine	252	10.140	10.135	(0.998)	2487648	12.0000	12.6	
	80 bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	4675877	12.0000	13.2	
	81 Benzo(a)anthracene	228	10.140	10.135	(0.998)	6135118	12.0000	12.3	
*	82 Chrysene-d12 (IS)	240	10.161	10.151	(1.000)	1903235	4.00000		
	83 Chrysene	228	10.188	10.178	(1.003)	5845361	12.0000	12.7	
	84 Di-n-octylphthalate	149	10.840	10.835	(0.943)	7297250	12.0000	11.8	
	85 Benzo(b)fluoranthene	252	11.176	11.161	(0.972)	7350031	12.0000	12.1	
	86 Benzo(k)fluoranthene	252	11.198	11.182	(0.974)	6288706	12.0000	11.8	
	87 Benzo(a)pyrene	252	11.454	11.444	(0.996)	6271992	12.0000	12.1	
*	88 Perylene-d12 (IS)	264	11.497	11.492	(1.000)	2051253	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.346	12.325	(1.074)	6788486	12.0000	12.0	
90 Dibenz(a,h)anthracene	278	12.352	12.336	(1.074)	5656440	12.0000	12.2	
91 Benzo(g,h,i)perylene	276	12.549	12.528	(1.092)	5512034	12.0000	11.6	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y3.d
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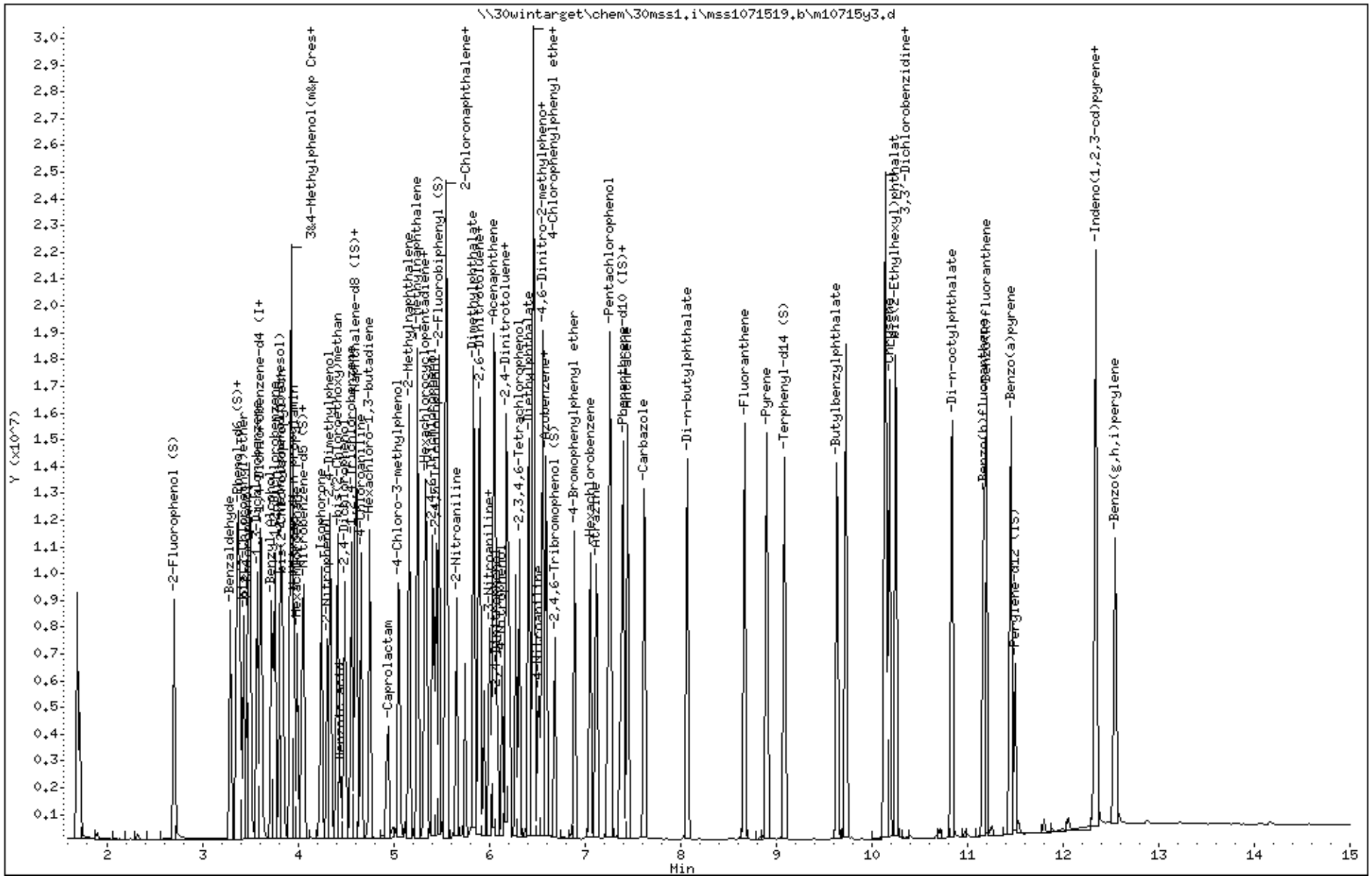
Client ID: CAL5
Sample Info: CAL5

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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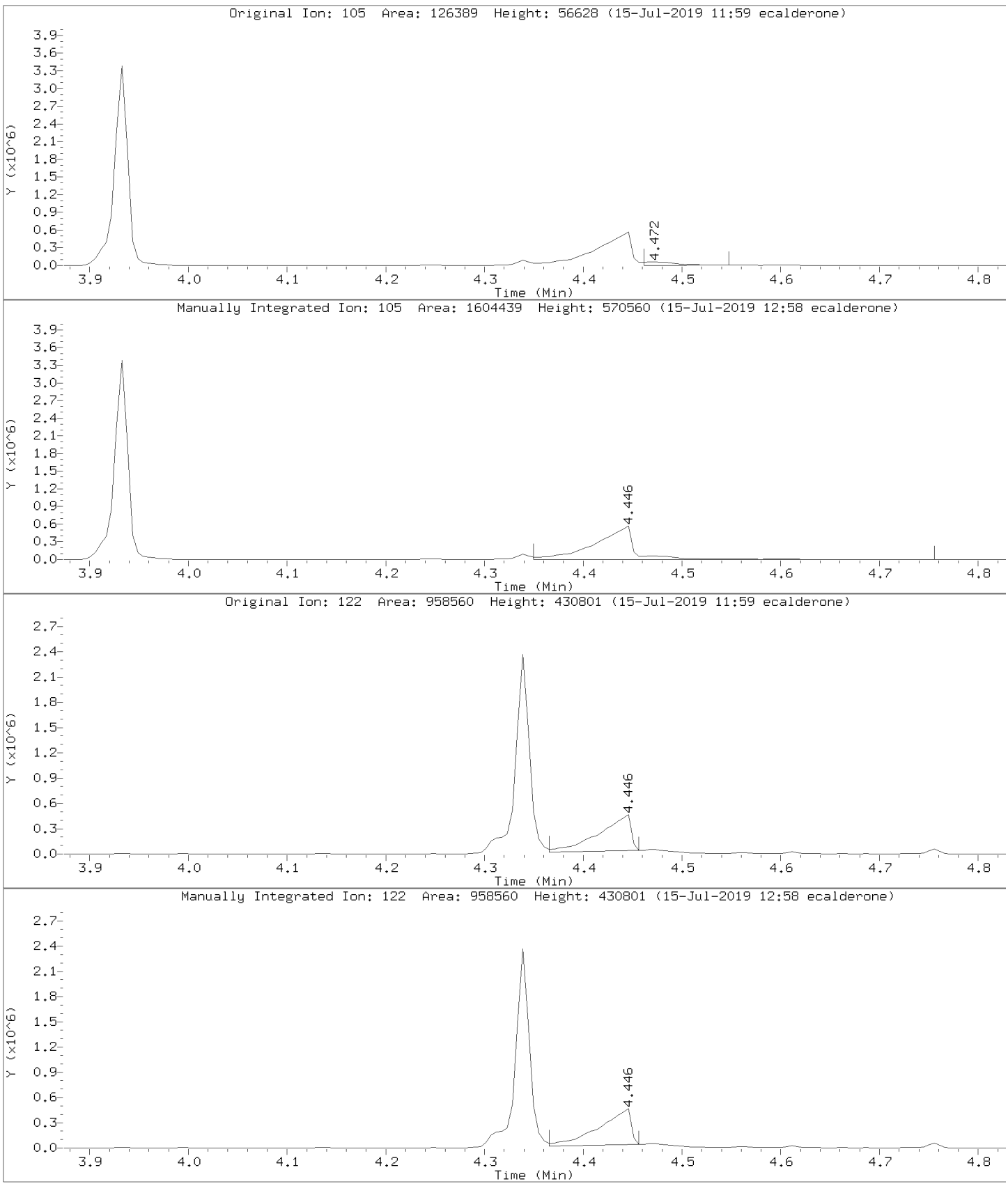
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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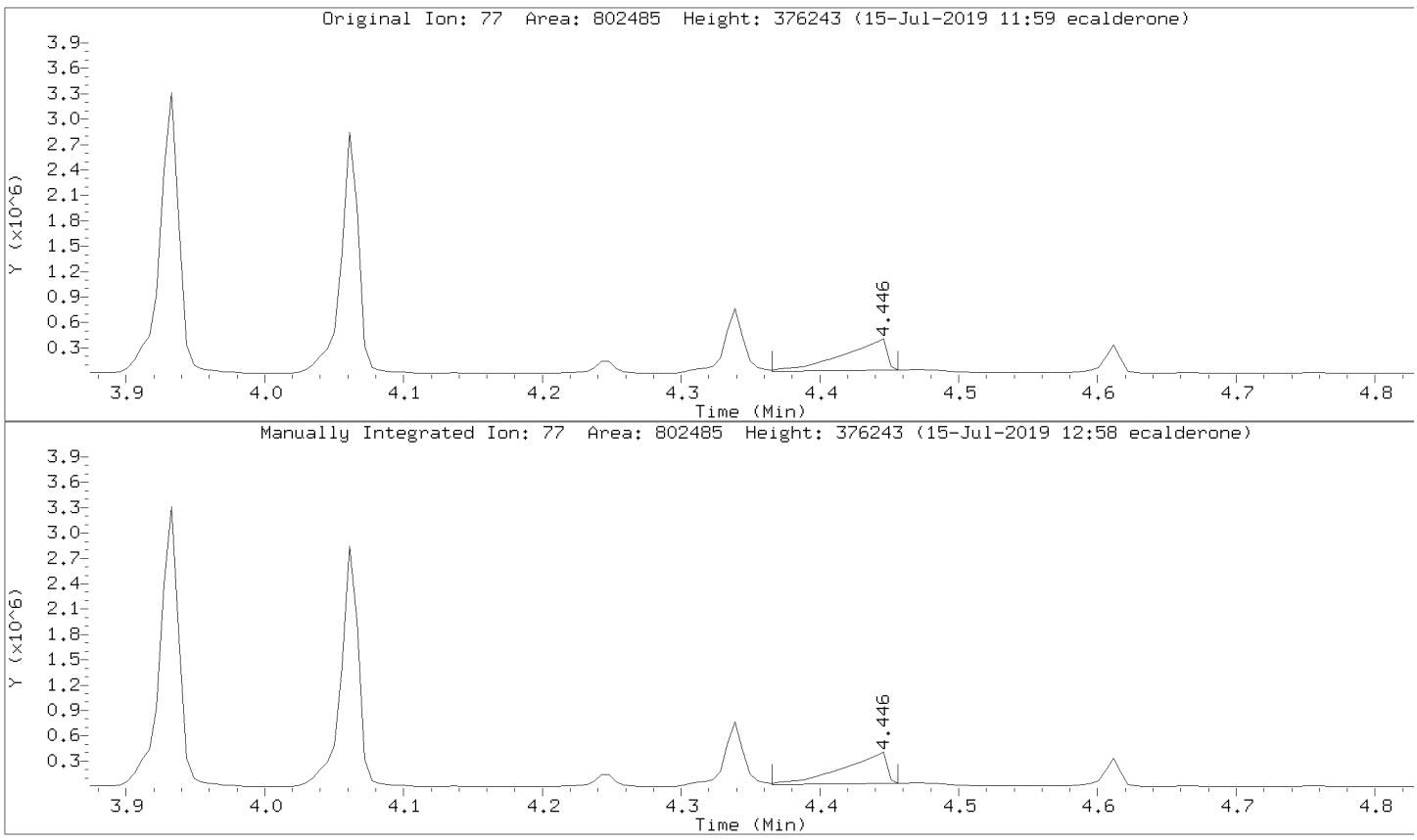

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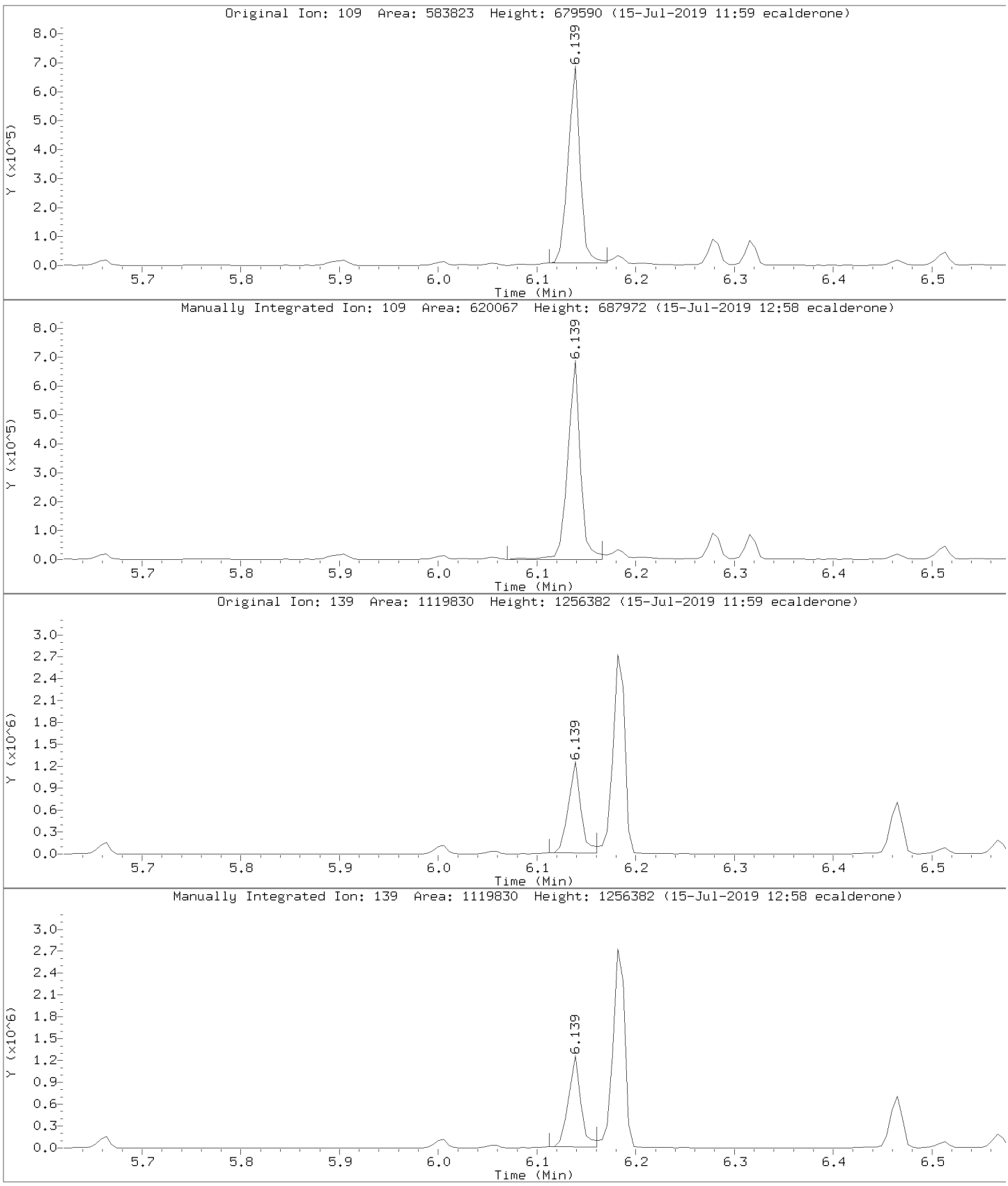
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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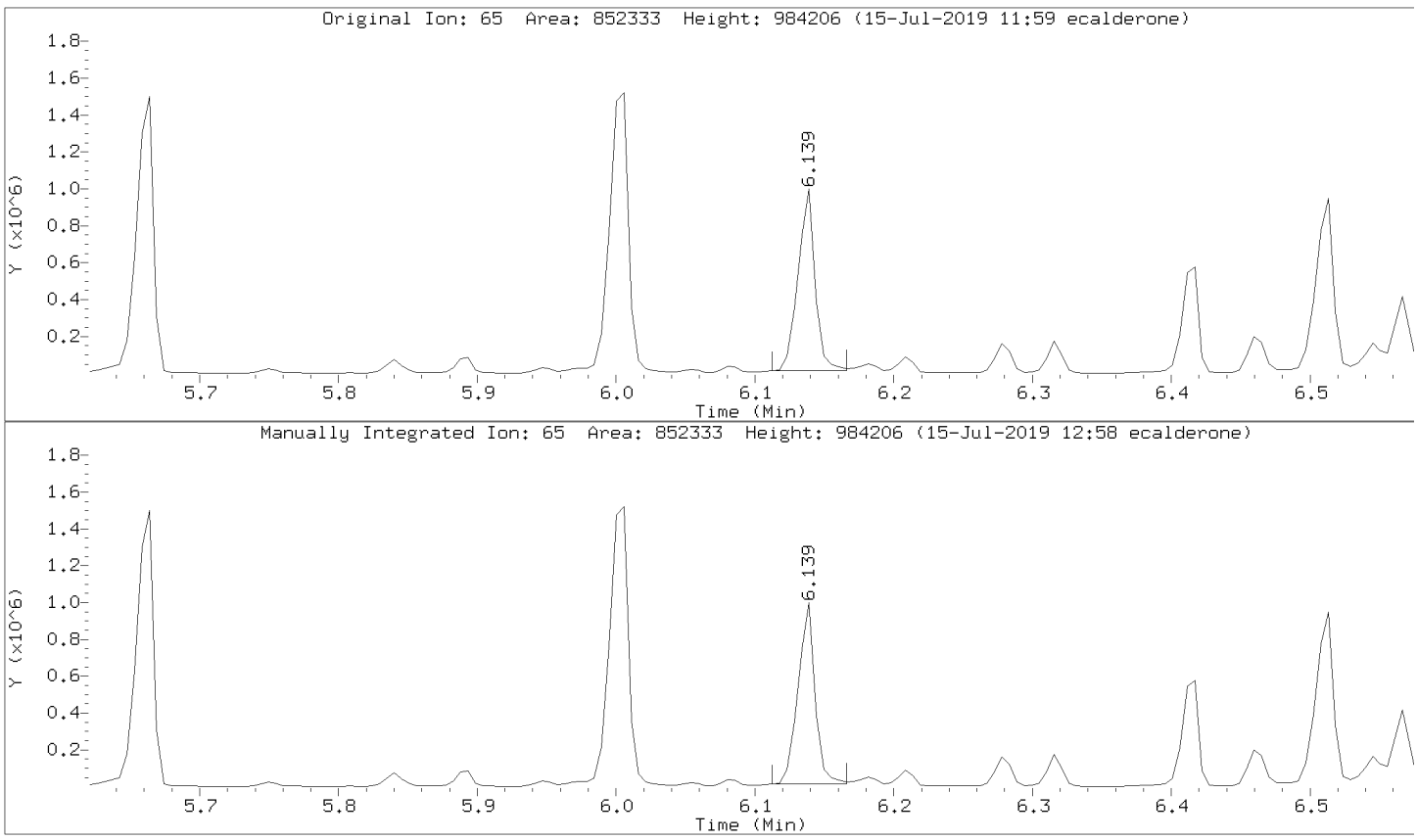
Lab Sample ID: CAL5



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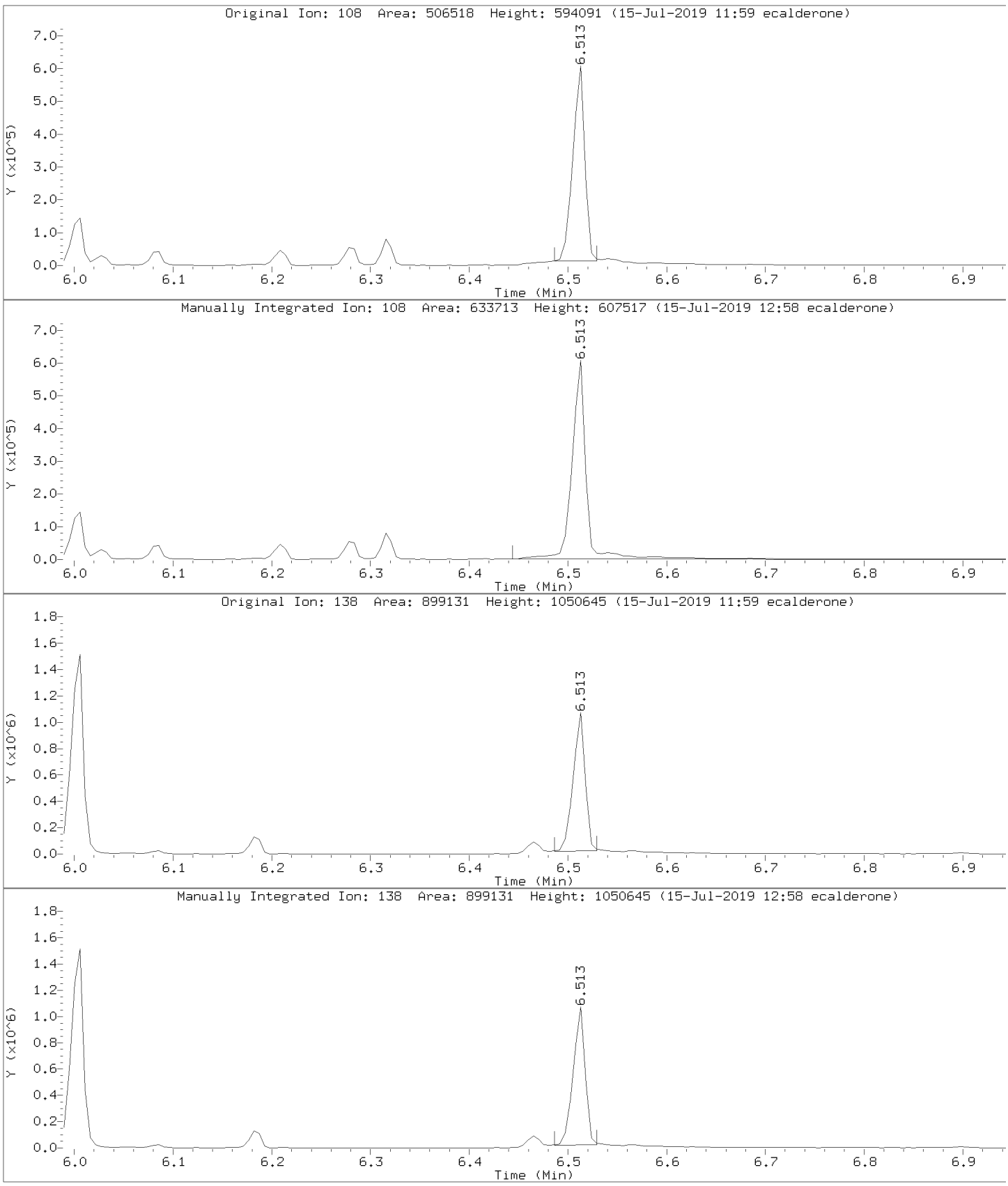
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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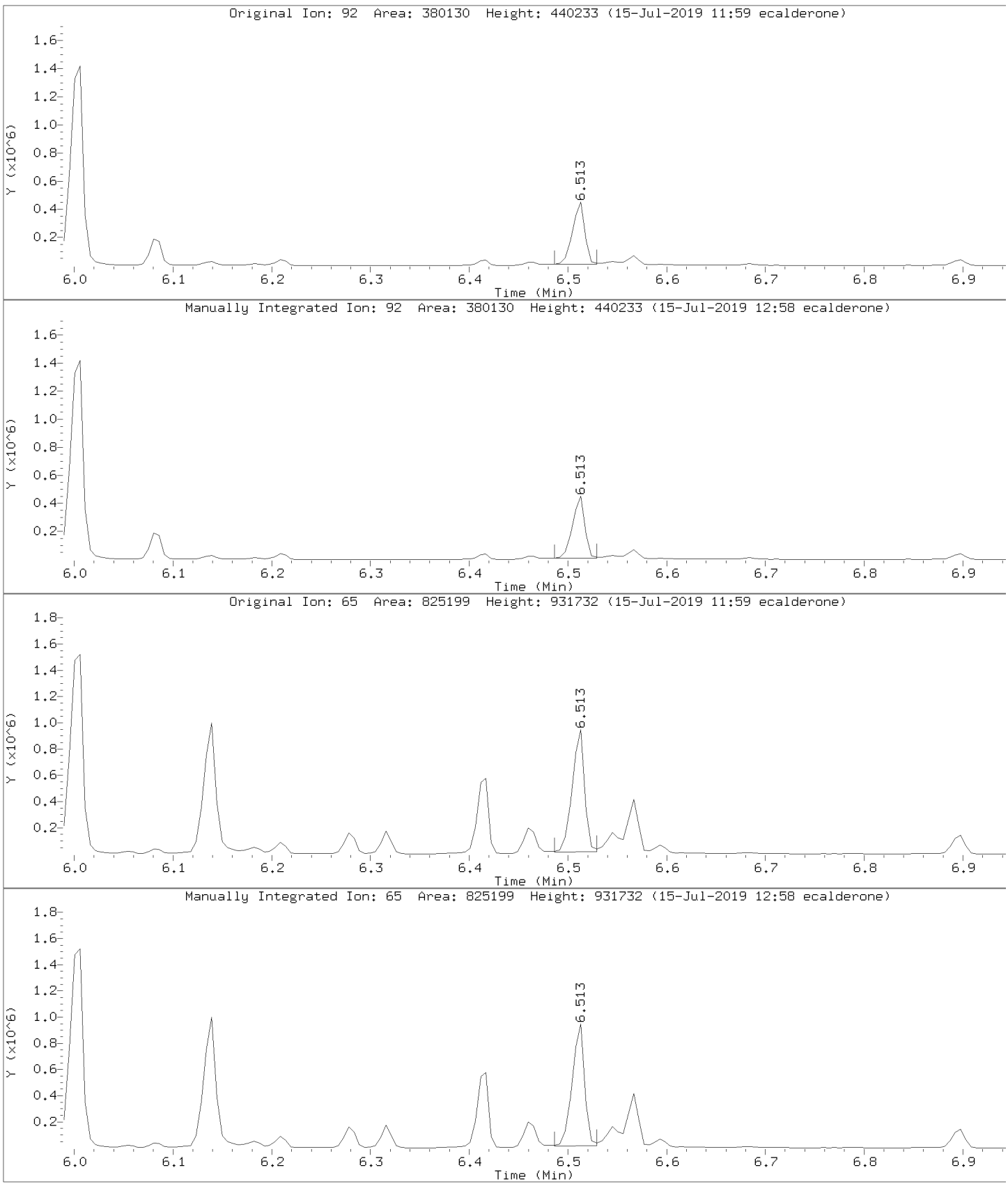
Lab Sample ID: CAL5



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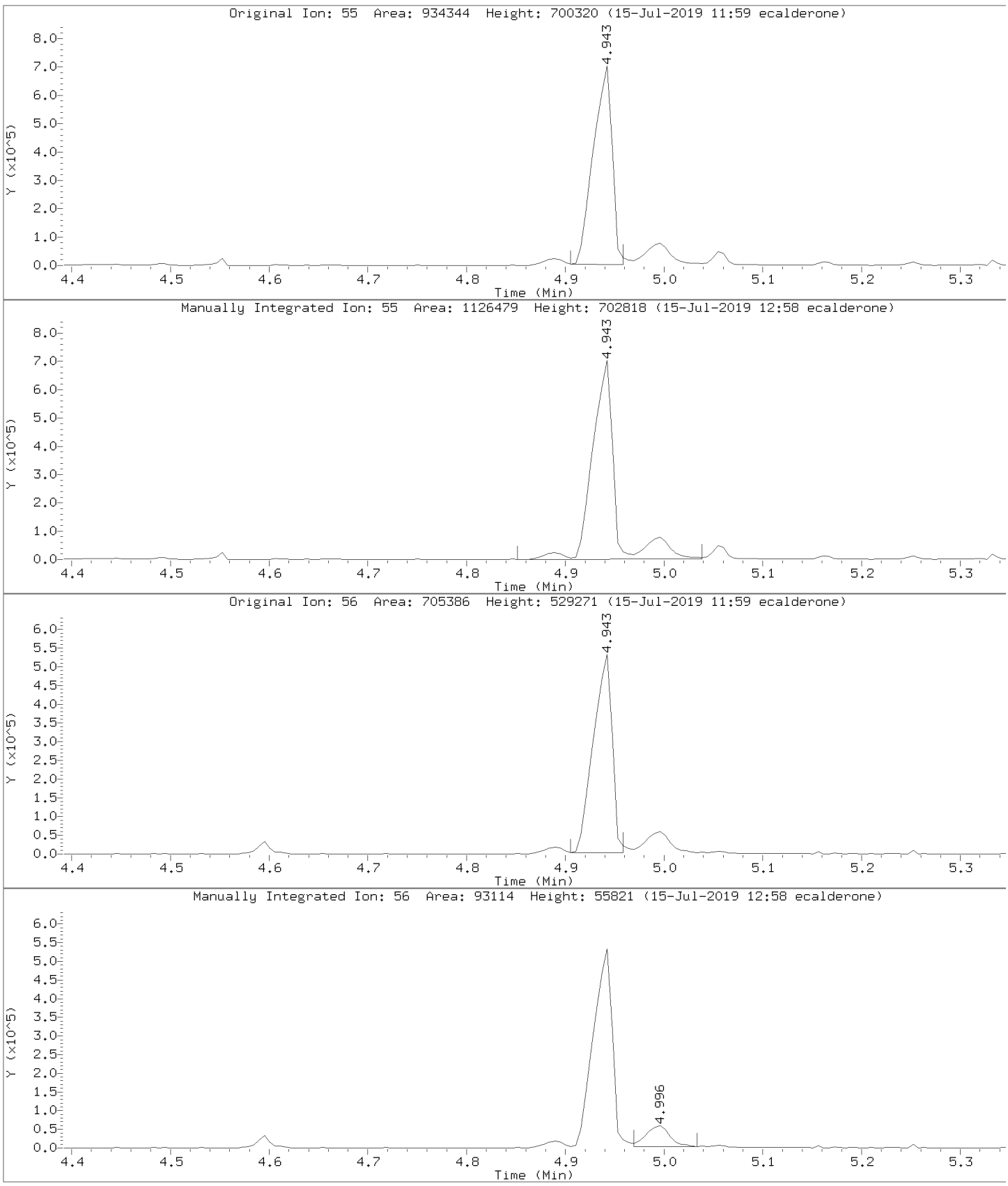
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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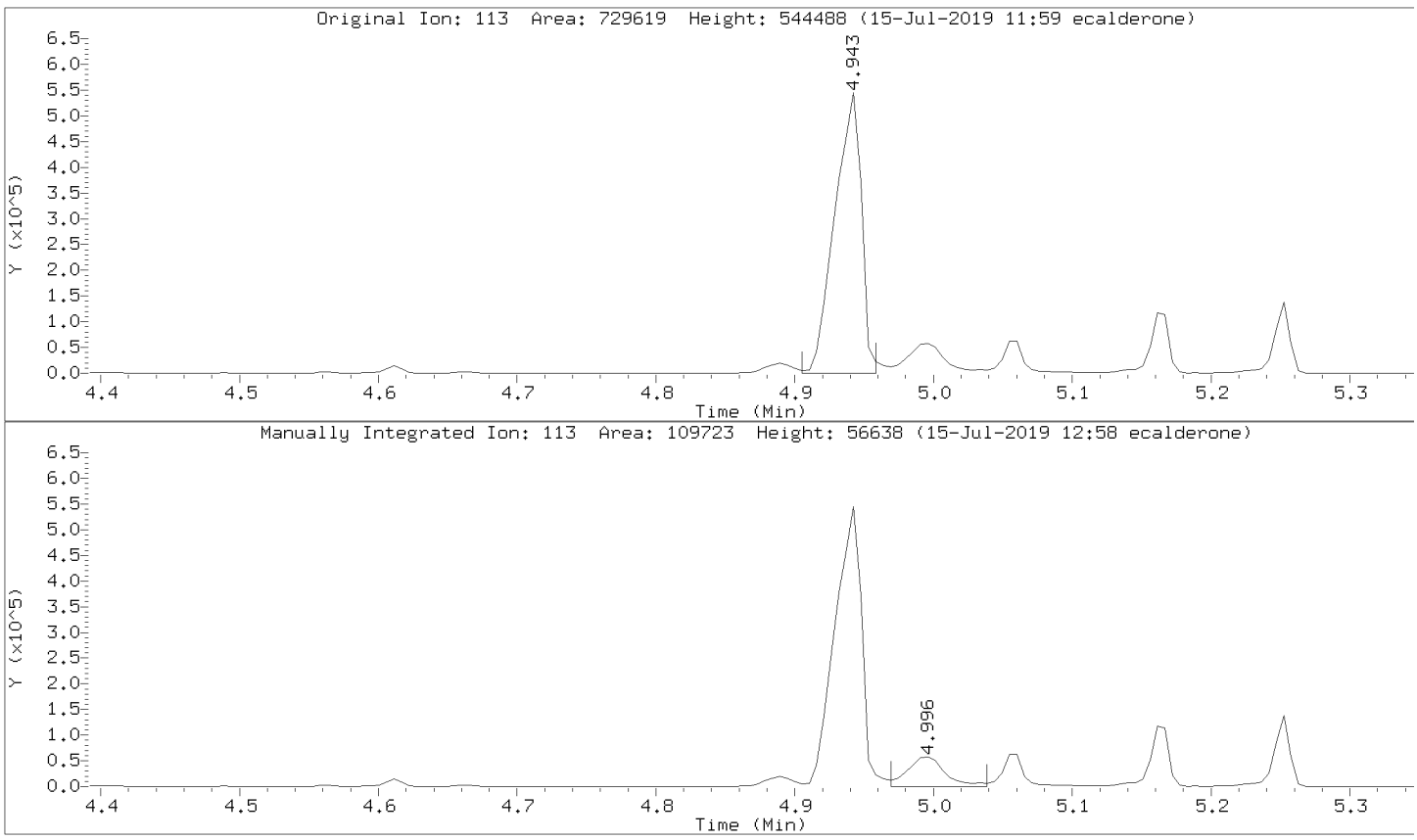
Lab Sample ID: CAL5



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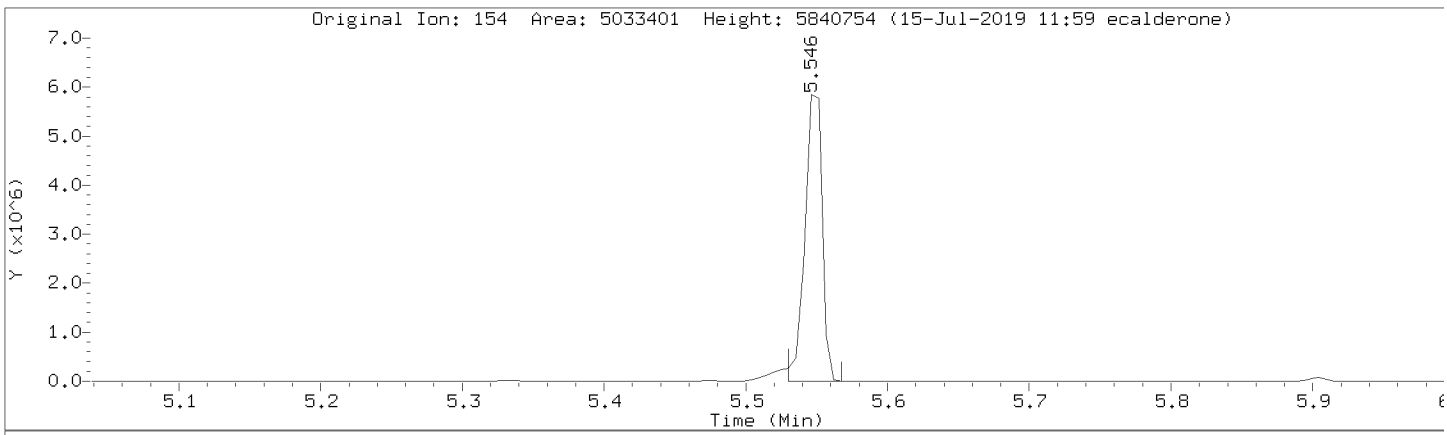
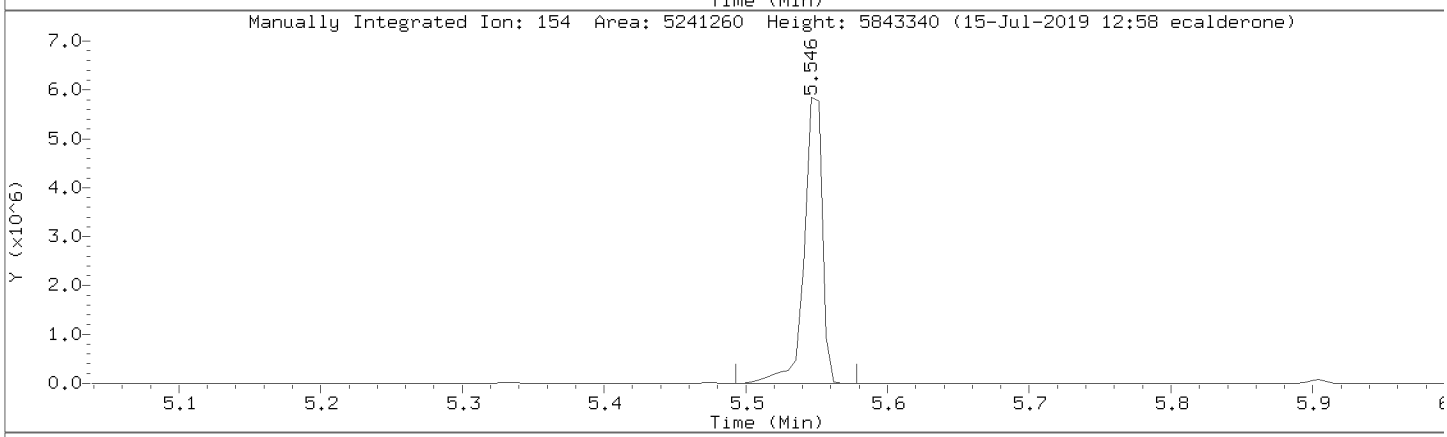
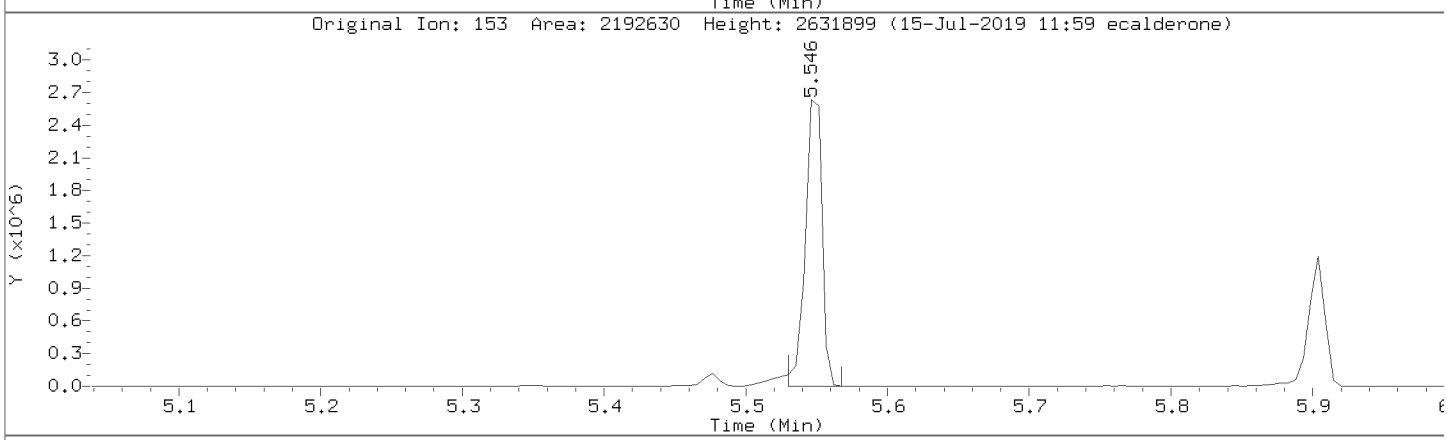
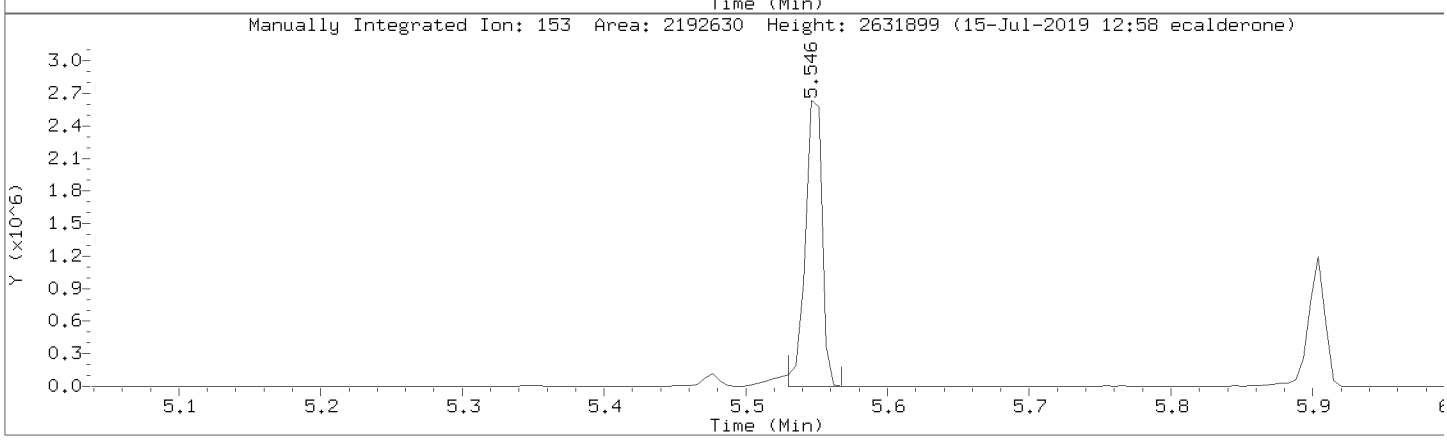
Injection Date: 15-JUL-2019 10:06
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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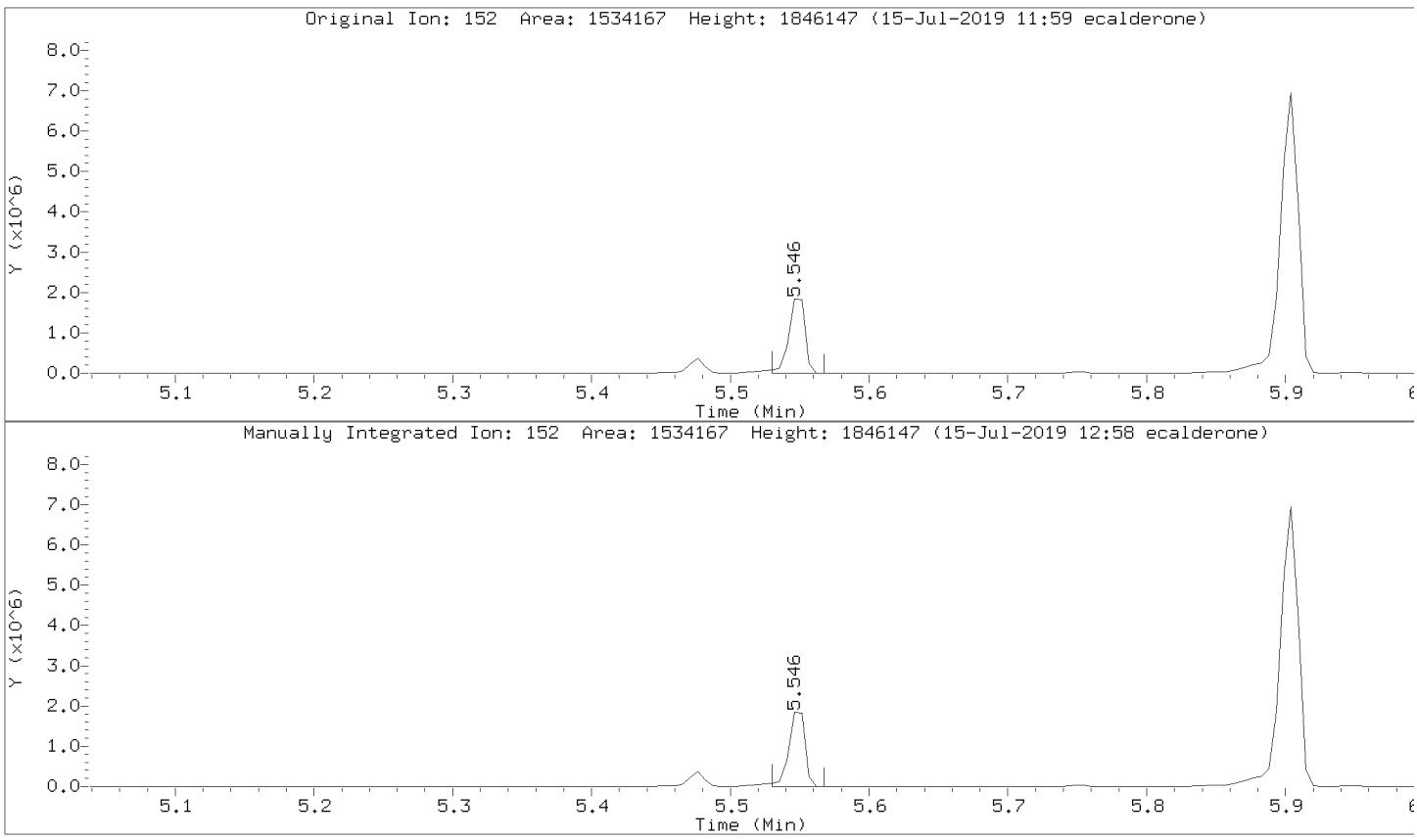
Instrument: 30mss1.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y4.d
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Smp Info : cal4
Misc Info : 14828,93076:1
Comment :
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 10:28 Cal File: m10715y4.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.699	1.700	(0.473)	1375720	8.00000		
	2 Pyridine	79	1.683	1.689	(0.468)	2049302	8.00000		
$	3 2-Fluorophenol (S)	112	2.698	2.704	(0.750)	1649494	8.00000		
$	4 Phenol-d6 (S)	99	3.355	3.351	(0.933)	1871587	8.00000		
	5 Benzaldehyde	77	3.280	3.281	(0.912)	1354332	8.00000		
	6 Phenol	94	3.366	3.361	(0.936)	2079548	8.00000		
	7 Aniline	66	3.387	3.383	(0.942)	854576	8.00000		
	8 bis(2-Chloroethyl)ether	63	3.424	3.425	(0.952)	1179764	8.00000		
	9 2-Chlorophenol	128	3.467	3.463	(0.964)	1696021	8.00000		
	10 1,3-Dichlorobenzene	146	3.574	3.570	(0.994)	1887388	8.00000		
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.595	3.596	(1.000)	619276	4.00000		
	12 1,4-Dichlorobenzene	146	3.611	3.607	(1.004)	2016653	8.00000		
	13 Benzyl Alcohol	79	3.718	3.719	(1.034)	1341130	8.00000		
	14 1,2-Dichlorobenzene	146	3.756	3.751	(1.045)	1793077	8.00000		
	15 2-Methylphenol(o-Cresol)	108	3.809	3.810	(1.059)	1608543	8.00000		
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	2683904	8.00000		
	17 3&4-Methylphenol(m&p Cresol)	108	3.927	3.917	(1.092)	1620945	8.00000		
	18 N-Nitroso-di-n-propylamine	70	3.948	3.938	(1.098)	1235974	8.00000		
	19 Acetophenone	105	3.927	3.922	(1.092)	2189574	8.00000		
	20 Hexachloroethane	117	3.991	3.986	(1.110)	723435	8.00000		
$	21 Nitrobenzene-d5 (S)	128	4.044	4.040	(0.880)	845462	8.00000		
	22 Nitrobenzene	77	4.055	4.050	(0.883)	1706671	8.00000		
	23 Isophorone	82	4.242	4.232	(0.923)	3121421	8.00000		
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.943)	1662998	8.00000		
	25 2-Nitrophenol	139	4.306	4.301	(0.937)	960589	8.00000		
	26 Benzoic acid	105	4.429	4.376	(0.964)	1050319	8.00000	(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.407	4.408	(0.959)	1897953	8.00000		
	28 2,4-Dichlorophenol	162	4.487	4.483	(0.977)	1395866	8.00000		
	29 1,2,4-Trichlorobenzene	180	4.557	4.558	(0.992)	1512251	8.00000		
*	30 Naphthalene-d8 (IS)	136	4.594	4.590	(1.000)	2545349	4.00000		
	31 Naphthalene	128	4.610	4.606	(1.003)	4621960	8.00000		
	32 4-Chloroaniline	65	4.658	4.659	(1.014)	551921	8.00000		
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.035)	799957	8.00000		
	34 Caprolactam	55	4.926	4.894	(1.072)	745332	8.00000	(MH)	LT

			QUANT SIG					AMOUNTS			
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	35	4-Chloro-3-methylphenol	107	5.054	5.049	(1.100)	1416223	8.00000			
	36	2-Methylnaphthalene	142	5.161	5.162	(1.123)	3386794	8.00000			
	37	1-Methylnaphthalene	142	5.251	5.247	(1.143)	3163693	8.00000			
	38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	989357	8.00000			
	39	1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	1349473	8.00000			
	40	2,4,6-Trichlorophenol	196	5.412	5.407	(0.898)	1078331	8.00000			
	41	2,4,5-Trichlorophenol	196	5.444	5.439	(0.903)	931688	8.00000			
$	42	2-Fluorobiphenyl (S)	172	5.476	5.471	(0.909)	3338200	8.00000			
	43	Biphenyl (Diphenyl)	154	5.545	5.541	(0.920)	3747676	8.00000		(MH)	LT
	44	2-Chloronaphthalene	164	5.556	5.551	(0.922)	1003662	8.00000			
	45	2-Nitroaniline	138	5.657	5.653	(0.939)	1180617	8.00000		(M)	LT
	46	Dimethylphthalate	163	5.834	5.829	(0.968)	3016150	8.00000		(H)	
	47	2,6-Dinitrotoluene	165	5.887	5.883	(0.977)	818757	8.00000			
	48	Acenaphthylene	152	5.903	5.899	(0.980)	4618249	8.00000			
	49	3-Nitroaniline	65	5.999	5.990	(0.996)	932334	8.00000			
*	50	Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1391253	4.00000		(M)	LT
	51	2,4-Dinitrophenol	184	6.079	6.075	(1.009)	499264	8.00000		(M)	LT
	52	Acenaphthene	153	6.053	6.048	(1.004)	2993847	8.00000		(M)	LT
	53	4-Nitrophenol	109	6.133	6.123	(1.018)	423572	8.00000		(M)	LT
	54	2,4-Dinitrotoluene	165	6.208	6.198	(1.030)	1086012	8.00000			
	55	Dibenzofuran	168	6.181	6.176	(1.026)	4066799	8.00000		(M)	LT
	56	2,3,4,6-Tetrachlorophenol	232	6.314	6.315	(1.048)	794622	8.00000			
	57	Diethylphthalate	149	6.411	6.406	(1.064)	3281873	8.00000			
	58	4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	1629974	8.00000			
	59	Fluorene	166	6.464	6.460	(1.073)	3365521	8.00000			
	60	4-Nitroaniline	108	6.501	6.492	(1.079)	481511	8.00000		(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.539	6.534	(0.887)	654501	8.00000			
	62	N-Nitrosodiphenylamine	169	6.566	6.556	(0.891)	2940399	8.00000			
	63	Azobenzene	77	6.592	6.588	(0.894)	3111862	8.00000			
	64	1,2-Diphenylhydrazine	77	6.592	6.588	(0.894)	3111862	8.00000			
$	65	2,4,6-Tribromophenol (S)	330	6.683	6.679	(0.907)	497825	8.00000			
	66	4-Bromophenylphenyl ether	248	6.897	6.892	(0.936)	969368	8.00000			
	67	Hexachlorobenzene	284	7.057	7.053	(0.957)	956604	8.00000			
	68	Atrazine	200	7.116	7.106	(0.965)	986322	8.00000			
	69	Pentachlorophenol	266	7.239	7.240	(0.982)	599451	8.00000			
*	70	Phenanthrene-d10 (IS)	188	7.372	7.368	(1.000)	2322236	4.00000			
	71	Phenanthrene	178	7.399	7.395	(1.004)	4986313	8.00000			
	72	Anthracene	178	7.447	7.437	(1.010)	4777135	8.00000			
	73	Carbazole	167	7.623	7.614	(1.034)	4423119	8.00000			
	74	Di-n-butylphthalate	149	8.072	8.068	(1.095)	5107785	8.00000			
	75	Fluoranthene	202	8.670	8.666	(1.176)	4851204	8.00000			
	76	Pyrene	202	8.900	8.896	(0.876)	4916656	8.00000			
$	77	Terphenyl-d14 (S)	244	9.087	9.083	(0.895)	3770351	8.00000			
	78	Butylbenzylphthalate	149	9.637	9.633	(0.949)	2293750	8.00000			
	79	3,3'-Dichlorobenzidine	252	10.139	10.135	(0.998)	1598302	8.00000			
	80	bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	3141969	8.00000			
	81	Benzo(a)anthracene	228	10.139	10.135	(0.998)	4339082	8.00000			
*	82	Chrysene-d12 (IS)	240	10.155	10.151	(1.000)	1933921	4.00000			
	83	Chrysene	228	10.182	10.178	(1.003)	3986739	8.00000			
	84	Di-n-octylphthalate	149	10.834	10.835	(0.942)	4843888	8.00000			
	85	Benzo(b)fluoranthene	252	11.170	11.161	(0.972)	4418035	8.00000			
	86	Benzo(k)fluoranthene	252	11.192	11.182	(0.974)	4335085	8.00000			
	87	Benzo(a)pyrene	252	11.448	11.444	(0.996)	4029127	8.00000			
*	88	Perylene-d12 (IS)	264	11.496	11.492	(1.000)	1888308	4.00000			

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.340	12.325	(1.073)	4315433	8.00000		
90 Dibenz(a,h)anthracene	278	12.346	12.336	(1.074)	3621162	8.00000		
91 Benzo(g,h,i)perylene	276	12.543	12.528	(1.091)	3729205	8.00000		

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y4.d
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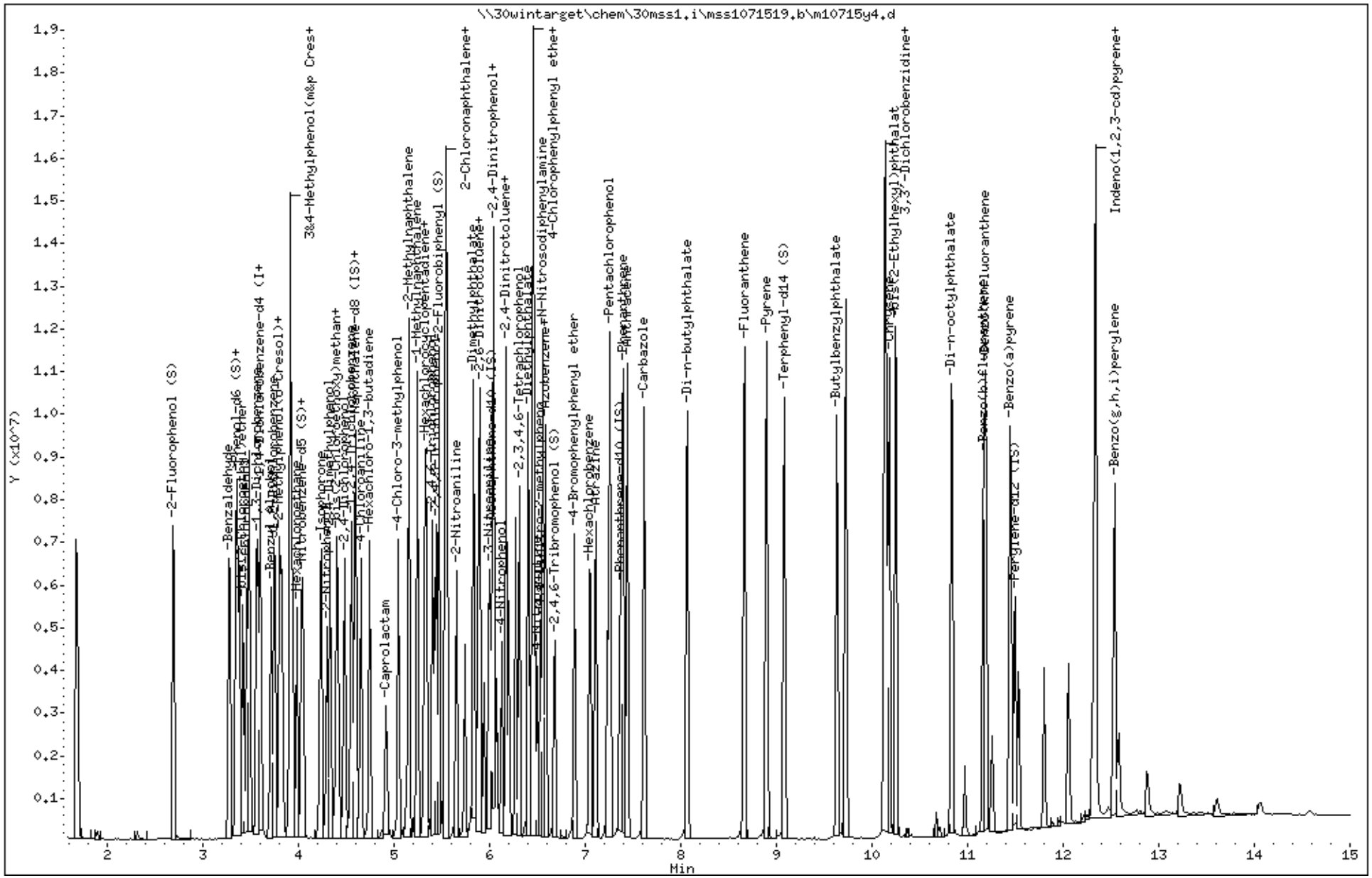
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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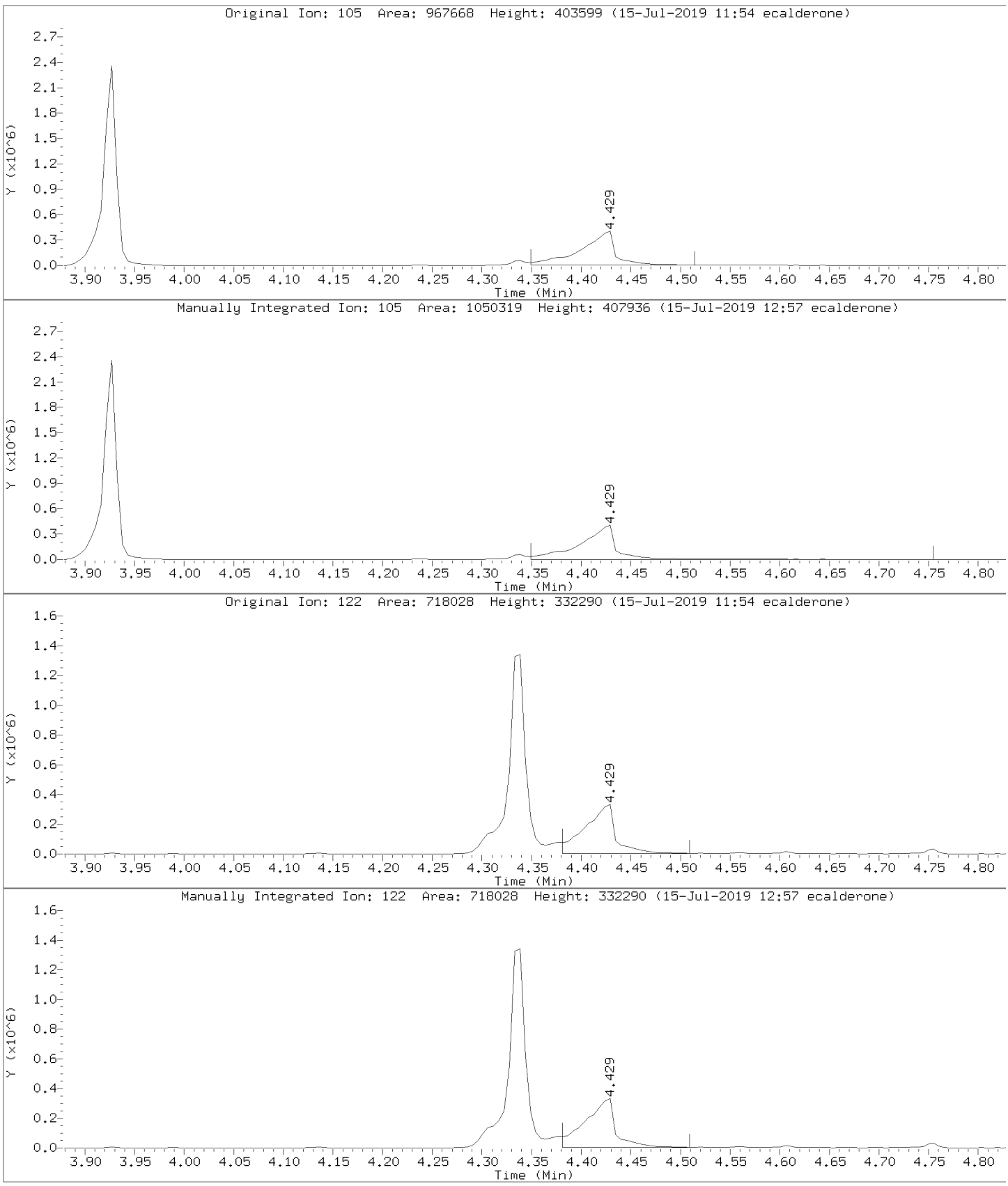
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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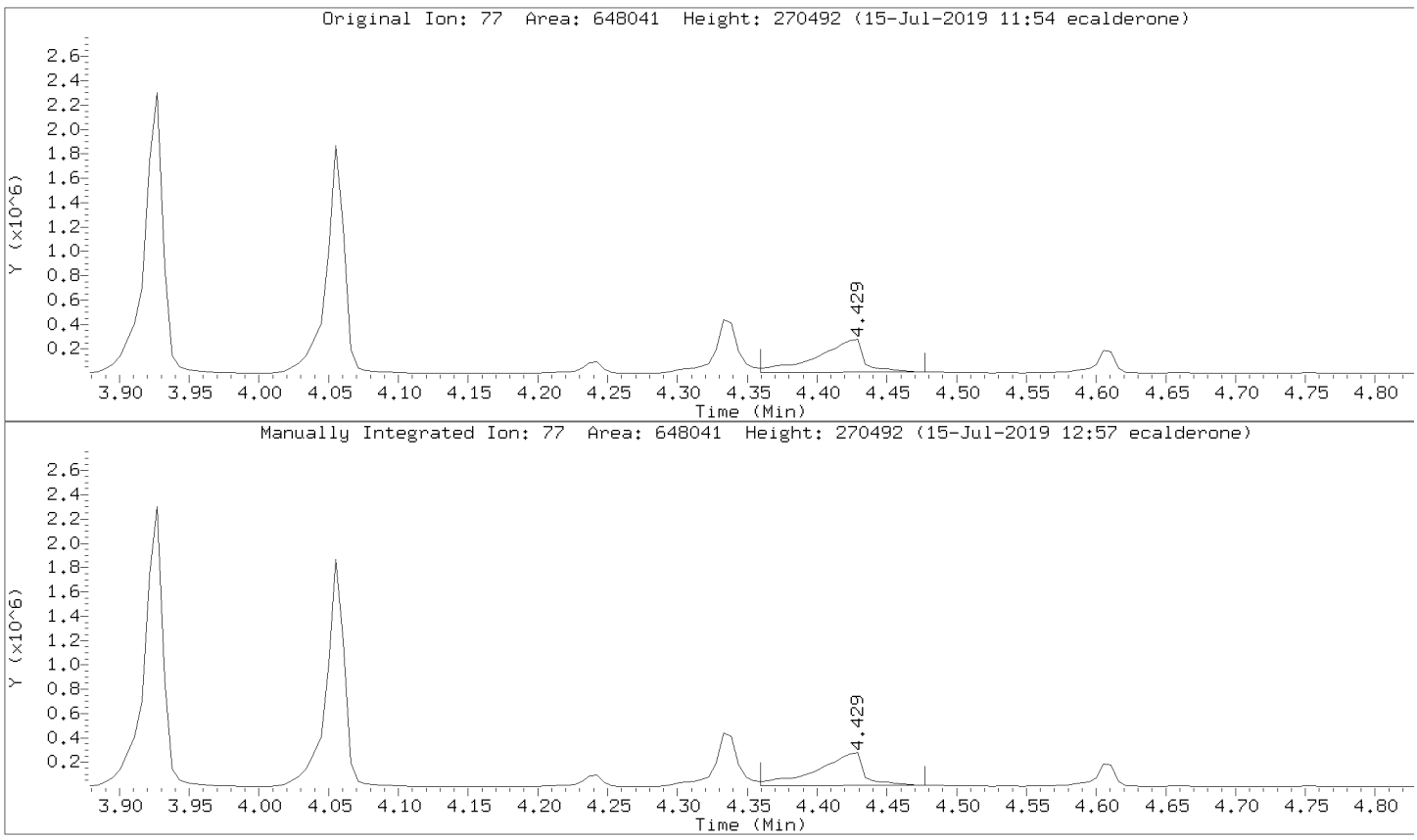

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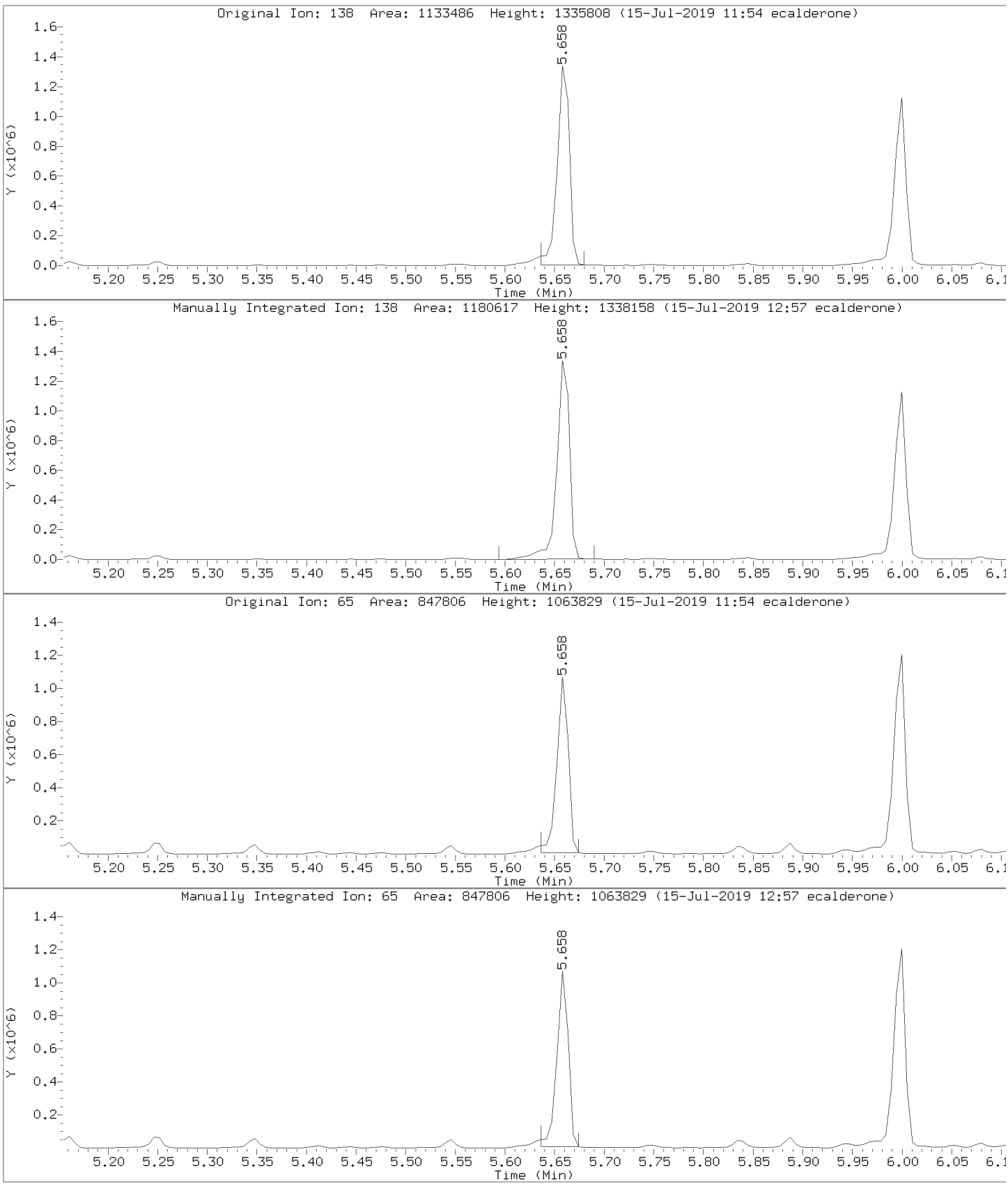
Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4



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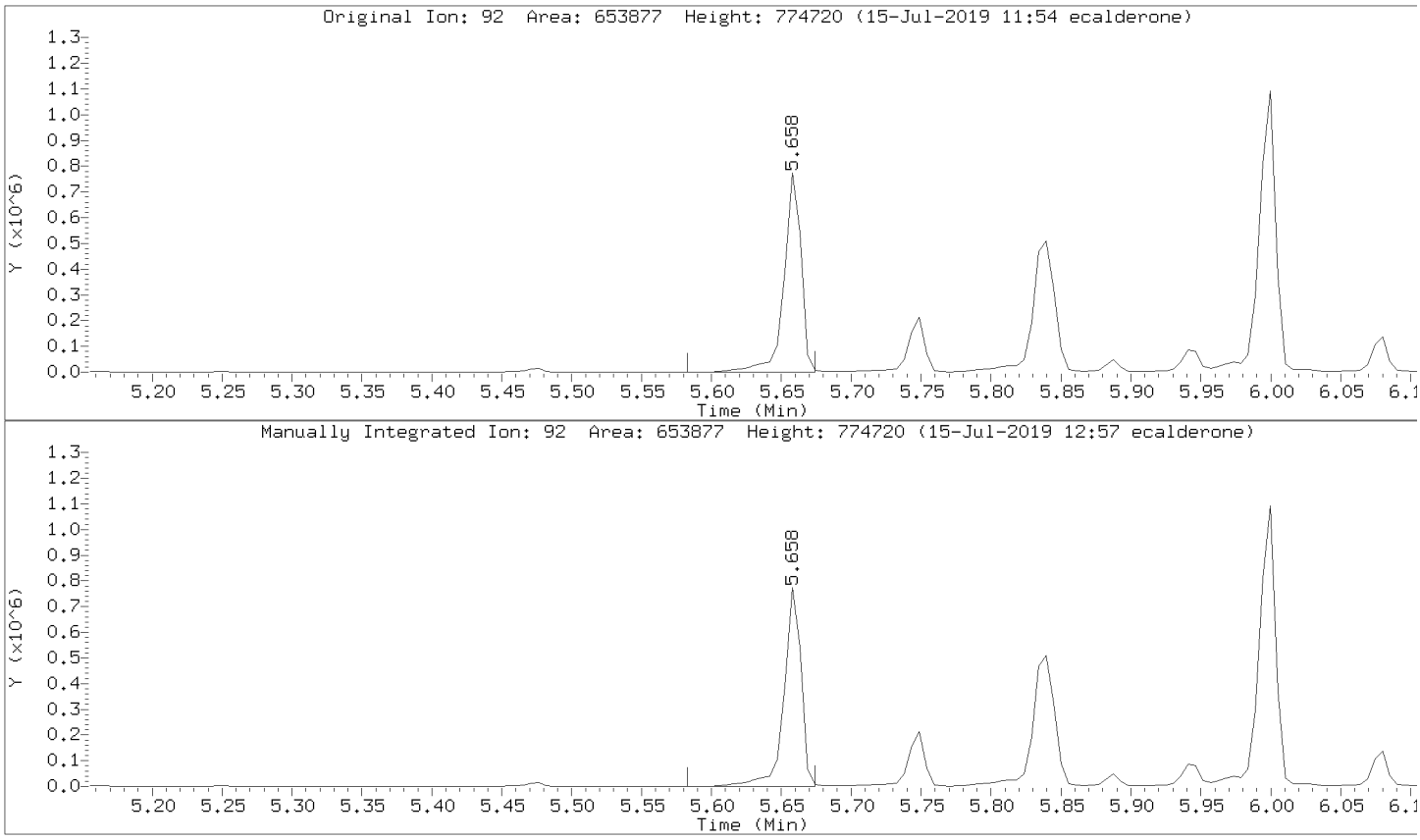

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Lab Sample ID: CAL4

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9



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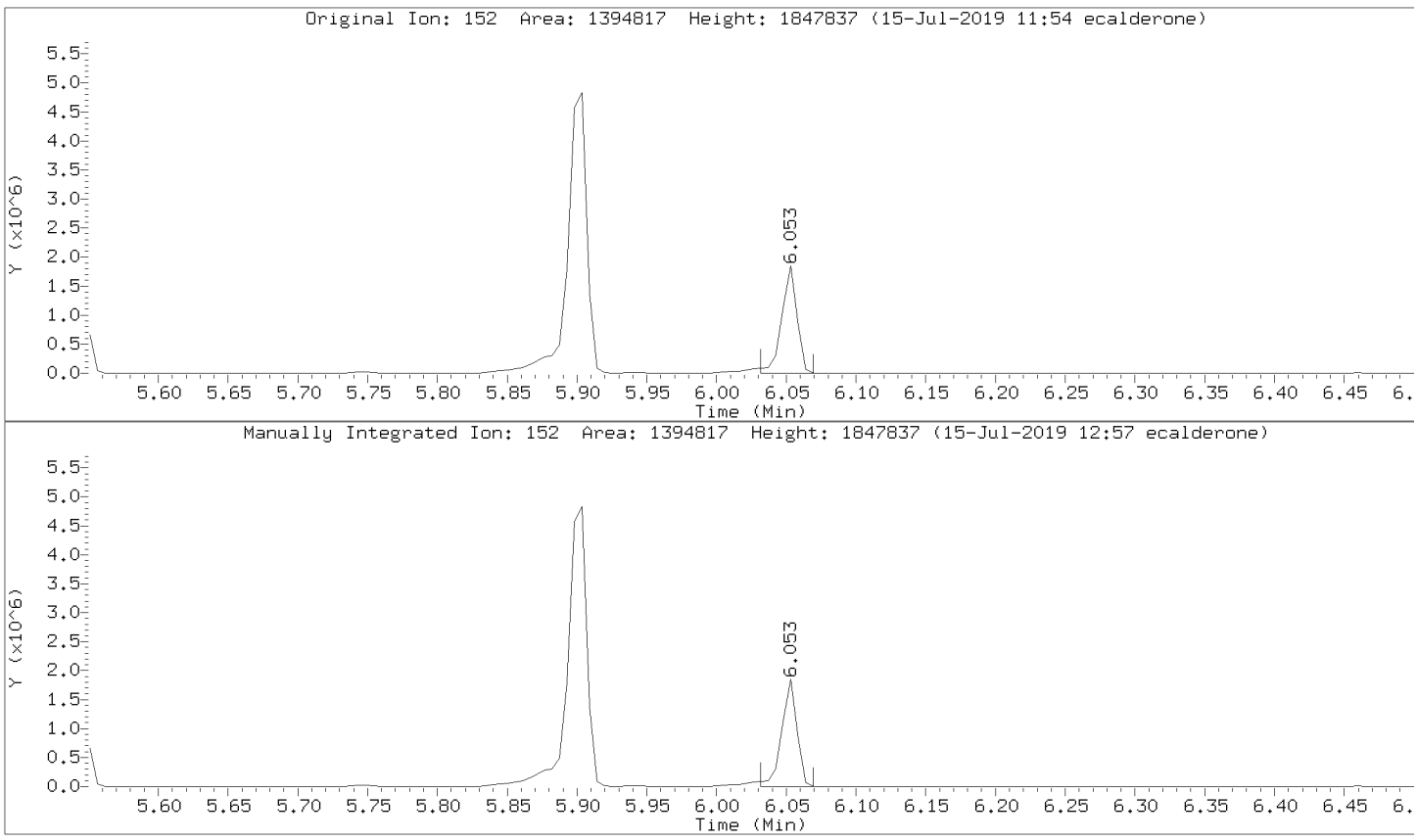

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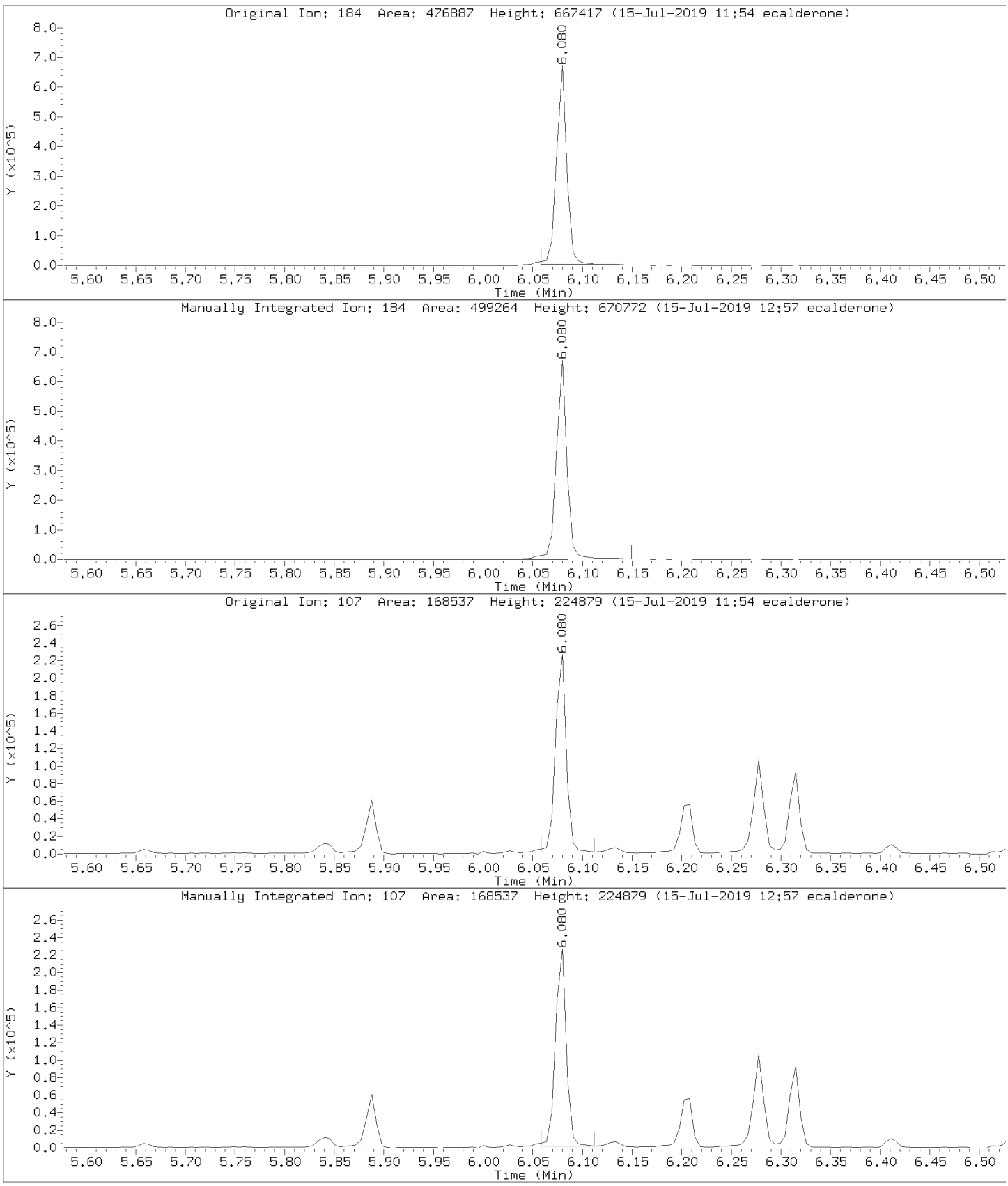
Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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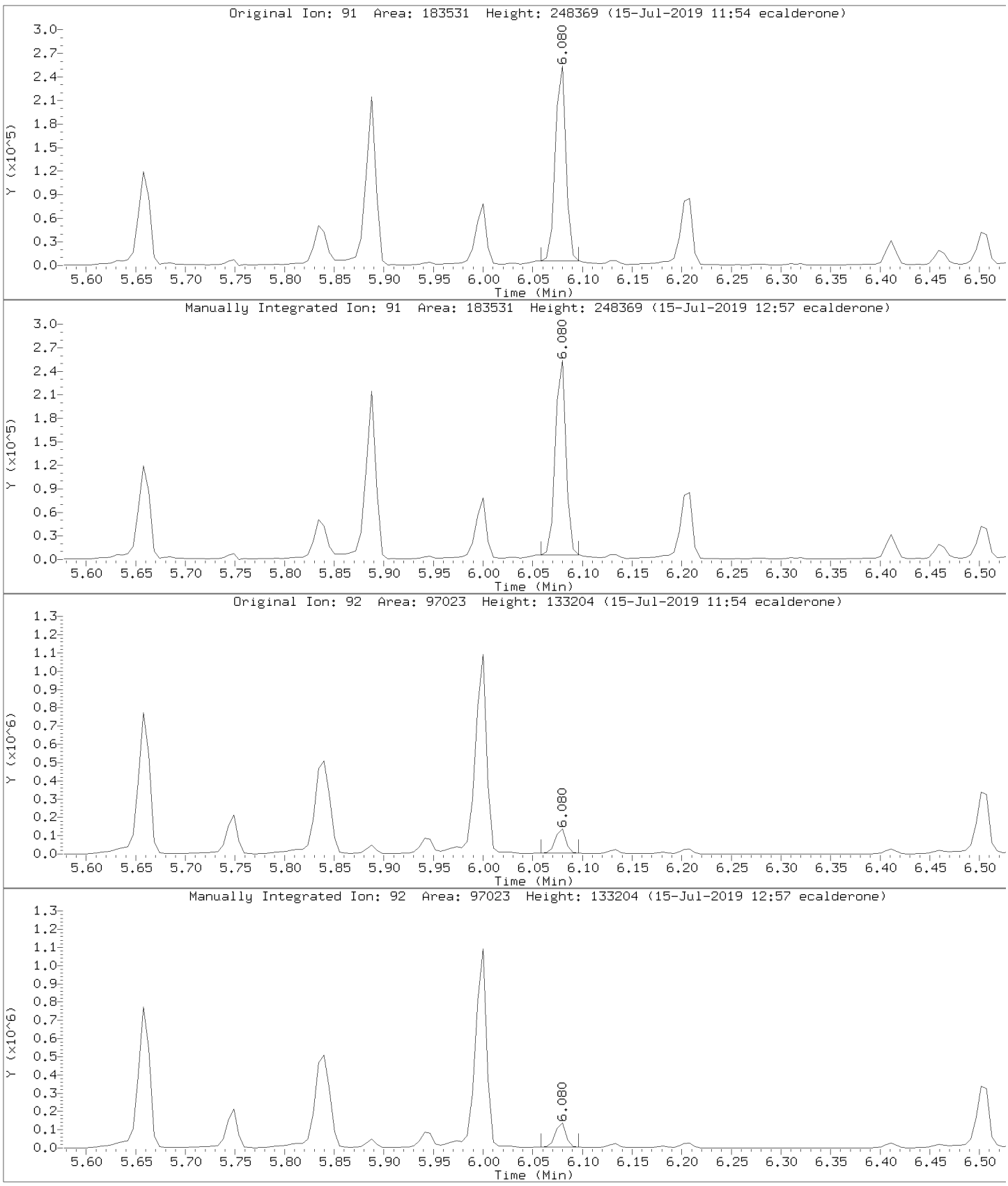

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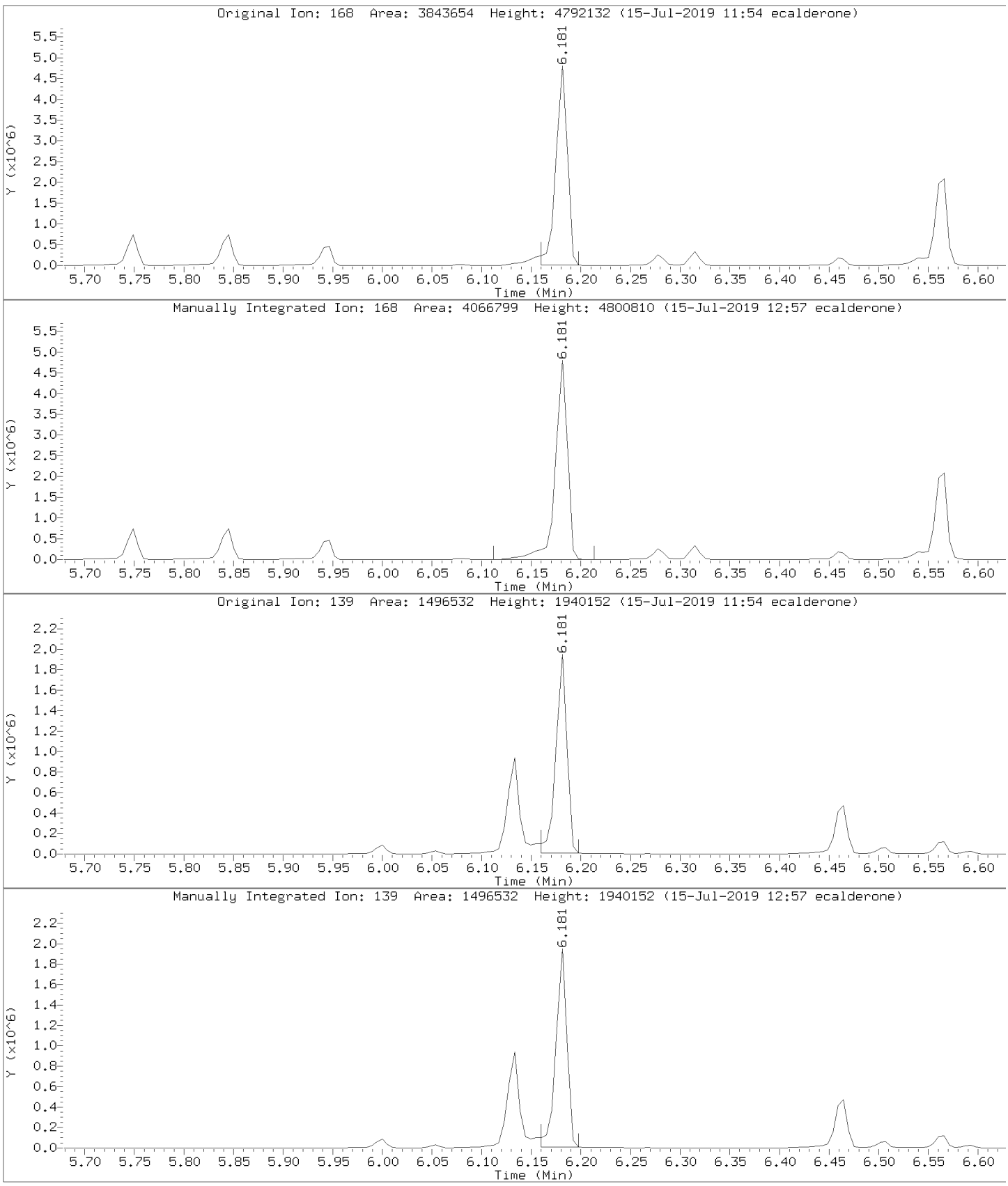
Lab Sample ID: CAL4

Compound: Dibenzofuran Review Code: LT
CAS Number: 132-64-9



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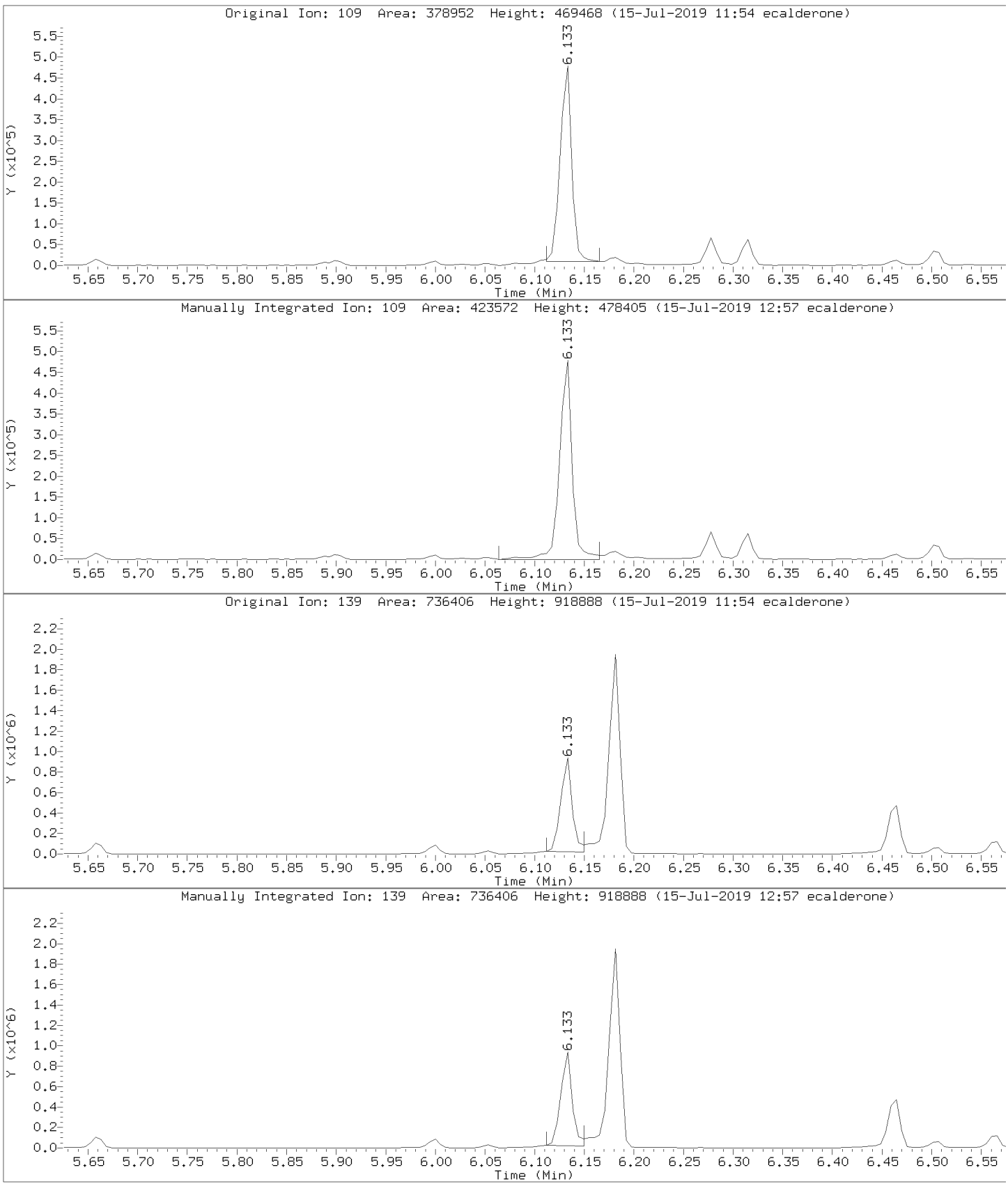
Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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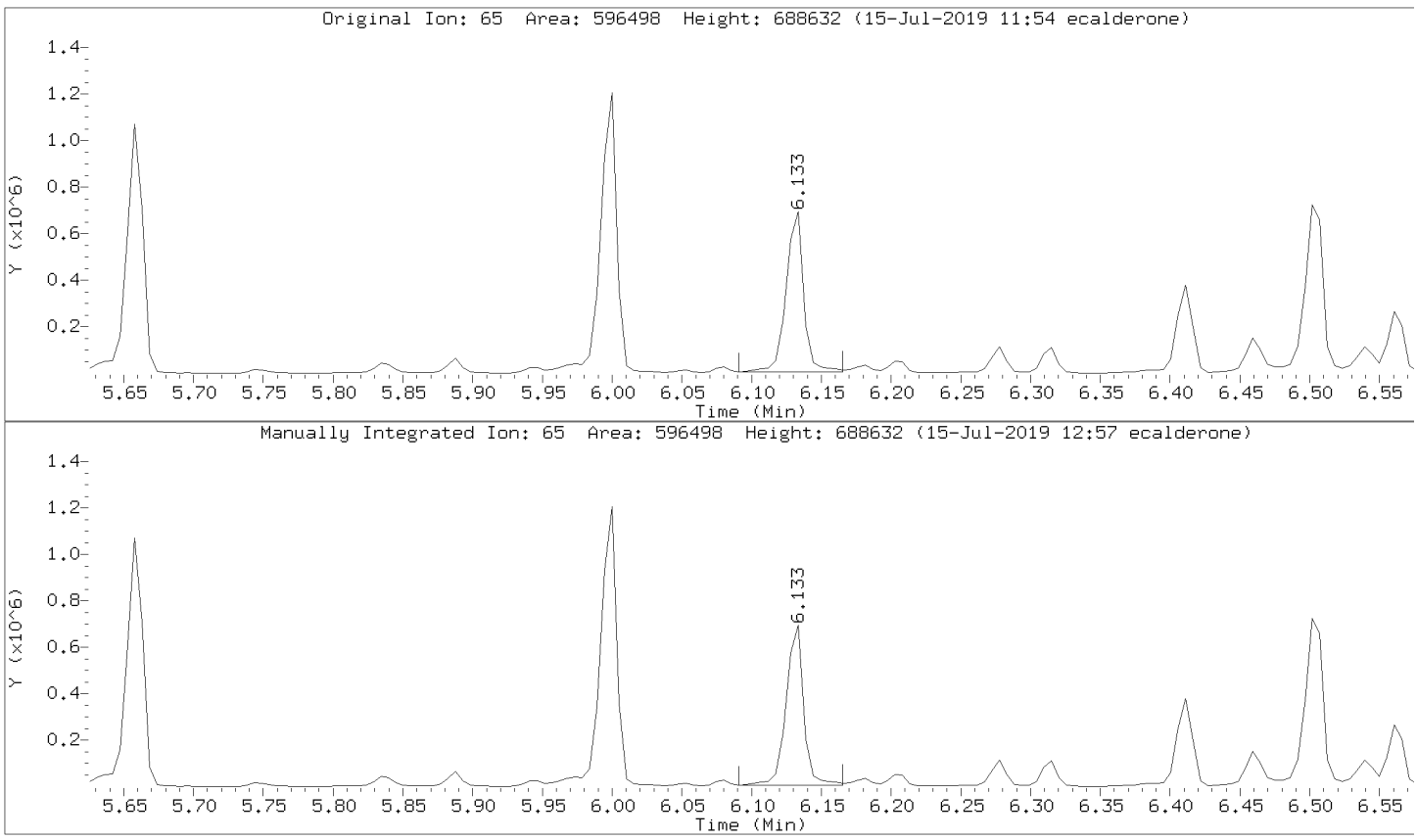

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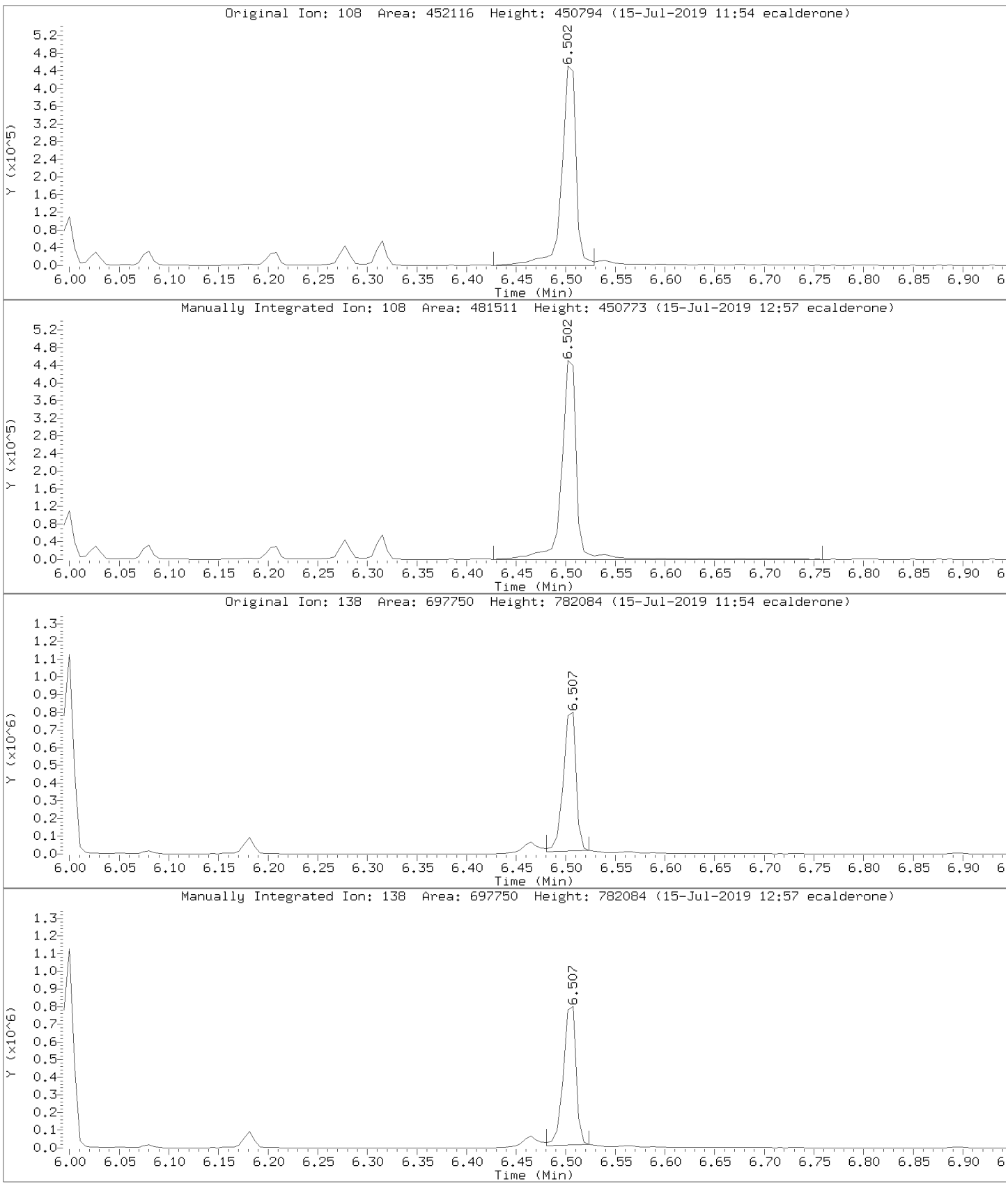
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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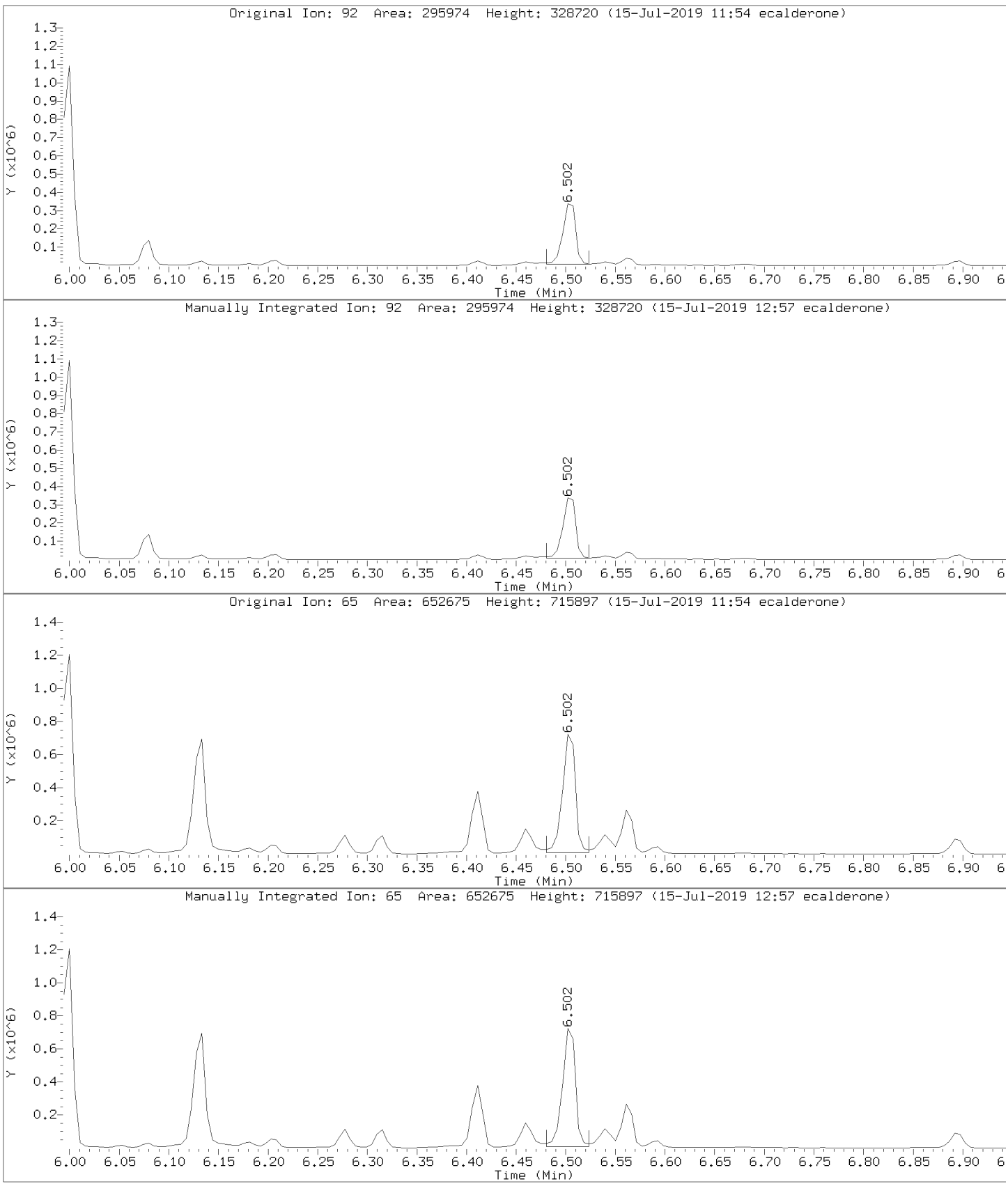

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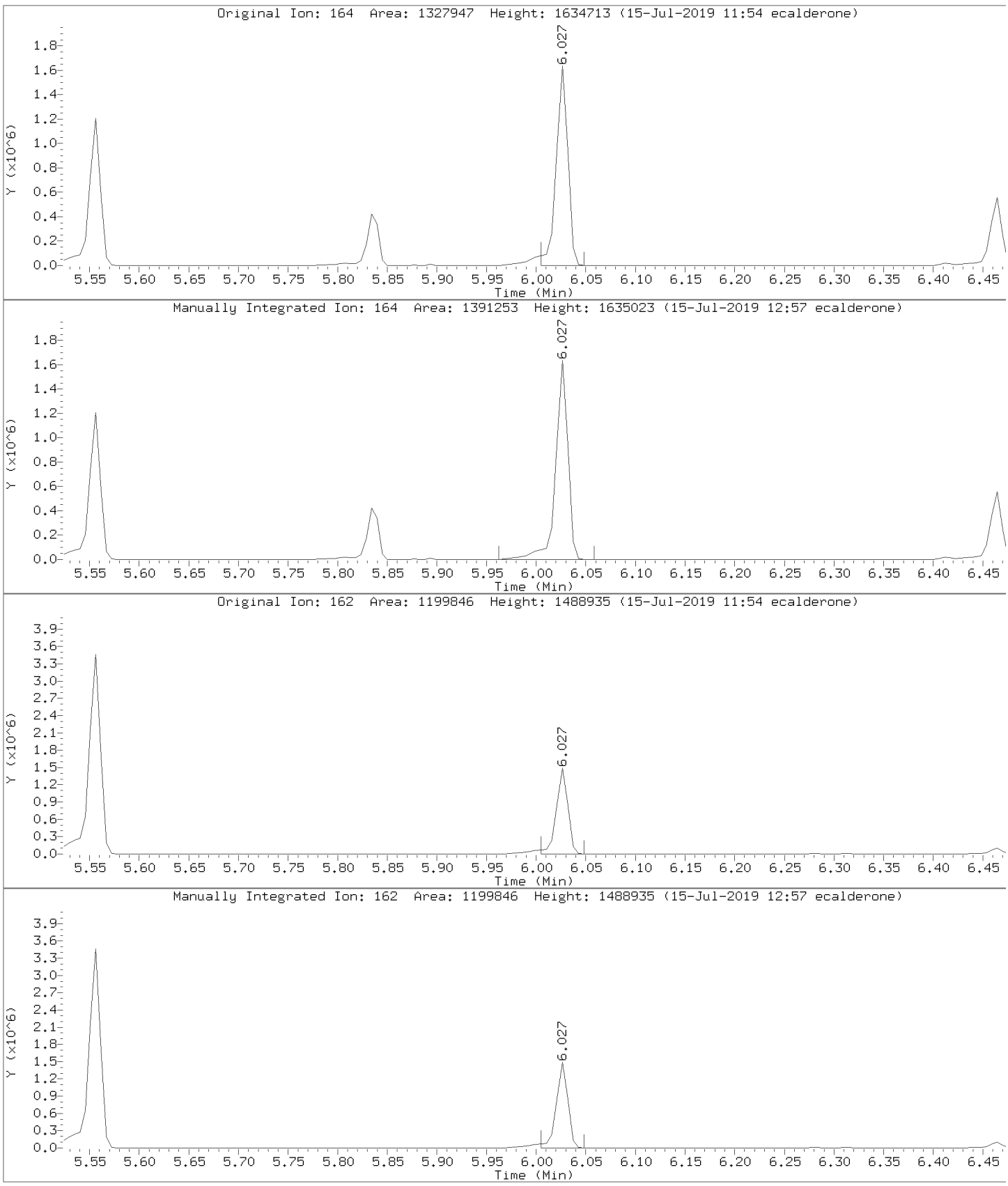
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Acenaphthene-d10 (IS) Review Code: LT
CAS Number: 15067-26-2



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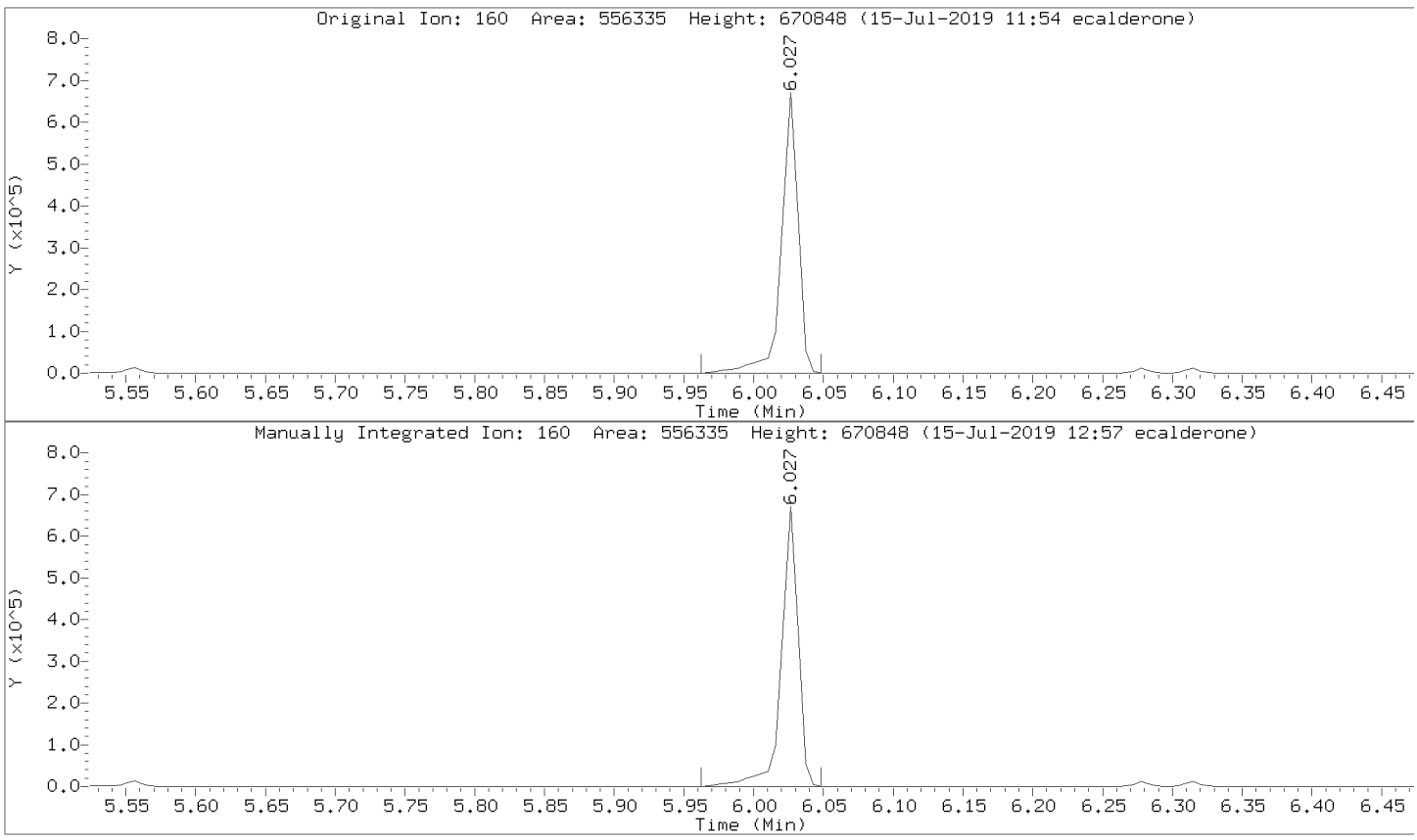

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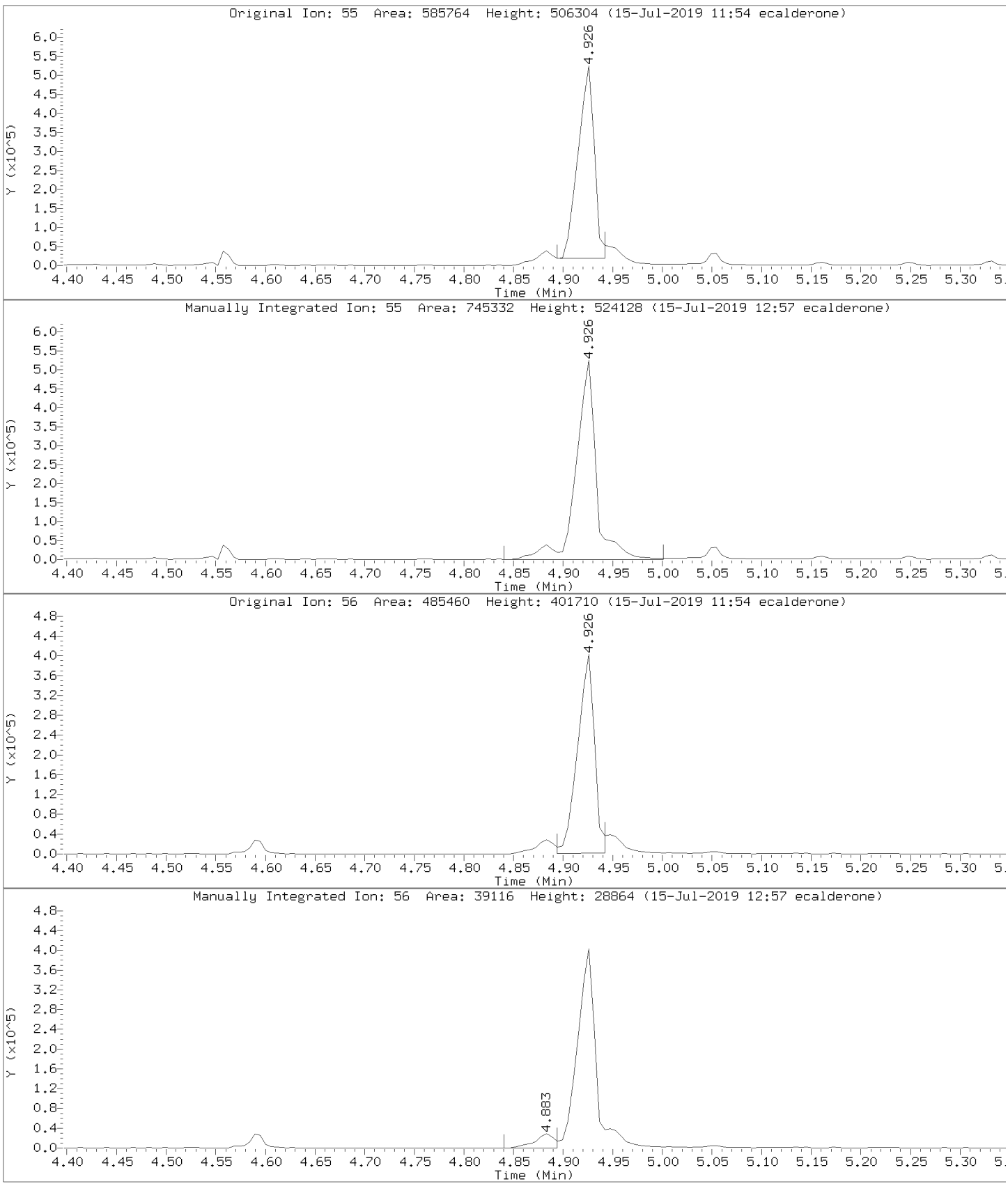
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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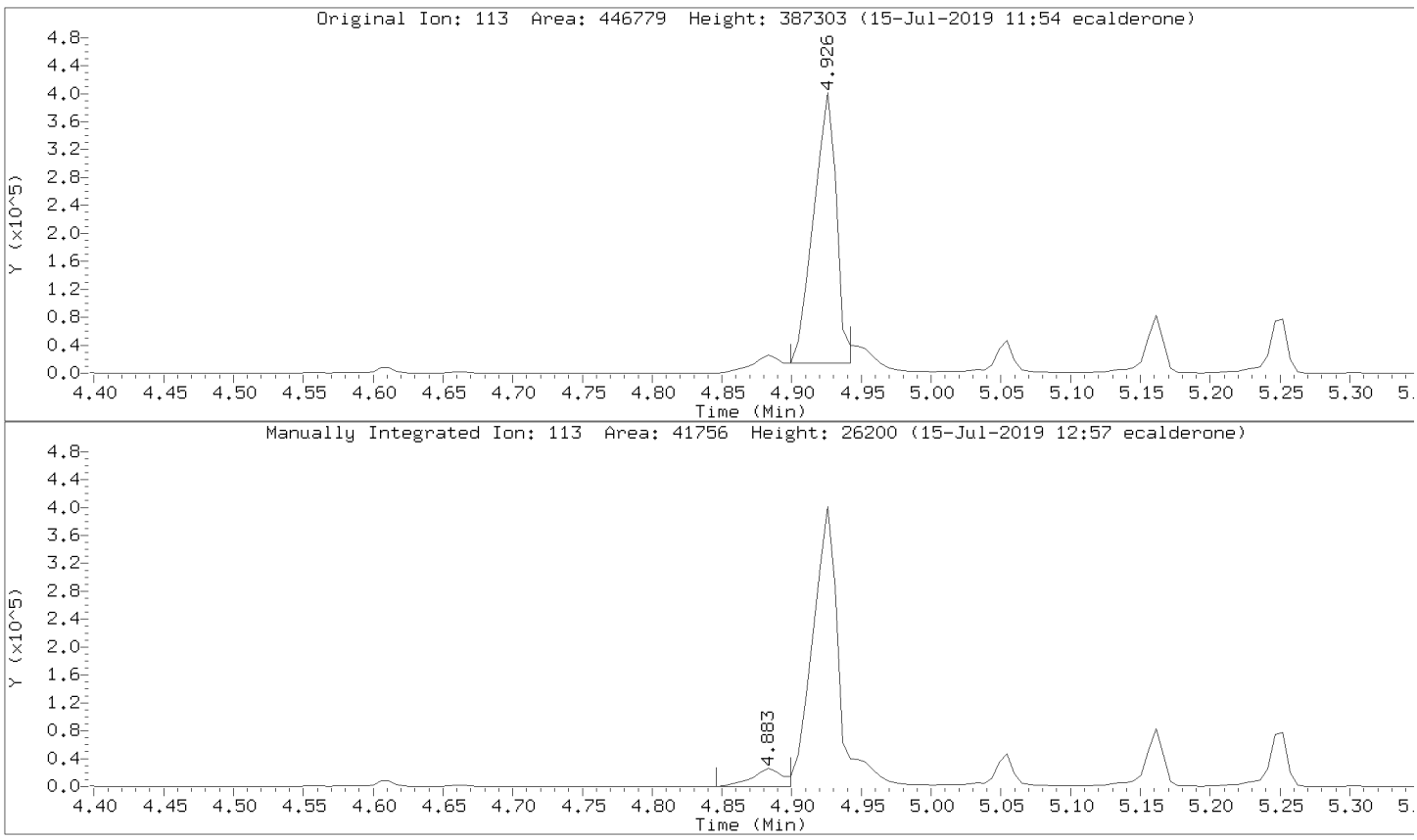
Lab Sample ID: CAL4



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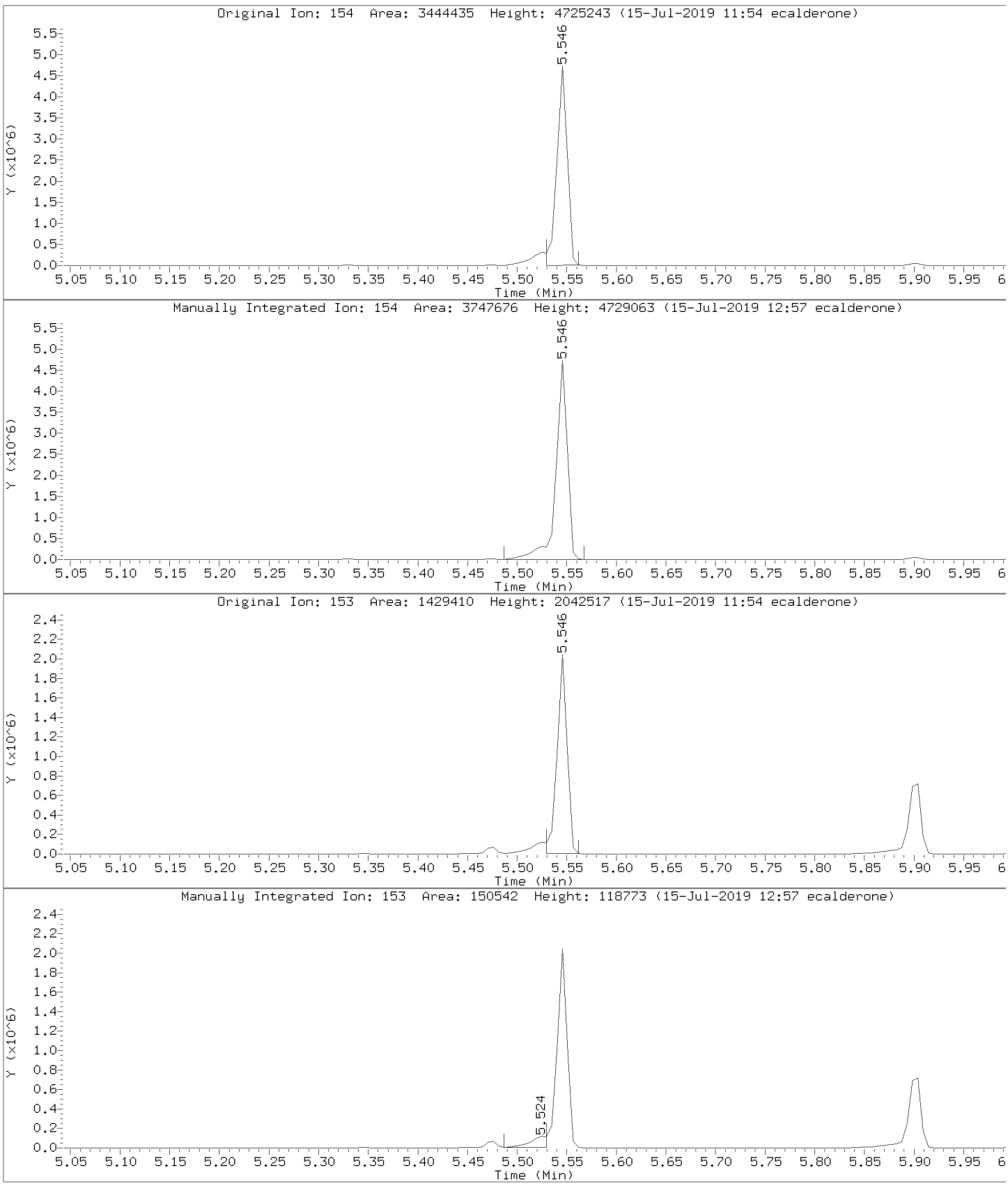
Lab Sample ID: CAL4

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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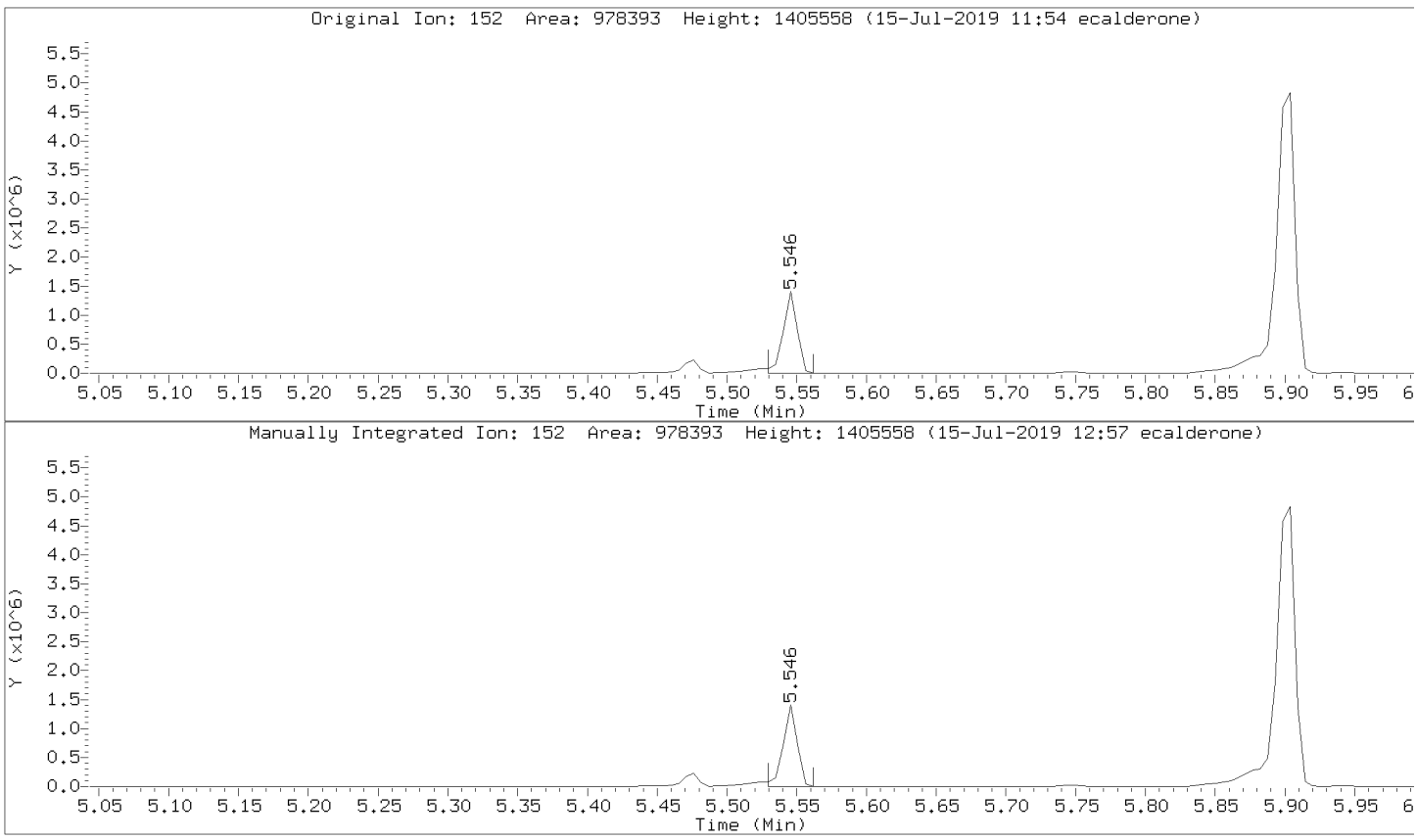
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

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Inj Date : 15-JUL-2019 10:51
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Smp Info : cal3
Misc Info : 14828,93077:1
Comment :
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Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 10:51 Cal File: m10715y5.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.704	1.700	(0.474)	727947	4.00000	4.15	
	2 Pyridine	79	1.688	1.689	(0.470)	1091927	4.00000	4.18	
$	3 2-Fluorophenol (S)	112	2.703	2.704	(0.752)	799383	4.00000	3.90	
$	4 Phenol-d6 (S)	99	3.355	3.351	(0.933)	989341	4.00000	4.08	
	5 Benzaldehyde	77	3.286	3.281	(0.914)	695407	4.00000	3.87	
	6 Phenol	94	3.366	3.361	(0.936)	1053129	4.00000	4.07	
	7 Aniline	66	3.387	3.383	(0.942)	510809	4.00000	4.36	
	8 bis(2-Chloroethyl)ether	63	3.425	3.425	(0.952)	623169	4.00000	4.03	
	9 2-Chlorophenol	128	3.462	3.463	(0.963)	896901	4.00000	4.04	
	10 1,3-Dichlorobenzene	146	3.569	3.570	(0.993)	989881	4.00000	4.21	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	643155	4.00000		
	12 1,4-Dichlorobenzene	146	3.612	3.607	(1.004)	1033142	4.00000	3.95	
	13 Benzyl Alcohol	79	3.718	3.719	(1.034)	665956	4.00000	3.78	
	14 1,2-Dichlorobenzene	146	3.750	3.751	(1.043)	940438	4.00000	4.03	
	15 2-Methylphenol(o-Cresol)	108	3.809	3.810	(1.059)	821011	4.00000	3.99	
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	1389849	4.00000	4.13	
	17 3&4-Methylphenol(m&p Cresol)	108	3.921	3.917	(1.091)	854019	4.00000	4.31	
	18 N-Nitroso-di-n-propylamine	70	3.943	3.938	(1.097)	626292	4.00000	3.96	
	19 Acetophenone	105	3.921	3.922	(1.091)	1132961	4.00000	4.15	
	20 Hexachloroethane	117	3.991	3.986	(1.110)	366951	4.00000	3.92	
$	21 Nitrobenzene-d5 (S)	128	4.039	4.040	(0.880)	424805	4.00000	4.01	
	22 Nitrobenzene	77	4.055	4.050	(0.884)	866419	4.00000	4.17	
	23 Isophorone	82	4.237	4.232	(0.923)	1616982	4.00000	4.27	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	852711	4.00000	4.16	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	517406	4.00000	4.36	
	26 Benzoic acid	105	4.402	4.376	(0.959)	466947	4.00000	3.19(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	985953	4.00000	4.24	
	28 2,4-Dichlorophenol	162	4.488	4.483	(0.978)	715292	4.00000	4.14	
	29 1,2,4-Trichlorobenzene	180	4.557	4.558	(0.993)	773423	4.00000	4.13	
*	30 Naphthalene-d8 (IS)	136	4.589	4.590	(1.000)	2571764	4.00000		
	31 Naphthalene	128	4.605	4.606	(1.003)	2478837	4.00000	4.72	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	272269	4.00000	3.97	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	407081	4.00000	4.02	
	34 Caprolactam	55	4.904	4.894	(1.069)	360481	4.00000	3.94(M)	LT

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	711912	4.00000	4.06	
36	2-Methylnaphthalene	142	5.161	5.162	(1.125)	1783991	4.00000	4.48	
37	1-Methylnaphthalene	142	5.246	5.247	(1.143)	1643976	4.00000	4.41	
38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	480143	4.00000	3.84	
39	1,2,4,5-Tetrachlorobenzene	216	5.332	5.327	(0.885)	685729	4.00000	4.10	
40	2,4,6-Trichlorophenol	196	5.407	5.407	(0.897)	536240	4.00000	4.10	
41	2,4,5-Trichlorophenol	196	5.439	5.439	(0.902)	479641	4.00000	3.95	
$ 42	2-Fluorobiphenyl (S)	172	5.471	5.471	(0.908)	1758615	4.00000	4.50(M)	LT
43	Biphenyl (Diphenyl)	154	5.545	5.541	(0.920)	2035505	4.00000	4.71	
44	2-Chloronaphthalene	164	5.556	5.551	(0.922)	516163	4.00000	4.08(M)	LT
45	2-Nitroaniline	138	5.658	5.653	(0.939)	571884	4.00000	3.98	
46	Dimethylphthalate	163	5.834	5.829	(0.968)	1701784	4.00000	4.66(M)	LT
47	2,6-Dinitrotoluene	165	5.882	5.883	(0.976)	393304	4.00000	3.84	
48	Acenaphthylene	152	5.898	5.899	(0.979)	2513352	4.00000	4.87	
49	3-Nitroaniline	65	5.994	5.990	(0.995)	483236	4.00000	4.07	
* 50	Acenaphthene-d10 (IS)	164	6.026	6.022	(1.000)	1388489	4.00000		
51	2,4-Dinitrophenol	184	6.074	6.075	(1.008)	208120	4.00000	3.35	
52	Acenaphthene	153	6.048	6.048	(1.004)	1563132	4.00000	4.44	
53	4-Nitrophenol	109	6.128	6.123	(1.017)	210352	4.00000	4.12(M)	LT
54	2,4-Dinitrotoluene	165	6.202	6.198	(1.029)	550161	4.00000	4.13	
55	Dibenzofuran	168	6.176	6.176	(1.025)	2189987	4.00000	4.78	
56	2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.048)	381635	4.00000	3.82	
57	Diethylphthalate	149	6.411	6.406	(1.064)	1705128	4.00000	4.46	
58	4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	841968	4.00000	4.28	
59	Fluorene	166	6.459	6.460	(1.072)	1780881	4.00000	4.53	
60	4-Nitroaniline	108	6.496	6.492	(1.078)	261079	4.00000	4.49(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.886)	310457	4.00000	3.86	
62	N-Nitrosodiphenylamine	169	6.560	6.556	(0.890)	1561455	4.00000	4.57	
63	Azobenzene	77	6.587	6.588	(0.893)	1615274	4.00000	4.46	
64	1,2-Diphenylhydrazine	77	6.587	6.588	(0.893)	1615274	4.00000	4.46	
$ 65	2,4,6-Tribromophenol (S)	330	6.678	6.679	(0.906)	241949	4.00000	3.80	
66	4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	488492	4.00000	4.00	
67	Hexachlorobenzene	284	7.052	7.053	(0.957)	477598	4.00000	3.90	
68	Atrazine	200	7.111	7.106	(0.964)	488141	4.00000	4.11	
69	Pentachlorophenol	266	7.239	7.240	(0.982)	279149	4.00000	3.65	
* 70	Phenanthrene-d10 (IS)	188	7.372	7.368	(1.000)	2287639	4.00000		
71	Phenanthrene	178	7.394	7.395	(1.003)	2649081	4.00000	4.69	
72	Anthracene	178	7.442	7.437	(1.009)	2550455	4.00000	4.66	
73	Carbazole	167	7.618	7.614	(1.033)	2369365	4.00000	4.76	
74	Di-n-butylphthalate	149	8.067	8.068	(1.094)	2795929	4.00000	4.82	
75	Fluoranthene	202	8.665	8.666	(1.175)	2583083	4.00000	4.72	
76	Pyrene	202	8.900	8.896	(0.876)	2673362	4.00000	4.70	
$ 77	Terphenyl-d14 (S)	244	9.087	9.083	(0.895)	1992130	4.00000	4.46	
78	Butylbenzylphthalate	149	9.637	9.633	(0.949)	1163450	4.00000	4.01	
79	3,3'-Dichlorobenzidine	252	10.134	10.135	(0.998)	859614	4.00000	3.99	
80	bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.009)	1642502	4.00000	4.24	
81	Benzo(a)anthracene	228	10.140	10.135	(0.998)	2339605	4.00000	4.38	
* 82	Chrysene-d12 (IS)	240	10.156	10.151	(1.000)	2031031	4.00000		
83	Chrysene	228	10.182	10.178	(1.003)	2287780	4.00000	4.60	
84	Di-n-octylphthalate	149	10.834	10.835	(0.943)	2615387	4.00000	4.44	
85	Benzo(b)fluoranthene	252	11.165	11.161	(0.972)	2411142	4.00000	4.15	
86	Benzo(k)fluoranthene	252	11.187	11.182	(0.974)	2400763	4.00000	4.72	
87	Benzo(a)pyrene	252	11.443	11.444	(0.996)	2030418	4.00000	4.08	
* 88	Perylene-d12 (IS)	264	11.491	11.492	(1.000)	1964688	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.330	12.325	(1.073)	2170253	4.00000	3.99	
90 Dibenz(a,h)anthracene	278	12.335	12.336	(1.073)	1902001	4.00000	4.28	
91 Benzo(g,h,i)perylene	276	12.533	12.528	(1.091)	1844285	4.00000	4.10	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y5.d
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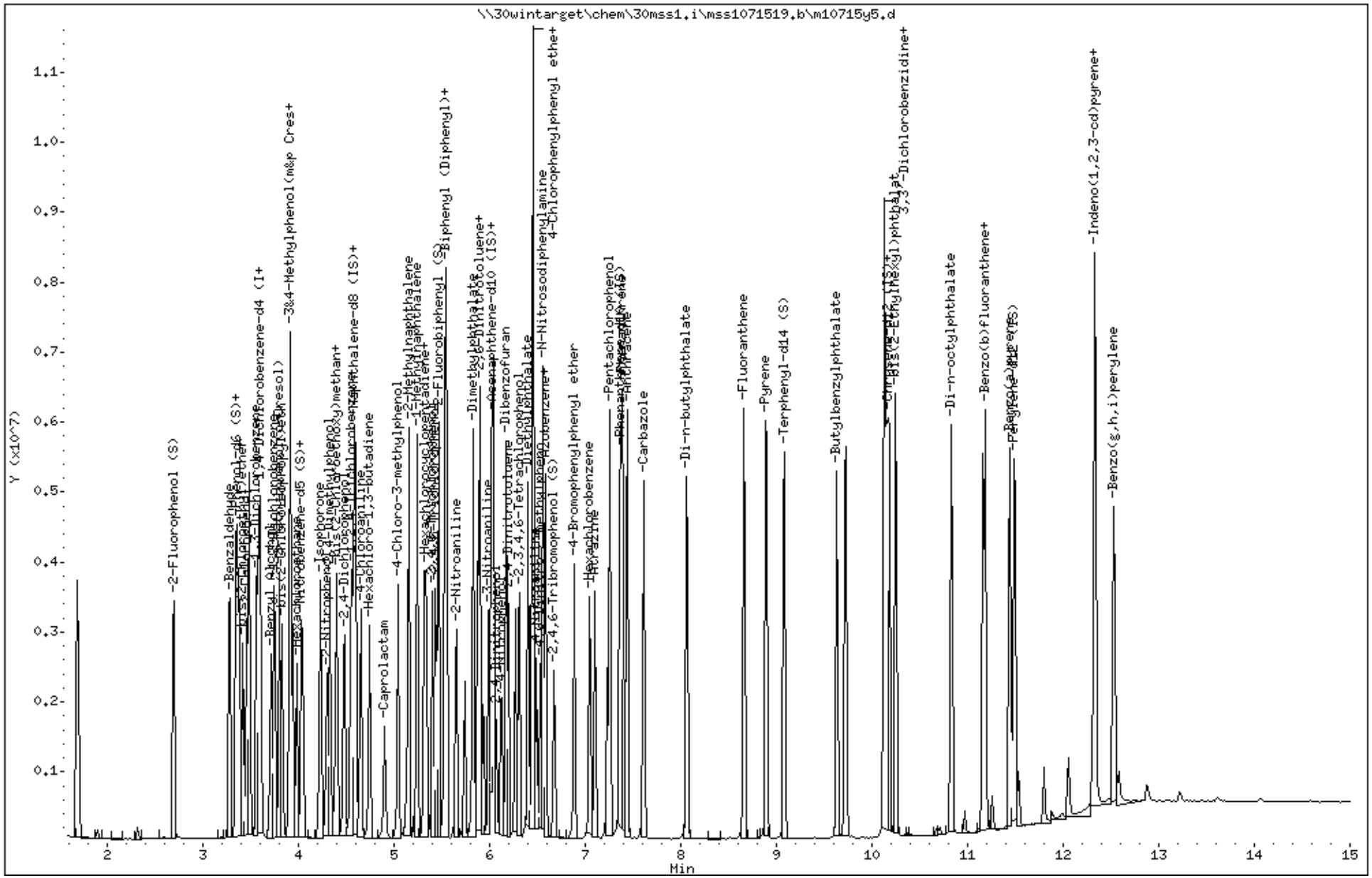
Sample Info: CAL3

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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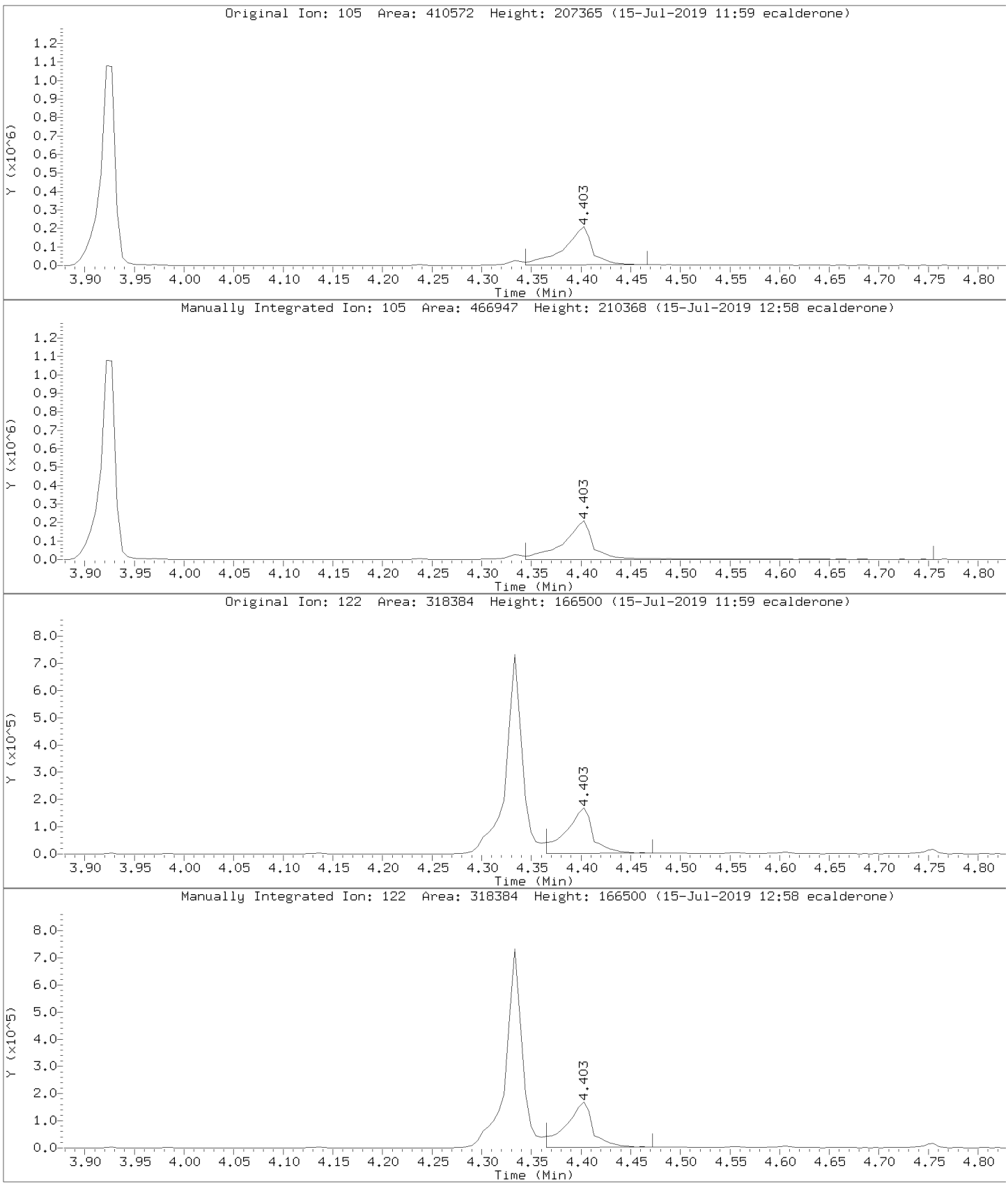
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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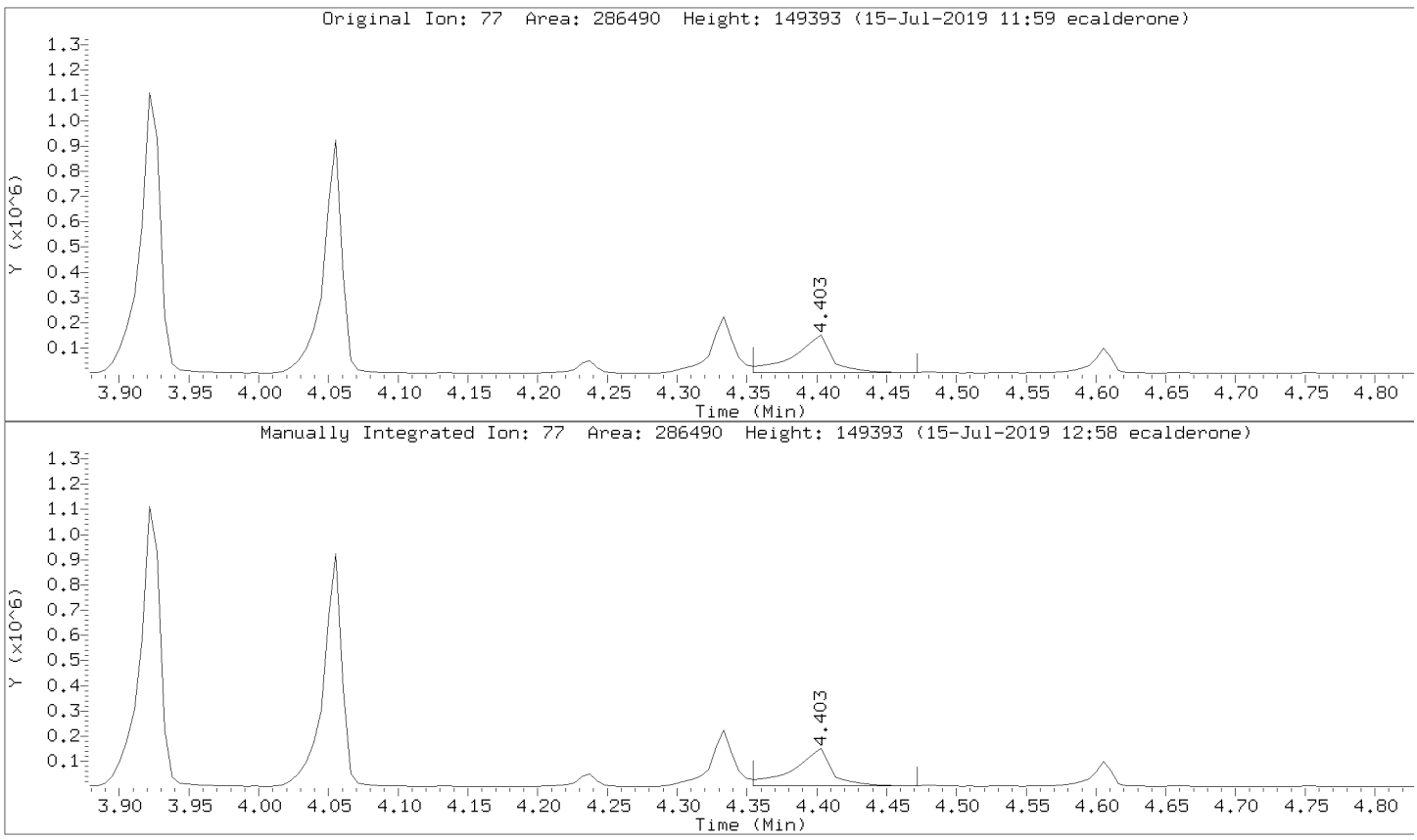

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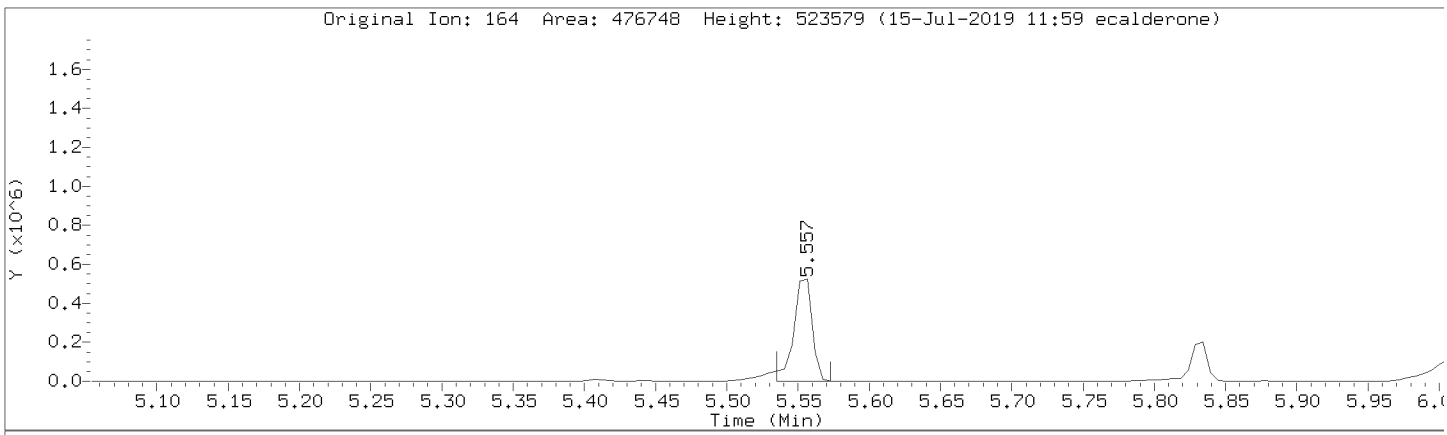
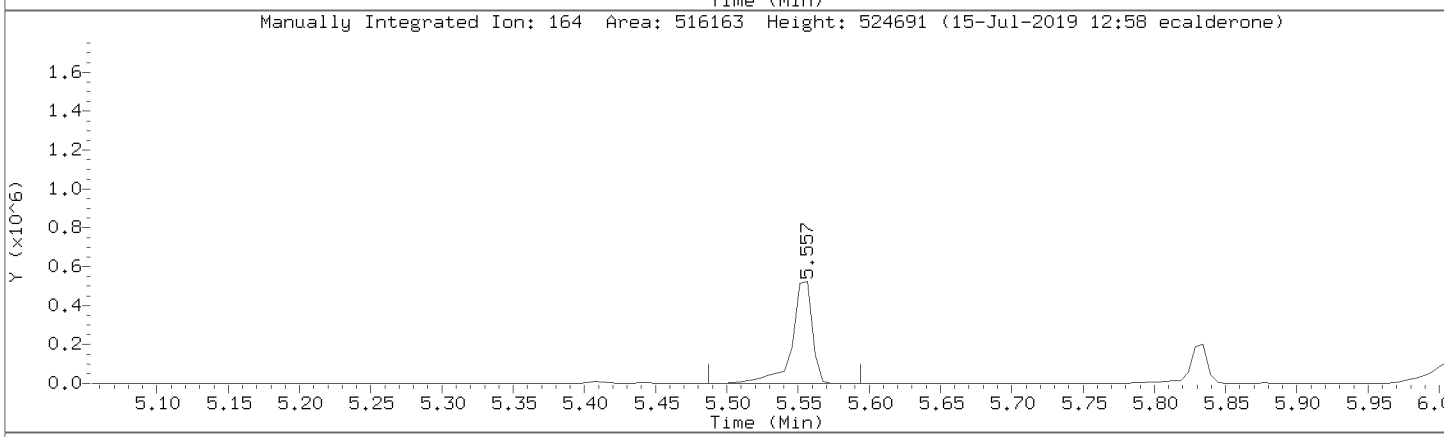
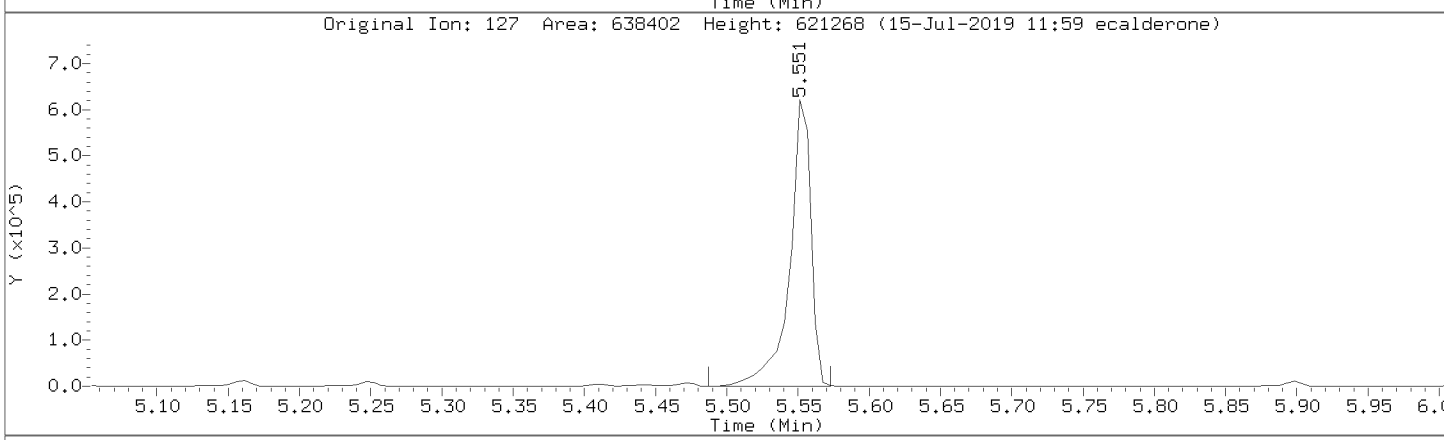
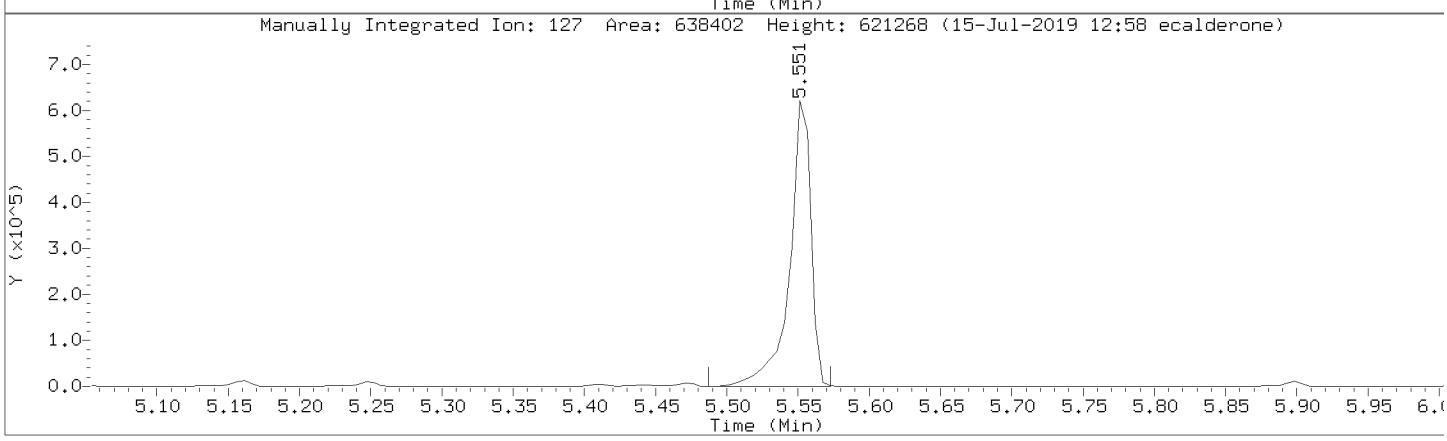
Lab Sample ID: CAL3

Compound: 2-Chloronaphthalene Review Code: LT
CAS Number: 91-58-7









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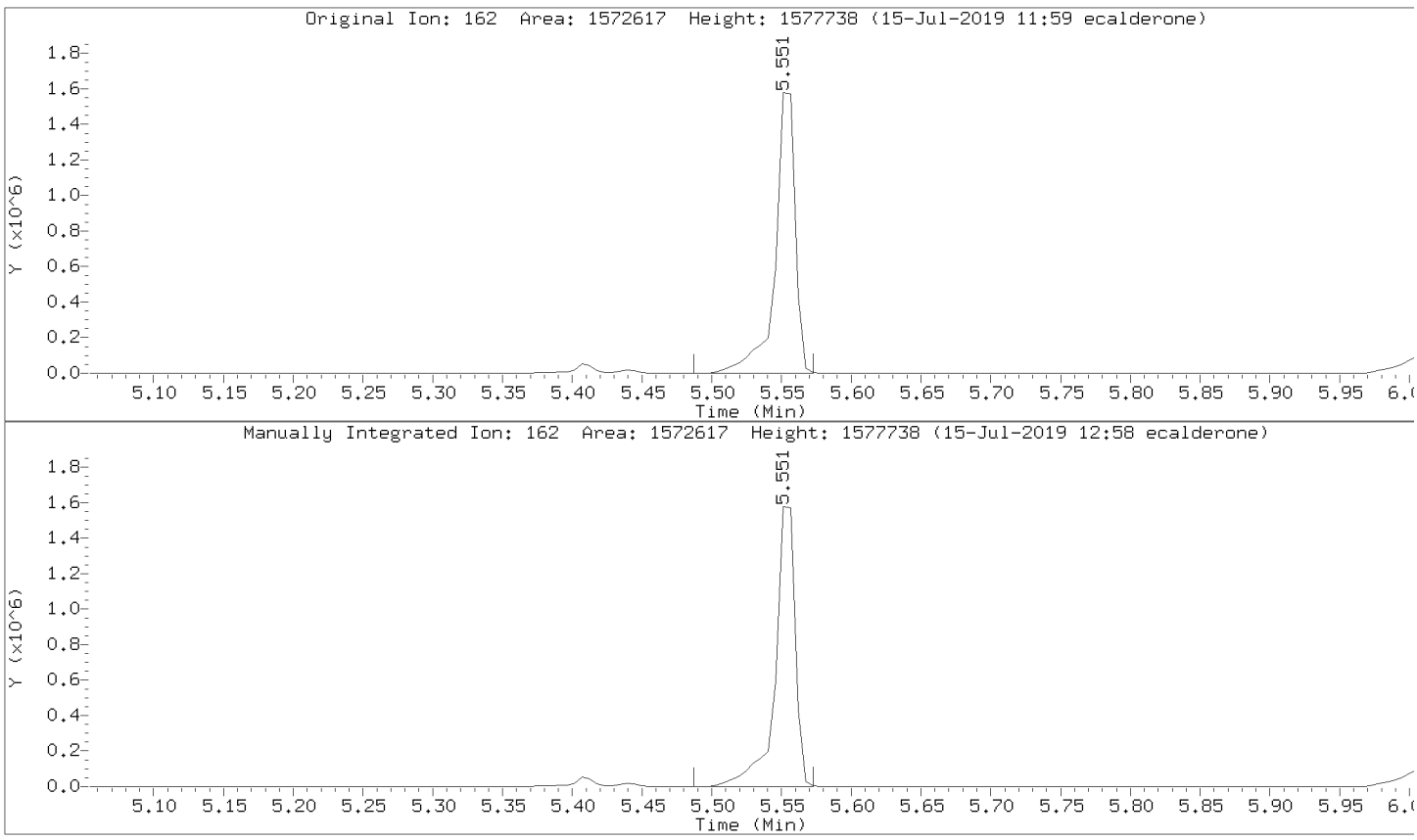

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Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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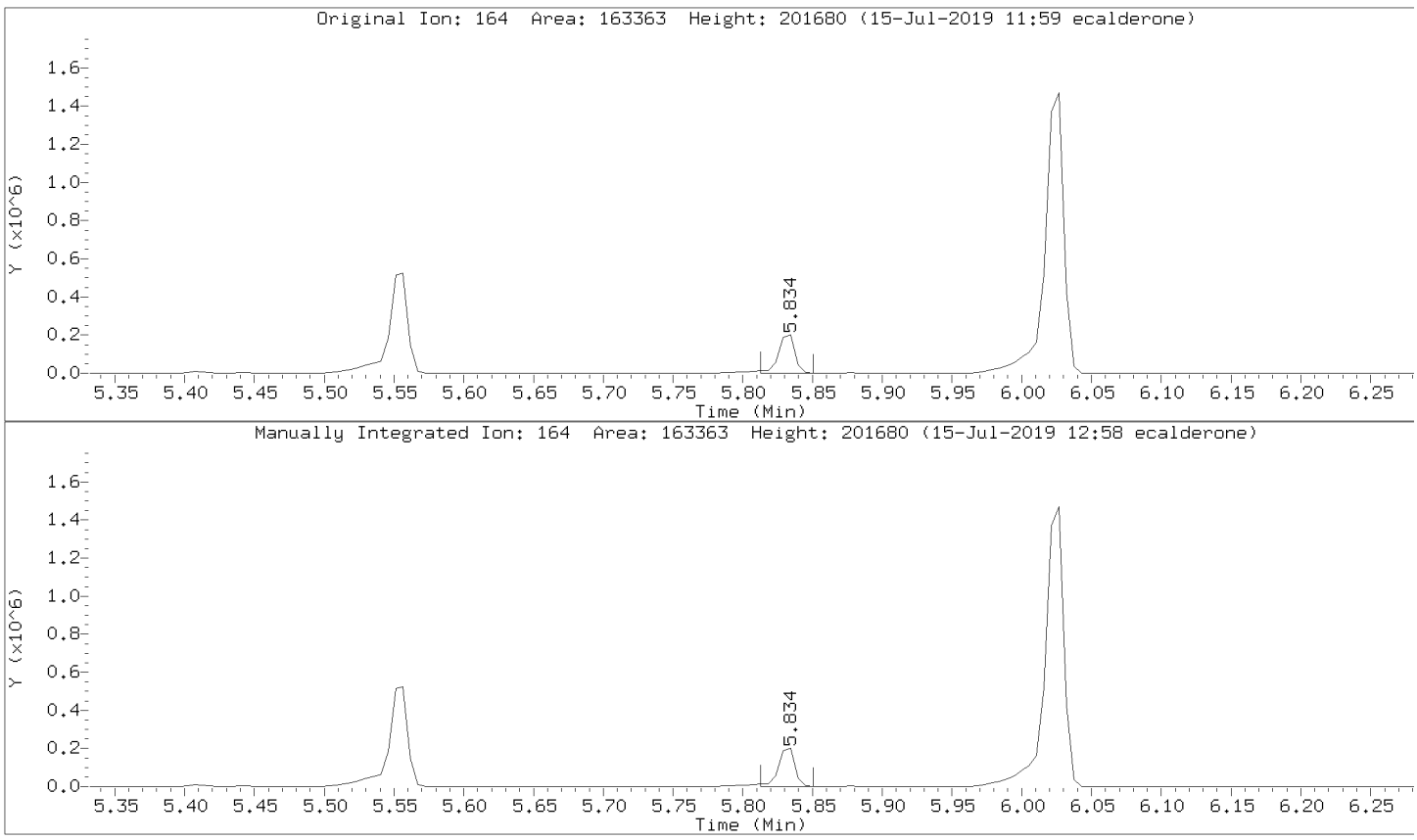
Instrument: 30mss1.i
Lab Sample ID: CAL3



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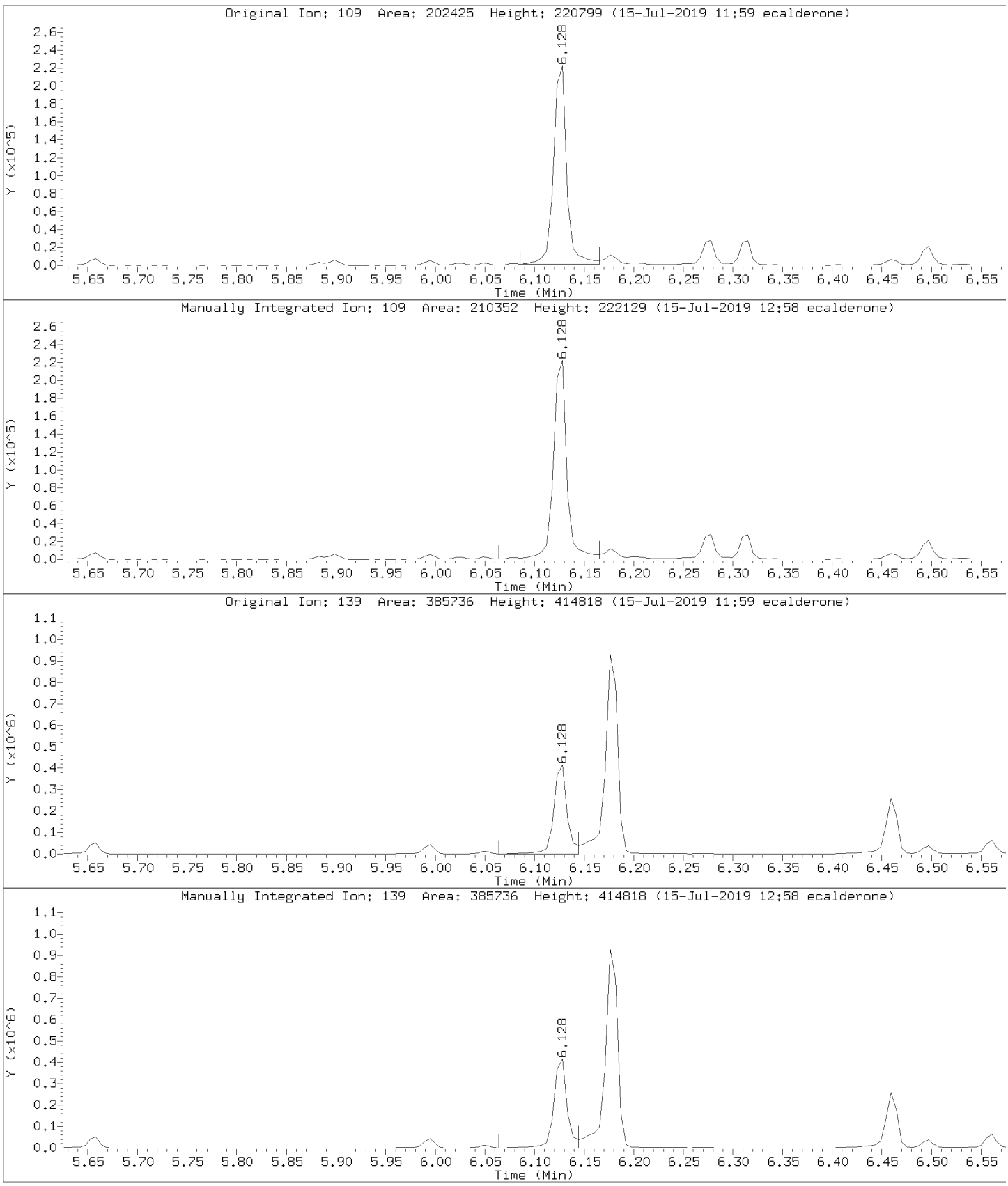
Lab Sample ID: CAL3

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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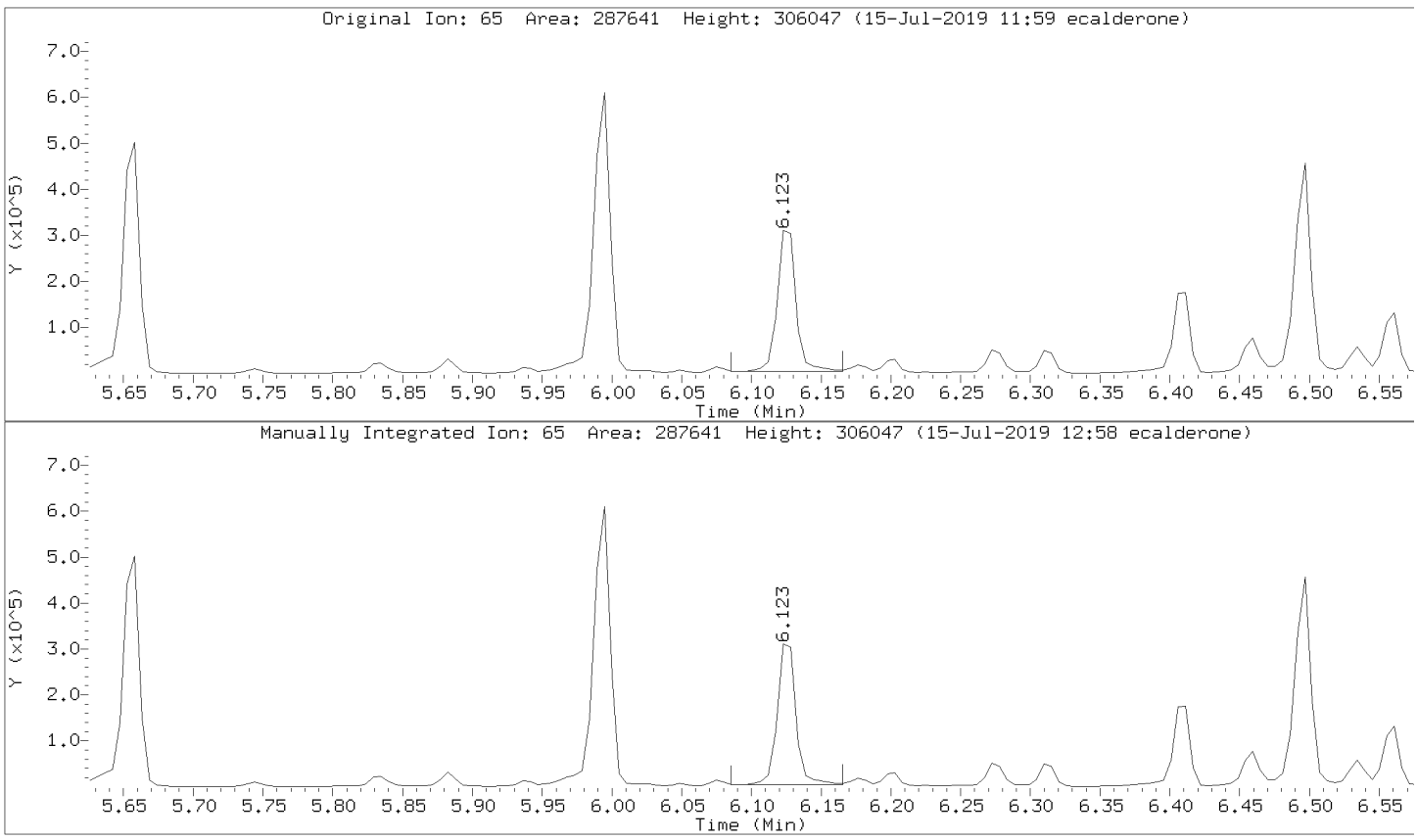

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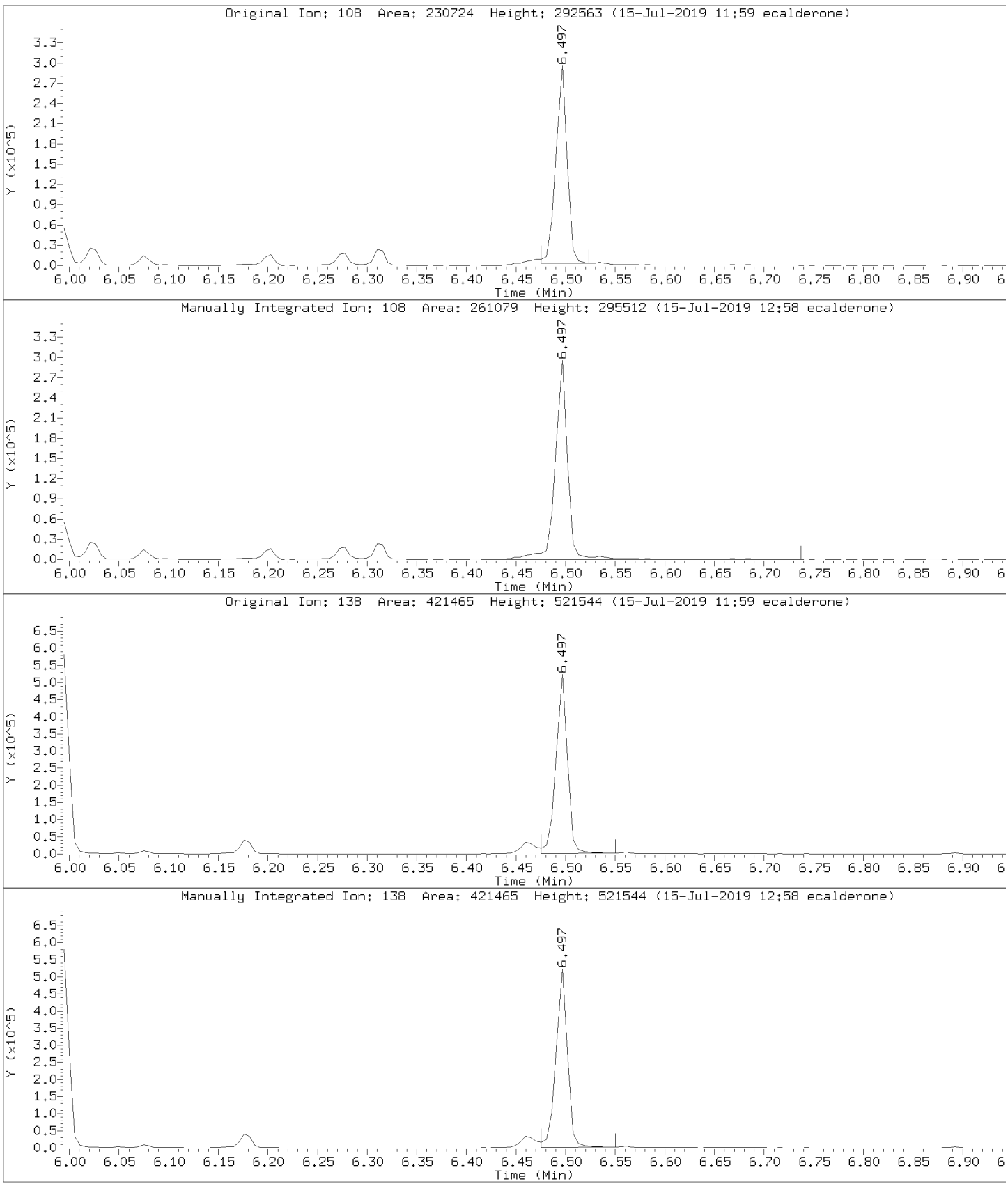
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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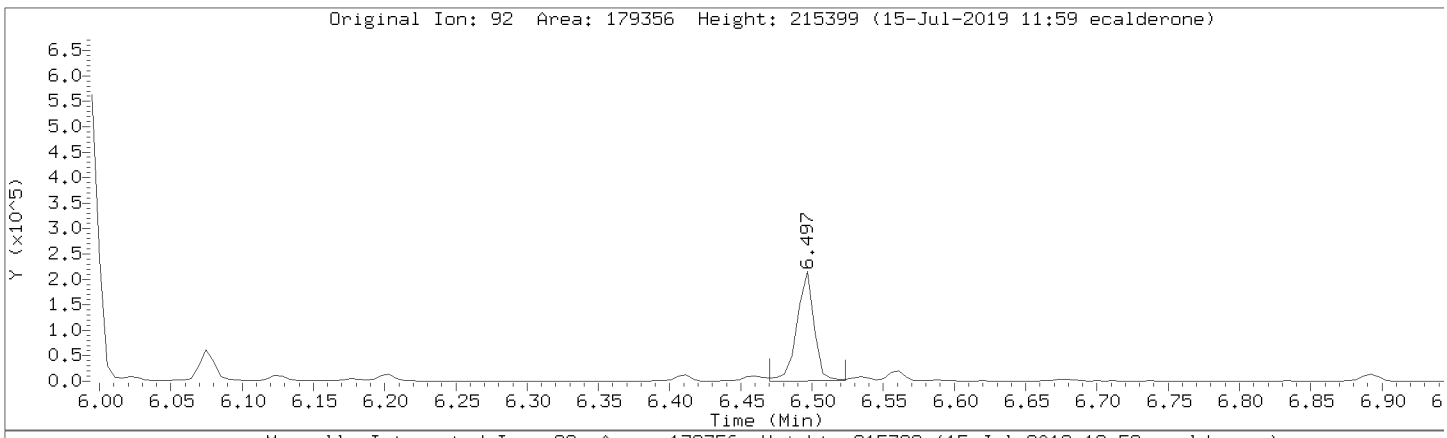

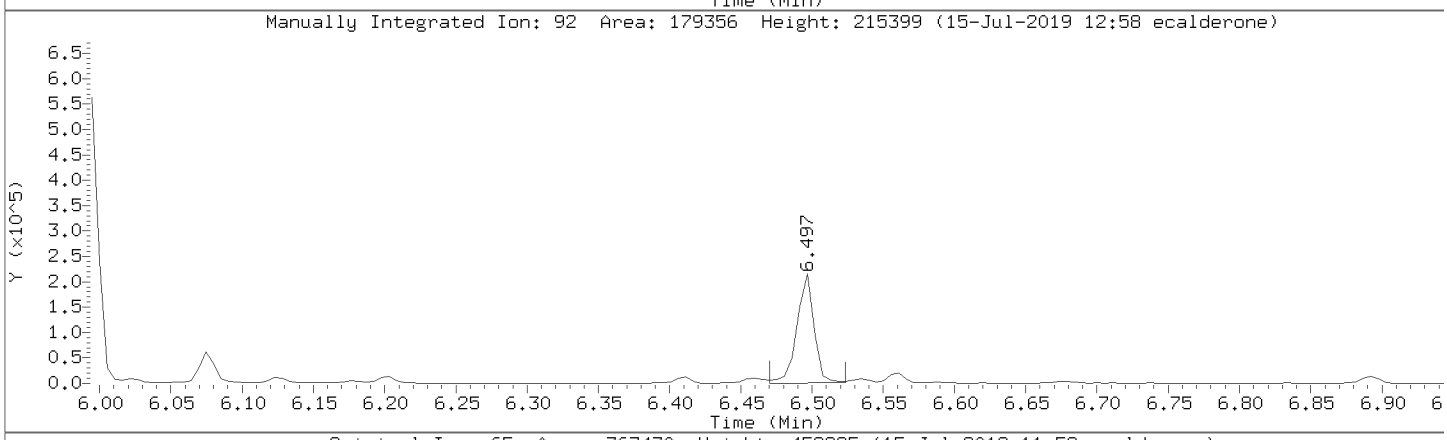

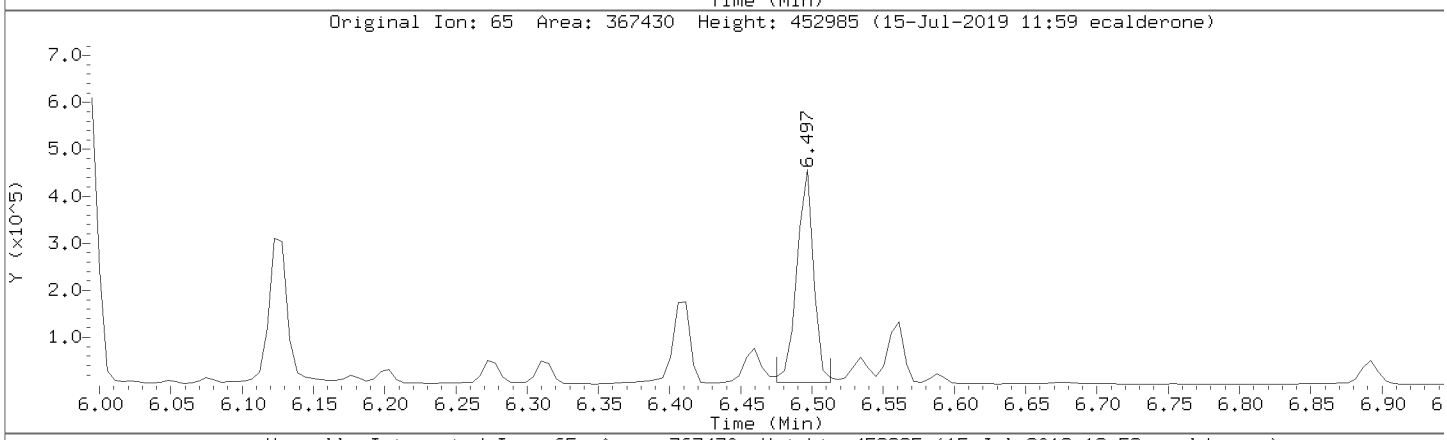

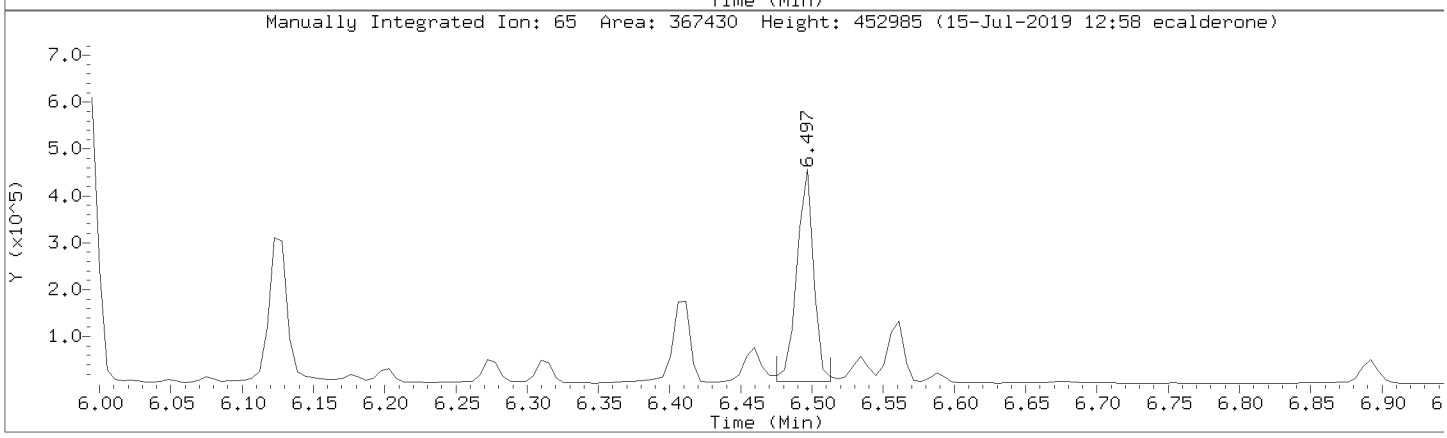

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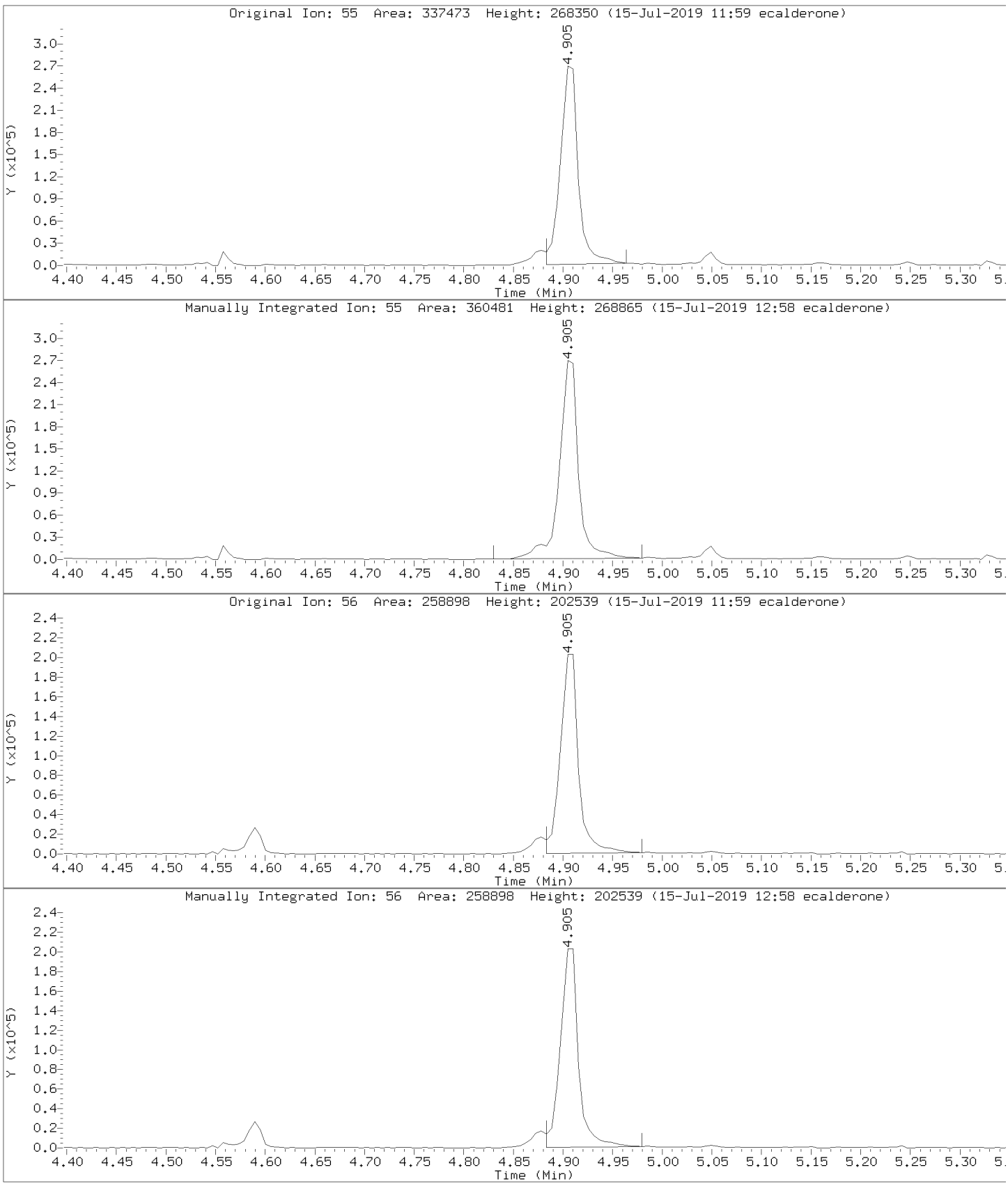
Injection Date: 15-JUL-2019 10:51
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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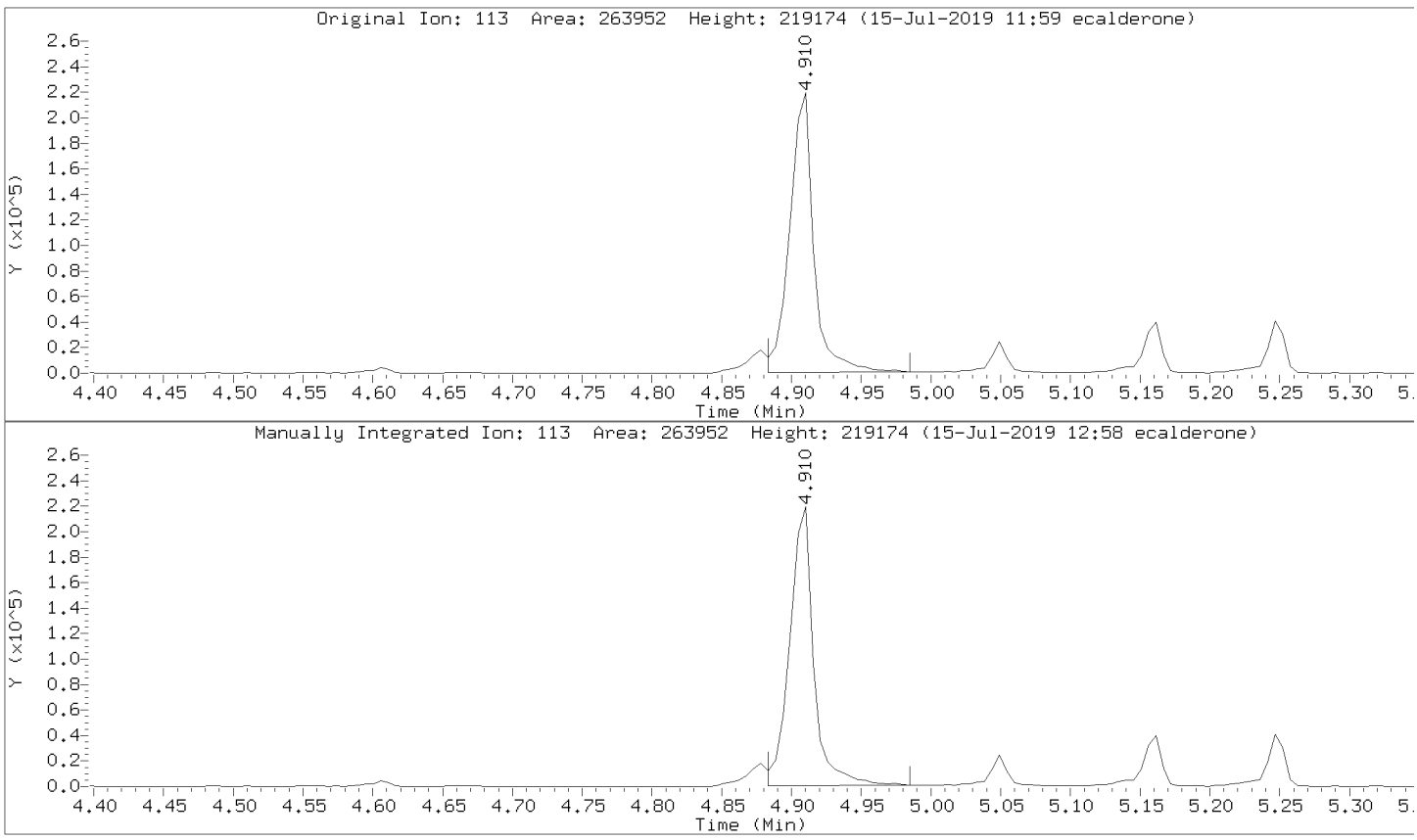
Instrument: 30mss1.i
Lab Sample ID: CAL3



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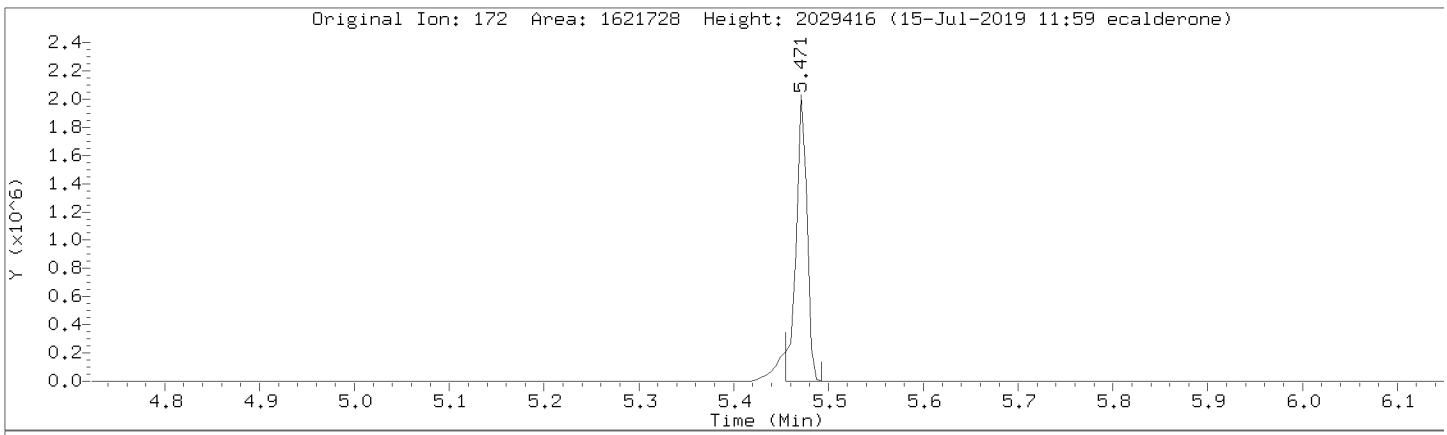
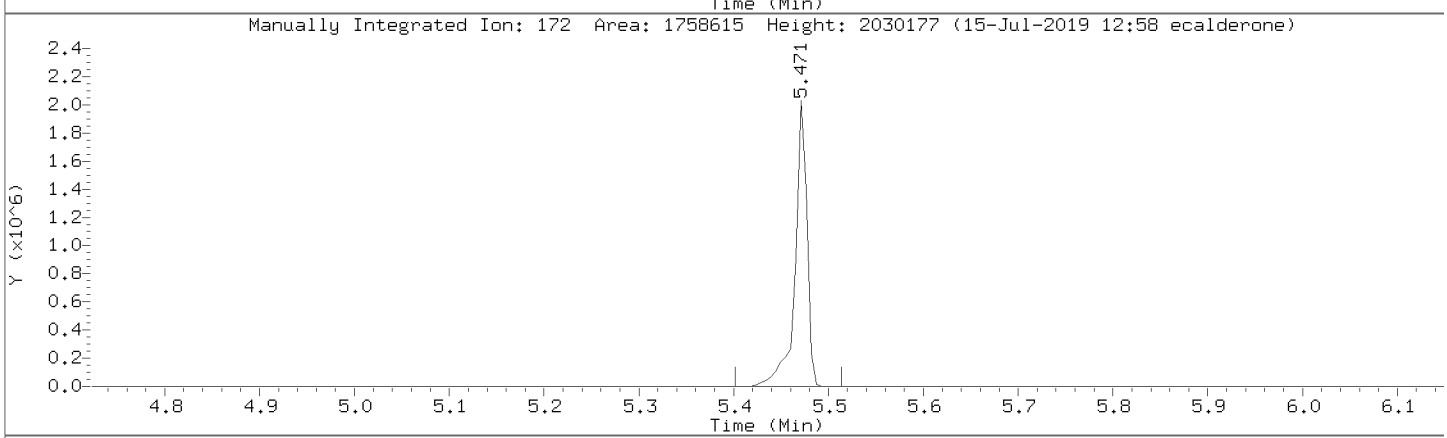
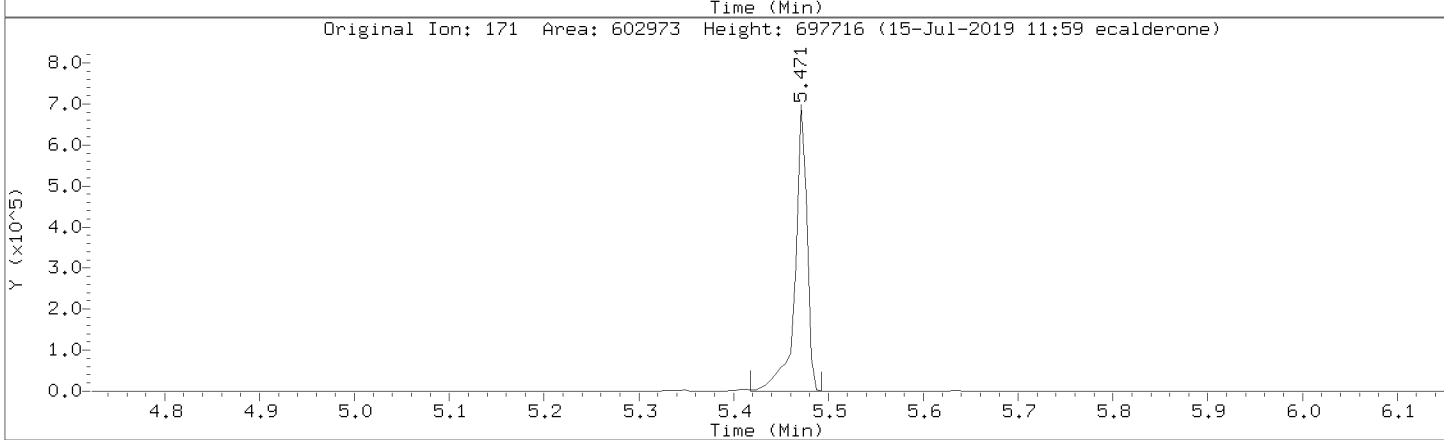
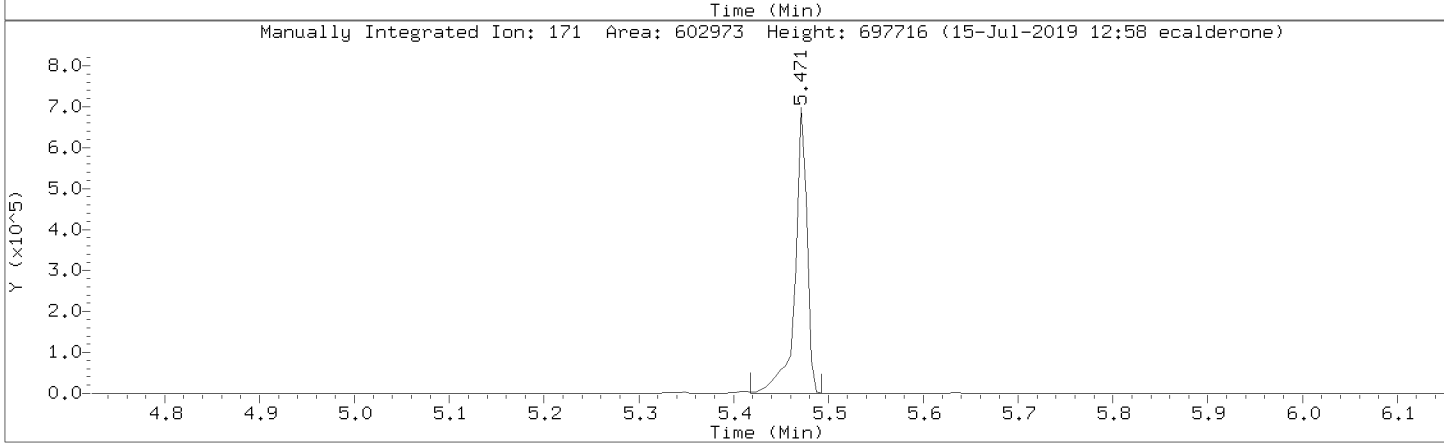
Injection Date: 15-JUL-2019 10:51
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8









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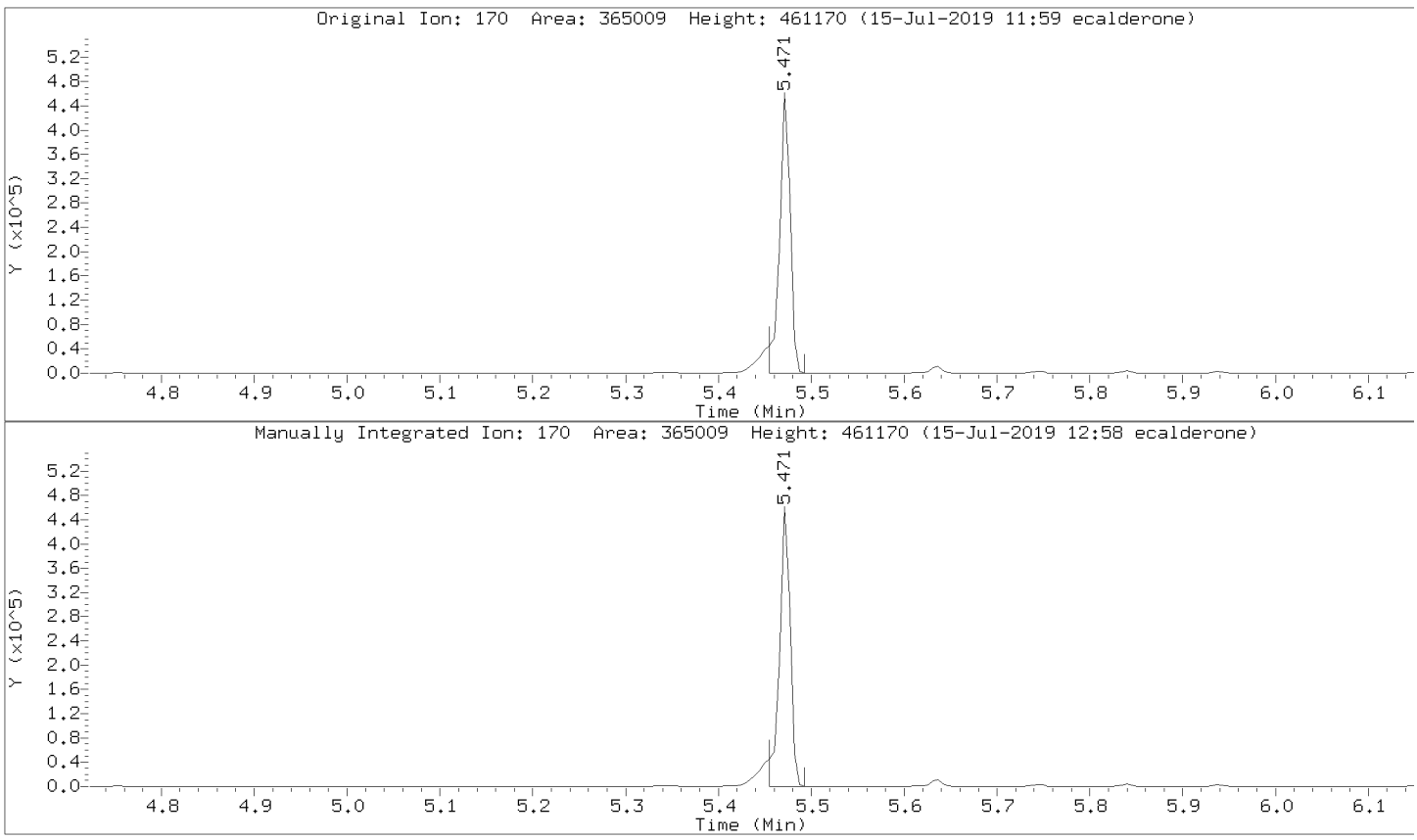
Injection Date: 15-JUL-2019 10:51
Instrument: 30mss1.i
Lab Sample ID: CAL3



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y6.d
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Inj Date : 15-JUL-2019 11:13
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14828,93078:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:13 Cal File: m10715y6.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.694	1.700	(0.471)	366622	2.00000	2.17	
	2 Pyridine	79	1.684	1.689	(0.468)	551518	2.00000	2.19	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	421370	2.00000	2.16	
$	4 Phenol-d6 (S)	99	3.350	3.351	(0.932)	478431	2.00000	2.06	
	5 Benzaldehyde	77	3.281	3.281	(0.912)	342754	2.00000	2.01	
	6 Phenol	94	3.361	3.361	(0.935)	568176	2.00000	2.29	
	7 Aniline	66	3.382	3.383	(0.941)	248699	2.00000	2.18	
	8 bis(2-Chloroethyl)ether	63	3.420	3.425	(0.951)	309553	2.00000	2.09	
	9 2-Chlorophenol	128	3.462	3.463	(0.963)	442607	2.00000	2.08	
	10 1,3-Dichlorobenzene	146	3.569	3.570	(0.993)	477775	2.00000	2.10	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	614502	4.00000		
	12 1,4-Dichlorobenzene	146	3.607	3.607	(1.003)	528832	2.00000	2.12	
	13 Benzyl Alcohol	79	3.714	3.719	(1.033)	317072	2.00000	1.90	
	14 1,2-Dichlorobenzene	146	3.751	3.751	(1.043)	462582	2.00000	2.07	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	397851	2.00000	2.02	
	16 bis(2-Chloroisopropyl)ether	45	3.836	3.837	(1.067)	696378	2.00000	2.15	
	17 3&4-Methylphenol(m&p Cresol)	108	3.917	3.917	(1.089)	415619	2.00000	2.16	
	18 N-Nitroso-di-n-propylamine	70	3.943	3.938	(1.097)	309095	2.00000	2.05	
	19 Acetophenone	105	3.922	3.922	(1.091)	561112	2.00000	2.14	
	20 Hexachloroethane	117	3.986	3.986	(1.108)	176362	2.00000	1.98	
$	21 Nitrobenzene-d5 (S)	128	4.039	4.040	(0.880)	206087	2.00000	1.98	
	22 Nitrobenzene	77	4.050	4.050	(0.882)	438625	2.00000	2.13	
	23 Isophorone	82	4.232	4.232	(0.922)	790358	2.00000	2.10	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	421217	2.00000	2.08	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	250469	2.00000	2.11	
	26 Benzoic acid	105	4.387	4.376	(0.956)	181239	2.00000	1.87(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	484197	2.00000	2.10	
	28 2,4-Dichlorophenol	162	4.483	4.483	(0.977)	342036	2.00000	2.00	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	383927	2.00000	2.08	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2523919	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	1280966	2.00000	2.40	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	131905	2.00000	1.96	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	199175	2.00000	2.00	
	34 Caprolactam	55	4.899	4.894	(1.067)	175772	2.00000	2.13(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	343833	2.00000	1.99	
	36 2-Methylnaphthalene	142	5.161	5.162	(1.125)	894691	2.00000	2.24	
	37 1-Methylnaphthalene	142	5.247	5.247	(1.143)	832802	2.00000	2.23	
	38 Hexachlorocyclopentadiene	237	5.348	5.348	(0.887)	225533	2.00000	1.88	
	39 1,2,4,5-Tetrachlorobenzene	216	5.327	5.327	(0.884)	347483	2.00000	2.13	
	40 2,4,6-Trichlorophenol	196	5.407	5.407	(0.897)	264663	2.00000	2.08	
	41 2,4,5-Trichlorophenol	196	5.439	5.439	(0.902)	221236	2.00000	1.88	
$	42 2-Fluorobiphenyl (S)	172	5.471	5.471	(0.908)	890218	2.00000	2.29	
	43 Biphenyl (Diphenyl)	154	5.541	5.541	(0.919)	1027065	2.00000	2.37	
	44 2-Chloronaphthalene	164	5.551	5.551	(0.921)	257927	2.00000	2.10	
	45 2-Nitroaniline	138	5.658	5.653	(0.939)	267908	2.00000	1.93(M)	LT
	46 Dimethylphthalate	163	5.829	5.829	(0.967)	848845	2.00000	2.32(M)	LT
	47 2,6-Dinitrotoluene	165	5.882	5.883	(0.976)	200142	2.00000	2.03	
	48 Acenaphthylene	152	5.898	5.899	(0.979)	1248520	2.00000	2.39	
	49 3-Nitroaniline	65	5.989	5.990	(0.994)	230073	2.00000	1.99	
*	50 Acenaphthene-d10 (IS)	164	6.027	6.022	(1.000)	1346373	4.00000		
	51 2,4-Dinitrophenol	184	6.075	6.075	(1.008)	92948	2.00000	1.59(M)	LT
	52 Acenaphthene	153	6.048	6.048	(1.004)	798093	2.00000	2.29	
	53 4-Nitrophenol	109	6.123	6.123	(1.016)	96754	2.00000	1.93(M)	LT
	54 2,4-Dinitrotoluene	165	6.203	6.198	(1.029)	246129	2.00000	1.89	
	55 Dibenzofuran	168	6.176	6.176	(1.025)	1098409	2.00000	2.38	
	56 2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.048)	193953	2.00000	2.02	
	57 Diethylphthalate	149	6.406	6.406	(1.063)	848062	2.00000	2.24(M)	LT
	58 4-Chlorophenylphenyl ether	204	6.459	6.460	(1.072)	420810	2.00000	2.17	
	59 Fluorene	166	6.459	6.460	(1.072)	894524	2.00000	2.29	
	60 4-Nitroaniline	108	6.491	6.492	(1.077)	143643	2.00000	2.49(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.887)	133725	2.00000	1.73	
	62 N-Nitrosodiphenylamine	169	6.561	6.556	(0.891)	739332	2.00000	2.17	
	63 Azobenzene	77	6.588	6.588	(0.894)	788854	2.00000	2.20	
	64 1,2-Diphenylhydrazine	77	6.588	6.588	(0.894)	788854	2.00000	2.20	
$	65 2,4,6-Tribromophenol (S)	330	6.678	6.679	(0.906)	113200	2.00000	1.86	
	66 4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	240731	2.00000	2.04	
	67 Hexachlorobenzene	284	7.052	7.053	(0.957)	235875	2.00000	2.00	
	68 Atrazine	200	7.106	7.106	(0.964)	217979	2.00000	1.88	
	69 Pentachlorophenol	266	7.239	7.240	(0.983)	117491	2.00000	1.62	
*	70 Phenanthrene-d10 (IS)	188	7.368	7.368	(1.000)	2213648	4.00000		
	71 Phenanthrene	178	7.394	7.395	(1.004)	1340717	2.00000	2.37	
	72 Anthracene	178	7.442	7.437	(1.010)	1278397	2.00000	2.34	
	73 Carbazole	167	7.613	7.614	(1.033)	1158632	2.00000	2.32	
	74 Di-n-butylphthalate	149	8.067	8.068	(1.095)	1356391	2.00000	2.32	
	75 Fluoranthene	202	8.666	8.666	(1.176)	1221033	2.00000	2.22	
	76 Pyrene	202	8.895	8.896	(0.876)	1310135	2.00000	2.36	
$	77 Terphenyl-d14 (S)	244	9.082	9.083	(0.895)	954503	2.00000	2.22	
	78 Butylbenzylphthalate	149	9.638	9.633	(0.949)	535335	2.00000	1.96	
	79 3,3'-Dichlorobenzidine	252	10.129	10.135	(0.998)	391251	2.00000	1.93	
	80 bis(2-Ethylhexyl)phthalate	149	10.252	10.253	(1.010)	755637	2.00000	2.05	
	81 Benzo(a)anthracene	228	10.135	10.135	(0.998)	1159689	2.00000	2.26	
*	82 Chrysene-d12 (IS)	240	10.151	10.151	(1.000)	1912973	4.00000		
	83 Chrysene	228	10.178	10.178	(1.003)	1150937	2.00000	2.38	
	84 Di-n-octylphthalate	149	10.835	10.835	(0.943)	1172151	2.00000	2.07	
	85 Benzo(b)fluoranthene	252	11.160	11.161	(0.971)	1010648	2.00000	1.84	
	86 Benzo(k)fluoranthene	252	11.182	11.182	(0.973)	1261209	2.00000	2.55	
	87 Benzo(a)pyrene	252	11.444	11.444	(0.996)	988305	2.00000	2.10	
*	88 Perylene-d12 (IS)	264	11.492	11.492	(1.000)	1846990	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.330	12.325	(1.073)	1061506	2.00000	2.08	
90 Dibenz(a,h)anthracene	278	12.336	12.336	(1.073)	892307	2.00000	2.11	
91 Benzo(g,h,i)perylene	276	12.528	12.528	(1.090)	905452	2.00000	2.13	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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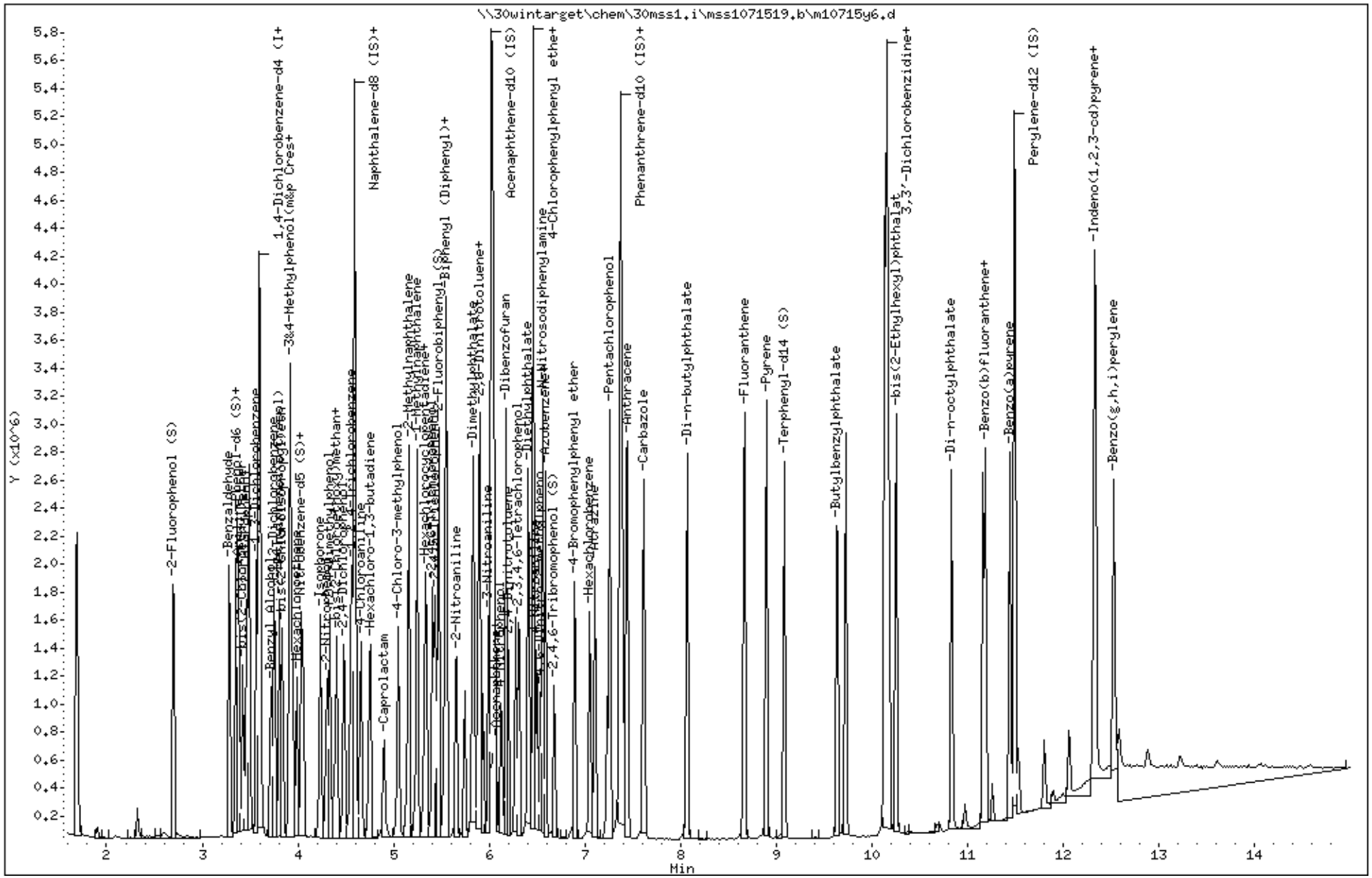
Sample Info: CAL2

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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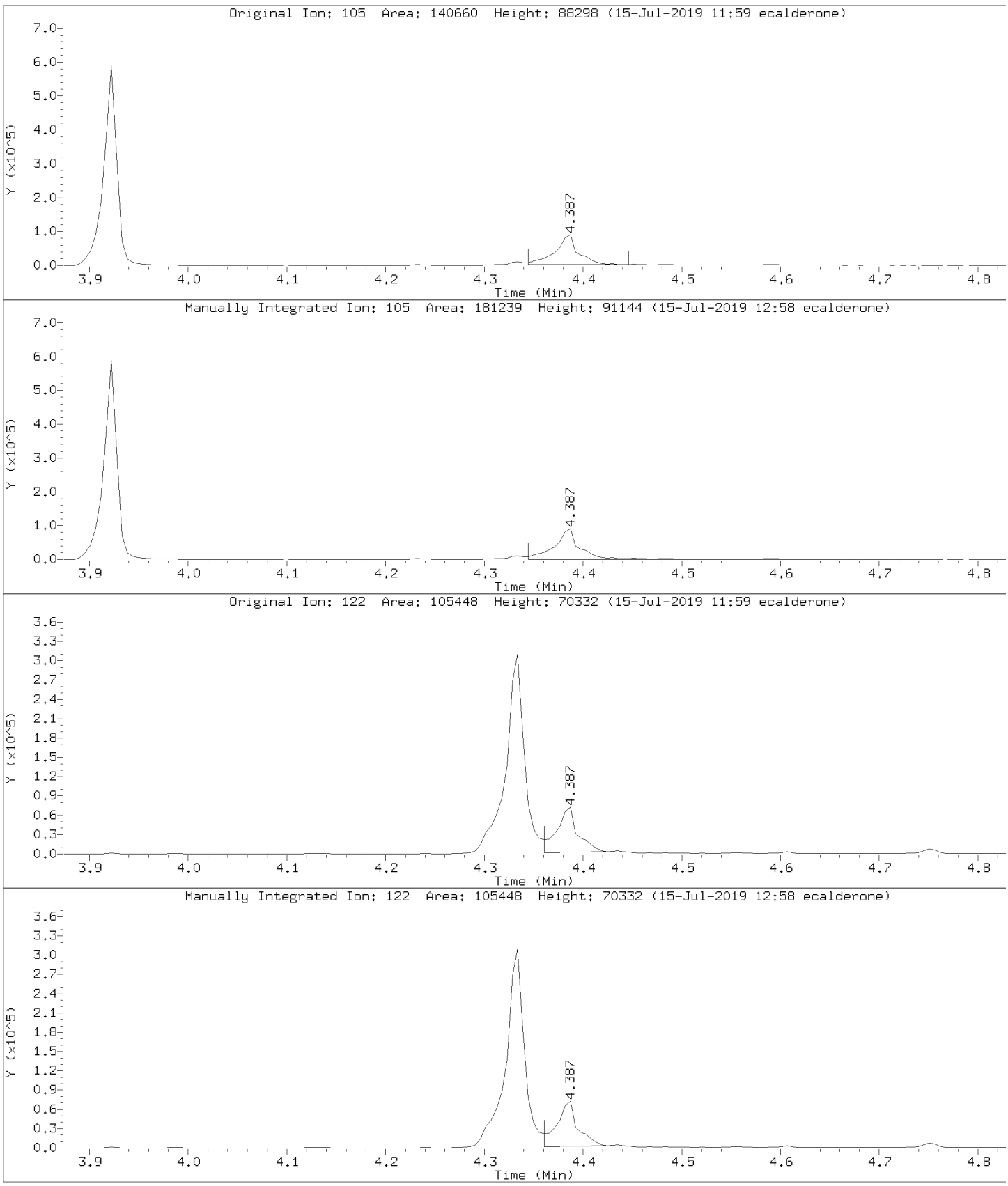
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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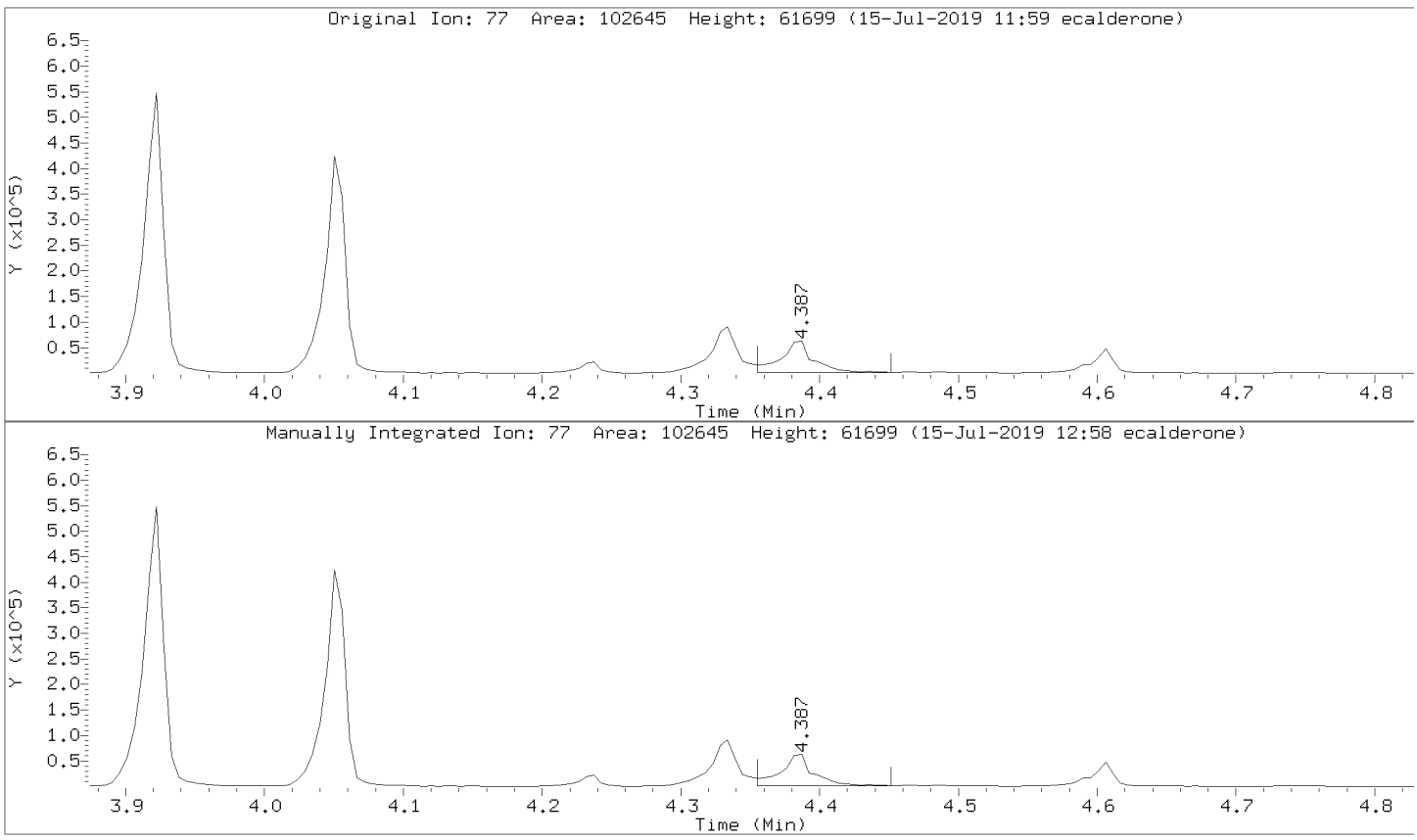

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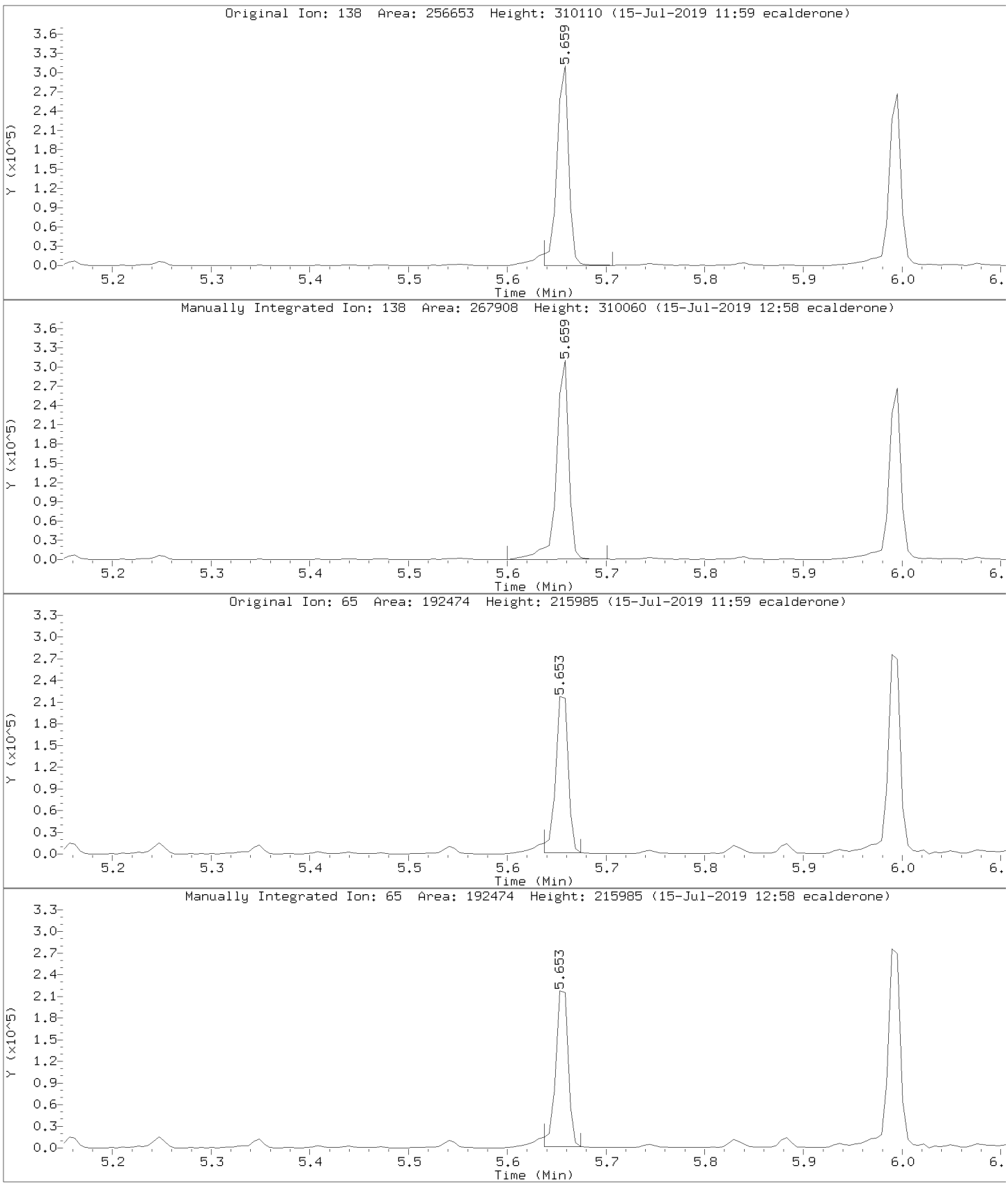
Lab Sample ID: CAL2

Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4



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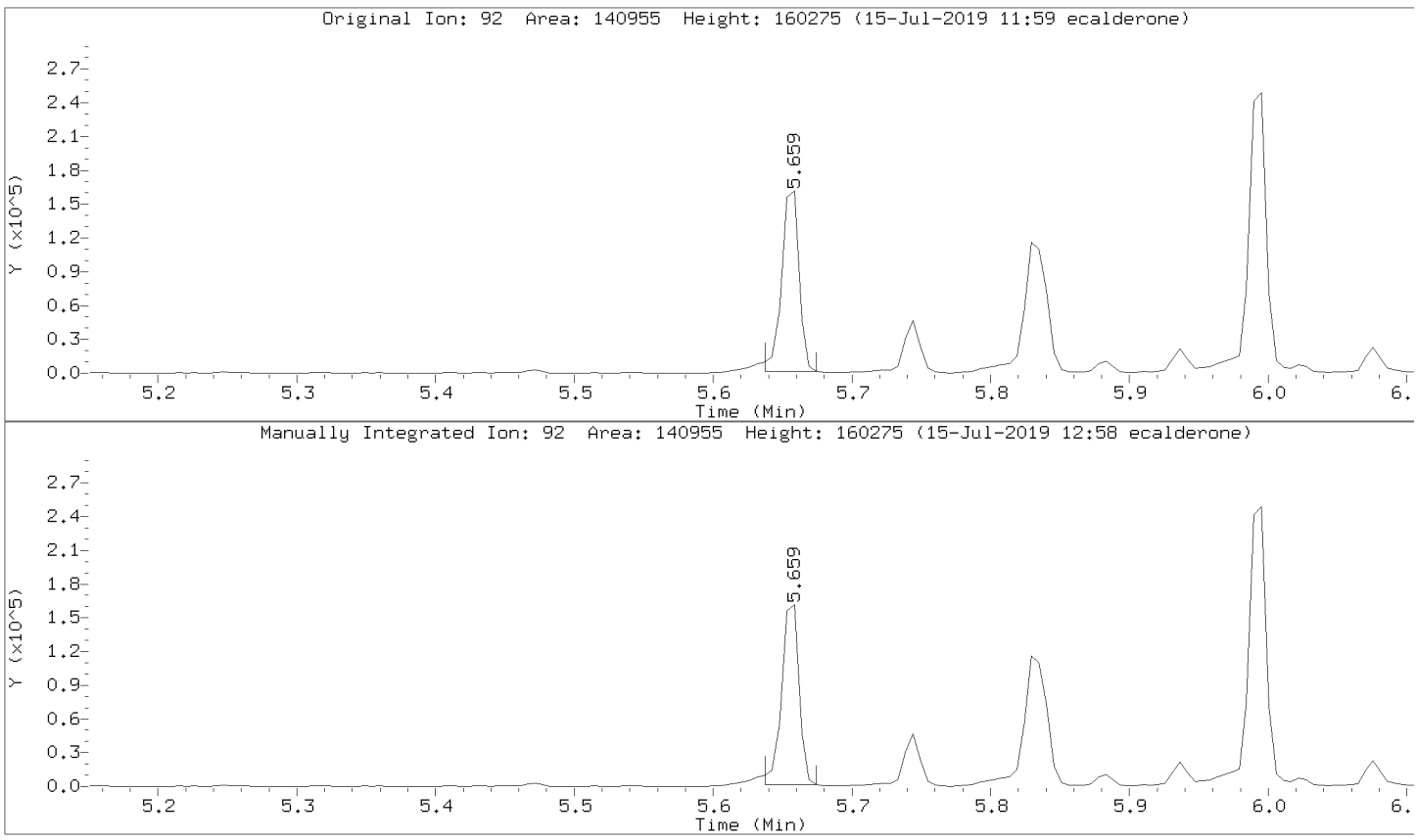
Lab Sample ID: CAL2



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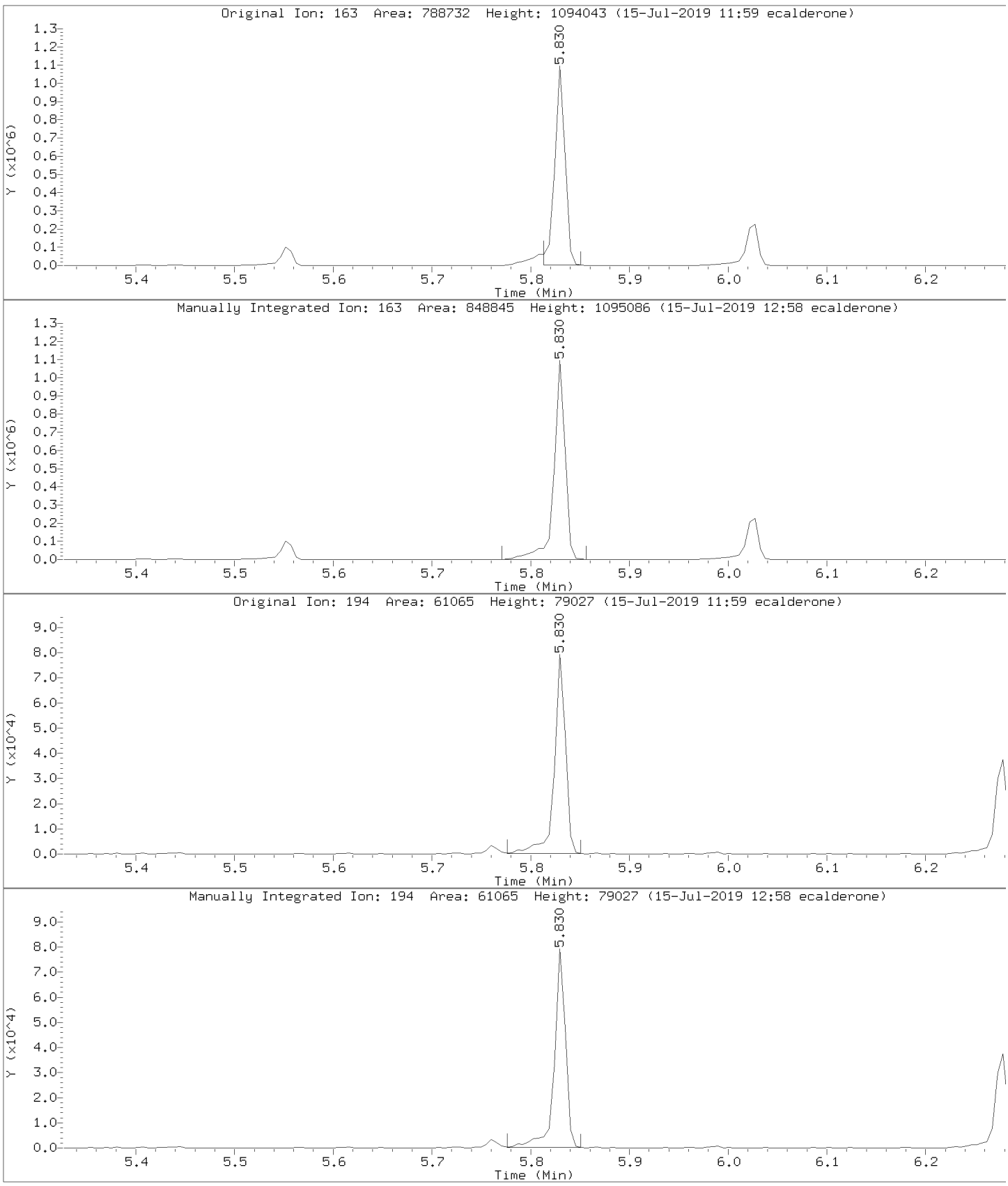
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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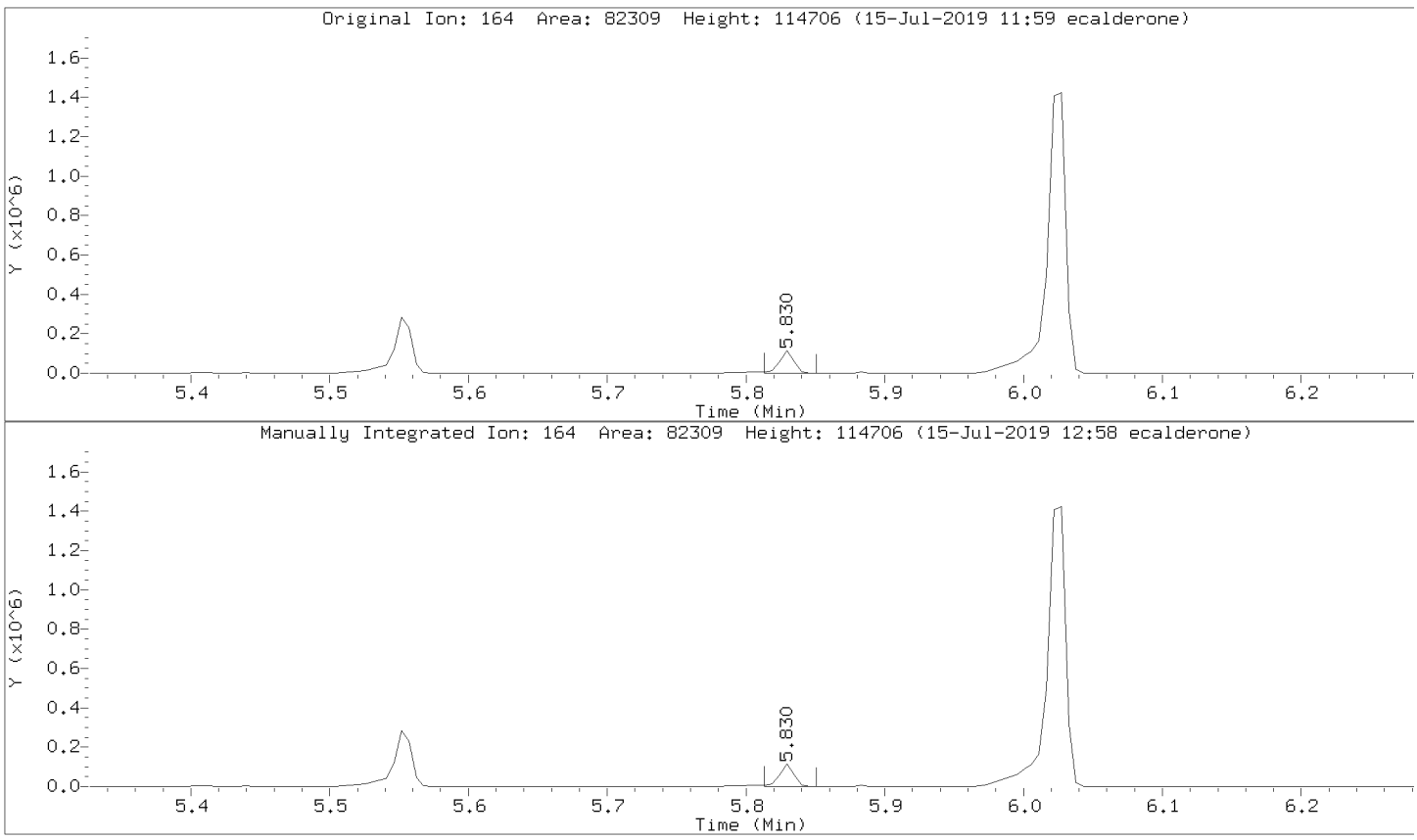

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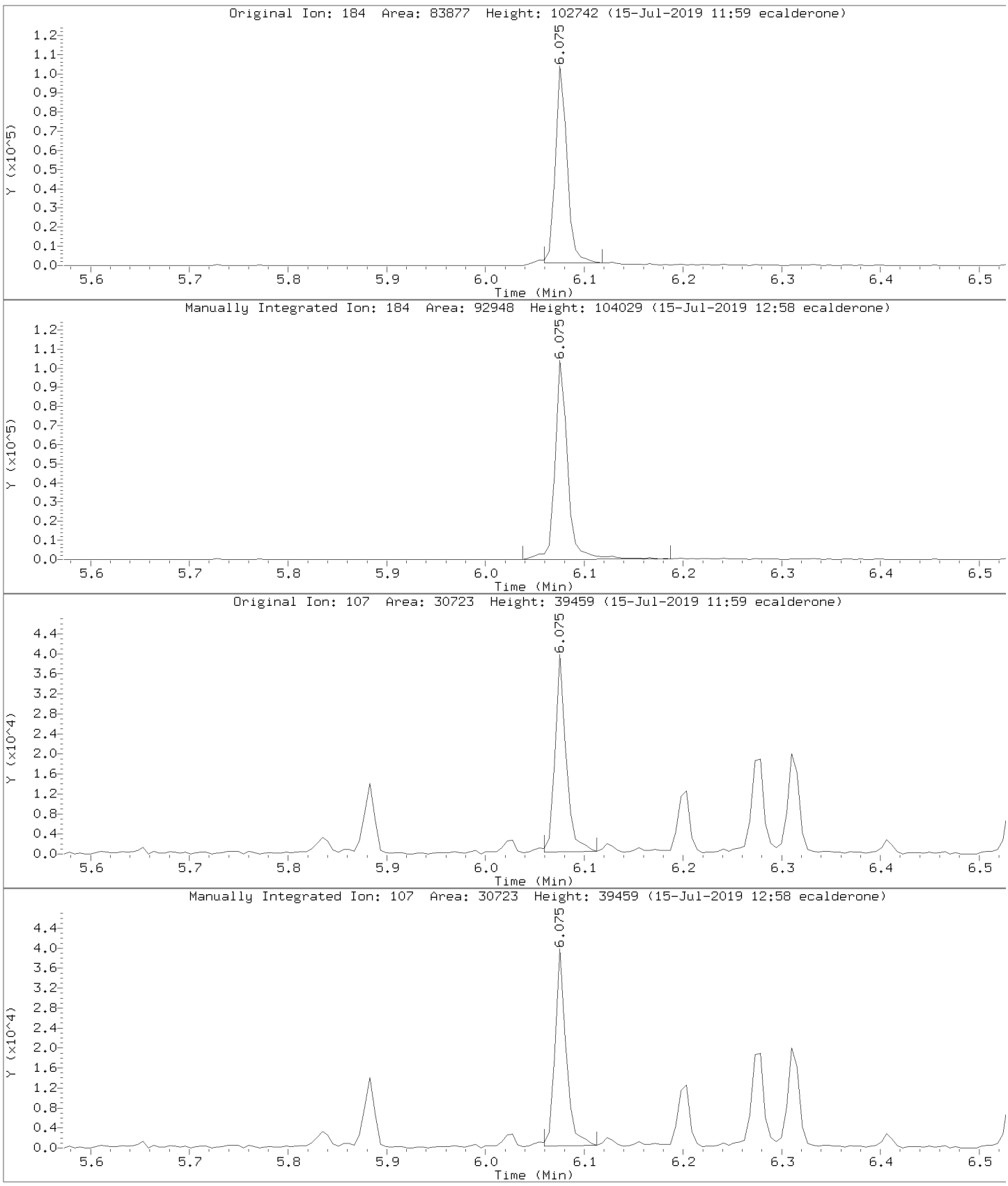
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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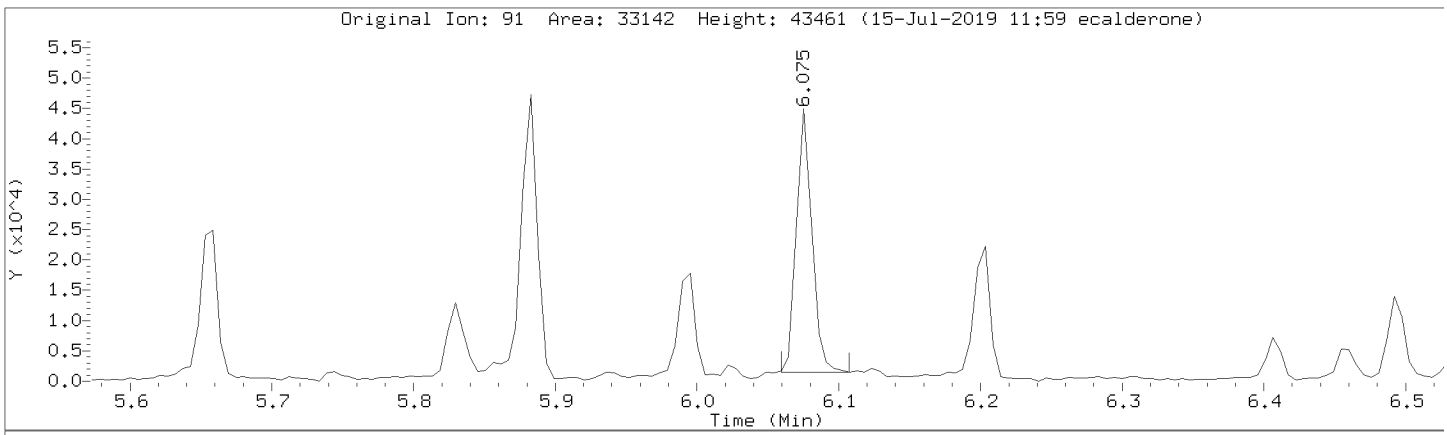

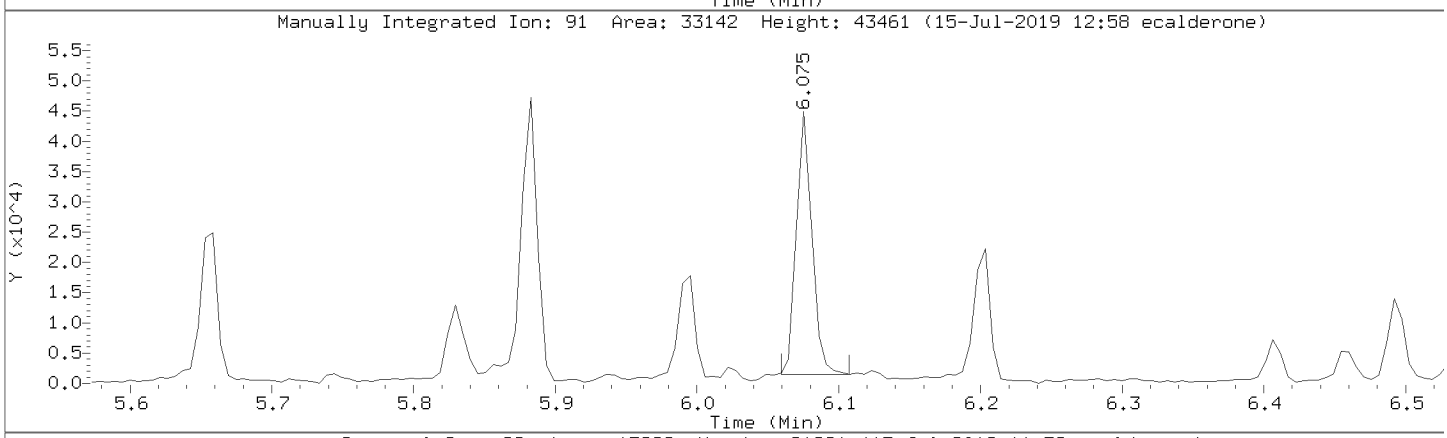

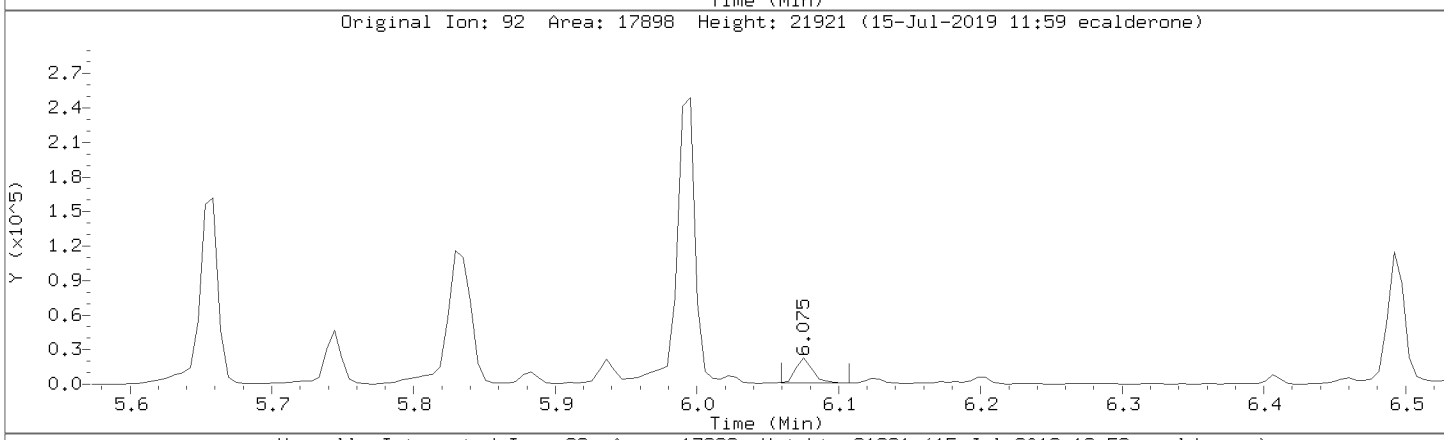

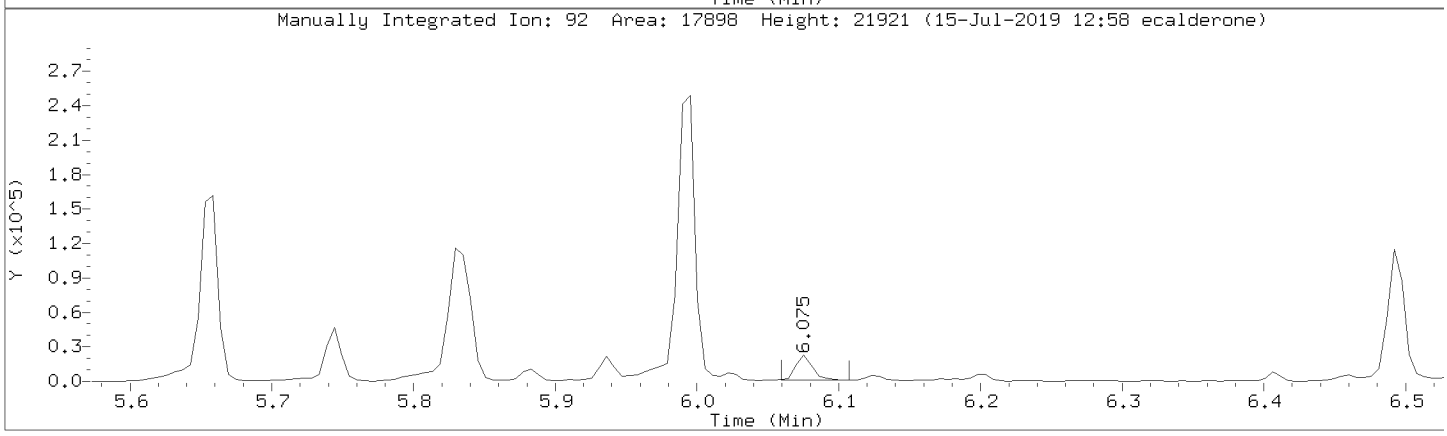

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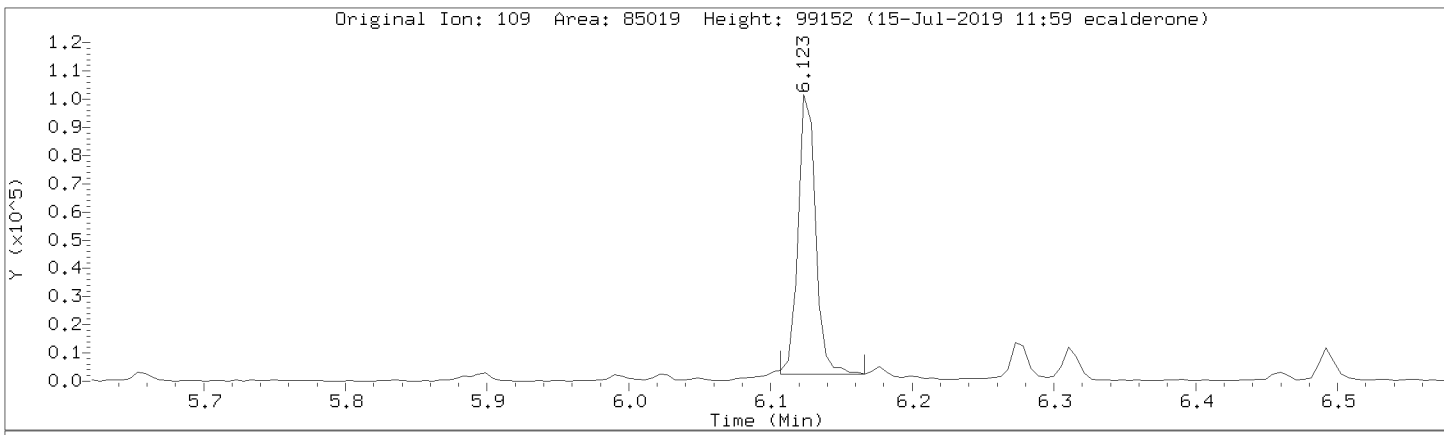
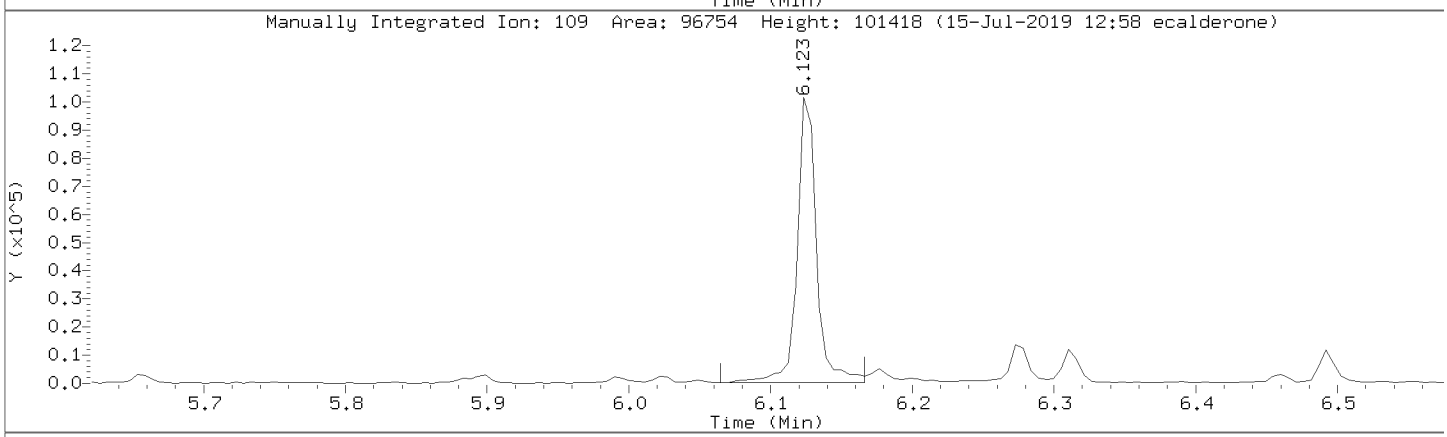
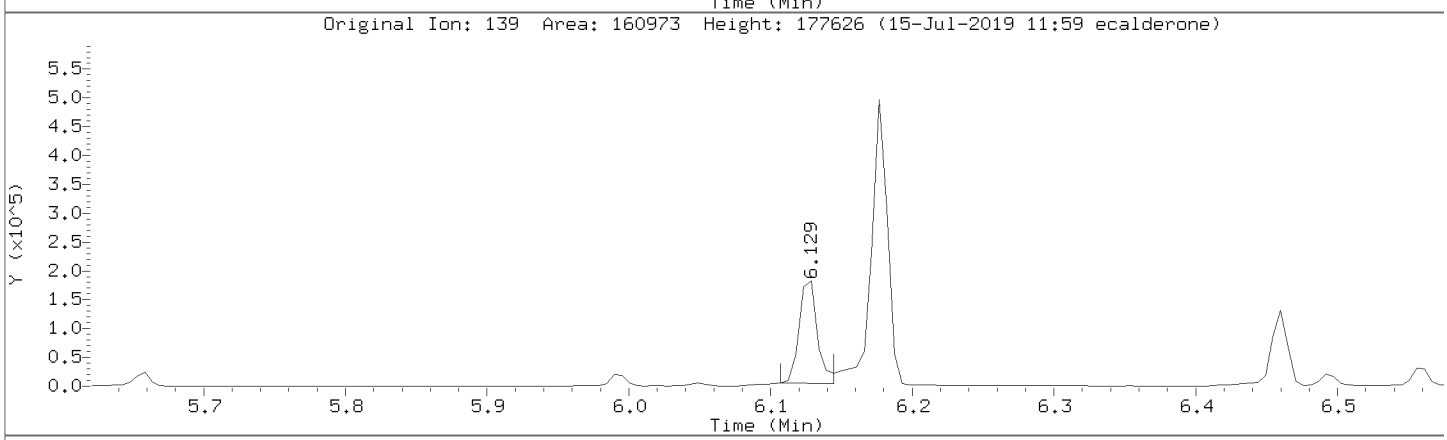
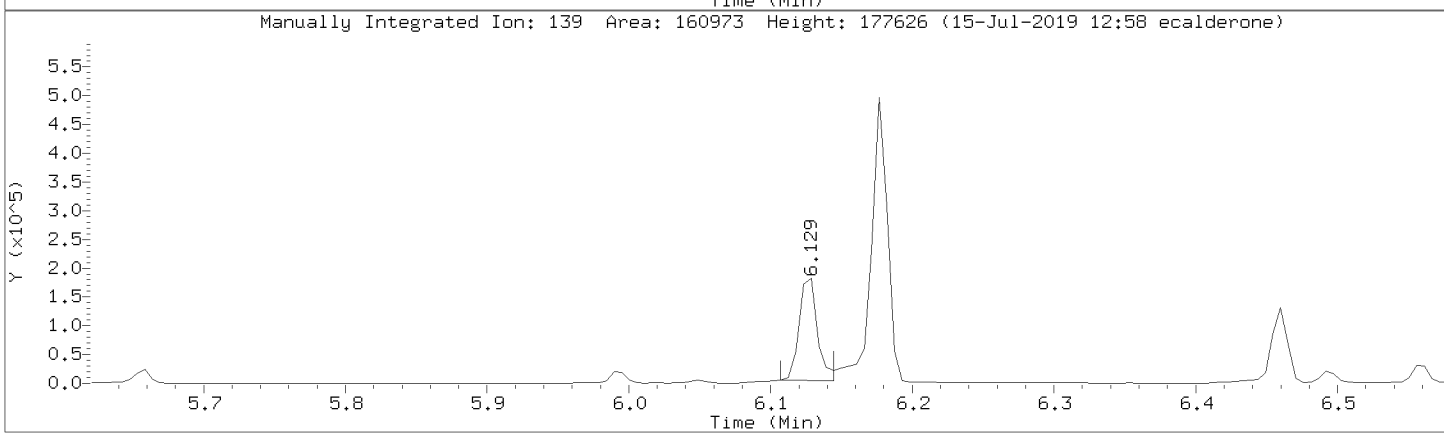
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7









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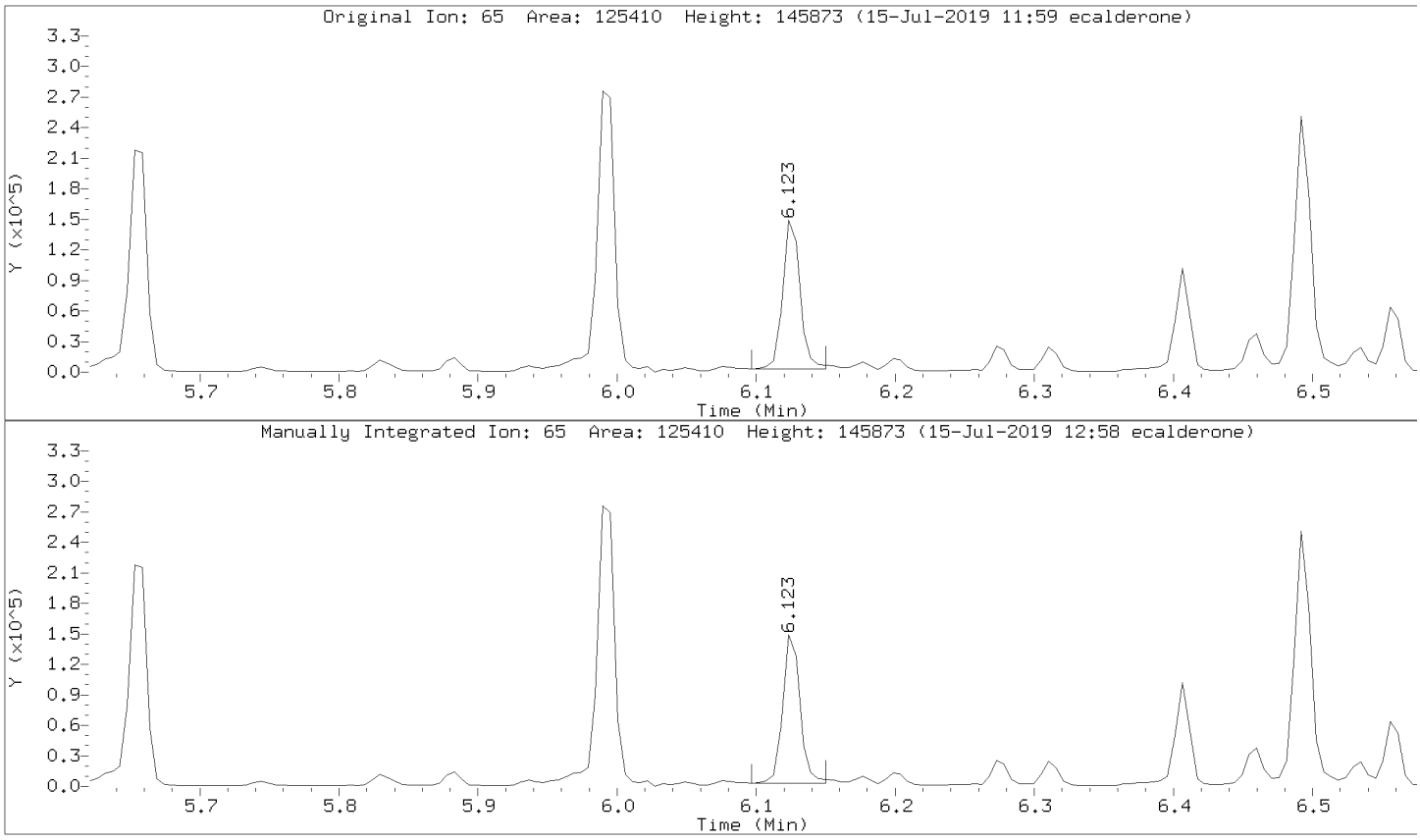
Instrument: 30mss1.i
Lab Sample ID: CAL2



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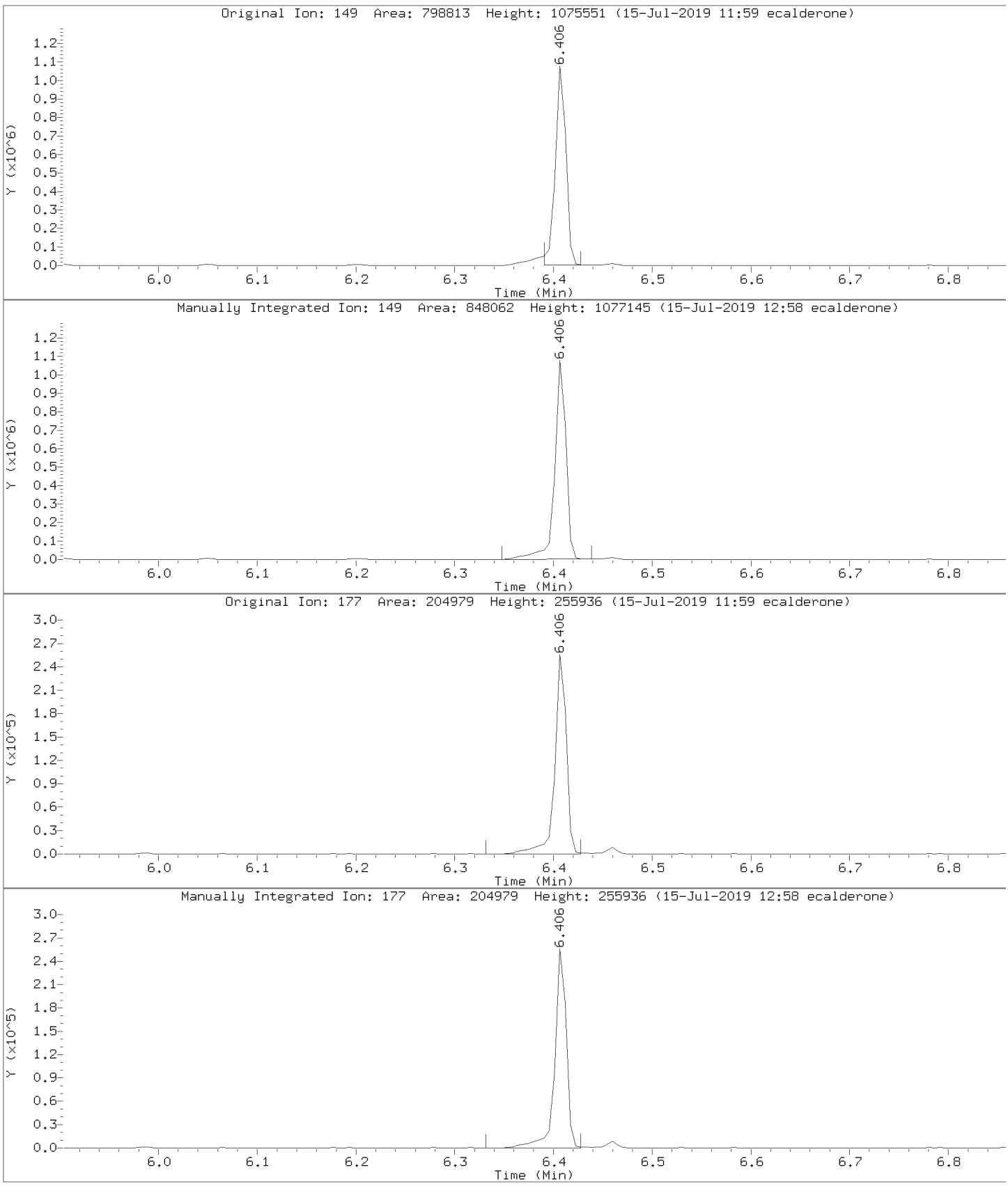
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2



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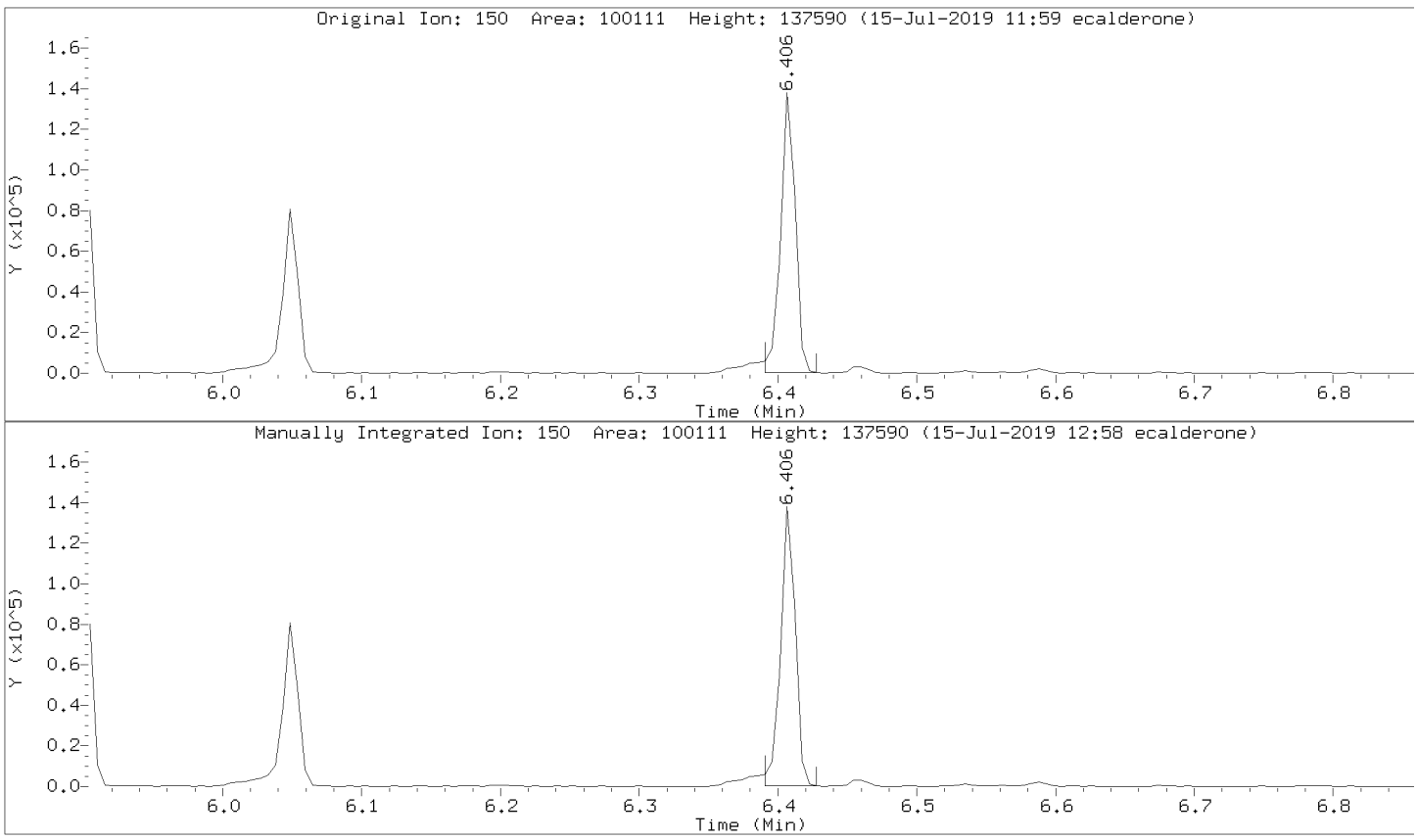
Injection Date: 15-JUL-2019 11:13
Instrument: 30mss1.i
Lab Sample ID: CAL2



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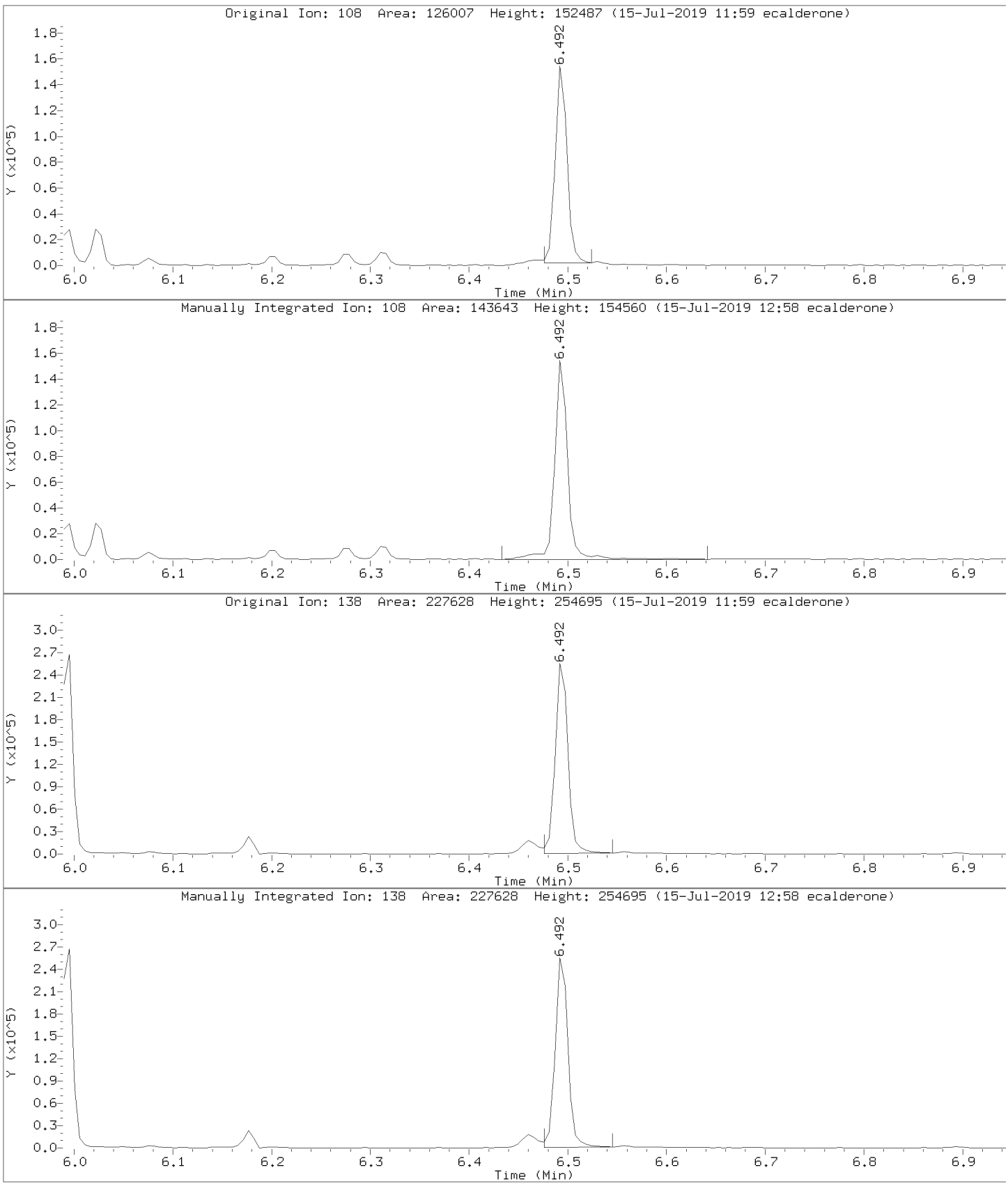
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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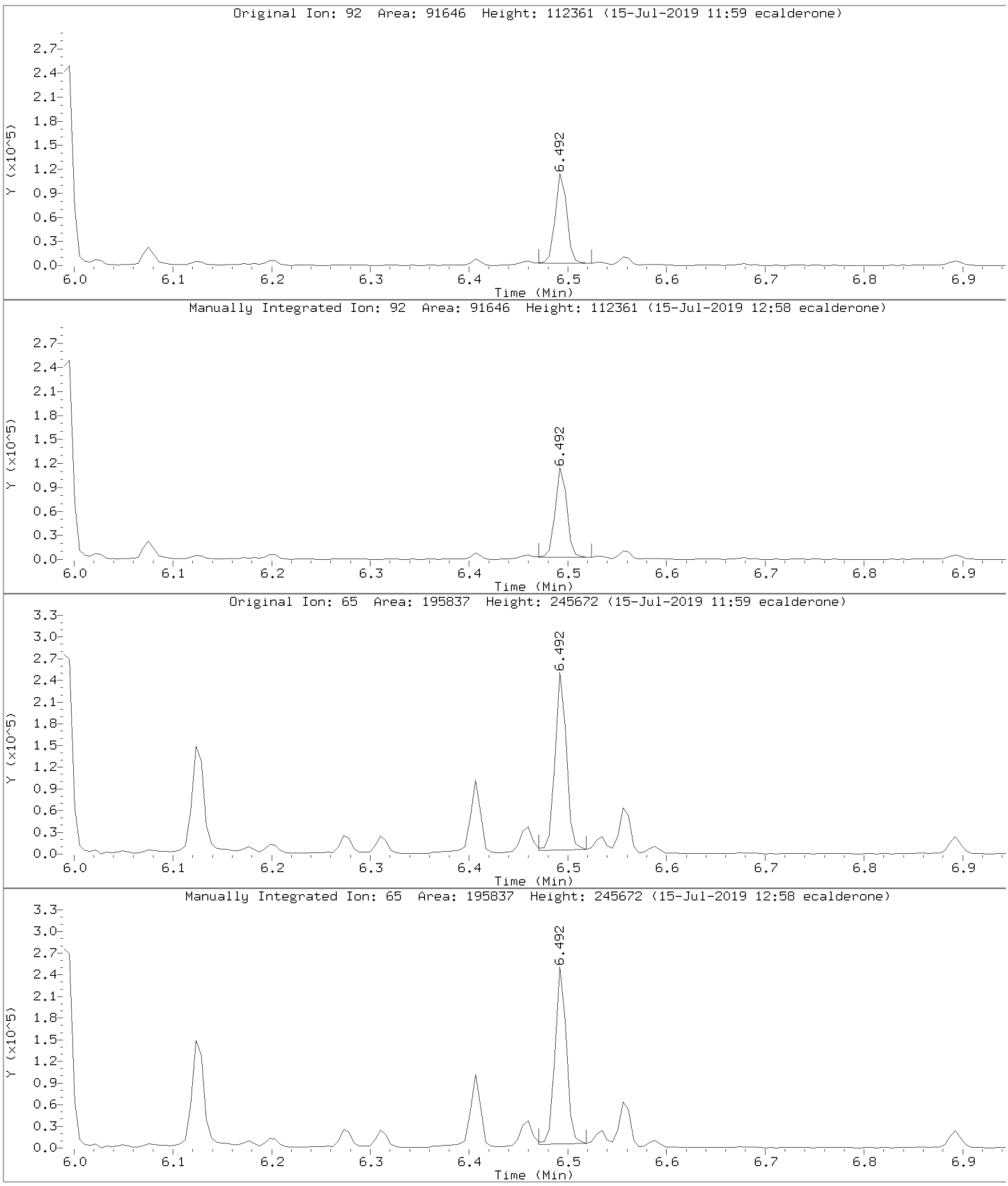

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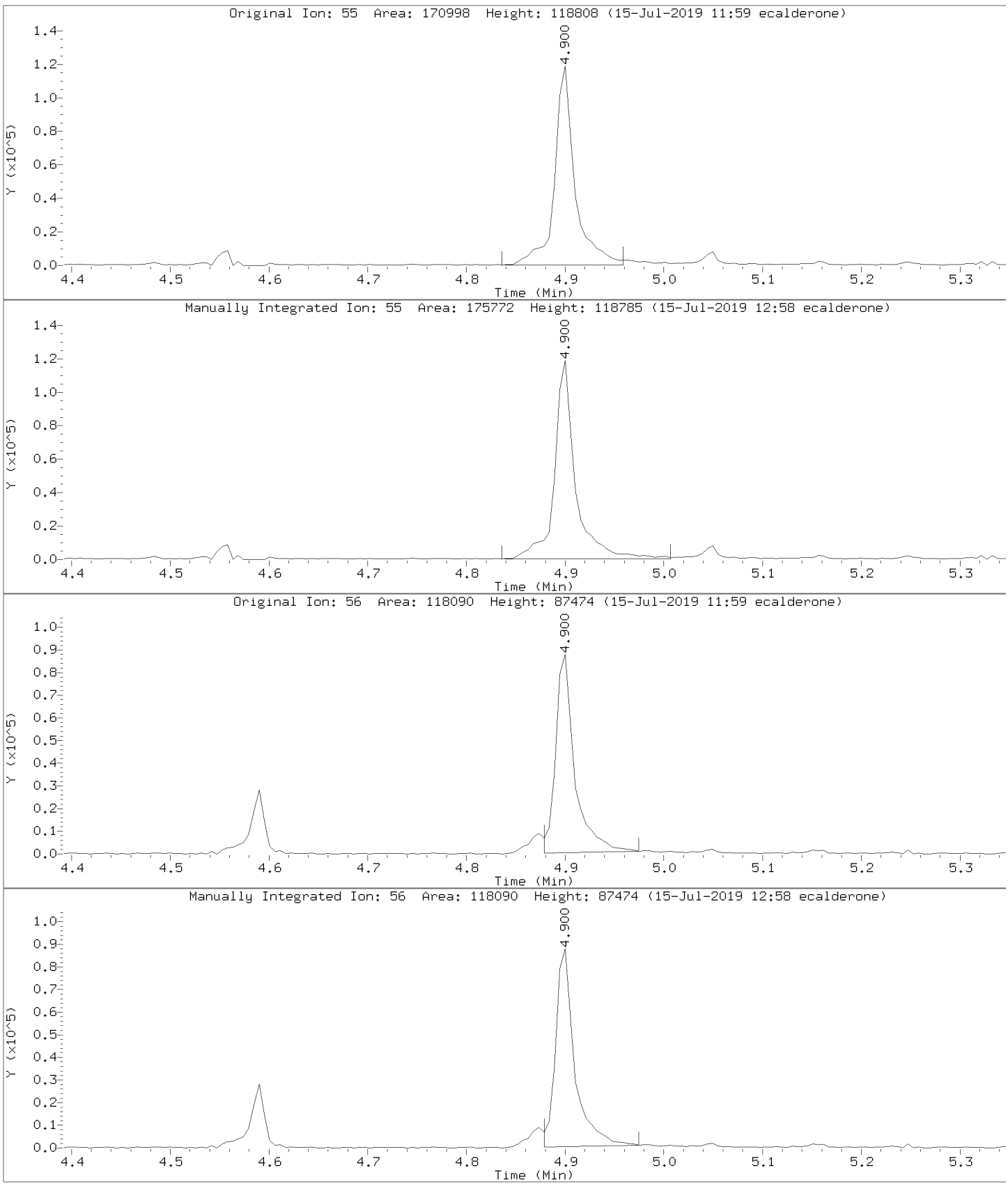
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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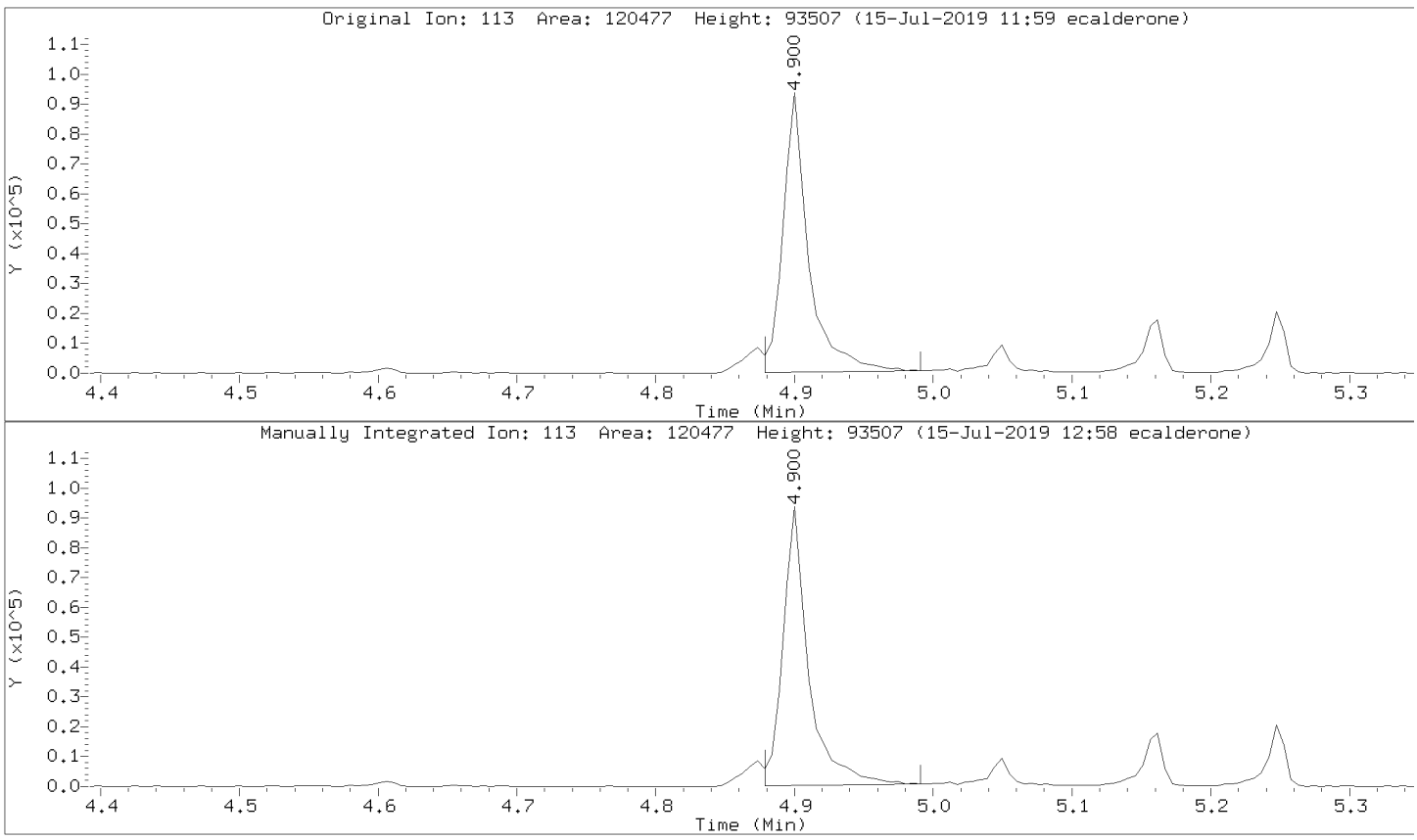

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y7.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 15-JUL-2019 11:36
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14828,93079:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.700	1.700	(0.473)	187057	1.00000	1.13	
	2 Pyridine	79	1.689	1.689	(0.470)	275901	1.00000	1.12	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	233237	1.00000	1.22	
$	4 Phenol-d6 (S)	99	3.351	3.351	(0.932)	270578	1.00000	1.20	
	5 Benzaldehyde	77	3.281	3.281	(0.912)	185914	1.00000	1.13	
	6 Phenol	94	3.361	3.361	(0.935)	319924	1.00000	1.30	
	7 Aniline	66	3.383	3.383	(0.941)	143335	1.00000	1.28	
	8 bis(2-Chloroethyl)ether	63	3.425	3.425	(0.952)	166385	1.00000	1.15	
	9 2-Chlorophenol	128	3.463	3.463	(0.963)	243113	1.00000	1.17	
	10 1,3-Dichlorobenzene	146	3.570	3.570	(0.993)	250665	1.00000	1.13	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.596	3.596	(1.000)	594092	4.00000		
	12 1,4-Dichlorobenzene	146	3.607	3.607	(1.003)	265692	1.00000	1.09	
	13 Benzyl Alcohol	79	3.719	3.719	(1.034)	155216	1.00000	0.972	
	14 1,2-Dichlorobenzene	146	3.751	3.751	(1.043)	240461	1.00000	1.11	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	213363	1.00000	1.12	
	16 bis(2-Chloroisopropyl)ether	45	3.837	3.837	(1.067)	357407	1.00000	1.13	
	17 3&4-Methylphenol(m&p Cresol)	108	3.917	3.917	(1.089)	212742	1.00000	1.13	
	18 N-Nitroso-di-n-propylamine	70	3.938	3.938	(1.095)	157740	1.00000	1.08	
	19 Acetophenone	105	3.922	3.922	(1.091)	295553	1.00000	1.15	
	20 Hexachloroethane	117	3.986	3.986	(1.108)	89835	1.00000	1.04	
$	21 Nitrobenzene-d5 (S)	128	4.040	4.040	(0.880)	102000	1.00000	1.00	
	22 Nitrobenzene	77	4.050	4.050	(0.882)	219401	1.00000	1.08	
	23 Isophorone	82	4.232	4.232	(0.922)	414631	1.00000	1.11	
	24 2,4-Dimethylphenol	107	4.333	4.333	(0.944)	217483	1.00000	1.09	
	25 2-Nitrophenol	139	4.301	4.301	(0.937)	127189	1.00000	1.08	
	26 Benzoic acid	105	4.376	4.376	(0.953)	59511	1.00000	1.07(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.408	4.408	(0.960)	259652	1.00000	1.14	
	28 2,4-Dichlorophenol	162	4.483	4.483	(0.977)	178034	1.00000	1.06	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	198449	1.00000	1.09	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2474498	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	663853	1.00000	1.23	
	32 4-Chloroaniline	65	4.659	4.659	(1.015)	66746	1.00000	1.02	
	33 Hexachloro-1,3-butadiene	225	4.755	4.755	(1.036)	104153	1.00000	1.07	
	34 Caprolactam	55	4.894	4.894	(1.066)	80061	1.00000	1.06	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.049	5.049	(1.100)	175360	1.00000	1.04	
	36	2-Methylnaphthalene	142	5.162	5.162	(1.125)	466998	1.00000	1.17	
	37	1-Methylnaphthalene	142	5.247	5.247	(1.143)	445116	1.00000	1.19	
	38	Hexachlorocyclopentadiene	237	5.348	5.348	(0.888)	109520	1.00000	0.941	
	39	1,2,4,5-Tetrachlorobenzene	216	5.327	5.327	(0.885)	181873	1.00000	1.13	
	40	2,4,6-Trichlorophenol	196	5.407	5.407	(0.898)	134838	1.00000	1.07	
	41	2,4,5-Trichlorophenol	196	5.439	5.439	(0.903)	110145	1.00000	0.967	
$	42	2-Fluorobiphenyl (S)	172	5.471	5.471	(0.909)	477757	1.00000	1.23	
	43	Biphenyl (Diphenyl)	154	5.541	5.541	(0.920)	554886	1.00000	1.27	
	44	2-Chloronaphthalene	164	5.551	5.551	(0.922)	137387	1.00000	1.13	
	45	2-Nitroaniline	138	5.653	5.653	(0.939)	131398	1.00000	0.972	
	46	Dimethylphthalate	163	5.829	5.829	(0.968)	448352	1.00000	1.22	
	47	2,6-Dinitrotoluene	165	5.883	5.883	(0.977)	100666	1.00000	1.04	
	48	Acenaphthylene	152	5.899	5.899	(0.980)	668559	1.00000	1.27	
	49	3-Nitroaniline	65	5.990	5.990	(0.995)	112615	1.00000	0.996	
*	50	Acenaphthene-d10 (IS)	164	6.022	6.022	(1.000)	1317618	4.00000		
	51	2,4-Dinitrophenol	184	6.075	6.075	(1.009)	40251	1.00000	0.730(M)	LT
	52	Acenaphthene	153	6.048	6.048	(1.004)	420481	1.00000	1.20	
	53	4-Nitrophenol	109	6.123	6.123	(1.017)	45939	1.00000	1.03(M)	LT
	54	2,4-Dinitrotoluene	165	6.198	6.198	(1.029)	128852	1.00000	1.02	
	55	Dibenzofuran	168	6.176	6.176	(1.026)	591170	1.00000	1.27	
	56	2,3,4,6-Tetrachlorophenol	232	6.315	6.315	(1.049)	95629	1.00000	1.02	
	57	Diethylphthalate	149	6.406	6.406	(1.064)	438432	1.00000	1.16	
	58	4-Chlorophenylphenyl ether	204	6.460	6.460	(1.073)	224153	1.00000	1.17	
	59	Fluorene	166	6.460	6.460	(1.073)	476060	1.00000	1.21	
	60	4-Nitroaniline	108	6.492	6.492	(1.078)	71727	1.00000	1.22(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.534	6.534	(0.887)	57705	1.00000	0.778	
	62	N-Nitrosodiphenylamine	169	6.556	6.556	(0.890)	406931	1.00000	1.20	
	63	Azobenzene	77	6.588	6.588	(0.894)	418801	1.00000	1.17	
	64	1,2-Diphenylhydrazine	77	6.588	6.588	(0.894)	418801	1.00000	1.17	
$	65	2,4,6-Tribromophenol (S)	330	6.679	6.679	(0.906)	55519	1.00000	0.939	
	66	4-Bromophenylphenyl ether	248	6.892	6.892	(0.935)	124088	1.00000	1.07	
	67	Hexachlorobenzene	284	7.053	7.053	(0.957)	124192	1.00000	1.07	
	68	Atrazine	200	7.106	7.106	(0.964)	118385	1.00000	1.05	
	69	Pentachlorophenol	266	7.240	7.240	(0.983)	59432	1.00000	0.860(M)	LT
*	70	Phenanthrene-d10 (IS)	188	7.368	7.368	(1.000)	2172690	4.00000		
	71	Phenanthrene	178	7.395	7.395	(1.004)	724637	1.00000	1.27	
	72	Anthracene	178	7.437	7.437	(1.009)	652046	1.00000	1.18	
	73	Carbazole	167	7.614	7.614	(1.033)	611761	1.00000	1.22	
	74	Di-n-butylphthalate	149	8.068	8.068	(1.095)	682315	1.00000	1.16	
	75	Fluoranthene	202	8.666	8.666	(1.176)	645094	1.00000	1.18	
	76	Pyrene	202	8.896	8.896	(0.876)	681190	1.00000	1.15	
$	77	Terphenyl-d14 (S)	244	9.083	9.083	(0.895)	506396	1.00000	1.12	
	78	Butylbenzylphthalate	149	9.633	9.633	(0.949)	264558	1.00000	0.940	
	79	3,3'-Dichlorobenzidine	252	10.135	10.135	(0.998)	200973	1.00000	0.968	
	80	bis(2-Ethylhexyl)phthalate	149	10.253	10.253	(1.010)	383727	1.00000	1.00	
	81	Benzo(a)anthracene	228	10.135	10.135	(0.998)	623756	1.00000	1.15	
*	82	Chrysene-d12 (IS)	240	10.151	10.151	(1.000)	1975607	4.00000		
	83	Chrysene	228	10.178	10.178	(1.003)	630347	1.00000	1.22	
	84	Di-n-octylphthalate	149	10.835	10.835	(0.943)	583693	1.00000	0.991	
	85	Benzo(b)fluoranthene	252	11.161	11.161	(0.971)	573829	1.00000	1.02	
	86	Benzo(k)fluoranthene	252	11.182	11.182	(0.973)	696070	1.00000	1.30	
	87	Benzo(a)pyrene	252	11.444	11.444	(0.996)	545093	1.00000	1.11	
*	88	Perylene-d12 (IS)	264	11.492	11.492	(1.000)	1912450	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.325	12.325	(1.073)	612909	1.00000	1.15	
90 Dibenz(a,h)anthracene	278	12.336	12.336	(1.073)	521610	1.00000	1.18	
91 Benzo(g,h,i)perylene	276	12.528	12.528	(1.090)	521125	1.00000	1.17	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y7.d
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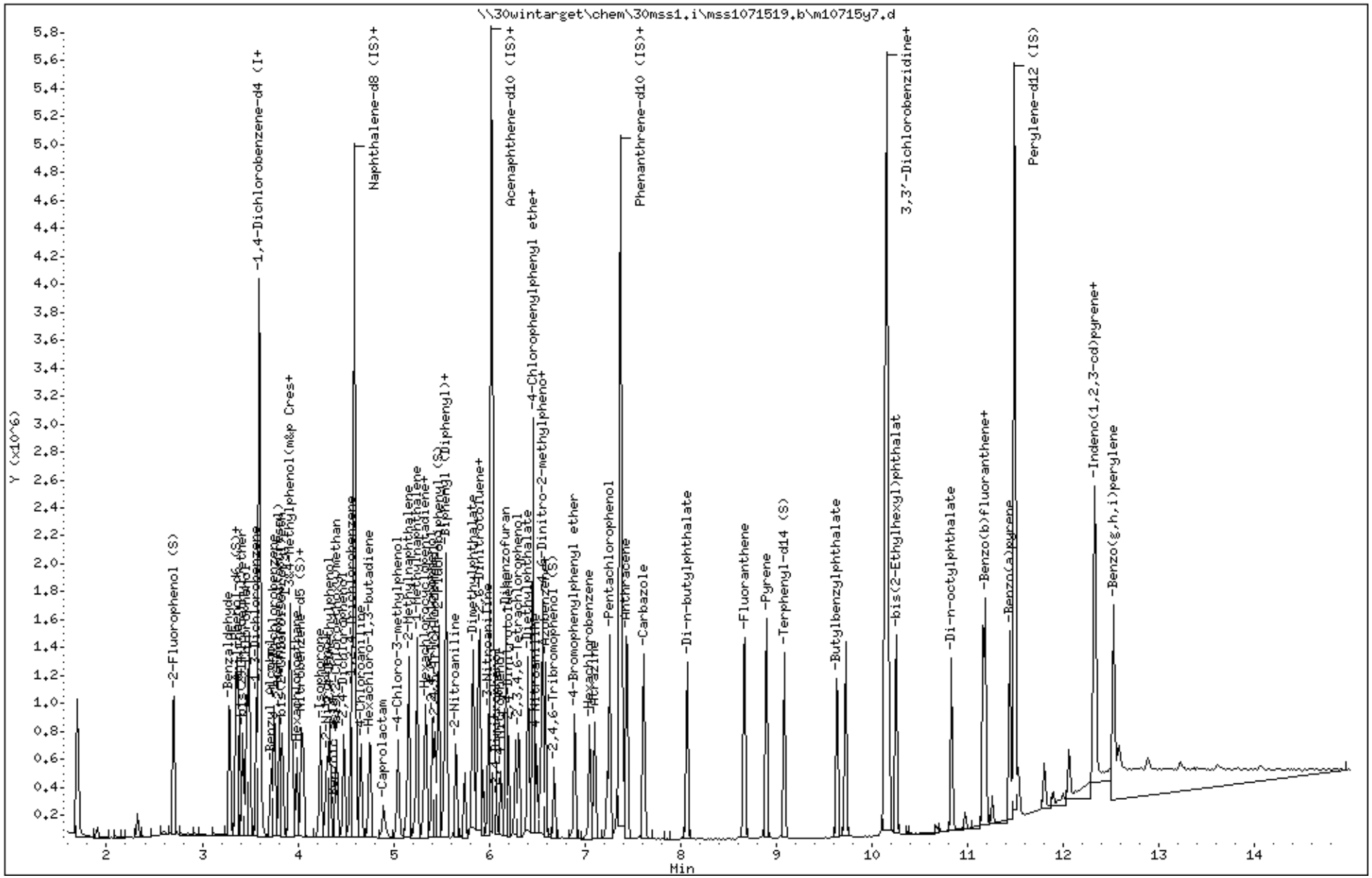
Client ID: CAL1
Sample Info: CAL1

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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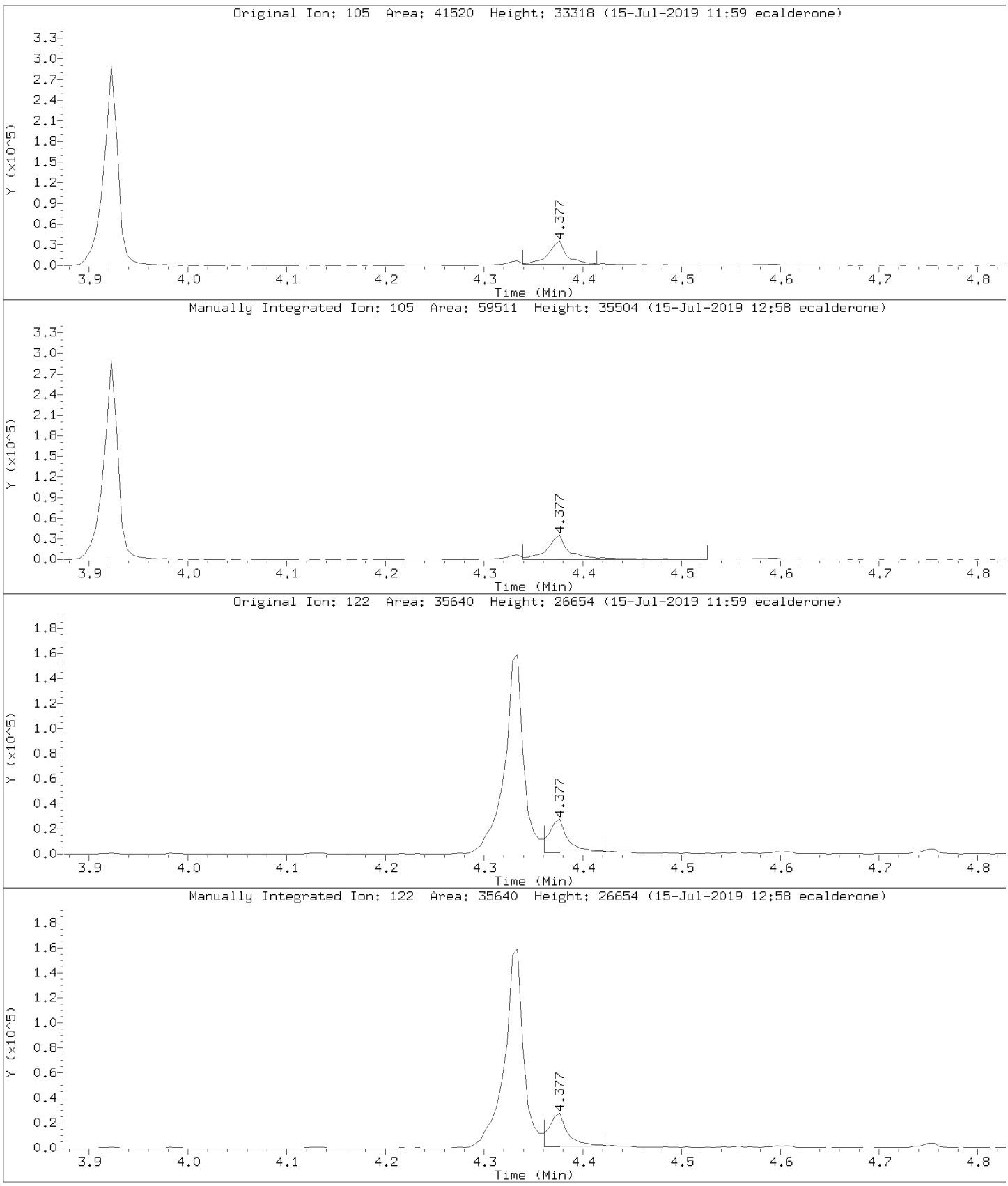
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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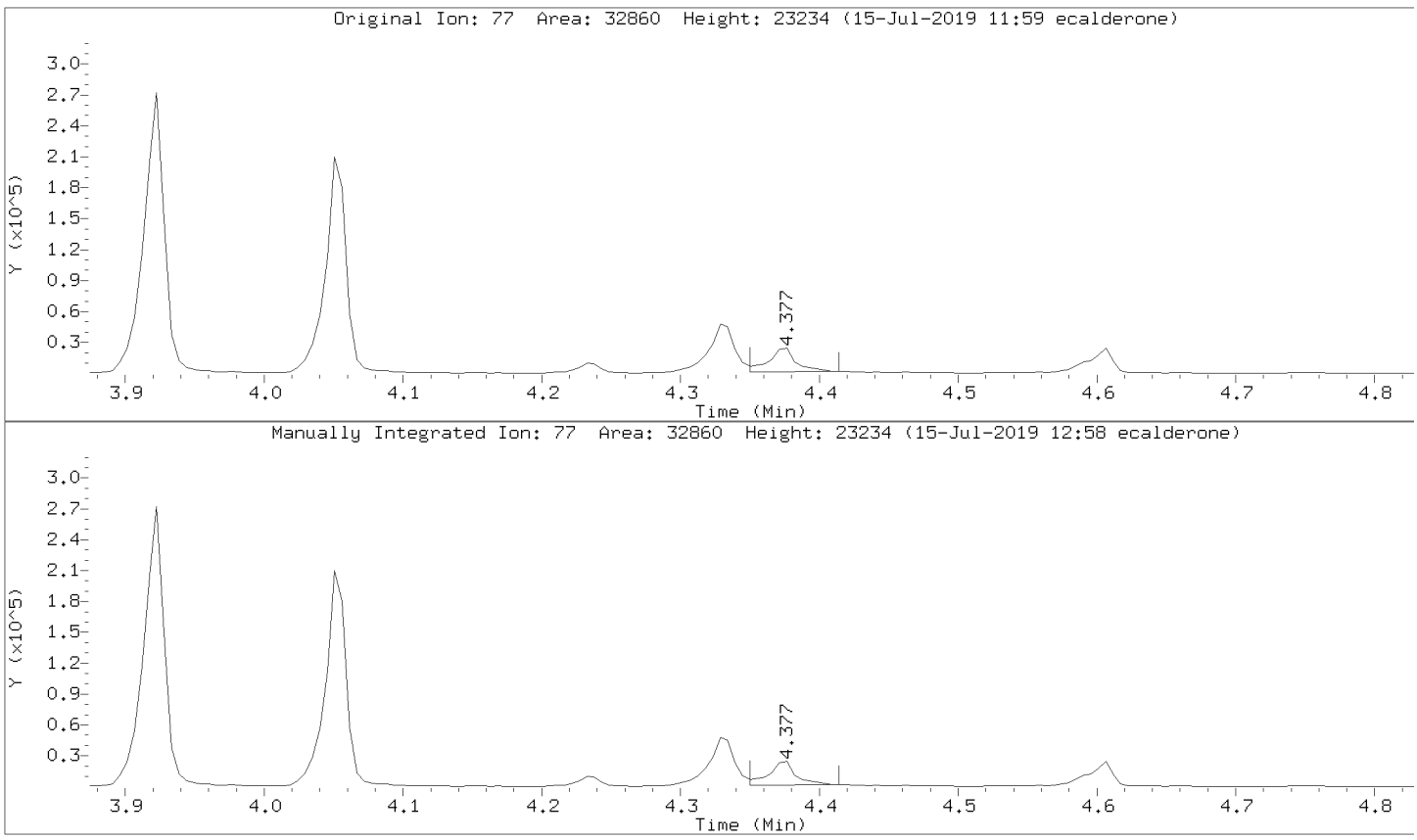
Lab Sample ID: CAL1



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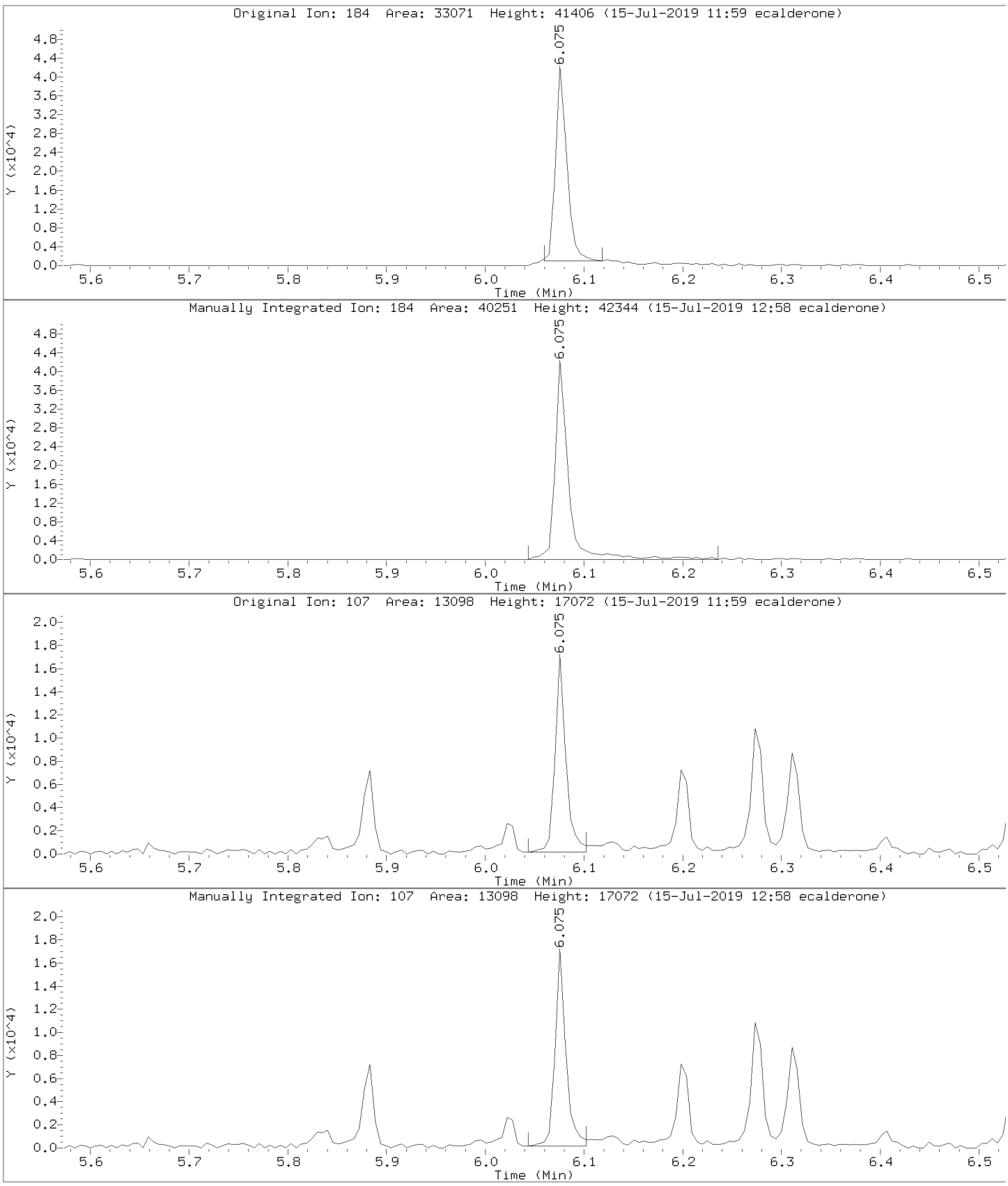
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4-Dinitrophenol Review Code: LT
CAS Number: 51-28-5



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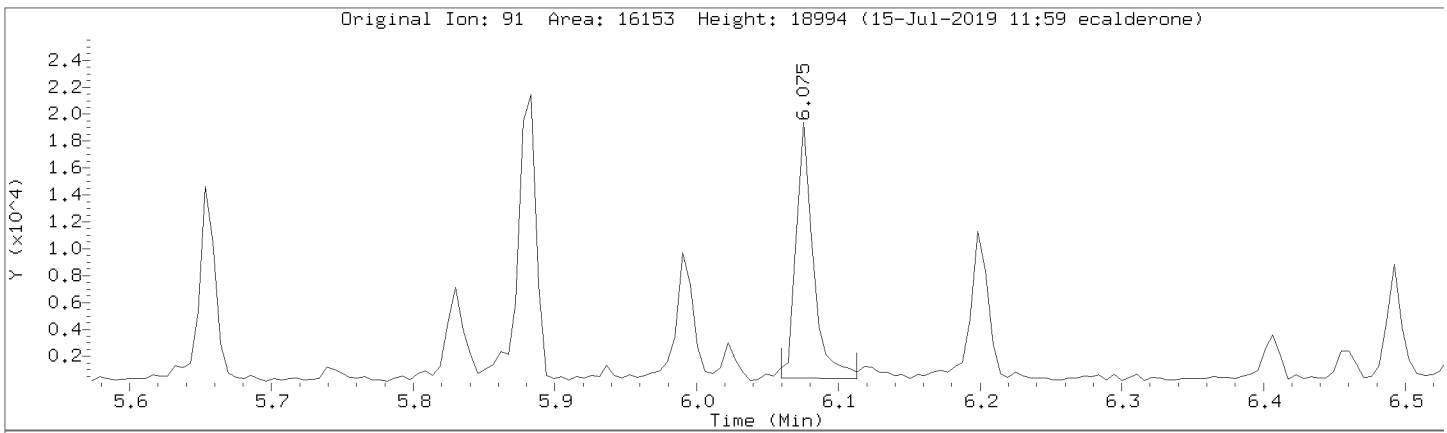

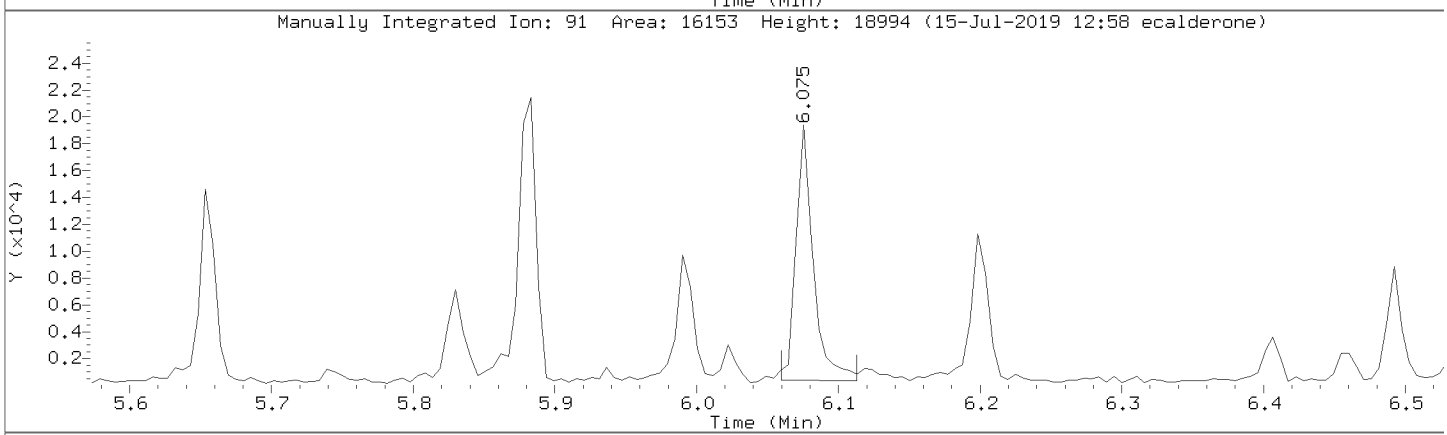

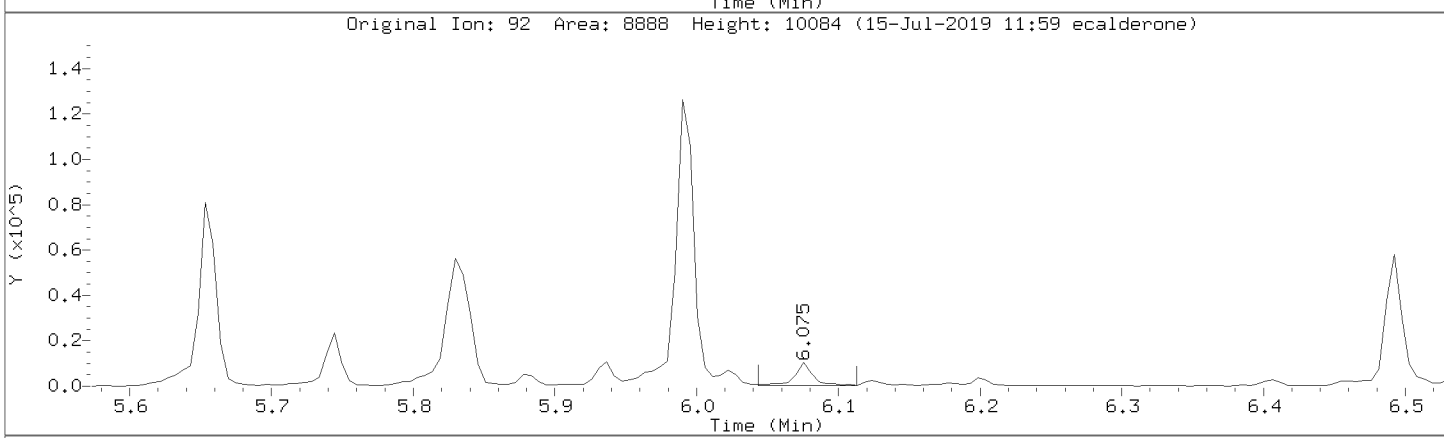

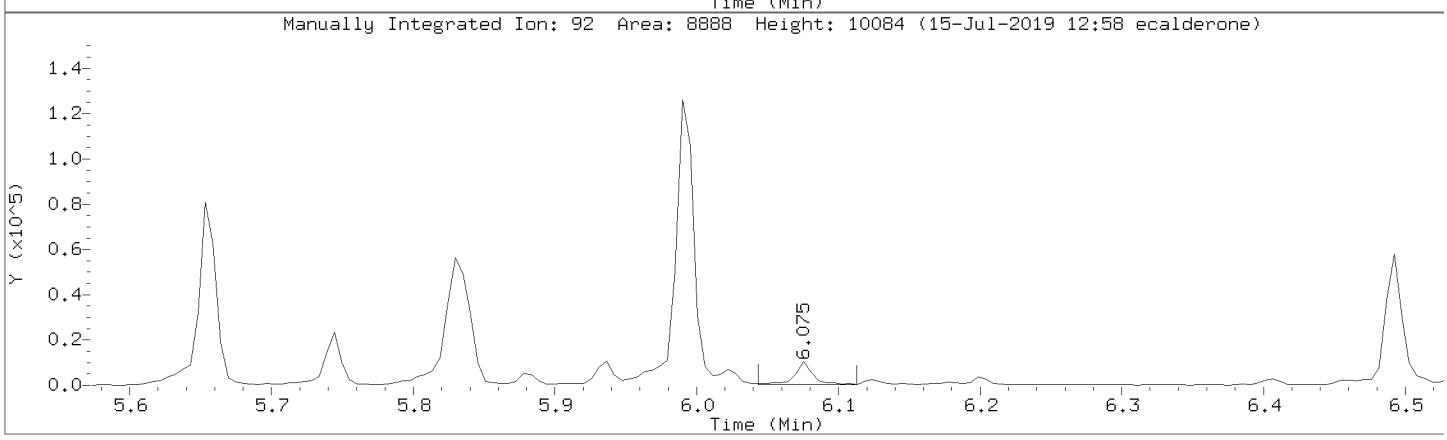

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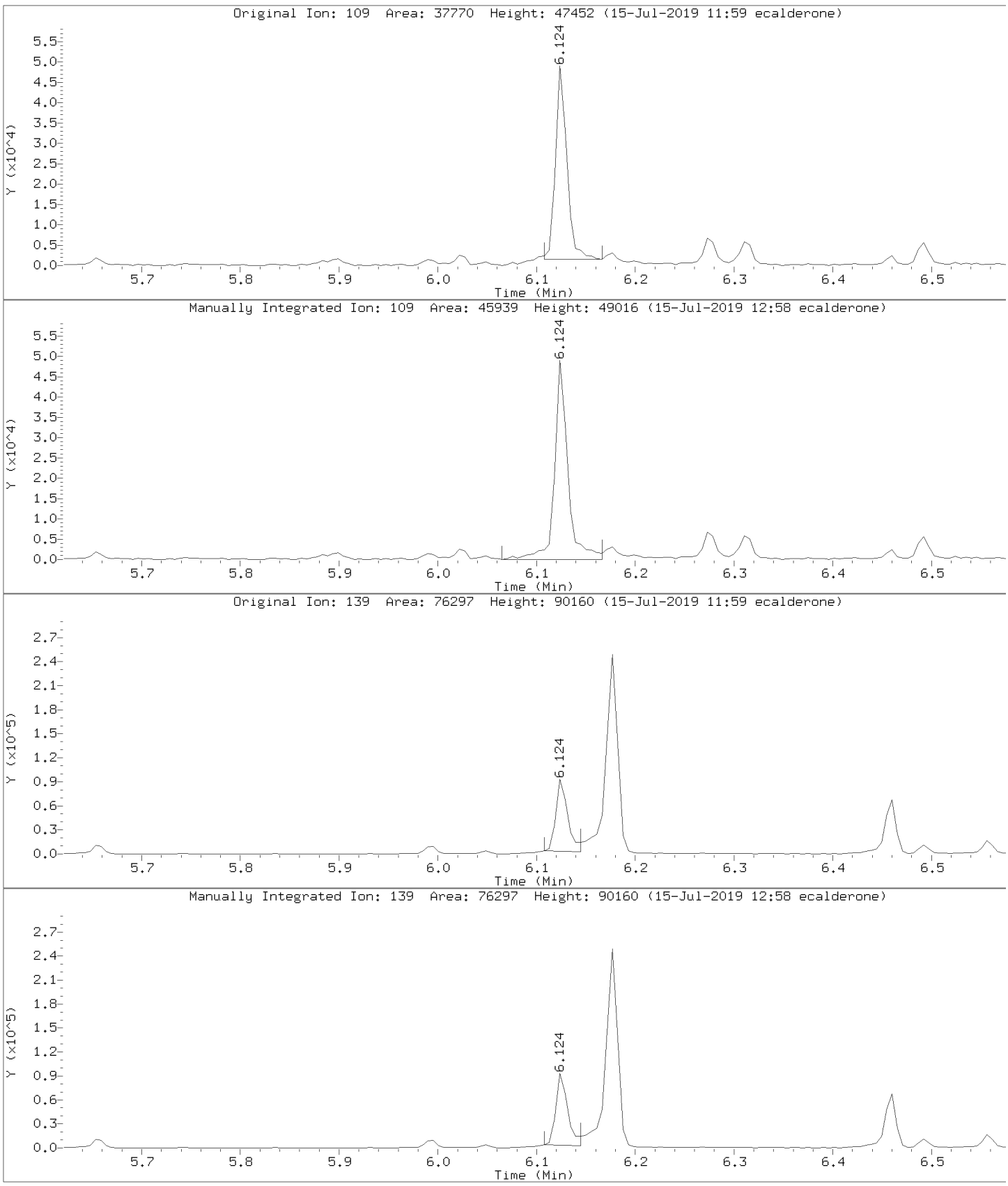
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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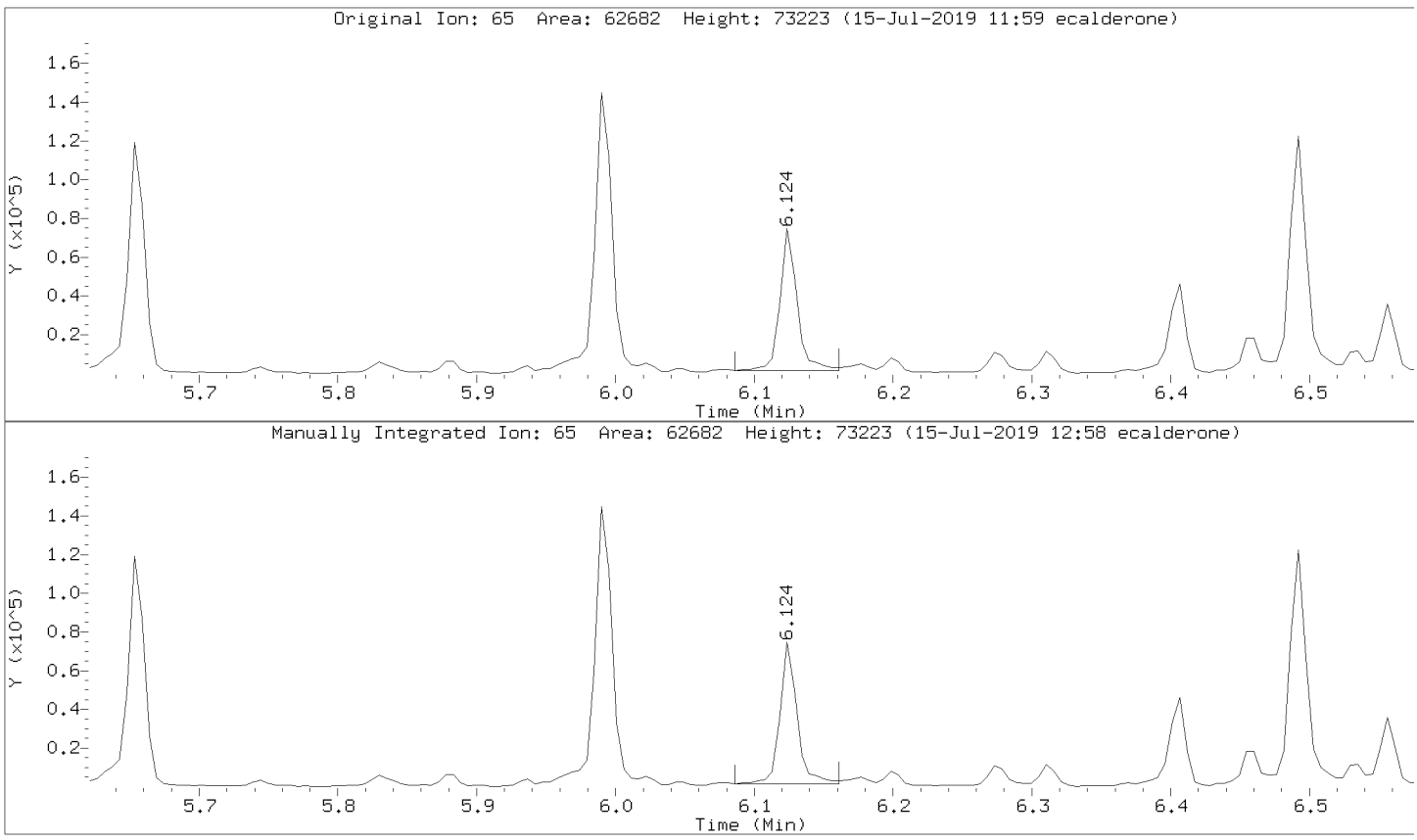
Instrument: 30mss1.i
Lab Sample ID: CAL1



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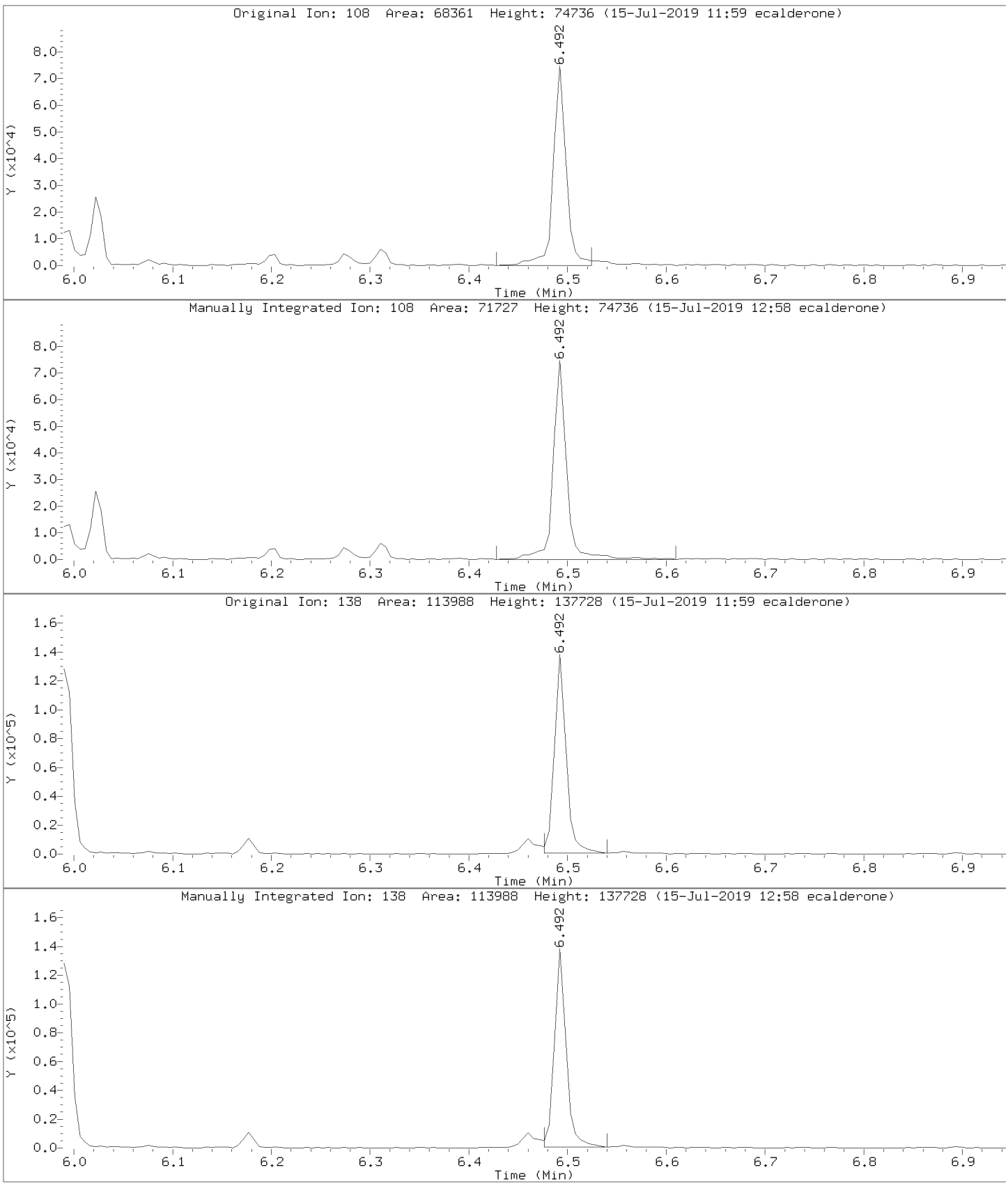
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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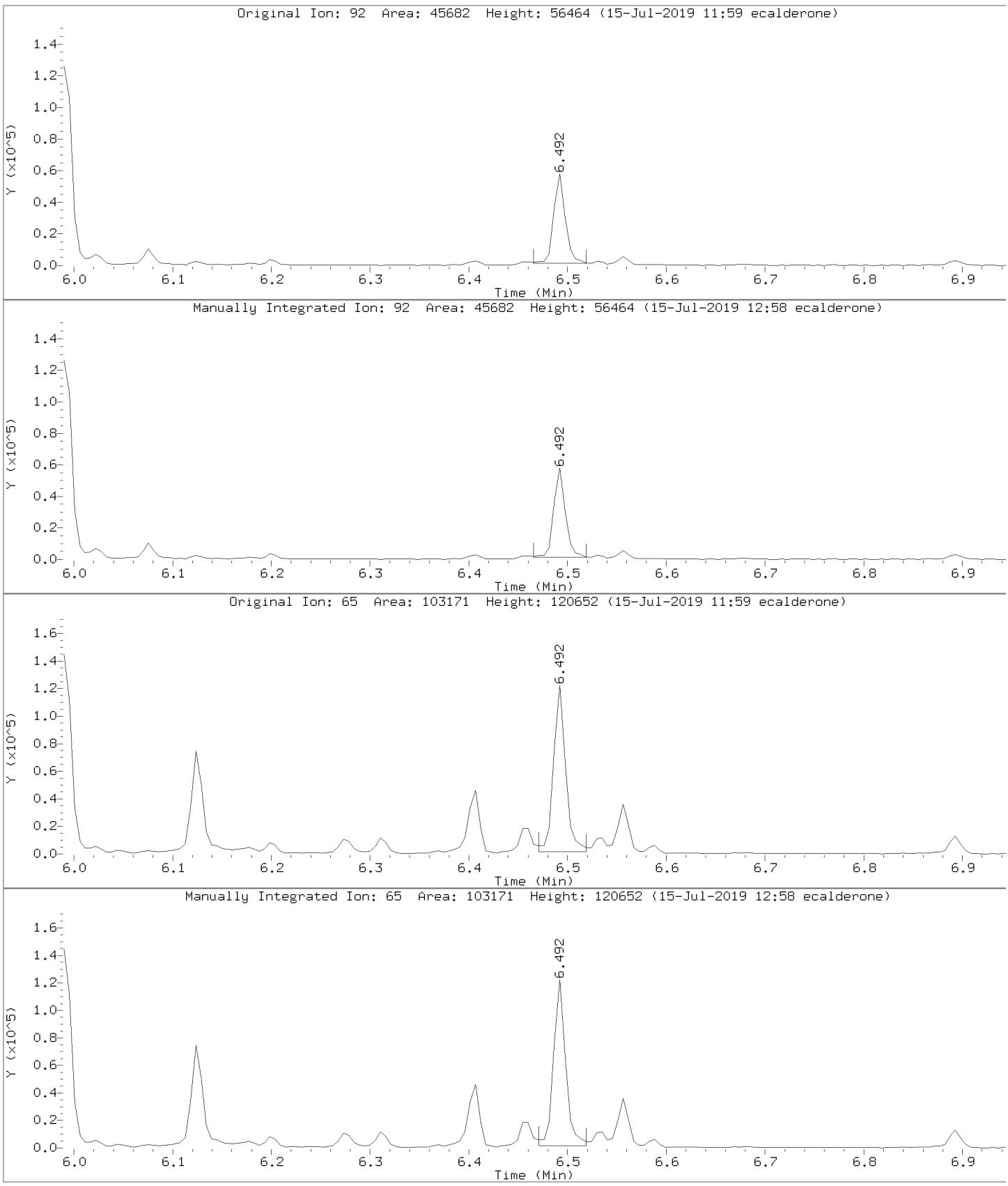
Lab Sample ID: CAL1



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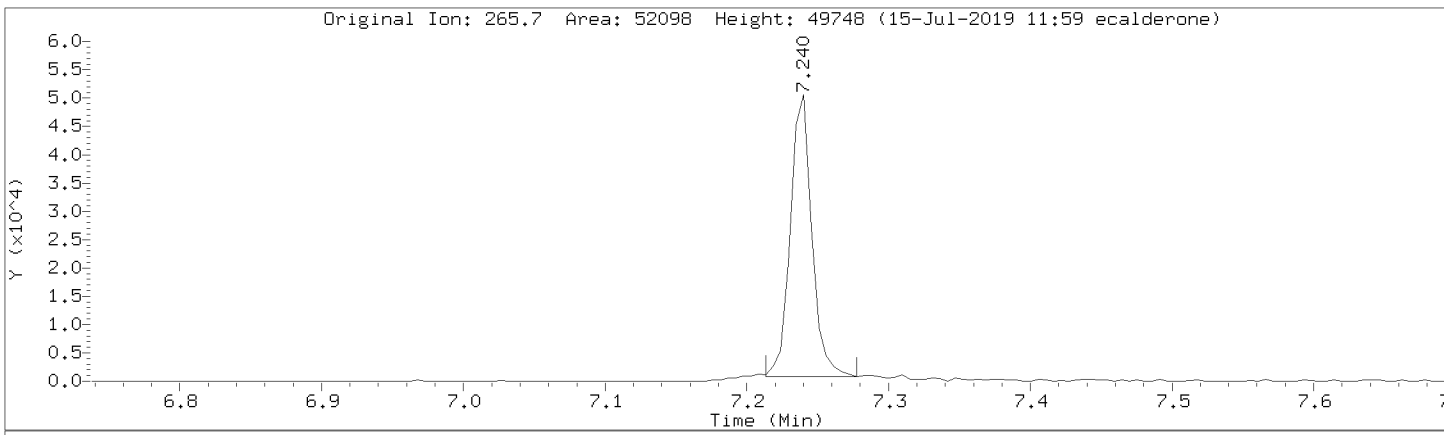
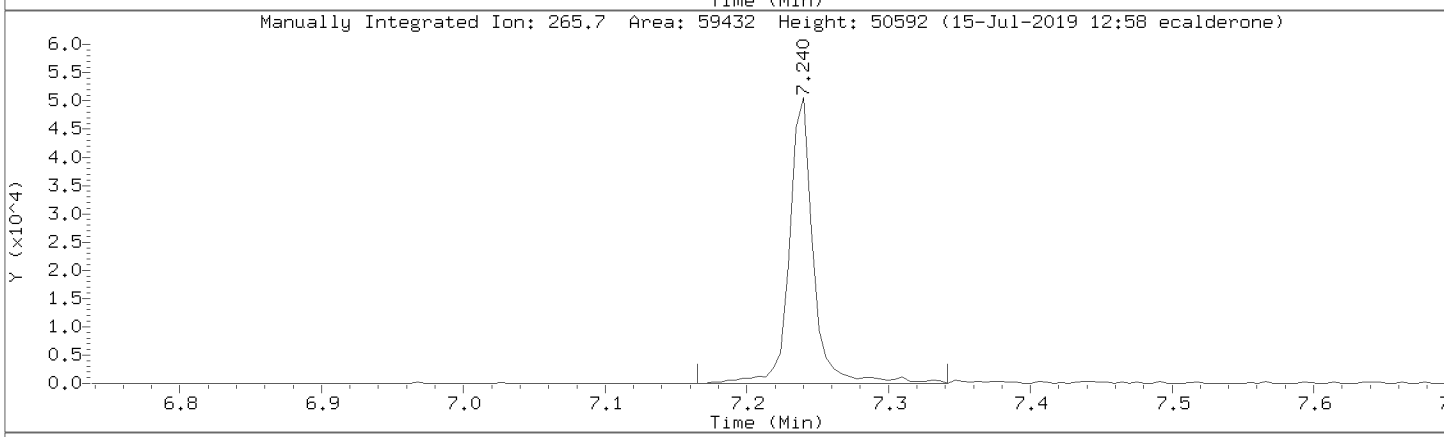
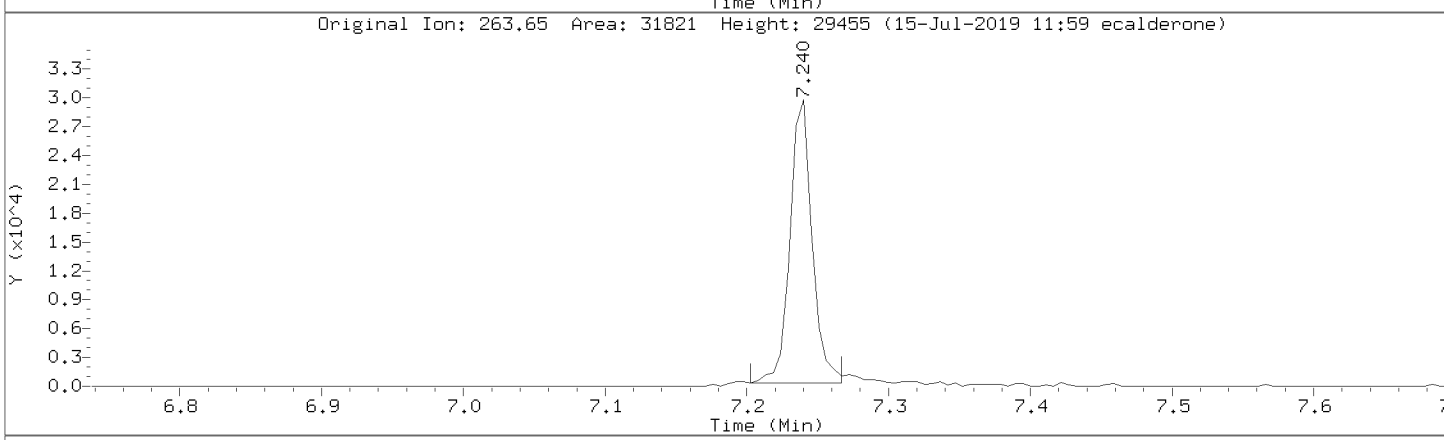
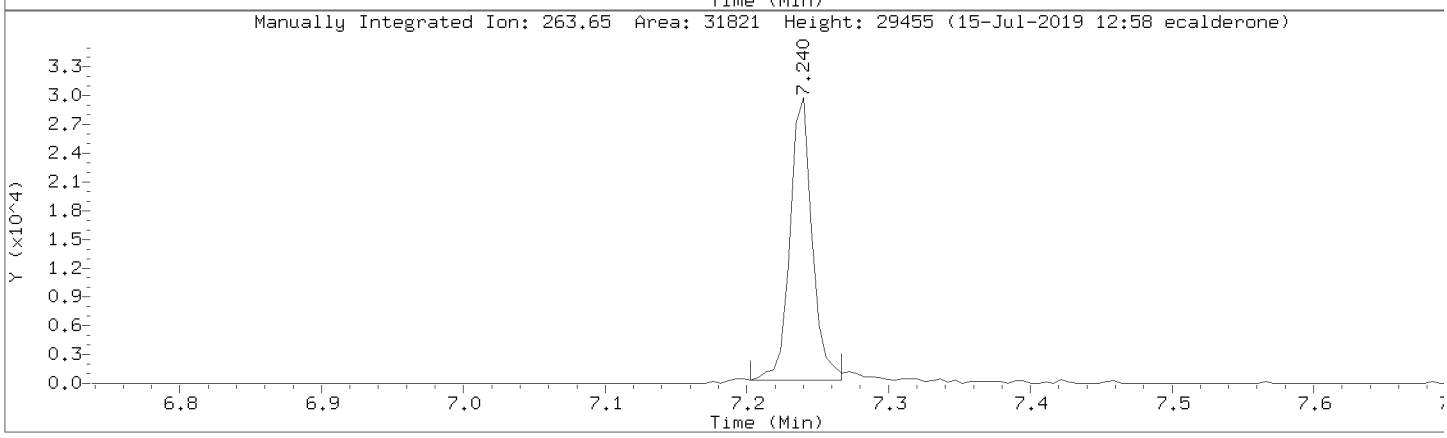
Injection Date: 15-JUL-2019 11:36
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5









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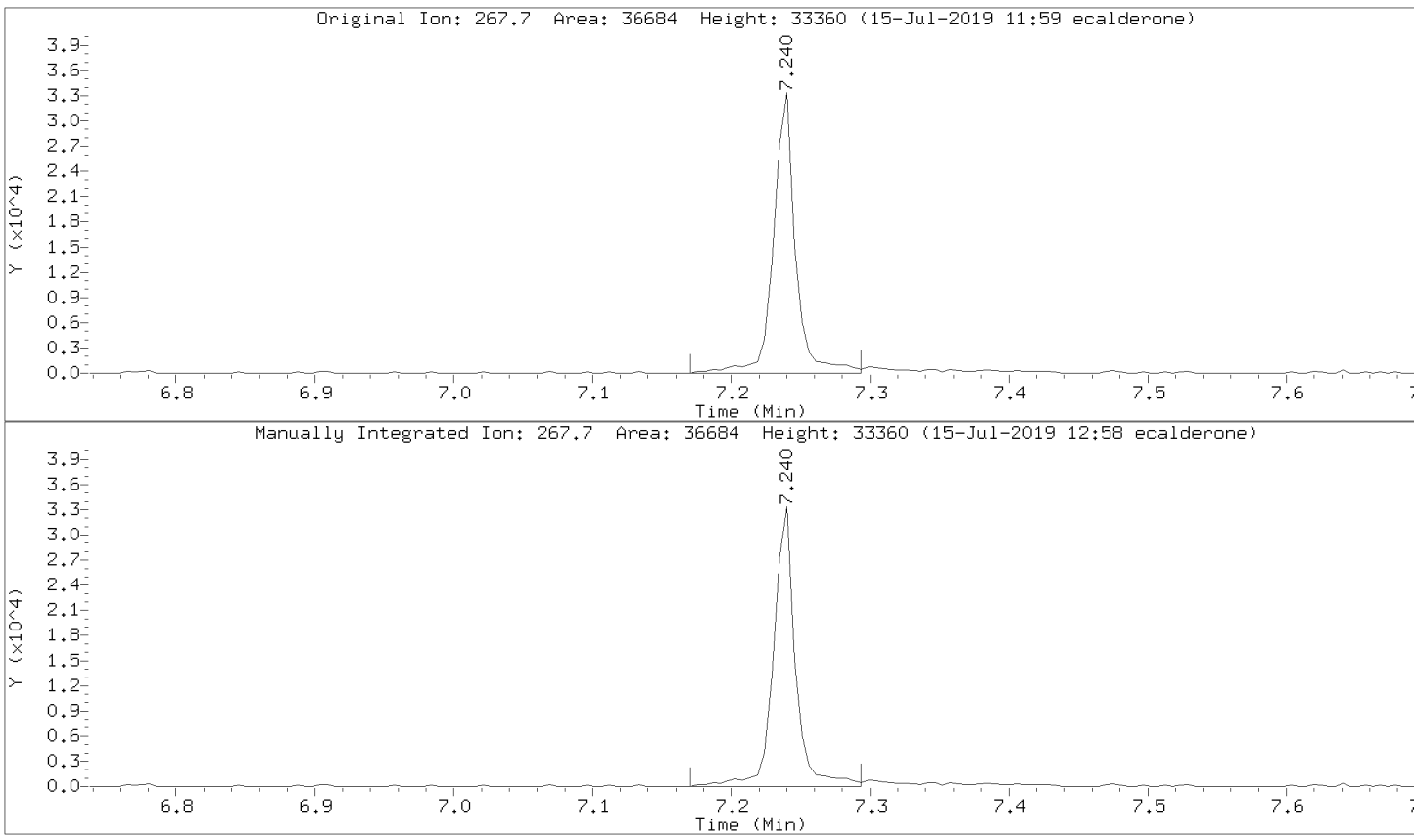
Instrument: 30mss1.i
Lab Sample ID: CAL1



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 18-JUL-2019 16:11
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14848,93073:1
Comment :
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Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 16:11 Cal File: m10718y1.d
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.303	1.286	(0.389)	1420962	20.0000	15.2	
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.462	2.456	(0.734)	2571143	20.0000	18.2	
$	4 Phenol-d6 (S)	99	3.141	3.118	(0.936)	3360448	20.0000	19.3	
	5 Benzaldehyde	77	3.050	3.028	(0.909)	2220999	20.0000	18.4	
	6 Phenol	94	3.151	3.129	(0.939)	3749447	20.0000	18.6	
	7 Aniline	66	3.151	3.129	(0.939)	2926313	20.0000	19.0	
	8 bis(2-Chloroethyl)ether	63	3.199	3.177	(0.954)	1994253	20.0000	18.3	
	9 2-Chlorophenol	128	3.226	3.209	(0.962)	3112982	20.0000	20.1(A)	
	10 1,3-Dichlorobenzene	146	3.327	3.311	(0.992)	3069866	20.0000	18.0	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.354	3.343	(1.000)	451289	4.00000		
	12 1,4-Dichlorobenzene	146	3.365	3.354	(1.003)	3976921	20.0000	22.0(AM)	LT
	13 Benzyl Alcohol	79	3.488	3.466	(1.040)	2471847	20.0000	19.7	
	14 1,2-Dichlorobenzene	146	3.504	3.492	(1.045)	3308696	20.0000	20.5(AM)	LT
	15 2-Methylphenol(o-Cresol)	108	3.584	3.567	(1.068)	2870763	20.0000	19.9	
	16 bis(2-Chloroisopropyl)ether	45	3.605	3.589	(1.075)	4589740	20.0000	19.3	
	17 3&4-Methylphenol(m&p Cresol)	108	3.707	3.679	(1.105)	2842202	20.0000	19.0	
	18 N-Nitroso-di-n-propylamine	70	3.723	3.695	(1.110)	2137473	20.0000	19.4	
	19 Acetophenone	105	3.691	3.669	(1.100)	3732196	20.0000	18.7	
	20 Hexachloroethane	117	3.739	3.728	(1.115)	1310452	20.0000	20.6(A)	
$	21 Nitrobenzene-d5 (S)	128	3.803	3.781	(0.877)	1496140	20.0000	19.9	
	22 Nitrobenzene	77	3.814	3.797	(0.879)	2843876	20.0000	18.6	
	23 Isophorone	82	4.001	3.979	(0.922)	5345012	20.0000	18.7	
	24 2,4-Dimethylphenol	107	4.102	4.085	(0.946)	2851651	20.0000	19.0	
	25 2-Nitrophenol	139	4.059	4.043	(0.936)	1702297	20.0000	20.2(A)	
	26 Benzoic acid	105	4.236	4.155	(0.977)	2112815	20.0000	0.268(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.172	4.160	(0.962)	3246034	20.0000	18.7	
	28 2,4-Dichlorophenol	162	4.241	4.230	(0.978)	2417231	20.0000	19.3	
	29 1,2,4-Trichlorobenzene	180	4.305	4.294	(0.993)	2684158	20.0000	20.2(A)	
*	30 Naphthalene-d8 (IS)	136	4.337	4.326	(1.000)	1828861	4.00000		
	31 Naphthalene	128	4.353	4.342	(1.004)	7171153	20.0000	16.9	
	32 4-Chloroaniline	65	4.412	4.401	(1.017)	904111	20.0000	18.4	
	33 Hexachloro-1,3-butadiene	225	4.503	4.491	(1.038)	1460636	20.0000	20.6(A)	
	34 Caprolactam	55	4.706	4.641	(1.085)	1102744	20.0000	16.2(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	4.813	4.796	(1.110)	2458257	20.0000	19.2	
	36	2-Methylnaphthalene	142	4.903	4.892	(1.131)	5453043	20.0000	17.8	
	37	1-Methylnaphthalene	142	4.989	4.978	(1.150)	5169523	20.0000	18.1	
	38	Hexachlorocyclopentadiene	237	5.085	5.079	(0.884)	1742438	20.0000	19.2	
	39	1,2,4,5-Tetrachlorobenzene	216	5.069	5.058	(0.881)	2369095	20.0000	19.7	
	40	2,4,6-Trichlorophenol	196	5.155	5.143	(0.896)	1745719	20.0000	18.0	
	41	2,4,5-Trichlorophenol	196	5.187	5.175	(0.902)	1722800	20.0000	20.9(A)	
$	42	2-Fluorobiphenyl (S)	172	5.219	5.207	(0.907)	5284553	20.0000	17.8	
	43	Biphenyl (Diphenyl)	154	5.288	5.277	(0.919)	5746382	20.0000	16.6	
	44	2-Chloronaphthalene	164	5.293	5.277	(0.920)	1753685	20.0000	19.4	
	45	2-Nitroaniline	138	5.400	5.389	(0.939)	1927469	20.0000	18.8	
	46	Dimethylphthalate	163	5.587	5.571	(0.971)	5094091	20.0000	17.5	
	47	2,6-Dinitrotoluene	165	5.635	5.619	(0.980)	1446594	20.0000	20.2(A)	
	48	Acenaphthylene	152	5.630	5.619	(0.979)	7072356	20.0000	16.8	
	49	3-Nitroaniline	65	5.742	5.720	(0.998)	1584497	20.0000	18.7	
*	50	Acenaphthene-d10 (IS)	164	5.753	5.747	(1.000)	974151	4.00000		
	51	2,4-Dinitrophenol	184	5.822	5.806	(1.012)	872578	20.0000	19.9	
	52	Acenaphthene	153	5.785	5.768	(1.006)	4887883	20.0000	18.1	
	53	4-Nitrophenol	109	5.897	5.870	(1.025)	736544	20.0000	18.6	
	54	2,4-Dinitrotoluene	165	5.950	5.928	(1.034)	1831339	20.0000	19.0	
	55	Dibenzofuran	168	5.913	5.902	(1.028)	6167008	20.0000	16.8	
	56	2,3,4,6-Tetrachlorophenol	232	6.052	6.041	(1.052)	1459833	20.0000	20.9(A)	
	57	Diethylphthalate	149	6.159	6.142	(1.071)	5275036	20.0000	18.0	
	58	4-Chlorophenylphenyl ether	204	6.196	6.185	(1.077)	2779639	20.0000	18.9	
	59	Fluorene	166	6.191	6.180	(1.076)	5368003	20.0000	17.6	
	60	4-Nitroaniline	108	6.255	6.222	(1.087)	814706	20.0000	17.6(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.287	6.260	(0.896)	1166045	20.0000	20.8(A)	
	62	N-Nitrosodiphenylamine	169	6.303	6.286	(0.899)	4698623	20.0000	18.4	
	63	Azobenzene	77	6.324	6.313	(0.902)	5009690	20.0000	18.6	
	64	1,2-Diphenylhydrazine	77	6.324	6.313	(0.902)	5009690	20.0000	18.6	
$	65	2,4,6-Tribromophenol (S)	330	6.405	6.393	(0.913)	961288	20.0000	21.1(A)	
	66	4-Bromophenylphenyl ether	248	6.592	6.580	(0.940)	1701744	20.0000	19.8	
	67	Hexachlorobenzene	284	6.714	6.708	(0.957)	1745880	20.0000	20.8(A)	
	68	Atrazine	200	6.800	6.773	(0.970)	1685220	20.0000	20.1(A)	
	69	Pentachlorophenol	266	6.896	6.874	(0.983)	1116289	20.0000	21.2(A)	
*	70	Phenanthrene-d10 (IS)	188	7.014	6.997	(1.000)	1585141	4.00000		
	71	Phenanthrene	178	7.040	7.024	(1.004)	7686689	20.0000	17.2	
	72	Anthracene	178	7.088	7.072	(1.011)	7653865	20.0000	18.6	
	73	Carbazole	167	7.275	7.253	(1.037)	6619119	20.0000	17.2	
	74	Di-n-butylphthalate	149	7.745	7.734	(1.104)	8398558	20.0000	18.1	
	75	Fluoranthene	202	8.317	8.300	(1.186)	7819103	20.0000	18.4	
	76	Pyrene	202	8.552	8.530	(0.872)	7971537	20.0000	17.0	
$	77	Terphenyl-d14 (S)	244	8.755	8.738	(0.892)	6464635	20.0000	18.5	
	78	Butylbenzylphthalate	149	9.316	9.305	(0.949)	4141208	20.0000	19.2	
	79	3,3'-Dichlorobenzidine	252	9.808	9.785	(0.999)	3319076	20.0000	19.6	
	80	bis(2-Ethylhexyl)phthalate	149	9.946	9.935	(1.014)	5622392	20.0000	18.3	
	81	Benzo(a)anthracene	228	9.797	9.780	(0.998)	7872580	20.0000	17.7	
*	82	Chrysene-d12 (IS)	240	9.813	9.796	(1.000)	1542208	4.00000		
	83	Chrysene	228	9.840	9.818	(1.003)	7410919	20.0000	18.2	
	84	Di-n-octylphthalate	149	10.529	10.517	(0.945)	8528220	20.0000	16.7	
	85	Benzo(b)fluoranthene	252	10.828	10.806	(0.972)	8091301	20.0000	18.9	
	86	Benzo(k)fluoranthene	252	10.849	10.822	(0.974)	8875221	20.0000	18.9(M)	LT
	87	Benzo(a)pyrene	252	11.106	11.078	(0.997)	7815627	20.0000	18.4	
*	88	Perylene-d12 (IS)	264	11.143	11.132	(1.000)	1592843	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.987	11.960	(1.076)	9266776	20.0000	19.3	
90 Dibenz(a,h)anthracene	278	11.998	11.970	(1.077)	7499353	20.0000	18.3	
91 Benzo(g,h,i)perylene	276	12.174	12.141	(1.093)	7359459	20.0000	18.2	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y1.d
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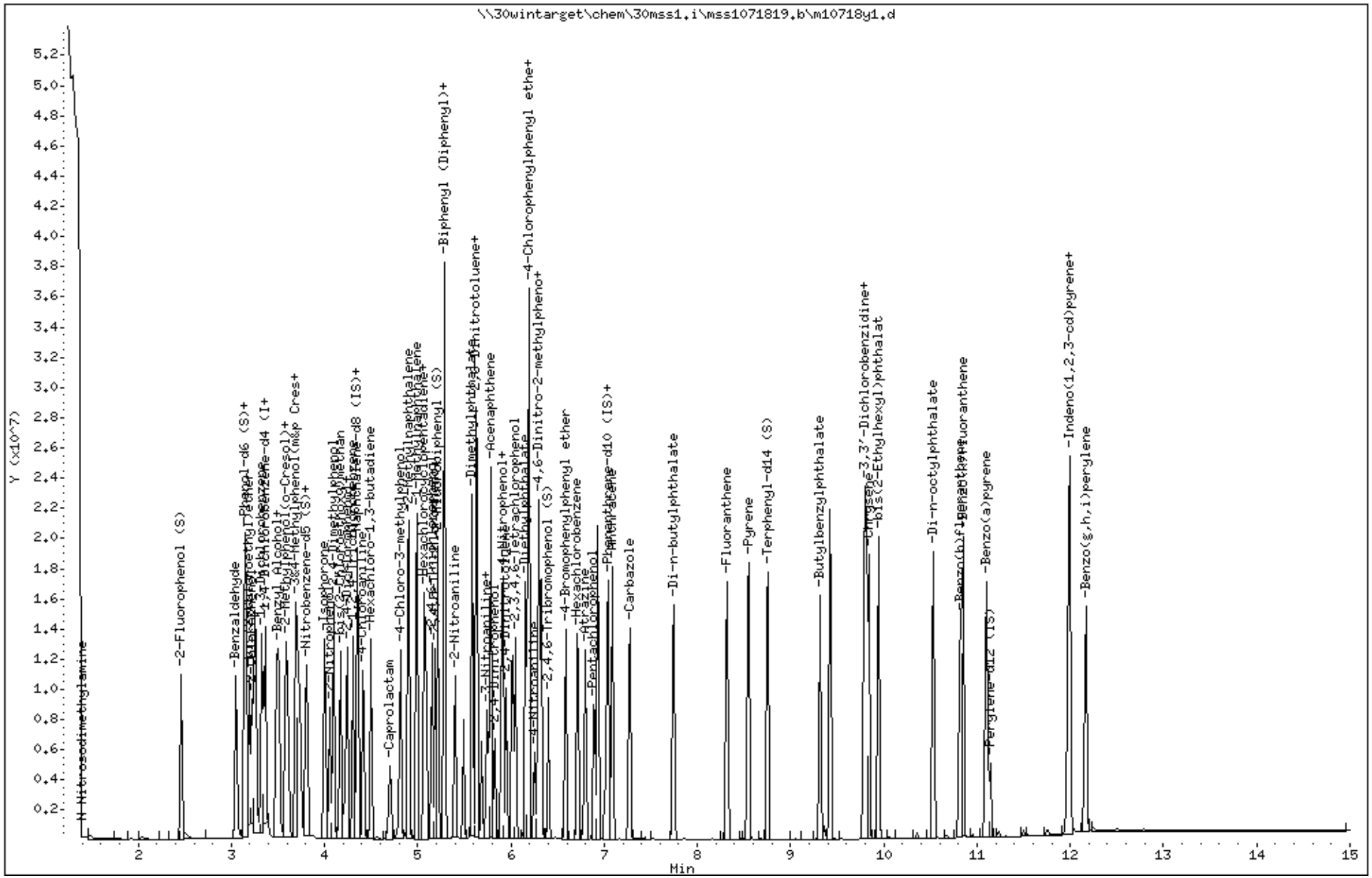
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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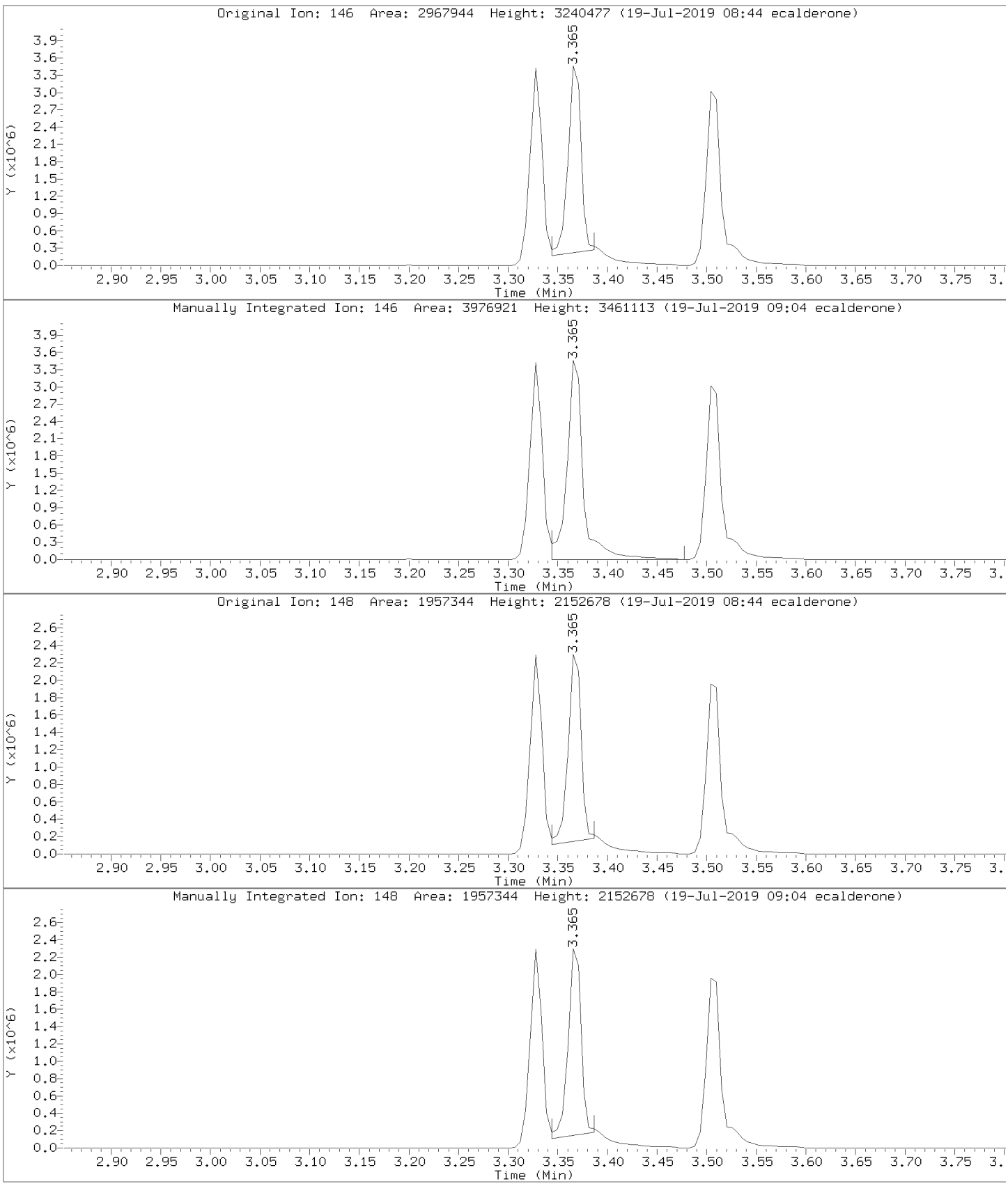
Injection Date: 18-JUL-2019 16:11
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7



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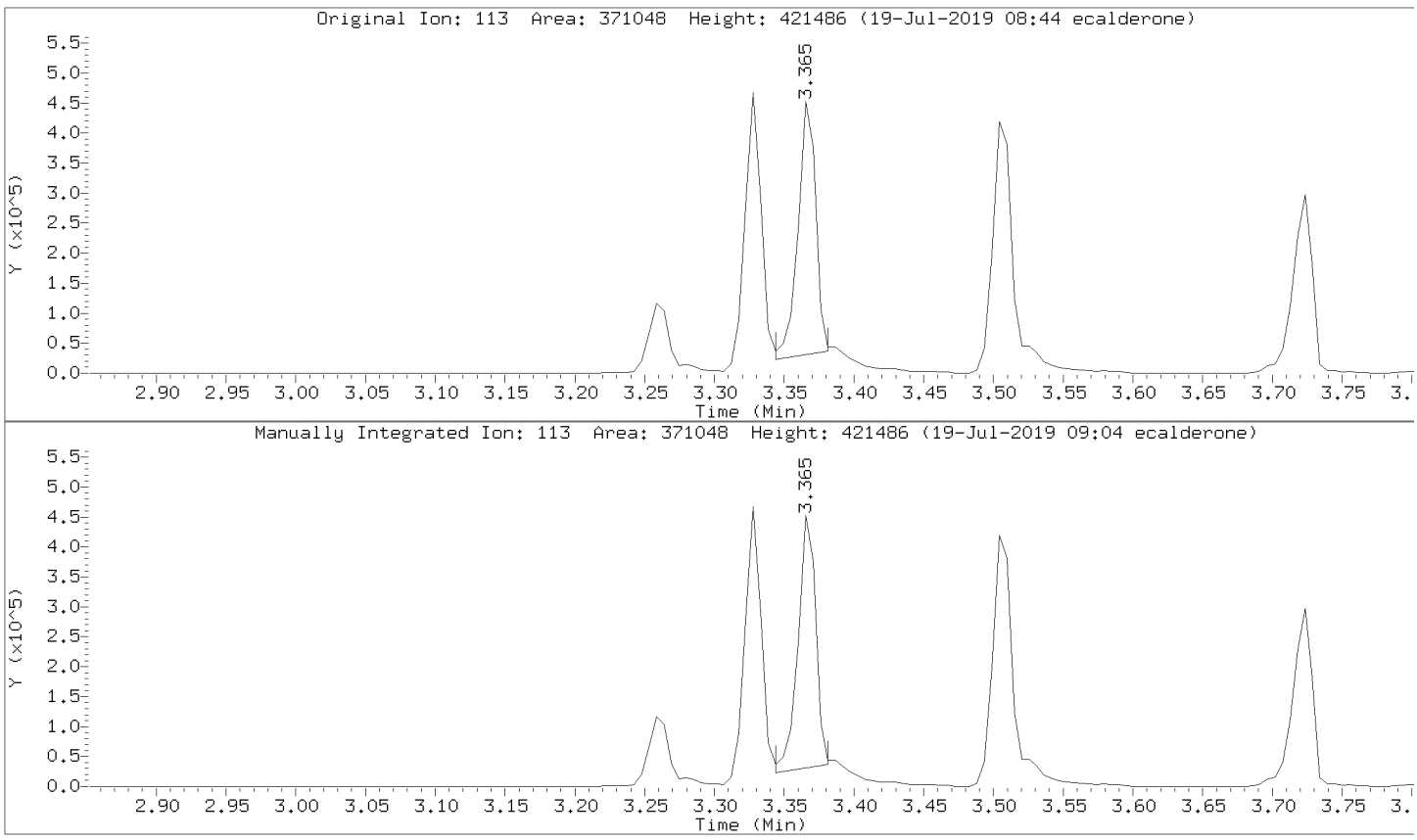

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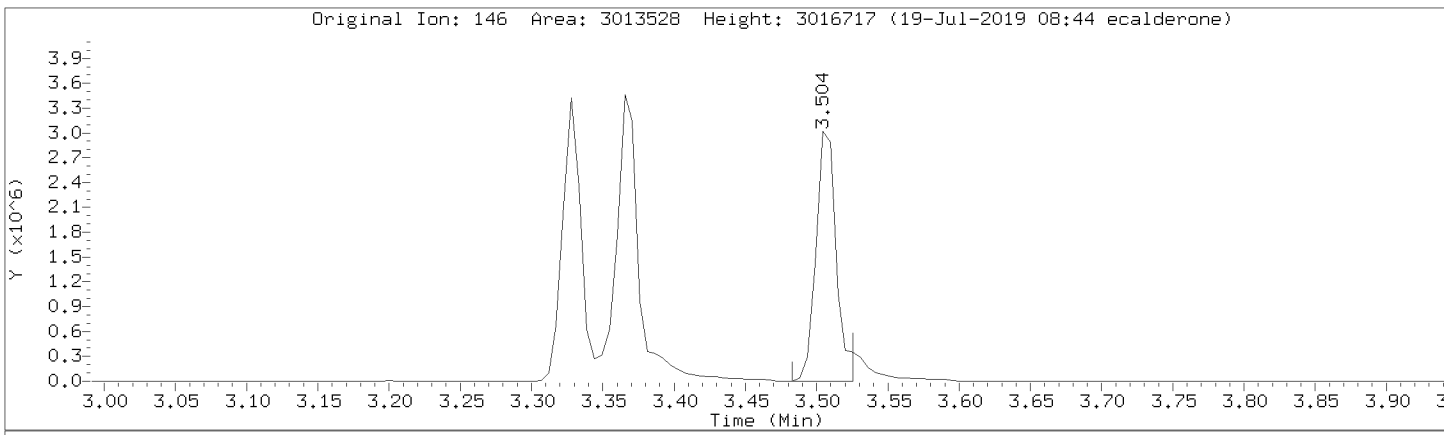
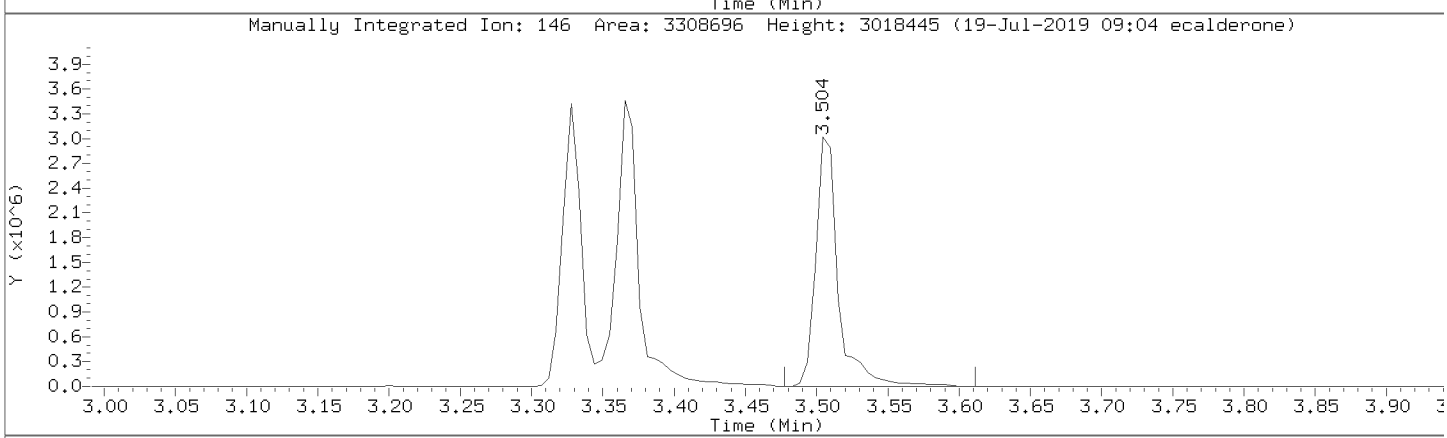
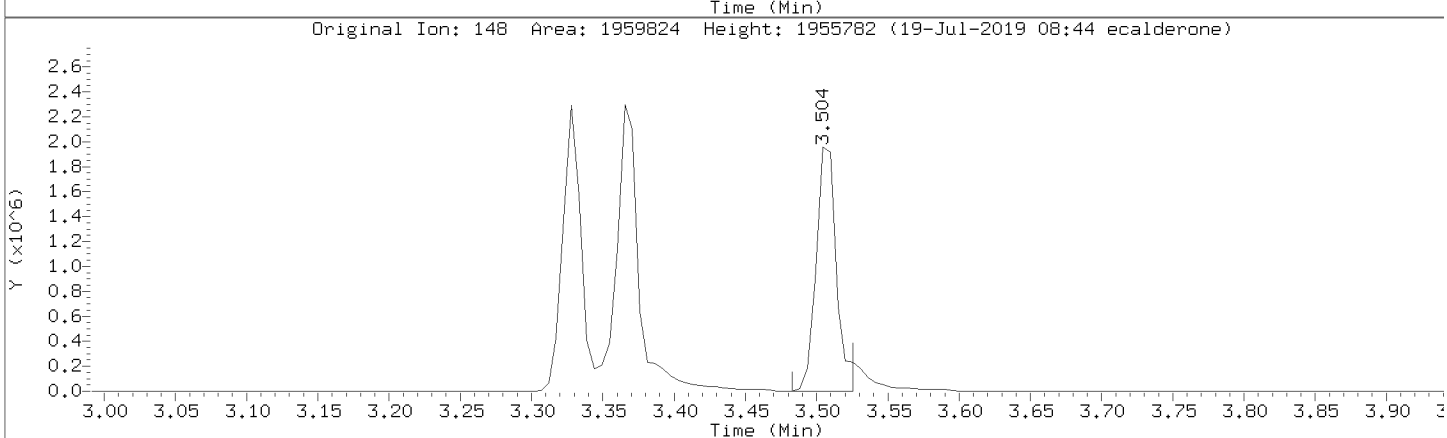
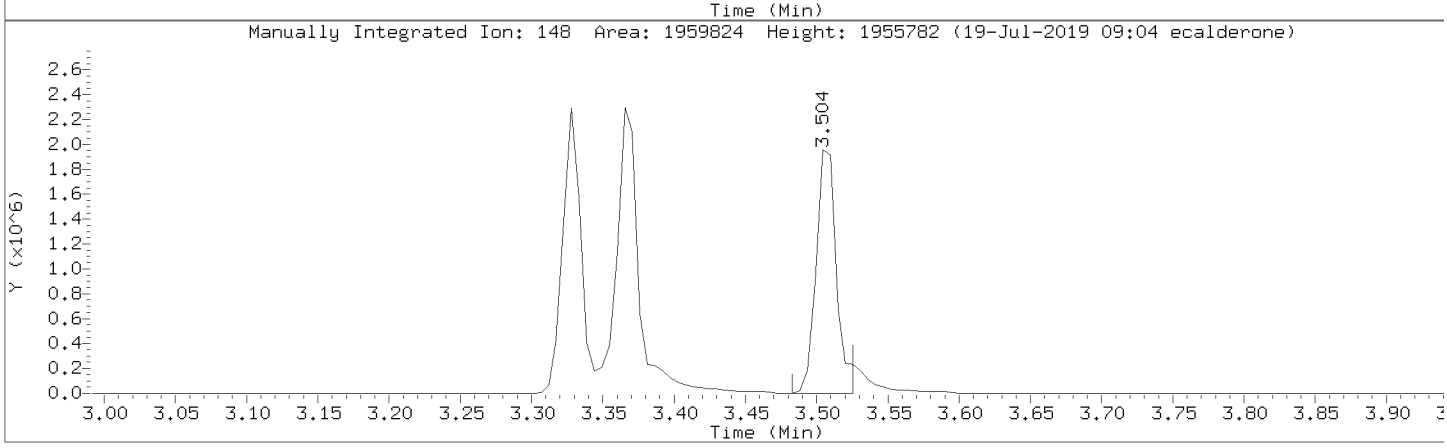
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 1,2-Dichlorobenzene Review Code: LT
CAS Number: 95-50-1









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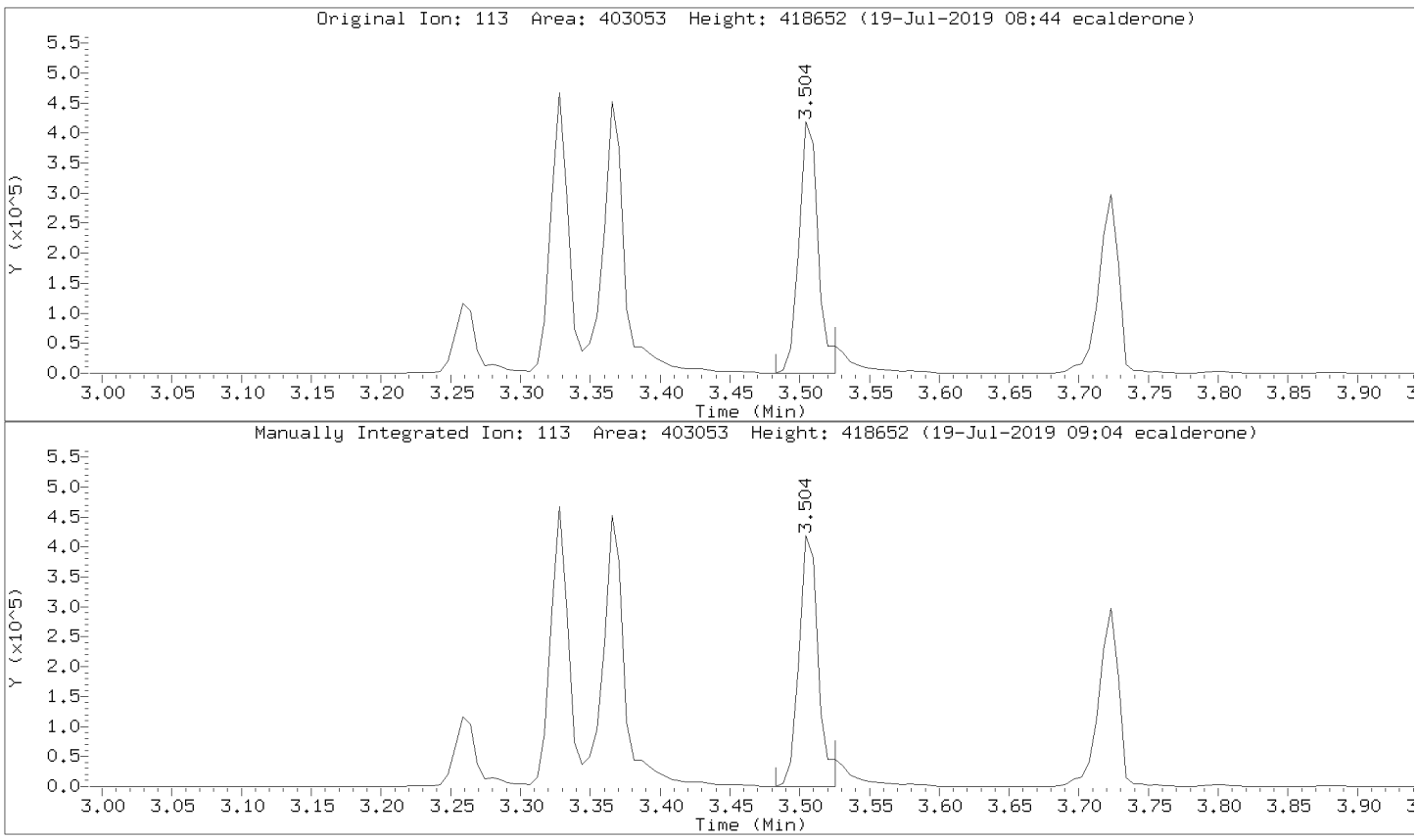
Lab Sample ID: CAL7



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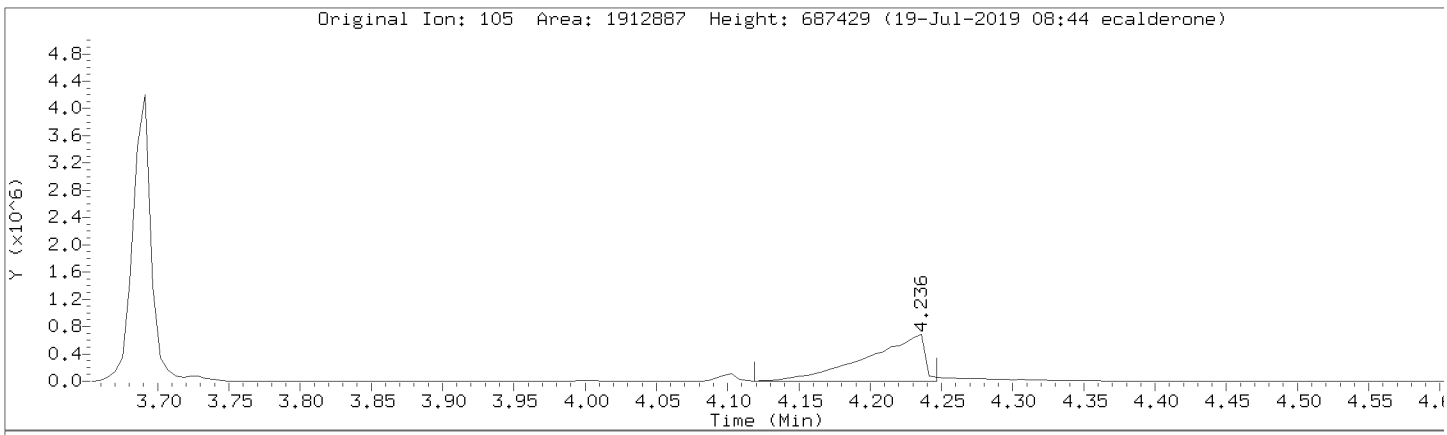
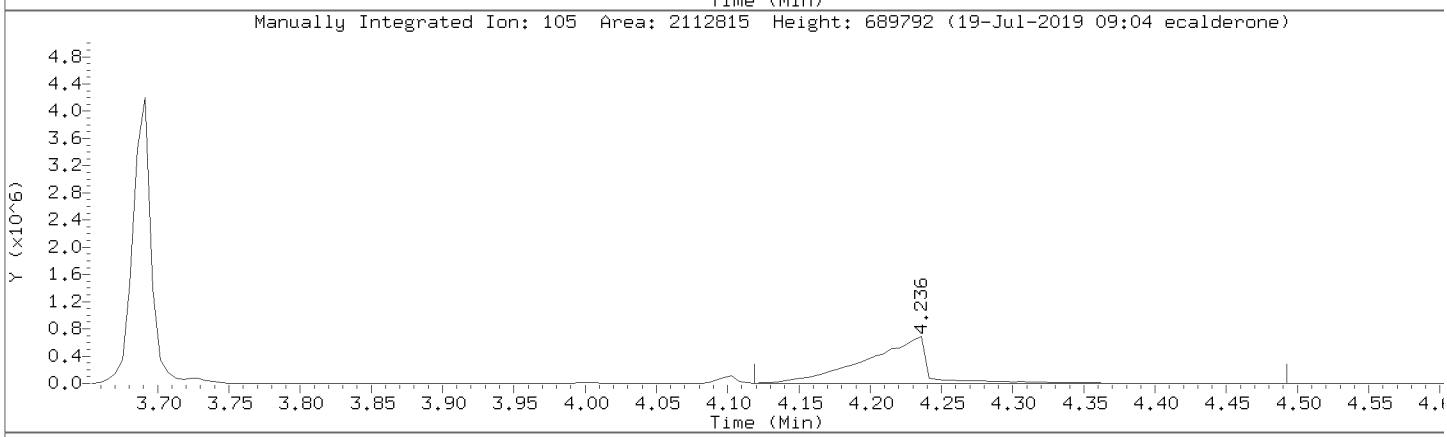
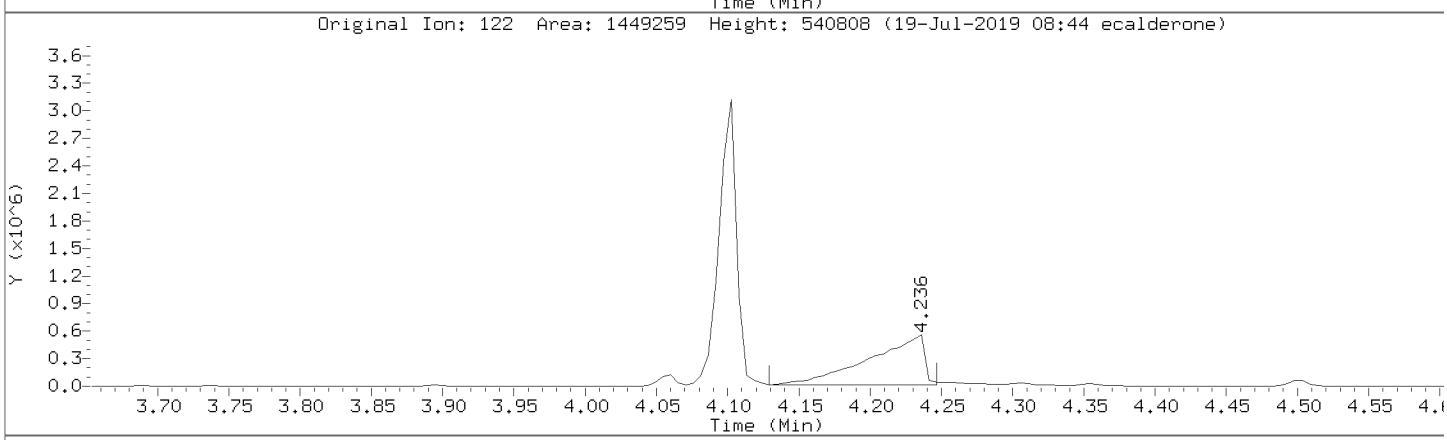
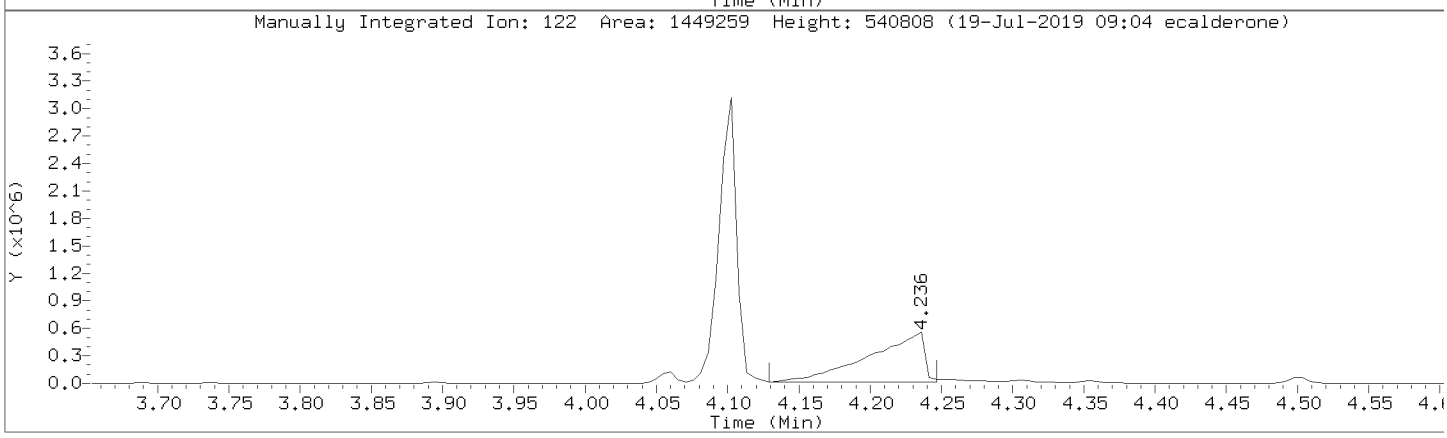
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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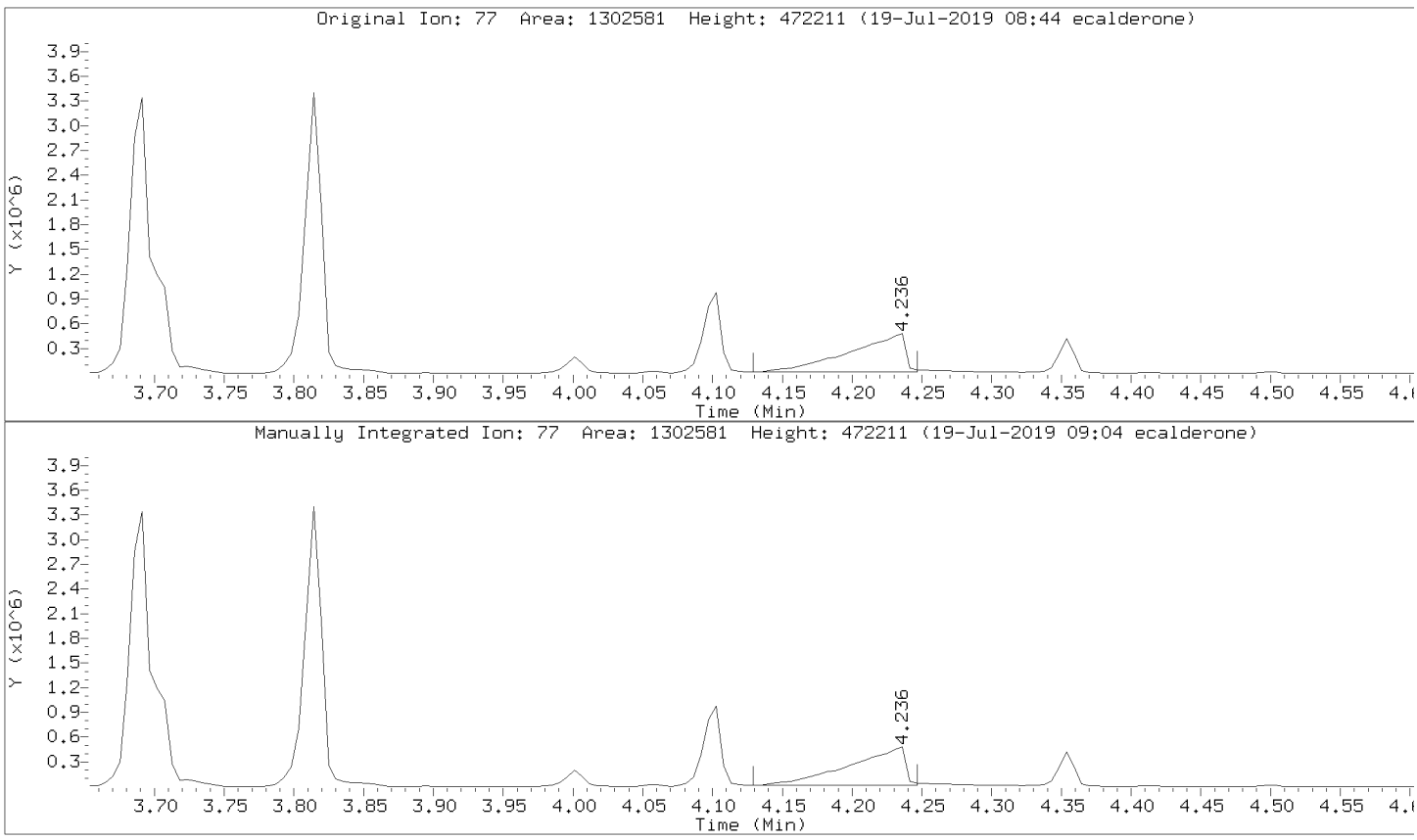
Lab Sample ID: CAL7



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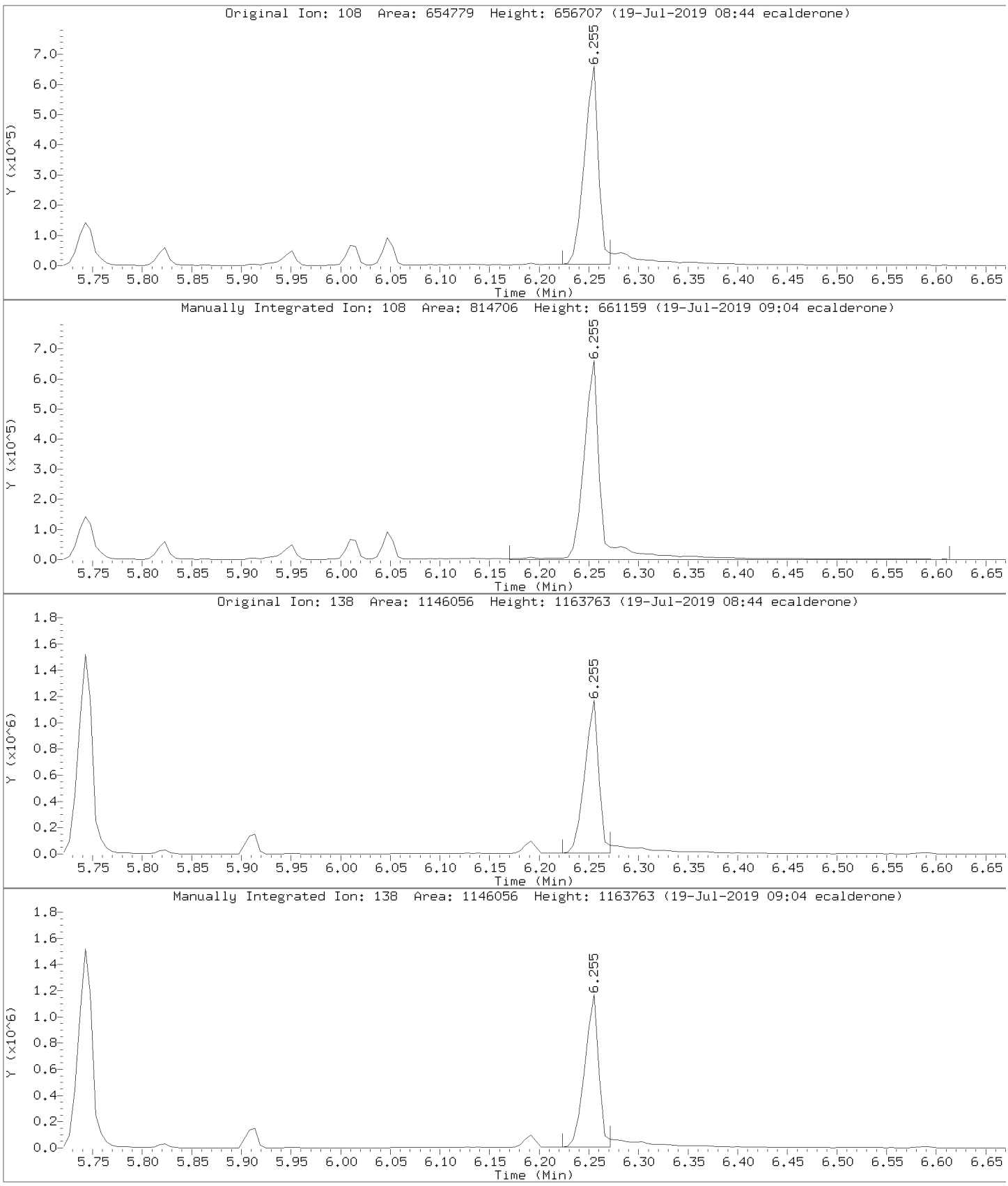
Injection Date: 18-JUL-2019 16:11
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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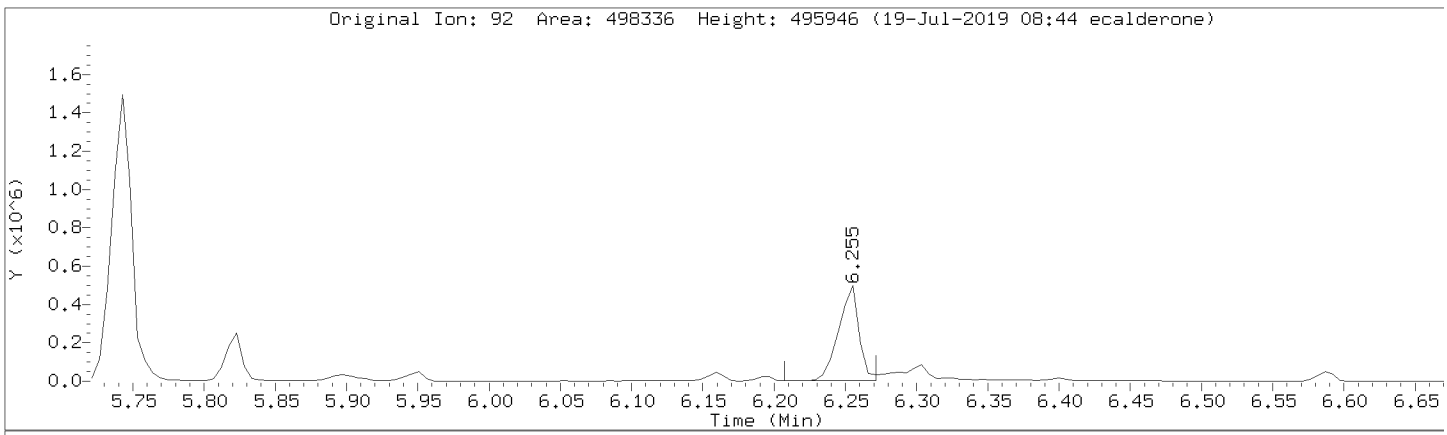
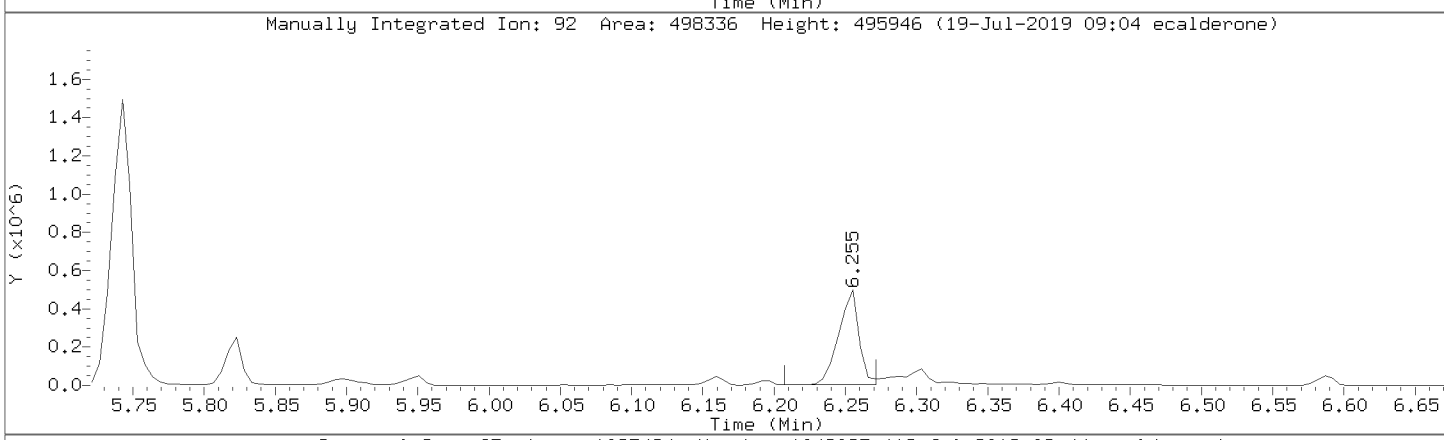
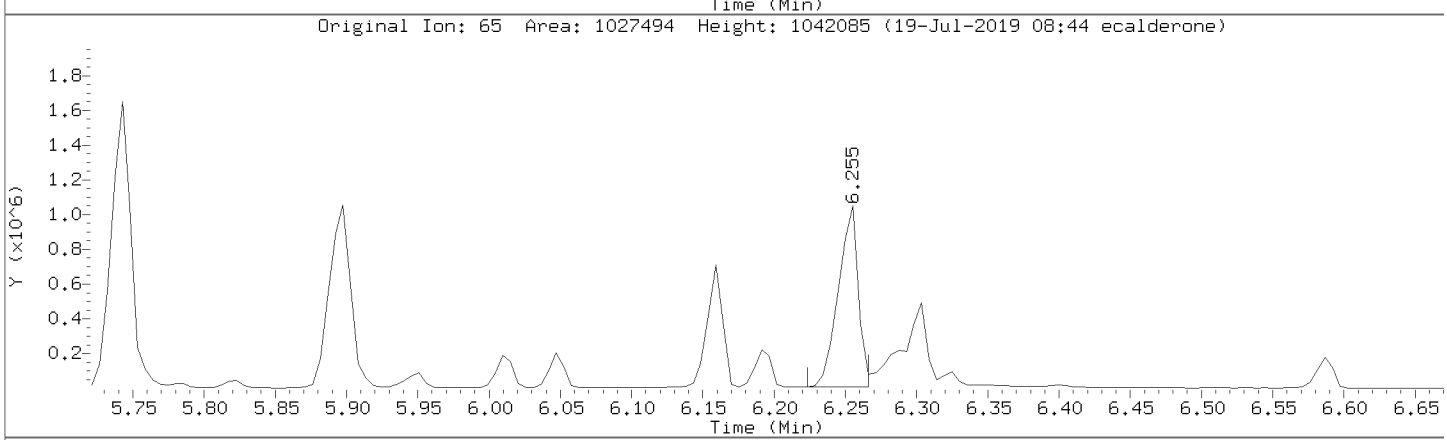
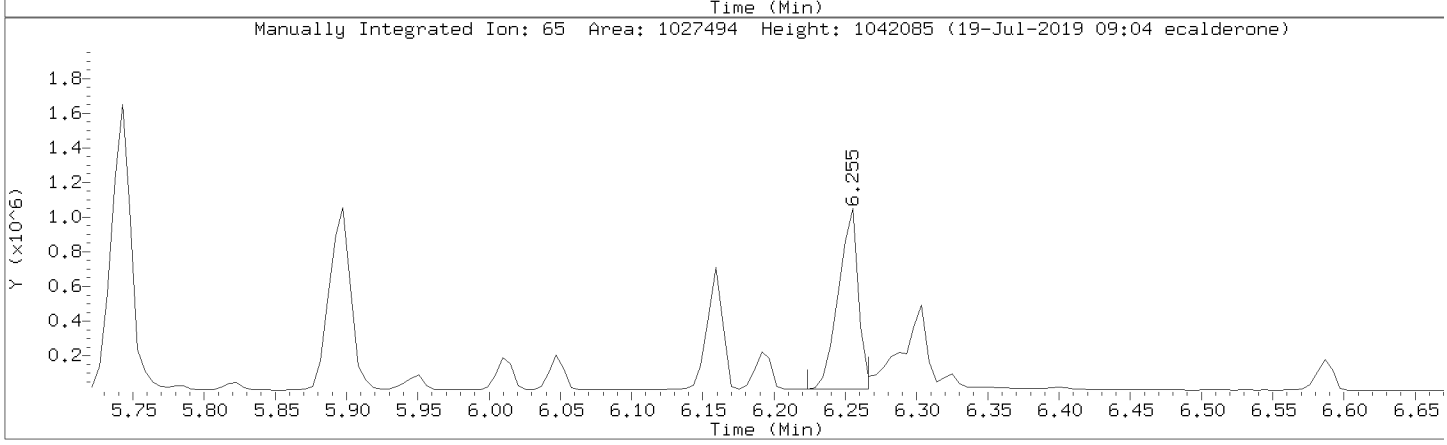
Lab Sample ID: CAL7









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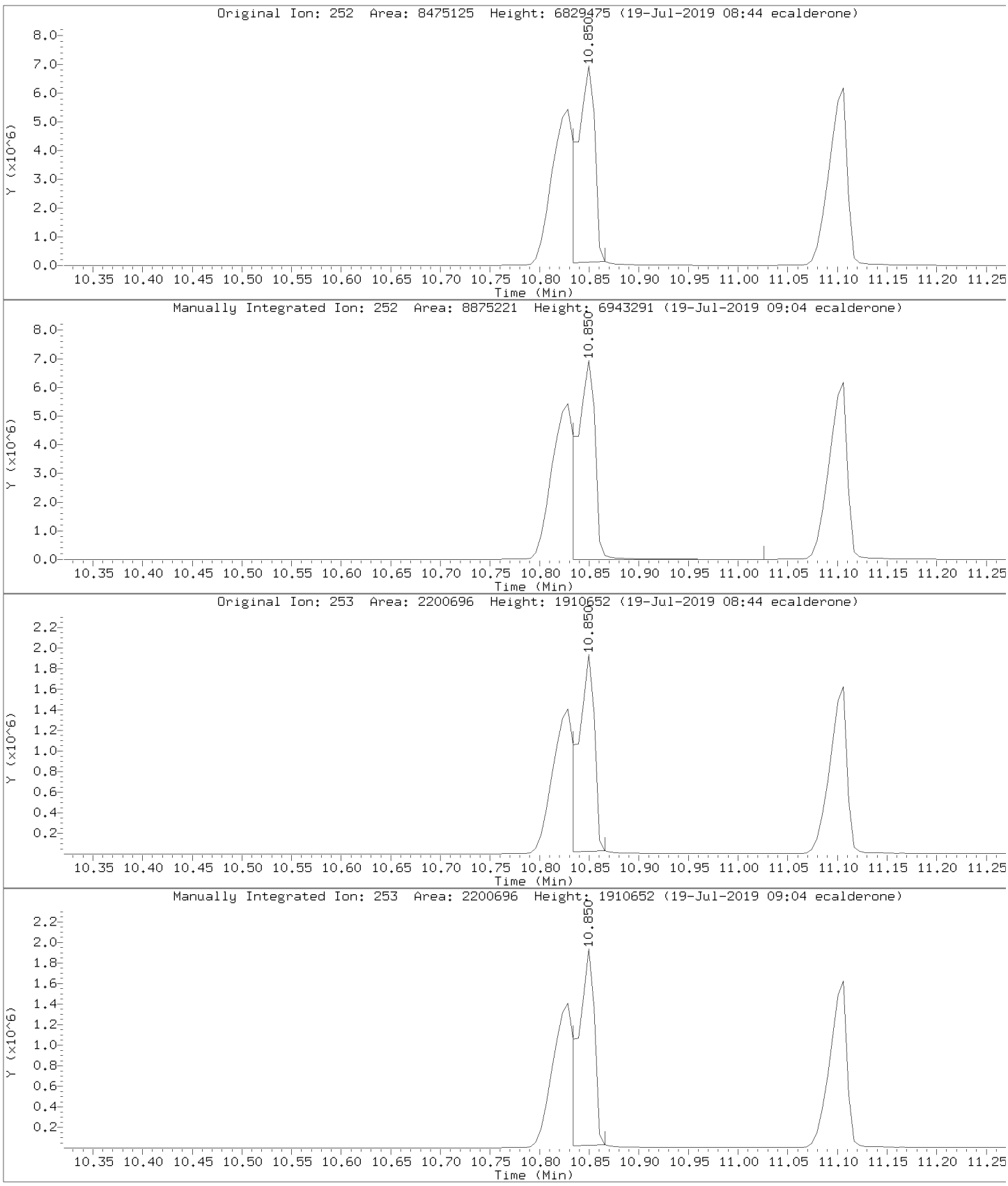
Injection Date: 18-JUL-2019 16:11
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzo(k)fluoranthene Review Code: LT
CAS Number: 207-08-9



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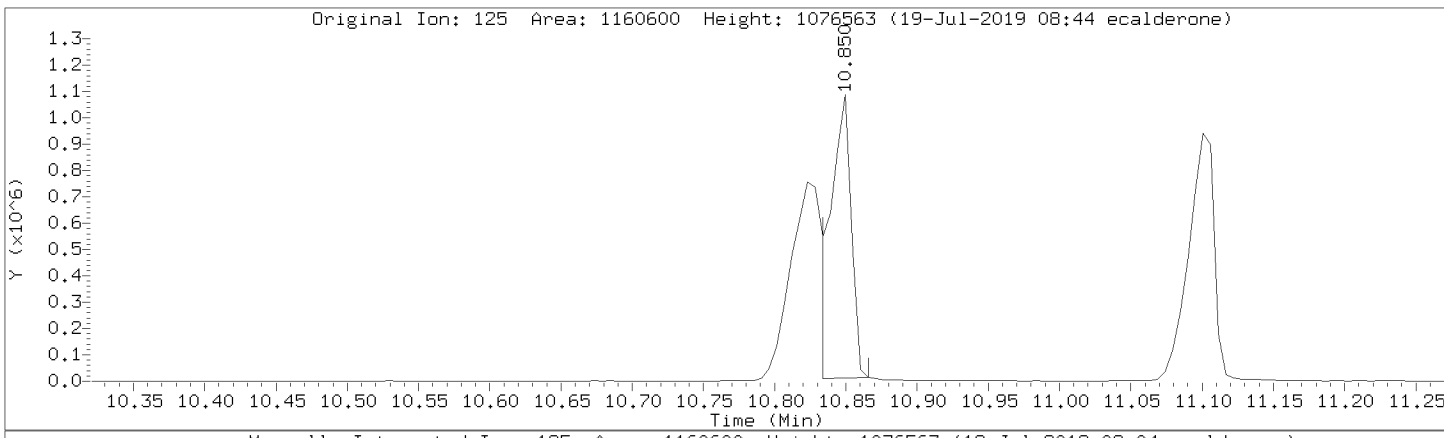
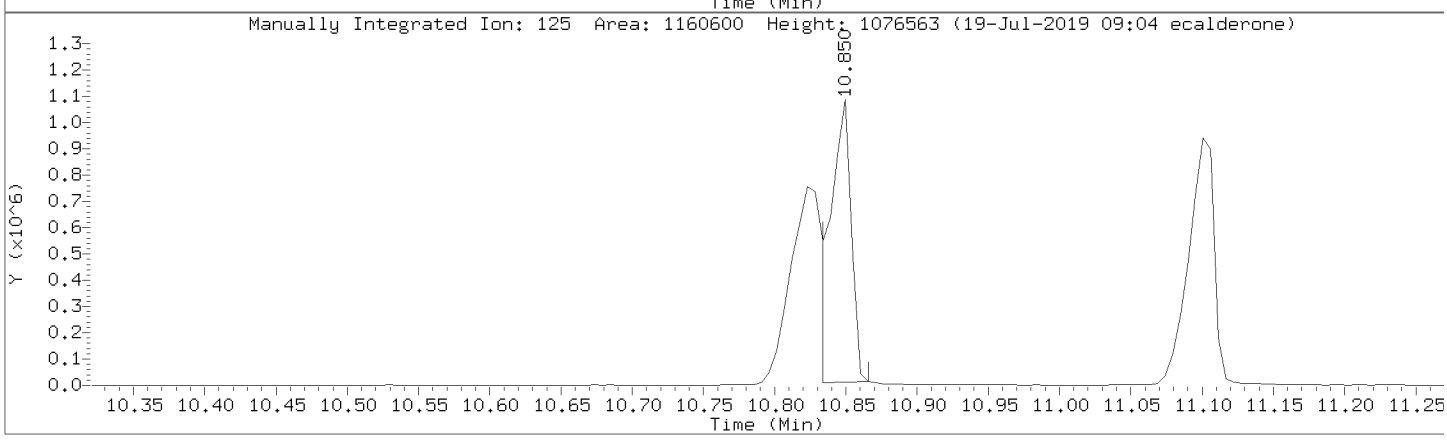
Injection Date: 18-JUL-2019 16:11
Instrument: 30mss1.i
Lab Sample ID: CAL7





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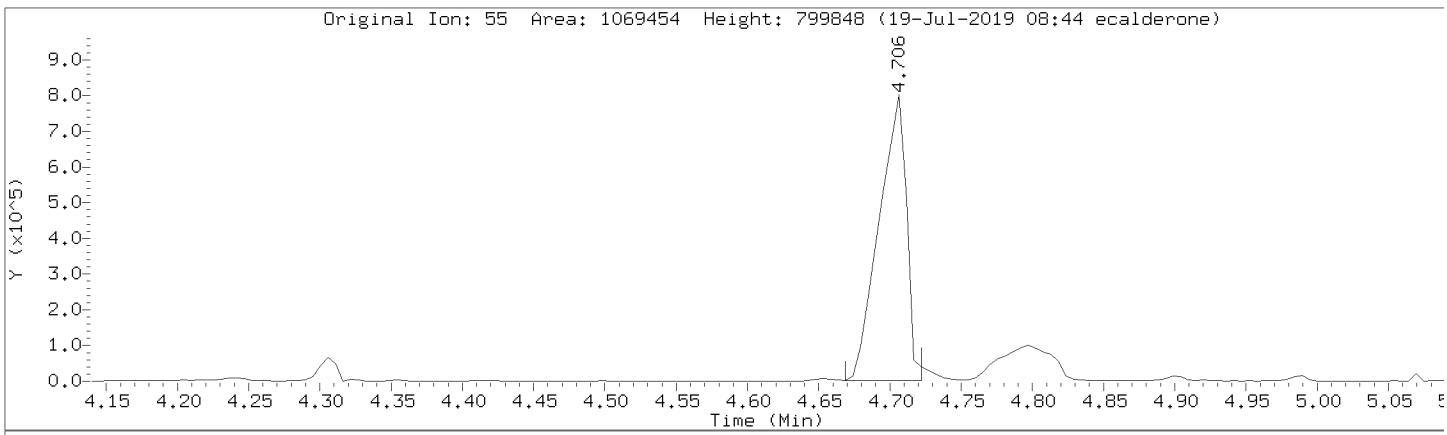
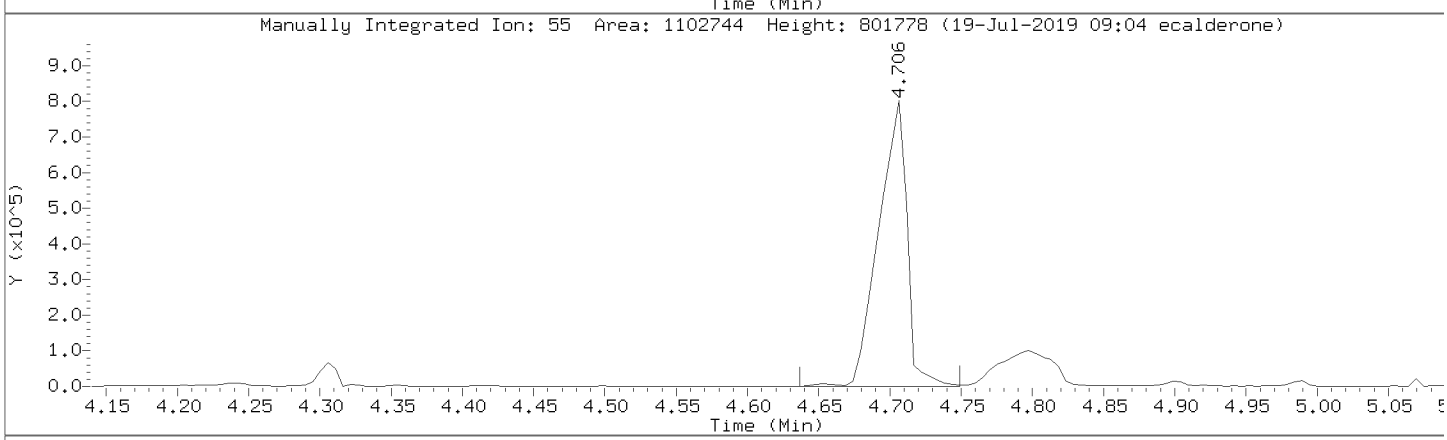
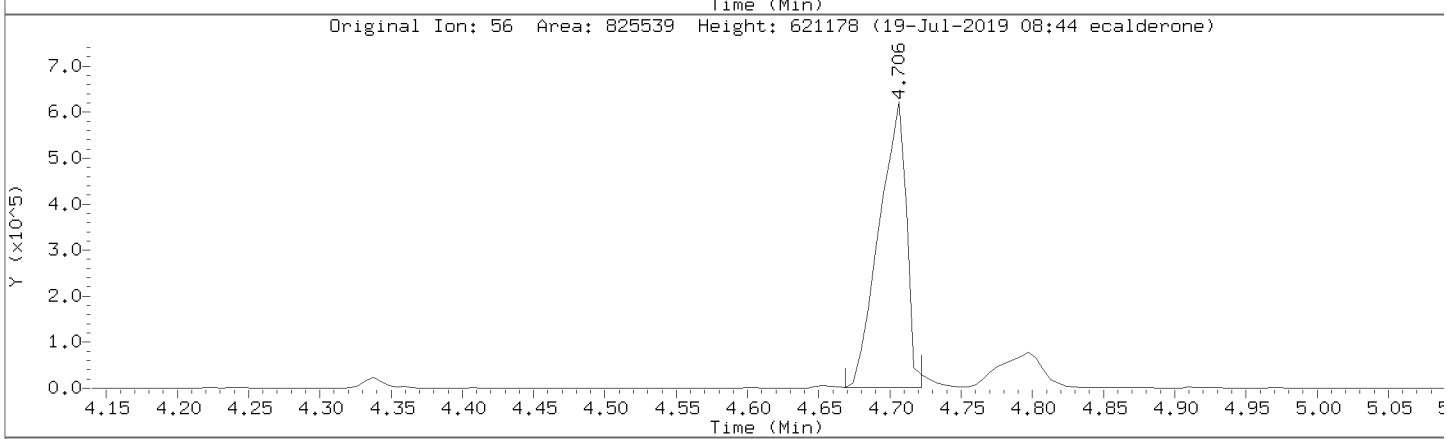
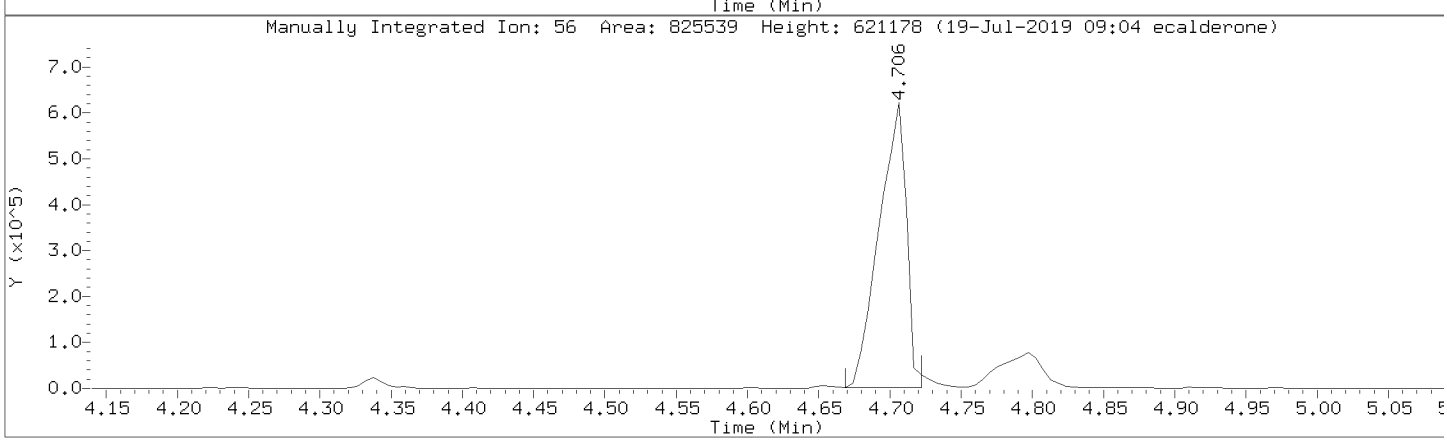
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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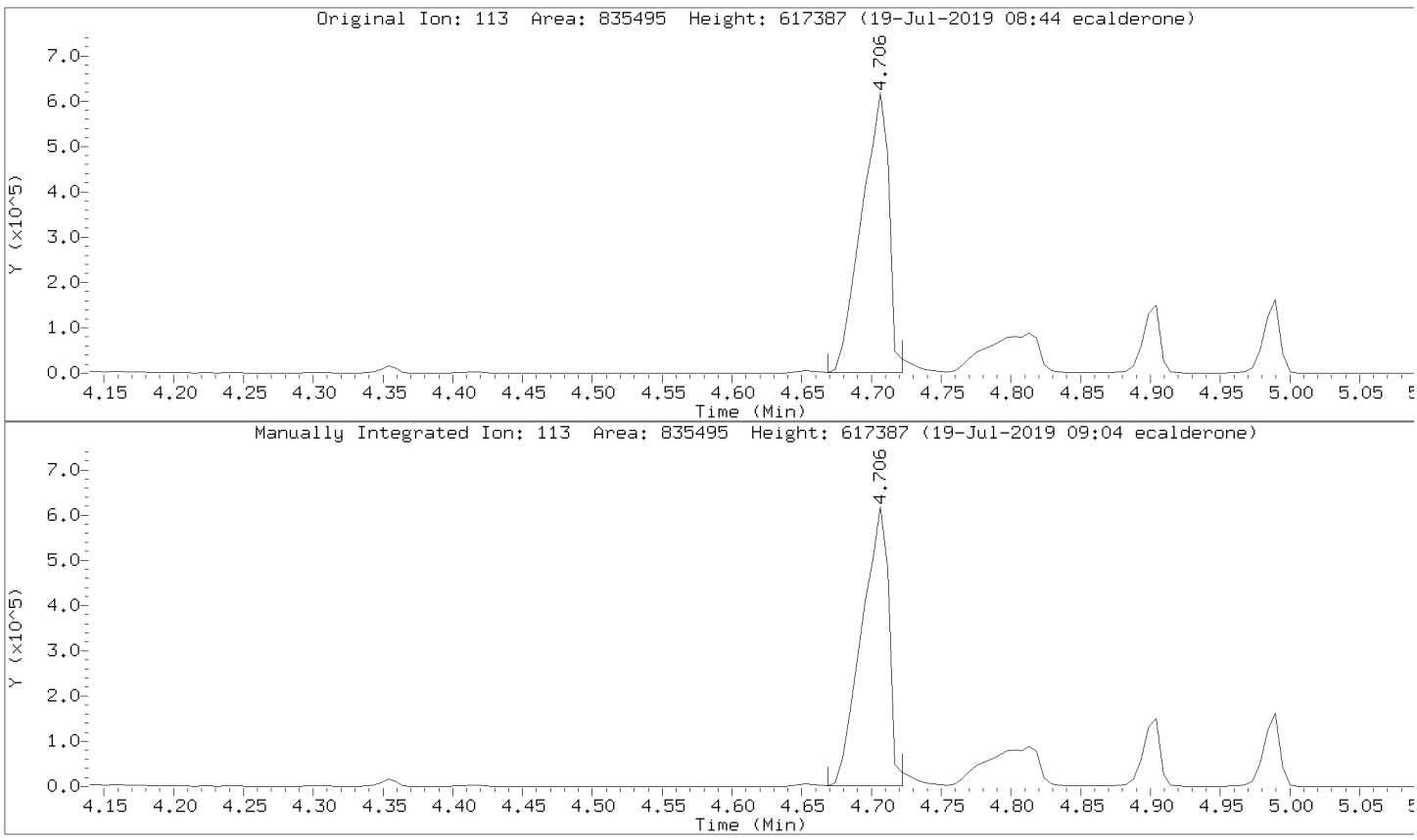

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y2.d
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Inj Date : 18-JUL-2019 16:33
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14848,93074:1
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Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 16:33 Cal File: m10718y2.d
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.303	1.286	(0.390)	1829337	16.0000	18.7	
	2 Pyridine	79	1.281	1.275	(0.383)	2806384	16.0000	16.4	
$	3 2-Fluorophenol (S)	112	2.457	2.456	(0.735)	2642417	16.0000	16.5	
$	4 Phenol-d6 (S)	99	3.130	3.118	(0.936)	3243067	16.0000	16.0	
	5 Benzaldehyde	77	3.028	3.028	(0.906)	2325003	16.0000	16.9	
	6 Phenol	94	3.140	3.129	(0.939)	3693524	16.0000	16.0	
	7 Aniline	66	3.140	3.129	(0.939)	2902176	16.0000	16.3	
	8 bis(2-Chloroethyl)ether	63	3.183	3.177	(0.952)	2119672	16.0000	17.1	
	9 2-Chlorophenol	128	3.215	3.209	(0.962)	2927952	16.0000	15.9	
	10 1,3-Dichlorobenzene	146	3.317	3.311	(0.992)	3234202	16.0000	16.8	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.343	3.343	(1.000)	535707	4.00000		
	12 1,4-Dichlorobenzene	146	3.354	3.354	(1.003)	3187850	16.0000	14.2	
	13 Benzyl Alcohol	79	3.477	3.466	(1.040)	2399730	16.0000	16.2	
	14 1,2-Dichlorobenzene	146	3.498	3.492	(1.046)	3046216	16.0000	15.7	
	15 2-Methylphenol(o-Cresol)	108	3.578	3.567	(1.070)	2731079	16.0000	16.0	
	16 bis(2-Chloroisopropyl)ether	45	3.594	3.589	(1.075)	4391695	16.0000	15.8	
	17 3&4-Methylphenol(m&p Cresol)	108	3.696	3.679	(1.105)	2817808	16.0000	16.3(MH)	LT
	18 N-Nitroso-di-n-propylamine	70	3.712	3.695	(1.110)	2105218	16.0000	16.3	
	19 Acetophenone	105	3.680	3.669	(1.101)	3768957	16.0000	16.4	
	20 Hexachloroethane	117	3.728	3.728	(1.115)	1235692	16.0000	16.1	
$	21 Nitrobenzene-d5 (S)	128	3.792	3.781	(0.875)	1465084	16.0000	16.3	
	22 Nitrobenzene	77	3.803	3.797	(0.878)	2908819	16.0000	16.4	
	23 Isophorone	82	3.995	3.979	(0.922)	5286309	16.0000	15.9	
	24 2,4-Dimethylphenol	107	4.097	4.085	(0.946)	2808897	16.0000	16.0	
	25 2-Nitrophenol	139	4.054	4.043	(0.936)	1651769	16.0000	16.3	
	26 Benzoic acid	105	4.225	4.155	(0.975)	2230366	16.0000	4.40(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.166	4.160	(0.962)	3247666	16.0000	16.1	
	28 2,4-Dichlorophenol	162	4.236	4.230	(0.978)	2387585	16.0000	16.2	
	29 1,2,4-Trichlorobenzene	180	4.300	4.294	(0.993)	2563409	16.0000	16.0	
*	30 Naphthalene-d8 (IS)	136	4.332	4.326	(1.000)	2192217	4.00000		
	31 Naphthalene	128	4.348	4.342	(1.004)	7504152	16.0000	16.0	
	32 4-Chloroaniline	65	4.406	4.401	(1.017)	940679	16.0000	16.6	
	33 Hexachloro-1,3-butadiene	225	4.497	4.491	(1.038)	1379346	16.0000	16.0	
	34 Caprolactam	55	4.700	4.641	(1.085)	1127888	16.0000	13.9(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	4.812	4.796	(1.111)	2428852	16.0000	16.2	
	36	2-Methylnaphthalene	142	4.898	4.892	(1.131)	5546268	16.0000	16.0	
	37	1-Methylnaphthalene	142	4.983	4.978	(1.150)	5172284	16.0000	15.9	
	38	Hexachlorocyclopentadiene	237	5.085	5.079	(0.884)	1800615	16.0000	16.9	
	39	1,2,4,5-Tetrachlorobenzene	216	5.064	5.058	(0.880)	2311204	16.0000	16.2	
	40	2,4,6-Trichlorophenol	196	5.149	5.143	(0.895)	1873545	16.0000	17.0	
	41	2,4,5-Trichlorophenol	196	5.186	5.175	(0.902)	1569772	16.0000	15.5	
$	42	2-Fluorobiphenyl (S)	172	5.213	5.207	(0.906)	5446816	16.0000	16.2	
	43	Biphenyl (Diphenyl)	154	5.283	5.277	(0.918)	6031577	16.0000	15.9	
	44	2-Chloronaphthalene	164	5.288	5.277	(0.919)	1717774	16.0000	16.1	
	45	2-Nitroaniline	138	5.400	5.389	(0.939)	1941914	16.0000	16.3	
	46	Dimethylphthalate	163	5.582	5.571	(0.970)	5256391	16.0000	16.1(M)	LT
	47	2,6-Dinitrotoluene	165	5.630	5.619	(0.979)	1356075	16.0000	15.7	
	48	Acenaphthylene	152	5.630	5.619	(0.979)	7361297	16.0000	15.9	
	49	3-Nitroaniline	65	5.742	5.720	(0.998)	1614953	16.0000	16.4	
*	50	Acenaphthene-d10 (IS)	164	5.753	5.747	(1.000)	1167563	4.00000		
	51	2,4-Dinitrophenol	184	5.822	5.806	(1.012)	901005	16.0000	17.2	
	52	Acenaphthene	153	5.779	5.768	(1.005)	4879192	16.0000	15.8	
	53	4-Nitrophenol	109	5.892	5.870	(1.024)	763319	16.0000	16.1	
	54	2,4-Dinitrotoluene	165	5.945	5.928	(1.033)	1829206	16.0000	16.2	
	55	Dibenzofuran	168	5.908	5.902	(1.027)	6469272	16.0000	16.0	
	56	2,3,4,6-Tetrachlorophenol	232	6.047	6.041	(1.051)	1388276	16.0000	16.2	
	57	Diethylphthalate	149	6.159	6.142	(1.071)	5215610	16.0000	15.6(M)	LT
	58	4-Chlorophenylphenyl ether	204	6.191	6.185	(1.076)	2778866	16.0000	16.2	
	59	Fluorene	166	6.191	6.180	(1.076)	5463804	16.0000	15.9	
	60	4-Nitroaniline	108	6.250	6.222	(1.086)	884793	16.0000	17.0(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.282	6.260	(0.896)	1155210	16.0000	17.0	
	62	N-Nitrosodiphenylamine	169	6.303	6.286	(0.899)	4772165	16.0000	16.4	
	63	Azobenzene	77	6.319	6.313	(0.902)	4900188	16.0000	15.8	
	64	1,2-Diphenylhydrazine	77	6.319	6.313	(0.902)	4900188	16.0000	15.8	
$	65	2,4,6-Tribromophenol (S)	330	6.399	6.393	(0.913)	938995	16.0000	16.9	
	66	4-Bromophenylphenyl ether	248	6.586	6.580	(0.940)	1672013	16.0000	16.4	
	67	Hexachlorobenzene	284	6.714	6.708	(0.958)	1685504	16.0000	16.6	
	68	Atrazine	200	6.794	6.773	(0.970)	1645522	16.0000	16.5(M)	LT
	69	Pentachlorophenol	266	6.891	6.874	(0.983)	1052827	16.0000	16.3(A)	
*	70	Phenanthrene-d10 (IS)	188	7.008	6.997	(1.000)	1885805	4.00000		
	71	Phenanthrene	178	7.035	7.024	(1.004)	8070722	16.0000	16.3	
	72	Anthracene	178	7.088	7.072	(1.011)	7453029	16.0000	15.8	
	73	Carbazole	167	7.275	7.253	(1.038)	6845155	16.0000	16.1	
	74	Di-n-butylphthalate	149	7.740	7.734	(1.104)	8361941	16.0000	15.9	
	75	Fluoranthene	202	8.317	8.300	(1.187)	7709188	16.0000	15.9	
	76	Pyrene	202	8.547	8.530	(0.871)	7841302	16.0000	16.4	
$	77	Terphenyl-d14 (S)	244	8.750	8.738	(0.892)	6239766	16.0000	16.8	
	78	Butylbenzylphthalate	149	9.316	9.305	(0.950)	3857187	16.0000	16.6	
	79	3,3'-Dichlorobenzidine	252	9.802	9.785	(0.999)	2930576	16.0000	15.7	
	80	bis(2-Ethylhexyl)phthalate	149	9.941	9.935	(1.014)	5338987	16.0000	16.5	
	81	Benzo(a)anthracene	228	9.791	9.780	(0.998)	7201480	16.0000	15.6	
*	82	Chrysene-d12 (IS)	240	9.807	9.796	(1.000)	1698006	4.00000		
	83	Chrysene	228	9.834	9.818	(1.003)	6639015	16.0000	15.5	
	84	Di-n-octylphthalate	149	10.529	10.517	(0.945)	7887238	16.0000	16.0	
	85	Benzo(b)fluoranthene	252	10.822	10.806	(0.972)	8131162	16.0000	18.6	
	86	Benzo(k)fluoranthene	252	10.844	10.822	(0.974)	6734868	16.0000	14.0	
	87	Benzo(a)pyrene	252	11.100	11.078	(0.997)	6702944	16.0000	15.6	
*	88	Perylene-d12 (IS)	264	11.138	11.132	(1.000)	1674597	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.982	11.960	(1.076)	8686059	16.0000	17.5	
90 Dibenz(a,h)anthracene	278	11.992	11.970	(1.077)	6966765	16.0000	16.9	
91 Benzo(g,h,i)perylene	276	12.169	12.141	(1.093)	6975644	16.0000	17.2	

QC Flag Legend

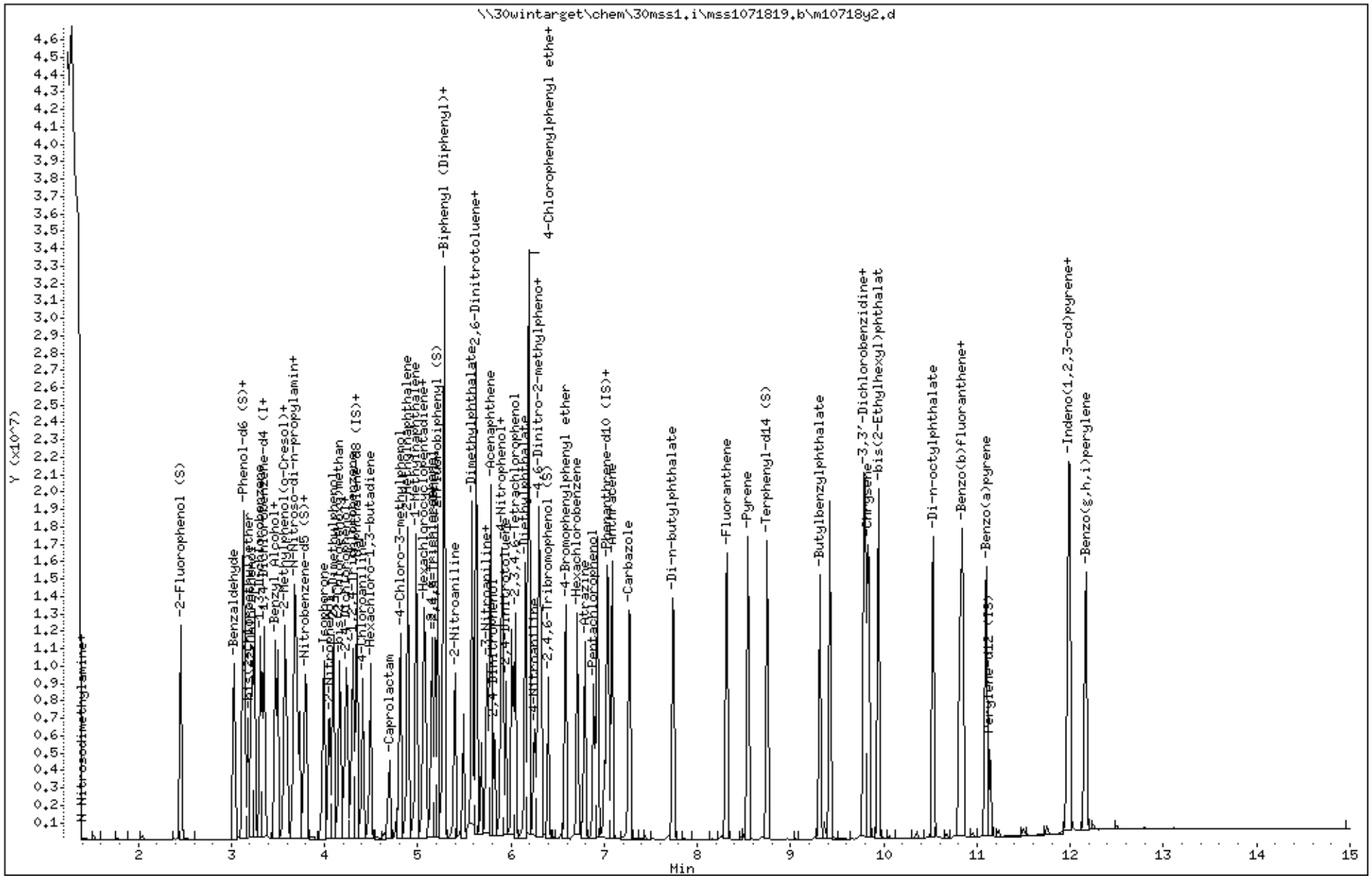
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y2.d
Date : 18-JUL-2019 16:33
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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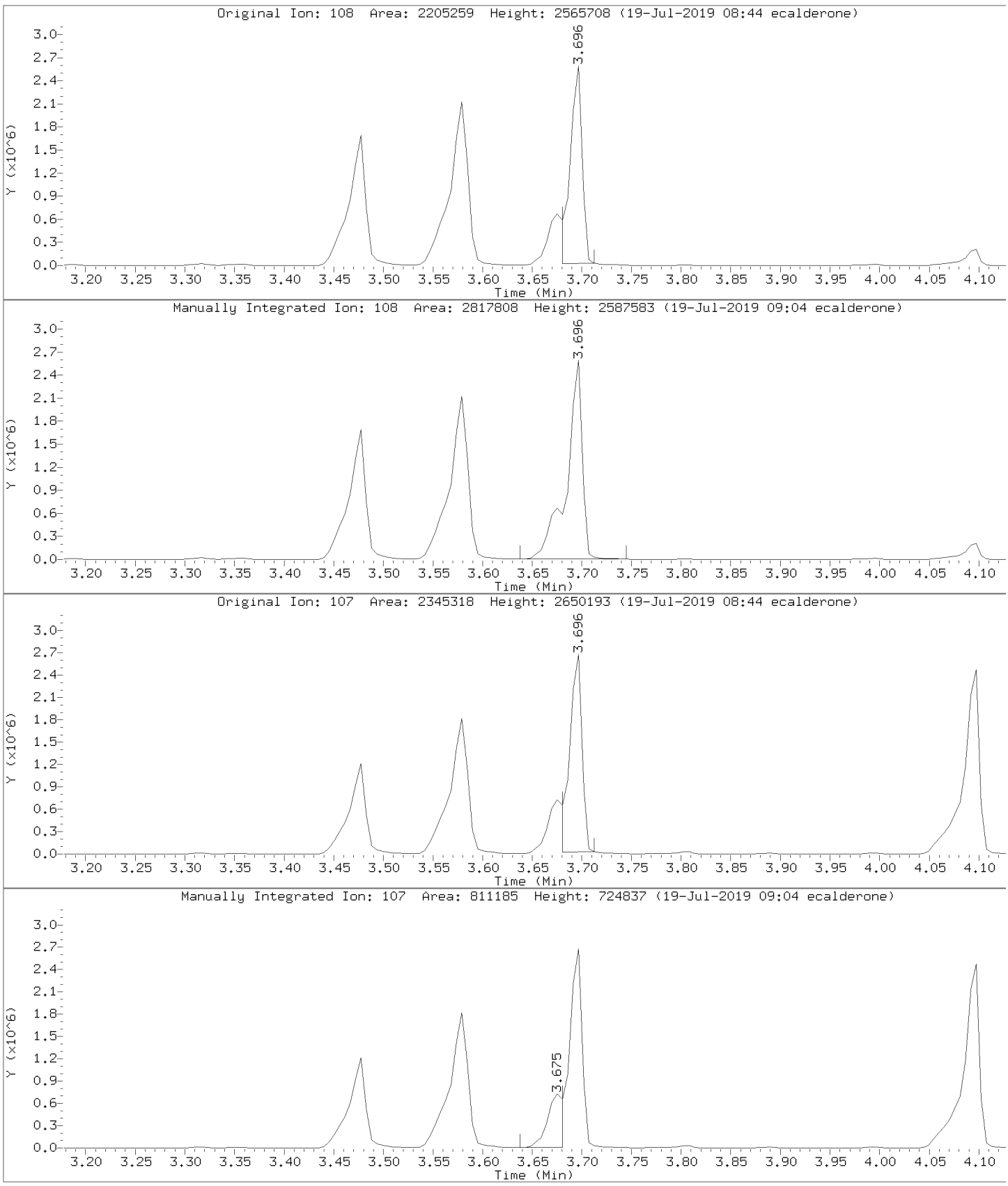
Injection Date: 18-JUL-2019 16:33
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 3&4-Methylphenol(m&p Cresol) Review Code: LT
CAS Number: 106-44-5



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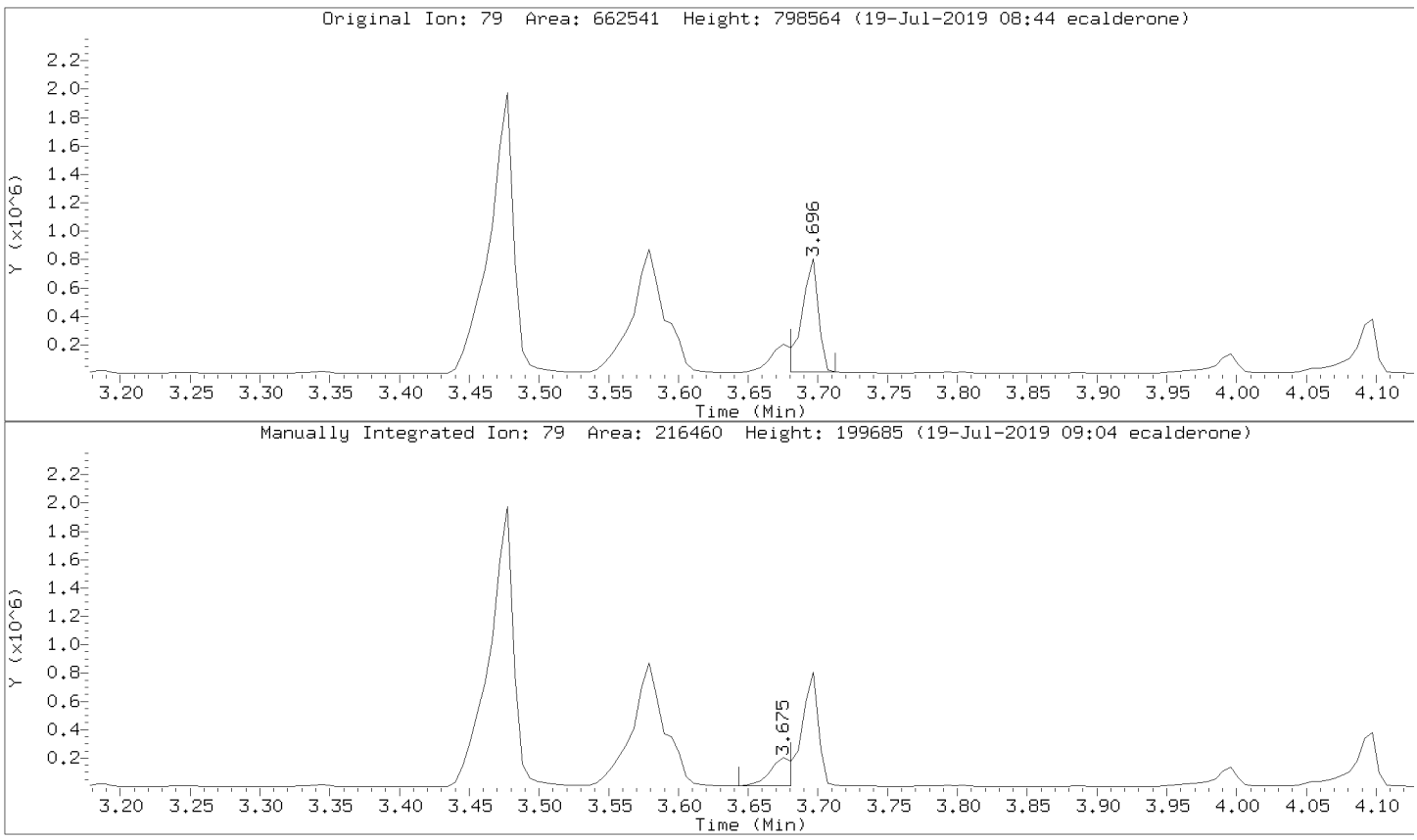

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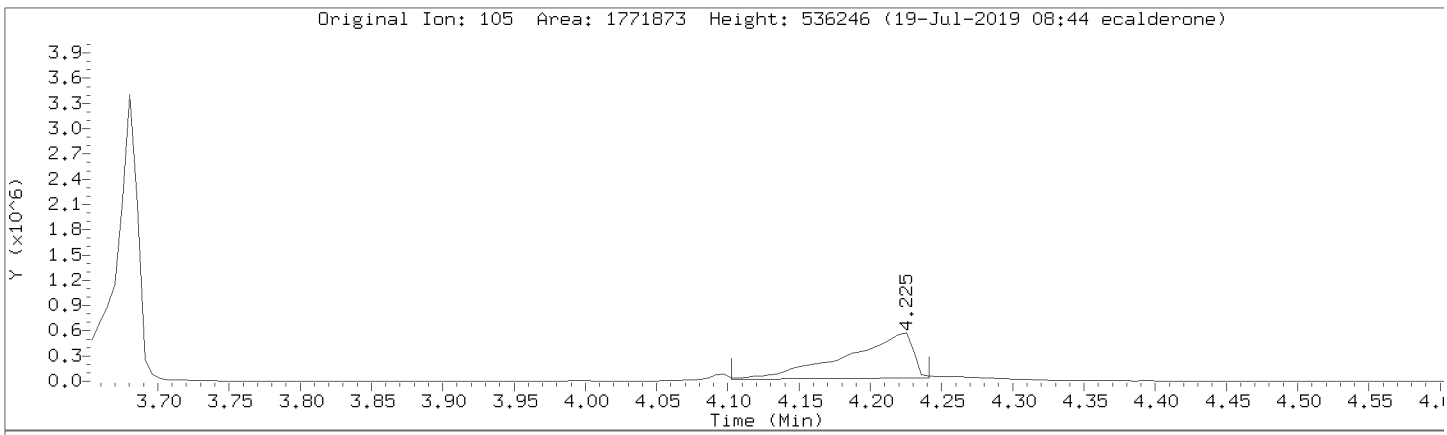
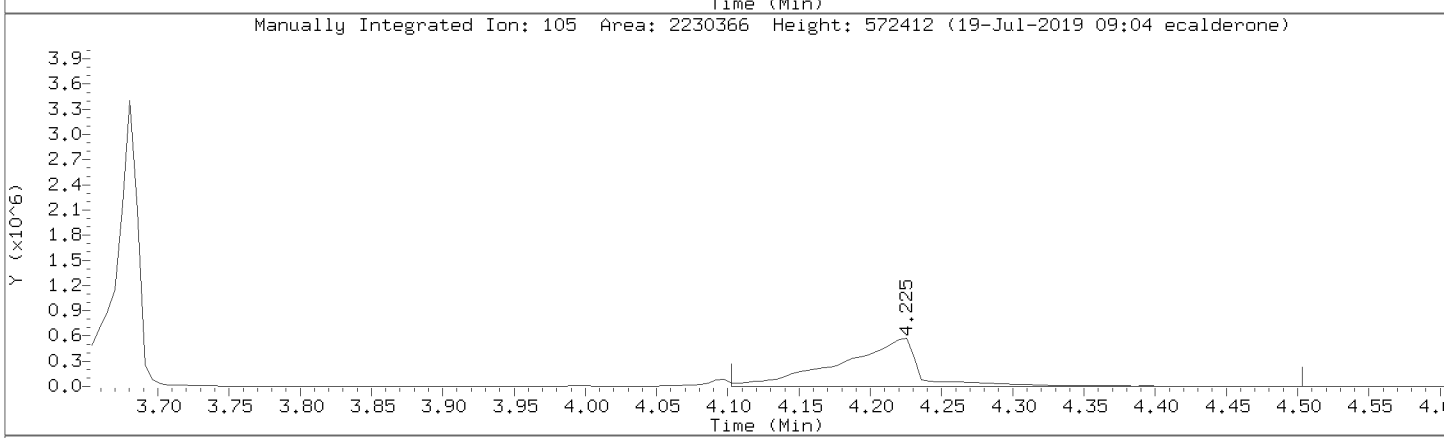
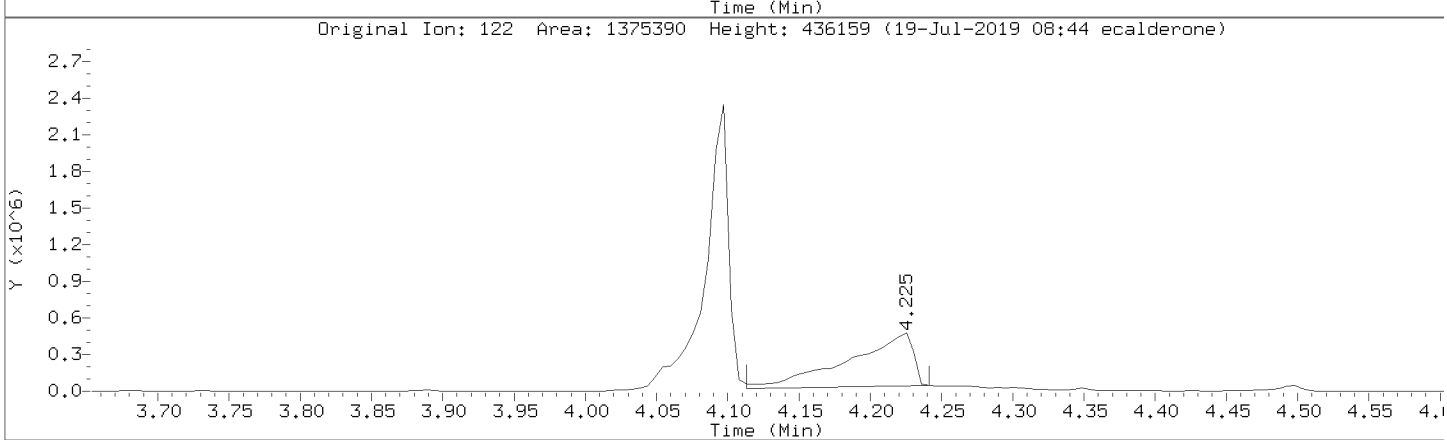
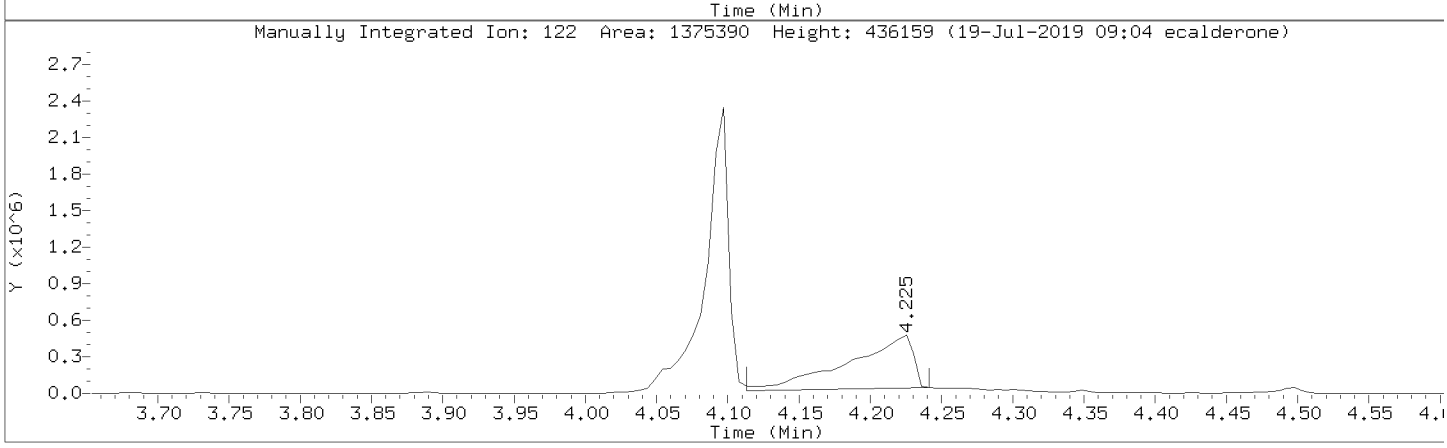
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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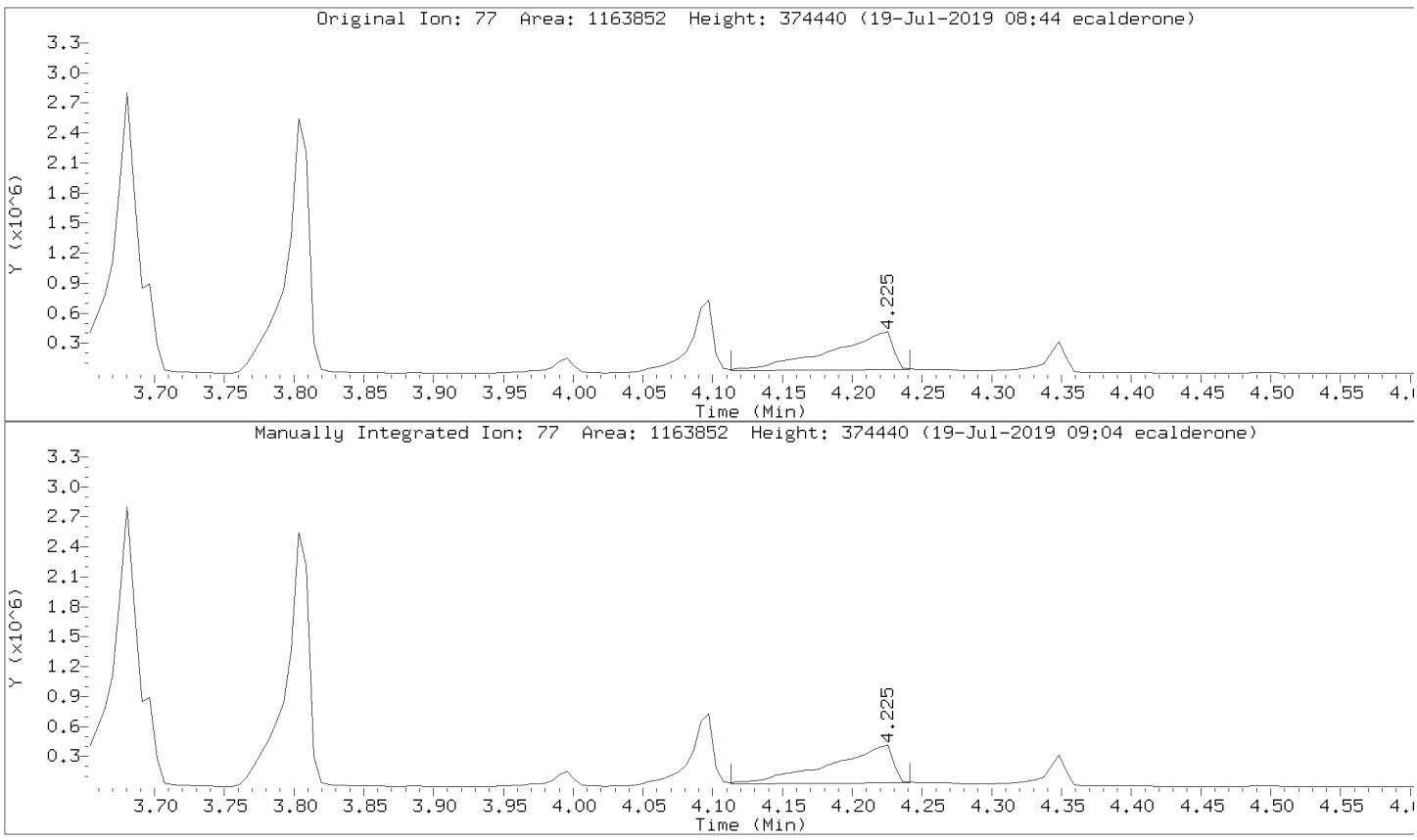
Lab Sample ID: CAL6



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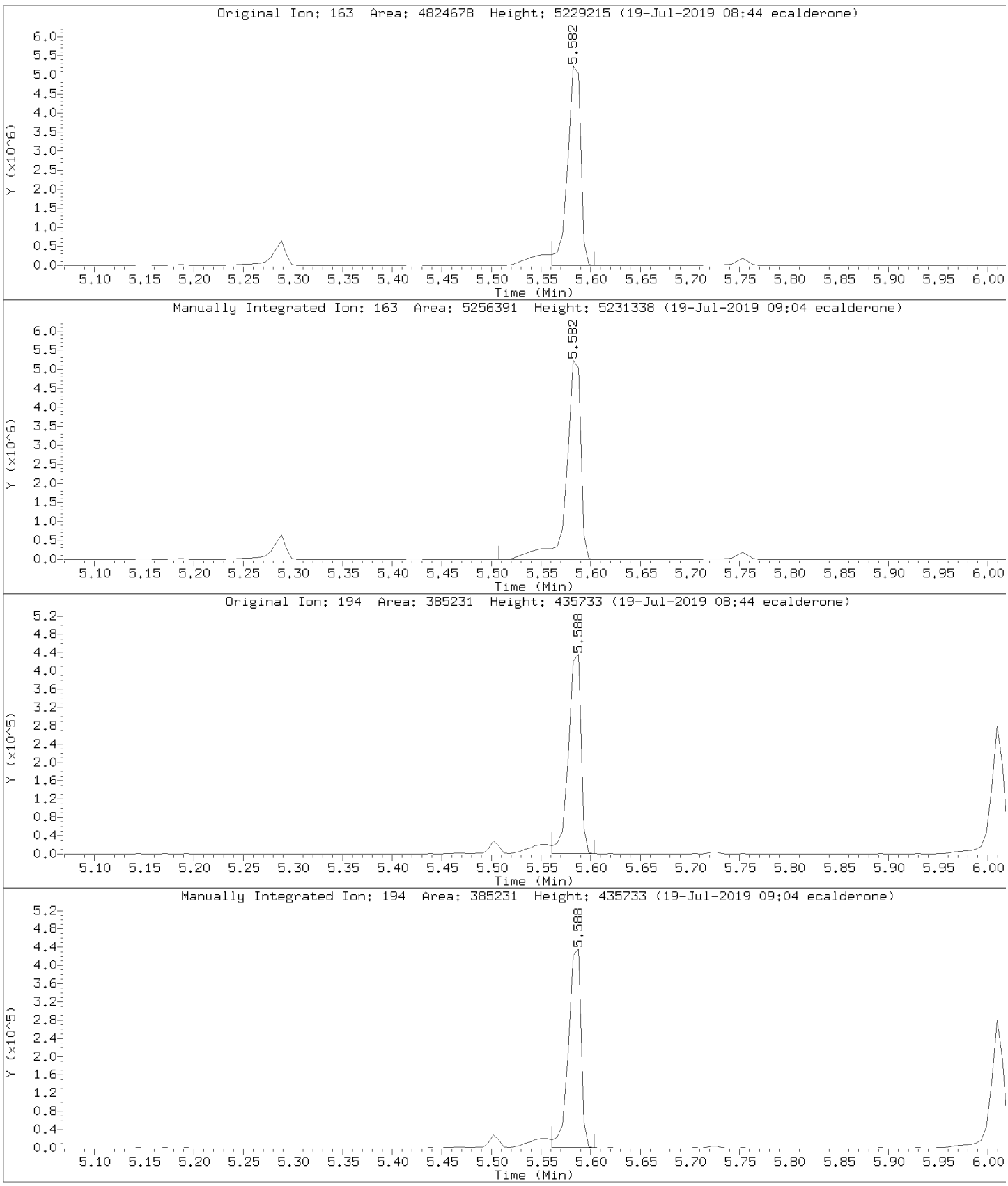
Injection Date: 18-JUL-2019 16:33
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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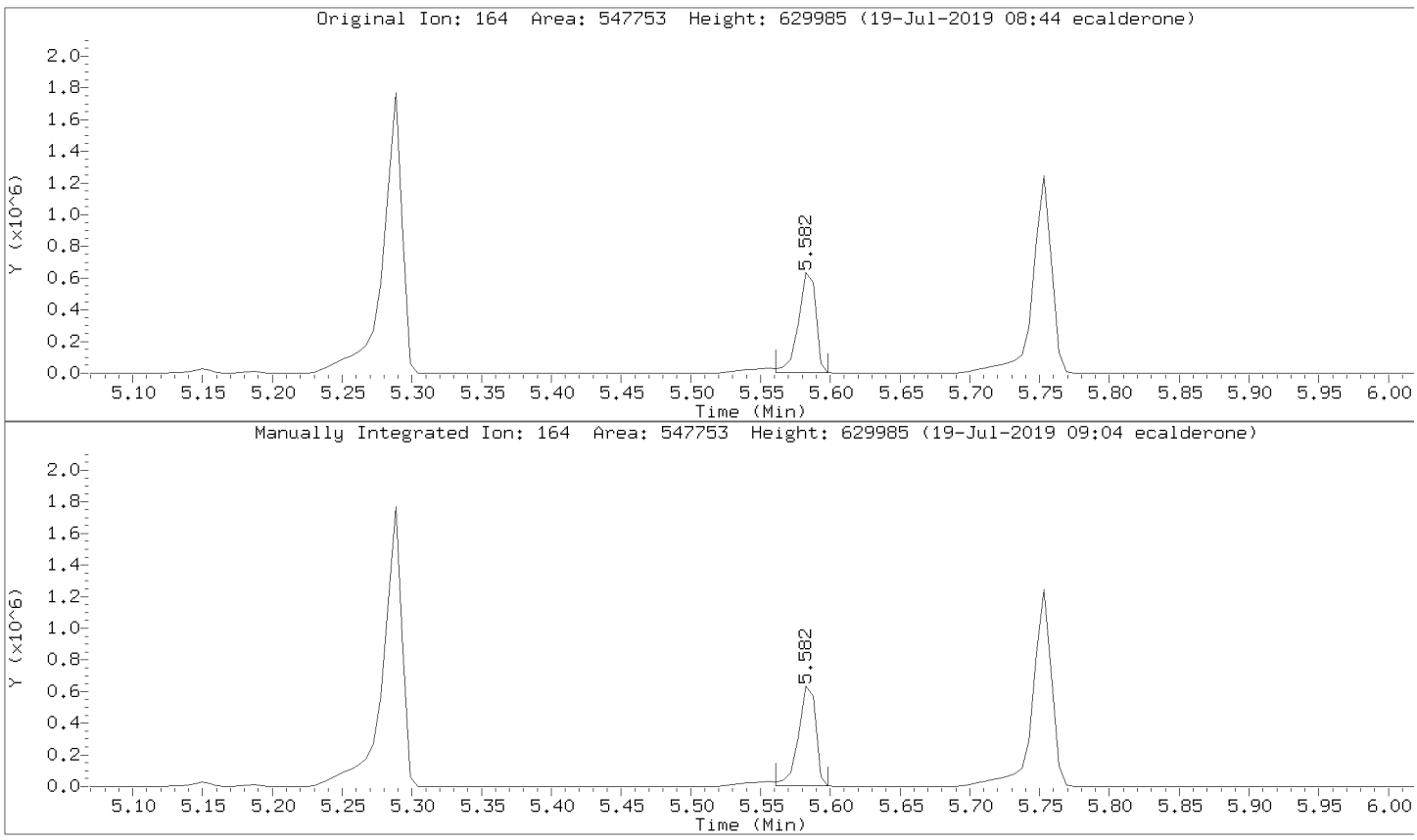
Injection Date: 18-JUL-2019 16:33
Instrument: 30mss1.i
Lab Sample ID: CAL6



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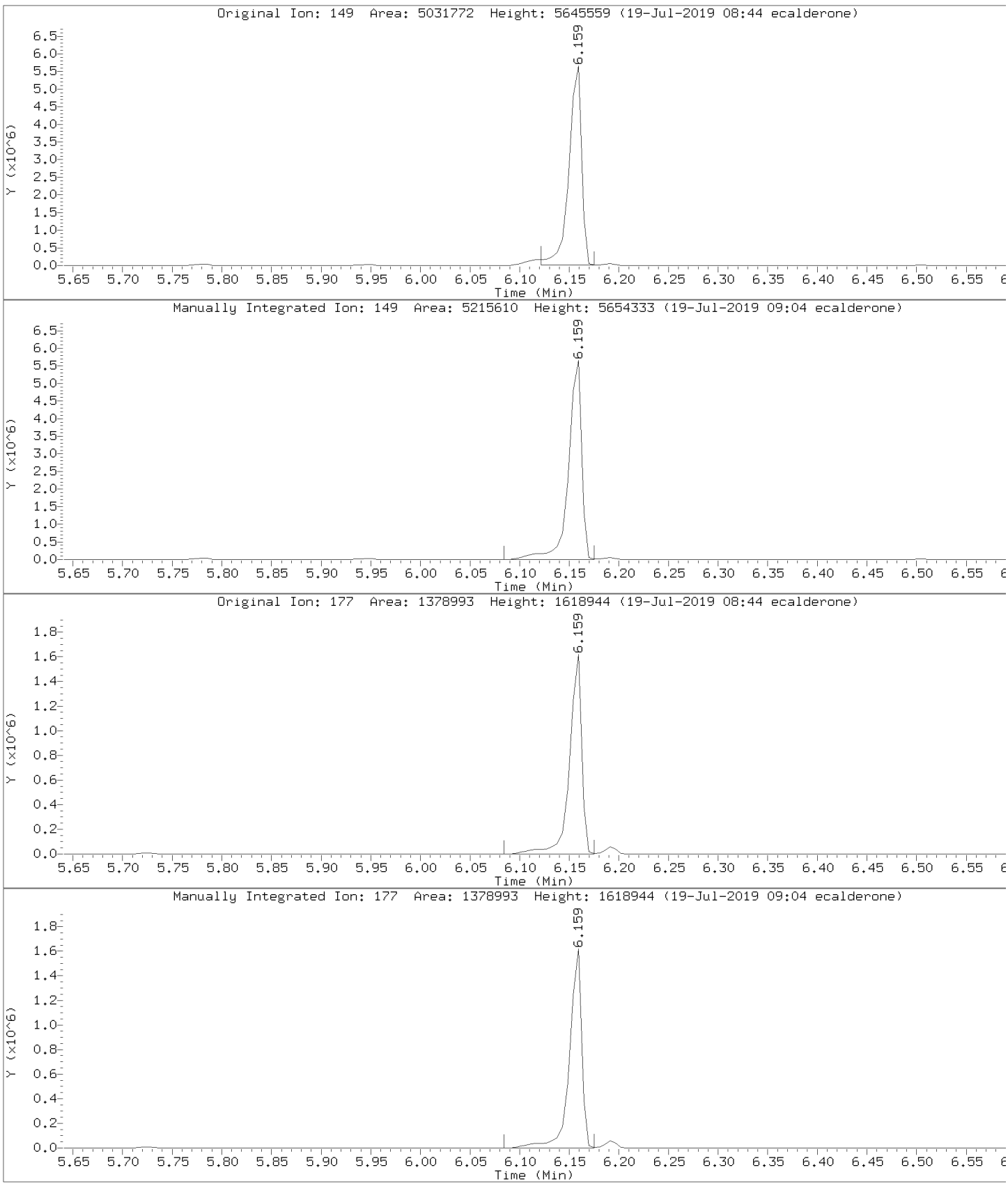
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2



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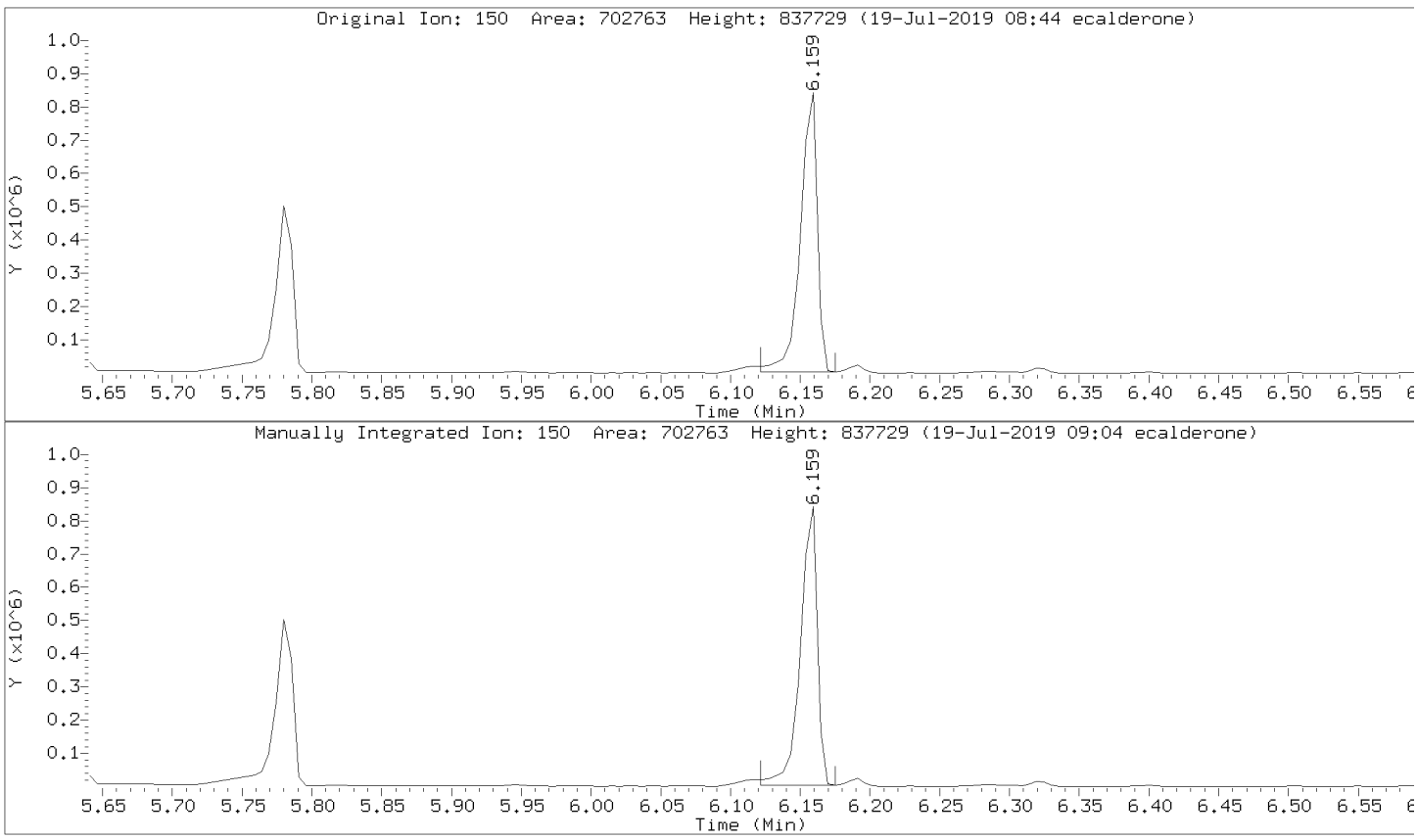
Instrument: 30mss1.i
Lab Sample ID: CAL6



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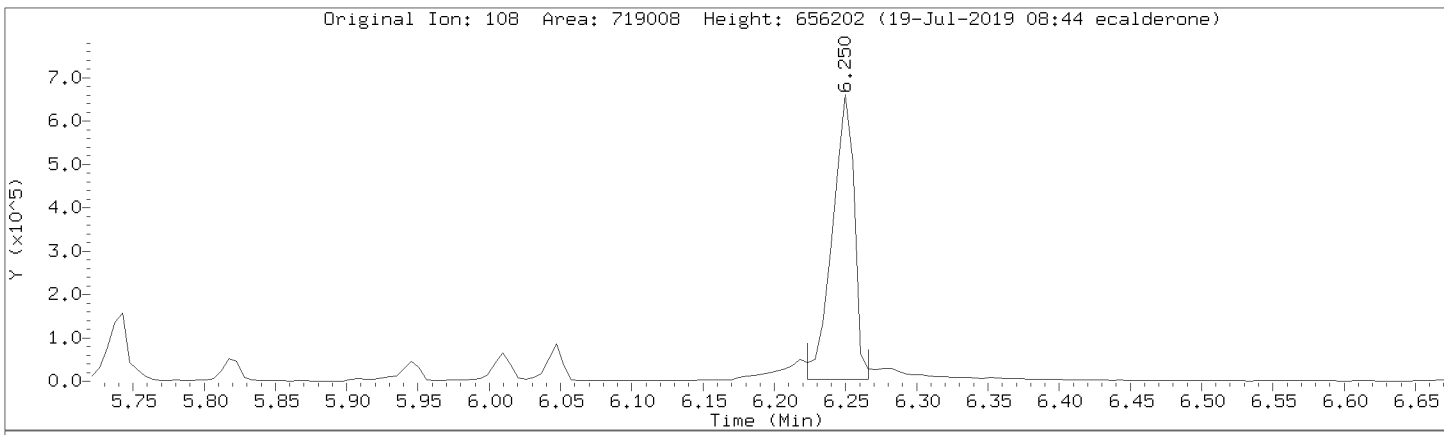
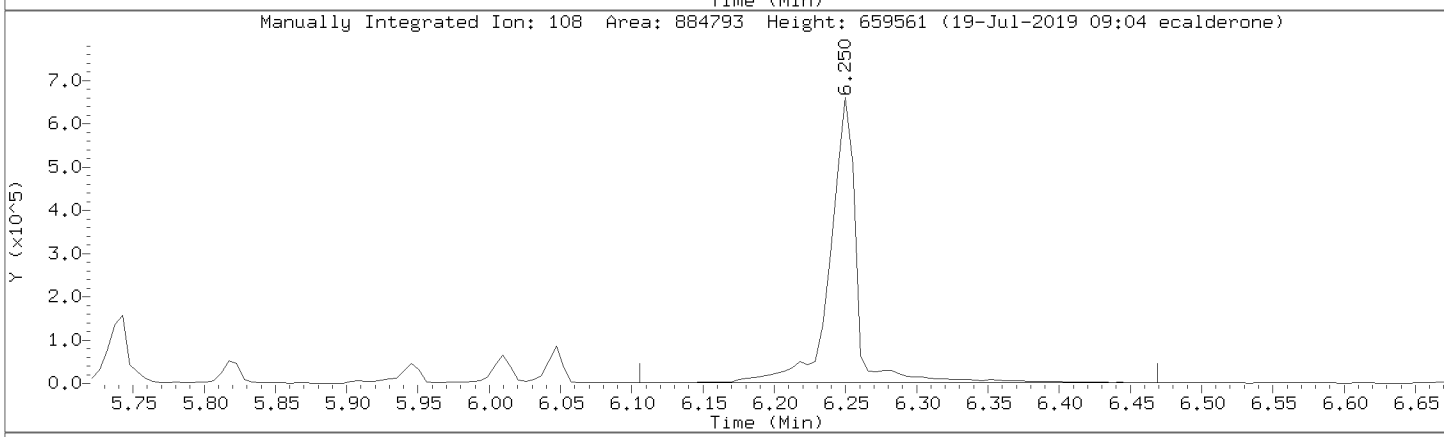
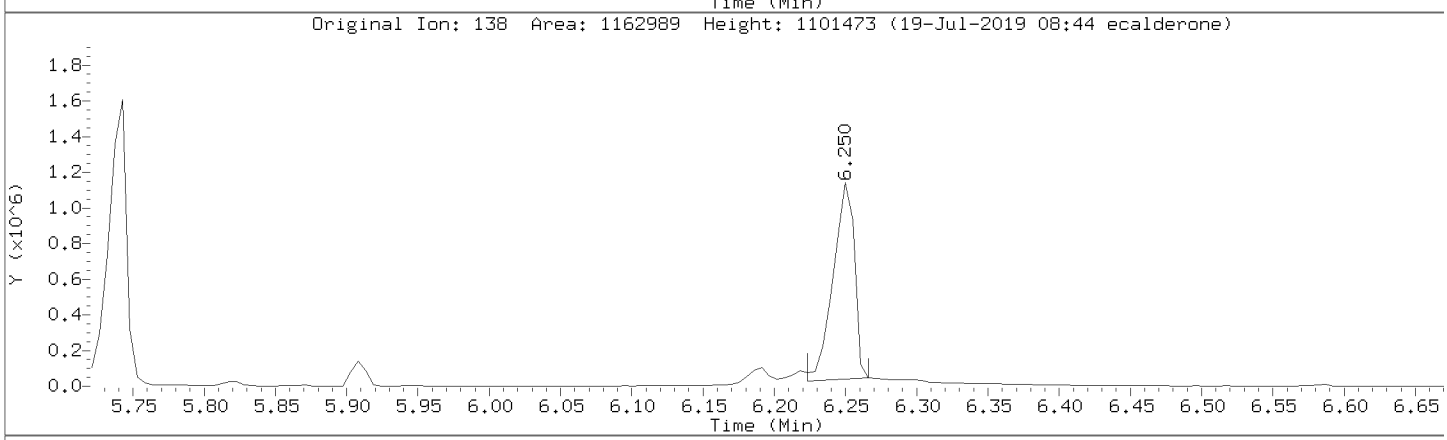
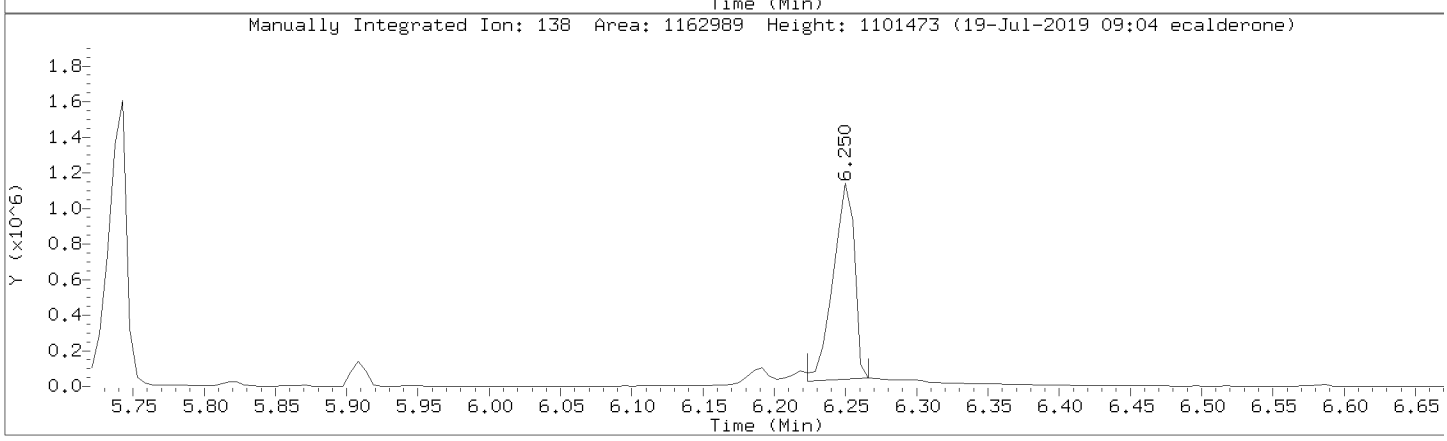
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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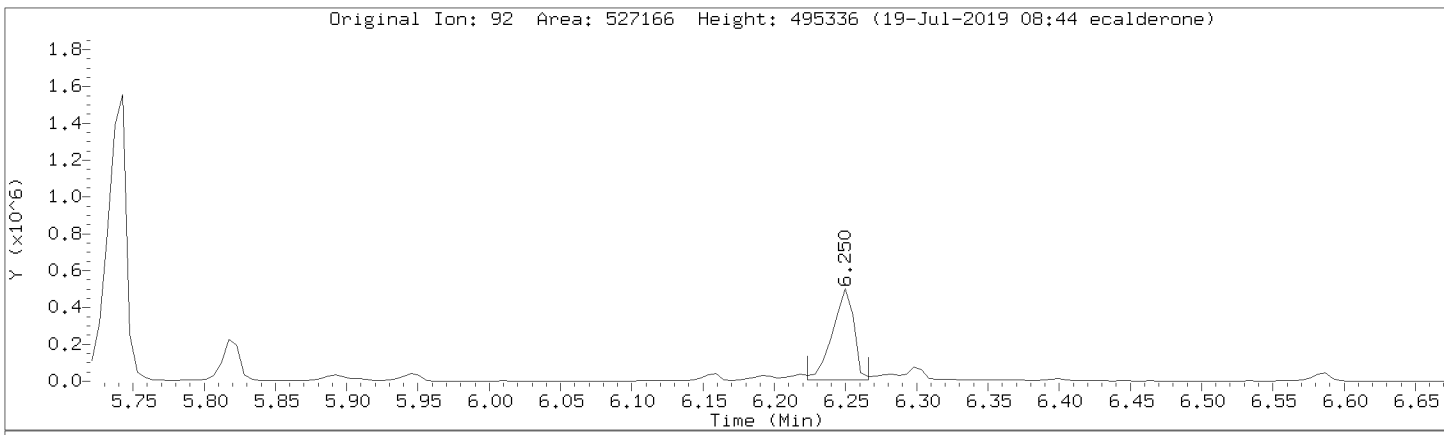
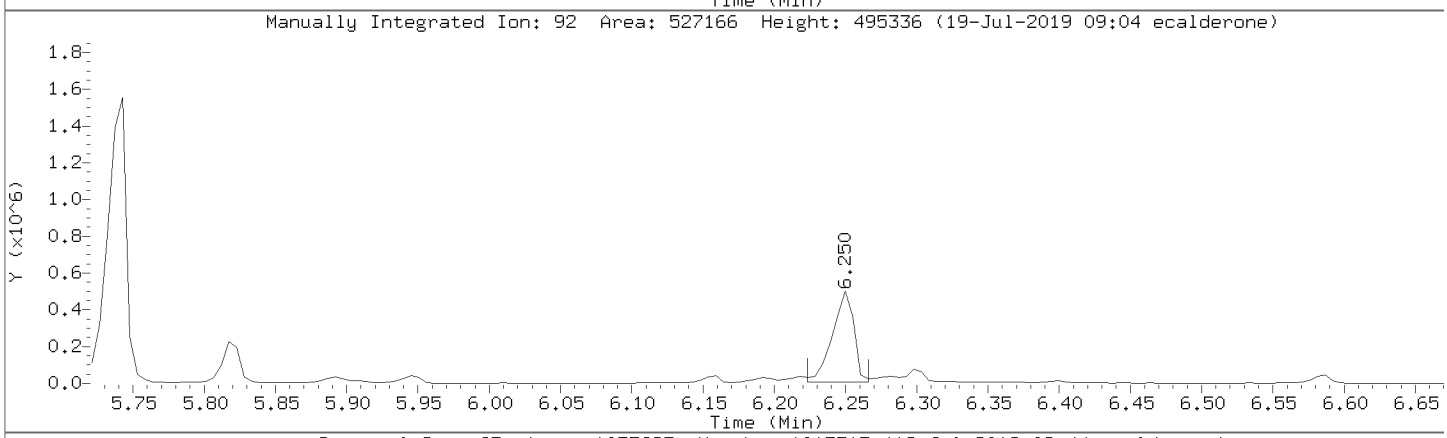
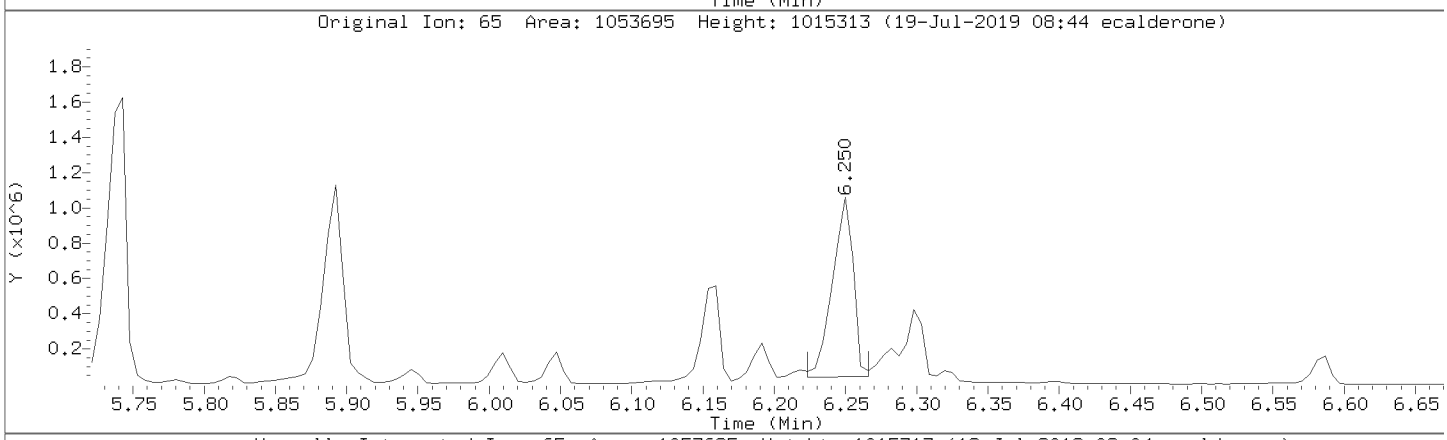
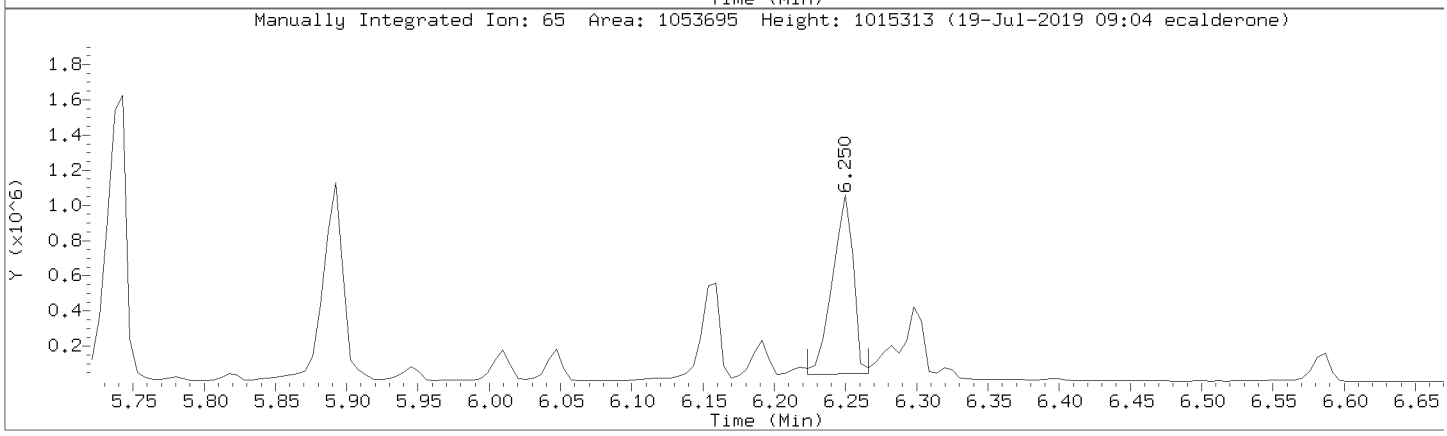
Instrument: 30mss1.i
Lab Sample ID: CAL6









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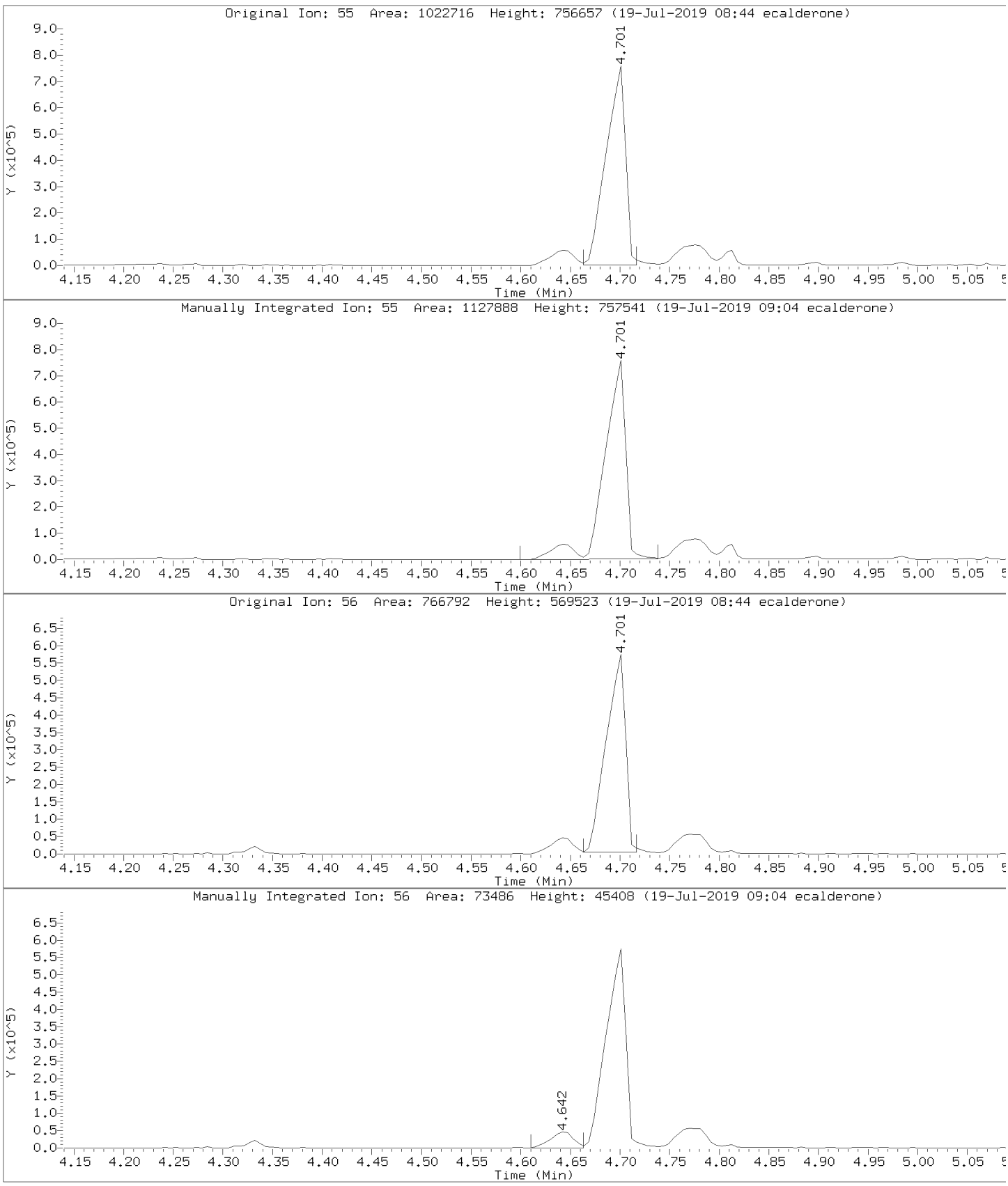
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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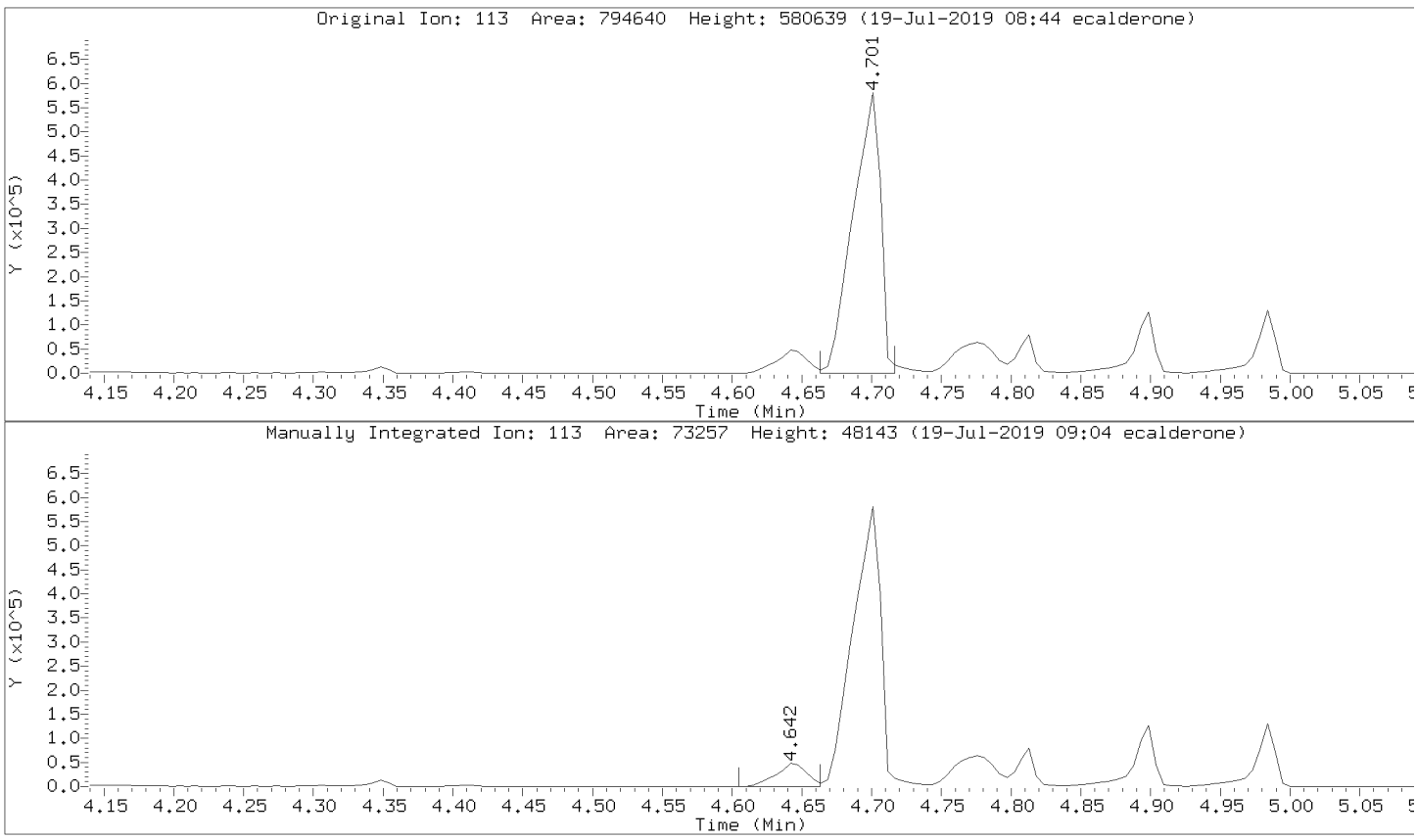
Lab Sample ID: CAL6



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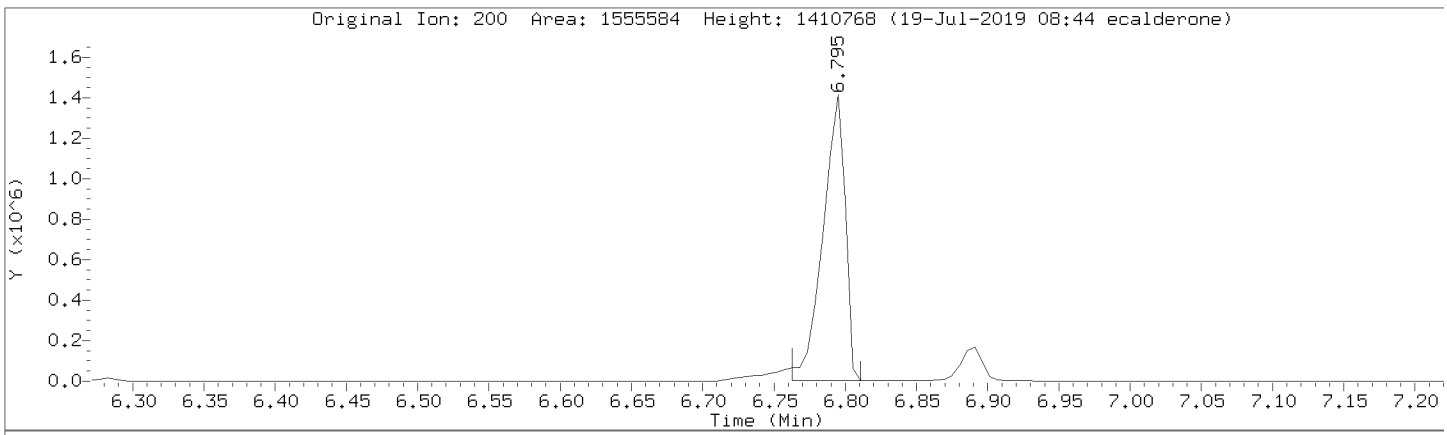
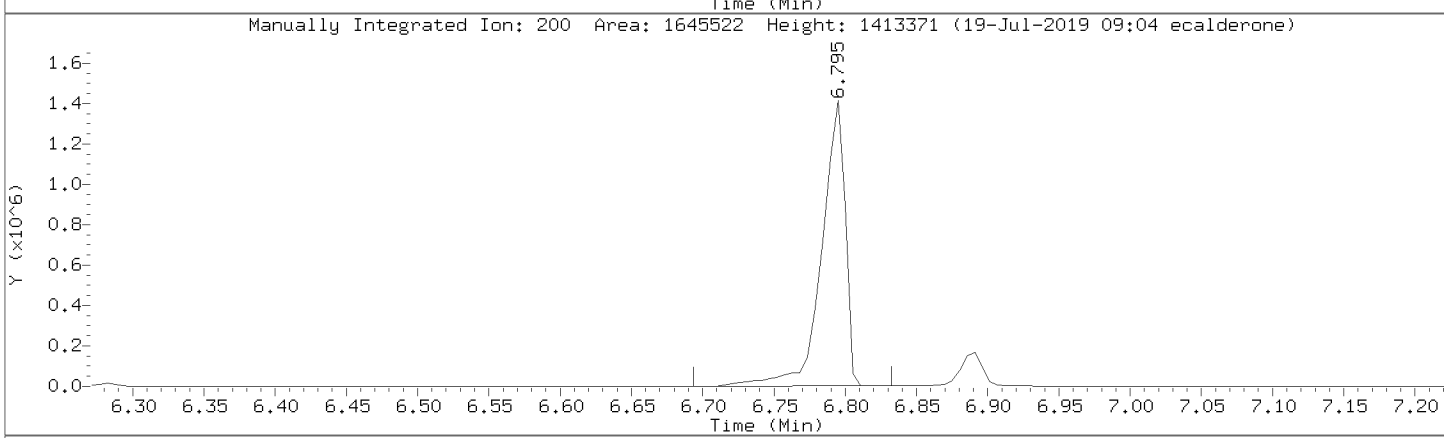
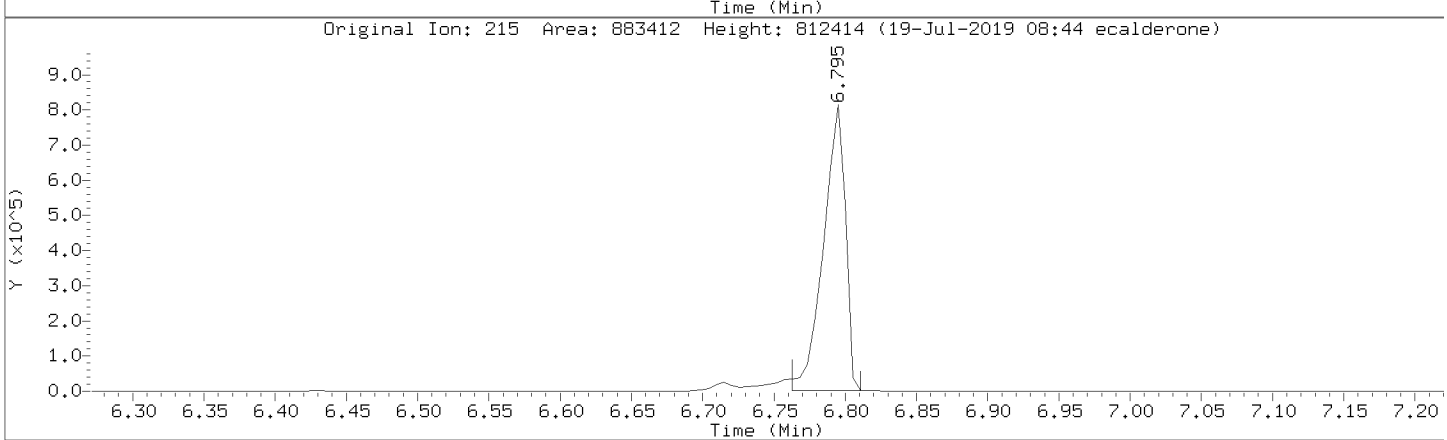
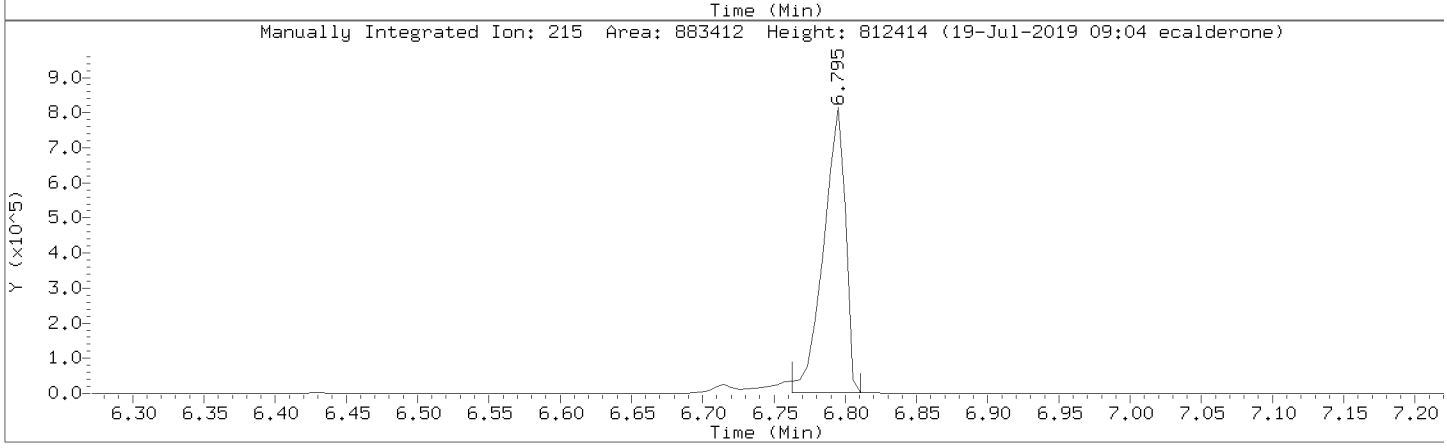
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Atrazine Review Code: LT
CAS Number: 1912-24-9









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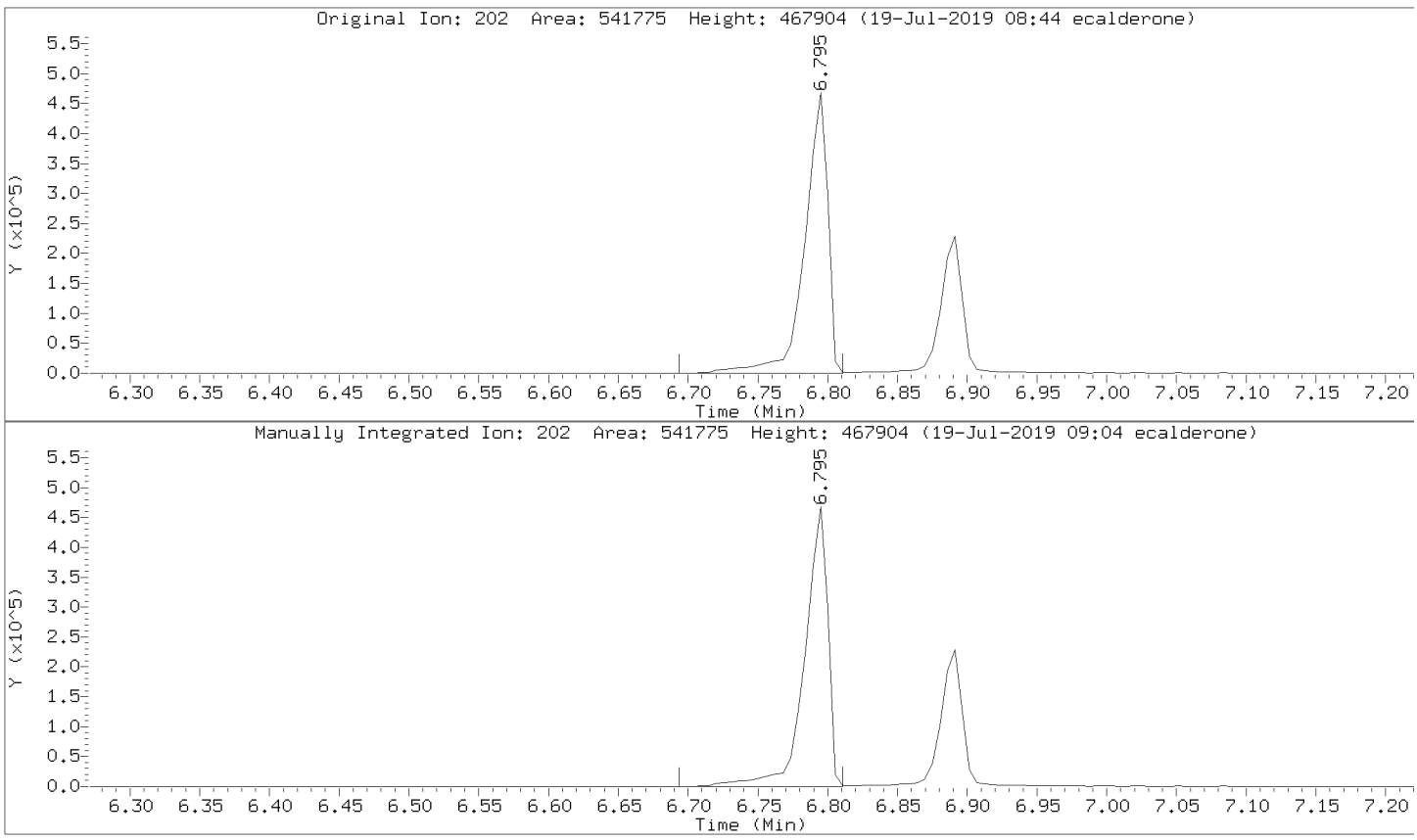


Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y3.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 18-JUL-2019 16:56
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14848,93075:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 16:56 Cal File: m10718y3.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.345	1.286	(0.401)	1029935	12.0000	9.98	
	2 Pyridine	79	1.297	1.275	(0.387)	1621406	12.0000	9.38	
$	3 2-Fluorophenol (S)	112	2.467	2.456	(0.736)	1856596	12.0000	11.5	
$	4 Phenol-d6 (S)	99	3.140	3.118	(0.936)	2453831	12.0000	12.1	
	5 Benzaldehyde	77	3.050	3.028	(0.909)	1783073	12.0000	12.7(M)	LT
	6 Phenol	94	3.146	3.129	(0.938)	2763257	12.0000	12.0	
	7 Aniline	66	3.151	3.129	(0.939)	2155350	12.0000	12.0	
	8 bis(2-Chloroethyl)ether	63	3.199	3.177	(0.954)	1511737	12.0000	11.9	
	9 2-Chlorophenol	128	3.226	3.209	(0.962)	2245552	12.0000	12.2	
	10 1,3-Dichlorobenzene	146	3.327	3.311	(0.992)	2283489	12.0000	11.7	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.354	3.343	(1.000)	535222	4.00000		
	12 1,4-Dichlorobenzene	146	3.365	3.354	(1.003)	2790316	12.0000	12.9	
	13 Benzyl Alcohol	79	3.482	3.466	(1.038)	1763421	12.0000	11.9	
	14 1,2-Dichlorobenzene	146	3.504	3.492	(1.045)	2386867	12.0000	12.4	
	15 2-Methylphenol(o-Cresol)	108	3.584	3.567	(1.068)	2058740	12.0000	12.0	
	16 bis(2-Chloroisopropyl)ether	45	3.600	3.589	(1.073)	3400708	12.0000	12.3	
	17 3&4-Methylphenol(m&p Cresol)	108	3.701	3.679	(1.103)	2108403	12.0000	12.1	
	18 N-Nitroso-di-n-propylamine	70	3.717	3.695	(1.108)	1565600	12.0000	12.1	
	19 Acetophenone	105	3.685	3.669	(1.099)	2776454	12.0000	12.0	
	20 Hexachloroethane	117	3.739	3.728	(1.115)	937865	12.0000	12.2	
$	21 Nitrobenzene-d5 (S)	128	3.798	3.781	(0.876)	1058750	12.0000	11.9	
	22 Nitrobenzene	77	3.808	3.797	(0.878)	2157315	12.0000	12.3	
	23 Isophorone	82	3.995	3.979	(0.921)	3968601	12.0000	12.2	
	24 2,4-Dimethylphenol	107	4.097	4.085	(0.945)	2077686	12.0000	12.0	
	25 2-Nitrophenol	139	4.054	4.043	(0.935)	1232022	12.0000	12.2	
	26 Benzoic acid	105	4.214	4.155	(0.972)	1403009	12.0000	10.2(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.171	4.160	(0.962)	2436368	12.0000	12.2	
	28 2,4-Dichlorophenol	162	4.241	4.230	(0.978)	1749477	12.0000	12.0	
	29 1,2,4-Trichlorobenzene	180	4.305	4.294	(0.993)	1943090	12.0000	12.3	
*	30 Naphthalene-d8 (IS)	136	4.337	4.326	(1.000)	2160422	4.00000		
	31 Naphthalene	128	4.353	4.342	(1.004)	5570191	12.0000	12.0	
	32 4-Chloroaniline	65	4.412	4.401	(1.017)	662070	12.0000	11.7	
	33 Hexachloro-1,3-butadiene	225	4.497	4.491	(1.037)	1036317	12.0000	12.2	
	34 Caprolactam	55	4.690	4.641	(1.081)	818208	12.0000	10.2(M)	LT

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	4.807	4.796	(1.108)	1790496	12.0000	12.0	
36	2-Methylnaphthalene	142	4.898	4.892	(1.129)	4190037	12.0000	12.3	
37	1-Methylnaphthalene	142	4.983	4.978	(1.149)	3953740	12.0000	12.3	
38	Hexachlorocyclopentadiene	237	5.085	5.079	(0.884)	1234265	12.0000	11.4	
39	1,2,4,5-Tetrachlorobenzene	216	5.064	5.058	(0.880)	1744222	12.0000	12.1	
40	2,4,6-Trichlorophenol	196	5.149	5.143	(0.895)	1276910	12.0000	11.3	
41	2,4,5-Trichlorophenol	196	5.181	5.175	(0.901)	1243485	12.0000	12.4	
$ 42	2-Fluorobiphenyl (S)	172	5.213	5.207	(0.906)	4087820	12.0000	12.1	
43	Biphenyl (Diphenyl)	154	5.283	5.277	(0.918)	4563041	12.0000	12.0	
44	2-Chloronaphthalene	164	5.288	5.277	(0.919)	1278991	12.0000	12.0	
45	2-Nitroaniline	138	5.395	5.389	(0.938)	1412279	12.0000	11.8	
46	Dimethylphthalate	163	5.582	5.571	(0.970)	3915393	12.0000	11.9	
47	2,6-Dinitrotoluene	165	5.630	5.619	(0.979)	1040209	12.0000	12.1	
48	Acenaphthylene	152	5.630	5.619	(0.979)	5536220	12.0000	11.9	
49	3-Nitroaniline	65	5.737	5.720	(0.997)	1154160	12.0000	11.6	
* 50	Acenaphthene-d10 (IS)	164	5.753	5.747	(1.000)	1169397	4.00000		
51	2,4-Dinitrophenol	184	5.817	5.806	(1.011)	604006	12.0000	11.2	
52	Acenaphthene	153	5.779	5.768	(1.005)	3694993	12.0000	12.0	
53	4-Nitrophenol	109	5.886	5.870	(1.023)	542116	12.0000	11.4(M)	LT
54	2,4-Dinitrotoluene	165	5.945	5.928	(1.033)	1339856	12.0000	11.8	
55	Dibenzofuran	168	5.908	5.902	(1.027)	4797300	12.0000	11.8	
56	2,3,4,6-Tetrachlorophenol	232	6.047	6.041	(1.051)	1042826	12.0000	12.1	
57	Diethylphthalate	149	6.153	6.142	(1.070)	3977438	12.0000	12.0	
58	4-Chlorophenylphenyl ether	204	6.191	6.185	(1.076)	2032208	12.0000	11.8	
59	Fluorene	166	6.185	6.180	(1.075)	4047949	12.0000	11.8	
60	4-Nitroaniline	108	6.244	6.222	(1.085)	593138	12.0000	11.1(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.276	6.260	(0.896)	798118	12.0000	11.5	
62	N-Nitrosodiphenylamine	169	6.298	6.286	(0.899)	3453657	12.0000	11.8	
63	Azobenzene	77	6.319	6.313	(0.902)	3882980	12.0000	12.6	
64	1,2-Diphenylhydrazine	77	6.319	6.313	(0.902)	3882980	12.0000	12.6	
$ 65	2,4,6-Tribromophenol (S)	330	6.399	6.393	(0.914)	666154	12.0000	11.8	
66	4-Bromophenylphenyl ether	248	6.586	6.580	(0.941)	1233621	12.0000	12.0	
67	Hexachlorobenzene	284	6.714	6.708	(0.959)	1241385	12.0000	12.1	
68	Atrazine	200	6.789	6.773	(0.969)	1203213	12.0000	12.0	
69	Pentachlorophenol	266	6.885	6.874	(0.983)	771103	12.0000	11.9	
* 70	Phenanthrene-d10 (IS)	188	7.003	6.997	(1.000)	1882147	4.00000		
71	Phenanthrene	178	7.035	7.024	(1.005)	5922160	12.0000	11.9	
72	Anthracene	178	7.083	7.072	(1.011)	5860223	12.0000	12.5	
73	Carbazole	167	7.270	7.253	(1.038)	5090838	12.0000	12.0	
74	Di-n-butylphthalate	149	7.740	7.734	(1.105)	6500107	12.0000	12.4	
75	Fluoranthene	202	8.312	8.300	(1.187)	5957513	12.0000	12.3	
76	Pyrene	202	8.541	8.530	(0.871)	6078382	12.0000	12.0	
$ 77	Terphenyl-d14 (S)	244	8.750	8.738	(0.892)	4752755	12.0000	12.0	
78	Butylbenzylphthalate	149	9.316	9.305	(0.950)	3023839	12.0000	12.2	
79	3,3'-Dichlorobenzidine	252	9.802	9.785	(0.999)	2385999	12.0000	12.1	
80	bis(2-Ethylhexyl)phthalate	149	9.941	9.935	(1.014)	4171277	12.0000	12.1	
81	Benzo(a)anthracene	228	9.791	9.780	(0.998)	5820067	12.0000	12.1	
* 82	Chrysene-d12 (IS)	240	9.807	9.796	(1.000)	1788337	4.00000		
83	Chrysene	228	9.834	9.818	(1.003)	5513048	12.0000	12.4	
84	Di-n-octylphthalate	149	10.523	10.517	(0.945)	6703791	12.0000	12.0	
85	Benzo(b)fluoranthene	252	10.817	10.806	(0.971)	6187221	12.0000	11.9	
86	Benzo(k)fluoranthene	252	10.844	10.822	(0.974)	6502072	12.0000	12.5(M)	LT
87	Benzo(a)pyrene	252	11.095	11.078	(0.996)	5834052	12.0000	12.2	
* 88	Perylene-d12 (IS)	264	11.138	11.132	(1.000)	1889918	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.976	11.960	(1.075)	6827113	12.0000	11.8	
90 Dibenz(a,h)anthracene	278	11.987	11.970	(1.076)	5809081	12.0000	12.2	
91 Benzo(g,h,i)perylene	276	12.163	12.141	(1.092)	5587655	12.0000	11.9	

QC Flag Legend

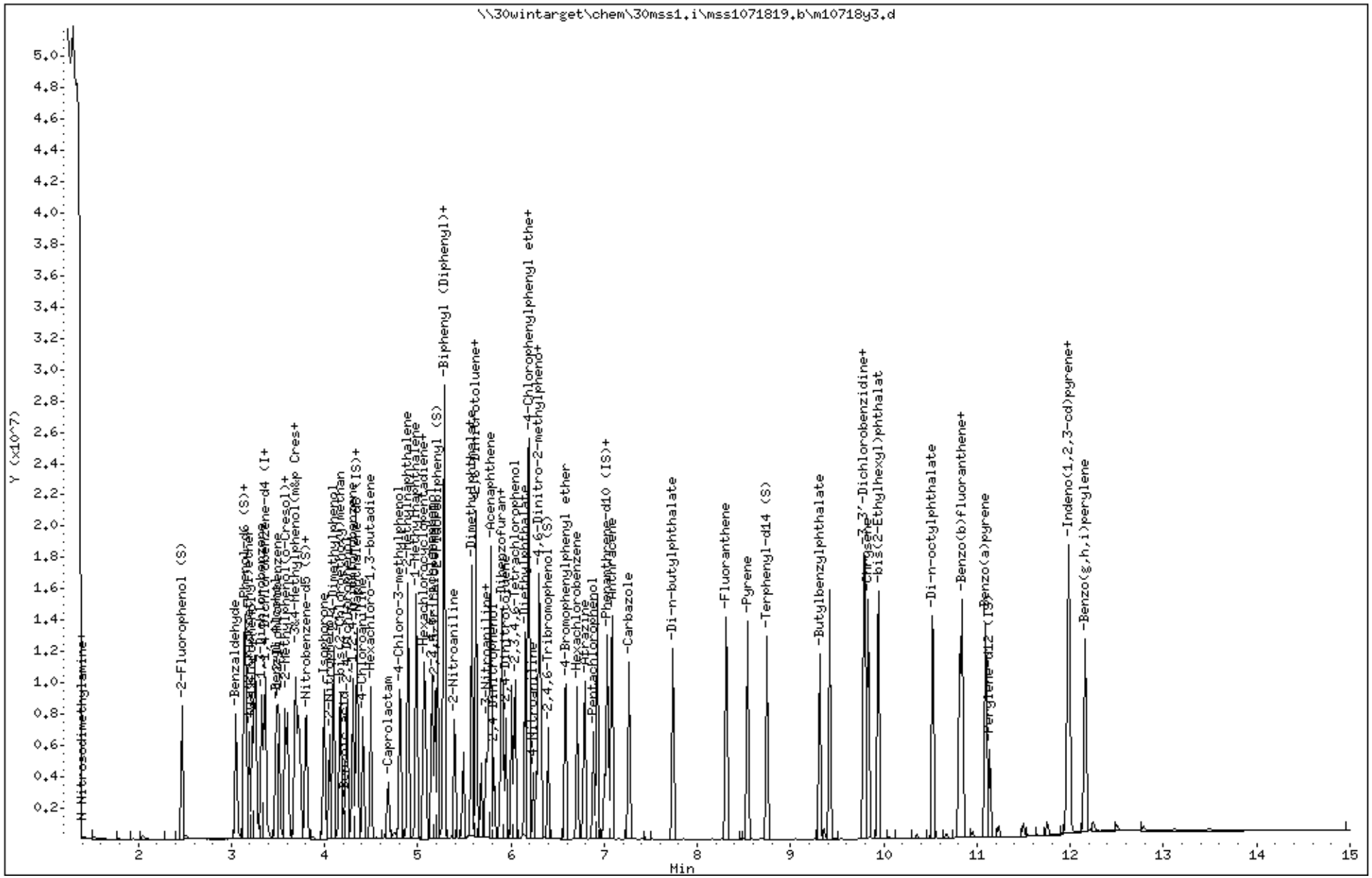
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y3.d
Date : 18-JUL-2019 16:56
Client ID: CAL5
Sample Info: CAL5

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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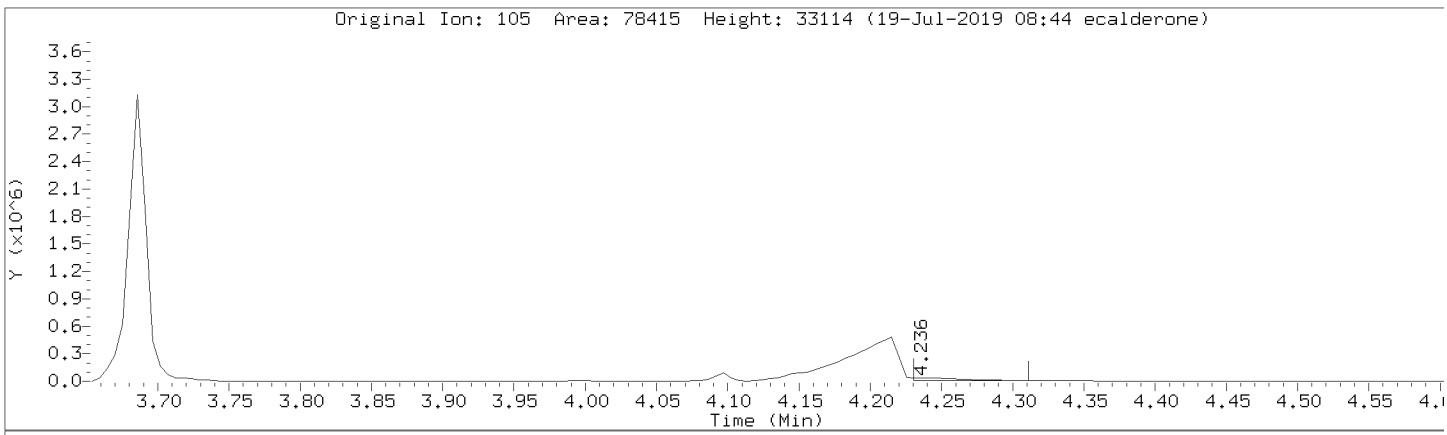
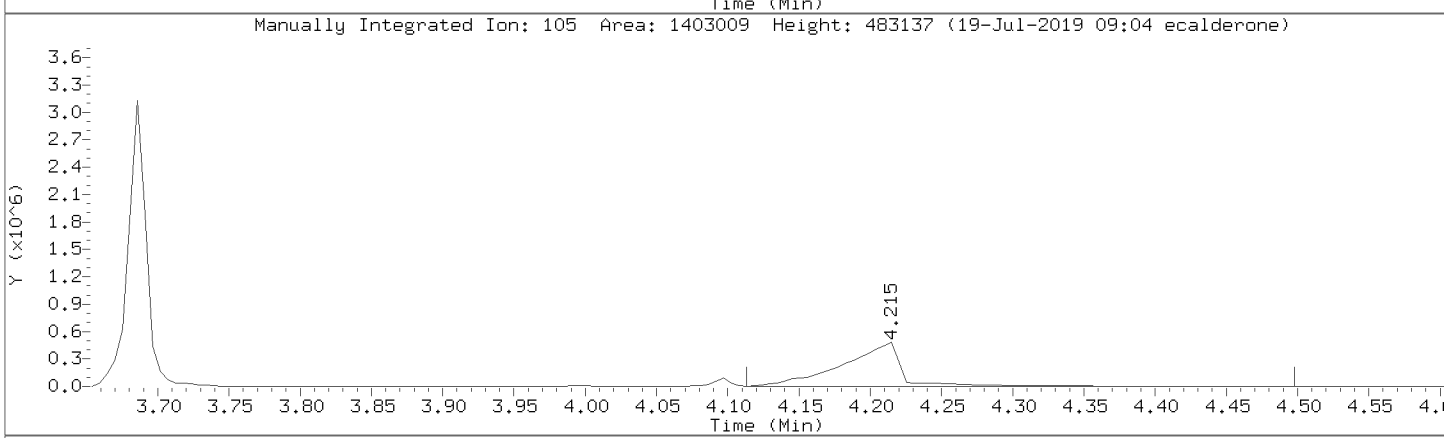
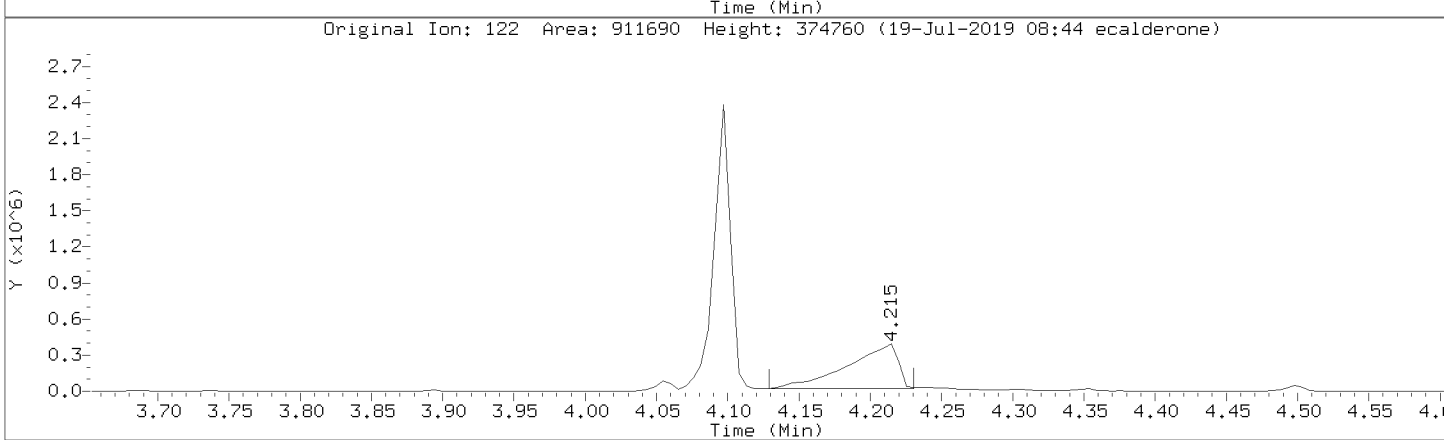
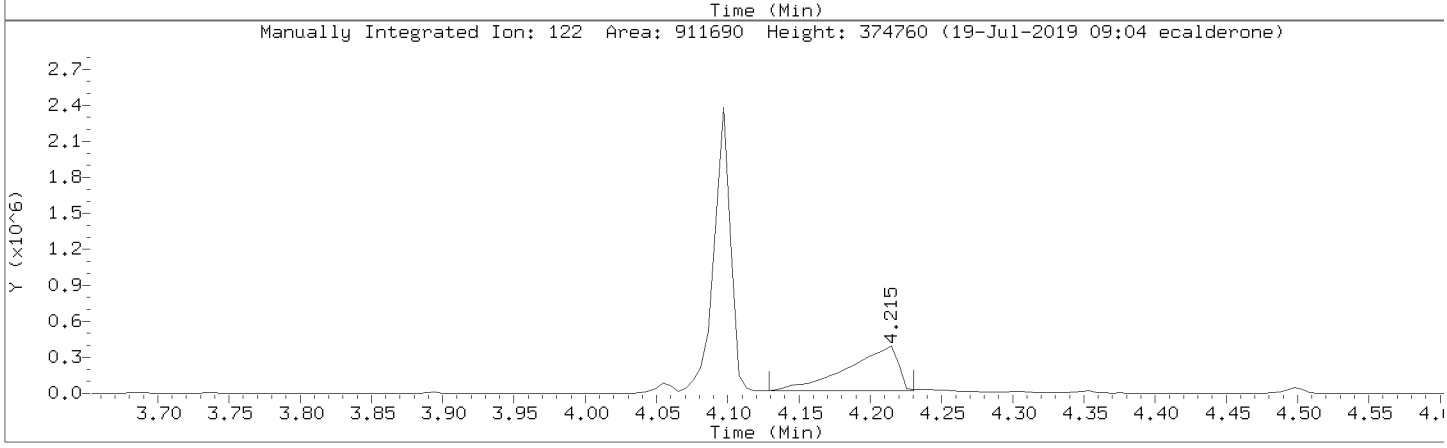
Injection Date: 18-JUL-2019 16:56
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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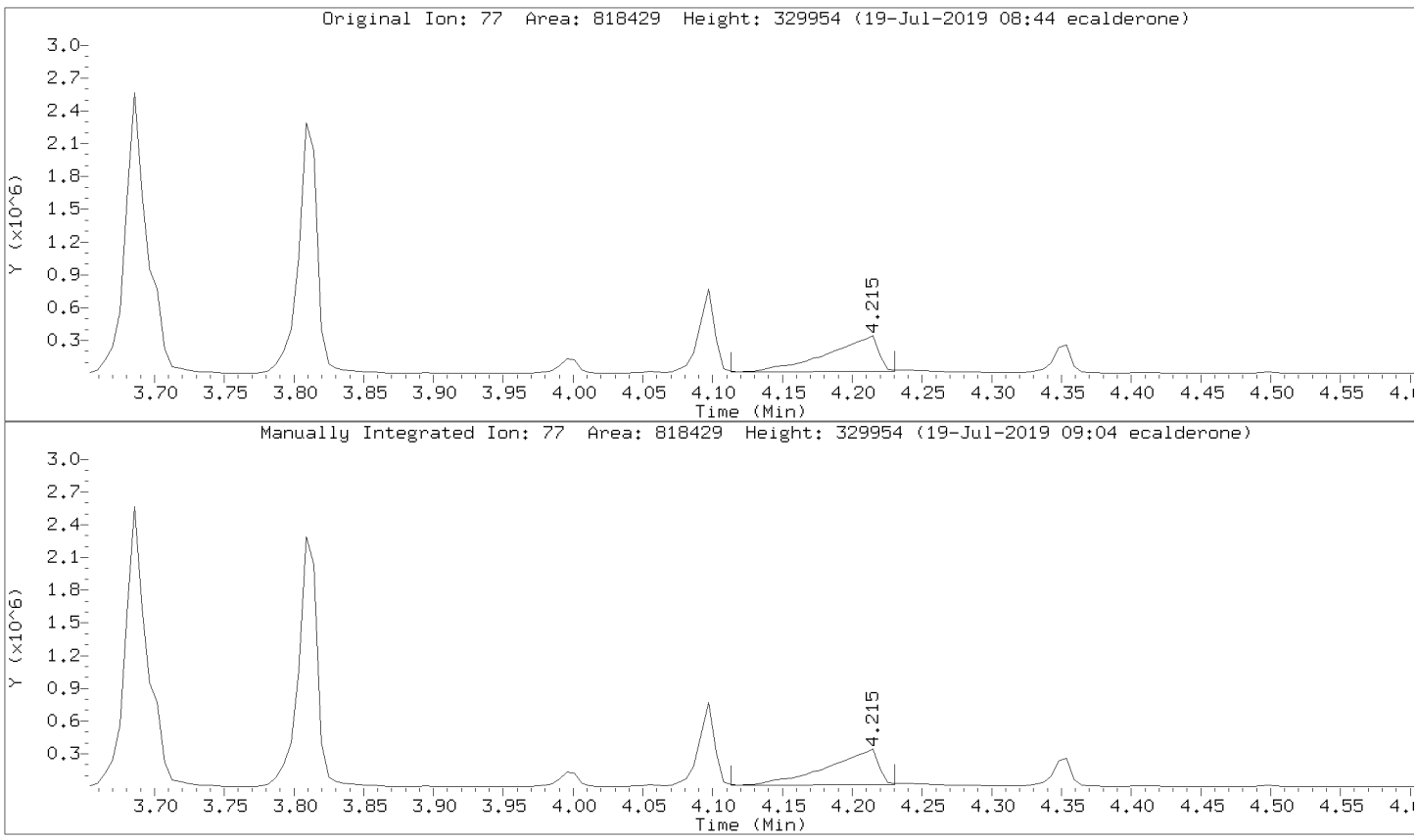
Instrument: 30mss1.i
Lab Sample ID: CAL5



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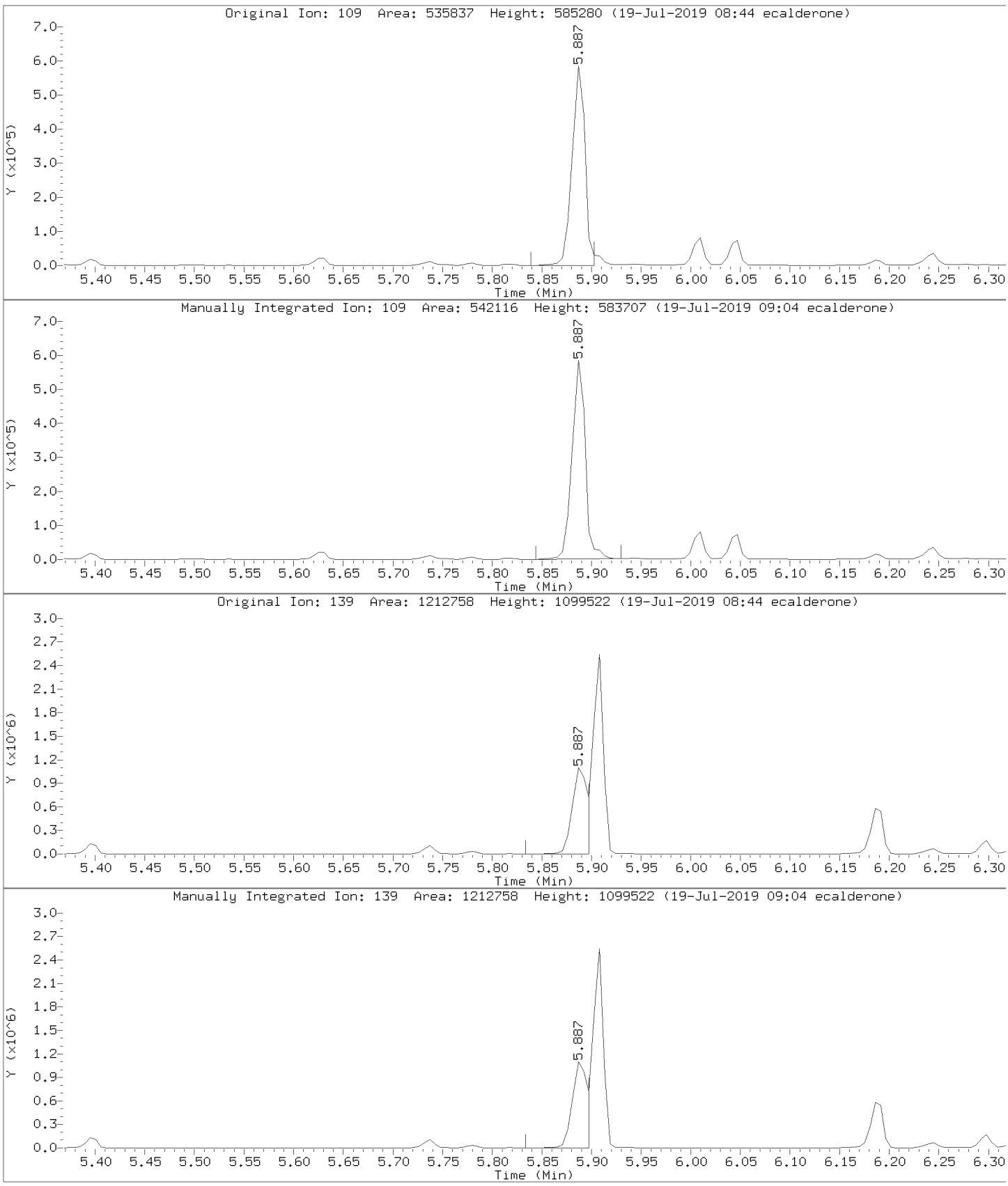
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitrophenol Review Code: LT
CAS Number: 100-02-7



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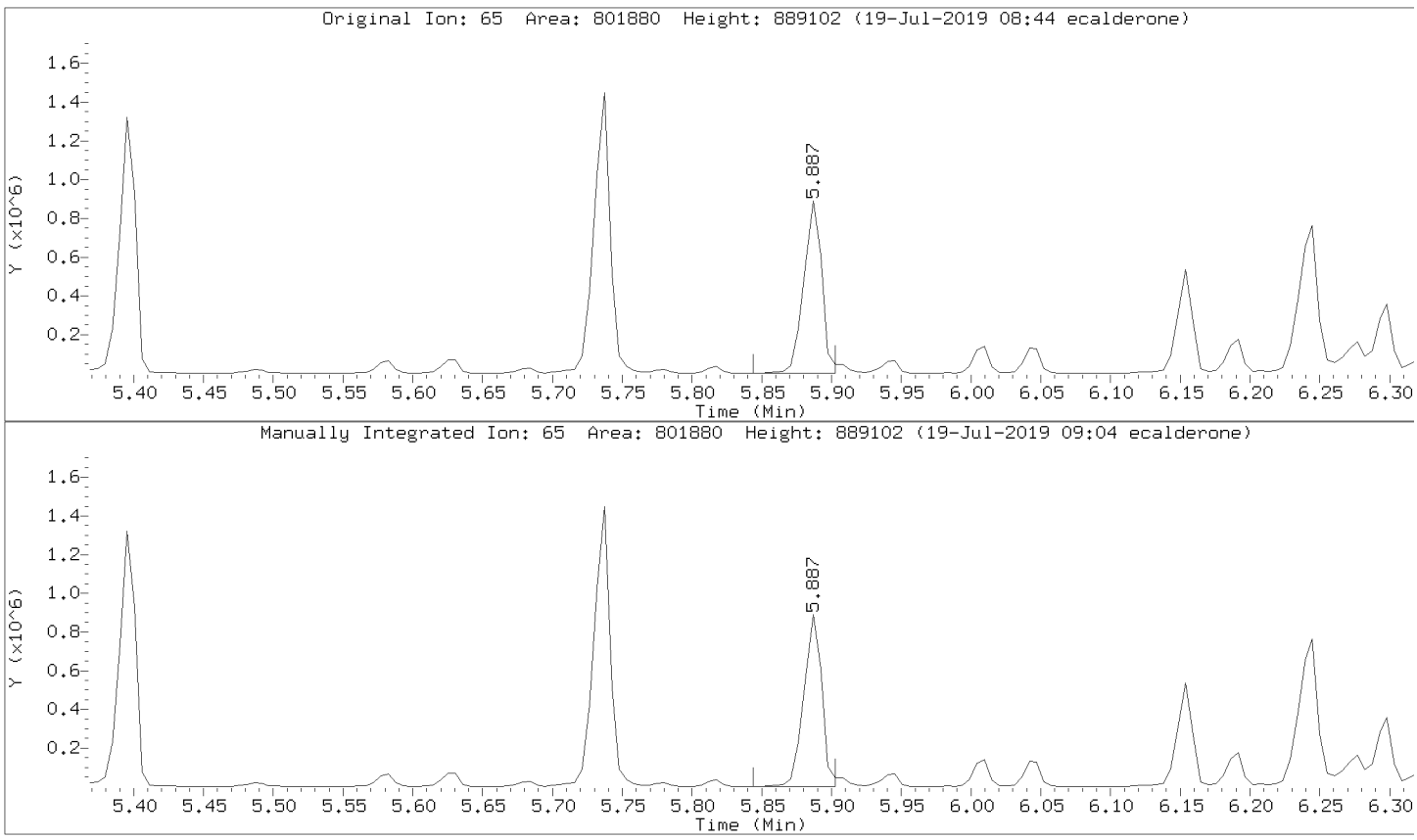

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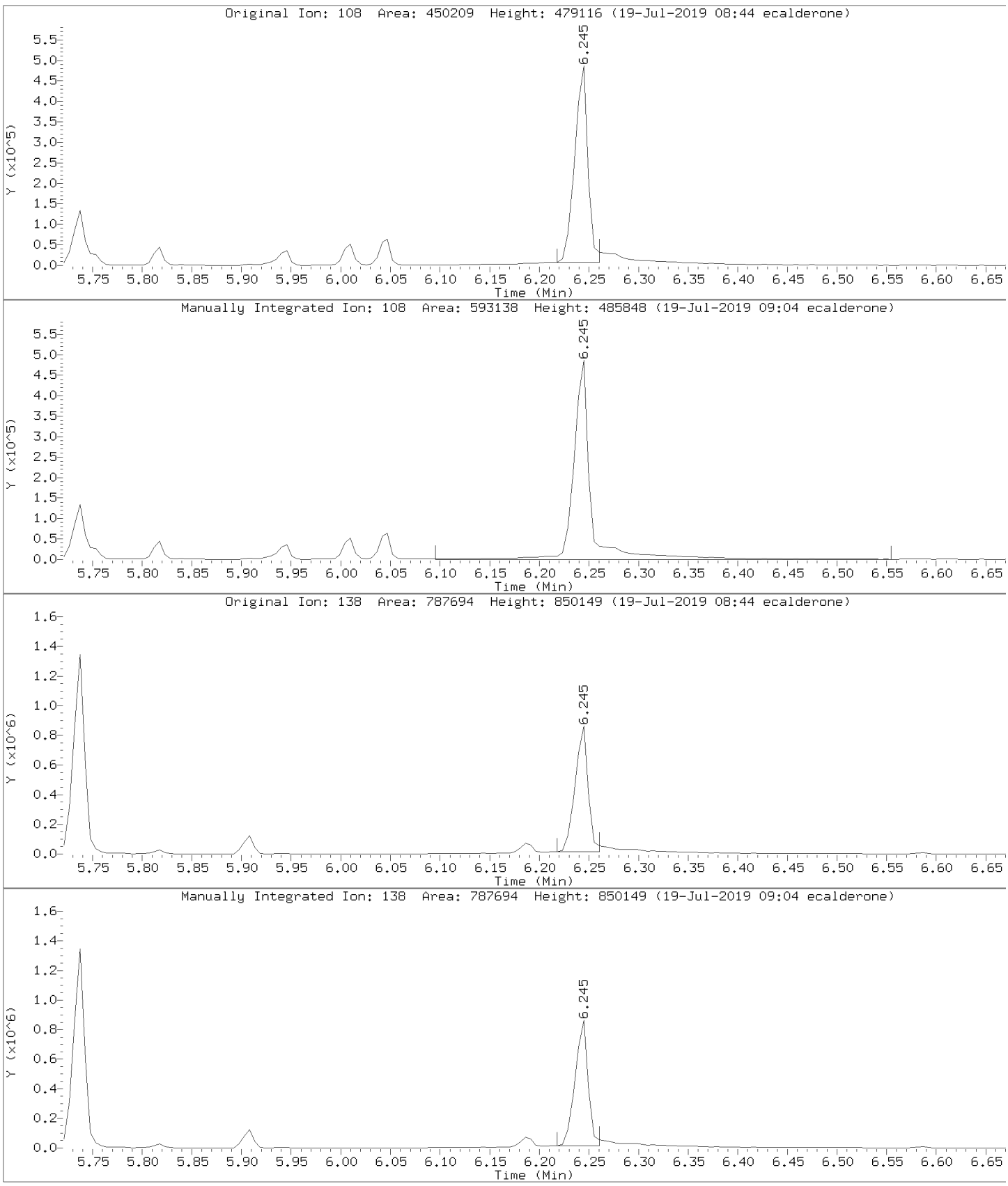
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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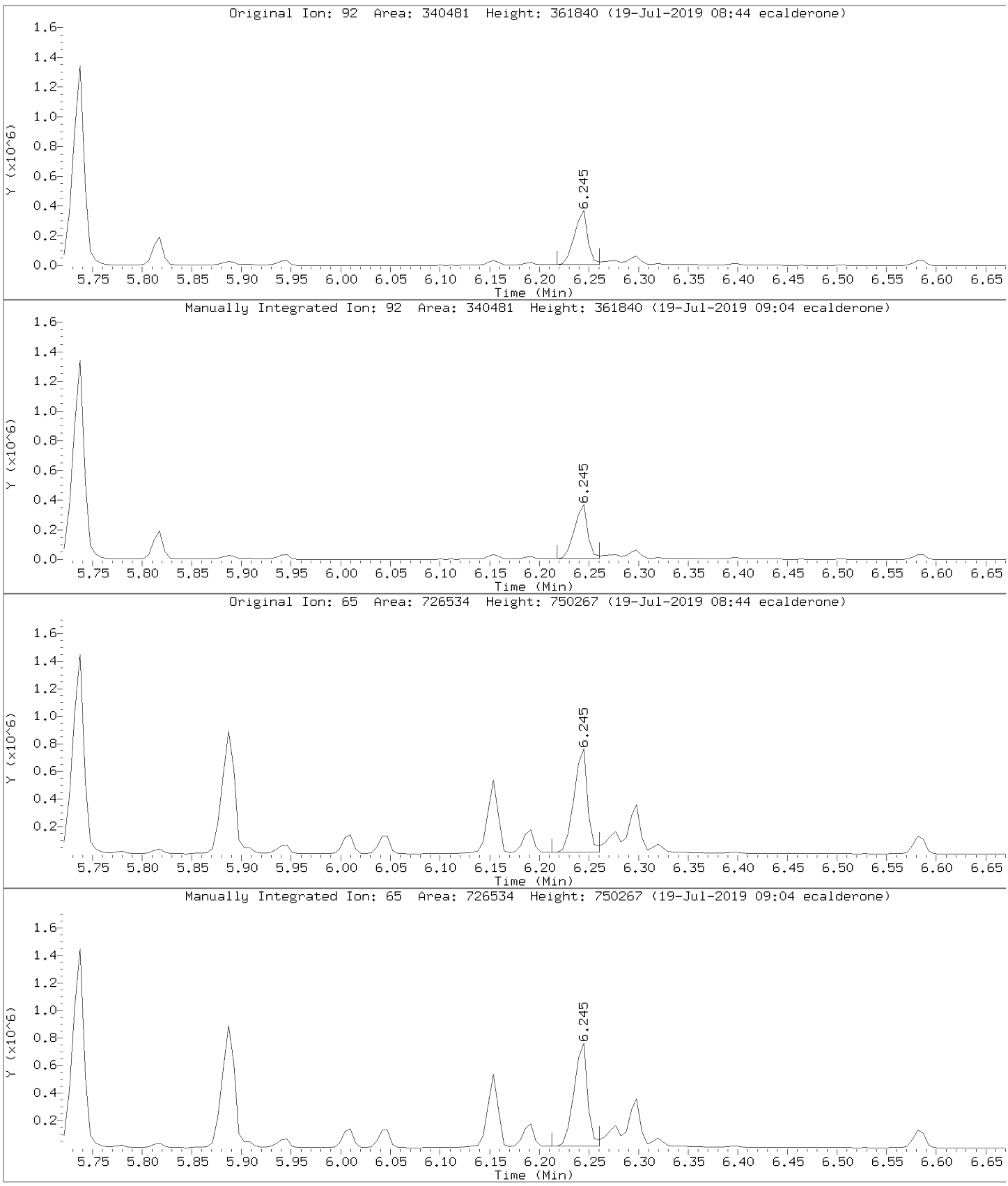

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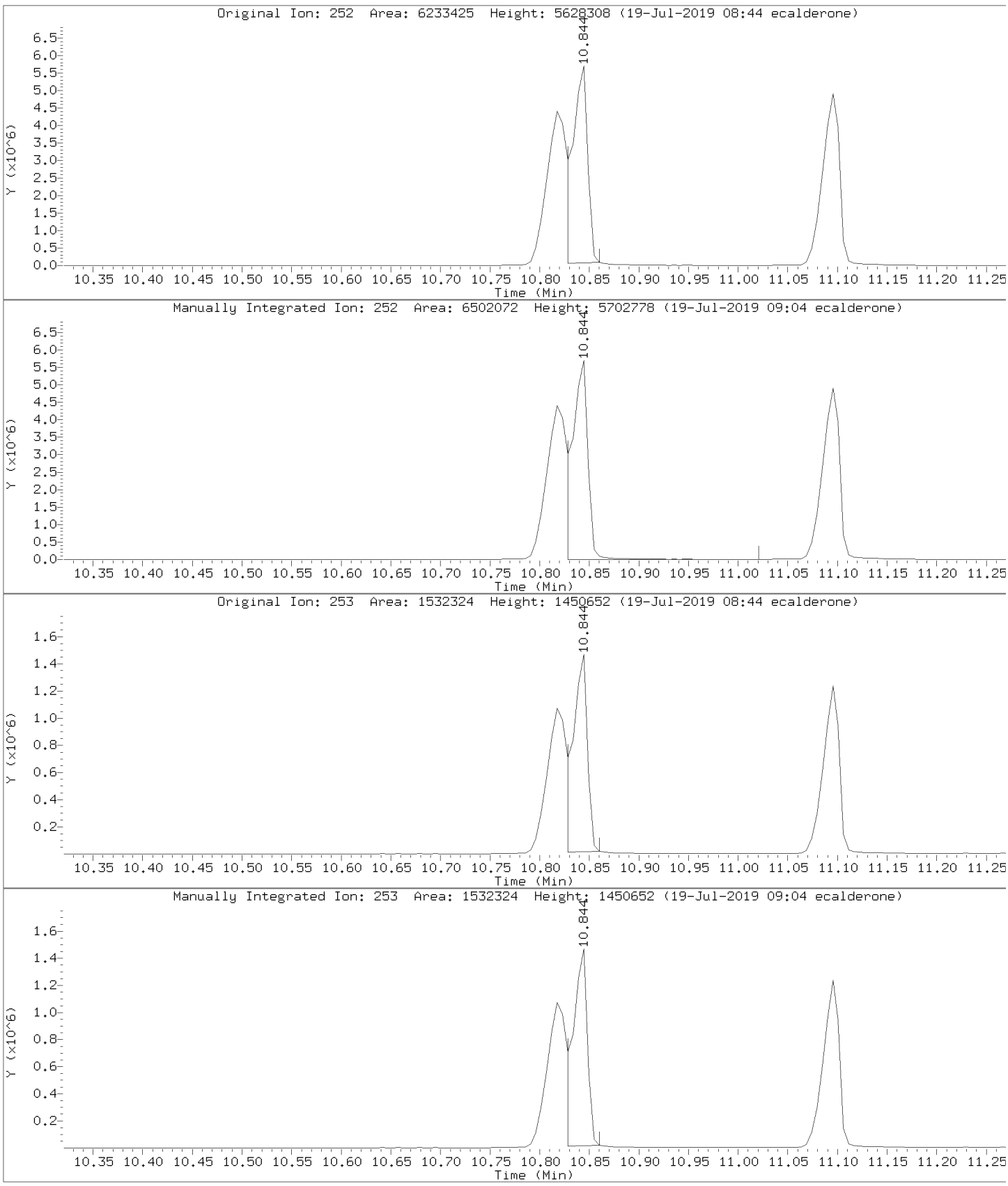
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: LT
CAS Number: 207-08-9



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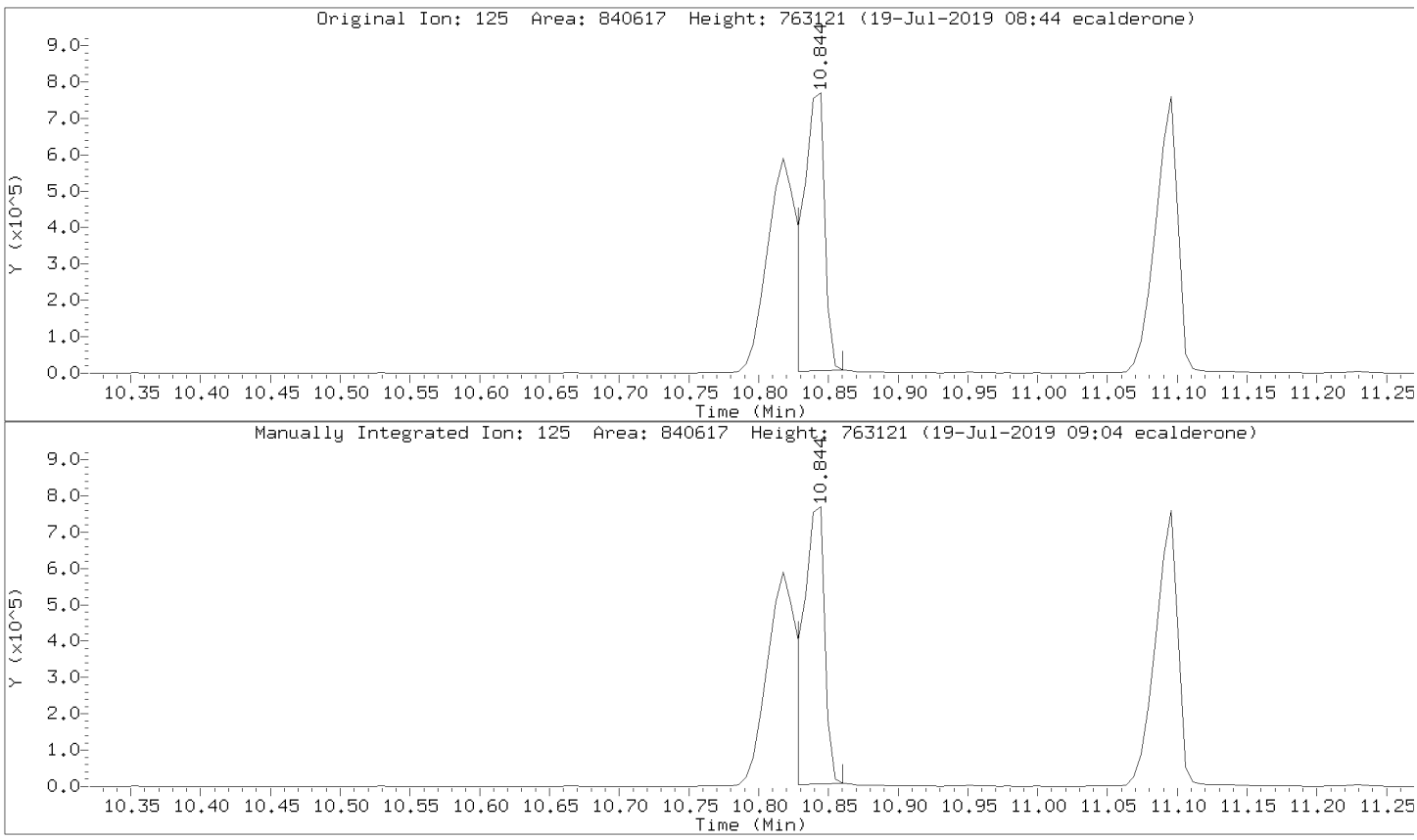
Instrument: 30mss1.i
Lab Sample ID: CAL5



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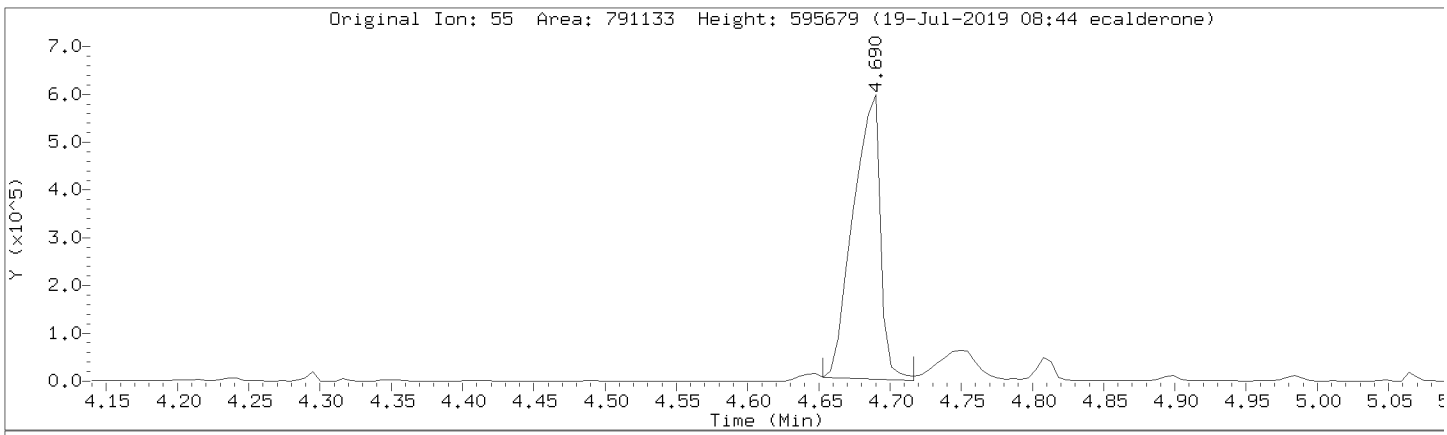
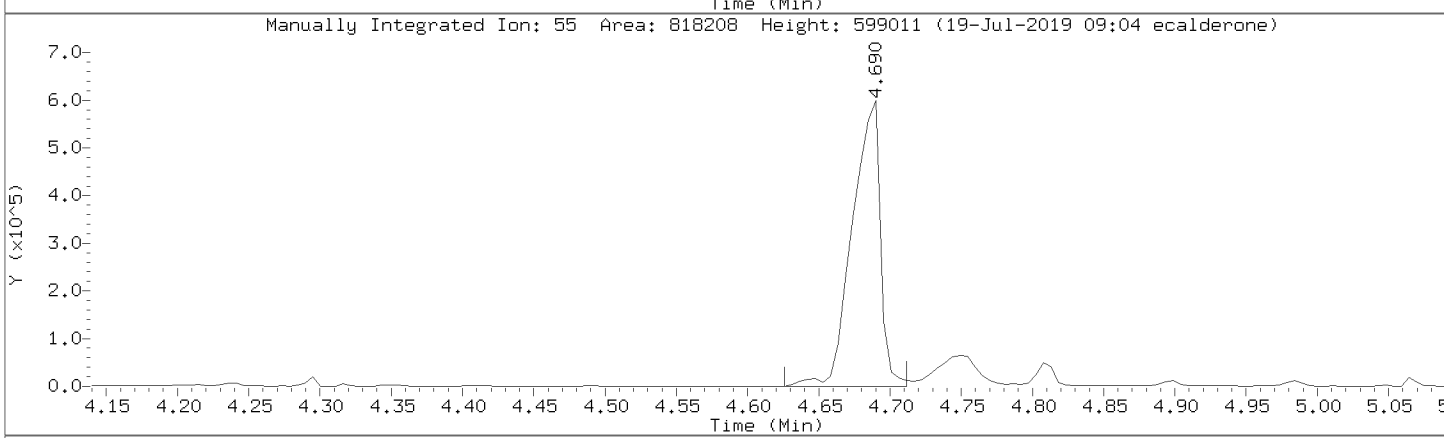
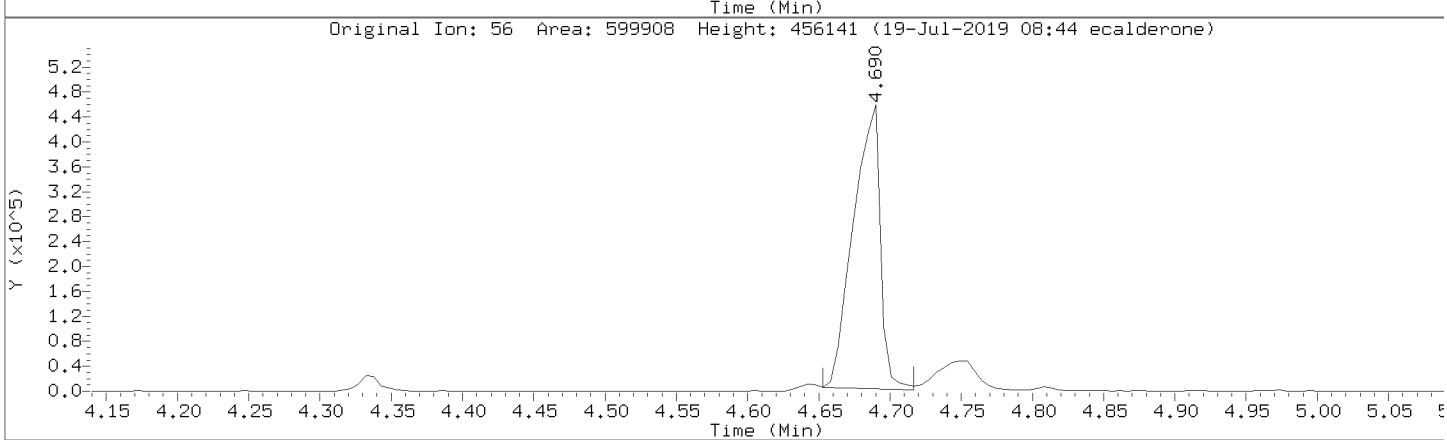
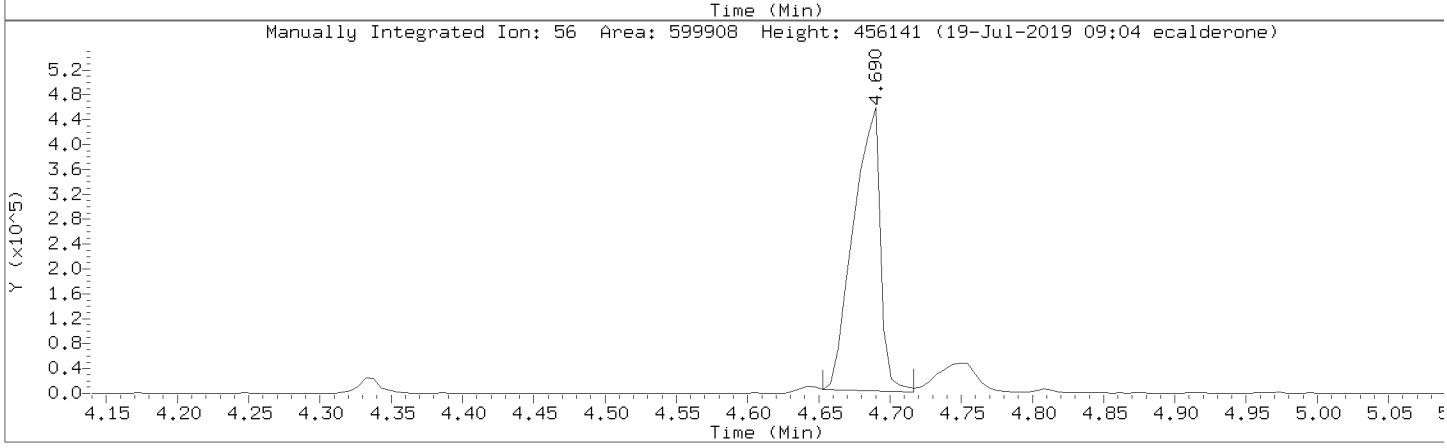
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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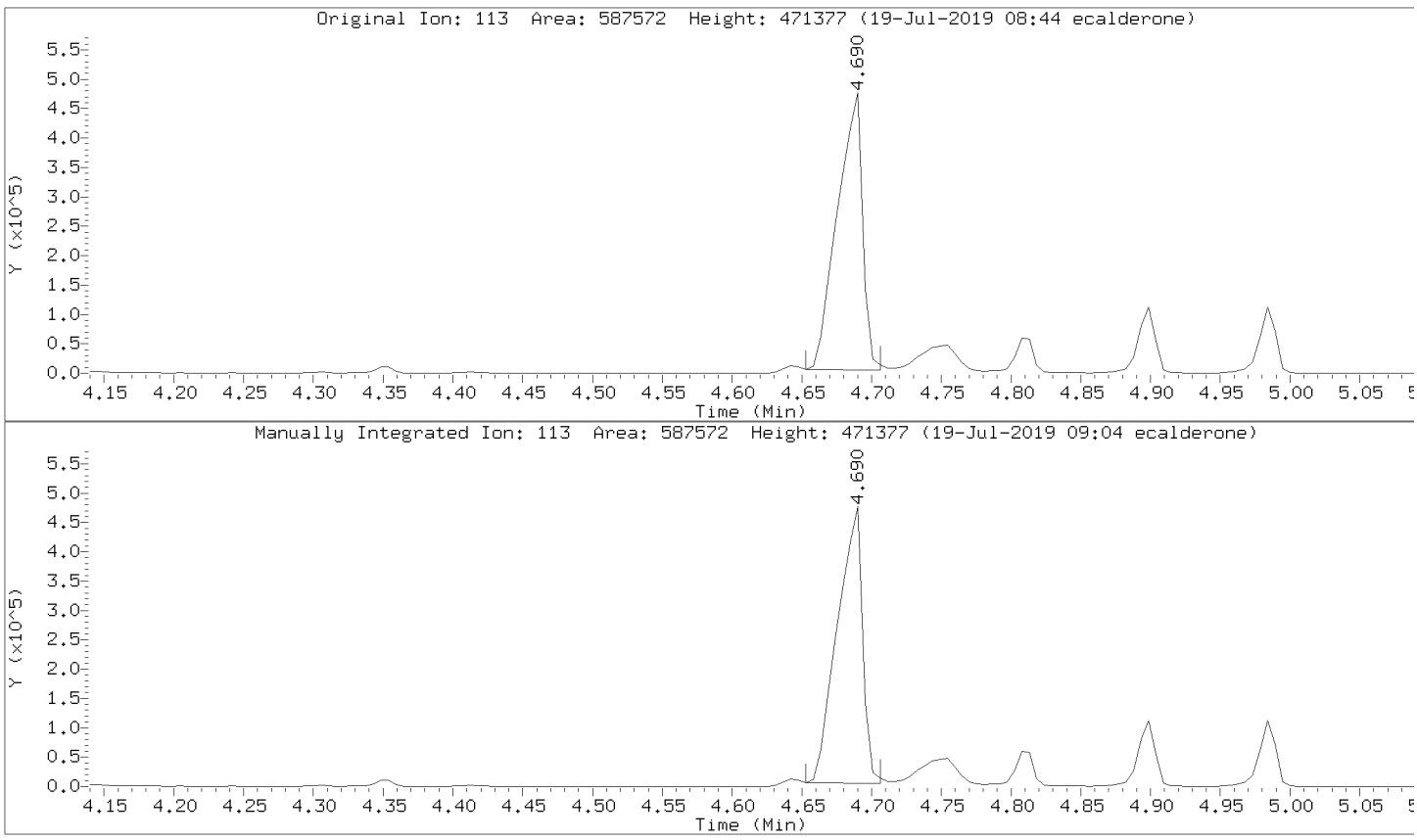
Lab Sample ID: CAL5



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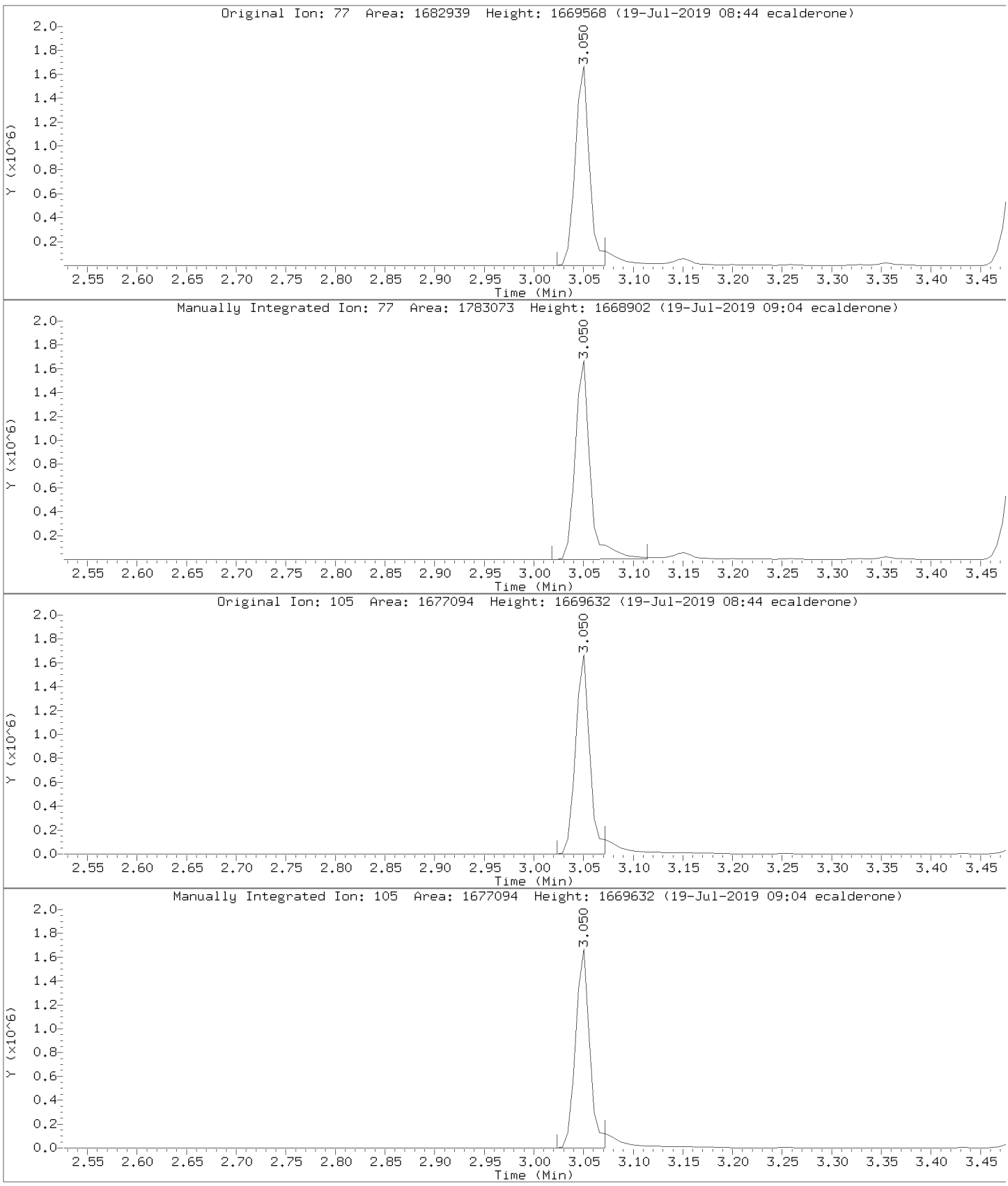
Injection Date: 18-JUL-2019 16:56
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzaldehyde Review Code: LT
CAS Number: 100-52-7



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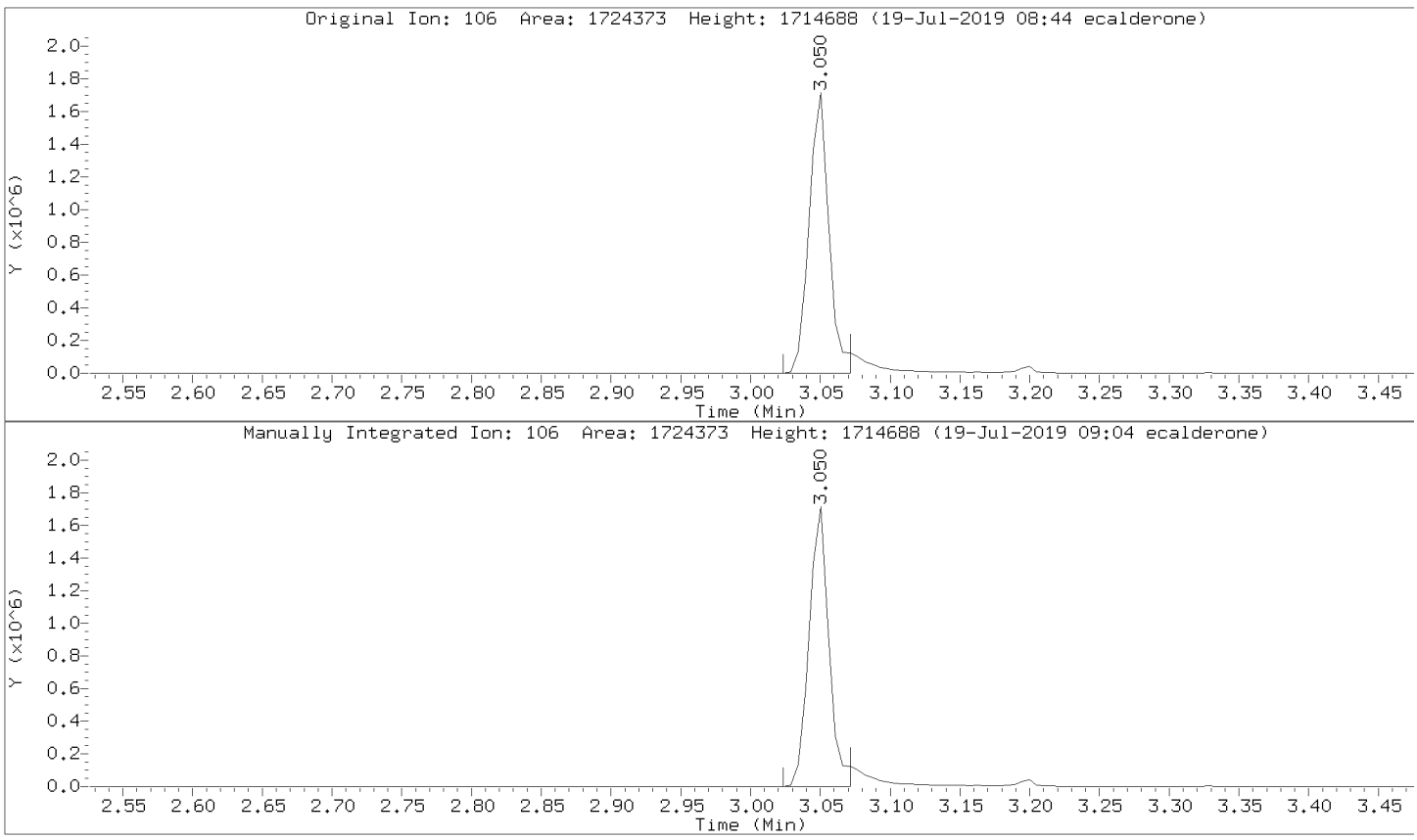
Instrument: 30mss1.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 18-JUL-2019 17:19
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal4
Misc Info : 14848,93076:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 17:19 Cal File: m10718y4.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	1 N-Nitrosodimethylamine	74	1.297	1.286	(0.388)	923994	8.00000			
	2 Pyridine	79	1.281	1.275	(0.383)	1417432	8.00000			
$	3 2-Fluorophenol (S)	112	2.456	2.456	(0.735)	1397140	8.00000			
$	4 Phenol-d6 (S)	99	3.124	3.118	(0.934)	1719805	8.00000			
	5 Benzaldehyde	77	3.027	3.028	(0.906)	1191023	8.00000			
	6 Phenol	94	3.134	3.129	(0.938)	1985068	8.00000			
	7 Aniline	66	3.134	3.129	(0.938)	1521184	8.00000			
	8 bis(2-Chloroethyl)ether	63	3.182	3.177	(0.952)	1076568	8.00000			
	9 2-Chlorophenol	128	3.214	3.209	(0.962)	1525855	8.00000			
	10 1,3-Dichlorobenzene	146	3.316	3.311	(0.992)	1678885	8.00000			
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.343	3.343	(1.000)	556634	4.00000			
	12 1,4-Dichlorobenzene	146	3.353	3.354	(1.003)	1780912	8.00000			
	13 Benzyl Alcohol	79	3.471	3.466	(1.038)	1235486	8.00000			
	14 1,2-Dichlorobenzene	146	3.492	3.492	(1.045)	1594484	8.00000			
	15 2-Methylphenol(o-Cresol)	108	3.572	3.567	(1.069)	1425680	8.00000			
	16 bis(2-Chloroisopropyl)ether	45	3.588	3.589	(1.073)	2342609	8.00000			
	17 3&4-Methylphenol(m&p Cresol)	108	3.684	3.679	(1.102)	1472600	8.00000			
	18 N-Nitroso-di-n-propylamine	70	3.700	3.695	(1.107)	1087486	8.00000			
	19 Acetophenone	105	3.674	3.669	(1.099)	1971601	8.00000			
	20 Hexachloroethane	117	3.727	3.728	(1.115)	626231	8.00000			
$	21 Nitrobenzene-d5 (S)	128	3.786	3.781	(0.874)	737743	8.00000			
	22 Nitrobenzene	77	3.802	3.797	(0.878)	1502876	8.00000			
	23 Isophorone	82	3.984	3.979	(0.920)	2815696	8.00000			
	24 2,4-Dimethylphenol	107	4.090	4.085	(0.944)	1478720	8.00000			
	25 2-Nitrophenol	139	4.048	4.043	(0.935)	828113	8.00000			
	26 Benzoic acid	105	4.192	4.155	(0.968)	1042794	8.00000		(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.165	4.160	(0.962)	1710060	8.00000			
	28 2,4-Dichlorophenol	162	4.235	4.230	(0.978)	1232757	8.00000			
	29 1,2,4-Trichlorobenzene	180	4.299	4.294	(0.993)	1309184	8.00000			
*	30 Naphthalene-d8 (IS)	136	4.331	4.326	(1.000)	2247348	4.00000			
	31 Naphthalene	128	4.347	4.342	(1.004)	4180466	8.00000			
	32 4-Chloroaniline	65	4.406	4.401	(1.017)	483088	8.00000			
	33 Hexachloro-1,3-butadiene	225	4.496	4.491	(1.038)	695648	8.00000			
	34 Caprolactam	55	4.667	4.641	(1.078)	667290	8.00000		(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	4.806	4.796	(1.110)	1256646	8.00000		
	36	2-Methylnaphthalene	142	4.892	4.892	(1.129)	3004682	8.00000		
	37	1-Methylnaphthalene	142	4.983	4.978	(1.150)	2807070	8.00000		
	38	Hexachlorocyclopentadiene	237	5.084	5.079	(0.884)	892387	8.00000		
	39	1,2,4,5-Tetrachlorobenzene	216	5.063	5.058	(0.880)	1183194	8.00000		
	40	2,4,6-Trichlorophenol	196	5.148	5.143	(0.895)	953233	8.00000		
	41	2,4,5-Trichlorophenol	196	5.180	5.175	(0.901)	809524	8.00000		
$	42	2-Fluorobiphenyl (S)	172	5.207	5.207	(0.905)	2926154	8.00000		
	43	Biphenyl (Diphenyl)	154	5.276	5.277	(0.917)	3403449	8.00000		
	44	2-Chloronaphthalene	164	5.282	5.277	(0.918)	886814	8.00000		
	45	2-Nitroaniline	138	5.394	5.389	(0.938)	1008623	8.00000		
	46	Dimethylphthalate	163	5.576	5.571	(0.969)	2856028	8.00000	(M)	LT
	47	2,6-Dinitrotoluene	165	5.624	5.619	(0.978)	705806	8.00000		
	48	Acenaphthylene	152	5.624	5.619	(0.978)	4138456	8.00000		
	49	3-Nitroaniline	65	5.731	5.720	(0.996)	832941	8.00000		
*	50	Acenaphthene-d10 (IS)	164	5.752	5.747	(1.000)	1197448	4.00000		
	51	2,4-Dinitrophenol	184	5.811	5.806	(1.010)	430205	8.00000		
	52	Acenaphthene	153	5.773	5.768	(1.004)	2656131	8.00000		
	53	4-Nitrophenol	109	5.880	5.870	(1.022)	389754	8.00000		
	54	2,4-Dinitrotoluene	165	5.939	5.928	(1.033)	949168	8.00000		
	55	Dibenzofuran	168	5.901	5.902	(1.026)	3618726	8.00000		
	56	2,3,4,6-Tetrachlorophenol	232	6.040	6.041	(1.050)	685484	8.00000		
	57	Diethylphthalate	149	6.153	6.142	(1.070)	2879107	8.00000		
	58	4-Chlorophenylphenyl ether	204	6.190	6.185	(1.076)	1445994	8.00000		
	59	Fluorene	166	6.185	6.180	(1.075)	2994851	8.00000		
	60	4-Nitroaniline	108	6.233	6.222	(1.084)	453847	8.00000	(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.270	6.260	(0.895)	566595	8.00000		
	62	N-Nitrosodiphenylamine	169	6.291	6.286	(0.899)	2582748	8.00000		
	63	Azobenzene	77	6.313	6.313	(0.902)	2725163	8.00000		
	64	1,2-Diphenylhydrazine	77	6.313	6.313	(0.902)	2725163	8.00000		
$	65	2,4,6-Tribromophenol (S)	330	6.393	6.393	(0.913)	459653	8.00000		
	66	4-Bromophenylphenyl ether	248	6.580	6.580	(0.940)	867452	8.00000		
	67	Hexachlorobenzene	284	6.708	6.708	(0.958)	847192	8.00000		
	68	Atrazine	200	6.783	6.773	(0.969)	845511	8.00000		
	69	Pentachlorophenol	266	6.879	6.874	(0.982)	531396	8.00000		
*	70	Phenanthrene-d10 (IS)	188	7.002	6.997	(1.000)	2002950	4.00000		
	71	Phenanthrene	178	7.029	7.024	(1.004)	4524828	8.00000		
	72	Anthracene	178	7.077	7.072	(1.011)	4158096	8.00000		
	73	Carbazole	167	7.264	7.253	(1.037)	3897643	8.00000		
	74	Di-n-butylphthalate	149	7.734	7.734	(1.105)	4692422	8.00000		
	75	Fluoranthene	202	8.305	8.300	(1.186)	4290507	8.00000		
	76	Pyrene	202	8.540	8.530	(0.871)	4352020	8.00000		
$	77	Terphenyl-d14 (S)	244	8.743	8.738	(0.892)	3236885	8.00000		
	78	Butylbenzylphthalate	149	9.310	9.305	(0.950)	1991901	8.00000		
	79	3,3'-Dichlorobenzidine	252	9.796	9.785	(0.999)	1570923	8.00000		
	80	bis(2-Ethylhexyl)phthalate	149	9.940	9.935	(1.014)	2849928	8.00000		
	81	Benzo(a)anthracene	228	9.785	9.780	(0.998)	4119178	8.00000		
*	82	Chrysene-d12 (IS)	240	9.801	9.796	(1.000)	1785477	4.00000		
	83	Chrysene	228	9.828	9.818	(1.003)	3766541	8.00000		
	84	Di-n-octylphthalate	149	10.522	10.517	(0.945)	4583988	8.00000		
	85	Benzo(b)fluoranthene	252	10.811	10.806	(0.971)	3840015	8.00000		
	86	Benzo(k)fluoranthene	252	10.838	10.822	(0.974)	4211064	8.00000		
	87	Benzo(a)pyrene	252	11.089	11.078	(0.996)	3807644	8.00000		
*	88	Perylene-d12 (IS)	264	11.131	11.132	(1.000)	1787973	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.970	11.960	(1.075)	4320054	8.00000		
90 Dibenz(a,h)anthracene	278	11.981	11.970	(1.076)	3678475	8.00000		
91 Benzo(g,h,i)perylene	276	12.157	12.141	(1.092)	3624804	8.00000		

QC Flag Legend

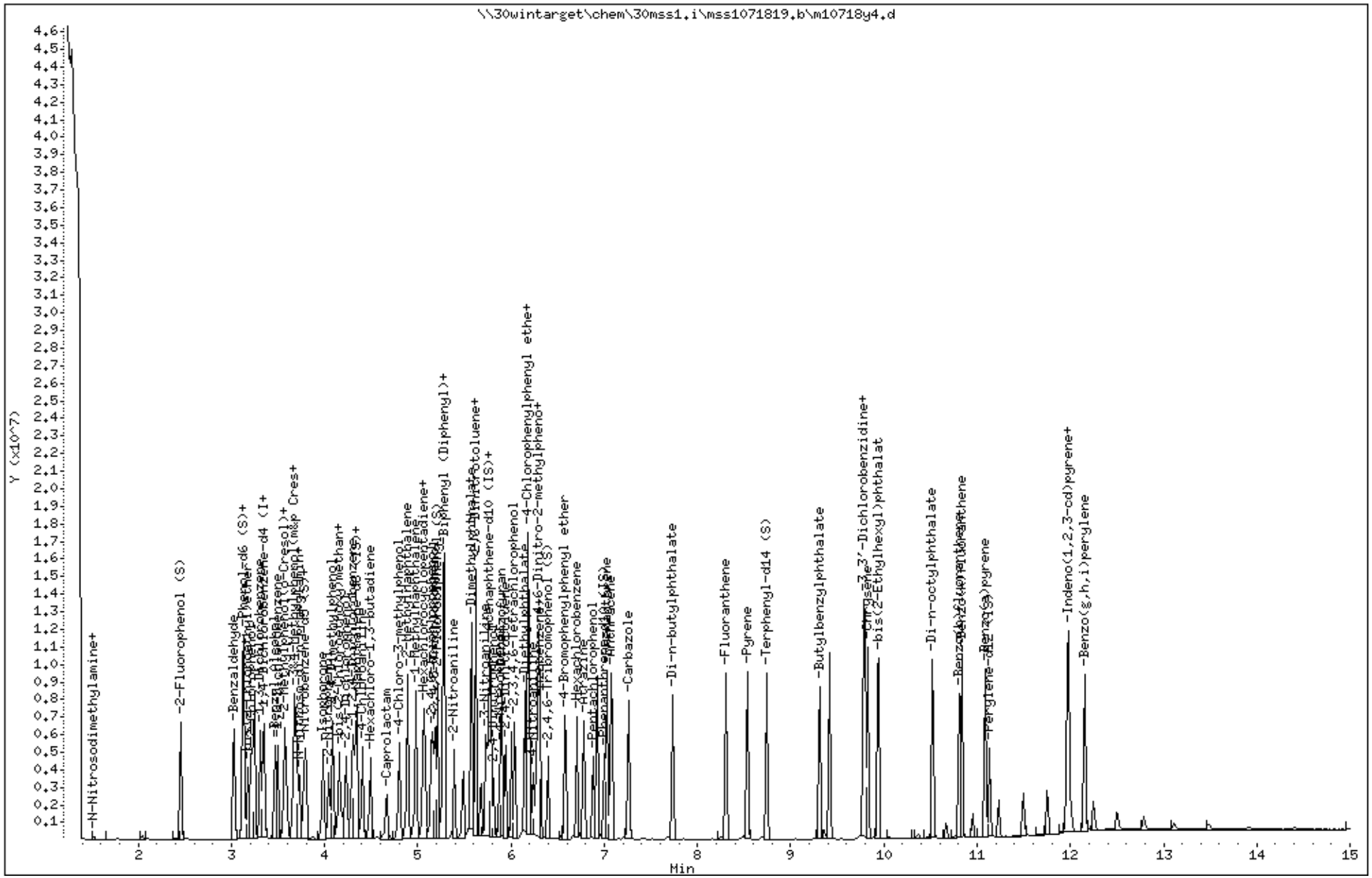
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y4.d
Date : 18-JUL-2019 17:19
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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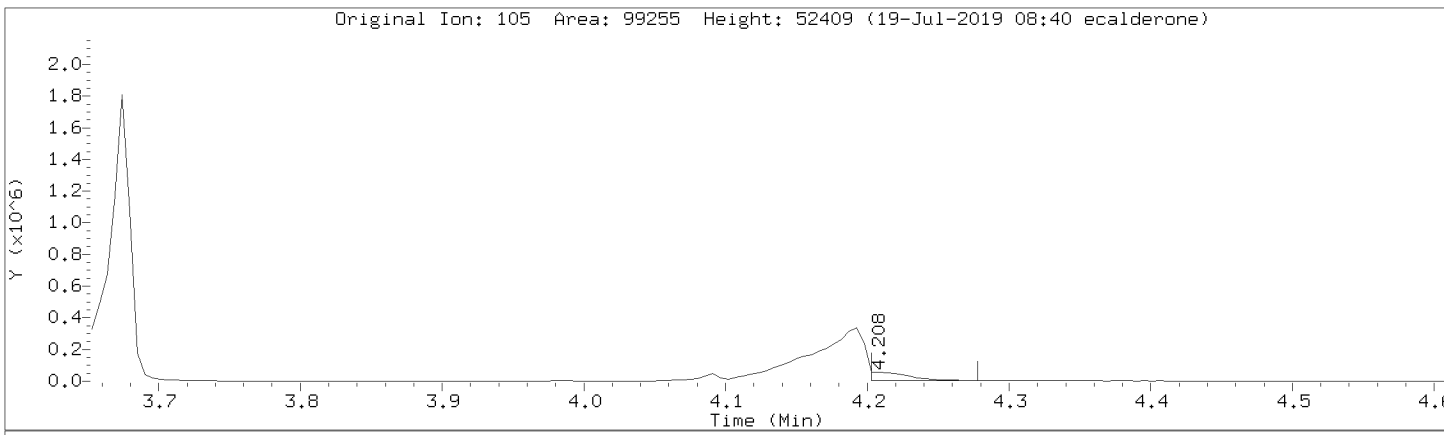
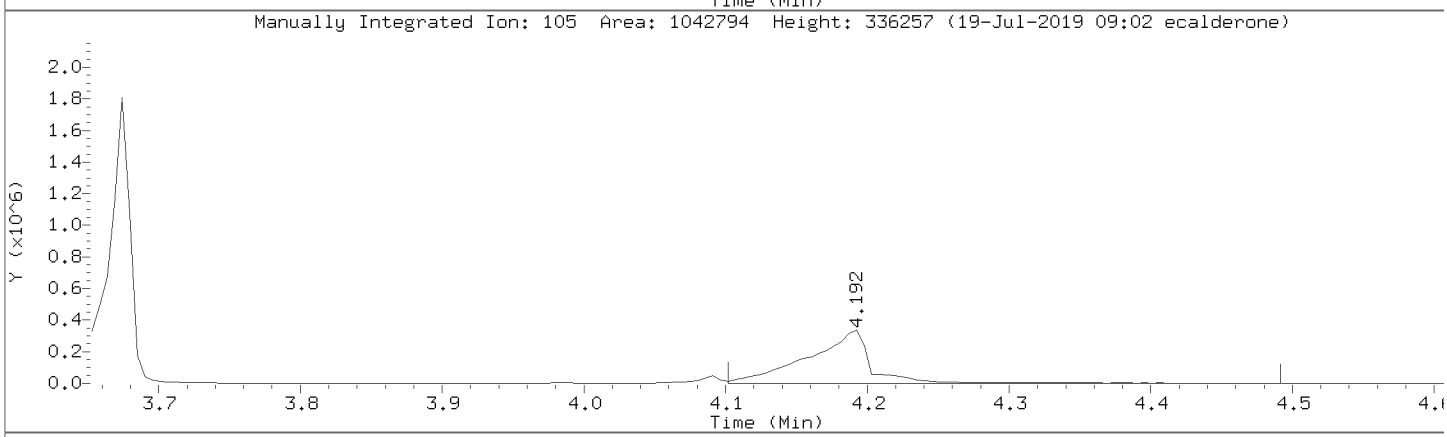
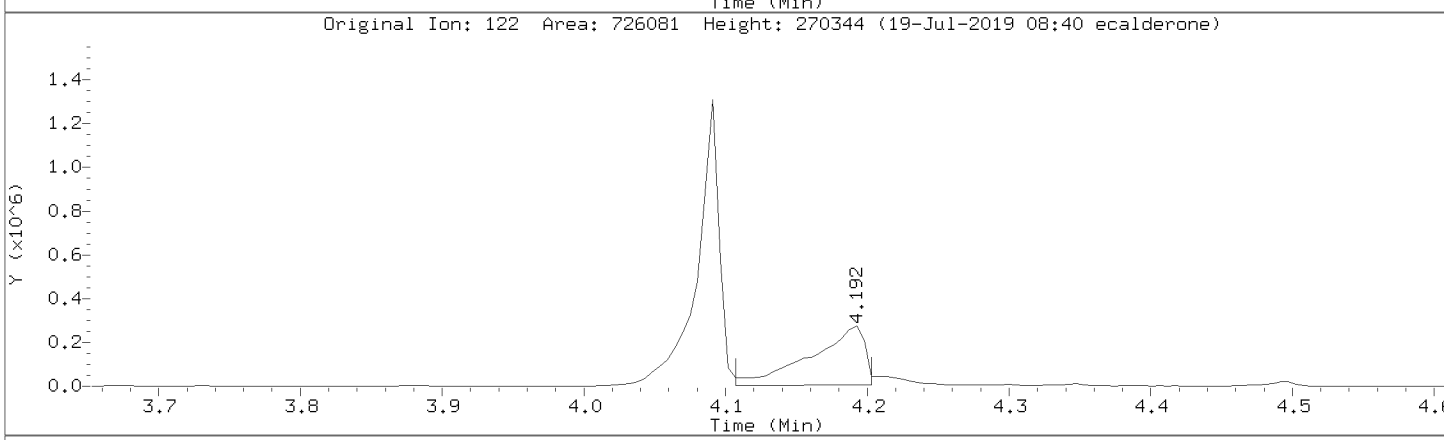
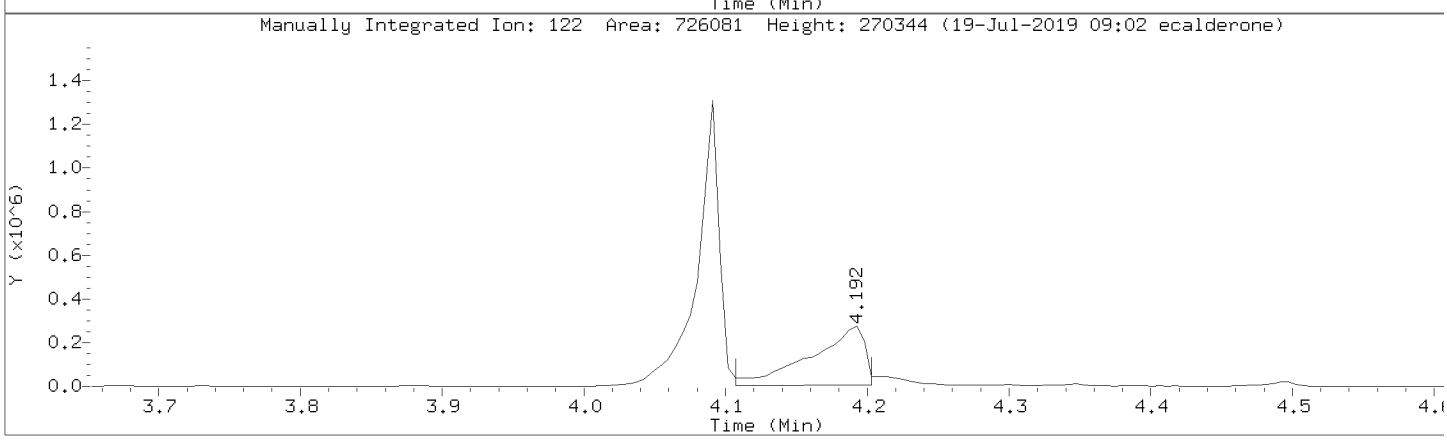
Injection Date: 18-JUL-2019 17:19
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

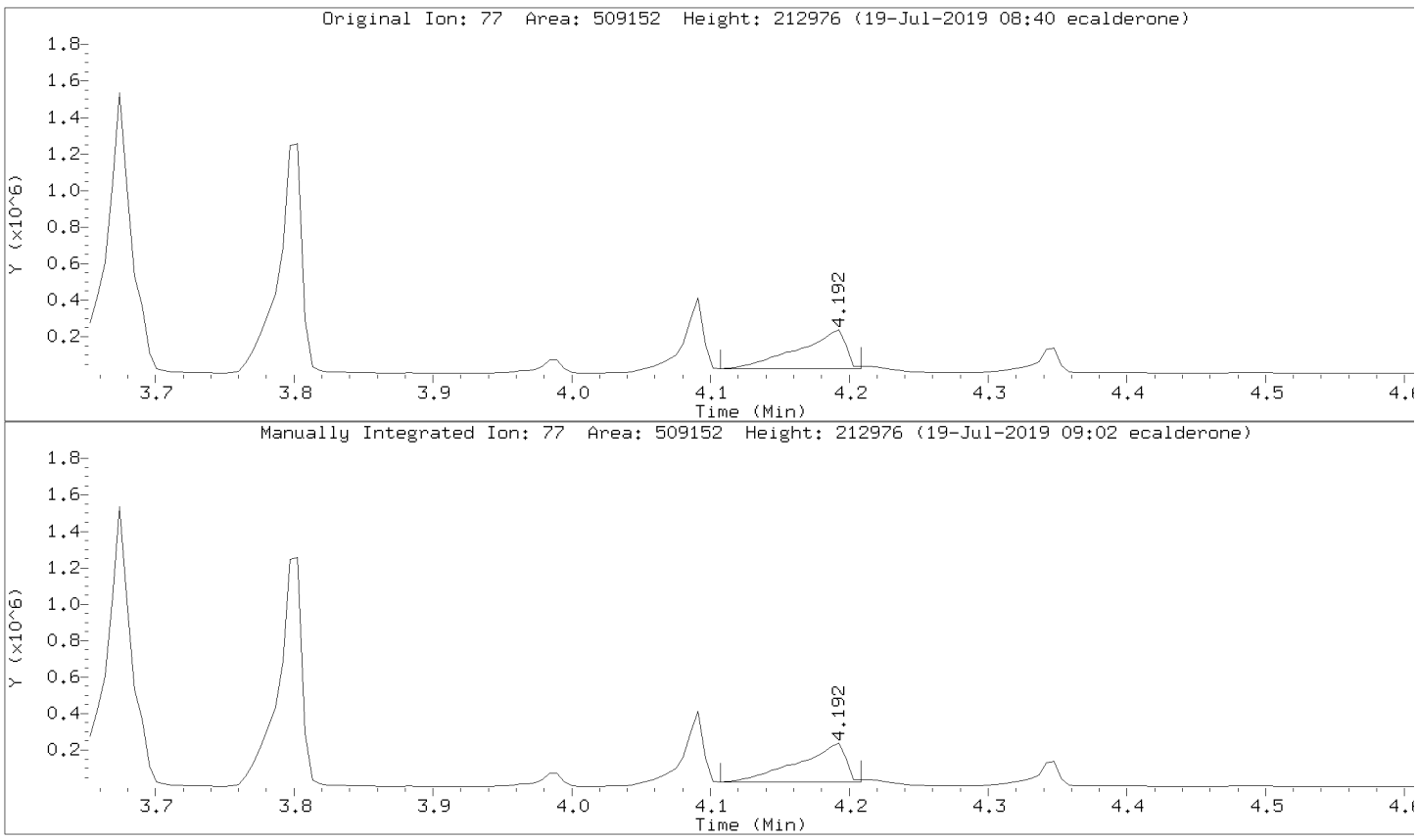








Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m10718y4.d
Injection Date: 18-JUL-2019 17:19
Instrument: 30mss1.i
Lab Sample ID: CAL4



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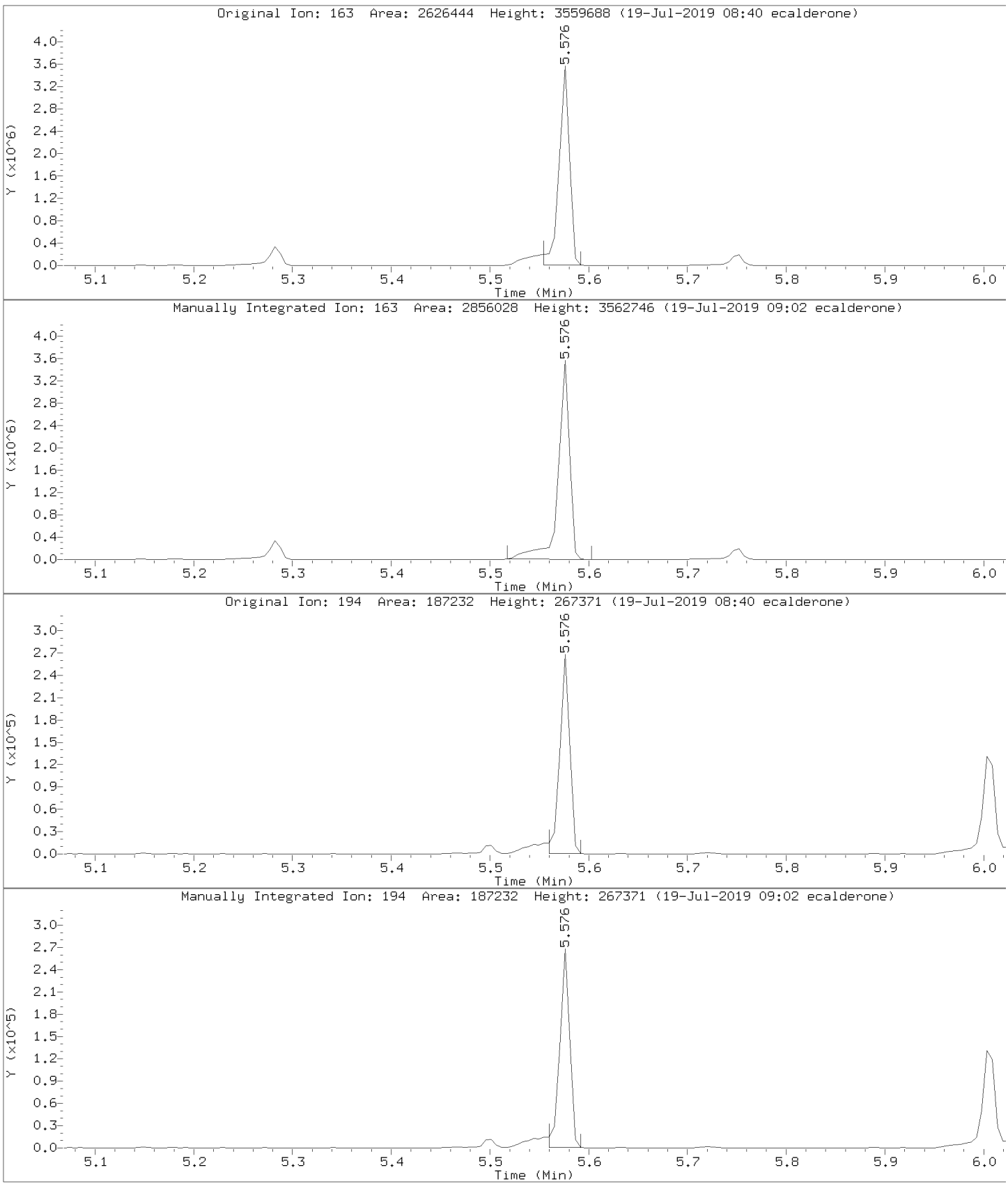
Injection Date: 18-JUL-2019 17:19
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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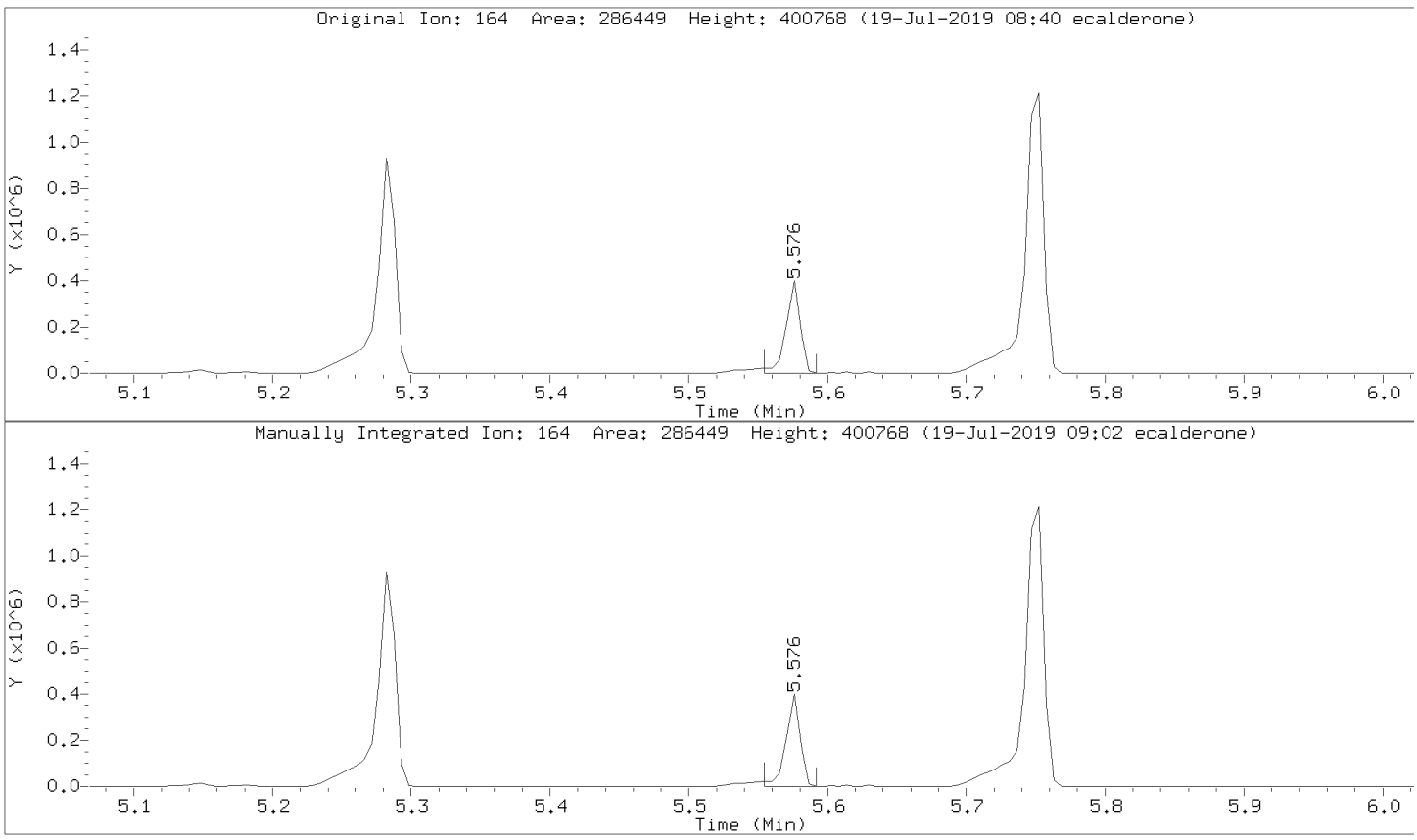
Injection Date: 18-JUL-2019 17:19
Instrument: 30mss1.i
Lab Sample ID: CAL4



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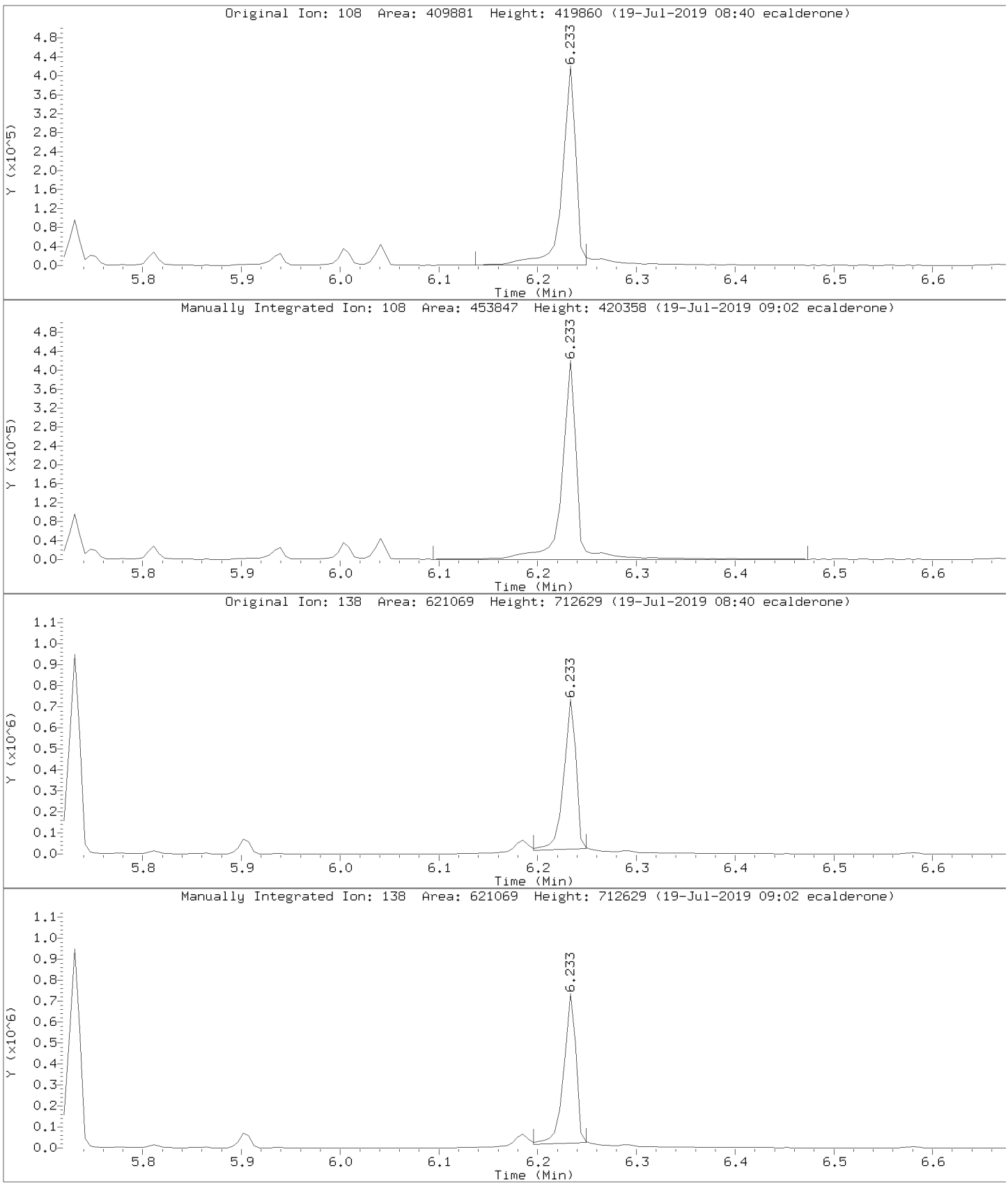
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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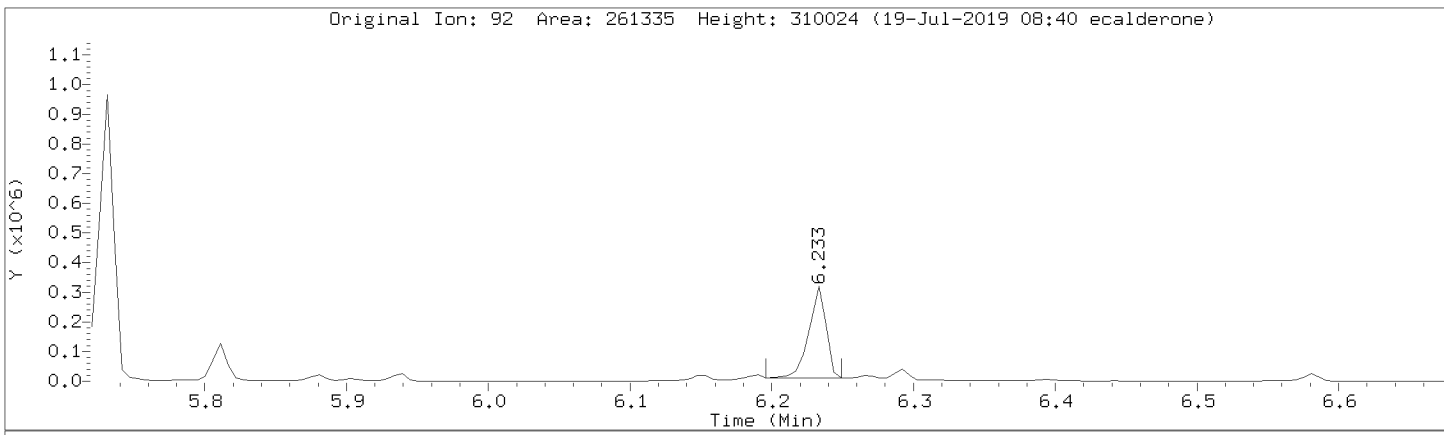
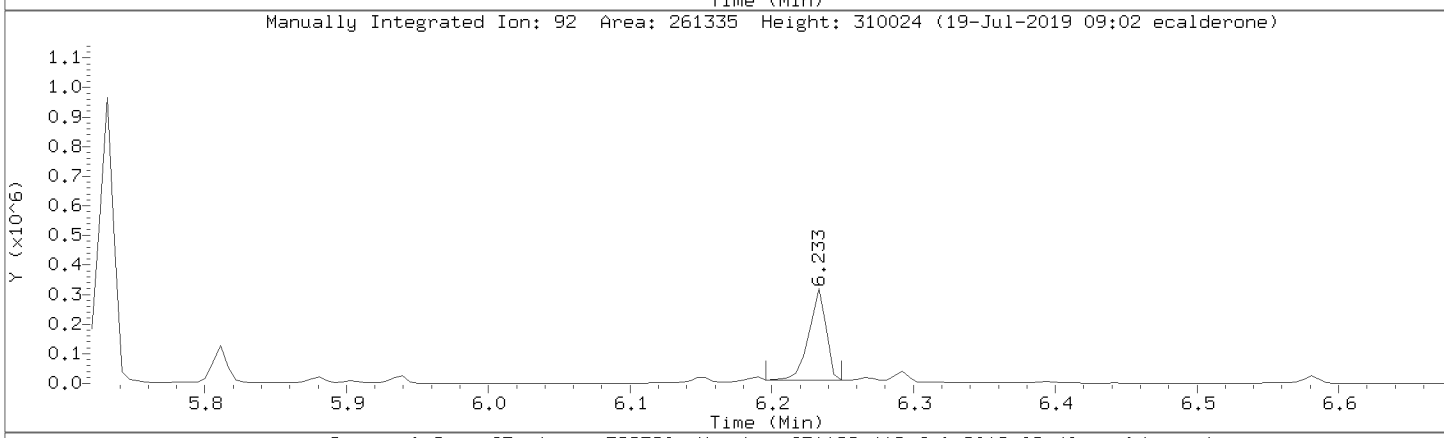
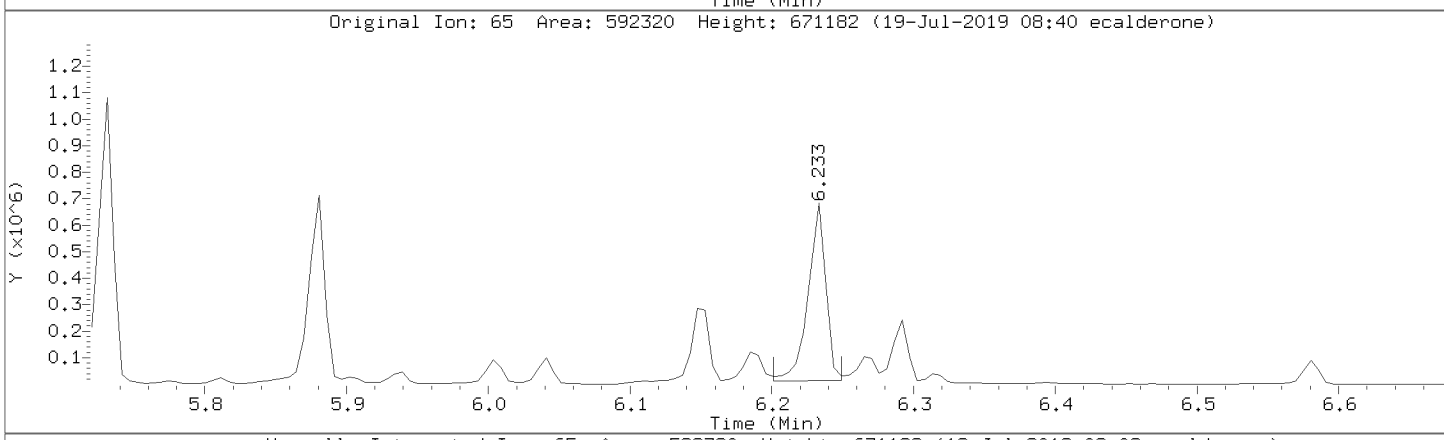
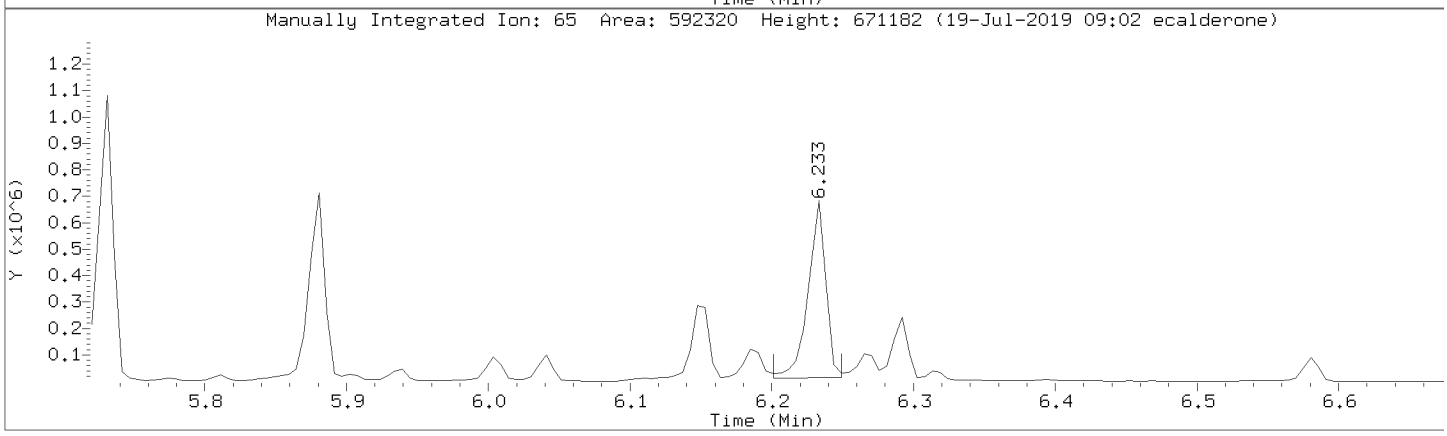
Lab Sample ID: CAL4









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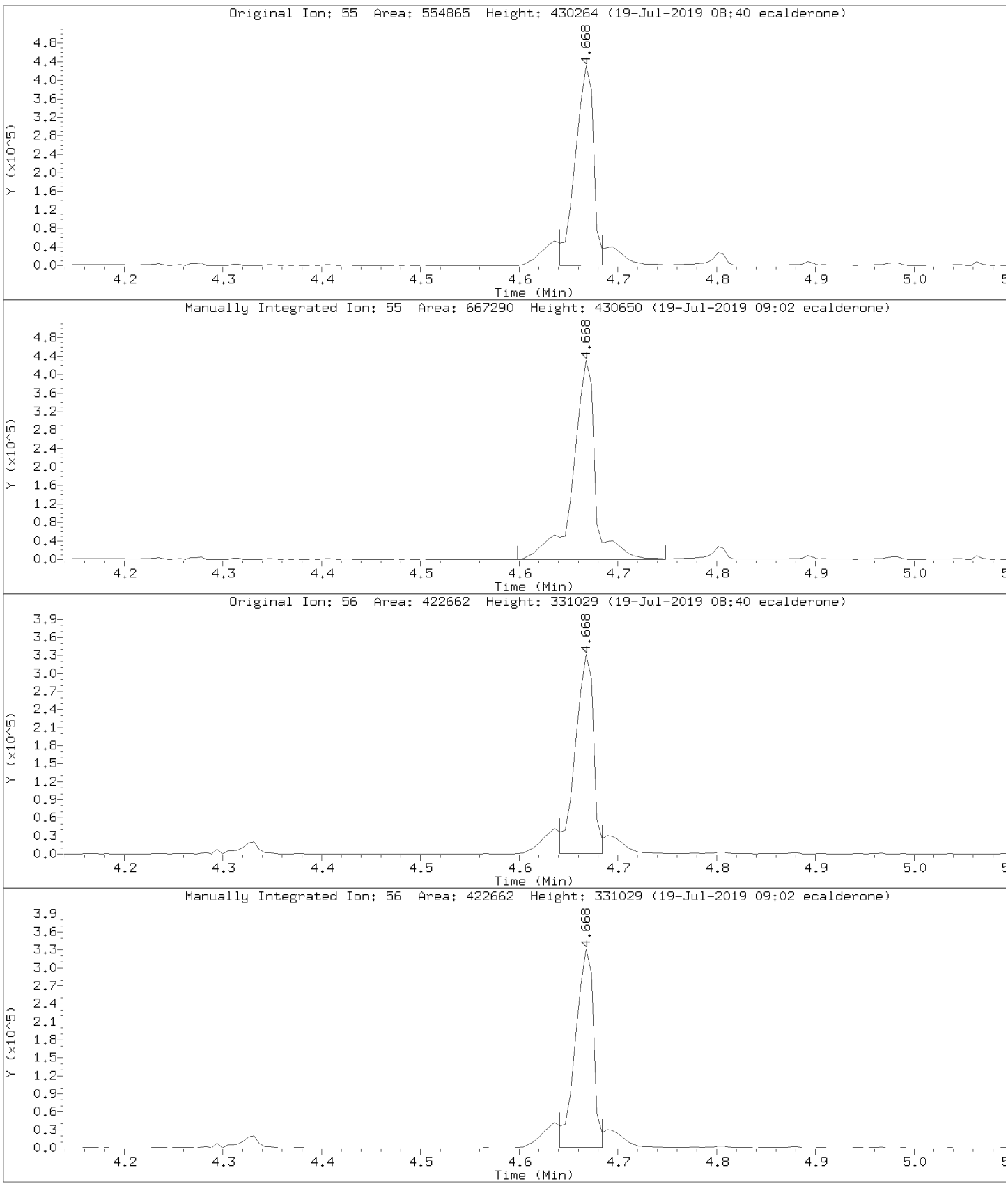
Injection Date: 18-JUL-2019 17:19
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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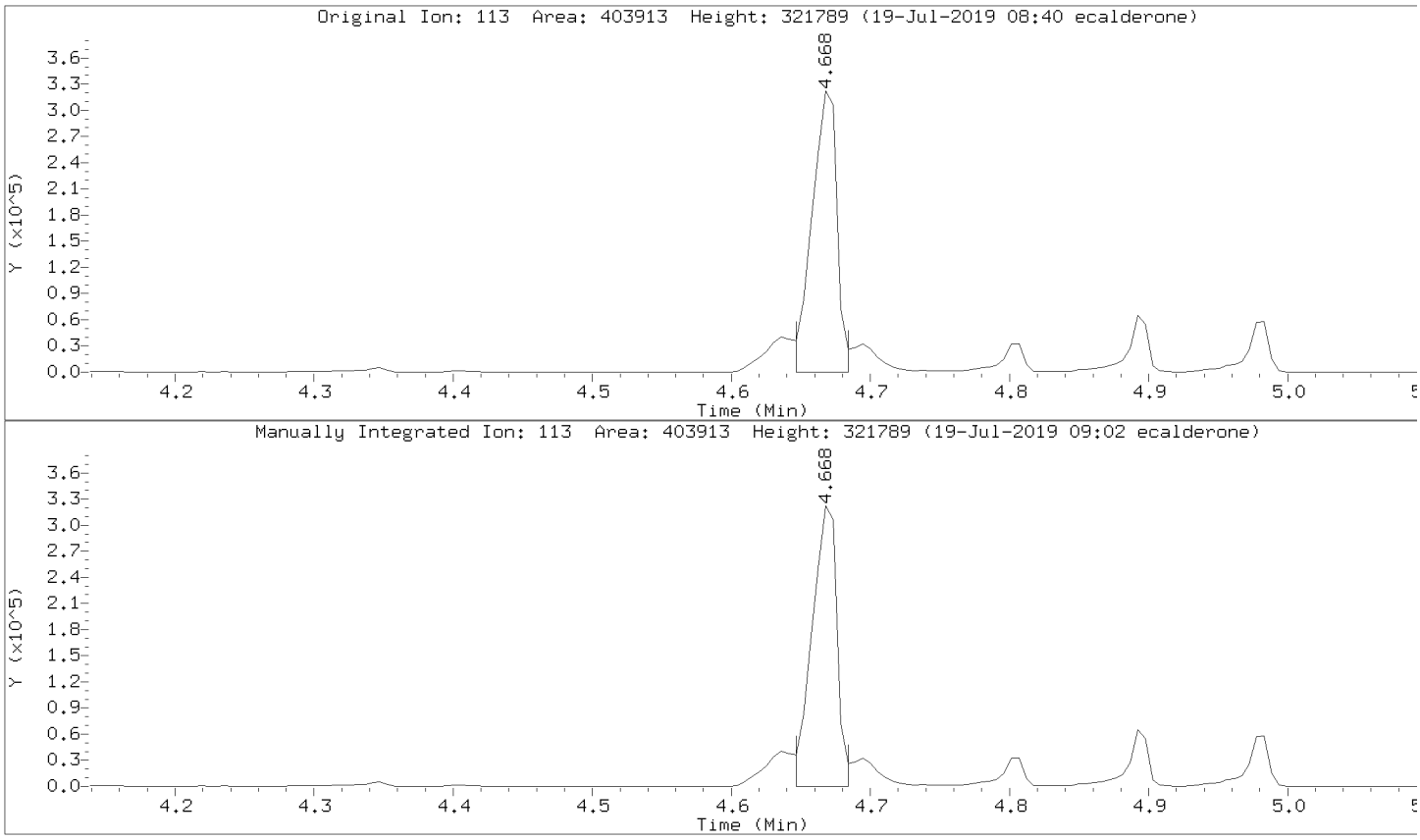
Lab Sample ID: CAL4



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Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y5.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 18-JUL-2019 17:42
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal3
Misc Info : 14848,93077:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 17:42 Cal File: m10718y5.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.285	1.286	(0.385)	458734	4.00000	4.64	
	2 Pyridine	79	1.275	1.275	(0.382)	703047	4.00000	4.39	
$	3 2-Fluorophenol (S)	112	2.455	2.456	(0.735)	693189	4.00000	4.33	
$	4 Phenol-d6 (S)	99	3.118	3.118	(0.933)	834706	4.00000	4.11	
	5 Benzaldehyde	77	3.027	3.028	(0.906)	596858	4.00000	4.20	
	6 Phenol	94	3.128	3.129	(0.936)	985808	4.00000	4.28	
	7 Aniline	66	3.128	3.129	(0.936)	753398	4.00000	4.20	
	8 bis(2-Chloroethyl)ether	63	3.177	3.177	(0.950)	538751	4.00000	4.26	
	9 2-Chlorophenol	128	3.209	3.209	(0.960)	756701	4.00000	4.10	
	10 1,3-Dichlorobenzene	146	3.310	3.311	(0.990)	829144	4.00000	4.27	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.342	3.343	(1.000)	535218	4.00000		
	12 1,4-Dichlorobenzene	146	3.353	3.354	(1.003)	842378	4.00000	3.82	
	13 Benzyl Alcohol	79	3.465	3.466	(1.037)	599026	4.00000	4.05	
	14 1,2-Dichlorobenzene	146	3.492	3.492	(1.045)	789372	4.00000	4.06	
	15 2-Methylphenol(o-Cresol)	108	3.572	3.567	(1.069)	704779	4.00000	4.12	
	16 bis(2-Chloroisopropyl)ether	45	3.588	3.589	(1.074)	1163341	4.00000	4.19	
	17 3&4-Methylphenol(m&p Cresol)	108	3.684	3.679	(1.102)	726059	4.00000	4.16	
	18 N-Nitroso-di-n-propylamine	70	3.695	3.695	(1.105)	535936	4.00000	4.13	
	19 Acetophenone	105	3.673	3.669	(1.099)	971530	4.00000	4.20	
	20 Hexachloroethane	117	3.727	3.728	(1.115)	307182	4.00000	3.98	
$	21 Nitrobenzene-d5 (S)	128	3.786	3.781	(0.874)	361479	4.00000	4.06	
	22 Nitrobenzene	77	3.796	3.797	(0.877)	752864	4.00000	4.25	
	23 Isophorone	82	3.983	3.979	(0.920)	1396678	4.00000	4.26	
	24 2,4-Dimethylphenol	107	4.085	4.085	(0.943)	726844	4.00000	4.19	
	25 2-Nitrophenol	139	4.047	4.043	(0.935)	406402	4.00000	4.01	
	26 Benzoic acid	105	4.170	4.155	(0.963)	474267	4.00000	4.90(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.159	4.160	(0.961)	844691	4.00000	4.21	
	28 2,4-Dichlorophenol	162	4.229	4.230	(0.977)	608951	4.00000	4.16	
	29 1,2,4-Trichlorobenzene	180	4.298	4.294	(0.993)	646423	4.00000	4.06	
*	30 Naphthalene-d8 (IS)	136	4.330	4.326	(1.000)	2164279	4.00000		
	31 Naphthalene	128	4.341	4.342	(1.002)	2123544	4.00000	4.58	
	32 4-Chloroaniline	65	4.405	4.401	(1.017)	241335	4.00000	4.29	
	33 Hexachloro-1,3-butadiene	225	4.496	4.491	(1.038)	342046	4.00000	4.00	
	34 Caprolactam	55	4.651	4.641	(1.074)	323287	4.00000	0.785	

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
35	4-Chloro-3-methylphenol	107	4.801	4.796	(1.109)	606641	4.00000	4.07	
36	2-Methylnaphthalene	142	4.891	4.892	(1.129)	1516263	4.00000	4.41	
37	1-Methylnaphthalene	142	4.977	4.978	(1.149)	1411825	4.00000	4.37	
38	Hexachlorocyclopentadiene	237	5.084	5.079	(0.885)	417337	4.00000	3.92	
39	1,2,4,5-Tetrachlorobenzene	216	5.062	5.058	(0.881)	579978	4.00000	4.05	
40	2,4,6-Trichlorophenol	196	5.148	5.143	(0.896)	457749	4.00000	4.14	
41	2,4,5-Trichlorophenol	196	5.174	5.175	(0.901)	401878	4.00000	4.00	
$ 42	2-Fluorobiphenyl (S)	172	5.207	5.207	(0.906)	1494526	4.00000	4.44	
43	Biphenyl (Diphenyl)	154	5.276	5.277	(0.918)	1737286	4.00000	4.61	
44	2-Chloronaphthalene	164	5.281	5.277	(0.919)	432590	4.00000	4.07	
45	2-Nitroaniline	138	5.388	5.389	(0.938)	479430	4.00000	4.04	
46	Dimethylphthalate	163	5.570	5.571	(0.969)	1443412	4.00000	4.44	
47	2,6-Dinitrotoluene	165	5.618	5.619	(0.978)	340659	4.00000	3.98	
48	Acenaphthylene	152	5.623	5.619	(0.979)	2144285	4.00000	4.66	
49	3-Nitroaniline	65	5.725	5.720	(0.996)	428632	4.00000	4.38	
* 50	Acenaphthene-d10 (IS)	164	5.746	5.747	(1.000)	1161506	4.00000		
51	2,4-Dinitrophenol	184	5.810	5.806	(1.011)	184478	4.00000	3.51	
52	Acenaphthene	153	5.773	5.768	(1.005)	1342910	4.00000	4.39	
53	4-Nitrophenol	109	5.874	5.870	(1.022)	183878	4.00000	3.95	
54	2,4-Dinitrotoluene	165	5.933	5.928	(1.033)	451523	4.00000	4.02	
55	Dibenzofuran	168	5.901	5.902	(1.027)	1836277	4.00000	4.57	
56	2,3,4,6-Tetrachlorophenol	232	6.040	6.041	(1.051)	340547	4.00000	3.97	
57	Diethylphthalate	149	6.147	6.142	(1.070)	1445841	4.00000	4.39	
58	4-Chlorophenylphenyl ether	204	6.184	6.185	(1.076)	712696	4.00000	4.18	
59	Fluorene	166	6.179	6.180	(1.075)	1515793	4.00000	4.46	
60	4-Nitroaniline	108	6.227	6.222	(1.084)	236455	4.00000	4.55(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.264	6.260	(0.895)	262270	4.00000	3.73	
62	N-Nitrosodiphenylamine	169	6.291	6.286	(0.899)	1306220	4.00000	4.36	
63	Azobenzene	77	6.312	6.313	(0.902)	1365488	4.00000	4.27	
64	1,2-Diphenylhydrazine	77	6.312	6.313	(0.902)	1365488	4.00000	4.27	
$ 65	2,4,6-Tribromophenol (S)	330	6.393	6.393	(0.913)	214348	4.00000	3.71	
66	4-Bromophenylphenyl ether	248	6.579	6.580	(0.940)	424470	4.00000	4.04	
67	Hexachlorobenzene	284	6.708	6.708	(0.958)	411610	4.00000	3.90	
68	Atrazine	200	6.777	6.773	(0.968)	392351	4.00000	3.80	
69	Pentachlorophenol	266	6.879	6.874	(0.982)	217868	4.00000	3.28	
* 70	Phenanthrene-d10 (IS)	188	7.002	6.997	(1.000)	1931474	4.00000		
71	Phenanthrene	178	7.023	7.024	(1.003)	2277157	4.00000	4.47	
72	Anthracene	178	7.071	7.072	(1.010)	2150597	4.00000	4.42	
73	Carbazole	167	7.258	7.253	(1.037)	2025997	4.00000	4.64	
74	Di-n-butylphthalate	149	7.733	7.734	(1.105)	2380055	4.00000	4.39	
75	Fluoranthene	202	8.305	8.300	(1.186)	2199407	4.00000	4.41	
76	Pyrene	202	8.535	8.530	(0.871)	2235847	4.00000	4.45	
$ 77	Terphenyl-d14 (S)	244	8.743	8.738	(0.893)	1699399	4.00000	4.33	
78	Butylbenzylphthalate	149	9.309	9.305	(0.950)	989484	4.00000	4.02	
79	3,3'-Dichlorobenzidine	252	9.790	9.785	(0.999)	757662	4.00000	3.87	
80	bis(2-Ethylhexyl)phthalate	149	9.934	9.935	(1.014)	1387766	4.00000	4.06	
81	Benzo(a)anthracene	228	9.779	9.780	(0.998)	2052876	4.00000	4.29	
* 82	Chrysene-d12 (IS)	240	9.795	9.796	(1.000)	1770696	4.00000		
83	Chrysene	228	9.822	9.818	(1.003)	1981628	4.00000	4.45	
84	Di-n-octylphthalate	149	10.522	10.517	(0.945)	2266122	4.00000	4.44	
85	Benzo(b)fluoranthene	252	10.805	10.806	(0.971)	1898400	4.00000	3.98	
86	Benzo(k)fluoranthene	252	10.826	10.822	(0.973)	2307184	4.00000	4.79	
87	Benzo(a)pyrene	252	11.083	11.078	(0.996)	1871473	4.00000	4.24	
* 88	Perylene-d12 (IS)	264	11.131	11.132	(1.000)	1734193	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.964	11.960	(1.075)	2142536	4.00000	4.06	
90 Dibenz(a,h)anthracene	278	11.975	11.970	(1.076)	1826188	4.00000	4.18	
91 Benzo(g,h,i)perylene	276	12.146	12.141	(1.091)	1781718	4.00000	4.15	

QC Flag Legend

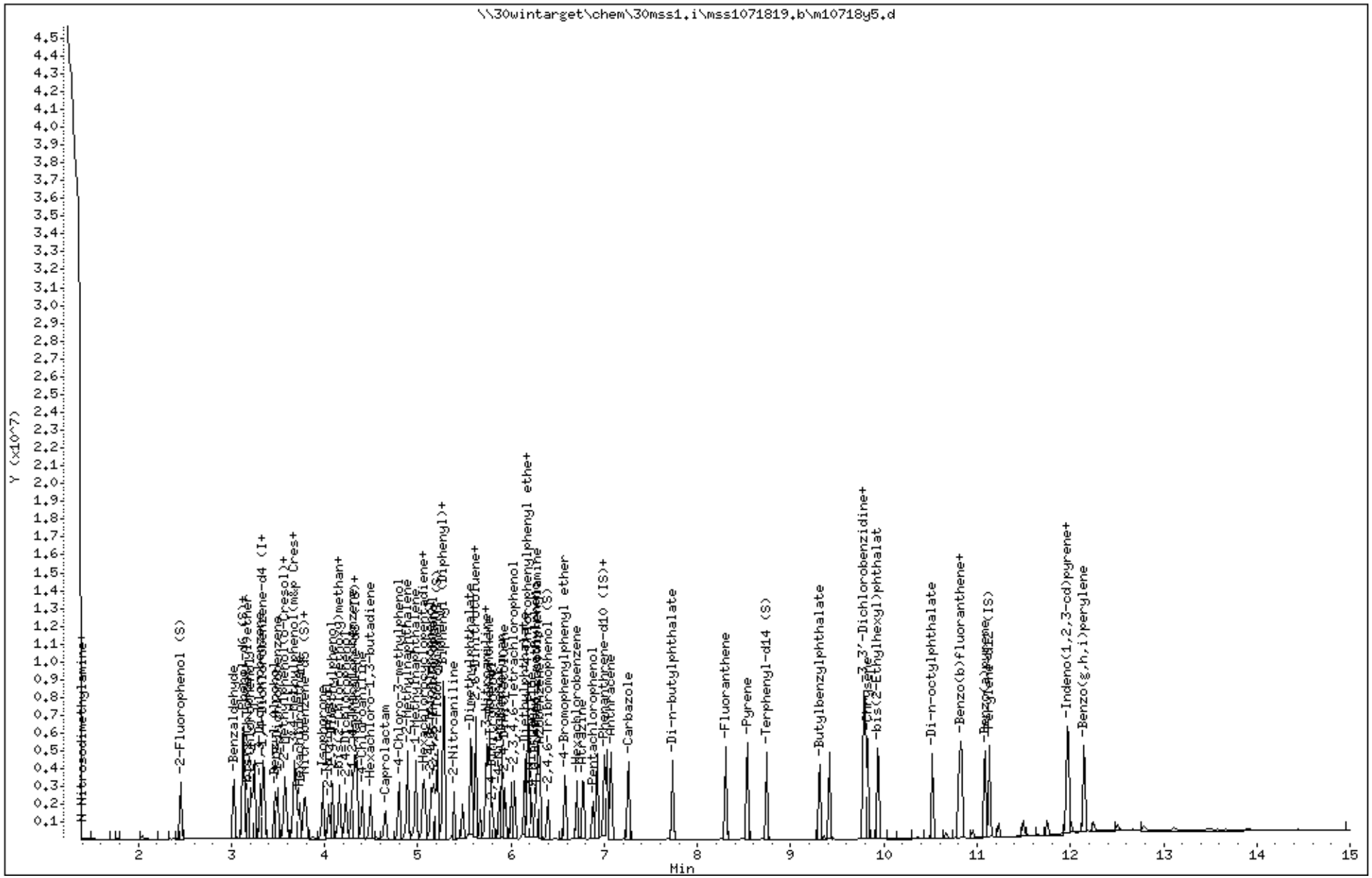
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y5.d
Date : 18-JUL-2019 17:42
Client ID: CAL3
Sample Info: CAL3

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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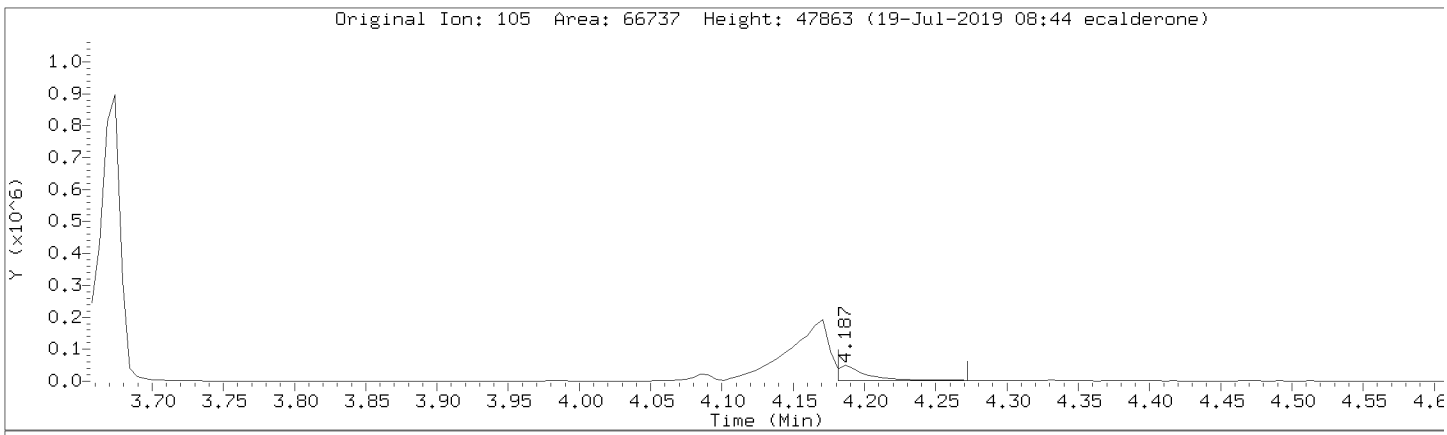
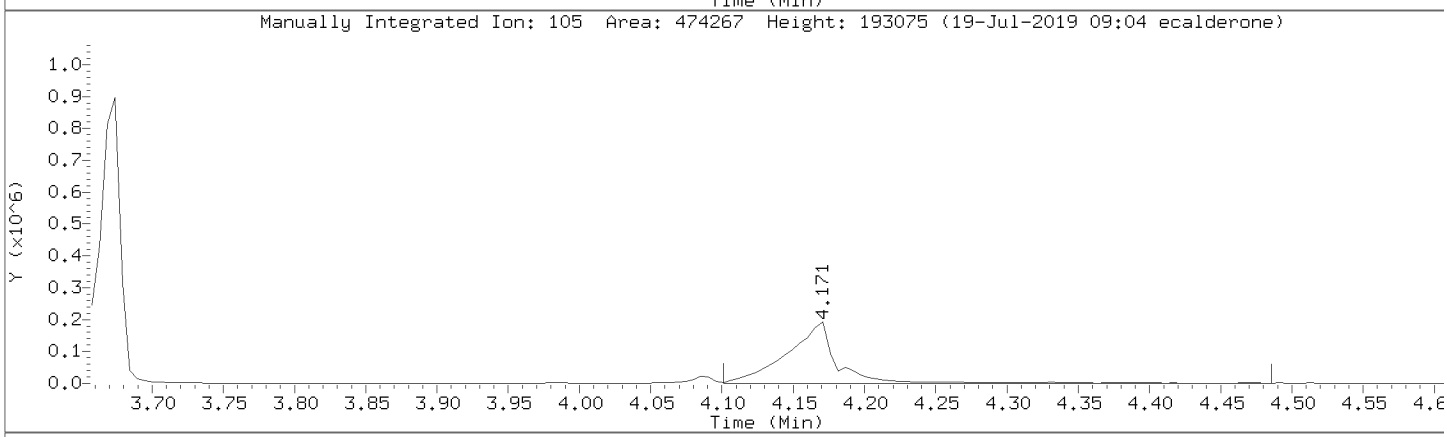
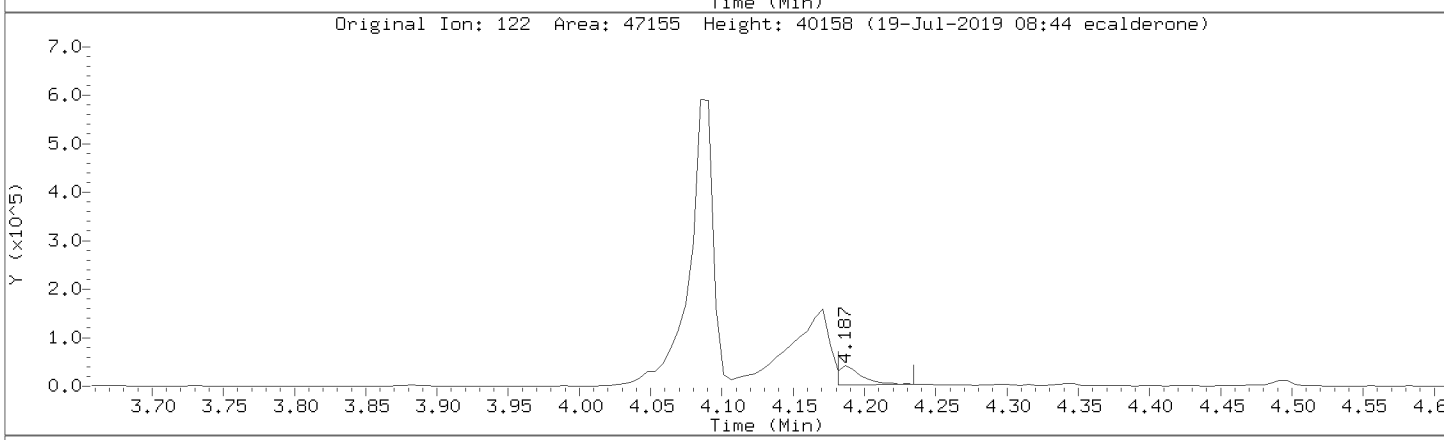
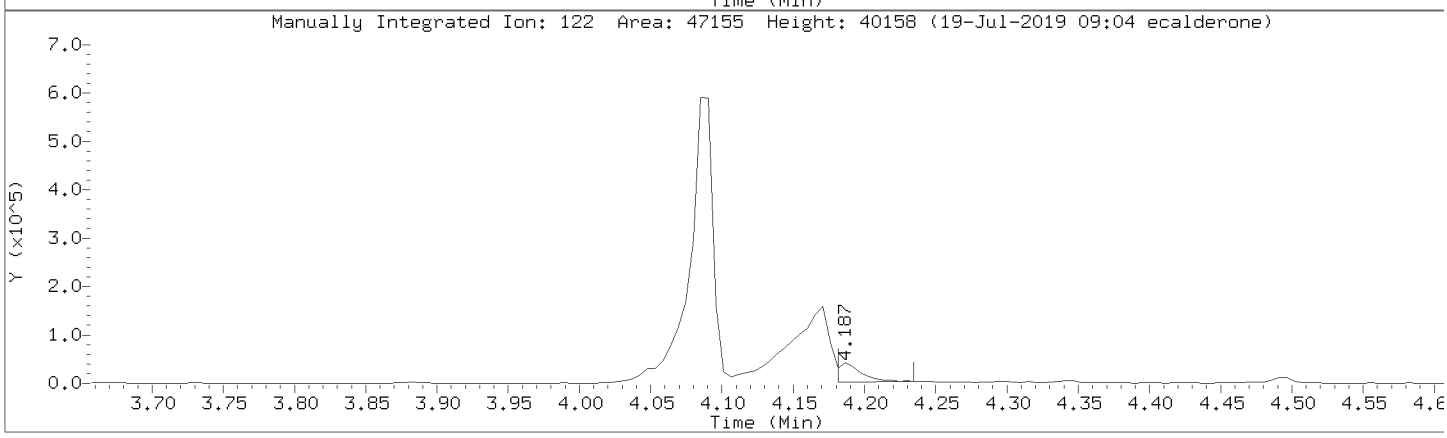
Injection Date: 18-JUL-2019 17:42
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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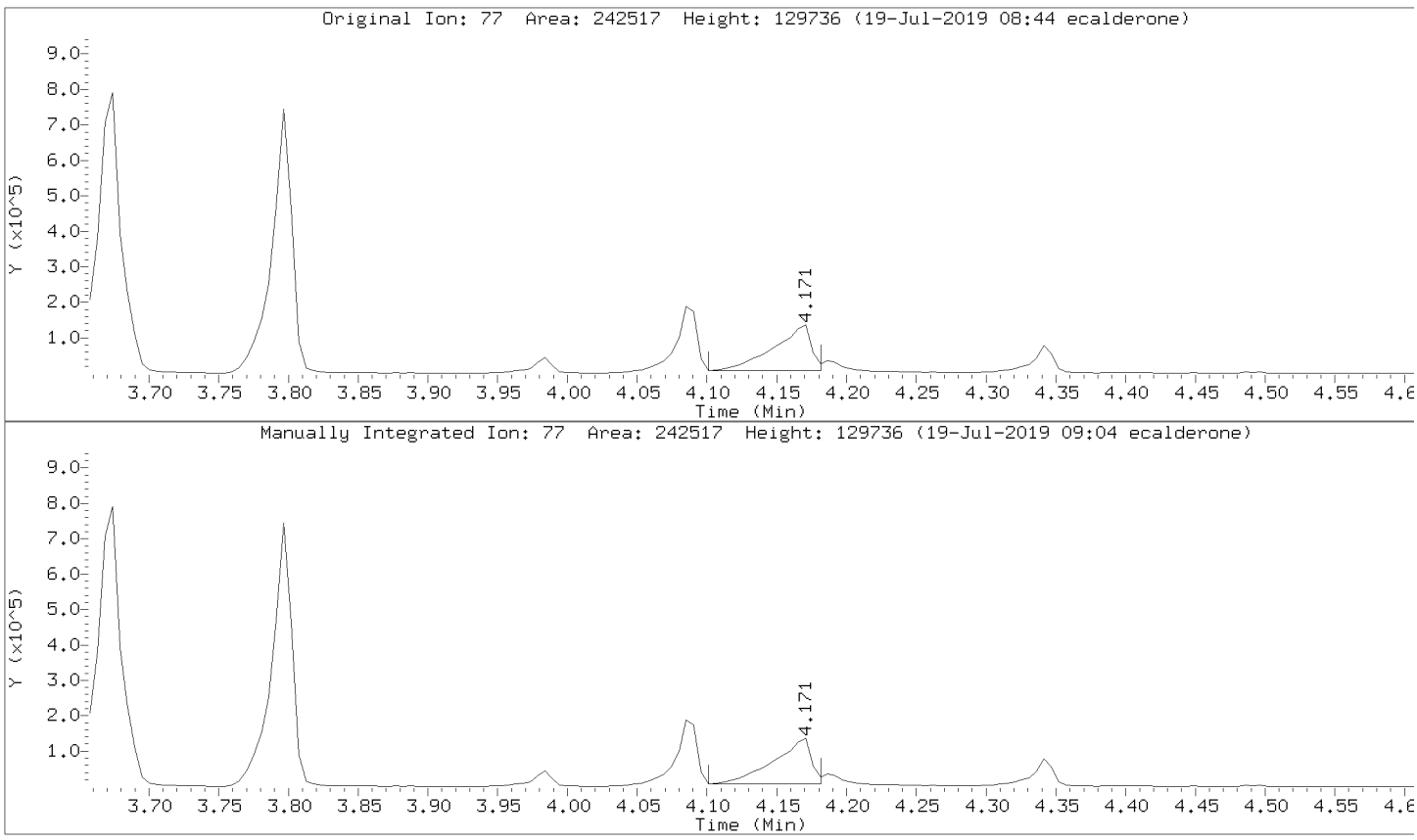
Instrument: 30mss1.i
Lab Sample ID: CAL3



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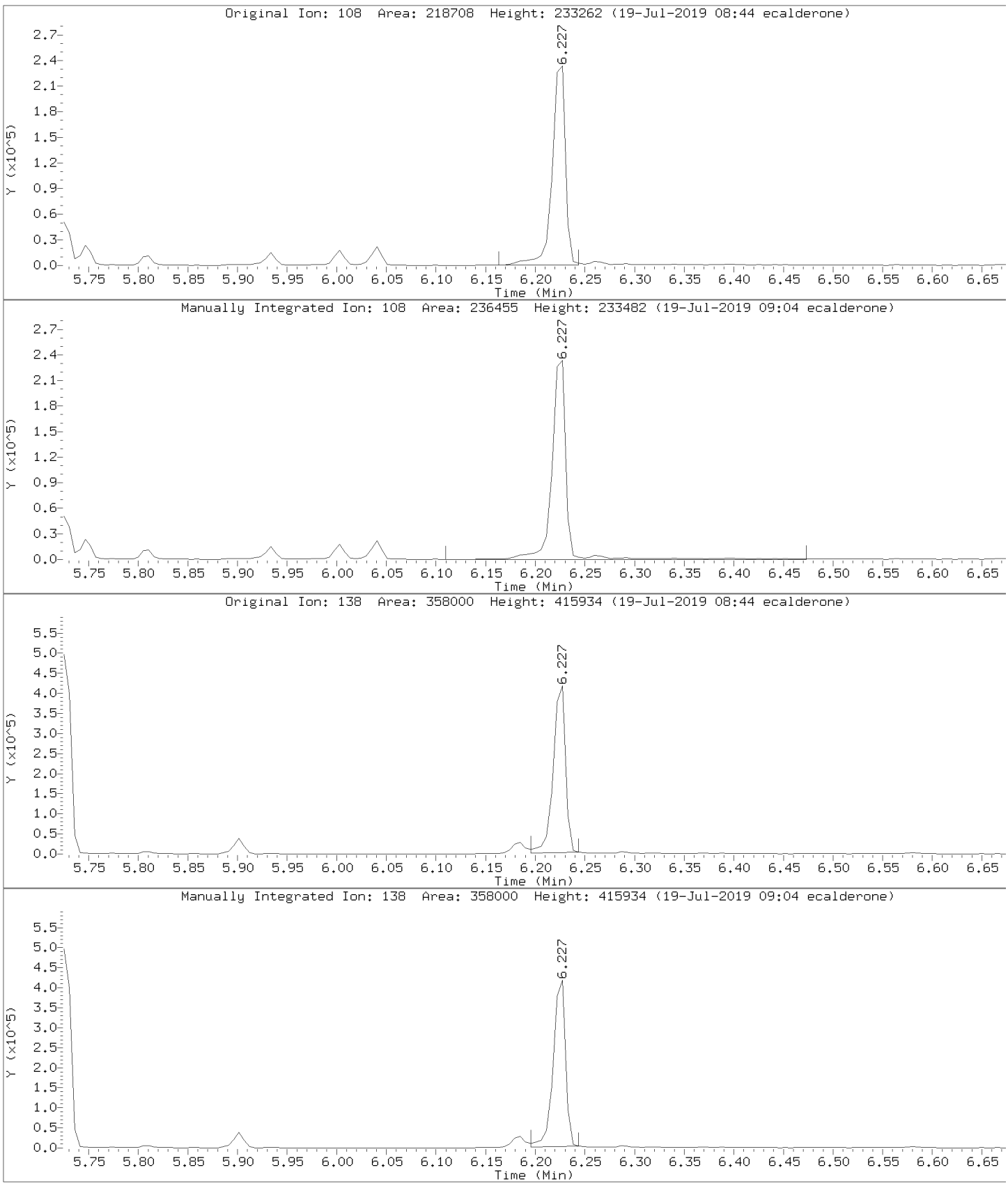
Injection Date: 18-JUL-2019 17:42
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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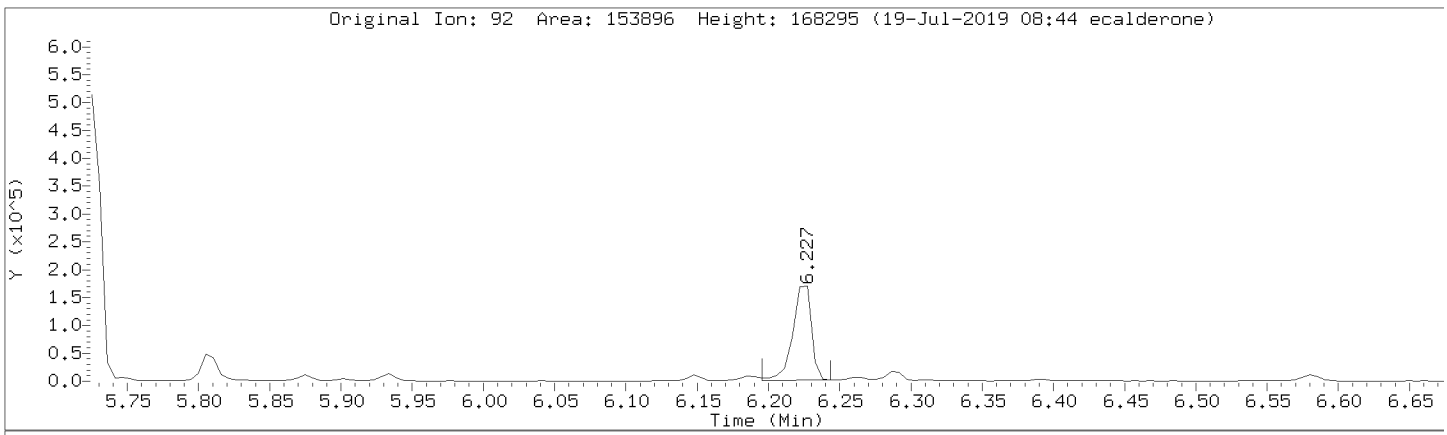
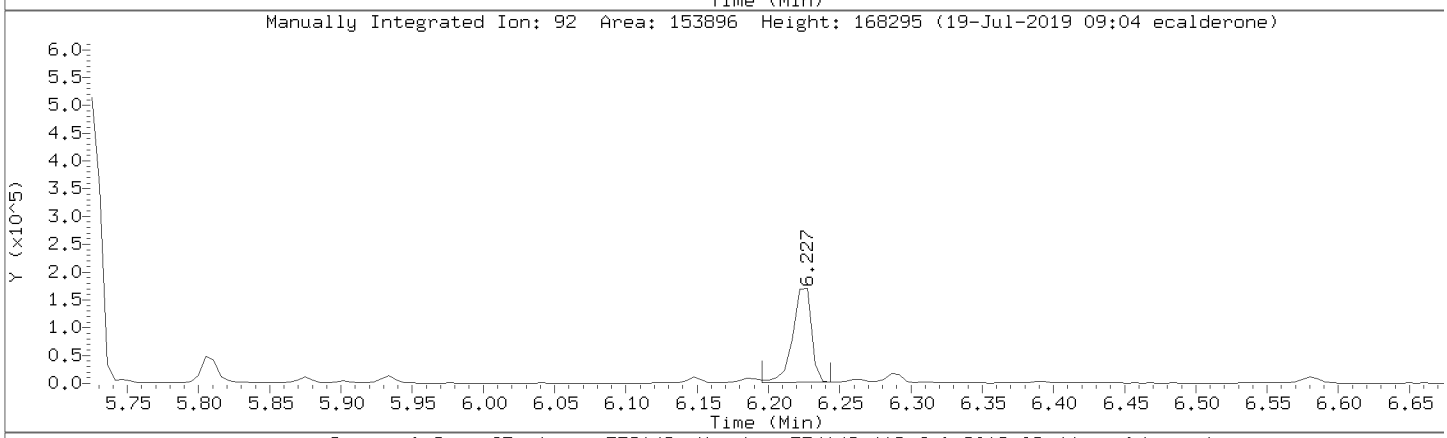
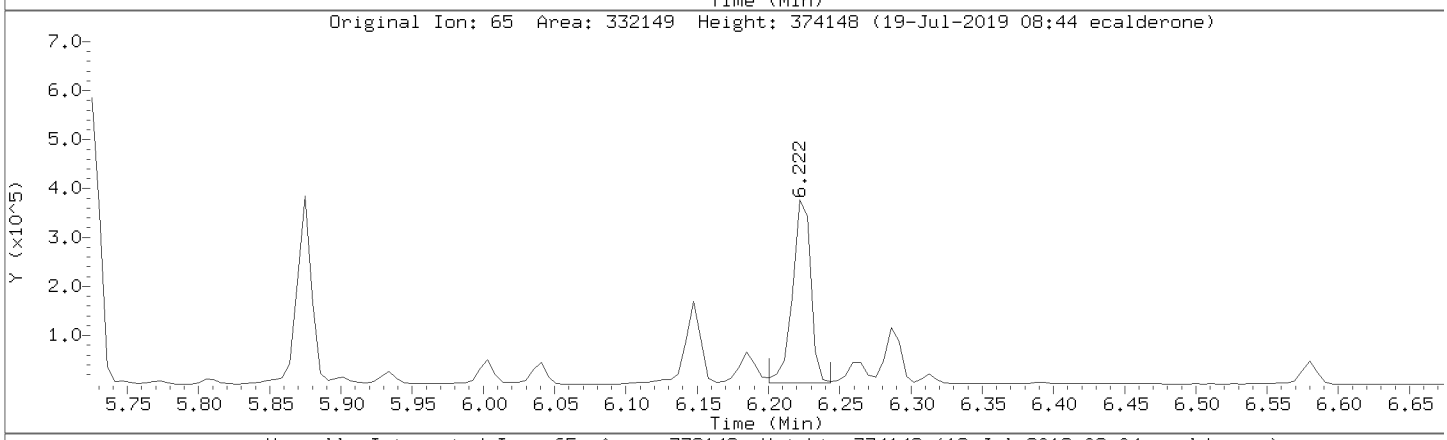
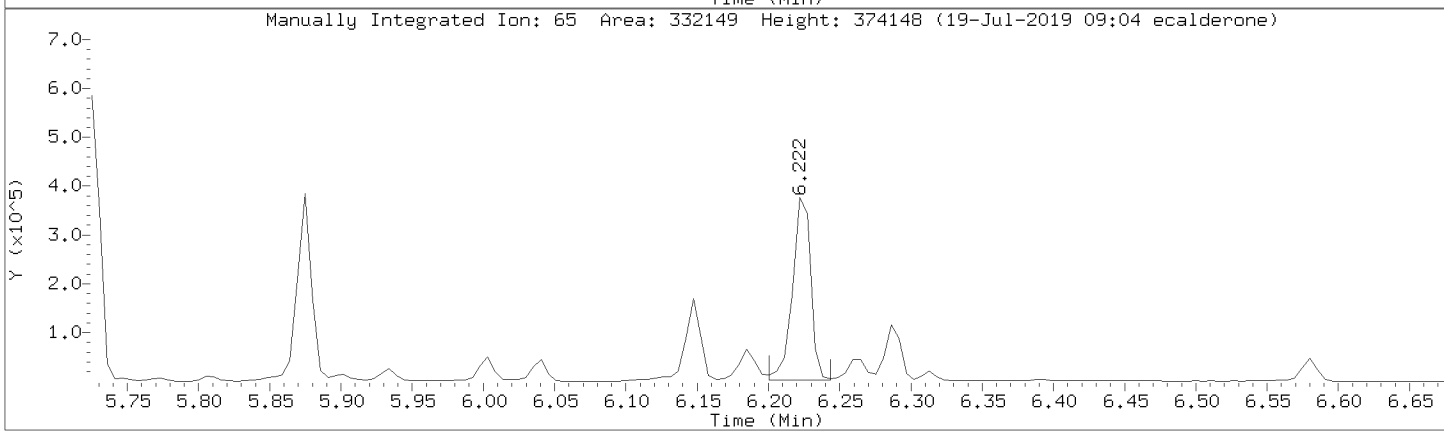
Lab Sample ID: CAL3









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Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y6.d
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Inj Date : 18-JUL-2019 18:05
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14848,93078:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 18:05 Cal File: m10718y6.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.286	1.286	(0.385)	226492	2.00000	2.22	
	2 Pyridine	79	1.275	1.275	(0.382)	356165	2.00000	2.17	
$	3 2-Fluorophenol (S)	112	2.456	2.456	(0.735)	341171	2.00000	2.10	
$	4 Phenol-d6 (S)	99	3.118	3.118	(0.933)	421703	2.00000	2.07	
	5 Benzaldehyde	77	3.028	3.028	(0.906)	300032	2.00000	2.09	
	6 Phenol	94	3.129	3.129	(0.936)	501682	2.00000	2.15	
	7 Aniline	66	3.129	3.129	(0.936)	384740	2.00000	2.13	
	8 bis(2-Chloroethyl)ether	63	3.177	3.177	(0.950)	268666	2.00000	2.10	
	9 2-Chlorophenol	128	3.209	3.209	(0.960)	372593	2.00000	2.01	
	10 1,3-Dichlorobenzene	146	3.311	3.311	(0.990)	422588	2.00000	2.15	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.343	3.343	(1.000)	534118	4.00000		
	12 1,4-Dichlorobenzene	146	3.354	3.354	(1.003)	427065	2.00000	1.96	
	13 Benzyl Alcohol	79	3.466	3.466	(1.037)	298226	2.00000	2.01	
	14 1,2-Dichlorobenzene	146	3.492	3.492	(1.045)	402321	2.00000	2.07	
	15 2-Methylphenol(o-Cresol)	108	3.567	3.567	(1.067)	348344	2.00000	2.03	
	16 bis(2-Chloroisopropyl)ether	45	3.589	3.589	(1.073)	597999	2.00000	2.14	
	17 3&4-Methylphenol(m&p Cresol)	108	3.679	3.679	(1.101)	369763	2.00000	2.11	
	18 N-Nitroso-di-n-propylamine	70	3.695	3.695	(1.105)	273991	2.00000	2.10	
	19 Acetophenone	105	3.669	3.669	(1.097)	492427	2.00000	2.11	
	20 Hexachloroethane	117	3.728	3.728	(1.115)	153597	2.00000	2.00	
$	21 Nitrobenzene-d5 (S)	128	3.781	3.781	(0.874)	174901	2.00000	1.95	
	22 Nitrobenzene	77	3.797	3.797	(0.878)	370572	2.00000	2.06	
	23 Isophorone	82	3.979	3.979	(0.920)	708628	2.00000	2.13	
	24 2,4-Dimethylphenol	107	4.085	4.085	(0.944)	372084	2.00000	2.12	
	25 2-Nitrophenol	139	4.043	4.043	(0.935)	203188	2.00000	2.00	
	26 Benzoic acid	105	4.155	4.155	(0.960)	209667	2.00000	2.18(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.160	4.160	(0.962)	435228	2.00000	2.14	
	28 2,4-Dichlorophenol	162	4.230	4.230	(0.978)	306625	2.00000	2.08	
	29 1,2,4-Trichlorobenzene	180	4.294	4.294	(0.993)	332661	2.00000	2.08	
*	30 Naphthalene-d8 (IS)	136	4.326	4.326	(1.000)	2169438	4.00000		
	31 Naphthalene	128	4.342	4.342	(1.004)	1100183	2.00000	2.30	
	32 4-Chloroaniline	65	4.401	4.401	(1.017)	119686	2.00000	2.09	
	33 Hexachloro-1,3-butadiene	225	4.491	4.491	(1.038)	172004	2.00000	2.01	
	34 Caprolactam	55	4.641	4.641	(1.073)	162366	2.00000	1.02	

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	4.796	4.796	(1.109)	310892	2.00000	2.07	
	36 2-Methylnaphthalene	142	4.892	4.892	(1.131)	779455	2.00000	2.21	
	37 1-Methylnaphthalene	142	4.978	4.978	(1.151)	730770	2.00000	2.21	
	38 Hexachlorocyclopentadiene	237	5.079	5.079	(0.884)	193668	2.00000	1.83	
	39 1,2,4,5-Tetrachlorobenzene	216	5.058	5.058	(0.880)	299888	2.00000	2.10	
	40 2,4,6-Trichlorophenol	196	5.143	5.143	(0.895)	231369	2.00000	2.09	
	41 2,4,5-Trichlorophenol	196	5.175	5.175	(0.901)	195408	2.00000	1.96	
$	42 2-Fluorobiphenyl (S)	172	5.207	5.207	(0.906)	773368	2.00000	2.26	
	43 Biphenyl (Diphenyl)	154	5.277	5.277	(0.918)	899577	2.00000	2.33	
	44 2-Chloronaphthalene	164	5.277	5.277	(0.918)	224293	2.00000	2.12	
	45 2-Nitroaniline	138	5.389	5.389	(0.938)	231539	2.00000	1.96	
	46 Dimethylphthalate	163	5.571	5.571	(0.969)	747731	2.00000	2.26	
	47 2,6-Dinitrotoluene	165	5.619	5.619	(0.978)	174528	2.00000	2.05	
	48 Acenaphthylene	152	5.619	5.619	(0.978)	1106862	2.00000	2.34	
	49 3-Nitroaniline	65	5.720	5.720	(0.995)	228903	2.00000	2.31	
*	50 Acenaphthene-d10 (IS)	164	5.747	5.747	(1.000)	1155510	4.00000		
	51 2,4-Dinitrophenol	184	5.806	5.806	(1.010)	73787	2.00000	1.45	
	52 Acenaphthene	153	5.768	5.768	(1.004)	686605	2.00000	2.21	
	53 4-Nitrophenol	109	5.870	5.870	(1.021)	91239	2.00000	1.98	
	54 2,4-Dinitrotoluene	165	5.928	5.928	(1.032)	221947	2.00000	1.98	
	55 Dibenzofuran	168	5.902	5.902	(1.027)	954521	2.00000	2.32	
	56 2,3,4,6-Tetrachlorophenol	232	6.041	6.041	(1.051)	165028	2.00000	1.94	
	57 Diethylphthalate	149	6.142	6.142	(1.069)	734416	2.00000	2.20	
	58 4-Chlorophenylphenyl ether	204	6.185	6.185	(1.076)	363521	2.00000	2.12	
	59 Fluorene	166	6.180	6.180	(1.075)	787941	2.00000	2.28	
	60 4-Nitroaniline	108	6.222	6.222	(1.083)	129090	2.00000	2.43(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.260	6.260	(0.895)	116728	2.00000	1.68	
	62 N-Nitrosodiphenylamine	169	6.286	6.286	(0.898)	676454	2.00000	2.22	
	63 Azobenzene	77	6.313	6.313	(0.902)	714629	2.00000	2.21	
	64 1,2-Diphenylhydrazine	77	6.313	6.313	(0.902)	714629	2.00000	2.21	
$	65 2,4,6-Tribromophenol (S)	330	6.393	6.393	(0.914)	105635	2.00000	1.86	
	66 4-Bromophenylphenyl ether	248	6.580	6.580	(0.940)	209455	2.00000	1.99	
	67 Hexachlorobenzene	284	6.708	6.708	(0.959)	209007	2.00000	1.99	
	68 Atrazine	200	6.773	6.773	(0.968)	206961	2.00000	2.03	
	69 Pentachlorophenol	266	6.874	6.874	(0.982)	110885	2.00000	1.74(M)	LT
*	70 Phenanthrene-d10 (IS)	188	6.997	6.997	(1.000)	1929253	4.00000		
	71 Phenanthrene	178	7.024	7.024	(1.004)	1203514	2.00000	2.31	
	72 Anthracene	178	7.072	7.072	(1.011)	1096030	2.00000	2.21	
	73 Carbazole	167	7.253	7.253	(1.037)	1027950	2.00000	2.28	
	74 Di-n-butylphthalate	149	7.734	7.734	(1.105)	1199126	2.00000	2.17	
	75 Fluoranthene	202	8.300	8.300	(1.186)	1132130	2.00000	2.22	
	76 Pyrene	202	8.530	8.530	(0.871)	1158572	2.00000	2.30	
$	77 Terphenyl-d14 (S)	244	8.738	8.738	(0.892)	868327	2.00000	2.22	
	78 Butylbenzylphthalate	149	9.305	9.305	(0.950)	467765	2.00000	1.94	
	79 3,3'-Dichlorobenzidine	252	9.785	9.785	(0.999)	369145	2.00000	1.95	
	80 bis(2-Ethylhexyl)phthalate	149	9.935	9.935	(1.014)	659316	2.00000	1.96	
	81 Benzo(a)anthracene	228	9.780	9.780	(0.998)	1039617	2.00000	2.19	
*	82 Chrysene-d12 (IS)	240	9.796	9.796	(1.000)	1733951	4.00000		
	83 Chrysene	228	9.818	9.818	(1.002)	1013859	2.00000	2.28	
	84 Di-n-octylphthalate	149	10.517	10.517	(0.945)	1080517	2.00000	2.10	
	85 Benzo(b)fluoranthene	252	10.806	10.806	(0.971)	1005627	2.00000	2.14	
	86 Benzo(k)fluoranthene	252	10.822	10.822	(0.972)	1166937	2.00000	2.36	
	87 Benzo(a)pyrene	252	11.078	11.078	(0.995)	933740	2.00000	2.12	
*	88 Perylene-d12 (IS)	264	11.132	11.132	(1.000)	1710990	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.960	11.960	(1.074)	1074355	2.00000	2.06	
90 Dibenz(a,h)anthracene	278	11.970	11.970	(1.075)	926486	2.00000	2.13	
91 Benzo(g,h,i)perylene	276	12.141	12.141	(1.091)	921422	2.00000	2.16	

QC Flag Legend

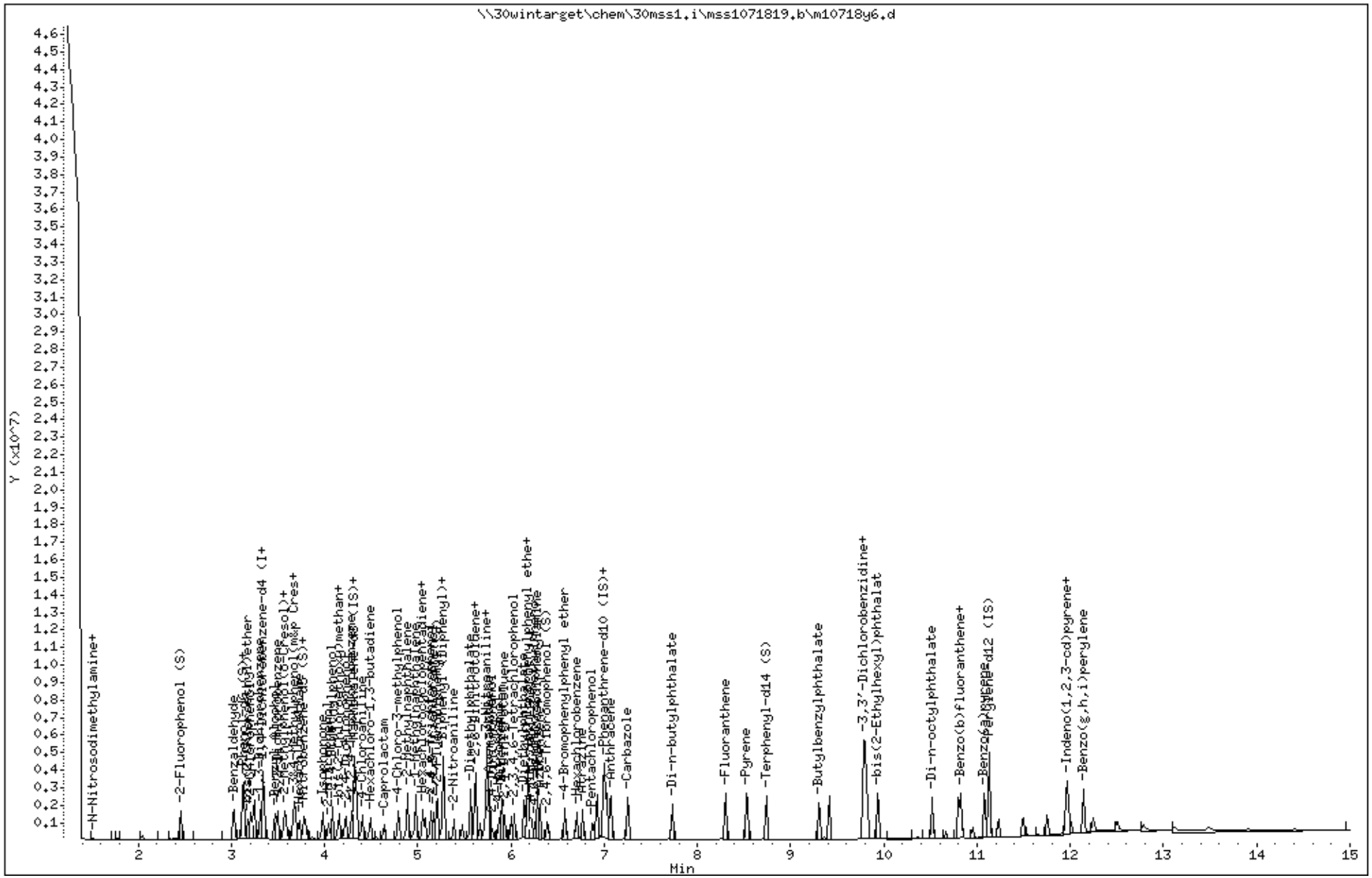
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y6.d
Date : 18-JUL-2019 18:05
Client ID: CAL2
Sample Info: CAL2

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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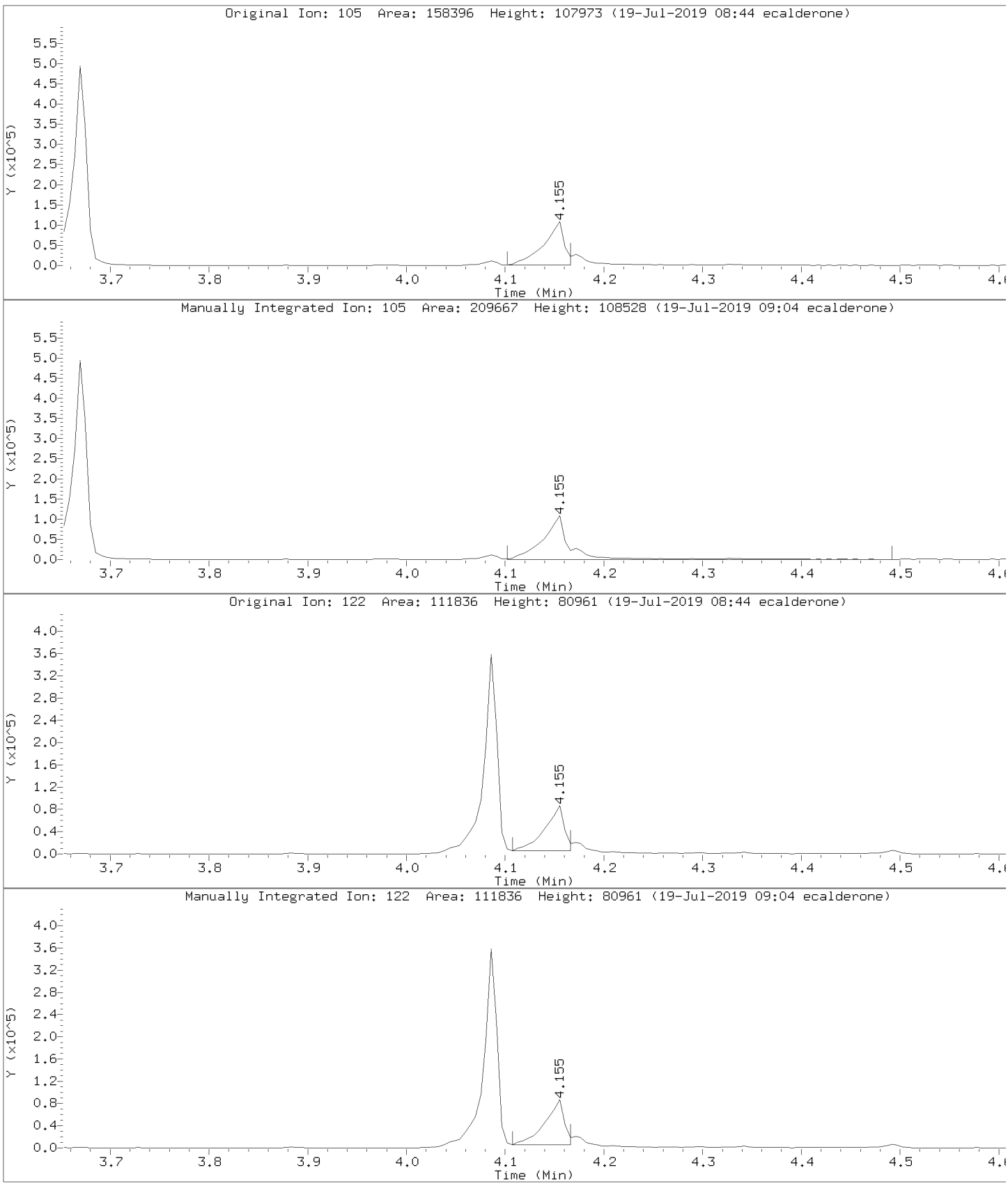
Injection Date: 18-JUL-2019 18:05
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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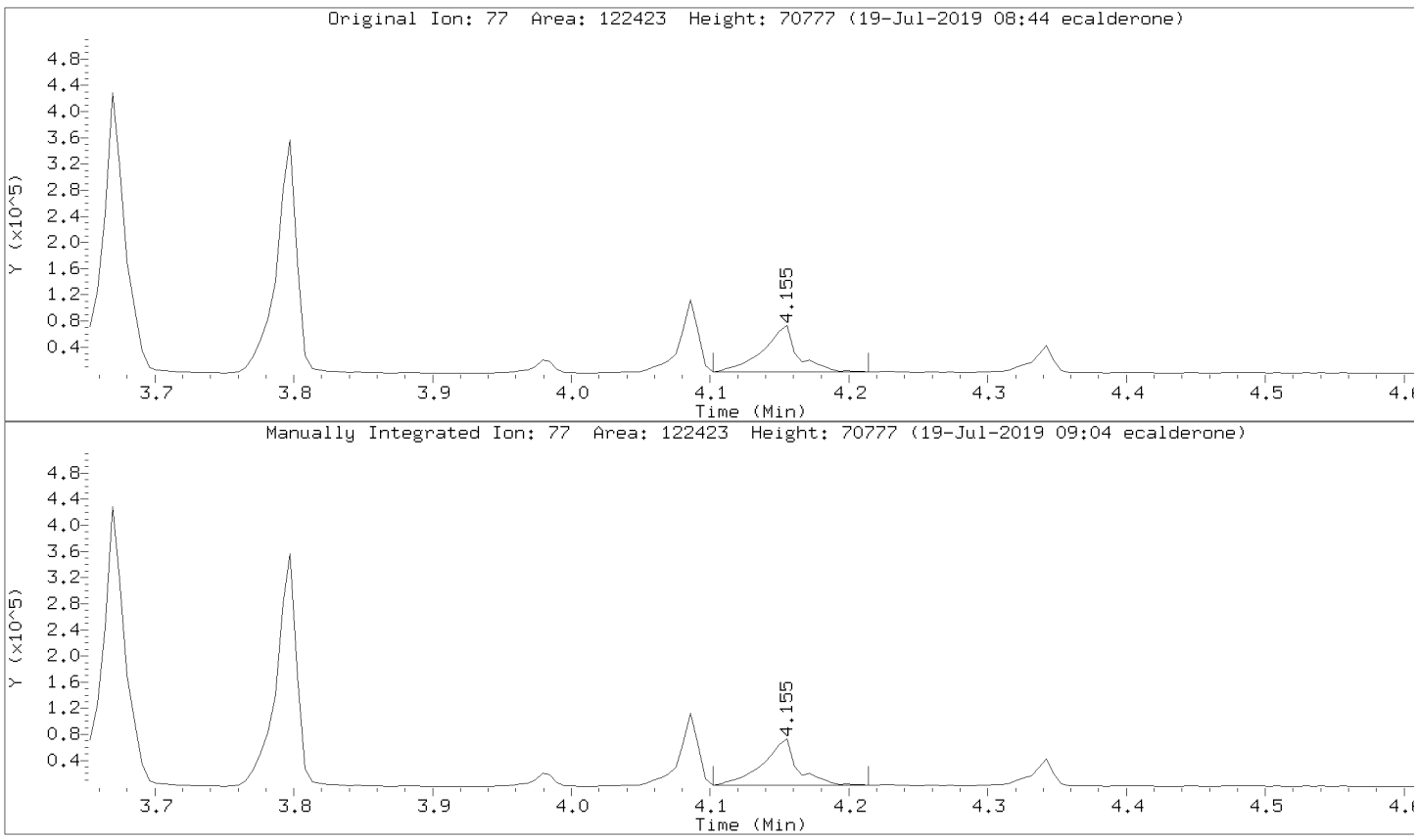

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Injection Date: 18-JUL-2019 18:05
Instrument: 30mss1.i
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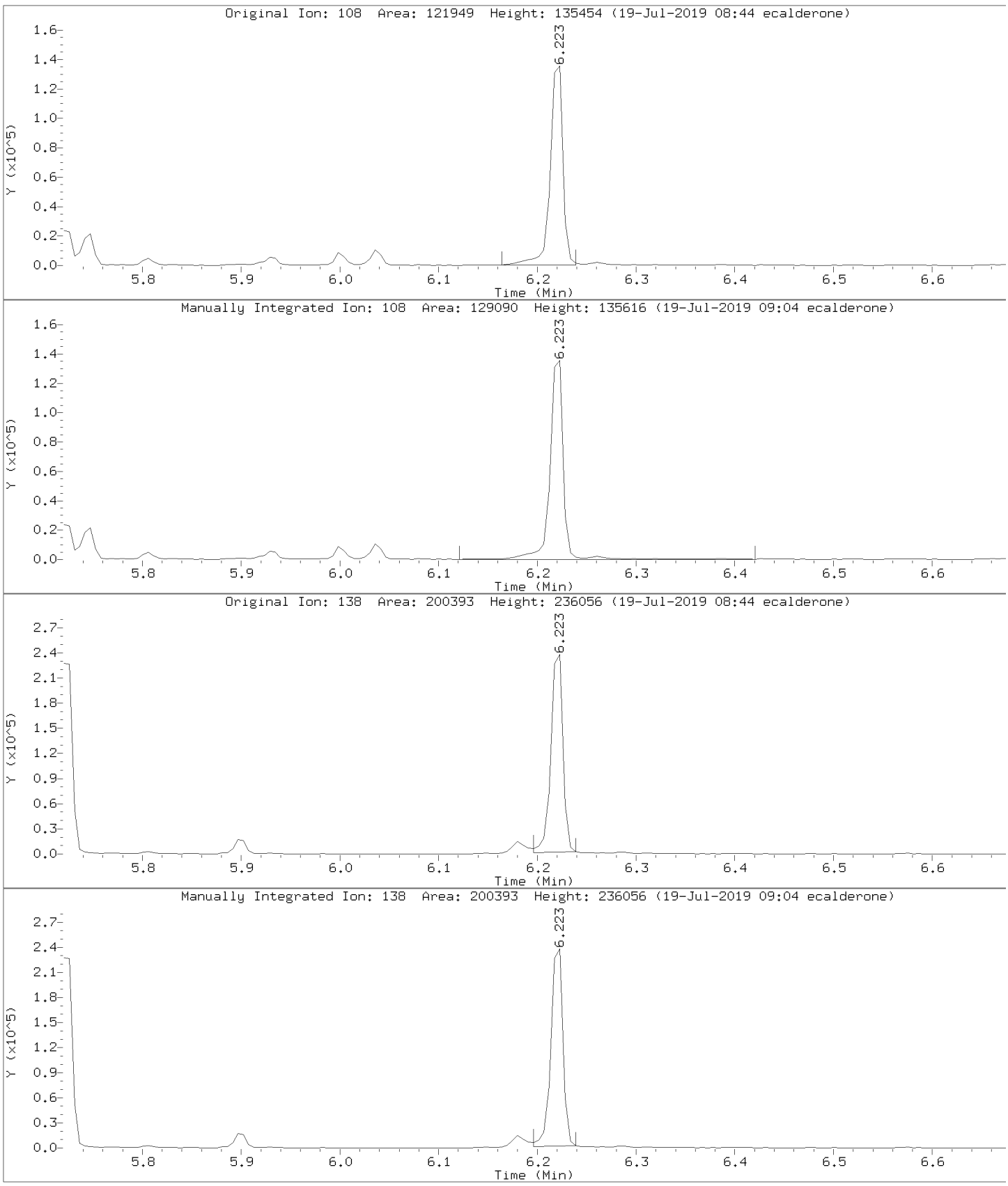
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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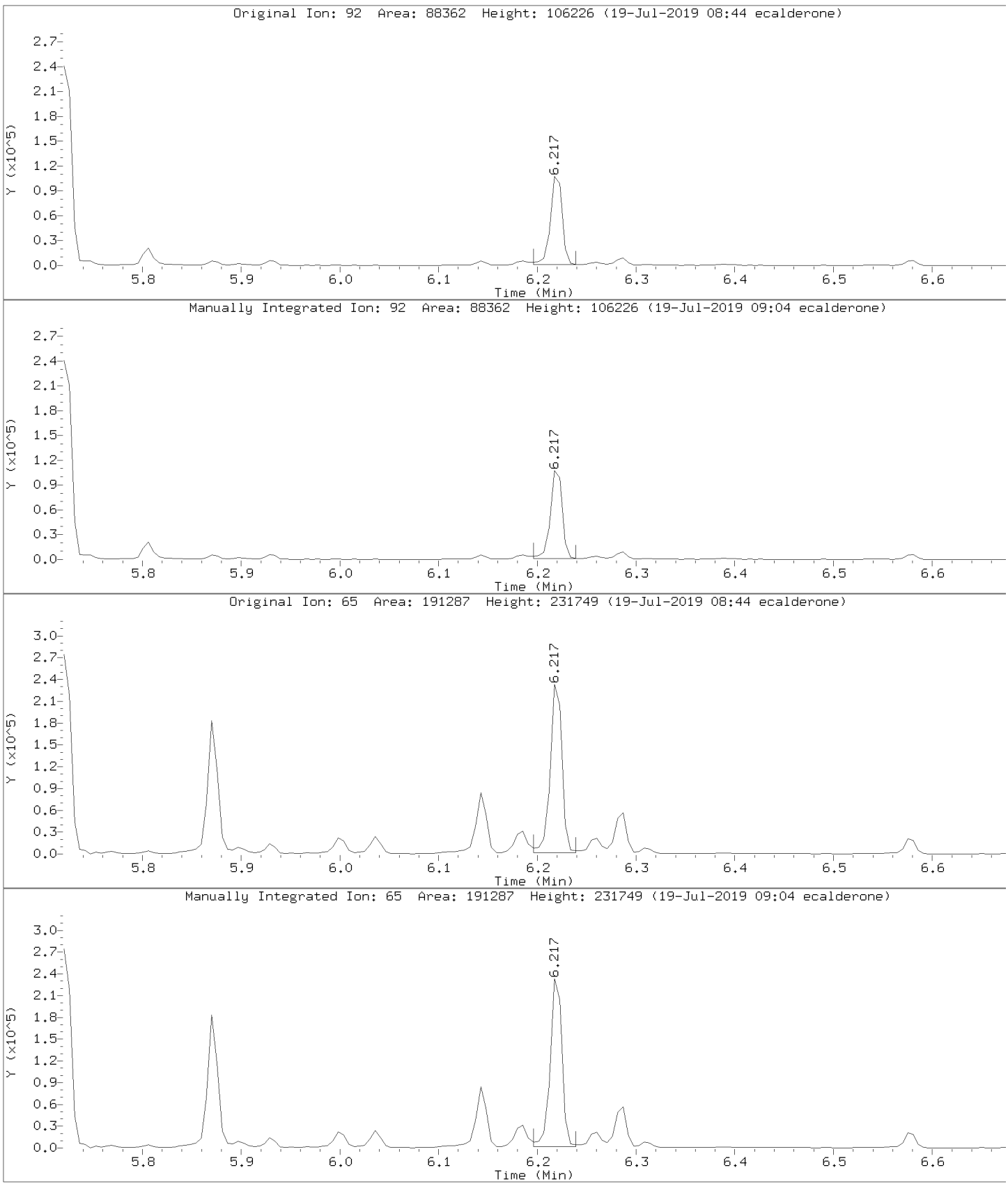
Lab Sample ID: CAL2



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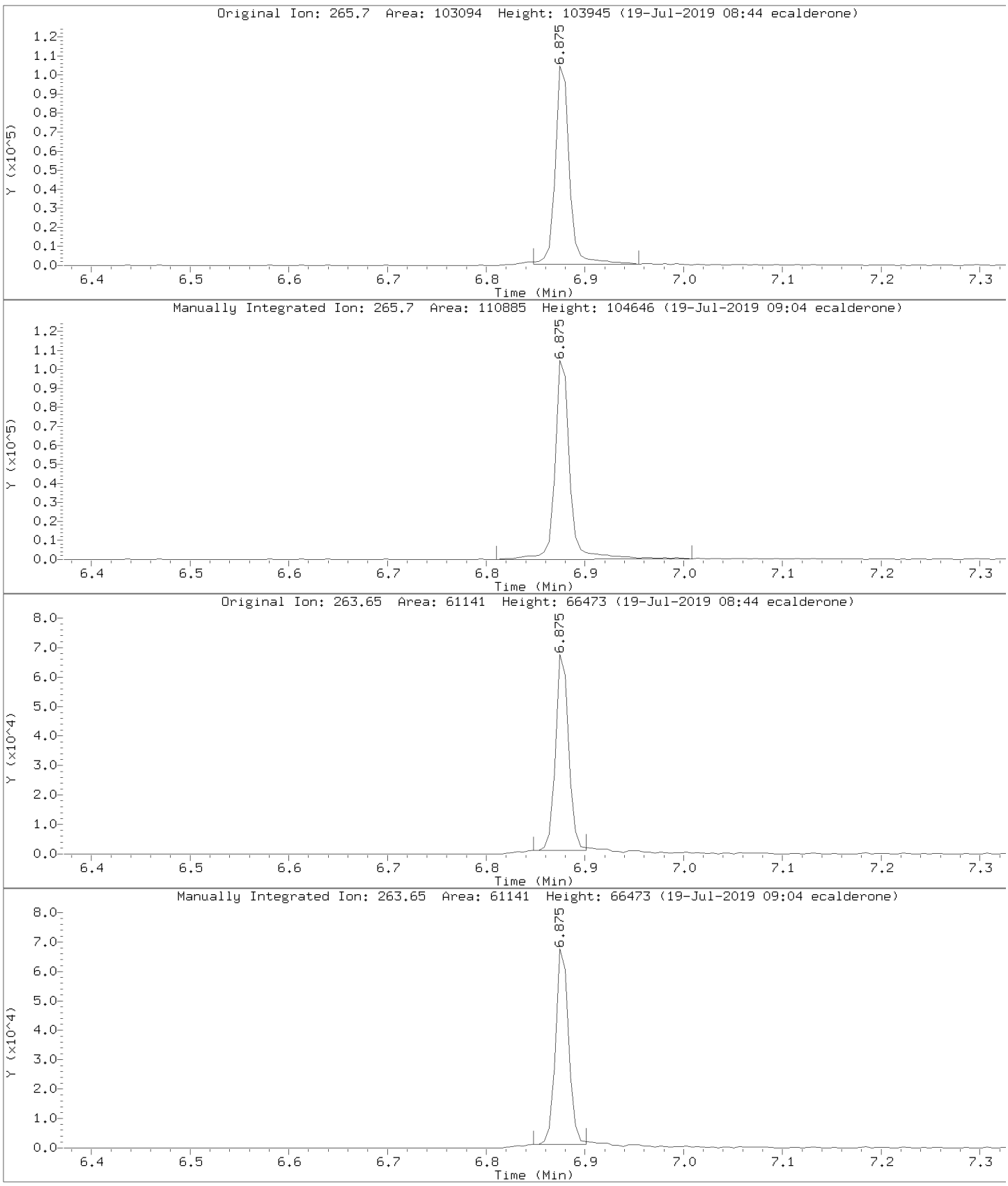
Injection Date: 18-JUL-2019 18:05
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5



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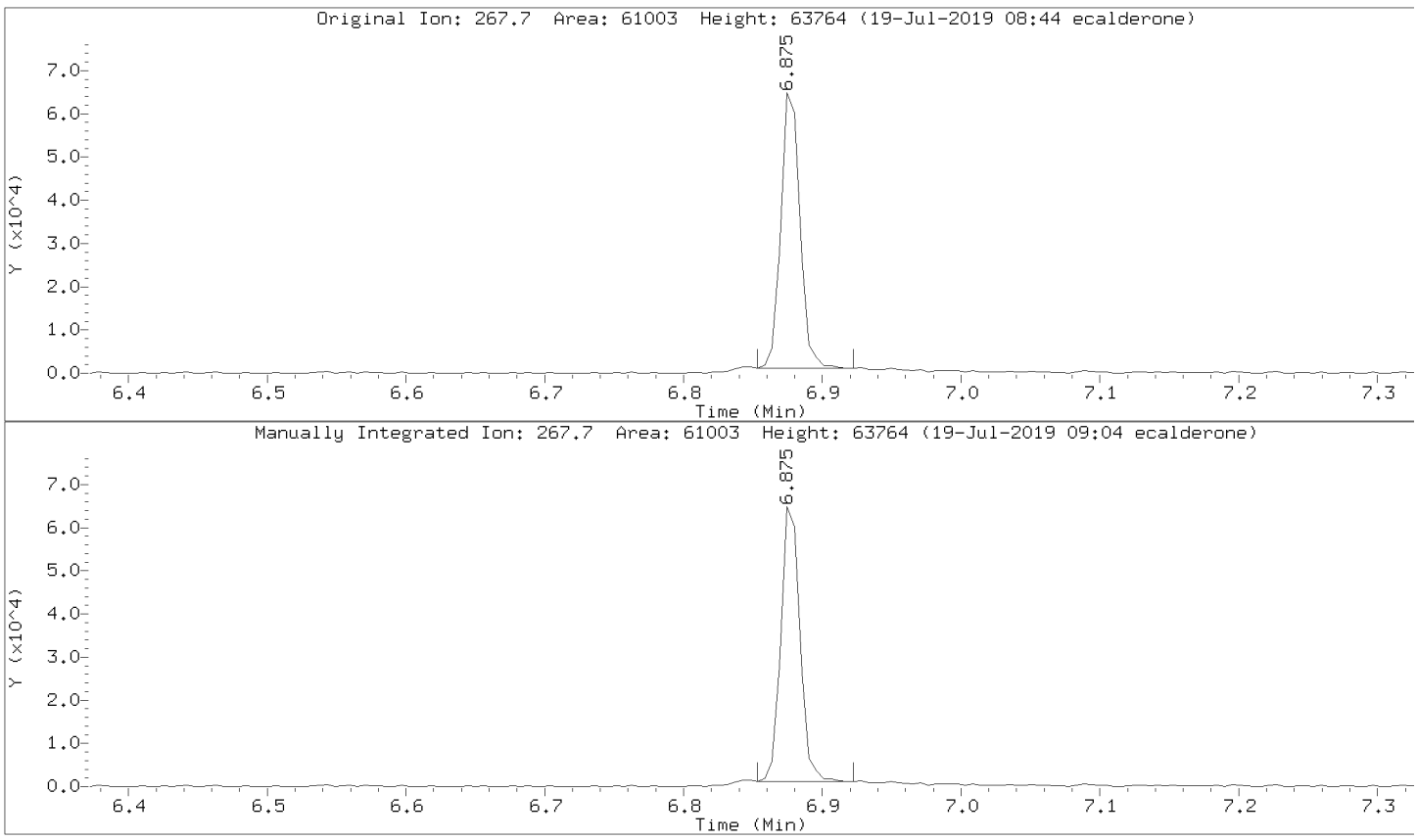
Lab Sample ID: CAL2



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y7.d
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Inj Date : 18-JUL-2019 18:28
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14848,93079:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071819.b\8270071819.m
Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 18:28 Cal File: m10718y7.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.292	1.286	(0.387)	111673	1.00000	1.06(M)	NI
	2 Pyridine	79	1.281	1.275	(0.384)	174792	1.00000	1.03	
$	3 2-Fluorophenol (S)	112	2.457	2.456	(0.736)	176992	1.00000	1.06	
$	4 Phenol-d6 (S)	99	3.119	3.118	(0.934)	222754	1.00000	1.07	
	5 Benzaldehyde	77	3.028	3.028	(0.907)	158077	1.00000	1.08	
	6 Phenol	94	3.125	3.129	(0.936)	263431	1.00000	1.10	
	7 Aniline	66	3.130	3.129	(0.938)	196953	1.00000	1.06	
	8 bis(2-Chloroethyl)ether	63	3.173	3.177	(0.950)	142985	1.00000	1.09	
	9 2-Chlorophenol	128	3.210	3.209	(0.962)	195435	1.00000	1.04	
	10 1,3-Dichlorobenzene	146	3.311	3.311	(0.992)	217630	1.00000	1.08	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.338	3.343	(1.000)	542045	4.00000		
	12 1,4-Dichlorobenzene	146	3.349	3.354	(1.003)	236593	1.00000	1.07	
	13 Benzyl Alcohol	79	3.466	3.466	(1.038)	157559	1.00000	1.05	
	14 1,2-Dichlorobenzene	146	3.493	3.492	(1.046)	207259	1.00000	1.04	
	15 2-Methylphenol(o-Cresol)	108	3.568	3.567	(1.069)	184472	1.00000	1.06	
	16 bis(2-Chloroisopropyl)ether	45	3.589	3.589	(1.075)	320339	1.00000	1.12	
	17 3&4-Methylphenol(m&p Cresol)	108	3.680	3.679	(1.102)	195498	1.00000	1.09	
	18 N-Nitroso-di-n-propylamine	70	3.696	3.695	(1.107)	142181	1.00000	1.06	
	19 Acetophenone	105	3.669	3.669	(1.099)	261715	1.00000	1.10	
	20 Hexachloroethane	117	3.728	3.728	(1.117)	76745	1.00000	0.984	
$	21 Nitrobenzene-d5 (S)	128	3.782	3.781	(0.874)	91293	1.00000	1.02	
	22 Nitrobenzene	77	3.792	3.797	(0.877)	192987	1.00000	1.06	
	23 Isophorone	82	3.979	3.979	(0.920)	374284	1.00000	1.11	
	24 2,4-Dimethylphenol	107	4.086	4.085	(0.944)	195204	1.00000	1.10	
	25 2-Nitrophenol	139	4.043	4.043	(0.935)	96885	1.00000	0.949	
	26 Benzoic acid	105	4.145	4.155	(0.958)	90349	1.00000	1.17(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.161	4.160	(0.962)	225960	1.00000	1.09	
	28 2,4-Dichlorophenol	162	4.230	4.230	(0.978)	162056	1.00000	1.08	
	29 1,2,4-Trichlorobenzene	180	4.294	4.294	(0.993)	173392	1.00000	1.07	
*	30 Naphthalene-d8 (IS)	136	4.326	4.326	(1.000)	2179750	4.00000		
	31 Naphthalene	128	4.343	4.342	(1.004)	591841	1.00000	1.20	
	32 4-Chloroaniline	65	4.401	4.401	(1.017)	64633	1.00000	1.12	
	33 Hexachloro-1,3-butadiene	225	4.492	4.491	(1.038)	89442	1.00000	1.04	
	34 Caprolactam	55	4.631	4.641	(1.070)	77375	1.00000	0.352	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	4.797	4.796	(1.109)	163460	1.00000	1.08	
	36	2-Methylnaphthalene	142	4.893	4.892	(1.131)	418306	1.00000	1.16	
	37	1-Methylnaphthalene	142	4.978	4.978	(1.151)	388232	1.00000	1.15	
	38	Hexachlorocyclopentadiene	237	5.080	5.079	(0.884)	96009	1.00000	0.922	
	39	1,2,4,5-Tetrachlorobenzene	216	5.058	5.058	(0.880)	159645	1.00000	1.11	
	40	2,4,6-Trichlorophenol	196	5.144	5.143	(0.895)	116544	1.00000	1.04	
	41	2,4,5-Trichlorophenol	196	5.176	5.175	(0.901)	104681	1.00000	1.05	
$	42	2-Fluorobiphenyl (S)	172	5.208	5.207	(0.906)	415096	1.00000	1.19	
	43	Biphenyl (Diphenyl)	154	5.272	5.277	(0.917)	487635	1.00000	1.23	
	44	2-Chloronaphthalene	164	5.277	5.277	(0.918)	116562	1.00000	1.09	
	45	2-Nitroaniline	138	5.390	5.389	(0.938)	112475	1.00000	0.954	
	46	Dimethylphthalate	163	5.566	5.571	(0.968)	393767	1.00000	1.16	
	47	2,6-Dinitrotoluene	165	5.614	5.619	(0.977)	87527	1.00000	1.02	
	48	Acenaphthylene	152	5.619	5.619	(0.978)	592391	1.00000	1.22	
	49	3-Nitroaniline	65	5.721	5.720	(0.995)	111069	1.00000	1.09	
*	50	Acenaphthene-d10 (IS)	164	5.747	5.747	(1.000)	1155967	4.00000		
	51	2,4-Dinitrophenol	184	5.806	5.806	(1.010)	29542	1.00000	0.607(M)	NI
	52	Acenaphthene	153	5.769	5.768	(1.004)	373987	1.00000	1.18	
	53	4-Nitrophenol	109	5.870	5.870	(1.021)	43442	1.00000	0.943	
	54	2,4-Dinitrotoluene	165	5.929	5.928	(1.032)	111252	1.00000	0.996	
	55	Dibenzofuran	168	5.897	5.902	(1.026)	513638	1.00000	1.22	
	56	2,3,4,6-Tetrachlorophenol	232	6.036	6.041	(1.050)	78623	1.00000	0.928	
	57	Diethylphthalate	149	6.143	6.142	(1.069)	386082	1.00000	1.14	
	58	4-Chlorophenylphenyl ether	204	6.186	6.185	(1.076)	192858	1.00000	1.11	
	59	Fluorene	166	6.180	6.180	(1.075)	416792	1.00000	1.18	
	60	4-Nitroaniline	108	6.218	6.222	(1.082)	64080	1.00000	1.16(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.260	6.260	(0.895)	51509	1.00000	0.786(M)	LT
	62	N-Nitrosodiphenylamine	169	6.287	6.286	(0.898)	356378	1.00000	1.18	
	63	Azobenzene	77	6.308	6.313	(0.902)	365665	1.00000	1.14	
	64	1,2-Diphenylhydrazine	77	6.308	6.313	(0.902)	365665	1.00000	1.14	
$	65	2,4,6-Tribromophenol (S)	330	6.389	6.393	(0.913)	51931	1.00000	0.952	
	66	4-Bromophenylphenyl ether	248	6.581	6.580	(0.940)	110348	1.00000	1.08	
	67	Hexachlorobenzene	284	6.704	6.708	(0.958)	111616	1.00000	1.10	
	68	Atrazine	200	6.768	6.773	(0.967)	101140	1.00000	1.02	
	69	Pentachlorophenol	266	6.875	6.874	(0.982)	51189	1.00000	0.844(M)	LT
*	70	Phenanthrene-d10 (IS)	188	6.998	6.997	(1.000)	1872480	4.00000		
	71	Phenanthrene	178	7.019	7.024	(1.003)	630550	1.00000	1.22	
	72	Anthracene	178	7.067	7.072	(1.010)	566701	1.00000	1.16	
	73	Carbazole	167	7.254	7.253	(1.037)	539031	1.00000	1.20	
	74	Di-n-butylphthalate	149	7.729	7.734	(1.105)	603942	1.00000	1.11	
	75	Fluoranthene	202	8.301	8.300	(1.186)	579460	1.00000	1.15	
	76	Pyrene	202	8.531	8.530	(0.871)	606989	1.00000	1.16	
$	77	Terphenyl-d14 (S)	244	8.739	8.738	(0.892)	435473	1.00000	1.08	
	78	Butylbenzylphthalate	149	9.305	9.305	(0.950)	233636	1.00000	0.961	
	79	3,3'-Dichlorobenzidine	252	9.786	9.785	(0.999)	184823	1.00000	0.969	
	80	bis(2-Ethylhexyl)phthalate	149	9.936	9.935	(1.014)	328869	1.00000	0.970	
	81	Benzo(a)anthracene	228	9.775	9.780	(0.998)	544129	1.00000	1.11	
*	82	Chrysene-d12 (IS)	240	9.797	9.796	(1.000)	1755147	4.00000		
	83	Chrysene	228	9.818	9.818	(1.002)	553866	1.00000	1.20	
	84	Di-n-octylphthalate	149	10.518	10.517	(0.945)	519204	1.00000	1.03	
	85	Benzo(b)fluoranthene	252	10.801	10.806	(0.971)	543933	1.00000	1.18	
	86	Benzo(k)fluoranthene	252	10.823	10.822	(0.973)	550325	1.00000	1.12	
	87	Benzo(a)pyrene	252	11.079	11.078	(0.996)	475603	1.00000	1.10	
*	88	Perylene-d12 (IS)	264	11.127	11.132	(1.000)	1659315	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.955	11.960	(1.074)	541369	1.00000	1.06	
90 Dibenz(a,h)anthracene	278	11.966	11.970	(1.075)	463063	1.00000	1.08	
91 Benzo(g,h,i)perylene	276	12.137	12.141	(1.091)	466705	1.00000	1.11	

QC Flag Legend

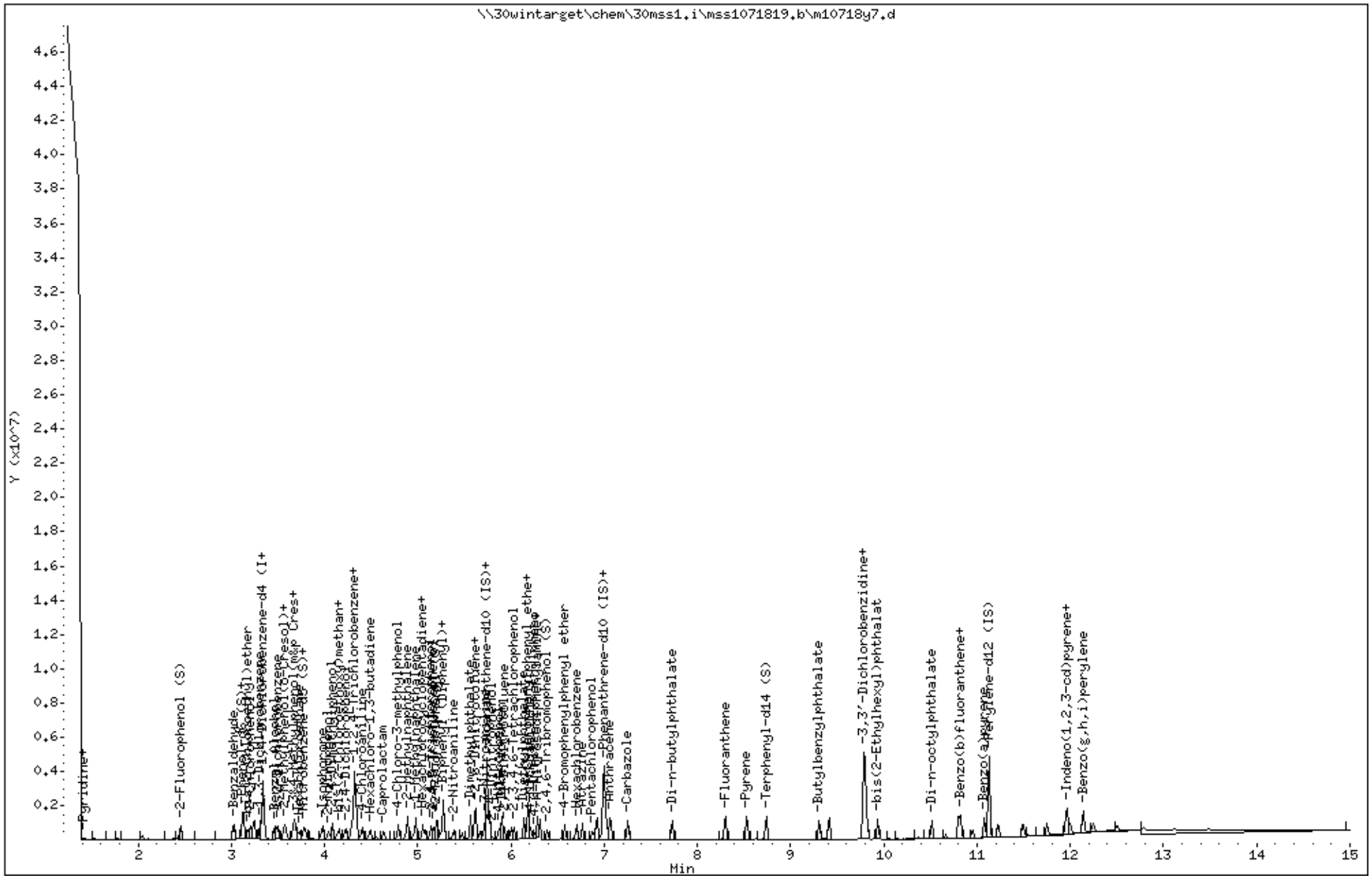
M - Compound response manually integrated.

Review Codes Legend

NI: Indicates that the peak was not integrated at all by the computer software.
:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y7.d
Date : 18-JUL-2019 18:28
Client ID: CAL1
Sample Info: CAL1

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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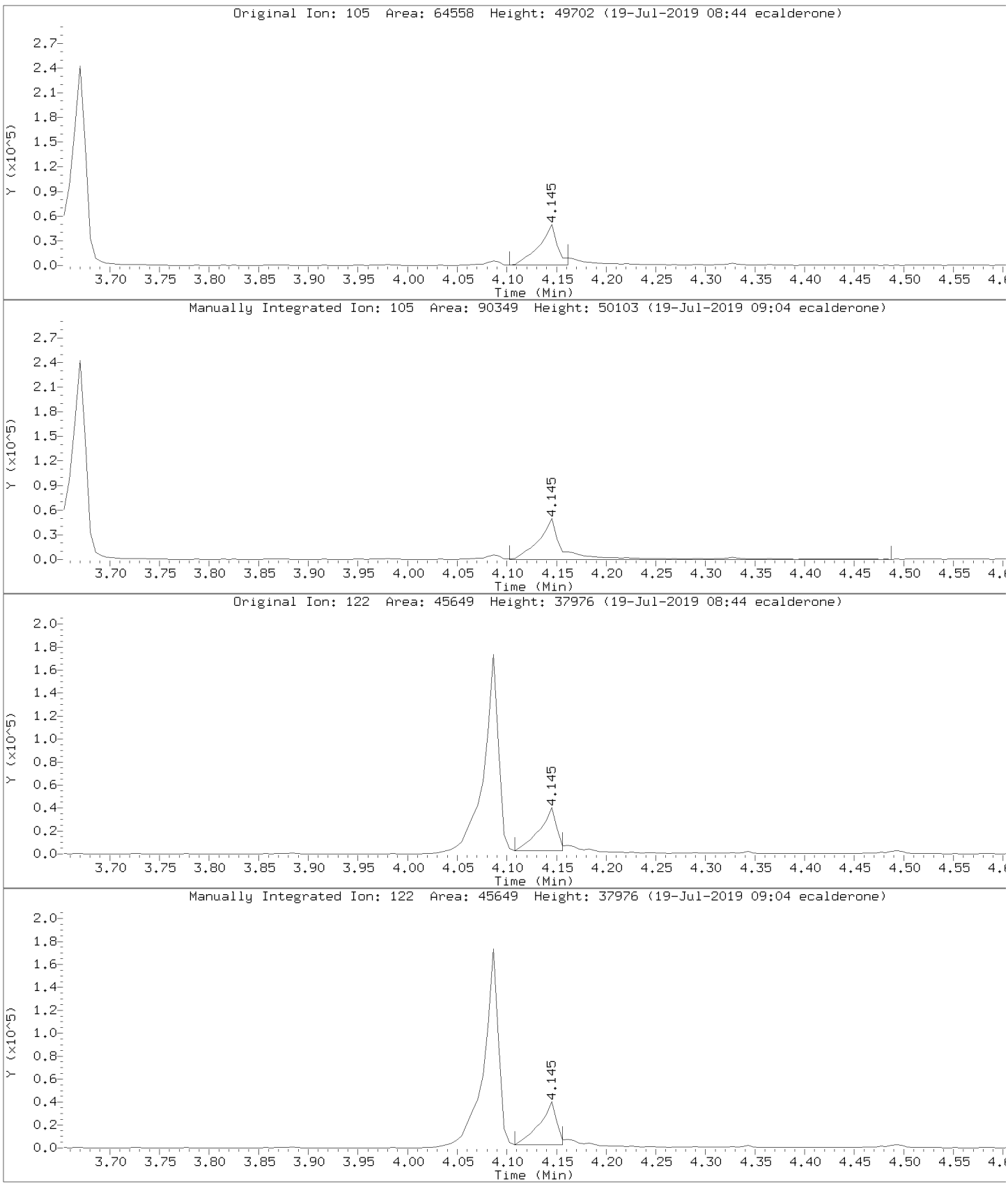
Injection Date: 18-JUL-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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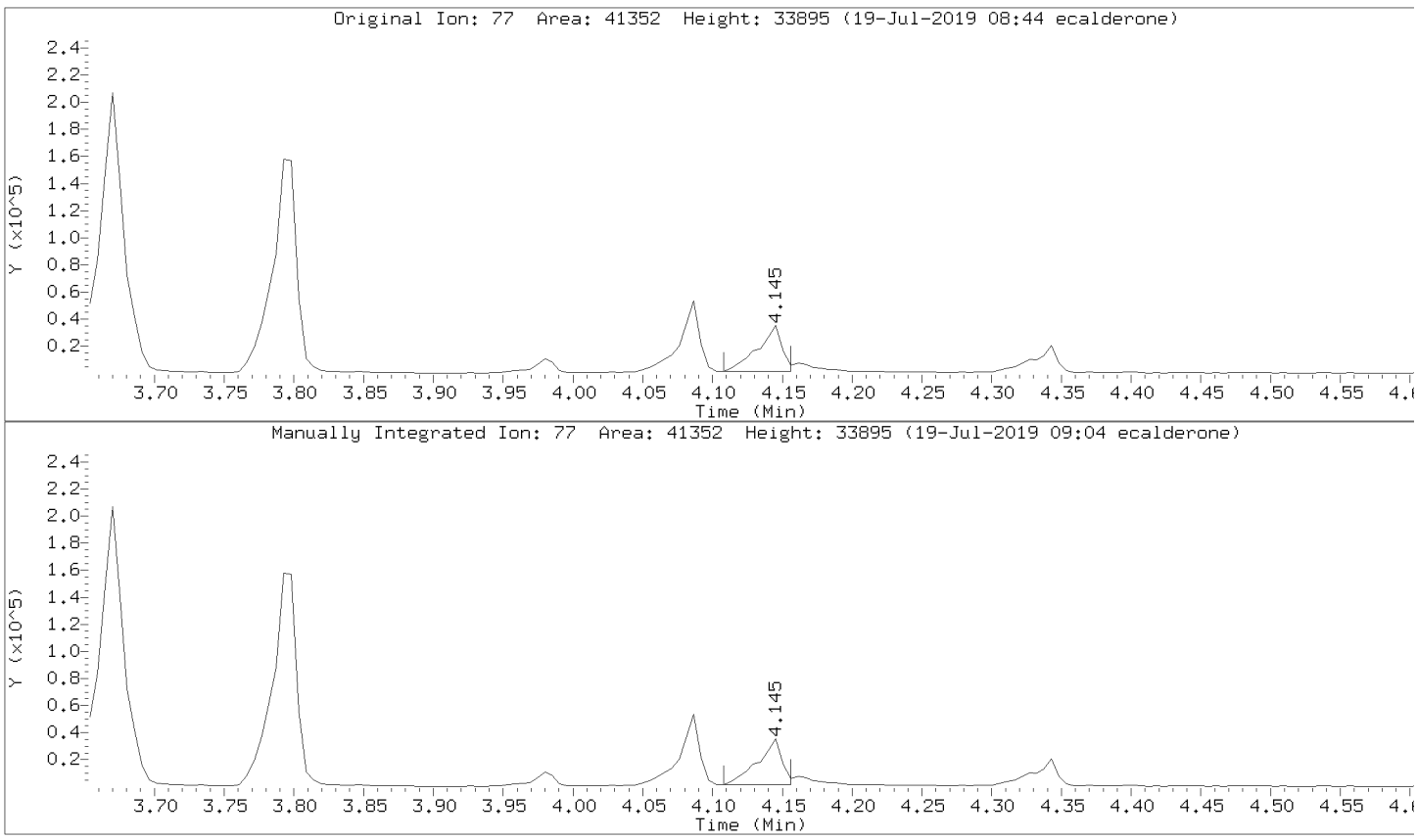
Instrument: 30mss1.i
Lab Sample ID: CAL1



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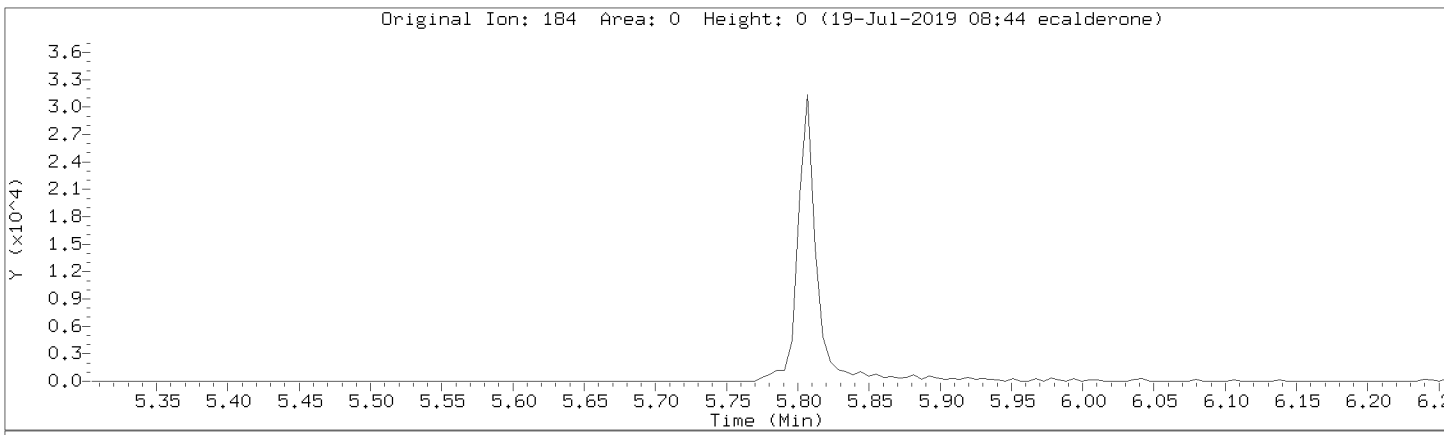
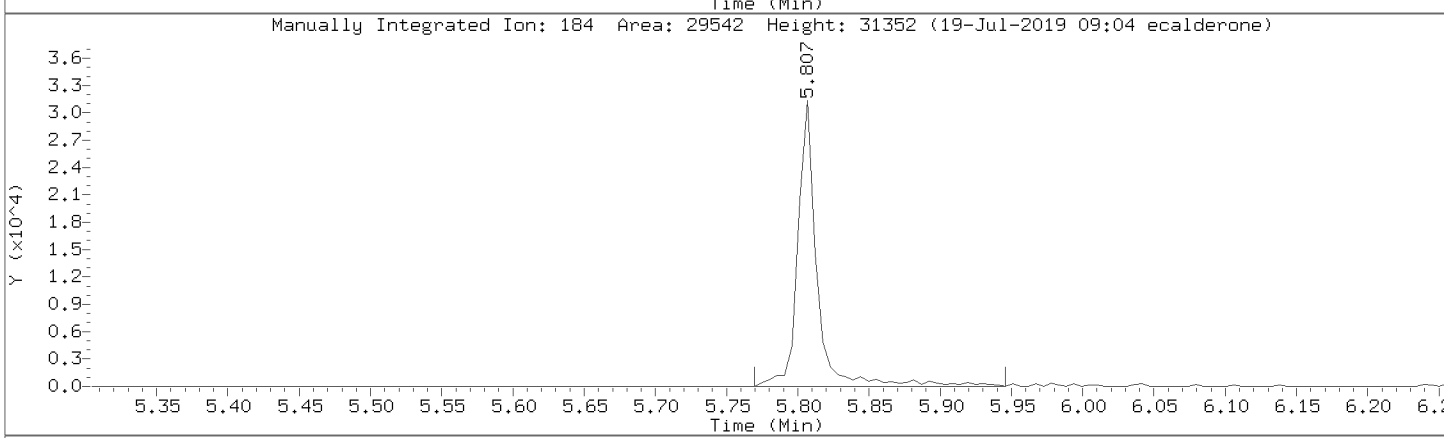
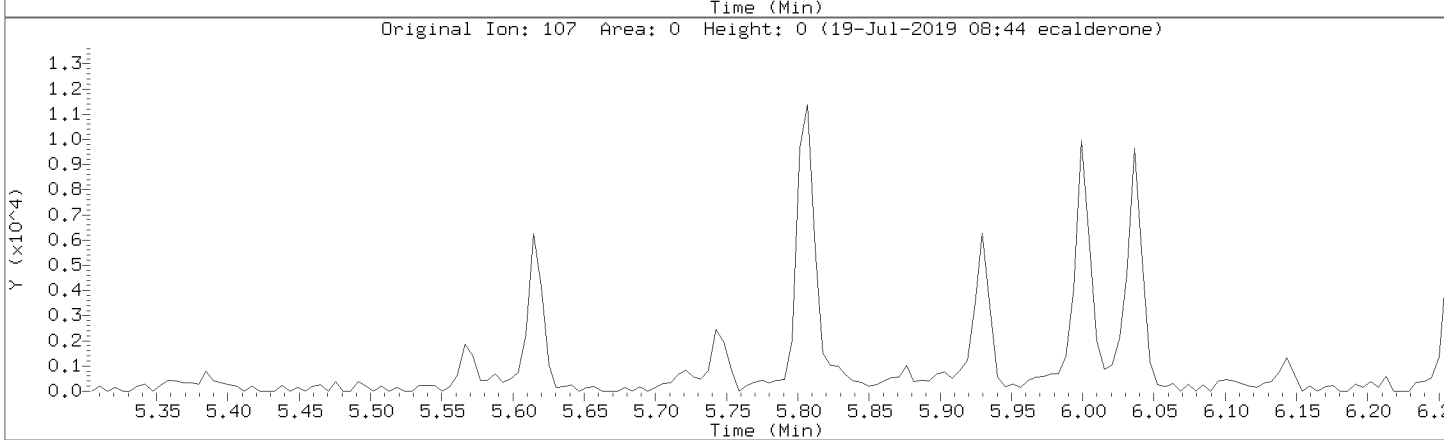
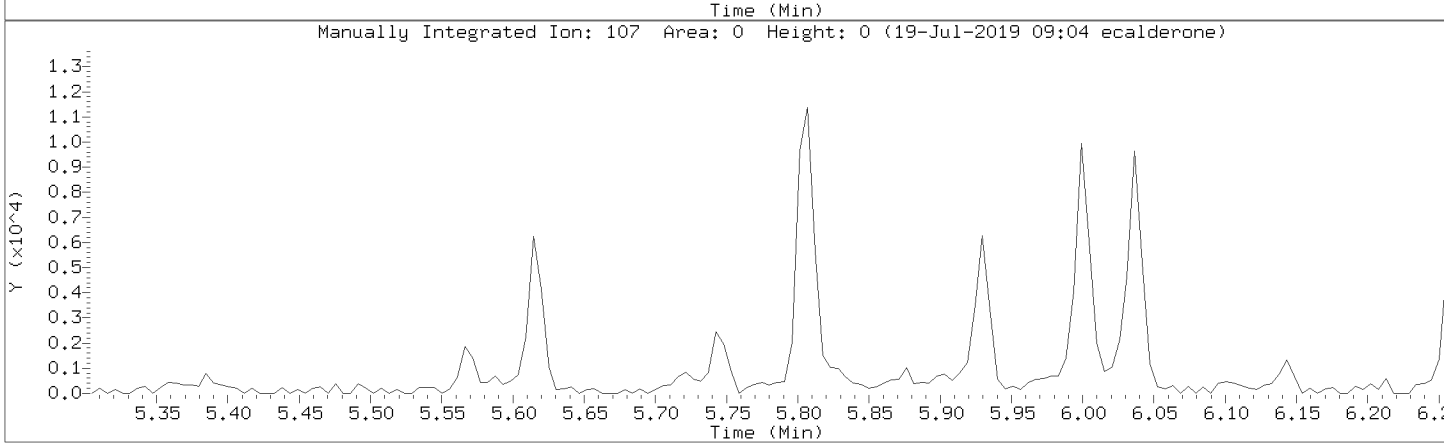
Injection Date: 18-JUL-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,4-Dinitrophenol Review Code: NI
CAS Number: 51-28-5









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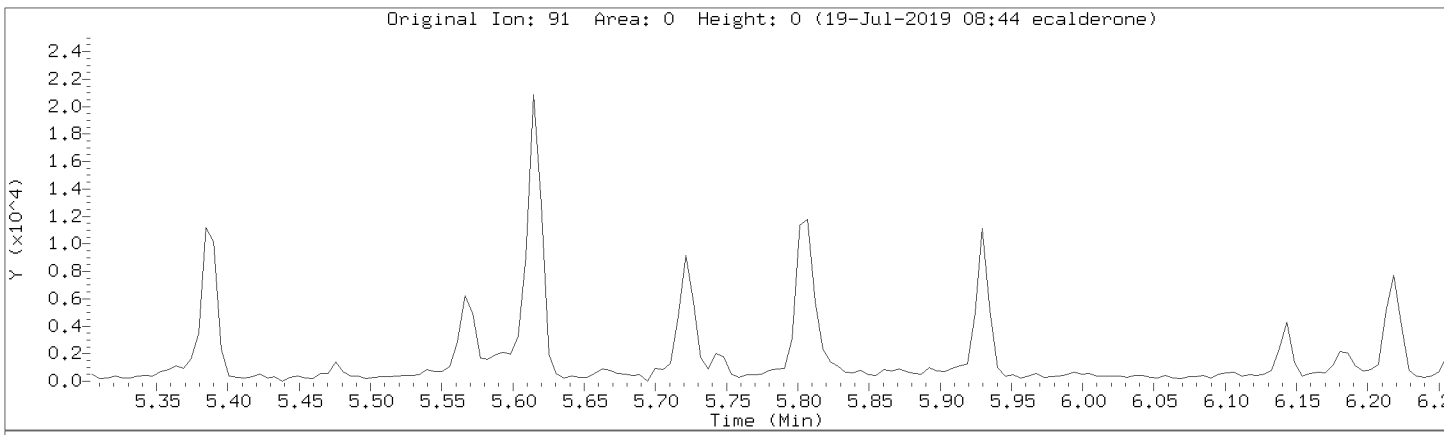
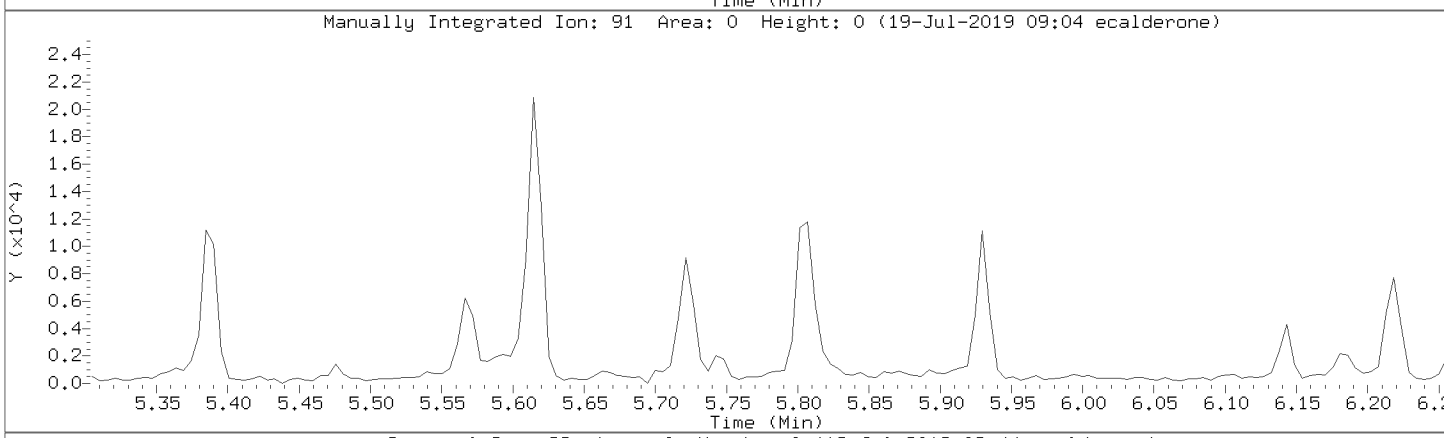
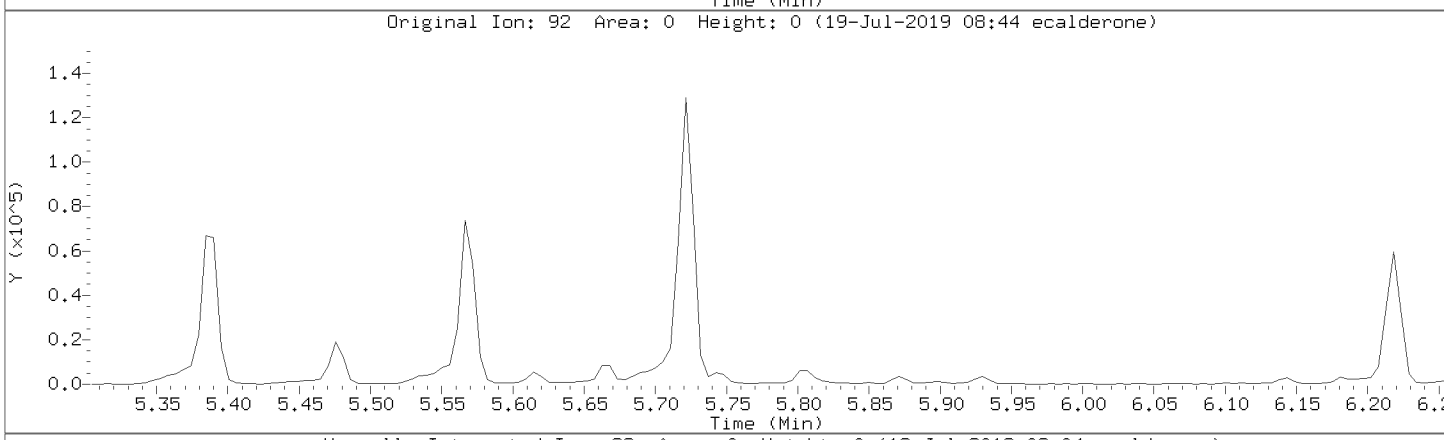
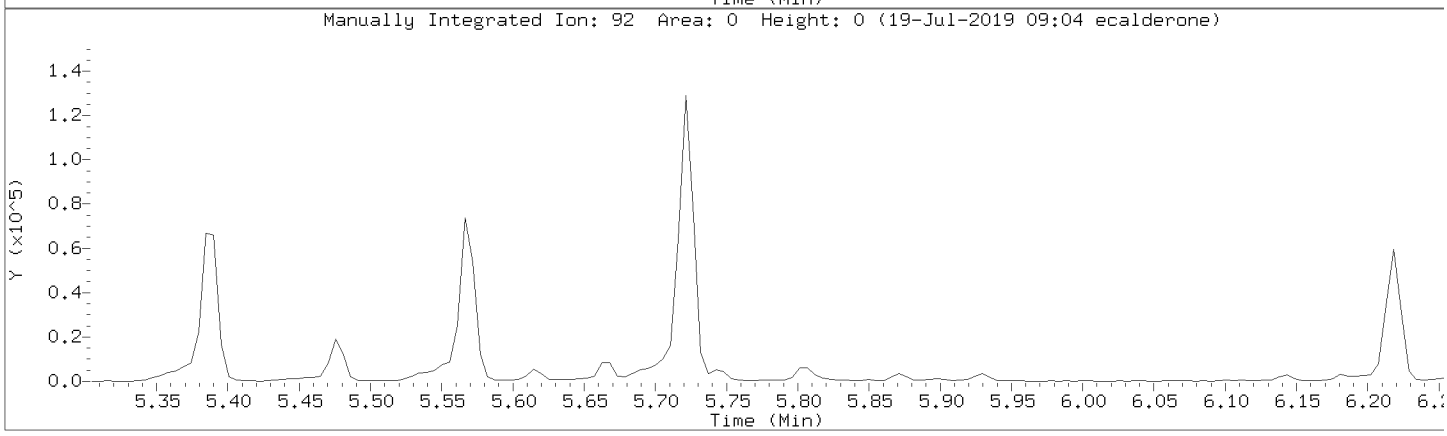
Lab Sample ID: CAL1









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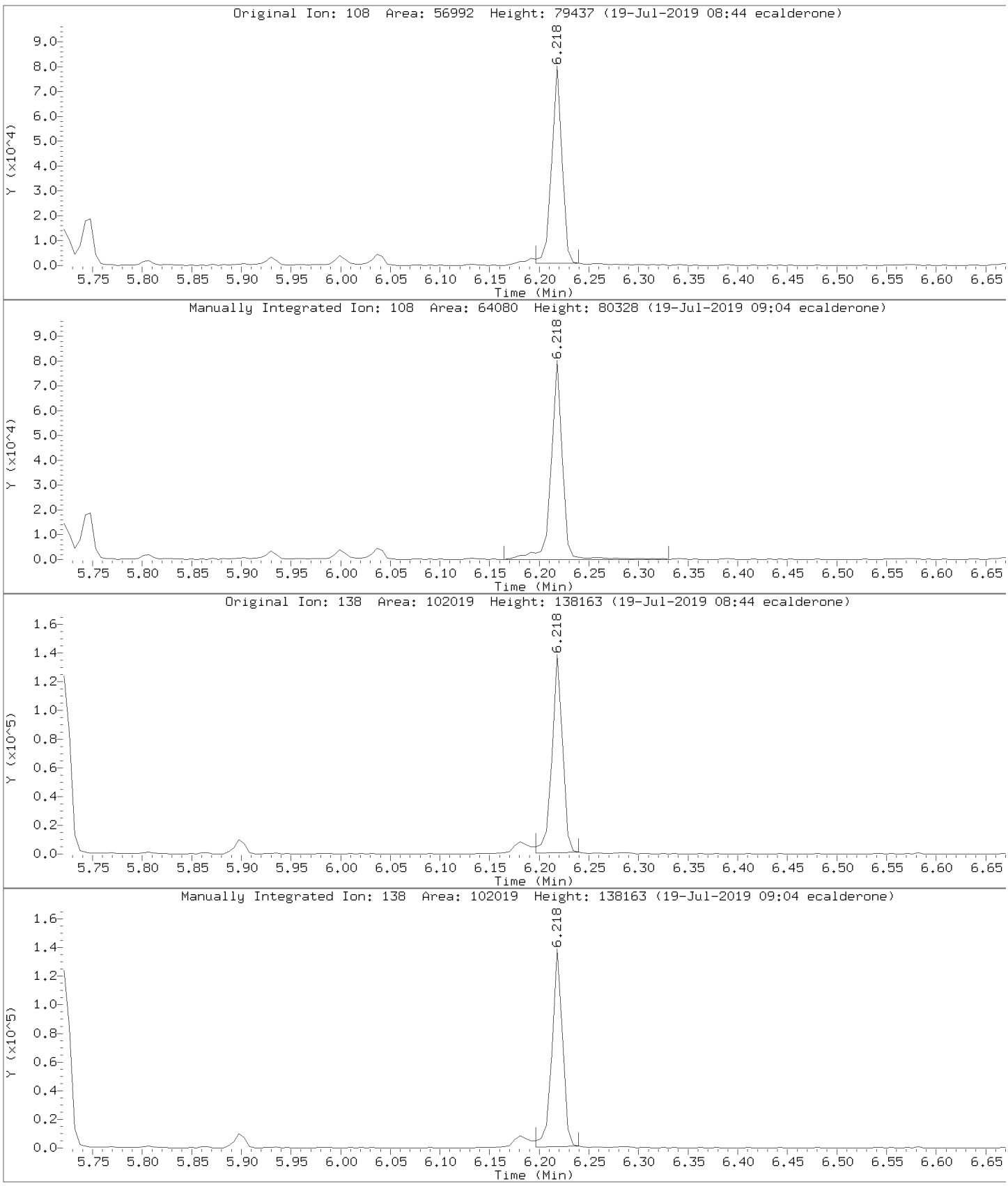
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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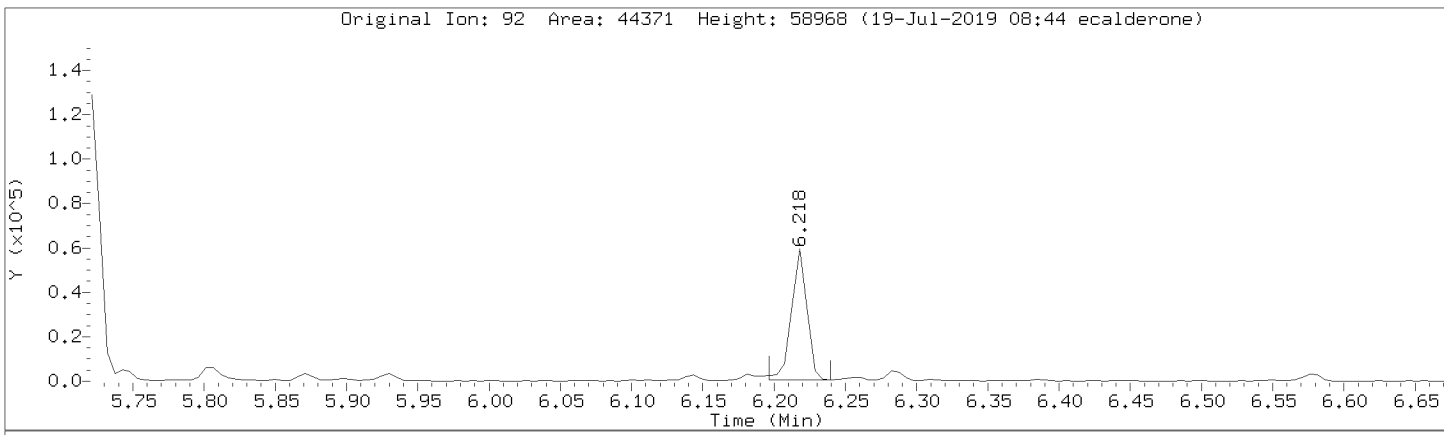
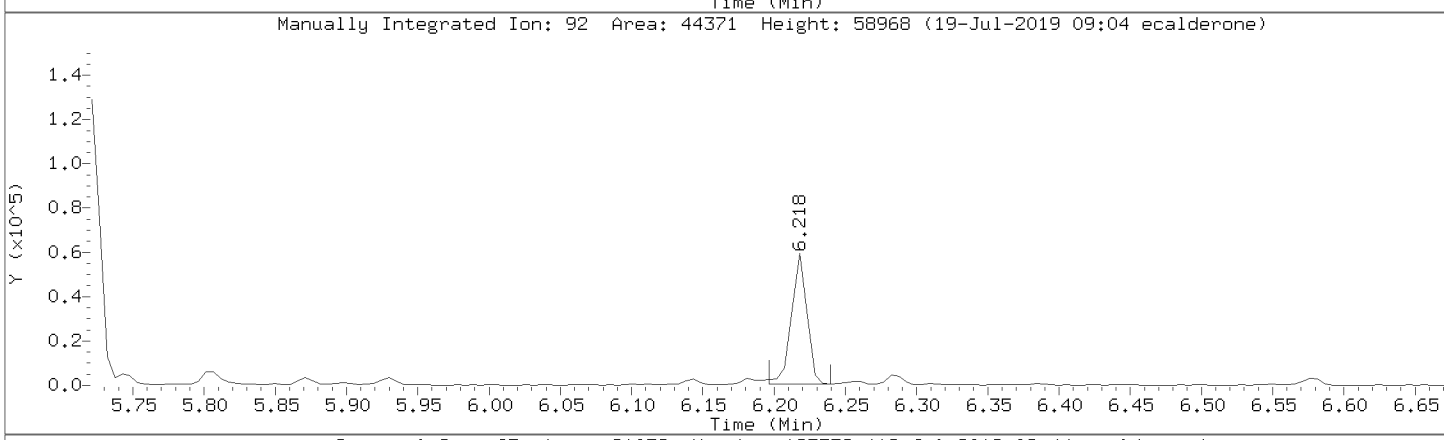
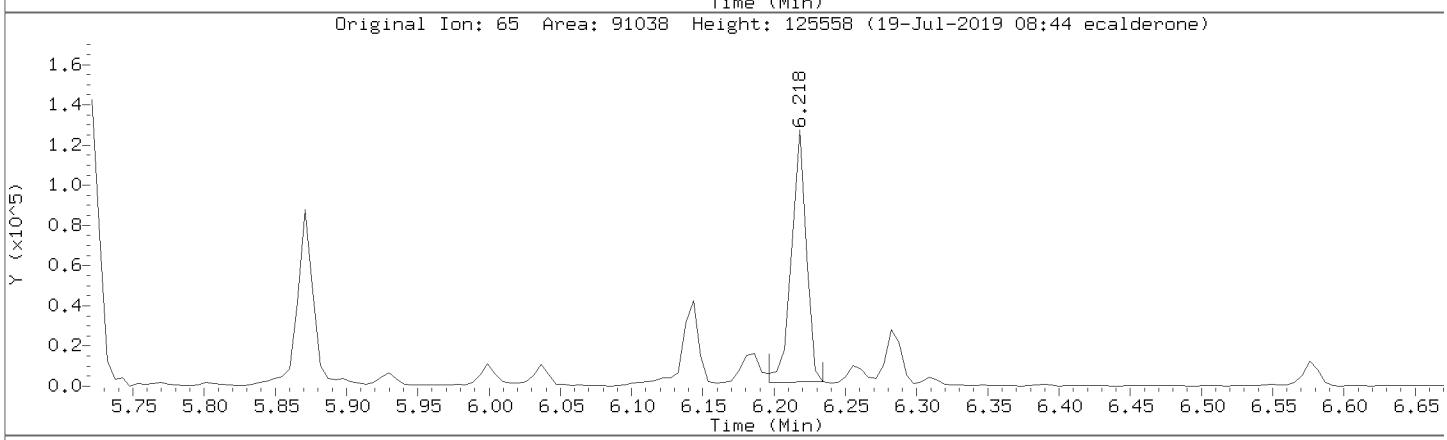
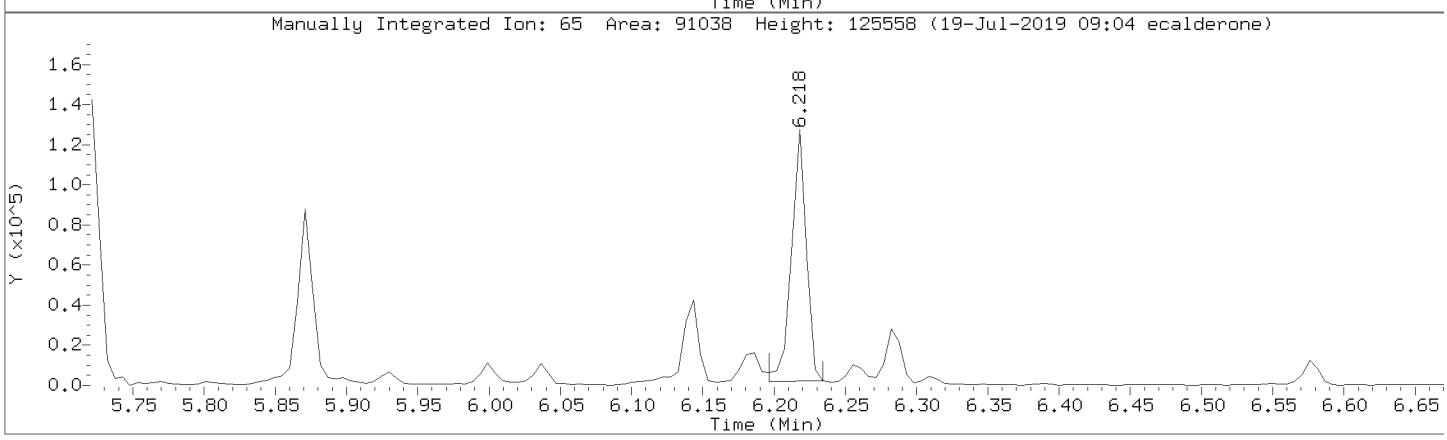
Instrument: 30mss1.i
Lab Sample ID: CAL1









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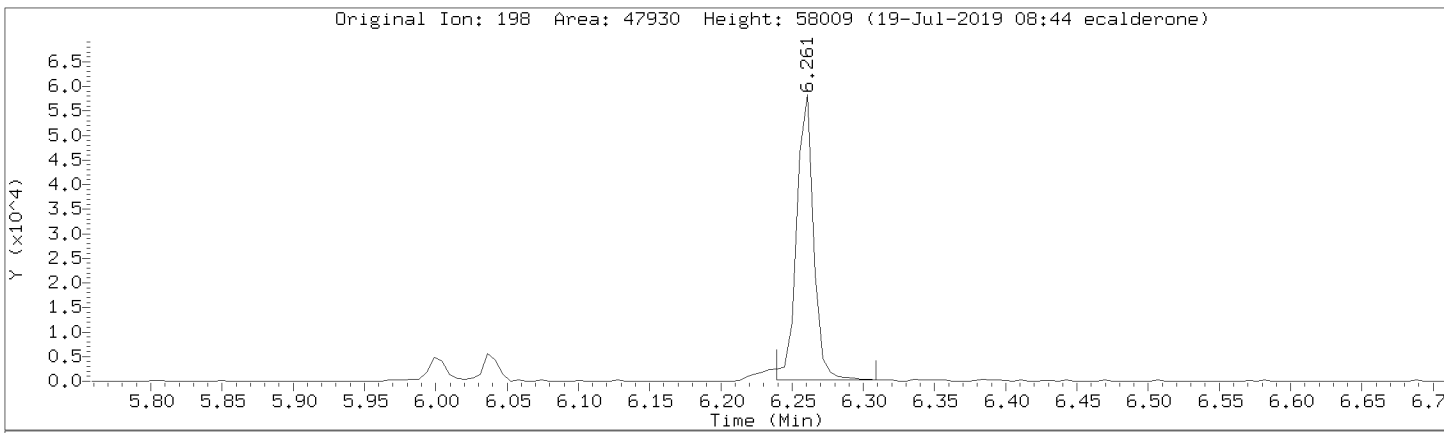
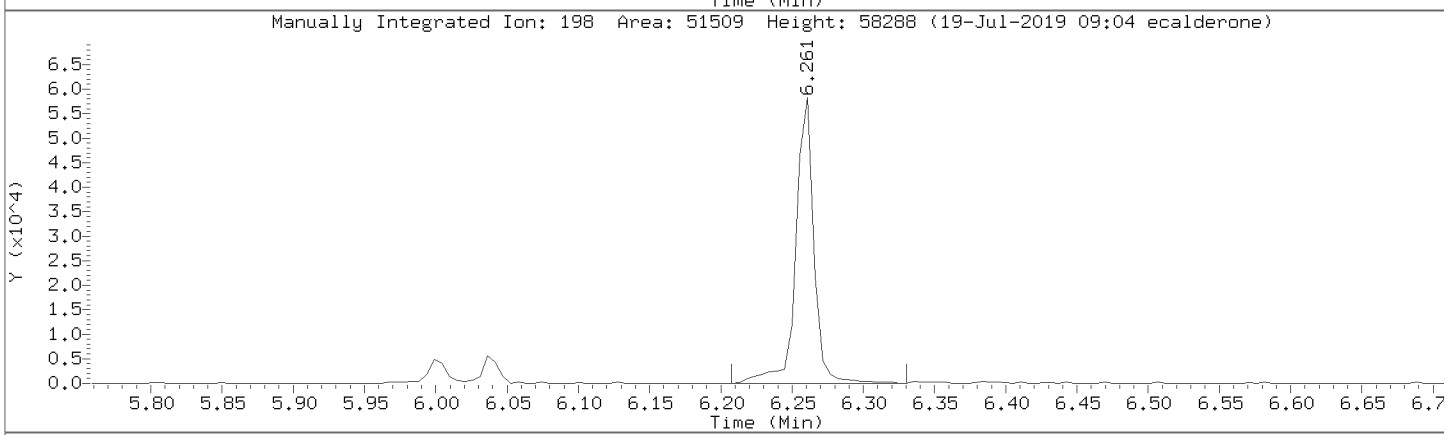
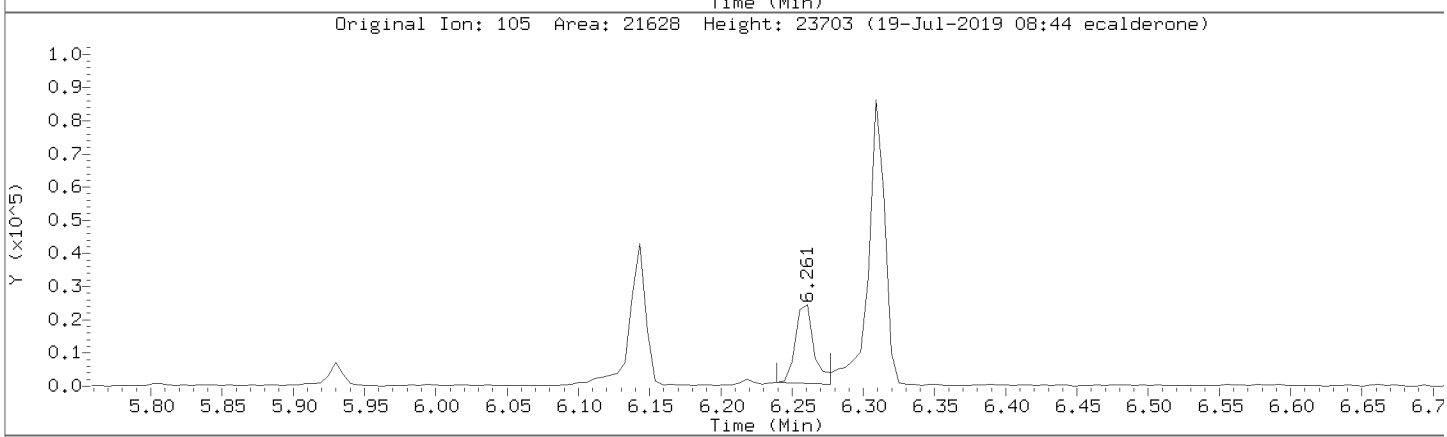
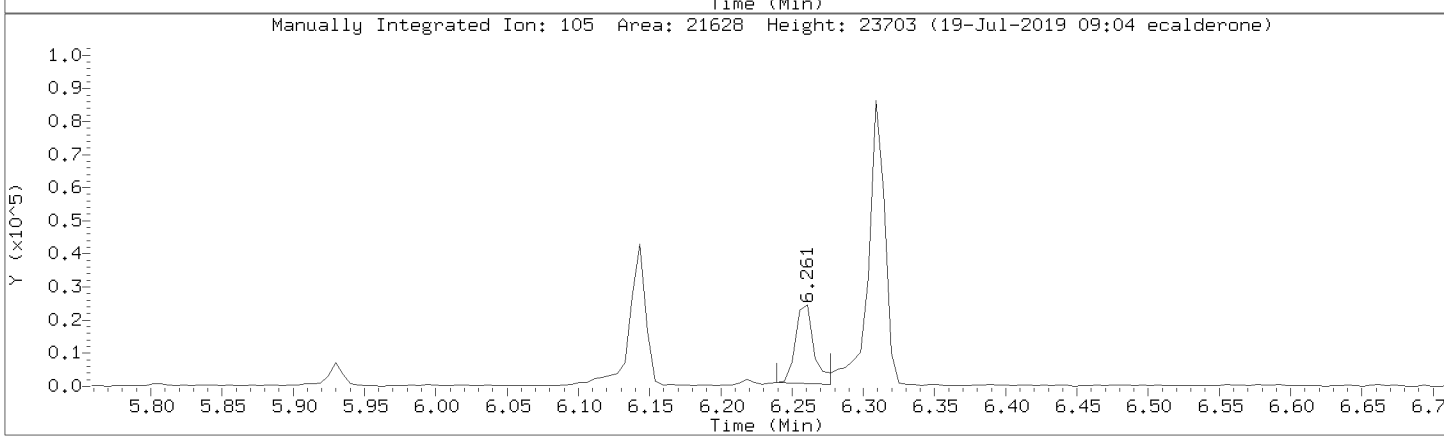
Injection Date: 18-JUL-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4,6-Dinitro-2-methylphenol Review Code: LT
CAS Number: 534-52-1









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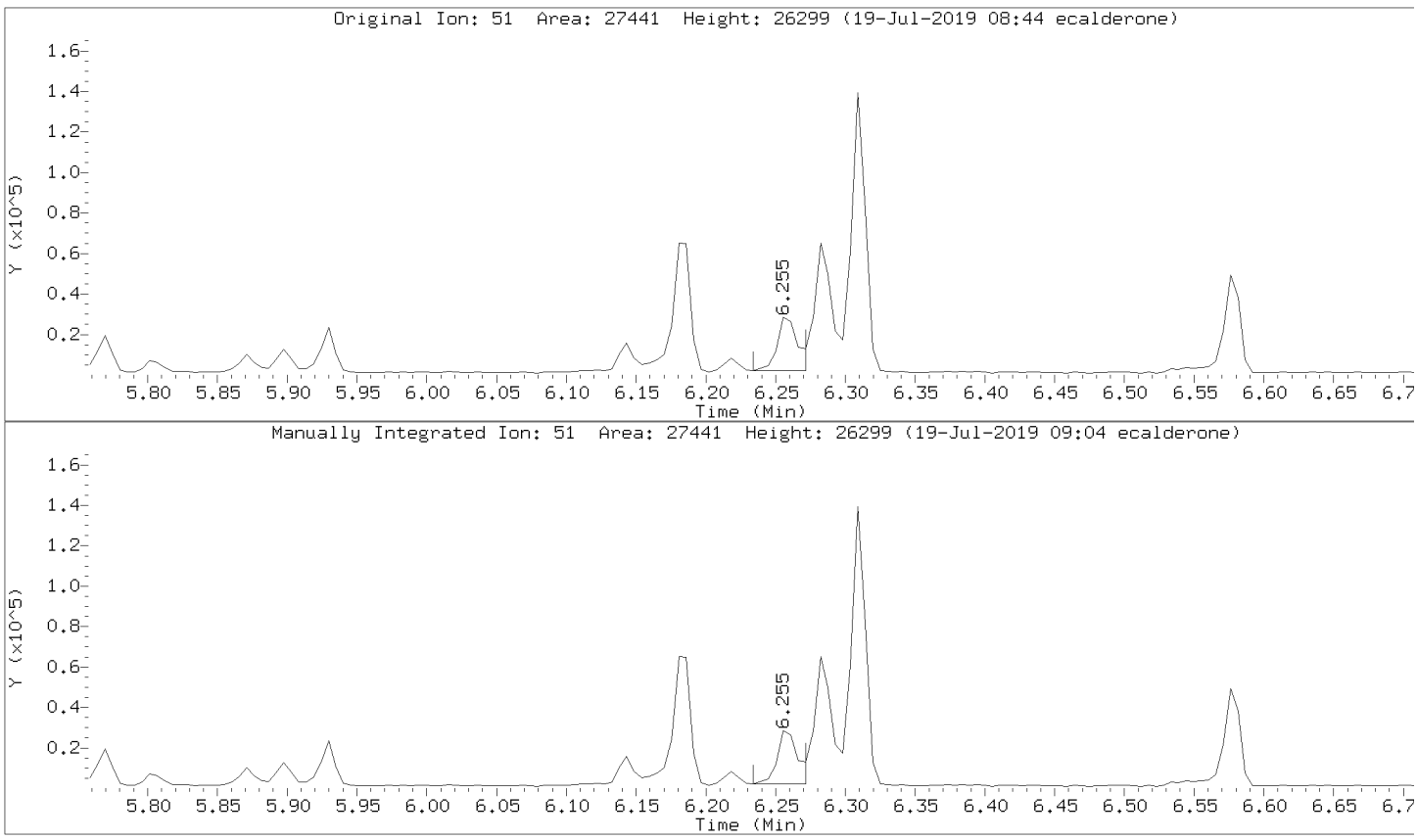
Instrument: 30mss1.i
Lab Sample ID: CAL1



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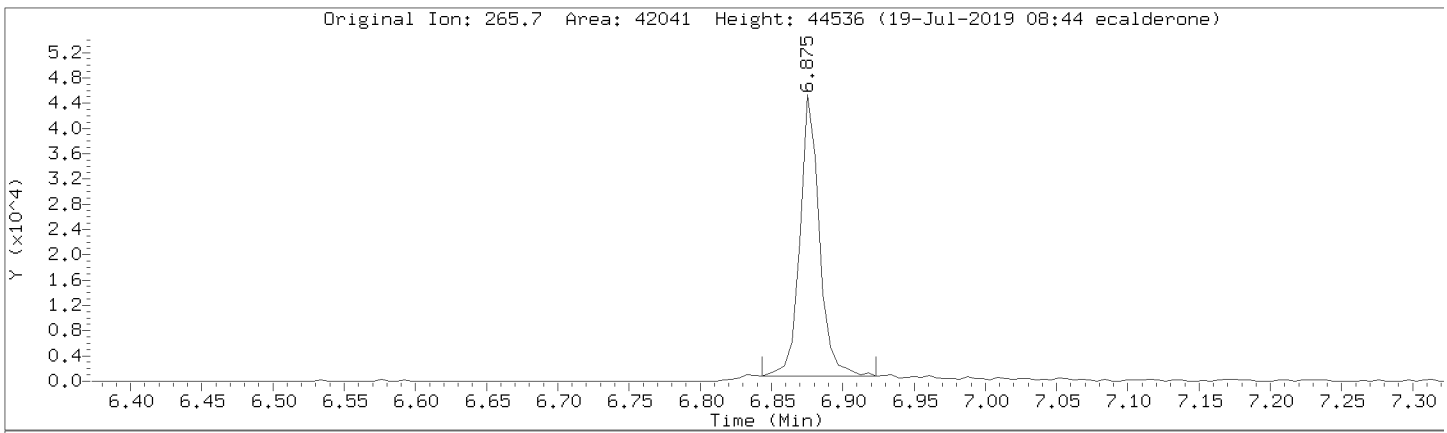
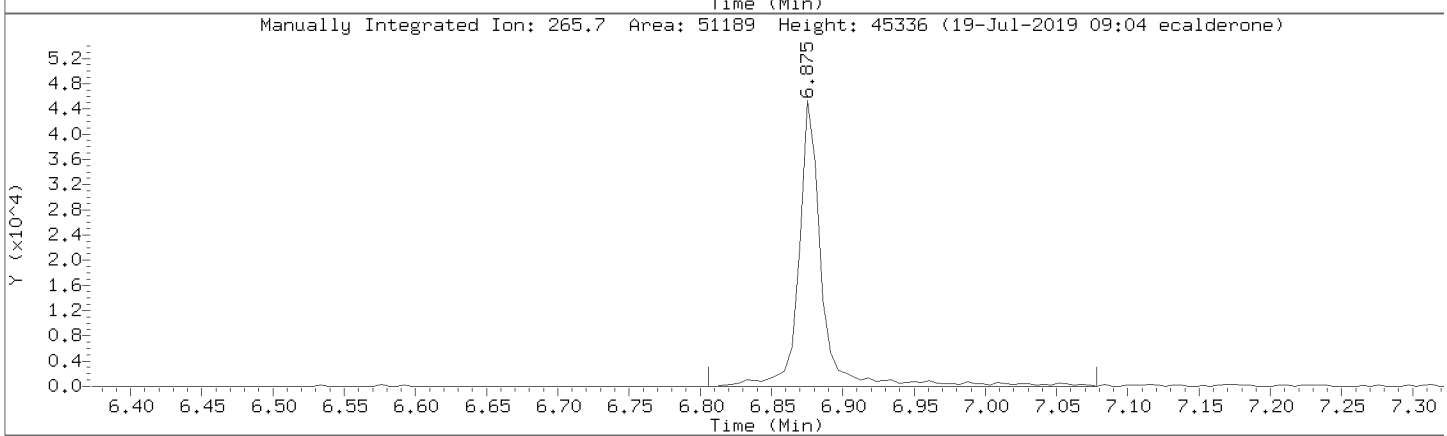
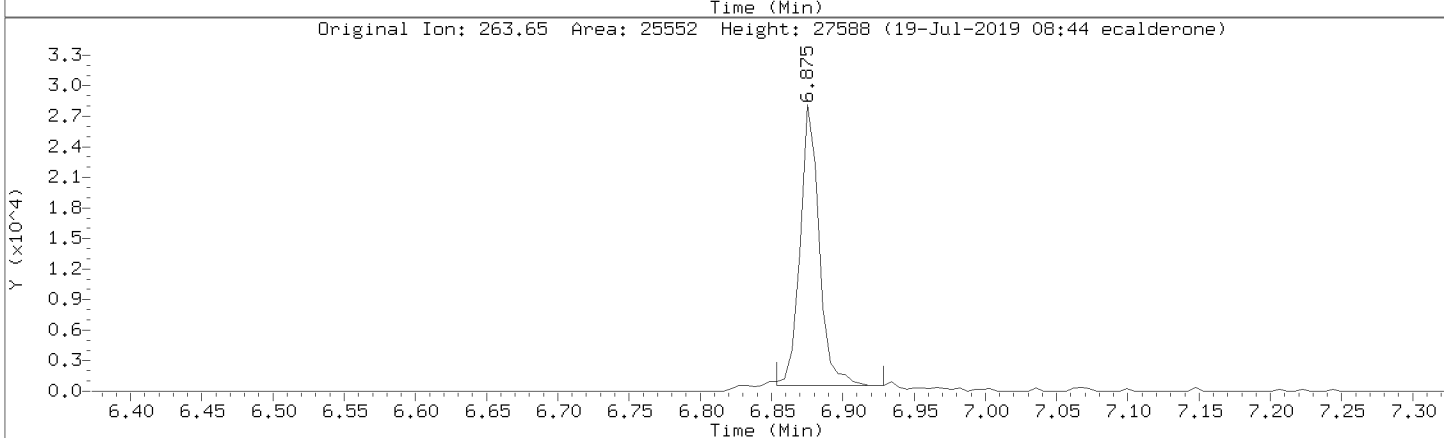
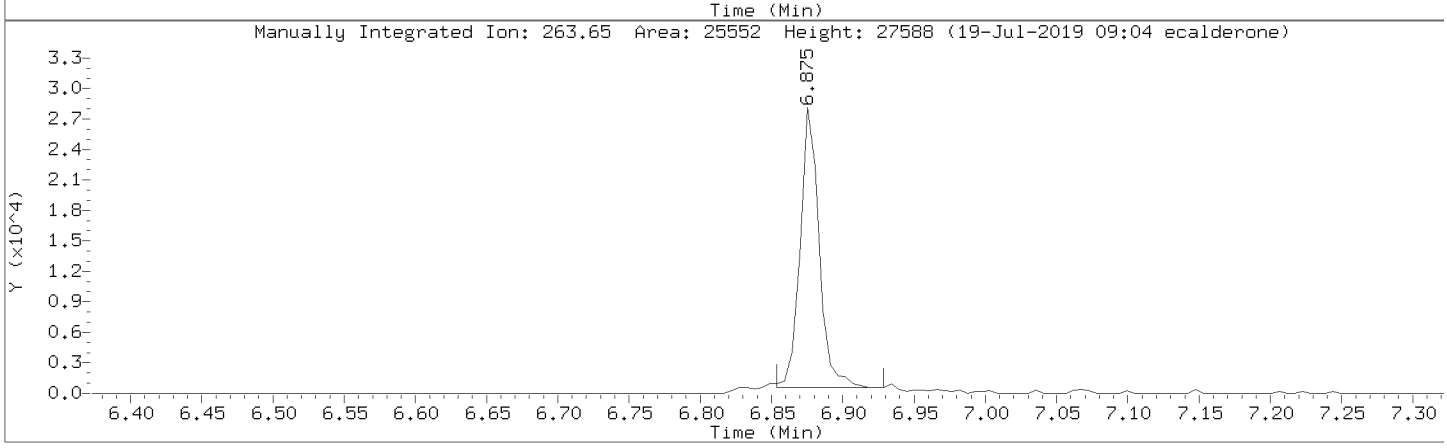
Injection Date: 18-JUL-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5









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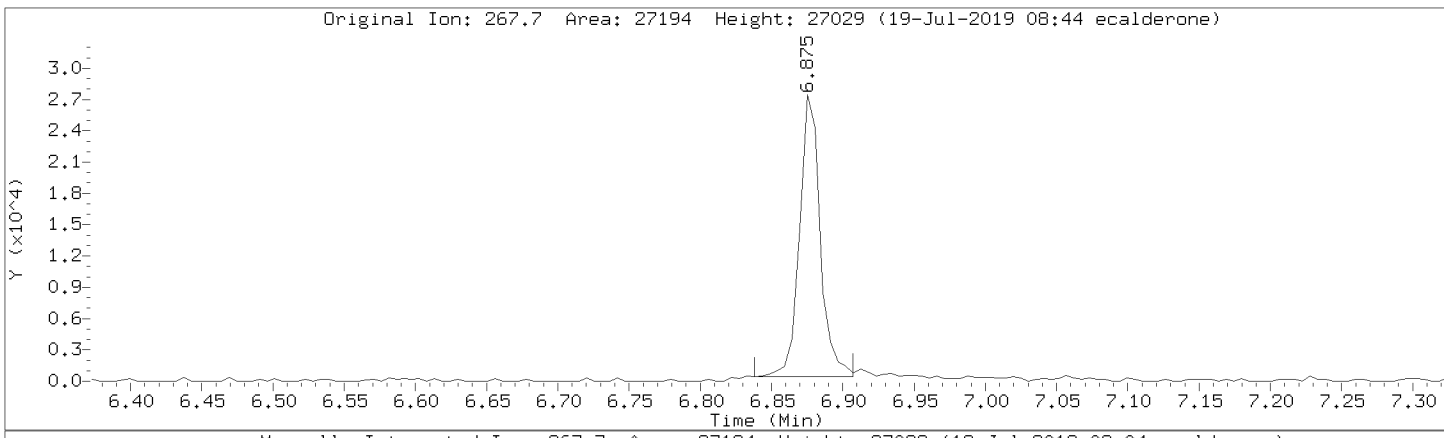
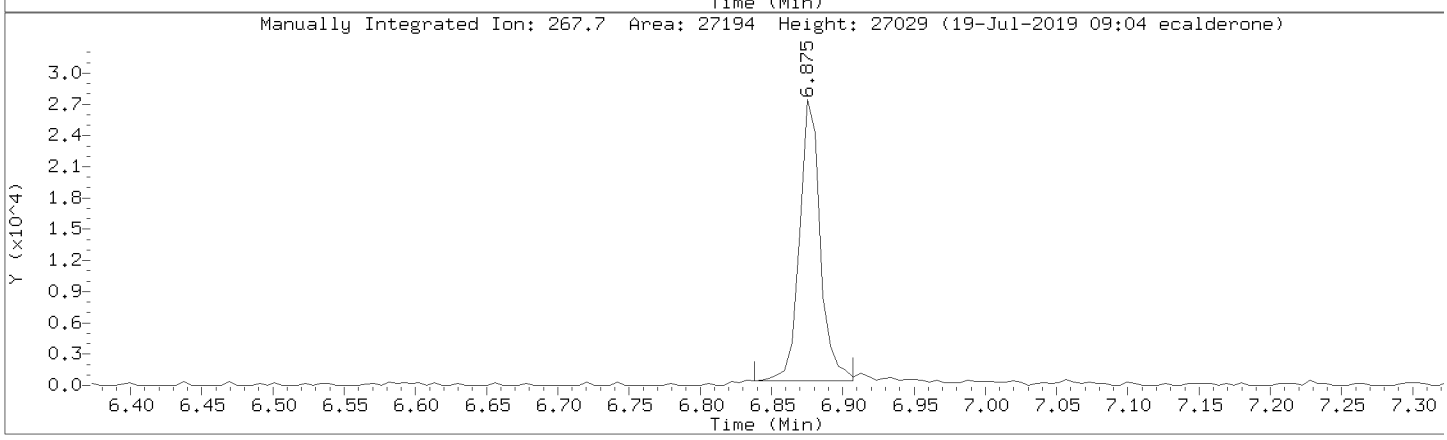
Instrument: 30mss1.i
Lab Sample ID: CAL1





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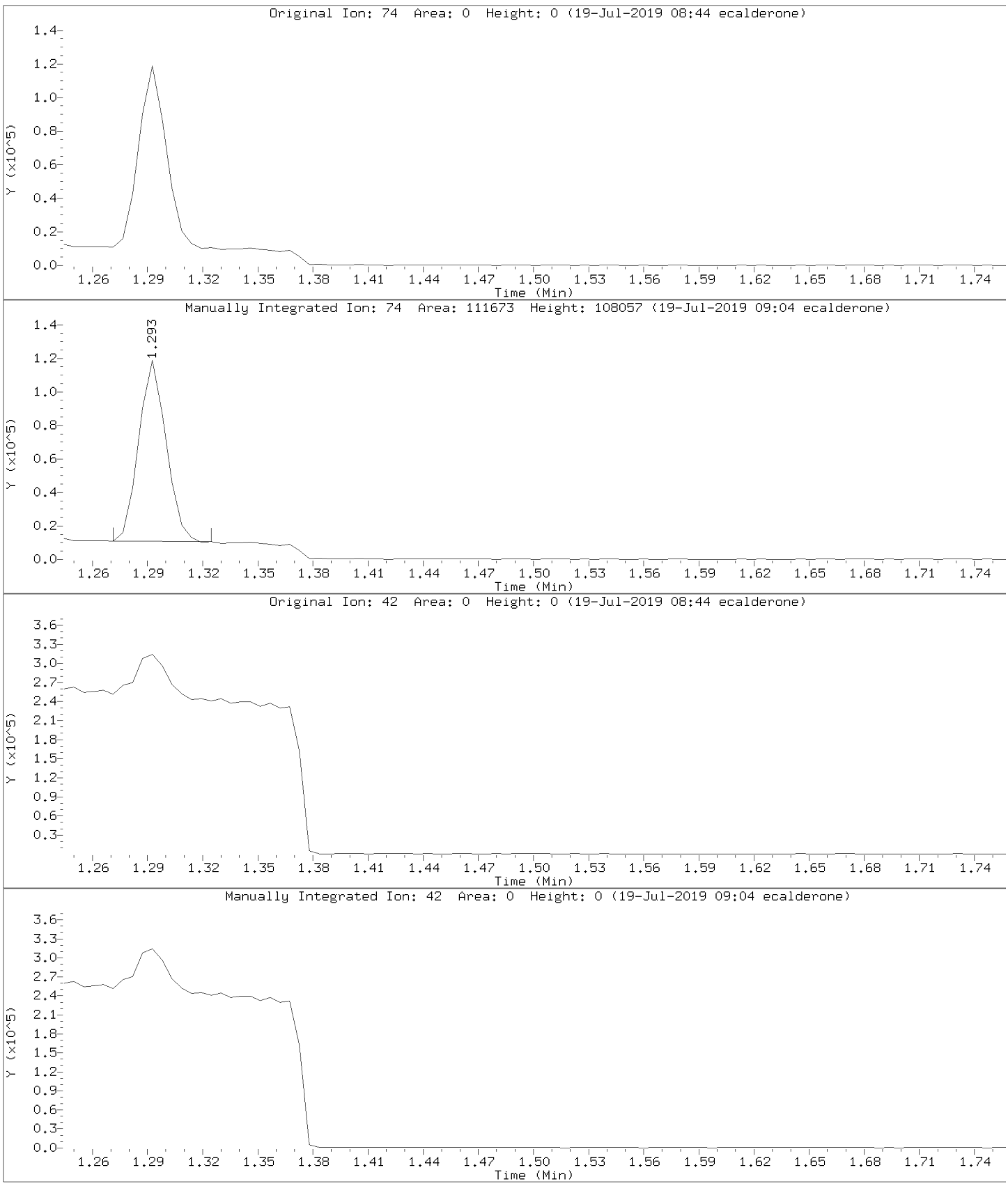
Injection Date: 18-JUL-2019 18:28
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: N-Nitrosodimethylamine Review Code: NI
CAS Number: 62-75-9



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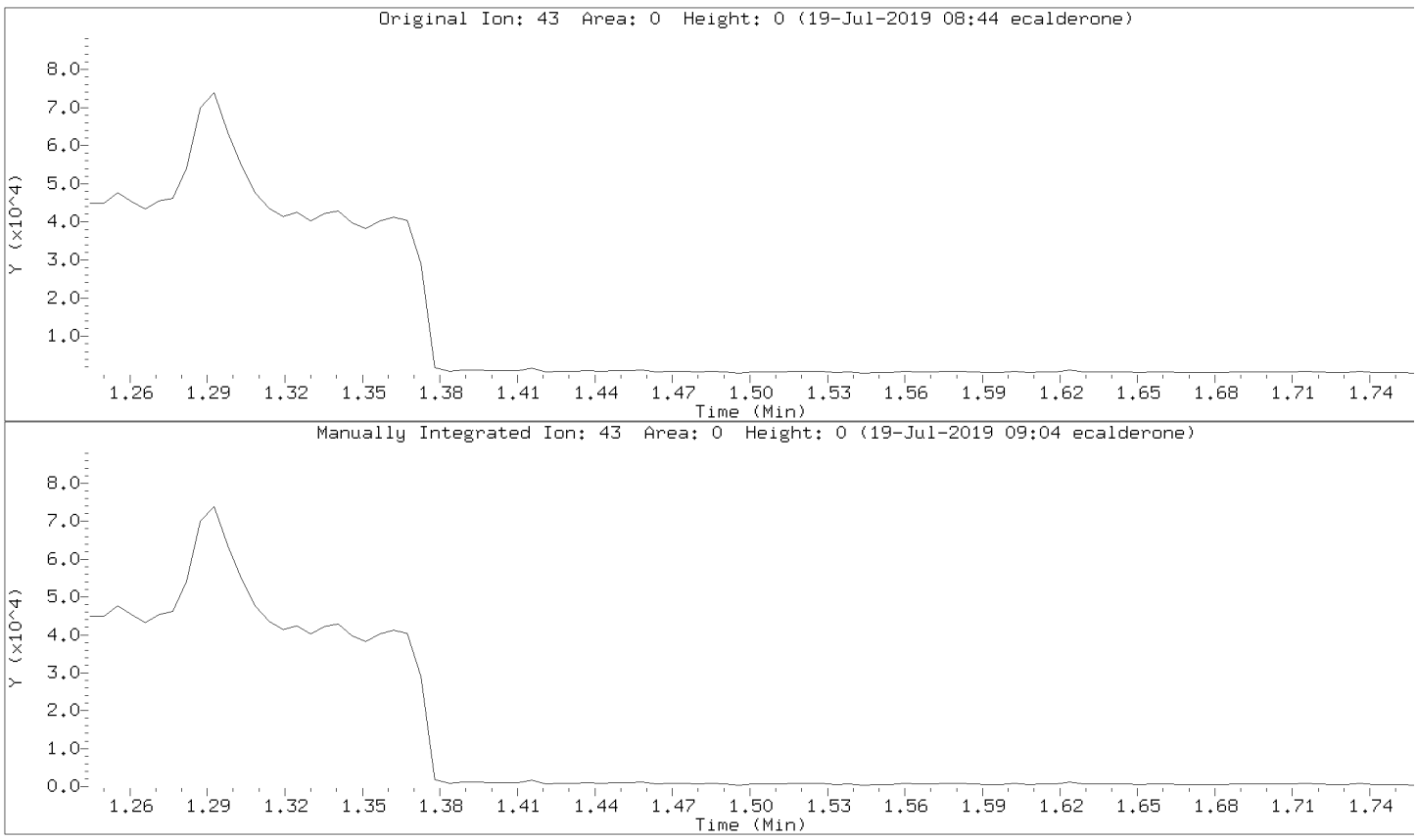
Instrument: 30mss1.i
Lab Sample ID: CAL1



SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11239660ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/15/2019 Time: 11:59

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/15/2019 07/15/2019

Lab File ID: MSS1071519.B\M10715Y8.D Init. Calib. Time(s): 09:21 11:36

SDG No.: 30313514

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.65961	1.51092	0.0500	-8.9590	20.0000
2,4-Dinitrotoluene	Averaged	0.38404	0.39107	0.0500	1.8309	20.0000
Hexachloro-1,3-butadiene	Averaged	0.15916	0.16711	0.0500	4.9976	20.0000
Hexachlorobenzene	Averaged	0.21512	0.20770	0.0500	-3.4513	20.0000
Hexachloroethane	Averaged	0.58296	0.60475	0.0500	3.7375	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.30452	1.33492	0.0500	2.3304	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.29223	2.57187	0.0500	-0.4868	20.0000
Nitrobenzene	Averaged	0.33310	0.34755	0.0500	4.3385	20.0000
Pentachlorophenol	Averaged	0.12465	0.13672	0.0500	9.6860	20.0000
Pyridine	Averaged	1.69290	1.66813	0.0500	-1.4628	20.0000
2,4,5-Trichlorophenol	Averaged	0.34406	0.32423	0.0500	-5.7635	20.0000
2,4,6-Trichlorophenol	Averaged	0.38504	0.41878	0.0500	8.7620	20.0000
2-Fluorobiphenyl (S)	Averaged	1.22055	1.24744	0.0500	2.2028	20.0000
2-Fluorophenol (S)	Averaged	1.32636	1.27939	0.0500	-3.5410	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16452	0.16595	0.0500	0.8681	20.0000
Phenol-d6 (S)	Averaged	1.56300	1.62260	0.0500	3.8132	20.0000
Terphenyl-d14 (S)	Averaged	0.93124	0.83291	0.0500	-10.5590	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10793	0.10357	0.0500	-4.0456	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11255044CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 13:51

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/15/2019 07/15/2019

Lab File ID: MSS1071719.B\M10717S2.D Init. Calib. Time(s): 09:21 11:36

SDG No.: 30313514

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.65961	1.59604	0.0500	-3.8301	20.0000
2,4-Dinitrotoluene	Averaged	0.38404	0.39030	0.0500	1.6311	20.0000
Hexachloro-1,3-butadiene	Averaged	0.15916	0.15868	0.0500	-0.3009	20.0000
Hexachlorobenzene	Averaged	0.21512	0.21165	0.0500	-1.6160	20.0000
Hexachloroethane	Averaged	0.58296	0.56644	0.0500	-2.8329	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.30452	1.26600	0.0500	-2.9532	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.29223	1.30320	0.0500	0.8495	20.0000
Nitrobenzene	Averaged	0.33310	0.33204	0.0500	-0.3166	20.0000
Pentachlorophenol	Averaged	0.12465	0.13858	0.0500	11.1754	20.0000
Pyridine	Averaged	1.69290	1.47377	0.0500	-12.9438	20.0000
2,4,5-Trichlorophenol	Averaged	0.34406	0.36137	0.0500	5.0335	20.0000
2,4,6-Trichlorophenol	Averaged	0.38504	0.36597	0.0500	-4.9542	20.0000
2-Fluorobiphenyl (S)	Averaged	1.22055	1.20974	0.0500	-0.8855	20.0000
2-Fluorophenol (S)	Averaged	1.32636	1.26253	0.0500	-4.8125	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16452	0.16384	0.0500	-0.4127	20.0000
Phenol-d6 (S)	Averaged	1.56300	1.53068	0.0500	-2.0678	20.0000
Terphenyl-d14 (S)	Averaged	0.93124	0.92440	0.0500	-0.7348	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.10793	0.11519	0.0500	6.7288	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11261998ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/18/2019 Time: 18:51

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/18/2019 07/18/2019

Lab File ID: MSS1071819.B\M10718Y8.D Init. Calib. Time(s): 16:11 18:28

SDG No.: 30313514

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.64380	1.47513	0.0500	-10.2611	20.0000
2,4-Dinitrotoluene	Averaged	0.38625	0.39452	0.0500	2.1398	20.0000
Hexachloro-1,3-butadiene	Averaged	0.15892	0.15641	0.0500	-1.5784	20.0000
Hexachlorobenzene	Averaged	0.22047	0.21766	0.0500	-1.2737	20.0000
Hexachloroethane	Averaged	0.57421	0.54734	0.0500	-4.6788	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.29886	1.29709	0.0500	-0.1368	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.34204	2.69828	0.0500	0.5291	20.0000
Nitrobenzene	Averaged	0.33623	0.34135	0.0500	1.5246	20.0000
Pentachlorophenol	Averaged	0.12668	0.14218	0.0500	12.2383	20.0000
Pyridine	Averaged	1.25496	1.36606	0.0500	8.8529	20.0000
2,4,5-Trichlorophenol	Averaged	0.34696	0.35530	0.0500	2.4015	20.0000
2,4,6-Trichlorophenol	Averaged	0.38849	0.40413	0.0500	4.0258	20.0000
2-Fluorobiphenyl (S)	Averaged	1.24285	1.25350	0.0500	0.8568	20.0000
2-Fluorophenol (S)	Averaged	1.23752	1.31759	0.0500	6.4698	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16485	0.16884	0.0500	2.4164	20.0000
Phenol-d6 (S)	Averaged	1.55117	1.56806	0.0500	1.0890	20.0000
Terphenyl-d14 (S)	Averaged	0.92902	0.87579	0.0500	-5.7299	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.11570	0.11434	0.0500	-1.1799	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 15-JUL-2019 11:59
Operator : EAC Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14828,93080:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071519.b\8270071519.m
Meth Date : 16-Jul-2019 08:58 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.711	1.700	(0.476)	1516206	8.00000	7.24	
	2 Pyridine	79	1.689	1.689	(0.470)	2463016	8.00000	7.88	
$	3 2-Fluorophenol (S)	112	2.704	2.704	(0.752)	1889038	8.00000	7.72	
$	4 Phenol-d6 (S)	99	3.356	3.351	(0.933)	2395792	8.00000	8.30	
	5 Benzaldehyde	77	3.287	3.281	(0.914)	1533922	8.00000	7.35	
	6 Phenol	94	3.367	3.361	(0.936)	2594675	8.00000	8.14	
	7 Aniline	66	3.388	3.383	(0.942)	1135889	8.00000	7.85	
	8 bis(2-Chloroethyl)ether	63	3.426	3.425	(0.952)	1475400	8.00000	8.06	
	9 2-Chlorophenol	128	3.468	3.463	(0.964)	2055036	8.00000	7.80	
	10 1,3-Dichlorobenzene	146	3.570	3.570	(0.993)	2120417	8.00000	7.56	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.597	3.596	(1.000)	738255	4.00000		
	12 1,4-Dichlorobenzene	146	3.613	3.607	(1.004)	2230893	8.00000	7.28	
	13 Benzyl Alcohol	79	3.719	3.719	(1.034)	1689697	8.00000	8.55	
	14 1,2-Dichlorobenzene	146	3.752	3.751	(1.043)	2127171	8.00000	7.77	
	15 2-Methylphenol(o-Cresol)	108	3.810	3.810	(1.059)	1971030	8.00000	8.19	
	16 bis(2-Chloroisopropyl)ether	45	3.837	3.837	(1.067)	3212717	8.00000	8.01	
	17 3&4-Methylphenol(m&p Cresol)	108	3.928	3.917	(1.092)	3797391	16.0000	15.9	
	18 N-Nitroso-di-n-propylamine	70	3.949	3.938	(1.098)	1426323	8.00000	7.76	
	19 Acetophenone	105	3.928	3.922	(1.092)	2627052	8.00000	8.06	
	20 Hexachloroethane	117	3.987	3.986	(1.108)	892916	8.00000	8.30	
$	21 Nitrobenzene-d5 (S)	128	4.045	4.040	(0.881)	968374	8.00000	8.07	
	22 Nitrobenzene	77	4.056	4.050	(0.884)	2028035	8.00000	8.35	
	23 Isophorone	82	4.243	4.232	(0.924)	3774953	8.00000	8.47	
	24 2,4-Dimethylphenol	107	4.334	4.333	(0.944)	1978574	8.00000	8.28	
	25 2-Nitrophenol	139	4.307	4.301	(0.938)	1084858	8.00000	7.74	
	26 Benzoic acid	105	4.425	4.376	(0.964)	1406733	8.00000	9.39(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.409	4.408	(0.960)	2477395	8.00000	9.03	
	28 2,4-Dichlorophenol	162	4.489	4.483	(0.978)	1619125	8.00000	8.13	
	29 1,2,4-Trichlorobenzene	180	4.558	4.558	(0.993)	1730007	8.00000	7.94	
*	30 Naphthalene-d8 (IS)	136	4.590	4.590	(1.000)	2917644	4.00000		
	31 Naphthalene	128	4.606	4.606	(1.003)	5336563	8.00000	8.10	
	32 4-Chloroaniline	65	4.660	4.659	(1.015)	663479	8.00000	8.55	
	33 Hexachloro-1,3-butadiene	225	4.756	4.755	(1.036)	975145	8.00000	8.40	
	34 Caprolactam	55	4.927	4.894	(1.073)	1060375	8.00000	9.89(MH)	LT

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.055	5.049	(1.101)	1889691	8.00000	9.42	
36	2-Methylnaphthalene	142	5.162	5.162	(1.125)	4417326	8.00000	9.15	
37	1-Methylnaphthalene	142	5.253	5.247	(1.144)	4103308	8.00000	9.08	
38	Hexachlorocyclopentadiene	237	5.349	5.348	(0.887)	1208773	8.00000	8.18	
39	1,2,4,5-Tetrachlorobenzene	216	5.333	5.327	(0.885)	1671811	8.00000	7.95	
40	2,4,6-Trichlorophenol	196	5.413	5.407	(0.898)	1413274	8.00000	8.70	
41	2,4,5-Trichlorophenol	196	5.445	5.439	(0.903)	1094180	8.00000	7.54	
$ 42	2-Fluorobiphenyl (S)	172	5.477	5.471	(0.909)	4209767	8.00000	8.18	
43	Biphenyl (Diphenyl)	154	5.546	5.541	(0.920)	4747765	8.00000	8.16(MH)	LT
44	2-Chloronaphthalene	164	5.557	5.551	(0.922)	1281575	8.00000	8.09	
45	2-Nitroaniline	138	5.664	5.653	(0.940)	1435364	8.00000	8.32(MH)	LT
46	Dimethylphthalate	163	5.835	5.829	(0.968)	4047847	8.00000	8.34(MH)	LT
47	2,6-Dinitrotoluene	165	5.888	5.883	(0.977)	1010767	8.00000	8.11	
48	Acenaphthylene	152	5.899	5.899	(0.979)	5831349	8.00000	8.31(M)	LT
49	3-Nitroaniline	65	5.995	5.990	(0.995)	1378995	8.00000	9.53(MH)	LT
* 50	Acenaphthene-d10 (IS)	164	6.027	6.022	(1.000)	1687367	4.00000		
51	2,4-Dinitrophenol	184	6.081	6.075	(1.009)	551146	8.00000	7.81	
52	Acenaphthene	153	6.054	6.048	(1.004)	3793102	8.00000	8.24(M)	LT
53	4-Nitrophenol	109	6.134	6.123	(1.018)	601817	8.00000	9.58	
54	2,4-Dinitrotoluene	165	6.204	6.198	(1.029)	1319749	8.00000	8.15	
55	Dibenzofuran	168	6.182	6.176	(1.026)	5038419	8.00000	8.13	
56	2,3,4,6-Tetrachlorophenol	232	6.316	6.315	(1.048)	968341	8.00000	8.02	
57	Diethylphthalate	149	6.412	6.406	(1.064)	4118108	8.00000	8.31	
58	4-Chlorophenylphenyl ether	204	6.460	6.460	(1.072)	1925334	8.00000	7.64	
59	Fluorene	166	6.465	6.460	(1.073)	4103213	8.00000	7.93(M)	LT
60	4-Nitroaniline	108	6.503	6.492	(1.079)	710770	8.00000	9.15(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.540	6.534	(0.887)	774712	8.00000	8.98(M)	LT
62	N-Nitrosodiphenylamine	169	6.567	6.556	(0.891)	3535044	8.00000	8.45(M)	LT
63	Azobenzene	77	6.594	6.588	(0.894)	4143503	8.00000	9.42	
64	1,2-Diphenylhydrazine	77	6.594	6.588	(0.894)	4143503	8.00000	9.42	
$ 65	2,4,6-Tribromophenol (S)	330	6.684	6.679	(0.907)	540092	8.00000	7.68(M)	LT
66	4-Bromophenylphenyl ether	248	6.898	6.892	(0.936)	1100794	8.00000	7.82	
67	Hexachlorobenzene	284	7.058	7.053	(0.957)	1083134	8.00000	7.72	
68	Atrazine	200	7.117	7.106	(0.965)	1047148	8.00000	7.70	
69	Pentachlorophenol	266	7.245	7.240	(0.983)	713012	8.00000	8.77	
* 70	Phenanthrene-d10 (IS)	188	7.373	7.368	(1.000)	2607479	4.00000		
71	Phenanthrene	178	7.400	7.395	(1.004)	5825170	8.00000	8.17	
72	Anthracene	178	7.448	7.437	(1.010)	5271994	8.00000	7.76	
73	Carbazole	167	7.625	7.614	(1.034)	4759078	8.00000	7.64	
74	Di-n-butylphthalate	149	8.073	8.068	(1.095)	5760179	8.00000	7.97	
75	Fluoranthene	202	8.672	8.666	(1.176)	5535515	8.00000	8.20	
76	Pyrene	202	8.901	8.896	(0.876)	5310640	8.00000	7.86	
$ 77	Terphenyl-d14 (S)	244	9.088	9.083	(0.895)	3685244	8.00000	7.16	
78	Butylbenzylphthalate	149	9.639	9.633	(0.949)	2985768	8.00000	9.55	
79	3,3'-Dichlorobenzidine	252	10.135	10.135	(0.998)	1514207	8.00000	6.56	
80	bis(2-Ethylhexyl)phthalate	149	10.253	10.253	(1.009)	3564606	8.00000	8.31	
81	Benzo(a)anthracene	228	10.141	10.135	(0.998)	5406925	8.00000	8.73	
* 82	Chrysene-d12 (IS)	240	10.157	10.151	(1.000)	2212272	4.00000		
83	Chrysene	228	10.183	10.178	(1.003)	4595668	8.00000	7.73	
84	Di-n-octylphthalate	149	10.835	10.835	(0.942)	5484334	8.00000	7.63	
85	Benzo(b)fluoranthene	252	11.172	11.161	(0.972)	5296222	8.00000	7.68	
86	Benzo(k)fluoranthene	252	11.193	11.182	(0.974)	5095567	8.00000	7.46	
87	Benzo(a)pyrene	252	11.455	11.444	(0.996)	4790480	8.00000	7.86	
* 88	Perylene-d12 (IS)	264	11.498	11.492	(1.000)	2337297	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.342	12.325	(1.073)	5244035	8.00000	7.89	
90 Dibenz(a,h)anthracene	278	12.347	12.336	(1.074)	4350233	8.00000	7.84	
91 Benzo(g,h,i)perylene	276	12.545	12.528	(1.091)	4608596	8.00000	8.27	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715y8.d
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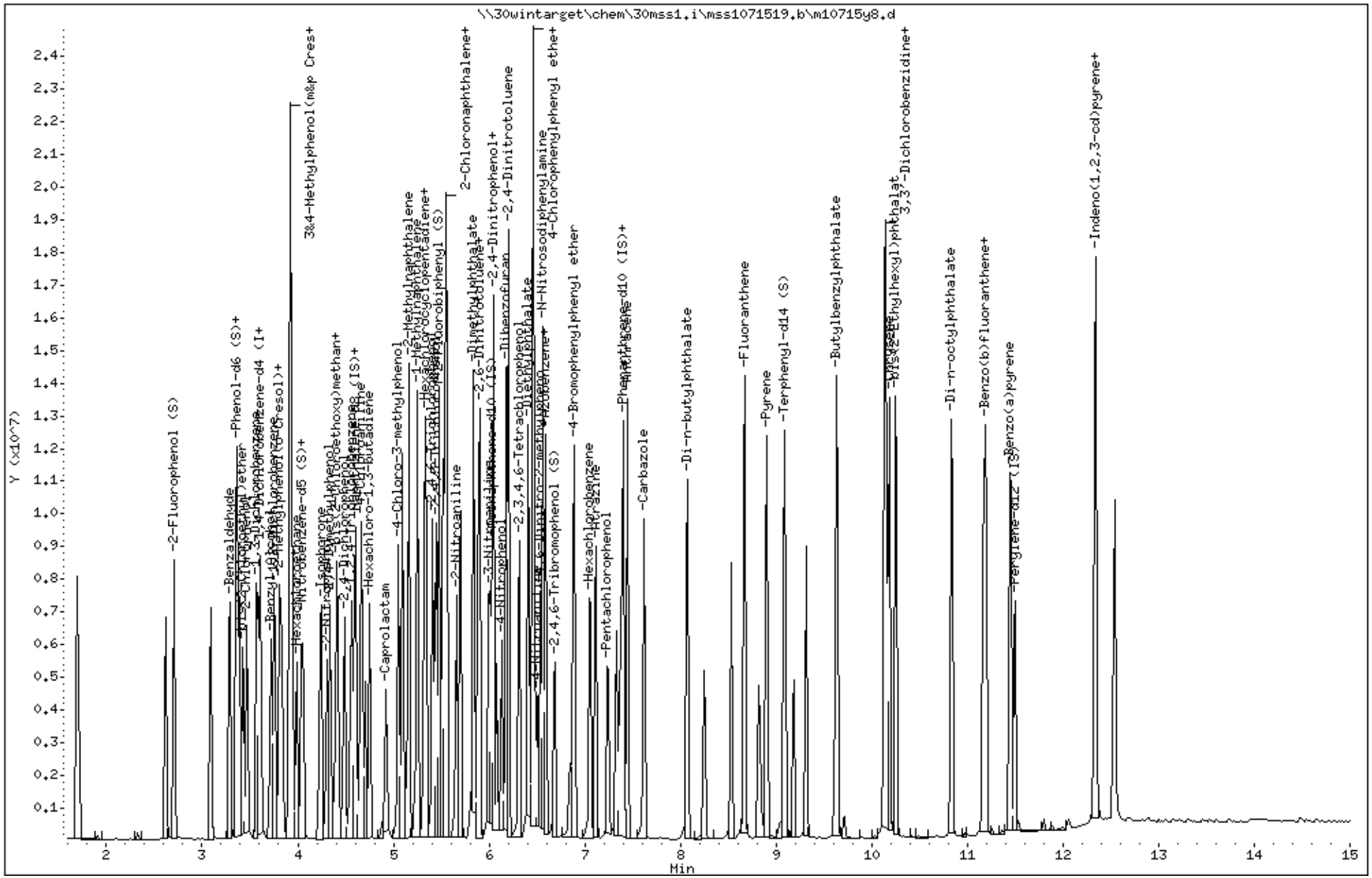
Client ID: ICV
Sample Info: ICV

Instrument: 30mss1.i

Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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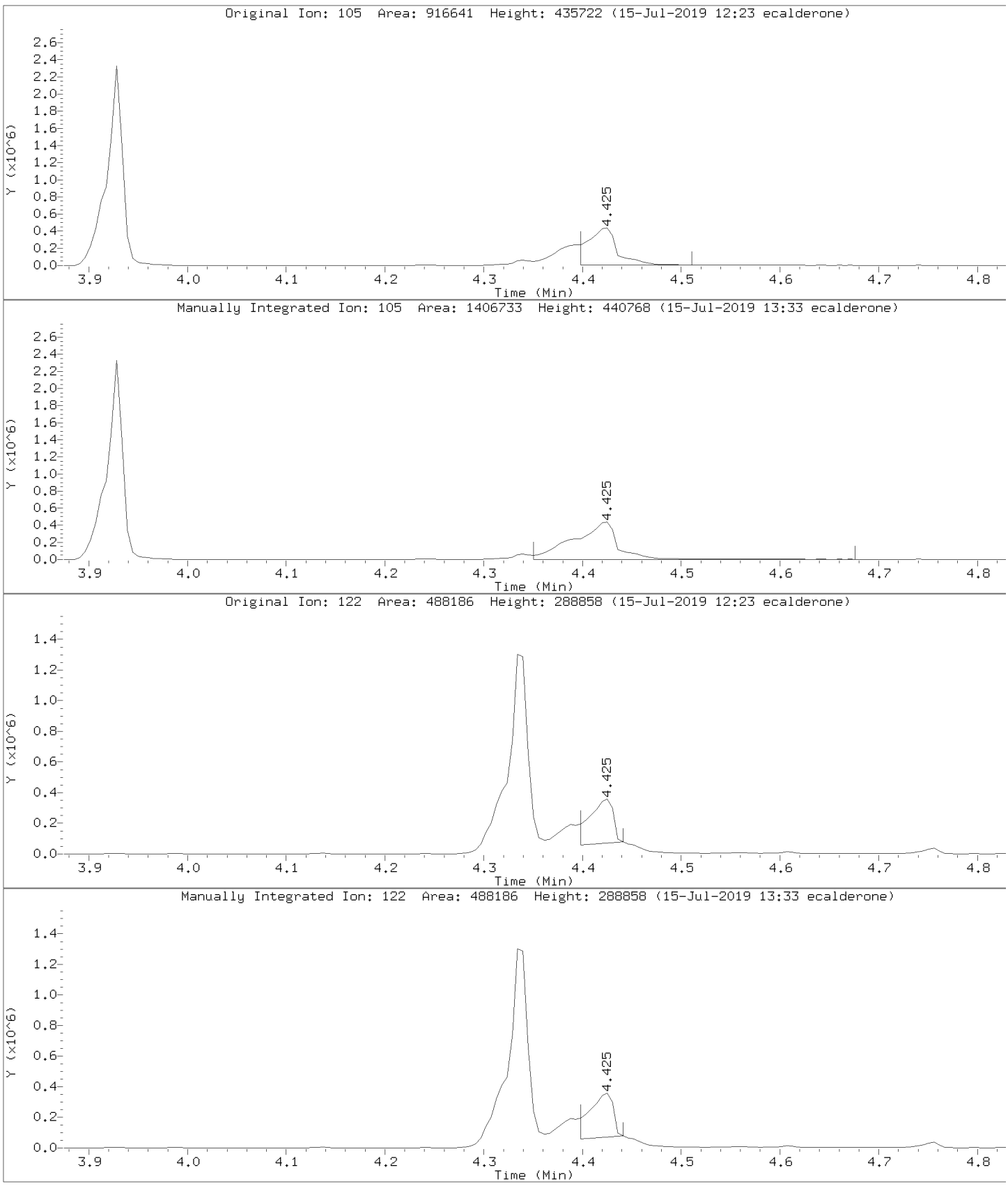
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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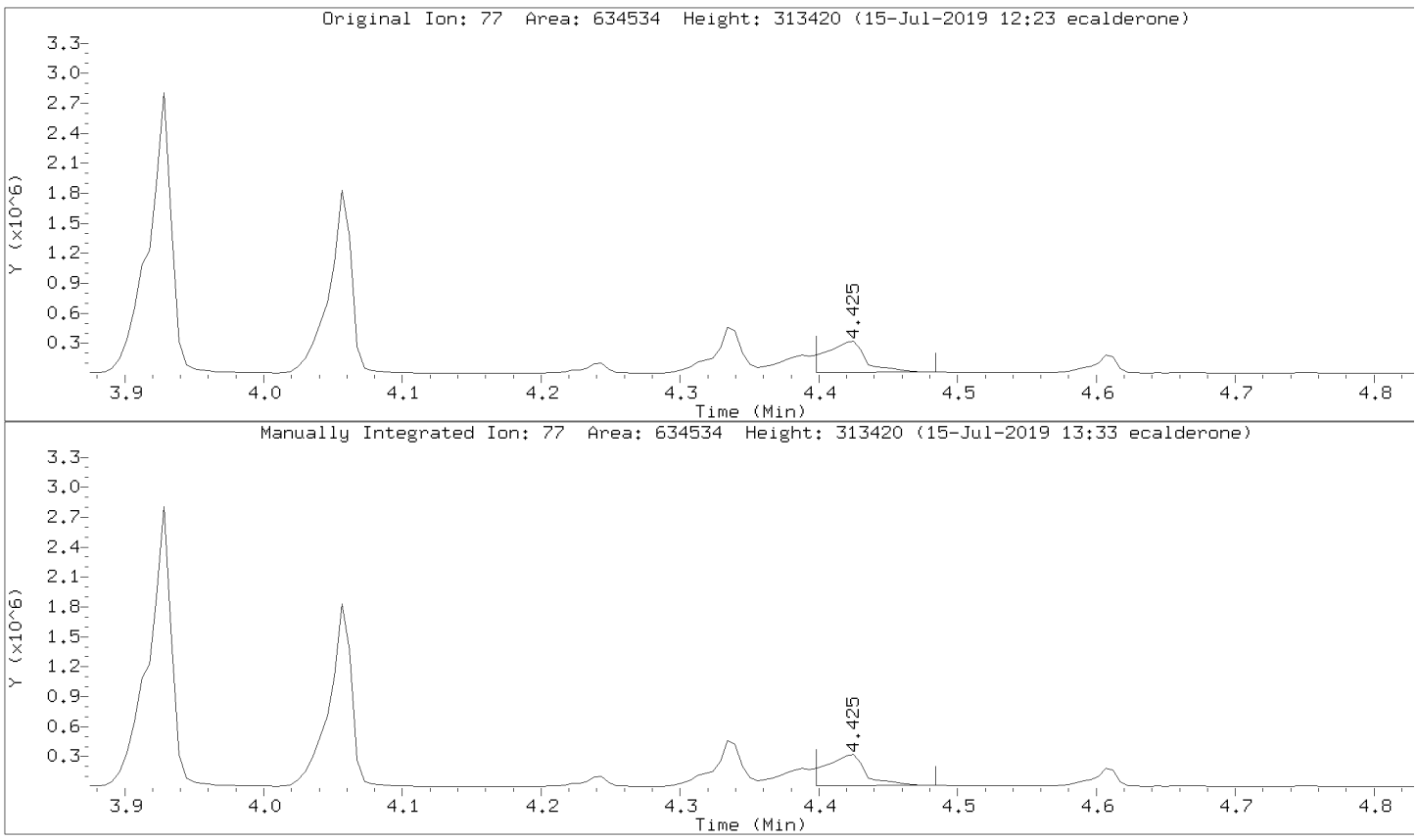

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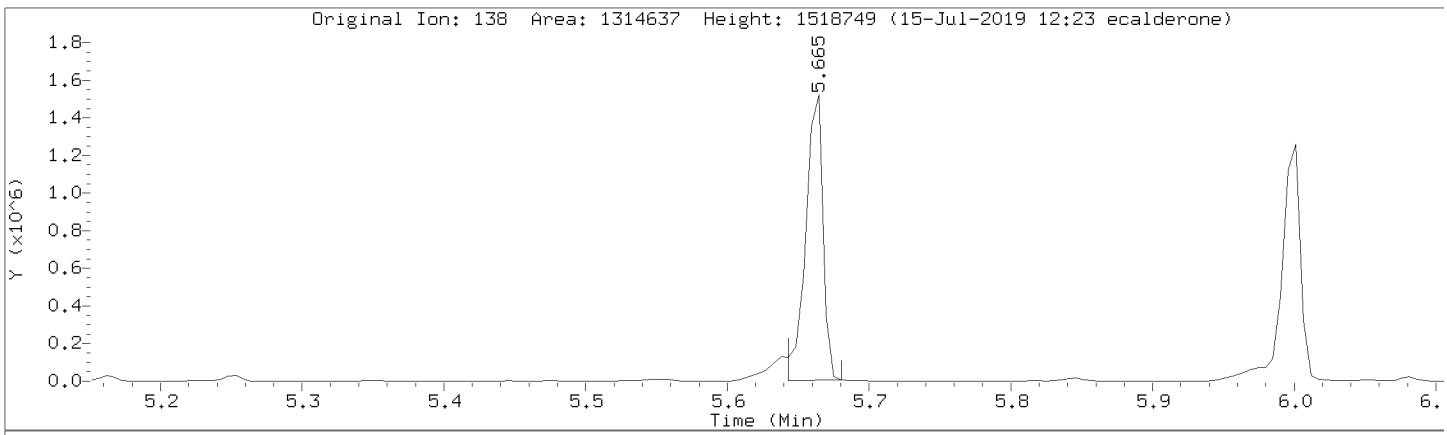
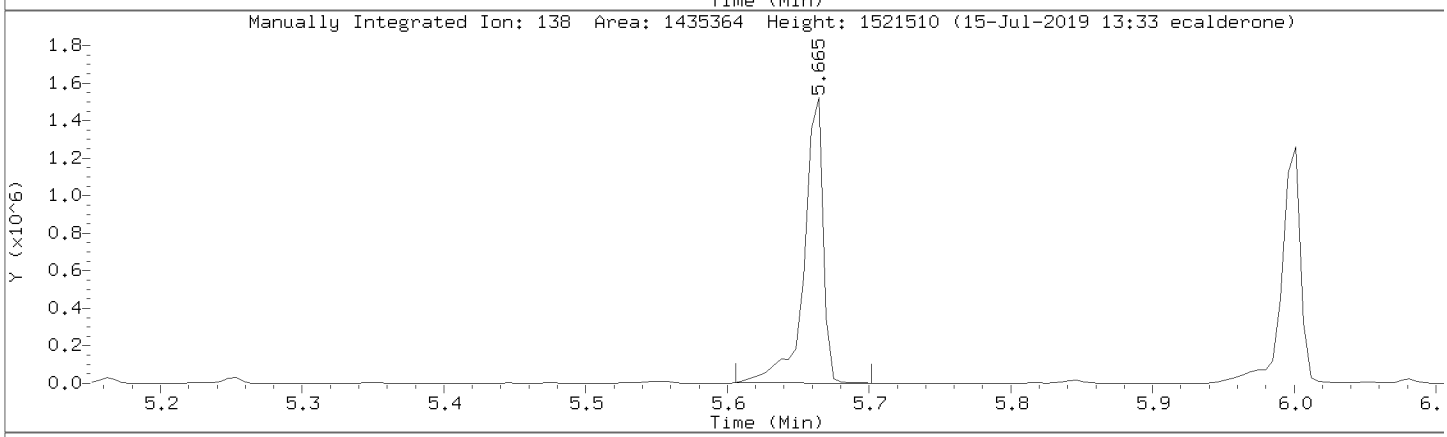
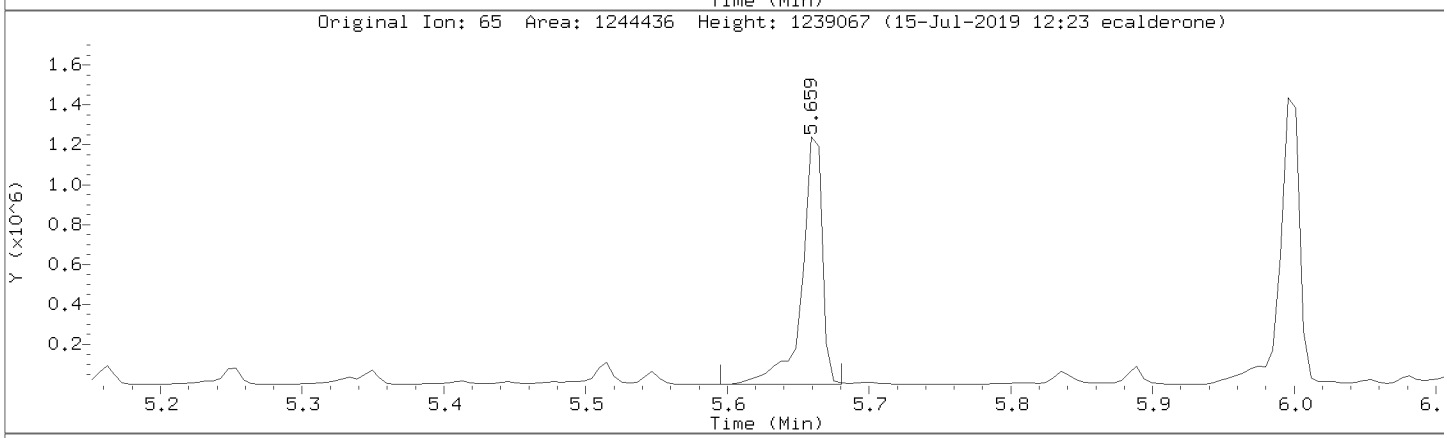
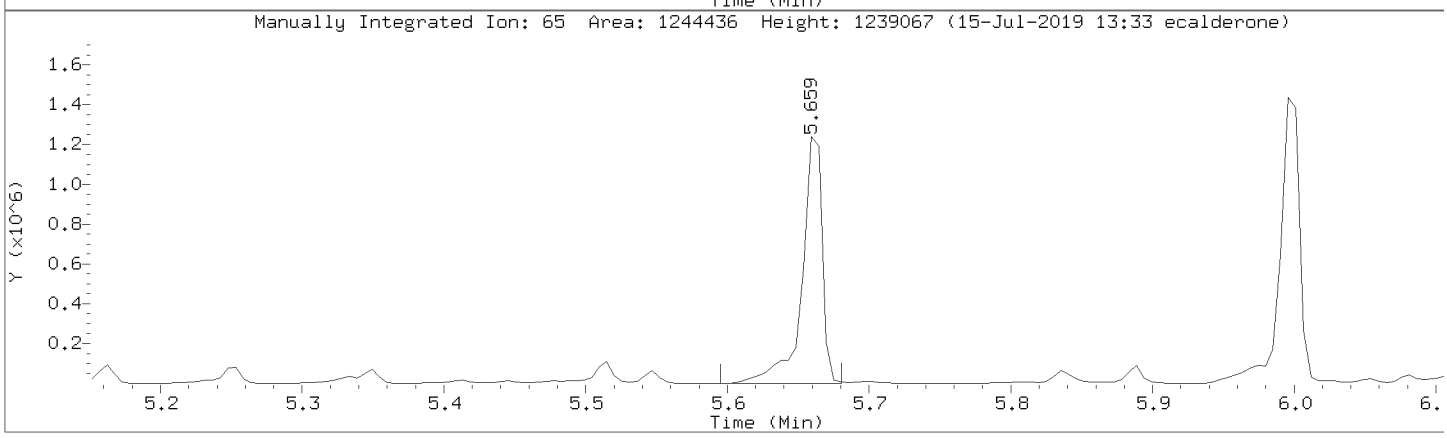
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 2-Nitroaniline Review Code: LT
CAS Number: 88-74-4









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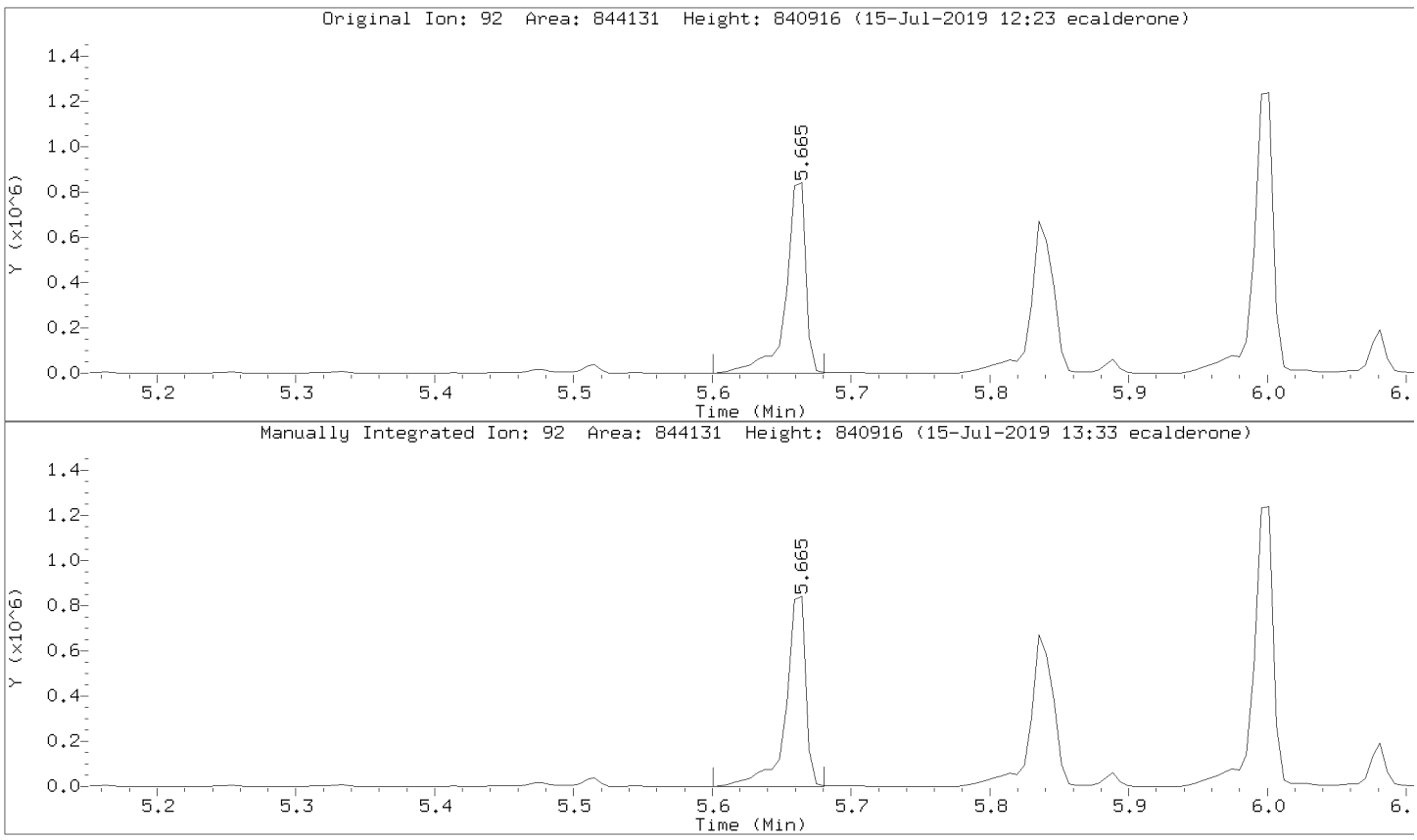

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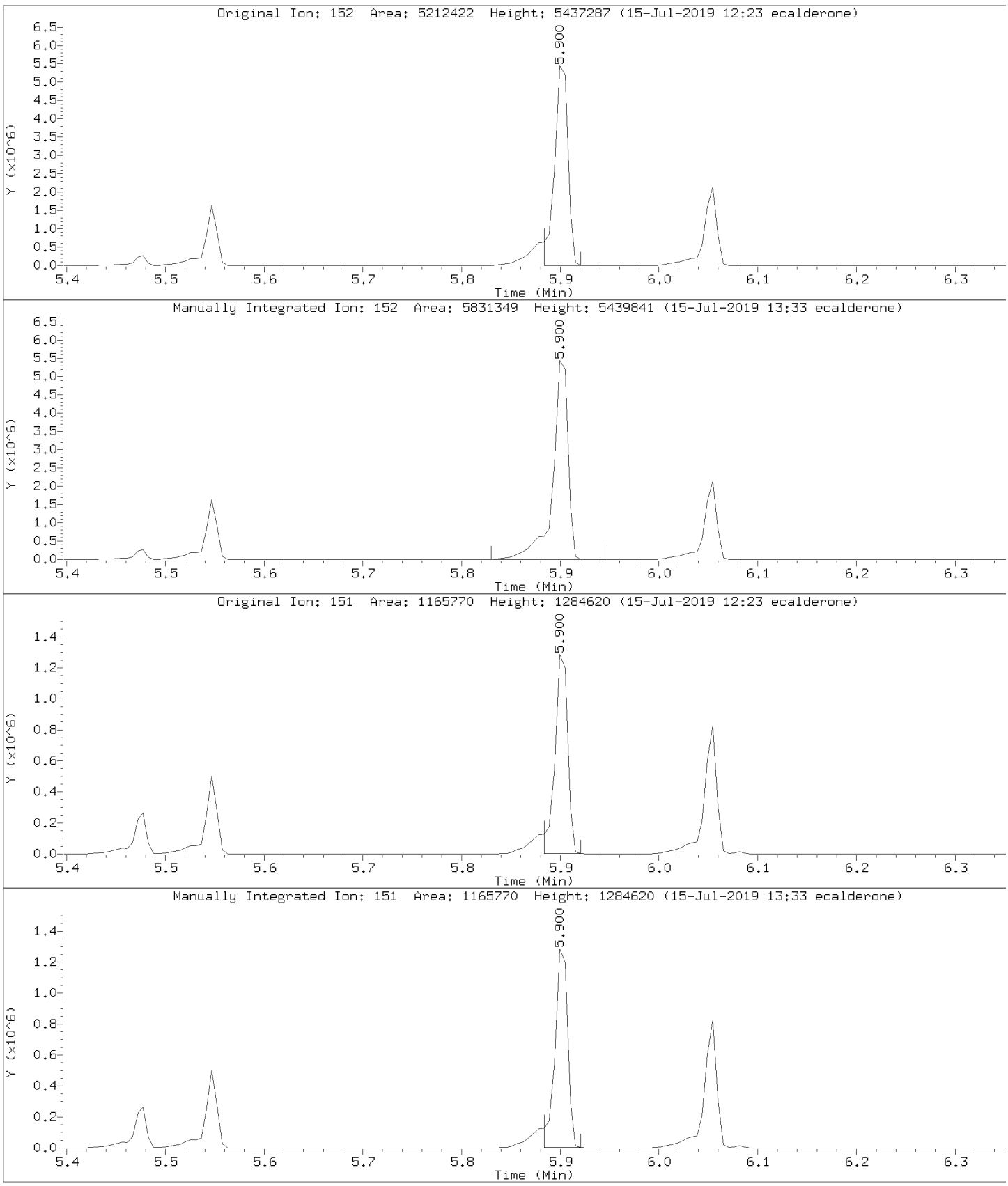
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Acenaphthylene Review Code: LT
CAS Number: 208-96-8



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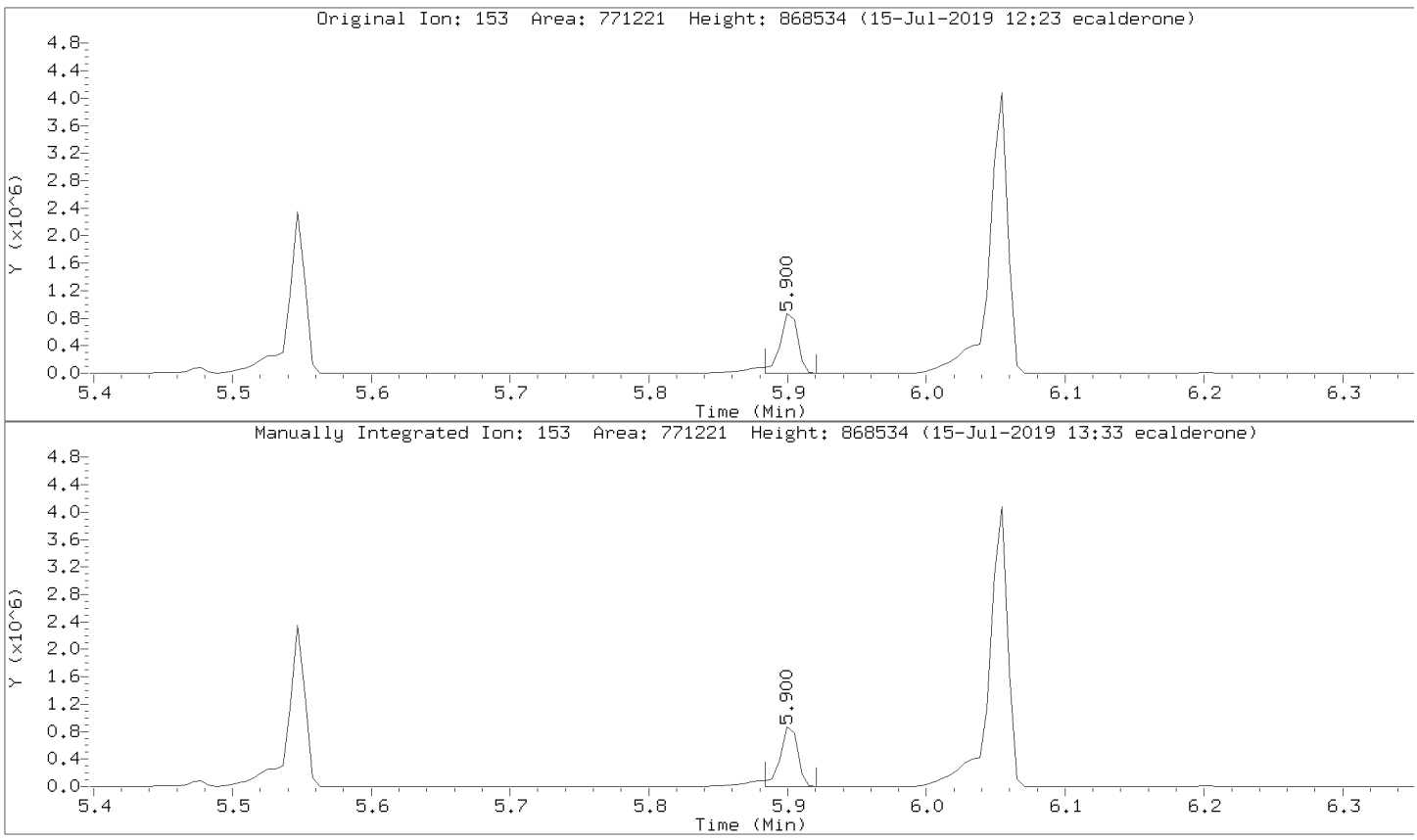
Lab Sample ID: ICV



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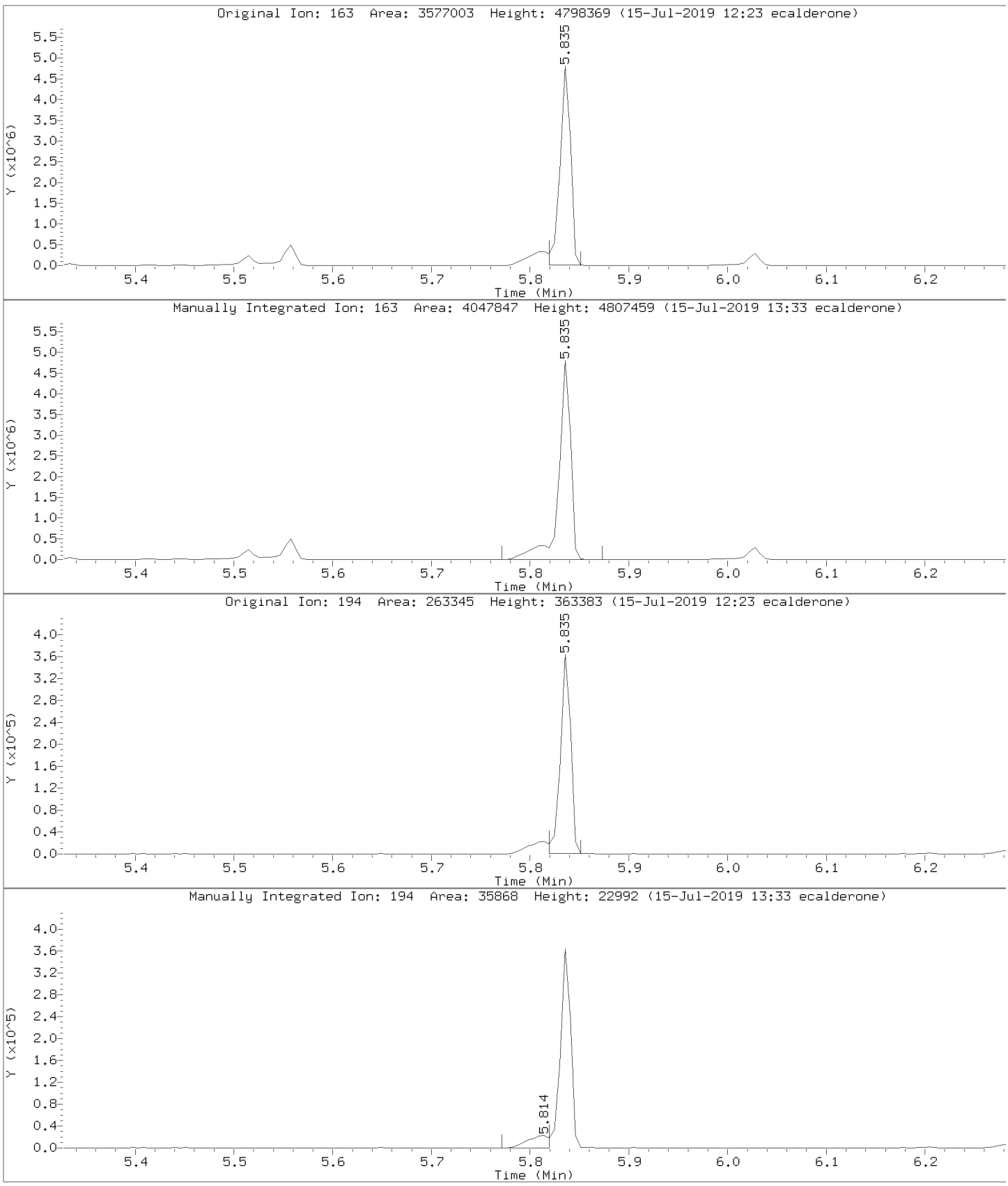
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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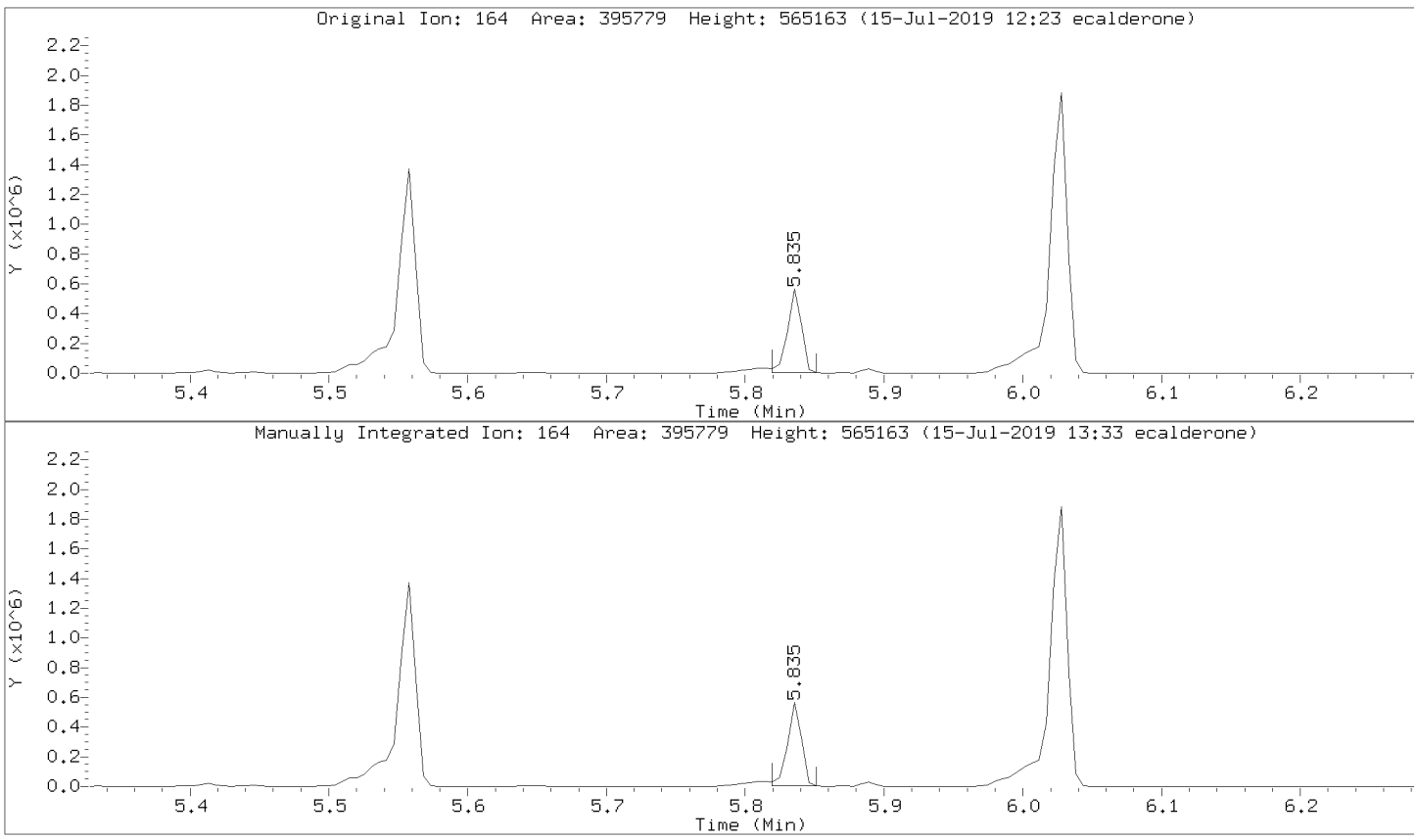
Lab Sample ID: ICV



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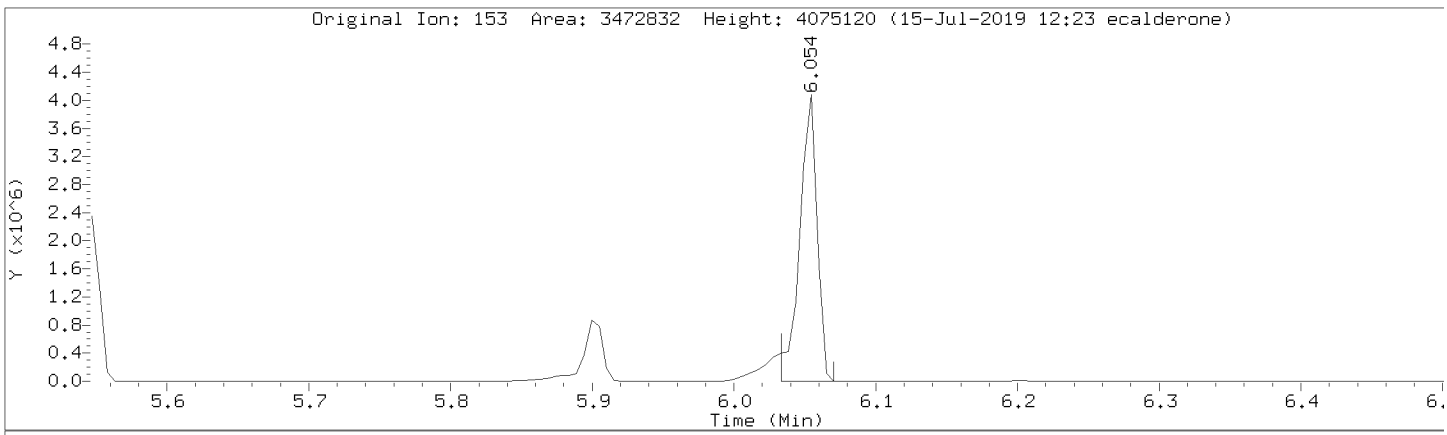
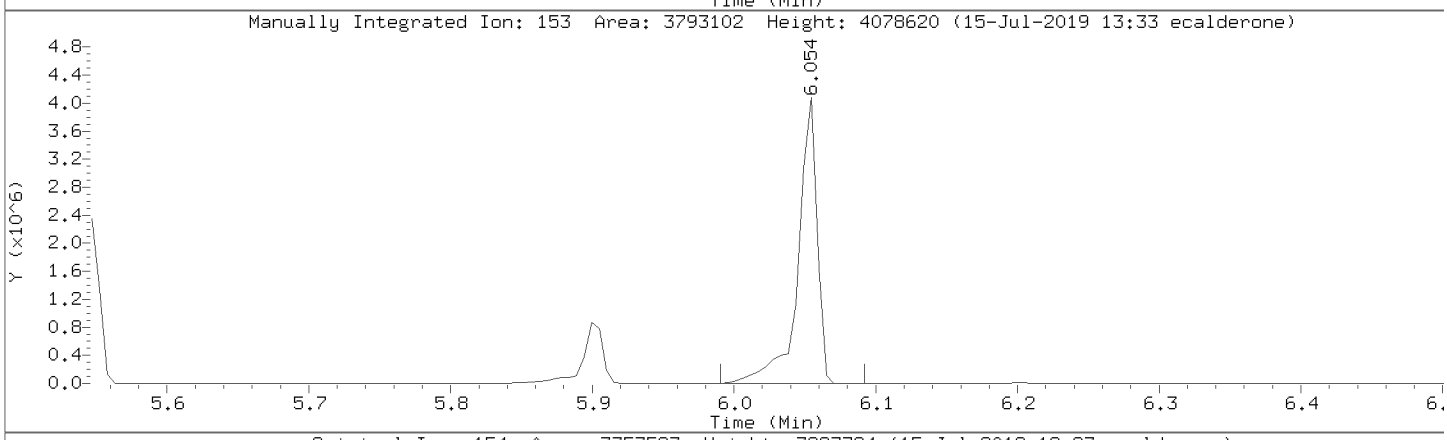
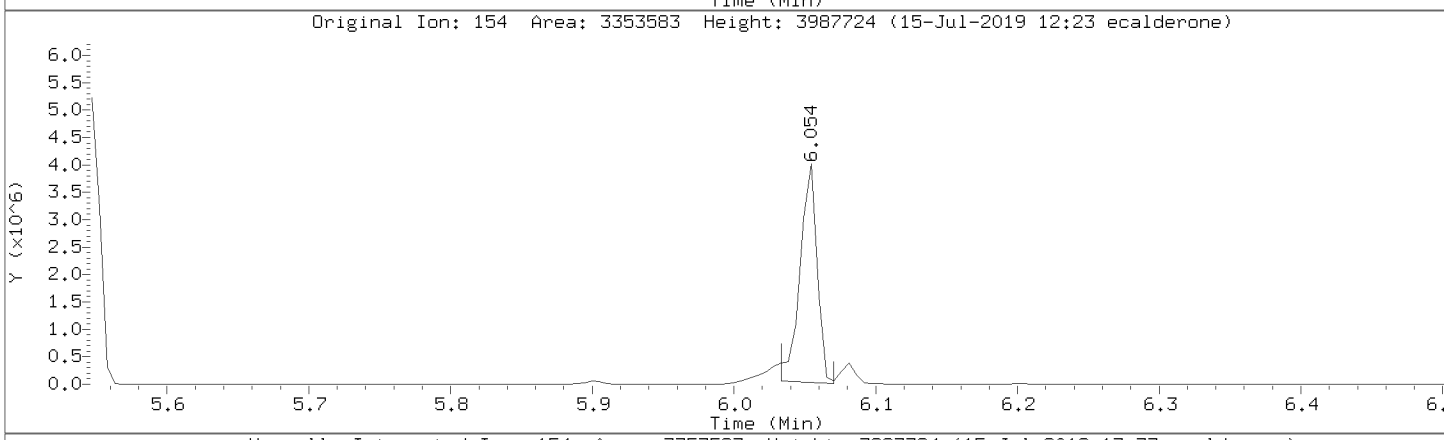
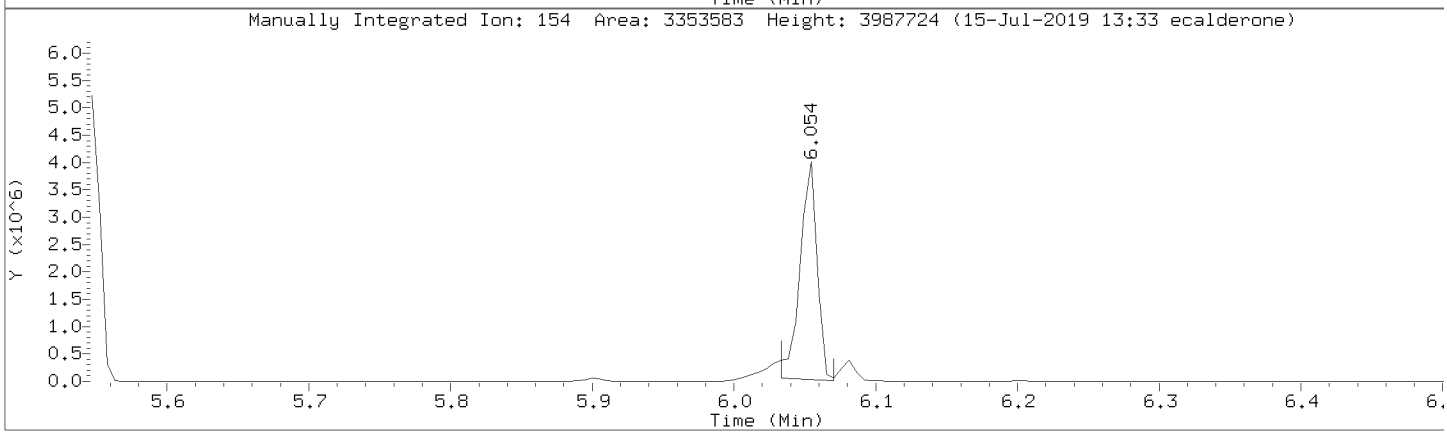
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Acenaphthene Review Code: LT
CAS Number: 83-32-9









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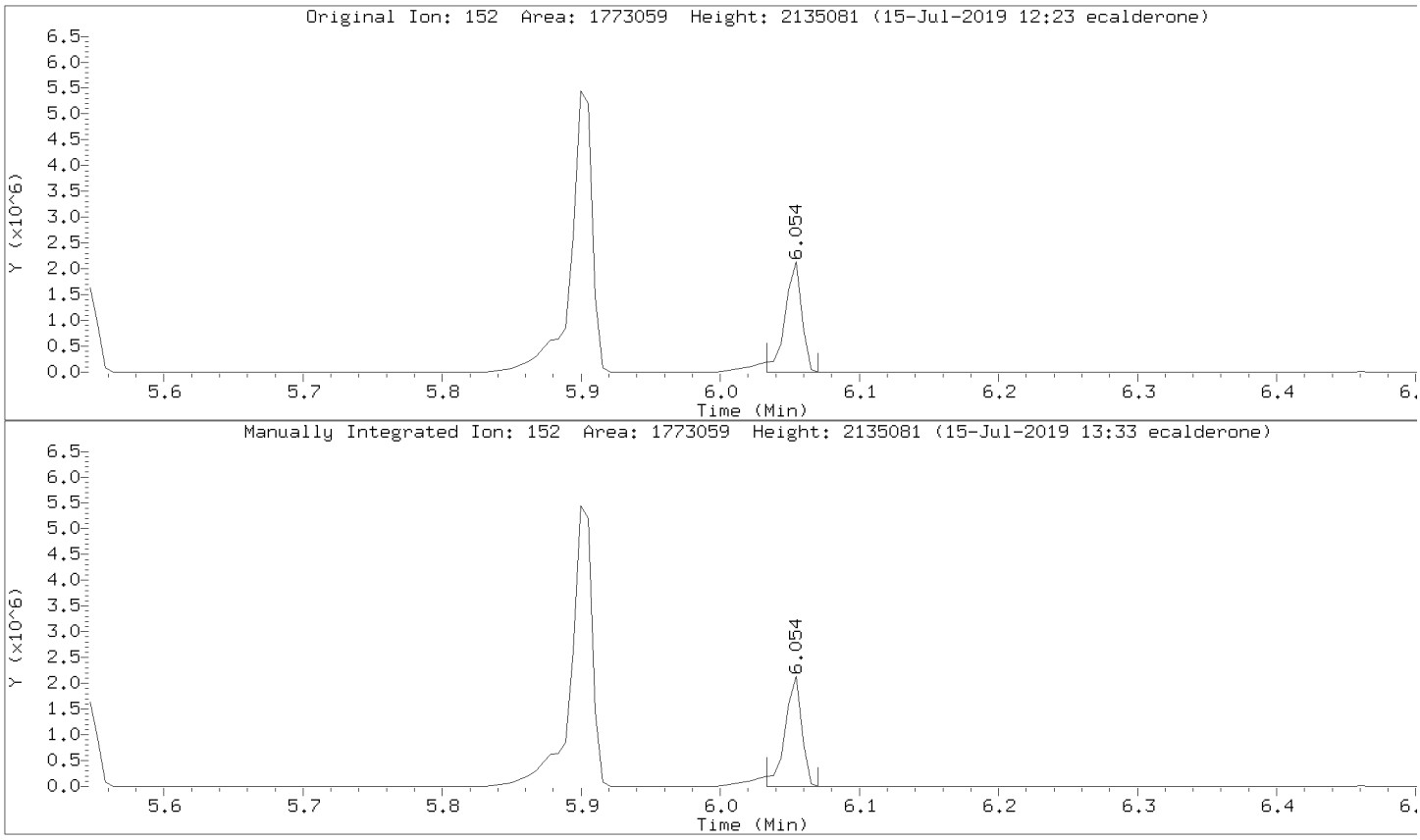
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV



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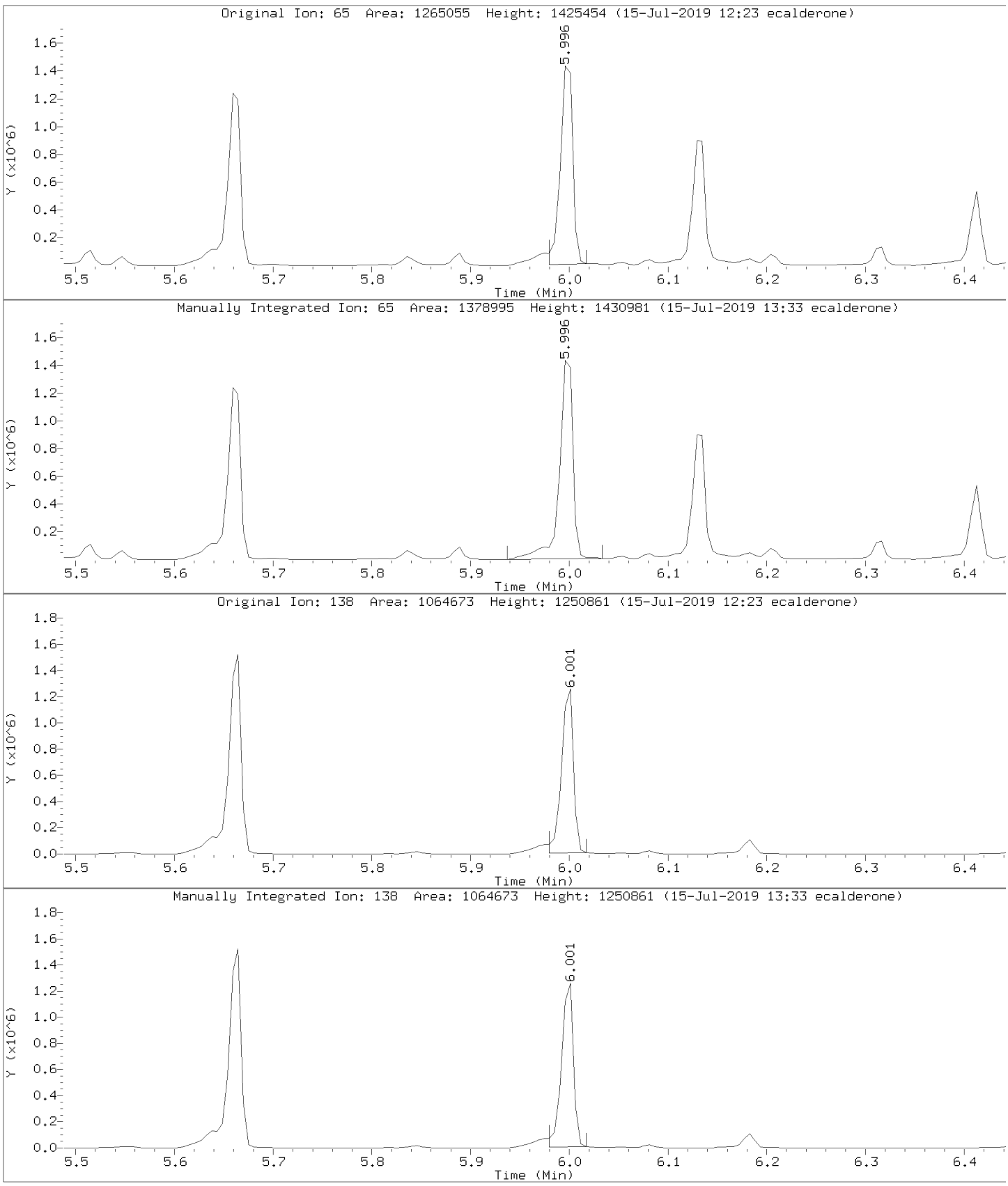
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 3-Nitroaniline Review Code: LT
CAS Number: 99-09-2



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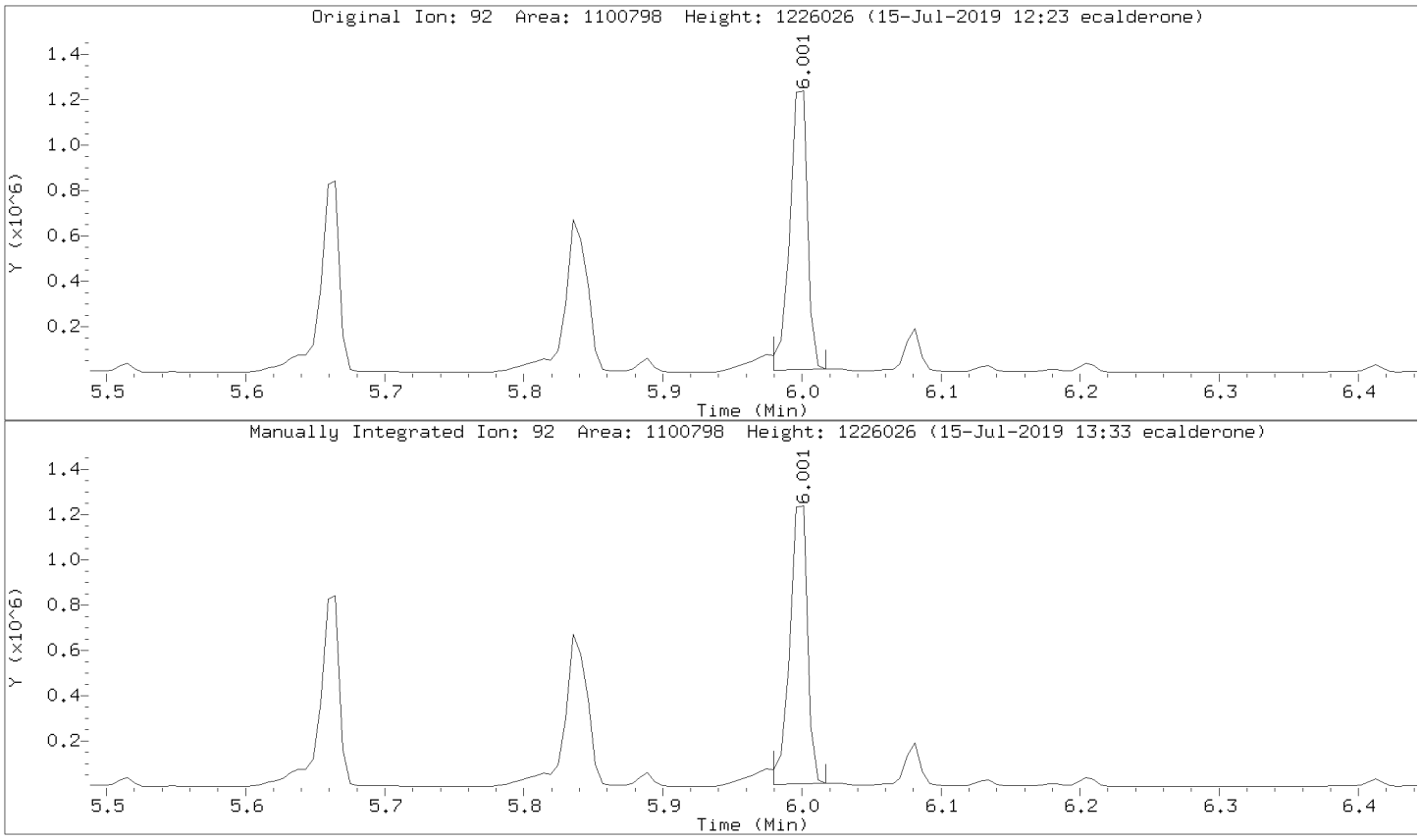
Instrument: 30mss1.i
Lab Sample ID: ICV



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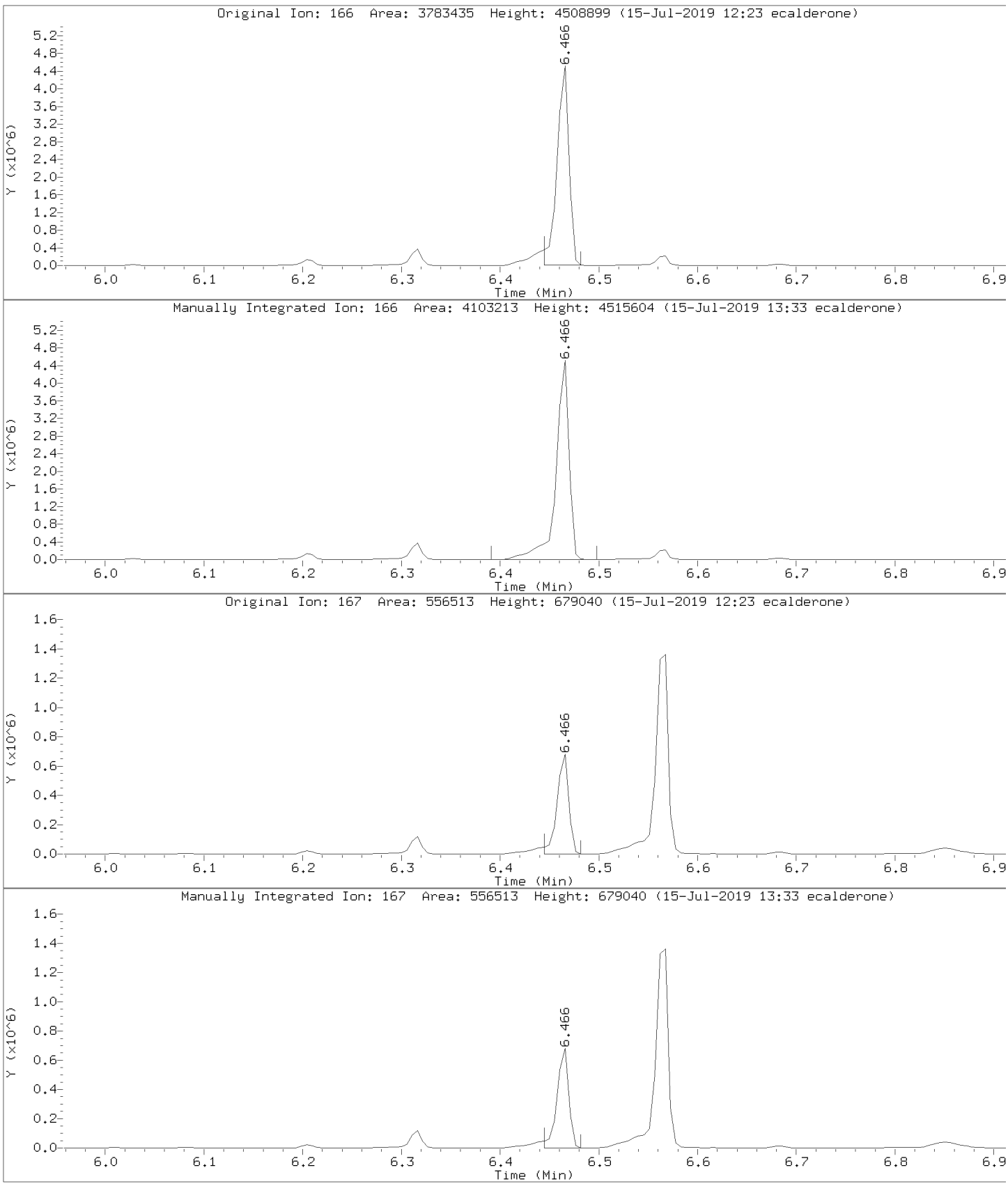
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Fluorene Review Code: LT
CAS Number: 86-73-7



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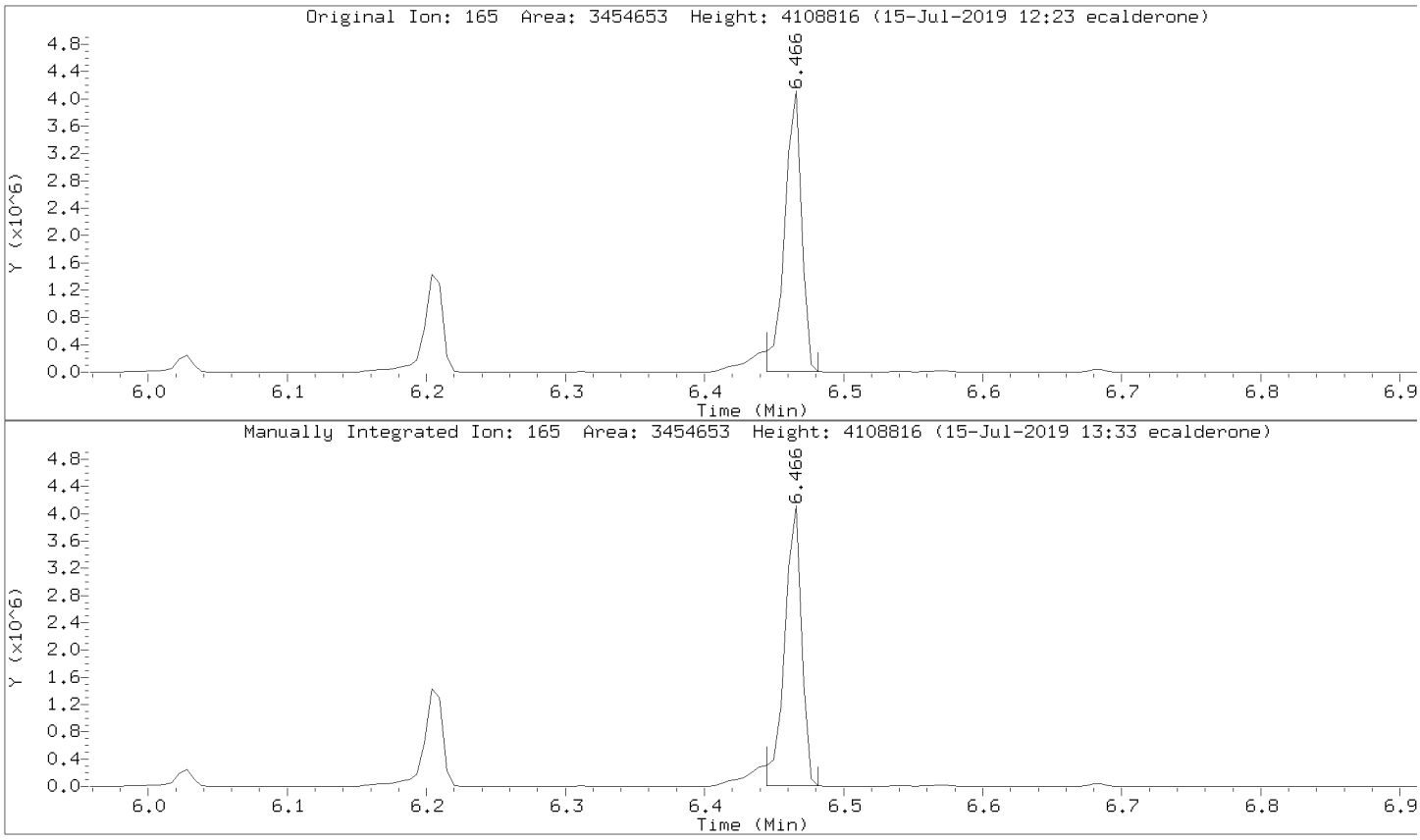
Lab Sample ID: ICV



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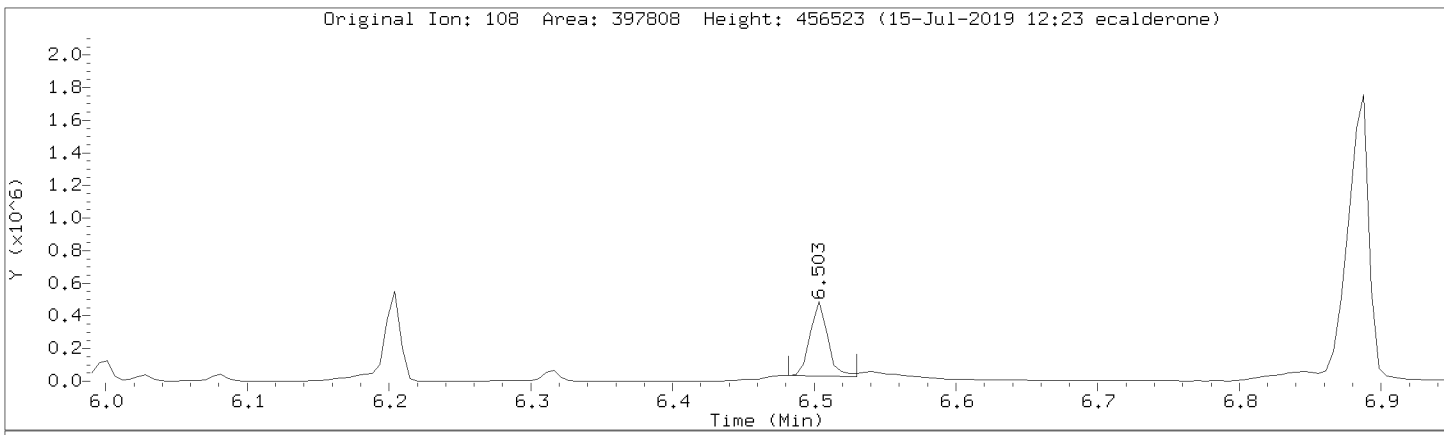
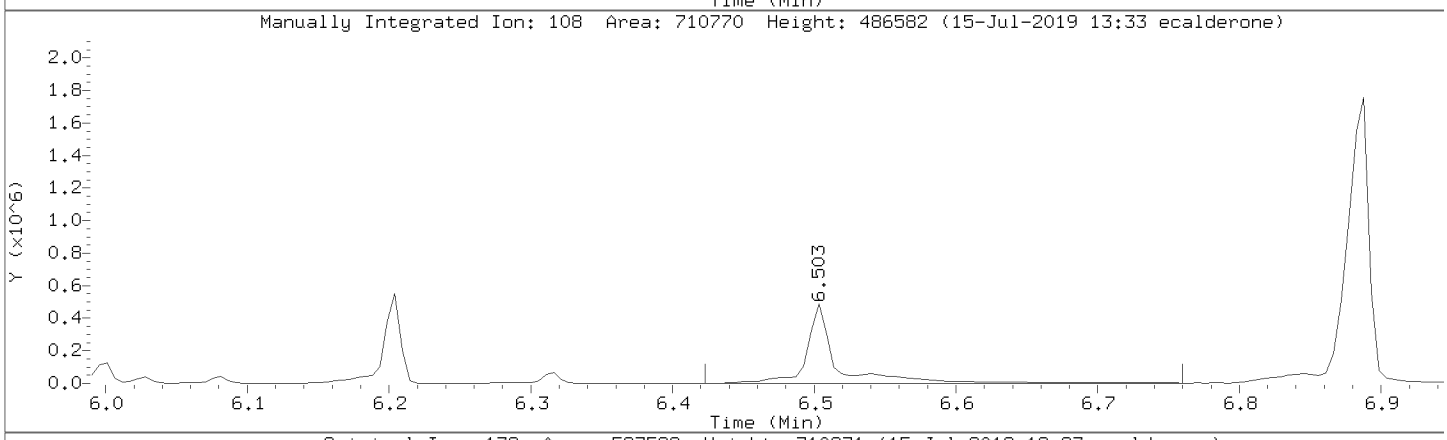
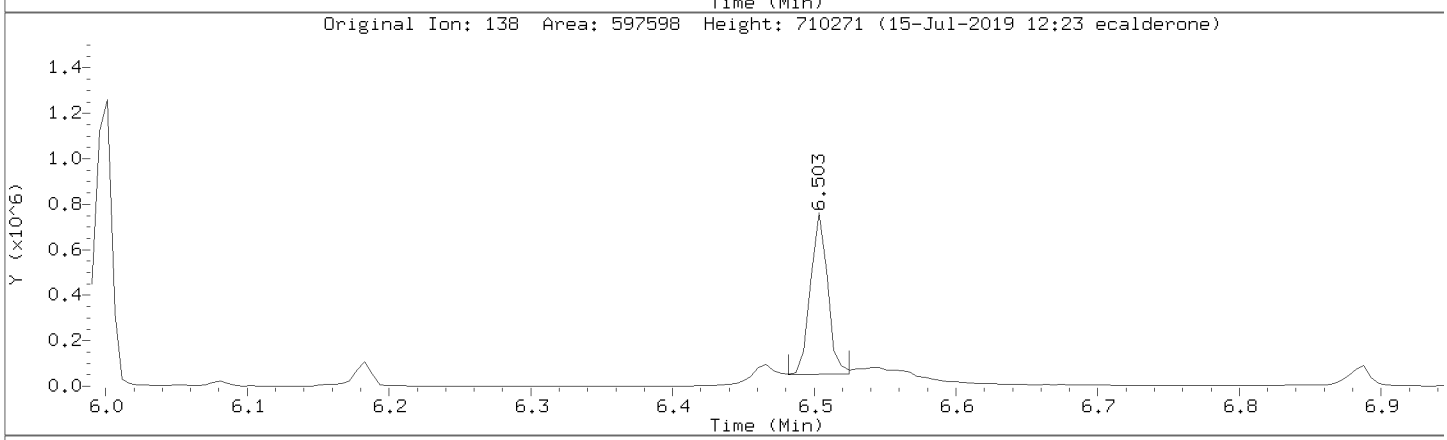
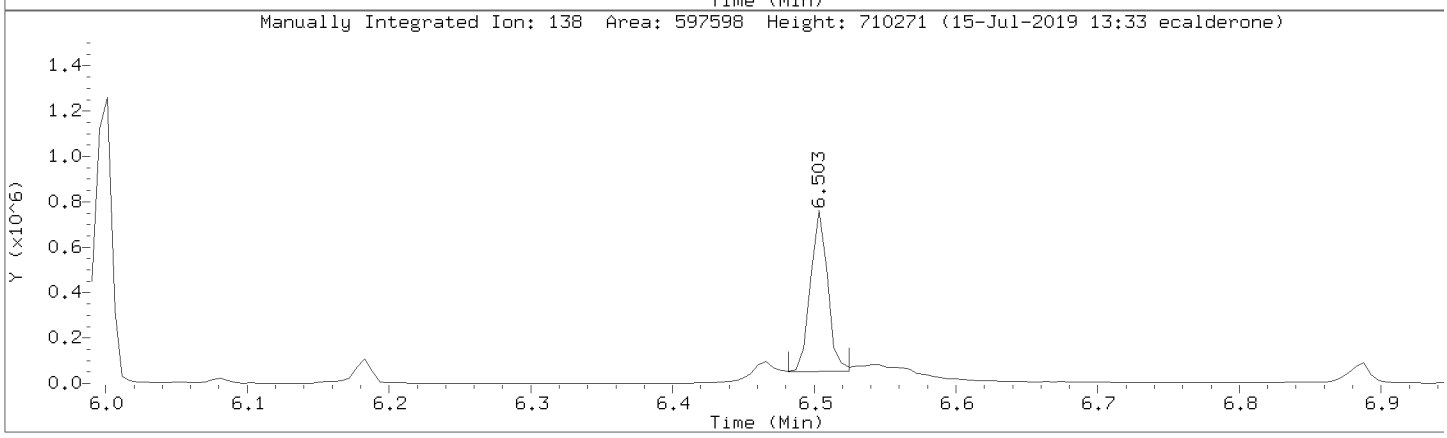
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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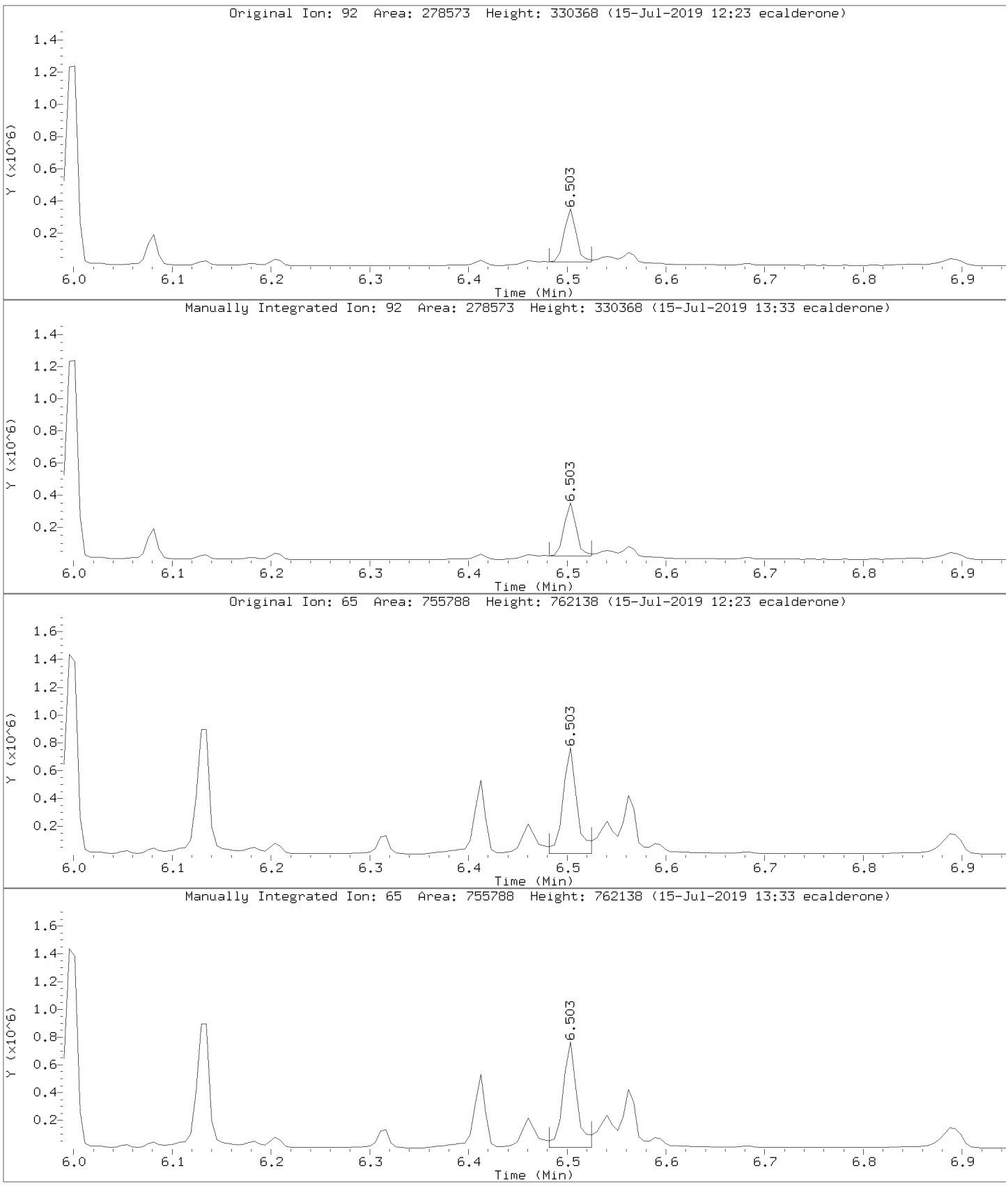
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV



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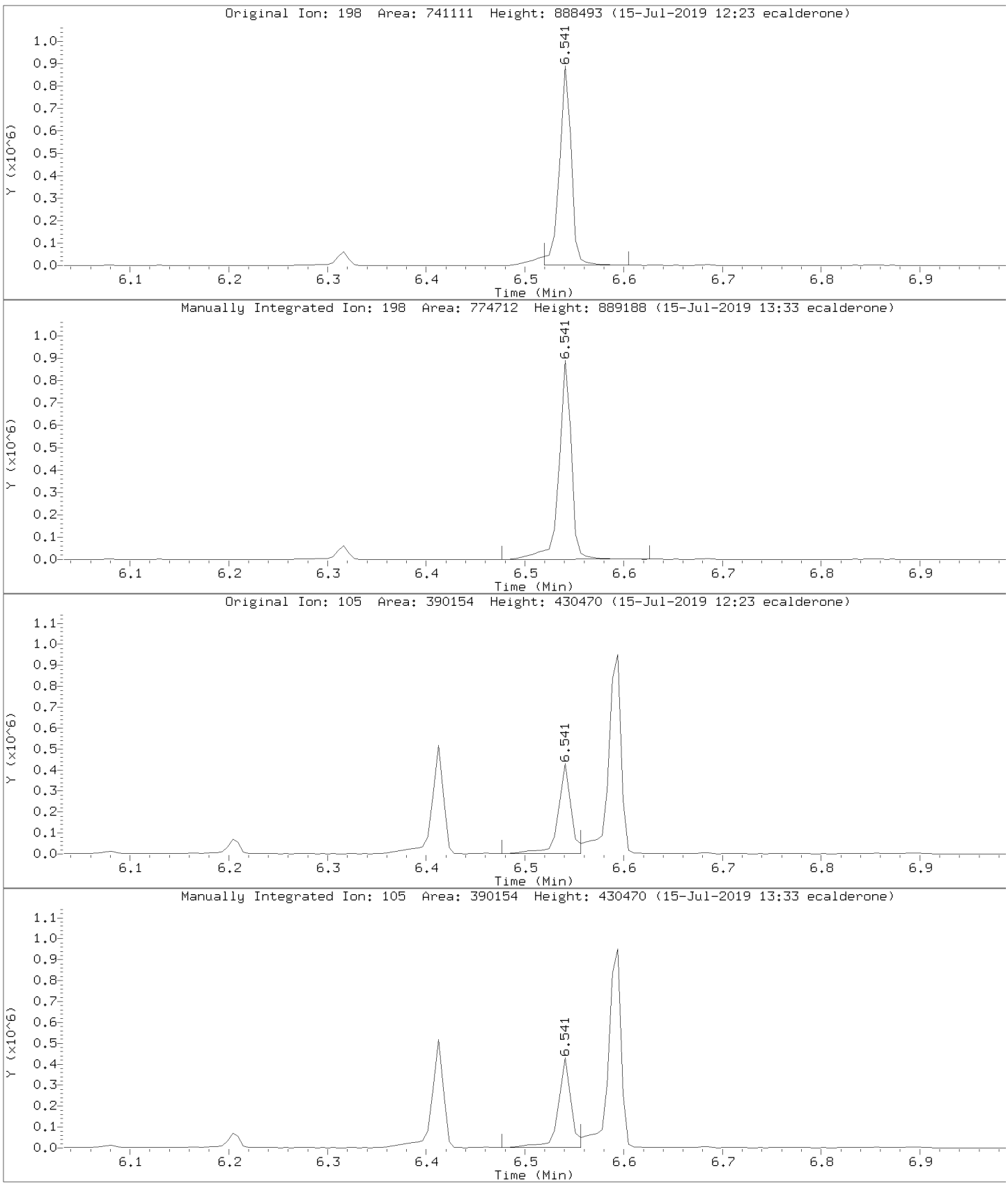
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4,6-Dinitro-2-methylphenol Review Code: LT
CAS Number: 534-52-1



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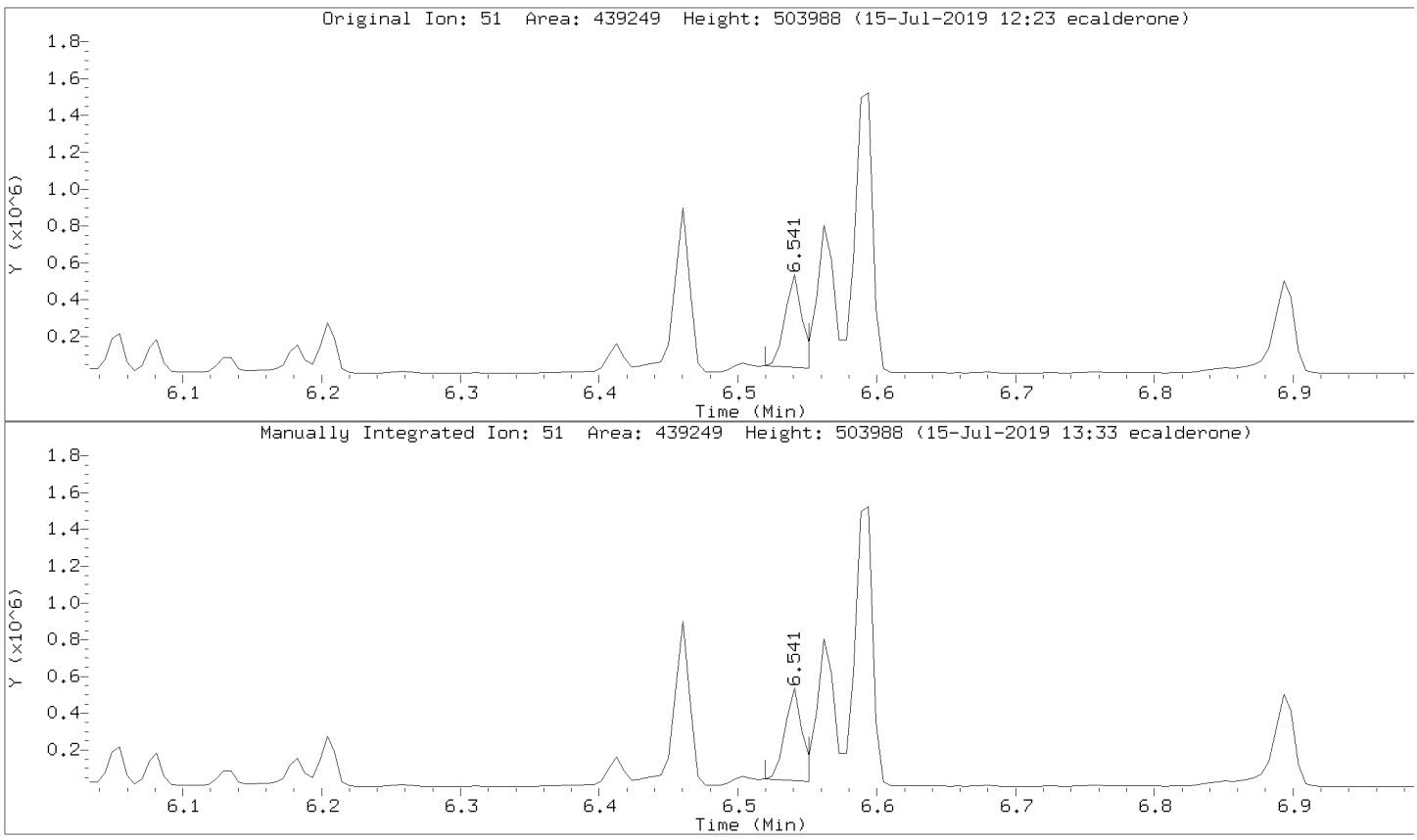
Instrument: 30mss1.i
Lab Sample ID: ICV



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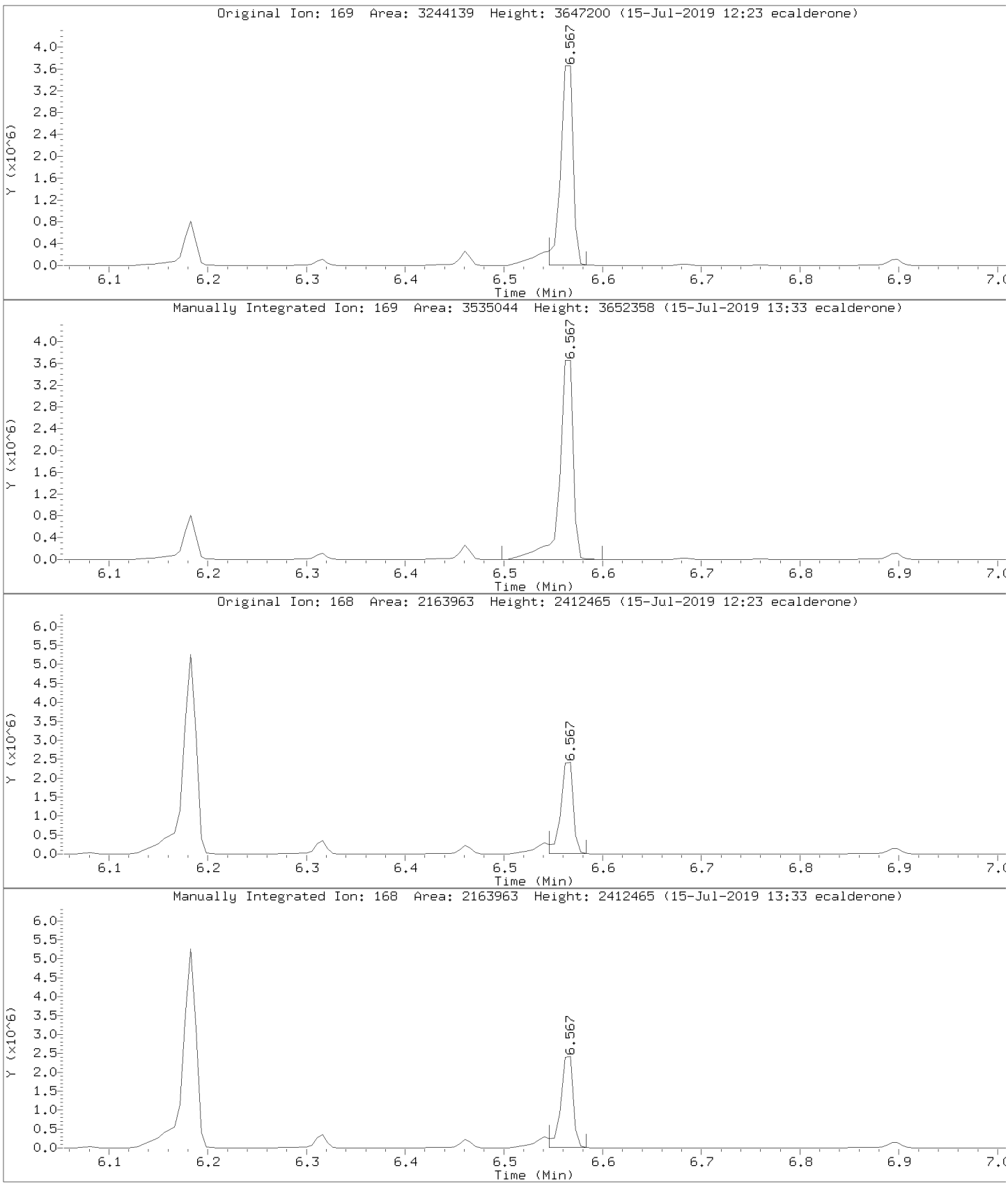
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: N-Nitrosodiphenylamine Review Code: LT
CAS Number: 86-30-6



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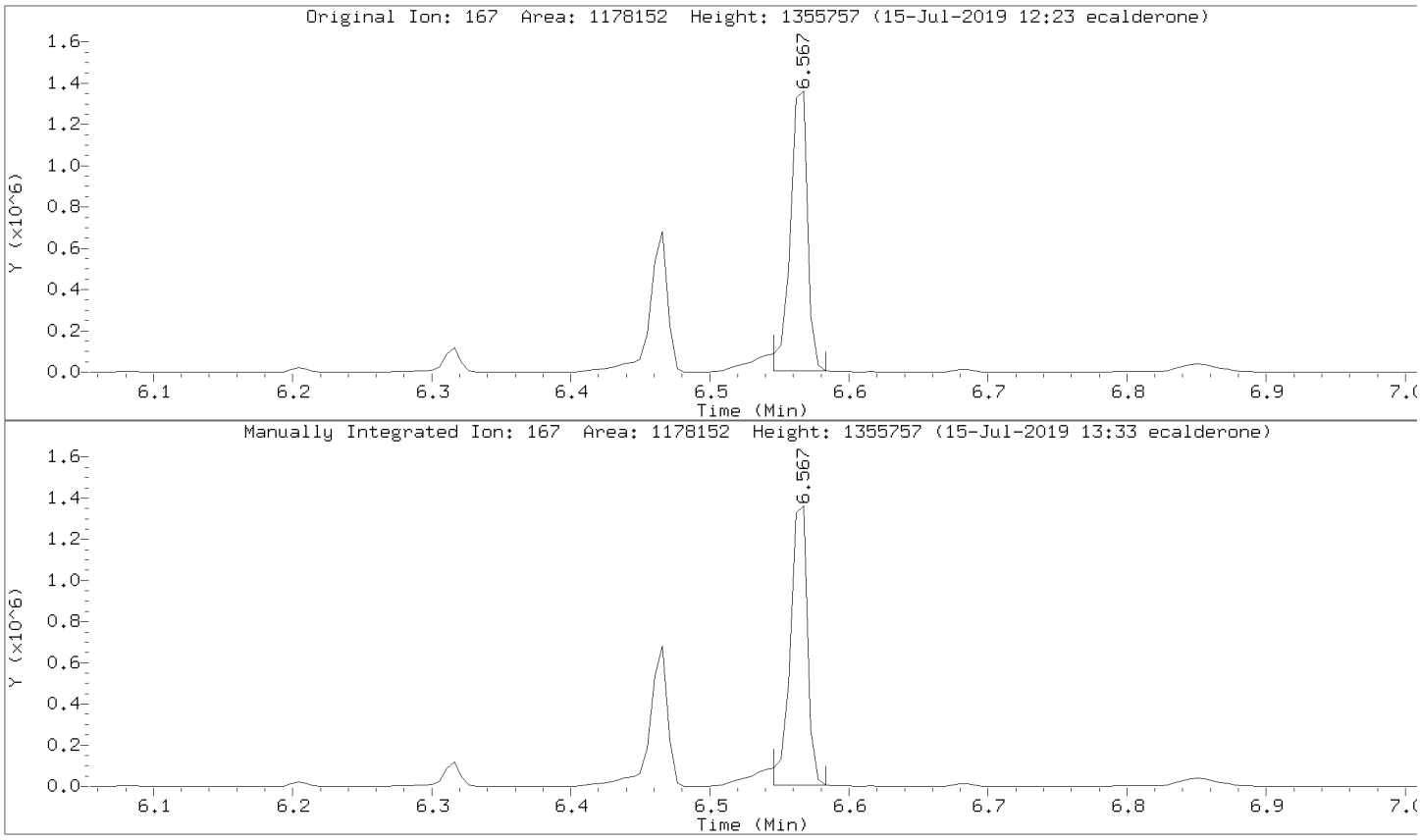
Lab Sample ID: ICV



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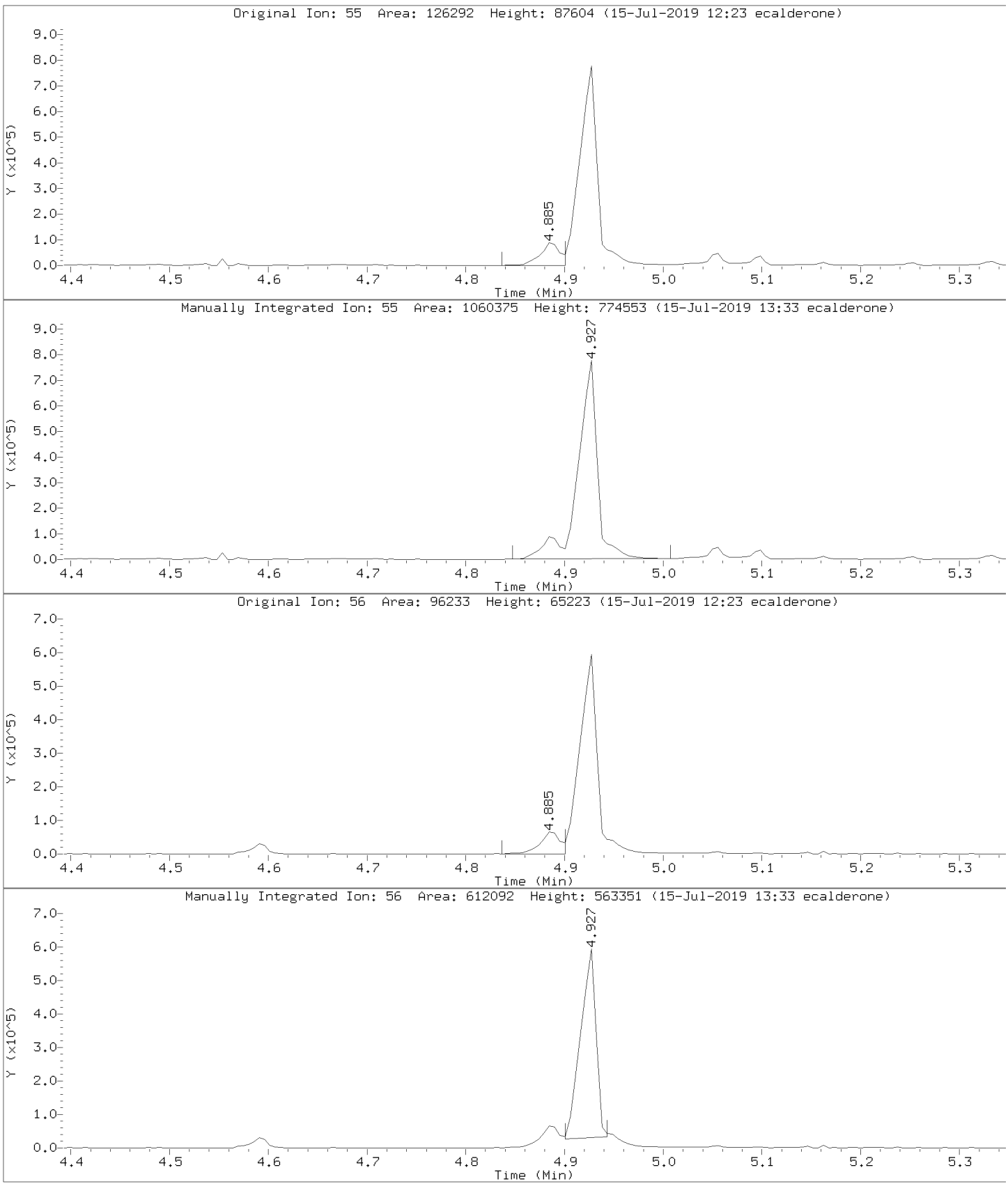
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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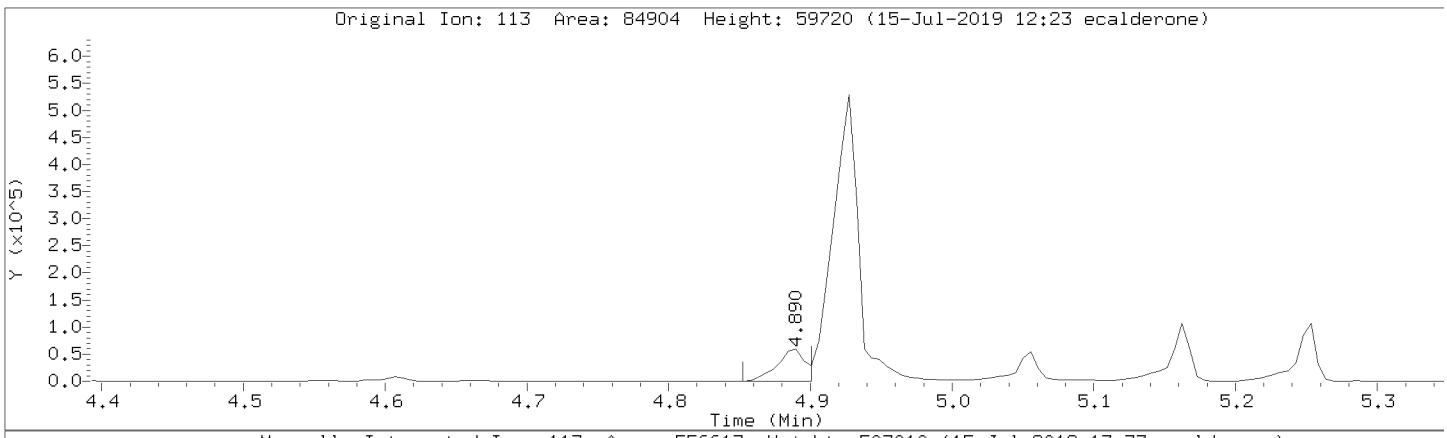
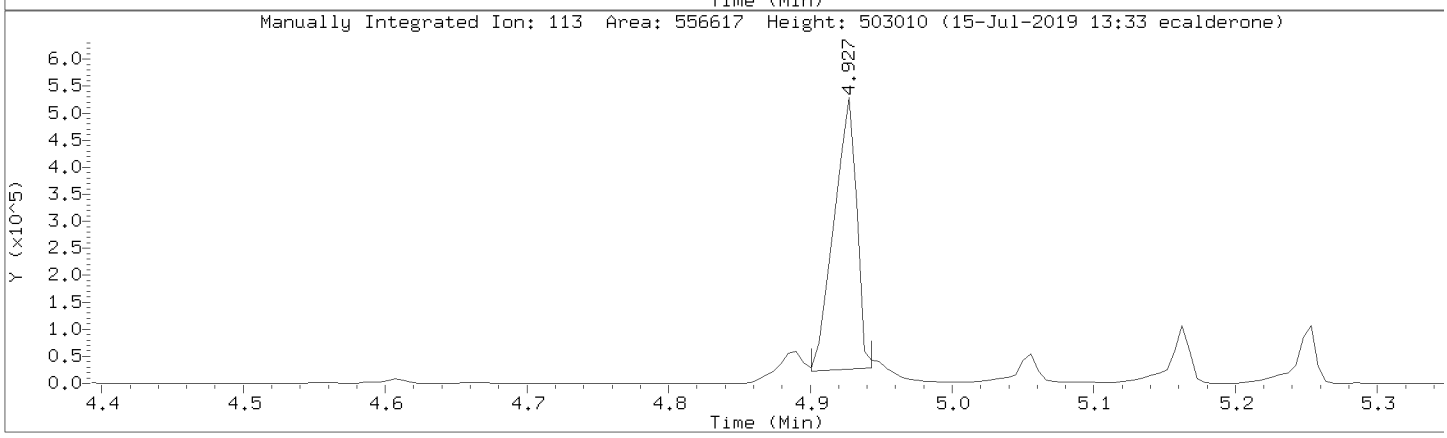
Lab Sample ID: ICV





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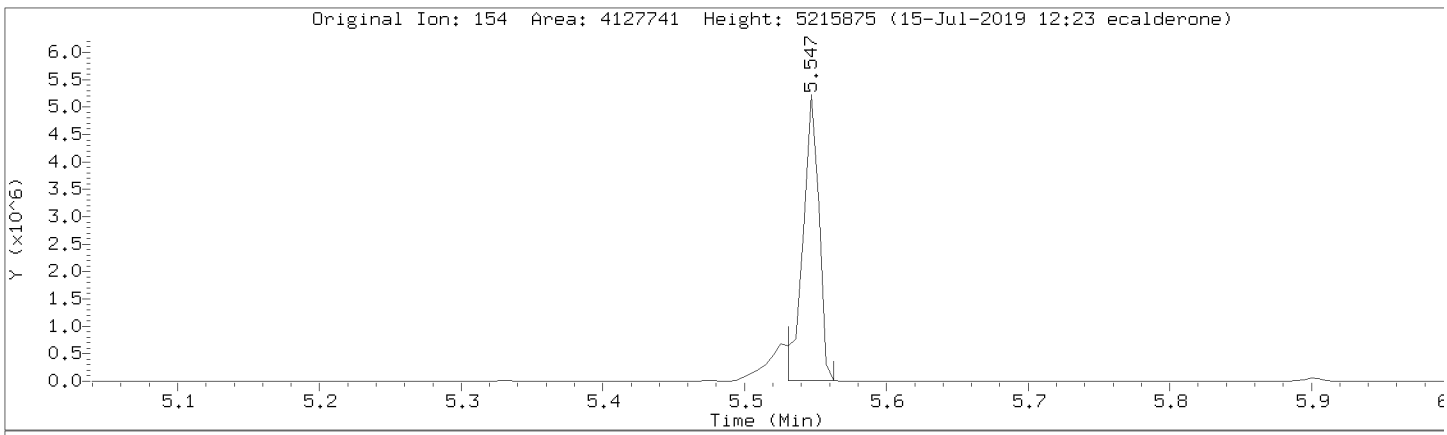
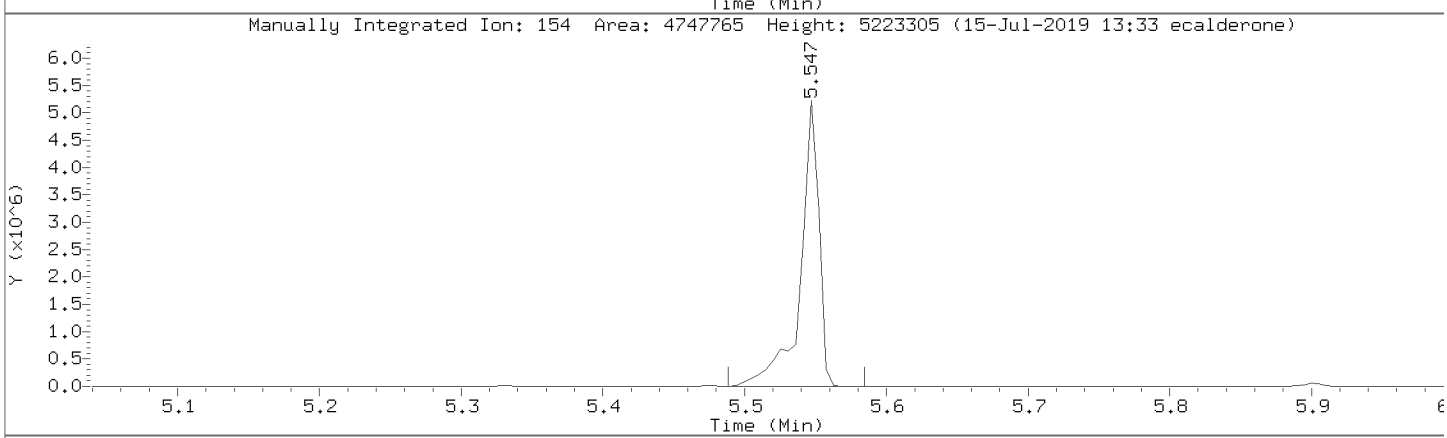
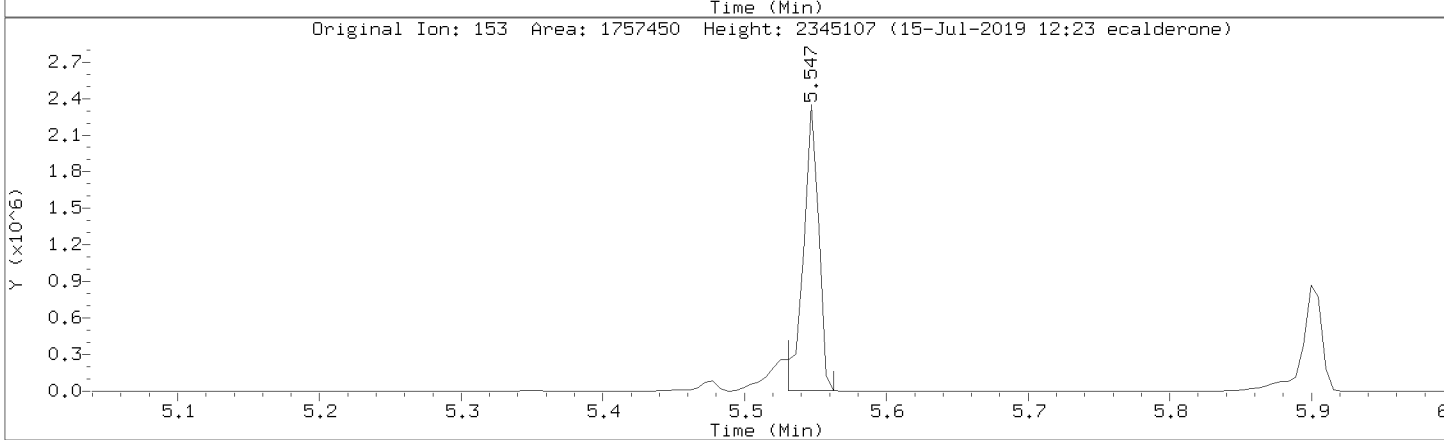
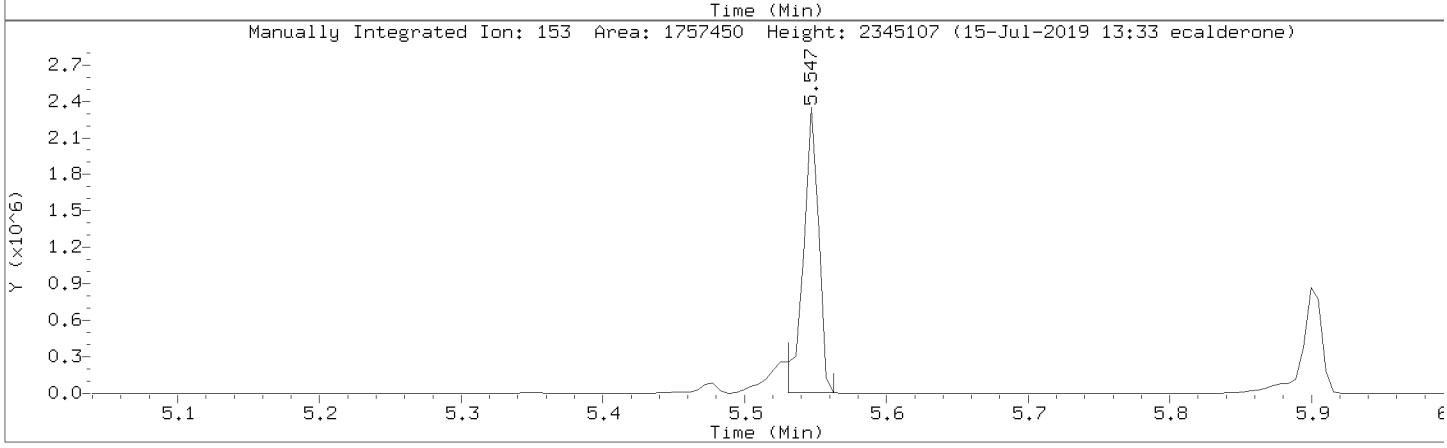
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4









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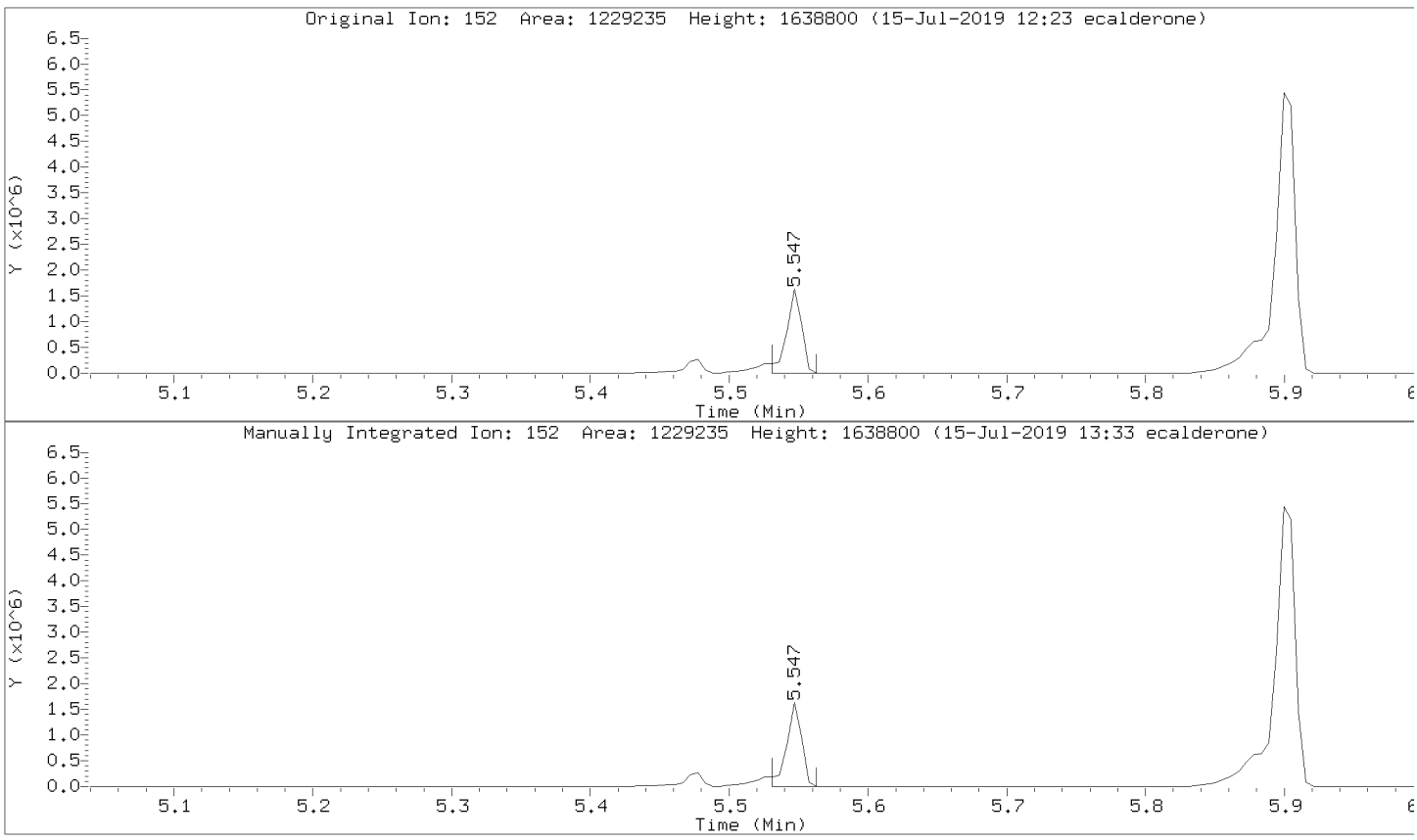
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV



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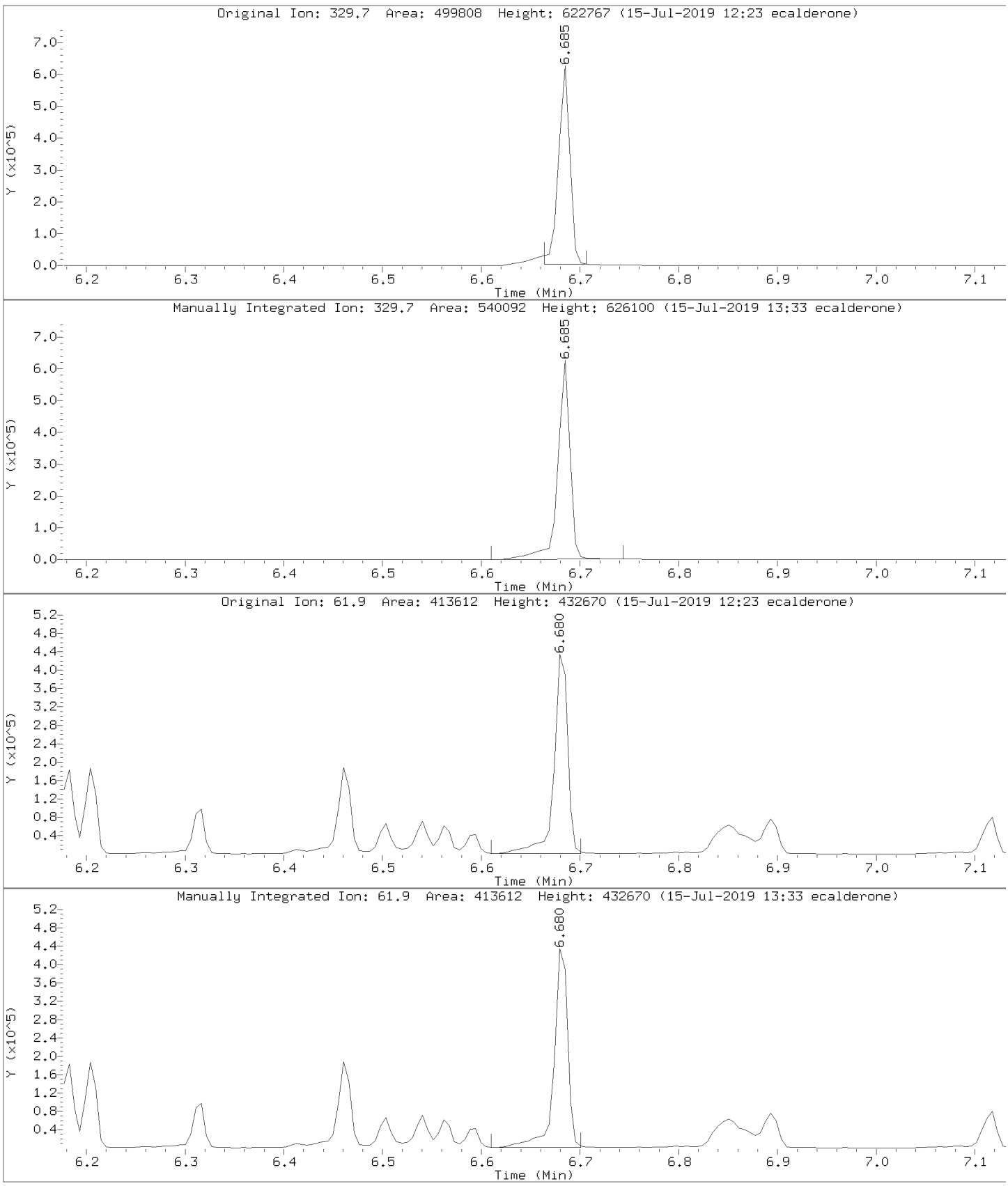
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 2,4,6-Tribromophenol (S) Review Code: LT
CAS Number: 118-79-6



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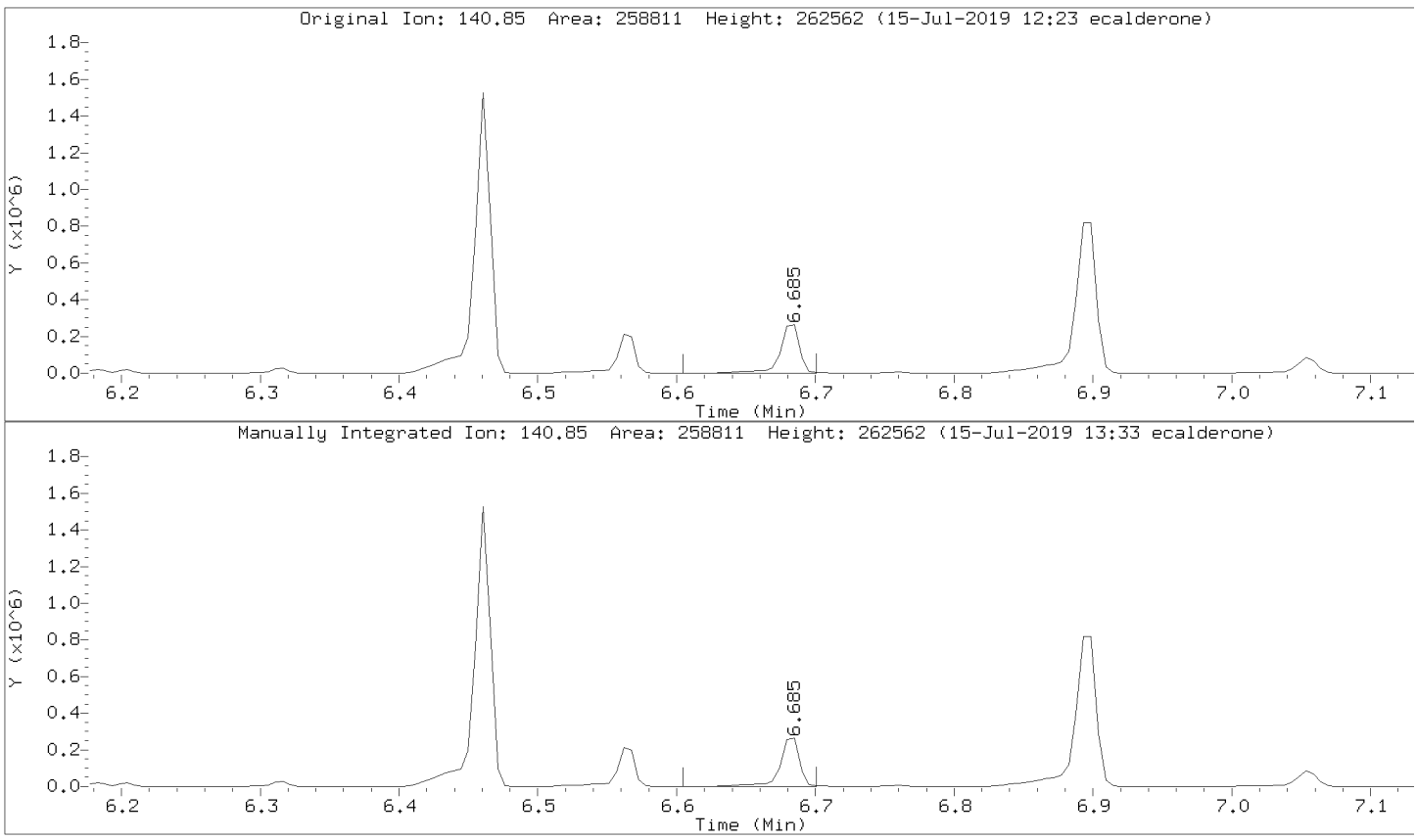
Injection Date: 15-JUL-2019 11:59
Instrument: 30mss1.i
Lab Sample ID: ICV



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071719.b\m10717s2.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 13:51
Operator : EAC Inst ID: 30mss1.i
Smp Info : ccv
Misc Info : 14828,93076:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071719.b\8270071519.m
Meth Date : 18-Jul-2019 13:32 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.466	1.466	(0.426)	1148082	8.00000	6.96	
	2 Pyridine	79	1.444	1.444	(0.420)	1713033	8.00000	6.96	
$	3 2-Fluorophenol (S)	112	2.561	2.561	(0.744)	1467495	8.00000	7.61	
$	4 Phenol-d6 (S)	99	3.223	3.223	(0.936)	1779184	8.00000	7.83	
	5 Benzaldehyde	77	3.132	3.132	(0.910)	1288784	8.00000	7.84	
	6 Phenol	94	3.229	3.229	(0.938)	2045057	8.00000	8.15	
	7 Aniline	66	3.234	3.234	(0.939)	1563238	8.00000	13.7	
	8 bis(2-Chloroethyl)ether	63	3.282	3.282	(0.953)	1104276	8.00000	7.66	
	9 2-Chlorophenol	128	3.314	3.314	(0.963)	1584091	8.00000	7.63	
	10 1,3-Dichlorobenzene	146	3.416	3.416	(0.992)	1746035	8.00000	7.91	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.442	3.442	(1.000)	581173	4.00000		
	12 1,4-Dichlorobenzene	146	3.458	3.458	(1.005)	1855153	8.00000	7.69(M)	LT
	13 Benzyl Alcohol	79	3.570	3.570	(1.037)	1268738	8.00000	8.15	
	14 1,2-Dichlorobenzene	146	3.597	3.597	(1.045)	1678395	8.00000	7.78	
	15 2-Methylphenol(o-Cresol)	108	3.672	3.672	(1.067)	1471529	8.00000	7.76	
	16 bis(2-Chloroisopropyl)ether	45	3.688	3.688	(1.071)	2428260	8.00000	7.69	
	17 3&4-Methylphenol(m&p Cresol)	108	3.784	3.784	(1.099)	1514773	8.00000	8.07	
	18 N-Nitroso-di-n-propylamine	70	3.800	3.800	(1.104)	1122795	8.00000	7.76	
	19 Acetophenone	105	3.774	3.774	(1.096)	2020379	8.00000	7.87	
	20 Hexachloroethane	117	3.832	3.832	(1.113)	658405	8.00000	7.77	
$	21 Nitrobenzene-d5 (S)	128	3.886	3.886	(0.877)	769883	8.00000	7.97	
	22 Nitrobenzene	77	3.902	3.902	(0.881)	1560216	8.00000	7.97	
	23 Isophorone	82	4.089	4.089	(0.923)	2892554	8.00000	8.06	
	24 2,4-Dimethylphenol	107	4.185	4.185	(0.945)	1548716	8.00000	8.05	
	25 2-Nitrophenol	139	4.147	4.147	(0.936)	897449	8.00000	7.96	
	26 Benzoic acid	105	4.286	4.286	(0.967)	1111951	8.00000	9.23(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.260	4.260	(0.961)	1764028	8.00000	7.99	
	28 2,4-Dichlorophenol	162	4.334	4.334	(0.978)	1293386	8.00000	8.06	
	29 1,2,4-Trichlorobenzene	180	4.399	4.399	(0.993)	1395664	8.00000	7.96	
*	30 Naphthalene-d8 (IS)	136	4.431	4.431	(1.000)	2349435	4.00000		
	31 Naphthalene	128	4.447	4.447	(1.004)	4272751	8.00000	8.06	
	32 4-Chloroaniline	65	4.505	4.505	(1.017)	494801	8.00000	7.92	
	33 Hexachloro-1,3-butadiene	225	4.596	4.596	(1.037)	745611	8.00000	7.98	
	34 Caprolactam	55	4.767	4.767	(1.076)	681924	8.00000	7.93(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	4.906	4.906	(1.107)	1300690	8.00000	8.05	
	36	2-Methylnaphthalene	142	4.997	4.997	(1.128)	3136239	8.00000	8.06	
	37	1-Methylnaphthalene	142	5.088	5.088	(1.148)	2911020	8.00000	8.00	
	38	Hexachlorocyclopentadiene	237	5.189	5.189	(0.886)	950864	8.00000	8.56	
	39	1,2,4,5-Tetrachlorobenzene	216	5.168	5.168	(0.882)	1250192	8.00000	7.90	
	40	2,4,6-Trichlorophenol	196	5.253	5.253	(0.897)	928671	8.00000	7.60	
	41	2,4,5-Trichlorophenol	196	5.285	5.285	(0.902)	917016	8.00000	8.40	
$	42	2-Fluorobiphenyl (S)	172	5.312	5.312	(0.907)	3069813	8.00000	7.93	
	43	Biphenyl (Diphenyl)	154	5.381	5.381	(0.919)	3490757	8.00000	7.98	
	44	2-Chloronaphthalene	164	5.392	5.392	(0.921)	926281	8.00000	7.78	
	45	2-Nitroaniline	138	5.499	5.499	(0.939)	1055288	8.00000	8.14	
	46	Dimethylphthalate	163	5.675	5.675	(0.969)	3013032	8.00000	8.25	
	47	2,6-Dinitrotoluene	165	5.729	5.729	(0.978)	754557	8.00000	8.06	
	48	Acenaphthylene	152	5.734	5.734	(0.979)	4259869	8.00000	8.08	
	49	3-Nitroaniline	65	5.836	5.836	(0.996)	854890	8.00000	7.86	
*	50	Acenaphthene-d10 (IS)	164	5.857	5.857	(1.000)	1268788	4.00000		
	51	2,4-Dinitrophenol	184	5.916	5.916	(1.010)	474855	8.00000	8.94	
	52	Acenaphthene	153	5.884	5.884	(1.005)	2785966	8.00000	8.04	
	53	4-Nitrophenol	109	5.985	5.985	(1.022)	400503	8.00000	8.47	
	54	2,4-Dinitrotoluene	165	6.044	6.044	(1.032)	990417	8.00000	8.13	
	55	Dibenzofuran	168	6.012	6.012	(1.026)	3747353	8.00000	8.04	
	56	2,3,4,6-Tetrachlorophenol	232	6.151	6.151	(1.050)	755453	8.00000	8.32	
	57	Diethylphthalate	149	6.252	6.252	(1.067)	2997613	8.00000	8.04	
	58	4-Chlorophenylphenyl ether	204	6.295	6.295	(1.075)	1522363	8.00000	8.04	
	59	Fluorene	166	6.295	6.295	(1.075)	3129222	8.00000	8.04	
	60	4-Nitroaniline	108	6.338	6.338	(1.082)	457036	8.00000	7.83(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.375	6.375	(0.892)	628509	8.00000	8.97	
	62	N-Nitrosodiphenylamine	169	6.396	6.396	(0.895)	2714309	8.00000	7.99	
	63	Azobenzene	77	6.423	6.423	(0.898)	2817619	8.00000	7.88(H)	WP
	64	1,2-Diphenylhydrazine	77	6.423	6.423	(0.898)	2817619	8.00000	7.88(H)	WP
$	65	2,4,6-Tribromophenol (S)	330	6.503	6.503	(0.910)	488163	8.00000	8.54	
	66	4-Bromophenylphenyl ether	248	6.701	6.701	(0.937)	908022	8.00000	7.93	
	67	Hexachlorobenzene	284	6.840	6.840	(0.957)	896893	8.00000	7.87	
	68	Atrazine	200	6.904	6.904	(0.966)	894861	8.00000	8.10	
	69	Pentachlorophenol	266	7.022	7.022	(0.982)	587266	8.00000	8.89	
*	70	Phenanthrene-d10 (IS)	188	7.150	7.150	(1.000)	2118855	4.00000		
	71	Phenanthrene	178	7.176	7.176	(1.004)	4544913	8.00000	7.85	
	72	Anthracene	178	7.225	7.225	(1.010)	4477518	8.00000	8.11	
	73	Carbazole	167	7.406	7.406	(1.036)	4065882	8.00000	8.04	
	74	Di-n-butylphthalate	149	7.866	7.866	(1.100)	4883887	8.00000	8.32	
	75	Fluoranthene	202	8.448	8.448	(1.182)	4556177	8.00000	8.30	
	76	Pyrene	202	8.683	8.683	(0.874)	4684800	8.00000	7.86	
$	77	Terphenyl-d14 (S)	244	8.881	8.881	(0.894)	3608760	8.00000	7.94	
	78	Butylbenzylphthalate	149	9.436	9.436	(0.949)	2211103	8.00000	8.02	
	79	3,3'-Dichlorobenzidine	252	9.928	9.928	(0.999)	1700453	8.00000	8.34	
	80	bis(2-Ethylhexyl)phthalate	149	10.061	10.061	(1.012)	2973504	8.00000	7.86	
	81	Benzo(a)anthracene	228	9.922	9.922	(0.998)	4370899	8.00000	8.00	
*	82	Chrysene-d12 (IS)	240	9.938	9.938	(1.000)	1951956	4.00000		
	83	Chrysene	228	9.965	9.965	(1.003)	4040591	8.00000	7.70	
	84	Di-n-octylphthalate	149	10.643	10.643	(0.944)	4764699	8.00000	8.31	
	85	Benzo(b)fluoranthene	252	10.948	10.948	(0.971)	4341996	8.00000	7.90	
	86	Benzo(k)fluoranthene	252	10.969	10.969	(0.973)	4397136	8.00000	8.07	
	87	Benzo(a)pyrene	252	11.226	11.226	(0.996)	3982376	8.00000	8.20	
*	88	Perylene-d12 (IS)	264	11.274	11.274	(1.000)	1863495	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.113	12.113	(1.074)	4483591	8.00000	8.46	
90 Dibenz(a,h)anthracene	278	12.118	12.118	(1.075)	3814157	8.00000	8.63	
91 Benzo(g,h,i)perylene	276	12.294	12.294	(1.091)	3730741	8.00000	8.40	

QC Flag Legend

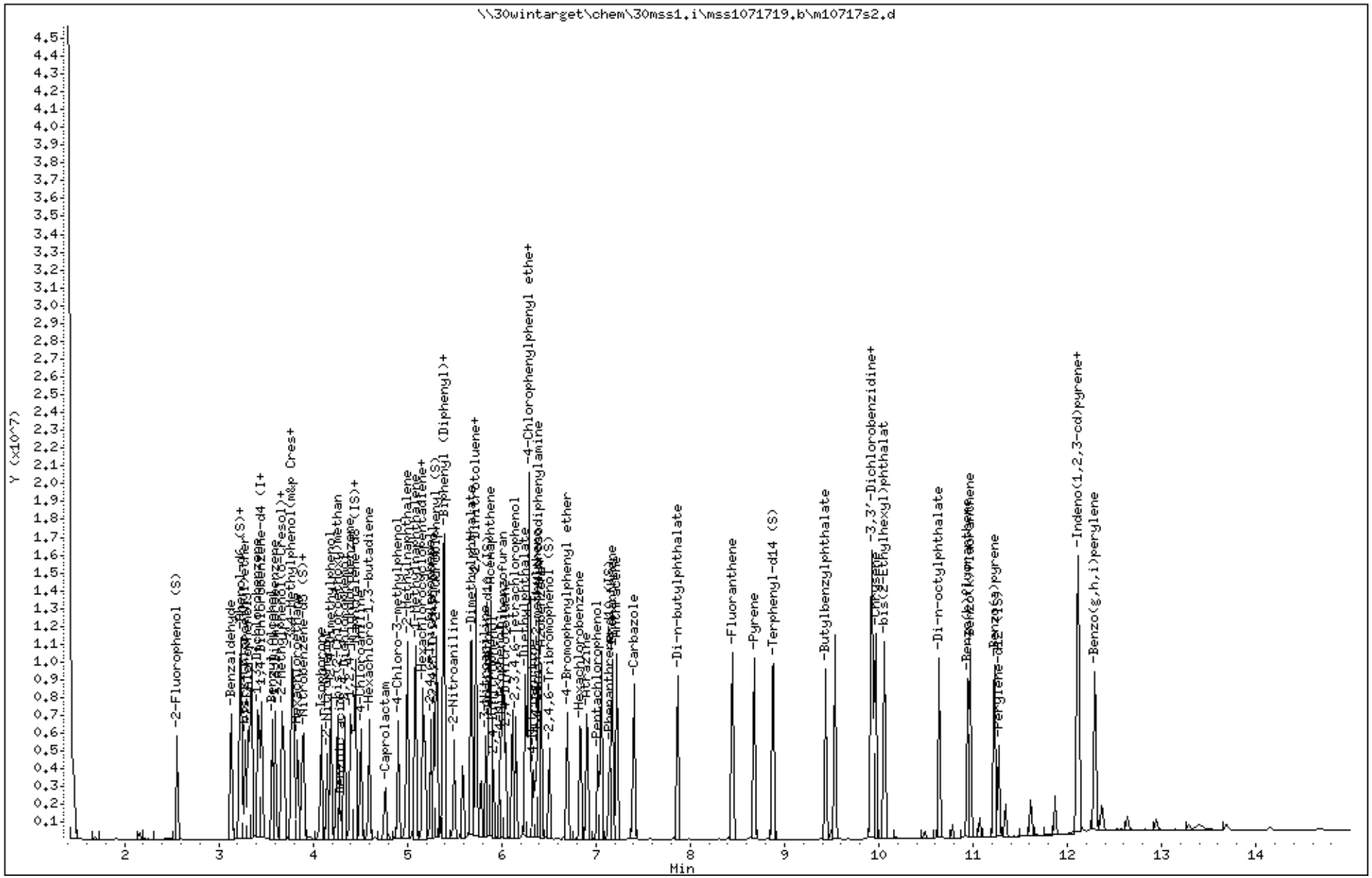
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m10717s2.d
Date : 17-JUL-2019 13:51
Client ID: CCV
Sample Info: CCV

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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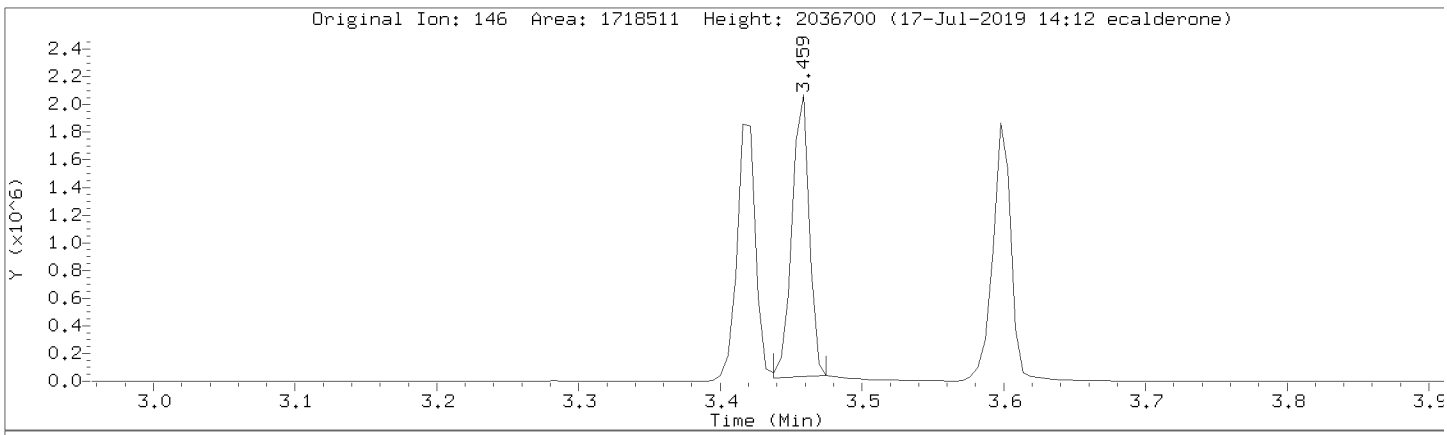
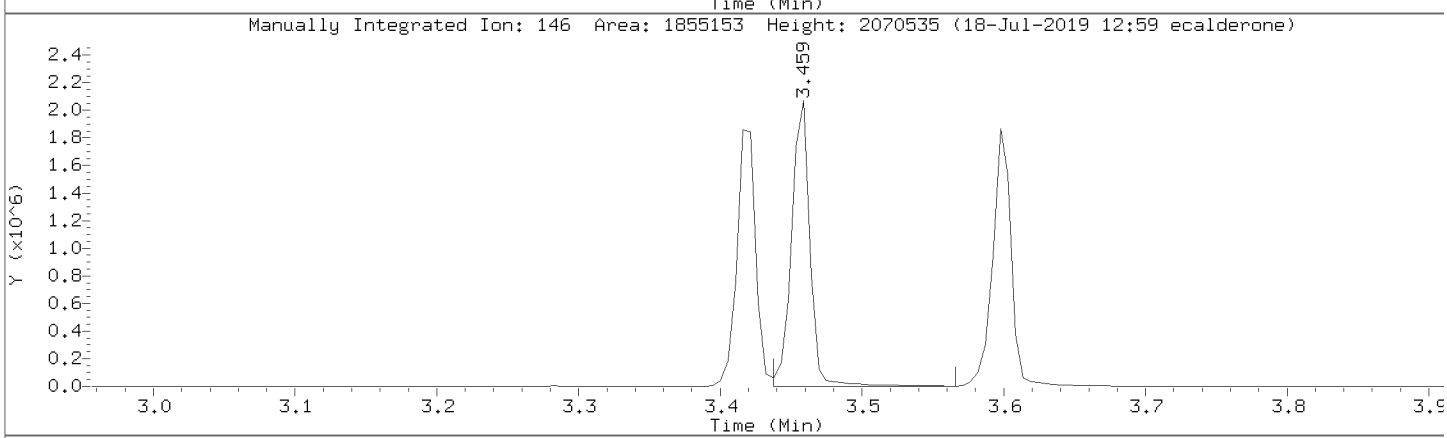
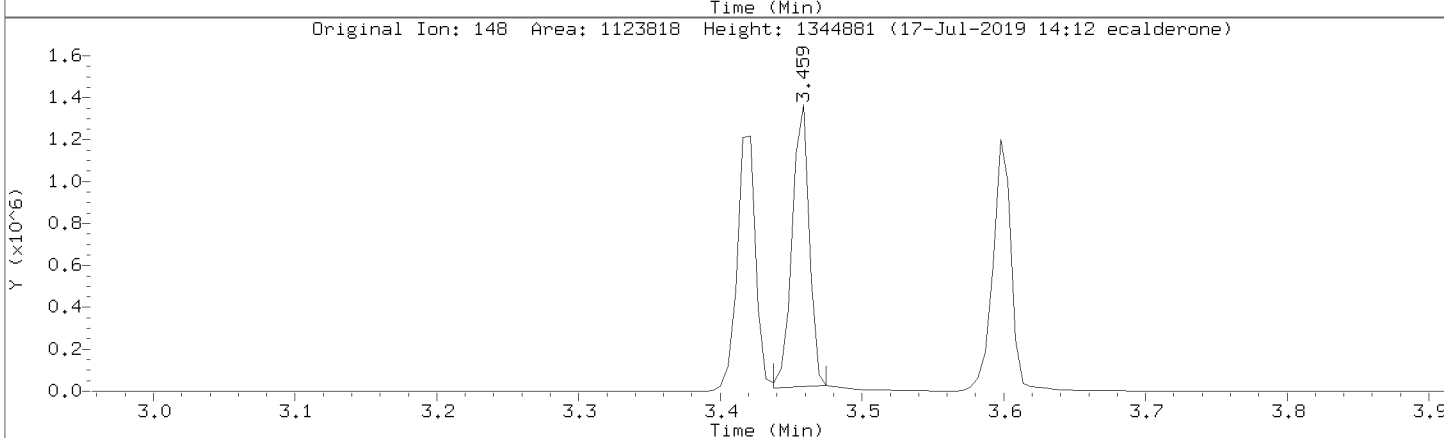
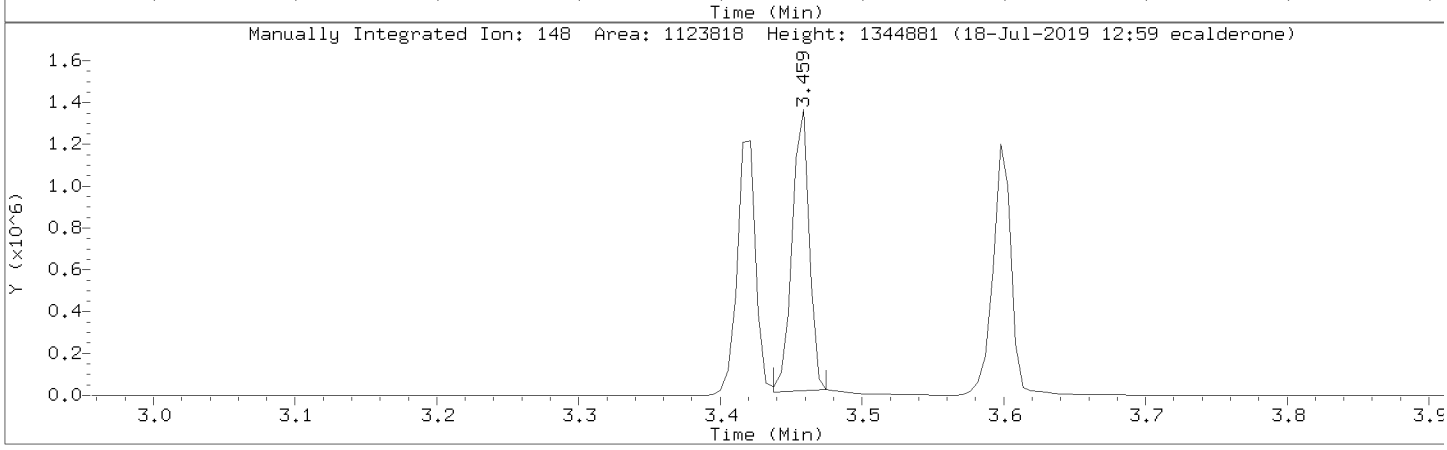
Injection Date: 17-JUL-2019 13:51
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7









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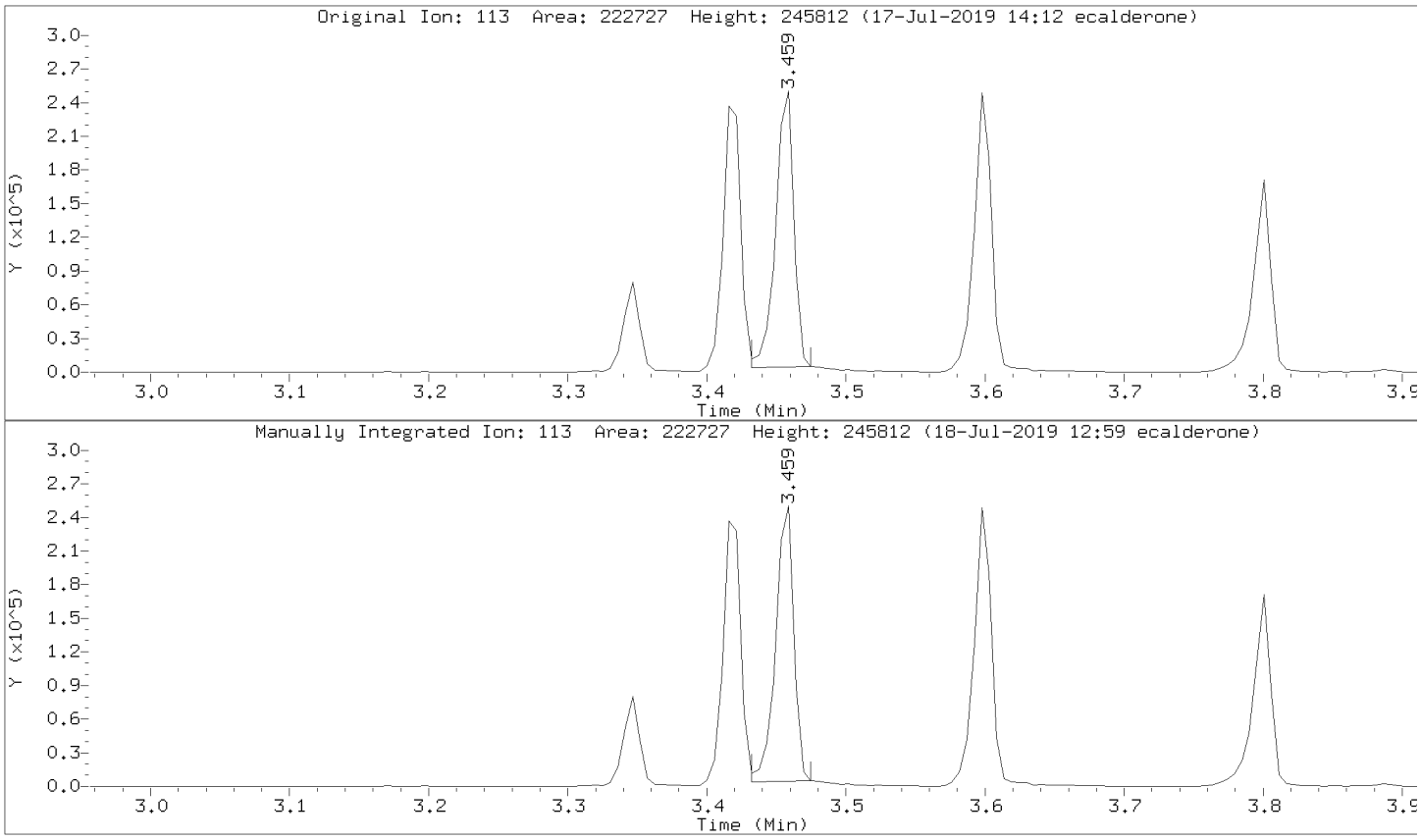
Instrument: 30mss1.i
Lab Sample ID: CCV



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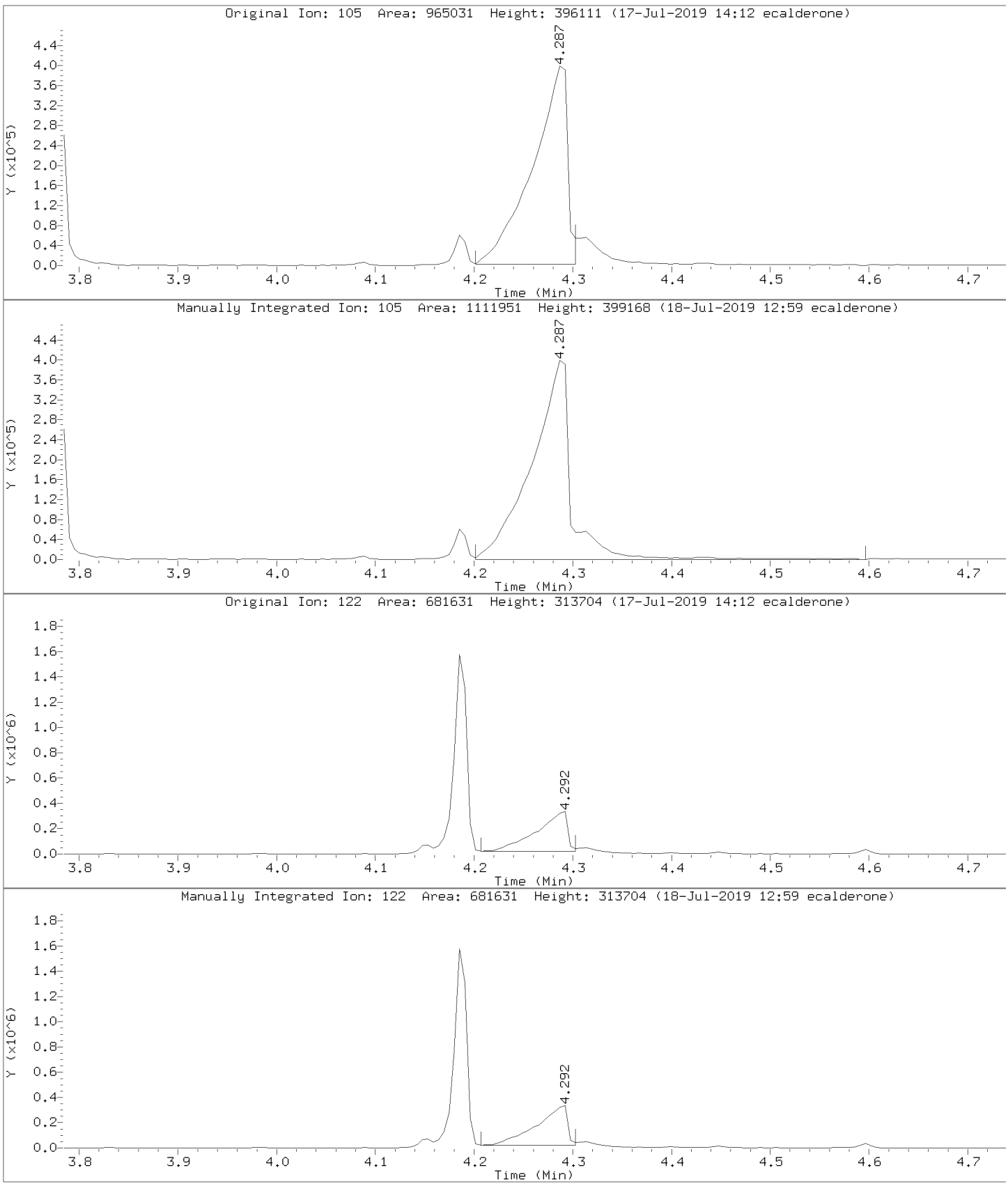
Lab Sample ID: CCV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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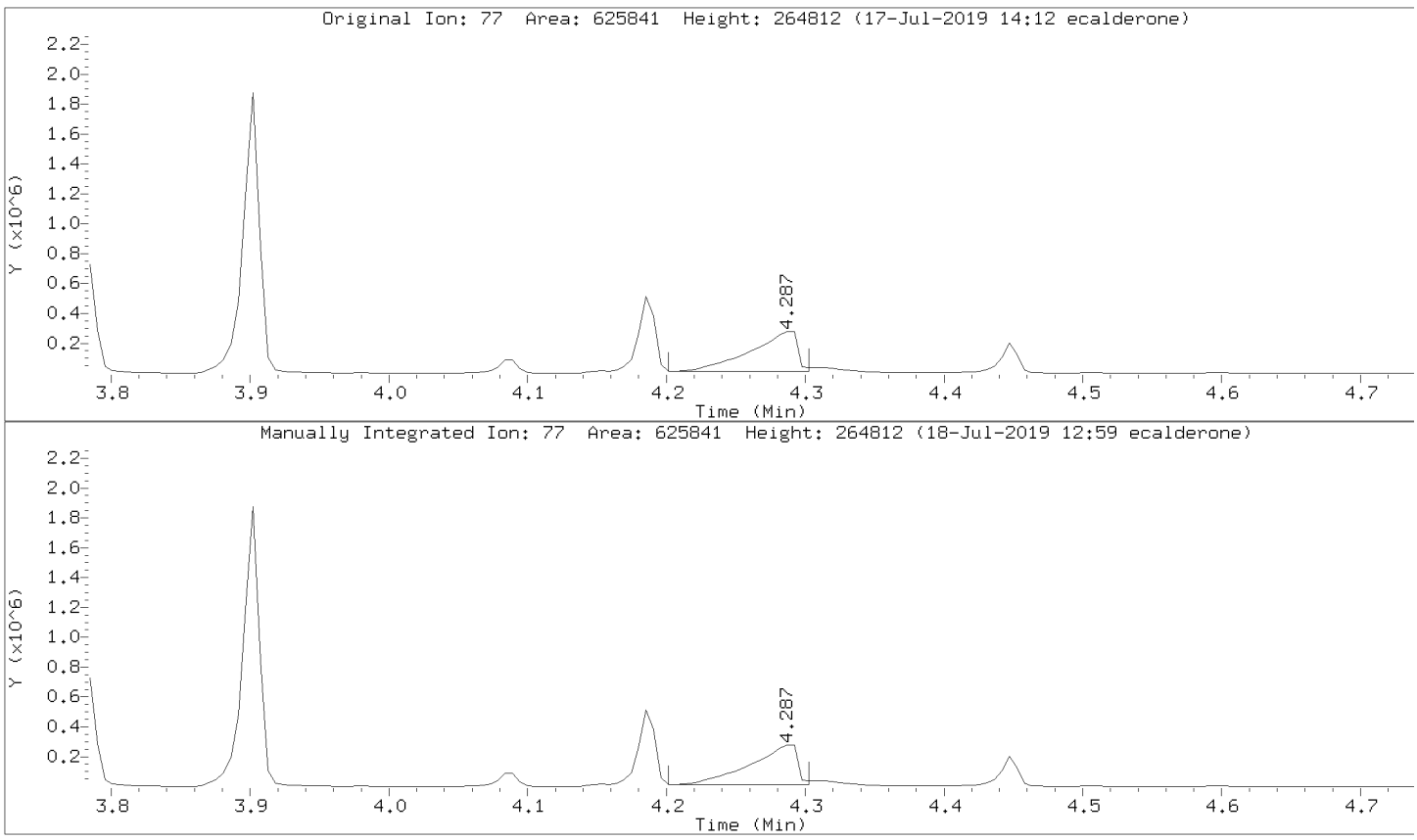

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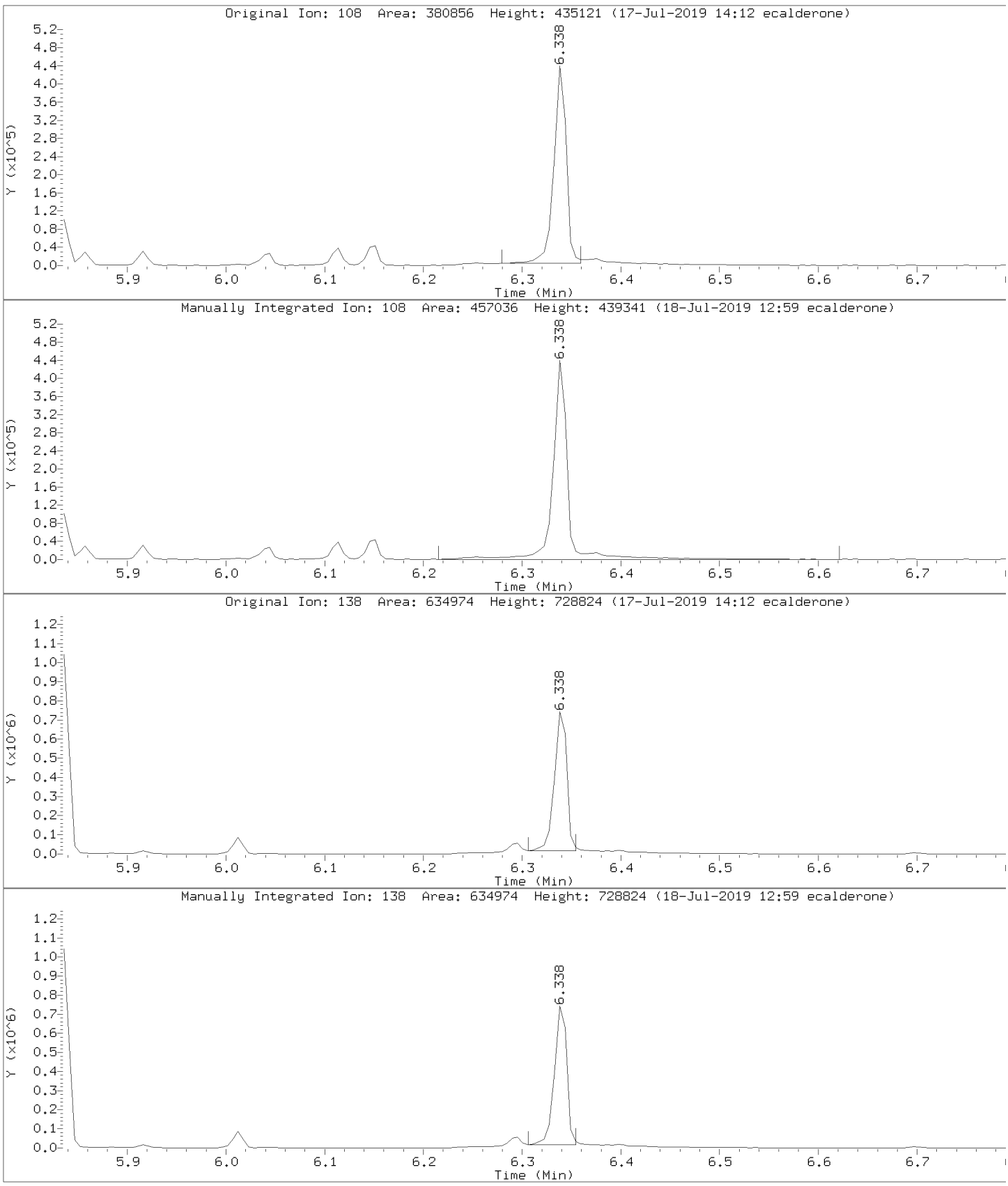
Lab Sample ID: CCV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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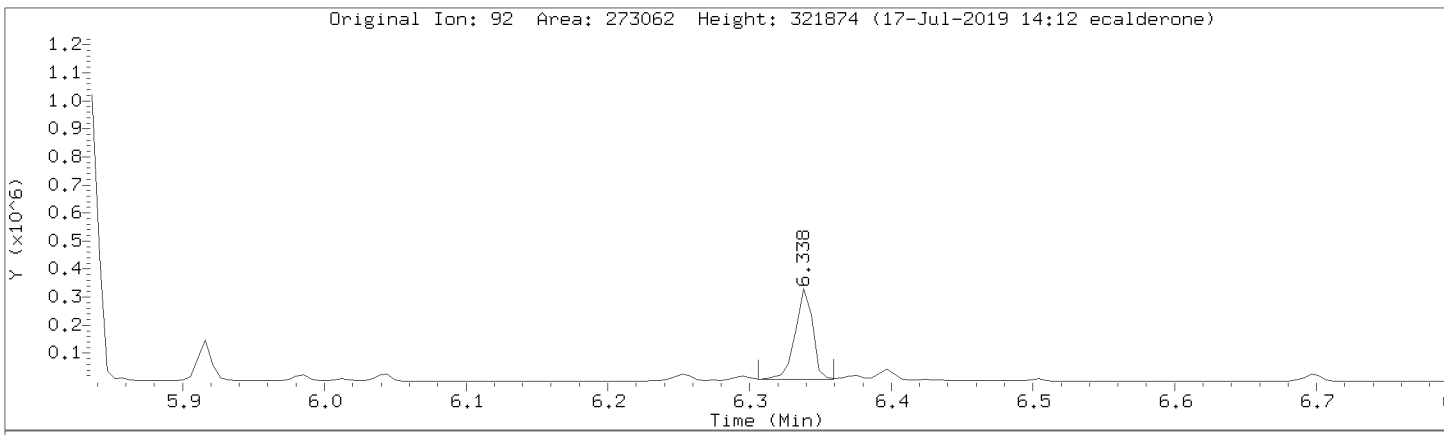
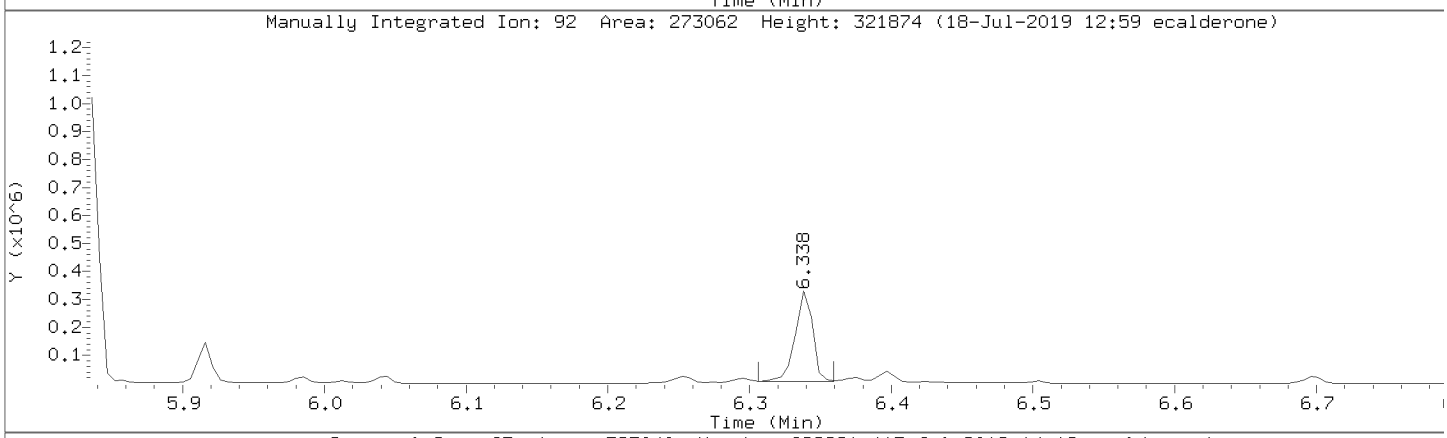
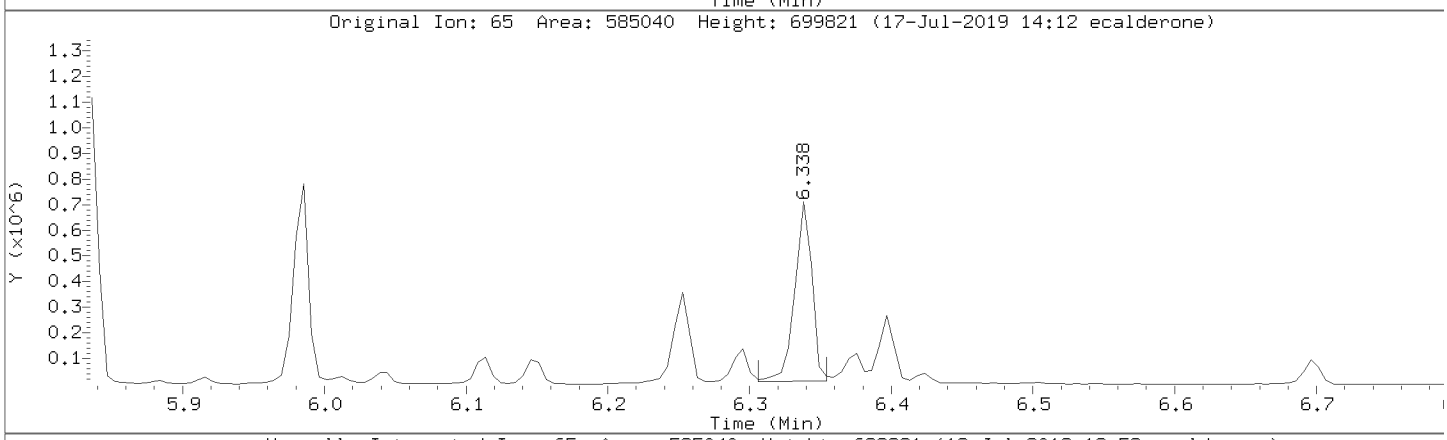
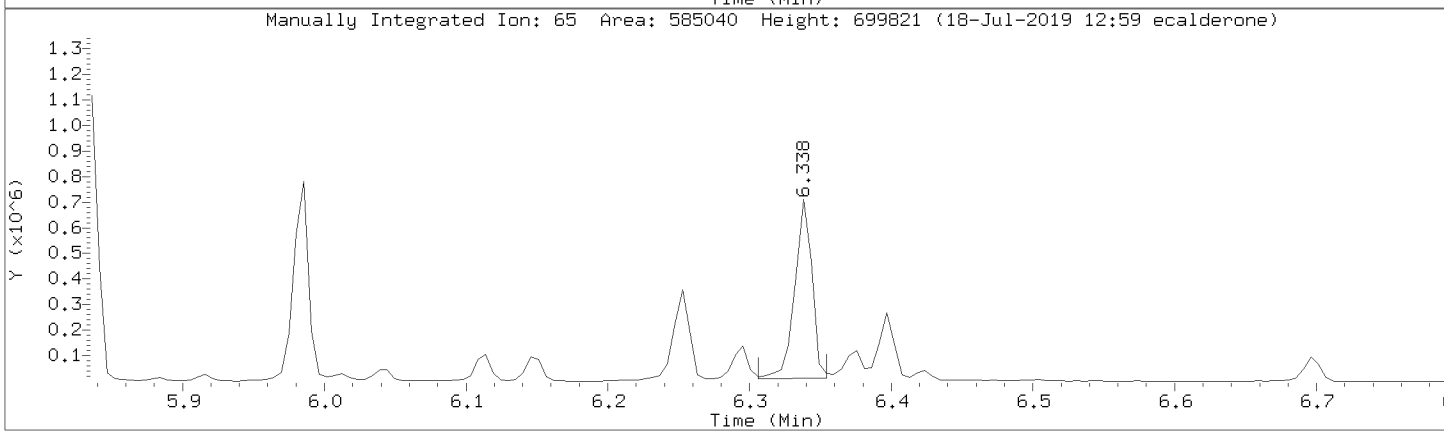
Lab Sample ID: CCV









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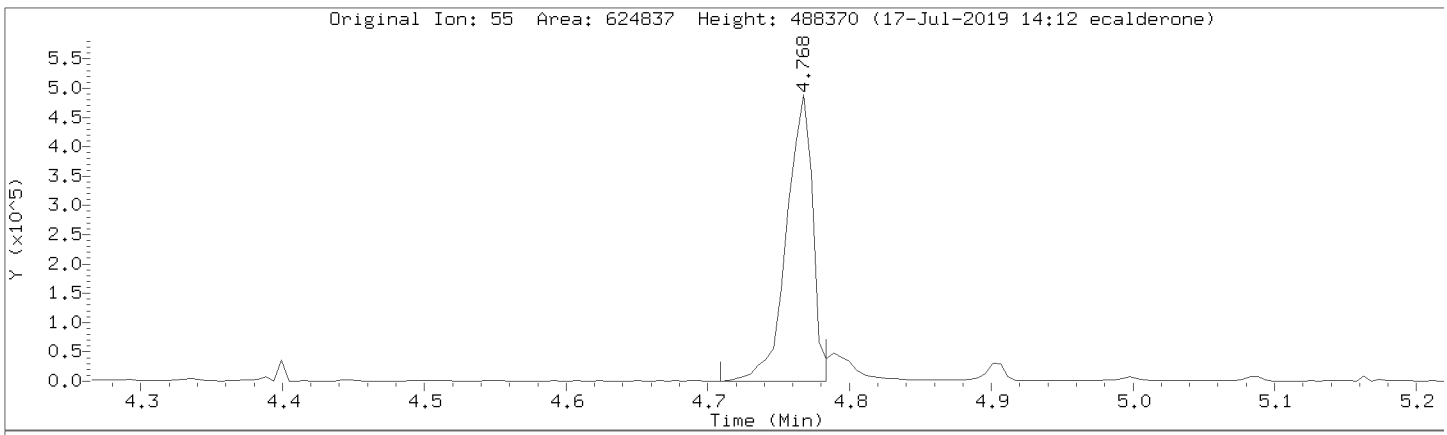
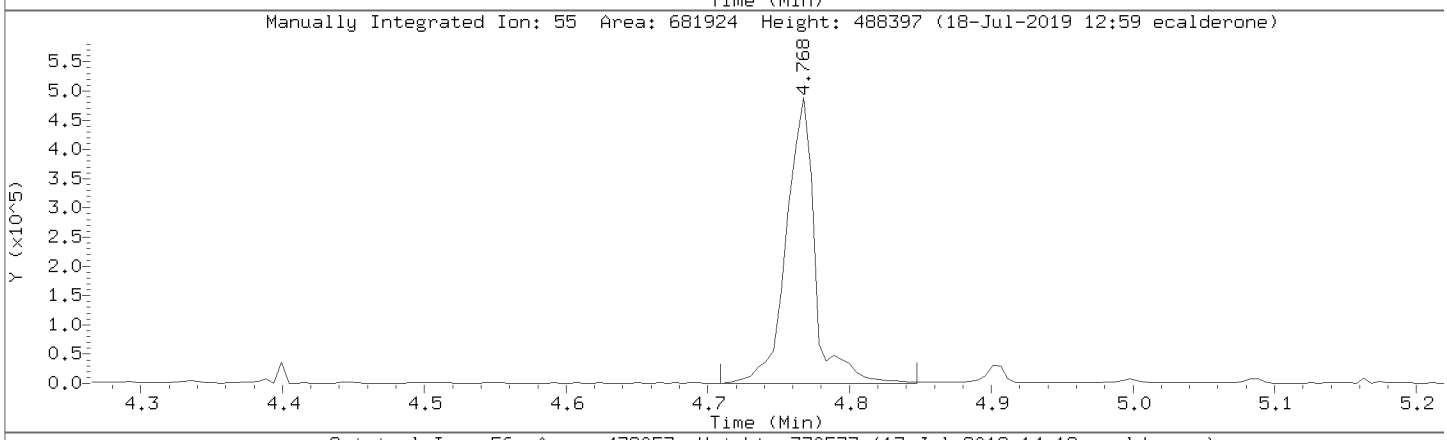
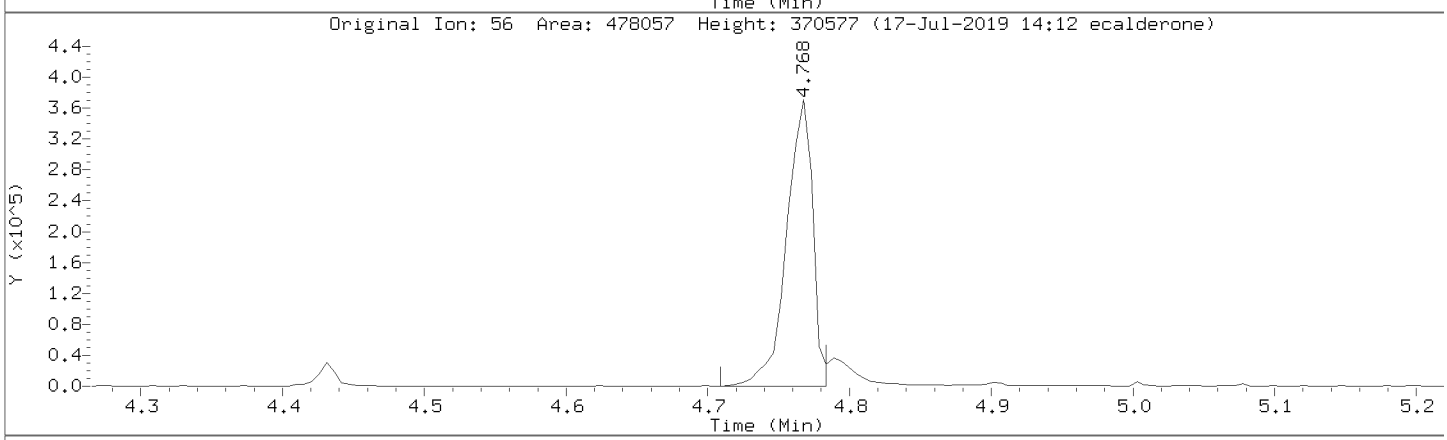
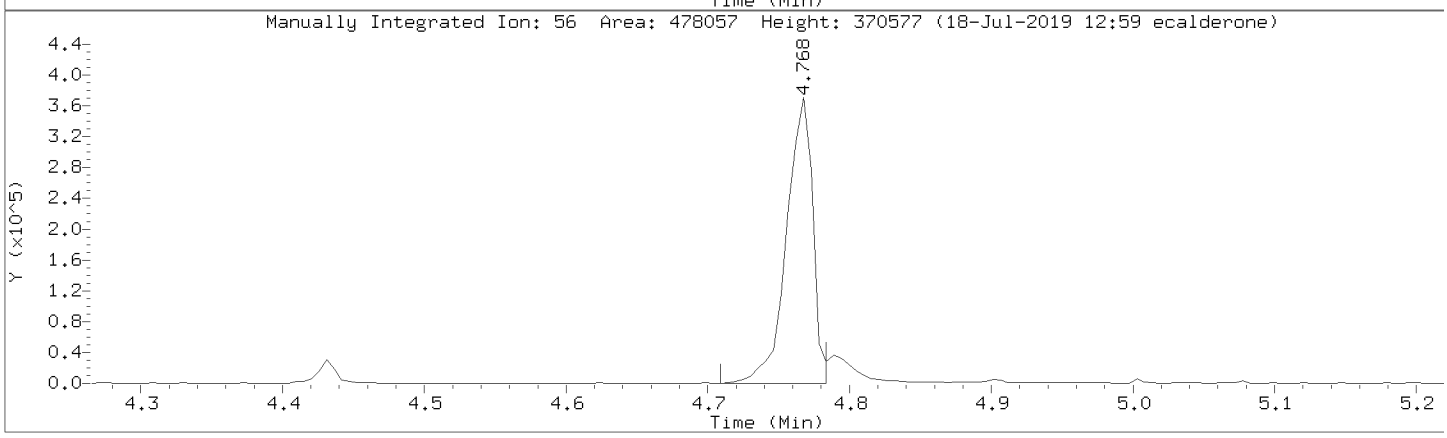
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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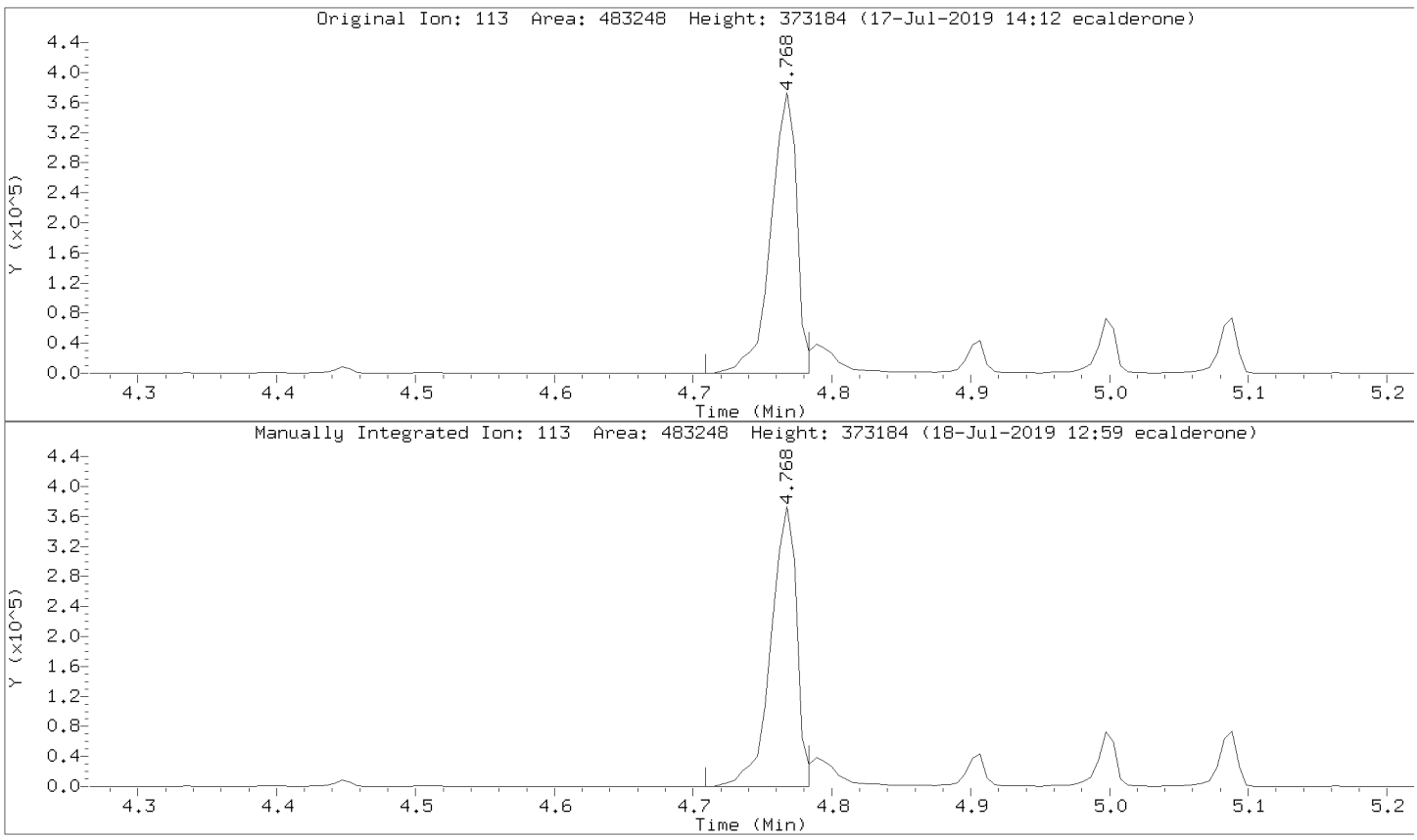

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y8.d
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Inj Date : 18-JUL-2019 18:51
Operator : EAC Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14848,94044:1
Comment :
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Meth Date : 19-Jul-2019 09:15 ecalderone Quant Type: ISTD
Cal Date : 18-JUL-2019 18:28 Cal File: m10718y7.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.298	1.286	(0.389)	928057	8.00000	8.40	
	2 Pyridine	79	1.276	1.275	(0.382)	1540478	8.00000	8.71	
$	3 2-Fluorophenol (S)	112	2.457	2.456	(0.736)	1485810	8.00000	8.52	
$	4 Phenol-d6 (S)	99	3.125	3.118	(0.936)	1768269	8.00000	8.09	
	5 Benzaldehyde	77	3.028	3.028	(0.907)	416906	8.00000	2.70	
	6 Phenol	94	3.130	3.129	(0.938)	2019967	8.00000	7.99	
	7 Aniline	66	3.135	3.129	(0.939)	1539319	8.00000	7.91	
	8 bis(2-Chloroethyl)ether	63	3.178	3.177	(0.952)	1118416	8.00000	8.11	
	9 2-Chlorophenol	128	3.210	3.209	(0.962)	1563821	8.00000	7.95	
	10 1,3-Dichlorobenzene	146	3.312	3.311	(0.992)	1602689	8.00000	7.55	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.338	3.343	(1.000)	563838	4.00000		
	12 1,4-Dichlorobenzene	146	3.354	3.354	(1.005)	1663471	8.00000	7.18	
	13 Benzyl Alcohol	79	3.472	3.466	(1.040)	1271655	8.00000	8.07	
	14 1,2-Dichlorobenzene	146	3.493	3.492	(1.046)	1621874	8.00000	7.81	
	15 2-Methylphenol(o-Cresol)	108	3.573	3.567	(1.070)	1462694	8.00000	7.99	
	16 bis(2-Chloroisopropyl)ether	45	3.589	3.589	(1.075)	2347629	8.00000	7.73	
	17 3&4-Methylphenol(m&p Cresol)	108	3.691	3.679	(1.106)	3042786	16.0000	16.1	
	18 N-Nitroso-di-n-propylamine	70	3.707	3.695	(1.110)	1120393	8.00000	8.00	
	19 Acetophenone	105	3.675	3.669	(1.101)	2083062	8.00000	8.27	
	20 Hexachloroethane	117	3.728	3.728	(1.117)	617224	8.00000	7.62	
$	21 Nitrobenzene-d5 (S)	128	3.787	3.781	(0.875)	760319	8.00000	8.19	
	22 Nitrobenzene	77	3.798	3.797	(0.878)	1537197	8.00000	8.12	
	23 Isophorone	82	3.985	3.979	(0.921)	2927771	8.00000	8.25	
	24 2,4-Dimethylphenol	107	4.092	4.085	(0.946)	1533678	8.00000	8.22	
	25 2-Nitrophenol	139	4.049	4.043	(0.936)	867964	8.00000	8.29	
	26 Benzoic acid	105	4.193	4.155	(0.969)	1179080	8.00000	9.33(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.161	4.160	(0.962)	1755779	8.00000	8.12	
	28 2,4-Dichlorophenol	162	4.230	4.230	(0.978)	1277855	8.00000	8.18	
	29 1,2,4-Trichlorobenzene	180	4.300	4.294	(0.994)	1342377	8.00000	7.95	
*	30 Naphthalene-d8 (IS)	136	4.327	4.326	(1.000)	2251636	4.00000		
	31 Naphthalene	128	4.343	4.342	(1.004)	4273785	8.00000	8.16	
	32 4-Chloroaniline	65	4.407	4.401	(1.019)	476060	8.00000	7.83	
	33 Hexachloro-1,3-butadiene	225	4.492	4.491	(1.038)	704365	8.00000	7.87	
	34 Caprolactam	55	4.669	4.641	(1.079)	631947	8.00000	7.98	

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	4.802	4.796	(1.110)	1305362	8.00000	8.25	
	36 2-Methylnaphthalene	142	4.893	4.892	(1.131)	3136957	8.00000	8.25	
	37 1-Methylnaphthalene	142	4.978	4.978	(1.151)	2909411	8.00000	8.17	
	38 Hexachlorocyclopentadiene	237	5.080	5.079	(0.884)	934469	8.00000	8.54	
	39 1,2,4,5-Tetrachlorobenzene	216	5.064	5.058	(0.881)	1243025	8.00000	8.00	
	40 2,4,6-Trichlorophenol	196	5.149	5.143	(0.896)	992343	8.00000	8.32	
	41 2,4,5-Trichlorophenol	196	5.181	5.175	(0.901)	872433	8.00000	8.19	
$	42 2-Fluorobiphenyl (S)	172	5.208	5.207	(0.906)	3077979	8.00000	8.07	
	43 Biphenyl (Diphenyl)	154	5.278	5.277	(0.918)	3486584	8.00000	8.00	
	44 2-Chloronaphthalene	164	5.283	5.277	(0.919)	915672	8.00000	7.95	
	45 2-Nitroaniline	138	5.395	5.389	(0.939)	1012789	8.00000	8.14	
	46 Dimethylphthalate	163	5.577	5.571	(0.970)	2978438	8.00000	8.11	
	47 2,6-Dinitrotoluene	165	5.625	5.619	(0.979)	722959	8.00000	7.94	
	48 Acenaphthylene	152	5.625	5.619	(0.979)	4321434	8.00000	8.11	
	49 3-Nitroaniline	65	5.732	5.720	(0.997)	840799	8.00000	7.68	
*	50 Acenaphthene-d10 (IS)	164	5.748	5.747	(1.000)	1227757	4.00000		
	51 2,4-Dinitrophenol	184	5.812	5.806	(1.011)	463791	8.00000	8.97	
	52 Acenaphthene	153	5.774	5.768	(1.005)	2761879	8.00000	8.02	
	53 4-Nitrophenol	109	5.881	5.870	(1.023)	406220	8.00000	8.38	
	54 2,4-Dinitrotoluene	165	5.935	5.928	(1.033)	968744	8.00000	8.17	
	55 Dibenzofuran	168	5.903	5.902	(1.027)	3715877	8.00000	8.04	
	56 2,3,4,6-Tetrachlorophenol	232	6.041	6.041	(1.051)	764345	8.00000	8.58	
	57 Diethylphthalate	149	6.148	6.142	(1.070)	2952632	8.00000	8.03	
	58 4-Chlorophenylphenyl ether	204	6.186	6.185	(1.076)	1476159	8.00000	7.90	
	59 Fluorene	166	6.180	6.180	(1.075)	3097398	8.00000	8.04	
	60 4-Nitroaniline	108	6.234	6.222	(1.085)	430534	8.00000	7.20(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.266	6.260	(0.895)	603611	8.00000	8.68	
	62 N-Nitrosodiphenylamine	169	6.293	6.286	(0.899)	2625489	8.00000	7.77	
	63 Azobenzene	77	6.314	6.313	(0.902)	2822597	8.00000	7.91	
	64 1,2-Diphenylhydrazine	77	6.314	6.313	(0.902)	2822597	8.00000	7.91	
$	65 2,4,6-Tribromophenol (S)	330	6.394	6.393	(0.913)	468438	8.00000	7.90	
	66 4-Bromophenylphenyl ether	248	6.581	6.580	(0.940)	896426	8.00000	7.94	
	67 Hexachlorobenzene	284	6.709	6.708	(0.958)	891757	8.00000	7.90	
	68 Atrazine	200	6.784	6.773	(0.969)	837808	8.00000	7.69	
	69 Pentachlorophenol	266	6.880	6.874	(0.982)	582511	8.00000	8.98	
*	70 Phenanthrene-d10 (IS)	188	7.003	6.997	(1.000)	2048507	4.00000		
	71 Phenanthrene	178	7.030	7.024	(1.004)	4638185	8.00000	7.93	
	72 Anthracene	178	7.078	7.072	(1.011)	4355043	8.00000	7.95	
	73 Carbazole	167	7.265	7.253	(1.037)	3516033	8.00000	6.98	
	74 Di-n-butylphthalate	149	7.740	7.734	(1.105)	4950215	8.00000	8.20	
	75 Fluoranthene	202	8.312	8.300	(1.187)	4335840	8.00000	7.71	
	76 Pyrene	202	8.542	8.530	(0.871)	4503173	8.00000	7.84	
$	77 Terphenyl-d14 (S)	244	8.745	8.738	(0.892)	3304548	8.00000	7.54	
	78 Butylbenzylphthalate	149	9.311	9.305	(0.950)	2157562	8.00000	8.30	
	79 3,3'-Dichlorobenzidine	252	9.797	9.785	(0.999)	1410821	8.00000	6.93	
	80 bis(2-Ethylhexyl)phthalate	149	9.936	9.935	(1.014)	2984483	8.00000	8.23	
	81 Benzo(a)anthracene	228	9.786	9.780	(0.998)	4174035	8.00000	7.82	
*	82 Chrysene-d12 (IS)	240	9.802	9.796	(1.000)	1886620	4.00000		
	83 Chrysene	228	9.829	9.818	(1.003)	3919187	8.00000	7.68	
	84 Di-n-octylphthalate	149	10.523	10.517	(0.945)	4720630	8.00000	8.12	
	85 Benzo(b)fluoranthene	252	10.812	10.806	(0.971)	4507260	8.00000	8.30	
	86 Benzo(k)fluoranthene	252	10.833	10.822	(0.973)	4175947	8.00000	7.24	
	87 Benzo(a)pyrene	252	11.090	11.078	(0.996)	3703054	8.00000	7.35	
*	88 Perylene-d12 (IS)	264	11.132	11.132	(1.000)	1907156	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	11.971	11.960	(1.075)	4631159	8.00000	7.84	
90 Dibenz(a,h)anthracene	278	11.982	11.970	(1.076)	4010438	8.00000	8.08	
91 Benzo(g,h,i)perylene	276	12.153	12.141	(1.092)	3880237	8.00000	7.92	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

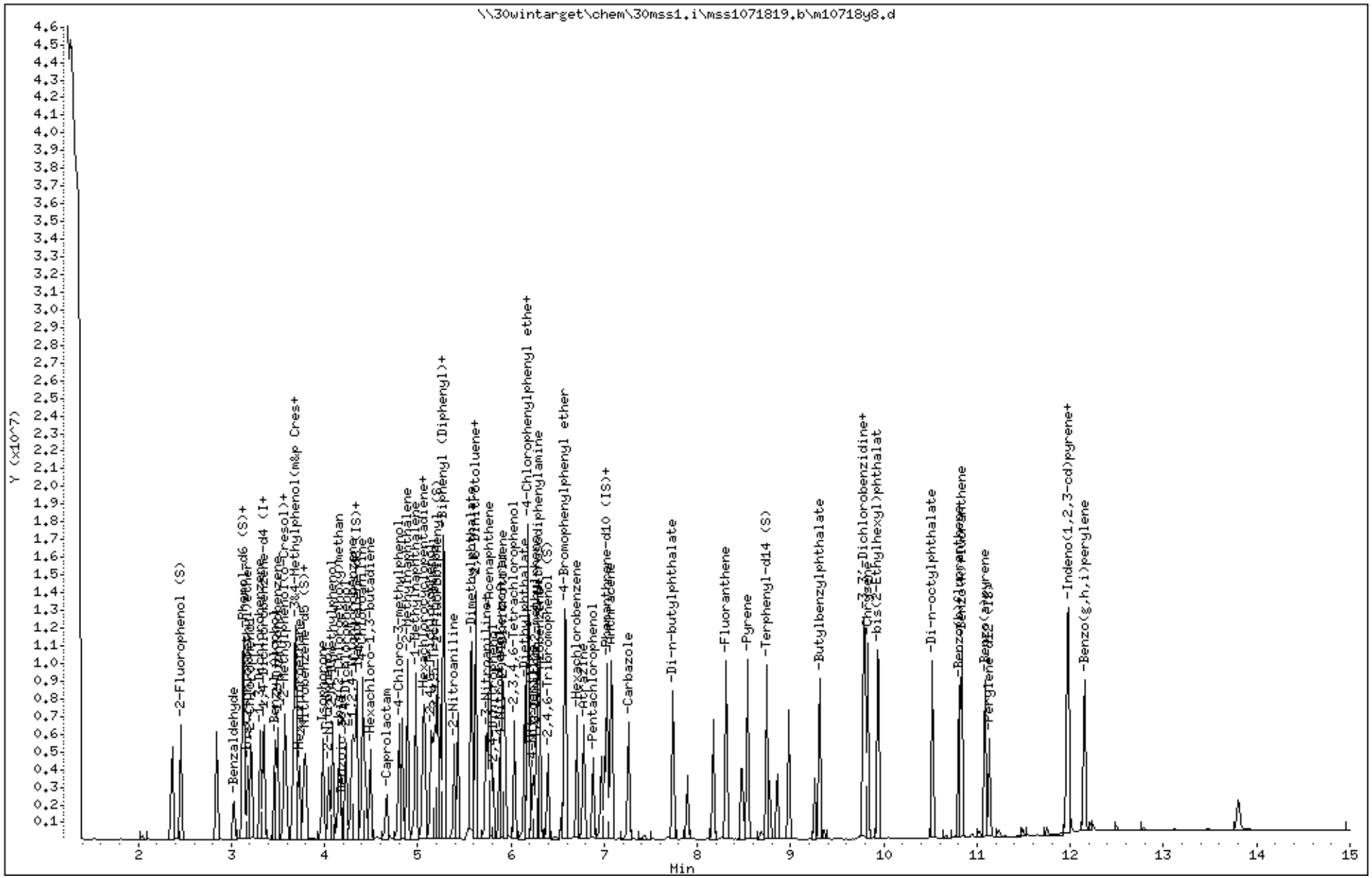
:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718y8.d
Date : 18-JUL-2019 18:51
Client ID: ICV
Sample Info: ICV

Instrument: 30mss1.i

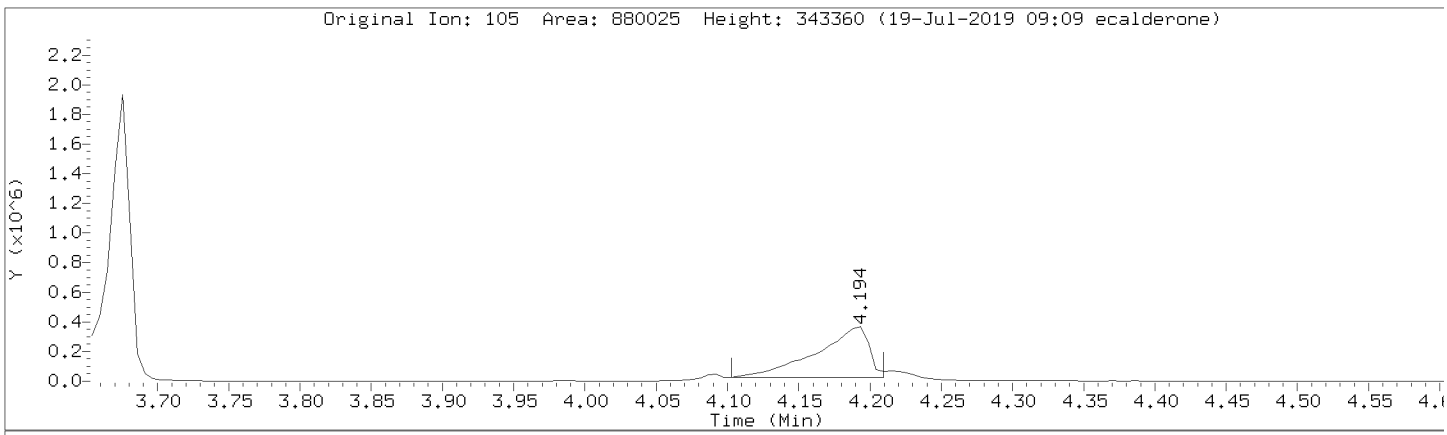
Operator: EAC

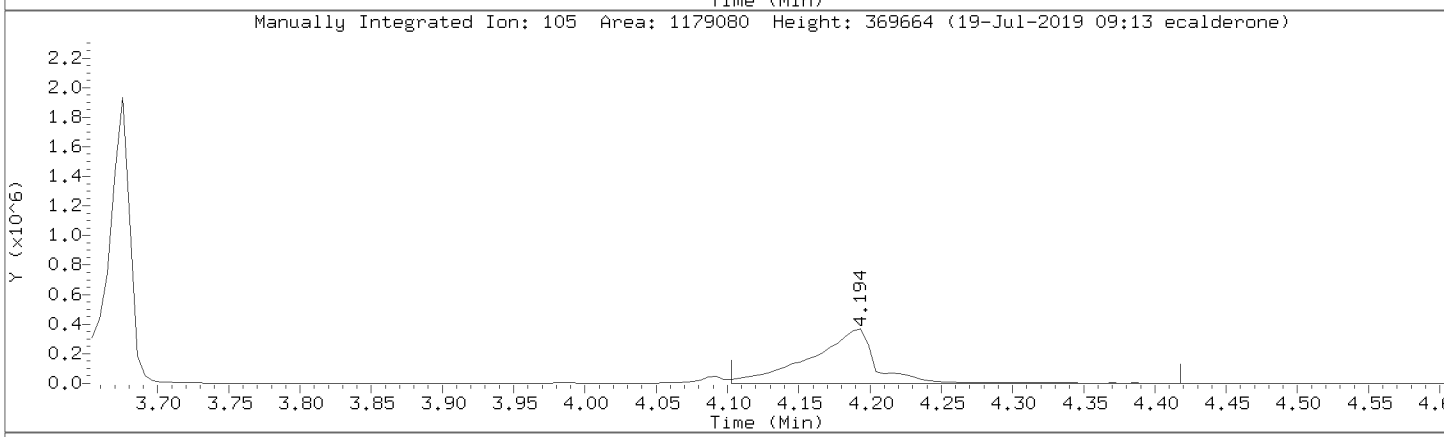
Column phase: RTX-5MS
Column diameter: 0.18

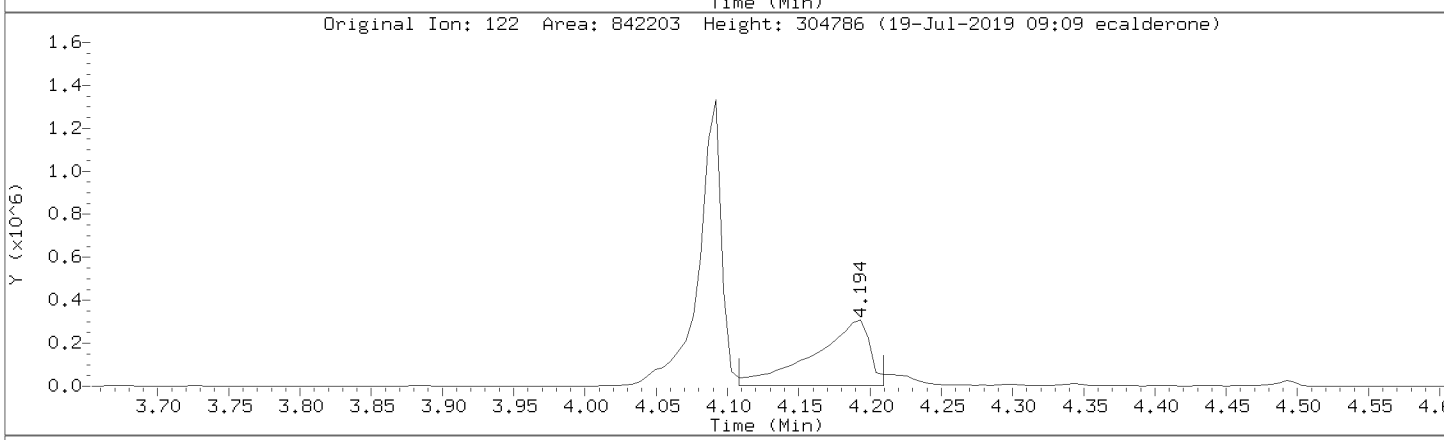


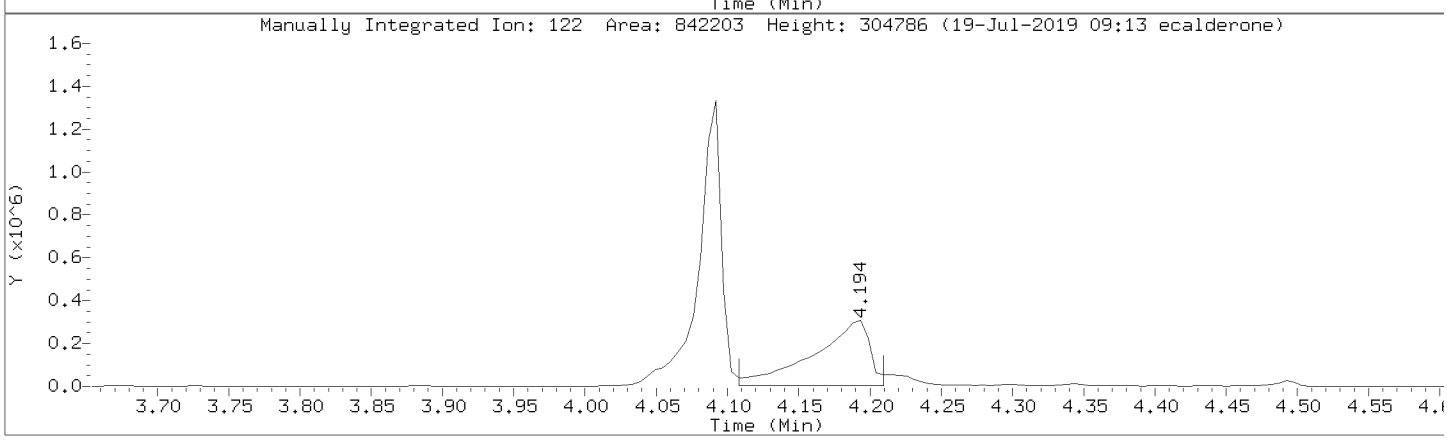
Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m10718y8.d
Injection Date: 18-JUL-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0

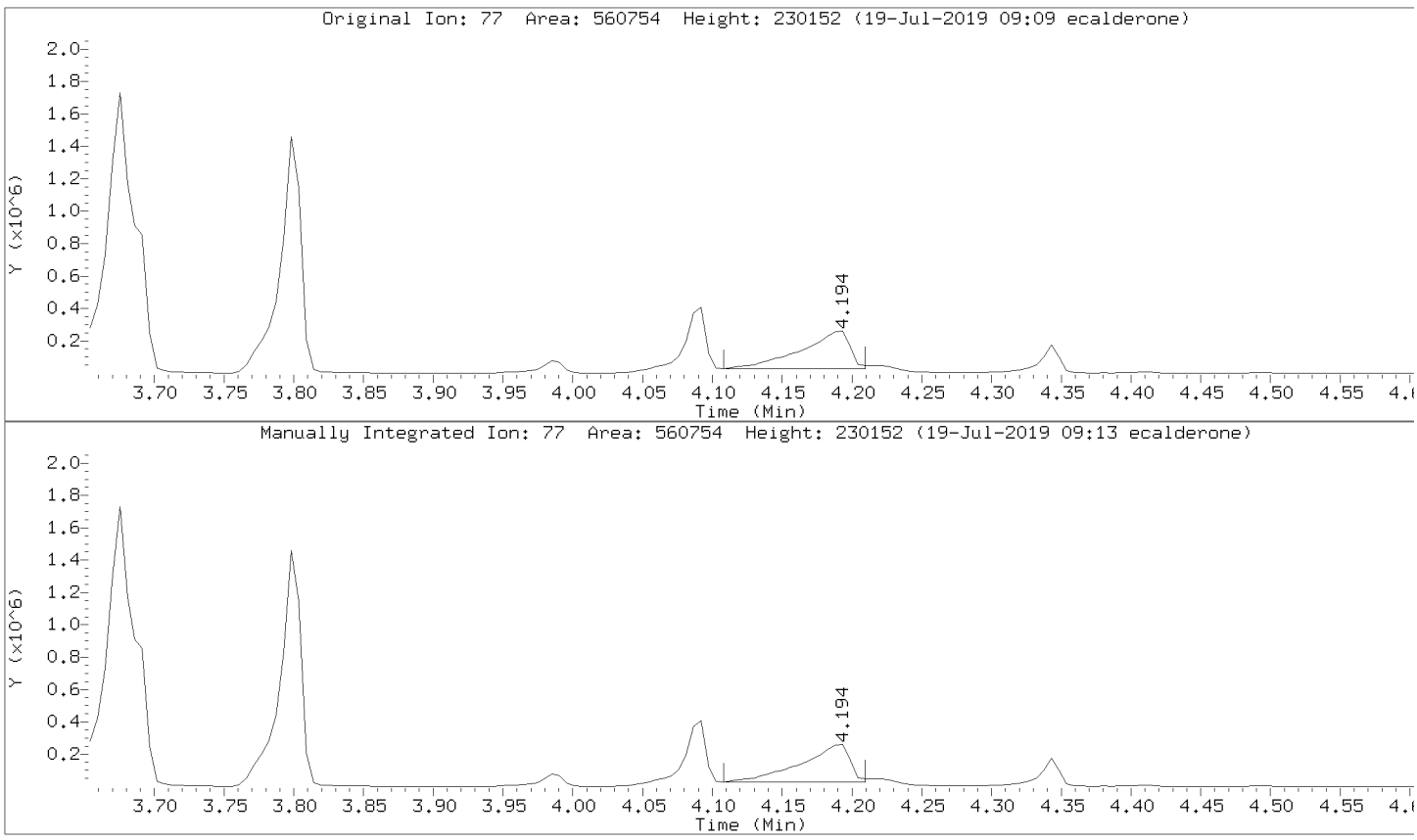






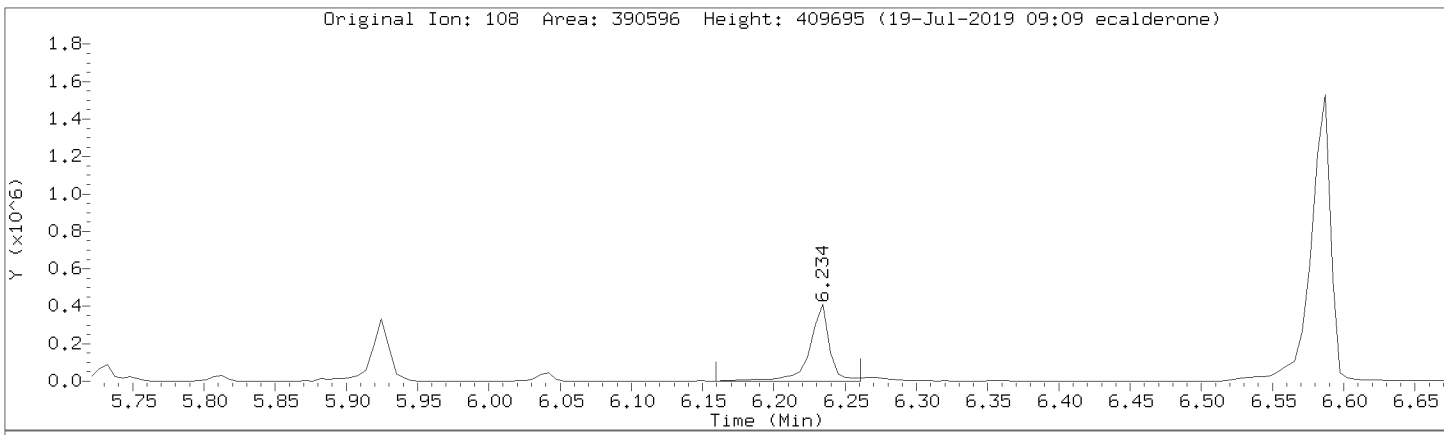


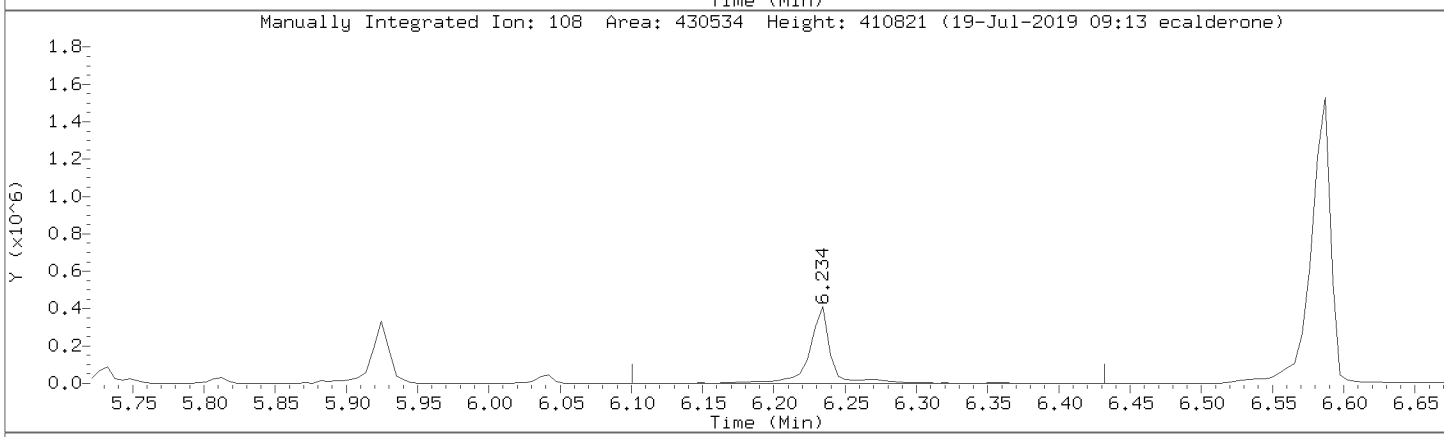
Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m10718y8.d
Injection Date: 18-JUL-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: ICV

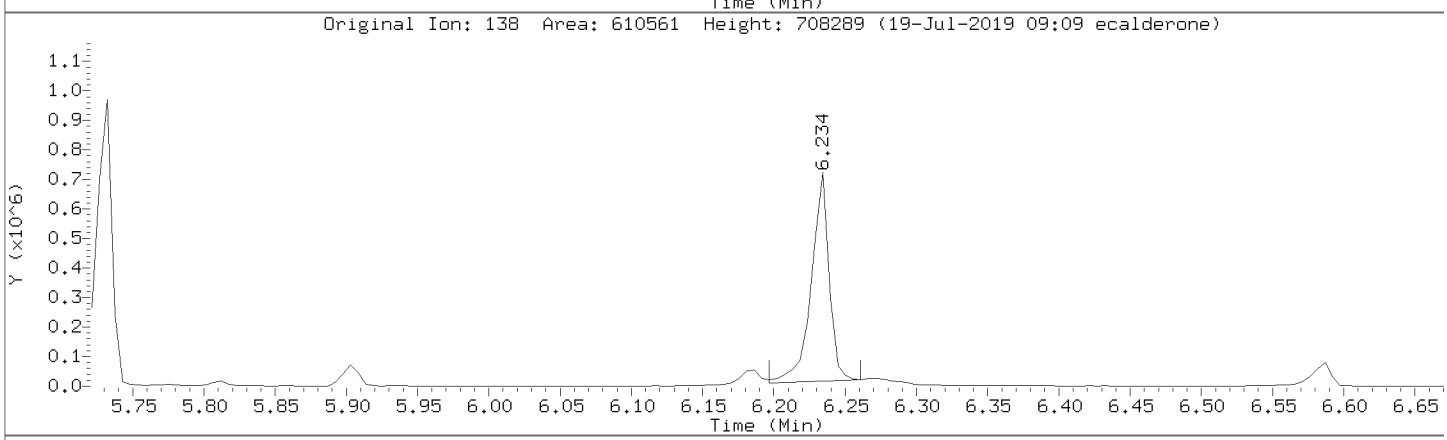


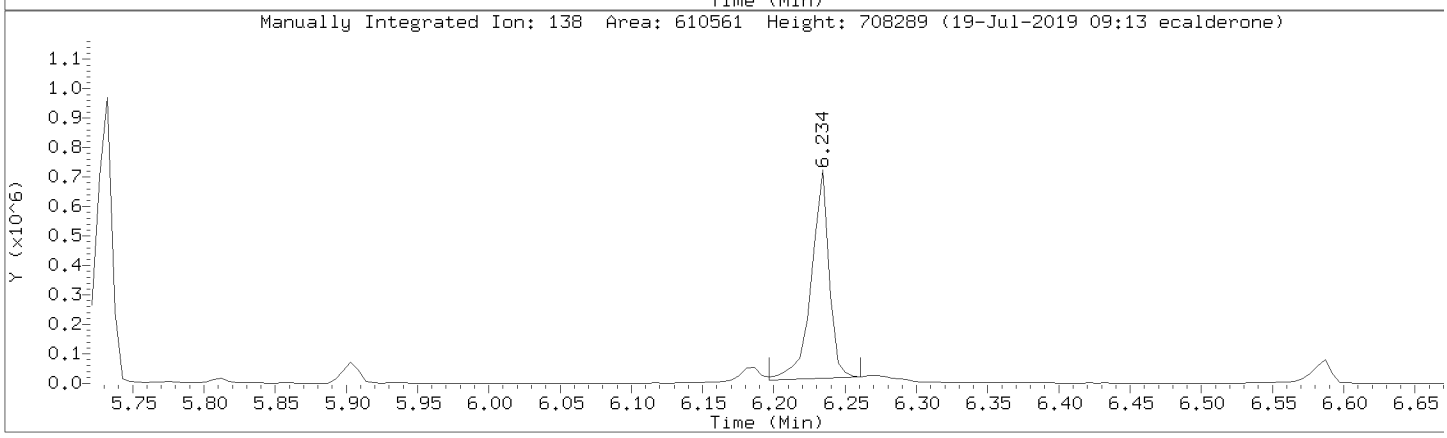
Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m10718y8.d
Injection Date: 18-JUL-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6

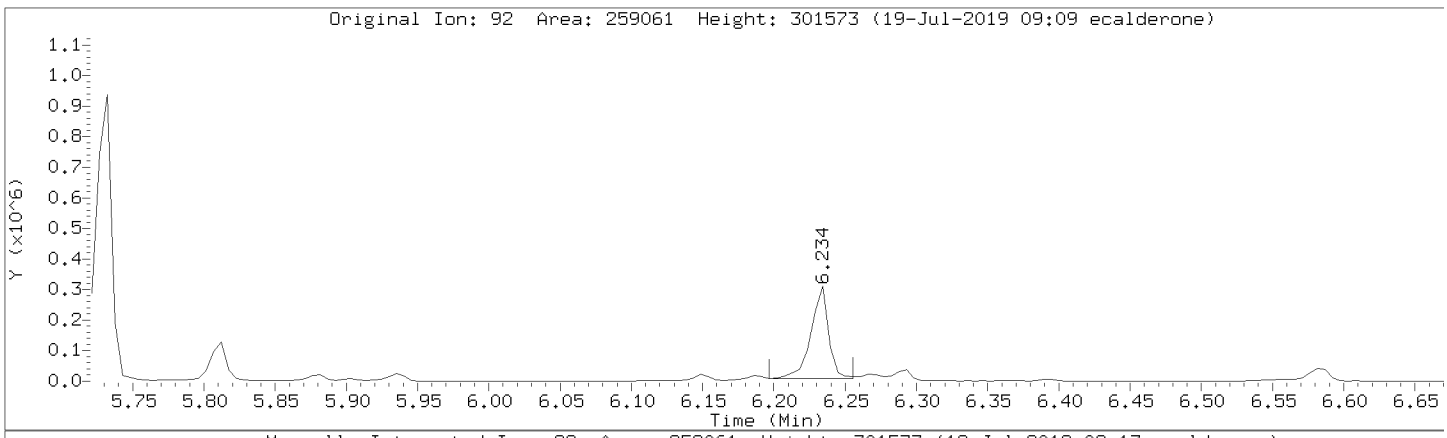


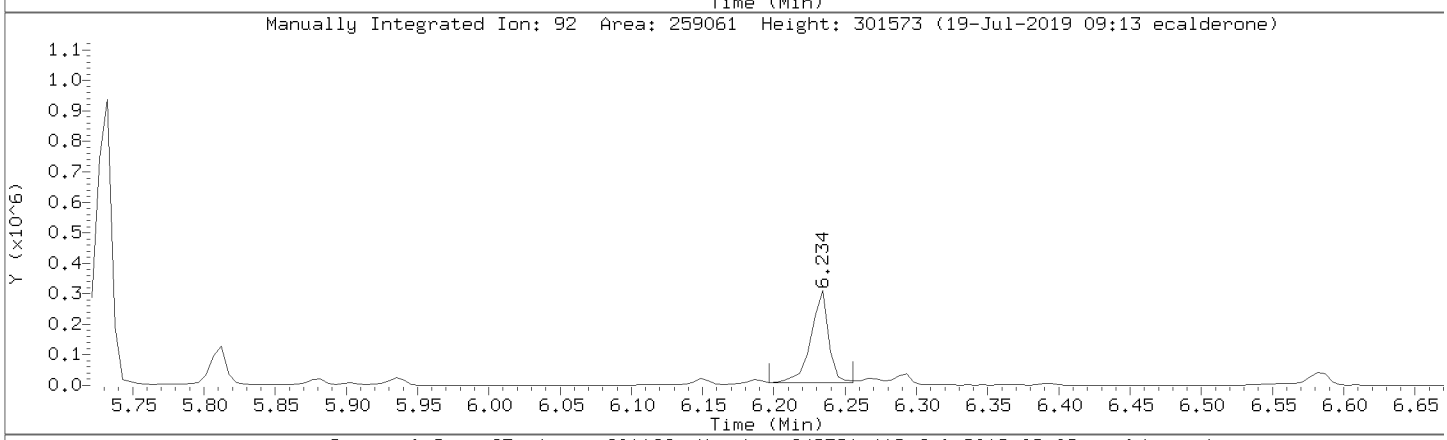


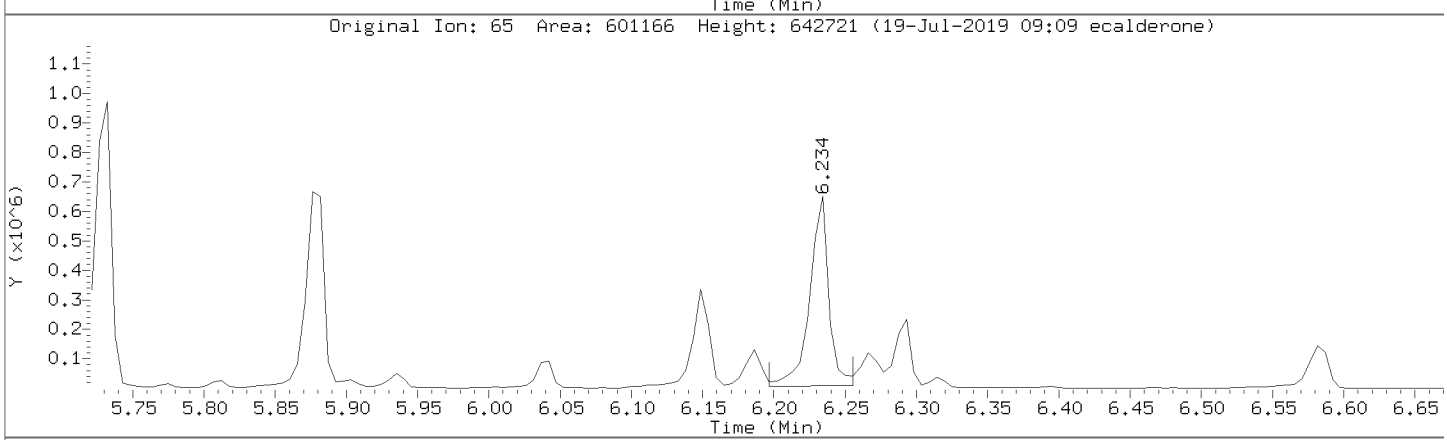


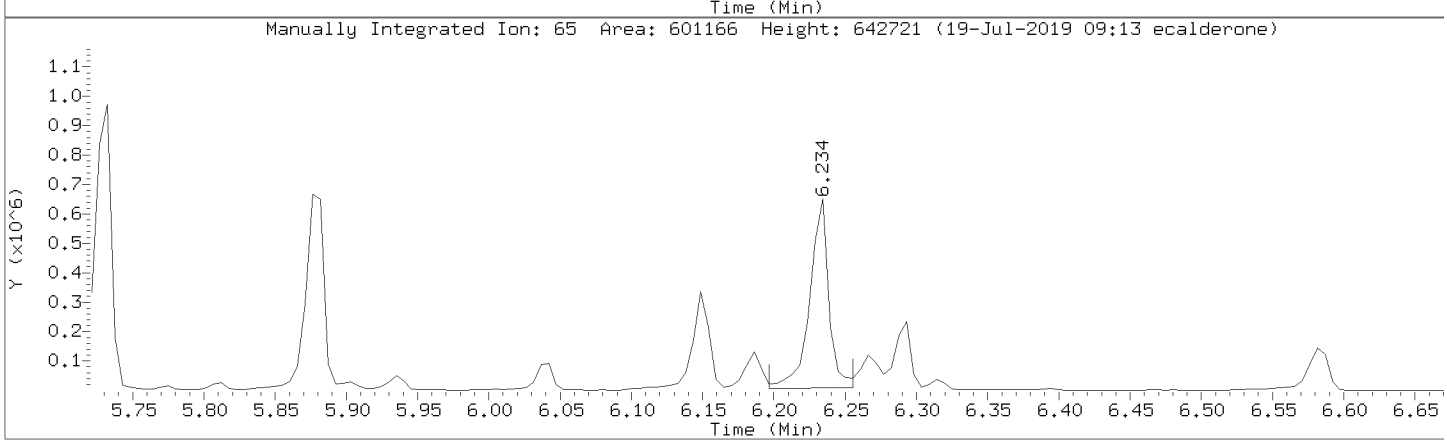


Data File: \\30wintarget\chem\30mss1.i\mss1071819.b/m10718y8.d
Injection Date: 18-JUL-2019 18:51
Instrument: 30mss1.i
Lab Sample ID: ICV









Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715t4.d

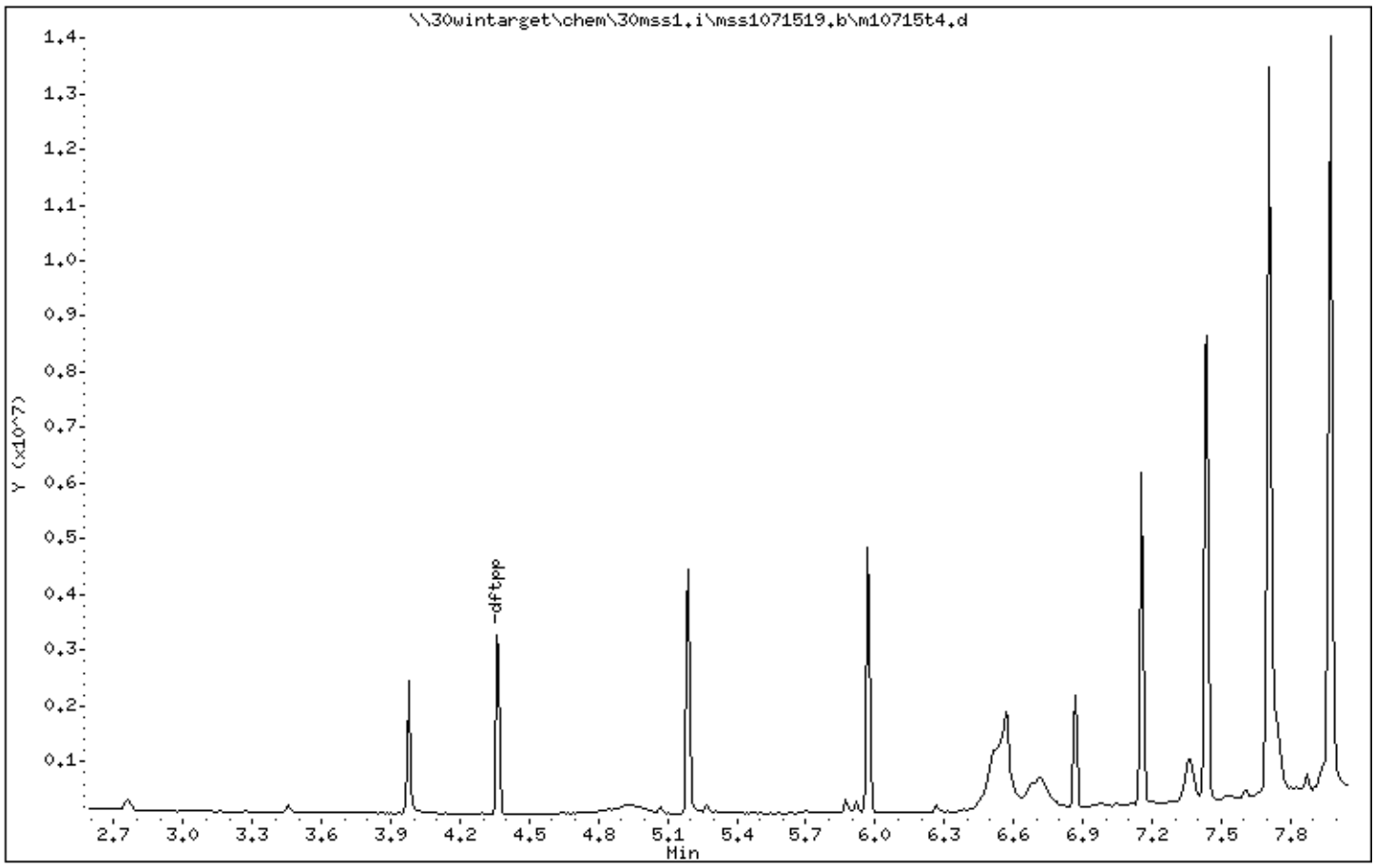
Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071519.b\m10715t4.d

Date : 15-JUL-2019 09:06

Client ID: DFTPP

Instrument: 30mss1.i

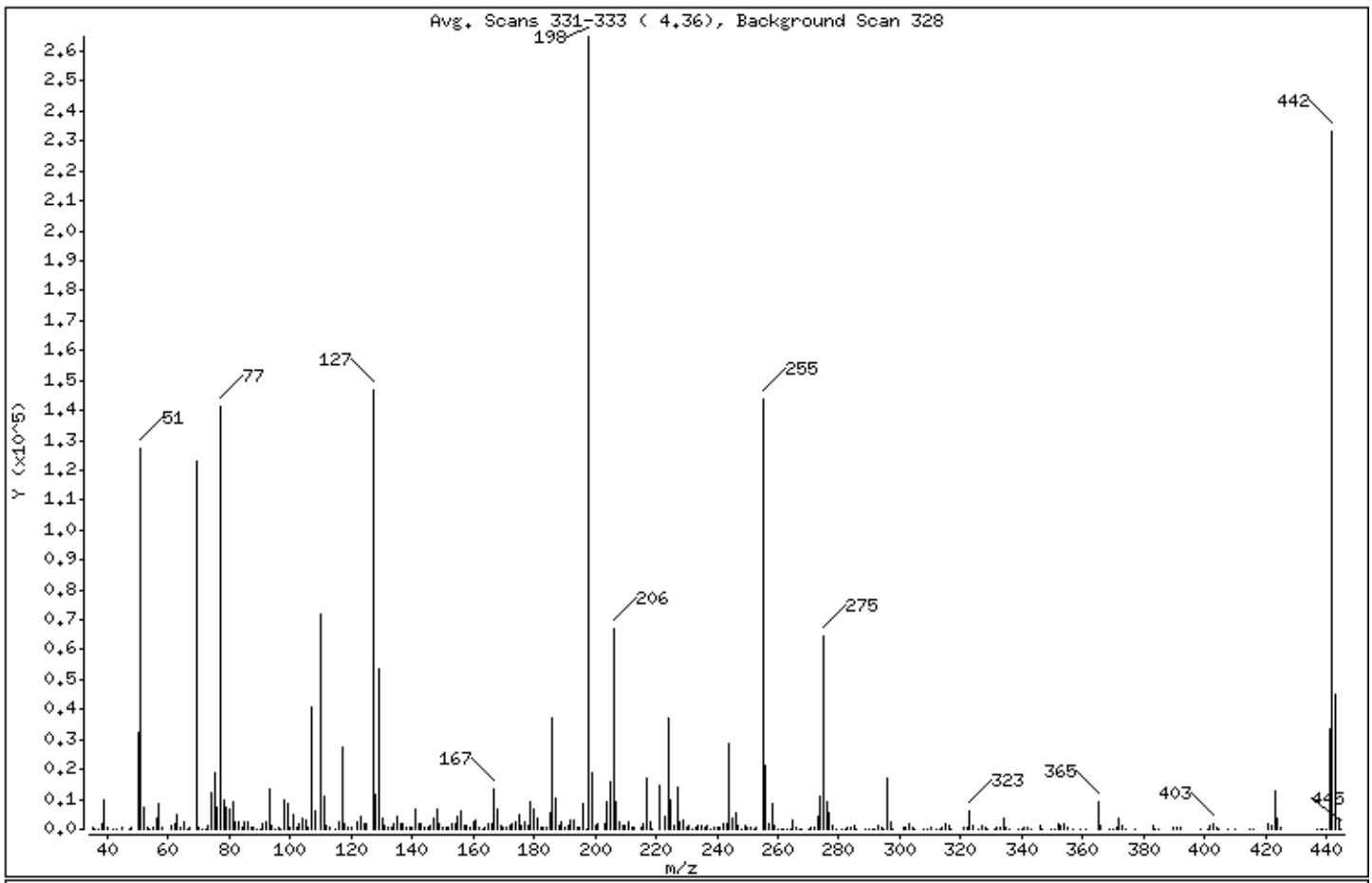
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	48.01
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.49
70	Less than 2.00% of mass 69	0.17 (0.37)
127	40.00 - 60.00% of mass 198	55.40
197	Less than 1.00% of mass 198	0.10
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 30.00% of mass 198	24.35
365	Greater than 1.00% of mass 198	3.46
441	Present, but less than mass 443	12.64
442	Greater than 40.00% of mass 198	88.06
443	17.00 - 23.00% of mass 442	16.99 (19.30)

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	709	128.00	11537	211.00	2328	303.00	2071
36.00	198	129.00	53416	212.00	685	304.00	617
37.00	186	130.00	3851	213.00	339	305.00	64
38.00	1535	131.00	1019	215.00	841	308.00	289
39.00	9640	132.00	419	216.00	1588	309.00	249
40.00	843	133.00	385	217.00	16768	310.00	447
42.00	62	134.00	1543	218.00	2203	312.00	51
43.00	22	135.00	4415	219.00	243	313.00	249
45.00	319	136.00	1965	221.00	14711	314.00	871
47.00	67	137.00	2119	223.00	4156	315.00	1816
48.00	404	138.00	390	224.00	36864	316.00	1231
50.00	32472	139.00	426	225.00	9533	317.00	247
51.00	127184	140.00	711	226.00	1015	321.00	633
52.00	7033	141.00	6779	227.00	14114	322.00	351
53.00	479	142.00	1984	228.00	2159	323.00	5787
54.00	118	143.00	1539	229.00	3046	324.00	1298
55.00	305	144.00	474	230.00	678	326.00	231
56.00	3769	145.00	411	231.00	1305	327.00	1491
57.00	8616	146.00	1381	232.00	272	328.00	636
58.00	528	147.00	3597	233.00	357	329.00	211
61.00	1522	148.00	6886	234.00	939	331.00	103
62.00	1676	149.00	1913	235.00	1275	332.00	375
63.00	4798	150.00	602	236.00	675	333.00	807
64.00	698	151.00	867	237.00	1368	334.00	3746
65.00	2366	152.00	644	238.00	159	335.00	901
66.00	102	153.00	2027	239.00	716	336.00	187
67.00	348	154.00	1702	240.00	527	339.00	84
69.00	123144	155.00	4284	241.00	822	340.00	123
70.00	452	156.00	5795	242.00	2039	341.00	482
71.00	40	157.00	1395	243.00	1936	342.00	323
72.00	55	158.00	1428	244.00	28560	343.00	133
73.00	1210	159.00	854	245.00	3801	346.00	1360
74.00	11911	160.00	2255	246.00	5587	347.00	159
75.00	18704	161.00	3089	247.00	936	350.00	105
76.00	7560	162.00	828	248.00	73	351.00	75

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	141568	163.00	268	249.00	1080	352.00	1969
78.00	9990	164.00	400	250.00	416	353.00	1485
79.00	7527	165.00	2074	251.00	325	354.00	1898
80.00	6410	166.00	1896	252.00	274	355.00	309
81.00	9129	167.00	13283	253.00	605	357.00	125
82.00	2708	168.00	6719	255.00	144000	359.00	211
83.00	2299	169.00	1216	256.00	21264	361.00	51
84.00	570	170.00	374	257.00	1595	365.00	9159
85.00	2616	171.00	519	258.00	8404	366.00	1062
86.00	2368	172.00	1200	259.00	1400	369.00	51
87.00	785	173.00	1526	260.00	241	370.00	208
88.00	470	174.00	2301	261.00	170	371.00	448
89.00	251	175.00	4905	262.00	69	372.00	3853
90.00	77	176.00	1352	263.00	96	373.00	1041
91.00	1791	177.00	2197	264.00	116	374.00	59
92.00	2385	178.00	938	265.00	2957	377.00	72
93.00	13534	179.00	9427	266.00	598	383.00	959
94.00	1318	180.00	6767	267.00	31	384.00	285
95.00	178	181.00	3551	268.00	51	385.00	50
96.00	697	182.00	559	270.00	253	390.00	433
97.00	84	183.00	353	271.00	349	391.00	308
98.00	9620	184.00	825	272.00	650	392.00	410
99.00	8526	185.00	5343	273.00	4243	399.00	105
100.00	552	186.00	37088	274.00	11042	401.00	265
101.00	5097	187.00	10433	275.00	64512	402.00	1324
102.00	443	188.00	1038	276.00	9118	403.00	1980
103.00	1611	189.00	2166	277.00	5202	404.00	829
104.00	3402	190.00	307	278.00	959	405.00	198
105.00	2989	191.00	937	279.00	152	408.00	50
106.00	815	192.00	2911	281.00	202	410.00	64
107.00	40696	193.00	3154	282.00	39	415.00	108
108.00	6312	194.00	836	283.00	453	416.00	59
110.00	71984	195.00	603	284.00	493	421.00	1645
111.00	11147	196.00	8472	285.00	1014	422.00	1376
112.00	1501	197.00	272	286.00	168	423.00	12568

Date : 15-JUL-2019 09:06

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10715t4.d
Spectrum: Avg. Scans 331-333 (4.36), Background Scan 328
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	643	198.00	264896	289.00	212	424.00	3436
115.00	165	199.00	18904	290.00	168	425.00	552
116.00	2317	200.00	1438	291.00	126	437.00	77
117.00	27376	201.00	2020	292.00	244	438.00	146
118.00	1957	203.00	1822	293.00	1309	439.00	197
119.00	409	204.00	9317	294.00	536	440.00	122
120.00	563	205.00	15730	295.00	263	441.00	33488
122.00	2543	206.00	67200	296.00	17224	442.00	233280
123.00	4204	207.00	8950	297.00	2658	443.00	45016
124.00	1679	208.00	2235	298.00	124	444.00	3667
125.00	1684	209.00	1176	301.00	604	445.00	218
127.00	146752	210.00	1390	302.00	528		

Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m10717t1.d

Page 1

Date : 17-JUL-2019 13:11

Client ID: DFTPP

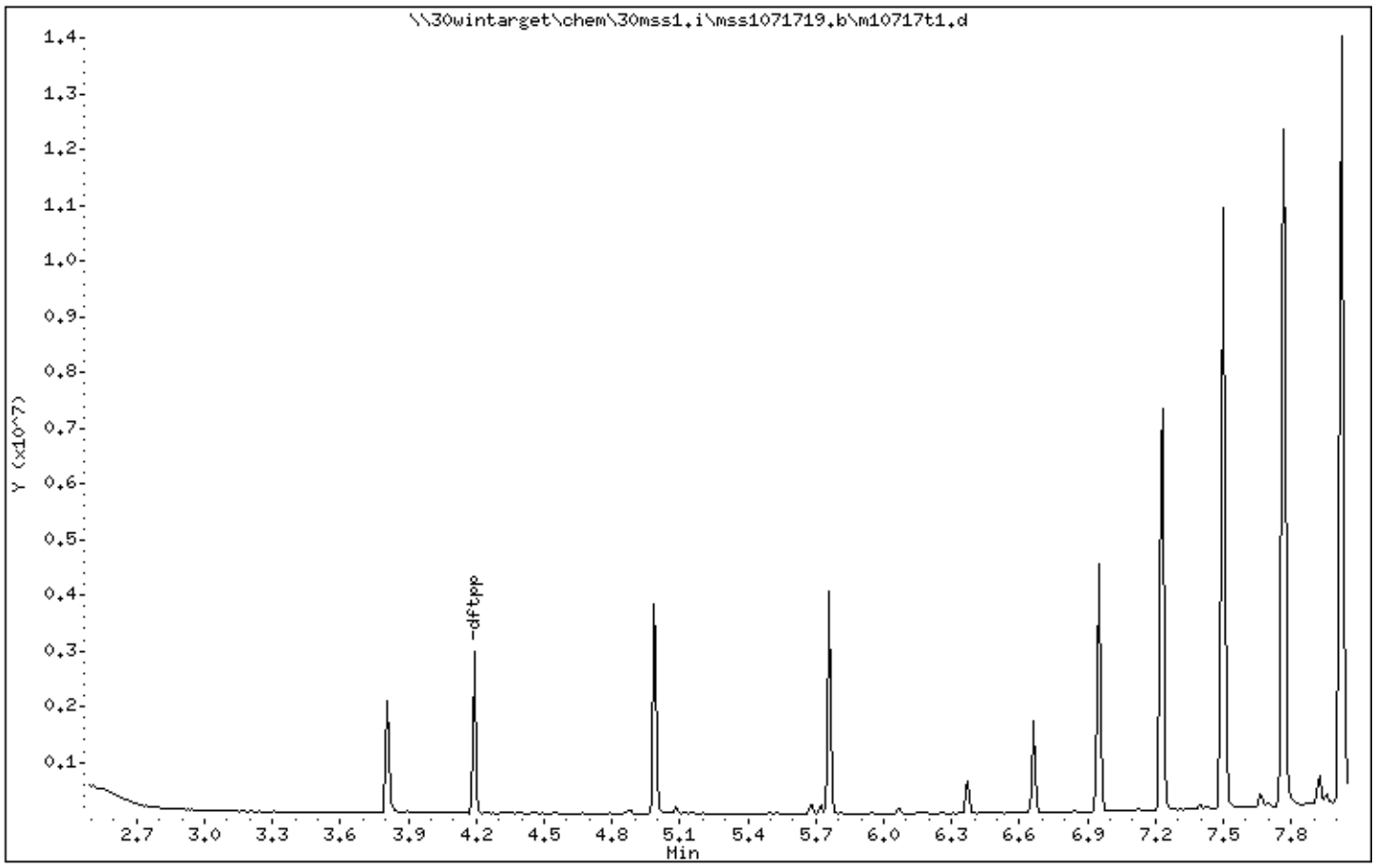
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m10717t1.d

Date : 17-JUL-2019 13:11

Client ID: DFTPP

Instrument: 30mss1.i

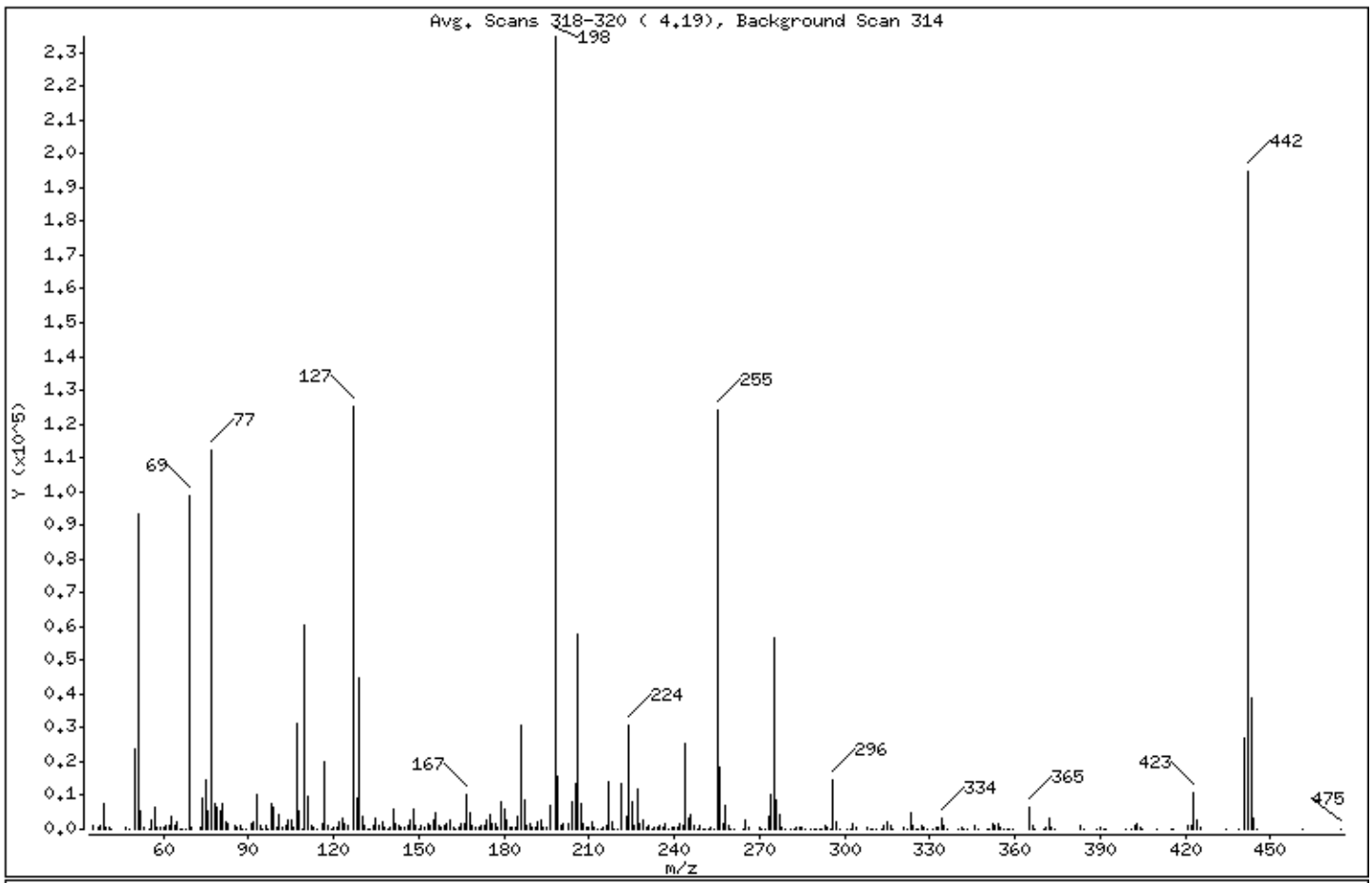
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.78
68	Less than 2.00% of mass 69	0.09 (0.22)
69	Mass 69 relative abundance	41.98
70	Less than 2.00% of mass 69	0.20 (0.48)
127	40.00 - 60.00% of mass 198	53.42
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	24.20
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	11.53
442	Greater than 40.00% of mass 198	82.96
443	17.00 - 23.00% of mass 442	16.60 (20.01)

Date : 17-JUL-2019 13:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10717t1.d
Spectrum: Avg. Scans 318-320 (4.19), Background Scan 314
Location of Maximum: 198.00
Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	810	129.00	44576	212.00	410	303.00	1614
37.00	581	130.00	3924	213.00	166	304.00	455
38.00	1243	131.00	817	214.00	67	308.00	333
39.00	7468	132.00	170	215.00	471	309.00	158
40.00	325	133.00	152	216.00	1095	310.00	179
41.00	402	134.00	1012	217.00	14230	311.00	53
42.00	262	135.00	3279	218.00	1934	313.00	165
47.00	307	136.00	1172	219.00	227	314.00	920
48.00	142	137.00	1899	220.00	121	315.00	1911
50.00	23600	138.00	447	221.00	13597	316.00	904
51.00	93360	139.00	188	223.00	3560	317.00	67
52.00	5151	140.00	652	224.00	30792	321.00	435
53.00	378	141.00	5746	225.00	7917	322.00	150
55.00	138	142.00	1820	226.00	957	323.00	4979
56.00	2510	143.00	1233	227.00	12060	324.00	818
57.00	6592	144.00	502	228.00	1505	325.00	84
58.00	379	145.00	304	229.00	2941	326.00	192
59.00	311	146.00	1006	230.00	514	327.00	1149
60.00	290	147.00	2538	231.00	1059	328.00	676
61.00	1197	148.00	5729	232.00	156	329.00	210
62.00	1310	149.00	1331	233.00	350	331.00	65
63.00	3655	150.00	247	234.00	691	332.00	270
64.00	838	151.00	943	235.00	1149	333.00	364
65.00	1907	152.00	597	236.00	489	334.00	3273
66.00	209	153.00	1452	237.00	1542	335.00	867
67.00	242	154.00	1260	238.00	234	336.00	74
68.00	220	155.00	2817	239.00	469	340.00	54
69.00	98512	156.00	4861	240.00	454	341.00	435
70.00	474	157.00	1213	241.00	725	342.00	97
73.00	605	158.00	807	242.00	1700	343.00	65
74.00	8969	159.00	901	243.00	1326	346.00	992
75.00	14514	160.00	1522	244.00	25352	347.00	218
76.00	5254	161.00	2577	245.00	3326	350.00	88
77.00	112448	162.00	806	246.00	4431	351.00	66
78.00	7392	163.00	123	247.00	919	352.00	1508

Date : 17-JUL-2019 13:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10717t1.d
Spectrum: Avg. Scans 318-320 (4.19), Background Scan 314
Location of Maximum: 198.00
Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	6372	164.00	391	248.00	174	353.00	1348
80.00	5284	165.00	1600	249.00	1052	354.00	1531
81.00	7434	166.00	1519	250.00	215	355.00	279
82.00	1927	167.00	10302	251.00	26	356.00	191
83.00	1741	168.00	4736	252.00	125	357.00	83
85.00	1281	169.00	838	253.00	674	358.00	126
86.00	808	170.00	405	254.00	169	359.00	162
87.00	1291	171.00	601	255.00	124024	365.00	6208
88.00	227	172.00	976	256.00	18528	366.00	1056
89.00	113	173.00	1263	257.00	1561	367.00	124
91.00	1386	174.00	2503	258.00	6788	370.00	181
92.00	1935	175.00	4268	259.00	1202	371.00	444
93.00	10389	176.00	1505	260.00	189	372.00	3025
94.00	824	177.00	1760	261.00	212	373.00	746
95.00	269	178.00	623	264.00	167	374.00	63
96.00	1248	179.00	8021	265.00	2646	383.00	876
97.00	46	180.00	5872	266.00	516	384.00	267
98.00	7643	181.00	2448	270.00	287	389.00	52
99.00	6417	182.00	481	271.00	228	390.00	469
100.00	497	183.00	297	272.00	33	391.00	145
101.00	4393	184.00	524	273.00	3574	392.00	156
102.00	321	185.00	3967	274.00	9982	399.00	94
103.00	1299	186.00	30776	275.00	56784	401.00	162
104.00	2958	187.00	8710	276.00	8435	402.00	1244
105.00	2511	188.00	929	277.00	4197	403.00	1853
106.00	791	189.00	1657	278.00	699	404.00	533
107.00	31328	190.00	339	279.00	156	405.00	188
108.00	5370	191.00	628	281.00	213	410.00	69
109.00	64	192.00	2169	282.00	125	415.00	91
110.00	60568	193.00	2518	283.00	440	416.00	140
111.00	9466	194.00	394	284.00	447	421.00	1276
112.00	935	195.00	493	285.00	703	422.00	1189
113.00	518	196.00	7054	286.00	117	423.00	10654
114.00	51	198.00	234688	288.00	59	424.00	2647
116.00	1679	199.00	15914	289.00	175	425.00	320

Date : 17-JUL-2019 13:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10717t1.d
Spectrum: Avg. Scans 318-320 (4.19), Background Scan 314
Location of Maximum: 198.00
Number of points: 322

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	19864	200.00	1064	290.00	188	434.00	56
118.00	1291	201.00	1359	291.00	124	439.00	105
119.00	151	203.00	1401	292.00	114	441.00	27048
120.00	470	204.00	8098	293.00	1219	442.00	194688
121.00	401	205.00	13506	294.00	382	443.00	38960
122.00	1973	206.00	57752	295.00	162	444.00	3151
123.00	3004	207.00	7499	296.00	14338	445.00	211
124.00	1411	208.00	1610	297.00	2155	461.00	54
125.00	1148	209.00	352	298.00	145	475.00	56
127.00	125368	210.00	726	301.00	264		
128.00	9067	211.00	2008	302.00	198		

Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718t1.d

Page 1

Date : 18-JUL-2019 15:02

Client ID: DFTPP

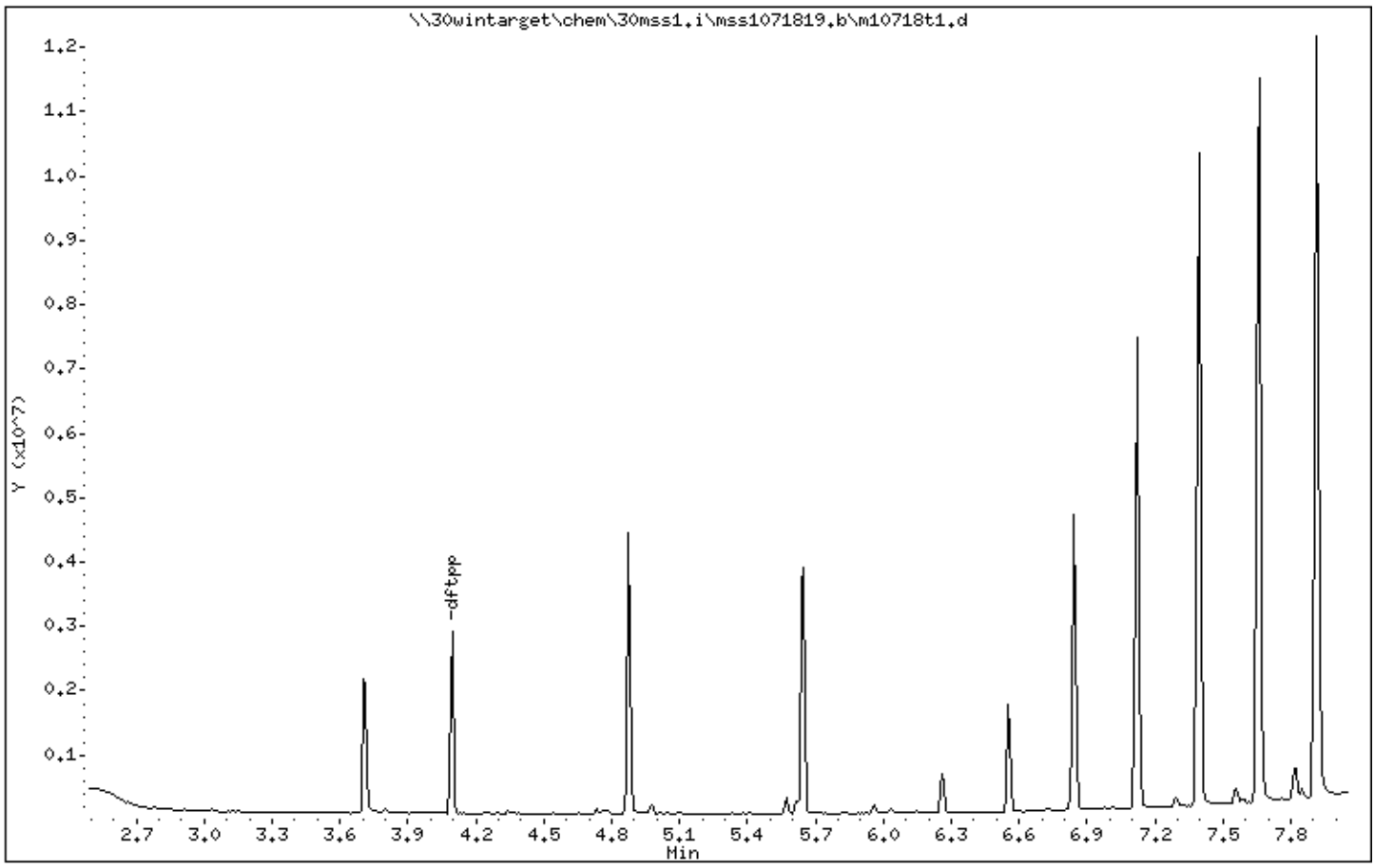
Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071819.b\m10718t1.d

Date : 18-JUL-2019 15:02

Client ID: DFTPP

Instrument: 30mss1.i

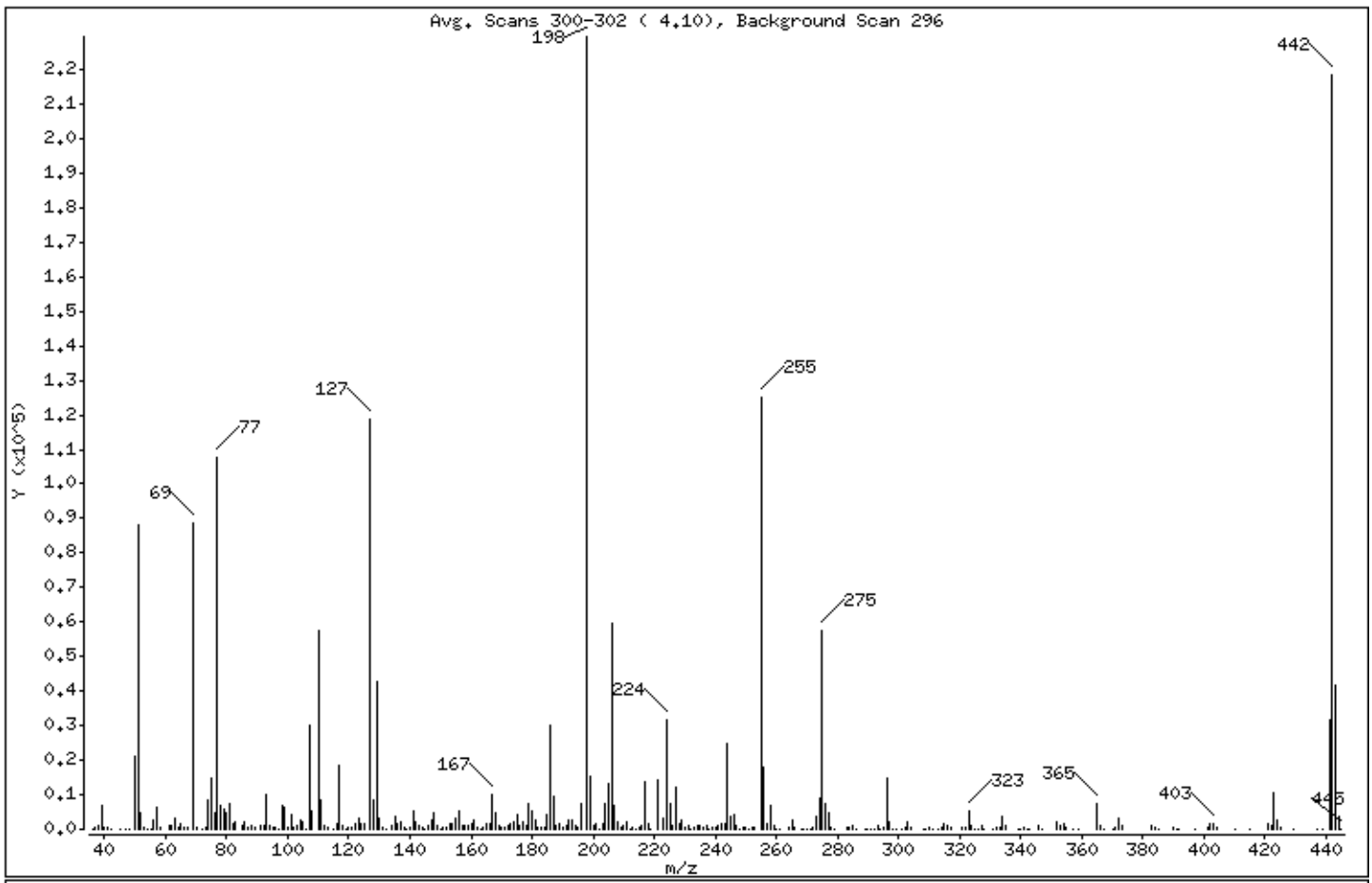
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.49
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	38.72
70	Less than 2.00% of mass 69	0.15 (0.40)
127	40.00 - 60.00% of mass 198	51.69
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.63
275	10.00 - 30.00% of mass 198	25.08
365	Greater than 1.00% of mass 198	3.16
441	Present, but less than mass 443	13.86
442	Greater than 40.00% of mass 198	95.18
443	17.00 - 23.00% of mass 442	18.23 (19.15)

Date : 18-JUL-2019 15:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10718t1.d
Spectrum: Avg. Scans 300-302 (4.10), Background Scan 296
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	127	127.00	118640	207.00	6763	296.00	14947
37.00	417	128.00	8631	208.00	1912	297.00	2083
38.00	977	129.00	42520	209.00	678	298.00	175
39.00	6598	130.00	3306	210.00	1212	299.00	66
40.00	778	131.00	596	211.00	2315	301.00	129
41.00	612	132.00	174	212.00	105	302.00	353
42.00	130	134.00	1154	213.00	293	303.00	1968
45.00	193	135.00	3693	214.00	91	304.00	632
47.00	237	136.00	1548	215.00	434	308.00	168
48.00	81	137.00	1951	216.00	1196	309.00	185
50.00	21216	138.00	626	217.00	13967	310.00	319
51.00	88344	139.00	132	218.00	1690	311.00	144
52.00	4573	140.00	368	219.00	258	313.00	170
53.00	576	141.00	5364	221.00	14337	314.00	734
54.00	227	142.00	1975	223.00	3151	315.00	1729
55.00	251	143.00	1318	224.00	31400	316.00	936
56.00	2567	144.00	424	225.00	7155	317.00	292
57.00	6196	145.00	128	226.00	864	321.00	526
58.00	479	146.00	1011	227.00	12245	322.00	366
61.00	894	147.00	2582	228.00	1731	323.00	5270
62.00	1253	148.00	4998	229.00	2662	324.00	1077
63.00	3185	149.00	875	230.00	467	325.00	258
64.00	426	150.00	207	231.00	1042	326.00	138
65.00	1735	151.00	675	232.00	226	327.00	1065
66.00	370	152.00	522	233.00	406	328.00	161
67.00	505	153.00	1761	234.00	968	331.00	69
69.00	88864	154.00	1337	235.00	1076	332.00	324
70.00	352	155.00	3326	236.00	745	333.00	716
72.00	230	156.00	5162	237.00	962	334.00	3805
73.00	650	157.00	1002	238.00	139	335.00	1134
74.00	8201	158.00	1145	239.00	629	339.00	67
75.00	14525	159.00	881	240.00	417	340.00	73
76.00	4936	160.00	1596	241.00	812	341.00	598
77.00	107536	161.00	2852	242.00	1604	342.00	149
78.00	6900	162.00	669	243.00	1454	343.00	182

Date : 18-JUL-2019 15:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10718t1.d
Spectrum: Avg. Scans 300-302 (4.10), Background Scan 296
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	5808	163.00	51	244.00	25056	346.00	807
80.00	4992	164.00	316	245.00	3436	347.00	187
81.00	7536	165.00	1782	246.00	4332	352.00	2074
82.00	1775	166.00	1626	247.00	909	353.00	1213
83.00	1907	167.00	9920	248.00	131	354.00	1810
85.00	1274	168.00	4769	249.00	615	355.00	549
86.00	2059	169.00	825	250.00	316	357.00	108
87.00	674	170.00	294	251.00	46	359.00	139
88.00	842	171.00	279	252.00	306	365.00	7259
89.00	397	172.00	1192	253.00	681	366.00	1126
91.00	1247	173.00	1354	255.00	124896	367.00	88
92.00	1253	174.00	2367	256.00	18032	370.00	233
93.00	9965	175.00	4446	257.00	1390	371.00	377
94.00	1002	176.00	1201	258.00	6964	372.00	3231
95.00	386	177.00	2138	259.00	972	373.00	803
96.00	577	178.00	823	260.00	106	383.00	810
97.00	80	179.00	7134	261.00	184	384.00	327
98.00	7007	180.00	5446	264.00	271	385.00	83
99.00	6287	181.00	2811	265.00	2460	390.00	439
100.00	690	182.00	552	266.00	658	391.00	239
101.00	4065	183.00	401	268.00	12	392.00	115
102.00	343	184.00	679	269.00	71	397.00	52
103.00	912	185.00	4077	270.00	216	401.00	280
104.00	2810	186.00	29872	271.00	255	402.00	1438
105.00	1961	187.00	9313	272.00	445	403.00	1838
106.00	144	188.00	909	273.00	3852	404.00	666
107.00	30240	189.00	1801	274.00	9212	410.00	55
108.00	5238	190.00	409	275.00	57568	415.00	77
110.00	57344	191.00	837	276.00	7410	421.00	1561
111.00	8598	192.00	2507	277.00	4688	422.00	1241
112.00	936	193.00	2499	278.00	510	423.00	10542
113.00	506	194.00	795	279.00	70	424.00	2675
115.00	17	195.00	496	283.00	660	425.00	336
116.00	1819	196.00	7633	284.00	505	429.00	79
117.00	18672	198.00	229504	285.00	924	437.00	122

Date : 18-JUL-2019 15:02

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10718t1.d
Spectrum: Avg. Scans 300-302 (4.10), Background Scan 296
Location of Maximum: 198.00
Number of points: 310

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1172	199.00	15221	286.00	151	439.00	201
119.00	204	200.00	1203	289.00	255	441.00	31800
120.00	698	201.00	1430	290.00	135	442.00	218432
121.00	275	202.00	101	291.00	131	443.00	41832
122.00	1823	203.00	1549	292.00	112	444.00	3841
123.00	3000	204.00	7266	293.00	1008	445.00	106
124.00	1389	205.00	13128	294.00	227		
125.00	1460	206.00	59496	295.00	368		

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/16/2019 08:59
Matrix: Water SDG No.: 30313514
Date Extracted: 07/17/2019 10:25
Lab Sample ID: 1710028
Date Analyzed: 07/17/2019 20:20
Lab File ID: MSS1071719.B\M1071709.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071719.b\m1071709.d
Lab Smp Id: 1710028 Client Smp ID: LB for HBN 351935 [
Inj Date : 17-JUL-2019 20:20
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1710028
Misc Info : 14841
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1071719.b\8270071519.m
Meth Date : 18-Jul-2019 13:32 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

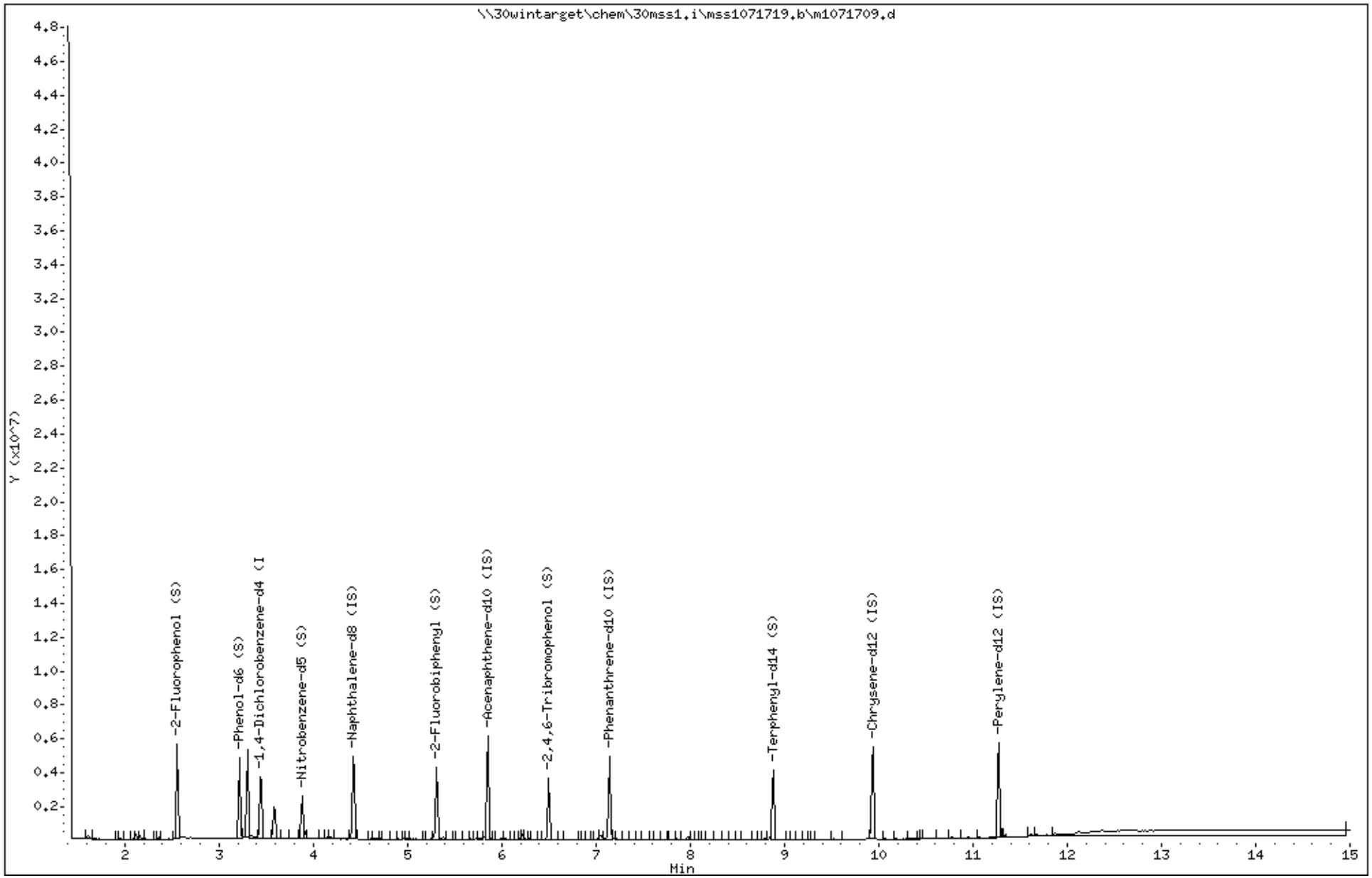
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.558	2.561	(0.744)	1208445	6.05495	605	
$	4 Phenol-d6 (S)	99	3.215	3.223	(0.935)	1475840	6.27515	628	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.439	3.442	(1.000)	601887	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	3.883	3.886	(0.877)	398041	4.01375	401	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.428	4.431	(1.000)	2411070	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.309	5.312	(0.907)	1179724	3.04983	305	
*	50 Acenaphthene-d10 (IS)	164	5.854	5.857	(1.000)	1267680	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						
$	65 2,4,6-Tribromophenol (S)	330	6.500	6.503	(0.910)	362475	6.40842	641	
	67 Hexachlorobenzene	284	Compound Not Detected.						
	69 Pentachlorophenol	266	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
* 70 Phenanthrene-d10 (IS)	188	7.147	7.150	(1.000)	2096211	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.878	8.881	(0.894)	1307808	2.96874	297	
* 82 Chrysene-d12 (IS)	240	9.935	9.938	(1.000)	1892219	4.00000		
* 88 Perylene-d12 (IS)	264	11.271	11.274	(1.000)	1916776	4.00000		

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071709.d
Date : 17-JUL-2019 20:20
Client ID: LB for HBN 351935 [
Instrument: 30mss1.i
Sample Info: 1710028
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1071719.b/m1071709.d
Injection Date: 17-JUL-2019 20:20
Instrument: 30mss1.i
Lab Sample ID: 1710028
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Water SDG No.: 30313514
Date Extracted: 07/17/2019 10:25
Lab Sample ID: 1711100
Date Analyzed: 07/17/2019 20:43
Lab File ID: MSS1071719.B\M1071710.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	235	J
121-14-2	2,4-Dinitrotoluene	381	
87-68-3	Hexachloro-1,3-butadiene	229	
118-74-1	Hexachlorobenzene	275	
67-72-1	Hexachloroethane	222	
95-48-7	2-Methylphenol(o-Cresol)	419	J
	3&4-Methylphenol(m&p Cresol)	877	J
98-95-3	Nitrobenzene	430	
87-86-5	Pentachlorophenol	445	J
110-86-1	Pyridine	198	J
95-95-4	2,4,5-Trichlorophenol	408	J
88-06-2	2,4,6-Trichlorophenol	418	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d
Lab Smp Id: 1711100 Client Smp ID: MBLCS
Inj Date : 17-JUL-2019 20:43
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1711100
Misc Info : 14841
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1071719.b\8270071519.m
Meth Date : 18-Jul-2019 13:32 ecalderone Quant Type: ISTD
Cal Date : 15-JUL-2019 11:36 Cal File: m10715y7.d
Als bottle: 20 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

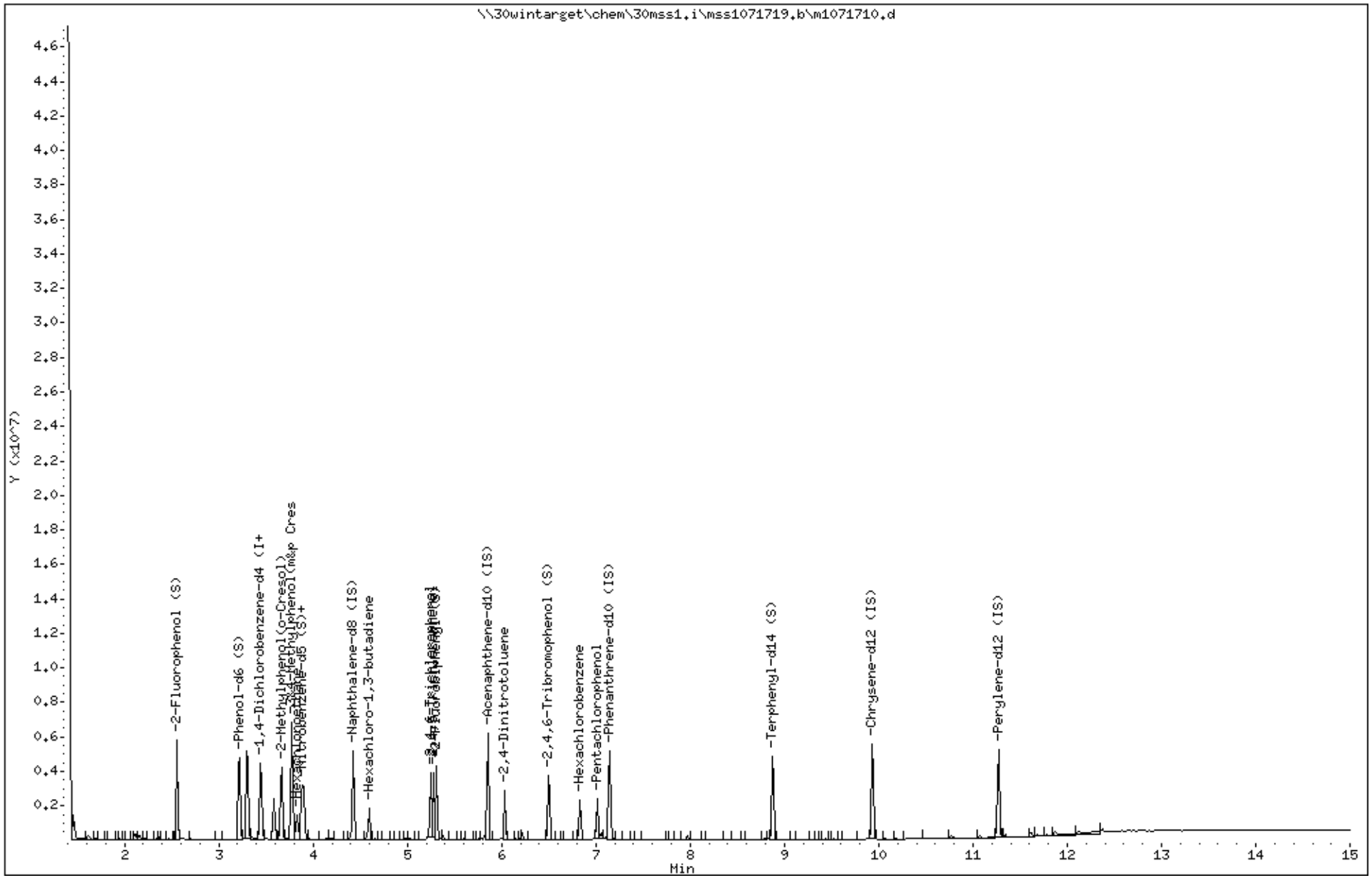
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	1.455	1.444	(0.423)	518505	1.97737	198	
$	3 2-Fluorophenol (S)	112	2.556	2.561	(0.742)	1235297	6.01278	601	
$	4 Phenol-d6 (S)	99	3.218	3.223	(0.935)	1529390	6.31719	632	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.443	3.442	(1.000)	619576	4.00000		
	12 1,4-Dichlorobenzene	146	3.453	3.458	(1.003)	603707	2.34848	235	
	15 2-Methylphenol(o-Cresol)	108	3.667	3.672	(1.065)	846150	4.18755	419	
	17 3&4-Methylphenol(m&p Cresol)	108	3.779	3.784	(1.098)	1756197	8.77405	877	
	20 Hexachloroethane	117	3.833	3.832	(1.113)	200188	2.21700	222	
$	21 Nitrobenzene-d5 (S)	128	3.886	3.886	(0.877)	421114	4.24505	424	
	22 Nitrobenzene	77	3.897	3.902	(0.879)	864333	4.30351	430	
*	30 Naphthalene-d8 (IS)	136	4.431	4.431	(1.000)	2411849	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	4.597	4.596	(1.037)	219816	2.29056	229	
	40 2,4,6-Trichlorophenol	196	5.248	5.253	(0.897)	520728	4.18002	418	
	41 2,4,5-Trichlorophenol	196	5.280	5.285	(0.902)	454098	4.07940	408	
$	42 2-Fluorobiphenyl (S)	172	5.313	5.312	(0.908)	1372425	3.47544	348	
*	50 Acenaphthene-d10 (IS)	164	5.852	5.857	(1.000)	1294144	4.00000		
	54 2,4-Dinitrotoluene	165	6.039	6.044	(1.032)	473035	3.80714	381	
$	65 2,4,6-Tribromophenol (S)	330	6.504	6.503	(0.910)	374691	6.53476	653	
	67 Hexachlorobenzene	284	6.835	6.840	(0.957)	314772	2.75435	275	
	69 Pentachlorophenol	266	7.017	7.022	(0.982)	294976	4.45451	445	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
* 70 Phenanthrene-d10 (IS)	188	7.145	7.150	(1.000)	2124964	4.00000		
$ 77 Terphenyl-d14 (S)	244	8.876	8.881	(0.894)	1505560	3.41636	342	
* 82 Chrysene-d12 (IS)	240	9.933	9.938	(1.000)	1892923	4.00000		
* 88 Perylene-d12 (IS)	264	11.269	11.274	(1.000)	1879625	4.00000		

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d
Date : 17-JUL-2019 20:43
Client ID: MBLCS
Instrument: 30mss1.i
Sample Info: 1711100
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

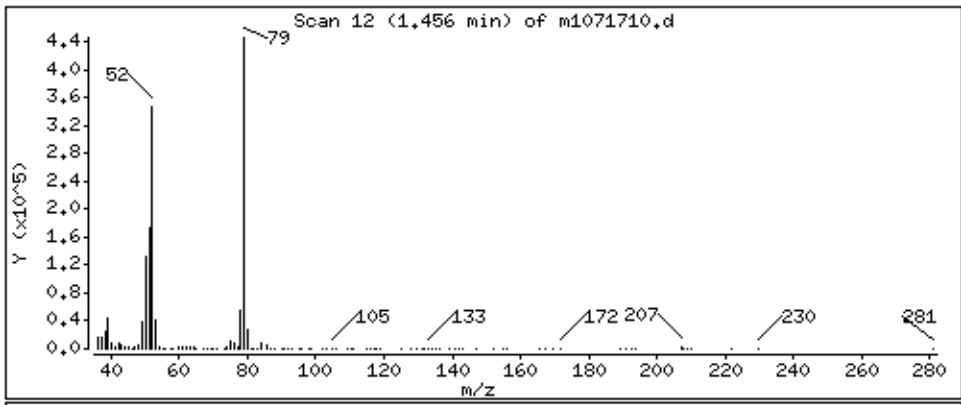
Operator: EAC

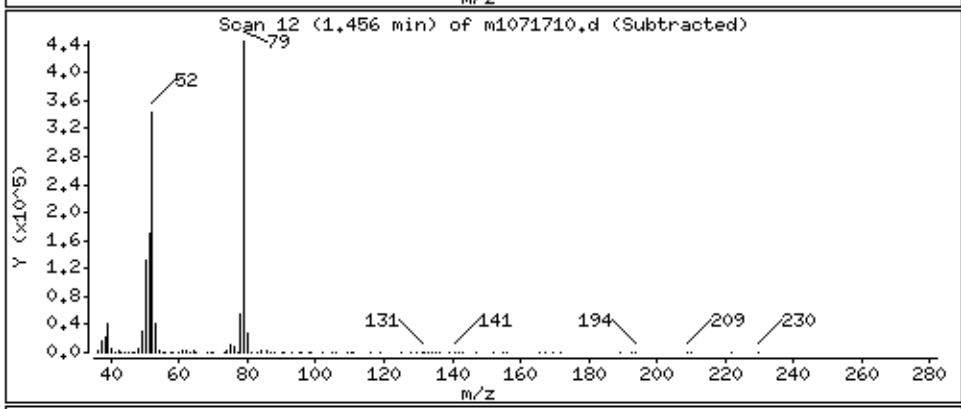
Column phase: RTX-5MS

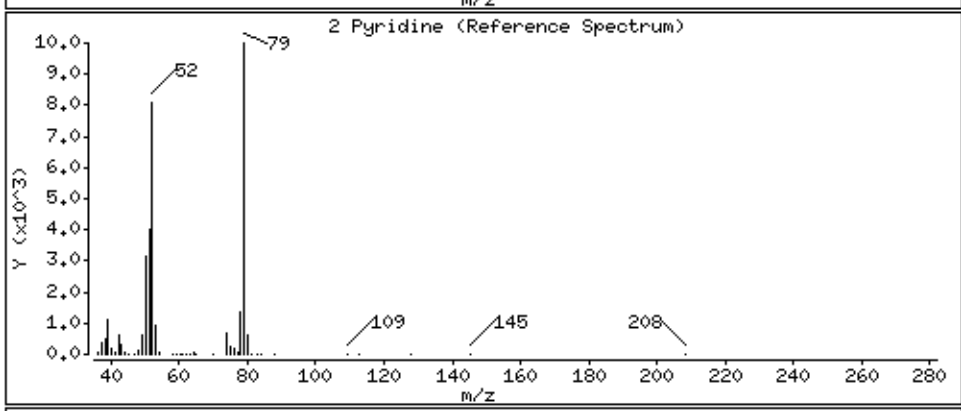
Column diameter: 0.18

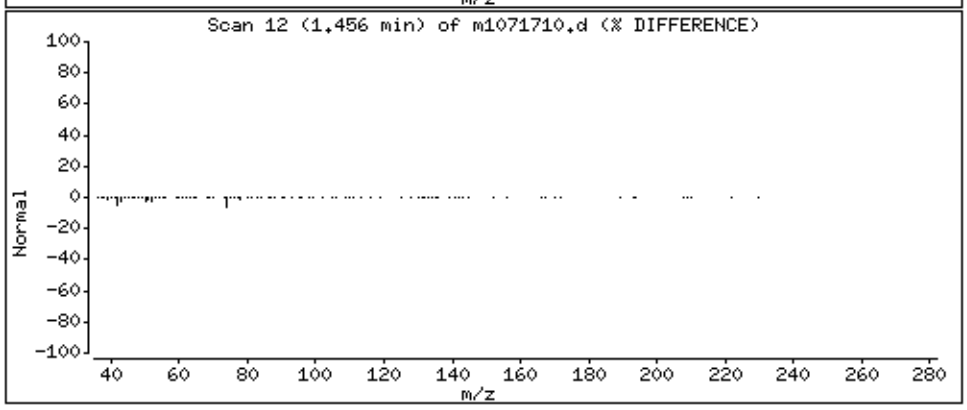
2 Pyridine

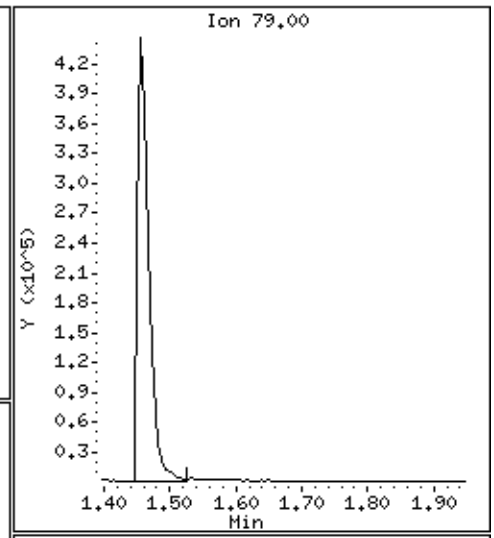
Concentration: 198 ug/L

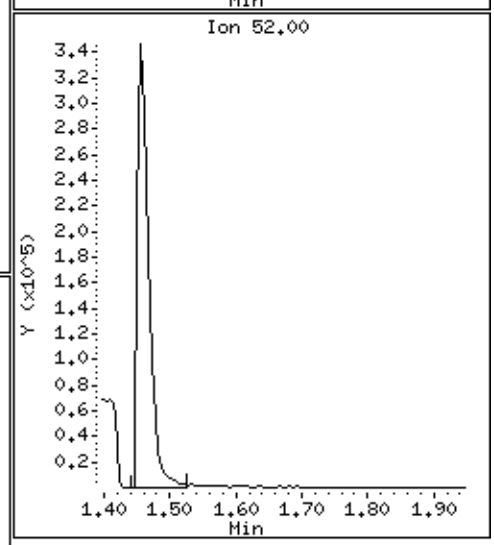












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Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

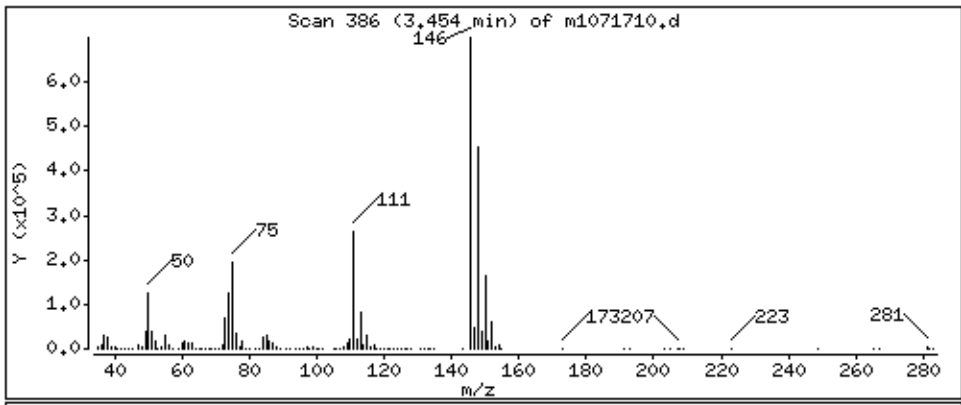
Operator: EAC

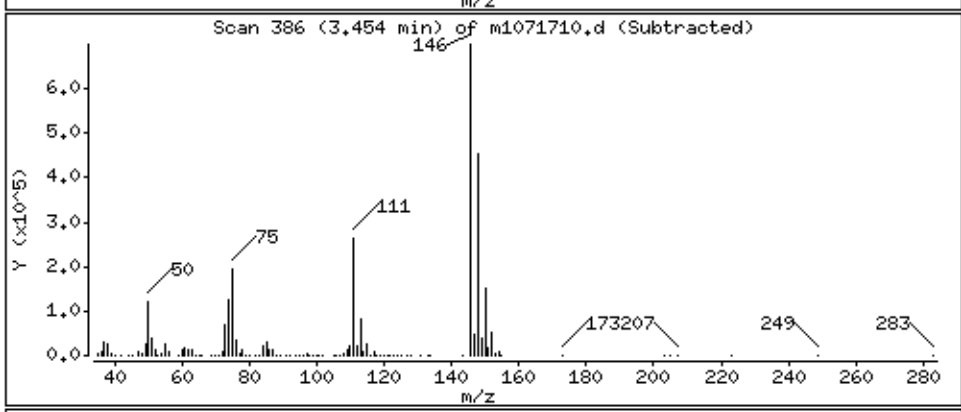
Column phase: RTX-5MS

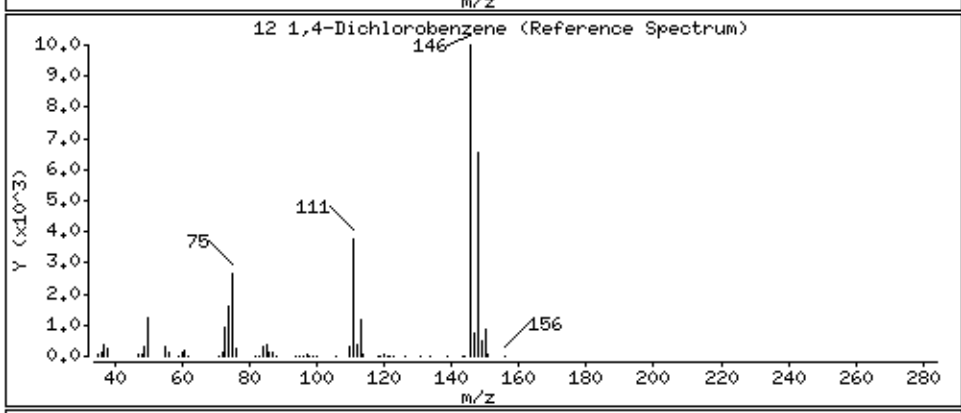
Column diameter: 0.18

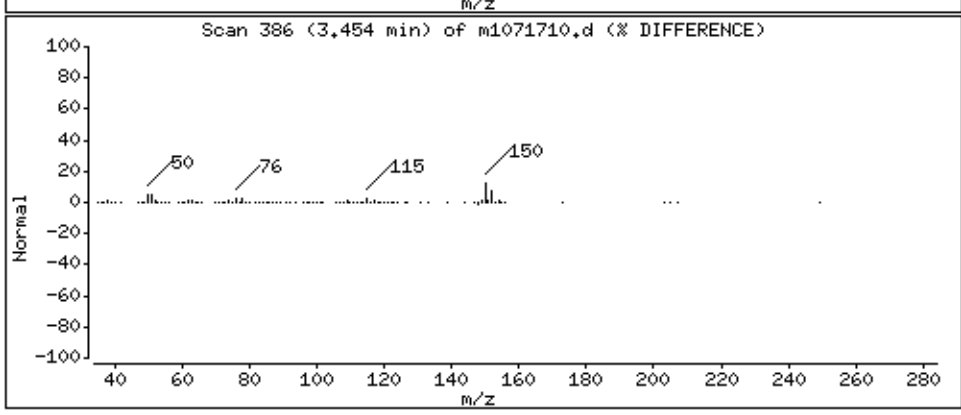
12 1,4-Dichlorobenzene

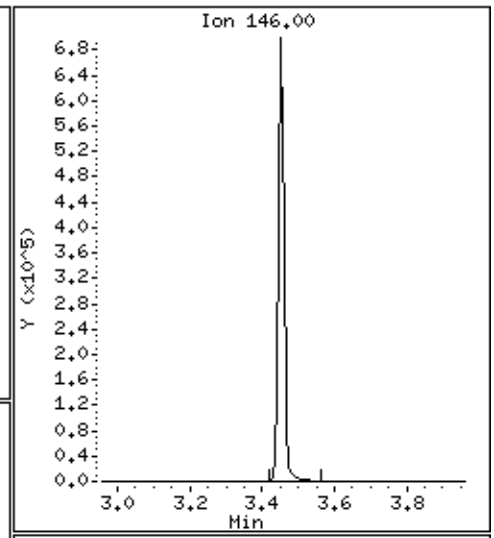
Concentration: 235 ug/L

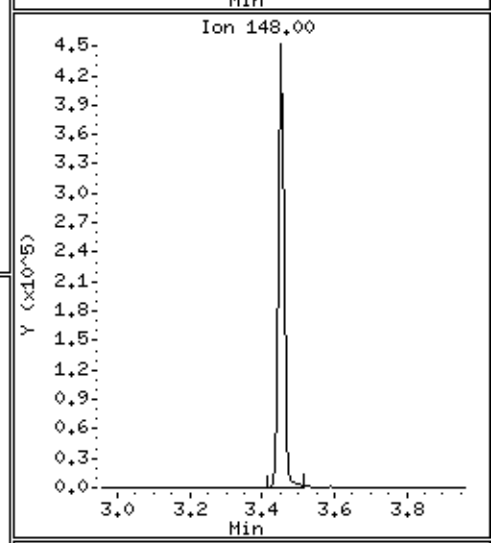


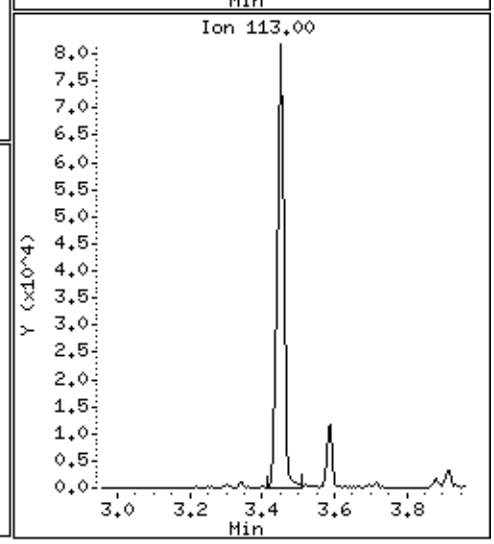












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Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

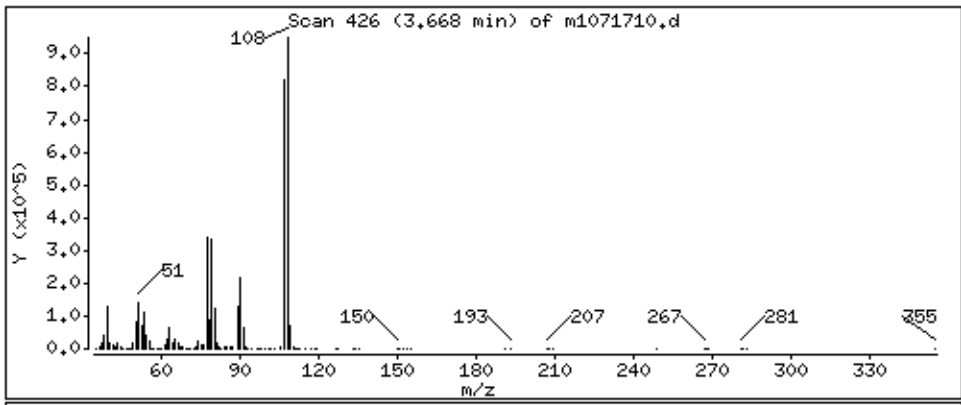
Operator: EAC

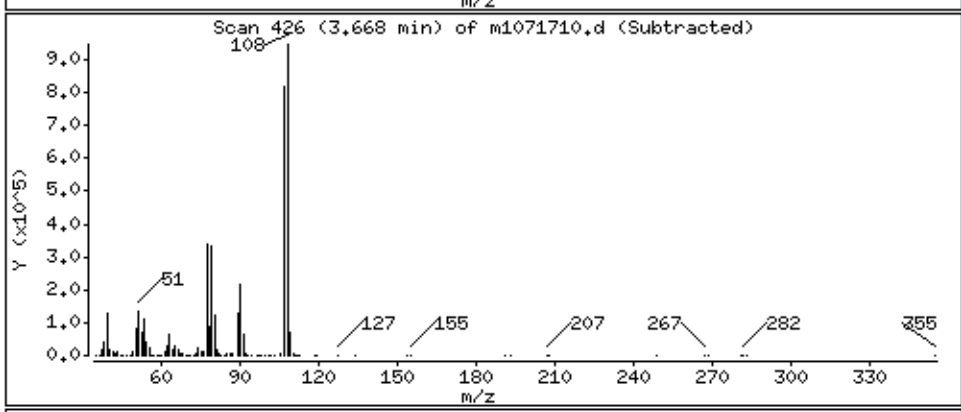
Column phase: RTX-5MS

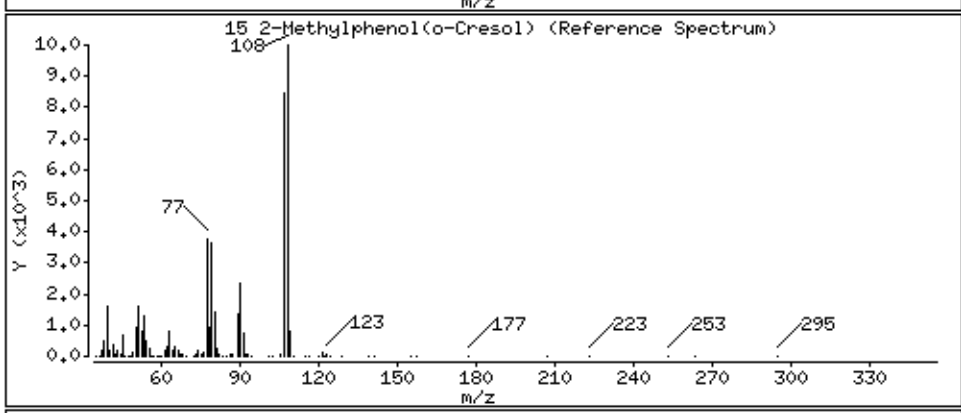
Column diameter: 0.18

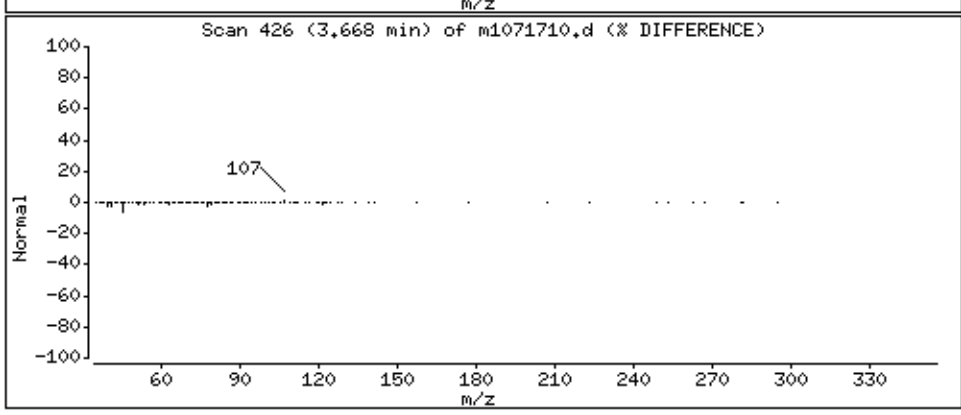
15 2-Methylphenol(o-Cresol)

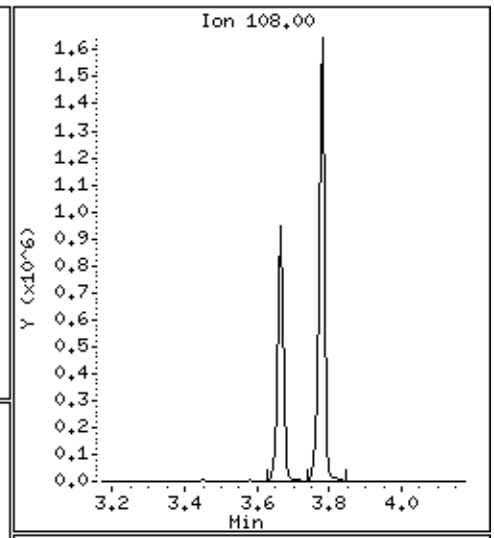
Concentration: 419 ug/L

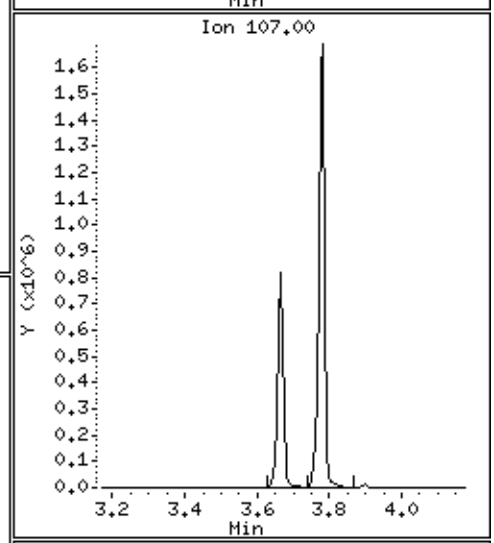


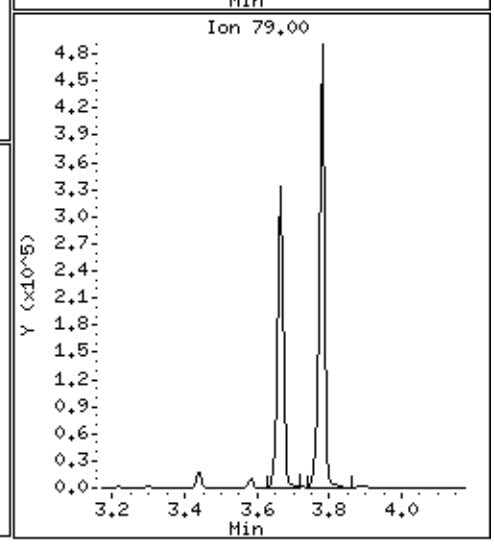












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

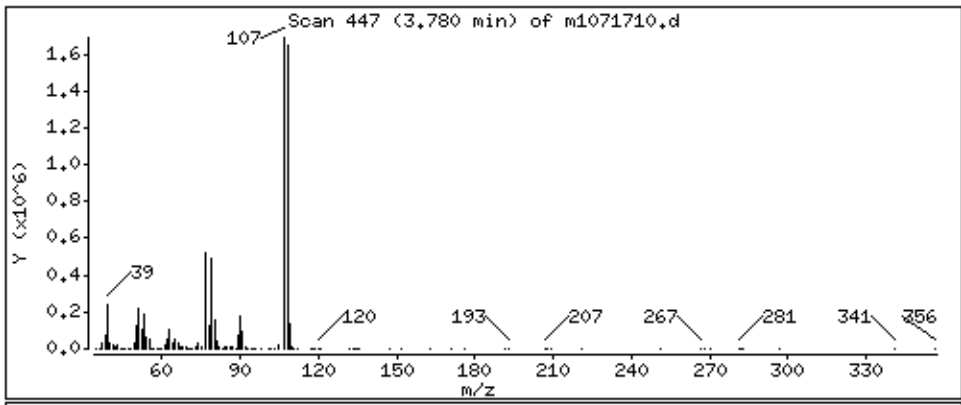
Operator: EAC

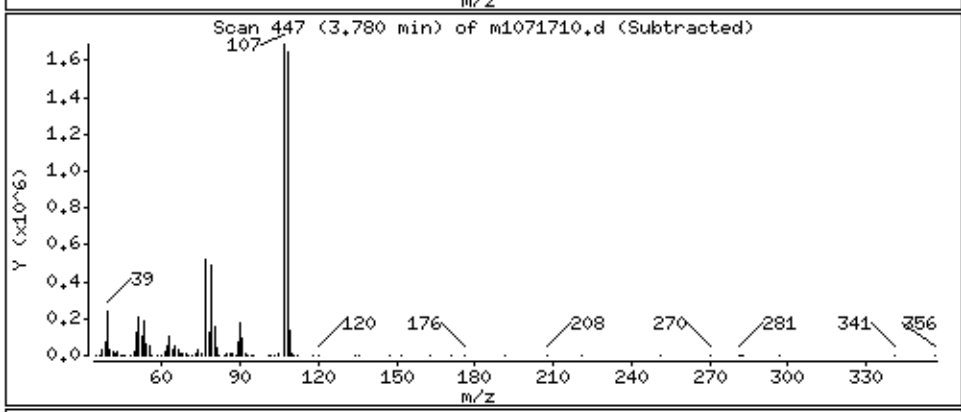
Column phase: RTX-5MS

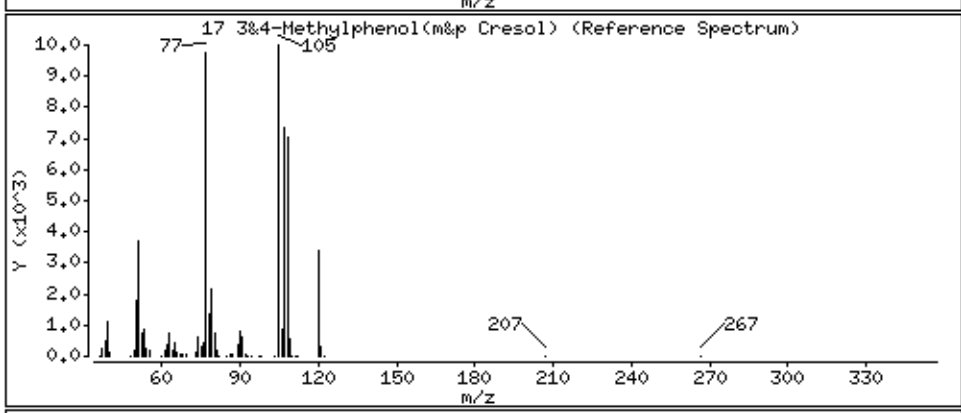
Column diameter: 0.18

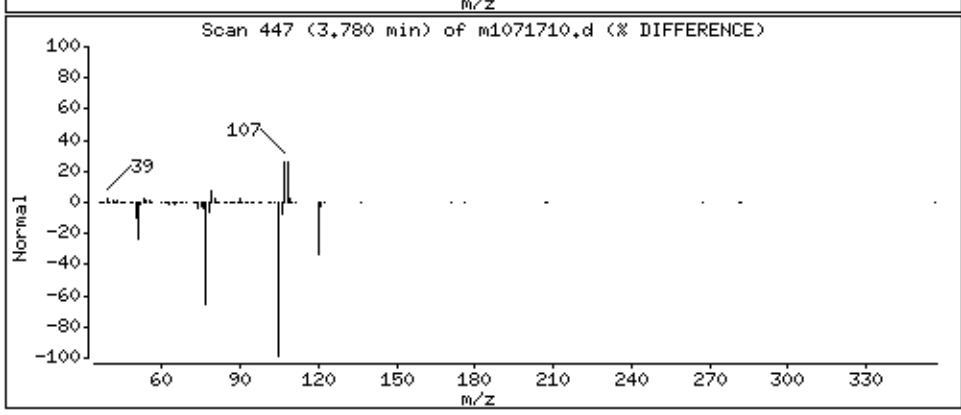
17 3&4-Methylphenol(m&p Cresol)

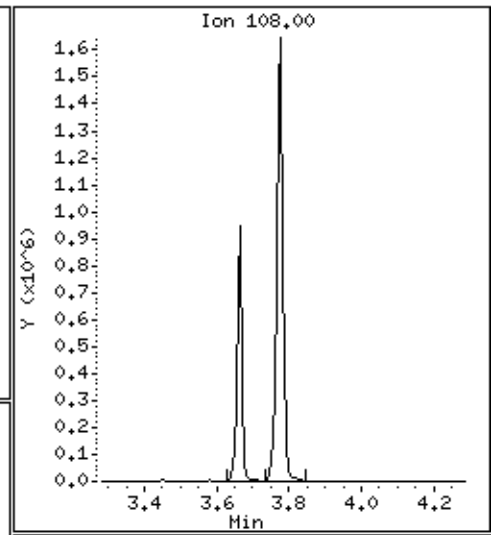
Concentration: 877 ug/L

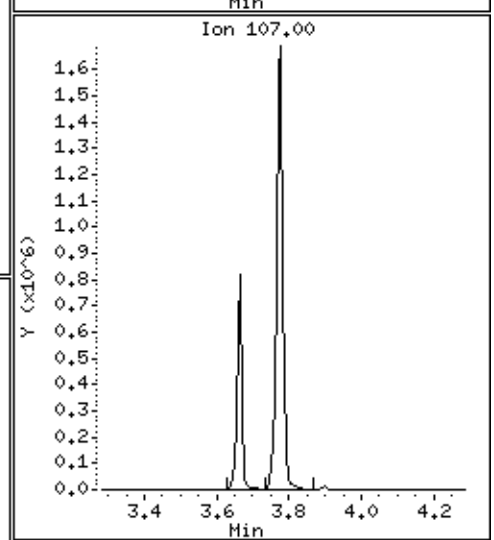


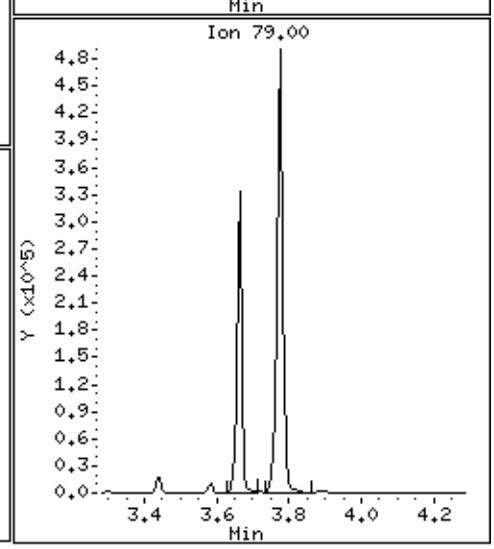












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

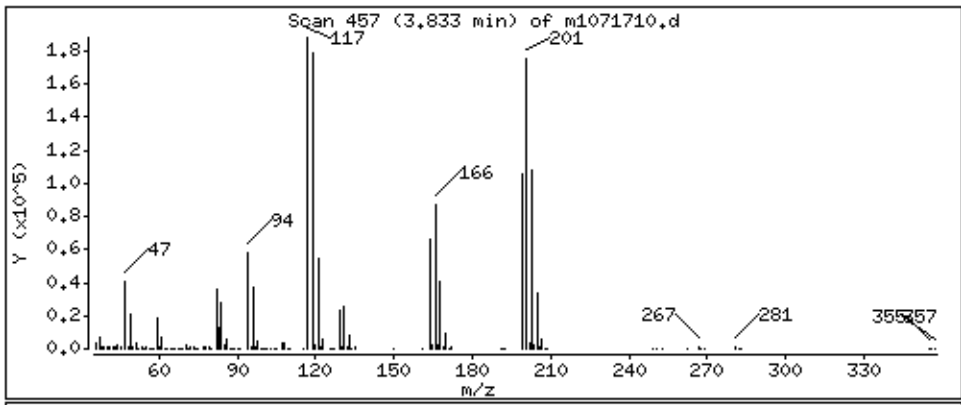
Operator: EAC

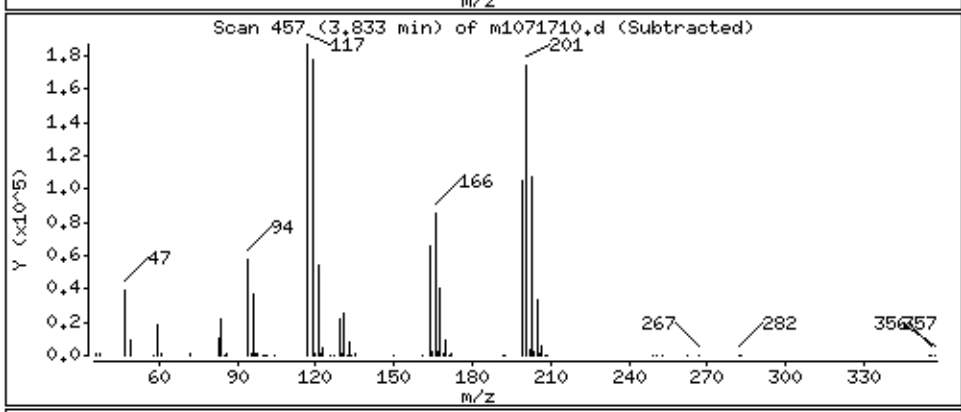
Column phase: RTX-5MS

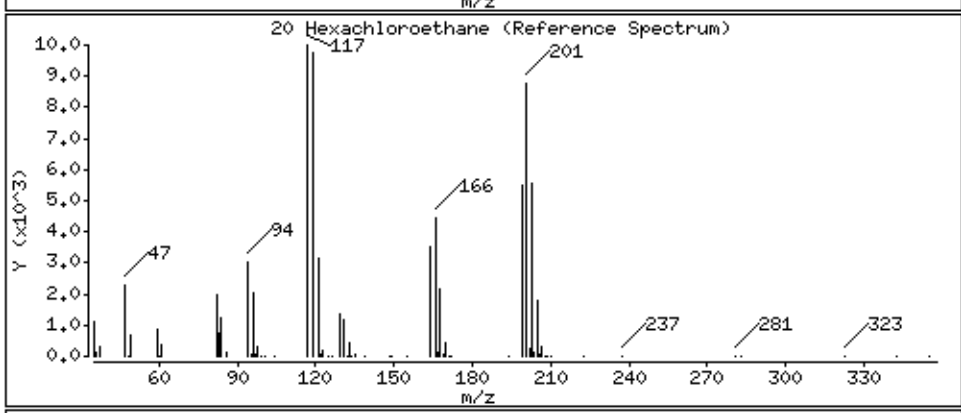
Column diameter: 0.18

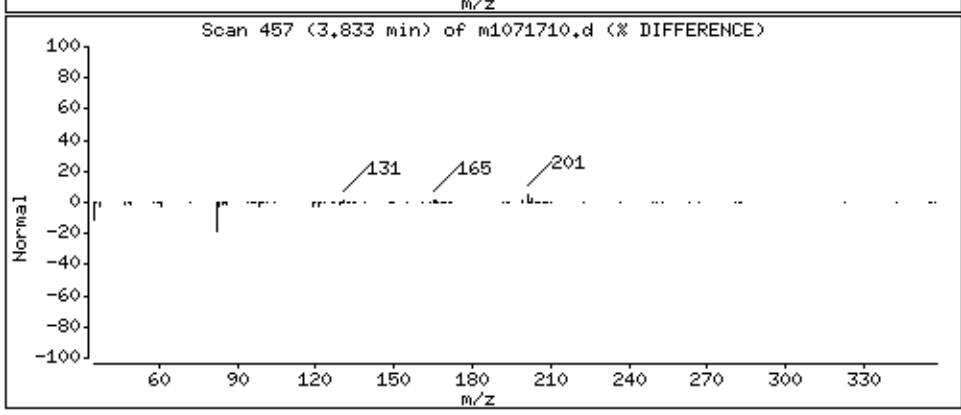
20 Hexachloroethane

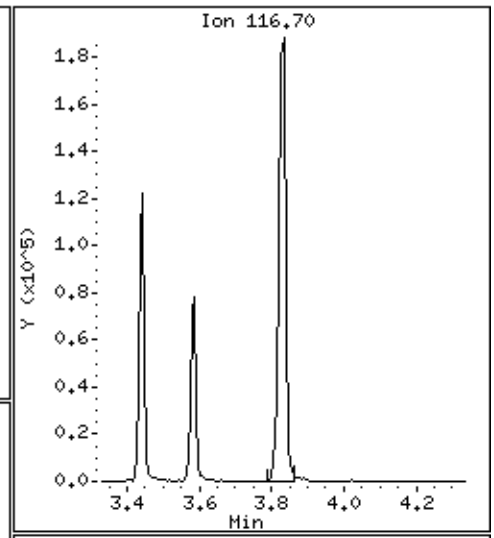
Concentration: 222 ug/L

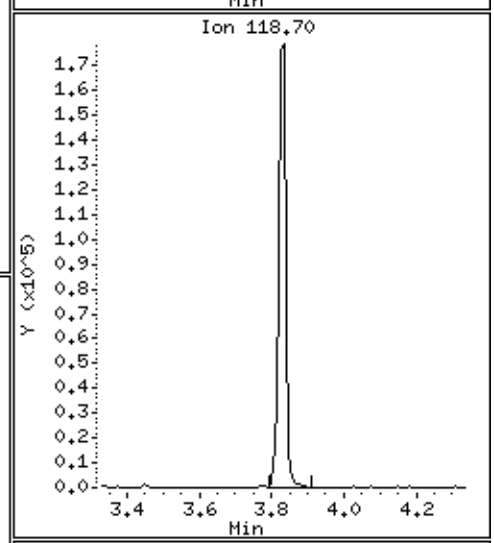


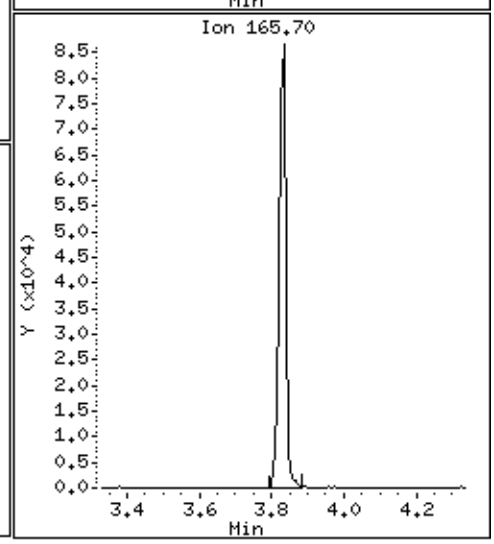












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

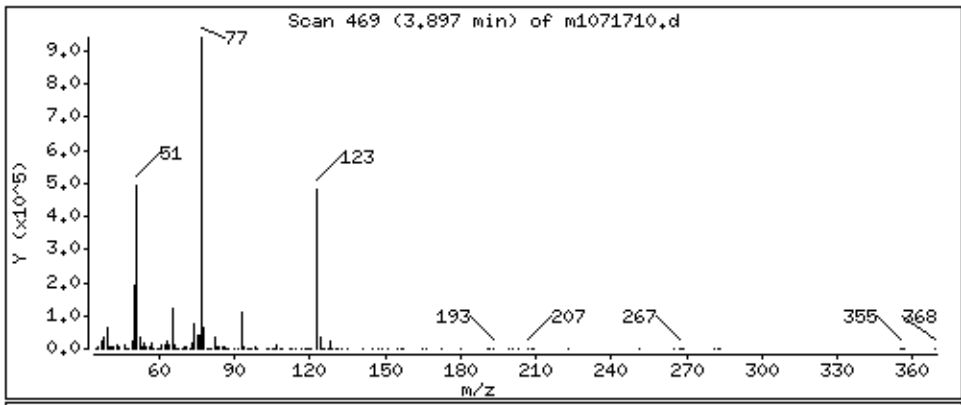
Operator: EAC

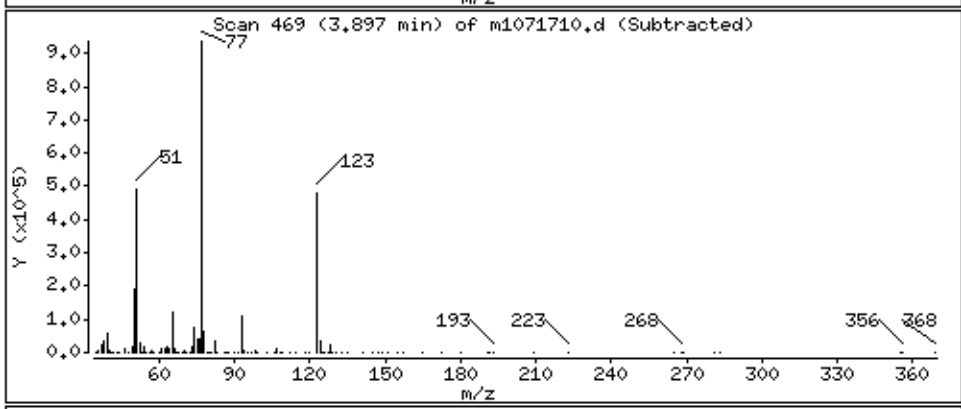
Column phase: RTX-5MS

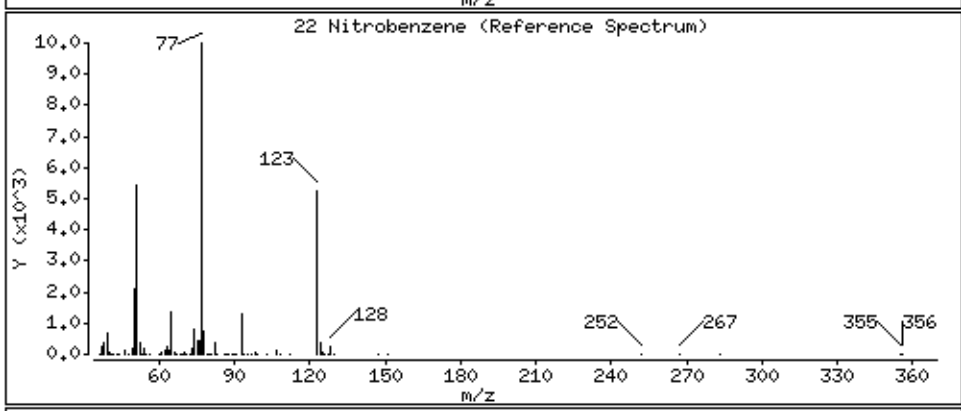
Column diameter: 0.18

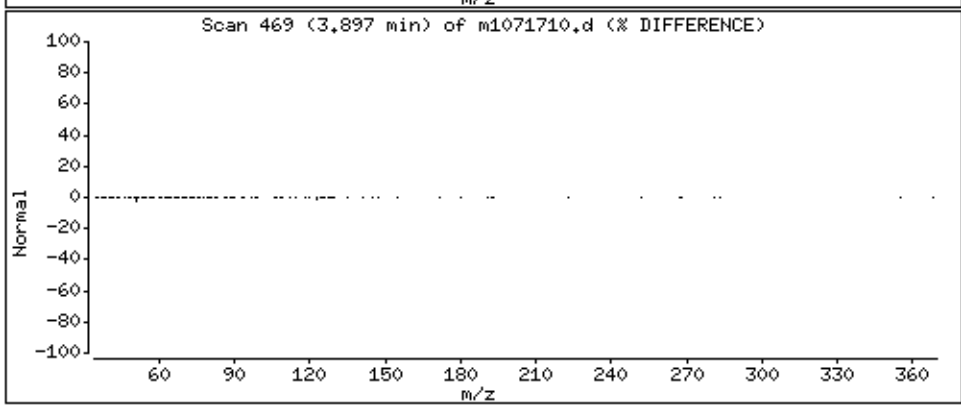
22 Nitrobenzene

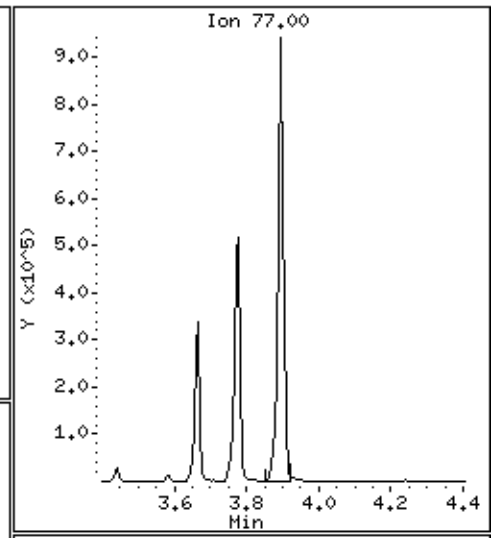
Concentration: 430 ug/L

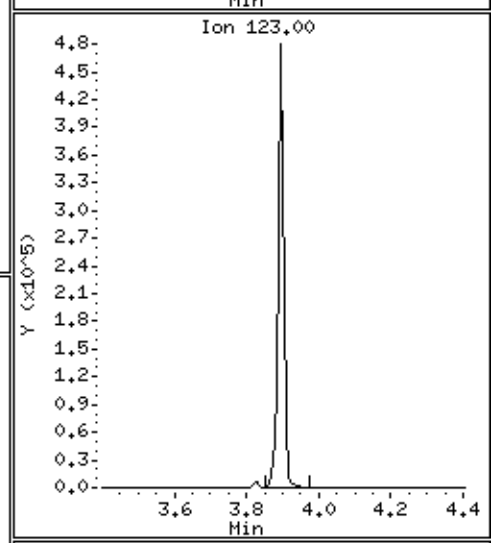


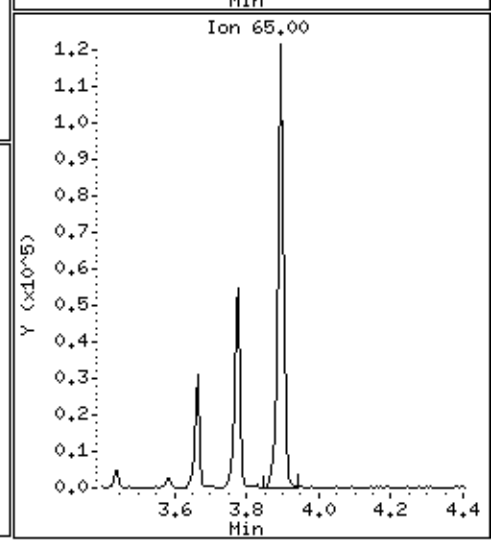












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Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

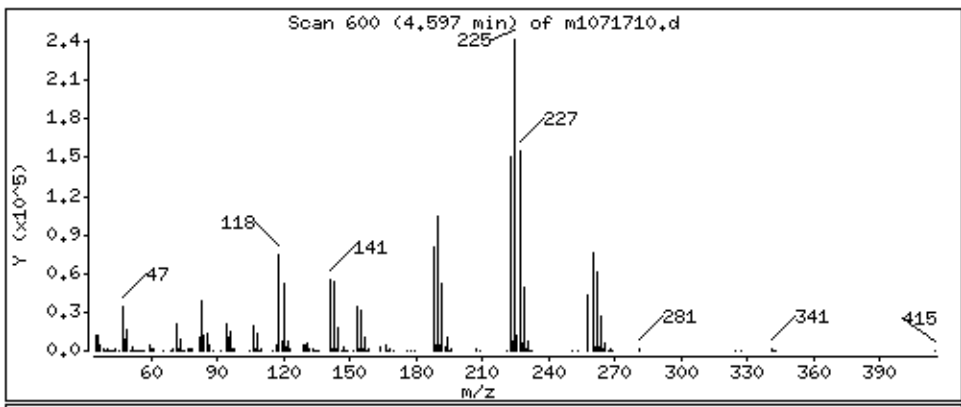
Operator: EAC

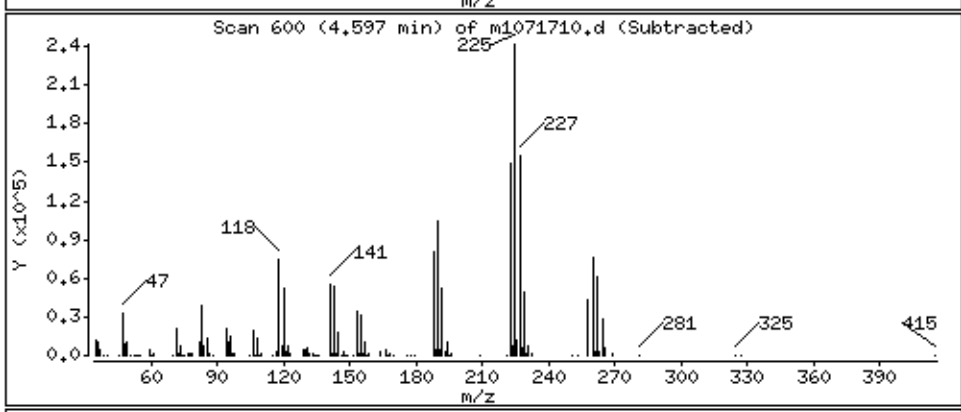
Column phase: RTX-5MS

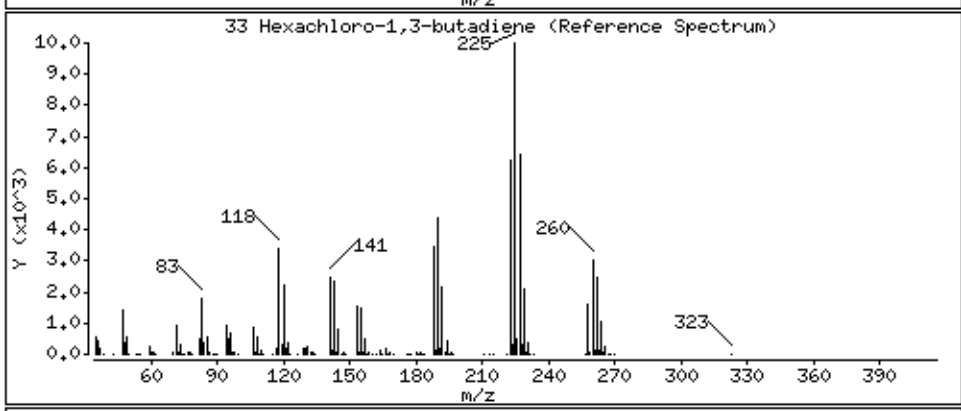
Column diameter: 0.18

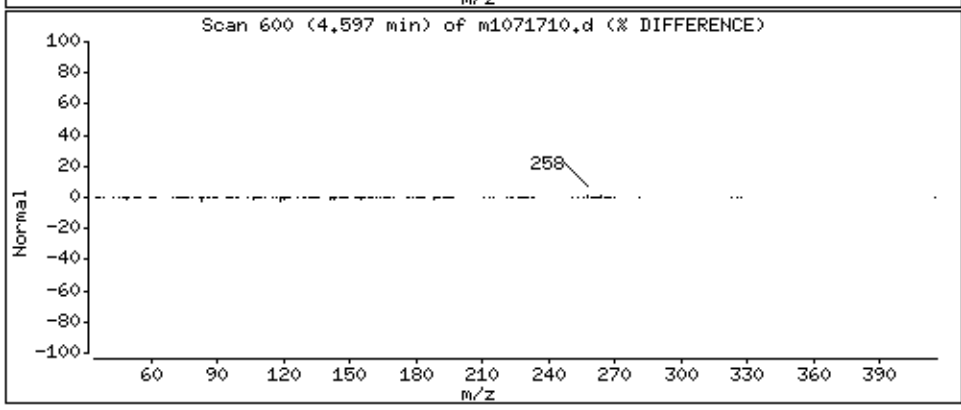
33 Hexachloro-1,3-butadiene

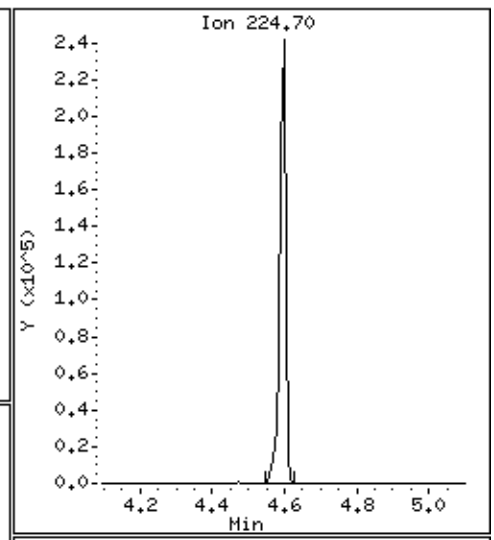
Concentration: 229 ug/L

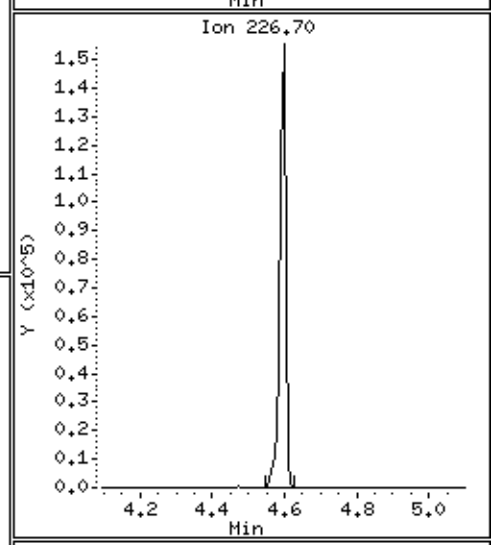


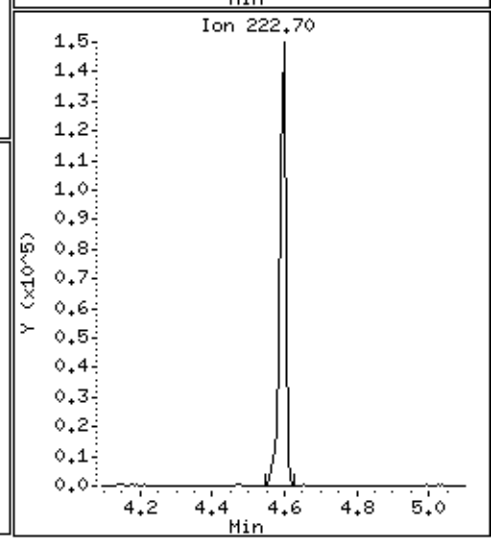












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

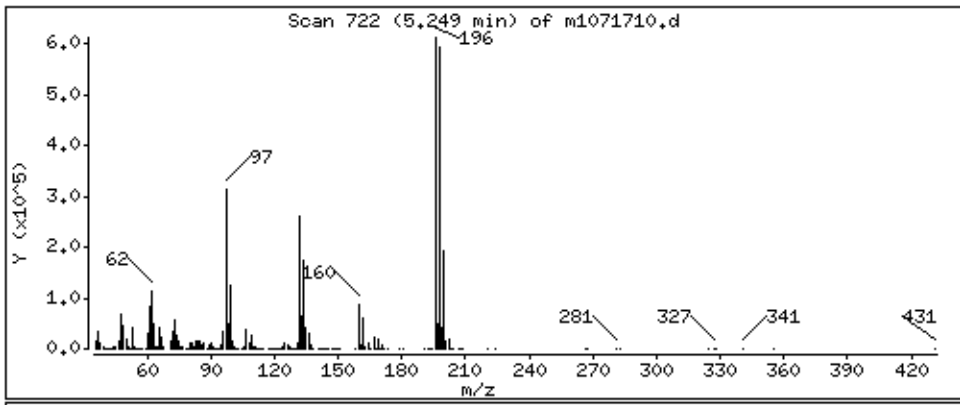
Operator: EAC

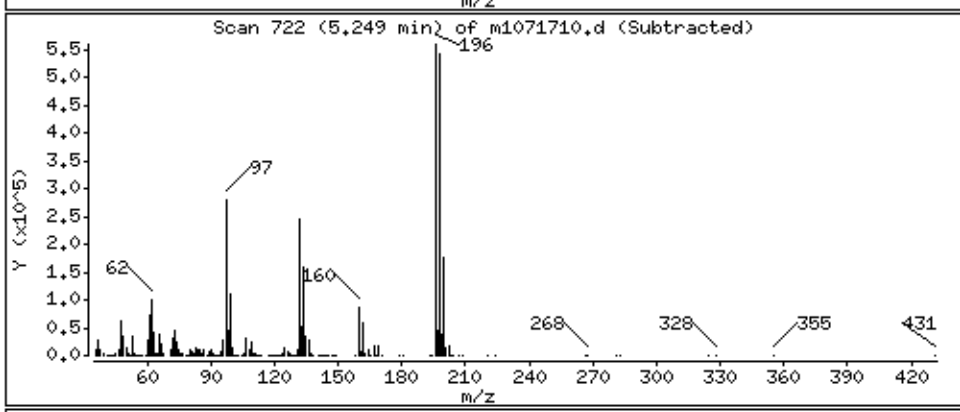
Column phase: RTX-5MS

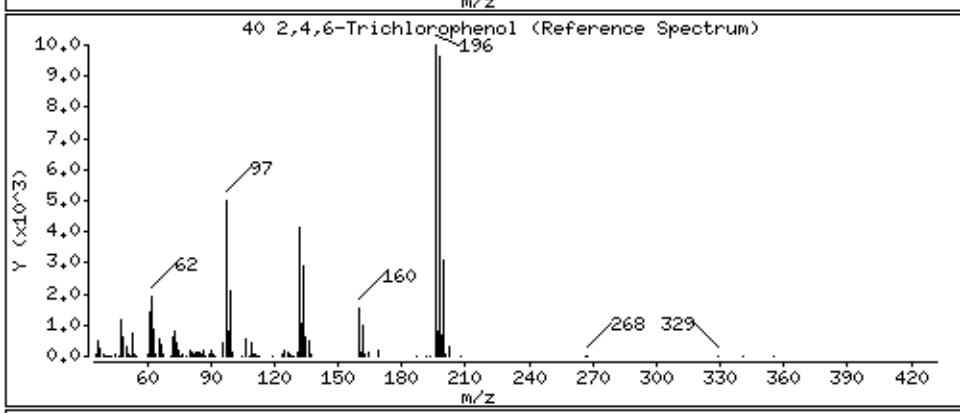
Column diameter: 0.18

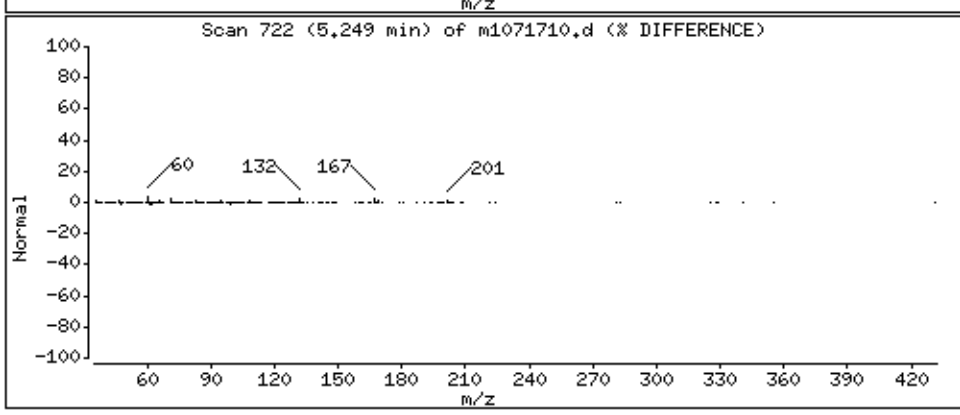
40 2,4,6-Trichlorophenol

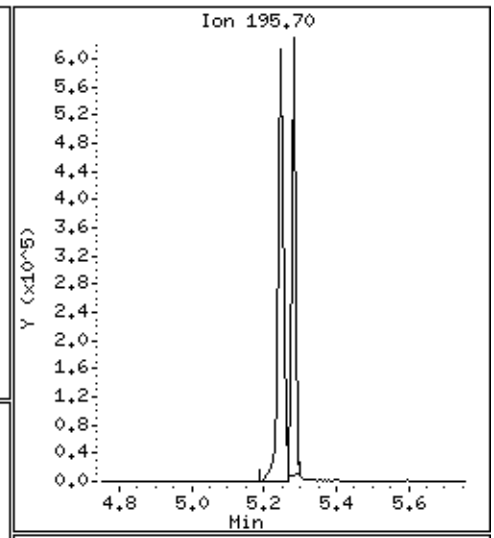
Concentration: 418 ug/L

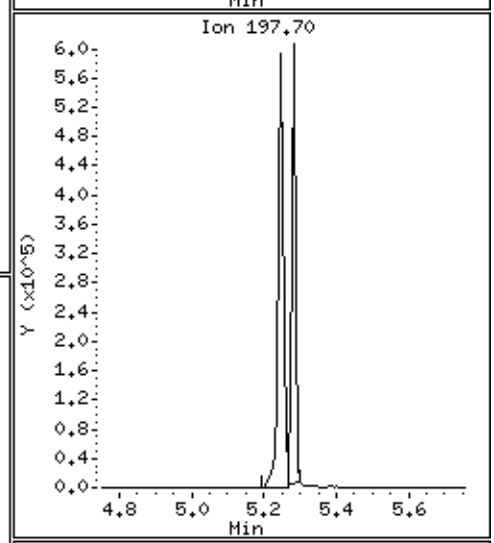


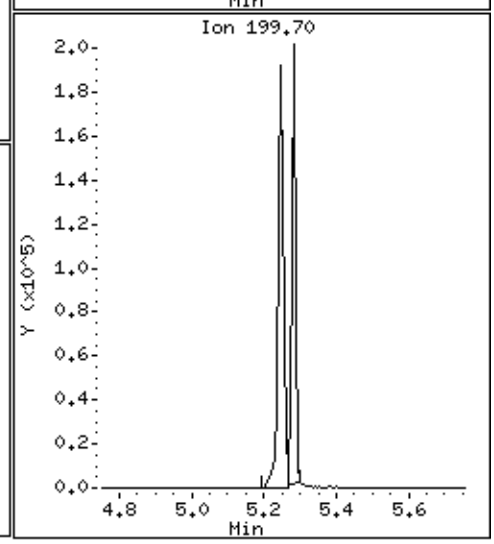












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

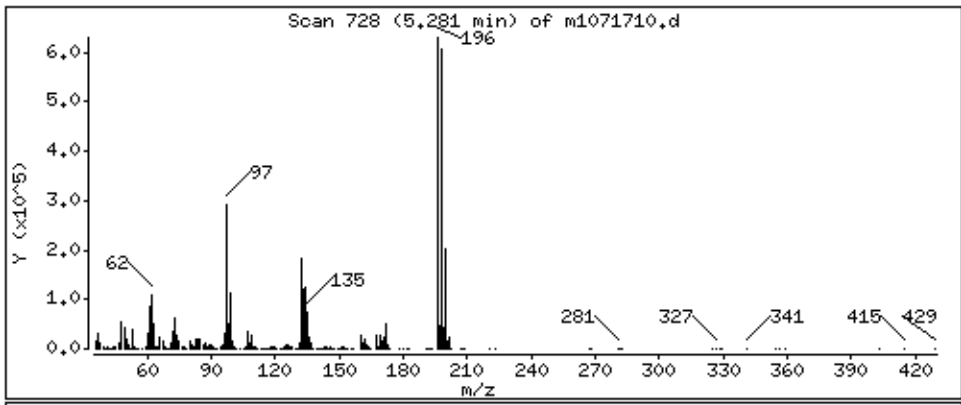
Operator: EAC

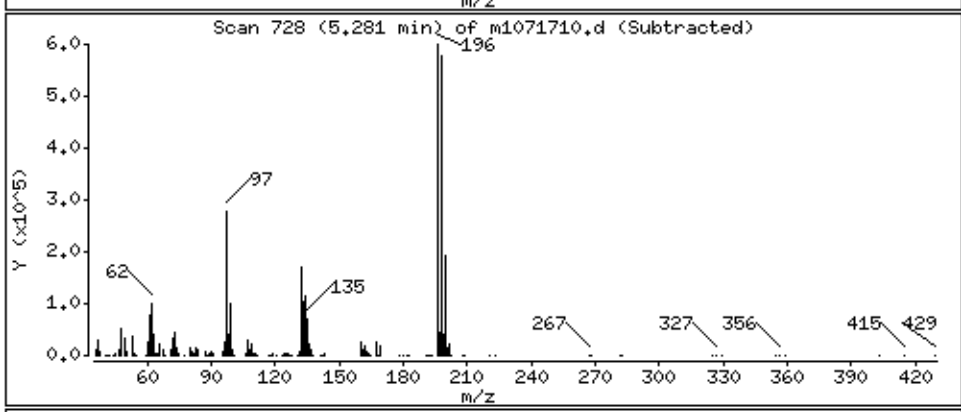
Column phase: RTX-5MS

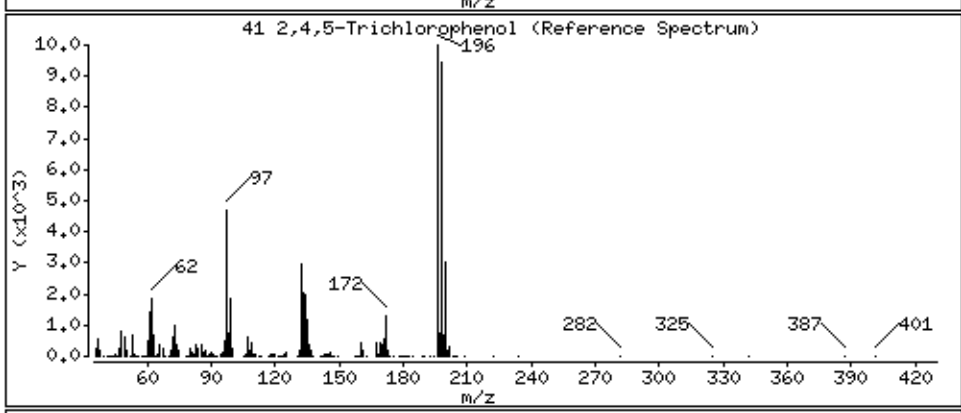
Column diameter: 0.18

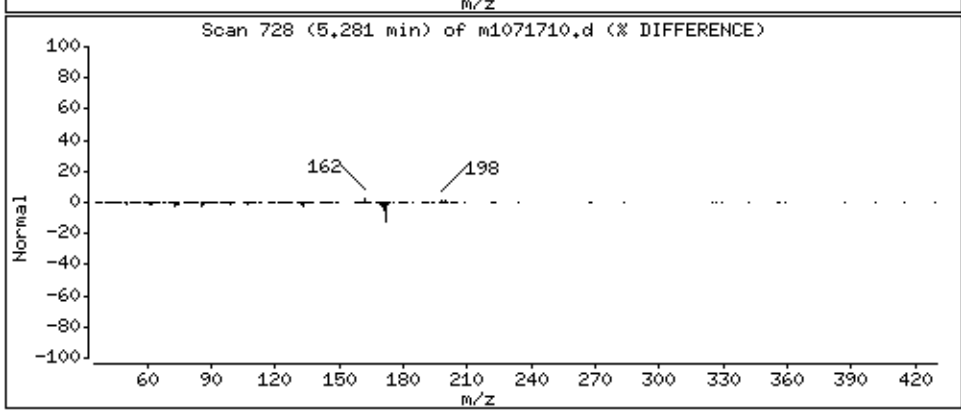
41 2,4,5-Trichlorophenol

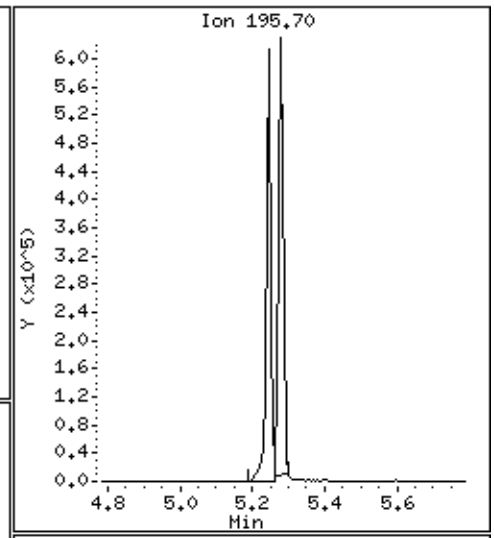
Concentration: 408 ug/L

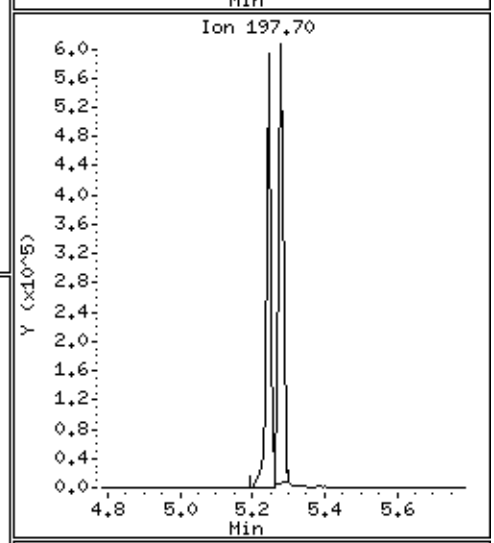


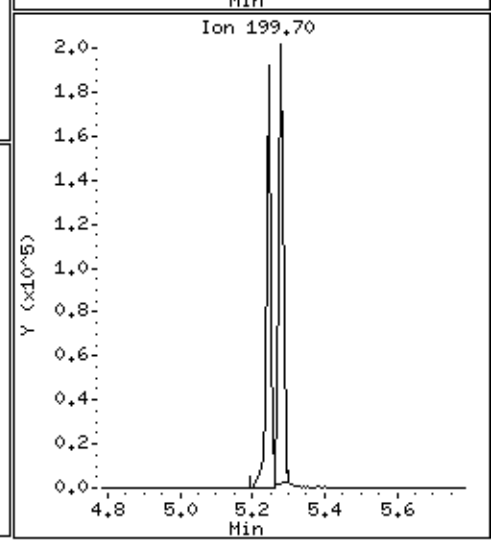












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

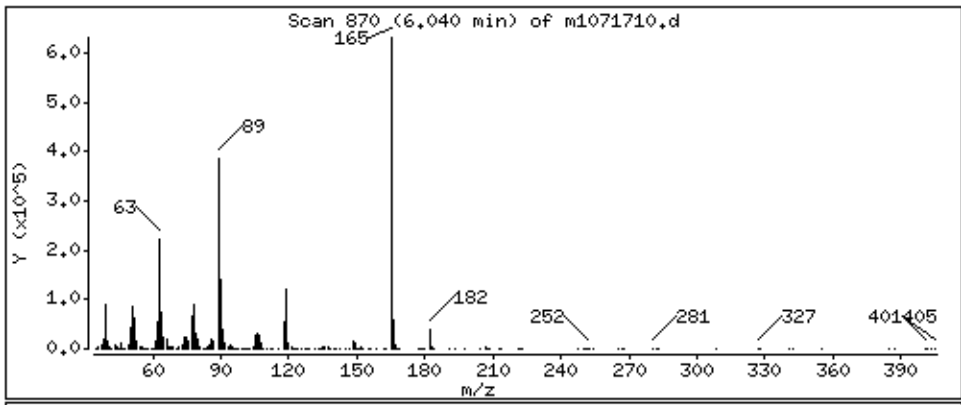
Operator: EAC

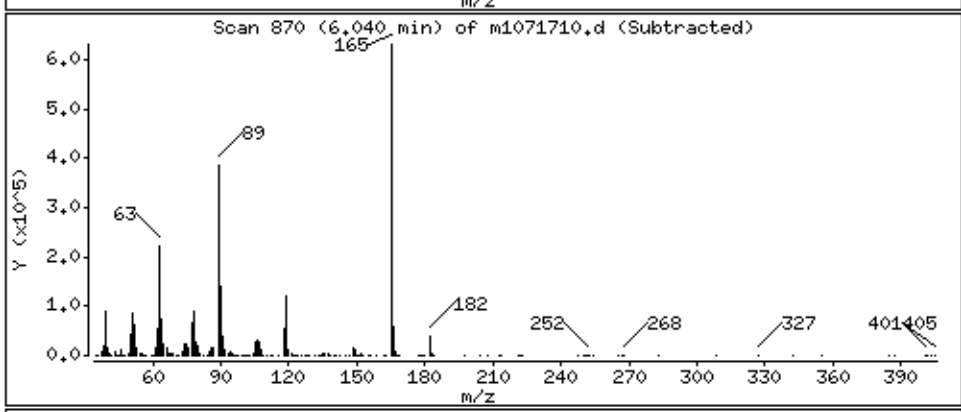
Column phase: RTX-5MS

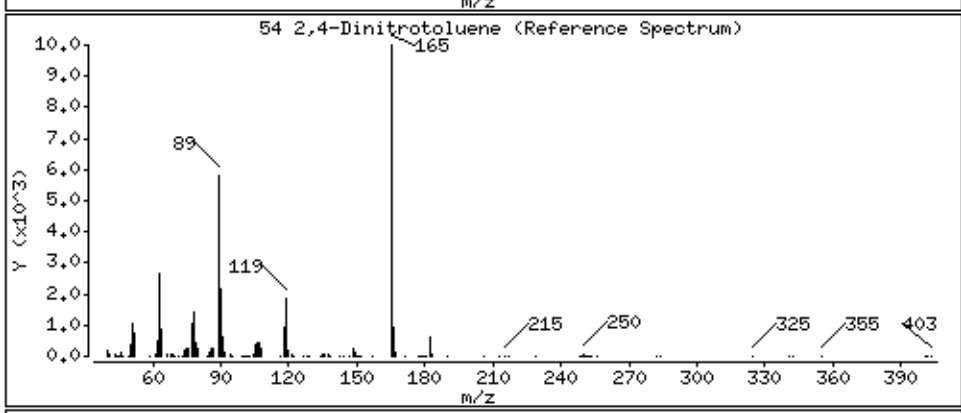
Column diameter: 0.18

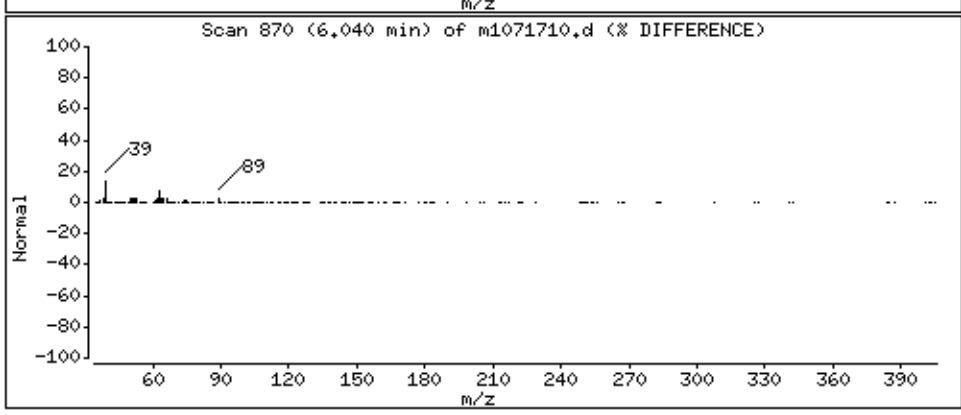
54 2,4-Dinitrotoluene

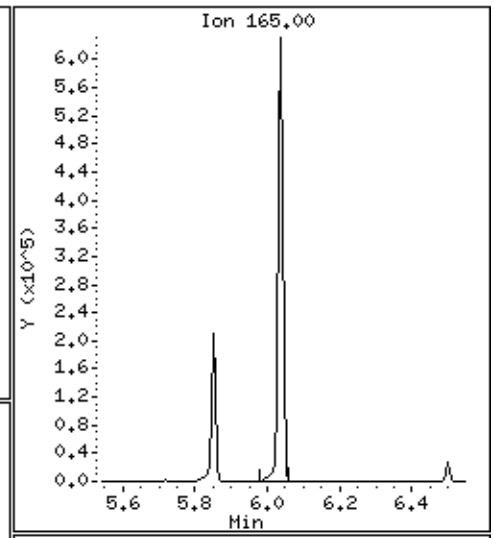
Concentration: 381 ug/L

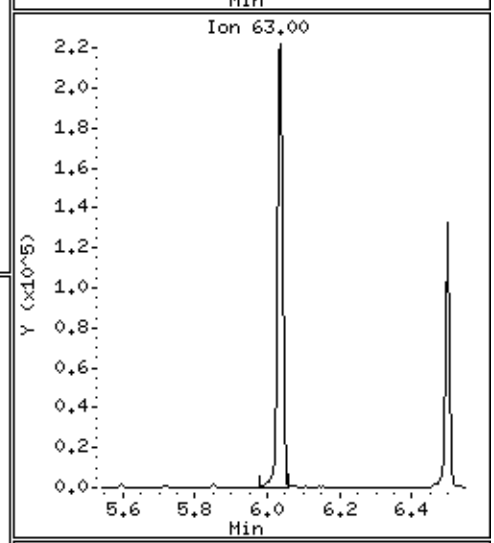


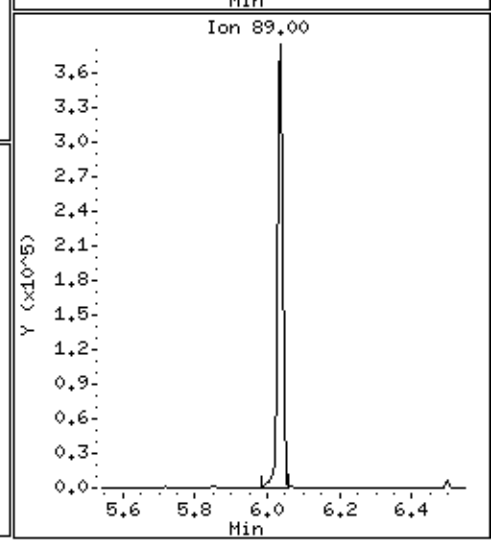












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

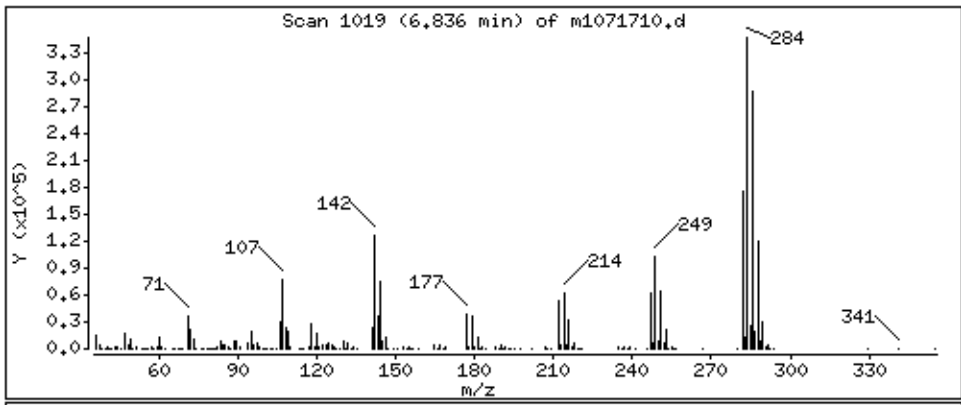
Operator: EAC

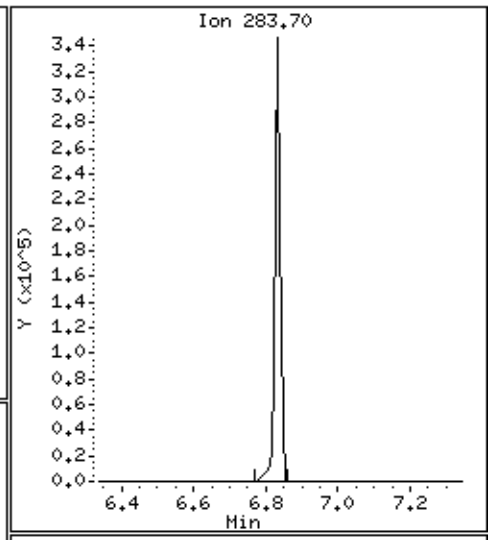
Column phase: RTX-5MS

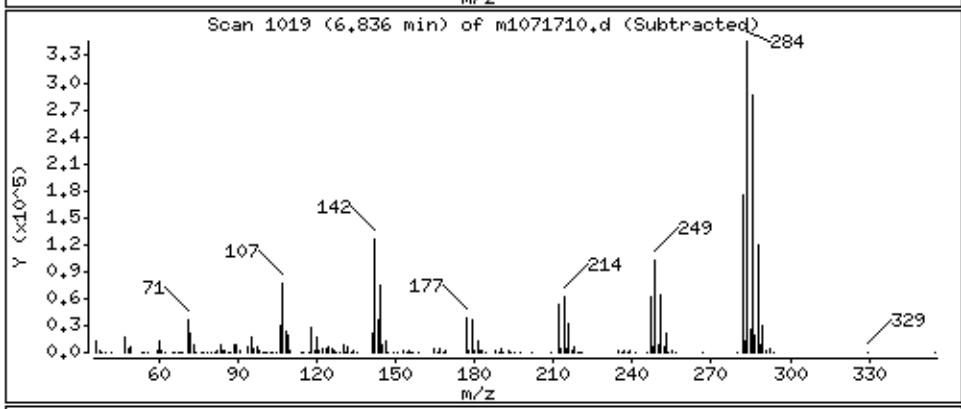
Column diameter: 0.18

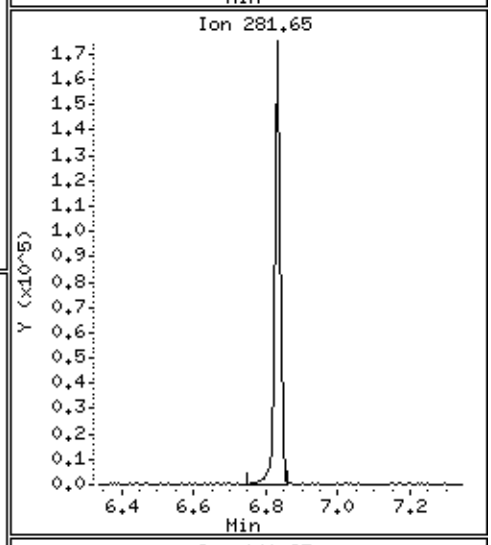
67 Hexachlorobenzene

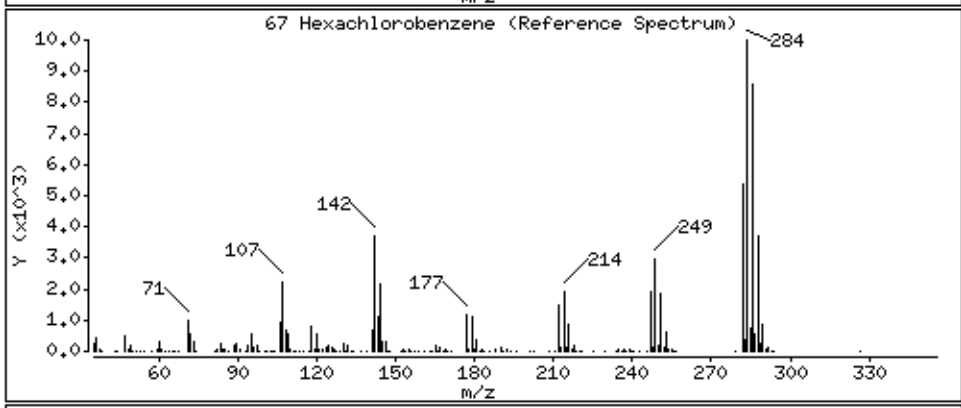
Concentration: 275 ug/L

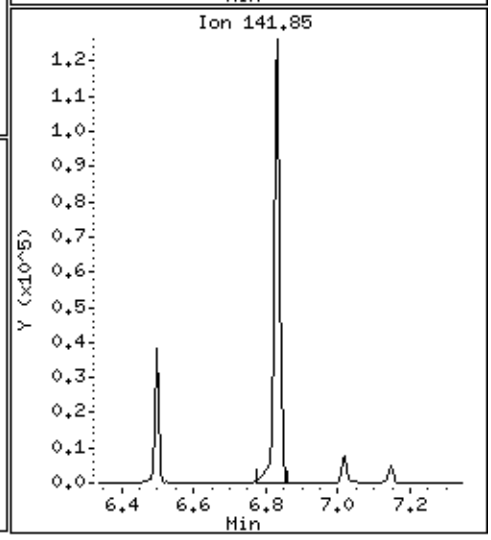


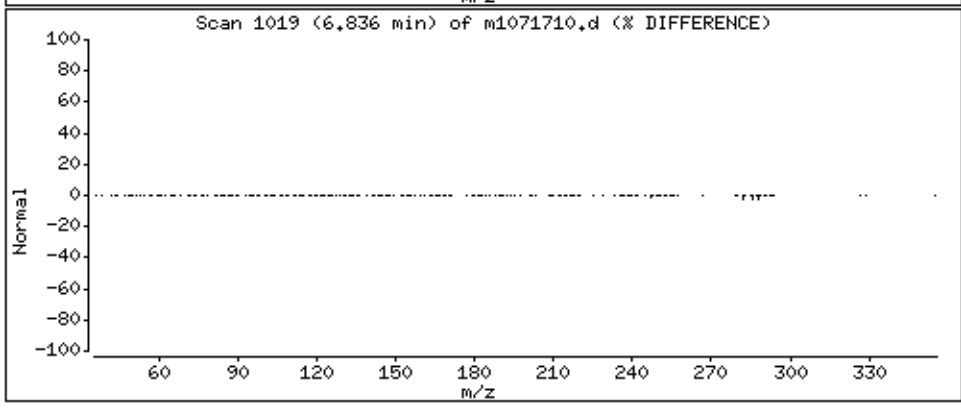












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b\m1071710.d

Date : 17-JUL-2019 20:43

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1711100

Volume Injected (uL): 1.0

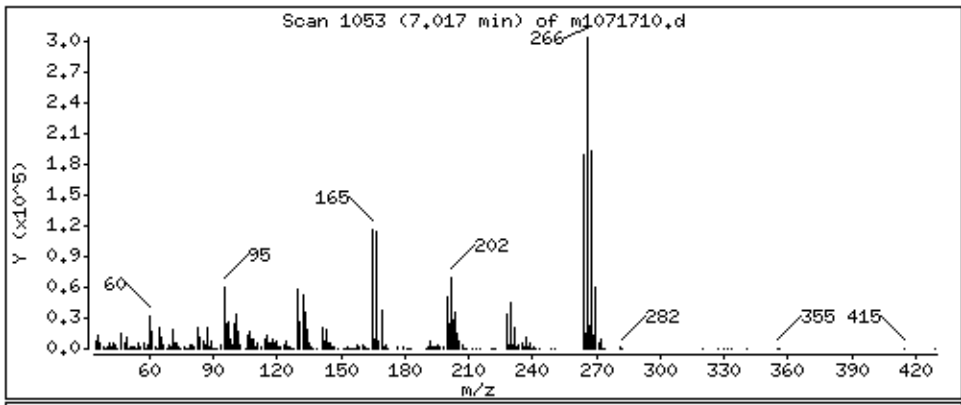
Operator: EAC

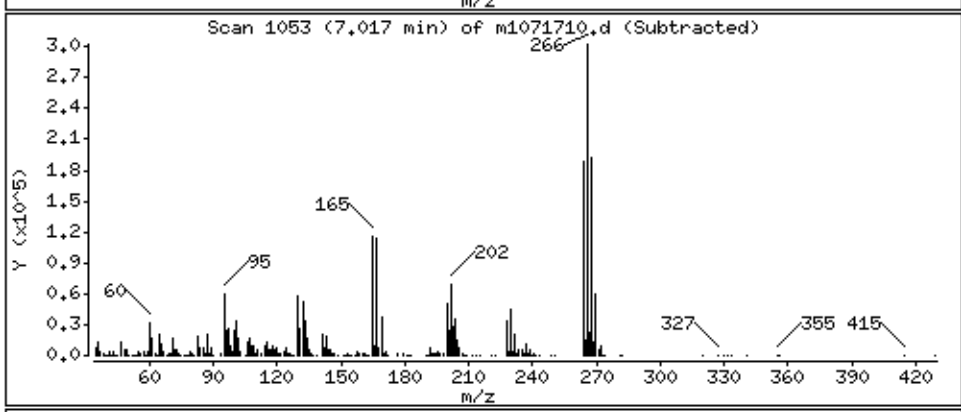
Column phase: RTX-5MS

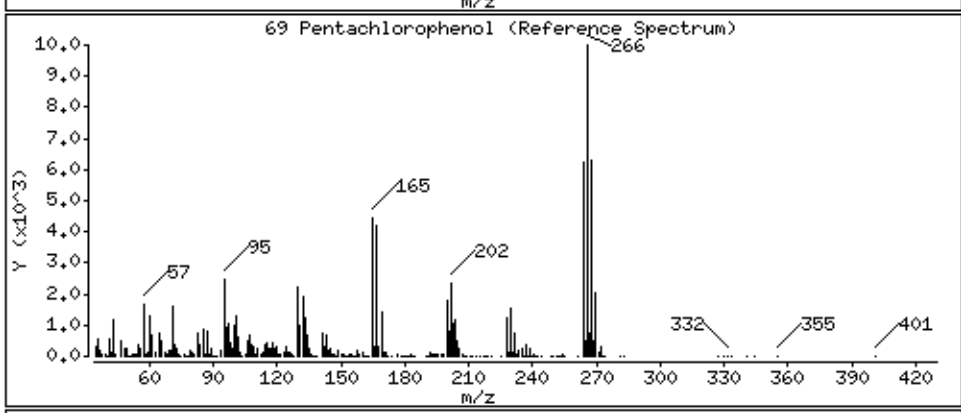
Column diameter: 0.18

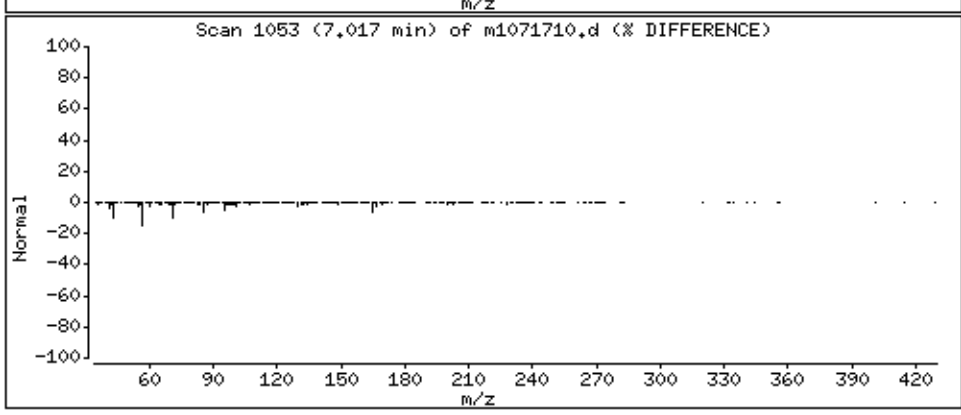
69 Pentachlorophenol

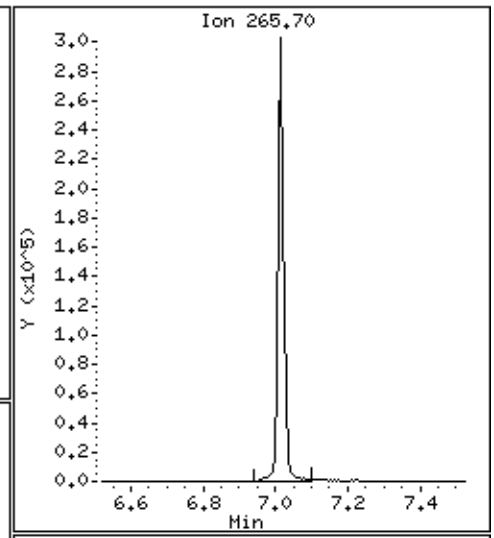
Concentration: 445 ug/L

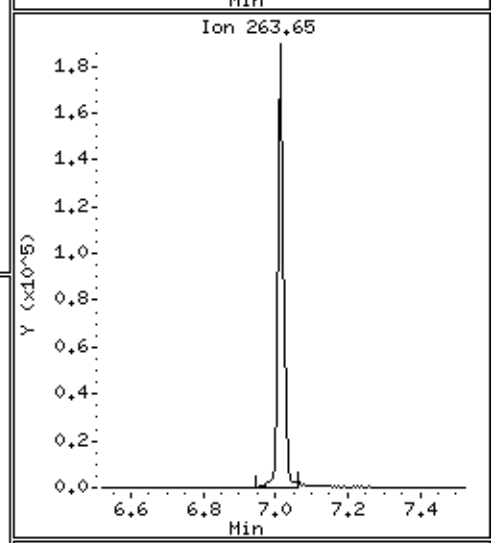


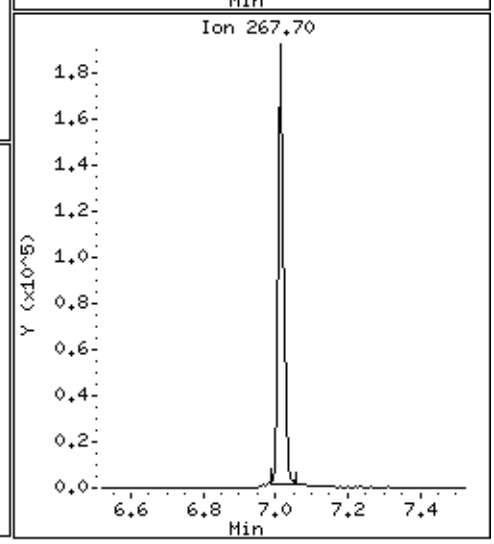












Data File: \\30wintarget\chem\30mss1.i\mss1071719.b/m1071710.d
Injection Date: 17-JUL-2019 20:43
Instrument: 30mss1.i
Lab Sample ID: 1711100
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: TCLP 8730/351733; 8731/351735

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	SHD	Extracted Date/Time	07/15/2019 16:28:28:709	Tumbler Start Temp. (C)	21.5
Tumbler End Temp. (C)	24.5	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	50
Batch Notes	HNO3 91162	Reviewed By	VAK	Reviewed By Date	07/29/2019 10:39		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1709291**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
TCLP	PS	**30313234001**	Y		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
TCLP	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y		7.42	1.77	5	100
TCLP	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
TCLP	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
TCLP	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
TCLP	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
TCLP	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
TCLP	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
TCLP	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
TCLP	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
TCLP	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
TCLP	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
TCLP	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
TCLP	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
TCLP	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	LB	**1709293**	N		N	30TBL5	HP001			Y	4.96	4.96	5	
1311MET_L	LB	**1709294**	N		1	30TBL5	HP001				4.96	4.96	5	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30313233001**	N		O	30TBL5	HP001	Water	Y	Y	7.42	1.77	5	100
1311MET_L	PS	**30313234001**	N		P	30TBL5	HP001	Water	Y	Y	11.11	1.98	5	100
1311MET_L	PS	**30312639001**	N		Q	30TBL5	HP001	Other	Y	Y	7.49	1.74	5	100
1311MET_L	PS	**30312463001**	N		R	30TBL5	HP001	Other	Y	Y	8.68	1.87	5	100
1311MET_L	PS	**30312591001**	N		S	30TBL5	HP001	Other	Y	Y	7.4	1.71	5	100
1311MET_L	PS	**30312593001**	N		D	30TBL5	HP001	Other	Y	Y	9.6	1.86	5	100
1311MET_L	PS	**50230174001**	N		E	30TBL5	HP001	Other	Y	Y	5.35	1.79	5	100
1311MET_L	PS	**30313326001**	N		F	30TBL5	HP001	Other	Y	Y	8.18	1.68	5	100
1311MET_L	PS	**30313756001**	N		H	30TBL5	HP001	Other	Y	Y	7.79	1.84	5	100
1311MET_L	PS	**30313331001**	N		G	30TBL5	HP001	Other	Y	Y	9.05	1.81	5	100
1311MET_L	PS	**30312982001**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30312982002**	N		I	30TBL5	HP001	Non-Aqueous Liquid	Y	Y	7.86	1.57	5	100
1311MET_L	PS	**30313514001**	N		J	30TBL5	HP001	Other	Y	Y	8.92	1.66	5	100
1311MET_L	PS	**30313514002**	N		K	30TBL5	HP001	Other	Y	Y	8.38	1.66	5	100
1311MET_L	PS	**30313553001**	N		L	30TBL5	HP001	Other	Y	Y	10.54	2.11	5	100
1311MET_L	PS	**30313635001**	N		M	30TBL5	HP001	Other	Y	Y	7.49	1.6	5	100
1311MET_L	PS	**30313627001**	N		2	30TBL5	HP001	Other	Y	Y	10.5	1.62	5	100
1311MET_L	PS	**30313628001**	N		3	30TBL5	HP001	Other	Y	Y	11.27	9.34	5	100
1311MET_L	PS	**30312286001**	N		4	30TBL5	HP001	Other	Y	Y	10.3	2.05	5	33

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1709291**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735				
TCLP	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735		483	458.3	-24.7
TCLP	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735		476.1	477.5	1.4
TCLP	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735				
TCLP	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735				
TCLP	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735				
TCLP	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735				
TCLP	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735				
TCLP	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735				
TCLP	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735				
TCLP	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735				
TCLP	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735		475.8	484.4	8.6
TCLP	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735		475.8	484.4	8.6
TCLP	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735				
TCLP	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735				

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735				
TCLP	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735				
1311MET_L	LB	**1709293**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.66	07/16/2019 09:30:56:735	Y			
1311MET_L	LB	**1709294**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.72	07/16/2019 10:04:56:735	Y			
1311MET_L	PS	**30313233001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.36	07/16/2019 09:34:56:735	Y	476.1	477.5	1.4
1311MET_L	PS	**30313234001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.54	07/16/2019 09:32:56:735	Y	483	458.3	-24.7
1311MET_L	PS	**30312639001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.68	07/16/2019 09:36:56:735	Y			
1311MET_L	PS	**30312463001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.96	07/16/2019 09:38:56:735	Y			
1311MET_L	PS	**30312591001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	5.06	07/16/2019 09:40:56:735	Y			
1311MET_L	PS	**30312593001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 09:42:56:735	Y			
1311MET_L	PS	**50230174001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.57	07/16/2019 09:44:56:735	Y			
1311MET_L	PS	**30313326001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.88	07/16/2019 09:46:56:735	Y			
1311MET_L	PS	**30313756001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.76	07/16/2019 09:50:56:735	Y			
1311MET_L	PS	**30313331001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.66	07/16/2019 09:48:56:735	Y			
1311MET_L	PS	**30312982001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/15/2019 03:30:56:735	Y	475.8	484.4	8.6

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30312982002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.62	07/16/2019 09:54:56:735	Y	475.8	484.4	8.6
1311MET_L	PS	**30313514001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.57	07/16/2019 09:56:56:735	Y			
1311MET_L	PS	**30313514002**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	6.81	07/16/2019 09:58:56:735	Y			
1311MET_L	PS	**30313553001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	8.60	07/16/2019 10:00:56:735	Y			
1311MET_L	PS	**30313635001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.85	07/16/2019 10:02:56:735	Y			
1311MET_L	PS	**30313627001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.03	07/16/2019 10:06:56:735	Y			
1311MET_L	PS	**30313628001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	12.14	07/16/2019 10:08:56:735	Y			
1311MET_L	PS	**30312286001**	92410 ()	TCLP 1	93561 ()	72915 ()	07/15/2019 17:20:35	07/16/2019 09:20:52	4.89	07/16/2019 10:10:56:735	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1709291**								2000	
TCLP	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
TCLP	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
TCLP	PS	**30312639001**								2000	sand
TCLP	PS	**30312463001**								2000	dirt
TCLP	PS	**30312591001**								2000	rock
TCLP	PS	**30312593001**								2000	rock

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	PS	**50230174001**								2000	rock
TCLP	PS	**30313326001**								2000	dirt
TCLP	PS	**30313331001**								2000	rock
TCLP	PS	**30313756001**								2000	rock
TCLP	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
TCLP	PS	**30313514001**								2000	rock
TCLP	PS	**30313514002**								2000	rock
TCLP	PS	**30313553001**								2000	1*
TCLP	PS	**30313635001**								2000	plastic
1311MET_L	LB	**1709293**								2000	
1311MET_L	LB	**1709294**								2000	
1311MET_L	PS	**30313233001**	500	498.6	492.8	990.6	497.8	0.8	0.16	16.00	water
1311MET_L	PS	**30313234001**	558.7	583.4	495.5	1065.4	569.9	13.5	2.31	270.00	water
1311MET_L	PS	**30312639001**								2000	sand
1311MET_L	PS	**30312463001**								2000	dirt
1311MET_L	PS	**30312591001**								2000	rock
1311MET_L	PS	**30312593001**								2000	rock
1311MET_L	PS	**50230174001**								2000	rock
1311MET_L	PS	**30313326001**								2000	dirt
1311MET_L	PS	**30313756001**								2000	rock
1311MET_L	PS	**30313331001**								2000	rock
1311MET_L	PS	**30312982001**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30312982002**	265.6	257.0	181.5	414.1	232.6	24.4	9.49	488.00	oil
1311MET_L	PS	**30313514001**								2000	rock
1311MET_L	PS	**30313514002**								2000	rock
1311MET_L	PS	**30313553001**								2000	1*

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30313635001**								2000	plastic
1311MET_L	PS	**30313627001**								2000	dirt
1311MET_L	PS	**30313628001**								2000	dirt
1311MET_L	PS	**30312286001**								2000	plastic

Sample Notes:

1*: wood shavings

Prep Log Report

Batch Information: OEXT 38668/352229 TCLP BNA-SPE **Template Version: F-PA-O-007-Rev.00 (5May2016)**

Prep Method	EPA 3535A	Analysis Method	EPA 8270D	Extracted By	JPD	Extracted Date/Time	07/17/2019 10:25:53:550
Extraction End Date/Time	07/17/2019 13:44:42:730	Acceptance Range:	pH: 4-5	Witnessed By		Concentrated By	JPD
Concentrated By Date	07/17/2019 13:11:22:809	Conc. Method	SPE	Methylene Chloride	92788	Methanol	93633
1:1 H2SO4	85991	10N Sodium Hydroxide	None Added	SPE Cartridge	87233	Sodium Sulfate	90972
Gravity Filters	89368	Syringe ID 1	SYR033	Reviewed By	BBR	Reviewed By Date	07/18/2019 01:49
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	LB	**1710028**		100	No	10		92714 (1)	
8270DSPE_P	LCS	**1711100**		100	No	10		92714 (1)	90624 (.5)
8270DSPE_P	PS	**30313313001**		100	Yes	10		92714 (1)	
8270DSPE_P	MS	**1711101**		100	Yes	10		92714 (1)	90624 (.5)
8270DSPE_P	MSD	**1711102**		100	Yes	10		92714 (1)	90624 (.5)
8270DSPE_P	PS	**30313514001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313514002**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313553001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30313635001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312463001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30313599001**		100	Yes	10		92714 (1)	
8270DSPE_P	PS	**30312591001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312593001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30312982002**		100	No	10		92714 (1)	
8270DSPE_P	PS	**50230174001**		100	No	10		92714 (1)	

Standard Notes:

90624: OEXT TCLP BNA spike 100 ppm in **92714: OEXT 8270 BNA surrogate 50/75**

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium Method: 8270D
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890:10 Surr. lot: see extraction shits
Tune std: 93078 Cal. std: 93076

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10715t1.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	07:44	EAC	
1/m10715t2.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	07:59	EAC	
1/m10715t3.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	08:24	EAC	Ran DFTPP Tune
1/m10715t4.d	DFTPP	N/14828	DFTPP	1	625tune	7/15/19	09:06	EAC	
1/m10715y1.d	CAL7	N/14828	CALIB_7	1	8270071519	7/15/19	09:21	EAC	
1/m10715y2.d	CAL6	N/14828	CALIB_6	1	8270071519	7/15/19	09:43	EAC	
1/m10715y3.d	CAL5	N/14828	CALIB_5	1	8270071519	7/15/19	10:06	EAC	
1/m10715y4.d	CAL4	N/14828	CALIB_4	1	8270071519	7/15/19	10:28	EAC	
1/m10715y5.d	CAL3	N/14828	CALIB_3	1	8270071519	7/15/19	10:51	EAC	
1/m10715y6.d	CAL2	N/14828	CALIB_2	1	8270071519	7/15/19	11:13	EAC	
1/m10715y7.d	CAL1	N/14828	CALIB_1	1	8270071519	7/15/19	11:36	EAC	
1/m10715y8.d	ICV	N/14828	CCALIB_8	1	8270071519	7/15/19	11:59	EAC	
1/m1071501.d	1707890	L/14821	BLANK	1	8270071519	7/15/19	13:01	EAC	
1/m1071502.d	1707891	L/14821	LCS	1	8270071519	7/15/19	13:24	EAC	
1/m1071503.d	1708419	S/14825	BLANK	1	8270071519	7/15/19	13:47	EAC	
1/m1071504.d	1708420	S/14825	LCS	1	8270071519	7/15/19	14:10	EAC	
1/m1071505.d	30313269008	L/14821	SAMPLE	1	8270071519	7/15/19	14:32	EAC	
1/m1071506.d	30313269001	S/14825	SAMPLE	1	8270071519	7/15/19	14:55	EAC	
1/m1071507.d	1708421	S/14825	MS	1	8270071519	7/15/19	15:18	EAC	
1/m1071508.d	1708422	S/14825	MSD	1	8270071519	7/15/19	15:41	EAC	
1/m1071509.d	30313269002	S/14825	SAMPLE	1	8270071519	7/15/19	16:04	EAC	
1/m1071510.d	30313269003	S/14825	SAMPLE	1	8270071519	7/15/19	16:27	EAC	
1/m1071511.d	30313269004	S/14825	SAMPLE	1	8270071519	7/15/19	16:50	EAC	
1/m1071512.d	30313269005	S/14825	SAMPLE	1	8270071519	7/15/19	17:13	EAC	
1/m1071513.d	30313269006	S/14825	SAMPLE	1	8270071519	7/15/19	17:36	EAC	
1/m1071514.d	30313269007	S/14825	SAMPLE	1	8270071519	7/15/19	17:58	EAC	
1/m1071515.d	30312076002	S/14801	SAMPLE	1	8270071519	7/15/19	18:21	EAC	
1/m1071516.d	30313021004	S/14825	SAMPLE	1	8270071519	7/15/19	18:44	EAC	
1/m1071517.d	30312131001X1000	S/14797	SAMPLE	1000	8270071519	7/15/19	19:07	EAC	
1/m1071518.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	19:30	EAC	
1/m1071519.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	19:53	EAC	
1/m1071520.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	20:15	EAC	
1/m1071521.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	20:38	EAC	

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: 07/16/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:47 07/16/2019

Reviewed By/Date: SAG 7-17-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RTX-5MS 20m X 0.18mm Helium Method:

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 92890:10 Surr. lot:

Tune std: _____ Cal. std: _____

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1071522.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:01	EAC	
1/m1071523.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:23	EAC	
1/m1071524.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	21:46	EAC	
1/m1071525.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:08	EAC	
1/m1071526.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:31	EAC	
1/m1071527.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	22:53	EAC	
1/m1071528.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	23:15	EAC	
1/m1071529.d	RINSE	N/	SAMPLE	1	8270071519	7/15/19	23:38	EAC	
1/m1071530.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:00	EAC	
1/m1071531.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:22	EAC	
1/m1071532.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	00:44	EAC	
1/m1071533.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:07	EAC	
1/m1071534.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:29	EAC	
1/m1071535.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	01:51	EAC	
1/m1071536.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:14	EAC	
1/m1071537.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:37	EAC	
1/m1071538.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	02:59	EAC	
1/m1071539.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	03:22	EAC	
1/m1071540.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	03:44	EAC	
1/m1071541.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:06	EAC	
1/m1071542.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:29	EAC	
1/m1071543.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	04:51	EAC	
1/m1071544.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	05:14	EAC	
1/m1071545.d	RINSE	N/	SAMPLE	1	8270071519	7/16/19	05:36	EAC	

File Path 1: \\30wintarget\chem\30mss1.i\mss1071519.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:48 07/16/2019 Reviewed By/Date: _____ Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890
Tune std: 79378

Method: 8270D/Tarp/625
Surr. lot: see extraction sheets
Cal. std: 93076/92038
7/18/19

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10717t1.d	DFTPP	N/14828	DFTPP	1	625tune	7/17/19	13:11	EAC	
1/m10717s1.d	CCV	N/14828	CCALIB_4	1	8270071519	7/17/19	13:29	EAC	
1/m10717s2.d	CCV	N/14828	CCALIB_4	1	8270071519	7/17/19	13:51	EAC	
1/m10717x1.d	CAL1	N/BENZIDINE	CALIB_1	1	benzidine071719	7/17/19	14:18	EAC	
1/m10717x2.d	CAL2	N/BENZIDINE	CALIB_2	1	benzidine071719	7/17/19	14:40	EAC	
1/m10717x3.d	CAL3	N/BENZIDINE	CALIB_3	1	benzidine071719	7/17/19	15:03	EAC	
1/m10717x4.d	CAL4	N/BENZIDINE	CALIB_4	1	benzidine071719	7/17/19	15:26	EAC	
1/m10717x5.d	CAL5	N/BENZIDINE	CALIB_5	1	benzidine071719	7/17/19	15:49	EAC	
1/m10717x6.d	CAL6	N/BENZIDINE	CALIB_6	1	benzidine071719	7/17/19	16:11	EAC	
1/m10717x7.d	CAL7	N/BENZIDINE	CALIB_7	1	benzidine071719	7/17/19	16:34	EAC	
1/m10717x8.d	ICV	N/BENZIDINE	CCALIB_4	1	benzidine071719	7/17/19	16:57	EAC	
1/m1071701.d	1710306	L/14839	BLANK	1	8270071519	7/17/19	17:19	EAC	
1/m1071702.d	1710307	L/14839	LCS	1	8270071519	7/17/19	17:42	EAC	
1/m1071703.d	30312639001	S/14839	SAMPLE	1	8270071519	7/17/19	18:05	EAC	
1/m1071704.d	30313234001	L/14839	SAMPLE	1	8270071519	7/17/19	18:27	EAC	
1/m1071705.d	1710308	L/14839	MS	1	8270071519	7/17/19	18:50	EAC	
1/m1071706.d	1710309	L/14839	MSD	1	8270071519	7/17/19	19:12	EAC	
1/m1071707.d	1709950/1709942	N/14835/14836	BLANK	1	8270071519	7/17/19	19:35	EAC	
1/m1071708.d	1709951/1709943	N/14835/14836	LCS	1	8270071519	7/17/19	19:58	EAC	
1/m1071709.d	1710028	L/14841	SAMPLE	1	8270071519	7/17/19	20:20	EAC	
1/m1071710.d	1711100	L/14841	LCS	1	8270071519	7/17/19	20:43	EAC	
1/m1071711.d	30312052001	L/14835	SAMPLE	1	8270071519	7/17/19	21:05	EAC	
1/m1071712.d	30312052002	L/14835	SAMPLE	1	8270071519	7/17/19	21:28	EAC	
1/m1071713.d	30312052003	L/14835	SAMPLE	1	8270071519	7/17/19	21:50	EAC	
1/m1071714.d	30313313001	S/14841	SAMPLE	1	8270071519	7/17/19	22:13	EAC	
1/m1071715.d	1711101	S/14841	MS	1	8270071519	7/17/19	22:35	EAC	
1/m1071716.d	1711102	S/14841	MSD	1	8270071519	7/17/19	22:57	EAC	
1/m1071717.d	50230174001	S/14841	SAMPLE	1	8270071519	7/17/19	23:20	EAC	
1/m1071718.d	30313438007	S/14834	SAMPLE	1	8270071519	7/17/19	23:42	EAC	
1/m1071719.d	30313438005	S/14834	SAMPLE	1	8270071519	7/18/19	00:04	EAC	
1/m1071720.d	30313553001	S/14841	SAMPLE	1	8270071519	7/18/19	00:27	EAC	
1/m1071721.d	30313635001	S/14841	SAMPLE	1	8270071519	7/18/19	00:49	EAC	
1/m1071722.d	30313326001	S/14834	SAMPLE	1	8270071519	7/18/19	01:12	EAC	RR (out of tune)

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 7/18/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 13:04 07/18/2019

Reviewed By/Date: BLC 7-18-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.25mm Method:
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890:10 Surr. lot:
Tune std: _____ Cal. std: _____

see page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1071723.d	1709055	L/14831	BLANK	1	8270071519	7/18/19	01:35	EAC	625
1/m1071724.d	1709056	L/14831	LCS	1	8270071519	7/18/19	01:57	EAC	
1/m1071725.d	30313176001X10	L/14836	SAMPLE	10	8270071519	7/18/19	02:19	EAC	2126
1/m1071726.d	30313309006X10	L/14836	SAMPLE	10	8270071519	7/18/19	02:42	EAC	RR 51.
1/m1071727.d	1709944X10	L/14836	MS	10	8270071519	7/18/19	03:04	EAC	
1/m1071728.d	1709945X10	L/14836	MSD	10	8270071519	7/18/19	03:27	EAC	
1/m1071729.d	30313177001X10	L/14836	SAMPLE	10	8270071519	7/18/19	03:50	EAC	
1/m1071730.d	30313174001X10	L/14836	SAMPLE	10	8270071519	7/18/19	04:12	EAC	
1/m1071731.d	30313272001X10	L/14836	SAMPLE	10	8270071519	7/18/19	04:34	EAC	1
1/m1071732.d	30313642001X10	L/14836	SAMPLE	10	8270071519	7/18/19	04:57	EAC	
1/m1071733.d	30313788001X10	L/14836	SAMPLE	10	8270071519	7/18/19	05:19	EAC	
1/m1071734.d	30313321004X10	L/14836	SAMPLE	10	8270071519	7/18/19	05:42	EAC	
1/m1071735.d	30313789001X10	L/14836	SAMPLE	10	8270071519	7/18/19	06:04	EAC	Conf.
1/m1071736.d	30313181001X10	L/14831	SAMPLE	10	8270071519	7/18/19	06:27	EAC	RR 51.
1/m1071737.d	30313175001X10	L/14831	SAMPLE	10	8270071519	7/18/19	06:49	EAC	1
1/m1071738.d	RINSE	N/	SAMPLE	1	8270071519	7/18/19	07:12	EAC	
1/m1071739.d	RINSE	N/	SAMPLE	1	8270071519	7/18/19	07:34	EAC	
1/m1071740.d	RINSE	N/	SAMPLE	1	8270071519	7/18/19	07:57	EAC	
1/m1071741.d	RINSE	N/	SAMPLE	1	8270071519	7/18/19	08:19	EAC	
1/m1071742.d	RINSE	N/	SAMPLE	1	8270071519	7/18/19	08:42	EAC	
1/m1071743.d	30313309006	L/14836	SAMPLE	1	8270071519	7/18/19	09:20	EAC	
1/m1071744.d	1709944	L/14836	MS	1	8270071519	7/18/19	09:43	EAC	
1/m1071745.d	1709945	L/14836	MSD	1	8270071519	7/18/19	10:05	EAC	
1/m1071746.d	30313177001	L/14836	SAMPLE	1	8270071519	7/18/19	10:28	EAC	
1/m1071747.d	30313642001	L/14836	SAMPLE	1	8270071519	7/18/19	10:50	EAC	
1/m1071748.d	30313175001	L/14831	SAMPLE	1	8270071519	7/18/19	11:13	EAC	
1/m1071749.d	30313181001	L/14831	SAMPLE	1	8270071519	7/18/19	11:36	EAC	
1/m1071750.d	30313174001	L/14836	SAMPLE	1	8270071519	7/18/19	11:59	EAC	
1/m1071751.d	30313272001	L/14836	SAMPLE	1	8270071519	7/18/19	12:35	EAC	1

File Path 1: \\30wintarget\chem\30mss1.i\mss1071719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 13:04 07/18/2019

Reviewed By/Date: SNG 7-18-19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890:10
Tune std: 79378

Method: 8270D/TCLP
Surr. lot: see extraction sheets
Cal. std: 94049

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10718t1.d	DFTPP	N/14848	DFTPP	1	625tune	7/18/19	15:02	EAC	
1/m10718s1.d	CCV	N/14828		1	8270071519	7/18/19	15:18	EAC	
1/m10718s2.d	CCV	N/14828		1	8270071519	7/18/19	15:41	EAC	
1/m10718y1.d	CAL7	N/14848	CALIB_7	1	8270071819	7/18/19	16:11	EAC	
1/m10718y2.d	CAL6	N/14848	CALIB_6	1	8270071819	7/18/19	16:33	EAC	
1/m10718y3.d	CAL5	N/14848	CALIB_5	1	8270071819	7/18/19	16:56	EAC	
1/m10718y4.d	CAL4	N/14848	CALIB_4	1	8270071819	7/18/19	17:19	EAC	
1/m10718y5.d	CAL3	N/14848	CALIB_3	1	8270071819	7/18/19	17:42	EAC	
1/m10718y6.d	CAL2	N/14848	CALIB_2	1	8270071819	7/18/19	18:05	EAC	
1/m10718y7.d	CAL1	N/14848	CALIB_1	1	8270071819	7/18/19	18:28	EAC	
1/m10718y8.d	ICV	N/14848	CCALIB_8	1	8270071819	7/18/19	18:51	EAC	
1/m1071801.d	1711299	S/14844	BLANK	1	8270071819	7/18/19	19:14	EAC	
1/m1071802.d	1711300	S/14844	LCS	1	8270071819	7/18/19	19:36	EAC	
1/m1071803.d	1711090	L/14847	SAMPLE	1	8270071819	7/18/19	19:59	EAC	
1/m1071804.d	1711430	L/14847	SAMPLE	1	8270071819	7/18/19	20:22	EAC	
1/m1071805.d	1712463	L/14847	LCS	1	8270071819	7/18/19	20:45	EAC	
1/m1071806.d	30314239001	S/14844	SAMPLE	1	8270071819	7/18/19	21:07	EAC	
1/m1071807.d	1711301	S/14844	MS	1	8270071819	7/18/19	21:30	EAC	
1/m1071808.d	1711302	S/14844	MSD	1	8270071819	7/18/19	21:53	EAC	
1/m1071809.d	30314239002	S/14844	SAMPLE	1	8270071819	7/18/19	22:15	EAC	
1/m1071810.d	30314361001	S/14844	SAMPLE	1	8270071819	7/18/19	22:37	EAC	X10 - DL not needed
1/m1071811.d	30314122001	S/14847	SAMPLE	1	8270071819	7/18/19	23:00	EAC	
1/m1071812.d	1712464	S/14847	MS	1	8270071819	7/18/19	23:22	EAC	
1/m1071813.d	1712465	S/14847	MSD	1	8270071819	7/18/19	23:45	EAC	
1/m1071814.d	30314122002	S/14847	SAMPLE	1	8270071819	7/19/19	00:07	EAC	
1/m1071815.d	30313326001	S/14834	SAMPLE	1	8270071819	7/19/19	00:30	EAC	
1/m1071816.d	30313514001	S/14841	SAMPLE	1	8270071819	7/19/19	00:52	EAC	
1/m1071817.d	30313514002	S/14841	SAMPLE	1	8270071819	7/19/19	01:14	EAC	
1/m1071818.d	30313331001	S/14834	SAMPLE	1	8270071819	7/19/19	01:36	EAC	
1/m1071819.d	30312463001	S/14841	SAMPLE	1	8270071819	7/19/19	01:59	EAC	
1/m1071820.d	30313599001	S/14841	SAMPLE	1	8270071819	7/19/19	02:21	EAC	
1/m1071821.d	30312744003	S/14847	SAMPLE	1	8270071819	7/19/19	02:43	EAC	
1/m1071822.d	30314115001	S/14847	SAMPLE	1	8270071819	7/19/19	03:06	EAC	RR (run out of time)

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 7/19/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071819.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:21 07/19/2019

Reviewed By/Date: SJC 7-19-19

INSTRUMENT RUN LOG

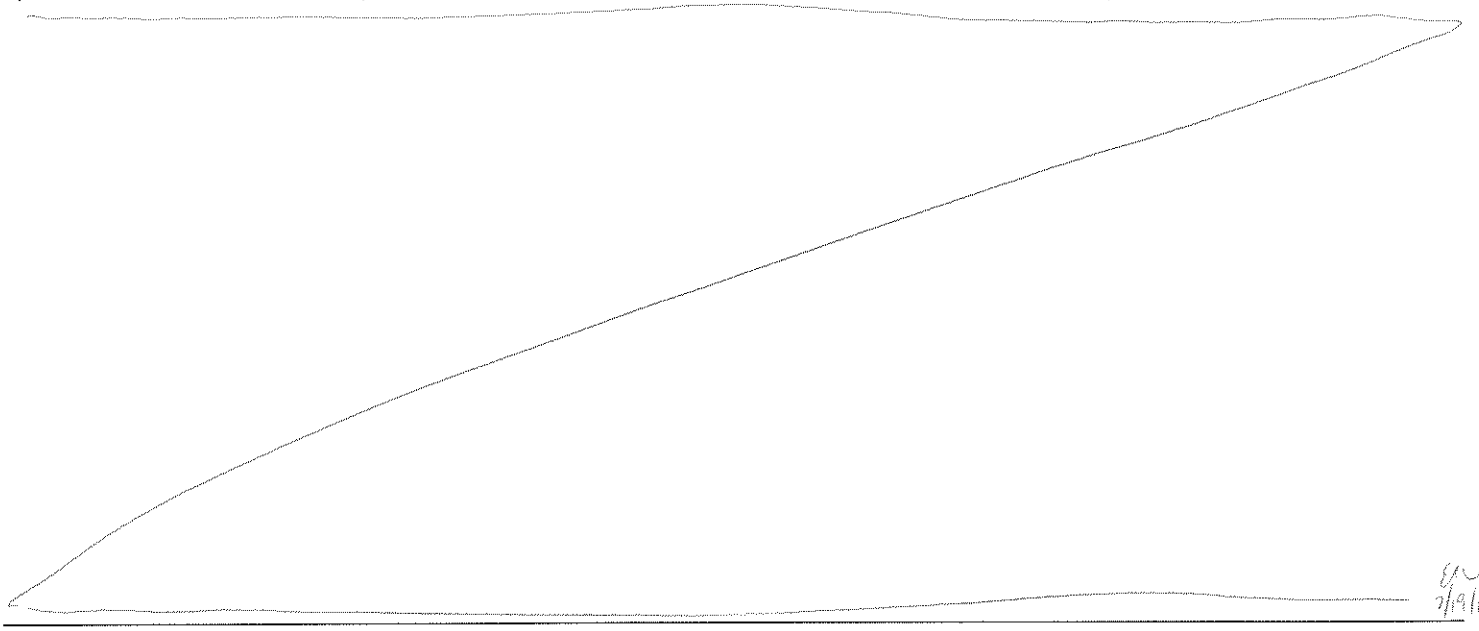
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium Method:
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 92890:10 Surr. lot:
Tune std: _____ Cal. std: _____

See page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1071823.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	03:29	EAC	
1/m1071824.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	03:51	EAC	
1/m1071825.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	04:13	EAC	
1/m1071826.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	04:36	EAC	
1/m1071827.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	04:58	EAC	
1/m1071828.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	05:21	EAC	
1/m1071829.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	05:43	EAC	
1/m1071830.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	06:06	EAC	
1/m1071831.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	06:28	EAC	
1/m1071832.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	06:50	EAC	
1/m1071833.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	07:13	EAC	
1/m1071834.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	07:35	EAC	
1/m1071835.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	07:58	EAC	
1/m1071836.d	RINSE	N/	SAMPLE	1	8270071819	7/19/19	08:21	EAC	



EAC 7/19/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1071819.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:22 07/19/2019

Reviewed By/Date: SJC 7-19-19 Page: 2 of 2

MSSV SIM - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2

LAB SAMPLE ID	SAMPLE NAME	2FBP	TD14
1708423	1708423BLANK	74	87
1708424	1708424LCS	74	82
30313514001	Sewer-1	68	81
30313514002	Sewer-2	79	85

	QC LIMITS
(2FBP) = 2-Fluorobiphenyl (S)	(43-97)
(TD14) = Terphenyl-d14 (S)	(56-106)

* Values outside of QC Limits

MSSV SIM - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1708424LCS
Date Extracted: 07/12/2019
Date Analyzed (1): 07/15/2019
Instrument: 30MSS2
LCS Lot No: 85224
Lab File ID: MSS2071519.B\M207151902.D
SDG No.: 30313514

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acenaphthylene	133	96.8	73	42-109
Anthracene	133	112	84	54-110
Benzo(a)anthracene	133	122	92	59-119
Benzo(a)pyrene	133	119	89	55-125
Benzo(b)fluoranthene	133	126	95	54-131
Benzo(g,h,i)perylene	133	96.7	73	54-122
Benzo(k)fluoranthene	133	121	91	57-123
Chrysene	133	117	88	62-111
Dibenz(a,h)anthracene	133	97.9	74	60-124
Fluoranthene	133	120	90	60-116
Fluorene	133	104	78	49-110
Indeno(1,2,3-cd)pyrene	133	97.9	74	59-122
Naphthalene	133	101	76	42-97
Phenanthrene	133	107	81	52-107
Pyrene	133	118	89	60-117

Spike Recovery: 0 out of 15 outside limits.

MSSV SIM - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1708425MS
Date Extracted: 07/12/2019
Date Analyzed (1): 07/15/2019
Instrument: 30MSS2
Lab File ID: MSS2071519.B\M207151911.D
Parent Sample ID: 30313516001
SDG No.: 30313514

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Acenaphthylene	152	0.42	466	28	26-144
Anthracene	152	0.63	791	104	10-166
Benzo(a)anthracene	152	2.2	2740	362	10-175
Benzo(a)pyrene	152	1.9	2340	286	10-175
Benzo(b)fluoranthene	152	2.9	3470	360	10-175
Benzo(g,h,i)perylene	152	0.85	1030	122	10-171
Benzo(k)fluoranthene	152	1.1	1450	238	10-160
Chrysene	152	2.1	2450	224	10-175
Dibenz(a,h)anthracene	152	0.34	481	94	10-149
Fluoranthene	152	4.1	4700	407	10-175
Fluorene	152	0.17	240	47	31-136
Indeno(1,2,3-cd)pyrene	152	0.85	966	77	10-151
Naphthalene	152	0.59	406	-122	10-149
Phenanthrene	152	1.8	2030	120	10-175
Pyrene	152	3.6	4170	403	10-175

Spike Recovery: 8 out of 15 outside limits.

MSSV SIM - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS2 Matrix Spike Duplicate - Sample No: 1708426MSD

Lab File ID (2): MSS2071519.B\M207151912.D Date Analyzed (2): 07/15/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Acenaphthylene	152	375	-32	22	0-20	26-144
Anthracene	152	842	138	6	0-20	10-166
Benzo(a)anthracene	152	2720	346	1	0-20	10-175
Benzo(a)pyrene	152	2370	308	1	0-20	10-175
Benzo(b)fluoranthene	152	3520	390	1	0-20	10-175
Benzo(g,h,i)perylene	152	1040	126	1	0-20	10-171
Benzo(k)fluoranthene	152	1430	224	1	0-20	10-160
Chrysene	152	2590	315	5	0-20	10-175
Dibenz(a,h)anthracene	152	499	106	4	0-20	10-149
Fluoranthene	152	4840	500	3	0-20	10-175
Fluorene	152	284	76	17	0-20	31-136
Indeno(1,2,3-cd)pyrene	152	1090	161	12	0-20	10-151
Naphthalene	152	329	-173	21	0-20	10-149
Phenanthrene	152	2240	260	10	0-20	10-175
Pyrene	152	4200	422	1	0-20	10-175

RPD: 2 out of 15 outside limits.

Spike Recovery: 11 out of 15 outside limits.

07/29/2019 1:37

SAMPLE NO.

1708423BLANK

MSSV SIM - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30MSS2 Matrix: Solid Lab Sample ID: 1708423

Lab File ID: MSS2071519.B\M207151901.D Date Analyzed: 07/15/2019 Time: 09:19

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1708424LCS	1708424	MSS2071519.B\M207151902.	07/15/2019 09:37
Sewer-1	30313514001	MSS2071519.B\M207151916.	07/15/2019 13:44
Sewer-2	30313514002	MSS2071519.B\M207151917.	07/15/2019 14:02

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2061719.B\M2061719T1.D DFTPP Injection Date: 06/17/2019
Instrument ID: 30MSS2 DFTPP Injection Time: 12:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.25	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	45.35	
70	Less than 2.00% of mass 69	0.12	(0.26)[1]
127	10.00 - 80.00% of mass 198	53.52	
197	Less than 2.00% of mass 198	0.14	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.99	
275	10.00 - 60.00% of mass 198	27.69	
365	Greater than 1.00% of mass 198	5.98	
441	Present, but less than mass 443	15.64	
442	50.00 - 110.00% of mass 198	99.44	
443	15.00 - 24.00% of mass 442	19.65	(19.76)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11097240CAL1	11097240CAL1	MSS2061719.B\M2061719Z1.D	06/17/2019	12:43
11097245CAL2	11097245CAL2	MSS2061719.B\M2061719Z2.D	06/17/2019	13:01
11097241CAL3	11097241CAL3	MSS2061719.B\M2061719Z3.D	06/17/2019	13:18
11097243CAL4	11097243CAL4	MSS2061719.B\M2061719Z4.D	06/17/2019	13:36
11097242CAL5	11097242CAL5	MSS2061719.B\M2061719Z5.D	06/17/2019	13:54
11097244CAL6	11097244CAL6	MSS2061719.B\M2061719Z6.D	06/17/2019	14:12
11097246ICV	11097246ICV	MSS2061719.B\M2061719Z7.D	06/17/2019	14:30

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM
Lab File ID: MSS2071519.B\M2071519T1.D DFTPP Injection Date 07/15/2019
Instrument ID: 30MSS2 DFTPP Injection Time 08:49

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	33.18	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	45.75	
70	Less than 2.00% of mass 69	0.24	(0.53)[1]
127	10.00 - 80.00% of mass 198	53.70	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	7.43	
275	10.00 - 60.00% of mass 198	28.25	
365	Greater than 1.00% of mass 198	6.39	
441	Present, but less than mass 443	15.03	
442	Greater than 50.00% of mass 198	96.63	
443	15.00 - 24.00% of mass 442	18.94	(19.60)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11234007CCV	11234007CCV	MSS2071519.B\M2071519S1.D	07/15/2019	09:02
1708423BLANK	1708423BLANK	MSS2071519.B\M207151901.D	07/15/2019	09:19
1708424LCS	1708424LCS	MSS2071519.B\M207151902.D	07/15/2019	09:37
Sewer-1	30313514001	MSS2071519.B\M207151916.D	07/15/2019	13:44
Sewer-2	30313514002	MSS2071519.B\M207151917.D	07/15/2019	14:02

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11234007CCV Date Analyzed: 07/15/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 09:02

Lab File ID: MSS2071519.B\M2071519S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		344036	4.517	567486	7.784	602627	3.39	597927	5.525
UPPER LIMIT		688072	5.017	1134972	8.284	1205254	3.89	1195854	6.025
LOWER LIMIT		172018	4.017	283743	7.284	301313.5	2.89	298963.5	5.025
LAB SAMPLE ID	SAMPLE NO.								
1708423	1708423BLANK	332702	4.517	531820	7.781	567654	3.39	570496	5.525
1708424	1708424LCS	319999	4.517	509433	7.781	554997	3.39	548484	5.525
30313514001	Sewer-1	385900	4.517	597498	7.801	607619	3.396	578369	5.529
30313514002	Sewer-2	335422	4.517	515106	7.79	560030	3.396	572186	5.525

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Sample ID : 11234007CCV Date Analyzed: 07/15/2019

Instrument ID: 30MSS2 GC Column: Col 1 Time Analyzed: 09:02

Lab File ID: MSS2071519.B\M2071519S1.D

		AREA PYL	RT
12 HOUR STD		611062	9.057
UPPER LIMIT		1222124	9.557
LOWER LIMIT		305531	8.557
LAB SAMPLE ID	SAMPLE NO.		
1708423	1708423BLANK	538180	9.057
1708424	1708424LCS	527236	9.057
30313514001	Sewer-1	624727	9.081
30313514002	Sewer-2	558614	9.066

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

Sewer-1

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 30313514001
Date Analyzed: 07/15/2019 13:44
Lab File ID: MSS2071519.B\M207151916.D
Initial wt/vol: 15.17 g Final wt/vol: 1 mL Dilution: 10
Instrument: 30MSS2 Percent Moisture: 9.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	96.2	
56-55-3	Benzo(a)anthracene	330	
50-32-8	Benzo(a)pyrene	271	
205-99-2	Benzo(b)fluoranthene	384	
191-24-2	Benzo(g,h,i)perylene	134	
207-08-9	Benzo(k)fluoranthene	116	
218-01-9	Chrysene	456	
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	639	
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	87.4	
91-20-3	Naphthalene	141	
85-01-8	Phenanthrene	929	
129-00-0	Pyrene	1250	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 15-JUL-2019 13:44
Operator : DSC Inst ID: 30mss2.i
Smp Info : 30313514001x10,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 18
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.170	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.395	3.390	(1.000)	607619	4.00000		
	8 Naphthalene	128	3.407	3.401	(1.003)	26654	0.19465	128	
	9 2-Methylnaphthalene	142	3.852	3.846	(1.135)	81652	0.89722	591	
	10 1-Methylnaphthalene	142	3.915	3.909	(1.153)	67194	0.68823	454	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	43938	0.34112	22.5(R)	
	11 Acenaphthylene	152	4.423	4.429	(0.979)	9903	0.06514	42.9(Q)	
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	385900	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	9725	0.09794	64.6(Q)	
	13 Fluorene	166	4.873	4.870	(1.079)	6990	0.05998	39.5(Q)	
*	3 Phenanthrene-d10 (IS)	188	5.529	5.524	(1.000)	578369	4.00000		
	14 Phenanthrene	178	5.547	5.542	(1.003)	178942	1.28177	845	
	15 Anthracene	178	5.583	5.578	(1.010)	18885	0.13273	87.5(Q)	
	16 Fluoranthene	202	6.503	6.490	(1.176)	140911	0.88184	581	
	17 Pyrene	202	6.702	6.688	(1.212)	283997	1.72858	1140	
$	7 Terphenyl-d14 (S)	244	6.828	6.814	(1.235)	49915	0.40656	26.8(QR)	
	18 Benzo(a)anthracene	228	7.789	7.772	(0.999)	74519	0.45577	300	
*	4 Chrysene-d12 (IS)	240	7.801	7.783	(1.000)	597498	4.00000		
	19 Chrysene	228	7.821	7.807	(1.003)	105399	0.62938	415(Q)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.756	8.732	(0.964)	86391	0.52990	349(QM)	WP
21 Benzo(k)fluoranthene	252	8.776	8.757	(0.966)	31343	0.16002	105(QM)	WP
22 Benzo(a)pyrene	252	9.032	9.007	(0.995)	58068	0.37440	247(QM)	NI
* 5 Perylene-d12 (IS)	264	9.081	9.056	(1.000)	624727	4.00000		
23 Dibenz(a,h)anthracene	278	9.896	9.876	(1.090)	7924	0.04714	31.1(QM)	NI
24 Indeno(1,2,3-cd)pyrene	276	9.891	9.872	(1.089)	24493	0.12058	79.5	
25 Benzo[g,h,i]perylene	276	10.088	10.068	(1.111)	31018	0.18547	122	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Pace Analytical Services, Inc.

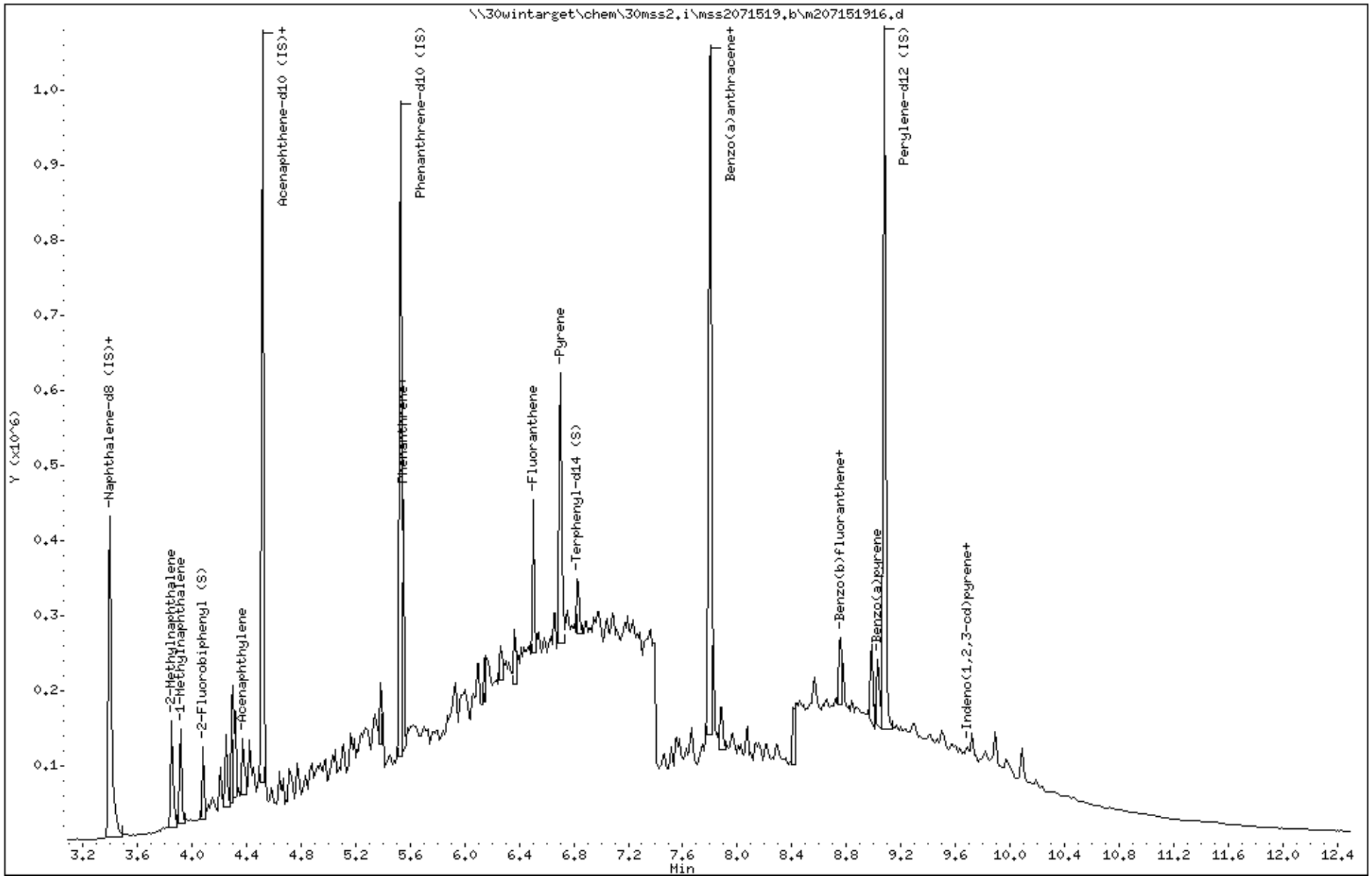
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313514
Lab Smp Id: 30313514001
Client Smp ID: Sewer-1
Sample Location:
Sample Point:
Sample Date: 11-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: DSC
Misc Info: 14824,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0989	U
91-20-3	Naphthalene	128	
91-57-6	2-Methylnaphthalene	591	
90-12-0	1-Methylnaphthalene	454	
208-96-8	Acenaphthylene	42.9	
83-32-9	Acenaphthene	64.6	
86-73-7	Fluorene	39.5	
85-01-8	Phenanthrene	845	
120-12-7	Anthracene	87.5	
206-44-0	Fluoranthene	581	
129-00-0	Pyrene	1140	
56-55-3	Benzo(a)anthracene	300	
218-01-9	Chrysene	415	
205-99-2	Benzo(b)fluoranthene	349	
207-08-9	Benzo(k)fluoranthene	105	
50-32-8	Benzo(a)pyrene	247	
53-70-3	Dibenz(a,h)anthracene	31.1	
193-39-5	Indeno(1,2,3-cd)pyrene	79.5	
191-24-2	Benzo[g,h,i]perylene	122	
321-60-8	2-Fluorobiphenyl (S)	22.5	
1718-51-0	Terphenyl-d14 (S)	26.8	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d
Date : 15-JUL-2019 13:44
Client ID: Sewer-1
Sample Info: 30313514001X10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: DSC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

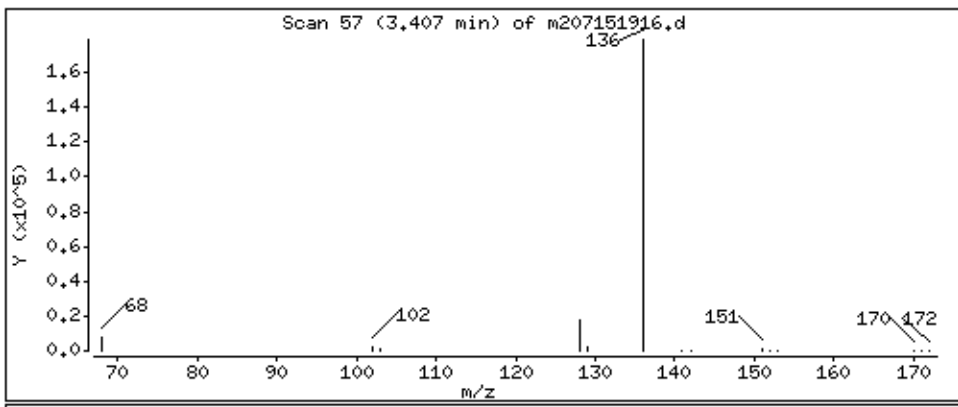
Client ID: Sewer-1 Instrument: 30mss2.i

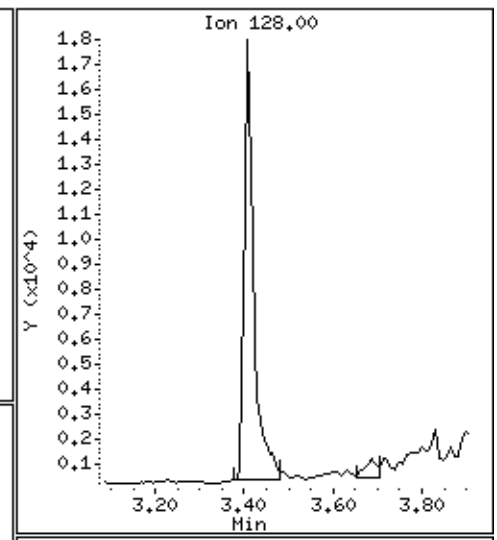
Sample Info: 30313514001X10,

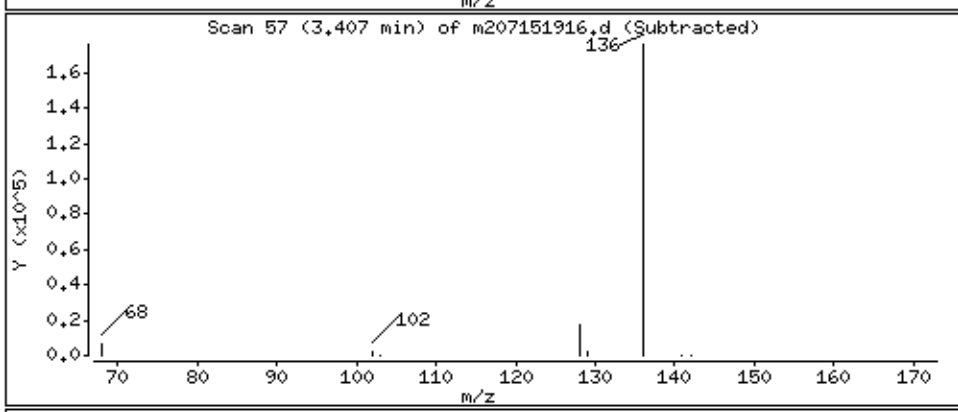
Volume Injected (uL): 1.0 Operator: DSC

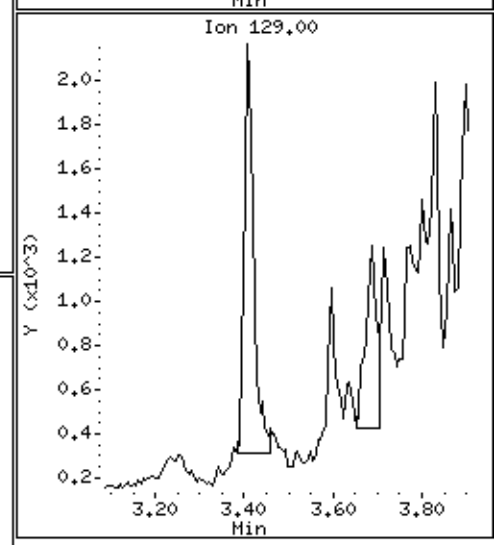
Column phase: RTX-5MS Column diameter: 0.25

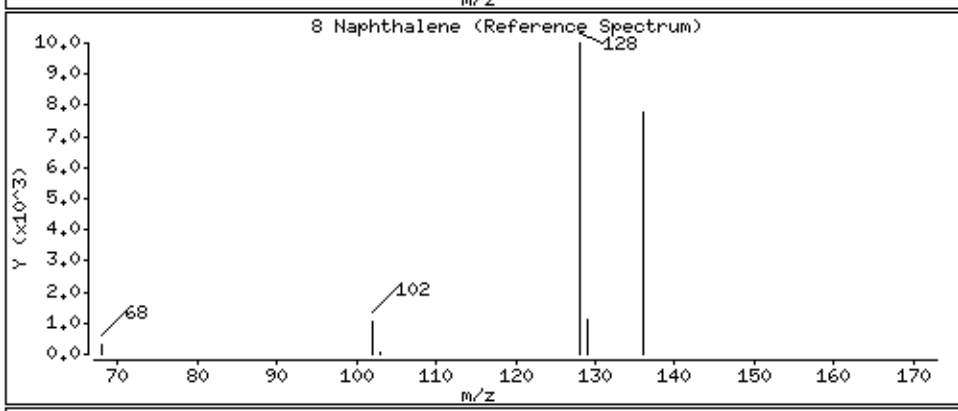
8 Naphthalene Concentration: 128 ug/Kg

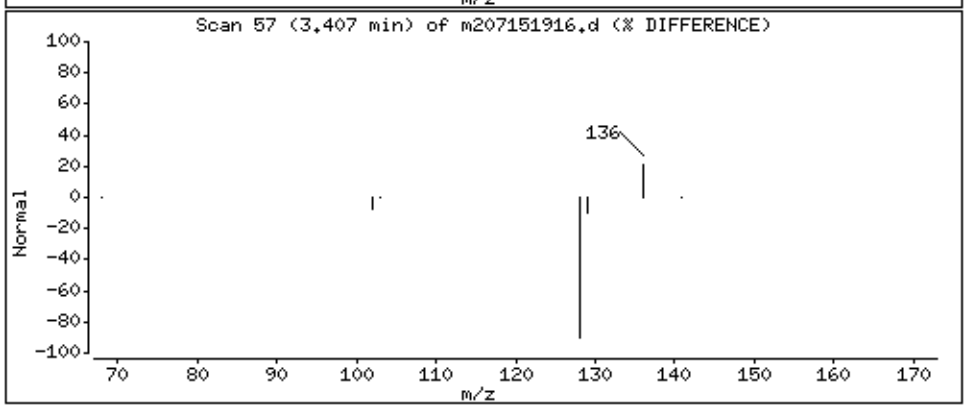












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

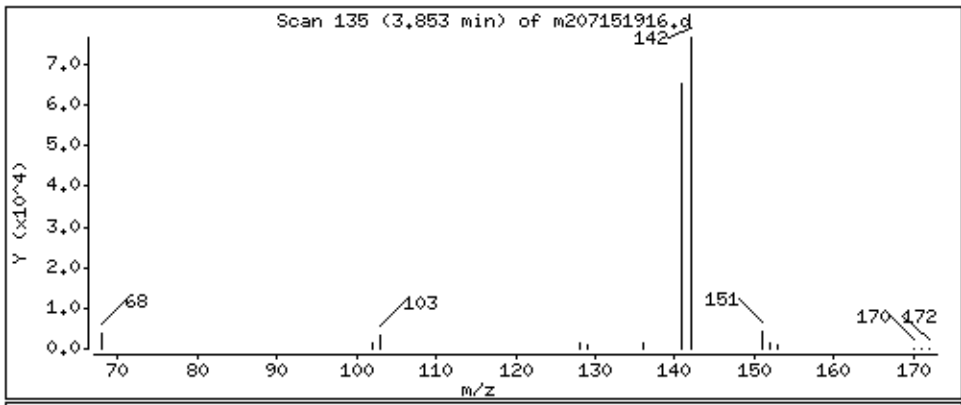
Client ID: Sewer-1 Instrument: 30mss2.i

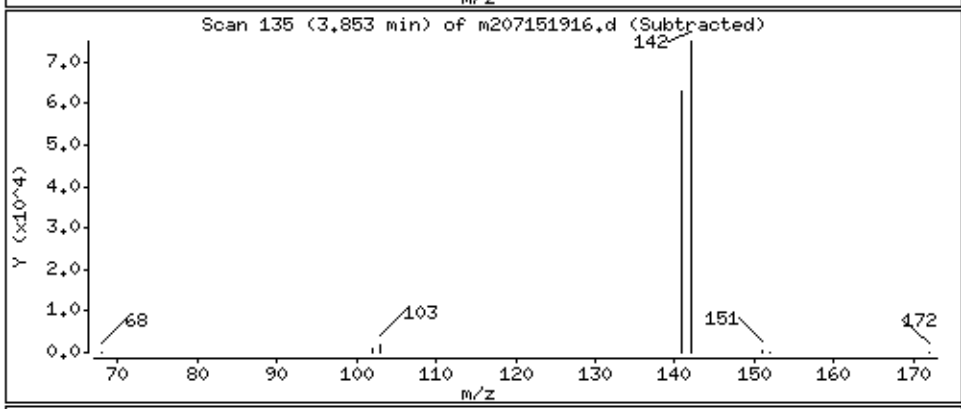
Sample Info: 30313514001X10,

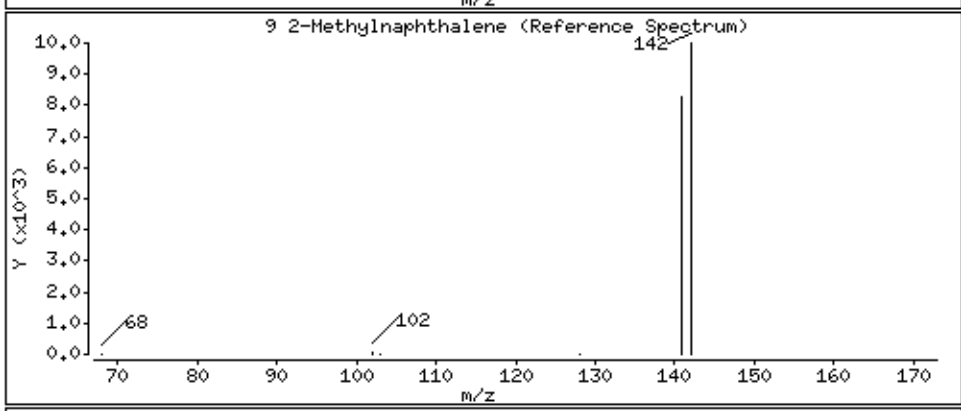
Volume Injected (uL): 1.0 Operator: DSC

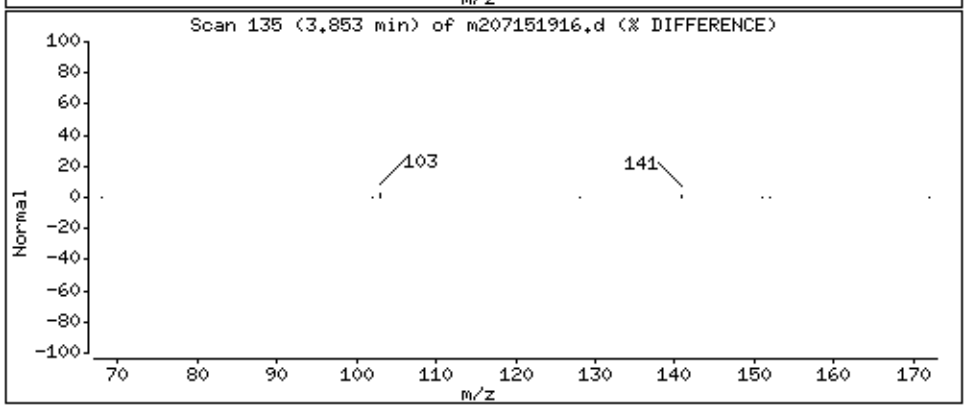
Column phase: RTX-5MS Column diameter: 0.25

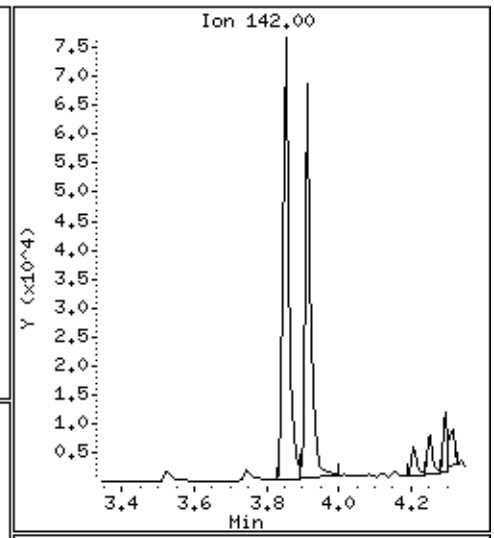
9 2-Methylnaphthalene Concentration: 591 ug/Kg

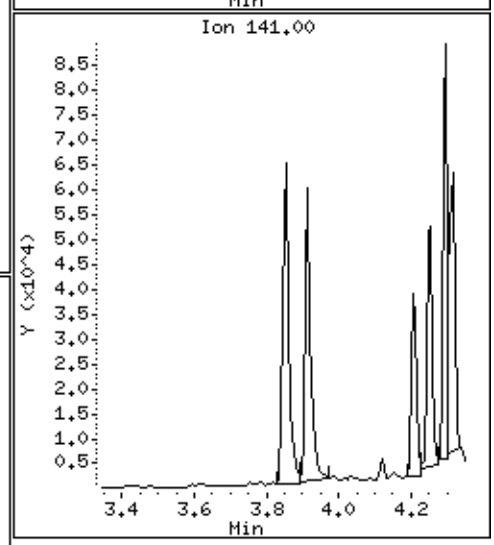












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

Client ID: Sewer-1

Instrument: 30mss2.i

Sample Info: 30313514001X10,

Volume Injected (uL): 1.0

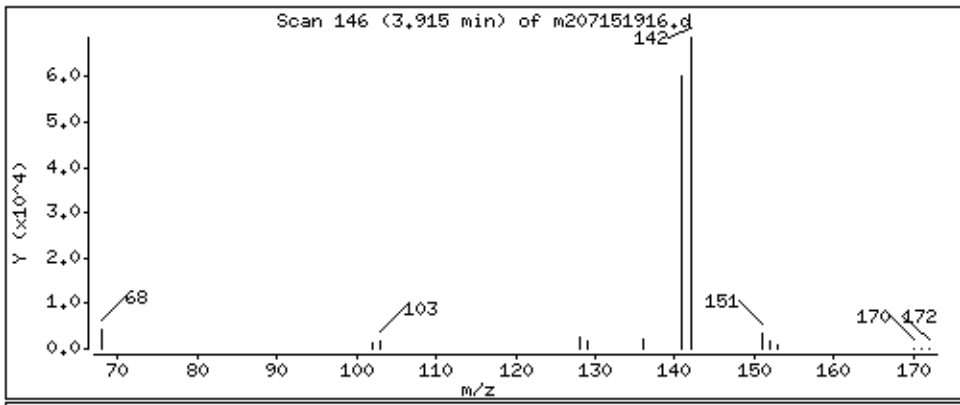
Operator: DSC

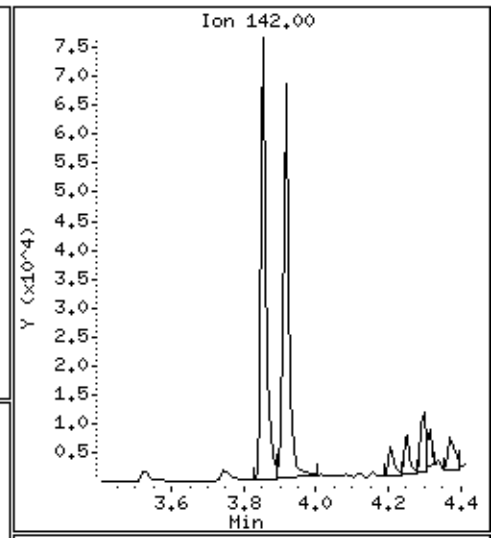
Column phase: RTX-5MS

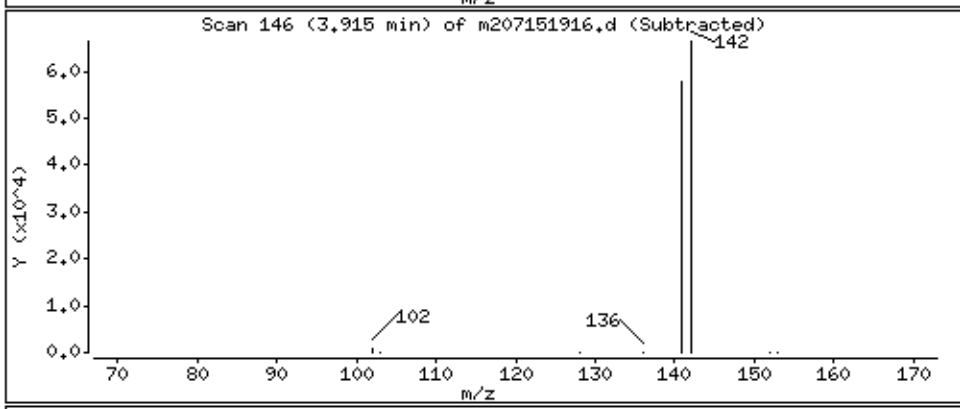
Column diameter: 0.25

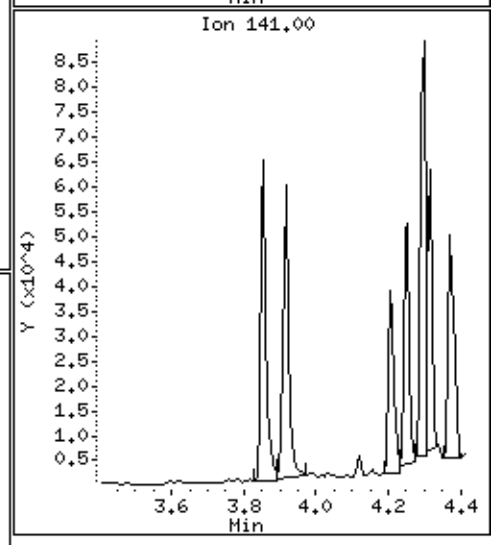
10 1-Methylnaphthalene

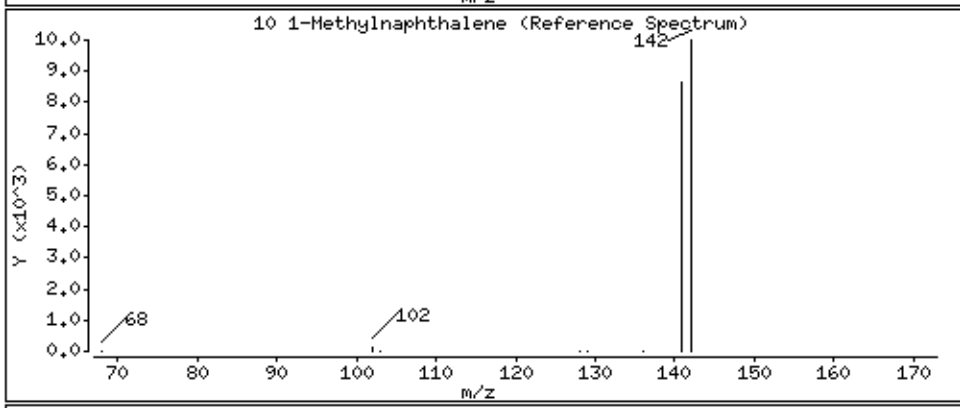
Concentration: 454 ug/Kg

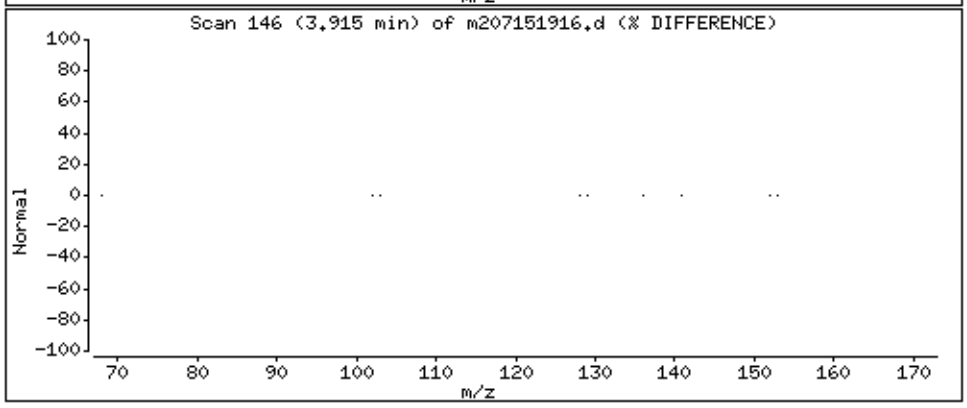












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

Client ID: Sewer-1

Instrument: 30mss2.i

Sample Info: 30313514001X10,

Volume Injected (uL): 1.0

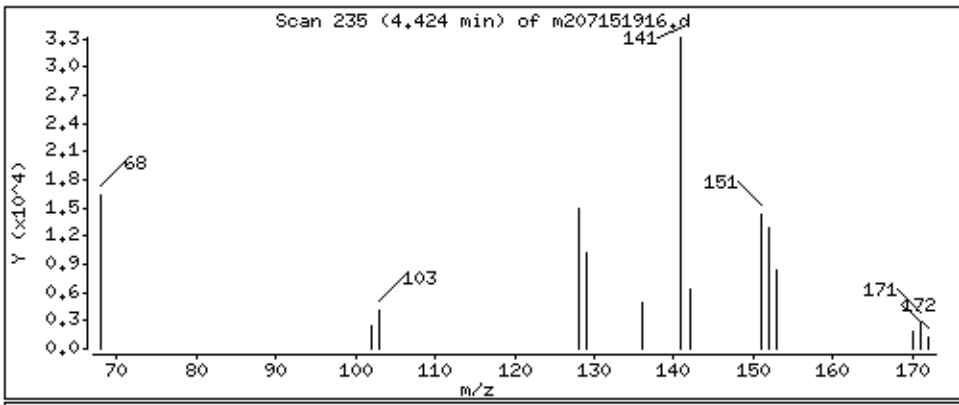
Operator: DSC

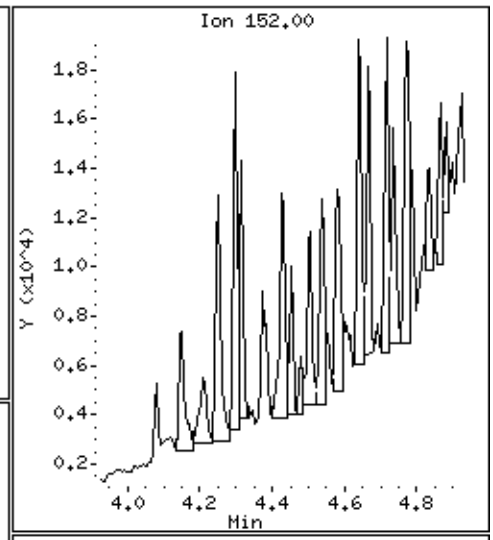
Column phase: RTX-5MS

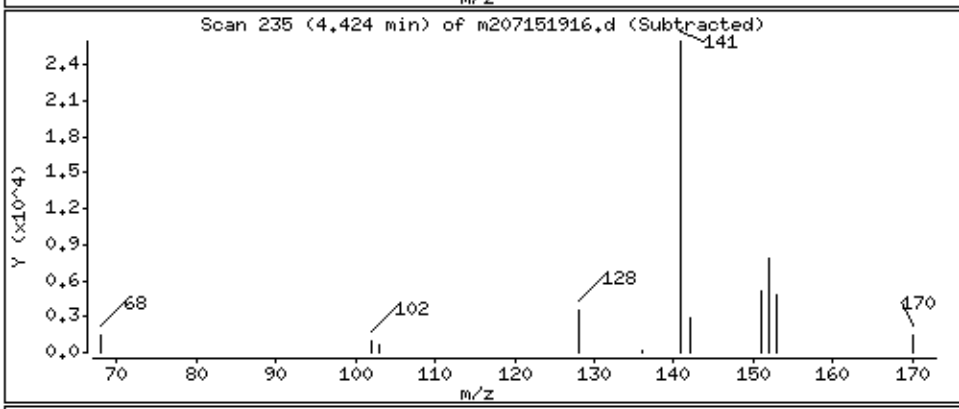
Column diameter: 0.25

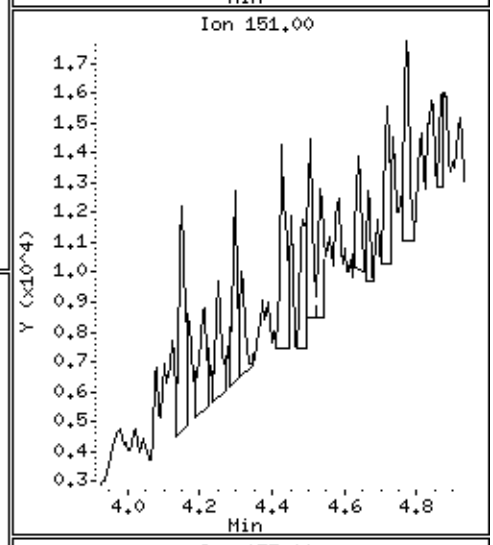
11 Acenaphthylene

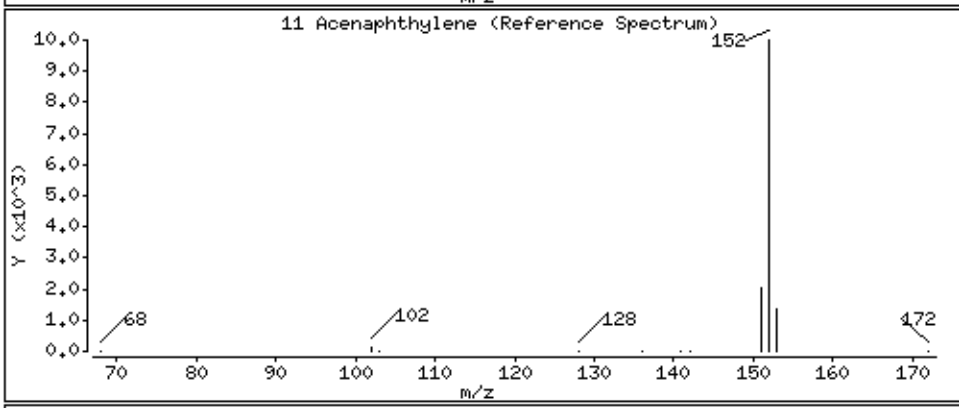
Concentration: 42.9 ug/Kg

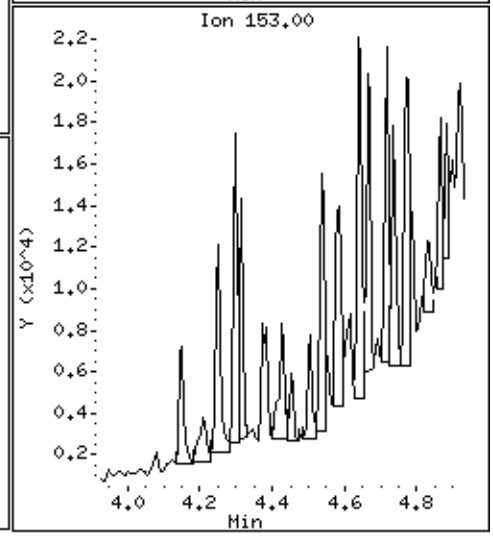


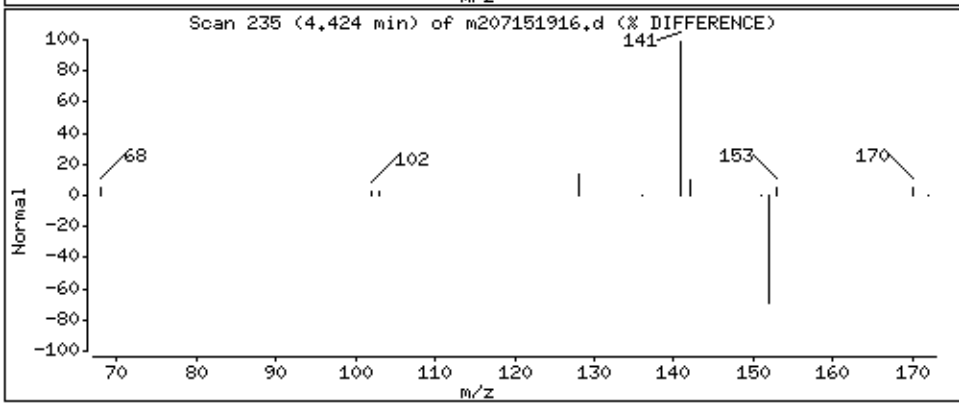












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Date : 15-JUL-2019 13:44

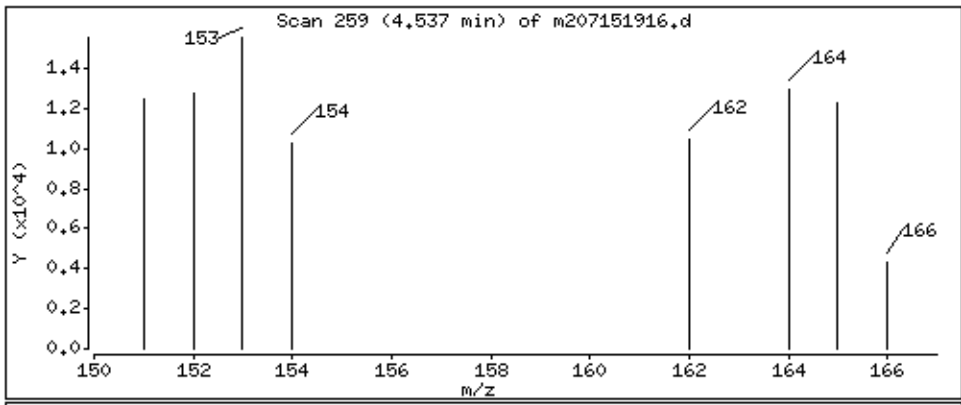
Client ID: Sewer-1 Instrument: 30mss2.i

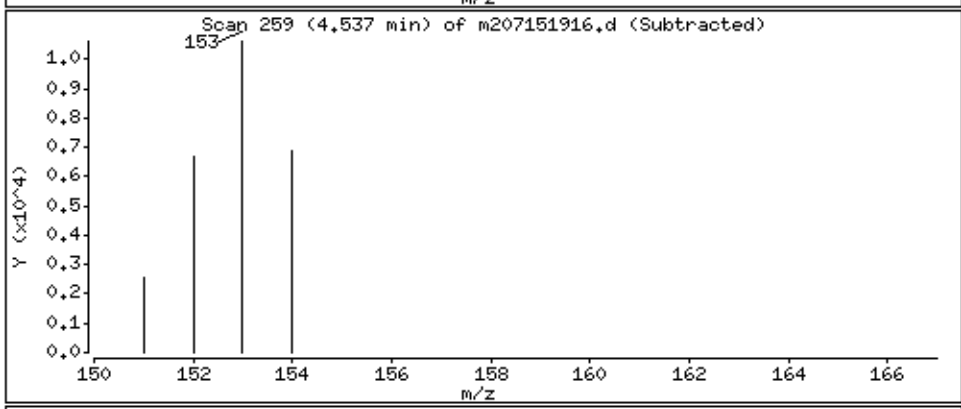
Sample Info: 30313514001X10,

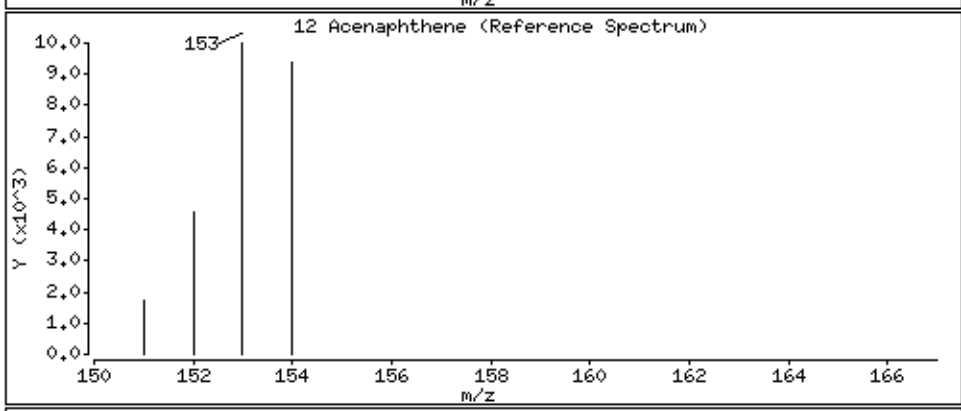
Volume Injected (uL): 1.0 Operator: DSC

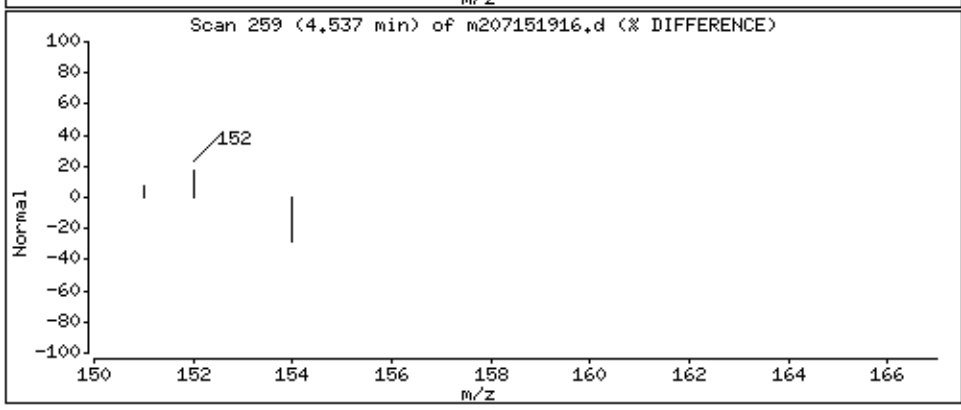
Column phase: RTX-5MS Column diameter: 0.25

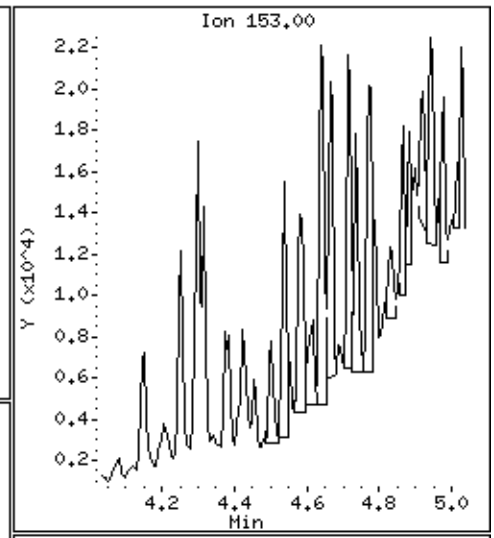
12 Acenaphthene Concentration: 64.6 ug/Kg

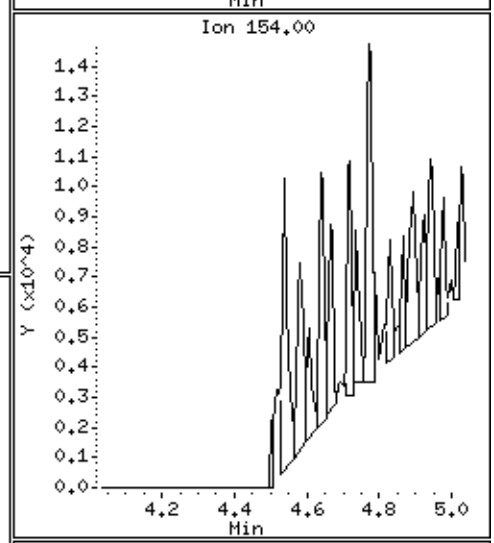


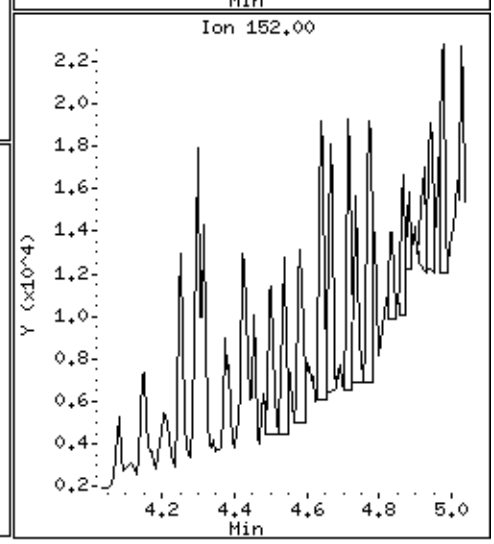












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Date : 15-JUL-2019 13:44

Client ID: Sewer-1

Instrument: 30mss2.i

Sample Info: 30313514001X10,

Volume Injected (uL): 1.0

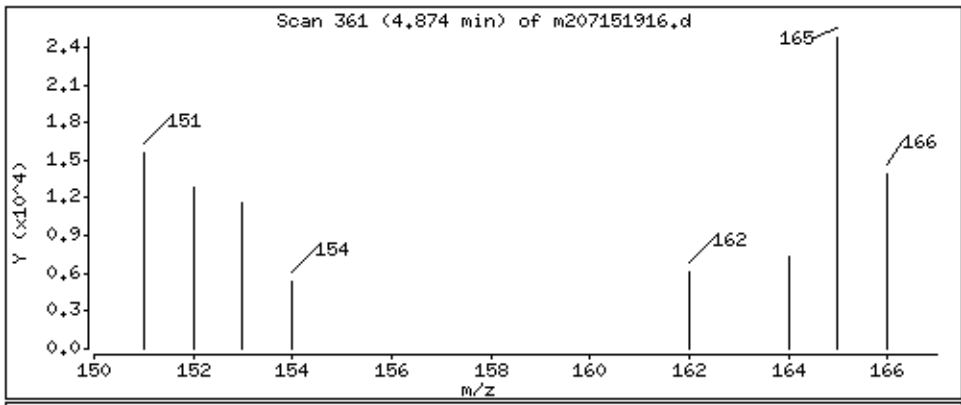
Operator: DSC

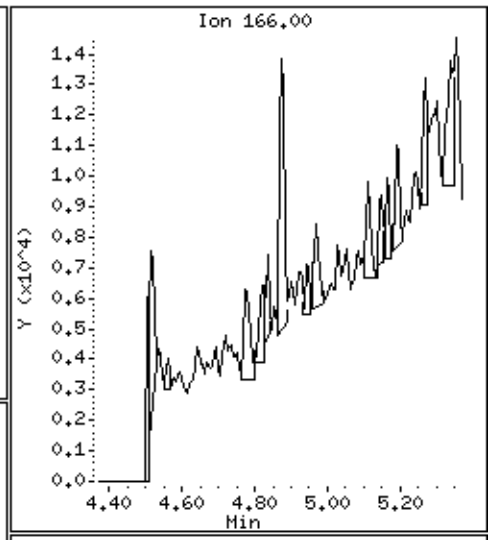
Column phase: RTX-5MS

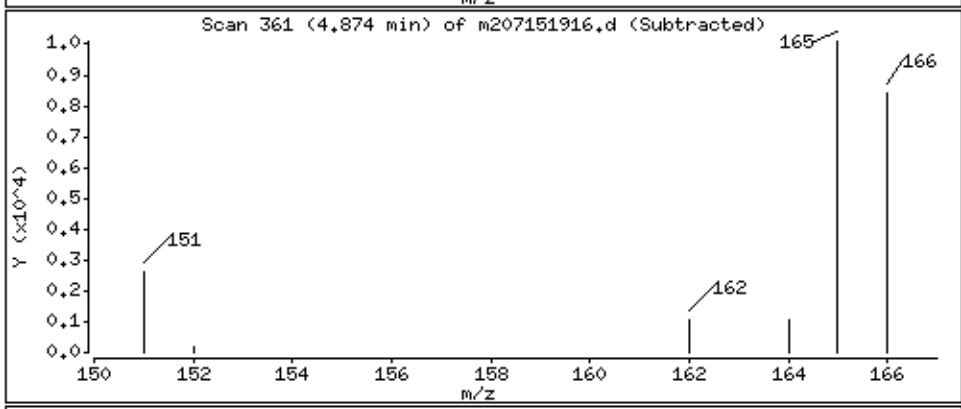
Column diameter: 0.25

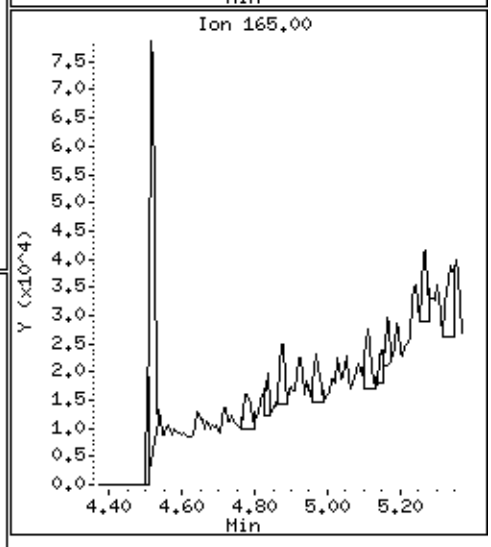
13 Fluorene

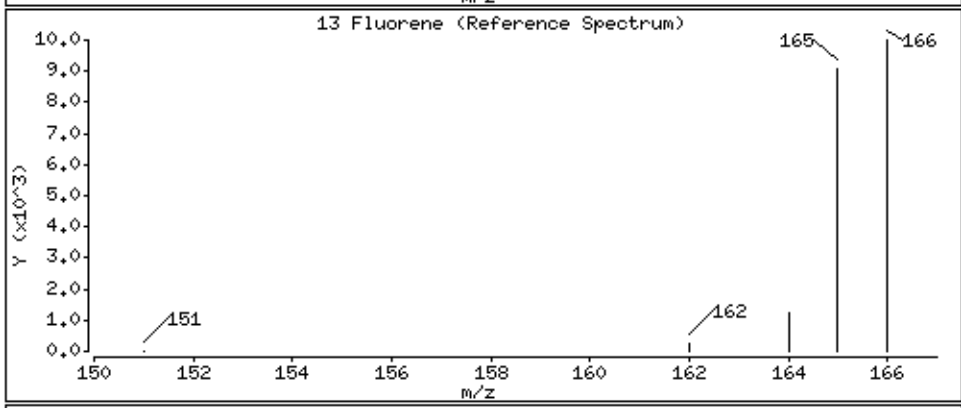
Concentration: 39.5 ug/Kg

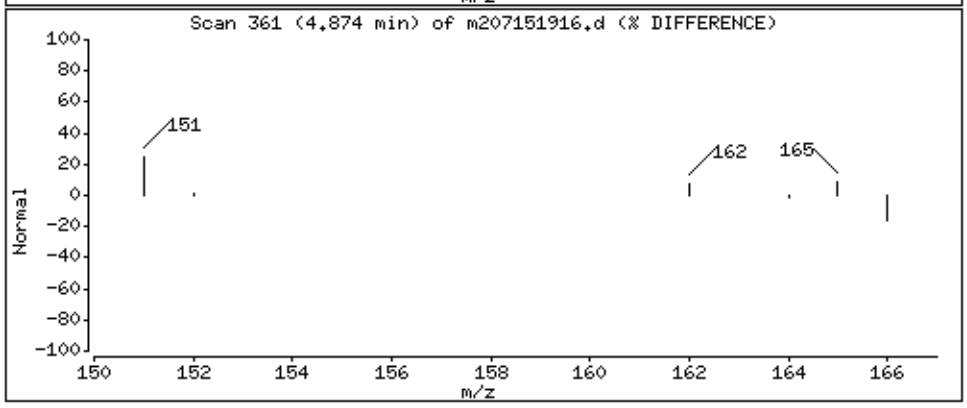












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Date : 15-JUL-2019 13:44

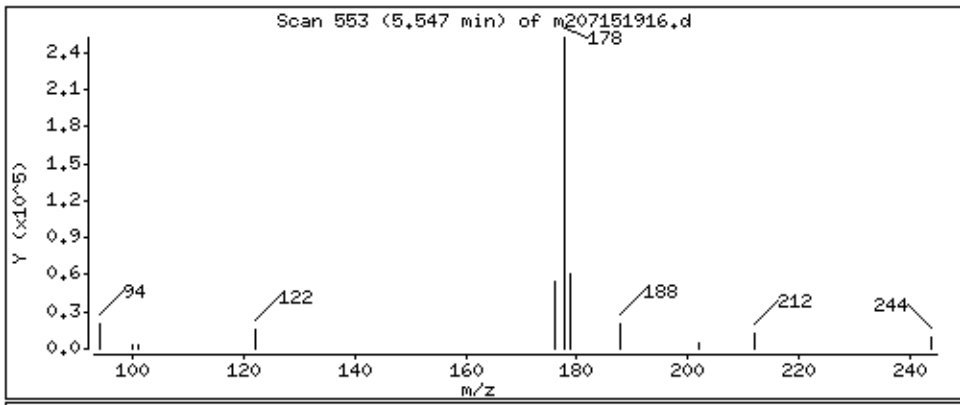
Client ID: Sewer-1 Instrument: 30mss2.i

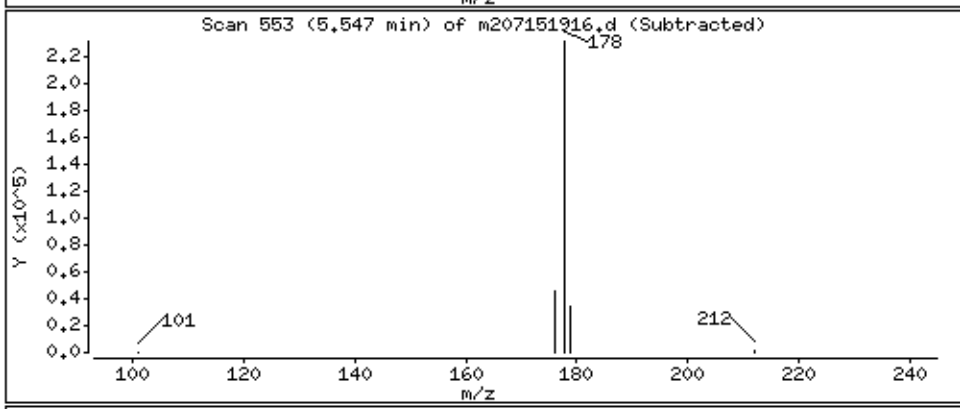
Sample Info: 30313514001X10,

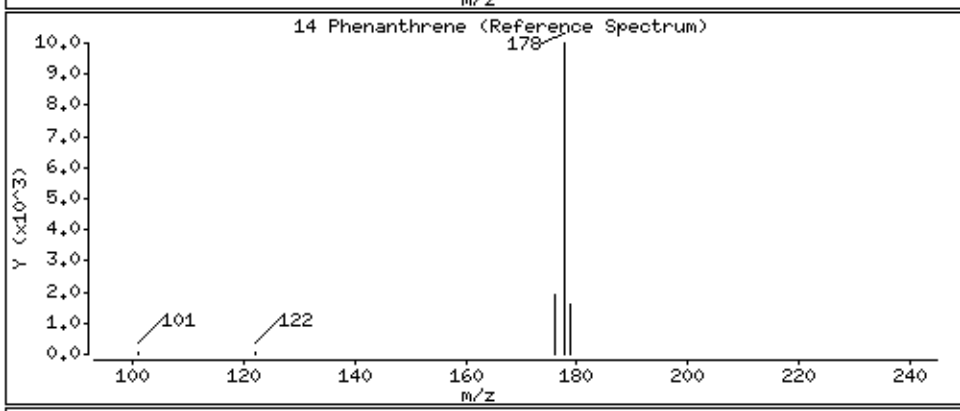
Volume Injected (uL): 1.0 Operator: DSC

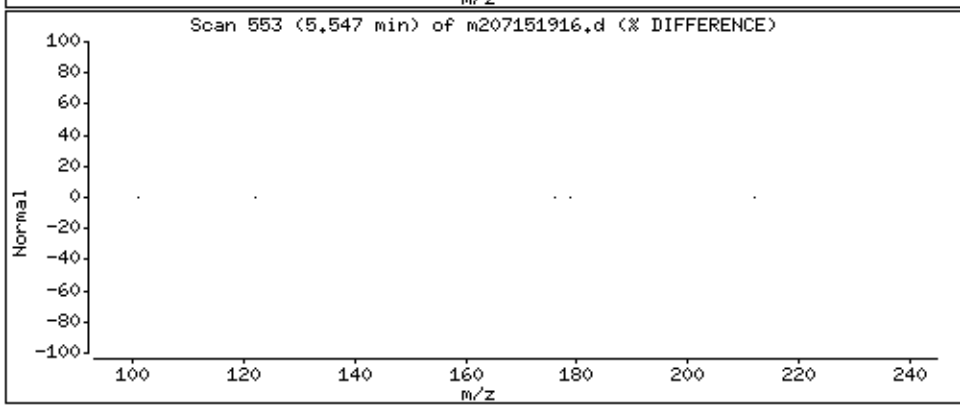
Column phase: RTX-5MS Column diameter: 0.25

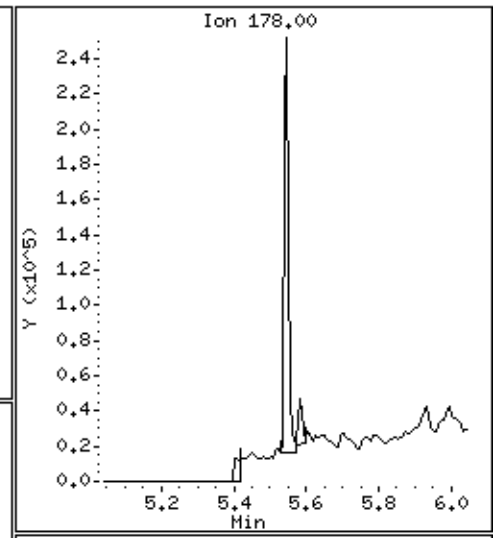
14 Phenanthrene Concentration: 845 ug/Kg

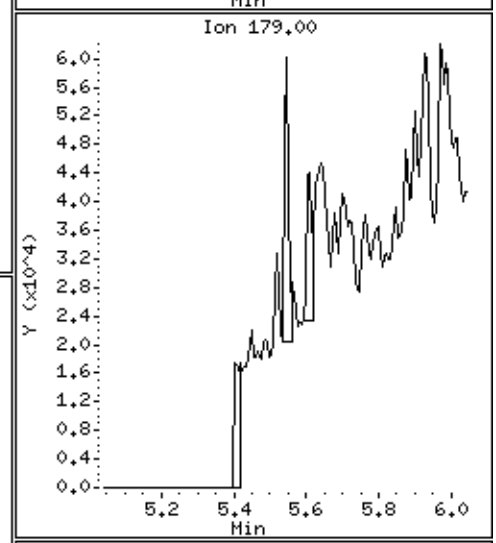


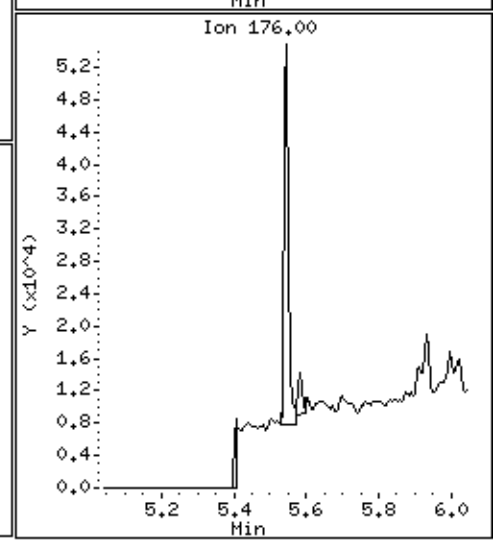












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Date : 15-JUL-2019 13:44

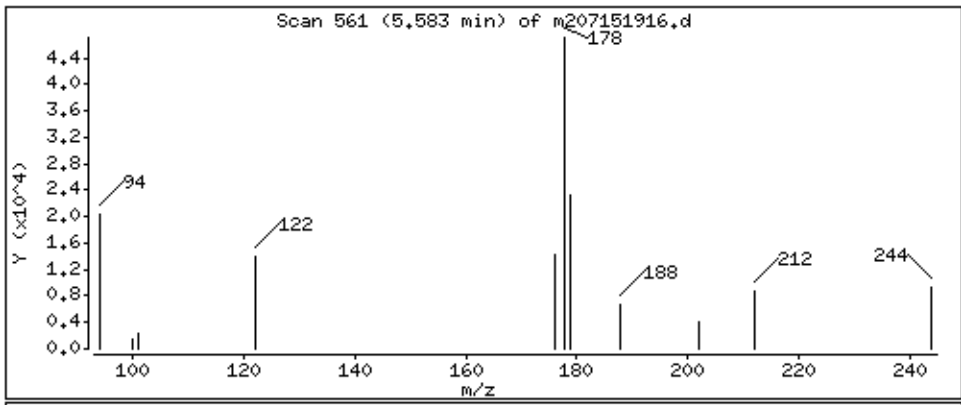
Client ID: Sewer-1 Instrument: 30mss2.i

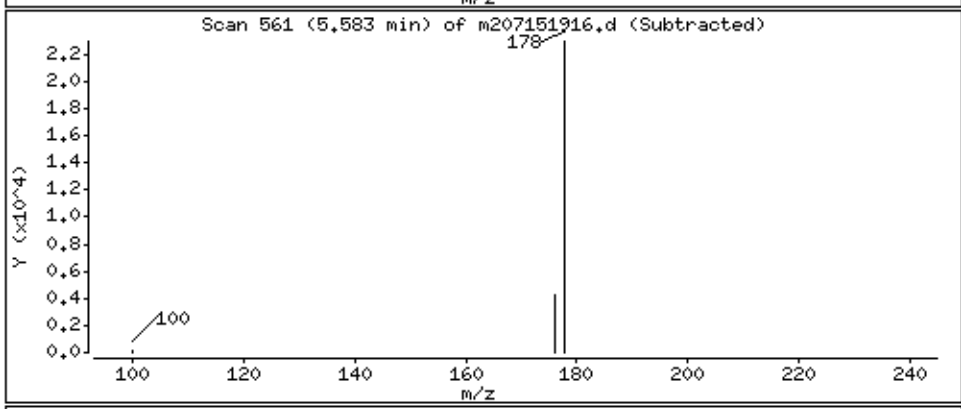
Sample Info: 30313514001X10,

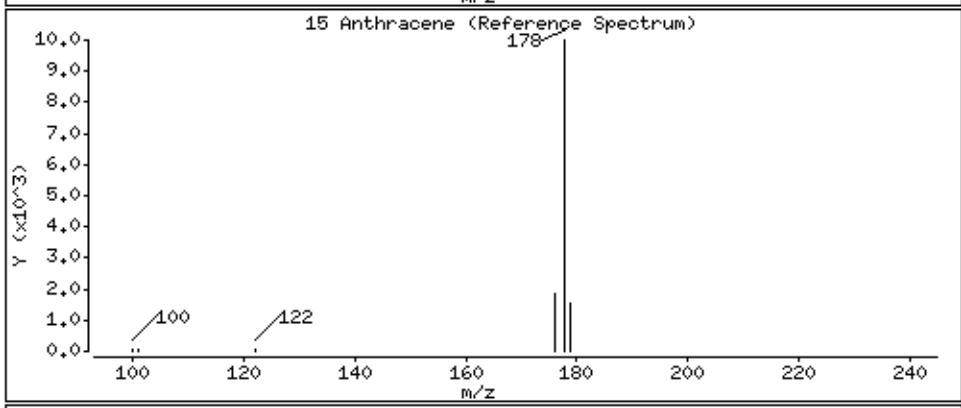
Volume Injected (uL): 1.0 Operator: DSC

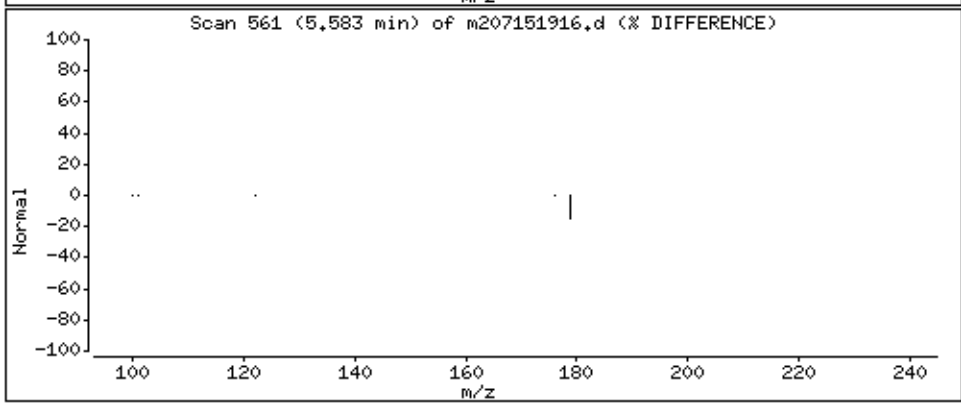
Column phase: RTX-5MS Column diameter: 0.25

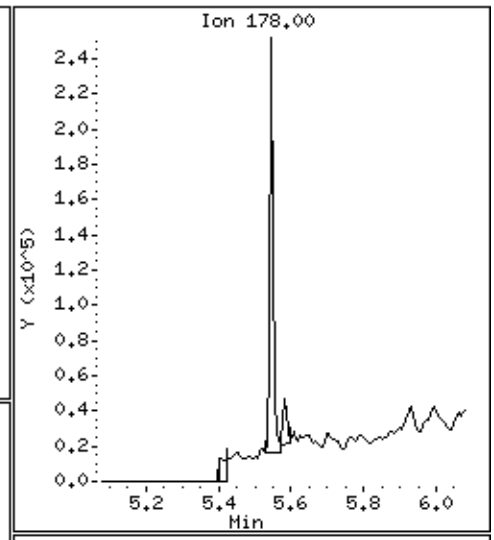
15 Anthracene Concentration: 87.5 ug/Kg

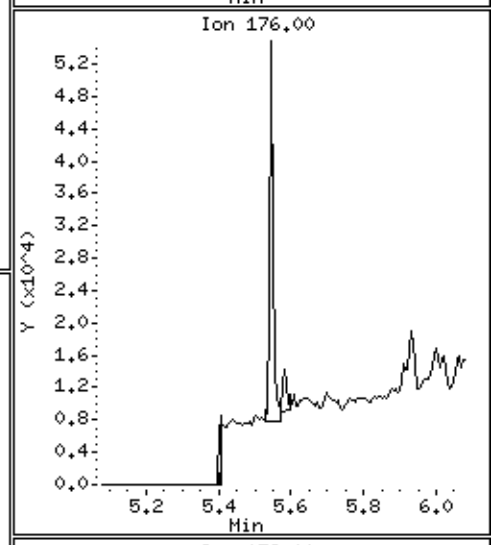


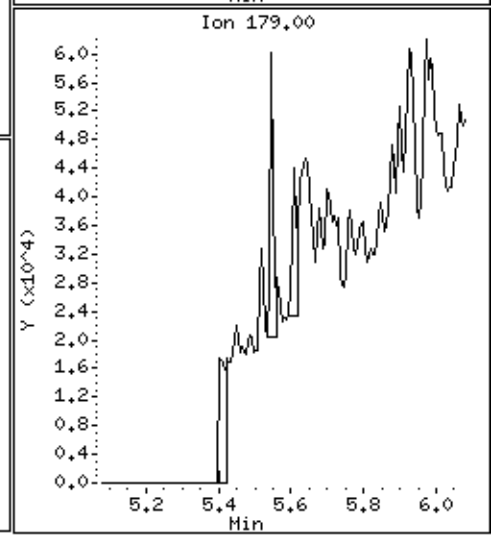












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Date : 15-JUL-2019 13:44

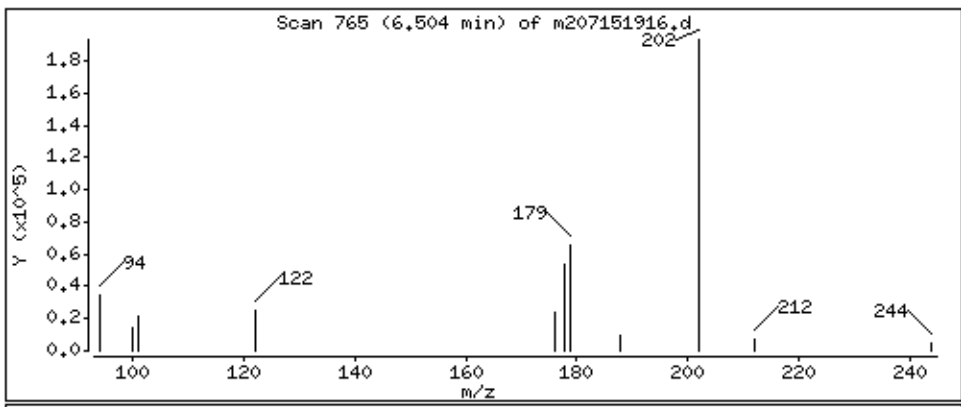
Client ID: Sewer-1 Instrument: 30mss2.i

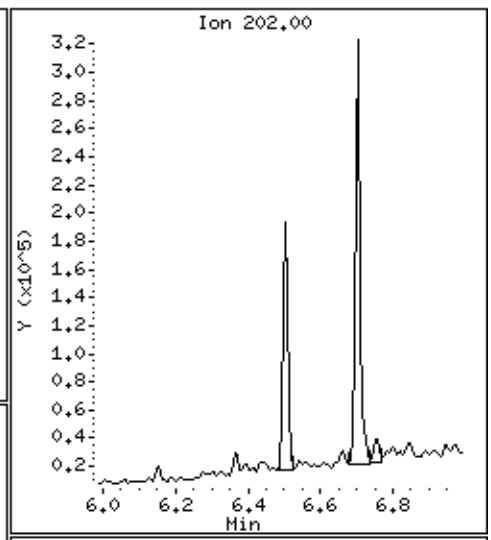
Sample Info: 30313514001X10,

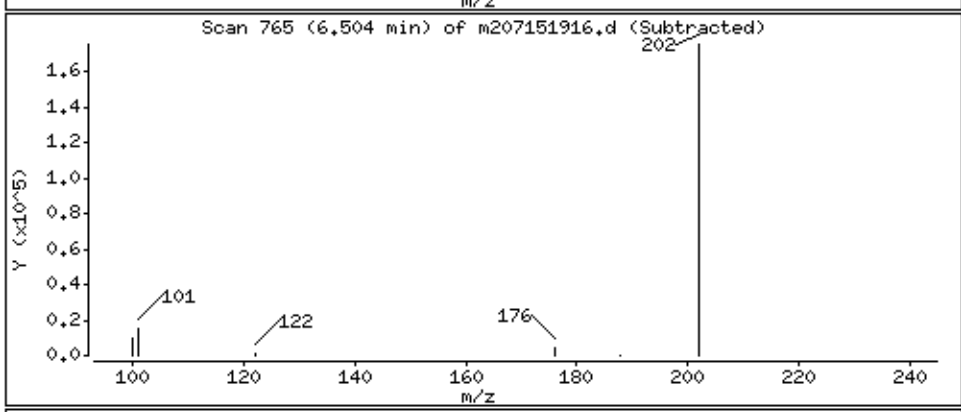
Volume Injected (uL): 1.0 Operator: DSC

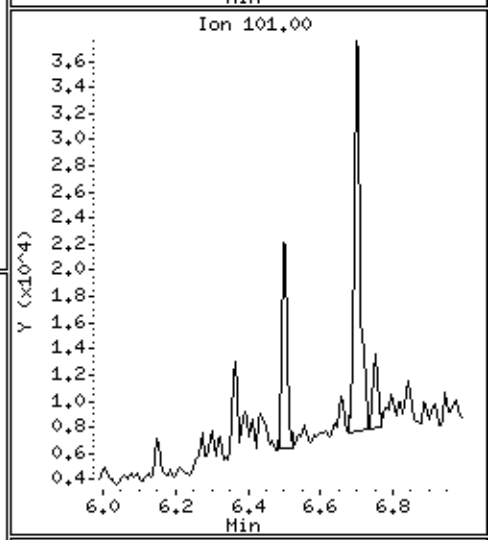
Column phase: RTX-5MS Column diameter: 0.25

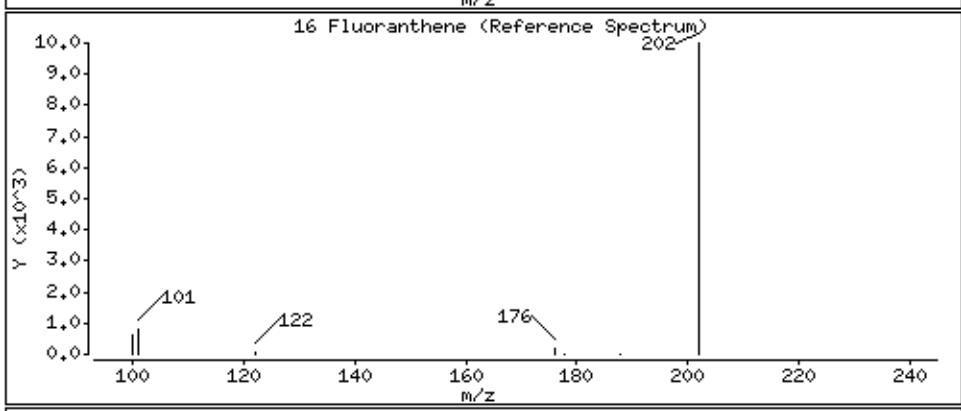
16 Fluoranthene Concentration: 581 ug/Kg

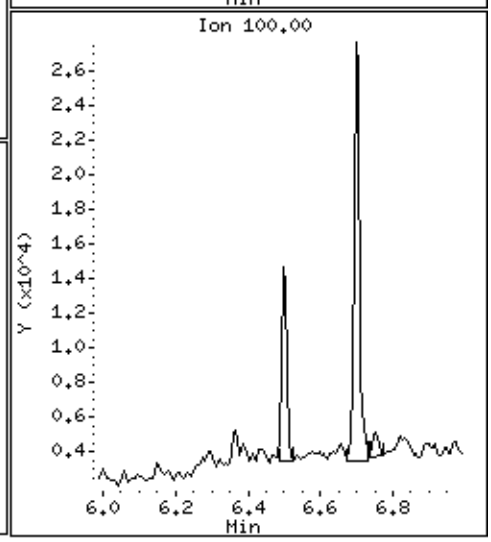


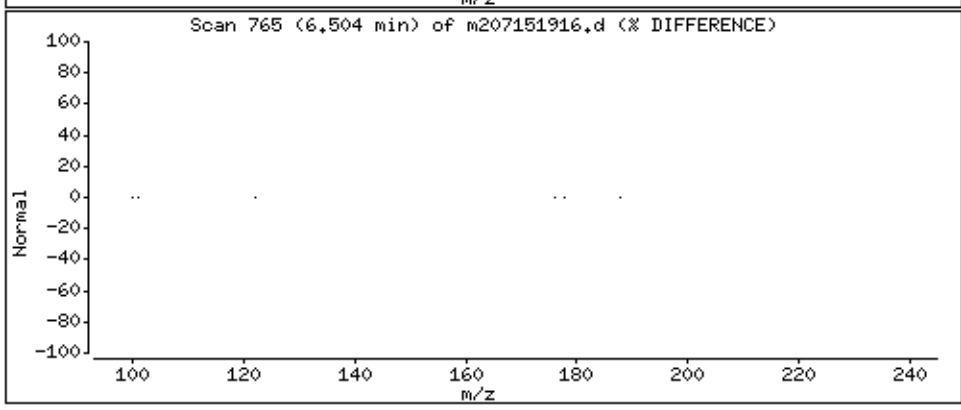












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Date : 15-JUL-2019 13:44

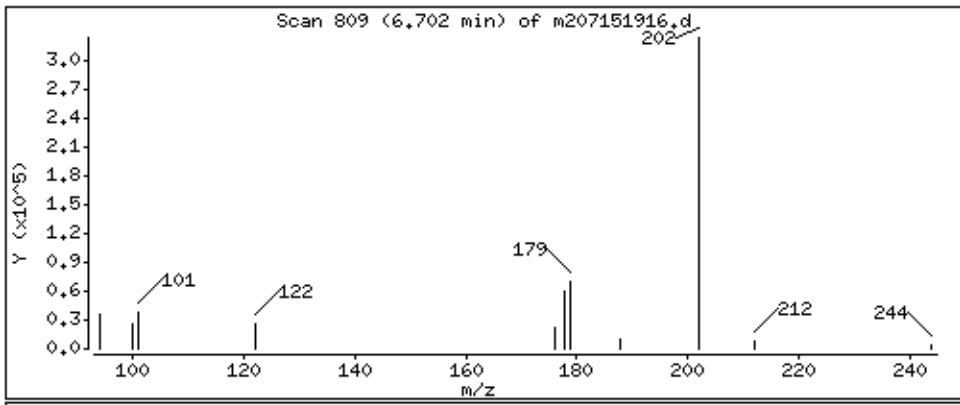
Client ID: Sewer-1 Instrument: 30mss2.i

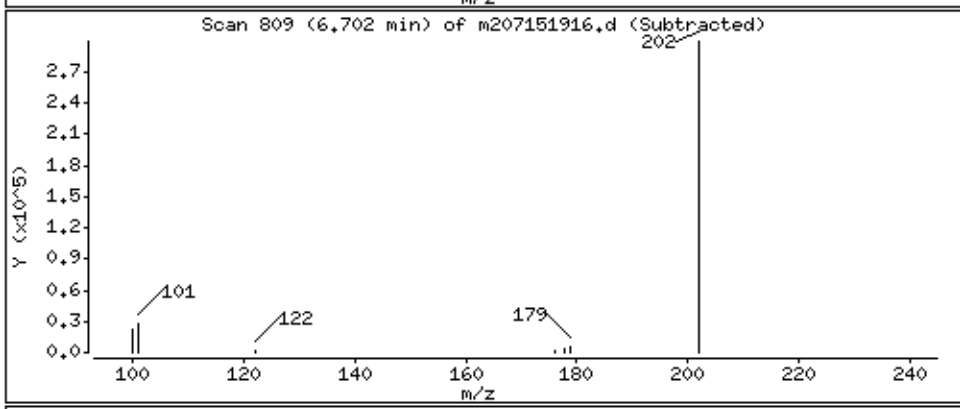
Sample Info: 30313514001X10,

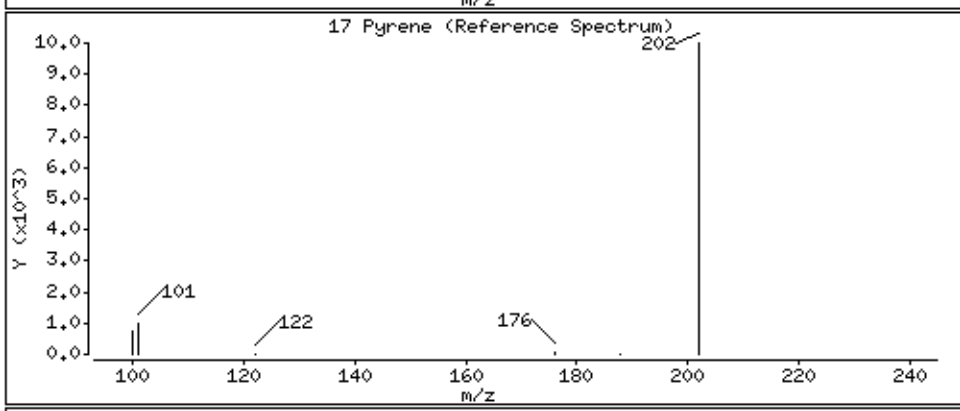
Volume Injected (uL): 1.0 Operator: DSC

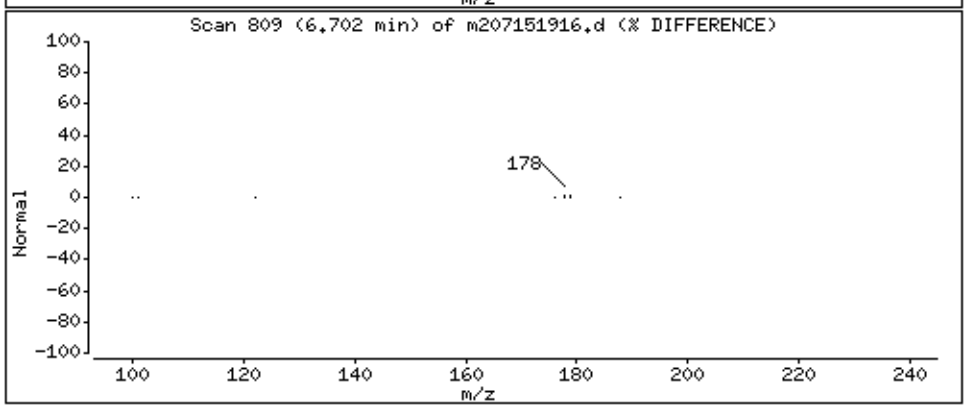
Column phase: RTX-5MS Column diameter: 0.25

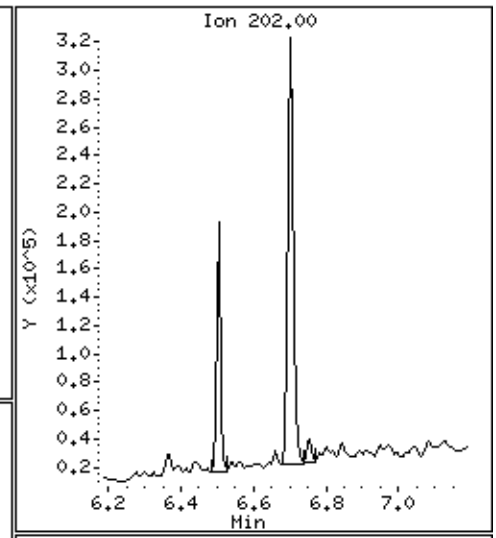
17 Pyrene Concentration: 1140 ug/Kg

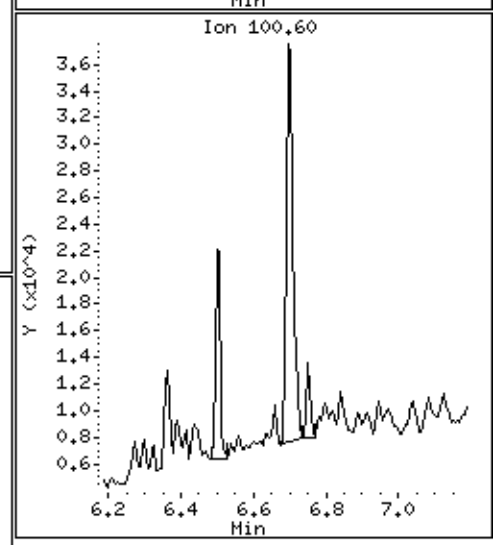












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Date : 15-JUL-2019 13:44

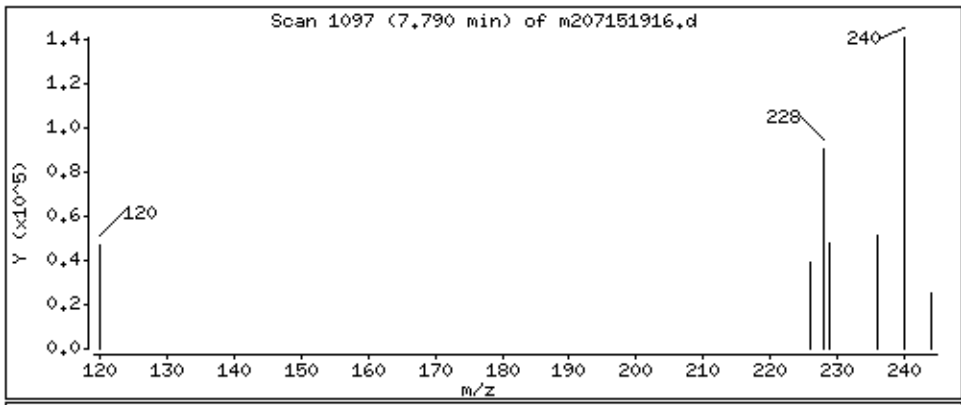
Client ID: Sewer-1 Instrument: 30mss2.i

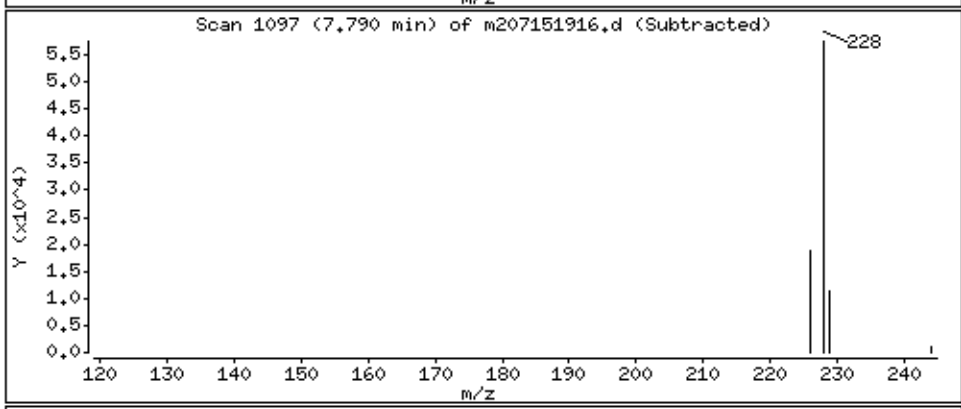
Sample Info: 30313514001X10,

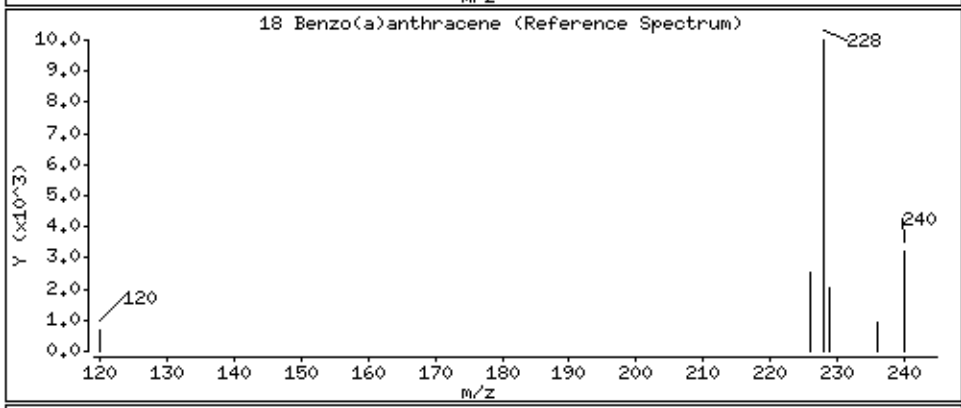
Volume Injected (uL): 1.0 Operator: DSC

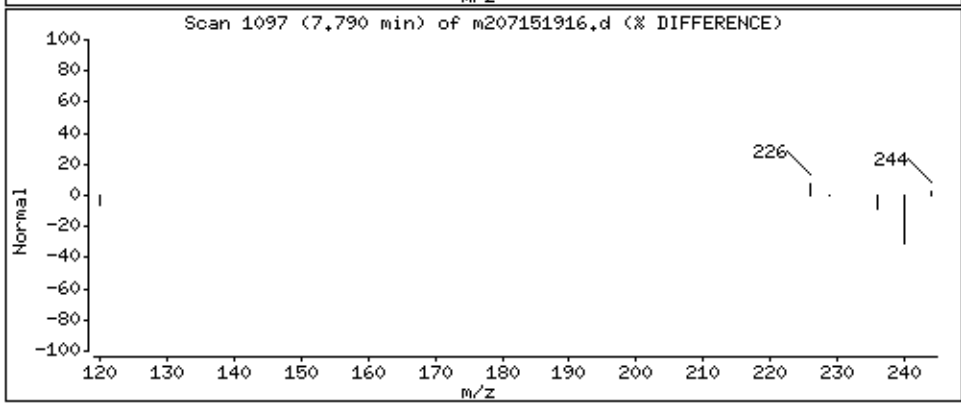
Column phase: RTX-5MS Column diameter: 0.25

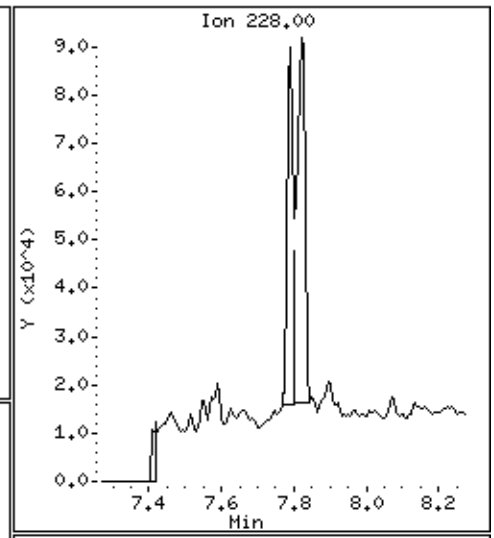
18 Benzo(a)anthracene Concentration: 300 ug/Kg

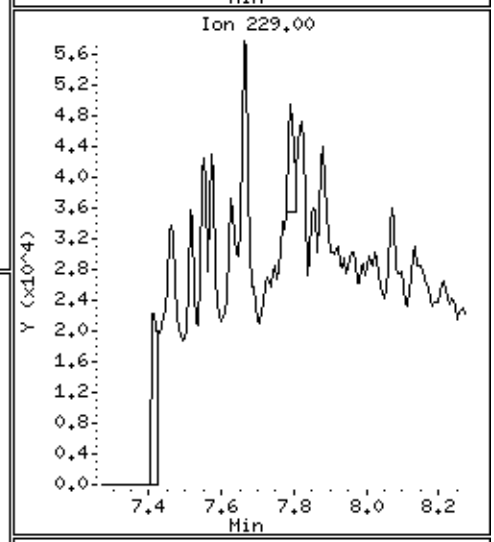


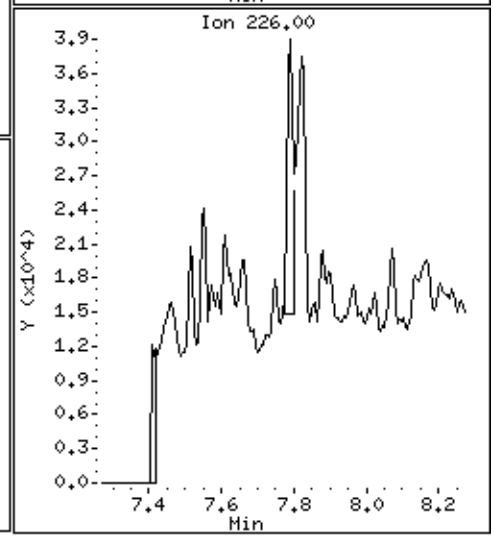












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Date : 15-JUL-2019 13:44

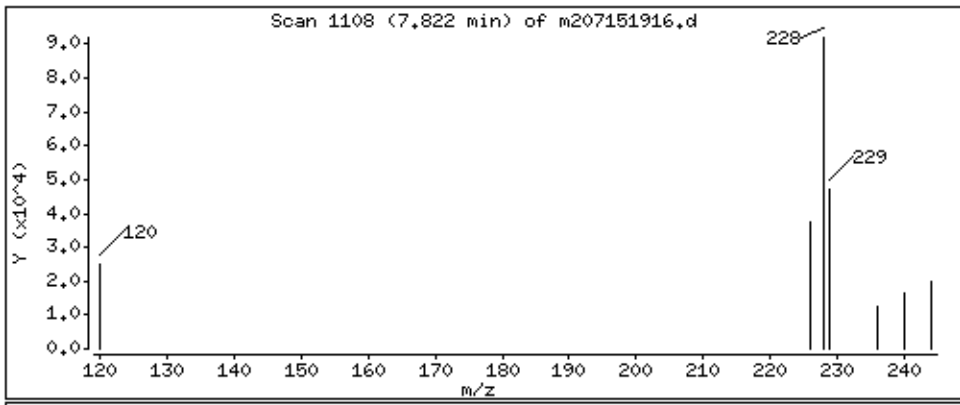
Client ID: Sewer-1 Instrument: 30mss2.i

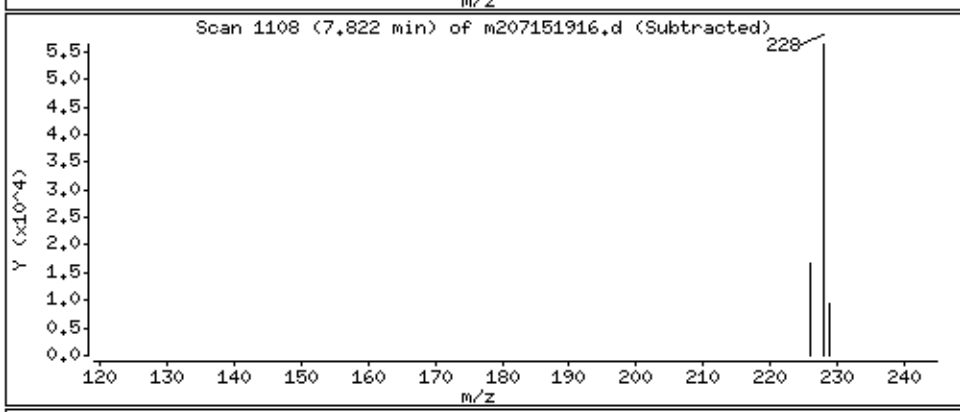
Sample Info: 30313514001X10,

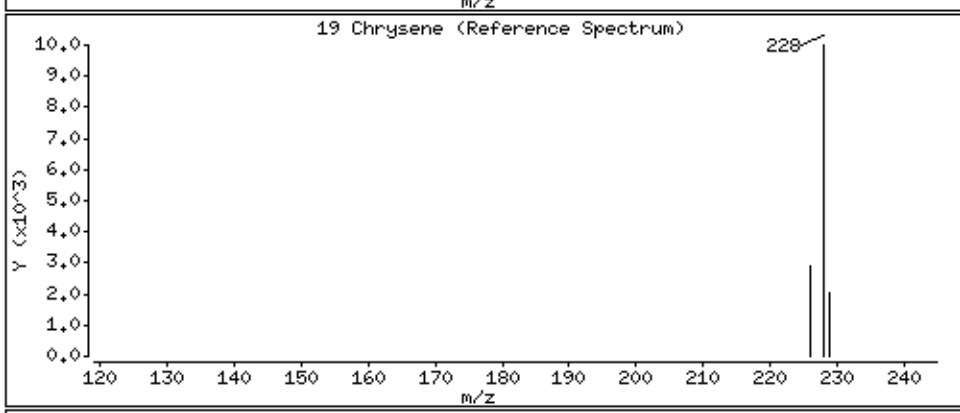
Volume Injected (uL): 1.0 Operator: DSC

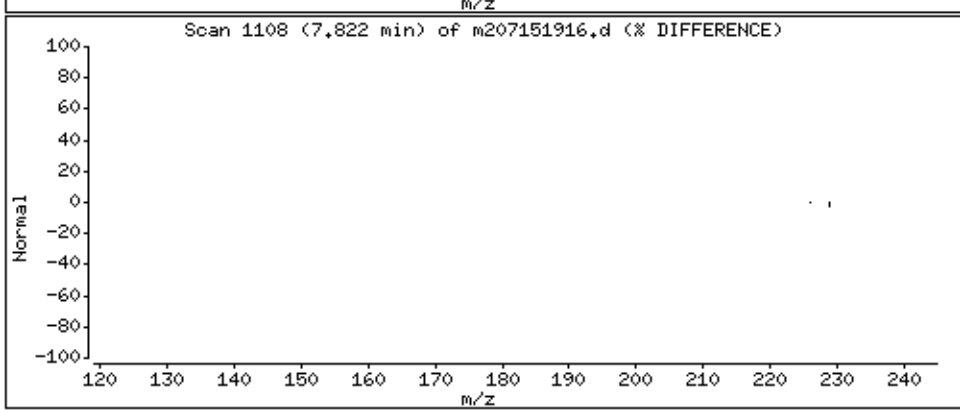
Column phase: RTX-5MS Column diameter: 0.25

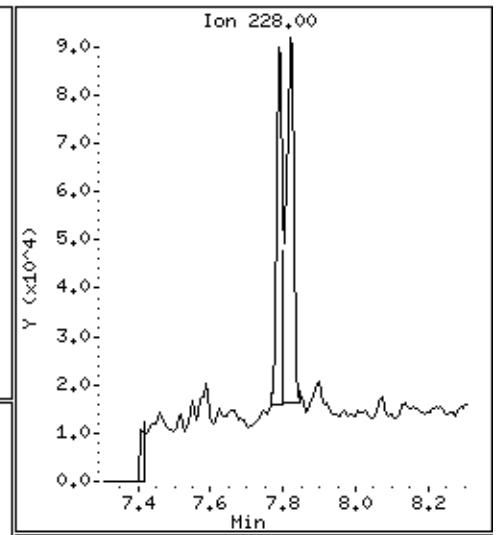
19 Chrysene Concentration: 415 ug/Kg

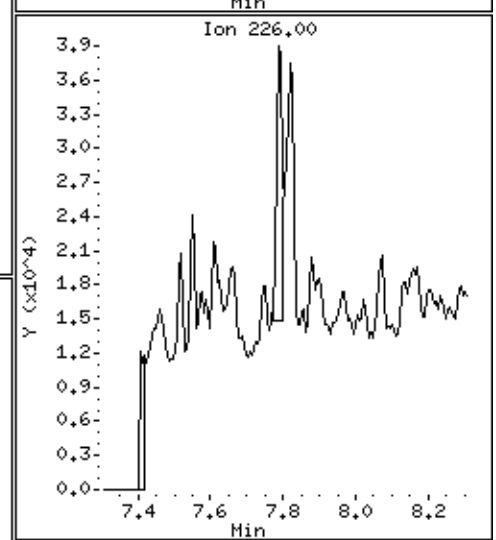


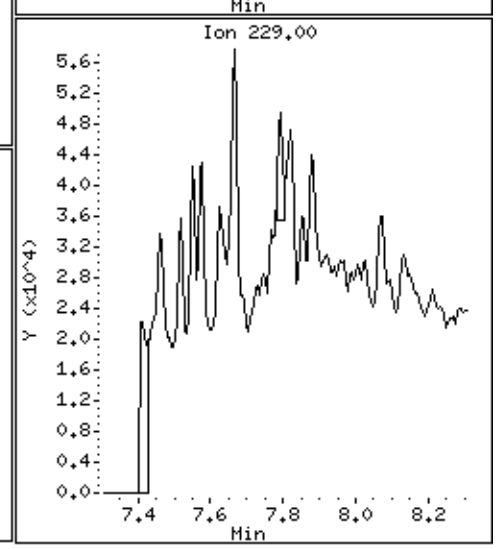












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Date : 15-JUL-2019 13:44

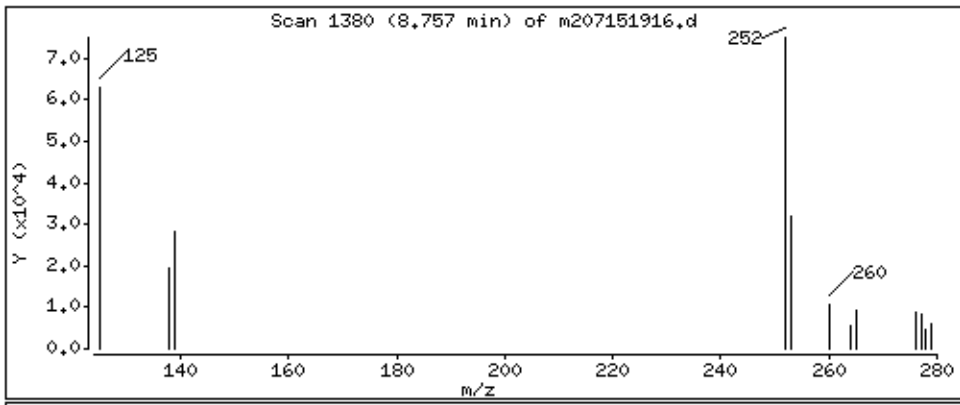
Client ID: Sewer-1 Instrument: 30mss2.i

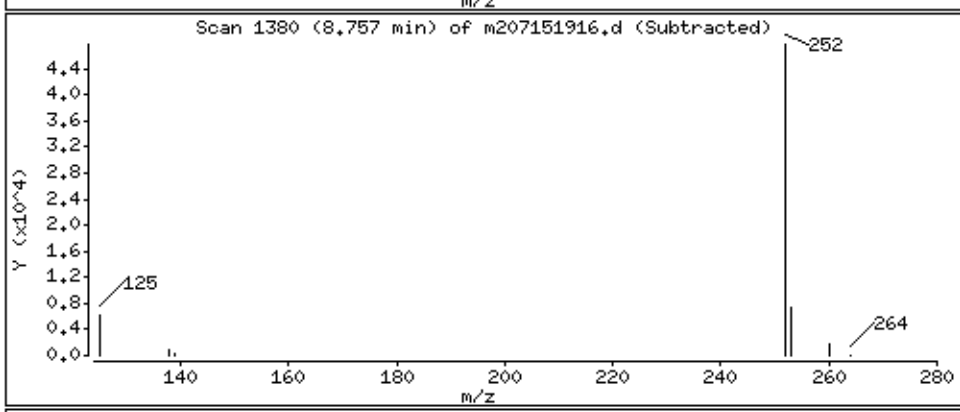
Sample Info: 30313514001X10,

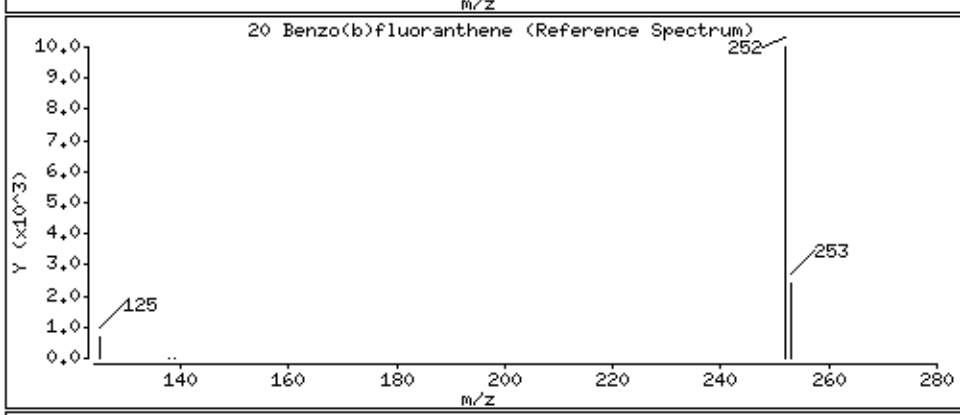
Volume Injected (uL): 1.0 Operator: DSC

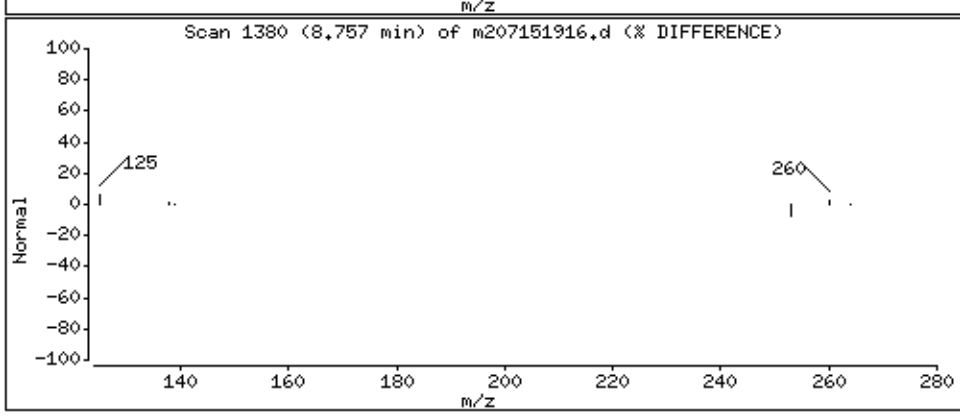
Column phase: RTX-5MS Column diameter: 0.25

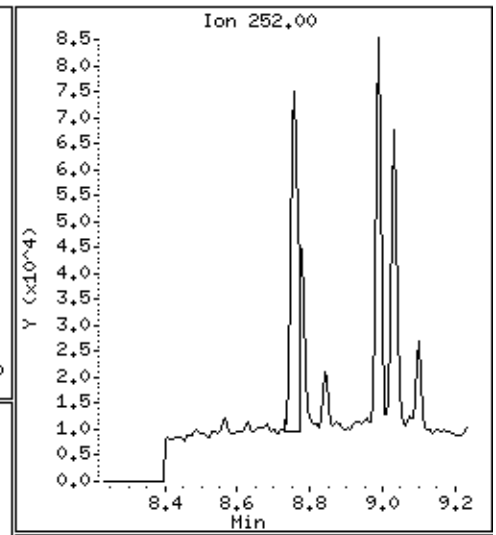
20 Benzo(b)fluoranthene Concentration: 349 ug/Kg

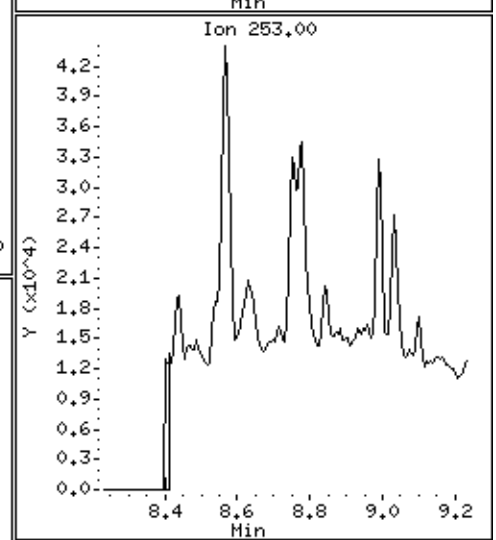


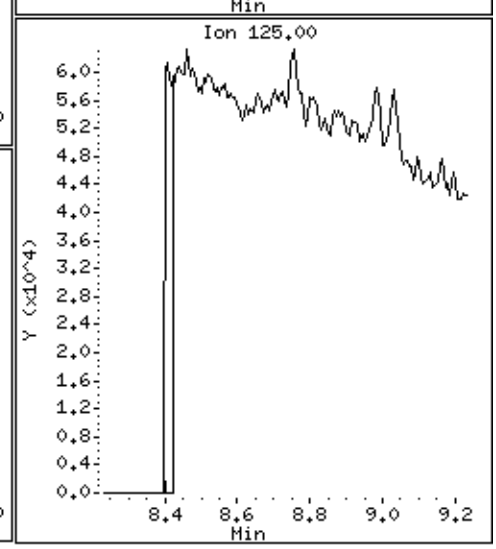












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Date : 15-JUL-2019 13:44

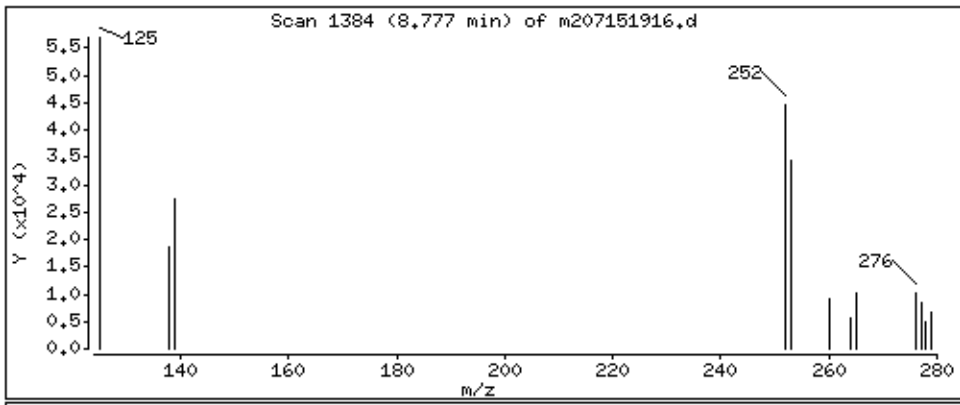
Client ID: Sewer-1 Instrument: 30mss2.i

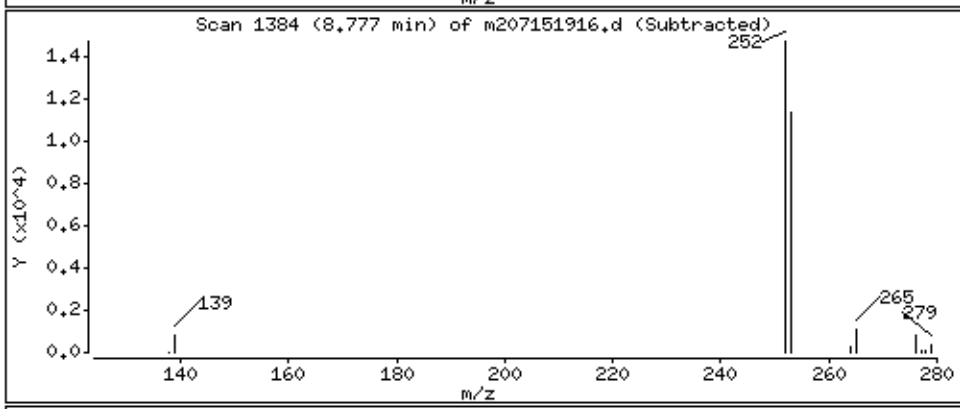
Sample Info: 30313514001X10,

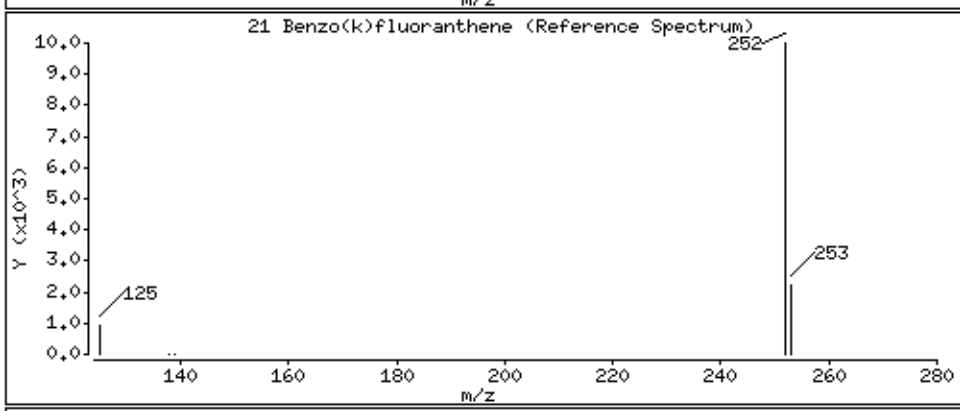
Volume Injected (uL): 1.0 Operator: DSC

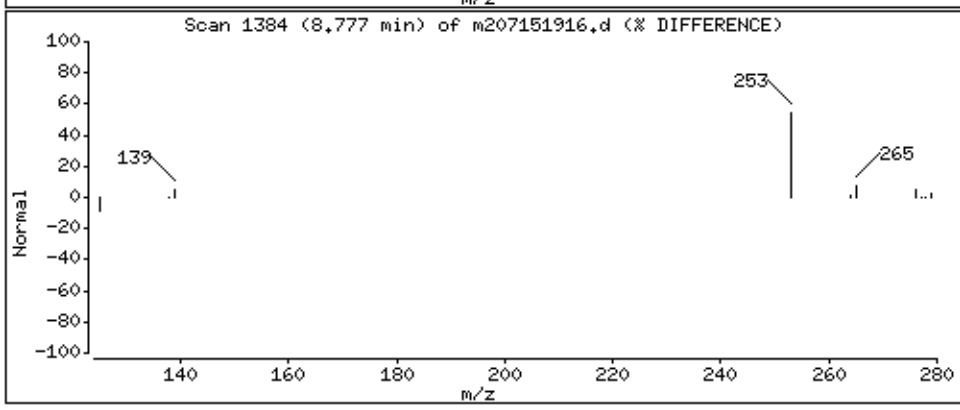
Column phase: RTX-5MS Column diameter: 0.25

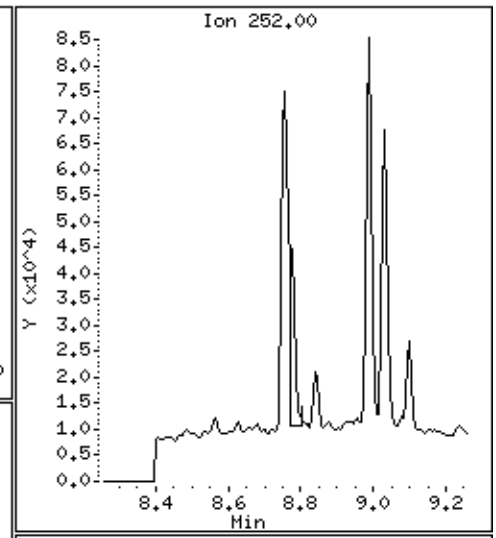
21 Benzo(k)fluoranthene Concentration: 105 ug/Kg

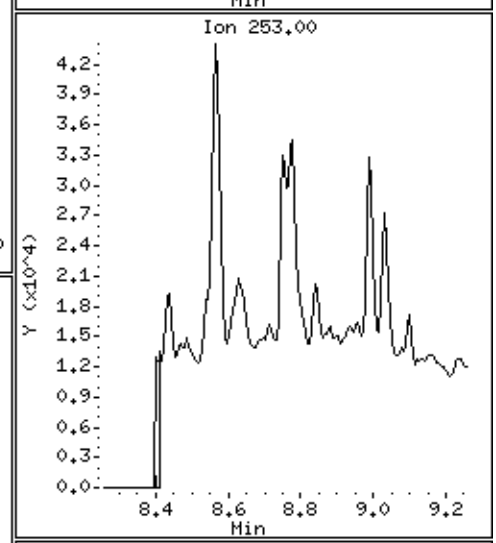


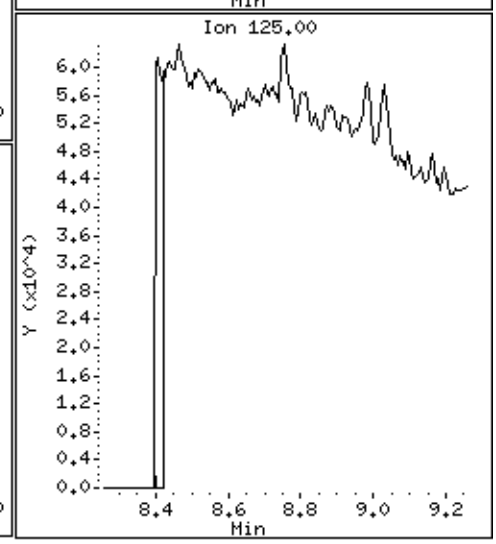












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Date : 15-JUL-2019 13:44

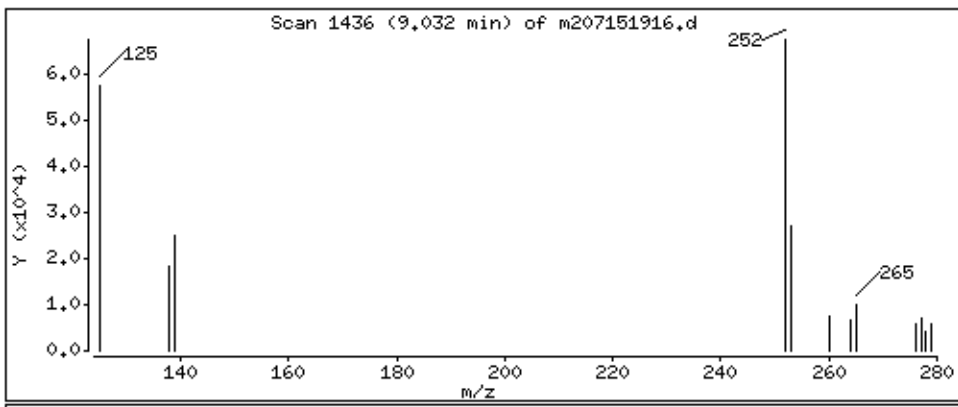
Client ID: Sewer-1 Instrument: 30mss2.i

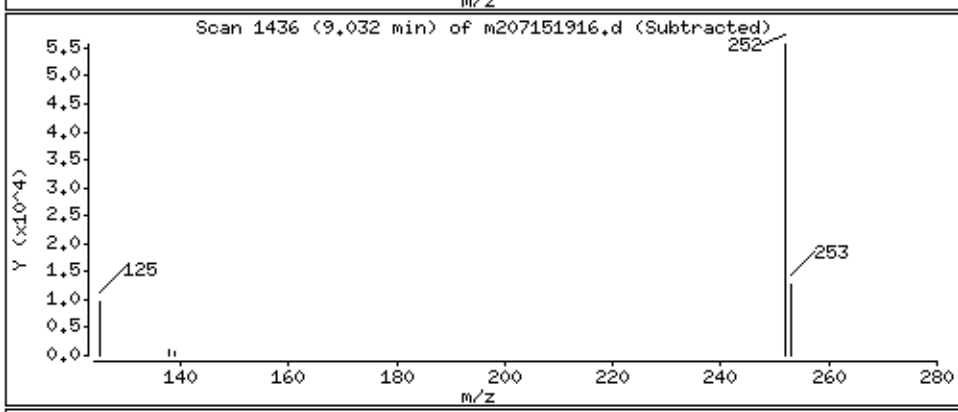
Sample Info: 30313514001X10,

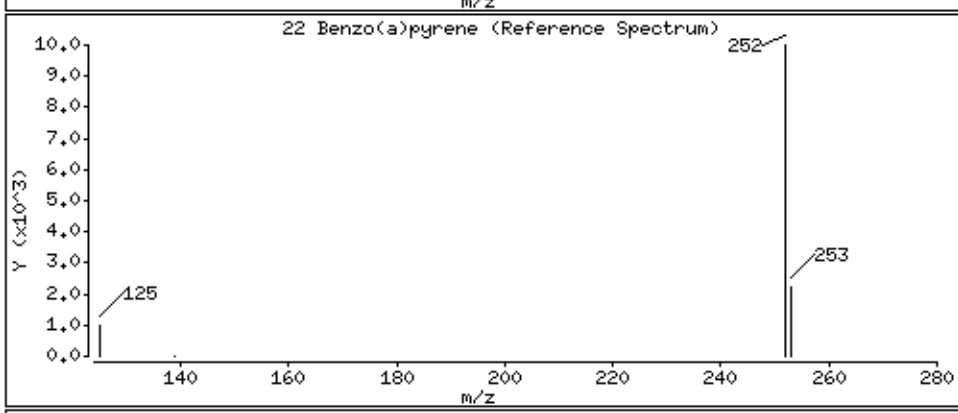
Volume Injected (uL): 1.0 Operator: DSC

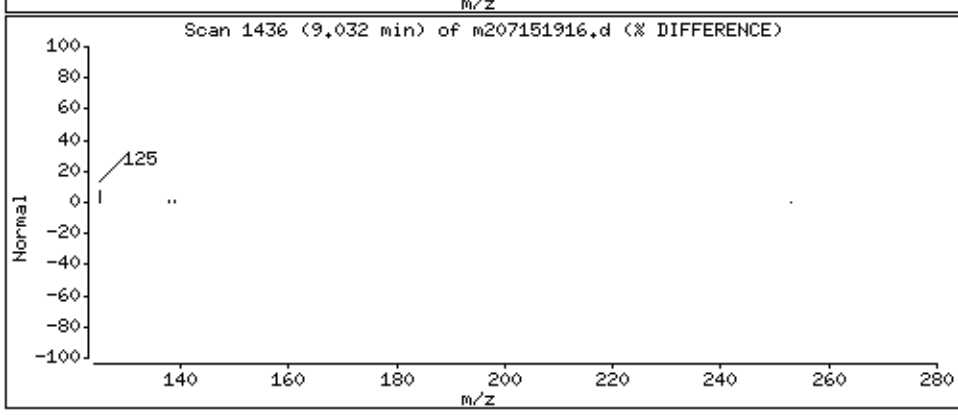
Column phase: RTX-5MS Column diameter: 0.25

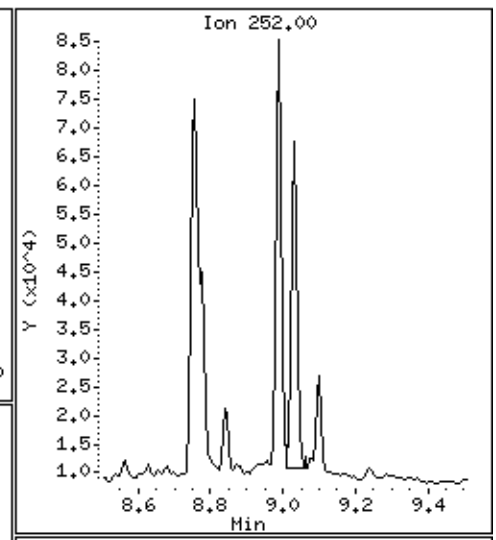
22 Benzo(a)pyrene Concentration: 247 ug/Kg

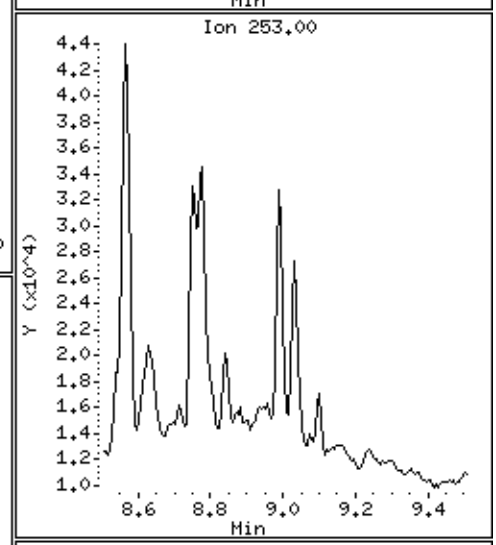


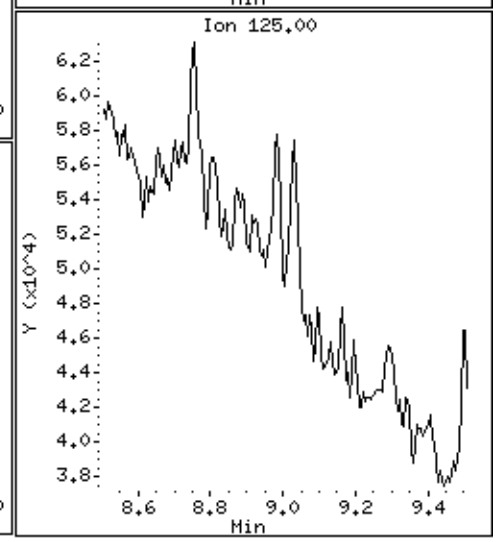












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Date : 15-JUL-2019 13:44

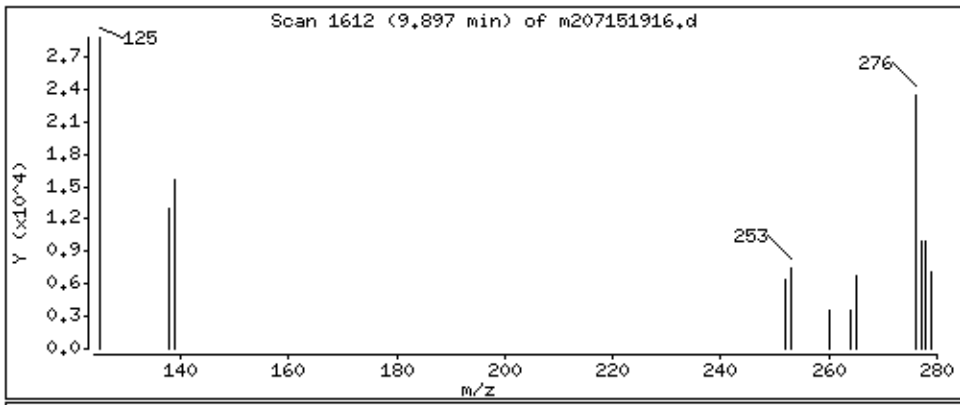
Client ID: Sewer-1 Instrument: 30mss2.i

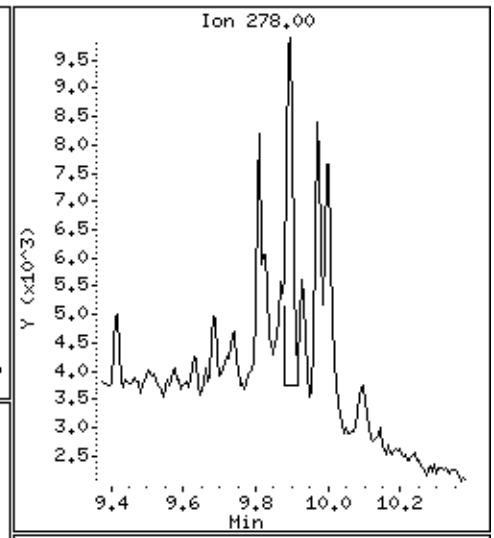
Sample Info: 30313514001X10,

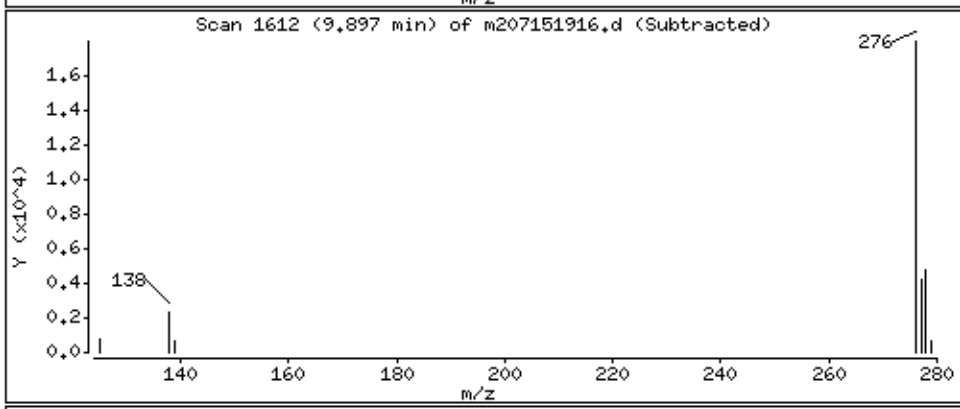
Volume Injected (uL): 1.0 Operator: DSC

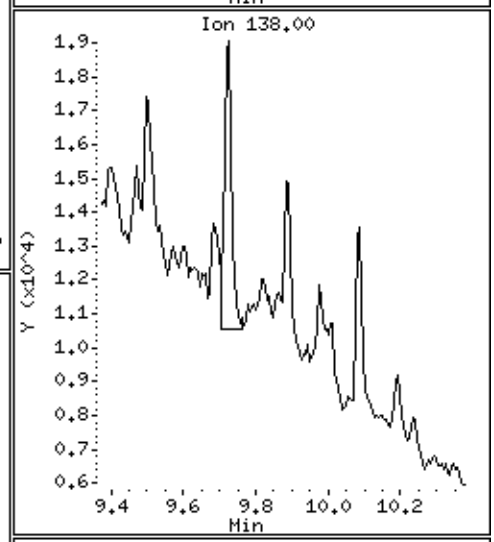
Column phase: RTX-5MS Column diameter: 0.25

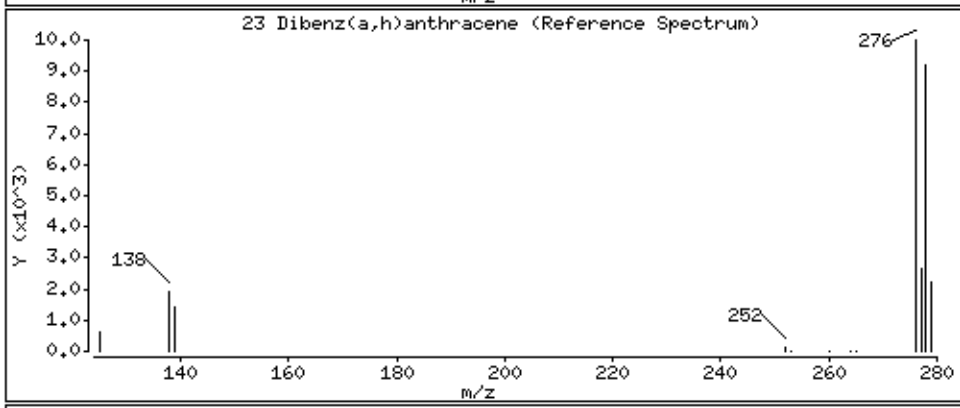
23 Dibenz(a,h)anthracene Concentration: 31.1 ug/Kg

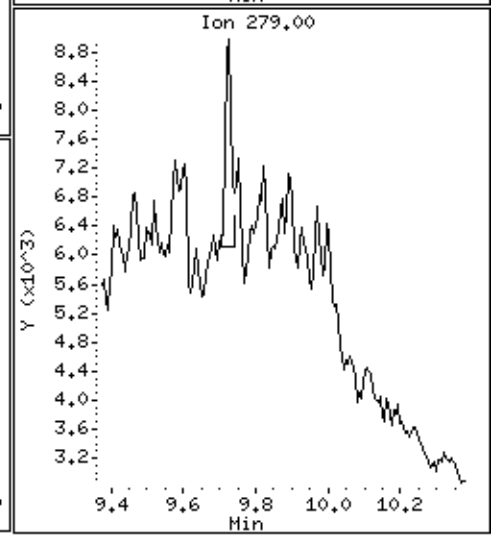


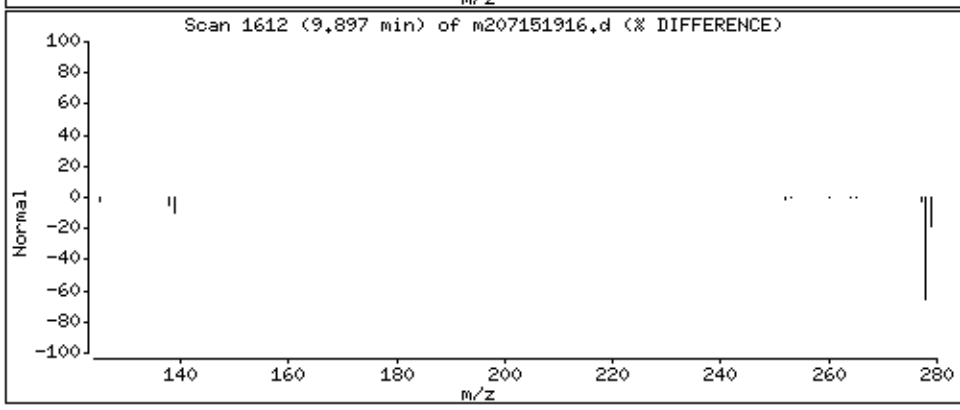












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

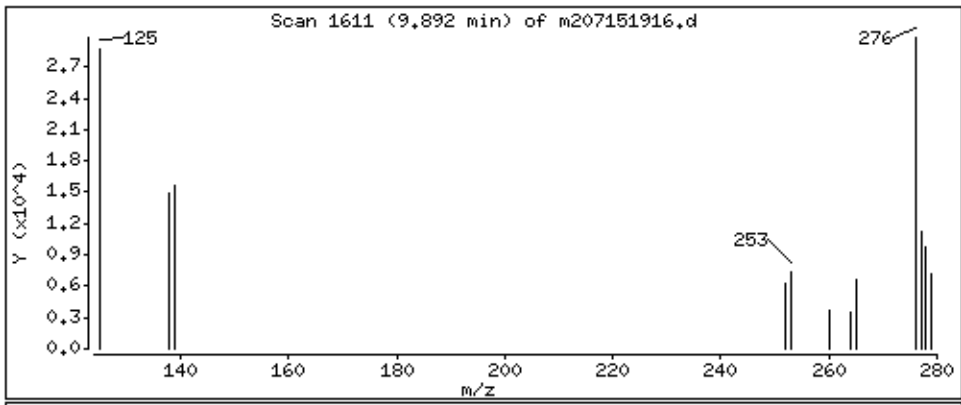
Client ID: Sewer-1 Instrument: 30mss2.i

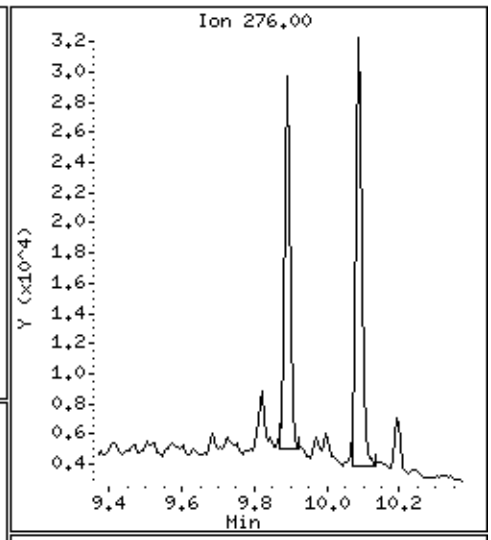
Sample Info: 30313514001X10,

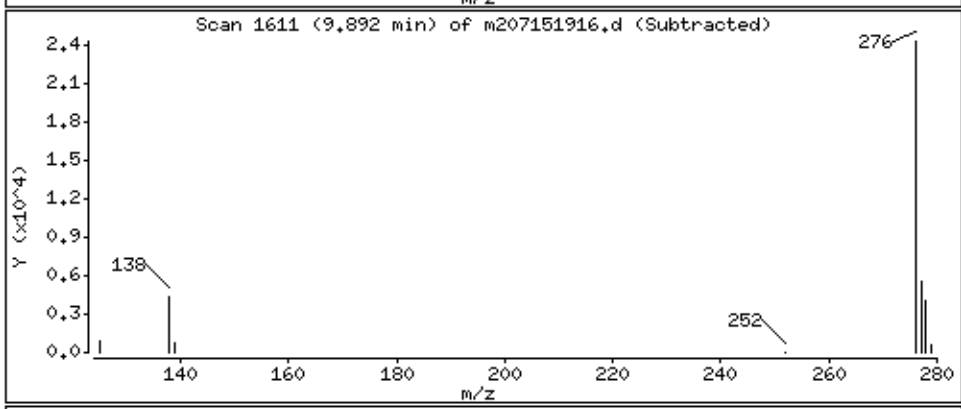
Volume Injected (uL): 1.0 Operator: DSC

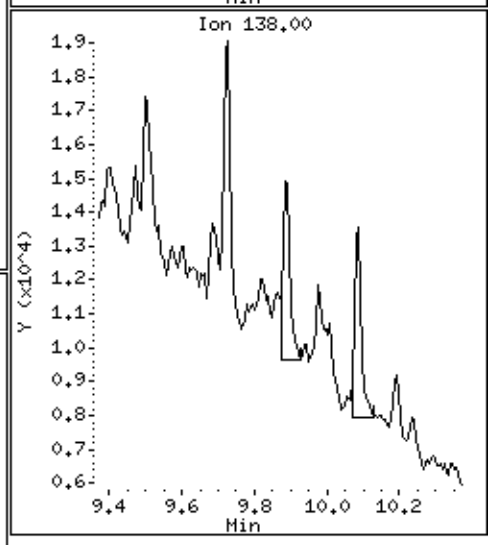
Column phase: RTX-5MS Column diameter: 0.25

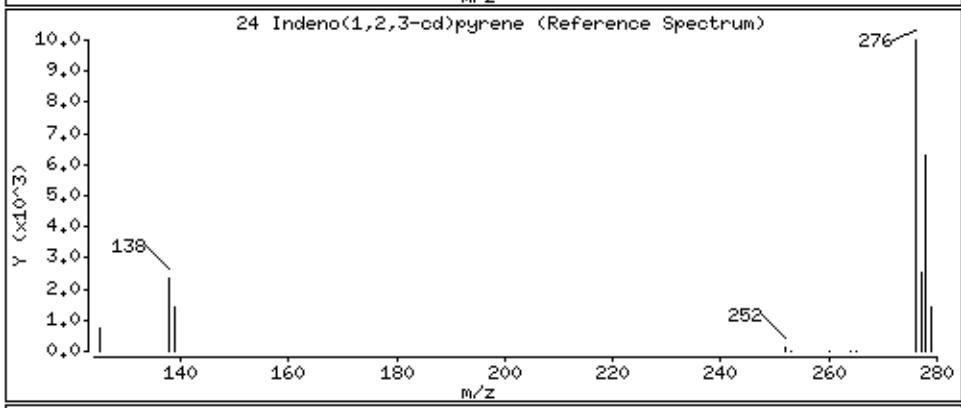
24 Indeno(1,2,3-cd)pyrene Concentration: 79.5 ug/Kg

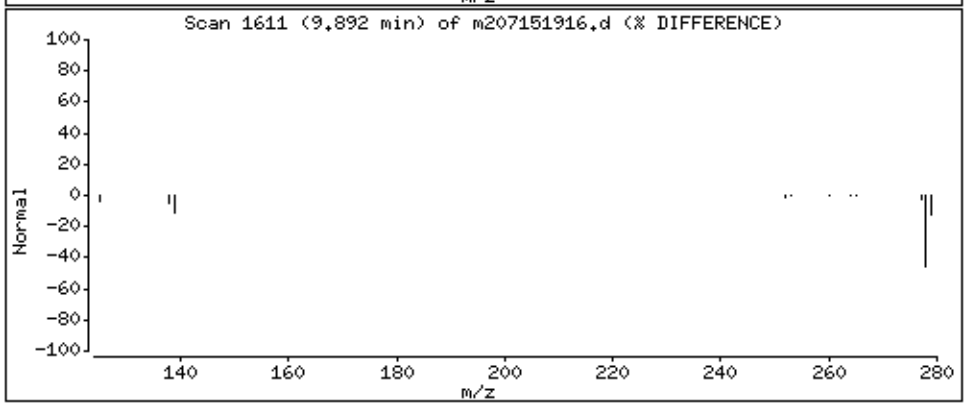












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151916.d

Date : 15-JUL-2019 13:44

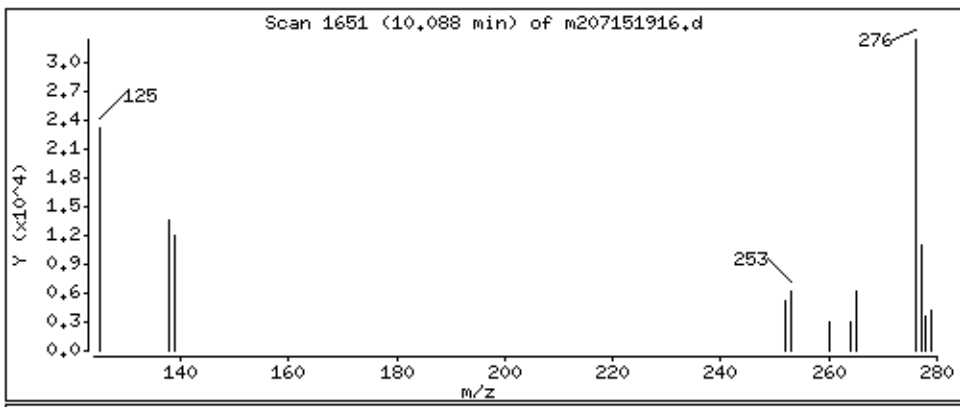
Client ID: Sewer-1 Instrument: 30mss2.i

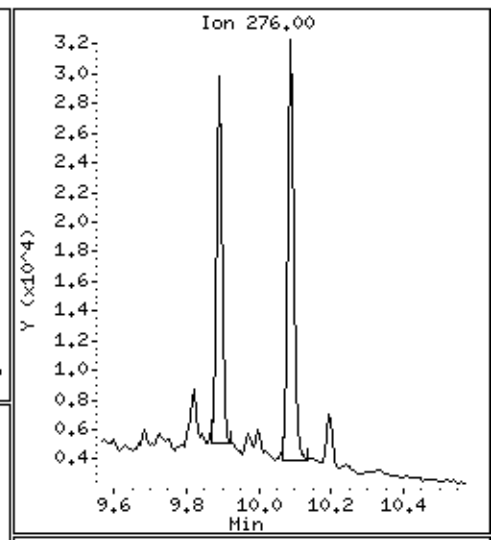
Sample Info: 30313514001X10,

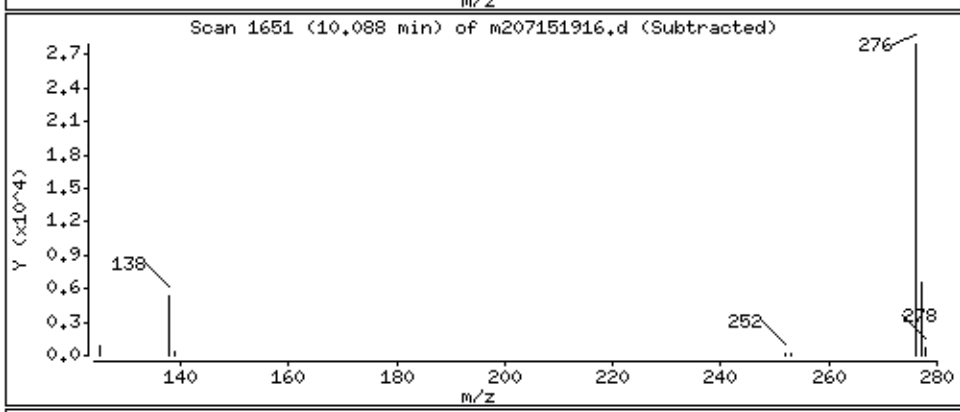
Volume Injected (uL): 1.0 Operator: DSC

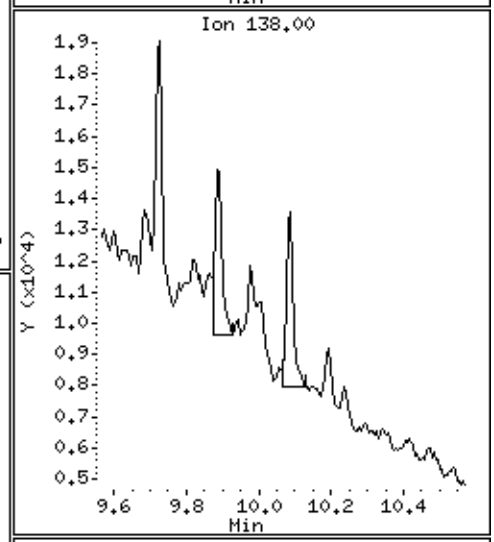
Column phase: RTX-5MS Column diameter: 0.25

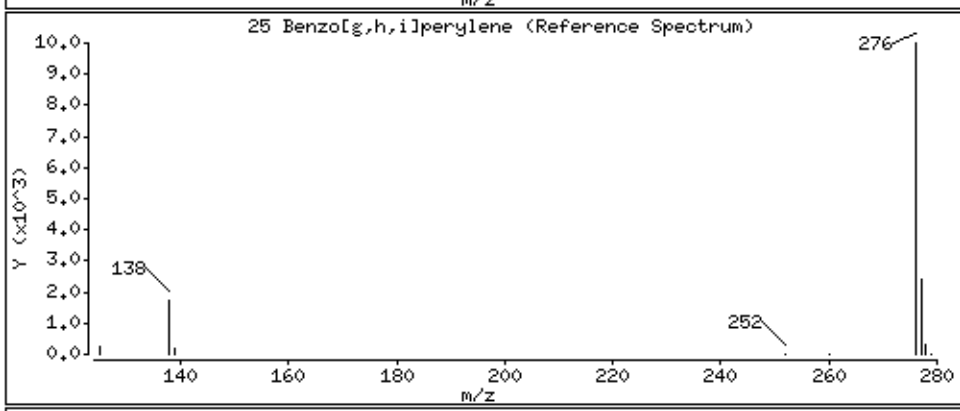
25 Benzo[g,h,i]perylene Concentration: 122 ug/Kg

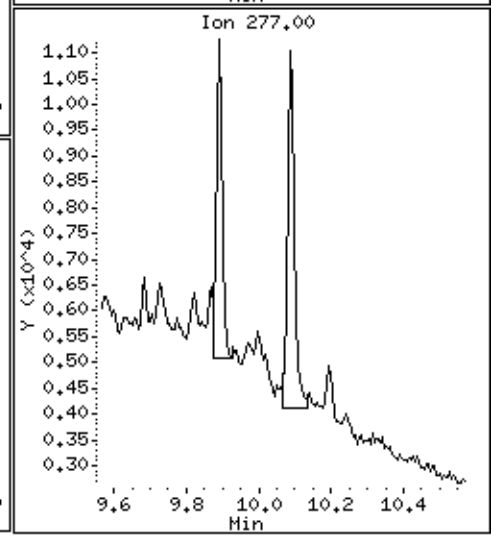


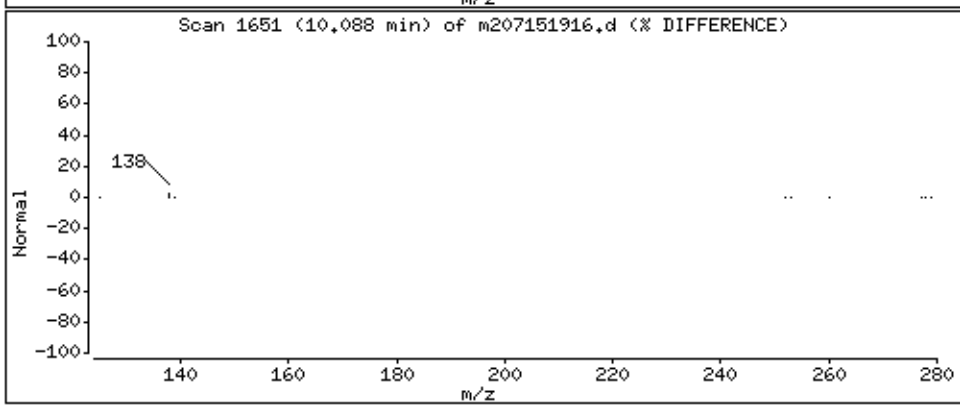






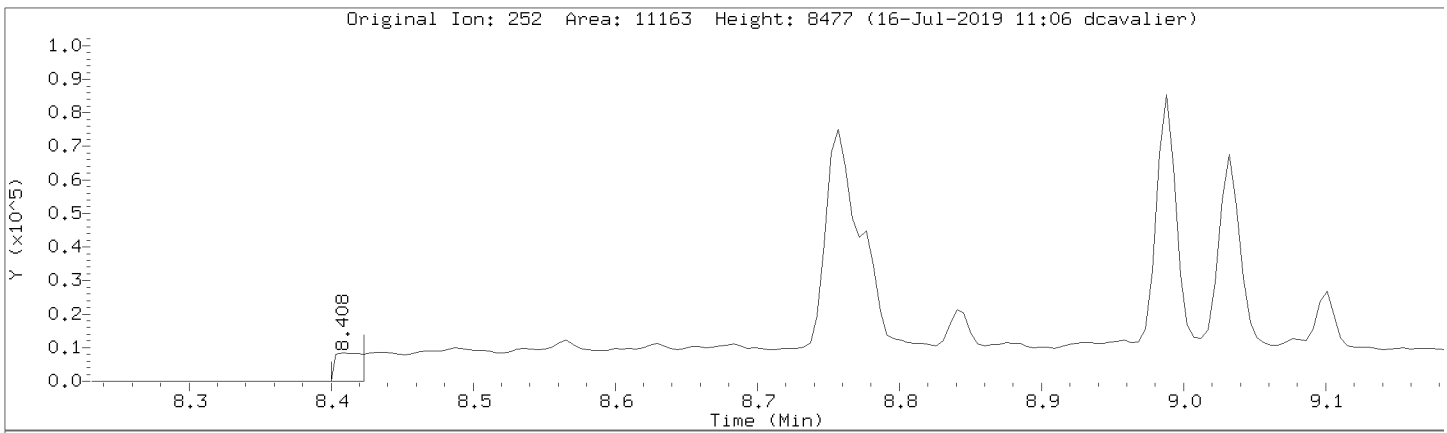


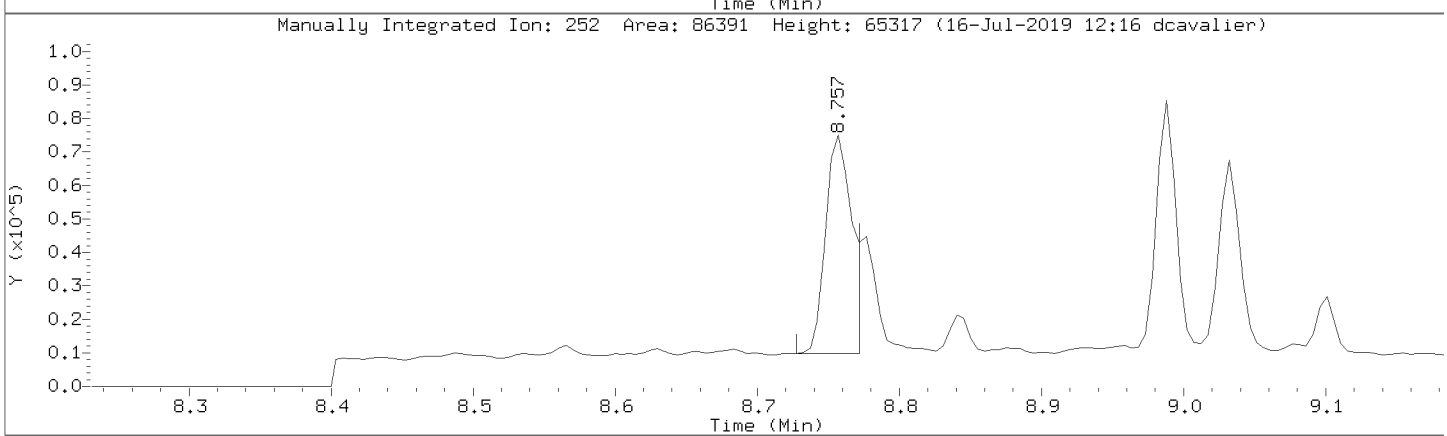


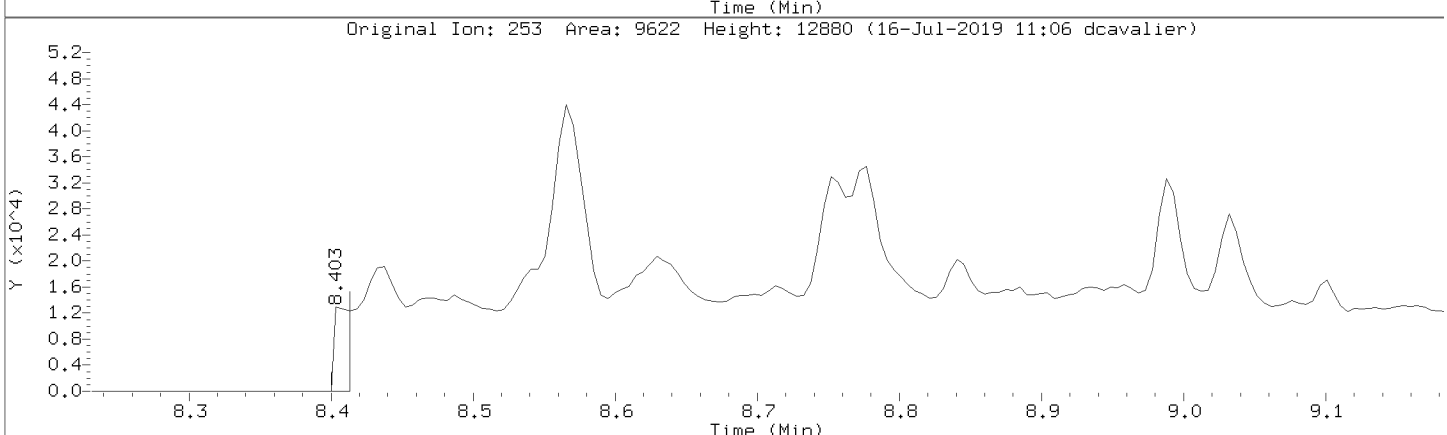


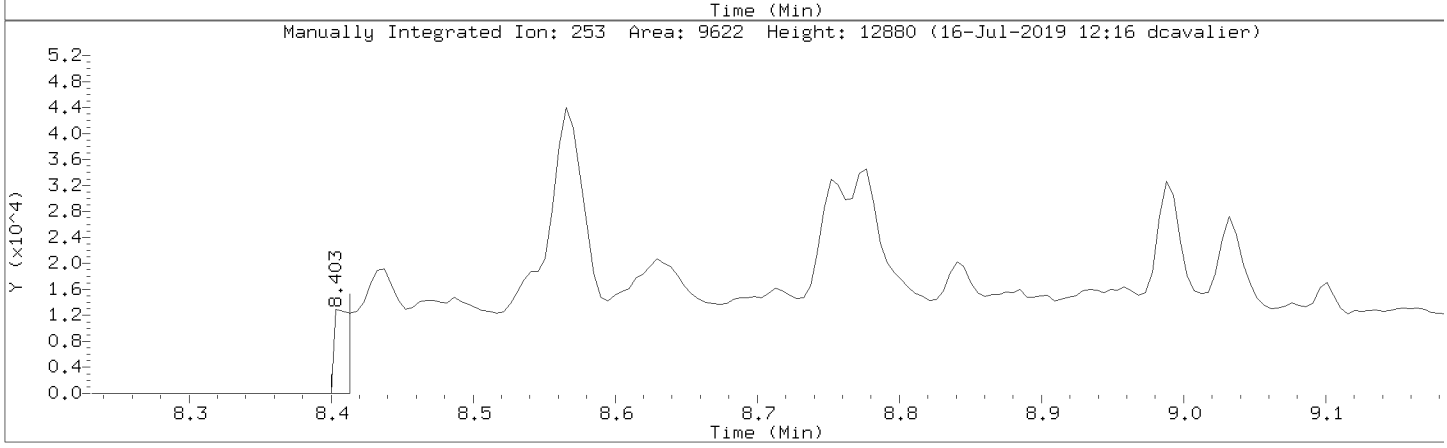
Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151916.d
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001

Compound: Benzo(b)fluoranthene Review Code: WP
CAS Number: 205-99-2









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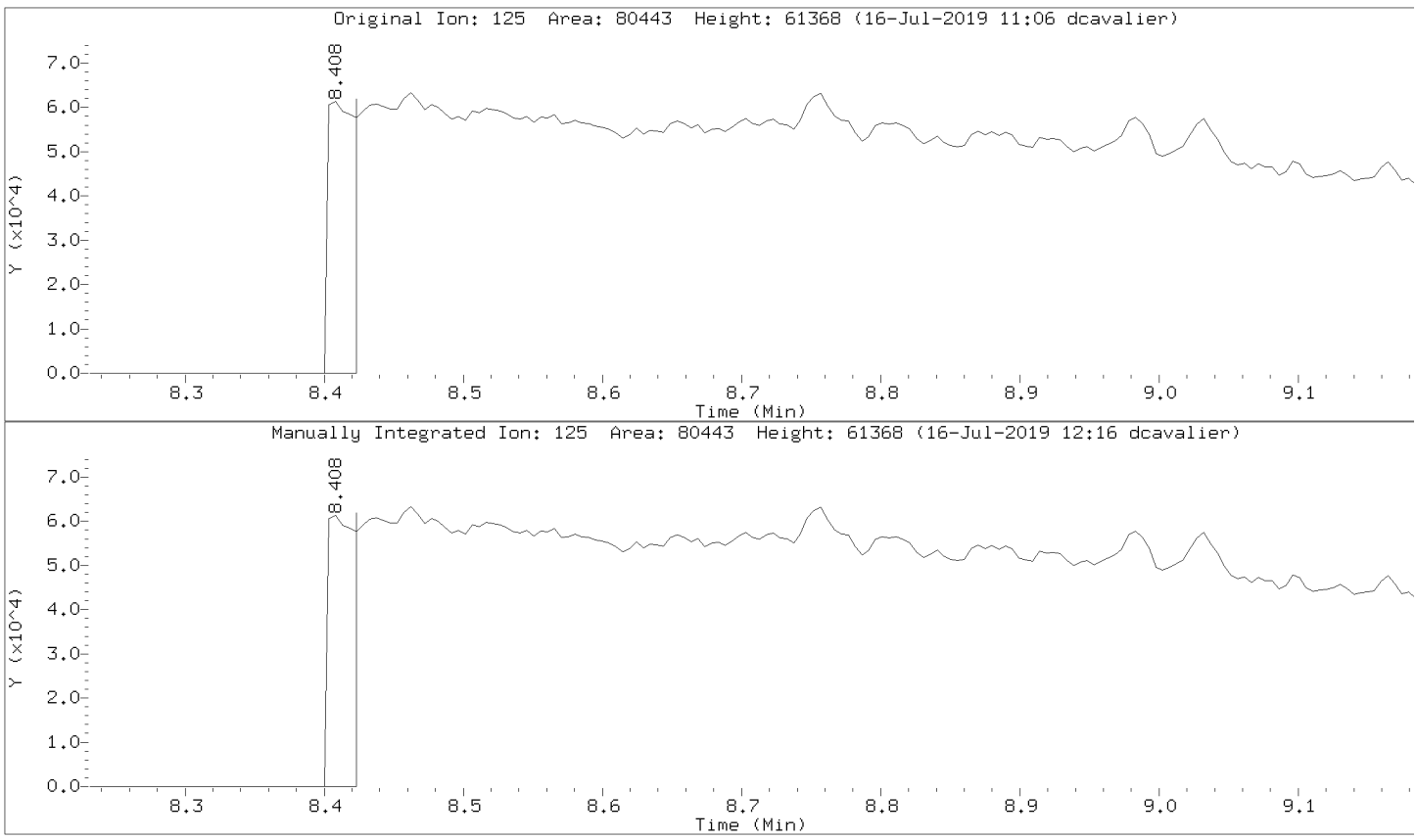
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001



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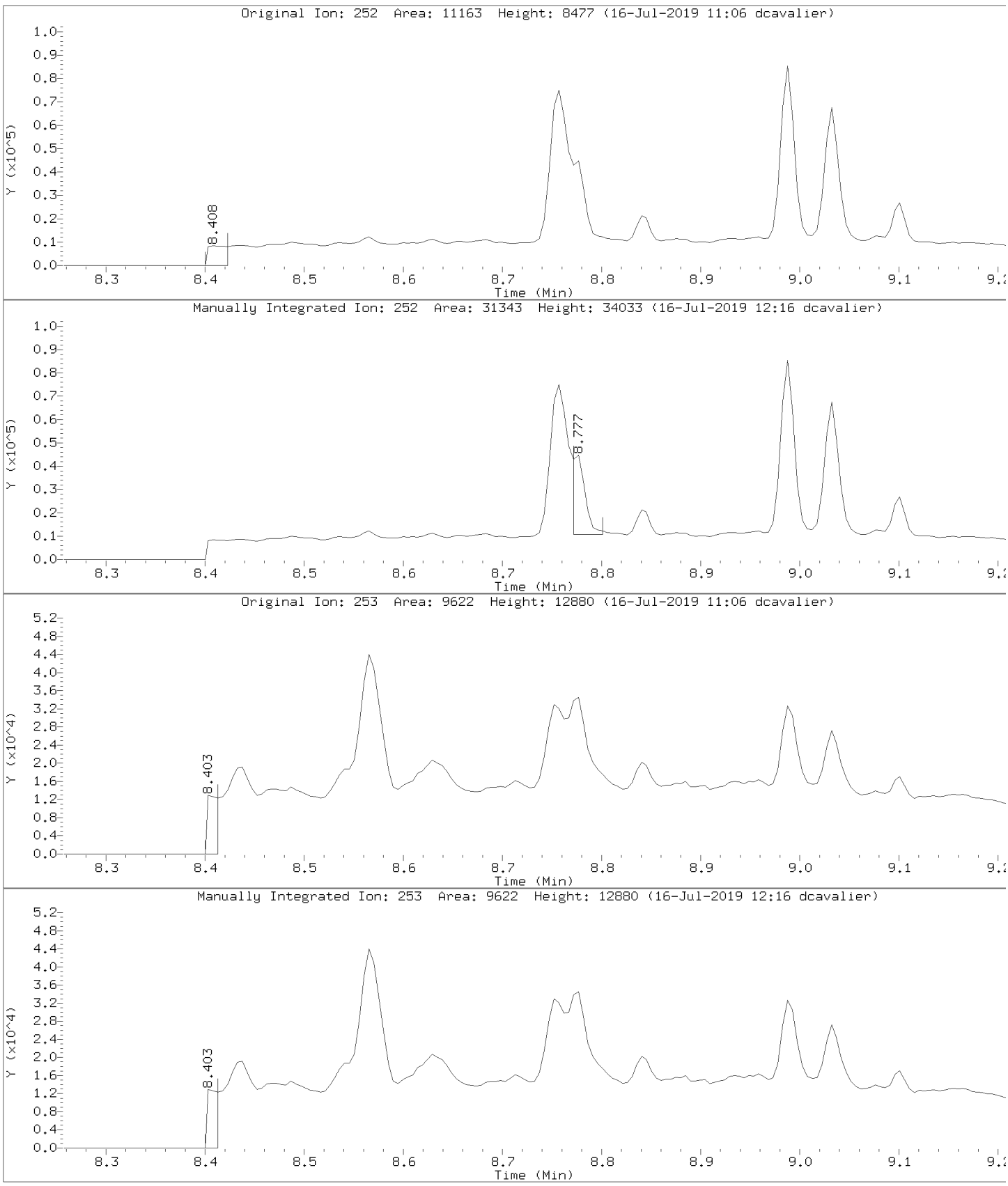
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



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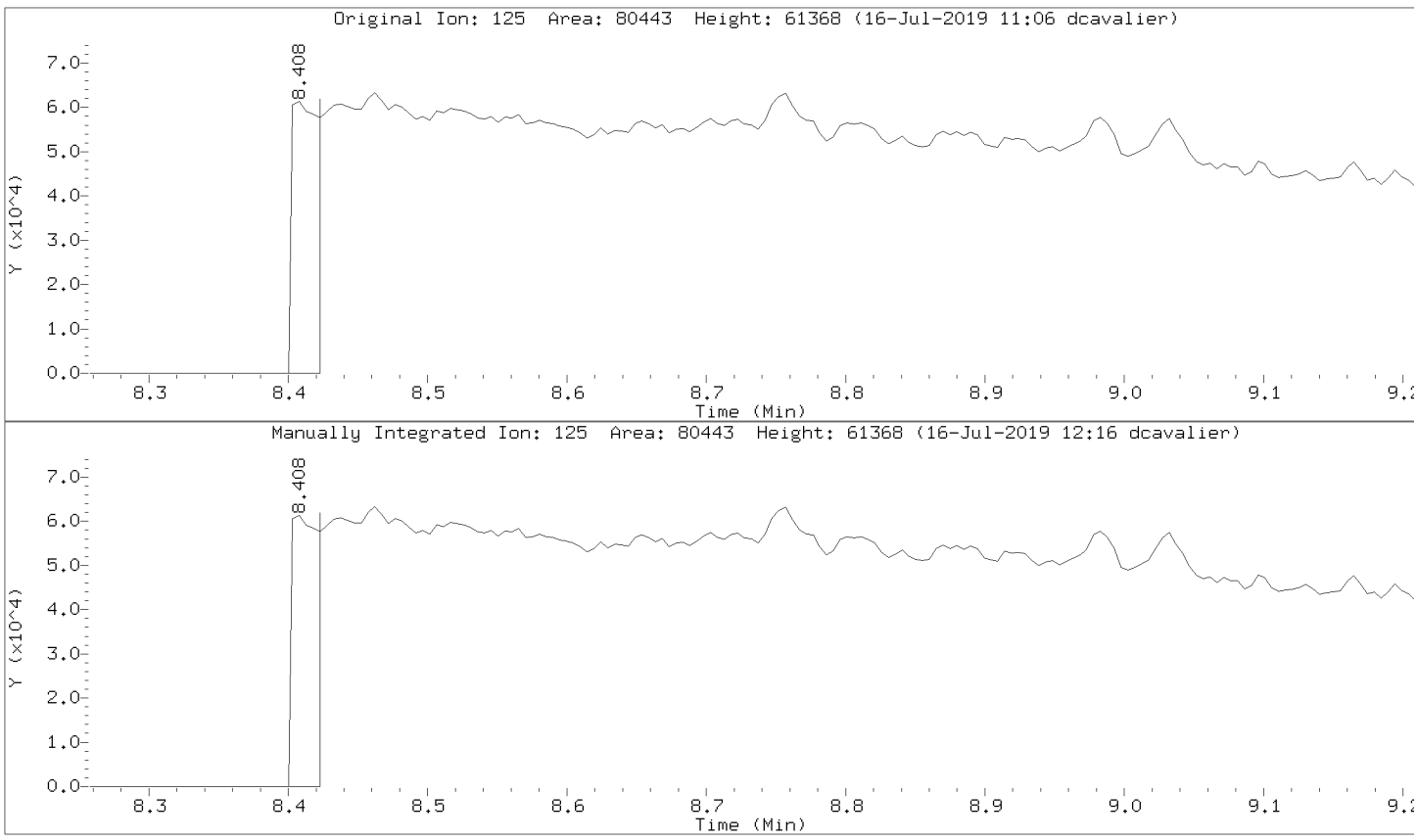
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001



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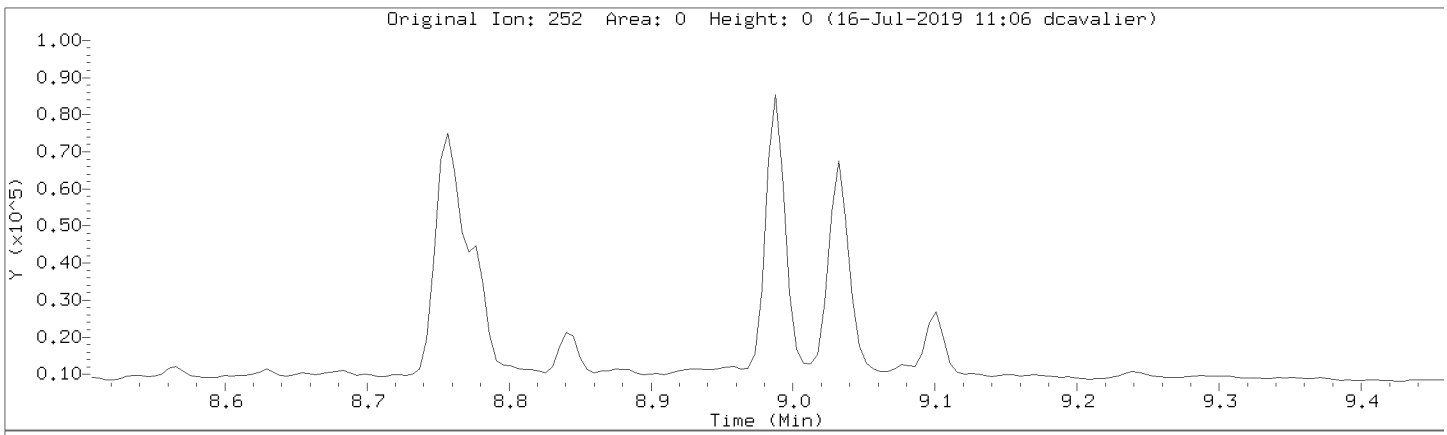
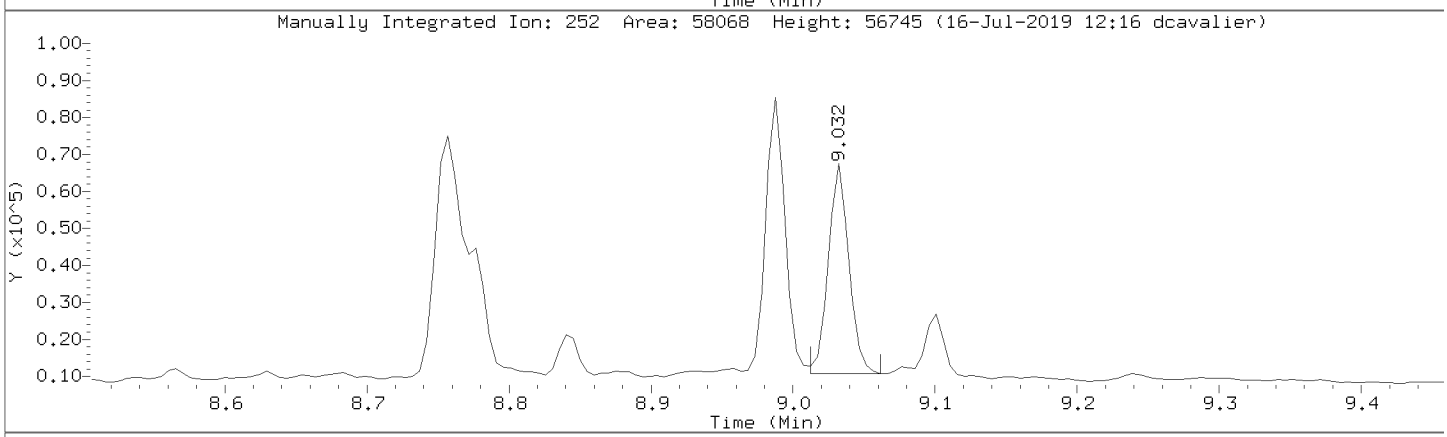
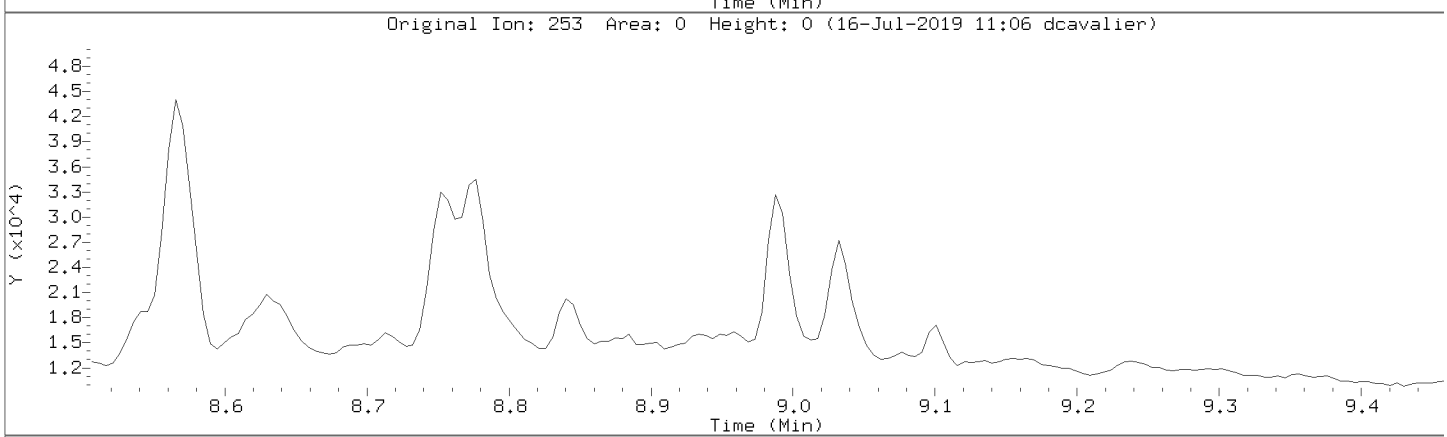
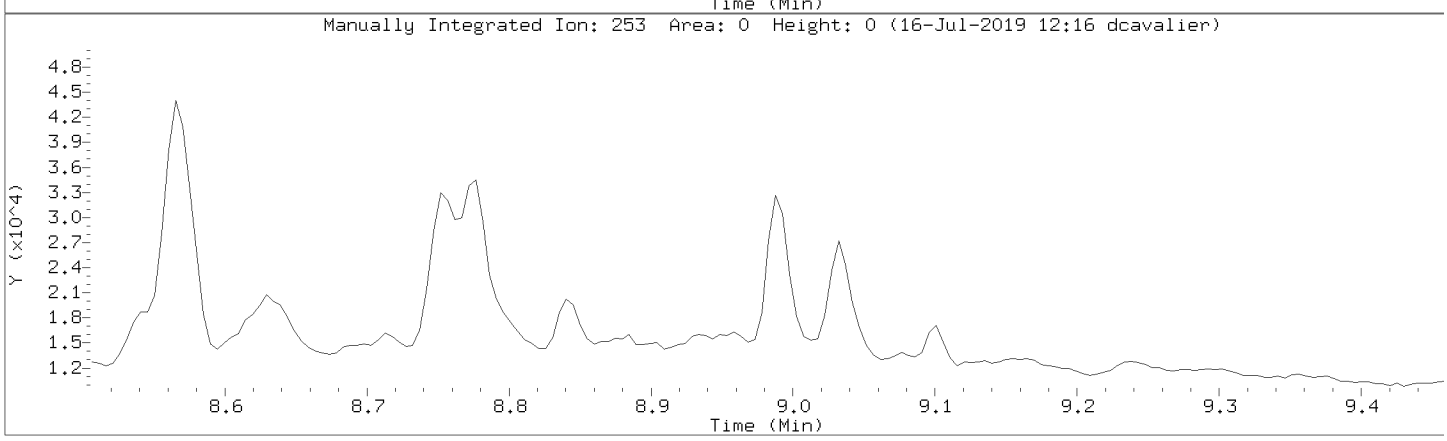
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001

Compound: Benzo(a)pyrene Review Code: NI
CAS Number: 50-32-8









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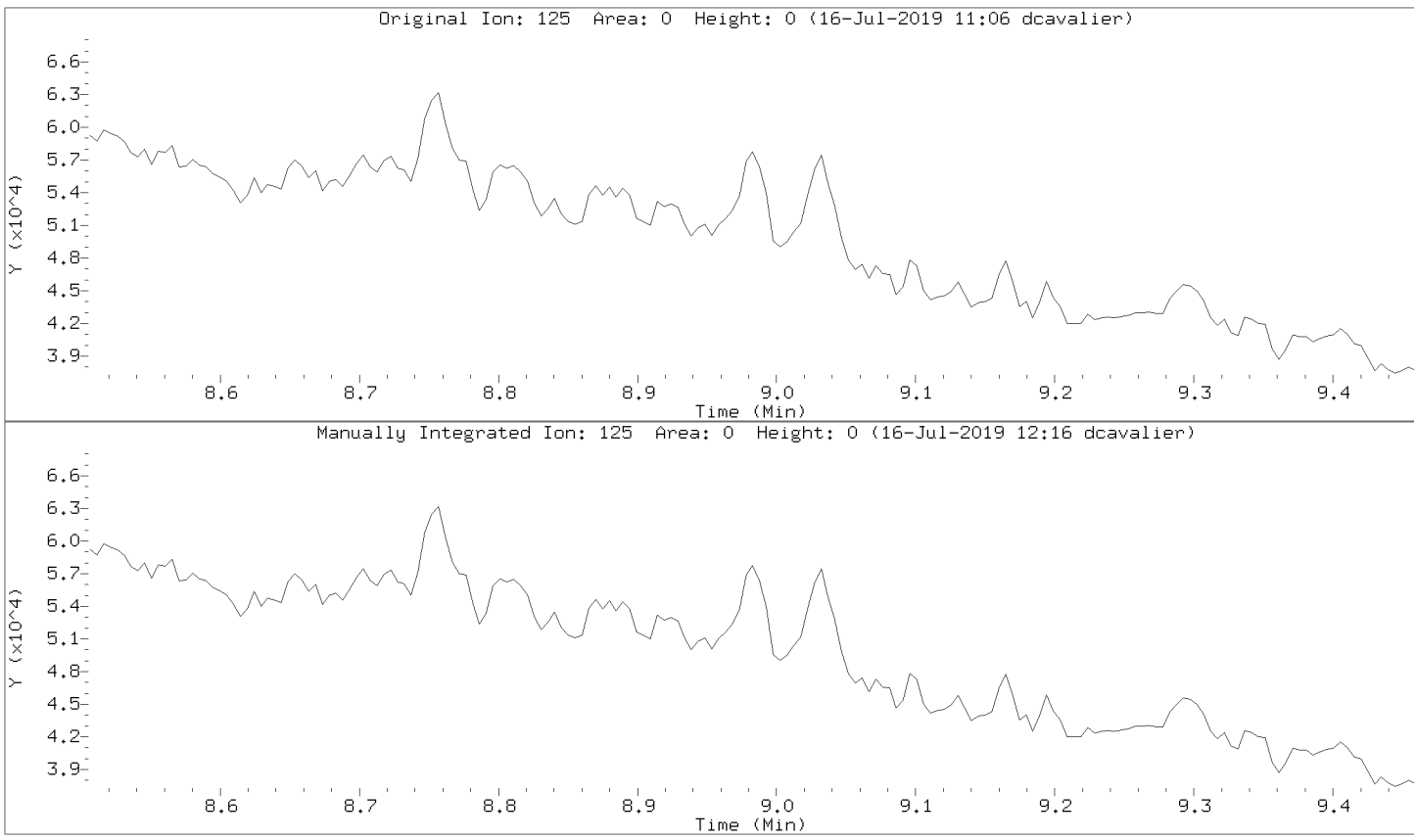
Lab Sample ID: 30313514001



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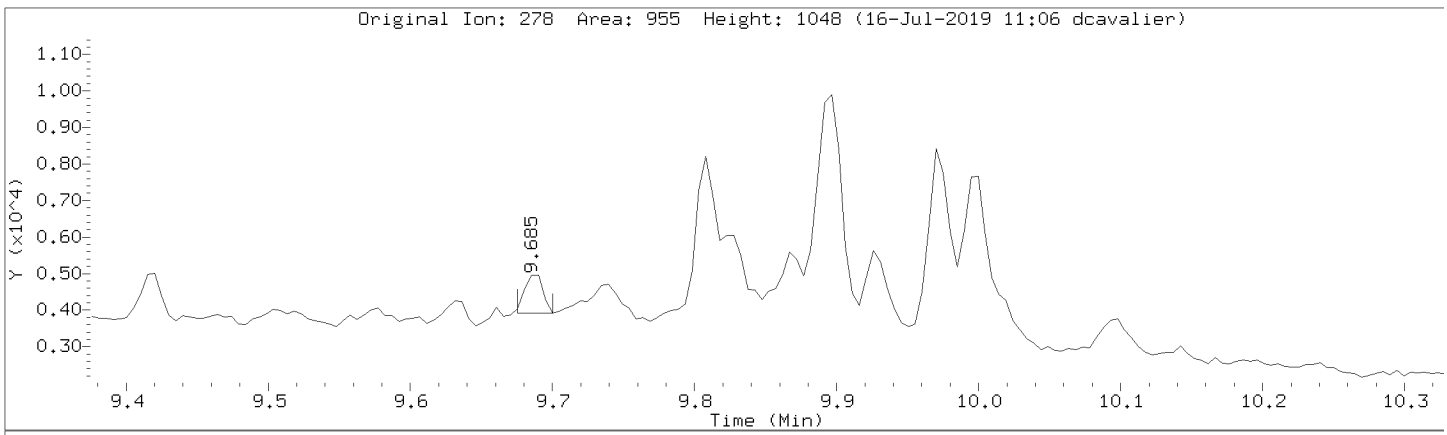
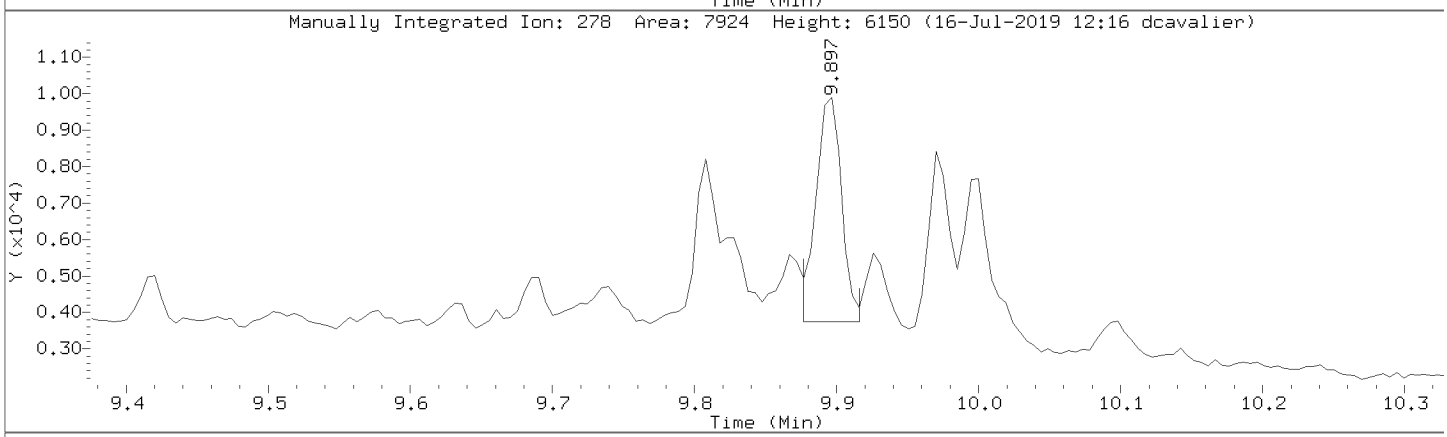
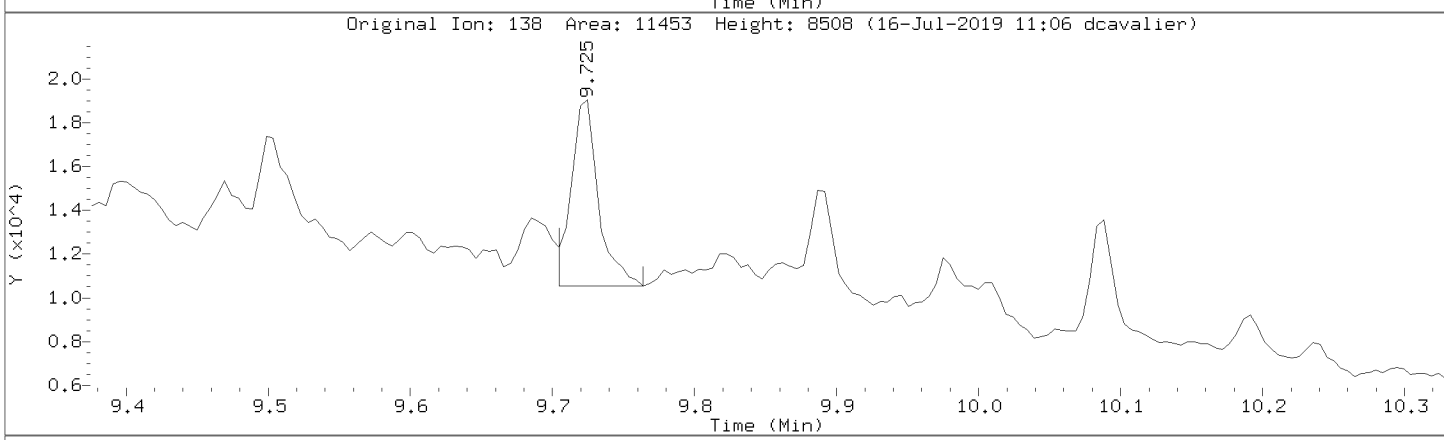
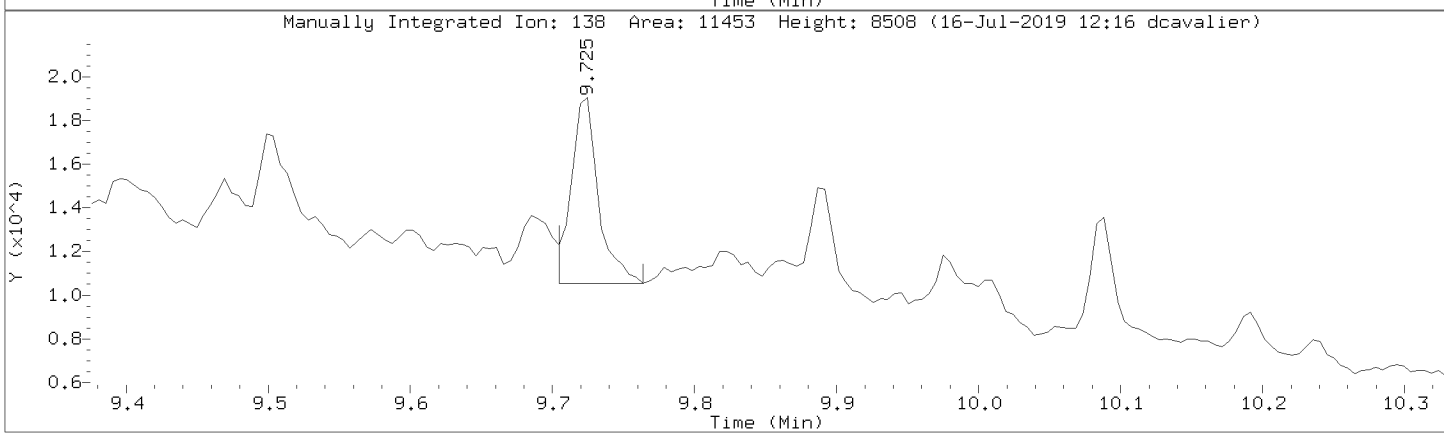
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001

Compound: Dibenz(a,h)anthracene Review Code: NI
CAS Number: 53-70-3









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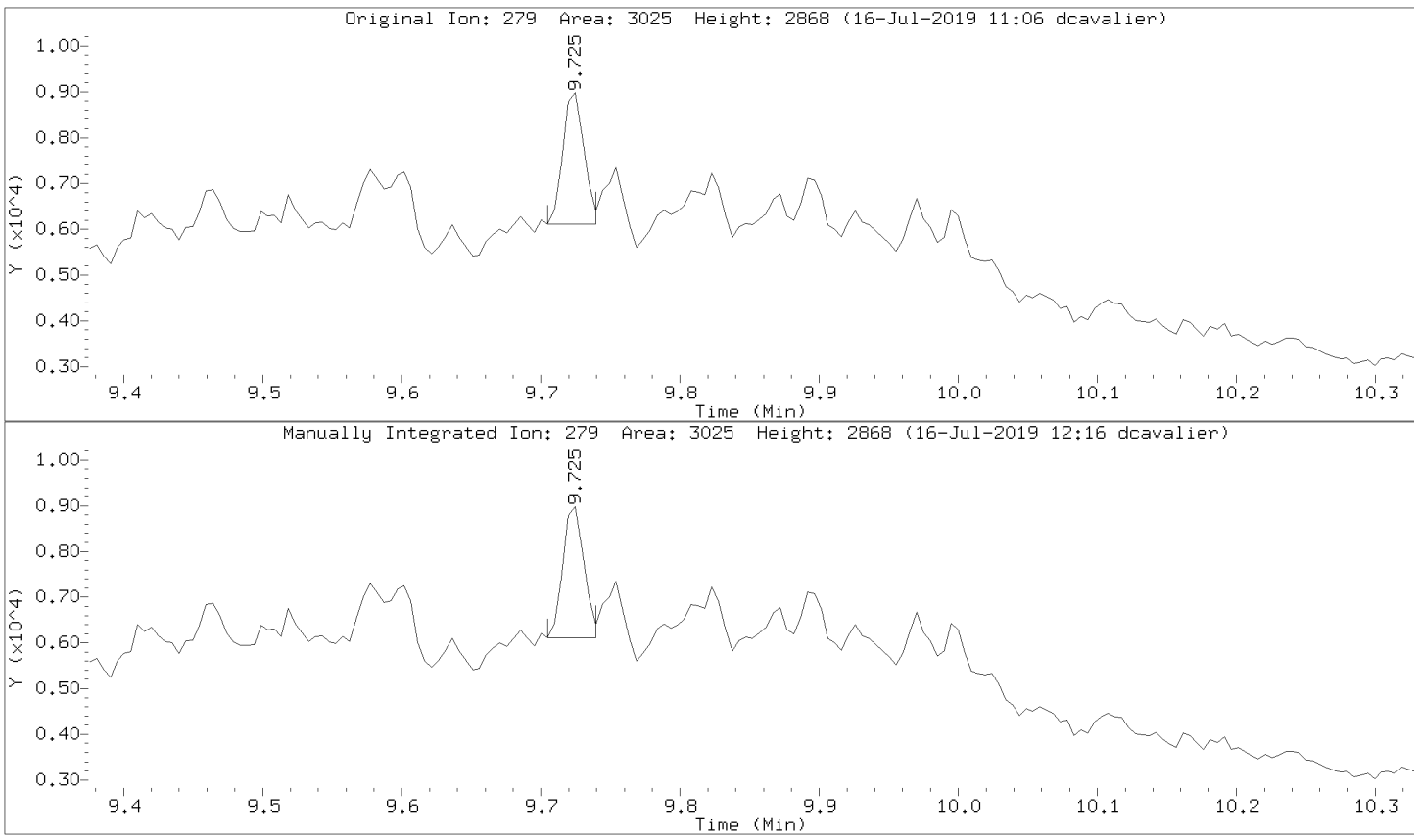
Injection Date: 15-JUL-2019 13:44
Instrument: 30mss2.i
Lab Sample ID: 30313514001



SAMPLE NO.

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Sewer-2

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 30313514002
Date Analyzed: 07/15/2019 14:02
Lab File ID: MSS2071519.B\M207151917.D
Initial wt/vol: 15.03 g Final wt/vol: 1 mL Dilution: 10
Instrument: 30MSS2 Percent Moisture: 1.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	234	
56-55-3	Benzo(a)anthracene	690	
50-32-8	Benzo(a)pyrene	573	
205-99-2	Benzo(b)fluoranthene	806	
191-24-2	Benzo(g,h,i)perylene	234	
207-08-9	Benzo(k)fluoranthene	335	
218-01-9	Chrysene	664	
53-70-3	Dibenz(a,h)anthracene	94.4	
206-44-0	Fluoranthene	1210	
86-73-7	Fluorene	76.6	
193-39-5	Indeno(1,2,3-cd)pyrene	220	
91-20-3	Naphthalene	77.7	
85-01-8	Phenanthrene	872	
129-00-0	Pyrene	1040	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d
Lab Smp Id: 30313514002 Client Smp ID: Sewer-2
Inj Date : 15-JUL-2019 14:02
Operator : DSC Inst ID: 30mss2.i
Smp Info : 30313514002x10,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 19
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.030	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.395	3.390	(1.000)	560030	4.00000		
	8 Naphthalene	128	3.407	3.401	(1.003)	14479	0.11472	76.3	
	9 2-Methylnaphthalene	142	3.852	3.846	(1.135)	9295	0.11082	73.7	
	10 1-Methylnaphthalene	142	3.915	3.909	(1.153)	5735	0.06373	42.4	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	44323	0.39589	26.3(R)	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	3763	0.02848	18.9(QM)	WP
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	335422	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	10946	0.12683	84.4	
	13 Fluorene	166	4.873	4.870	(1.079)	11444	0.11298	75.2	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	572186	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	177805	1.28739	856	
	15 Anthracene	178	5.583	5.578	(1.011)	48513	0.34466	229(Q)	
	16 Fluoranthene	202	6.494	6.490	(1.176)	281722	1.78211	1180	
	17 Pyrene	202	6.693	6.688	(1.212)	249075	1.53240	1020	
$	7 Terphenyl-d14 (S)	244	6.819	6.814	(1.234)	51368	0.42292	28.1(R)	
	18 Benzo(a)anthracene	228	7.778	7.772	(0.999)	143511	1.01814	677	
*	4 Chrysene-d12 (IS)	240	7.789	7.783	(1.000)	515106	4.00000		
	19 Chrysene	228	7.810	7.807	(1.003)	141462	0.97984	652	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.742	8.732	(0.964)	173414	1.18957	791(Q)	
21 Benzo(k)fluoranthene	252	8.761	8.757	(0.966)	86505	0.49390	329(QM)	WP
22 Benzo(a)pyrene	252	9.017	9.007	(0.995)	117212	0.84518	562(Q)	
* 5 Perylene-d12 (IS)	264	9.066	9.056	(1.000)	558614	4.00000		
23 Dibenz(a,h)anthracene	278	9.886	9.876	(1.090)	20933	0.13928	92.7(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.881	9.872	(1.090)	58846	0.32399	216(M)	BA
25 Benzo[g,h,i]perylene	276	10.078	10.068	(1.112)	51584	0.34495	230	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

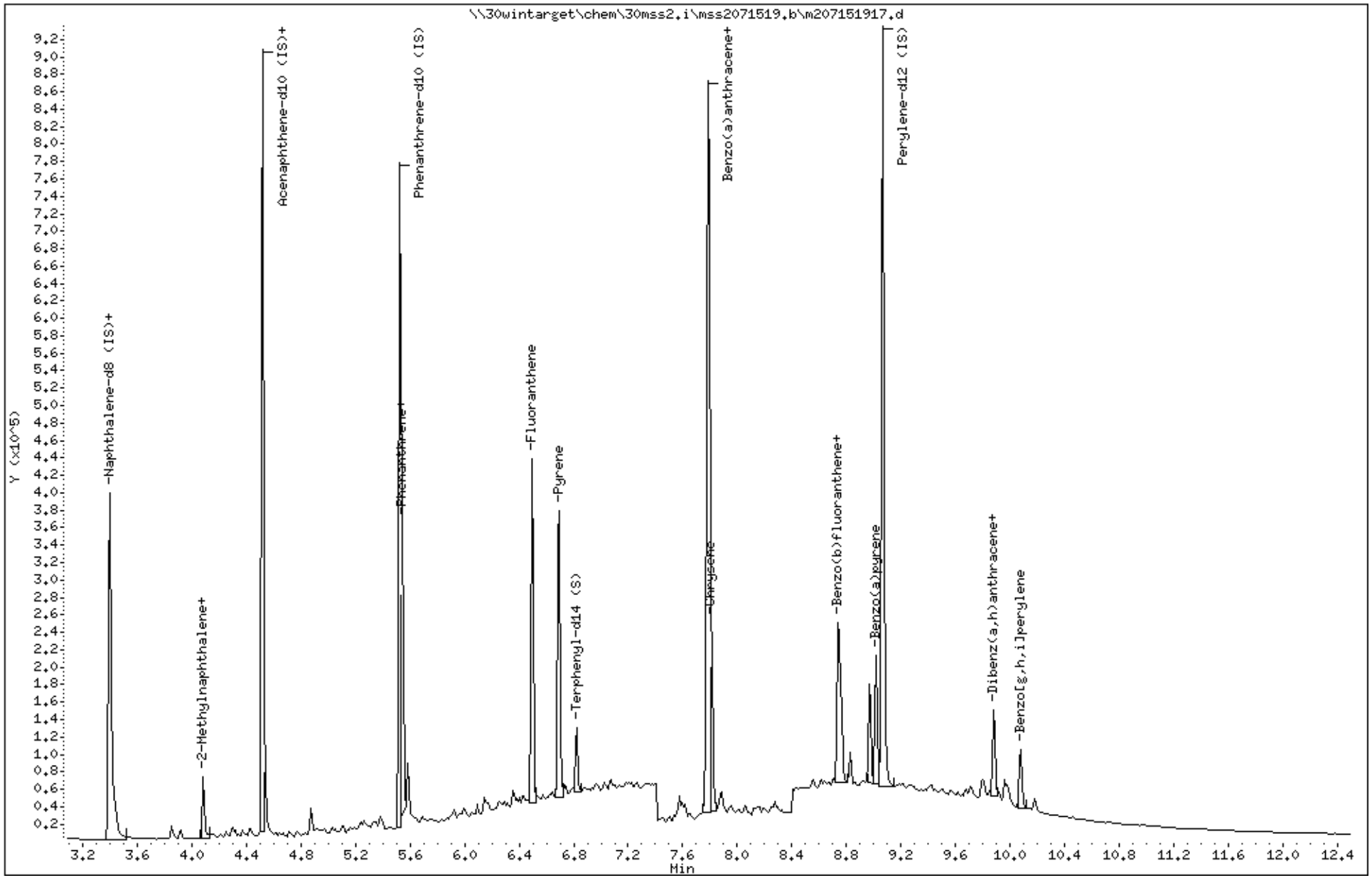
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313514
Lab Smp Id: 30313514002
Client Smp ID: Sewer-2
Sample Location:
Sample Point:
Sample Date: 11-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: SV
Level: LOW
Data Type: MS DATA
Operator: DSC
Misc Info: 14824,

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.0998	U
91-20-3	Naphthalene	76.3	
91-57-6	2-Methylnaphthalene	73.7	
90-12-0	1-Methylnaphthalene	42.4	
208-96-8	Acenaphthylene	18.9	
83-32-9	Acenaphthene	84.4	
86-73-7	Fluorene	75.2	
85-01-8	Phenanthrene	856	
120-12-7	Anthracene	229	
206-44-0	Fluoranthene	1180	
129-00-0	Pyrene	1020	
56-55-3	Benzo(a)anthracene	677	
218-01-9	Chrysene	652	
205-99-2	Benzo(b)fluoranthene	791	
207-08-9	Benzo(k)fluoranthene	329	
50-32-8	Benzo(a)pyrene	562	
53-70-3	Dibenz(a,h)anthracene	92.7	
193-39-5	Indeno(1,2,3-cd)pyrene	216	
191-24-2	Benzo[g,h,i]perylene	230	
321-60-8	2-Fluorobiphenyl (S)	26.3	
1718-51-0	Terphenyl-d14 (S)	28.1	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d
Date : 15-JUL-2019 14:02
Client ID: Sewer-2
Sample Info: 30313514002X10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss2.i
Operator: DSC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

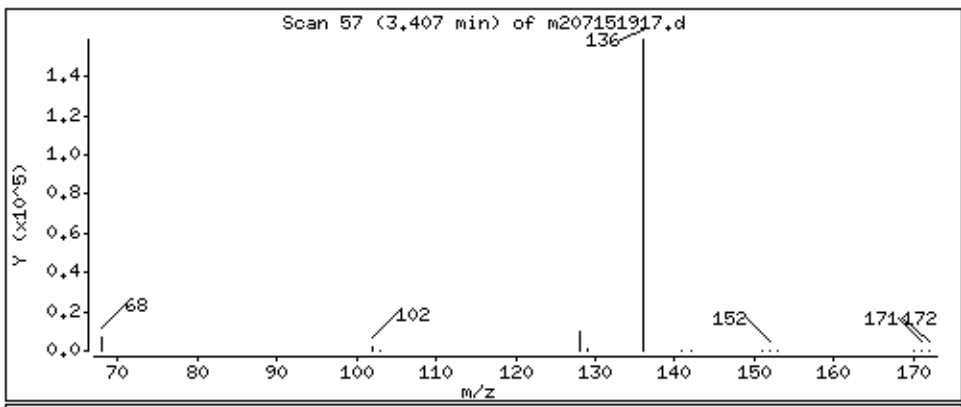
Client ID: Sewer-2 Instrument: 30mss2.i

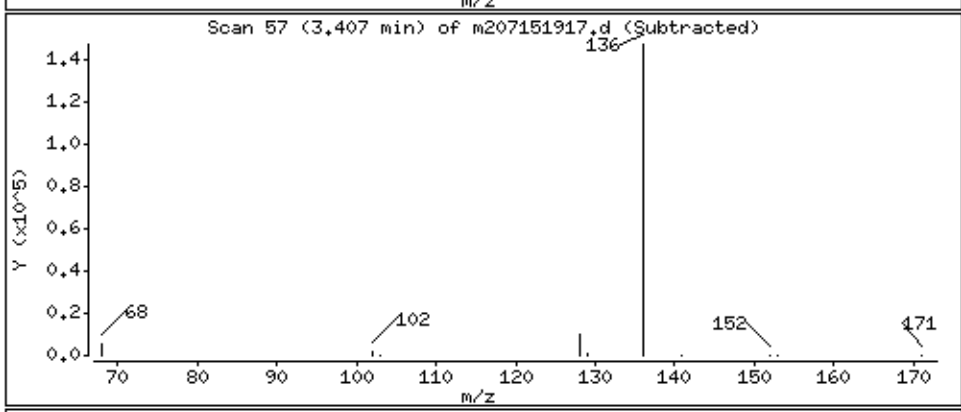
Sample Info: 30313514002X10,

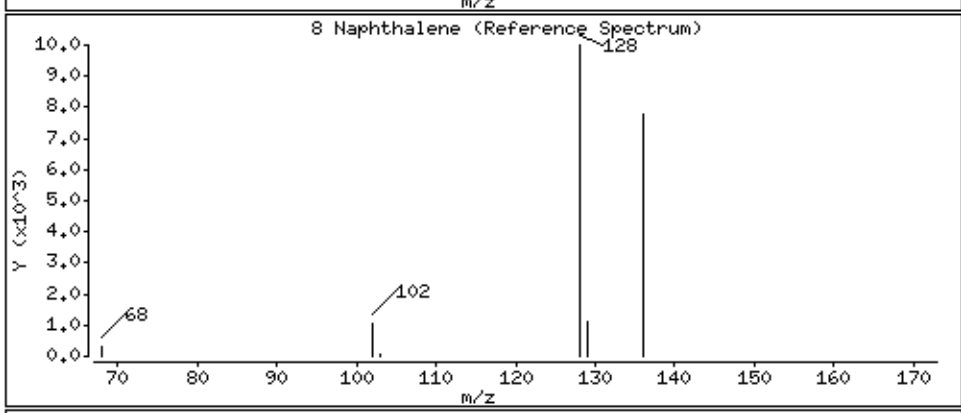
Volume Injected (uL): 1.0 Operator: DSC

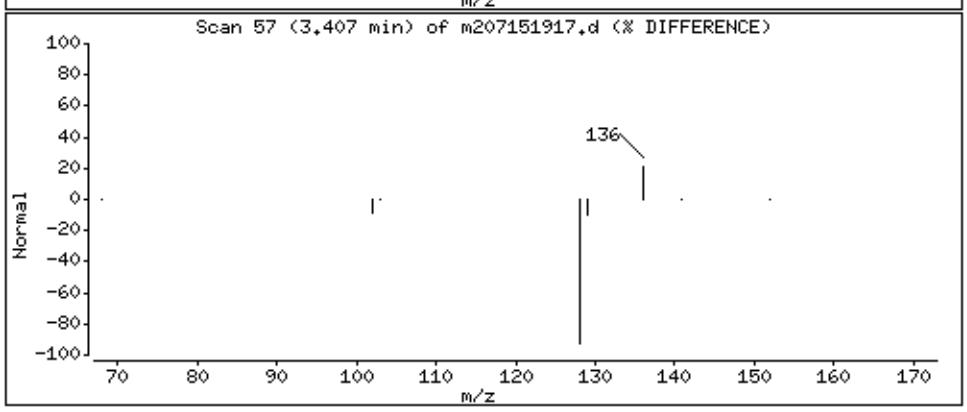
Column phase: RTX-5MS Column diameter: 0.25

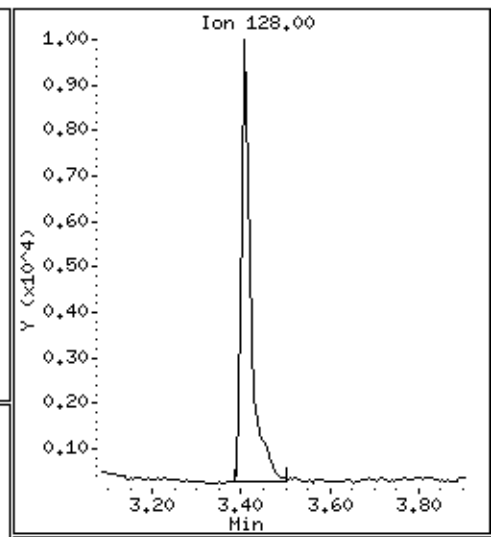
8 Naphthalene Concentration: 76.3 ug/Kg

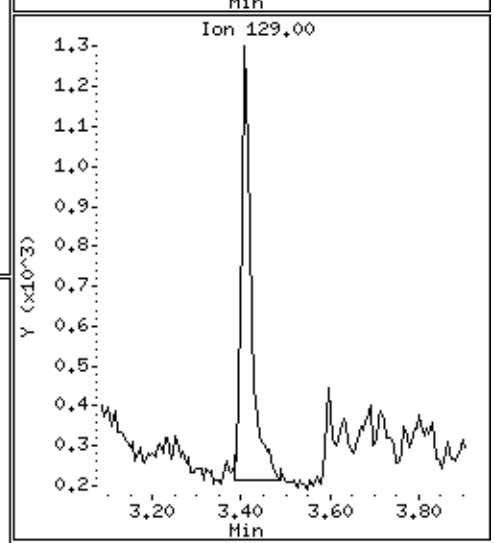












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

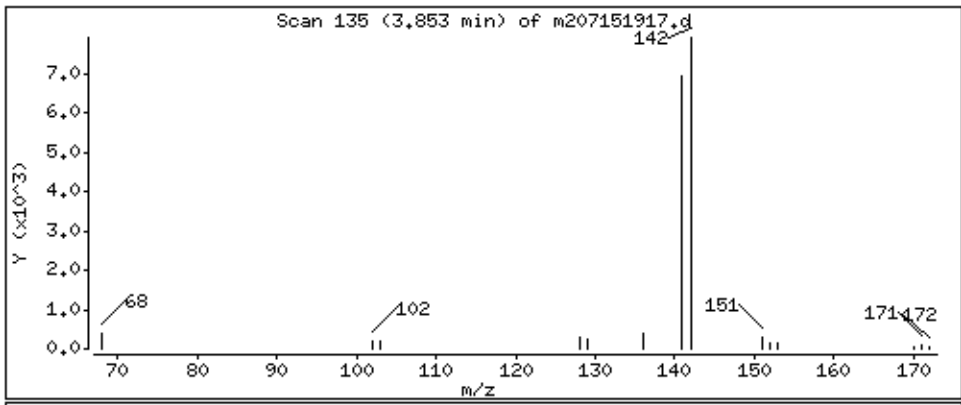
Client ID: Sewer-2 Instrument: 30mss2.i

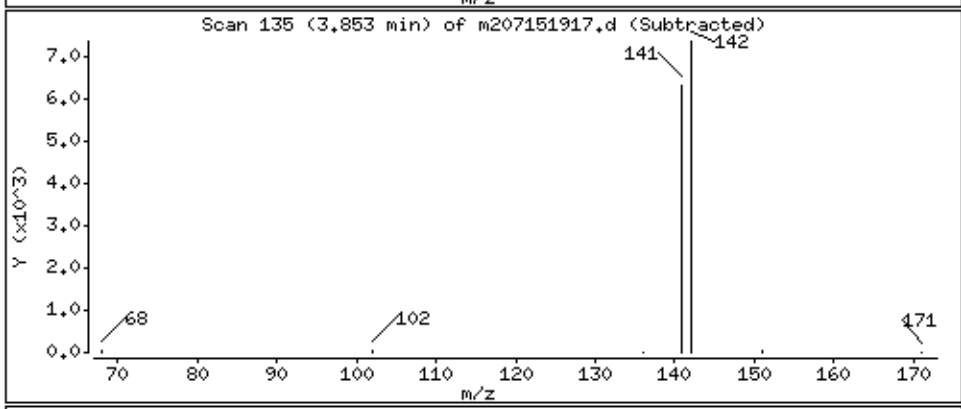
Sample Info: 30313514002X10,

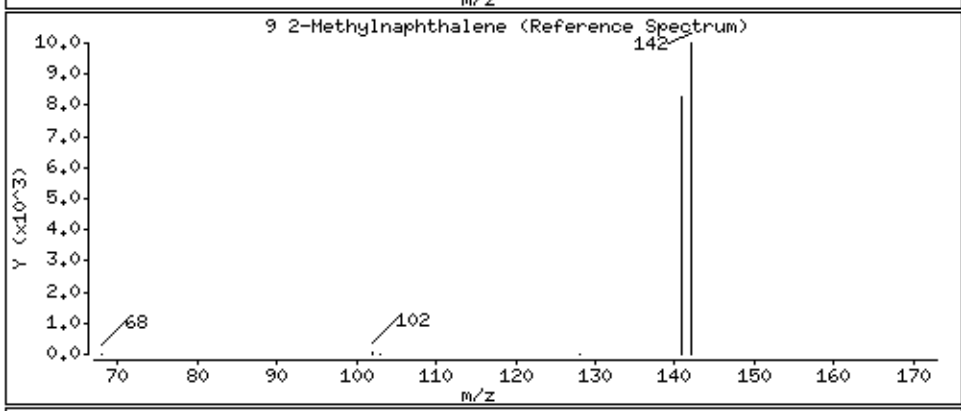
Volume Injected (uL): 1.0 Operator: DSC

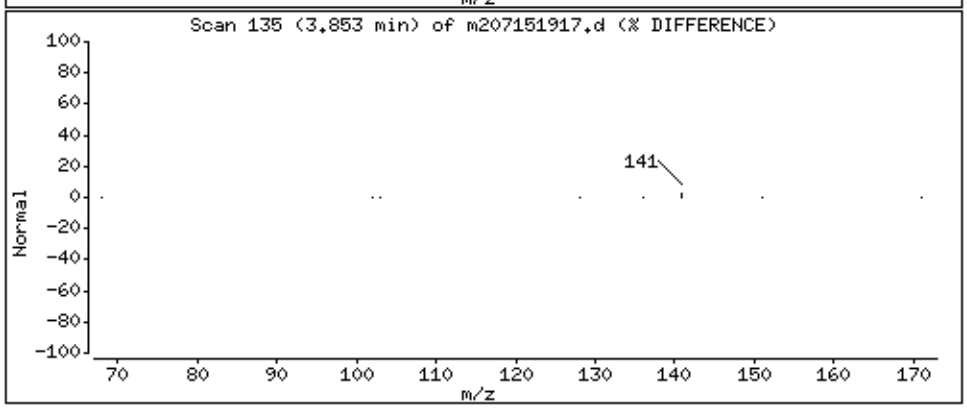
Column phase: RTX-5MS Column diameter: 0.25

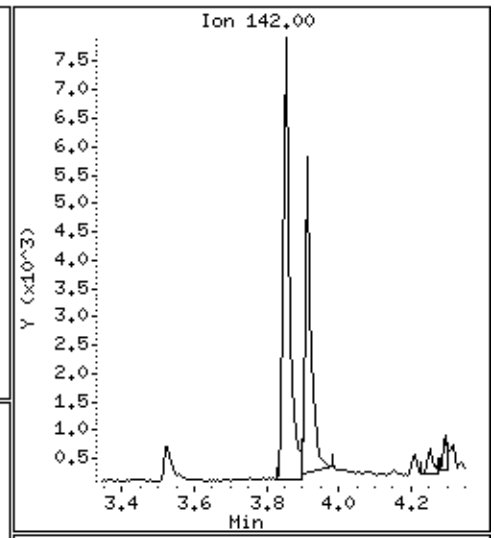
9 2-Methylnaphthalene Concentration: 73.7 ug/Kg

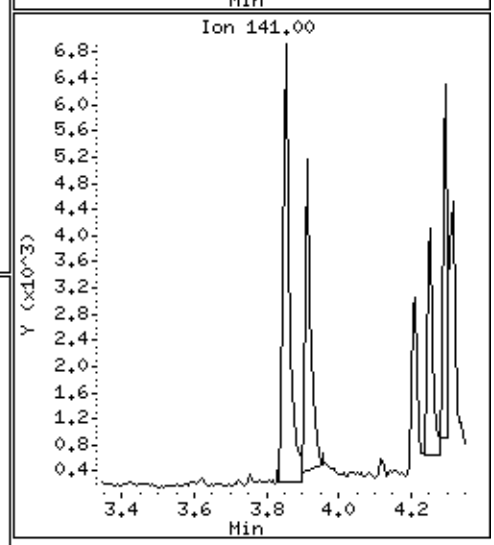












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

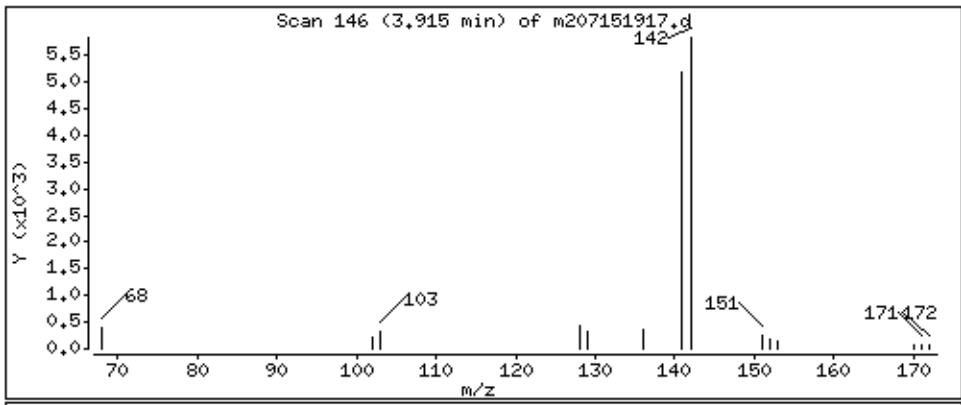
Client ID: Sewer-2 Instrument: 30mss2.i

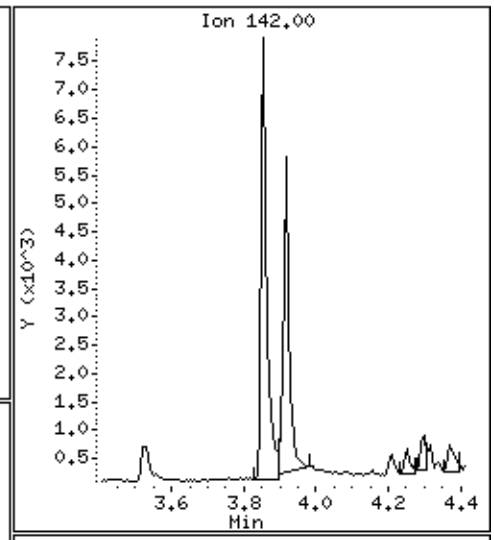
Sample Info: 30313514002X10,

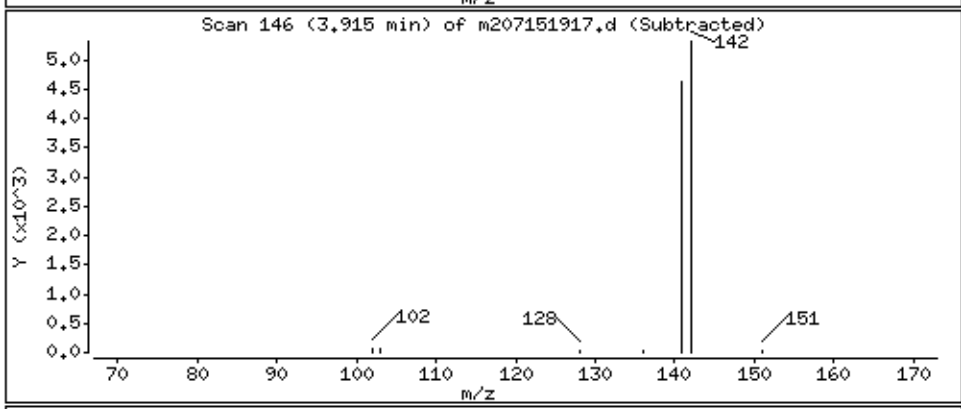
Volume Injected (uL): 1.0 Operator: DSC

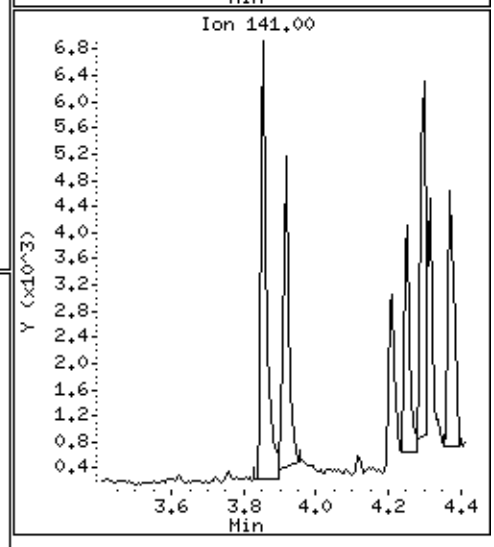
Column phase: RTX-5MS Column diameter: 0.25

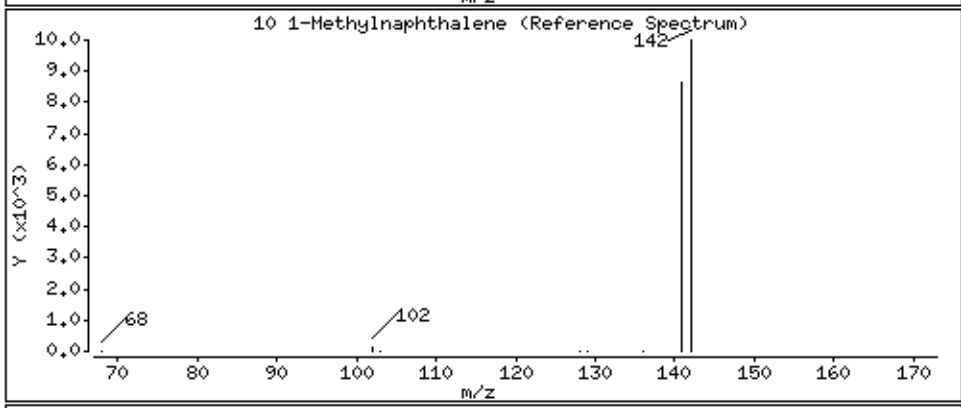
10 1-Methylnaphthalene Concentration: 42.4 ug/Kg

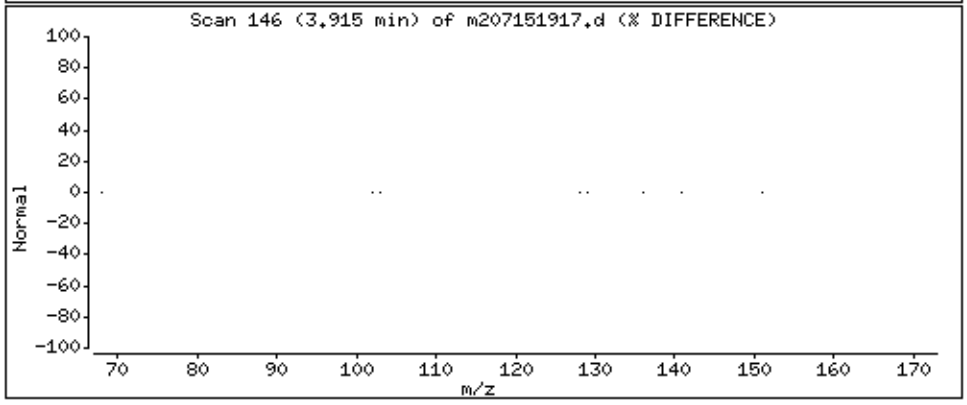












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Date : 15-JUL-2019 14:02

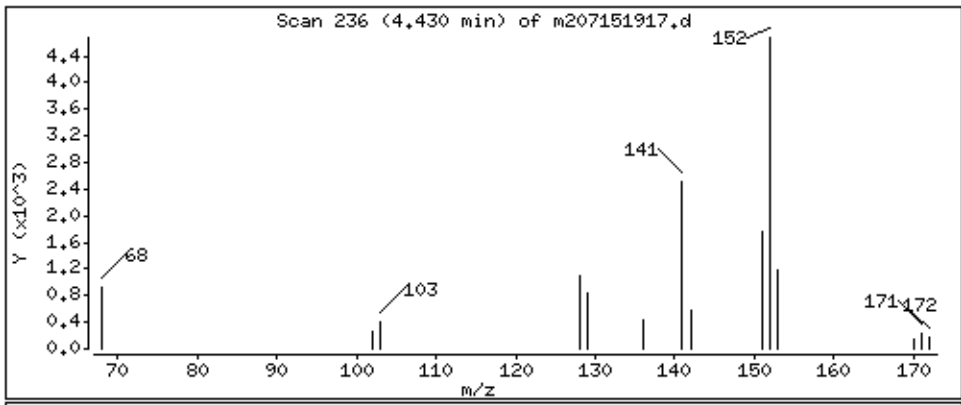
Client ID: Sewer-2 Instrument: 30mss2.i

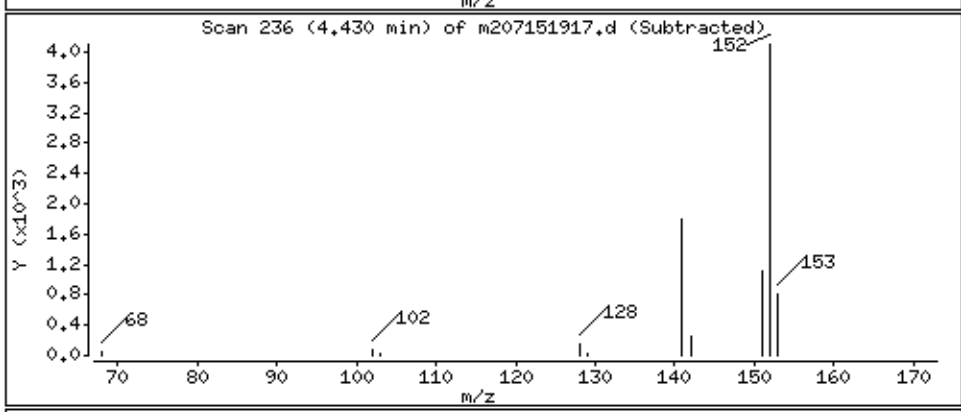
Sample Info: 30313514002X10,

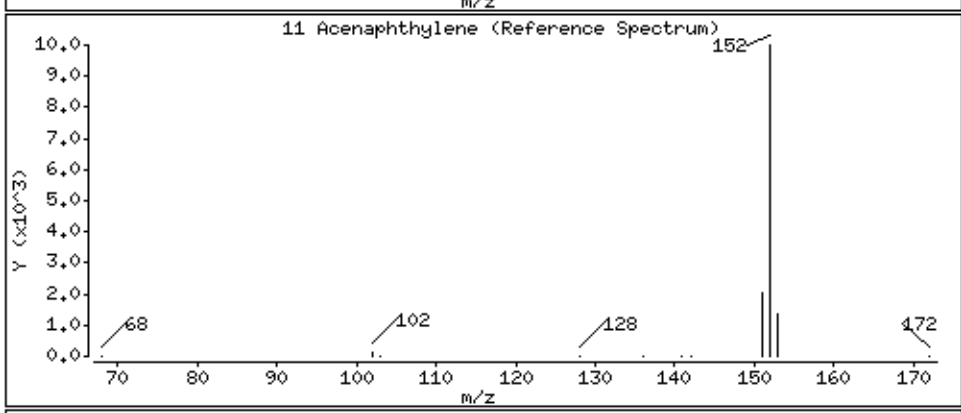
Volume Injected (uL): 1.0 Operator: DSC

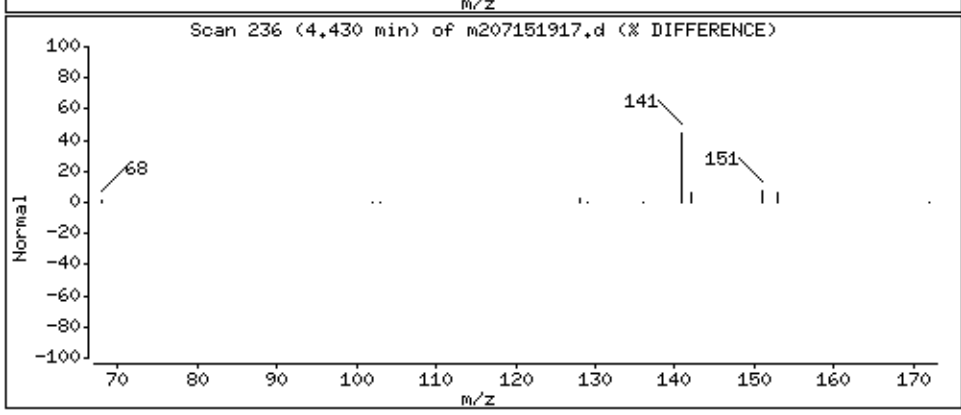
Column phase: RTX-5MS Column diameter: 0.25

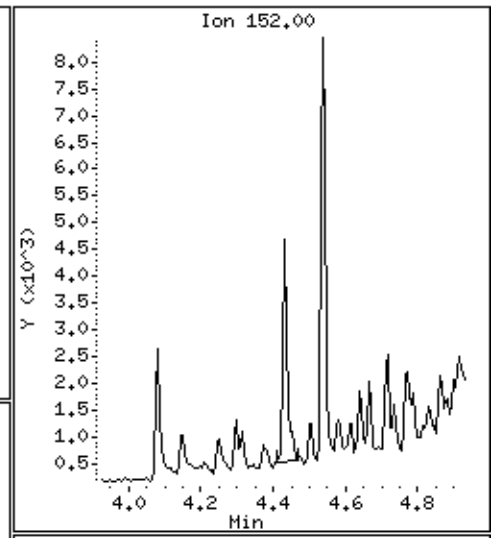
11 Acenaphthylene Concentration: 18.9 ug/Kg

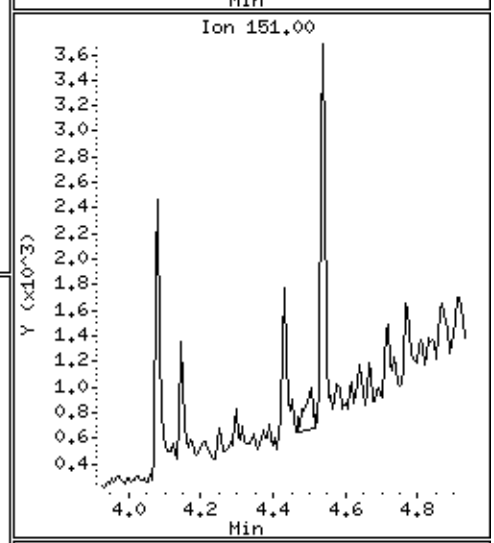


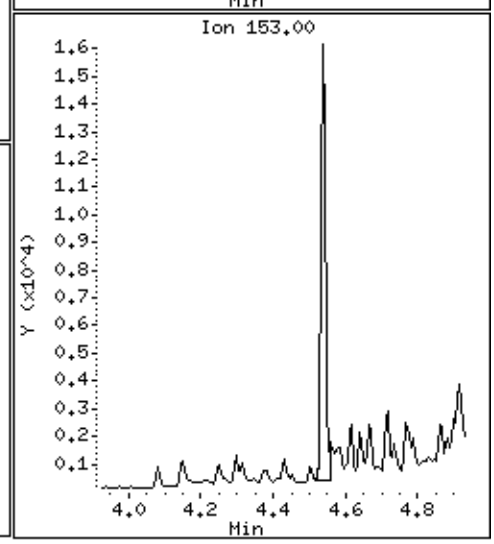












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

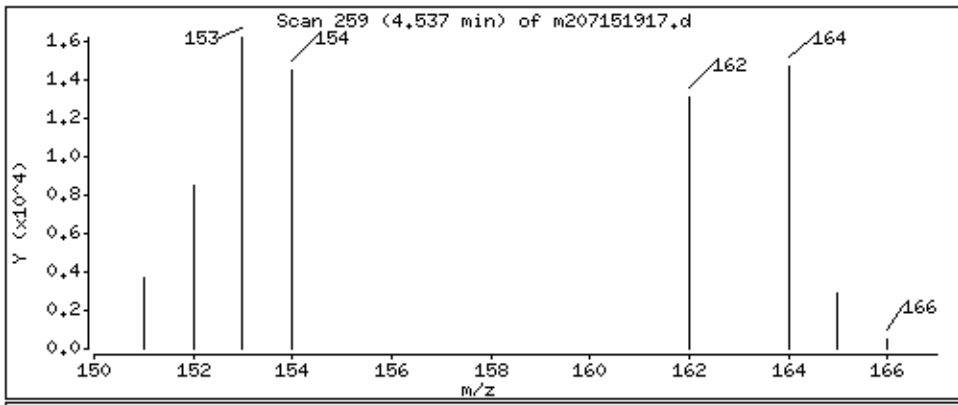
Client ID: Sewer-2 Instrument: 30mss2.i

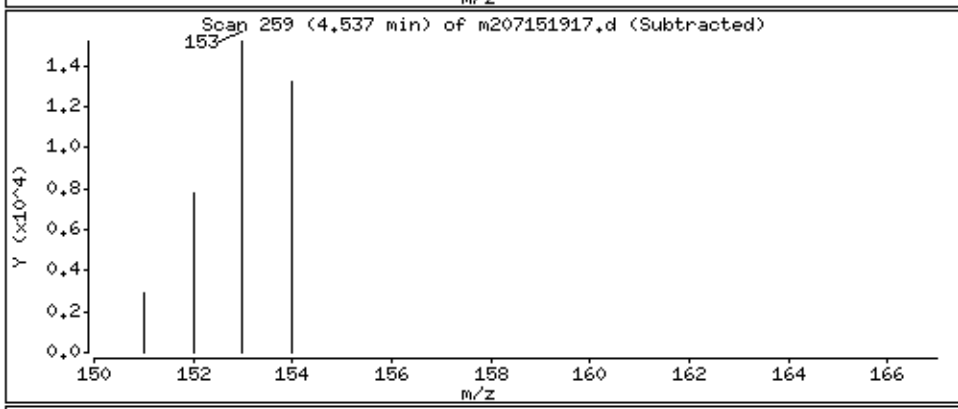
Sample Info: 30313514002X10,

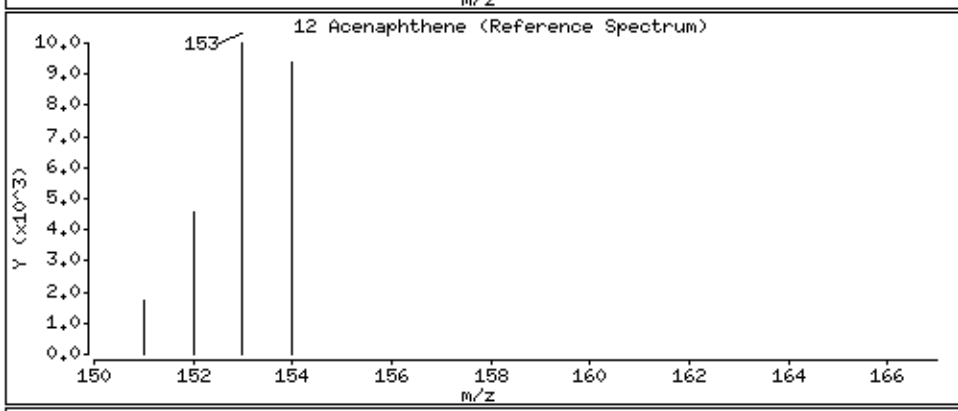
Volume Injected (uL): 1.0 Operator: DSC

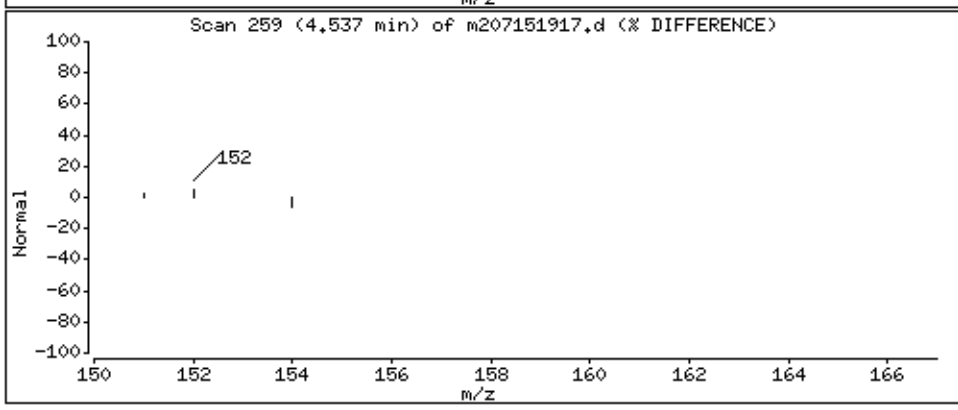
Column phase: RTX-5MS Column diameter: 0.25

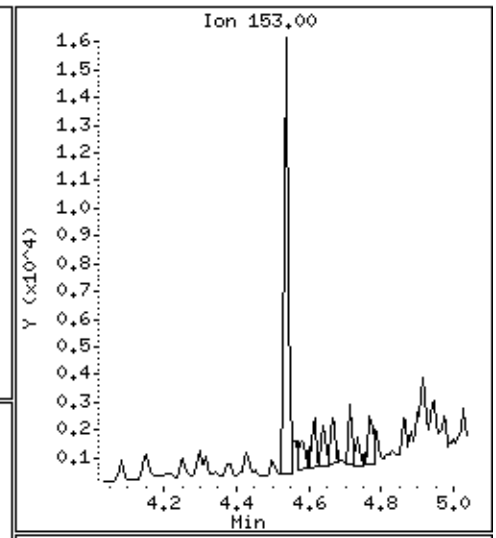
12 Acenaphthene Concentration: 84.4 ug/Kg

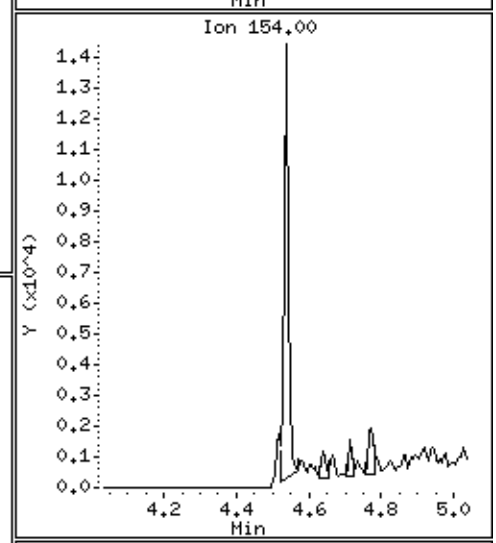


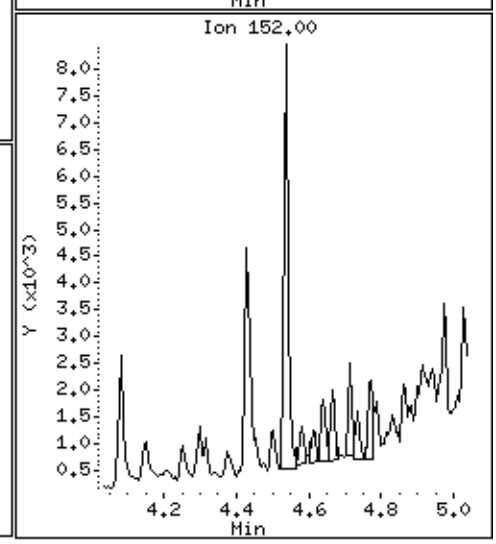












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

Client ID: Sewer-2

Instrument: 30mss2.i

Sample Info: 30313514002X10,

Volume Injected (uL): 1.0

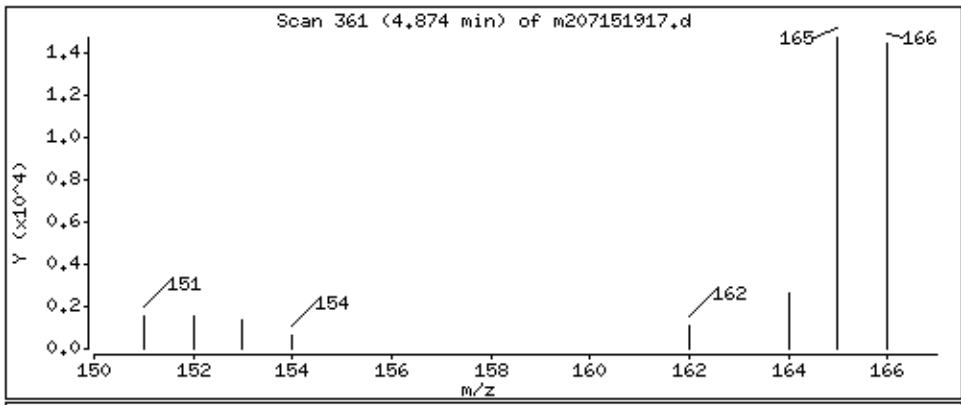
Operator: DSC

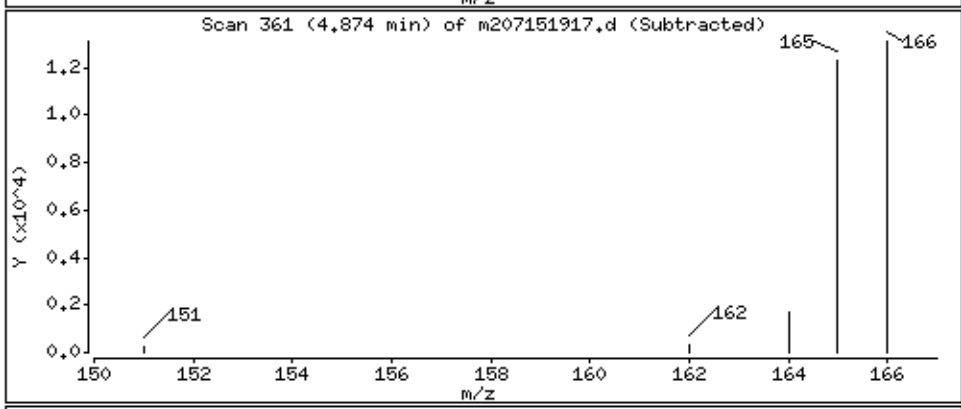
Column phase: RTX-5MS

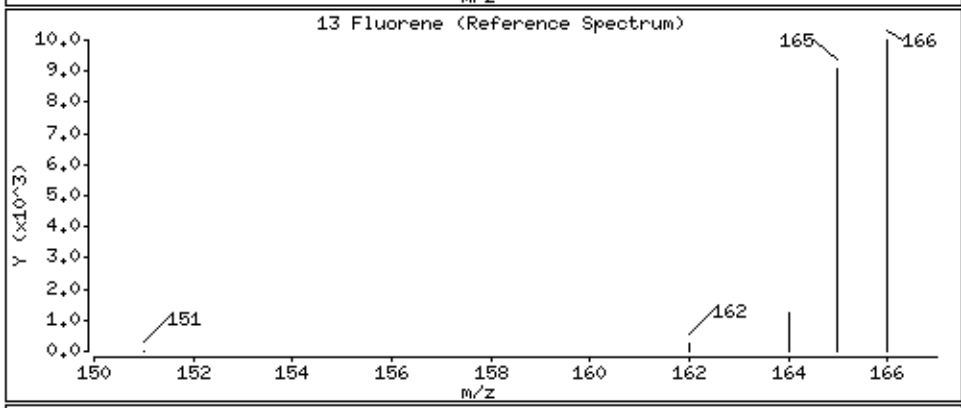
Column diameter: 0.25

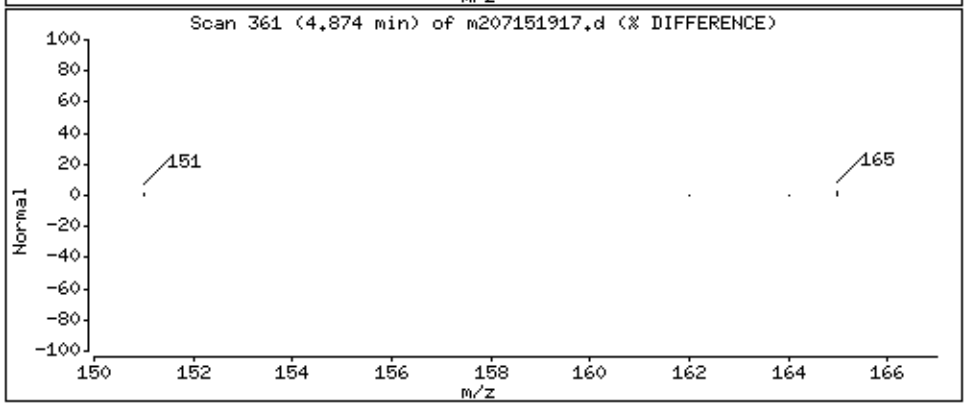
13 Fluorene

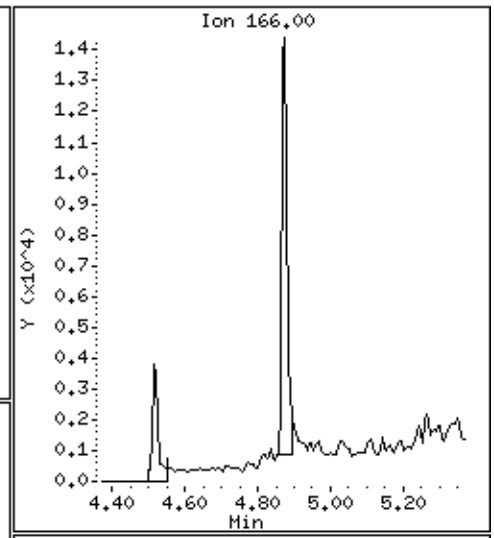
Concentration: 75.2 ug/Kg

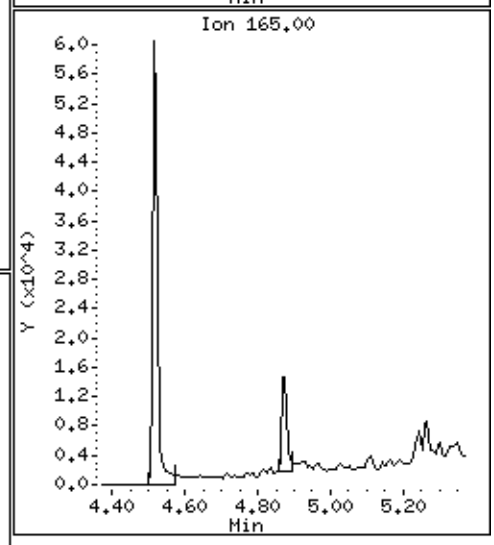












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

Client ID: Sewer-2

Instrument: 30mss2.i

Sample Info: 30313514002X10,

Volume Injected (uL): 1.0

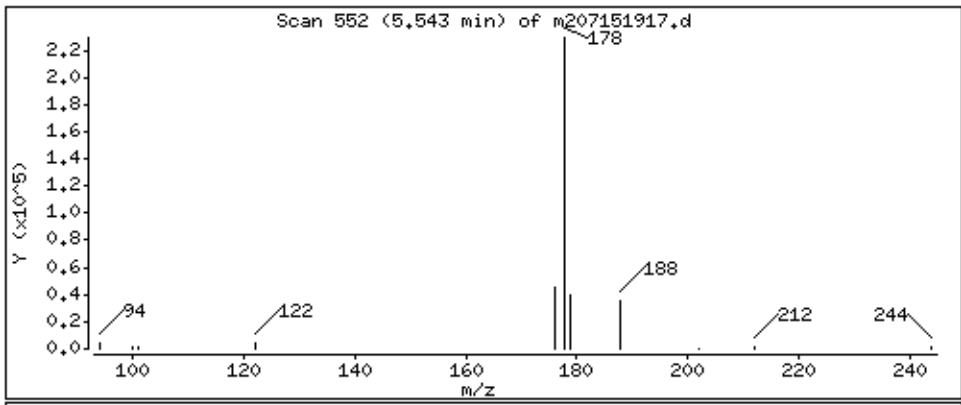
Operator: DSC

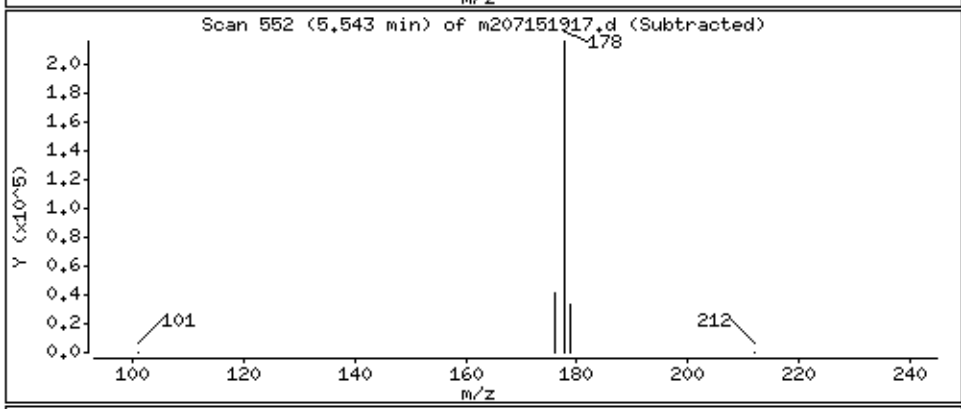
Column phase: RTX-5MS

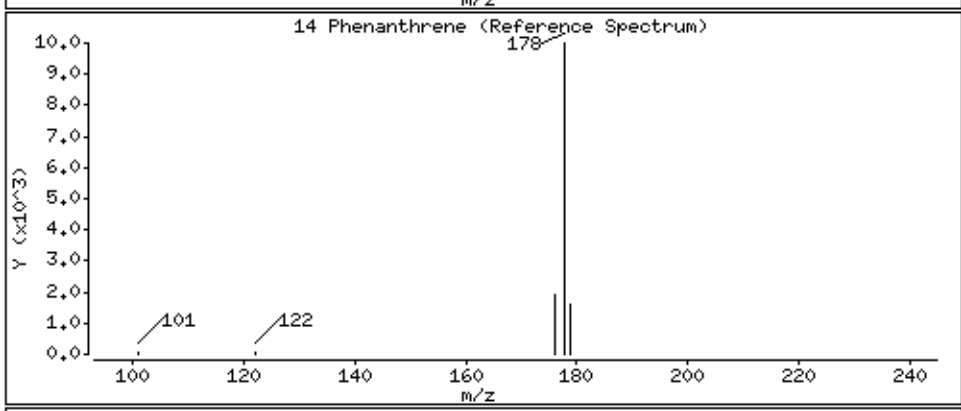
Column diameter: 0.25

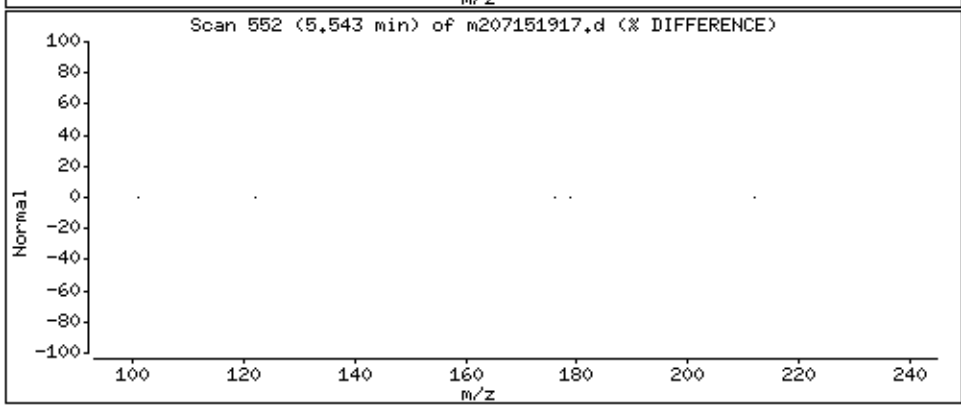
14 Phenanthrene

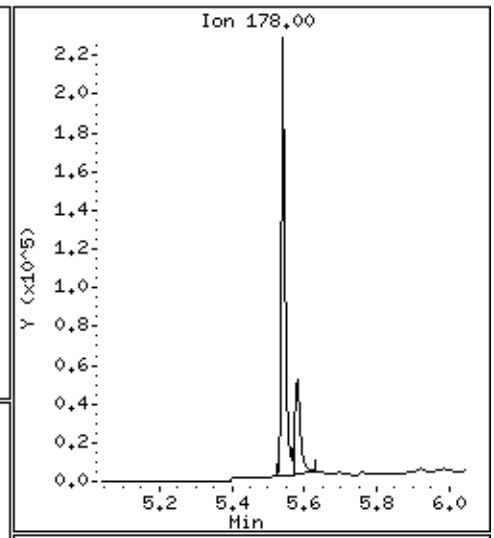
Concentration: 856 ug/Kg

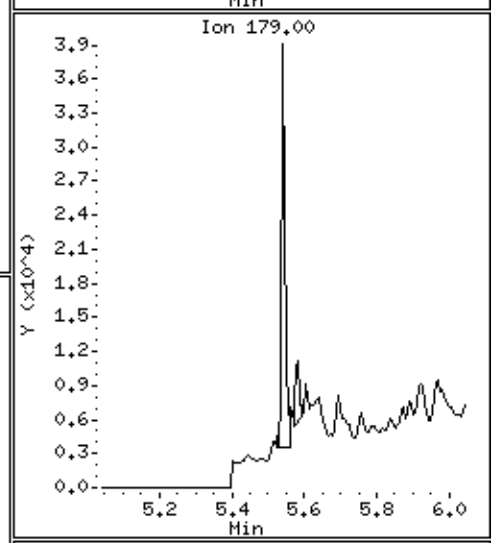


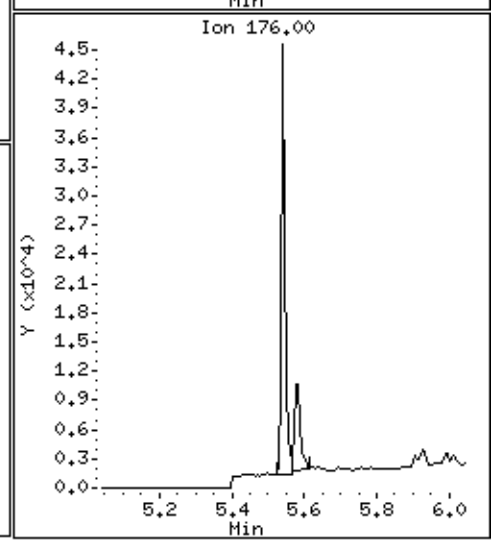












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

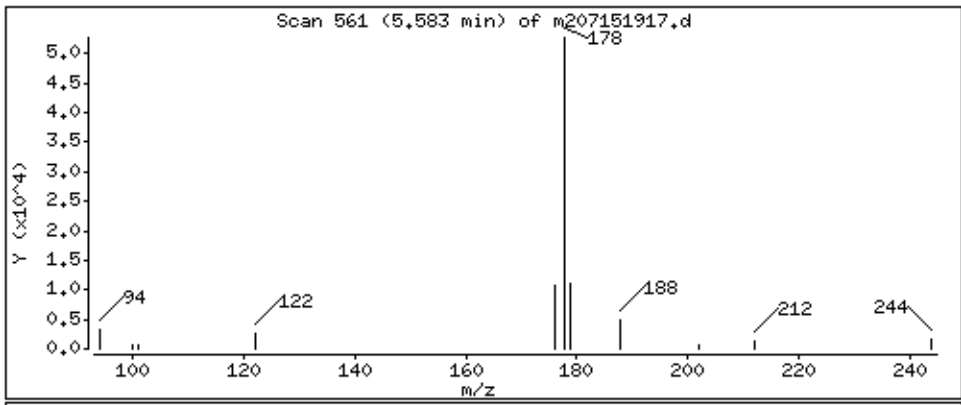
Client ID: Sewer-2 Instrument: 30mss2.i

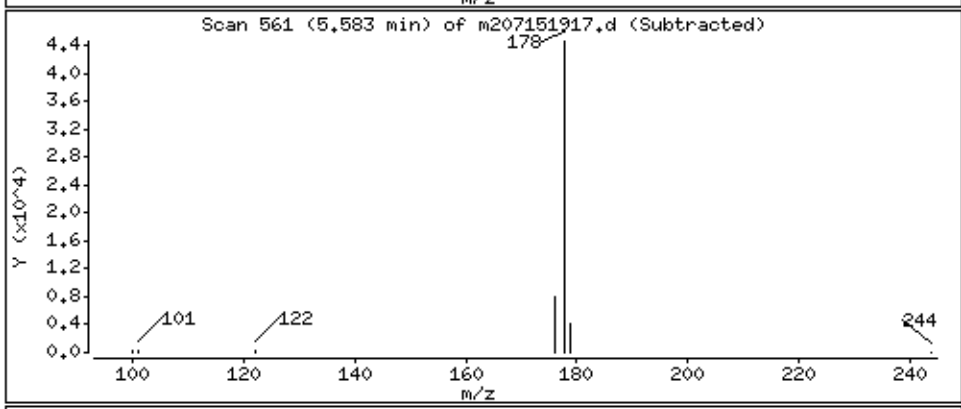
Sample Info: 30313514002X10,

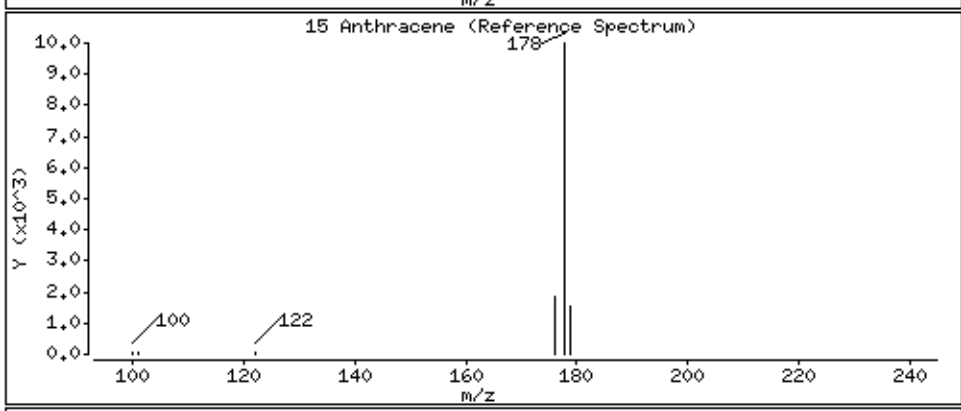
Volume Injected (uL): 1.0 Operator: DSC

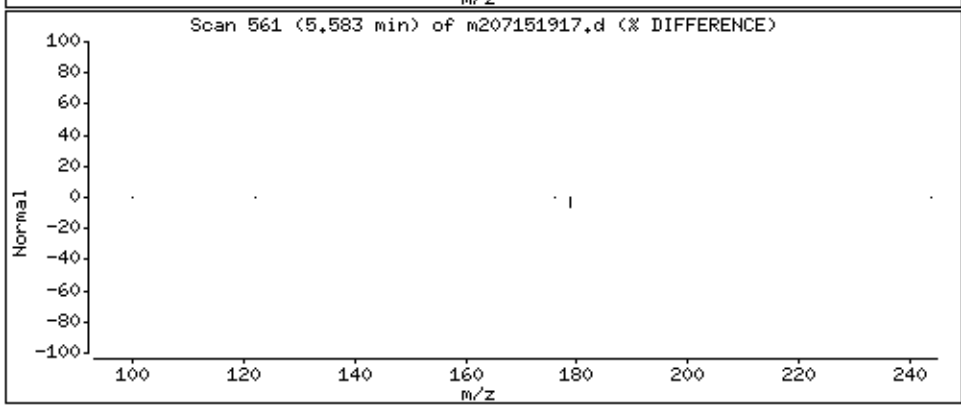
Column phase: RTX-5MS Column diameter: 0.25

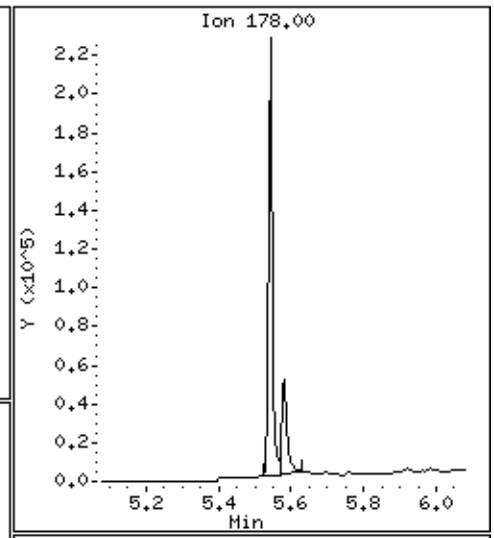
15 Anthracene Concentration: 229 ug/Kg

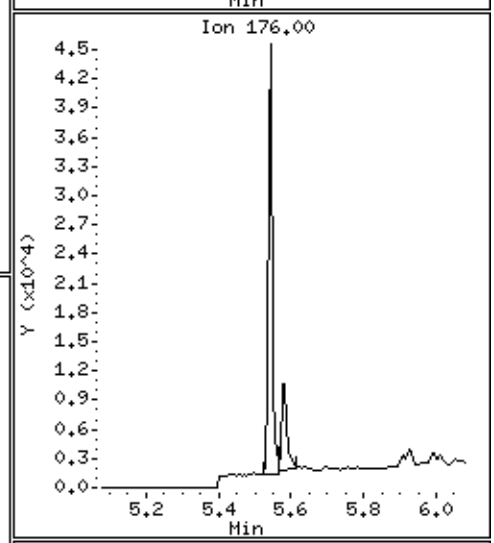


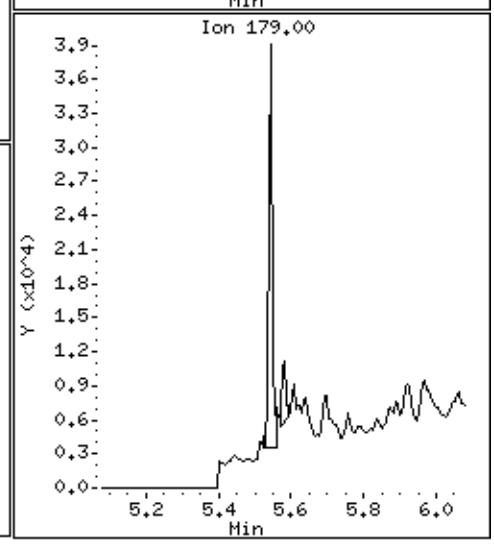












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

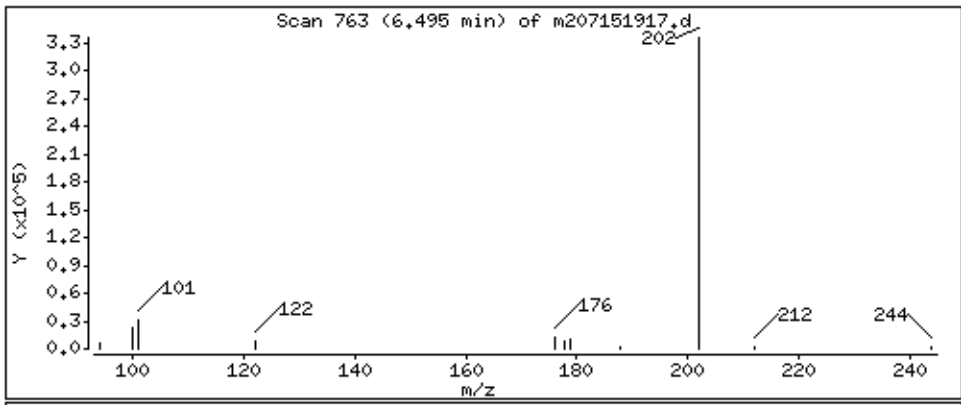
Client ID: Sewer-2 Instrument: 30mss2.i

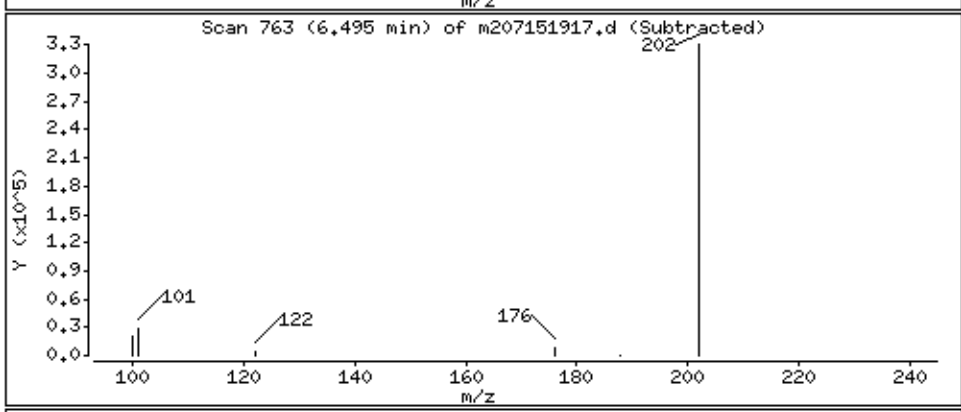
Sample Info: 30313514002X10,

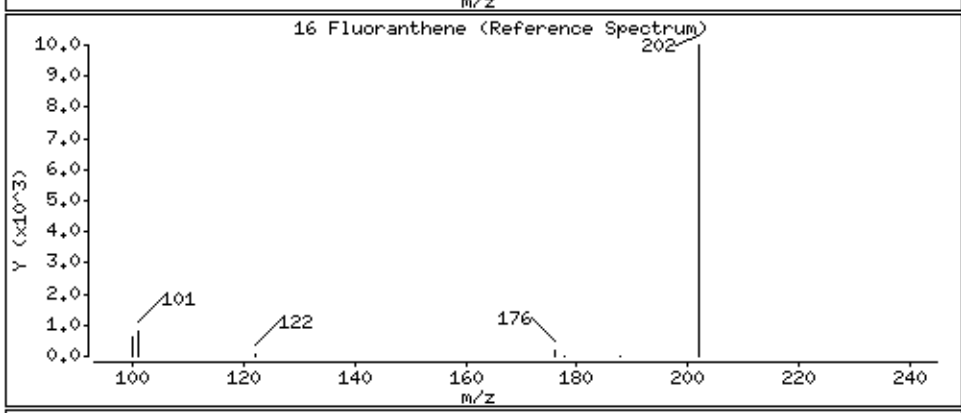
Volume Injected (uL): 1.0 Operator: DSC

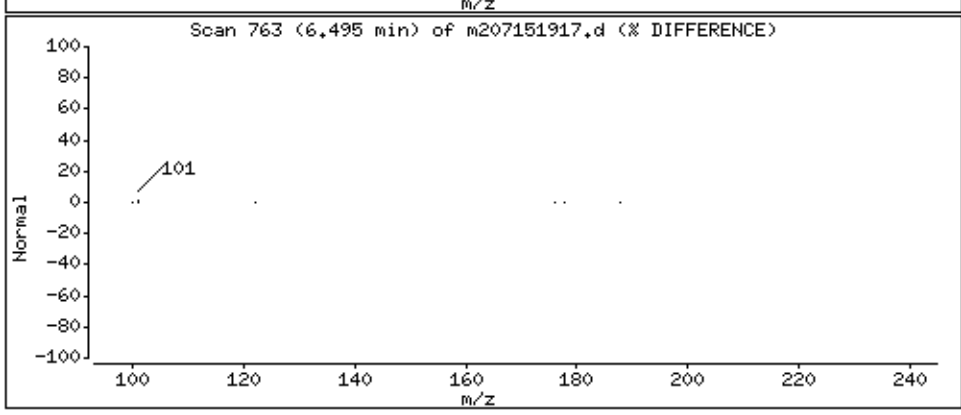
Column phase: RTX-5MS Column diameter: 0.25

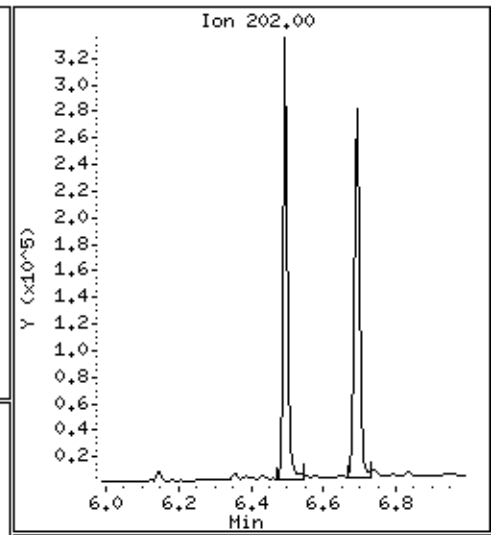
16 Fluoranthene Concentration: 1180 ug/Kg

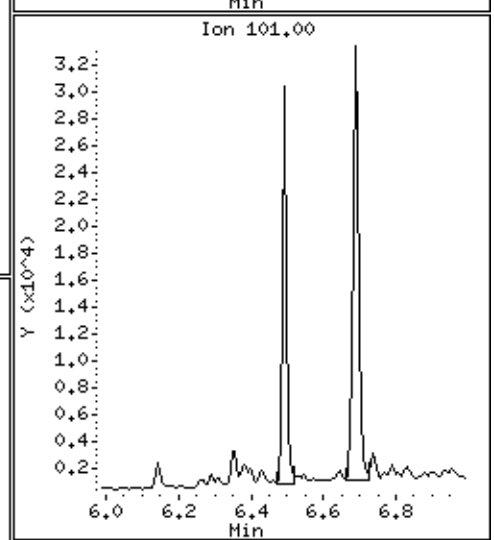


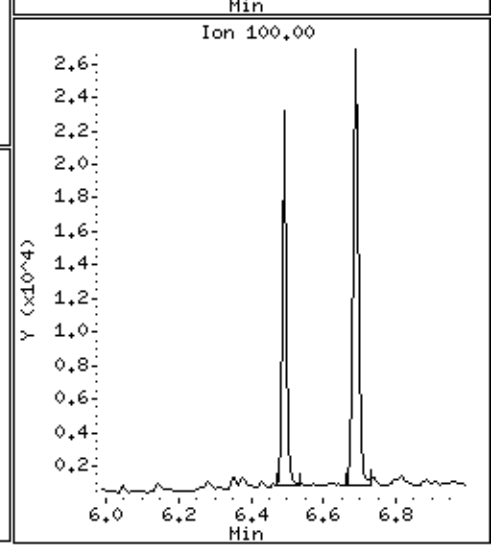












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Date : 15-JUL-2019 14:02

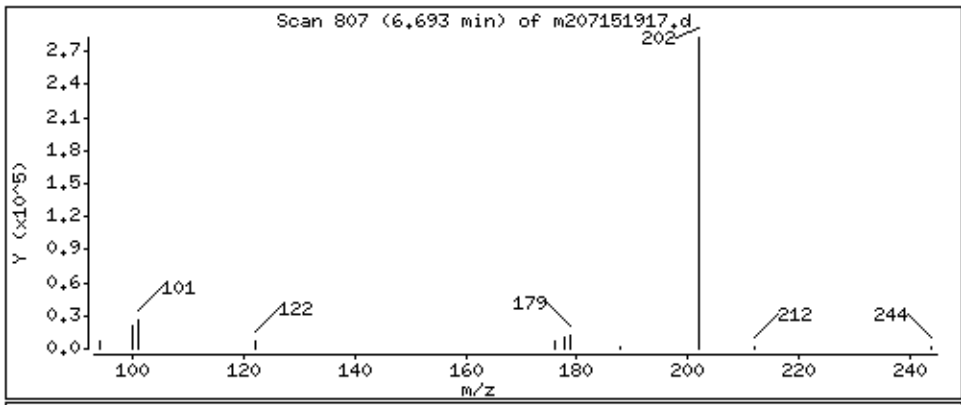
Client ID: Sewer-2 Instrument: 30mss2.i

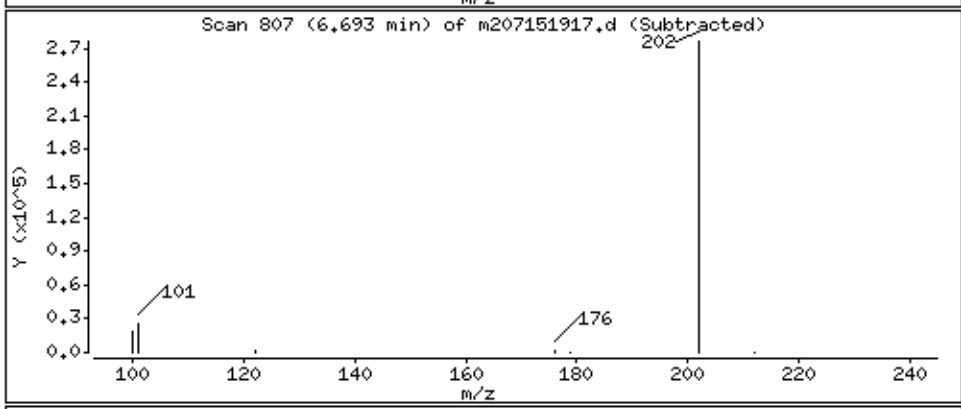
Sample Info: 30313514002X10,

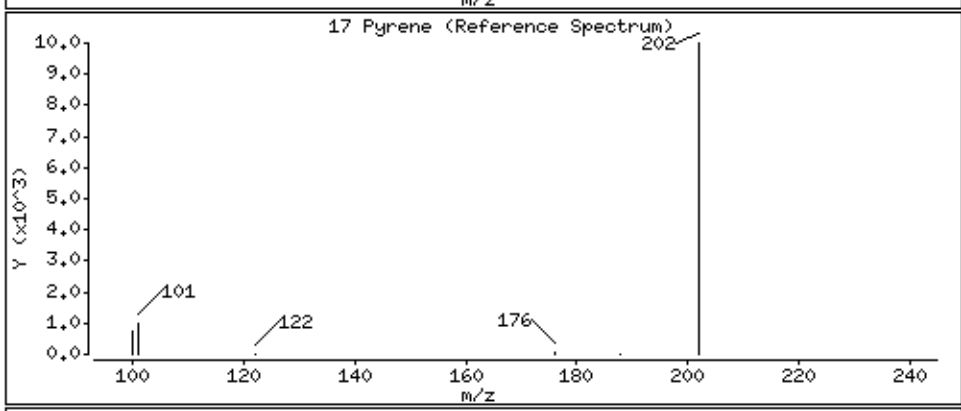
Volume Injected (uL): 1.0 Operator: DSC

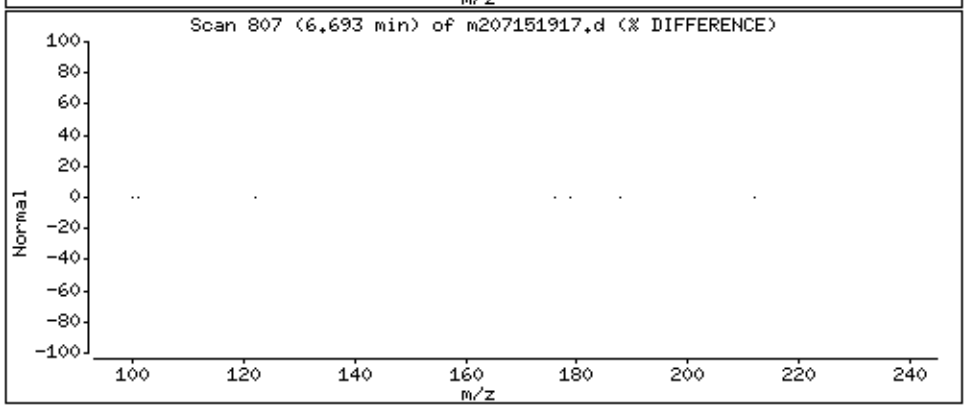
Column phase: RTX-5MS Column diameter: 0.25

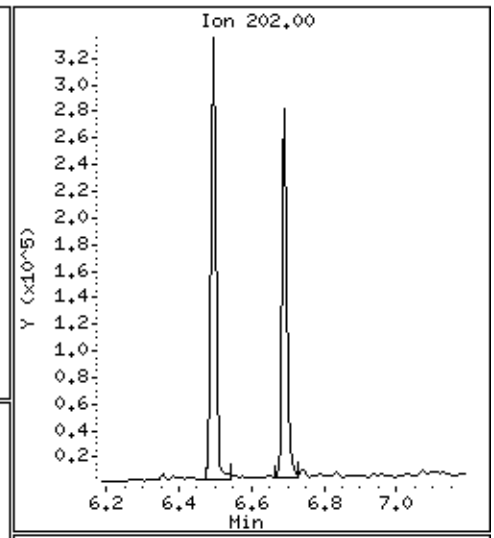
17 Pyrene Concentration: 1020 ug/Kg

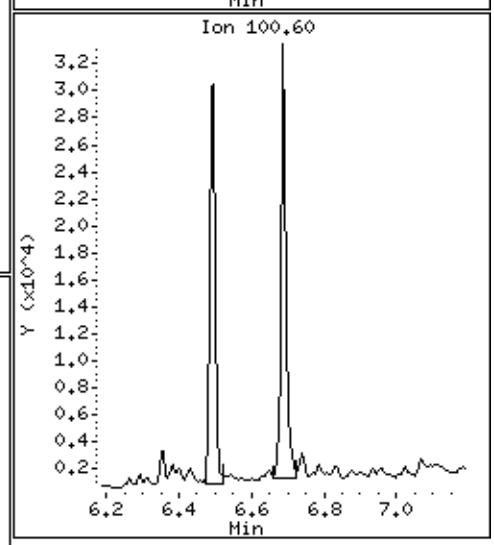












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Date : 15-JUL-2019 14:02

Client ID: Sewer-2

Instrument: 30mss2.i

Sample Info: 30313514002X10,

Volume Injected (uL): 1.0

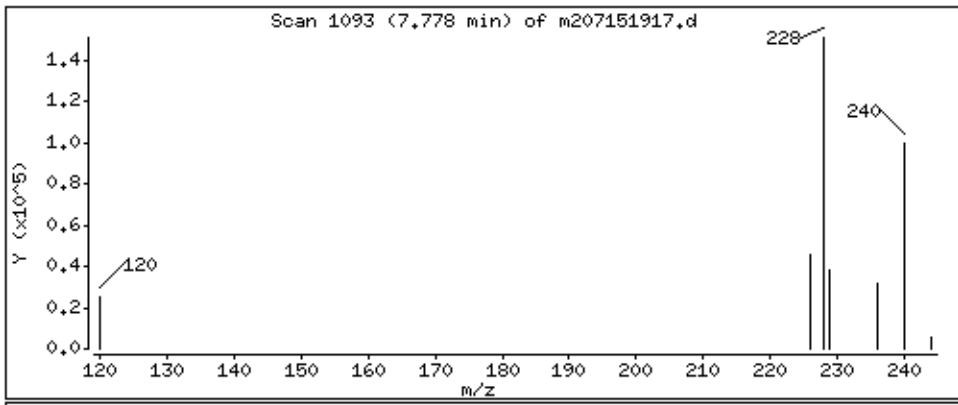
Operator: DSC

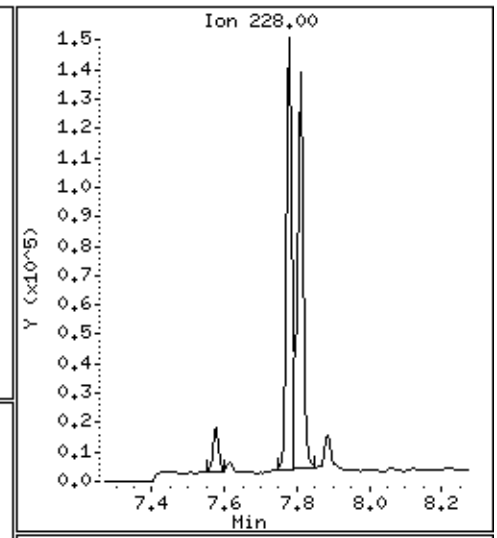
Column phase: RTX-5MS

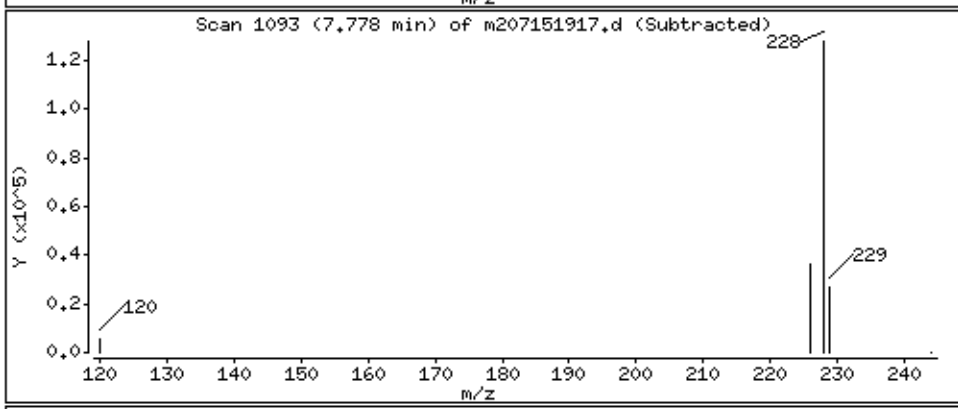
Column diameter: 0.25

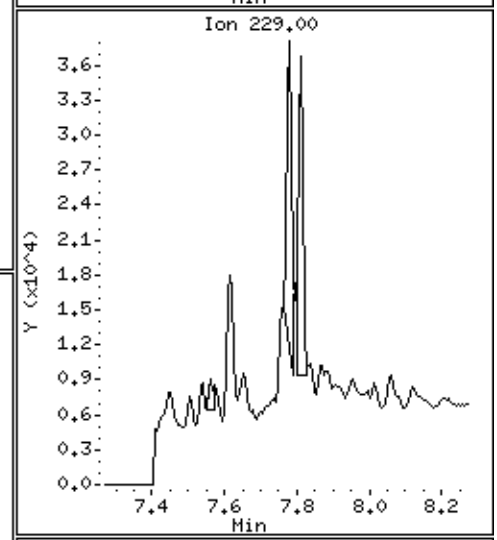
18 Benzo(a)anthracene

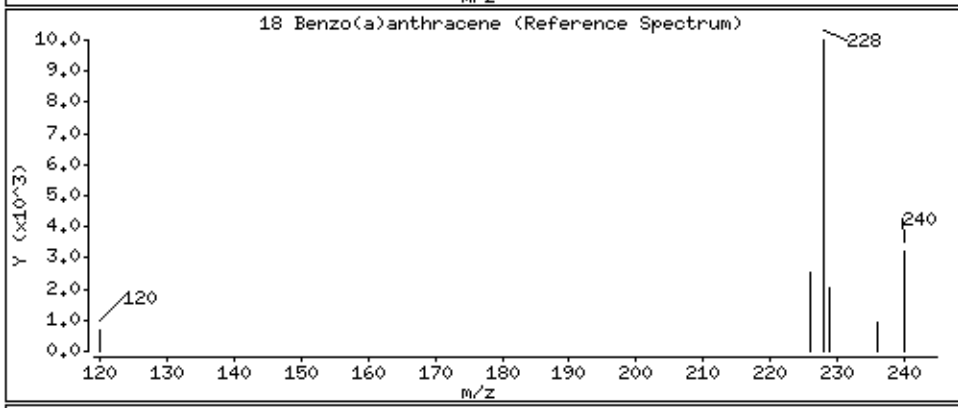
Concentration: 677 ug/Kg

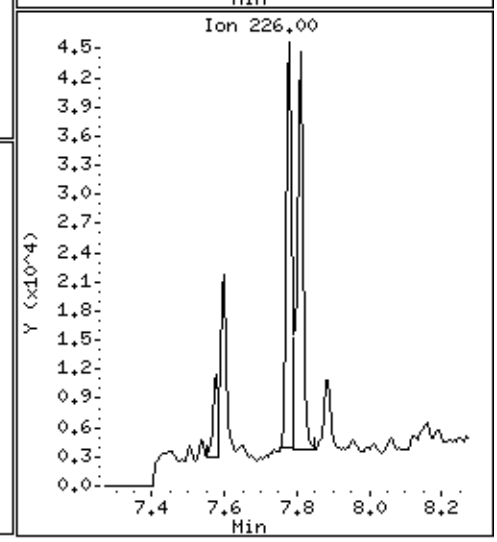


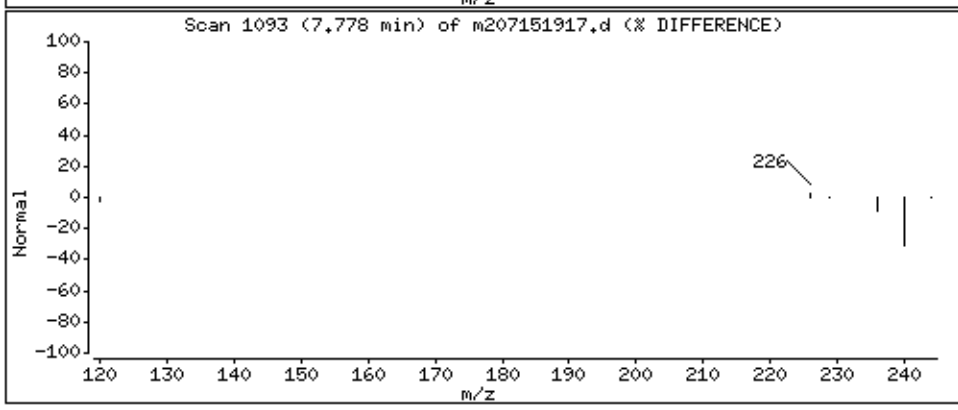












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

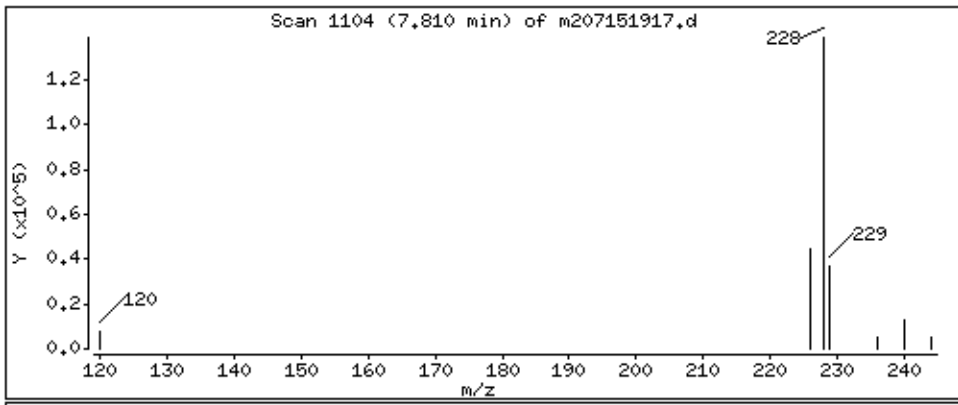
Client ID: Sewer-2 Instrument: 30mss2.i

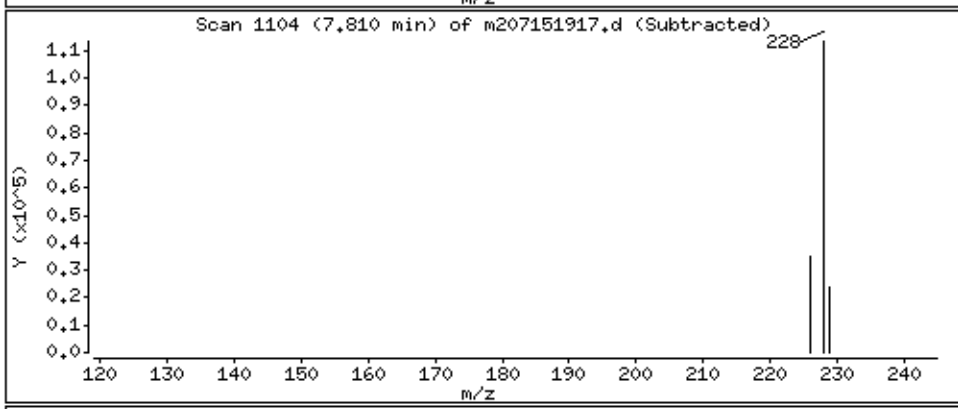
Sample Info: 30313514002X10,

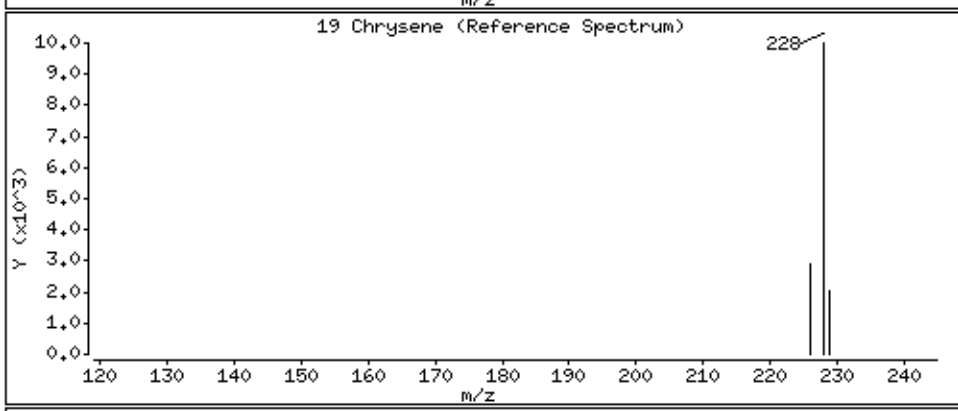
Volume Injected (uL): 1.0 Operator: DSC

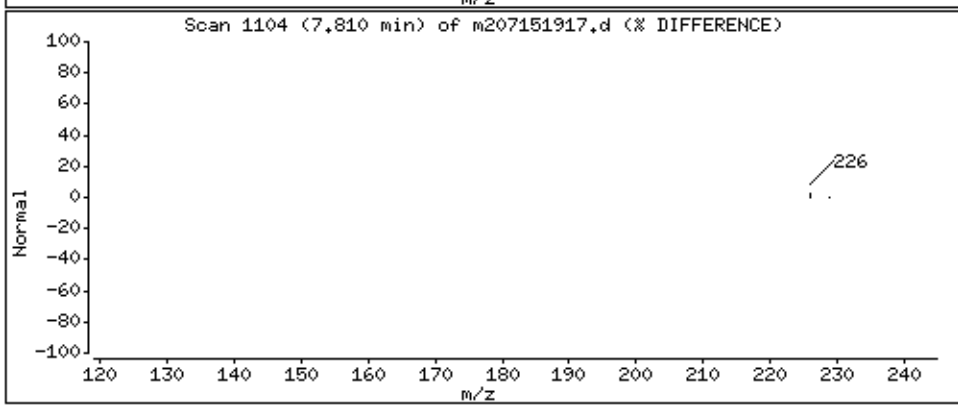
Column phase: RTX-5MS Column diameter: 0.25

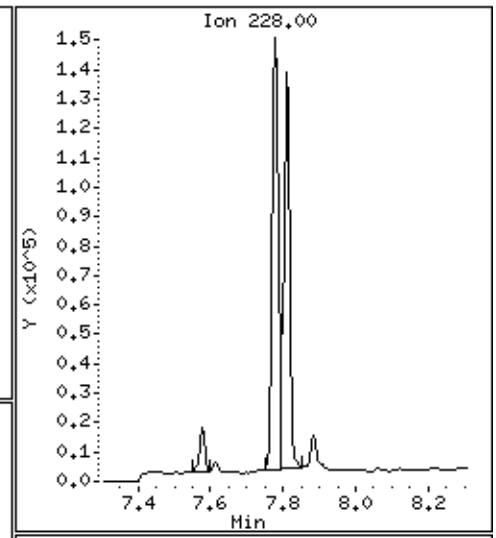
19 Chrysene Concentration: 652 ug/Kg

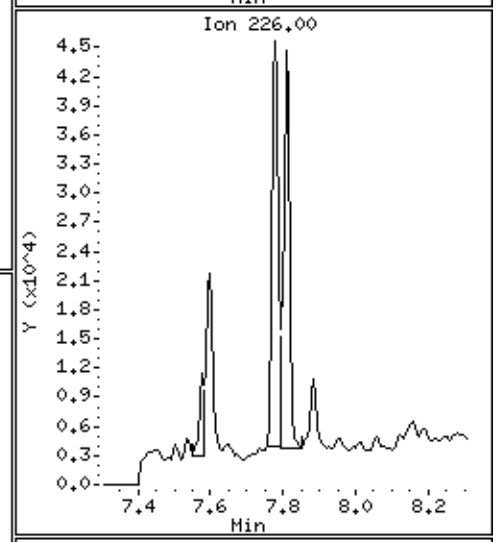


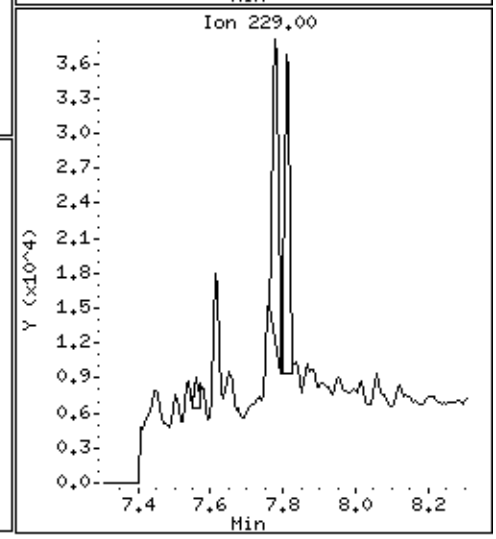












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

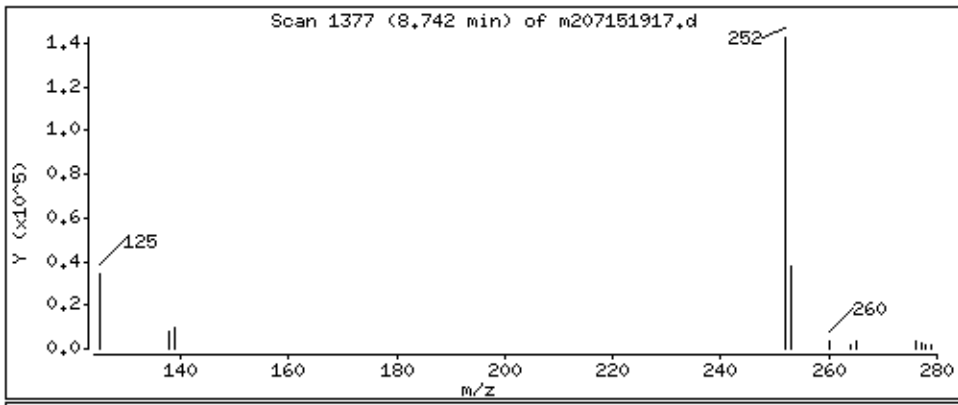
Client ID: Sewer-2 Instrument: 30mss2.i

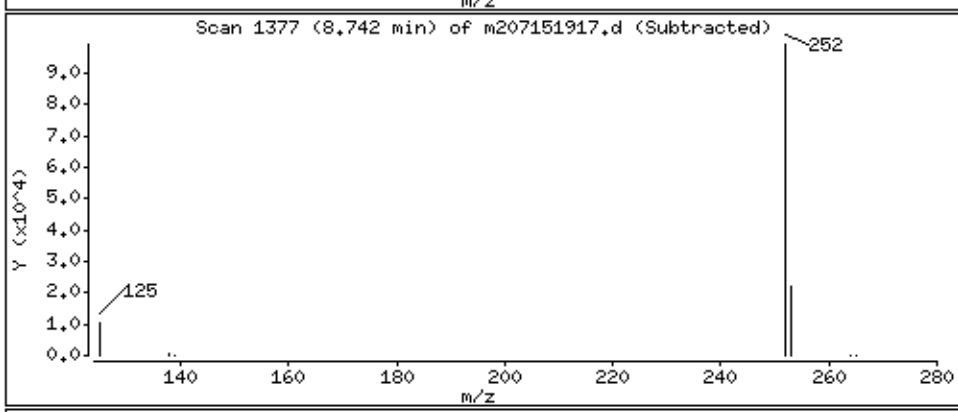
Sample Info: 30313514002X10,

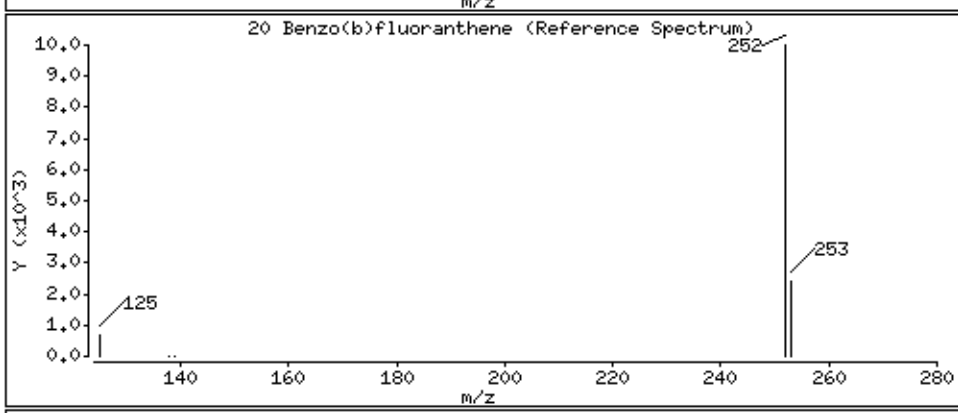
Volume Injected (uL): 1.0 Operator: DSC

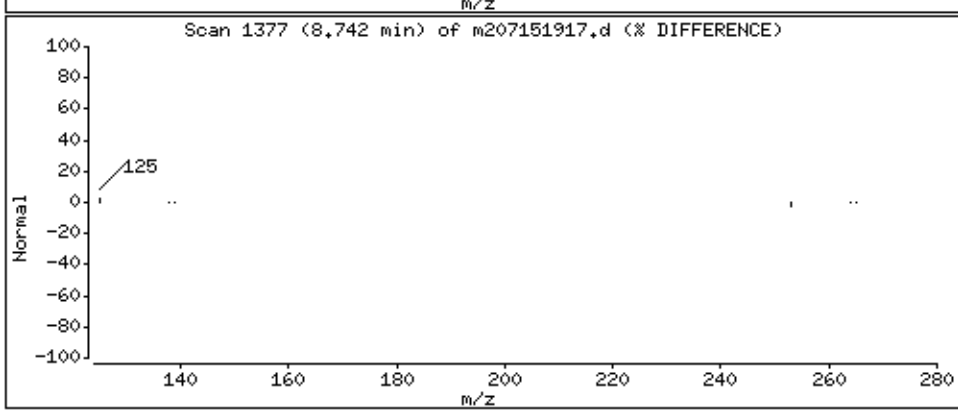
Column phase: RTX-5MS Column diameter: 0.25

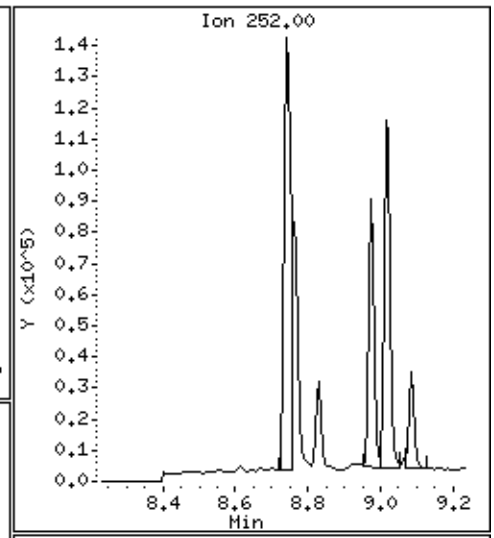
20 Benzo(b)fluoranthene Concentration: 791 ug/Kg

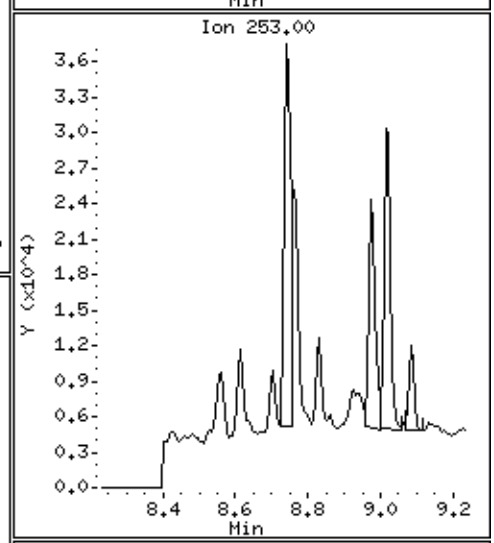


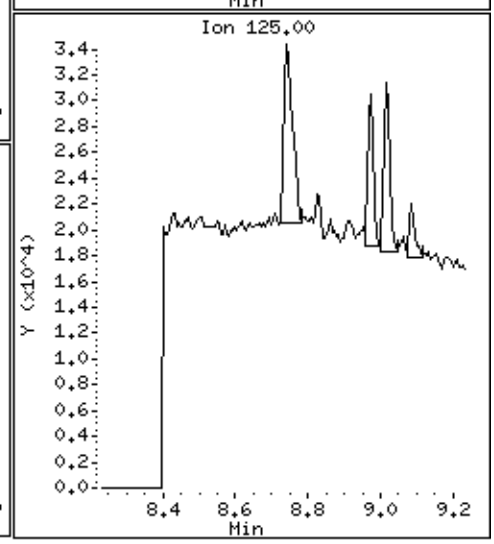












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

Client ID: Sewer-2

Instrument: 30mss2.i

Sample Info: 30313514002X10,

Volume Injected (uL): 1.0

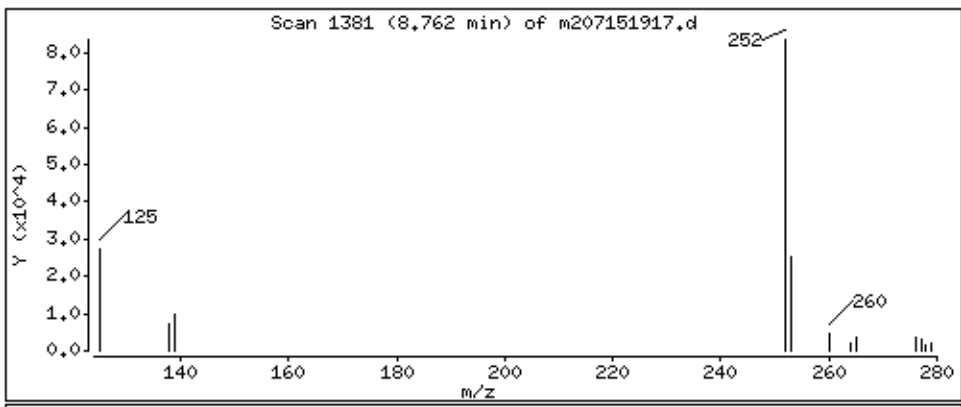
Operator: DSC

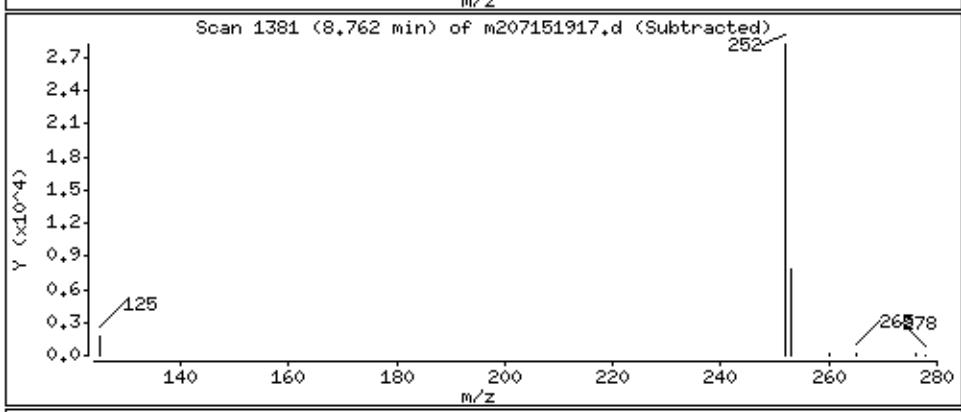
Column phase: RTX-5MS

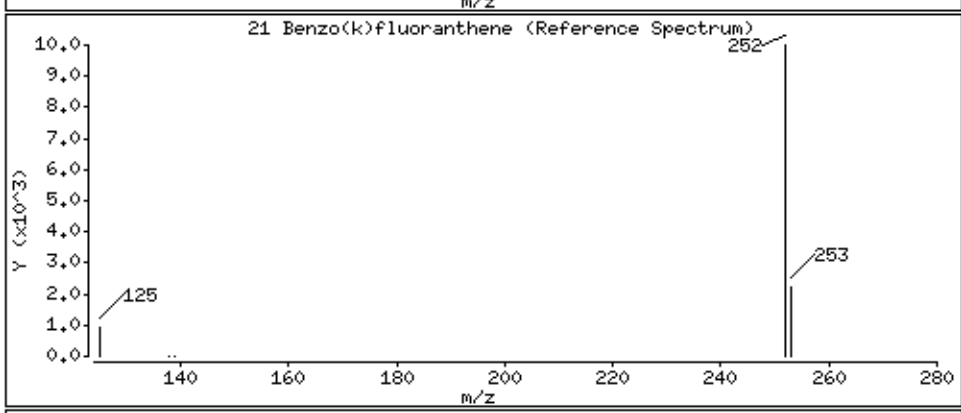
Column diameter: 0.25

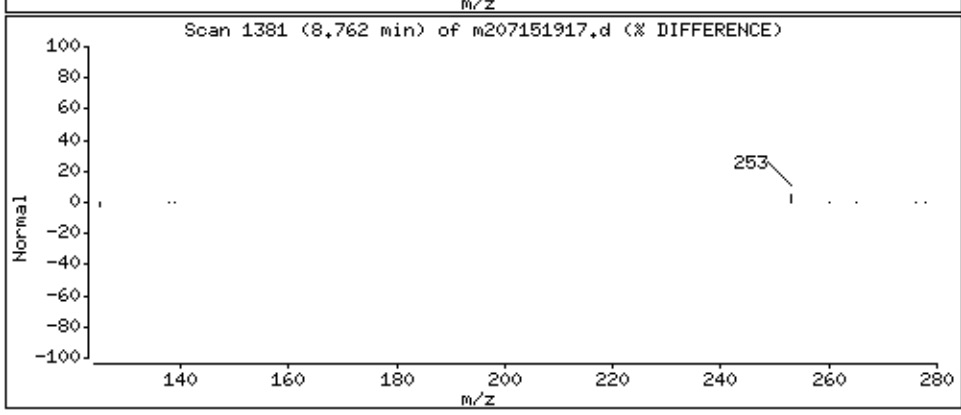
21 Benzo(k)fluoranthene

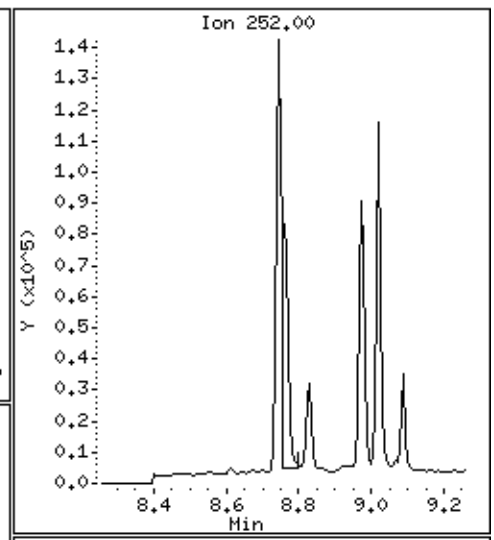
Concentration: 329 ug/Kg

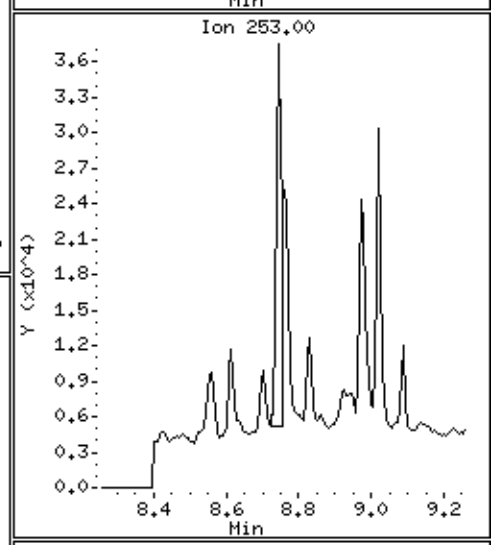


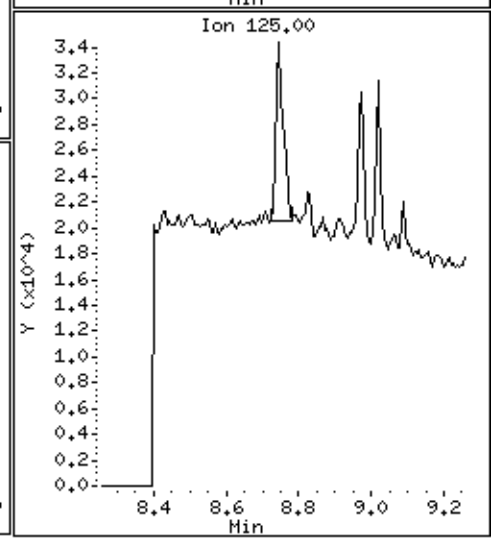












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

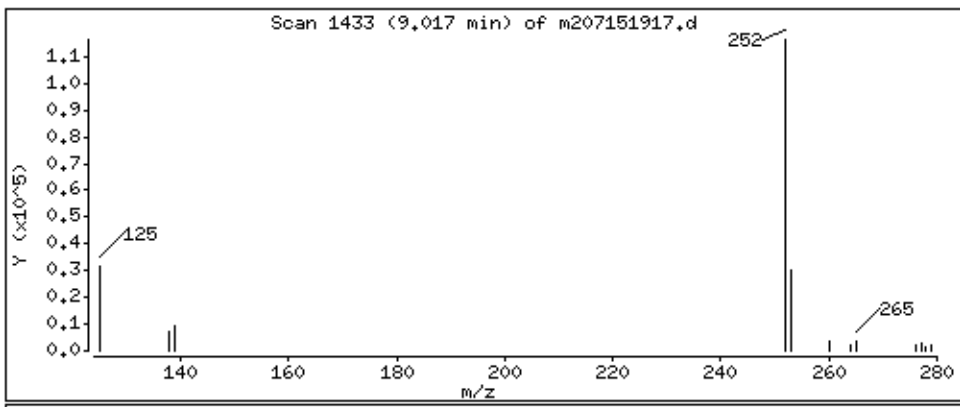
Client ID: Sewer-2 Instrument: 30mss2.i

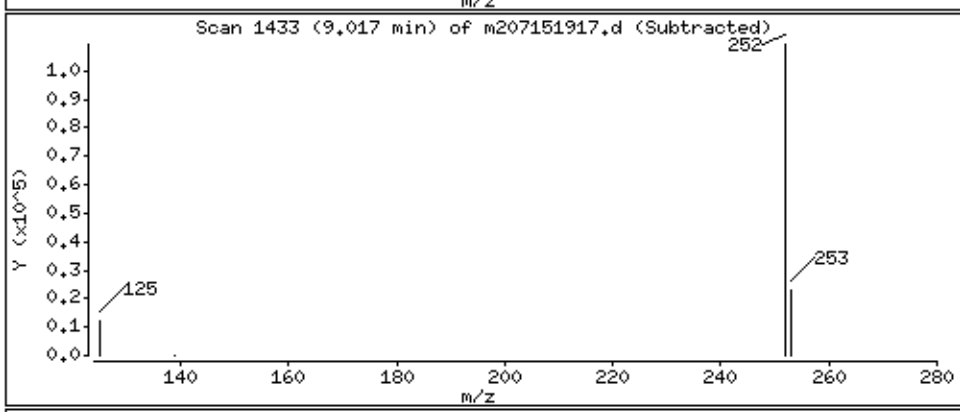
Sample Info: 30313514002X10,

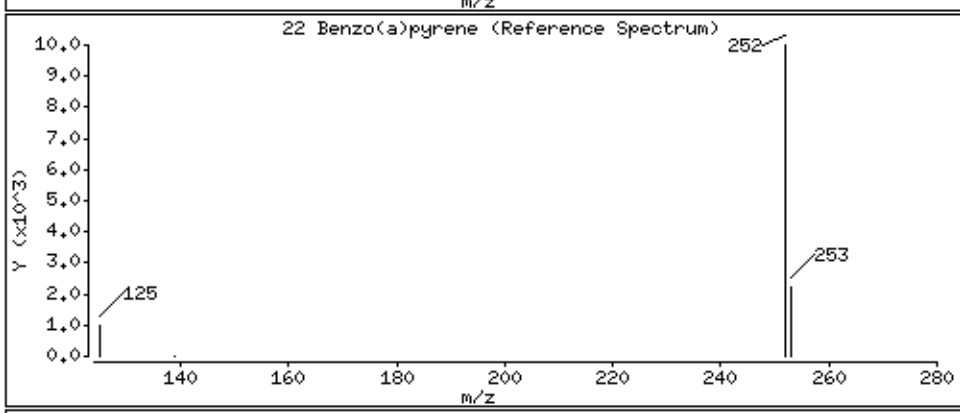
Volume Injected (uL): 1.0 Operator: DSC

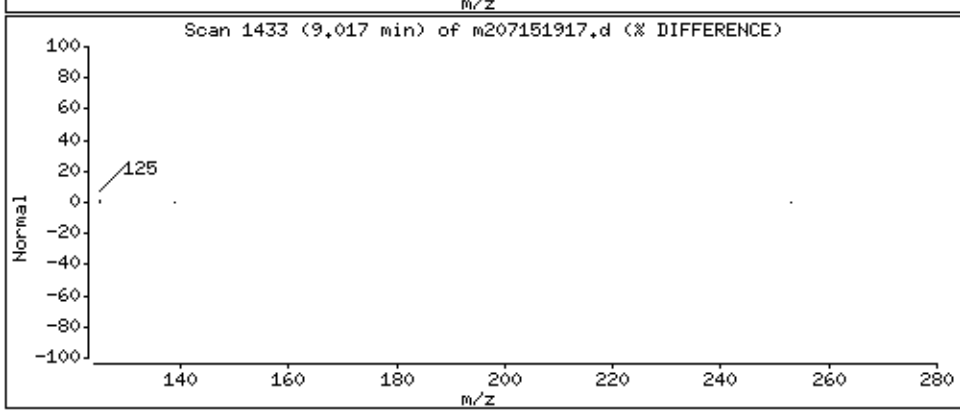
Column phase: RTX-5MS Column diameter: 0.25

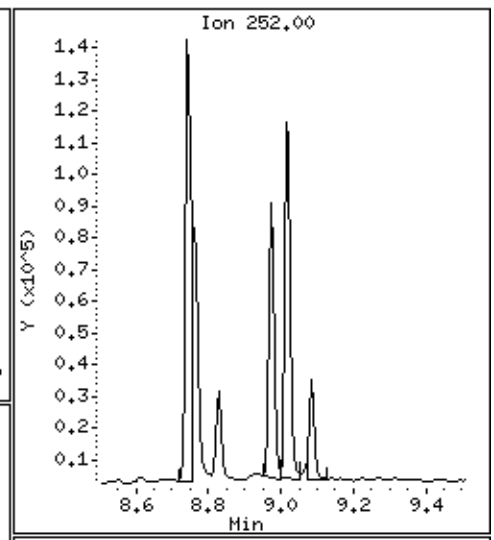
22 Benzo(a)pyrene Concentration: 562 ug/Kg

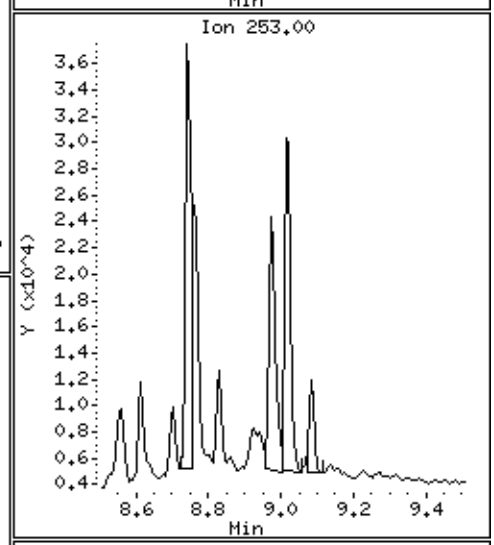


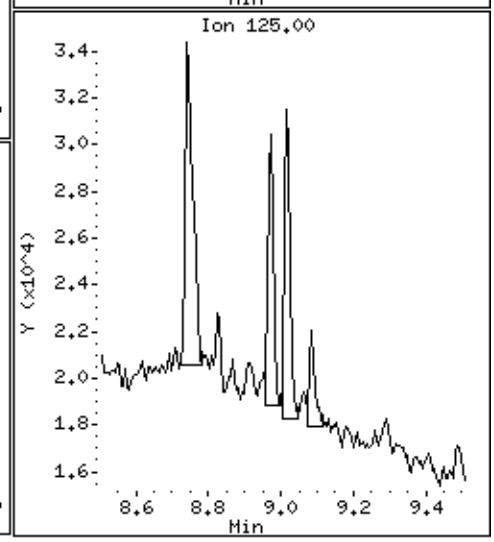












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

Client ID: Sewer-2

Instrument: 30mss2.i

Sample Info: 30313514002X10,

Volume Injected (uL): 1.0

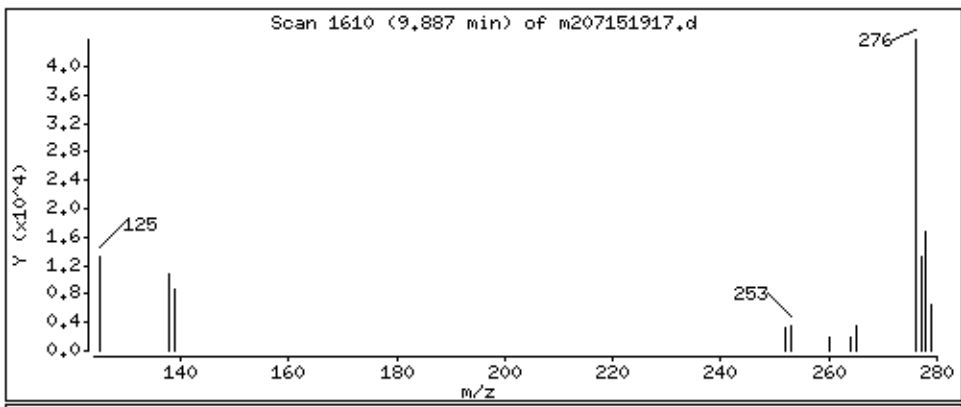
Operator: DSC

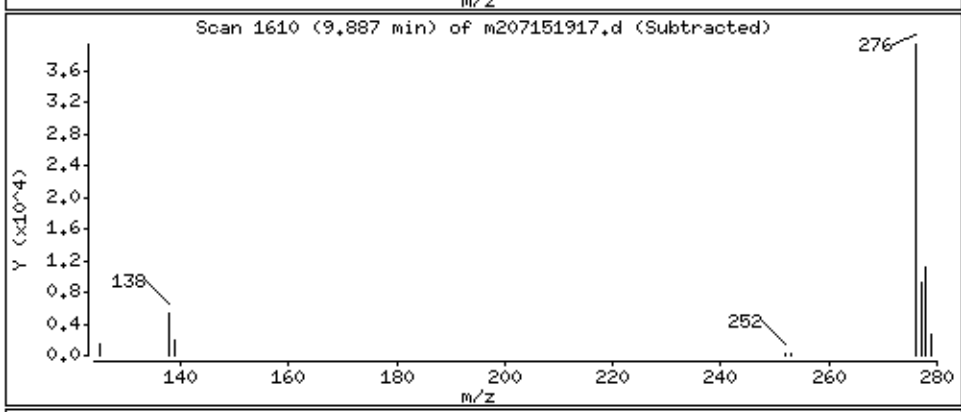
Column phase: RTX-5MS

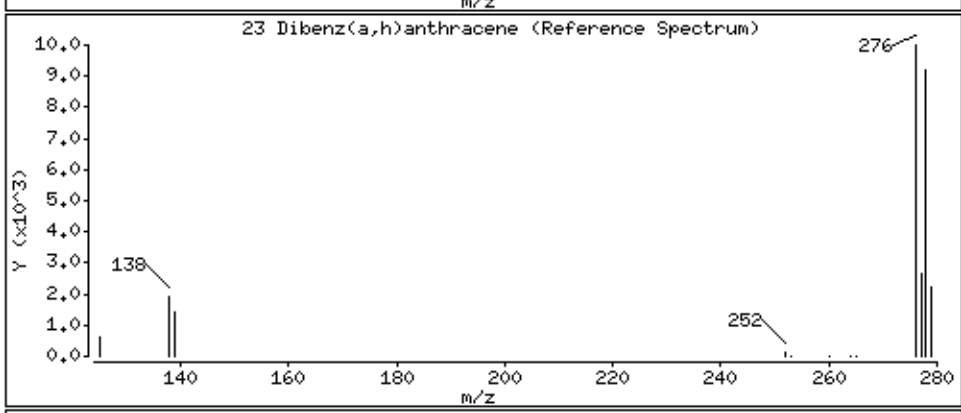
Column diameter: 0.25

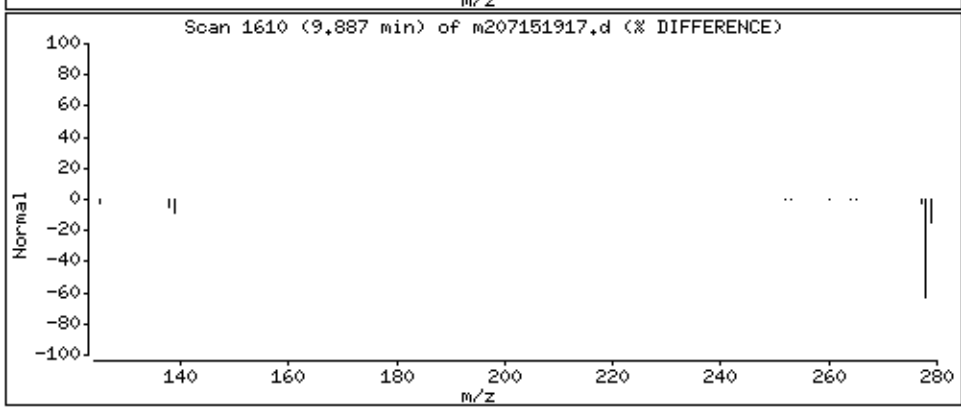
23 Dibenz(a,h)anthracene

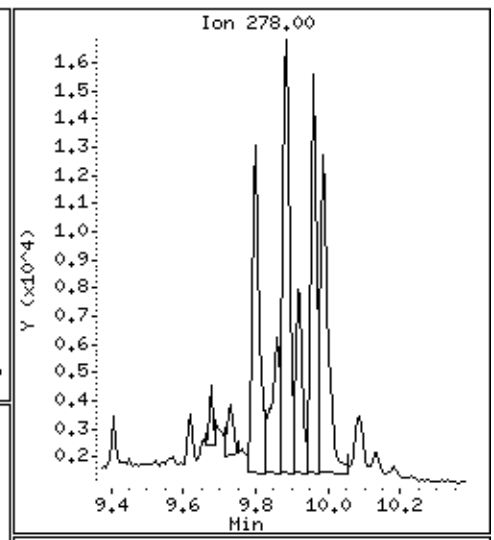
Concentration: 92.7 ug/Kg

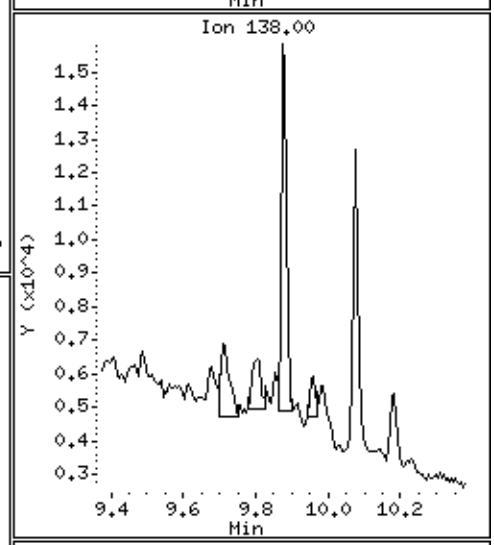


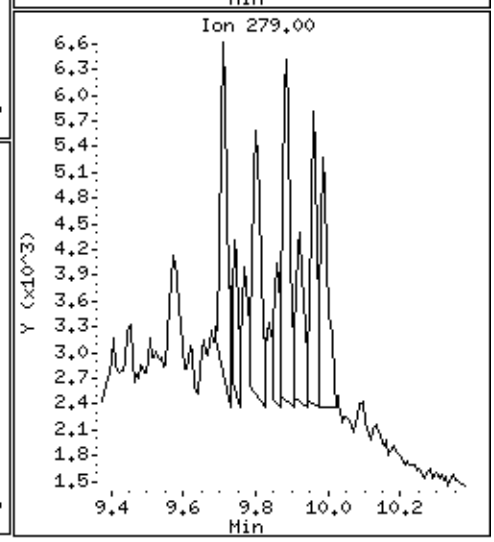












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

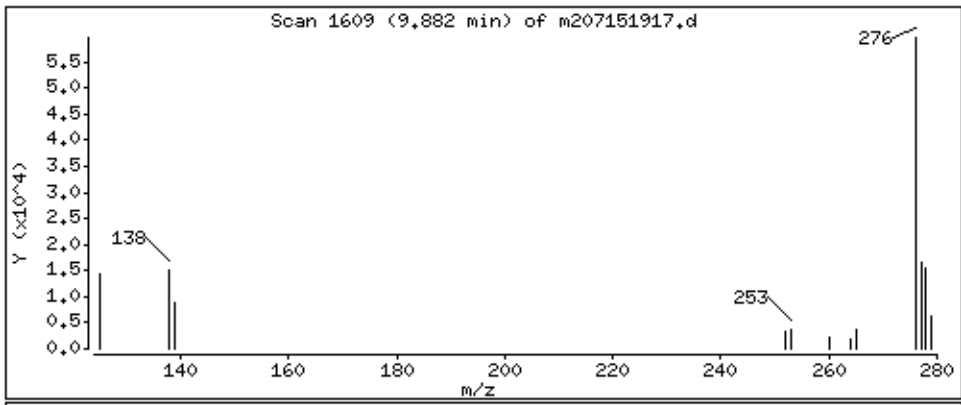
Client ID: Sewer-2 Instrument: 30mss2.i

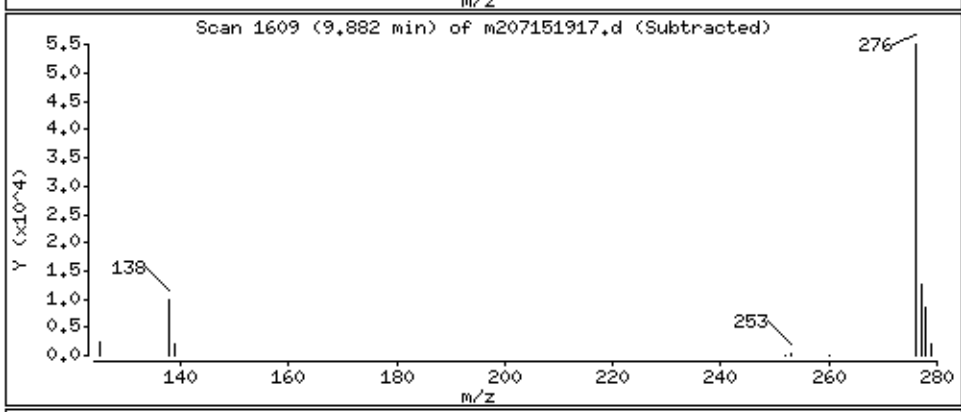
Sample Info: 30313514002X10,

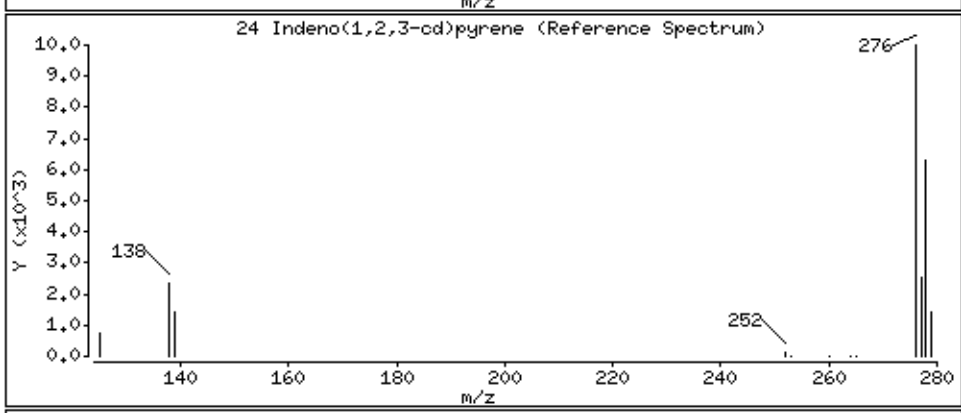
Volume Injected (uL): 1.0 Operator: DSC

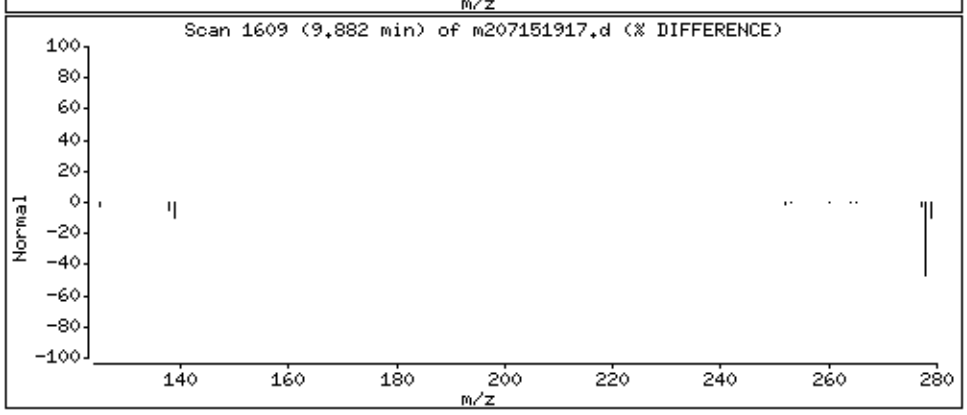
Column phase: RTX-5MS Column diameter: 0.25

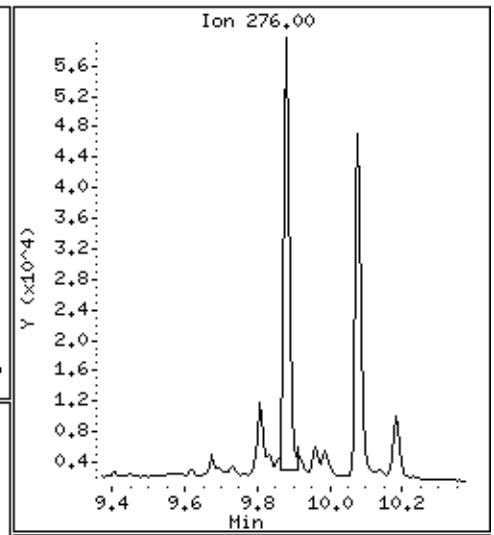
24 Indeno(1,2,3-cd)pyrene Concentration: 216 ug/Kg

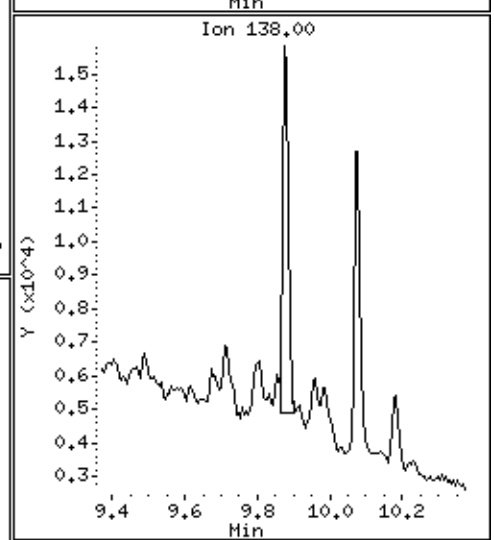












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151917.d

Date : 15-JUL-2019 14:02

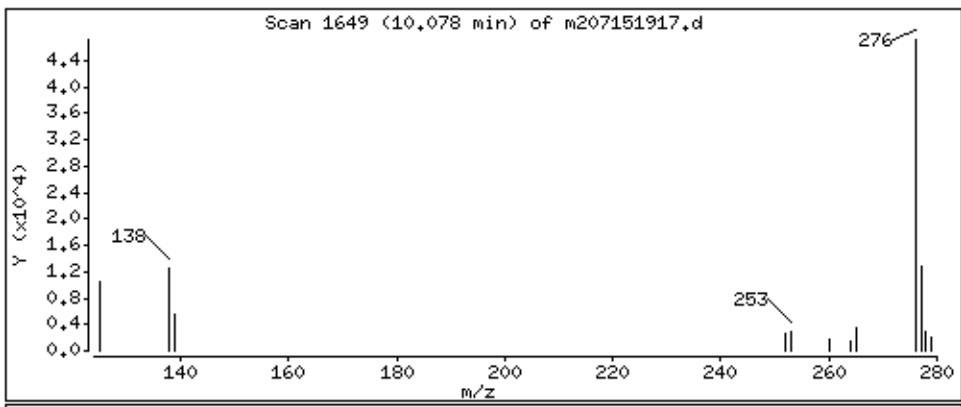
Client ID: Sewer-2 Instrument: 30mss2.i

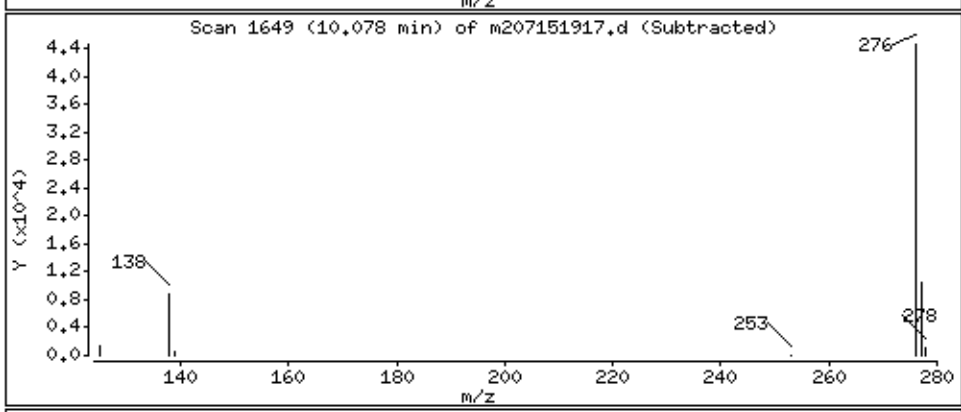
Sample Info: 30313514002X10,

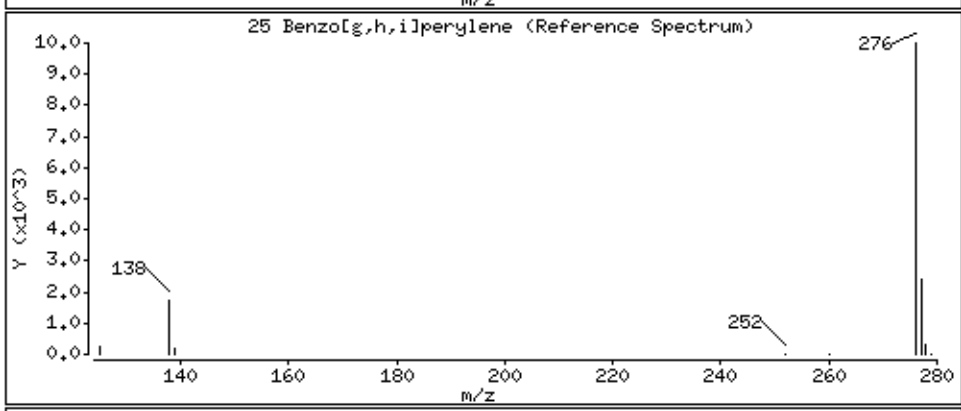
Volume Injected (uL): 1.0 Operator: DSC

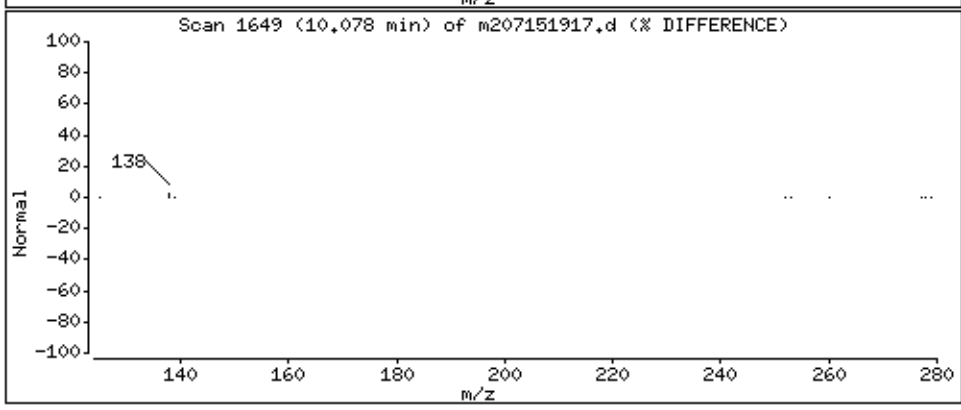
Column phase: RTX-5MS Column diameter: 0.25

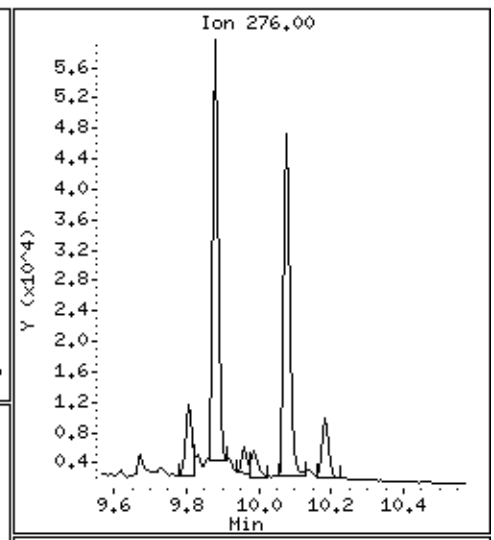
25 Benzo[g,h,i]perylene Concentration: 230 ug/Kg

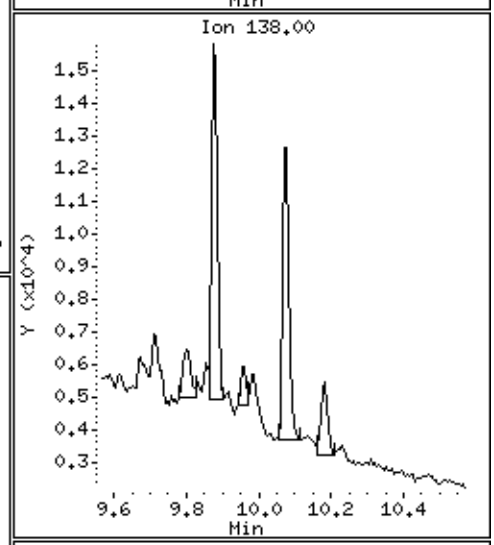


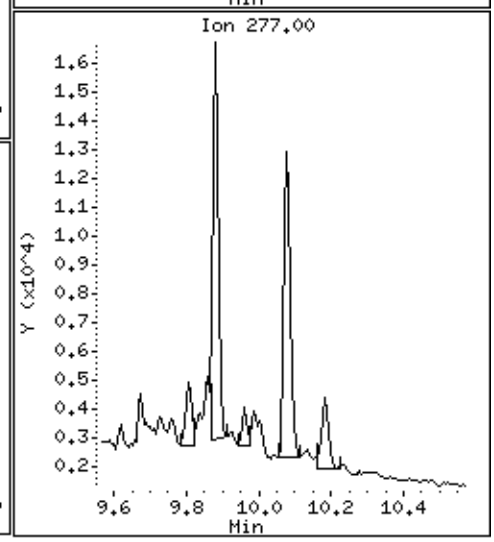












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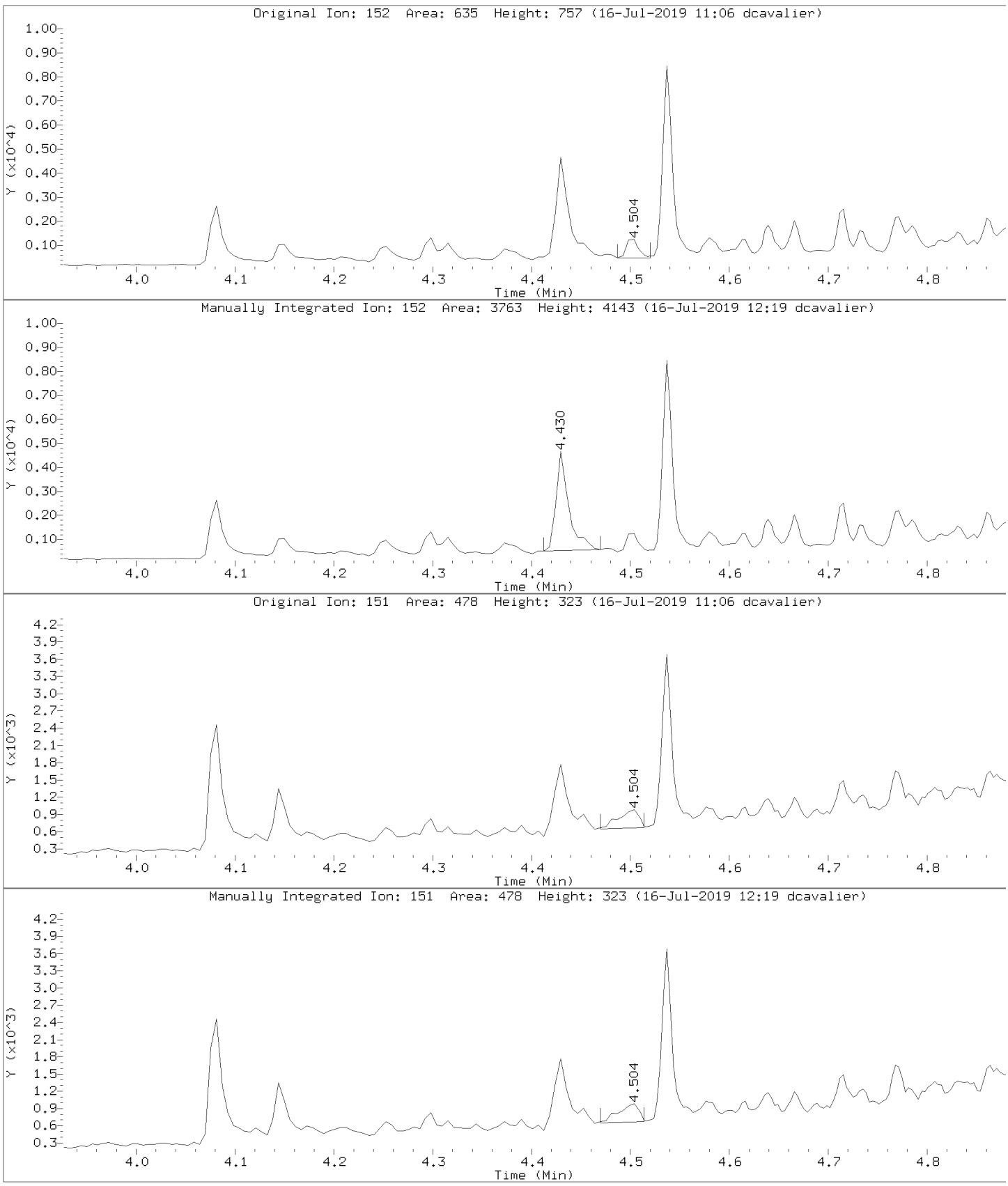
Instrument: 30mss2.i
Lab Sample ID: 30313514002

Compound: Acenaphthylene Review Code: WP
CAS Number: 208-96-8



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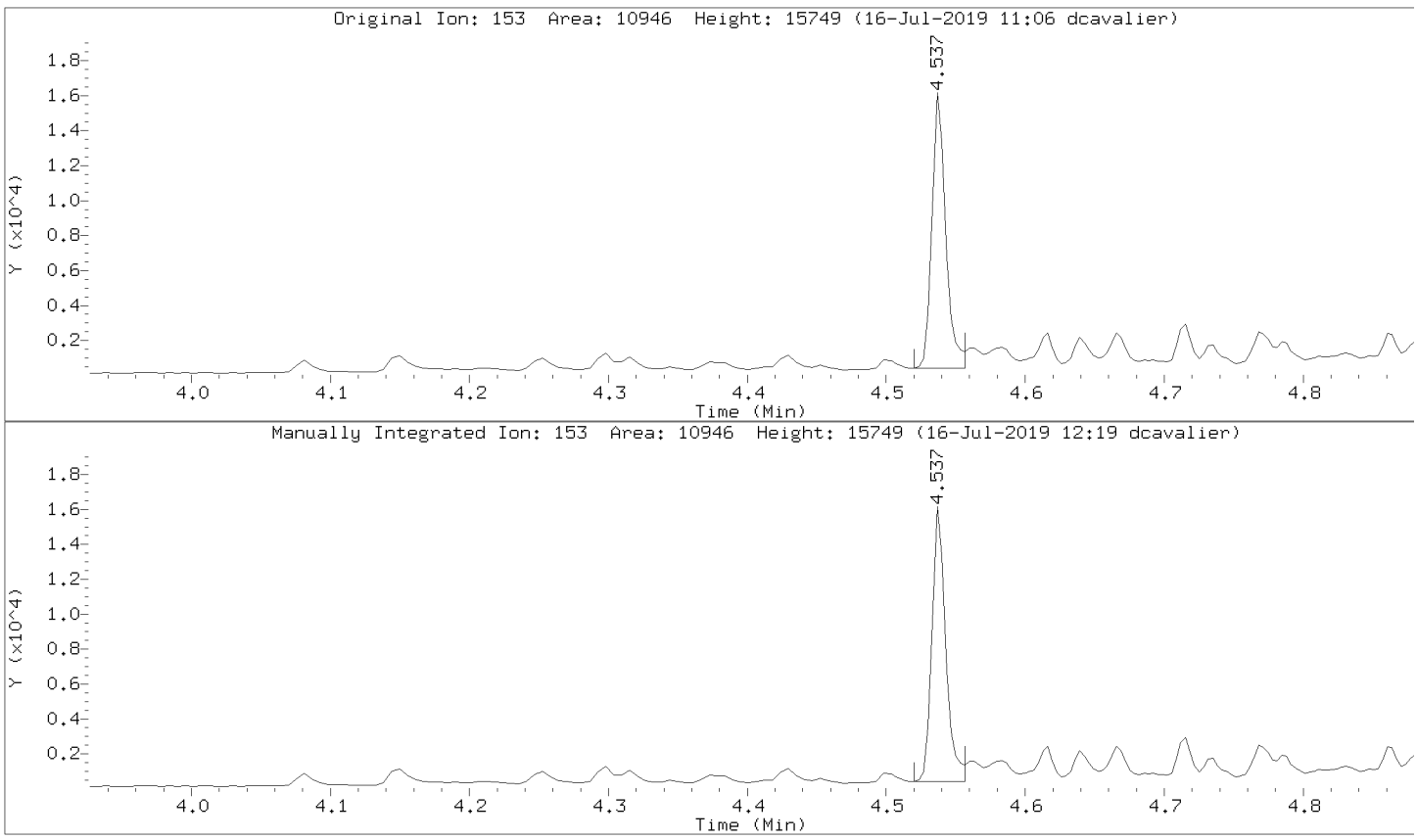
Injection Date: 15-JUL-2019 14:02
Instrument: 30mss2.i
Lab Sample ID: 30313514002



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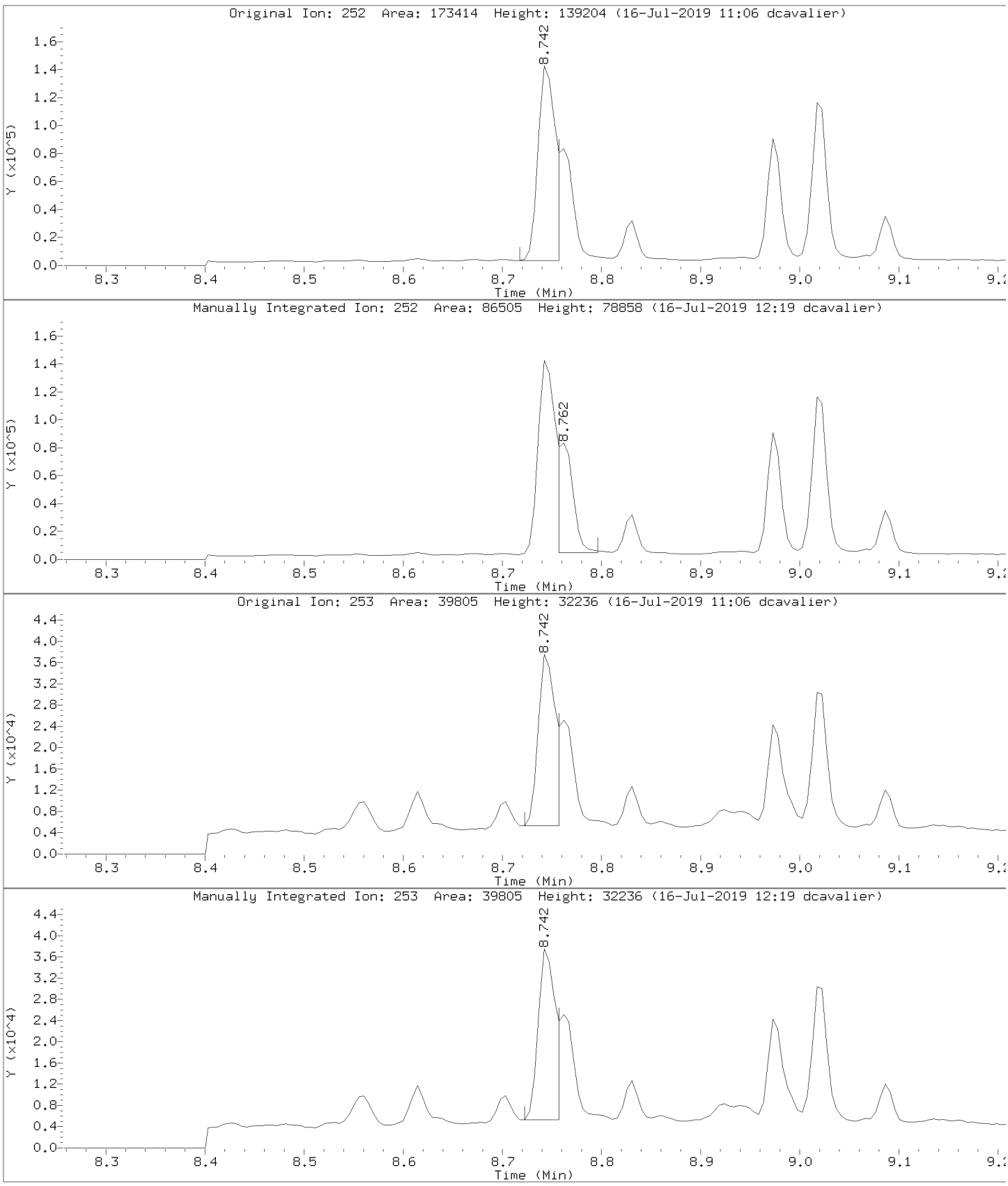
Injection Date: 15-JUL-2019 14:02
Instrument: 30mss2.i
Lab Sample ID: 30313514002

Compound: Benzo(k)fluoranthene Review Code: WP
CAS Number: 207-08-9



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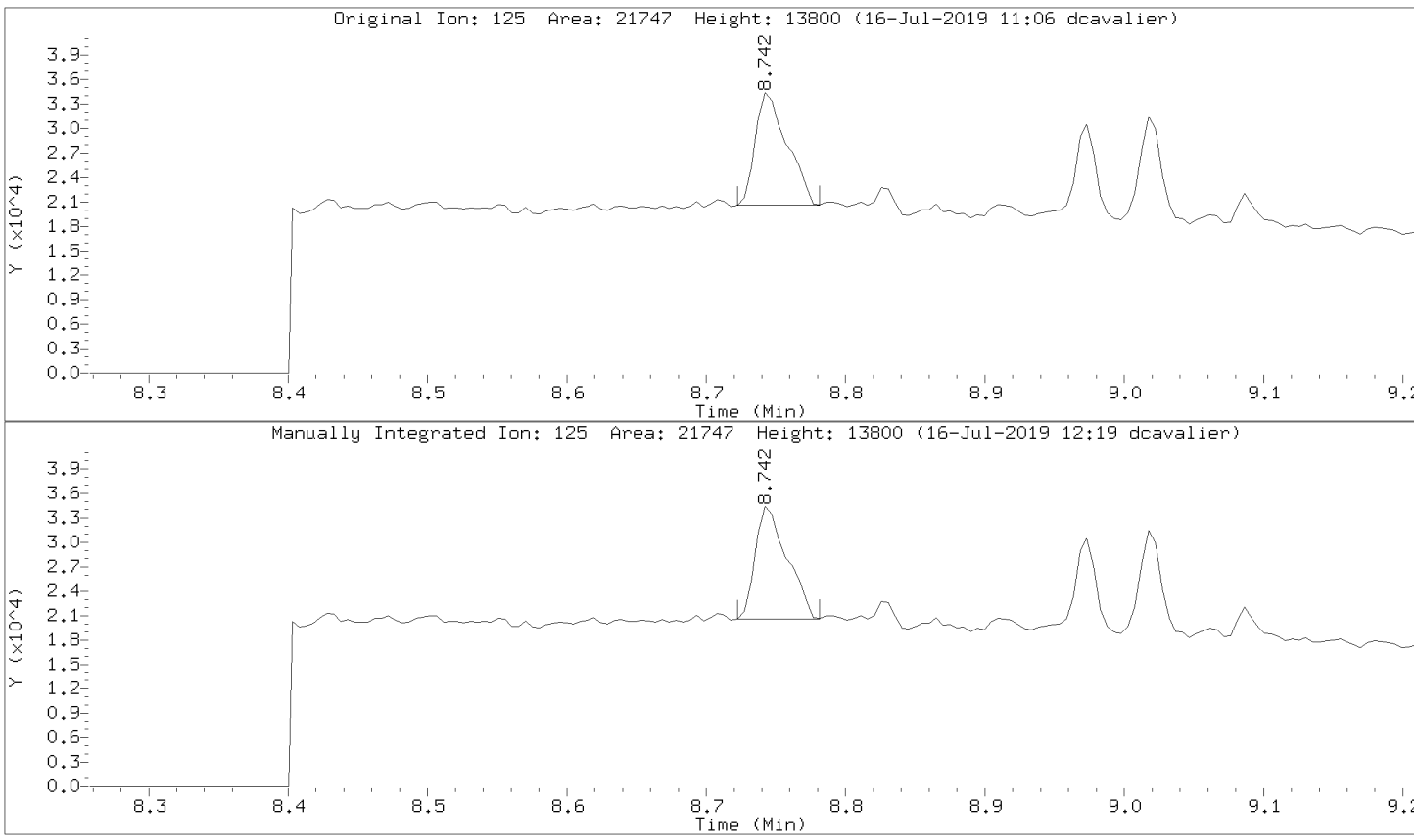
Instrument: 30mss2.i
Lab Sample ID: 30313514002



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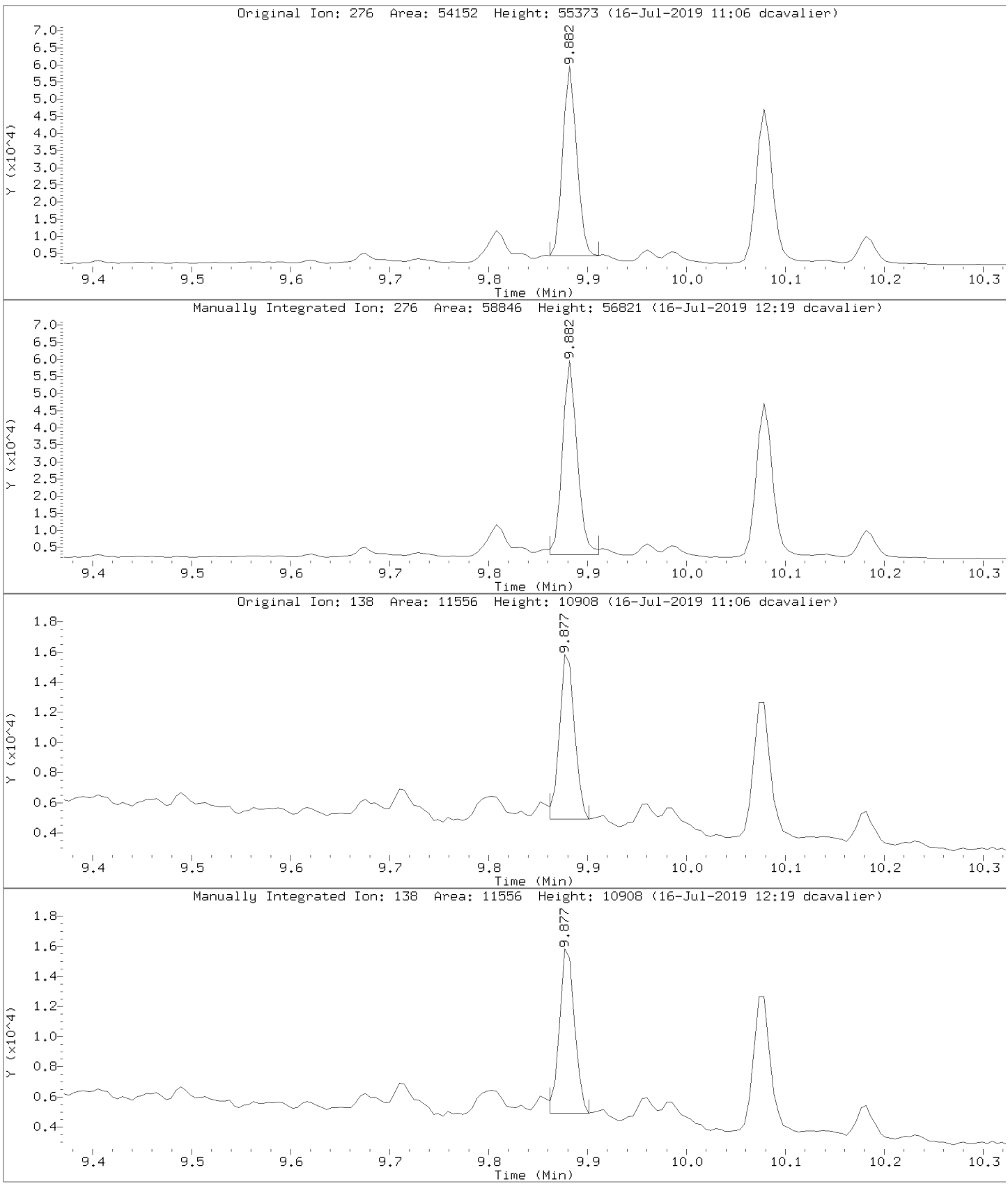
Injection Date: 15-JUL-2019 14:02
Instrument: 30mss2.i
Lab Sample ID: 30313514002

Compound: Indeno(1,2,3-cd)pyrene Review Code: BA
CAS Number: 193-39-5



MSSV SIM - FORM VI SVOA-1

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthylene	Averaged	1.43989	1.65342	1.68303	1.69637	1.64011	1.34165
Anthracene	Averaged	0.90610	1.02881	1.05799	1.06905	1.02342	0.81856
Benzo(a)anthracene	Averaged	1.12160	1.15347	1.11954	1.14109	1.12720	0.90450
Benzo(a)pyrene	Averaged	0.89486	1.00170	1.00290	1.07499	1.06891	0.91490
Benzo(b)fluoranthene	Averaged	0.96240	0.99435	1.04494	1.10958	1.18984	0.96206
Benzo(g,h,i)perylene	Averaged	1.02678	1.14288	1.09729	1.11629	1.06836	0.97326
Benzo(k)fluoranthene	Averaged	1.25456	1.42202	1.35999	1.30675	1.16856	1.01301
Chrysene	Averaged	1.11889	1.25636	1.22042	1.16755	1.09409	0.86936
Dibenz(a,h)anthracene	Averaged	1.00665	1.12149	1.07754	1.11562	1.09084	1.04496
Fluoranthene	Averaged	1.02402	1.16677	1.16379	1.19410	1.16234	0.91970
Fluorene	Averaged	1.06996	1.29593	1.29433	1.28178	1.26279	1.04257
Indeno(1,2,3-cd)pyrene	Averaged	1.22581	1.36267	1.30915	1.34564	1.30992	1.25015
Naphthalene	Averaged	0.85313	0.98207	0.96429	0.95073	0.91642	0.74194
Phenanthrene	Averaged	0.91669	1.03963	1.03416	1.01879	0.98227	0.80153
Pyrene	Averaged	1.06432	1.22050	1.20610	1.22118	1.17405	0.93143
2-Fluorobiphenyl (S)	Averaged	1.16635	1.40340	1.47961	1.45886	1.37872	1.12378
Terphenyl-d14 (S)	Averaged	0.79034	0.91685	0.90265	0.90620	0.87792	0.70065

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV SIM - FORM VI SVOA-2

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS2 GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 06/17/2019 06/17/2019 Calibration Time(s): 12:43 14:12

LAB FILE ID

CAL1 = MSS2061719.B\M2061719Z1.D CAL2 = MSS2061719.B\M2061719Z2.D CAL3 = MSS2061719.B\M2061719Z3.D

CAL4 = MSS2061719.B\M2061719Z4.D CAL5 = MSS2061719.B\M2061719Z5.D CAL6 = MSS2061719.B\M2061719Z6.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acenaphthylene	Averaged	9.39113		0.00000000	1.57574	
Anthracene	Averaged	10.13326		0.00000000	0.98399	
Benzo(a)anthracene	Averaged	8.58778		0.00000000	1.09457	
Benzo(a)pyrene	Averaged	7.58809		0.00000000	0.99304	
Benzo(b)fluoranthene	Averaged	8.71805			1.04386	
Benzo(g,h,i)perylene	Averaged	5.82051		0.00000000	1.07081	
Benzo(k)fluoranthene	Averaged	11.69830		0.00000000	1.25415	
Chrysene	Averaged	12.25789		0.00000000	1.12111	
Dibenz(a,h)anthracene	Averaged	4.07890		0.00000000	1.07618	
Fluoranthene	Averaged	9.86211		0.00000000	1.10512	
Fluorene	Averaged	9.79942		0.00000000	1.20790	
Indeno(1,2,3-cd)pyrene	Averaged	4.09476		0.00000000	1.30056	
Naphthalene	Averaged	10.03077		0.00000000	0.90143	
Phenanthrene	Averaged	9.56014		0.00000000	0.96551	
Pyrene	Averaged	10.24402		0.00000000	1.13626	
2-Fluorobiphenyl (S)	Averaged	11.40340		0.00000000	1.33512	
Terphenyl-d14 (S)	Averaged	10.13636			0.84910	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 17-JUN-2019 12:43
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal1, 89118:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 12:43 Cal File: m2061719z1.d
Als bottle: 94 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	710510	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	15154	0.10000	0.0910	
9 2-Methylnaphthalene	142	4.041	4.041	(1.129)	9023	0.10000	0.0848	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	10451	0.10000	0.0885(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	11568	0.10000	0.0847	
11 Acenaphthylene	152	4.619	4.619	(0.981)	14281	0.10000	0.0890	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396724	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	9548	0.10000	0.0906	
13 Fluorene	166	5.075	5.075	(1.078)	10612	0.10000	0.0866	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	721512	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	16535	0.10000	0.0917(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	16344	0.10000	0.0892	
16 Fluoranthene	202	6.747	6.742	(1.173)	18471	0.10000	0.0900	
17 Pyrene	202	6.950	6.945	(1.209)	19198	0.10000	0.0903	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	14256	0.10000	0.0899	
18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	19022	0.10000	0.0989	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	678388	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	18976	0.10000	0.0947(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	17640	0.10000	0.0936	
21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	22995	0.10000	0.0948(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	16402	0.10000	0.0901	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	733165	4.00000		
23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	18451	0.10000	0.0932	
24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	22468	0.10000	0.0935	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	18820	0.10000	0.0937	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

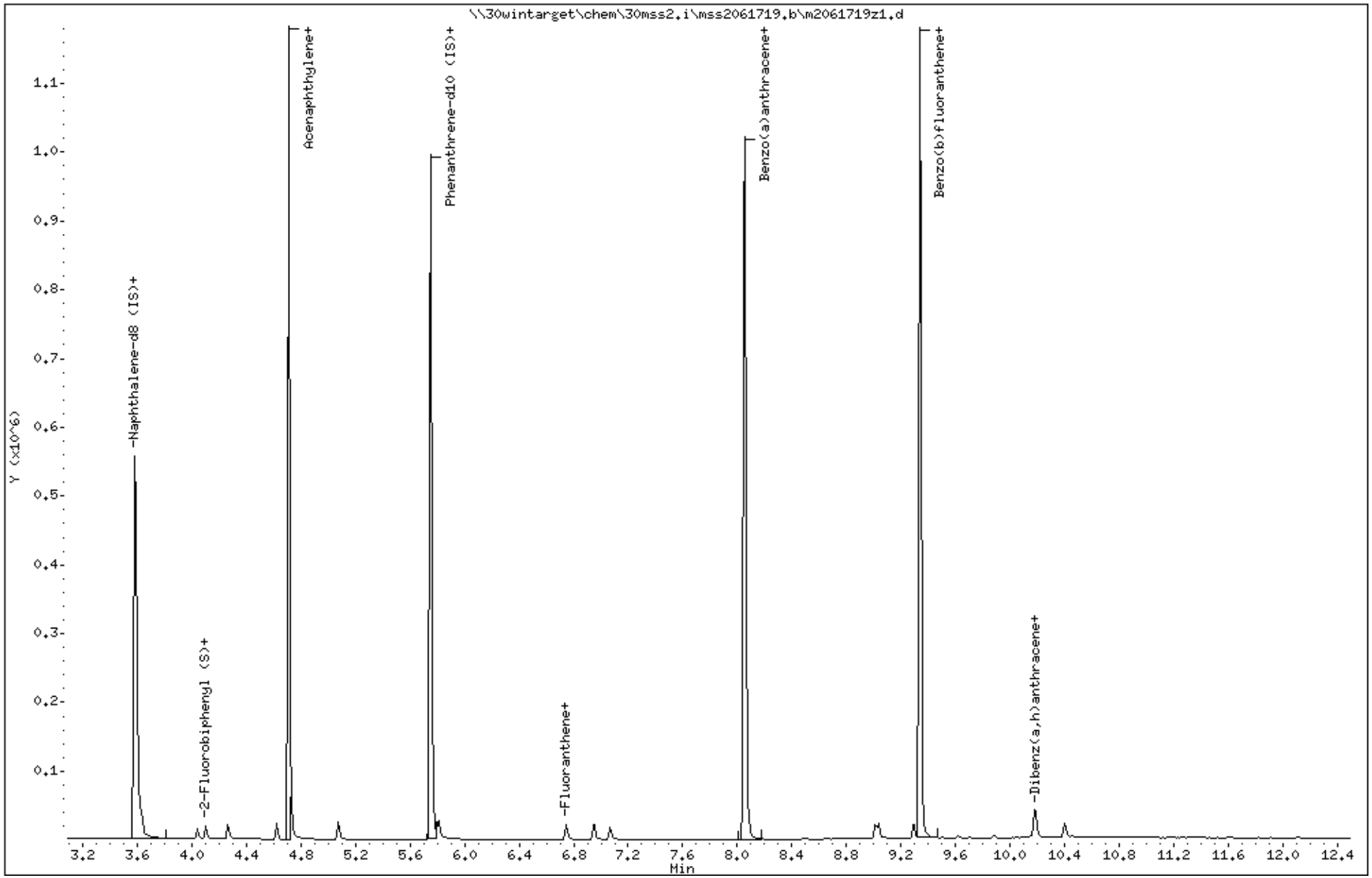
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.0910	
91-57-6	2-Methylnaphthalene	0.0848	
90-12-0	1-Methylnaphthalene	0.0885	
208-96-8	Acenaphthylene	0.0890	
83-32-9	Acenaphthene	0.0906	
86-73-7	Fluorene	0.0866	
85-01-8	Phenanthrene	0.0917	
120-12-7	Anthracene	0.0892	
206-44-0	Fluoranthene	0.0900	
129-00-0	Pyrene	0.0903	
56-55-3	Benzo(a)anthracene	0.0989	
218-01-9	Chrysene	0.0947	
205-99-2	Benzo(b)fluoranthene	0.0936	
207-08-9	Benzo(k)fluoranthene	0.0948	
50-32-8	Benzo(a)pyrene	0.0901	
53-70-3	Dibenz(a,h)anthracene	0.0932	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0935	
191-24-2	Benzo[g,h,i]perylene	0.0937	
321-60-8	2-Fluorobiphenyl (S)	0.0847	
1718-51-0	Terphenyl-d14 (S)	0.0899	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z1.d
Date : 17-JUN-2019 12:43
Client ID: CAL1
Sample Info: CAL1, 89118:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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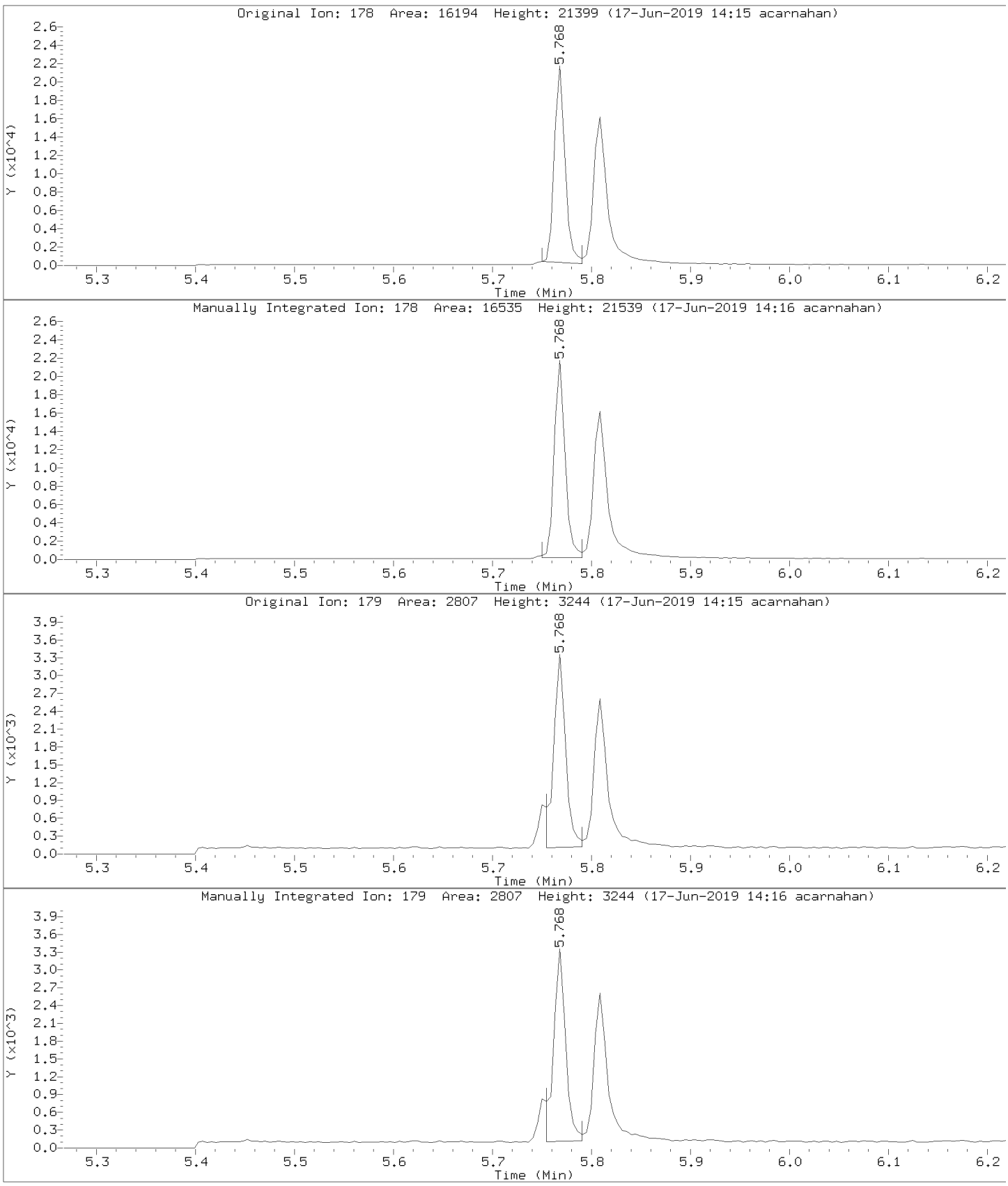
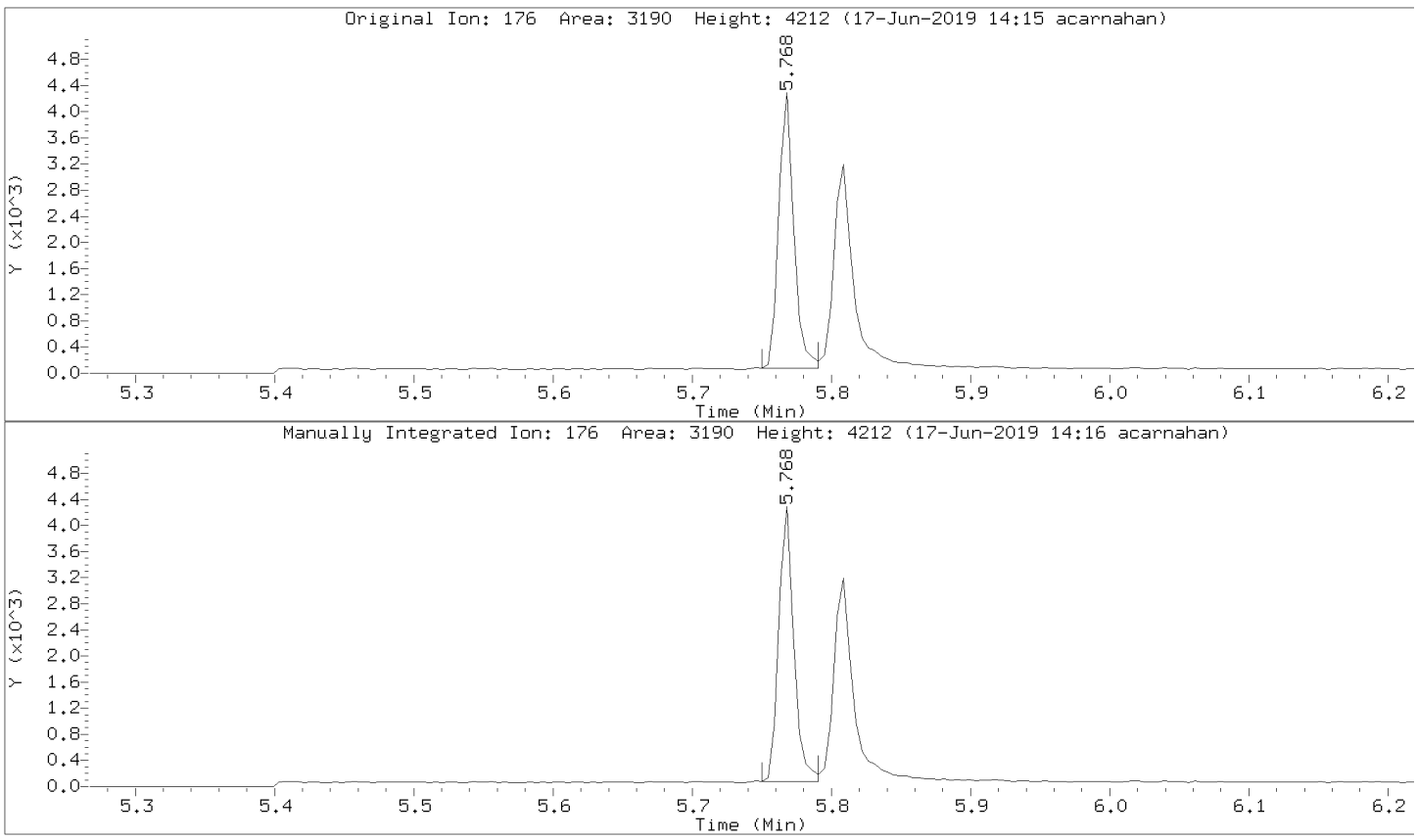
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1



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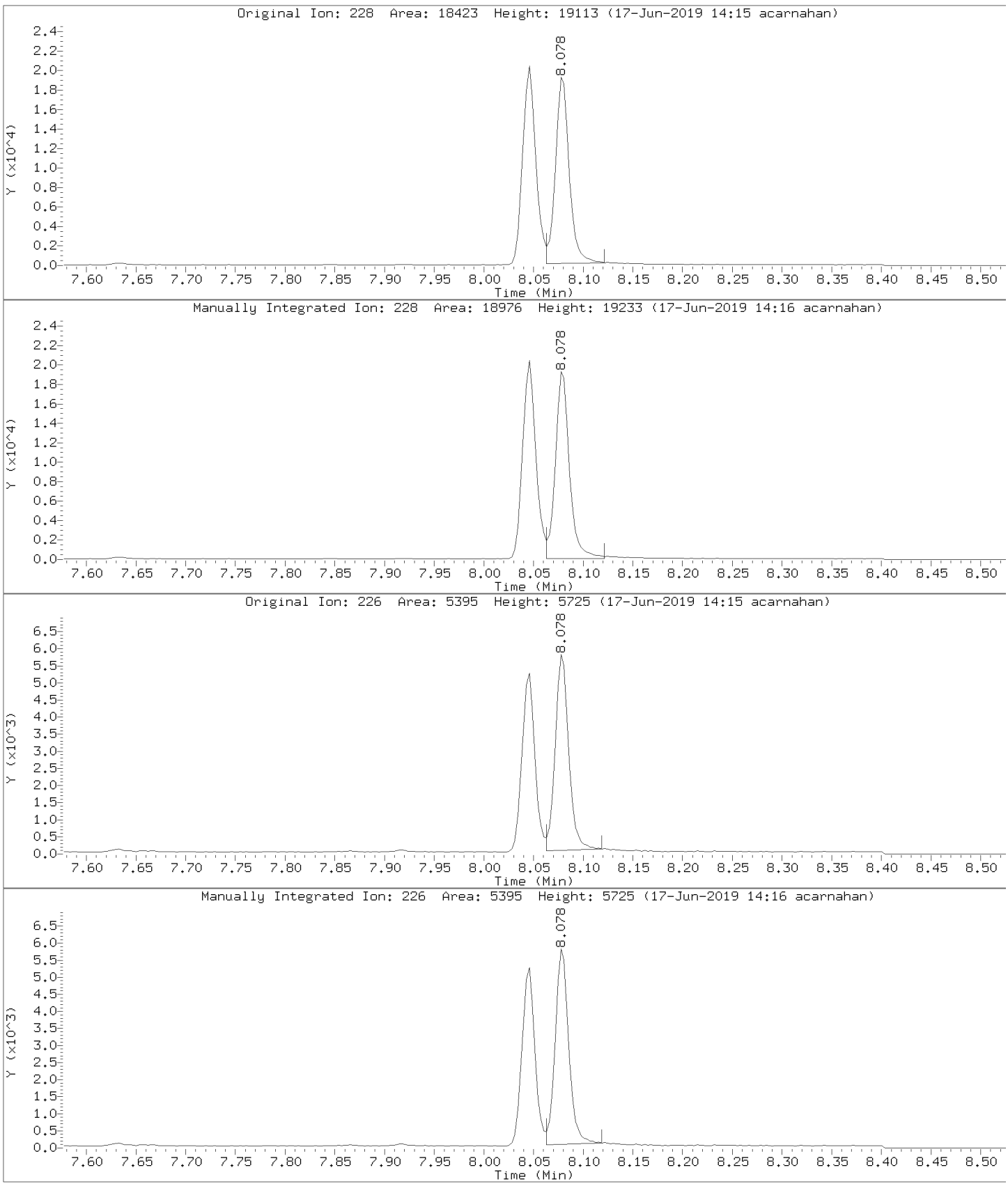
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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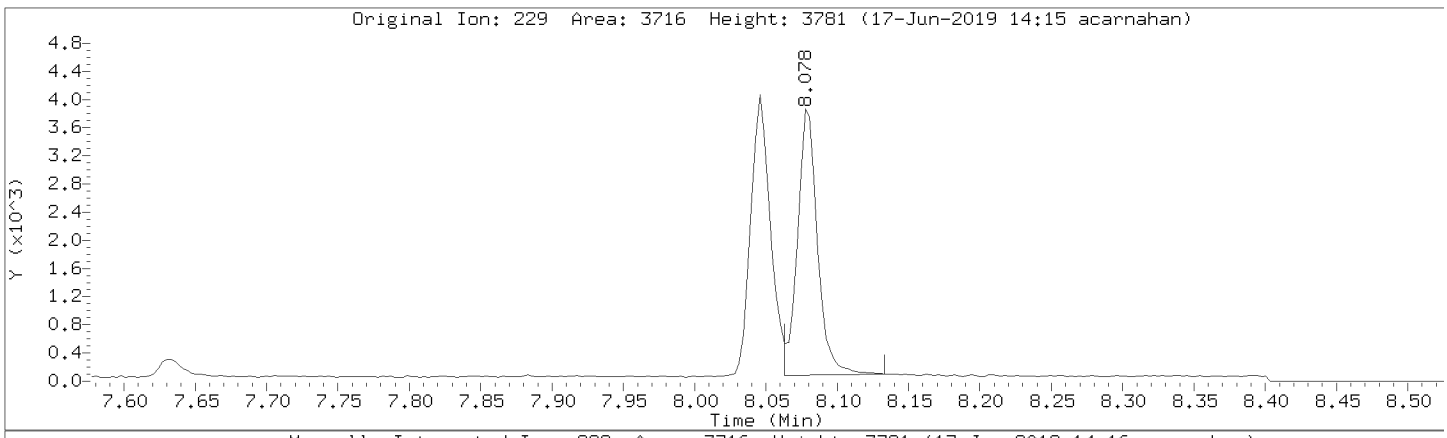
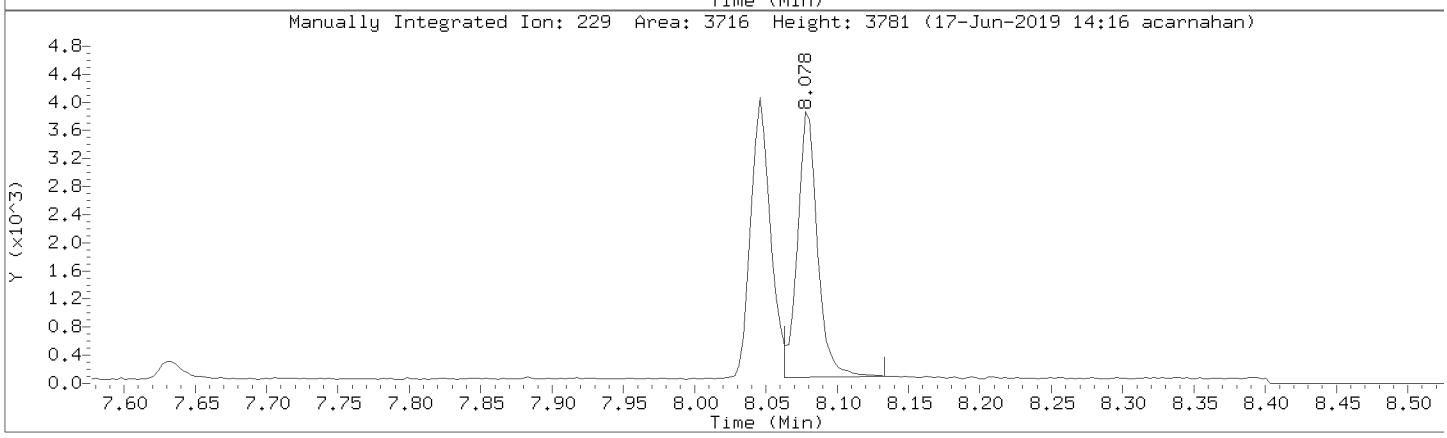
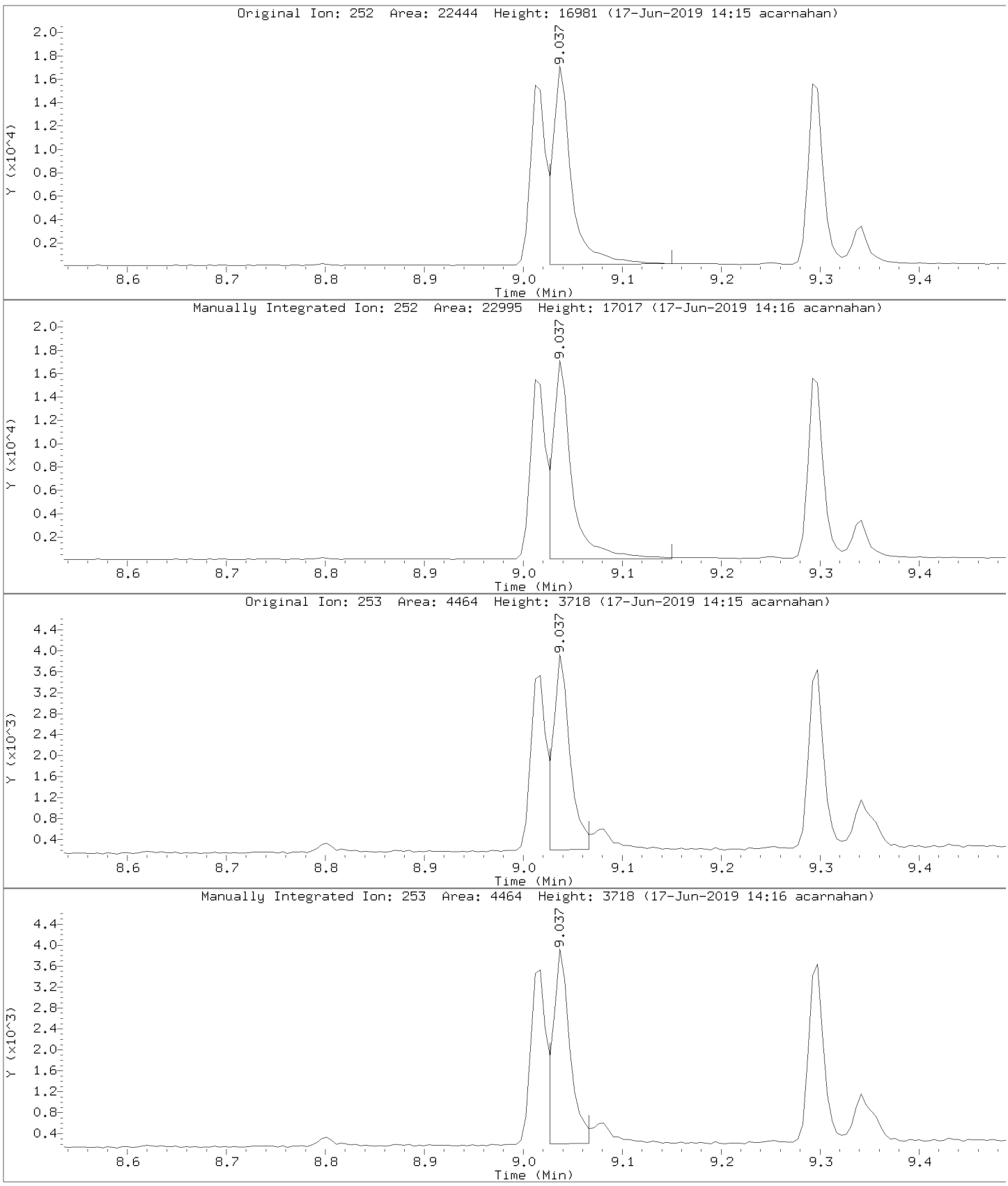
Instrument: 30mss2.i
Lab Sample ID: CAL1



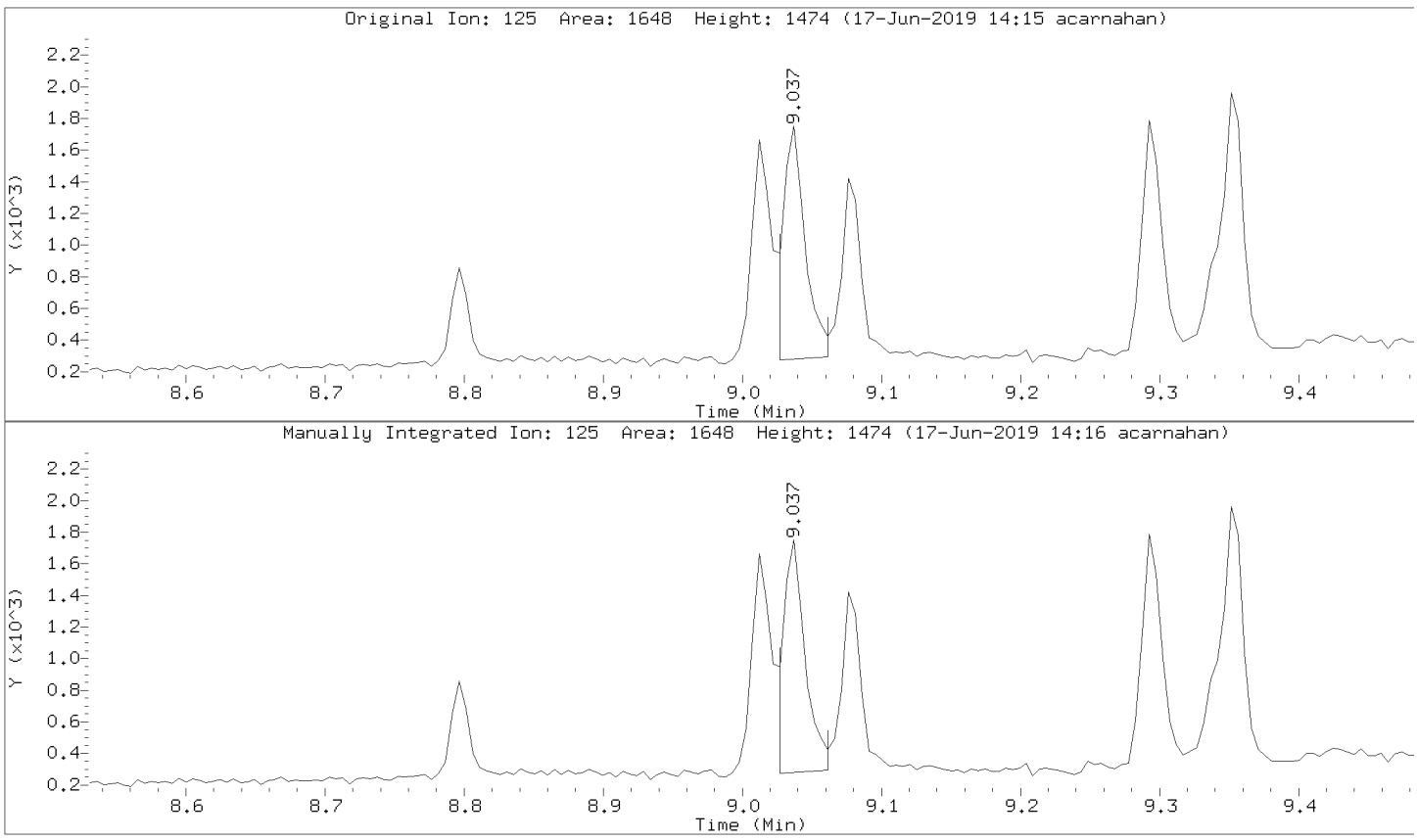


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

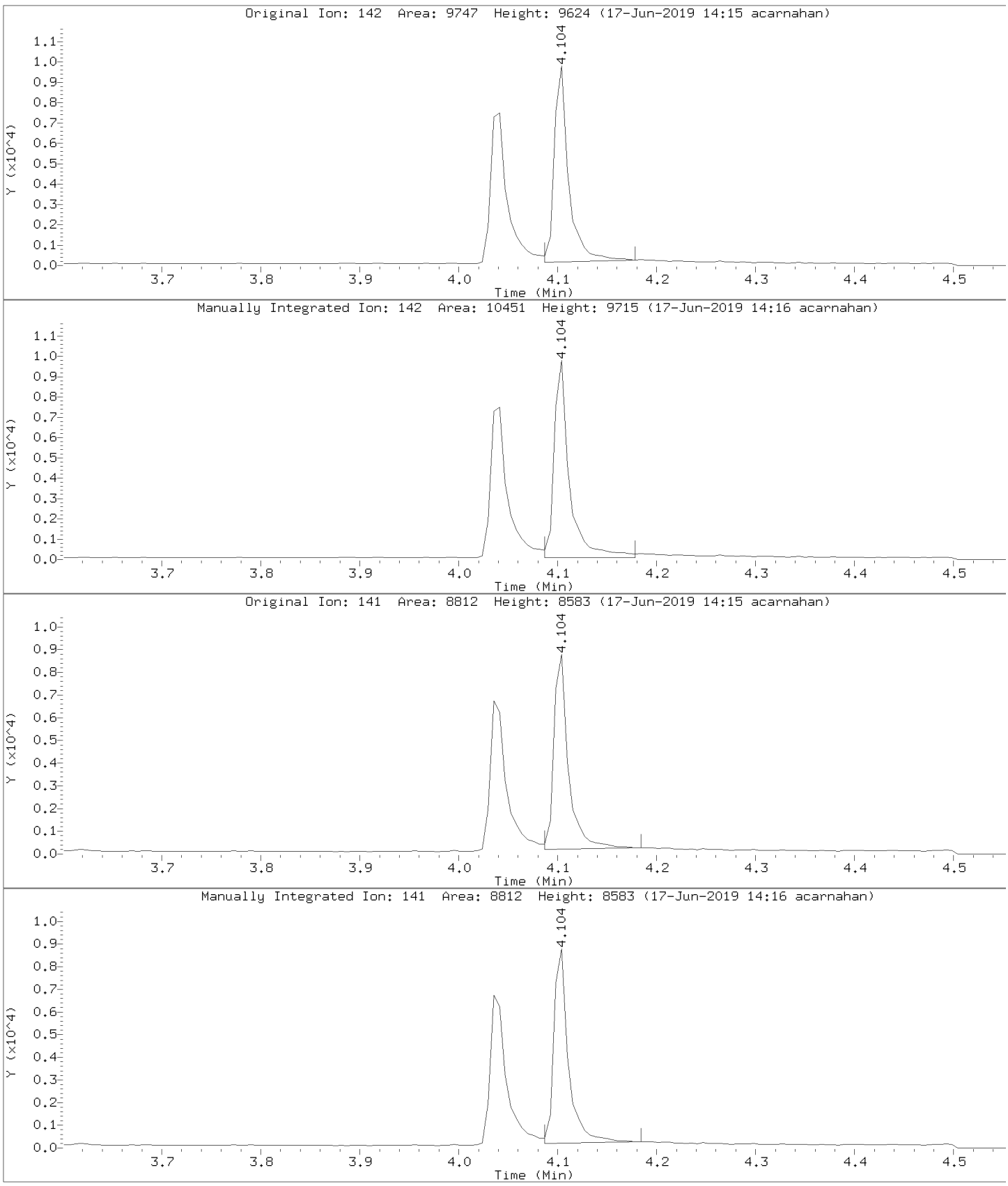


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z1.d
Injection Date: 17-JUN-2019 12:43
Instrument: 30mss2.i
Lab Sample ID: CAL1

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 17-JUN-2019 13:01
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal2, 89119:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:01 Cal File: m2061719z2.d
Als bottle: 95 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	769170	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.005)	37769	0.20000	0.209	
	9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	23528	0.20000	0.204	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	28113	0.20000	0.216(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	30468	0.20000	0.204	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	35896	0.20000	0.204	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	434204	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	24232	0.20000	0.210	
	13 Fluorene	166	5.075	5.075	(1.078)	28135	0.20000	0.210	
*	3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	797229	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	41441	0.20000	0.208(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	41010	0.20000	0.203	
	16 Fluoranthene	202	6.742	6.742	(1.173)	46509	0.20000	0.205	
	17 Pyrene	202	6.945	6.945	(1.208)	48651	0.20000	0.207	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	36547	0.20000	0.209	
	18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	43913	0.20000	0.203	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	761404	4.00000		
	19 Chrysene	228	8.077	8.077	(1.003)	47830	0.20000	0.212(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	41137	0.20000	0.193	
	21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	58830	0.20000	0.214(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	41441	0.20000	0.202	
*	5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	827417	4.00000		
	23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	46397	0.20000	0.208	
	24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	56375	0.20000	0.208	
	25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.113)	47282	0.20000	0.208	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

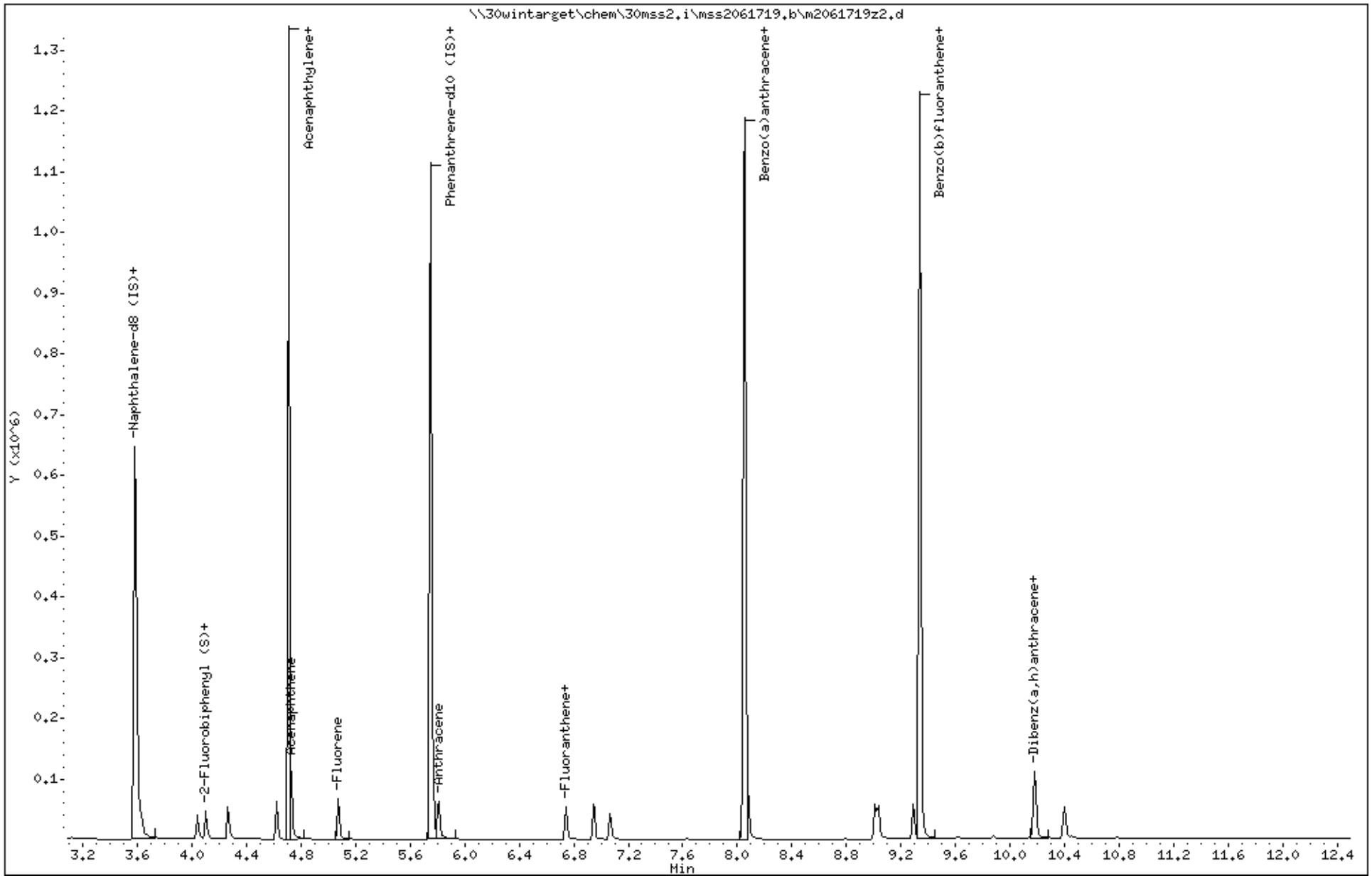
Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.209	
91-57-6	2-Methylnaphthalene	0.204	
90-12-0	1-Methylnaphthalene	0.216	
208-96-8	Acenaphthylene	0.204	
83-32-9	Acenaphthene	0.210	
86-73-7	Fluorene	0.210	
85-01-8	Phenanthrene	0.208	
120-12-7	Anthracene	0.203	
206-44-0	Fluoranthene	0.205	
129-00-0	Pyrene	0.207	
56-55-3	Benzo(a)anthracene	0.203	
218-01-9	Chrysene	0.212	
205-99-2	Benzo(b)fluoranthene	0.193	
207-08-9	Benzo(k)fluoranthene	0.214	
50-32-8	Benzo(a)pyrene	0.202	
53-70-3	Dibenz(a,h)anthracene	0.208	
193-39-5	Indeno(1,2,3-cd)pyrene	0.208	
191-24-2	Benzo[g,h,i]perylene	0.208	
321-60-8	2-Fluorobiphenyl (S)	0.204	
1718-51-0	Terphenyl-d14 (S)	0.209	

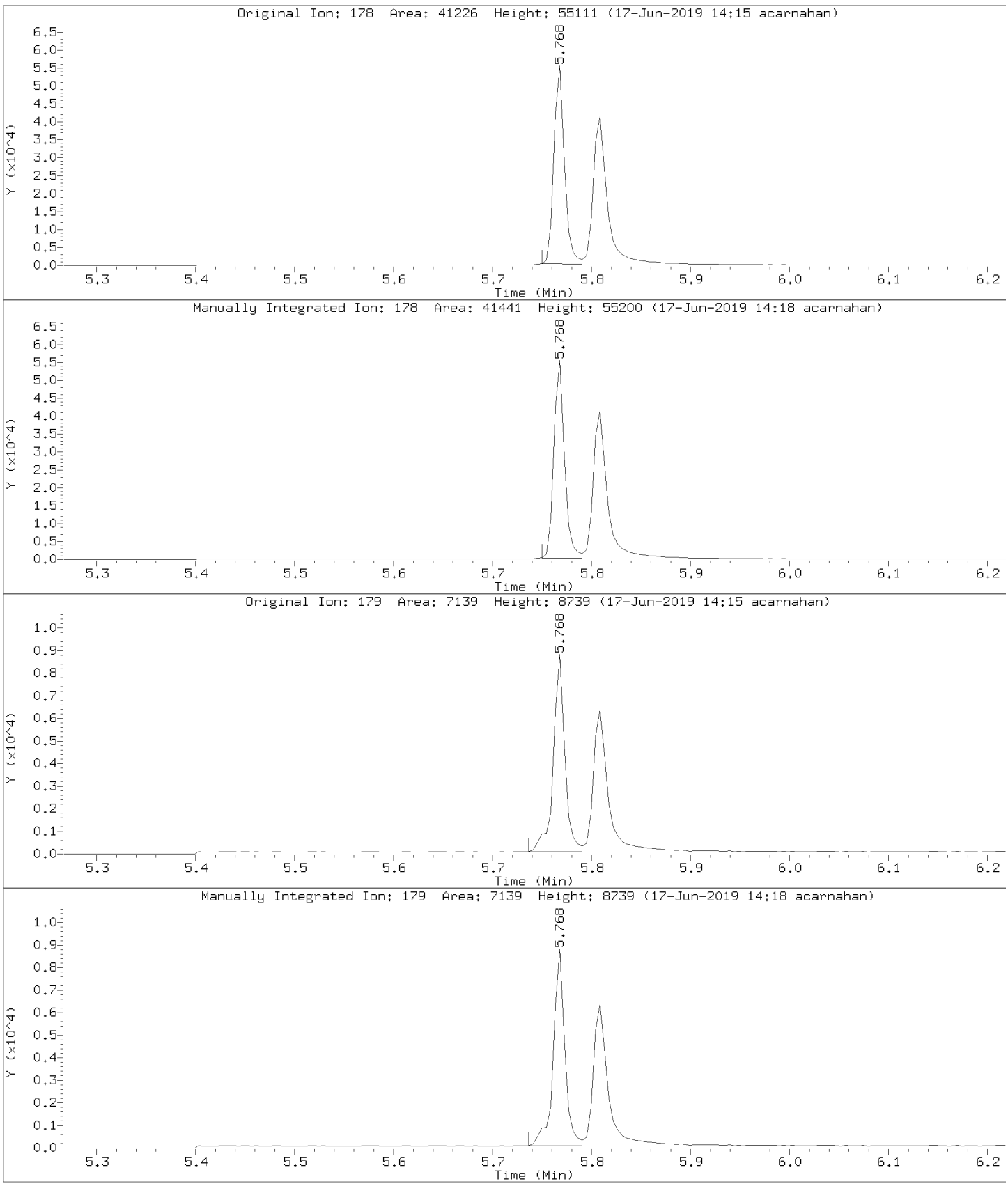
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z2.d
Date : 17-JUN-2019 13:01
Client ID: CAL2
Sample Info: CAL2, 89119:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

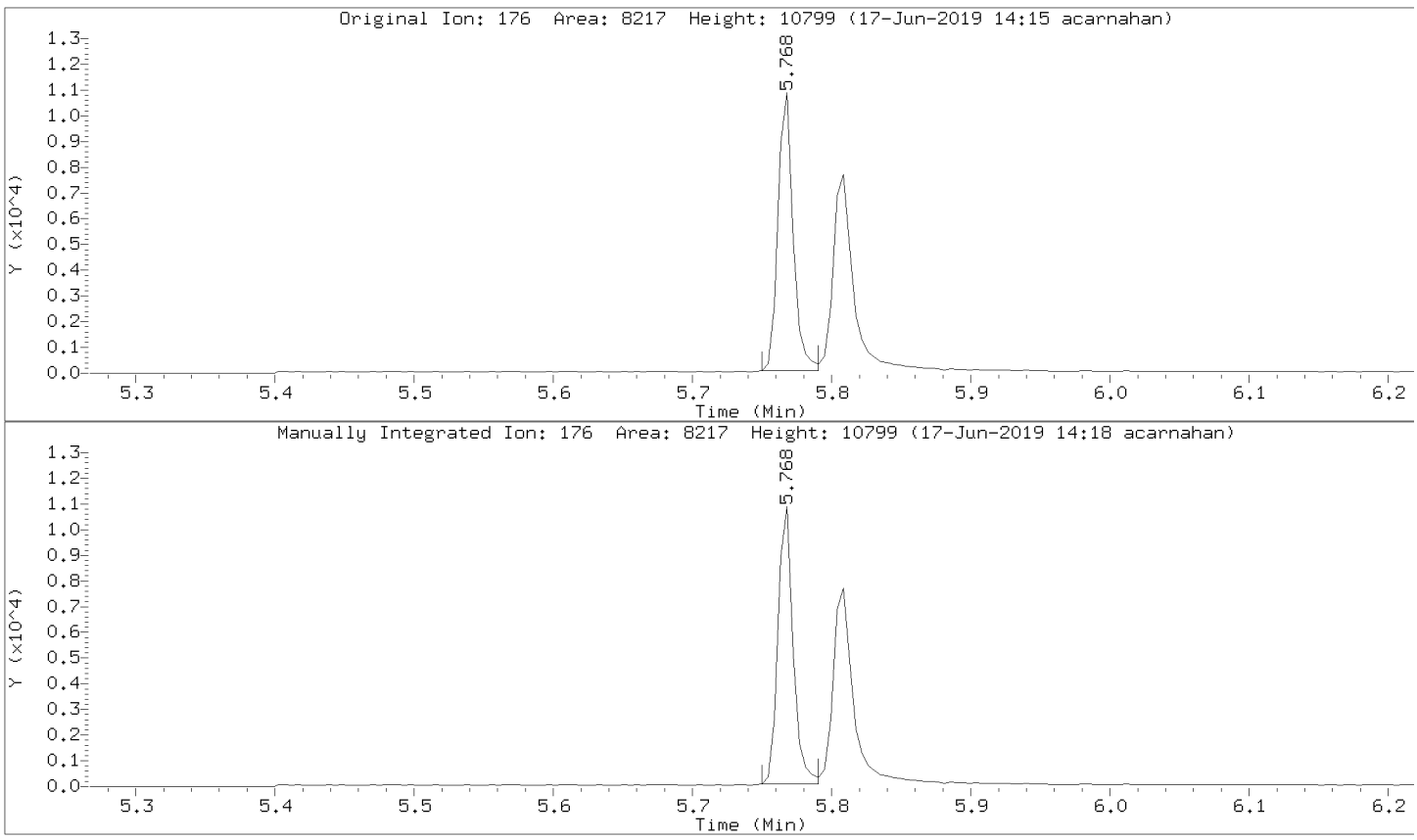


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

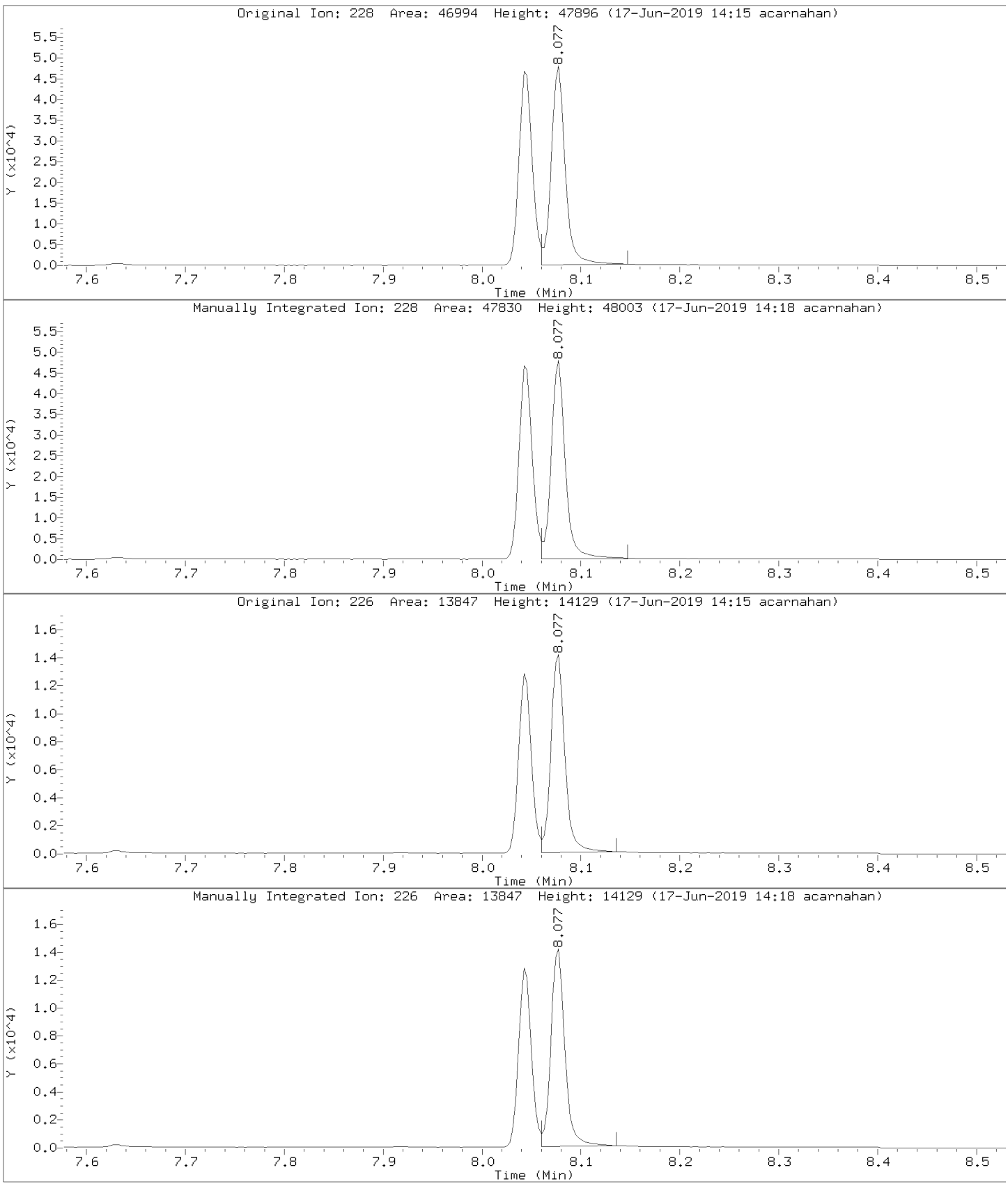


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

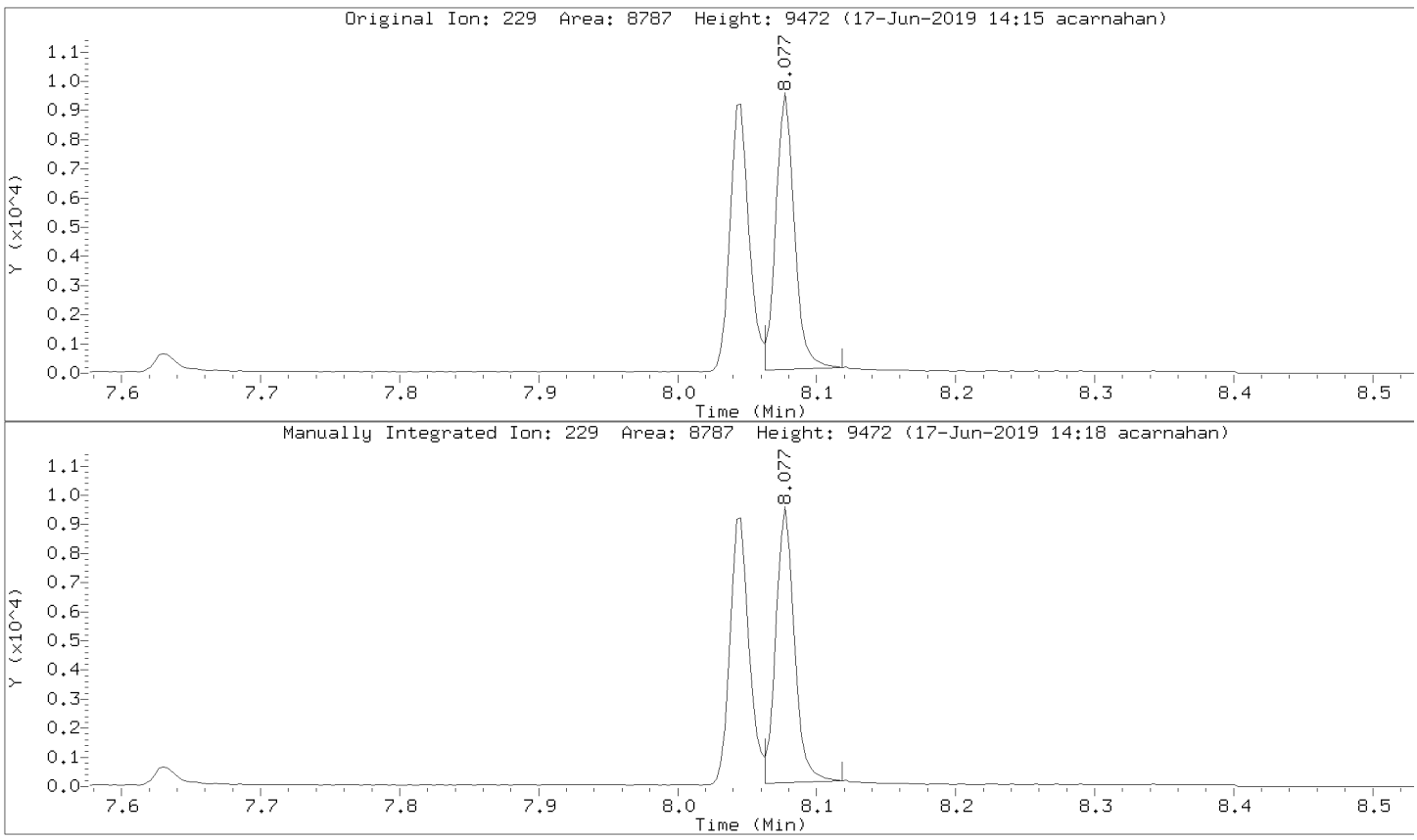


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

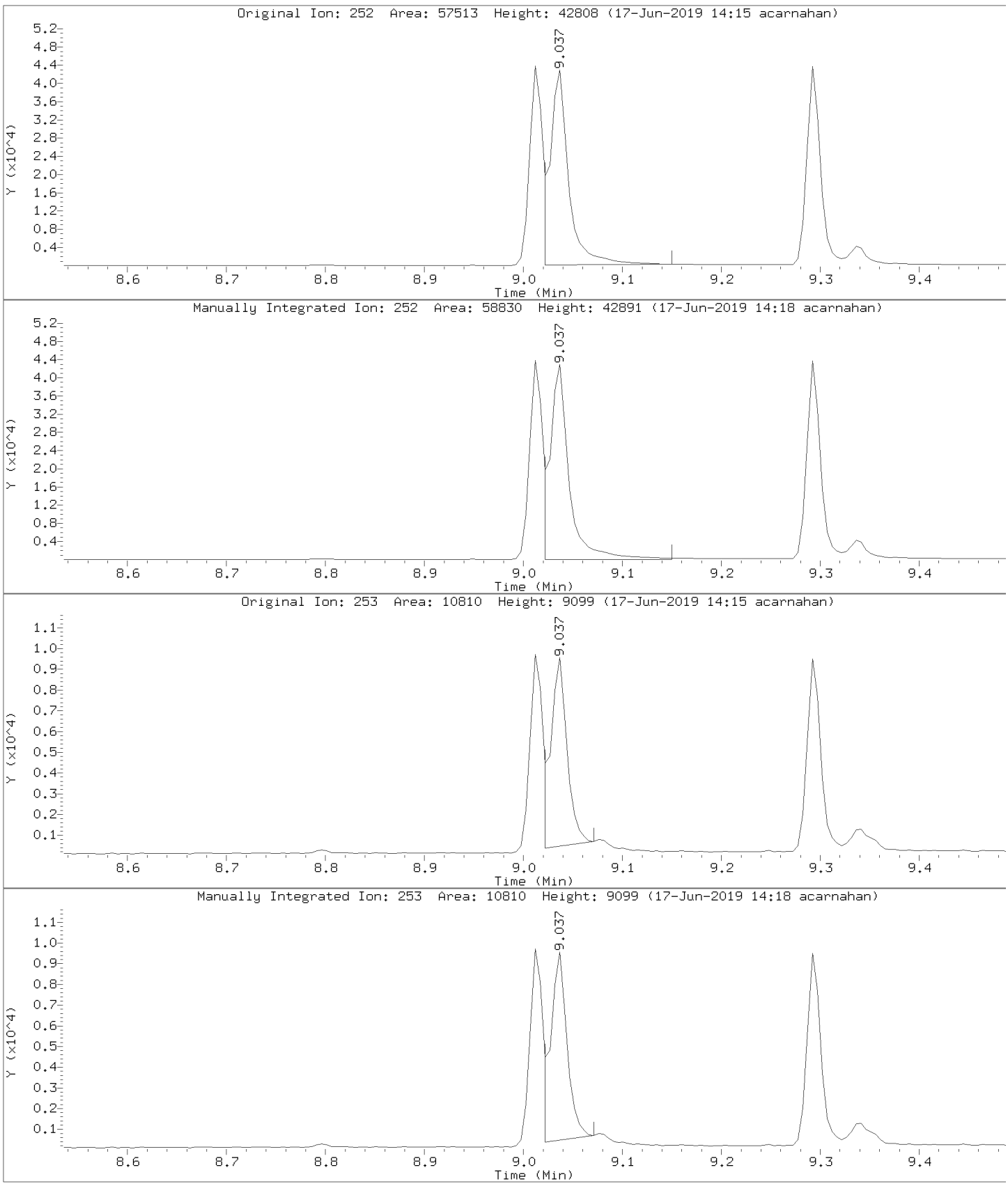


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

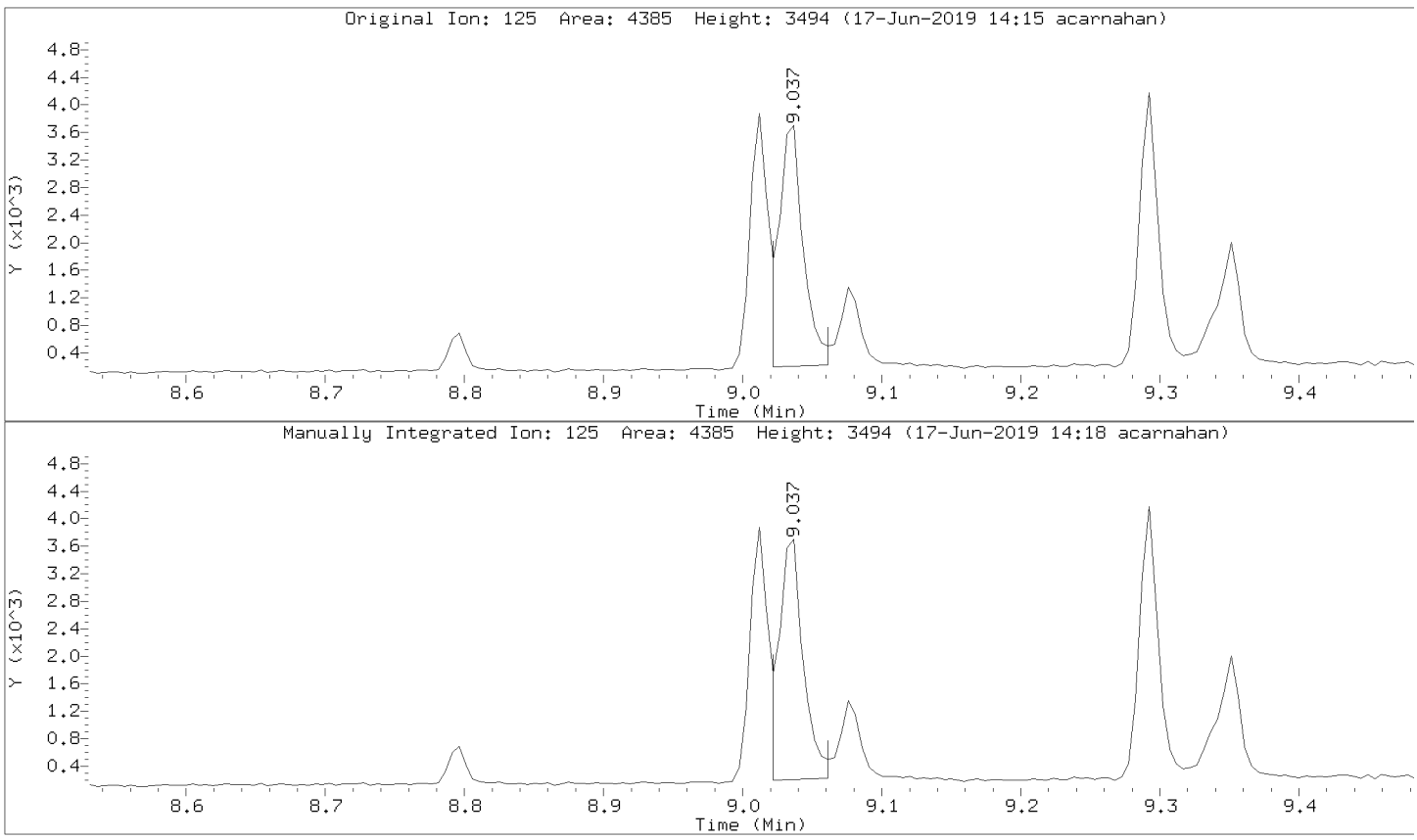


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

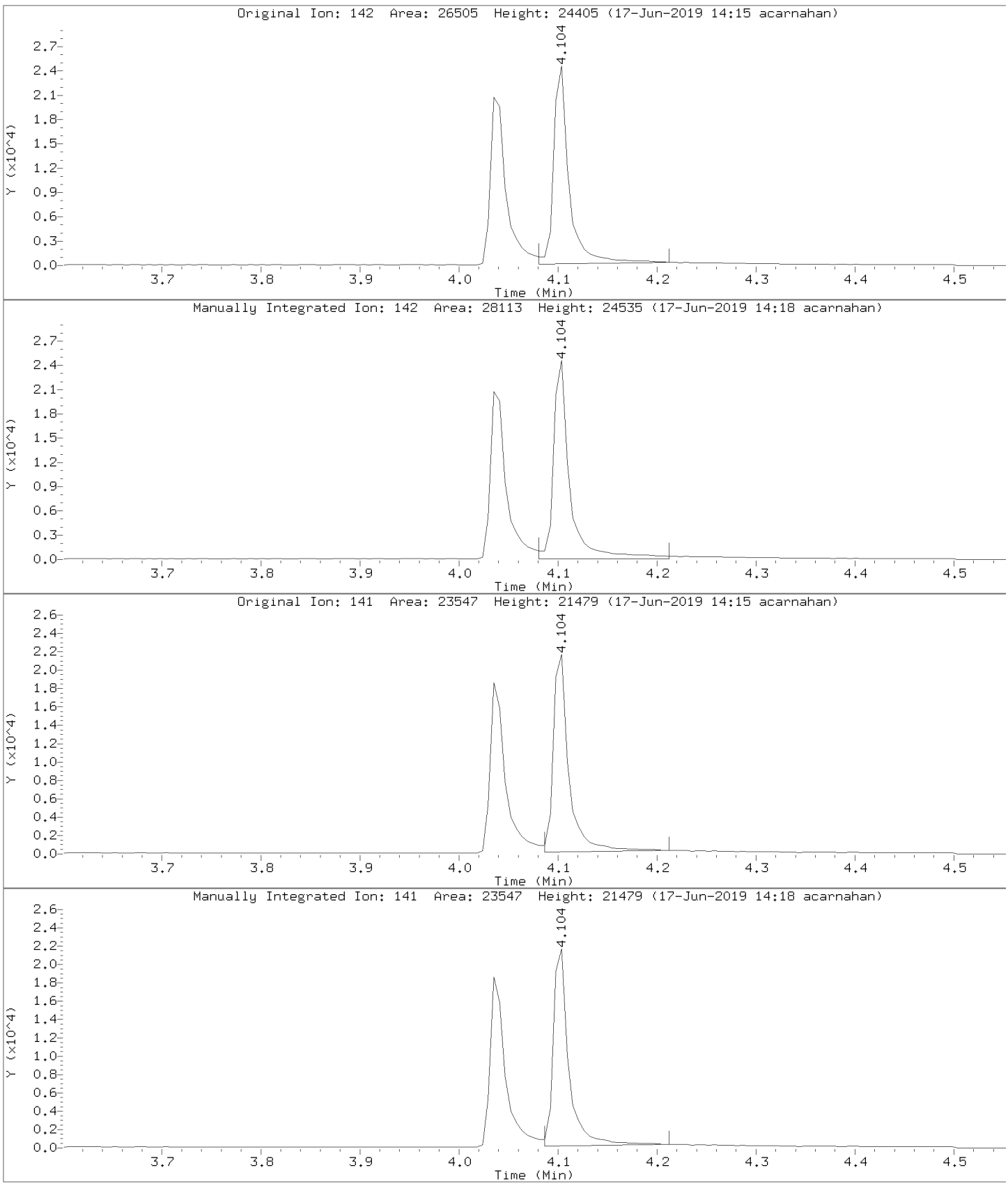


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z2.d
Injection Date: 17-JUN-2019 13:01
Instrument: 30mss2.i
Lab Sample ID: CAL2

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 17-JUN-2019 13:18
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal3, 89120:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:18 Cal File: m2061719z3.d
Als bottle: 96 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.578	3.584	(1.000)	696850	4.00000		
8 Naphthalene	128	3.595	3.595	(1.005)	83996	0.50000	0.514	
9 2-Methylnaphthalene	142	4.035	4.041	(1.128)	53961	0.50000	0.517	
10 1-Methylnaphthalene	142	4.103	4.103	(1.147)	63386	0.50000	0.536(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	72424	0.50000	0.537	
11 Acenaphthylene	152	4.619	4.619	(0.981)	82381	0.50000	0.520	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	391584	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	53969	0.50000	0.519	
13 Fluorene	166	5.075	5.075	(1.078)	63355	0.50000	0.524	
* 3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	710720	4.00000		
14 Phenanthrene	178	5.768	5.768	(1.003)	91875	0.50000	0.516(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	93992	0.50000	0.521	
16 Fluoranthene	202	6.742	6.742	(1.173)	103391	0.50000	0.512	
17 Pyrene	202	6.945	6.945	(1.208)	107150	0.50000	0.512	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	80191	0.50000	0.513	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	93220	0.50000	0.494	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	666129	4.00000		
19 Chrysene	228	8.074	8.077	(1.003)	101620	0.50000	0.512(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	93337	0.50000	0.508	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.968)	121479	0.50000	0.509(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	89582	0.50000	0.505	
* 5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	714585	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	96249	0.50000	0.499	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	116937	0.50000	0.499	
25 Benzo[g,h,i]perylene	276	10.397	10.402	(1.114)	98013	0.50000	0.501	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

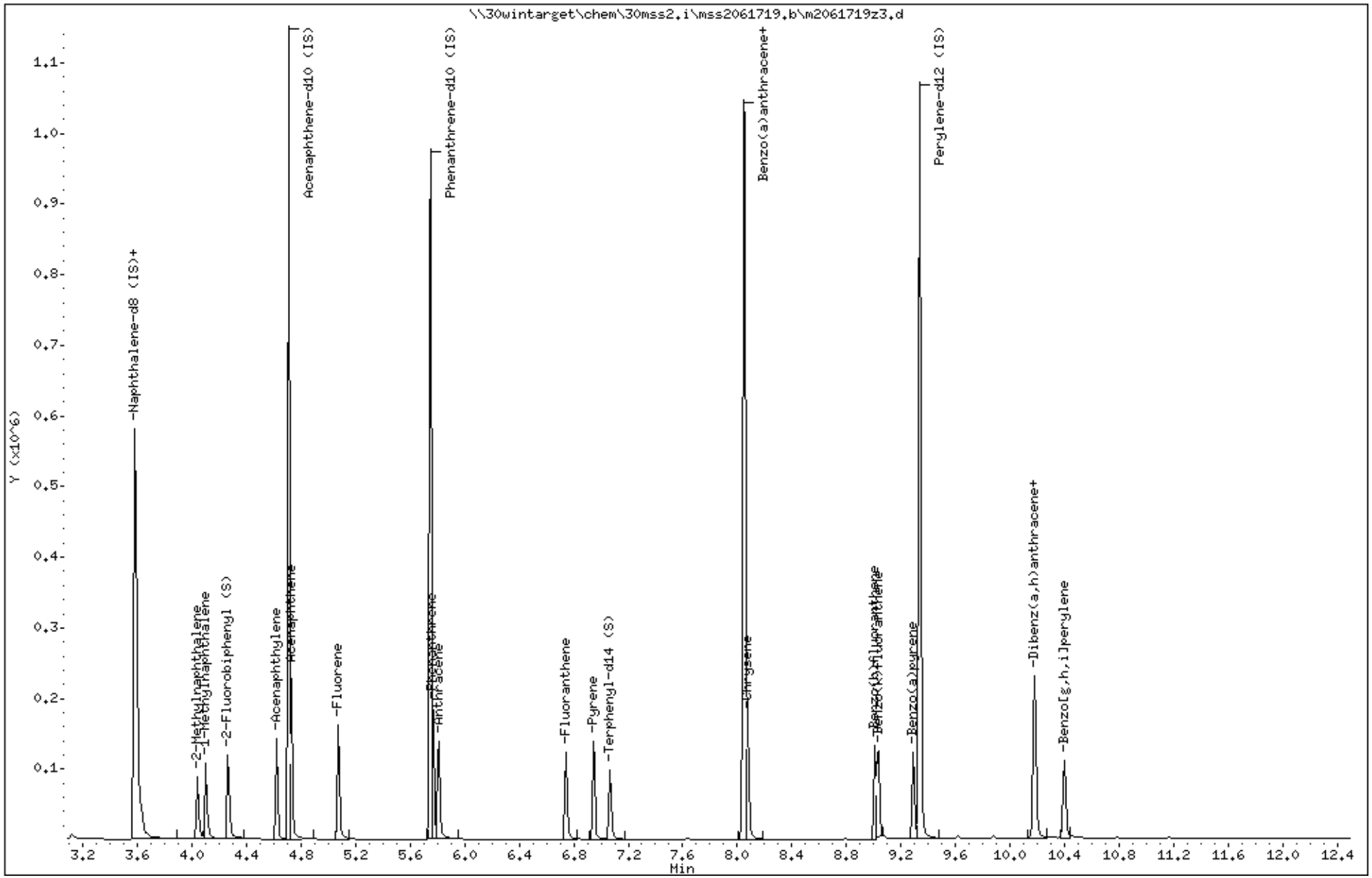
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

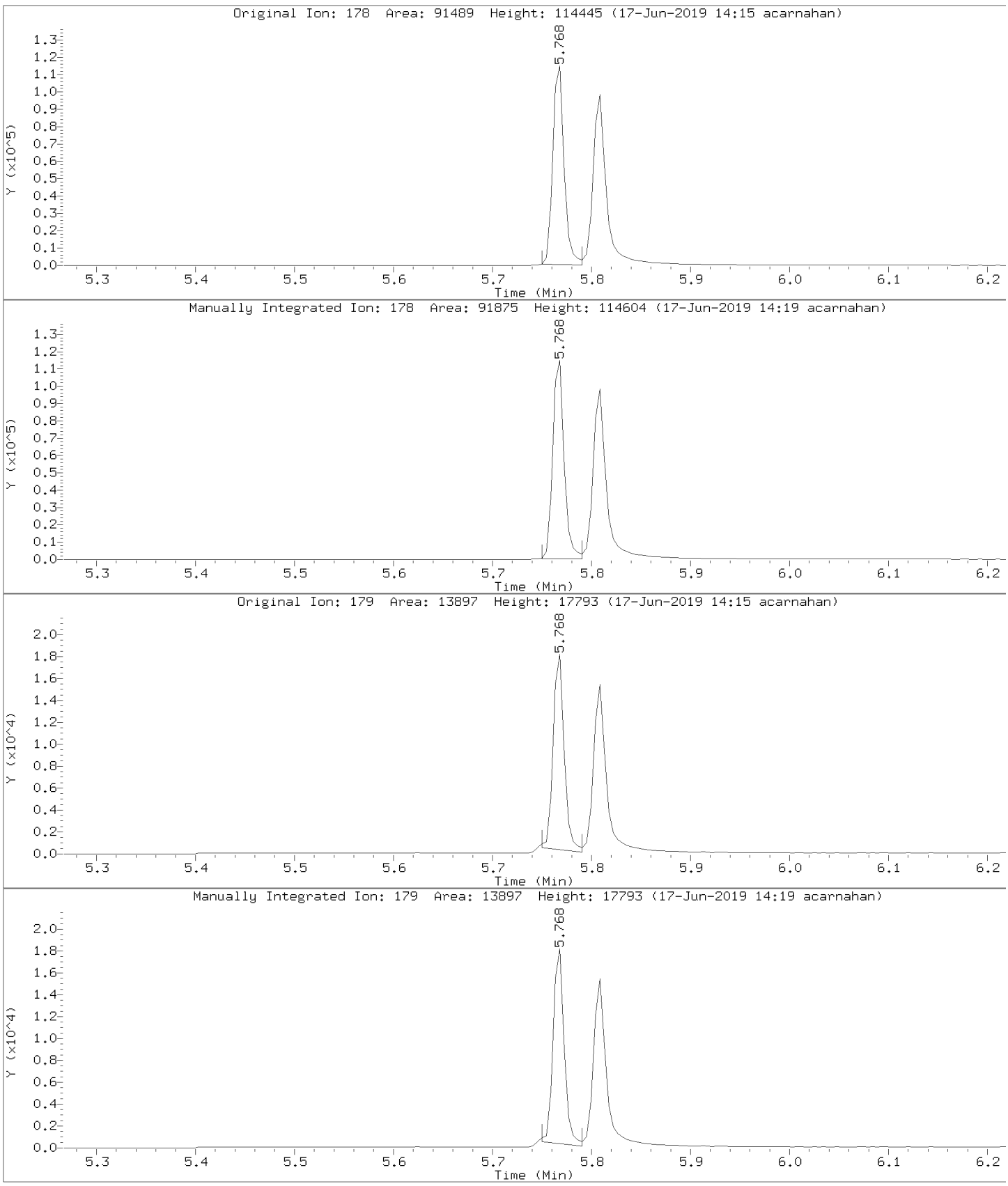
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	0.514	
91-57-6	2-Methylnaphthalene	0.517	
90-12-0	1-Methylnaphthalene	0.536	
208-96-8	Acenaphthylene	0.520	
83-32-9	Acenaphthene	0.519	
86-73-7	Fluorene	0.524	
85-01-8	Phenanthrene	0.516	
120-12-7	Anthracene	0.521	
206-44-0	Fluoranthene	0.512	
129-00-0	Pyrene	0.512	
56-55-3	Benzo(a)anthracene	0.494	
218-01-9	Chrysene	0.512	
205-99-2	Benzo(b)fluoranthene	0.508	
207-08-9	Benzo(k)fluoranthene	0.509	
50-32-8	Benzo(a)pyrene	0.505	
53-70-3	Dibenz(a,h)anthracene	0.499	
193-39-5	Indeno(1,2,3-cd)pyrene	0.499	
191-24-2	Benzo[g,h,i]perylene	0.501	
321-60-8	2-Fluorobiphenyl (S)	0.537	
1718-51-0	Terphenyl-d14 (S)	0.513	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z3.d
Date : 17-JUN-2019 13:18
Client ID: CAL3
Instrument: 30mss2.i
Sample Info: CAL3, 89120:1
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

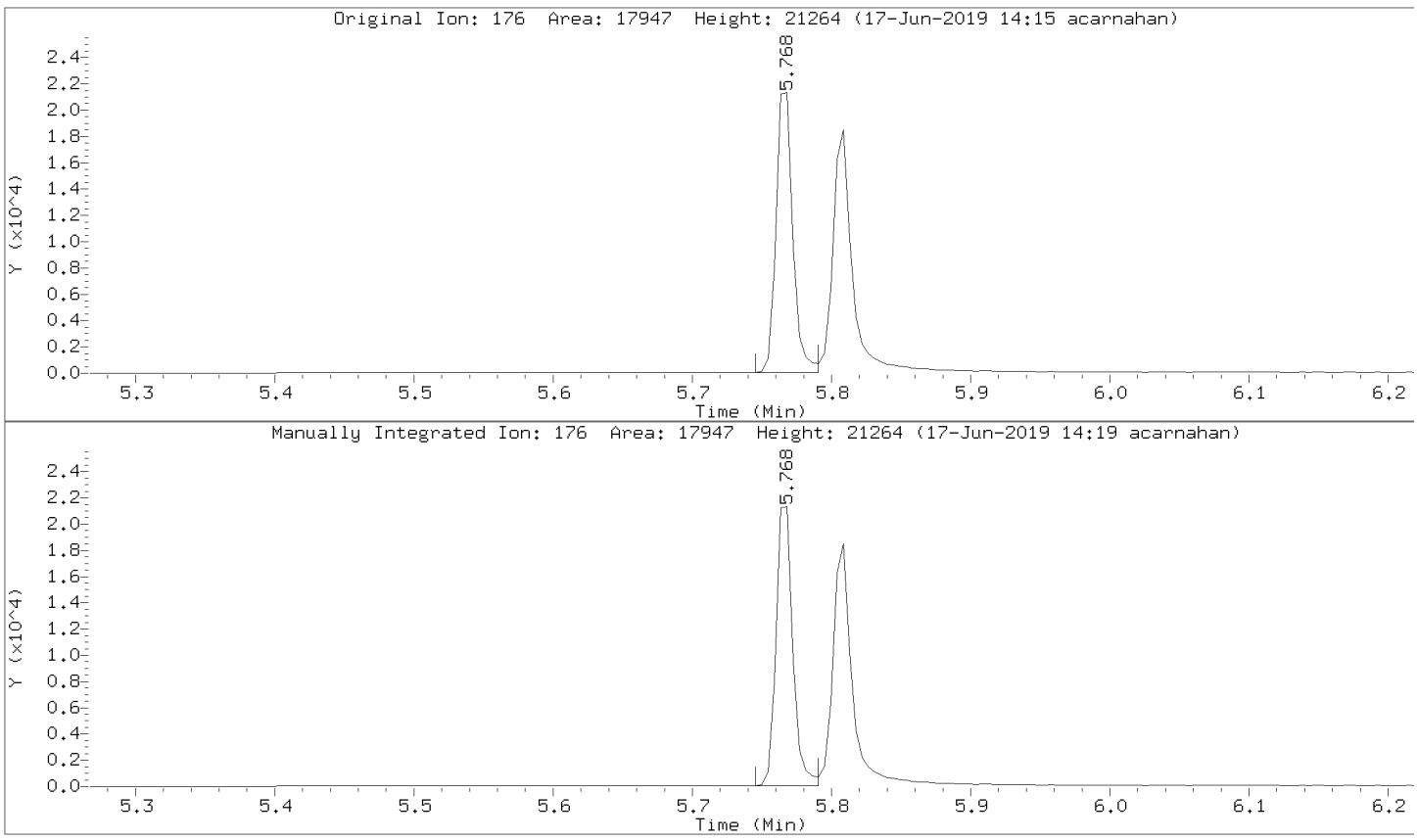


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

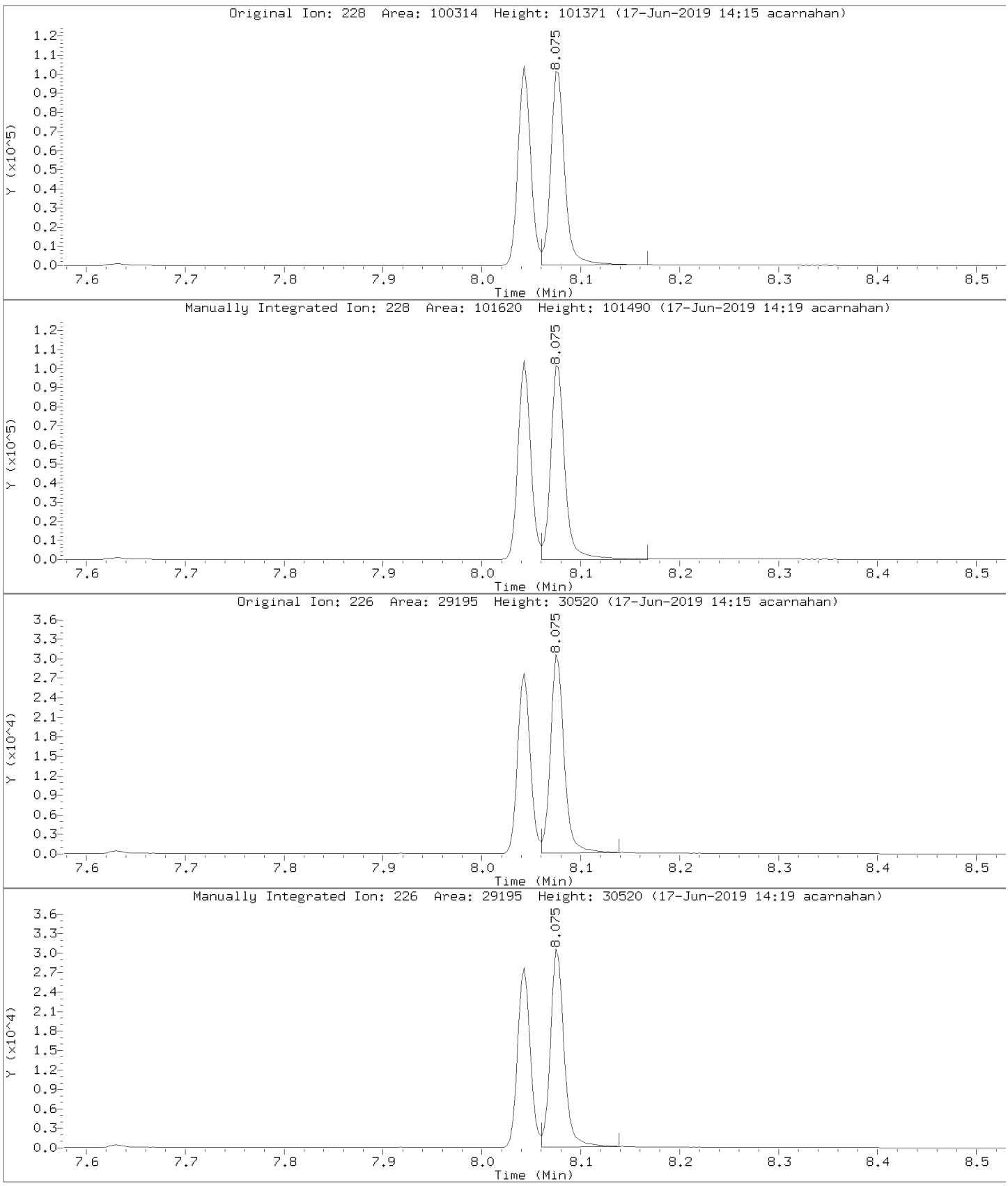


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

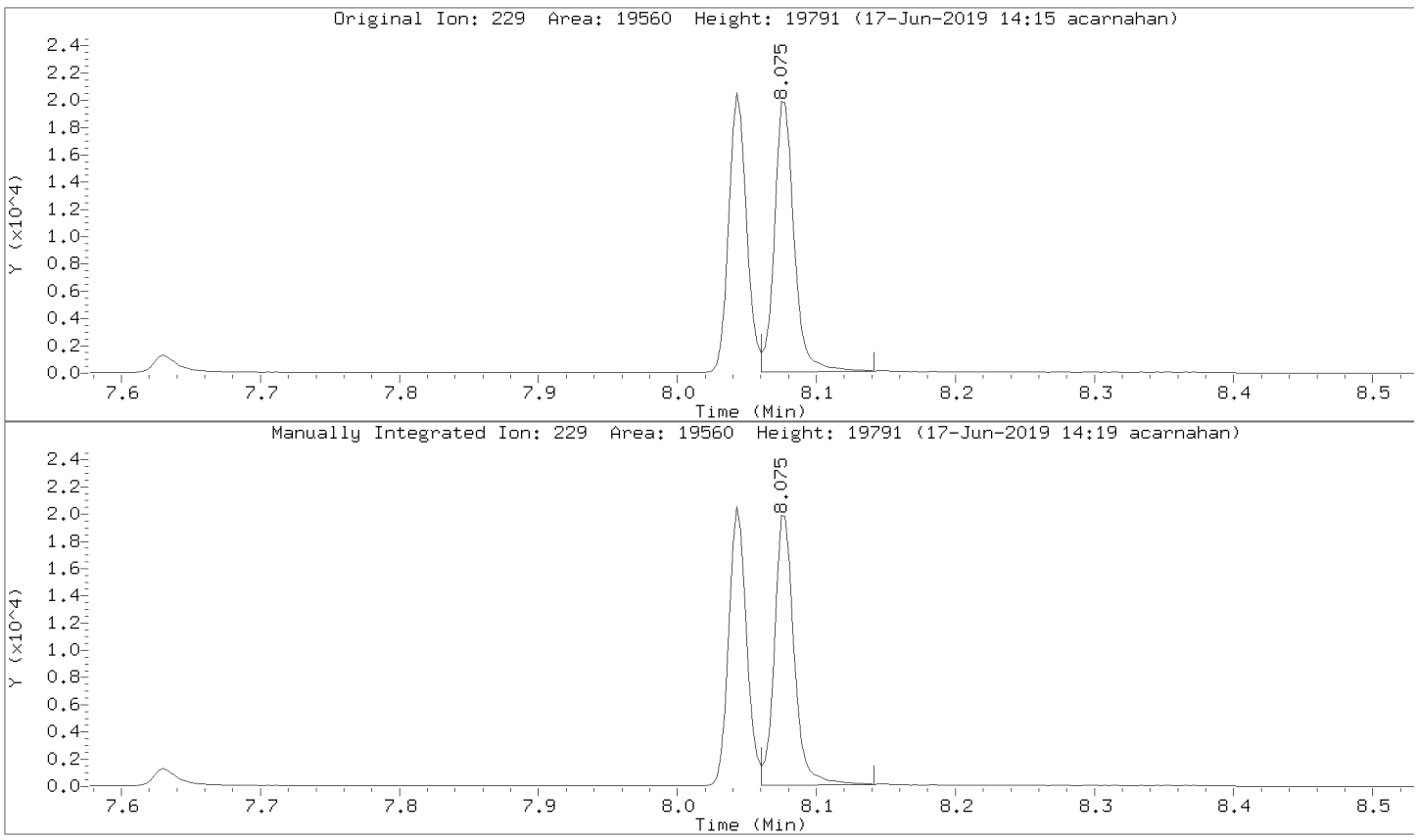


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

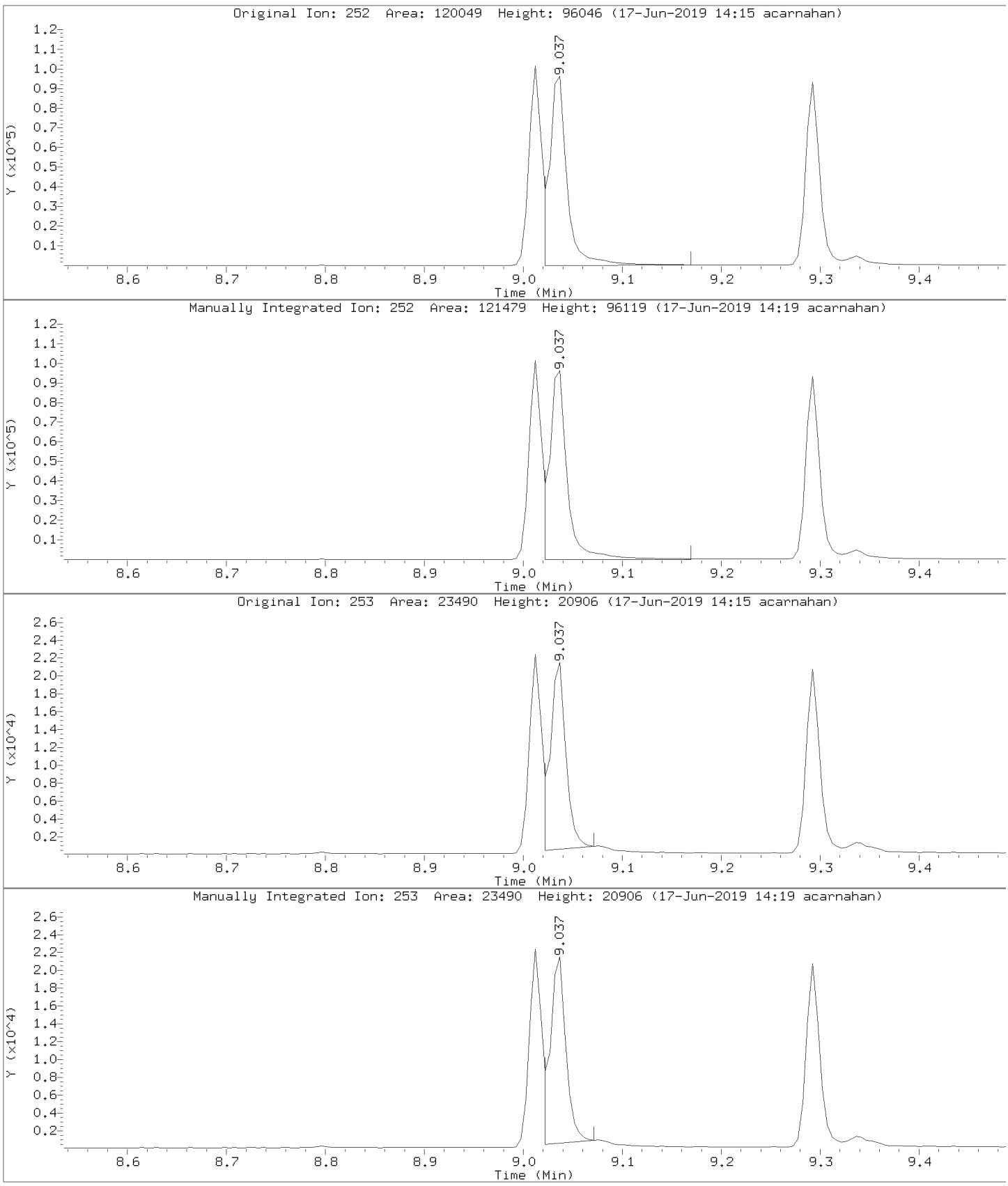


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

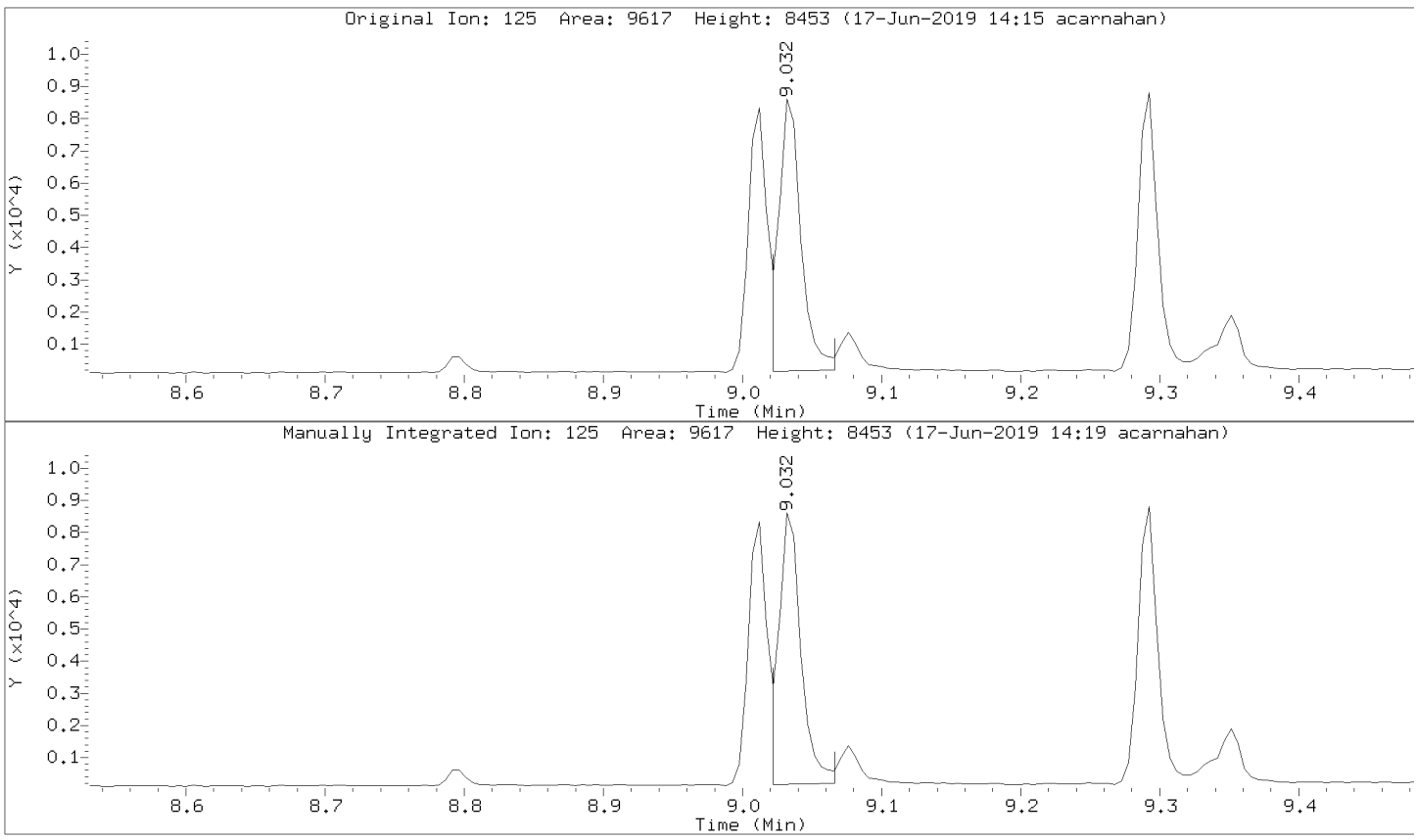


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

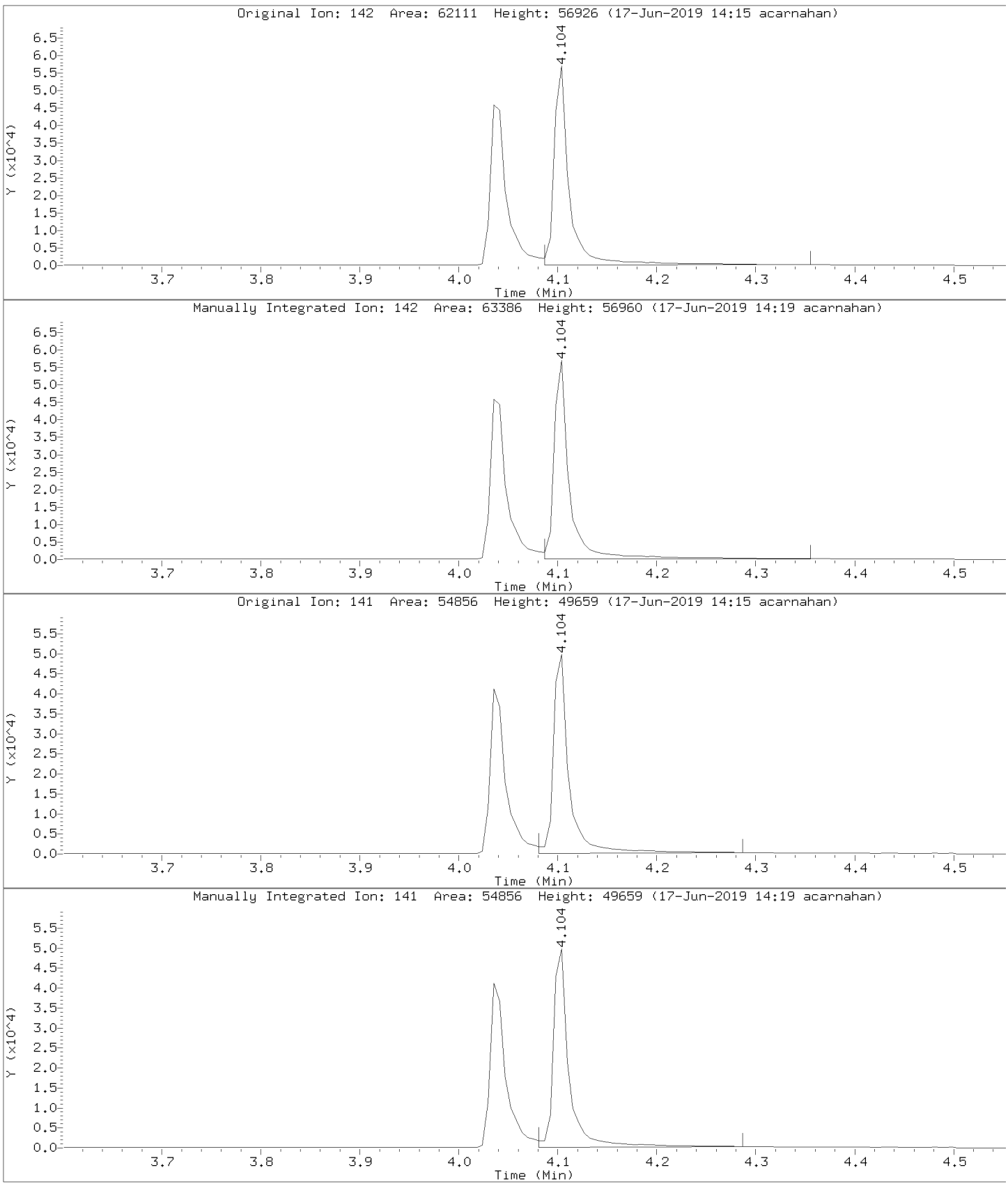


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z3.d
Injection Date: 17-JUN-2019 13:18
Instrument: 30mss2.i
Lab Sample ID: CAL3

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 17-JUN-2019 13:36
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal4, 89121:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:36 Cal File: m2061719z4.d
Als bottle: 97 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
27 Quinoline	100	Compound Not Detected.						
* 1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	714427	4.00000		
8 Naphthalene	128	3.595	3.595	(1.003)	339612	2.00000	2.00	
9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	234251	2.00000	2.00	
10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	238685	2.00000	2.00(M)	BA
$ 6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	288982	2.00000	2.00	
11 Acenaphthylene	152	4.619	4.619	(0.981)	336030	2.00000	2.00	
* 2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	396176	4.00000		
12 Acenaphthene	153	4.728	4.728	(1.004)	211395	2.00000	2.00	
13 Fluorene	166	5.072	5.075	(1.077)	253906	2.00000	2.00	
* 3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	704632	4.00000		
14 Phenanthrene	178	5.767	5.768	(1.003)	358937	2.00000	2.00(M)	BA
15 Anthracene	178	5.808	5.808	(1.010)	376643	2.00000	2.00	
16 Fluoranthene	202	6.742	6.742	(1.173)	420702	2.00000	2.00	
17 Pyrene	202	6.945	6.945	(1.208)	430243	2.00000	2.00	
$ 7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	319268	2.00000	2.00	
18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	370572	2.00000	2.00	
* 4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	649506	4.00000		
19 Chrysene	228	8.077	8.077	(1.003)	379165	2.00000	2.00(M)	BA
20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	391201	2.00000	2.00	
21 Benzo(k)fluoranthene	252	9.036	9.037	(0.967)	460714	2.00000	2.00(M)	BA
22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	379006	2.00000	2.00	
* 5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	705131	4.00000		
23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	393328	2.00000	2.00	
24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.089)	474427	2.00000	2.00	
25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	393564	2.00000	2.00	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

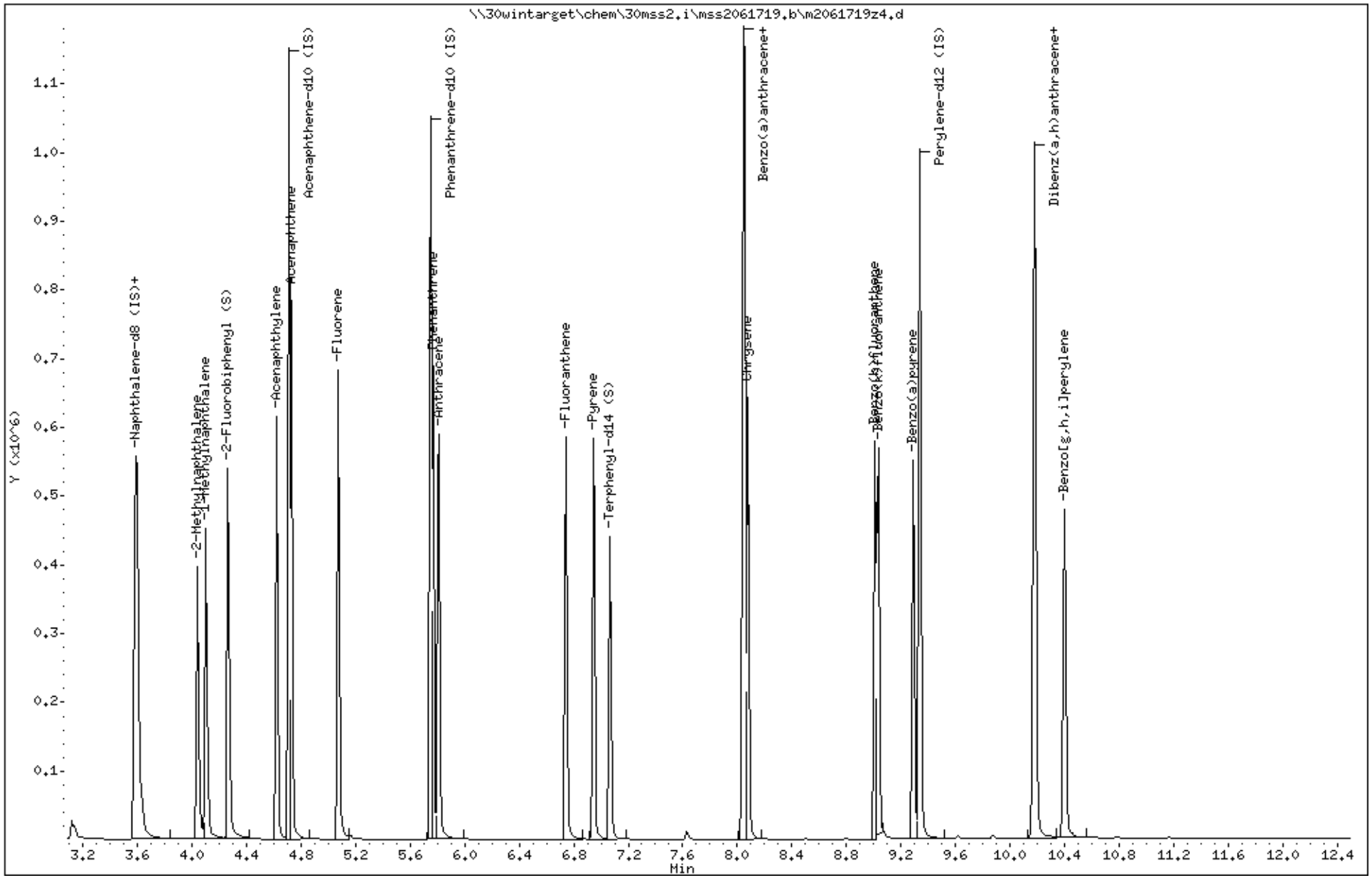
Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	2.00	
91-57-6	2-Methylnaphthalene	2.00	
90-12-0	1-Methylnaphthalene	2.00	
208-96-8	Acenaphthylene	2.00	
83-32-9	Acenaphthene	2.00	
86-73-7	Fluorene	2.00	
85-01-8	Phenanthrene	2.00	
120-12-7	Anthracene	2.00	
206-44-0	Fluoranthene	2.00	
129-00-0	Pyrene	2.00	
56-55-3	Benzo(a)anthracene	2.00	
218-01-9	Chrysene	2.00	
205-99-2	Benzo(b)fluoranthene	2.00	
207-08-9	Benzo(k)fluoranthene	2.00	
50-32-8	Benzo(a)pyrene	2.00	
53-70-3	Dibenz(a,h)anthracene	2.00	
193-39-5	Indeno(1,2,3-cd)pyrene	2.00	
191-24-2	Benzo[g,h,i]perylene	2.00	
321-60-8	2-Fluorobiphenyl (S)	2.00	
1718-51-0	Terphenyl-d14 (S)	2.00	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z4.d
Date : 17-JUN-2019 13:36
Client ID: CAL4
Sample Info: CAL4, 89121:1

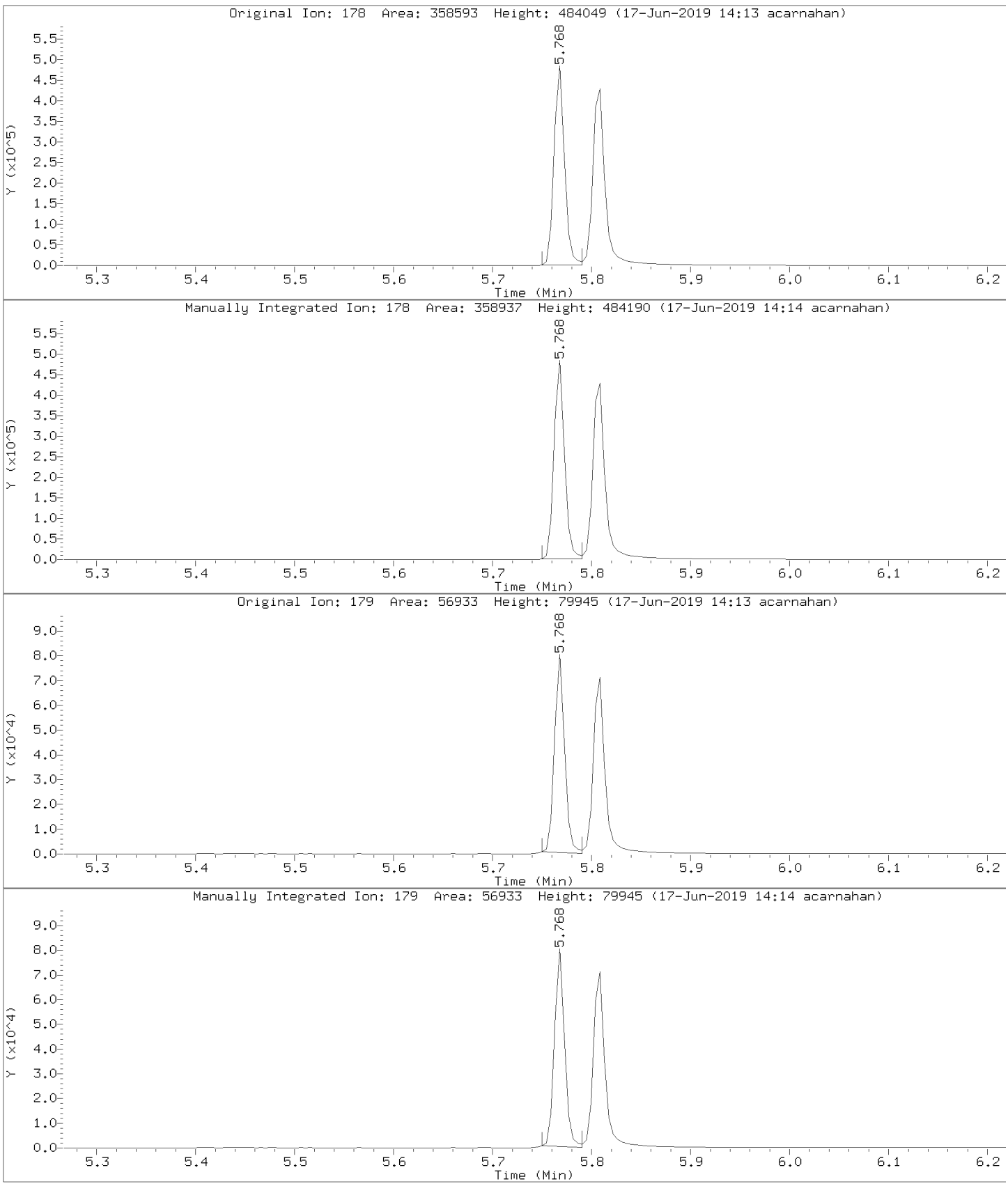
Instrument: 30mss2.i
Operator: AJC
Column diameter: 0.25

Column phase: RTX-5MS

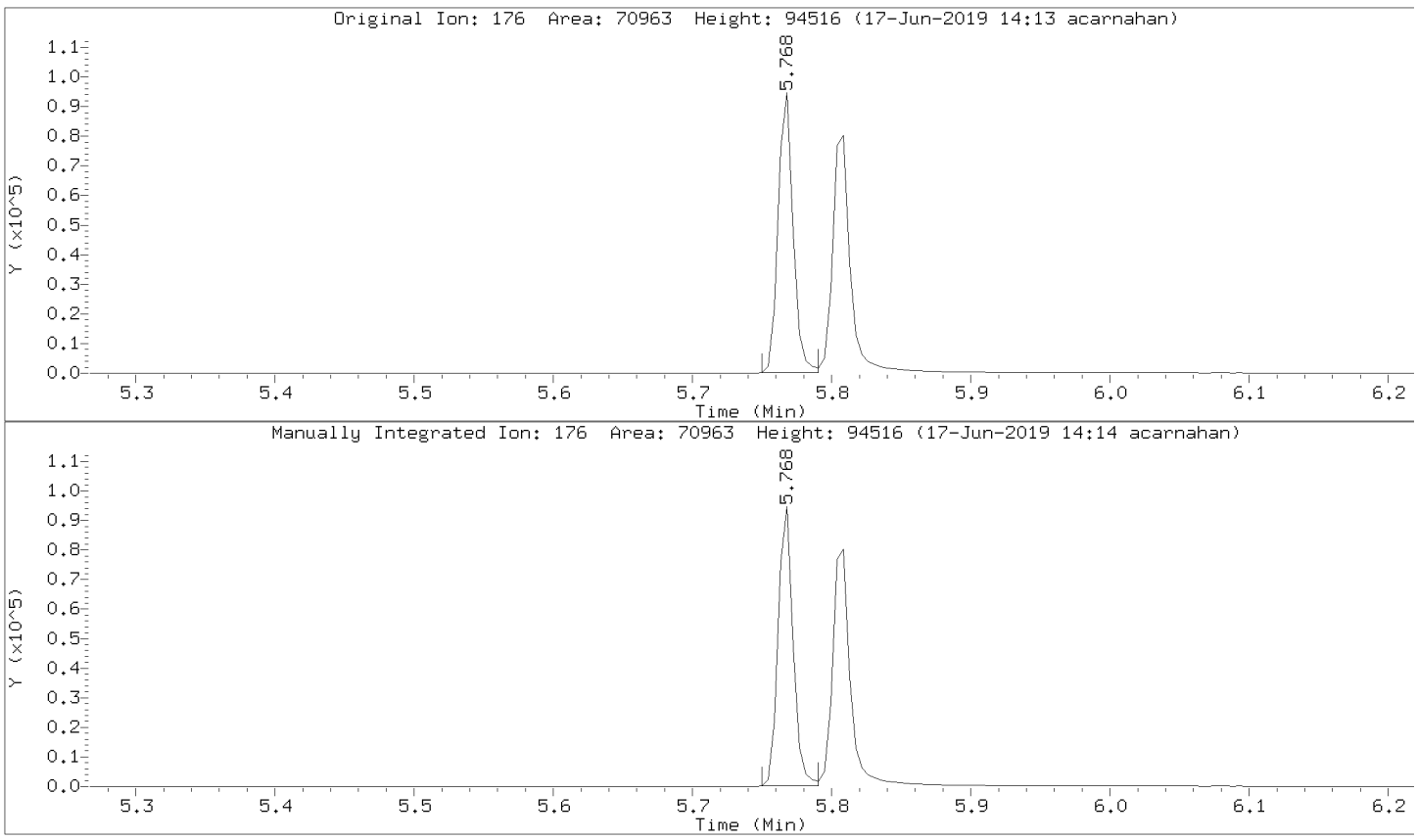


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

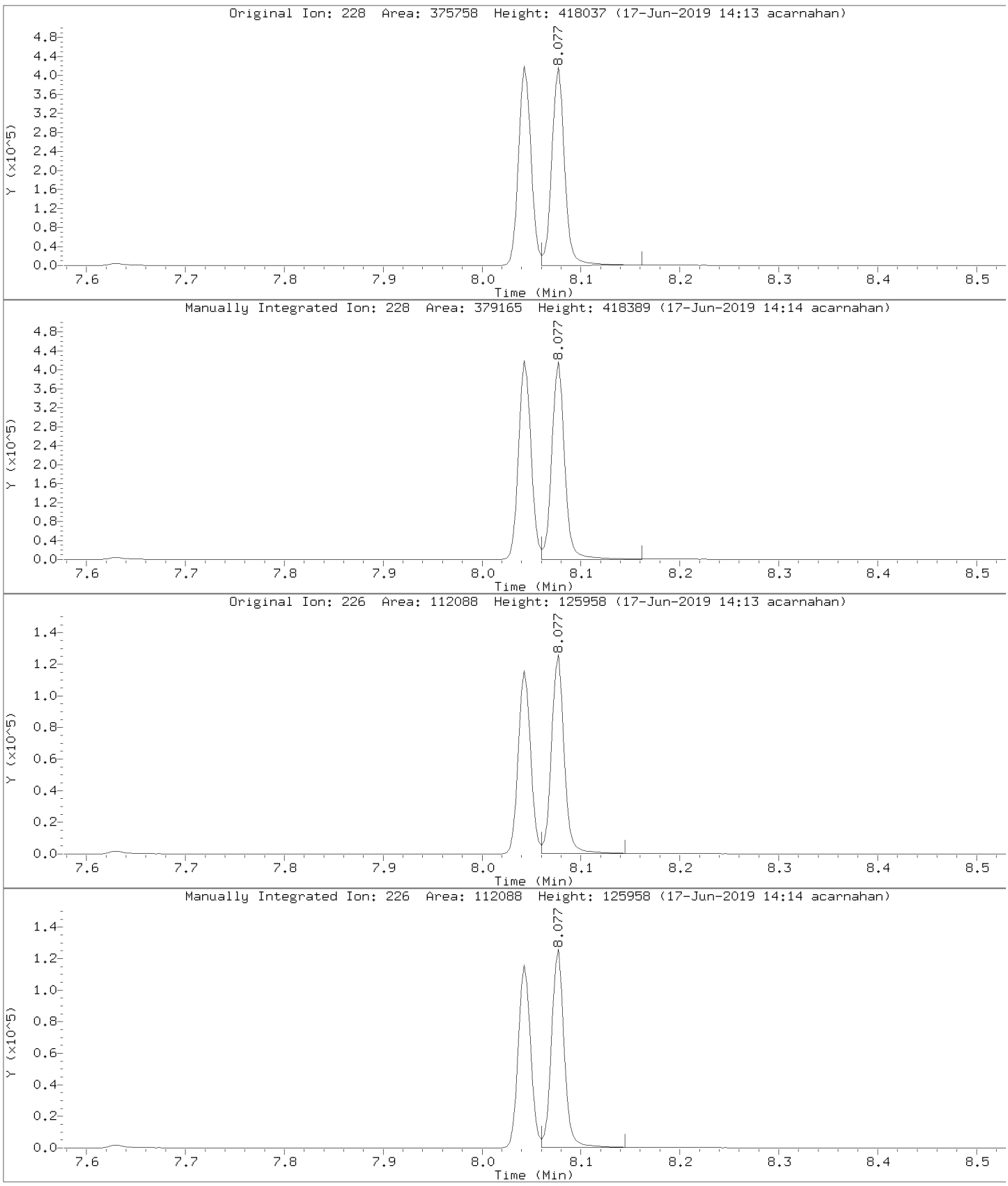


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

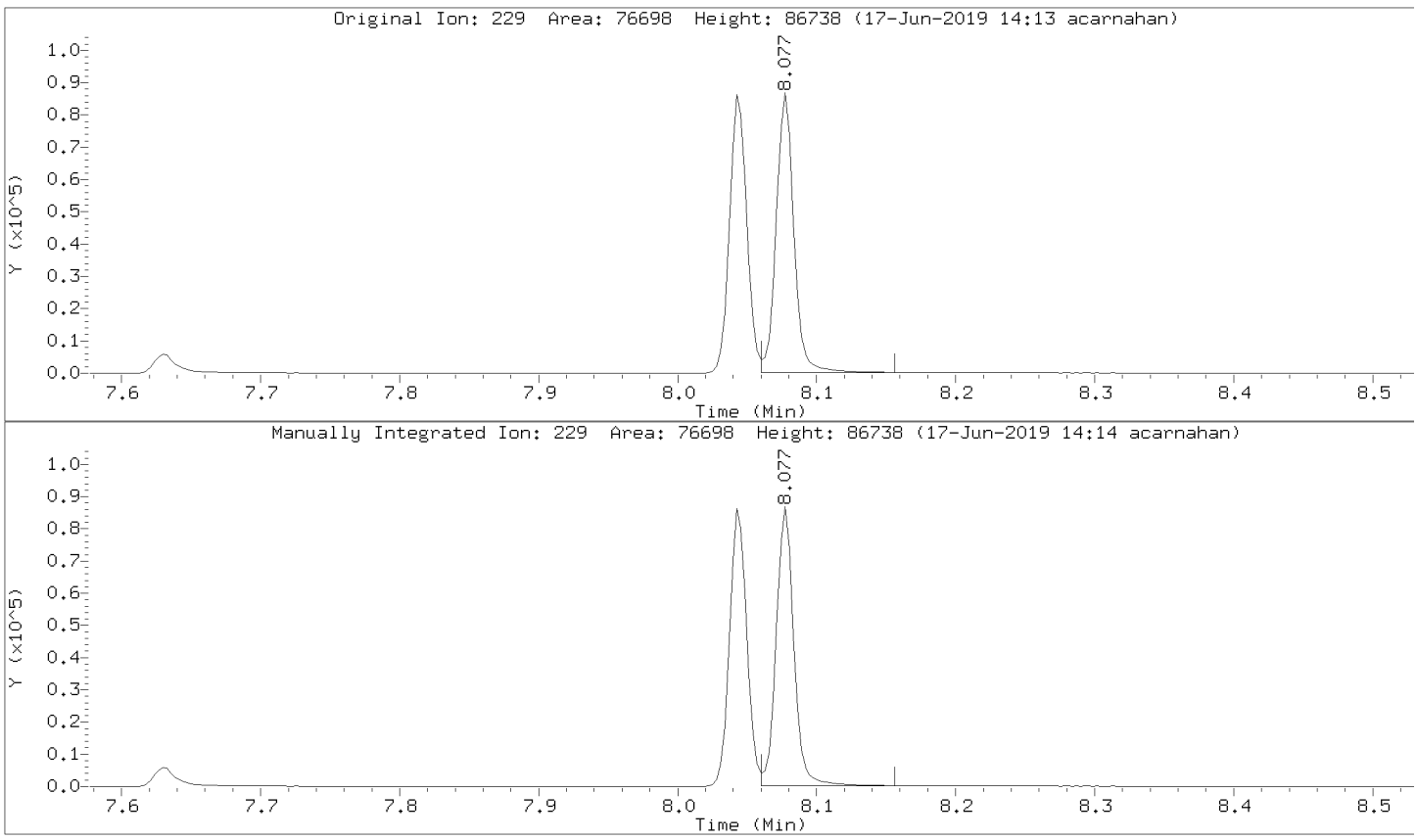


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

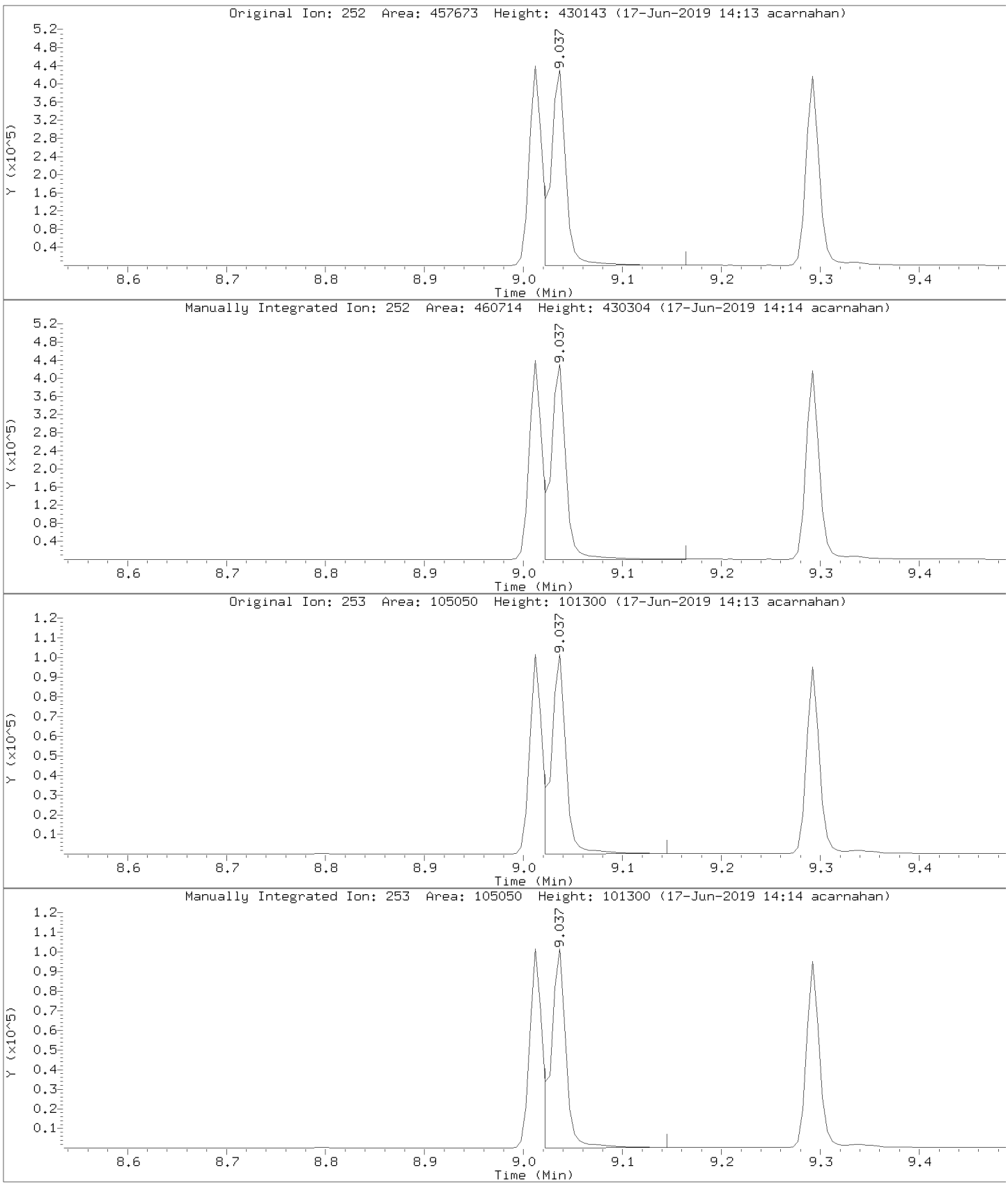


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

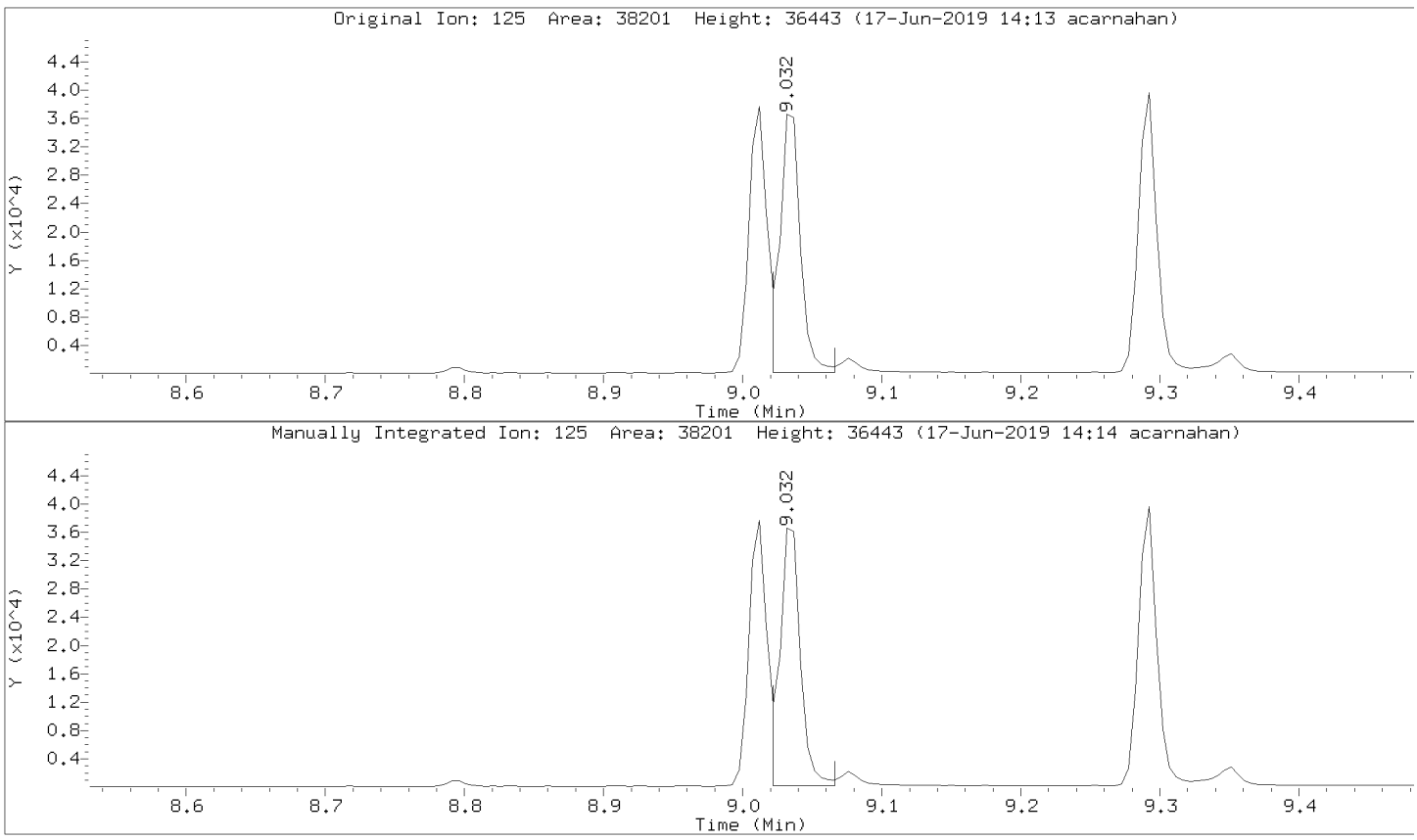


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

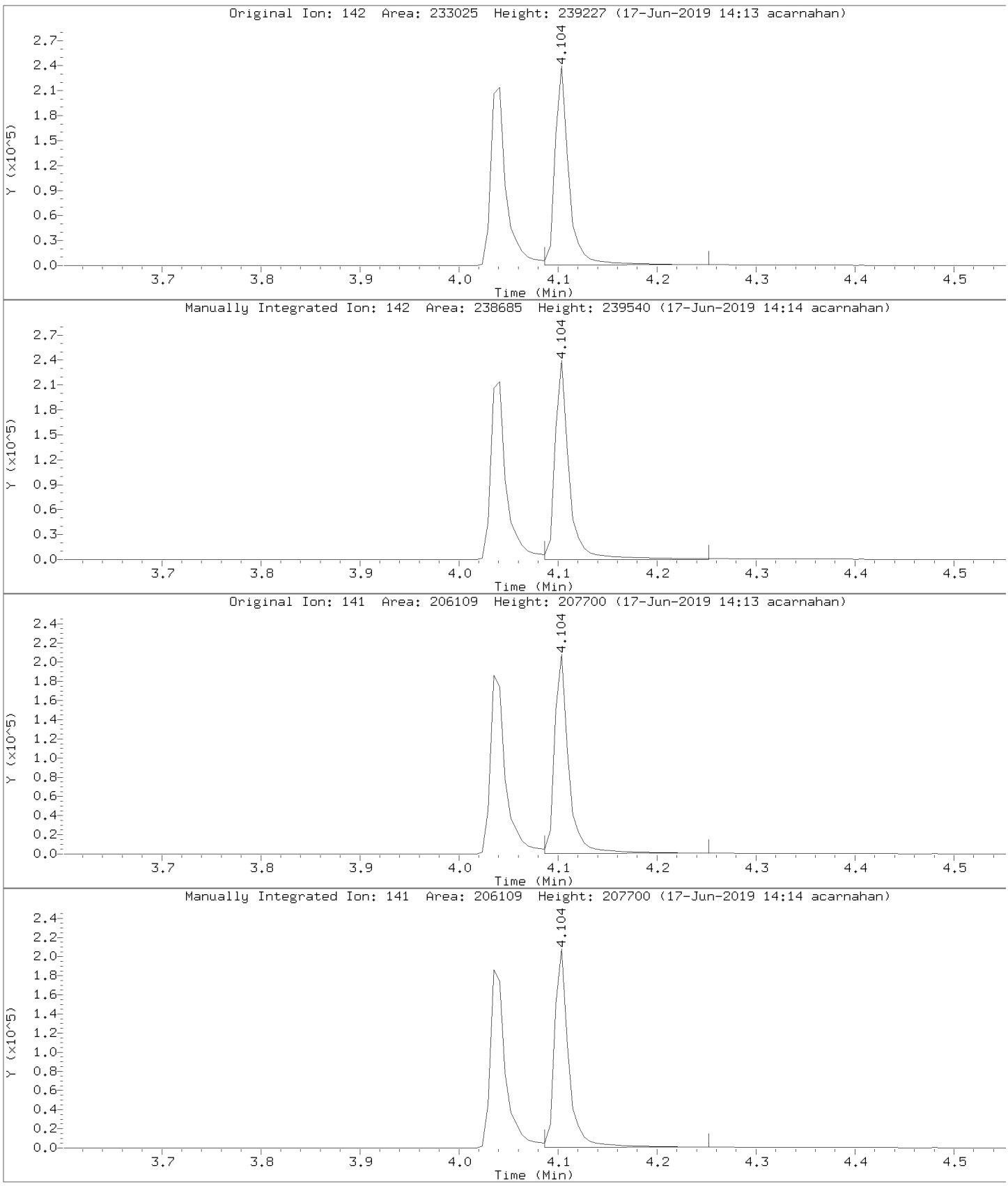


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z4.d
Injection Date: 17-JUN-2019 13:36
Instrument: 30mss2.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 17-JUN-2019 13:54
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal5, 89122:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 13:54 Cal File: m2061719z5.d
Als bottle: 98 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	818407	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.003)	937509	5.00000	5.08	
	9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	669817	5.00000	5.46	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	646947	5.00000	4.92(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	785082	5.00000	5.16	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	933922	5.00000	5.20	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	455542	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	591201	5.00000	5.04	
	13 Fluorene	166	5.075	5.075	(1.078)	719066	5.00000	5.23	
*	3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	827312	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	1015809	5.00000	5.09(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	1058358	5.00000	5.20	
	16 Fluoranthene	202	6.742	6.742	(1.173)	1202021	5.00000	5.26	
	17 Pyrene	202	6.950	6.945	(1.209)	1214128	5.00000	5.17	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	907889	5.00000	5.17	
	18 Benzo(a)anthracene	228	8.045	8.042	(0.999)	1111827	5.00000	5.15	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	789090	4.00000		
	19 Chrysene	228	8.080	8.077	(1.003)	1079172	5.00000	4.88(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	1240647	5.00000	5.70	
	21 Benzo(k)fluoranthene	252	9.037	9.037	(0.967)	1218460	5.00000	4.66(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	1114559	5.00000	5.37	
*	5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	834161	4.00000		
	23 Dibenz(a,h)anthracene	278	10.186	10.181	(1.090)	1137424	5.00000	5.07	
	24 Indeno(1,2,3-cd)pyrene	276	10.181	10.176	(1.090)	1365851	5.00000	5.04	
	25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	1113977	5.00000	4.99	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

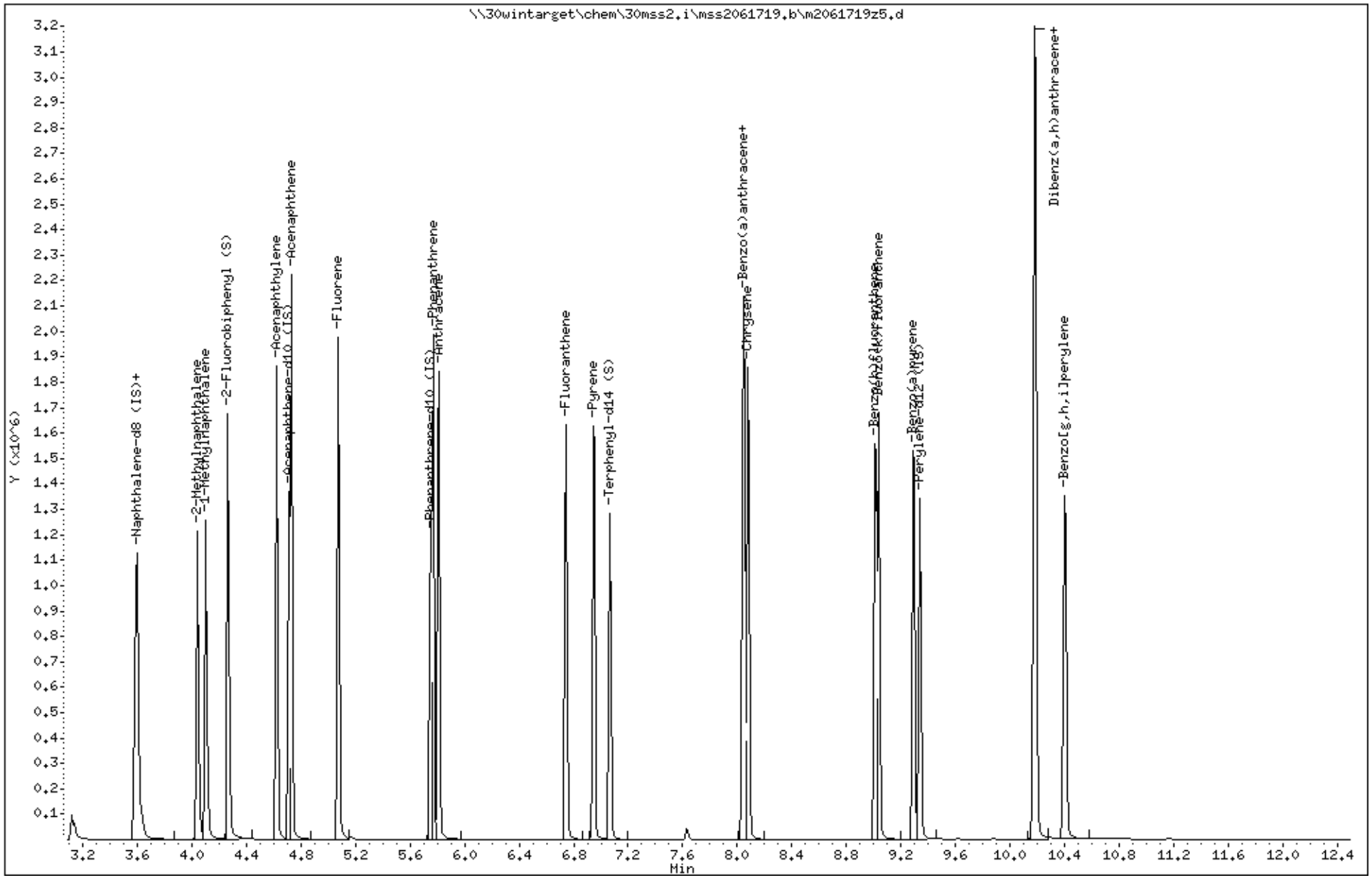
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	5.08	
91-57-6	2-Methylnaphthalene	5.46	
90-12-0	1-Methylnaphthalene	4.92	
208-96-8	Acenaphthylene	5.20	
83-32-9	Acenaphthene	5.04	
86-73-7	Fluorene	5.23	
85-01-8	Phenanthrene	5.09	
120-12-7	Anthracene	5.20	
206-44-0	Fluoranthene	5.26	
129-00-0	Pyrene	5.17	
56-55-3	Benzo(a)anthracene	5.15	
218-01-9	Chrysene	4.88	
205-99-2	Benzo(b)fluoranthene	5.70	
207-08-9	Benzo(k)fluoranthene	4.66	
50-32-8	Benzo(a)pyrene	5.37	
53-70-3	Dibenz(a,h)anthracene	5.07	
193-39-5	Indeno(1,2,3-cd)pyrene	5.04	
191-24-2	Benzo[g,h,i]perylene	4.99	
321-60-8	2-Fluorobiphenyl (S)	5.16	
1718-51-0	Terphenyl-d14 (S)	5.17	

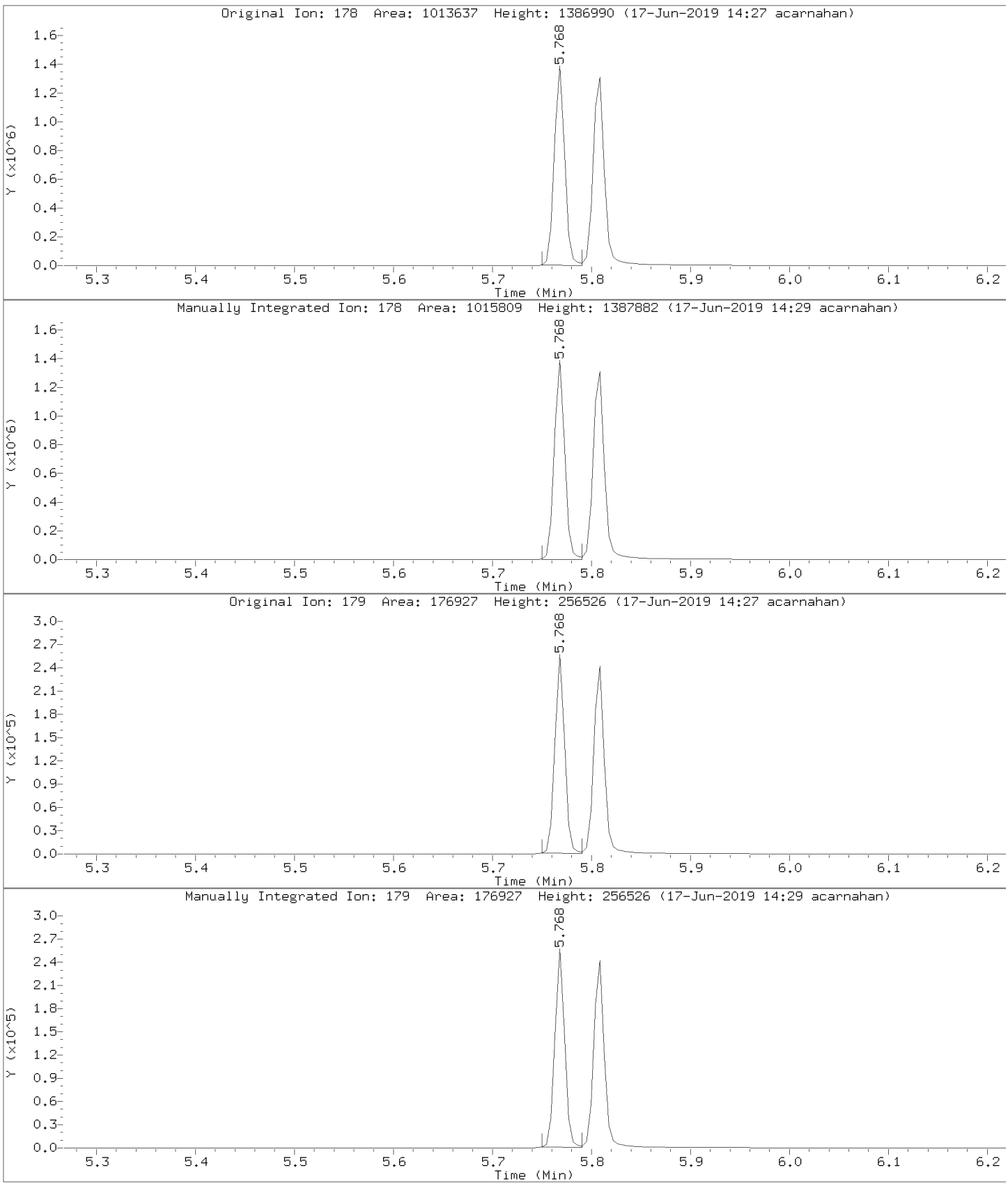
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z5.d
Date : 17-JUN-2019 13:54
Client ID: CAL5
Sample Info: CAL5, 89122:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

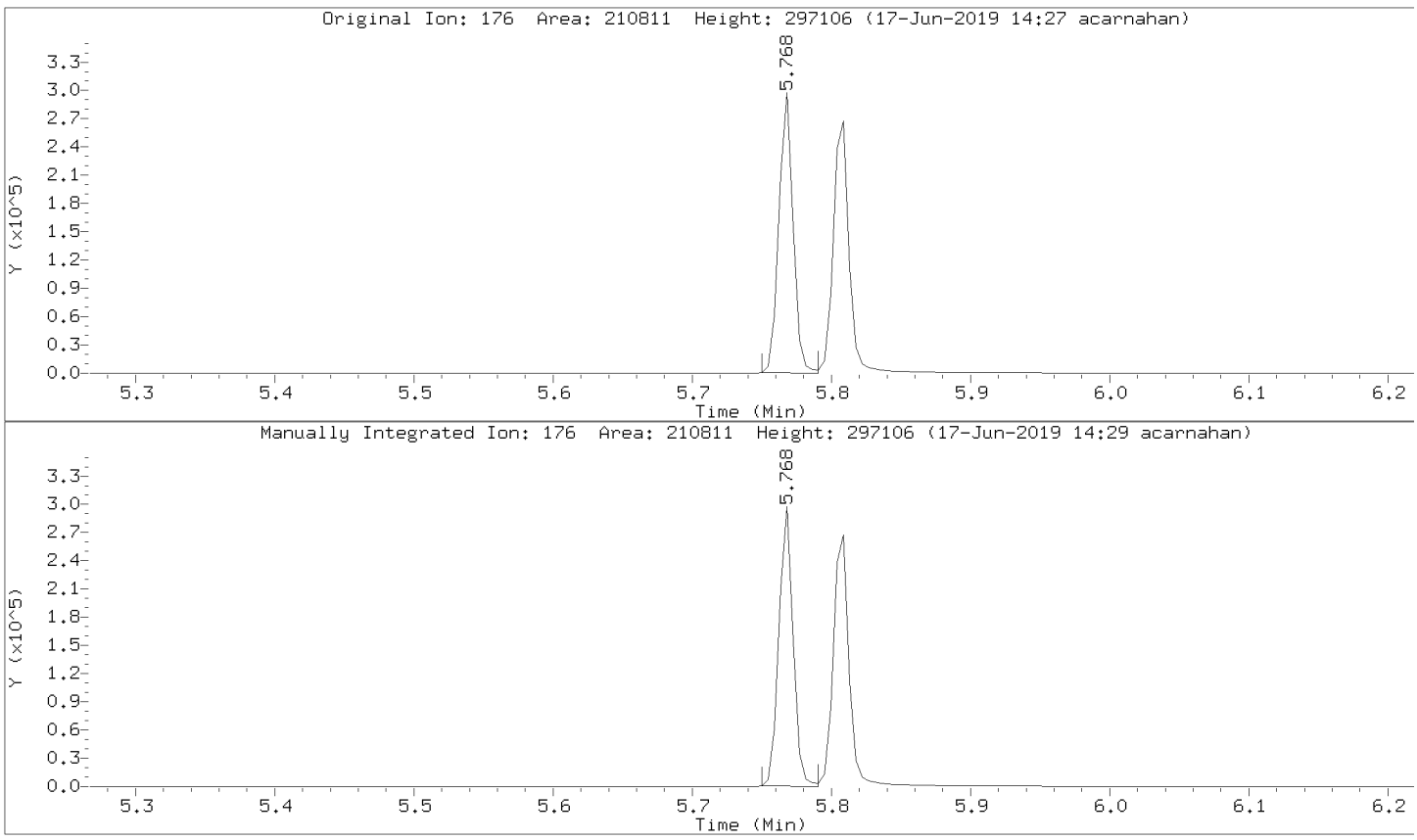


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

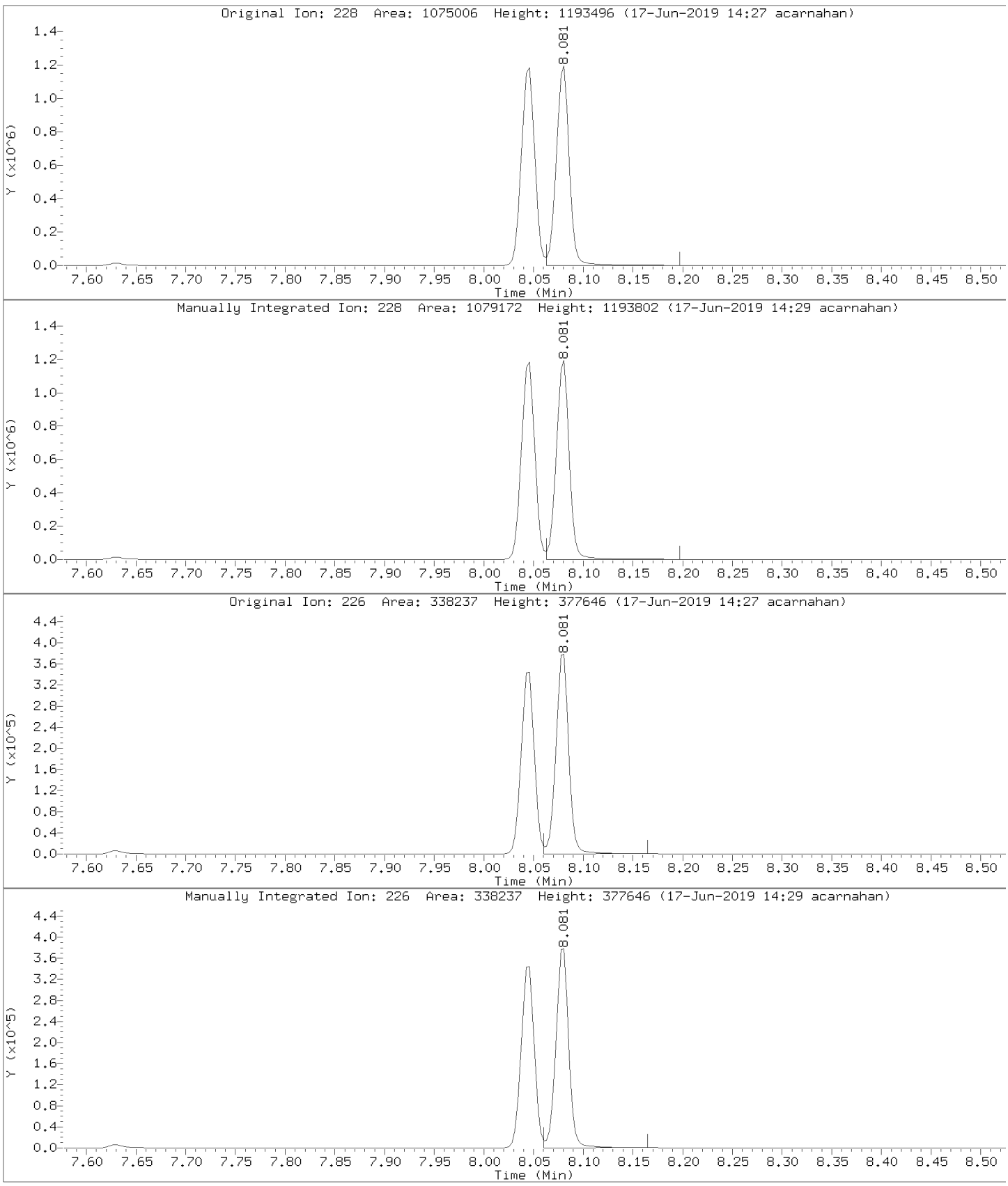


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

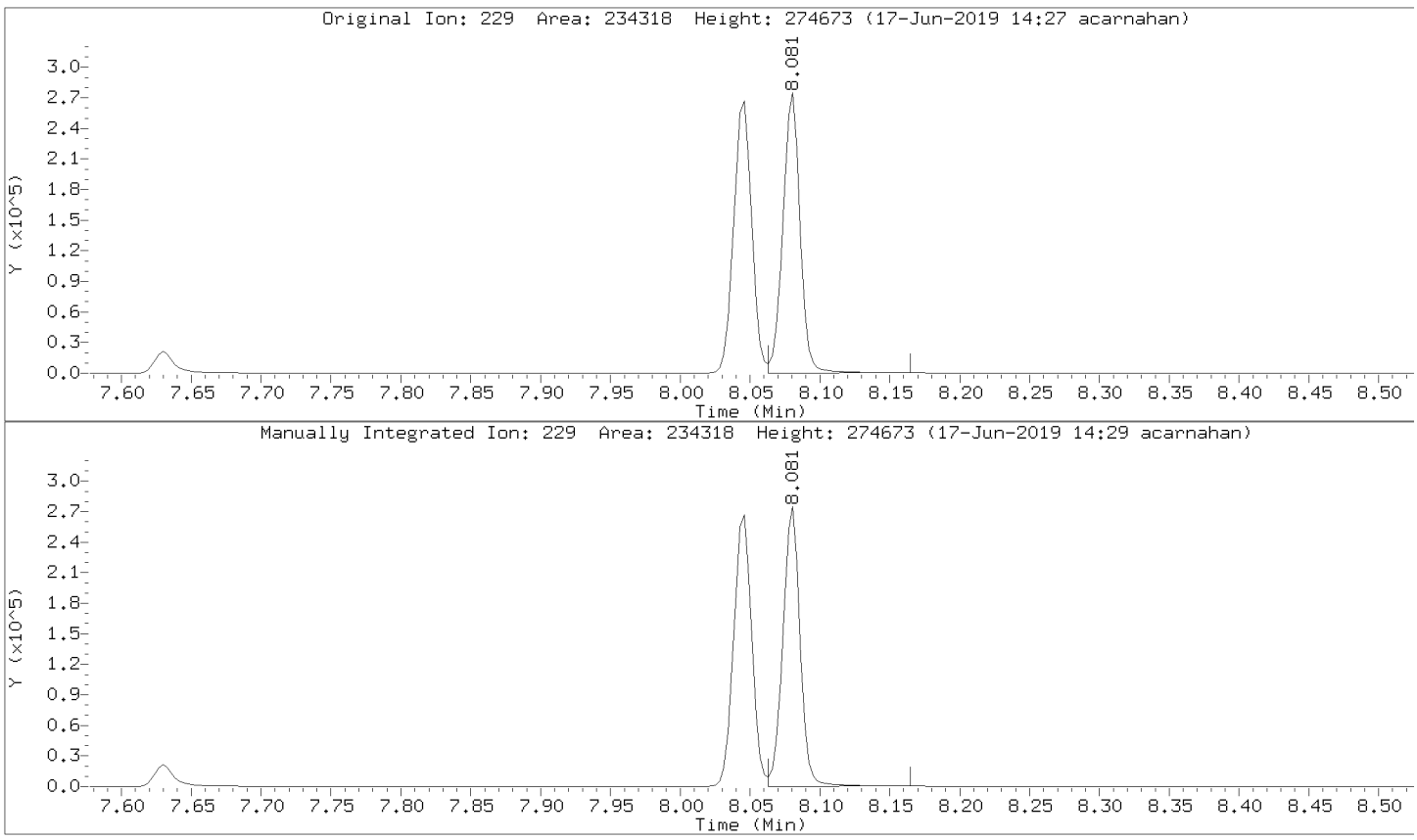


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

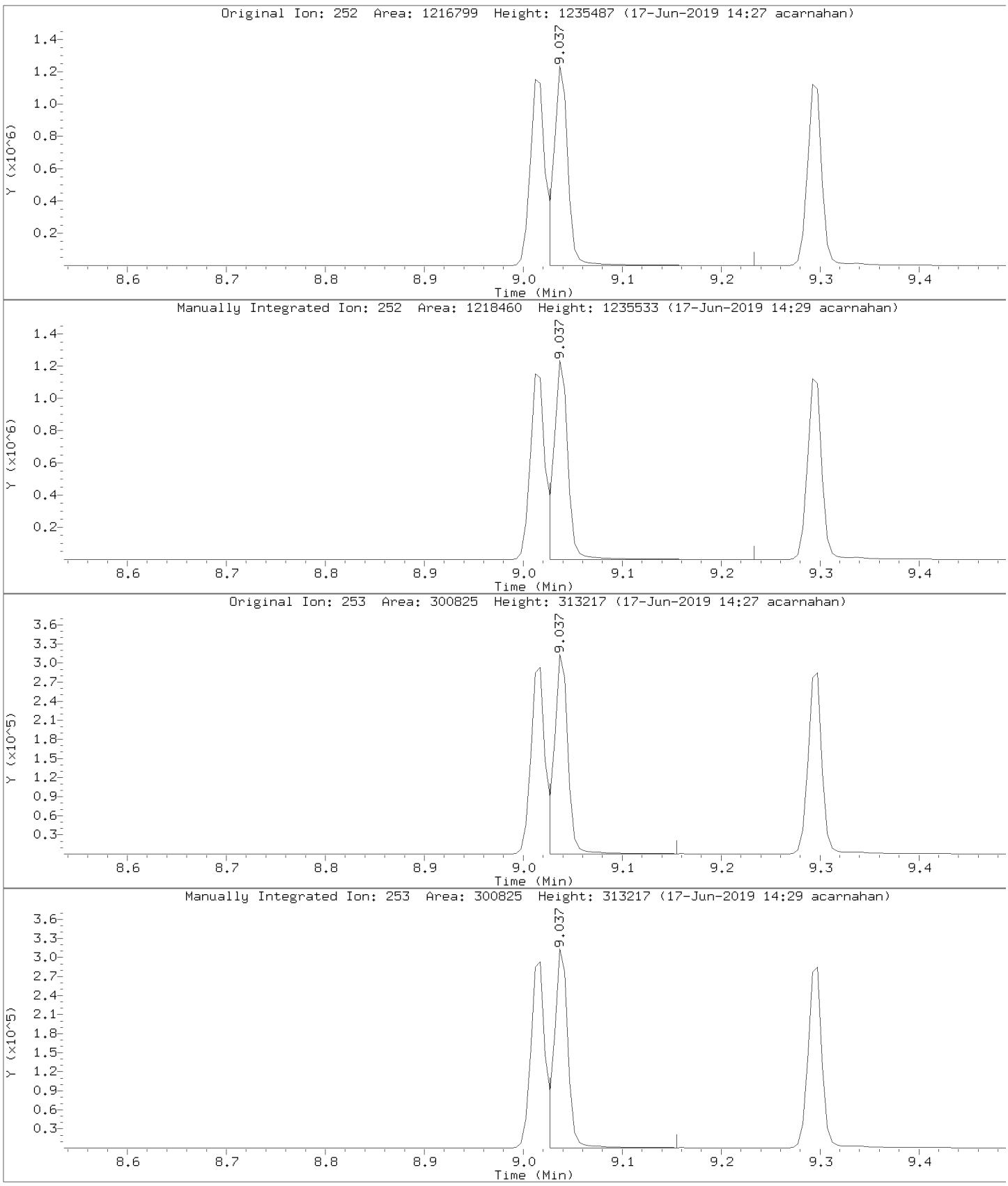


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

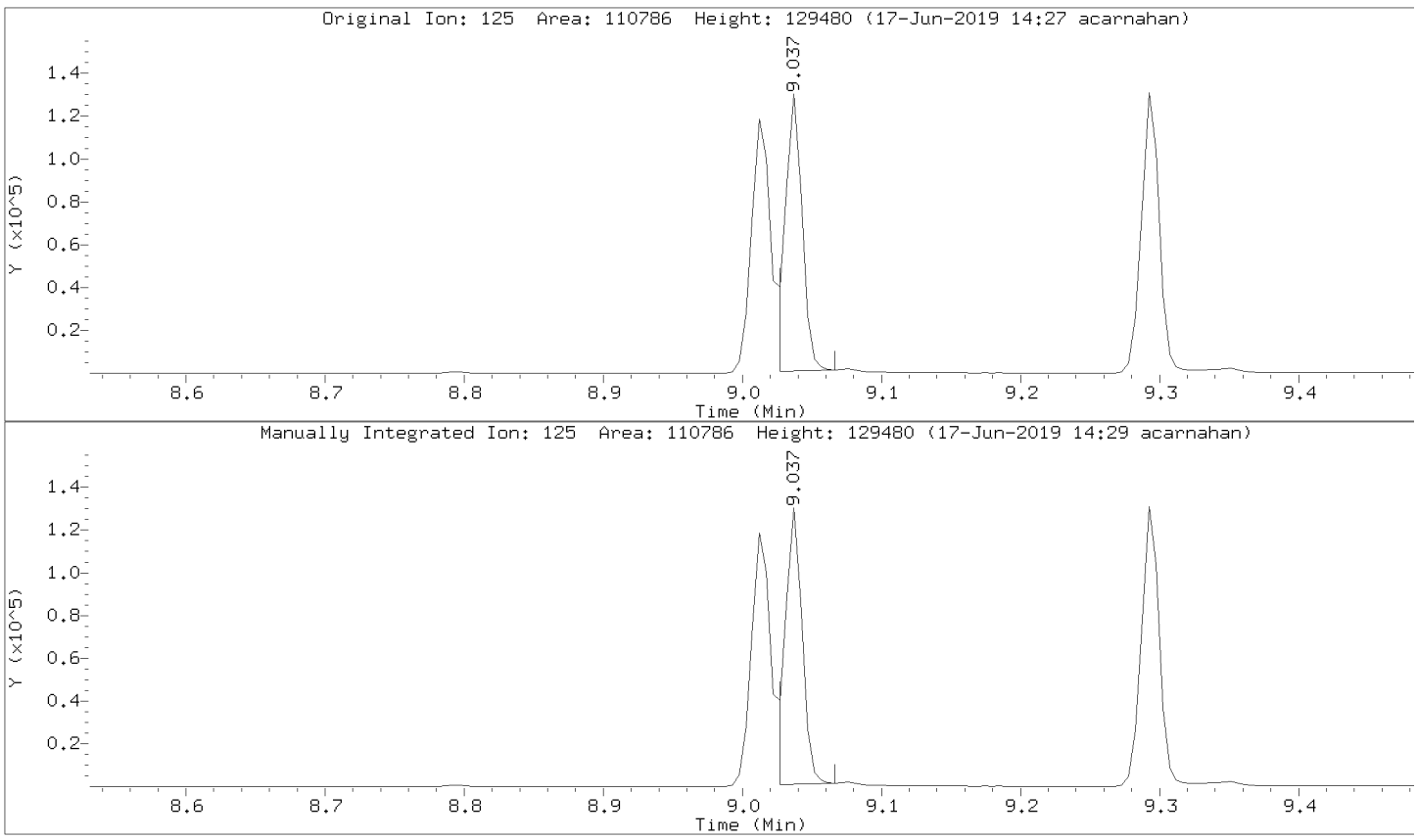


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

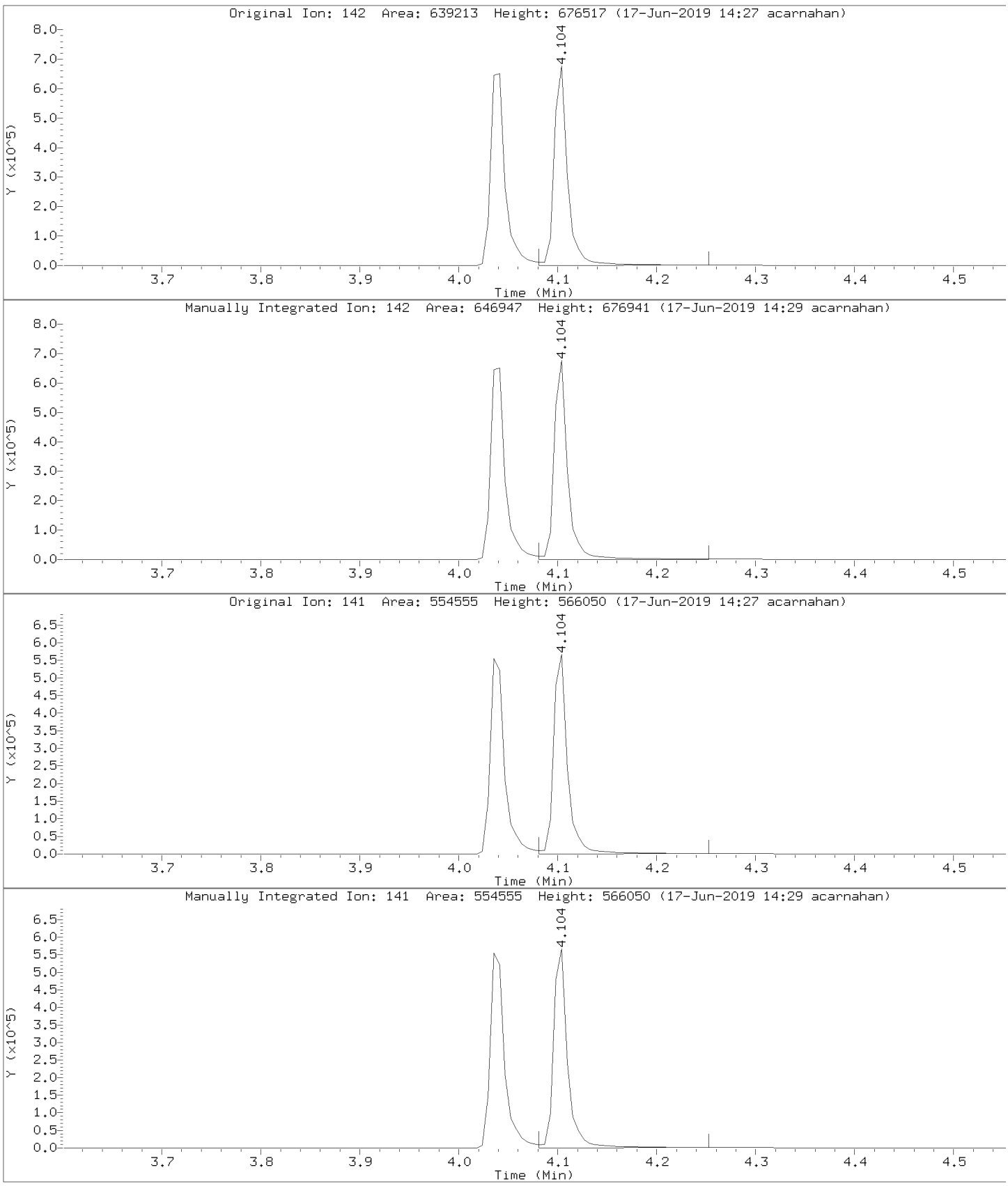


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z5.d
Injection Date: 17-JUN-2019 13:54
Instrument: 30mss2.i
Lab Sample ID: CAL5

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 17-JUN-2019 14:12
Operator : AJC Inst ID: 30mss2.i
Smp Info : cal6, 89123:1
Misc Info : 14711
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 99 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.583	3.584	(1.000)	673304	4.00000		
	8 Naphthalene	128	3.601	3.595	(1.005)	2497756	20.0000	16.5	
	9 2-Methylnaphthalene	142	4.040	4.041	(1.127)	1834204	20.0000	18.2	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	1712672	20.0000	15.8(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.269	4.263	(0.906)	2062538	20.0000	16.8	
	11 Acenaphthylene	152	4.622	4.619	(0.981)	2462414	20.0000	17.0	
*	2 Acenaphthene-d10 (IS)	164	4.711	4.708	(1.000)	367072	4.00000		
	12 Acenaphthene	153	4.731	4.728	(1.004)	1630483	20.0000	17.3	
	13 Fluorene	166	5.075	5.075	(1.077)	1913488	20.0000	17.3	
*	3 Phenanthrene-d10 (IS)	188	5.749	5.750	(1.000)	657442	4.00000		
	14 Phenanthrene	178	5.772	5.768	(1.004)	2634790	20.0000	16.6(M)	BA
	15 Anthracene	178	5.813	5.808	(1.011)	2690768	20.0000	16.6	
	16 Fluoranthene	202	6.747	6.742	(1.173)	3023255	20.0000	16.6(Q)	
	17 Pyrene	202	6.954	6.945	(1.210)	3061817	20.0000	16.4(Q)	
$	7 Terphenyl-d14 (S)	244	7.071	7.067	(1.230)	2303179	20.0000	16.5(Q)	
	18 Benzo(a)anthracene	228	8.048	8.042	(0.999)	2854630	20.0000	16.5	
*	4 Chrysene-d12 (IS)	240	8.060	8.054	(1.000)	631206	4.00000		
	19 Chrysene	228	8.086	8.077	(1.003)	2743717	20.0000	15.5(M)	BA
	20 Benzo(b)fluoranthene	252	9.022	9.012	(0.966)	3015463	20.0000	18.4	
	21 Benzo(k)fluoranthene	252	9.046	9.037	(0.968)	3175149	20.0000	16.2(QM)	BA
	22 Benzo(a)pyrene	252	9.302	9.292	(0.996)	2867657	20.0000	18.4(QM)	GT
*	5 Perylene-d12 (IS)	264	9.341	9.336	(1.000)	626877	4.00000		
	23 Dibenz(a,h)anthracene	278	10.196	10.181	(1.091)	3275300	20.0000	19.4	
	24 Indeno(1,2,3-cd)pyrene	276	10.196	10.176	(1.091)	3918466	20.0000	19.2	
	25 Benzo[g,h,i]perylene	276	10.417	10.402	(1.115)	3050587	20.0000	18.2	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Pace Analytical Services, Inc.

TARGET COMPOUNDS

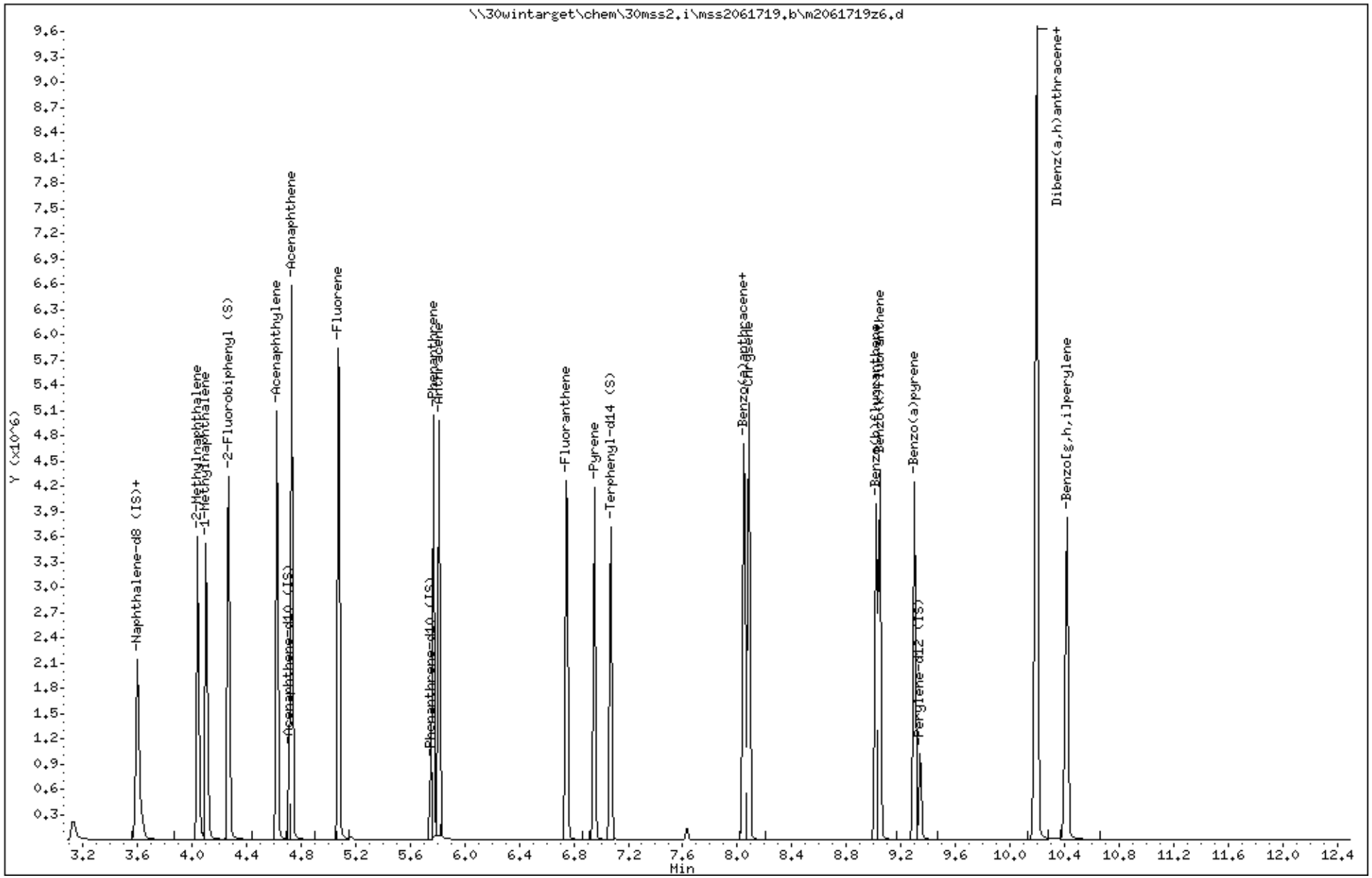
Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14711

Client SDG: 30MSS2-mss2061719
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level:
Operator: AJC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
91-22-5	Quinoline	0.000	U
91-20-3	Naphthalene	16.5	
91-57-6	2-Methylnaphthalene	18.2	
90-12-0	1-Methylnaphthalene	15.8	
208-96-8	Acenaphthylene	17.0	
83-32-9	Acenaphthene	17.3	
86-73-7	Fluorene	17.3	
85-01-8	Phenanthrene	16.6	
120-12-7	Anthracene	16.6	
206-44-0	Fluoranthene	16.6	
129-00-0	Pyrene	16.4	
56-55-3	Benzo(a)anthracene	16.5	
218-01-9	Chrysene	15.5	
205-99-2	Benzo(b)fluoranthene	18.4	
207-08-9	Benzo(k)fluoranthene	16.2	
50-32-8	Benzo(a)pyrene	18.4	
53-70-3	Dibenz(a,h)anthracene	19.4	
193-39-5	Indeno(1,2,3-cd)pyrene	19.2	
191-24-2	Benzo[g,h,i]perylene	18.2	
321-60-8	2-Fluorobiphenyl (S)	16.8	
1718-51-0	Terphenyl-d14 (S)	16.5	

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z6.d
Date : 17-JUN-2019 14:12
Client ID: CAL6
Sample Info: CAL6, 89123:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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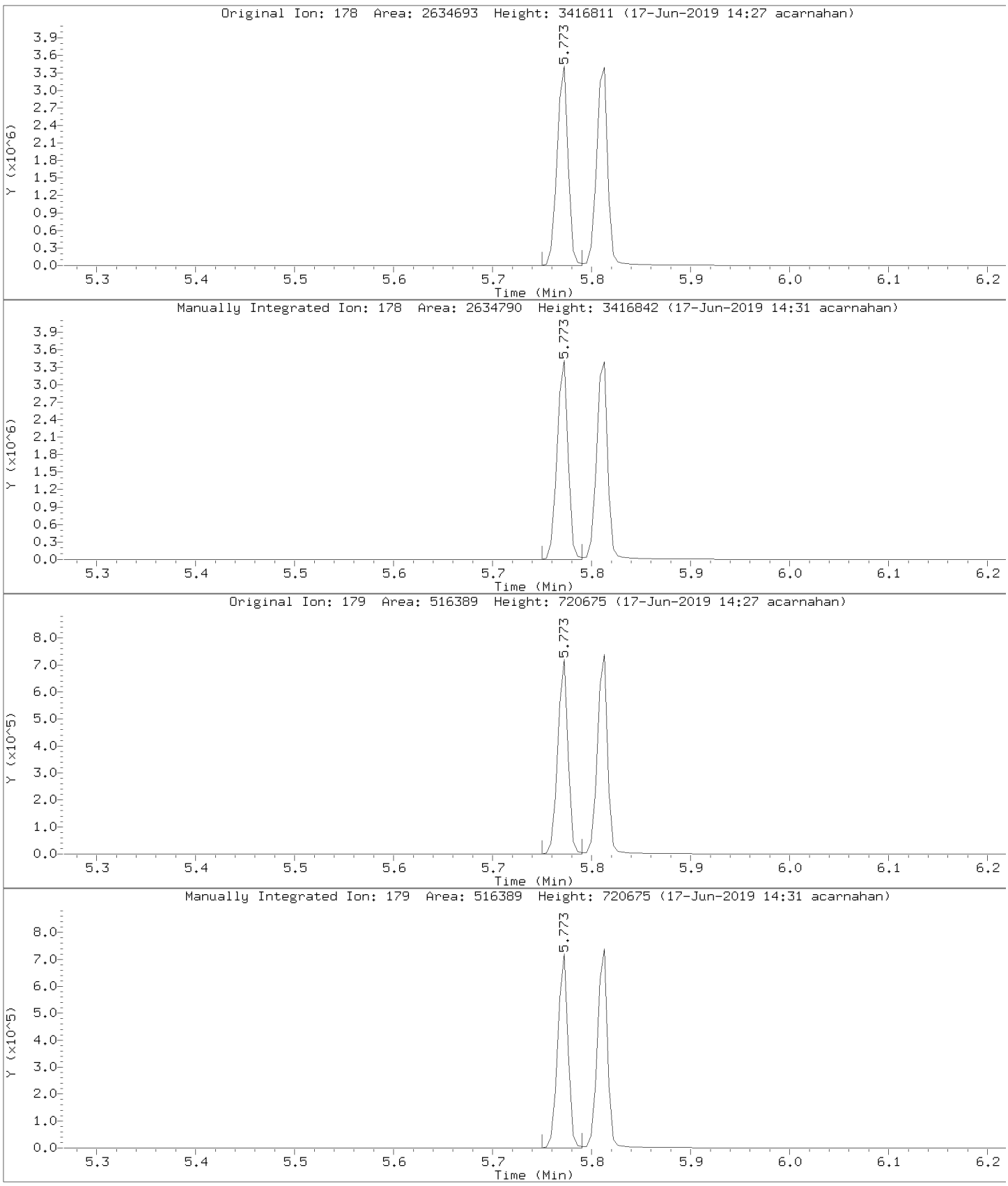
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8



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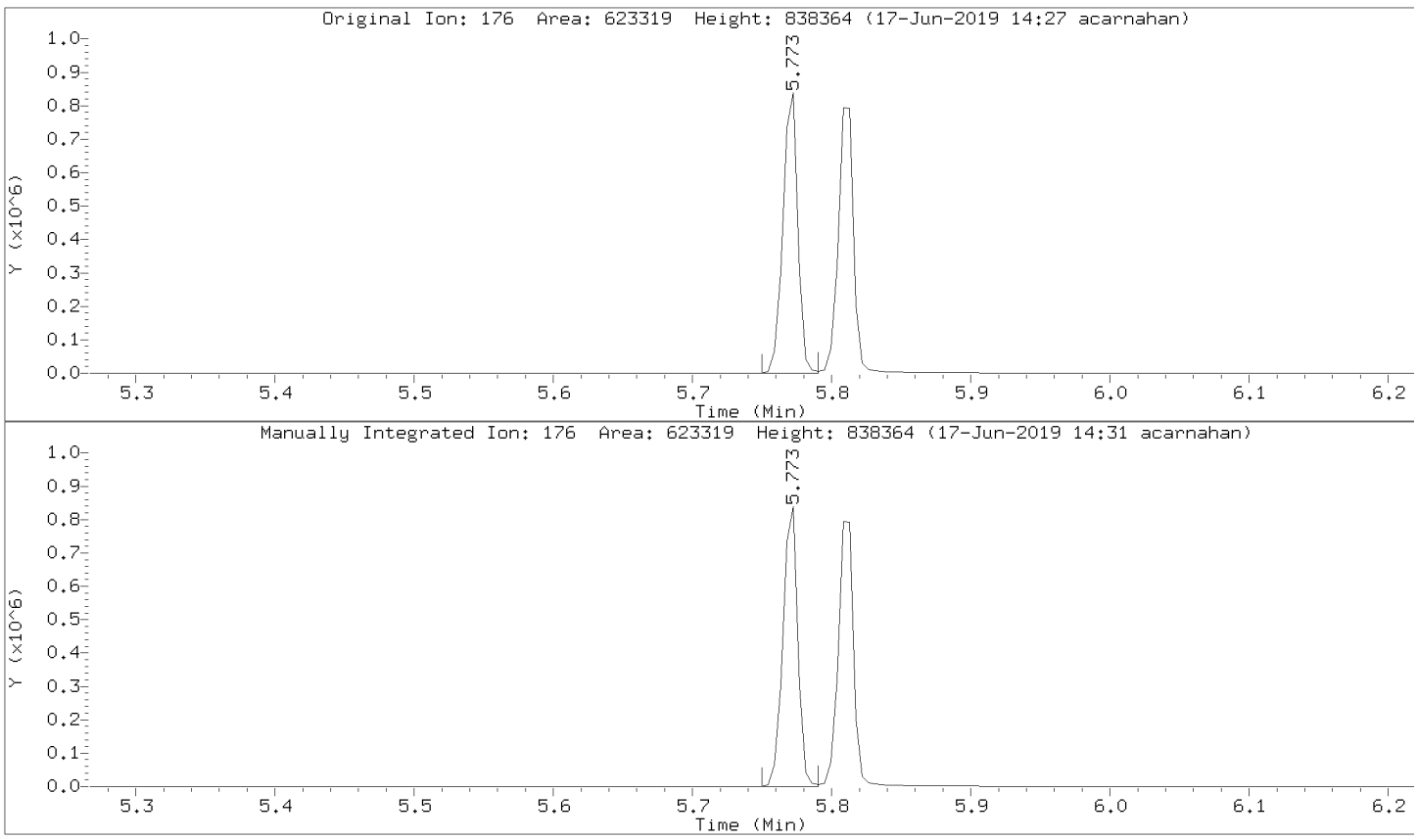
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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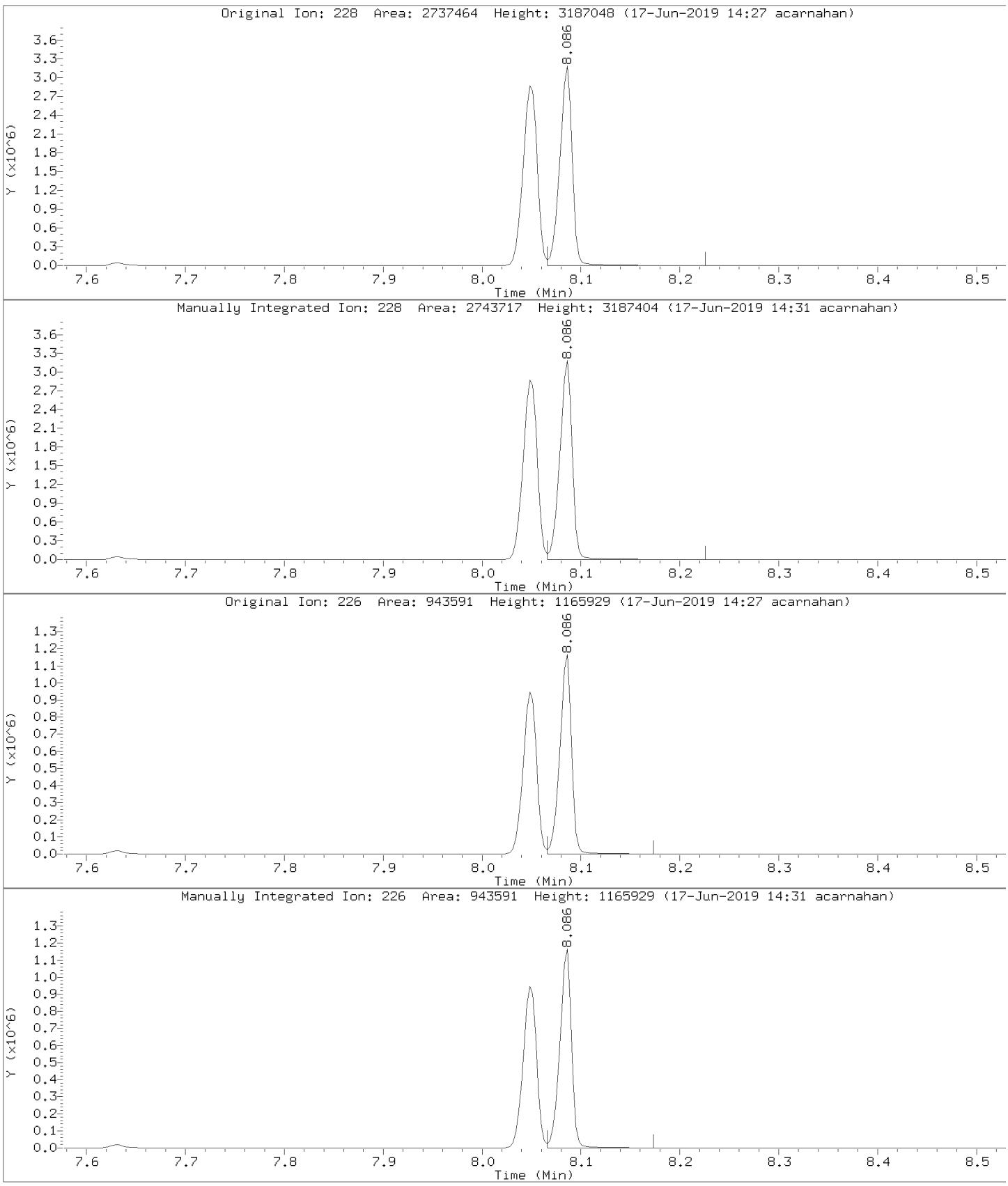
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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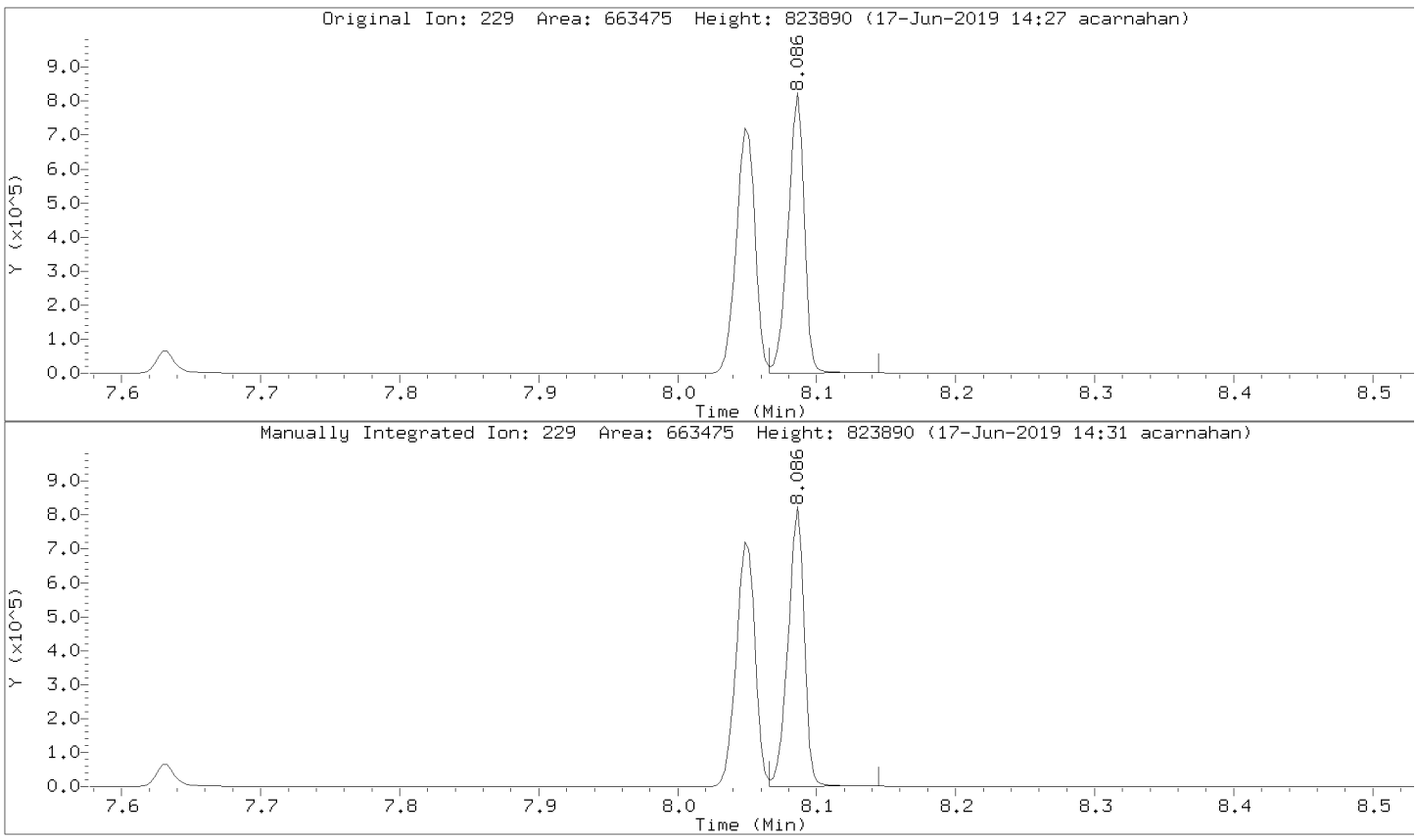
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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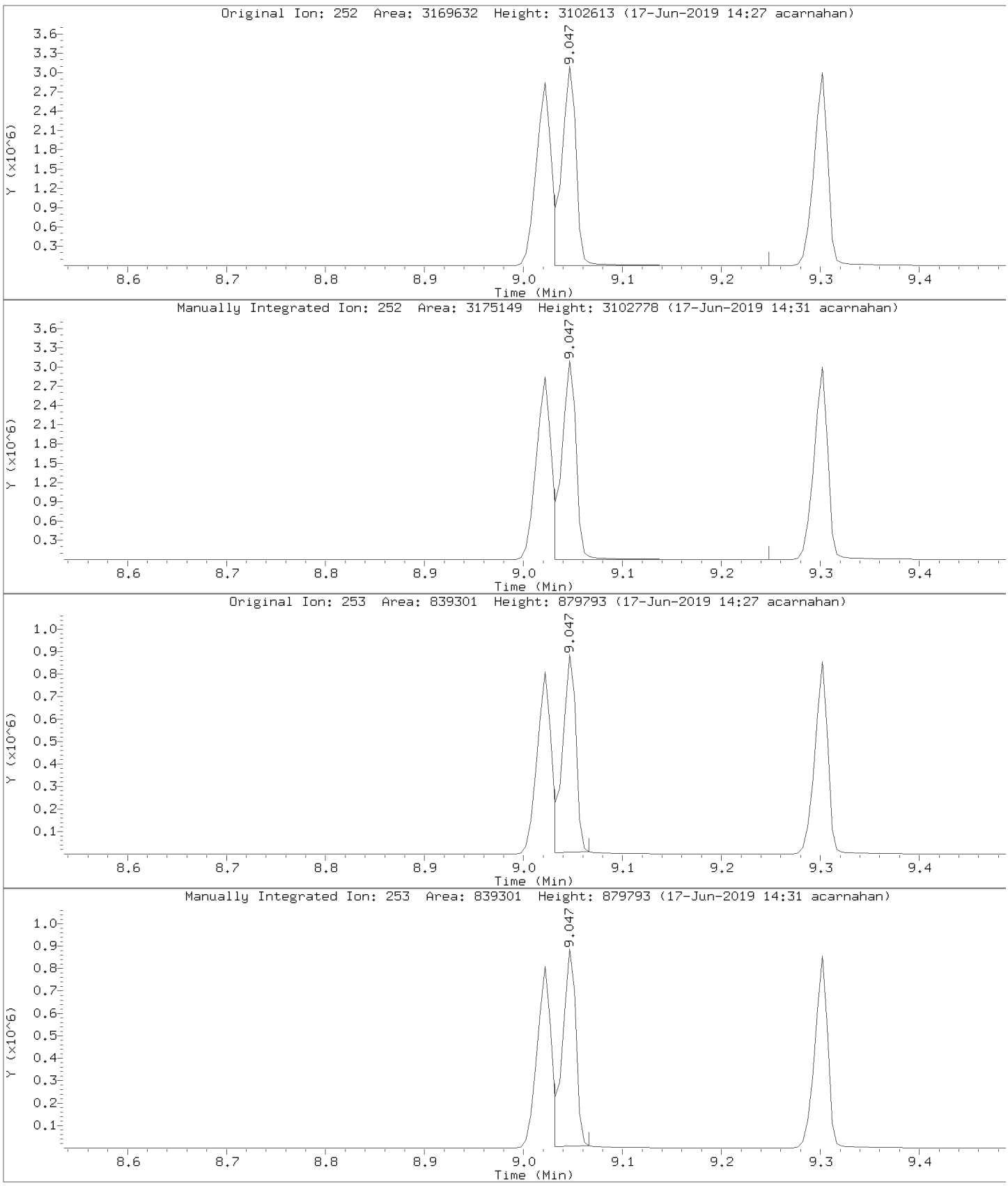
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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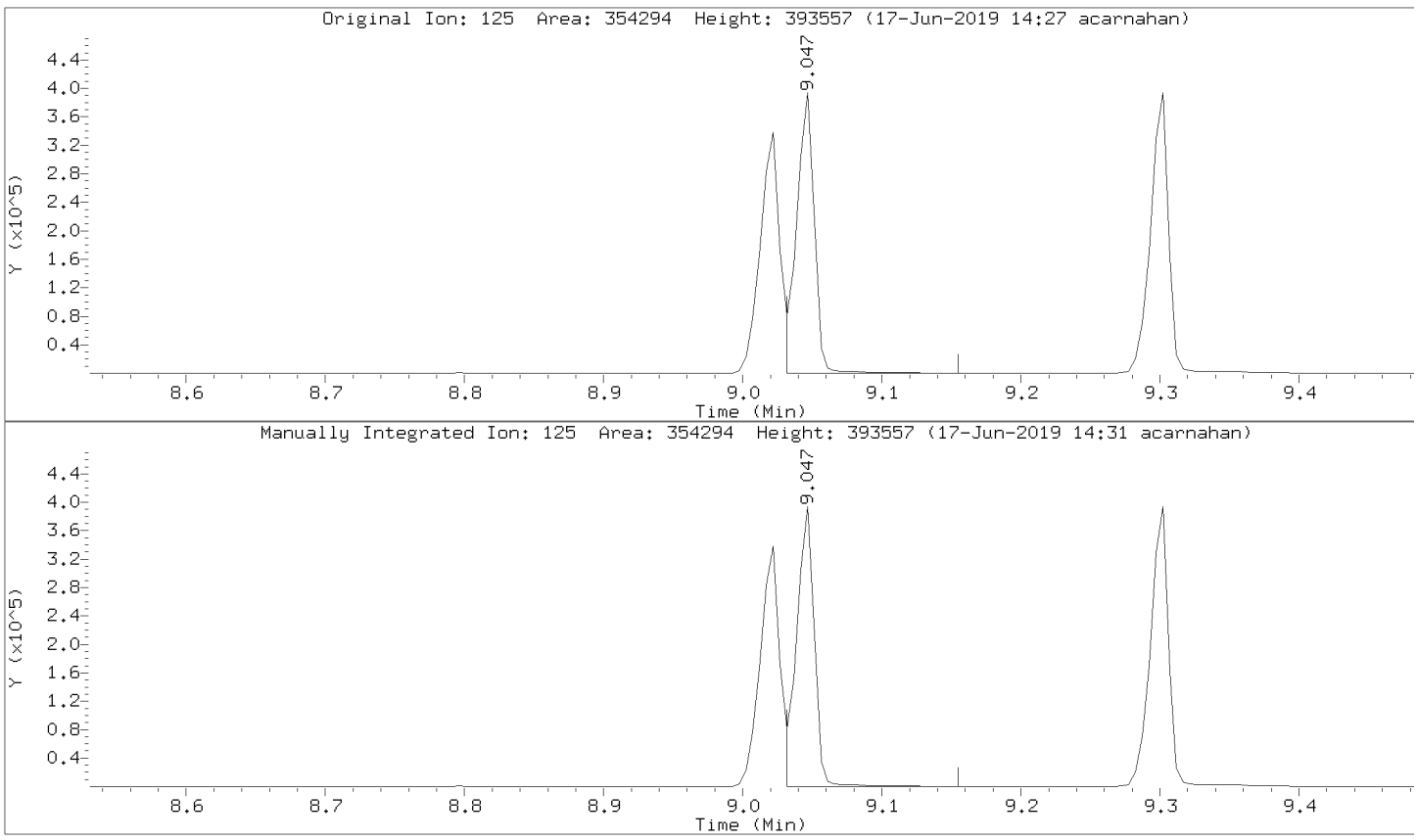
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



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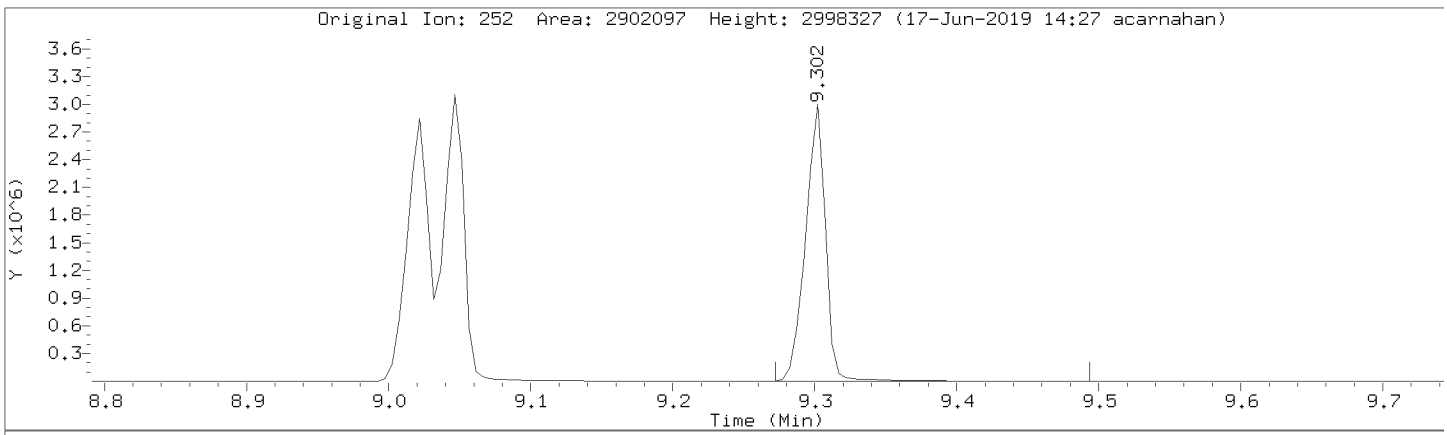
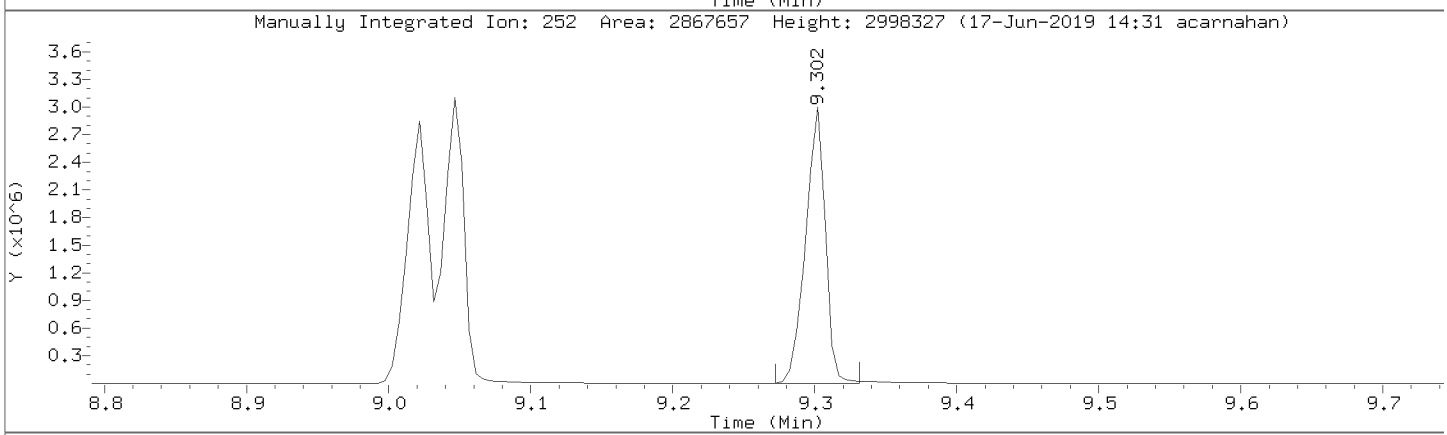
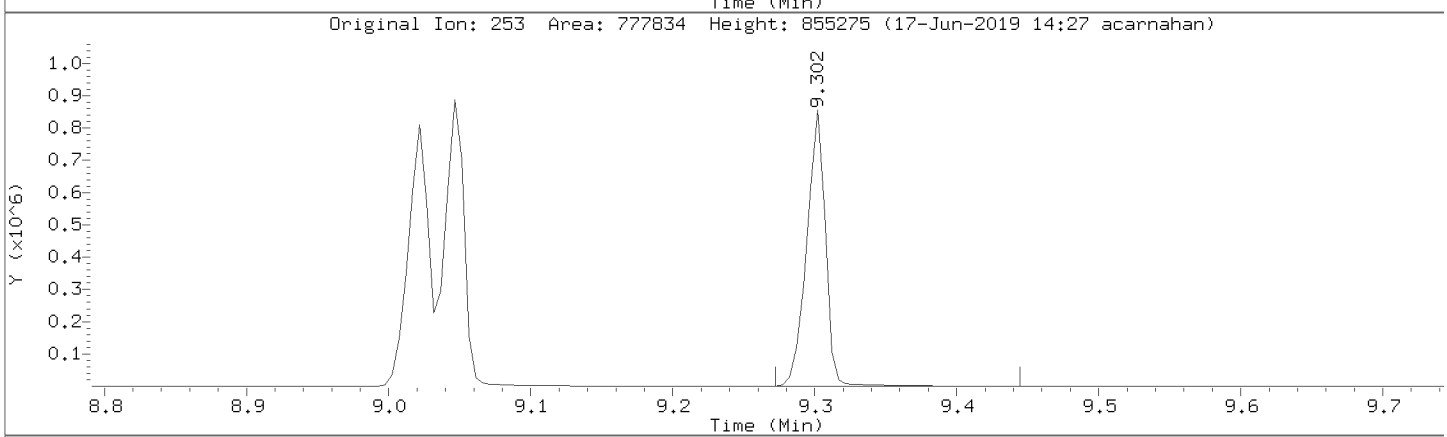
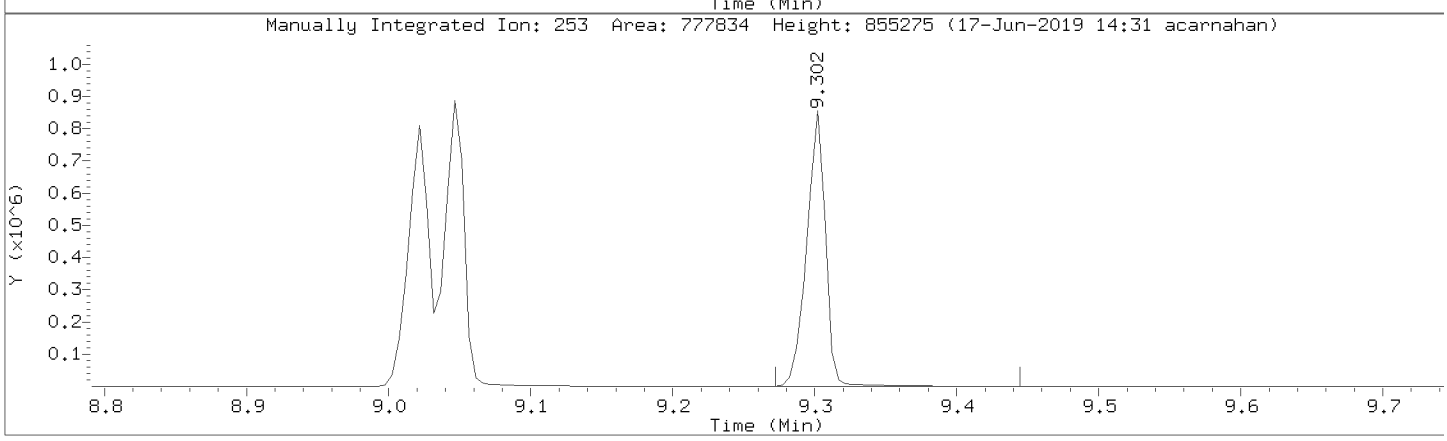
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

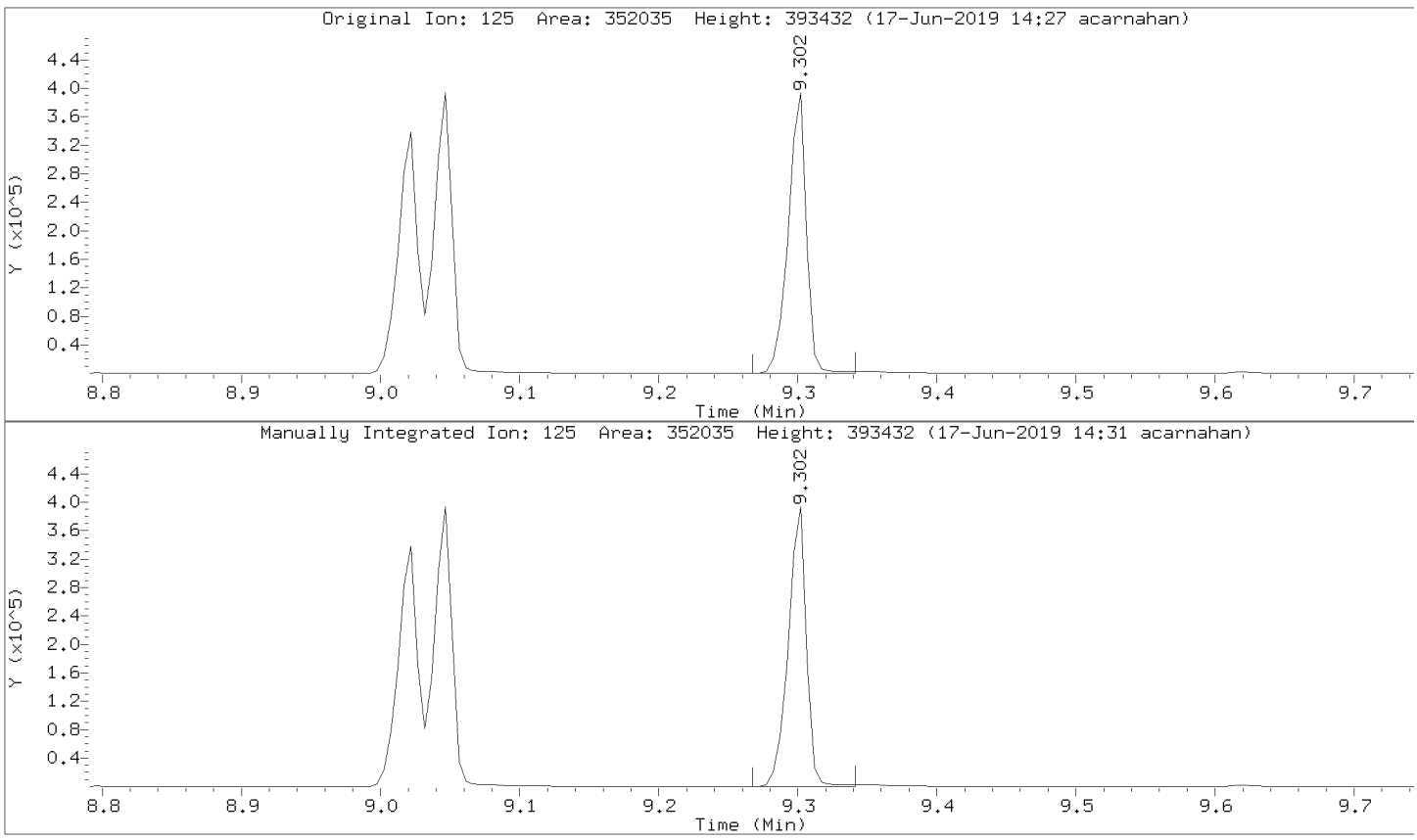






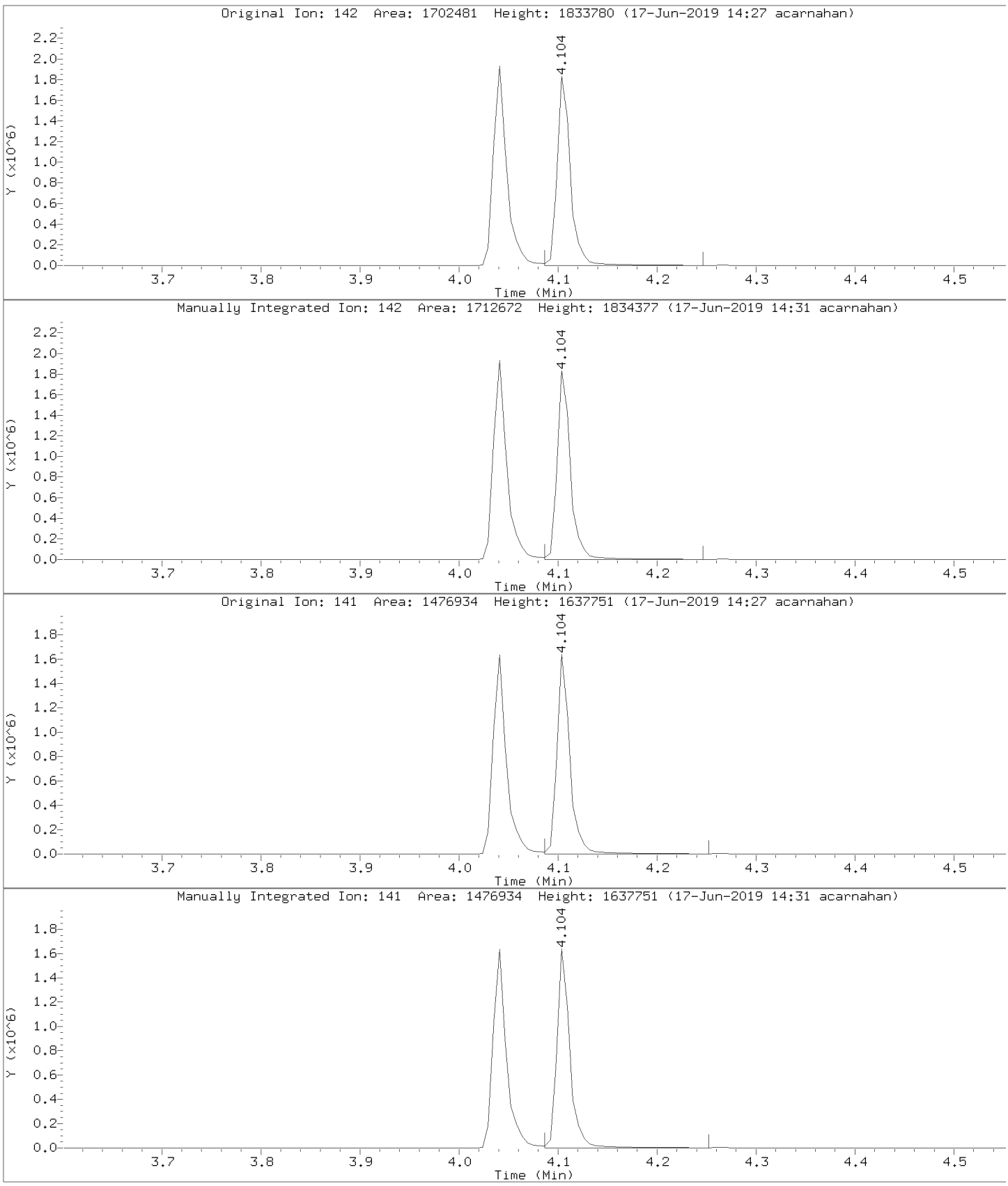


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z6.d
Injection Date: 17-JUN-2019 14:12
Instrument: 30mss2.i
Lab Sample ID: CAL6

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM INITIAL CALIBRATION DATA

11097246ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/17/2019 Time: 14:30

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2061719.B\M2061719Z7.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30313514

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.57574	1.81745	0.0500	15.3394	30.0000
Anthracene	Averaged	0.98399	1.12216	0.0500	14.0423	30.0000
Benzo(a)anthracene	Averaged	1.09457	1.17869	0.0500	7.6851	30.0000
Benzo(a)pyrene	Averaged	0.99304	1.08308	0.0500	9.0669	30.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.16658	0.0500	11.7558	30.0000
Benzo(g,h,i)perylene	Averaged	1.07081	1.05507	0.0500	-1.4700	30.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.36880	0.0500	9.1421	30.0000
Chrysene	Averaged	1.12111	1.22040	0.0500	8.8559	30.0000
Dibenz(a,h)anthracene	Averaged	1.07618	1.07848	0.0500	0.2139	30.0000
Fluoranthene	Averaged	1.10512	1.22182	0.0500	10.5600	30.0000
Fluorene	Averaged	1.20790	1.37048	0.0500	13.4606	30.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.30441	0.0500	0.2962	30.0000
Naphthalene	Averaged	0.90143	0.98406	0.0500	9.1668	30.0000
Phenanthrene	Averaged	0.96551	1.05249	0.0500	9.0086	30.0000
Pyrene	Averaged	1.13626	1.25544	0.0500	10.4882	30.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.50032	0.0500	12.3735	30.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.94632	0.0500	11.4503	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

11234007CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/15/2019 Time: 09:02

Instrument ID: 30MSS2 GC Column: Col 1 Init. Calib. Date(s): 06/17/2019 06/17/2019

Lab File ID: MSS2071519.B\M2071519S1.D Init. Calib. Time(s): 12:43 14:12

SDG No.: 30313514

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.57574	1.49070	0.9000	-5.3968	20.0000
Anthracene	Averaged	0.98399	1.03963	0.7000	5.6543	20.0000
Benzo(a)anthracene	Averaged	1.09457	1.13651	0.8000	3.8323	20.0000
Benzo(a)pyrene	Averaged	0.99304	1.06944	0.7000	7.6931	20.0000
Benzo(b)fluoranthene	Averaged	1.04386	1.08964	0.7000	4.3859	20.0000
Benzo(g,h,i)perylene	Averaged	1.07081	0.95575	0.5000	-10.7449	20.0000
Benzo(k)fluoranthene	Averaged	1.25415	1.29244	0.7000	3.0529	20.0000
Chrysene	Averaged	1.12111	1.16750	0.7000	4.1377	20.0000
Dibenz(a,h)anthracene	Averaged	1.07618	0.95048	0.4000	-11.6807	20.0000
Fluoranthene	Averaged	1.10512	1.21496	0.6000	9.9393	20.0000
Fluorene	Averaged	1.20790	1.22166	0.9000	1.1398	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.30056	1.16697	0.5000	-10.2711	20.0000
Naphthalene	Averaged	0.90143	0.95048	0.7000	5.4410	20.0000
Phenanthrene	Averaged	0.96551	0.98094	0.7000	1.5982	20.0000
Pyrene	Averaged	1.13626	1.21837	0.6000	7.2258	20.0000
2-Fluorobiphenyl (S)	Averaged	1.33512	1.34441	0.7000	0.6960	20.0000
Terphenyl-d14 (S)	Averaged	0.84910	0.91995	0.7000	8.3443	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 17-JUN-2019 14:30
Operator : AJC Inst ID: 30mss2.i
Smp Info : icv, 90346:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m
Meth Date : 18-Jun-2019 06:47 30mss2.i Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.584	3.584	(1.000)	630892	4.00000		
	8 Naphthalene	128	3.595	3.595	(1.003)	310419	2.00000	2.18	
	9 2-Methylnaphthalene	142	4.041	4.041	(1.127)	209295	2.00000	2.21	
	10 1-Methylnaphthalene	142	4.103	4.103	(1.145)	213209	2.00000	2.10(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.263	4.263	(0.906)	269858	2.00000	2.25	
	11 Acenaphthylene	152	4.619	4.619	(0.981)	326900	2.00000	2.31	
*	2 Acenaphthene-d10 (IS)	164	4.708	4.708	(1.000)	359734	4.00000		
	12 Acenaphthene	153	4.728	4.728	(1.004)	202106	2.00000	2.18	
	13 Fluorene	166	5.075	5.075	(1.078)	246505	2.00000	2.27	
*	3 Phenanthrene-d10 (IS)	188	5.750	5.750	(1.000)	654820	4.00000		
	14 Phenanthrene	178	5.768	5.768	(1.003)	344596	2.00000	2.18(M)	BA
	15 Anthracene	178	5.808	5.808	(1.010)	367407	2.00000	2.28	
	16 Fluoranthene	202	6.742	6.742	(1.173)	400036	2.00000	2.21	
	17 Pyrene	202	6.945	6.945	(1.208)	411043	2.00000	2.21	
$	7 Terphenyl-d14 (S)	244	7.067	7.067	(1.229)	309836	2.00000	2.23	
	18 Benzo(a)anthracene	228	8.042	8.042	(0.999)	363373	2.00000	2.15	
*	4 Chrysene-d12 (IS)	240	8.054	8.054	(1.000)	616573	4.00000		
	19 Chrysene	228	8.077	8.077	(1.003)	376232	2.00000	2.18(M)	BA
	20 Benzo(b)fluoranthene	252	9.012	9.012	(0.965)	381872	2.00000	2.24	
	21 Benzo(k)fluoranthene	252	9.037	9.037	(0.968)	448070	2.00000	2.18(M)	BA
	22 Benzo(a)pyrene	252	9.292	9.292	(0.995)	354541	2.00000	2.18	
*	5 Perylene-d12 (IS)	264	9.336	9.336	(1.000)	654689	4.00000		
	23 Dibenz(a,h)anthracene	278	10.181	10.181	(1.090)	353036	2.00000	2.00	
	24 Indeno(1,2,3-cd)pyrene	276	10.176	10.176	(1.090)	426991	2.00000	2.00	
	25 Benzo[g,h,i]perylene	276	10.402	10.402	(1.114)	345371	2.00000	1.97	

QC Flag Legend

M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 17-JUN-2019 14:30
Lab File ID: m2061719z7.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged	<-
8 Naphthalene	0.90143	0.98406	0.050	9.16682	20.00000	Aver	
9 2-Methylnaphthalene	0.59910	0.66349	0.050	10.74777	20.00000	Aver	
10 1-Methylnaphthalene	0.64273	0.67590	0.050	5.16069	20.00000	Aver	(M)
$ 6 2-Fluorobiphenyl (S)	1.33512	1.50032	0.050	12.37345	20.00000	Aver	
11 Acenaphthylene	1.57574	1.81745	0.050	15.33940	20.00000	Aver	
12 Acenaphthene	1.02920	1.12364	0.050	9.17607	20.00000	Aver	
13 Fluorene	1.20790	1.37048	0.050	13.46059	20.00000	Aver	
14 Phenanthrene	0.96551	1.05249	0.050	9.00861	20.00000	Aver	(M)
15 Anthracene	0.98399	1.12216	0.050	14.04225	20.00000	Aver	
16 Fluoranthene	1.10512	1.22182	0.050	10.55997	20.00000	Aver	
17 Pyrene	1.13626	1.25544	0.050	10.48818	20.00000	Aver	
$ 7 Terphenyl-d14 (S)	0.84910	0.94632	0.050	11.45027	20.00000	Aver	
18 Benzo(a)anthracene	1.09457	1.17869	0.050	7.68509	20.00000	Aver	
19 Chrysene	1.12111	1.22040	0.050	8.85593	20.00000	Aver	(M)
20 Benzo(b)fluoranthene	1.04386	1.16658	0.050	11.75575	20.00000	Aver	
21 Benzo(k)fluoranthene	1.25415	1.36880	0.050	9.14207	20.00000	Aver	(M)
22 Benzo(a)pyrene	0.99304	1.08308	0.050	9.06685	20.00000	Aver	
23 Dibenz(a,h)anthracene	1.07618	1.07848	0.050	0.21391	20.00000	Aver	
24 Indeno(1,2,3-cd)pyrene	1.30056	1.30441	0.050	0.29616	20.00000	Aver	
25 Benzo[g,h,i]perylene	1.07081	1.05507	0.050	-1.46997	20.00000	Aver	

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 8.97299
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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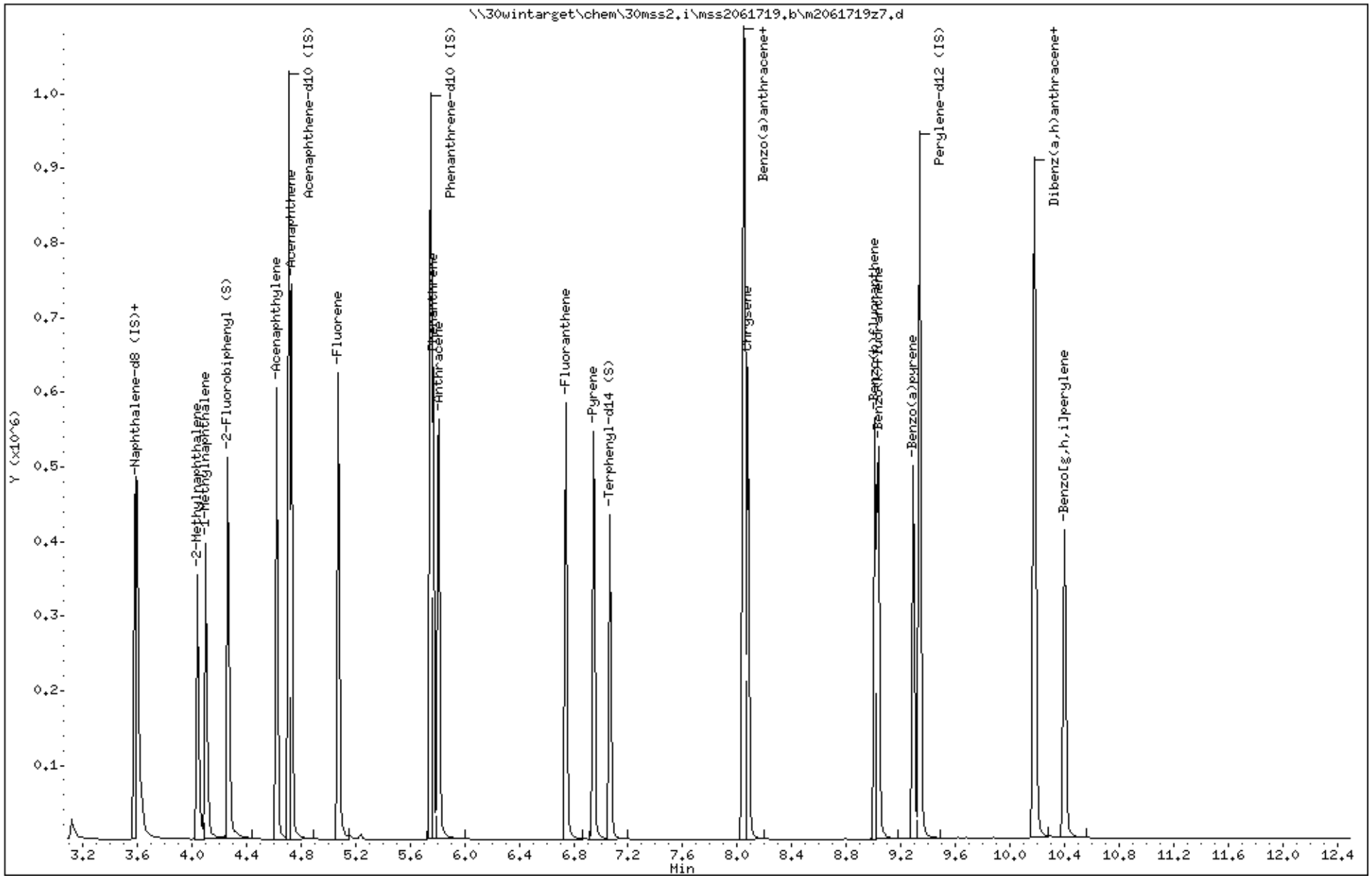
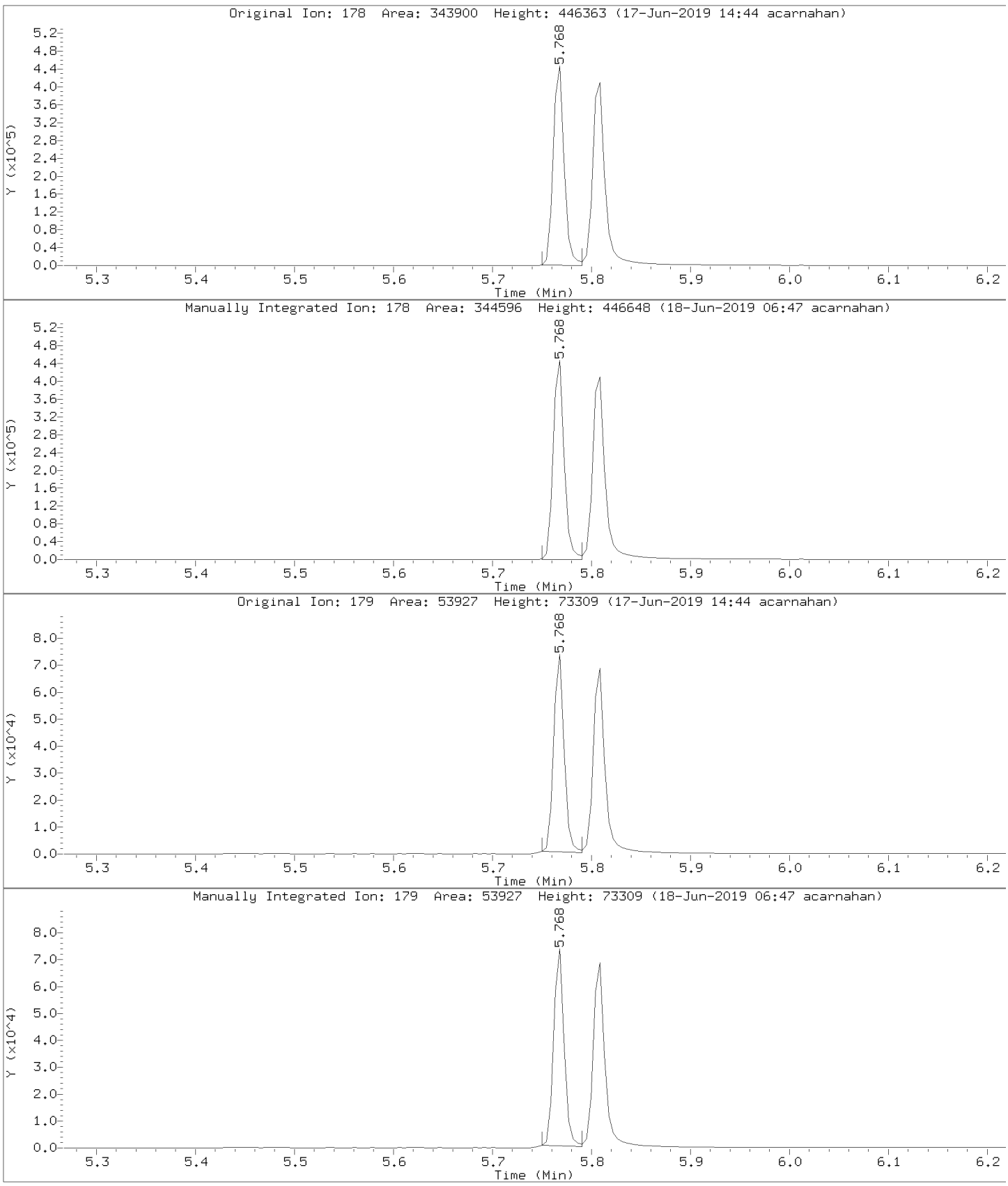
Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719z7.d
Date : 17-JUN-2019 14:30
Client ID: ICV
Sample Info: ICV, 90346:1

Instrument: 30mss2.i
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

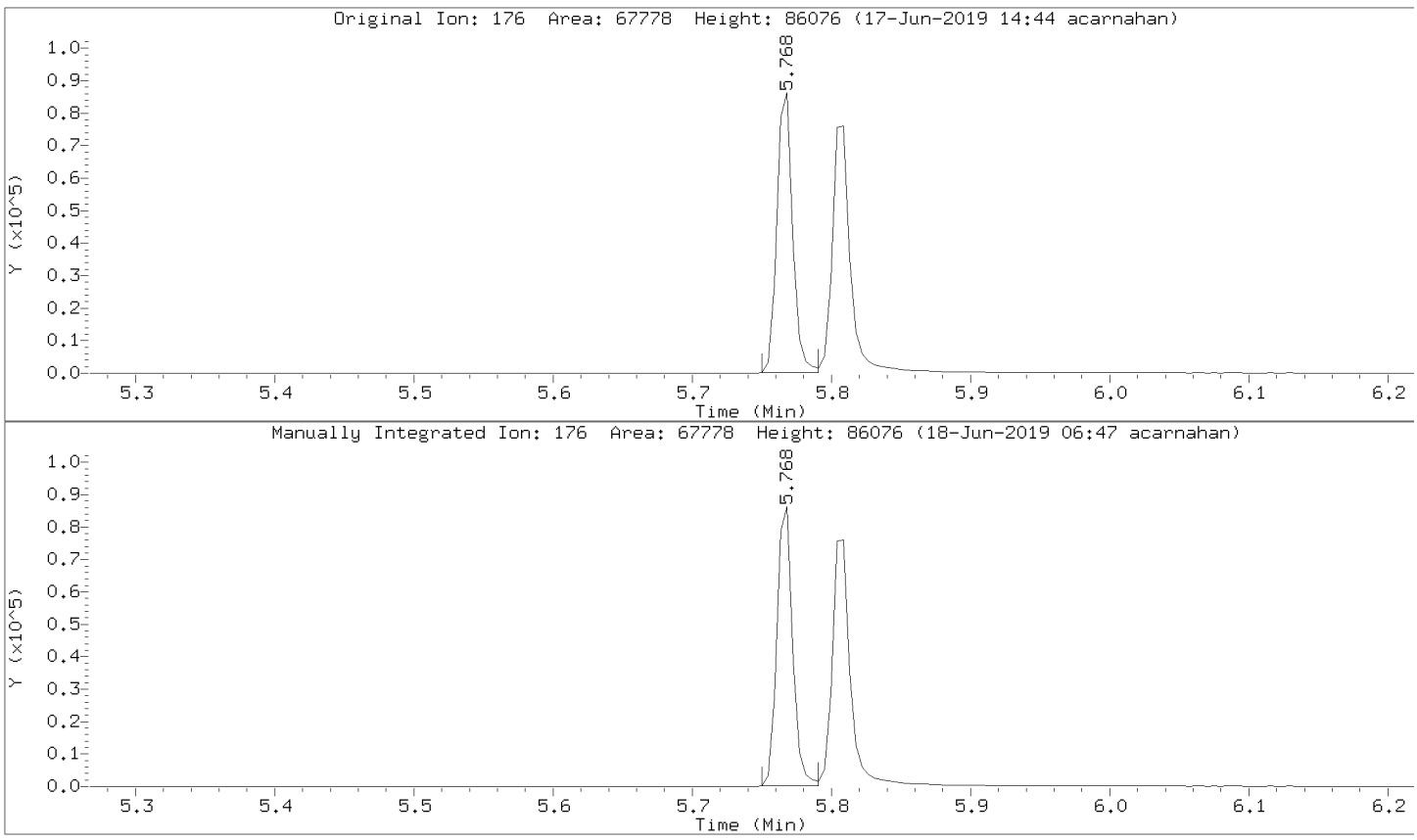


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Phenanthrene Review Code: BA
CAS Number: 85-01-8

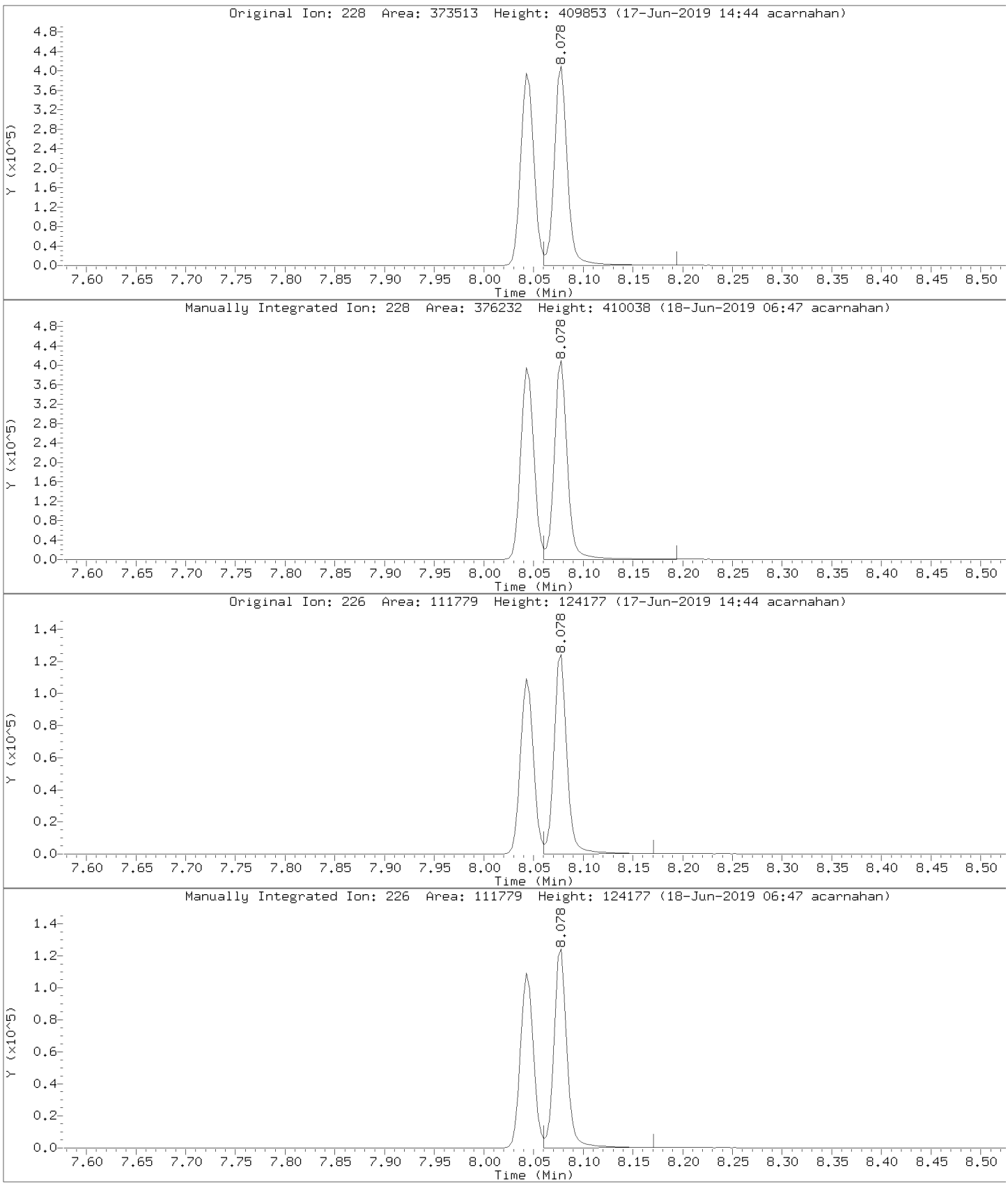


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

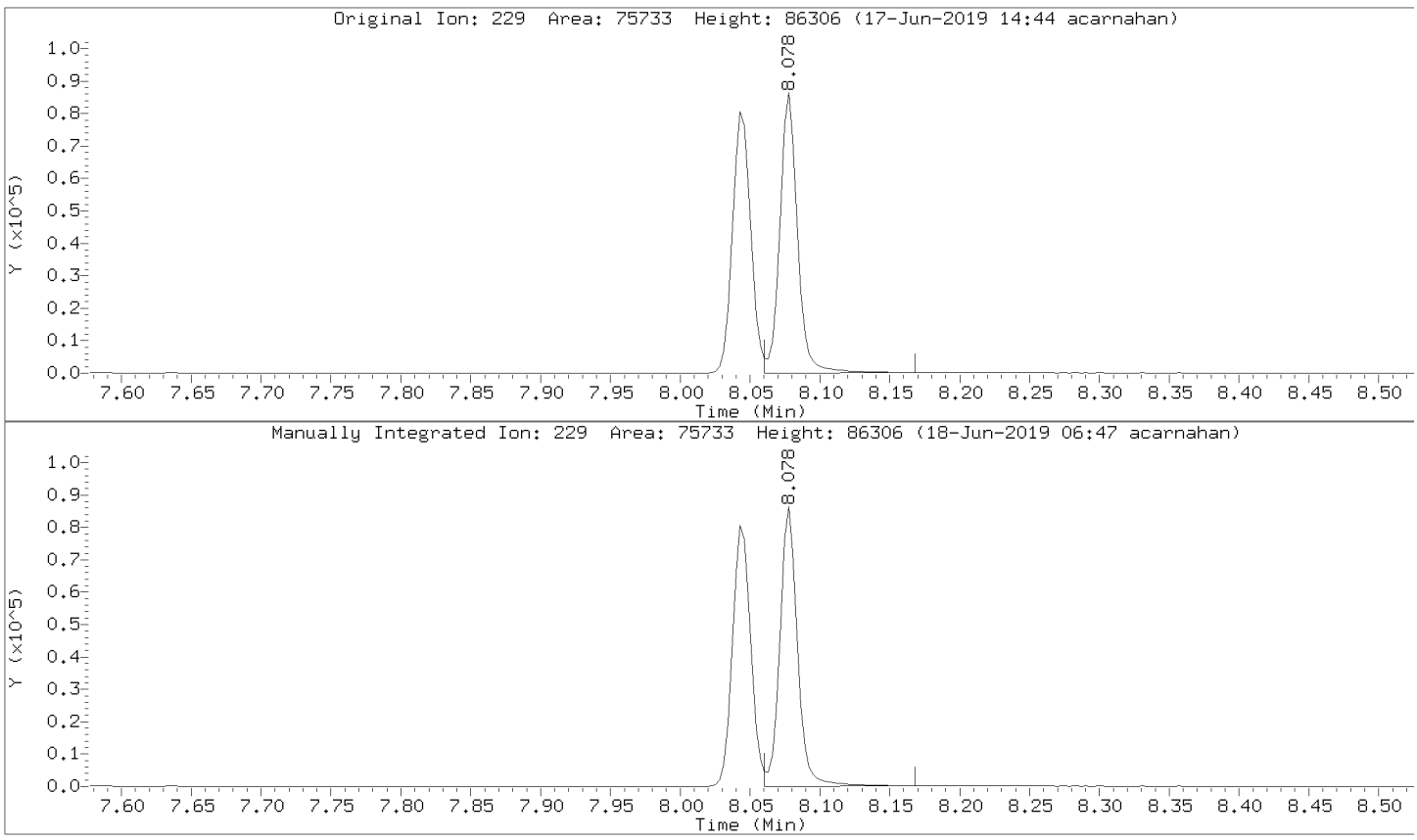


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

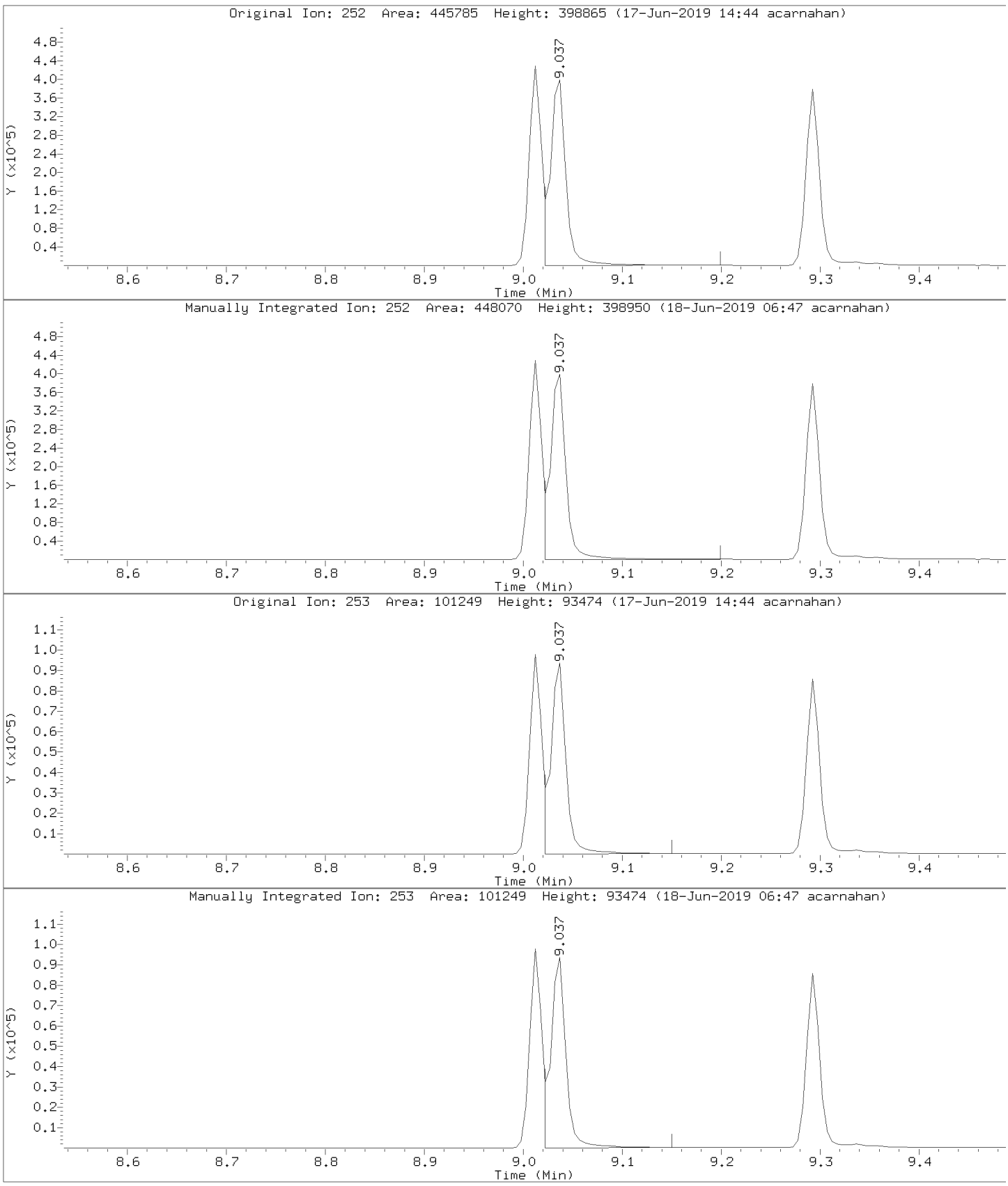


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

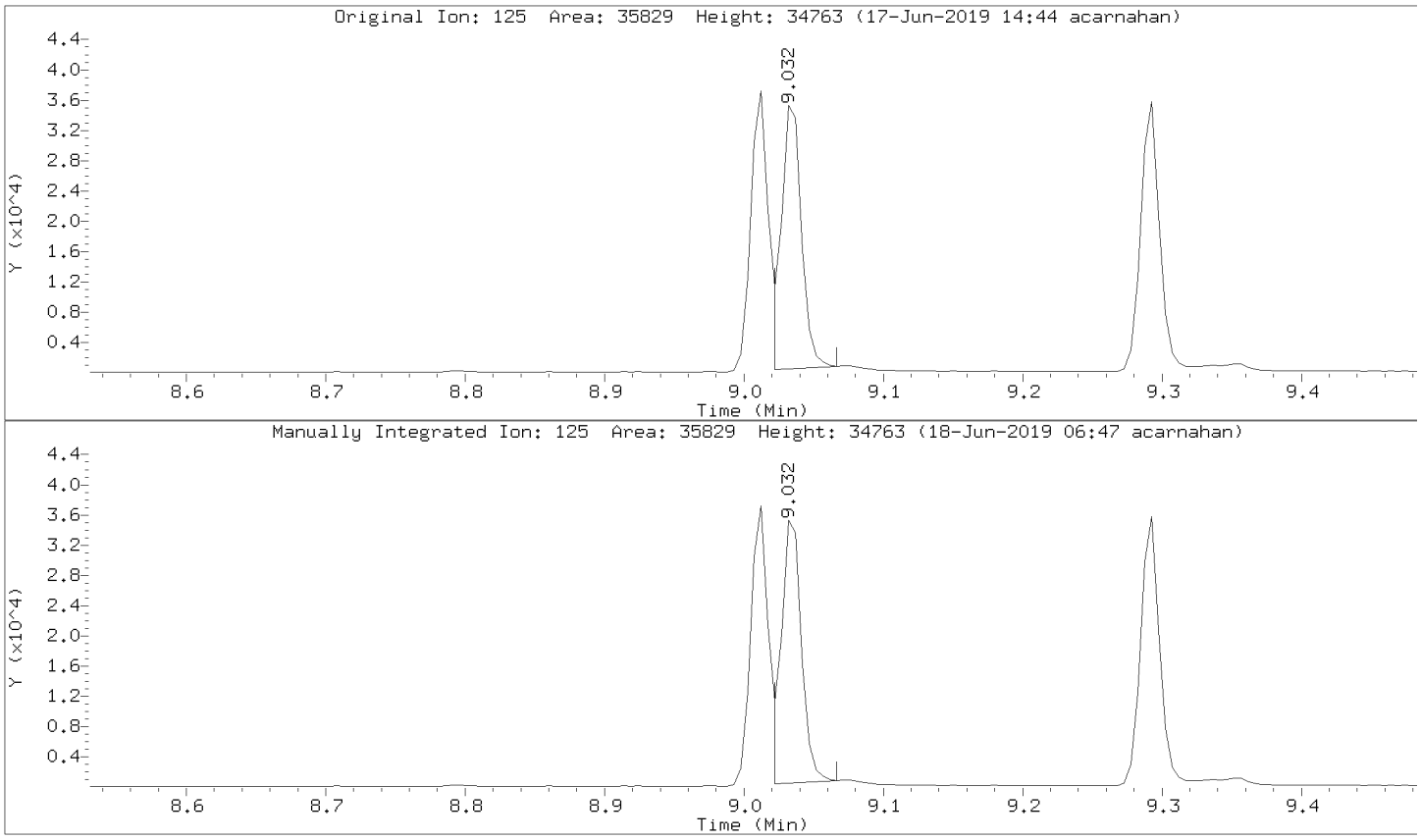


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

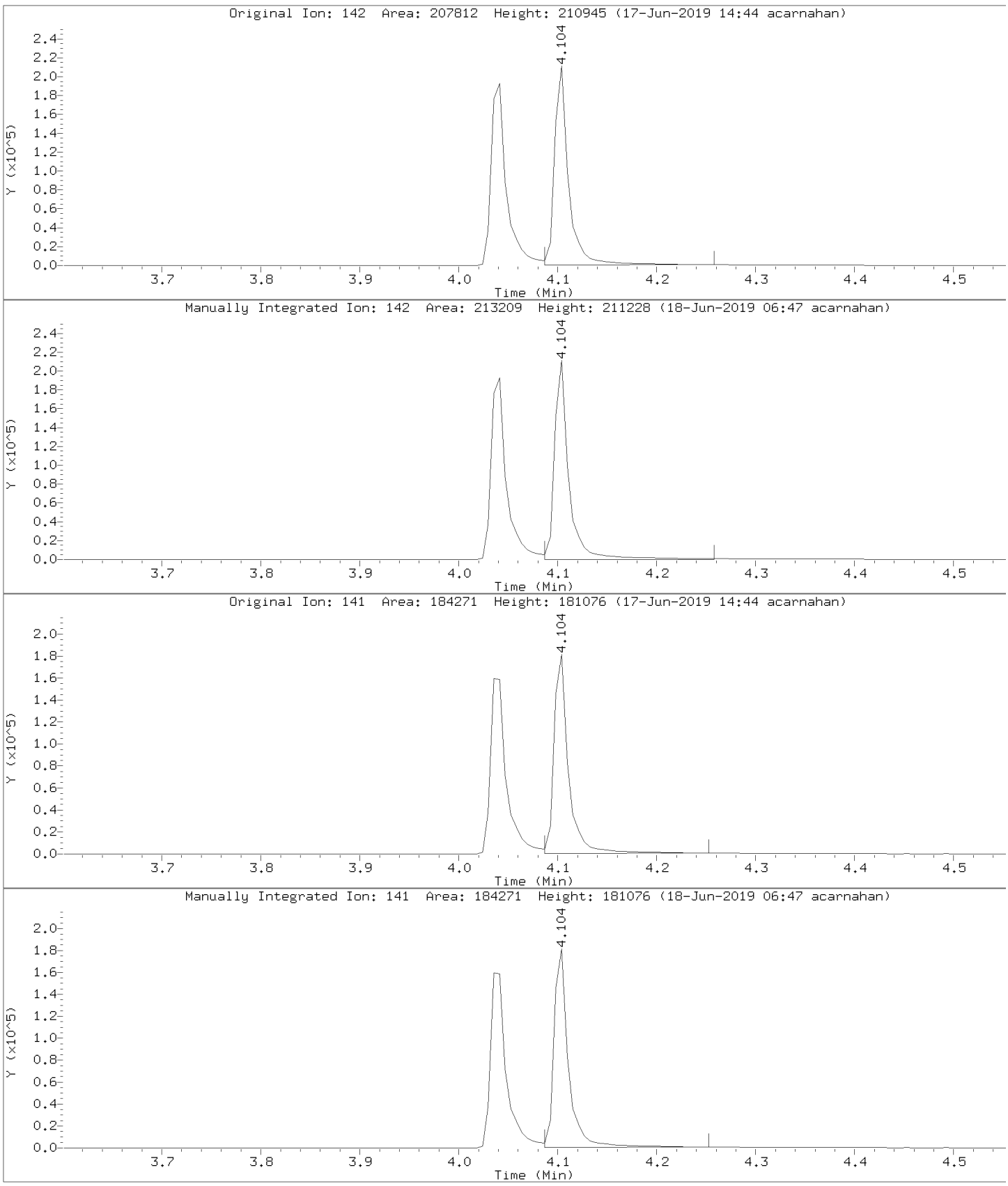


Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b/m2061719z7.d
Injection Date: 17-JUN-2019 14:30
Instrument: 30mss2.i
Lab Sample ID: ICV

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-JUL-2019 09:02
Operator : DSC Inst ID: 30mss2.i
Smp Info : ccv, 89111:1
Misc Info : 14711
Comment   :
Method   : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	602627	4.00000		
	8 Naphthalene	128	3.401	3.401	(1.003)	286392	2.00000	2.11	
	9 2-Methylnaphthalene	142	3.846	3.846	(1.135)	191179	2.00000	2.12	
	10 1-Methylnaphthalene	142	3.909	3.909	(1.153)	199438	2.00000	2.06	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	231263	2.00000	2.01	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	256428	2.00000	1.89	
*	2 Acenaphthene-d10 (IS)	164	4.516	4.516	(1.000)	344036	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	177284	2.00000	2.00	
	13 Fluorene	166	4.870	4.870	(1.078)	210148	2.00000	2.02	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	597927	4.00000		
	14 Phenanthrene	178	5.542	5.542	(1.003)	293266	2.00000	2.03	
	15 Anthracene	178	5.578	5.578	(1.010)	310810	2.00000	2.11	
	16 Fluoranthene	202	6.490	6.490	(1.175)	363229	2.00000	2.20	
	17 Pyrene	202	6.688	6.688	(1.211)	364248	2.00000	2.14	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	275032	2.00000	2.17	
	18 Benzo(a)anthracene	228	7.772	7.772	(0.999)	322478	2.00000	2.08	
*	4 Chrysene-d12 (IS)	240	7.783	7.783	(1.000)	567486	4.00000		
	19 Chrysene	228	7.807	7.807	(1.003)	331270	2.00000	2.08	
	20 Benzo(b)fluoranthene	252	8.732	8.732	(0.964)	332920	2.00000	2.09	
	21 Benzo(k)fluoranthene	252	8.757	8.757	(0.967)	394879	2.00000	2.06	
	22 Benzo(a)pyrene	252	9.007	9.007	(0.995)	326747	2.00000	2.15	
*	5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	611062	4.00000		
	23 Dibenz(a,h)anthracene	278	9.876	9.876	(1.091)	290400	2.00000	1.77	
	24 Indeno(1,2,3-cd)pyrene	276	9.872	9.872	(1.090)	356547	2.00000	1.79	
	25 Benzo[g,h,i]perylene	276	10.068	10.068	(1.112)	292012	2.00000	1.78	

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mss2.i Injection Date: 15-JUL-2019 09:02
Lab File ID: m2071519s1.d Init. Cal. Date(s): 17-JUN-2019 17-JUN-2019
Analysis Type: Init. Cal. Times: 12:43 14:12
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
27 Quinoline	++++	++++	0.050	++++	20.00000	Averaged	<-
8 Naphthalene	0.90143	0.95048	0.050	5.44104	20.00000	Aver	
9 2-Methylnaphthalene	0.59910	0.63449	0.050	5.90653	20.00000	Aver	
10 1-Methylnaphthalene	0.64273	0.66190	0.050	2.98222	20.00000	Aver	
$ 6 2-Fluorobiphenyl (S)	1.33512	1.34441	0.050	0.69599	20.00000	Aver	
11 Acenaphthylene	1.57574	1.49070	0.050	-5.39681	20.00000	Aver	
12 Acenaphthene	1.02920	1.03061	0.050	0.13718	20.00000	Aver	
13 Fluorene	1.20790	1.22166	0.050	1.13982	20.00000	Aver	
14 Phenanthrene	0.96551	0.98094	0.050	1.59821	20.00000	Aver	
15 Anthracene	0.98399	1.03963	0.050	5.65428	20.00000	Aver	
16 Fluoranthene	1.10512	1.21496	0.050	9.93934	20.00000	Aver	
17 Pyrene	1.13626	1.21837	0.050	7.22585	20.00000	Aver	
$ 7 Terphenyl-d14 (S)	0.84910	0.91995	0.050	8.34435	20.00000	Aver	
18 Benzo(a)anthracene	1.09457	1.13651	0.050	3.83227	20.00000	Aver	
19 Chrysene	1.12111	1.16750	0.050	4.13766	20.00000	Aver	
20 Benzo(b)fluoranthene	1.04386	1.08964	0.050	4.38587	20.00000	Aver	
21 Benzo(k)fluoranthene	1.25415	1.29244	0.050	3.05288	20.00000	Aver	
22 Benzo(a)pyrene	0.99304	1.06944	0.050	7.69305	20.00000	Aver	
23 Dibenz(a,h)anthracene	1.07618	0.95048	0.050	-11.68074	20.00000	Aver	
24 Indeno(1,2,3-cd)pyrene	1.30056	1.16697	0.050	-10.27114	20.00000	Aver	
25 Benzo[g,h,i]perylene	1.07081	0.95575	0.050	-10.74487	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 5.51301
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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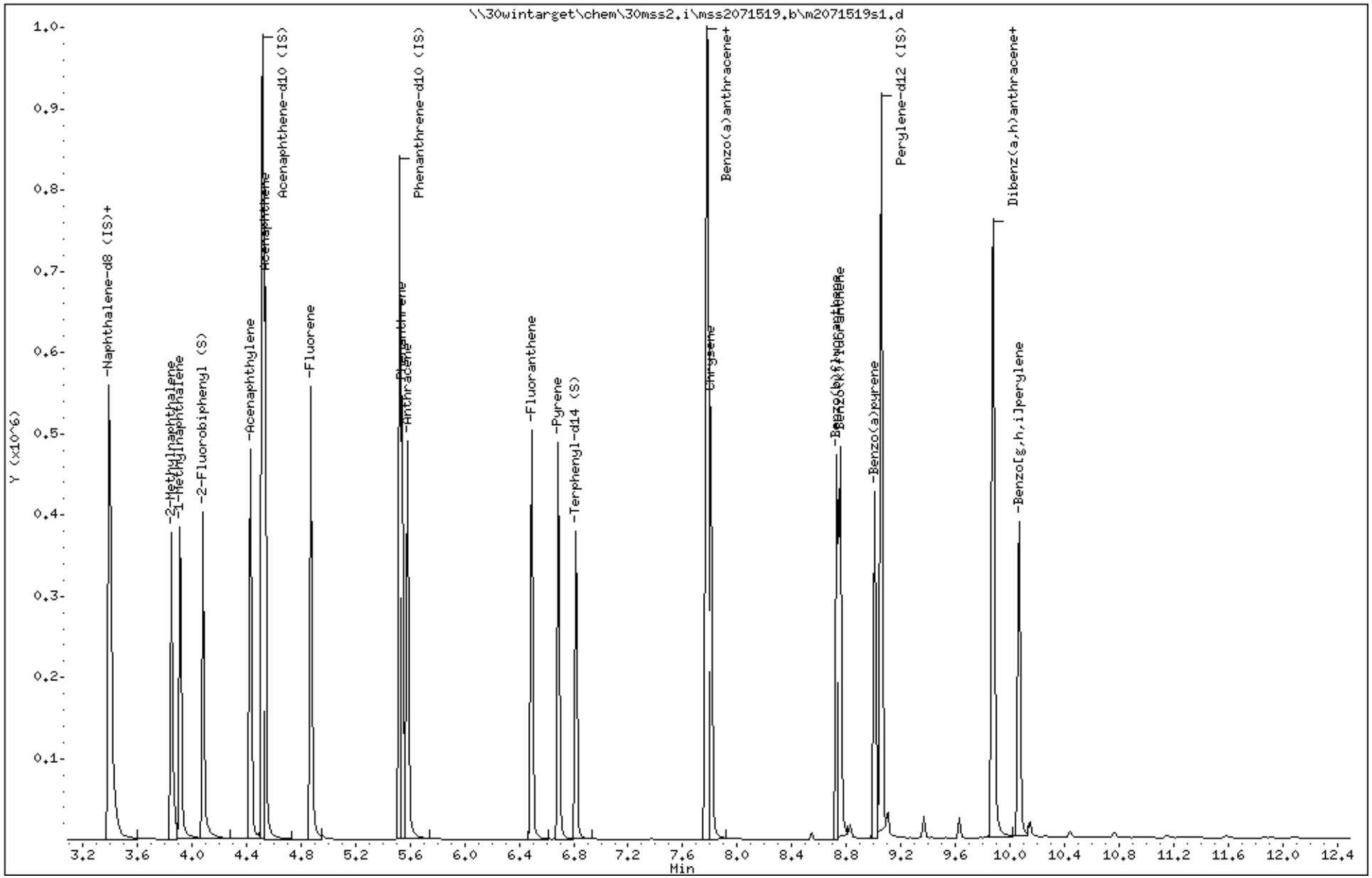
Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519s1.d
Date : 15-JUL-2019 09:02
Client ID: CCV
Sample Info: CCV, 89111:1

Instrument: 30mss2.i

Operator: DSC
Column diameter: 0.25

Column phase: RTX-5MS



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m2071519s1.d
Injection Date: 15-JUL-2019 09:02
Instrument: 30mss2.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

Date : 17-JUN-2019 12:09

Client ID: TUNE

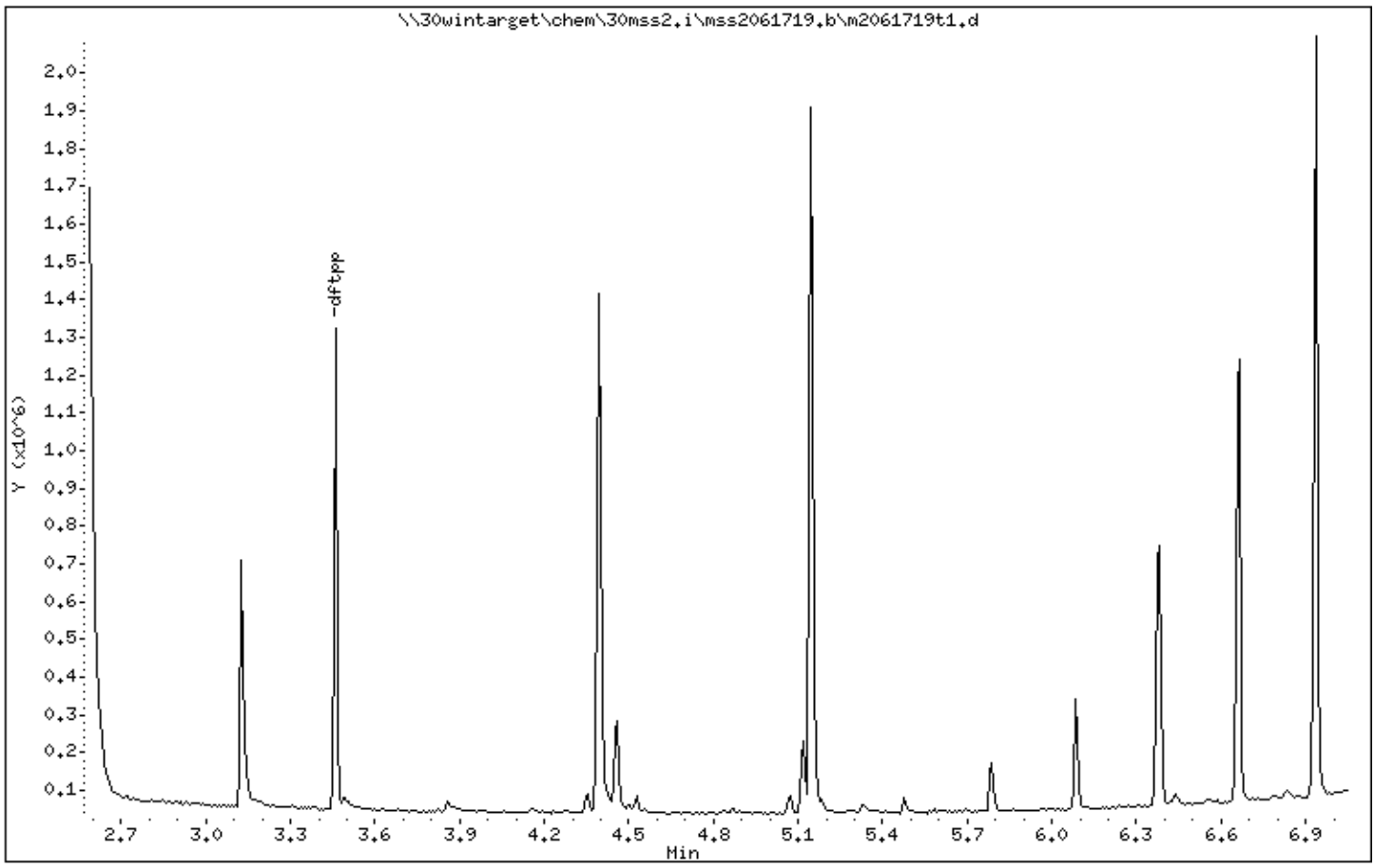
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2061719.b\m2061719t1.d

Date : 17-JUN-2019 12:09

Client ID: TUNE

Instrument: 30mss2.i

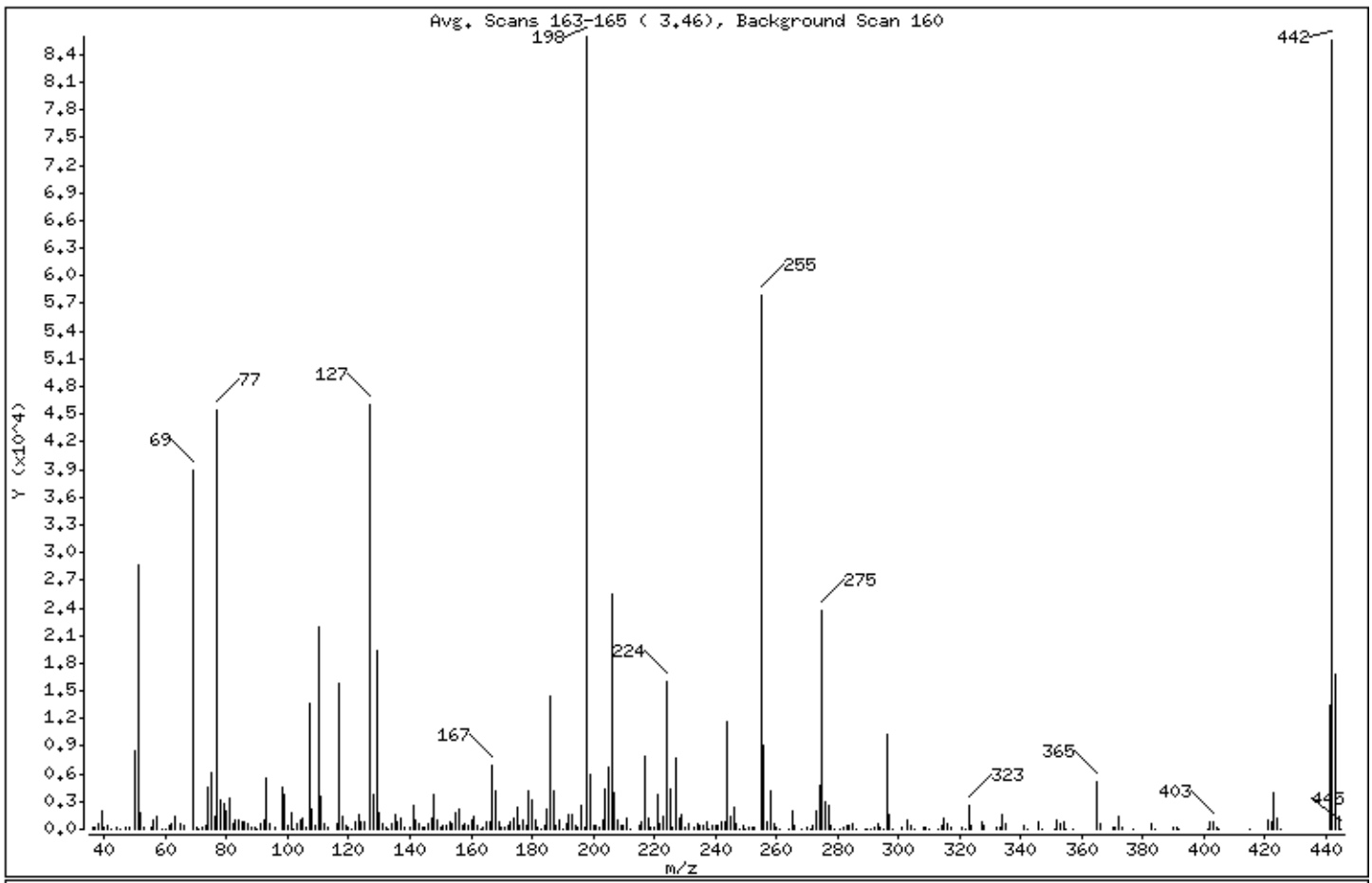
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.25
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.35
70	Less than 2.00% of mass 69	0.12 (0.26)
127	10.00 - 80.00% of mass 198	53.52
197	Less than 2.00% of mass 198	0.14
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 60.00% of mass 198	27.69
365	Greater than 1.00% of mass 198	5.98
441	Present, but less than mass 443	15.64
442	50.00 - 110.00% of mass 198	99.44
443	15.00 - 24.00% of mass 442	19.65 (19.76)

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	272	123.00	1571	200.00	435	284.00	327
37.00	177	124.00	869	201.00	322	285.00	534
38.00	499	125.00	765	202.00	229	286.00	54
39.00	1992	127.00	45992	203.00	916	289.00	61
40.00	134	128.00	3781	204.00	4348	290.00	84
41.00	380	129.00	19288	205.00	6622	291.00	51
42.00	95	130.00	1707	206.00	25496	292.00	120
44.00	130	131.00	687	207.00	3886	293.00	564
45.00	61	132.00	152	208.00	919	294.00	158
47.00	110	133.00	27	209.00	389	295.00	58
48.00	209	134.00	565	210.00	489	296.00	10288
50.00	8576	135.00	1606	211.00	1177	297.00	1624
51.00	28576	136.00	851	212.00	94	298.00	61
52.00	1724	137.00	1110	215.00	341	301.00	127
53.00	99	138.00	221	216.00	764	303.00	1001
55.00	267	140.00	288	217.00	7820	304.00	347
56.00	954	141.00	2624	218.00	1157	305.00	55
57.00	1315	142.00	898	219.00	130	308.00	123
59.00	76	143.00	641	220.00	161	309.00	107
60.00	64	144.00	293	221.00	3714	310.00	56
61.00	433	145.00	186	222.00	595	313.00	70
62.00	664	146.00	678	223.00	1442	314.00	482
63.00	1416	147.00	1092	224.00	16023	315.00	1221
65.00	614	148.00	3745	225.00	4257	316.00	593
66.00	367	149.00	990	226.00	203	317.00	100
69.00	38968	150.00	192	227.00	7730	321.00	267
70.00	102	151.00	481	228.00	1150	322.00	58
71.00	67	152.00	307	229.00	1508	323.00	2509
72.00	119	153.00	818	230.00	278	324.00	420
73.00	347	154.00	657	231.00	563	327.00	699
74.00	4470	155.00	1768	233.00	150	328.00	314
75.00	6128	156.00	2185	234.00	562	332.00	188
76.00	1298	157.00	432	235.00	477	333.00	245
77.00	45384	158.00	605	236.00	346	334.00	1634
78.00	3098	159.00	448	237.00	762	335.00	533

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	2773	160.00	939	238.00	58	341.00	405
80.00	1918	161.00	1367	239.00	337	342.00	58
81.00	3280	162.00	320	240.00	338	346.00	774
82.00	622	163.00	71	241.00	334	347.00	88
83.00	1026	164.00	185	242.00	855	351.00	55
84.00	899	165.00	711	243.00	718	352.00	969
85.00	772	166.00	882	244.00	11678	353.00	595
86.00	754	167.00	6895	245.00	1419	354.00	730
87.00	532	168.00	4055	246.00	2405	355.00	35
88.00	145	169.00	738	247.00	650	357.00	57
89.00	270	170.00	267	248.00	56	365.00	5136
90.00	63	171.00	237	249.00	467	366.00	662
91.00	604	172.00	394	250.00	74	370.00	162
92.00	988	173.00	758	251.00	149	371.00	233
93.00	5561	174.00	1174	252.00	159	372.00	1448
94.00	502	175.00	2400	253.00	176	373.00	287
96.00	199	176.00	302	255.00	57936	377.00	76
98.00	4630	177.00	992	256.00	8997	383.00	501
99.00	3729	178.00	365	257.00	854	384.00	67
100.00	344	179.00	4089	258.00	4209	390.00	118
101.00	1857	180.00	3083	259.00	682	391.00	165
102.00	92	181.00	956	260.00	237	392.00	94
103.00	537	182.00	294	261.00	78	401.00	51
104.00	1040	183.00	88	264.00	88	402.00	766
105.00	1201	184.00	393	265.00	1996	403.00	775
106.00	174	185.00	2213	266.00	471	404.00	258
107.00	13681	186.00	14339	268.00	70	405.00	50
108.00	2081	187.00	4209	270.00	114	415.00	52
109.00	385	188.00	429	271.00	73	421.00	932
110.00	22000	189.00	1082	272.00	310	422.00	696
111.00	3615	190.00	58	273.00	1920	423.00	3936
112.00	503	191.00	642	274.00	4756	424.00	1144
113.00	101	192.00	1664	275.00	23792	425.00	82
116.00	517	193.00	1669	276.00	2870	441.00	13441
117.00	15850	194.00	469	277.00	2663	442.00	85456

Date : 17-JUN-2019 12:09

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2061719t1.d
Spectrum: Avg. Scans 163-165 (3.46), Background Scan 160
Location of Maximum: 198.00
Number of points: 298

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1303	195.00	159	278.00	441	443.00	16888
119.00	360	196.00	2596	279.00	63	444.00	1438
120.00	209	197.00	118	281.00	95	445.00	64
121.00	48	198.00	85936	282.00	114		
122.00	863	199.00	6011	283.00	343		

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519t1.d

Date : 15-JUL-2019 08:49

Client ID: TUNE

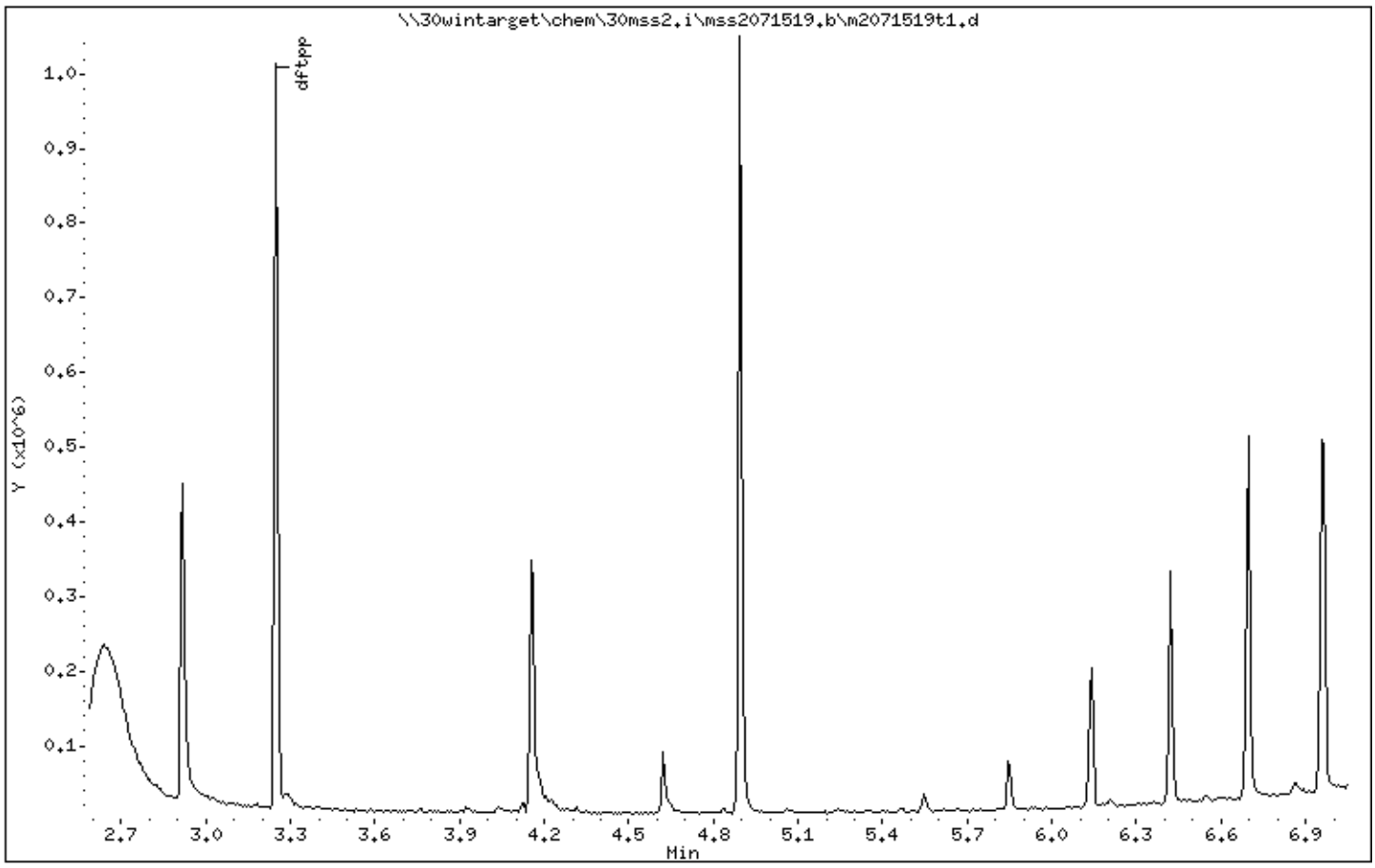
Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m2071519t1.d

Date : 15-JUL-2019 08:49

Client ID: TUNE

Instrument: 30mss2.i

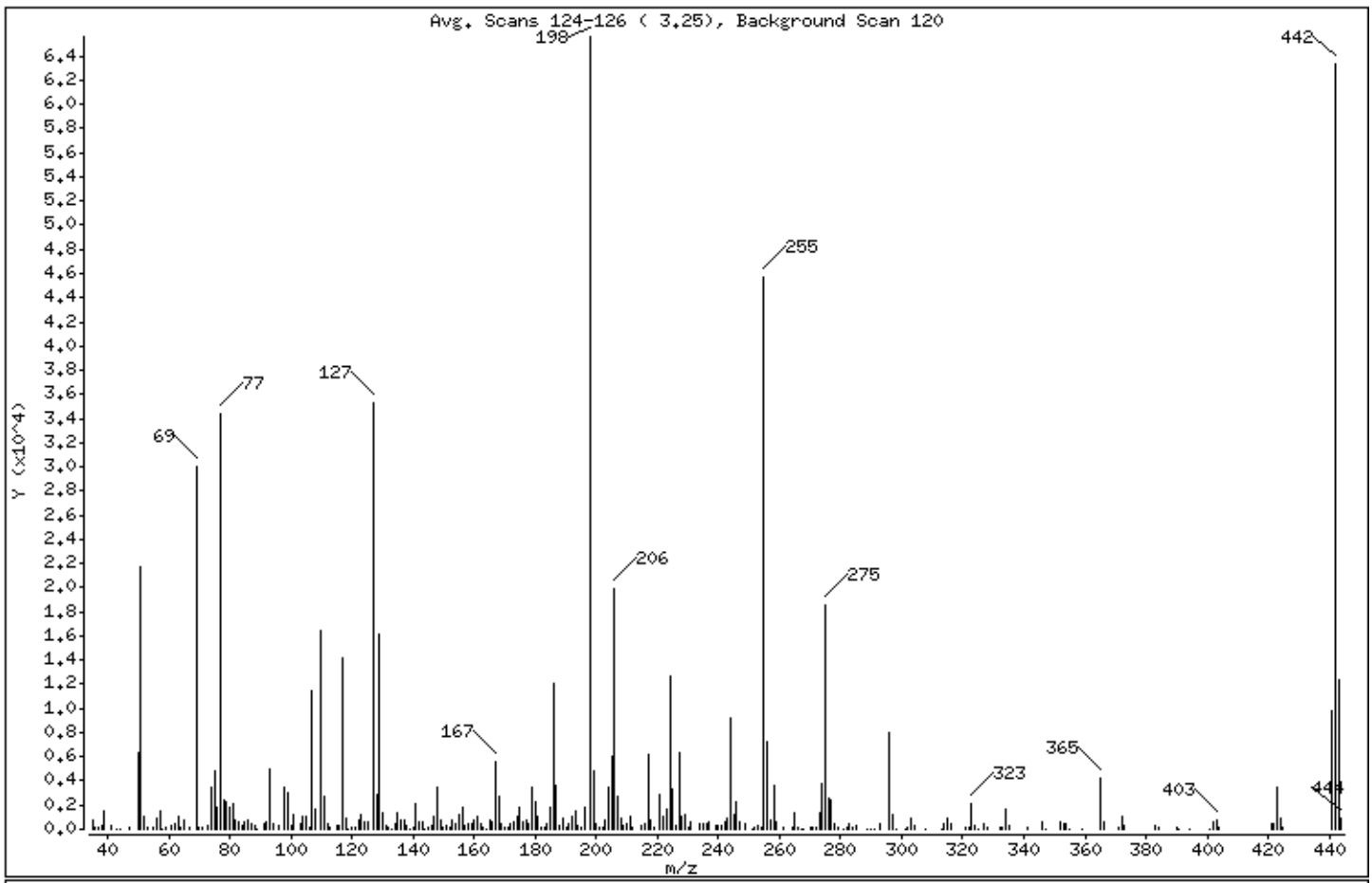
Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	33.18
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	45.75
70	Less than 2.00% of mass 69	0.24 (0.53)
127	10.00 - 80.00% of mass 198	53.70
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.43
275	10.00 - 60.00% of mass 198	28.25
365	Greater than 1.00% of mass 198	6.39
441	Present, but less than mass 443	15.03
442	Greater than 50.00% of mass 198	96.63
443	15.00 - 24.00% of mass 442	18.94 (19.60)

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	696	122.00	813	193.00	1434	276.00	2537
36.00	190	123.00	1209	194.00	309	277.00	2370
37.00	135	124.00	665	195.00	81	278.00	419
38.00	288	125.00	570	196.00	1821	279.00	106
39.00	1494	127.00	35232	198.00	65608	281.00	13
41.00	238	128.00	2888	199.00	4877	282.00	187
43.00	26	129.00	16139	200.00	514	283.00	457
44.00	8	130.00	1412	201.00	152	284.00	145
47.00	77	131.00	290	202.00	178	285.00	345
50.00	6368	132.00	163	203.00	735	289.00	60
51.00	21768	133.00	70	204.00	3412	290.00	50
52.00	1033	134.00	463	205.00	6010	291.00	52
53.00	86	135.00	1393	206.00	19912	293.00	440
55.00	107	136.00	738	207.00	2781	296.00	8003
56.00	839	137.00	753	208.00	907	297.00	1189
57.00	1448	138.00	230	209.00	286	298.00	69
58.00	57	139.00	53	210.00	423	301.00	64
59.00	95	140.00	138	211.00	982	302.00	154
61.00	358	141.00	2071	212.00	101	303.00	845
62.00	416	142.00	622	215.00	233	304.00	261
63.00	1004	143.00	544	216.00	511	308.00	69
64.00	196	144.00	51	217.00	6178	313.00	51
65.00	715	145.00	180	218.00	802	314.00	398
67.00	103	146.00	375	219.00	148	315.00	884
69.00	30016	147.00	1046	221.00	2814	316.00	470
70.00	158	148.00	3426	222.00	1067	321.00	193
71.00	132	149.00	737	223.00	1604	322.00	79
73.00	234	150.00	223	224.00	12647	323.00	2186
74.00	3515	151.00	321	225.00	3364	324.00	340
75.00	4804	152.00	133	226.00	248	325.00	52
76.00	1882	153.00	807	227.00	6338	327.00	526
77.00	34336	154.00	430	228.00	1004	328.00	220
78.00	2339	155.00	1217	229.00	1206	332.00	179
79.00	2221	156.00	1741	230.00	121	333.00	161
80.00	1876	157.00	269	231.00	563	334.00	1645

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	2174	158.00	420	234.00	512	335.00	347
82.00	817	159.00	420	235.00	527	341.00	145
83.00	540	160.00	798	236.00	449	346.00	548
84.00	276	161.00	998	237.00	650	347.00	62
85.00	582	162.00	402	239.00	341	352.00	676
86.00	820	163.00	98	240.00	254	353.00	463
87.00	447	164.00	55	241.00	356	354.00	515
88.00	336	165.00	827	242.00	670	355.00	62
89.00	53	166.00	646	243.00	907	359.00	56
91.00	390	167.00	5638	244.00	9157	365.00	4194
92.00	634	168.00	2685	245.00	1164	366.00	635
93.00	4986	169.00	464	246.00	2325	371.00	160
94.00	423	170.00	191	247.00	578	372.00	1106
96.00	283	171.00	107	249.00	418	373.00	356
98.00	3492	172.00	435	251.00	50	383.00	310
99.00	2947	173.00	570	252.00	183	384.00	82
100.00	239	174.00	1122	253.00	273	390.00	82
101.00	1165	175.00	1853	254.00	109	391.00	71
103.00	463	176.00	604	255.00	45728	394.00	50
104.00	1077	177.00	747	256.00	7268	401.00	51
105.00	1105	178.00	505	257.00	679	402.00	555
106.00	155	179.00	3533	258.00	3583	403.00	680
107.00	11515	180.00	2228	259.00	665	404.00	216
108.00	1645	181.00	1047	261.00	102	421.00	508
110.00	16448	182.00	96	264.00	129	422.00	509
111.00	2648	183.00	106	265.00	1419	423.00	3492
112.00	494	184.00	399	266.00	210	424.00	935
113.00	221	185.00	1843	267.00	73	425.00	126
115.00	255	186.00	12027	268.00	61	441.00	9863
116.00	321	187.00	3681	270.00	128	442.00	63400
117.00	14154	188.00	361	271.00	85	443.00	12429
118.00	972	189.00	901	272.00	110	444.00	903
119.00	67	190.00	128	273.00	1305		
120.00	161	191.00	411	274.00	3767		
121.00	78	192.00	1119	275.00	18536		

Date : 15-JUL-2019 08:49

Client ID: TUNE Instrument: 30mss2.i

Sample Info: TUNE, 79378:1

Operator: DSC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m2071519t1.d
Spectrum: Avg. Scans 124-126 (3.25), Background Scan 120
Location of Maximum: 198.00
Number of points: 277

m/z	Y	m/z	Y	m/z	Y	m/z	Y

SAMPLE NO.

BLANK

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30313514
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 1708423
Date Analyzed: 07/15/2019 09:19
Lab File ID: MSS2071519.B\M207151901.D
Initial wt/vol: 15.04 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	ND	U
129-00-0	Pyrene	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d
Lab Smp Id: 1708423 Client Smp ID: MB
Inj Date : 15-JUL-2019 09:19
Operator : DSC Inst ID: 30mss2.i
Smp Info : 1708423,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.040	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
27	Quinoline	100	Compound Not Detected.						
* 1	Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	567654	4.00000		
8	Naphthalene	128	3.401	3.401	(1.003)	1546	0.01209	0.804	
9	2-Methylnaphthalene	142	3.846	3.846	(1.135)	558	0.00656	0.436	
10	1-Methylnaphthalene	142	3.915	3.909	(1.155)	520	0.00570	0.379	
$ 6	2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	408590	3.67936	245	
11	Acenaphthylene	152	Compound Not Detected.						(D)
* 2	Acenaphthene-d10 (IS)	164	4.517	4.516	(1.000)	332702	4.00000		
12	Acenaphthene	153	4.533	4.536	(1.004)	360	0.00421	0.280(QM)	NI
13	Fluorene	166	Compound Not Detected.						(D)
* 3	Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	570496	4.00000		
14	Phenanthrene	178	5.542	5.542	(1.003)	1254	0.00911	0.605(Q)	
15	Anthracene	178	5.583	5.578	(1.011)	391	0.00279	0.185	
16	Fluoranthene	202	Compound Not Detected.						(D)
17	Pyrene	202	6.688	6.688	(1.211)	564	0.00348	0.231	
$ 7	Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	525724	4.34117	289	
18	Benzo(a)anthracene	228	Compound Not Detected.						(D)
* 4	Chrysene-d12 (IS)	240	7.781	7.783	(1.000)	531820	4.00000		
19	Chrysene	228	7.804	7.807	(1.003)	582	0.00390	0.260(Q)	
20	Benzo(b)fluoranthene	252	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
21 Benzo(k)fluoranthene	252	Compound Not Detected.						(D)
22 Benzo(a)pyrene	252	9.012	9.007	(0.995)	339	0.00254	0.169(Q)	
* 5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	538180	4.00000		
23 Dibenz(a,h)anthracene	278	9.886	9.876	(1.092)	424	0.00293	0.195(Q)	
24 Indeno(1,2,3-cd)pyrene	276	9.876	9.872	(1.091)	486	0.00278	0.185	
25 Benzo[g,h,i]perylene	276	10.073	10.068	(1.112)	493	0.00342	0.228(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

Pace Analytical Services, Inc.

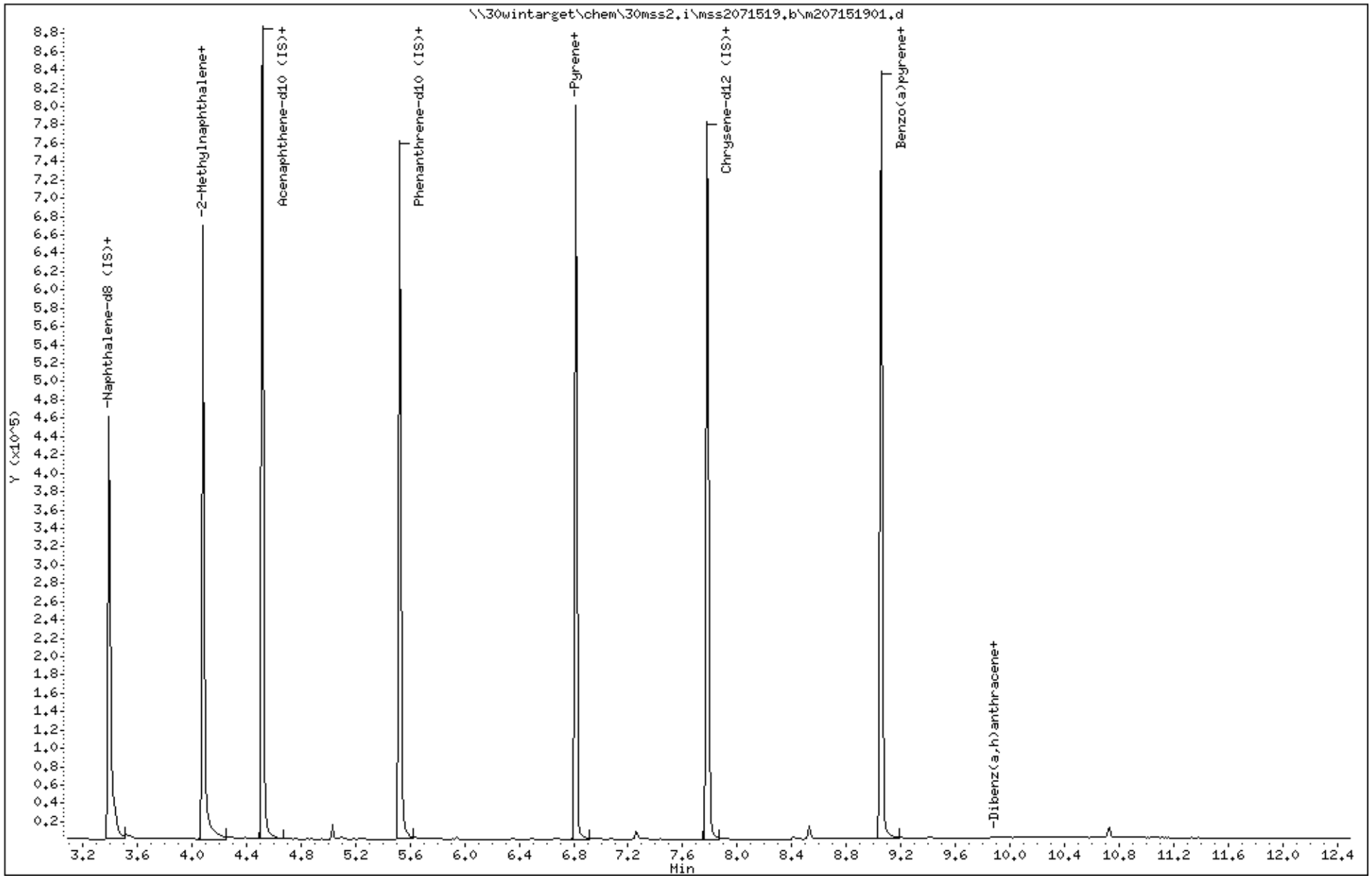
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708423
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14824,

Client SDG: mss2071519.b
Client Smp ID: MB
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: DSC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00997	U
91-20-3	Naphthalene	0.804	
91-57-6	2-Methylnaphthalene	0.436	
90-12-0	1-Methylnaphthalene	0.379	
208-96-8	Acenaphthylene	0.00997	U
83-32-9	Acenaphthene	0.280	
86-73-7	Fluorene	0.00997	U
85-01-8	Phenanthrene	0.605	
120-12-7	Anthracene	0.185	
206-44-0	Fluoranthene	0.00997	U
129-00-0	Pyrene	0.231	
56-55-3	Benzo(a)anthracene	0.00997	U
218-01-9	Chrysene	0.260	
205-99-2	Benzo(b)fluoranthene	0.00997	U
207-08-9	Benzo(k)fluoranthene	0.00997	U
50-32-8	Benzo(a)pyrene	0.169	
53-70-3	Dibenz(a,h)anthracene	0.195	
193-39-5	Indeno(1,2,3-cd)pyrene	0.185	
191-24-2	Benzo[g,h,i]perylene	0.228	
321-60-8	2-Fluorobiphenyl (S)	245	
1718-51-0	Terphenyl-d14 (S)	289	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d
Date : 15-JUL-2019 09:19
Client ID: MB
Instrument: 30mss2.i
Sample Info: 1708423,
Volume Injected (uL): 1.0
Operator: DSC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

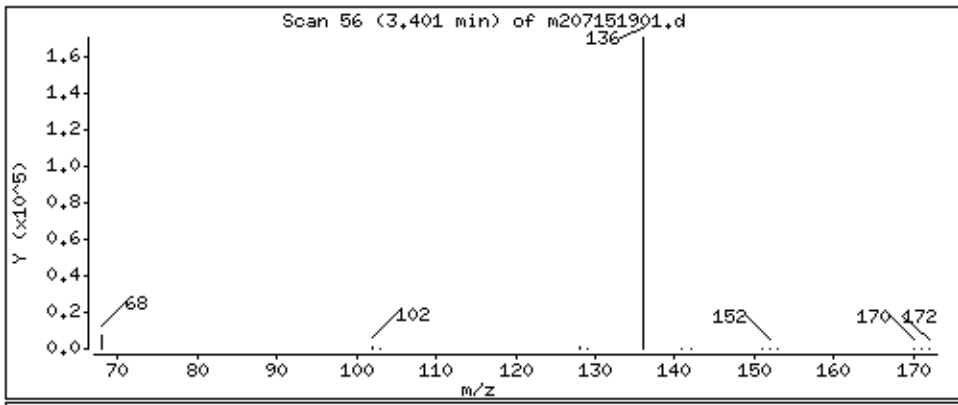
Operator: DSC

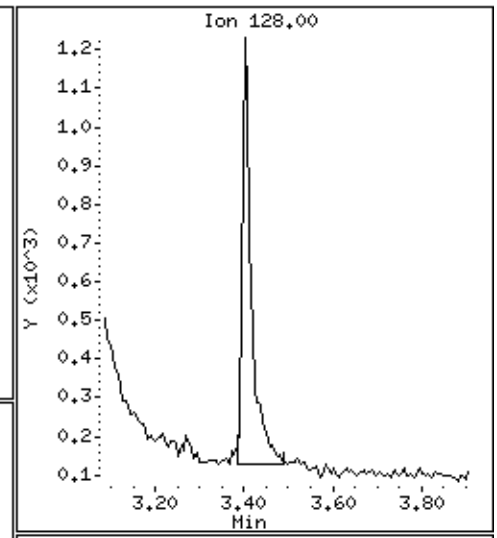
Column phase: RTX-5MS

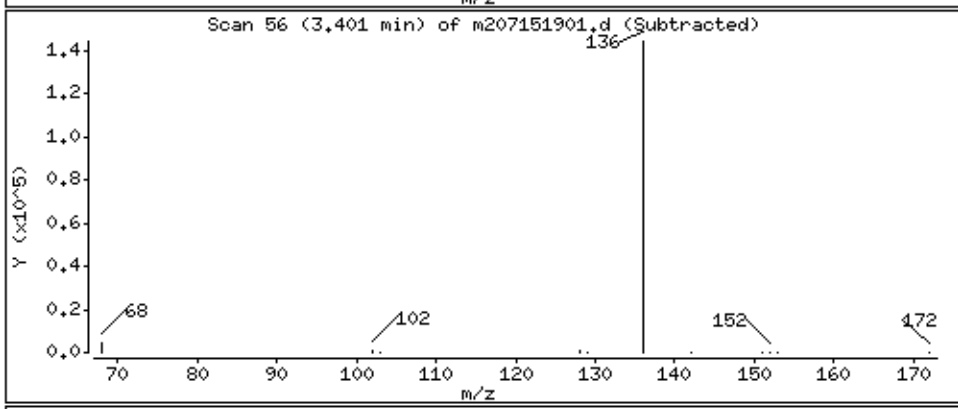
Column diameter: 0.25

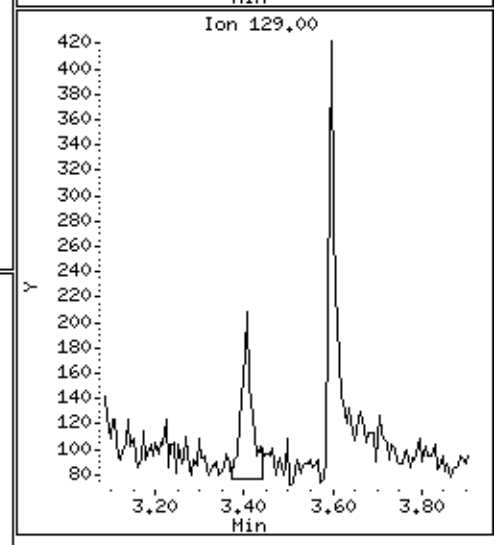
8 Naphthalene

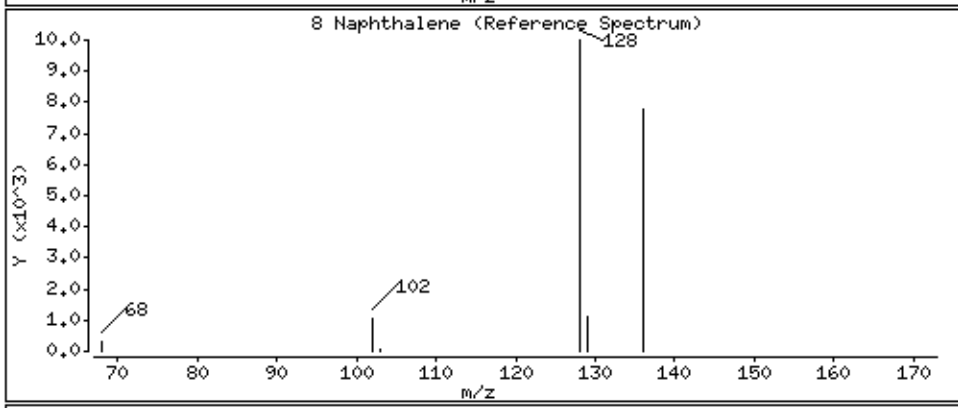
Concentration: 0.804 ug/Kg

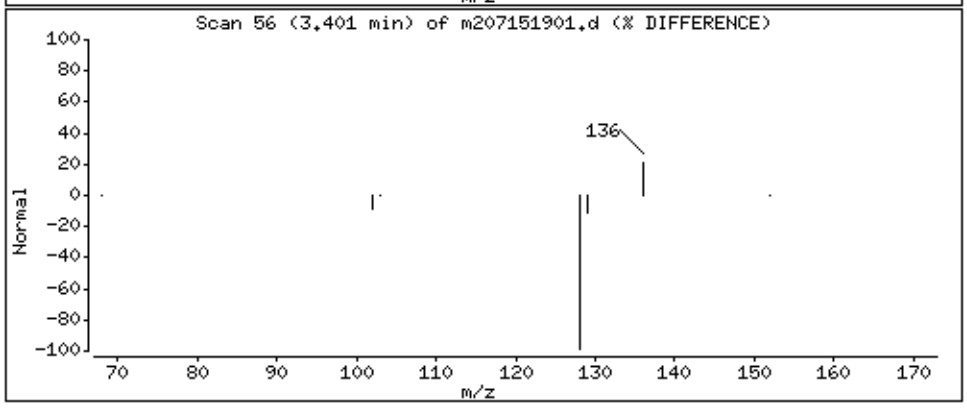












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

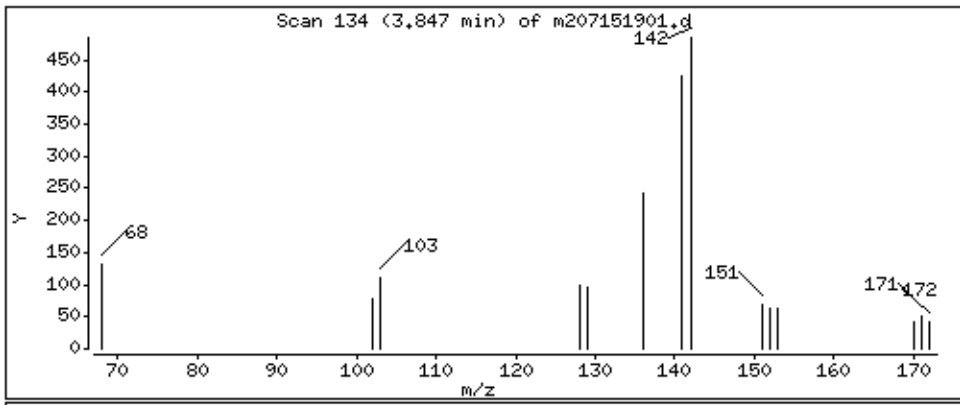
Operator: DSC

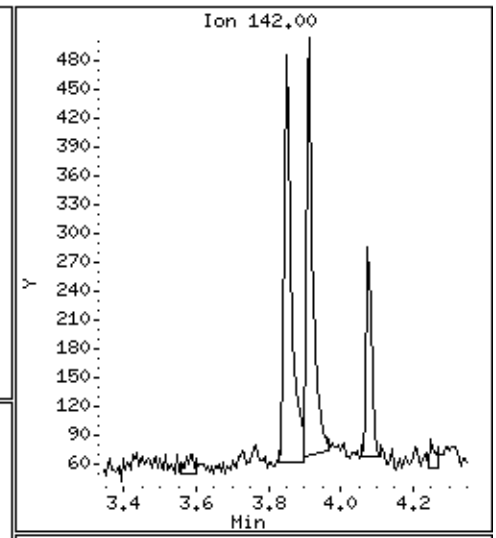
Column phase: RTX-5MS

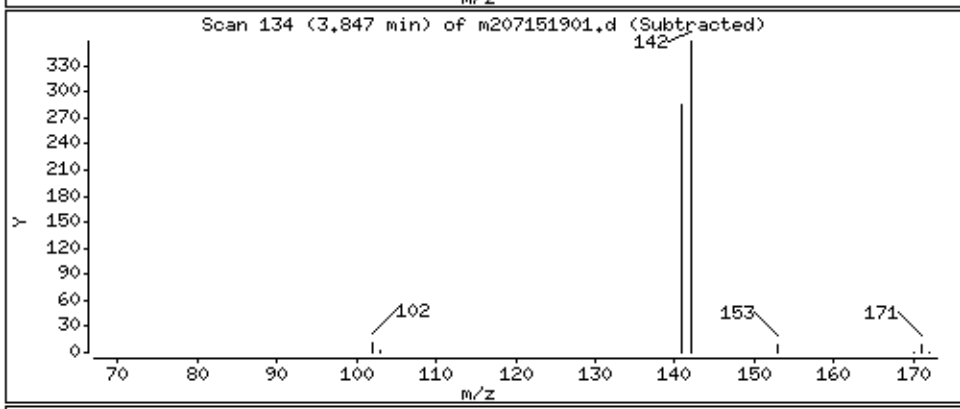
Column diameter: 0.25

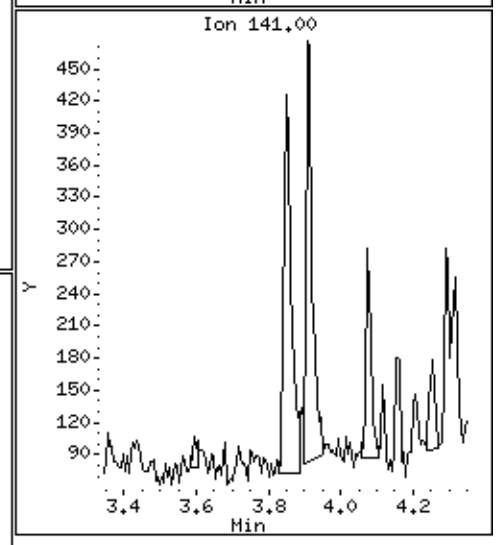
9 2-Methylnaphthalene

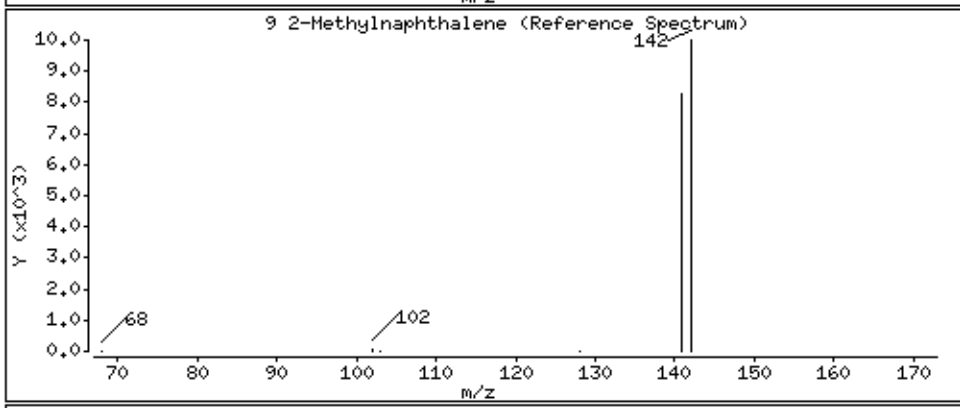
Concentration: 0.436 ug/Kg

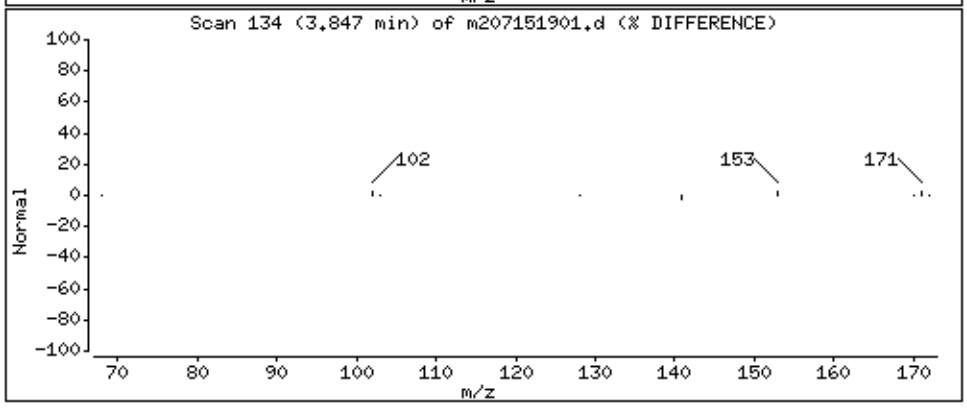












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

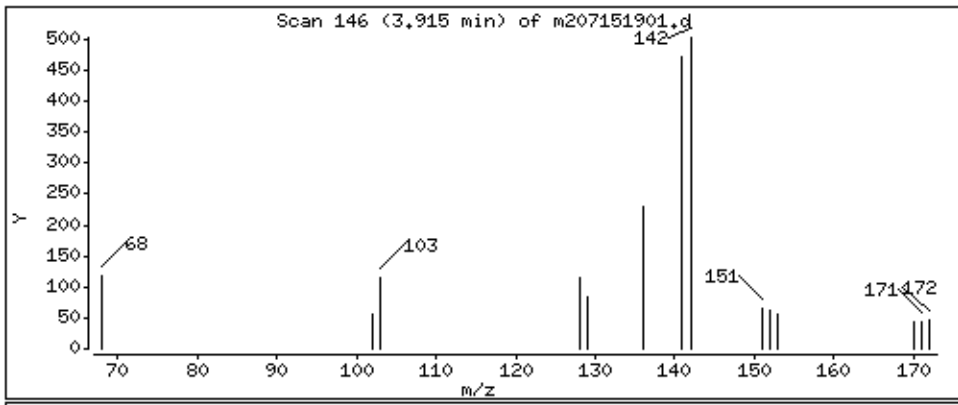
Operator: DSC

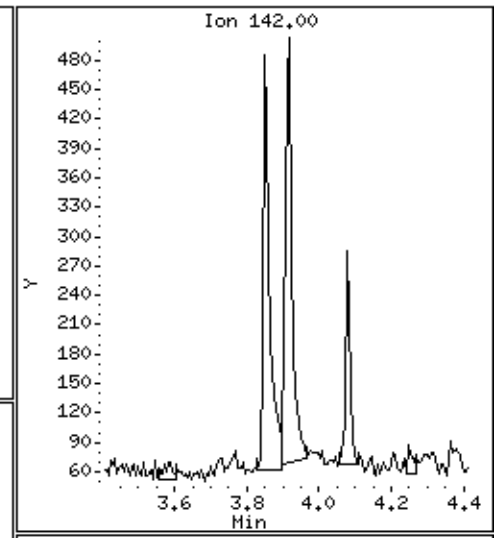
Column phase: RTX-5MS

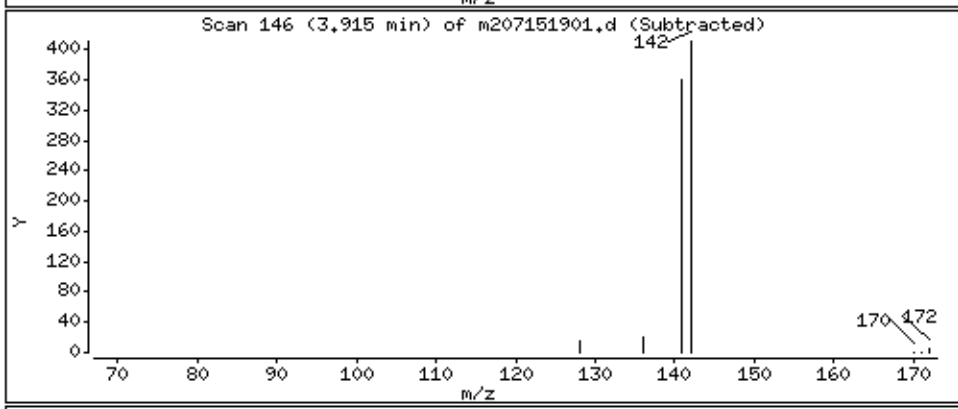
Column diameter: 0.25

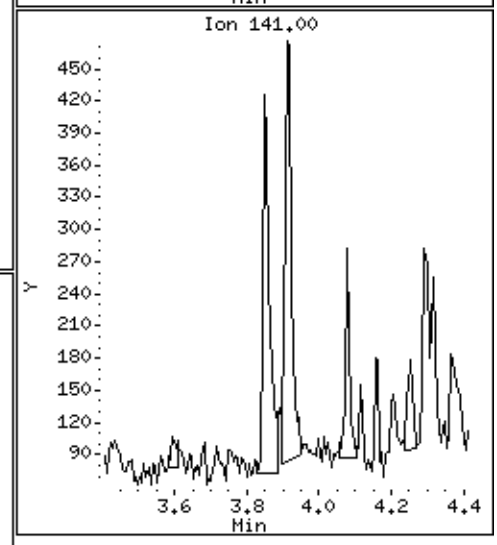
10 1-Methylnaphthalene

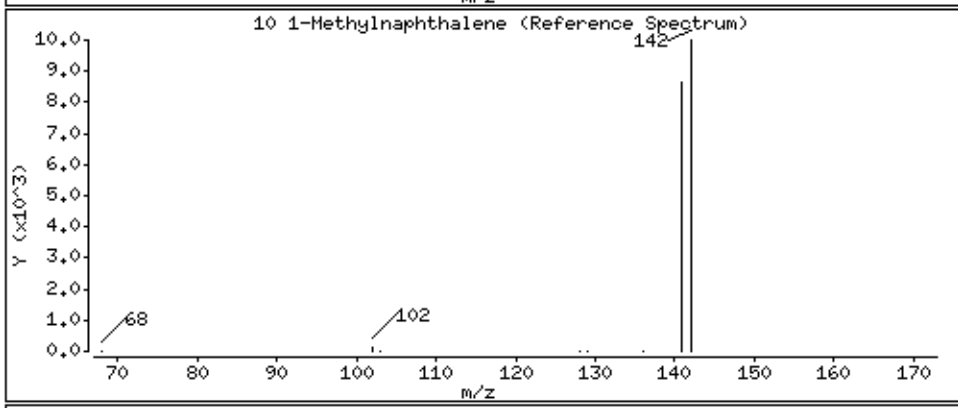
Concentration: 0.379 ug/Kg

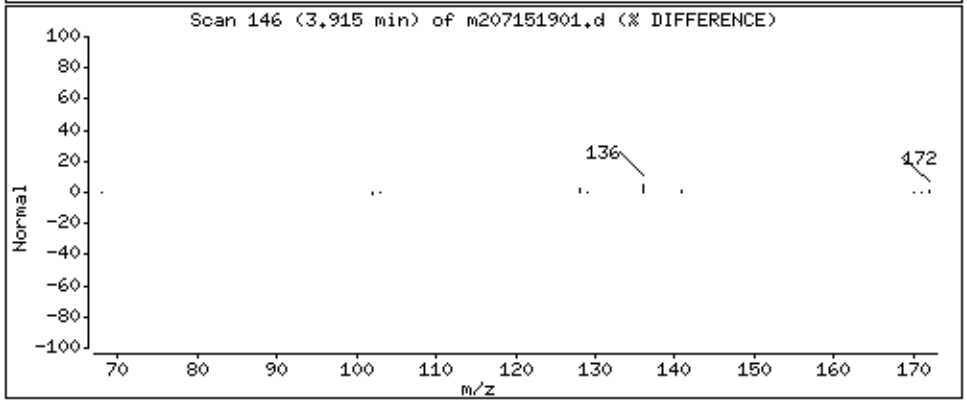












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

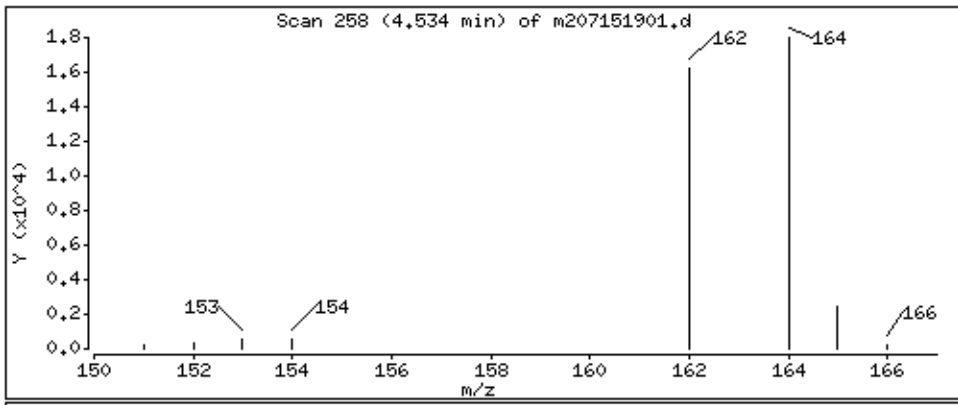
Operator: DSC

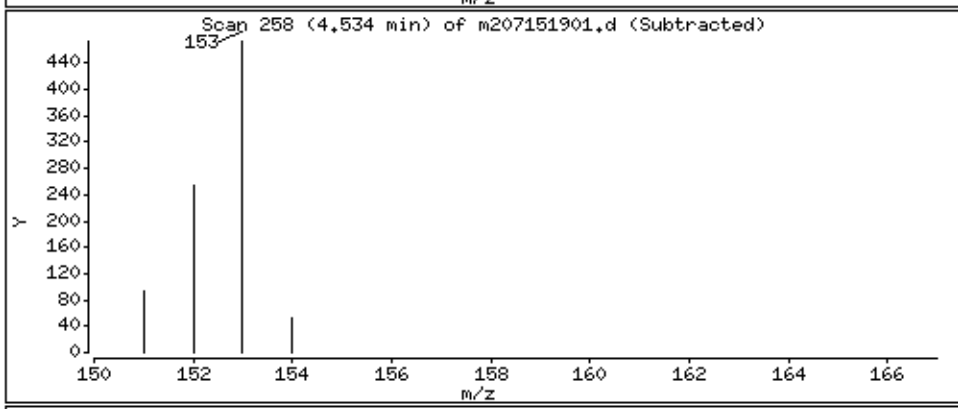
Column phase: RTX-5MS

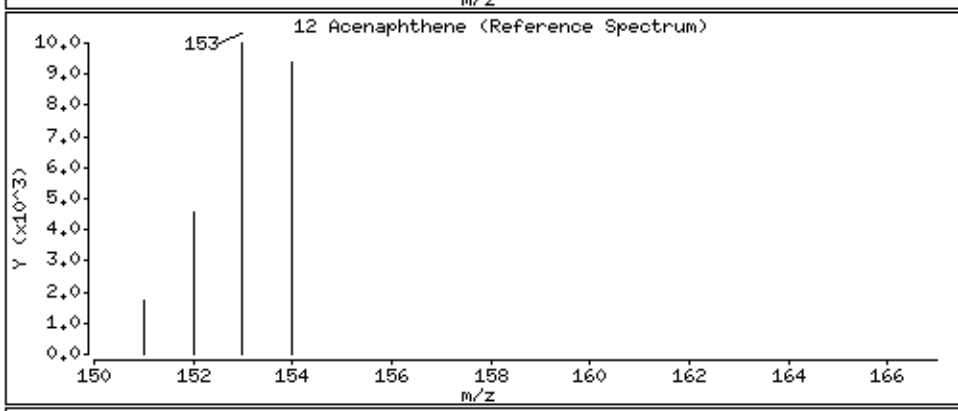
Column diameter: 0.25

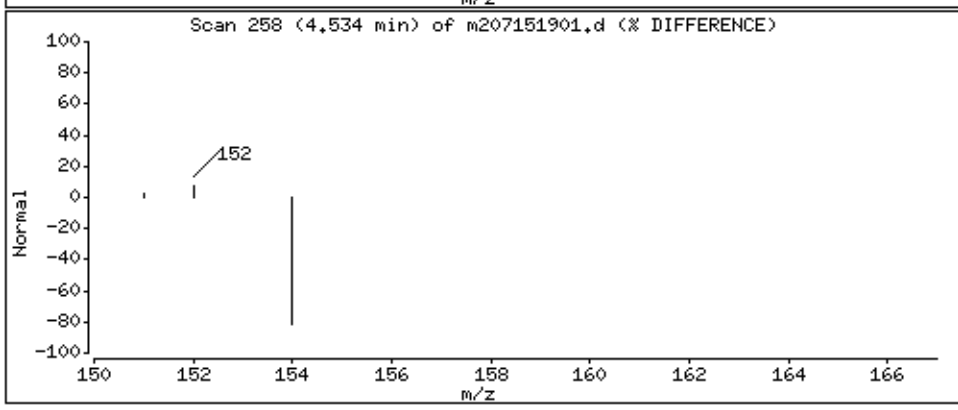
12 Acenaphthene

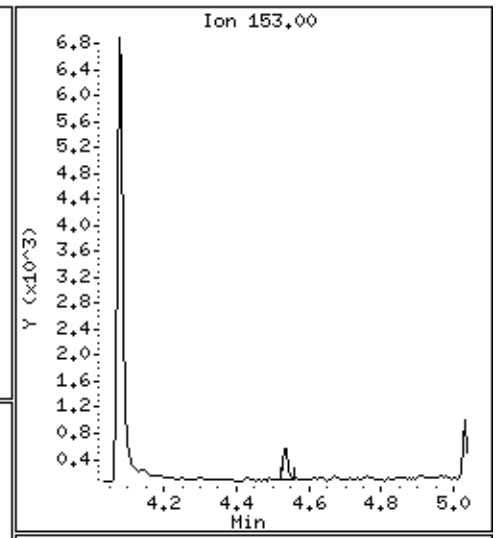
Concentration: 0.280 ug/Kg

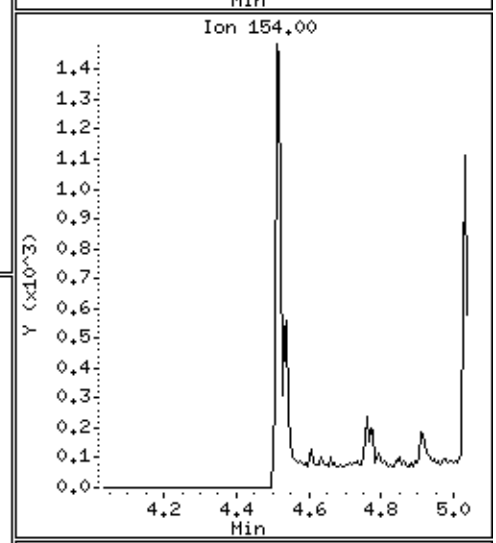


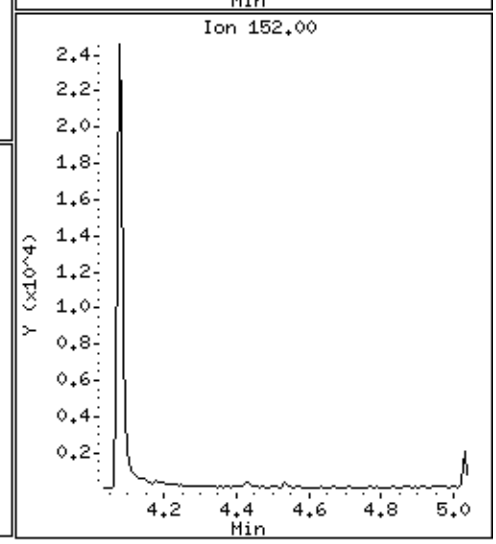












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

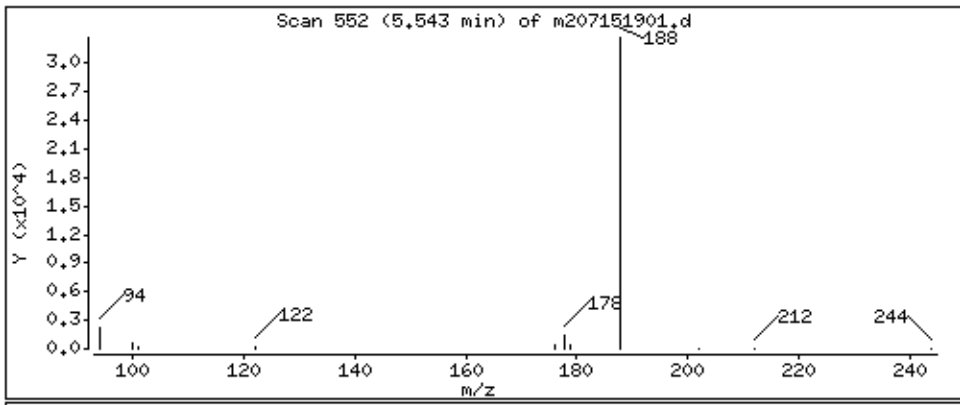
Operator: DSC

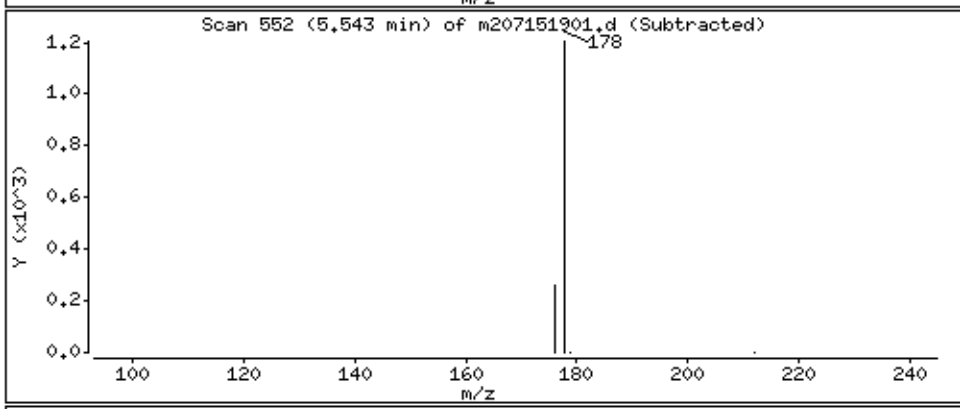
Column phase: RTX-5MS

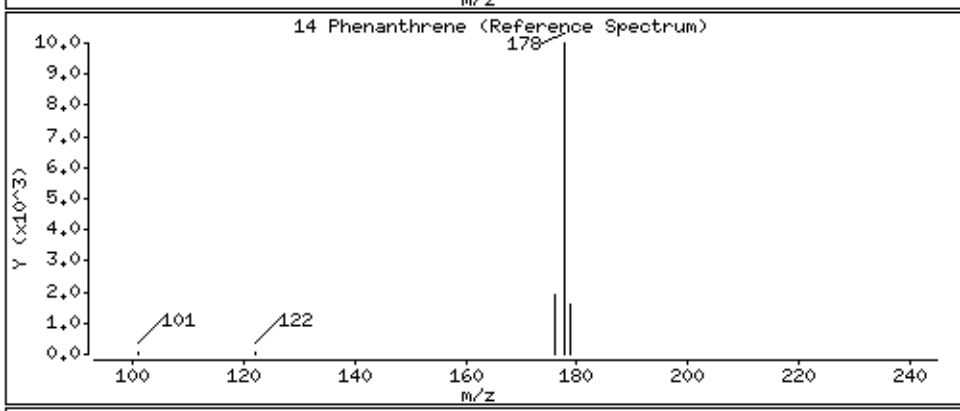
Column diameter: 0.25

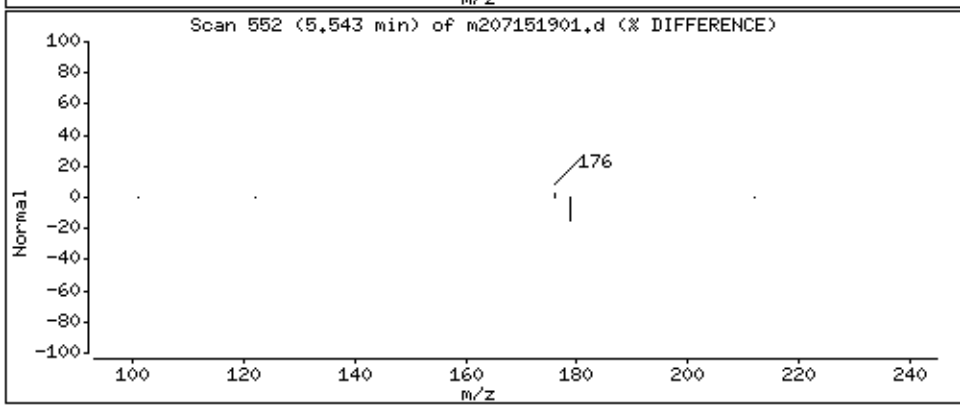
14 Phenanthrene

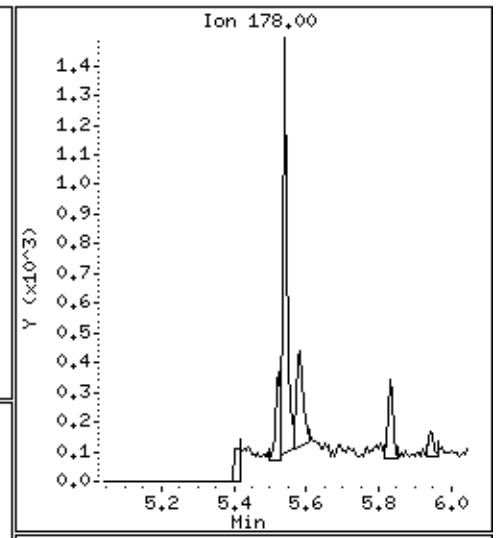
Concentration: 0.605 ug/Kg

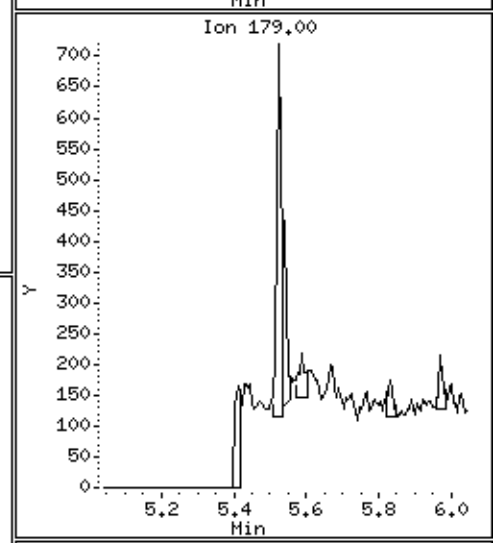


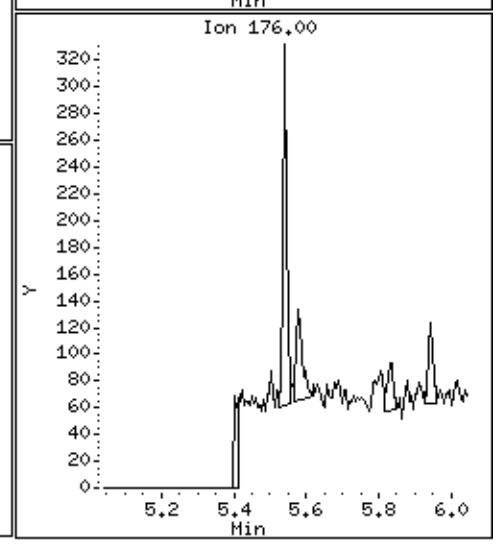












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

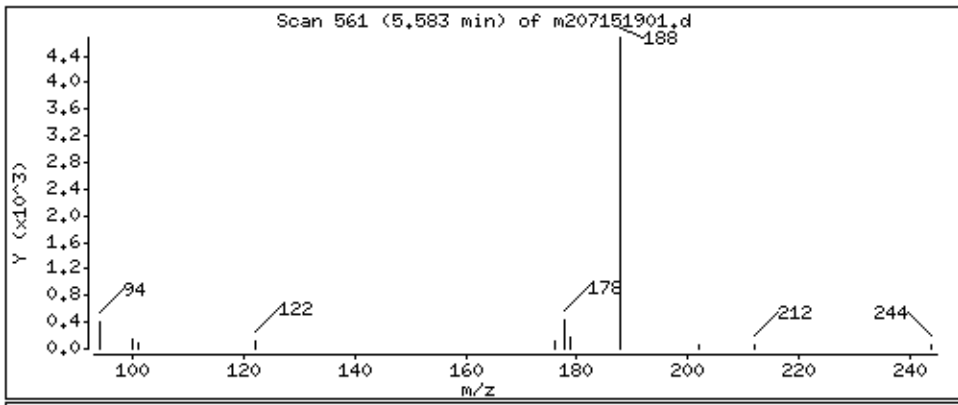
Operator: DSC

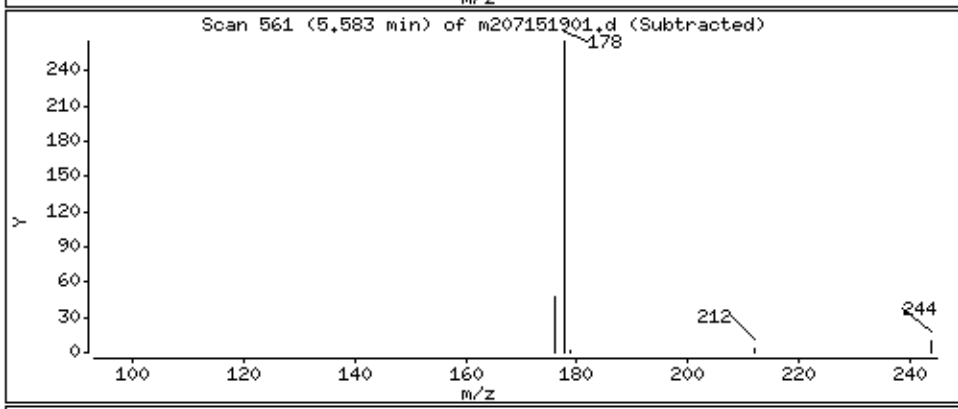
Column phase: RTX-5MS

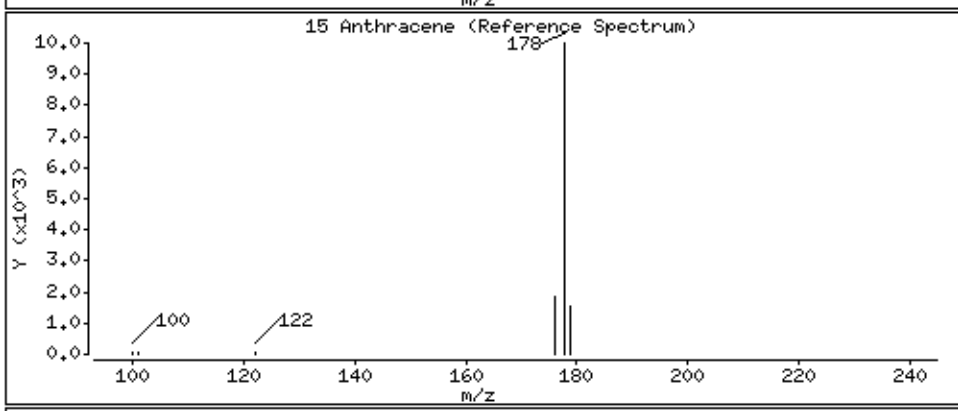
Column diameter: 0.25

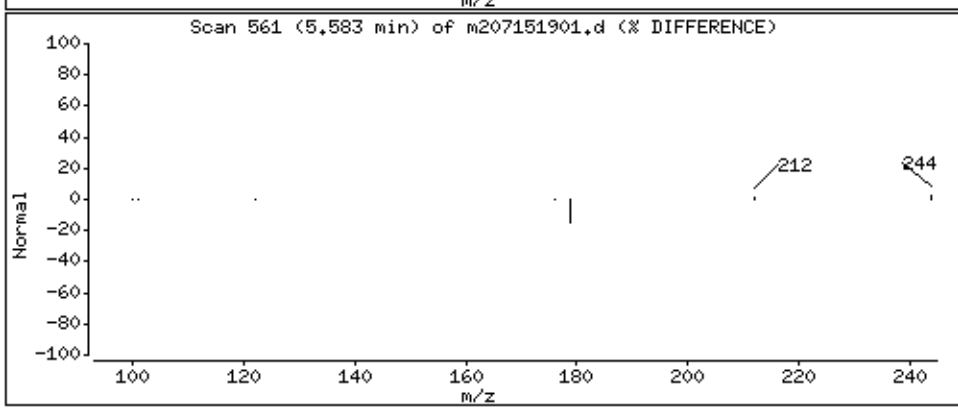
15 Anthracene

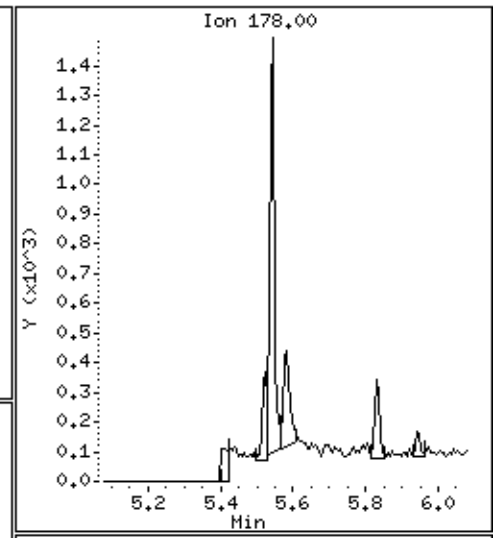
Concentration: 0.185 ug/Kg

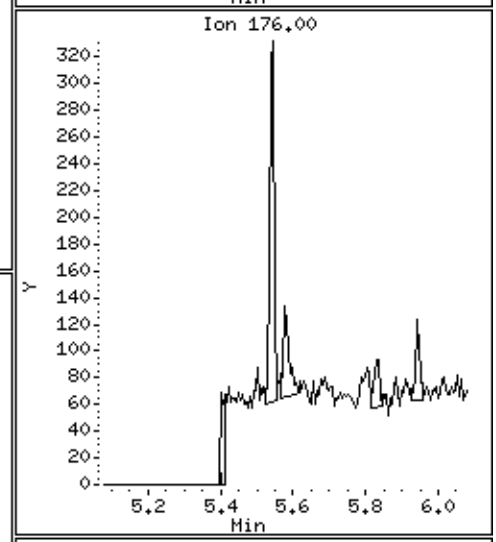


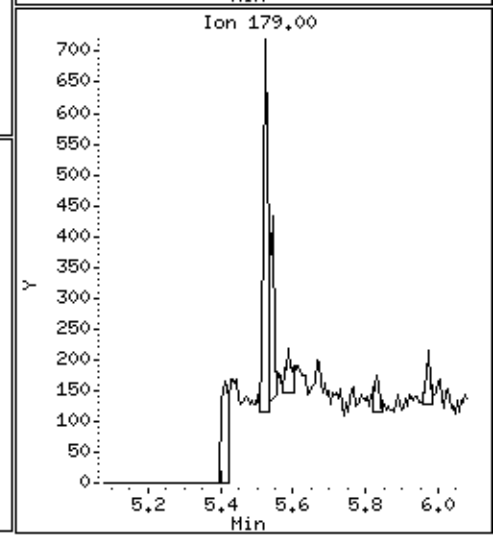












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

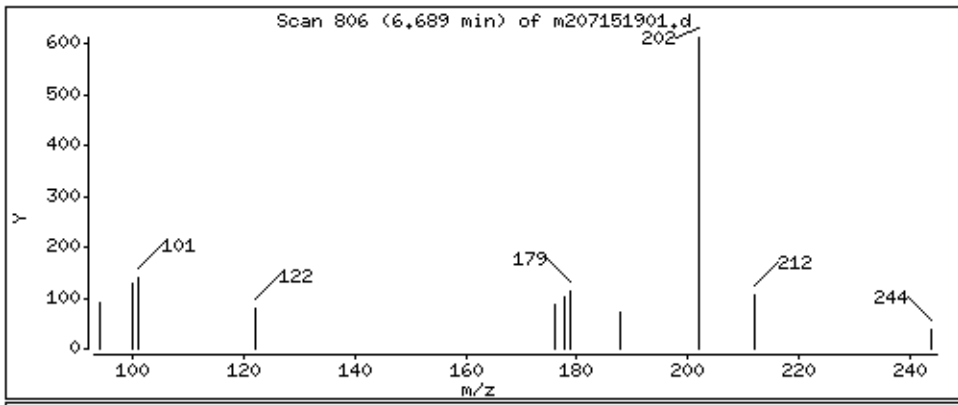
Operator: DSC

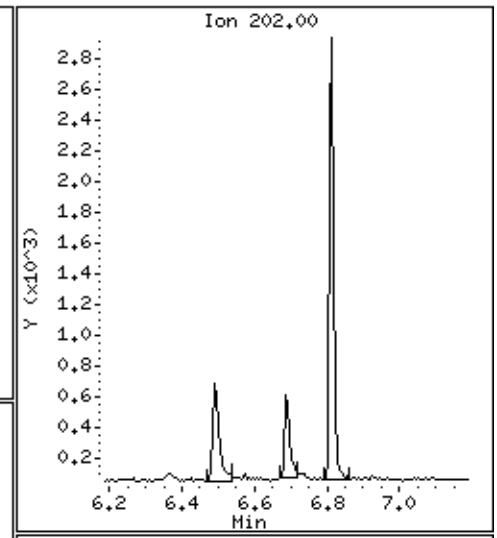
Column phase: RTX-5MS

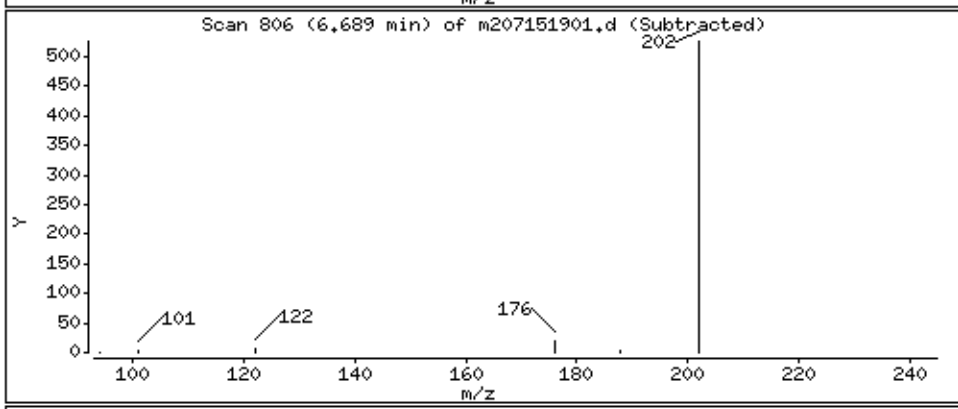
Column diameter: 0.25

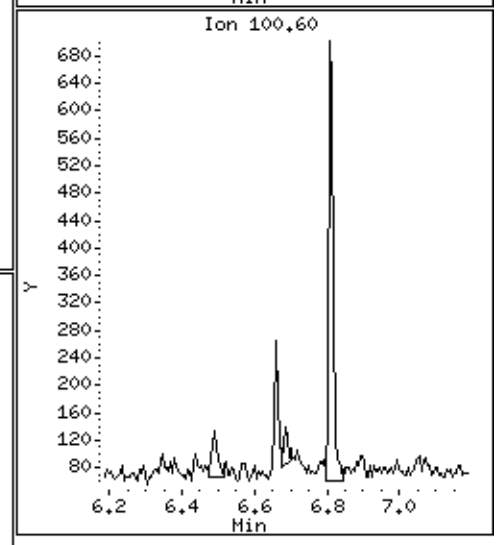
17 Pyrene

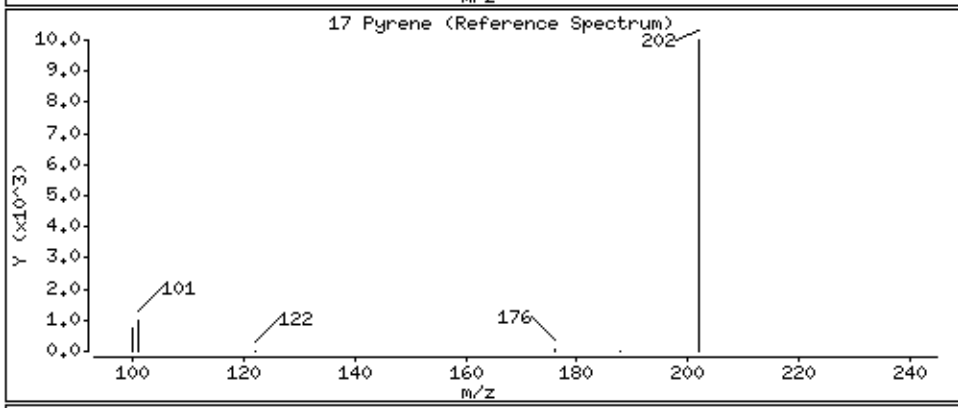
Concentration: 0.231 ug/Kg

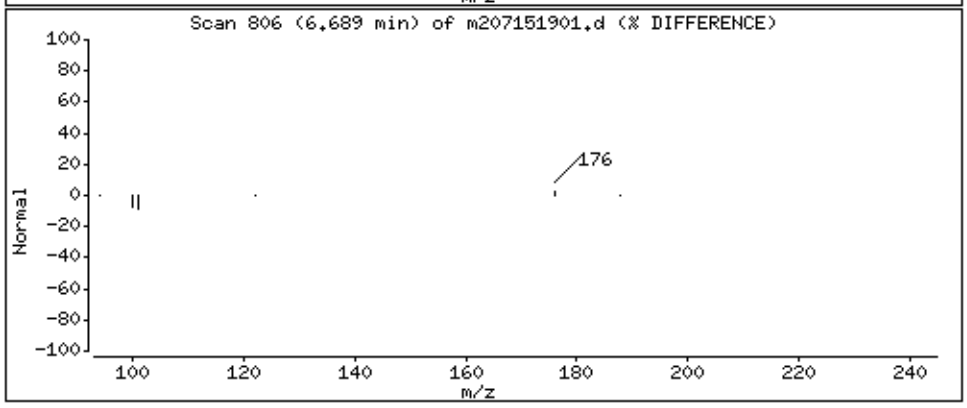












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

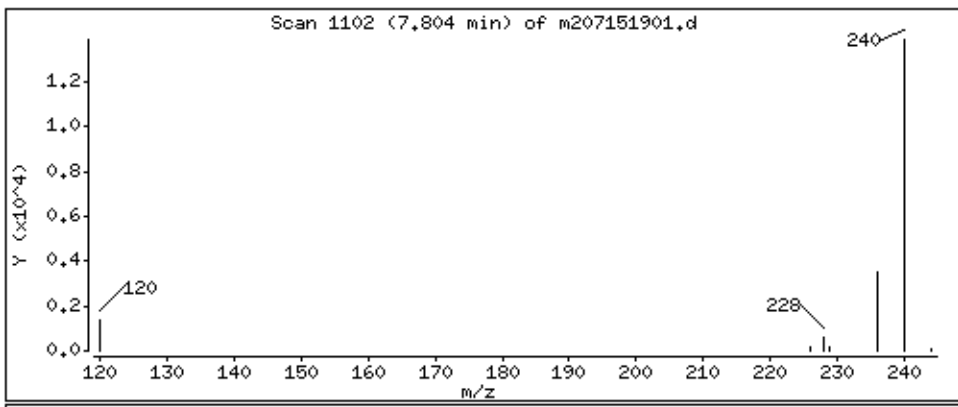
Operator: DSC

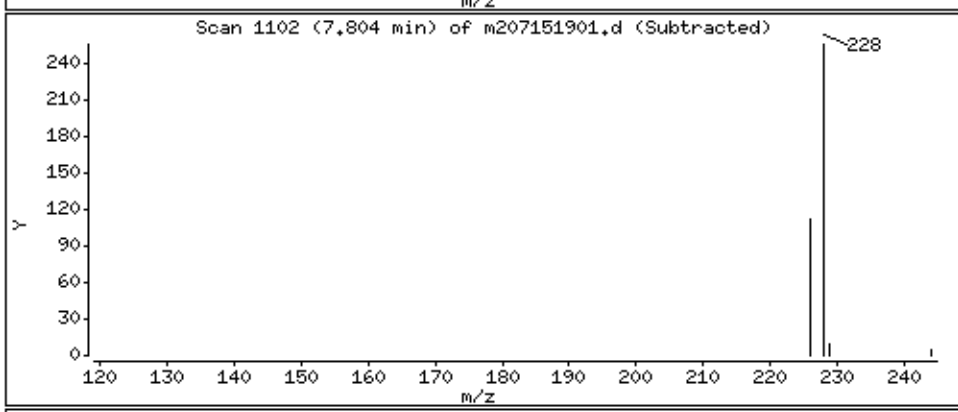
Column phase: RTX-5MS

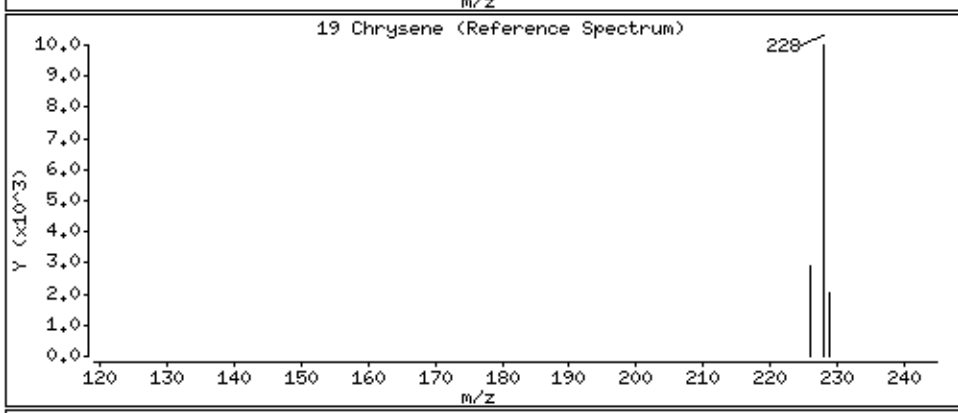
Column diameter: 0.25

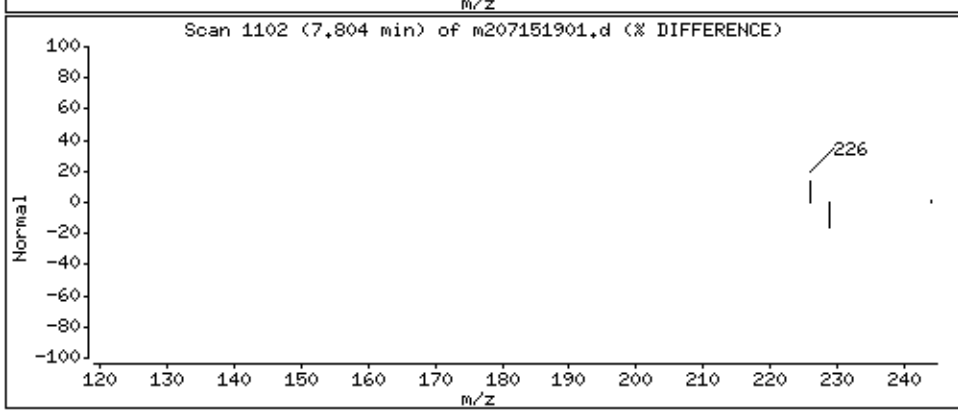
19 Chrysene

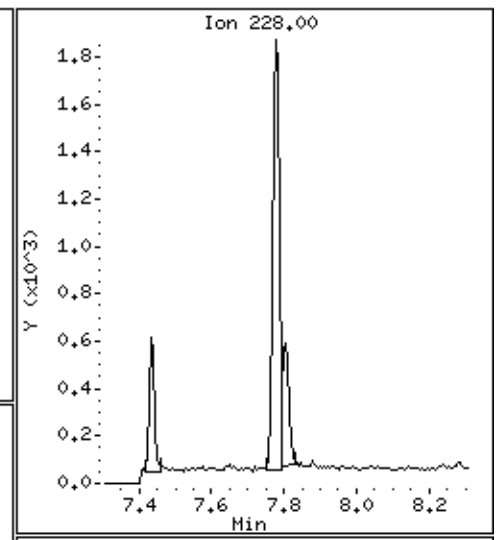
Concentration: 0.260 ug/Kg

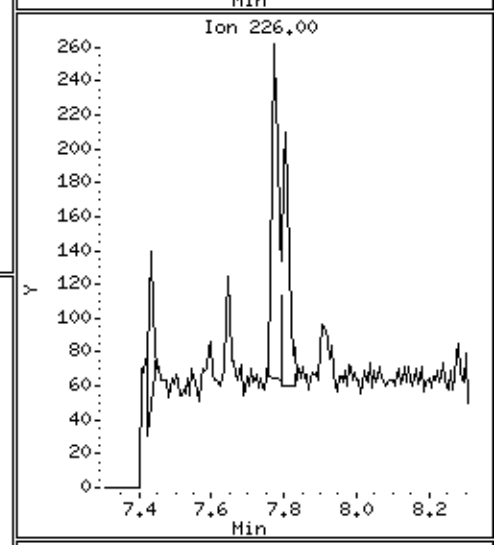


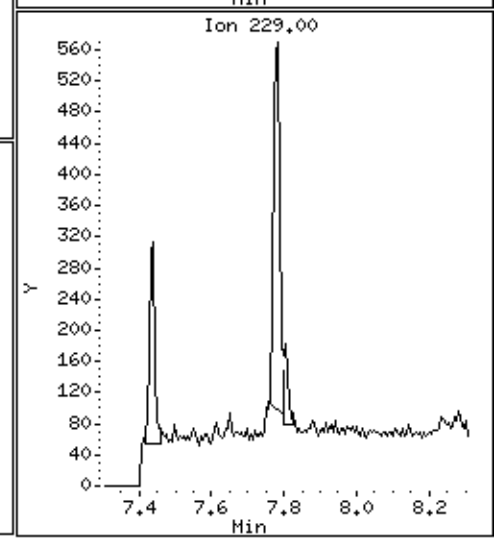












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

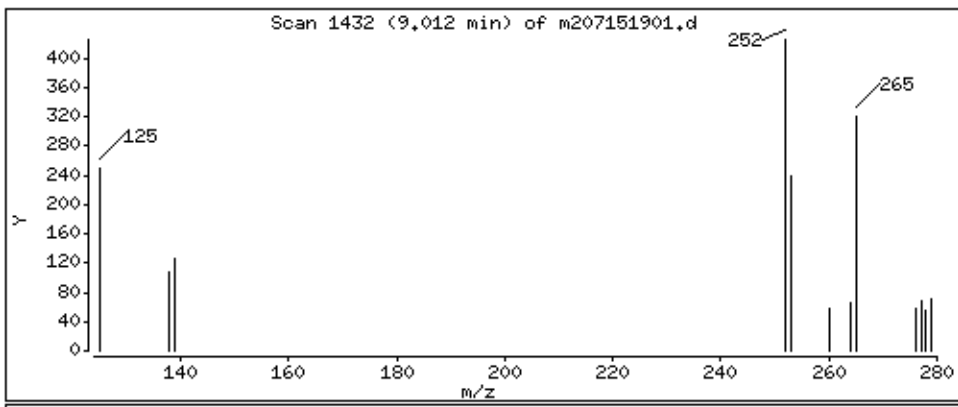
Operator: DSC

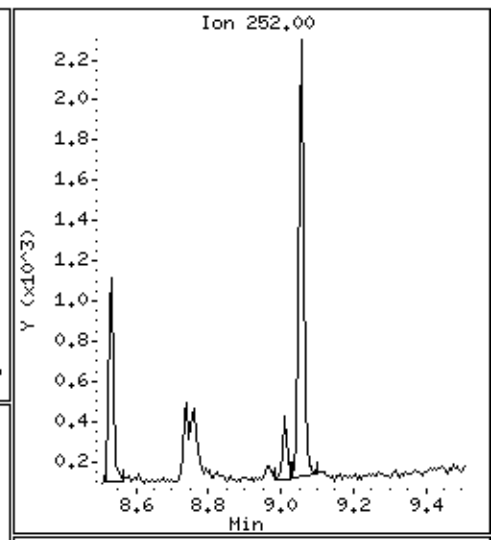
Column phase: RTX-5MS

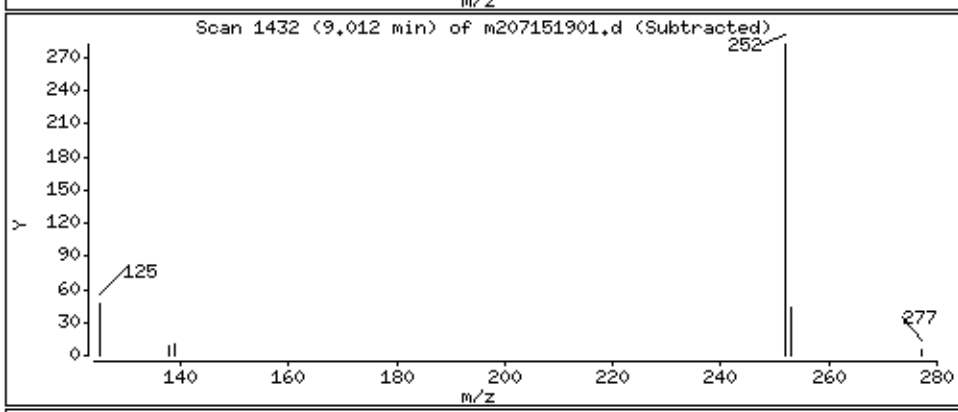
Column diameter: 0.25

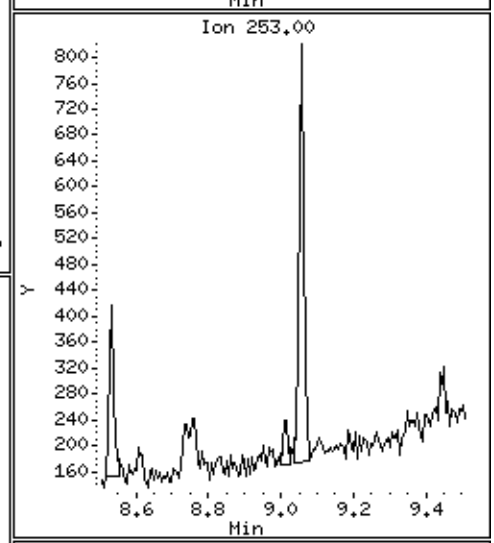
22 Benzo(a)pyrene

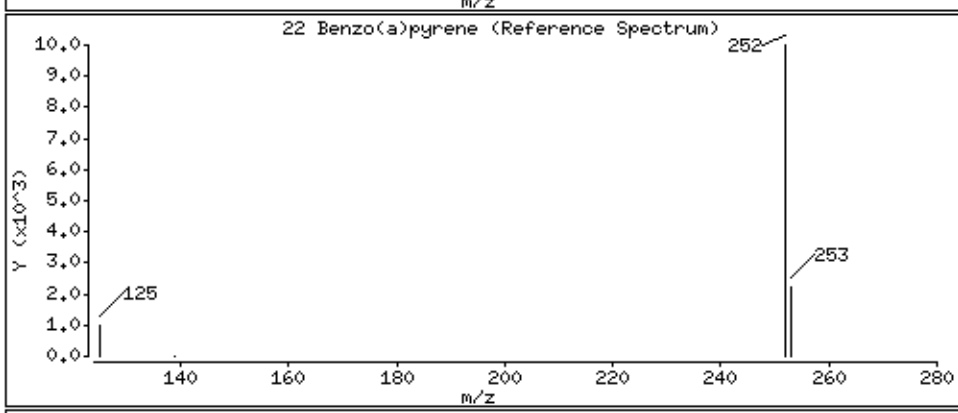
Concentration: 0.169 ug/Kg

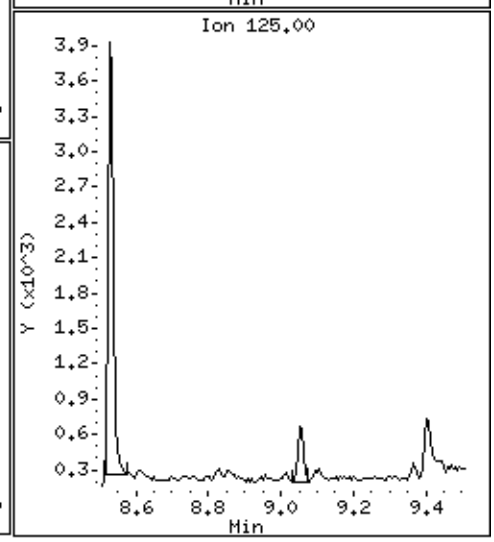


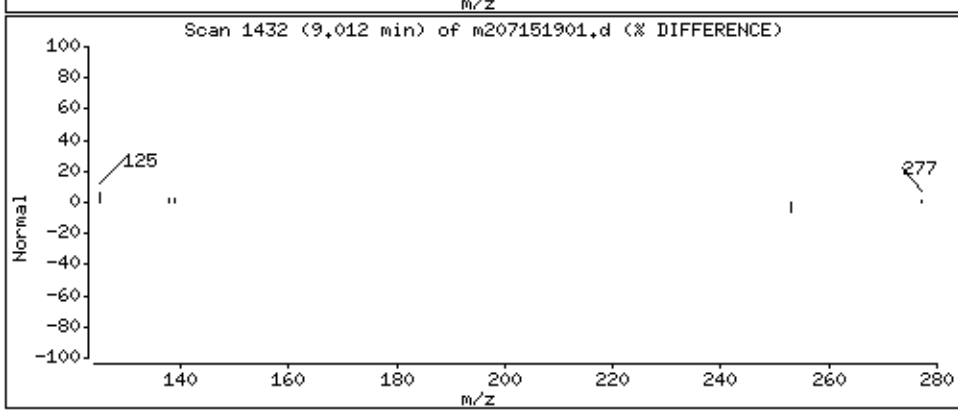












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

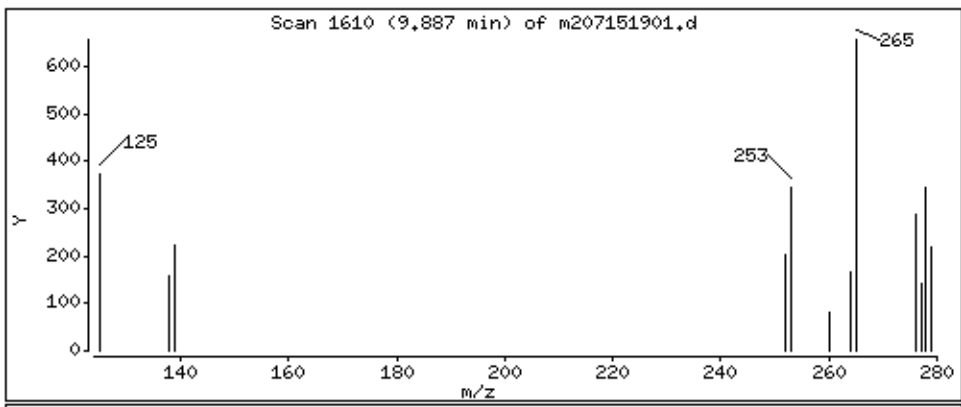
Operator: DSC

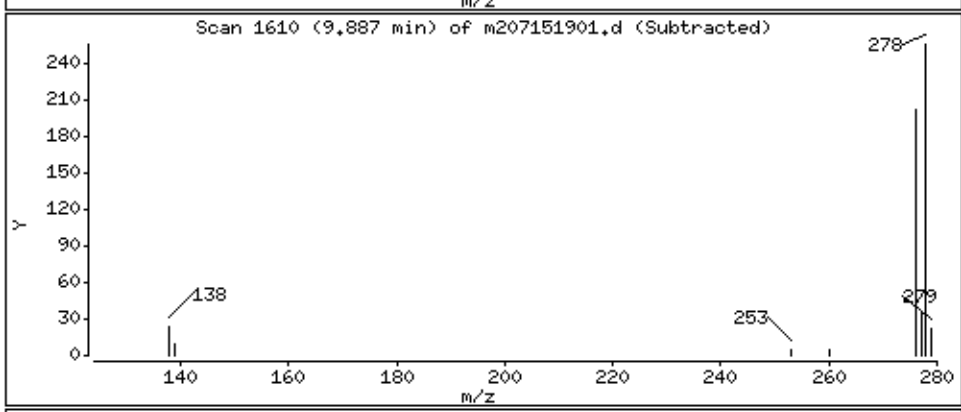
Column phase: RTX-5MS

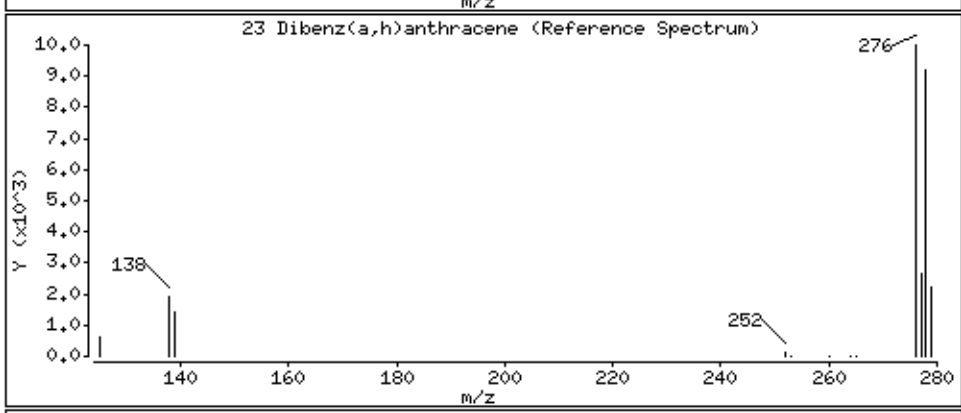
Column diameter: 0.25

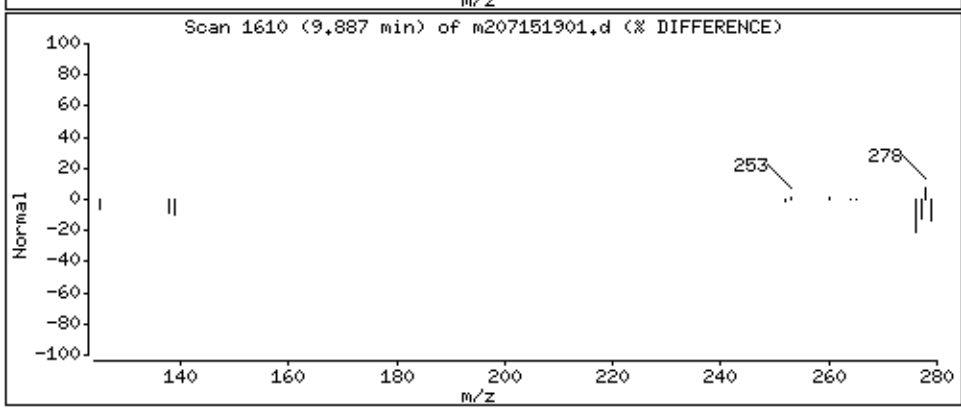
23 Dibenz(a,h)anthracene

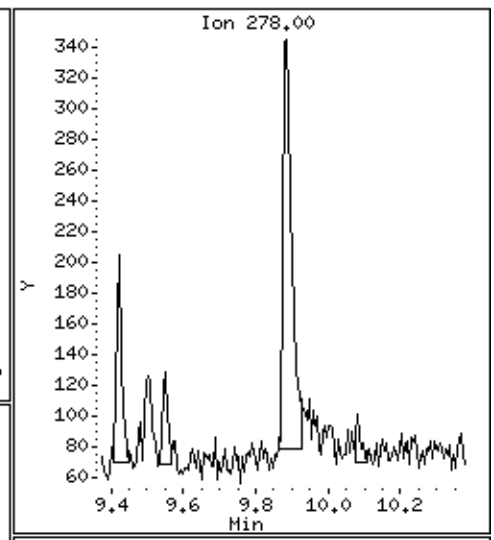
Concentration: 0.195 ug/Kg

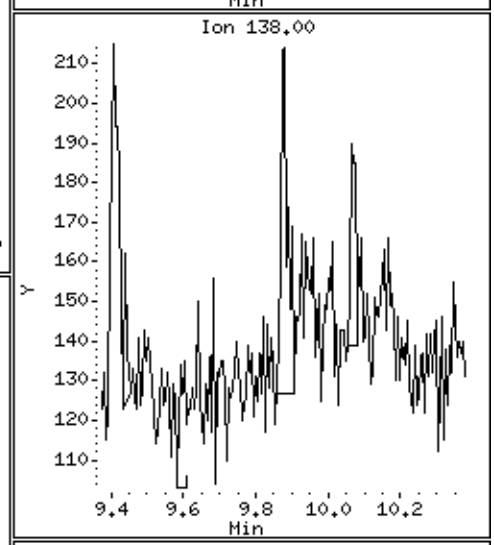


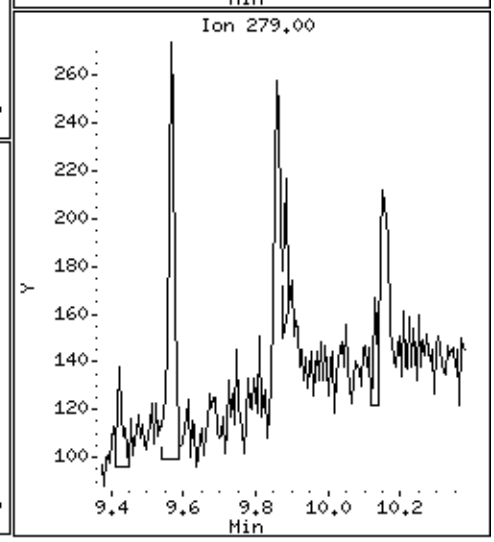












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Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

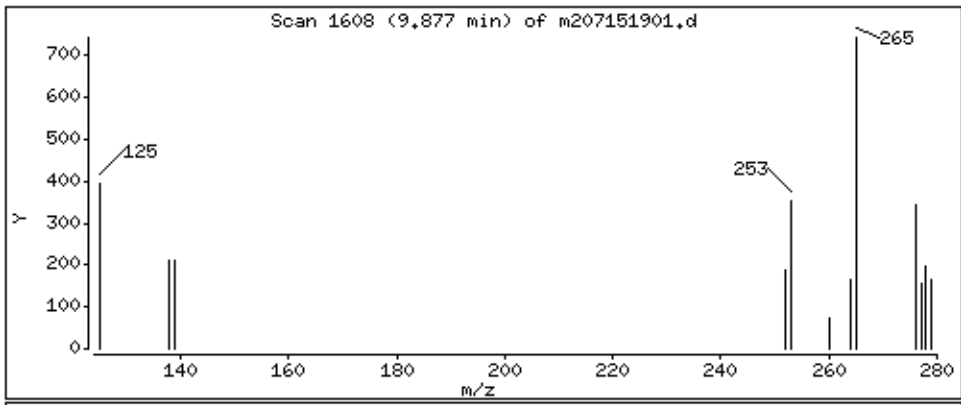
Operator: DSC

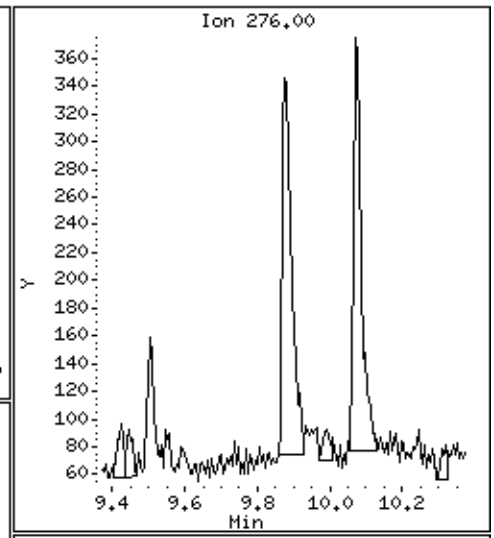
Column phase: RTX-5MS

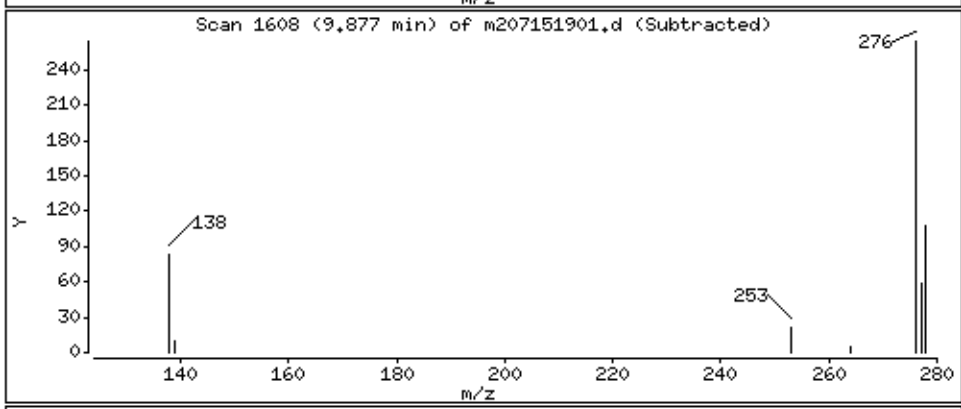
Column diameter: 0.25

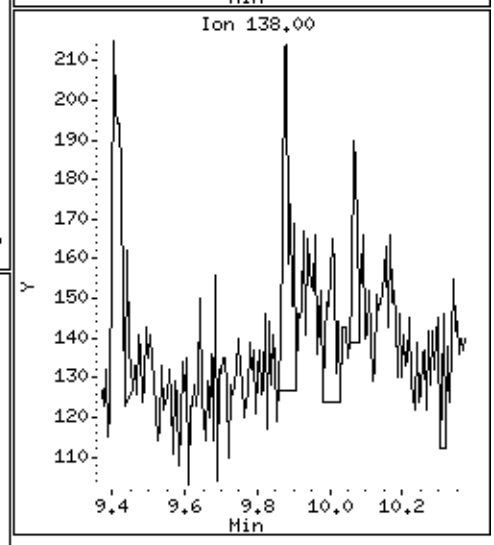
24 Indeno(1,2,3-cd)pyrene

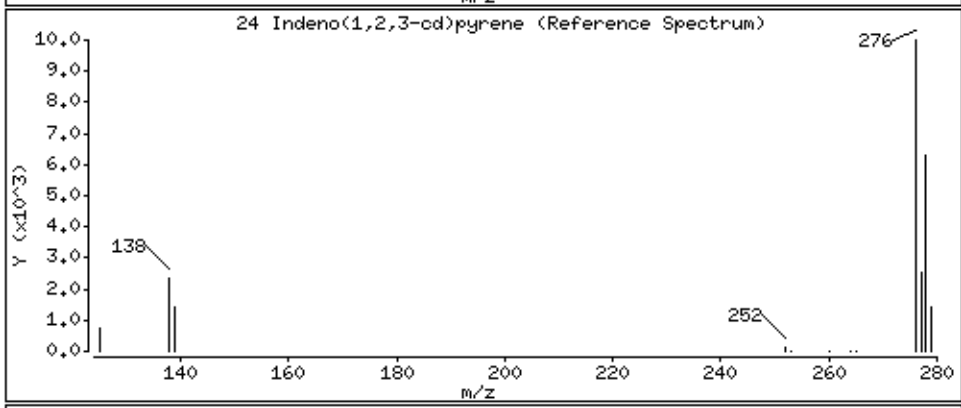
Concentration: 0.185 ug/Kg

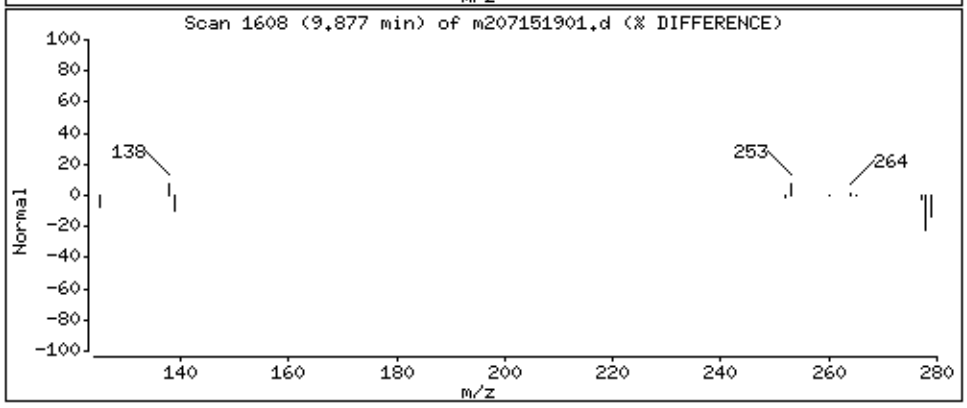












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151901.d

Date : 15-JUL-2019 09:19

Client ID: MB

Instrument: 30mss2.i

Sample Info: 1708423,

Volume Injected (uL): 1.0

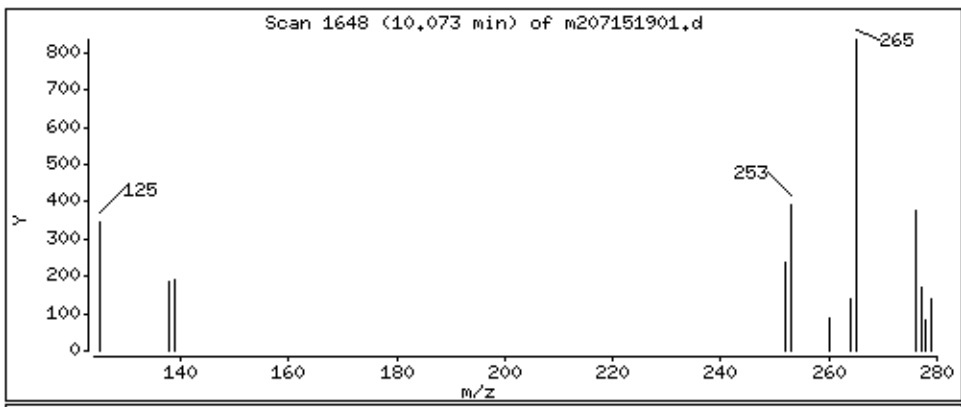
Operator: DSC

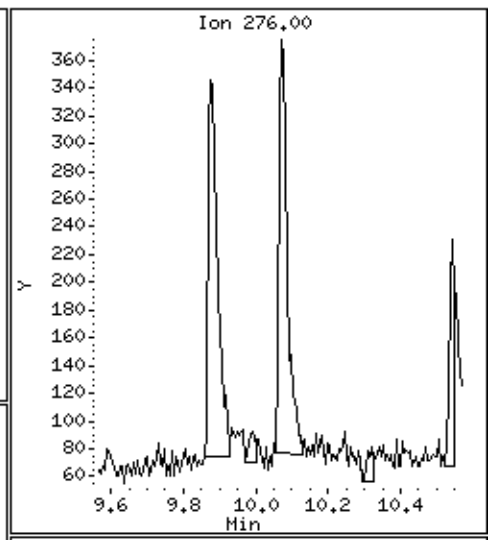
Column phase: RTX-5MS

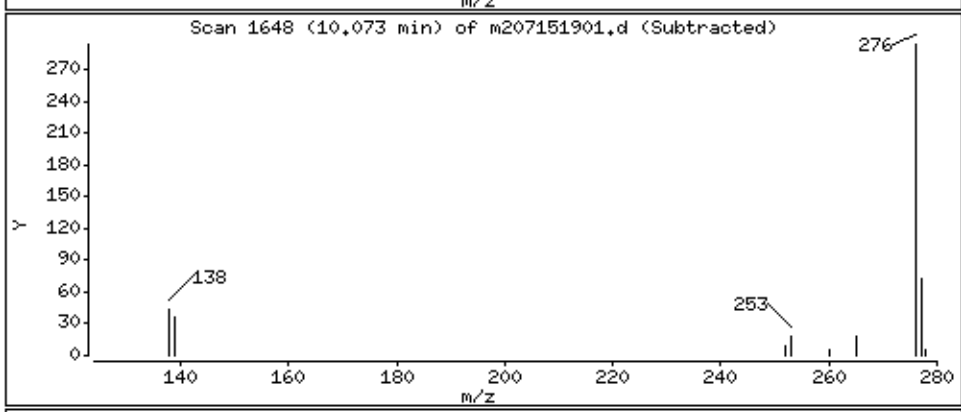
Column diameter: 0.25

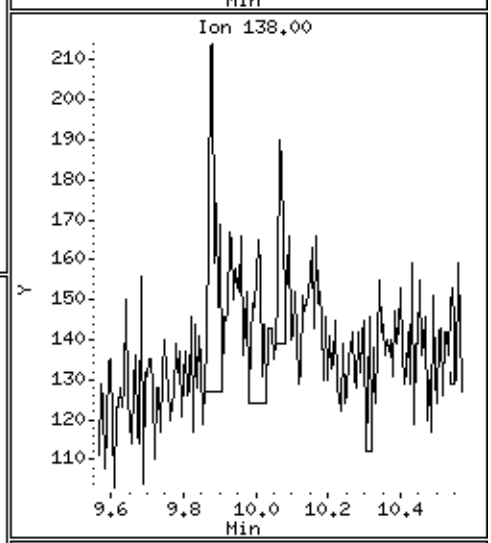
25 Benzo[g,h,i]perylene

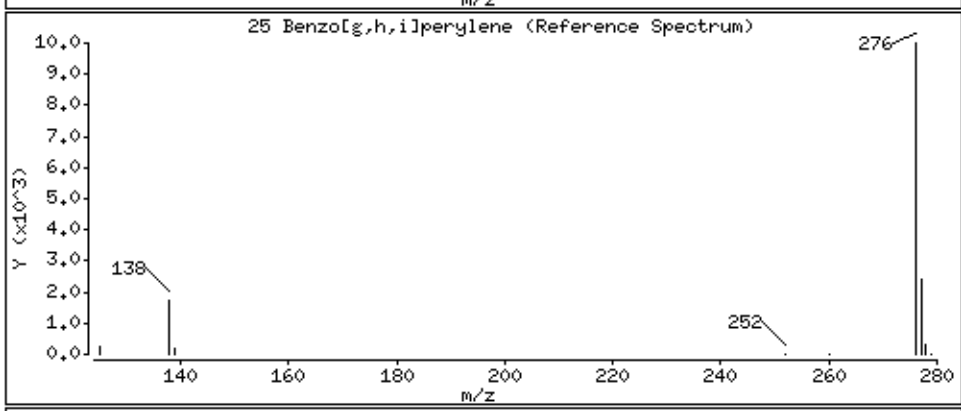
Concentration: 0.228 ug/Kg

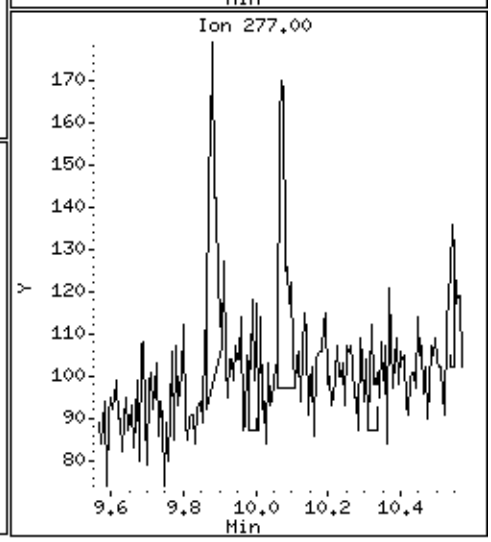


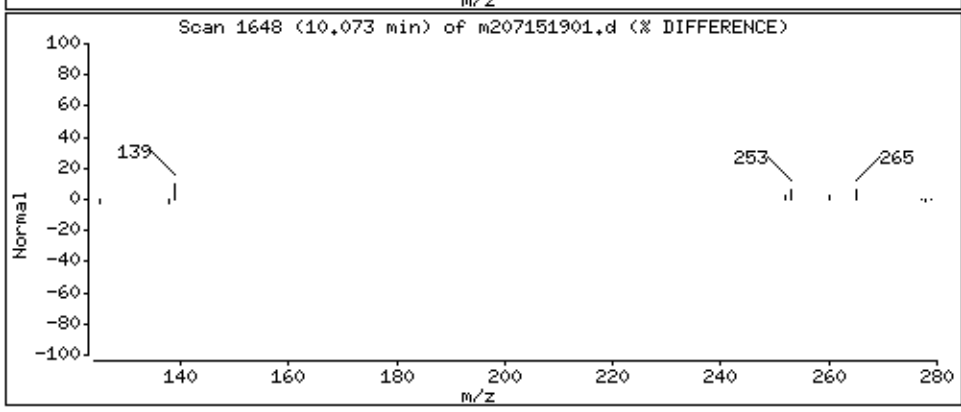






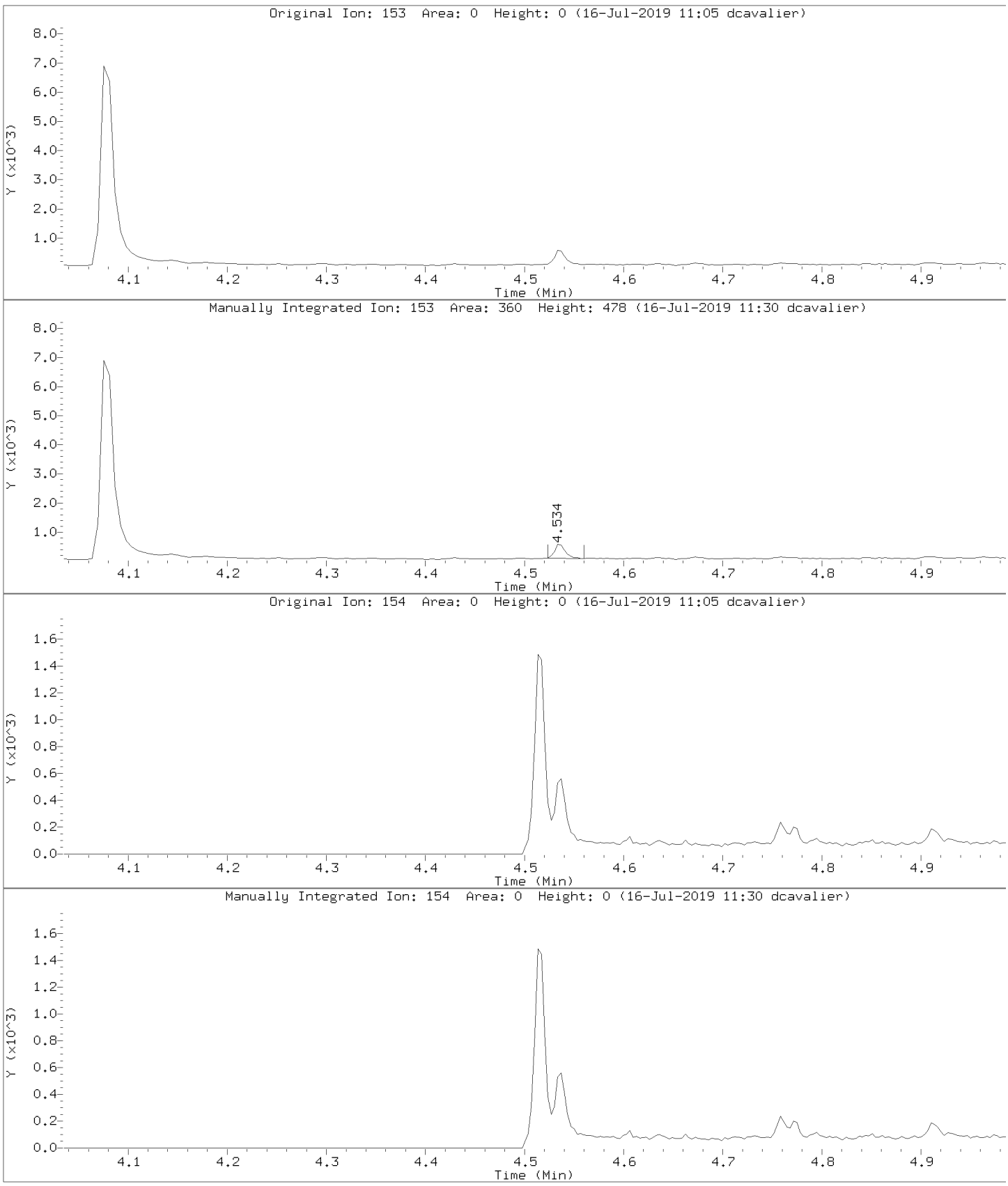






Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151901.d
Injection Date: 15-JUL-2019 09:19
Instrument: 30mss2.i
Lab Sample ID: 1708423

Compound: Acenaphthene Review Code: NI
CAS Number: 83-32-9



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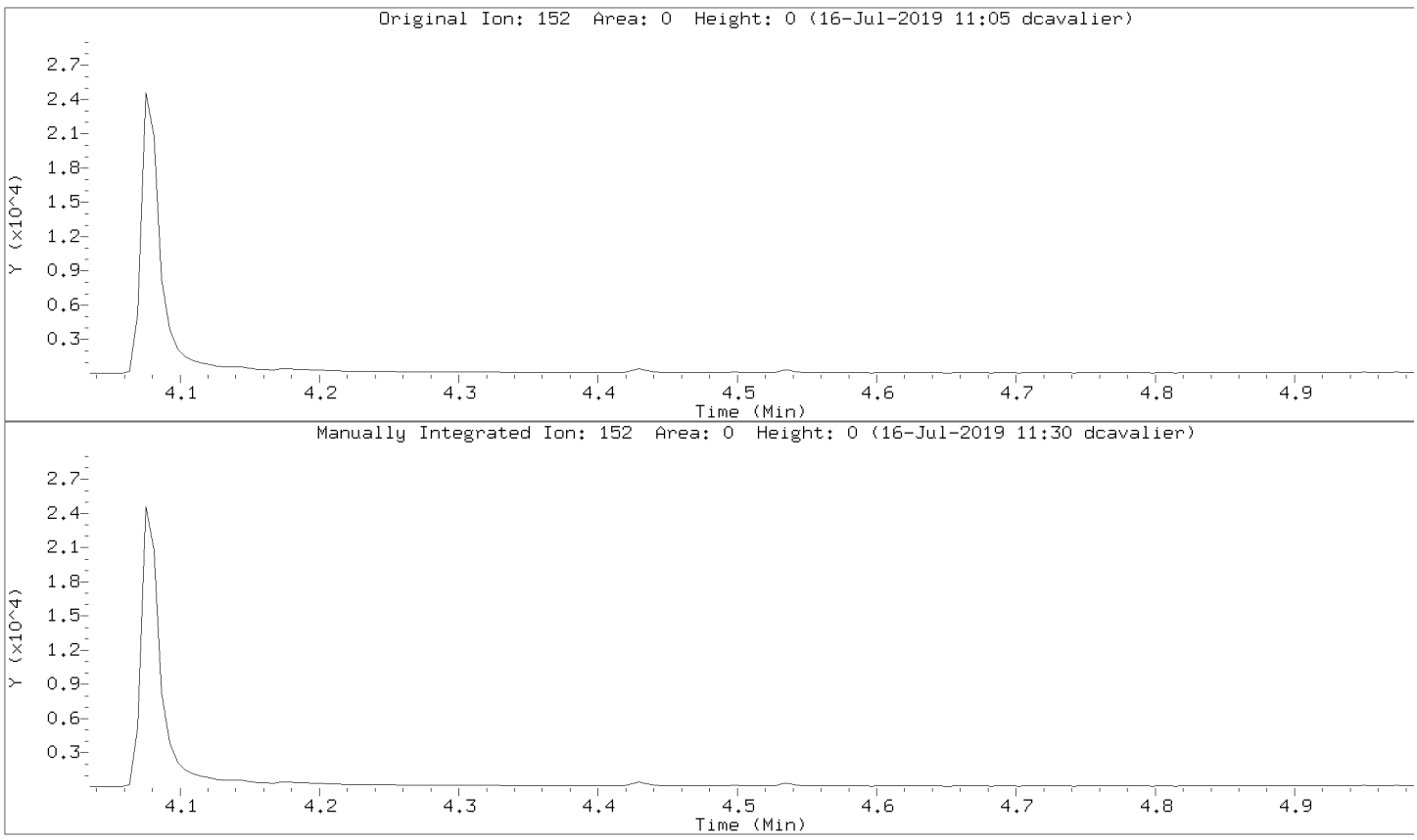
Injection Date: 15-JUL-2019 09:19
Instrument: 30mss2.i
Lab Sample ID: 1708423



SAMPLE NO.

LCS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received:
Matrix: Solid
SDG No.: 30313514
Date Extracted: 07/12/2019 18:34
Lab Sample ID: 1708424
Date Analyzed: 07/15/2019 09:37
Lab File ID: MSS2071519.B\M207151902.D
Initial wt/vol: 15.08 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS2
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	96.8	
120-12-7	Anthracene	112	
56-55-3	Benzo(a)anthracene	122	
50-32-8	Benzo(a)pyrene	119	
205-99-2	Benzo(b)fluoranthene	126	
191-24-2	Benzo(g,h,i)perylene	96.7	
207-08-9	Benzo(k)fluoranthene	121	
218-01-9	Chrysene	117	
53-70-3	Dibenz(a,h)anthracene	97.9	
206-44-0	Fluoranthene	120	
86-73-7	Fluorene	104	
193-39-5	Indeno(1,2,3-cd)pyrene	97.9	
91-20-3	Naphthalene	101	
85-01-8	Phenanthrene	107	
129-00-0	Pyrene	118	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d
Lab Smp Id: 1708424 Client Smp ID: MBLCS
Inj Date : 15-JUL-2019 09:37
Operator : DSC Inst ID: 30mss2.i
Smp Info : 1708424,
Misc Info : 14824,
Comment :
Method : \\30wintarget\chem\30mss2.i\mss2071519.b\m2061719pahcd.m
Meth Date : 16-Jul-2019 10:58 dcavalier Quant Type: ISTD
Cal Date : 17-JUN-2019 14:12 Cal File: m2061719z6.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30DCAVALIER20C6

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.390	3.390	(1.000)	554997	4.00000		
	8 Naphthalene	128	3.407	3.401	(1.005)	189689	1.51663	100	
	9 2-Methylnaphthalene	142	3.846	3.846	(1.135)	127657	1.53573	102	
	10 1-Methylnaphthalene	142	3.909	3.909	(1.153)	134937	1.51312	100	
$	6 2-Fluorobiphenyl (S)	172	4.081	4.081	(0.903)	393572	3.68481	244	
	11 Acenaphthylene	152	4.429	4.429	(0.981)	183969	1.45939	96.8	
*	2 Acenaphthene-d10 (IS)	164	4.517	4.516	(1.000)	319999	4.00000		
	12 Acenaphthene	153	4.536	4.536	(1.004)	123405	1.49880	99.4	
	13 Fluorene	166	4.870	4.870	(1.078)	151692	1.56980	104	
*	3 Phenanthrene-d10 (IS)	188	5.524	5.524	(1.000)	548484	4.00000		
	14 Phenanthrene	178	5.538	5.542	(1.002)	213615	1.61350	107	
	15 Anthracene	178	5.578	5.578	(1.010)	227996	1.68979	112	
	16 Fluoranthene	202	6.490	6.490	(1.175)	274205	1.80951	120	
	17 Pyrene	202	6.688	6.688	(1.211)	276394	1.77397	118	
$	7 Terphenyl-d14 (S)	244	6.814	6.814	(1.234)	478811	4.11246	273	
	18 Benzo(a)anthracene	228	7.769	7.772	(0.999)	255647	1.83388	122	
*	4 Chrysene-d12 (IS)	240	7.781	7.783	(1.000)	509433	4.00000		
	19 Chrysene	228	7.804	7.807	(1.003)	252699	1.76981	117	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.732	8.732	(0.964)	261653	1.90168	126	
21 Benzo(k)fluoranthene	252	8.757	8.757	(0.967)	302046	1.82717	121	
22 Benzo(a)pyrene	252	9.007	9.007	(0.995)	234145	1.78884	119	
* 5 Perylene-d12 (IS)	264	9.056	9.056	(1.000)	527236	4.00000		
23 Dibenz(a,h)anthracene	278	9.876	9.876	(1.091)	209453	1.47658	97.9	
24 Indeno(1,2,3-cd)pyrene	276	9.872	9.872	(1.090)	253133	1.47664	97.9	
25 Benzo[g,h,i]perylene	276	10.068	10.068	(1.112)	205762	1.45783	96.7	

Review Codes Legend

:

Pace Analytical Services, Inc.

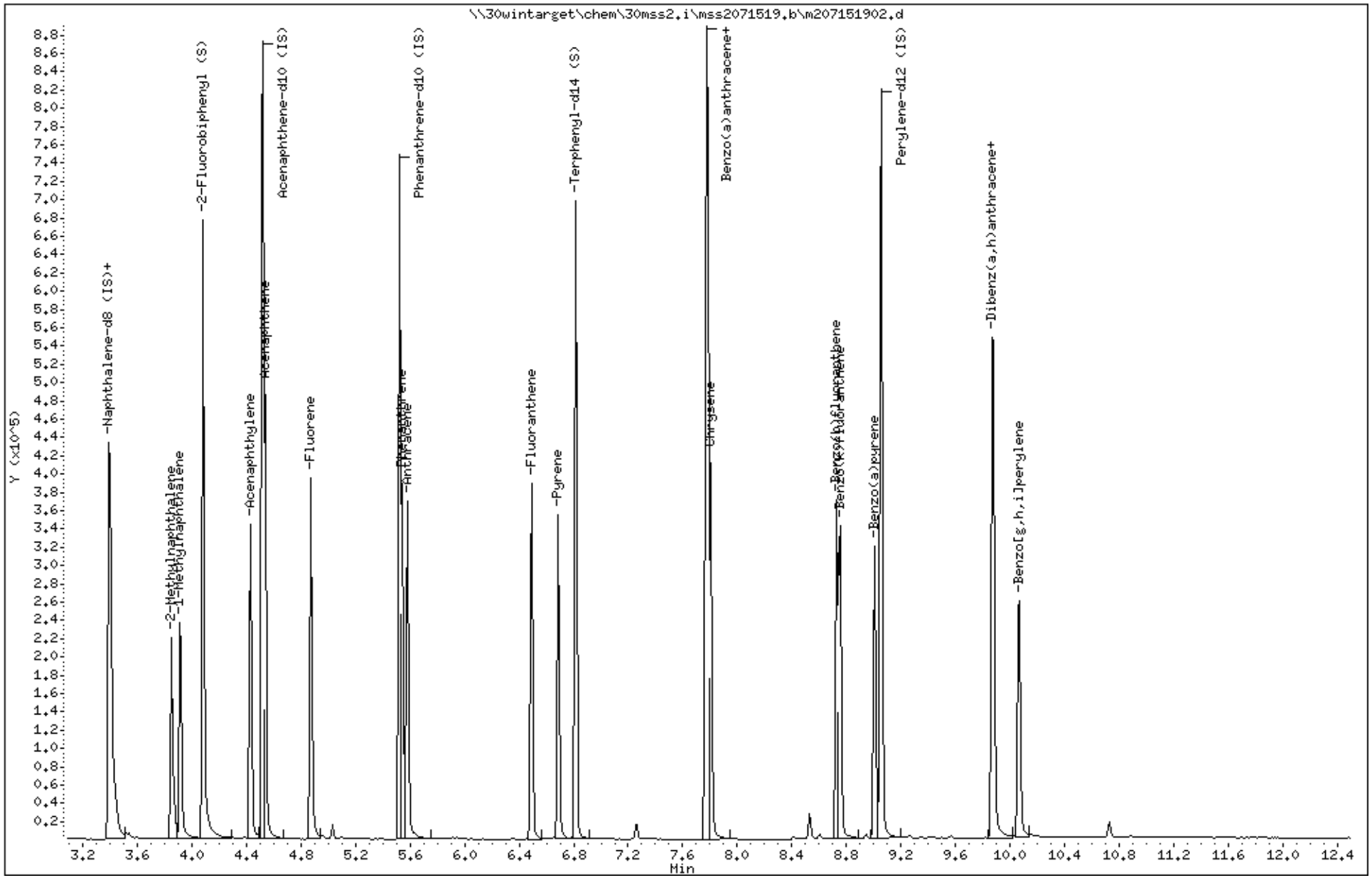
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708424
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: SV
Data Type: MS DATA
Misc Info: 14824,

Client SDG: mss2071519.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ISTD
Level: LOW
Operator: DSC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg	Q
91-22-5	Quinoline	0.00995	U
91-20-3	Naphthalene	100	
91-57-6	2-Methylnaphthalene	102	
90-12-0	1-Methylnaphthalene	100	
208-96-8	Acenaphthylene	96.8	
83-32-9	Acenaphthene	99.4	
86-73-7	Fluorene	104	
85-01-8	Phenanthrene	107	
120-12-7	Anthracene	112	
206-44-0	Fluoranthene	120	
129-00-0	Pyrene	118	
56-55-3	Benzo(a)anthracene	122	
218-01-9	Chrysene	117	
205-99-2	Benzo(b)fluoranthene	126	
207-08-9	Benzo(k)fluoranthene	121	
50-32-8	Benzo(a)pyrene	119	
53-70-3	Dibenz(a,h)anthracene	97.9	
193-39-5	Indeno(1,2,3-cd)pyrene	97.9	
191-24-2	Benzo[g,h,i]perylene	96.7	
321-60-8	2-Fluorobiphenyl (S)	244	
1718-51-0	Terphenyl-d14 (S)	273	

Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d
Date : 15-JUL-2019 09:37
Client ID: MBLCS
Instrument: 30mss2.i
Sample Info: 1708424,
Volume Injected (uL): 1.0
Operator: DSC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

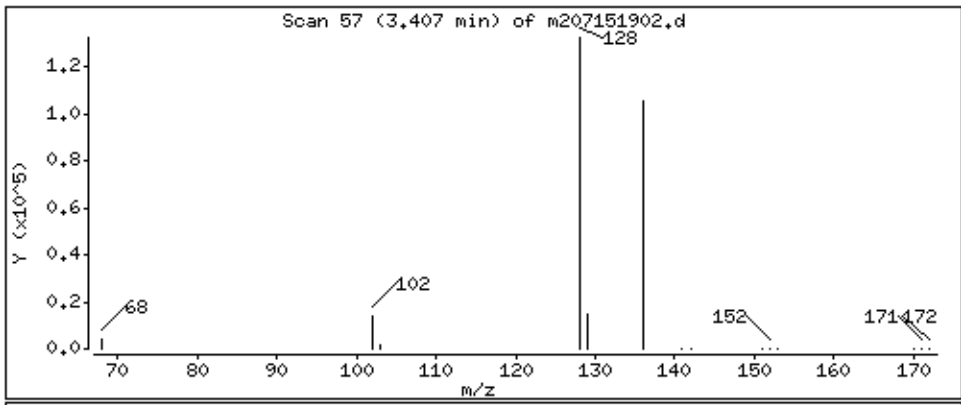
Operator: DSC

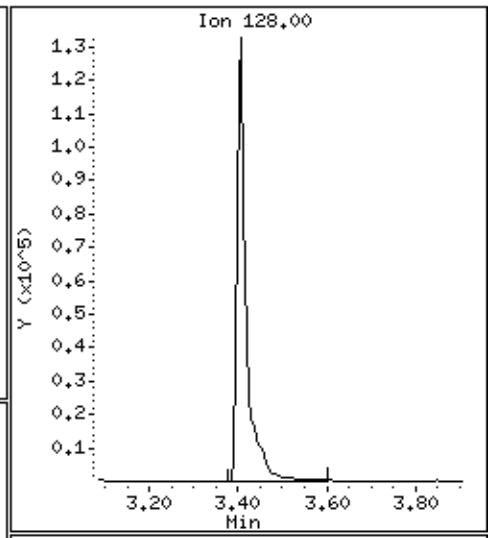
Column phase: RTX-5MS

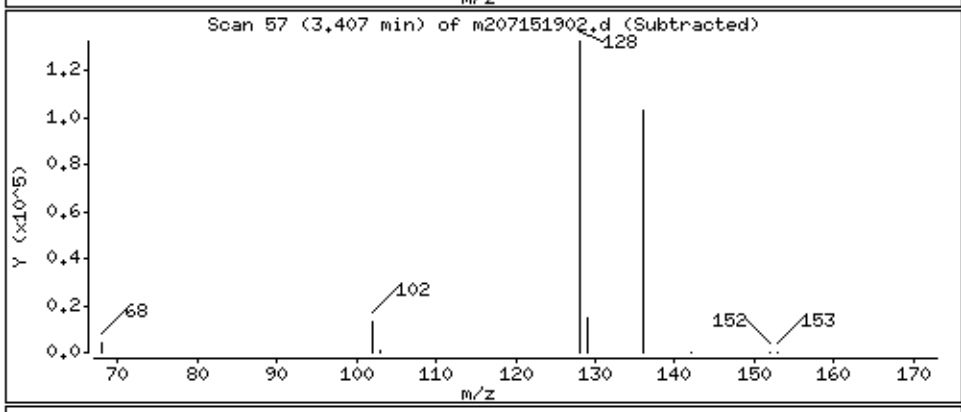
Column diameter: 0.25

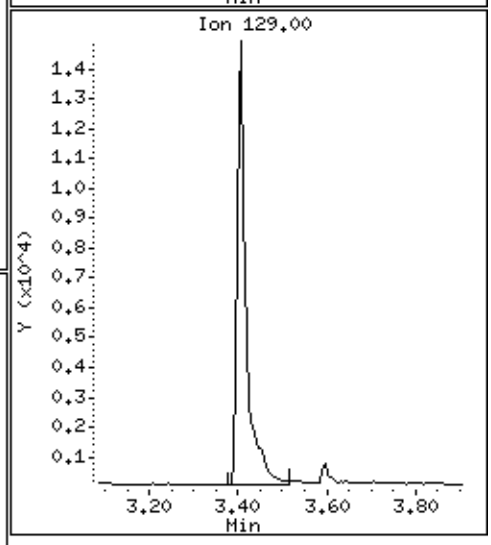
8 Naphthalene

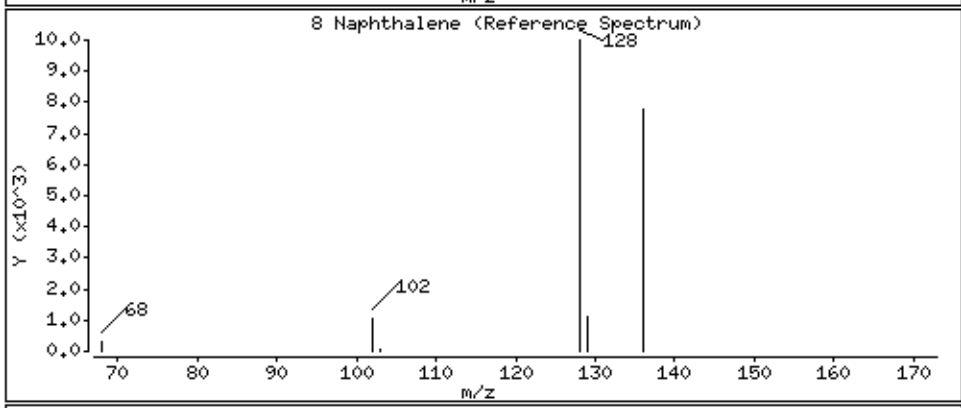
Concentration: 100 ug/Kg

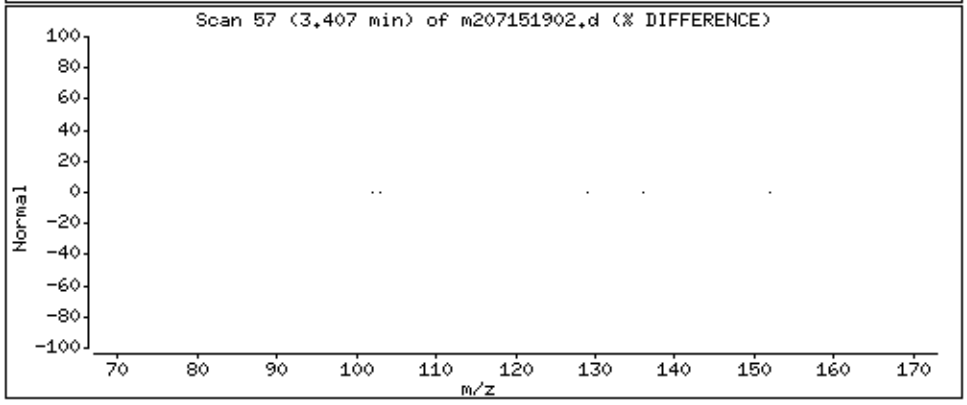












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

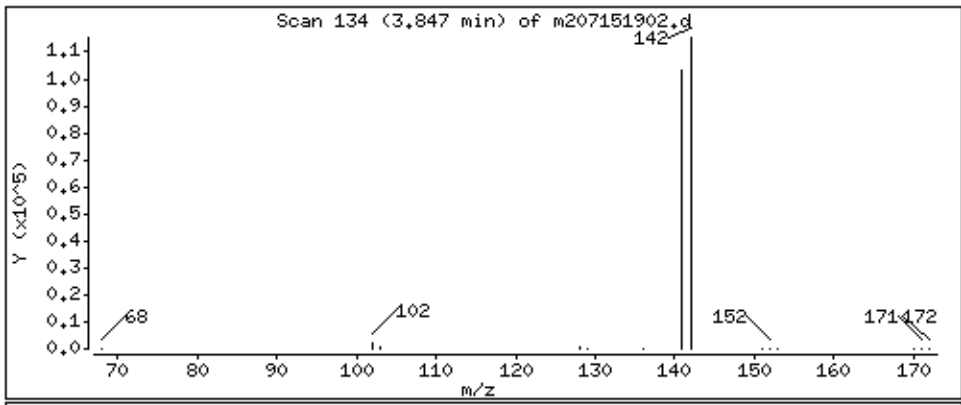
Operator: DSC

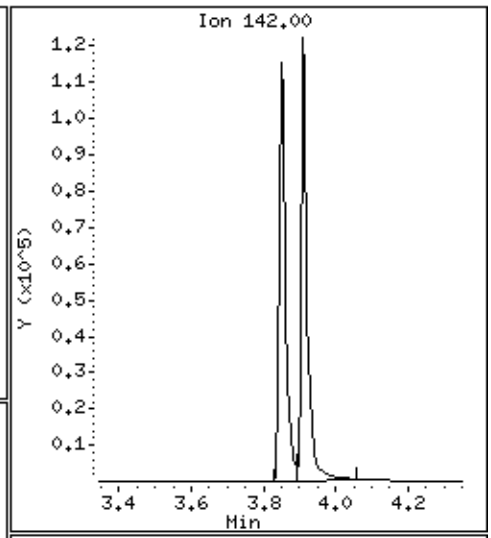
Column phase: RTX-5MS

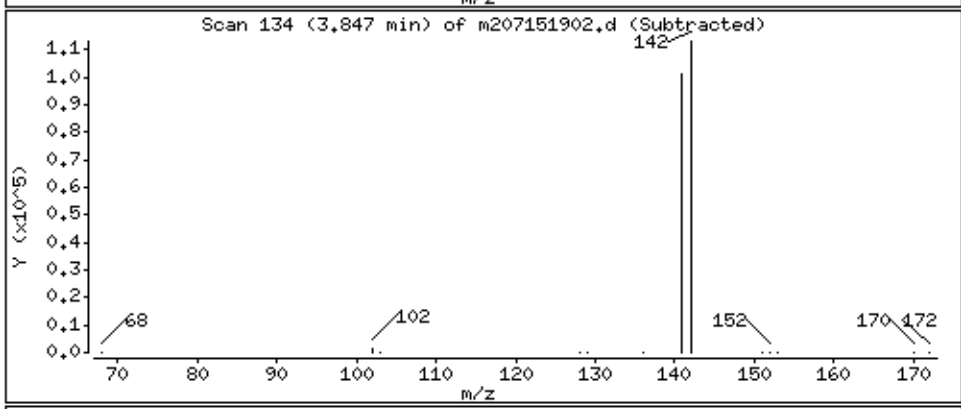
Column diameter: 0.25

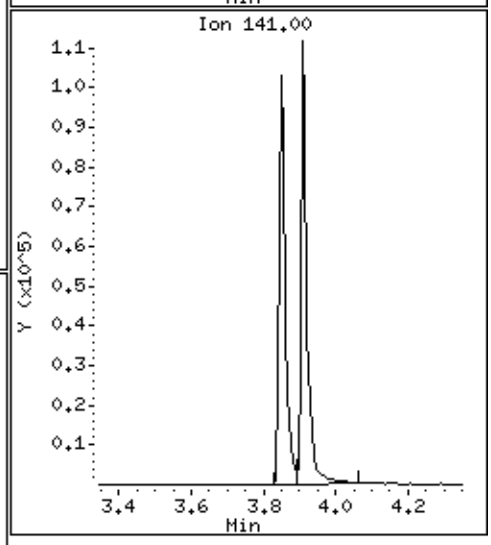
9 2-Methylnaphthalene

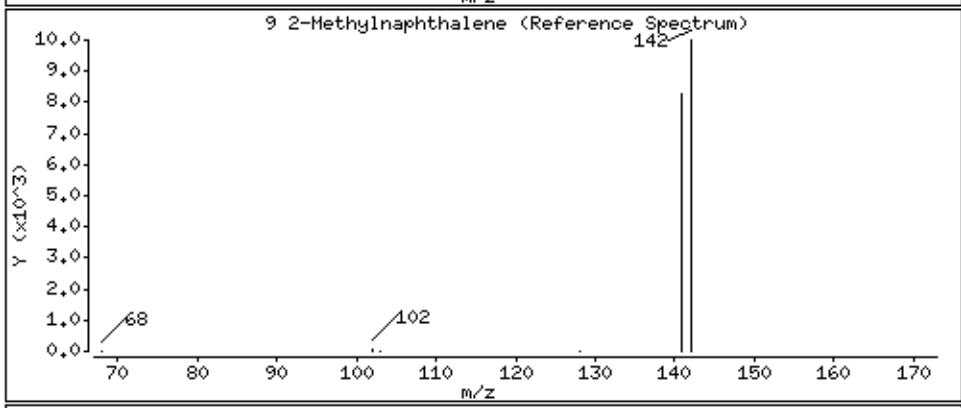
Concentration: 102 ug/Kg

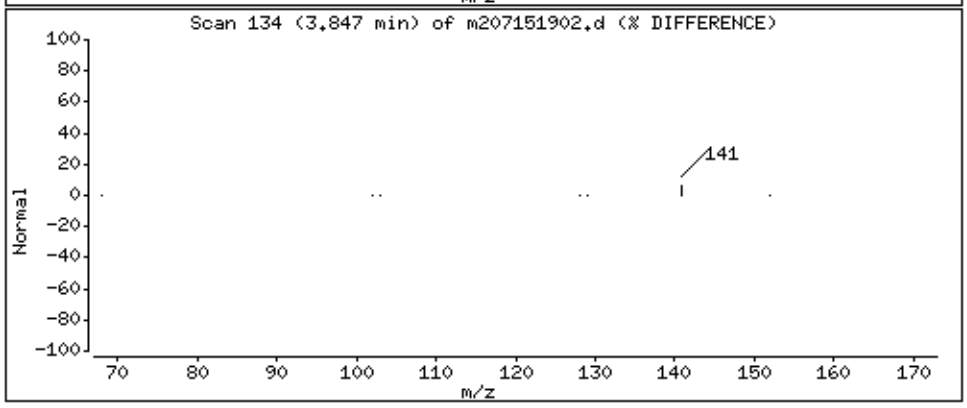












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

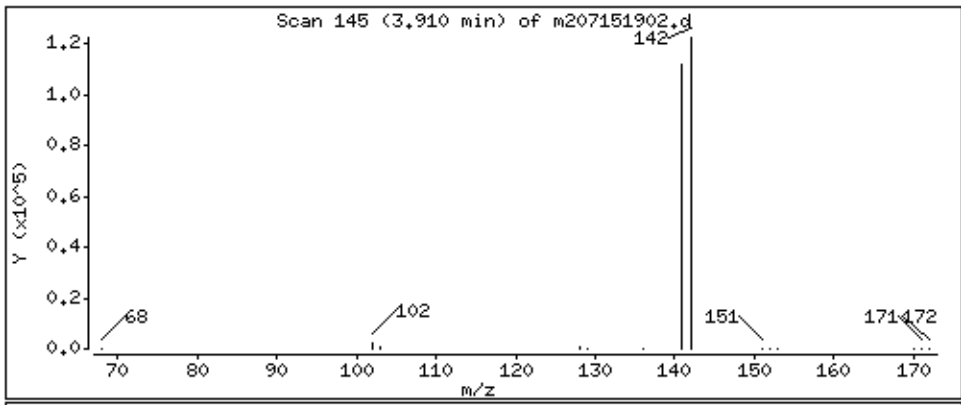
Operator: DSC

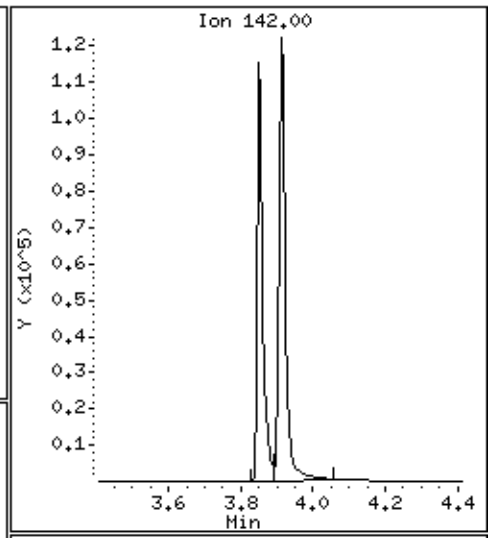
Column phase: RTX-5MS

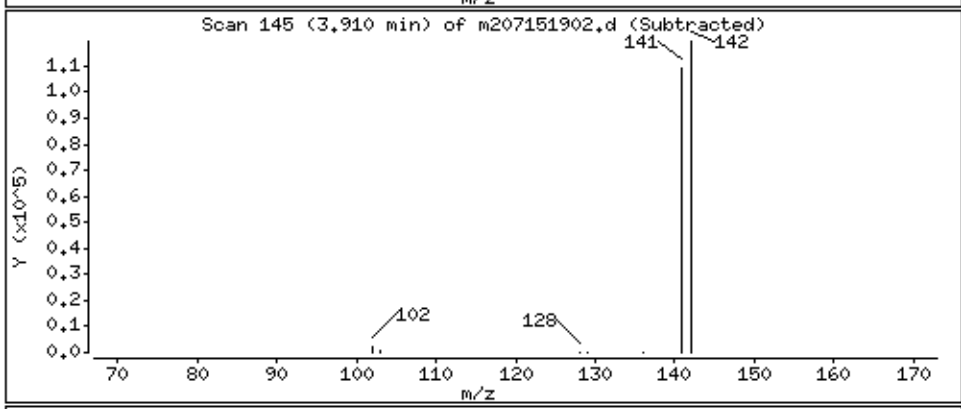
Column diameter: 0.25

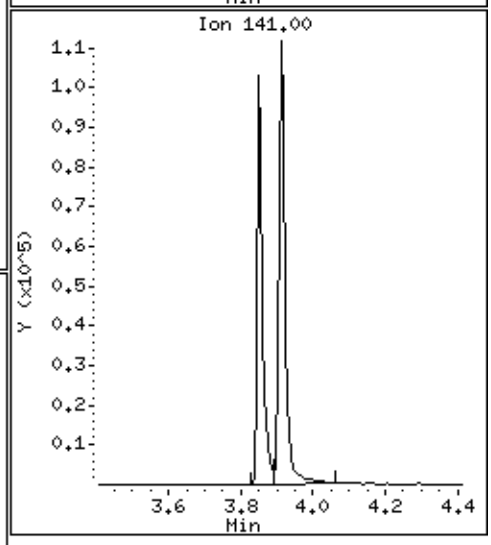
10 1-Methylnaphthalene

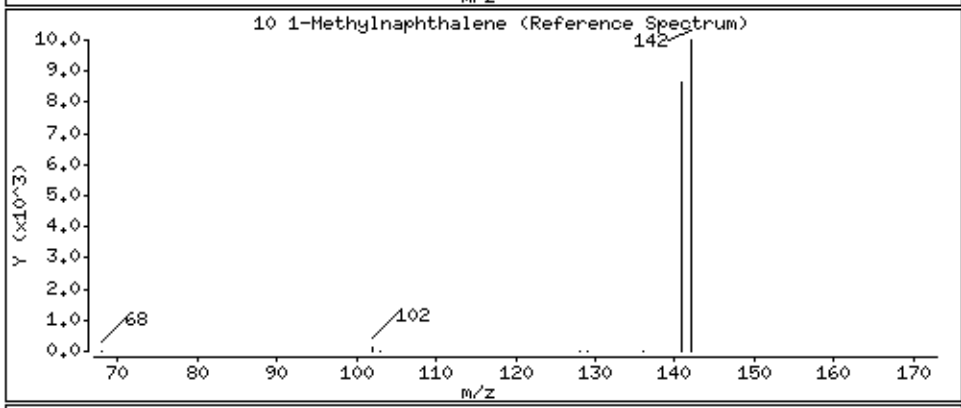
Concentration: 100 ug/Kg

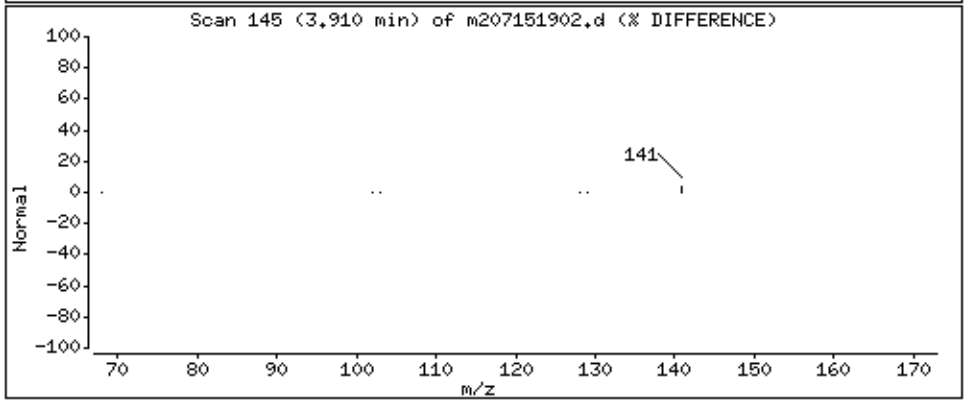












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

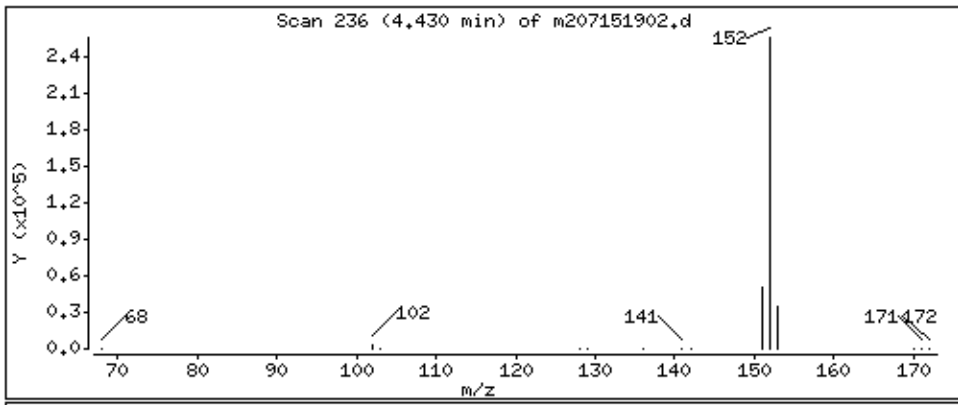
Operator: DSC

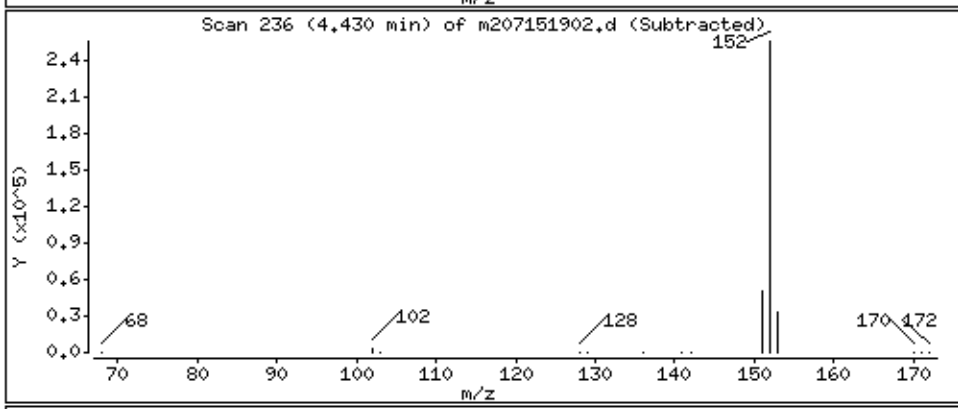
Column phase: RTX-5MS

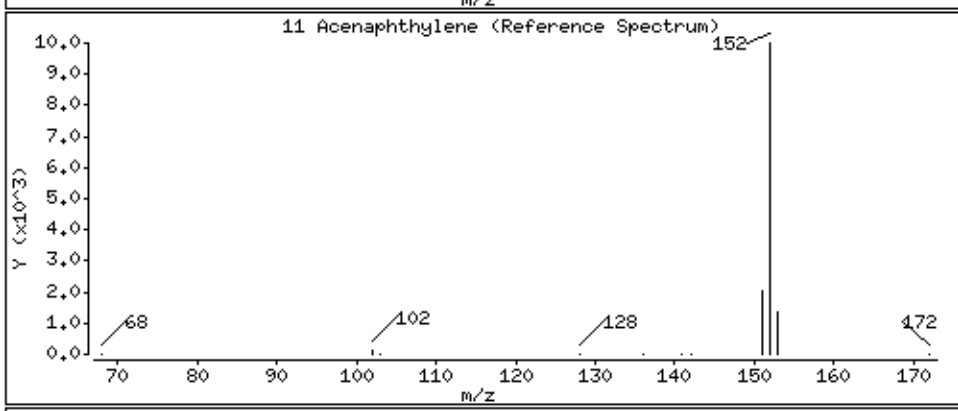
Column diameter: 0.25

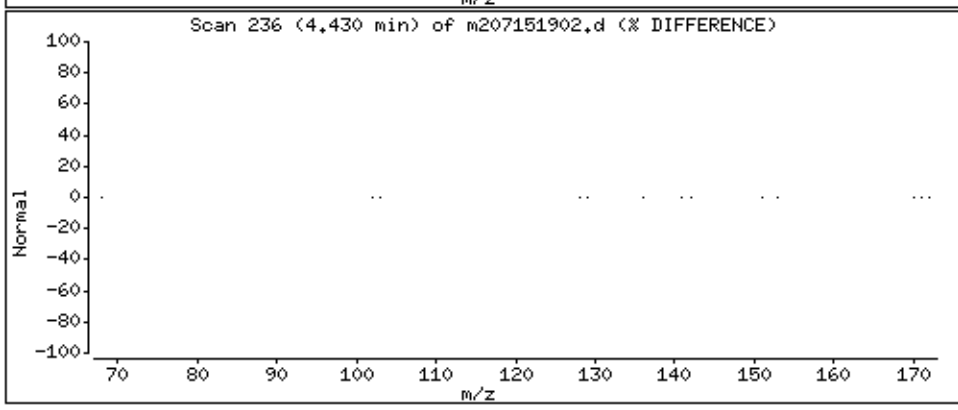
11 Acenaphthylene

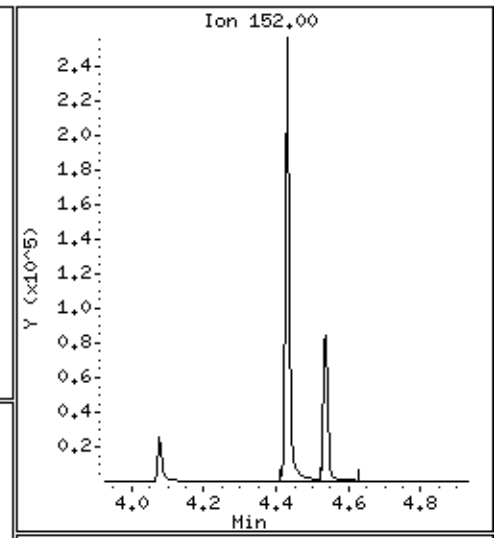
Concentration: 96.8 ug/Kg

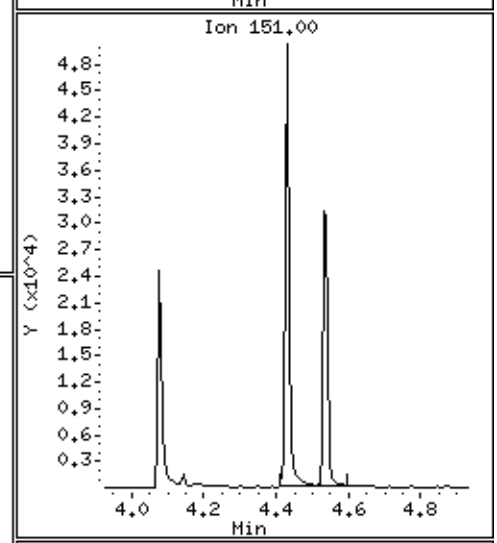


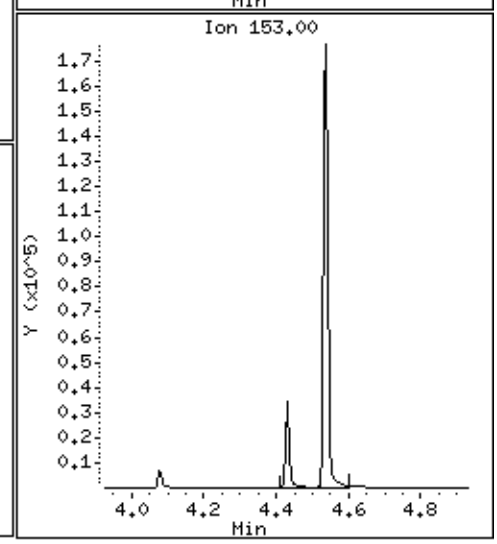












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

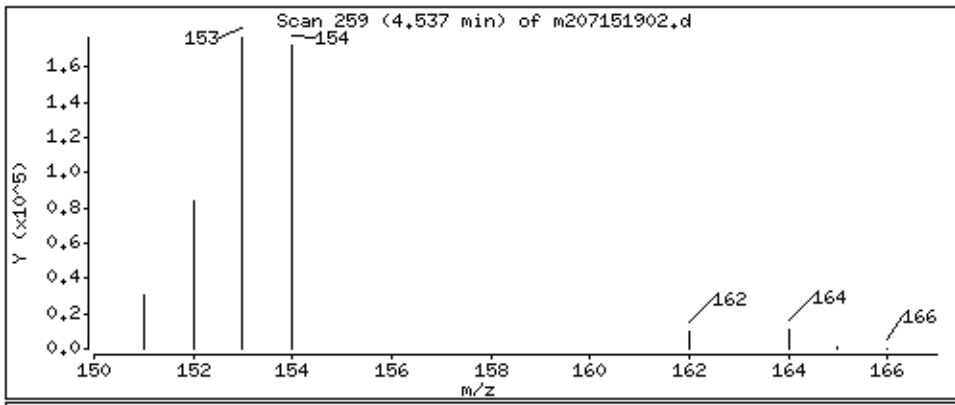
Operator: DSC

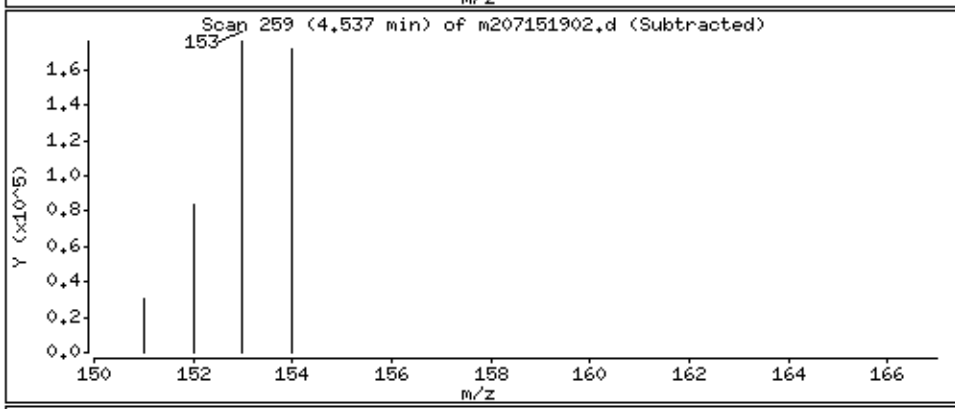
Column phase: RTX-5MS

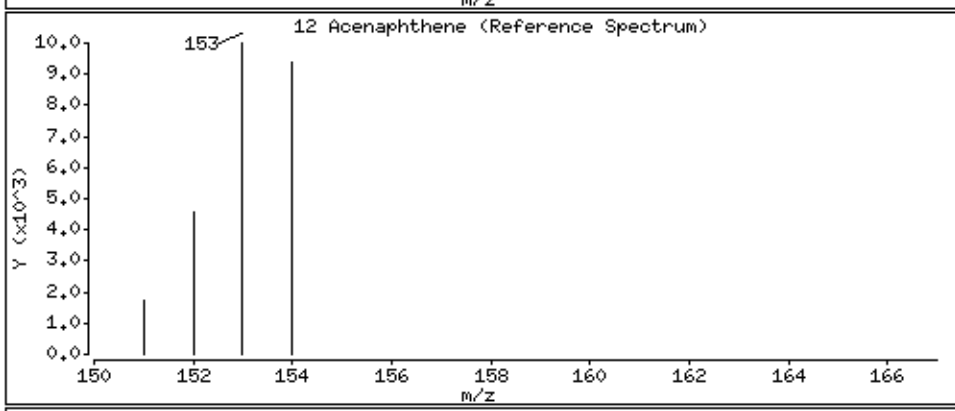
Column diameter: 0.25

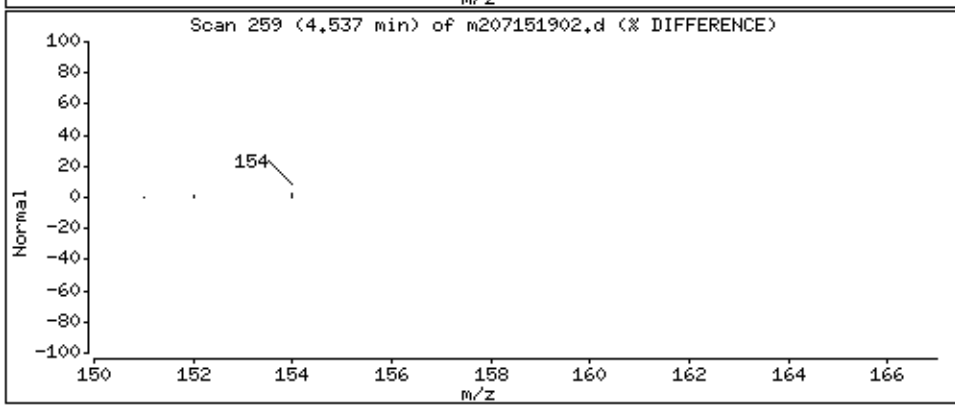
12 Acenaphthene

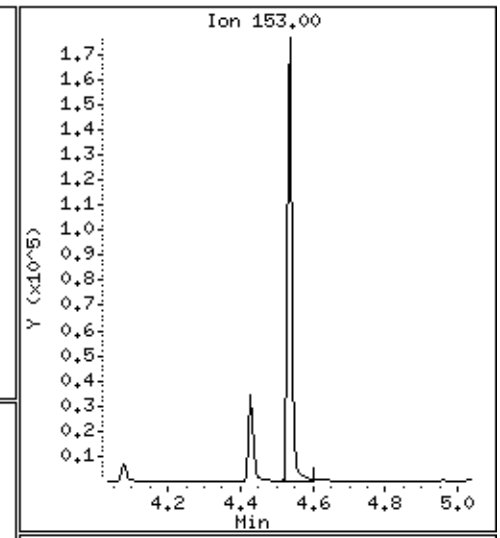
Concentration: 99.4 ug/Kg

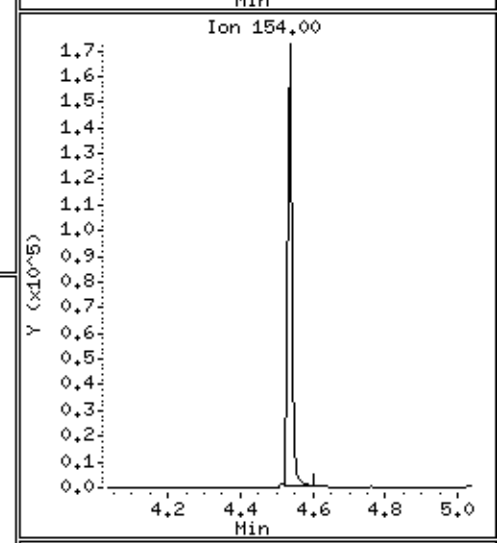


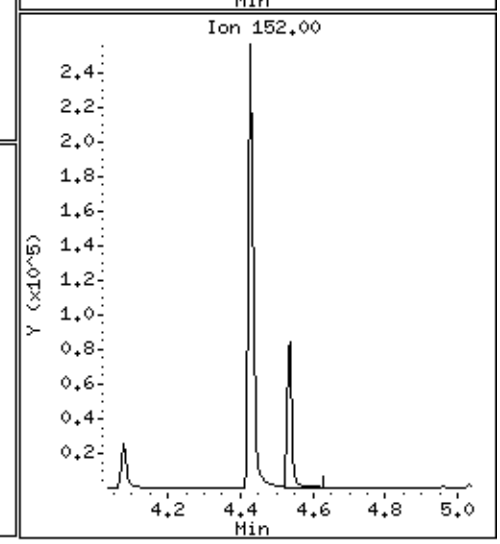












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

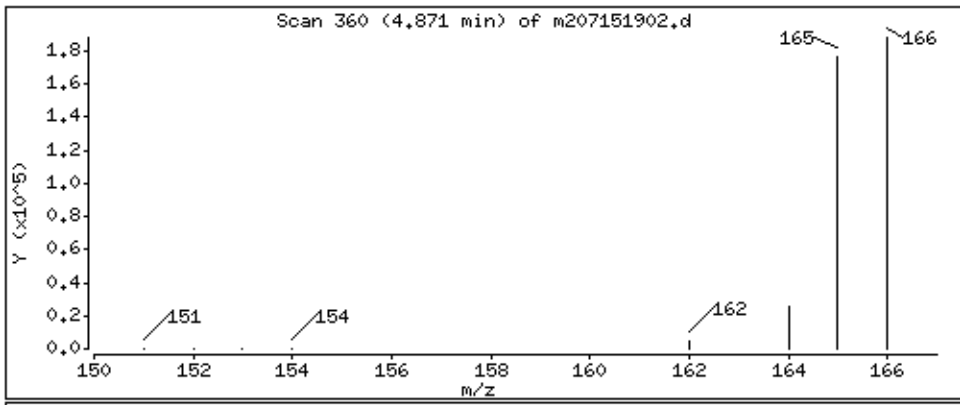
Operator: DSC

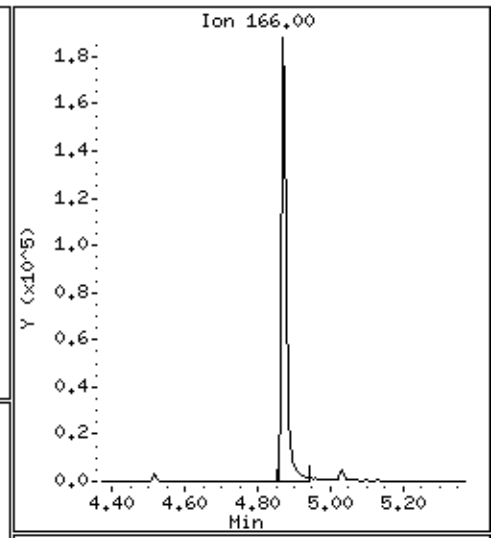
Column phase: RTX-5MS

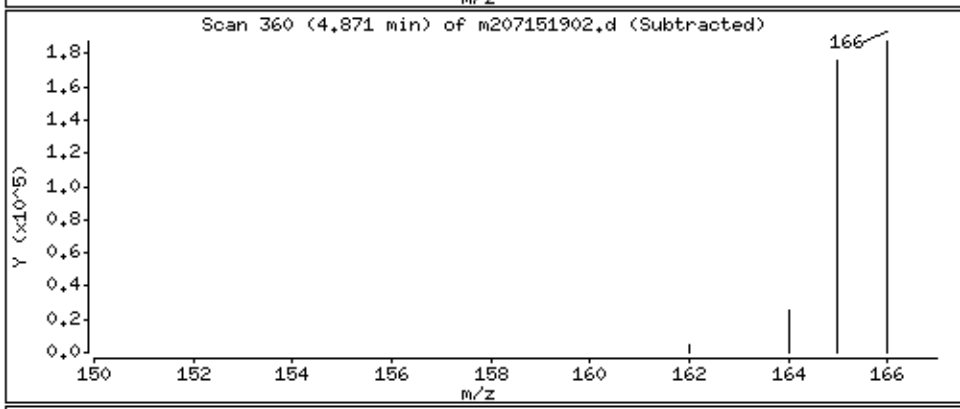
Column diameter: 0.25

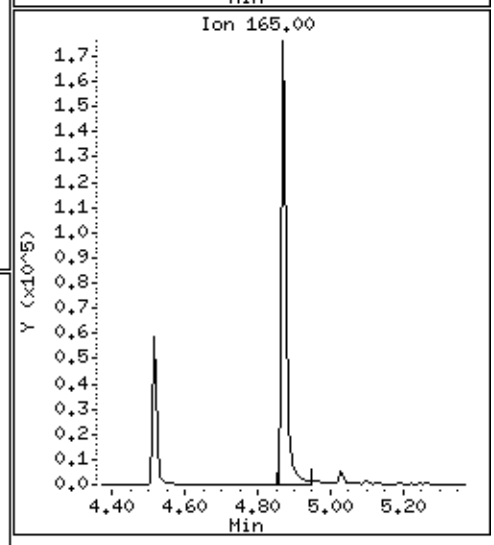
13 Fluorene

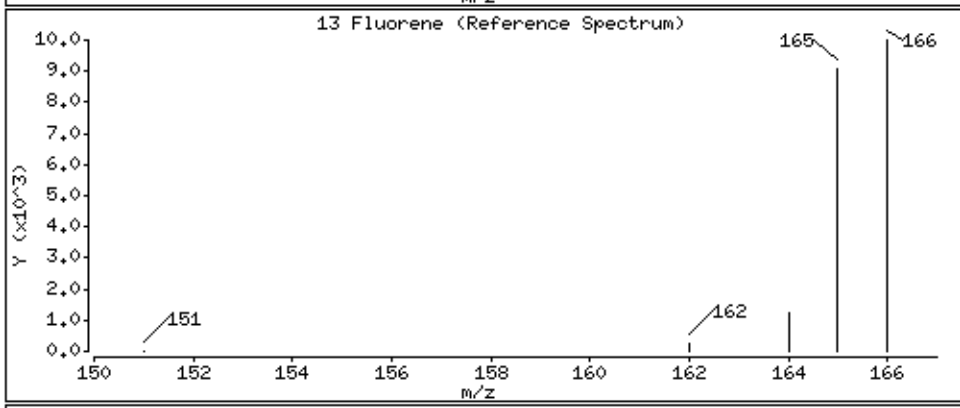
Concentration: 104 ug/Kg

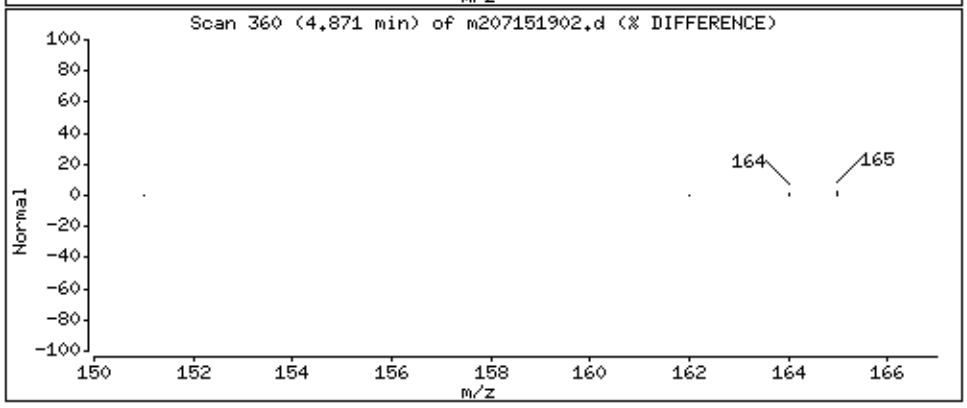












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

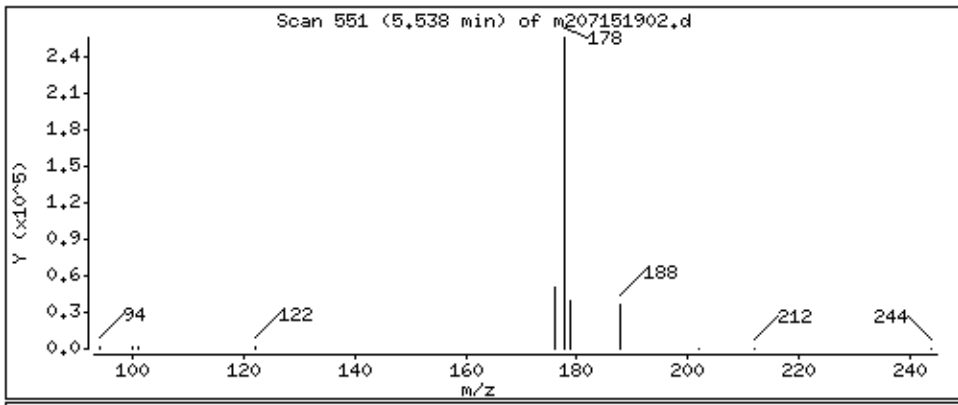
Operator: DSC

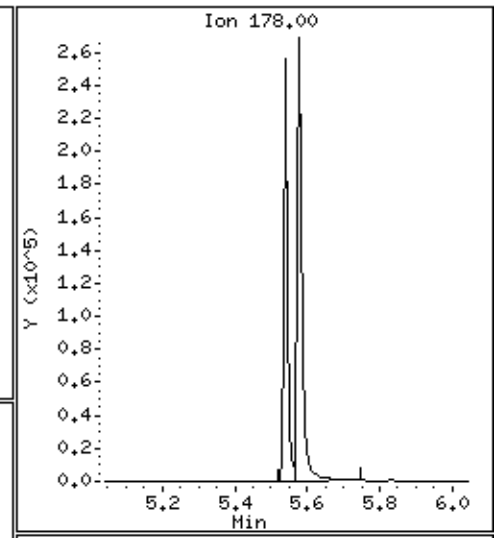
Column phase: RTX-5MS

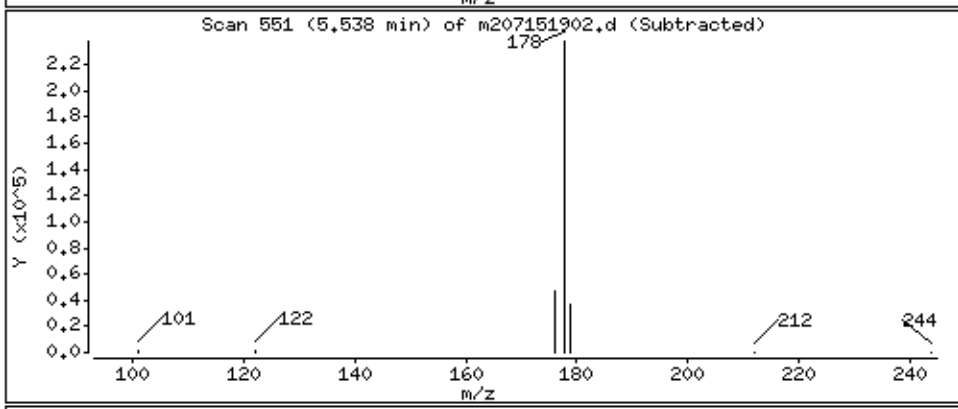
Column diameter: 0.25

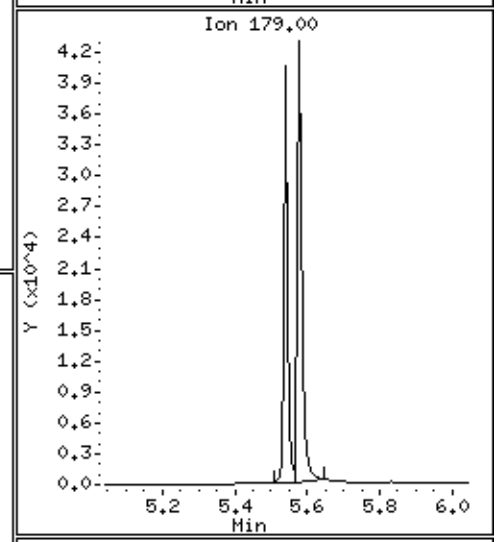
14 Phenanthrene

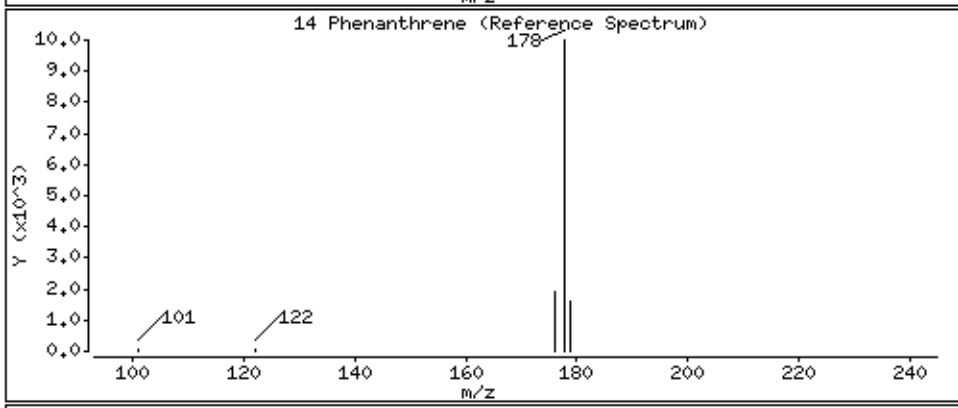
Concentration: 107 ug/Kg

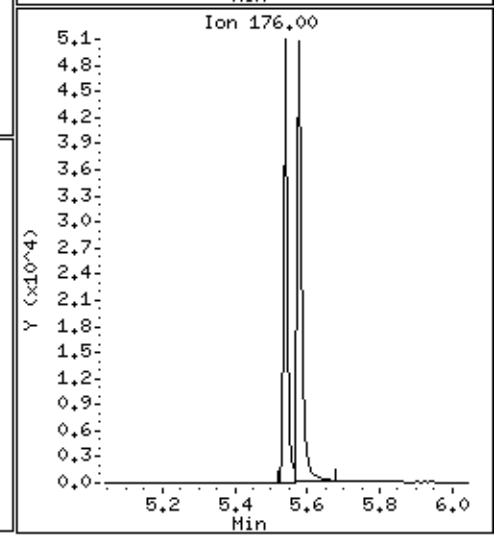


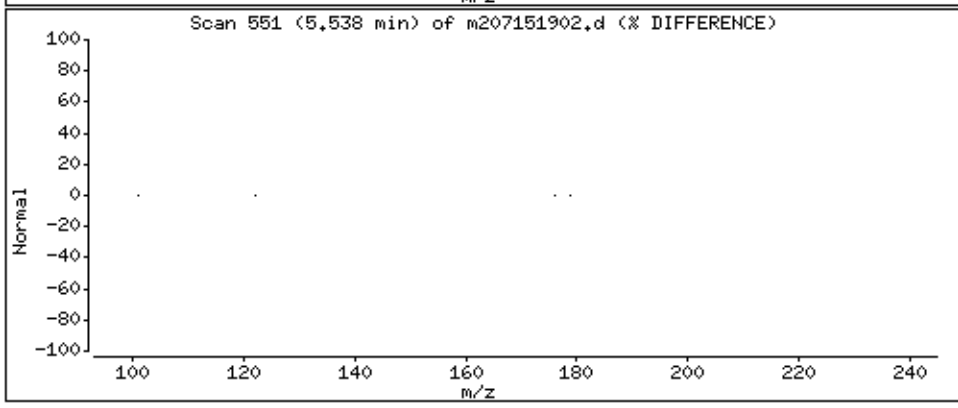












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

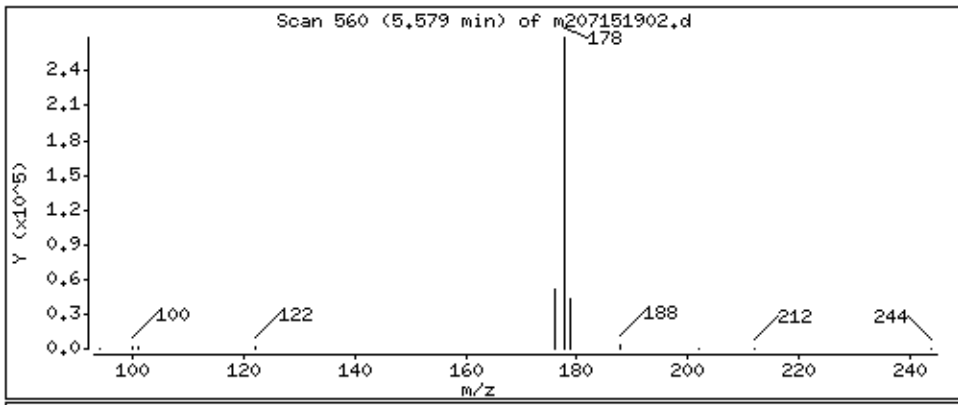
Operator: DSC

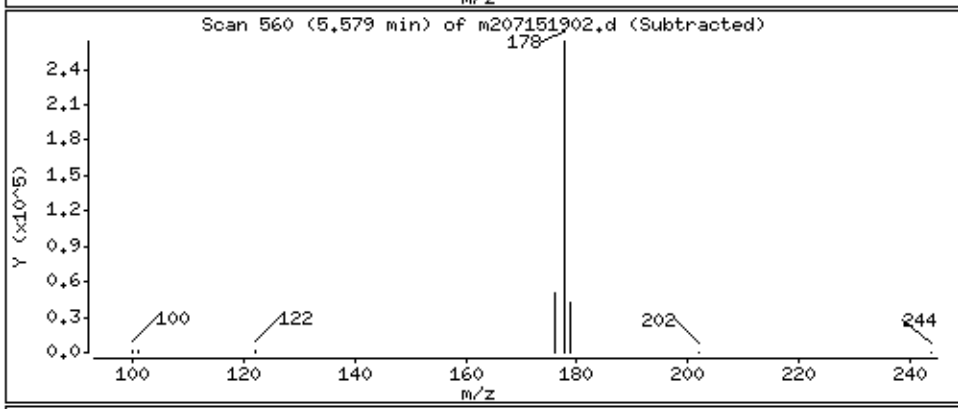
Column phase: RTX-5MS

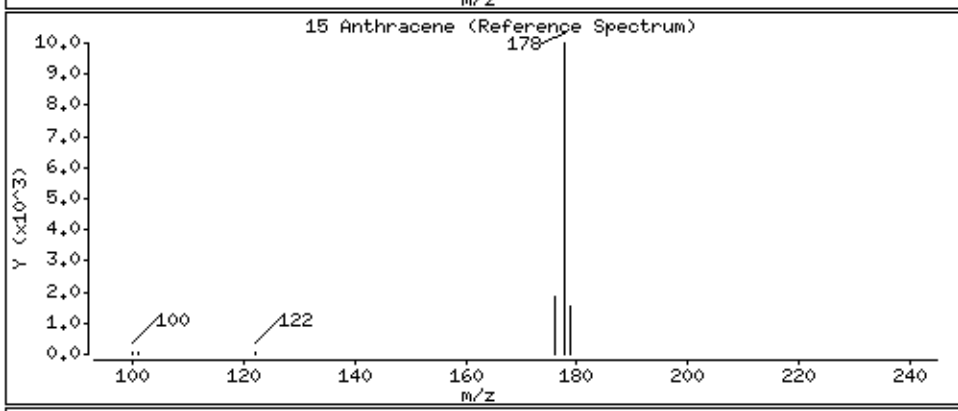
Column diameter: 0.25

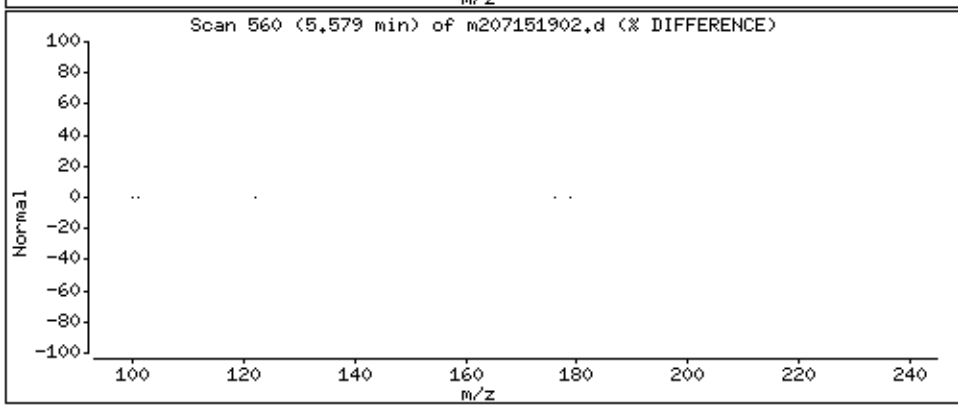
15 Anthracene

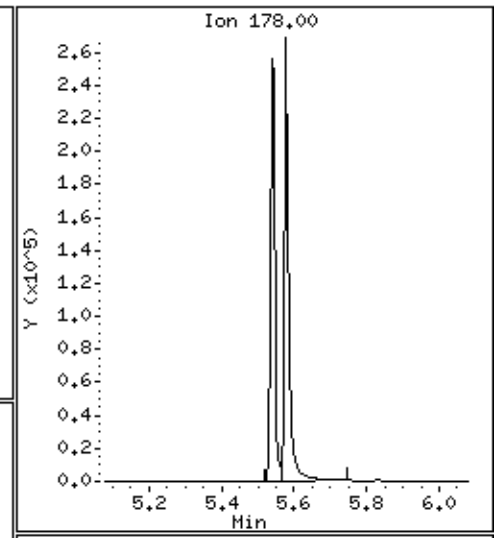
Concentration: 112 ug/Kg

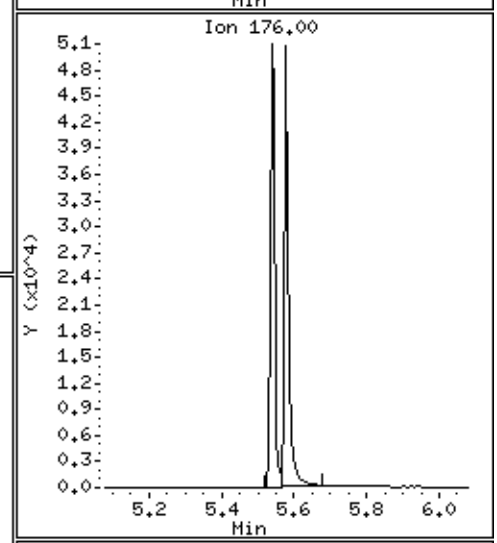


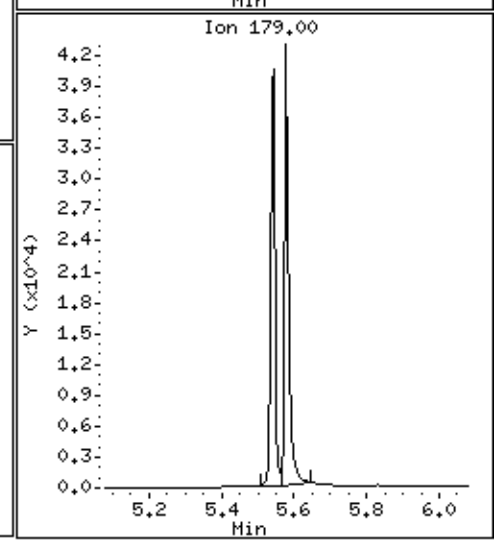












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

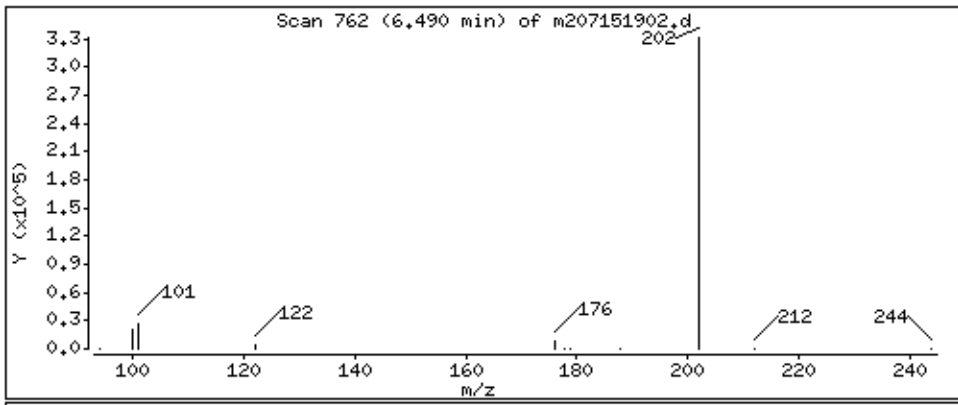
Operator: DSC

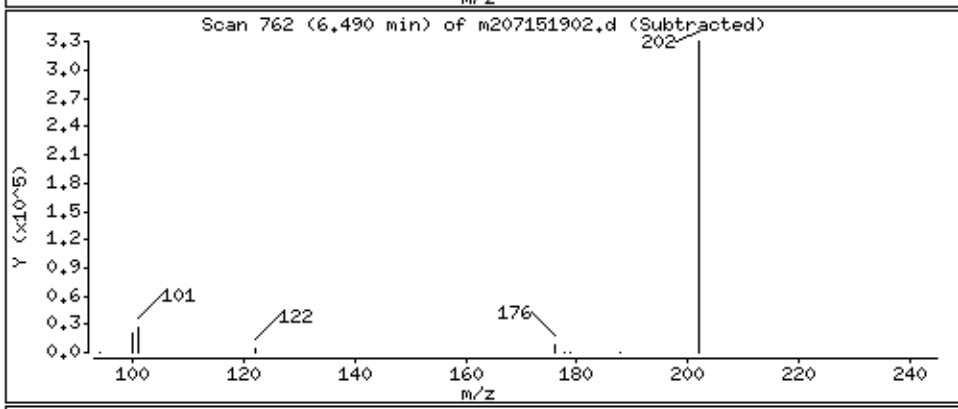
Column phase: RTX-5MS

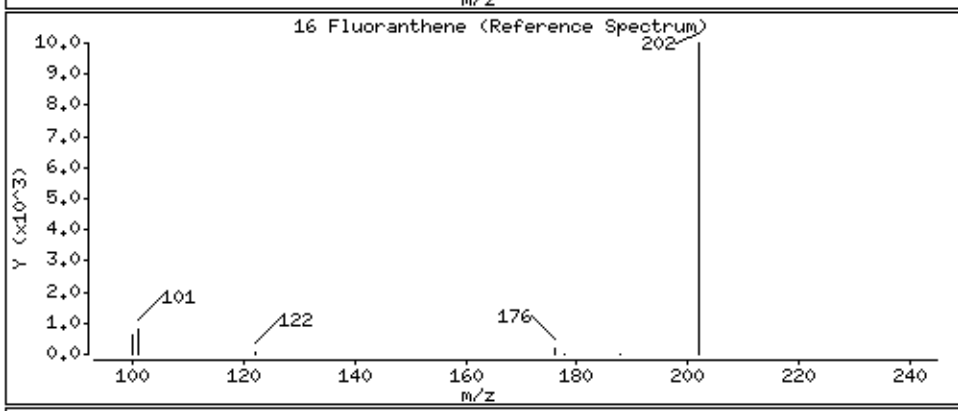
Column diameter: 0.25

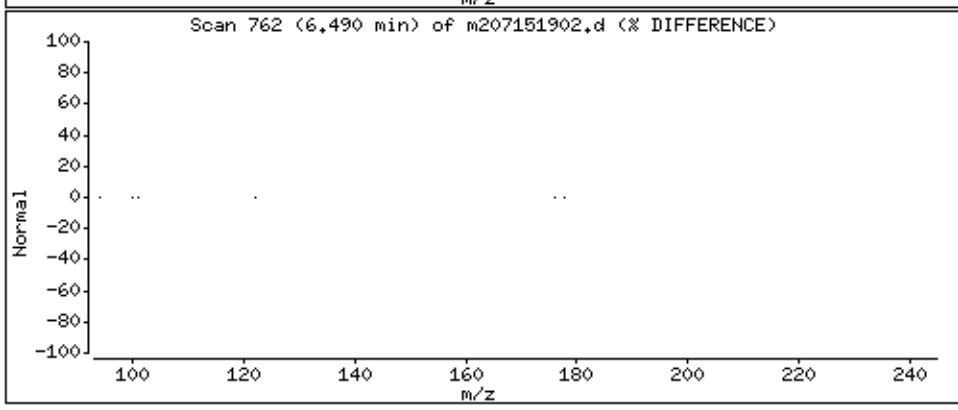
16 Fluoranthene

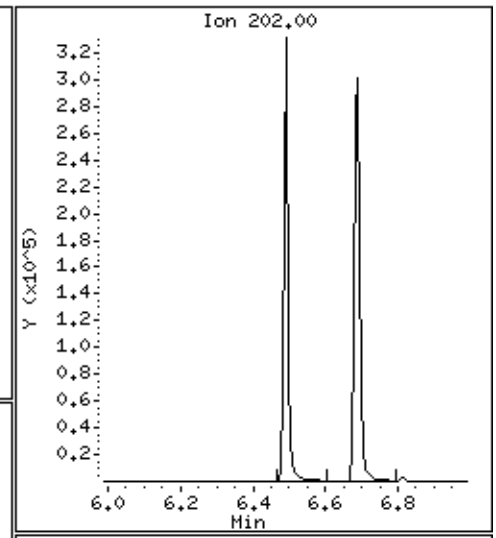
Concentration: 120 ug/Kg

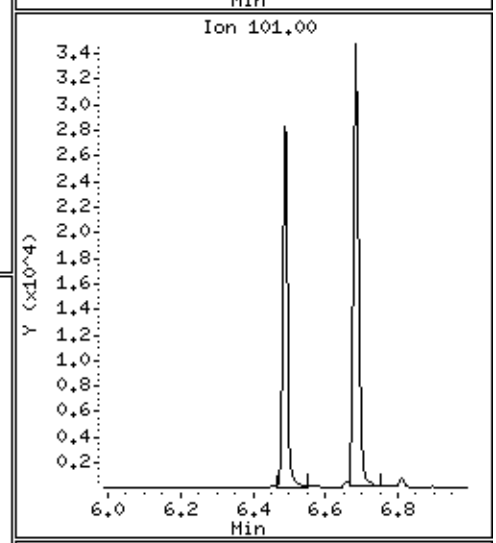


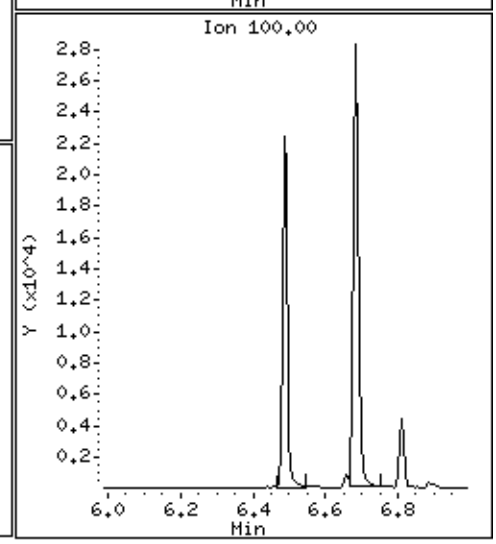












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

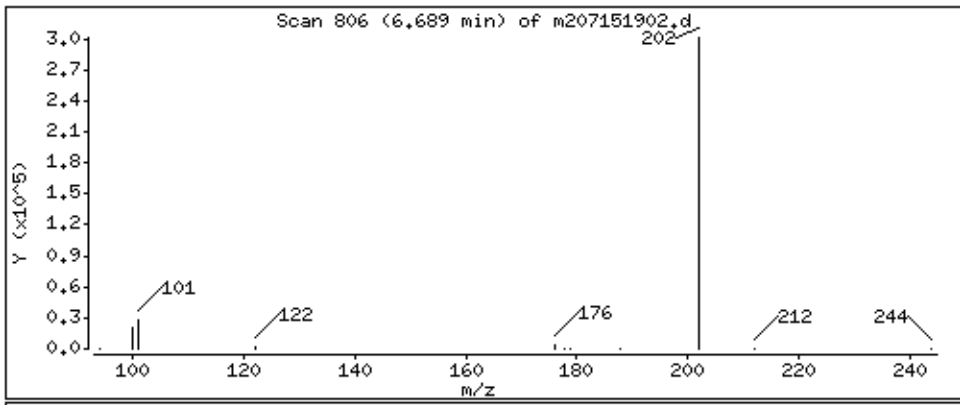
Operator: DSC

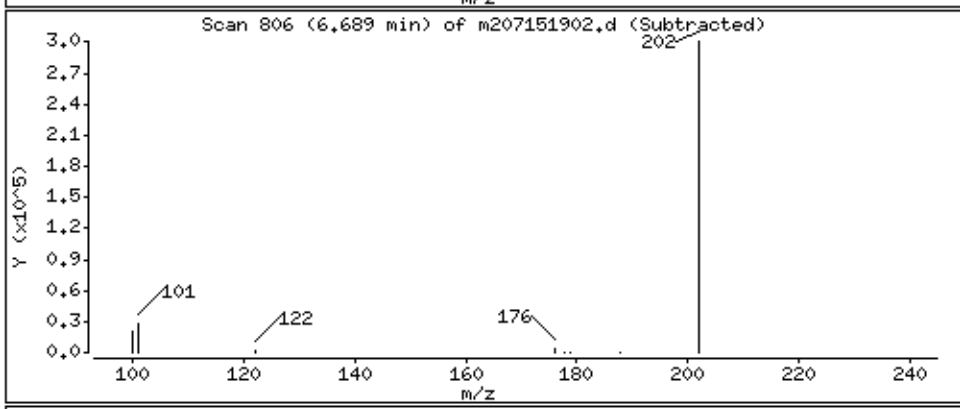
Column phase: RTX-5MS

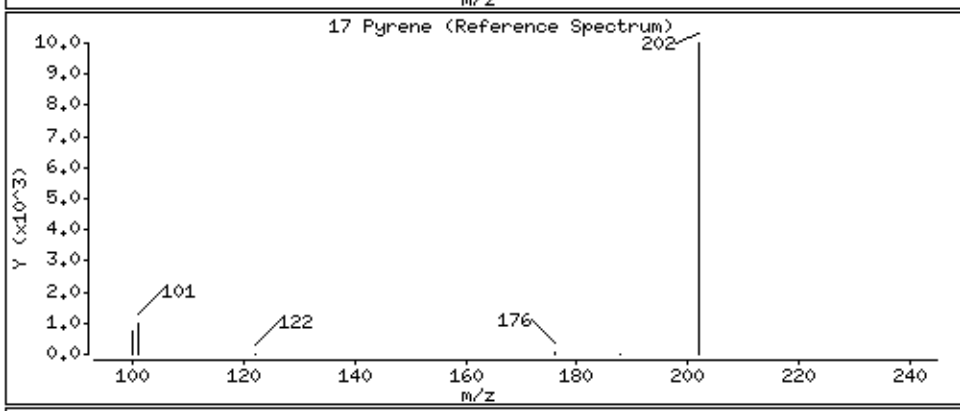
Column diameter: 0.25

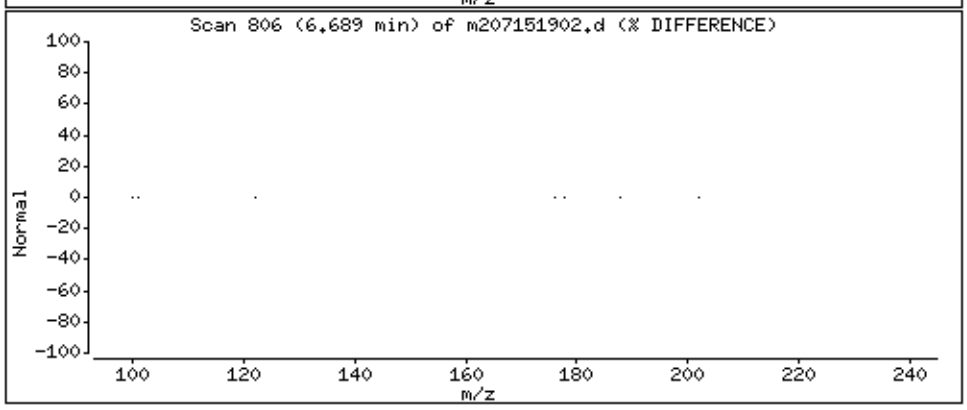
17 Pyrene

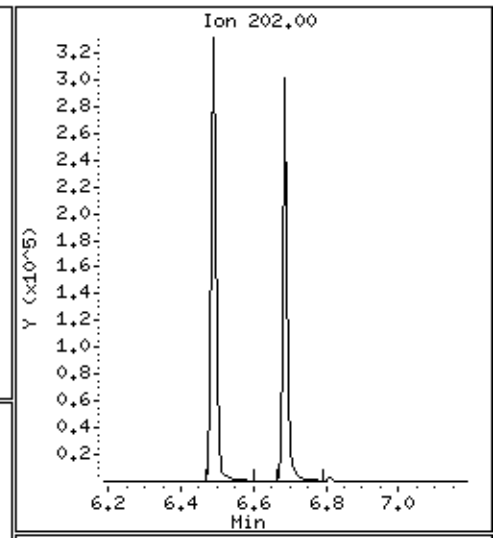
Concentration: 118 ug/Kg

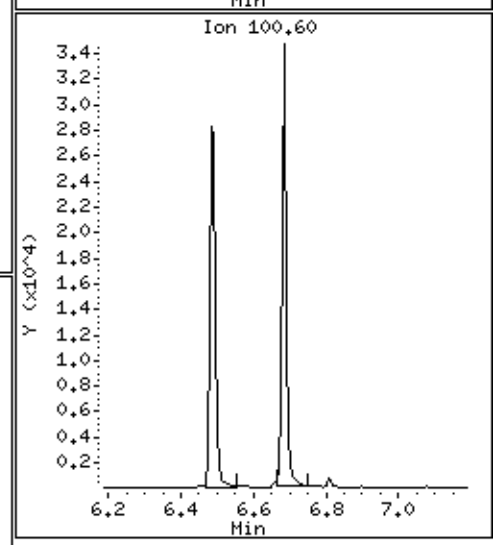












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

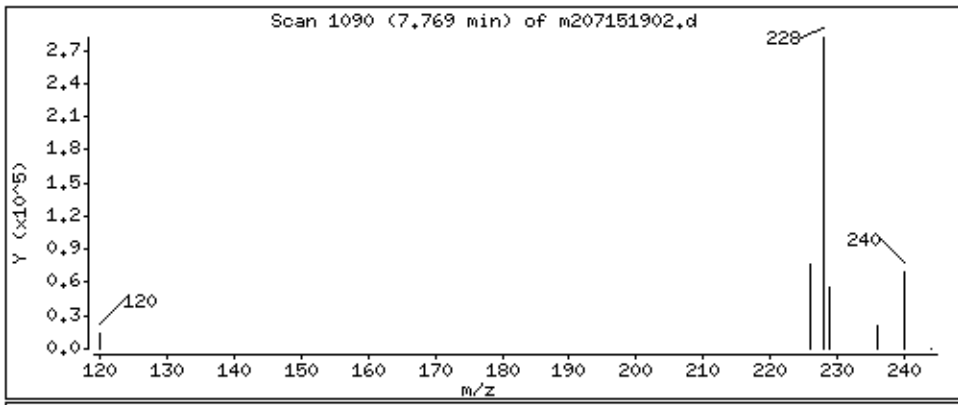
Operator: DSC

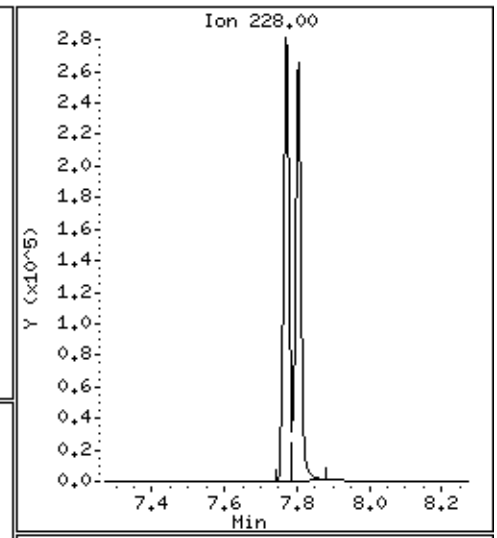
Column phase: RTX-5MS

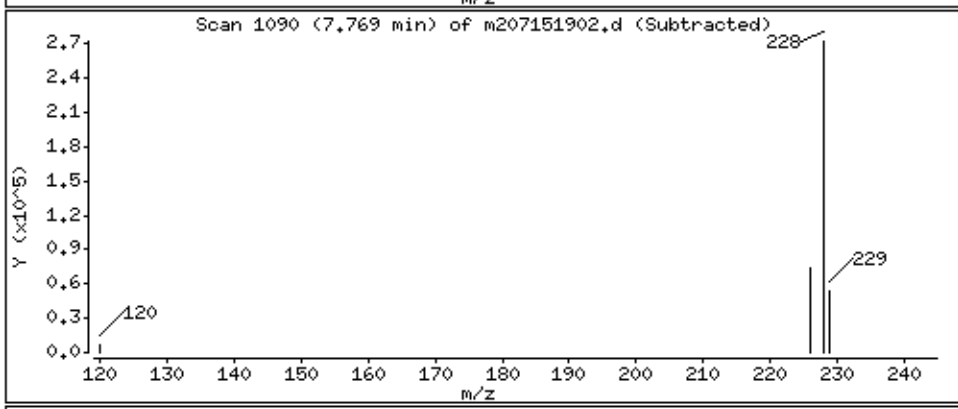
Column diameter: 0.25

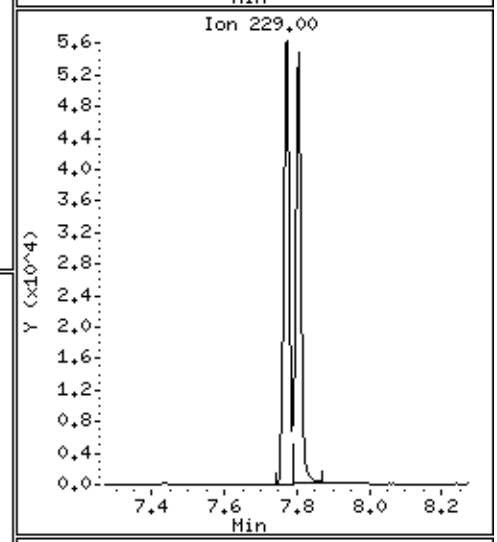
18 Benzo(a)anthracene

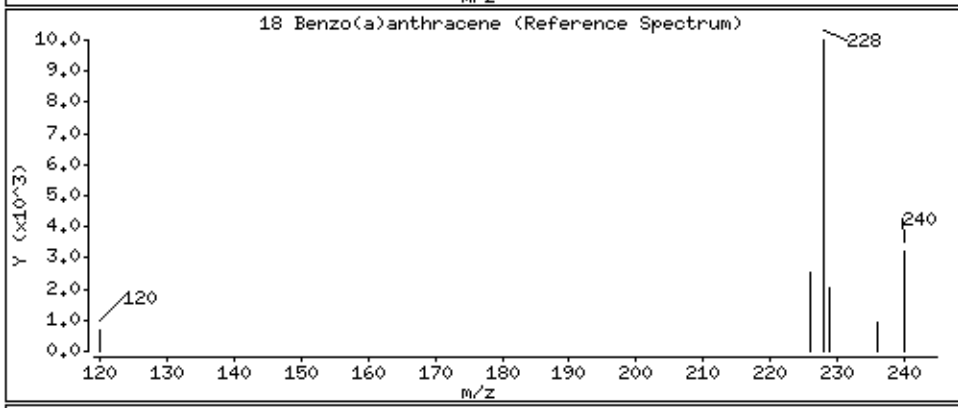
Concentration: 122 ug/Kg

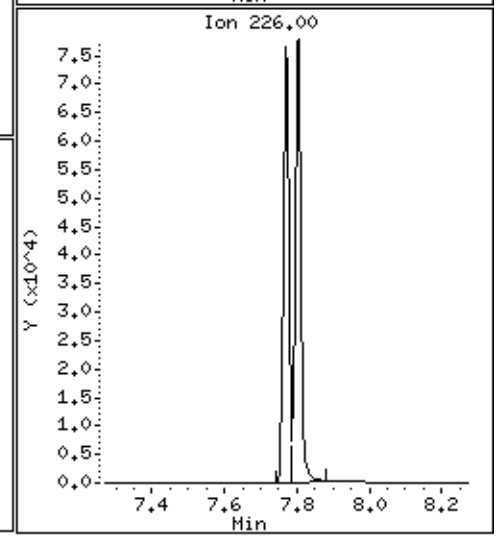


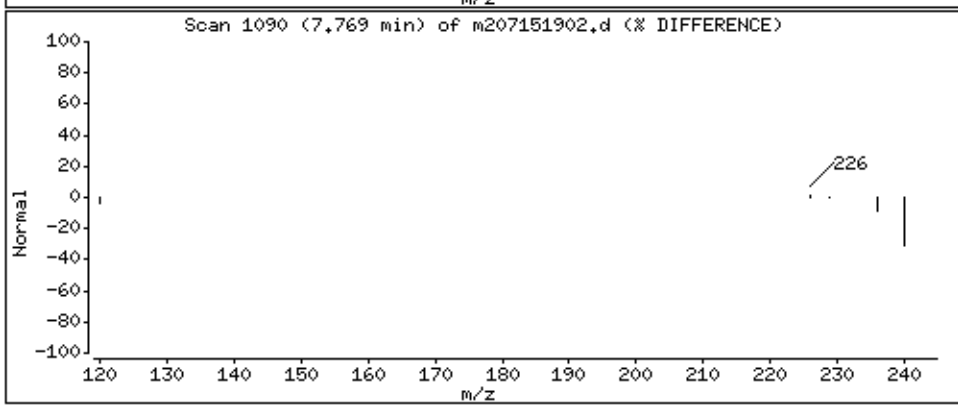












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b\m207151902.d

Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

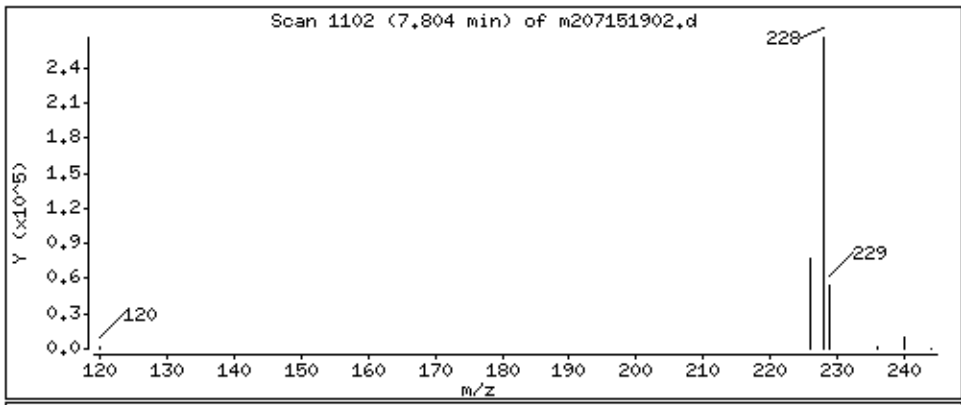
Operator: DSC

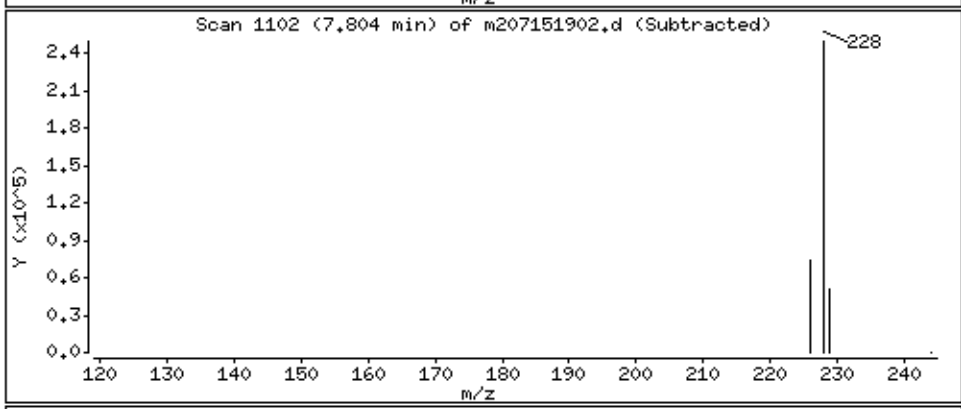
Column phase: RTX-5MS

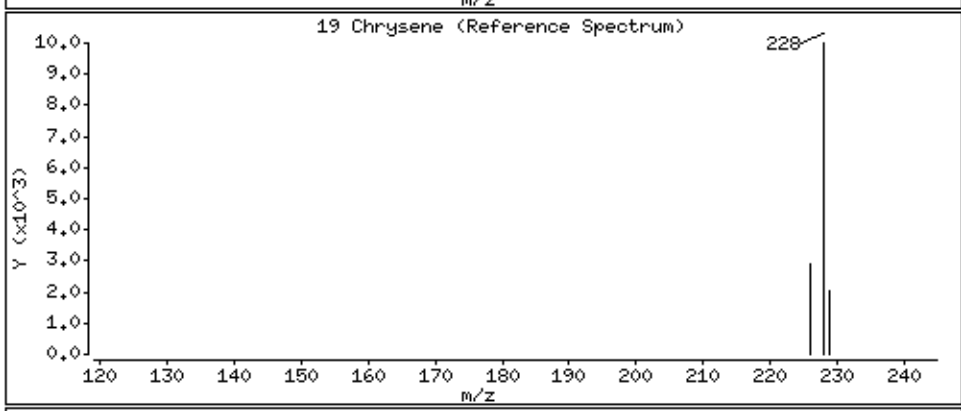
Column diameter: 0.25

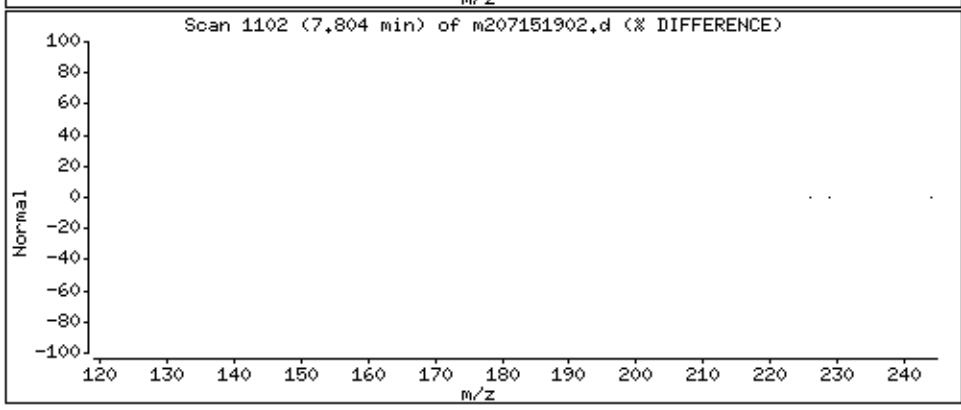
19 Chrysene

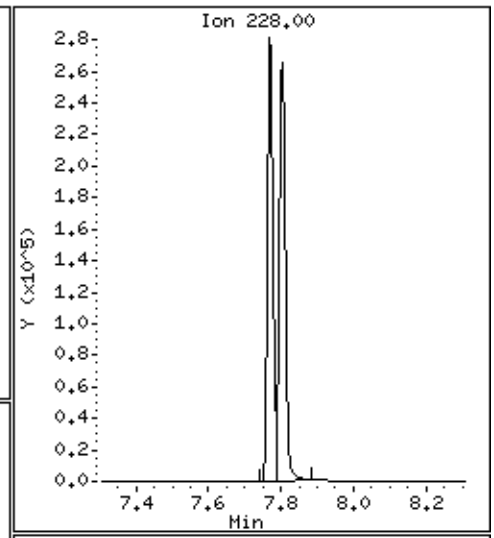
Concentration: 117 ug/Kg

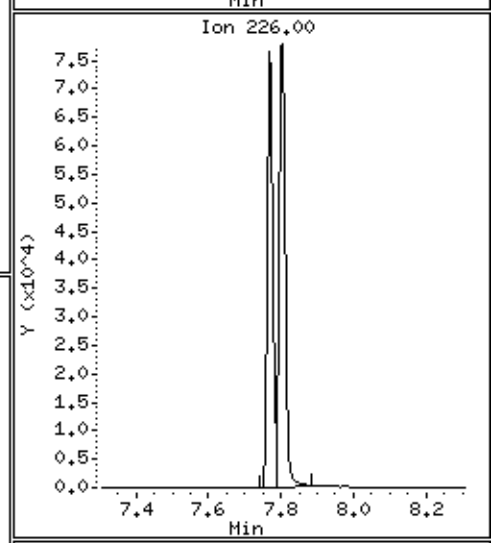


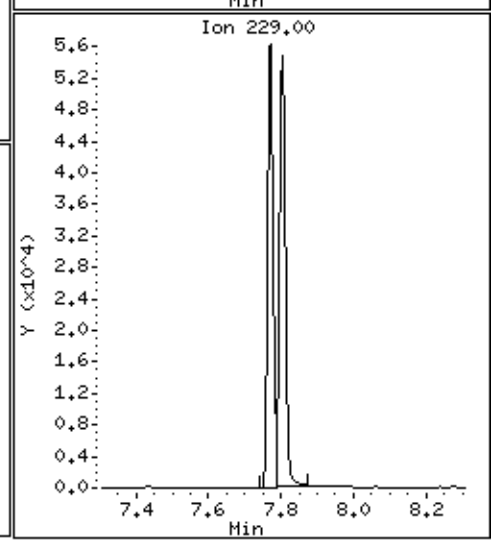












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

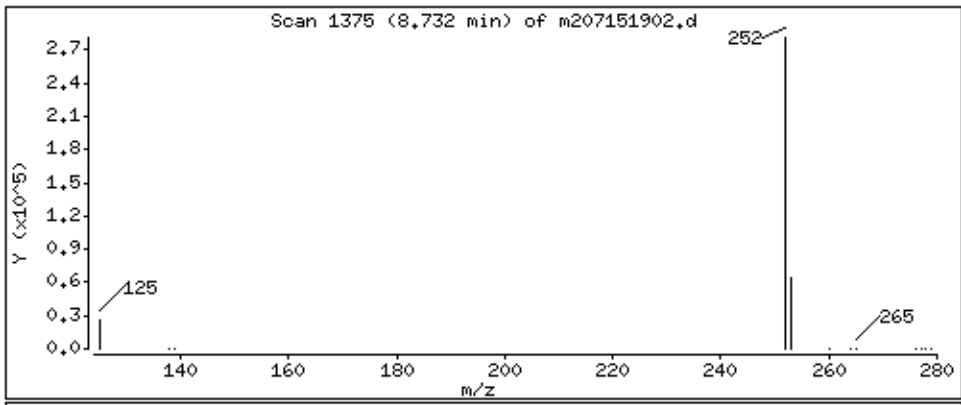
Operator: DSC

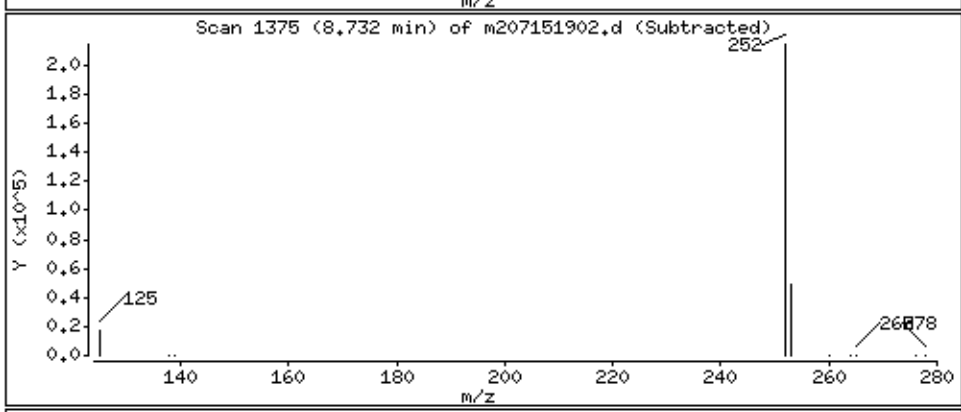
Column phase: RTX-5MS

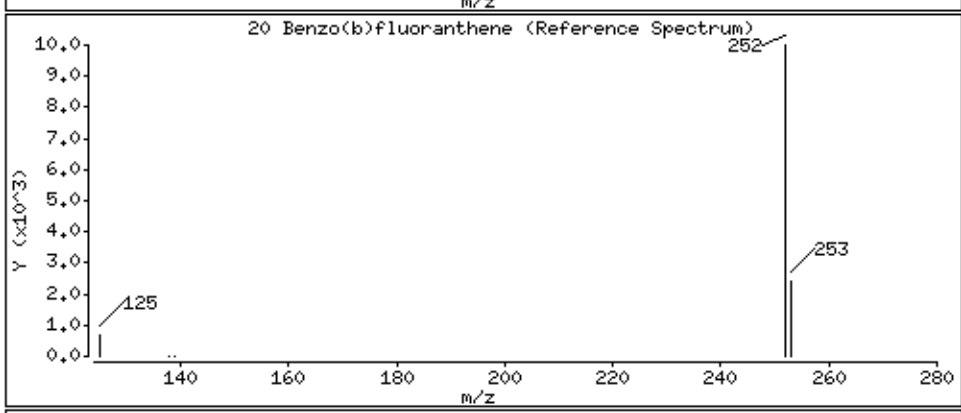
Column diameter: 0.25

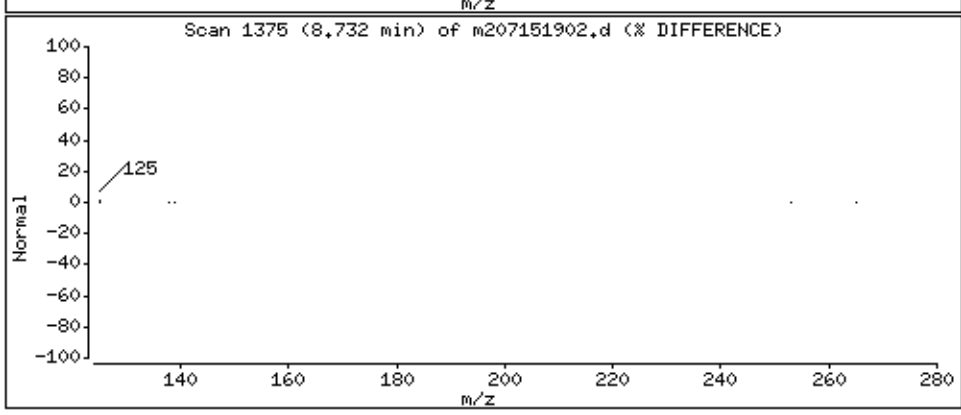
20 Benzo(b)fluoranthene

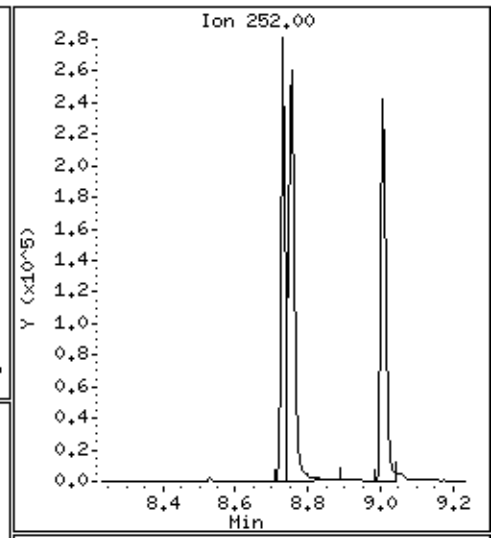
Concentration: 126 ug/Kg

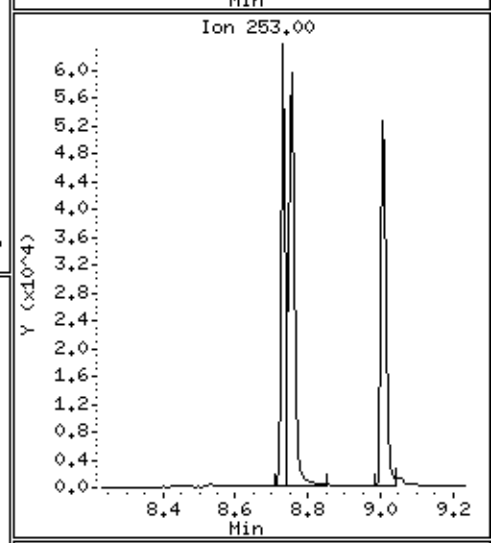


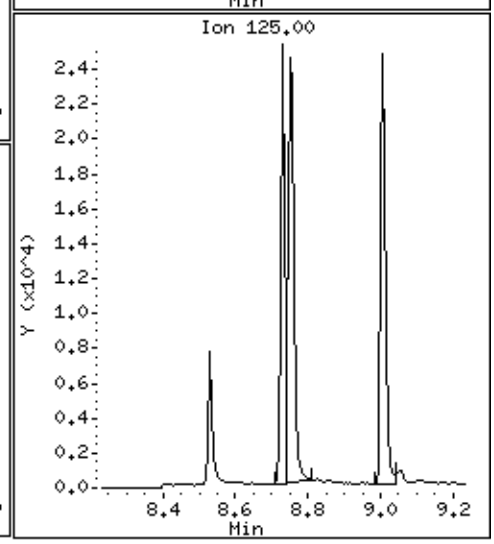












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

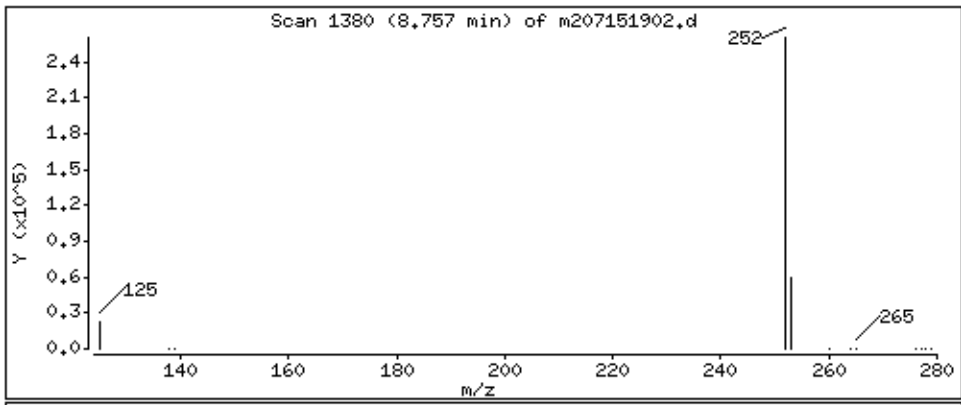
Operator: DSC

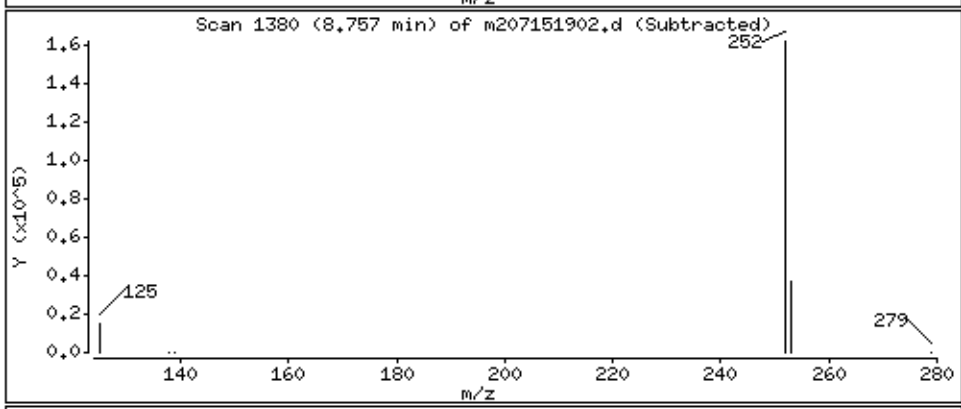
Column phase: RTX-5MS

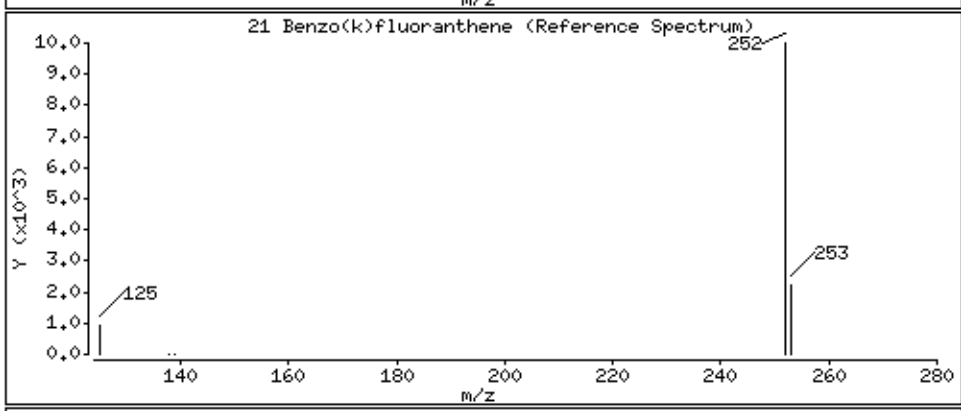
Column diameter: 0.25

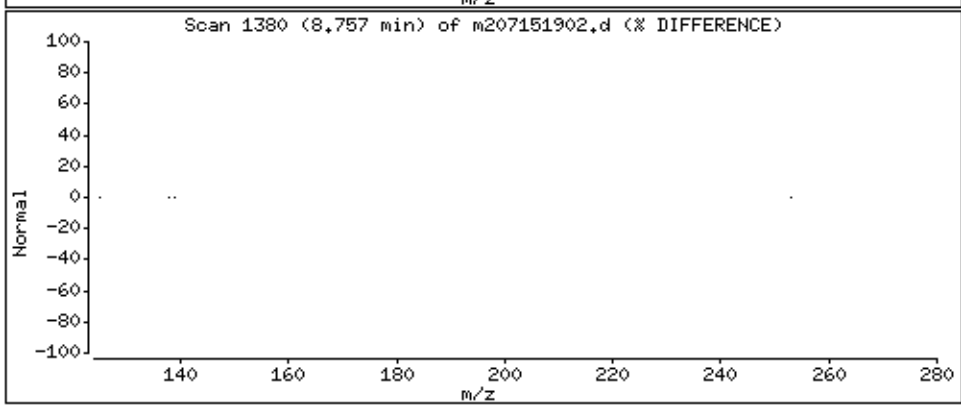
21 Benzo(k)fluoranthene

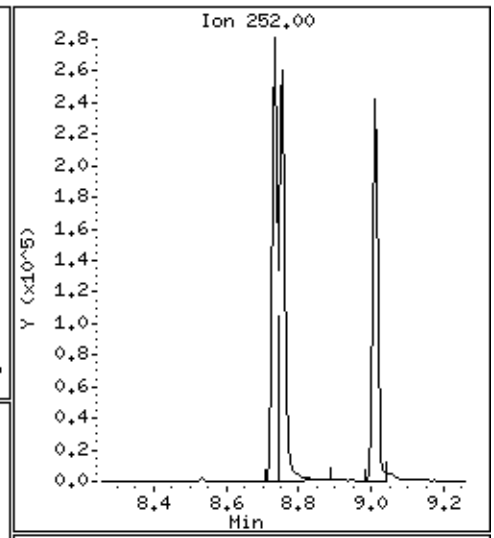
Concentration: 121 ug/Kg

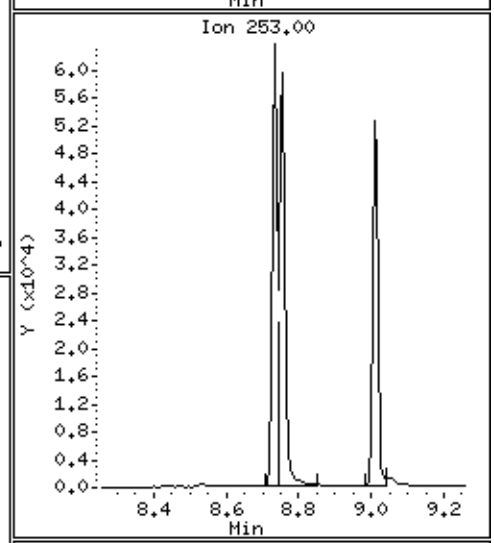


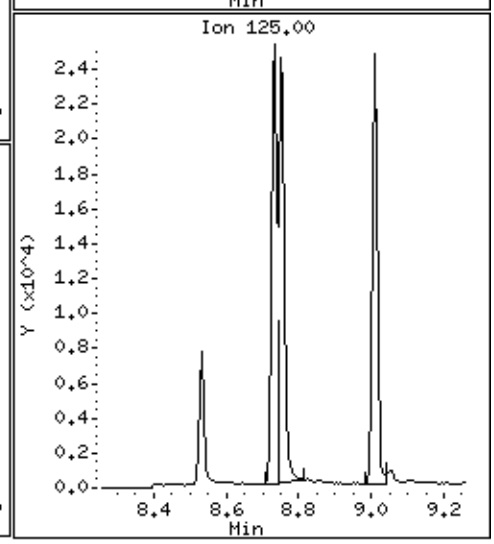












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

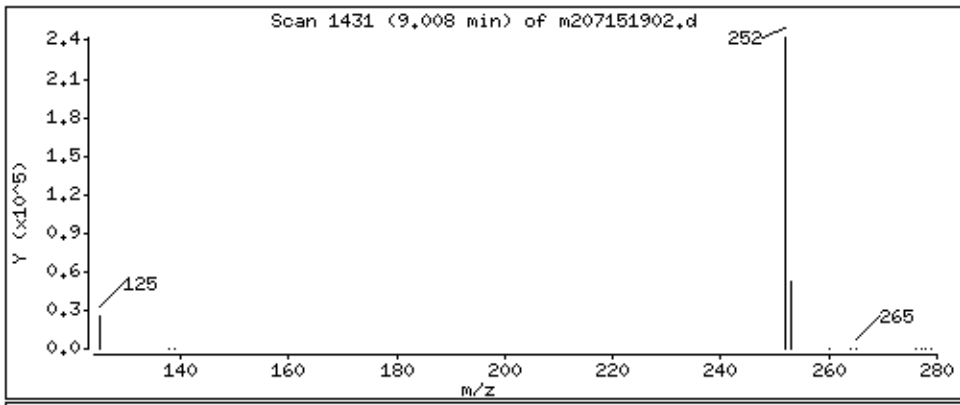
Operator: DSC

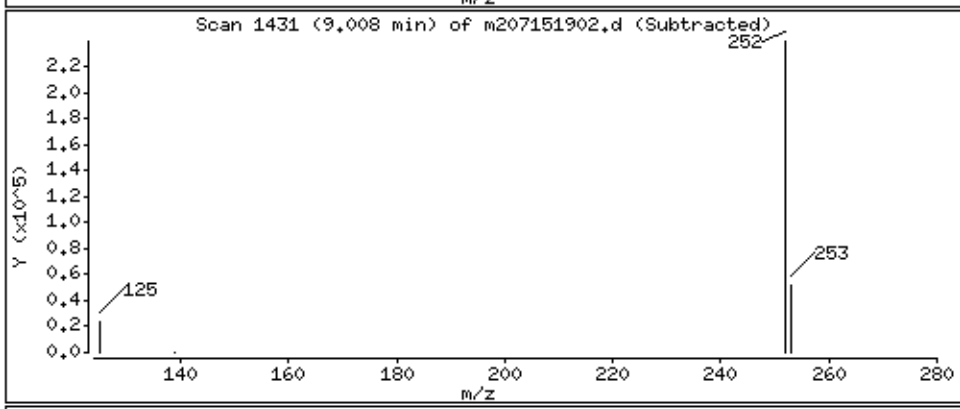
Column phase: RTX-5MS

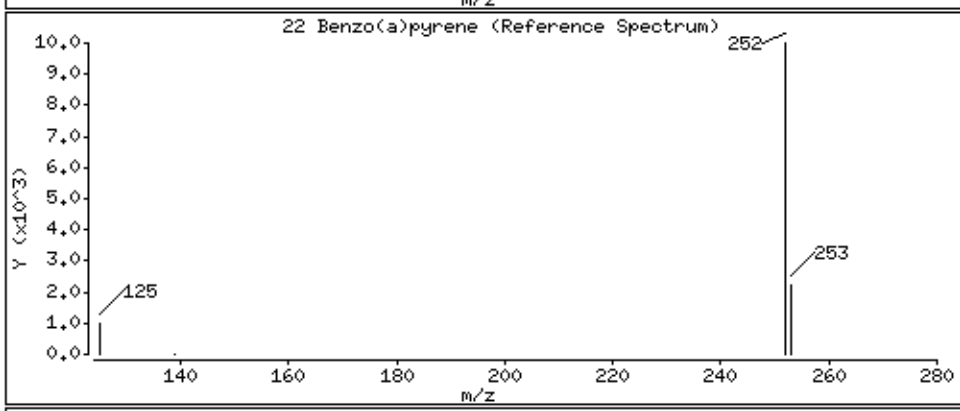
Column diameter: 0.25

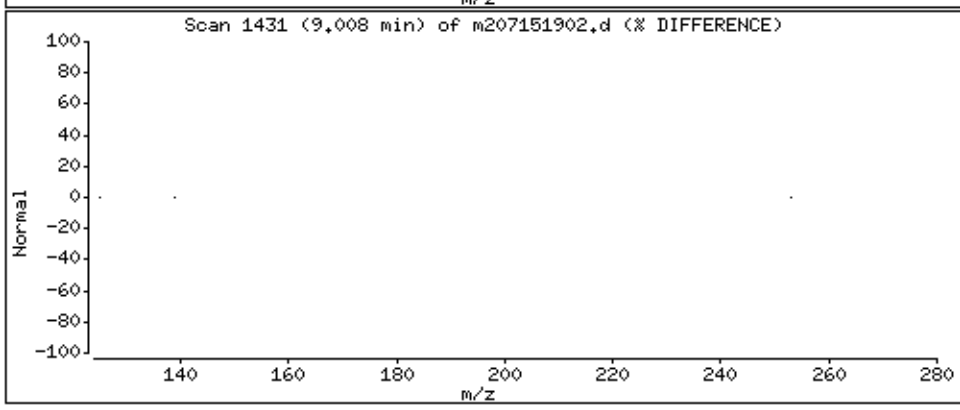
22 Benzo(a)pyrene

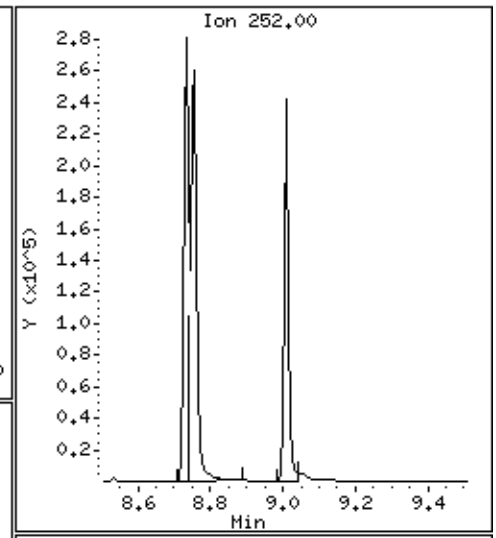
Concentration: 119 ug/Kg

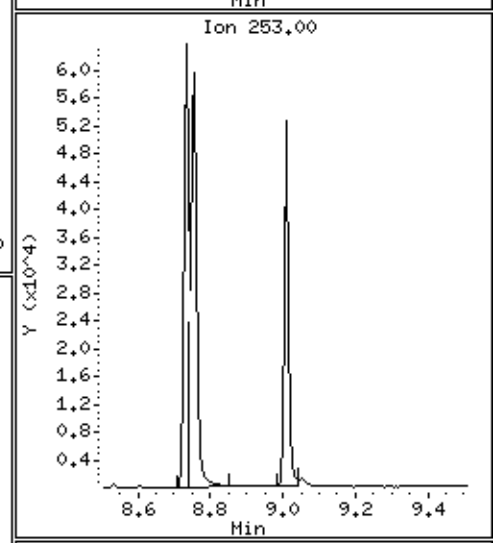


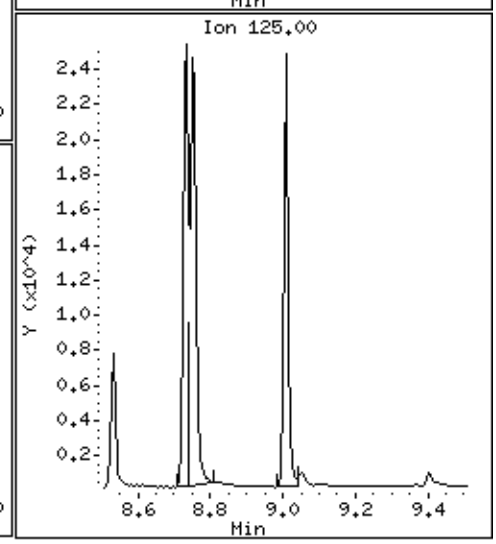












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

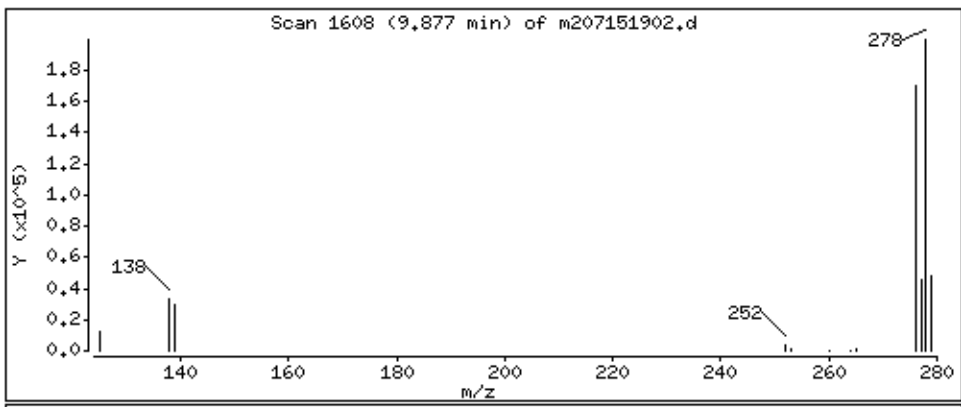
Operator: DSC

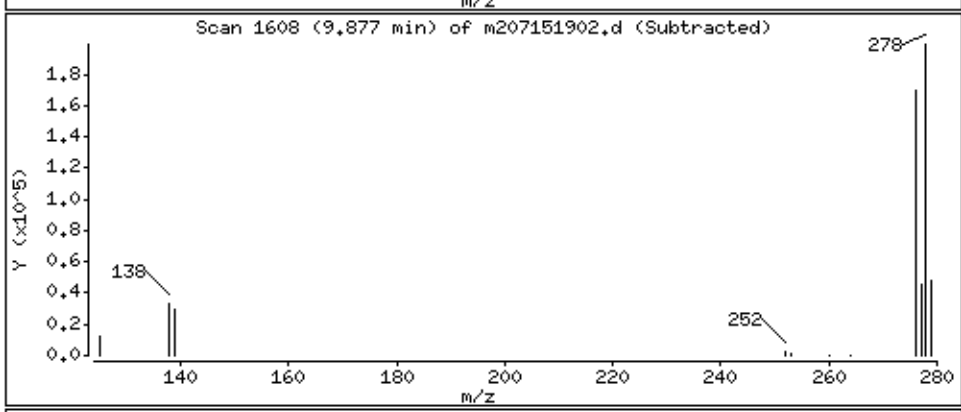
Column phase: RTX-5MS

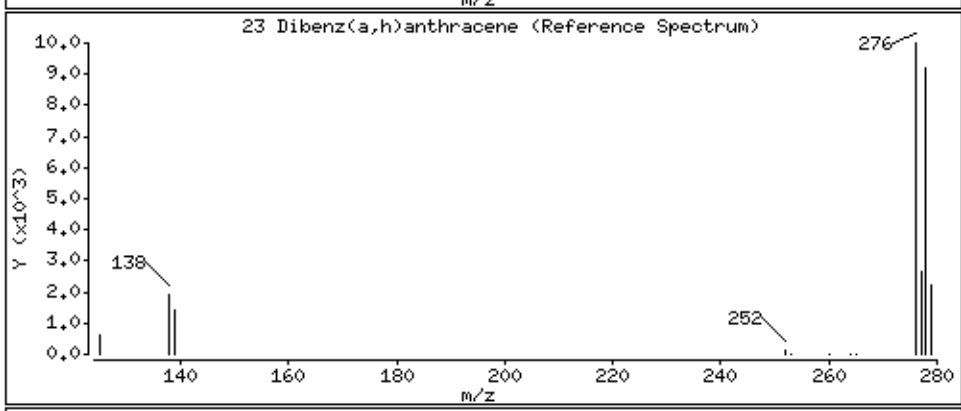
Column diameter: 0.25

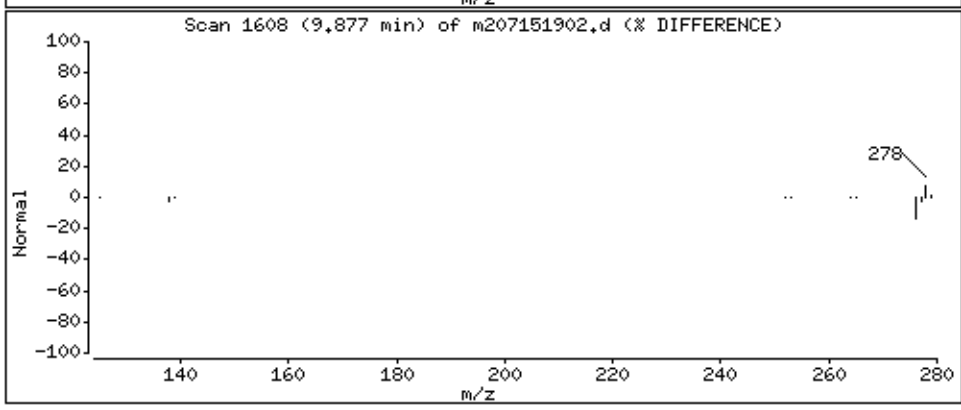
23 Dibenz(a,h)anthracene

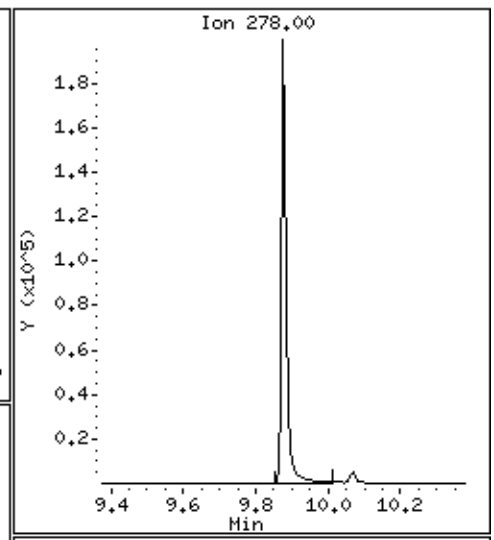
Concentration: 97.9 ug/Kg

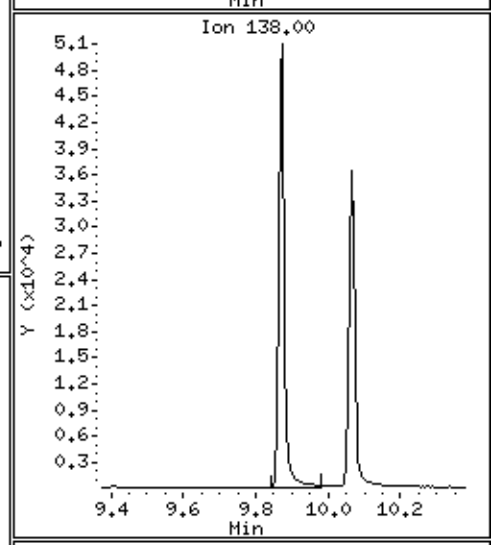


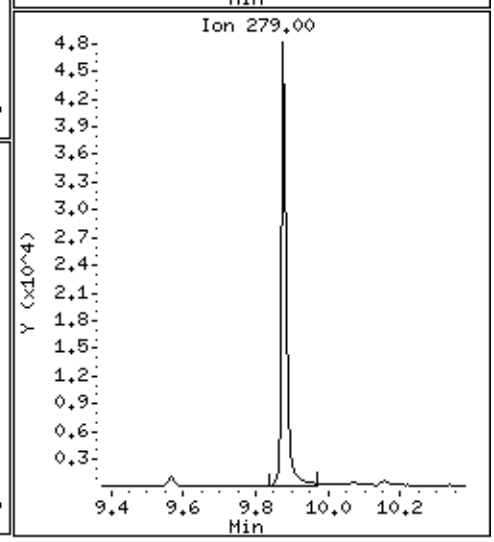












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

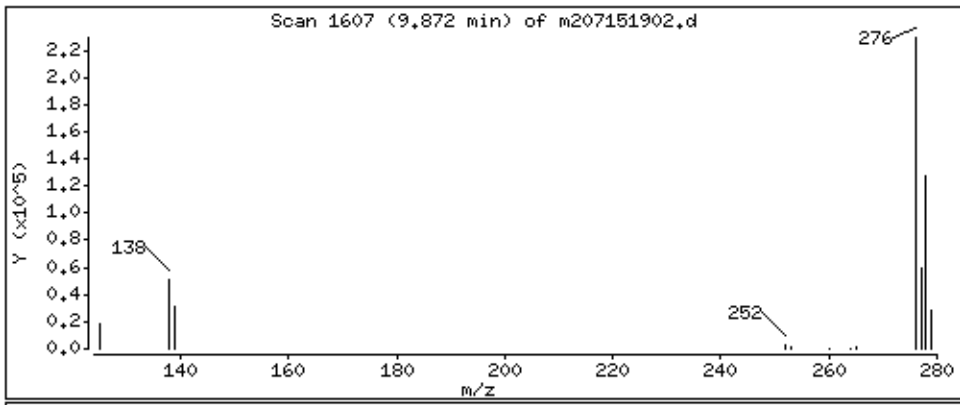
Operator: DSC

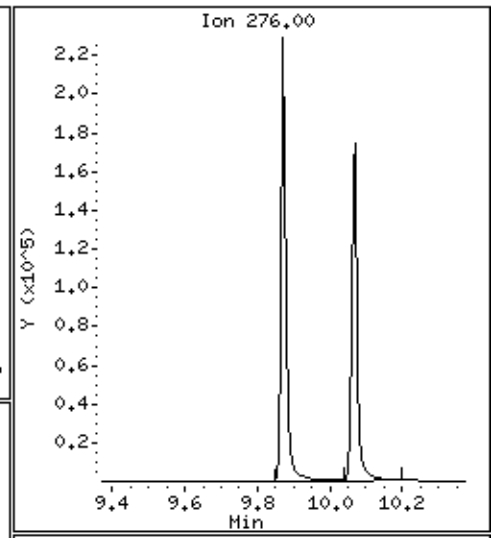
Column phase: RTX-5MS

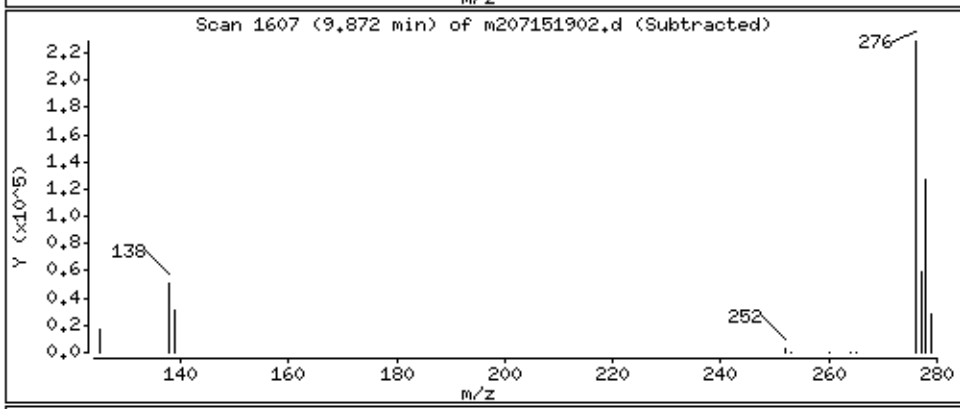
Column diameter: 0.25

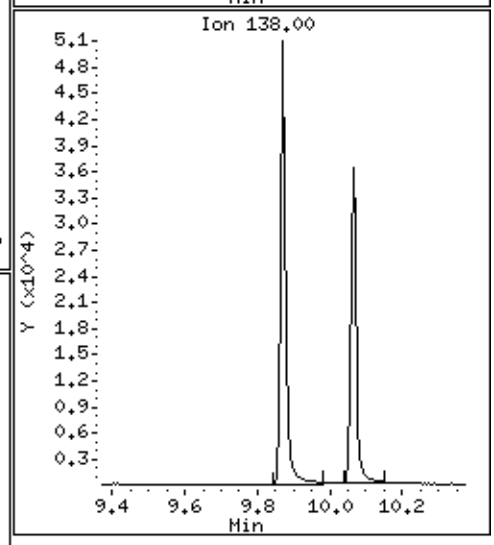
24 Indeno(1,2,3-cd)pyrene

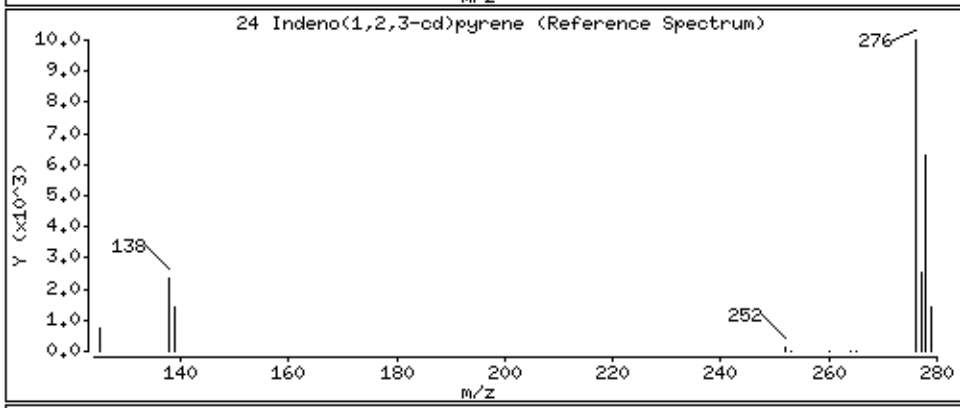
Concentration: 97.9 ug/Kg

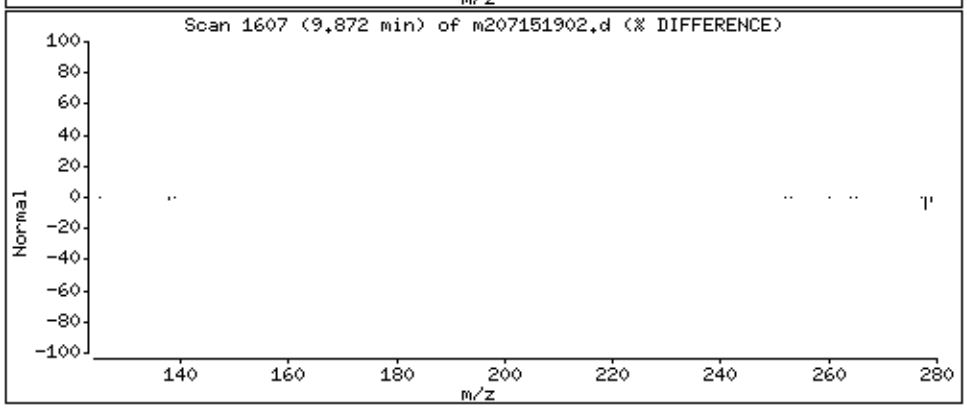












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Date : 15-JUL-2019 09:37

Client ID: MBLCS

Instrument: 30mss2.i

Sample Info: 1708424,

Volume Injected (uL): 1.0

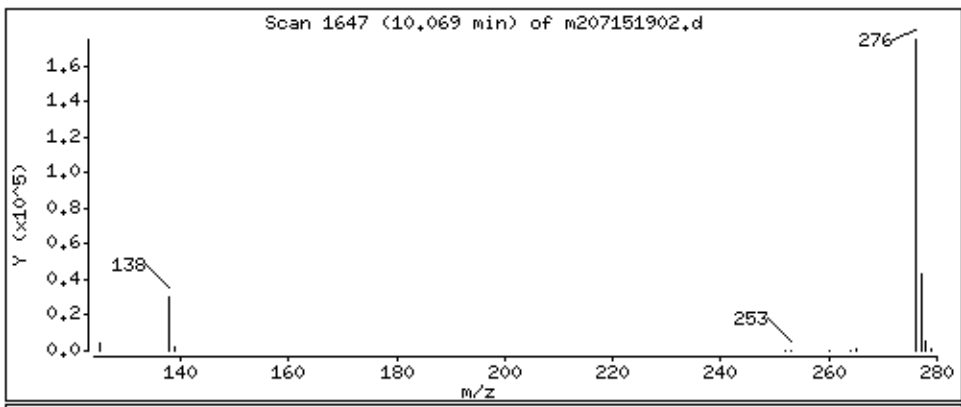
Operator: DSC

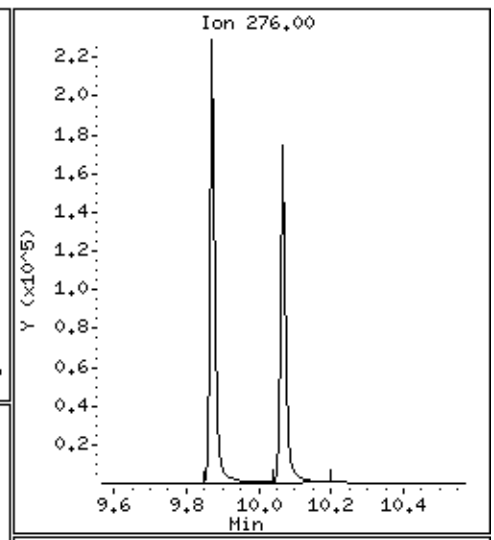
Column phase: RTX-5MS

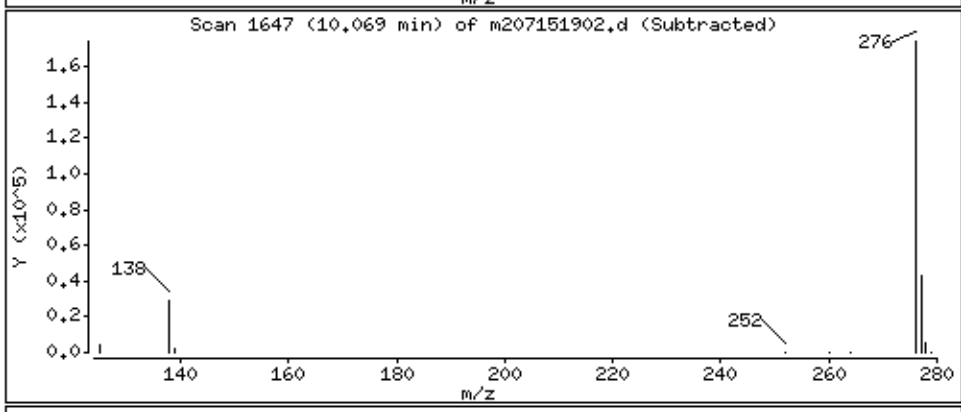
Column diameter: 0.25

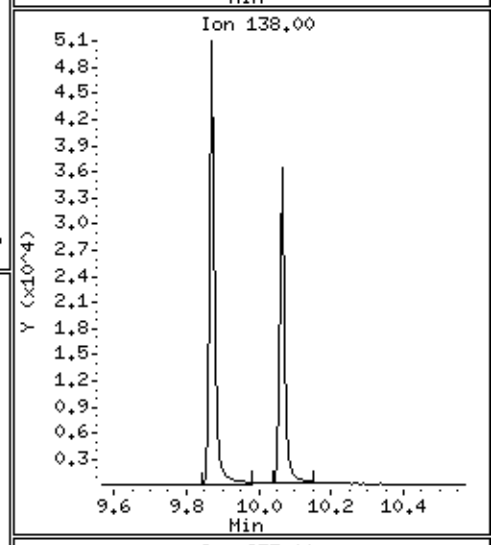
25 Benzo[g,h,i]perylene

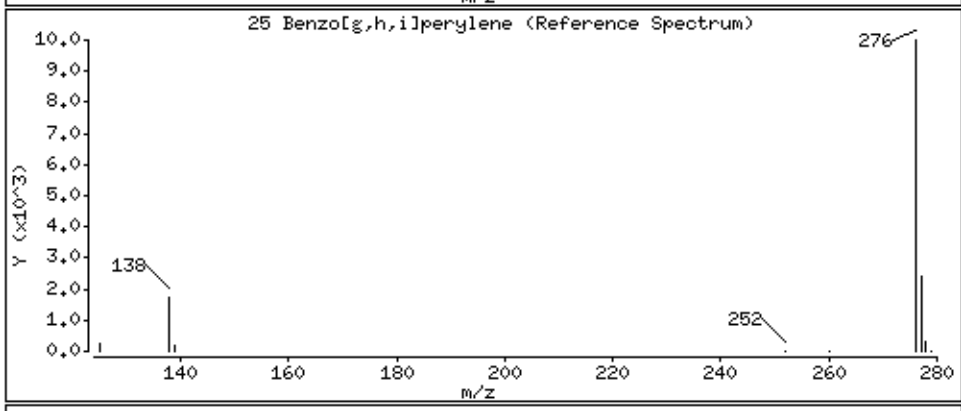
Concentration: 96.7 ug/Kg

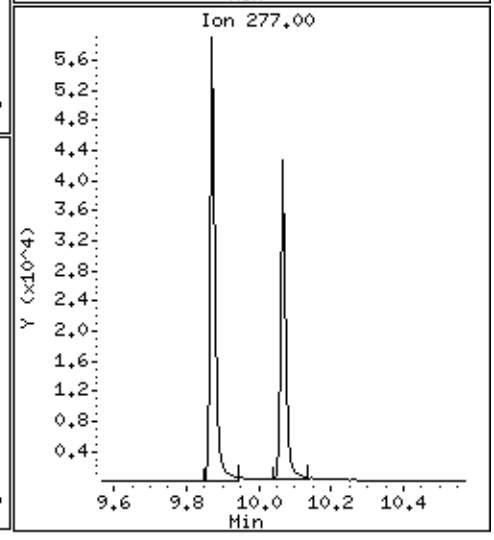


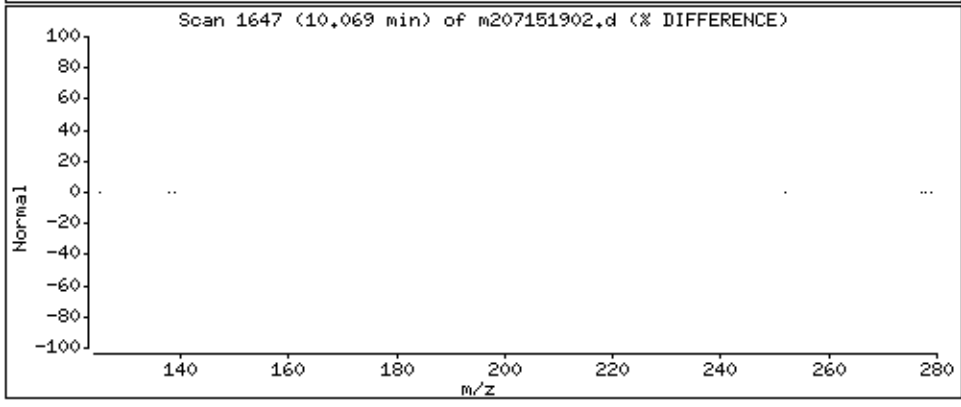












Data File: \\30wintarget\chem\30mss2.i\mss2071519.b/m207151902.d
Injection Date: 15-JUL-2019 09:37
Instrument: 30mss2.i
Lab Sample ID: 1708424
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: OEXT 38624/ 351578 PAH-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D by SIM
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	07/12/2019 18:34:45:019	Extraction End Date/Time	07/13/2019 00:20:52:891
Witnessed By		Spiked By	BBR	Spiked By Date	07/12/2019 18:46:50:032	Concentrated By	BBR
Concentrated By Date	07/13/2019 23:05:03:551	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR029
Syringe ID 2	NA	Methylene Chloride	92788	1:1 MeCl/Acetone	92275	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	90972	Gravity Filters	91977	Reviewed By	JPH
Reviewed By Date	07/16/2019 15:57	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	SIM-SPK (mL)	SIM-SS (mL)
8270DSJ_P	BLANK	**1708423**		TVAP006	15.04	1			86555 (.5)
8270DSJ_P	LCS	**1708424**		TVAP006	15.08	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30313260001**		TVAP006	15.43	1			86555 (.5)
8270DSJ_P	PS	**30313260002**		TVAP006	15.23	1			86555 (.5)
8270DSJ_P	PS	**30313260003**		TVAP006	15.1	1			86555 (.5)
8270DSJ_P	PS	**30313516001**		TVAP006	15.04	1			86555 (.5)
8270DSJ_P	MS	**1708425**		TVAP005	15.34	1		85224 (1)	86555 (.5)
8270DSJ_P	MSD	**1708426**		TVAP005	15.35	1		85224 (1)	86555 (.5)
8270DSJ_P	PS	**30313204001**		TVAP005	15.31	1			86555 (.5)
8270DSJ_P	PS	**30313204002**		TVAP005	15.05	1			86555 (.5)
8270DSJ_P	PS	**30313204003**		TVAP005	15.28	1			86555 (.5)
8270DSJ_P	PS	**30313204004**		TVAP005	15.33	1			86555 (.5)
8270DSJ_P	PS	**30313514001**		TVAP003	15.17	1			86555 (.5)
8270DSJ_P	PS	**30313514002**		TVAP003	15.03	1			86555 (.5)

Standard Notes:

85224: OEXT PAH SIM spike 2 ppm

86555: BNA LL Surrogate 10/15ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2061719r1.d	RT TEST	N/		1	m2053119pahcd	6/17/19	11:48	AJC	
1/m2061719t1.d	TUNE, 79378:1	N/14644	DFTPP	1	8270dsw846tun	6/17/19	12:09	AJC	
1/m2061719s1.d	CCV, 89121:1	N/14644		1	m2053119pahcd	6/17/19	12:21	AJC	
1/m2061719z1.d	CAL1, 89118:1	N/14711	CALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z111.d	CAL1, 89118:1	N/14711	CCALIB_1	1	m2061719pahcd	6/17/19	12:43	AJC	
1/m2061719z2.d	CAL2, 89119:1	N/14711	CALIB_2	1	m2061719pahcd	6/17/19	13:01	AJC	
1/m2061719z3.d	CAL3, 89120:1	N/14711	CALIB_3	1	m2061719pahcd	6/17/19	13:18	AJC	
1/m2061719z4.d	CAL4, 89121:1	N/14711	CALIB_4	1	m2061719pahcd	6/17/19	13:36	AJC	
1/m2061719z5.d	CAL5, 89122:1	N/14711	CALIB_5	1	m2061719pahcd	6/17/19	13:54	AJC	
1/m2061719z6.d	CAL6, 89123:1	N/14711	CALIB_6	1	m2061719pahcd	6/17/19	14:12	AJC	
1/m2061719z7.d	ICV, 90346:1	N/14711	CCALIB_4	1	m2061719pahcd	6/17/19	14:30	AJC	
1/m206171901.d	1690509,	S/14709	BLANK	1	m2061719pahcd	6/17/19	14:49	AJC	
1/m206171902.d	1690510,	S/14709	LCS	1	m2061719pahcd	6/17/19	15:07	AJC	
1/m206171903.d	1689804,	L/14710	BLANK	1	m2061719pahcd	6/17/19	15:25	AJC	
1/m206171904.d	1689805,	L/14710	LCS	1	m2061719pahcd	6/17/19	15:42	AJC	
1/m206171905.d	30299839002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:00	AJC	B+K
1/m206171906.d	1690511,	S/14709	MS	1	m2061719pahcd	6/17/19	16:18	AJC	
1/m206171907.d	1690512,	S/14709	MSD	1	m2061719pahcd	6/17/19	16:36	AJC	
1/m206171908.d	30299839003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	16:54	AJC	
1/m206171909.d	30299839005,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:12	AJC	B+K
1/m206171910.d	30299839006,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	17:30	AJC	
1/m206171911.d	30299754001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	17:48	AJC	
1/m206171912.d	30299754002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:05	AJC	
1/m206171913.d	30299808001,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:23	AJC	
1/m206171914.d	30299808001x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	18:41	AJC	not needed
1/m206171915.d	30299808002,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	18:59	AJC	
1/m206171916.d	30299808002x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:17	AJC	not needed
1/m206171917.d	30299808003,	S/14709	SAMPLE	1	m2061719pahcd	6/17/19	19:35	AJC	
1/m206171918.d	30299808003x10,	S/14709	SAMPLE	10	m2061719pahcd	6/17/19	19:53	AJC	not needed
1/m206171919.d	30298911002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:11	AJC	
1/m206171920.d	30299467001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:29	AJC	
1/m206171921.d	30299467002,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	20:46	AJC	
1/m206171922.d	30299467003,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:04	AJC	B+K

Check Maintenance Items Performed:

- K Changed septum
- K Cleaned liner
- K Replaced/Cleaned gold seal
- K Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: AJC 6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: KBL 6/19/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 89614
Tune std: 79378

Method: 8270 D SIM
Dcm 80877
Surr. lot:
Cal. std: 89118-89123, 90346

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m206171923.d	30299467004,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:22	AJC	not used need dilutions
1/m206171924.d	30299898001,	L/14710	SAMPLE	1	m2061719pahcd	6/17/19	21:40	AJC	
1/m206171925.d	30299465001x10,	S/14705	SAMPLE	10	m2061719pahcd	6/17/19	21:58	AJC	
1/m206171926.d	30299465001x100,	S/14705	SAMPLE	100	m2061719pahcd	6/17/19	22:16	AJC	not used Isour

6-18-19

File Path 1: \\30wintarget\chem\30mss2.i\mss2061719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 06:46 06/18/2019

Reviewed By/Date: 6/18/19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss2.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [G]: \
Misc. Prep Info [L]: NA
Misc. Prep Info [S]: \
ISTD lot: 92890
Tune std: 79378

Method: 8270D SIM
CH_2Cl_2 - 8087
Surr. lot: NA
Cal. std: 89111

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m2071519t1.d	TUNE, 79378:1	G/14711	DFTPP	1	8270dsw846tun	7/15/19	08:49	DSC	
1/m2071519s1.d	CCV, 89111:1	N/14711	CCALIB_4	1	m2061719pahcd	7/15/19	09:02	DSC	
1/m207151901.d	1708423,	S/14824	BLANK	1	m2061719pahcd	7/15/19	09:19	DSC	
1/m207151902.d	1708424,	S/14824	LCS	1	m2061719pahcd	7/15/19	09:37	DSC	
1/m207151903.d	1708438,	L/14827	BLANK	1	m2061719pahcd	7/15/19	09:55	DSC	
1/m207151904.d	1708439,	L/14827	LCS	1	m2061719pahcd	7/15/19	10:12	DSC	
1/m207151905.d	30313043011,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	10:30	DSC	
1/m207151906.d	30313204003,	S/14824	SAMPLE	1	m2061719pahcd	7/15/19	10:47	DSC	DAW
1/m207151907.d	30313260001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:05	DSC	
1/m207151908.d	30313260002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:23	DSC	
1/m207151909.d	30313260003X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:40	DSC	
1/m207151910.d	30313516001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	11:58	DSC	
1/m207151911.d	1708425X10,	S/14824	MS	10	m2061719pahcd	7/15/19	12:16	DSC	
1/m207151912.d	1708426X10,	S/14824	MSD	10	m2061719pahcd	7/15/19	12:33	DSC	
1/m207151913.d	30313204001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	12:51	DSC	
1/m207151914.d	30313204002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:09	DSC	
1/m207151915.d	30313204004X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:26	DSC	
1/m207151916.d	30313514001X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	13:44	DSC	
1/m207151917.d	30313514002X10,	S/14824	SAMPLE	10	m2061719pahcd	7/15/19	14:02	DSC	
1/m207151918.d	30312798009,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:20	DSC	
1/m207151919.d	30312798010,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:37	DSC	
1/m207151920.d	30312798011,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	14:55	DSC	
1/m207151921.d	30312798012,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:13	DSC	
1/m207151922.d	30312798013,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:30	DSC	
1/m207151923.d	30313043005,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	15:48	DSC	
1/m207151924.d	30313043005X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	16:06	DSC	not used
1/m207151925.d	1708440,	L/14827	MS	1	m2061719pahcd	7/15/19	16:24	DSC	
1/m207151926.d	1708440X100,	L/14827	MS	100	m2061719pahcd	7/15/19	16:41	DSC	not used
1/m207151927.d	1708441,	L/14827	MSD	1	m2061719pahcd	7/15/19	16:59	DSC	
1/m207151928.d	1708441X100,	L/14827	MSD	100	m2061719pahcd	7/15/19	17:17	DSC	not used
1/m207151929.d	30313043001,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	17:35	DSC	
1/m207151930.d	30313043002,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	17:52	DSC	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
✓ No maintenance performed today

Additional Comments: Baked oven

Run Order Verified: [signature] 7/16/19

File Path 1: \\30wintarget\chem\30mss2.i\mss2071519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:21 07/16/2019

Reviewed By/Date: DAW 7-16-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss2.i

Column RXI-5MS 20m X 0.18mm He Method:

Misc. Prep Info [G]:

Misc. Prep Info [L]: See Pg 1

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: _____ Cal. std: _____

Instrument name..... 30MSS2

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m207151931.d	30313043003,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:10	DSC	
1/m207151932.d	30313043004,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:28	DSC	
1/m207151933.d	30313043006,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	18:45	DSC	
1/m207151934.d	30313043006X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	19:03	DSC	not used
1/m207151935.d	30313043007,	N/1427 14827	SAMPLE	1	m2061719pahcd	7/15/19	19:21	DSC	
1/m207151936.d	30313043008,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	19:38	DSC	
1/m207151937.d	30313043009,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	19:56	DSC	
1/m207151938.d	30313043010,	L/14827	SAMPLE	1	m2061719pahcd	7/15/19	20:14	DSC	
1/m207151939.d	30313043001X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	20:32	DSC	not used
1/m207151940.d	30313043002X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	20:49	DSC	↓
1/m207151941.d	30313043003X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	21:07	DSC	missed Tune
1/m207151942.d	30313043004X100,	L/14827	SAMPLE	100	m2061719pahcd	7/15/19	21:24	DSC	↓

JSC 7/16/19

File Path 1: \\30wintarget\chem\30mss2.i\mss2071519.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:21 07/16/2019

Reviewed By/Date: TAW 7-16-19 Page: 2 of 2

PCB - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1708433	1708433BLANK	92	88
1708434	1708434LCS	96	85
30313514001	Sewer-1	197*	87
30313514002	Sewer-2	100	90

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(38-139)
(TCMX) = Tetrachloro-m-xylene (S)	(34-114)

* Values outside of QC Limits

PCB - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1708434LCS
Date Extracted: 07/12/2019
Date Analyzed (1): 07/16/2019
Instrument: 30GCSD
LCS Lot No: 88418
Lab File ID: D071619-2.B\D071619000049.D
SDG No.: 30313514

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	166	137	83	61-105
PCB-1260 (Aroclor 1260)	166	141	85	70-100

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1708435MS
Date Extracted: 07/12/2019
Date Analyzed (1): 07/16/2019
Instrument: 30GCSD
Lab File ID: D071619-1.B\D071619000054.D
Parent Sample ID: 30313438001
SDG No.: 30313514

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	200	ND	176	88	24-137
PCB-1260 (Aroclor 1260)	200	ND	197	92	19-156

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSD Matrix Spike Duplicate - Sample No: 1708436MSD

Lab File ID (2): D071619-1.B\D071619000055.D Date Analyzed (2): 07/16/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
PCB-1016 (Aroclor 1016)	199	183	91	4	0-25	24-137
PCB-1260 (Aroclor 1260)	199	207	97	5	0-25	19-156

RPD: 0 out of 2 outside limits.

Spike Recovery: 0 out of 2 outside limits.

SAMPLE NO.

1708433BLANK

PCB - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30313514 Contract: Former EPT Site-Soil IRM

Instrument ID: 30GCSD Matrix: Solid Lab Sample ID: 1708433

Lab File ID (1): D071619-1.B\D071619000048.D Date Analyzed (1): 07/16/2019 Time (1): 21:27

Lab File ID (2): D071619-2.B\D071619000048.D Date Analyzed (2): 07/16/2019 Time (2): 21:27

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1708434LCS	1708434	D071619-1.B\D071619000049.D	07/16/2019 21:36
1708434LCS	1708434	D071619-2.B\D071619000049.D	07/16/2019 21:36
Sewer-2	30313514002	D071619-1.B\D071619000069.D	07/17/2019 00:26
Sewer-1	30313514001	D071719-1.B\D071719000026.D	07/17/2019 17:57
Sewer-1	30313514001	D071719-2.B\D071719000026.D	07/17/2019 17:57

SAMPLE NO.

Sewer-1

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/12/2019 19:04
Lab Sample ID: 30313514001
Date Analyzed: 07/17/2019 17:57
Lab File ID: D071719-1.B\D071719000026.D
Initial wt/vol: 15.41 g Final wt/vol: 5 mL Dilution: 20
Instrument: 30GCSD Percent Moisture: 9.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	4300	
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U
1336-36-3	PCB, Total	4300	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000026.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 17-JUL-2019 17:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514001x20,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	20.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.548	7812	3205	0.410	0.925		
0.583	7693	2311	0.300	0.667		
0.675	4133	2101	0.508	0.606		
0.729	3053	1841	0.603	0.531		
0.764	5874	1946	0.331	0.561		
0.875	603	600	0.995	0.173		
1.210	4476	3675	0.821	1.061	$ 10 Tetrachloro-m-xylene (S)	BA
1.383	249	313	1.258	0.090		
1.406	155	238	1.540	0.068		
1.585	115	94	0.815	0.027		
1.695	712	538	0.756	0.155		
1.805	4633	4239	0.915	1.224		
1.874	640	500	0.782	0.144		
1.931	108	157	1.460	0.045		
1.968	347	272	0.785	0.078		
1.991	363	463	1.275	0.133		
2.033	4756	4295	0.903	1.240		
2.058	1865	1447	0.776	0.417		
2.099	246	378	1.537	0.109		
2.138	125	193	1.546	0.055		
2.185	3236	2618	0.809	0.756		
2.237	546	643	1.177	0.185		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.277	3554	1709	0.481	0.493		
2.320	631	656	1.040	0.189		
2.339	866	674	0.778	0.194		
2.373	1315	916	0.696	0.264		
2.399	3080	3116	1.012	0.899		
2.422	11152	9497	0.852	2.742	6 PCB-1254 (Aroclor 1254)	BA
2.470	3988	3640	0.913	1.051		
2.507	11244	10888	0.968	3.144	6 PCB-1254 (Aroclor 1254)	BA
2.542	5272	4675	0.887	1.350		
2.589	3612	3228	0.894	0.932		
2.638	702	771	1.099	0.222		
2.649	433	691	1.596	0.199		
2.674	3720	3579	0.962	1.033		
2.725	8518	8231	0.966	2.377		
2.760	2198	2334	1.062	0.674		
2.788	19432	17707	0.911	5.253	6 PCB-1254 (Aroclor 1254)	BA
2.826	1567	1596	1.018	0.460		
2.849	462	495	1.070	0.142		
2.887	9658	7743	0.802	2.236		
2.921	9665	9353	0.968	2.701	6 PCB-1254 (Aroclor 1254)	BA
2.951	1472	1518	1.031	0.438		
2.992	10611	8308	0.783	2.399		
3.048	612	622	1.017	0.179		
3.074	25	93	3.656	0.026		
3.101	2333	3254	1.395	0.939		
3.116	5886	5289	0.899	1.527		
3.147	8819	7527	0.853	2.173		
3.187	2053	1953	0.951	0.564		
3.224	20032	15079	0.753	4.354	6 PCB-1254 (Aroclor 1254)	BA
3.283	2149	1806	0.840	0.521		
3.311	305	309	1.012	0.089		
3.322	52	243	4.665	0.070		
3.336	526	884	1.682	0.255		
3.364	659	960	1.458	0.277		
3.391	172	438	2.551	0.126		
3.398	232	488	2.103	0.140		
3.403	211	492	2.330	0.142		
3.409	187	447	2.386	0.129		
3.438	1340	1540	1.150	0.444		
3.457	7262	5163	0.711	1.491		
3.497	1889	1418	0.751	0.409		
3.531	3992	3531	0.885	1.019		
3.554	2886	2613	0.906	0.754		
3.582	3049	2663	0.873	0.769		
3.618	50	143	2.882	0.041		
3.622	37	137	3.719	0.039		
3.635	317	564	1.782	0.162		
3.643	394	626	1.587	0.180		
3.667	281	378	1.344	0.109		
3.676	132	385	2.927	0.111		
3.680	137	454	3.310	0.131		
3.691	307	576	1.878	0.166		
3.698	288	624	2.168	0.180		
3.705	296	723	2.442	0.208		
3.723	4123	1842	0.447	0.531		
3.758	472	1210	2.565	0.349		
3.772	196	986	5.027	0.284		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.776	385	1036	2.694	0.299		
3.782	266	1040	3.908	0.300		
3.801	2234	1920	0.859	0.554		
3.824	5916	3846	0.650	1.110		
3.873	924	806	0.873	0.232		
3.901	29	127	4.419	0.036		
3.911	6	52	8.125	0.015		
3.916	48	143	2.957	0.041		
3.937	409	483	1.182	0.139		
3.942	74	472	6.406	0.136		
3.950	262	556	2.123	0.160		
3.956	323	622	1.924	0.179		
3.964	329	666	2.023	0.192		
3.971	251	621	2.473	0.179		
3.984	456	769	1.686	0.222		
3.997	115	647	5.649	0.186		
4.003	421	703	1.671	0.203		
4.009	134	683	5.110	0.197		
4.038	4100	2058	0.502	0.594		
4.058	675	1631	2.417	0.471		
4.071	1038	1663	1.602	0.480		
4.077	640	1702	2.661	0.491		
4.083	836	1781	2.131	0.514		
4.091	686	1841	2.685	0.531		
4.099	977	2035	2.083	0.587		
4.105	885	2169	2.452	0.626		
4.110	1772	2257	1.274	0.651		
4.121	1170	2105	1.799	0.607		
4.149	3284	2311	0.704	0.667		
4.173	1003	1721	1.715	0.497		
4.177	941	1780	1.892	0.514		
4.195	955	1378	1.443	0.397		
4.205	209	1173	5.615	0.338		
4.212	841	1196	1.423	0.345		
4.220	736	1043	1.417	0.301		
4.243	1168	1244	1.065	0.359		
4.263	410	799	1.950	0.230		
4.279	380	571	1.505	0.164		
4.305	10	47	4.757	0.013		
4.309	20	90	4.460	0.025		
4.313	26	102	3.987	0.029		
4.327	139	363	2.616	0.104		
4.340	114	280	2.460	0.080		
4.351	182	261	1.433	0.075		
4.364	35	215	6.099	0.062		
4.374	92	340	3.688	0.098		
4.388	596	742	1.245	0.214		
4.399	392	847	2.158	0.244		
4.402	477	869	1.821	0.250		
4.411	189	875	4.628	0.252		
4.426	914	1152	1.260	0.332		
4.432	697	1241	1.780	0.358		
4.452	362	1163	3.215	0.335		
4.458	531	1243	2.342	0.358		
4.462	240	1206	5.033	0.348		
4.471	704	1406	1.997	0.406		
4.477	735	1607	2.188	0.464		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.497	6622	4434	0.670	1.280	$ 11 Decachlorobiphenyl (S)	BA
4.551	134	848	6.346	0.244		
4.554	372	895	2.406	0.258		
4.562	222	819	3.688	0.236		
4.568	467	833	1.784	0.240		
4.575	490	806	1.645	0.232		
4.609	313	413	1.319	0.119		
4.636	91	151	1.664	0.043		
4.651	23	105	4.561	0.030		
4.655	42	149	3.546	0.043		
4.661	69	194	2.810	0.056		
4.667	58	210	3.620	0.060		
4.681	482	452	0.938	0.130		
4.692	40	336	8.438	0.097		
4.697	112	359	3.201	0.103		
4.710	550	603	1.095	0.174		
4.724	256	522	2.041	0.150		
4.742	576	886	1.538	0.255		
4.750	586	937	1.599	0.270		
4.759	499	915	1.833	0.264		
4.775	316	908	2.877	0.262		
4.779	257	936	3.643	0.270		
4.784	423	991	2.345	0.286		
4.791	235	998	4.256	0.288		
4.799	772	1093	1.416	0.315		
4.816	495	1032	2.083	0.298		
4.839	435	948	2.178	0.273		
4.845	650	976	1.501	0.281		
4.860	248	958	3.862	0.276		
4.876	769	999	1.299	0.288		
4.906	494	640	1.295	0.184		
4.922	425	568	1.336	0.164		
4.943	74	316	4.273	0.091		
4.955	336	465	1.382	0.134		
4.963	258	575	2.231	0.166		
4.988	149	427	2.870	0.123		
5.005	283	528	1.865	0.152		
5.012	267	626	2.348	0.180		
5.033	1396	1169	0.837	0.337		
5.047	516	895	1.733	0.258		
5.066	712	975	1.369	0.281		
5.070	157	986	6.293	0.284		
5.075	368	1047	2.842	0.302		
5.085	498	1103	2.215	0.318		
5.092	480	1186	2.472	0.342		
5.096	902	1207	1.337	0.348		
5.108	630	1141	1.811	0.329		
5.126	625	1066	1.706	0.307		
5.138	173	979	5.650	0.282		
5.143	547	1011	1.847	0.291		
5.150	423	982	2.323	0.283		
5.159	1080	985	0.912	0.284		
5.188	197	503	2.557	0.145		
5.211	422	489	1.159	0.141		
5.220	216	468	2.170	0.135		
5.237	97	417	4.300	0.120		
5.242	302	521	1.725	0.150		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.263	164	490	2.984	0.141		
5.270	134	541	4.034	0.156		
5.277	512	655	1.279	0.189		
5.298	510	710	1.391	0.205		
5.304	361	740	2.049	0.213		
5.313	540	746	1.382	0.215		
5.338	96	455	4.719	0.131		
5.348	155	449	2.888	0.129		
5.362	110	403	3.660	0.116		
5.367	285	445	1.560	0.128		
5.378	351	470	1.339	0.135		
5.393	80	412	5.137	0.118		
5.400	312	456	1.461	0.131		
5.417	119	365	3.067	0.105		
5.421	136	390	2.873	0.112		
5.429	103	407	3.968	0.117		
5.436	184	472	2.566	0.136		
5.439	119	515	4.316	0.148		
5.445	393	608	1.546	0.175		
5.484	469	505	1.076	0.145		
5.498	195	508	2.600	0.146		
5.509	158	545	3.439	0.157		
5.528	214	488	2.283	0.140		
5.537	453	481	1.061	0.138		
5.551	205	462	2.249	0.133		
5.560	118	433	3.682	0.125		
5.567	146	448	3.060	0.129		
5.573	234	487	2.085	0.140		
5.584	73	468	6.371	0.135		
5.589	407	497	1.222	0.143		
5.608	151	392	2.605	0.113		
5.615	70	363	5.155	0.104		
5.619	249	387	1.555	0.111		
5.646	699	610	0.873	0.176		
5.682	132	399	3.017	0.115		
5.688	158	432	2.734	0.124		
5.712	134	433	3.232	0.125		
5.716	204	445	2.181	0.128		
5.733	297	362	1.221	0.104		
5.747	151	397	2.621	0.114		
5.752	126	438	3.486	0.126		
5.757	143	460	3.228	0.132		
5.763	193	534	2.768	0.154		
5.766	131	557	4.251	0.160		
5.774	322	589	1.832	0.170		
5.796	104	379	3.649	0.109		
5.809	125	375	2.992	0.108		
5.814	176	397	2.256	0.114		
5.823	65	302	4.618	0.087		
5.831	70	324	4.626	0.093		
5.850	424	602	1.421	0.173		
5.856	475	678	1.428	0.195		
5.876	241	520	2.153	0.150		
5.892	372	454	1.221	0.131		
5.905	183	469	2.568	0.135		
5.927	61	343	5.632	0.099		
5.931	290	371	1.277	0.107		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.944	93	356	3.817	0.102		
5.950	107	377	3.522	0.108		
5.953	125	402	3.210	0.116		
5.959	136	414	3.042	0.119		
5.975	188	365	1.943	0.105		
5.995	102	318	3.103	0.091		
6.005	268	391	1.461	0.112		
6.026	67	341	5.119	0.098		
6.048	68	348	5.121	0.100		
6.053	150	366	2.437	0.105		
6.076	205	394	1.921	0.113		
6.082	295	425	1.443	0.122		
6.096	138	365	2.653	0.105		
6.117	77	267	3.474	0.077		
6.130	255	368	1.442	0.106		
6.143	292	447	1.529	0.129		
6.150	127	464	3.655	0.133		
6.155	316	503	1.594	0.145		
6.165	257	487	1.893	0.140		
6.186	129	285	2.207	0.082		
6.202	129	300	2.329	0.086		
6.212	214	322	1.507	0.092		
6.230	182	317	1.746	0.091		
6.233	88	329	3.731	0.095		
6.253	130	273	2.095	0.078		
6.282	85	258	3.042	0.074		
6.286	79	257	3.267	0.074		
6.292	147	275	1.875	0.079		
6.308	133	210	1.582	0.060		
6.318	76	212	2.794	0.061		
6.339	27	141	5.176	0.040		
6.348	83	175	2.103	0.050		
6.365	45	185	4.141	0.053		
6.370	107	189	1.760	0.054		
6.378	88	203	2.307	0.058		
6.385	54	216	4.025	0.062		
6.392	149	236	1.588	0.068		
6.413	83	198	2.394	0.057		
6.432	46	136	2.962	0.039		
6.445	57	131	2.314	0.037		
6.457	12	76	6.597	0.021		
6.463	69	105	1.517	0.030		
6.474	54	123	2.261	0.035		
6.487	41	130	3.197	0.037		
	325613	346275		100.000		

Total unknown % height = 79.5

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000026.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 17-JUL-2019 17:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514001x20,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	20.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.422	2.425	-0.003	11151	0.61499	3.99	80.00- 120.00	100.00(aM)	BA
2.507	2.509	-0.002	11244	0.56937	3.69	69.31- 103.97	100.83	BA
2.788	2.791	-0.003	19432	0.61775	4.01	167.74- 251.61	174.26	BA
2.921	2.924	-0.003	9664	0.47672	3.09	9.03- 13.54	86.66	BA
3.224	3.226	-0.002	20031	0.73600	4.78	278.88- 418.31	179.64	BA
Average of Peak Concentrations =					3.91			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.211	-0.001	4475	0.00880	0.00285		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.497	4.497	0.000	6622	0.01973	0.00640		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

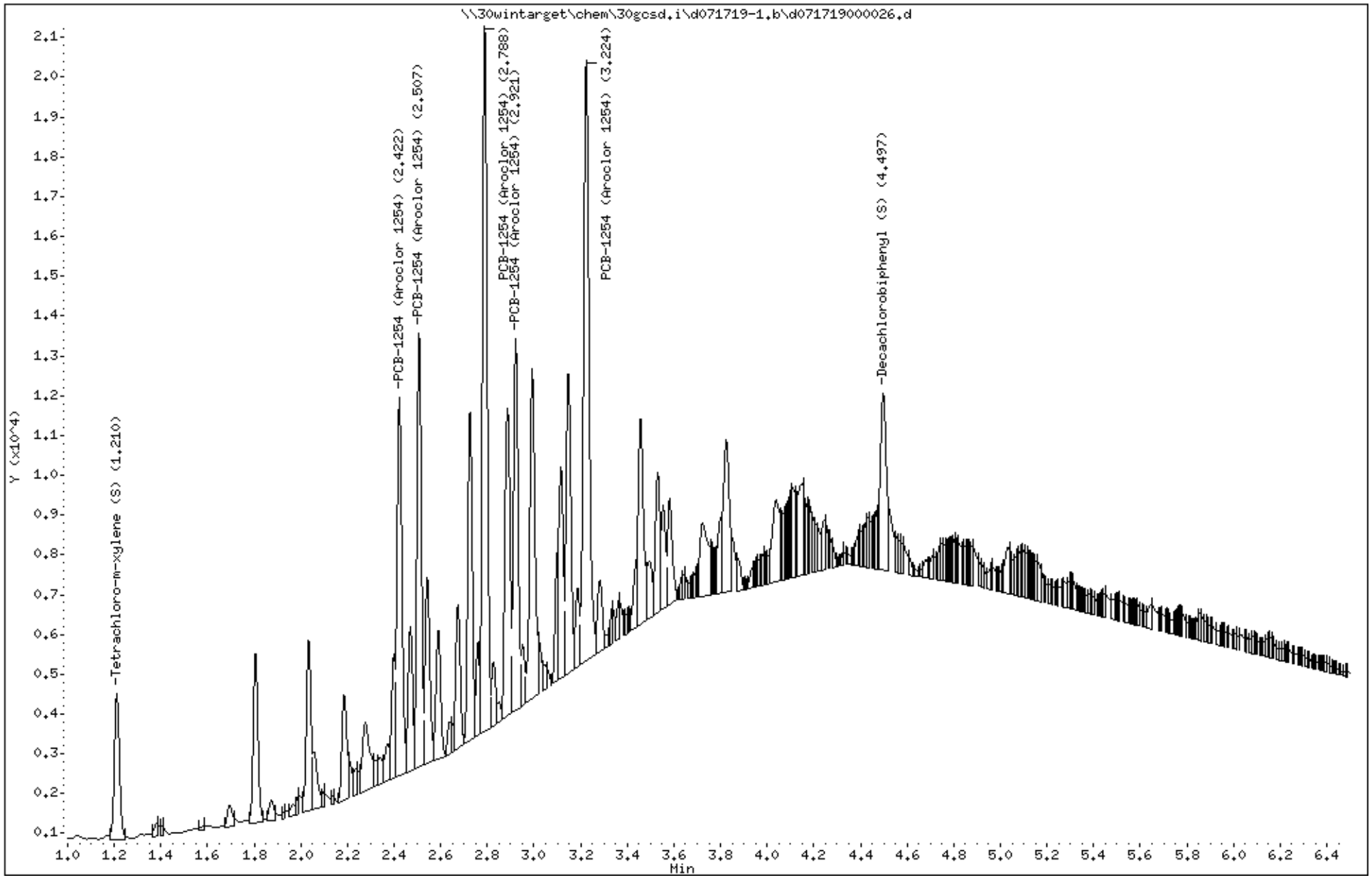
Client Name: WSP Environment & E
Lab Smp Id: 30313514001
Sample Location:
Sample Date: 11-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

Client SDG: 30313514
Client Smp ID: Sewer-1
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	660	U
11104-28-2	PCB-1221 (Aroclor 1221)	1340	U
11141-16-5	PCB-1232 (Aroclor 1232)	660	U
53469-21-9	PCB-1242 (Aroclor 1242)	660	U
12672-29-6	PCB-1248 (Aroclor 1248)	660	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.422	3.99	J
	Peak found at 2.507	3.69	J
	Peak found at 2.788	4.01	J
	Peak found at 2.921	3.09	J
	Peak found at 3.224	4.78	J
	Average of Peak Amounts =	3.91	J
11096-82-5	PCB-1260 (Aroclor 1260)	660	U
877-09-8	Tetrachloro-m-xylene (S)	0.00285	J
2051-24-3	Decachlorobiphenyl (S)	0.00640	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000026.d
Date : 17-JUL-2019 17:57
Client ID: Sewer-1
Sample Info: 30313514001X20,
Volume Injected (uL): 1.0
Column phase: DB-CLP1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32

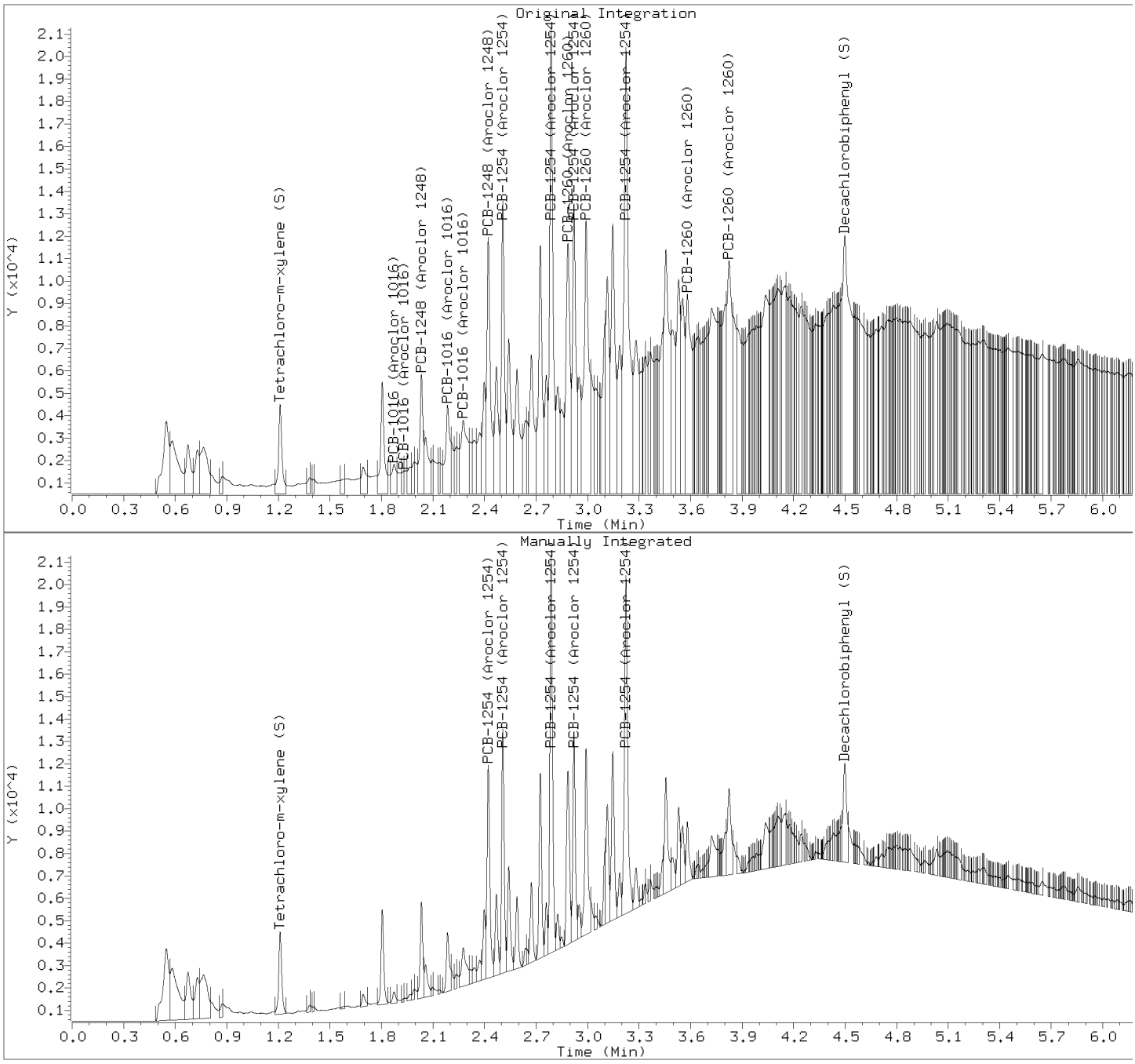


Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000026.d (ManInt: tcl.sub Orig: tcl.sub)

Injection Date: 17-JUL-2019 17:57 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 30313514001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	2452	0
PCB-1016 (Aroclor 1016)	827	0
PCB-1016 (Aroclor 1016)	7075	0
PCB-1016 (Aroclor 1016)	9110	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	2452	0
PCB-1232 (Aroclor 1232)	827	0
PCB-1232 (Aroclor 1232)	7075	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	2452	0
PCB-1248 (Aroclor 1248)	7226	0
PCB-1248 (Aroclor 1248)	7075	0
PCB-1248 (Aroclor 1248)	9110	0
PCB-1248 (Aroclor 1248)	16473	0
PCB-1254 (Aroclor 1254)	16473	11151
PCB-1254 (Aroclor 1254)	16182	11244
PCB-1254 (Aroclor 1254)	27430	19432
PCB-1254 (Aroclor 1254)	17349	9664
PCB-1254 (Aroclor 1254)	39046	20031
PCB-1260 (Aroclor 1260)	27430	0
PCB-1260 (Aroclor 1260)	18092	0
PCB-1260 (Aroclor 1260)	23382	0
PCB-1260 (Aroclor 1260)	18789	0
PCB-1260 (Aroclor 1260)	21285	0
Tetrachloro-m-xylene (S)	5691	4475
Decachlorobiphenyl (S)	38603	6622

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000026.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 17-JUL-2019 17:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514001x20,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	20.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.504	1325	1176	0.888	0.348		
0.566	9337	3734	0.400	1.107		
0.607	1829	2336	1.277	0.693		
0.817	3997	1888	0.472	0.560		
0.931	2853	1477	0.518	0.438		
0.966	1581	1260	0.797	0.373		
0.992	4870	1694	0.348	0.502		
1.060	501	532	1.062	0.157		
1.186	402	296	0.736	0.087		
1.382	168	172	1.026	0.051		
1.583	3971	3700	0.932	1.097	$ 10 Tetrachloro-m-xylene (S)	BA
1.649	166	244	1.467	0.072		
1.686	136	168	1.232	0.049		
1.760	83	113	1.369	0.033		
1.974	700	556	0.794	0.164		
2.045	95	113	1.196	0.033		
2.131	55	86	1.576	0.025		
2.189	12	23	1.986	0.006		
2.209	477	386	0.810	0.114		
2.249	58	111	1.904	0.032		
2.274	108	120	1.112	0.035		
2.326	228	340	1.490	0.100		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.363	216	264	1.221	0.078		
2.387	108	125	1.155	0.037		
2.436	8402	7075	0.842	2.098		
2.463	956	985	1.030	0.292		
2.489	62	170	2.732	0.050		
2.518	36	86	2.412	0.025		
2.554	2141	1924	0.899	0.570		
2.587	233	343	1.469	0.101		
2.591	162	339	2.097	0.100		
2.625	183	278	1.520	0.082		
2.658	835	720	0.862	0.213		
2.697	651	508	0.781	0.150		
2.718	76	206	2.723	0.061		
2.763	322	440	1.368	0.130		
2.809	8633	7714	0.894	2.288	6 PCB-1254 (Aroclor 1254)	BA
2.826	883	3430	3.885	1.017		
2.857	2529	2307	0.912	0.684		
2.915	2972	2513	0.846	0.745		
2.951	14318	12110	0.846	3.592	6 PCB-1254 (Aroclor 1254)	BA
2.990	5935	4750	0.800	1.409		
3.038	5574	5374	0.964	1.594		
3.078	4940	3441	0.697	1.020		
3.132	8210	7302	0.889	2.166		
3.164	3613	2876	0.796	0.853		
3.192	15046	14212	0.945	4.348	6 PCB-1254 (Aroclor 1254)	BA
3.238	1050	1386	1.320	0.411		
3.258	3393	2199	0.648	0.652		
3.301	7331	5865	0.800	1.739		
3.354	1031	813	0.789	0.241		
3.385	9931	9364	0.943	2.777	6 PCB-1254 (Aroclor 1254)	BA
3.430	1496	1340	0.896	0.397		
3.471	7247	7322	1.010	2.172		
3.496	8807	7331	0.832	2.174		
3.554	9285	6720	0.724	1.993		
3.591	2063	1703	0.826	0.505		
3.618	1965	2186	1.113	0.648		
3.654	15573	13686	0.879	4.060	6 PCB-1254 (Aroclor 1254)	BA
3.679	3720	3692	0.992	1.095		
3.716	1344	1119	0.832	0.331		
3.755	593	651	1.098	0.193		
3.791	462	433	0.937	0.128		
3.802	84	273	3.238	0.080		
3.811	113	322	2.852	0.095		
3.838	11797	6452	0.547	1.914		
3.888	315	1134	3.597	0.336		
3.898	342	1188	3.472	0.352		
3.915	2347	1687	0.719	0.500		
3.927	1014	1542	1.521	0.457		
3.944	2837	1801	0.635	0.534		
3.971	812	1432	1.764	0.424		
3.978	281	1410	5.020	0.418		
3.985	545	1462	2.683	0.433		
4.008	6280	3672	0.585	1.089		
4.052	5900	3309	0.561	0.981		
4.090	288	856	2.969	0.253		
4.118	323	615	1.903	0.182		
4.124	222	700	3.148	0.207		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.142	1334	1188	0.891	0.352		
4.149	417	1124	2.694	0.333		
4.194	3271	1754	0.536	0.520		
4.239	7196	3753	0.522	1.113		
4.273	2855	3040	1.065	0.901		
4.280	1238	3141	2.537	0.931		
4.310	639	1899	2.970	0.563		
4.332	1060	1467	1.384	0.435		
4.346	262	1333	5.079	0.395		
4.357	1326	1466	1.106	0.434		
4.373	485	1012	2.086	0.300		
4.396	210	636	3.030	0.188		
4.400	129	657	5.109	0.194		
4.404	275	721	2.626	0.213		
4.438	42	148	3.492	0.043		
4.457	401	337	0.841	0.099		
4.495	1037	1156	1.114	0.342		
4.500	375	1191	3.172	0.353		
4.503	241	1226	5.098	0.363		
4.515	1052	1477	1.405	0.438		
4.519	764	1493	1.954	0.442		
4.530	489	1403	2.871	0.416		
4.533	307	1401	4.569	0.415		
4.536	396	1438	3.630	0.426		
4.540	227	1426	6.289	0.423		
4.544	567	1519	2.679	0.450		
4.552	622	1715	2.756	0.508		
4.554	276	1738	6.301	0.515		
4.564	1209	2035	1.683	0.603		
4.568	698	2068	2.962	0.613		
4.574	578	2080	3.599	0.617		
4.583	1314	2276	1.732	0.675		
4.590	1037	2268	2.187	0.672		
4.609	5539	2899	0.523	0.860		
4.629	1035	2760	2.667	0.818		
4.647	1774	2543	1.434	0.754		
4.666	969	2239	2.311	0.664		
4.673	483	2222	4.600	0.659		
4.676	1234	2259	1.831	0.670		
4.691	1295	1963	1.515	0.582		
4.703	1936	1878	0.970	0.557		
4.734	715	1123	1.571	0.333		
4.737	593	1148	1.937	0.340		
4.748	385	1028	2.671	0.304		
4.752	785	1000	1.273	0.296		
4.769	276	484	1.757	0.143		
4.789	45	181	3.988	0.053		
4.801	219	296	1.352	0.087		
4.821	14	64	4.696	0.018		
4.827	25	97	3.930	0.028		
4.831	26	148	5.666	0.043		
4.835	52	217	4.165	0.064		
4.840	115	295	2.561	0.087		
4.852	227	543	2.391	0.161		
4.857	216	689	3.195	0.204		
4.876	1897	1478	0.779	0.438		
4.887	593	1509	2.546	0.447		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.901	814	1479	1.816	0.438		
4.917	926	1658	1.791	0.491		
4.922	886	1836	2.073	0.544		
4.951	9169	4933	0.538	1.463	$ 11 Decachlorobiphenyl (S)	BA
4.990	637	2148	3.373	0.637		
4.999	754	2116	2.808	0.627		
5.002	425	2145	5.043	0.636		
5.005	1118	2176	1.946	0.645		
5.013	2032	2159	1.062	0.640		
5.034	2070	1701	0.822	0.504		
5.051	803	1521	1.894	0.451		
5.082	892	1088	1.219	0.322		
5.111	237	776	3.271	0.230		
5.115	298	851	2.858	0.252		
5.141	234	583	2.491	0.172		
5.156	129	485	3.768	0.143		
5.160	267	535	2.000	0.158		
5.177	128	397	3.102	0.117		
5.182	130	412	3.159	0.122		
5.187	120	441	3.675	0.130		
5.198	98	465	4.735	0.137		
5.202	139	528	3.790	0.156		
5.219	149	563	3.775	0.167		
5.227	114	579	5.101	0.171		
5.236	385	769	1.998	0.228		
5.242	327	861	2.633	0.255		
5.246	220	955	4.350	0.283		
5.250	239	1019	4.267	0.302		
5.259	782	1189	1.521	0.352		
5.274	1972	1507	0.764	0.447		
5.287	655	1449	2.211	0.429		
5.309	844	1395	1.653	0.413		
5.324	919	1431	1.557	0.424		
5.345	347	1182	3.404	0.350		
5.403	449	512	1.142	0.151		
5.424	103	302	2.925	0.089		
5.444	76	170	2.225	0.050		
5.456	17	95	5.751	0.028		
5.464	61	110	1.812	0.032		
5.481	10	45	4.639	0.013		
5.487	6	41	6.426	0.012		
5.495	59	124	2.107	0.036		
5.502	48	149	3.130	0.044		
5.510	27	134	4.917	0.039		
5.513	22	150	6.793	0.044		
5.517	107	180	1.676	0.053		
5.529	24	106	4.465	0.031		
5.534	31	130	4.219	0.038		
5.544	111	251	2.263	0.074		
5.554	308	395	1.282	0.117		
5.574	127	277	2.190	0.082		
5.591	24	184	7.610	0.054		
5.600	197	247	1.253	0.073		
5.615	216	357	1.652	0.105		
5.620	85	358	4.218	0.106		
5.630	76	323	4.272	0.095		
5.653	116	313	2.702	0.092		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.660	36	267	7.349	0.079		
5.663	84	292	3.479	0.086		
5.672	142	312	2.193	0.092		
5.676	87	352	4.046	0.104		
5.696	179	310	1.734	0.091		
5.706	89	330	3.692	0.097		
5.720	203	378	1.858	0.112		
5.728	102	375	3.673	0.111		
5.737	176	342	1.946	0.101		
5.746	168	381	2.274	0.113		
5.754	206	405	1.965	0.120		
5.765	95	419	4.424	0.124		
5.768	197	444	2.257	0.131		
5.781	255	415	1.629	0.123		
5.800	151	331	2.196	0.098		
5.820	119	275	2.307	0.081		
5.842	45	149	3.314	0.044		
5.845	50	180	3.628	0.053		
5.852	81	241	2.990	0.071		
5.855	65	242	3.699	0.071		
5.862	166	288	1.735	0.085		
5.880	45	151	3.378	0.044		
5.885	70	147	2.109	0.043		
5.893	39	139	3.530	0.041		
5.923	14	54	3.760	0.016		
5.932	11	49	4.463	0.014		
5.938	37	72	1.973	0.021		
5.945	14	53	3.754	0.015		
5.954	17	66	3.966	0.019		
5.973	8	44	5.828	0.013		
5.977	16	72	4.444	0.021		
5.982	50	106	2.141	0.031		
5.999	6	42	7.095	0.012		
6.003	23	88	3.908	0.026		
6.006	40	107	2.660	0.031		
6.025	33	112	3.349	0.033		
6.045	13	55	4.250	0.016		
6.055	71	113	1.591	0.033		
6.067	18	92	5.157	0.027		
6.073	39	126	3.261	0.037		
6.082	132	203	1.543	0.060		
6.097	47	119	2.529	0.035		
6.103	50	148	2.956	0.043		
6.121	80	141	1.755	0.041		
6.130	30	152	5.114	0.045		
6.132	47	167	3.558	0.049		
6.151	48	167	3.504	0.049		
6.155	107	212	1.989	0.062		
6.172	96	223	2.332	0.066		
6.186	88	232	2.623	0.068		
6.205	180	287	1.593	0.085		
6.210	116	290	2.493	0.086		
6.224	33	243	7.370	0.072		
6.228	160	265	1.652	0.078		
6.242	139	212	1.527	0.062		
6.250	102	193	1.884	0.057		
6.267	88	208	2.358	0.061		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.277	123	255	2.077	0.075		
6.297	247	358	1.452	0.106		
6.303	109	373	3.432	0.110		
6.347	24	146	6.140	0.043		
6.352	113	198	1.746	0.058		
6.365	60	172	2.891	0.051		
6.371	58	163	2.797	0.048		
6.378	47	169	3.606	0.050		
6.398	69	115	1.670	0.034		
6.412	45	121	2.698	0.035		
6.424	59	110	1.865	0.032		
6.434	33	120	3.688	0.035		
6.460	5	45	8.427	0.013		
6.467	35	75	2.147	0.022		
6.476	32	71	2.250	0.021		
6.484	9	44	4.977	0.013		
6.492	13	54	4.138	0.016		
	318989	337083		100.000		

Total unknown % height = 80.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000026.d
Lab Smp Id: 30313514001 Client Smp ID: Sewer-1
Inj Date : 17-JUL-2019 17:57
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514001x20,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 26
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	20.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Operator disabled compound identification. BA

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Operator disabled compound identification. BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.809	2.816	-0.007	8633	0.58680	3.81	80.00- 120.00	100.00(aM)	BA
2.951	2.958	-0.007	14317	0.62356	4.05	124.85- 187.28	151.53	BA
3.192	3.198	-0.006	15045	0.62016	4.02	131.92- 197.88	159.24	BA
3.385	3.392	-0.007	9931	0.53289	3.46	101.34- 152.01	105.11	BA
3.653	3.660	-0.007	15573	0.81929	5.32	103.36- 155.04	164.83	BA
Average of Peak Concentrations =					4.13			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.582	1.583	-0.001	3970	0.00874	0.00284		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	9168	0.02888	0.00937		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

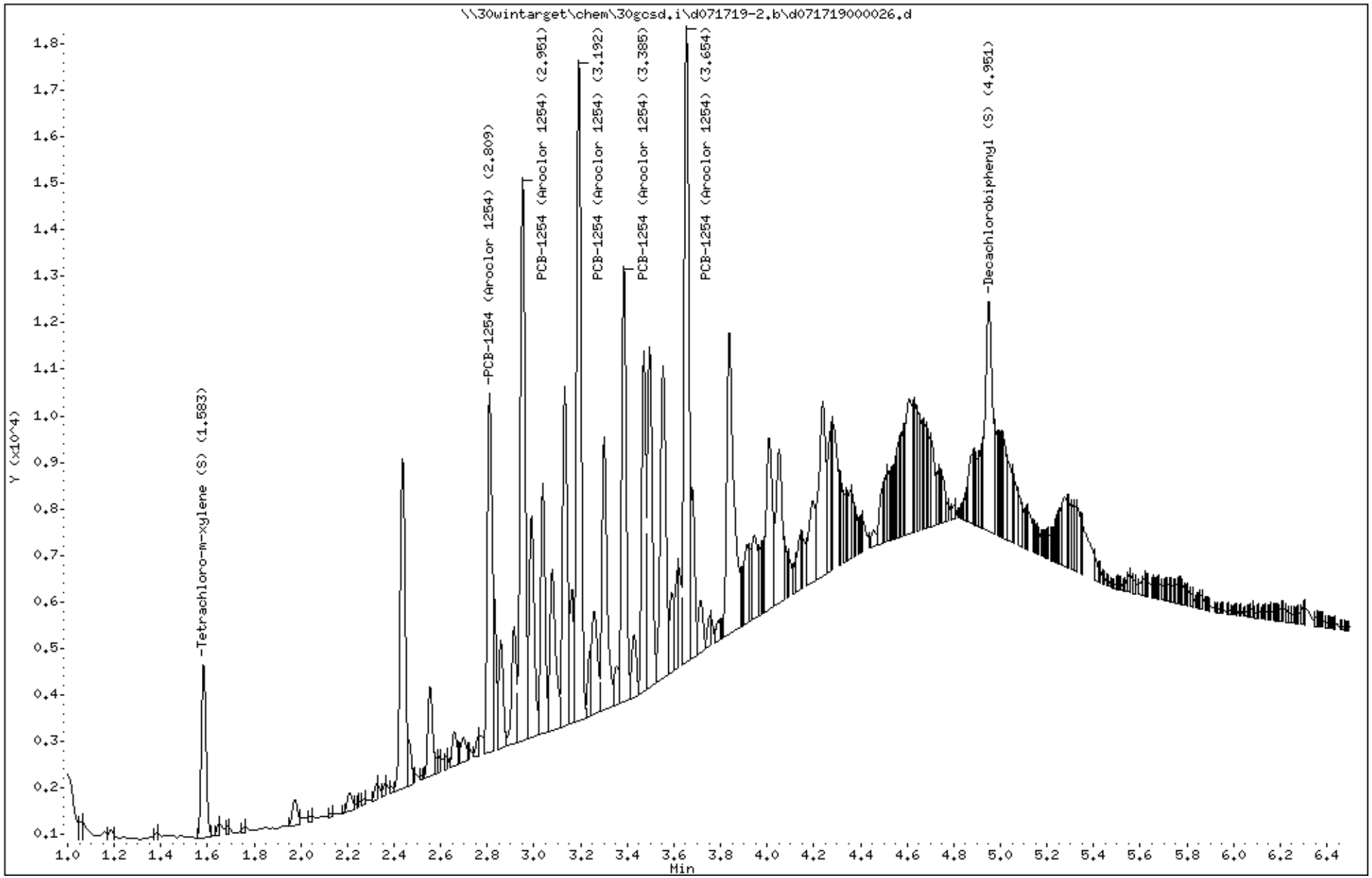
Client Name: WSP Environment & E
Lab Smp Id: 30313514001
Sample Location:
Sample Date: 11-JUL-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

Client SDG: 30313514
Client Smp ID: Sewer-1
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

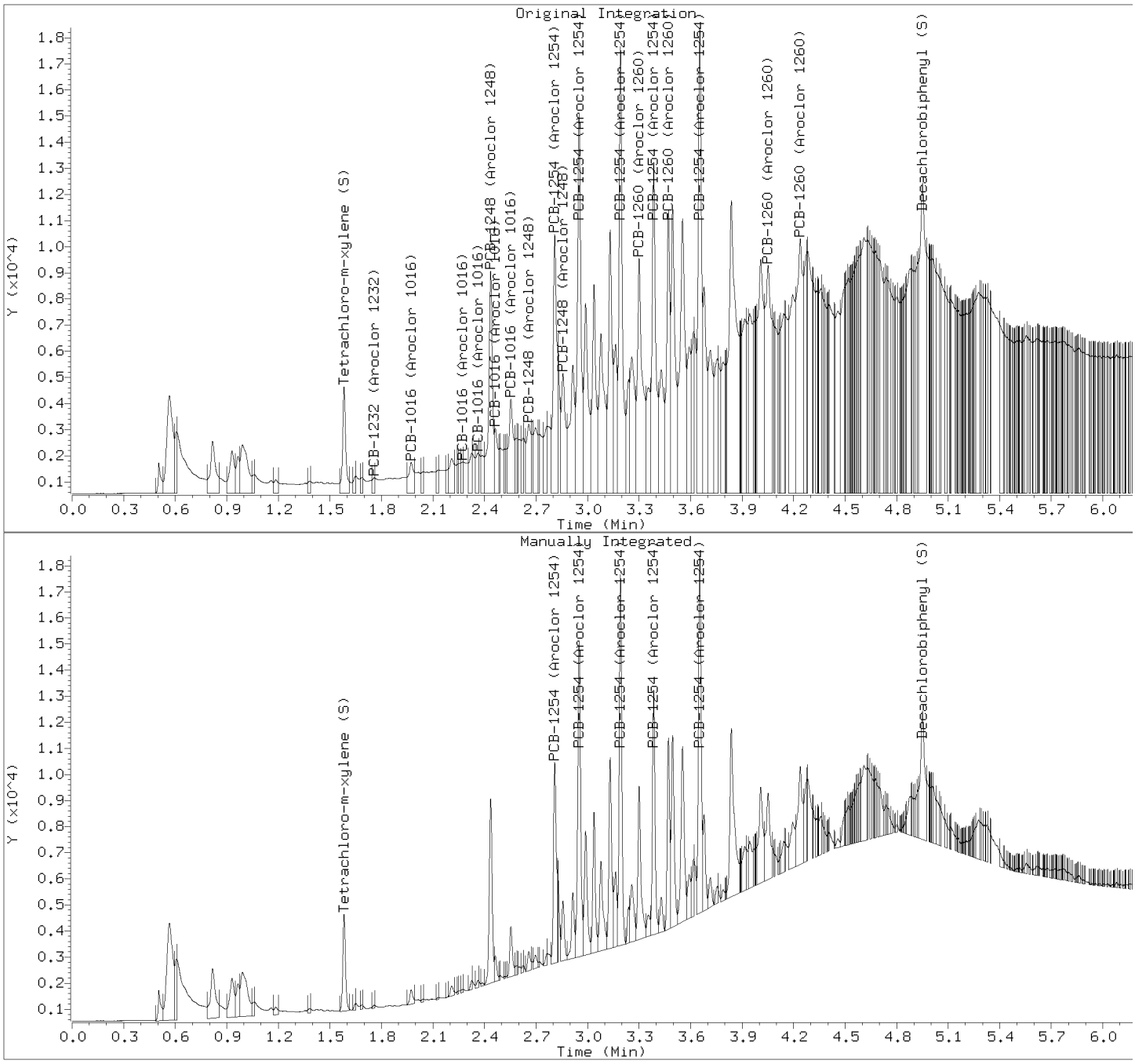
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	660	U
11104-28-2	PCB-1221 (Aroclor 1221)	1340	U
11141-16-5	PCB-1232 (Aroclor 1232)	660	U
53469-21-9	PCB-1242 (Aroclor 1242)	660	U
12672-29-6	PCB-1248 (Aroclor 1248)	660	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.809	3.81	J
	Peak found at 2.951	4.05	J
	Peak found at 3.192	4.02	J
	Peak found at 3.385	3.46	J
	Peak found at 3.654	5.32	J
	Average of Peak Amounts =	4.13	J
11096-82-5	PCB-1260 (Aroclor 1260)	660	U
877-09-8	Tetrachloro-m-xylene (S)	0.00284	J
2051-24-3	Decachlorobiphenyl (S)	0.00937	J

Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000026.d
Date : 17-JUL-2019 17:57
Client ID: Sewer-1
Sample Info: 30313514001X20,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000026.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 17:57 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313514001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2390	0
PCB-1016 (Aroclor 1016)	1156	0
PCB-1016 (Aroclor 1016)	1650	0
PCB-1016 (Aroclor 1016)	3329	0
PCB-1016 (Aroclor 1016)	6700	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	528	0
PCB-1232 (Aroclor 1232)	2390	0
PCB-1232 (Aroclor 1232)	1156	0
PCB-1232 (Aroclor 1232)	1650	0
PCB-1232 (Aroclor 1232)	6700	0
PCB-1242 (Aroclor 1242)	528	0

PCB-1242 (Aroclor 1242)	2390	0
PCB-1242 (Aroclor 1242)	1156	0
PCB-1242 (Aroclor 1242)	1650	0
PCB-1242 (Aroclor 1242)	6700	0
PCB-1248 (Aroclor 1248)	1156	0
PCB-1248 (Aroclor 1248)	13268	0
PCB-1248 (Aroclor 1248)	6700	0
PCB-1248 (Aroclor 1248)	4737	0
PCB-1248 (Aroclor 1248)	7626	0
PCB-1254 (Aroclor 1254)	14660	8633
PCB-1254 (Aroclor 1254)	20830	14317
PCB-1254 (Aroclor 1254)	23313	15045
PCB-1254 (Aroclor 1254)	19374	9931
PCB-1254 (Aroclor 1254)	24527	15573
PCB-1260 (Aroclor 1260)	18105	0
PCB-1260 (Aroclor 1260)	14204	0
PCB-1260 (Aroclor 1260)	24527	0
PCB-1260 (Aroclor 1260)	21361	0
PCB-1260 (Aroclor 1260)	24492	0
Tetrachloro-m-xylene (S)	5244	3970
Decachlorobiphenyl (S)	29406	9168

SAMPLE NO.

Sewer-2

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM
Date Received: 07/12/2019 09:30
Matrix: Solid SDG No.: 30313514
Date Extracted: 07/12/2019 19:04
Lab Sample ID: 30313514002
Date Analyzed: 07/17/2019 00:26
Lab File ID: D071619-1.B\D071619000069.D
Initial wt/vol: 15.11 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 1.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U
1336-36-3	PCB, Total	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000069.d
Lab Smp Id: 30313514002 Client Smp ID: Sewer-2
Inj Date : 17-JUL-2019 00:26
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514002x10,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 69
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.110	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.545	17773	6745	0.380	6.551		
1.211	9119	7591	0.832	7.495	$ 10 Tetrachloro-m-xylene (S)	BA
2.428	943	726	0.770	0.705		
2.508	66	107	1.623	0.103		
2.644	331	394	1.190	0.382		
2.726	85	108	1.275	0.104		
2.788	1082	788	0.728	0.765		
2.883	145	216	1.486	0.209		
2.922	91	126	1.387	0.122		
2.953	40	70	1.749	0.067		
2.995	214	201	0.938	0.195		
3.003	122	224	1.834	0.217		
3.117	290	193	0.666	0.187		
3.149	1576	1432	0.909	1.390		
3.224	563	399	0.708	0.387		
3.287	94	117	1.241	0.113		
3.308	56	80	1.425	0.077		
3.337	173	212	1.225	0.205		
3.437	46	84	1.833	0.081		
3.457	108	161	1.490	0.156		
3.493	210	148	0.703	0.143		
3.530	3758	2787	0.742	2.707		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.582	194	250	1.285	0.242		
3.636	1138	751	0.660	0.729		
3.722	1073	754	0.703	0.732		
3.780	55	102	1.841	0.099		
3.801	613	525	0.856	0.509		
3.831	852	579	0.680	0.562		
3.846	116	392	3.384	0.380		
3.876	137	200	1.464	0.194		
3.888	21	98	4.588	0.095		
3.943	295	323	1.096	0.313		
3.980	98	197	2.018	0.191		
4.034	434	477	1.098	0.463		
4.068	49	98	2.017	0.095		
4.072	33	102	3.063	0.099		
4.078	38	109	2.904	0.105		
4.093	40	103	2.597	0.100		
4.109	97	162	1.677	0.157		
4.117	87	180	2.066	0.174		
4.144	186	169	0.910	0.164		
4.178	102	145	1.422	0.140		
4.182	48	135	2.799	0.131		
4.195	18	103	5.713	0.100		
4.205	19	80	4.251	0.077		
4.244	2085	1318	0.632	1.280		
4.296	24	99	4.093	0.096		
4.300	28	110	3.895	0.106		
4.307	17	97	5.784	0.094		
4.321	101	154	1.524	0.149		
4.329	73	171	2.353	0.166		
4.337	65	179	2.759	0.173		
4.345	128	180	1.407	0.174		
4.359	43	140	3.227	0.135		
4.369	38	123	3.271	0.119		
4.375	38	125	3.326	0.121		
4.395	54	135	2.506	0.131		
4.403	24	114	4.774	0.110		
4.416	73	112	1.534	0.108		
4.428	82	112	1.368	0.108		
4.438	8	37	4.568	0.035		
4.456	12	11	0.935	0.010		
4.496	6691	6050	0.904	5.876	$ 11 Decachlorobiphenyl (S)	BA
4.545	56	107	1.905	0.103		
4.549	32	115	3.606	0.111		
4.585	658	526	0.799	0.510		
4.606	92	250	2.707	0.242		
4.608	90	261	2.886	0.253		
4.629	9	55	6.373	0.053		
4.632	23	64	2.730	0.062		
4.638	7	41	5.775	0.039		
4.642	6	34	5.975	0.033		
4.647	10	39	3.908	0.037		
4.661	49	91	1.846	0.088		
4.678	413	454	1.100	0.440		
4.695	23	168	7.352	0.163		
4.705	221	288	1.301	0.279		
4.742	523	735	1.404	0.713		
4.769	95	175	1.840	0.169		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.789	16	54	3.281	0.052		
4.793	10	71	7.157	0.068		
4.796	31	93	3.018	0.090		
4.802	18	84	4.746	0.081		
4.813	34	101	2.929	0.098		
4.819	47	137	2.939	0.133		
4.826	51	159	3.149	0.154		
4.829	45	187	4.162	0.181		
4.835	76	235	3.090	0.228		
4.838	63	245	3.917	0.237		
4.846	135	332	2.460	0.322		
4.852	142	377	2.649	0.366		
4.855	75	387	5.142	0.375		
4.859	116	395	3.404	0.383		
4.869	124	392	3.168	0.380		
4.875	95	411	4.307	0.399		
4.884	94	451	4.777	0.438		
4.895	506	550	1.087	0.534		
4.903	237	514	2.170	0.499		
4.910	95	482	5.081	0.468		
4.921	272	481	1.766	0.467		
4.934	57	415	7.241	0.403		
4.938	126	436	3.474	0.423		
4.956	517	597	1.155	0.579		
4.959	242	615	2.539	0.597		
4.967	299	619	2.072	0.601		
4.978	154	557	3.610	0.541		
4.982	222	565	2.546	0.548		
4.987	208	557	2.677	0.541		
4.993	132	563	4.251	0.546		
5.003	357	693	1.939	0.673		
5.011	343	781	2.274	0.758		
5.016	291	916	3.147	0.889		
5.031	1415	1133	0.801	1.100		
5.065	364	810	2.228	0.786		
5.073	235	800	3.398	0.777		
5.080	506	830	1.641	0.806		
5.090	179	828	4.614	0.804		
5.096	528	839	1.589	0.814		
5.108	311	763	2.450	0.741		
5.137	84	476	5.665	0.462		
5.139	219	495	2.262	0.480		
5.154	121	389	3.206	0.377		
5.160	249	382	1.537	0.371		
5.187	9	42	4.918	0.040		
5.193	26	68	2.665	0.066		
5.200	12	69	5.887	0.067		
5.209	54	140	2.594	0.135		
5.212	58	170	2.951	0.165		
5.217	44	176	4.013	0.170		
5.227	63	213	3.384	0.206		
5.233	96	256	2.676	0.248		
5.243	213	344	1.617	0.334		
5.247	91	355	3.906	0.344		
5.257	125	387	3.096	0.375		
5.262	117	396	3.381	0.384		
5.269	129	443	3.423	0.430		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.286	77	433	5.631	0.420		
5.290	110	474	4.326	0.460		
5.297	77	494	6.377	0.479		
5.301	263	521	1.979	0.506		
5.308	337	526	1.559	0.510		
5.318	205	482	2.356	0.468		
5.326	118	437	3.696	0.424		
5.340	125	435	3.479	0.422		
5.347	233	441	1.895	0.428		
5.362	80	409	5.104	0.397		
5.390	84	282	3.340	0.273		
5.398	282	306	1.084	0.297		
5.422	42	239	5.748	0.232		
5.428	92	281	3.059	0.272		
5.436	161	363	2.257	0.352		
5.446	222	415	1.872	0.403		
5.453	274	419	1.529	0.406		
5.467	84	392	4.668	0.380		
5.477	89	414	4.649	0.402		
5.480	257	432	1.679	0.419		
5.490	65	411	6.315	0.399		
5.494	182	455	2.502	0.441		
5.519	151	342	2.259	0.332		
5.531	104	299	2.862	0.290		
5.536	59	274	4.655	0.266		
5.547	195	353	1.807	0.342		
5.567	165	414	2.508	0.402		
5.571	127	431	3.401	0.418		
5.602	204	406	1.995	0.394		
5.620	119	343	2.891	0.333		
5.627	106	345	3.265	0.335		
5.640	337	514	1.524	0.499		
5.644	108	554	5.153	0.538		
5.648	415	576	1.387	0.559		
5.676	75	345	4.609	0.335		
5.685	117	349	2.990	0.338		
5.704	464	505	1.087	0.490		
5.709	99	500	5.069	0.485		
5.717	241	554	2.299	0.538		
5.736	118	469	3.982	0.455		
5.745	240	552	2.296	0.536		
5.759	247	556	2.251	0.540		
5.764	146	570	3.909	0.553		
5.782	115	454	3.932	0.440		
5.815	220	374	1.697	0.363		
5.824	86	370	4.306	0.359		
5.828	80	381	4.758	0.370		
5.852	1188	1011	0.851	0.982		
5.902	215	448	2.083	0.435		
5.922	121	385	3.194	0.373		
5.940	153	379	2.473	0.368		
5.949	152	390	2.563	0.378		
5.960	188	412	2.194	0.400		
5.966	318	432	1.357	0.419		
5.978	141	388	2.749	0.376		
5.985	260	378	1.452	0.367		
5.998	178	378	2.119	0.367		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.009	107	333	3.105	0.323		
6.031	126	255	2.029	0.247		
6.047	117	272	2.326	0.264		
6.054	47	272	5.731	0.264		
6.060	50	286	5.738	0.277		
6.064	78	284	3.652	0.275		
6.068	142	302	2.126	0.293		
6.075	54	272	5.073	0.264		
6.081	71	284	3.985	0.275		
6.086	107	295	2.754	0.286		
6.097	43	247	5.710	0.239		
6.102	88	271	3.075	0.263		
6.111	106	297	2.807	0.288		
6.126	206	333	1.620	0.323		
6.129	93	369	3.962	0.358		
6.132	86	403	4.709	0.391		
6.139	181	454	2.511	0.440		
6.146	182	464	2.556	0.450		
6.169	144	322	2.237	0.312		
6.199	85	257	3.023	0.249		
6.204	75	279	3.728	0.271		
6.209	62	290	4.699	0.281		
6.212	72	312	4.319	0.303		
6.219	133	361	2.708	0.350		
6.223	117	376	3.201	0.365		
6.232	181	401	2.217	0.389		
6.241	181	390	2.152	0.378		
6.249	249	387	1.555	0.375		
6.272	147	265	1.807	0.257		
6.294	36	172	4.716	0.167		
6.303	38	177	4.642	0.171		
6.308	68	198	2.901	0.192		
6.317	98	232	2.361	0.225		
6.326	61	229	3.765	0.222		
6.331	78	240	3.075	0.233		
6.335	55	256	4.688	0.248		
6.365	69	193	2.787	0.187		
6.385	81	188	2.333	0.182		
6.409	33	196	6.023	0.190		
6.419	41	179	4.324	0.173		
6.423	47	190	4.045	0.184		
6.428	44	192	4.326	0.186		
6.433	50	177	3.572	0.171		
6.440	67	168	2.509	0.163		
6.466	70	117	1.673	0.113		
6.487	21	82	3.963	0.079		
6.497	11	70	6.530	0.067		
	80007	102950		100.000		

Total unknown % height = 86.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000069.d
Lab Smp Id: 30313514002 Client Smp ID: Sewer-2
Inj Date : 17-JUL-2019 00:26
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30313514002x10,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 69
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.110	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.210	0.001	9119	0.01793	0.00593		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.495	4.498	-0.003	6690	0.01993	0.00660		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

    :
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Pace Analytical Services, Inc.

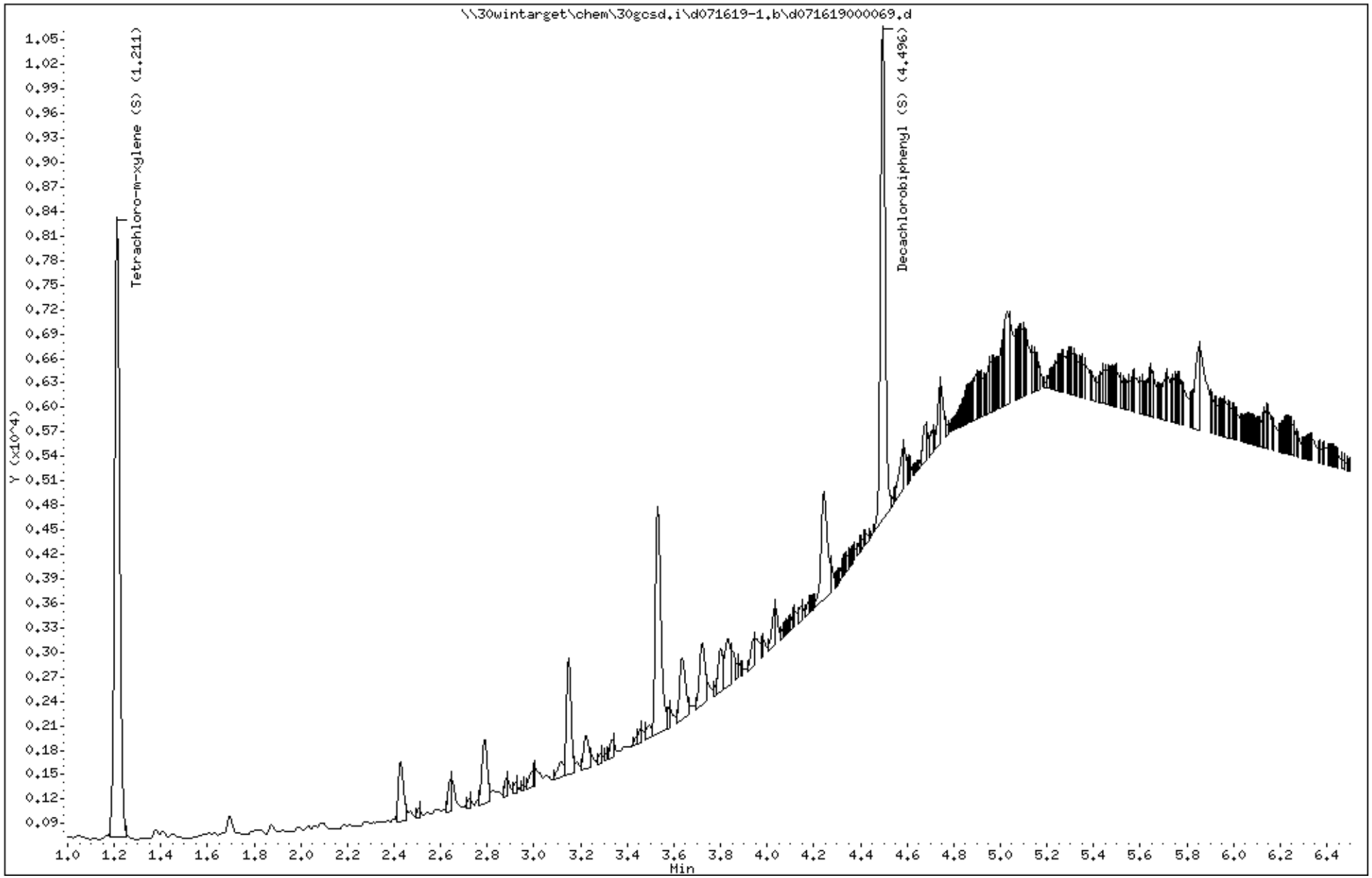
TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30313514
Lab Smp Id: 30313514002
Client Smp ID: Sewer-2
Sample Location:
Sample Point:
Sample Date: 11-JUL-2019
Date Received: 12-JUL-2019
Sample Matrix: SOIL
Quant Type: ESTD
Analysis Type: GCMULT
Level: LOW
Data Type: GC MULTI COMP
Operator: CWB
Misc Info: 15808,

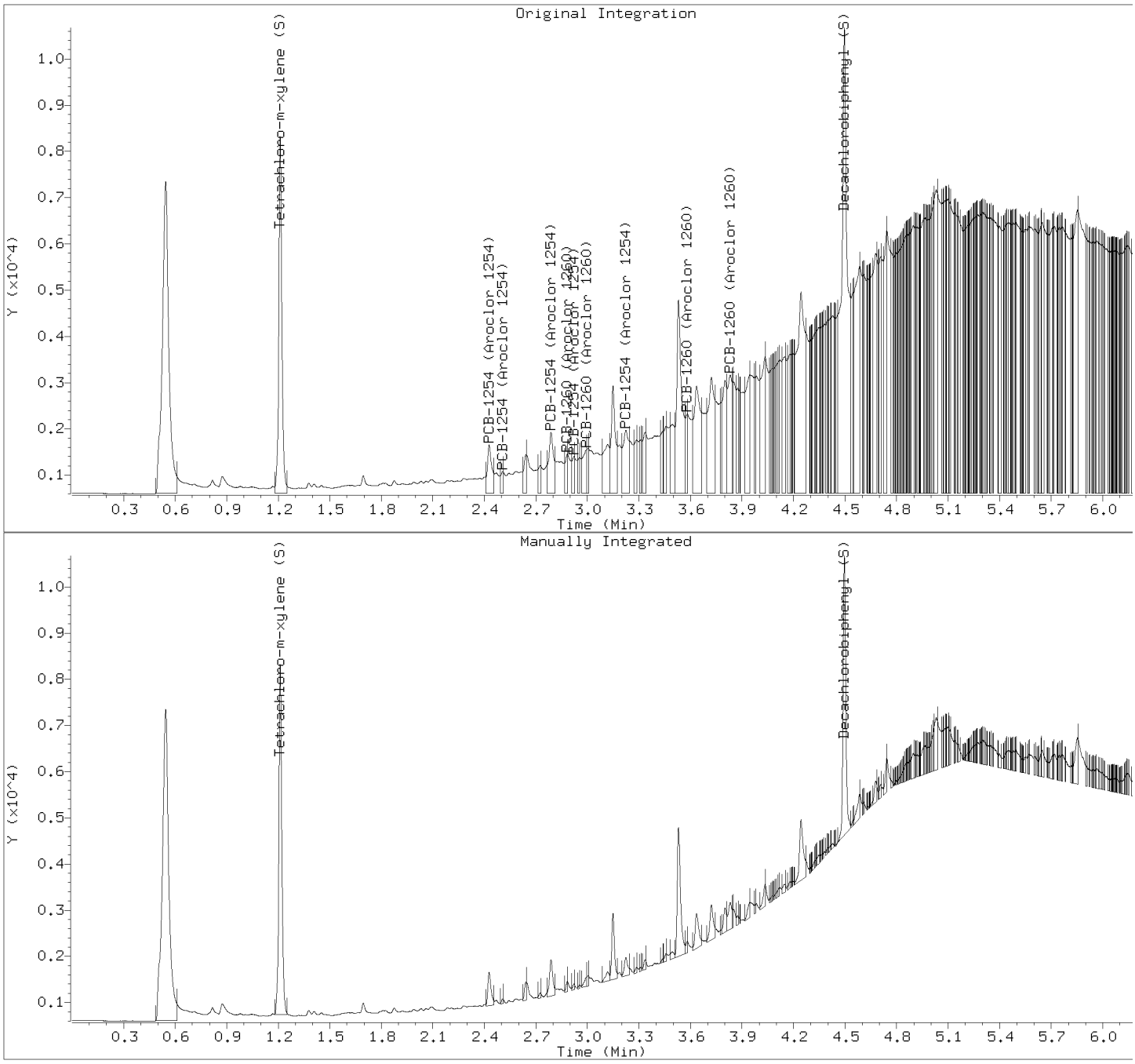
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	330	U
11104-28-2	PCB-1221 (Aroclor 1221)	670	U
11141-16-5	PCB-1232 (Aroclor 1232)	330	U
53469-21-9	PCB-1242 (Aroclor 1242)	330	U
12672-29-6	PCB-1248 (Aroclor 1248)	330	U
11097-69-1	PCB-1254 (Aroclor 1254)	330	U
11096-82-5	PCB-1260 (Aroclor 1260)	330	U
877-09-8	Tetrachloro-m-xylene (S)	0.00593	J
2051-24-3	Decachlorobiphenyl (S)	0.00660	J

Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000069.d
Date : 17-JUL-2019 00:26
Client ID: Sewer-2
Sample Info: 30313514002X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b/d071619000069.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 17-JUL-2019 00:26 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30313514002



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	1836	0
PCB-1254 (Aroclor 1254)	408	0
PCB-1254 (Aroclor 1254)	2580	0
PCB-1254 (Aroclor 1254)	743	0
PCB-1254 (Aroclor 1254)	3099	0
PCB-1260 (Aroclor 1260)	2580	0
PCB-1260 (Aroclor 1260)	831	0
PCB-1260 (Aroclor 1260)	1483	0
PCB-1260 (Aroclor 1260)	1509	0
PCB-1260 (Aroclor 1260)	4603	0
Tetrachloro-m-xylene (S)	9668	9119
Decachlorobiphenyl (S)	25069	6690

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	22540.0000	22230.0000	21392.0000	19192.0000	18984.0000	18890.0000
Aroclor 1016	2	Averaged	43500.0000	43750.0000	43260.0000	39226.0000	39092.0000	39181.0000
Aroclor 1016	3	Averaged	17140.0000	17250.0000	17860.0000	15984.0000	15840.0000	15863.0000
Aroclor 1016	4	Averaged	13880.0000	13740.0000	13392.0000	11948.0000	11832.0000	11847.0000
Aroclor 1016	5	Averaged	11480.0000	11670.0000	11500.0000	10462.0000	10352.0000	10413.0000
Aroclor 1260	1	Averaged	20240.0000	19880.0000	19216.0000	17454.0000	17265.3333	17209.0000
Aroclor 1260	2	Averaged	25840.0000	25620.0000	24580.0000	22258.0000	21990.6666	22006.0000
Aroclor 1260	3	Averaged	32320.0000	31990.0000	30820.0000	27894.0000	27562.6666	27470.0000
Aroclor 1260	4	Averaged	52780.0000	52700.0000	52052.0000	47812.0000	47833.3333	48049.0000
Aroclor 1260	5	Averaged	37860.0000	38060.0000	37704.0000	34632.0000	34656.0000	34551.0000
Decachlorobiphenyl		Averaged	349700.000	346600.000	343440.000	321030.000	325840.000	327295.000
Tetrachloro-m-xylene		Averaged	527100.000	528550.000	527200.000	484540.000	489013.333	495225.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	8.30			20538.00	
Aroclor 1016	2	Averaged	5.76			41334.83	
Aroclor 1016	3	Averaged	5.22			16656.16	
Aroclor 1016	4	Averaged	7.80			12773.16	
Aroclor 1016	5	Averaged	5.73			10979.50	
Aroclor 1260	1	Averaged	7.51			18544.05	
Aroclor 1260	2	Averaged	7.75			23715.77	
Aroclor 1260	3	Averaged	7.70			29676.11	
Aroclor 1260	4	Averaged	5.06			50204.38	
Aroclor 1260	5	Averaged	4.93			36243.83	
Decachlorobiphenyl		Averaged	3.66			335650.83	
Tetrachloro-m-xylene		Averaged	4.15			508604.72	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	12380.0000	12280.0000	11732.0000	10726.0000	10609.3333	10632.0000
Aroclor 1016	2	Averaged	22240.0000	22580.0000	22892.0000	21028.0000	21001.3333	21107.0000
Aroclor 1016	3	Averaged	10820.0000	11370.0000	11380.0000	10476.0000	10508.0000	10544.0000
Aroclor 1016	4	Averaged	10860.0000	10590.0000	10408.0000	9400.00000	9325.33333	9299.00000
Aroclor 1016	5	Averaged	10460.0000	10510.0000	10324.0000	9384.00000	9380.00000	9352.00000
Aroclor 1260	1	Averaged	21400.0000	21340.0000	21336.0000	19330.0000	19288.0000	19228.0000
Aroclor 1260	2	Averaged	25740.0000	25610.0000	25440.0000	23134.0000	23177.3333	23036.0000
Aroclor 1260	3	Averaged	28140.0000	28770.0000	31652.0000	29034.0000	29032.0000	29124.0000
Aroclor 1260	4	Averaged	43820.0000	44440.0000	44696.0000	41430.0000	41808.0000	41957.0000
Aroclor 1260	5	Averaged	26460.0000	26700.0000	26908.0000	25068.0000	24990.6666	25092.0000
Decachlorobiphenyl		Averaged	329300.000	325400.000	325900.000	305140.000	308640.000	310400.000
Tetrachloro-m-xylene		Averaged	472800.000	469600.000	469140.000	433280.000	438260.000	441975.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.35			11393.22	
Aroclor 1016	2	Averaged	3.94			21808.05	
Aroclor 1016	3	Averaged	3.91			10849.66	
Aroclor 1016	4	Averaged	7.16			9980.38	
Aroclor 1016	5	Averaged	5.89			9901.66	
Aroclor 1260	1	Averaged	5.60			20320.33	
Aroclor 1260	2	Averaged	5.59			24356.22	
Aroclor 1260	3	Averaged	4.13			29292.00	
Aroclor 1260	4	Averaged	3.38			43025.16	
Aroclor 1260	5	Averaged	3.51			25869.77	
Decachlorobiphenyl		Averaged	3.31		0.00	317463.33	
Tetrachloro-m-xylene		Averaged	3.99		0.00	454175.83	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.631	1.631	1.631	1.631	1.632	1.632
Aroclor 1016	2	1.878	1.878	1.878	1.878	1.879	1.879
Aroclor 1016	3	1.932	1.932	1.932	1.932	1.933	1.932
Aroclor 1016	4	2.188	2.188	2.188	2.188	2.189	2.189
Aroclor 1016	5	2.277	2.277	2.277	2.277	2.278	2.278
Aroclor 1260	1	2.798	2.797	2.797	2.797	2.798	2.798
Aroclor 1260	2	2.885	2.885	2.885	2.885	2.886	2.886
Aroclor 1260	3	2.995	2.994	2.995	2.995	2.995	2.995
Aroclor 1260	4	3.584	3.583	3.584	3.583	3.584	3.585
Aroclor 1260	5	3.827	3.826	3.826	3.826	3.826	3.827
Decachlorobiphenyl		4.501	4.5	4.501	4.5	4.501	4.501
Tetrachloro-m-xylene		1.21	1.21	1.21	1.21	1.212	1.211

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.631	1.601	1.661
Aroclor 1016	2	1.878	1.848	1.908
Aroclor 1016	3	1.932	1.902	1.962
Aroclor 1016	4	2.188	2.158	2.218
Aroclor 1016	5	2.277	2.247	2.307
Aroclor 1260	1	2.797	2.767	2.827
Aroclor 1260	2	2.885	2.855	2.915
Aroclor 1260	3	2.995	2.965	3.025
Aroclor 1260	4	3.584	3.554	3.614
Aroclor 1260	5	3.826	3.796	3.856
Decachlorobiphenyl		4.501	4.471	4.531
Tetrachloro-m-xylene		1.21	1.18	1.24

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.963	1.964	1.963	1.964	1.964	1.964
Aroclor 1016	2	2.286	2.286	2.286	2.286	2.287	2.286
Aroclor 1016	3	2.374	2.374	2.374	2.374	2.375	2.374
Aroclor 1016	4	2.47	2.47	2.47	2.47	2.471	2.471
Aroclor 1016	5	2.56	2.56	2.56	2.56	2.561	2.561
Aroclor 1260	1	3.309	3.309	3.309	3.308	3.309	3.309
Aroclor 1260	2	3.479	3.479	3.478	3.479	3.479	3.479
Aroclor 1260	3	3.663	3.663	3.662	3.662	3.663	3.663
Aroclor 1260	4	4.06	4.059	4.06	4.059	4.06	4.06
Aroclor 1260	5	4.247	4.247	4.247	4.247	4.248	4.248
Decachlorobiphenyl		4.959	4.959	4.96	4.959	4.959	4.961
Tetrachloro-m-xylene		1.586	1.586	1.586	1.587	1.587	1.587

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.963	1.933	1.993
Aroclor 1016	2	2.286	2.256	2.316
Aroclor 1016	3	2.374	2.344	2.404
Aroclor 1016	4	2.47	2.44	2.5
Aroclor 1016	5	2.56	2.53	2.59
Aroclor 1260	1	3.309	3.279	3.339
Aroclor 1260	2	3.478	3.448	3.508
Aroclor 1260	3	3.662	3.632	3.692
Aroclor 1260	4	4.06	4.03	4.09
Aroclor 1260	5	4.247	4.217	4.277
Decachlorobiphenyl		4.96	4.93	4.99
Tetrachloro-m-xylene		1.586	1.556	1.616

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-1.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.344	1.314	1.374	6424.00000
Aroclor 1221	.25	2	1.4	1.37	1.43	3800.00000
Aroclor 1221	.25	3	1.44	1.41	1.47	13644.0000
Decachlorobiphenyl (S)	.05		4.499	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-1.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.44	1.41	1.47	11544.0000
Aroclor 1232	.25	2	1.631	1.601	1.661	9880.00000
Aroclor 1232	.25	3	1.878	1.848	1.908	18436.0000
Aroclor 1232	.25	4	1.932	1.902	1.962	7344.00000
Aroclor 1232	.25	5	2.188	2.158	2.218	5264.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-1.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.44	1.41	1.47	7464.00000
Aroclor 1242	.25	2	1.631	1.601	1.661	15736.0000
Aroclor 1242	.25	3	1.878	1.848	1.908	31628.0000
Aroclor 1242	.25	4	1.932	1.902	1.962	12420.0000
Aroclor 1242	.25	5	2.188	2.158	2.218	9852.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-1.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	1.877	1.847	1.907	23488.0000
Aroclor 1248	.25	2	2.035	2.005	2.065	15488.0000
Aroclor 1248	.25	3	2.188	2.158	2.218	15912.0000
Aroclor 1248	.25	4	2.277	2.247	2.307	13976.0000
Aroclor 1248	.25	5	2.428	2.398	2.458	22740.0000
Decachlorobiphenyl (S)	.05		4.501	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-1.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.425	2.395	2.455	18132.0000
Aroclor 1254	.25	2	2.509	2.479	2.539	19748.0000
Aroclor 1254	.25	3	2.791	2.761	2.821	31456.0000
Aroclor 1254	.25	4	2.924	2.894	2.954	20272.0000
Aroclor 1254	.25	5	3.226	3.196	3.256	27216.0000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-2.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.67	1.64	1.7	5224.00000
Aroclor 1221	.25	2	1.712	1.682	1.742	3332.00000
Aroclor 1221	.25	3	1.761	1.731	1.791	12984.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-2.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.761	1.731	1.791	10988.0000
Aroclor 1232	.25	2	1.963	1.933	1.993	5164.00000
Aroclor 1232	.25	3	2.286	2.256	2.316	9684.00000
Aroclor 1232	.25	4	2.374	2.344	2.404	4784.00000
Aroclor 1232	.25	5	2.56	2.53	2.59	4028.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-2.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.761	1.731	1.791	7560.00000
Aroclor 1242	.25	2	1.963	1.933	1.993	8744.00000
Aroclor 1242	.25	3	2.286	2.256	2.316	16784.0000
Aroclor 1242	.25	4	2.374	2.344	2.404	8376.00000
Aroclor 1242	.25	5	2.56	2.53	2.59	7736.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.586	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-2.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	2.285	2.255	2.315	12308.0000
Aroclor 1248	.25	2	2.438	2.408	2.468	11556.0000
Aroclor 1248	.25	3	2.56	2.53	2.59	13084.0000
Aroclor 1248	.25	4	2.666	2.636	2.696	10252.0000
Aroclor 1248	.25	5	2.834	2.804	2.864	20392.0000
Decachlorobiphenyl (S)	.05		4.958	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30313514

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-2.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.816	2.786	2.846	14712.0000
Aroclor 1254	.25	2	2.958	2.928	2.988	22960.0000
Aroclor 1254	.25	3	3.198	3.168	3.228	24260.0000
Aroclor 1254	.25	4	3.392	3.362	3.422	18636.0000
Aroclor 1254	.25	5	3.66	3.63	3.69	19008.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.570	1203	768	0.638	1.611		
1.028	1158	867	0.749	1.819		
1.210	25243	21163	0.838	44.428	$ 10 Tetrachloro-m-xylene (S)	
1.267	572	404	0.706	0.847		
1.344	1607	1382	0.860	2.900	2 PCB-1221 (Aroclor 1221)	
1.375	317	327	1.030	0.686		
1.400	950	874	0.920	1.834	2 PCB-1221 (Aroclor 1221)	
1.440	3412	2903	0.851	6.092	2 PCB-1221 (Aroclor 1221)	
1.633	290	409	1.413	0.858		
1.693	510	501	0.982	1.051		
1.827	198	198	0.998	0.415		
1.879	442	357	0.808	0.749		
1.932	201	185	0.918	0.388		
3.369	1370	1113	0.812	2.335		
4.248	55	68	1.234	0.142		
4.343	73	117	1.608	0.245		
4.500	16180	15900	0.983	33.371	$ 11 Decachlorobiphenyl (S)	
5.557	6	20	3.425	0.041		
5.725	13	44	3.390	0.092		
6.494	11	46	4.028	0.096		
	53812	47646		100.000		

Total unknown % height = 11.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.344	1.344	0.000	1606	0.25000	0.250	80.00- 120.00	100.00	
1.400	1.400	0.000	950	0.25000	0.250	47.32- 70.98	59.12	
1.440	1.440	0.000	3411	0.25000	0.250	169.91- 254.87	212.30	
Average of Peak Amounts =					0.25000			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25242	0.05000	0.0500			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.499	4.501	-0.002	16180	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

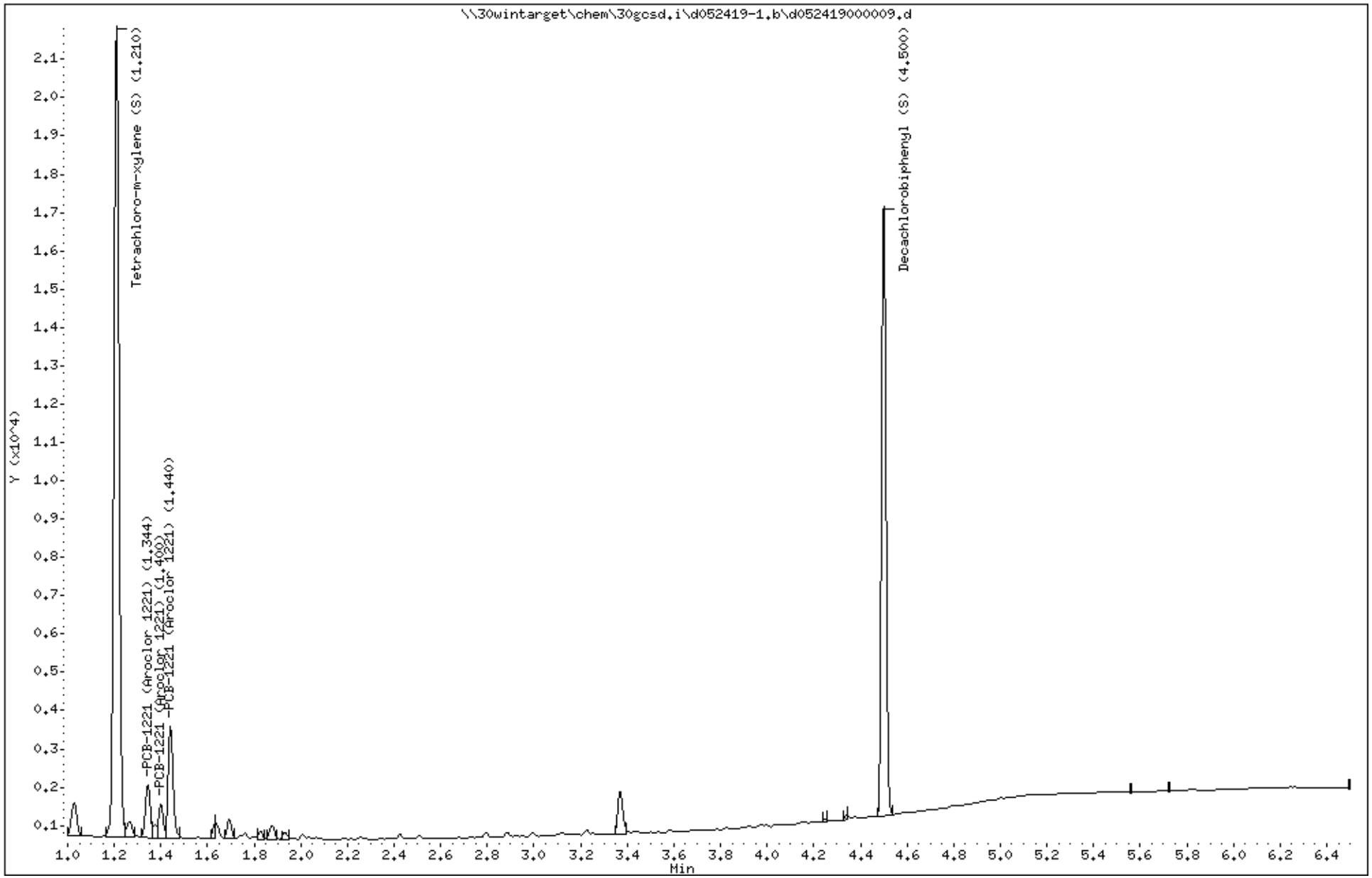
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

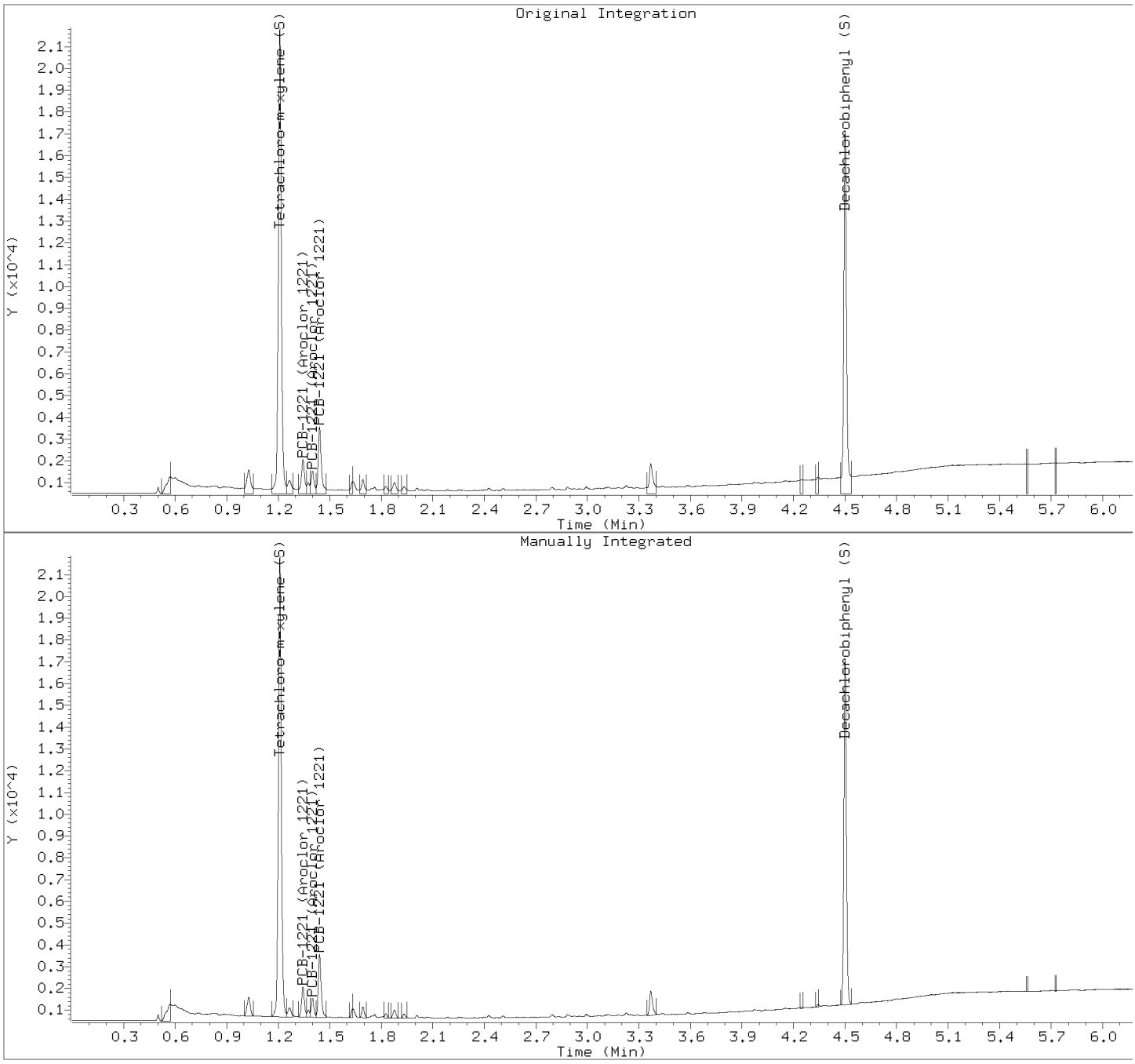
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11104-28-2	PCB-1221 (Aroclor 1221)		
	Peak found at 1.344	0.250	
	Peak found at 1.400	0.250	
	Peak found at 1.440	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0500	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	2088	1606
PCB-1221 (Aroclor 1221)	1298	950
PCB-1221 (Aroclor 1221)	3973	3411
Tetrachloro-m-xylene (S)	26230	25242
Decachlorobiphenyl (S)	18966	16180

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	930	1271	1.367	2.497		
0.568	790	576	0.729	1.131		
0.591	848	789	0.930	1.550		
0.625	622	713	1.147	1.401		
0.655	595	685	1.152	1.346		
0.729	917	598	0.652	1.175		
1.076	94	119	1.261	0.233		
1.255	1060	855	0.807	1.680		
1.474	339	308	0.909	0.605		
1.527	453	408	0.900	0.801		
1.556	154	195	1.266	0.383		
1.586	22320	21120	0.946	41.532	$ 10 Tetrachloro-m-xylene (S)	
1.670	1307	954	0.730	1.874	2 PCB-1221 (Aroclor 1221)	
1.713	833	801	0.961	1.574	2 PCB-1221 (Aroclor 1221)	
1.761	3246	3023	0.931	5.940	2 PCB-1221 (Aroclor 1221)	
1.811	124	126	1.017	0.247		
1.965	169	169	1.002	0.332		
2.018	166	173	1.045	0.339		
2.076	552	503	0.911	0.988		
2.225	135	218	1.613	0.428		
2.268	104	179	1.715	0.351		
2.287	234	248	1.059	0.487		
2.307	179	184	1.026	0.361		
2.817	46	74	1.611	0.145		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.959	64	87	1.351	0.170		
3.309	50	86	1.704	0.169		
3.478	42	83	1.968	0.163		
3.662	46	77	1.691	0.151		
3.913	1159	904	0.780	1.776		
4.314	10	29	2.912	0.056		
4.491	44	81	1.820	0.159		
4.601	13	44	3.326	0.086		
4.754	18	51	2.875	0.100		
4.794	11	41	3.612	0.080		
4.808	83	119	1.437	0.233		
4.959	15365	14265	0.928	28.033	$ 11 Decachlorobiphenyl (S)	
5.105	30	61	2.012	0.119		
5.119	20	62	3.134	0.121		
5.160	7	25	3.602	0.049		
5.400	11	34	3.047	0.066		
5.588	6	31	5.228	0.060		
5.615	4	18	4.176	0.035		
5.672	4	20	5.141	0.039		
5.743	4	19	5.191	0.037		
5.808	7	26	3.969	0.051		
5.826	23	54	2.360	0.106		
5.833	13	57	4.439	0.112		
5.896	1	8	6.015	0.015		
5.958	3	16	5.128	0.031		
5.970	3	19	5.556	0.037		
5.974	7	22	3.343	0.043		
6.129	13	34	2.640	0.066		
6.139	7	32	4.378	0.062		
6.185	9	44	5.029	0.086		
6.292	14	43	2.992	0.084		
6.332	9	39	4.230	0.076		
6.379	4	17	4.156	0.033		
6.410	10	22	2.196	0.043		
6.427	5	27	5.066	0.053		
	53338	50886		100.000		

Total unknown % height = 21.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.670	1.670	0.000	1306	0.25000	0.250	80.00- 120.00	100.00	(a)
1.712	1.712	0.000	833	0.25000	0.250	51.03- 76.54	63.76	
1.761	1.761	0.000	3246	0.25000	0.250	198.84- 298.25	248.48	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22319	0.05000	0.0496			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	15364	0.05000	0.0489			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

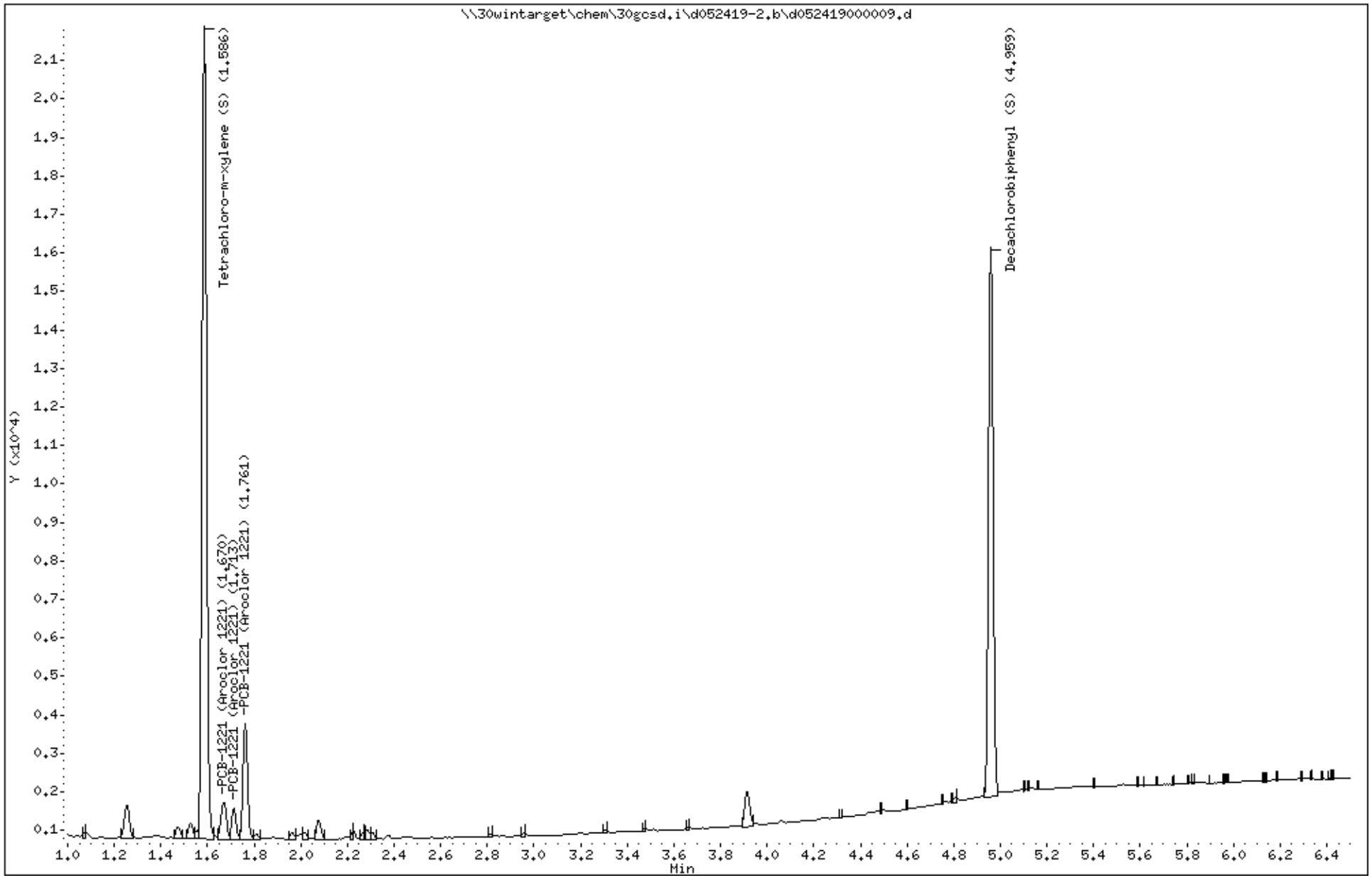
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

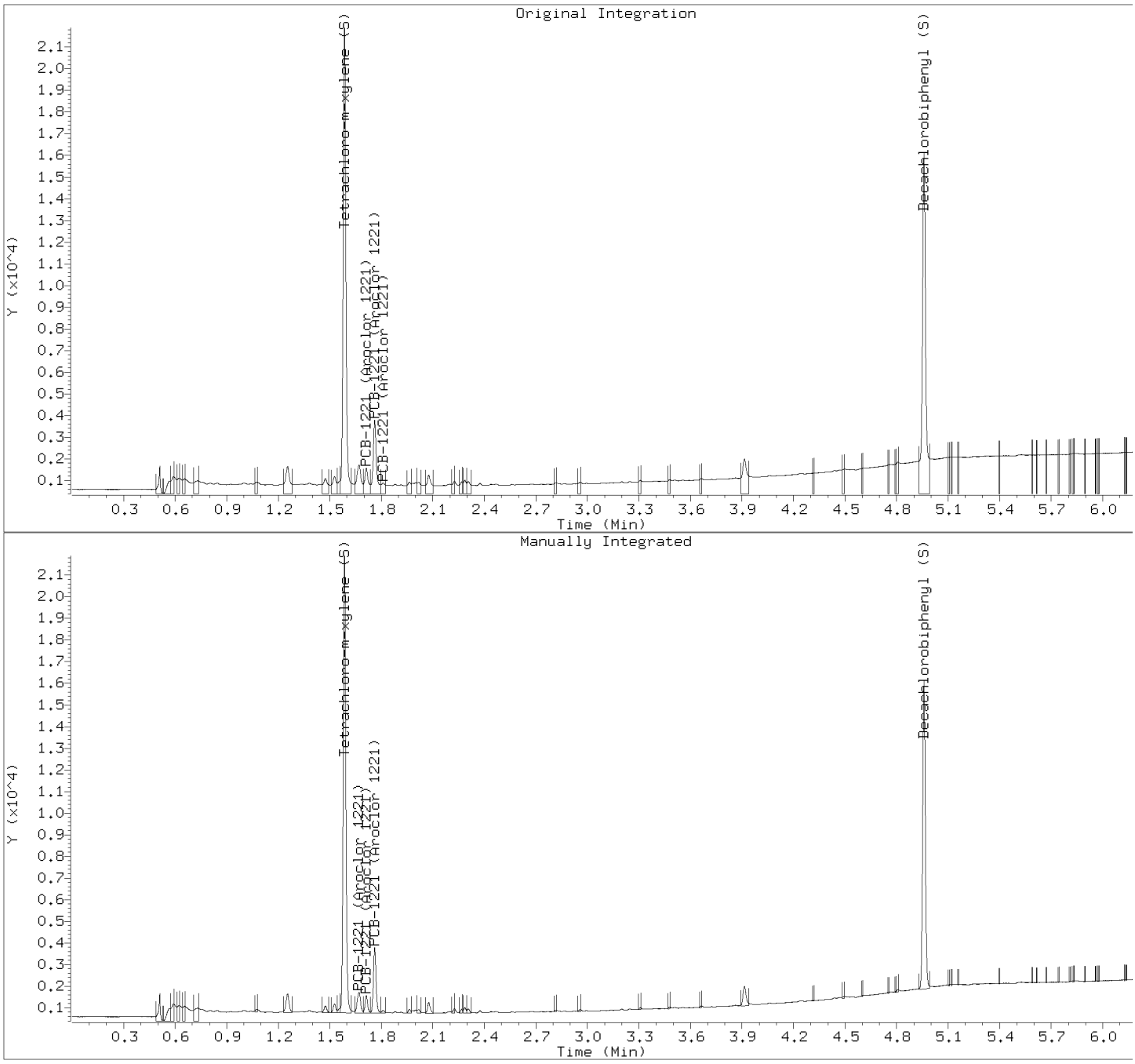
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11104-28-2	PCB-1221 (Aroclor 1221)		J
	Peak found at 1.670	0.250	J
	Peak found at 1.713	0.250	J
	Peak found at 1.761	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0489	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87759:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	1792	1306
PCB-1221 (Aroclor 1221)	4594	833
PCB-1221 (Aroclor 1221)	693	3246
Tetrachloro-m-xylene (S)	23804	22319
Decachlorobiphenyl (S)	20789	15364

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	20125	7843	0.390	10.304		
1.028	809	545	0.674	0.716		
1.209	25188	21207	0.842	27.884	$ 10 Tetrachloro-m-xylene (S)	
1.266	471	341	0.723	0.448		
1.344	1077	926	0.860	1.216		
1.399	742	690	0.930	0.906		
1.440	2887	2487	0.862	3.267	3 PCB-1232 (Aroclor 1232)	
1.631	2470	1847	0.748	2.426	3 PCB-1232 (Aroclor 1232)	
1.693	644	484	0.752	0.635		
1.745	589	717	1.218	0.942		
1.760	963	952	0.989	1.250		
1.806	422	460	1.091	0.604		
1.824	400	389	0.973	0.511		
1.878	4610	3531	0.766	4.639	3 PCB-1232 (Aroclor 1232)	
1.932	1837	1712	0.932	2.249	3 PCB-1232 (Aroclor 1232)	
2.008	1092	1208	1.106	1.587		
2.035	1232	1136	0.922	1.492		
2.062	854	936	1.095	1.229		
2.077	901	887	0.985	1.165		
2.188	1317	1413	1.073	1.856	3 PCB-1232 (Aroclor 1232)	
2.212	523	559	1.068	0.734		
2.239	386	446	1.156	0.585		
2.255	403	461	1.144	0.605		
2.277	1188	1159	0.976	1.522		
2.345	382	371	0.972	0.487		
2.375	757	821	1.085	1.078		
2.401	1308	1406	1.075	1.847		
2.429	1512	1536	1.016	2.018		
2.509	306	297	0.969	0.390		
2.560	828	762	0.920	1.001		
2.580	790	691	0.875	0.907		
2.791	397	410	1.032	0.538		
2.924	252	272	1.078	0.357		
3.147	248	264	1.067	0.346		
3.370	1075	878	0.817	1.153		
3.973	78	130	1.662	0.170		
4.037	64	109	1.705	0.143		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.342	38	76	1.999	0.099		
4.500	15691	15466	0.986	20.320	$ 11 Decachlorobiphenyl (S)	
4.812	43	65	1.527	0.085		
4.861	59	111	1.886	0.145		
5.175	25	64	2.607	0.084		
5.312	4	17	4.048	0.022		
6.022	5	19	3.862	0.024		
6.104	2	11	5.189	0.014		
	94993	76112		100.000		

Total unknown % height = 37.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.440	1.440	0.000	2886	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	2470	0.25000	0.250	68.47- 102.70	85.58	
1.878	1.878	0.000	4609	0.25000	0.250	127.76- 191.64	159.70	
1.932	1.932	0.000	1836	0.25000	0.250	50.89- 76.34	63.64	
2.188	2.188	0.000	1316	0.25000	0.250	36.48- 54.72	45.62	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25188	0.05000	0.0499			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15691	0.05000	0.0474			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

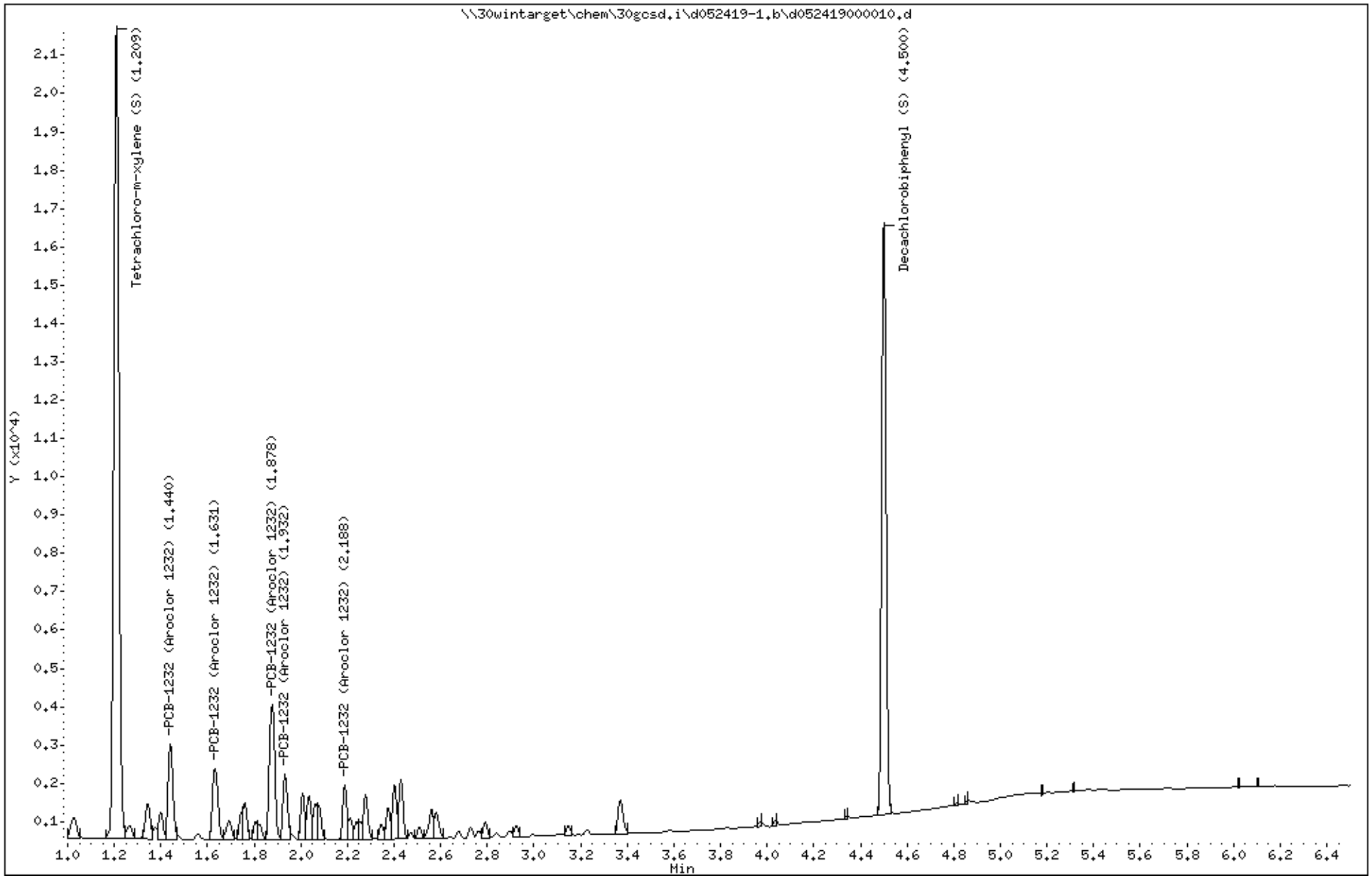
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

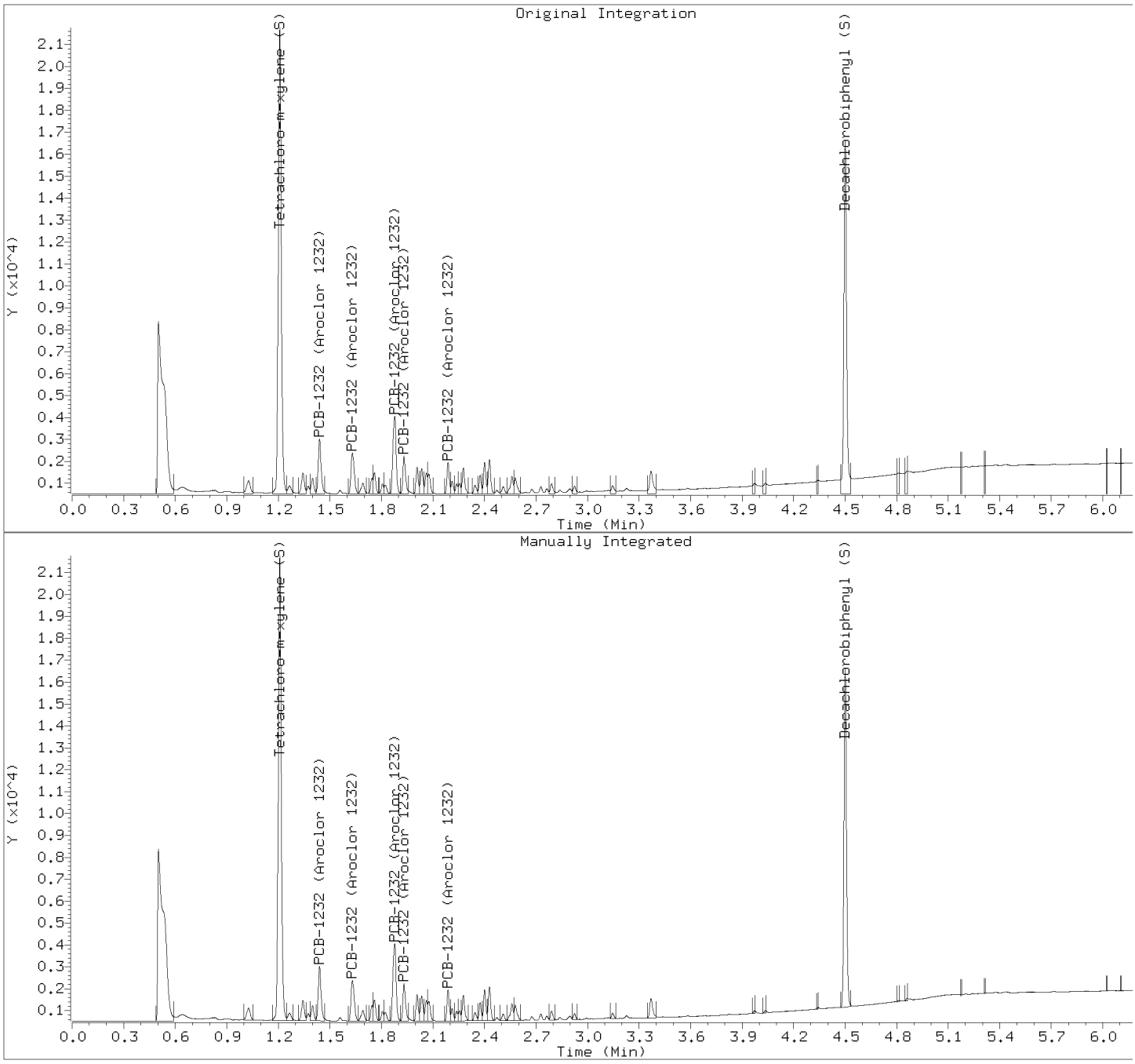
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11141-16-5	PCB-1232 (Aroclor 1232)		
	Peak found at 1.440	0.250	
	Peak found at 1.631	0.250	
	Peak found at 1.878	0.250	
	Peak found at 1.932	0.250	
	Peak found at 2.188	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0499	
2051-24-3	Decachlorobiphenyl (S)	0.0474	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	2894	2886
PCB-1232 (Aroclor 1232)	2445	2470
PCB-1232 (Aroclor 1232)	4582	4609
PCB-1232 (Aroclor 1232)	1816	1836
PCB-1232 (Aroclor 1232)	1303	1316
Tetrachloro-m-xylene (S)	25279	25188
Decachlorobiphenyl (S)	17912	15691

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	14746	21069	1.429	24.274		
0.561	8655	3518	0.406	4.053		
1.254	664	513	0.773	0.591		
1.527	369	332	0.899	0.382		
1.585	22405	21075	0.941	24.307	$ 10 Tetrachloro-m-xylene (S)	
1.669	937	664	0.709	0.765		
1.712	651	626	0.961	0.721		
1.761	2747	2583	0.940	2.975	3 PCB-1232 (Aroclor 1232)	
1.963	1291	1344	1.041	1.548	3 PCB-1232 (Aroclor 1232)	
1.983	830	785	0.946	0.904		
2.075	1571	1091	0.695	1.256		
2.200	377	390	1.036	0.449		
2.223	372	361	0.971	0.415		
2.268	1696	1935	1.141	2.229		
2.286	2421	2469	1.020	2.844	3 PCB-1232 (Aroclor 1232)	
2.306	1587	1559	0.983	1.796		
2.375	1196	1121	0.937	1.291	3 PCB-1232 (Aroclor 1232)	
2.438	849	865	1.019	0.996		
2.470	1008	1025	1.017	1.180		
2.499	377	356	0.945	0.410		
2.561	1007	1031	1.023	1.187	3 PCB-1232 (Aroclor 1232)	
2.590	566	500	0.884	0.576		
2.616	360	372	1.035	0.428		
2.668	1274	777	0.610	0.895		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.835	1885	1254	0.665	1.444		
2.864	1157	1157	1.000	1.333		
2.953	911	826	0.906	0.951		
2.986	670	559	0.834	0.644		
3.199	313	311	0.993	0.358		
3.393	232	230	0.992	0.264		
3.563	183	195	1.068	0.224		
3.914	846	685	0.809	0.789		
4.438	69	101	1.468	0.116		
4.491	65	99	1.534	0.114		
4.809	67	78	1.172	0.089		
4.959	14837	13952	0.940	16.074	$ 11 Decachlorobiphenyl (S)	
5.070	4	19	4.241	0.021		
5.077	6	22	3.566	0.025		
5.099	2	13	5.328	0.014		
5.293	40	99	2.496	0.114		
5.298	43	122	2.851	0.140		
5.407	25	63	2.571	0.072		
5.546	18	44	2.431	0.050		
5.637	12	53	4.369	0.061		
5.698	35	58	1.657	0.066		
5.842	26	80	3.033	0.092		
5.891	23	67	2.949	0.077		
5.898	21	85	3.965	0.097		
6.074	11	34	3.134	0.039		
6.186	20	55	2.691	0.063		
6.254	11	38	3.612	0.043		
6.284	12	32	2.710	0.036		
6.351	8	31	3.865	0.035		
6.390	8	28	3.665	0.032		
6.419	8	23	2.879	0.026		
6.484	6	22	3.723	0.025		
	89528	86796		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.761	1.761	0.000	2747	0.25000	0.250	80.00- 120.00	100.00(a)	
1.963	1.963	0.000	1291	0.25000	0.250	37.60- 56.40	47.00	
2.286	2.286	0.000	2421	0.25000	0.250	70.51- 105.76	88.13	
2.374	2.374	0.000	1196	0.25000	0.250	34.83- 52.25	43.54	
2.560	2.560	0.000	1007	0.25000	0.250	29.33- 43.99	36.67	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22405	0.05000	0.0497		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14837	0.05000	0.0475		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

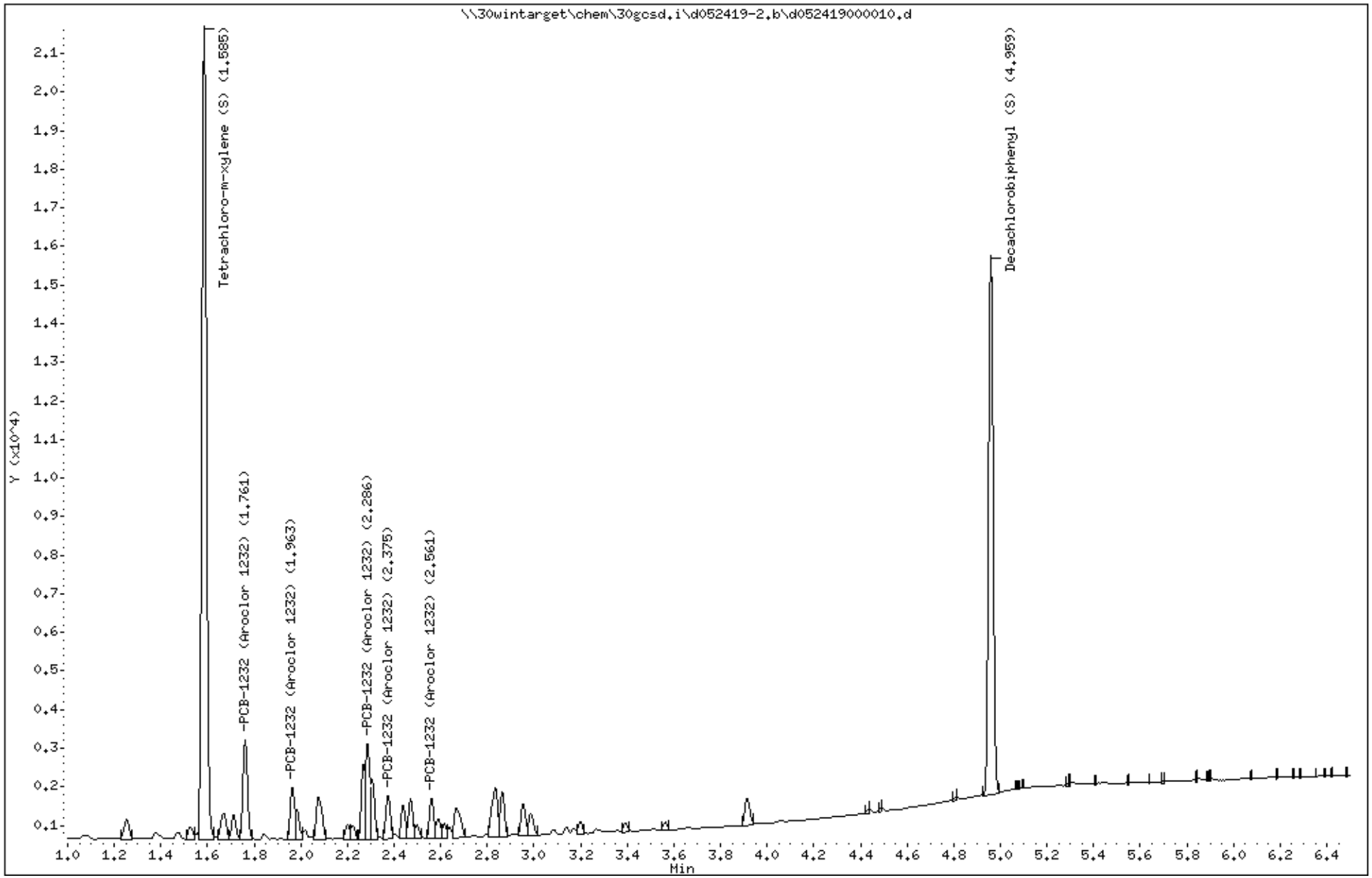
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

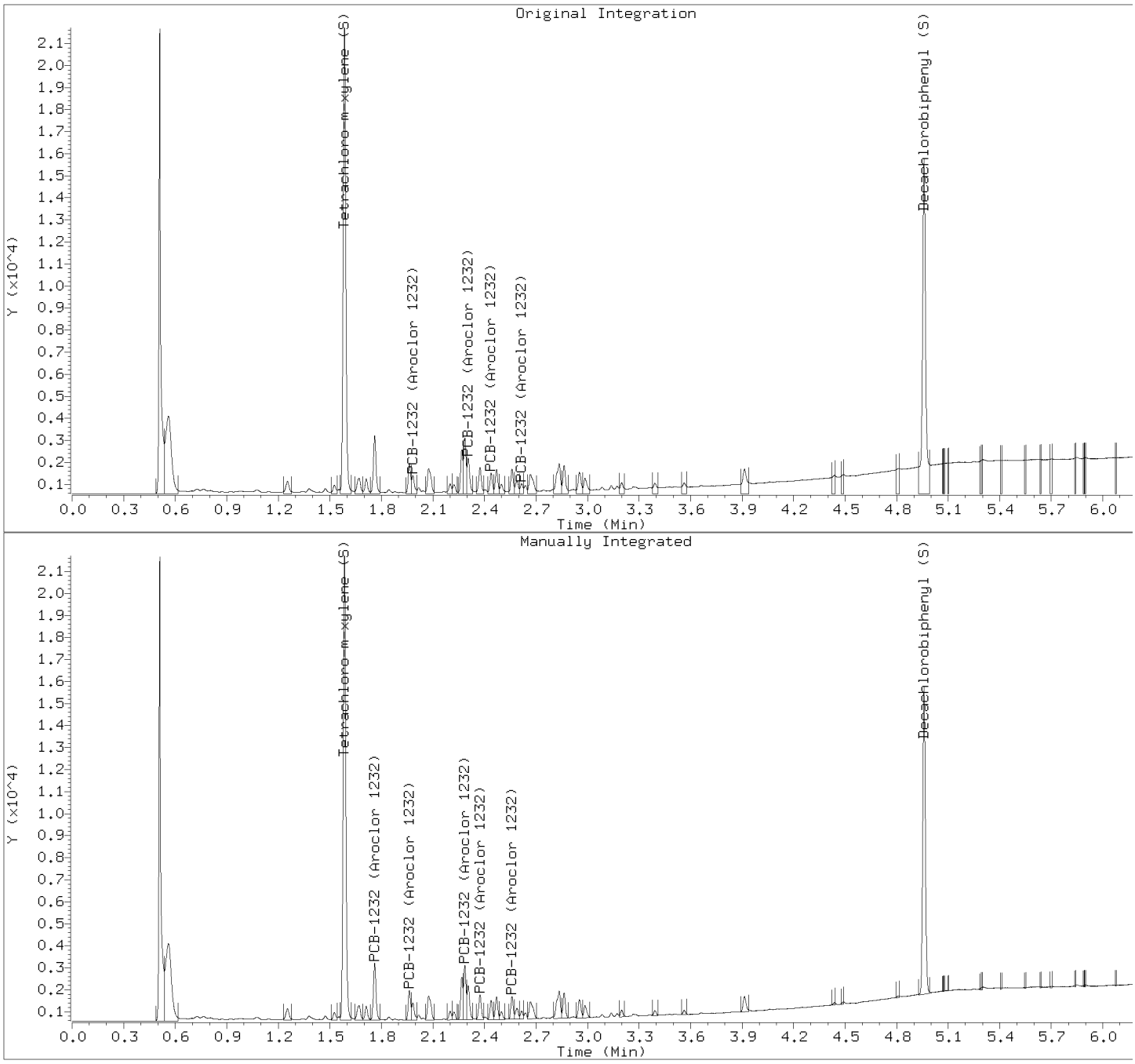
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11141-16-5	PCB-1232 (Aroclor 1232)		J
	Peak found at 1.761	0.250	J
	Peak found at 1.963	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0497	J
2051-24-3	Decachlorobiphenyl (S)	0.0475	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	0	2747
PCB-1232 (Aroclor 1232)	895	1291
PCB-1232 (Aroclor 1232)	1690	2421
PCB-1232 (Aroclor 1232)	977	1196
PCB-1232 (Aroclor 1232)	476	1007
Tetrachloro-m-xylene (S)	22563	22405
Decachlorobiphenyl (S)	19679	14837

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	888	1019	1.148	1.099		
0.542	3967	1653	0.417	1.783		
1.210	25115	21526	0.857	23.252	$ 10 Tetrachloro-m-xylene (S)	
1.344	482	372	0.772	0.401		
1.376	327	313	0.957	0.337		
1.400	396	377	0.952	0.406		
1.441	1866	1715	0.919	1.850	4 PCB-1242 (Aroclor 1242)	
1.632	3934	3022	0.768	3.261	4 PCB-1242 (Aroclor 1242)	
1.694	662	397	0.600	0.428		
1.745	993	1222	1.231	1.318		
1.760	1615	1594	0.987	1.720		
1.807	682	747	1.096	0.806		
1.826	848	790	0.932	0.852		
1.879	7907	6059	0.766	6.538	4 PCB-1242 (Aroclor 1242)	
1.933	3105	2897	0.933	3.126	4 PCB-1242 (Aroclor 1242)	
2.008	1829	2054	1.123	2.216		
2.036	2351	2205	0.938	2.379		
2.063	1580	1769	1.120	1.909		
2.077	1763	1705	0.967	1.839		
2.189	2463	2663	1.081	2.873	4 PCB-1242 (Aroclor 1242)	
2.213	975	1038	1.064	1.120		
2.239	728	832	1.143	0.897		
2.255	642	746	1.162	0.805		
2.278	2289	2243	0.980	2.420		
2.346	718	694	0.967	0.748		
2.375	1480	1611	1.089	1.738		
2.402	2512	2709	1.078	2.923		
2.429	2940	2945	1.002	3.178		
2.473	291	316	1.084	0.341		
2.510	678	658	0.970	0.710		
2.560	1663	1457	0.876	1.572		
2.581	1611	1355	0.841	1.462		
2.676	366	388	1.061	0.418		
2.728	605	637	1.052	0.687		
2.763	384	424	1.104	0.457		
2.791	882	936	1.061	1.010		
2.898	401	370	0.923	0.399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.924	672	726	1.080	0.783		
3.147	634	655	1.033	0.706		
3.228	297	279	0.940	0.301		
3.369	1107	913	0.825	0.985		
3.973	80	139	1.735	0.150		
4.038	61	97	1.583	0.104		
4.344	83	130	1.571	0.140		
4.500	16201	15974	0.986	17.238	$ 11 Decachlorobiphenyl (S)	
4.815	69	85	1.225	0.091		
4.862	94	147	1.563	0.158		
5.242	35	62	1.790	0.066		
	101271	92665		100.000		

Total unknown % height = 41.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)						CAS #: 53469-21-9		
1.440	1.440	0.000	1866	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	3934	0.25000	0.250	168.66- 252.99	210.80	
1.878	1.878	0.000	7907	0.25000	0.250	338.99- 508.49	423.71	
1.932	1.932	0.000	3105	0.25000	0.250	133.12- 199.68	166.40	
2.188	2.188	0.000	2463	0.25000	0.250	105.59- 158.39	131.98	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25115	0.05000	0.0498			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	16201	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

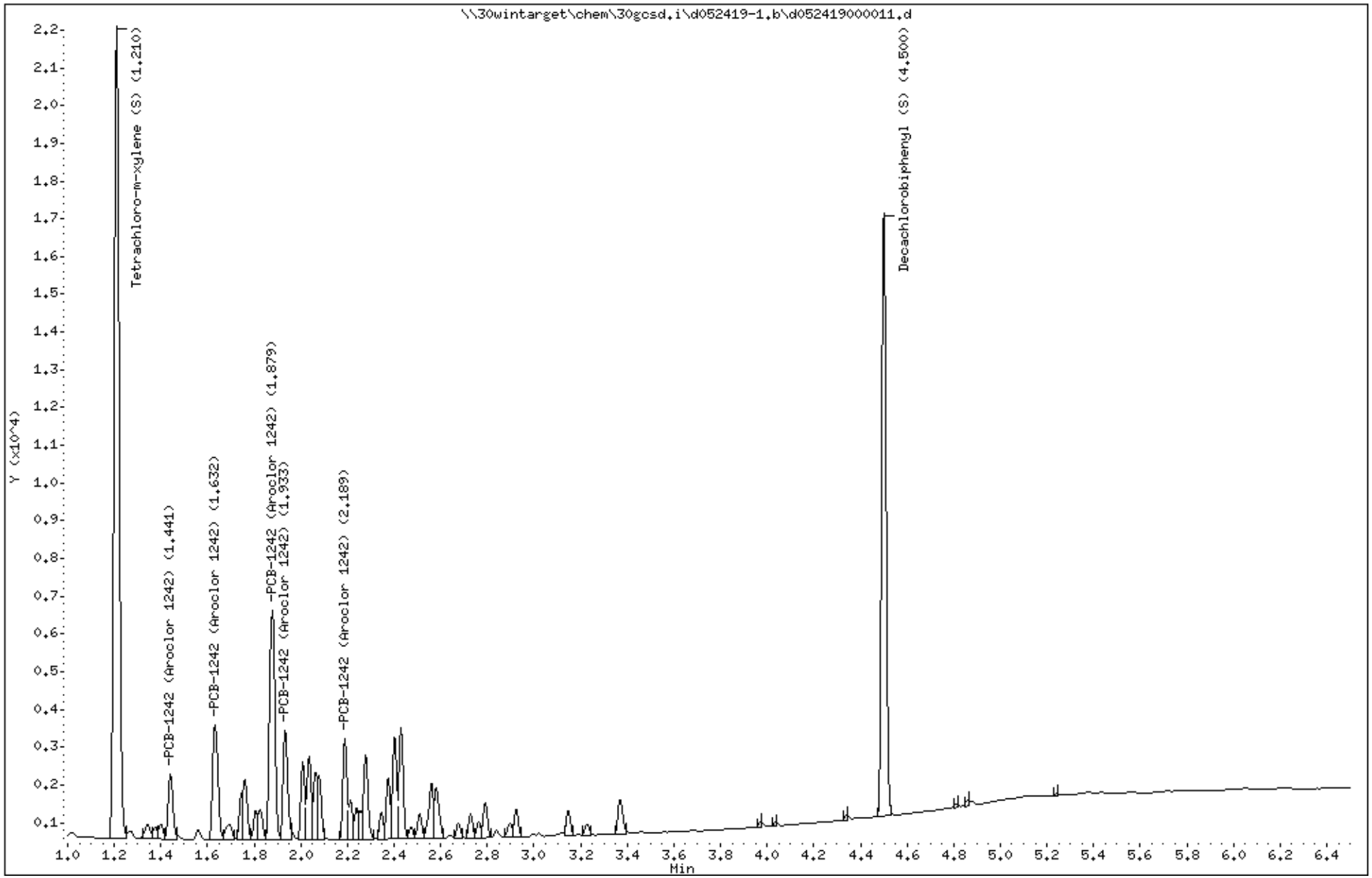
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

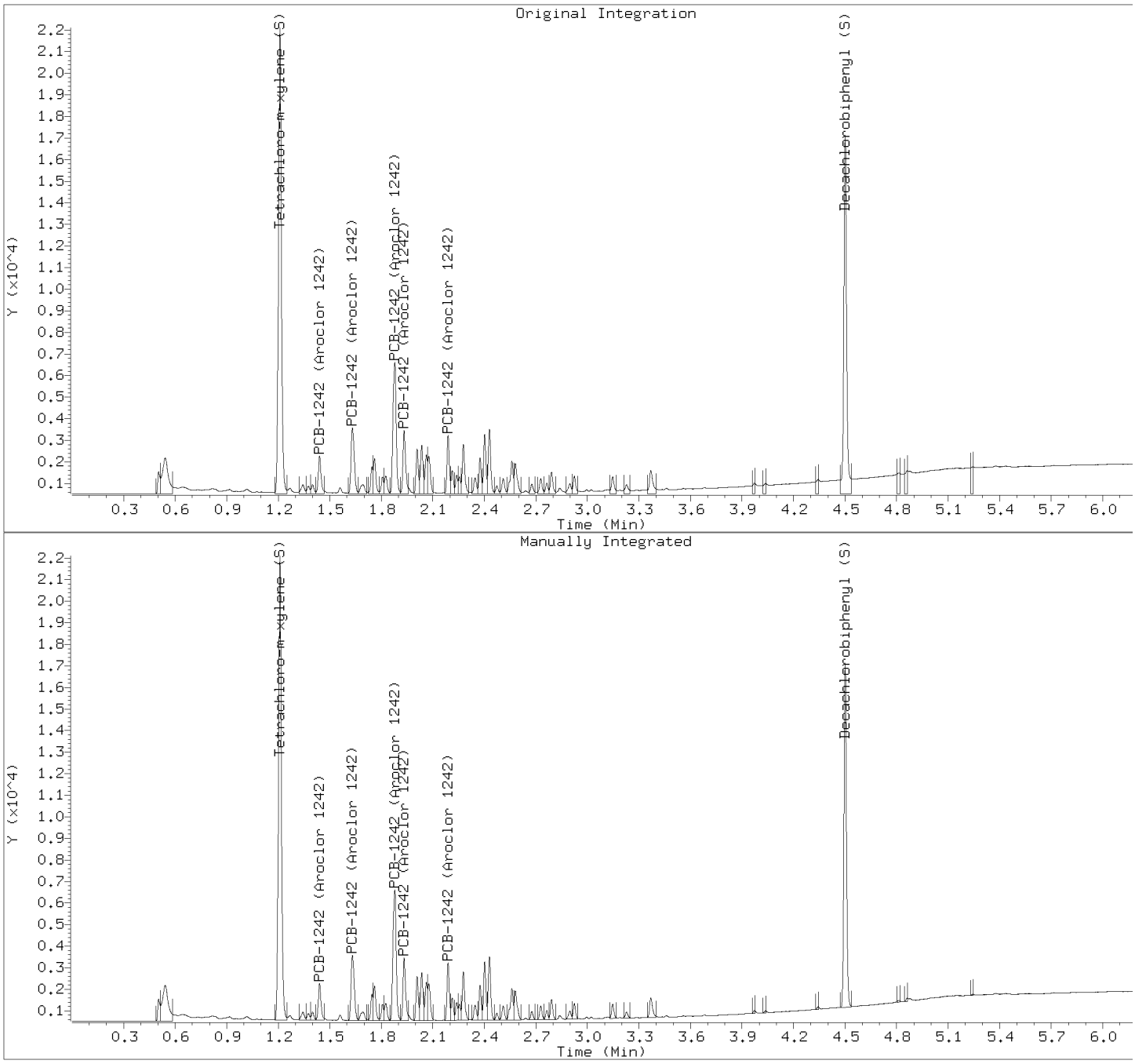
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
53469-21-9	PCB-1242 (Aroclor 1242)		
	Peak found at 1.441	0.250	
	Peak found at 1.632	0.250	
	Peak found at 1.879	0.250	
	Peak found at 1.933	0.250	
	Peak found at 2.189	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0498	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	1944	1866
PCB-1242 (Aroclor 1242)	4007	3934
PCB-1242 (Aroclor 1242)	7984	7907
PCB-1242 (Aroclor 1242)	3160	3105
PCB-1242 (Aroclor 1242)	2499	2463
Tetrachloro-m-xylene (S)	25294	25115
Decachlorobiphenyl (S)	18530	16201

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	1852	3928	2.120	4.544		
0.565	3768	1764	0.468	2.040		
1.586	22524	21344	0.948	24.730	$ 10 Tetrachloro-m-xylene (S)	
1.713	356	335	0.941	0.387		
1.762	1891	1795	0.949	2.076	4 PCB-1242 (Aroclor 1242)	
1.964	2187	2301	1.052	2.661	4 PCB-1242 (Aroclor 1242)	
1.984	1316	1328	1.009	1.536		
2.019	286	285	0.996	0.329		
2.076	2352	1514	0.644	1.751		
2.201	608	637	1.047	0.736		
2.225	866	816	0.942	0.943		
2.269	2958	3429	1.159	3.966		
2.286	4197	4259	1.015	4.927	4 PCB-1242 (Aroclor 1242)	
2.306	2716	2634	0.970	3.047		
2.375	2094	1934	0.924	2.237	4 PCB-1242 (Aroclor 1242)	
2.439	1649	1689	1.024	1.953		
2.471	1938	1966	1.014	2.274		
2.499	738	674	0.913	0.779		
2.561	1934	1991	1.029	2.303	4 PCB-1242 (Aroclor 1242)	
2.590	1072	957	0.893	1.107		
2.617	676	703	1.039	0.813		
2.639	535	545	1.018	0.630		
2.667	2420	1515	0.626	1.752		
2.835	3753	2447	0.652	2.830		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.864	2278	2280	1.001	2.637		
2.954	1870	1662	0.889	1.922		
2.987	1403	1114	0.794	1.288		
3.086	320	304	0.950	0.351		
3.139	452	449	0.993	0.519		
3.173	373	346	0.927	0.400		
3.199	741	733	0.989	0.847		
3.268	233	244	1.048	0.282		
3.393	608	583	0.959	0.674		
3.563	511	511	0.999	0.591		
3.661	81	133	1.636	0.153		
3.914	859	703	0.819	0.813		
4.439	78	101	1.287	0.116		
4.490	42	81	1.914	0.093		
4.809	109	117	1.072	0.135		
4.960	15347	14225	0.927	16.456	$ 11 Decachlorobiphenyl (S)	
5.116	8	26	3.202	0.030		
5.250	60	70	1.165	0.080		
5.298	88	143	1.617	0.165		
5.438	19	51	2.727	0.058		
5.554	13	49	3.687	0.056		
5.564	20	57	2.830	0.065		
5.600	20	78	3.881	0.090		
5.684	26	91	3.515	0.105		
5.823	36	152	4.274	0.175		
5.846	151	242	1.607	0.279		
5.892	64	208	3.267	0.240		
5.940	42	121	2.866	0.139		
6.008	24	105	4.303	0.121		
6.058	38	88	2.313	0.101		
6.067	28	85	3.040	0.098		
6.103	30	67	2.260	0.077		
6.209	14	63	4.605	0.072		
6.215	18	57	3.120	0.065		
6.228	22	62	2.821	0.071		
6.245	29	63	2.207	0.072		
6.257	15	57	3.810	0.065		
6.395	5	26	5.000	0.030		
6.421	7	29	3.973	0.033		
6.427	7	29	4.252	0.033		
6.454	6	28	4.930	0.032		
6.487	5	18	3.333	0.020		
	90787	86441		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
1.761	1.761	0.000	1890	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	2186	0.25000	0.250	92.53- 138.79	115.68	
2.286	2.286	0.000	4196	0.25000	0.250	177.61- 266.41	221.99	
2.374	2.374	0.000	2094	0.25000	0.250	88.63- 132.95	110.77	
2.560	2.560	0.000	1934	0.25000	0.250	81.86- 122.79	102.32	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	22523	0.05000	0.0499			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15346	0.05000	0.0488			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

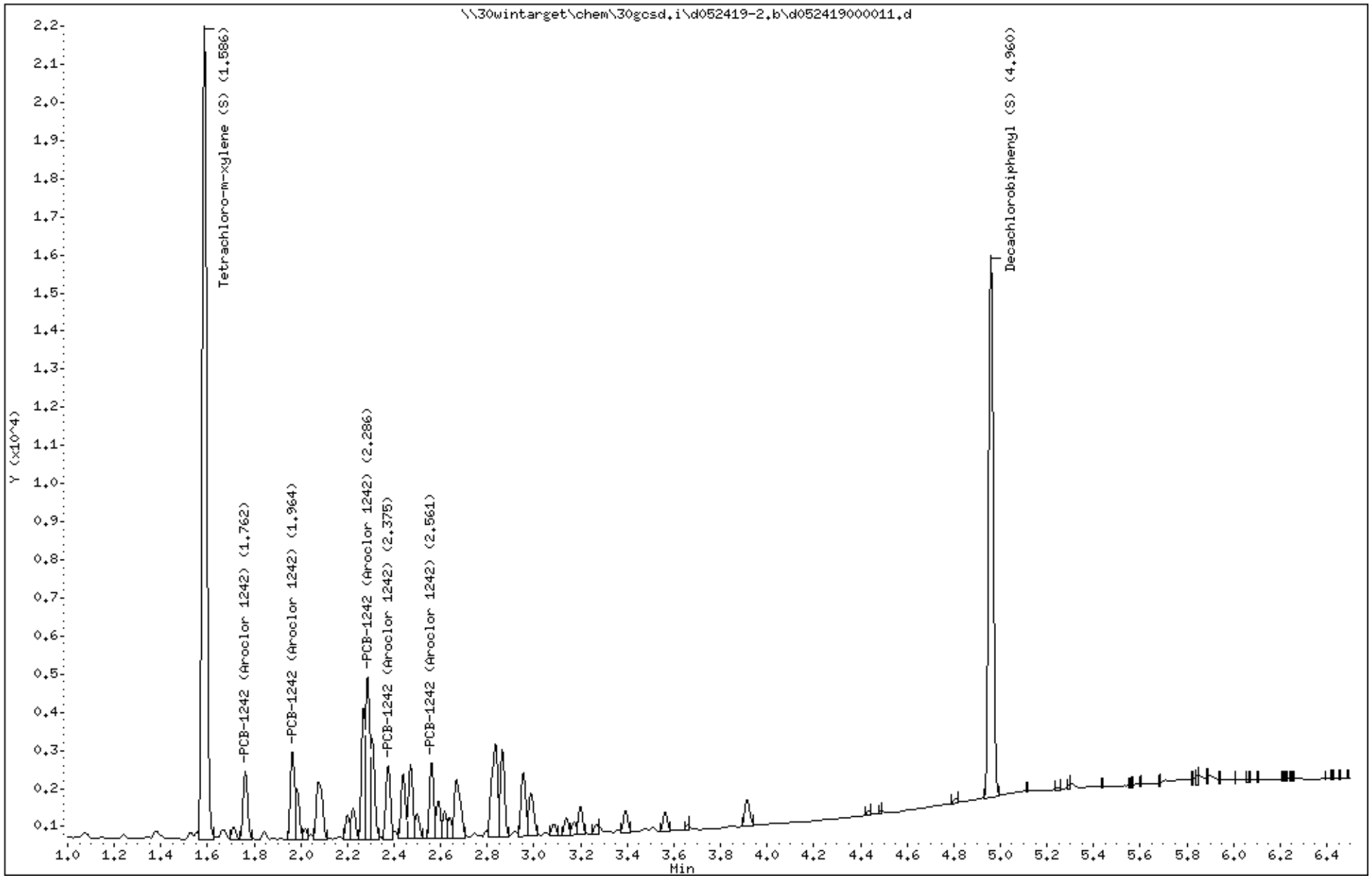
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

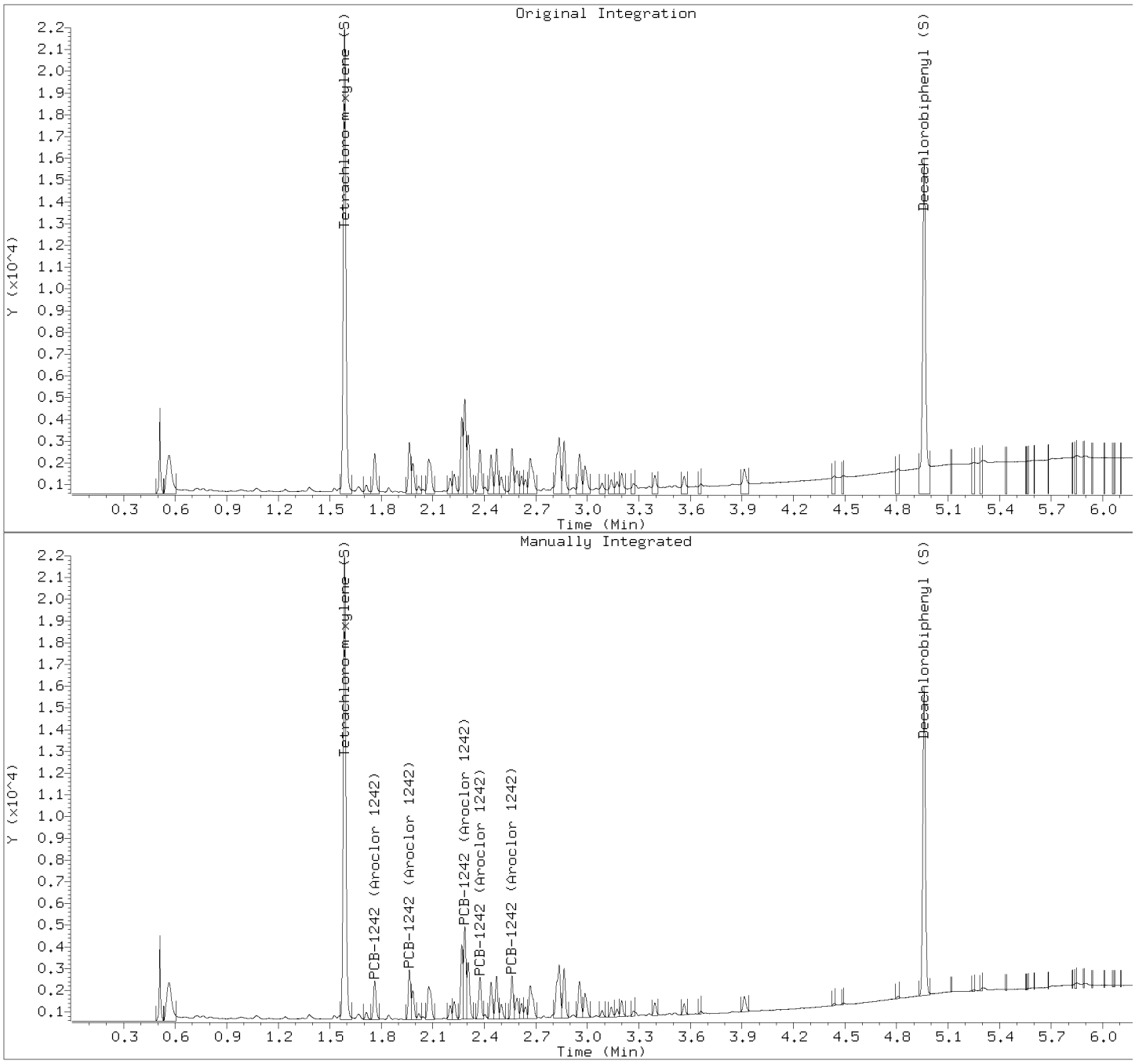
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
53469-21-9	PCB-1242 (Aroclor 1242)		J
	Peak found at 1.762	0.250	J
	Peak found at 1.964	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0499	J
2051-24-3	Decachlorobiphenyl (S)	0.0488	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	0	1890
PCB-1242 (Aroclor 1242)	0	2186
PCB-1242 (Aroclor 1242)	0	4196
PCB-1242 (Aroclor 1242)	0	2094
PCB-1242 (Aroclor 1242)	0	1934
Tetrachloro-m-xylene (S)	22784	22523
Decachlorobiphenyl (S)	19977	15346

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.547	410	285	0.696	0.272		
0.591	1961	869	0.443	0.831		
1.209	25304	21596	0.853	20.687	$ 10 Tetrachloro-m-xylene (S)	
1.375	330	314	0.953	0.300		
1.630	2043	1645	0.805	1.574		
1.745	604	688	1.140	0.658		
1.759	623	648	1.041	0.620		
1.877	5873	4432	0.755	4.241	5 PCB-1248 (Aroclor 1248)	
1.932	1842	1857	1.008	1.777		
2.008	1026	1159	1.130	1.109		
2.035	3872	3728	0.963	3.567	5 PCB-1248 (Aroclor 1248)	
2.062	2562	2771	1.082	2.651		
2.077	2603	2553	0.981	2.443		
2.188	3978	4280	1.076	4.096	5 PCB-1248 (Aroclor 1248)	
2.212	1465	1554	1.061	1.487		
2.238	1603	1404	0.876	1.343		
2.278	3494	3512	1.005	3.361	5 PCB-1248 (Aroclor 1248)	
2.345	1118	1064	0.951	1.018		
2.375	2668	2892	1.084	2.767		
2.401	4715	5070	1.075	4.852		
2.429	5685	5656	0.995	5.412	5 PCB-1248 (Aroclor 1248)	
2.473	720	754	1.047	0.721		
2.510	1507	1530	1.015	1.464		
2.546	715	1228	1.718	1.175		
2.560	2540	2575	1.014	2.464		
2.580	3063	2362	0.771	2.260		
2.676	899	932	1.037	0.891		
2.728	1487	1548	1.041	1.481		
2.763	940	1040	1.106	0.995		
2.791	2374	2440	1.028	2.335		
2.839	390	304	0.780	0.290		
2.898	1054	914	0.867	0.874		
2.924	1708	1784	1.044	1.707		
2.995	254	262	1.030	0.250		
3.147	1608	1676	1.042	1.603		
3.227	586	503	0.858	0.481		
3.369	1557	1267	0.814	1.212		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.584	218	231	1.061	0.221		
3.826	120	195	1.623	0.186		
4.152	48	83	1.731	0.079		
4.501	14933	14702	0.985	14.069	$ 11 Decachlorobiphenyl (S)	
4.814	46	73	1.584	0.069		
4.863	84	112	1.340	0.107		
	110629	104492		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
1.877	1.877	0.000	5872	0.25000	0.250	80.00- 120.00	100.00	
2.035	2.035	0.000	3872	0.25000	0.250	52.75- 79.13	65.94	
2.188	2.188	0.000	3978	0.25000	0.250	54.20- 81.29	67.75	
2.277	2.277	0.000	3494	0.25000	0.250	47.60- 71.40	59.50	
2.428	2.428	0.000	5685	0.25000	0.250	77.45- 116.18	96.81	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25304	0.05000	0.0501			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	14932	0.05000	0.0455			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

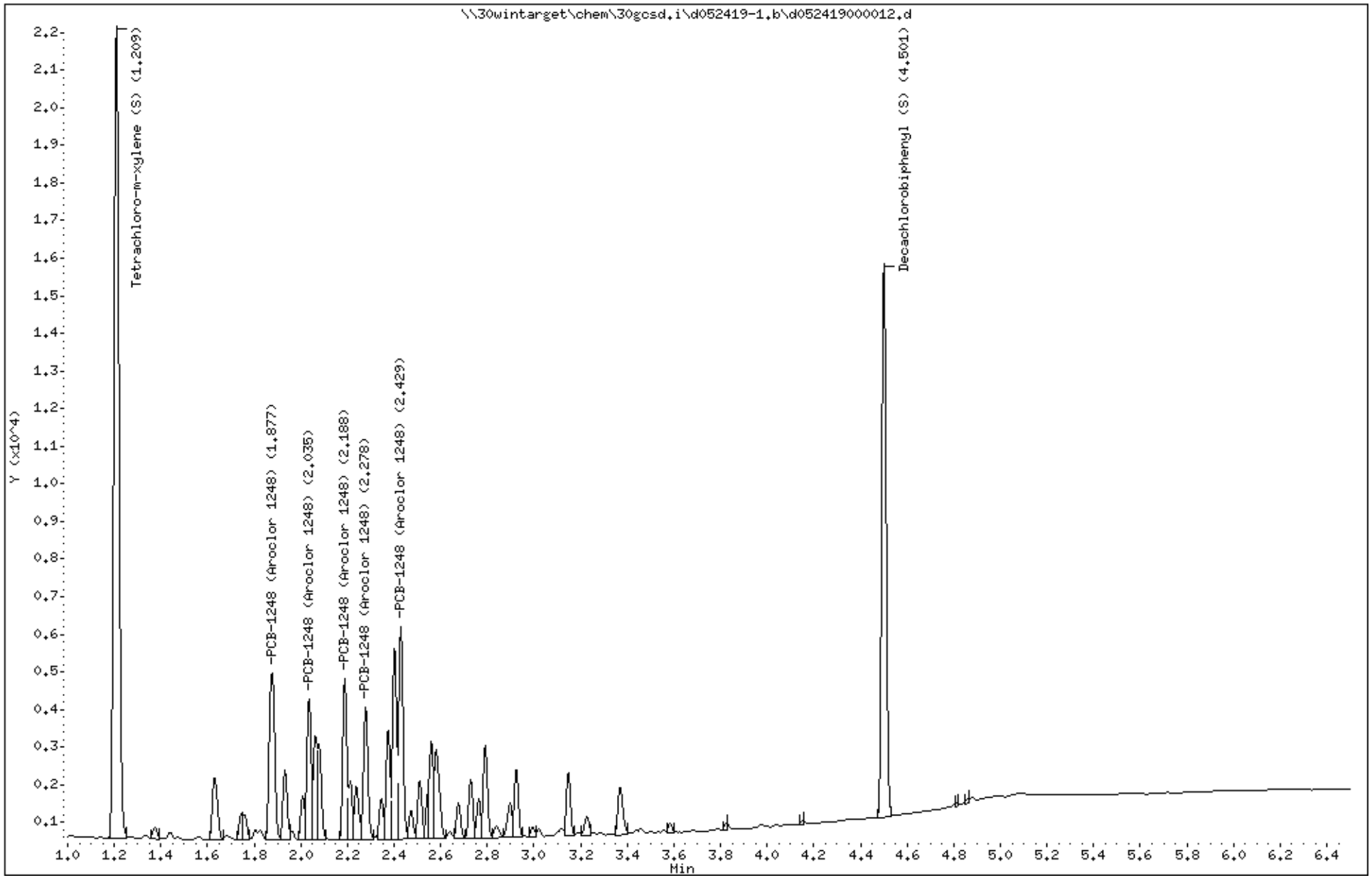
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

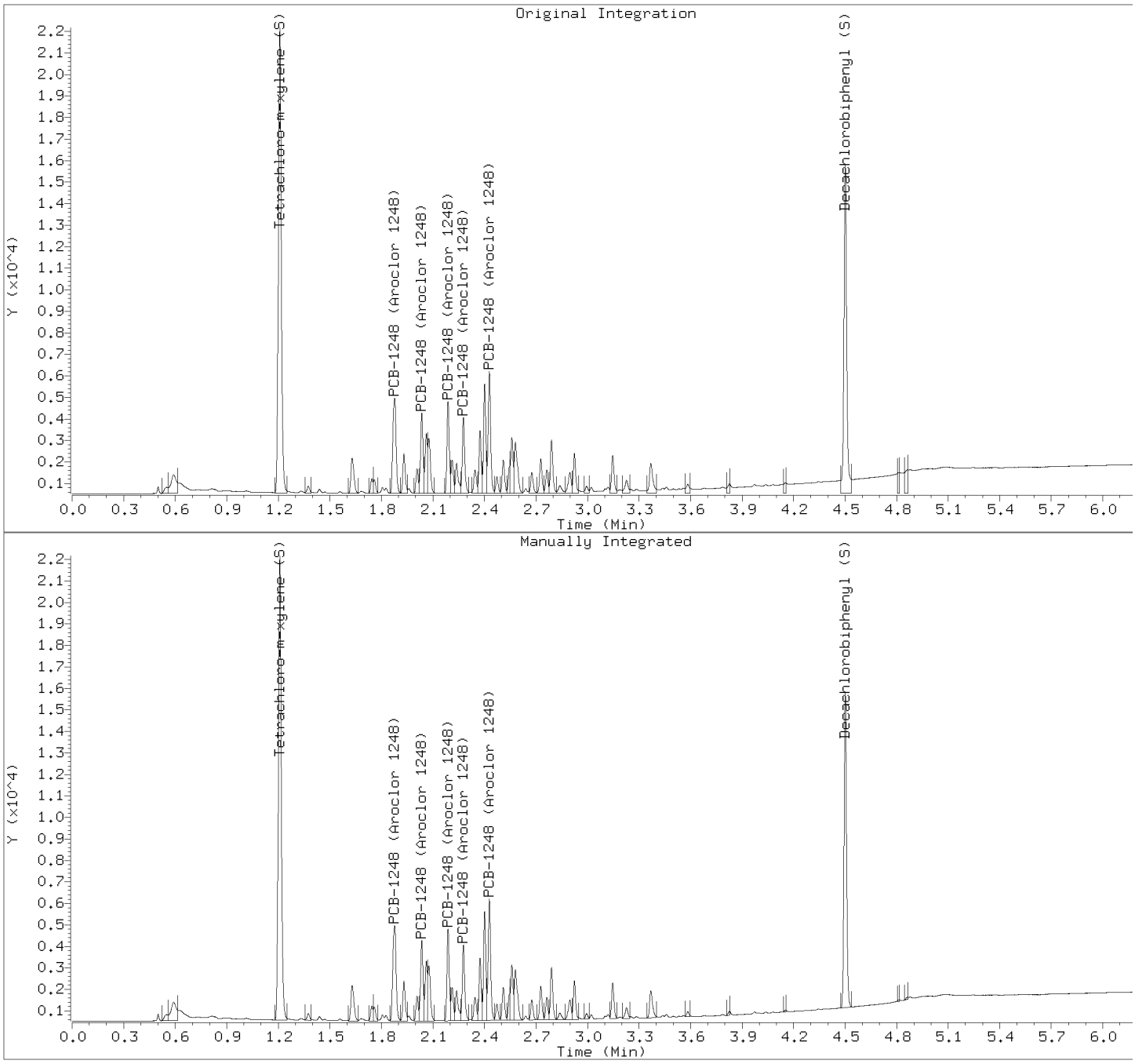
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12672-29-6	PCB-1248 (Aroclor 1248)		
	Peak found at 1.877	0.250	
	Peak found at 2.035	0.250	
	Peak found at 2.188	0.250	
	Peak found at 2.278	0.250	
	Peak found at 2.429	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0501	
2051-24-3	Decachlorobiphenyl (S)	0.0455	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	5857	5872
PCB-1248 (Aroclor 1248)	3850	3872
PCB-1248 (Aroclor 1248)	3962	3978
PCB-1248 (Aroclor 1248)	3506	3494
PCB-1248 (Aroclor 1248)	5722	5685
Tetrachloro-m-xylene (S)	25444	25304
Decachlorobiphenyl (S)	17105	14932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1037	1478	1.426	1.516		
0.566	599	506	0.844	0.519		
0.622	2352	967	0.411	0.991		
0.731	810	520	0.642	0.533		
1.073	437	412	0.943	0.422		
1.554	106	120	1.132	0.123		
1.586	22644	21310	0.941	21.891	$ 10 Tetrachloro-m-xylene (S)	
1.759	422	413	0.980	0.423		
1.964	1242	1288	1.037	1.321		
1.984	503	537	1.068	0.550		
2.086	1028	667	0.649	0.684		
2.200	221	228	1.033	0.233		
2.226	267	258	0.967	0.264		
2.268	2429	2724	1.122	2.794		
2.285	3077	3079	1.001	3.158	5 PCB-1248 (Aroclor 1248)	CO
2.305	1406	1362	0.968	1.397		
2.373	1495	1298	0.868	1.331		
2.404	254	256	1.007	0.262		
2.439	2890	2979	1.031	3.055	5 PCB-1248 (Aroclor 1248)	CO
2.471	2921	2975	1.018	3.051		
2.499	1241	1169	0.942	1.199		
2.560	3272	3401	1.039	3.488	5 PCB-1248 (Aroclor 1248)	CO
2.590	1462	1370	0.937	1.405		
2.616	1135	1167	1.028	1.197		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.638	638	671	1.052	0.688		
2.666	2564	2457	0.958	2.520	5 PCB-1248 (Aroclor 1248)	CO
2.682	377	1053	2.794	1.080		
2.798	144	234	1.624	0.240		
2.823	2237	3262	1.458	3.346		
2.835	5098	4585	0.899	4.703	5 PCB-1248 (Aroclor 1248)	CO
2.864	4276	4244	0.993	4.353		
2.922	278	263	0.945	0.269		
2.954	3760	3287	0.874	3.371		
2.987	2726	1999	0.733	2.050		
3.051	125	169	1.354	0.173		
3.085	771	744	0.965	0.763		
3.138	1142	1107	0.969	1.135		
3.172	934	878	0.940	0.900		
3.199	1971	1962	0.996	2.012		
3.268	821	598	0.729	0.613		
3.308	172	178	1.036	0.182		
3.357	119	197	1.662	0.202		
3.392	1463	1426	0.975	1.462		
3.478	227	214	0.943	0.219		
3.505	115	156	1.362	0.160		
3.563	1359	1348	0.992	1.382		
3.661	355	328	0.925	0.336		
3.845	84	115	1.363	0.117		
3.913	1239	992	0.800	1.017		
4.060	123	181	1.468	0.185		
4.247	90	130	1.441	0.133		
4.494	52	69	1.334	0.070		
4.617	50	86	1.709	0.088		
4.803	6	24	4.068	0.024		
4.959	14059	13126	0.934	13.464	$ 11 Decachlorobiphenyl (S)	
5.246	14	56	3.886	0.057		
5.298	55	102	1.841	0.104		
5.366	8	37	4.695	0.037		
5.489	13	44	3.364	0.045		
5.677	9	37	4.322	0.037		
5.711	15	64	4.148	0.065		
5.728	14	49	3.518	0.050		
5.767	9	43	4.694	0.044		
5.810	12	34	2.916	0.034		
5.833	12	45	3.886	0.046		
5.839	15	51	3.488	0.052		
5.891	24	69	2.844	0.070		
5.899	41	83	2.025	0.085		
6.162	9	42	4.924	0.043		
6.184	11	46	4.144	0.047		
6.233	20	50	2.498	0.051		
6.361	5	27	5.895	0.027		
6.404	5	21	4.303	0.021		
6.427	7	21	3.211	0.021		
	100918	97488		100.000		

Total unknown % height = 47.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
2.285	2.285	0.000	3077	0.25000	0.250	80.00- 120.00	100.00(aM)	CO
2.438	2.438	0.000	2889	0.25000	0.250	75.11- 112.67	93.92	CO
2.560	2.560	0.000	3271	0.25000	0.250	85.04- 127.57	106.33	CO
2.666	2.666	0.000	2563	0.25000	0.250	66.64- 99.95	83.31	CO
2.834	2.834	0.000	5098	0.25000	0.250	132.54- 198.82	165.68	CO
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22643	0.05000	0.0502			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.958	4.960	-0.002	14059	0.05000	0.0454		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
:

Pace Analytical Services, Inc.

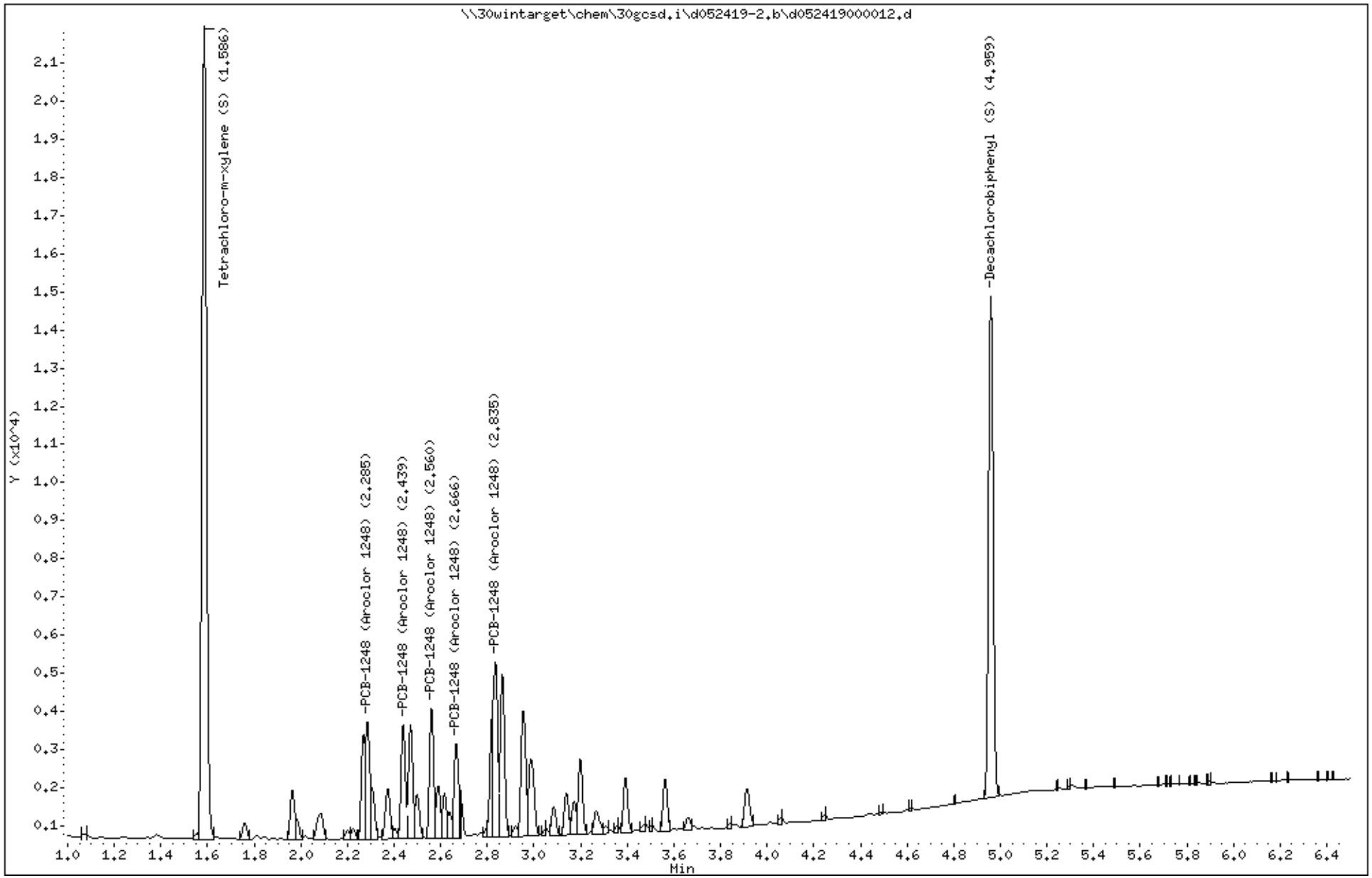
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

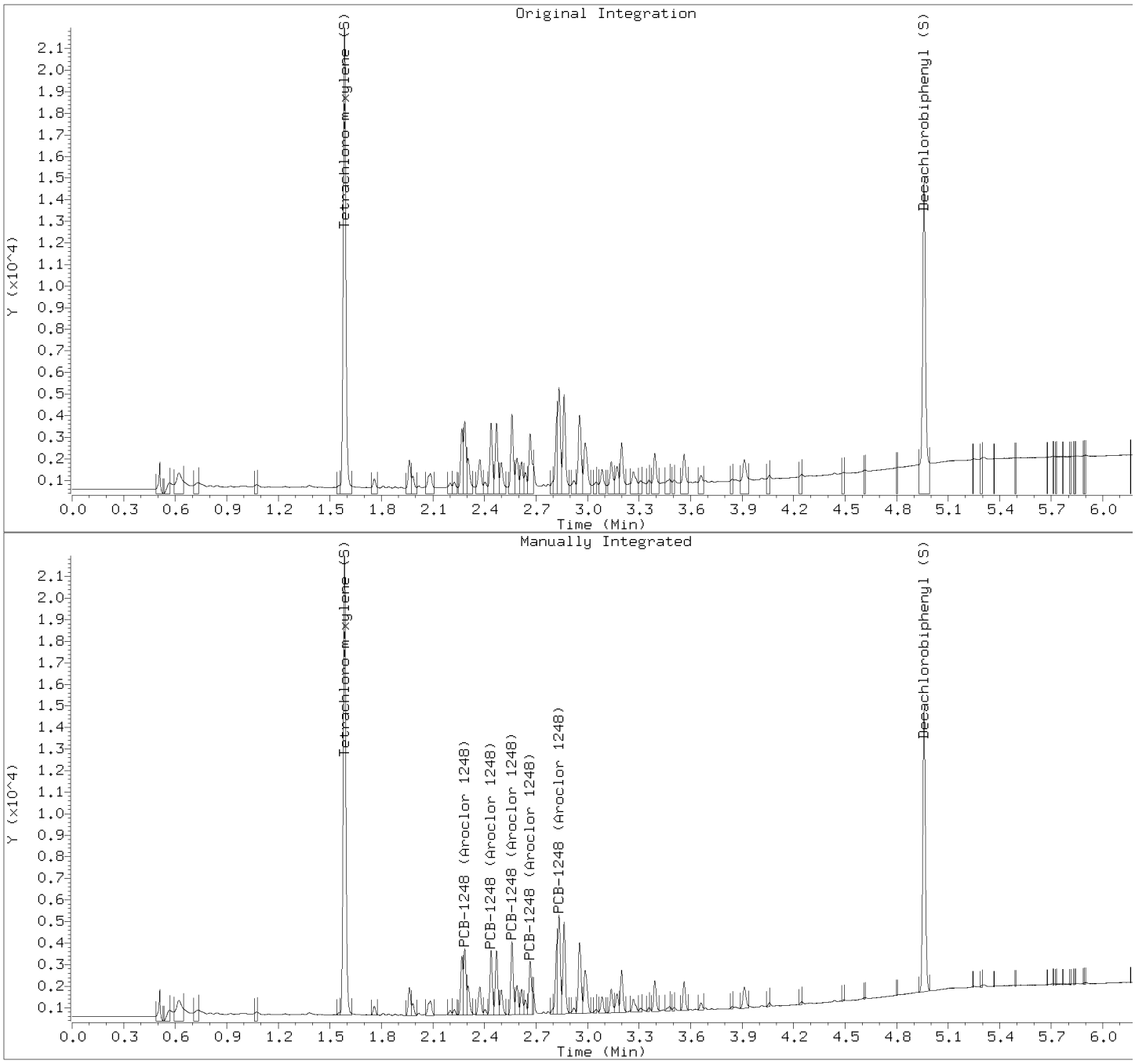
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12672-29-6	PCB-1248 (Aroclor 1248)		J
	Peak found at 2.285	0.250	J
	Peak found at 2.439	0.250	J
	Peak found at 2.560	0.250	J
	Peak found at 2.666	0.250	J
	Peak found at 2.835	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0502	
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86156:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	0	3077
PCB-1248 (Aroclor 1248)	0	2889
PCB-1248 (Aroclor 1248)	0	3271
PCB-1248 (Aroclor 1248)	0	2563
PCB-1248 (Aroclor 1248)	0	5098
Tetrachloro-m-xylene (S)	23722	22643
Decachlorobiphenyl (S)	18977	14059

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	489	461	0.942	0.405		
0.714	8162	4394	0.538	3.868		
1.021	285	217	0.761	0.191		
1.210	23752	20379	0.858	17.965	$ 10 Tetrachloro-m-xylene (S)	
1.314	813	677	0.833	0.596		
2.036	2429	2585	1.064	2.276		
2.062	911	778	0.854	0.685		
2.188	1434	1519	1.059	1.337		
2.278	529	568	1.073	0.500		
2.375	619	683	1.103	0.601		
2.402	2084	2328	1.117	2.049		
2.426	4533	4510	0.995	3.970	6 PCB-1254 (Aroclor 1254)	
2.473	1615	1715	1.062	1.510		
2.510	4937	5186	1.050	4.566	6 PCB-1254 (Aroclor 1254)	
2.545	2421	2257	0.932	1.987		
2.594	1826	1716	0.940	1.510		
2.639	369	388	1.051	0.341		
2.677	1826	1912	1.047	1.683		
2.729	3904	4052	1.038	3.567		
2.763	1190	1309	1.100	1.152		
2.792	7865	7801	0.992	6.868	6 PCB-1254 (Aroclor 1254)	
2.830	744	756	1.016	0.665		
2.852	340	303	0.890	0.266		
2.887	3770	2864	0.760	2.521		
2.924	5069	5258	1.037	4.629	6 PCB-1254 (Aroclor 1254)	
2.955	607	634	1.045	0.558		
2.995	3354	3095	0.923	2.725		
3.103	929	1210	1.302	1.065		
3.120	2124	2106	0.992	1.854		
3.148	3435	3276	0.954	2.884		
3.191	849	793	0.934	0.698		
3.227	6804	5419	0.796	4.771	6 PCB-1254 (Aroclor 1254)	
3.284	650	623	0.958	0.548		
3.369	1759	1478	0.840	1.301		
3.438	274	336	1.228	0.295		
3.460	1686	1660	0.985	1.461		
3.500	194	198	1.023	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.533	211	234	1.108	0.206		
3.558	958	1019	1.063	0.897		
3.584	945	758	0.802	0.667		
3.826	740	716	0.968	0.630		
3.973	268	265	0.987	0.233		
4.037	37	65	1.772	0.057		
4.500	15002	14730	0.982	12.969	$ 11 Decachlorobiphenyl (S)	
4.813	62	94	1.527	0.082		
4.862	99	144	1.450	0.126		
5.242	77	86	1.113	0.075		
5.666	5	19	3.740	0.016		
	122986	113574		100.000		

Total unknown % height = 44.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.425	2.425	0.000	4533	0.25000	0.250	80.00- 120.00	100.00	
2.509	2.509	0.000	4937	0.25000	0.250	87.13- 130.69	108.91	
2.791	2.791	0.000	7864	0.25000	0.250	138.79- 208.18	173.49	
2.924	2.924	0.000	5068	0.25000	0.250	89.44- 134.16	111.82	
3.226	3.226	0.000	6804	0.25000	0.250	120.08- 180.12	150.10	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	23751	0.05000	0.0475			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15001	0.05000	0.0457			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

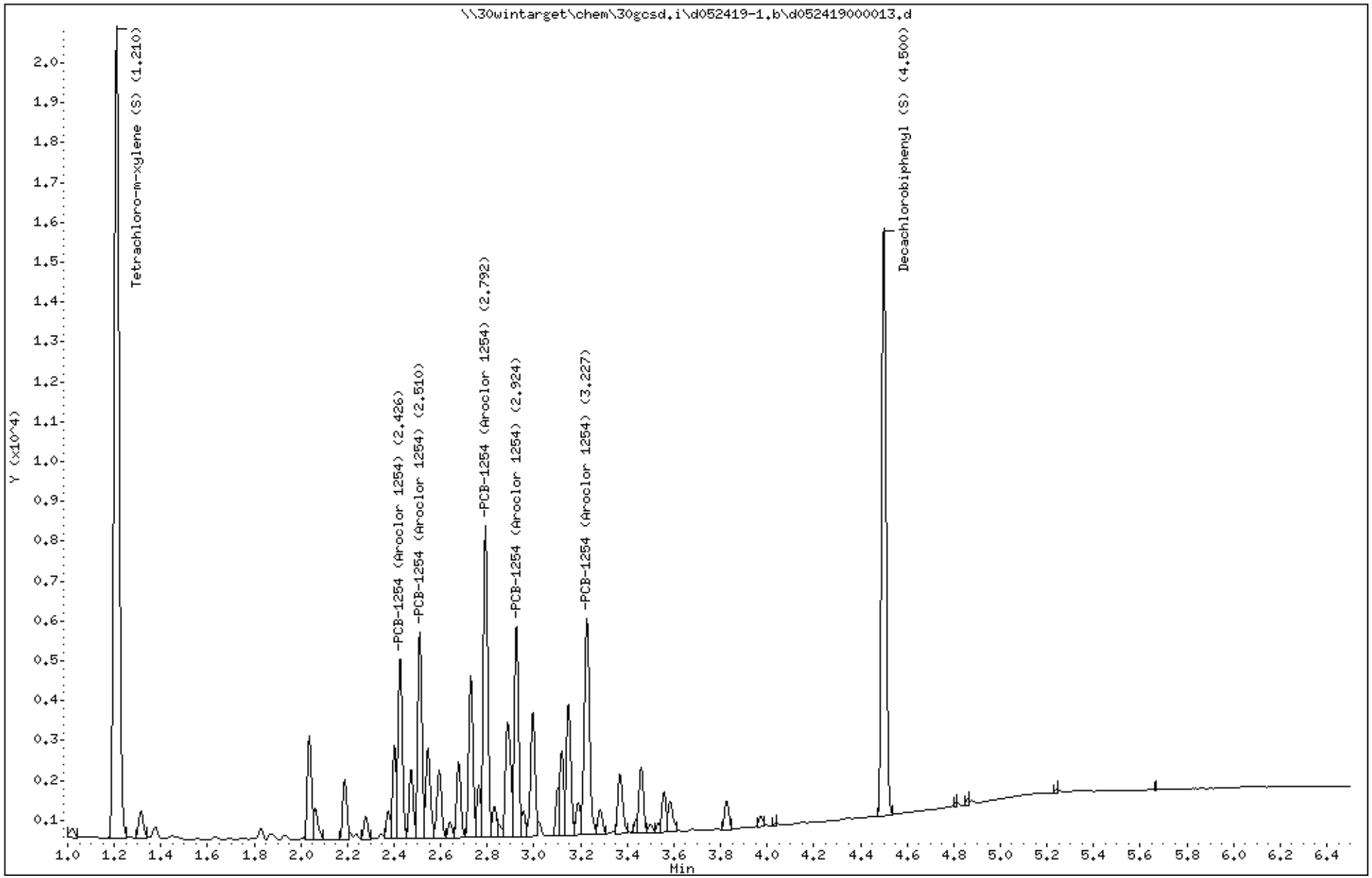
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

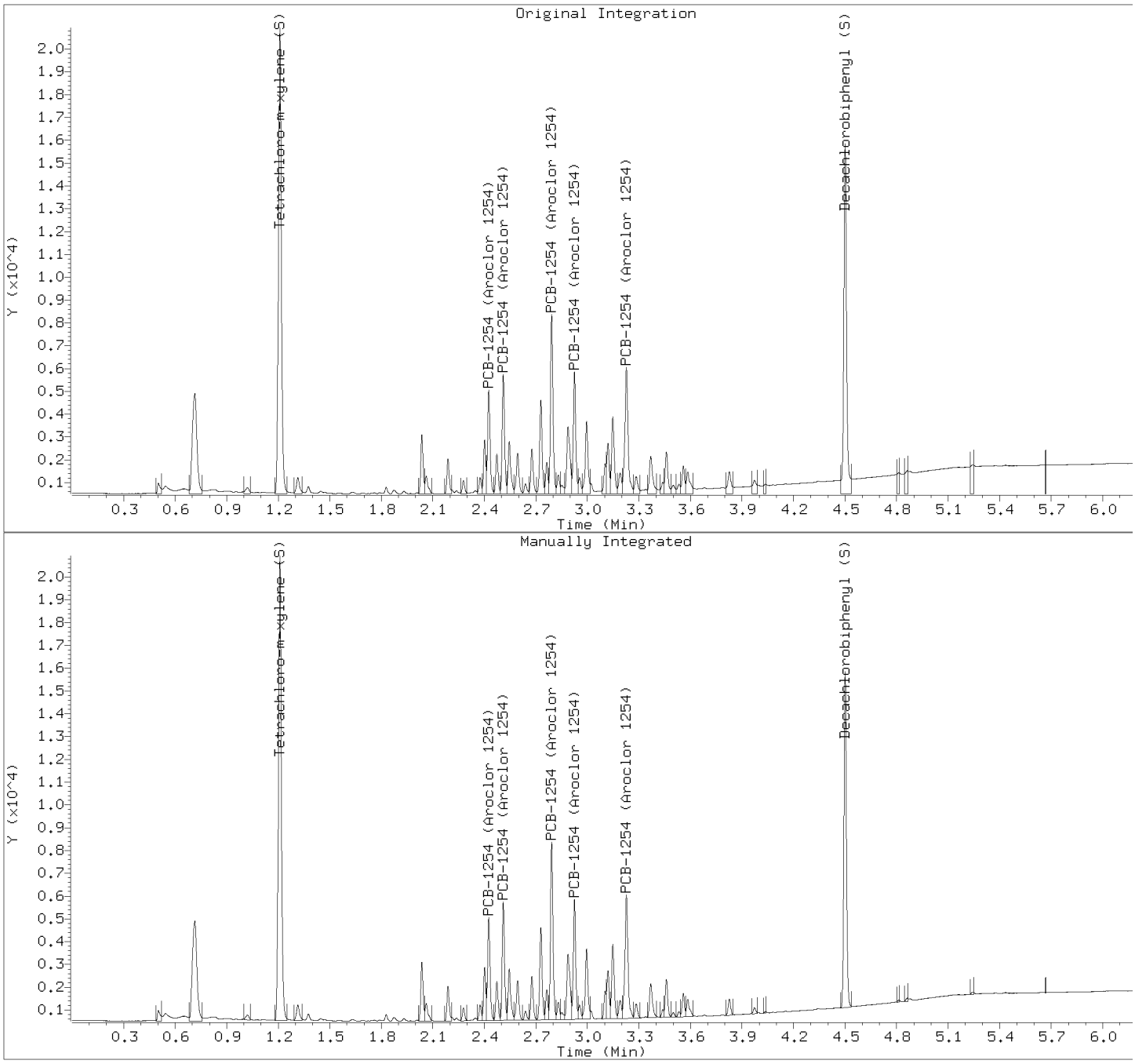
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11097-69-1	PCB-1254 (Aroclor 1254)		
	Peak found at 2.426	0.250	
	Peak found at 2.510	0.250	
	Peak found at 2.792	0.250	
	Peak found at 2.924	0.250	
	Peak found at 3.227	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0475	
2051-24-3	Decachlorobiphenyl (S)	0.0457	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	4578	4533
PCB-1254 (Aroclor 1254)	5002	4937
PCB-1254 (Aroclor 1254)	8012	7864
PCB-1254 (Aroclor 1254)	5215	5068
PCB-1254 (Aroclor 1254)	7278	6804
Tetrachloro-m-xylene (S)	23868	23751
Decachlorobiphenyl (S)	17224	15001

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	1164	1715	1.474	1.697		
0.565	444	358	0.806	0.354		
0.827	7649	4268	0.558	4.225		
1.249	181	204	1.130	0.201		
1.586	22006	20206	0.918	20.034	$ 10 Tetrachloro-m-xylene (S)	
1.759	291	293	1.006	0.290		
2.227	300	303	1.011	0.299		
2.439	2119	2167	1.023	2.145		
2.471	646	636	0.984	0.629		
2.561	1221	1245	1.020	1.232		
2.666	475	470	0.990	0.465		
2.817	3678	3626	0.986	3.589	6 PCB-1254 (Aroclor 1254)	
2.835	1933	2141	1.107	2.119		
2.865	1134	1119	0.986	1.107		
2.922	850	875	1.029	0.866		
2.959	5741	5239	0.913	5.186	6 PCB-1254 (Aroclor 1254)	
2.996	1983	1873	0.945	1.854		
3.051	384	329	0.856	0.325		
3.085	1567	1535	0.980	1.519		
3.139	3176	3105	0.978	3.073		
3.172	1572	1261	0.802	1.248		
3.199	6066	6090	1.004	6.028	6 PCB-1254 (Aroclor 1254)	
3.247	474	551	1.161	0.545		
3.266	1387	1035	0.746	1.024		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.308	2472	2083	0.843	2.062		
3.358	432	406	0.940	0.401		
3.392	4660	4537	0.974	4.491	6 PCB-1254 (Aroclor 1254)	
3.436	559	506	0.906	0.500		
3.479	2580	2455	0.952	2.430		
3.503	1726	1658	0.961	1.641		
3.562	3359	3014	0.897	2.983		
3.599	444	436	0.981	0.431		
3.628	664	535	0.805	0.529		
3.661	4753	4405	0.927	4.360	6 PCB-1254 (Aroclor 1254)	
3.686	1200	1214	1.012	1.201		
3.721	108	167	1.540	0.165		
3.758	86	144	1.673	0.142		
3.844	1446	1362	0.942	1.348		
3.914	1326	1009	0.761	0.998		
3.951	92	144	1.564	0.142		
4.015	861	845	0.981	0.836		
4.042	128	177	1.385	0.175		
4.060	624	581	0.931	0.575		
4.246	497	491	0.988	0.486		
4.437	173	179	1.036	0.177		
4.808	44	58	1.332	0.057		
4.929	5	17	3.184	0.016		
4.959	14086	13364	0.949	13.229	$ 11 Decachlorobiphenyl (S)	
5.069	7	21	3.070	0.020		
5.084	5	19	3.682	0.018		
5.237	4	21	4.839	0.020		
5.299	89	128	1.433	0.126		
5.626	7	32	4.469	0.031		
5.697	29	71	2.442	0.070		
5.701	34	85	2.468	0.084		
5.846	23	70	3.101	0.069		
5.893	65	110	1.682	0.108		
6.033	8	26	3.148	0.025		
	109038	101014		100.000		

Total unknown % height = 43.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.816	2.816	0.000	3678	0.25000	0.250	80.00- 120.00	100.00	(a)
2.958	2.958	0.000	5740	0.25000	0.250	124.85- 187.28	156.08	
3.198	3.198	0.000	6065	0.25000	0.250	131.92- 197.88	164.91	
3.392	3.392	0.000	4659	0.25000	0.250	101.34- 152.01	126.69	
3.660	3.660	0.000	4752	0.25000	0.250	103.36- 155.04	129.22	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22005	0.05000	0.0490			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14085	0.05000	0.0454			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

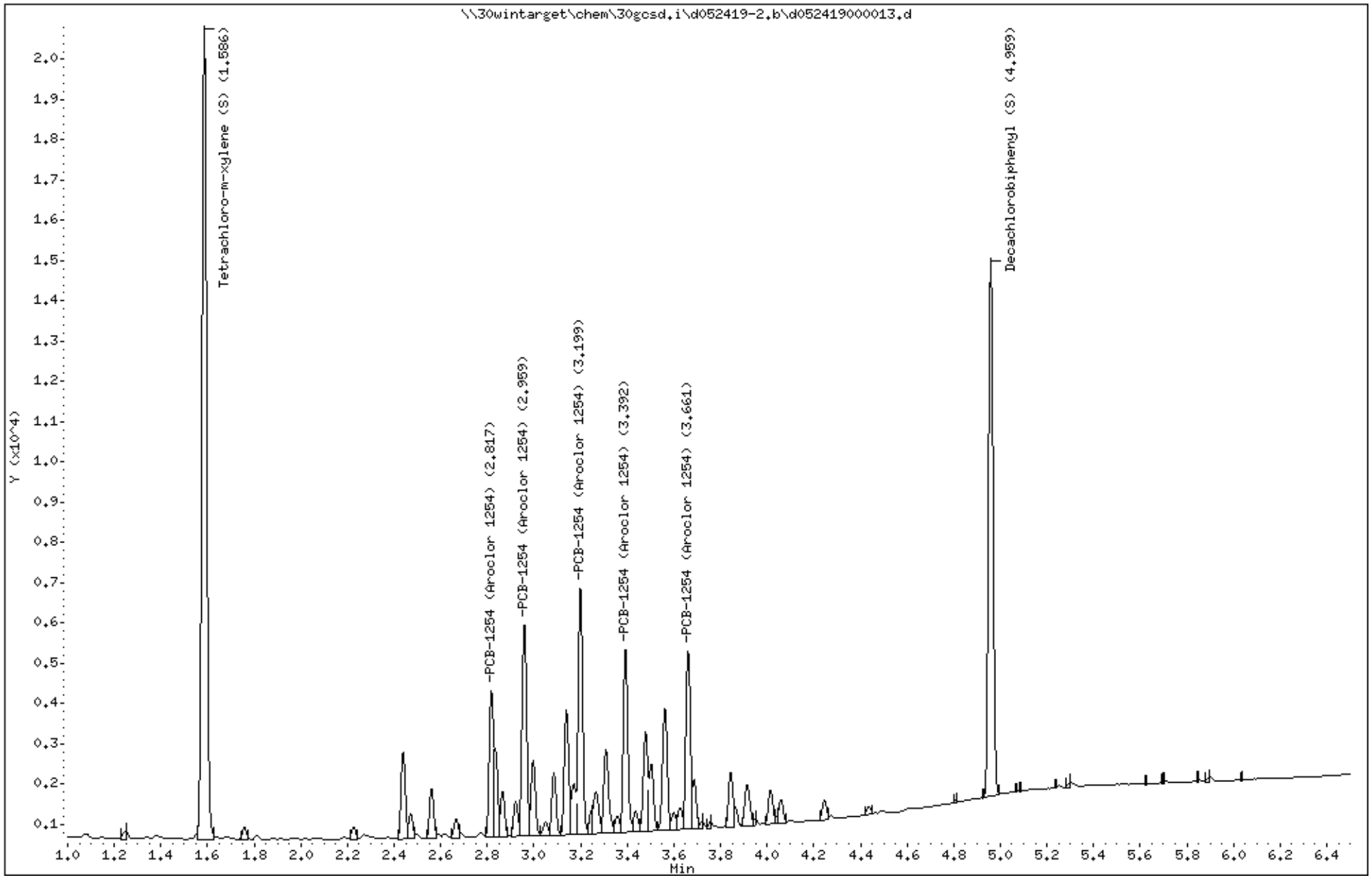
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

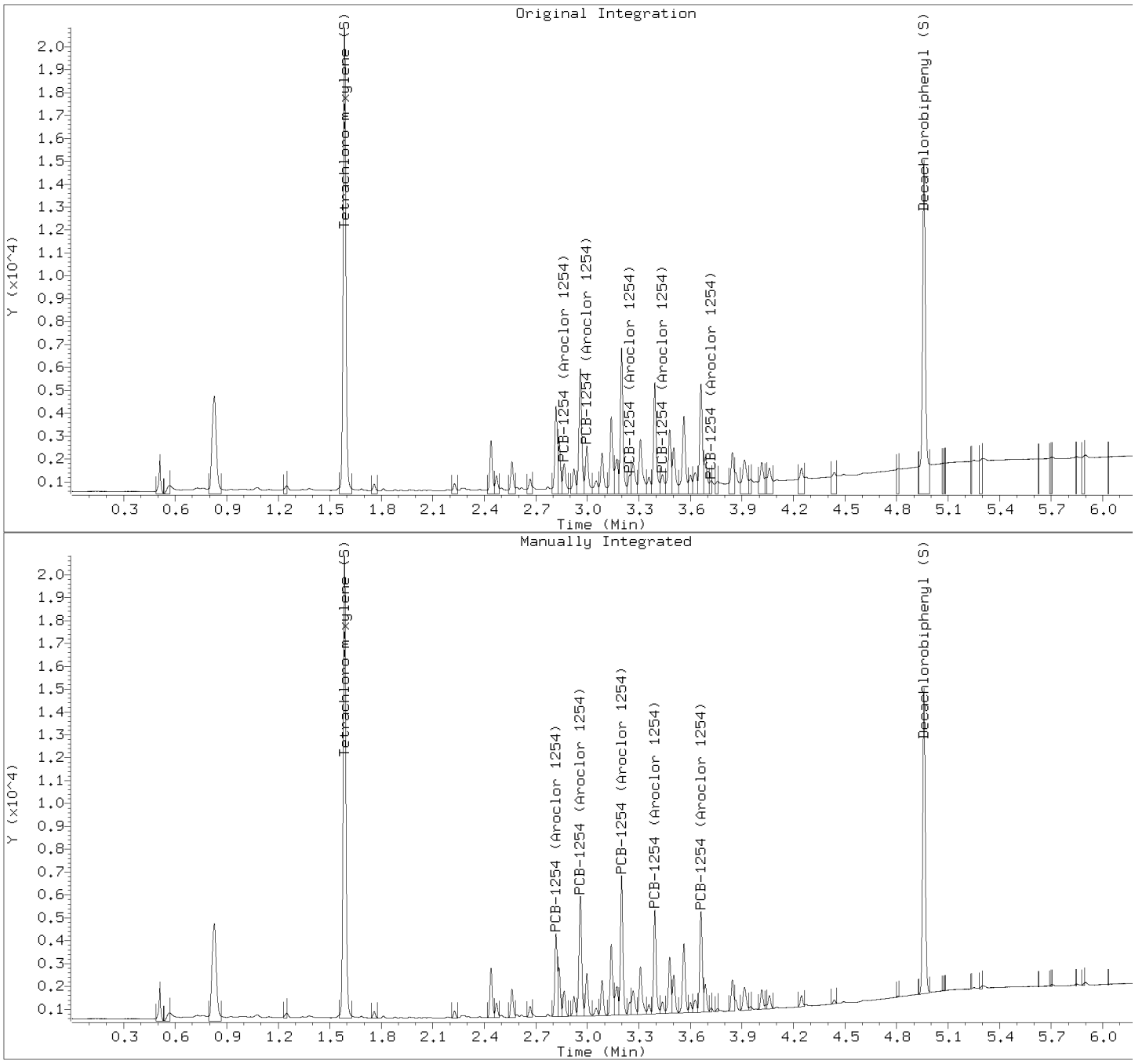
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.250	J
	Peak found at 2.959	0.250	J
	Peak found at 3.199	0.250	J
	Peak found at 3.392	0.250	J
	Peak found at 3.661	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0490	J
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	1571	3678
PCB-1254 (Aroclor 1254)	2610	5740
PCB-1254 (Aroclor 1254)	856	6065
PCB-1254 (Aroclor 1254)	1174	4659
PCB-1254 (Aroclor 1254)	461	4752
Tetrachloro-m-xylene (S)	22568	22005
Decachlorobiphenyl (S)	18623	14085

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	163989	77594	0.473	10.304		
0.837	1101	563	0.511	0.074		
1.212	99045	89696	0.906	11.946	$ 10 Tetrachloro-m-xylene (S)	
1.269	1347	988	0.734	0.131		
1.346	1767	1653	0.935	0.219		
1.377	1210	1227	1.014	0.162		
1.401	1865	1808	0.969	0.240		
1.442	9228	8406	0.911	1.116		
1.561	1227	1227	1.000	0.162		
1.632	18891	14503	0.768	1.926	1 PCB-1016 (Aroclor 1016)	
1.684	1037	1607	1.550	0.213		
1.694	2195	1812	0.826	0.240		
1.746	4850	5957	1.228	0.791		
1.761	7815	7709	0.986	1.023		
1.807	3320	3706	1.116	0.492		
1.823	2515	2601	1.034	0.345		
1.879	39182	30016	0.766	3.986	1 PCB-1016 (Aroclor 1016)	
1.933	15863	14197	0.895	1.885	1 PCB-1016 (Aroclor 1016)	
2.009	9085	10037	1.105	1.332		
2.036	11482	10735	0.935	1.425		
2.063	7459	8446	1.132	1.121		
2.078	8737	8070	0.924	1.071		
2.189	11848	12683	1.071	1.684	1 PCB-1016 (Aroclor 1016)	
2.213	4656	4939	1.061	0.655		
2.239	3692	3980	1.078	0.528		
2.255	1844	2434	1.320	0.323		
2.279	10413	10338	0.993	1.372	1 PCB-1016 (Aroclor 1016)	
2.346	2819	2803	0.994	0.372		
2.376	1617	1713	1.060	0.227		
2.402	2060	2315	1.124	0.307		
2.426	7917	7713	0.974	1.024		
2.473	1070	1132	1.058	0.150		
2.510	6862	7215	1.051	0.958		
2.594	567	441	0.778	0.058		
2.729	1046	1106	1.057	0.146		
2.798	17210	15294	0.889	2.031	7 PCB-1260 (Aroclor 1260)	
2.831	6293	6226	0.989	0.826		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	22006	22517	1.023	2.990	7 PCB-1260 (Aroclor 1260)	
2.924	1021	1052	1.030	0.139		
2.955	3598	3783	1.051	0.502		
2.996	27471	27628	1.006	3.669	7 PCB-1260 (Aroclor 1260)	
3.103	11008	12423	1.129	1.649		
3.122	14586	13517	0.927	1.795		
3.191	8268	6270	0.758	0.832		
3.228	29959	22713	0.758	3.016		
3.255	20426	20197	0.989	2.682		
3.289	11424	11438	1.001	1.519		
3.379	4271	3995	0.935	0.530		
3.440	22050	20396	0.925	2.708		
3.501	11106	11068	0.997	1.469		
3.535	8849	8475	0.958	1.125		
3.559	1841	2288	1.243	0.303		
3.586	48049	48506	1.010	6.441	7 PCB-1260 (Aroclor 1260)	
3.621	992	1027	1.036	0.136		
3.680	1684	1672	0.993	0.222		
3.759	642	695	1.082	0.092		
3.787	9403	9634	1.025	1.279		
3.828	34551	32963	0.954	4.377	7 PCB-1260 (Aroclor 1260)	
3.974	1729	1724	0.997	0.228		
4.037	405	437	1.079	0.058		
4.080	4865	4917	1.011	0.653		
4.154	11552	11199	0.969	1.487		
4.344	3935	3938	1.001	0.522		
4.393	54	96	1.788	0.012		
4.502	65460	65368	0.999	8.681	$ 11 Decachlorobiphenyl (S)	
4.815	145	149	1.026	0.019		
	874471	752975		100.000		

Total unknown % height = 49.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	18890	1.00000	0.920	80.00- 120.00	100.00	
1.879	1.878	0.001	39181	1.00000	0.948	162.66- 243.99	207.41	
1.932	1.932	0.000	15863	1.00000	0.952	63.55- 95.32	83.97	
2.189	2.188	0.001	11847	1.00000	0.927	49.13- 73.70	62.72	
2.278	2.277	0.001	10413	1.00000	0.948	42.04- 63.06	55.12	
Average of Peak Amounts =					0.93900			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	17209	1.00000	0.928	80.00- 120.00	100.00	
2.886	2.885	0.001	22006	1.00000	0.928	101.69- 152.53	127.87	
2.995	2.995	0.000	27470	1.00000	0.926	125.91- 188.87	159.62	
3.585	3.584	0.001	48049	1.00000	0.957	212.47- 318.70	279.20	
3.827	3.826	0.001	34551	1.00000	0.953	152.61- 228.91	200.77	
Average of Peak Amounts =					0.93840			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.211	1.210	0.001	99045	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	65459	0.20000	0.195			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

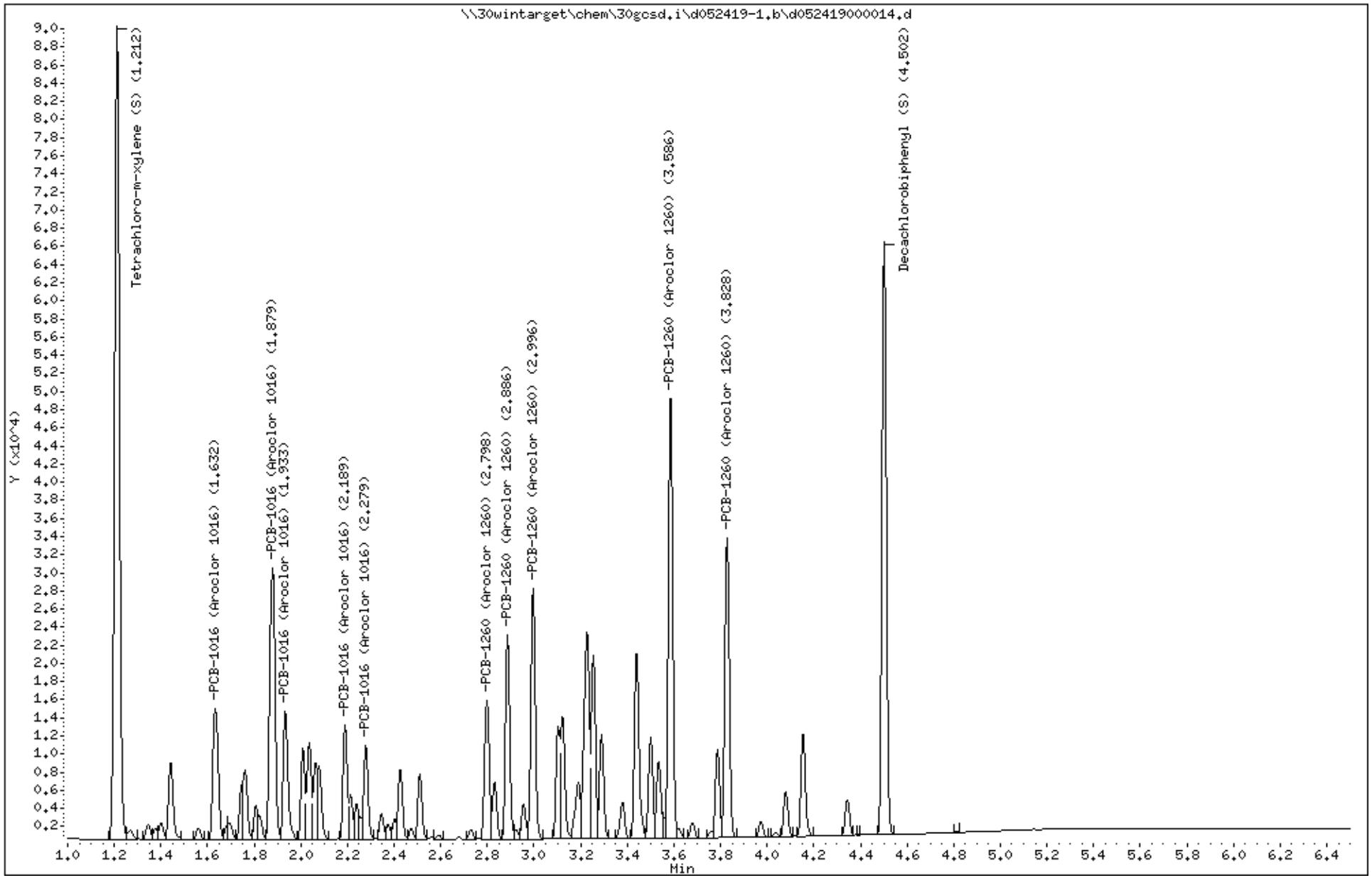
Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

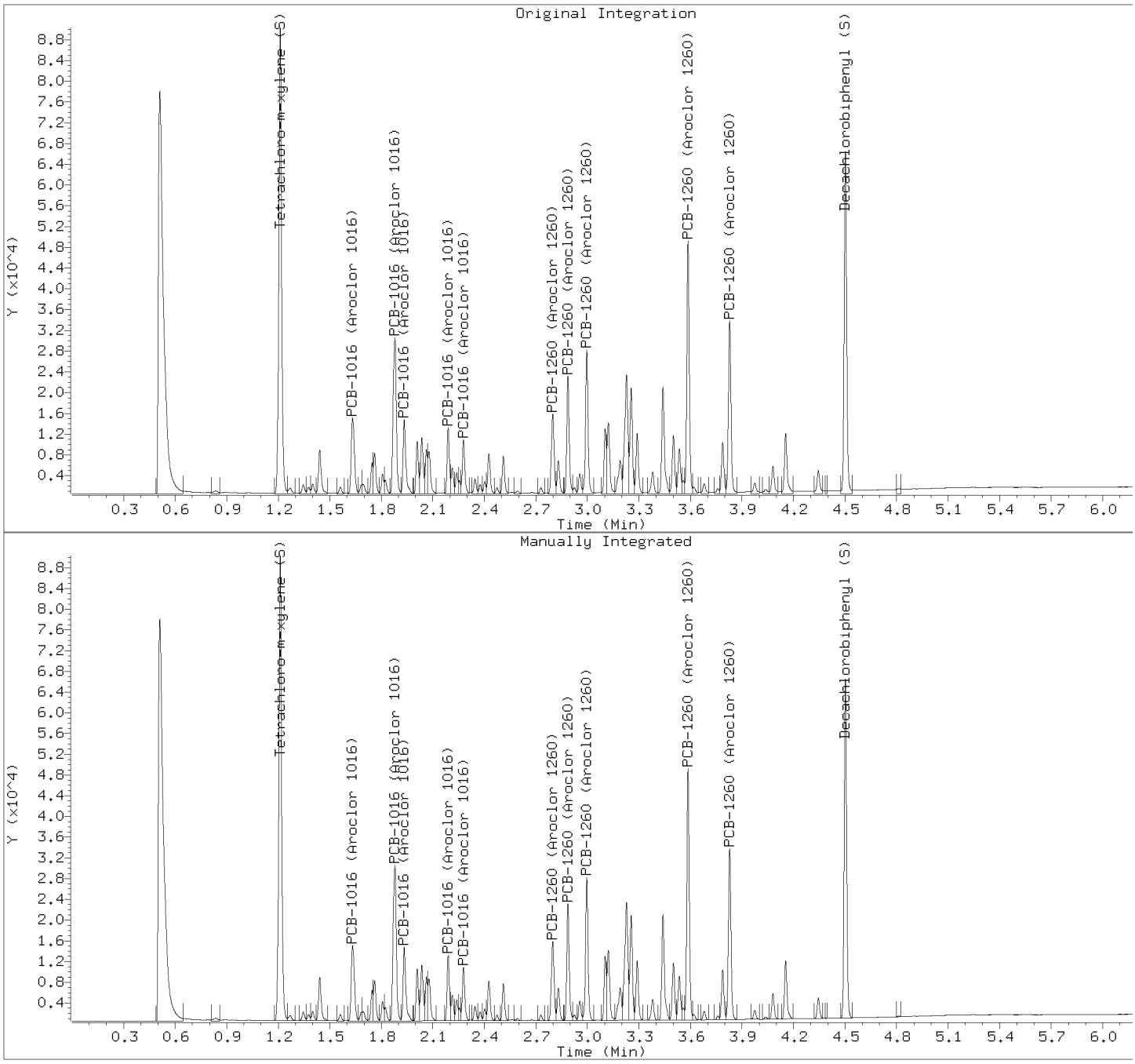
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.920	
	Peak found at 1.879	0.948	
	Peak found at 1.933	0.952	
	Peak found at 2.189	0.927	
	Peak found at 2.279	0.948	
	Average of Peak Amounts =	0.939	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.928	
	Peak found at 2.886	0.928	
	Peak found at 2.996	0.926	
	Peak found at 3.586	0.957	
	Peak found at 3.828	0.953	
	Average of Peak Amounts =	0.938	
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.195	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Sample Info: CAL6A, 87260:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	19009	18890
PCB-1016 (Aroclor 1016)	39317	39181
PCB-1016 (Aroclor 1016)	16020	15863
PCB-1016 (Aroclor 1016)	11911	11847
PCB-1016 (Aroclor 1016)	10527	10413
PCB-1260 (Aroclor 1260)	17378	17209
PCB-1260 (Aroclor 1260)	22259	22006
PCB-1260 (Aroclor 1260)	27877	27470
PCB-1260 (Aroclor 1260)	48628	48049
PCB-1260 (Aroclor 1260)	35616	34551
Tetrachloro-m-xylene (S)	99385	99045
Decachlorobiphenyl (S)	67924	65459

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	149851	90841	0.606	13.260		
0.649	2822	1416	0.502	0.205		
1.084	845	493	0.583	0.071		
1.528	951	877	0.923	0.127		
1.588	88396	86158	0.975	12.534	$ 10 Tetrachloro-m-xylene (S)	
1.668	1009	1195	1.185	0.173		
1.713	1695	1633	0.963	0.237		
1.763	8974	8653	0.964	1.258		
1.844	1111	1097	0.988	0.159		
1.964	10633	11154	1.049	1.622	1 PCB-1016 (Aroclor 1016)	
1.984	6311	6483	1.027	0.943		
2.019	1352	1366	1.011	0.198		
2.042	574	601	1.046	0.087		
2.076	11562	7468	0.646	1.086		
2.165	289	296	1.024	0.043		
2.201	2853	3143	1.102	0.457		
2.222	2279	2183	0.958	0.317		
2.269	14717	16943	1.151	2.464		
2.287	21107	21659	1.026	3.150	1 PCB-1016 (Aroclor 1016)	
2.306	13407	13101	0.977	1.905		
2.375	10544	9846	0.934	1.432	1 PCB-1016 (Aroclor 1016)	
2.404	988	1017	1.029	0.147		
2.439	7970	8304	1.042	1.208		
2.471	9299	9543	1.026	1.388	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	3713	3349	0.902	0.487		
2.561	9353	9634	1.030	1.401	1 PCB-1016 (Aroclor 1016)	
2.590	5197	4643	0.893	0.675		
2.617	3280	3350	1.021	0.487		
2.639	2522	2607	1.034	0.379		
2.667	10392	6925	0.666	1.007		
2.744	294	290	0.986	0.042		
2.818	8781	6460	0.736	0.939		
2.865	1455	1444	0.992	0.210		
2.922	658	673	1.023	0.097		
2.960	6563	6266	0.955	0.911		
3.139	761	891	1.171	0.129		
3.161	3301	3188	0.966	0.463		
3.199	2799	2830	1.011	0.411		
3.247	12512	9901	0.791	1.440		
3.277	2380	2630	1.105	0.382		
3.310	19229	19103	0.993	2.779	7 PCB-1260 (Aroclor 1260)	
3.391	1904	1768	0.928	0.257		
3.437	3126	3060	0.979	0.445		
3.479	23036	23099	1.003	3.360	7 PCB-1260 (Aroclor 1260)	
3.503	6549	6557	1.001	0.953		
3.557	15922	10892	0.684	1.584		
3.587	2209	2167	0.981	0.315		
3.631	2322	2097	0.903	0.305		
3.663	29125	22702	0.779	3.302	7 PCB-1260 (Aroclor 1260)	
3.722	17668	16726	0.947	2.433		
3.758	9485	9200	0.970	1.338		
3.840	3823	4234	1.107	0.615		
3.863	18296	17394	0.951	2.530		
3.897	990	1080	1.091	0.157		
3.923	8757	8535	0.975	1.241		
3.952	5402	4964	0.919	0.722		
3.981	455	478	1.051	0.069		
4.015	4872	4533	0.930	0.659		
4.061	41958	40037	0.954	5.824	7 PCB-1260 (Aroclor 1260)	
4.102	2242	2140	0.954	0.311		
4.248	25092	22192	0.884	3.228	7 PCB-1260 (Aroclor 1260)	
4.274	3303	4163	1.260	0.605		
4.296	11338	9552	0.842	1.389		
4.437	1030	983	0.954	0.143		
4.462	576	567	0.985	0.082		
4.497	4722	4354	0.922	0.633		
4.618	9821	9357	0.953	1.361		
4.660	566	524	0.926	0.076		
4.809	3678	3463	0.941	0.503		
4.909	16	48	3.015	0.006		
4.961	62081	60118	0.968	8.745	$ 11 Decachlorobiphenyl (S)	
5.251	127	144	1.132	0.020		
5.415	18	65	3.569	0.009		
5.494	26	52	1.990	0.007		
5.693	12	42	3.443	0.006		
5.700	14	47	3.431	0.006		
5.727	18	45	2.481	0.006		
5.943	5	22	4.135	0.003		
5.997	12	34	2.921	0.004		
6.051	9	26	2.975	0.003		
6.096	8	34	4.342	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.239	11	43	3.843	0.006		
6.257	9	38	4.199	0.005		
6.299	8	39	4.987	0.005		
6.319	7	33	4.694	0.004		
6.347	5	27	5.019	0.003		
6.351	6	31	4.829	0.004		
6.376	7	28	4.223	0.004		
	783395	687388		100.000		

Total unknown % height = 51.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.964	1.963	0.001	10632	1.00000	0.933	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	21107	1.00000	0.968	152.31- 228.47	198.51	
2.374	2.374	0.000	10544	1.00000	0.972	75.27- 112.91	99.17	
2.471	2.470	0.001	9299	1.00000	0.932	68.58- 102.86	87.46	
2.561	2.560	0.001	9352	1.00000	0.944	68.26- 102.40	87.96	
Average of Peak Amounts =					0.94980			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	19228	1.00000	0.946	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	23036	1.00000	0.946	88.62- 132.94	119.80	
3.663	3.662	0.001	29124	1.00000	0.994	120.10- 180.15	151.46	
4.060	4.060	0.000	41957	1.00000	0.975	171.60- 257.41	218.20	
4.248	4.247	0.001	25092	1.00000	0.970	103.64- 155.46	130.49	
Average of Peak Amounts =					0.96620			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.587	1.586	0.001	88395	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.961	4.960	0.001	62080	0.20000	0.196			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

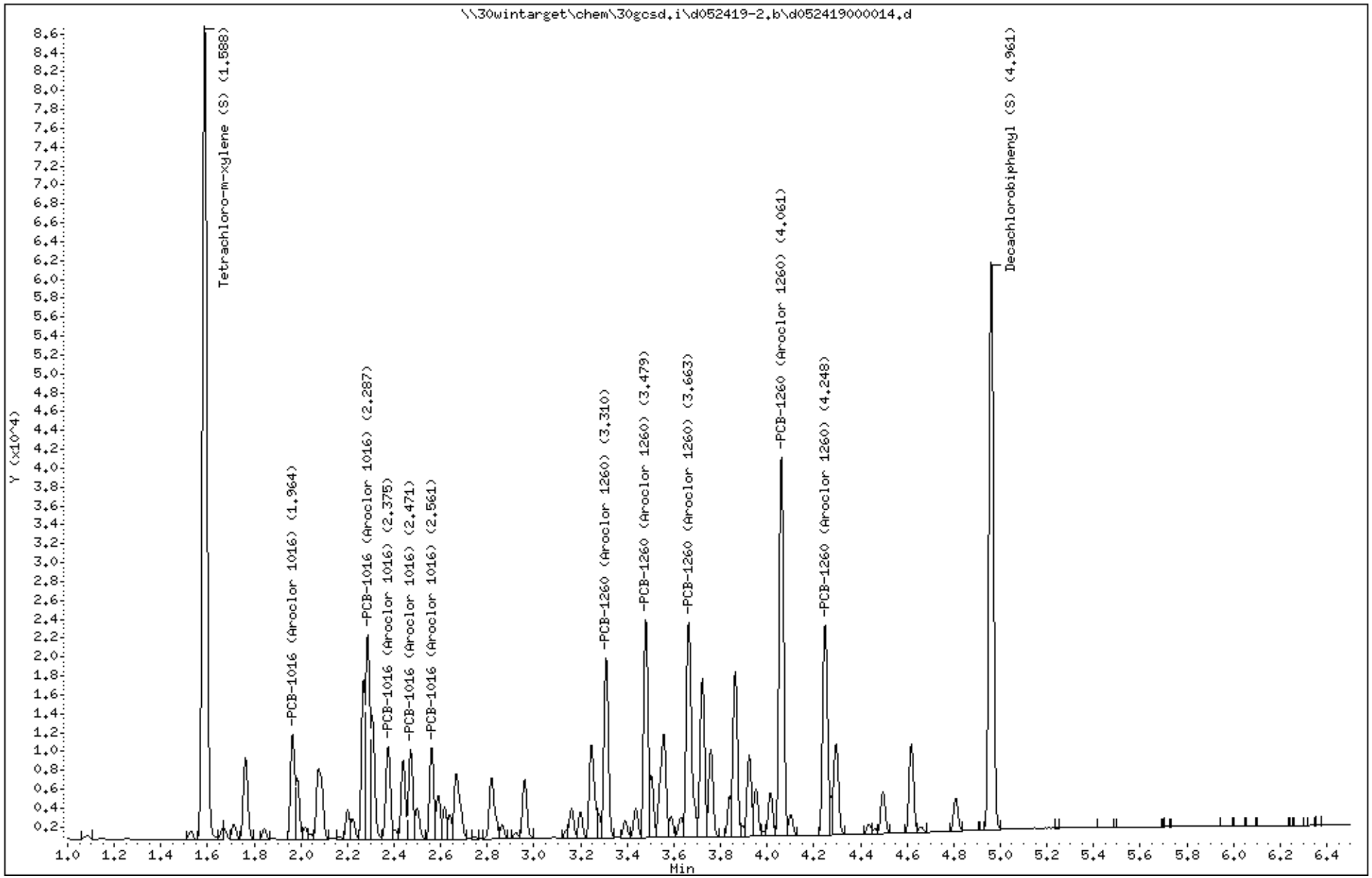
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

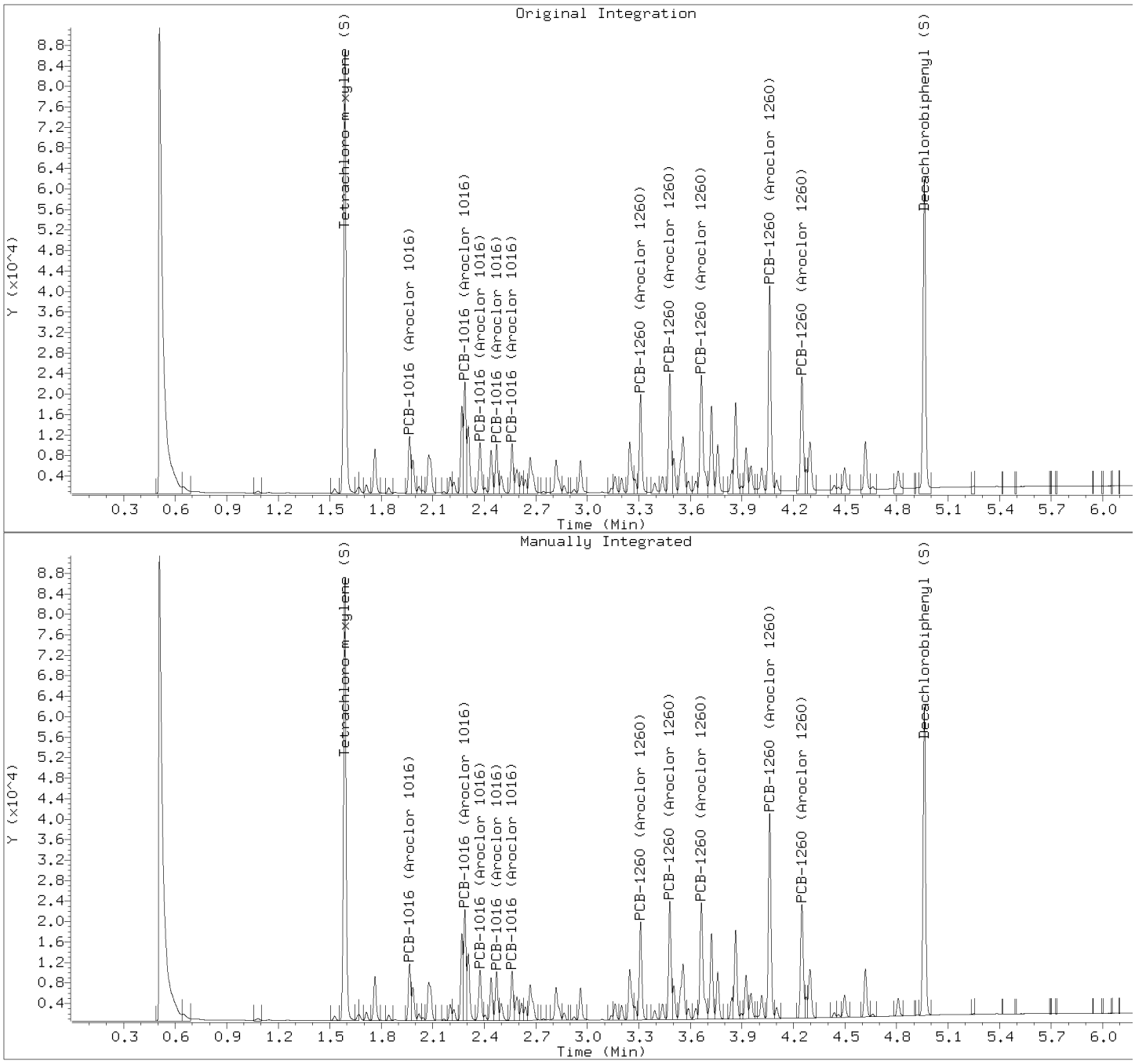
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.933	J
	Peak found at 2.287	0.968	J
	Peak found at 2.375	0.972	J
	Peak found at 2.471	0.932	J
	Peak found at 2.561	0.944	J
	Average of Peak Amounts =	0.950	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.310	0.946	J
	Peak found at 3.479	0.946	J
	Peak found at 3.663	0.994	J
	Peak found at 4.061	0.975	J
	Peak found at 4.248	0.970	J
	Average of Peak Amounts =	0.966	J
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.196	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Instrument: 30gcsd.i
Sample Info: CAL6A, 87260:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10758	10632
PCB-1016 (Aroclor 1016)	21025	21107
PCB-1016 (Aroclor 1016)	10868	10544
PCB-1016 (Aroclor 1016)	9511	9299
PCB-1016 (Aroclor 1016)	9646	9352
PCB-1260 (Aroclor 1260)	20026	19228
PCB-1260 (Aroclor 1260)	23650	23036
PCB-1260 (Aroclor 1260)	30352	29124
PCB-1260 (Aroclor 1260)	43504	41957
PCB-1260 (Aroclor 1260)	26725	25092
Tetrachloro-m-xylene (S)	88860	88395
Decachlorobiphenyl (S)	66819	62080

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	124890	55990	0.448	9.951		
0.838	796	485	0.609	0.086		
1.212	73352	67144	0.915	11.964	$ 10 Tetrachloro-m-xylene (S)	
1.269	1008	753	0.747	0.133		
1.346	1348	1284	0.953	0.228		
1.377	906	925	1.021	0.164		
1.401	1395	1373	0.985	0.244		
1.442	6790	6443	0.949	1.145		
1.561	909	927	1.019	0.164		
1.632	14239	11025	0.774	1.959	1 PCB-1016 (Aroclor 1016)	
1.685	808	1197	1.481	0.212		
1.694	1579	1358	0.860	0.241		
1.746	3638	4512	1.240	0.801		
1.761	5885	5863	0.996	1.042		
1.807	2448	2780	1.135	0.494		
1.823	1734	1879	1.084	0.333		
1.879	29319	22726	0.775	4.039	1 PCB-1016 (Aroclor 1016)	
1.933	11880	10655	0.897	1.893	1 PCB-1016 (Aroclor 1016)	
2.009	6798	7627	1.122	1.355		
2.036	8633	8100	0.938	1.439		
2.063	5698	6339	1.113	1.126		
2.078	6418	6130	0.955	1.089		
2.189	8874	9626	1.085	1.710	1 PCB-1016 (Aroclor 1016)	
2.213	3467	3773	1.088	0.670		
2.239	2728	2983	1.094	0.530		
2.255	1398	1825	1.306	0.324		
2.278	7765	7667	0.987	1.362	1 PCB-1016 (Aroclor 1016)	
2.345	2070	2047	0.989	0.363		
2.375	1181	1268	1.074	0.225		
2.402	1534	1748	1.140	0.310		
2.426	5909	5854	0.991	1.040		
2.473	778	842	1.082	0.149		
2.510	5144	5457	1.061	0.969		
2.594	401	322	0.803	0.057		
2.729	765	819	1.070	0.145		
2.798	12950	11669	0.901	2.073	7 PCB-1260 (Aroclor 1260)	
2.831	4691	4729	1.008	0.840		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	16494	17146	1.040	3.047	7 PCB-1260 (Aroclor 1260)	
2.924	741	772	1.042	0.137		
2.955	2687	2808	1.045	0.499		
2.995	20673	20619	0.997	3.664	7 PCB-1260 (Aroclor 1260)	
3.103	8216	9306	1.133	1.653		
3.121	11043	10096	0.914	1.794		
3.190	6092	4532	0.744	0.805		
3.227	22720	17189	0.757	3.054		
3.254	15319	15148	0.989	2.692		
3.289	8586	8517	0.992	1.513		
3.379	3180	3014	0.948	0.535		
3.439	16194	14815	0.915	2.633		
3.500	8372	8286	0.990	1.472		
3.533	6682	6393	0.957	1.136		
3.557	1394	1717	1.231	0.305		
3.585	35876	35949	1.002	6.389	7 PCB-1260 (Aroclor 1260)	
3.619	748	773	1.033	0.137		
3.678	1251	1255	1.003	0.223		
3.757	493	532	1.078	0.094		
3.786	7116	7261	1.020	1.290		
3.827	25993	24671	0.949	4.384	7 PCB-1260 (Aroclor 1260)	
3.973	1367	1321	0.966	0.234		
4.036	369	363	0.984	0.064		
4.078	3714	3754	1.011	0.667		
4.153	8615	8183	0.950	1.454		
4.343	2947	2931	0.994	0.520		
4.501	48876	49059	1.004	8.719	$ 11 Decachlorobiphenyl (S)	
4.814	72	101	1.409	0.017		
	655956	562655		100.000		

Total unknown % height = 48.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	14238	0.75000	0.693	80.00- 120.00	100.00	
1.879	1.878	0.001	29319	0.75000	0.709	162.66- 243.99	205.91	
1.933	1.932	0.001	11880	0.75000	0.713	63.55- 95.32	83.44	
2.189	2.188	0.001	8874	0.75000	0.695	49.13- 73.70	62.32	
2.278	2.277	0.001	7764	0.75000	0.707	42.04- 63.06	54.53	
Average of Peak Amounts =					0.70340			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	12949	0.75000	0.698	80.00- 120.00	100.00	
2.886	2.885	0.001	16493	0.75000	0.695	101.69- 152.53	127.37	
2.995	2.995	0.000	20672	0.75000	0.696	125.91- 188.87	159.64	
3.584	3.584	0.000	35875	0.75000	0.714	212.47- 318.70	277.04	
3.826	3.826	0.000	25992	0.75000	0.717	152.61- 228.91	200.72	
Average of Peak Amounts =					0.70400			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.212	1.210	0.002	73352	0.15000	0.144			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	48876	0.15000	0.146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

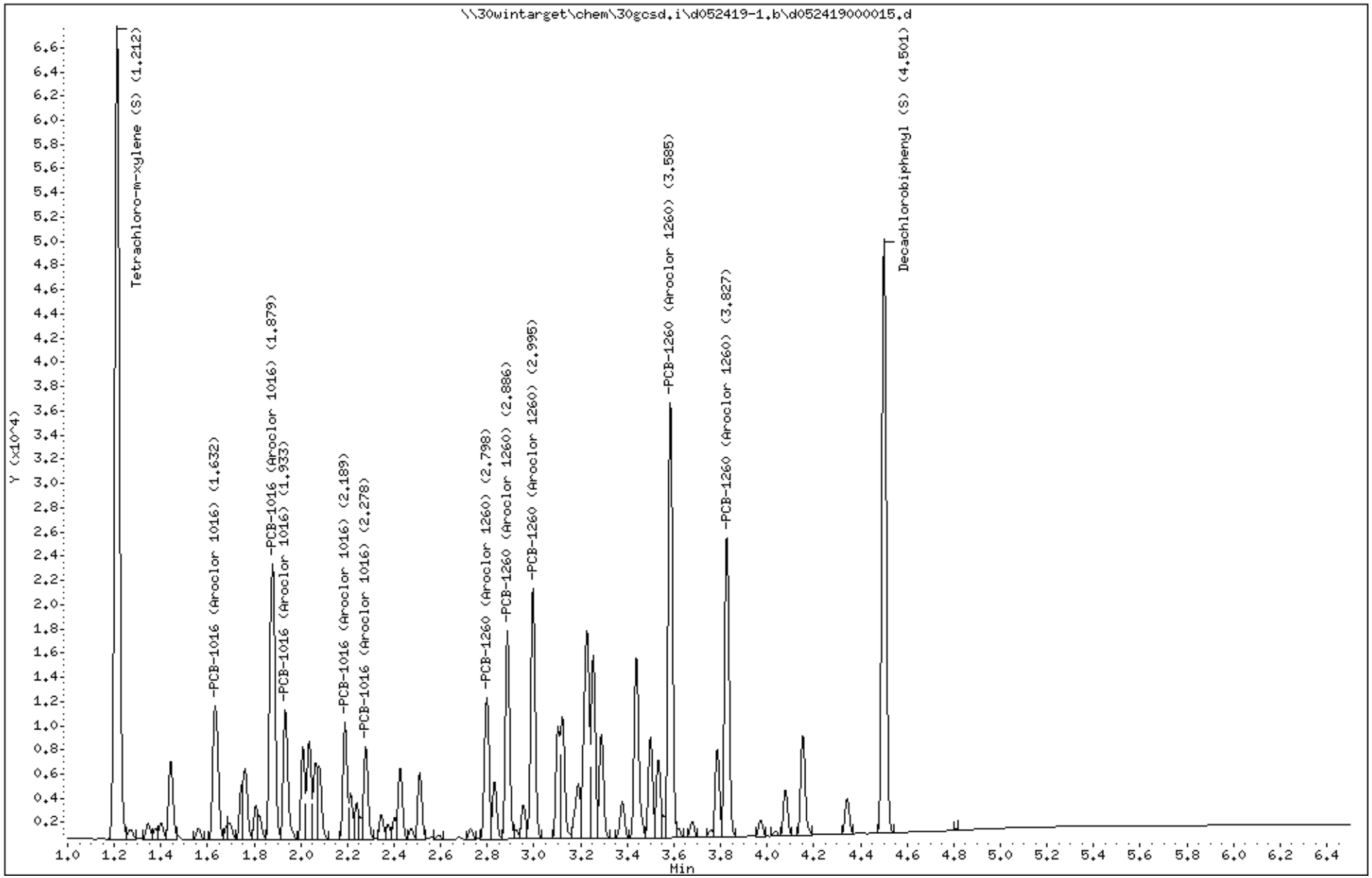
Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

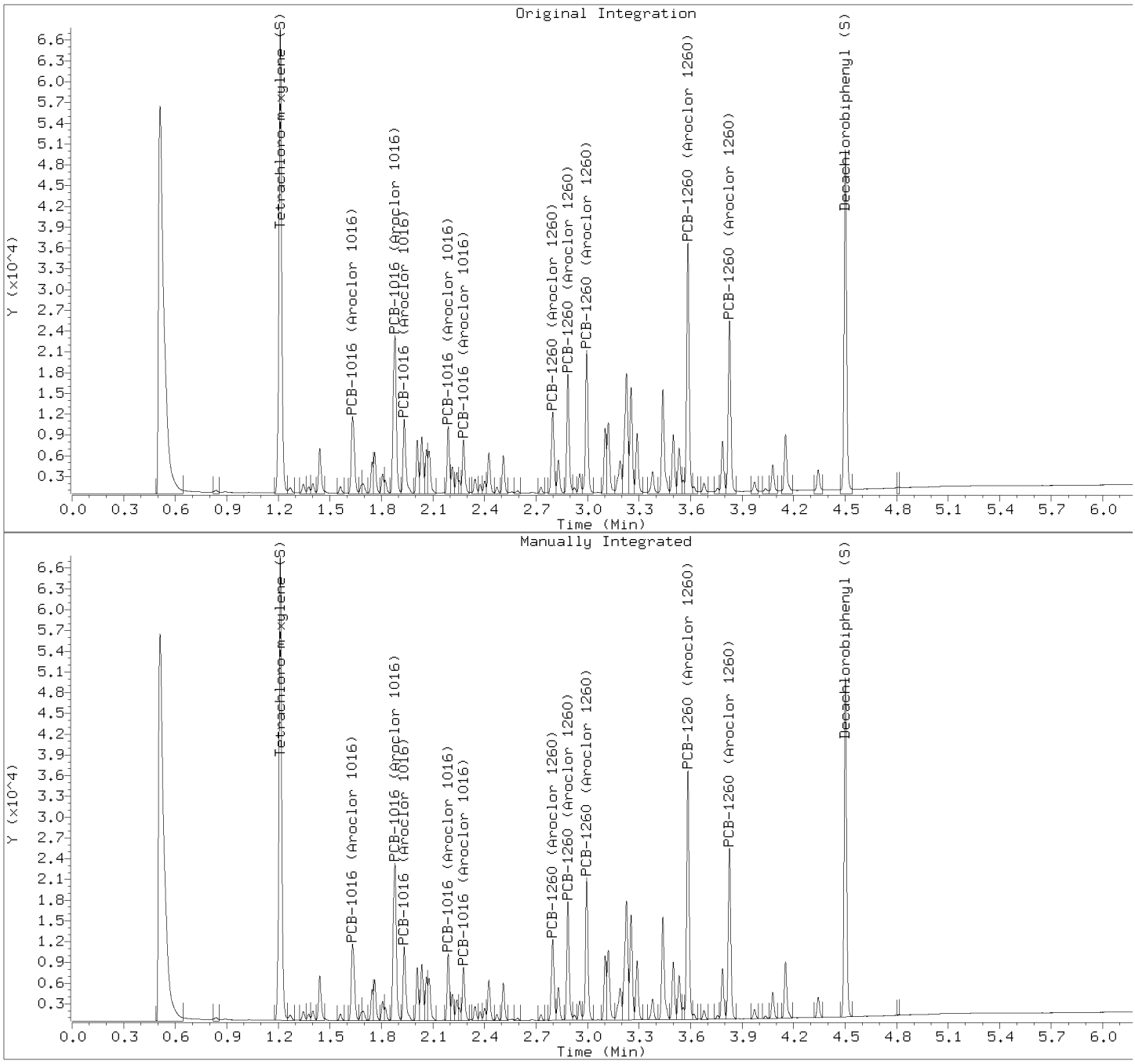
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.693	
	Peak found at 1.879	0.709	
	Peak found at 1.933	0.713	
	Peak found at 2.189	0.695	
	Peak found at 2.278	0.707	
	Average of Peak Amounts =	0.703	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.698	
	Peak found at 2.886	0.695	
	Peak found at 2.995	0.696	
	Peak found at 3.585	0.714	
	Peak found at 3.827	0.717	
	Average of Peak Amounts =	0.704	
877-09-8	Tetrachloro-m-xylene (S)	0.144	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Sample Info: CAL5A, 88856:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	14486	14238
PCB-1016 (Aroclor 1016)	29588	29319
PCB-1016 (Aroclor 1016)	12194	11880
PCB-1016 (Aroclor 1016)	9020	8874
PCB-1016 (Aroclor 1016)	7980	7764
PCB-1260 (Aroclor 1260)	13214	12949
PCB-1260 (Aroclor 1260)	16845	16493
PCB-1260 (Aroclor 1260)	21180	20672
PCB-1260 (Aroclor 1260)	36496	35875
PCB-1260 (Aroclor 1260)	27021	25992
Tetrachloro-m-xylene (S)	73821	73352
Decachlorobiphenyl (S)	51341	48876

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	114218	65304	0.572	12.804		
0.650	2510	1202	0.479	0.234		
1.084	734	427	0.582	0.083		
1.529	722	666	0.923	0.130		
1.588	65739	65002	0.989	12.702	$ 10 Tetrachloro-m-xylene (S)	
1.669	1346	896	0.666	0.175		
1.714	1284	1252	0.975	0.244		
1.763	6745	6578	0.975	1.285		
1.844	825	826	1.002	0.161		
1.965	7957	8509	1.069	1.662	1 PCB-1016 (Aroclor 1016)	
1.985	4783	4913	1.027	0.960		
2.019	1003	1022	1.019	0.199		
2.043	410	440	1.074	0.085		
2.076	8639	5590	0.647	1.092		
2.165	201	220	1.096	0.042		
2.201	2146	2347	1.094	0.458		
2.222	1467	1522	1.037	0.297		
2.269	11031	12633	1.145	2.468		
2.287	15752	16204	1.029	3.166	1 PCB-1016 (Aroclor 1016)	
2.307	10098	9870	0.977	1.928		
2.375	7882	7417	0.941	1.449	1 PCB-1016 (Aroclor 1016)	
2.405	725	756	1.042	0.147		
2.439	5999	6244	1.041	1.220		
2.471	6994	7201	1.030	1.407	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	2726	2507	0.920	0.489		
2.561	7035	7267	1.033	1.420	1 PCB-1016 (Aroclor 1016)	
2.590	3865	3499	0.905	0.683		
2.617	2433	2488	1.023	0.486		
2.639	1890	1980	1.048	0.386		
2.667	7766	5195	0.669	1.015		
2.744	221	216	0.975	0.042		
2.818	6590	4928	0.748	0.962		
2.864	1089	1092	1.003	0.213		
2.922	491	512	1.042	0.100		
2.960	4910	4738	0.965	0.925		
3.139	582	668	1.147	0.130		
3.161	2472	2429	0.983	0.474		
3.199	2122	2122	1.000	0.414		
3.246	9390	7380	0.786	1.442		
3.277	1796	2016	1.122	0.393		
3.309	14466	14176	0.980	2.770	7 PCB-1260 (Aroclor 1260)	
3.392	1423	1327	0.933	0.259		
3.437	2372	2292	0.966	0.447		
3.479	17384	17210	0.990	3.362	7 PCB-1260 (Aroclor 1260)	
3.503	5133	5091	0.992	0.994		
3.556	11923	8241	0.691	1.610		
3.587	1680	1585	0.944	0.309		
3.631	1744	1608	0.922	0.314		
3.663	21775	16839	0.773	3.290	7 PCB-1260 (Aroclor 1260)	
3.722	13250	12501	0.943	2.442		
3.758	7099	6979	0.983	1.363		
3.840	2853	3139	1.100	0.613		
3.863	13744	13045	0.949	2.549		
3.897	729	793	1.088	0.154		
3.923	6570	6448	0.981	1.260		
3.952	4024	3768	0.936	0.736		
3.981	340	352	1.035	0.068		
4.014	3635	3408	0.938	0.665		
4.060	31357	29815	0.951	5.826	7 PCB-1260 (Aroclor 1260)	
4.101	1677	1565	0.933	0.305		
4.248	18743	17066	0.911	3.334	7 PCB-1260 (Aroclor 1260)	
4.274	2410	3136	1.301	0.612		
4.295	8545	7010	0.820	1.369		
4.437	746	718	0.962	0.140		
4.462	409	411	1.005	0.080		
4.496	3524	3244	0.921	0.633		
4.618	7393	7044	0.953	1.376		
4.661	434	402	0.927	0.078		
4.808	2780	2613	0.940	0.510		
4.908	19	45	2.330	0.008		
4.960	46297	43353	0.936	8.471	$ 11 Decachlorobiphenyl (S)	
5.109	10	33	3.337	0.006		
5.245	49	106	2.153	0.020		
5.296	25	65	2.644	0.012		
5.378	25	80	3.172	0.015		
5.503	19	46	2.429	0.008		
5.607	13	34	2.652	0.006		
5.627	8	31	3.744	0.006		
5.978	2	10	5.208	0.001		
6.195	9	23	2.447	0.004		
6.347	6	16	2.544	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	589229	511746		100.000		

Total unknown % height = 51.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	7957	0.75000	0.698	80.00- 120.00	100.00(a)	
2.287	2.286	0.001	15751	0.75000	0.722	152.31- 228.47	197.96	
2.375	2.374	0.001	7881	0.75000	0.726	75.27- 112.91	99.05	
2.471	2.470	0.001	6994	0.75000	0.701	68.58- 102.86	87.90	
2.561	2.560	0.001	7035	0.75000	0.710	68.26- 102.40	88.41	
Average of Peak Amounts =					0.71140			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	14466	0.75000	0.712	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	17383	0.75000	0.714	88.62- 132.94	120.17	
3.663	3.662	0.001	21774	0.75000	0.743	120.10- 180.15	150.52	
4.060	4.060	0.000	31356	0.75000	0.729	171.60- 257.41	216.76	
4.248	4.247	0.001	18743	0.75000	0.724	103.64- 155.46	129.56	
Average of Peak Amounts =					0.72440			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	65739	0.15000	0.145			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	46296	0.15000	0.146			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

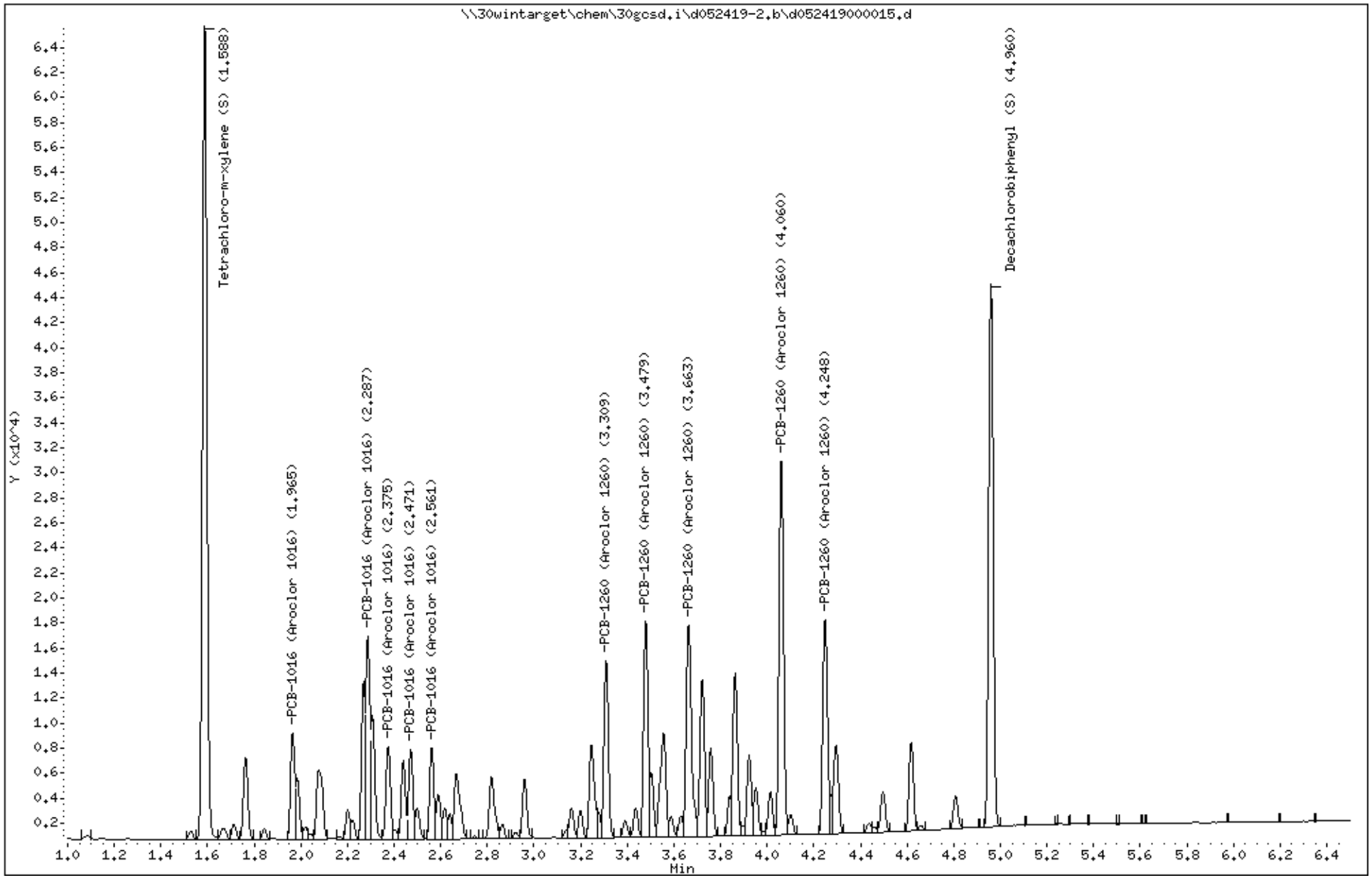
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

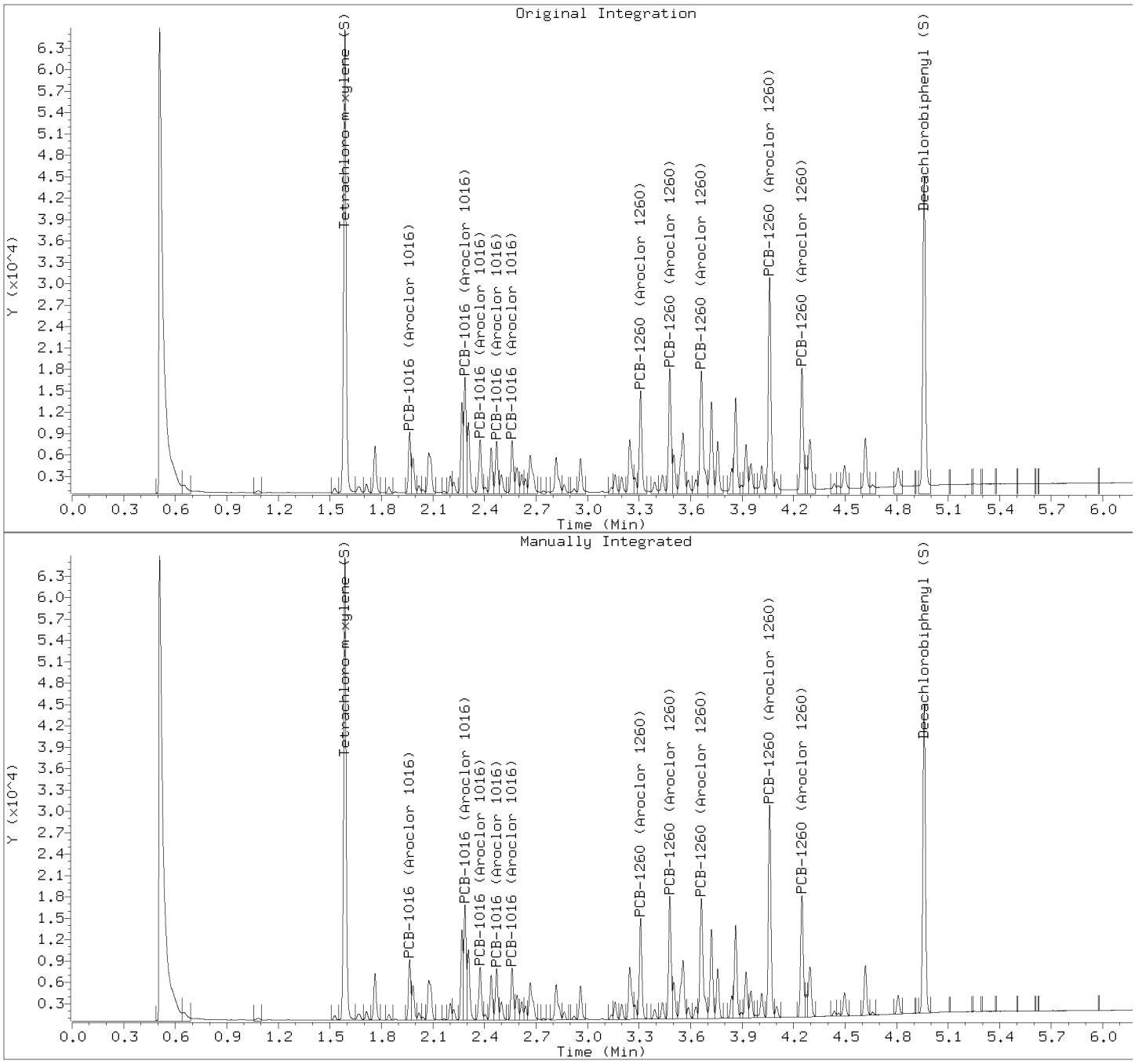
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.698	J
	Peak found at 2.287	0.722	J
	Peak found at 2.375	0.726	J
	Peak found at 2.471	0.701	J
	Peak found at 2.561	0.710	J
	Average of Peak Amounts =	0.711	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.712	J
	Peak found at 3.479	0.714	J
	Peak found at 3.663	0.743	J
	Peak found at 4.060	0.729	J
	Peak found at 4.248	0.724	J
	Average of Peak Amounts =	0.724	J
877-09-8	Tetrachloro-m-xylene (S)	0.145	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Instrument: 30gcsd.i
Sample Info: CAL5A, 88856:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8169	7957
PCB-1016 (Aroclor 1016)	15765	15751
PCB-1016 (Aroclor 1016)	8282	7881
PCB-1016 (Aroclor 1016)	7261	6994
PCB-1016 (Aroclor 1016)	7379	7035
PCB-1260 (Aroclor 1260)	15309	14466
PCB-1260 (Aroclor 1260)	18034	17383
PCB-1260 (Aroclor 1260)	23023	21774
PCB-1260 (Aroclor 1260)	32901	31356
PCB-1260 (Aroclor 1260)	20253	18743
Tetrachloro-m-xylene (S)	66379	65739
Decachlorobiphenyl (S)	51016	46296

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	75763	32966	0.435	8.921		
1.211	48455	42969	0.887	11.660	$ 10 Tetrachloro-m-xylene (S)	
1.269	678	504	0.743	0.136		
1.345	919	844	0.918	0.228		
1.376	592	603	1.019	0.163		
1.401	946	909	0.961	0.245		
1.441	4578	4287	0.936	1.160		
1.561	614	622	1.013	0.168		
1.632	9596	7333	0.764	1.984	1 PCB-1016 (Aroclor 1016)	
1.684	568	803	1.413	0.217		
1.694	1038	901	0.868	0.243		
1.746	2449	2986	1.219	0.808		
1.761	3945	3925	0.995	1.062		
1.807	1682	1855	1.103	0.502		
1.823	1125	1251	1.112	0.338		
1.879	19614	14933	0.761	4.041	1 PCB-1016 (Aroclor 1016)	
1.932	7993	7153	0.895	1.935	1 PCB-1016 (Aroclor 1016)	
2.009	4529	5069	1.119	1.371		
2.036	5856	5416	0.925	1.465		
2.062	3801	4273	1.124	1.156		
2.077	4393	4112	0.936	1.112		
2.189	5974	6480	1.085	1.753	1 PCB-1016 (Aroclor 1016)	
2.213	2358	2493	1.057	0.674		
2.239	1842	2020	1.097	0.546		
2.254	950	1235	1.301	0.334		
2.278	5231	5196	0.993	1.406	1 PCB-1016 (Aroclor 1016)	
2.345	1418	1428	1.007	0.386		
2.375	798	845	1.059	0.228		
2.401	1035	1181	1.141	0.319		
2.425	3994	3930	0.984	1.063		
2.473	532	576	1.084	0.155		
2.510	3489	3694	1.059	0.999		
2.729	509	560	1.099	0.151		
2.798	8727	7755	0.889	2.098	7 PCB-1260 (Aroclor 1260)	
2.830	3164	3173	1.003	0.858		
2.885	11129	11445	1.028	3.097	7 PCB-1260 (Aroclor 1260)	
2.924	512	521	1.017	0.140		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	1826	1922	1.053	0.520		
2.995	13948	14016	1.005	3.793	7 PCB-1260 (Aroclor 1260)	
3.103	5448	6210	1.140	1.680		
3.121	7441	6879	0.925	1.861		
3.190	4254	3180	0.748	0.860		
3.227	15419	11631	0.754	3.147		
3.254	10354	10307	0.995	2.789		
3.289	5787	5754	0.994	1.557		
3.378	2163	2010	0.929	0.543		
3.439	11320	10452	0.923	2.828		
3.500	5662	5563	0.983	1.505		
3.533	4498	4323	0.961	1.169		
3.557	913	1145	1.254	0.309		
3.584	23907	24026	1.005	6.501	7 PCB-1260 (Aroclor 1260)	
3.620	494	517	1.046	0.139		
3.679	839	850	1.013	0.230		
3.758	325	359	1.103	0.097		
3.786	4778	4853	1.016	1.313		
3.827	17316	16137	0.932	4.367	7 PCB-1260 (Aroclor 1260)	
3.973	937	900	0.960	0.243		
4.037	269	251	0.934	0.067		
4.078	2492	2459	0.987	0.665		
4.153	5882	5594	0.951	1.513		
4.343	1967	1945	0.989	0.526		
4.501	32103	31909	0.994	8.635	$ 11 Decachlorobiphenyl (S)	
4.815	58	81	1.403	0.021		
	431196	369519		100.000		

Total unknown % height = 48.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	9596	0.50000	0.467	80.00- 120.00	100.00	
1.878	1.878	0.000	19613	0.50000	0.474	162.66- 243.99	204.39	
1.932	1.932	0.000	7992	0.50000	0.480	63.55- 95.32	83.29	
2.188	2.188	0.000	5974	0.50000	0.468	49.13- 73.70	62.26	
2.277	2.277	0.000	5231	0.50000	0.476	42.04- 63.06	54.51	
Average of Peak Amounts =					0.47300			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	8727	0.50000	0.471	80.00- 120.00	100.00	
2.885	2.885	0.000	11129	0.50000	0.469	101.69- 152.53	127.52	
2.995	2.995	0.000	13947	0.50000	0.470	125.91- 188.87	159.82	
3.583	3.584	-0.001	23906	0.50000	0.476	212.47- 318.70	273.93	
3.826	3.826	0.000	17316	0.50000	0.478	152.61- 228.91	198.42	
Average of Peak Amounts =					0.47280			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	48454	0.10000	0.0953			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	32103	0.10000	0.0956			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

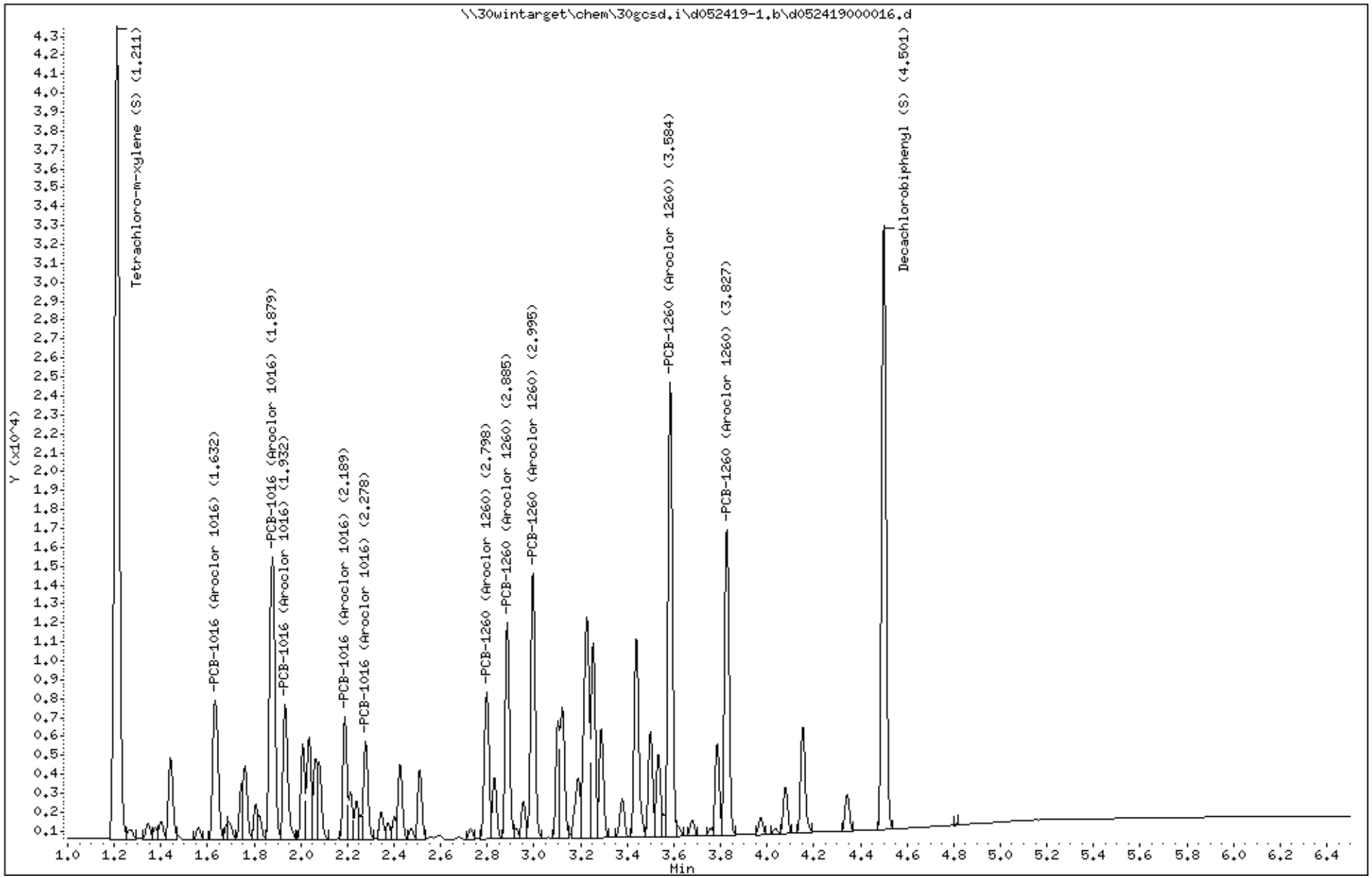
Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

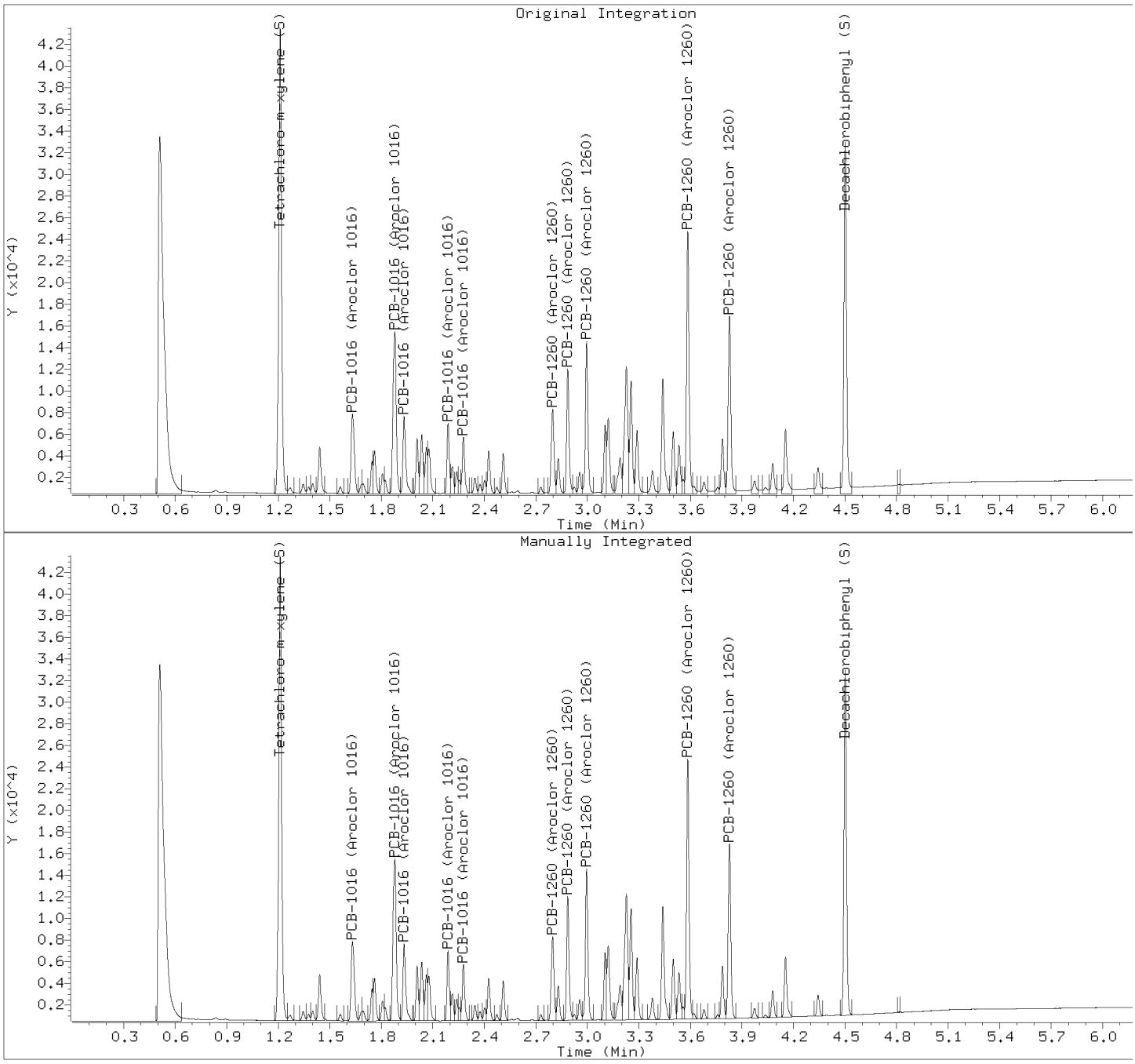
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.467	
	Peak found at 1.879	0.474	
	Peak found at 1.932	0.480	
	Peak found at 2.189	0.468	
	Peak found at 2.278	0.476	
	Average of Peak Amounts =	0.473	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.471	
	Peak found at 2.885	0.469	
	Peak found at 2.995	0.470	
	Peak found at 3.584	0.476	
	Peak found at 3.827	0.478	
	Average of Peak Amounts =	0.473	
877-09-8	Tetrachloro-m-xylene (S)	0.0953	
2051-24-3	Decachlorobiphenyl (S)	0.0956	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Sample Info: CAL4A, 88855:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	9633	9596
PCB-1016 (Aroclor 1016)	19667	19613
PCB-1016 (Aroclor 1016)	8054	7992
PCB-1016 (Aroclor 1016)	6002	5974
PCB-1016 (Aroclor 1016)	5283	5231
PCB-1260 (Aroclor 1260)	8853	8727
PCB-1260 (Aroclor 1260)	11312	11129
PCB-1260 (Aroclor 1260)	14232	13947
PCB-1260 (Aroclor 1260)	24394	23906
PCB-1260 (Aroclor 1260)	18143	17316
Tetrachloro-m-xylene (S)	48625	48454
Decachlorobiphenyl (S)	34248	32103

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	69759	39591	0.568	11.836		
0.649	1454	741	0.510	0.221		
1.085	410	262	0.639	0.078		
1.528	484	442	0.914	0.132		
1.587	43329	41735	0.963	12.513	$ 10 Tetrachloro-m-xylene (S)	
1.667	459	592	1.290	0.176		
1.713	855	827	0.967	0.247		
1.763	4499	4349	0.967	1.300		
1.844	546	546	1.000	0.163		
1.964	5363	5665	1.056	1.693	1 PCB-1016 (Aroclor 1016)	
1.984	3162	3255	1.030	0.973		
2.019	673	683	1.015	0.204		
2.042	270	292	1.080	0.087		
2.077	5775	3750	0.649	1.121		
2.202	1447	1551	1.072	0.463		
2.222	945	991	1.049	0.296		
2.269	7263	8396	1.156	2.510		
2.287	10514	10655	1.013	3.185	1 PCB-1016 (Aroclor 1016)	
2.307	6761	6604	0.977	1.974		
2.375	5238	4900	0.935	1.464	1 PCB-1016 (Aroclor 1016)	
2.404	487	506	1.039	0.151		
2.439	4017	4162	1.036	1.244		
2.471	4701	4761	1.013	1.423	1 PCB-1016 (Aroclor 1016)	
2.500	1820	1658	0.911	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.561	4692	4853	1.034	1.450	1 PCB-1016 (Aroclor 1016)	
2.590	2608	2329	0.893	0.696		
2.617	1626	1675	1.030	0.500		
2.638	1258	1303	1.036	0.389		
2.667	5178	3417	0.660	1.021		
2.818	4396	3270	0.744	0.977		
2.864	713	727	1.020	0.217		
2.922	326	335	1.027	0.100		
2.960	3258	3146	0.966	0.940		
3.139	391	461	1.178	0.137		
3.161	1686	1600	0.949	0.478		
3.199	1421	1409	0.991	0.421		
3.246	6272	4938	0.787	1.476		
3.278	1206	1323	1.097	0.395		
3.309	9665	9547	0.988	2.854	7 PCB-1260 (Aroclor 1260)	
3.391	979	889	0.908	0.265		
3.437	1583	1530	0.966	0.457		
3.479	11568	11638	1.006	3.479	7 PCB-1260 (Aroclor 1260)	
3.503	3562	3429	0.963	1.025		
3.556	7929	5512	0.695	1.647		
3.587	1120	1067	0.953	0.318		
3.631	1160	1068	0.920	0.319		
3.663	14518	11294	0.778	3.376	7 PCB-1260 (Aroclor 1260)	
3.722	8846	8381	0.947	2.505		
3.758	4729	4558	0.964	1.362		
3.840	1918	2060	1.074	0.615		
3.863	9126	8593	0.942	2.568		
3.897	506	541	1.070	0.161		
3.923	4396	4272	0.972	1.277		
3.951	2705	2519	0.931	0.753		
3.981	214	240	1.122	0.071		
4.014	2420	2246	0.928	0.671		
4.060	20715	20032	0.967	5.988	7 PCB-1260 (Aroclor 1260)	
4.101	1108	1036	0.935	0.309		
4.248	12535	11233	0.896	3.358	7 PCB-1260 (Aroclor 1260)	
4.273	1551	2073	1.336	0.619		
4.295	5654	4653	0.823	1.391		
4.436	491	476	0.970	0.142		
4.462	257	266	1.035	0.079		
4.496	2331	2145	0.920	0.641		
4.617	4895	4718	0.964	1.410		
4.660	272	261	0.958	0.078		
4.808	1856	1737	0.936	0.519		
4.960	30515	28490	0.934	8.517	$ 11 Decachlorobiphenyl (S)	
5.053	20	70	3.455	0.020		
5.180	10	30	2.927	0.008		
5.249	34	59	1.749	0.017		
5.550	10	29	2.906	0.008		
5.800	6	16	2.560	0.004		
5.808	4	14	3.878	0.004		
5.992	2	11	4.583	0.003		
6.134	5	24	4.388	0.007		
6.174	8	33	4.044	0.009		
	384484	334490		100.000		

Total unknown % height = 50.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	5363	0.50000	0.471	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	10514	0.50000	0.482	152.31- 228.47	196.04	
2.374	2.374	0.000	5238	0.50000	0.483	75.27- 112.91	97.67	
2.470	2.470	0.000	4700	0.50000	0.471	68.58- 102.86	87.65	
2.560	2.560	0.000	4692	0.50000	0.474	68.26- 102.40	87.49	
Average of Peak Amounts =					0.47620			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.308	3.309	-0.001	9665	0.50000	0.476	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	11567	0.50000	0.475	88.62- 132.94	119.68	
3.662	3.662	0.000	14517	0.50000	0.496	120.10- 180.15	150.20	
4.059	4.060	-0.001	20715	0.50000	0.481	171.60- 257.41	214.33	
4.247	4.247	0.000	12534	0.50000	0.484	103.64- 155.46	129.69	
Average of Peak Amounts =					0.48240			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	43328	0.10000	0.0954			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	30514	0.10000	0.0961			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

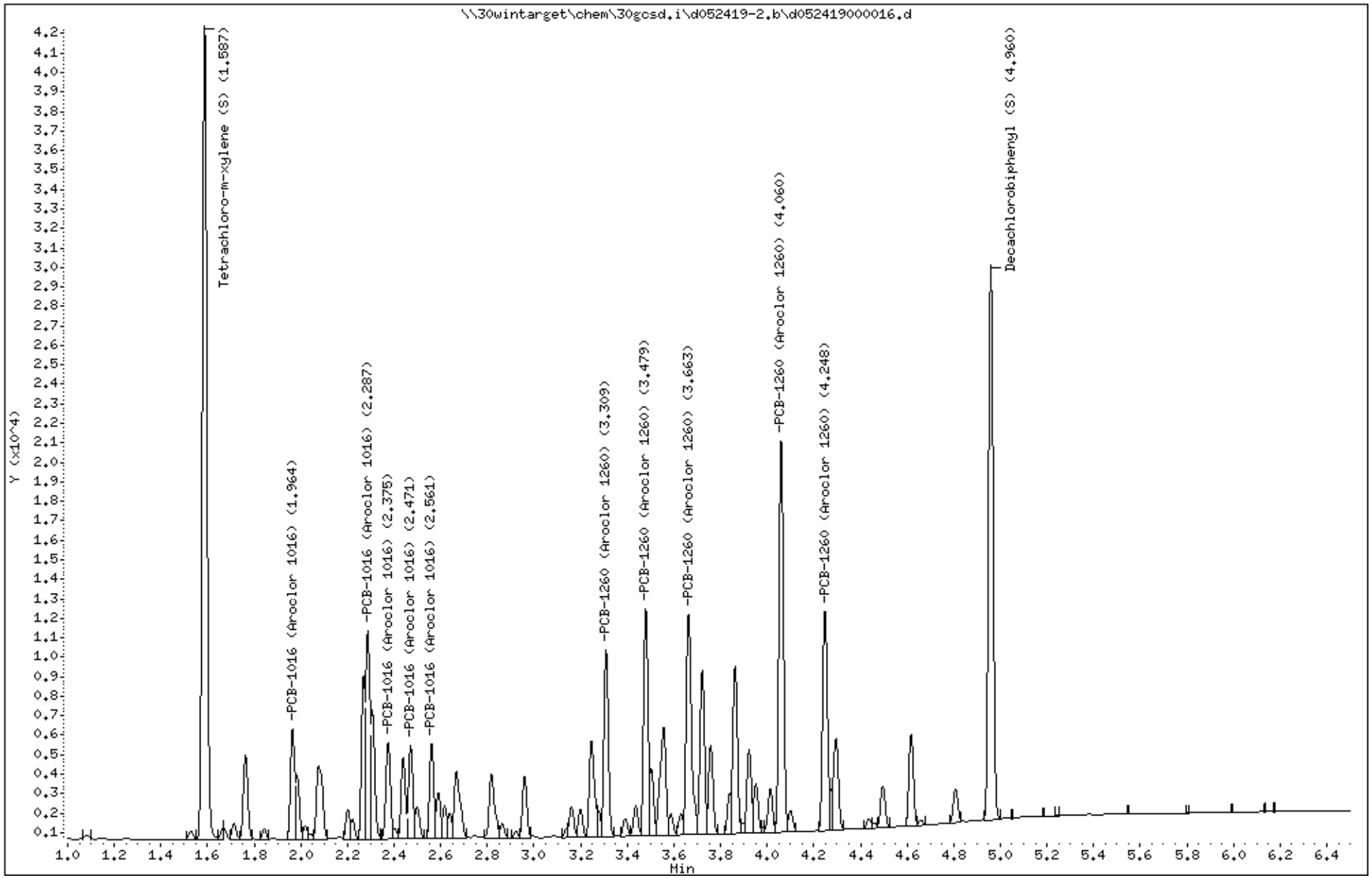
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

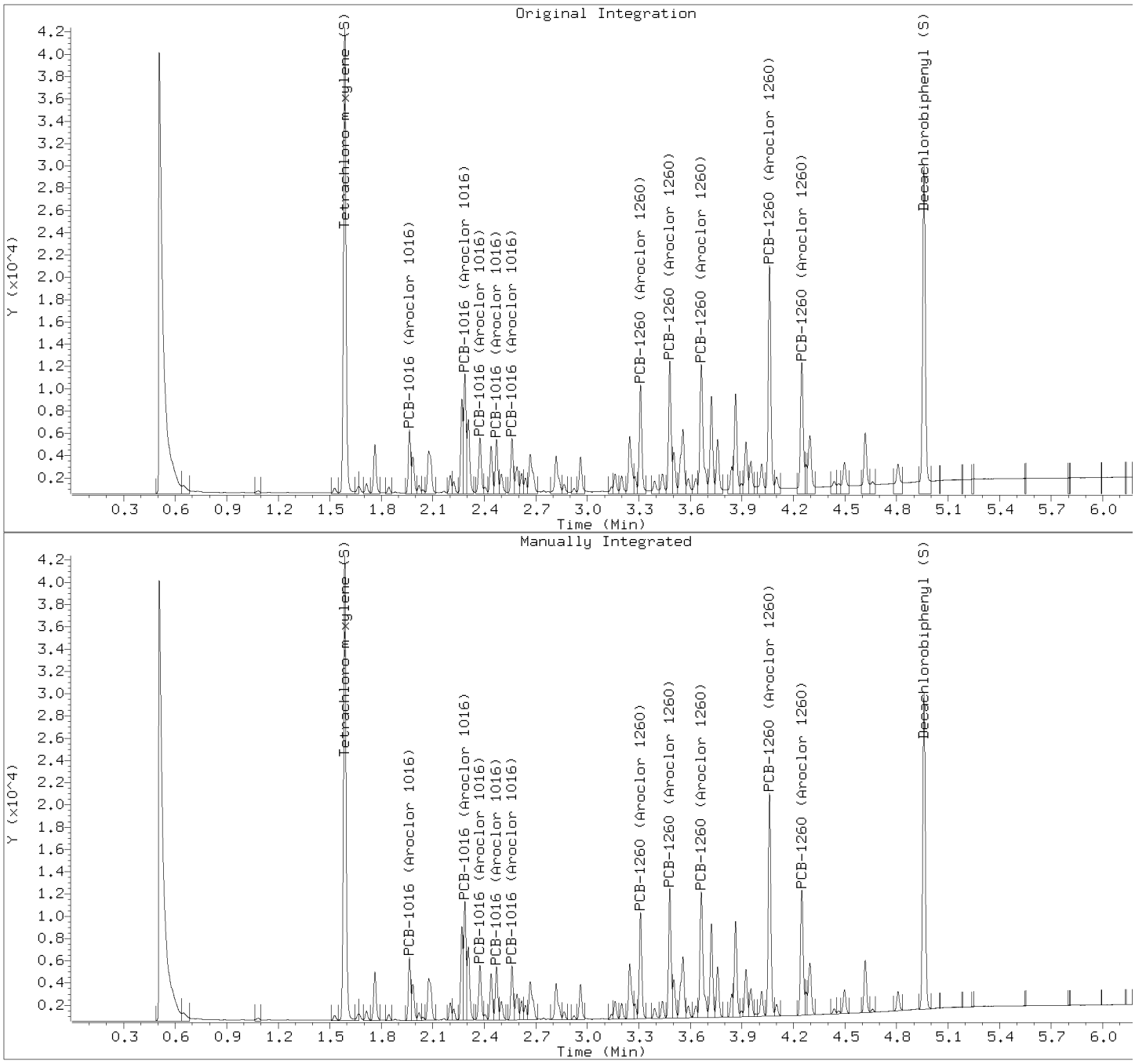
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.471	J
	Peak found at 2.287	0.482	J
	Peak found at 2.375	0.483	J
	Peak found at 2.471	0.471	J
	Peak found at 2.561	0.474	J
	Average of Peak Amounts =	0.476	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.476	J
	Peak found at 3.479	0.475	J
	Peak found at 3.663	0.496	J
	Peak found at 4.060	0.481	J
	Peak found at 4.248	0.484	J
	Average of Peak Amounts =	0.482	J
877-09-8	Tetrachloro-m-xylene (S)	0.0954	
2051-24-3	Decachlorobiphenyl (S)	0.0961	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Instrument: 30gcsd.i
Sample Info: CAL4A, 88855:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5458	5363
PCB-1016 (Aroclor 1016)	10510	10514
PCB-1016 (Aroclor 1016)	5484	5238
PCB-1016 (Aroclor 1016)	4877	4700
PCB-1016 (Aroclor 1016)	4922	4692
PCB-1260 (Aroclor 1260)	10289	9665
PCB-1260 (Aroclor 1260)	12108	11567
PCB-1260 (Aroclor 1260)	15587	14517
PCB-1260 (Aroclor 1260)	22087	20715
PCB-1260 (Aroclor 1260)	13972	12534
Tetrachloro-m-xylene (S)	43665	43328
Decachlorobiphenyl (S)	34931	30514

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	37809	15680	0.415	7.881		
1.210	26361	23522	0.892	11.848	$ 10 Tetrachloro-m-xylene (S)	RT
1.269	368	279	0.759	0.140		
1.345	496	469	0.946	0.235		
1.401	529	510	0.965	0.256		
1.441	2529	2351	0.930	1.181		
1.631	5348	4118	0.770	2.069	1 PCB-1016 (Aroclor 1016)	RT
1.693	921	528	0.573	0.265		
1.745	1353	1662	1.228	0.835		
1.761	2215	2185	0.986	1.098		
1.807	913	1035	1.134	0.520		
1.825	945	886	0.938	0.445		
1.879	10816	8305	0.768	4.174	1 PCB-1016 (Aroclor 1016)	RT
1.933	4465	3961	0.887	1.990	1 PCB-1016 (Aroclor 1016)	RT
2.009	2518	2798	1.111	1.406		
2.036	3250	3056	0.940	1.536		
2.062	2186	2412	1.103	1.212		
2.077	2437	2297	0.942	1.154		
2.189	3349	3625	1.082	1.822	1 PCB-1016 (Aroclor 1016)	RT
2.213	1310	1411	1.077	0.709		
2.239	1066	1139	1.069	0.572		
2.255	529	692	1.309	0.347		
2.278	2876	2864	0.996	1.439	1 PCB-1016 (Aroclor 1016)	RT
2.345	789	794	1.006	0.399		
2.375	439	477	1.086	0.239		
2.402	566	641	1.132	0.322		
2.426	2197	2186	0.995	1.098		
2.510	1917	2027	1.057	1.018		
2.798	4804	4253	0.885	2.137	7 PCB-1260 (Aroclor 1260)	RT
2.831	1717	1750	1.019	0.879		
2.886	6145	6397	1.041	3.215	7 PCB-1260 (Aroclor 1260)	RT
2.924	266	281	1.056	0.141		
2.955	1004	1063	1.059	0.534		
2.995	7705	7690	0.998	3.865	7 PCB-1260 (Aroclor 1260)	RT
3.103	3017	3411	1.131	1.714		
3.121	4072	3759	0.923	1.889		
3.190	2384	1751	0.734	0.880		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.227	8392	6321	0.753	3.177		
3.254	5691	5642	0.991	2.835		
3.289	3195	3167	0.991	1.591		
3.379	1212	1098	0.906	0.551		
3.439	6270	5788	0.923	2.909		
3.500	3143	3100	0.986	1.558		
3.533	2415	2327	0.964	1.169		
3.557	500	618	1.236	0.310		
3.584	13013	13118	1.008	6.593	7 PCB-1260 (Aroclor 1260)	RT
3.620	262	279	1.065	0.140		
3.679	453	468	1.032	0.235		
3.757	176	197	1.117	0.099		
3.786	2612	2639	1.010	1.326		
3.827	9426	8673	0.920	4.359	7 PCB-1260 (Aroclor 1260)	RT
3.972	500	496	0.991	0.249		
4.036	95	147	1.545	0.073		
4.079	1377	1352	0.982	0.679		
4.153	3194	3109	0.973	1.562		
4.343	1050	1069	1.018	0.537		
4.501	17173	17078	0.994	8.584	$ 11 Decachlorobiphenyl (S)	RT
	231763	198951		100.000		

Total unknown % height = 47.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.631	1.631	0.000	5348	0.25000	0.260	80.00- 120.00	100.00	(M)	RT
1.878	1.878	0.000	10815	0.25000	0.262	162.66- 243.99	202.22		RT
1.932	1.932	0.000	4465	0.25000	0.268	63.55- 95.32	83.49		RT
2.188	2.188	0.000	3348	0.25000	0.262	49.13- 73.70	62.60		RT
2.277	2.277	0.000	2875	0.25000	0.262	42.04- 63.06	53.76		RT
Average of Peak Amounts =					0.26280				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.797	0.000	4804	0.25000	0.259	80.00- 120.00	100.00	(M)	RT
2.885	2.885	0.000	6145	0.25000	0.259	101.69- 152.53	127.91		RT
2.995	2.995	0.000	7705	0.25000	0.260	125.91- 188.87	160.38		RT
3.584	3.584	0.000	13013	0.25000	0.259	212.47- 318.70	270.86		RT
3.826	3.826	0.000	9426	0.25000	0.260	152.61- 228.91	196.20		RT
Average of Peak Amounts =					0.25940				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.210	0.000	26360	0.05000	0.0518			(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.501	4.501	0.000	17172	0.05000	0.0512			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

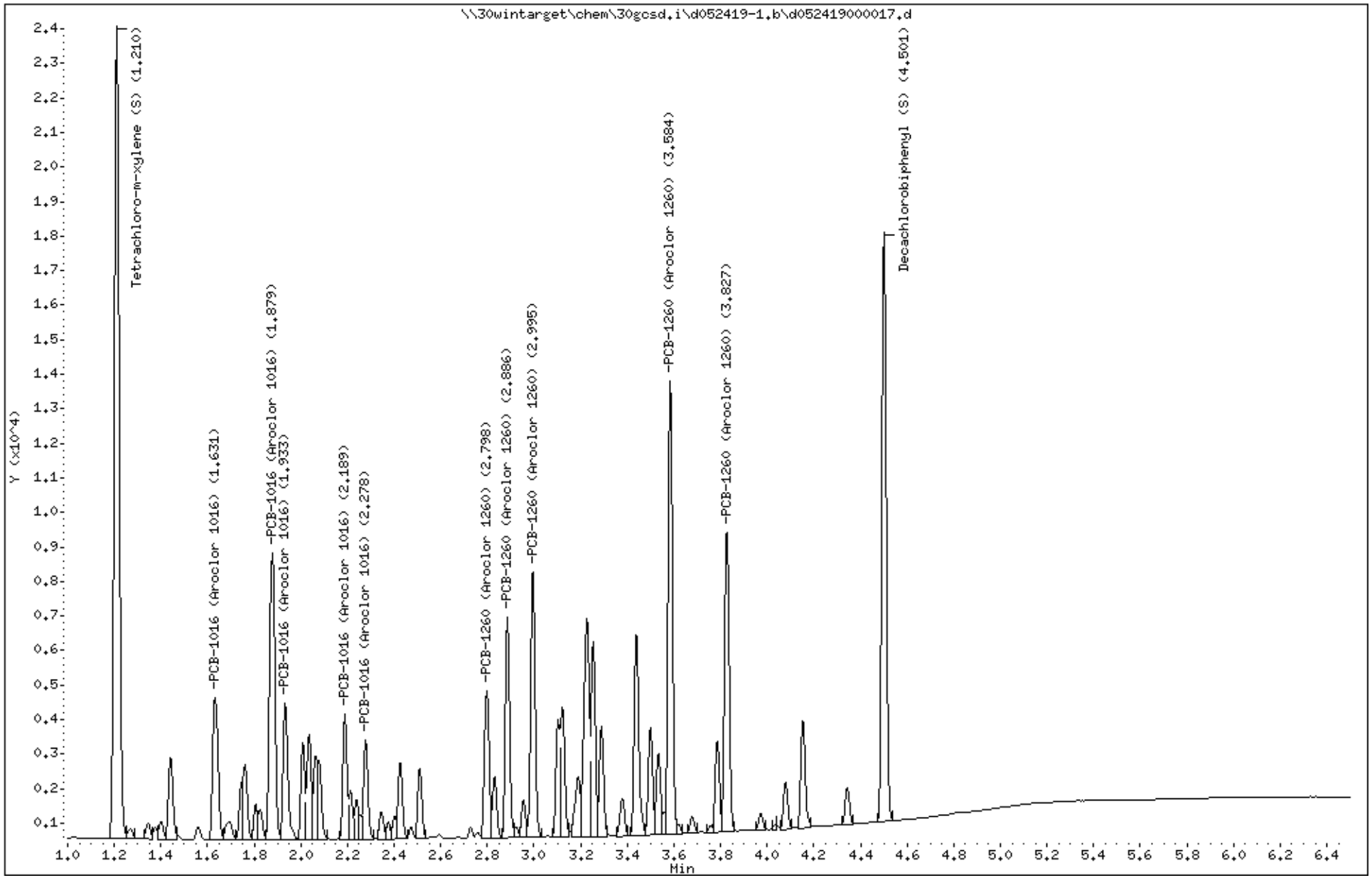
Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

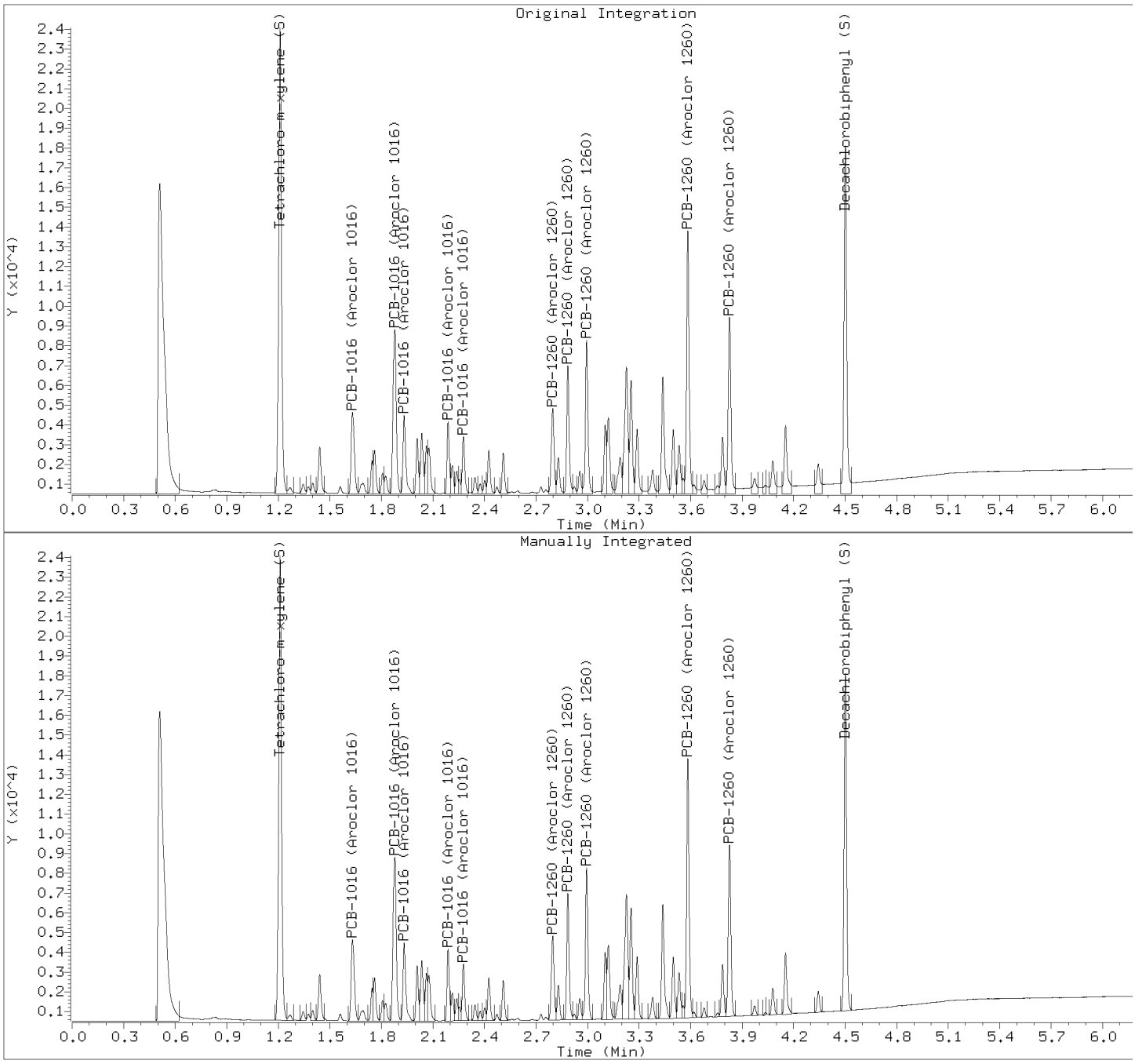
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.631	0.260	
	Peak found at 1.879	0.262	
	Peak found at 1.933	0.268	
	Peak found at 2.189	0.262	
	Peak found at 2.278	0.262	
	Average of Peak Amounts =	0.263	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.259	
	Peak found at 2.886	0.259	
	Peak found at 2.995	0.260	
	Peak found at 3.584	0.259	
	Peak found at 3.827	0.260	
	Average of Peak Amounts =	0.259	
877-09-8	Tetrachloro-m-xylene (S)	0.0518	
2051-24-3	Decachlorobiphenyl (S)	0.0512	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Sample Info: CAL3A, 88854:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5340	5348
PCB-1016 (Aroclor 1016)	10807	10815
PCB-1016 (Aroclor 1016)	4455	4465
PCB-1016 (Aroclor 1016)	3342	3348
PCB-1016 (Aroclor 1016)	2895	2875
PCB-1260 (Aroclor 1260)	4934	4804
PCB-1260 (Aroclor 1260)	6324	6145
PCB-1260 (Aroclor 1260)	7944	7705
PCB-1260 (Aroclor 1260)	13461	13013
PCB-1260 (Aroclor 1260)	10168	9426
Tetrachloro-m-xylene (S)	26476	26360
Decachlorobiphenyl (S)	19084	17172

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	35242	19909	0.565	11.087		
1.528	280	249	0.888	0.138		
1.586	23458	22708	0.968	12.680	$ 10 Tetrachloro-m-xylene (S)	RT
1.713	473	456	0.965	0.253		
1.762	2470	2400	0.972	1.336		
1.843	297	304	1.024	0.169		
1.964	2934	3126	1.065	1.740	1 PCB-1016 (Aroclor 1016)	RT
1.984	1796	1807	1.006	1.006		
2.019	374	377	1.007	0.209		
2.076	3188	2051	0.643	1.142		
2.201	774	847	1.095	0.471		
2.224	898	848	0.945	0.472		
2.268	4040	4695	1.162	2.614		
2.286	5723	5864	1.025	3.265	1 PCB-1016 (Aroclor 1016)	RT
2.306	3665	3630	0.991	2.021		
2.375	2846	2654	0.933	1.478	1 PCB-1016 (Aroclor 1016)	RT
2.404	265	274	1.033	0.152		
2.439	2246	2336	1.040	1.300		
2.471	2603	2658	1.021	1.480	1 PCB-1016 (Aroclor 1016)	RT
2.499	1007	930	0.924	0.517		
2.561	2582	2684	1.040	1.494	1 PCB-1016 (Aroclor 1016)	RT
2.589	1425	1281	0.899	0.713		
2.617	881	921	1.045	0.512		
2.639	687	716	1.043	0.398		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.667	2825	1897	0.672	1.056		
2.818	2441	1786	0.732	0.994		
2.864	396	401	1.013	0.223		
2.960	1803	1741	0.966	0.969		
3.138	232	261	1.126	0.145		
3.161	943	899	0.953	0.500		
3.199	795	781	0.982	0.434		
3.246	3441	2692	0.782	1.499		
3.277	665	735	1.106	0.409		
3.309	5335	5251	0.984	2.924	7 PCB-1260 (Aroclor 1260)	RT
3.391	540	494	0.914	0.275		
3.436	893	856	0.958	0.476		
3.479	6361	6449	1.014	3.591	7 PCB-1260 (Aroclor 1260)	RT
3.502	1884	1861	0.988	1.036		
3.556	4326	2998	0.693	1.669		
3.587	618	591	0.956	0.329		
3.631	647	581	0.898	0.323		
3.663	7914	6204	0.784	3.455	7 PCB-1260 (Aroclor 1260)	RT
3.721	4843	4626	0.955	2.576		
3.757	2568	2482	0.967	1.382		
3.839	1035	1098	1.061	0.611		
3.862	4961	4737	0.955	2.638		
3.897	274	296	1.080	0.164		
3.922	2387	2337	0.979	1.301		
3.952	1467	1327	0.905	0.739		
4.014	1268	1187	0.936	0.661		
4.060	11174	10647	0.953	5.929	7 PCB-1260 (Aroclor 1260)	RT
4.101	597	560	0.937	0.311		
4.248	6727	6099	0.907	3.396	7 PCB-1260 (Aroclor 1260)	RT
4.273	879	1104	1.256	0.614		
4.296	3021	2540	0.841	1.414		
4.437	155	250	1.616	0.139		
4.462	88	137	1.551	0.076		
4.497	1243	1157	0.931	0.644		
4.618	2663	2576	0.967	1.434		
4.660	136	157	1.153	0.087		
4.809	1011	937	0.927	0.521		
4.960	16295	15018	0.922	8.363	$ 11 Decachlorobiphenyl (S)	RT
5.729	5	18	3.797	0.010		
5.764	5	19	4.185	0.010		
5.983	4	17	4.696	0.009		
6.069	8	31	3.865	0.017		
	205024	179560		100.000		

Total unknown % height = 50.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	2933	0.25000	0.257	80.00- 120.00	100.00(aM)	RT
2.286	2.286	0.000	5723	0.25000	0.262	152.31- 228.47	195.07	RT
2.374	2.374	0.000	2845	0.25000	0.262	75.27- 112.91	96.97	RT
2.470	2.470	0.000	2602	0.25000	0.261	68.58- 102.86	88.69	RT
2.560	2.560	0.000	2581	0.25000	0.261	68.26- 102.40	87.97	RT
Average of Peak Amounts =					0.26060			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	5334	0.25000	0.262	80.00- 120.00	100.00(aM)	RT
3.478	3.478	0.000	6360	0.25000	0.261	88.62- 132.94	119.22	RT
3.662	3.662	0.000	7913	0.25000	0.270	120.10- 180.15	148.33	RT
4.060	4.060	0.000	11174	0.25000	0.260	171.60- 257.41	209.45	RT
4.247	4.247	0.000	6727	0.25000	0.260	103.64- 155.46	126.09	RT
Average of Peak Amounts =					0.26260			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	23457	0.05000	0.0516		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16295	0.05000	0.0513		(M)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

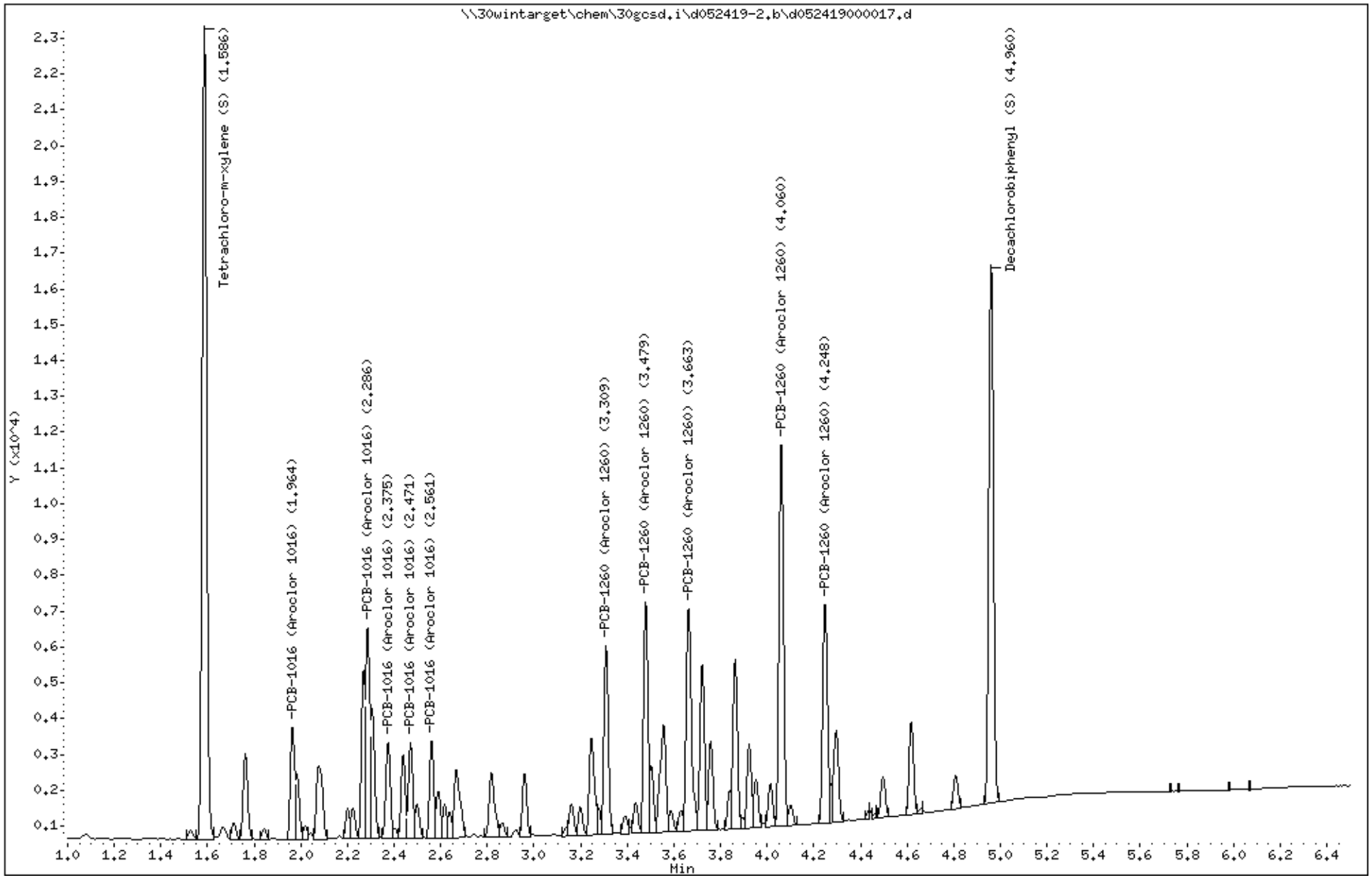
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

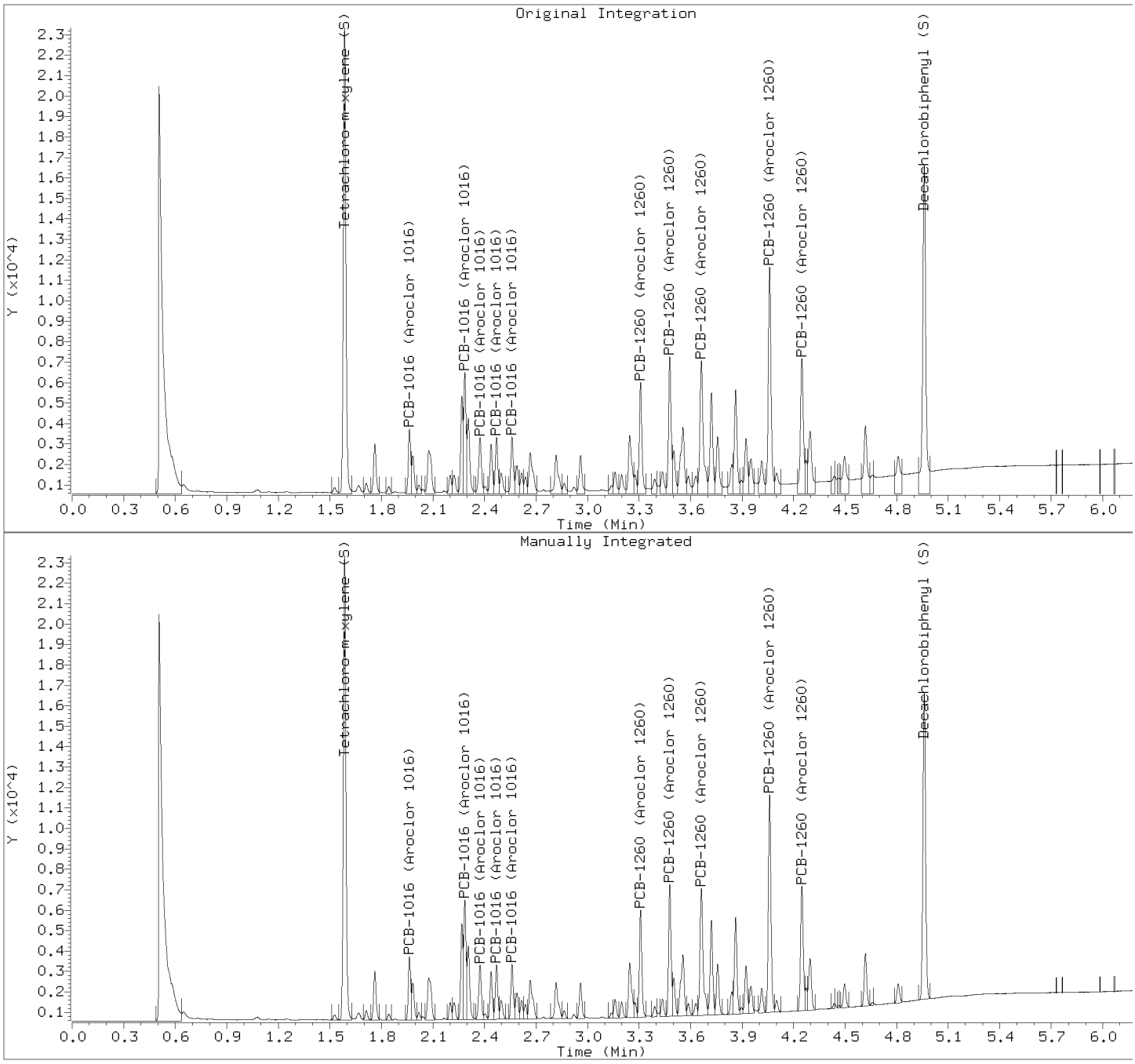
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.257	J
	Peak found at 2.286	0.262	J
	Peak found at 2.375	0.262	J
	Peak found at 2.471	0.261	J
	Peak found at 2.561	0.261	J
	Average of Peak Amounts =	0.261	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.262	J
	Peak found at 3.479	0.261	J
	Peak found at 3.663	0.270	J
	Peak found at 4.060	0.260	J
	Peak found at 4.248	0.260	J
	Average of Peak Amounts =	0.263	J
877-09-8	Tetrachloro-m-xylene (S)	0.0516	
2051-24-3	Decachlorobiphenyl (S)	0.0513	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Instrument: 30gcsd.i
Sample Info: CAL3A, 88854:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3009	2933
PCB-1016 (Aroclor 1016)	5753	5723
PCB-1016 (Aroclor 1016)	3054	2845
PCB-1016 (Aroclor 1016)	2756	2602
PCB-1016 (Aroclor 1016)	2779	2581
PCB-1260 (Aroclor 1260)	5883	5334
PCB-1260 (Aroclor 1260)	6861	6360
PCB-1260 (Aroclor 1260)	8895	7913
PCB-1260 (Aroclor 1260)	12486	11174
PCB-1260 (Aroclor 1260)	8067	6727
Tetrachloro-m-xylene (S)	23677	23457
Decachlorobiphenyl (S)	20662	16295

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	16733	6708	0.401	8.553		
1.211	10571	9451	0.894	12.072	$ 10 Tetrachloro-m-xylene (S)	
1.441	1046	982	0.939	1.252		
1.632	2224	1709	0.768	2.179	1 PCB-1016 (Aroclor 1016)	
1.746	554	680	1.227	0.867		
1.761	901	894	0.992	1.139		
1.807	368	423	1.150	0.539		
1.879	4376	3380	0.772	4.309	1 PCB-1016 (Aroclor 1016)	
1.932	1725	1634	0.947	2.083	1 PCB-1016 (Aroclor 1016)	
2.008	1007	1131	1.123	1.442		
2.036	1356	1260	0.929	1.606		
2.062	887	1002	1.130	1.277		
2.078	988	957	0.969	1.220		
2.188	1375	1478	1.075	1.884	1 PCB-1016 (Aroclor 1016)	
2.213	537	583	1.086	0.743		
2.239	425	463	1.089	0.590		
2.278	1167	1178	1.009	1.502	1 PCB-1016 (Aroclor 1016)	
2.425	901	914	1.014	1.165		
2.510	793	857	1.080	1.092		
2.797	1988	1762	0.886	2.246	7 PCB-1260 (Aroclor 1260)	
2.831	703	716	1.018	0.912		
2.885	2563	2622	1.023	3.343	7 PCB-1260 (Aroclor 1260)	
2.955	426	451	1.058	0.575		
2.995	3200	3162	0.988	4.031	7 PCB-1260 (Aroclor 1260)	
3.103	1224	1408	1.150	1.795		
3.122	1695	1581	0.932	2.015		
3.190	983	731	0.744	0.932		
3.227	3413	2567	0.752	3.273		
3.253	2331	2359	1.012	3.008		
3.289	1290	1278	0.990	1.629		
3.378	466	438	0.940	0.558		
3.439	2527	2297	0.909	2.928		
3.500	1281	1266	0.988	1.614		
3.533	996	965	0.969	1.230		
3.584	5271	5313	1.008	6.774	7 PCB-1260 (Aroclor 1260)	
3.786	1068	1078	1.009	1.374		
3.827	3806	3600	0.946	4.590	7 PCB-1260 (Aroclor 1260)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.973	200	202	1.009	0.257		
4.079	539	546	1.014	0.696		
4.153	1227	1221	0.995	1.556		
4.343	429	429	1.001	0.547		
4.501	6933	6747	0.973	8.603	$ 11 Decachlorobiphenyl (S)	
	92494	78423		100.000		

Total unknown % height = 46.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	2223	0.10000	0.108	80.00- 120.00	100.00	
1.878	1.878	0.000	4375	0.10000	0.106	162.66- 243.99	196.76	
1.932	1.932	0.000	1725	0.10000	0.104	63.55- 95.32	77.58	
2.188	2.188	0.000	1374	0.10000	0.108	49.13- 73.70	61.82	
2.277	2.277	0.000	1167	0.10000	0.106	42.04- 63.06	52.50	
Average of Peak Amounts =					0.10640			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	1988	0.10000	0.107	80.00- 120.00	100.00	
2.885	2.885	0.000	2562	0.10000	0.108	101.69- 152.53	128.89	
2.994	2.995	-0.001	3199	0.10000	0.108	125.91- 188.87	160.94	
3.583	3.584	-0.001	5270	0.10000	0.105	212.47- 318.70	265.09	
3.826	3.826	0.000	3806	0.10000	0.105	152.61- 228.91	191.43	
Average of Peak Amounts =					0.10660			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	10571	0.02000	0.0208			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	6932	0.02000	0.0206			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

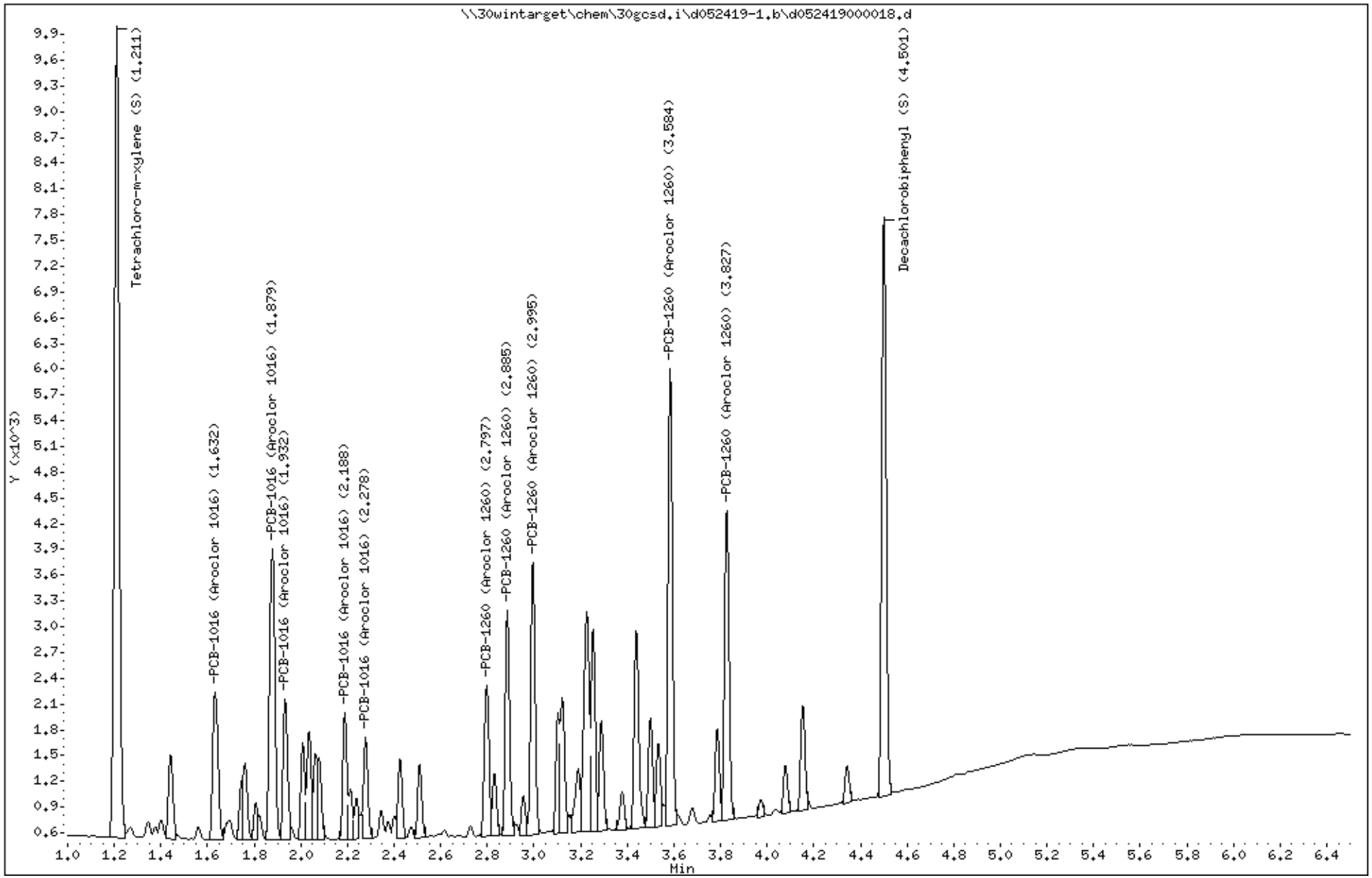
Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

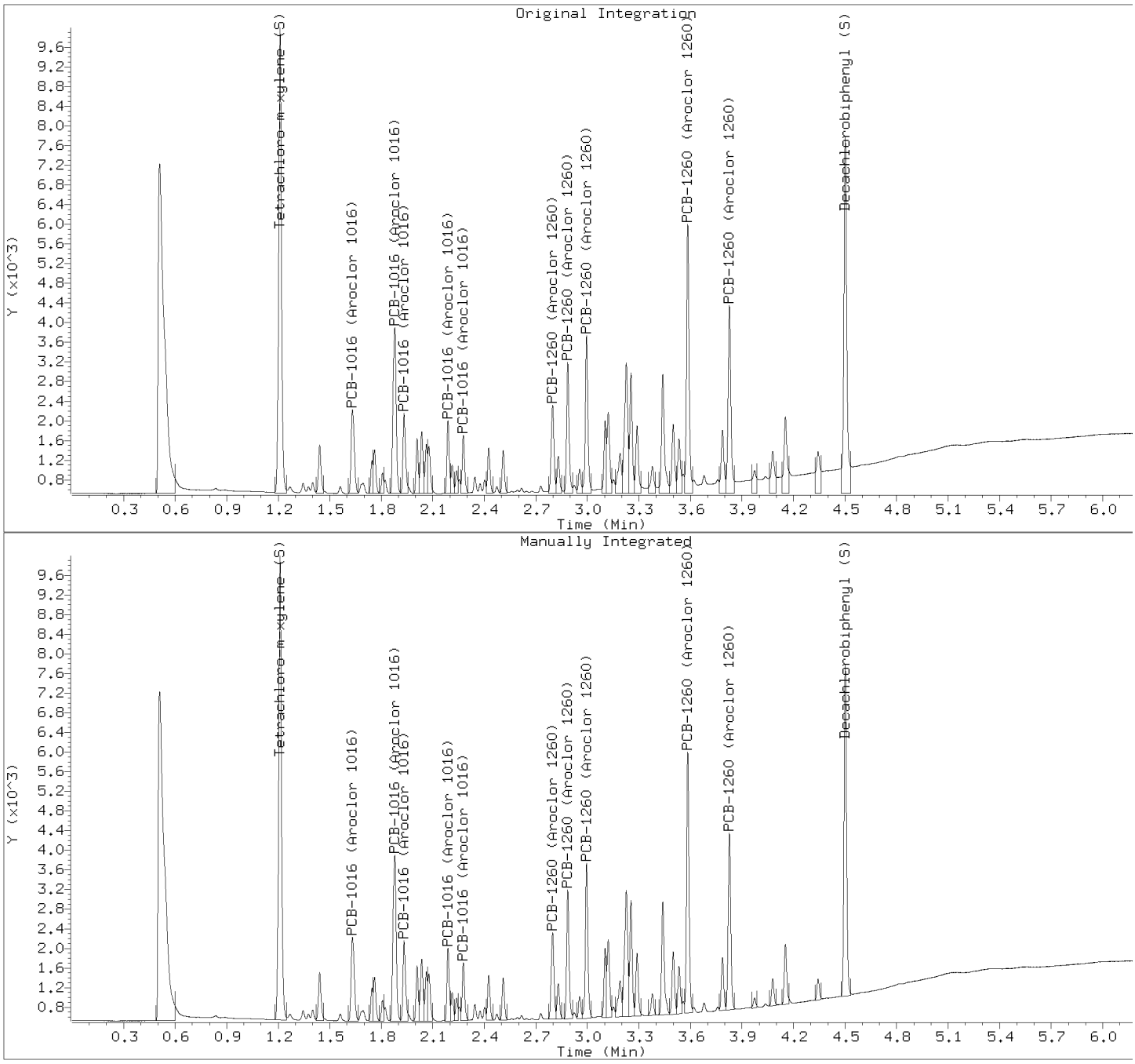
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.108	
	Peak found at 1.879	0.106	
	Peak found at 1.932	0.104	
	Peak found at 2.188	0.108	
	Peak found at 2.278	0.106	
	Average of Peak Amounts =	0.106	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.797	0.107	
	Peak found at 2.885	0.108	
	Peak found at 2.995	0.108	
	Peak found at 3.584	0.105	
	Peak found at 3.827	0.105	
	Average of Peak Amounts =	0.107	
877-09-8	Tetrachloro-m-xylene (S)	0.0208	
2051-24-3	Decachlorobiphenyl (S)	0.0206	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Sample Info: CAL2A, 88853:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2206	2223
PCB-1016 (Aroclor 1016)	4356	4375
PCB-1016 (Aroclor 1016)	1710	1725
PCB-1016 (Aroclor 1016)	1367	1374
PCB-1016 (Aroclor 1016)	1173	1167
PCB-1260 (Aroclor 1260)	2078	1988
PCB-1260 (Aroclor 1260)	2682	2562
PCB-1260 (Aroclor 1260)	3365	3199
PCB-1260 (Aroclor 1260)	5719	5270
PCB-1260 (Aroclor 1260)	4468	3806
Tetrachloro-m-xylene (S)	10649	10571
Decachlorobiphenyl (S)	8661	6932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	12555	9011	0.718	12.185		
0.565	1251	1243	0.994	1.680		
0.583	2098	1129	0.538	1.526		
1.587	9393	9098	0.969	12.330	$ 10 Tetrachloro-m-xylene (S)	
1.762	1000	973	0.973	1.315		
1.964	1229	1297	1.055	1.753	1 PCB-1016 (Aroclor 1016)	
1.984	714	737	1.032	0.996		
2.076	807	841	1.043	1.137		
2.201	317	344	1.087	0.465		
2.269	1623	1874	1.155	2.534		
2.286	2259	2342	1.037	3.167	1 PCB-1016 (Aroclor 1016)	
2.306	1489	1437	0.965	1.943		
2.375	1137	1074	0.944	1.452	1 PCB-1016 (Aroclor 1016)	
2.439	918	949	1.033	1.283		
2.470	1060	1080	1.019	1.460	1 PCB-1016 (Aroclor 1016)	
2.499	402	378	0.940	0.511		
2.561	1052	1094	1.040	1.479	1 PCB-1016 (Aroclor 1016)	
2.590	574	512	0.893	0.692		
2.617	355	370	1.042	0.500		
2.639	275	283	1.029	0.382		
2.667	880	762	0.866	1.030		
2.818	785	712	0.907	0.962		
2.960	772	734	0.951	0.992		
3.161	369	356	0.964	0.481		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.199	296	311	1.051	0.420		
3.246	1376	1078	0.784	1.457		
3.277	243	283	1.162	0.382		
3.309	2135	2112	0.989	2.856	7 PCB-1260 (Aroclor 1260)	
3.392	207	199	0.961	0.269		
3.437	332	333	1.002	0.450		
3.480	2562	2542	0.992	3.437	7 PCB-1260 (Aroclor 1260)	
3.503	832	838	1.007	1.133		
3.556	1686	1145	0.679	1.548		
3.588	225	217	0.964	0.293		
3.632	149	223	1.497	0.301		
3.663	2877	2427	0.843	3.282	7 PCB-1260 (Aroclor 1260)	
3.722	1928	1864	0.967	2.520		
3.758	1009	1011	1.002	1.367		
3.840	396	432	1.091	0.584		
3.863	1979	1853	0.936	2.505		
3.897	102	117	1.142	0.158		
3.923	961	952	0.990	1.287		
3.952	569	531	0.933	0.718		
4.014	486	466	0.959	0.630		
4.060	4445	4204	0.946	5.685	7 PCB-1260 (Aroclor 1260)	
4.102	147	227	1.542	0.306		
4.248	2671	2363	0.885	3.195	7 PCB-1260 (Aroclor 1260)	
4.273	349	449	1.288	0.607		
4.296	1207	1022	0.847	1.382		
4.437	71	106	1.502	0.143		
4.497	488	456	0.934	0.616		
4.618	1058	1021	0.965	1.380		
4.658	37	56	1.524	0.075		
4.809	380	368	0.967	0.497		
4.960	6509	6069	0.932	8.207	$ 11 Decachlorobiphenyl (S)	
5.279	6	21	3.333	0.028		
6.139	5	20	4.348	0.027		
	81035	73946		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	1228	0.10000	0.108	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	2258	0.10000	0.104	152.31- 228.47	183.79	
2.374	2.374	0.000	1137	0.10000	0.105	75.27- 112.91	92.56	
2.470	2.470	0.000	1059	0.10000	0.106	68.58- 102.86	86.23	
2.560	2.560	0.000	1051	0.10000	0.106	68.26- 102.40	85.59	
Average of Peak Amounts =					0.10580			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	2134	0.10000	0.105	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	2561	0.10000	0.105	88.62- 132.94	120.00	
3.663	3.662	0.001	2877	0.10000	0.0982	120.10- 180.15	134.78	
4.059	4.060	-0.001	4444	0.10000	0.103	171.60- 257.41	208.19	
4.247	4.247	0.000	2670	0.10000	0.103	103.64- 155.46	125.11	
Average of Peak Amounts =					0.10284			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	9392	0.02000	0.0207		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	6508	0.02000	0.0205		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

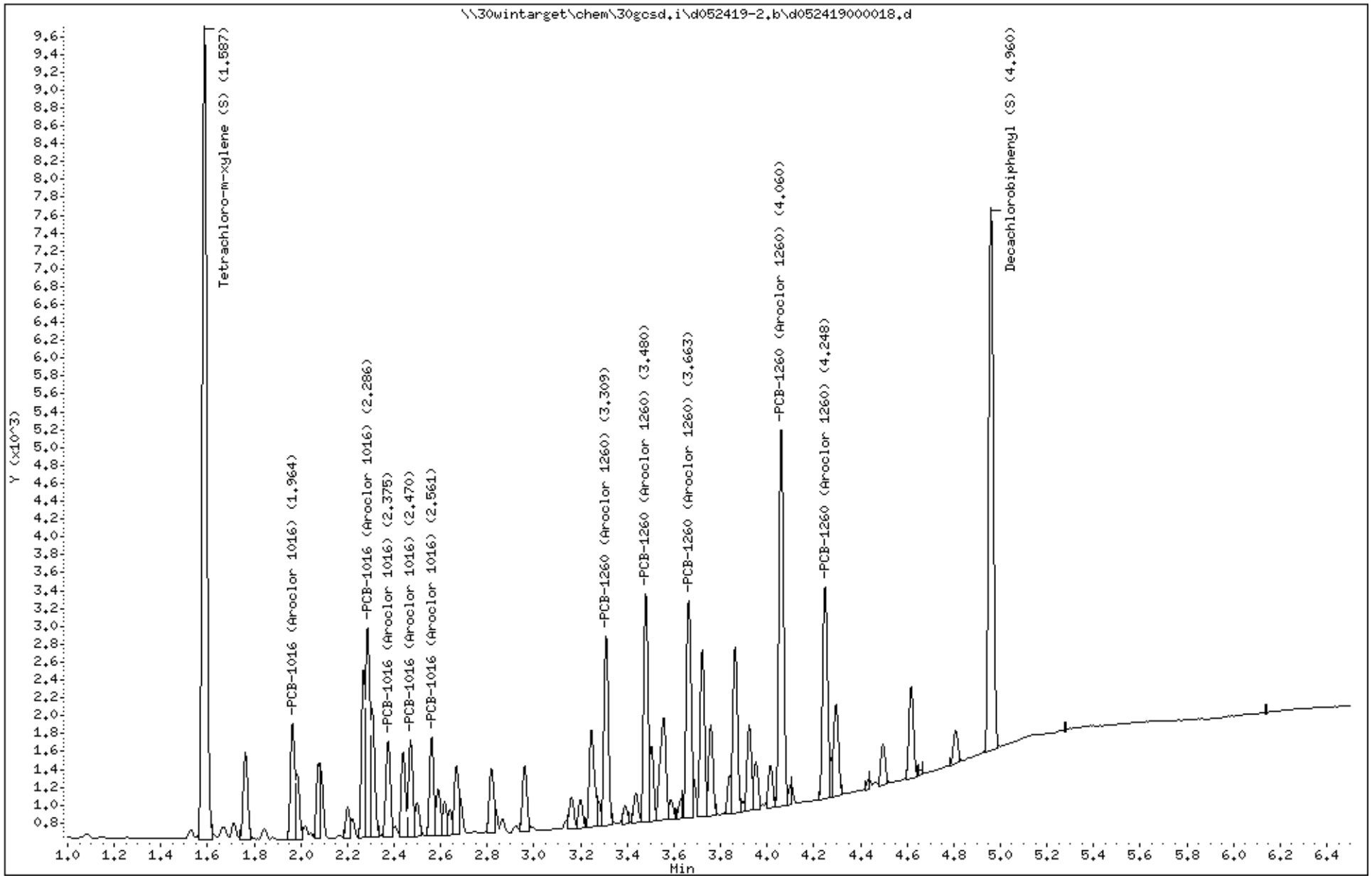
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

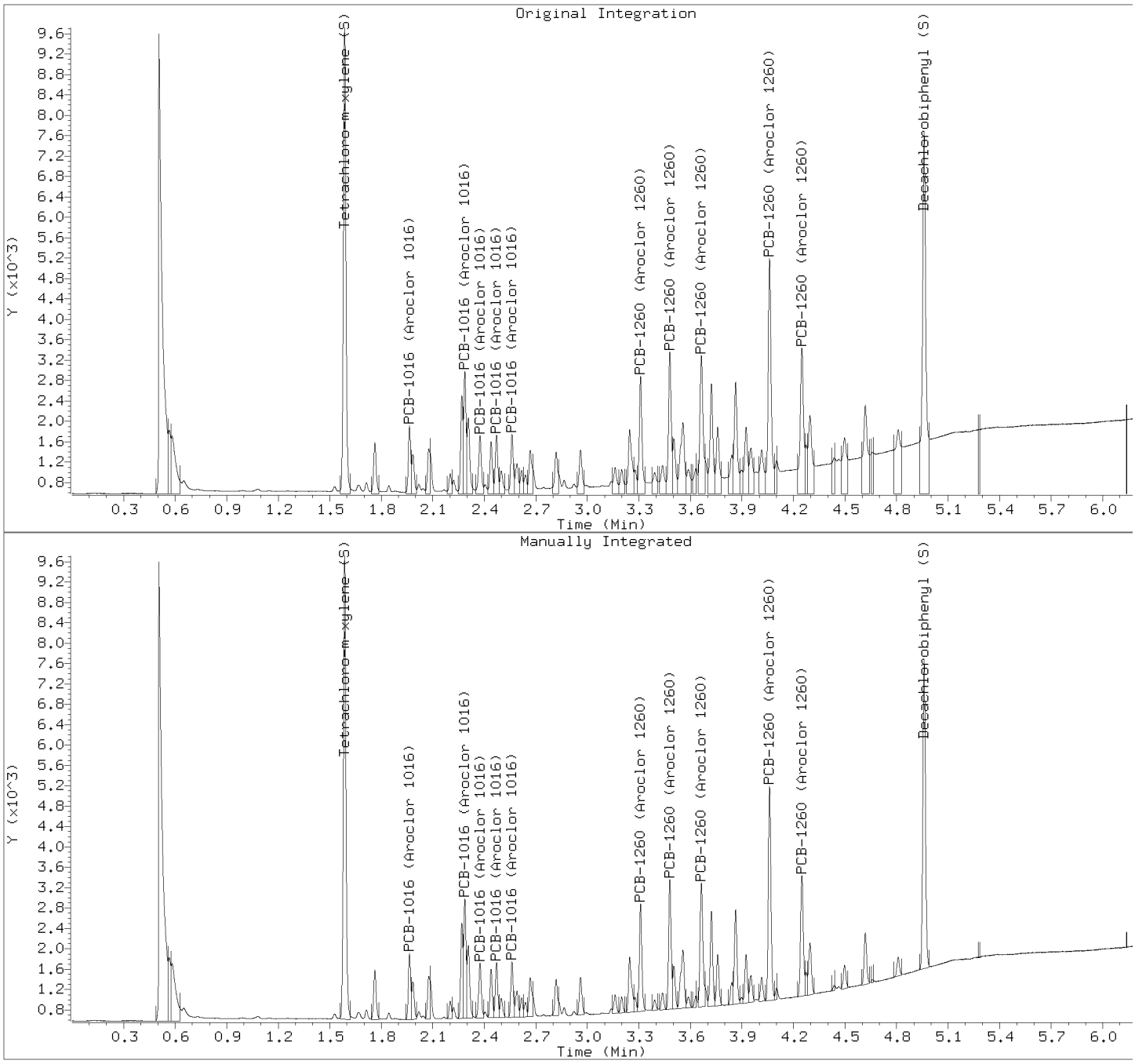
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.108	J
	Peak found at 2.286	0.104	J
	Peak found at 2.375	0.105	J
	Peak found at 2.470	0.106	J
	Peak found at 2.561	0.106	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.105	J
	Peak found at 3.480	0.105	J
	Peak found at 3.663	0.0982	J
	Peak found at 4.060	0.103	J
	Peak found at 4.248	0.103	J
	Average of Peak Amounts =	0.103	J
877-09-8	Tetrachloro-m-xylene (S)	0.0207	J
2051-24-3	Decachlorobiphenyl (S)	0.0205	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Instrument: 30gcsd.i
Sample Info: CAL2A, 88853:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1279	1228
PCB-1016 (Aroclor 1016)	2300	2258
PCB-1016 (Aroclor 1016)	1288	1137
PCB-1016 (Aroclor 1016)	1178	1059
PCB-1016 (Aroclor 1016)	1198	1051
PCB-1260 (Aroclor 1260)	2628	2134
PCB-1260 (Aroclor 1260)	3065	2561
PCB-1260 (Aroclor 1260)	3541	2877
PCB-1260 (Aroclor 1260)	5705	4444
PCB-1260 (Aroclor 1260)	3935	2670
Tetrachloro-m-xylene (S)	9501	9392
Decachlorobiphenyl (S)	9842	6508

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	9429	3422	0.363	8.960		
1.210	5272	4675	0.887	12.257	$ 10 Tetrachloro-m-xylene (S)	
1.441	524	497	0.948	1.301		
1.632	1128	871	0.772	2.280	1 PCB-1016 (Aroclor 1016)	
1.760	446	450	1.009	1.178		
1.879	2175	1662	0.764	4.351	1 PCB-1016 (Aroclor 1016)	
1.932	858	829	0.966	2.170	1 PCB-1016 (Aroclor 1016)	
2.008	500	560	1.119	1.466		
2.036	685	647	0.945	1.694		
2.063	462	509	1.102	1.332		
2.078	488	490	1.004	1.283		
2.189	695	751	1.081	1.966	1 PCB-1016 (Aroclor 1016)	
2.278	574	583	1.015	1.526	1 PCB-1016 (Aroclor 1016)	
2.426	452	460	1.017	1.204		
2.510	405	438	1.082	1.146		
2.798	1012	896	0.885	2.346	7 PCB-1260 (Aroclor 1260)	
2.831	354	364	1.030	0.953		
2.886	1293	1347	1.042	3.527	7 PCB-1260 (Aroclor 1260)	
2.955	214	224	1.044	0.586		
2.996	1617	1612	0.997	4.220	7 PCB-1260 (Aroclor 1260)	
3.103	602	681	1.131	1.783		
3.122	865	801	0.926	2.097		
3.190	501	366	0.731	0.958		
3.227	1708	1298	0.760	3.398		
3.254	1191	1181	0.992	3.092		
3.289	654	658	1.007	1.722		
3.379	219	216	0.985	0.565		
3.439	1183	1134	0.959	2.969		
3.500	640	633	0.989	1.657		
3.534	490	476	0.972	1.246		
3.584	2640	2633	0.998	6.894	7 PCB-1260 (Aroclor 1260)	
3.786	538	549	1.020	1.437		
3.827	1894	1813	0.957	4.747	7 PCB-1260 (Aroclor 1260)	
4.080	257	268	1.043	0.701		
4.153	606	615	1.016	1.610		
4.343	134	219	1.640	0.573		
4.501	3497	3363	0.962	8.805	$ 11 Decachlorobiphenyl (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	46199	38191		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	1127	0.05000	0.0549	80.00- 120.00	100.00	
1.878	1.878	0.000	2175	0.05000	0.0526	162.66- 243.99	192.87	
1.932	1.932	0.000	857	0.05000	0.0514	63.55- 95.32	76.07	
2.188	2.188	0.000	694	0.05000	0.0543	49.13- 73.70	61.59	
2.277	2.277	0.000	574	0.05000	0.0523	42.04- 63.06	50.92	
Average of Peak Amounts =					0.05310			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	1012	0.05000	0.0546	80.00- 120.00	100.00	
2.885	2.885	0.000	1292	0.05000	0.0545	101.69- 152.53	127.74	
2.995	2.995	0.000	1616	0.05000	0.0544	125.91- 188.87	159.77	
3.584	3.584	0.000	2639	0.05000	0.0526	212.47- 318.70	260.81	
3.827	3.826	0.001	1893	0.05000	0.0522	152.61- 228.91	187.11	
Average of Peak Amounts =					0.05366			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	5271	0.01000	0.0104			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	3497	0.01000	0.0104			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

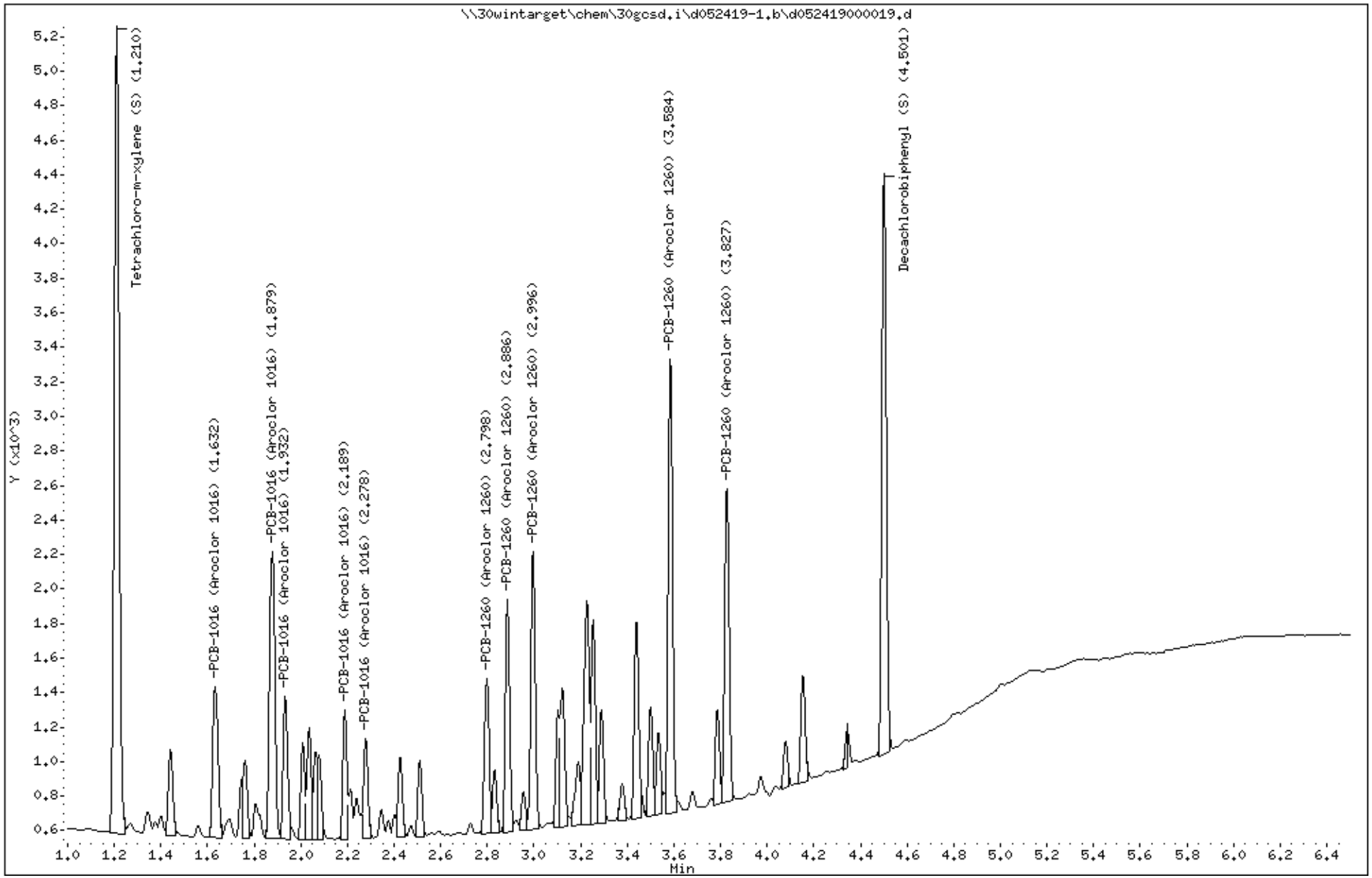
Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

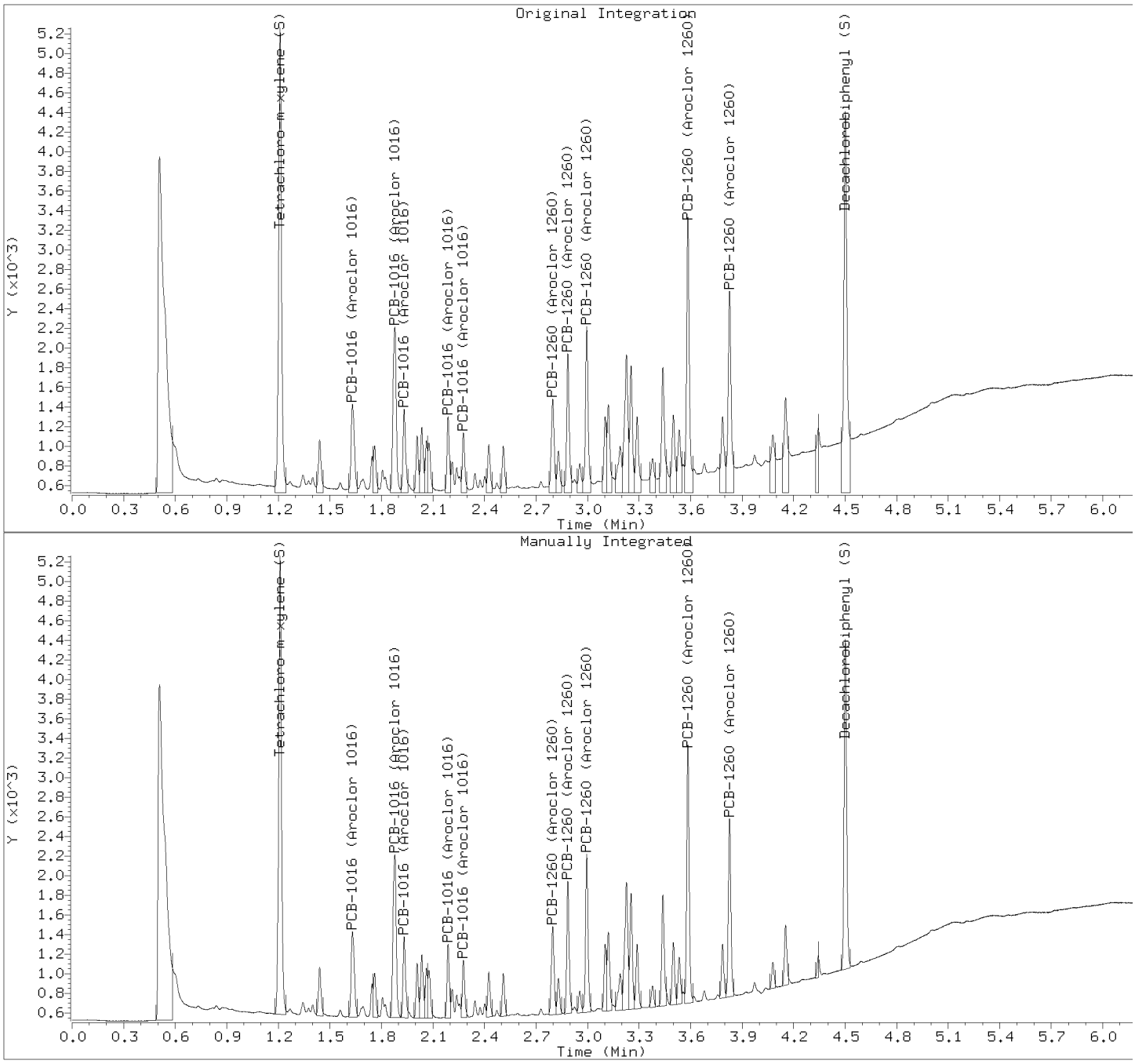
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.0549	
	Peak found at 1.879	0.0526	
	Peak found at 1.932	0.0514	
	Peak found at 2.189	0.0543	
	Peak found at 2.278	0.0523	
	Average of Peak Amounts =	0.0531	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.0546	
	Peak found at 2.886	0.0545	
	Peak found at 2.996	0.0544	
	Peak found at 3.584	0.0526	
	Peak found at 3.827	0.0522	
	Average of Peak Amounts =	0.0537	
877-09-8	Tetrachloro-m-xylene (S)	0.0104	
2051-24-3	Decachlorobiphenyl (S)	0.0104	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Sample Info: CAL1A, 88852:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1224	1127
PCB-1016 (Aroclor 1016)	2273	2175
PCB-1016 (Aroclor 1016)	919	857
PCB-1016 (Aroclor 1016)	737	694
PCB-1016 (Aroclor 1016)	629	574
PCB-1260 (Aroclor 1260)	1157	1012
PCB-1260 (Aroclor 1260)	1470	1292
PCB-1260 (Aroclor 1260)	1854	1616
PCB-1260 (Aroclor 1260)	3155	2639
PCB-1260 (Aroclor 1260)	2569	1893
Tetrachloro-m-xylene (S)	5489	5271
Decachlorobiphenyl (S)	5094	3497

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	6542	5060	0.773	13.893		
0.567	981	915	0.932	2.507		
0.585	1777	1034	0.582	2.834		
1.586	4728	4498	0.951	12.328	$ 10 Tetrachloro-m-xylene (S)	
1.762	486	485	0.998	1.329		
1.964	619	647	1.045	1.773	1 PCB-1016 (Aroclor 1016)	
1.984	360	373	1.036	1.022		
2.076	378	426	1.128	1.167		
2.268	797	925	1.160	2.535		
2.287	1112	1156	1.039	3.168	1 PCB-1016 (Aroclor 1016)	
2.306	723	717	0.991	1.965		
2.375	542	519	0.958	1.422	1 PCB-1016 (Aroclor 1016)	
2.439	457	475	1.039	1.301		
2.470	544	549	1.010	1.504	1 PCB-1016 (Aroclor 1016)	
2.560	524	550	1.050	1.507	1 PCB-1016 (Aroclor 1016)	
2.590	280	252	0.899	0.690		
2.667	406	373	0.920	1.022		
2.817	383	365	0.952	1.000		
2.960	355	355	1.001	0.973		
3.162	171	174	1.020	0.476		
3.246	672	537	0.799	1.471		
3.309	1071	1058	0.988	2.899	7 PCB-1260 (Aroclor 1260)	
3.479	1287	1252	0.972	3.431	7 PCB-1260 (Aroclor 1260)	
3.503	365	376	1.030	1.030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.556	840	563	0.671	1.543		
3.632	111	108	0.976	0.296		
3.663	1408	1212	0.861	3.322	7 PCB-1260 (Aroclor 1260)	
3.722	953	906	0.951	2.483		
3.758	496	493	0.993	1.351		
3.840	201	213	1.061	0.583		
3.863	976	935	0.958	2.562		
3.923	473	459	0.970	1.258		
3.951	287	273	0.951	0.748		
4.014	235	227	0.966	0.622		
4.060	2192	2097	0.957	5.747	7 PCB-1260 (Aroclor 1260)	
4.103	87	106	1.218	0.290		
4.248	1324	1190	0.899	3.261	7 PCB-1260 (Aroclor 1260)	
4.295	596	499	0.837	1.367		
4.437	30	54	1.784	0.148		
4.497	254	234	0.921	0.641		
4.618	508	496	0.977	1.359		
4.809	195	190	0.972	0.520		
4.960	3293	3051	0.926	8.362	$ 11 Decachlorobiphenyl (S)	
5.291	7	25	3.765	0.068		
5.663	11	28	2.593	0.076		
5.787	2	8	4.494	0.021		
5.934	3	3	1.163	0.008		
6.188	7	21	2.846	0.057		
6.234	8	22	2.764	0.060		
	40055	36484		100.000		

Total unknown % height = 51.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	619	0.05000	0.0543	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	1112	0.05000	0.0510	152.31- 228.47	179.71	
2.374	2.374	0.000	541	0.05000	0.0499	75.27- 112.91	87.51	
2.470	2.470	0.000	543	0.05000	0.0544	68.58- 102.86	87.83	
2.560	2.560	0.000	523	0.05000	0.0528	68.26- 102.40	84.60	
Average of Peak Amounts =					0.05248			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	1070	0.05000	0.0526	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	1287	0.05000	0.0528	88.62- 132.94	120.24	
3.663	3.662	0.001	1407	0.05000	0.0480	120.10- 180.15	131.46	
4.060	4.060	0.000	2191	0.05000	0.0509	171.60- 257.41	204.67	
4.247	4.247	0.000	1323	0.05000	0.0511	103.64- 155.46	123.61	
Average of Peak Amounts =					0.05108			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	4728	0.01000	0.0104		(a)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	3293	0.01000	0.0104		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

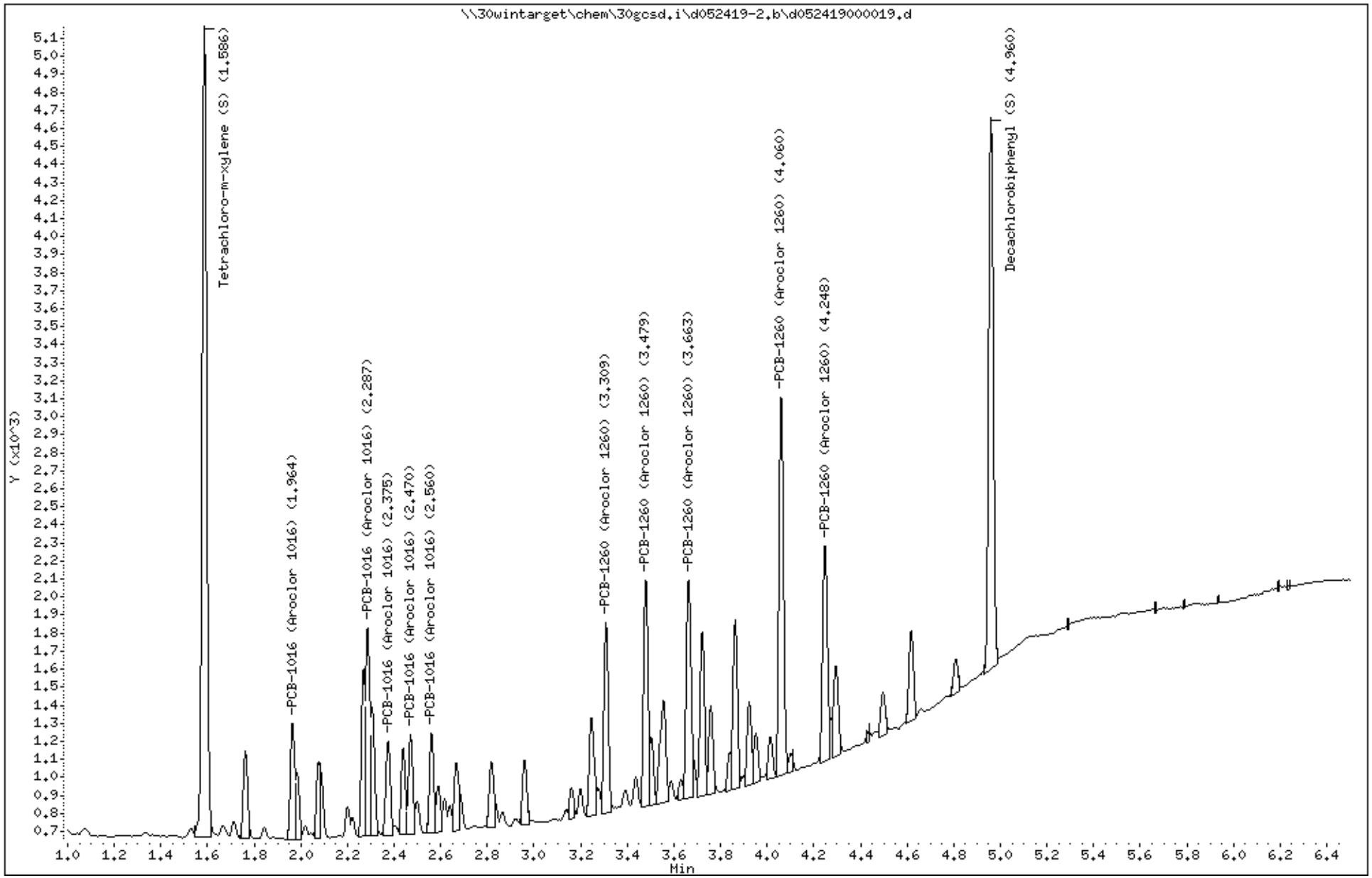
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

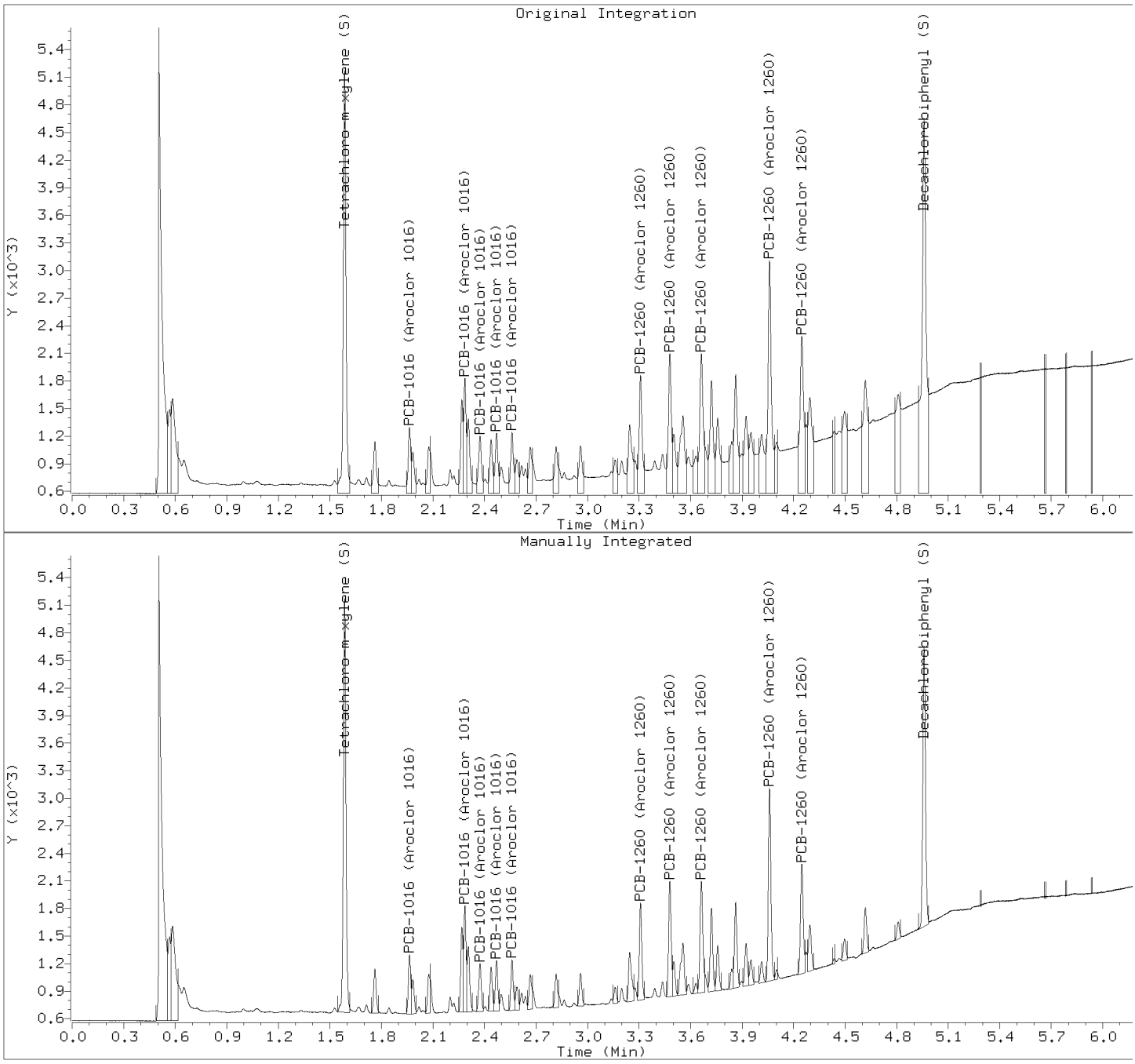
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.0543	J
	Peak found at 2.287	0.0510	J
	Peak found at 2.375	0.0499	J
	Peak found at 2.470	0.0544	J
	Peak found at 2.560	0.0528	J
	Average of Peak Amounts =	0.0525	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.0526	J
	Peak found at 3.479	0.0528	J
	Peak found at 3.663	0.0480	J
	Peak found at 4.060	0.0509	J
	Peak found at 4.248	0.0511	J
	Average of Peak Amounts =	0.0511	J
877-09-8	Tetrachloro-m-xylene (S)	0.0104	J
2051-24-3	Decachlorobiphenyl (S)	0.0104	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Instrument: 30gcsd.i
Sample Info: CAL1A, 88852:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	750	619
PCB-1016 (Aroclor 1016)	1222	1112
PCB-1016 (Aroclor 1016)	777	541
PCB-1016 (Aroclor 1016)	749	543
PCB-1016 (Aroclor 1016)	750	523
PCB-1260 (Aroclor 1260)	1629	1070
PCB-1260 (Aroclor 1260)	1847	1287
PCB-1260 (Aroclor 1260)	2144	1407
PCB-1260 (Aroclor 1260)	3520	2191
PCB-1260 (Aroclor 1260)	2605	1323
Tetrachloro-m-xylene (S)	5104	4728
Decachlorobiphenyl (S)	6898	3293

SAMPLE NO.

10982565ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-1.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.631	1.601	1.661	20538.0000	21604.0000	5.1904
Aroclor 1016	2	Averaged	1.878	1.848	1.908	41334.8333	44156.0000	6.8252
Aroclor 1016	3	Averaged	1.931	1.902	1.962	16656.1666	17236.0000	3.4812
Aroclor 1016	4	Averaged	2.187	2.158	2.218	12773.1666	13440.0000	5.2206
Aroclor 1016	5	Averaged	2.277	2.247	2.307	10979.5000	10340.0000	-5.8245
Aroclor 1260	1	Averaged	2.796	2.767	2.827	18544.0555	20096.0000	8.3690
Aroclor 1260	2	Averaged	2.884	2.855	2.915	23715.7777	23532.0000	-0.7749
Aroclor 1260	3	Averaged	2.994	2.965	3.025	29676.1111	29232.0000	-1.4965
Aroclor 1260	4	Averaged	3.583	3.554	3.614	50204.3888	49736.0000	-0.9330
Aroclor 1260	5	Averaged	3.826	3.796	3.856	36243.8333	37228.0000	2.7154
Decachlorobiphenyl		Averaged	4.5	4.471	4.531	335650.833	344620.000	13.7909
Tetrachloro-m-xylene		Averaged	1.21	1.18	1.24	508604.722	531440.000	4.8280

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10982548ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-2.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.963	1.933	1.993	11393.2222	11928.0000	4.6938
Aroclor 1016	2	Averaged	2.286	2.256	2.316	21808.0555	23348.0000	7.0614
Aroclor 1016	3	Averaged	2.374	2.344	2.404	10849.6666	11568.0000	6.6208
Aroclor 1016	4	Averaged	2.47	2.44	2.5	9980.38889	10672.0000	6.9297
Aroclor 1016	5	Averaged	2.56	2.53	2.59	9901.66667	10468.0000	5.7196
Aroclor 1260	1	Averaged	3.309	3.279	3.339	20320.3333	20036.0000	-1.3993
Aroclor 1260	2	Averaged	3.479	3.448	3.508	24356.2222	23864.0000	-2.0209
Aroclor 1260	3	Averaged	3.662	3.632	3.692	29292.0000	28836.0000	-1.5567
Aroclor 1260	4	Averaged	4.06	4.03	4.09	43025.1666	42548.0000	-1.1090
Aroclor 1260	5	Averaged	4.248	4.217	4.277	25869.7777	26776.0000	3.5030
Decachlorobiphenyl		Averaged	4.96	4.93	4.99	317463.333	326040.000	26.1248
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	474220.000	5.3381

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11246529CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/16/2019 Time: 21:19

Instrument ID: 30GCSD GC Column: Col 1 Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071619-1.B\D071619000047.D Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.599	1.659	20538.0000	19984.0000	-2.6974
Aroclor 1016	2	Averaged	1.876	1.846	1.906	41334.8333	40252.0000	-2.6197
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	16284.0000	-2.2344
Aroclor 1016	4	Averaged	2.185	2.155	2.215	12773.1666	11736.0000	-8.1199
Aroclor 1016	5	Averaged	2.274	2.244	2.304	10979.5000	10364.0000	-5.6059
Aroclor 1260	1	Averaged	2.794	2.764	2.824	18544.0555	17020.0000	-8.2186
Aroclor 1260	2	Averaged	2.882	2.852	2.912	23715.7777	21748.0000	-8.2973
Aroclor 1260	3	Averaged	2.992	2.962	3.022	29676.1111	26276.0000	-11.4574
Aroclor 1260	4	Averaged	3.582	3.551	3.611	50204.3888	45484.0000	-9.4023
Aroclor 1260	5	Averaged	3.824	3.793	3.853	36243.8333	32036.0000	-11.6098
Decachlorobiphenyl		Averaged	4.496	4.468	4.528	335650.833	308480.000	-8.0950
Tetrachloro-m-xylene		Averaged	1.211	1.18	1.24	508604.722	514560.000	1.1709

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11246531CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/16/2019 Time: 21:19

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071619-2.B\D071619000047.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11064.0000	-2.8896
Aroclor 1016	2	Averaged	2.28	2.251	2.311	21808.0555	21712.0000	-0.4405
Aroclor 1016	3	Averaged	2.368	2.339	2.399	10849.6666	10404.0000	-4.1077
Aroclor 1016	4	Averaged	2.464	2.435	2.495	9980.38889	9420.00000	-5.6149
Aroclor 1016	5	Averaged	2.553	2.524	2.584	9901.66667	9284.00000	-6.2380
Aroclor 1260	1	Averaged	3.301	3.271	3.331	20320.3333	18652.0000	-8.2102
Aroclor 1260	2	Averaged	3.471	3.442	3.502	24356.2222	21860.0000	-10.2488
Aroclor 1260	3	Averaged	3.655	3.626	3.686	29292.0000	27496.0000	-6.1314
Aroclor 1260	4	Averaged	4.052	4.023	4.083	43025.1666	39328.0000	-8.5930
Aroclor 1260	5	Averaged	4.239	4.211	4.271	25869.7777	23828.0000	-7.8925
Decachlorobiphenyl		Averaged	4.95	4.922	4.982	317463.333	302520.000	-4.7071
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	455320.000	0.2519

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11246526CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/17/2019 Time: 00:52

Instrument ID: 30GCSD GC Column: Col 1 Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071619-1.B\D071619000072.D Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.599	1.659	20538.0000	20440.0000	-0.4772
Aroclor 1016	2	Averaged	1.877	1.846	1.906	41334.8333	41036.0000	-0.7230
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	16772.0000	0.6954
Aroclor 1016	4	Averaged	2.186	2.155	2.215	12773.1666	12068.0000	-5.5207
Aroclor 1016	5	Averaged	2.275	2.244	2.304	10979.5000	10708.0000	-2.4728
Aroclor 1260	1	Averaged	2.794	2.764	2.824	18544.0555	17232.0000	-7.0753
Aroclor 1260	2	Averaged	2.882	2.852	2.912	23715.7777	22064.0000	-6.9649
Aroclor 1260	3	Averaged	2.992	2.962	3.022	29676.1111	27292.0000	-8.0338
Aroclor 1260	4	Averaged	3.58	3.551	3.611	50204.3888	46252.0000	-7.8726
Aroclor 1260	5	Averaged	3.823	3.793	3.853	36243.8333	33296.0000	-8.1333
Decachlorobiphenyl		Averaged	4.495	4.468	4.528	335650.833	315240.000	-6.0810
Tetrachloro-m-xylene		Averaged	1.211	1.18	1.24	508604.722	517900.000	1.8276

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11246533CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 00:52

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071619-2.B\D071619000072.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11284.0000	-0.9587
Aroclor 1016	2	Averaged	2.28	2.251	2.311	21808.0555	21700.0000	-0.4955
Aroclor 1016	3	Averaged	2.368	2.339	2.399	10849.6666	10596.0000	-2.3380
Aroclor 1016	4	Averaged	2.464	2.435	2.495	9980.38889	9748.00000	-2.3285
Aroclor 1016	5	Averaged	2.553	2.524	2.584	9901.66667	9444.00000	-4.6221
Aroclor 1260	1	Averaged	3.3	3.271	3.331	20320.3333	18748.0000	-7.7377
Aroclor 1260	2	Averaged	3.471	3.442	3.502	24356.2222	22128.0000	-9.1485
Aroclor 1260	3	Averaged	3.654	3.626	3.686	29292.0000	27788.0000	-5.1345
Aroclor 1260	4	Averaged	4.05	4.023	4.083	43025.1666	39612.0000	-7.9330
Aroclor 1260	5	Averaged	4.238	4.211	4.271	25869.7777	23996.0000	-7.2431
Decachlorobiphenyl		Averaged	4.947	4.922	4.982	317463.333	296400.000	-6.6349
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	458500.000	0.9521

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254112CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 15:15

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-1.B\D071719000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.6	1.66	20538.0000	20648.0000	0.5356
Aroclor 1016	2	Averaged	1.876	1.846	1.906	41334.8333	40844.0000	-1.1875
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	17160.0000	3.0249
Aroclor 1016	4	Averaged	2.185	2.155	2.215	12773.1666	12332.0000	-3.4539
Aroclor 1016	5	Averaged	2.274	2.244	2.304	10979.5000	11052.0000	0.6603
Aroclor 1260	1	Averaged	2.794	2.764	2.824	18544.0555	17272.0000	-6.8596
Aroclor 1260	2	Averaged	2.881	2.851	2.911	23715.7777	22140.0000	-6.6444
Aroclor 1260	3	Averaged	2.992	2.962	3.022	29676.1111	27468.0000	-7.4407
Aroclor 1260	4	Averaged	3.581	3.551	3.611	50204.3888	45700.0000	-8.9721
Aroclor 1260	5	Averaged	3.824	3.794	3.854	36243.8333	32500.0000	-10.3296
Decachlorobiphenyl		Averaged	4.497	4.467	4.527	335650.833	302040.000	-10.0136
Tetrachloro-m-xylene		Averaged	1.211	1.181	1.241	508604.722	513540.000	0.9704

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254114CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 15:15

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-2.B\D071719000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11264.0000	-1.1342
Aroclor 1016	2	Averaged	2.28	2.25	2.31	21808.0555	21304.0000	-2.3113
Aroclor 1016	3	Averaged	2.368	2.338	2.398	10849.6666	10624.0000	-2.0799
Aroclor 1016	4	Averaged	2.463	2.433	2.493	9980.38889	9600.00000	-3.8114
Aroclor 1016	5	Averaged	2.554	2.524	2.584	9901.66667	9396.00000	-5.1069
Aroclor 1260	1	Averaged	3.3	3.27	3.33	20320.3333	18568.0000	-8.6235
Aroclor 1260	2	Averaged	3.471	3.441	3.501	24356.2222	22056.0000	-9.4441
Aroclor 1260	3	Averaged	3.654	3.624	3.684	29292.0000	27188.0000	-7.1828
Aroclor 1260	4	Averaged	4.052	4.022	4.082	43025.1666	38304.0000	-10.9730
Aroclor 1260	5	Averaged	4.239	4.209	4.269	25869.7777	23116.0000	-10.6448
Decachlorobiphenyl		Averaged	4.95	4.92	4.98	317463.333	281320.000	-11.3850
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	447540.000	-1.4611

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254102CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 18:23

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-1.B\D071719000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.63	1.6	1.66	20538.0000	21012.0000	2.3079
Aroclor 1016	2	Averaged	1.876	1.846	1.906	41334.8333	41684.0000	0.8447
Aroclor 1016	3	Averaged	1.93	1.9	1.96	16656.1666	17380.0000	4.3457
Aroclor 1016	4	Averaged	2.185	2.155	2.215	12773.1666	12484.0000	-2.2639
Aroclor 1016	5	Averaged	2.274	2.244	2.304	10979.5000	11304.0000	2.9555
Aroclor 1260	1	Averaged	2.793	2.764	2.824	18544.0555	17896.0000	-3.4947
Aroclor 1260	2	Averaged	2.881	2.851	2.911	23715.7777	22996.0000	-3.0350
Aroclor 1260	3	Averaged	2.991	2.962	3.022	29676.1111	28420.0000	-4.2327
Aroclor 1260	4	Averaged	3.581	3.551	3.611	50204.3888	48000.0000	-4.3908
Aroclor 1260	5	Averaged	3.824	3.794	3.854	36243.8333	34548.0000	-4.6790
Decachlorobiphenyl		Averaged	4.496	4.467	4.527	335650.833	319000.000	-4.9608
Tetrachloro-m-xylene		Averaged	1.21	1.181	1.241	508604.722	522340.000	2.7006

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11254104CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 07/17/2019 Time: 18:23

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D071719-2.B\D071719000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30313514

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.958	1.928	1.988	11393.2222	11352.0000	-0.3618
Aroclor 1016	2	Averaged	2.28	2.25	2.31	21808.0555	22072.0000	1.2103
Aroclor 1016	3	Averaged	2.368	2.338	2.398	10849.6666	10824.0000	-0.2366
Aroclor 1016	4	Averaged	2.464	2.433	2.493	9980.38889	9844.00000	-1.3666
Aroclor 1016	5	Averaged	2.553	2.524	2.584	9901.66667	9596.00000	-3.0870
Aroclor 1260	1	Averaged	3.3	3.27	3.33	20320.3333	19304.0000	-5.0016
Aroclor 1260	2	Averaged	3.471	3.441	3.501	24356.2222	22840.0000	-6.2252
Aroclor 1260	3	Averaged	3.655	3.624	3.684	29292.0000	28408.0000	-3.0179
Aroclor 1260	4	Averaged	4.052	4.022	4.082	43025.1666	40332.0000	-6.2595
Aroclor 1260	5	Averaged	4.239	4.209	4.269	25869.7777	24236.0000	-6.3154
Decachlorobiphenyl		Averaged	4.95	4.92	4.98	317463.333	297960.000	-6.1435
Tetrachloro-m-xylene		Averaged	1.583	1.553	1.613	454175.833	459820.000	1.2427

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	10408	4009	0.385	2.152		
0.836	550	302	0.549	0.162		
1.210	26573	23583	0.887	12.692	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	344	262	0.761	0.140		
1.345	451	425	0.942	0.228		
1.400	483	471	0.975	0.252		
1.441	2399	2234	0.931	1.199		
1.632	5401	4154	0.769	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.693	564	496	0.880	0.266		
1.745	1366	1691	1.238	0.907		
1.760	2228	2203	0.989	1.182		
1.806	933	1053	1.129	0.565		
1.823	748	767	1.026	0.411		
1.878	11040	8493	0.769	4.560	1 PCB-1016 (Aroclor 1016)	BA
1.932	4310	4048	0.939	2.173	1 PCB-1016 (Aroclor 1016)	BA
2.008	2532	2834	1.119	1.521		
2.035	3429	3192	0.931	1.713		
2.062	2232	2481	1.111	1.332		
2.077	2421	2348	0.970	1.260		
2.188	3360	3631	1.081	1.949	1 PCB-1016 (Aroclor 1016)	BA
2.212	1294	1374	1.062	0.737		
2.238	988	1047	1.060	0.562		
2.278	2586	2572	0.995	1.381	1 PCB-1016 (Aroclor 1016)	BA
2.345	633	654	1.033	0.351		
2.374	395	432	1.094	0.231		
2.401	599	688	1.149	0.369		
2.425	2325	2310	0.993	1.240		
2.472	392	427	1.089	0.229		
2.510	2230	2325	1.043	1.248		
2.728	611	642	1.050	0.344		
2.796	5024	4347	0.865	2.334	7 PCB-1260 (Aroclor 1260)	BA
2.830	1719	1691	0.984	0.907		
2.885	5883	5982	1.017	3.211	7 PCB-1260 (Aroclor 1260)	BA
2.923	700	714	1.020	0.383		
2.954	1011	1047	1.035	0.562		
2.995	7309	7167	0.981	3.848	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.102	2838	3226	1.137	1.732		
3.121	4001	3738	0.934	2.007		
3.189	2317	1745	0.753	0.936		
3.227	8318	6392	0.768	3.432		
3.253	5447	5442	0.999	2.922		
3.288	3066	3057	0.997	1.641		
3.378	1187	1074	0.905	0.576		
3.439	6083	5407	0.889	2.903		
3.500	2929	2843	0.971	1.526		
3.533	2272	2228	0.981	1.196		
3.557	620	717	1.157	0.384		
3.584	12435	12505	1.006	6.714	7 PCB-1260 (Aroclor 1260)	BA
3.619	244	268	1.098	0.143		
3.679	487	500	1.028	0.268		
3.758	187	208	1.114	0.111		
3.785	2820	2892	1.026	1.552		
3.827	9308	8646	0.929	4.642	7 PCB-1260 (Aroclor 1260)	BA
3.973	350	353	1.010	0.189		
4.037	36	120	3.363	0.064		
4.079	1362	1393	1.023	0.747		
4.153	3518	3396	0.965	1.823		
4.344	864	879	1.017	0.471		
4.501	17232	17116	0.993	9.190	$ 11 Decachlorobiphenyl (S)	BA
	203390	186241		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	5401	0.25000	0.263	80.00- 120.00	100.00(M)	BA
1.878	1.878	0.000	11039	0.25000	0.267	162.66- 243.99	204.40	BA
1.931	1.932	-0.001	4309	0.25000	0.259	63.55- 95.32	79.79	BA
2.187	2.188	-0.001	3360	0.25000	0.263	49.13- 73.70	62.22	BA
2.277	2.277	0.000	2585	0.25000	0.235	42.04- 63.06	47.87	BA
		Average of Peak Amounts =			0.25740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.797	-0.001	5024	0.25000	0.271	80.00- 120.00	100.00(M)	BA
2.884	2.885	-0.001	5883	0.25000	0.248	101.69- 152.53	117.10	BA
2.994	2.995	-0.001	7308	0.25000	0.246	125.91- 188.87	145.46	BA
3.583	3.584	-0.001	12434	0.25000	0.248	212.47- 318.70	247.49	BA
3.826	3.826	0.000	9307	0.25000	0.257	152.61- 228.91	185.26	BA
		Average of Peak Amounts =			0.25400			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	26572	0.05000	0.0522		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.501	-0.001	17231	0.05000	0.0513		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21536	0.010	4.85929	20.00000	Aver	(M)
(2)	41335	44144	0.010	6.79612	20.00000	Aver	(M)
(3)	16656	17228	0.010	3.43316	20.00000	Aver	(M)
(4)	12773	13456	0.010	5.34584	20.00000	Aver	(M)
(5)	10980	10404	0.010	-5.24159	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20368	0.010	9.83574	20.00000	Aver	(M)
(2)	23716	23980	0.010	1.11412	20.00000	Aver	(M)
(3)	29676	29996	0.010	1.07793	20.00000	Aver	(M)
(4)	50204	51380	0.010	2.34165	20.00000	Aver	(M)
(5)	36244	40068	0.010	10.55122	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	533160	0.010	4.82797	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	381940	0.010	13.79087	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.33939
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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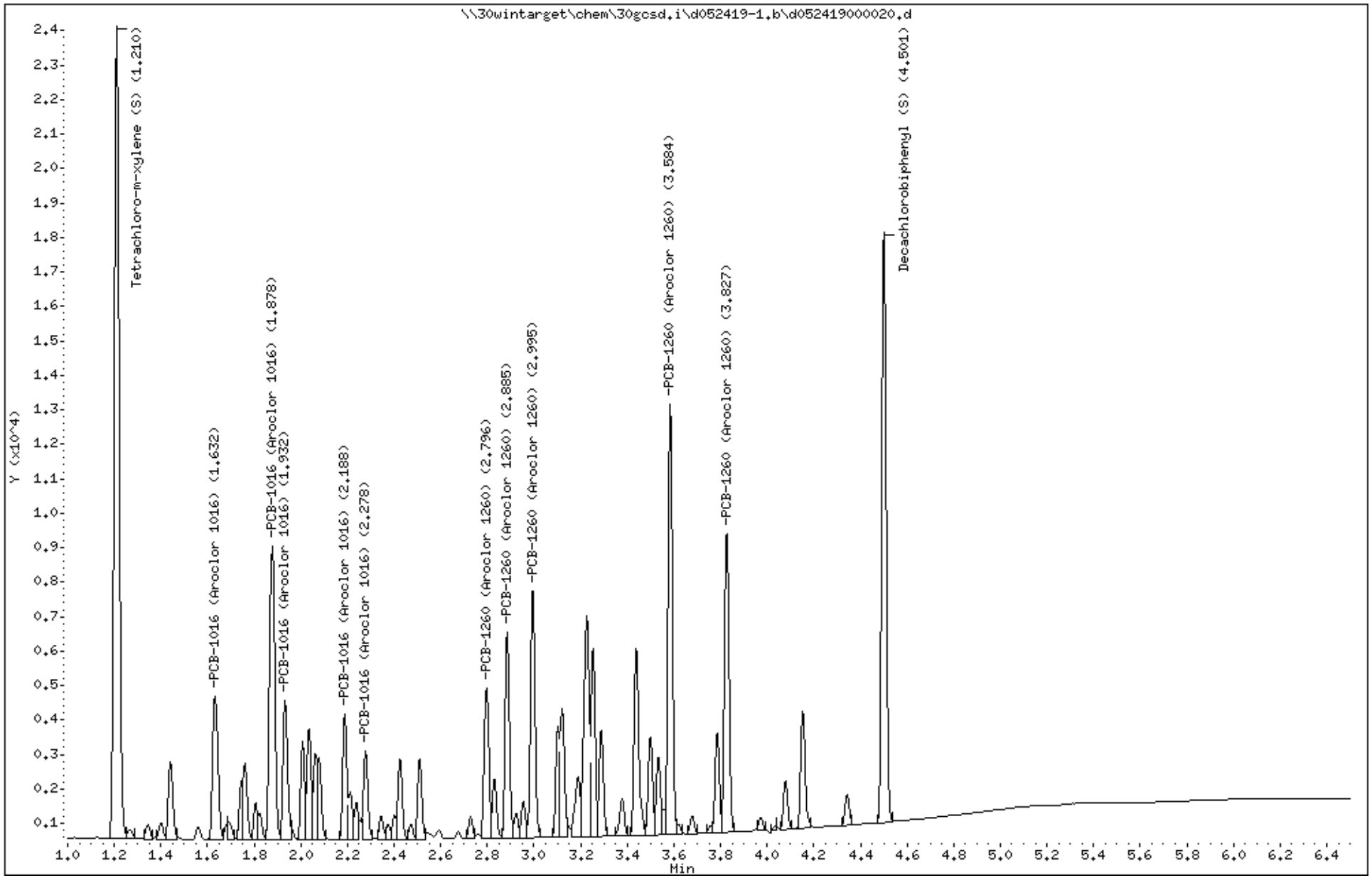
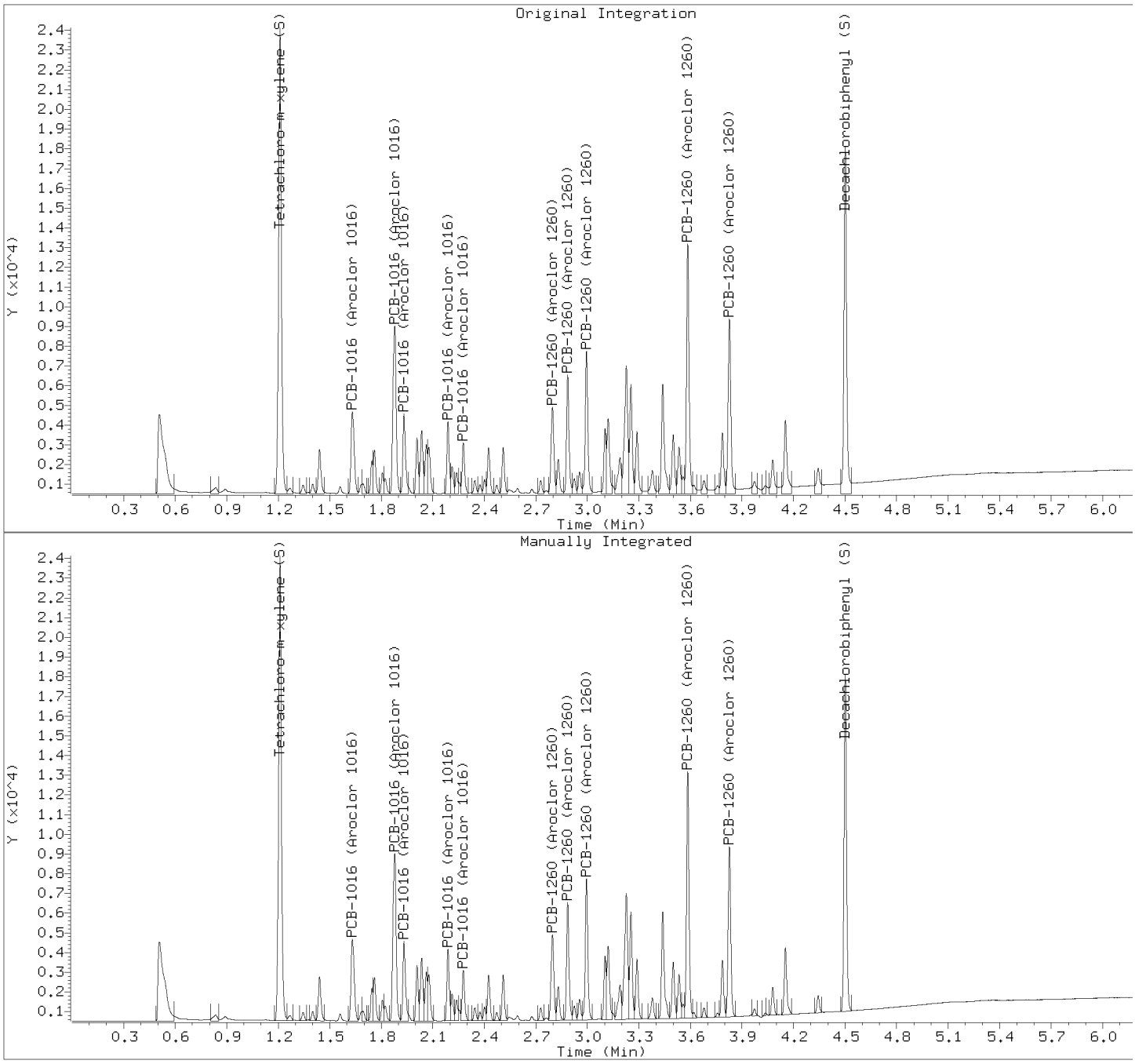
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5384	5401
PCB-1016 (Aroclor 1016)	11036	11039
PCB-1016 (Aroclor 1016)	4307	4309
PCB-1016 (Aroclor 1016)	3364	3360
PCB-1016 (Aroclor 1016)	2601	2585
PCB-1260 (Aroclor 1260)	5092	5024
PCB-1260 (Aroclor 1260)	5995	5883
PCB-1260 (Aroclor 1260)	7499	7308
PCB-1260 (Aroclor 1260)	12845	12434
PCB-1260 (Aroclor 1260)	10017	9307
Tetrachloro-m-xylene (S)	26658	26572
Decachlorobiphenyl (S)	19097	17231

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7506	5663	0.754	3.403		
0.567	1001	888	0.887	0.533		
0.583	1293	830	0.642	0.498		
1.084	490	306	0.625	0.183		
1.587	23711	23008	0.970	13.864	$ 10 Tetrachloro-m-xylene (S)	BA
1.713	427	423	0.991	0.254		
1.762	2107	2062	0.979	1.239		
1.844	299	302	1.011	0.181		
1.964	2982	3217	1.079	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.984	1804	1824	1.011	1.096		
2.019	367	375	1.021	0.225		
2.076	3211	2053	0.639	1.234		
2.201	789	869	1.101	0.522		
2.222	669	652	0.975	0.391		
2.269	4131	4766	1.154	2.864		
2.287	5838	5985	1.025	3.597	1 PCB-1016 (Aroclor 1016)	BA
2.306	3730	3665	0.983	2.202		
2.375	2892	2731	0.944	1.641	1 PCB-1016 (Aroclor 1016)	BA
2.404	270	284	1.051	0.170		
2.439	2379	2464	1.036	1.481		
2.470	2668	2714	1.017	1.631	1 PCB-1016 (Aroclor 1016)	BA
2.499	985	940	0.954	0.565		
2.561	2618	2705	1.033	1.625	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.590	1406	1262	0.898	0.758		
2.617	824	867	1.052	0.521		
2.638	623	655	1.052	0.393		
2.667	2404	1700	0.707	1.021		
2.817	2471	1871	0.757	1.124		
2.865	407	419	1.028	0.251		
2.922	248	258	1.038	0.155		
2.959	2140	2042	0.954	1.227		
3.086	162	164	1.015	0.098		
3.139	454	498	1.096	0.299		
3.160	942	865	0.918	0.519		
3.199	1209	1215	1.005	0.730		
3.246	3223	2461	0.764	1.479		
3.277	621	701	1.128	0.421		
3.309	5010	4937	0.985	2.967	7 PCB-1260 (Aroclor 1260)	BA
3.392	874	833	0.953	0.500		
3.436	857	841	0.981	0.505		
3.479	5967	5953	0.998	3.578	7 PCB-1260 (Aroclor 1260)	BA
3.503	1838	1812	0.986	1.089		
3.557	4166	2837	0.681	1.705		
3.587	601	543	0.904	0.326		
3.631	668	587	0.879	0.352		
3.662	7210	6095	0.845	3.663	7 PCB-1260 (Aroclor 1260)	BA
3.722	4629	4373	0.945	2.628		
3.758	2440	2351	0.964	1.413		
3.841	1113	1212	1.089	0.728		
3.863	4749	4380	0.922	2.632		
3.897	309	327	1.059	0.196		
3.923	2214	2198	0.993	1.321		
3.952	1419	1300	0.916	0.781		
4.014	1364	1241	0.910	0.745		
4.060	10638	10114	0.951	6.079	7 PCB-1260 (Aroclor 1260)	BA
4.101	616	586	0.951	0.352		
4.249	6695	5905	0.882	3.549	7 PCB-1260 (Aroclor 1260)	BA
4.274	811	1103	1.360	0.662		
4.296	3285	2731	0.831	1.641		
4.438	103	151	1.467	0.090		
4.464	108	147	1.363	0.088		
4.497	1332	1222	0.917	0.734		
4.589	13	6	0.462	0.003		
4.618	2928	2811	0.960	1.689		
4.661	181	173	0.957	0.103		
4.810	815	772	0.947	0.464		
4.961	16302	15071	0.924	9.058	$ 11 Decachlorobiphenyl (S)	BA
5.307	10	24	2.434	0.014		
5.867	2	2	1.266	0.001		
6.462	7	27	3.982	0.016		
	178574	166369		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.963	1.963	0.000	2982	0.25000	0.262	80.00- 120.00	100.00	(aM)	BA
2.286	2.286	0.000	5837	0.25000	0.268	152.31- 228.47	195.74		BA
2.374	2.374	0.000	2892	0.25000	0.266	75.27- 112.91	96.97		BA
2.470	2.470	0.000	2668	0.25000	0.267	68.58- 102.86	89.47		BA
2.560	2.560	0.000	2617	0.25000	0.264	68.26- 102.40	87.78		BA
Average of Peak Amounts =					0.26540				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.309	3.309	0.000	5009	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
3.479	3.478	0.001	5966	0.25000	0.245	88.62- 132.94	119.11		BA
3.662	3.662	0.000	7209	0.25000	0.246	120.10- 180.15	143.92		BA
4.060	4.060	0.000	10637	0.25000	0.247	171.60- 257.41	212.36		BA
4.248	4.247	0.001	6694	0.25000	0.259	103.64- 155.46	133.66		BA
Average of Peak Amounts =					0.24860				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.586	0.000	23711	0.05000	0.0522			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16302	0.05000	0.0514		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
1 PCB-1016 (Aroclor 1016)(1)	11393	12188	0.010	6.97588	20.00000	Aver	(aM)	
(2)	21808	23452	0.010	7.53824	20.00000	Aver	(aM)	
(3)	10850	12364	0.010	13.95742	20.00000	Aver	(aM)	
(4)	9980	11280	0.010	13.02165	20.00000	Aver	(aM)	
(5)	9902	11244	0.010	13.55664	20.00000	Aver	(aM)	
7 PCB-1260 (Aroclor 1260)(1)	20320	22268	0.010	9.58482	20.00000	Aver	(aM)	
(2)	24356	25920	0.010	6.42044	20.00000	Aver	(aM)	
(3)	29292	31588	0.010	7.83832	20.00000	Aver	(aM)	
(4)	43025	47496	0.010	10.39121	20.00000	Aver	(aM)	
(5)	25870	31948	0.010	23.49546	20.00000	Aver	(aM)	<-
$ 10 Tetrachloro-m-xylene (S)	454176	478420	0.010	5.33806	20.00000	Aver	(M)	
$ 11 Decachlorobiphenyl (S)	317463	400400	0.010	26.12480	20.00000	Aver	(M)	<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.84432
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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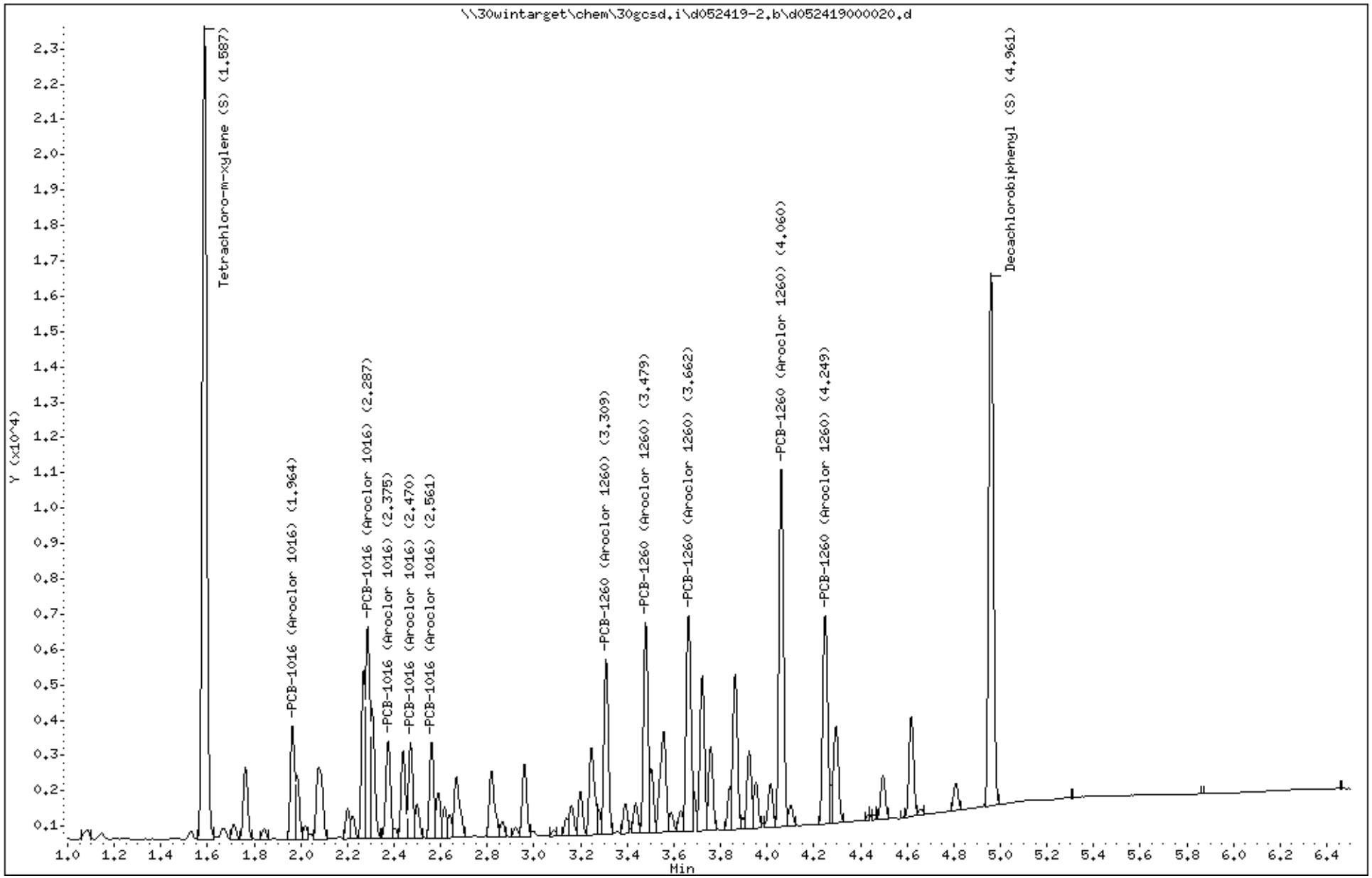
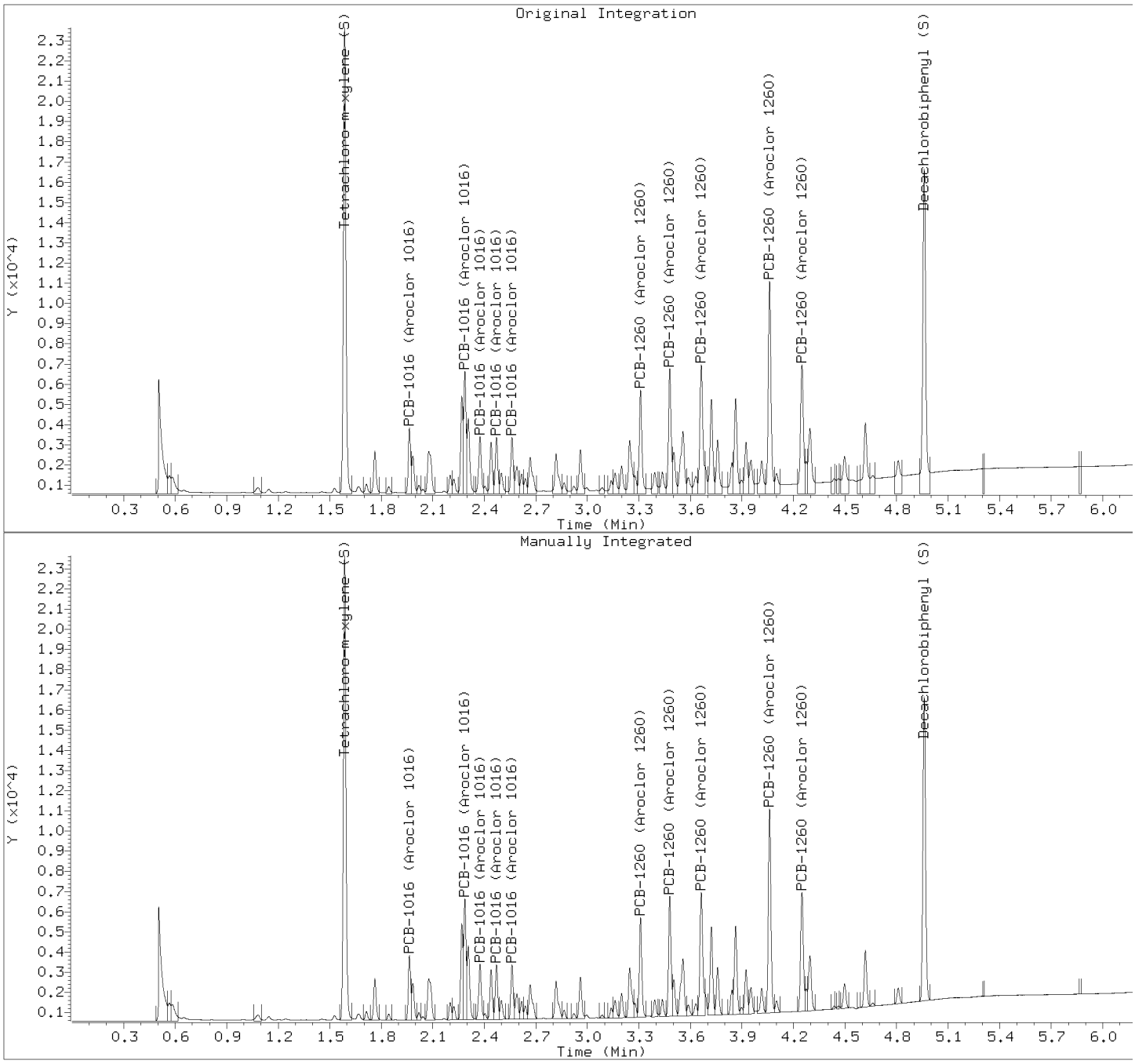
Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Sample Info: ICV, 85333:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3047	2982
PCB-1016 (Aroclor 1016)	5863	5837
PCB-1016 (Aroclor 1016)	3091	2892
PCB-1016 (Aroclor 1016)	2820	2668
PCB-1016 (Aroclor 1016)	2811	2617
PCB-1260 (Aroclor 1260)	5567	5009
PCB-1260 (Aroclor 1260)	6480	5966
PCB-1260 (Aroclor 1260)	7897	7209
PCB-1260 (Aroclor 1260)	11874	10637
PCB-1260 (Aroclor 1260)	7987	6694
Tetrachloro-m-xylene (S)	23921	23711
Decachlorobiphenyl (S)	20020	16302

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000047.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUL-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	25614	8534	0.333	5.050		
1.211	25728	20764	0.807	12.338	$ 10 Tetrachloro-m-xylene (S)	BA
1.345	442	394	0.891	0.233		
1.400	481	438	0.911	0.259		
1.440	2397	2037	0.850	1.205		
1.560	294	280	0.953	0.165		
1.631	4997	3583	0.717	2.120	1 PCB-1016 (Aroclor 1016)	BA
1.692	517	432	0.835	0.255		
1.744	1108	1410	1.272	0.834		
1.759	2158	1908	0.884	1.129		
1.805	790	831	1.052	0.491		
1.822	719	679	0.944	0.401		
1.877	10063	7257	0.721	4.294	1 PCB-1016 (Aroclor 1016)	BA
1.931	4072	3276	0.805	1.938	1 PCB-1016 (Aroclor 1016)	BA
2.007	2195	2232	1.017	1.320		
2.033	2945	2556	0.868	1.512		
2.060	1873	2004	1.070	1.186		
2.075	2271	2020	0.889	1.195		
2.186	2934	2912	0.992	1.723	1 PCB-1016 (Aroclor 1016)	BA
2.210	1172	1167	0.996	0.690		
2.236	930	889	0.956	0.526		
2.275	2591	2346	0.905	1.388	1 PCB-1016 (Aroclor 1016)	BA
2.342	661	605	0.916	0.358		
2.372	347	351	1.013	0.207		
2.399	452	484	1.071	0.286		
2.423	1927	1745	0.906	1.032		
2.470	219	233	1.065	0.137		
2.507	1641	1607	0.979	0.951		
2.725	242	239	0.989	0.141		
2.794	4255	3525	0.828	2.086	7 PCB-1260 (Aroclor 1260)	BA
2.827	1551	1410	0.909	0.834		
2.882	5437	5213	0.959	3.085	7 PCB-1260 (Aroclor 1260)	BA
2.922	249	241	0.968	0.142		
2.952	865	827	0.956	0.489		
2.993	6570	6177	0.940	3.655	7 PCB-1260 (Aroclor 1260)	BA
3.101	2371	2700	1.139	1.597		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.117	3519	3202	0.910	1.895		
3.149	1164	1175	1.010	0.695		
3.187	1972	1404	0.712	0.830		
3.224	7177	5322	0.742	3.149		
3.251	4997	4696	0.940	2.779		
3.286	2743	2511	0.915	1.486		
3.376	1006	882	0.877	0.522		
3.436	5374	4743	0.883	2.807		
3.496	2508	2373	0.946	1.404		
3.531	1914	1769	0.924	1.046		
3.555	355	460	1.296	0.272		
3.582	11372	10863	0.955	6.429	7 PCB-1260 (Aroclor 1260)	BA
3.676	350	340	0.972	0.201		
3.755	155	157	1.014	0.092		
3.784	2156	2111	0.979	1.249		
3.824	8009	7327	0.915	4.336	7 PCB-1260 (Aroclor 1260)	BA
3.969	379	349	0.921	0.206		
4.035	20	66	3.343	0.039		
4.076	1071	1037	0.969	0.613		
4.151	2649	2426	0.916	1.435		
4.341	918	864	0.941	0.511		
4.497	15425	14846	0.962	8.786	$ 11 Decachlorobiphenyl (S)	BA
4.802	10	27	2.842	0.015		
4.836	54	100	1.840	0.059		
4.844	62	135	2.173	0.079		
4.905	81	135	1.677	0.079		
4.927	235	212	0.903	0.125		
4.948	135	257	1.900	0.152		
4.957	198	287	1.451	0.169		
5.028	49	209	4.236	0.123		
5.051	100	186	1.868	0.110		
5.063	50	184	3.714	0.108		
5.069	52	192	3.681	0.113		
5.087	44	204	4.632	0.120		
5.261	16	41	2.491	0.024		
5.305	17	65	3.883	0.038		
5.339	28	83	2.952	0.049		
5.394	28	89	3.208	0.052		
5.424	35	107	3.087	0.063		
5.579	37	156	4.255	0.092		
5.590	41	163	3.996	0.096		
5.629	45	192	4.288	0.113		
5.636	50	199	3.963	0.117		
5.653	78	199	2.543	0.117		
5.687	54	197	3.651	0.116		
5.694	67	202	3.025	0.119		
5.706	49	208	4.257	0.123		
5.744	62	262	4.224	0.155		
5.751	92	281	3.047	0.166		
5.792	126	294	2.336	0.174		
5.799	67	285	4.274	0.168		
5.880	54	229	4.276	0.135		
5.914	87	212	2.445	0.125		
5.920	89	207	2.327	0.122		
5.956	56	192	3.415	0.113		
6.009	76	163	2.134	0.096		
6.023	36	151	4.220	0.089		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.058	56	136	2.441	0.080		
6.128	28	130	4.688	0.076		
6.230	43	86	2.013	0.050		
6.323	23	78	3.322	0.046		
	200814	168964		100.000		

Total unknown % height = 47.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000047.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUL-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.629	0.001	4996	0.25000	0.243	80.00- 120.00	100.00(M)	BA
1.876	1.876	0.000	10063	0.25000	0.243	160.61- 240.92	201.42	BA
1.930	1.930	0.000	4071	0.25000	0.244	65.64- 98.47	81.49	BA
2.185	2.185	0.000	2934	0.25000	0.230	47.23- 70.85	58.73	BA
2.274	2.274	0.000	2591	0.25000	0.236	41.91- 62.86	51.87	BA
Average of Peak Amounts =					0.23920			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.794	2.794	0.000	4255	0.25000	0.229	80.00- 120.00	100.00(M)	BA
2.882	2.882	0.000	5437	0.25000	0.229	102.43- 153.65	127.78	BA
2.992	2.992	0.000	6569	0.25000	0.221	126.70- 190.06	154.38	BA
3.582	3.581	0.001	11371	0.25000	0.226	214.73- 322.09	267.24	BA
3.824	3.823	0.001	8009	0.25000	0.221	154.58- 231.87	188.24	BA
Average of Peak Amounts =					0.22520			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.210	0.001	25728	0.05000	0.0506		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.498	-0.002	15424	0.05000	0.0460		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-JUL-2019 21:19
Lab File ID: d071619000047.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	19984	0.010	-2.69744	20.00000	Aver	(M)
(2)	41335	40252	0.010	-2.61966	20.00000	Aver	(M)
(3)	16656	16284	0.010	-2.23441	20.00000	Aver	(M)
(4)	12773	11736	0.010	-8.11989	20.00000	Aver	(M)
(5)	10980	10364	0.010	-5.60590	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17020	0.010	-8.21857	20.00000	Aver	(M)
(2)	23716	21748	0.010	-8.29734	20.00000	Aver	(M)
(3)	29676	26276	0.010	-11.45740	20.00000	Aver	(M)
(4)	50204	45484	0.010	-9.40234	20.00000	Aver	(M)
(5)	36244	32036	0.010	-11.60979	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	514560	0.010	1.17090	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	308480	0.010	-8.09497	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 4.65646
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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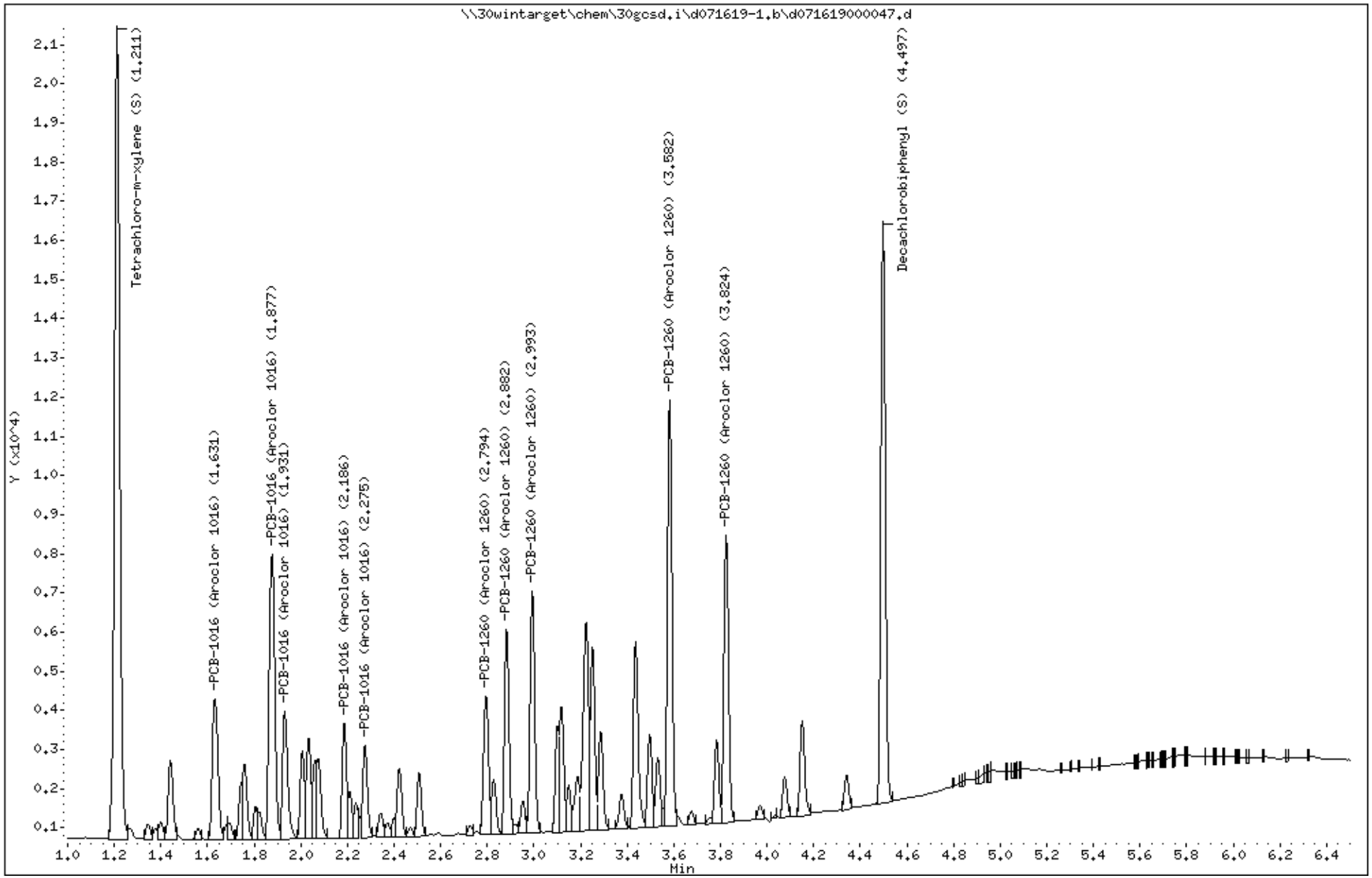
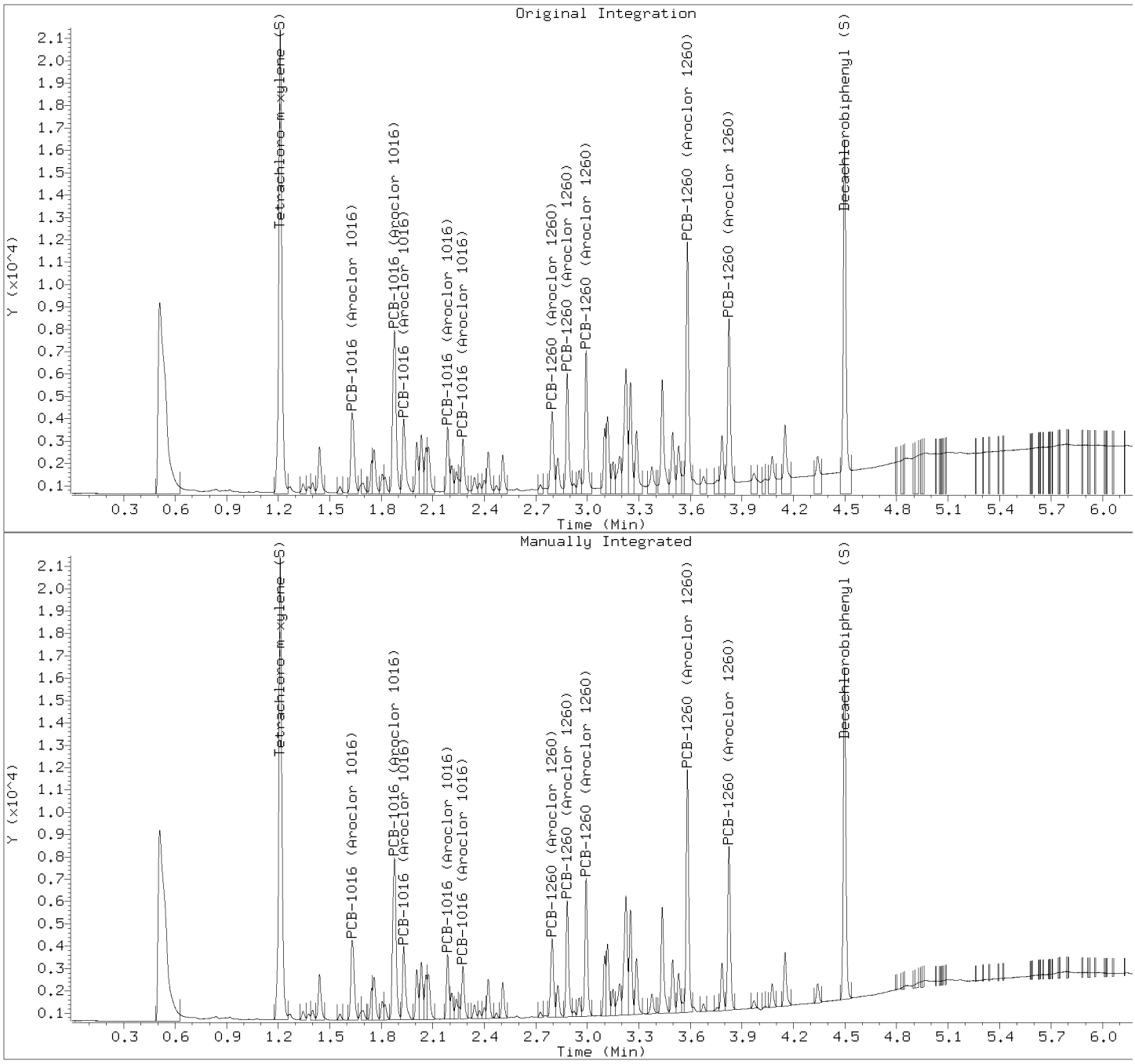
Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000047.d
Date : 16-JUL-2019 21:19
Client ID: CCV
Sample Info: CCV, 93797:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b/d071619000047.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 16-JUL-2019 21:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5142	4996
PCB-1016 (Aroclor 1016)	10272	10063
PCB-1016 (Aroclor 1016)	4329	4071
PCB-1016 (Aroclor 1016)	3101	2934
PCB-1016 (Aroclor 1016)	2858	2591
PCB-1260 (Aroclor 1260)	4723	4255
PCB-1260 (Aroclor 1260)	6024	5437
PCB-1260 (Aroclor 1260)	7294	6569
PCB-1260 (Aroclor 1260)	12541	11371
PCB-1260 (Aroclor 1260)	9609	8009
Tetrachloro-m-xylene (S)	25982	25728
Decachlorobiphenyl (S)	19212	15424

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000047.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUL-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	17502	9767	0.558	6.031		
0.562	2963	2372	0.801	1.464		
1.583	22766	20394	0.896	12.670	$ 10 Tetrachloro-m-xylene (S)	BA
1.709	444	399	0.899	0.246		
1.758	2338	2137	0.914	1.319		
1.839	276	261	0.944	0.161		
1.959	2767	2762	0.998	1.705	1 PCB-1016 (Aroclor 1016)	BA
1.979	1693	1655	0.978	1.022		
2.014	333	318	0.954	0.196		
2.073	2925	1793	0.613	1.107		
2.195	672	705	1.049	0.435		
2.217	580	553	0.954	0.341		
2.263	3576	4071	1.138	2.513		
2.281	5429	5176	0.953	3.196	1 PCB-1016 (Aroclor 1016)	BA
2.300	3460	3228	0.933	1.993		
2.369	2601	2243	0.862	1.385	1 PCB-1016 (Aroclor 1016)	BA
2.398	224	247	1.101	0.152		
2.433	1996	1970	0.987	1.216		
2.465	2355	2261	0.960	1.396	1 PCB-1016 (Aroclor 1016)	BA
2.492	897	788	0.879	0.486		
2.554	2322	2274	0.979	1.404	1 PCB-1016 (Aroclor 1016)	BA
2.583	1256	1100	0.876	0.679		
2.610	781	767	0.982	0.473		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.632	595	596	1.001	0.368		
2.660	2475	1548	0.625	0.955		
2.810	2100	1479	0.704	0.913		
2.858	333	316	0.949	0.195		
2.916	154	151	0.980	0.093		
2.953	1582	1450	0.917	0.895		
3.133	170	207	1.215	0.127		
3.153	812	728	0.897	0.449		
3.192	674	632	0.938	0.390		
3.238	2971	2227	0.750	1.375		
3.270	556	610	1.097	0.376		
3.301	4664	4479	0.960	2.765	7 PCB-1260 (Aroclor 1260)	BA
3.384	440	382	0.869	0.235		
3.429	728	694	0.954	0.428		
3.472	5465	5370	0.983	3.316	7 PCB-1260 (Aroclor 1260)	BA
3.495	2519	2373	0.942	1.465		
3.549	3721	2452	0.659	1.514		
3.579	509	480	0.944	0.296		
3.625	560	479	0.855	0.295		
3.655	6874	5289	0.769	3.266	7 PCB-1260 (Aroclor 1260)	BA
3.714	4084	3841	0.940	2.371		
3.750	2170	2080	0.959	1.284		
3.832	828	910	1.099	0.561		
3.854	4370	4013	0.918	2.478		
3.888	211	237	1.124	0.146		
3.915	2048	1952	0.953	1.205		
3.943	1223	1132	0.925	0.699		
4.007	1050	976	0.929	0.602		
4.052	9833	9053	0.921	5.590	7 PCB-1260 (Aroclor 1260)	BA
4.093	519	465	0.896	0.287		
4.240	5958	5318	0.893	3.284	7 PCB-1260 (Aroclor 1260)	BA
4.266	723	980	1.355	0.605		
4.287	2746	2193	0.799	1.354		
4.348	24	48	1.965	0.029		
4.428	347	272	0.784	0.167		
4.456	184	207	1.128	0.127		
4.489	1307	1072	0.820	0.661		
4.571	38	78	2.042	0.048		
4.579	46	95	2.047	0.058		
4.610	2612	2285	0.875	1.411		
4.653	141	173	1.228	0.106		
4.681	17	51	3.072	0.031		
4.704	14	48	3.395	0.029		
4.800	930	814	0.875	0.502		
4.845	20	62	3.054	0.038		
4.851	27	63	2.339	0.038		
4.916	7	31	4.354	0.019		
4.920	9	45	4.881	0.027		
4.950	15126	13693	0.905	8.455	$ 11 Decachlorobiphenyl (S)	BA
4.990	21	93	4.523	0.057		
5.002	16	81	5.107	0.050		
5.022	22	91	4.088	0.056		
5.034	33	104	3.141	0.064		
5.038	18	105	5.782	0.064		
5.051	62	124	2.000	0.076		
5.060	41	126	3.043	0.077		
5.069	43	138	3.208	0.085		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.076	56	144	2.573	0.088		
5.081	68	147	2.169	0.090		
5.093	44	151	3.470	0.093		
5.104	42	169	4.070	0.104		
5.122	31	180	5.734	0.111		
5.145	30	172	5.720	0.106		
5.180	38	125	3.281	0.077		
5.185	37	131	3.589	0.080		
5.226	35	99	2.855	0.061		
5.236	64	112	1.747	0.069		
5.249	31	120	3.849	0.074		
5.260	40	126	3.120	0.077		
5.272	39	146	3.769	0.090		
5.279	56	162	2.909	0.100		
5.283	37	175	4.675	0.108		
5.295	149	220	1.477	0.135		
5.305	61	241	3.950	0.148		
5.316	93	271	2.913	0.167		
5.327	56	282	5.072	0.174		
5.356	127	277	2.174	0.171		
5.382	172	263	1.531	0.162		
5.391	89	266	3.005	0.164		
5.397	81	276	3.389	0.170		
5.401	90	288	3.211	0.177		
5.406	94	300	3.200	0.185		
5.415	136	321	2.353	0.198		
5.426	111	297	2.682	0.183		
5.447	75	232	3.099	0.143		
5.481	61	177	2.914	0.109		
5.534	53	117	2.195	0.072		
5.559	23	88	3.829	0.054		
5.565	26	89	3.376	0.054		
5.591	22	95	4.354	0.058		
5.609	21	90	4.348	0.055		
5.654	5	29	5.311	0.017		
5.698	5	25	5.470	0.015		
5.724	7	32	4.366	0.019		
5.760	26	59	2.237	0.036		
5.783	28	54	1.915	0.033		
5.797	30	53	1.795	0.032		
5.806	10	57	5.828	0.035		
5.825	13	59	4.602	0.036		
5.830	12	60	5.186	0.037		
5.838	17	72	4.317	0.044		
5.843	11	63	5.932	0.038		
5.865	27	75	2.763	0.046		
5.896	38	82	2.134	0.050		
5.904	29	79	2.692	0.048		
5.911	18	71	3.962	0.043		
5.942	23	74	3.260	0.045		
5.958	23	75	3.255	0.046		
5.962	33	73	2.228	0.045		
5.969	30	76	2.565	0.046		
5.976	17	73	4.371	0.045		
5.993	18	74	4.169	0.045		
6.011	20	81	4.060	0.050		
6.039	47	91	1.923	0.056		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.048	20	91	4.596	0.056		
6.062	22	94	4.372	0.058		
6.074	23	86	3.723	0.053		
6.105	19	81	4.318	0.050		
6.110	17	81	4.871	0.050		
6.122	26	77	2.989	0.047		
6.126	21	75	3.510	0.046		
6.141	17	76	4.529	0.046		
6.150	26	72	2.750	0.044		
6.163	25	88	3.513	0.054		
6.173	35	94	2.664	0.058		
6.185	26	97	3.680	0.059		
6.249	16	74	4.518	0.045		
6.253	22	78	3.493	0.048		
6.261	28	83	3.003	0.051		
6.272	33	74	2.245	0.045		
6.285	15	66	4.552	0.040		
6.316	11	55	5.228	0.033		
6.333	13	57	4.492	0.035		
6.343	14	50	3.556	0.030		
6.367	15	48	3.129	0.029		
6.377	13	51	3.953	0.031		
6.390	12	50	4.019	0.030		
6.402	9	55	5.965	0.033		
6.456	6	29	5.097	0.017		
6.462	5	23	4.331	0.014		
6.465	6	26	4.101	0.016		
6.475	5	21	4.545	0.012		
6.490	2	15	8.065	0.009		
	178099	161935		100.000		

Total unknown % height = 51.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000047.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUL-2019 21:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 47 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.958	1.958	0.000	2766	0.25000	0.243	80.00- 120.00	100.00(aM)	BA
2.280	2.281	-0.001	5428	0.25000	0.249	153.85- 230.77	196.24	BA
2.368	2.369	-0.001	2601	0.25000	0.240	75.12- 112.68	94.03	BA
2.464	2.465	-0.001	2355	0.25000	0.236	69.11- 103.67	85.14	BA
2.553	2.554	-0.001	2321	0.25000	0.234	66.95- 100.43	83.94	BA
Average of Peak Amounts =					0.24040			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.301	3.301	0.000	4663	0.25000	0.229	80.00- 120.00	100.00(aM)	BA
3.471	3.472	-0.001	5465	0.25000	0.224	94.42- 141.63	117.20	BA
3.655	3.656	-0.001	6874	0.25000	0.235	118.57- 177.86	147.42	BA
4.052	4.053	-0.001	9832	0.25000	0.228	169.03- 253.54	210.85	BA
4.239	4.241	-0.002	5957	0.25000	0.230	102.39- 153.59	127.77	BA
Average of Peak Amounts =					0.22920			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.583	1.583	0.000	22766	0.05000	0.0501		(M)	BA

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.952	-0.002	15126	0.05000	0.0476		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-JUL-2019 21:19
Lab File ID: d071619000047.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11064	0.010	-2.88963	20.00000	Aver	(aM)
(2)	21808	21712	0.010	-0.44046	20.00000	Aver	(aM)
(3)	10850	10404	0.010	-4.10765	20.00000	Aver	(aM)
(4)	9980	9420	0.010	-5.61490	20.00000	Aver	(aM)
(5)	9902	9284	0.010	-6.23801	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18652	0.010	-8.21017	20.00000	Aver	(aM)
(2)	24356	21860	0.010	-10.24881	20.00000	Aver	(aM)
(3)	29292	27496	0.010	-6.13137	20.00000	Aver	(aM)
(4)	43025	39328	0.010	-8.59303	20.00000	Aver	(aM)
(5)	25870	23828	0.010	-7.89252	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	455320	0.010	0.25192	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	302520	0.010	-4.70711	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 4.62721
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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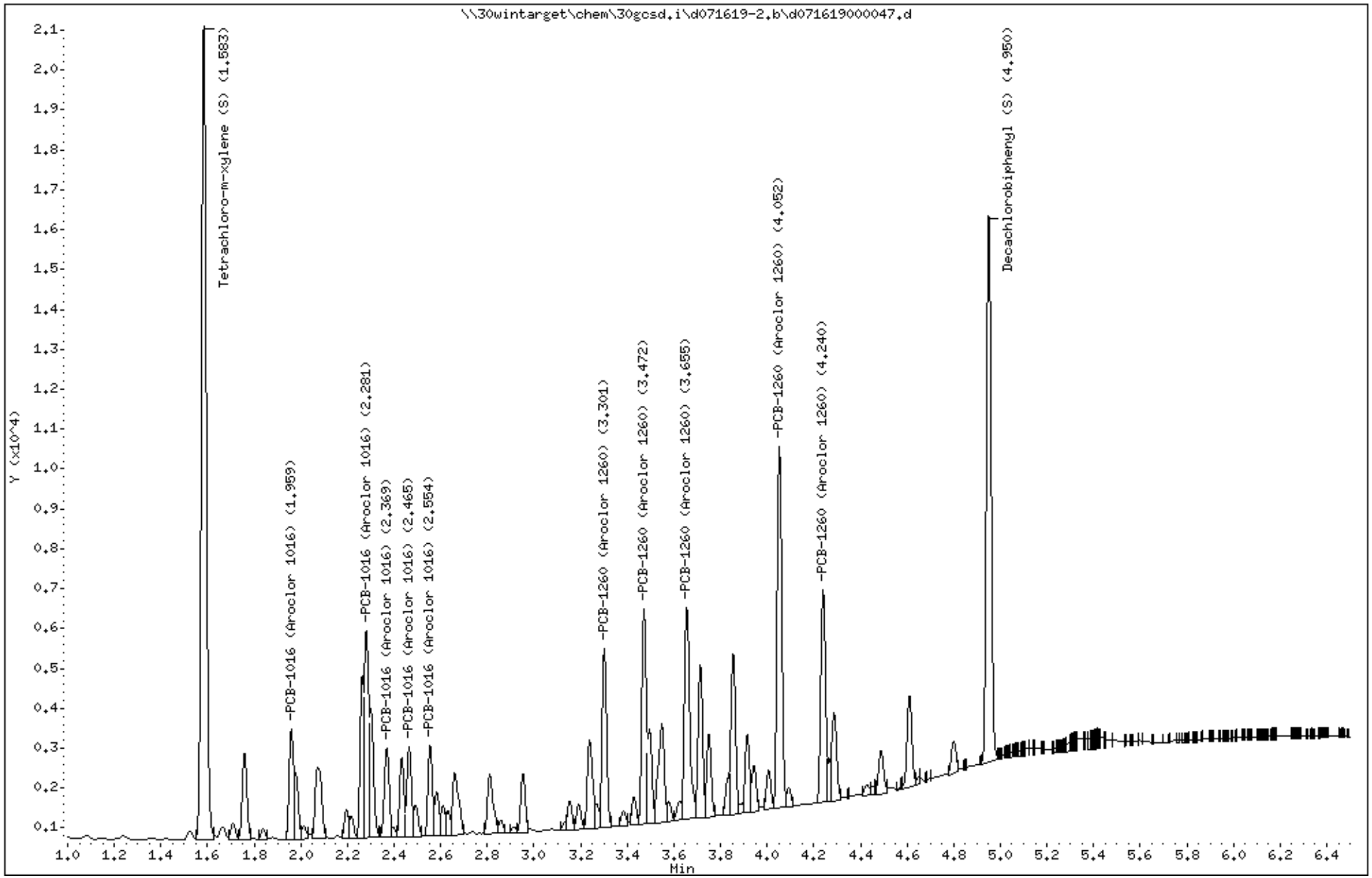
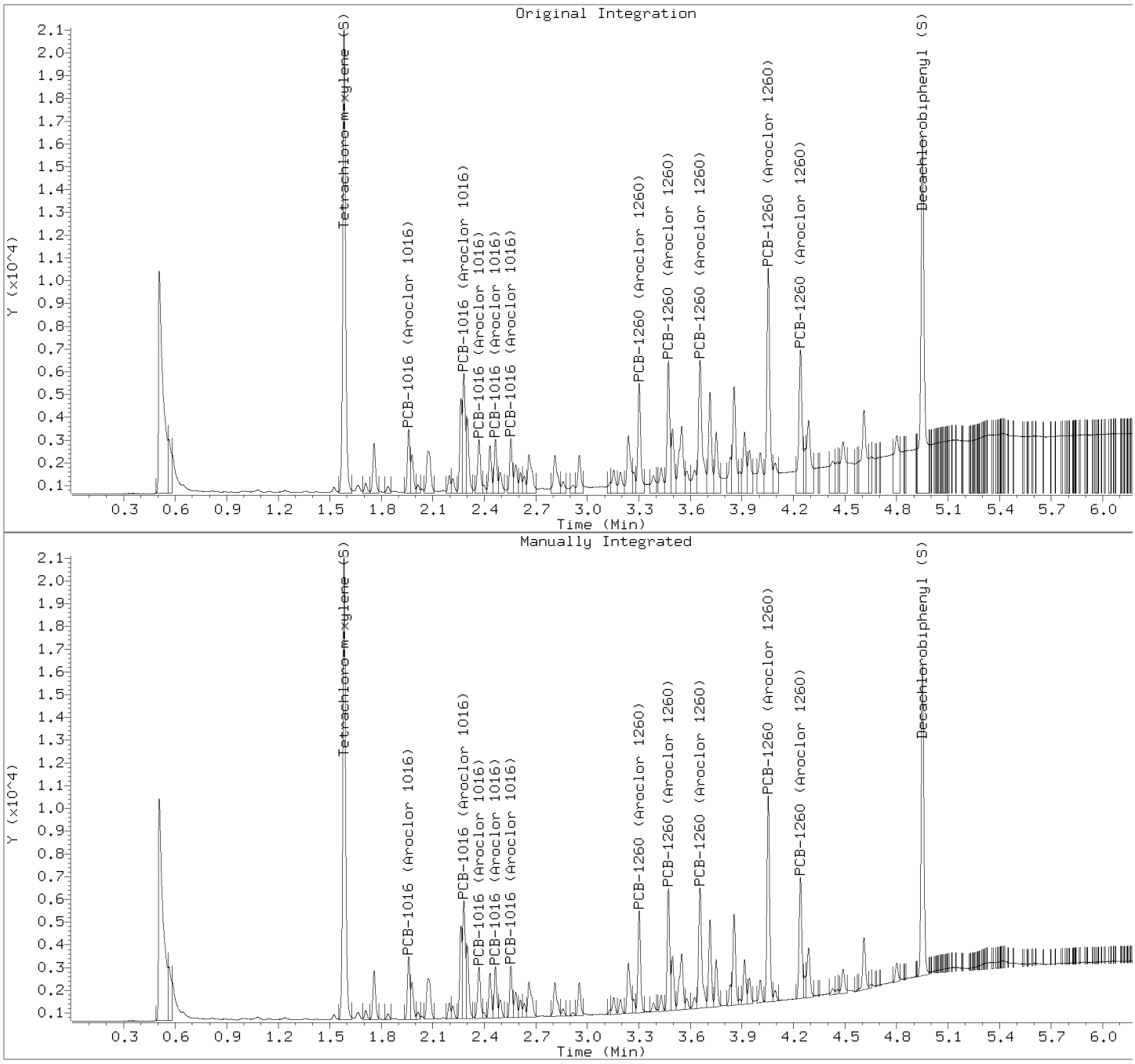
Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000047.d
Date : 16-JUL-2019 21:19
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93797:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b/d071619000047.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 16-JUL-2019 21:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2866	2766
PCB-1016 (Aroclor 1016)	5501	5428
PCB-1016 (Aroclor 1016)	2910	2601
PCB-1016 (Aroclor 1016)	2585	2355
PCB-1016 (Aroclor 1016)	2624	2321
PCB-1260 (Aroclor 1260)	5701	4663
PCB-1260 (Aroclor 1260)	6414	5465
PCB-1260 (Aroclor 1260)	8828	6874
PCB-1260 (Aroclor 1260)	12388	9832
PCB-1260 (Aroclor 1260)	8599	5957
Tetrachloro-m-xylene (S)	22977	22766
Decachlorobiphenyl (S)	23200	15126

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000072.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 00:52
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 72 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	27040	8430	0.312	4.774		
0.668	1959	1177	0.601	0.666		
1.212	25895	20700	0.799	11.785	$ 10 Tetrachloro-m-xylene (S)	BA
1.345	473	414	0.875	0.234		
1.378	303	287	0.949	0.162		
1.400	512	460	0.898	0.260		
1.441	2438	2059	0.845	1.166		
1.560	306	292	0.955	0.165		
1.631	5111	3644	0.713	2.063	1 PCB-1016 (Aroclor 1016)	BA
1.694	820	438	0.534	0.248		
1.744	1149	1448	1.260	0.820		
1.759	2204	1948	0.884	1.103		
1.805	799	846	1.059	0.479		
1.823	838	767	0.915	0.434		
1.877	10260	7345	0.716	4.159	1 PCB-1016 (Aroclor 1016)	BA
1.931	4194	3323	0.792	1.881	1 PCB-1016 (Aroclor 1016)	BA
2.007	2231	2279	1.022	1.290		
2.034	3051	2603	0.853	1.474		
2.060	1977	2095	1.060	1.186		
2.074	2336	2089	0.894	1.183		
2.186	3018	3004	0.995	1.701	1 PCB-1016 (Aroclor 1016)	BA
2.210	1231	1227	0.997	0.694		
2.236	958	929	0.970	0.526		
2.251	405	578	1.427	0.327		
2.275	2677	2404	0.898	1.361	1 PCB-1016 (Aroclor 1016)	BA
2.342	695	638	0.918	0.361		
2.373	368	363	0.987	0.205		
2.400	466	502	1.078	0.284		
2.423	1999	1789	0.895	1.013		
2.470	233	239	1.026	0.135		
2.507	1699	1680	0.989	0.951		
2.726	241	236	0.980	0.133		
2.794	4309	3619	0.840	2.049	7 PCB-1260 (Aroclor 1260)	BA
2.827	1558	1434	0.920	0.812		
2.882	5517	5216	0.945	2.954	7 PCB-1260 (Aroclor 1260)	BA
2.920	251	237	0.945	0.134		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.951	868	849	0.979	0.480		
2.993	6823	6388	0.936	3.617	7 PCB-1260 (Aroclor 1260)	BA
3.100	2427	2768	1.140	1.567		
3.117	3595	3261	0.907	1.846		
3.149	1180	1144	0.969	0.647		
3.186	1980	1416	0.715	0.801		
3.224	7304	5373	0.736	3.042		
3.250	5038	4819	0.957	2.729		
3.286	2785	2565	0.921	1.452		
3.374	964	867	0.899	0.491		
3.435	5376	4712	0.877	2.668		
3.496	2593	2473	0.954	1.400		
3.530	2010	1845	0.918	1.044		
3.554	369	480	1.302	0.271		
3.581	11563	10980	0.950	6.218	7 PCB-1260 (Aroclor 1260)	BA
3.675	380	363	0.955	0.205		
3.755	166	174	1.047	0.098		
3.782	2248	2174	0.967	1.231		
3.823	8324	7440	0.894	4.213	7 PCB-1260 (Aroclor 1260)	BA
3.969	486	406	0.835	0.229		
4.032	95	119	1.247	0.067		
4.075	1194	1099	0.920	0.622		
4.150	2710	2476	0.914	1.402		
4.339	939	879	0.936	0.497		
4.380	20	69	3.419	0.039		
4.496	15762	15184	0.963	8.599	$ 11 Decachlorobiphenyl (S)	BA
4.642	7	28	4.230	0.015		
4.676	8	32	3.846	0.018		
4.706	26	79	3.058	0.044		
4.730	29	100	3.479	0.056		
4.754	53	103	1.949	0.058		
4.806	62	91	1.462	0.051		
4.844	36	87	2.448	0.049		
4.855	37	115	3.138	0.065		
4.860	39	131	3.392	0.074		
4.869	67	159	2.385	0.090		
4.898	63	166	2.639	0.094		
4.902	32	166	5.162	0.094		
4.918	97	197	2.033	0.111		
4.921	42	199	4.698	0.112		
4.956	55	177	3.247	0.100		
4.965	114	194	1.708	0.109		
4.970	67	202	3.027	0.114		
4.979	47	199	4.270	0.112		
4.996	114	199	1.746	0.112		
5.012	76	221	2.895	0.125		
5.033	52	242	4.693	0.137		
5.053	127	270	2.129	0.152		
5.058	54	276	5.130	0.156		
5.179	9	45	5.196	0.025		
5.257	26	75	2.900	0.042		
5.272	25	103	4.073	0.058		
5.291	30	122	4.075	0.069		
5.306	44	120	2.701	0.067		
5.425	16	68	4.129	0.038		
5.429	13	75	5.910	0.042		
5.435	31	88	2.849	0.049		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.447	31	112	3.579	0.063		
5.455	24	117	4.811	0.066		
5.462	31	127	4.073	0.071		
5.485	29	106	3.597	0.060		
5.492	35	100	2.888	0.056		
5.523	24	79	3.359	0.044		
5.542	20	76	3.766	0.043		
5.548	22	76	3.488	0.043		
5.583	18	87	4.759	0.049		
5.589	27	99	3.626	0.056		
5.596	33	100	3.041	0.056		
5.613	35	109	3.076	0.061		
5.651	28	116	4.165	0.065		
5.678	21	93	4.395	0.052		
5.691	29	99	3.363	0.056		
5.713	21	121	5.751	0.068		
5.720	30	133	4.392	0.075		
5.741	80	175	2.186	0.099		
5.750	80	180	2.242	0.101		
5.765	40	191	4.758	0.108		
5.794	81	174	2.149	0.098		
5.801	67	175	2.609	0.099		
5.822	58	170	2.924	0.096		
5.859	30	110	3.667	0.062		
5.892	51	114	2.248	0.064		
5.967	56	142	2.527	0.080		
6.036	16	73	4.551	0.041		
6.049	22	64	2.934	0.036		
6.082	12	73	5.945	0.041		
6.088	15	83	5.404	0.047		
6.100	24	92	3.846	0.052		
6.111	30	115	3.828	0.065		
6.128	39	143	3.670	0.080		
6.141	35	154	4.345	0.087		
6.198	20	78	3.963	0.044		
6.204	23	86	3.754	0.048		
6.211	19	100	5.297	0.056		
6.221	74	124	1.686	0.070		
6.228	28	123	4.325	0.069		
6.305	14	65	4.700	0.036		
6.310	21	82	3.988	0.046		
6.323	65	110	1.692	0.062		
6.335	42	120	2.872	0.067		
6.340	28	119	4.327	0.067		
6.353	37	112	2.990	0.063		
6.433	20	57	2.919	0.032		
6.490	8	27	3.180	0.015		
	209808	176572		100.000		

Total unknown % height = 49.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000072.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 00:52
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 72 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.629	0.001	5110	0.25000	0.249	80.00- 120.00	100.00(M)	BA
1.877	1.876	0.001	10259	0.25000	0.248	160.61- 240.92	200.76	BA
1.930	1.930	0.000	4193	0.25000	0.252	65.64- 98.47	82.05	BA
2.186	2.185	0.001	3017	0.25000	0.236	47.23- 70.85	59.05	BA
2.275	2.274	0.001	2677	0.25000	0.244	41.91- 62.86	52.39	BA
Average of Peak Amounts =					0.24580			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.794	2.794	0.000	4308	0.25000	0.232	80.00- 120.00	100.00(M)	BA
2.882	2.882	0.000	5516	0.25000	0.232	102.43- 153.65	128.04	BA
2.992	2.992	0.000	6823	0.25000	0.230	126.70- 190.06	158.38	BA
3.580	3.581	-0.001	11563	0.25000	0.230	214.73- 322.09	268.42	BA
3.823	3.823	0.000	8324	0.25000	0.230	154.58- 231.87	193.23	BA
Average of Peak Amounts =					0.23080			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.210	0.001	25895	0.05000	0.0509		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.495	4.498	-0.003	15762	0.05000	0.0470		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 00:52
Lab File ID: d071619000072.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20440	0.010	-0.47716	20.00000	Aver	(M)
(2)	41335	41036	0.010	-0.72296	20.00000	Aver	(M)
(3)	16656	16772	0.010	0.69544	20.00000	Aver	(M)
(4)	12773	12068	0.010	-5.52069	20.00000	Aver	(M)
(5)	10980	10708	0.010	-2.47279	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17232	0.010	-7.07534	20.00000	Aver	(M)
(2)	23716	22064	0.010	-6.96489	20.00000	Aver	(M)
(3)	29676	27292	0.010	-8.03377	20.00000	Aver	(M)
(4)	50204	46252	0.010	-7.87260	20.00000	Aver	(M)
(5)	36244	33296	0.010	-8.13334	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	517900	0.010	1.82760	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	315240	0.010	-6.08097	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 4.65646
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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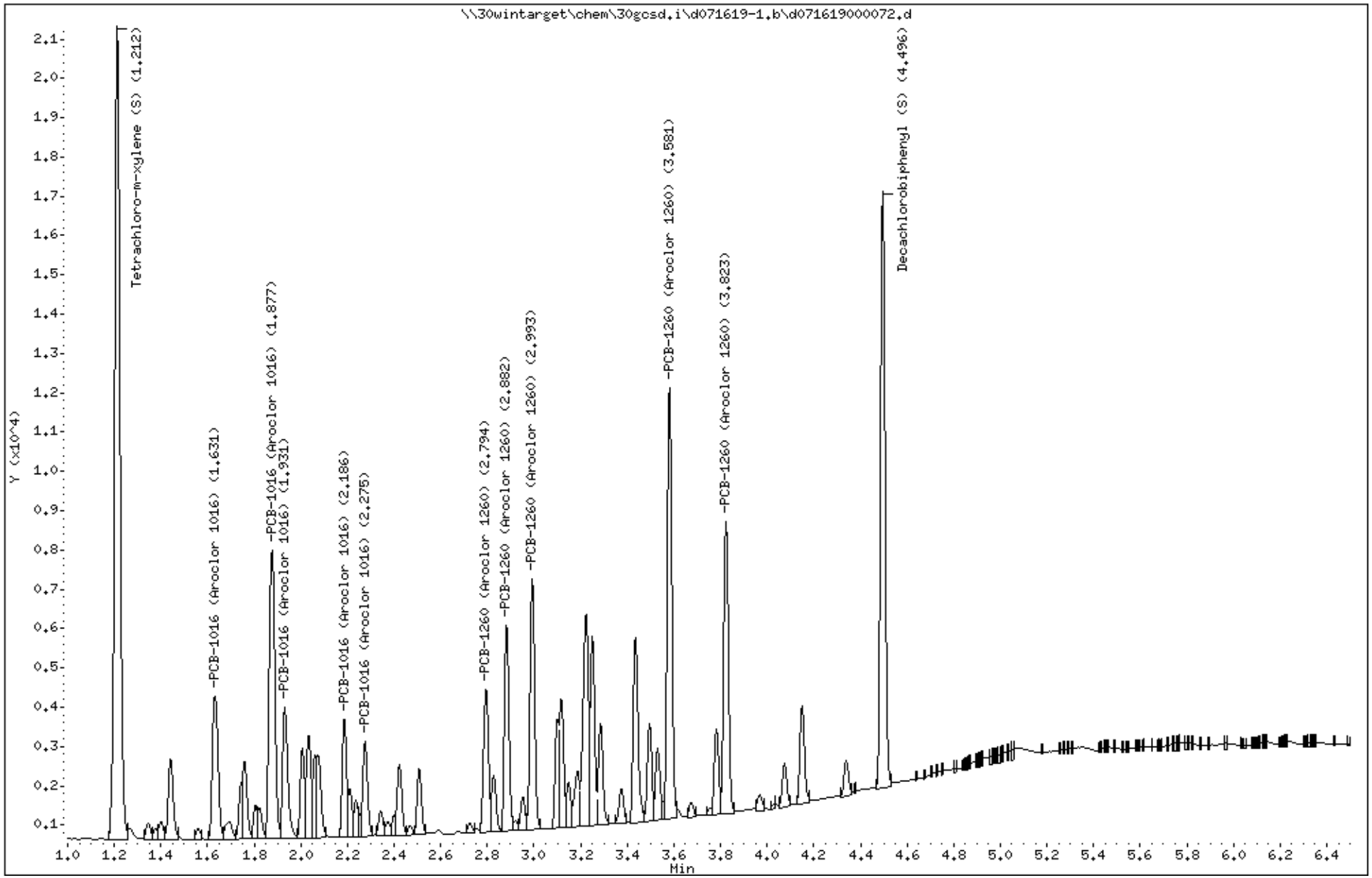
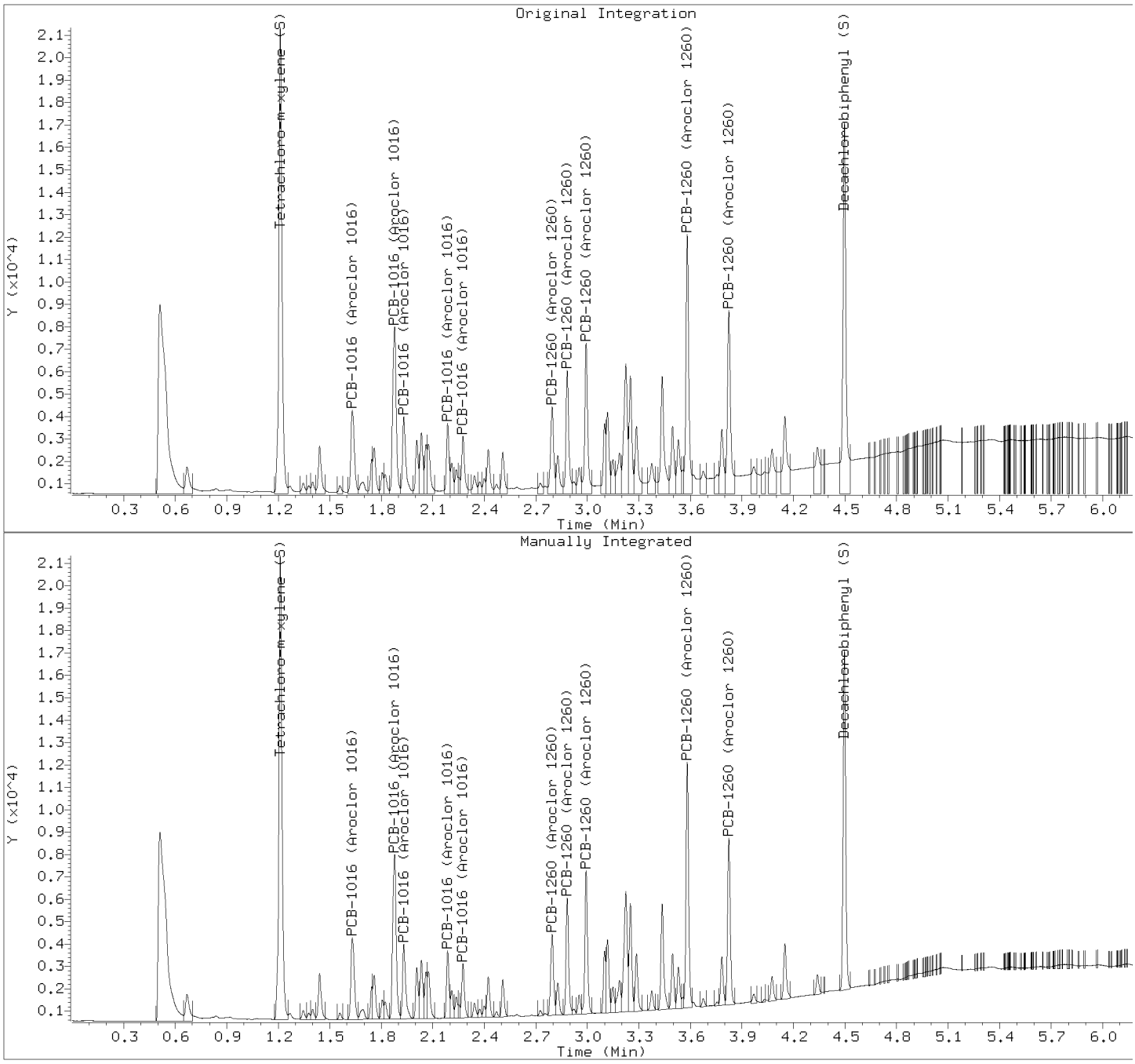
Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000072.d
Date : 17-JUL-2019 00:52
Client ID: CCV
Sample Info: CCV, 93797:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b/d071619000072.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 00:52 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5363	5110
PCB-1016 (Aroclor 1016)	10607	10259
PCB-1016 (Aroclor 1016)	4619	4193
PCB-1016 (Aroclor 1016)	3276	3017
PCB-1016 (Aroclor 1016)	3071	2677
PCB-1260 (Aroclor 1260)	4998	4308
PCB-1260 (Aroclor 1260)	6383	5516
PCB-1260 (Aroclor 1260)	7935	6823
PCB-1260 (Aroclor 1260)	13278	11563
PCB-1260 (Aroclor 1260)	10708	8324
Tetrachloro-m-xylene (S)	26197	25895
Decachlorobiphenyl (S)	20963	15762

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000072.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 00:52
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 72 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	18038	10137	0.562	6.075		
0.564	2742	2547	0.929	1.526		
0.582	3698	1949	0.527	1.168		
0.720	1657	1045	0.631	0.626		
1.525	267	227	0.851	0.136		
1.584	22925	20310	0.886	12.264	$ 10 Tetrachloro-m-xylene (S)	BA
1.665	297	315	1.060	0.188		
1.710	471	412	0.875	0.246		
1.758	2392	2149	0.898	1.287		
1.839	302	275	0.911	0.164		
1.959	2822	2814	0.997	1.686	1 PCB-1016 (Aroclor 1016)	BA
1.978	1736	1671	0.963	1.001		
2.014	349	330	0.946	0.197		
2.072	3015	1841	0.611	1.103		
2.195	704	727	1.033	0.435		
2.217	697	658	0.945	0.394		
2.263	3649	4083	1.119	2.446		
2.281	5425	5231	0.964	3.134	1 PCB-1016 (Aroclor 1016)	BA
2.300	3594	3277	0.912	1.963		
2.369	2650	2258	0.852	1.353	1 PCB-1016 (Aroclor 1016)	BA
2.397	240	257	1.072	0.154		
2.433	2051	2017	0.983	1.208		
2.464	2437	2319	0.951	1.389	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.492	923	816	0.884	0.489		
2.554	2362	2304	0.976	1.380	1 PCB-1016 (Aroclor 1016)	BA
2.583	1271	1119	0.880	0.670		
2.610	798	774	0.970	0.463		
2.632	612	601	0.983	0.360		
2.660	2543	1596	0.628	0.956		
2.810	2181	1514	0.694	0.907		
2.857	346	323	0.933	0.193		
2.915	158	153	0.970	0.091		
2.952	1581	1469	0.929	0.880		
3.131	166	198	1.189	0.118		
3.153	802	730	0.910	0.437		
3.192	670	627	0.936	0.375		
3.238	2996	2275	0.759	1.363		
3.268	535	613	1.145	0.367		
3.301	4688	4453	0.950	2.668	7 PCB-1260 (Aroclor 1260)	BA
3.384	422	388	0.919	0.232		
3.429	722	688	0.953	0.412		
3.471	5533	5345	0.966	3.203	7 PCB-1260 (Aroclor 1260)	BA
3.495	2528	2387	0.944	1.430		
3.548	3791	2486	0.656	1.489		
3.578	558	505	0.904	0.302		
3.624	589	509	0.864	0.305		
3.655	6948	5282	0.760	3.165	7 PCB-1260 (Aroclor 1260)	BA
3.713	4202	3928	0.935	2.354		
3.749	2193	2095	0.955	1.255		
3.831	790	904	1.144	0.541		
3.854	4395	4009	0.912	2.402		
3.887	231	248	1.076	0.148		
3.914	2056	1944	0.945	1.165		
3.943	1254	1138	0.907	0.682		
3.972	88	105	1.190	0.062		
4.006	1103	963	0.873	0.577		
4.051	9903	9070	0.916	5.435	7 PCB-1260 (Aroclor 1260)	BA
4.092	495	467	0.944	0.279		
4.239	6000	5108	0.851	3.061	7 PCB-1260 (Aroclor 1260)	BA
4.266	676	957	1.415	0.573		
4.286	2803	2214	0.790	1.326		
4.330	12	37	2.970	0.022		
4.343	17	43	2.563	0.025		
4.425	198	225	1.139	0.134		
4.455	188	168	0.894	0.100		
4.487	1178	1009	0.857	0.604		
4.563	6	26	4.082	0.015		
4.575	24	45	1.873	0.026		
4.608	2426	2259	0.931	1.353		
4.649	83	144	1.743	0.086		
4.670	14	40	2.859	0.023		
4.692	25	54	2.192	0.032		
4.700	13	47	3.536	0.028		
4.710	15	46	3.138	0.027		
4.719	11	46	4.042	0.027		
4.746	14	46	3.343	0.027		
4.773	6	22	3.957	0.013		
4.798	850	769	0.905	0.460		
4.824	10	41	3.954	0.024		
4.835	9	36	4.147	0.021		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.845	20	47	2.400	0.028		
4.859	7	45	6.276	0.026		
4.865	16	46	2.937	0.027		
4.872	13	42	3.299	0.025		
4.910	21	44	2.107	0.026		
4.918	14	48	3.424	0.028		
4.948	14821	13618	0.919	8.161	$ 11 Decachlorobiphenyl (S)	BA
4.985	19	122	6.469	0.073		
4.997	45	116	2.564	0.069		
5.018	35	119	3.375	0.071		
5.029	74	133	1.804	0.079		
5.034	63	145	2.284	0.086		
5.039	29	149	5.141	0.089		
5.045	62	163	2.647	0.097		
5.051	41	166	4.063	0.099		
5.062	47	163	3.445	0.097		
5.076	21	135	6.398	0.080		
5.081	21	136	6.615	0.081		
5.093	32	131	4.121	0.078		
5.098	36	126	3.484	0.075		
5.133	16	59	3.725	0.035		
5.224	11	45	4.174	0.026		
5.230	17	59	3.401	0.035		
5.235	26	72	2.728	0.043		
5.239	22	75	3.428	0.044		
5.262	27	85	3.192	0.050		
5.267	34	100	2.906	0.059		
5.278	70	128	1.832	0.076		
5.287	20	122	5.963	0.073		
5.344	24	125	5.252	0.074		
5.354	29	127	4.407	0.076		
5.363	45	143	3.198	0.085		
5.368	30	151	5.115	0.090		
5.394	36	147	4.089	0.088		
5.416	67	165	2.472	0.098		
5.423	64	178	2.764	0.106		
5.433	47	188	3.986	0.112		
5.471	39	161	4.088	0.096		
5.484	42	143	3.446	0.085		
5.499	37	139	3.727	0.083		
5.515	57	151	2.669	0.090		
5.522	43	153	3.526	0.091		
5.535	38	151	3.928	0.090		
5.546	83	171	2.070	0.102		
5.555	49	183	3.723	0.109		
5.576	56	201	3.620	0.120		
5.586	42	217	5.162	0.130		
5.596	124	230	1.851	0.137		
5.608	58	215	3.683	0.128		
5.650	76	143	1.871	0.085		
5.670	35	138	3.980	0.082		
5.677	51	144	2.805	0.086		
5.742	48	145	3.043	0.086		
5.787	44	127	2.868	0.076		
5.813	80	136	1.706	0.081		
5.840	22	106	4.814	0.063		
5.868	22	103	4.590	0.061		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.874	21	102	4.809	0.061		
5.885	65	113	1.729	0.067		
5.906	49	109	2.222	0.065		
5.924	49	100	2.059	0.059		
5.936	42	103	2.479	0.061		
5.957	23	107	4.724	0.064		
5.965	27	112	4.225	0.067		
5.991	24	97	4.053	0.058		
5.997	41	107	2.636	0.064		
6.005	27	106	3.880	0.063		
6.028	24	87	3.617	0.052		
6.036	30	96	3.252	0.057		
6.058	60	107	1.783	0.064		
6.067	23	104	4.475	0.062		
6.086	38	90	2.374	0.053		
6.102	44	89	2.043	0.053		
6.112	37	98	2.685	0.058		
6.144	51	136	2.654	0.081		
6.151	49	130	2.640	0.077		
6.162	73	126	1.735	0.075		
6.179	45	109	2.412	0.065		
6.189	27	102	3.849	0.061		
6.206	41	101	2.441	0.060		
6.215	44	105	2.389	0.062		
6.221	51	123	2.427	0.073		
6.229	46	127	2.771	0.076		
6.235	55	131	2.363	0.078		
6.250	36	146	4.050	0.087		
6.268	47	115	2.436	0.068		
6.294	29	81	2.773	0.048		
6.300	21	85	4.071	0.050		
6.318	18	82	4.566	0.049		
6.334	21	97	4.550	0.058		
6.341	39	103	2.664	0.061		
6.376	30	73	2.402	0.043		
6.439	11	39	3.565	0.023		
6.475	22	44	1.975	0.026		
	185611	166859		100.000		

Total unknown % height = 53.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000072.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 00:52
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93797:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 72 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.958	1.958	0.000	2821	0.25000	0.248	80.00- 120.00	100.00	(aM)	BA
2.280	2.281	-0.001	5425	0.25000	0.249	153.85- 230.77	192.31		BA
2.368	2.369	-0.001	2649	0.25000	0.244	75.12- 112.68	93.90		BA
2.464	2.465	-0.001	2437	0.25000	0.244	69.11- 103.67	86.39		BA
2.553	2.554	-0.001	2361	0.25000	0.238	66.95- 100.43	83.71		BA
Average of Peak Amounts =					0.24460				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.300	3.301	-0.001	4687	0.25000	0.231	80.00- 120.00	100.00	(aM)	BA
3.471	3.472	-0.001	5532	0.25000	0.227	94.42- 141.63	118.03		BA
3.654	3.656	-0.002	6947	0.25000	0.237	118.57- 177.86	148.22		BA
4.050	4.053	-0.003	9903	0.25000	0.230	169.03- 253.54	211.29		BA
4.238	4.241	-0.003	5999	0.25000	0.232	102.39- 153.59	128.01		BA
Average of Peak Amounts =					0.23140				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.583	1.583	0.000	22925	0.05000	0.0505			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.947	4.952	-0.005	14820	0.05000	0.0467		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 00:52
Lab File ID: d071619000072.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11284	0.010	-0.95866	20.00000	Aver	(aM)
(2)	21808	21700	0.010	-0.49548	20.00000	Aver	(aM)
(3)	10850	10596	0.010	-2.33801	20.00000	Aver	(aM)
(4)	9980	9748	0.010	-2.32846	20.00000	Aver	(aM)
(5)	9902	9444	0.010	-4.62212	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18748	0.010	-7.73773	20.00000	Aver	(aM)
(2)	24356	22128	0.010	-9.14847	20.00000	Aver	(aM)
(3)	29292	27788	0.010	-5.13451	20.00000	Aver	(aM)
(4)	43025	39612	0.010	-7.93295	20.00000	Aver	(aM)
(5)	25870	23996	0.010	-7.24312	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	458500	0.010	0.95209	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	296400	0.010	-6.63489	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 4.62721
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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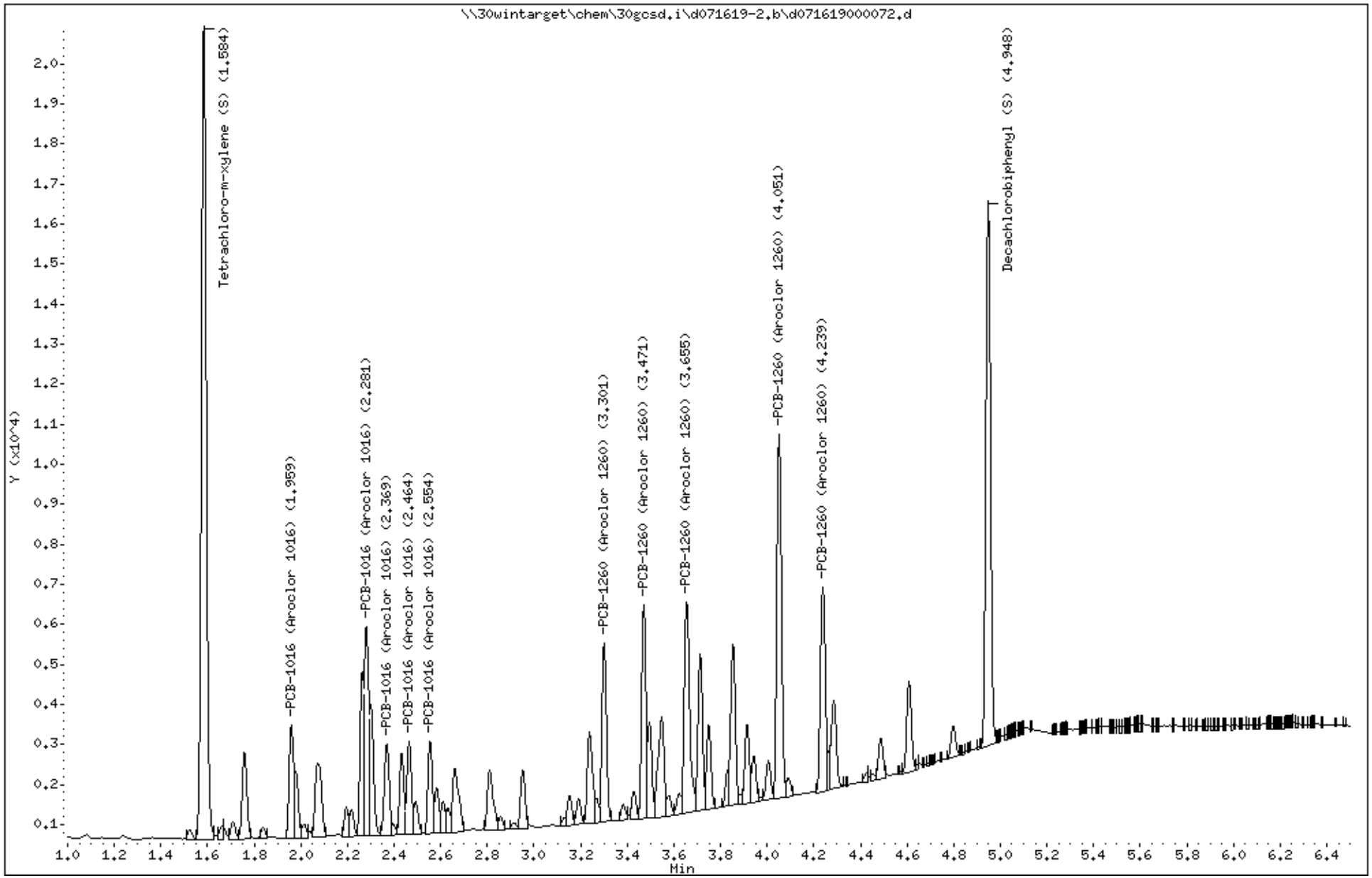
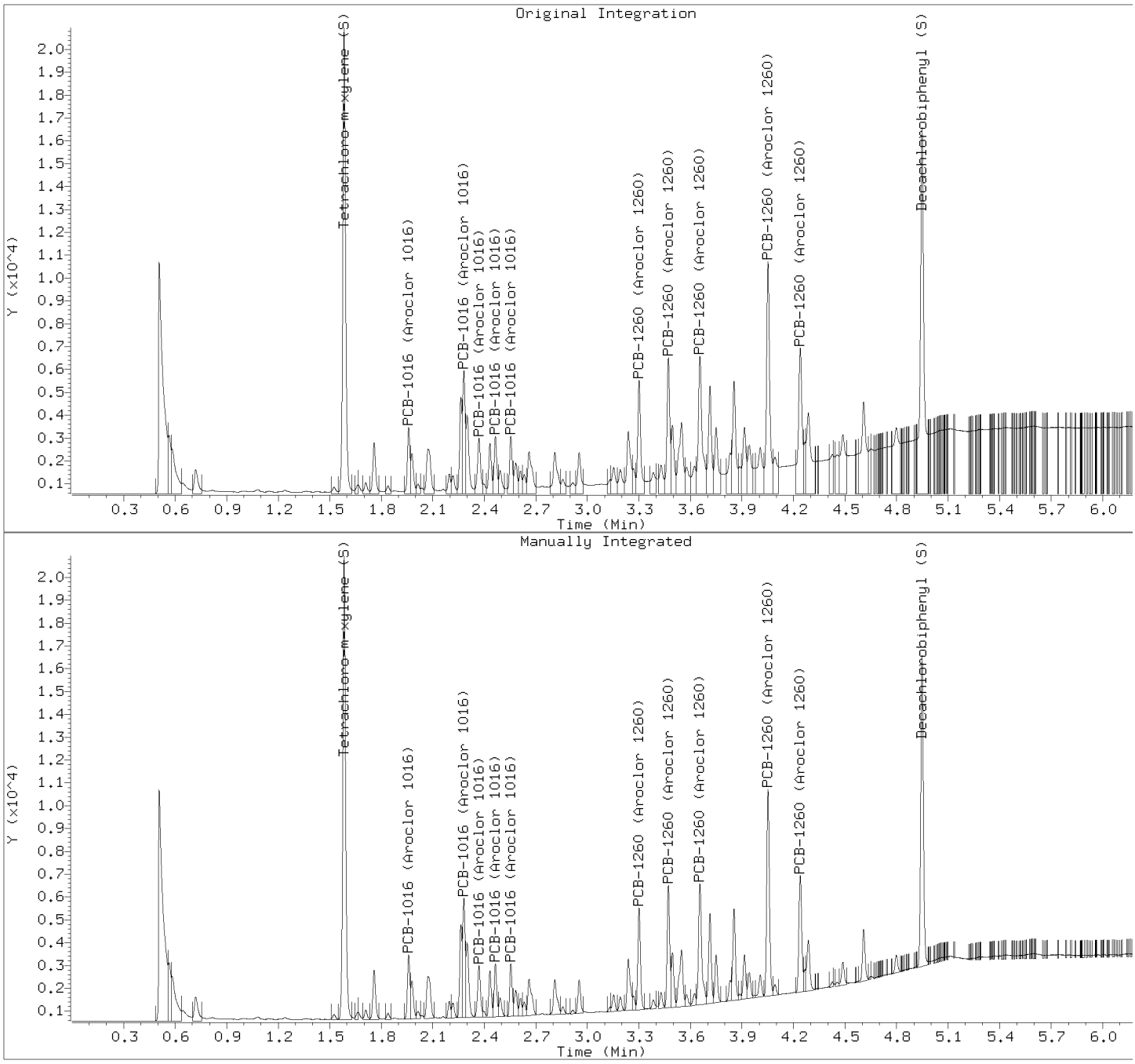
Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000072.d
Date : 17-JUL-2019 00:52
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93797:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b/d071619000072.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 00:52 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2986	2821
PCB-1016 (Aroclor 1016)	5558	5425
PCB-1016 (Aroclor 1016)	3115	2649
PCB-1016 (Aroclor 1016)	2780	2437
PCB-1016 (Aroclor 1016)	2811	2361
PCB-1260 (Aroclor 1260)	6171	4687
PCB-1260 (Aroclor 1260)	6798	5532
PCB-1260 (Aroclor 1260)	9436	6947
PCB-1260 (Aroclor 1260)	13390	9903
PCB-1260 (Aroclor 1260)	9570	5999
Tetrachloro-m-xylene (S)	23208	22925
Decachlorobiphenyl (S)	24036	14820

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:15
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	4272	2853	0.668	1.728		
1.212	25677	20299	0.791	12.348	$ 10 Tetrachloro-m-xylene (S)	RT
1.345	483	414	0.856	0.250		
1.400	513	462	0.900	0.279		
1.440	2549	2038	0.800	1.234		
1.559	320	300	0.937	0.181		
1.631	5163	3634	0.704	2.201	1 PCB-1016 (Aroclor 1016)	RT
1.744	1156	1450	1.254	0.878		
1.758	2257	1955	0.866	1.184		
1.805	817	854	1.045	0.517		
1.821	726	687	0.946	0.416		
1.877	10212	7163	0.701	4.338	1 PCB-1016 (Aroclor 1016)	RT
1.931	4290	3289	0.767	1.992	1 PCB-1016 (Aroclor 1016)	RT
2.007	2254	2249	0.998	1.362		
2.033	3108	2660	0.856	1.611		
2.060	1989	2094	1.053	1.268		
2.075	2406	2102	0.874	1.273		
2.186	3084	3004	0.974	1.819	1 PCB-1016 (Aroclor 1016)	RT
2.210	1247	1219	0.978	0.738		
2.236	1005	946	0.941	0.573		
2.275	2764	2425	0.877	1.468	1 PCB-1016 (Aroclor 1016)	RT
2.342	727	660	0.907	0.399		
2.373	385	380	0.986	0.230		
2.399	477	515	1.080	0.311		
2.422	2075	1804	0.869	1.092		
2.507	1760	1693	0.962	1.025		
2.726	245	247	1.007	0.149		
2.794	4318	3620	0.838	2.192	7 PCB-1260 (Aroclor 1260)	RT
2.827	1582	1428	0.903	0.864		
2.882	5535	5254	0.949	3.182	7 PCB-1260 (Aroclor 1260)	RT
2.952	878	857	0.976	0.519		
2.993	6867	6367	0.927	3.856	7 PCB-1260 (Aroclor 1260)	RT
3.100	2420	2761	1.141	1.672		
3.117	3683	3272	0.888	1.981		
3.187	2000	1414	0.707	0.856		
3.224	7222	5284	0.732	3.200		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.251	5120	4779	0.933	2.894		
3.286	2770	2586	0.933	1.566		
3.376	1010	881	0.872	0.533		
3.436	5390	4756	0.882	2.880		
3.496	2643	2452	0.928	1.485		
3.531	2068	1844	0.892	1.116		
3.556	377	481	1.276	0.291		
3.582	11426	10730	0.939	6.499	7 PCB-1260 (Aroclor 1260)	RT
3.675	389	373	0.959	0.225		
3.756	135	148	1.099	0.089		
3.784	2185	2128	0.974	1.288		
3.824	8125	7332	0.902	4.441	7 PCB-1260 (Aroclor 1260)	RT
3.970	483	411	0.852	0.248		
4.035	120	127	1.061	0.076		
4.076	1121	1064	0.949	0.644		
4.151	2637	2448	0.928	1.482		
4.341	1078	919	0.852	0.556		
4.498	15102	14316	0.948	8.671	$ 11 Decachlorobiphenyl (S)	RT
4.606	58	89	1.537	0.053		
4.778	31	74	2.394	0.044		
4.814	35	71	2.010	0.043		
4.846	62	104	1.680	0.062		
4.877	247	185	0.749	0.112		
4.971	99	86	0.872	0.052		
5.036	28	67	2.414	0.040		
5.054	102	127	1.240	0.076		
5.070	170	194	1.141	0.117		
5.078	58	213	3.676	0.129		
5.085	91	244	2.683	0.147		
5.093	144	284	1.966	0.172		
5.096	72	308	4.269	0.186		
5.103	143	316	2.212	0.191		
5.125	77	325	4.198	0.196		
5.261	56	172	3.070	0.104		
5.276	41	191	4.680	0.115		
5.281	70	202	2.867	0.122		
5.286	59	220	3.719	0.133		
5.381	74	193	2.607	0.116		
5.461	33	69	2.083	0.041		
5.472	65	111	1.714	0.067		
5.497	79	165	2.082	0.099		
5.588	36	114	3.197	0.069		
5.612	41	134	3.264	0.081		
5.716	37	118	3.209	0.071		
5.722	29	124	4.318	0.075		
5.777	27	119	4.407	0.072		
5.831	88	173	1.956	0.104		
5.837	70	198	2.820	0.119		
5.918	46	134	2.913	0.081		
5.923	44	149	3.356	0.090		
5.932	56	159	2.853	0.096		
5.939	81	187	2.312	0.113		
5.966	442	333	0.754	0.201		
5.975	186	354	1.901	0.214		
5.981	139	379	2.732	0.229		
6.001	161	391	2.431	0.236		
6.017	256	408	1.592	0.247		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.162	65	161	2.484	0.097		
6.190	109	205	1.884	0.124		
6.197	98	224	2.282	0.135		
6.202	67	231	3.425	0.139		
6.210	65	255	3.938	0.154		
6.217	111	274	2.459	0.165		
6.248	148	280	1.888	0.169		
6.272	56	238	4.232	0.144		
6.354	17	88	5.263	0.053		
6.376	107	114	1.070	0.069		
6.482	13	46	3.517	0.027		
6.493	34	66	1.961	0.039		
	183172	165094		100.000		

Total unknown % height = 47.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:15
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.630	0.000	5162	0.25000	0.251	80.00- 120.00	100.00(M)	RT
1.876	1.876	0.000	10211	0.25000	0.247	159.11- 238.66	197.81	RT
1.930	1.930	0.000	4290	0.25000	0.258	66.14- 99.21	83.11	RT
2.185	2.185	0.000	3083	0.25000	0.241	47.38- 71.07	59.72	RT
2.274	2.274	0.000	2763	0.25000	0.252	43.15- 64.73	53.54	RT
Average of Peak Amounts =					0.24980			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.794	2.794	0.000	4318	0.25000	0.233	80.00- 120.00	100.00(M)	RT
2.881	2.881	0.000	5535	0.25000	0.233	102.77- 154.15	128.18	RT
2.992	2.992	0.000	6867	0.25000	0.231	125.79- 188.69	159.03	RT
3.581	3.581	0.000	11425	0.25000	0.228	216.45- 324.67	264.59	RT
3.824	3.824	0.000	8125	0.25000	0.224	155.24- 232.86	188.17	RT
Average of Peak Amounts =					0.22980			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.211	0.000	25677	0.05000	0.0505		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.497	4.497	0.000	15102	0.05000	0.0450		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 15:15
Lab File ID: d071719000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20648	0.010	0.53559	20.00000	Aver	(M)
(2)	41335	40844	0.010	-1.18746	20.00000	Aver	(M)
(3)	16656	17160	0.010	3.02491	20.00000	Aver	(M)
(4)	12773	12332	0.010	-3.45386	20.00000	Aver	(M)
(5)	10980	11052	0.010	0.66032	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17272	0.010	-6.85964	20.00000	Aver	(M)
(2)	23716	22140	0.010	-6.64443	20.00000	Aver	(M)
(3)	29676	27468	0.010	-7.44070	20.00000	Aver	(M)
(4)	50204	45700	0.010	-8.97210	20.00000	Aver	(M)
(5)	36244	32500	0.010	-10.32957	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	513540	0.010	0.97036	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	302040	0.010	-10.01363	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.36173
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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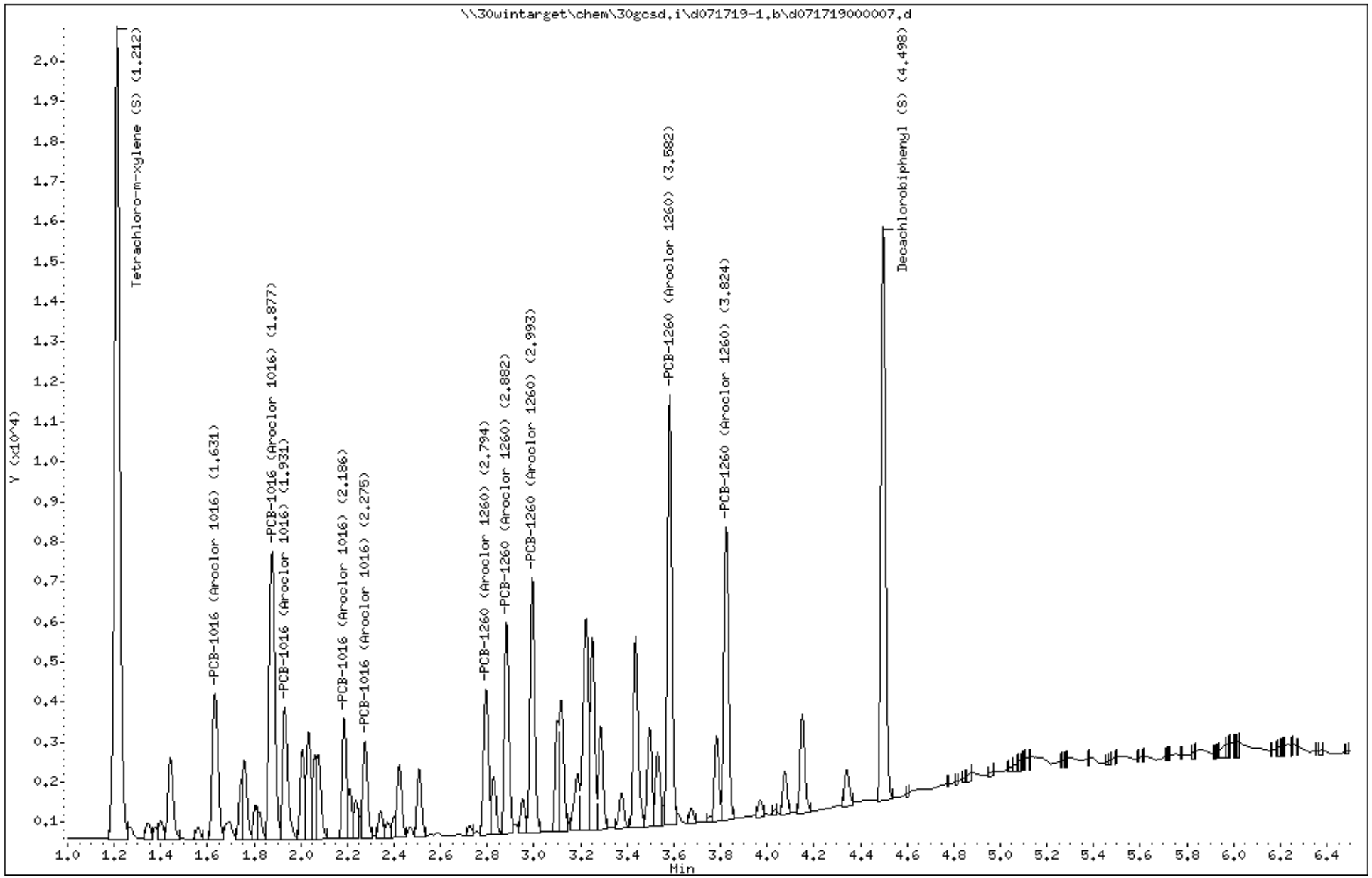
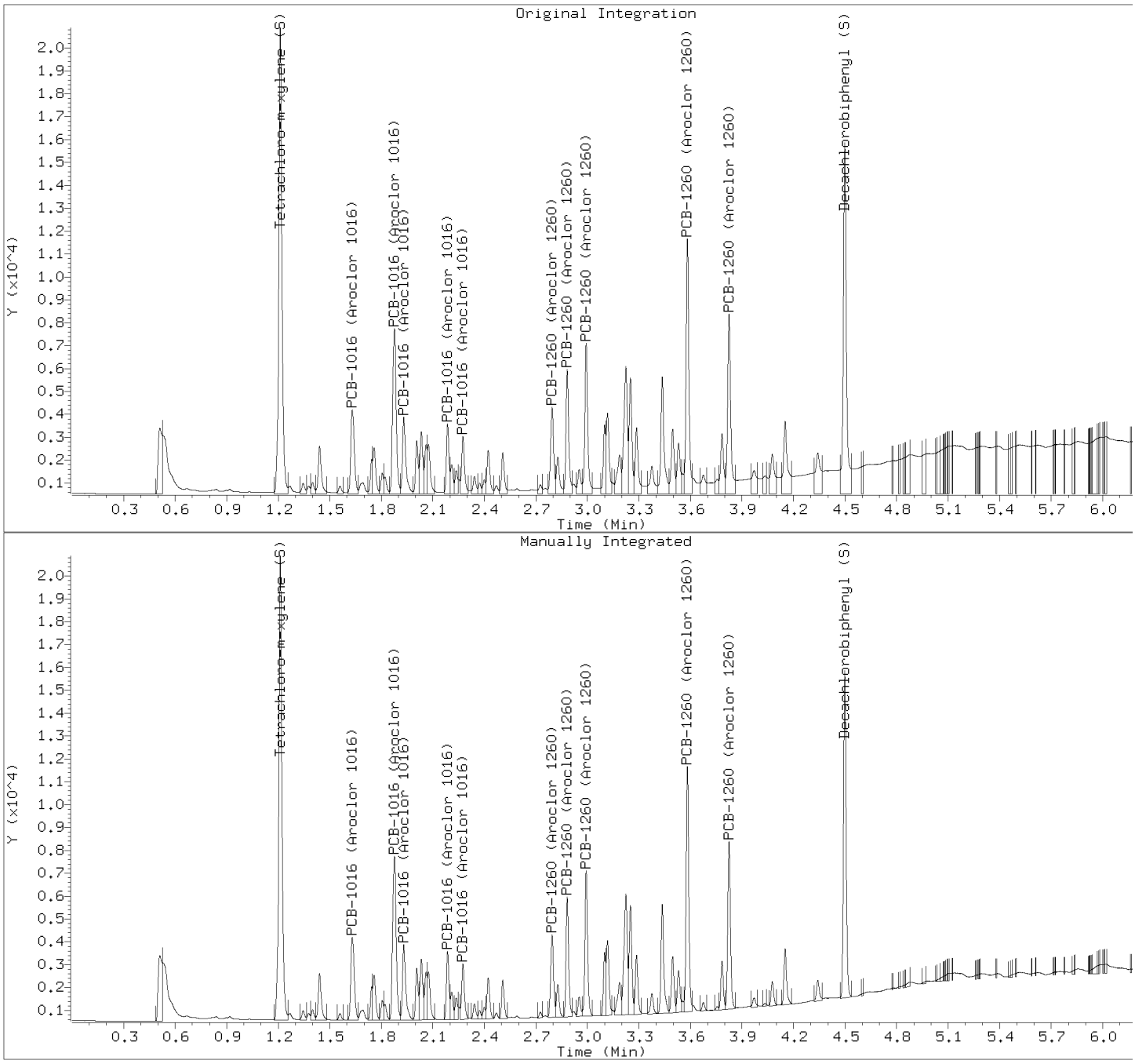
Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000007.d
Date : 17-JUL-2019 15:15
Client ID: CCV
Sample Info: CCV, 93951:1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32

Column phase: DB-CLP1



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 15:15 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5293	5162
PCB-1016 (Aroclor 1016)	10378	10211
PCB-1016 (Aroclor 1016)	4489	4290
PCB-1016 (Aroclor 1016)	3195	3083
PCB-1016 (Aroclor 1016)	2960	2763
PCB-1260 (Aroclor 1260)	4734	4318
PCB-1260 (Aroclor 1260)	6099	5535
PCB-1260 (Aroclor 1260)	7619	6867
PCB-1260 (Aroclor 1260)	12600	11425
PCB-1260 (Aroclor 1260)	9872	8125
Tetrachloro-m-xylene (S)	25873	25677
Decachlorobiphenyl (S)	19079	15102

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:15
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	5960	3254	0.546	2.145		
0.565	1760	1304	0.741	0.859		
1.584	22378	19785	0.884	13.120	$ 10 Tetrachloro-m-xylene (S)	RT
1.709	442	396	0.896	0.261		
1.758	2370	2102	0.887	1.385		
1.840	283	266	0.939	0.175		
1.959	2816	2755	0.978	1.816	1 PCB-1016 (Aroclor 1016)	RT
1.979	1721	1660	0.965	1.094		
2.014	363	337	0.928	0.222		
2.073	3026	1811	0.598	1.193		
2.196	718	734	1.022	0.483		
2.217	564	542	0.961	0.357		
2.263	3542	3937	1.112	2.595		
2.280	5326	5027	0.944	3.314	1 PCB-1016 (Aroclor 1016)	RT
2.300	3662	3220	0.879	2.122		
2.369	2657	2196	0.827	1.447	1 PCB-1016 (Aroclor 1016)	RT
2.433	2058	2012	0.977	1.326		
2.464	2401	2293	0.955	1.511	1 PCB-1016 (Aroclor 1016)	RT
2.493	934	812	0.870	0.535		
2.554	2350	2285	0.972	1.506	1 PCB-1016 (Aroclor 1016)	RT
2.584	1275	1118	0.877	0.737		
2.610	802	788	0.983	0.519		
2.632	617	608	0.986	0.400		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.660	2520	1572	0.624	1.036		
2.810	2133	1482	0.695	0.977		
2.859	336	314	0.934	0.207		
2.952	1581	1454	0.920	0.958		
3.132	172	201	1.167	0.132		
3.153	822	737	0.897	0.485		
3.192	666	631	0.948	0.416		
3.238	2959	2237	0.756	1.474		
3.269	562	610	1.086	0.402		
3.301	4642	4344	0.936	2.863	7 PCB-1260 (Aroclor 1260)	RT
3.384	421	372	0.883	0.245		
3.428	728	682	0.937	0.449		
3.471	5515	5229	0.948	3.447	7 PCB-1260 (Aroclor 1260)	RT
3.495	1659	1620	0.977	1.068		
3.549	3673	2430	0.662	1.602		
3.579	534	479	0.896	0.315		
3.624	551	487	0.883	0.321		
3.655	6797	5101	0.750	3.363	7 PCB-1260 (Aroclor 1260)	RT
3.714	4119	3841	0.933	2.532		
3.750	2149	2070	0.963	1.364		
3.831	805	892	1.109	0.588		
3.854	4318	3899	0.903	2.570		
3.888	210	244	1.159	0.160		
3.915	2029	1912	0.943	1.260		
3.944	1235	1083	0.877	0.714		
4.006	1028	944	0.918	0.622		
4.052	9576	8961	0.936	5.907	7 PCB-1260 (Aroclor 1260)	RT
4.093	512	465	0.908	0.306		
4.240	5779	5157	0.892	3.399	7 PCB-1260 (Aroclor 1260)	RT
4.266	631	917	1.454	0.604		
4.287	2652	2121	0.800	1.398		
4.360	13	36	2.695	0.023		
4.429	231	214	0.928	0.141		
4.457	87	120	1.378	0.079		
4.489	1130	966	0.855	0.636		
4.610	2315	2134	0.922	1.406		
4.650	80	140	1.741	0.092		
4.730	15	25	1.653	0.016		
4.759	11	35	3.062	0.023		
4.800	856	765	0.894	0.504		
4.830	28	70	2.477	0.046		
4.837	17	72	4.121	0.047		
4.843	25	73	2.874	0.048		
4.848	20	78	3.850	0.051		
4.861	49	88	1.784	0.058		
4.872	30	87	2.885	0.057		
4.879	28	93	3.319	0.061		
4.890	39	91	2.310	0.059		
4.902	34	93	2.705	0.061		
4.907	23	90	3.833	0.059		
4.951	14066	12815	0.911	8.448	$ 11 Decachlorobiphenyl (S)	RT
4.999	82	93	1.139	0.061		
5.013	19	64	3.437	0.042		
5.048	12	61	5.117	0.040		
5.051	12	74	6.121	0.048		
5.055	27	95	3.506	0.062		
5.065	70	141	2.024	0.092		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.078	153	197	1.287	0.129		
5.103	79	243	3.085	0.160		
5.112	111	259	2.332	0.170		
5.139	87	262	2.996	0.172		
5.156	111	270	2.430	0.178		
5.161	42	269	6.356	0.177		
5.251	24	50	2.071	0.032		
5.261	16	48	3.073	0.031		
5.282	15	62	4.095	0.040		
5.297	32	95	2.940	0.062		
5.303	49	116	2.384	0.076		
5.310	42	140	3.310	0.092		
5.315	55	147	2.652	0.096		
5.322	47	152	3.211	0.100		
5.327	37	159	4.328	0.104		
5.379	49	127	2.573	0.083		
5.390	33	138	4.128	0.090		
5.434	67	114	1.709	0.075		
5.466	19	52	2.744	0.034		
5.472	12	53	4.316	0.034		
5.477	12	56	4.545	0.036		
5.486	18	69	3.770	0.045		
5.579	1	10	10.989	0.006		
5.594	9	44	4.933	0.029		
5.611	28	88	3.170	0.058		
5.619	42	104	2.454	0.068		
5.645	30	124	4.067	0.081		
5.663	18	105	5.776	0.069		
5.673	38	96	2.535	0.063		
5.682	37	89	2.430	0.058		
5.695	15	78	5.228	0.051		
5.703	32	99	3.137	0.065		
5.742	22	128	5.855	0.084		
5.797	23	92	4.044	0.060		
5.821	34	102	2.965	0.067		
5.831	31	120	3.889	0.079		
5.838	62	134	2.153	0.088		
5.871	72	189	2.611	0.124		
5.875	33	188	5.676	0.123		
5.890	89	212	2.391	0.139		
5.943	37	121	3.244	0.079		
5.968	41	148	3.578	0.097		
5.972	46	163	3.509	0.107		
5.982	54	185	3.443	0.121		
5.989	56	208	3.683	0.137		
5.994	45	207	4.582	0.136		
6.004	51	221	4.295	0.145		
6.010	142	227	1.601	0.149		
6.032	93	213	2.285	0.140		
6.039	63	204	3.231	0.134		
6.048	119	199	1.670	0.131		
6.076	96	182	1.893	0.119		
6.081	45	190	4.239	0.125		
6.176	49	161	3.296	0.106		
6.193	41	150	3.700	0.098		
6.197	36	159	4.436	0.104		
6.200	27	157	5.711	0.103		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.214	43	186	4.334	0.122		
6.227	43	198	4.612	0.130		
6.236	69	207	2.983	0.136		
6.272	122	244	1.994	0.160		
6.305	66	207	3.118	0.136		
6.328	83	171	2.068	0.112		
6.335	35	163	4.722	0.107		
6.338	79	164	2.084	0.108		
6.347	40	159	3.946	0.104		
6.361	25	159	6.370	0.104		
6.368	39	166	4.292	0.109		
6.397	32	184	5.683	0.121		
6.404	122	205	1.685	0.135		
6.424	38	198	5.183	0.130		
6.449	57	189	3.310	0.124		
6.454	74	184	2.489	0.121		
6.479	55	176	3.226	0.116		
	162455	151678		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 15:15
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.958	1.958	0.000	2816	0.25000	0.247	80.00- 120.00	100.00	(aM)	RT
2.280	2.280	0.000	5326	0.25000	0.244	161.06- 241.58	189.13		RT
2.368	2.368	0.000	2656	0.25000	0.245	77.73- 116.59	94.32		RT
2.463	2.463	0.000	2400	0.25000	0.240	70.77- 106.16	85.23		RT
2.554	2.554	0.000	2349	0.25000	0.237	68.90- 103.36	83.44		RT
Average of Peak Amounts =					0.24260				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.300	3.300	0.000	4642	0.25000	0.228	80.00- 120.00	100.00	(aM)	RT
3.471	3.471	0.000	5514	0.25000	0.226	94.09- 141.14	118.79		RT
3.654	3.654	0.000	6797	0.25000	0.232	117.87- 176.80	146.42		RT
4.052	4.052	0.000	9576	0.25000	0.222	166.49- 249.74	206.29		RT
4.239	4.239	0.000	5779	0.25000	0.223	99.38- 149.07	124.50		RT
Average of Peak Amounts =					0.22620				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.583	1.583	0.000	22377	0.05000	0.0493			(aM)	RT

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	14066	0.05000	0.0443		(aM)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 15:15
Lab File ID: d071719000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11264	0.010	-1.13420	20.00000	Aver	(aM)
(2)	21808	21304	0.010	-2.31133	20.00000	Aver	(aM)
(3)	10850	10624	0.010	-2.07994	20.00000	Aver	(aM)
(4)	9980	9600	0.010	-3.81136	20.00000	Aver	(aM)
(5)	9902	9396	0.010	-5.10688	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18568	0.010	-8.62355	20.00000	Aver	(aM)
(2)	24356	22056	0.010	-9.44408	20.00000	Aver	(aM)
(3)	29292	27188	0.010	-7.18285	20.00000	Aver	(aM)
(4)	43025	38304	0.010	-10.97304	20.00000	Aver	(aM)
(5)	25870	23116	0.010	-10.64477	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	447540	0.010	-1.46107	20.00000	Aver	(aM)
$ 11 Decachlorobiphenyl (S)	317463	281320	0.010	-11.38504	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.37528
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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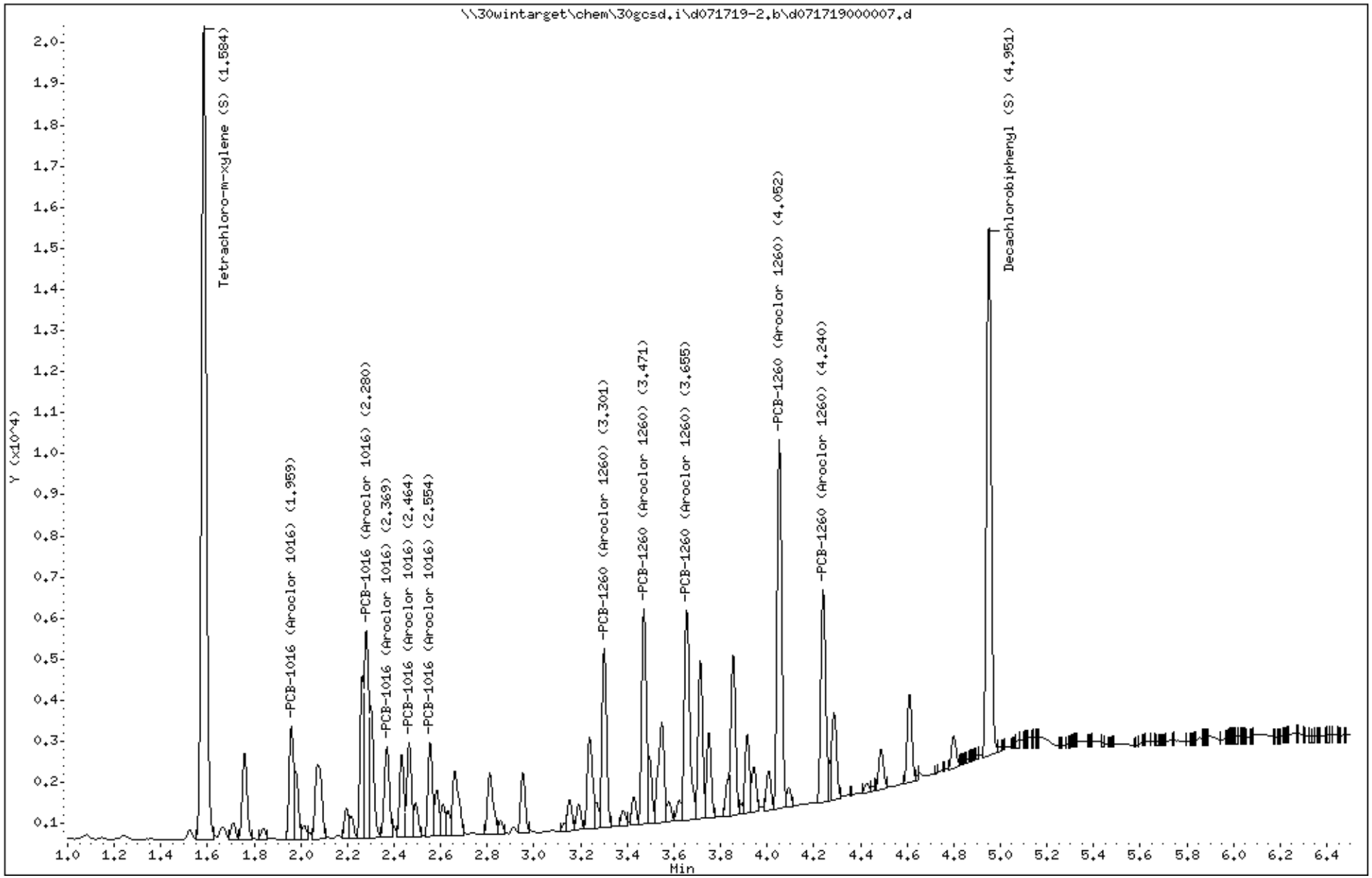
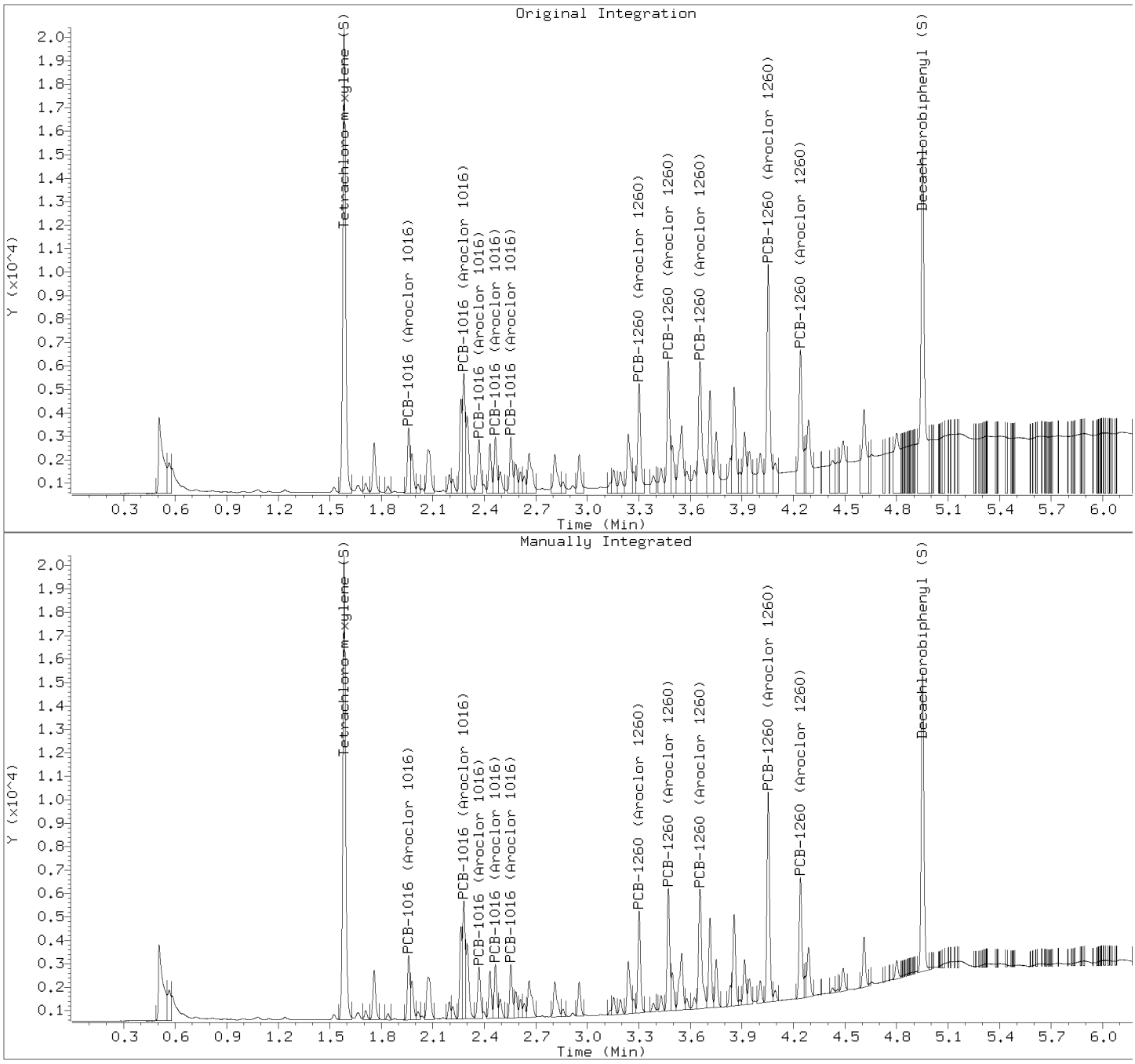
Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000007.d
Date : 17-JUL-2019 15:15
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93951:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 15:15 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2877	2816
PCB-1016 (Aroclor 1016)	5369	5326
PCB-1016 (Aroclor 1016)	2918	2656
PCB-1016 (Aroclor 1016)	2591	2400
PCB-1016 (Aroclor 1016)	2604	2349
PCB-1260 (Aroclor 1260)	5610	4642
PCB-1260 (Aroclor 1260)	6454	5514
PCB-1260 (Aroclor 1260)	8608	6797
PCB-1260 (Aroclor 1260)	12036	9576
PCB-1260 (Aroclor 1260)	8450	5779
Tetrachloro-m-xylene (S)	22593	22377
Decachlorobiphenyl (S)	22310	14066

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	4218	2883	0.683	1.743		
0.531	1266	2546	2.011	1.539		
1.211	26118	20692	0.792	12.549	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	389	293	0.753	0.177		
1.344	495	426	0.861	0.257		
1.376	310	292	0.942	0.176		
1.400	525	466	0.888	0.281		
1.440	2491	2080	0.835	1.257		
1.559	323	306	0.948	0.185		
1.630	5254	3691	0.703	2.232	1 PCB-1016 (Aroclor 1016)	BA
1.693	331	450	1.360	0.272		
1.744	1188	1478	1.244	0.893		
1.758	2275	1979	0.870	1.196		
1.805	855	885	1.035	0.535		
1.821	804	748	0.930	0.452		
1.877	10421	7321	0.703	4.427	1 PCB-1016 (Aroclor 1016)	BA
1.930	4345	3359	0.773	2.031	1 PCB-1016 (Aroclor 1016)	BA
2.006	2303	2303	1.000	1.392		
2.033	3142	2674	0.851	1.617		
2.060	1983	2123	1.070	1.284		
2.074	2461	2143	0.871	1.296		
2.186	3121	3076	0.985	1.860	1 PCB-1016 (Aroclor 1016)	BA
2.209	1252	1247	0.996	0.754		
2.236	1369	961	0.702	0.581		
2.275	2826	2460	0.870	1.487	1 PCB-1016 (Aroclor 1016)	BA
2.342	740	669	0.904	0.404		
2.372	400	391	0.978	0.236		
2.399	492	531	1.080	0.321		
2.422	2112	1872	0.886	1.132		
2.469	268	265	0.990	0.160		
2.507	1808	1734	0.959	1.048		
2.726	259	255	0.985	0.154		
2.794	4475	3732	0.834	2.257	7 PCB-1260 (Aroclor 1260)	BA
2.827	1660	1521	0.916	0.919		
2.882	5749	5435	0.945	3.287	7 PCB-1260 (Aroclor 1260)	BA
2.921	261	251	0.963	0.151		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.952	945	894	0.946	0.540		
2.992	7105	6573	0.925	3.975	7 PCB-1260 (Aroclor 1260)	BA
3.100	2562	2862	1.117	1.730		
3.117	3798	3394	0.894	2.052		
3.187	2092	1490	0.712	0.901		
3.223	7554	5545	0.734	3.353		
3.250	5310	4917	0.926	2.973		
3.286	2913	2711	0.931	1.639		
3.376	1068	927	0.868	0.560		
3.435	5657	4951	0.875	2.994		
3.496	2750	2602	0.946	1.573		
3.530	2137	1923	0.900	1.163		
3.555	366	492	1.344	0.297		
3.581	12001	11321	0.943	6.847	7 PCB-1260 (Aroclor 1260)	BA
3.675	386	377	0.978	0.228		
3.754	100	172	1.712	0.104		
3.783	2353	2235	0.950	1.351		
3.824	8637	7800	0.903	4.717	7 PCB-1260 (Aroclor 1260)	BA
3.969	391	383	0.980	0.231		
4.033	4	62	14.419	0.037		
4.076	1153	1120	0.971	0.677		
4.150	2857	2580	0.903	1.560		
4.341	966	895	0.926	0.541		
4.497	15951	15132	0.949	9.151	$ 11 Decachlorobiphenyl (S)	BA
4.725	14	33	2.409	0.019		
4.808	38	60	1.584	0.036		
5.298	13	31	2.338	0.018		
5.307	9	33	3.708	0.019		
5.358	11	46	4.182	0.027		
5.645	10	24	2.439	0.014		
6.226	32	120	3.743	0.072		
6.318	19	78	4.110	0.047		
6.466	5	21	4.339	0.012		
	187498	165342		100.000		

Total unknown % height = 45.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m
Meth Date : 18-Jul-2019 08:58 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.630	0.000	5253	0.25000	0.256	80.00- 120.00	100.00(M)	BA
1.876	1.876	0.000	10421	0.25000	0.252	159.11- 238.66	198.35	BA
1.930	1.930	0.000	4345	0.25000	0.261	66.14- 99.21	82.70	BA
2.185	2.185	0.000	3121	0.25000	0.244	47.38- 71.07	59.41	BA
2.274	2.274	0.000	2826	0.25000	0.257	43.15- 64.73	53.79	BA
		Average of Peak Amounts =			0.25400			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.793	2.794	-0.001	4474	0.25000	0.241	80.00- 120.00	100.00(M)	BA
2.881	2.881	0.000	5749	0.25000	0.242	102.77- 154.15	128.50	BA
2.991	2.992	-0.001	7105	0.25000	0.239	125.79- 188.69	158.81	BA
3.581	3.581	0.000	12000	0.25000	0.239	216.45- 324.67	268.22	BA
3.824	3.824	0.000	8637	0.25000	0.238	155.24- 232.86	193.05	BA
		Average of Peak Amounts =			0.23980			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.211	-0.001	26117	0.05000	0.0514		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.497	-0.001	15950	0.05000	0.0475		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 18:23
Lab File ID: d071719000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21012	0.010	2.30792	20.00000	Aver	(M)
(2)	41335	41684	0.010	0.84473	20.00000	Aver	(M)
(3)	16656	17380	0.010	4.34574	20.00000	Aver	(M)
(4)	12773	12484	0.010	-2.26386	20.00000	Aver	(M)
(5)	10980	11304	0.010	2.95551	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17896	0.010	-3.49468	20.00000	Aver	(M)
(2)	23716	22996	0.010	-3.03502	20.00000	Aver	(M)
(3)	29676	28420	0.010	-4.23273	20.00000	Aver	(M)
(4)	50204	48000	0.010	-4.39083	20.00000	Aver	(M)
(5)	36244	34548	0.010	-4.67896	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	522340	0.010	2.70058	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	319000	0.010	-4.96076	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.36173
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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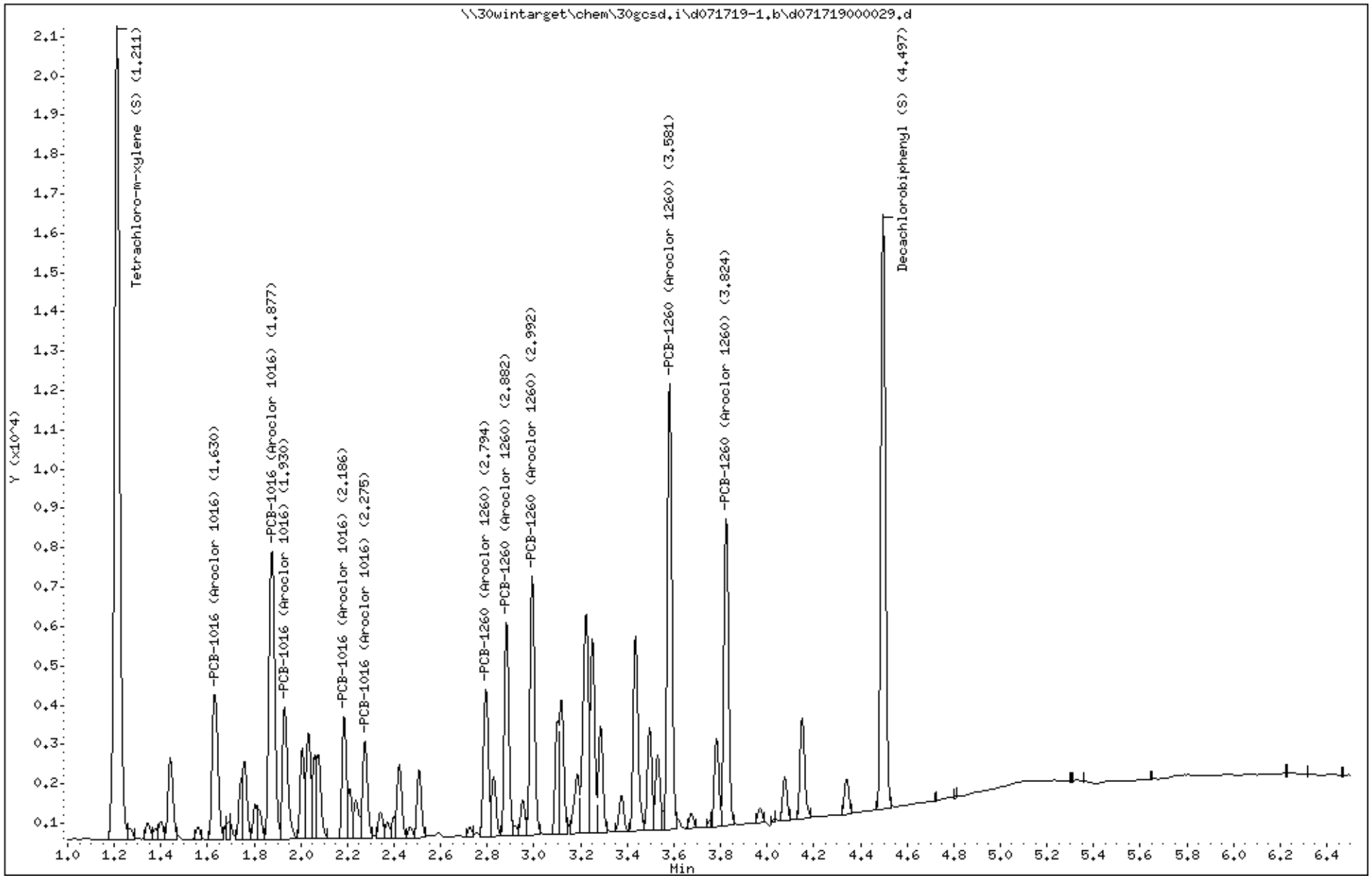
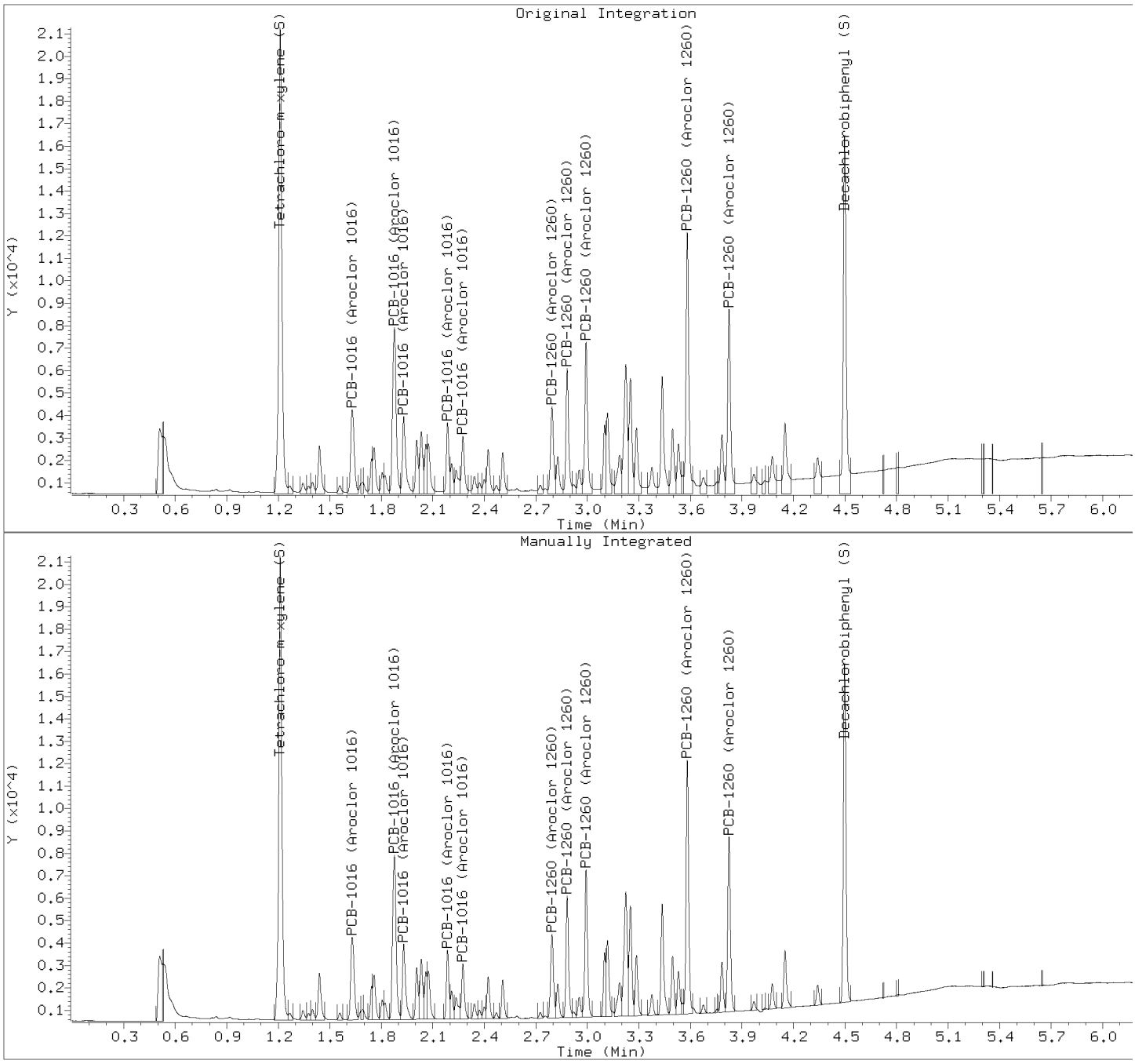
Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b\d071719000029.d
Date : 17-JUL-2019 18:23
Client ID: CCV
Sample Info: CCV, 93951:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-1.b/d071719000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 18:23 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5440	5253
PCB-1016 (Aroclor 1016)	10668	10421
PCB-1016 (Aroclor 1016)	4640	4345
PCB-1016 (Aroclor 1016)	3295	3121
PCB-1016 (Aroclor 1016)	3077	2826
PCB-1260 (Aroclor 1260)	4827	4474
PCB-1260 (Aroclor 1260)	6216	5749
PCB-1260 (Aroclor 1260)	7721	7105
PCB-1260 (Aroclor 1260)	12935	12000
PCB-1260 (Aroclor 1260)	9989	8637
Tetrachloro-m-xylene (S)	26343	26117
Decachlorobiphenyl (S)	19137	15950

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	6012	3387	0.563	2.267		
0.567	1893	1430	0.755	0.957		
0.584	2593	1241	0.479	0.830		
1.525	261	228	0.874	0.152		
1.583	22991	20436	0.889	13.733	$ 10 Tetrachloro-m-xylene (S)	BA
1.709	467	414	0.887	0.277		
1.758	2424	2136	0.881	1.429		
1.838	292	274	0.937	0.183		
1.959	2839	2798	0.986	1.873	1 PCB-1016 (Aroclor 1016)	BA
1.978	1784	1707	0.957	1.142		
2.013	369	342	0.926	0.228		
2.072	2061	1857	0.901	1.243		
2.195	709	736	1.039	0.492		
2.217	651	600	0.921	0.401		
2.263	3672	4119	1.122	2.757		
2.281	5518	5175	0.938	3.464	1 PCB-1016 (Aroclor 1016)	BA
2.300	3665	3356	0.916	2.246		
2.369	2706	2290	0.846	1.533	1 PCB-1016 (Aroclor 1016)	BA
2.432	2097	2032	0.969	1.360		
2.464	2461	2353	0.956	1.575	1 PCB-1016 (Aroclor 1016)	BA
2.492	951	834	0.877	0.558		
2.554	2400	2336	0.973	1.563	1 PCB-1016 (Aroclor 1016)	BA
2.583	1320	1148	0.870	0.768		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.610	825	806	0.977	0.539		
2.631	629	627	0.998	0.419		
2.660	2606	1602	0.615	1.072		
2.810	2223	1545	0.695	1.034		
2.857	353	327	0.927	0.218		
2.953	1621	1497	0.923	1.002		
3.132	164	206	1.255	0.137		
3.153	851	772	0.907	0.516		
3.192	681	639	0.939	0.427		
3.238	3077	2330	0.757	1.559		
3.268	274	641	2.341	0.429		
3.301	4827	4577	0.948	3.064	7 PCB-1260 (Aroclor 1260)	BA
3.383	248	389	1.571	0.260		
3.429	741	716	0.966	0.479		
3.472	5711	5468	0.958	3.660	7 PCB-1260 (Aroclor 1260)	BA
3.494	1719	1703	0.991	1.140		
3.548	3808	2500	0.656	1.673		
3.579	516	487	0.944	0.326		
3.624	526	473	0.899	0.316		
3.655	7103	5416	0.763	3.625	7 PCB-1260 (Aroclor 1260)	BA
3.713	4317	4044	0.937	2.707		
3.750	2273	2165	0.952	1.449		
3.832	886	944	1.065	0.631		
3.854	4491	4107	0.914	2.749		
3.887	229	251	1.098	0.168		
3.915	2139	2007	0.938	1.343		
3.943	1299	1179	0.908	0.789		
4.007	1102	1009	0.916	0.675		
4.053	10083	9246	0.917	6.189	7 PCB-1260 (Aroclor 1260)	BA
4.093	535	490	0.916	0.328		
4.240	6060	5494	0.907	3.677	7 PCB-1260 (Aroclor 1260)	BA
4.268	729	980	1.344	0.656		
4.287	2844	2254	0.792	1.508		
4.428	334	274	0.819	0.183		
4.455	134	180	1.344	0.120		
4.489	1345	1078	0.802	0.721		
4.584	92	90	0.974	0.060		
4.610	2660	2289	0.861	1.532		
4.653	166	193	1.164	0.129		
4.703	14	51	3.632	0.034		
4.745	15	58	3.882	0.038		
4.801	948	830	0.876	0.555		
4.877	12	37	3.112	0.024		
4.884	14	35	2.456	0.023		
4.921	8	30	3.769	0.020		
4.950	14899	13658	0.917	9.143	$ 11 Decachlorobiphenyl (S)	BA
5.022	7	22	3.254	0.014		
5.043	18	39	2.191	0.026		
5.088	6	21	3.246	0.014		
5.101	4	25	5.952	0.016		
5.114	7	23	3.433	0.015		
5.177	18	80	4.372	0.053		
5.238	16	56	3.491	0.037		
5.255	21	64	3.071	0.042		
5.299	39	128	3.269	0.085		
5.324	40	157	3.962	0.105		
5.471	11	42	3.737	0.028		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.512	15	47	3.206	0.031		
5.531	14	59	4.338	0.039		
5.616	26	89	3.402	0.059		
5.626	39	81	2.073	0.054		
5.636	17	73	4.340	0.048		
5.671	15	57	3.725	0.038		
5.847	26	60	2.302	0.040		
5.874	19	69	3.653	0.046		
5.886	16	77	4.834	0.051		
5.929	14	60	4.345	0.040		
5.934	18	60	3.286	0.040		
5.939	25	60	2.354	0.040		
5.951	27	74	2.791	0.049		
5.964	15	71	4.837	0.047		
6.061	19	52	2.698	0.034		
6.100	6	28	4.762	0.018		
6.108	5	25	5.071	0.016		
6.146	16	50	3.161	0.033		
6.161	30	66	2.174	0.044		
6.170	21	64	3.059	0.042		
6.254	17	85	4.994	0.056		
6.277	16	89	5.447	0.059		
6.298	32	82	2.576	0.054		
6.324	22	91	4.110	0.060		
6.365	45	98	2.182	0.065		
6.434	48	87	1.801	0.058		
6.495	9	41	4.734	0.027		
	167023	149375		100.000		

Total unknown % height = 46.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 17-JUL-2019 18:23
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 93951:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m
Meth Date : 18-Jul-2019 09:00 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.958	1.958	0.000	2838	0.25000	0.249	80.00- 120.00	100.00	(aM)	BA
2.280	2.280	0.000	5518	0.25000	0.253	161.06- 241.58	194.43		BA
2.368	2.368	0.000	2706	0.25000	0.249	77.73- 116.59	95.35		BA
2.464	2.463	0.001	2461	0.25000	0.246	70.77- 106.16	86.72		BA
2.553	2.554	-0.001	2399	0.25000	0.242	68.90- 103.36	84.56		BA
Average of Peak Amounts =					0.24780				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.300	3.300	0.000	4826	0.25000	0.237	80.00- 120.00	100.00	(aM)	BA
3.471	3.471	0.000	5710	0.25000	0.234	94.09- 141.14	118.32		BA
3.655	3.654	0.001	7102	0.25000	0.242	117.87- 176.80	147.16		BA
4.052	4.052	0.000	10083	0.25000	0.234	166.49- 249.74	208.93		BA
4.239	4.239	0.000	6059	0.25000	0.234	99.38- 149.07	125.57		BA
Average of Peak Amounts =					0.23620				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.583	1.583	0.000	22991	0.05000	0.0506			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.950	4.950	0.000	14898	0.05000	0.0469		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 17-JUL-2019 18:23
Lab File ID: d071719000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d071719-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11352	0.010	-0.36181	20.00000	Aver	(aM)
(2)	21808	22072	0.010	1.21031	20.00000	Aver	(aM)
(3)	10850	10824	0.010	-0.23657	20.00000	Aver	(aM)
(4)	9980	9844	0.010	-1.36657	20.00000	Aver	(aM)
(5)	9902	9596	0.010	-3.08702	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	19304	0.010	-5.00156	20.00000	Aver	(aM)
(2)	24356	22840	0.010	-6.22519	20.00000	Aver	(aM)
(3)	29292	28408	0.010	-3.01789	20.00000	Aver	(aM)
(4)	43025	40332	0.010	-6.25951	20.00000	Aver	(aM)
(5)	25870	24236	0.010	-6.31539	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	459820	0.010	1.24273	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	297960	0.010	-6.14349	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.37528
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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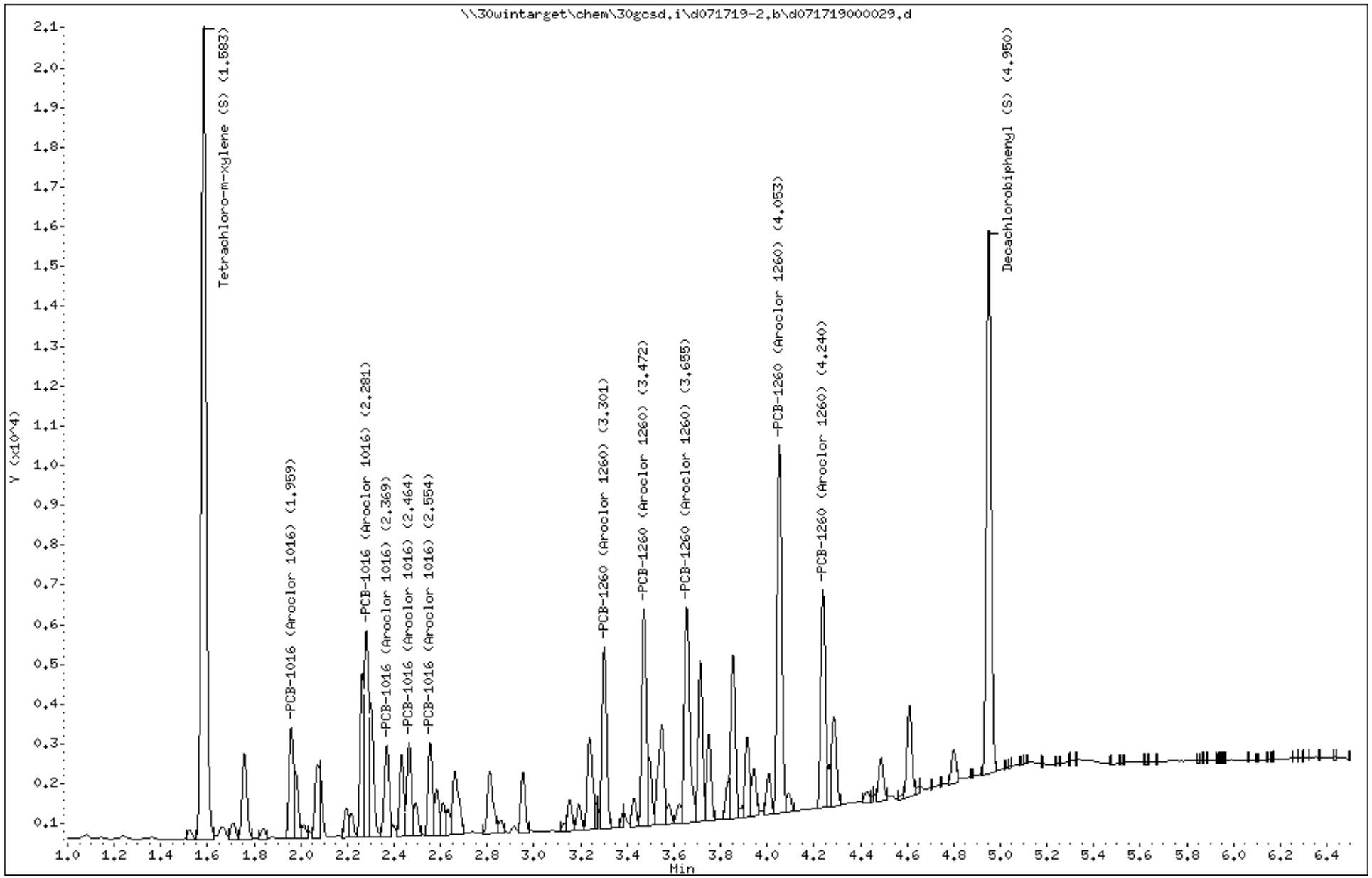
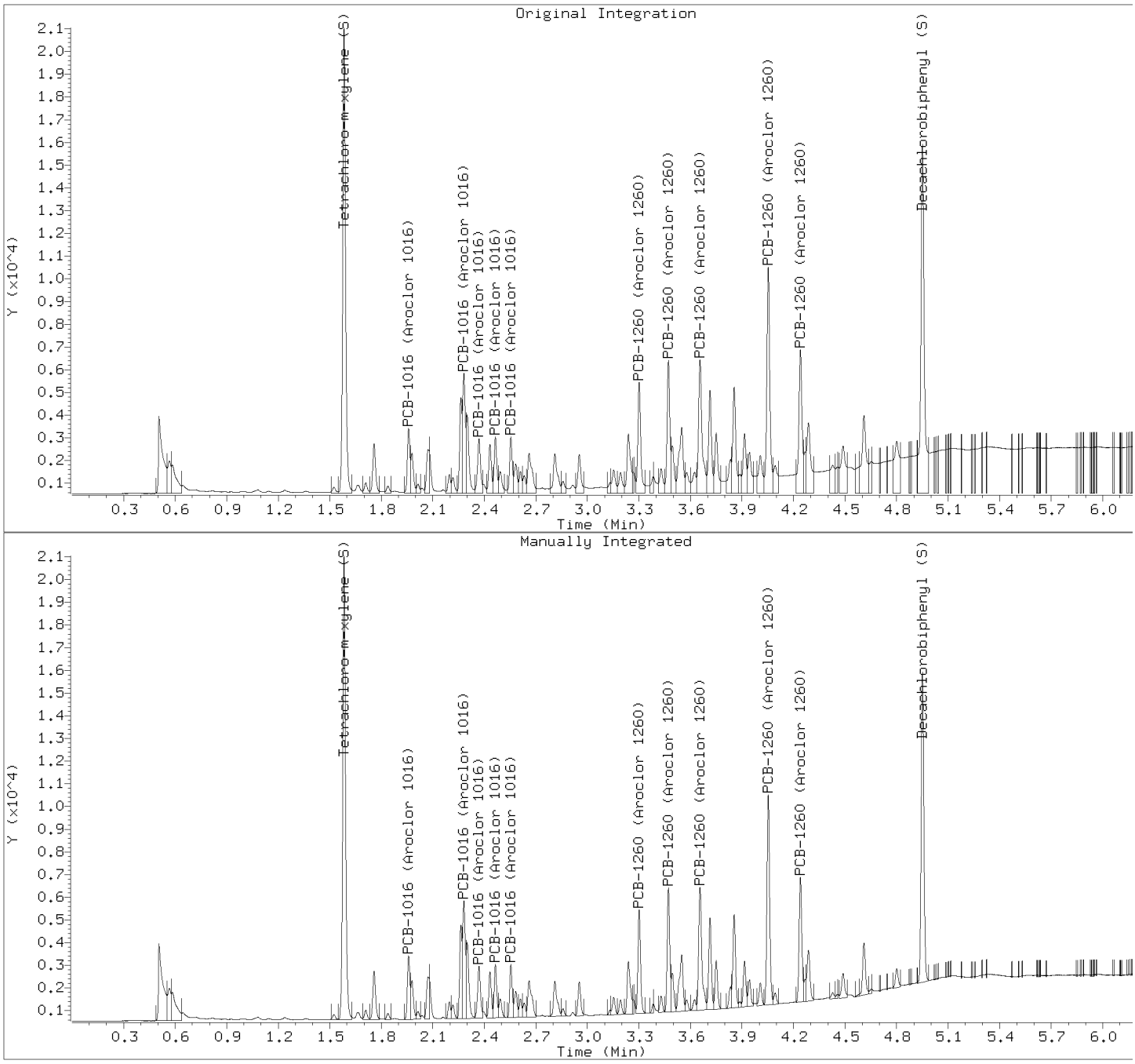
Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b\d071719000029.d
Date : 17-JUL-2019 18:23
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 93951:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071719-2.b/d071719000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 17-JUL-2019 18:23 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2945	2838
PCB-1016 (Aroclor 1016)	5594	5518
PCB-1016 (Aroclor 1016)	3031	2706
PCB-1016 (Aroclor 1016)	2697	2461
PCB-1016 (Aroclor 1016)	2708	2399
PCB-1260 (Aroclor 1260)	5780	4826
PCB-1260 (Aroclor 1260)	6560	5710
PCB-1260 (Aroclor 1260)	8761	7102
PCB-1260 (Aroclor 1260)	12252	10083
PCB-1260 (Aroclor 1260)	8221	6059
Tetrachloro-m-xylene (S)	23219	22991
Decachlorobiphenyl (S)	21259	14898

SAMPLE NO.

BLANK

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313514

Date Extracted: 07/12/2019 19:04 Lab Sample ID: 1708433

Date Analyzed: 07/16/2019 21:27 Lab File ID: D071619-2.B\D071619000048.D

Initial wt/vol: 15.07 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000048.d
Lab Smp Id: 1708433 Client Smp ID: MB
Inj Date : 16-JUL-2019 21:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708433,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 48 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	614557	862743	1.404	46.140		
0.588	351050	862289	2.456	46.084		
0.815	997	1335	1.339	0.071		
0.839	864	1291	1.495	0.068		
0.869	4029	1790	0.444	0.095		
1.212	89946	73759	0.820	3.942	$ 10 Tetrachloro-m-xylene (S)	BA
1.377	1222	988	0.809	0.052		
1.474	132	209	1.586	0.011		
1.790	275	293	1.065	0.015		
1.825	528	412	0.780	0.022		
1.968	115	171	1.492	0.009		
3.224	97	140	1.450	0.007		
3.366	171	169	0.988	0.009		
3.538	70	7	0.101	0.000		
3.740	48	68	1.420	0.003		
3.969	218	269	1.231	0.014		
4.037	181	186	1.027	0.009		
4.340	465	406	0.874	0.021		
4.387	37	83	2.235	0.004		
4.497	61845	59229	0.958	3.165	$ 11 Decachlorobiphenyl (S)	BA
4.751	22	58	2.651	0.003		
4.763	26	76	2.884	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.817	32	110	3.395	0.005		
4.834	75	168	2.233	0.008		
4.845	149	235	1.582	0.012		
4.851	157	249	1.586	0.013		
4.894	85	235	2.777	0.012		
4.910	77	246	3.204	0.013		
4.935	448	335	0.747	0.017		
4.954	95	376	3.948	0.020		
4.971	87	369	4.226	0.019		
5.043	137	240	1.753	0.012		
5.071	89	253	2.854	0.013		
5.150	53	180	3.418	0.009		
5.255	28	111	3.973	0.005		
5.287	27	100	3.715	0.005		
5.330	42	102	2.437	0.005		
5.339	23	101	4.403	0.005		
5.385	17	71	4.229	0.003		
5.499	19	58	3.132	0.003		
5.523	13	51	3.852	0.002		
5.545	18	48	2.732	0.002		
5.605	13	49	3.895	0.002		
5.659	10	33	3.226	0.001		
5.681	13	54	4.199	0.002		
5.750	37	81	2.198	0.004		
5.753	21	103	4.976	0.005		
5.783	84	158	1.889	0.008		
5.867	40	115	2.887	0.006		
5.928	52	111	2.116	0.005		
5.937	32	106	3.272	0.005		
5.961	27	120	4.370	0.006		
5.984	40	117	2.928	0.006		
6.089	33	73	2.212	0.003		
6.099	14	74	5.386	0.003		
6.112	18	77	4.395	0.004		
6.180	13	57	4.545	0.003		
6.215	27	55	2.005	0.002		
6.269	12	53	4.499	0.002		
6.308	16	50	3.209	0.002		
	1129064	1871095		100.000		

Total unknown % height = 92.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000048.d
Lab Smp Id: 1708433 Client Smp ID: MB
Inj Date : 16-JUL-2019 21:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708433,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 48 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.212	1.210	0.002	89946	0.17685	0.0587		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.497	4.498	-0.001	61844	0.18425	0.0611		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

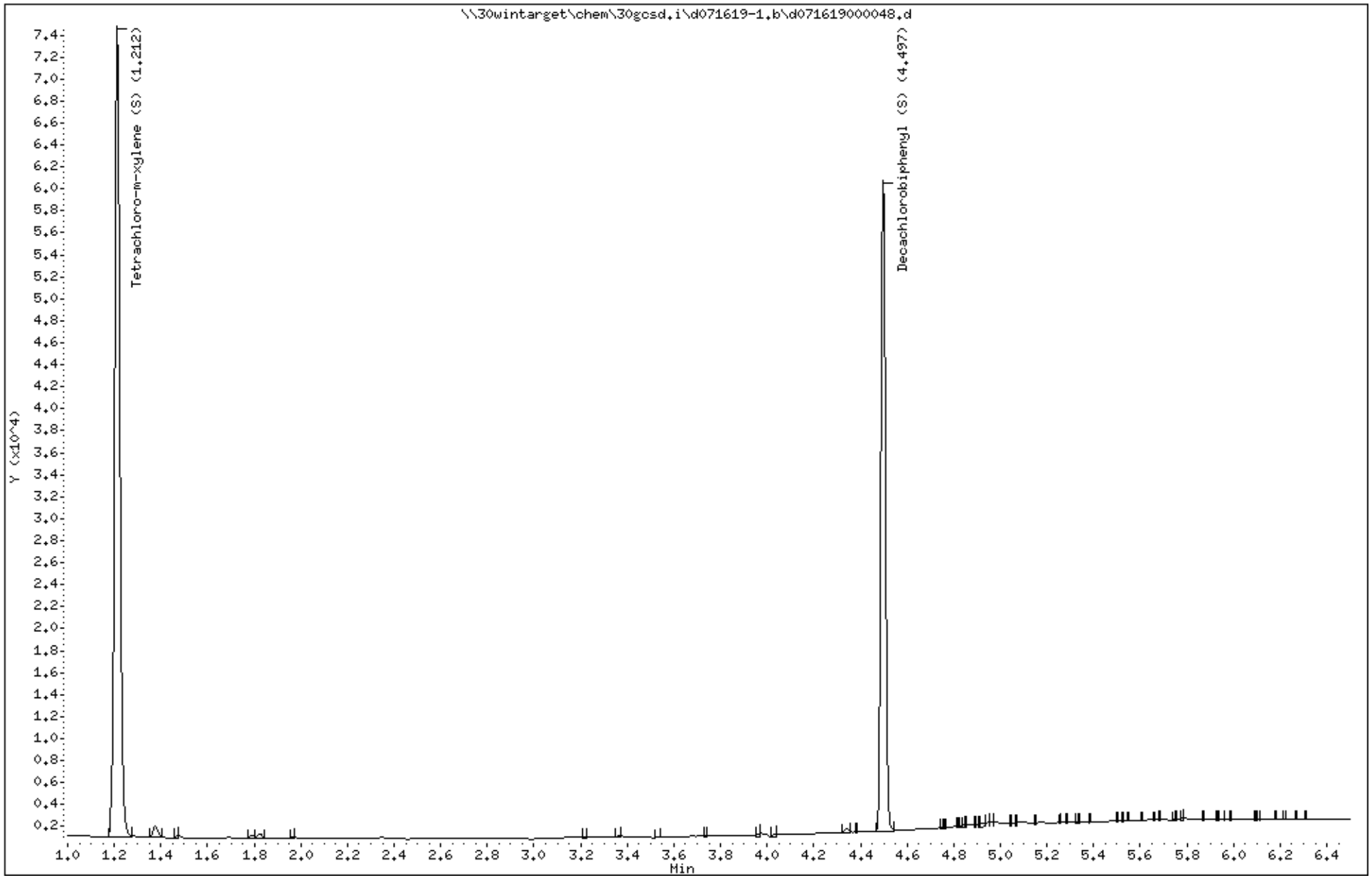
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708433
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

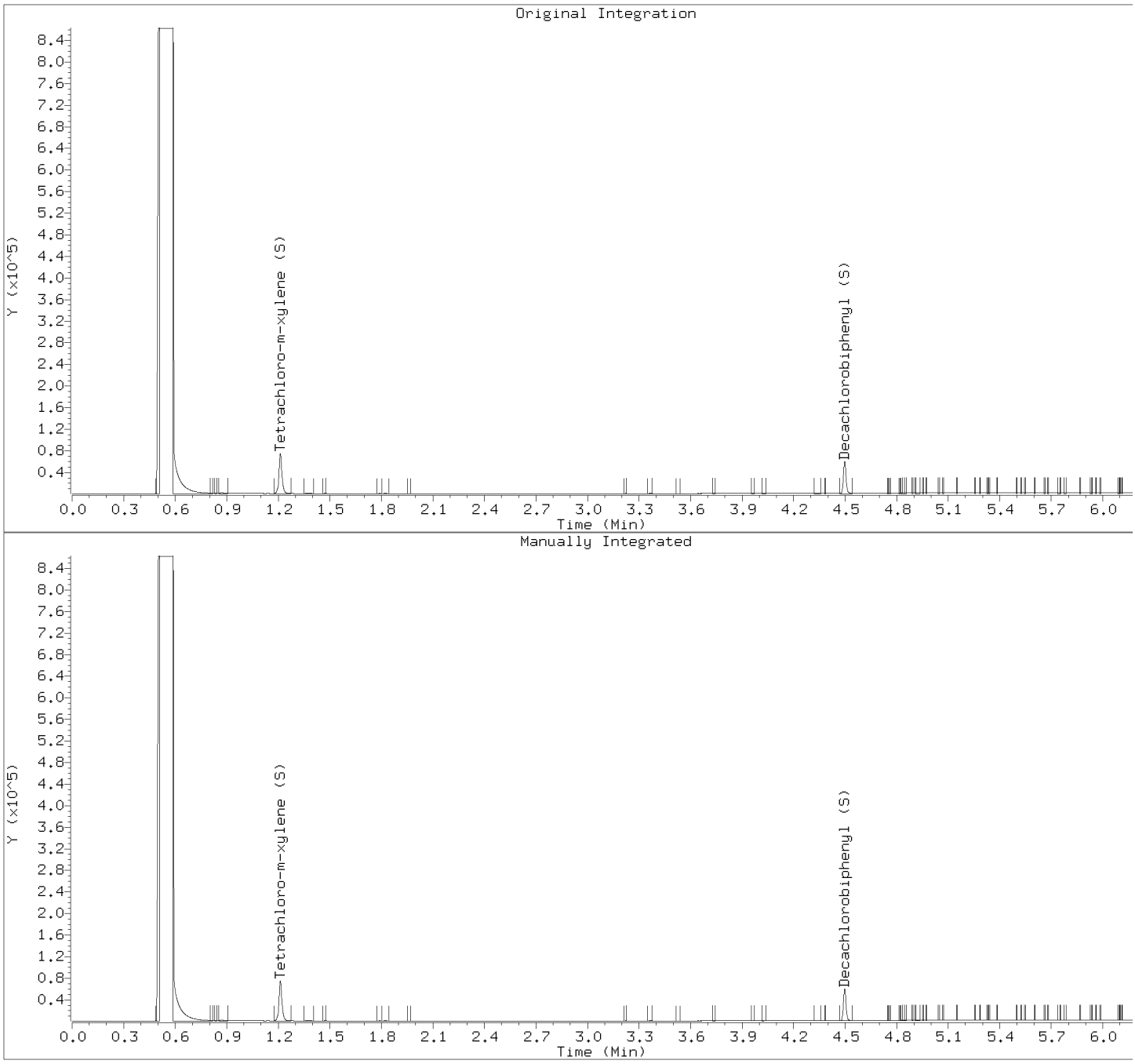
Client SDG: d071619-1.b
Client Smp ID: MB
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0587	J
2051-24-3	Decachlorobiphenyl (S)	0.0611	J

Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000048.d
Date : 16-JUL-2019 21:27
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1708433,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b/d071619000048.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 16-JUL-2019 21:27 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1708433



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	92408	89946
Decachlorobiphenyl (S)	65918	61844

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000048.d
Lab Smp Id: 1708433 Client Smp ID: MB
Inj Date : 16-JUL-2019 21:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708433,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 48 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	573253	862870	1.505	85.701		
0.990	3254	1295	0.398	0.128		
1.070	746	718	0.962	0.071		
1.081	502	799	1.593	0.079		
1.144	382	503	1.316	0.049		
1.239	750	518	0.691	0.051		
1.584	80526	72748	0.903	7.221	$ 10 Tetrachloro-m-xylene (S)	BA
1.755	984	928	0.943	0.092		
1.877	158	162	1.024	0.016		
2.105	98	104	1.060	0.010		
2.182	311	301	0.968	0.029		
2.220	354	330	0.932	0.032		
2.330	117	162	1.386	0.016		
3.506	224	213	0.952	0.021		
3.904	229	201	0.879	0.019		
4.243	58	106	1.826	0.010		
4.316	145	174	1.200	0.017		
4.427	296	317	1.073	0.031		
4.462	133	222	1.669	0.022		
4.482	200	262	1.310	0.026		
4.570	14	61	4.254	0.006		
4.594	215	197	0.917	0.019		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.632	30	104	3.499	0.010		
4.749	14	50	3.566	0.004		
4.757	18	57	3.105	0.005		
4.800	418	357	0.853	0.035		
4.845	3	11	4.000	0.001		
4.860	7	25	3.501	0.002		
4.884	11	38	3.310	0.003		
4.896	11	48	4.400	0.004		
4.900	10	48	4.688	0.004		
4.904	10	51	4.956	0.005		
4.950	59918	54831	0.915	5.442	$ 11 Decachlorobiphenyl (S)	BA
5.011	60	94	1.578	0.009		
5.018	34	99	2.903	0.009		
5.024	29	101	3.535	0.010		
5.034	22	103	4.773	0.010		
5.053	25	84	3.408	0.008		
5.065	26	89	3.471	0.008		
5.072	35	96	2.724	0.009		
5.090	35	80	2.278	0.007		
5.102	32	78	2.428	0.007		
5.111	40	75	1.876	0.007		
5.124	15	62	4.095	0.006		
5.175	3	15	5.837	0.001		
5.185	1	10	7.874	0.000		
5.198	5	22	4.762	0.002		
5.241	4	20	5.000	0.001		
5.248	10	31	3.021	0.003		
5.267	13	65	5.043	0.006		
5.276	22	90	4.123	0.008		
5.281	36	114	3.149	0.011		
5.296	105	168	1.604	0.016		
5.304	97	201	2.080	0.019		
5.311	102	225	2.210	0.022		
5.320	48	247	5.131	0.024		
5.362	39	247	6.337	0.024		
5.368	84	267	3.195	0.026		
5.374	119	275	2.304	0.027		
5.381	115	256	2.224	0.025		
5.390	60	259	4.287	0.025		
5.402	207	303	1.461	0.030		
5.406	107	323	3.012	0.032		
5.412	112	336	2.993	0.033		
5.466	41	188	4.627	0.018		
5.486	49	187	3.779	0.018		
5.511	76	138	1.822	0.013		
5.561	22	93	4.169	0.009		
5.566	31	93	2.985	0.009		
5.575	29	102	3.480	0.010		
5.580	30	105	3.492	0.010		
5.595	38	114	2.992	0.011		
5.600	23	113	4.825	0.011		
5.610	48	113	2.369	0.011		
5.648	13	60	4.615	0.005		
5.667	10	54	5.567	0.005		
5.695	14	58	4.203	0.005		
5.718	21	68	3.208	0.006		
5.750	19	85	4.580	0.008		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.778	24	75	3.161	0.007		
5.785	21	74	3.561	0.007		
5.805	25	78	3.122	0.007		
5.847	20	82	4.098	0.008		
5.917	16	85	5.428	0.008		
5.931	22	86	3.934	0.008		
5.955	46	88	1.897	0.008		
5.964	21	86	4.177	0.008		
5.980	47	101	2.133	0.010		
5.987	26	97	3.699	0.009		
6.035	16	96	6.023	0.009		
6.056	42	108	2.547	0.010		
6.119	27	97	3.541	0.009		
6.187	38	117	3.088	0.011		
6.193	37	119	3.176	0.011		
6.248	34	101	2.965	0.010		
6.267	31	101	3.275	0.010		
6.275	41	94	2.297	0.009		
6.304	20	84	4.175	0.008		
6.322	13	74	5.804	0.007		
6.340	22	78	3.485	0.007		
6.347	22	75	3.428	0.007		
6.366	31	80	2.612	0.007		
6.392	17	83	4.897	0.008		
6.408	23	89	3.836	0.008		
6.418	17	82	4.872	0.008		
6.447	29	71	2.438	0.007		
6.458	17	62	3.647	0.006		
6.473	15	55	3.553	0.005		
6.483	11	46	4.152	0.004		
6.487	11	43	4.084	0.004		
	726288	1007424		100.000		

Total unknown % height = 87.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000048.d
Lab Smp Id: 1708433 Client Smp ID: MB
Inj Date : 16-JUL-2019 21:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708433,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 48 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.070	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Peaks not detected for Quant. or Qual. signal(s).								
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Peaks not detected for Quant. or Qual. signal(s).								
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.584	1.583	0.001	80525	0.17730	0.0588		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.949	4.952	-0.003	59918	0.18874	0.0626		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

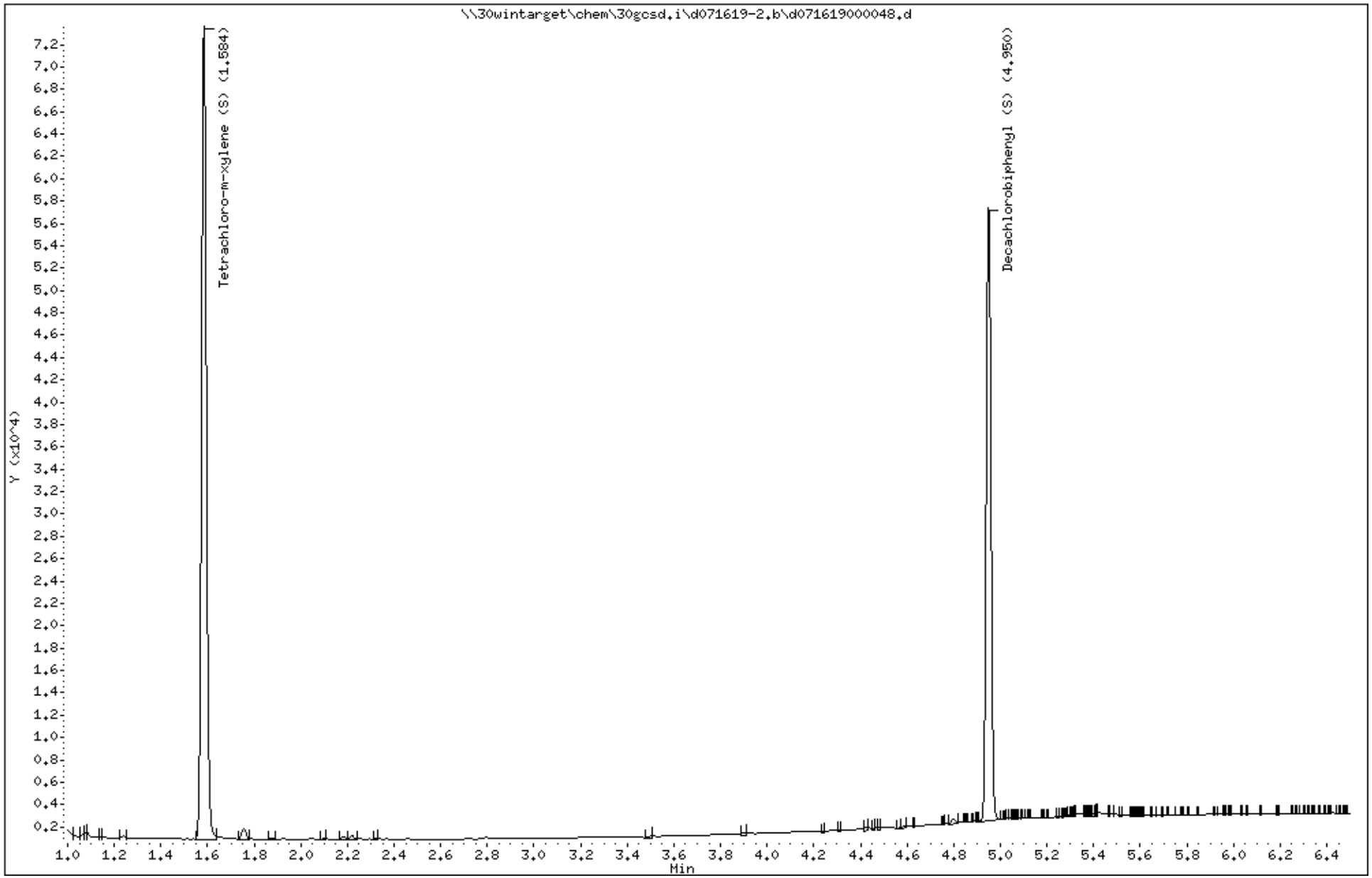
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708433
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

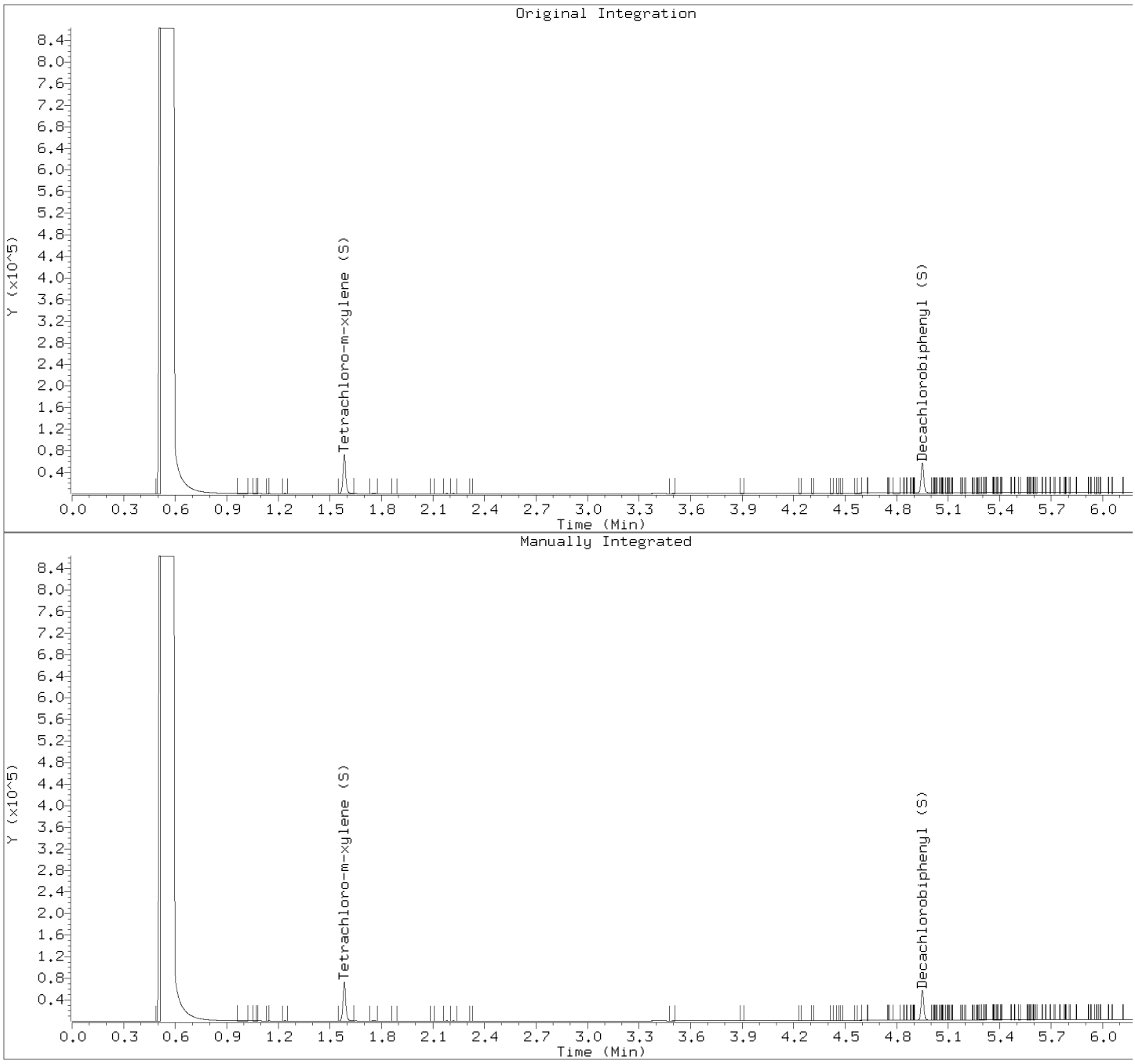
Client SDG: d071619-2.b
Client Smp ID: MB
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
877-09-8	Tetrachloro-m-xylene (S)	0.0588	J
2051-24-3	Decachlorobiphenyl (S)	0.0626	J

Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000048.d
Date : 16-JUL-2019 21:27
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1708433,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b/d071619000048.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 16-JUL-2019 21:27 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1708433



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
Tetrachloro-m-xylene (S)	81904	80525
Decachlorobiphenyl (S)	71053	59918

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313514

Date Extracted: 07/12/2019 19:04 Lab Sample ID: 1708434

Date Analyzed: 07/16/2019 21:36 Lab File ID: D071619-1.B\D071619000049.D

Initial wt/vol: 15.05 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
11096-82-5	PCB-1260 (Aroclor 1260)	141	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000049.d
Lab Smp Id: 1708434 Client Smp ID: MBLCS
Inj Date : 16-JUL-2019 21:36
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708434,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	9567	7077	0.740	1.888		
0.531	13152	6660	0.506	1.777		
0.819	357	404	1.133	0.107		
0.839	728	523	0.719	0.139		
0.873	2907	1494	0.514	0.398		
1.212	86603	70668	0.816	18.903	$ 10 Tetrachloro-m-xylene (S)	BA
1.267	651	520	0.799	0.138		
1.345	800	642	0.803	0.171		
1.377	1136	1007	0.887	0.268		
1.399	888	789	0.888	0.210		
1.440	3934	3335	0.848	0.889		
1.559	505	473	0.937	0.126		
1.631	8294	5968	0.720	1.592	1 PCB-1016 (Aroclor 1016)	BA
1.693	1392	764	0.549	0.203		
1.744	1930	2347	1.216	0.626		
1.758	3351	2998	0.895	0.799		
1.805	1692	1521	0.899	0.405		
1.822	1444	1350	0.935	0.360		
1.877	17200	12446	0.724	3.320	1 PCB-1016 (Aroclor 1016)	BA
1.930	7243	5615	0.775	1.498	1 PCB-1016 (Aroclor 1016)	BA
2.006	3840	3885	1.012	1.036		
2.033	4971	4355	0.876	1.161		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.060	3064	3334	1.088	0.889		
2.074	3815	3406	0.893	0.908		
2.186	5086	5050	0.993	1.347	1 PCB-1016 (Aroclor 1016)	BA
2.210	2047	2025	0.989	0.540		
2.236	1583	1600	1.011	0.426		
2.252	953	1200	1.259	0.320		
2.275	4904	4290	0.875	1.144	1 PCB-1016 (Aroclor 1016)	BA
2.343	1428	1258	0.881	0.335		
2.372	1207	1184	0.981	0.315		
2.399	1681	1749	1.040	0.466		
2.423	4837	4226	0.874	1.127		
2.470	551	564	1.023	0.150		
2.507	3573	3440	0.963	0.917		
2.589	273	325	1.191	0.086		
2.726	608	592	0.974	0.157		
2.794	8319	6919	0.832	1.846	7 PCB-1260 (Aroclor 1260)	BA
2.827	2930	2687	0.917	0.716		
2.882	10368	10054	0.970	2.682	7 PCB-1260 (Aroclor 1260)	BA
2.921	633	597	0.943	0.159		
2.952	1703	1619	0.950	0.431		
2.992	11023	10473	0.950	2.794	7 PCB-1260 (Aroclor 1260)	BA
3.100	4688	5350	1.141	1.427		
3.117	7175	6337	0.883	1.690		
3.187	3681	2689	0.730	0.717		
3.224	14277	10652	0.746	2.842		
3.251	9587	8947	0.933	2.387		
3.286	5084	4812	0.946	1.283		
3.375	2085	1718	0.824	0.458		
3.435	10157	8656	0.852	2.309		
3.496	4808	4603	0.957	1.228		
3.531	3616	3351	0.927	0.894		
3.556	819	1023	1.249	0.272		
3.582	21767	21000	0.965	5.603	7 PCB-1260 (Aroclor 1260)	BA
3.617	391	423	1.081	0.112		
3.675	734	706	0.962	0.188		
3.755	320	327	1.021	0.087		
3.783	4491	4467	0.995	1.191		
3.824	15570	14286	0.918	3.811	7 PCB-1260 (Aroclor 1260)	BA
3.970	632	581	0.920	0.155		
4.034	19	171	9.233	0.045		
4.075	2065	1986	0.962	0.529		
4.150	5360	4947	0.923	1.319		
4.340	1495	1451	0.970	0.387		
4.497	64141	62656	0.977	16.717	$ 11 Decachlorobiphenyl (S)	BA
4.740	15	33	2.233	0.008		
4.841	51	80	1.557	0.021		
4.864	40	94	2.355	0.025		
4.894	51	95	1.864	0.025		
4.918	40	97	2.415	0.025		
4.923	40	114	2.818	0.030		
4.932	39	126	3.256	0.033		
4.950	125	157	1.255	0.041		
4.998	17	61	3.684	0.016		
5.079	23	94	4.108	0.025		
5.177	26	69	2.650	0.018		
5.299	7	30	4.021	0.008		
5.367	7	25	3.613	0.006		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.482	18	56	3.135	0.014		
5.572	13	64	4.748	0.017		
5.576	16	65	4.052	0.017		
5.599	17	73	4.340	0.019		
5.623	19	82	4.380	0.021		
5.747	38	91	2.422	0.024		
5.755	55	120	2.169	0.032		
5.773	72	150	2.074	0.040		
5.841	65	140	2.146	0.037		
5.851	52	144	2.773	0.038		
6.122	24	118	4.844	0.031		
6.417	12	36	3.093	0.009		
	427016	374786		100.000		

Total unknown % height = 38.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000049.d
Lab Smp Id: 1708434 Client Smp ID: MBLCS
Inj Date : 16-JUL-2019 21:36
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708434,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-1.b\df8082.new608.052419.m
Meth Date : 17-Jul-2019 09:17 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.630	1.629	0.001	8294	0.40384	0.134	80.00- 120.00	100.00(aM)	BA
1.876	1.876	0.000	17200	0.41611	0.138	160.61- 240.92	207.38	BA
1.930	1.930	0.000	7243	0.43485	0.144	65.64- 98.47	87.33	BA
2.185	2.185	0.000	5085	0.39810	0.132	47.23- 70.85	61.32	BA
2.274	2.274	0.000	4904	0.44665	0.148	41.91- 62.86	59.13	BA
Average of Peak Concentrations =					0.140			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.793	2.794	-0.001	8319	0.44861	0.149	80.00- 120.00	100.00(aM)	BA
2.881	2.882	-0.001	10367	0.43714	0.145	102.43- 153.65	124.62	BA
2.992	2.992	0.000	11023	0.37144	0.123	126.70- 190.06	132.50	BA
3.581	3.581	0.000	21766	0.43355	0.144	214.73- 322.09	261.64	BA
3.823	3.823	0.000	15569	0.42956	0.143	154.58- 231.87	187.16	BA
Average of Peak Concentrations =					0.141			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.211	1.210	0.001	86602	0.17027	0.0566		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.496	4.498	-0.002	64140	0.19109	0.0635		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

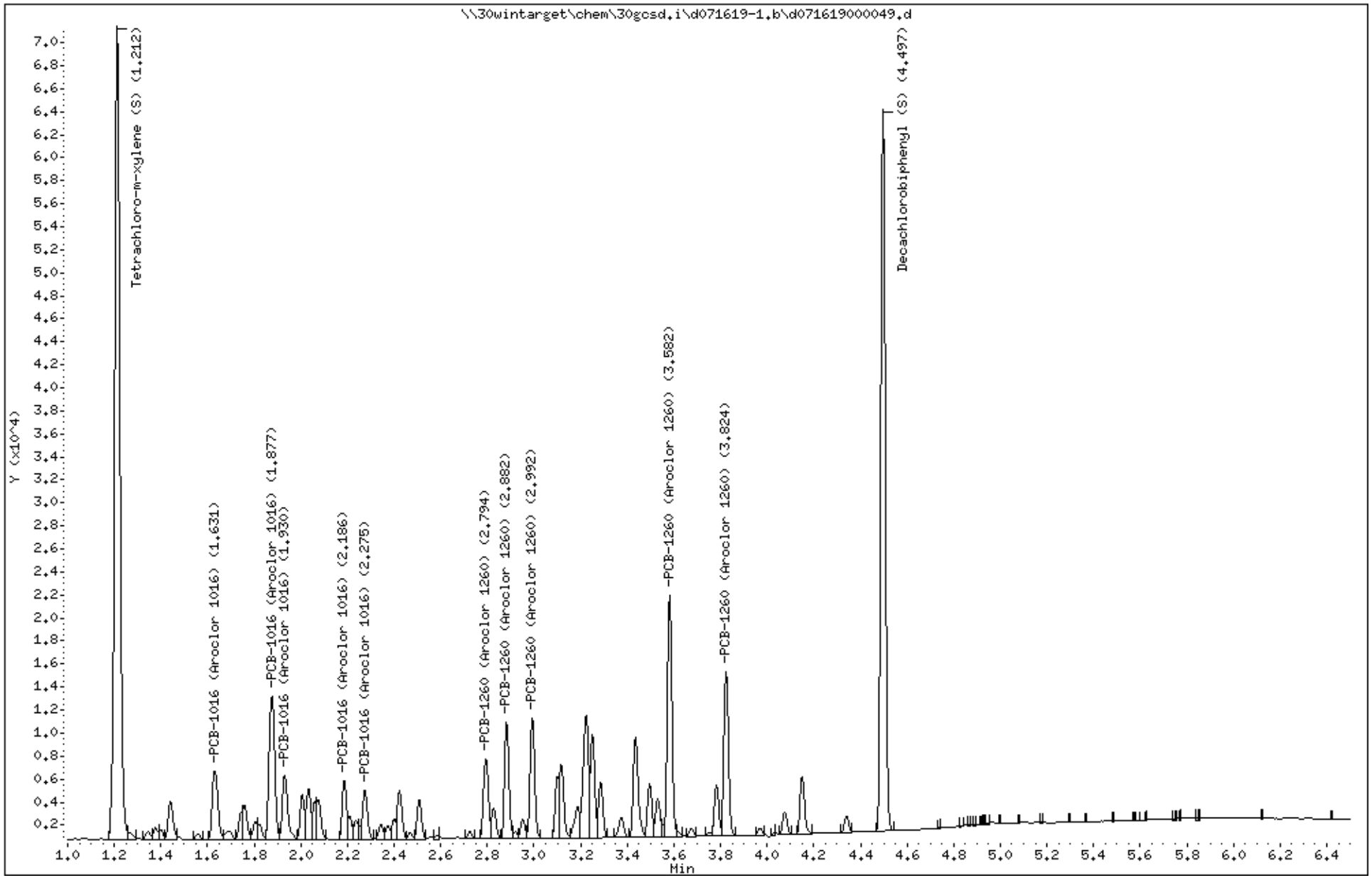
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708434
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

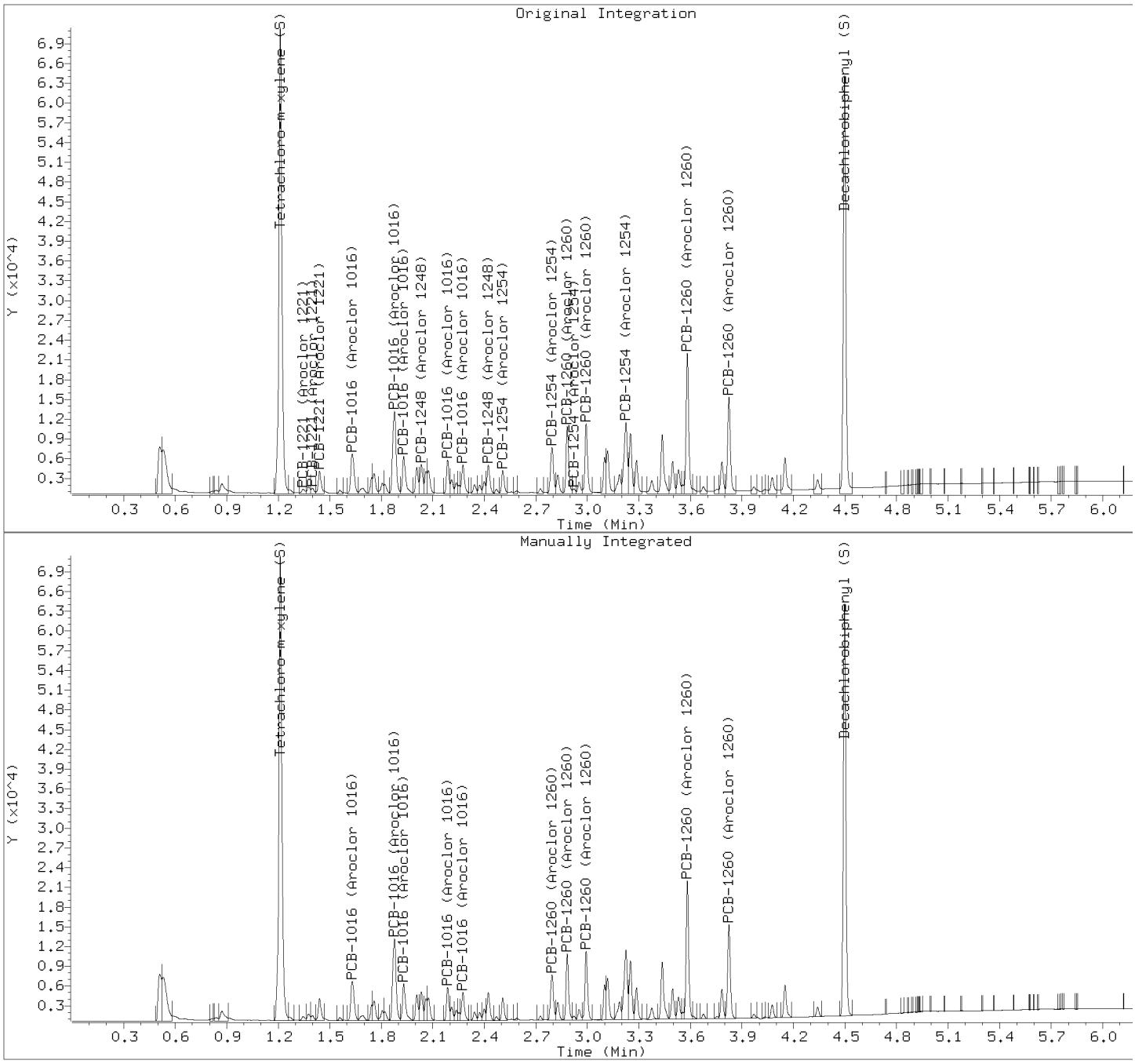
Client SDG: d071619-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.631	0.134	J
	Peak found at 1.877	0.138	J
	Peak found at 1.930	0.144	J
	Peak found at 2.186	0.132	J
	Peak found at 2.275	0.148	J
	Average of Peak Amounts =	0.139	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.794	0.149	J
	Peak found at 2.882	0.145	J
	Peak found at 2.992	0.123	J
	Peak found at 3.582	0.144	J
	Peak found at 3.824	0.143	J
	Average of Peak Amounts =	0.141	J
877-09-8	Tetrachloro-m-xylene (S)	0.0566	J
2051-24-3	Decachlorobiphenyl (S)	0.0635	J

Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b\d071619000049.d
Date : 16-JUL-2019 21:36
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1708434,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-1.b/d071619000049.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 16-JUL-2019 21:36 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1708434



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8538	8294
PCB-1016 (Aroclor 1016)	17466	17200
PCB-1016 (Aroclor 1016)	7572	7243
PCB-1016 (Aroclor 1016)	5252	5085
PCB-1016 (Aroclor 1016)	5148	4904
PCB-1221 (Aroclor 1221)	979	0
PCB-1221 (Aroclor 1221)	998	0
PCB-1221 (Aroclor 1221)	4129	0
PCB-1232 (Aroclor 1232)	4129	0
PCB-1232 (Aroclor 1232)	8538	0
PCB-1232 (Aroclor 1232)	17466	0
PCB-1232 (Aroclor 1232)	7572	0
PCB-1232 (Aroclor 1232)	5252	0
PCB-1242 (Aroclor 1242)	4129	0

PCB-1242 (Aroclor 1242)	8538	0
PCB-1242 (Aroclor 1242)	17466	0
PCB-1242 (Aroclor 1242)	7572	0
PCB-1242 (Aroclor 1242)	5252	0
PCB-1248 (Aroclor 1248)	17466	0
PCB-1248 (Aroclor 1248)	5073	0
PCB-1248 (Aroclor 1248)	5252	0
PCB-1248 (Aroclor 1248)	5148	0
PCB-1248 (Aroclor 1248)	5077	0
PCB-1254 (Aroclor 1254)	5077	0
PCB-1254 (Aroclor 1254)	3856	0
PCB-1254 (Aroclor 1254)	8706	0
PCB-1254 (Aroclor 1254)	867	0
PCB-1254 (Aroclor 1254)	14746	0
PCB-1260 (Aroclor 1260)	8706	8319
PCB-1260 (Aroclor 1260)	10842	10367
PCB-1260 (Aroclor 1260)	11639	11023
PCB-1260 (Aroclor 1260)	22702	21766
PCB-1260 (Aroclor 1260)	17036	15569
Tetrachloro-m-xylene (S)	87026	86602
Decachlorobiphenyl (S)	67687	64140

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM

Date Received: Matrix: Solid SDG No.: 30313514

Date Extracted: 07/12/2019 19:04 Lab Sample ID: 1708434

Date Analyzed: 07/16/2019 21:36 Lab File ID: D071619-2.B\D071619000049.D

Initial wt/vol: 15.05 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	137	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000049.d
Lab Smp Id: 1708434 Client Smp ID: MBLCS
Inj Date : 16-JUL-2019 21:36
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708434,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	15259	8779	0.575	2.530		
0.566	8582	4313	0.503	1.243		
0.992	2312	1159	0.501	0.334		
1.082	891	445	0.500	0.128		
1.239	286	229	0.800	0.065		
1.525	401	344	0.857	0.099		
1.584	77994	69962	0.897	20.230	$ 10 Tetrachloro-m-xylene (S)	BA
1.661	567	613	1.082	0.176		
1.710	765	667	0.871	0.192		
1.758	4376	3898	0.891	1.123		
1.839	493	436	0.884	0.125		
1.959	4712	4706	0.999	1.356	1 PCB-1016 (Aroclor 1016)	BA
1.979	2798	2756	0.985	0.794		
2.013	580	548	0.945	0.157		
2.072	3141	3052	0.972	0.879		
2.195	1467	1293	0.881	0.372		
2.217	1135	1070	0.942	0.308		
2.263	6404	7041	1.099	2.029		
2.281	8971	8657	0.965	2.495	1 PCB-1016 (Aroclor 1016)	BA
2.300	6296	5605	0.890	1.615		
2.369	4580	3989	0.871	1.149	1 PCB-1016 (Aroclor 1016)	BA
2.433	3491	3465	0.993	0.998		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.465	4078	3943	0.967	1.136	1 PCB-1016 (Aroclor 1016)	BA
2.492	1505	1336	0.888	0.385		
2.554	4068	4006	0.985	1.154	1 PCB-1016 (Aroclor 1016)	BA
2.583	2220	1959	0.882	0.564		
2.610	1408	1395	0.991	0.402		
2.632	1077	1078	1.001	0.310		
2.660	4855	2947	0.607	0.849		
2.811	5670	3523	0.621	1.015		
2.858	1273	1207	0.948	0.347		
2.915	357	354	0.991	0.102		
2.952	3169	2913	0.919	0.839		
3.132	441	507	1.150	0.146		
3.153	1541	1394	0.905	0.401		
3.192	1563	1462	0.936	0.421		
3.238	5694	4420	0.776	1.273		
3.269	1051	1163	1.107	0.335		
3.301	8980	8578	0.955	2.472	7 PCB-1260 (Aroclor 1260)	BA
3.384	1097	914	0.833	0.263		
3.429	1424	1357	0.953	0.391		
3.471	9681	9414	0.972	2.713	7 PCB-1260 (Aroclor 1260)	BA
3.495	3050	2983	0.978	0.859		
3.549	7134	4799	0.673	1.383		
3.578	1032	913	0.885	0.263		
3.623	1171	1012	0.864	0.291		
3.655	13954	10538	0.755	3.037	7 PCB-1260 (Aroclor 1260)	BA
3.713	8055	7397	0.918	2.131		
3.749	4099	3810	0.929	1.098		
3.832	1514	1673	1.105	0.482		
3.854	7557	6896	0.913	1.987		
3.888	416	454	1.091	0.130		
3.914	3885	3649	0.939	1.051		
3.943	2385	2100	0.881	0.605		
3.972	233	235	1.007	0.067		
4.006	2253	2005	0.890	0.577		
4.052	19023	17918	0.942	5.164	7 PCB-1260 (Aroclor 1260)	BA
4.092	1070	951	0.889	0.274		
4.239	11619	10310	0.887	2.971	7 PCB-1260 (Aroclor 1260)	BA
4.265	1183	1771	1.497	0.510		
4.286	5519	4396	0.797	1.266		
4.427	243	336	1.382	0.096		
4.455	303	269	0.887	0.077		
4.487	2274	1985	0.873	0.572		
4.609	4680	4480	0.957	1.291		
4.651	150	229	1.529	0.065		
4.747	21	40	1.887	0.011		
4.799	1530	1362	0.890	0.392		
4.860	26	73	2.806	0.021		
4.896	26	93	3.555	0.026		
4.905	48	104	2.186	0.029		
4.910	37	115	3.081	0.033		
4.949	62402	58500	0.937	16.860	$ 11 Decachlorobiphenyl (S)	BA
5.091	33	155	4.731	0.044		
5.115	54	155	2.853	0.044		
5.162	40	85	2.141	0.024		
5.194	19	49	2.565	0.014		
5.223	12	26	2.147	0.007		
5.260	10	32	3.077	0.009		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.268	20	55	2.764	0.015		
5.277	24	90	3.764	0.025		
5.285	51	119	2.343	0.034		
5.297	118	180	1.526	0.051		
5.310	71	231	3.275	0.066		
5.314	76	246	3.252	0.070		
5.322	109	260	2.387	0.074		
5.327	89	268	3.021	0.077		
5.331	87	281	3.226	0.080		
5.341	210	291	1.383	0.083		
5.346	63	290	4.638	0.083		
5.391	81	296	3.655	0.085		
5.394	60	307	5.110	0.088		
5.400	107	331	3.099	0.095		
5.406	125	356	2.859	0.102		
5.411	125	380	3.047	0.109		
5.435	147	325	2.214	0.093		
5.462	45	233	5.166	0.067		
5.534	37	121	3.301	0.034		
5.541	29	115	3.989	0.033		
5.549	25	107	4.335	0.030		
5.565	37	113	3.068	0.032		
5.582	68	122	1.785	0.035		
5.647	23	62	2.693	0.017		
5.669	14	57	3.947	0.016		
5.675	9	55	6.111	0.015		
5.688	12	63	5.403	0.018		
5.726	27	68	2.522	0.019		
5.743	32	80	2.481	0.023		
5.750	13	78	6.000	0.022		
5.803	12	70	5.609	0.020		
5.840	12	70	5.776	0.020		
5.866	29	72	2.449	0.020		
5.873	34	72	2.130	0.020		
5.891	20	77	3.831	0.022		
5.909	17	65	3.749	0.018		
5.942	15	70	4.540	0.020		
5.948	17	69	3.993	0.019		
5.988	26	81	3.080	0.023		
6.007	20	84	4.303	0.024		
6.014	44	89	2.029	0.025		
6.079	26	87	3.367	0.025		
6.092	26	88	3.360	0.025		
6.098	20	85	4.169	0.024		
6.124	27	77	2.906	0.022		
6.130	16	80	4.869	0.023		
6.144	21	75	3.519	0.021		
6.151	26	79	3.008	0.022		
6.156	17	85	5.027	0.024		
6.166	26	92	3.601	0.026		
6.217	18	81	4.465	0.023		
6.238	29	77	2.615	0.022		
6.245	30	76	2.568	0.021		
6.258	21	77	3.686	0.022		
6.267	12	69	5.583	0.019		
6.273	34	74	2.161	0.021		
6.280	24	65	2.747	0.018		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.301	25	70	2.784	0.020		
6.307	37	67	1.835	0.019		
6.335	10	56	5.432	0.016		
6.348	16	49	3.028	0.014		
6.361	9	47	5.478	0.013		
6.406	23	59	2.537	0.017		
6.411	11	60	5.425	0.017		
6.449	8	39	5.072	0.011		
6.476	6	30	4.983	0.008		
6.491	6	32	5.212	0.009		
	386419	346970		100.000		

Total unknown % height = 39.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000049.d
Lab Smp Id: 1708434 Client Smp ID: MBLCS
Inj Date : 16-JUL-2019 21:36
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1708434,
Misc Info : 15808,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d071619-2.b\dr8082.new608.052419.m
Meth Date : 17-Jul-2019 09:20 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 49 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.050	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.958	1.958	0.000	4712	0.41358	0.137	80.00- 120.00	100.00(aM)	BA
2.280	2.281	-0.001	8971	0.41136	0.137	153.85- 230.77	190.38	BA
2.369	2.369	0.000	4580	0.42213	0.140	75.12- 112.68	97.19	BA
2.464	2.465	-0.001	4077	0.40850	0.136	69.11- 103.67	86.53	BA
2.554	2.554	0.000	4068	0.41084	0.136	66.95- 100.43	86.34	BA
		Average of Peak Concentrations =			0.137			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.300	3.301	-0.001	8980	0.44192	0.147	80.00- 120.00	100.00	(aM)	BA
3.470	3.472	-0.002	9681	0.39748	0.132	94.42- 141.63	107.81		BA
3.654	3.656	-0.002	13953	0.47634	0.158	118.57- 177.86	155.38		BA
4.051	4.053	-0.002	19023	0.44214	0.147	169.03- 253.54	211.84		BA
4.239	4.241	-0.002	11618	0.44910	0.149	102.39- 153.59	129.39		BA
Average of Peak Concentrations =					0.147				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.584	1.583	0.001	77994	0.17173	0.0570			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.949	4.952	-0.003	62401	0.19656	0.0653			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Pace Analytical Services, Inc.

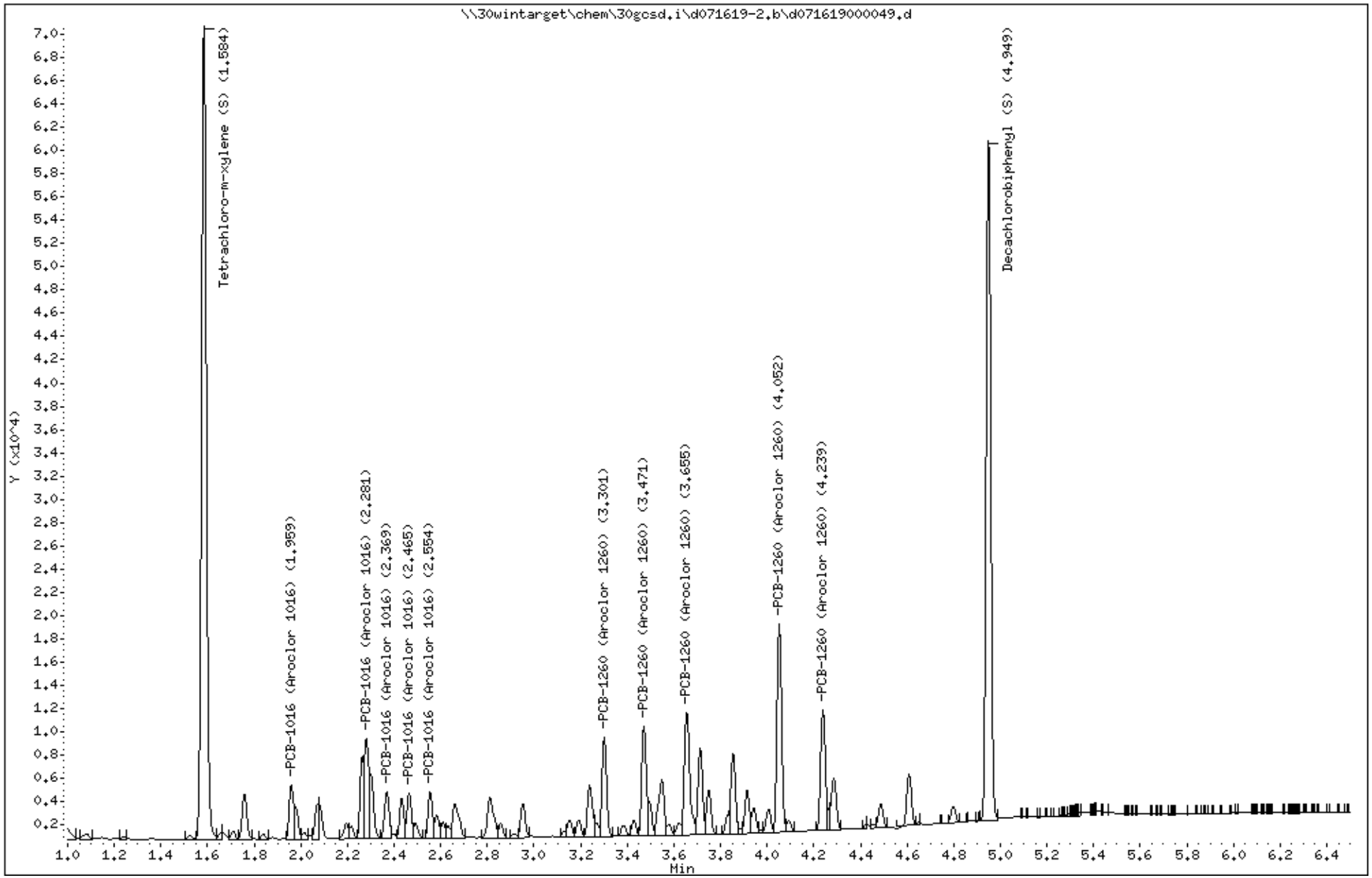
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1708434
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15808,

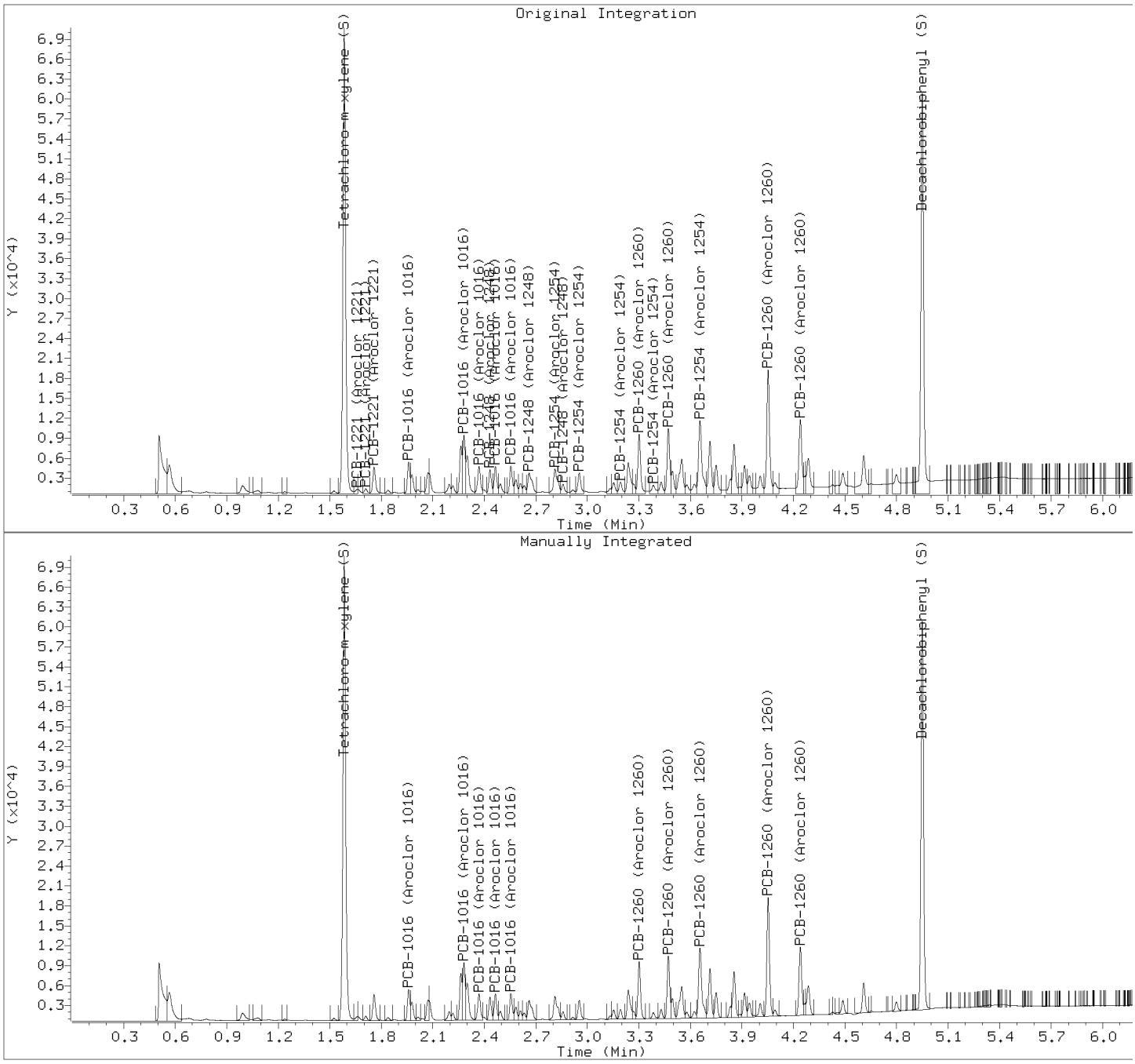
Client SDG: d071619-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 12-JUL-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.959	0.137	J
	Peak found at 2.281	0.137	J
	Peak found at 2.369	0.140	J
	Peak found at 2.465	0.136	J
	Peak found at 2.554	0.136	J
	Average of Peak Amounts =	0.137	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.301	0.147	J
	Peak found at 3.471	0.132	J
	Peak found at 3.655	0.158	J
	Peak found at 4.052	0.147	J
	Peak found at 4.239	0.149	J
	Average of Peak Amounts =	0.147	J
877-09-8	Tetrachloro-m-xylene (S)	0.0570	J
2051-24-3	Decachlorobiphenyl (S)	0.0653	J

Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b\d071619000049.d
Date : 16-JUL-2019 21:36
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1708434,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d071619-2.b/d071619000049.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 16-JUL-2019 21:36 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1708434



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	4836	4712
PCB-1016 (Aroclor 1016)	9007	8971
PCB-1016 (Aroclor 1016)	4907	4580
PCB-1016 (Aroclor 1016)	4311	4077
PCB-1016 (Aroclor 1016)	4375	4068
PCB-1221 (Aroclor 1221)	645	0
PCB-1221 (Aroclor 1221)	924	0
PCB-1221 (Aroclor 1221)	4611	0
PCB-1232 (Aroclor 1232)	4611	0
PCB-1232 (Aroclor 1232)	4836	0
PCB-1232 (Aroclor 1232)	9007	0
PCB-1232 (Aroclor 1232)	4907	0
PCB-1232 (Aroclor 1232)	4375	0
PCB-1242 (Aroclor 1242)	4611	0

PCB-1242 (Aroclor 1242)	4836	0
PCB-1242 (Aroclor 1242)	9007	0
PCB-1242 (Aroclor 1242)	4907	0
PCB-1242 (Aroclor 1242)	4375	0
PCB-1248 (Aroclor 1248)	9007	0
PCB-1248 (Aroclor 1248)	3744	0
PCB-1248 (Aroclor 1248)	4375	0
PCB-1248 (Aroclor 1248)	5374	0
PCB-1248 (Aroclor 1248)	1684	0
PCB-1254 (Aroclor 1254)	6394	0
PCB-1254 (Aroclor 1254)	3750	0
PCB-1254 (Aroclor 1254)	2260	0
PCB-1254 (Aroclor 1254)	2106	0
PCB-1254 (Aroclor 1254)	15495	0
PCB-1260 (Aroclor 1260)	10001	8980
PCB-1260 (Aroclor 1260)	10486	9681
PCB-1260 (Aroclor 1260)	15495	13953
PCB-1260 (Aroclor 1260)	21146	19023
PCB-1260 (Aroclor 1260)	13935	11618
Tetrachloro-m-xylene (S)	78343	77994
Decachlorobiphenyl (S)	70498	62401

SAMPLE NO.

LCS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1708434 SDG No.: 30313514 Date(s) Analyzed: 07/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63065	140	1.6
	2	2.55432	137	
PCB-1260 (Aroclor 1260)	1	2.79398	141	4.0
	2	4.23932	147	

SAMPLE NO.

MS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1708435 SDG No.: 30313514 Date(s) Analyzed: 07/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63267	176	0.25
	2	2.55433	176	
PCB-1260 (Aroclor 1260)	1	2.793	204	3.6
	2	4.23967	197	

SAMPLE NO.

MSD

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 1708436 SDG No.: 30313514 Date(s) Analyzed: 07/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.63165	183	0.50
	2	2.55432	183	
PCB-1260 (Aroclor 1260)	1	2.79032	233	12.1
	2	4.23998	207	

SAMPLE NO.

Sewer-1

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM
Lab Sample ID: 30313514001 SDG No.: 30313514 Date(s) Analyzed: 07/17/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 20

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.42233	4300	5.4
	2	3.65367	4540	

Prep Log Report

Batch Information: OEXT 38625/ 351580 PCB-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8082A
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	07/12/2019 19:04:50:026	Extraction End Date/Time	07/12/2019 22:32:55:790
Witnessed By		Spiked By	BBR	Spiked By Date	07/12/2019 20:08:58:850	Concentrated By	BBR
Concentrated By Date	07/12/2019 21:30:11:781	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Dispenser ID 2	BTD011
Syringe ID 1	SYR029	Methylene Chloride	92788	1:1 MeCl/Acetone	92275	Hexane	91806
Ottawa Sand	87302	Hydromatrix	84270	Sodium Sulfate	90972	Gravity Filters	91977
Reviewed By	JPH	Reviewed By Date	07/16/2019 15:57	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	BLANK	**1708433**		TVAP006	15.07	5		91910 (1)	
8082ASM_P	LCS	**1708434**		TVAP006	15.05	5		91910 (1)	88418 (1)
8082ASM_P	PS	**30313516001**		TVAP006	15.14	5		91910 (1)	
8082ASM_P	PS	**30313438001**		TVAP006	15.33	5		91910 (1)	
8082ASM_P	MS	**1708435**		TVAP006	15.17	5		91910 (1)	88418 (1)
8082ASM_P	MSD	**1708436**		TVAP006	15.2	5		91910 (1)	88418 (1)
8082ASM_P	PS	**30313438003**		TVAP005	15.24	5		91910 (1)	
8082ASM_P	PS	**30313438005**		TVAP005	15.03	5		91910 (1)	
8082ASM_P	PS	**30313438007**		TVAP005	15.1	5		91910 (1)	
8082ASM_P	PS	**30313204001**		TVAP005	15.08	5		91910 (1)	
8082ASM_P	PS	**30313204002**		TVAP005	15.39	5		91910 (1)	
8082ASM_P	PS	**30313204003**		TVAP005	15.16	5		91910 (1)	
8082ASM_P	PS	**30313204004**		TVAP003	15.06	5		91910 (1)	
8082ASM_P	PS	**30313514001**		TVAP003	15.41	5		91910 (1)	
8082ASM_P	PS	**30313514002**		TVAP003	15.11	5		91910 (1)	
8082ASM_P	PS	**30313284001**		TVAP003	5.31	5	1*	91910 (1)	

Sample Notes:

1*: Low Density Matrix

Standard Notes:

Mon, 29 Jul 2019 13:40:17 -0500

Prep Log Report

88418: oext AROCLOR 2.5 ppm spike methanol **91910: OEXT Pesticide Surrogate 1 ppm**

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexane 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:00	CWB	
1/d052419000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:08	CWB	
1/d052419000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:17	CWB	
1/d052419000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:25	CWB	
1/d052419000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:34	CWB	
1/d052419000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:42	CWB	
1/d052419000007.d	CAL3S, 86571:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:51	CWB	
1/d052419000008.d	CAL3S, 86574:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:59	CWB	
1/d052419000009.d	CAL3S, 87759:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:08	CWB	
1/d052419000010.d	CAL3S, 87760:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:16	CWB	
1/d052419000011.d	CAL3S, 86155:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:25	CWB	
1/d052419000012.d	CAL3S, 86156:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:33	CWB	
1/d052419000013.d	CAL3S, 86172:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:42	CWB	
1/d052419000014.d	CAL6A, 87260:1	N/15570	CALIB_6	1	df8082.new608.052419	5/24/19	14:50	CWB	
1/d052419000015.d	CAL5A, 88856:1	N/15570	CALIB_5	1	df8082.new608.052419	5/24/19	14:59	CWB	
1/d052419000016.d	CAL4A, 88855:1	N/15570	CALIB_4	1	df8082.new608.052419	5/24/19	15:07	CWB	
1/d052419000017.d	CAL3A, 88854:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	15:16	CWB	
1/d052419000018.d	CAL2A, 88853:1	N/15570	CALIB_2	1	df8082.new608.052419	5/24/19	15:25	CWB	
1/d052419000019.d	CAL1A, 88852:1	N/15570	CALIB_1	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000019llc.d	CAL1A, 88852:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000020.d	ICV, 85333:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:42	CWB	
1/d052419000021.d	1672979,	L/15564	BLANK	1	df8082.new608.052419	5/24/19	15:50	CWB	
1/d052419000022.d	1672980,	L/15564	LCS	1	df8082.new608.052419	5/24/19	15:59	CWB	
1/d052419000023.d	30294592008,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:07	CWB	
1/d052419000024.d	30294597001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:16	CWB	
1/d052419000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:24	CWB	
1/d052419000026.d	30294597002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:33	CWB	
1/d052419000027.d	30294597003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:41	CWB	
1/d052419000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:50	CWB	
1/d052419000029.d	30294598004,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:58	CWB	
1/d052419000030.d	30294598005,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:07	CWB	
1/d052419000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:15	CWB	
1/d052419000032.d	30295167003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:24	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000033.d	30294501001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:32	CWB	
1/d052419000034.d	1672981,	L/15564	MS	1	df8082.new608.052419	5/24/19	17:41	CWB	
1/d052419000035.d	1672982,	L/15564	MSD	1	df8082.new608.052419	5/24/19	17:49	CWB	
1/d052419000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:58	CWB	
1/d052419000037.d	30294838001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:06	CWB	
1/d052419000038.d	30295070001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:15	CWB	
1/d052419000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:23	CWB	
1/d052419000040.d	30295070002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:32	CWB	
1/d052419000041.d	30295070003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:40	CWB	
1/d052419000042.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:49	CWB	
1/d052419000043.d	30296109004X5,	L/15567	SAMPLE	5	df8082.new608.052419	5/24/19	18:57	CWB	
1/d052419000044.d	30296109006X10,	L/15567	SAMPLE	10	df8082.new608.052419	5/24/19	19:06	CWB	
1/d052419000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	19:14	CWB	
1/d052419000046.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	19:23	CWB	
1/d052419000047.d	1672973,	L/15563	BLANK	1	df8082.new608.052419	5/24/19	19:31	CWB	
1/d052419000048.d	1672974,	L/15563	LCS	1	df8082.new608.052419	5/24/19	19:40	CWB	
1/d052419000049.d	30294501003,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:48	CWB	
1/d052419000050.d	30295057002,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:57	CWB	
1/d052419000051.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:05	CWB	
1/d052419000052.d	1672975,	L/15563	MS	1	df8082.new608.052419	5/24/19	20:14	CWB	
1/d052419000053.d	1672976,	L/15563	MSD	1	df8082.new608.052419	5/24/19	20:22	CWB	
1/d052419000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:31	CWB	
1/d052419000055.d	1671804,	L/15549	BLANK	1	df8082.new608.052419	5/24/19	20:39	CWB	
1/d052419000056.d	1671805,	L/15549	LCS	1	df8082.new608.052419	5/24/19	20:48	CWB	
1/d052419000057.d	30294948001,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	20:56	CWB	
1/d052419000058.d	30294948002,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:05	CWB	
1/d052419000059.d	30294948003,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:13	CWB	
1/d052419000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:22	CWB	
1/d052419000061.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	21:30	CWB	
1/d052419000062.d	30295597001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:39	CWB	
1/d052419000063.d	30295596001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:47	CWB	
1/d052419000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:56	CWB	
1/d052419000065.d	30295167001X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:04	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJG 5-28-19 Page: 2 of 3

* all sample intakes were acid cleaned *

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000066.d	30295167002X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:13	CWB	
1/d052419000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:21	CWB	
1/d052419000068.d	30295167005X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:30	CWB	
1/d052419000069.d	30295167006X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:38	CWB	
1/d052419000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:47	CWB	
1/d052419000071.d	30295167007X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:55	CWB	
1/d052419000072.d	30295167008X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:04	CWB	
1/d052419000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:12	CWB	
1/d052419000074.d	30295167009X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:21	CWB	
1/d052419000075.d	30295167010X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:29	CWB	
1/d052419000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:38	CWB	
1/d052419000077.d	30295167011X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:46	CWB	
1/d052419000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:55	CWB	
1/d052419000079.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/25/19	00:04	CWB	
1/d052419000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/25/19	00:12	CWB	

CWB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19 Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot: 1:1 H_2SO_4 79621/hexane) 91618
Tune std: NA Cal. std: NA

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071619000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/16/19	14:47	CWB	
1/d071619000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/16/19	14:56	CWB	
1/d071619000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/16/19	15:04	CWB	
1/d071619000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/16/19	15:13	CWB	
1/d071619000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/16/19	15:21	CWB	
1/d071619000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	15:30	CWB	
1/d071619000007.d	CCV, 93797:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/16/19	15:38	CWB	
1/d071619000008.d	1709913,	N/15822	BLANK	1	df8082.new608.052419	7/16/19	15:47	CWB	
1/d071619000009.d	1709914,	N/15822	LCS	1	df8082.new608.052419	7/16/19	15:55	CWB	
1/d071619000010.d	30313929001X10,	N/15822	SAMPLE	10	df8082.new608.052419	7/16/19	16:04	CWB	
1/d071619000011.d	1709915X10,	N/15822	MS	10	df8082.new608.052419	7/16/19	16:12	CWB	
1/d071619000012.d	1709916X10,	N/15822	MSD	10	df8082.new608.052419	7/16/19	16:21	CWB	
1/d071619000013.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	16:29	CWB	
1/d071619000014.d	1704570,	L/15781	BLANK	1	df8082.new608.052419	7/16/19	16:38	CWB	
1/d071619000015.d	1704571,	L/15781	LCS	1	df8082.new608.052419	7/16/19	16:46	CWB	
1/d071619000016.d	30312217001,	L/15781	SAMPLE	1	df8082.new608.052419	7/16/19	16:55	CWB	
1/d071619000017.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	17:04	CWB	
1/d071619000018.d	30313786005X2,	S/15812	SAMPLE	2	df8082.new608.052419	7/16/19	17:12	CWB	
1/d071619000019.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	17:21	CWB	
1/d071619000020.d	30313328001X20,	S/15803	SAMPLE	20	df8082.new608.052419	7/16/19	17:29	CWB	
1/d071619000021.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	17:38	CWB	
1/d071619000022.d	CCV, 93797:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/16/19	17:46	CWB	
1/d071619000023.d	1709028,	S/15818	BLANK	1	df8082.new608.052419	7/16/19	17:55	CWB	
1/d071619000024.d	1709029,	S/15818	LCS	1	df8082.new608.052419	7/16/19	18:03	CWB	
1/d071619000025.d	30313786021,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	18:12	CWB	
1/d071619000026.d	1709030,	S/15818	MS	1	df8082.new608.052419	7/16/19	18:20	CWB	
1/d071619000027.d	1709031,	S/15818	MSD	1	df8082.new608.052419	7/16/19	18:29	CWB	
1/d071619000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	18:37	CWB	
1/d071619000029.d	30313786022,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	18:46	CWB	
1/d071619000030.d	30313786023,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	18:54	CWB	
1/d071619000031.d	30313786024,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	19:03	CWB	
1/d071619000032.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	19:11	CWB	
1/d071619000033.d	30313786025,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	19:20	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CWB 7-17-19 * all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d071619-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:18 07/17/2019 Reviewed By/Date: 7-17-19 Page: 1 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 91618 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071619000034.d	30313786026,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	19:28	CWB	
1/d071619000035.d	30313786027,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	19:37	CWB	
1/d071619000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	19:45	CWB	
1/d071619000037.d	30313786028,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	19:54	CWB	
1/d071619000038.d	30313786029,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	20:02	CWB	
1/d071619000039.d	30313786030,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	20:11	CWB	
1/d071619000040.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	20:19	CWB	
1/d071619000041.d	30313786031,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	20:28	CWB	
1/d071619000042.d	30313786032,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	20:36	CWB	
1/d071619000043.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	20:45	CWB	
1/d071619000044.d	30313786033,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	20:53	CWB	
1/d071619000045.d	30313786034,	S/15818	SAMPLE	1	df8082.new608.052419	7/16/19	21:02	CWB	
1/d071619000046.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	21:10	CWB	
1/d071619000047.d	CCV, 93797:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/16/19	21:19	CWB	
1/d071619000048.d	1708433,	S/15808	BLANK	1	df8082.new608.052419	7/16/19	21:27	CWB	
1/d071619000049.d	1708434,	S/15808	LCS	1	df8082.new608.052419	7/16/19	21:36	CWB	
1/d071619000050.d	30313516001X100,	S/15808	SAMPLE	100	df8082.new608.052419	7/16/19	21:44	CWB	
1/d071619000051.d	30313516001X10,	S/15808	SAMPLE	10	df8082.new608.052419	7/16/19	21:53	CWB	
1/d071619000052.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	22:01	CWB	
1/d071619000053.d	30313438001,	S/15808	SAMPLE	1	df8082.new608.052419	7/16/19	22:10	CWB	
1/d071619000054.d	1708435,	S/15808	MS	1	df8082.new608.052419	7/16/19	22:18	CWB	
1/d071619000055.d	1708436,	S/15808	MSD	1	df8082.new608.052419	7/16/19	22:27	CWB	
1/d071619000056.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	22:35	CWB	
1/d071619000057.d	30313438003,	S/15808	SAMPLE	1	df8082.new608.052419	7/16/19	22:44	CWB	
1/d071619000058.d	30313438005,	S/15808	SAMPLE	1	df8082.new608.052419	7/16/19	22:52	CWB	
1/d071619000059.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	23:01	CWB	
1/d071619000060.d	30313438007,	S/15808	SAMPLE	1	df8082.new608.052419	7/16/19	23:09	CWB	
1/d071619000061.d	30313204001X10,	S/15808	SAMPLE	10	df8082.new608.052419	7/16/19	23:18	CWB	
1/d071619000062.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	23:26	CWB	
1/d071619000063.d	30313204002X5,	S/15808	SAMPLE	5	df8082.new608.052419	7/16/19	23:35	CWB	
1/d071619000064.d	30313204003,	S/15808	SAMPLE	1	df8082.new608.052419	7/16/19	23:43	CWB	
1/d071619000065.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/16/19	23:52	CWB	
1/d071619000066.d	30313204004X10,	S/15808	SAMPLE	10	df8082.new608.052419	7/17/19	00:00	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d071619-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:18 07/17/2019

Reviewed By/Date: 7-17-19 Page: 2 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

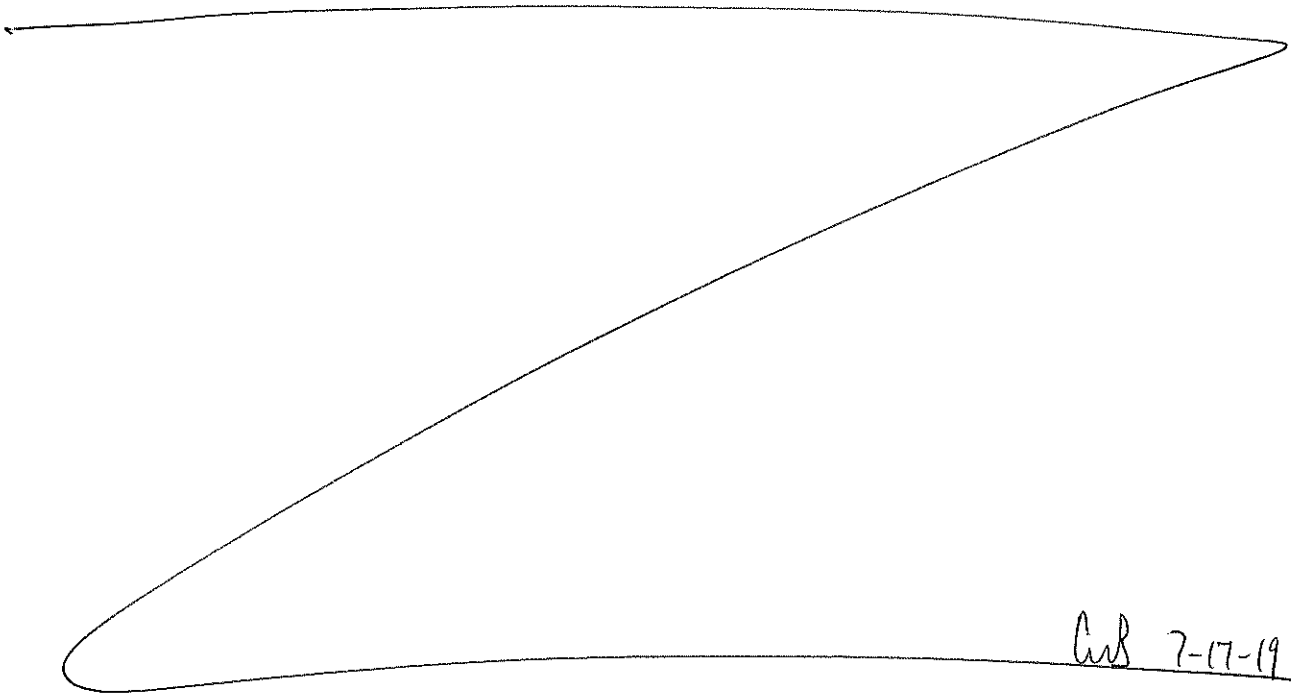
Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexane 96618 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071619000067.d	30313514001X10,	S/15808	SAMPLE	10	df8082.new608.052419	7/17/19	00:09	CWB	
1/d071619000068.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	00:18	CWB	
1/d071619000069.d	30313514002X10,	S/15808	SAMPLE	10	df8082.new608.052419	7/17/19	00:26	CWB	
1/d071619000070.d	30313284001,	S/15808	SAMPLE	1	df8082.new608.052419	7/17/19	00:35	CWB	
1/d071619000071.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	00:43	CWB	
1/d071619000072.d	CCV, 93797:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	00:52	CWB	
1/d071619000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	01:00	CWB	



File Path 1: \\30wintarget\chem\30gcsd.i\d071619-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:18 07/17/2019

Reviewed By/Date: 7-17-19

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot: NA
Tune std: NA Cal. std: NA

1:1 H_2SO_4 79621
hexanes 91618

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071719000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:24	CWB	
1/d071719000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:33	CWB	
1/d071719000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:41	CWB	
1/d071719000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:50	CWB	
1/d071719000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	7/17/19	14:58	CWB	
1/d071719000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	15:07	CWB	
1/d071719000007.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	15:15	CWB	
1/d071719000008.d	1706805,	L/15797	BLANK	1	df8082.new608.052419	7/17/19	15:24	CWB	
1/d071719000009.d	1706806,	L/15797	LCS	1	df8082.new608.052419	7/17/19	15:33	CWB	
1/d071719000010.d	30312849001,	L/15797	SAMPLE	1	df8082.new608.052419	7/17/19	15:41	CWB	
1/d071719000011.d	50229881001,	L/15797	SAMPLE	1	df8082.new608.052419	7/17/19	15:50	CWB	
1/d071719000012.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	15:58	CWB	
1/d071719000013.d	1709039,	L/15815	BLANK	1	df8082.new608.052419	7/17/19	16:07	CWB	
1/d071719000014.d	1709040,	L/15815	LCS	1	df8082.new608.052419	7/17/19	16:15	CWB	
1/d071719000015.d	30313176001,	L/15815	SAMPLE	1	df8082.new608.052419	7/17/19	16:24	CWB	
1/d071719000016.d	1709041,	L/15815	MS	1	df8082.new608.052419	7/17/19	16:32	CWB	
1/d071719000017.d	1709042,	L/15815	MSD	1	df8082.new608.052419	7/17/19	16:41	CWB	
1/d071719000018.d	30313175001,	L/15815	SAMPLE	1	df8082.new608.052419	7/17/19	16:49	CWB	
1/d071719000019.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	16:58	CWB	
1/d071719000020.d	1709524,	S/15821	BLANK	1	df8082.new608.052419	7/17/19	17:06	CWB	
1/d071719000021.d	1709525,	S/15821	LCS	1	df8082.new608.052419	7/17/19	17:15	CWB	
1/d071719000022.d	50230174001,	S/15821	SAMPLE	1	df8082.new608.052419	7/17/19	17:23	CWB	
1/d071719000023.d	1709526,	S/15821	MS	1	df8082.new608.052419	7/17/19	17:32	CWB	
1/d071719000024.d	1709527,	S/15821	MSD	1	df8082.new608.052419	7/17/19	17:40	CWB	
1/d071719000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	17:49	CWB	
1/d071719000026.d	30313514001X20,	S/15808	SAMPLE	20	df8082.new608.052419	7/17/19	17:57	CWB	
1/d071719000027.d	30312237008X5,	L/15813	SAMPLE	5	df8082.new608.052419	7/17/19	18:06	CWB	
1/d071719000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	18:14	CWB	
1/d071719000029.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	18:23	CWB	
1/d071719000030.d	1707389,	S/15800	BLANK	1	df8082.new608.052419	7/17/19	18:31	CWB	
1/d071719000031.d	1707390,	S/15800	LCS	1	df8082.new608.052419	7/17/19	18:40	CWB	
1/d071719000032.d	30313260001X10,	S/15800	SAMPLE	10	df8082.new608.052419	7/17/19	18:48	CWB	
1/d071719000033.d	1707391X10,	S/15800	MS	10	df8082.new608.052419	7/17/19	18:57	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 7-18-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d071719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:35 07/18/2019

Reviewed By/Date: DAW 7-18-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

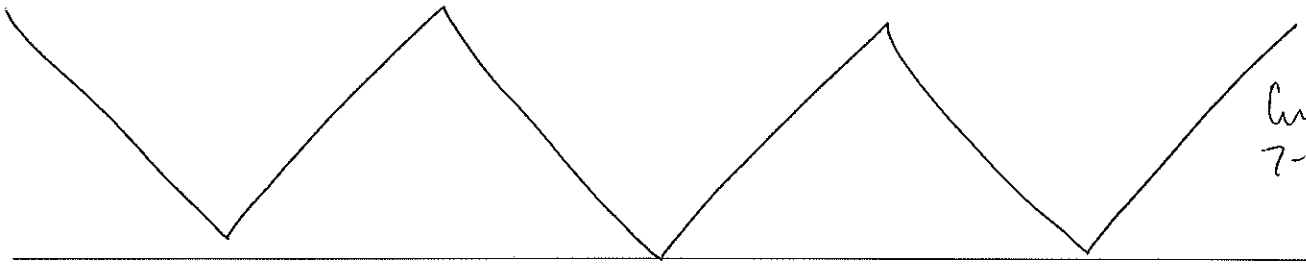
Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexane 91618 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d071719000034.d	1707392X10,	S/15800	MSD	10	df8082.new608.052419	7/17/19	19:05	CWB	
1/d071719000035.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	19:14	CWB	
1/d071719000036.d	30313260002X10,	S/15800	SAMPLE	10	df8082.new608.052419	7/17/19	19:22	CWB	
1/d071719000037.d	30313260003,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	19:31	CWB	
1/d071719000038.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	19:39	CWB	
1/d071719000039.d	30312995001,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	19:48	CWB	
1/d071719000040.d	30312996001X5,	S/15800	SAMPLE	5	df8082.new608.052419	7/17/19	19:56	CWB	
1/d071719000041.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:05	CWB	
1/d071719000042.d	30312996002X5,	S/15800	SAMPLE	5	df8082.new608.052419	7/17/19	20:13	CWB	
1/d071719000043.d	30312996003,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	20:22	CWB	
1/d071719000044.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:30	CWB	
1/d071719000045.d	30312996004,	S/15800	SAMPLE	1	df8082.new608.052419	7/17/19	20:39	CWB	
1/d071719000046.d	30313269001,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	20:47	CWB	
1/d071719000047.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	20:56	CWB	
1/d071719000048.d	30313269002,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:04	CWB	
1/d071719000049.d	30313269003,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:13	CWB	
1/d071719000050.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	21:21	CWB	
1/d071719000051.d	30313269004,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:30	CWB	
1/d071719000052.d	30313269005,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:38	CWB	
1/d071719000053.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	21:47	CWB	
1/d071719000054.d	30313269006,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	21:55	CWB	
1/d071719000055.d	30313269007,	S/15803	SAMPLE	1	df8082.new608.052419	7/17/19	22:04	CWB	
1/d071719000056.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	22:12	CWB	
1/d071719000057.d	CCV, 93951:1	N/15570	CCALIB_3	1	df8082.new608.052419	7/17/19	22:21	CWB	
1/d071719000058.d	hexane	N/	SAMPLE	1	df8082.new608.052419	7/17/19	22:30	CWB	



CWB 7-18-19

File Path 1: \\30wintarget\chem\30gcsd.i\d071719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:35 07/18/2019

Reviewed By/Date: JAW 7-18-19 Page: 2 of 2

Prep Log Report

Batch Information: PMST 8682/352527

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	VAK	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 | Corr | Date/Time | Init	105.0 | 105.0 | 07/18/2019 16:33 | VAK	Oven Temp Out1 | Corr | Date/Time | Init	105.0 | 105.0 | 07/19/2019 07:30 | SHD
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30312358001**	Y			58.01	41.99	07/18/2019 15:55:33	6.05	1.09	9.64	6.05	M	
DRY WEIGHT	DUP	**1712540**	Y			62.06	37.94	07/18/2019 15:55:34	6.03	1.09	9.05	6.03	M	
DRY WEIGHT	PS	**30313279002**	Y			80.44	19.56	07/18/2019 15:55:37	3.63	1.08	4.25	3.63	M	
DRY WEIGHT	DUP	**1712541**	Y			80.48	19.52	07/18/2019 15:55:40	3.43	1.08	4	3.43	M	
DRY WEIGHT	PS	**30313331001**	Y			95.10	4.902	07/18/2019 15:55:43	13.66	1.05	14.31	13.66	M	
DRY WEIGHT	PS	**30313402001**	Y			74.90	25.10	07/18/2019 15:55:45	12.79	1.09	16.71	12.79	M	
DRY WEIGHT	PS	**30313402002**	Y			58.22	41.78	07/18/2019 15:55:48	6.16	1.06	9.82	6.16	M	
DRY WEIGHT	PS	**30313427001**	Y			63.82	36.18	07/18/2019 15:55:51	7.58	1.07	11.27	7.58	M	
DRY WEIGHT	PS	**30313427002**	Y			25.93	74.07	07/18/2019 15:55:55	3.5	1.06	10.47	3.5	M	
DRY WEIGHT	PS	**30313427003**	Y			31.36	68.64	07/18/2019 15:55:58	4.15	1.08	10.87	4.15	M	
DRY WEIGHT	PS	**30313427004**	Y			64.16	35.84	07/18/2019 15:56:03	9.26	1.08	13.83	9.26	M	
DRY WEIGHT	PS	**30313427005**	Y			70.15	29.85	07/18/2019 15:56:06	9.26	1.08	12.74	9.26	M	
DRY WEIGHT	PS	**30313427006**	Y			63.19	36.81	07/18/2019 15:56:10	6.23	1.08	9.23	6.23	M	
DRY WEIGHT	PS	**30313438001**	Y			82.35	17.65	07/18/2019 15:56:13	14.68	1.1	17.59	14.68	M	
DRY WEIGHT	PS	**30313438003**	Y			79.42	20.58	07/18/2019 15:56:15	9.61	1.08	11.82	9.61	M	
DRY WEIGHT	PS	**30313438005**	Y			79.08	20.92	07/18/2019 15:56:19	10.49	1.08	12.98	10.49	M	
DRY WEIGHT	PS	**30313438007**	Y			79.35	20.65	07/18/2019 15:56:22	10.12	1.09	12.47	10.12	M	
DRY WEIGHT	PS	**30313514001**	Y			90.99	9.006	07/18/2019 15:56:26	10.87	1.07	11.84	10.87	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30313514002**	Y			98.19	1.805	07/18/2019 15:56:29	10.86	1.07	11.04	10.86	M	
DRY WEIGHT	PS	**30313635001**	Y			99.59	0.4149	07/18/2019 15:56:32	5.87	1.07	5.89	5.87	M	
DRY WEIGHT	PS	**30313750001**	Y			82.60	17.40	07/18/2019 15:56:35	5.58	1.07	6.53	5.58	M	
DRY WEIGHT	PS	**30313785001**	Y			98.37	1.627	07/18/2019 15:56:39	10.15	1.08	10.3	10.15	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30317212

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

August 06, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on August 01, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30317212001	**AOC27-1**	Solid	07/31/19 08:55	08/01/19 09:30
30317212002	**AOC27-2**	Solid	07/31/19 09:15	08/01/19 09:30
30317212003	**AOC27-3**	Solid	07/31/19 09:20	08/01/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30317212001	**AOC27-1**	EPA 8260C	JEW	52	PASI-PA
		ASTM D2974-87	SHD	1	PASI-PA
30317212002	**AOC27-2**	EPA 8260C	JEW	52	PASI-PA
		ASTM D2974-87	SHD	1	PASI-PA
30317212003	**AOC27-3**	EPA 8270D	EAC	75	PASI-PA
		ASTM D2974-87	SHD	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8270D**
Description: 8270D MSSV Microwave
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

General Information:
1 sample was analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 354748

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- AOC27-3 (Lab ID: 30317212003)
  - Benzoic acid
  - N-Nitrosodimethylamine
- BLANK (Lab ID: 1723155)
  - Benzoic acid
  - N-Nitrosodimethylamine
- LCS (Lab ID: 1723156)
  - Benzoic acid
  - N-Nitrosodimethylamine
- MS (Lab ID: 1723157)
  - Benzoic acid
  - N-Nitrosodimethylamine
- MSD (Lab ID: 1723158)
  - Benzoic acid
  - N-Nitrosodimethylamine

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8270D**
Description: 8270D MSSV Microwave
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 354748

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 1723156)
  - 1-Methylnaphthalene
  - 2,4-Dimethylphenol
  - 2-Methylnaphthalene
  - 4-Chloroaniline
  - Isophorone
  - N-Nitrosodimethylamine
  - N-Nitrosodiphenylamine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 354748

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30317136012

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 1723157)
  - 4-Chloroaniline
  - Isophorone

Additional Comments:

Analyte Comments:

QC Batch: 354748

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- AOC27-3 (Lab ID: 30317212003)
  - Azobenzene
- BLANK (Lab ID: 1723155)
  - Azobenzene
- LCS (Lab ID: 1723156)
  - Azobenzene
- MS (Lab ID: 1723157)
  - Azobenzene
- MSD (Lab ID: 1723158)
  - Azobenzene

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

General Information:
2 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 355309

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- AOC27-1 (Lab ID: 30317212001)
  - Chloroethane
- AOC27-2 (Lab ID: 30317212002)
  - Chloroethane
- BLANK (Lab ID: 1725735)
  - Chloroethane
- LCS (Lab ID: 1725736)
  - Chloroethane

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- AOC27-1 (Lab ID: 30317212001)
  - Bromoform
  - Carbon disulfide
- AOC27-2 (Lab ID: 30317212002)
  - Bromoform
  - Carbon disulfide
- BLANK (Lab ID: 1725735)
  - Bromoform
  - Carbon disulfide
- LCS (Lab ID: 1725736)
  - Bromoform
  - Carbon disulfide

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 355309

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 355309

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- AOC27-1 (Lab ID: 30317212001)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dichloroethane
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,3-Dichlorobenzene
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromodichloromethane
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

Analyte Comments:

QC Batch: 355309

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- AOC27-1 (Lab ID: 30317212001)
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Ethylbenzene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - o-Xylene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Vinyl chloride
- AOC27-2 (Lab ID: 30317212002)
  - 1,1-Dichloroethane
  - 1,1-Dichloroethene
  - 1,1,1-Trichloroethane
  - 1,1,2-Trichloroethane
  - 1,1,2,2-Tetrachloroethane
  - 1,2,4-Trichlorobenzene
  - 1,2-Dichlorobenzene
  - 1,2-Dichloroethane
  - 1,2-Dichloropropane
  - 1,2,4-Trimethylbenzene
  - 1,3-Dichlorobenzene
  - 1,3,5-Trimethylbenzene
  - 1,4-Dichlorobenzene
  - 2-Butanone (MEK)
  - 2-Hexanone
  - Carbon disulfide
  - Acetone
  - Bromochloromethane
  - Benzene
  - Bromodichloromethane

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PROJECT NARRATIVE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 06, 2019

Analyte Comments:

QC Batch: 355309

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- AOC27-2 (Lab ID: 30317212002)
  - Bromomethane
  - Bromoform
  - cis-1,2-Dichloroethene
  - cis-1,3-Dichloropropene
  - Carbon tetrachloride
  - Chlorobenzene
  - Chloroethane
  - Chloroform
  - Chloromethane
  - Dibromochloromethane
  - Ethylbenzene
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Methyl-tert-butyl ether
  - 4-Methyl-2-pentanone (MIBK)
  - m&p-Xylene
  - Naphthalene
  - o-Xylene
  - Styrene
  - trans-1,2-Dichloroethene
  - trans-1,3-Dichloropropene
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Vinyl chloride

2c: RF below method recommended limit.

- AOC27-1 (Lab ID: 30317212001)
  - Acetone
  - Bromomethane
- AOC27-2 (Lab ID: 30317212002)
  - Acetone
  - Bromomethane
- BLANK (Lab ID: 1725735)
  - Acetone
  - Bromomethane
- LCS (Lab ID: 1725736)
  - Acetone
  - Bromomethane

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-1 **Lab ID: 30317212001** Collected: 07/31/19 08:55 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	11.7	3.7	1	08/06/19 11:08	08/06/19 12:09	67-64-1	1c,2c
Benzene	ND	ug/kg	5.8	1.0	1	08/06/19 11:08	08/06/19 12:09	71-43-2	1c
Bromochloromethane	ND	ug/kg	5.8	1.3	1	08/06/19 11:08	08/06/19 12:09	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.8	1.3	1	08/06/19 11:08	08/06/19 12:09	75-27-4	1c
Bromoform	ND	ug/kg	5.8	0.77	1	08/06/19 11:08	08/06/19 12:09	75-25-2	1c,CL
Bromomethane	ND	ug/kg	5.8	2.2	1	08/06/19 11:08	08/06/19 12:09	74-83-9	1c,2c
TOTAL BTEX	ND	ug/kg	35.0	7.1	1	08/06/19 11:08	08/06/19 12:09		
2-Butanone (MEK)	ND	ug/kg	11.7	1.1	1	08/06/19 11:08	08/06/19 12:09	78-93-3	1c
Carbon disulfide	ND	ug/kg	5.8	1.7	1	08/06/19 11:08	08/06/19 12:09	75-15-0	1c,CL
Carbon tetrachloride	ND	ug/kg	5.8	2.0	1	08/06/19 11:08	08/06/19 12:09	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.8	0.91	1	08/06/19 11:08	08/06/19 12:09	108-90-7	1c
Chloroethane	ND	ug/kg	5.8	2.4	1	08/06/19 11:08	08/06/19 12:09	75-00-3	1c,CH
Chloroform	ND	ug/kg	5.8	1.7	1	08/06/19 11:08	08/06/19 12:09	67-66-3	1c
Chloromethane	ND	ug/kg	5.8	2.0	1	08/06/19 11:08	08/06/19 12:09	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.8	0.92	1	08/06/19 11:08	08/06/19 12:09	124-48-1	1c
1,2-Dichlorobenzene	ND	ug/kg	5.8	0.69	1	08/06/19 11:08	08/06/19 12:09	95-50-1	1c
1,3-Dichlorobenzene	ND	ug/kg	5.8	0.76	1	08/06/19 11:08	08/06/19 12:09	541-73-1	1c
1,4-Dichlorobenzene	ND	ug/kg	5.8	0.83	1	08/06/19 11:08	08/06/19 12:09	106-46-7	1c
1,1-Dichloroethane	ND	ug/kg	5.8	1.5	1	08/06/19 11:08	08/06/19 12:09	75-34-3	1c
1,2-Dichloroethane	ND	ug/kg	5.8	1.5	1	08/06/19 11:08	08/06/19 12:09	107-06-2	1c
1,2-Dichloroethene (Total)	ND	ug/kg	11.7	2.8	1	08/06/19 11:08	08/06/19 12:09	540-59-0	
1,1-Dichloroethene	ND	ug/kg	5.8	2.2	1	08/06/19 11:08	08/06/19 12:09	75-35-4	1c
cis-1,2-Dichloroethene	ND	ug/kg	5.8	1.4	1	08/06/19 11:08	08/06/19 12:09	156-59-2	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.8	1.5	1	08/06/19 11:08	08/06/19 12:09	156-60-5	1c
1,2-Dichloropropane	ND	ug/kg	5.8	0.84	1	08/06/19 11:08	08/06/19 12:09	78-87-5	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.8	0.58	1	08/06/19 11:08	08/06/19 12:09	10061-01-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.8	1.2	1	08/06/19 11:08	08/06/19 12:09	10061-02-6	1c
Ethylbenzene	ND	ug/kg	5.8	1.3	1	08/06/19 11:08	08/06/19 12:09	100-41-4	1c
2-Hexanone	ND	ug/kg	11.7	1.1	1	08/06/19 11:08	08/06/19 12:09	591-78-6	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.8	1.4	1	08/06/19 11:08	08/06/19 12:09	98-82-8	1c
Methylene Chloride	ND	ug/kg	5.8	4.9	1	08/06/19 11:08	08/06/19 12:09	75-09-2	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.7	1.3	1	08/06/19 11:08	08/06/19 12:09	108-10-1	1c
Methyl-tert-butyl ether	ND	ug/kg	5.8	0.78	1	08/06/19 11:08	08/06/19 12:09	1634-04-4	1c
Naphthalene	ND	ug/kg	5.8	1.1	1	08/06/19 11:08	08/06/19 12:09	91-20-3	1c
Styrene	ND	ug/kg	5.8	1.7	1	08/06/19 11:08	08/06/19 12:09	100-42-5	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.8	0.69	1	08/06/19 11:08	08/06/19 12:09	79-34-5	1c
Tetrachloroethene	ND	ug/kg	5.8	2.0	1	08/06/19 11:08	08/06/19 12:09	127-18-4	1c
Toluene	ND	ug/kg	5.8	1.2	1	08/06/19 11:08	08/06/19 12:09	108-88-3	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.8	1.5	1	08/06/19 11:08	08/06/19 12:09	120-82-1	1c
1,1,1-Trichloroethane	ND	ug/kg	5.8	1.8	1	08/06/19 11:08	08/06/19 12:09	71-55-6	1c
1,1,2-Trichloroethane	ND	ug/kg	5.8	1.2	1	08/06/19 11:08	08/06/19 12:09	79-00-5	1c
Trichloroethene	ND	ug/kg	5.8	1.7	1	08/06/19 11:08	08/06/19 12:09	79-01-6	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.8	2.8	1	08/06/19 11:08	08/06/19 12:09	95-63-6	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.8	2.4	1	08/06/19 11:08	08/06/19 12:09	108-67-8	1c
Vinyl chloride	ND	ug/kg	5.8	2.5	1	08/06/19 11:08	08/06/19 12:09	75-01-4	1c

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-1 **Lab ID: 30317212001** Collected: 07/31/19 08:55 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A								
Xylene (Total)	ND	ug/kg	17.5	3.7	1	08/06/19 11:08	08/06/19 12:09	1330-20-7	
m&p-Xylene	ND	ug/kg	11.7	2.4	1	08/06/19 11:08	08/06/19 12:09	179601-23-1	1c
o-Xylene	ND	ug/kg	5.8	1.2	1	08/06/19 11:08	08/06/19 12:09	95-47-6	1c
Surrogates									
Toluene-d8 (S)	100	%.	70-130		1	08/06/19 11:08	08/06/19 12:09	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	70-130		1	08/06/19 11:08	08/06/19 12:09	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%.	70-130		1	08/06/19 11:08	08/06/19 12:09	17060-07-0	
Dibromofluoromethane (S)	112	%.	70-130		1	08/06/19 11:08	08/06/19 12:09	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.8**	%	0.10	0.10	1		08/05/19 16:39		

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-2 **Lab ID: 30317212002** Collected: 07/31/19 09:15 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A								
Acetone	ND	ug/kg	10.7	3.4	1	08/06/19 11:08	08/06/19 12:35	67-64-1	1c,2c
Benzene	ND	ug/kg	5.3	0.93	1	08/06/19 11:08	08/06/19 12:35	71-43-2	1c
Bromochloromethane	ND	ug/kg	5.3	1.2	1	08/06/19 11:08	08/06/19 12:35	74-97-5	1c
Bromodichloromethane	ND	ug/kg	5.3	1.2	1	08/06/19 11:08	08/06/19 12:35	75-27-4	1c
Bromoform	ND	ug/kg	5.3	0.70	1	08/06/19 11:08	08/06/19 12:35	75-25-2	1c,CL
Bromomethane	ND	ug/kg	5.3	2.0	1	08/06/19 11:08	08/06/19 12:35	74-83-9	1c,2c
TOTAL BTEX	ND	ug/kg	32.0	6.5	1	08/06/19 11:08	08/06/19 12:35		
2-Butanone (MEK)	ND	ug/kg	10.7	0.97	1	08/06/19 11:08	08/06/19 12:35	78-93-3	1c
Carbon disulfide	ND	ug/kg	5.3	1.5	1	08/06/19 11:08	08/06/19 12:35	75-15-0	1c,CL
Carbon tetrachloride	ND	ug/kg	5.3	1.8	1	08/06/19 11:08	08/06/19 12:35	56-23-5	1c
Chlorobenzene	ND	ug/kg	5.3	0.83	1	08/06/19 11:08	08/06/19 12:35	108-90-7	1c
Chloroethane	ND	ug/kg	5.3	2.2	1	08/06/19 11:08	08/06/19 12:35	75-00-3	1c,CH
Chloroform	ND	ug/kg	5.3	1.6	1	08/06/19 11:08	08/06/19 12:35	67-66-3	1c
Chloromethane	ND	ug/kg	5.3	1.8	1	08/06/19 11:08	08/06/19 12:35	74-87-3	1c
Dibromochloromethane	ND	ug/kg	5.3	0.84	1	08/06/19 11:08	08/06/19 12:35	124-48-1	1c
1,2-Dichlorobenzene	ND	ug/kg	5.3	0.63	1	08/06/19 11:08	08/06/19 12:35	95-50-1	1c
1,3-Dichlorobenzene	ND	ug/kg	5.3	0.69	1	08/06/19 11:08	08/06/19 12:35	541-73-1	1c
1,4-Dichlorobenzene	ND	ug/kg	5.3	0.76	1	08/06/19 11:08	08/06/19 12:35	106-46-7	1c
1,1-Dichloroethane	ND	ug/kg	5.3	1.3	1	08/06/19 11:08	08/06/19 12:35	75-34-3	1c
1,2-Dichloroethane	ND	ug/kg	5.3	1.4	1	08/06/19 11:08	08/06/19 12:35	107-06-2	1c
1,2-Dichloroethene (Total)	ND	ug/kg	10.7	2.6	1	08/06/19 11:08	08/06/19 12:35	540-59-0	
1,1-Dichloroethene	ND	ug/kg	5.3	2.0	1	08/06/19 11:08	08/06/19 12:35	75-35-4	1c
cis-1,2-Dichloroethene	ND	ug/kg	5.3	1.2	1	08/06/19 11:08	08/06/19 12:35	156-59-2	1c
trans-1,2-Dichloroethene	ND	ug/kg	5.3	1.4	1	08/06/19 11:08	08/06/19 12:35	156-60-5	1c
1,2-Dichloropropane	ND	ug/kg	5.3	0.77	1	08/06/19 11:08	08/06/19 12:35	78-87-5	1c
cis-1,3-Dichloropropene	ND	ug/kg	5.3	0.53	1	08/06/19 11:08	08/06/19 12:35	10061-01-5	1c
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1.1	1	08/06/19 11:08	08/06/19 12:35	10061-02-6	1c
Ethylbenzene	ND	ug/kg	5.3	1.2	1	08/06/19 11:08	08/06/19 12:35	100-41-4	1c
2-Hexanone	ND	ug/kg	10.7	1.0	1	08/06/19 11:08	08/06/19 12:35	591-78-6	1c
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	1.2	1	08/06/19 11:08	08/06/19 12:35	98-82-8	1c
Methylene Chloride	ND	ug/kg	5.3	4.5	1	08/06/19 11:08	08/06/19 12:35	75-09-2	1c
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.7	1.2	1	08/06/19 11:08	08/06/19 12:35	108-10-1	1c
Methyl-tert-butyl ether	ND	ug/kg	5.3	0.71	1	08/06/19 11:08	08/06/19 12:35	1634-04-4	1c
Naphthalene	ND	ug/kg	5.3	1.0	1	08/06/19 11:08	08/06/19 12:35	91-20-3	1c
Styrene	ND	ug/kg	5.3	1.5	1	08/06/19 11:08	08/06/19 12:35	100-42-5	1c
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	0.63	1	08/06/19 11:08	08/06/19 12:35	79-34-5	1c
Tetrachloroethene	ND	ug/kg	5.3	1.8	1	08/06/19 11:08	08/06/19 12:35	127-18-4	1c
Toluene	ND	ug/kg	5.3	1.1	1	08/06/19 11:08	08/06/19 12:35	108-88-3	1c
1,2,4-Trichlorobenzene	ND	ug/kg	5.3	1.4	1	08/06/19 11:08	08/06/19 12:35	120-82-1	1c
1,1,1-Trichloroethane	ND	ug/kg	5.3	1.6	1	08/06/19 11:08	08/06/19 12:35	71-55-6	1c
1,1,2-Trichloroethane	ND	ug/kg	5.3	1.1	1	08/06/19 11:08	08/06/19 12:35	79-00-5	1c
Trichloroethene	ND	ug/kg	5.3	1.6	1	08/06/19 11:08	08/06/19 12:35	79-01-6	1c
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	2.6	1	08/06/19 11:08	08/06/19 12:35	95-63-6	1c
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	2.2	1	08/06/19 11:08	08/06/19 12:35	108-67-8	1c
Vinyl chloride	ND	ug/kg	5.3	2.3	1	08/06/19 11:08	08/06/19 12:35	75-01-4	1c

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-2 **Lab ID: 30317212002** Collected: 07/31/19 09:15 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A								
Xylene (Total)	ND	ug/kg	16.0	3.4	1	08/06/19 11:08	08/06/19 12:35	1330-20-7	
m&p-Xylene	ND	ug/kg	10.7	2.2	1	08/06/19 11:08	08/06/19 12:35	179601-23-1	1c
o-Xylene	ND	ug/kg	5.3	1.1	1	08/06/19 11:08	08/06/19 12:35	95-47-6	1c
Surrogates									
Toluene-d8 (S)	99	%.	70-130		1	08/06/19 11:08	08/06/19 12:35	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	70-130		1	08/06/19 11:08	08/06/19 12:35	460-00-4	
1,2-Dichloroethane-d4 (S)	128	%.	70-130		1	08/06/19 11:08	08/06/19 12:35	17060-07-0	
Dibromofluoromethane (S)	113	%.	70-130		1	08/06/19 11:08	08/06/19 12:35	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.2**	%	0.10	0.10	1		08/05/19 16:39		

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-3 **Lab ID: 30317212003** Collected: 07/31/19 09:20 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	345	117	1	08/02/19 08:36	08/05/19 22:16	83-32-9	
Acenaphthylene	ND	ug/kg	345	104	1	08/02/19 08:36	08/05/19 22:16	208-96-8	
Anthracene	ND	ug/kg	345	79.3	1	08/02/19 08:36	08/05/19 22:16	120-12-7	
Azobenzene	ND	ug/kg	345	122	1	08/02/19 08:36	08/05/19 22:16	103-33-3	N2
Benzo(a)anthracene	**708**	ug/kg	345	155	1	08/02/19 08:36	08/05/19 22:16	56-55-3	
Benzo(a)pyrene	**645**	ug/kg	345	107	1	08/02/19 08:36	08/05/19 22:16	50-32-8	
Benzo(b)fluoranthene	**604**	ug/kg	345	105	1	08/02/19 08:36	08/05/19 22:16	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	345	120	1	08/02/19 08:36	08/05/19 22:16	191-24-2	
Benzo(k)fluoranthene	**644**	ug/kg	345	152	1	08/02/19 08:36	08/05/19 22:16	207-08-9	
Benzoic acid	ND	ug/kg	5180	1750	1	08/02/19 08:36	08/05/19 22:16	65-85-0	CH
Benzyl alcohol	ND	ug/kg	345	305	1	08/02/19 08:36	08/05/19 22:16	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	345	127	1	08/02/19 08:36	08/05/19 22:16	101-55-3	
Butylbenzylphthalate	ND	ug/kg	345	97.0	1	08/02/19 08:36	08/05/19 22:16	85-68-7	
Carbazole	ND	ug/kg	345	136	1	08/02/19 08:36	08/05/19 22:16	86-74-8	
4-Chloro-3-methylphenol	ND	ug/kg	345	55.6	1	08/02/19 08:36	08/05/19 22:16	59-50-7	
4-Chloroaniline	ND	ug/kg	345	60.7	1	08/02/19 08:36	08/05/19 22:16	106-47-8	L1
bis(2-Chloroethoxy)methane	ND	ug/kg	345	137	1	08/02/19 08:36	08/05/19 22:16	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	345	63.0	1	08/02/19 08:36	08/05/19 22:16	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	345	293	1	08/02/19 08:36	08/05/19 22:16	108-60-1	
2-Chloronaphthalene	ND	ug/kg	345	98.6	1	08/02/19 08:36	08/05/19 22:16	91-58-7	
2-Chlorophenol	ND	ug/kg	345	107	1	08/02/19 08:36	08/05/19 22:16	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	345	99.8	1	08/02/19 08:36	08/05/19 22:16	7005-72-3	
Chrysene	**751**	ug/kg	345	128	1	08/02/19 08:36	08/05/19 22:16	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	345	131	1	08/02/19 08:36	08/05/19 22:16	53-70-3	
Dibenzofuran	ND	ug/kg	345	111	1	08/02/19 08:36	08/05/19 22:16	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	345	108	1	08/02/19 08:36	08/05/19 22:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	345	102	1	08/02/19 08:36	08/05/19 22:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	345	47.7	1	08/02/19 08:36	08/05/19 22:16	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	345	101	1	08/02/19 08:36	08/05/19 22:16	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	345	155	1	08/02/19 08:36	08/05/19 22:16	120-83-2	
Diethylphthalate	ND	ug/kg	345	122	1	08/02/19 08:36	08/05/19 22:16	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	345	105	1	08/02/19 08:36	08/05/19 22:16	105-67-9	L1
Dimethylphthalate	ND	ug/kg	345	106	1	08/02/19 08:36	08/05/19 22:16	131-11-3	
Di-n-butylphthalate	ND	ug/kg	345	116	1	08/02/19 08:36	08/05/19 22:16	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	863	257	1	08/02/19 08:36	08/05/19 22:16	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	863	776	1	08/02/19 08:36	08/05/19 22:16	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	345	105	1	08/02/19 08:36	08/05/19 22:16	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	345	105	1	08/02/19 08:36	08/05/19 22:16	606-20-2	
Di-n-octylphthalate	ND	ug/kg	345	78.4	1	08/02/19 08:36	08/05/19 22:16	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	345	110	1	08/02/19 08:36	08/05/19 22:16	117-81-7	
Fluoranthene	**1500**	ug/kg	345	111	1	08/02/19 08:36	08/05/19 22:16	206-44-0	
Fluorene	ND	ug/kg	345	106	1	08/02/19 08:36	08/05/19 22:16	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	345	112	1	08/02/19 08:36	08/05/19 22:16	87-68-3	
Hexachlorobenzene	ND	ug/kg	345	99.2	1	08/02/19 08:36	08/05/19 22:16	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	345	81.7	1	08/02/19 08:36	08/05/19 22:16	77-47-4	

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ANALYTICAL RESULTS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Sample: AOC27-3 **Lab ID: 30317212003** Collected: 07/31/19 09:20 Received: 08/01/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV Microwave	Analytical Method: EPA 8270D Preparation Method: EPA 3546								
Hexachloroethane	ND	ug/kg	345	93.2	1	08/02/19 08:36	08/05/19 22:16	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	345	130	1	08/02/19 08:36	08/05/19 22:16	193-39-5	
Isophorone	ND	ug/kg	345	114	1	08/02/19 08:36	08/05/19 22:16	78-59-1	L1
1-Methylnaphthalene	ND	ug/kg	345	86.8	1	08/02/19 08:36	08/05/19 22:16	90-12-0	L1
2-Methylnaphthalene	ND	ug/kg	345	104	1	08/02/19 08:36	08/05/19 22:16	91-57-6	L1
2-Methylphenol(o-Cresol)	ND	ug/kg	345	124	1	08/02/19 08:36	08/05/19 22:16	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	690	212	1	08/02/19 08:36	08/05/19 22:16		
Naphthalene	ND	ug/kg	345	93.6	1	08/02/19 08:36	08/05/19 22:16	91-20-3	
2-Nitroaniline	ND	ug/kg	863	120	1	08/02/19 08:36	08/05/19 22:16	88-74-4	
3-Nitroaniline	ND	ug/kg	863	225	1	08/02/19 08:36	08/05/19 22:16	99-09-2	
4-Nitroaniline	ND	ug/kg	863	485	1	08/02/19 08:36	08/05/19 22:16	100-01-6	
Nitrobenzene	ND	ug/kg	345	128	1	08/02/19 08:36	08/05/19 22:16	98-95-3	
2-Nitrophenol	ND	ug/kg	345	137	1	08/02/19 08:36	08/05/19 22:16	88-75-5	
4-Nitrophenol	ND	ug/kg	345	116	1	08/02/19 08:36	08/05/19 22:16	100-02-7	
N-Nitrosodimethylamine	ND	ug/kg	345	59.2	1	08/02/19 08:36	08/05/19 22:16	62-75-9	CH,L1
N-Nitroso-di-n-propylamine	ND	ug/kg	345	146	1	08/02/19 08:36	08/05/19 22:16	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	345	77.8	1	08/02/19 08:36	08/05/19 22:16	86-30-6	L1
Pentachlorophenol	ND	ug/kg	863	455	1	08/02/19 08:36	08/05/19 22:16	87-86-5	
Phenanthrene	**824**	ug/kg	345	152	1	08/02/19 08:36	08/05/19 22:16	85-01-8	
Phenol	ND	ug/kg	345	102	1	08/02/19 08:36	08/05/19 22:16	108-95-2	
Pyrene	**1380**	ug/kg	345	126	1	08/02/19 08:36	08/05/19 22:16	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	345	93.4	1	08/02/19 08:36	08/05/19 22:16	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	863	102	1	08/02/19 08:36	08/05/19 22:16	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	345	90.2	1	08/02/19 08:36	08/05/19 22:16	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	81	%.	45-103		1	08/02/19 08:36	08/05/19 22:16	4165-60-0	
2-Fluorobiphenyl (S)	83	%.	52-102		1	08/02/19 08:36	08/05/19 22:16	321-60-8	
Terphenyl-d14 (S)	92	%.	53-135		1	08/02/19 08:36	08/05/19 22:16	1718-51-0	
Phenol-d6 (S)	86	%.	35-120		1	08/02/19 08:36	08/05/19 22:16	13127-88-3	
2-Fluorophenol (S)	89	%.	10-147		1	08/02/19 08:36	08/05/19 22:16	367-12-4	
2,4,6-Tribromophenol (S)	81	%.	10-160		1	08/02/19 08:36	08/05/19 22:16	118-79-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.4**	%	0.10	0.10	1		08/05/19 16:39		

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

QC Batch: 355309 Analysis Method: EPA 8260C
QC Batch Method: EPA 5035A Analysis Description: 8260C MSV 5035 Low
Associated Lab Samples: 30317212001, 30317212002

METHOD BLANK: 1725735 Matrix: Solid
Associated Lab Samples: 30317212001, 30317212002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	5.0	1.5	08/06/19 14:19	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	0.59	08/06/19 14:19	
1,1,2-Trichloroethane	ug/kg	ND	5.0	0.99	08/06/19 14:19	
1,1-Dichloroethane	ug/kg	ND	5.0	1.3	08/06/19 14:19	
1,1-Dichloroethene	ug/kg	ND	5.0	1.9	08/06/19 14:19	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	1.3	08/06/19 14:19	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	2.4	08/06/19 14:19	
1,2-Dichlorobenzene	ug/kg	ND	5.0	0.59	08/06/19 14:19	
1,2-Dichloroethane	ug/kg	ND	5.0	1.3	08/06/19 14:19	
1,2-Dichloroethene (Total)	ug/kg	ND	10.0	2.4	08/06/19 14:19	
1,2-Dichloropropane	ug/kg	ND	5.0	0.72	08/06/19 14:19	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	2.0	08/06/19 14:19	
1,3-Dichlorobenzene	ug/kg	ND	5.0	0.65	08/06/19 14:19	
1,4-Dichlorobenzene	ug/kg	ND	5.0	0.71	08/06/19 14:19	
2-Butanone (MEK)	ug/kg	ND	10.0	0.91	08/06/19 14:19	
2-Hexanone	ug/kg	ND	10.0	0.98	08/06/19 14:19	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	10.0	1.1	08/06/19 14:19	
Acetone	ug/kg	ND	10.0	3.2	08/06/19 14:19	2c
Benzene	ug/kg	ND	5.0	0.87	08/06/19 14:19	
Bromochloromethane	ug/kg	ND	5.0	1.1	08/06/19 14:19	
Bromodichloromethane	ug/kg	ND	5.0	1.1	08/06/19 14:19	
Bromoform	ug/kg	ND	5.0	0.66	08/06/19 14:19	CL
Bromomethane	ug/kg	ND	5.0	1.9	08/06/19 14:19	2c
Carbon disulfide	ug/kg	ND	5.0	1.4	08/06/19 14:19	CL
Carbon tetrachloride	ug/kg	ND	5.0	1.7	08/06/19 14:19	
Chlorobenzene	ug/kg	ND	5.0	0.78	08/06/19 14:19	
Chloroethane	ug/kg	ND	5.0	2.1	08/06/19 14:19	CH
Chloroform	ug/kg	ND	5.0	1.5	08/06/19 14:19	
Chloromethane	ug/kg	ND	5.0	1.7	08/06/19 14:19	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	1.2	08/06/19 14:19	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	0.50	08/06/19 14:19	
Dibromochloromethane	ug/kg	ND	5.0	0.79	08/06/19 14:19	
Ethylbenzene	ug/kg	ND	5.0	1.1	08/06/19 14:19	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	1.2	08/06/19 14:19	
m&p-Xylene	ug/kg	ND	10.0	2.1	08/06/19 14:19	
Methyl-tert-butyl ether	ug/kg	ND	5.0	0.67	08/06/19 14:19	
Methylene Chloride	ug/kg	ND	5.0	4.2	08/06/19 14:19	
Naphthalene	ug/kg	ND	5.0	0.94	08/06/19 14:19	
o-Xylene	ug/kg	ND	5.0	1.1	08/06/19 14:19	
Styrene	ug/kg	ND	5.0	1.4	08/06/19 14:19	
Tetrachloroethene	ug/kg	ND	5.0	1.7	08/06/19 14:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

METHOD BLANK: 1725735 Matrix: Solid
Associated Lab Samples: 30317212001, 30317212002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Toluene	ug/kg	ND	5.0	0.99	08/06/19 14:19	
TOTAL BTEX	ug/kg	ND	30.0	6.1	08/06/19 14:19	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	1.3	08/06/19 14:19	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	1.0	08/06/19 14:19	
Trichloroethene	ug/kg	ND	5.0	1.5	08/06/19 14:19	
Vinyl chloride	ug/kg	ND	5.0	2.2	08/06/19 14:19	
Xylene (Total)	ug/kg	ND	15.0	3.2	08/06/19 14:19	
1,2-Dichloroethane-d4 (S)	%.	130	70-130		08/06/19 14:19	
4-Bromofluorobenzene (S)	%.	98	70-130		08/06/19 14:19	
Dibromofluoromethane (S)	%.	115	70-130		08/06/19 14:19	
Toluene-d8 (S)	%.	100	70-130		08/06/19 14:19	

LABORATORY CONTROL SAMPLE: 1725736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	20	16.5	82	62-113	
1,1,2,2-Tetrachloroethane	ug/kg	20	15.0	75	70-130	
1,1,2-Trichloroethane	ug/kg	20	15.3	76	70-130	
1,1-Dichloroethane	ug/kg	20	15.2	76	63-110	
1,1-Dichloroethene	ug/kg	20	13.6	68	45-124	
1,2,4-Trichlorobenzene	ug/kg	20	16.3	82	70-130	
1,2,4-Trimethylbenzene	ug/kg	20	17.1	86	70-130	
1,2-Dichlorobenzene	ug/kg	20	16.1	80	70-130	
1,2-Dichloroethane	ug/kg	20	17.1	85	57-110	
1,2-Dichloroethene (Total)	ug/kg	40	31.7	79	62-108	
1,2-Dichloropropane	ug/kg	20	15.4	77	62-111	
1,3,5-Trimethylbenzene	ug/kg	20	16.6	83	70-130	
1,3-Dichlorobenzene	ug/kg	20	16.6	83	70-130	
1,4-Dichlorobenzene	ug/kg	20	16.3	82	70-130	
2-Butanone (MEK)	ug/kg	20	18.2	91	46-117	
2-Hexanone	ug/kg	20	18.5	92	58-115	
4-Methyl-2-pentanone (MIBK)	ug/kg	20	17.5	88	40-136	
Acetone	ug/kg	20	27.2	136	36-163	2c
Benzene	ug/kg	20	16.1	81	63-110	
Bromochloromethane	ug/kg	20	16.3	82	67-114	
Bromodichloromethane	ug/kg	20	17.0	85	68-119	
Bromoform	ug/kg	20	15.0	75	63-107	CL
Bromomethane	ug/kg	20	25.5	127	12-166	2c
Carbon disulfide	ug/kg	20	17.0	85	52-106	CL
Carbon tetrachloride	ug/kg	20	16.4	82	59-114	
Chlorobenzene	ug/kg	20	16.3	81	70-130	
Chloroethane	ug/kg	20	28.0	140	56-160	CH
Chloroform	ug/kg	20	16.9	85	65-108	
Chloromethane	ug/kg	20	21.5	108	33-148	

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REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

LABORATORY CONTROL SAMPLE: 1725736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/kg	20	16.2	81	61-107	
cis-1,3-Dichloropropene	ug/kg	20	16.0	80	62-106	
Dibromochloromethane	ug/kg	20	15.1	76	67-108	
Ethylbenzene	ug/kg	20	16.6	83	68-109	
Isopropylbenzene (Cumene)	ug/kg	20	17.1	85	70-130	
m&p-Xylene	ug/kg	40	33.1	83	70-130	
Methyl-tert-butyl ether	ug/kg	20	16.4	82	62-101	
Methylene Chloride	ug/kg	20	13.4	67	42-135	
Naphthalene	ug/kg	20	17.1	86	70-130	
o-Xylene	ug/kg	20	15.9	79	70-130	
Styrene	ug/kg	20	15.6	78	70-130	
Tetrachloroethene	ug/kg	20	15.7	79	64-114	
Toluene	ug/kg	20	15.9	80	68-108	
TOTAL BTEX	ug/kg	120	97.6	81	70-130	
trans-1,2-Dichloroethene	ug/kg	20	15.5	77	61-108	
trans-1,3-Dichloropropene	ug/kg	20	15.7	78	64-102	
Trichloroethene	ug/kg	20	16.7	83	61-112	
Vinyl chloride	ug/kg	20	19.6	98	54-142	
Xylene (Total)	ug/kg	60	49.0	82	70-130	
1,2-Dichloroethane-d4 (S)	%.			123	70-130	
4-Bromofluorobenzene (S)	%.			98	70-130	
Dibromofluoromethane (S)	%.			108	70-130	
Toluene-d8 (S)	%.			98	70-130	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

QC Batch: 354748 Analysis Method: EPA 8270D
QC Batch Method: EPA 3546 Analysis Description: 8270D Solid MSSV Microwave
Associated Lab Samples: 30317212003

METHOD BLANK: 1723155 Matrix: Solid
Associated Lab Samples: 30317212003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	326	88.3	08/05/19 15:50	
1,2-Dichlorobenzene	ug/kg	ND	326	102	08/05/19 15:50	
1,3-Dichlorobenzene	ug/kg	ND	326	96.6	08/05/19 15:50	
1,4-Dichlorobenzene	ug/kg	ND	326	45.1	08/05/19 15:50	
1-Methylnaphthalene	ug/kg	ND	326	82.0	08/05/19 15:50	
2,4,5-Trichlorophenol	ug/kg	ND	816	96.5	08/05/19 15:50	
2,4,6-Trichlorophenol	ug/kg	ND	326	85.2	08/05/19 15:50	
2,4-Dichlorophenol	ug/kg	ND	326	147	08/05/19 15:50	
2,4-Dimethylphenol	ug/kg	ND	326	99.2	08/05/19 15:50	
2,4-Dinitrophenol	ug/kg	ND	816	734	08/05/19 15:50	
2,4-Dinitrotoluene	ug/kg	ND	326	99.1	08/05/19 15:50	
2,6-Dinitrotoluene	ug/kg	ND	326	99.2	08/05/19 15:50	
2-Chloronaphthalene	ug/kg	ND	326	93.2	08/05/19 15:50	
2-Chlorophenol	ug/kg	ND	326	102	08/05/19 15:50	
2-Methylnaphthalene	ug/kg	ND	326	98.1	08/05/19 15:50	
2-Methylphenol(o-Cresol)	ug/kg	ND	326	117	08/05/19 15:50	
2-Nitroaniline	ug/kg	ND	816	113	08/05/19 15:50	
2-Nitrophenol	ug/kg	ND	326	130	08/05/19 15:50	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	653	200	08/05/19 15:50	
3,3'-Dichlorobenzidine	ug/kg	ND	326	95.8	08/05/19 15:50	
3-Nitroaniline	ug/kg	ND	816	213	08/05/19 15:50	
4,6-Dinitro-2-methylphenol	ug/kg	ND	816	243	08/05/19 15:50	
4-Bromophenylphenyl ether	ug/kg	ND	326	120	08/05/19 15:50	
4-Chloro-3-methylphenol	ug/kg	ND	326	52.5	08/05/19 15:50	
4-Chloroaniline	ug/kg	ND	326	57.4	08/05/19 15:50	
4-Chlorophenylphenyl ether	ug/kg	ND	326	94.4	08/05/19 15:50	
4-Nitroaniline	ug/kg	ND	816	458	08/05/19 15:50	
4-Nitrophenol	ug/kg	ND	326	110	08/05/19 15:50	
Acenaphthene	ug/kg	ND	326	111	08/05/19 15:50	
Acenaphthylene	ug/kg	ND	326	98.0	08/05/19 15:50	
Anthracene	ug/kg	ND	326	75.0	08/05/19 15:50	
Azobenzene	ug/kg	ND	326	115	08/05/19 15:50	N2
Benzo(a)anthracene	ug/kg	ND	326	146	08/05/19 15:50	
Benzo(a)pyrene	ug/kg	ND	326	101	08/05/19 15:50	
Benzo(b)fluoranthene	ug/kg	ND	326	99.2	08/05/19 15:50	
Benzo(g,h,i)perylene	ug/kg	ND	326	113	08/05/19 15:50	
Benzo(k)fluoranthene	ug/kg	ND	326	144	08/05/19 15:50	
Benzoic acid	ug/kg	ND	4890	1650	08/05/19 15:50	CH
Benzyl alcohol	ug/kg	ND	326	288	08/05/19 15:50	
bis(2-Chloroethoxy)methane	ug/kg	ND	326	129	08/05/19 15:50	
bis(2-Chloroethyl) ether	ug/kg	ND	326	59.6	08/05/19 15:50	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

METHOD BLANK: 1723155 Matrix: Solid
Associated Lab Samples: 30317212003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
bis(2-Chloroisopropyl) ether	ug/kg	ND	326	277	08/05/19 15:50	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	326	104	08/05/19 15:50	
Butylbenzylphthalate	ug/kg	ND	326	91.7	08/05/19 15:50	
Carbazole	ug/kg	ND	326	128	08/05/19 15:50	
Chrysene	ug/kg	ND	326	121	08/05/19 15:50	
Di-n-butylphthalate	ug/kg	ND	326	110	08/05/19 15:50	
Di-n-octylphthalate	ug/kg	ND	326	74.1	08/05/19 15:50	
Dibenz(a,h)anthracene	ug/kg	ND	326	124	08/05/19 15:50	
Dibenzofuran	ug/kg	ND	326	105	08/05/19 15:50	
Diethylphthalate	ug/kg	ND	326	115	08/05/19 15:50	
Dimethylphthalate	ug/kg	ND	326	101	08/05/19 15:50	
Fluoranthene	ug/kg	ND	326	105	08/05/19 15:50	
Fluorene	ug/kg	ND	326	99.9	08/05/19 15:50	
Hexachloro-1,3-butadiene	ug/kg	ND	326	106	08/05/19 15:50	
Hexachlorobenzene	ug/kg	ND	326	93.8	08/05/19 15:50	
Hexachlorocyclopentadiene	ug/kg	ND	326	77.2	08/05/19 15:50	
Hexachloroethane	ug/kg	ND	326	88.1	08/05/19 15:50	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	326	123	08/05/19 15:50	
Isophorone	ug/kg	ND	326	107	08/05/19 15:50	
N-Nitroso-di-n-propylamine	ug/kg	ND	326	138	08/05/19 15:50	
N-Nitrosodimethylamine	ug/kg	ND	326	55.9	08/05/19 15:50	CH
N-Nitrosodiphenylamine	ug/kg	ND	326	73.6	08/05/19 15:50	
Naphthalene	ug/kg	ND	326	88.5	08/05/19 15:50	
Nitrobenzene	ug/kg	ND	326	121	08/05/19 15:50	
Pentachlorophenol	ug/kg	ND	816	430	08/05/19 15:50	
Phenanthrene	ug/kg	ND	326	143	08/05/19 15:50	
Phenol	ug/kg	ND	326	96.7	08/05/19 15:50	
Pyrene	ug/kg	ND	326	119	08/05/19 15:50	
2,4,6-Tribromophenol (S)	%.	91	10-160		08/05/19 15:50	
2-Fluorobiphenyl (S)	%.	98	52-102		08/05/19 15:50	
2-Fluorophenol (S)	%.	107	10-147		08/05/19 15:50	
Nitrobenzene-d5 (S)	%.	95	45-103		08/05/19 15:50	
Phenol-d6 (S)	%.	99	35-120		08/05/19 15:50	
Terphenyl-d14 (S)	%.	94	53-135		08/05/19 15:50	

LABORATORY CONTROL SAMPLE: 1723156

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	3240	2890	89	54-92	
1,2-Dichlorobenzene	ug/kg	3240	2680	83	69-103	
1,3-Dichlorobenzene	ug/kg	3240	2720	84	67-104	
1,4-Dichlorobenzene	ug/kg	3240	2450	76	63-101	
1-Methylnaphthalene	ug/kg	3240	3040	94	54-86	L1
2,4,5-Trichlorophenol	ug/kg	3240	3130	97	66-112	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

LABORATORY CONTROL SAMPLE: 1723156

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,6-Trichlorophenol	ug/kg	3240	3560	110	62-135	
2,4-Dichlorophenol	ug/kg	3240	3140	97	51-100	
2,4-Dimethylphenol	ug/kg	3240	3120	96	38-86	L1
2,4-Dinitrophenol	ug/kg	3240	3050	94	14-147	
2,4-Dinitrotoluene	ug/kg	3240	3540	109	73-117	
2,6-Dinitrotoluene	ug/kg	3240	3260	101	68-117	
2-Chloronaphthalene	ug/kg	3240	3100	95	69-109	
2-Chlorophenol	ug/kg	3240	2960	91	72-106	
2-Methylnaphthalene	ug/kg	3240	3090	95	48-94	L1
2-Methylphenol(o-Cresol)	ug/kg	3240	3010	93	60-118	
2-Nitroaniline	ug/kg	3240	3490	108	69-126	
2-Nitrophenol	ug/kg	3240	3120	96	52-96	
3&4-Methylphenol(m&p Cresol)	ug/kg	6490	6230	96	61-117	
3,3'-Dichlorobenzidine	ug/kg	3240	2850	88	48-108	
3-Nitroaniline	ug/kg	3240	3570	110	56-147	
4,6-Dinitro-2-methylphenol	ug/kg	3240	3670	113	61-146	
4-Bromophenylphenyl ether	ug/kg	3240	3170	98	74-110	
4-Chloro-3-methylphenol	ug/kg	3240	3310	102	52-105	
4-Chloroaniline	ug/kg	3240	3080	95	20-87	L1
4-Chlorophenylphenyl ether	ug/kg	3240	3180	98	72-112	
4-Nitroaniline	ug/kg	3240	3890	120	54-175	
4-Nitrophenol	ug/kg	3240	3470	107	57-143	
Acenaphthene	ug/kg	3240	3110	96	68-121	
Acenaphthylene	ug/kg	3240	3210	99	67-116	
Anthracene	ug/kg	3240	3110	96	67-104	
Azobenzene	ug/kg	3240	3050	94	58-119	N2
Benzo(a)anthracene	ug/kg	3240	3250	100	75-115	
Benzo(a)pyrene	ug/kg	3240	3050	94	72-108	
Benzo(b)fluoranthene	ug/kg	3240	3280	101	72-119	
Benzo(g,h,i)perylene	ug/kg	3240	3360	104	70-119	
Benzo(k)fluoranthene	ug/kg	3240	3200	99	72-118	
Benzoic acid	ug/kg	3240	2310J	71	10-112	CH
Benzyl alcohol	ug/kg	3240	3240	100	45-132	
bis(2-Chloroethoxy)methane	ug/kg	3240	3010	93	46-96	
bis(2-Chloroethyl) ether	ug/kg	3240	2840	88	53-110	
bis(2-Chloroisopropyl) ether	ug/kg	3240	2910	90	51-121	
bis(2-Ethylhexyl)phthalate	ug/kg	3240	3500	108	72-122	
Butylbenzylphthalate	ug/kg	3240	3630	112	73-122	
Carbazole	ug/kg	3240	3190	98	56-130	
Chrysene	ug/kg	3240	3050	94	74-115	
Di-n-butylphthalate	ug/kg	3240	3480	107	77-114	
Di-n-octylphthalate	ug/kg	3240	3850	119	70-121	
Dibenz(a,h)anthracene	ug/kg	3240	3400	105	69-125	
Dibenzofuran	ug/kg	3240	3210	99	72-110	
Diethylphthalate	ug/kg	3240	3380	104	73-115	
Dimethylphthalate	ug/kg	3240	3320	102	69-114	
Fluoranthene	ug/kg	3240	3280	101	76-116	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

LABORATORY CONTROL SAMPLE: 1723156

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	3240	3180	98	70-117	
Hexachloro-1,3-butadiene	ug/kg	3240	2890	89	45-105	
Hexachlorobenzene	ug/kg	3240	3170	98	75-110	
Hexachlorocyclopentadiene	ug/kg	3240	2910	90	37-100	
Hexachloroethane	ug/kg	3240	2750	85	58-108	
Indeno(1,2,3-cd)pyrene	ug/kg	3240	3300	102	71-122	
Isophorone	ug/kg	3240	3200	99	47-89	L1
N-Nitroso-di-n-propylamine	ug/kg	3240	3080	95	56-102	
N-Nitrosodimethylamine	ug/kg	3240	3400	105	56-102	CH,L1
N-Nitrosodiphenylamine	ug/kg	3240	3190	98	83-96	L1
Naphthalene	ug/kg	3240	2980	92	50-95	
Nitrobenzene	ug/kg	3240	3050	94	48-96	
Pentachlorophenol	ug/kg	3240	3790	117	52-162	
Phenanthrene	ug/kg	3240	3300	102	72-122	
Phenol	ug/kg	3240	3320	102	62-120	
Pyrene	ug/kg	3240	3330	103	72-121	
2,4,6-Tribromophenol (S)	%.			98	10-160	
2-Fluorobiphenyl (S)	%.			97	52-102	
2-Fluorophenol (S)	%.			99	10-147	
Nitrobenzene-d5 (S)	%.			93	45-103	
Phenol-d6 (S)	%.			93	35-120	
Terphenyl-d14 (S)	%.			95	53-135	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1723157 1723158

Parameter	Units	30317136012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trichlorobenzene	ug/kg	ND	3300	3240	2770	2640	84	81	51-90	5	25	
1,2-Dichlorobenzene	ug/kg	ND	3300	3240	2570	2480	78	76	65-100	4	25	
1,3-Dichlorobenzene	ug/kg	ND	3300	3240	2620	2540	79	78	63-100	3	25	
1,4-Dichlorobenzene	ug/kg	ND	3300	3240	2360	2450	72	75	61-99	3	25	
1-Methylnaphthalene	ug/kg	ND	3300	3240	2910	2700	88	83	50-89	8	25	
2,4,5-Trichlorophenol	ug/kg	ND	3300	3240	3080	2940	93	91	10-143	5	25	
2,4,6-Trichlorophenol	ug/kg	ND	3300	3240	3070	2690	93	83	10-166	13	25	
2,4-Dichlorophenol	ug/kg	ND	3300	3240	2850	2670	86	82	33-101	7	25	
2,4-Dimethylphenol	ug/kg	ND	3300	3240	2530	2380	77	73	28-80	6	25	
2,4-Dinitrophenol	ug/kg	ND	3300	3240	2860	2230	87	69	10-131	25	25	
2,4-Dinitrotoluene	ug/kg	ND	3300	3240	3290	2990	100	92	43-120	9	25	
2,6-Dinitrotoluene	ug/kg	ND	3300	3240	3070	2820	93	87	47-116	8	25	
2-Chloronaphthalene	ug/kg	ND	3300	3240	2940	2750	89	85	53-110	7	25	
2-Chlorophenol	ug/kg	ND	3300	3240	2800	2610	85	80	44-118	7	25	
2-Methylnaphthalene	ug/kg	ND	3300	3240	2930	2760	89	85	44-91	6	25	
2-Methylphenol(o-Cresol)	ug/kg	ND	3300	3240	2800	2710	85	84	37-142	3	25	
2-Nitroaniline	ug/kg	ND	3300	3240	3190	2940	97	91	52-121	8	25	
2-Nitrophenol	ug/kg	ND	3300	3240	2980	2770	90	85	10-128	7	25	

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QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1723157 1723158

Parameter	Units	30317136012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	6590	6490	5660	5360	86	83	36-135	5	25	
3,3'-Dichlorobenzidine	ug/kg	ND	3300	3240	2590	2450	79	75	10-134	6	25	
3-Nitroaniline	ug/kg	ND	3300	3240	3180	2890	97	89	45-126	10	25	
4,6-Dinitro-2-methylphenol	ug/kg	ND	3300	3240	3360	2910	102	90	10-155	15	25	
4-Bromophenylphenyl ether	ug/kg	ND	3300	3240	2980	2780	90	86	69-106	7	25	
4-Chloro-3-methylphenol	ug/kg	ND	3300	3240	2950	2750	89	85	47-100	7	25	
4-Chloroaniline	ug/kg	ND	3300	3240	2580	2470	78	76	18-77	4	25	MH
4-Chlorophenylphenyl ether	ug/kg	ND	3300	3240	3010	2770	91	85	63-108	8	25	
4-Nitroaniline	ug/kg	ND	3300	3240	3500	3070	106	95	27-175	13	25	
4-Nitrophenol	ug/kg	ND	3300	3240	3560	3170	108	98	10-159	12	25	
Acenaphthene	ug/kg	ND	3300	3240	2950	2720	89	84	59-114	8	25	
Acenaphthylene	ug/kg	ND	3300	3240	3030	2780	92	86	56-112	9	25	
Anthracene	ug/kg	ND	3300	3240	2950	2770	90	85	52-105	6	25	
Azobenzene	ug/kg	ND	3300	3240	3060	2820	93	87	47-116	8	25	N2
Benzo(a)anthracene	ug/kg	ND	3300	3240	3090	2800	94	86	55-120	10	25	
Benzo(a)pyrene	ug/kg	ND	3300	3240	2810	2580	85	80	50-112	8	25	
Benzo(b)fluoranthene	ug/kg	ND	3300	3240	3280	2580	99	80	40-140	24	25	
Benzo(g,h,i)perylene	ug/kg	ND	3300	3240	3070	2730	93	84	10-137	12	25	
Benzo(k)fluoranthene	ug/kg	ND	3300	3240	2920	2980	88	92	32-150	2	25	
Benzoic acid	ug/kg	ND	3300	3240	2630J	1970J	79	60	10-129		25	CH
Benzyl alcohol	ug/kg	ND	3300	3240	2890	2560	88	79	10-156	12	25	
bis(2-Chloroethoxy)methane	ug/kg	ND	3300	3240	2870	2640	87	81	44-91	8	25	
bis(2-Chloroethyl) ether	ug/kg	ND	3300	3240	2730	2570	83	79	44-107	6	25	
bis(2-Chloroisopropyl) ether	ug/kg	ND	3300	3240	2830	2670	86	82	48-115	6	25	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	3300	3240	3350	3020	101	92	61-123	10	25	
Butylbenzylphthalate	ug/kg	ND	3300	3240	3420	3110	104	96	65-122	10	25	
Carbazole	ug/kg	ND	3300	3240	2980	2750	91	85	65-121	8	25	
Chrysene	ug/kg	ND	3300	3240	3030	2680	92	83	53-120	12	25	
Di-n-butylphthalate	ug/kg	ND	3300	3240	3290	3010	100	93	68-112	9	25	
Di-n-octylphthalate	ug/kg	ND	3300	3240	3670	3320	111	102	57-135	10	25	
Dibenz(a,h)anthracene	ug/kg	ND	3300	3240	3070	2790	93	86	10-143	10	25	
Dibenzofuran	ug/kg	ND	3300	3240	3010	2780	91	86	67-106	8	25	
Diethylphthalate	ug/kg	ND	3300	3240	3140	2880	95	89	64-112	9	25	
Dimethylphthalate	ug/kg	ND	3300	3240	3070	2830	93	87	55-115	8	25	
Fluoranthene	ug/kg	ND	3300	3240	3140	2870	95	88	48-128	9	25	
Fluorene	ug/kg	ND	3300	3240	2990	2770	91	85	62-115	8	25	
Hexachloro-1,3-butadiene	ug/kg	ND	3300	3240	2770	2640	84	81	37-107	5	25	
Hexachlorobenzene	ug/kg	ND	3300	3240	3000	2820	91	87	63-112	6	25	
Hexachlorocyclopentadiene	ug/kg	ND	3300	3240	2720	2590	82	80	10-98	5	25	
Hexachloroethane	ug/kg	ND	3300	3240	2650	2650	80	82	40-112	0	25	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	3300	3240	3090	2740	94	84	10-139	12	25	
Isophorone	ug/kg	ND	3300	3240	3020	2770	92	85	44-87	9	25	MH
N-Nitroso-di-n-propylamine	ug/kg	ND	3300	3240	2960	2780	90	86	45-123	6	25	
N-Nitrosodimethylamine	ug/kg	ND	3300	3240	3140	2930	95	90	47-102	7	25	CH

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1723157 1723158

Parameter	Units	30317136012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
N-Nitrosodiphenylamine	ug/kg	ND	3300	3240	2660	2530	81	78	64-86	5	25	
Naphthalene	ug/kg	ND	3300	3240	2890	2710	88	83	41-101	6	25	
Nitrobenzene	ug/kg	ND	3300	3240	2860	2700	87	83	41-97	6	25	
Pentachlorophenol	ug/kg	ND	3300	3240	3340	2960	101	91	10-175	12	25	
Phenanthrene	ug/kg	ND	3300	3240	3080	2770	93	85	51-117	11	25	
Phenol	ug/kg	ND	3300	3240	3030	2860	92	88	42-125	6	25	
Pyrene	ug/kg	ND	3300	3240	3100	2800	94	86	43-138	10	25	
2,4,6-Tribromophenol (S)	%.						84	80	10-160			
2-Fluorobiphenyl (S)	%.						90	86	52-102			
2-Fluorophenol (S)	%.						89	86	10-147			
Nitrobenzene-d5 (S)	%.						88	84	45-103			
Phenol-d6 (S)	%.						85	82	35-120			
Terphenyl-d14 (S)	%.						83	77	53-135			

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

QC Batch: 355201 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30317212001, 30317212002, 30317212003

SAMPLE DUPLICATE: 1725420

Parameter	Units	30316367002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.7	18.2	3	20	

SAMPLE DUPLICATE: 1725421

Parameter	Units	30316367003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.2	19.8	2	20	

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REPORT OF LABORATORY ANALYSIS

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: 355309

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
2c	RF below method recommended limit.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT-Soil IRM/31401545.0
Pace Project No.: 30317212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30317212003	**AOC27-3**	EPA 3546	354748	EPA 8270D	354904
30317212001	**AOC27-1**	EPA 5035A	355309	EPA 8260C	355311
30317212002	**AOC27-2**	EPA 5035A	355309	EPA 8260C	355311
30317212001	**AOC27-1**	ASTM D2974-87	355201		
30317212002	**AOC27-2**	ASTM D2974-87	355201		
30317212003	**AOC27-3**	ASTM D2974-87	355201		

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CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY **WO# : 30317212**

30317212

Company: WSP	Billing Information: Environmental Accounts Payable WSP 13530 Dulles Technology Drive Herndon, VA
Address: 11 Stanwix Street, Suite 950, Pittsburgh, PA	Email To:
Report To: Dave.Rykaczewski@wsp.com	Site Collection Info/Address: 620 South Aurora
Copy To: Erin.Huntley@wsp.com	State: NY County/City: Tompkins/Ithaca Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Customer Project Name/Number: Former ERT - Soil IRM / 314015545.0001	
Phone: 412 375 0282 Email: see above	Site/Facility ID #:
Collected By (print): Dan Cummings	Purchase Order #: Quote #:
Collected By (signature):	Turnaround Date Required: 3 DAY TAT
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [X] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
	Compliance Monitoring? [ ] Yes [ ] No
	DW PWS ID #: DW Location Code:
	Immediately Packed on Ice: [X] Yes [ ] No
	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Container Preservative**: V V

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: VOCs (8260); full list | SVOCs (8270); full list

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	(Y) N NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	Y N (NA)
USDA Regulated Soils	(Y) N NA
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y N (NA)
Cl Strips:	
Sample pH Acceptable	Y N (NA)
pH Strips:	
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

ET / ET

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	VOCs (8260); full list	SVOCs (8270); full list	
AOC27-1	SL	G	7/31/19	0855				4	X		001
AOC27-2	SL	G	↓	0915				4	X		002
AOC27-3	SL	C	↓	0920				1		X	003

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Bubble wrap + Plastic bag + ice

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): (Y) N ~~N/A~~

Lab Tracking #: 2384097 ET 8-1-19

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N (NA)
Therm ID#: 11
Cooler 1 Temp Upon Receipt: 5.0 oC
Cooler 1 Therm Corr. Factor: 0.0 oC
Cooler 1 Corrected Temp: 5.0 oC
Comments:
ET 8-1-19

Trip Blank Received: Y N (NA)
HCL MeOH TSP Other

	Date/Time		Date/Time
Relinquished by/Company: (Signature)	07/31/19 1630	Received by/Company: (Signature) FedEx	7/31/19 1630
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	8-1-19 0930
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Non Conformance(s): YES / (NO)

Page: 1 of: 1

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil

Instrument ID: 30MV6A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1725735	1725735BLANK	130	98	115	100
1725736	1725736LCS	123	98	108	98
30317212001	AOC27-1	128	99	112	100
30317212002	AOC27-2	128	100	113	99

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1725736LCS
Date Extracted: 08/06/2019
Date Analyzed (1): 08/06/2019
Instrument: 30MV6A
LCS Lot No:
Lab File ID: 6190806.B\1.B\60806011-45664.D
SDG No.: 30317212

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	20.0	27.2	136	36-163
Benzene	20.0	16.1	81	63-110
Bromochloromethane	20.0	16.3	82	67-114
Bromodichloromethane	20.0	17.0	85	68-119
Bromoform	20.0	15.0	75	63-107
Bromomethane	20.0	25.5	127	12-166
TOTAL BTEX	120	97.6	81	70-130
2-Butanone (MEK)	20.0	18.2	91	46-117
Carbon disulfide	20.0	17.0	85	52-106
Carbon tetrachloride	20.0	16.4	82	59-114
Chlorobenzene	20.0	16.3	81	70-130
Chloroethane	20.0	28.0	140	56-160
Chloroform	20.0	16.9	85	65-108
Chloromethane	20.0	21.5	108	33-148
Dibromochloromethane	20.0	15.1	76	67-108
1,2-Dichlorobenzene	20.0	16.1	80	70-130
1,3-Dichlorobenzene	20.0	16.6	83	70-130
1,4-Dichlorobenzene	20.0	16.3	82	70-130
1,1-Dichloroethane	20.0	15.2	76	63-110
1,2-Dichloroethane	20.0	17.1	85	57-110
1,2-Dichloroethene (Total)	40.0	31.7	79	62-108
1,1-Dichloroethene	20.0	13.6	68	45-124
cis-1,2-Dichloroethene	20.0	16.2	81	61-107
trans-1,2-Dichloroethene	20.0	15.5	77	61-108
1,2-Dichloropropane	20.0	15.4	77	62-111
cis-1,3-Dichloropropene	20.0	16.0	80	62-106
trans-1,3-Dichloropropene	20.0	15.7	78	64-102
Ethylbenzene	20.0	16.6	83	68-109
2-Hexanone	20.0	18.5	92	58-115
Isopropylbenzene (Cumene)	20.0	17.1	85	70-130
Methylene Chloride	20.0	13.4	67	42-135
4-Methyl-2-pentanone (MIBK)	20.0	17.5	88	40-136
Methyl-tert-butyl ether	20.0	16.4	82	62-101
Naphthalene	20.0	17.1	86	70-130
Styrene	20.0	15.6	78	70-130
1,1,2,2-Tetrachloroethane	20.0	15.0	75	70-130
Tetrachloroethene	20.0	15.7	79	64-114
Toluene	20.0	15.9	80	68-108
1,2,4-Trichlorobenzene	20.0	16.3	82	70-130
1,1,1-Trichloroethane	20.0	16.5	82	62-113
1,1,2-Trichloroethane	20.0	15.3	76	70-130
Trichloroethene	20.0	16.7	83	61-112
1,2,4-Trimethylbenzene	20.0	17.1	86	70-130
1,3,5-Trimethylbenzene	20.0	16.6	83	70-130
Vinyl chloride	20.0	19.6	98	54-142
Xylene (Total)	60.0	49.0	82	70-130
m&p-Xylene	40.0	33.1	83	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1725736LCS
Date Extracted: 08/06/2019
Date Analyzed (1): 08/06/2019
Instrument: 30MV6A
LCS Lot No:
Lab File ID: 6190806.B\1.B\60806011-45664.D
SDG No.: 30317212

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
o-Xylene	20.0	15.9	79	70-130

Spike Recovery: 0 out of 48 outside limits.

SAMPLE NO.

1725735BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil

Instrument ID: 30MV6A Matrix: Solid Lab Sample ID: 1725735

Lab File ID: 6190806.B\1.B\60806027-45664.D Date Analyzed: 08/06/2019 Time: 14:19

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1725736LCS	1725736	6190806.B\1.B\60806011-45664.D	08/06/2019 10:52
AOC27-1	30317212001	6190806.B\1.B\60806017.D	08/06/2019 12:09
AOC27-2	30317212002	6190806.B\1.B\60806019.D	08/06/2019 12:35

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil
Lab File ID: 6190722.B\1.B\60722013.D BFB Injection Date 07/22/2019
Instrument ID: 30MV6A BFB Injection Time 11:16

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	21.21	
75	30.00 - 60.00% of mass 95	44.82	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.51	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	87.76	
175	5.00 - 9.00% of mass 174	6.66	(7.58)[1]
176	95.00 - 101.00% of mass 174	84.77	(96.59)[1]
177	5.00 - 9.00% of mass 176	5.69	(6.71)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11325599CAL1	11325599CAL1	6190722.B\1.B\60722015.D	07/22/2019	11:47
11325596CAL2	11325596CAL2	6190722.B\1.B\60722017.D	07/22/2019	12:13
11325601CAL3	11325601CAL3	6190722.B\1.B\60722019.D	07/22/2019	12:39
11325594CAL4	11325594CAL4	6190722.B\1.B\60722021.D	07/22/2019	13:05
11325598CAL5	11325598CAL5	6190722.B\1.B\60722023.D	07/22/2019	13:31
11325593CAL6	11325593CAL6	6190722.B\1.B\60722025.D	07/22/2019	13:56
11325600CAL7	11325600CAL7	6190722.B\1.B\60722027.D	07/22/2019	14:22
11325595CAL8	11325595CAL8	6190722.B\1.B\60722029.D	07/22/2019	14:48
11325597ICV	11325597ICV	6190722.B\1.B\60722035.D	07/22/2019	16:06

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil
Lab File ID: 6190806.B\1.B\60806005.D BFB Injection Date 08/06/2019
Instrument ID: 30MV6A BFB Injection Time 09:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	23.28	
75	30.00 - 60.00% of mass 95	48.50	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.28	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	80.99	
175	5.00 - 9.00% of mass 174	6.32	(7.81)[1]
176	95.00 - 101.00% of mass 174	77.29	(95.44)[1]
177	5.00 - 9.00% of mass 176	5.04	(6.52)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11355142CCV	11355142CCV	6190806.B\1.B\60806007.D	08/06/2019	10:00
1725736LCS	1725736LCS	6190806.B\1.B\60806011-45664.D	08/06/2019	10:52
AOC27-1	30317212001	6190806.B\1.B\60806017.D	08/06/2019	12:09
AOC27-2	30317212002	6190806.B\1.B\60806019.D	08/06/2019	12:35
1725735BLANK	1725735BLANK	6190806.B\1.B\60806027-45664.D	08/06/2019	14:19

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil IRM/31401545.0

Sample ID : 11355142CCV Date Analyzed: 08/06/2019

Instrument ID: 30MV6A GC Column: Col 1 Time Analyzed: 10:00

Lab File ID: 6190806.B\1.B\60806007.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		242888	5.888	151515	6.87	323392	4.527
UPPER LIMIT		485776	6.388	303030	7.37	646784	5.027
LOWER LIMIT		121444	5.388	75757.5	6.37	161696	4.027
LAB SAMPLE ID	SAMPLE NO.						
1725735	1725735BLANK	226153	5.888	131375	6.87	256748	4.527
1725736	1725736LCS	236626	5.888	141430	6.87	302337	4.527
30317212001	AOC27-1	223786	5.888	135235	6.87	266883	4.527
30317212002	AOC27-2	226073	5.888	133159	6.87	264990	4.527

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

AOC27-1

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: 08/01/2019 09:30 Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 30317212001

Date Analyzed: 08/06/2019 12:09 Lab File ID: 6190806.B\1.B\60806017.D

Initial wt/vol: 4.65 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
	TOTAL BTEX	ND	U
78-93-3	2-Butanone (MEK)	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
124-48-1	Dibromochloromethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
540-59-0	1,2-Dichloroethene (Total)	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
100-42-5	Styrene	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U

SAMPLE NO.

AOC27-1

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: 08/01/2019 09:30 Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 30317212001

Date Analyzed: 08/06/2019 12:09 Lab File ID: 6190806.B\1.B\60806017.D

Initial wt/vol: 4.65 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture: 7.8%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
108-88-3	Toluene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Lab Smp Id: 30317212001 Client Smp ID: AOC27-1
Inj Date : 06-AUG-2019 12:09
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 30317212001
Misc Info : 45664
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Meth Date : 06-Aug-2019 10:12 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	4.650	Weight of sample extracted (g)
M	7.802	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						(D)
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	2.505	2.499	(0.553)	18230		(a)	
16 Acetone	43	2.550	2.541	(0.563)	14157	7.32498	8.54(QM)	LT
17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	2.672	2.679	(0.590)	4275	8.58875	10.0(Q)	
20 Methyl-tert-butyl ether	73	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	21	tert-Butyl Alcohol	59	Compound Not Detected.						
	22	Acetonitrile	41	Compound Not Detected.						
	23	Diisopropyl ether	45	Compound Not Detected.						
	24	Chloroprene	53	Compound Not Detected.						
	25	1,1-Dichloroethane	63	Compound Not Detected.						
	26	Acrylonitrile	53	Compound Not Detected.						
	27	Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28	Vinyl acetate	43	Compound Not Detected.						
	29	cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30	2,2-Dichloropropane	77	Compound Not Detected.						
	31	Cyclohexane	56	Compound Not Detected.						
	32	Bromochloromethane	130	Compound Not Detected.						
	33	Chloroform	83	Compound Not Detected.						
	34	Carbon tetrachloride	117	Compound Not Detected.						
	35	Ethyl acetate	43	Compound Not Detected.						
	36	Tetrahydrofuran	42	Compound Not Detected.						
$	37	Dibromofluoromethane (S)	111	4.068	4.067	(0.899)	76520	33.4782	39.0	
	38	1,1,1-Trichloroethane	97	Compound Not Detected.						
	39	2-Butanone (MEK)	43	Compound Not Detected.						
	40	1,1-Dichloropropene	75	Compound Not Detected.						
	41	Benzene	78	Compound Not Detected.						
	42	Propionitrile	54	Compound Not Detected.						
	43	Methacrylonitrile	41	Compound Not Detected.						
	44	tert-Amylmethyl ether	73	Compound Not Detected.						
$	45	1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	86222	38.5480	45.0	
	46	Isobutanol	43	Compound Not Detected.						
	47	1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48	Fluorobenzene (IS)	96	4.527	4.527	(1.000)	266883	30.0000		
	49	Methylcyclohexane	83	Compound Not Detected.						
	50	Trichloroethene	95	Compound Not Detected.						
	51	Dibromomethane	174	Compound Not Detected.						
	52	1,2-Dichloropropane	63	Compound Not Detected.						
	53	Bromodichloromethane	83	Compound Not Detected.						
	54	Methyl methacrylate	69	Compound Not Detected.						
	55	1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56	2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57	cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58	Toluene-d8 (S)	98	5.236	5.236	(0.889)	273633	30.0534	35.0	
	59	Toluene	91	Compound Not Detected.						
	60	2-Nitropropane	43	Compound Not Detected.						(D)
	61	4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62	Tetrachloroethene	166	Compound Not Detected.						
	63	trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64	Ethyl methacrylate	41	Compound Not Detected.						
	65	1,1,2-Trichloroethane	97	Compound Not Detected.						
	66	Dibromochloromethane	129	Compound Not Detected.						
	67	1,3-Dichloropropane	76	Compound Not Detected.						
	68	1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69	2-Hexanone	43	Compound Not Detected.						
	70	Ethylbenzene	106	Compound Not Detected.						
*	71	Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	223786	30.0000		
	72	Chlorobenzene	112	Compound Not Detected.						
	73	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74	m&p-Xylene	106	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	95804	29.6057	34.5	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	135235	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	135233	29.9744	35.0	
	98 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	99 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	104 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60806017.d
Lab Smp Id: 30317212001
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

Calibration Date: 06-AUG-2019
Calibration Time: 10:00
Client Smp ID: AOC27-1
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	323392	161696	646784	266883	-17.47
71 Chlorobenzene-d5	242888	121444	485776	223786	-7.86
94 1,4-Dichlorobenze	151515	75758	303030	135235	-10.74

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30317212
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30317212001
Client Smp ID: AOC27-1
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	35.0	39.0	111.59	70-130
$ 45 1,2-Dichloroethane	35.0	45.0	128.49	83-138
$ 58 Toluene-d8 (S)	35.0	35.0	100.18	73-124
$ 79 4-Bromofluorobenze	35.0	34.5	98.69	71-124
$ 161 1,2-Dichlorobenzen	35.0	35.0	99.91	10-200

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Report Date: 07-Aug-2019 08:15

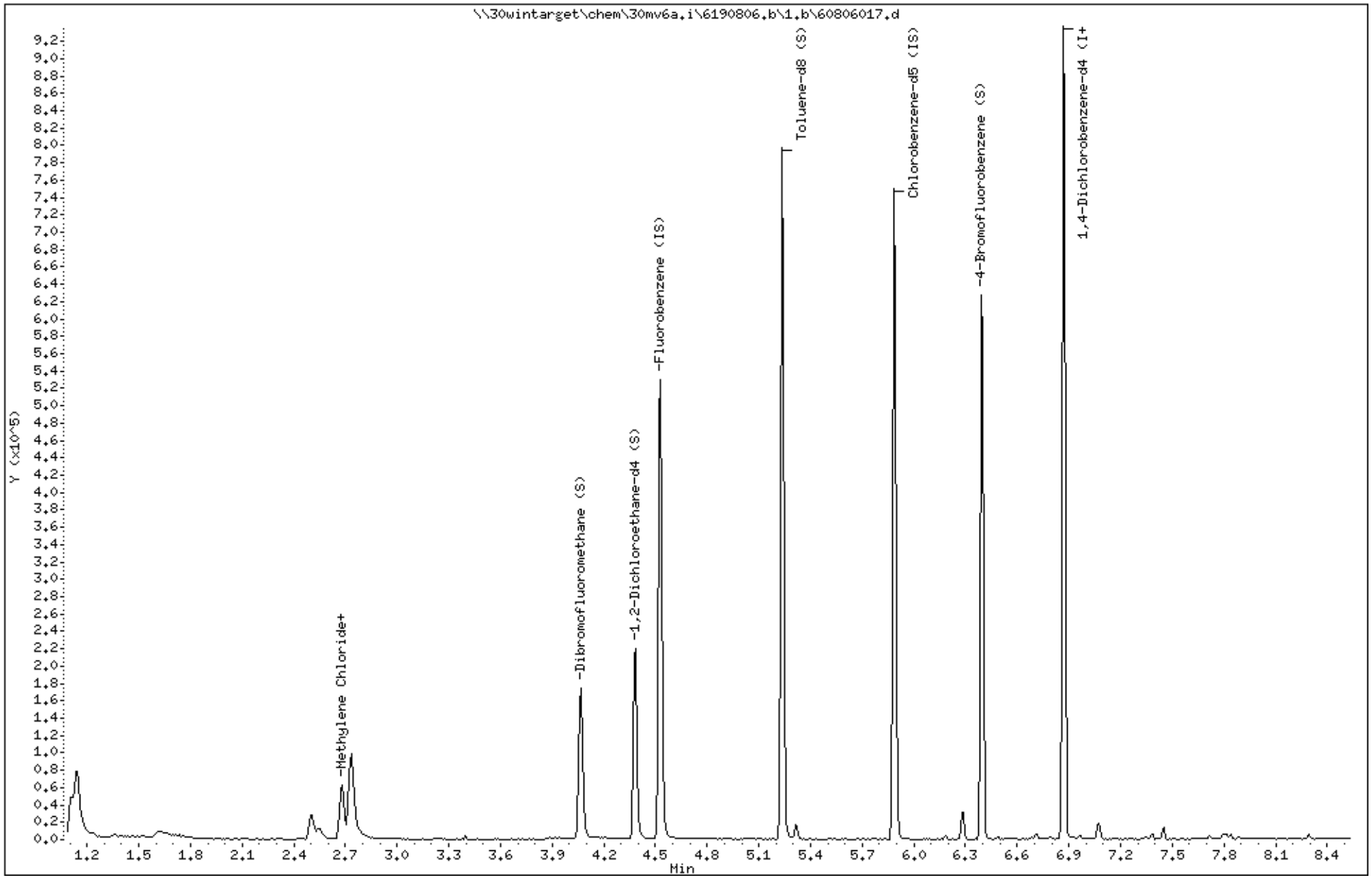
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30317212
Lab Smp Id: 30317212001
Client Smp ID: AOC27-1
Sample Location:
Sample Point:
Sample Date: 31-JUL-2019
Date Received: 01-AUG-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45664

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-09-2	Methylene Chloride	0.000	J
67-64-1	Acetone	8.54	
110-54-3	n-Hexane	10.0	
1868-53-7	Dibromofluoromethane (S)	39.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	45.0	
2037-26-5	Toluene-d8 (S)	35.0	
460-00-4	4-Bromofluorobenzene (S)	34.5	
----------	1,2-Dichlorobenzene-d4 (S)	35.0	

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d
Date : 06-AUG-2019 12:09
Client ID: A0C27-1
Instrument: 30mv6a.i
Sample Info: 30317212001
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d

Date : 06-AUG-2019 12:09

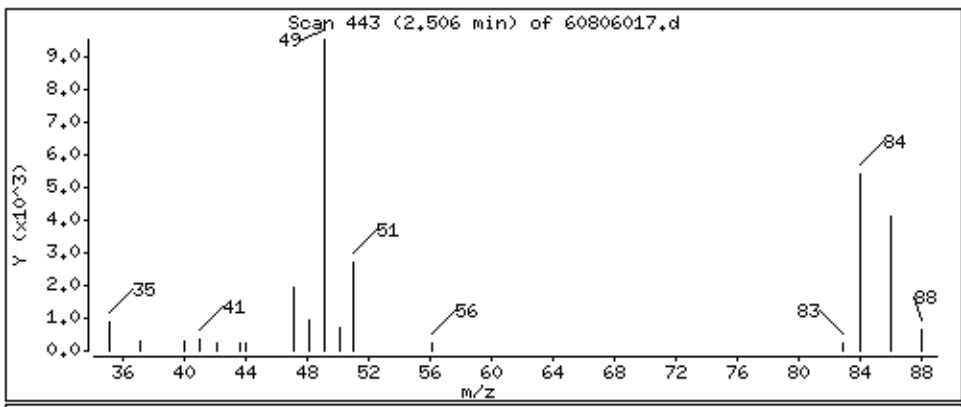
Client ID: AOC27-1 Instrument: 30mv6a.i

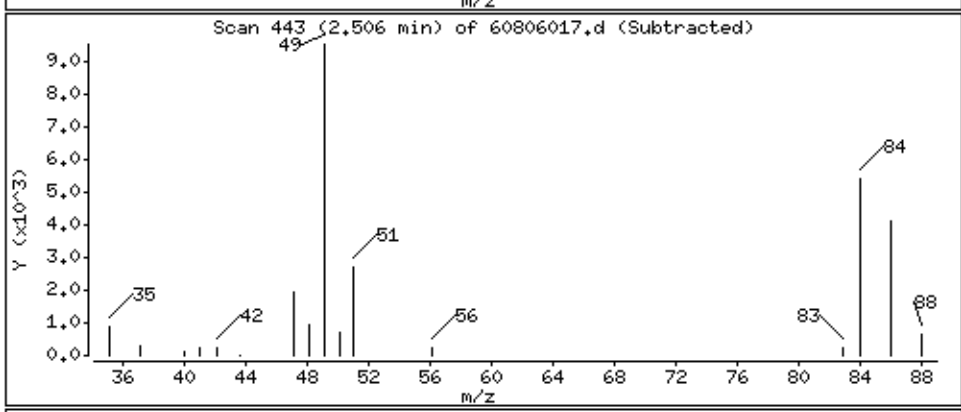
Sample Info: 30317212001

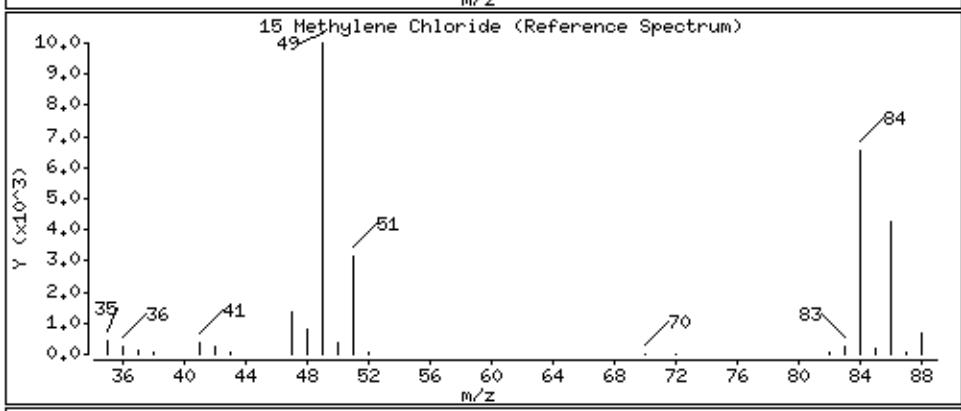
Operator: JEW

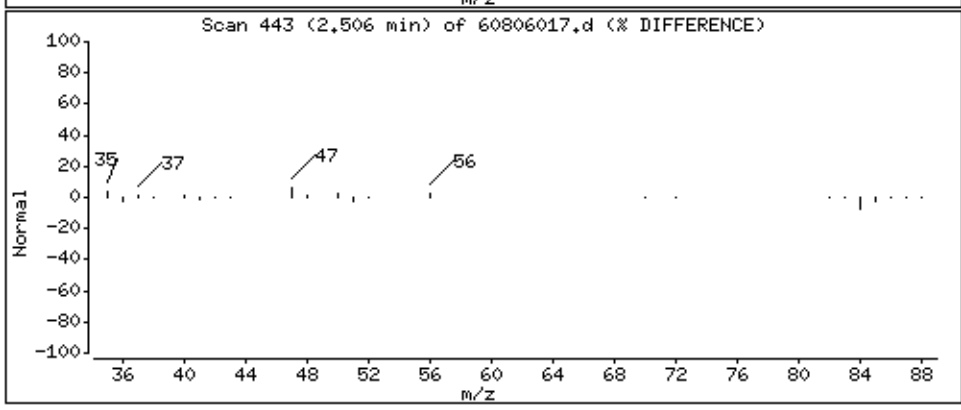
Column phase: RTX-VMS Column diameter: 0.18

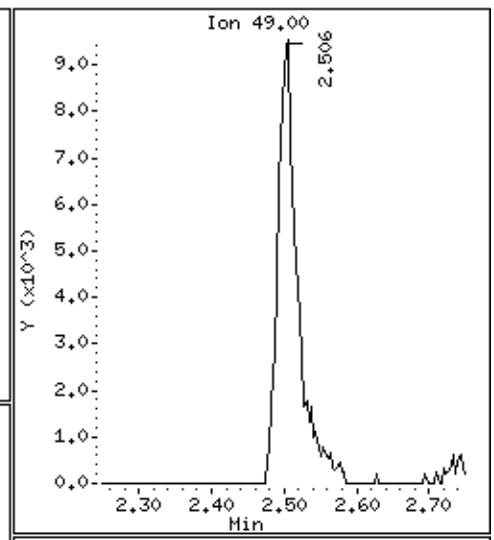
15 Methylene Chloride

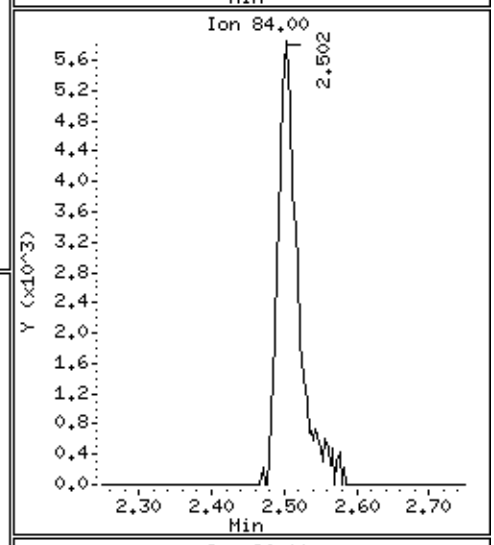


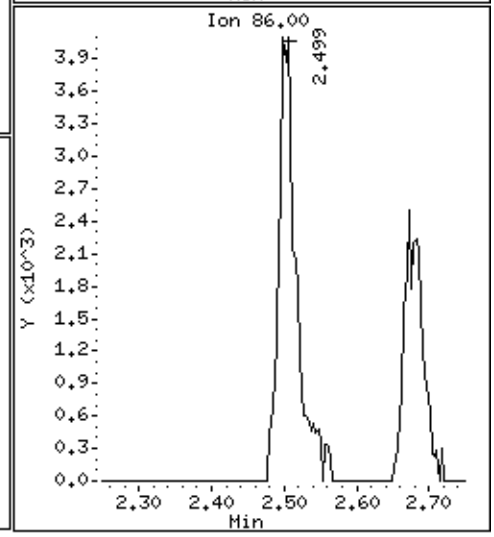












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d

Date : 06-AUG-2019 12:09

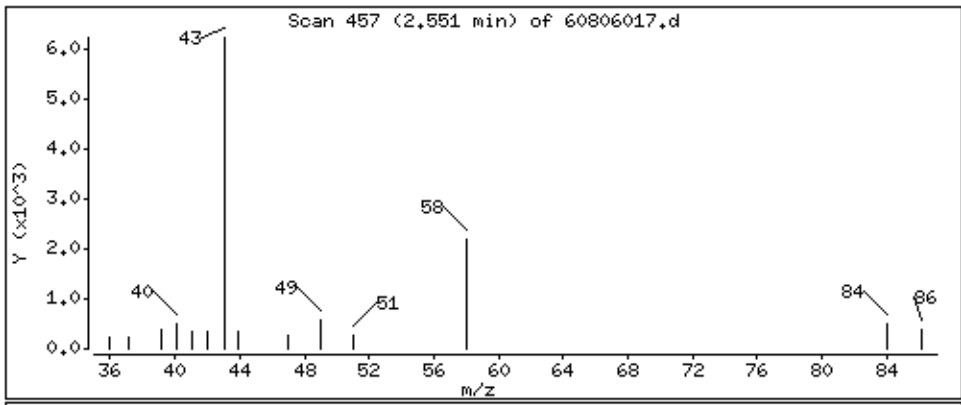
Client ID: AOC27-1 Instrument: 30mv6a.i

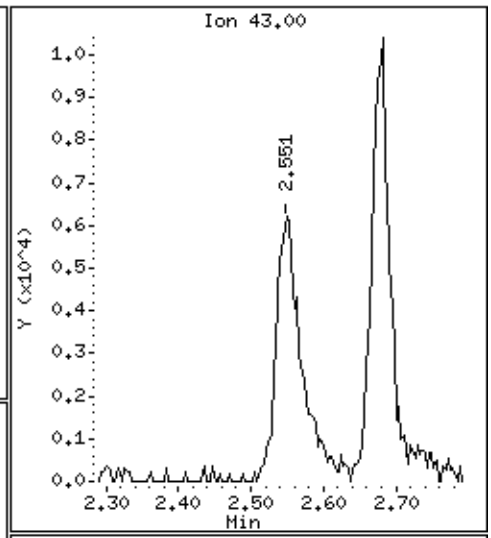
Sample Info: 30317212001

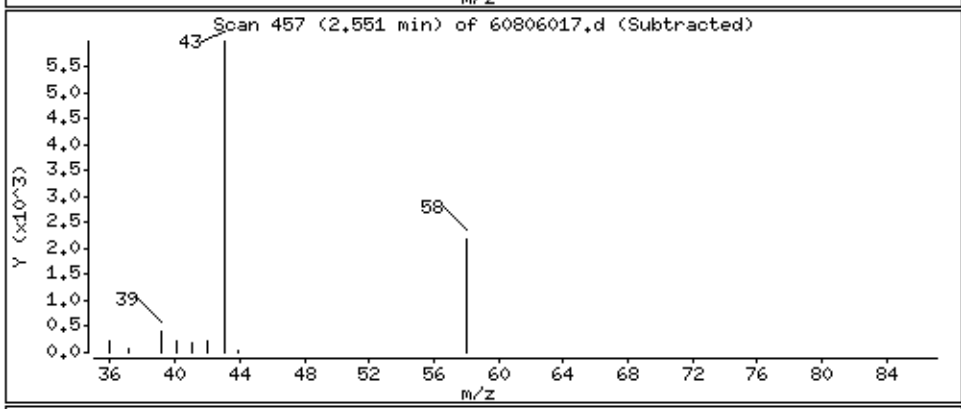
Operator: JEW

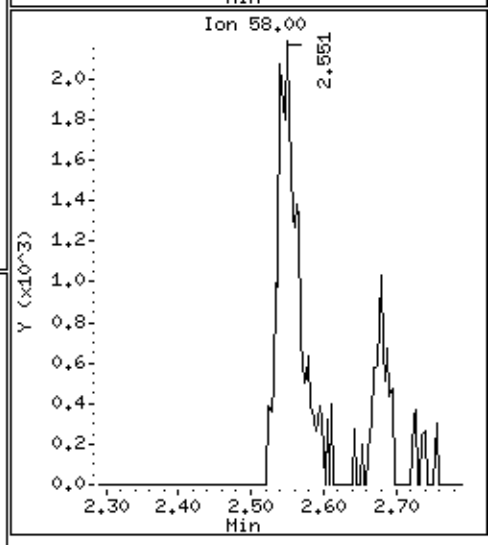
Column phase: RTX-VMS Column diameter: 0.18

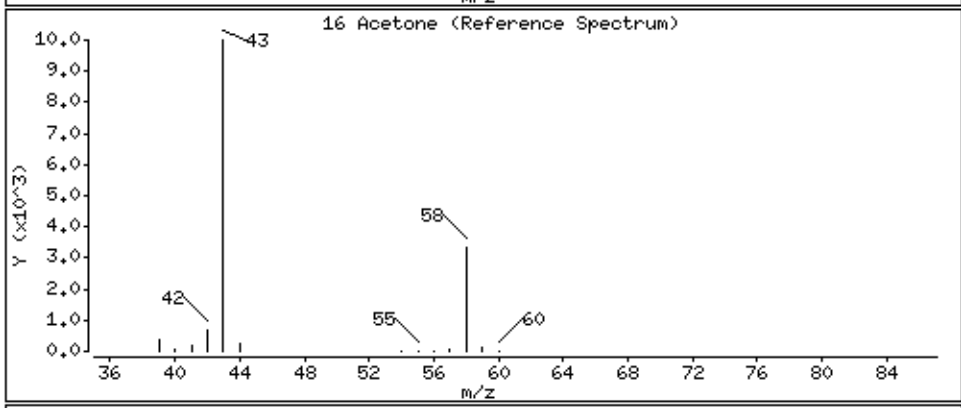
16 Acetone Concentration: 8.54 ug/kg

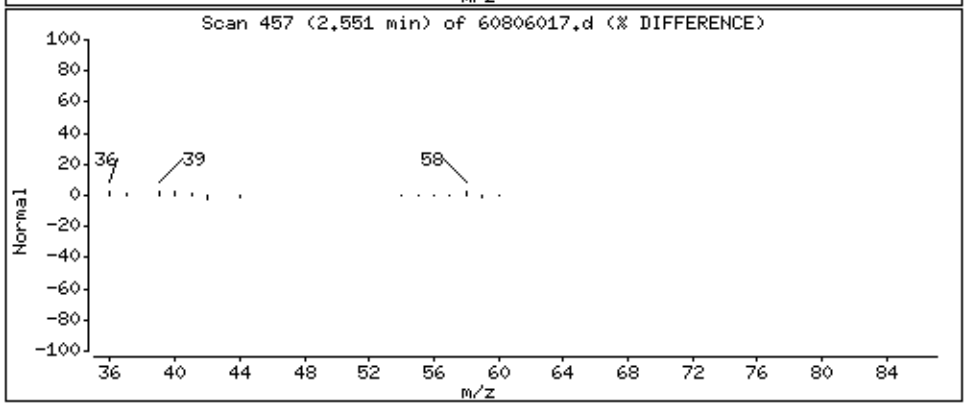












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806017.d

Date : 06-AUG-2019 12:09

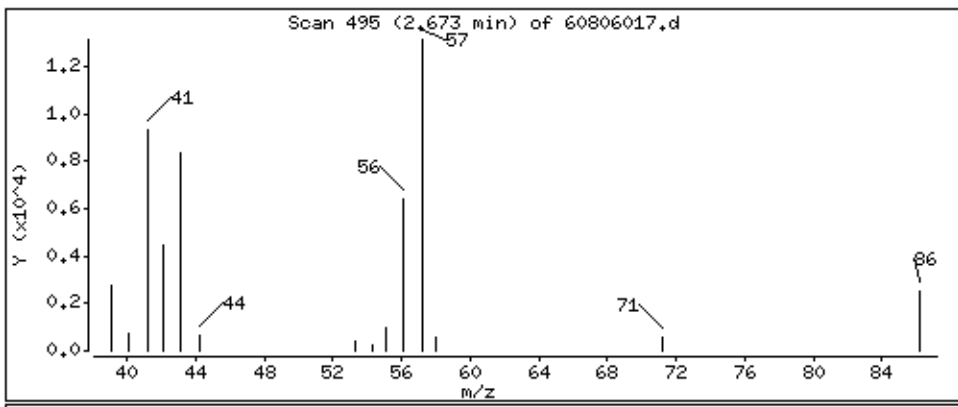
Client ID: AOC27-1 Instrument: 30mv6a.i

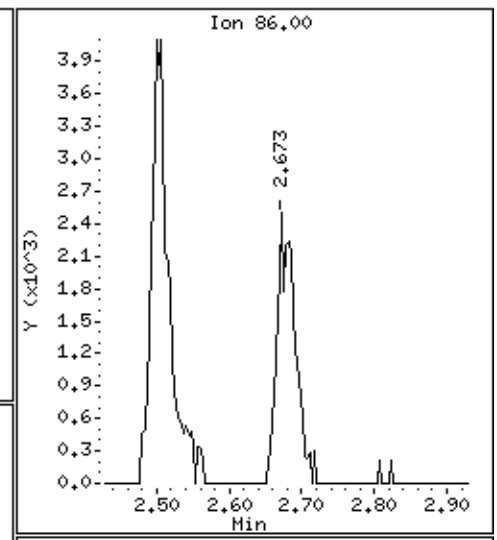
Sample Info: 30317212001

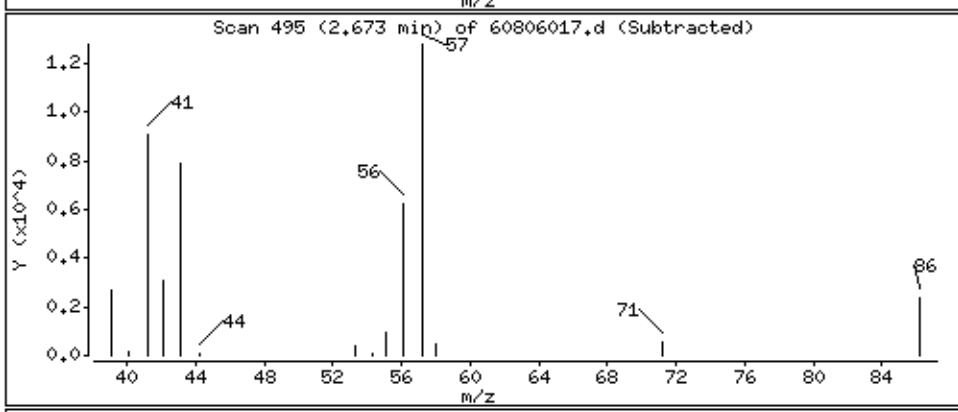
Operator: JEW

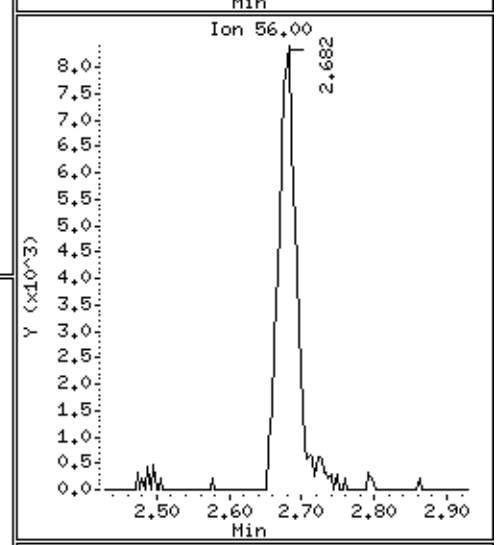
Column phase: RTX-VMS Column diameter: 0.18

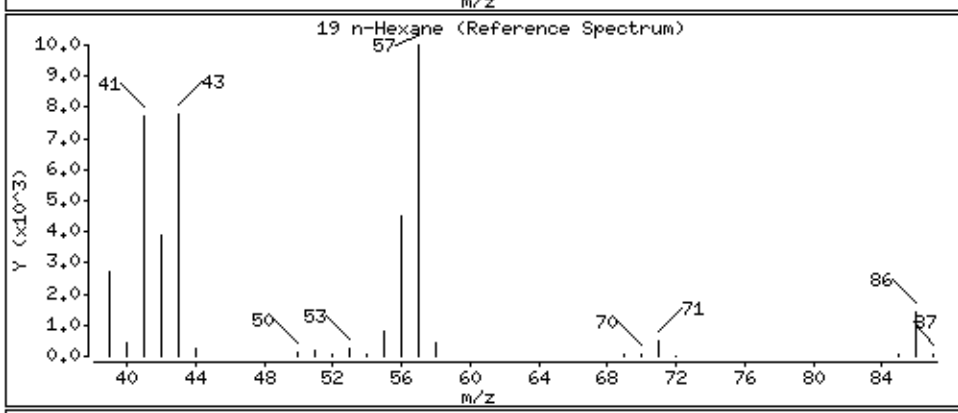
19 n-Hexane Concentration: 10.0 ug/kg

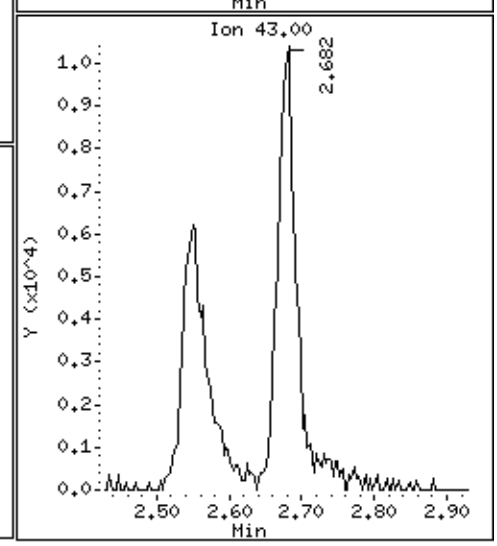


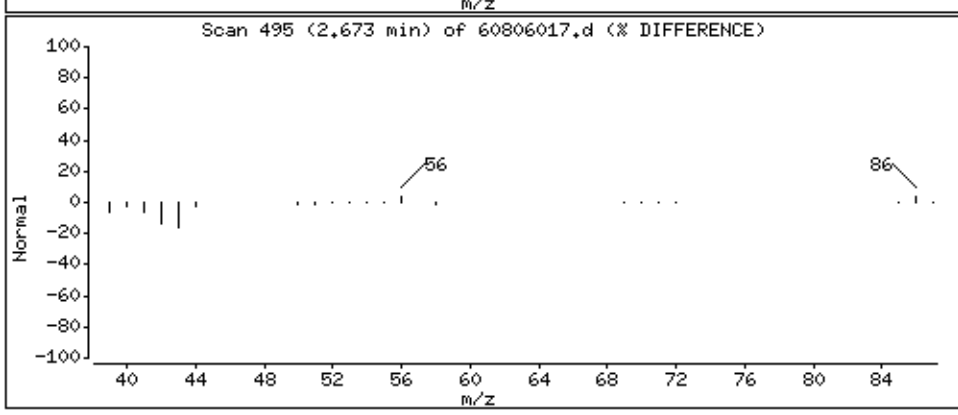






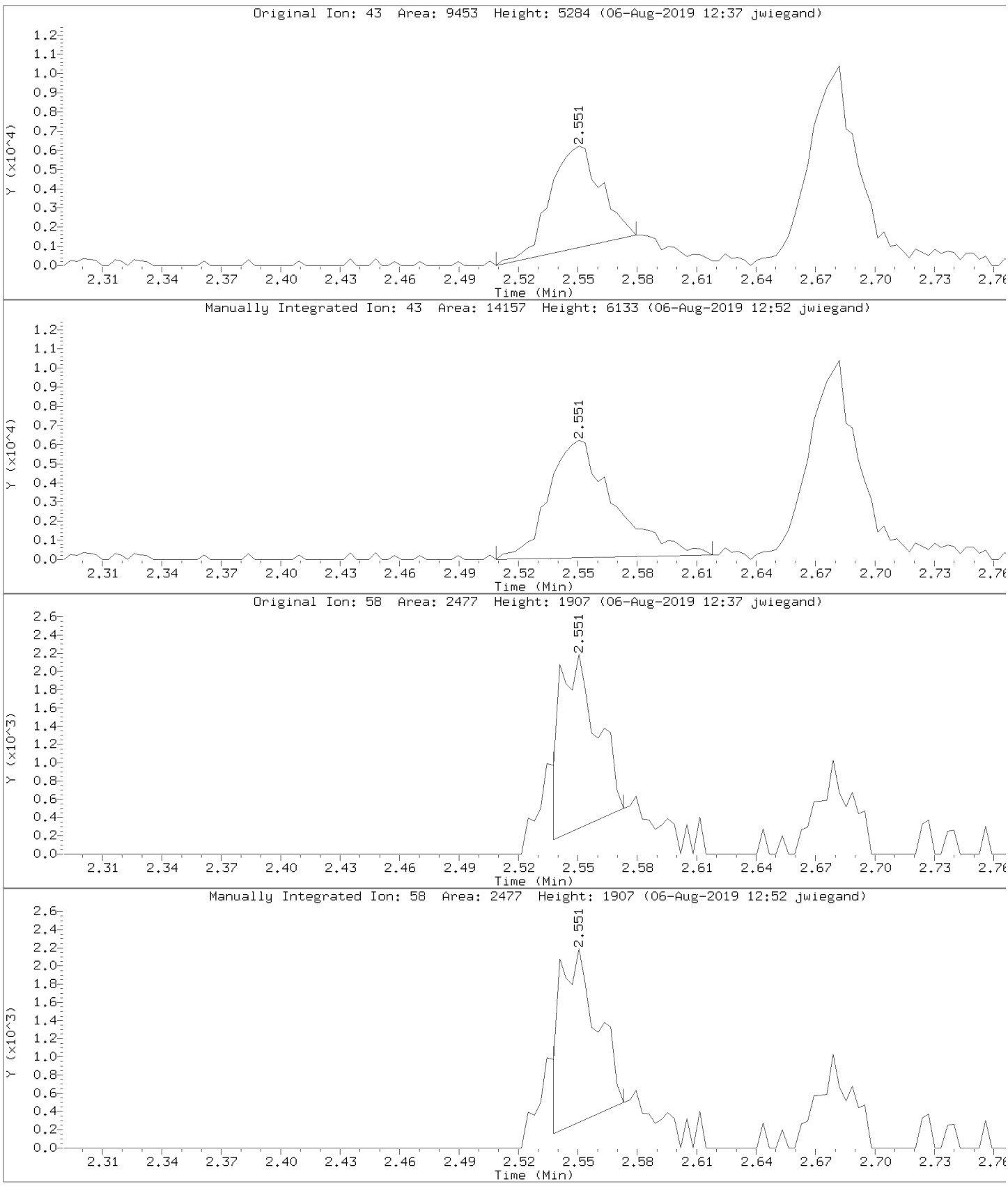






Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806017.d
Injection Date: 06-AUG-2019 12:09
Instrument: 30mv6a.i
Lab Sample ID: 30317212001

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



SAMPLE NO.

AOC27-2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh | Contract: Former EPT-Soil IRM/31401545.0

Date Received: 08/01/2019 09:30 | Matrix: Solid | SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 | Lab Sample ID: 30317212002

Date Analyzed: 08/06/2019 12:35 | Lab File ID: 6190806.B\1.B\60806019.D

Initial wt/vol: 5 g | Final wt/vol: 5 mL | Dilution: 1 | Instrument: 30MV6A | Percent Moisture: 6.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
	TOTAL BTEX	ND	U
78-93-3	2-Butanone (MEK)	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
124-48-1	Dibromochloromethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
540-59-0	1,2-Dichloroethene (Total)	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
100-42-5	Styrene	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U

SAMPLE NO.

AOC27-2

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: 08/01/2019 09:30 Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 30317212002

Date Analyzed: 08/06/2019 12:35 Lab File ID: 6190806.B\1.B\60806019.D

Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture: 6.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
108-88-3	Toluene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Lab Smp Id: 30317212002 Client Smp ID: AOC27-2
Inj Date : 06-AUG-2019 12:35
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 30317212002
Misc Info : 45664
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Meth Date : 06-Aug-2019 10:12 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	6.192	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						(D)
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	Compound Not Detected.						
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	45	Compound Not Detected.						
9	1,1-Dichloroethene	61	Compound Not Detected.						
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	2.499	2.499	(0.552)	23263		(a)	
16	Acetone	43	2.547	2.541	(0.563)	13020	5.88520	6.27(QM)	LT
17	trans-1,2-Dichloroethene	61	Compound Not Detected.						
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	2.678	2.679	(0.592)	4953	10.0220	10.7(Q)	
20	Methyl-tert-butyl ether	73	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	21	tert-Butyl Alcohol	59	Compound Not Detected.						
	22	Acetonitrile	41	Compound Not Detected.						
	23	Diisopropyl ether	45	Compound Not Detected.						
	24	Chloroprene	53	Compound Not Detected.						
	25	1,1-Dichloroethane	63	Compound Not Detected.						
	26	Acrylonitrile	53	Compound Not Detected.						
	27	Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28	Vinyl acetate	43	Compound Not Detected.						
	29	cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30	2,2-Dichloropropane	77	Compound Not Detected.						
	31	Cyclohexane	56	Compound Not Detected.						
	32	Bromochloromethane	130	Compound Not Detected.						
	33	Chloroform	83	Compound Not Detected.						
	34	Carbon tetrachloride	117	Compound Not Detected.						
	35	Ethyl acetate	43	Compound Not Detected.						
	36	Tetrahydrofuran	42	Compound Not Detected.						
$	37	Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	76654	33.7764	36.0	
	38	1,1,1-Trichloroethane	97	Compound Not Detected.						
	39	2-Butanone (MEK)	43	Compound Not Detected.						
	40	1,1-Dichloropropene	75	Compound Not Detected.						
	41	Benzene	78	Compound Not Detected.						
	42	Propionitrile	54	Compound Not Detected.						
	43	Methacrylonitrile	41	Compound Not Detected.						
	44	tert-Amylmethyl ether	73	Compound Not Detected.						
$	45	1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	85579	38.5339	41.1	
	46	Isobutanol	43	Compound Not Detected.						
	47	1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48	Fluorobenzene (IS)	96	4.527	4.527	(1.000)	264990	30.0000		
	49	Methylcyclohexane	83	Compound Not Detected.						
	50	Trichloroethene	95	Compound Not Detected.						
	51	Dibromomethane	174	Compound Not Detected.						
	52	1,2-Dichloropropane	63	Compound Not Detected.						
	53	Bromodichloromethane	83	Compound Not Detected.						
	54	Methyl methacrylate	69	Compound Not Detected.						
	55	1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56	2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57	cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58	Toluene-d8 (S)	98	5.236	5.236	(0.889)	272412	29.6166	31.6	
	59	Toluene	91	Compound Not Detected.						
	60	2-Nitropropane	43	Compound Not Detected.						(D)
	61	4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62	Tetrachloroethene	166	Compound Not Detected.						
	63	trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64	Ethyl methacrylate	41	Compound Not Detected.						
	65	1,1,2-Trichloroethane	97	Compound Not Detected.						
	66	Dibromochloromethane	129	Compound Not Detected.						
	67	1,3-Dichloropropane	76	Compound Not Detected.						
	68	1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69	2-Hexanone	43	Compound Not Detected.						
	70	Ethylbenzene	106	Compound Not Detected.						
*	71	Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	226073	30.0000		
	72	Chlorobenzene	112	Compound Not Detected.						
	73	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74	m&p-Xylene	106	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	95458	29.9587	31.9	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	133159	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	133204	29.9849	32.0	
	98 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	99 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	104 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60806019.d
Lab Smp Id: 30317212002
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

Calibration Date: 06-AUG-2019
Calibration Time: 10:00
Client Smp ID: AOC27-2
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	323392	161696	646784	264990	-18.06
71 Chlorobenzene-d5	242888	121444	485776	226073	-6.92
94 1,4-Dichlorobenze	151515	75758	303030	133159	-12.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30317212
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30317212002
Client Smp ID: AOC27-2
Level: LOW
Operator: JEW
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	32.0	36.0	112.59	70-130
$ 45 1,2-Dichloroethane	32.0	41.1	128.45	83-138
$ 58 Toluene-d8 (S)	32.0	31.6	98.72	73-124
$ 79 4-Bromofluorobenze	32.0	31.9	99.86	71-124
$ 161 1,2-Dichlorobenzen	32.0	32.0	99.95	10-200

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Client SDG: 30317212
Lab Smp Id: 30317212002
Client Smp ID: AOC27-2
Sample Location:
Sample Point:
Sample Date: 31-JUL-2019
Date Received: 01-AUG-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: JEW
Misc Info: 45664

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-09-2	Methylene Chloride	0.000	J
67-64-1	Acetone	6.27	
110-54-3	n-Hexane	10.7	
1868-53-7	Dibromofluoromethane (S)	36.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	41.1	
2037-26-5	Toluene-d8 (S)	31.6	
460-00-4	4-Bromofluorobenzene (S)	31.9	
----------	1,2-Dichlorobenzene-d4 (S)	32.0	

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d
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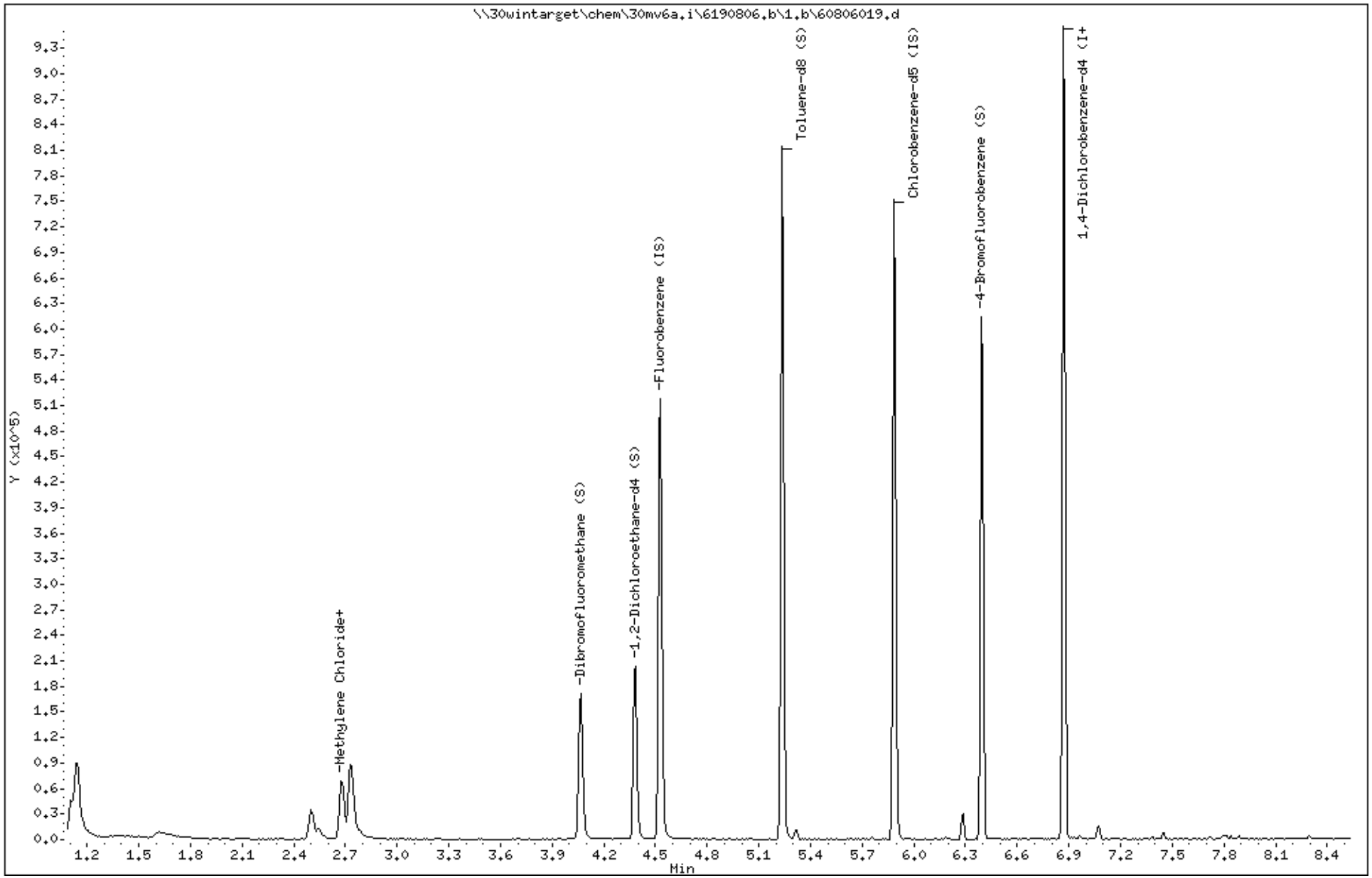
Client ID: A0C27-2
Instrument: 30mv6a.i
Sample Info: 30317212002
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 06-AUG-2019 12:35

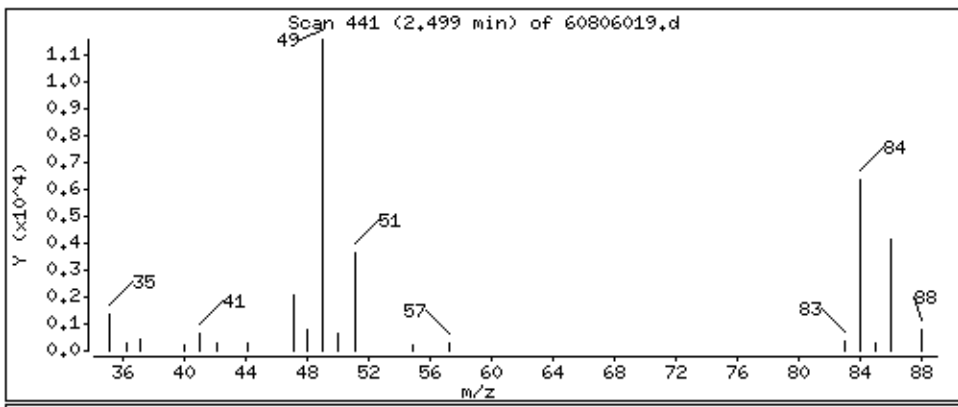
Client ID: AOC27-2 Instrument: 30mv6a.i

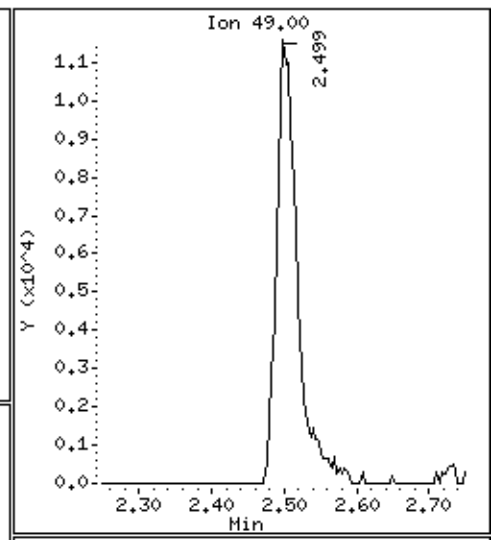
Sample Info: 30317212002

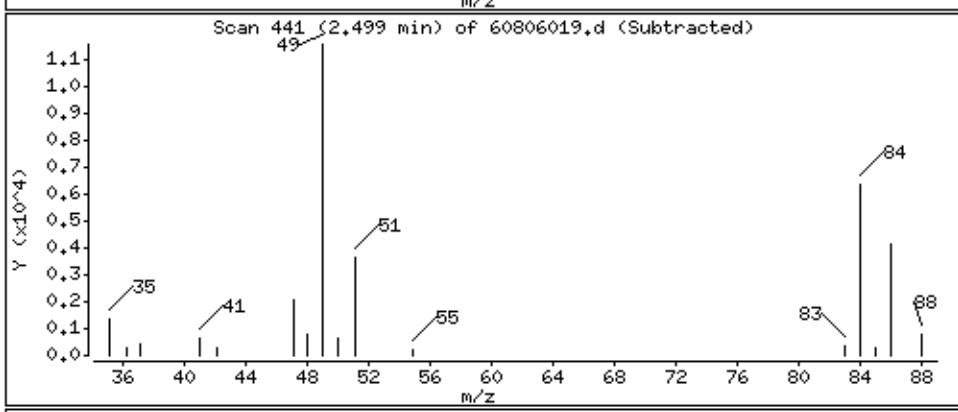
Operator: JEW

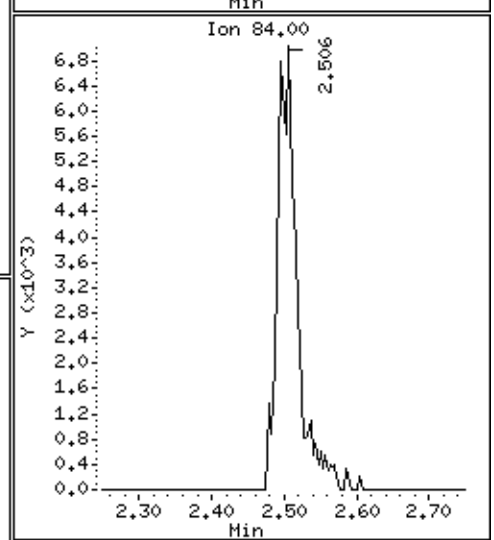
Column phase: RTX-VMS Column diameter: 0.18

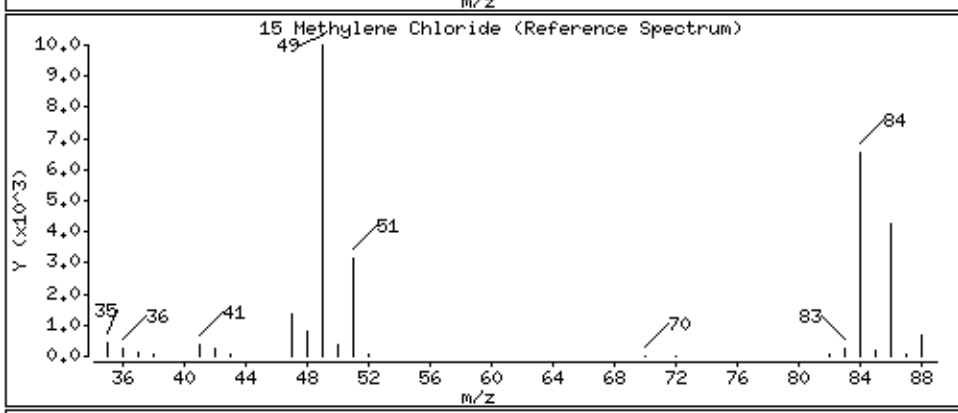
15 Methylene Chloride

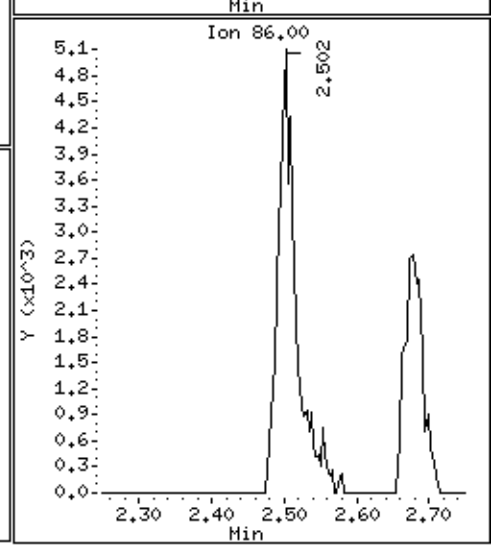


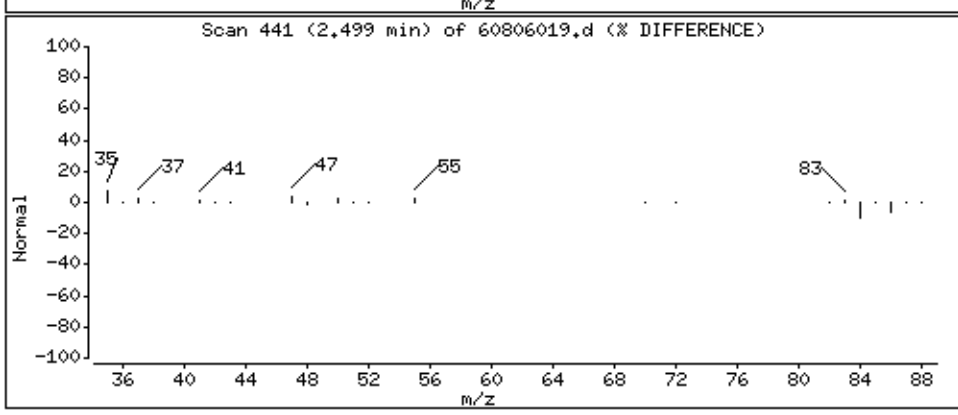












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d

Date : 06-AUG-2019 12:35

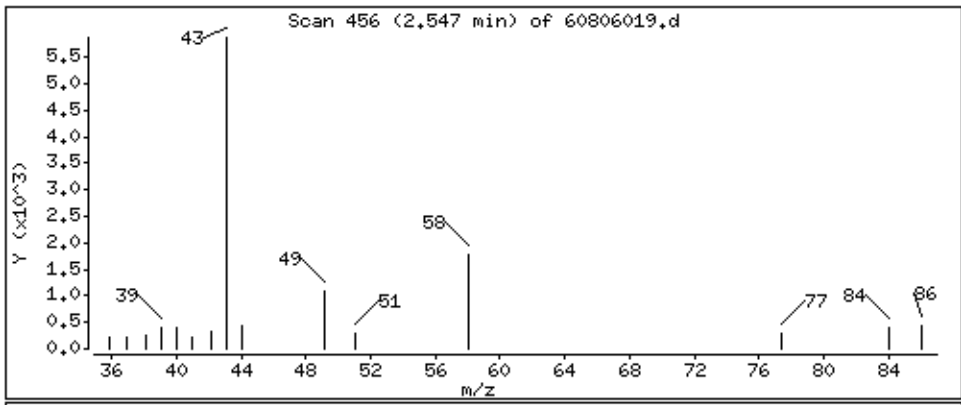
Client ID: AOC27-2 Instrument: 30mv6a.i

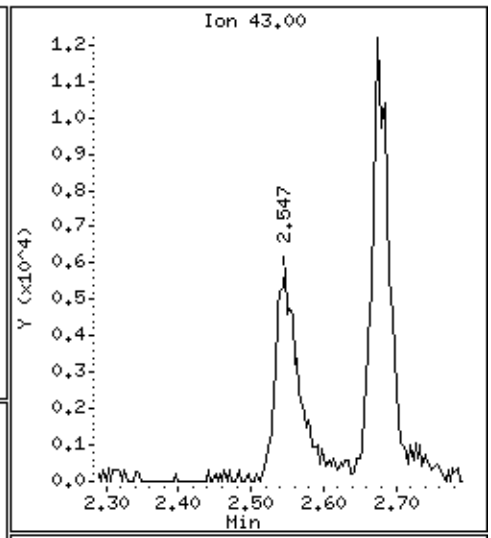
Sample Info: 30317212002

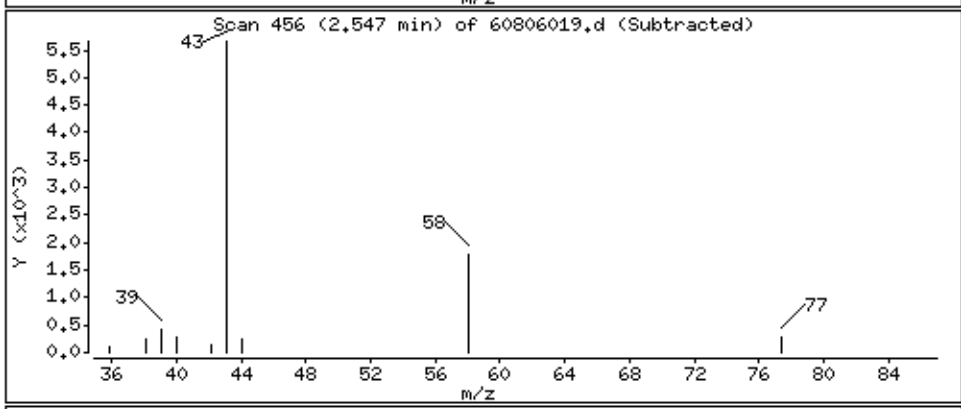
Operator: JEW

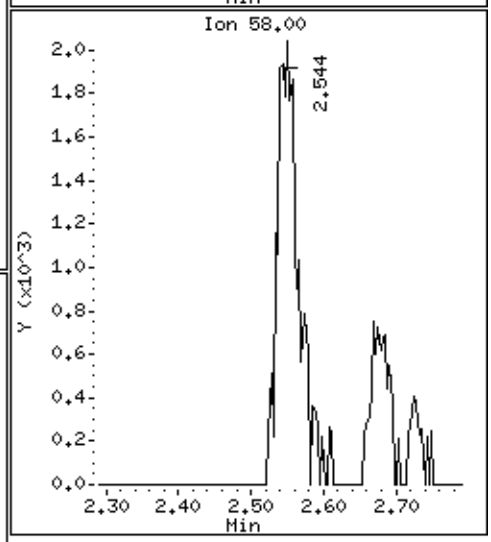
Column phase: RTX-VMS Column diameter: 0.18

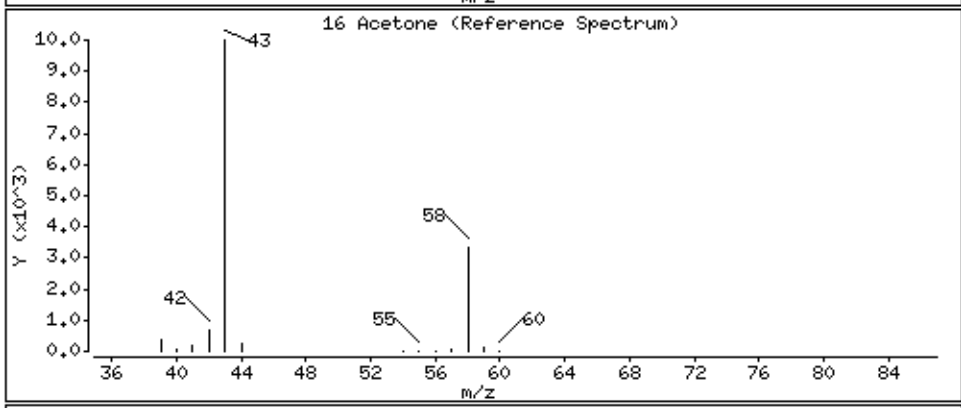
16 Acetone Concentration: 6.27 ug/kg

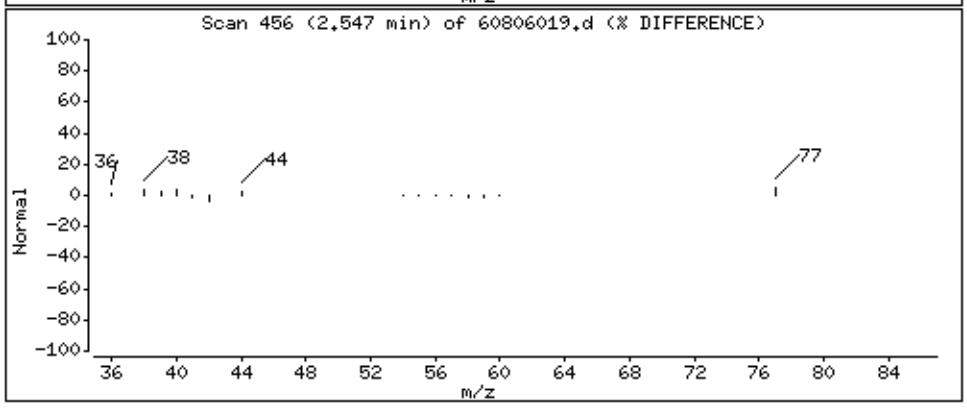












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806019.d

Date : 06-AUG-2019 12:35

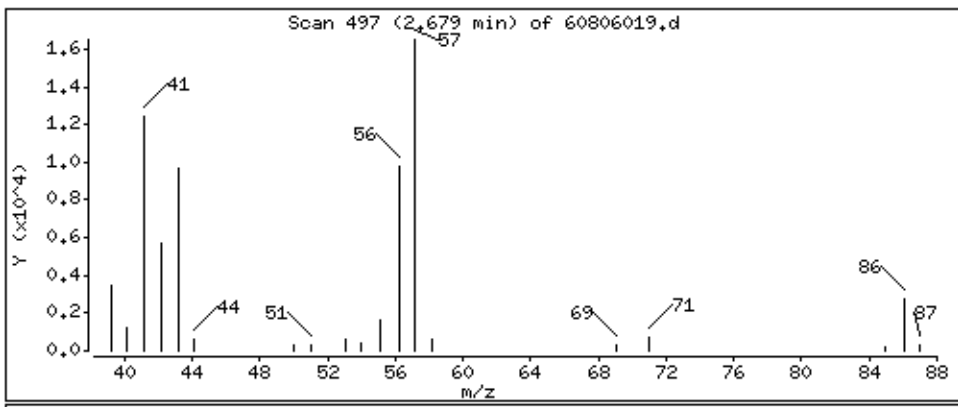
Client ID: AOC27-2 Instrument: 30mv6a.i

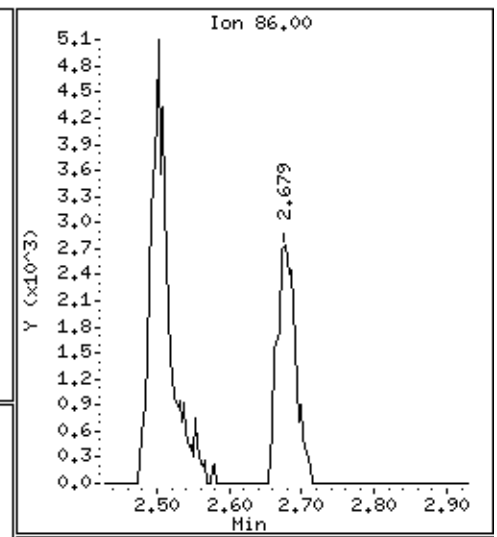
Sample Info: 30317212002

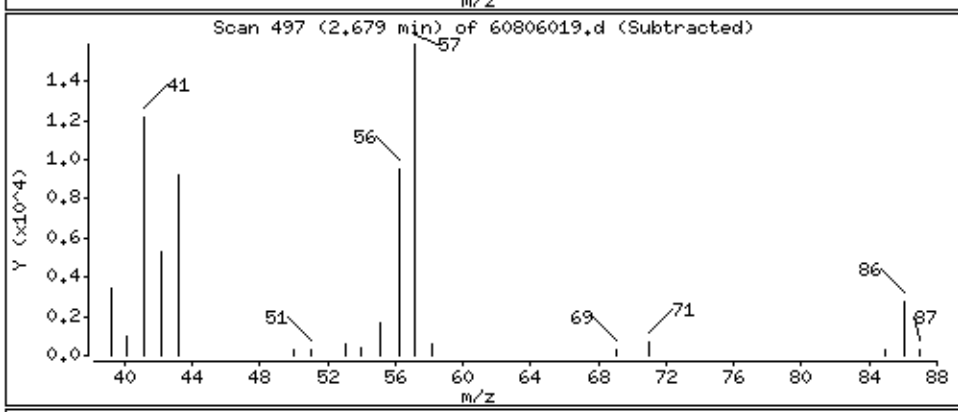
Operator: JEW

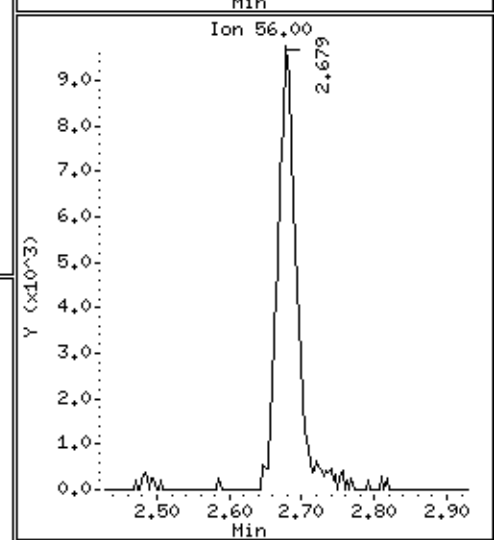
Column phase: RTX-VMS Column diameter: 0.18

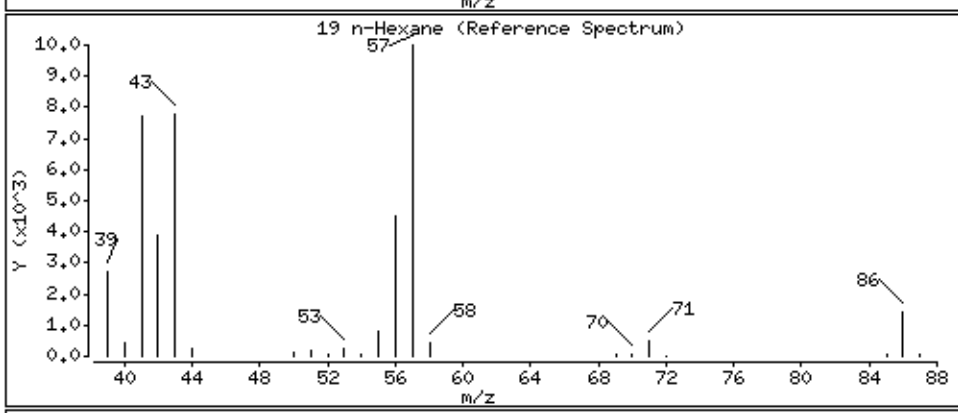
19 n-Hexane Concentration: 10.7 ug/kg

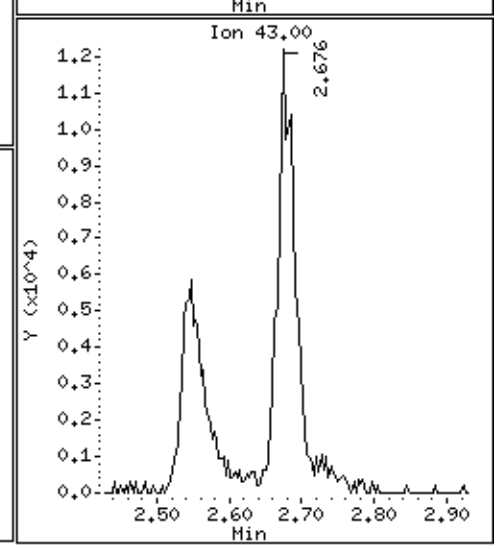


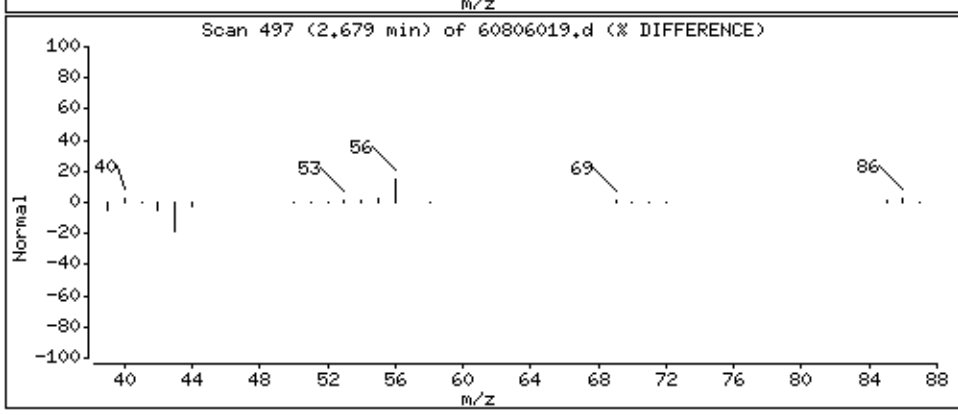






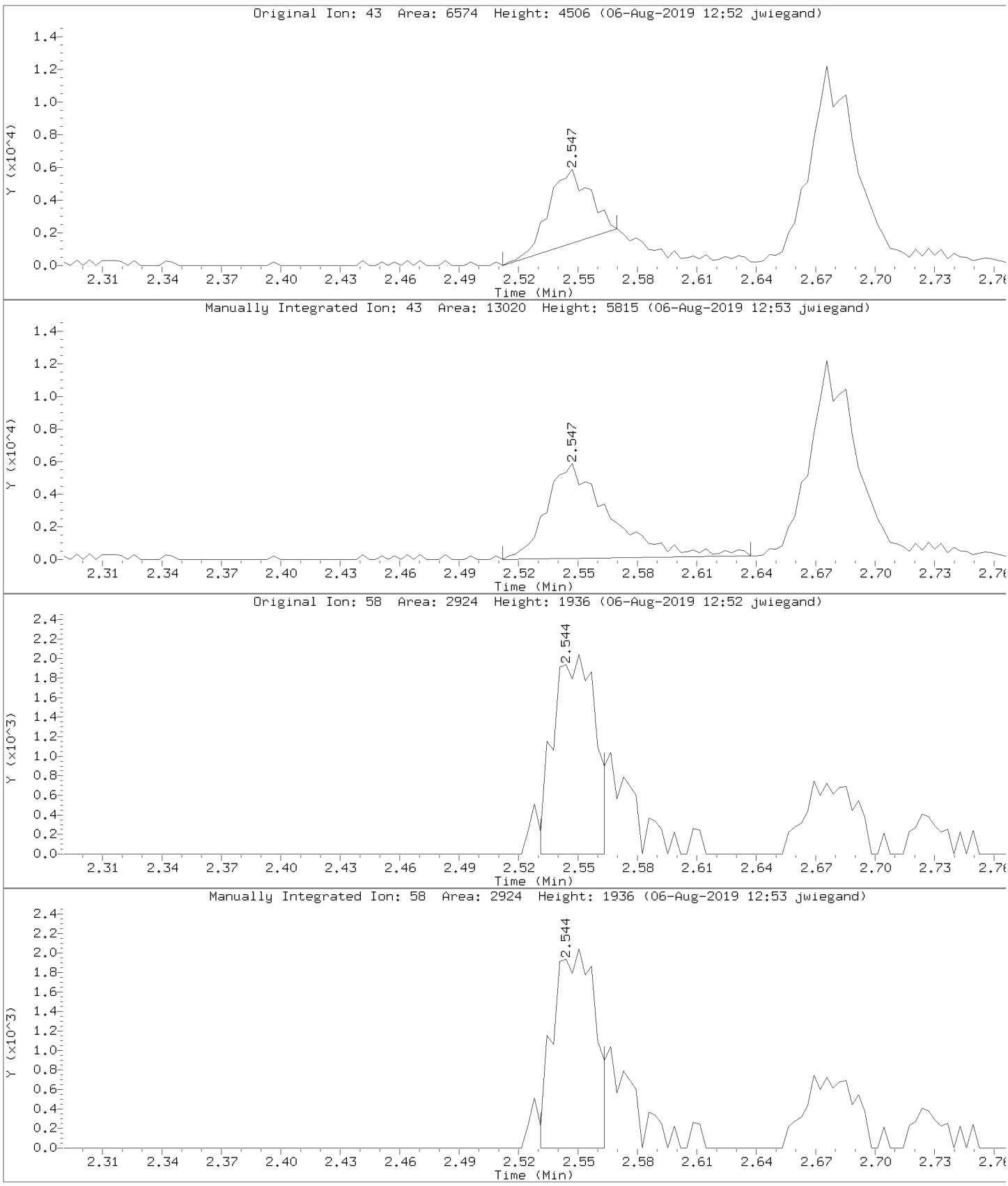






Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806019.d
Injection Date: 06-AUG-2019 12:35
Instrument: 30mv6a.i
Lab Sample ID: 30317212002

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Quadratic		0.24423	0.18821	0.12578	0.10375	0.09482
Benzene	Averaged	0.68205	0.81463	0.79586	0.87919	0.81047	0.79541
Bromochloromethane	Averaged		0.18083	0.17348	0.17632	0.15622	0.15417
Bromodichloromethane	Averaged		0.25384	0.26023	0.27597	0.26262	0.26223
Bromoform	Quadratic		0.25084	0.29101	0.34801	0.36514	0.40157
Bromomethane	Averaged		0.05451	0.04894	0.05169	0.04546	0.04607
2-Butanone (MEK)	Averaged		0.17783	0.18706	0.16957	0.17680	0.18030
Carbon disulfide	Averaged		0.65210	0.59919	0.60234	0.50266	0.50514
Carbon tetrachloride	Averaged		0.24136	0.22869	0.27128	0.24841	0.23838
Chlorobenzene	Averaged		0.79677	0.80905	0.88557	0.83491	0.85126
Chloroethane	Quadratic		0.19061	0.14471	0.15519	0.12692	0.10882
Chloroform	Averaged		0.42334	0.40207	0.40812	0.35210	0.34382
Chloromethane	Averaged		0.26297	0.24961	0.24469	0.21663	0.20094
Dibromochloromethane	Averaged		0.23656	0.26455	0.30107	0.31283	0.33322
1,2-Dichlorobenzene	Averaged		1.15852	1.14383	1.36140	1.25746	1.30390
1,3-Dichlorobenzene	Averaged		1.16213	1.16138	1.37248	1.27344	1.33987
1,4-Dichlorobenzene	Averaged		1.24260	1.20821	1.41678	1.30930	1.37046
1,1-Dichloroethane	Averaged		0.49395	0.46694	0.47030	0.40948	0.39572
1,2-Dichloroethane	Averaged		0.32768	0.33010	0.32074	0.29298	0.28623
1,1-Dichloroethene	Averaged		0.39582	0.35527	0.35662	0.31800	0.29456
cis-1,2-Dichloroethene	Averaged		0.39240	0.36628	0.37537	0.32992	0.31955
trans-1,2-Dichloroethene	Averaged		0.36874	0.34987	0.35422	0.31406	0.30294
1,2-Dichloropropane	Averaged		0.24652	0.25715	0.26580	0.24672	0.24518
cis-1,3-Dichloropropene	Averaged		0.31163	0.32483	0.35357	0.33927	0.34382
trans-1,3-Dichloropropene	Averaged		0.34928	0.38156	0.42650	0.42716	0.45195
Ethylbenzene	Averaged		0.41954	0.41939	0.48627	0.44651	0.45785
2-Hexanone	Averaged		0.30823	0.32083	0.30777	0.32954	0.33427
Isopropylbenzene (Cumene)	Averaged		1.94273	1.87278	2.48399	2.30048	2.37658
Methylene Chloride	Quadratic		0.74830	0.56392	0.47942	0.37218	0.35366
4-Methyl-2-pentanone (MIBK)	Averaged		0.29387	0.31262	0.30644	0.31399	0.30836
Methyl-tert-butyl ether	Averaged		0.62340	0.61991	0.62868	0.61010	0.61676
Naphthalene	Averaged		2.13509	2.24846	2.56736	2.56093	2.59466
Styrene	Averaged		0.83855	0.87919	0.99022	0.93618	0.98655
1,1,2,2-Tetrachloroethane	Averaged		0.55732	0.56377	0.61558	0.62784	0.66615
Tetrachloroethene	Averaged		0.25863	0.26416	0.32436	0.30703	0.31159

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Toluene	Averaged		1.11264	1.08500	1.22054	1.15430	1.17487
1,2,4-Trichlorobenzene	Averaged		0.68221	0.69743	0.90596	0.84301	0.88678
1,1,1-Trichloroethane	Averaged		0.34197	0.32766	0.34981	0.31330	0.30019
1,1,2-Trichloroethane	Averaged		0.23030	0.24402	0.26809	0.26981	0.28040
Trichloroethene	Averaged		0.25004	0.26352	0.30356	0.28971	0.29442
1,2,4-Trimethylbenzene	Averaged		1.73136	1.68172	2.14555	2.01664	2.08555
1,3,5-Trimethylbenzene	Averaged		1.62738	1.59747	2.11067	1.92538	2.00676
Vinyl chloride	Averaged		0.27418	0.24947	0.25134	0.22447	0.20525
m&p-Xylene	Averaged		0.50496	0.49941	0.58602	0.54900	0.56431
o-Xylene	Averaged		0.49553	0.48713	0.57876	0.54864	0.56774
4-Bromofluorobenzene (S)	Averaged		0.69978	0.70755	0.70989	0.72136	0.72274
Dibromofluoromethane (S)	Averaged		0.28400	0.27382	0.26206	0.25019	0.24031
1,2-Dichloroethane-d4 (S)	Averaged		0.26275	0.26756	0.24445	0.25282	0.23617
Toluene-d8 (S)	Averaged		1.17058	1.19306	1.19540	1.24334	1.24495

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Acetone	Quadratic	0.08524	0.08440
Benzene	Averaged	0.78217	0.76078
Bromochloromethane	Averaged	0.14342	0.13197
Bromodichloromethane	Averaged	0.25850	0.25937
Bromoform	Quadratic	0.41106	0.42199
Bromomethane	Averaged	0.05210	0.04483
2-Butanone (MEK)	Averaged	0.18057	0.18048
Carbon disulfide	Averaged	0.50635	0.49595
Carbon tetrachloride	Averaged	0.25352	0.25164
Chlorobenzene	Averaged	0.80633	0.75837
Chloroethane	Quadratic	0.09793	0.08774
Chloroform	Averaged	0.33839	0.33245
Chloromethane	Averaged	0.20937	0.24776
Dibromochloromethane	Averaged	0.33200	0.31716
1,2-Dichlorobenzene	Averaged	1.23615	1.18558
1,3-Dichlorobenzene	Averaged	1.26677	1.20895
1,4-Dichlorobenzene	Averaged	1.29112	1.23113
1,1-Dichloroethane	Averaged	0.38521	0.37838
1,2-Dichloroethane	Averaged	0.28137	0.27607
1,1-Dichloroethene	Averaged	0.30738	0.30565
cis-1,2-Dichloroethene	Averaged	0.31245	0.30596
trans-1,2-Dichloroethene	Averaged	0.28707	0.29679
1,2-Dichloropropane	Averaged	0.23933	0.23873
cis-1,3-Dichloropropene	Averaged	0.33710	0.33494
trans-1,3-Dichloropropene	Averaged	0.44227	0.42089
Ethylbenzene	Averaged	0.43660	0.41280
2-Hexanone	Averaged	0.32766	0.32728
Isopropylbenzene (Cumene)	Averaged	2.25566	2.12294
Methylene Chloride	Quadratic	0.32964	0.33437
4-Methyl-2-pentanone (MIBK)	Averaged	0.31034	0.32281
Methyl-tert-butyl ether	Averaged	0.61665	0.61010
Naphthalene	Averaged	2.39969	2.15370
Styrene	Averaged	0.93823	0.87815
1,1,2,2-Tetrachloroethane	Averaged	0.65736	0.67549
Tetrachloroethene	Averaged	0.31178	0.29189

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Toluene	Averaged	1.13405	1.05542
1,2,4-Trichlorobenzene	Averaged	0.81072	0.74934
1,1,1-Trichloroethane	Averaged	0.30086	0.30100
1,1,2-Trichloroethane	Averaged	0.27478	0.26144
Trichloroethene	Averaged	0.29236	0.27578
1,2,4-Trimethylbenzene	Averaged	1.97636	1.88229
1,3,5-Trimethylbenzene	Averaged	1.91877	1.82531
Vinyl chloride	Averaged	0.21908	0.21700
m&p-Xylene	Averaged	0.55267	0.49411
o-Xylene	Averaged	0.55736	0.51797
4-Bromofluorobenzene (S)	Averaged	0.72610	0.73760
Dibromofluoromethane (S)	Averaged	0.24231	0.24581
1,2-Dichloroethane-d4 (S)	Averaged	0.23907	0.25718
Toluene-d8 (S)	Averaged	1.26406	1.23261

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-5
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Quadratic		0.99970	0.03314540	0.08150	0.00002
Benzene	Averaged	7.03310			0.79007	
Bromochloromethane	Averaged	11.41640			0.15949	
Bromodichloromethane	Averaged	2.62938			0.26182	
Bromoform	Quadratic		0.99994	-0.0414481	0.40718	0.00135
Bromomethane	Averaged	7.70198			0.04909	
2-Butanone (MEK)	Averaged	2.94336			0.17894	
Carbon disulfide	Averaged	11.60939			0.55196	
Carbon tetrachloride	Averaged	5.45312			0.24761	
Chlorobenzene	Averaged	5.01197			0.82032	
Chloroethane	Quadratic		0.99937	0.02405510	0.10566	-0.00149
Chloroform	Averaged	10.26637			0.37147	
Chloromethane	Averaged	10.18480			0.23314	
Dibromochloromethane	Averaged	12.08555			0.29963	
1,2-Dichlorobenzene	Averaged	6.42834			1.23526	
1,3-Dichlorobenzene	Averaged	6.58627			1.25500	
1,4-Dichlorobenzene	Averaged	5.90306			1.29566	
1,1-Dichloroethane	Averaged	10.99910			0.42857	
1,2-Dichloroethane	Averaged	7.67572			0.30217	
1,1-Dichloroethene	Averaged	11.02663			0.33333	
cis-1,2-Dichloroethene	Averaged	9.99419			0.34313	
trans-1,2-Dichloroethene	Averaged	9.91671			0.32481	
1,2-Dichloropropane	Averaged	3.92779			0.24849	
cis-1,3-Dichloropropene	Averaged	4.03214			0.33502	
trans-1,3-Dichloropropene	Averaged	8.73565			0.41423	
Ethylbenzene	Averaged	5.94042			0.43985	
2-Hexanone	Averaged	3.25618			0.32223	
Isopropylbenzene (Cumene)	Averaged	10.26029			2.19359	
Methylene Chloride	Quadratic		0.99982	0.09349490	0.31229	0.00110
4-Methyl-2-pentanone (MIBK)	Averaged	2.83342			0.30977	
Methyl-tert-butyl ether	Averaged	1.09529			0.61794	
Naphthalene	Averaged	8.45232			2.37998	
Styrene	Averaged	6.26837			0.92101	
1,1,2,2-Tetrachloroethane	Averaged	7.66477			0.62336	
Tetrachloroethene	Averaged	8.56181			0.29563	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/22/2019 07/22/2019 Calibration Time(s): 11:47 14:48

LAB FILE ID

CAL1 = 6190722.B\1.B\60722015.D CAL2 = 6190722.B\1.B\60722017.D CAL3 = 6190722.B\1.B\60722019.D

CAL4 = 6190722.B\1.B\60722021.D CAL5 = 6190722.B\1.B\60722023.D CAL6 = 6190722.B\1.B\60722025.D

CAL7 = 6190722.B\1.B\60722027.D CAL8 = 6190722.B\1.B\60722029.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Toluene	Averaged	4.91102			1.13383	
1,2,4-Trichlorobenzene	Averaged	11.18264			0.79649	
1,1,1-Trichloroethane	Averaged	6.50940			0.31926	
1,1,2-Trichloroethane	Averaged	6.85546			0.26126	
Trichloroethene	Averaged	6.78166			0.28134	
1,2,4-Trimethylbenzene	Averaged	9.05918			1.93136	
1,3,5-Trimethylbenzene	Averaged	10.21520			1.85882	
Vinyl chloride	Averaged	10.42458			0.23440	
m&p-Xylene	Averaged	6.73259			0.53578	
o-Xylene	Averaged	6.72581			0.53616	
4-Bromofluorobenzene (S)	Averaged	1.78954			0.71786	
Dibromofluoromethane (S)	Averaged	6.55782			0.25693	
1,2-Dichloroethane-d4 (S)	Averaged	4.75612			0.25143	
Toluene-d8 (S)	Averaged	2.80597			1.22057	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 22-JUL-2019 11:47
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal1, 94250:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.225	1.225	(0.271)	2151	2.50000	1.29(aQM)	LT
2 Chloromethane	50	1.347	1.347	(0.298)	5869	2.50000	1.98(aQ)	
3 Vinyl chloride	62	1.392	1.392	(0.308)	3684	2.50000	1.23(aQ)	
4 Bromomethane	94	1.584	1.585	(0.350)	1222	2.50000	1.95(a)	
5 Chloroethane	64	1.655	1.655	(0.366)	4101	2.50000	2.47(a)	
6 Trichlorofluoromethane	101	1.738	1.739	(0.384)	4274	2.50000	1.40(a)	
7 Diethyl ether (Ethyl ether)	59	1.934	1.935	(0.427)	6792	2.50000	2.32(a)	
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	7105	2.50000	1.67(a)	
10 1,1,2-Trichlorotrifluoroethane	151	2.094	2.095	(0.463)	1819	2.50000	1.04(aQ)	
11 Carbon disulfide	76	2.101	2.101	(0.464)	12139	2.50000	1.73(a)	
12 Iodomethane	142	2.178	2.178	(0.481)	1085	2.50000	0.963(aQ)	
13 Acrolein	56	2.322	2.323	(0.513)	1000	2.50000	2.42(aQM)	NI
14 Allyl chloride	41	2.412	2.413	(0.533)	44084	12.5000	9.41(M)	LT
15 Methylene Chloride	49	2.499	2.499	(0.552)	38333	2.50000	6.62	
16 Acetone	43	2.540	2.541	(0.561)	17466	2.50000	10.4(QM)	LT
17 trans-1,2-Dichloroethene	61	2.624	2.624	(0.580)	8425	2.50000	2.04(aM)	LT
18 Methyl acetate	74	2.634	2.634	(0.582)	1341	2.50000	2.39(a)	
19 n-Hexane	86	2.678	2.679	(0.592)	3536	2.50000	4.96(Q)	
20 Methyl-tert-butyl ether	73	2.714	2.714	(0.600)	16862	2.50000	2.14(aQ)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.794	2.794	(0.617)	8188	12.5000	10.8(Q)	
	22 Acetonitrile	41	2.945	2.945	(0.651)	7619	12.5000	15.5(QM)	LT
	23 Diisopropyl ether	45	3.048	3.048	(0.673)	19751	2.50000	1.89(a)	
	24 Chloroprene	53	3.150	3.151	(0.696)	5306	2.50000	1.28(a)	
	25 1,1-Dichloroethane	63	3.173	3.173	(0.701)	12505	2.50000	2.29(a)	
	26 Acrylonitrile	53	3.246	3.247	(0.717)	3354	2.50000	2.31(aQM)	LT
	27 Ethyl-tert-butyl ether	59	3.417	3.417	(0.755)	18245	2.50000	1.92(a)	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	15245	2.50000	1.86(aM)	LT
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	11497	2.50000	2.63	
	30 2,2-Dichloropropane	77	3.802	3.802	(0.840)	6719	2.50000	1.85(a)	
	31 Cyclohexane	56	3.869	3.869	(0.855)	6106	2.50000	1.21(a)	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	5428	2.50000	2.67	
	33 Chloroform	83	3.940	3.940	(0.870)	13171	2.50000	2.78(M)	LT
	34 Carbon tetrachloride	117	4.020	4.019	(0.888)	4886	2.50000	1.55(a)	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	6077	2.50000	1.58(aQ)	
	36 Tetrahydrofuran	42	4.065	4.065	(0.898)	4666	2.50000	2.57	
$	37 Dibromofluoromethane (S)	111	4.068	4.067	(0.899)	107885	30.0000	33.0	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	7027	2.50000	1.73(aQ)	
	39 2-Butanone (MEK)	43	4.155	4.155	(0.918)	6320	2.50000	2.77(QH)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	4594	2.50000	1.38(a)	
	41 Benzene	78	4.299	4.299	(0.950)	21725	2.50000	2.12(aQ)	
	42 Propionitrile	54	4.325	4.325	(0.955)	2077	2.50000	2.71(Q)	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	4622	2.50000	2.06(aQ)	
	44 tert-Amylmethyl ether	73	4.373	4.373	(0.966)	13874	2.50000	1.92(aM)	LT
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.380	(0.967)	105039	30.0000	32.8	
	46 Isobutanol	43	4.443	4.444	(0.982)	3043	12.5000	10.6(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	10581	2.50000	2.75(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	382231	30.0000		
	49 Methylcyclohexane	83	4.604	4.604	(1.017)	3796	2.50000	1.00(aQ)	
	50 Trichloroethene	95	4.610	4.611	(0.783)	4503	2.50000	1.45(a)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	5514	2.50000	2.68	
	52 1,2-Dichloropropane	63	4.857	4.858	(1.073)	6795	2.50000	2.15(a)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	7355	2.50000	2.20(a)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	4156	2.50000	2.01(a)	
	55 1,4-Dioxane (p-Dioxane)	88	4.982	4.983	(1.101)	1030	25.0000	20.6(QM)	NI
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	3226	2.50000	1.76(a)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	9020	2.50000	2.11(a)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	394838	30.0000	29.2	
	59 Toluene	91	5.258	5.259	(0.893)	24161	2.50000	1.93(a)	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	8339	12.5000	8.37(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	9307	2.50000	2.36(aQ)	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	5267	2.50000	1.61(a)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	9051	2.50000	1.98(aQ)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	6751	2.50000	2.00(aQ)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	5612	2.50000	1.94(a)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	6333	2.50000	1.91(a)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	9465	2.50000	1.98(a)	
	68 1,2-Dibromoethane (EDB)	107	5.685	5.686	(0.966)	6125	2.50000	1.96(aM)	BA
	69 2-Hexanone	43	5.759	5.760	(0.978)	7888	2.50000	2.21(a)	
	70 Ethylbenzene	106	5.897	5.898	(1.002)	9227	2.50000	1.90(a)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	331855	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	19348	2.50000	2.13(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.917	(1.005)	6069	2.50000	1.84(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	22831	5.00000	3.85	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	12320	2.50000	2.08(a)	
	76 Styrene	104	6.160	6.161	(1.046)	19365	2.50000	1.90(a)	
	77 Bromoform	173	6.186	6.186	(0.900)	4061	2.50000	1.73(a)	
	78 Isopropylbenzene (Cumene)	105	6.266	6.267	(0.912)	25384	2.50000	1.75(a)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	139033	30.0000	29.3	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	29669	2.50000	1.82(a)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	13216	2.50000	2.09(a)	
	82 1,1,2,2-Tetrachloroethane	83	6.475	6.475	(0.942)	9856	2.50000	2.39(a)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	23171	2.50000	1.89(a)	
	84 2-Chlorotoluene	126	6.520	6.520	(0.949)	8353	2.50000	2.17(a)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	3158	2.50000	2.25(a)	
	86 trans-1,4-Dichloro-2-butene	53	6.548	6.549	(0.953)	2759	2.50000	1.85(aQ)	
	87 Cyclohexanone	55	6.571	6.571	(0.956)	6303	12.5000	10.7	
	88 4-Chlorotoluene	126	6.587	6.587	(0.958)	8268	2.50000	2.02(a)	
	89 tert-Butylbenzene	119	6.658	6.658	(0.969)	19609	2.50000	1.69(a)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	25926	2.50000	2.03(a)	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	27215	2.50000	1.73(a)	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	27709	2.50000	1.88(a)	
	93 1,3-Dichlorobenzene	146	6.844	6.844	(0.996)	18285	2.50000	2.21(a)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	198117	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	19919	2.50000	2.33(aQ)	
	96 n-Butylbenzene	91	6.966	6.966	(1.014)	22154	2.50000	1.85(a)	
	97 1,2-Dichlorobenzene	146	7.065	7.066	(1.028)	19276	2.50000	2.36(a)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	198124	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.077)	2702	2.50000	2.07(a)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	11894	2.50000	2.14(a)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	5062	2.50000	1.84(a)	
	101 1,2,4-Trichlorobenzene	180	7.697	7.698	(1.120)	12640	2.50000	2.40(a)	
	102 Naphthalene	128	7.842	7.842	(1.141)	38681	2.50000	2.46(aQ)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	11230	2.50000	2.36(a)	
	104 2-Methylnaphthalene	142	8.297	8.298	(1.207)	16711	2.50000	2.22(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
    :
  NI: Indicates that the peak was not integrated at all by the
      computer software.
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722015.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	382231	-12.05
71 Chlorobenzene-d5	335570	167785	671140	331855	-1.11
94 1,4-Dichlorobenze	199759	99880	399518	198117	-0.82

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	1.29	J
74-87-3	Chloromethane	1.98	J
75-01-4	Vinyl chloride	1.23	J
74-83-9	Bromomethane	1.95	J
75-00-3	Chloroethane	2.47	J
75-69-4	Trichlorofluoromethane	1.40	J
60-29-7	Diethyl ether (Ethyl ether)	2.32	J
75-35-4	1,1-Dichloroethene	1.67	J
76-13-1	1,1,2-Trichlorotrifluoroetha	1.04	J
75-15-0	Carbon disulfide	1.73	J
74-88-4	Iodomethane	0.963	J
107-02-8	Acrolein	2.42	J
107-05-1	Allyl chloride	9.41	
75-09-2	Methylene Chloride	6.62	
67-64-1	Acetone	10.4	
156-60-5	trans-1,2-Dichloroethene	2.04	J
79-20-9	Methyl acetate	2.39	J
110-54-3	n-Hexane	4.96	
1634-04-4	Methyl-tert-butyl ether	2.14	J
75-65-0	tert-Butyl Alcohol	10.8	
75-05-8	Acetonitrile	15.5	
108-20-3	Diisopropyl ether	1.89	J
126-99-8	Chloroprene	1.28	J
75-34-3	1,1-Dichloroethane	2.29	J
107-13-1	Acrylonitrile	2.31	J
637-92-3	Ethyl-tert-butyl ether	1.92	J
108-05-4	Vinyl acetate	1.86	J
156-59-2	cis-1,2-Dichloroethene	2.63	
594-20-7	2,2-Dichloropropane	1.85	J
110-82-7	Cyclohexane	1.21	J
74-97-5	Bromochloromethane	2.67	
67-66-3	Chloroform	2.78	
56-23-5	Carbon tetrachloride	1.55	J
141-78-6	Ethyl acetate	1.58	J
109-99-9	Tetrahydrofuran	2.57	
71-55-6	1,1,1-Trichloroethane	1.73	J
78-93-3	2-Butanone (MEK)	2.77	
563-58-6	1,1-Dichloropropene	1.38	J
71-43-2	Benzene	2.12	J
107-12-0	Propionitrile	2.71	
126-98-7	Methacrylonitrile	2.06	J
994-05-8	tert-Amylmethyl ether	1.92	J

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	10.6	
107-06-2	1,2-Dichloroethane	2.75	
108-87-2	Methylcyclohexane	1.00	J
79-01-6	Trichloroethene	1.45	J
74-95-3	Dibromomethane	2.68	
78-87-5	1,2-Dichloropropane	2.15	J
75-27-4	Bromodichloromethane	2.20	J
80-62-6	Methyl methacrylate	2.01	J
123-91-1	1,4-Dioxane (p-Dioxane)	20.6	
110-75-8	2-Chloroethylvinyl ether	1.76	J
10061-01-5	cis-1,3-Dichloropropene	2.11	J
108-88-3	Toluene	1.93	J
79-46-9	2-Nitropropane	8.37	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.36	J
127-18-4	Tetrachloroethene	1.61	J
10061-02-6	trans-1,3-Dichloropropene	1.98	J
97-63-2	Ethyl methacrylate	2.00	J
79-00-5	1,1,2-Trichloroethane	1.94	J
124-48-1	Dibromochloromethane	1.91	J
142-28-9	1,3-Dichloropropane	1.98	J
106-93-4	1,2-Dibromoethane (EDB)	1.96	J
591-78-6	2-Hexanone	2.21	J
100-41-4	Ethylbenzene	1.90	J
108-90-7	Chlorobenzene	2.13	J
630-20-6	1,1,1,2-Tetrachloroethane	1.84	J
7816-60-0	m&p-Xylene	3.85	
95-47-6	o-Xylene	2.08	J
100-42-5	Styrene	1.90	J
75-25-2	Bromoform	1.73	J
98-82-8	Isopropylbenzene (Cumene)	1.75	J
103-65-1	n-Propylbenzene	1.82	J
108-86-1	Bromobenzene	2.09	J
79-34-5	1,1,2,2-Tetrachloroethane	2.39	J
108-67-8	1,3,5-Trimethylbenzene	1.89	J
95-49-8	2-Chlorotoluene	2.17	J
96-18-4	1,2,3-Trichloropropane	2.25	J
110-57-6	trans-1,4-Dichloro-2-butene	1.85	J
108-94-1	Cyclohexanone	10.7	
106-43-4	4-Chlorotoluene	2.02	J
98-06-6	tert-Butylbenzene	1.69	J
95-63-6	1,2,4-Trimethylbenzene	2.03	J
135-98-8	sec-Butylbenzene	1.73	J

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

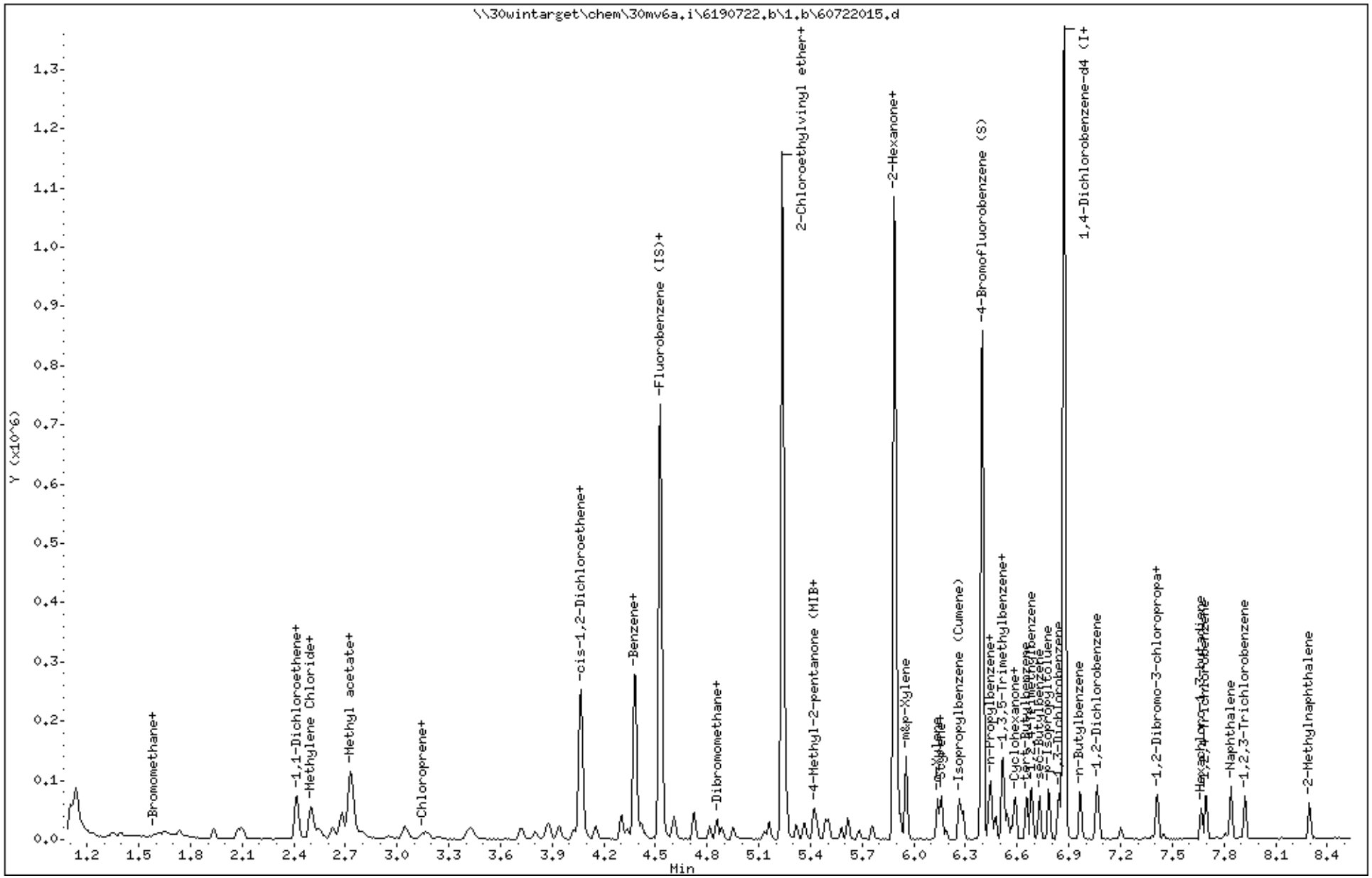
Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	1.88	J
541-73-1	1,3-Dichlorobenzene	2.21	J
106-46-7	1,4-Dichlorobenzene	2.33	J
104-51-8	n-Butylbenzene	1.85	J
95-50-1	1,2-Dichlorobenzene	2.36	J
96-12-8	1,2-Dibromo-3-chloropropane	2.07	J
108-70-3	1,3,5-Trichlorobenzene	2.14	J
87-68-3	Hexachloro-1,3-butadiene	1.84	J
120-82-1	1,2,4-Trichlorobenzene	2.40	J
91-20-3	Naphthalene	2.46	J
87-61-6	1,2,3-Trichlorobenzene	2.36	J
91-57-6	2-Methylnaphthalene	2.22	J
1868-53-7	Dibromofluoromethane (S)	33.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.8	
2037-26-5	Toluene-d8 (S)	29.2	
460-00-4	4-Bromofluorobenzene (S)	29.3	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722015.d
Date : 22-JUL-2019 11:47
Client ID: CAL1
Sample Info: CAL1, 94250:1

Instrument: 30mv6a.i

Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



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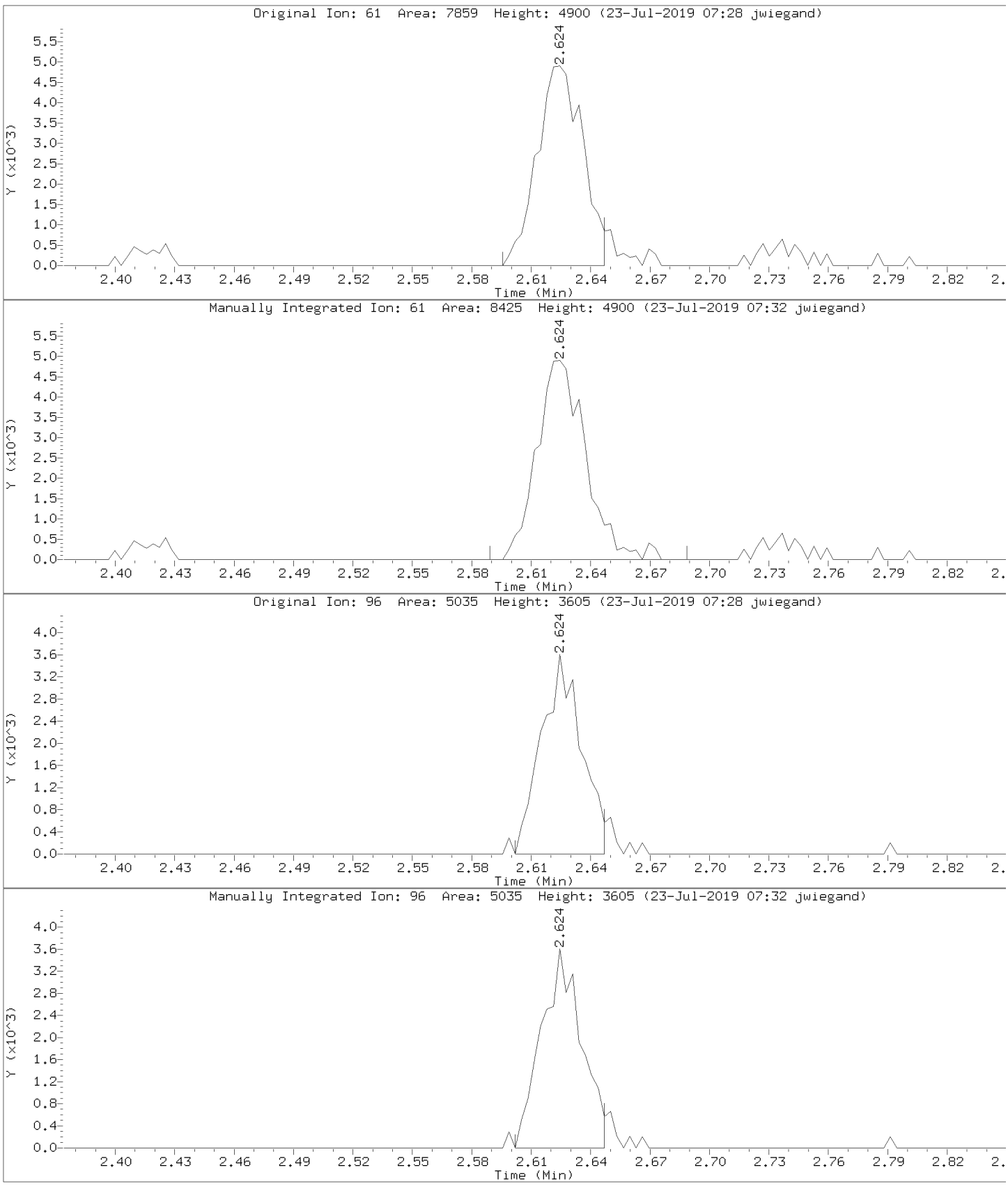
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: trans-1,2-Dichloroethene Review Code: LT
CAS Number: 156-60-5



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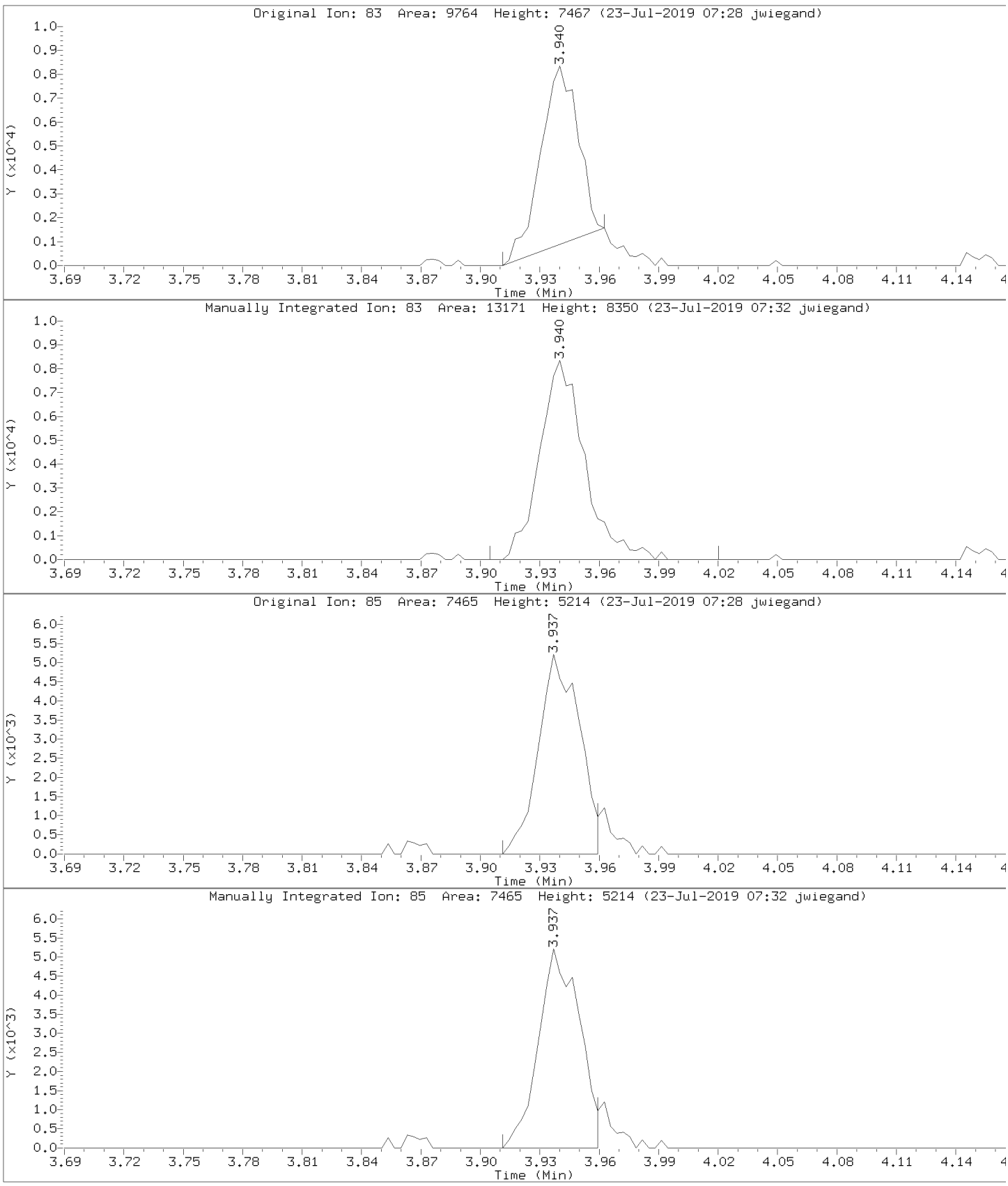
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: LT
CAS Number: 67-66-3



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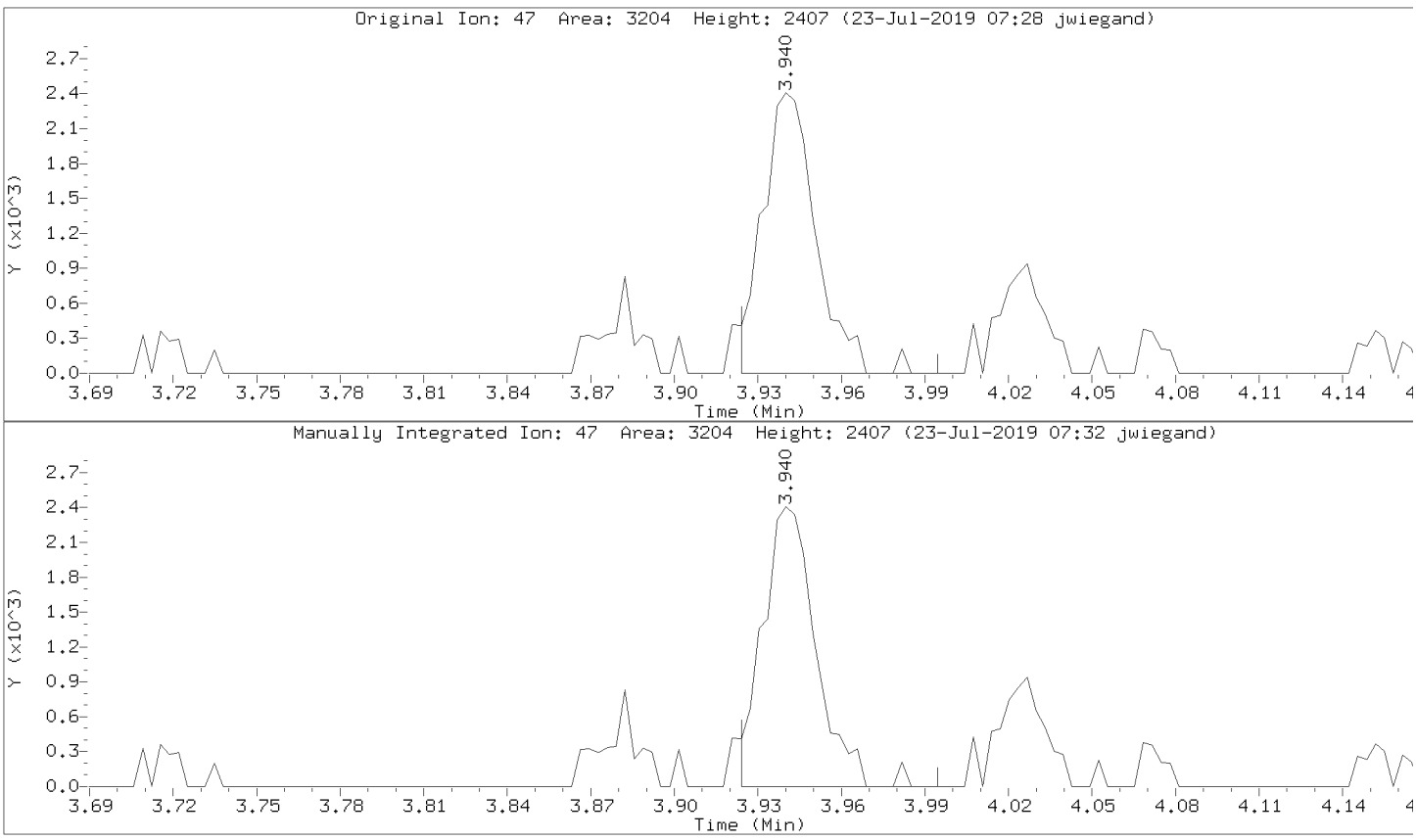
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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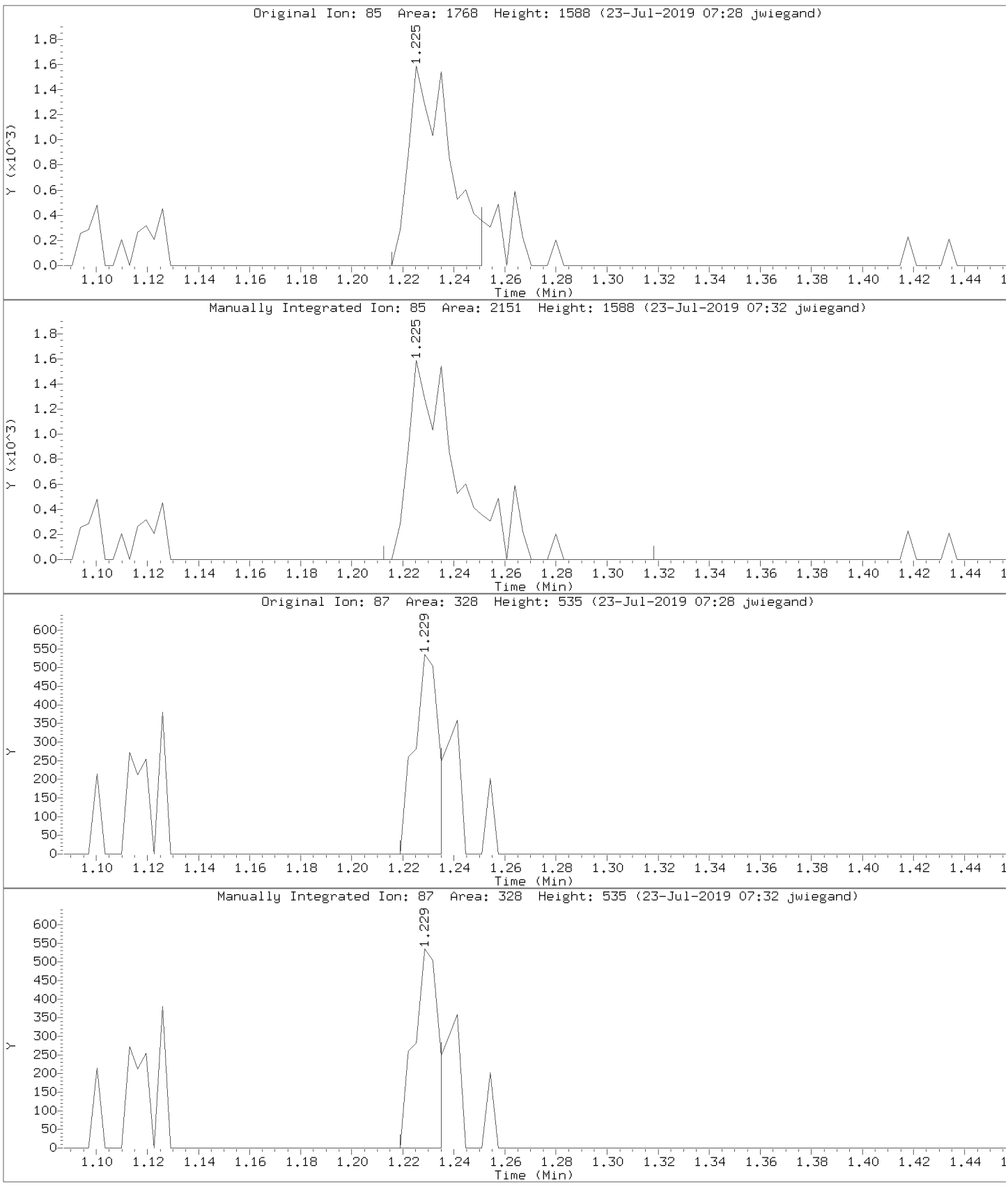
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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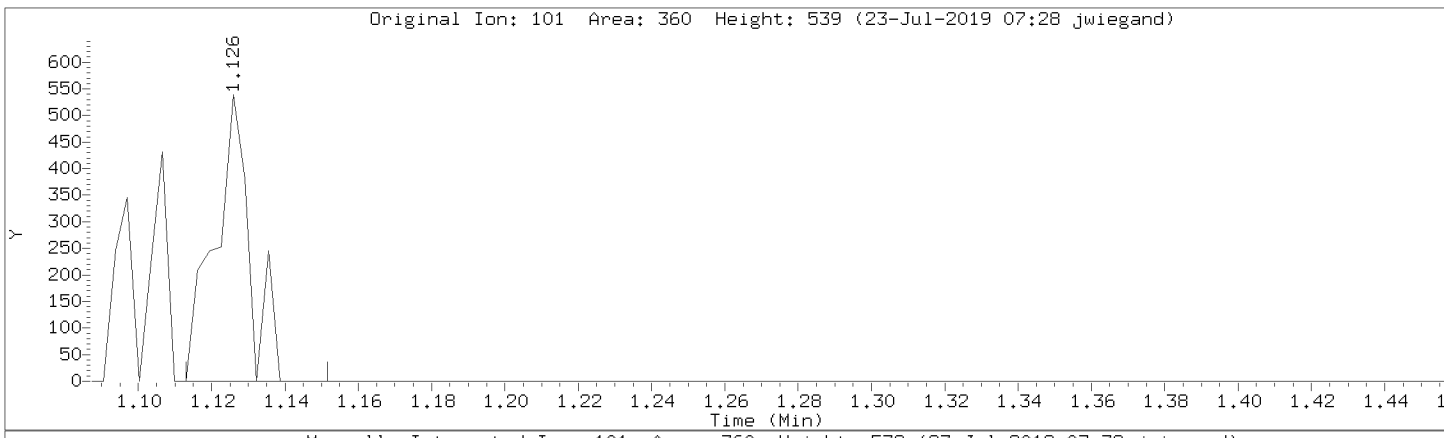
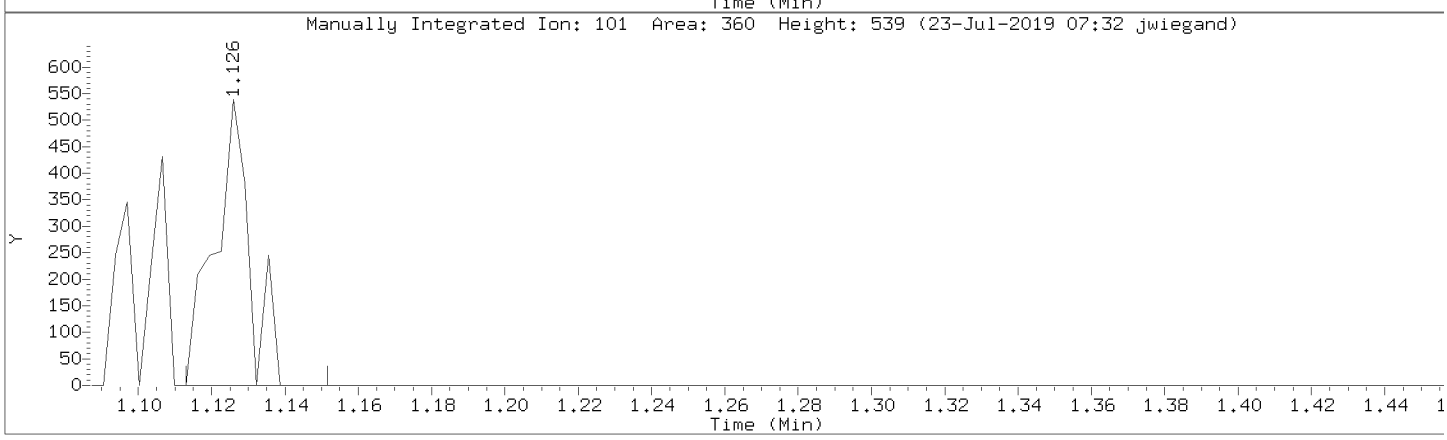
Instrument: 30mv6a.i
Lab Sample ID: CAL1





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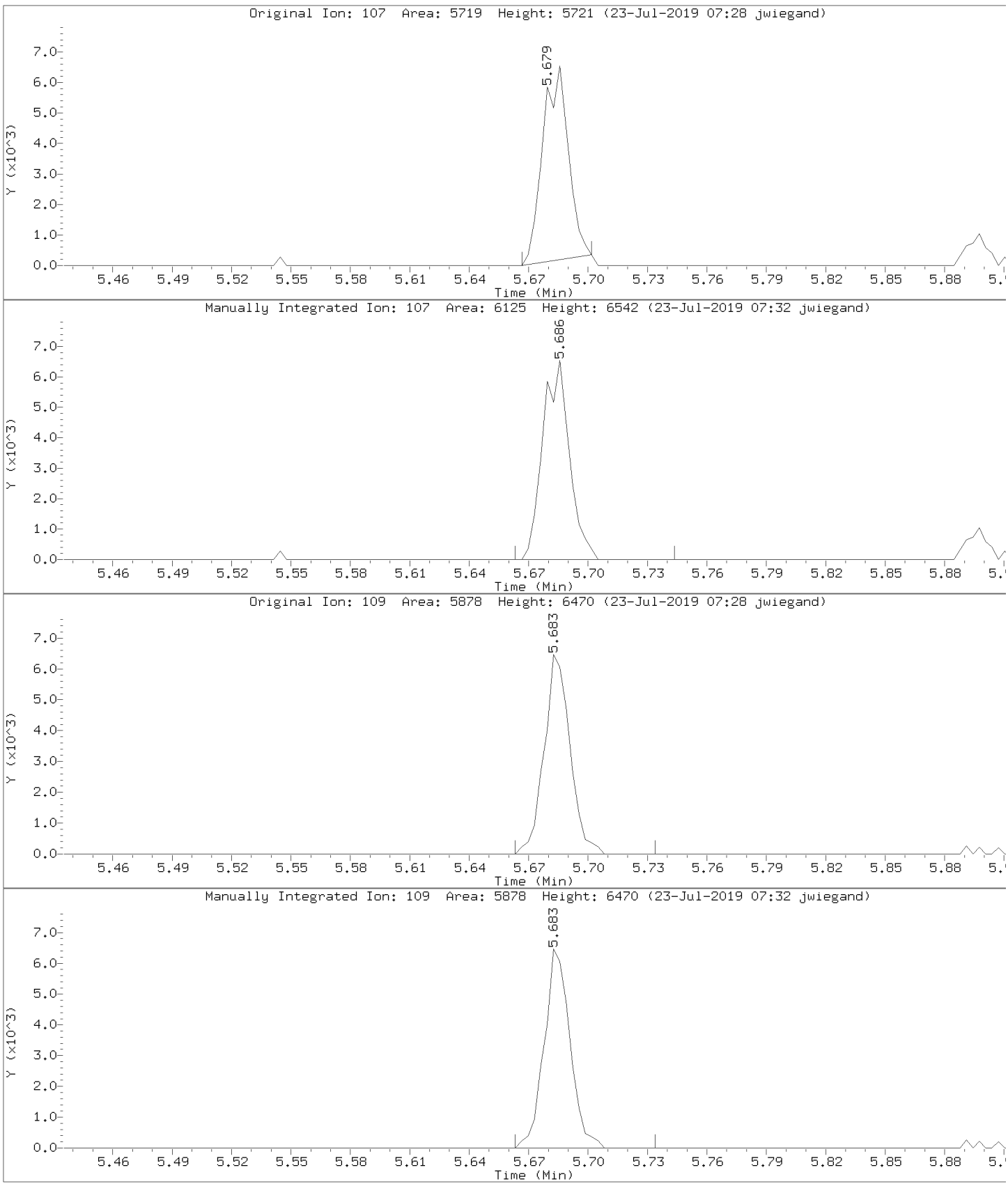
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: 1,2-Dibromoethane (EDB) Review Code: BA
CAS Number: 106-93-4



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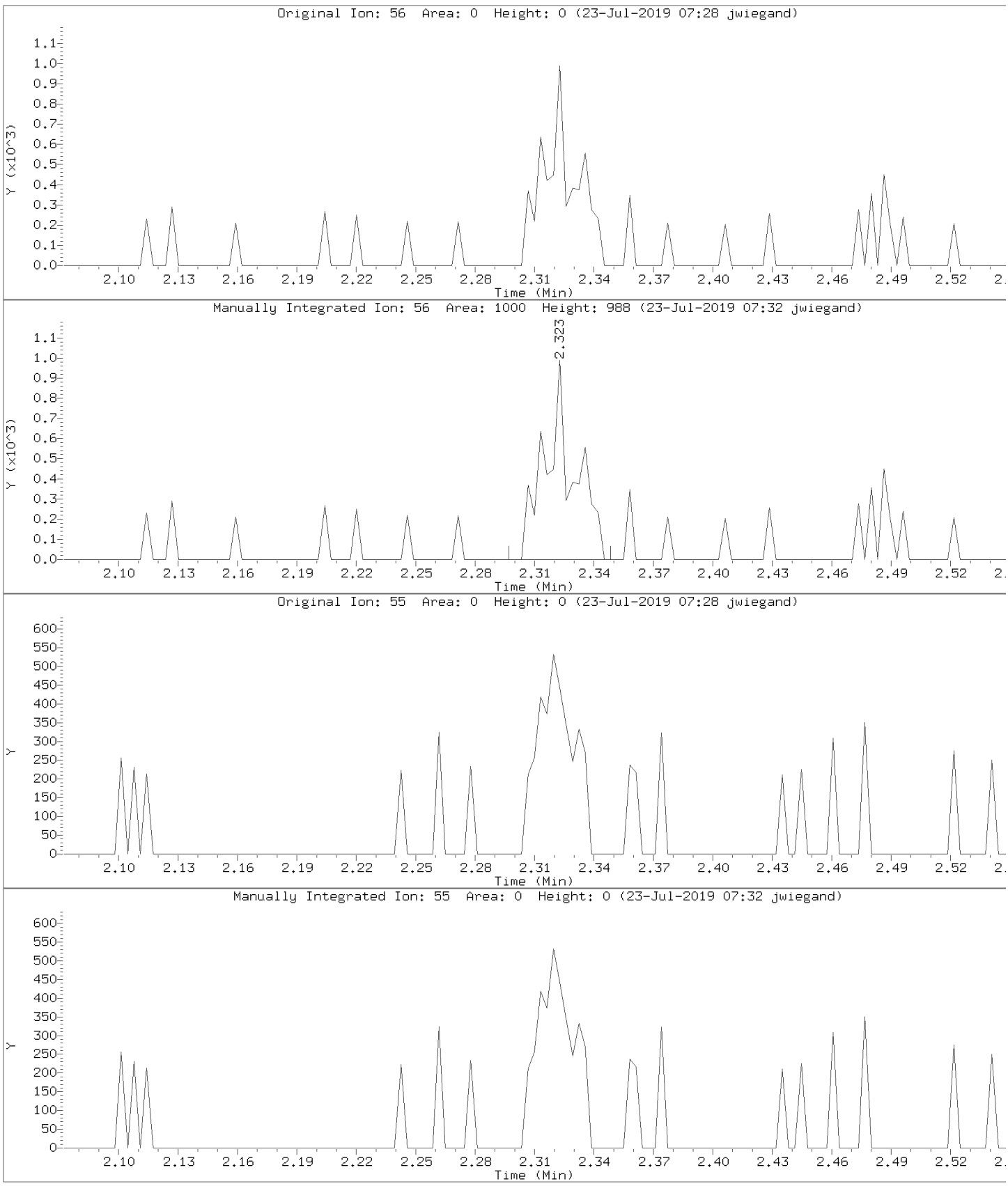
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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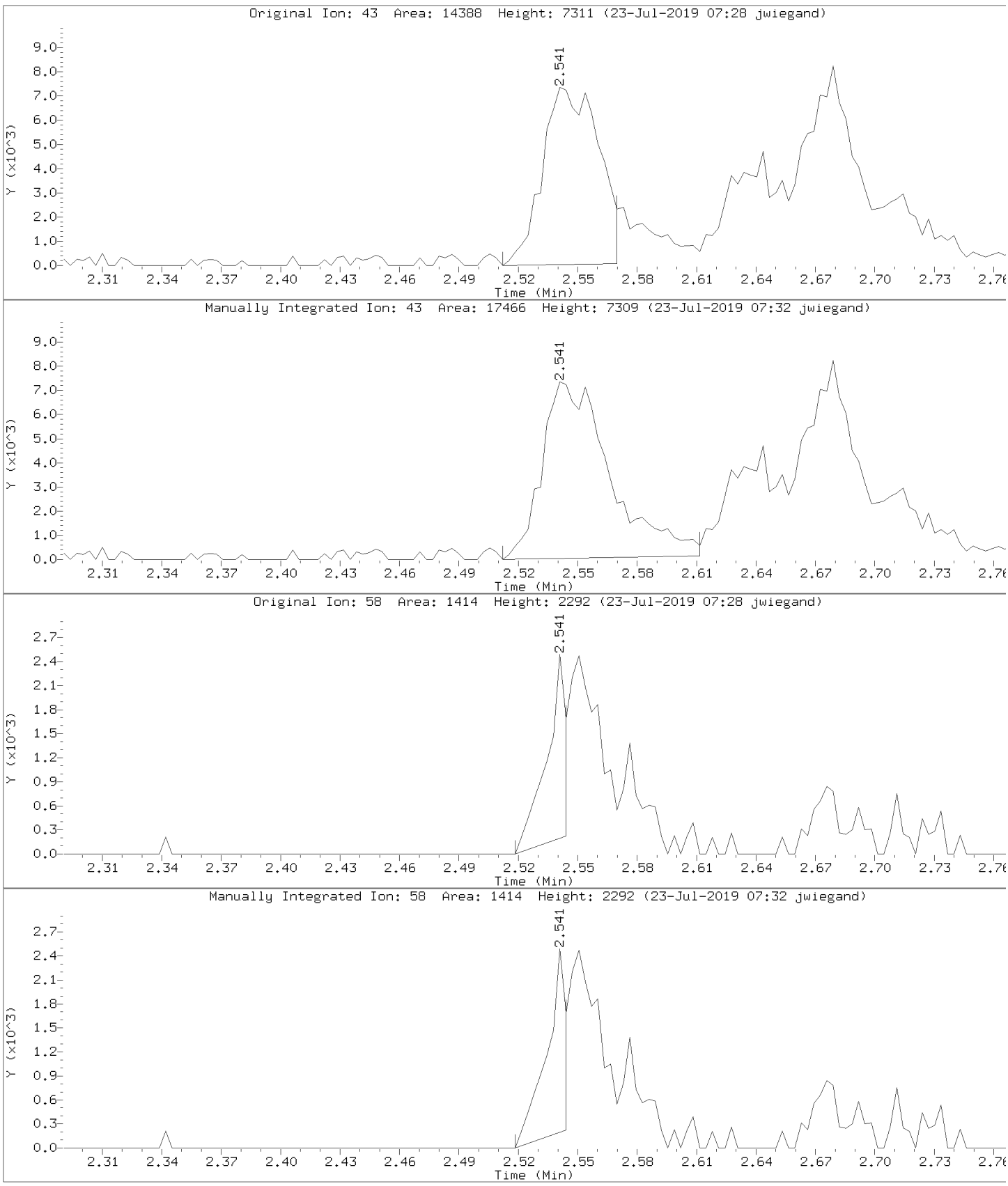
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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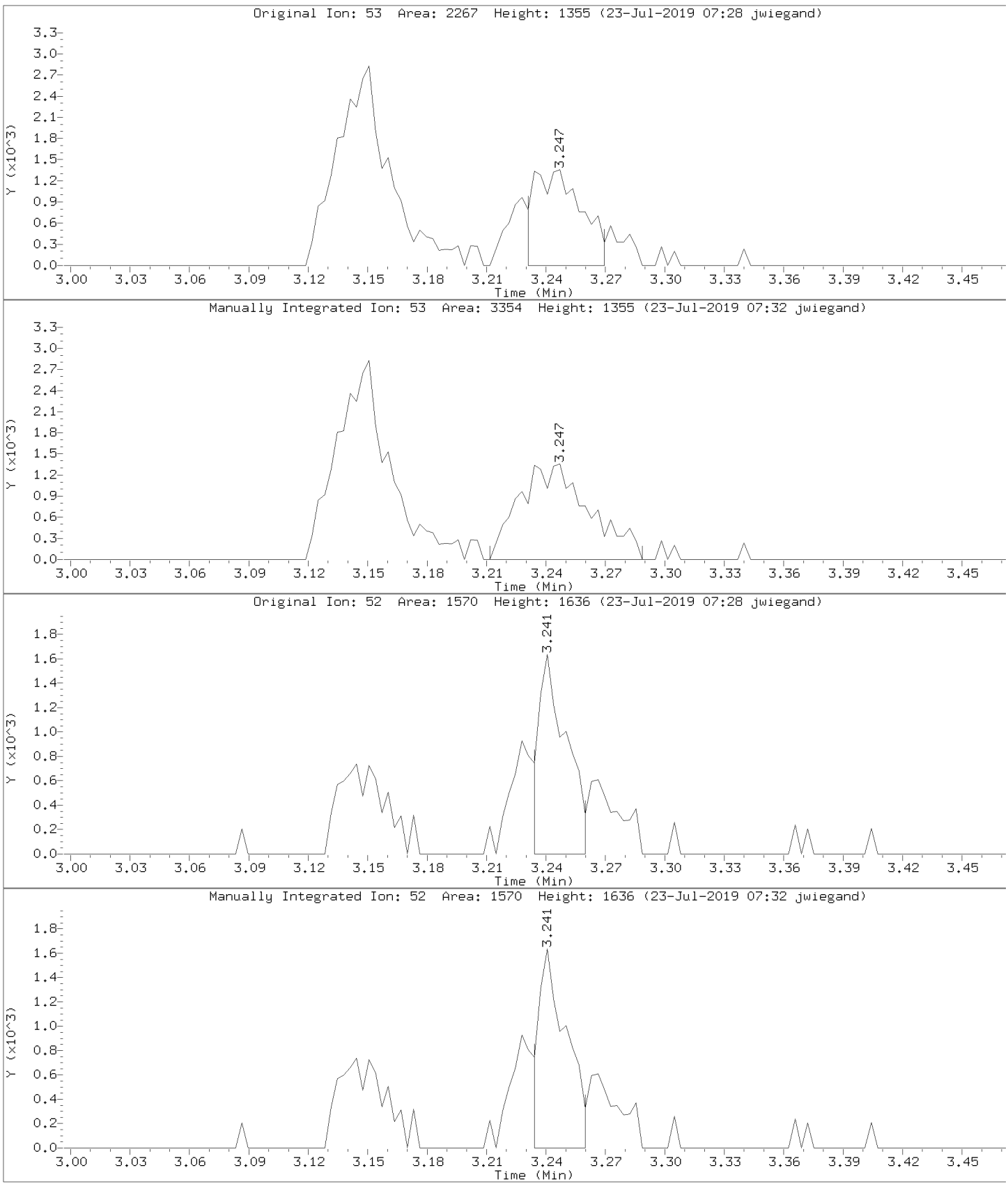
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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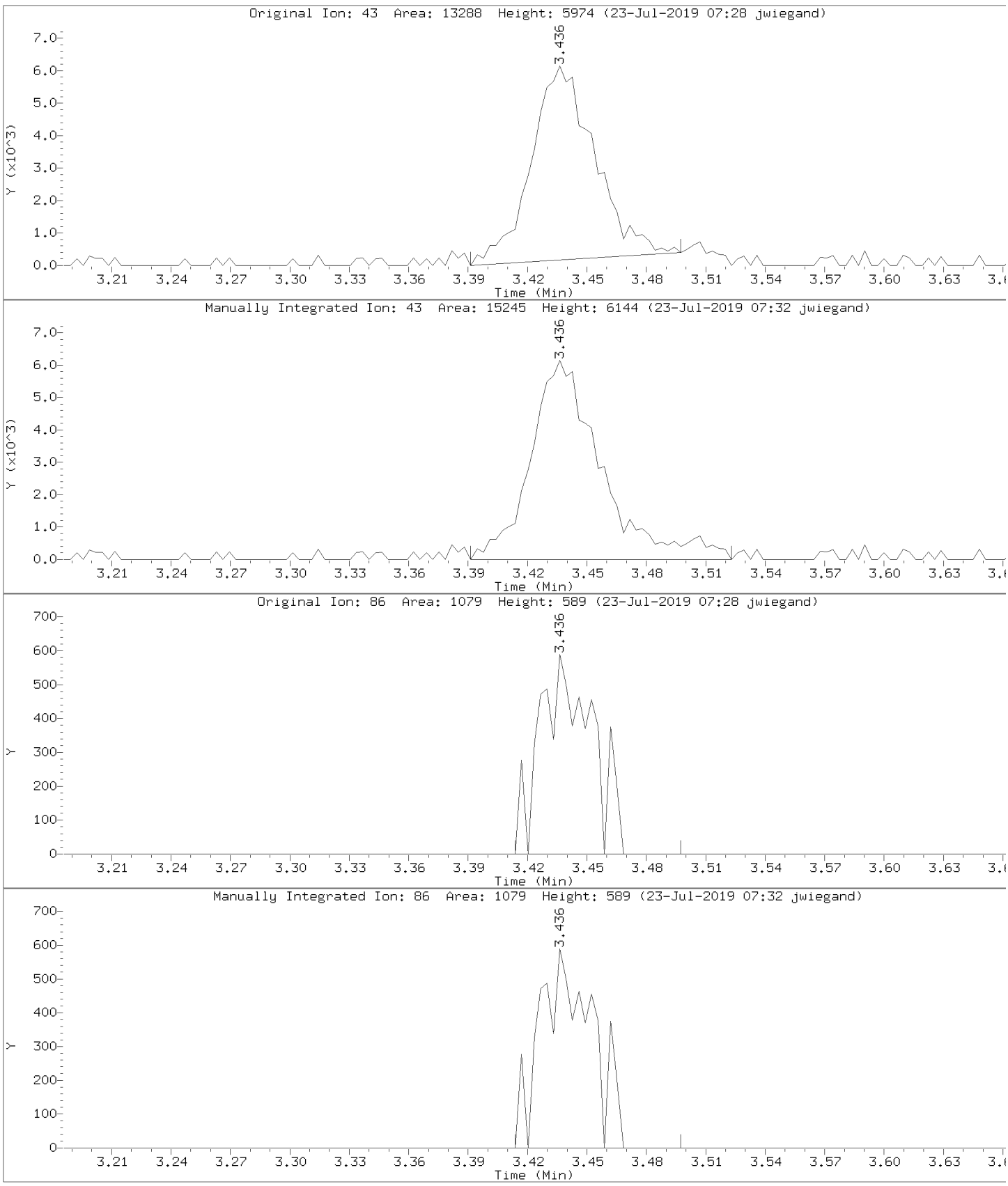
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Vinyl acetate Review Code: LT
CAS Number: 108-05-4



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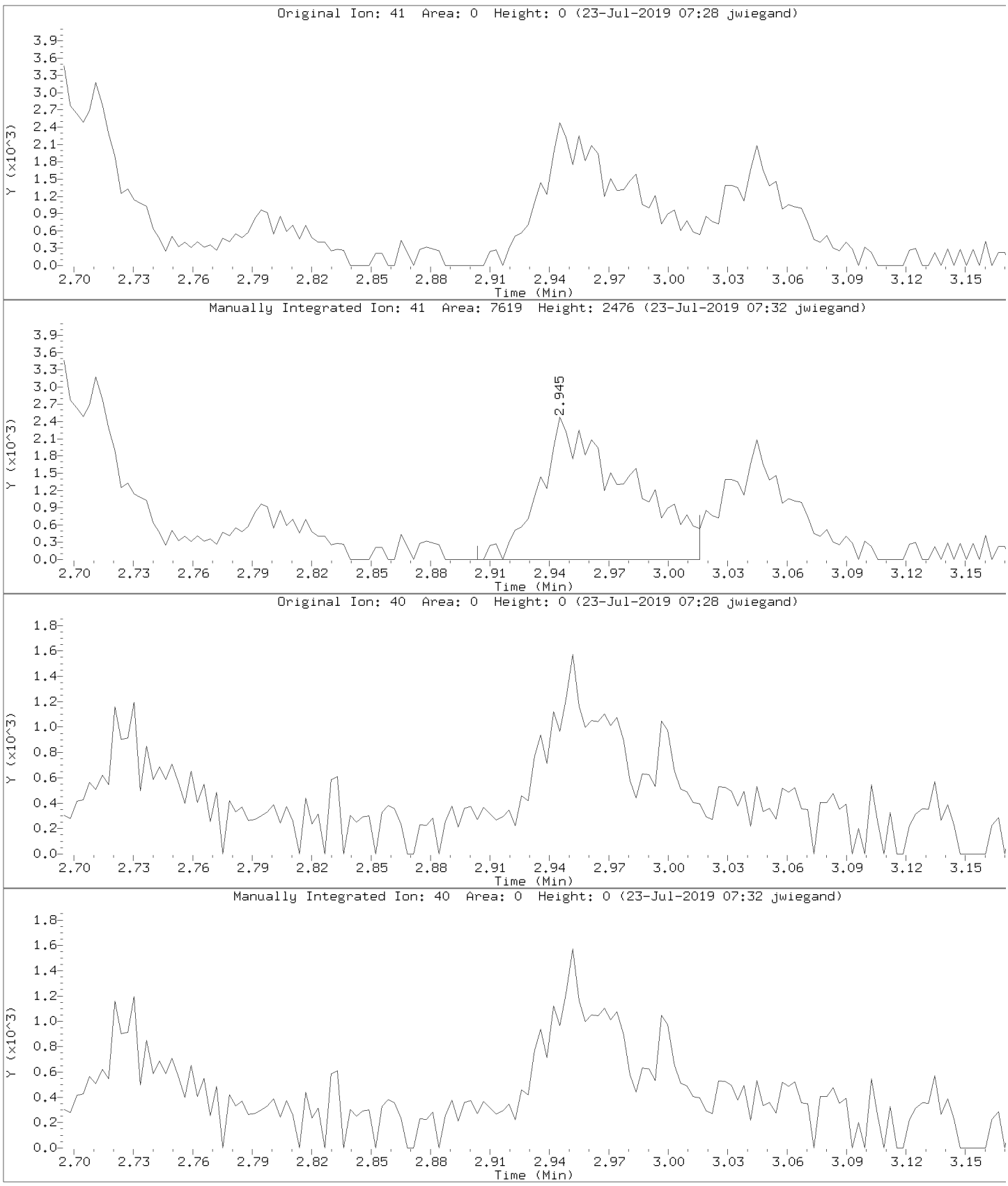
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8



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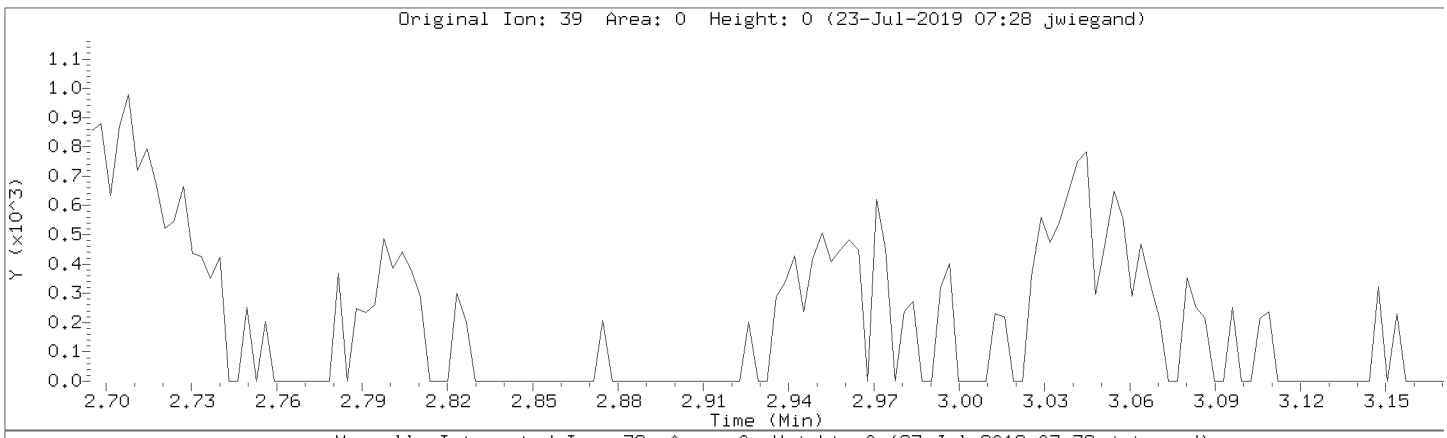
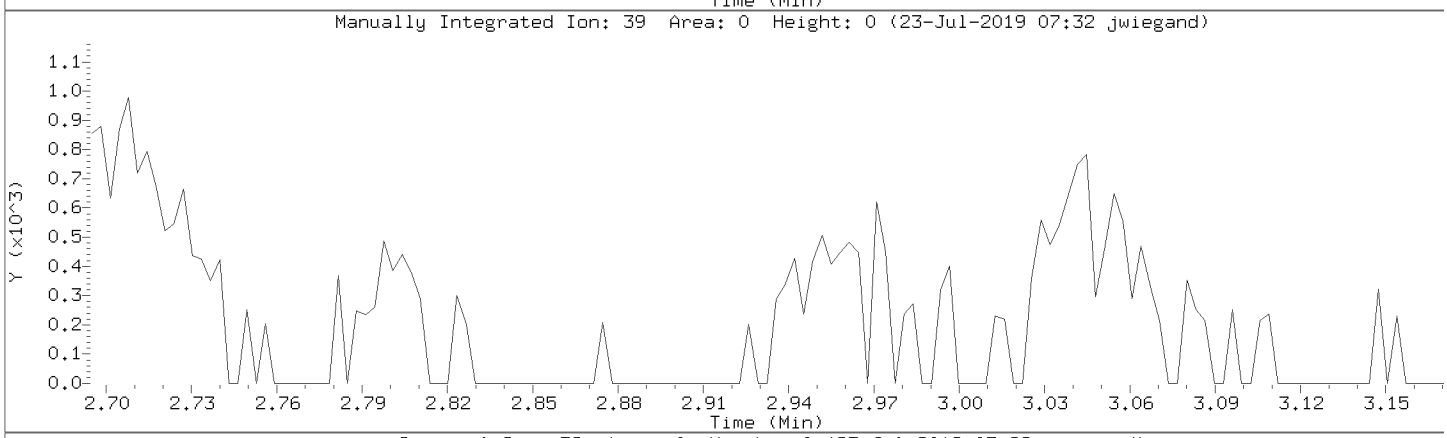
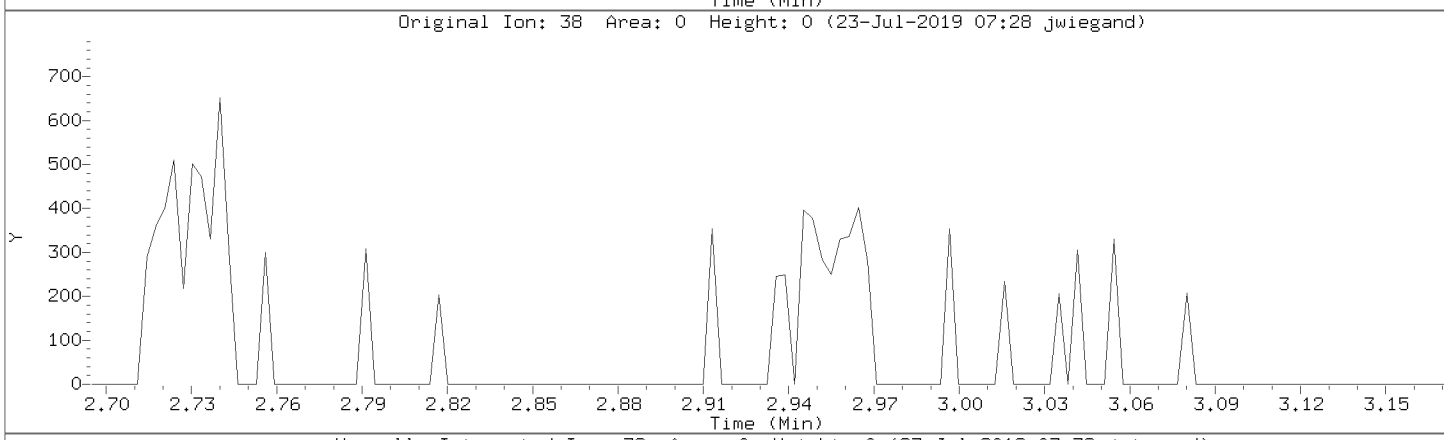
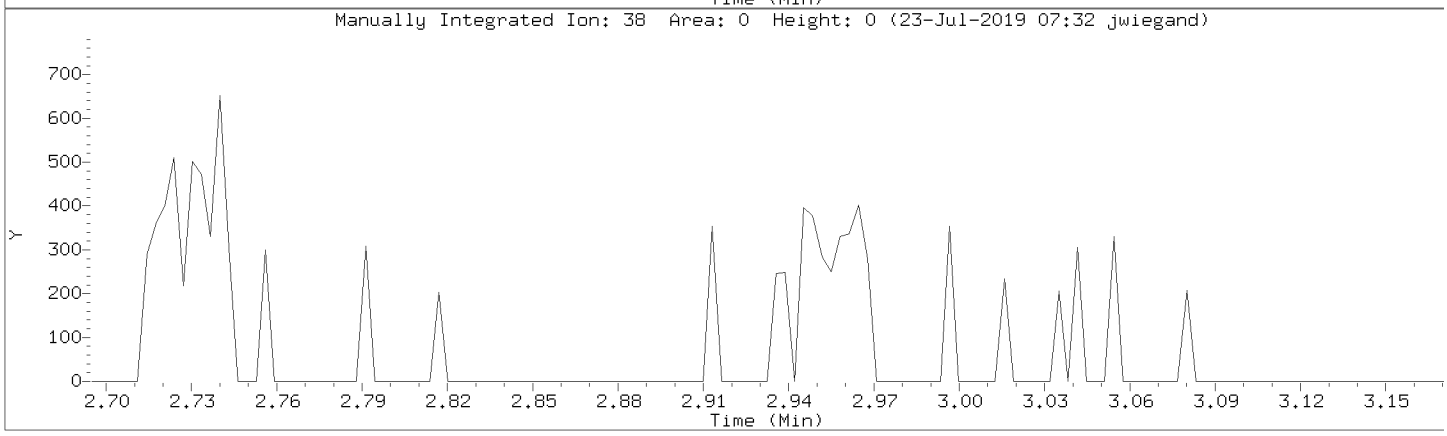
Lab Sample ID: CAL1









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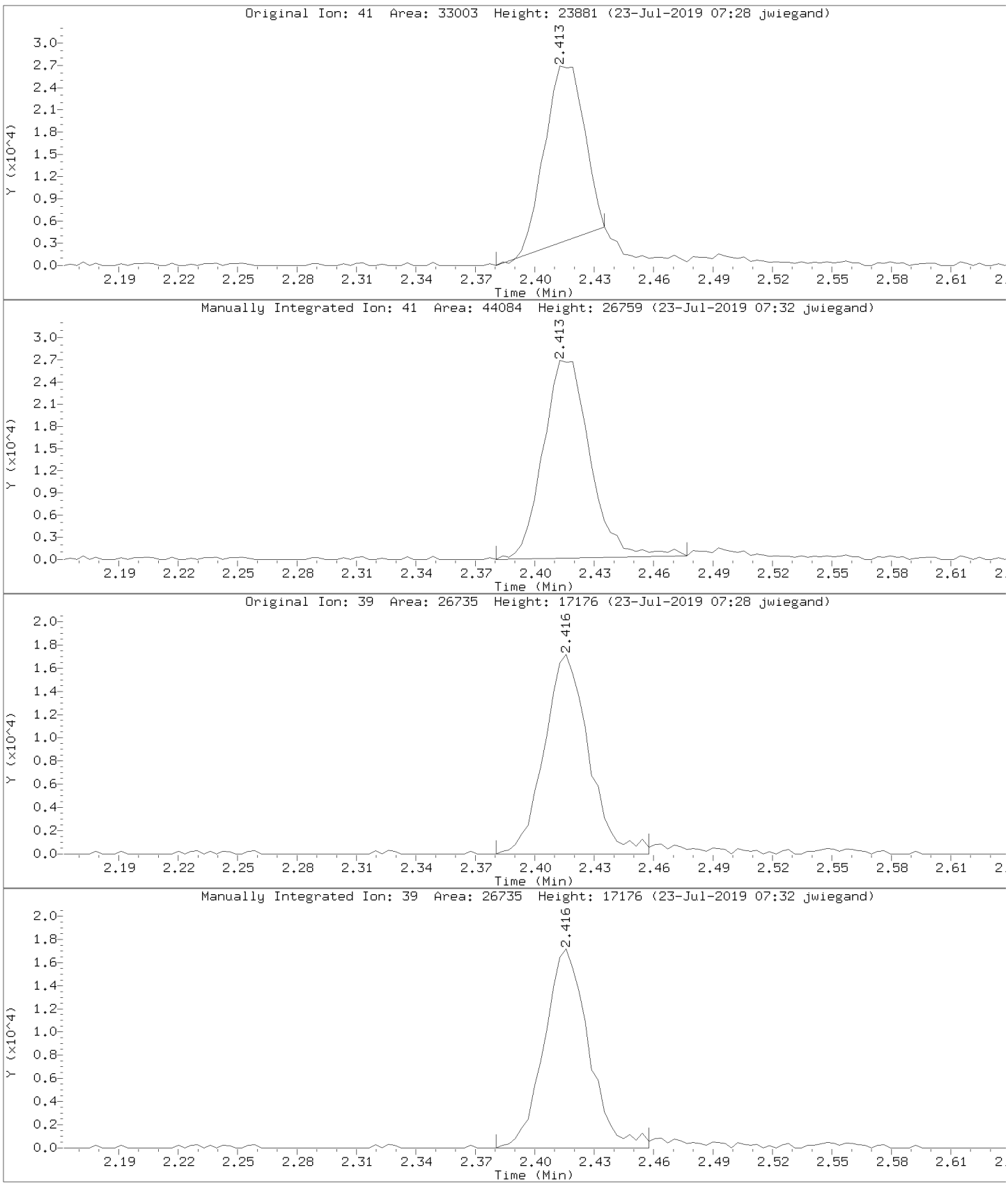
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Allyl chloride Review Code: LT
CAS Number: 107-05-1



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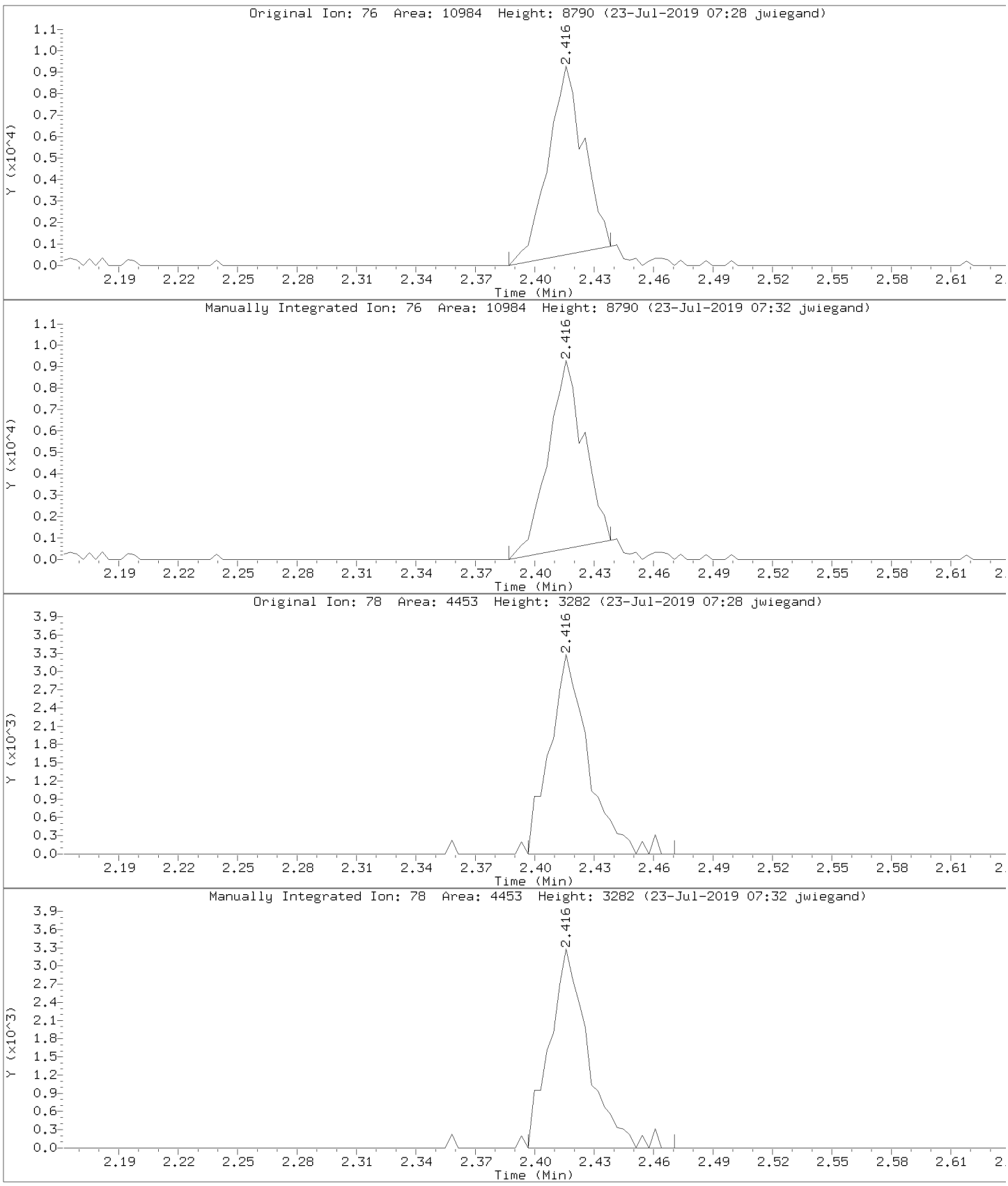
Lab Sample ID: CAL1



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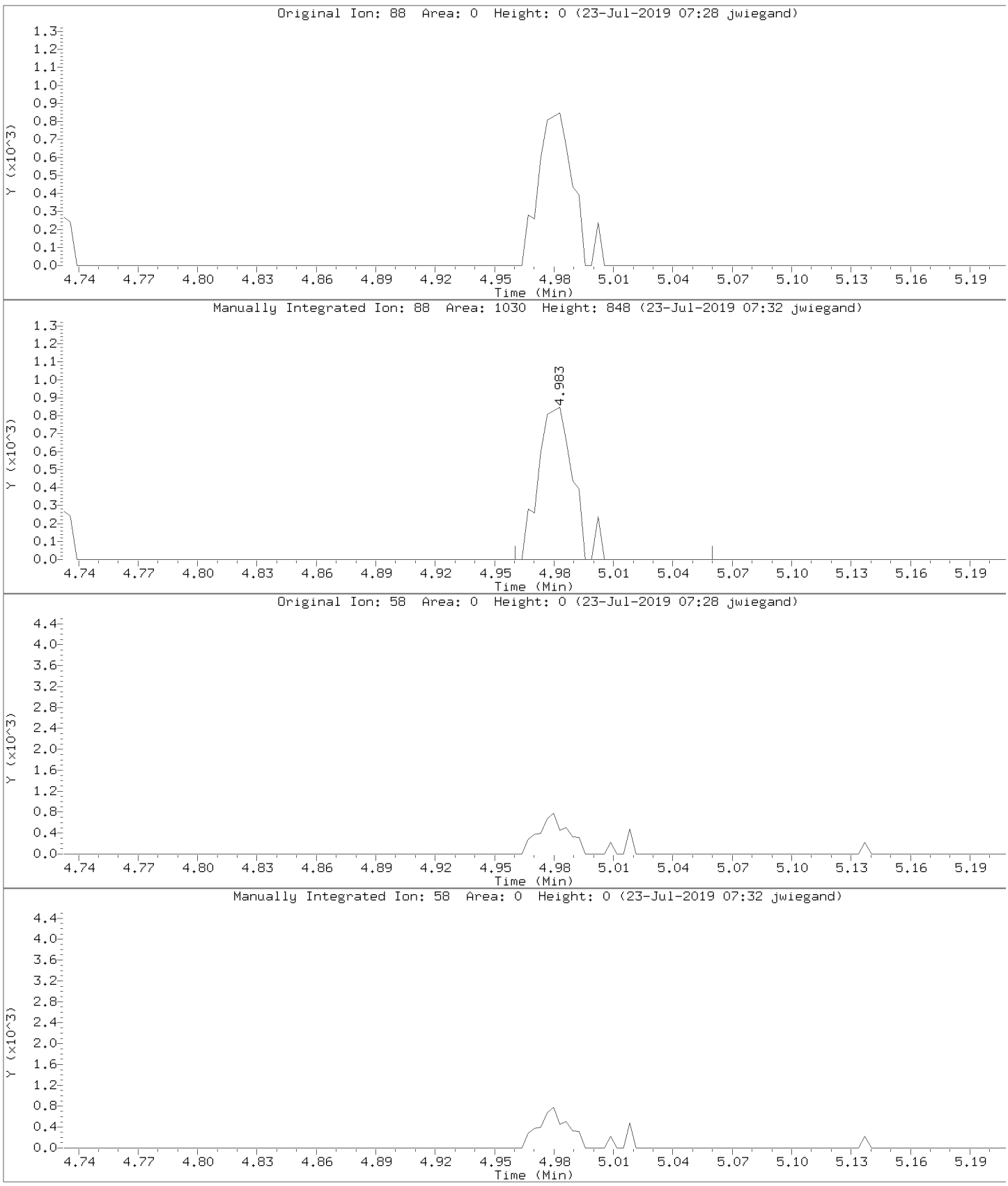
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1



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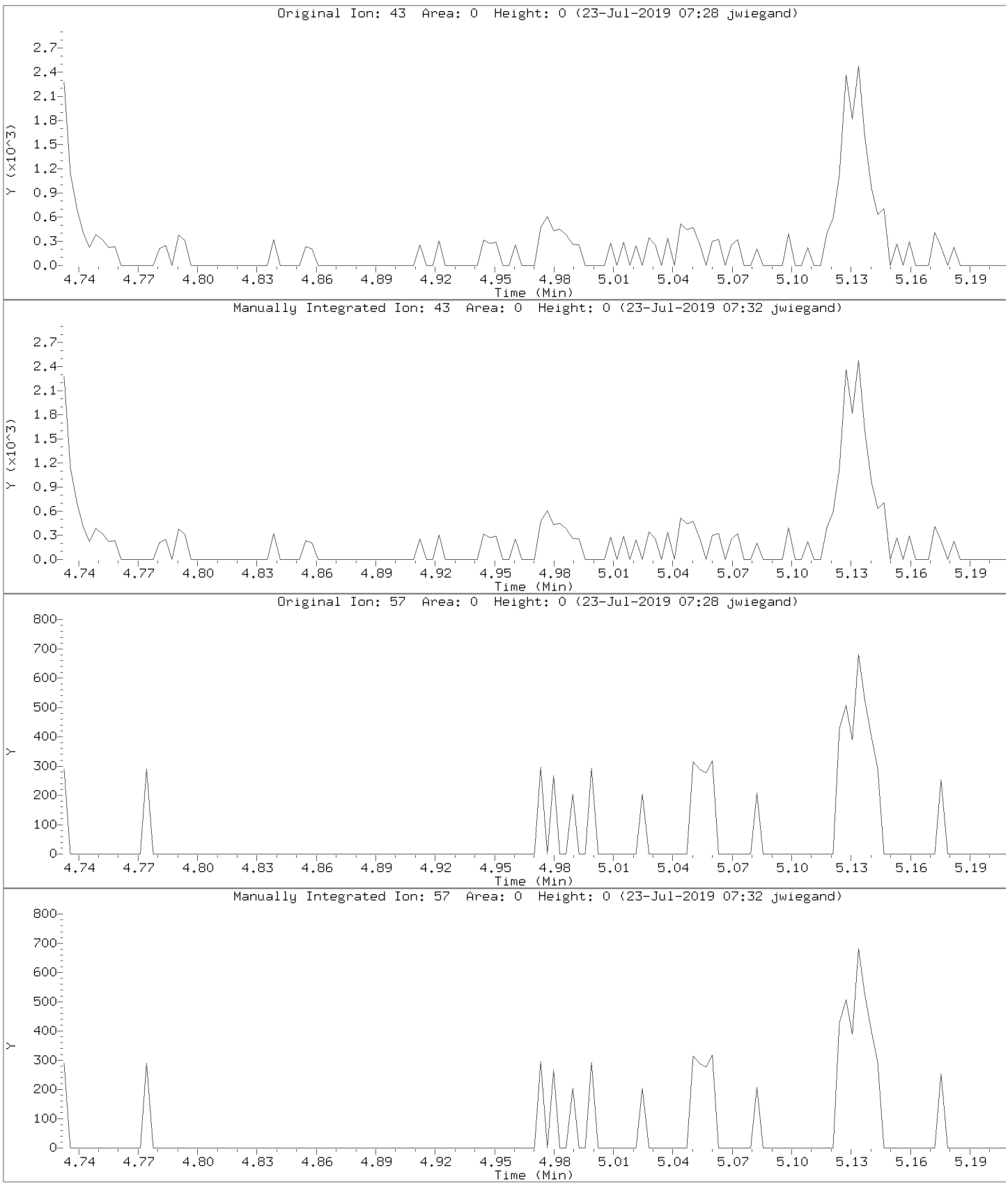
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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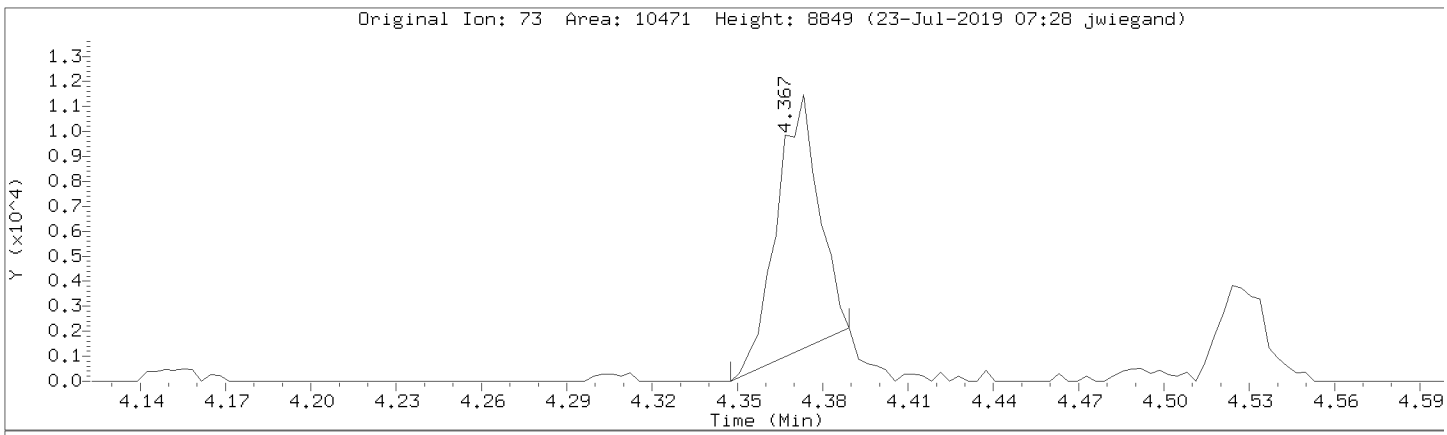
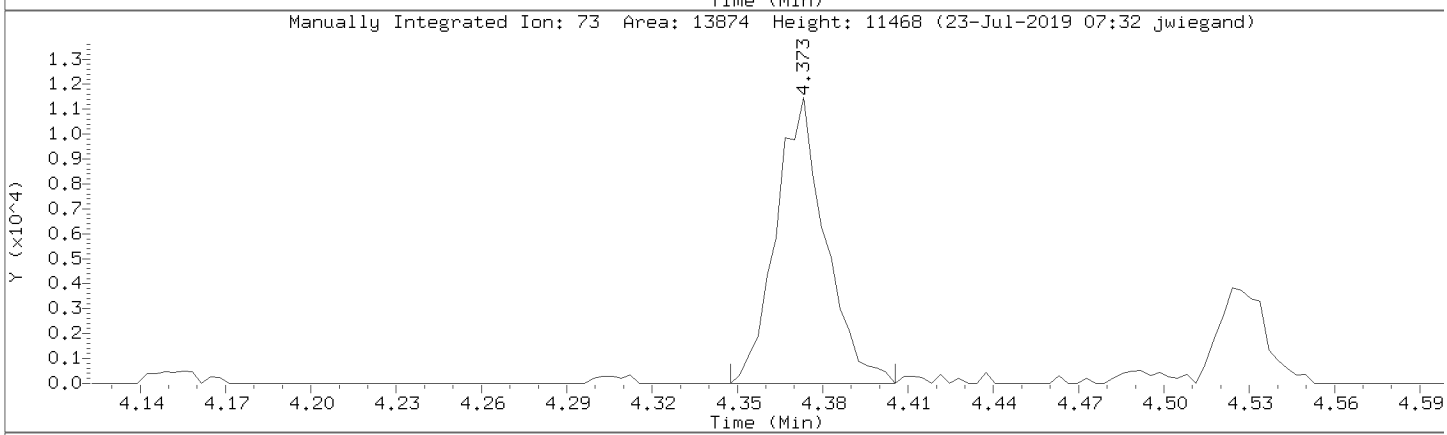
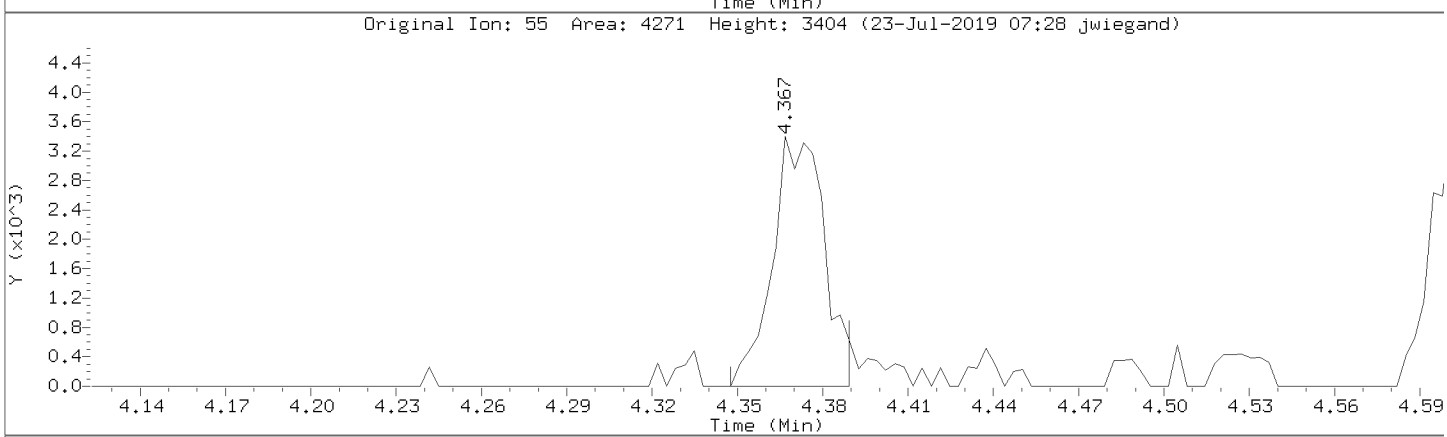
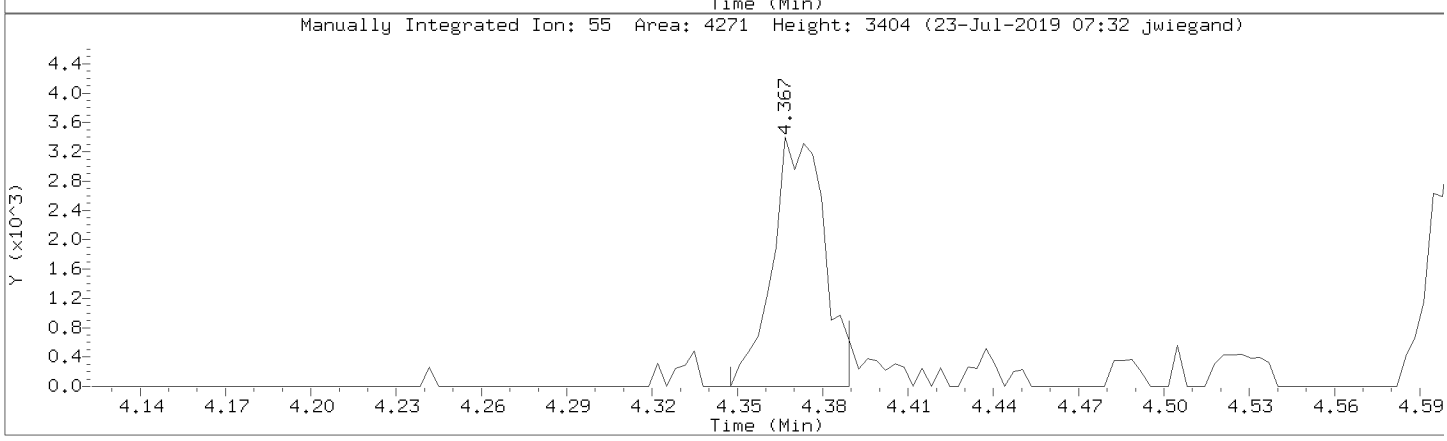
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: tert-Amylmethyl ether Review Code: LT
CAS Number: 994-05-8









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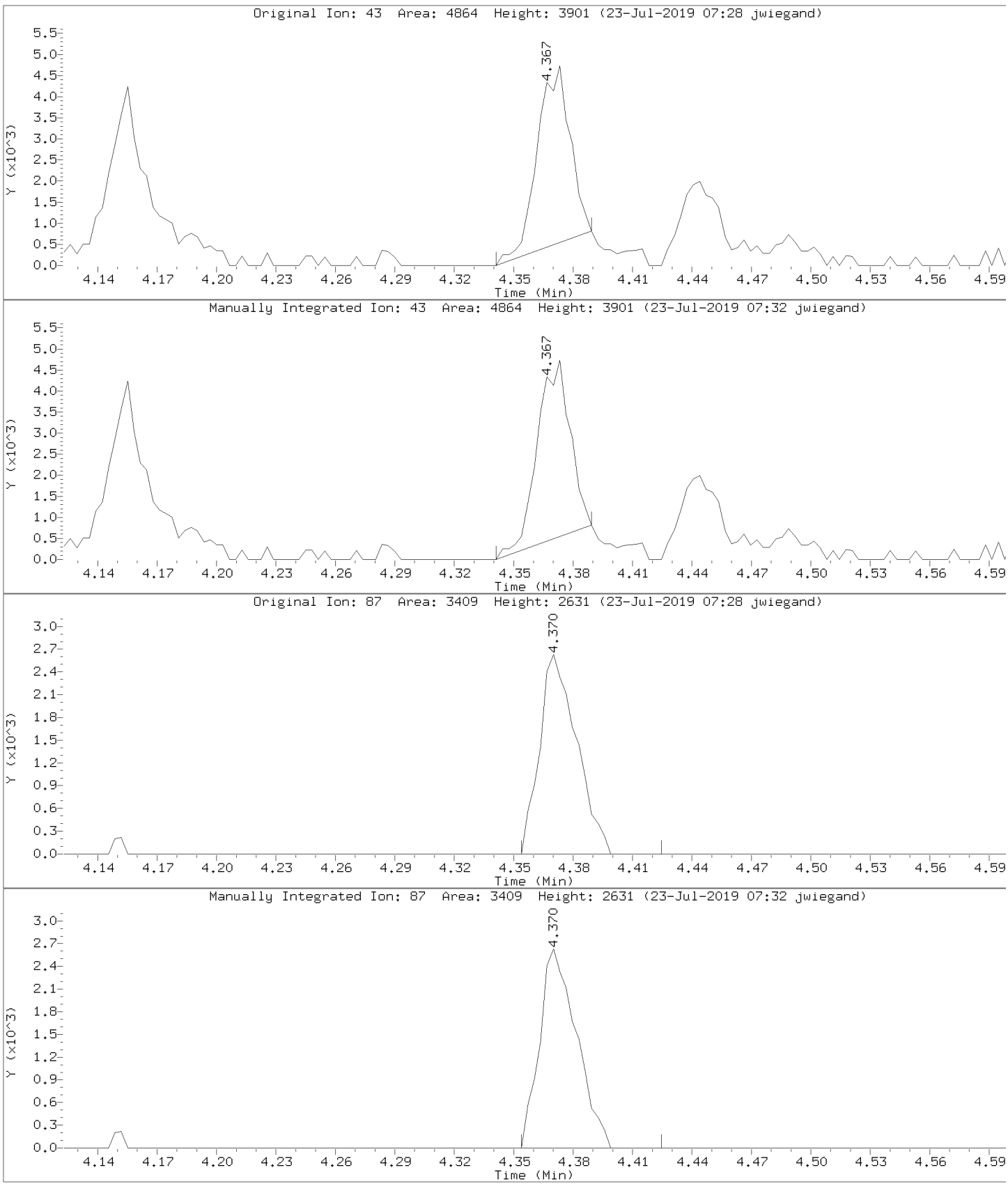
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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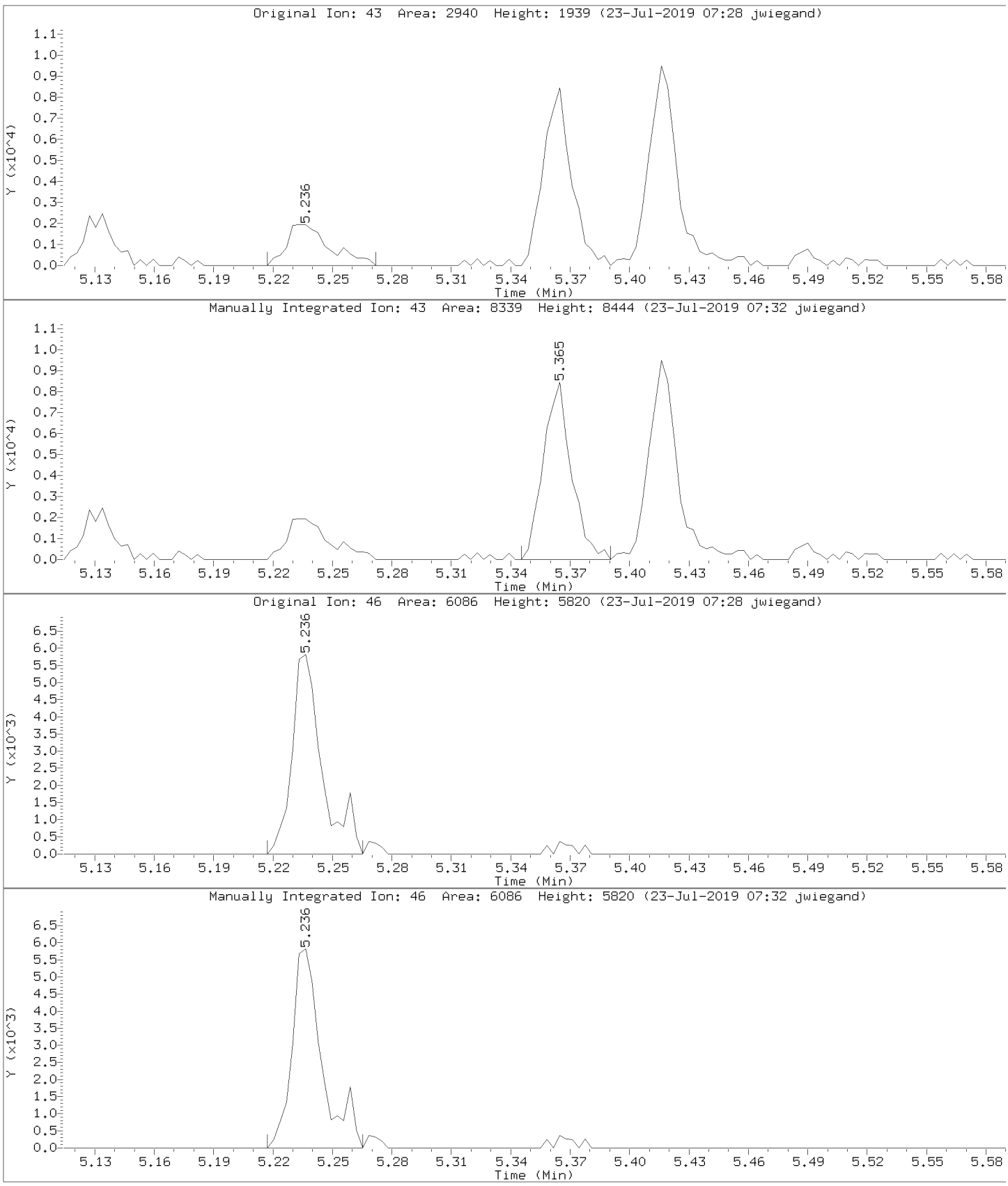
Injection Date: 22-JUL-2019 11:47
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 22-JUL-2019 12:13
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal2, 94251:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 12:13 Cal File: 60722017.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.225	(0.271)	9981	5.00000	5.68(QM)	LT
2 Chloromethane	50	1.347	1.347	(0.298)	17646	5.00000	5.64	
3 Vinyl chloride	62	1.395	1.392	(0.308)	18398	5.00000	5.85	
4 Bromomethane	94	1.587	1.585	(0.351)	3658	5.00000	5.55	
5 Chloroethane	64	1.658	1.655	(0.366)	12790	5.00000	7.32	
6 Trichlorofluoromethane	101	1.745	1.739	(0.385)	18681	5.00000	5.82	
7 Diethyl ether (Ethyl ether)	59	1.937	1.935	(0.428)	17928	5.00000	5.80	
8 Ethanol	45	2.050	2.049	(0.298)	5130	50.0000	61.4(aQ)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	26560	5.00000	5.94	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.095	(0.463)	9734	5.00000	5.30(M)	LT
11 Carbon disulfide	76	2.104	2.101	(0.465)	43757	5.00000	5.91	
12 Iodomethane	142	2.181	2.178	(0.482)	4496	5.00000	3.79	
13 Acrolein	56	2.322	2.323	(0.513)	2305	5.00000	5.29(QM)	LT
14 Allyl chloride	41	2.419	2.413	(0.534)	144355	25.0000	29.3(Q)	
15 Methylene Chloride	49	2.499	2.499	(0.552)	50212	5.00000	8.23	
16 Acetone	43	2.547	2.541	(0.563)	16388	5.00000	9.23(QM)	LT
17 trans-1,2-Dichloroethene	61	2.630	2.624	(0.581)	24743	5.00000	5.68	
18 Methyl acetate	74	2.643	2.634	(0.584)	3220	5.00000	5.45	
19 n-Hexane	86	2.682	2.679	(0.592)	4574	5.00000	6.09(Q)	
20 Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	41831	5.00000	5.04(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.800	2.794	(0.619)	19727	25.0000	24.8(Q)	
	22 Acetonitrile	41	2.958	2.945	(0.653)	16183	25.0000	31.3(QM)	LT
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	53171	5.00000	4.82	
	24 Chloroprene	53	3.150	3.151	(0.696)	22243	5.00000	5.12	
	25 1,1-Dichloroethane	63	3.176	3.173	(0.702)	33145	5.00000	5.76	
	26 Acrylonitrile	53	3.243	3.247	(0.716)	7446	5.00000	4.88(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.420	3.417	(0.755)	46421	5.00000	4.63	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	39281	5.00000	4.55	
	29 cis-1,2-Dichloroethene	61	3.715	3.722	(0.821)	26331	5.00000	5.72	
	30 2,2-Dichloropropane	77	3.808	3.802	(0.841)	21130	5.00000	5.52	
	31 Cyclohexane	56	3.869	3.869	(0.855)	25310	5.00000	4.75	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	12134	5.00000	5.67	
	33 Chloroform	83	3.943	3.940	(0.871)	28407	5.00000	5.70	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	16196	5.00000	4.87	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	18702	5.00000	4.62(Q)	
	36 Tetrahydrofuran	42	4.055	4.065	(0.896)	10743	5.00000	5.63	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	114341	30.0000	33.2	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	22947	5.00000	5.36(Q)	
	39 2-Butanone (MEK)	43	4.151	4.155	(0.917)	11933	5.00000	4.97(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	16916	5.00000	4.83	
	41 Benzene	78	4.302	4.299	(0.950)	54663	5.00000	5.06	
	42 Propionitrile	54	4.325	4.325	(0.955)	4580	5.00000	5.67	
	43 Methacrylonitrile	41	4.338	4.335	(0.958)	11815	5.00000	5.00	
	44 tert-Amylmethyl ether	73	4.373	4.373	(0.966)	34585	5.00000	4.54(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	105788	30.0000	31.4	
	46 Isobutanol	43	4.437	4.444	(0.980)	6435	25.0000	21.2(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	21988	5.00000	5.42	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	402611	30.0000		
	49 Methylcyclohexane	83	4.601	4.604	(1.016)	14874	5.00000	3.74	
	50 Trichloroethene	95	4.610	4.611	(0.783)	14208	5.00000	4.44	
	51 Dibromomethane	174	4.812	4.813	(1.063)	11966	5.00000	5.53	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	16542	5.00000	4.96	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	17033	5.00000	4.85	
	54 Methyl methacrylate	69	4.947	4.951	(1.093)	10068	5.00000	4.63	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.983	(1.100)	2783	50.0000	52.8(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	7909	5.00000	4.10	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	20911	5.00000	4.65	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	399088	30.0000	28.8	
	59 Toluene	91	5.258	5.259	(0.893)	63222	5.00000	4.91	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	20549	25.0000	19.6	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	19719	5.00000	4.74	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	14696	5.00000	4.37	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	19847	5.00000	4.22	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	16256	5.00000	4.70(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	13086	5.00000	4.41	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	13442	5.00000	3.95	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	21812	5.00000	4.44	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	14018	5.00000	4.36	
	69 2-Hexanone	43	5.759	5.760	(0.978)	17514	5.00000	4.78	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	23839	5.00000	4.77	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	340931	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	45274	5.00000	4.86	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.917	(1.005)	13772	5.00000	4.07(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	57386	10.0000	9.42	

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Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.134	6.138	(1.042)	28157	5.00000	4.62	
76	Styrene	104	6.160	6.161	(1.046)	47648	5.00000	4.55	
77	Bromoform	173	6.186	6.186	(0.900)	8484	5.00000	3.53	
78	Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	65708	5.00000	4.43	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	142010	30.0000	29.2	
80	n-Propylbenzene	91	6.436	6.440	(0.937)	72083	5.00000	4.31	
81	Bromobenzene	77	6.446	6.446	(0.938)	30018	5.00000	4.64	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	18850	5.00000	4.47	
83	1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	55042	5.00000	4.38	
84	2-Chlorotoluene	126	6.516	6.520	(0.949)	18817	5.00000	4.77	
85	1,2,3-Trichloropropane	110	6.536	6.539	(0.951)	6539	5.00000	4.55	
86	trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	6301	5.00000	4.12(Q)	
87	Cyclohexanone	55	6.568	6.571	(0.956)	14445	25.0000	23.9	
88	4-Chlorotoluene	126	6.587	6.587	(0.959)	19350	5.00000	4.62	
89	tert-Butylbenzene	119	6.654	6.658	(0.969)	49216	5.00000	4.14	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.973)	58559	5.00000	4.48	
91	sec-Butylbenzene	105	6.728	6.729	(0.979)	66058	5.00000	4.11	
92	p-Isopropyltoluene	119	6.783	6.783	(0.987)	62551	5.00000	4.14	
93	1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	39306	5.00000	4.63	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	202935	30.0000		
95	1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	42028	5.00000	4.80	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	47513	5.00000	3.88	
97	1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	39184	5.00000	4.69	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	202938	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	6142	5.00000	4.60	
99	1,3,5-Trichlorobenzene	180	7.412	7.415	(1.079)	24777	5.00000	4.36	
100	Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	10092	5.00000	3.59	
101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	23074	5.00000	4.28	
102	Naphthalene	128	7.838	7.842	(1.141)	72214	5.00000	4.48	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.153)	21146	5.00000	4.34	
104	2-Methylnaphthalene	142	8.291	8.298	(1.207)	33444	5.00000	4.33	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722017.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	402611	-7.36
71 Chlorobenzene-d5	335570	167785	671140	340931	1.60
94 1,4-Dichlorobenze	199759	99880	399518	202935	1.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	5.68	
74-87-3	Chloromethane	5.64	
75-01-4	Vinyl chloride	5.85	
74-83-9	Bromomethane	5.55	
75-00-3	Chloroethane	7.32	
75-69-4	Trichlorofluoromethane	5.82	
60-29-7	Diethyl ether (Ethyl ether)	5.80	
64-17-5	Ethanol	61.4	J
75-35-4	1,1-Dichloroethene	5.94	
76-13-1	1,1,2-Trichlorotrifluoroetha	5.30	
75-15-0	Carbon disulfide	5.91	
74-88-4	Iodomethane	3.79	
107-02-8	Acrolein	5.29	
107-05-1	Allyl chloride	29.3	
75-09-2	Methylene Chloride	8.23	
67-64-1	Acetone	9.23	
156-60-5	trans-1,2-Dichloroethene	5.68	
79-20-9	Methyl acetate	5.45	
110-54-3	n-Hexane	6.09	
1634-04-4	Methyl-tert-butyl ether	5.04	
75-65-0	tert-Butyl Alcohol	24.8	
75-05-8	Acetonitrile	31.3	
108-20-3	Diisopropyl ether	4.82	
126-99-8	Chloroprene	5.12	
75-34-3	1,1-Dichloroethane	5.76	
107-13-1	Acrylonitrile	4.88	
637-92-3	Ethyl-tert-butyl ether	4.63	
108-05-4	Vinyl acetate	4.55	
156-59-2	cis-1,2-Dichloroethene	5.72	
594-20-7	2,2-Dichloropropane	5.52	
110-82-7	Cyclohexane	4.75	
74-97-5	Bromochloromethane	5.67	
67-66-3	Chloroform	5.70	
56-23-5	Carbon tetrachloride	4.87	
141-78-6	Ethyl acetate	4.62	
109-99-9	Tetrahydrofuran	5.63	
71-55-6	1,1,1-Trichloroethane	5.36	
78-93-3	2-Butanone (MEK)	4.97	
563-58-6	1,1-Dichloropropene	4.83	
71-43-2	Benzene	5.06	
107-12-0	Propionitrile	5.67	
126-98-7	Methacrylonitrile	5.00	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	4.54	
78-83-1	Isobutanol	21.2	
107-06-2	1,2-Dichloroethane	5.42	
108-87-2	Methylcyclohexane	3.74	
79-01-6	Trichloroethene	4.44	
74-95-3	Dibromomethane	5.53	
78-87-5	1,2-Dichloropropane	4.96	
75-27-4	Bromodichloromethane	4.85	
80-62-6	Methyl methacrylate	4.63	
123-91-1	1,4-Dioxane (p-Dioxane)	52.8	
110-75-8	2-Chloroethylvinyl ether	4.10	
10061-01-5	cis-1,3-Dichloropropene	4.65	
108-88-3	Toluene	4.91	
79-46-9	2-Nitropropane	19.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.74	
127-18-4	Tetrachloroethene	4.37	
10061-02-6	trans-1,3-Dichloropropene	4.22	
97-63-2	Ethyl methacrylate	4.70	
79-00-5	1,1,2-Trichloroethane	4.41	
124-48-1	Dibromochloromethane	3.95	
142-28-9	1,3-Dichloropropane	4.44	
106-93-4	1,2-Dibromoethane (EDB)	4.36	
591-78-6	2-Hexanone	4.78	
100-41-4	Ethylbenzene	4.77	
108-90-7	Chlorobenzene	4.86	
630-20-6	1,1,1,2-Tetrachloroethane	4.07	
7816-60-0	m&p-Xylene	9.42	
95-47-6	o-Xylene	4.62	
100-42-5	Styrene	4.55	
75-25-2	Bromoform	3.53	
98-82-8	Isopropylbenzene (Cumene)	4.43	
103-65-1	n-Propylbenzene	4.31	
108-86-1	Bromobenzene	4.64	
79-34-5	1,1,2,2-Tetrachloroethane	4.47	
108-67-8	1,3,5-Trimethylbenzene	4.38	
95-49-8	2-Chlorotoluene	4.77	
96-18-4	1,2,3-Trichloropropane	4.55	
110-57-6	trans-1,4-Dichloro-2-butene	4.12	
108-94-1	Cyclohexanone	23.9	
106-43-4	4-Chlorotoluene	4.62	
98-06-6	tert-Butylbenzene	4.14	
95-63-6	1,2,4-Trimethylbenzene	4.48	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Report Date: 23-Jul-2019 07:54

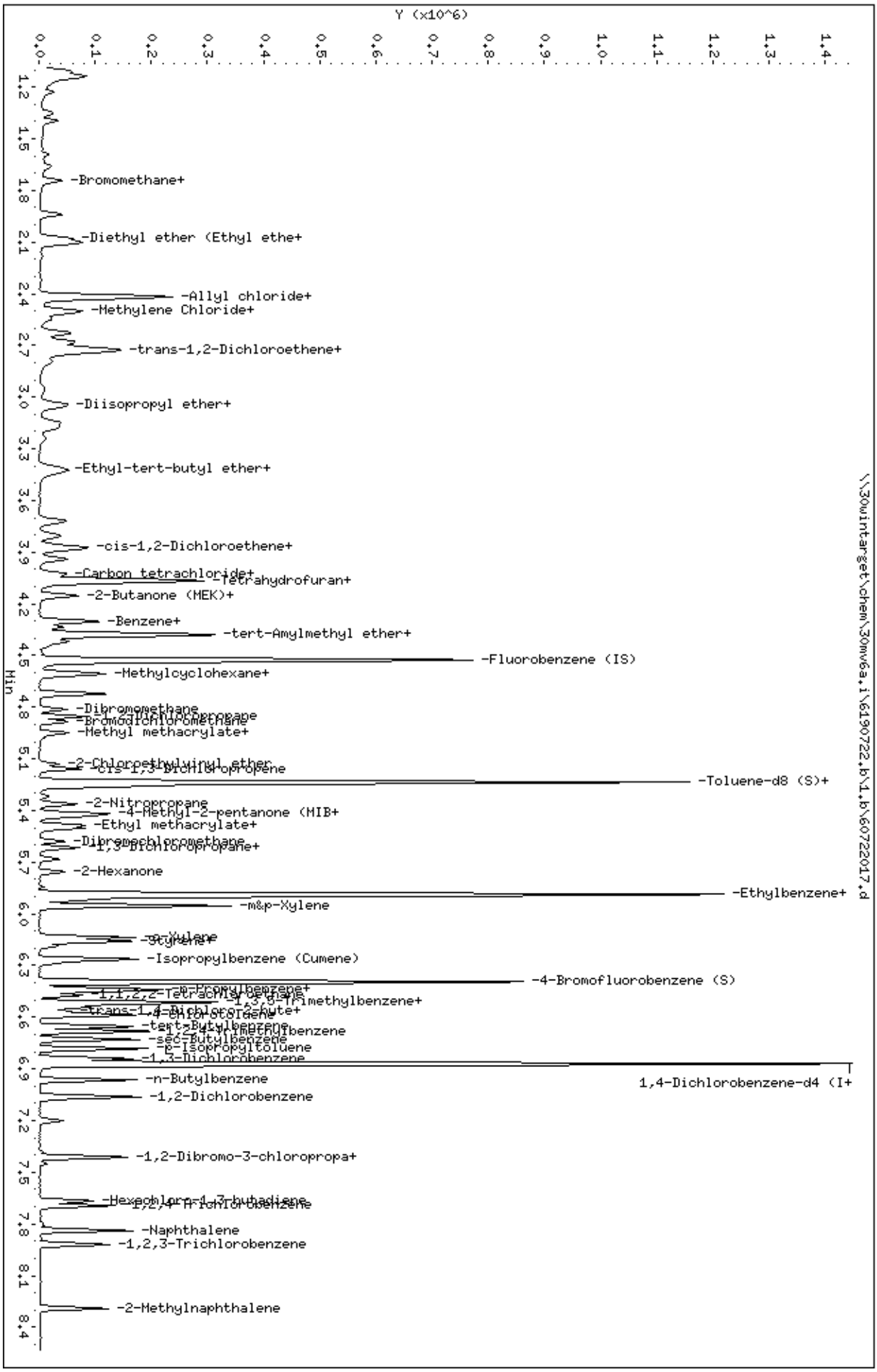
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

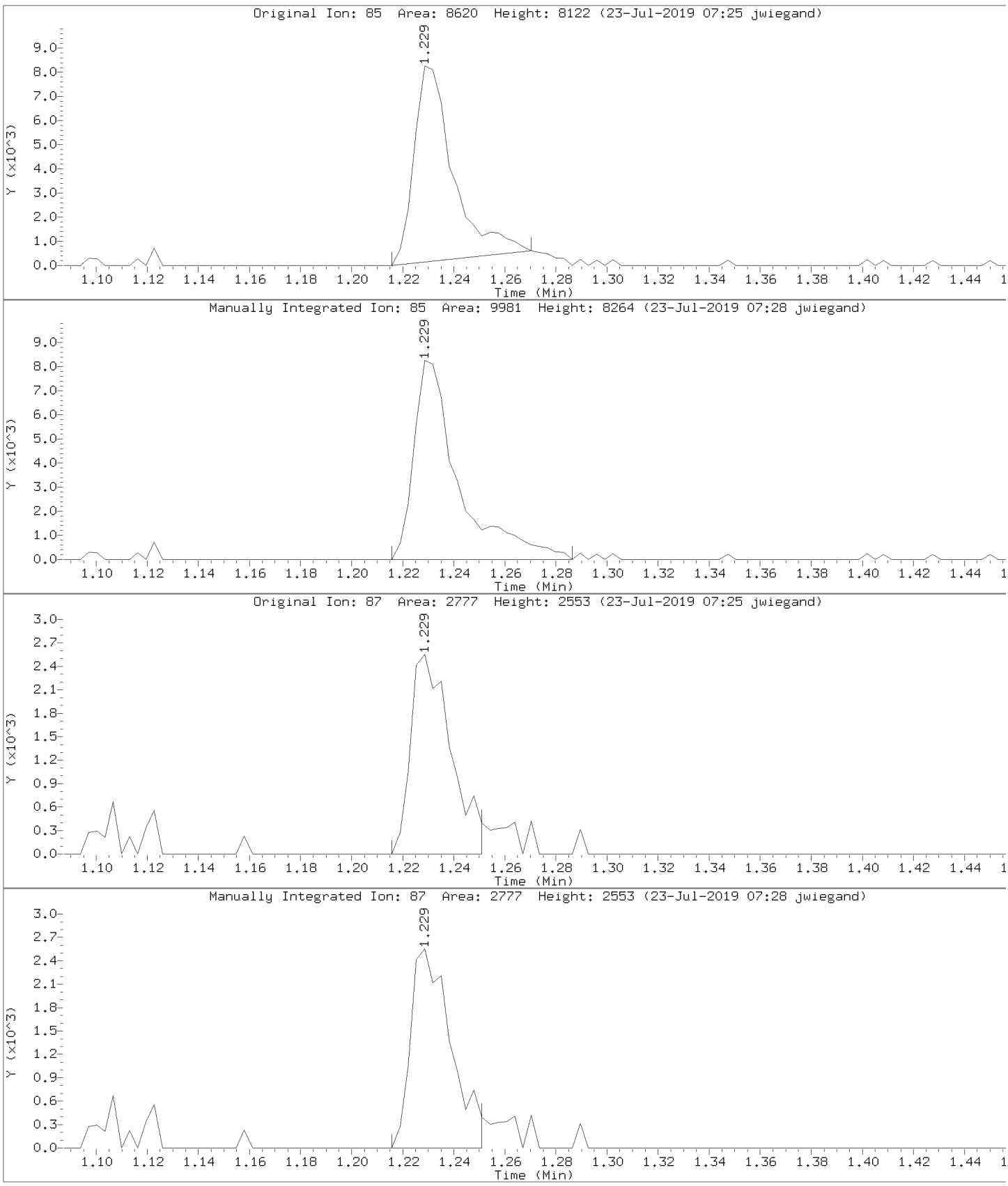
Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	4.11	
99-87-6	p-Isopropyltoluene	4.14	
541-73-1	1,3-Dichlorobenzene	4.63	
106-46-7	1,4-Dichlorobenzene	4.80	
104-51-8	n-Butylbenzene	3.88	
95-50-1	1,2-Dichlorobenzene	4.69	
96-12-8	1,2-Dibromo-3-chloropropane	4.60	
108-70-3	1,3,5-Trichlorobenzene	4.36	
87-68-3	Hexachloro-1,3-butadiene	3.59	
120-82-1	1,2,4-Trichlorobenzene	4.28	
91-20-3	Naphthalene	4.48	
87-61-6	1,2,3-Trichlorobenzene	4.34	
91-57-6	2-Methylnaphthalene	4.33	
1868-53-7	Dibromofluoromethane (S)	33.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.4	
2037-26-5	Toluene-d8 (S)	28.8	
460-00-4	4-Bromofluorobenzene (S)	29.2	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	


Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
Date : 22-JUL-2019 12:13
Client ID: CAL2
Sample Info: CAL2, 94251:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
Y (x10^6)
Min
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722017.d
-Bromomethane+
-Diethyl ether (Ethyl ethe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Diisopropyl ether+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene+
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane+
-2-Hexanone
-Ethylbenzene+
-m&p-Xylene
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,6-Trimethylbenzene+
-trans-1,4-Dichloro-2-bute+
-1,2,4-Trimethylbenzene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722017.d
Injection Date: 22-JUL-2019 12:13
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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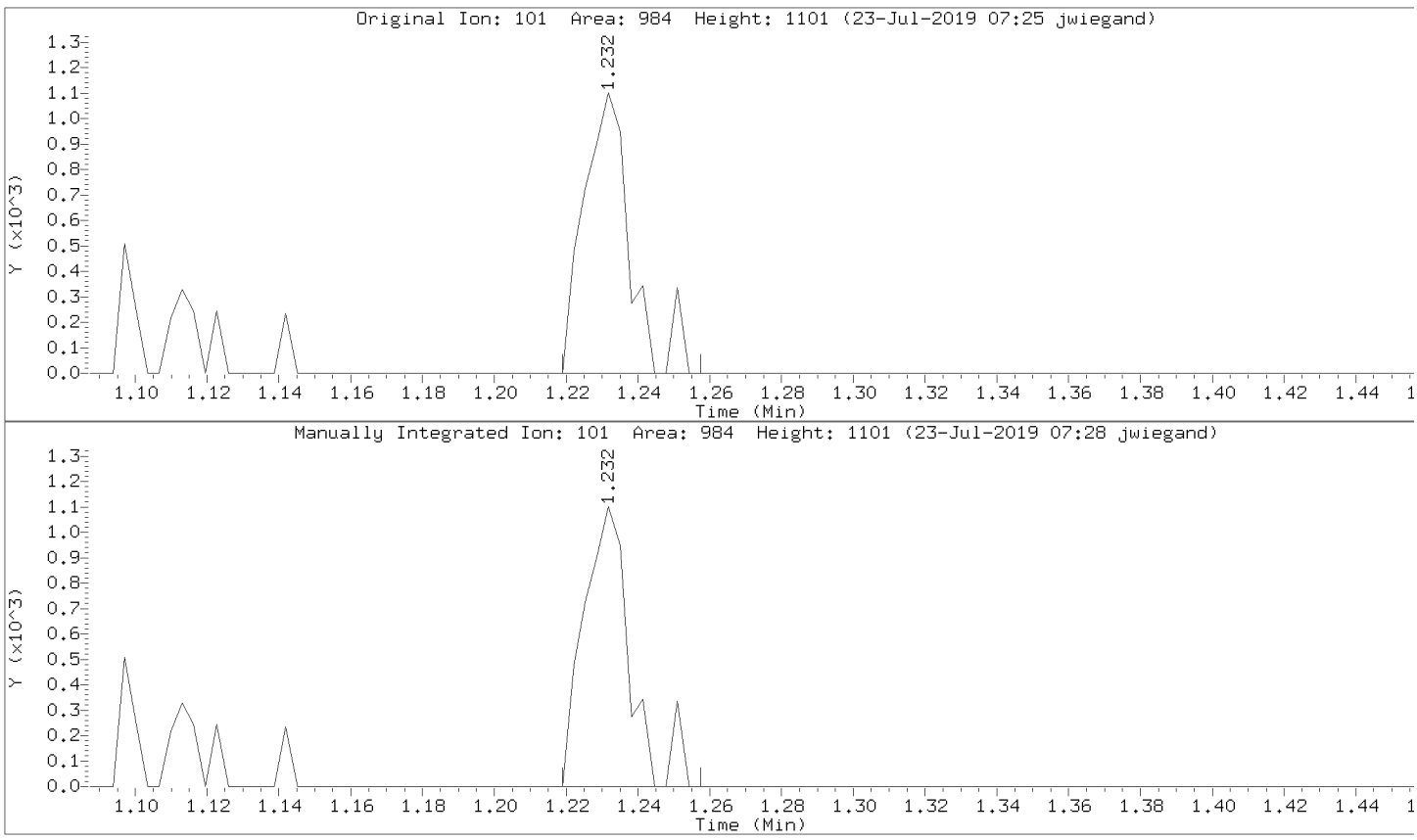
Lab Sample ID: CAL2



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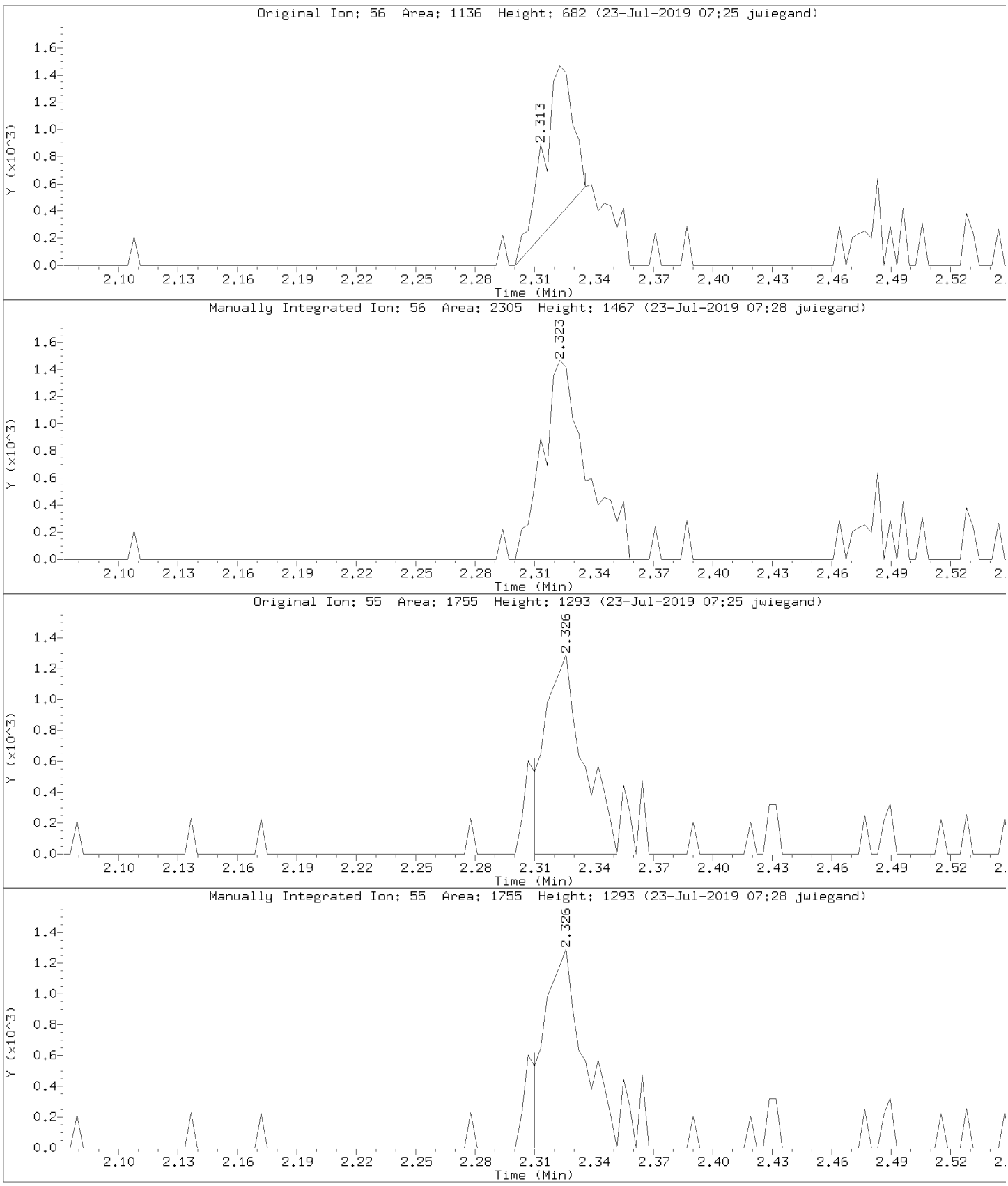
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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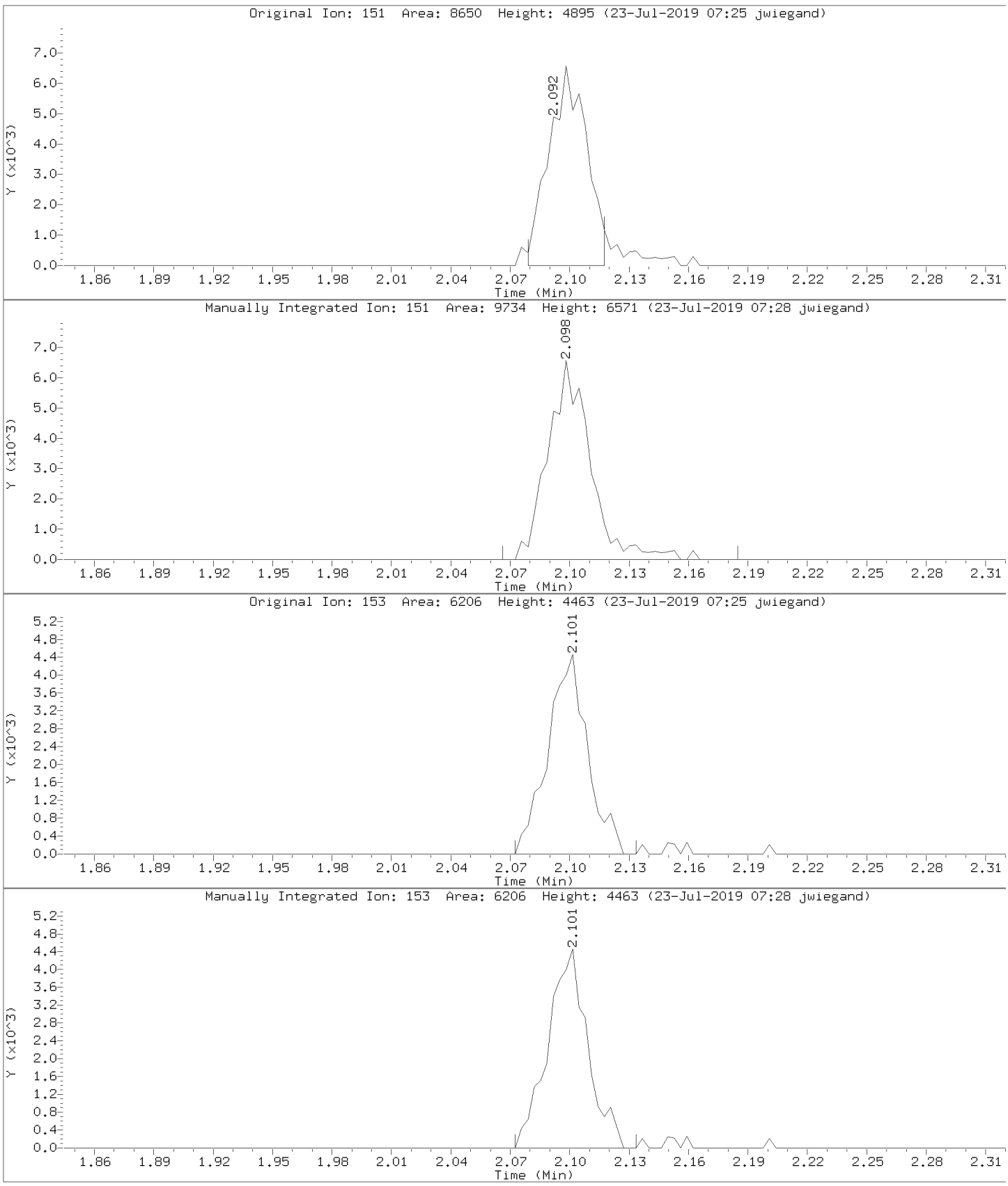
Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1



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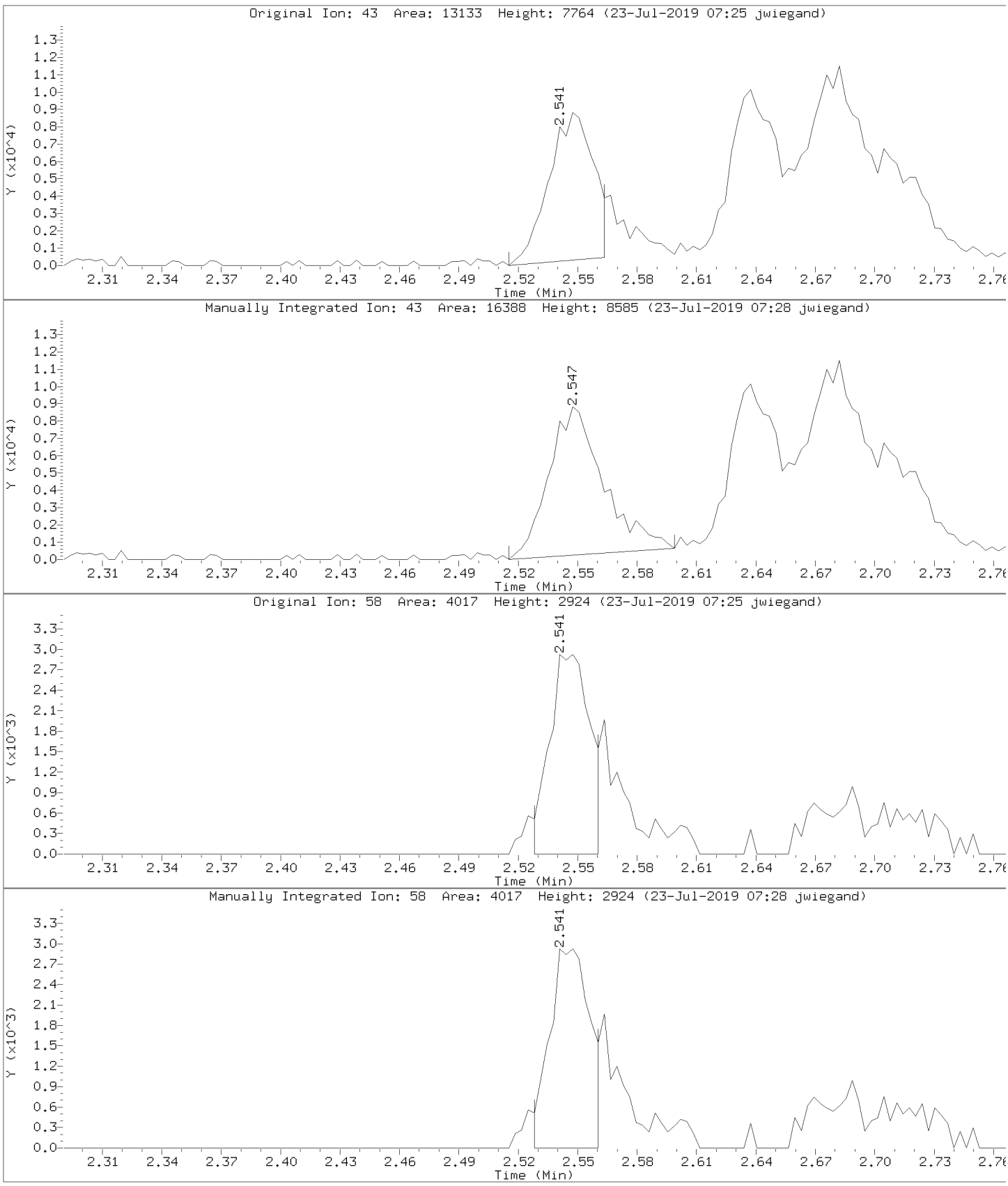
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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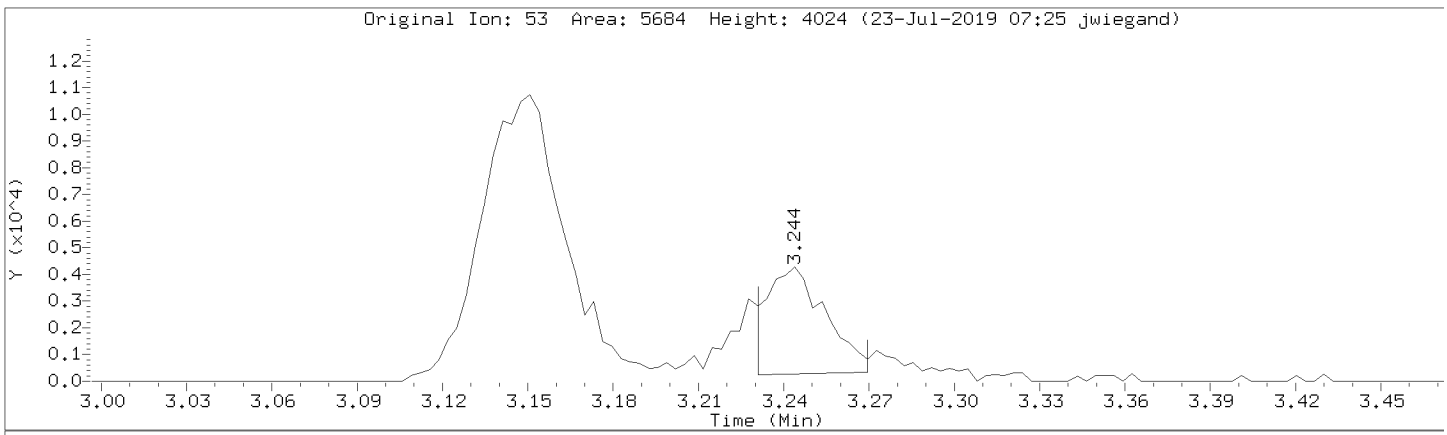
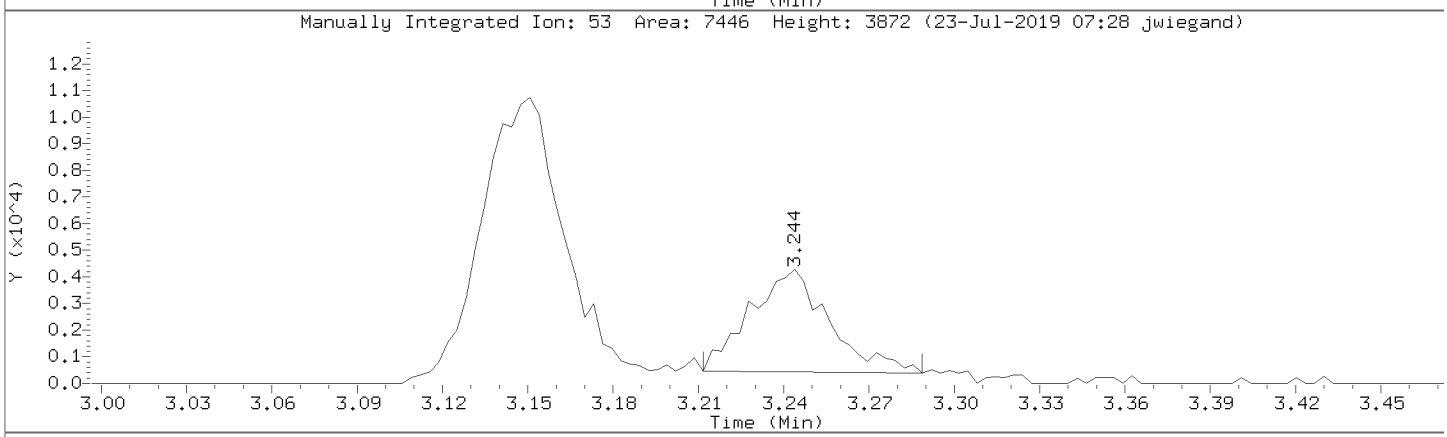
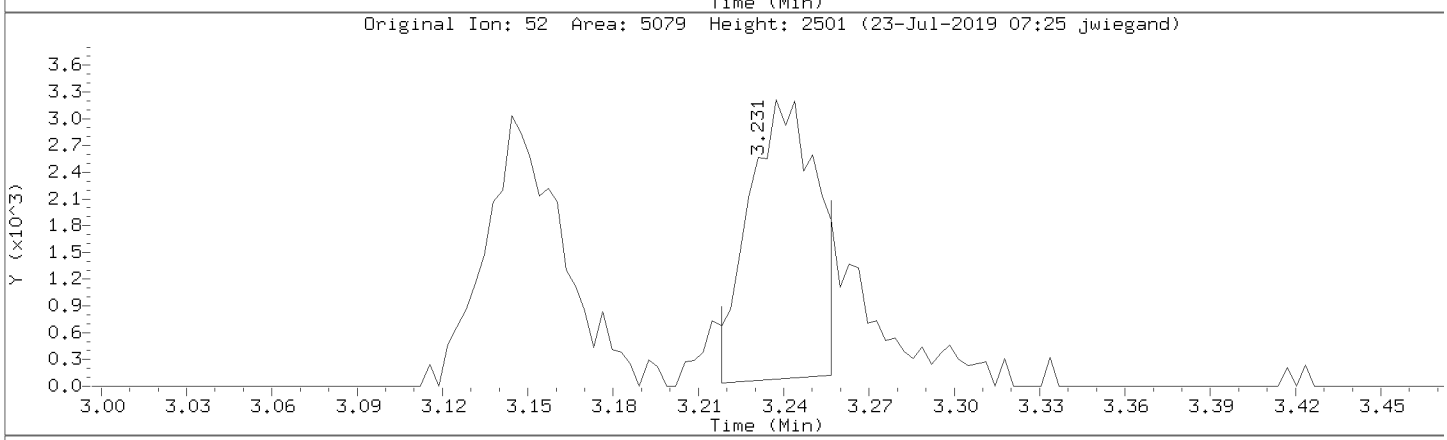
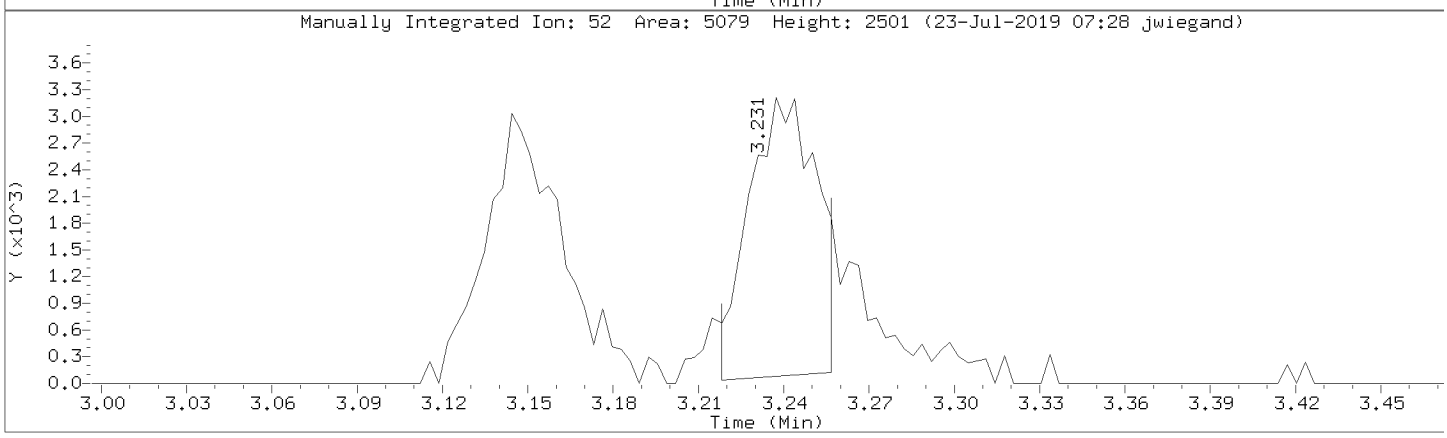
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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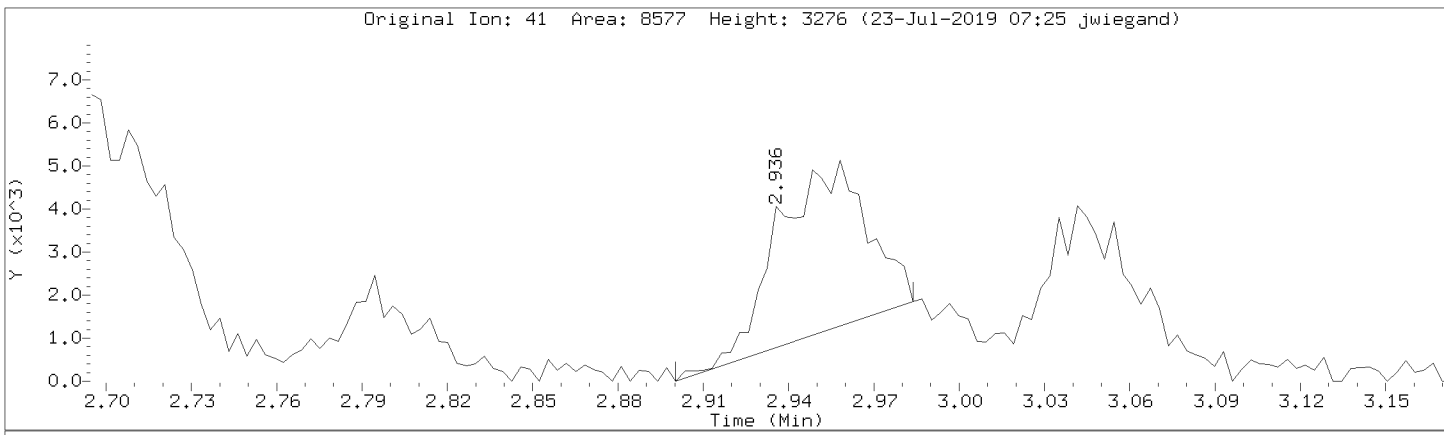
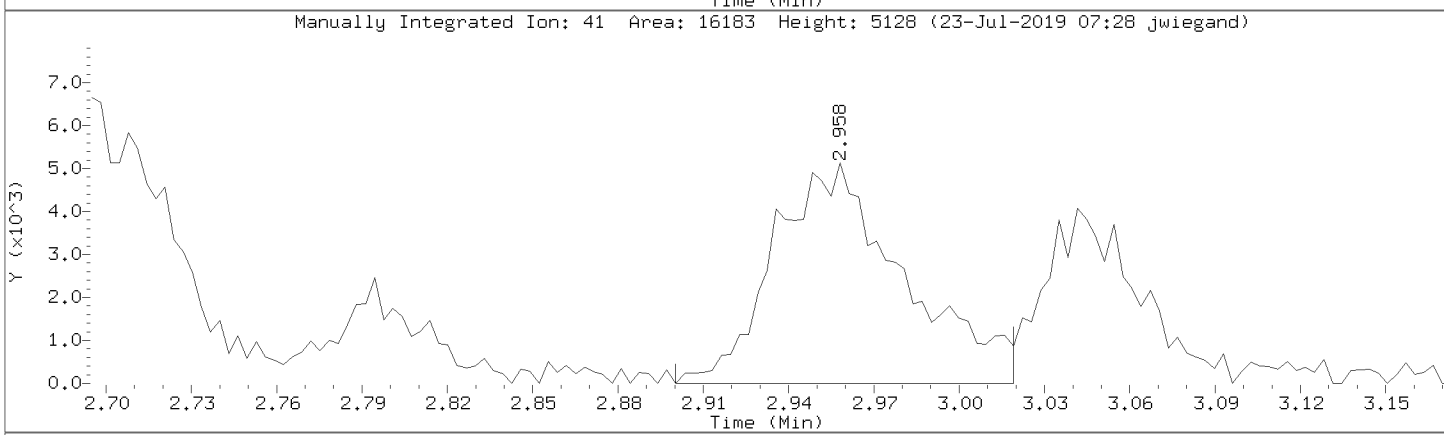
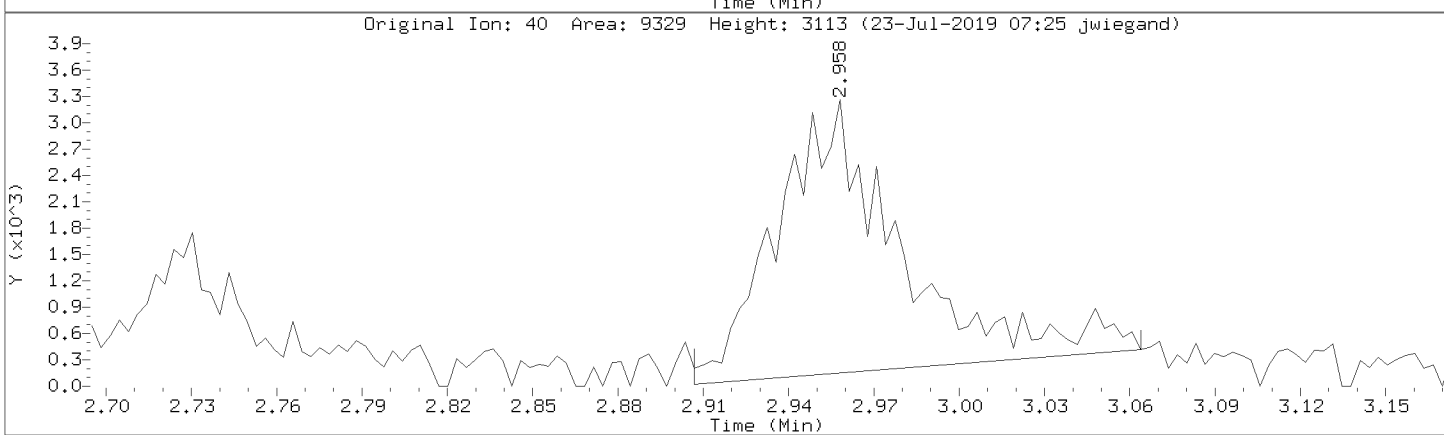
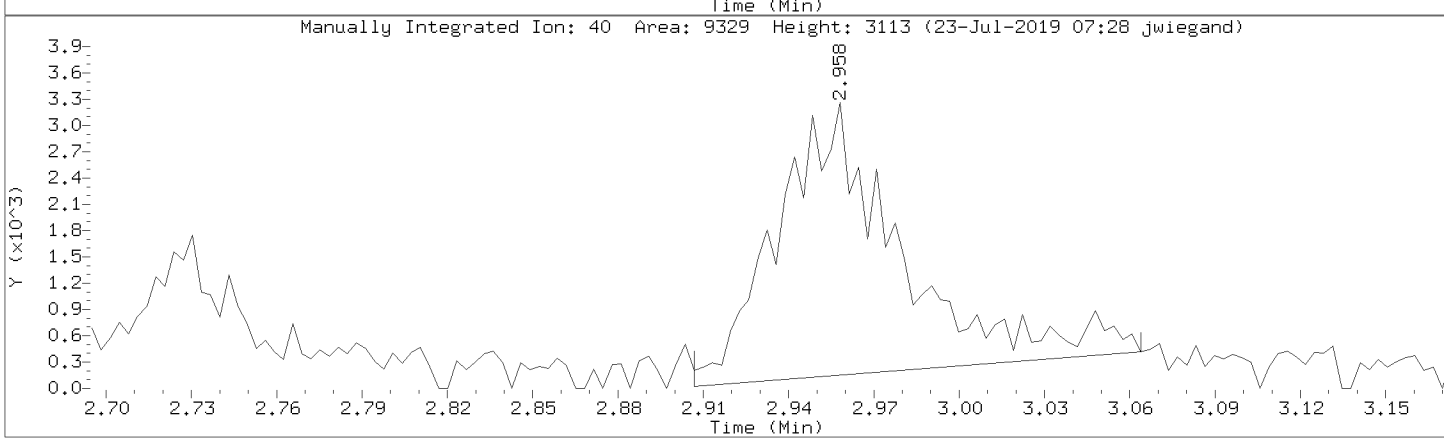
Injection Date: 22-JUL-2019 12:13
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acetonitrile Review Code: LT
CAS Number: 75-05-8









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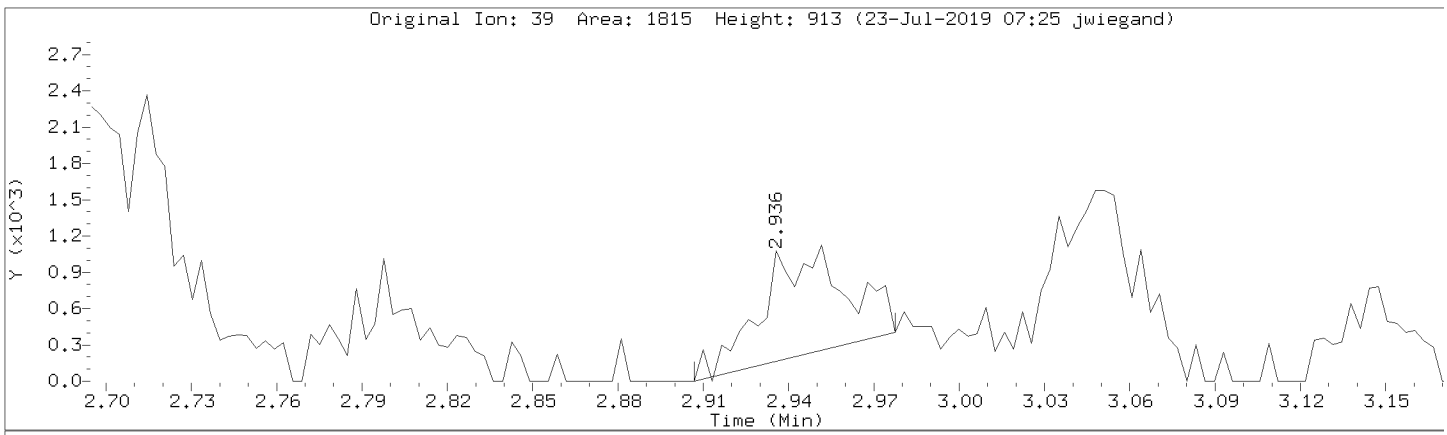
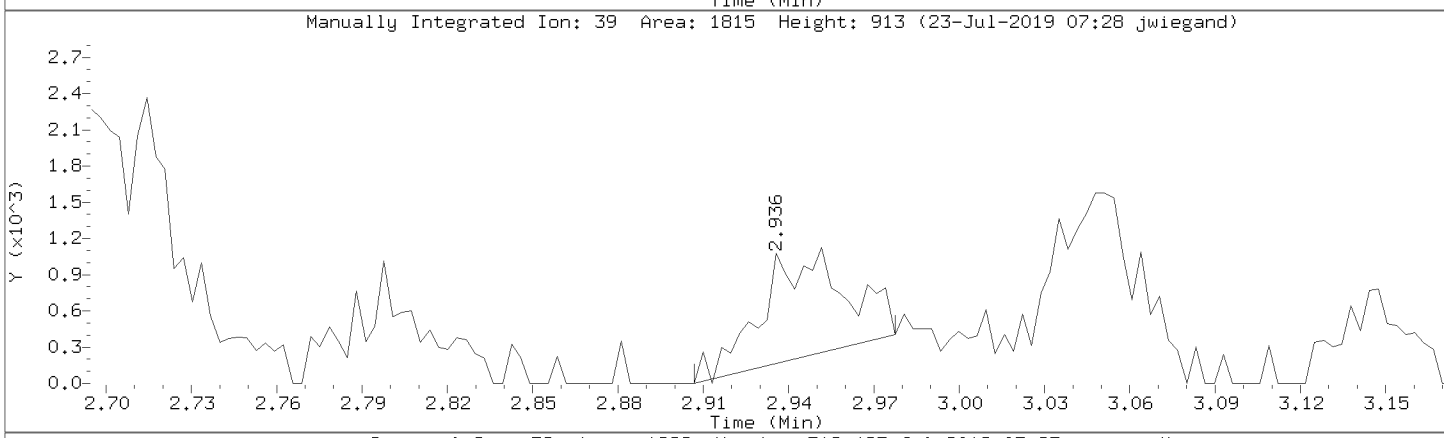
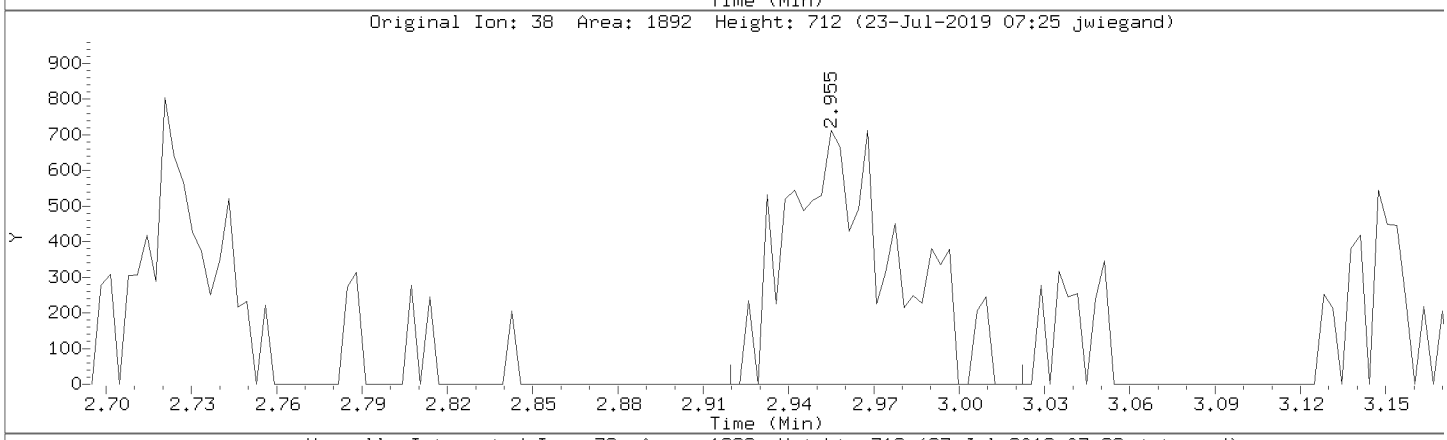
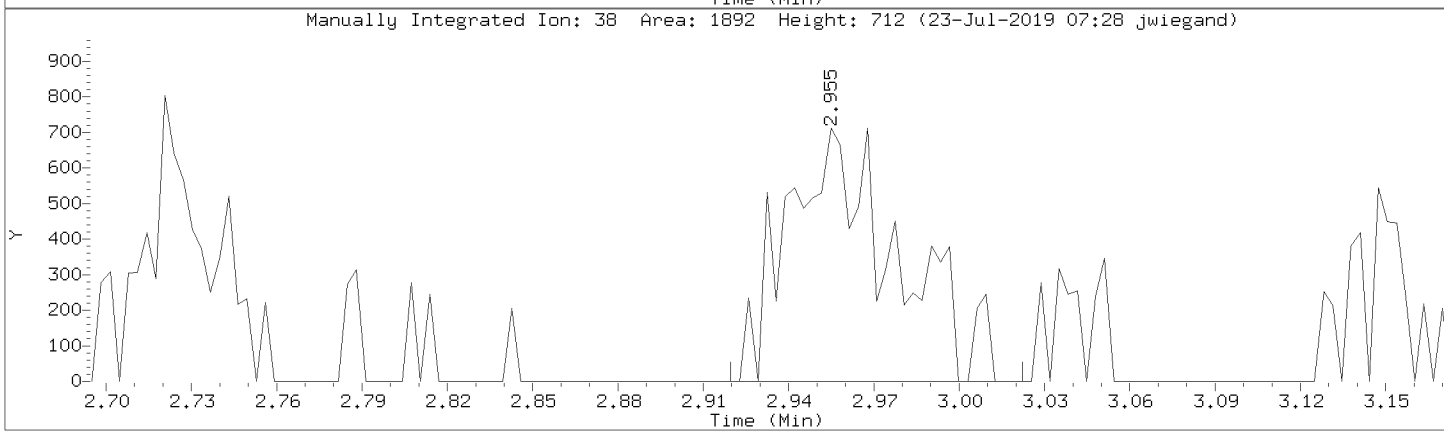
Injection Date: 22-JUL-2019 12:13
Instrument: 30mv6a.i
Lab Sample ID: CAL2









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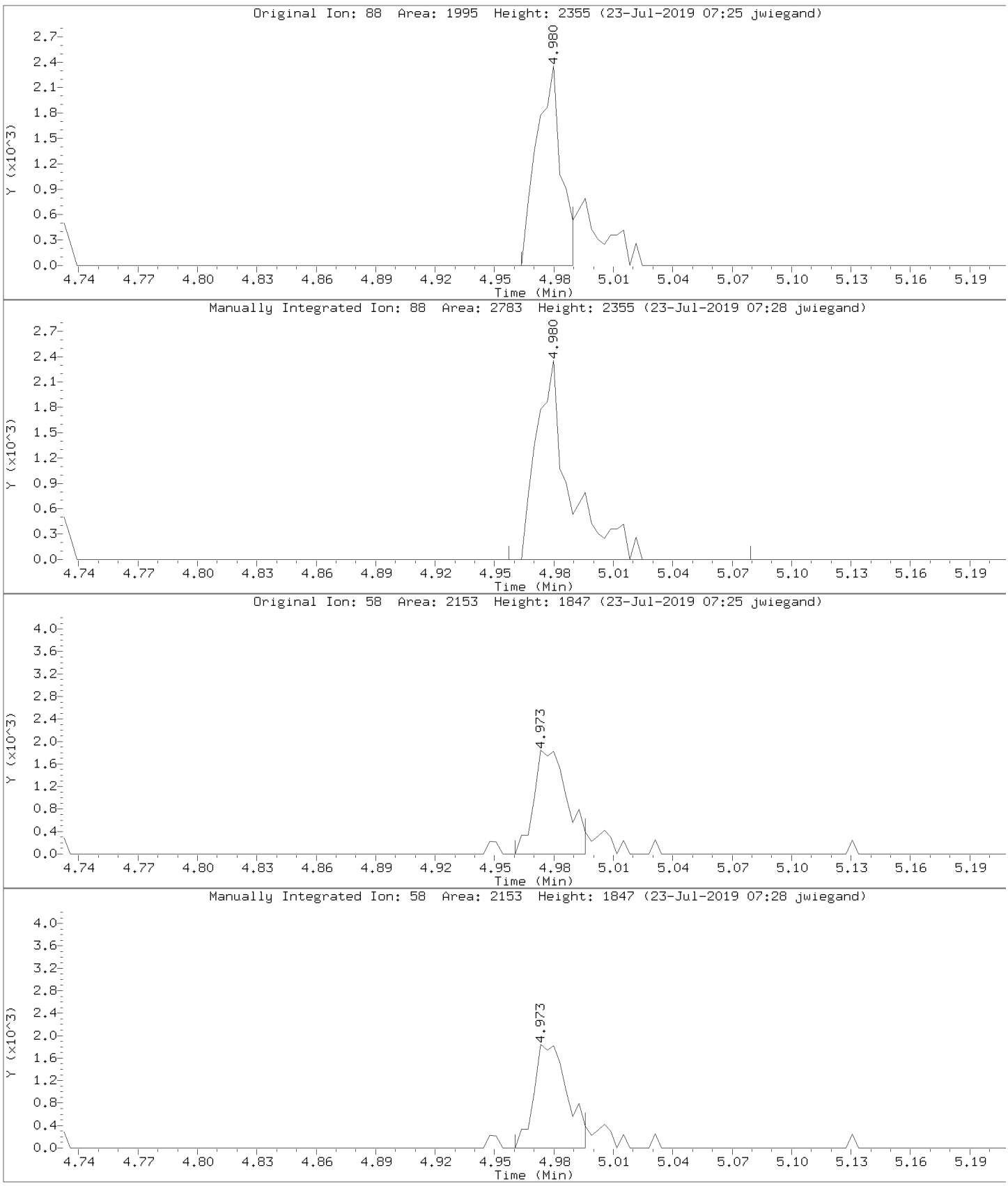
Injection Date: 22-JUL-2019 12:13
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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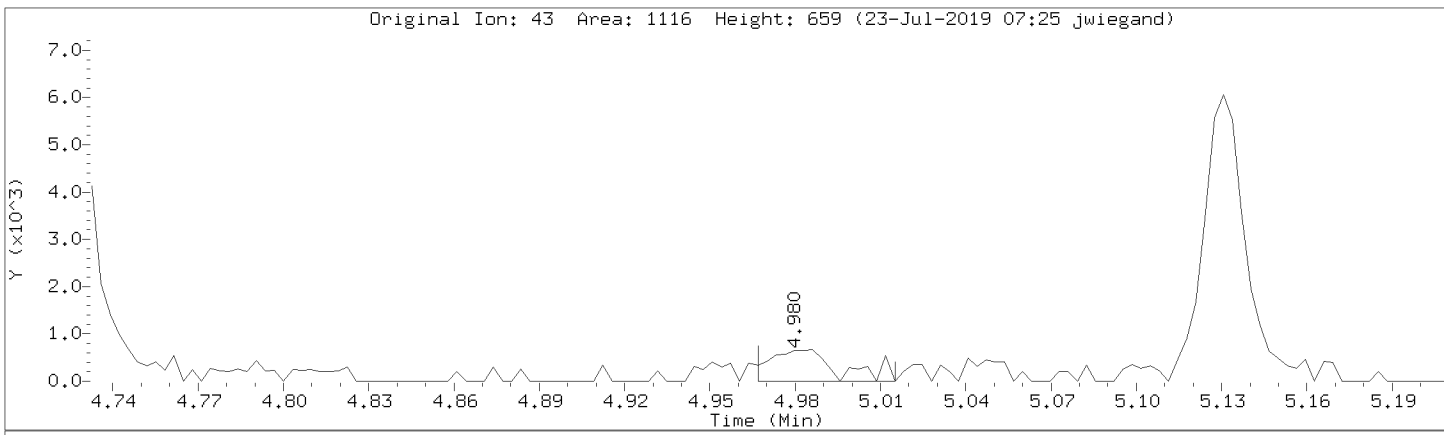
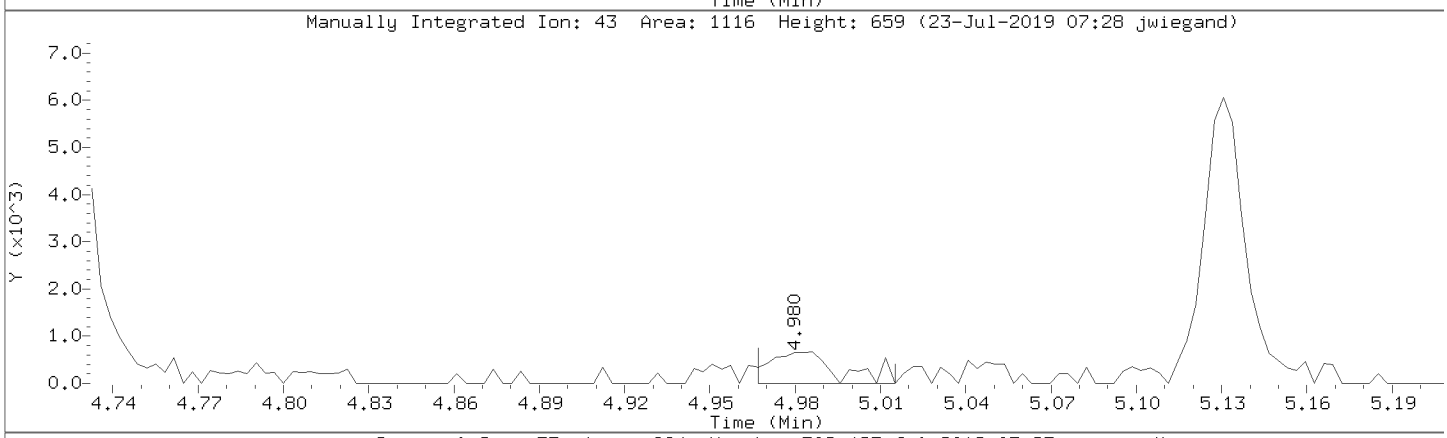
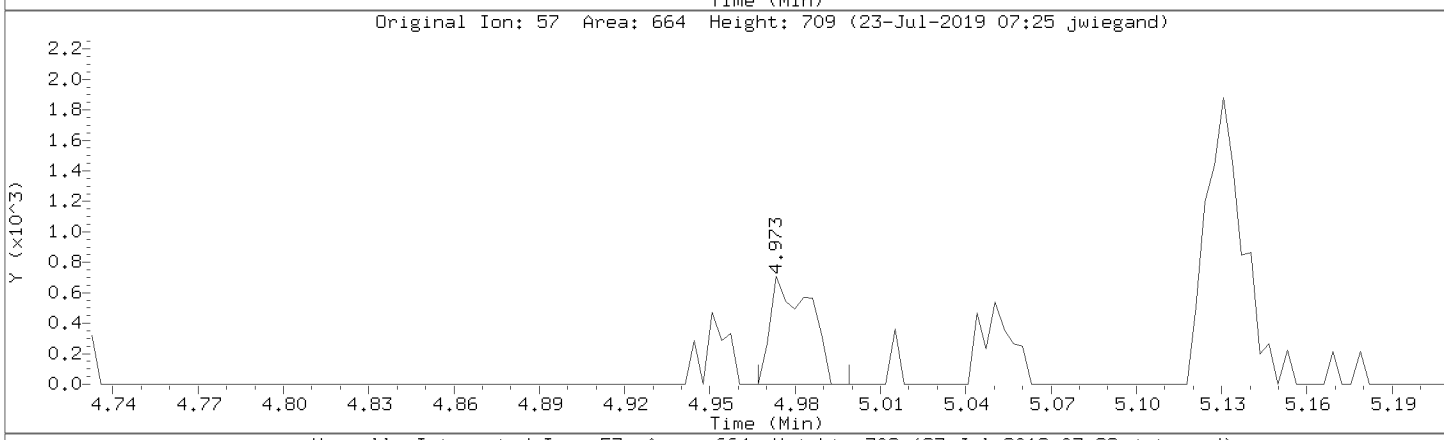
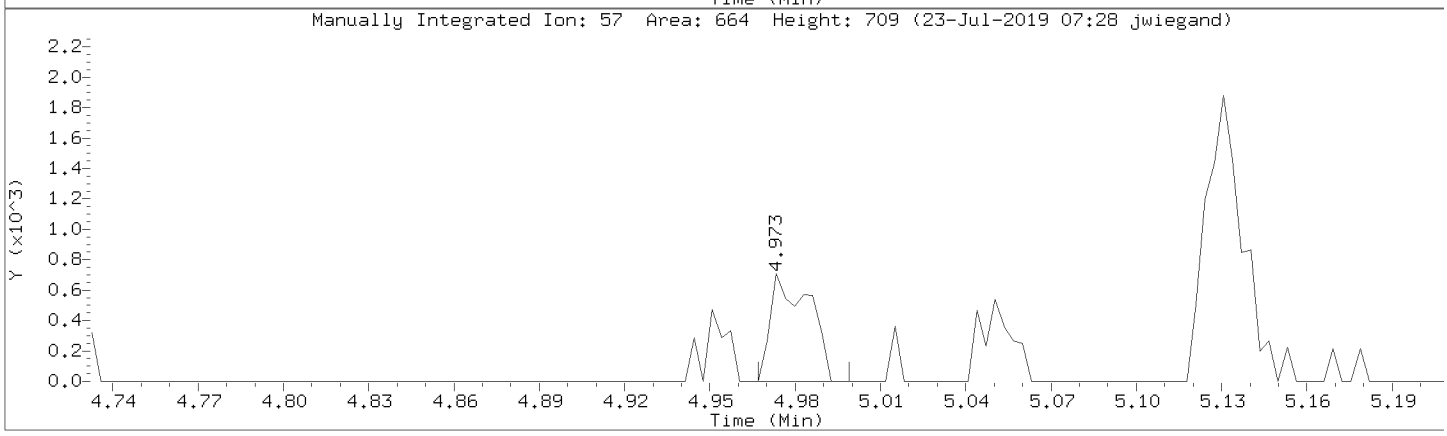
Lab Sample ID: CAL2









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Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 22-JUL-2019 12:39
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal3, 94252:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 12:39 Cal File: 60722019.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.225	(0.271)	19371	10.0000	11.0(QM)	LT
2 Chloromethane	50	1.347	1.347	(0.298)	34425	10.0000	10.9(Q)	
3 Vinyl chloride	62	1.395	1.392	(0.308)	34406	10.0000	11.0	
4 Bromomethane	94	1.587	1.585	(0.351)	6750	10.0000	10.2	
5 Chloroethane	64	1.661	1.655	(0.367)	19958	10.0000	12.0(M)	LT
6 Trichlorofluoromethane	101	1.741	1.739	(0.385)	33164	10.0000	10.3	
7 Diethyl ether (Ethyl ether)	59	1.940	1.935	(0.429)	32372	10.0000	10.5	
8 Ethanol	45	2.049	2.049	(0.298)	8477	100.000	102(aQ)	
9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	48997	10.0000	11.0	
10 1,1,2-Trichlorotrifluoroethane	151	2.097	2.095	(0.463)	17377	10.0000	9.30(QM)	LT
11 Carbon disulfide	76	2.104	2.101	(0.465)	82637	10.0000	11.2	
12 Iodomethane	142	2.181	2.178	(0.482)	11527	10.0000	9.09	
13 Acrolein	56	2.322	2.323	(0.513)	4915	10.0000	11.1(M)	LT
14 Allyl chloride	41	2.415	2.413	(0.534)	278942	50.0000	56.6	
15 Methylene Chloride	49	2.499	2.499	(0.552)	77773	10.0000	13.9	
16 Acetone	43	2.547	2.541	(0.563)	25957	10.0000	16.6(QM)	LT
17 trans-1,2-Dichloroethene	61	2.627	2.624	(0.580)	48252	10.0000	11.0	
18 Methyl acetate	74	2.640	2.634	(0.583)	6173	10.0000	10.3	
19 n-Hexane	86	2.678	2.679	(0.592)	7086	10.0000	9.53(Q)	
20 Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	85494	10.0000	10.0	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.791	2.794	(0.617)	43256	50.0000	52.9(Q)	
	22 Acetonitrile	41	2.948	2.945	(0.651)	32602	50.0000	64.1	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	107634	10.0000	9.45	
	24 Chloroprene	53	3.147	3.151	(0.695)	44132	10.0000	9.92	
	25 1,1-Dichloroethane	63	3.172	3.173	(0.701)	64398	10.0000	11.2	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	15121	10.0000	9.60(M)	LT
	27 Ethyl-tert-butyl ether	59	3.416	3.417	(0.755)	97151	10.0000	9.32	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	85976	10.0000	9.54	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	50515	10.0000	10.9	
	30 2,2-Dichloropropane	77	3.805	3.802	(0.841)	38168	10.0000	9.87	
	31 Cyclohexane	56	3.872	3.869	(0.855)	47474	10.0000	8.60	
	32 Bromochloromethane	130	3.878	3.882	(0.857)	23926	10.0000	11.1	
	33 Chloroform	83	3.939	3.940	(0.870)	55451	10.0000	11.1	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	31540	10.0000	9.20	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	40470	10.0000	9.60	
	36 Tetrahydrofuran	42	4.052	4.065	(0.895)	21104	10.0000	11.0	
$	37 Dibromofluoromethane (S)	111	4.068	4.067	(0.899)	113291	30.0000	32.5	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	45189	10.0000	10.4	
	39 2-Butanone (MEK)	43	4.151	4.155	(0.917)	25798	10.0000	10.4	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	33653	10.0000	9.31	
	41 Benzene	78	4.302	4.299	(0.950)	109760	10.0000	9.90	
	42 Propionitrile	54	4.328	4.325	(0.956)	9105	10.0000	11.2(Q)	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	25394	10.0000	10.4(Q)	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	73557	10.0000	9.24	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	110703	30.0000	32.2	
	46 Isobutanol	43	4.440	4.444	(0.981)	14402	50.0000	45.1(Q)	
	47 1,2-Dichloroethane	62	4.417	4.418	(0.976)	45525	10.0000	11.1	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	413743	30.0000		
	49 Methylcyclohexane	83	4.600	4.604	(1.016)	29541	10.0000	6.94	
	50 Trichloroethene	95	4.613	4.611	(0.784)	29165	10.0000	9.20	
	51 Dibromomethane	174	4.812	4.813	(1.063)	22875	10.0000	10.5	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	35465	10.0000	10.3	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	35889	10.0000	9.89	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	21436	10.0000	9.48	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.983	(1.100)	6039	100.000	112(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	17735	10.0000	8.68	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	44799	10.0000	9.58	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	396129	30.0000	29.1	
	59 Toluene	91	5.258	5.259	(0.893)	120084	10.0000	9.54	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	47546	50.0000	42.5	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	43115	10.0000	10.0	
	62 Tetrachloroethene	166	5.419	5.423	(0.920)	29236	10.0000	8.75	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	42229	10.0000	8.98	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	33651	10.0000	9.89(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	27007	10.0000	9.16	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	29279	10.0000	8.53	
	67 1,3-Dichloropropane	76	5.614	5.618	(0.954)	44663	10.0000	9.16	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	28873	10.0000	9.03	
	69 2-Hexanone	43	5.756	5.760	(0.978)	35508	10.0000	9.88	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	46416	10.0000	9.46	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	332028	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	89542	10.0000	9.82	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	28196	10.0000	8.29	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	110545	20.0000	18.5	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.137	6.138	(1.043)	53914	10.0000	8.97	
	76 Styrene	104	6.157	6.161	(1.046)	97305	10.0000	9.40	
	77 Bromoform	173	6.186	6.186	(0.900)	19557	10.0000	7.80	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	125859	10.0000	8.38	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	142651	30.0000	29.4	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	140337	10.0000	8.26	
	81 Bromobenzene	77	6.446	6.446	(0.938)	60109	10.0000	9.24	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	37888	10.0000	8.89	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	107357	10.0000	8.42	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	35256	10.0000	8.92	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	13173	10.0000	9.09	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	14341	10.0000	9.18	
	87 Cyclohexanone	55	6.567	6.571	(0.956)	30575	50.0000	50.6	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	37275	10.0000	8.84	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	96606	10.0000	7.94	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	113019	10.0000	8.56	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	125556	10.0000	7.64	
	92 p-Isopropyltoluene	119	6.782	6.783	(0.987)	122920	10.0000	7.97	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	78050	10.0000	9.14	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	201613	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	81197	10.0000	9.26	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	92347	10.0000	7.32	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	76870	10.0000	9.16	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	201565	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	11890	10.0000	8.83	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	48752	10.0000	8.45	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	18649	10.0000	6.38	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	46870	10.0000	8.55	
	102 Naphthalene	128	7.838	7.842	(1.141)	151106	10.0000	9.29	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	41885	10.0000	8.47	
	104 2-Methylnaphthalene	142	8.294	8.298	(1.207)	69399	10.0000	8.81	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722019.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	413743	-4.80
71 Chlorobenzene-d5	335570	167785	671140	332028	-1.06
94 1,4-Dichlorobenze	199759	99880	399518	201613	0.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	11.0	
74-87-3	Chloromethane	10.9	
75-01-4	Vinyl chloride	11.0	
74-83-9	Bromomethane	10.2	
75-00-3	Chloroethane	12.0	
75-69-4	Trichlorofluoromethane	10.3	
60-29-7	Diethyl ether (Ethyl ether)	10.5	
64-17-5	Ethanol	102	J
75-35-4	1,1-Dichloroethene	11.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	9.30	
75-15-0	Carbon disulfide	11.2	
74-88-4	Iodomethane	9.09	
107-02-8	Acrolein	11.1	
107-05-1	Allyl chloride	56.6	
75-09-2	Methylene Chloride	13.9	
67-64-1	Acetone	16.6	
156-60-5	trans-1,2-Dichloroethene	11.0	
79-20-9	Methyl acetate	10.3	
110-54-3	n-Hexane	9.53	
1634-04-4	Methyl-tert-butyl ether	10.0	
75-65-0	tert-Butyl Alcohol	52.9	
75-05-8	Acetonitrile	64.1	
108-20-3	Diisopropyl ether	9.45	
126-99-8	Chloroprene	9.92	
75-34-3	1,1-Dichloroethane	11.2	
107-13-1	Acrylonitrile	9.60	
637-92-3	Ethyl-tert-butyl ether	9.32	
108-05-4	Vinyl acetate	9.54	
156-59-2	cis-1,2-Dichloroethene	10.9	
594-20-7	2,2-Dichloropropane	9.87	
110-82-7	Cyclohexane	8.60	
74-97-5	Bromochloromethane	11.1	
67-66-3	Chloroform	11.1	
56-23-5	Carbon tetrachloride	9.20	
141-78-6	Ethyl acetate	9.60	
109-99-9	Tetrahydrofuran	11.0	
71-55-6	1,1,1-Trichloroethane	10.4	
78-93-3	2-Butanone (MEK)	10.4	
563-58-6	1,1-Dichloropropene	9.31	
71-43-2	Benzene	9.90	
107-12-0	Propionitrile	11.2	
126-98-7	Methacrylonitrile	10.4	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	9.24	
78-83-1	Isobutanol	45.1	
107-06-2	1,2-Dichloroethane	11.1	
108-87-2	Methylcyclohexane	6.94	
79-01-6	Trichloroethene	9.20	
74-95-3	Dibromomethane	10.5	
78-87-5	1,2-Dichloropropane	10.3	
75-27-4	Bromodichloromethane	9.89	
80-62-6	Methyl methacrylate	9.48	
123-91-1	1,4-Dioxane (p-Dioxane)	112	
110-75-8	2-Chloroethylvinyl ether	8.68	
10061-01-5	cis-1,3-Dichloropropene	9.58	
108-88-3	Toluene	9.54	
79-46-9	2-Nitropropane	42.5	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.0	
127-18-4	Tetrachloroethene	8.75	
10061-02-6	trans-1,3-Dichloropropene	8.98	
97-63-2	Ethyl methacrylate	9.89	
79-00-5	1,1,2-Trichloroethane	9.16	
124-48-1	Dibromochloromethane	8.53	
142-28-9	1,3-Dichloropropane	9.16	
106-93-4	1,2-Dibromoethane (EDB)	9.03	
591-78-6	2-Hexanone	9.88	
100-41-4	Ethylbenzene	9.46	
108-90-7	Chlorobenzene	9.82	
630-20-6	1,1,1,2-Tetrachloroethane	8.29	
7816-60-0	m&p-Xylene	18.5	
95-47-6	o-Xylene	8.97	
100-42-5	Styrene	9.40	
75-25-2	Bromoform	7.80	
98-82-8	Isopropylbenzene (Cumene)	8.38	
103-65-1	n-Propylbenzene	8.26	
108-86-1	Bromobenzene	9.24	
79-34-5	1,1,2,2-Tetrachloroethane	8.89	
108-67-8	1,3,5-Trimethylbenzene	8.42	
95-49-8	2-Chlorotoluene	8.92	
96-18-4	1,2,3-Trichloropropane	9.09	
110-57-6	trans-1,4-Dichloro-2-butene	9.18	
108-94-1	Cyclohexanone	50.6	
106-43-4	4-Chlorotoluene	8.84	
98-06-6	tert-Butylbenzene	7.94	
95-63-6	1,2,4-Trimethylbenzene	8.56	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Report Date: 23-Jul-2019 07:54

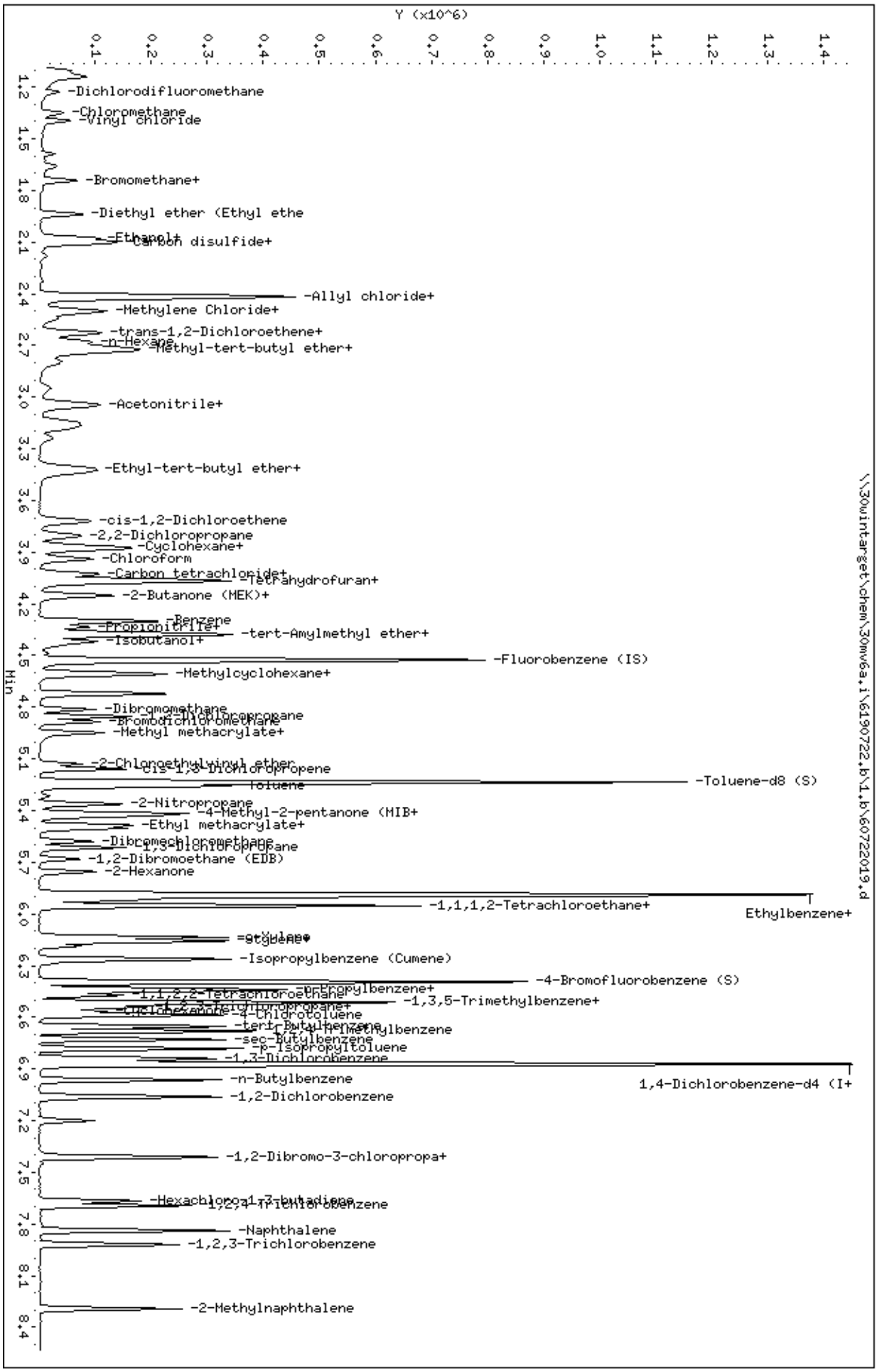
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

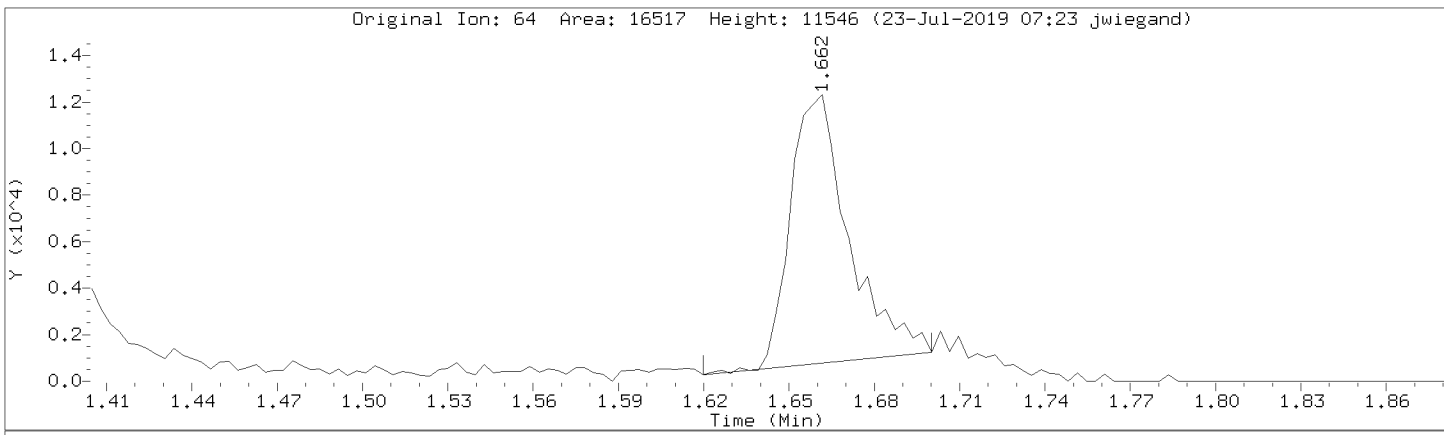
Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

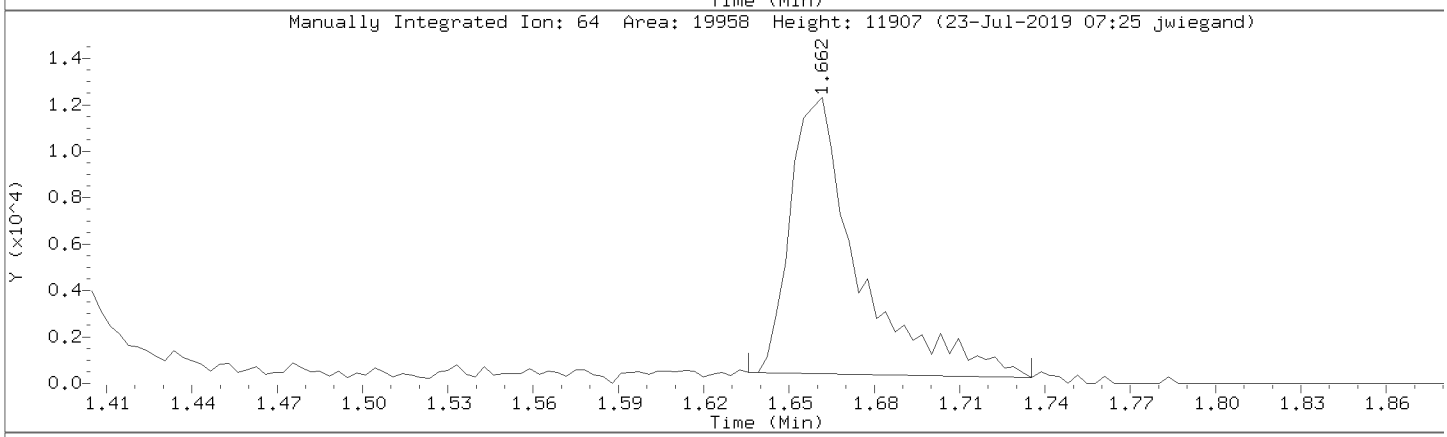
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	7.64	
99-87-6	p-Isopropyltoluene	7.97	
541-73-1	1,3-Dichlorobenzene	9.14	
106-46-7	1,4-Dichlorobenzene	9.26	
104-51-8	n-Butylbenzene	7.32	
95-50-1	1,2-Dichlorobenzene	9.16	
96-12-8	1,2-Dibromo-3-chloropropane	8.83	
108-70-3	1,3,5-Trichlorobenzene	8.45	
87-68-3	Hexachloro-1,3-butadiene	6.38	
120-82-1	1,2,4-Trichlorobenzene	8.55	
91-20-3	Naphthalene	9.29	
87-61-6	1,2,3-Trichlorobenzene	8.47	
91-57-6	2-Methylnaphthalene	8.81	
1868-53-7	Dibromofluoromethane (S)	32.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.2	
2037-26-5	Toluene-d8 (S)	29.1	
460-00-4	4-Bromofluorobenzene (S)	29.4	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

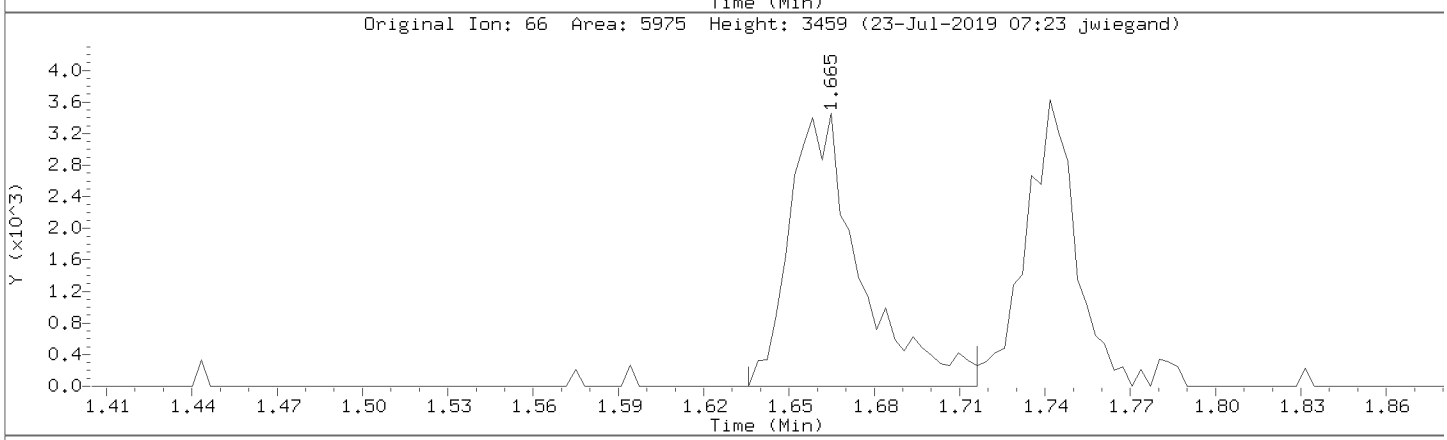

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Date : 22-JUL-2019 12:39
Client ID: CAL3
Sample Info: CAL3, 94252:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722019.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane+
-Diethyl ether (Ethyl ethe
-Ethanol+
-Carbon disulfide+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
-1,1,1,2-Tetrachloroethane+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

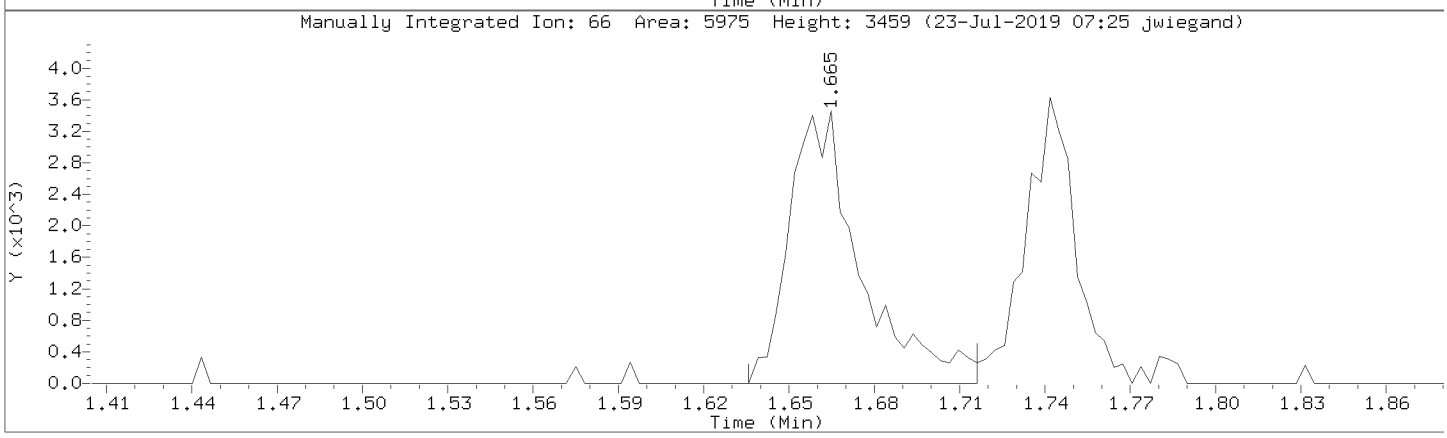
Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722019.d
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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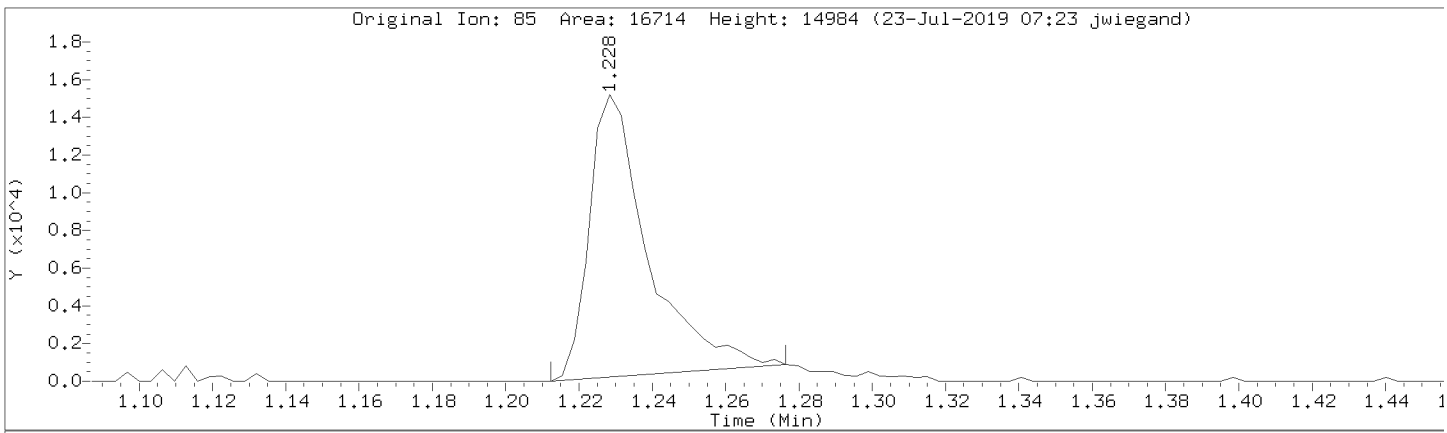
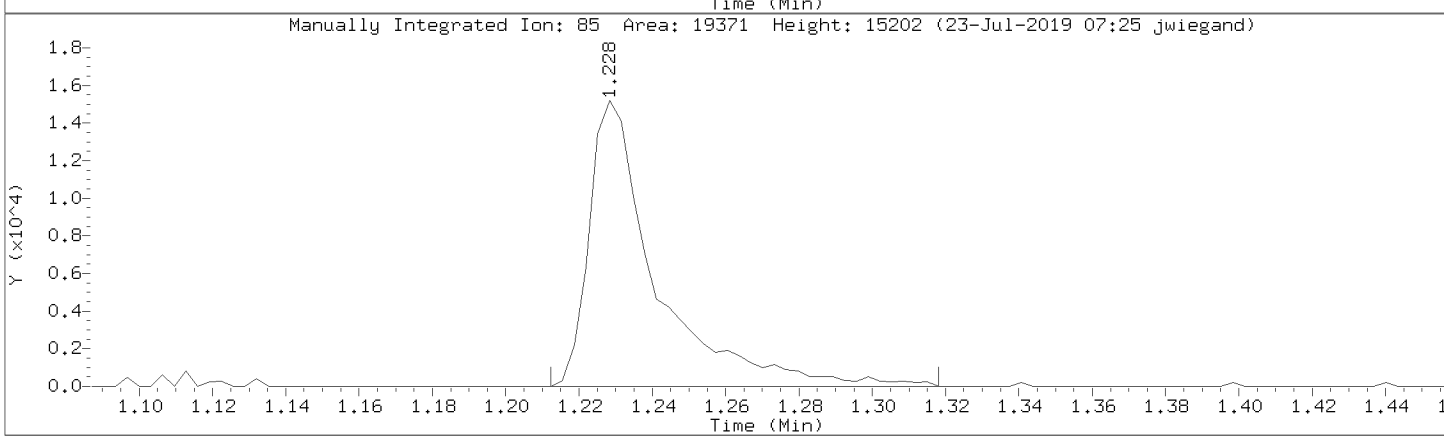
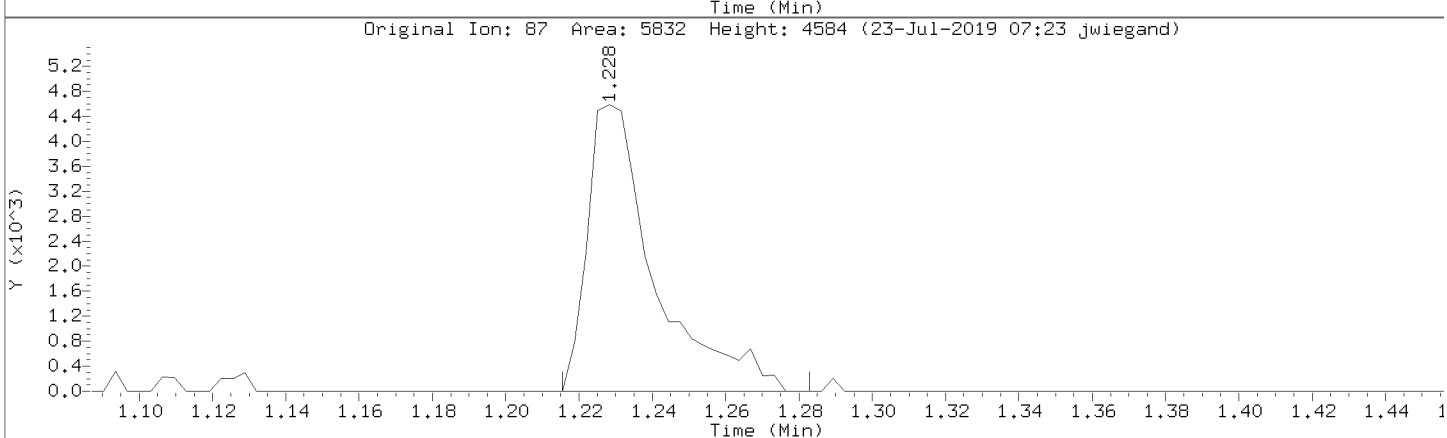
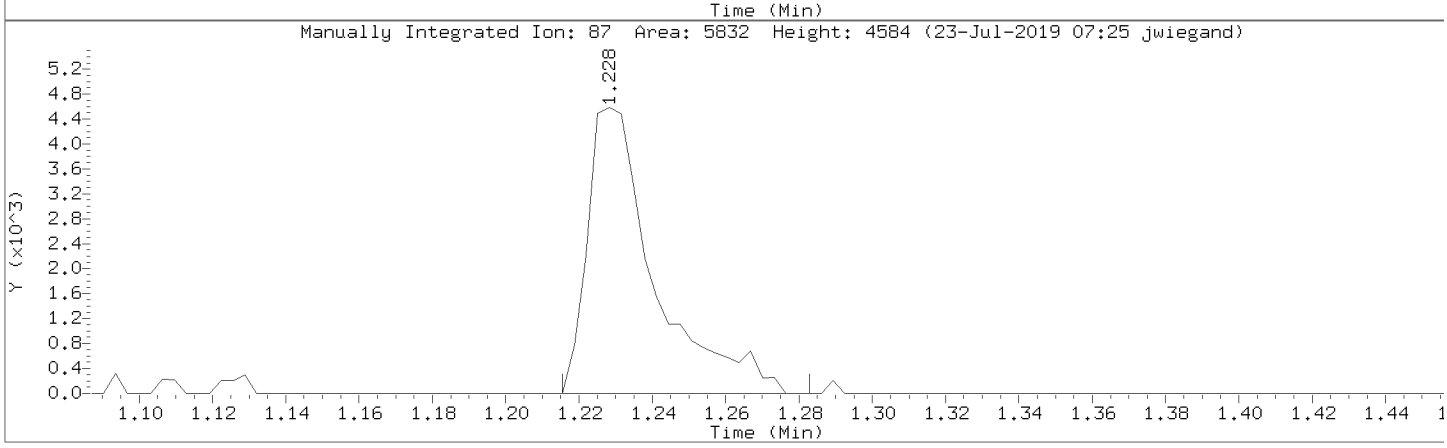
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4









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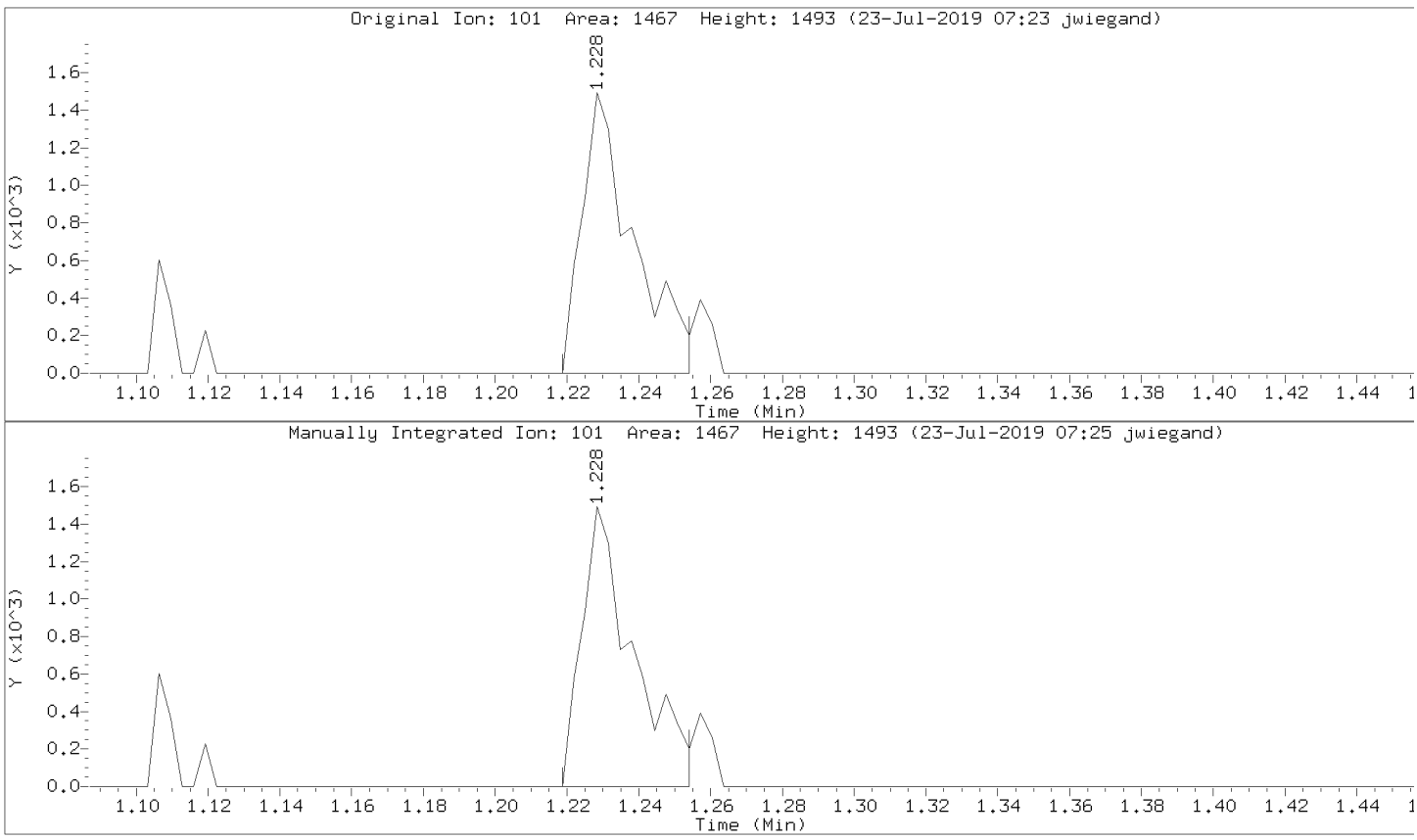
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3



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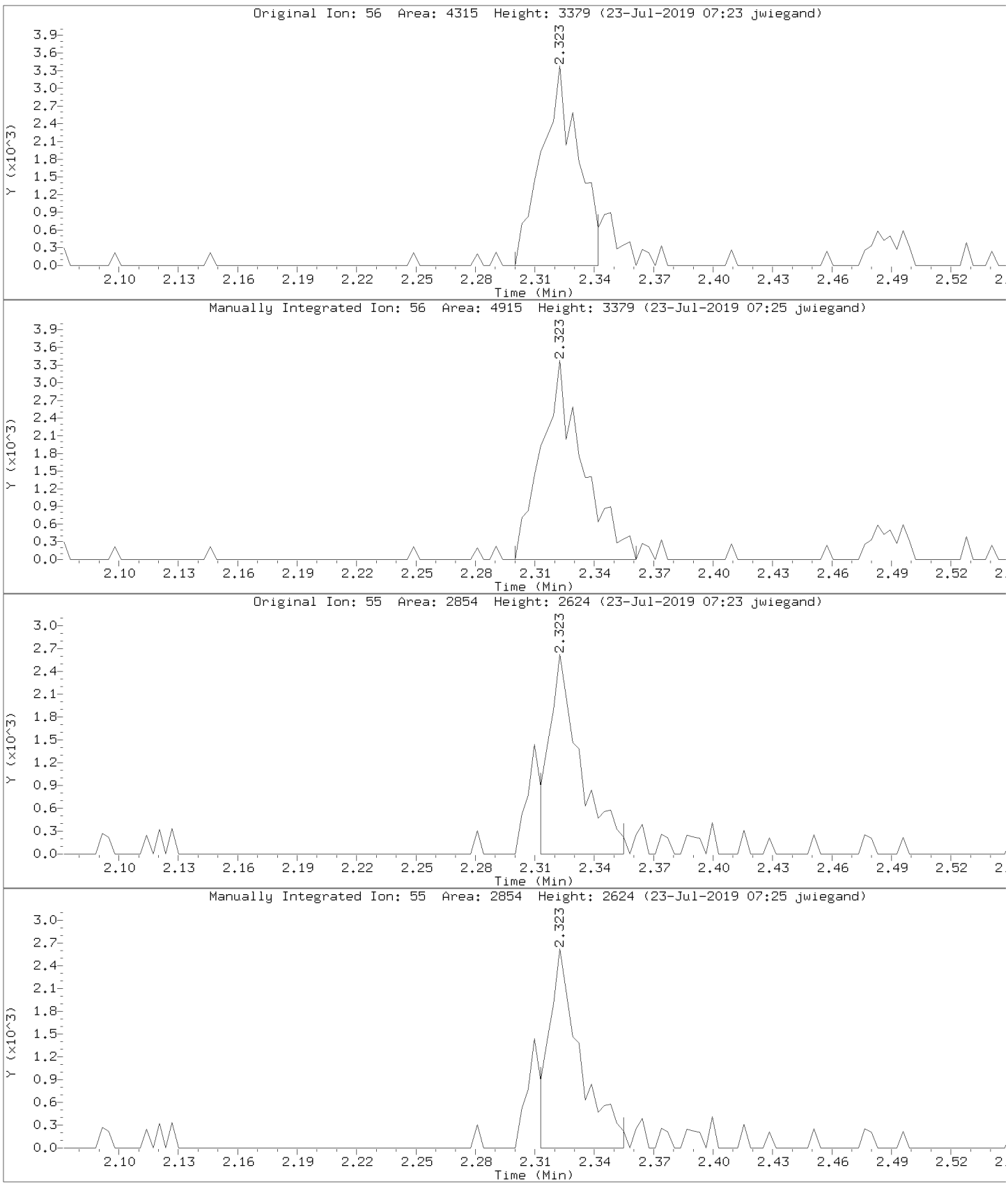
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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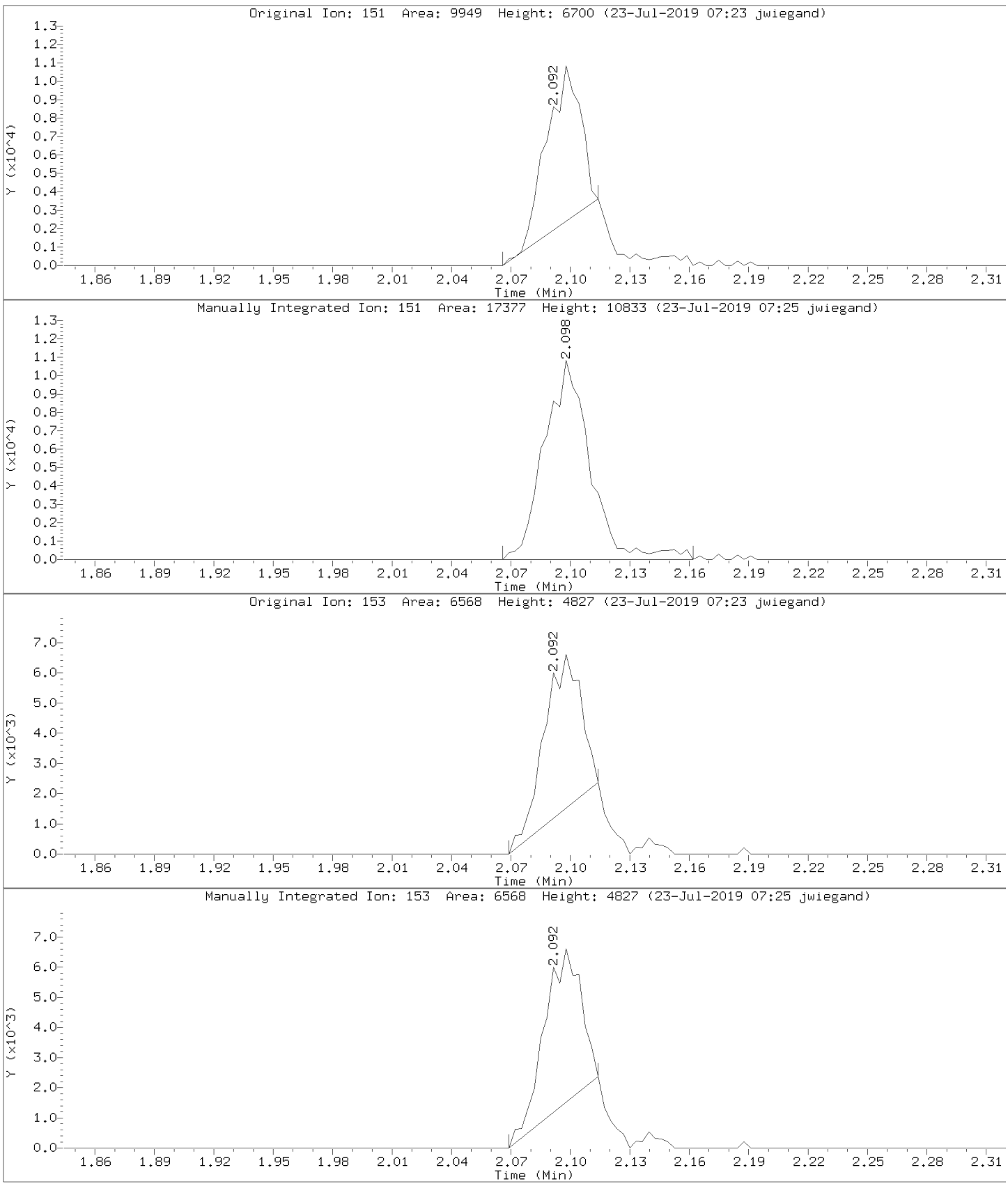
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1



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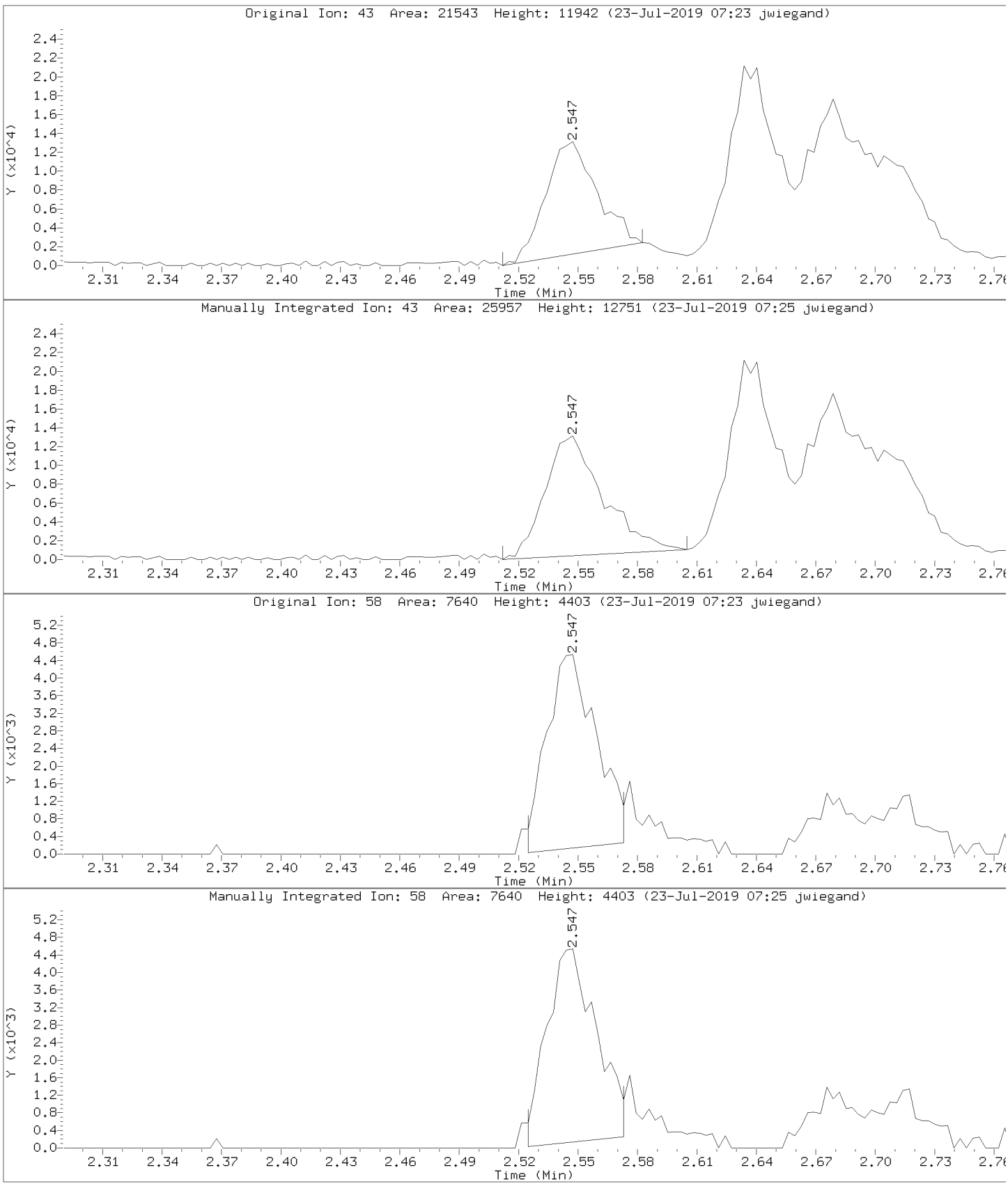
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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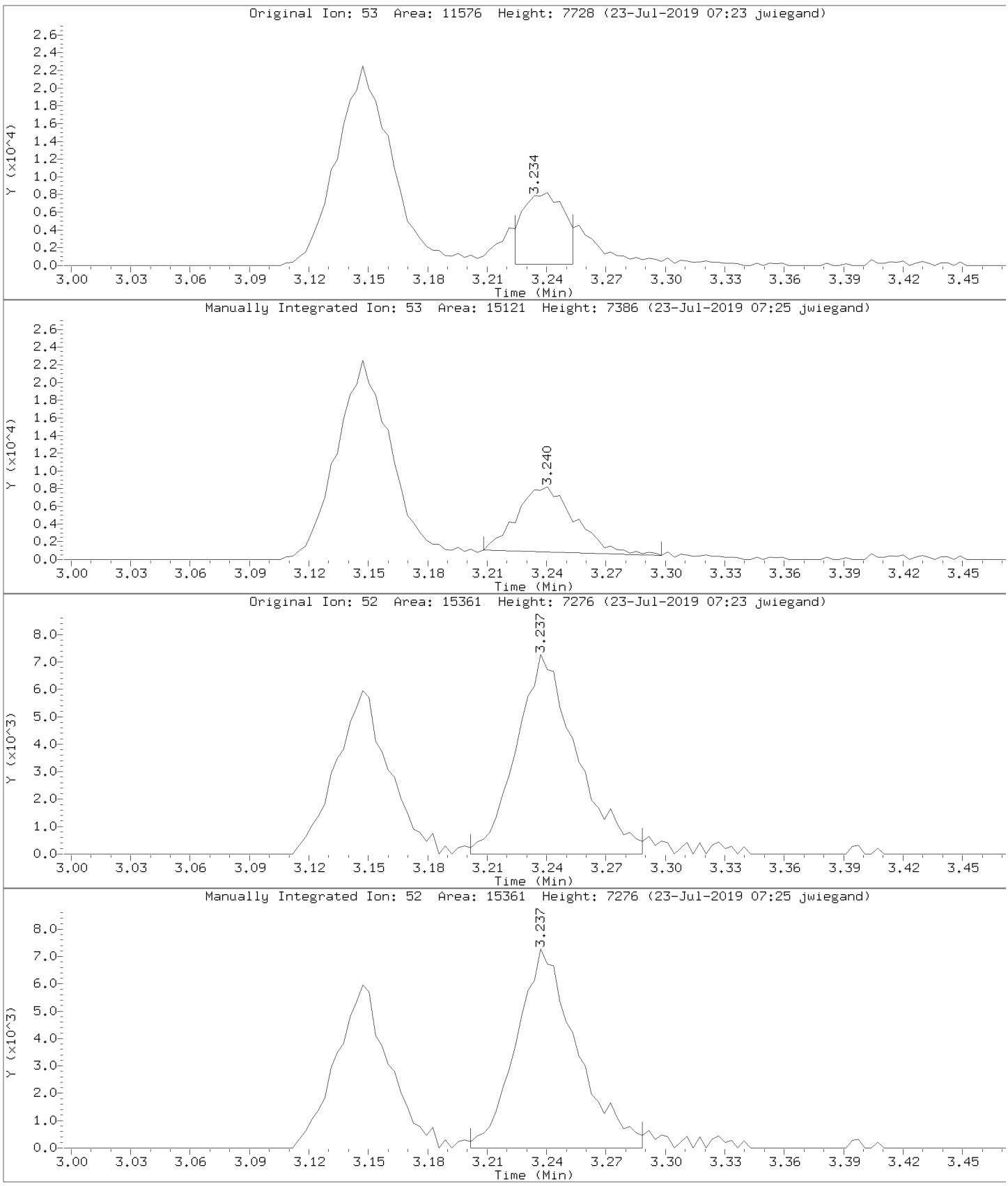
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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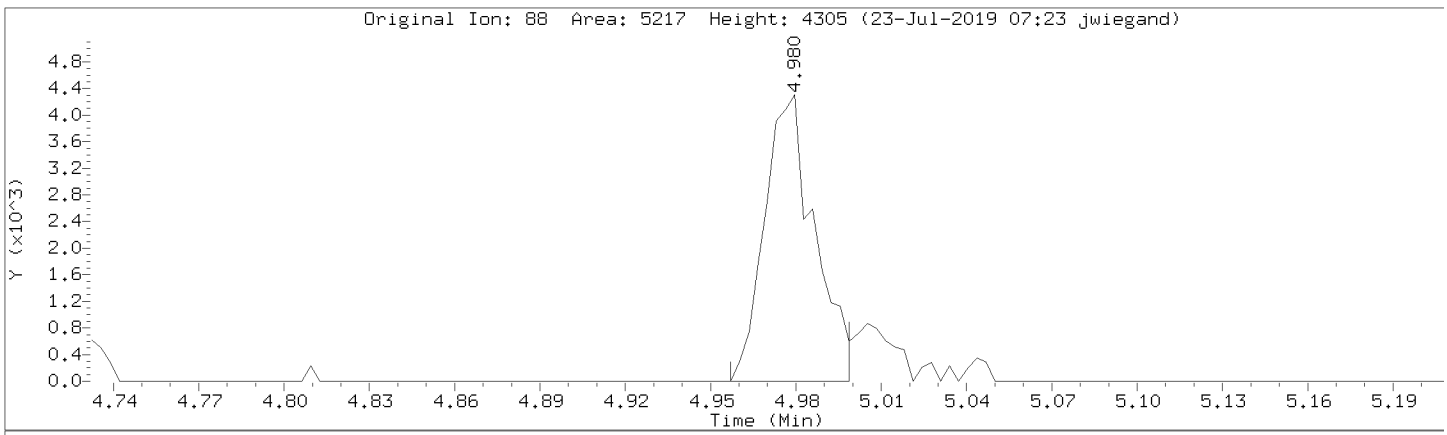
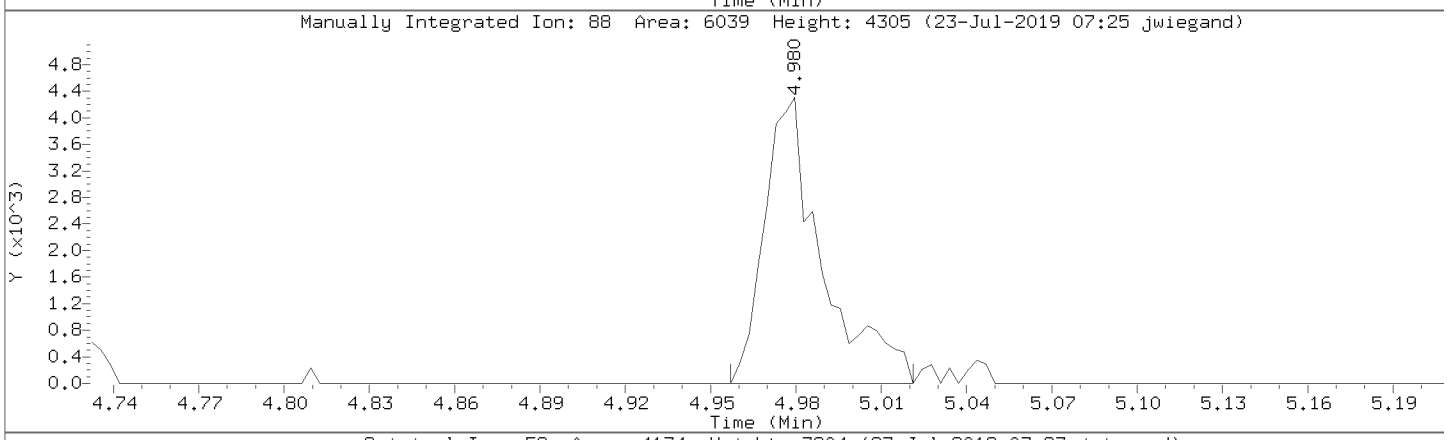
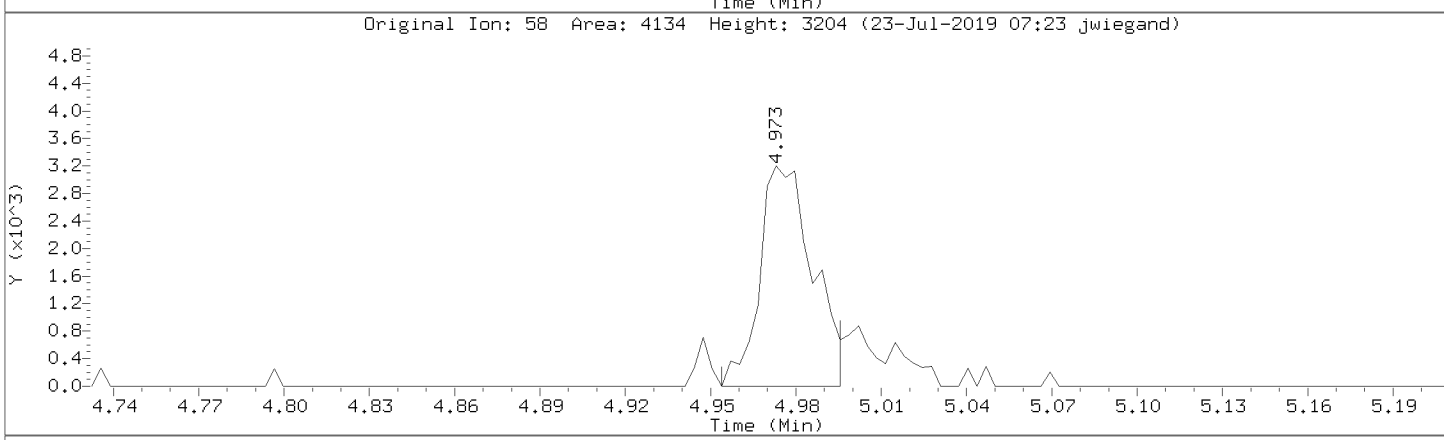
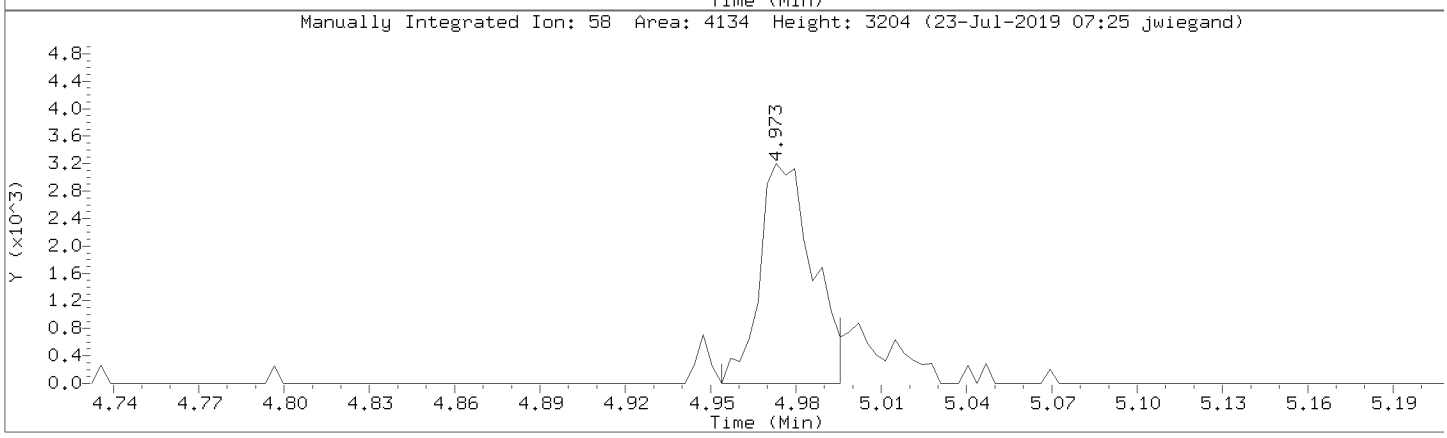
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

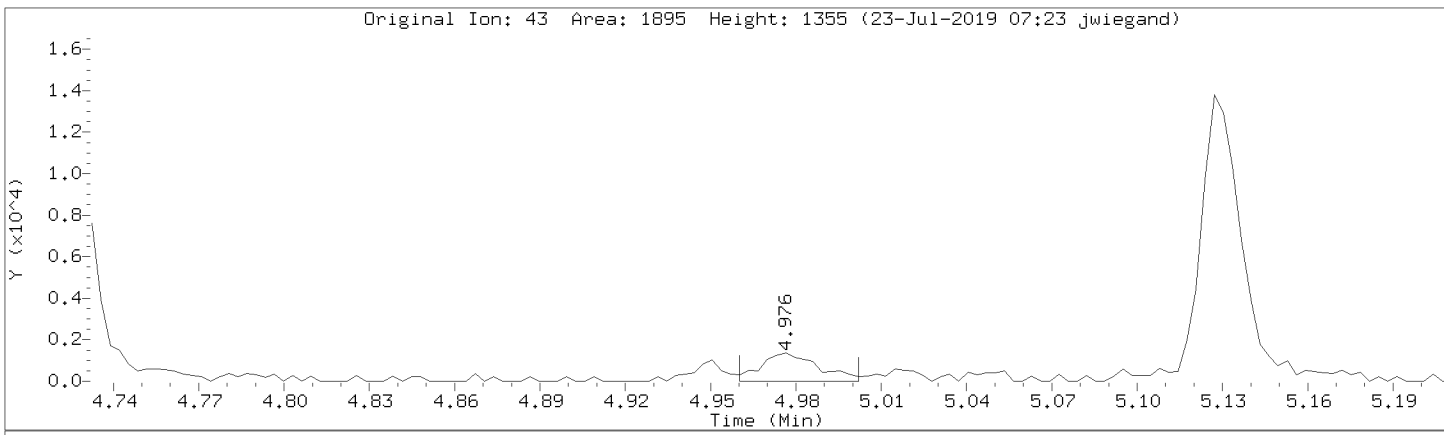


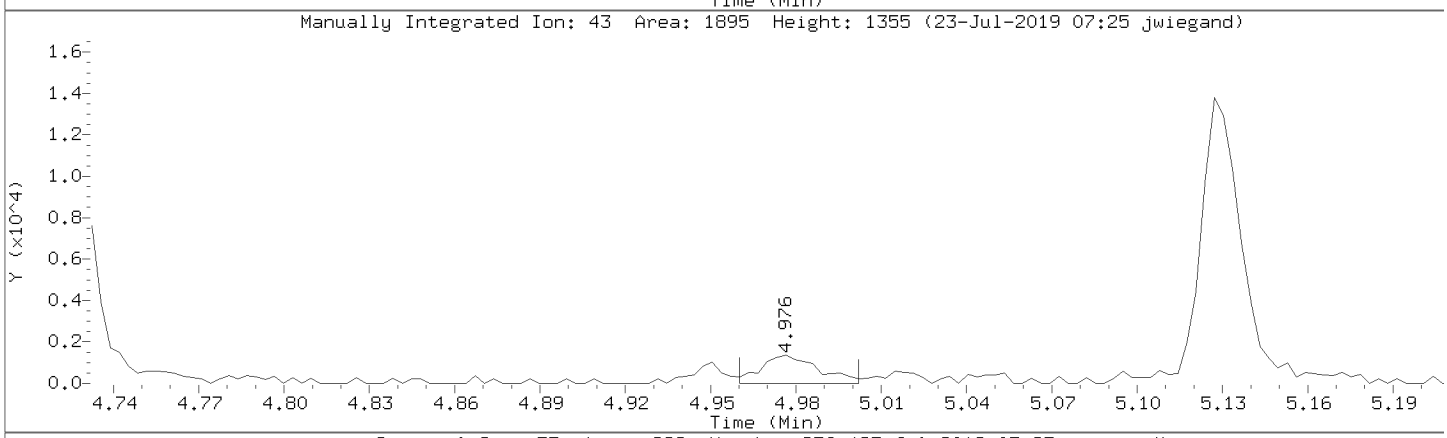


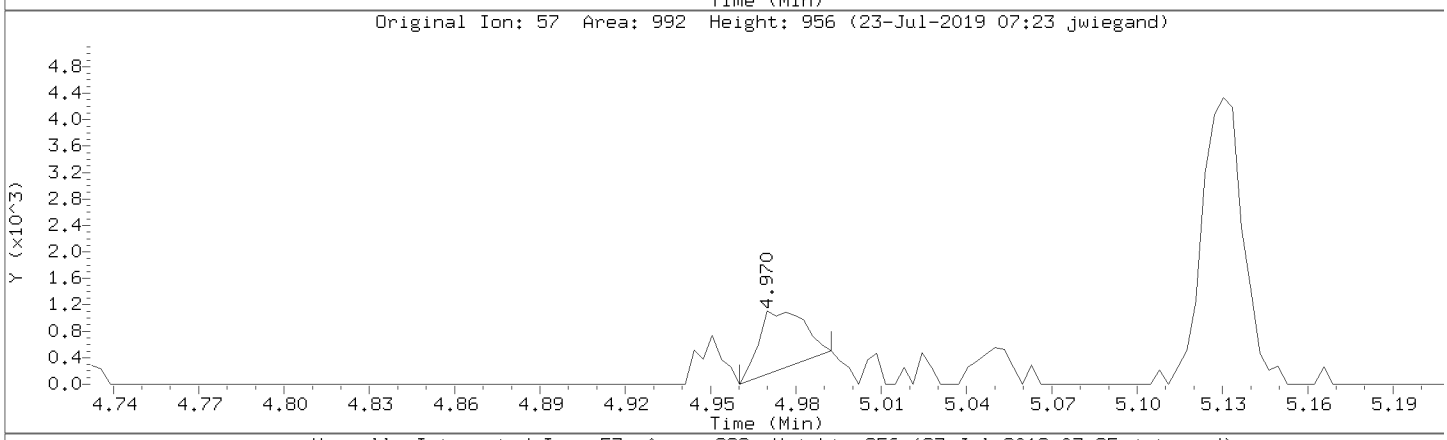


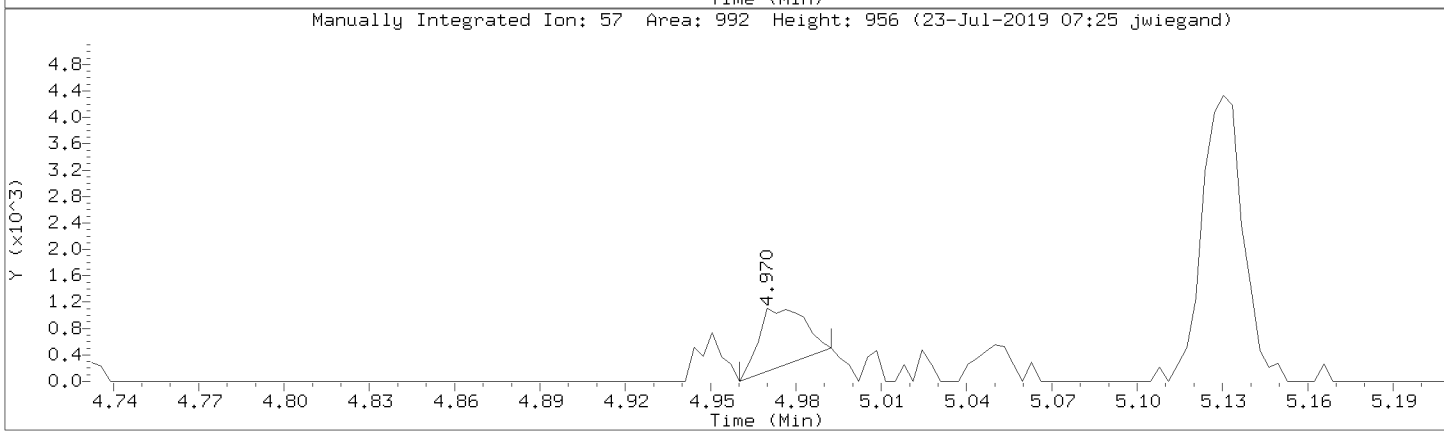


Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722019.d
Injection Date: 22-JUL-2019 12:39
Instrument: 30mv6a.i
Lab Sample ID: CAL3









Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 22-JUL-2019 13:05
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal4, 94253:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 13:05 Cal File: 60722021.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.231	1.225	(0.272)	40621	20.0000	22.7	
2	Chloromethane	50	1.347	1.347	(0.298)	69818	20.0000	21.8	
3	Vinyl chloride	62	1.395	1.392	(0.308)	71715	20.0000	22.5	
4	Bromomethane	94	1.587	1.585	(0.351)	14750	20.0000	21.5	
5	Chloroethane	64	1.661	1.655	(0.367)	44282	20.0000	26.9	
6	Trichlorofluoromethane	101	1.744	1.739	(0.385)	77690	20.0000	23.6	
7	Diethyl ether (Ethyl ether)	59	1.940	1.935	(0.429)	67919	20.0000	21.5	
8	Ethanol	45	2.043	2.049	(0.297)	11048	200.000	136(aM)	LT
9	1,1-Dichloroethene	61	2.078	2.076	(0.459)	101755	20.0000	22.5	
10	1,1,2-Trichlorotrifluoroethane	151	2.101	2.095	(0.464)	44063	20.0000	22.5	
11	Carbon disulfide	76	2.104	2.101	(0.465)	171868	20.0000	23.0	
12	Iodomethane	142	2.181	2.178	(0.482)	27938	20.0000	20.9	
13	Acrolein	56	2.322	2.323	(0.513)	9663	20.0000	21.5(M)	LT
14	Allyl chloride	41	2.415	2.413	(0.534)	577059	100.000	116	
15	Methylene Chloride	49	2.502	2.499	(0.553)	136794	20.0000	25.6	
16	Acetone	43	2.547	2.541	(0.563)	35888	20.0000	25.5	
17	trans-1,2-Dichloroethene	61	2.627	2.624	(0.580)	101070	20.0000	22.8	
18	Methyl acetate	74	2.640	2.634	(0.583)	12334	20.0000	20.1	
19	n-Hexane	86	2.678	2.679	(0.592)	17532	20.0000	22.6	
20	Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	179382	20.0000	20.4	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.797	2.794	(0.618)	79757	100.000	95.5	
	22 Acetonitrile	41	2.948	2.945	(0.651)	54606	100.000	110	
	23 Diisopropyl ether	45	3.047	3.048	(0.673)	238852	20.0000	20.0	
	24 Chloroprene	53	3.147	3.151	(0.695)	100342	20.0000	21.8	
	25 1,1-Dichloroethane	63	3.176	3.173	(0.702)	134193	20.0000	23.1	
	26 Acrylonitrile	53	3.243	3.247	(0.716)	26683	20.0000	16.2(M)	LT
	27 Ethyl-tert-butyl ether	59	3.413	3.417	(0.754)	215065	20.0000	19.7	
	28 Vinyl acetate	43	3.435	3.436	(0.759)	182033	20.0000	19.3	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	107104	20.0000	22.8	
	30 2,2-Dichloropropane	77	3.805	3.802	(0.841)	91627	20.0000	22.8	
	31 Cyclohexane	56	3.872	3.869	(0.855)	132469	20.0000	22.6	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	50310	20.0000	23.1	
	33 Chloroform	83	3.939	3.940	(0.870)	116450	20.0000	23.0	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	77404	20.0000	21.5	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	83009	20.0000	18.9	
	36 Tetrahydrofuran	42	4.055	4.065	(0.896)	39280	20.0000	20.2	
$	37 Dibromofluoromethane (S)	111	4.064	4.067	(0.898)	112163	30.0000	31.7	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	99813	20.0000	22.3	
	39 2-Butanone (MEK)	43	4.151	4.155	(0.917)	48383	20.0000	19.1	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	81504	20.0000	21.5	
	41 Benzene	78	4.302	4.299	(0.950)	250863	20.0000	21.8	
	42 Propionitrile	54	4.331	4.325	(0.957)	16305	20.0000	19.9	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	47603	20.0000	19.1	
	44 tert-Amylmethyl ether	73	4.366	4.373	(0.965)	159708	20.0000	19.1	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	104624	30.0000	29.8	
	46 Isobutanol	43	4.440	4.444	(0.981)	28146	100.000	83.7	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	91517	20.0000	22.0	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	427999	30.0000		
	49 Methylcyclohexane	83	4.600	4.604	(1.016)	96193	20.0000	20.6	
	50 Trichloroethene	95	4.610	4.611	(0.783)	67002	20.0000	20.8	
	51 Dibromomethane	174	4.812	4.813	(1.063)	49106	20.0000	21.9	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	75840	20.0000	21.5	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	78744	20.0000	20.9	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	44119	20.0000	18.7	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.983	(1.099)	11329	200.000	209(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	37711	20.0000	17.4	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	100886	20.0000	20.7	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	395773	30.0000	29.0	
	59 Toluene	91	5.255	5.259	(0.893)	269397	20.0000	21.3	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	98726	100.000	82.9	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	87436	20.0000	19.6	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	71593	20.0000	21.0	
	63 trans-1,3-Dichloropropene	75	5.431	5.435	(0.923)	94136	20.0000	19.7	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	66754	20.0000	19.6	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	59172	20.0000	19.8	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	66453	20.0000	18.9	
	67 1,3-Dichloropropane	76	5.614	5.618	(0.954)	100309	20.0000	20.3	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	63233	20.0000	19.4	
	69 2-Hexanone	43	5.756	5.760	(0.978)	67931	20.0000	18.9	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	107329	20.0000	21.7	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	331080	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	195463	20.0000	21.4	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	66830	20.0000	19.1	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	258694	40.0000	42.7	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.137	6.138	(1.043)	127743	20.0000	20.9	
	76 Styrene	104	6.160	6.161	(1.046)	218562	20.0000	20.9	
	77 Bromoform	173	6.186	6.186	(0.900)	45890	20.0000	17.9	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	327551	20.0000	21.5	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	140415	30.0000	29.4	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	371052	20.0000	21.5	
	81 Bromobenzene	77	6.445	6.446	(0.938)	134237	20.0000	20.7	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	81173	20.0000	19.0	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	278323	20.0000	21.6	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	82431	20.0000	20.8	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	26467	20.0000	18.3	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	27575	20.0000	17.7	
	87 Cyclohexanone	55	6.567	6.571	(0.956)	55939	100.000	94.5	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	90277	20.0000	21.3	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	264015	20.0000	21.2	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	282922	20.0000	21.2	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	365221	20.0000	21.6	
	92 p-Isopropyltoluene	119	6.782	6.783	(0.987)	343022	20.0000	21.8	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	180982	20.0000	21.2	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	197797	30.0000		
	95 1,4-Dichlorobenzene	146	6.875	6.879	(1.001)	186823	20.0000	21.4	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	280182	20.0000	21.5	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	179520	20.0000	21.4	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	198832	30.0000	30.1	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	25676	20.0000	19.0	
	99 1,3,5-Trichlorobenzene	180	7.411	7.415	(1.079)	125373	20.0000	21.5	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	66121	20.0000	21.5	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	119464	20.0000	21.6	
	102 Naphthalene	128	7.838	7.842	(1.141)	338544	20.0000	20.9	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	108214	20.0000	21.6	
	104 2-Methylnaphthalene	142	8.287	8.298	(1.206)	164957	20.0000	20.7	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722021.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	427999	-1.52
71 Chlorobenzene-d5	335570	167785	671140	331080	-1.34
94 1,4-Dichlorobenze	199759	99880	399518	197797	-0.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	22.7	
74-87-3	Chloromethane	21.8	
75-01-4	Vinyl chloride	22.5	
74-83-9	Bromomethane	21.5	
75-00-3	Chloroethane	26.9	
75-69-4	Trichlorofluoromethane	23.6	
60-29-7	Diethyl ether (Ethyl ether)	21.5	
64-17-5	Ethanol	136	J
75-35-4	1,1-Dichloroethene	22.5	
76-13-1	1,1,2-Trichlorotrifluoroetha	22.5	
75-15-0	Carbon disulfide	23.0	
74-88-4	Iodomethane	20.9	
107-02-8	Acrolein	21.5	
107-05-1	Allyl chloride	116	
75-09-2	Methylene Chloride	25.6	
67-64-1	Acetone	25.5	
156-60-5	trans-1,2-Dichloroethene	22.8	
79-20-9	Methyl acetate	20.1	
110-54-3	n-Hexane	22.6	
1634-04-4	Methyl-tert-butyl ether	20.4	
75-65-0	tert-Butyl Alcohol	95.5	
75-05-8	Acetonitrile	110	
108-20-3	Diisopropyl ether	20.0	
126-99-8	Chloroprene	21.8	
75-34-3	1,1-Dichloroethane	23.1	
107-13-1	Acrylonitrile	16.2	
637-92-3	Ethyl-tert-butyl ether	19.7	
108-05-4	Vinyl acetate	19.3	
156-59-2	cis-1,2-Dichloroethene	22.8	
594-20-7	2,2-Dichloropropane	22.8	
110-82-7	Cyclohexane	22.6	
74-97-5	Bromochloromethane	23.1	
67-66-3	Chloroform	23.0	
56-23-5	Carbon tetrachloride	21.5	
141-78-6	Ethyl acetate	18.9	
109-99-9	Tetrahydrofuran	20.2	
71-55-6	1,1,1-Trichloroethane	22.3	
78-93-3	2-Butanone (MEK)	19.1	
563-58-6	1,1-Dichloropropene	21.5	
71-43-2	Benzene	21.8	
107-12-0	Propionitrile	19.9	
126-98-7	Methacrylonitrile	19.1	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	19.1	
78-83-1	Isobutanol	83.7	
107-06-2	1,2-Dichloroethane	22.0	
108-87-2	Methylcyclohexane	20.6	
79-01-6	Trichloroethene	20.8	
74-95-3	Dibromomethane	21.9	
78-87-5	1,2-Dichloropropane	21.5	
75-27-4	Bromodichloromethane	20.9	
80-62-6	Methyl methacrylate	18.7	
123-91-1	1,4-Dioxane (p-Dioxane)	209	
110-75-8	2-Chloroethylvinyl ether	17.4	
10061-01-5	cis-1,3-Dichloropropene	20.7	
108-88-3	Toluene	21.3	
79-46-9	2-Nitropropane	82.9	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.6	
127-18-4	Tetrachloroethene	21.0	
10061-02-6	trans-1,3-Dichloropropene	19.7	
97-63-2	Ethyl methacrylate	19.6	
79-00-5	1,1,2-Trichloroethane	19.8	
124-48-1	Dibromochloromethane	18.9	
142-28-9	1,3-Dichloropropane	20.3	
106-93-4	1,2-Dibromoethane (EDB)	19.4	
591-78-6	2-Hexanone	18.9	
100-41-4	Ethylbenzene	21.7	
108-90-7	Chlorobenzene	21.4	
630-20-6	1,1,1,2-Tetrachloroethane	19.1	
7816-60-0	m&p-Xylene	42.7	
95-47-6	o-Xylene	20.9	
100-42-5	Styrene	20.9	
75-25-2	Bromoform	17.9	
98-82-8	Isopropylbenzene (Cumene)	21.5	
103-65-1	n-Propylbenzene	21.5	
108-86-1	Bromobenzene	20.7	
79-34-5	1,1,2,2-Tetrachloroethane	19.0	
108-67-8	1,3,5-Trimethylbenzene	21.6	
95-49-8	2-Chlorotoluene	20.8	
96-18-4	1,2,3-Trichloropropane	18.3	
110-57-6	trans-1,4-Dichloro-2-butene	17.7	
108-94-1	Cyclohexanone	94.5	
106-43-4	4-Chlorotoluene	21.3	
98-06-6	tert-Butylbenzene	21.2	
95-63-6	1,2,4-Trimethylbenzene	21.2	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Report Date: 23-Jul-2019 07:54

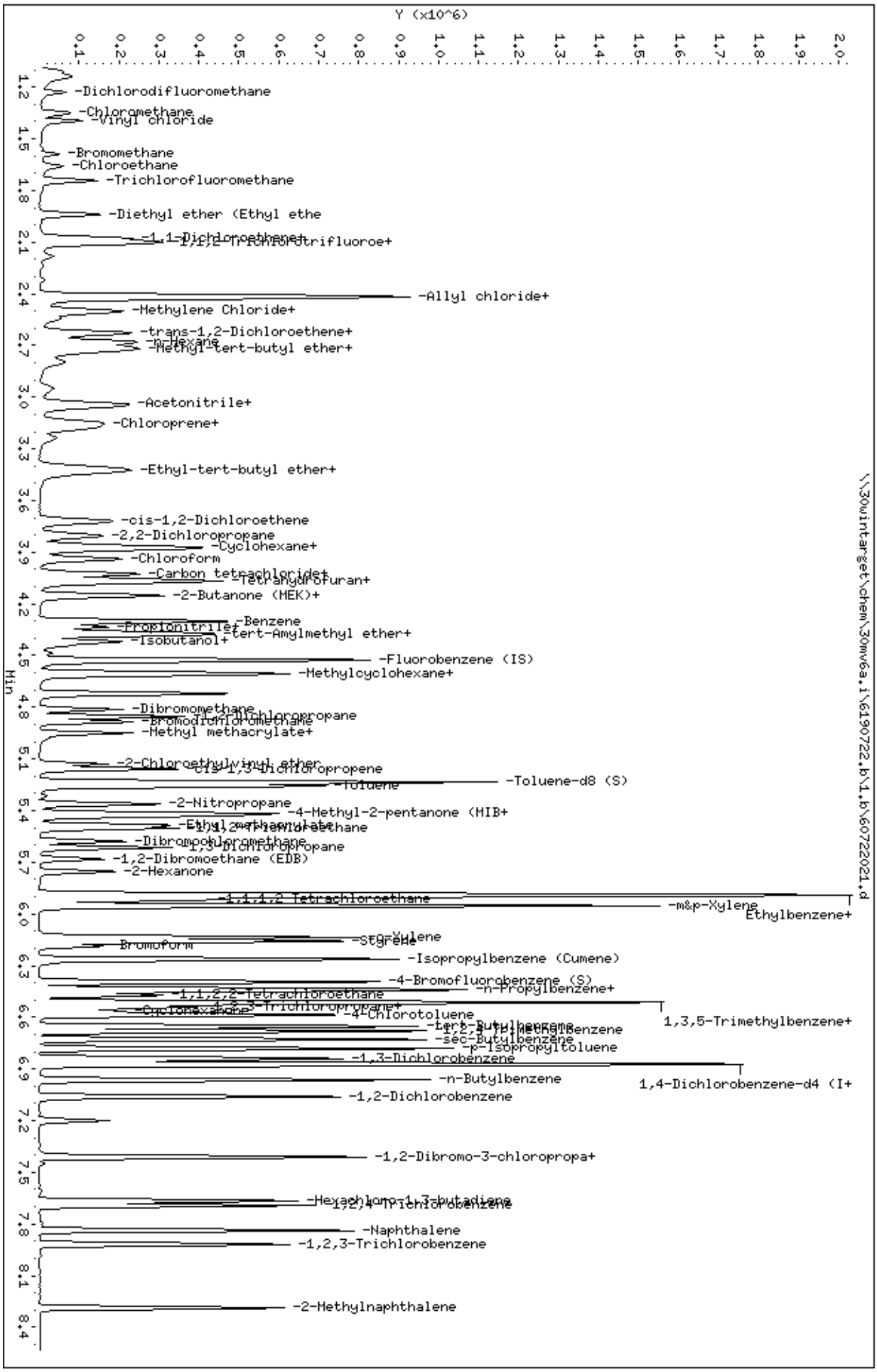
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.6	
99-87-6	p-Isopropyltoluene	21.8	
541-73-1	1,3-Dichlorobenzene	21.2	
106-46-7	1,4-Dichlorobenzene	21.4	
104-51-8	n-Butylbenzene	21.5	
95-50-1	1,2-Dichlorobenzene	21.4	
96-12-8	1,2-Dibromo-3-chloropropane	19.0	
108-70-3	1,3,5-Trichlorobenzene	21.5	
87-68-3	Hexachloro-1,3-butadiene	21.5	
120-82-1	1,2,4-Trichlorobenzene	21.6	
91-20-3	Naphthalene	20.9	
87-61-6	1,2,3-Trichlorobenzene	21.6	
91-57-6	2-Methylnaphthalene	20.7	
1868-53-7	Dibromofluoromethane (S)	31.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.8	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	29.4	
----------	1,2-Dichlorobenzene-d4 (S)	30.1	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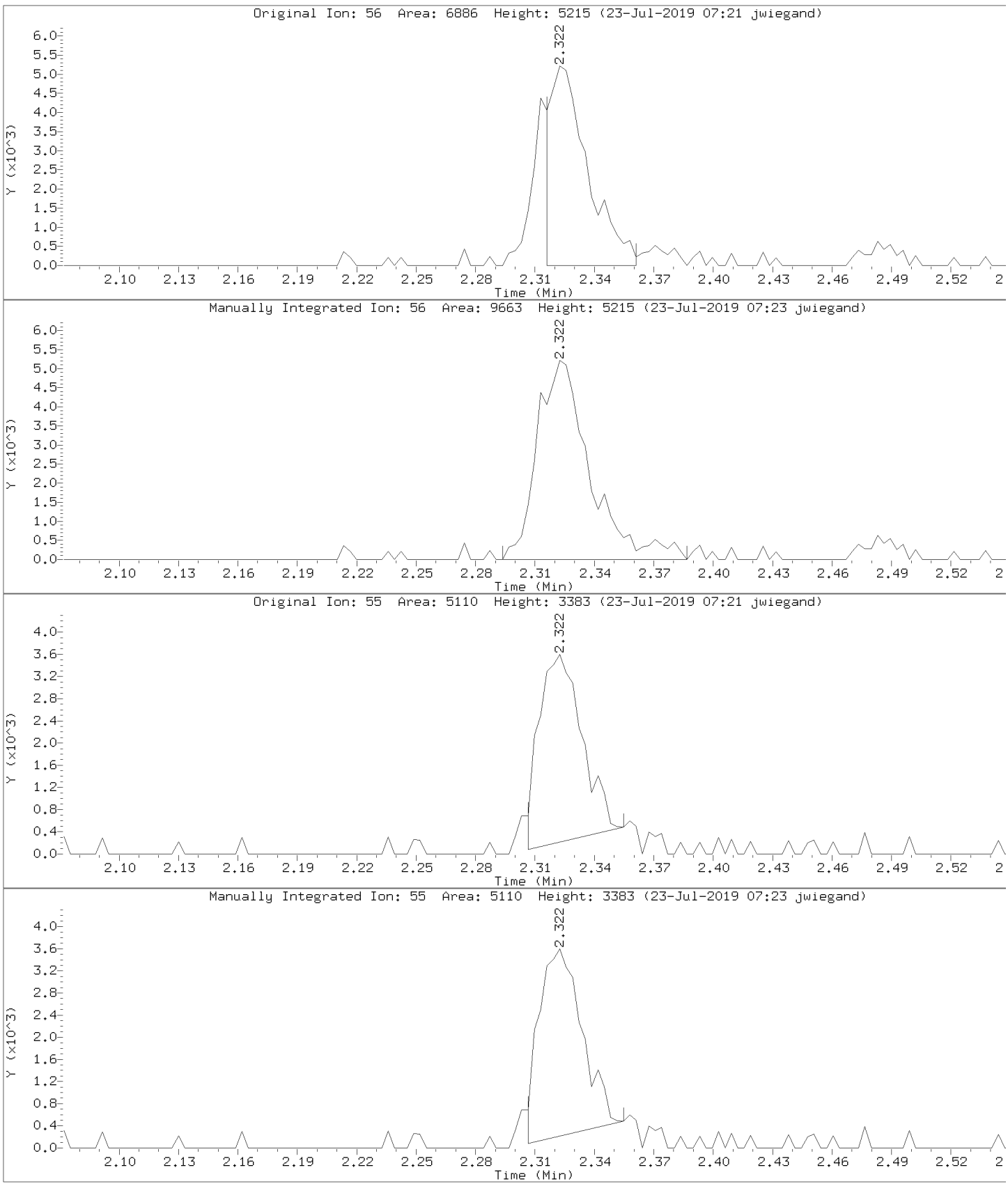
Date : 22-JUL-2019 13:05
Client ID: CAL4
Sample Info: CAL4, 94253:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722021.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Propionitrile+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
1,3,5-Trimethylbenzene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722021.d
Injection Date: 22-JUL-2019 13:05
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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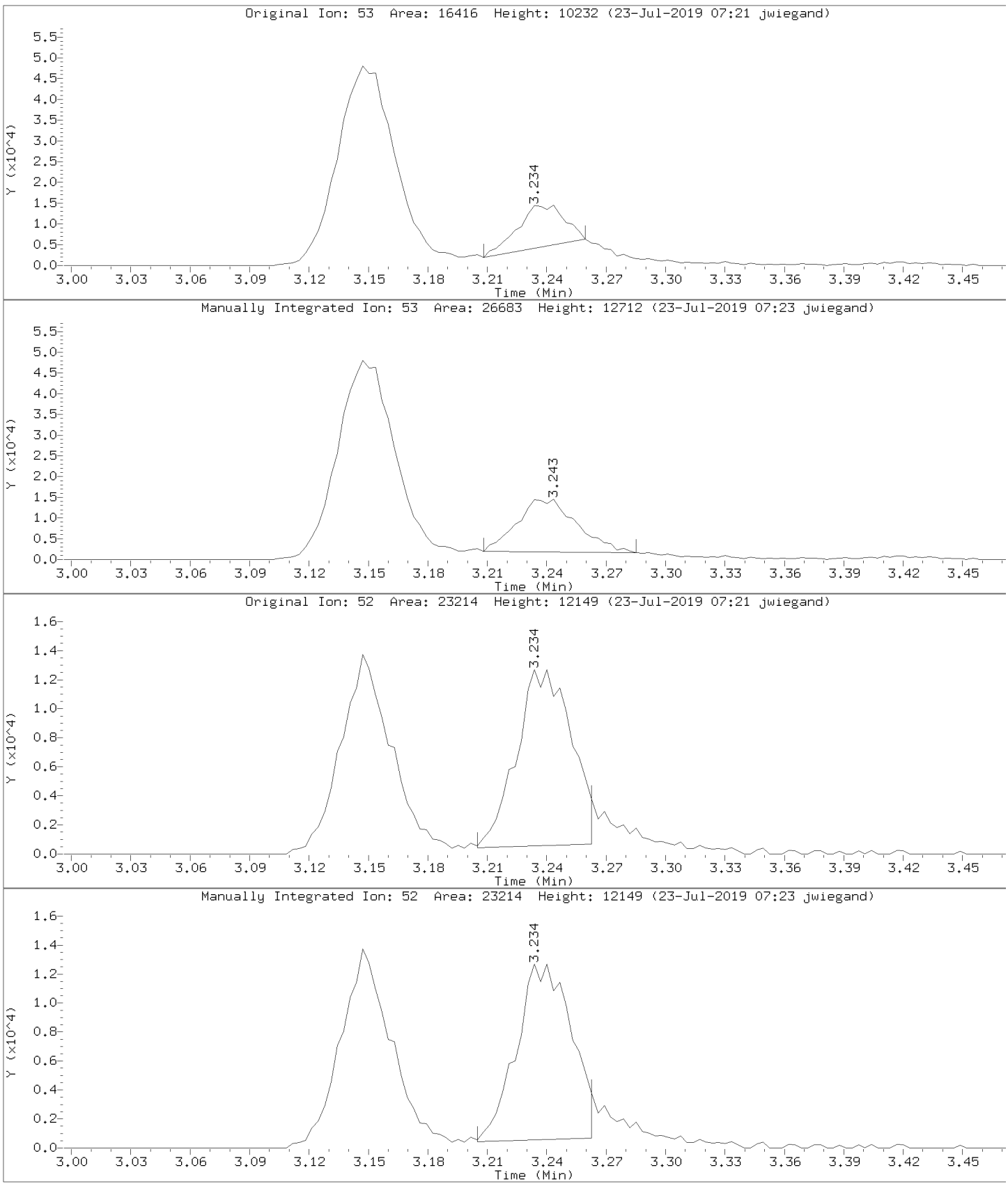
Injection Date: 22-JUL-2019 13:05
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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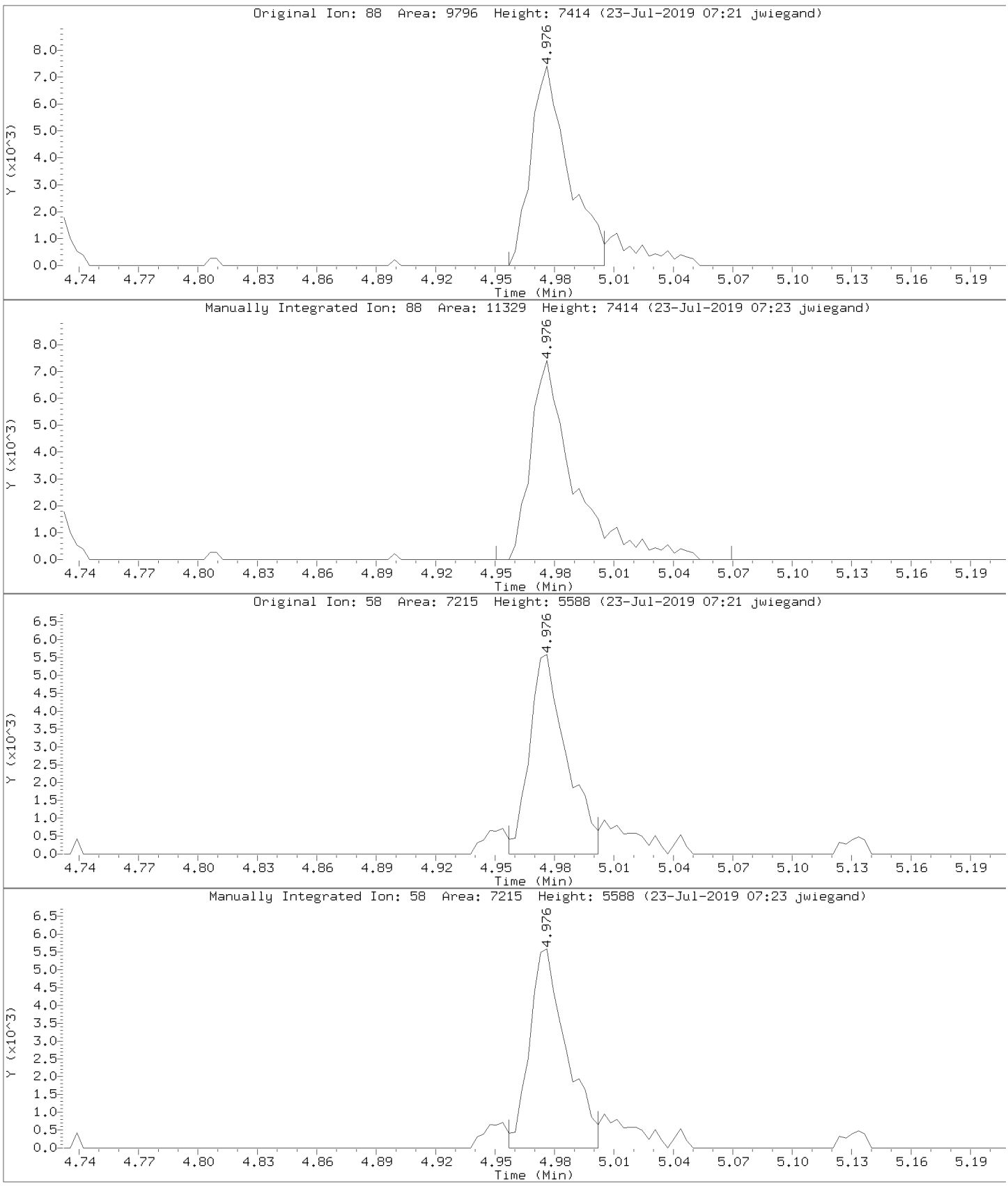
Injection Date: 22-JUL-2019 13:05
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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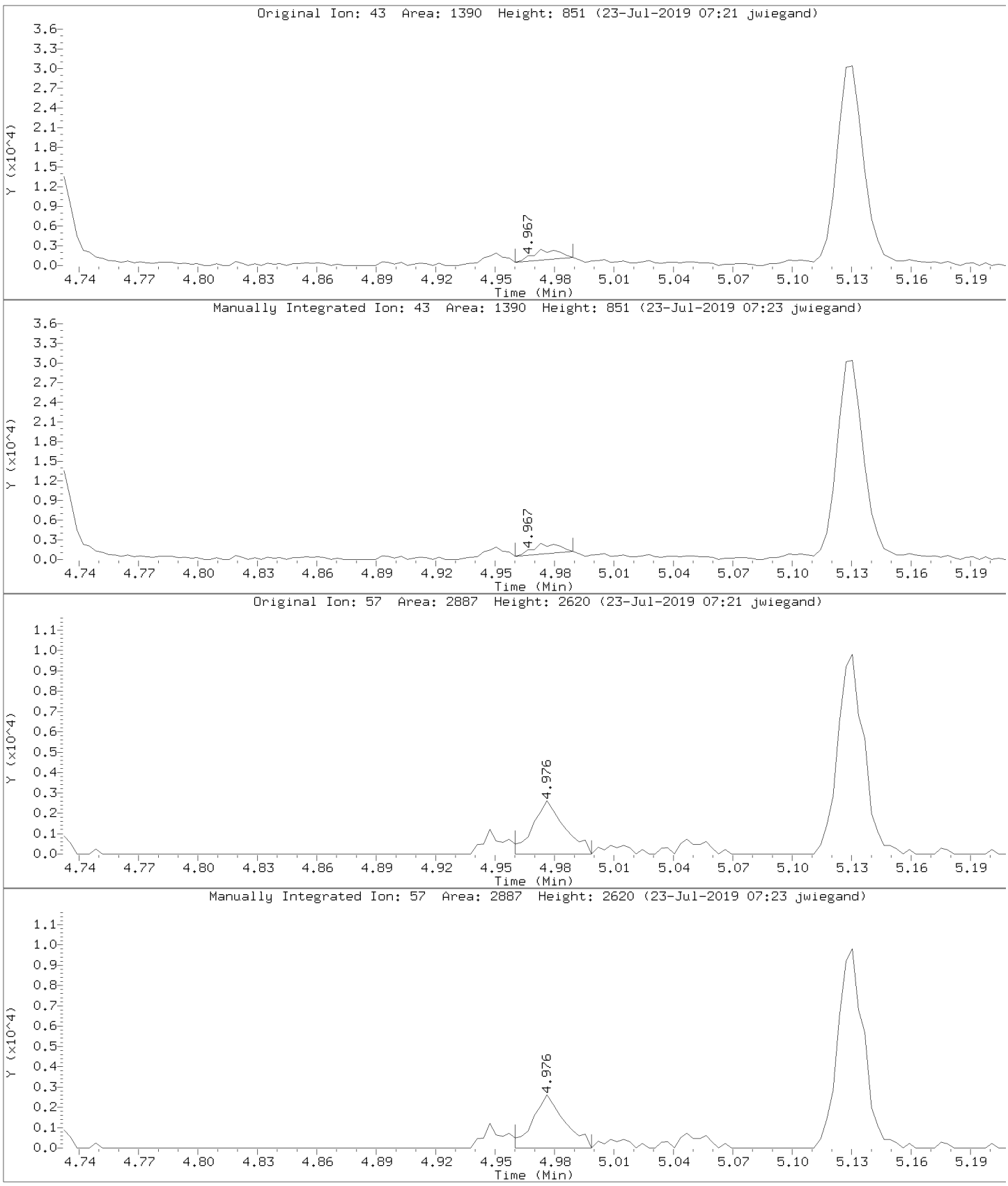
Injection Date: 22-JUL-2019 13:05
Instrument: 30mv6a.i
Lab Sample ID: CAL4



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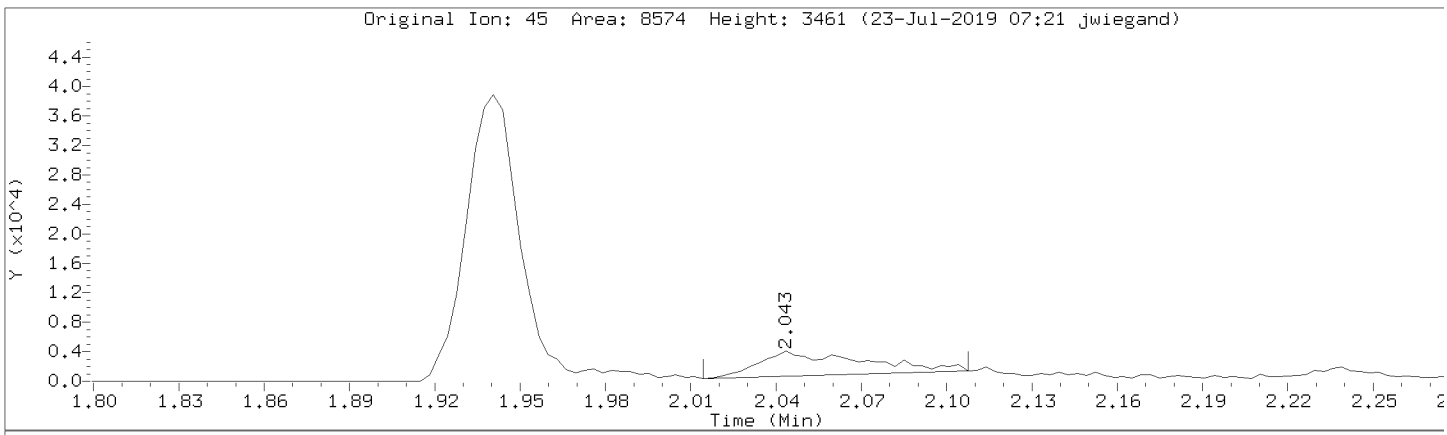
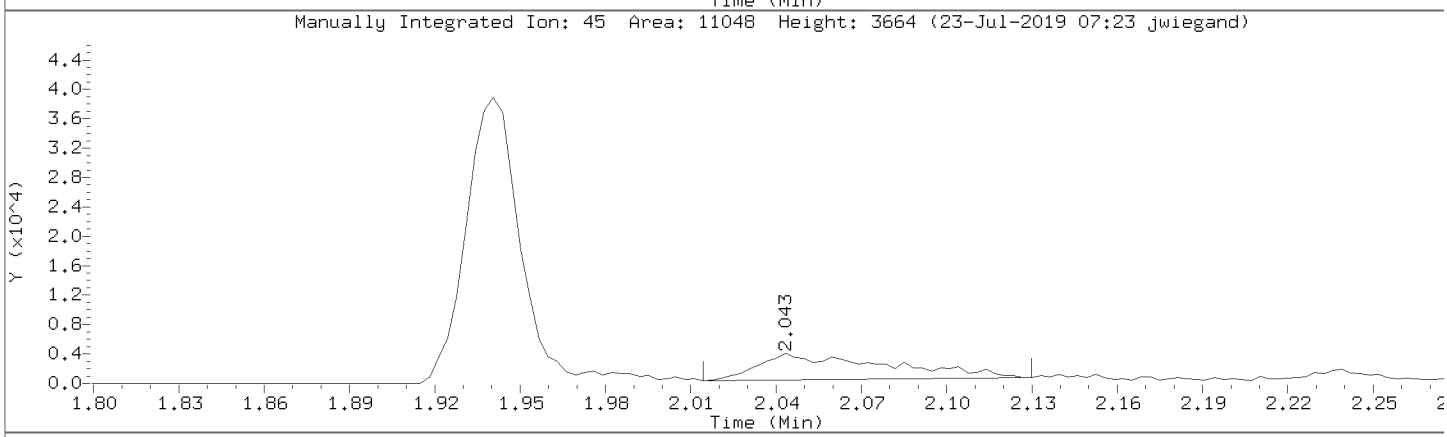
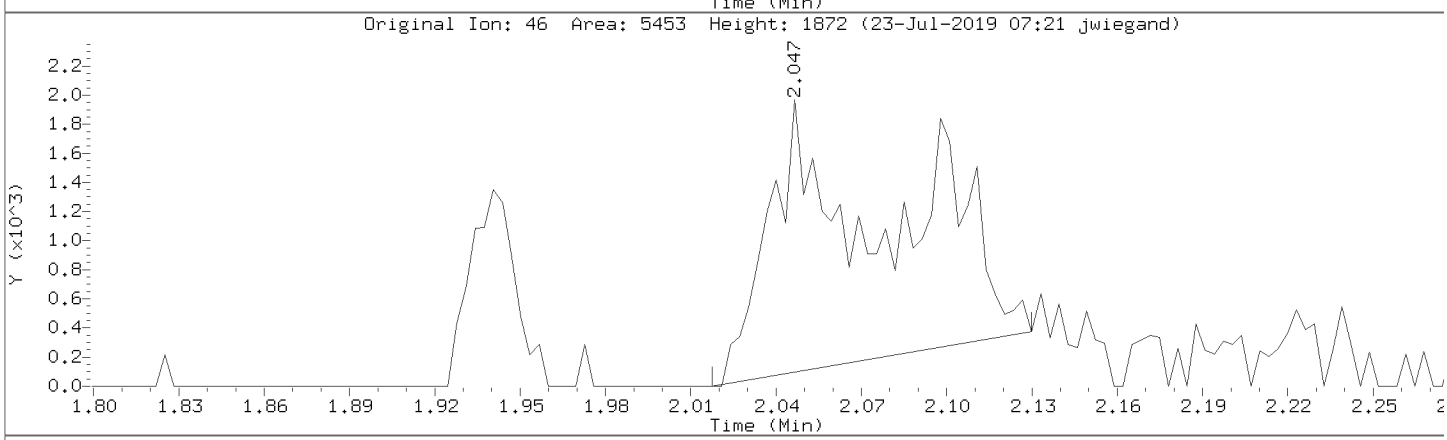
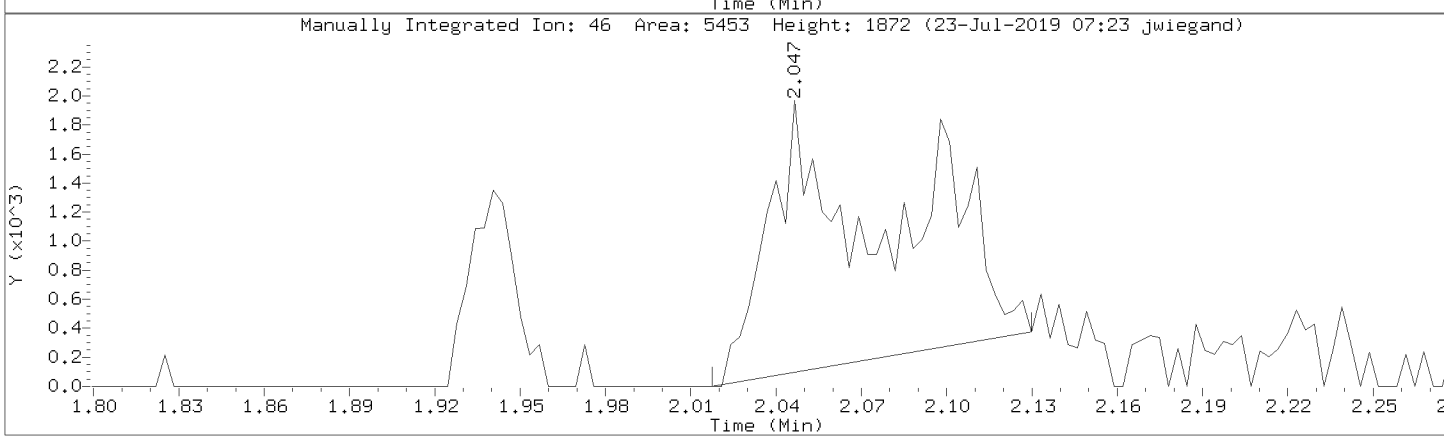
Injection Date: 22-JUL-2019 13:05
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









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Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 22-JUL-2019 13:31
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal5, 94254:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 13:31 Cal File: 60722023.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.231	1.225	(0.272)	94921	50.0000	51.4(Q)	
2 Chloromethane	50	1.350	1.347	(0.298)	165142	50.0000	49.5(Q)	
3 Vinyl chloride	62	1.395	1.392	(0.308)	171116	50.0000	51.8(Q)	
4 Bromomethane	94	1.587	1.585	(0.351)	34654	50.0000	48.2(Q)	
5 Chloroethane	64	1.655	1.655	(0.366)	96752	50.0000	60.2(Q)	
6 Trichlorofluoromethane	101	1.741	1.739	(0.385)	179075	50.0000	53.2(Q)	
7 Diethyl ether (Ethyl ether)	59	1.940	1.935	(0.429)	171667	50.0000	51.7(Q)	
8 Ethanol	45	2.049	2.049	(0.298)	41741	500.000	500(Q)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	242417	50.0000	51.9(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.095	(0.463)	105657	50.0000	52.1(Q)	
11 Carbon disulfide	76	2.104	2.101	(0.465)	383190	50.0000	50.0(Q)	
12 Iodomethane	142	2.181	2.178	(0.482)	76719	50.0000	54.3(Q)	
13 Acrolein	56	2.325	2.323	(0.514)	25110	50.0000	53.4(QM)	LT
14 Allyl chloride	41	2.415	2.413	(0.534)	1374122	250.000	270(Q)	
15 Methylene Chloride	49	2.502	2.499	(0.553)	283722	50.0000	53.6(Q)	
16 Acetone	43	2.547	2.541	(0.563)	79088	50.0000	56.4(Q)	
17 trans-1,2-Dichloroethene	61	2.627	2.624	(0.580)	239416	50.0000	52.3(Q)	
18 Methyl acetate	74	2.640	2.634	(0.583)	33275	50.0000	50.7(Q)	
19 n-Hexane	86	2.678	2.679	(0.592)	40883	50.0000	50.9(Q)	
20 Methyl-tert-butyl ether	73	2.714	2.714	(0.600)	465096	50.0000	49.7(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

			QUANT SIG					AMOUNTS		
								CAL-AMT	ON-COL	
	Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	21 tert-Butyl Alcohol		59	2.797	2.794	(0.618)	231228	250.000	256(Q)	
	22 Acetonitrile		41	2.945	2.945	(0.651)	140663	250.000	272(Q)	
	23 Diisopropyl ether		45	3.047	3.048	(0.673)	632770	50.0000	49.7(Q)	
	24 Chloroprene		53	3.147	3.151	(0.695)	245649	50.0000	51.0(Q)	
	25 1,1-Dichloroethane		63	3.176	3.173	(0.702)	312157	50.0000	52.2(Q)	
	26 Acrylonitrile		53	3.240	3.247	(0.716)	94875	50.0000	51.6(Q)	
	27 Ethyl-tert-butyl ether		59	3.416	3.417	(0.755)	584306	50.0000	49.8(Q)	
	28 Vinyl acetate		43	3.436	3.436	(0.759)	497090	50.0000	49.0(Q)	
	29 cis-1,2-Dichloroethene		61	3.718	3.722	(0.821)	251504	50.0000	52.0(Q)	
	30 2,2-Dichloropropane		77	3.805	3.802	(0.841)	215244	50.0000	52.0(Q)	
	31 Cyclohexane		56	3.872	3.869	(0.855)	312847	50.0000	51.5(Q)	
	32 Bromochloromethane		130	3.882	3.882	(0.858)	119093	50.0000	53.3(Q)	
	33 Chloroform		83	3.939	3.940	(0.870)	268415	50.0000	51.5(Q)	
	34 Carbon tetrachloride		117	4.026	4.019	(0.889)	189367	50.0000	50.1(Q)	
	35 Ethyl acetate		43	4.029	4.030	(0.890)	228313	50.0000	47.9(Q)	
	36 Tetrahydrofuran		42	4.052	4.065	(0.895)	105725	50.0000	50.9(Q)	
$	37 Dibromofluoromethane (S)		111	4.065	4.067	(0.898)	114435	30.0000	30.7(Q)	
	38 1,1,1-Trichloroethane		97	4.074	4.075	(0.900)	238840	50.0000	51.6(Q)	
	39 2-Butanone (MEK)		43	4.148	4.155	(0.916)	134777	50.0000	49.2(Q)	
	40 1,1-Dichloropropene		75	4.151	4.152	(0.917)	204277	50.0000	51.4(Q)	
	41 Benzene		78	4.302	4.299	(0.950)	617841	50.0000	51.5(Q)	
	42 Propionitrile		54	4.328	4.325	(0.956)	45723	50.0000	52.2(Q)	
	43 Methacrylonitrile		41	4.334	4.335	(0.957)	133354	50.0000	49.6(Q)	
	44 tert-Amylmethyl ether		73	4.369	4.373	(0.965)	437214	50.0000	48.4(Q)	
$	45 1,2-Dichloroethane-d4 (S)		65	4.379	4.380	(0.967)	115637	30.0000	30.8(Q)	
	46 Isobutanol		43	4.437	4.444	(0.980)	90611	250.000	242(Q)	
	47 1,2-Dichloroethane		62	4.418	4.418	(0.976)	223350	50.0000	51.6(Q)	
*	48 Fluorobenzene (IS)		96	4.527	4.527	(1.000)	457396	30.0000	(Q)	
	49 Methylcyclohexane		83	4.600	4.604	(1.016)	245481	50.0000	49.5(Q)	
	50 Trichloroethene		95	4.610	4.611	(0.783)	163642	50.0000	50.3(Q)	
	51 Dibromomethane		174	4.812	4.813	(1.063)	119020	50.0000	51.0(Q)	
	52 1,2-Dichloropropane		63	4.854	4.858	(1.072)	188085	50.0000	50.9(Q)	
	53 Bromodichloromethane		83	4.886	4.887	(1.079)	200206	50.0000	50.4(Q)	
	54 Methyl methacrylate		69	4.947	4.951	(1.093)	122087	50.0000	47.6(Q)	
	55 1,4-Dioxane (p-Dioxane)		88	4.976	4.983	(1.099)	30822	500.000	540(QM)	LT
	56 2-Chloroethylvinyl ether		63	5.130	5.131	(1.133)	111403	50.0000	46.5(Q)	
	57 cis-1,3-Dichloropropene		75	5.159	5.159	(1.140)	258632	50.0000	50.1(Q)	
$	58 Toluene-d8 (S)		98	5.233	5.236	(0.889)	421370	30.0000	29.9(Q)	
	59 Toluene		91	5.258	5.259	(0.893)	651995	50.0000	51.1(Q)	
	60 2-Nitropropane		43	5.361	5.365	(1.184)	302600	250.000	228(Q)	
	61 4-Methyl-2-pentanone (MIBK)		43	5.412	5.416	(1.196)	239360	50.0000	50.0(Q)	
	62 Tetrachloroethene		166	5.422	5.423	(0.921)	173420	50.0000	50.2(Q)	
	63 trans-1,3-Dichloropropene		75	5.432	5.435	(0.923)	241274	50.0000	49.0(Q)	
	64 Ethyl methacrylate		41	5.483	5.487	(0.931)	175731	50.0000	50.3(Q)	
	65 1,1,2-Trichloroethane		97	5.502	5.503	(0.935)	152398	50.0000	49.7(Q)	
	66 Dibromochloromethane		129	5.579	5.580	(0.948)	176698	50.0000	48.3(Q)	
	67 1,3-Dichloropropane		76	5.614	5.618	(0.954)	250579	50.0000	49.7(Q)	
	68 1,2-Dibromoethane (EDB)		107	5.682	5.686	(0.965)	167705	50.0000	50.0(Q)	
	69 2-Hexanone		43	5.756	5.760	(0.978)	186136	50.0000	50.0(Q)	
	70 Ethylbenzene		106	5.894	5.898	(1.001)	252204	50.0000	50.9(Q)	
*	71 Chlorobenzene-d5 (IS)		117	5.887	5.888	(1.000)	338903	30.0000	(Q)	
	72 Chlorobenzene		112	5.894	5.894	(1.001)	471588	50.0000	51.4(Q)	
	73 1,1,1,2-Tetrachloroethane		131	5.919	5.917	(1.005)	173964	50.0000	47.9(Q)	
	74 m&p-Xylene		106	5.951	5.955	(1.011)	620188	100.000	102(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	309894	50.0000	50.1(Q)	
	76 Styrene	104	6.160	6.161	(1.046)	528792	50.0000	50.1(Q)	
	77 Bromoform	173	6.186	6.186	(0.900)	123358	50.0000	45.6(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	777193	50.0000	50.8(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	146223	30.0000	29.8(Q)	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	877137	50.0000	50.6(Q)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	328488	50.0000	49.9(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	212111	50.0000	47.8(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	650471	50.0000	50.2(Q)	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	202142	50.0000	50.3(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	72609	50.0000	47.9(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	78508	50.0000	47.8(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	150275	250.000	244(Q)	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	208799	50.0000	49.0(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	631318	50.0000	50.4(Q)	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	681303	50.0000	50.7(Q)	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	859422	50.0000	50.7(Q)	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	802711	50.0000	50.9(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	430220	50.0000	50.0(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	202704	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	442335	50.0000	50.3(Q)	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	660780	50.0000	50.4(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	424819	50.0000	50.5(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	203065	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	68899	50.0000	49.1(Q)	
	99 1,3,5-Trichlorobenzene	180	7.411	7.415	(1.079)	301543	50.0000	51.3(Q)	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	156811	50.0000	50.7(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	284801	50.0000	51.2(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	865185	50.0000	52.8(Q)	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	258517	50.0000	51.5(Q)	
	104 2-Methylnaphthalene	142	8.291	8.298	(1.207)	413139	50.0000	51.3(Q)	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722023.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	457396	5.24
71 Chlorobenzene-d5	335570	167785	671140	338903	0.99
94 1,4-Dichlorobenze	199759	99880	399518	202704	1.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	51.4	
74-87-3	Chloromethane	49.5	
75-01-4	Vinyl chloride	51.8	
74-83-9	Bromomethane	48.2	
75-00-3	Chloroethane	60.2	
75-69-4	Trichlorofluoromethane	53.2	
60-29-7	Diethyl ether (Ethyl ether)	51.7	
64-17-5	Ethanol	500	
75-35-4	1,1-Dichloroethene	51.9	
76-13-1	1,1,2-Trichlorotrifluoroetha	52.1	
75-15-0	Carbon disulfide	50.0	
74-88-4	Iodomethane	54.3	
107-02-8	Acrolein	53.4	
107-05-1	Allyl chloride	270	
75-09-2	Methylene Chloride	53.6	
67-64-1	Acetone	56.4	
156-60-5	trans-1,2-Dichloroethene	52.3	
79-20-9	Methyl acetate	50.7	
110-54-3	n-Hexane	50.9	
1634-04-4	Methyl-tert-butyl ether	49.7	
75-65-0	tert-Butyl Alcohol	256	
75-05-8	Acetonitrile	272	
108-20-3	Diisopropyl ether	49.7	
126-99-8	Chloroprene	51.0	
75-34-3	1,1-Dichloroethane	52.2	
107-13-1	Acrylonitrile	51.6	
637-92-3	Ethyl-tert-butyl ether	49.8	
108-05-4	Vinyl acetate	49.0	
156-59-2	cis-1,2-Dichloroethene	52.0	
594-20-7	2,2-Dichloropropane	52.0	
110-82-7	Cyclohexane	51.5	
74-97-5	Bromochloromethane	53.3	
67-66-3	Chloroform	51.5	
56-23-5	Carbon tetrachloride	50.1	
141-78-6	Ethyl acetate	47.9	
109-99-9	Tetrahydrofuran	50.9	
71-55-6	1,1,1-Trichloroethane	51.6	
78-93-3	2-Butanone (MEK)	49.2	
563-58-6	1,1-Dichloropropene	51.4	
71-43-2	Benzene	51.5	
107-12-0	Propionitrile	52.2	
126-98-7	Methacrylonitrile	49.6	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	48.4	
78-83-1	Isobutanol	242	
107-06-2	1,2-Dichloroethane	51.6	
108-87-2	Methylcyclohexane	49.5	
79-01-6	Trichloroethene	50.3	
74-95-3	Dibromomethane	51.0	
78-87-5	1,2-Dichloropropane	50.9	
75-27-4	Bromodichloromethane	50.4	
80-62-6	Methyl methacrylate	47.6	
123-91-1	1,4-Dioxane (p-Dioxane)	540	
110-75-8	2-Chloroethylvinyl ether	46.5	
10061-01-5	cis-1,3-Dichloropropene	50.1	
108-88-3	Toluene	51.1	
79-46-9	2-Nitropropane	228	
108-10-1	4-Methyl-2-pentanone (MIBK)	50.0	
127-18-4	Tetrachloroethene	50.2	
10061-02-6	trans-1,3-Dichloropropene	49.0	
97-63-2	Ethyl methacrylate	50.3	
79-00-5	1,1,2-Trichloroethane	49.7	
124-48-1	Dibromochloromethane	48.3	
142-28-9	1,3-Dichloropropane	49.7	
106-93-4	1,2-Dibromoethane (EDB)	50.0	
591-78-6	2-Hexanone	50.0	
100-41-4	Ethylbenzene	50.9	
108-90-7	Chlorobenzene	51.4	
630-20-6	1,1,1,2-Tetrachloroethane	47.9	
7816-60-0	m&p-Xylene	102	
95-47-6	o-Xylene	50.1	
100-42-5	Styrene	50.1	
75-25-2	Bromoform	45.6	
98-82-8	Isopropylbenzene (Cumene)	50.8	
103-65-1	n-Propylbenzene	50.6	
108-86-1	Bromobenzene	49.9	
79-34-5	1,1,2,2-Tetrachloroethane	47.8	
108-67-8	1,3,5-Trimethylbenzene	50.2	
95-49-8	2-Chlorotoluene	50.3	
96-18-4	1,2,3-Trichloropropane	47.9	
110-57-6	trans-1,4-Dichloro-2-butene	47.8	
108-94-1	Cyclohexanone	244	
106-43-4	4-Chlorotoluene	49.0	
98-06-6	tert-Butylbenzene	50.4	
95-63-6	1,2,4-Trimethylbenzene	50.7	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Report Date: 23-Jul-2019 07:54

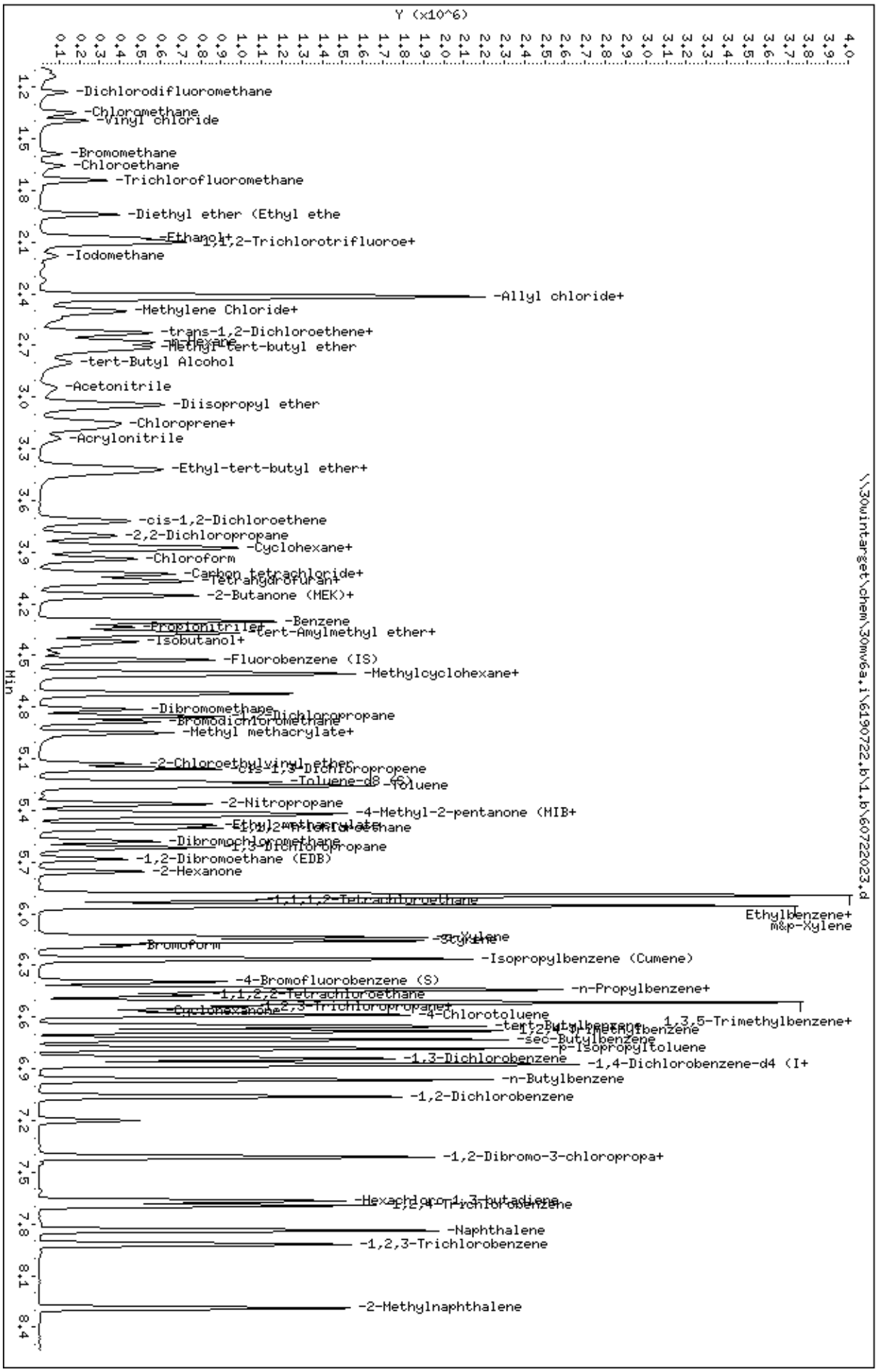
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

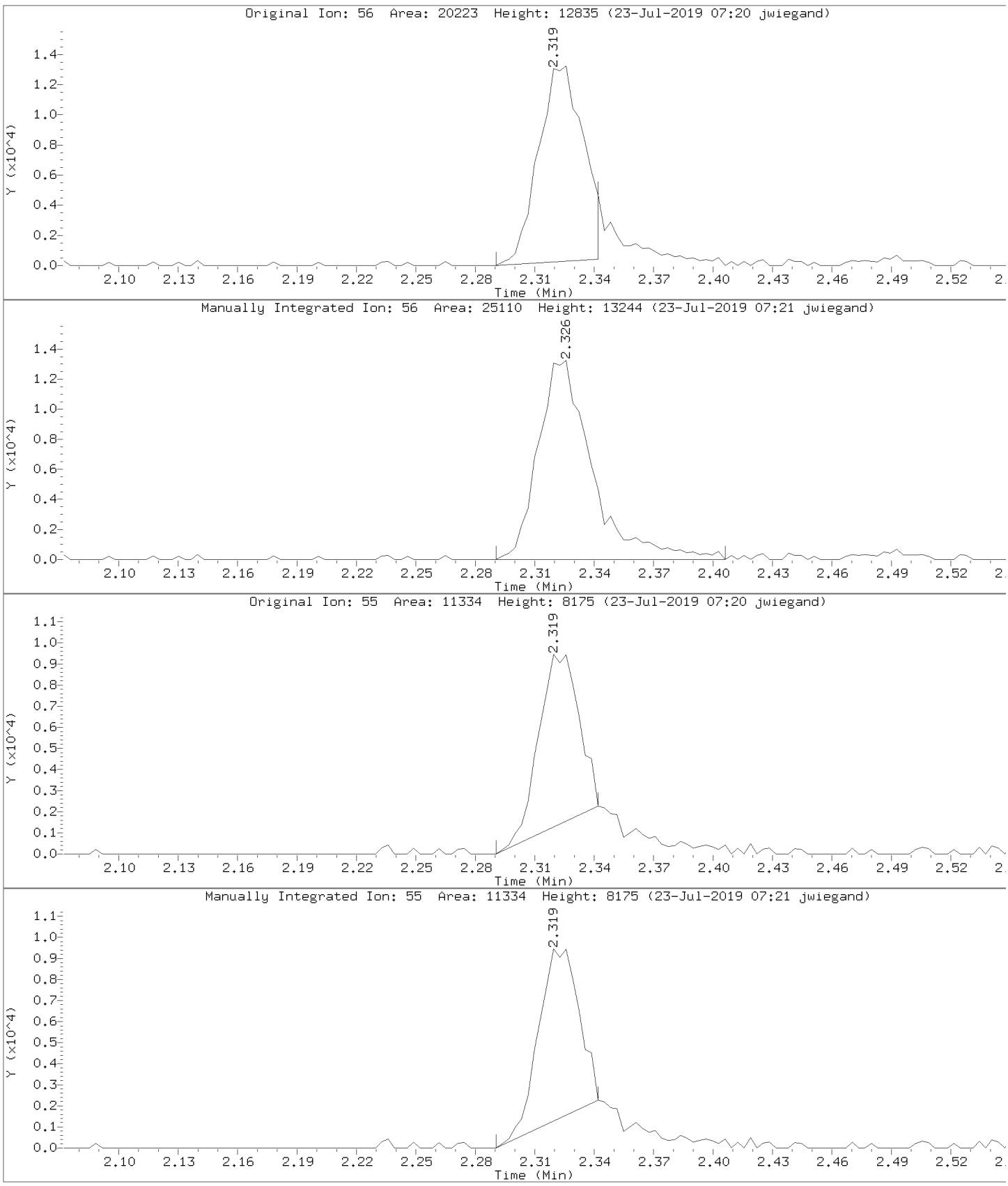
Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	50.7	
99-87-6	p-Isopropyltoluene	50.9	
541-73-1	1,3-Dichlorobenzene	50.0	
106-46-7	1,4-Dichlorobenzene	50.3	
104-51-8	n-Butylbenzene	50.4	
95-50-1	1,2-Dichlorobenzene	50.5	
96-12-8	1,2-Dibromo-3-chloropropane	49.1	
108-70-3	1,3,5-Trichlorobenzene	51.3	
87-68-3	Hexachloro-1,3-butadiene	50.7	
120-82-1	1,2,4-Trichlorobenzene	51.2	
91-20-3	Naphthalene	52.8	
87-61-6	1,2,3-Trichlorobenzene	51.5	
91-57-6	2-Methylnaphthalene	51.3	
1868-53-7	Dibromofluoromethane (S)	30.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.8	
2037-26-5	Toluene-d8 (S)	29.9	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	


Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Date : 22-JUL-2019 13:31
Client ID: CAL5
Sample Info: CAL5, 94254:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722023.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

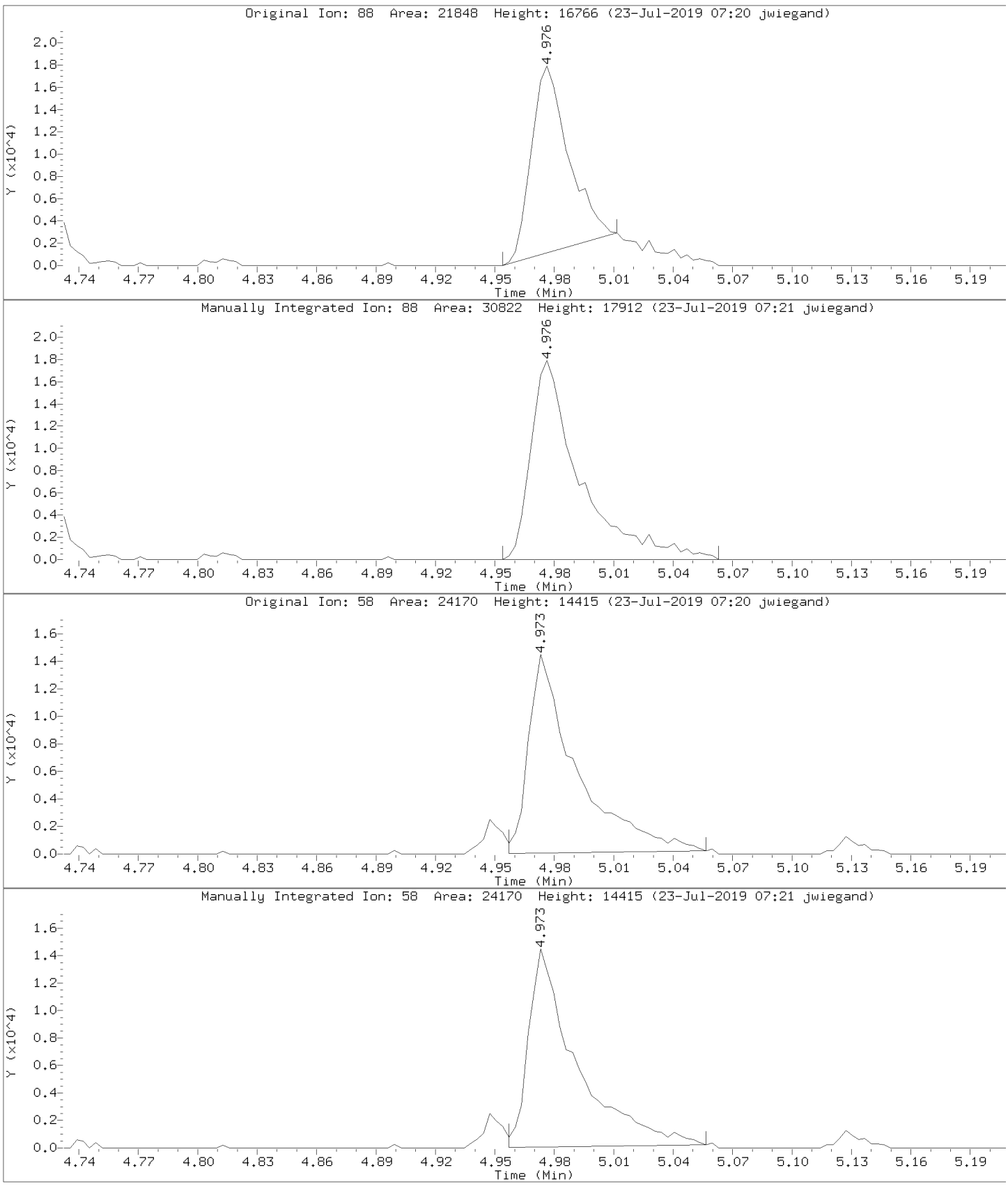
Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722023.d
Injection Date: 22-JUL-2019 13:31
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8

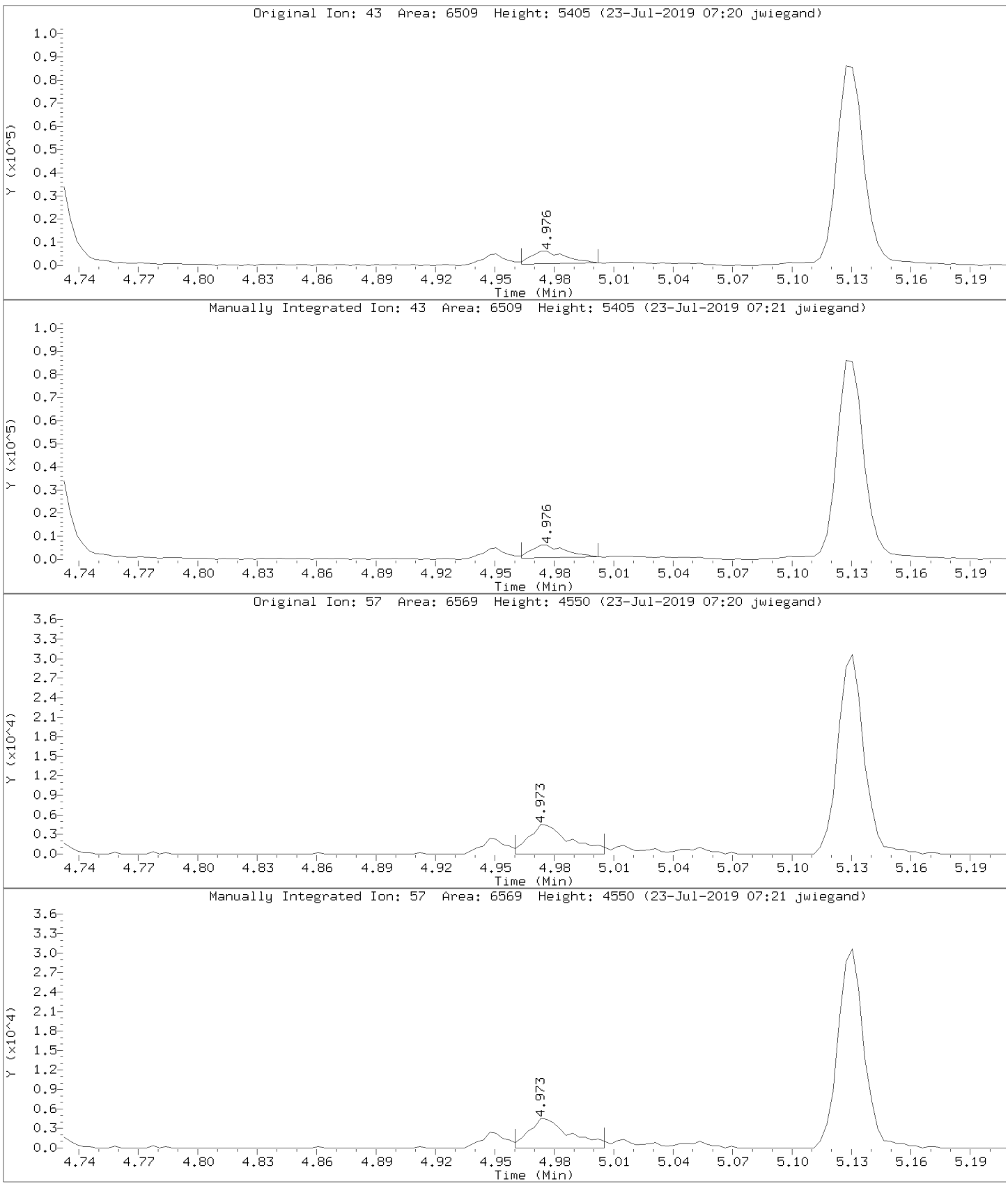


Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722023.d
Injection Date: 22-JUL-2019 13:31
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722023.d
Injection Date: 22-JUL-2019 13:31
Instrument: 30mv6a.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 22-JUL-2019 13:56
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal6, 94255:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 13:56 Cal File: 60722025.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.225	(0.271)	177783	100.000	91.8(QM)	LT
2 Chloromethane	50	1.347	1.347	(0.298)	324185	100.000	91.6(Q)	
3 Vinyl chloride	62	1.391	1.392	(0.307)	331137	100.000	96.0(Q)	
4 Bromomethane	94	1.584	1.585	(0.350)	74319	100.000	96.6(Q)	
5 Chloroethane	64	1.651	1.655	(0.365)	175553	100.000	111(Q)	
6 Trichlorofluoromethane	101	1.735	1.739	(0.383)	339103	100.000	97.3(Q)	
7 Diethyl ether (Ethyl ether)	59	1.937	1.935	(0.428)	347341	100.000	100(Q)	
8 Ethanol	45	2.056	2.049	(0.299)	79840	1000.00	(aQ)	
9 1,1-Dichloroethene	61	2.072	2.076	(0.458)	475225	100.000	97.4(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.094	2.095	(0.463)	197448	100.000	93.3(Q)	
11 Carbon disulfide	76	2.101	2.101	(0.464)	814951	100.000	100(Q)	
12 Iodomethane	142	2.178	2.178	(0.481)	160853	100.000	111(Q)	
13 Acrolein	56	2.322	2.323	(0.513)	47966	100.000	98.7(Q)	
14 Allyl chloride	41	2.412	2.413	(0.533)	2766561	500.000	528(Q)	
15 Methylene Chloride	49	2.499	2.499	(0.552)	570570	100.000	104(Q)	
16 Acetone	43	2.547	2.541	(0.563)	152969	100.000	108(Q)	
17 trans-1,2-Dichloroethene	61	2.621	2.624	(0.579)	488745	100.000	102(Q)	
18 Methyl acetate	74	2.637	2.634	(0.583)	69118	100.000	100(Q)	
19 n-Hexane	86	2.678	2.679	(0.592)	79335	100.000	93.9(Q)	
20 Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	995024	100.000	100(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.803	2.794	(0.619)	478855	500.000	505(Q)	
	22 Acetonitrile	41	2.945	2.945	(0.651)	276019	500.000	520(Q)	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	1357078	100.000	101(Q)	
	24 Chloroprene	53	3.147	3.151	(0.695)	498112	100.000	98.3(Q)	
	25 1,1-Dichloroethane	63	3.172	3.173	(0.701)	638421	100.000	102(Q)	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	189353	100.000	98.4(Q)	
	27 Ethyl-tert-butyl ether	59	3.413	3.417	(0.754)	1244291	100.000	100(Q)	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	1083065	100.000	100(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	515542	100.000	102(Q)	
	30 2,2-Dichloropropane	77	3.805	3.802	(0.841)	432024	100.000	100(Q)	
	31 Cyclohexane	56	3.869	3.869	(0.855)	603032	100.000	94.8(Q)	
	32 Bromochloromethane	130	3.878	3.882	(0.857)	248732	100.000	108(Q)	
	33 Chloroform	83	3.939	3.940	(0.870)	554684	100.000	102(Q)	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	384585	100.000	96.2(Q)	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	509725	100.000	99.7(Q)	
	36 Tetrahydrofuran	42	4.048	4.065	(0.894)	217960	100.000	99.8(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	116311	30.0000	29.7(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	484298	100.000	99.8(Q)	
	39 2-Butanone (MEK)	43	4.148	4.155	(0.916)	290878	100.000	99.9(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	410073	100.000	98.3(Q)	
	41 Benzene	78	4.302	4.299	(0.950)	1283252	100.000	102(Q)	
	42 Propionitrile	54	4.328	4.325	(0.956)	86992	100.000	95.3(Q)	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	280110	100.000	98.1(Q)	
	44 tert-Amylmethyl ether	73	4.366	4.373	(0.965)	951875	100.000	98.6(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	114303	30.0000	29.0(Q)	
	46 Isobutanol	43	4.440	4.444	(0.981)	194817	500.000	487(Q)	
	47 1,2-Dichloroethane	62	4.417	4.418	(0.976)	461775	100.000	102(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	483994	30.0000	(Q)	
	49 Methylcyclohexane	83	4.600	4.604	(1.016)	499760	100.000	95.0(Q)	
	50 Trichloroethene	95	4.610	4.611	(0.783)	342456	100.000	102(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	251803	100.000	102(Q)	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	395557	100.000	102(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	423052	100.000	101(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	266932	100.000	96.7(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.983	(1.099)	60047	1000.00	1020(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	249705	100.000	96.3(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	554692	100.000	102(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	434423	30.0000	29.9(Q)	
	59 Toluene	91	5.255	5.259	(0.893)	1366570	100.000	105(Q)	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	688767	500.000	476(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	497488	100.000	98.2(Q)	
	62 Tetrachloroethene	166	5.419	5.423	(0.920)	362428	100.000	102(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	525689	100.000	103(Q)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	368168	100.000	102(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	326151	100.000	103(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	387592	100.000	102(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	537354	100.000	103(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	357161	100.000	104(Q)	
	69 2-Hexanone	43	5.756	5.760	(0.978)	388808	100.000	101(Q)	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	532557	100.000	105(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	348949	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	990155	100.000	106(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	384165	100.000	101(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	1312779	200.000	210(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.137	6.138	(1.043)	660377	100.000	104(Q)	
	76 Styrene	104	6.160	6.161	(1.046)	1147523	100.000	106(Q)	
	77 Bromoform	173	6.186	6.186	(0.900)	277441	100.000	97.6(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	1641972	100.000	106(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	149802	30.0000	29.8(Q)	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	1861331	100.000	105(Q)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	691489	100.000	103(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	460242	100.000	100(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	1386465	100.000	105(Q)	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	420981	100.000	103(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	156105	100.000	99.4(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	170212	100.000	99.9(Q)	
	87 Cyclohexanone	55	6.567	6.571	(0.956)	285570	500.000	451(Q)	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	453642	100.000	103(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	1341067	100.000	105(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.973)	1440902	100.000	105(Q)	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	1849849	100.000	107(Q)	
	92 p-Isopropyltoluene	119	6.782	6.783	(0.987)	1716904	100.000	107(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	925712	100.000	105(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	207269	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	946848	100.000	106(Q)	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	1440831	100.000	108(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	900860	100.000	105(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	207265	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	144776	100.000	100(Q)	
	99 1,3,5-Trichlorobenzene	180	7.411	7.415	(1.079)	637953	100.000	107(Q)	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	334463	100.000	106(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	612676	100.000	109(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	1792639	100.000	109(Q)	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	553880	100.000	109(Q)	
	104 2-Methylnaphthalene	142	8.291	8.298	(1.207)	858867	100.000	106(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722025.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	483994	11.36
71 Chlorobenzene-d5	335570	167785	671140	348949	3.99
94 1,4-Dichlorobenze	199759	99880	399518	207269	3.76

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	91.8	
74-87-3	Chloromethane	91.6	
75-01-4	Vinyl chloride	96.0	
74-83-9	Bromomethane	96.6	
75-00-3	Chloroethane	111	
75-69-4	Trichlorofluoromethane	97.3	
60-29-7	Diethyl ether (Ethyl ether)	100	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	97.4	
76-13-1	1,1,2-Trichlorotrifluoroetha	93.3	
75-15-0	Carbon disulfide	100	
74-88-4	Iodomethane	111	
107-02-8	Acrolein	98.7	
107-05-1	Allyl chloride	528	
75-09-2	Methylene Chloride	104	
67-64-1	Acetone	108	
156-60-5	trans-1,2-Dichloroethene	102	
79-20-9	Methyl acetate	100	
110-54-3	n-Hexane	93.9	
1634-04-4	Methyl-tert-butyl ether	100	
75-65-0	tert-Butyl Alcohol	505	
75-05-8	Acetonitrile	520	
108-20-3	Diisopropyl ether	101	
126-99-8	Chloroprene	98.3	
75-34-3	1,1-Dichloroethane	102	
107-13-1	Acrylonitrile	98.4	
637-92-3	Ethyl-tert-butyl ether	100	
108-05-4	Vinyl acetate	100	
156-59-2	cis-1,2-Dichloroethene	102	
594-20-7	2,2-Dichloropropane	100	
110-82-7	Cyclohexane	94.8	
74-97-5	Bromochloromethane	108	
67-66-3	Chloroform	102	
56-23-5	Carbon tetrachloride	96.2	
141-78-6	Ethyl acetate	99.7	
109-99-9	Tetrahydrofuran	99.8	
71-55-6	1,1,1-Trichloroethane	99.8	
78-93-3	2-Butanone (MEK)	99.9	
563-58-6	1,1-Dichloropropene	98.3	
71-43-2	Benzene	102	
107-12-0	Propionitrile	95.3	
126-98-7	Methacrylonitrile	98.1	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	98.6	
78-83-1	Isobutanol	487	
107-06-2	1,2-Dichloroethane	102	
108-87-2	Methylcyclohexane	95.0	
79-01-6	Trichloroethene	102	
74-95-3	Dibromomethane	102	
78-87-5	1,2-Dichloropropane	102	
75-27-4	Bromodichloromethane	101	
80-62-6	Methyl methacrylate	96.7	
123-91-1	1,4-Dioxane (p-Dioxane)	1020	
110-75-8	2-Chloroethylvinyl ether	96.3	
10061-01-5	cis-1,3-Dichloropropene	102	
108-88-3	Toluene	105	
79-46-9	2-Nitropropane	476	
108-10-1	4-Methyl-2-pentanone (MIBK)	98.2	
127-18-4	Tetrachloroethene	102	
10061-02-6	trans-1,3-Dichloropropene	103	
97-63-2	Ethyl methacrylate	102	
79-00-5	1,1,2-Trichloroethane	103	
124-48-1	Dibromochloromethane	102	
142-28-9	1,3-Dichloropropane	103	
106-93-4	1,2-Dibromoethane (EDB)	104	
591-78-6	2-Hexanone	101	
100-41-4	Ethylbenzene	105	
108-90-7	Chlorobenzene	106	
630-20-6	1,1,1,2-Tetrachloroethane	101	
7816-60-0	m&p-Xylene	210	
95-47-6	o-Xylene	104	
100-42-5	Styrene	106	
75-25-2	Bromoform	97.6	
98-82-8	Isopropylbenzene (Cumene)	106	
103-65-1	n-Propylbenzene	105	
108-86-1	Bromobenzene	103	
79-34-5	1,1,2,2-Tetrachloroethane	100	
108-67-8	1,3,5-Trimethylbenzene	105	
95-49-8	2-Chlorotoluene	103	
96-18-4	1,2,3-Trichloropropane	99.4	
110-57-6	trans-1,4-Dichloro-2-butene	99.9	
108-94-1	Cyclohexanone	451	
106-43-4	4-Chlorotoluene	103	
98-06-6	tert-Butylbenzene	105	
95-63-6	1,2,4-Trimethylbenzene	105	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Report Date: 23-Jul-2019 07:54

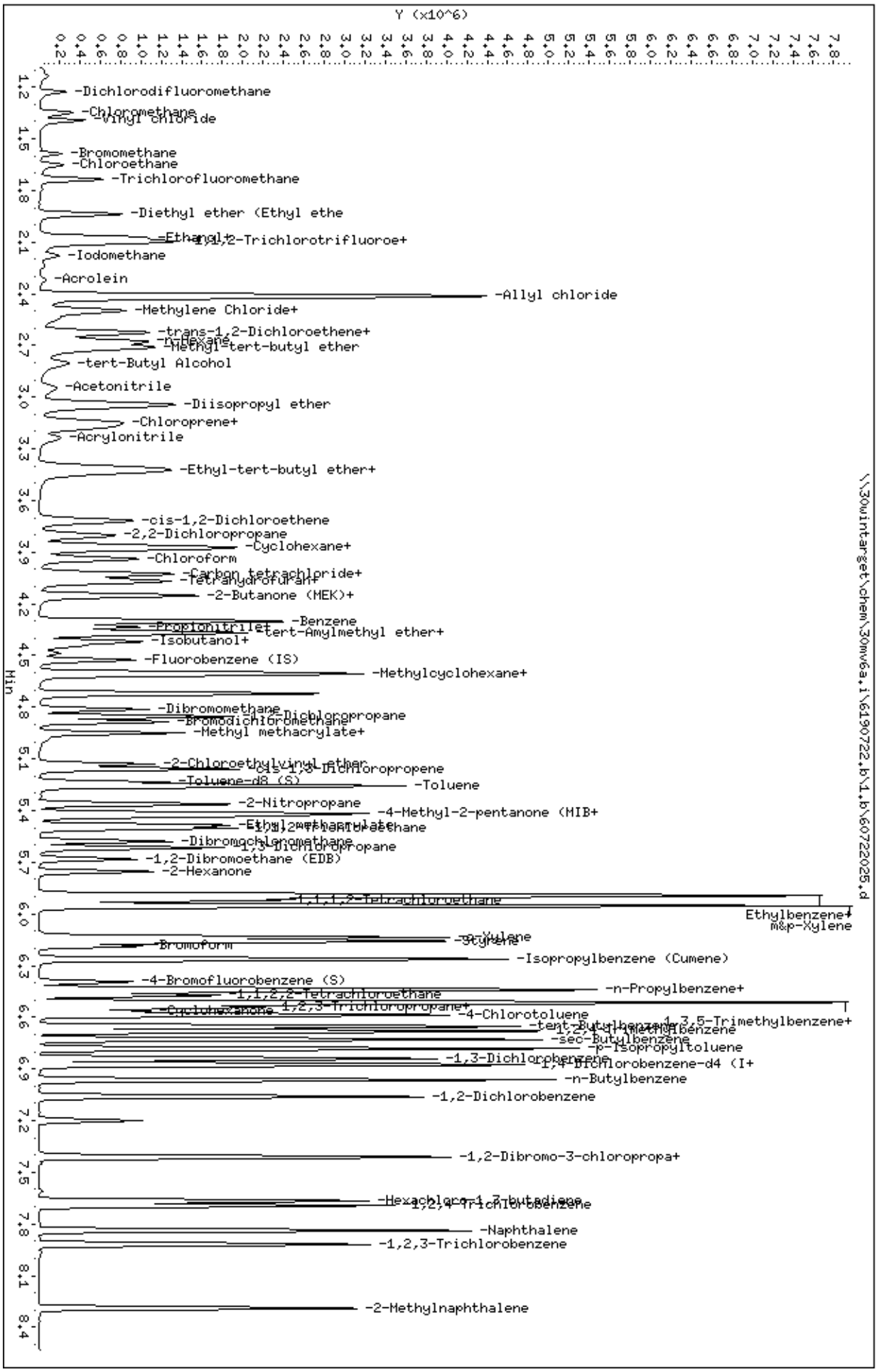
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	107	
99-87-6	p-Isopropyltoluene	107	
541-73-1	1,3-Dichlorobenzene	105	
106-46-7	1,4-Dichlorobenzene	106	
104-51-8	n-Butylbenzene	108	
95-50-1	1,2-Dichlorobenzene	105	
96-12-8	1,2-Dibromo-3-chloropropane	100	
108-70-3	1,3,5-Trichlorobenzene	107	
87-68-3	Hexachloro-1,3-butadiene	106	
120-82-1	1,2,4-Trichlorobenzene	109	
91-20-3	Naphthalene	109	
87-61-6	1,2,3-Trichlorobenzene	109	
91-57-6	2-Methylnaphthalene	106	
1868-53-7	Dibromofluoromethane (S)	29.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.0	
2037-26-5	Toluene-d8 (S)	29.9	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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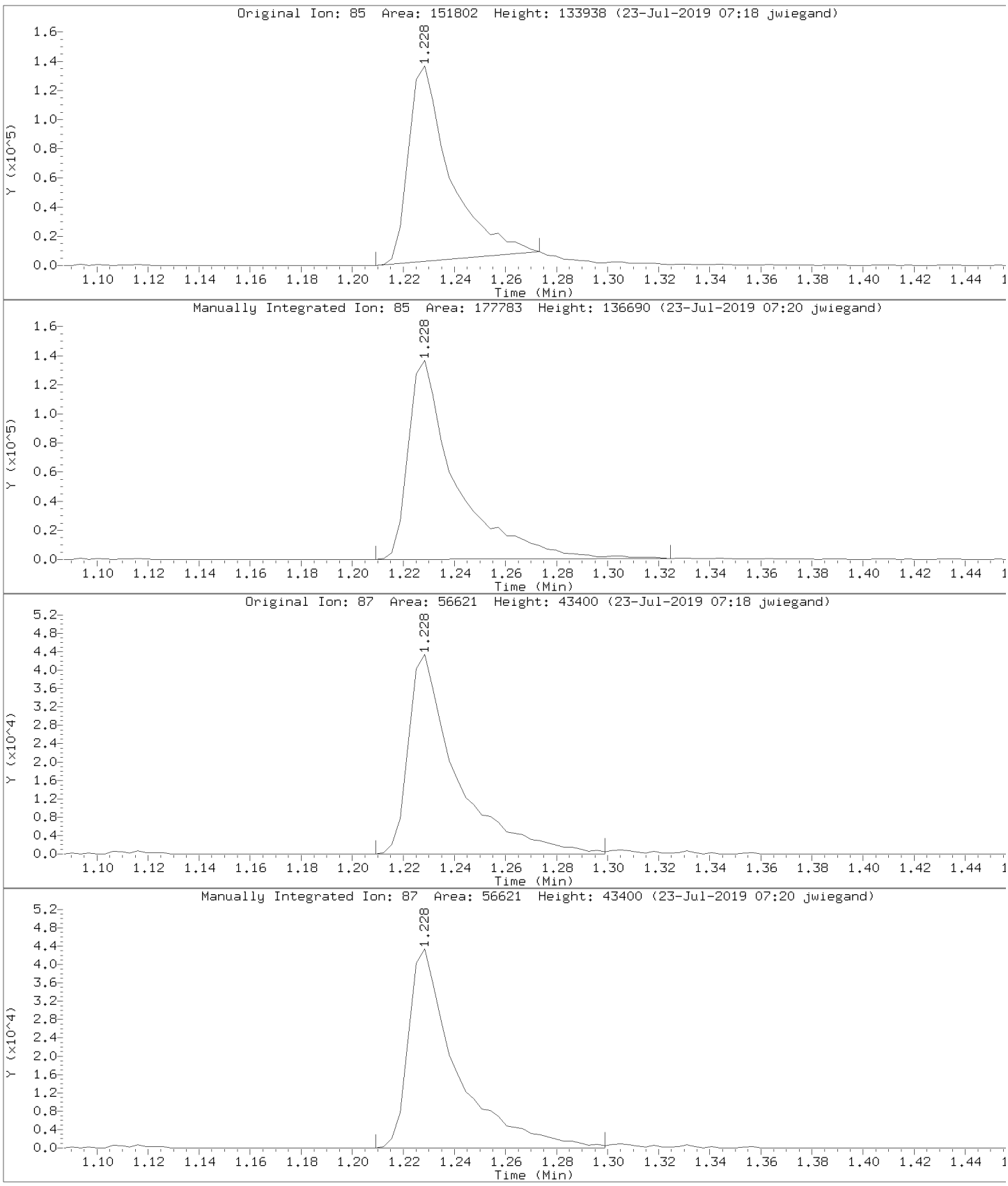
Date : 22-JUL-2019 13:56
Client ID: CAL6
Sample Info: CAL6, 94255:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722025.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone
-1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722025.d
Injection Date: 22-JUL-2019 13:56
Instrument: 30mv6a.i
Lab Sample ID: CAL6

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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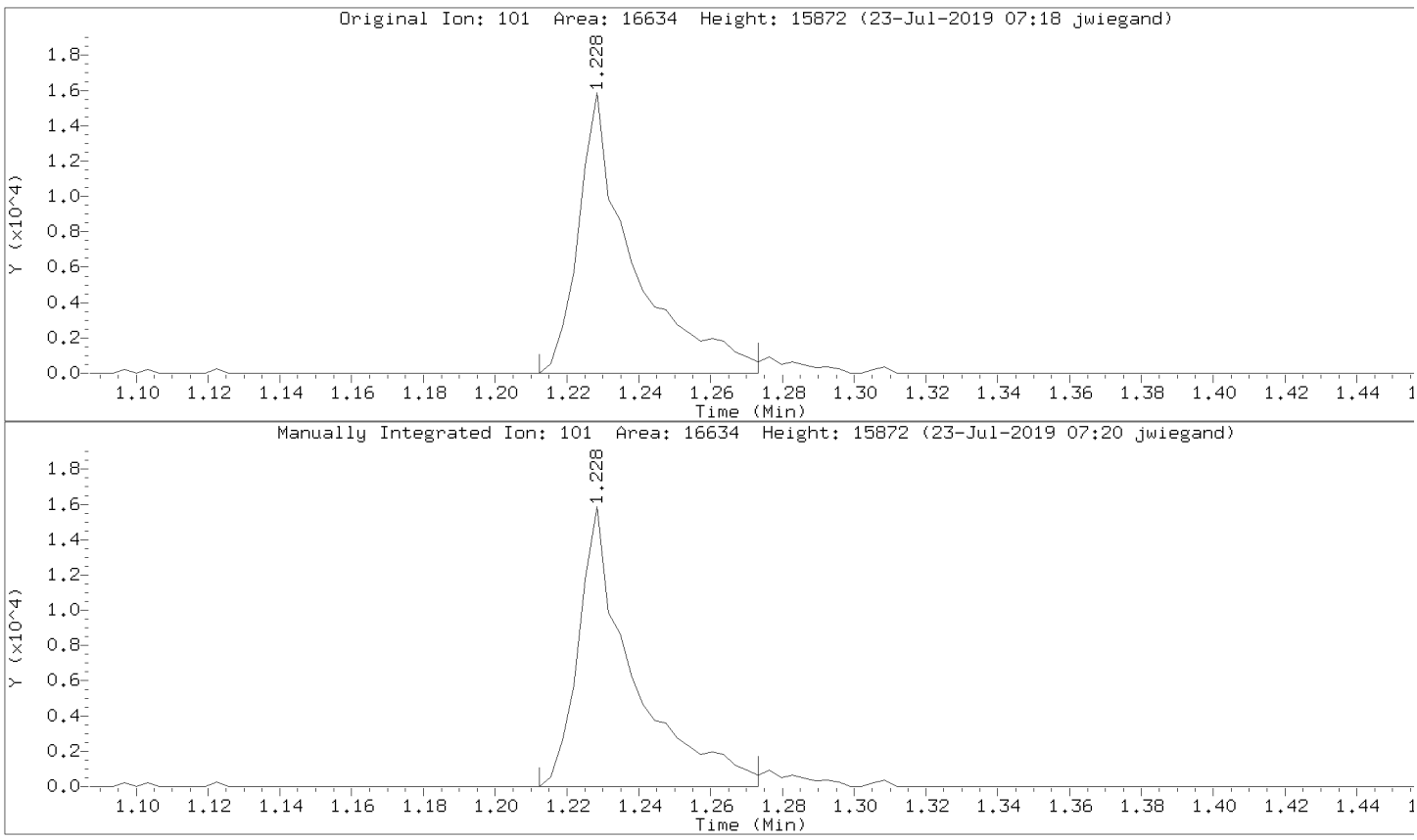
Injection Date: 22-JUL-2019 13:56
Instrument: 30mv6a.i
Lab Sample ID: CAL6



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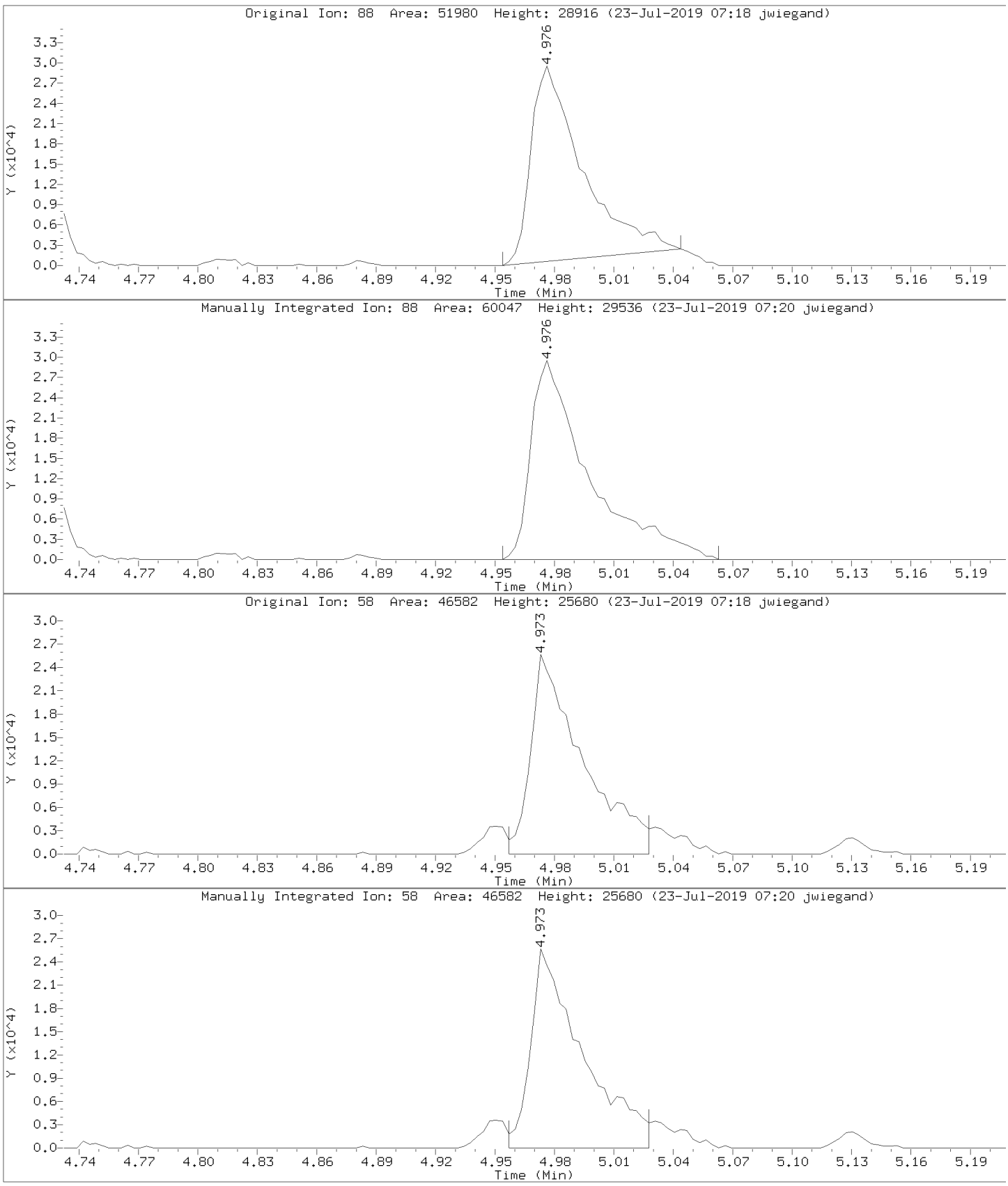
Injection Date: 22-JUL-2019 13:56
Instrument: 30mv6a.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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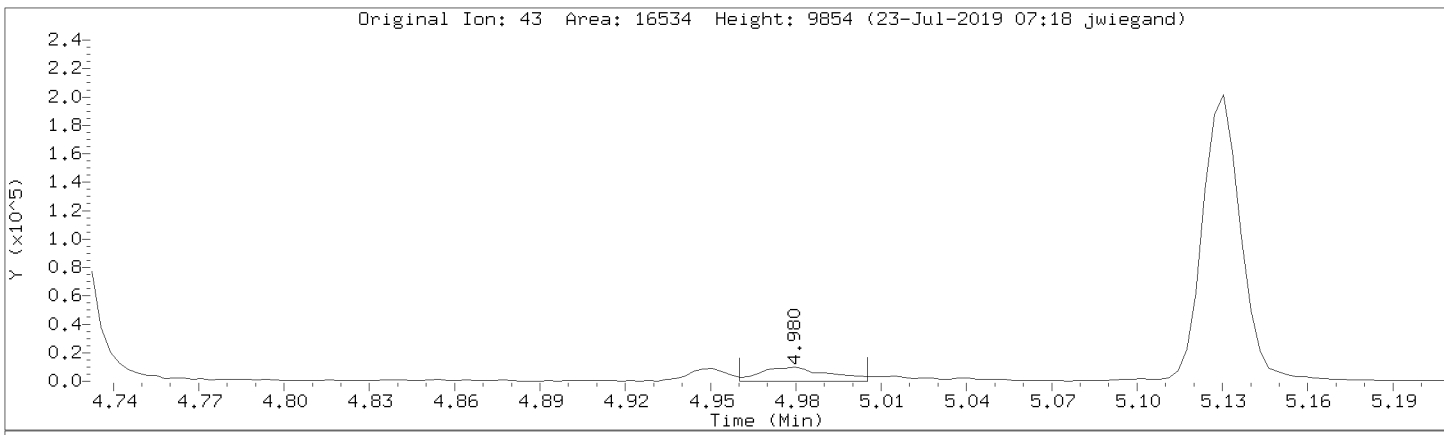
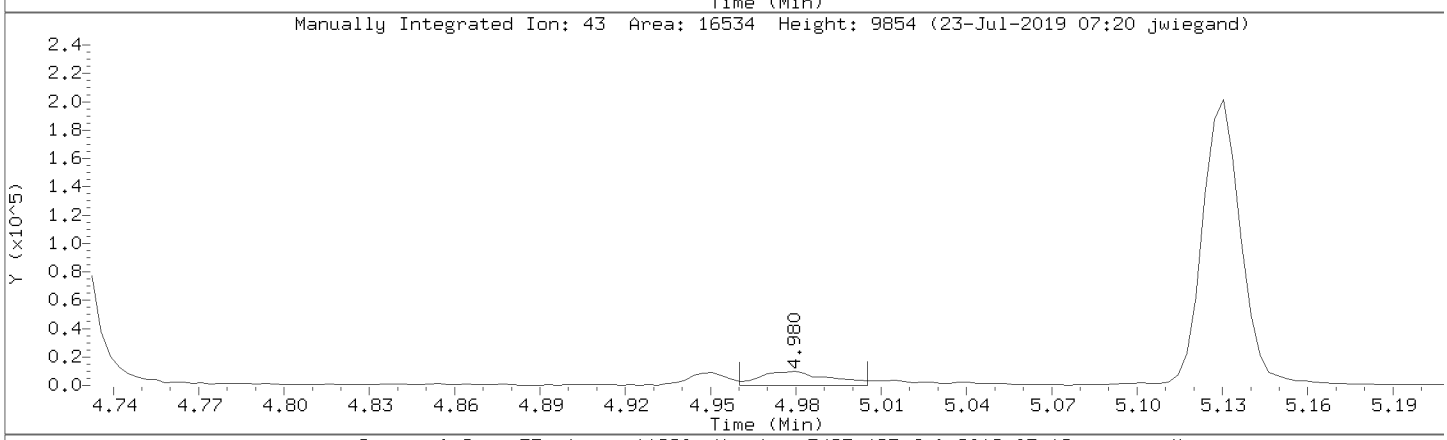
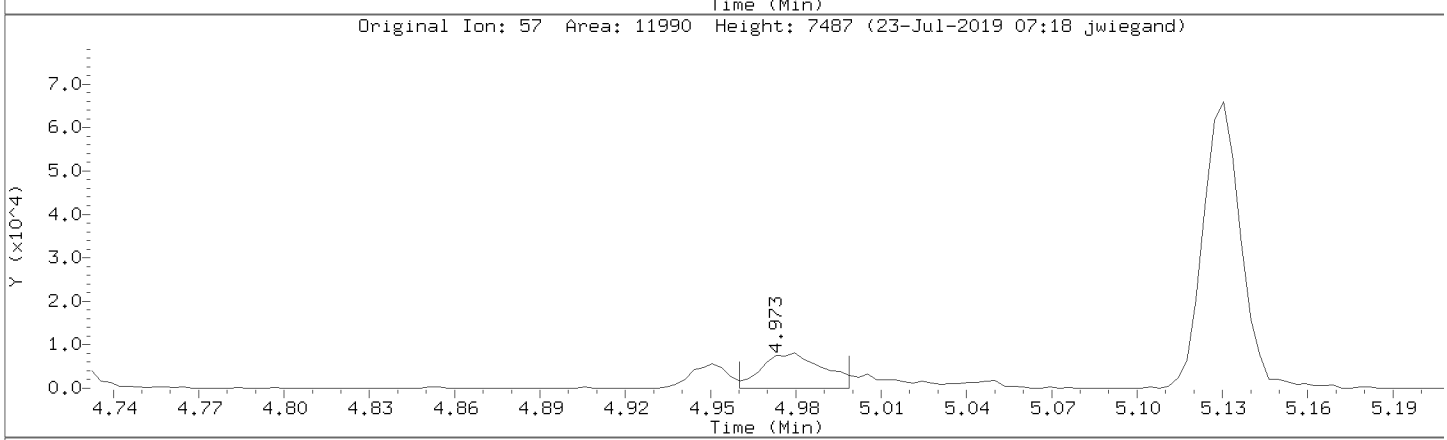
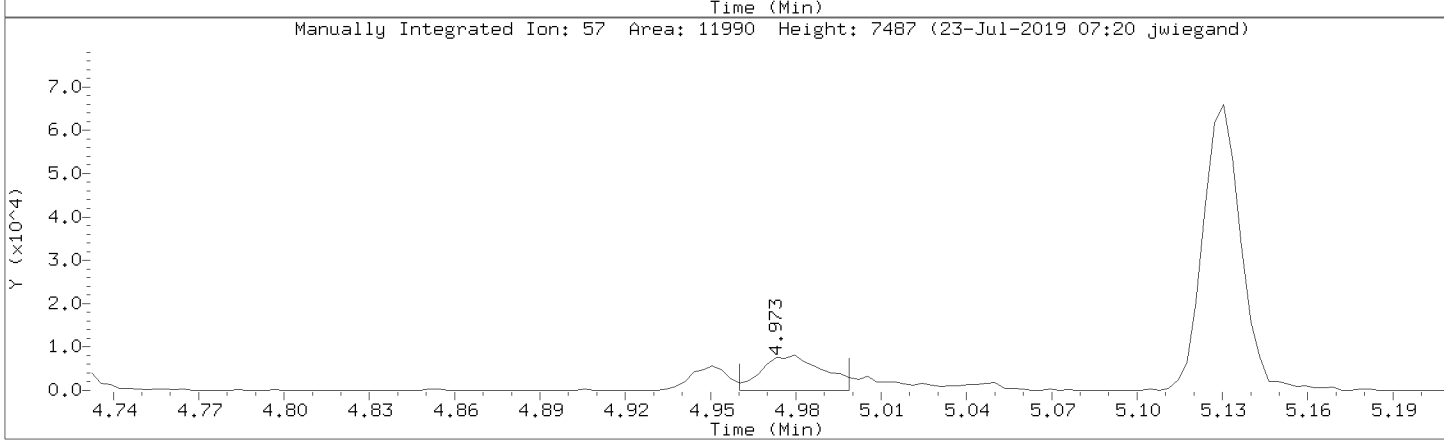
Injection Date: 22-JUL-2019 13:56
Instrument: 30mv6a.i
Lab Sample ID: CAL6









Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 22-JUL-2019 14:22
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal7, 94256:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 14:22 Cal File: 60722027.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.225	1.225	(0.271)	414644	200.000	202(Q)	
2 Chloromethane	50	1.347	1.347	(0.298)	687466	200.000	183(Q)	
3 Vinyl chloride	62	1.392	1.392	(0.307)	719339	200.000	201(Q)	
4 Bromomethane	94	1.584	1.585	(0.350)	171060	200.000	215(Q)	
5 Chloroethane	64	1.648	1.655	(0.364)	321554	200.000	211(AQ)	
6 Trichlorofluoromethane	101	1.729	1.739	(0.382)	756996	200.000	210(Q)	
7 Diethyl ether (Ethyl ether)	59	1.937	1.935	(0.428)	722748	200.000	205(Q)	
8 Ethanol	45	2.065	2.049	(0.301)	89471	2000.00	(aQ)	
9 1,1-Dichloroethene	61	2.069	2.076	(0.457)	1009298	200.000	200(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.088	2.095	(0.461)	447000	200.000	201(Q)	
11 Carbon disulfide	76	2.098	2.101	(0.463)	1662603	200.000	202(Q)	
12 Iodomethane	142	2.175	2.178	(0.480)	336744	200.000	241(Q)	
13 Acrolein	56	2.319	2.323	(0.512)	97576	200.000	196(Q)	
14 Allyl chloride	41	2.409	2.413	(0.532)	5489222	1000.00	1060(Q)	
15 Methylene Chloride	49	2.495	2.499	(0.551)	1082392	200.000	198(Q)	
16 Acetone	43	2.547	2.541	(0.563)	279893	200.000	201(Q)	
17 trans-1,2-Dichloroethene	61	2.621	2.624	(0.579)	942605	200.000	197(Q)	
18 Methyl acetate	74	2.637	2.634	(0.583)	139580	200.000	198(Q)	
19 n-Hexane	86	2.672	2.679	(0.590)	175775	200.000	198(Q)	
20 Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	2024766	200.000	201(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.810	2.794	(0.621)	962299	1000.00	1000(Q)	
	22 Acetonitrile	41	2.951	2.945	(0.652)	543683	1000.00	1030(Q)	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	2771042	200.000	202(Q)	
	24 Chloroprene	53	3.144	3.151	(0.695)	1047161	200.000	201(Q)	
	25 1,1-Dichloroethane	63	3.173	3.173	(0.701)	1264826	200.000	202(Q)	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	397380	200.000	201(Q)	
	27 Ethyl-tert-butyl ether	59	3.413	3.417	(0.754)	2550842	200.000	202(Q)	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	2213898	200.000	202(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	1025942	200.000	202(Q)	
	30 2,2-Dichloropropane	77	3.802	3.802	(0.840)	879358	200.000	200(Q)	
	31 Cyclohexane	56	3.869	3.869	(0.855)	1340964	200.000	202(Q)	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	470933	200.000	208(Q)	
	33 Chloroform	83	3.939	3.940	(0.870)	1111119	200.000	202(Q)	
	34 Carbon tetrachloride	117	4.023	4.019	(0.889)	832426	200.000	201(Q)	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	1031538	200.000	198(Q)	
	36 Tetrahydrofuran	42	4.049	4.065	(0.894)	434901	200.000	195(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	119344	30.0000	29.8(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	987865	200.000	200(Q)	
	39 2-Butanone (MEK)	43	4.148	4.155	(0.916)	592891	200.000	200(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	862144	200.000	202(Q)	
	41 Benzene	78	4.299	4.299	(0.950)	2568281	200.000	203(Q)	
	42 Propionitrile	54	4.328	4.325	(0.956)	187375	200.000	197(Q)	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	577463	200.000	197(Q)	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	1986538	200.000	201(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.380	(0.967)	117750	30.0000	28.9(Q)	
	46 Isobutanol	43	4.443	4.444	(0.982)	419993	1000.00	1020(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	923881	200.000	202(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	492527	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.604	(1.016)	1098128	200.000	200(Q)	
	50 Trichloroethene	95	4.610	4.611	(0.783)	695398	200.000	206(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	492914	200.000	200(Q)	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	785852	200.000	200(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	848796	200.000	200(Q)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	563861	200.000	197(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.983	(1.099)	119194	2000.00	2010(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	531862	200.000	198(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	1106869	200.000	201(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	451005	30.0000	30.4(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	2697450	200.000	207(Q)	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	1461622	1000.00	971(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	1019012	200.000	196(Q)	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	741604	200.000	206(Q)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	1051991	200.000	205(Q)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	740573	200.000	204(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	653599	200.000	205(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	789687	200.000	204(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	1073608	200.000	205(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	707518	200.000	204(Q)	
	69 2-Hexanone	43	5.756	5.760	(0.978)	779380	200.000	200(Q)	
	70 Ethylbenzene	106	5.897	5.898	(1.002)	1038507	200.000	206(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	356791	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	1917939	200.000	206(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	785323	200.000	204(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	2629165	400.000	422(Q)	

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							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	1325750	200.000	207(Q)	
	76 Styrene	104	6.160	6.161	(1.046)	2231671	200.000	207(Q)	
	77 Bromoform	173	6.186	6.186	(0.900)	584922	200.000	197(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.911)	3209738	200.000	206(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	154983	30.0000	29.8(Q)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	3685189	200.000	208(Q)	
	81 Bromobenzene	77	6.446	6.446	(0.938)	1371308	200.000	200(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	935405	200.000	197(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	2730363	200.000	205(Q)	
	84 2-Chlorotoluene	126	6.519	6.520	(0.949)	845853	200.000	203(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	319672	200.000	197(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.952)	358240	200.000	204(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	668871	1000.00	978(Q)	
	88 4-Chlorotoluene	126	6.587	6.587	(0.958)	899202	200.000	202(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.968)	2631725	200.000	205(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	2812312	200.000	205(Q)	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	3571023	200.000	208(Q)	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	3319951	200.000	208(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.995)	1802587	200.000	205(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	213446	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	1837236	200.000	205(Q)	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	2733250	200.000	206(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	1759003	200.000	204(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	213442	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.077)	294012	200.000	198(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	1222862	200.000	207(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	644203	200.000	205(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	1153637	200.000	208(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	3414691	200.000	211(Q)	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	1047698	200.000	210(Q)	
	104 2-Methylnaphthalene	142	8.291	8.298	(1.206)	1580405	200.000	200(AQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722027.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	492527	13.33
71 Chlorobenzene-d5	335570	167785	671140	356791	6.32
94 1,4-Dichlorobenze	199759	99880	399518	213446	6.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	202	
74-87-3	Chloromethane	183	
75-01-4	Vinyl chloride	201	
74-83-9	Bromomethane	215	
75-00-3	Chloroethane	211	E
75-69-4	Trichlorofluoromethane	210	
60-29-7	Diethyl ether (Ethyl ether)	205	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	200	
76-13-1	1,1,2-Trichlorotrifluoroetha	201	
75-15-0	Carbon disulfide	202	
74-88-4	Iodomethane	241	
107-02-8	Acrolein	196	
107-05-1	Allyl chloride	1060	
75-09-2	Methylene Chloride	198	
67-64-1	Acetone	201	
156-60-5	trans-1,2-Dichloroethene	197	
79-20-9	Methyl acetate	198	
110-54-3	n-Hexane	198	
1634-04-4	Methyl-tert-butyl ether	201	
75-65-0	tert-Butyl Alcohol	1000	
75-05-8	Acetonitrile	1030	
108-20-3	Diisopropyl ether	202	
126-99-8	Chloroprene	201	
75-34-3	1,1-Dichloroethane	202	
107-13-1	Acrylonitrile	201	
637-92-3	Ethyl-tert-butyl ether	202	
108-05-4	Vinyl acetate	202	
156-59-2	cis-1,2-Dichloroethene	202	
594-20-7	2,2-Dichloropropane	200	
110-82-7	Cyclohexane	202	
74-97-5	Bromochloromethane	208	
67-66-3	Chloroform	202	
56-23-5	Carbon tetrachloride	201	
141-78-6	Ethyl acetate	198	
109-99-9	Tetrahydrofuran	195	
71-55-6	1,1,1-Trichloroethane	200	
78-93-3	2-Butanone (MEK)	200	
563-58-6	1,1-Dichloropropene	202	
71-43-2	Benzene	203	
107-12-0	Propionitrile	197	
126-98-7	Methacrylonitrile	197	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	201	
78-83-1	Isobutanol	1020	
107-06-2	1,2-Dichloroethane	202	
108-87-2	Methylcyclohexane	200	
79-01-6	Trichloroethene	206	
74-95-3	Dibromomethane	200	
78-87-5	1,2-Dichloropropane	200	
75-27-4	Bromodichloromethane	200	
80-62-6	Methyl methacrylate	197	
123-91-1	1,4-Dioxane (p-Dioxane)	2010	
110-75-8	2-Chloroethylvinyl ether	198	
10061-01-5	cis-1,3-Dichloropropene	201	
108-88-3	Toluene	207	
79-46-9	2-Nitropropane	971	
108-10-1	4-Methyl-2-pentanone (MIBK)	196	
127-18-4	Tetrachloroethene	206	
10061-02-6	trans-1,3-Dichloropropene	205	
97-63-2	Ethyl methacrylate	204	
79-00-5	1,1,2-Trichloroethane	205	
124-48-1	Dibromochloromethane	204	
142-28-9	1,3-Dichloropropane	205	
106-93-4	1,2-Dibromoethane (EDB)	204	
591-78-6	2-Hexanone	200	
100-41-4	Ethylbenzene	206	
108-90-7	Chlorobenzene	206	
630-20-6	1,1,1,2-Tetrachloroethane	204	
7816-60-0	m&p-Xylene	422	
95-47-6	o-Xylene	207	
100-42-5	Styrene	207	
75-25-2	Bromoform	197	
98-82-8	Isopropylbenzene (Cumene)	206	
103-65-1	n-Propylbenzene	208	
108-86-1	Bromobenzene	200	
79-34-5	1,1,2,2-Tetrachloroethane	197	
108-67-8	1,3,5-Trimethylbenzene	205	
95-49-8	2-Chlorotoluene	203	
96-18-4	1,2,3-Trichloropropane	197	
110-57-6	trans-1,4-Dichloro-2-butene	204	
108-94-1	Cyclohexanone	978	
106-43-4	4-Chlorotoluene	202	
98-06-6	tert-Butylbenzene	205	
95-63-6	1,2,4-Trimethylbenzene	205	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Report Date: 23-Jul-2019 07:54

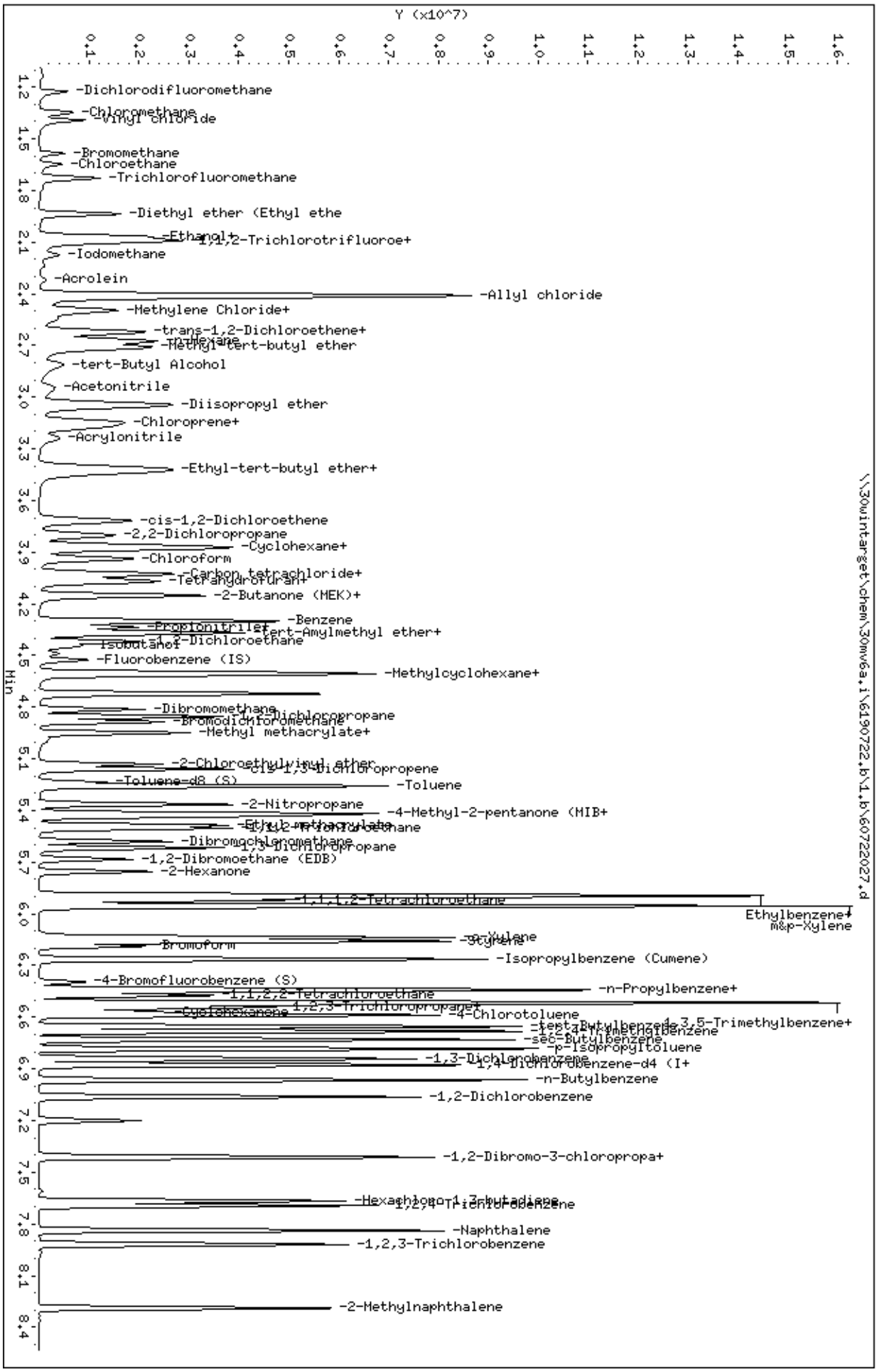
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	208	
99-87-6	p-Isopropyltoluene	208	
541-73-1	1,3-Dichlorobenzene	205	
106-46-7	1,4-Dichlorobenzene	205	
104-51-8	n-Butylbenzene	206	
95-50-1	1,2-Dichlorobenzene	204	
96-12-8	1,2-Dibromo-3-chloropropane	198	
108-70-3	1,3,5-Trichlorobenzene	207	
87-68-3	Hexachloro-1,3-butadiene	205	
120-82-1	1,2,4-Trichlorobenzene	208	
91-20-3	Naphthalene	211	
87-61-6	1,2,3-Trichlorobenzene	210	
91-57-6	2-Methylnaphthalene	200	E
1868-53-7	Dibromofluoromethane (S)	29.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.9	
2037-26-5	Toluene-d8 (S)	30.4	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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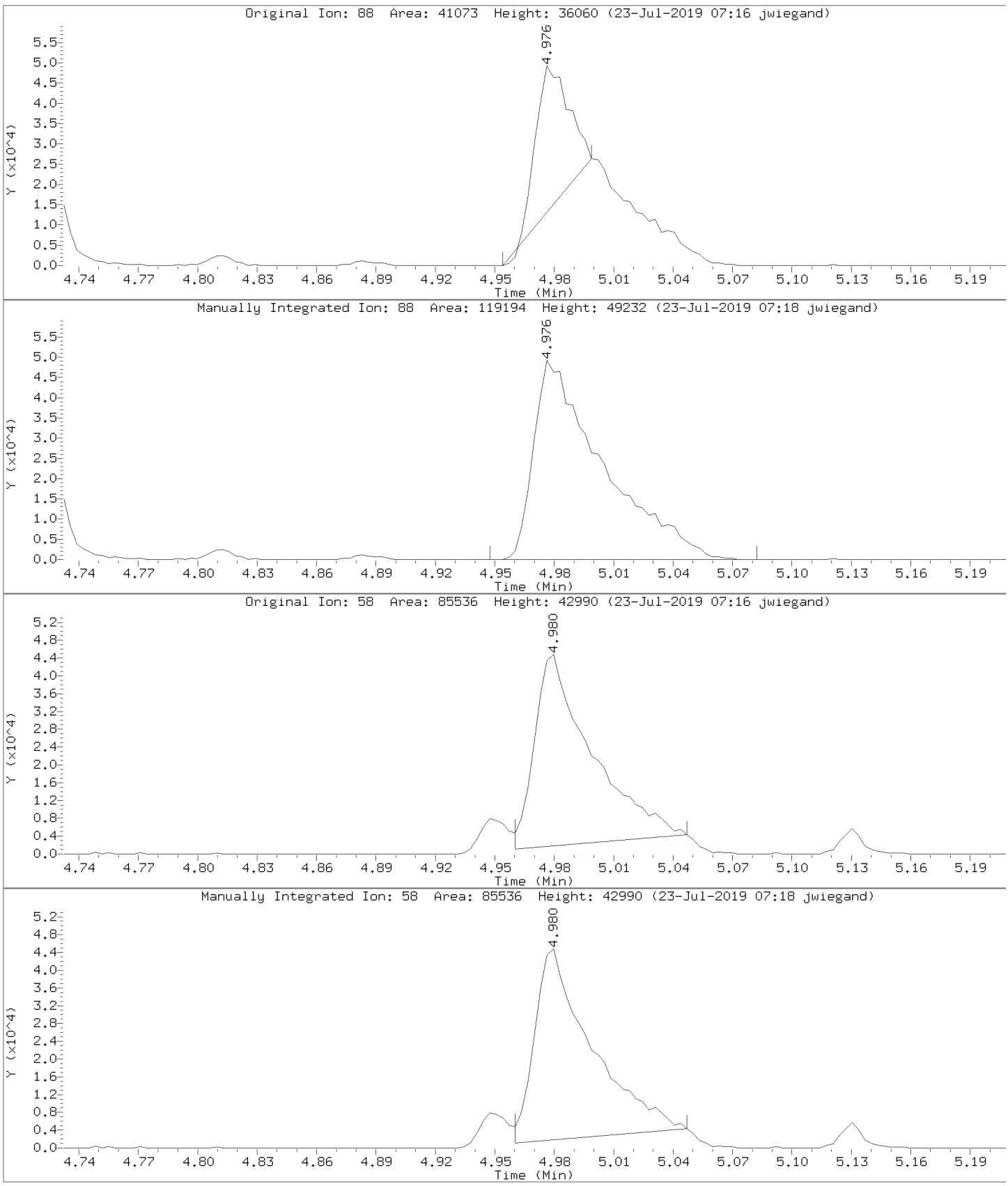
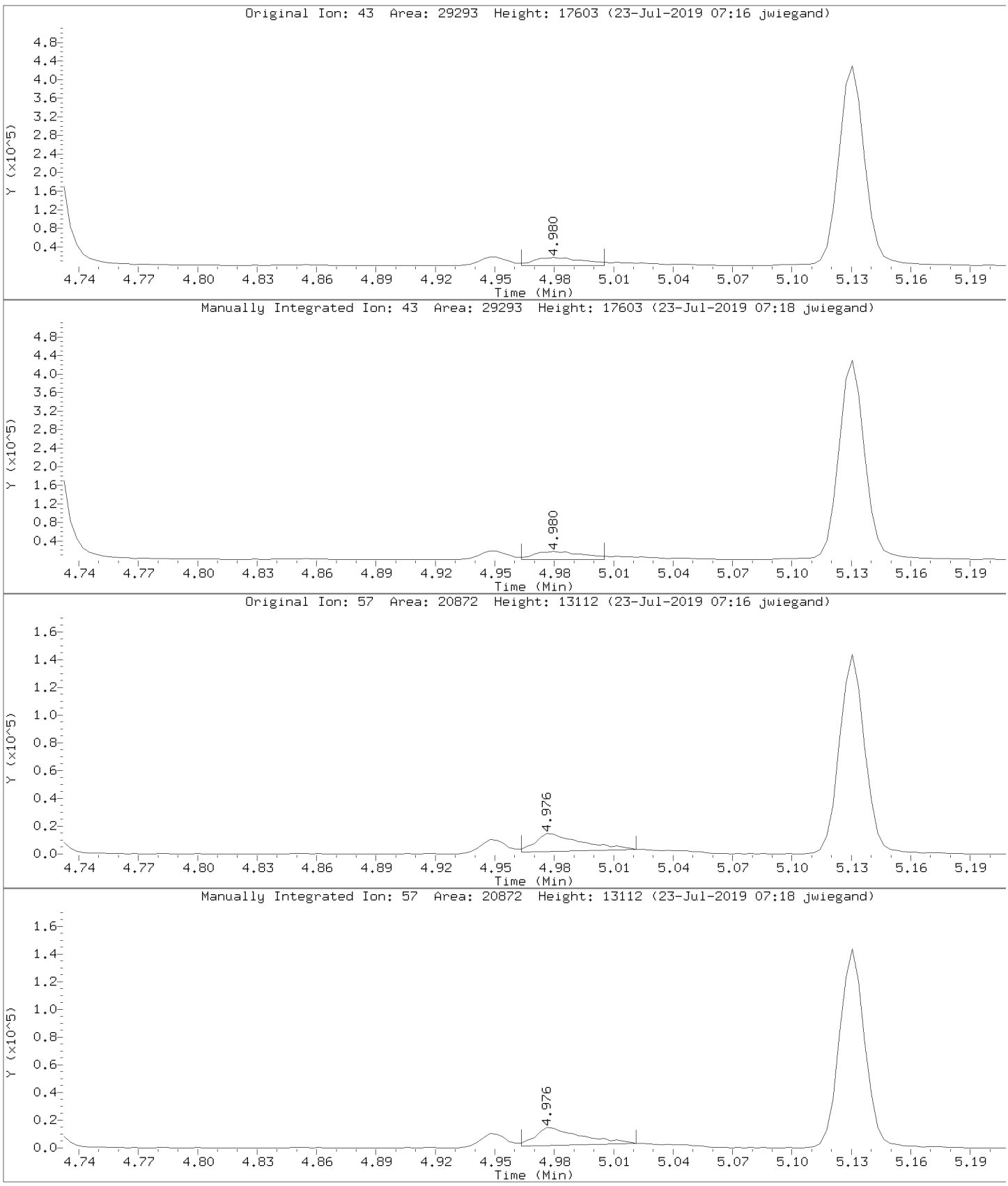
Date : 22-JUL-2019 14:22
Client ID: CAL7
Sample Info: CAL7, 94256:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722027.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
n-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
1,2-Dichloroethane
Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722027.d
Injection Date: 22-JUL-2019 14:22
Instrument: 30mv6a.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722027.d
Injection Date: 22-JUL-2019 14:22
Instrument: 30mv6a.i
Lab Sample ID: CAL7



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 22-JUL-2019 14:48
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal8, 94257:1
Misc Info : 45446,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 14:48 Cal File: 60722029.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.222	1.225	(0.270)	846964	400.000	400(Q)	
2	Chloromethane	50	1.340	1.347	(0.296)	1694778	400.000	400(AQ)	
3	Vinyl chloride	62	1.389	1.392	(0.307)	1484340	400.000	400(AQ)	
4	Bromomethane	94	1.581	1.585	(0.349)	306640	400.000	400(AQ)	
5	Chloroethane	64	1.642	1.655	(0.363)	600151	400.000	400(AQ)	
6	Trichlorofluoromethane	101	1.716	1.739	(0.379)	1418590	400.000	400(QM)	LT
7	Diethyl ether (Ethyl ether)	59	1.931	1.935	(0.427)	1437479	400.000	400(AQ)	
8	Ethanol	45	2.082	2.049	(0.303)	257909	4000.00	(aQ)	
9	1,1-Dichloroethene	61	2.059	2.076	(0.455)	2090734	400.000	400(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.078	2.095	(0.459)	922956	400.000	400(AQ)	
11	Carbon disulfide	76	2.085	2.101	(0.461)	3392430	400.000	400(AQ)	
12	Iodomethane	142	2.165	2.178	(0.478)	461897	400.000	400(Q)	
13	Acrolein	56	2.316	2.323	(0.512)	211753	400.000	400(Q)	
14	Allyl chloride	41	2.403	2.413	(0.531)	10128610	2000.00	2000(AQ)	
15	Methylene Chloride	49	2.489	2.499	(0.550)	2287212	400.000	400(Q)	
16	Acetone	43	2.547	2.541	(0.563)	577337	400.000	400(Q)	
17	trans-1,2-Dichloroethene	61	2.614	2.624	(0.578)	2030146	400.000	400(Q)	
18	Methyl acetate	74	2.634	2.634	(0.582)	295637	400.000	400(AQ)	
19	n-Hexane	86	2.666	2.679	(0.589)	371632	400.000	400(AQ)	
20	Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	4173268	400.000	400(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.833	2.794	(0.626)	1989923	2000.00	2000(AQ)	
	22 Acetonitrile	41	2.954	2.945	(0.653)	1074393	2000.00	2000(AQ)	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	5629679	400.000	400(AQ)	
	24 Chloroprene	53	3.141	3.151	(0.694)	2151195	400.000	400(AQ)	
	25 1,1-Dichloroethane	63	3.166	3.173	(0.699)	2588189	400.000	400(Q)	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	817055	400.000	400(Q)	
	27 Ethyl-tert-butyl ether	59	3.417	3.417	(0.755)	5224724	400.000	400(Q)	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	4524232	400.000	400(Q)	
	29 cis-1,2-Dichloroethene	61	3.715	3.722	(0.821)	2092826	400.000	400(Q)	
	30 2,2-Dichloropropane	77	3.798	3.802	(0.839)	1826652	400.000	400(AQ)	
	31 Cyclohexane	56	3.863	3.869	(0.853)	2743145	400.000	400(Q)	
	32 Bromochloromethane	130	3.875	3.882	(0.856)	902678	400.000	400(Q)	
	33 Chloroform	83	3.936	3.940	(0.870)	2274076	400.000	400(Q)	
	34 Carbon tetrachloride	117	4.020	4.019	(0.888)	1721310	400.000	400(Q)	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	2191700	400.000	400(Q)	
	36 Tetrahydrofuran	42	4.049	4.065	(0.894)	948922	400.000	400(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	126104	30.0000	30.0(Q)	
	38 1,1,1-Trichloroethane	97	4.068	4.075	(0.899)	2058914	400.000	400(Q)	
	39 2-Butanone (MEK)	43	4.151	4.155	(0.917)	1234554	400.000	400(Q)	
	40 1,1-Dichloropropene	75	4.148	4.152	(0.916)	1769056	400.000	400(Q)	
	41 Benzene	78	4.299	4.299	(0.950)	5203931	400.000	400(Q)	
	42 Propionitrile	54	4.331	4.325	(0.957)	401365	400.000	400(AQ)	
	43 Methacrylonitrile	41	4.338	4.335	(0.958)	1240341	400.000	400(AQ)	
	44 tert-Amylmethyl ether	73	4.370	4.373	(0.965)	4105735	400.000	400(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.380	(0.967)	131940	30.0000	30.0(Q)	
	46 Isobutanol	43	4.450	4.444	(0.983)	843811	2000.00	2000(AQ)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	1888420	400.000	400(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	513020	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.604	(1.016)	2287526	400.000	400(Q)	
	50 Trichloroethene	95	4.610	4.611	(0.783)	1448126	400.000	400(Q)	
	51 Dibromomethane	174	4.812	4.813	(1.063)	1028029	400.000	400(Q)	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	1632968	400.000	400(Q)	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	1774165	400.000	400(AQ)	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	1204966	400.000	400(AQ)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.983	(1.100)	245651	4000.00	4000(AQM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	1132404	400.000	400(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	2291102	400.000	400(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	485428	30.0000	30.0(Q)	
	59 Toluene	91	5.255	5.259	(0.893)	5541947	400.000	400(Q)	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	3228746	2000.00	2000(AQ)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.416	(1.196)	2208094	400.000	400(Q)	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	1532708	400.000	400(Q)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	2210072	400.000	400(AQ)	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	1565783	400.000	400(AQ)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	1372783	400.000	400(Q)	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	1665384	400.000	400(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	2250799	400.000	400(AQ)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	1497336	400.000	400(Q)	
	69 2-Hexanone	43	5.756	5.760	(0.978)	1718549	400.000	400(Q)	
	70 Ethylbenzene	106	5.897	5.898	(1.002)	2167607	400.000	400(AQ)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	393821	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.894	(1.001)	3982183	400.000	400(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.917	(1.005)	1665061	400.000	400(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	5189112	800.000	800(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
75	o-Xylene	106	6.138	6.138	(1.043)	2719822	400.000	400(AQ)	
76	Styrene	104	6.160	6.161	(1.046)	4611143	400.000	400(Q)	
77	Bromoform	173	6.189	6.186	(0.901)	1267613	400.000	400(Q)	
78	Isopropylbenzene (Cumene)	105	6.263	6.267	(0.911)	6377066	400.000	400(Q)	
$ 79	4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	166174	30.0000	30.0(Q)	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	7183382	400.000	400(AQ)	
81	Bromobenzene	77	6.446	6.446	(0.938)	2882120	400.000	400(Q)	
82	1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	2029092	400.000	400(Q)	
83	1,3,5-Trimethylbenzene	105	6.516	6.514	(0.948)	5483022	400.000	400(Q)	
84	2-Chlorotoluene	126	6.520	6.520	(0.949)	1733823	400.000	400(Q)	
85	1,2,3-Trichloropropane	110	6.539	6.539	(0.951)	694844	400.000	400(AQ)	
86	trans-1,4-Dichloro-2-butene	53	6.548	6.549	(0.953)	725806	400.000	400(Q)	
87	Cyclohexanone	55	6.571	6.571	(0.956)	1476832	2000.00	2000(Q)	
88	4-Chlorotoluene	126	6.590	6.587	(0.959)	1852048	400.000	400(Q)	
89	tert-Butylbenzene	119	6.654	6.658	(0.968)	5281142	400.000	400(Q)	
90	1,2,4-Trimethylbenzene	105	6.683	6.684	(0.972)	5654188	400.000	400(AQ)	
91	sec-Butylbenzene	105	6.731	6.729	(0.979)	6943032	400.000	400(AQ)	
92	p-Isopropyltoluene	119	6.786	6.783	(0.987)	6430656	400.000	400(AQ)	
93	1,3-Dichlorobenzene	146	6.844	6.844	(0.996)	3631548	400.000	400(Q)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	225291	30.0000	(Q)	
95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	3698160	400.000	400(Q)	
96	n-Butylbenzene	91	6.966	6.966	(1.014)	5413681	400.000	400(Q)	
97	1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	3561347	400.000	400(Q)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	225842	30.0000	30.0(Q)	
98	1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.077)	630134	400.000	400(Q)	
99	1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	2407559	400.000	400(Q)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	1294455	400.000	400(Q)	
101	1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	2250938	400.000	400(Q)	
102	Naphthalene	128	7.838	7.842	(1.141)	6469461	400.000	400(AQ)	
103	1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	2006925	400.000	400(Q)	
104	2-Methylnaphthalene	142	8.288	8.298	(1.206)	2525838	400.000	(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722029.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 16:06
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	434603	217302	869206	513020	18.04
71 Chlorobenzene-d5	335570	167785	671140	393821	17.36
94 1,4-Dichlorobenze	199759	99880	399518	225291	12.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	400	
74-87-3	Chloromethane	400	E
75-01-4	Vinyl chloride	400	E
74-83-9	Bromomethane	400	E
75-00-3	Chloroethane	400	E
75-69-4	Trichlorofluoromethane	400	
60-29-7	Diethyl ether (Ethyl ether)	400	E
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	400	
76-13-1	1,1,2-Trichlorotrifluoroetha	400	E
75-15-0	Carbon disulfide	400	E
74-88-4	Iodomethane	400	
107-02-8	Acrolein	400	
107-05-1	Allyl chloride	2000	E
75-09-2	Methylene Chloride	400	
67-64-1	Acetone	400	
156-60-5	trans-1,2-Dichloroethene	400	
79-20-9	Methyl acetate	400	E
110-54-3	n-Hexane	400	E
1634-04-4	Methyl-tert-butyl ether	400	
75-65-0	tert-Butyl Alcohol	2000	E
75-05-8	Acetonitrile	2000	E
108-20-3	Diisopropyl ether	400	E
126-99-8	Chloroprene	400	E
75-34-3	1,1-Dichloroethane	400	
107-13-1	Acrylonitrile	400	
637-92-3	Ethyl-tert-butyl ether	400	
108-05-4	Vinyl acetate	400	
156-59-2	cis-1,2-Dichloroethene	400	
594-20-7	2,2-Dichloropropane	400	E
110-82-7	Cyclohexane	400	
74-97-5	Bromochloromethane	400	
67-66-3	Chloroform	400	
56-23-5	Carbon tetrachloride	400	
141-78-6	Ethyl acetate	400	
109-99-9	Tetrahydrofuran	400	
71-55-6	1,1,1-Trichloroethane	400	
78-93-3	2-Butanone (MEK)	400	
563-58-6	1,1-Dichloropropene	400	
71-43-2	Benzene	400	
107-12-0	Propionitrile	400	E
126-98-7	Methacrylonitrile	400	E

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	400	
78-83-1	Isobutanol	2000	E
107-06-2	1,2-Dichloroethane	400	
108-87-2	Methylcyclohexane	400	
79-01-6	Trichloroethene	400	
74-95-3	Dibromomethane	400	
78-87-5	1,2-Dichloropropane	400	
75-27-4	Bromodichloromethane	400	E
80-62-6	Methyl methacrylate	400	E
123-91-1	1,4-Dioxane (p-Dioxane)	4000	E
110-75-8	2-Chloroethylvinyl ether	400	
10061-01-5	cis-1,3-Dichloropropene	400	
108-88-3	Toluene	400	
79-46-9	2-Nitropropane	2000	E
108-10-1	4-Methyl-2-pentanone (MIBK)	400	
127-18-4	Tetrachloroethene	400	
10061-02-6	trans-1,3-Dichloropropene	400	E
97-63-2	Ethyl methacrylate	400	E
79-00-5	1,1,2-Trichloroethane	400	
124-48-1	Dibromochloromethane	400	
142-28-9	1,3-Dichloropropane	400	E
106-93-4	1,2-Dibromoethane (EDB)	400	
591-78-6	2-Hexanone	400	
100-41-4	Ethylbenzene	400	E
108-90-7	Chlorobenzene	400	
630-20-6	1,1,1,2-Tetrachloroethane	400	
7816-60-0	m&p-Xylene	800	
95-47-6	o-Xylene	400	E
100-42-5	Styrene	400	
75-25-2	Bromoform	400	
98-82-8	Isopropylbenzene (Cumene)	400	
103-65-1	n-Propylbenzene	400	E
108-86-1	Bromobenzene	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	
108-67-8	1,3,5-Trimethylbenzene	400	
95-49-8	2-Chlorotoluene	400	
96-18-4	1,2,3-Trichloropropane	400	E
110-57-6	trans-1,4-Dichloro-2-butene	400	
108-94-1	Cyclohexanone	2000	
106-43-4	4-Chlorotoluene	400	
98-06-6	tert-Butylbenzene	400	
95-63-6	1,2,4-Trimethylbenzene	400	E

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Report Date: 23-Jul-2019 07:54

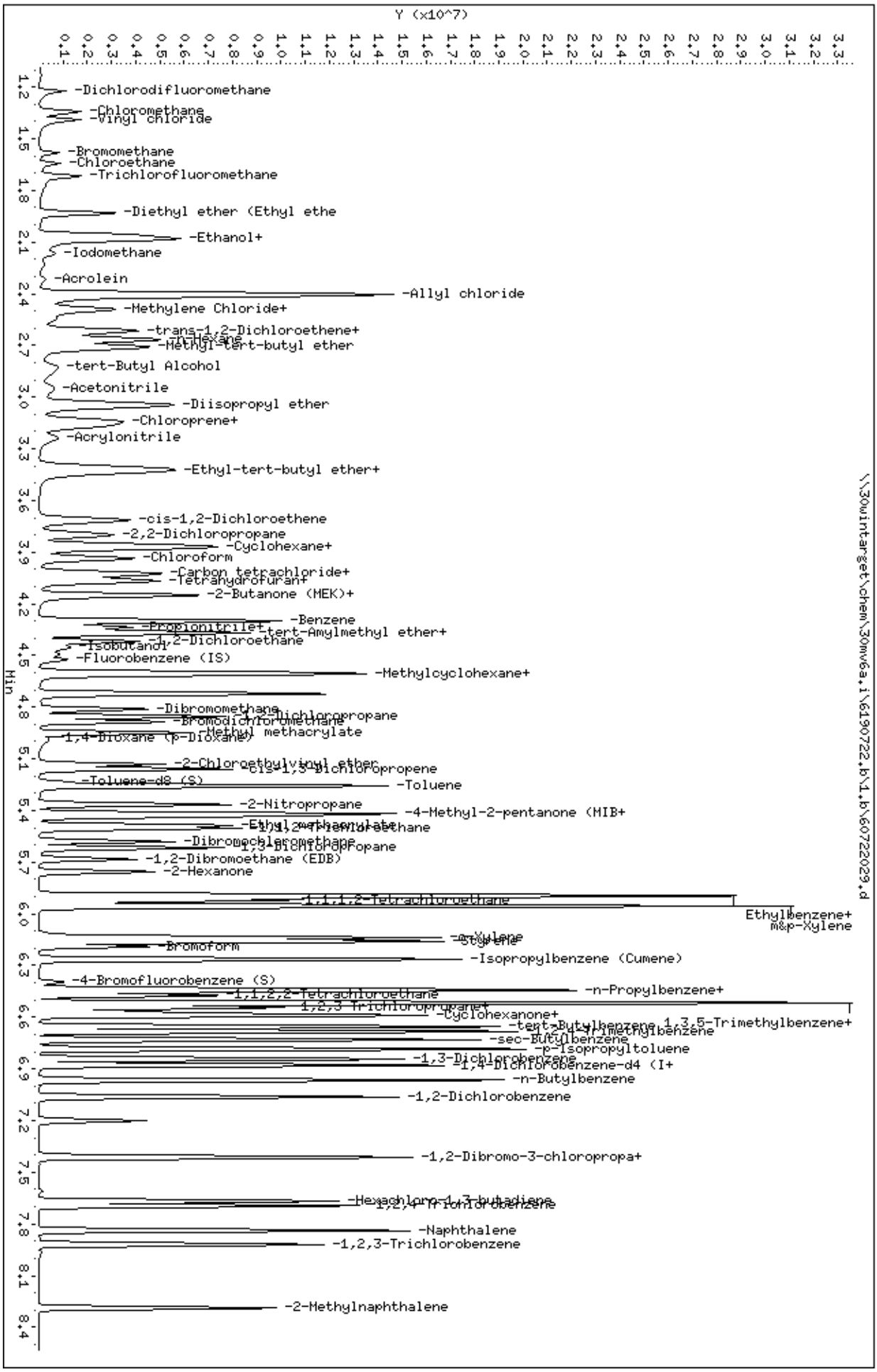
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45446,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	400	E
99-87-6	p-Isopropyltoluene	400	E
541-73-1	1,3-Dichlorobenzene	400	
106-46-7	1,4-Dichlorobenzene	400	
104-51-8	n-Butylbenzene	400	
95-50-1	1,2-Dichlorobenzene	400	
96-12-8	1,2-Dibromo-3-chloropropane	400	
108-70-3	1,3,5-Trichlorobenzene	400	
87-68-3	Hexachloro-1,3-butadiene	400	
120-82-1	1,2,4-Trichlorobenzene	400	
91-20-3	Naphthalene	400	E
87-61-6	1,2,3-Trichlorobenzene	400	
91-57-6	2-Methylnaphthalene	0.000	J
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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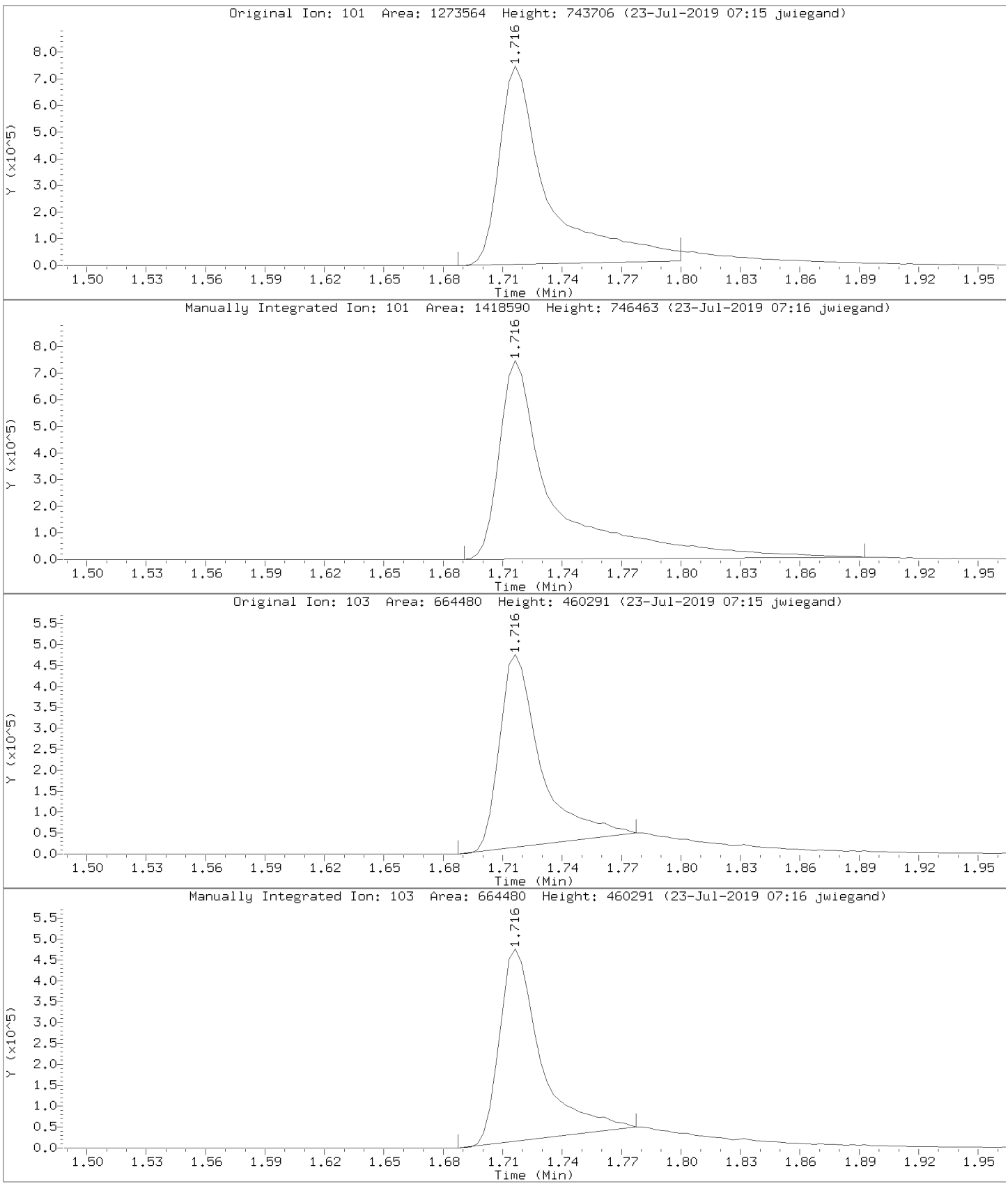
Date : 22-JUL-2019 14:48
Client ID: CAL8
Sample Info: CAL8, 94257:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722029.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Propionitrile+
-Benzene
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,3-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-1,3,5-Trimethylbenzene+
-2-Chlorotoluene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

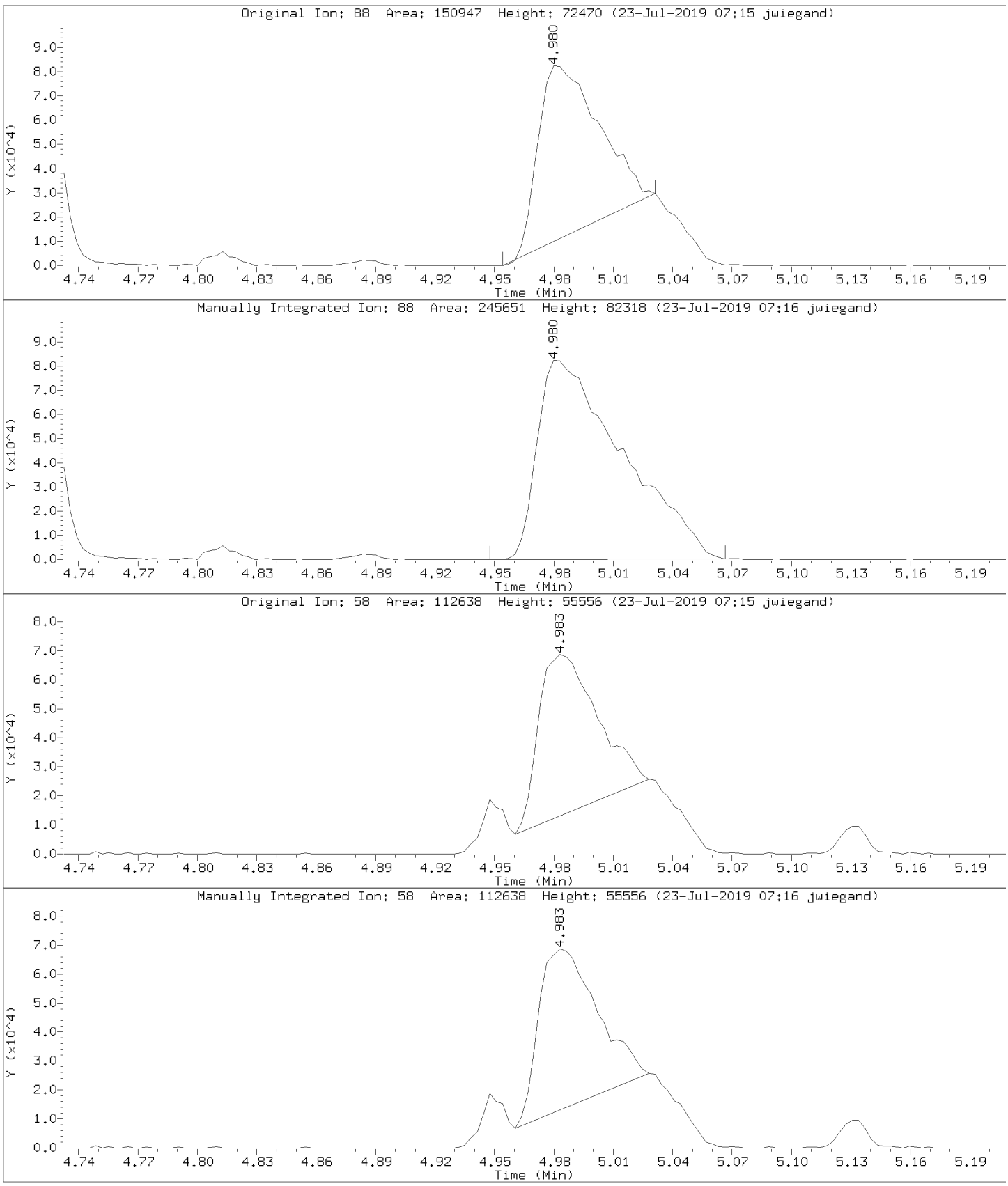
Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722029.d
Injection Date: 22-JUL-2019 14:48
Instrument: 30mv6a.i
Lab Sample ID: CAL8

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4

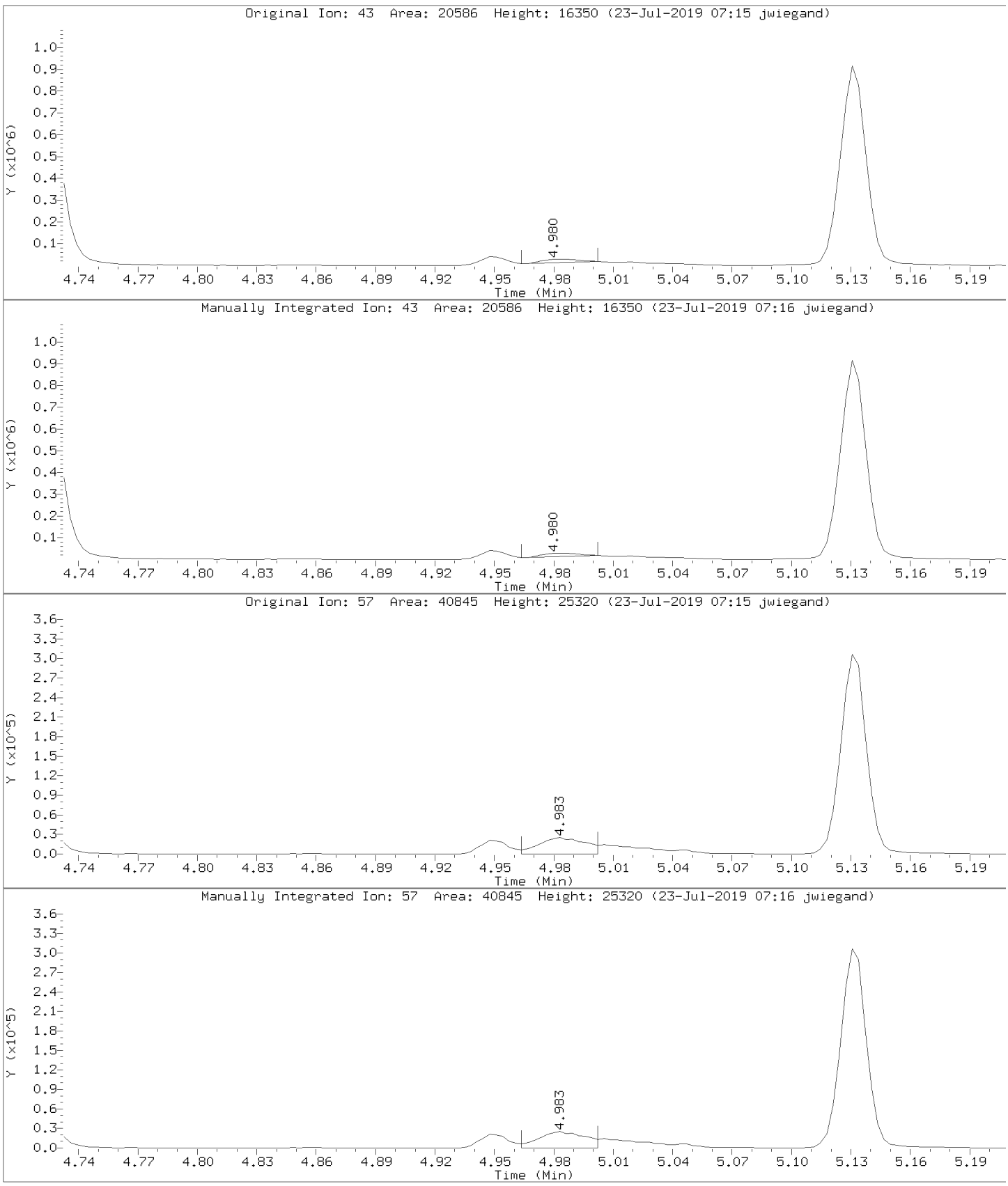


Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722029.d
Injection Date: 22-JUL-2019 14:48
Instrument: 30mv6a.i
Lab Sample ID: CAL8

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722029.d
Injection Date: 22-JUL-2019 14:48
Instrument: 30mv6a.i
Lab Sample ID: CAL8



SAMPLE NO.

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

11325597ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/22/2019 Time: 16:06

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 07/22/2019 07/22/2019

Lab File ID: 6190722.B\1.B\60722035.D Init. Calib. Time(s): 11:47 14:48

SDG No.: 30317212

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	20	18.70267	0.0100	-6.4866	30.0000
Benzene	Averaged	0.79007	0.72264	0.0100	-8.5349	30.0000
Bromochloromethane	Averaged	0.15949	0.15494	0.0100	-2.8512	30.0000
Bromodichloromethane	Averaged	0.26182	0.24819	0.0100	-5.2088	30.0000
Bromoform	Quadratic	20	18.45688	0.1000	-7.7156	30.0000
Bromomethane	Averaged	0.04909	0.05869	0.0100	19.5690	30.0000
2-Butanone (MEK)	Averaged	0.17894	0.17172	0.0100	-4.0393	30.0000
Carbon disulfide	Averaged	0.55196	0.52248	0.0100	-5.3418	30.0000
Carbon tetrachloride	Averaged	0.24761	0.23673	0.0100	-4.3948	30.0000
Chlorobenzene	Averaged	0.82032	0.76901	0.3000	-6.2556	30.0000
Chloroethane	Quadratic	20	23.59270	0.0100	17.9635	30.0000
Chloroform	Averaged	0.37147	0.33484	0.0100	-9.8609	30.0000
Chloromethane	Averaged	0.23314	0.27981	0.1000	20.0196	30.0000
Dibromochloromethane	Averaged	0.29963	0.27860	0.0100	-7.0186	30.0000
1,2-Dichlorobenzene	Averaged	1.23526	1.21269	0.0100	-1.8273	30.0000
1,3-Dichlorobenzene	Averaged	1.25500	1.24993	0.0100	-0.4047	30.0000
1,4-Dichlorobenzene	Averaged	1.29566	1.30052	0.0100	0.3754	30.0000
1,1-Dichloroethane	Averaged	0.42857	0.36149	0.1000	-15.6512	30.0000
1,2-Dichloroethane	Averaged	0.30217	0.27093	0.0100	-10.3377	30.0000
1,1-Dichloroethene	Averaged	0.33333	0.27465	0.0100	-17.6027	30.0000
cis-1,2-Dichloroethene	Averaged	0.34313	0.30766	0.0100	-10.3378	30.0000
trans-1,2-Dichloroethene	Averaged	0.32481	0.27166	0.0100	-16.3638	30.0000
1,2-Dichloropropane	Averaged	0.24849	0.22953	0.0100	-7.6304	30.0000
cis-1,3-Dichloropropene	Averaged	0.33502	0.31302	0.0100	-6.5668	30.0000
trans-1,3-Dichloropropene	Averaged	0.41423	0.37897	0.0100	-8.5126	30.0000
Ethylbenzene	Averaged	0.43985	0.43517	0.0100	-1.0636	30.0000
2-Hexanone	Averaged	0.32223	0.29402	0.0100	-8.7522	30.0000
Isopropylbenzene (Cumene)	Averaged	2.19359	2.17008	0.0100	-1.0717	30.0000
Methylene Chloride	Quadratic	20	17.23650	0.0100	-13.8175	30.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.30977	0.28015	0.0100	-9.5649	30.0000
Methyl-tert-butyl ether	Averaged	0.61794	0.57374	0.0100	-7.1523	30.0000
Naphthalene	Averaged	2.37998	2.47808	0.0100	4.1216	30.0000
Styrene	Averaged	0.92101	0.87893	0.0100	-4.5692	30.0000
1,1,2,2-Tetrachloroethane	Averaged	0.62336	0.57681	0.3000	-7.4680	30.0000
Tetrachloroethene	Averaged	0.29563	0.27672	0.0100	-6.3993	30.0000
Toluene	Averaged	1.13383	1.02480	0.0100	-9.6160	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

11325597ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/22/2019 Time: 16:06

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 07/22/2019 07/22/2019

Lab File ID: 6190722.B\1.B\60722035.D Init. Calib. Time(s): 11:47 14:48

SDG No.: 30317212

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,2,4-Trichlorobenzene	Averaged	0.79649	0.85074	0.0100	6.8105	30.0000
1,1,1-Trichloroethane	Averaged	0.31926	0.28489	0.0100	-10.7652	30.0000
1,1,2-Trichloroethane	Averaged	0.26126	0.23291	0.0100	-10.8501	30.0000
Trichloroethene	Averaged	0.28134	0.25885	0.0100	-7.9949	30.0000
1,2,4-Trimethylbenzene	Averaged	1.93136	1.91201	0.0100	-1.0014	30.0000
1,3,5-Trimethylbenzene	Averaged	1.85882	1.83353	0.0100	-1.3607	30.0000
Vinyl chloride	Averaged	0.23440	0.27997	0.0100	19.4418	30.0000
m&p-Xylene	Averaged	0.53578	0.51608	0.0100	-3.6767	30.0000
o-Xylene	Averaged	0.53616	0.49133	0.0100	-8.3618	30.0000
4-Bromofluorobenzene (S)	Averaged	0.71786	0.72426	0.0100	0.8911	30.0000
Dibromofluoromethane (S)	Averaged	0.25693	0.26042	0.0100	1.3603	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.25143	0.26420	0.0100	5.0781	30.0000
Toluene-d8 (S)	Averaged	1.22057	1.17896	0.0100	-3.4088	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11355142CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/06/2019 Time: 10:00

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 07/22/2019 07/22/2019

Lab File ID: 6190806.B\1.B\60806007.D Init. Calib. Time(s): 11:47 14:48

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	50	56.44142	0.0100	12.8829	20.0000
Benzene	Averaged	0.79007	0.69515	0.0100	-12.0136	20.0000
Bromochloromethane	Averaged	0.15949	0.14004	0.0100	-12.1952	20.0000
Bromodichloromethane	Averaged	0.26182	0.24007	0.0100	-8.3094	20.0000
Bromoform	Quadratic	50	38.69267	0.1000	-22.6146	20.0000
Bromomethane	Averaged	0.04909	0.05511	0.0100	12.2743	20.0000
2-Butanone (MEK)	Averaged	0.17894	0.17121	0.0100	-4.3227	20.0000
Carbon disulfide	Averaged	0.55196	0.42144	0.0100	-23.6474	20.0000
Carbon tetrachloride	Averaged	0.24761	0.22017	0.0100	-11.0824	20.0000
Chlorobenzene	Averaged	0.82032	0.72752	0.3000	-11.3126	20.0000
Chloroethane	Quadratic	50	65.49642	0.0100	30.9928	20.0000
Chloroform	Averaged	0.37147	0.33557	0.0100	-9.6643	20.0000
Chloromethane	Averaged	0.23314	0.22130	0.1000	-5.0800	20.0000
Dibromochloromethane	Averaged	0.29963	0.27285	0.0100	-8.9355	20.0000
1,2-Dichlorobenzene	Averaged	1.23526	1.10166	0.0100	-10.8158	20.0000
1,3-Dichlorobenzene	Averaged	1.25500	1.12596	0.0100	-10.2824	20.0000
1,4-Dichlorobenzene	Averaged	1.29566	1.18435	0.0100	-8.5912	20.0000
1,1-Dichloroethane	Averaged	0.42857	0.36840	0.1000	-14.0396	20.0000
1,2-Dichloroethane	Averaged	0.30217	0.29905	0.0100	-1.0310	20.0000
1,1-Dichloroethene	Averaged	0.33333	0.29417	0.0100	-11.7471	20.0000
cis-1,2-Dichloroethene	Averaged	0.34313	0.29967	0.0100	-12.6659	20.0000
trans-1,2-Dichloroethene	Averaged	0.32481	0.28531	0.0100	-12.1632	20.0000
1,2-Dichloropropane	Averaged	0.24849	0.21389	0.0100	-13.9229	20.0000
cis-1,3-Dichloropropene	Averaged	0.33502	0.30909	0.0100	-7.7422	20.0000
trans-1,3-Dichloropropene	Averaged	0.41423	0.41075	0.0100	-0.8398	20.0000
Ethylbenzene	Averaged	0.43985	0.40812	0.0100	-7.2137	20.0000
2-Hexanone	Averaged	0.32223	0.30549	0.0100	-5.1932	20.0000
Isopropylbenzene (Cumene)	Averaged	2.19359	2.02836	0.0100	-7.5327	20.0000
Methylene Chloride	Quadratic	50	46.22088	0.0100	-7.5582	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.30977	0.28833	0.0100	-6.9215	20.0000
Methyl-tert-butyl ether	Averaged	0.61794	0.58301	0.0100	-5.6536	20.0000
Naphthalene	Averaged	2.37998	2.19543	0.0100	-7.7545	20.0000
Styrene	Averaged	0.92101	0.86164	0.0100	-6.4464	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.62336	0.52774	0.3000	-15.3391	20.0000
Tetrachloroethene	Averaged	0.29563	0.25343	0.0100	-14.2774	20.0000
Toluene	Averaged	1.13383	0.95708	0.0100	-15.5890	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

11355142CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/06/2019 Time: 10:00

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 07/22/2019 07/22/2019

Lab File ID: 6190806.B\1.B\60806007.D Init. Calib. Time(s): 11:47 14:48

SDG No.: 30317212

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,2,4-Trichlorobenzene	Averaged	0.79649	0.74117	0.0100	-6.9453	20.0000
1,1,1-Trichloroethane	Averaged	0.31926	0.29601	0.0100	-7.2799	20.0000
1,1,2-Trichloroethane	Averaged	0.26126	0.24510	0.0100	-6.1866	20.0000
Trichloroethene	Averaged	0.28134	0.25903	0.0100	-7.9322	20.0000
1,2,4-Trimethylbenzene	Averaged	1.93136	1.75997	0.0100	-8.8737	20.0000
1,3,5-Trimethylbenzene	Averaged	1.85882	1.68816	0.0100	-9.1813	20.0000
Vinyl chloride	Averaged	0.23440	0.20944	0.0100	-10.6480	20.0000
m&p-Xylene	Averaged	0.53578	0.49729	0.0100	-7.1844	20.0000
o-Xylene	Averaged	0.53616	0.49221	0.0100	-8.1968	20.0000
4-Bromofluorobenzene (S)	Averaged	0.71786	0.70106	0.0100	-2.3405	20.0000
Dibromofluoromethane (S)	Averaged	0.25693	0.26543	0.0100	3.3076	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.25143	0.29528	0.0100	17.4414	20.0000
Toluene-d8 (S)	Averaged	1.22057	1.17561	0.0100	-3.6838	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 22-JUL-2019 16:06
Operator : JEW Inst ID: 30mv6a.i
Smp Info : icv, 94258:1
Misc Info : 45446,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Meth Date : 23-Jul-2019 07:52 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.225	(0.271)	57983	20.0000	30.6(Q)	
2 Chloromethane	50	1.347	1.347	(0.298)	81072	20.0000	24.0	
3 Vinyl chloride	62	1.395	1.392	(0.308)	81117	20.0000	23.9	
4 Bromomethane	94	1.587	1.585	(0.351)	17005	20.0000	23.9	
5 Chloroethane	64	1.658	1.655	(0.366)	46165	20.0000	23.6	
6 Trichlorofluoromethane	101	1.741	1.739	(0.385)	84493	20.0000	24.4	
7 Diethyl ether (Ethyl ether)	59	1.940	1.935	(0.429)	63378	20.0000	19.0	
8 Ethanol	45	2.049	2.049	(0.298)	15898	200.000	(a)	
9 1,1-Dichloroethene	61	2.075	2.076	(0.458)	79577	20.0000	16.5	
10 1,1,2-Trichlorotrifluoroethane	151	2.094	2.095	(0.463)	40324	20.0000	20.3	
11 Carbon disulfide	76	2.104	2.101	(0.465)	151380	20.0000	18.9	
12 Iodomethane	142	2.184	2.178	(0.483)	13255	20.0000	12.6	
13 Acrolein	56	2.319	2.323	(0.512)	15512	20.0000	33.0(M)	LT
14 Allyl chloride	41	2.415	2.413	(0.534)	514171	100.000	96.6	
15 Methylene Chloride	49	2.502	2.499	(0.553)	118770	20.0000	17.2	
16 Acetone	43	2.544	2.541	(0.562)	36490	20.0000	18.7	
17 trans-1,2-Dichloroethene	61	2.624	2.624	(0.580)	78710	20.0000	16.7	
18 Methyl acetate	74	2.633	2.634	(0.582)	13836	20.0000	21.7	
19 n-Hexane	86	2.678	2.679	(0.592)	33976	20.0000	41.9	
20 Methyl-tert-butyl ether	73	2.707	2.714	(0.598)	166234	20.0000	18.6	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.794	2.794	(0.617)	78927	100.000	92.1	
	22 Acetonitrile	41	2.941	2.945	(0.650)	53063	100.000	92.2	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	208419	20.0000	17.5	
	24 Chloroprene	53	3.147	3.151	(0.695)	85200	20.0000	18.2	
	25 1,1-Dichloroethane	63	3.172	3.173	(0.701)	104737	20.0000	16.9	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	29769	20.0000	18.1(M)	LT
	27 Ethyl-tert-butyl ether	59	3.413	3.417	(0.754)	192857	20.0000	17.8	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	153587	20.0000	16.5	
	29 cis-1,2-Dichloroethene	61	3.718	3.722	(0.821)	89140	20.0000	17.9	
	30 2,2-Dichloropropane	77	3.808	3.802	(0.841)	81791	20.0000	19.8	
	31 Cyclohexane	56	3.872	3.869	(0.855)	118766	20.0000	20.6	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	44892	20.0000	19.4	
	33 Chloroform	83	3.939	3.940	(0.870)	97015	20.0000	18.0	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	68589	20.0000	19.1	
	35 Ethyl acetate	43	4.026	4.030	(0.889)	76730	20.0000	17.5	
	36 Tetrahydrofuran	42	4.055	4.065	(0.896)	38016	20.0000	18.4	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	113181	30.0000	30.4	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	82542	20.0000	17.8	
	39 2-Butanone (MEK)	43	4.148	4.155	(0.916)	49752	20.0000	19.2	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	71415	20.0000	18.9	
	41 Benzene	78	4.302	4.299	(0.950)	209374	20.0000	18.3	
	42 Propionitrile	54	4.324	4.325	(0.955)	14815	20.0000	17.0	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	47112	20.0000	18.5	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	144200	20.0000	17.5	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.380	(0.967)	114821	30.0000	31.5	
	46 Isobutanol	43	4.440	4.444	(0.981)	29972	100.000	91.7	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	78498	20.0000	17.9	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	434603	30.0000		
	49 Methylcyclohexane	83	4.600	4.604	(1.016)	88615	20.0000	20.6	
	50 Trichloroethene	95	4.610	4.611	(0.783)	57908	20.0000	18.4	
	51 Dibromomethane	174	4.812	4.813	(1.063)	42725	20.0000	18.3	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	66503	20.0000	18.5	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	71908	20.0000	19.0	
	54 Methyl methacrylate	69	4.947	4.951	(1.093)	41564	20.0000	17.7	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.983	(1.099)	10041	200.000	176	
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	34973	20.0000	16.8	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	90694	20.0000	18.7	
$	58 Toluene-d8 (S)	98	5.233	5.236	(0.889)	395625	30.0000	29.0	
	59 Toluene	91	5.255	5.259	(0.893)	229262	20.0000	18.1	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	97489	100.000	91.8	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	81168	20.0000	18.1	
	62 Tetrachloroethene	166	5.419	5.423	(0.920)	61905	20.0000	18.7	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	84780	20.0000	18.3	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	64430	20.0000	18.9	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	52106	20.0000	17.8	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	62326	20.0000	18.6	
	67 1,3-Dichloropropane	76	5.614	5.618	(0.954)	89160	20.0000	18.4	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	58072	20.0000	18.9	
	69 2-Hexanone	43	5.756	5.760	(0.978)	65777	20.0000	18.2	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	97354	20.0000	19.8	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	335570	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	172037	20.0000	18.7	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	56508	20.0000	17.0	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	230910	40.0000	38.5	

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	109917	20.0000	18.3	
	76 Styrene	104	6.160	6.161	(1.046)	196628	20.0000	19.1	
	77 Bromoform	173	6.186	6.186	(0.900)	41864	20.0000	18.4	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	288996	20.0000	19.8	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	144677	30.0000	30.3	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	329621	20.0000	20.0	
	81 Bromobenzene	77	6.446	6.446	(0.938)	122314	20.0000	19.2	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	76815	20.0000	18.5	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	244176	20.0000	19.7	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	77418	20.0000	19.9	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	25142	20.0000	17.8	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	29231	20.0000	19.4	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	68366	100.000	115	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	79074	20.0000	19.2	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	232036	20.0000	19.8	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	254628	20.0000	19.8	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	326922	20.0000	20.7	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	312387	20.0000	21.0	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	166456	20.0000	19.9	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	199759	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	173194	20.0000	20.1	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	259620	20.0000	20.1	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	161497	20.0000	19.6	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	199766	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.406	(1.078)	25794	20.0000	19.6	
	99 1,3,5-Trichlorobenzene	180	7.415	7.415	(1.079)	123498	20.0000	22.0	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	56106	20.0000	18.9	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	113295	20.0000	21.4	
	102 Naphthalene	128	7.838	7.842	(1.141)	330012	20.0000	20.8	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	104444	20.0000	21.8	
	104 2-Methylnaphthalene	142	8.287	8.298	(1.206)	181464	20.0000	24.8	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60722035.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 22-JUL-2019
Calibration Time: 13:05
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	427999	214000	855998	434603	1.54
71 Chlorobenzene-d5	331080	165540	662160	335570	1.36
94 1,4-Dichlorobenze	197797	98899	395594	199759	0.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 22-JUL-2019 16:06
Lab File ID: 60722035.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	0.13091	0.20012	0.20012	0.010	52.87017	20.00000	Aver	(Q)	<-
	2 Chloromethane	0.23314	0.27981	0.27981	0.100	20.01964	20.00000	Aver		<-
	3 Vinyl chloride	0.23440	0.27997	0.27997	0.010	19.44180	20.00000	Aver		
	4 Bromomethane	0.04909	0.05869	0.05869	0.010	19.56899	20.00000	Aver		
	5 Chloroethane	20.00000	23.59270	0.15934	0.010	17.96351	20.00000	Quad		
	6 Trichlorofluoromethane	0.23917	0.29162	0.29162	0.010	21.93176	20.00000	Aver		<-
	7 Diethyl ether (Ethyl ether)	0.23010	0.21874	0.21874	0.010	-4.93413	20.00000	Aver		
	8 Ethanol	++++	0.01194	0.01194	0.010	++++	20.00000	Aver	(a)	<-
	9 1,1-Dichloroethene	0.33333	0.27465	0.27465	0.010	-17.60265	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.13679	0.13918	0.13918	0.010	1.74296	20.00000	Aver		
	11 Carbon disulfide	0.55196	0.52248	0.52248	0.010	-5.34179	20.00000	Aver		
	12 Iodomethane	20.00000	12.60012	0.04575	0.010	-36.99940	20.00000	Quad		<-
	13 Acrolein	0.03246	0.05354	0.05354	0.010	64.95261	20.00000	Aver	(M)	<-
	14 Allyl chloride	0.36760	0.35492	0.35492	0.010	-3.44904	20.00000	Aver		
	15 Methylene Chloride	20.00000	17.23650	0.40993	0.010	-13.81750	20.00000	Quad		
	16 Acetone	20.00000	18.70267	0.12594	0.010	-6.48663	20.00000	Quad		
	17 trans-1,2-Dichloroethene	0.32481	0.27166	0.27166	0.010	-16.36382	20.00000	Aver		
	18 Methyl acetate	0.04403	0.04775	0.04775	0.010	8.46328	20.00000	Aver		
	19 n-Hexane	0.05595	0.11727	0.11727	0.010	110	20.00000	Aver		<-
	20 Methyl-tert-butyl ether	0.61794	0.57374	0.57374	0.010	-7.15225	20.00000	Aver		
	21 tert-Butyl Alcohol	0.05918	0.05448	0.05448	0.010	-7.93690	20.00000	Aver		
	22 Acetonitrile	100	92.18530	0.03663	0.010	-7.81470	20.00000	Quad		
	23 Diisopropyl ether	0.82116	0.71934	0.71934	0.010	-12.39898	20.00000	Aver		
	24 Chloroprene	0.32393	0.29406	0.29406	0.010	-9.22168	20.00000	Aver		
	25 1,1-Dichloroethane	0.42857	0.36149	0.36149	0.100	-15.65122	20.00000	Aver		
	26 Acrylonitrile	0.11377	0.10275	0.10275	0.010	-9.69309	20.00000	Aver	(M)	
	27 Ethyl-tert-butyl ether	0.74691	0.66563	0.66563	0.010	-10.88225	20.00000	Aver		
	28 Vinyl acetate	0.64369	0.53009	0.53009	0.010	-17.64743	20.00000	Aver		
	29 cis-1,2-Dichloroethene	0.34313	0.30766	0.30766	0.010	-10.33781	20.00000	Aver		
	30 2,2-Dichloropropane	0.28539	0.28230	0.28230	0.010	-1.08585	20.00000	Aver		
	31 Cyclohexane	0.39704	0.40991	0.40991	0.010	3.24241	20.00000	Aver		
	32 Bromochloromethane	0.15949	0.15494	0.15494	0.010	-2.85119	20.00000	Aver		
	33 Chloroform	0.37147	0.33484	0.33484	0.010	-9.86095	20.00000	Aver		
	34 Carbon tetrachloride	0.24761	0.23673	0.23673	0.010	-4.39478	20.00000	Aver		
	35 Ethyl acetate	0.30187	0.26483	0.26483	0.010	-12.27072	20.00000	Aver		
	36 Tetrahydrofuran	0.14225	0.13121	0.13121	0.010	-7.76143	20.00000	Aver		
$	37 Dibromofluoromethane (S)	0.25693	0.26042	0.26042	0.010	1.36032	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.31926	0.28489	0.28489	0.010	-10.76520	20.00000	Aver		
	39 2-Butanone (MEK)	0.17894	0.17172	0.17172	0.010	-4.03933	20.00000	Aver		
	40 1,1-Dichloropropene	0.26073	0.24648	0.24648	0.010	-5.46307	20.00000	Aver		
	41 Benzene	0.79007	0.72264	0.72264	0.010	-8.53487	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 22-JUL-2019 16:06
Lab File ID: 60722035.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
42 Propionitrile	0.06015	0.05113	0.05113	0.010	-14.99294	20.00000	Aver		
43 Methacrylonitrile	0.17611	0.16260	0.16260	0.010	-7.67073	20.00000	Aver		
44 tert-Amylmethyl ether	0.56818	0.49770	0.49770	0.010	-12.40533	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.25143	0.26420	0.26420	0.010	5.07811	20.00000	Aver		
46 Isobutanol	0.02257	0.02069	0.02069	0.010	-8.32203	20.00000	Aver		
47 1,2-Dichloroethane	0.30217	0.27093	0.27093	0.010	-10.33775	20.00000	Aver		
49 Methylcyclohexane	20.00000	20.59450	0.30585	0.010	2.97251	20.00000	Quad		
50 Trichloroethene	0.28134	0.25885	0.25885	0.010	-7.99487	20.00000	Aver		
51 Dibromomethane	0.16127	0.14746	0.14746	0.010	-8.56313	20.00000	Aver		
52 1,2-Dichloropropane	0.24849	0.22953	0.22953	0.010	-7.63042	20.00000	Aver		
53 Bromodichloromethane	0.26182	0.24819	0.24819	0.010	-5.20882	20.00000	Aver		
54 Methyl methacrylate	0.16194	0.14346	0.14346	0.010	-11.41487	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00393	0.00347	0.00347	0.010	-11.73116	20.00000	Aver		<-
56 2-Chloroethylvinyl ether	0.14387	0.12071	0.12071	0.010	-16.09827	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.33502	0.31302	0.31302	0.010	-6.56676	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.22057	1.17896	1.17896	0.010	-3.40877	20.00000	Aver		
59 Toluene	1.13383	1.02480	1.02480	0.010	-9.61597	20.00000	Aver		
60 2-Nitropropane	100	91.85578	0.06730	0.010	-8.14422	20.00000	Quad		
61 4-Methyl-2-pentanone (MIBK)	0.30977	0.28015	0.28015	0.010	-9.56486	20.00000	Aver		
62 Tetrachloroethene	0.29563	0.27672	0.27672	0.010	-6.39928	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.41423	0.37897	0.37897	0.010	-8.51258	20.00000	Aver		
64 Ethyl methacrylate	0.30425	0.28800	0.28800	0.010	-5.34030	20.00000	Aver		
65 1,1,2-Trichloroethane	0.26126	0.23291	0.23291	0.010	-10.85013	20.00000	Aver		
66 Dibromochloromethane	0.29963	0.27860	0.27860	0.010	-7.01860	20.00000	Aver		
67 1,3-Dichloropropane	0.43250	0.39855	0.39855	0.010	-7.85035	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.27527	0.25958	0.25958	0.010	-5.69739	20.00000	Aver		
69 2-Hexanone	0.32223	0.29402	0.29402	0.010	-8.75218	20.00000	Aver		
70 Ethylbenzene	0.43985	0.43517	0.43517	0.010	-1.06359	20.00000	Aver		
72 Chlorobenzene	0.82032	0.76901	0.76901	0.300	-6.25561	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.29792	0.25259	0.25259	0.010	-15.21505	20.00000	Aver		
74 m&p-Xylene	0.53578	0.51608	0.51608	0.010	-3.67672	20.00000	Aver		
75 o-Xylene	0.53616	0.49133	0.49133	0.010	-8.36179	20.00000	Aver		
76 Styrene	0.92101	0.87893	0.87893	0.010	-4.56921	20.00000	Aver		
77 Bromoform	20.00000	18.45688	0.31436	0.100	-7.71559	20.00000	Quad		
78 Isopropylbenzene (Cumene)	2.19359	2.17008	2.17008	0.010	-1.07174	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.71786	0.72426	0.72426	0.010	0.89113	20.00000	Aver		
80 n-Propylbenzene	2.47212	2.47514	2.47514	0.010	0.12210	20.00000	Aver		
81 Bromobenzene	0.95661	0.91846	0.91846	0.010	-3.98773	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.62336	0.57681	0.57681	0.300	-7.46796	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.85882	1.83353	1.83353	0.010	-1.36066	20.00000	Aver		
84 2-Chlorotoluene	0.58362	0.58134	0.58134	0.010	-0.39182	20.00000	Aver		
85 1,2,3-Trichloropropane	0.21241	0.18879	0.18879	0.010	-11.12023	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Report Date: 23-Jul-2019 07:54

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 22-JUL-2019 16:06
Lab File ID: 60722035.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\msv6072219a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.22585	0.21950	0.21950	0.010	-2.81167	20.00000	Aver		
87 Cyclohexanone	0.08932	0.10267	0.10267	0.010	14.95334	20.00000	Aver		
88 4-Chlorotoluene	0.61921	0.59377	0.59377	0.010	-4.10870	20.00000	Aver		
89 tert-Butylbenzene	1.75887	1.74237	1.74237	0.010	-0.93815	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.93136	1.91201	1.91201	0.010	-1.00144	20.00000	Aver		
91 sec-Butylbenzene	2.37618	2.45487	2.45487	0.010	3.31178	20.00000	Aver		
92 p-Isopropyltoluene	2.23067	2.34573	2.34573	0.010	5.15801	20.00000	Aver		
93 1,3-Dichlorobenzene	1.25500	1.24993	1.24993	0.010	-0.40466	20.00000	Aver		
95 1,4-Dichlorobenzene	1.29566	1.30052	1.30052	0.010	0.37535	20.00000	Aver		
96 n-Butylbenzene	20.00000	20.07764	1.94950	0.010	0.38818	20.00000	Quad		
97 1,2-Dichlorobenzene	1.23526	1.21269	1.21269	0.010	-1.82729	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00084	1.00004	1.00004	0.010	-0.08050	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19759	0.19369	0.19369	0.010	-1.97333	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.84079	0.92735	0.92735	0.010	10.29510	20.00000	Aver		
100 Hexachloro-1,3-butadiene	20.00000	18.90436	0.42130	0.010	-5.47819	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.79649	0.85074	0.85074	0.010	6.81048	20.00000	Aver		
102 Naphthalene	2.37998	2.47808	2.47808	0.010	4.12160	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.72005	0.78428	0.78428	0.010	8.91907	20.00000	Aver		
104 2-Methylnaphthalene	1.09856	1.36262	1.36262	0.010	24.03710	20.00000	Aver		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 10.10208
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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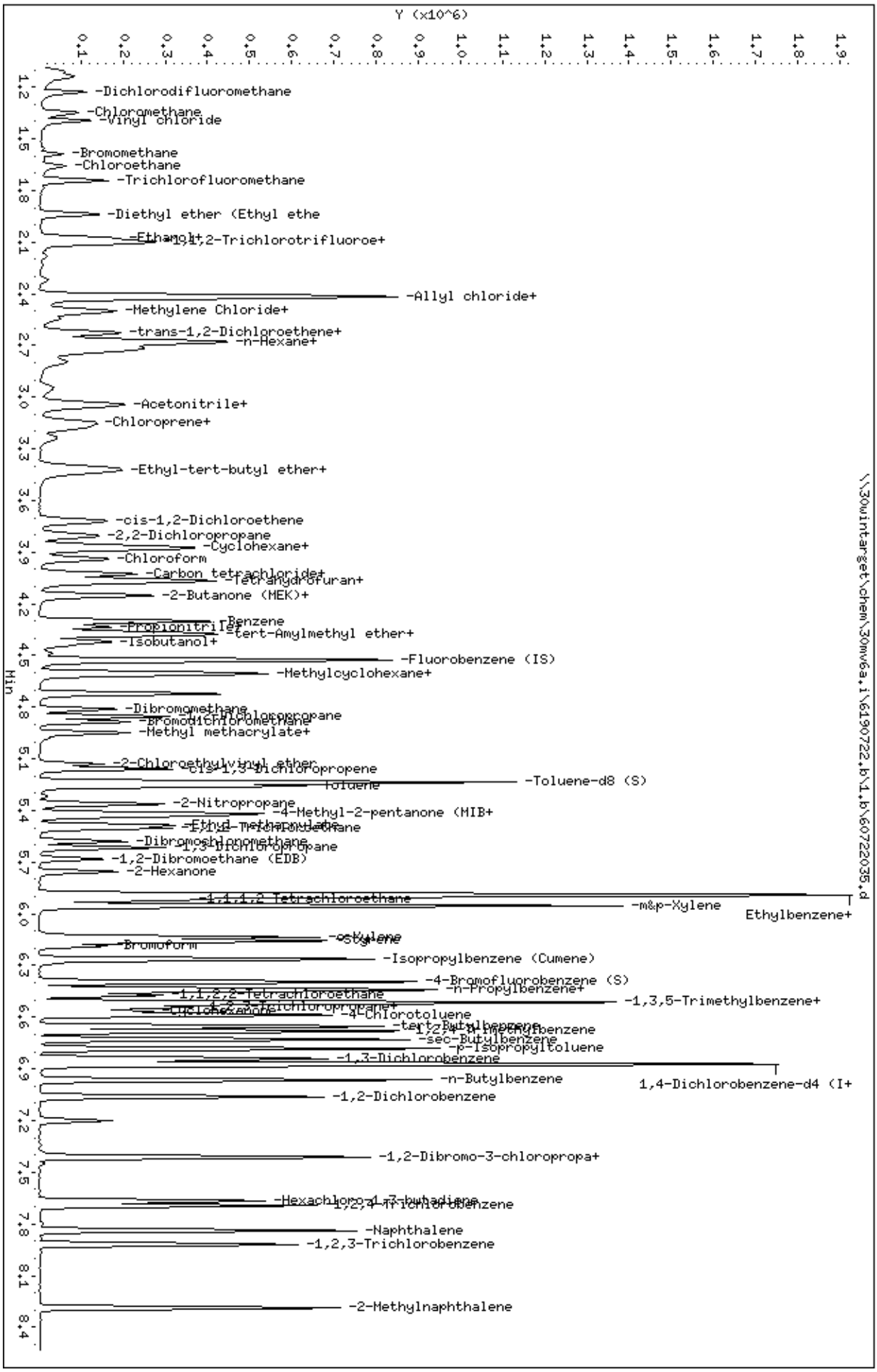
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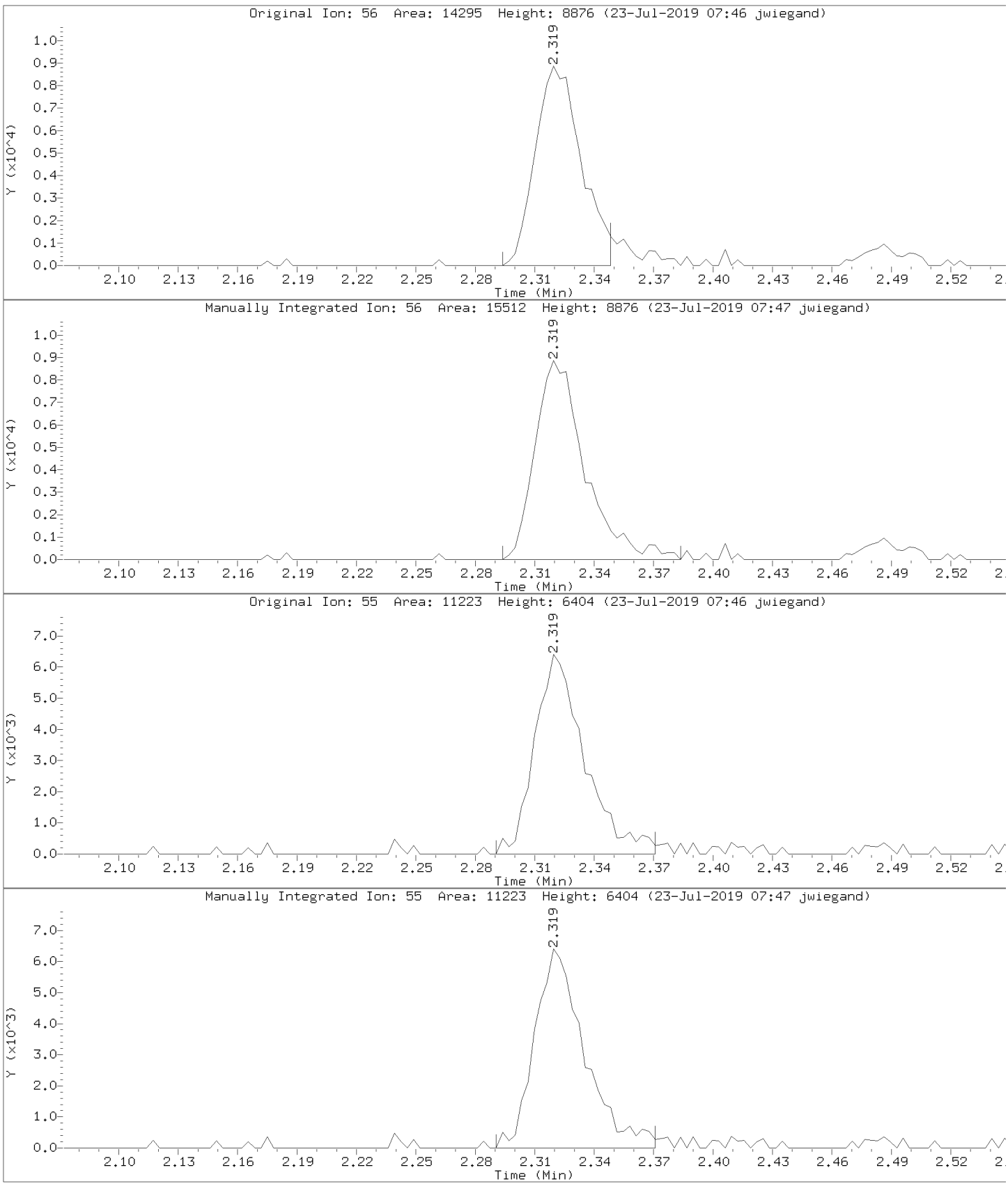
Date : 22-JUL-2019 16:06
Client ID: ICV
Sample Info: ICV, 942581
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722035.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropene
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-trans-1,3-Dichloropropene
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-oXylene
Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,1,2-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b/60722035.d
Injection Date: 22-JUL-2019 16:06
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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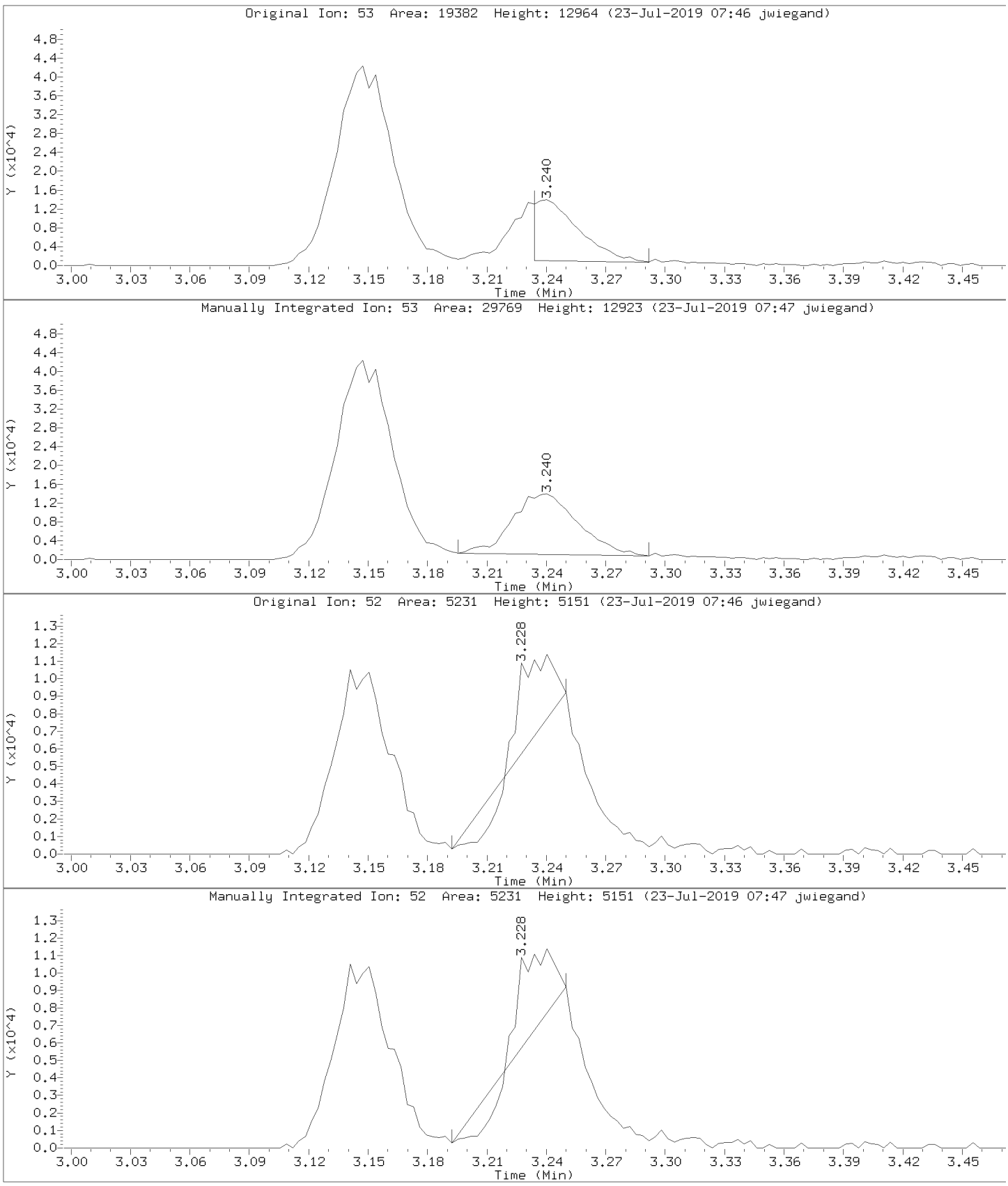
Injection Date: 22-JUL-2019 16:06
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 06-AUG-2019 10:00
Operator : JEW Inst ID: 30mv6a.i
Smp Info : ccv, 95832:1
Misc Info : 45446,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Meth Date : 06-Aug-2019 10:12 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.225	(0.271)	87424	50.0000	62.0(Q)	
2	Chloromethane	50	1.347	1.347	(0.298)	119276	50.0000	47.5	
3	Vinyl chloride	62	1.395	1.392	(0.308)	112885	50.0000	44.7	
4	Bromomethane	94	1.587	1.585	(0.351)	29704	50.0000	56.1	
5	Chloroethane	64	1.655	1.655	(0.366)	80079	50.0000	65.5	
6	Trichlorofluoromethane	101	1.738	1.739	(0.384)	147684	50.0000	57.3	
7	Diethyl ether (Ethyl ether)	59	1.940	1.935	(0.429)	108864	50.0000	43.9	
8	Ethanol	45	2.065	2.049	(0.301)	27205	500.000	(a)	
9	1,1-Dichloroethene	61	2.075	2.076	(0.458)	158555	50.0000	44.1	
10	1,1,2-Trichlorotrifluoroethane	151	2.098	2.095	(0.463)	63045	50.0000	42.8	
11	Carbon disulfide	76	2.104	2.101	(0.465)	227149	50.0000	38.2	
12	Iodomethane	142	2.181	2.178	(0.482)	48123	50.0000	41.0	
13	Acrolein	56	2.319	2.323	(0.512)	13250	50.0000	37.9	
14	Allyl chloride	41	2.415	2.413	(0.534)	845122	250.000	213	
15	Methylene Chloride	49	2.499	2.499	(0.552)	186680	50.0000	46.2	
16	Acetone	43	2.544	2.541	(0.562)	60330	50.0000	56.4(M)	LT
17	trans-1,2-Dichloroethene	61	2.627	2.624	(0.580)	153776	50.0000	43.9	
18	Methyl acetate	74	2.637	2.634	(0.583)	22236	50.0000	46.8	
19	n-Hexane	86	2.675	2.679	(0.591)	23116	50.0000	38.3	
20	Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	314232	50.0000	47.2	

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.800	2.794	(0.619)	157116	250.000	246	
	22 Acetonitrile	41	2.951	2.945	(0.652)	92495	250.000	238	
	23 Diisopropyl ether	45	3.044	3.048	(0.673)	384200	50.0000	43.4	
	24 Chloroprene	53	3.147	3.151	(0.695)	154472	50.0000	44.2	
	25 1,1-Dichloroethane	63	3.173	3.173	(0.701)	198562	50.0000	43.0	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	49847	50.0000	40.6(M)	LT
	27 Ethyl-tert-butyl ether	59	3.413	3.417	(0.754)	363077	50.0000	45.1	
	28 Vinyl acetate	43	3.436	3.436	(0.759)	343952	50.0000	49.6	
	29 cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	161519	50.0000	43.7	
	30 2,2-Dichloropropane	77	3.805	3.802	(0.841)	151464	50.0000	49.2	
	31 Cyclohexane	56	3.869	3.869	(0.855)	184035	50.0000	43.0	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	75479	50.0000	43.9	
	33 Chloroform	83	3.939	3.940	(0.870)	180868	50.0000	45.2	
	34 Carbon tetrachloride	117	4.026	4.019	(0.889)	118669	50.0000	44.4	
	35 Ethyl acetate	43	4.029	4.030	(0.890)	157691	50.0000	48.4	
	36 Tetrahydrofuran	42	4.052	4.065	(0.895)	71814	50.0000	46.8	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	85837	30.0000	31.0	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	159548	50.0000	46.4	
	39 2-Butanone (MEK)	43	4.151	4.155	(0.917)	92279	50.0000	47.8	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	130299	50.0000	46.4	
	41 Benzene	78	4.302	4.299	(0.950)	374679	50.0000	44.0	
	42 Propionitrile	54	4.328	4.325	(0.956)	29277	50.0000	45.2	
	43 Methacrylonitrile	41	4.334	4.335	(0.957)	90715	50.0000	47.8	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	273891	50.0000	44.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	95492	30.0000	35.2	
	46 Isobutanol	43	4.440	4.444	(0.981)	51601	250.000	212	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	161185	50.0000	49.5	
*	48 Fluorobenzene (IS)	96	4.527	4.527	(1.000)	323392	30.0000		
	49 Methylcyclohexane	83	4.601	4.604	(1.016)	141970	50.0000	41.9	
	50 Trichloroethene	95	4.610	4.611	(0.783)	104857	50.0000	46.0	
	51 Dibromomethane	174	4.812	4.813	(1.063)	77262	50.0000	44.4	
	52 1,2-Dichloropropane	63	4.854	4.858	(1.072)	115286	50.0000	43.0	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	129393	50.0000	45.8	
	54 Methyl methacrylate	69	4.950	4.951	(1.094)	77244	50.0000	44.2	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.983	(1.100)	20256	500.000	479(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	71250	50.0000	45.9	
	57 cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	166593	50.0000	46.1	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	285541	30.0000	28.9	
	59 Toluene	91	5.255	5.259	(0.893)	387438	50.0000	42.2	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	182570	250.000	210	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	155408	50.0000	46.5	
	62 Tetrachloroethene	166	5.422	5.423	(0.921)	102590	50.0000	42.9	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	166277	50.0000	49.6	
	64 Ethyl methacrylate	41	5.486	5.487	(0.932)	122236	50.0000	49.6	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	99219	50.0000	46.9	
	66 Dibromochloromethane	129	5.579	5.580	(0.948)	110455	50.0000	45.5	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	165996	50.0000	47.4	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	107157	50.0000	48.1	
	69 2-Hexanone	43	5.756	5.760	(0.978)	123667	50.0000	47.4	
	70 Ethylbenzene	106	5.894	5.898	(1.001)	165213	50.0000	46.4	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	242888	30.0000		
	72 Chlorobenzene	112	5.894	5.894	(1.001)	294511	50.0000	44.3	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	102072	50.0000	42.3	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	402620	100.000	92.8	

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.138	(1.043)	199255	50.0000	45.9	
	76 Styrene	104	6.160	6.161	(1.046)	348803	50.0000	46.8	
	77 Bromoform	173	6.186	6.186	(0.900)	73631	50.0000	38.7	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	512211	50.0000	46.2	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.398	(0.931)	106221	30.0000	29.3	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	583609	50.0000	46.7	
	81 Bromobenzene	77	6.446	6.446	(0.938)	223329	50.0000	46.2	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	133268	50.0000	42.3	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	426302	50.0000	45.4	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	131553	50.0000	44.6	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	47613	50.0000	44.4	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	52939	50.0000	46.4	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	83592	250.000	185	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	139160	50.0000	44.5	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	406368	50.0000	45.7	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	444437	50.0000	45.6	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	570684	50.0000	47.6	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	531005	50.0000	47.1	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	284333	50.0000	44.8	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	151515	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	299077	50.0000	45.7	
	96 n-Butylbenzene	91	6.965	6.966	(1.014)	451928	50.0000	44.5	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	278196	50.0000	44.6	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	151512	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	43903	50.0000	44.0	
	99 1,3,5-Trichlorobenzene	180	7.412	7.415	(1.079)	199180	50.0000	46.9	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	100951	50.0000	42.8	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	187165	50.0000	46.5	
	102 Naphthalene	128	7.838	7.842	(1.141)	554400	50.0000	46.1	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.153)	169143	50.0000	46.5	
	104 2-Methylnaphthalene	142	8.291	8.298	(1.207)	268508	50.0000	48.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60806007.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 02-AUG-2019
Calibration Time: 11:51
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45446,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	427999	214000	855998	323392	-24.44
71 Chlorobenzene-d5	331080	165540	662160	242888	-26.64
94 1,4-Dichlorobenze	197797	98899	395594	151515	-23.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 06-AUG-2019 10:00
Lab File ID: 60806007.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.13091	0.16220	0.16220	0.010	23.90139	20.00000	Aver	(Q)	<-
2 Chloromethane	0.23314	0.22130	0.22130	0.100	-5.07996	20.00000	Aver		
3 Vinyl chloride	0.23440	0.20944	0.20944	0.010	-10.64803	20.00000	Aver		
4 Bromomethane	0.04909	0.05511	0.05511	0.010	12.27428	20.00000	Aver		
5 Chloroethane	50.00000	65.49642	0.14857	0.010	30.99284	20.00000	Quad		<-
6 Trichlorofluoromethane	0.23917	0.27400	0.27400	0.010	14.56528	20.00000	Aver		
7 Diethyl ether (Ethyl ether)	0.23010	0.20198	0.20198	0.010	-12.22036	20.00000	Aver		
8 Ethanol	++++	0.01077	0.01077	0.010	++++	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.33333	0.29417	0.29417	0.010	-11.74709	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.13679	0.11697	0.11697	0.010	-14.49041	20.00000	Aver		
11 Carbon disulfide	0.55196	0.42144	0.42144	0.010	-23.64736	20.00000	Aver		<-
12 Iodomethane	50.00000	41.02371	0.08928	0.010	-17.95258	20.00000	Quad		
13 Acrolein	0.03246	0.02458	0.02458	0.010	-24.25906	20.00000	Aver		<-
14 Allyl chloride	0.36760	0.31360	0.31360	0.010	-14.69159	20.00000	Aver		
15 Methylene Chloride	50.00000	46.22089	0.34635	0.010	-7.55822	20.00000	Quad		
16 Acetone	50.00000	56.44143	0.11193	0.010	12.88285	20.00000	Quad	(M)	
17 trans-1,2-Dichloroethene	0.32481	0.28531	0.28531	0.010	-12.16325	20.00000	Aver		
18 Methyl acetate	0.04403	0.04126	0.04126	0.010	-6.29726	20.00000	Aver		
19 n-Hexane	0.05595	0.04289	0.04289	0.010	-23.34720	20.00000	Aver		<-
20 Methyl-tert-butyl ether	0.61794	0.58301	0.58301	0.010	-5.65359	20.00000	Aver		
21 tert-Butyl Alcohol	0.05918	0.05830	0.05830	0.010	-1.48466	20.00000	Aver		
22 Acetonitrile	250	239	0.03432	0.010	-4.56941	20.00000	Quad		
23 Diisopropyl ether	0.82116	0.71282	0.71282	0.010	-13.19342	20.00000	Aver		
24 Chloroprene	0.32393	0.28660	0.28660	0.010	-11.52598	20.00000	Aver		
25 1,1-Dichloroethane	0.42857	0.36840	0.36840	0.100	-14.03963	20.00000	Aver		
26 Acrylonitrile	0.11377	0.09248	0.09248	0.010	-18.71336	20.00000	Aver	(M)	
27 Ethyl-tert-butyl ether	0.74691	0.67363	0.67363	0.010	-9.81154	20.00000	Aver		
28 Vinyl acetate	0.64369	0.63815	0.63815	0.010	-0.86113	20.00000	Aver		
29 cis-1,2-Dichloroethene	0.34313	0.29967	0.29967	0.010	-12.66592	20.00000	Aver		
30 2,2-Dichloropropane	0.28539	0.28102	0.28102	0.010	-1.53412	20.00000	Aver		
31 Cyclohexane	0.39704	0.34145	0.34145	0.010	-14.00170	20.00000	Aver		
32 Bromochloromethane	0.15949	0.14004	0.14004	0.010	-12.19523	20.00000	Aver		
33 Chloroform	0.37147	0.33557	0.33557	0.010	-9.66433	20.00000	Aver		
34 Carbon tetrachloride	0.24761	0.22017	0.22017	0.010	-11.08237	20.00000	Aver		
35 Ethyl acetate	0.30187	0.29257	0.29257	0.010	-3.08083	20.00000	Aver		
36 Tetrahydrofuran	0.14225	0.13324	0.13324	0.010	-6.33470	20.00000	Aver		
$ 37 Dibromofluoromethane (S)	0.25693	0.26543	0.26543	0.010	3.30763	20.00000	Aver		
38 1,1,1-Trichloroethane	0.31926	0.29601	0.29601	0.010	-7.27986	20.00000	Aver		
39 2-Butanone (MEK)	0.17894	0.17121	0.17121	0.010	-4.32267	20.00000	Aver		
40 1,1-Dichloropropene	0.26073	0.24175	0.24175	0.010	-7.27932	20.00000	Aver		
41 Benzene	0.79007	0.69515	0.69515	0.010	-12.01359	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 06-AUG-2019 10:00
Lab File ID: 60806007.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	0.06015	0.05432	0.05432	0.010	-9.69676	20.00000	Aver		
43 Methacrylonitrile	0.17611	0.16831	0.16831	0.010	-4.43246	20.00000	Aver		
44 tert-Amylmethyl ether	0.56818	0.50816	0.50816	0.010	-10.56374	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.25143	0.29528	0.29528	0.010	17.44144	20.00000	Aver		
46 Isobutanol	0.02257	0.01915	0.01915	0.010	-15.15411	20.00000	Aver		
47 1,2-Dichloroethane	0.30217	0.29905	0.29905	0.010	-1.03102	20.00000	Aver		
49 Methylcyclohexane	50.00000	41.89173	0.26340	0.010	-16.21654	20.00000	Quad		
50 Trichloroethene	0.28134	0.25903	0.25903	0.010	-7.93215	20.00000	Aver		
51 Dibromomethane	0.16127	0.14335	0.14335	0.010	-11.11496	20.00000	Aver		
52 1,2-Dichloropropane	0.24849	0.21389	0.21389	0.010	-13.92288	20.00000	Aver		
53 Bromodichloromethane	0.26182	0.24007	0.24007	0.010	-8.30937	20.00000	Aver		
54 Methyl methacrylate	0.16194	0.14331	0.14331	0.010	-11.50236	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00393	0.00376	0.00376	0.010	-4.27892	20.00000	Aver	(M)	<-
56 2-Chloroethylvinyl ether	0.14387	0.13219	0.13219	0.010	-8.11464	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.33502	0.30909	0.30909	0.010	-7.74221	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.22057	1.17561	1.17561	0.010	-3.68376	20.00000	Aver		
59 Toluene	1.13383	0.95708	0.95708	0.010	-15.58903	20.00000	Aver		
60 2-Nitropropane	250	210	0.06775	0.010	-15.99653	20.00000	Quad		
61 4-Methyl-2-pentanone (MIBK)	0.30977	0.28833	0.28833	0.010	-6.92155	20.00000	Aver		
62 Tetrachloroethene	0.29563	0.25343	0.25343	0.010	-14.27736	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.41423	0.41075	0.41075	0.010	-0.83984	20.00000	Aver		
64 Ethyl methacrylate	0.30425	0.30196	0.30196	0.010	-0.75396	20.00000	Aver		
65 1,1,2-Trichloroethane	0.26126	0.24510	0.24510	0.010	-6.18660	20.00000	Aver		
66 Dibromochloromethane	0.29963	0.27285	0.27285	0.010	-8.93547	20.00000	Aver		
67 1,3-Dichloropropane	0.43250	0.41006	0.41006	0.010	-5.18909	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.27527	0.26471	0.26471	0.010	-3.83555	20.00000	Aver		
69 2-Hexanone	0.32223	0.30549	0.30549	0.010	-5.19323	20.00000	Aver		
70 Ethylbenzene	0.43985	0.40812	0.40812	0.010	-7.21375	20.00000	Aver		
72 Chlorobenzene	0.82032	0.72752	0.72752	0.300	-11.31259	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.29792	0.25215	0.25215	0.010	-15.36451	20.00000	Aver		
74 m&p-Xylene	0.53578	0.49729	0.49729	0.010	-7.18441	20.00000	Aver		
75 o-Xylene	0.53616	0.49221	0.49221	0.010	-8.19676	20.00000	Aver		
76 Styrene	0.92101	0.86164	0.86164	0.010	-6.44641	20.00000	Aver		
77 Bromoform	50.00000	38.69268	0.29158	0.100	-22.61464	20.00000	Quad		<-
78 Isopropylbenzene (Cumene)	2.19359	2.02836	2.02836	0.010	-7.53270	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.71786	0.70106	0.70106	0.010	-2.34047	20.00000	Aver		
80 n-Propylbenzene	2.47212	2.31109	2.31109	0.010	-6.51374	20.00000	Aver		
81 Bromobenzene	0.95661	0.88438	0.88438	0.010	-7.55011	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.62336	0.52774	0.52774	0.300	-15.33913	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.85882	1.68816	1.68816	0.010	-9.18130	20.00000	Aver		
84 2-Chlorotoluene	0.58362	0.52095	0.52095	0.010	-10.73843	20.00000	Aver		
85 1,2,3-Trichloropropane	0.21241	0.18855	0.18855	0.010	-11.23548	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 06-AUG-2019 10:00
Lab File ID: 60806007.d Init. Cal. Date(s): 22-JUL-2019 22-JUL-2019
Analysis Type: SOIL Init. Cal. Times: 11:47 14:48
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.22585	0.20964	0.20964	0.010	-7.17672	20.00000	Aver		
87 Cyclohexanone	0.08932	0.06620	0.06620	0.010	-25.87634	20.00000	Aver		<-
88 4-Chlorotoluene	0.61921	0.55107	0.55107	0.010	-11.00397	20.00000	Aver		
89 tert-Butylbenzene	1.75887	1.60922	1.60922	0.010	-8.50839	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.93136	1.75997	1.75997	0.010	-8.87372	20.00000	Aver		
91 sec-Butylbenzene	2.37618	2.25991	2.25991	0.010	-4.89308	20.00000	Aver		
92 p-Isopropyltoluene	2.23067	2.10278	2.10278	0.010	-5.73320	20.00000	Aver		
93 1,3-Dichlorobenzene	1.25500	1.12596	1.12596	0.010	-10.28242	20.00000	Aver		
95 1,4-Dichlorobenzene	1.29566	1.18435	1.18435	0.010	-8.59121	20.00000	Aver		
96 n-Butylbenzene	50.00000	44.52853	1.78964	0.010	-10.94294	20.00000	Quad		
97 1,2-Dichlorobenzene	1.23526	1.10166	1.10166	0.010	-10.81580	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	1.00084	0.99998	0.99998	0.010	-0.08598	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.19759	0.17386	0.17386	0.010	-12.01058	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.84079	0.78875	0.78875	0.010	-6.18922	20.00000	Aver		
100 Hexachloro-1,3-butadiene	50.00000	42.84164	0.39977	0.010	-14.31671	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.79649	0.74117	0.74117	0.010	-6.94527	20.00000	Aver		
102 Naphthalene	2.37998	2.19543	2.19543	0.010	-7.75453	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.72005	0.66981	0.66981	0.010	-6.97810	20.00000	Aver		
104 2-Methylnaphthalene	1.09856	1.06329	1.06329	0.010	-3.21031	20.00000	Aver		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 10.07072
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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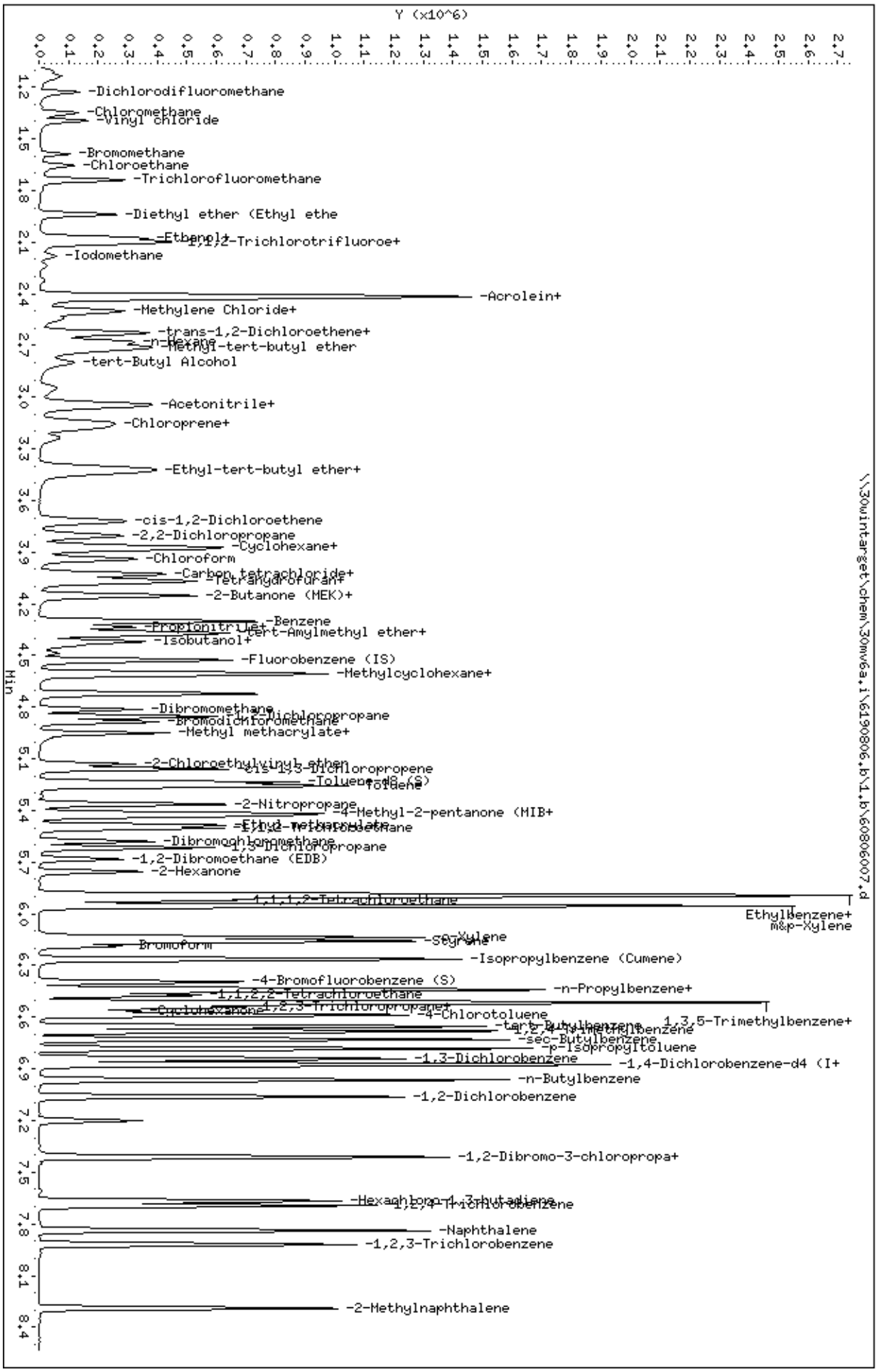
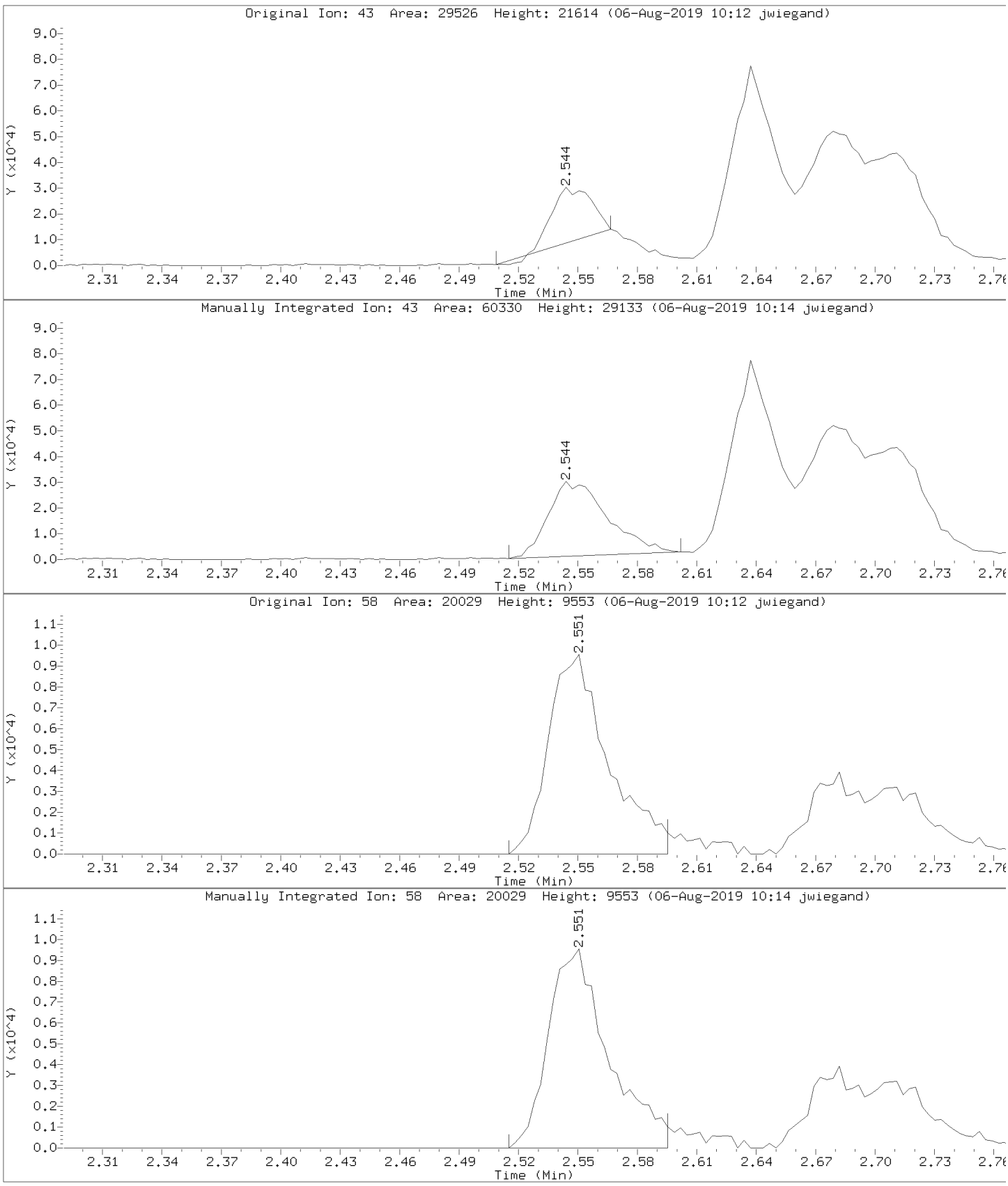

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Date : 06-AUG-2019 10:00
Client ID: CCV
Sample Info: CCV, 9583211
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806007.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

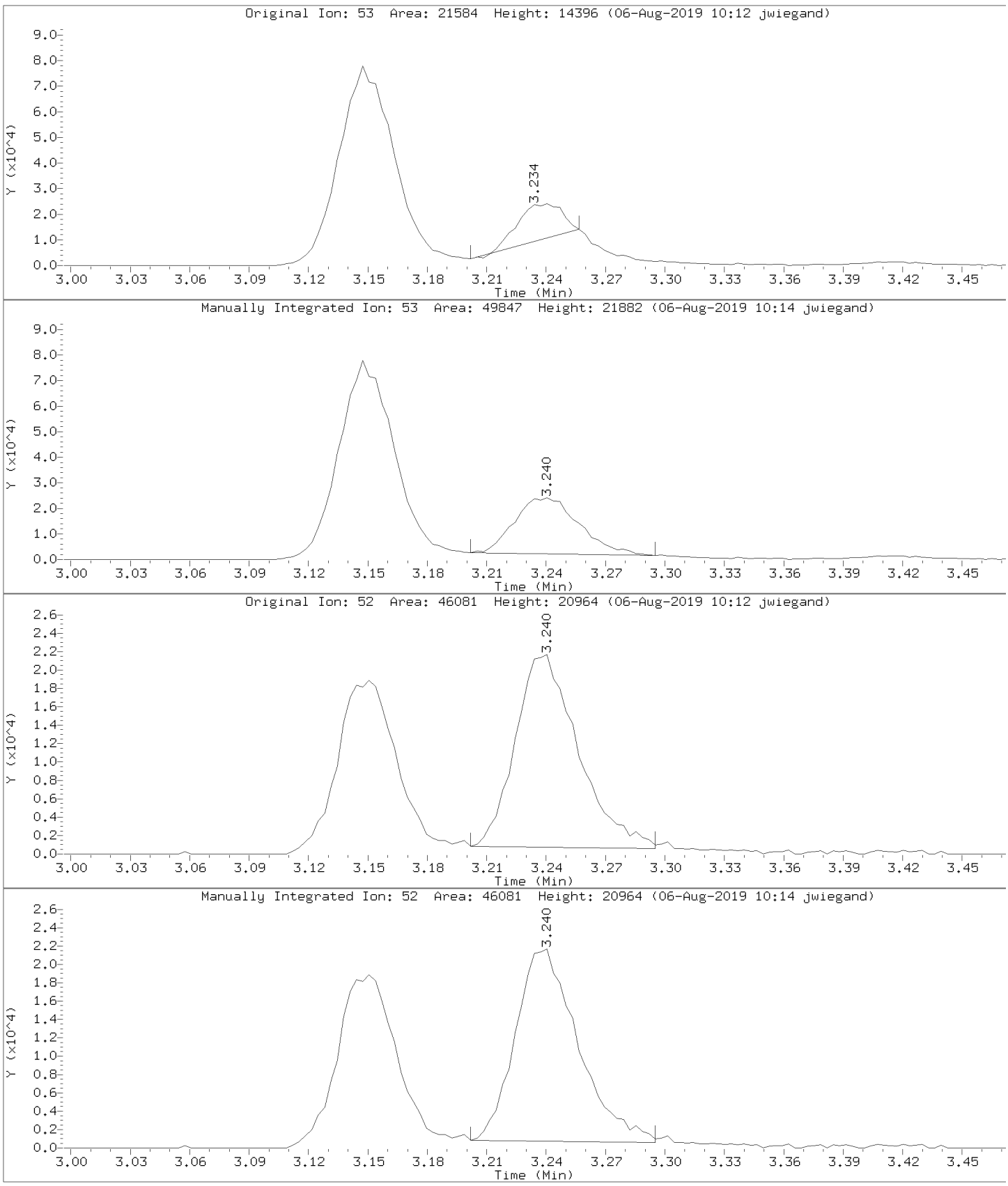
Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806007.d
Injection Date: 06-AUG-2019 10:00
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806007.d
Injection Date: 06-AUG-2019 10:00
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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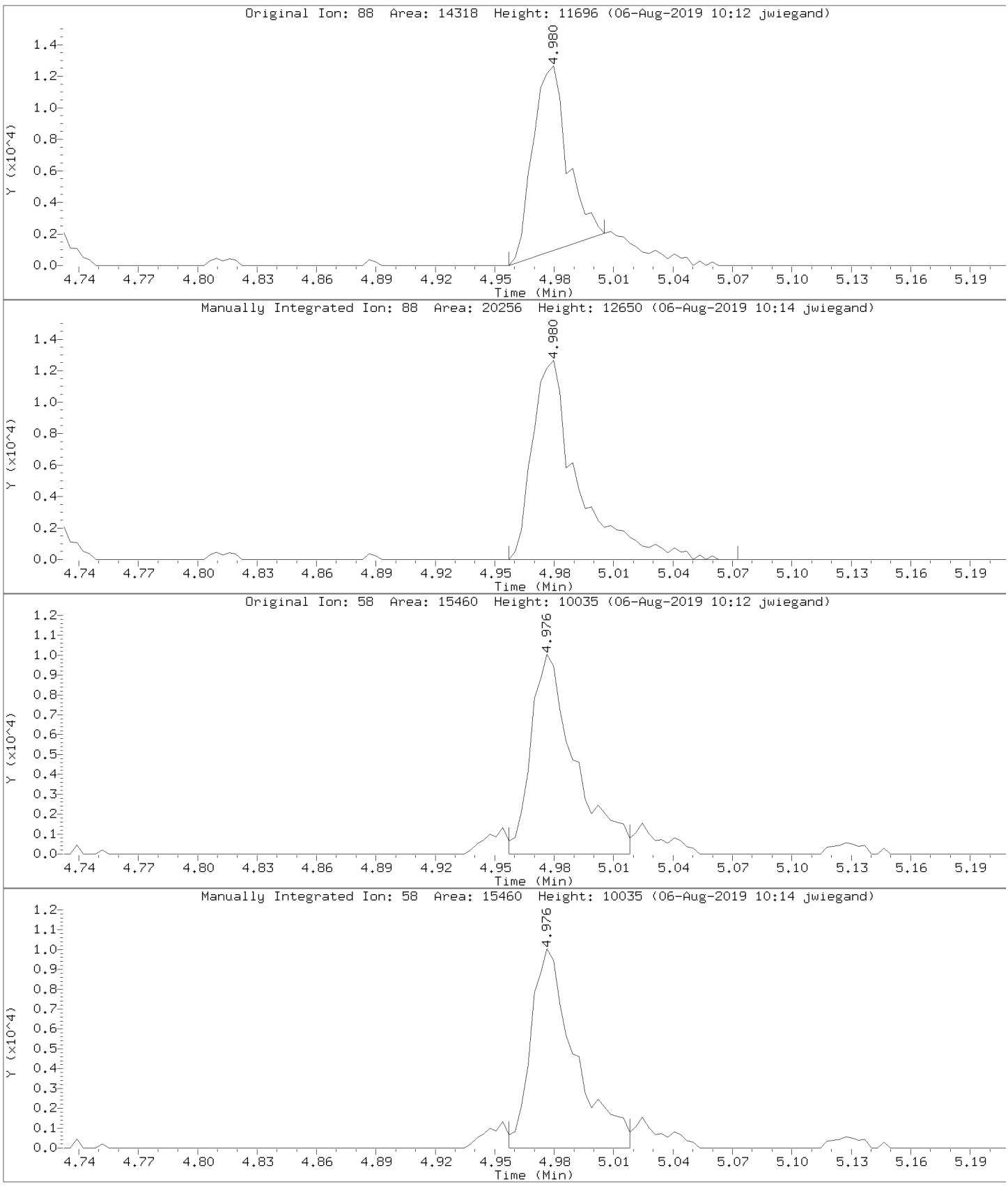
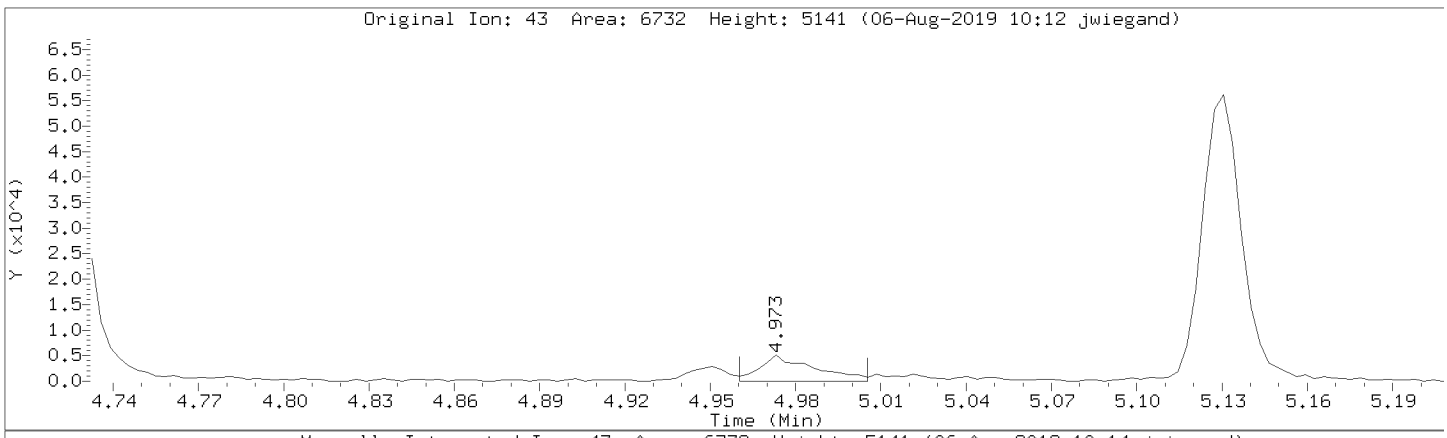
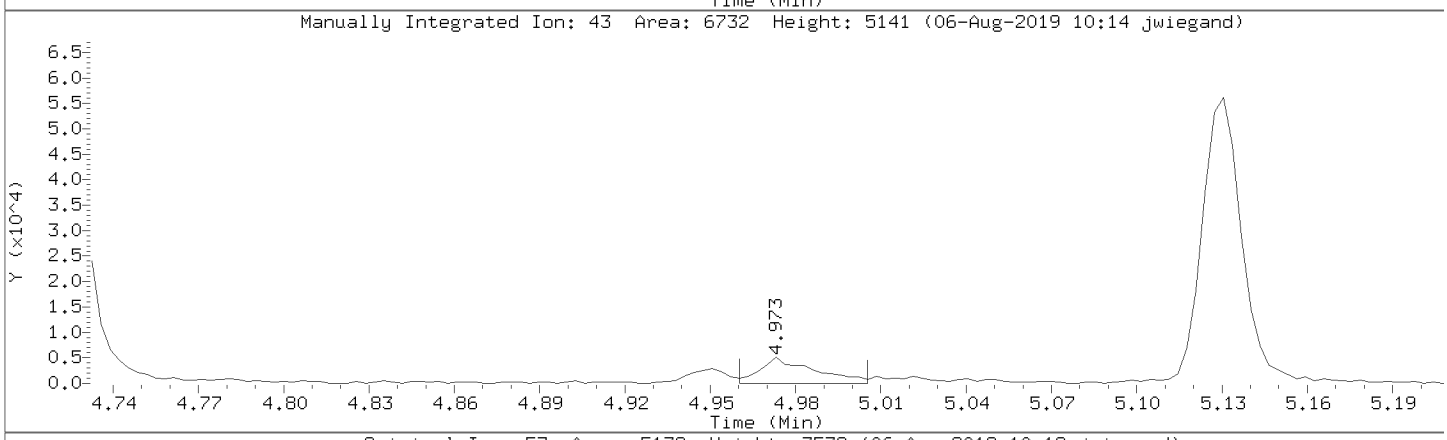
Injection Date: 06-AUG-2019 10:00
Instrument: 30mv6a.i
Lab Sample ID: CCV

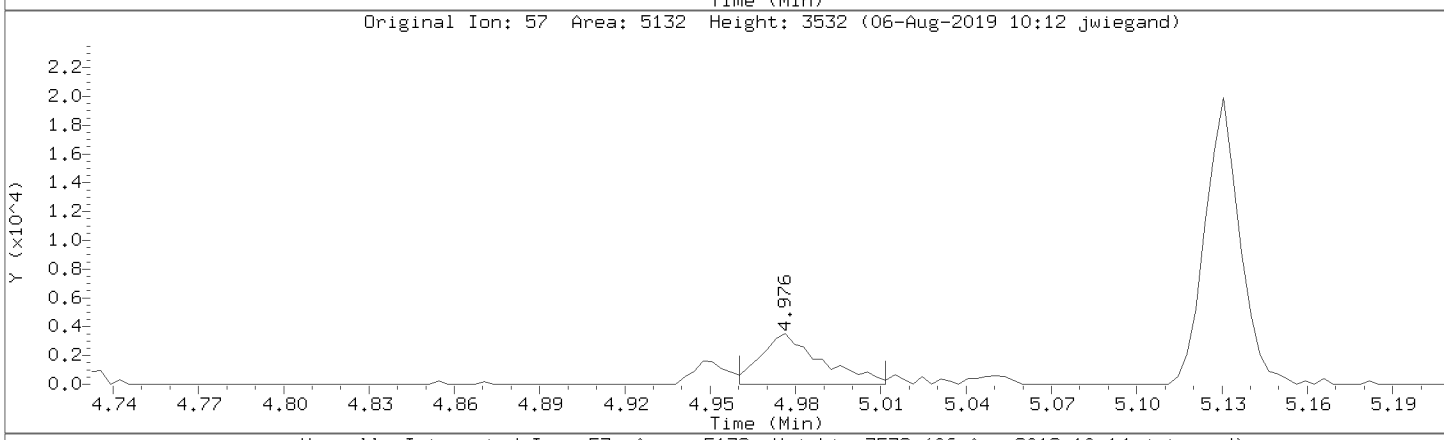
Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

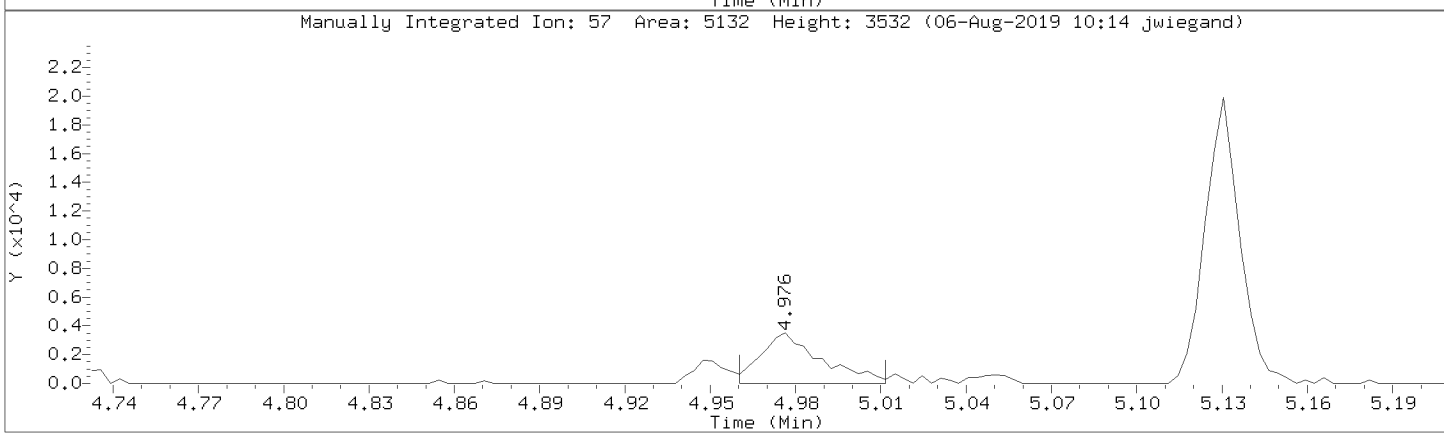


Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806007.d
Injection Date: 06-AUG-2019 10:00
Instrument: 30mv6a.i
Lab Sample ID: CCV









Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722013.d

Date : 22-JUL-2019 11:16

Client ID: TUNE

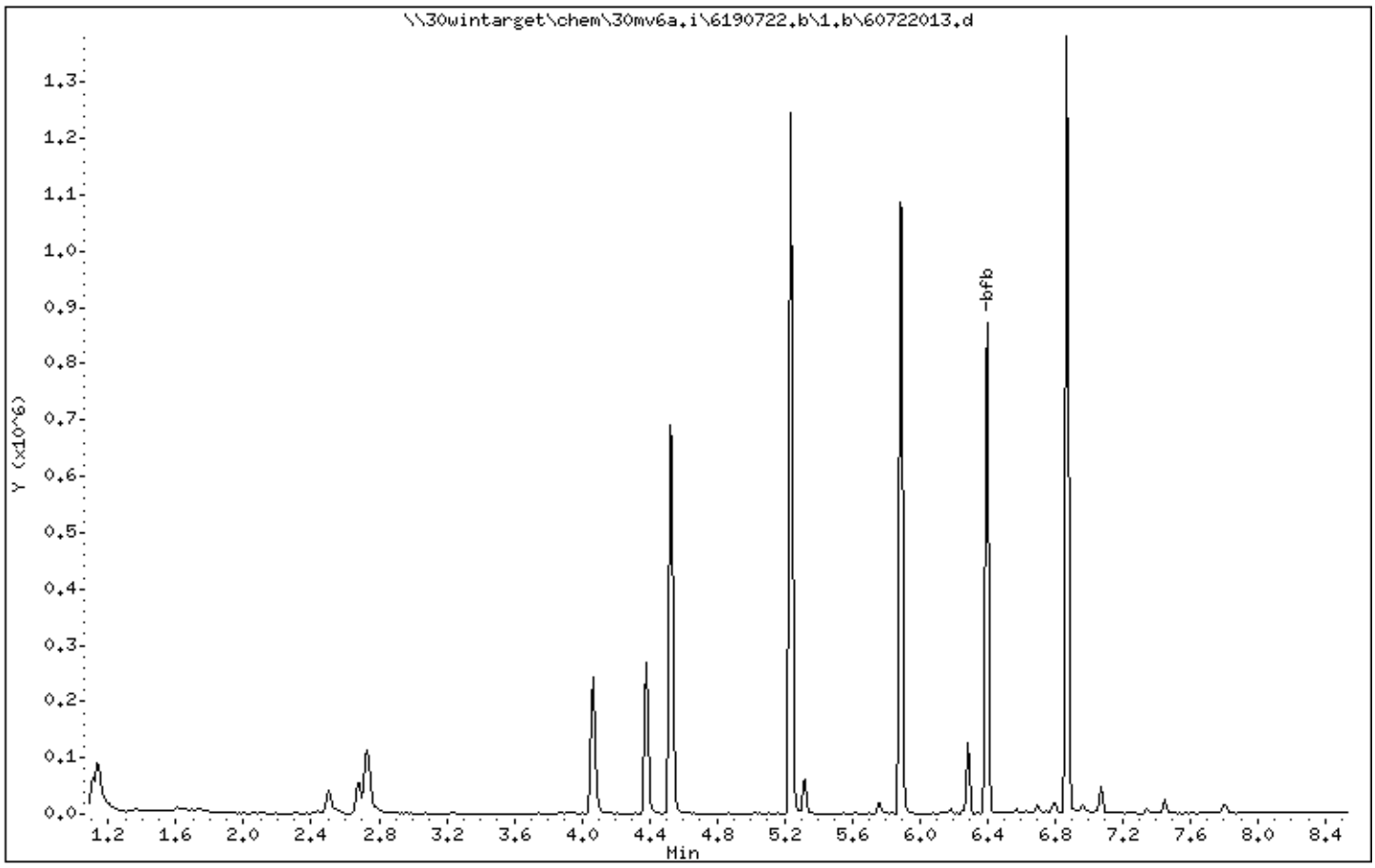
Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190722.b\1.b\60722013.d

Date : 22-JUL-2019 11:16

Client ID: TUNE

Instrument: 30mv6a.i

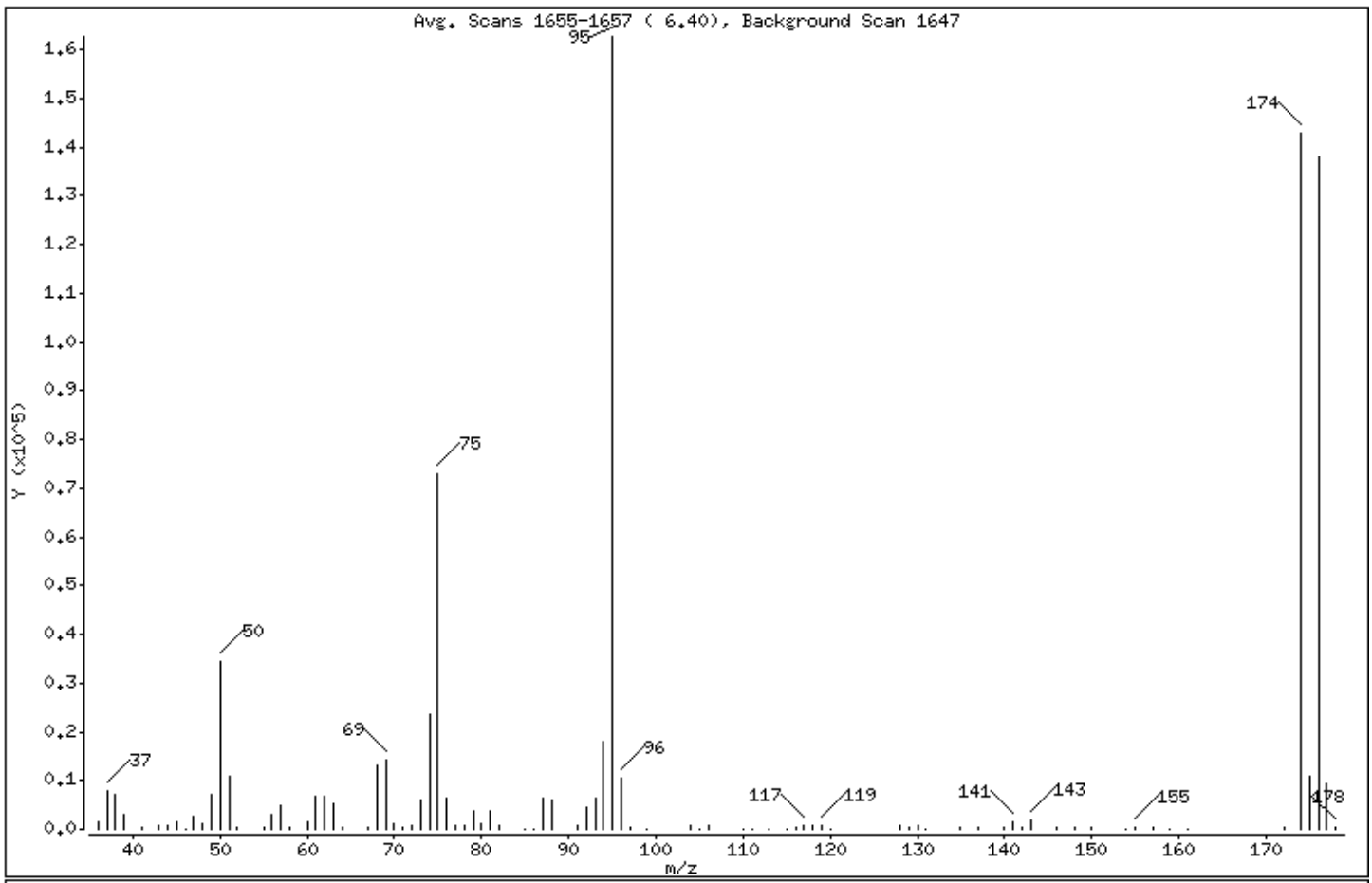
Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.21
75	30.00 - 60.00% of mass 95	44.82
96	5.00 - 9.00% of mass 95	6.51
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	87.76
175	5.00 - 9.00% of mass 174	6.66 (7.58)
176	95.00 - 101.00% of mass 174	84.77 (96.59)
177	5.00 - 9.00% of mass 176	5.69 (6.71)

Date : 22-JUL-2019 11:16

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60722013.d
Spectrum: Avg. Scans 1655-1657 (6.40), Background Scan 1647
Location of Maximum: 95.00
Number of points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1599	64.00	505	93.00	6439	137.00	252
37.00	7700	67.00	469	94.00	17888	140.00	307
38.00	7174	68.00	13152	95.00	162624	141.00	1534
39.00	3084	69.00	14207	96.00	10583	142.00	246
41.00	549	70.00	1043	97.00	236	143.00	1836
43.00	706	71.00	425	99.00	99	146.00	321
44.00	697	72.00	893	104.00	606	148.00	416
45.00	1643	73.00	6000	105.00	163	150.00	208
46.00	96	74.00	23704	106.00	713	154.00	101
47.00	2594	75.00	72888	110.00	71	155.00	508
48.00	941	76.00	6482	111.00	164	157.00	247
49.00	6925	77.00	722	113.00	71	159.00	82
50.00	34488	78.00	670	115.00	78	161.00	129
51.00	10950	79.00	3919	116.00	558	172.00	226
52.00	527	80.00	1138	117.00	754	174.00	142720
55.00	327	81.00	3848	118.00	582	175.00	10823
56.00	2908	82.00	632	119.00	914	176.00	137856
57.00	4828	85.00	88	120.00	78	177.00	9248
58.00	336	86.00	161	128.00	687	178.00	370
60.00	1677	87.00	6393	129.00	386		
61.00	6723	88.00	6065	130.00	886		
62.00	6873	91.00	647	131.00	176		
63.00	5191	92.00	4353	135.00	345		

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806005.d

Date : 06-AUG-2019 09:35

Client ID: TUNE

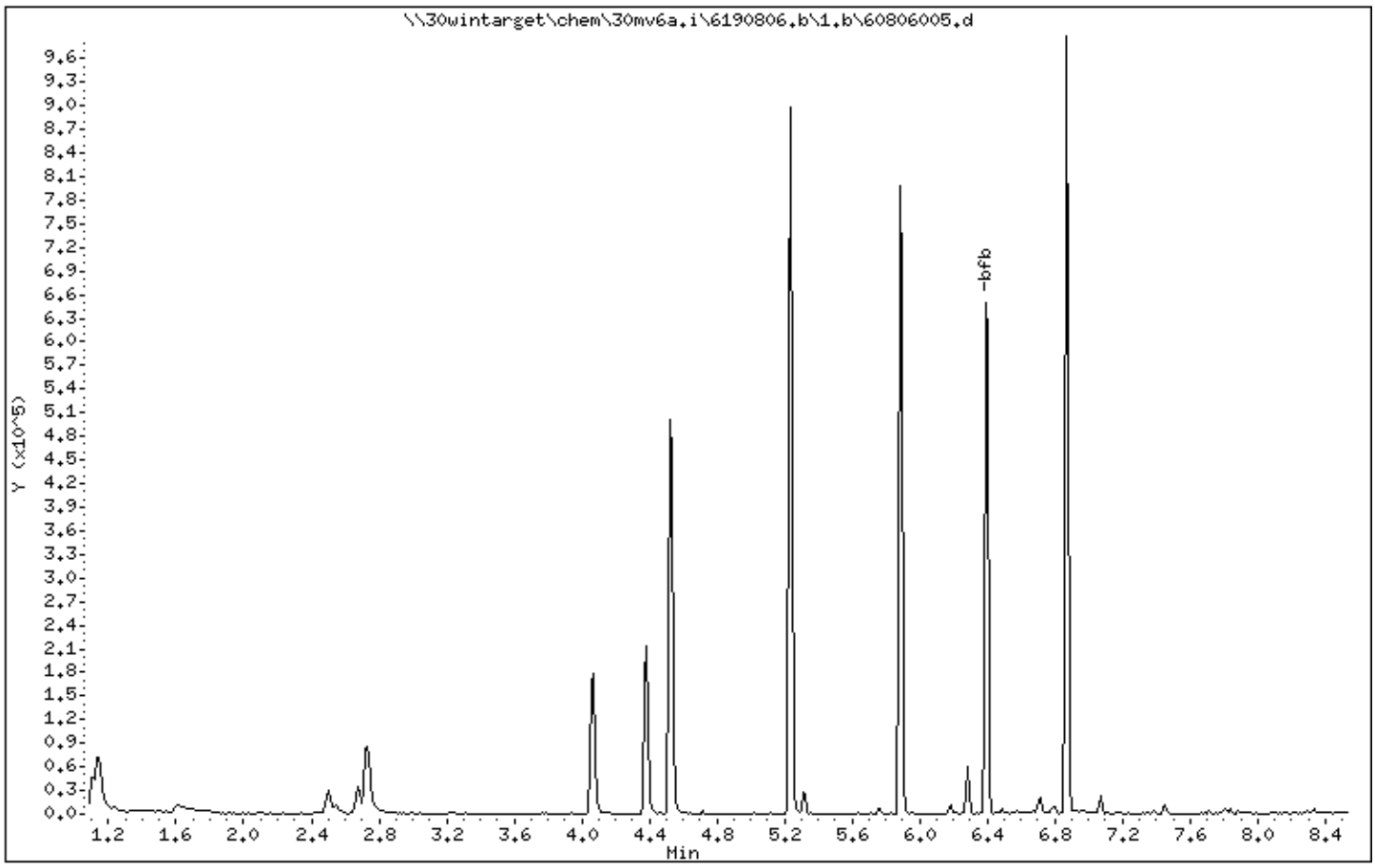
Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806005.d

Date : 06-AUG-2019 09:35

Client ID: TUNE

Instrument: 30mv6a.i

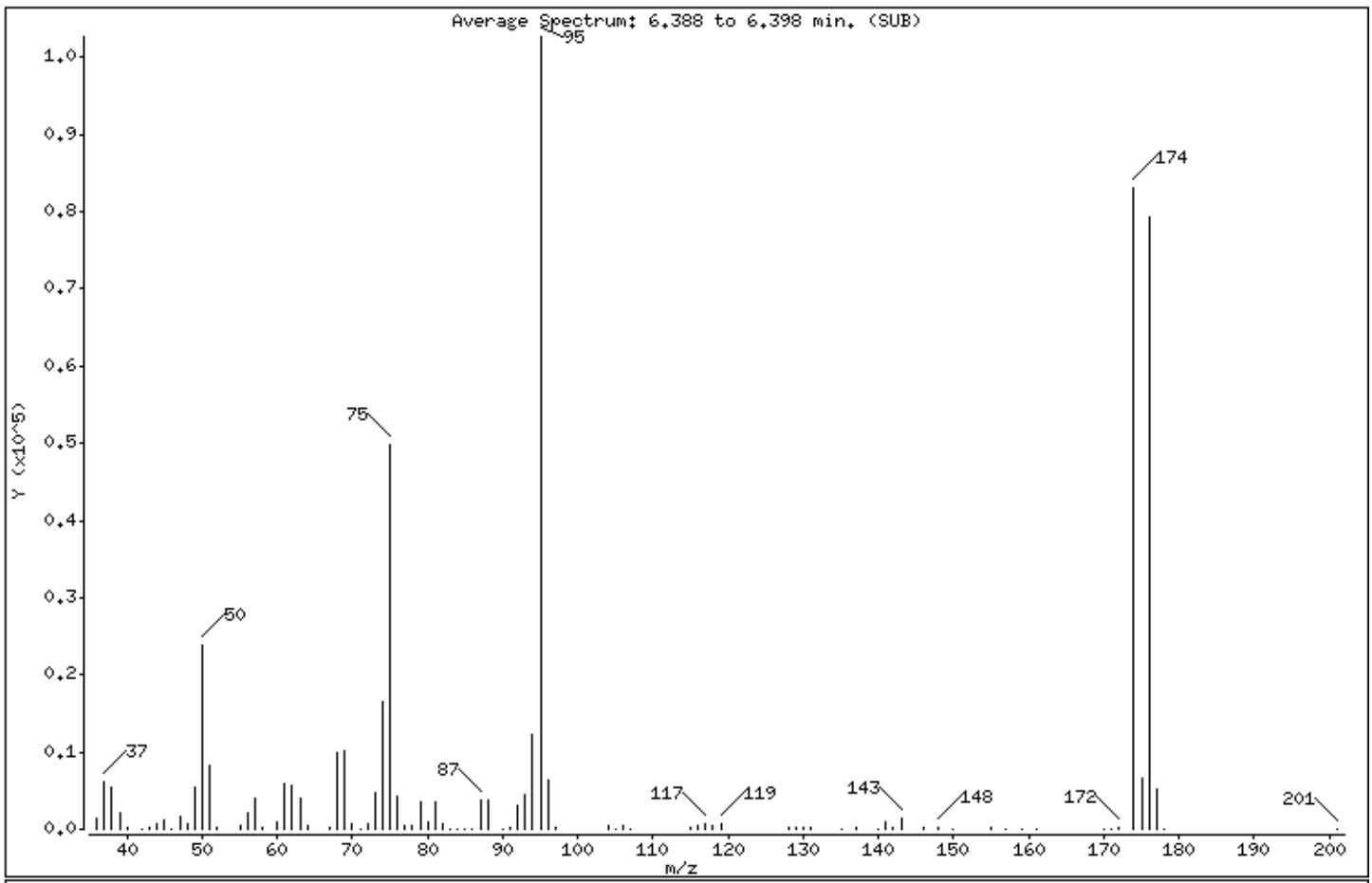
Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.28
75	30.00 - 60.00% of mass 95	48.50
96	5.00 - 9.00% of mass 95	6.28
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	80.99
175	5.00 - 9.00% of mass 174	6.32 (7.81)
176	95.00 - 101.00% of mass 174	77.29 (95.44)
177	5.00 - 9.00% of mass 176	5.04 (6.52)

Date : 06-AUG-2019 09:35

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60806005.d
Spectrum: Average Spectrum: 6.388 to 6.398 min. (SUB)
Location of Maximum: 95.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1340	63.00	3896	88.00	3717	137.00	153
37.00	6057	64.00	395	90.00	56	140.00	59
38.00	5375	67.00	175	91.00	264	141.00	1057
39.00	2051	68.00	9868	92.00	3015	142.00	149
40.00	202	69.00	10204	93.00	4368	143.00	1345
42.00	60	70.00	708	94.00	12314	146.00	123
43.00	269	71.00	99	95.00	102680	148.00	223
44.00	797	72.00	702	96.00	6444	150.00	71
45.00	1122	73.00	4695	97.00	186	155.00	162
46.00	68	74.00	16552	104.00	489	157.00	107
47.00	1650	75.00	49792	105.00	111	159.00	104
48.00	701	76.00	4174	106.00	536	161.00	64
49.00	5453	77.00	567	107.00	61	170.00	69
50.00	23896	78.00	471	115.00	131	171.00	61
51.00	8216	79.00	3507	116.00	424	172.00	124
52.00	342	80.00	930	117.00	676	174.00	83160
55.00	502	81.00	3498	118.00	482	175.00	6492
56.00	2159	82.00	704	119.00	591	176.00	79368
57.00	3962	83.00	54	128.00	235	177.00	5177
58.00	157	84.00	58	129.00	184	178.00	56
60.00	959	85.00	79	130.00	243	201.00	52
61.00	5982	86.00	70	131.00	174		
62.00	5629	87.00	3732	135.00	83		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 1725735

Date Analyzed: 08/06/2019 14:19 Lab File ID: 6190806.B\1.B\60806027-45664.D

Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
	TOTAL BTEX	ND	U
78-93-3	2-Butanone (MEK)	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
124-48-1	Dibromochloromethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
540-59-0	1,2-Dichloroethene (Total)	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
100-42-5	Styrene	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U

SAMPLE NO.

BLANK

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 1725735

Date Analyzed: 08/06/2019 14:19 Lab File ID: 6190806.B\1.B\60806027-45664.D

Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
108-88-3	Toluene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Lab Smp Id: 1725735 Client Smp ID: MB
Inj Date : 06-AUG-2019 14:19
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1725735
Misc Info : 45664
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Meth Date : 06-Aug-2019 10:12 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						(D)
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	45	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	2.499	2.499	(0.552)	15119		(a)	
16 Acetone	43	2.547	2.541	(0.563)	13459	7.09507	7.10(QM)	LT
17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	2.678	2.679	(0.592)	2937	6.13354	6.13(Q)	
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 tert-Butyl Alcohol	59	Compound Not Detected.						

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)		REVIEW C
	22	Acetonitrile	41	Compound Not Detected.							
	23	Diisopropyl ether	45	Compound Not Detected.							
	24	Chloroprene	53	Compound Not Detected.							
	25	1,1-Dichloroethane	63	Compound Not Detected.							
	26	Acrylonitrile	53	Compound Not Detected.							
	27	Ethyl-tert-butyl ether	59	Compound Not Detected.							
	28	Vinyl acetate	43	Compound Not Detected.							
	29	cis-1,2-Dichloroethene	61	Compound Not Detected.							
	30	2,2-Dichloropropane	77	Compound Not Detected.							
	31	Cyclohexane	56	Compound Not Detected.							
	32	Bromochloromethane	130	Compound Not Detected.							
	33	Chloroform	83	Compound Not Detected.							
	34	Carbon tetrachloride	117	Compound Not Detected.							
	35	Ethyl acetate	43	Compound Not Detected.							
	36	Tetrahydrofuran	42	Compound Not Detected.							
$	37	Dibromofluoromethane (S)	111	4.064	4.067	(0.898)	75551	34.3591	34.4		
	38	1,1,1-Trichloroethane	97	Compound Not Detected.							
	39	2-Butanone (MEK)	43	Compound Not Detected.							
	40	1,1-Dichloropropene	75	Compound Not Detected.							
	41	Benzene	78	Compound Not Detected.							
	42	Propionitrile	54	Compound Not Detected.							
	43	Methacrylonitrile	41	Compound Not Detected.							
	44	tert-Amylmethyl ether	73	Compound Not Detected.							
$	45	1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	83822	38.9543	39.0		
	46	Isobutanol	43	Compound Not Detected.							
	47	1,2-Dichloroethane	62	Compound Not Detected.							(D)
*	48	Fluorobenzene (IS)	96	4.527	4.527	(1.000)	256748	30.0000	(M)		LT
	49	Methylcyclohexane	83	Compound Not Detected.							
	50	Trichloroethene	95	Compound Not Detected.							
	51	Dibromomethane	174	Compound Not Detected.							
	52	1,2-Dichloropropane	63	Compound Not Detected.							
	53	Bromodichloromethane	83	Compound Not Detected.							
	54	Methyl methacrylate	69	Compound Not Detected.							
	55	1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.							
	56	2-Chloroethylvinyl ether	63	Compound Not Detected.							
	57	cis-1,3-Dichloropropene	75	Compound Not Detected.							
$	58	Toluene-d8 (S)	98	5.236	5.236	(0.889)	276421	30.0419	30.0		
	59	Toluene	91	Compound Not Detected.							
	60	2-Nitropropane	43	Compound Not Detected.							(D)
	61	4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.							
	62	Tetrachloroethene	166	Compound Not Detected.							
	63	trans-1,3-Dichloropropene	75	Compound Not Detected.							
	64	Ethyl methacrylate	41	Compound Not Detected.							
	65	1,1,2-Trichloroethane	97	Compound Not Detected.							
	66	Dibromochloromethane	129	Compound Not Detected.							
	67	1,3-Dichloropropane	76	Compound Not Detected.							
	68	1,2-Dibromoethane (EDB)	107	Compound Not Detected.							
	69	2-Hexanone	43	Compound Not Detected.							
	70	Ethylbenzene	106	Compound Not Detected.							
*	71	Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	226153	30.0000			
	72	Chlorobenzene	112	Compound Not Detected.							
	73	1,1,1,2-Tetrachloroethane	131	Compound Not Detected.							
	74	m&p-Xylene	106	Compound Not Detected.							
	75	o-Xylene	106	Compound Not Detected.							

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	76 Styrene	104	Compound Not Detected.						
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.397	6.398	(0.931)	92720	29.4946	29.5	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	131375	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	131372	29.9741	30.0	
	98 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	99 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	104 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60806027-45664.d
Lab Smp Id: 1725735
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

Calibration Date: 06-AUG-2019
Calibration Time: 10:00
Client Smp ID: MB
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	323392	161696	646784	256748	-20.61
71 Chlorobenzene-d5	242888	121444	485776	226153	-6.89
94 1,4-Dichlorobenze	151515	75758	303030	131375	-13.29

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1725735 Client Smp ID: MB
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: BLANK
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	34.4	114.53	70-130
$ 45 1,2-Dichloroethane	30.0	39.0	129.85	83-138
$ 58 Toluene-d8 (S)	30.0	30.0	100.14	73-124
$ 79 4-Bromofluorobenze	30.0	29.5	98.32	71-124
$ 161 1,2-Dichlorobenzen	30.0	30.0	99.91	10-200

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Report Date: 07-Aug-2019 08:15

Pace Analytical Services, Inc.

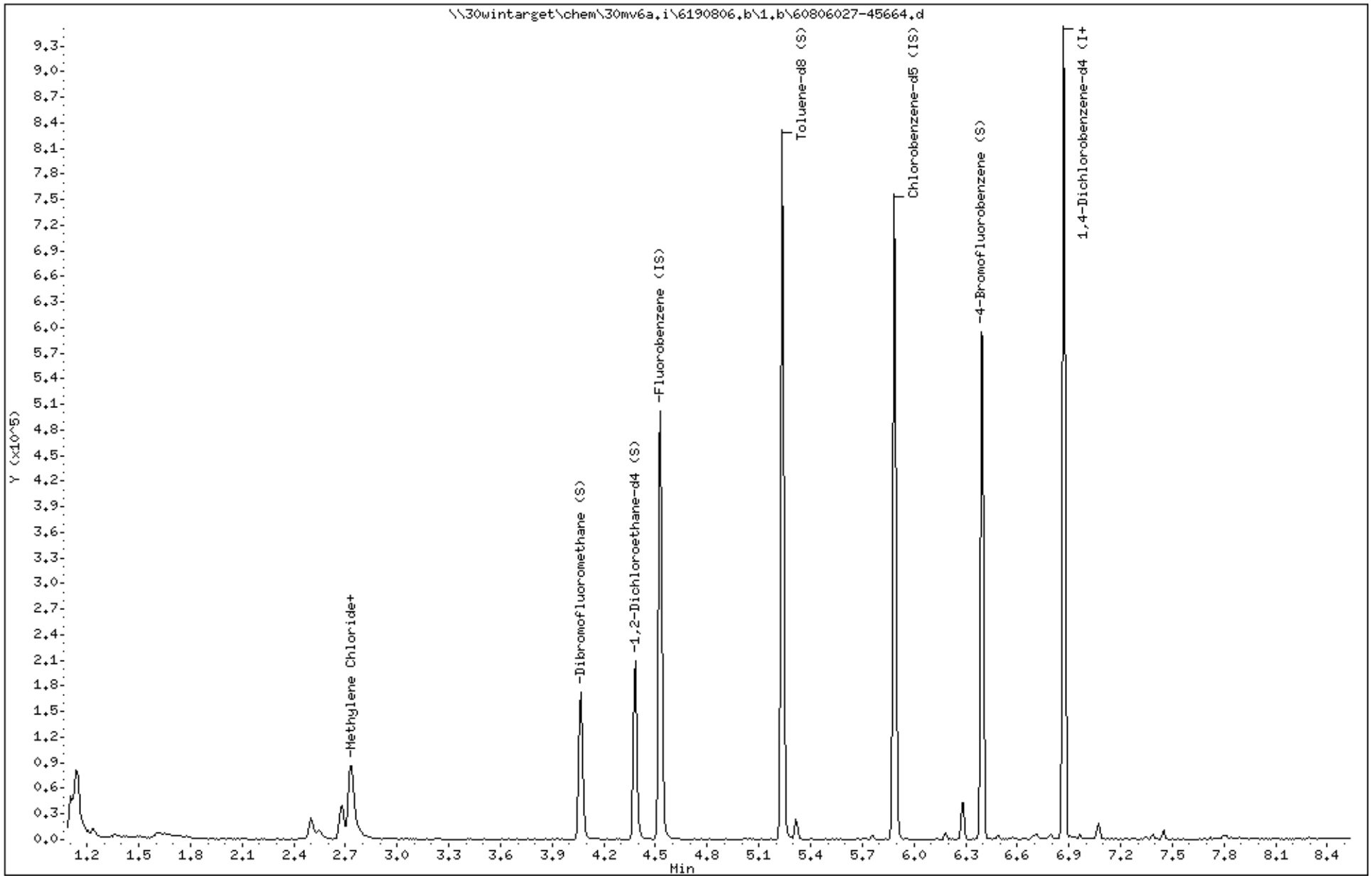
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1725735
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45664

Client SDG: 1.b
Client Smp ID: MB
Sample Point:
Date Received: 06-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-09-2	Methylene Chloride	0.000	J
67-64-1	Acetone	7.10	
110-54-3	n-Hexane	6.13	
1868-53-7	Dibromofluoromethane (S)	34.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	39.0	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	29.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d
Date : 06-AUG-2019 14:19
Client ID: MB
Instrument: 30mv6a.i
Sample Info: 1725735
Operator: JEW
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d

Date : 06-AUG-2019 14:19

Client ID: MB

Instrument: 30mv6a.i

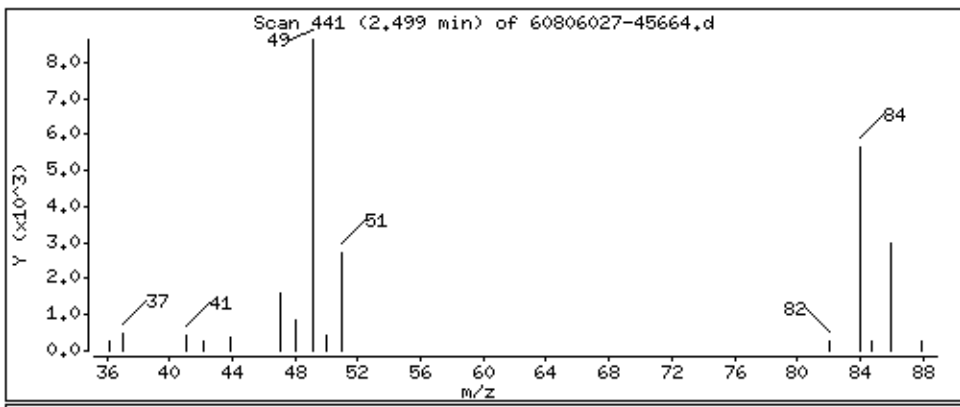
Sample Info: 1725735

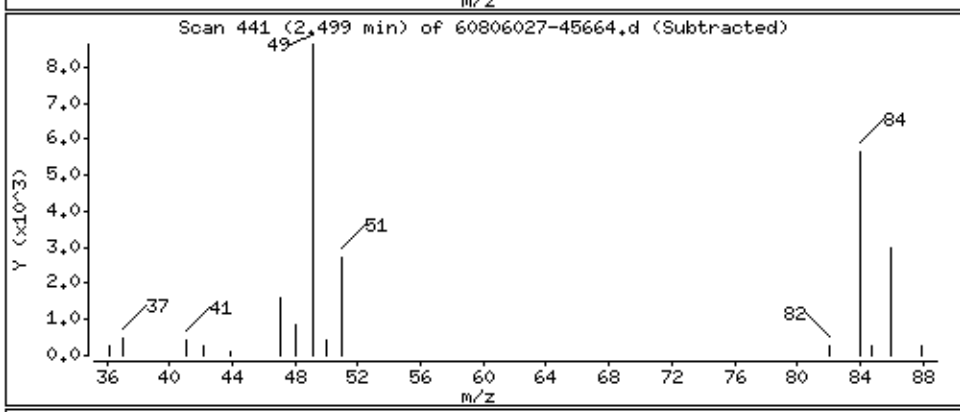
Operator: JEW

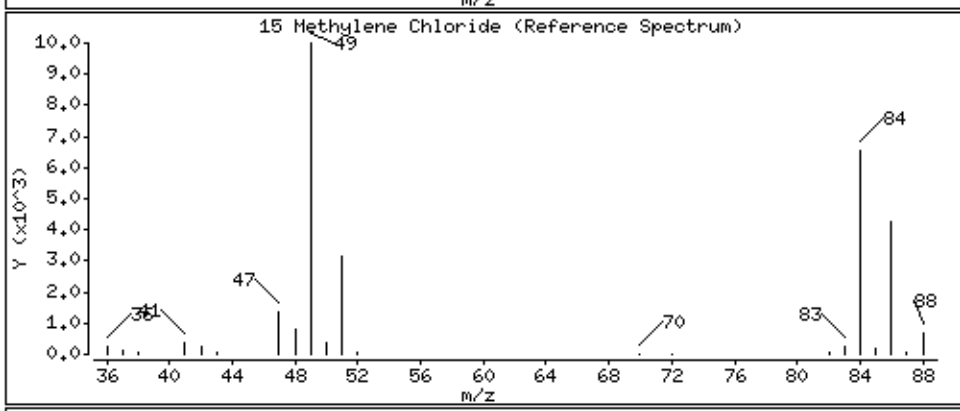
Column phase: RTX-VMS

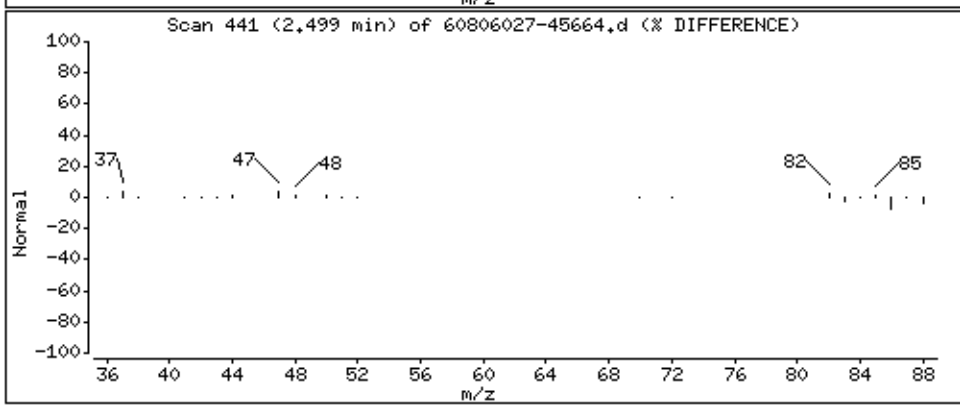
Column diameter: 0.18

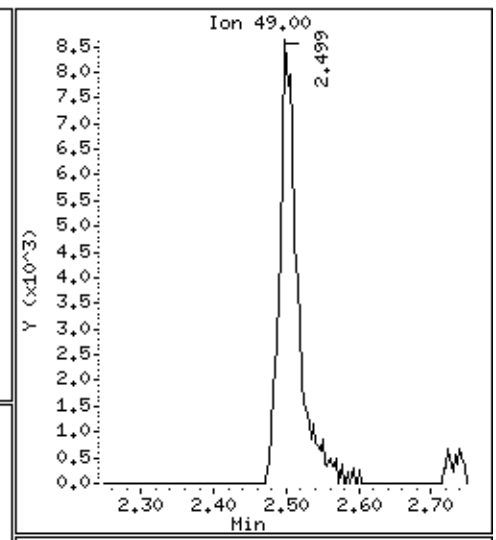
15 Methylene Chloride

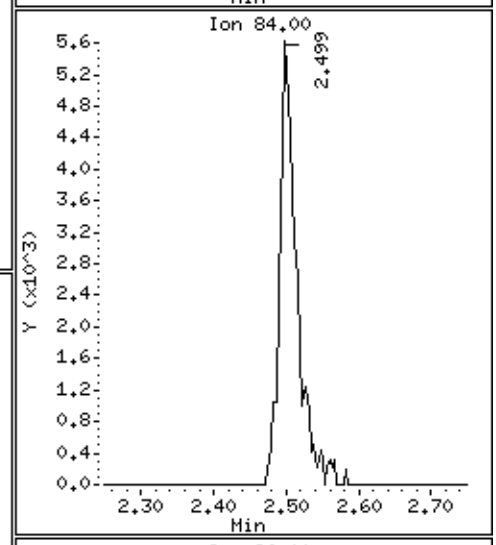


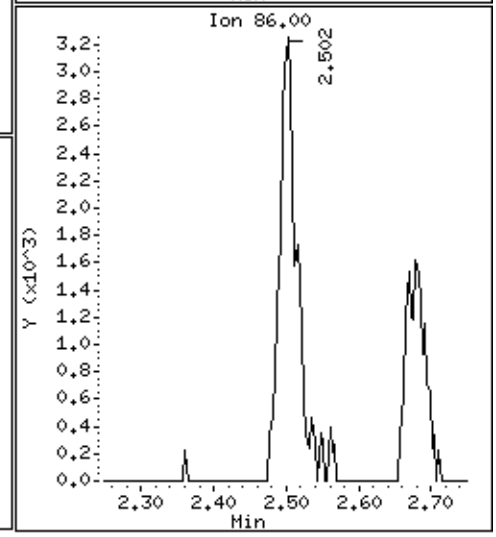












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d

Date : 06-AUG-2019 14:19

Client ID: MB

Instrument: 30mv6a.i

Sample Info: 1725735

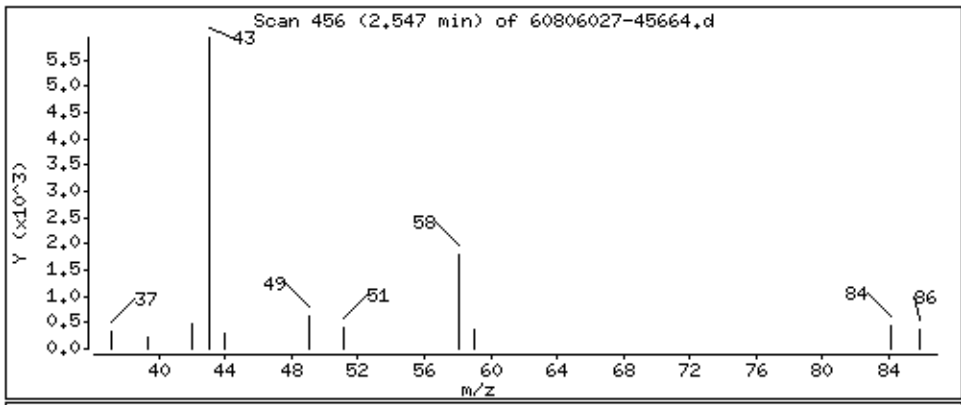
Operator: JEW

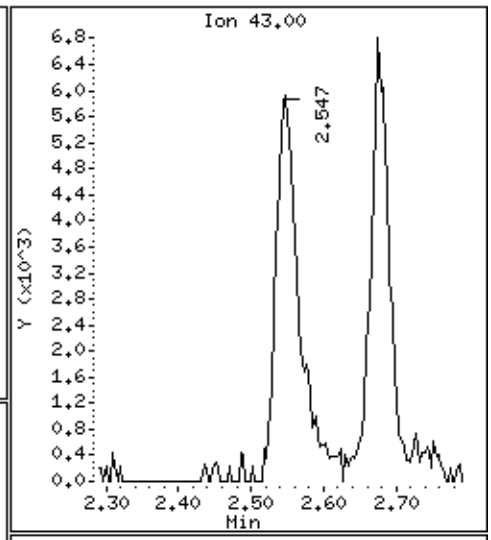
Column phase: RTX-VMS

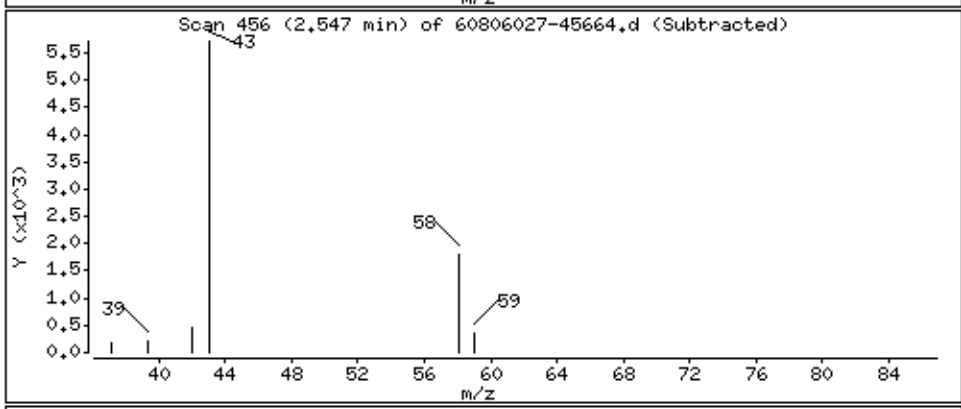
Column diameter: 0.18

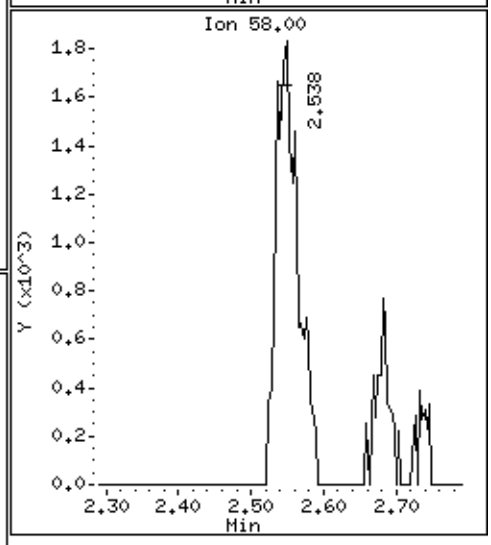
16 Acetone

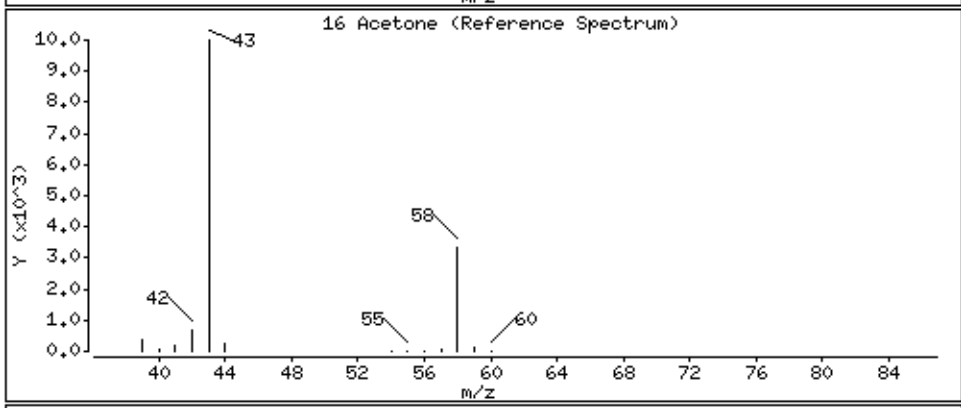
Concentration: 7.10 ug/kg

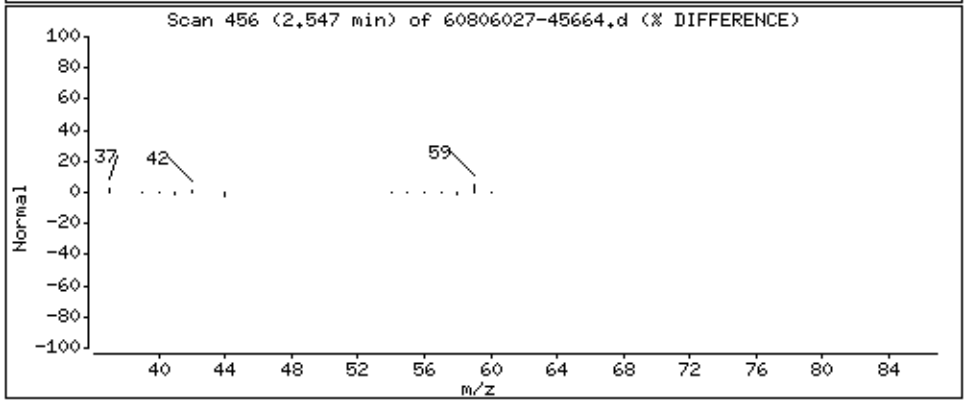












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806027-45664.d

Date : 06-AUG-2019 14:19

Client ID: MB

Instrument: 30mv6a.i

Sample Info: 1725735

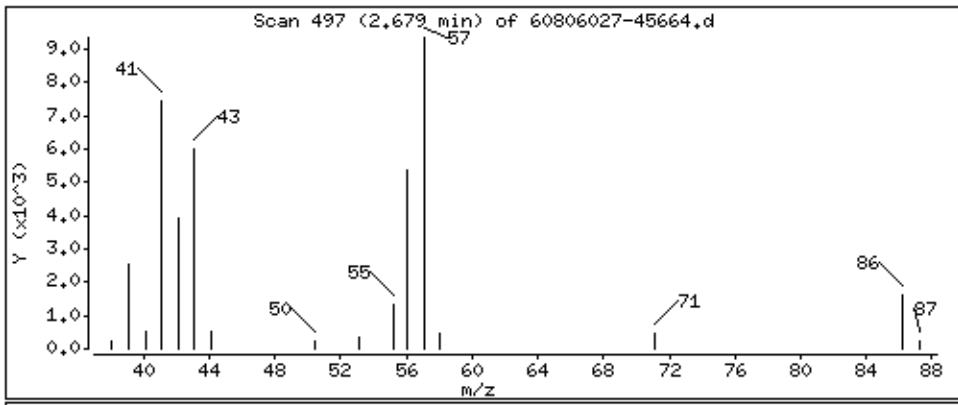
Operator: JEW

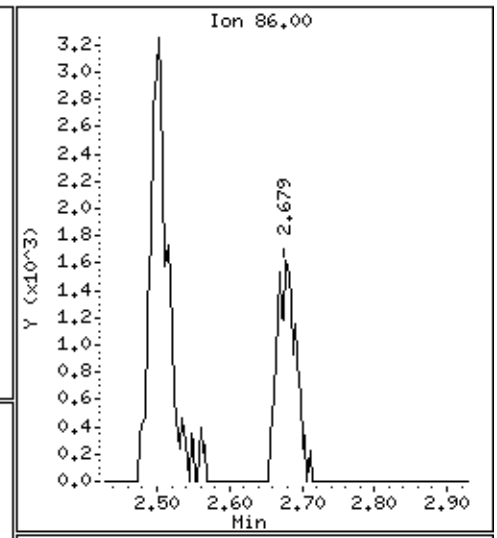
Column phase: RTX-VMS

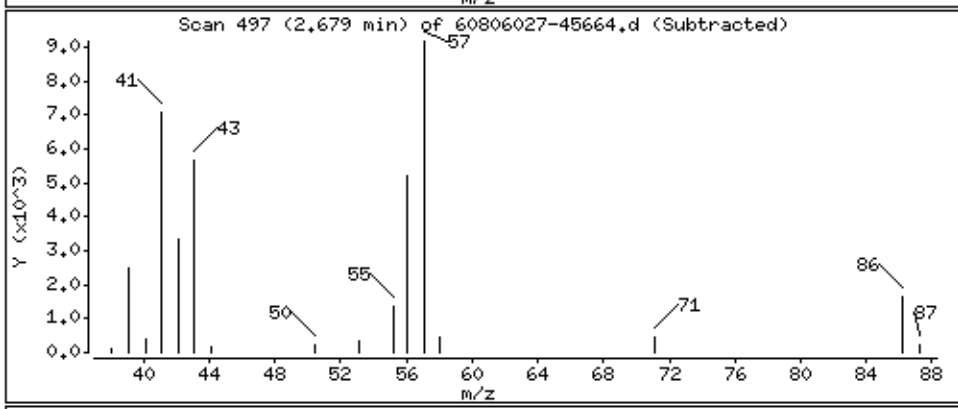
Column diameter: 0.18

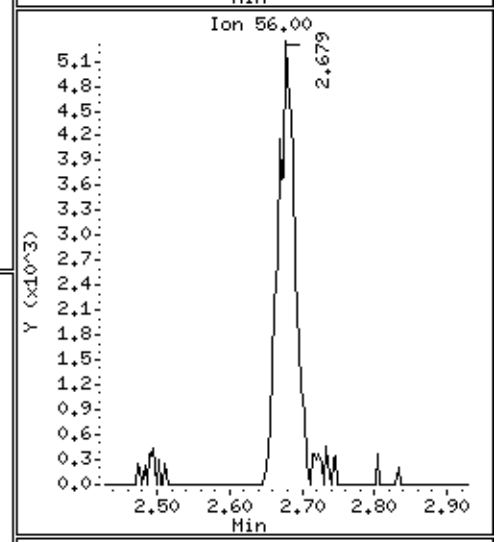
19 n-Hexane

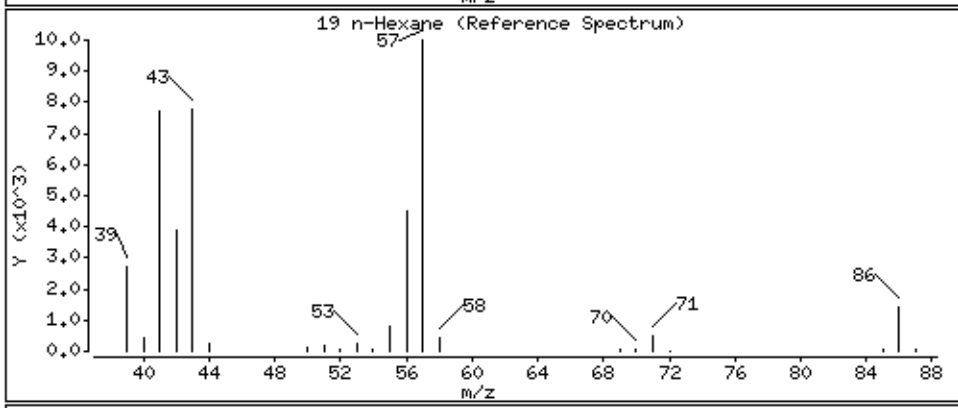
Concentration: 6.13 ug/kg

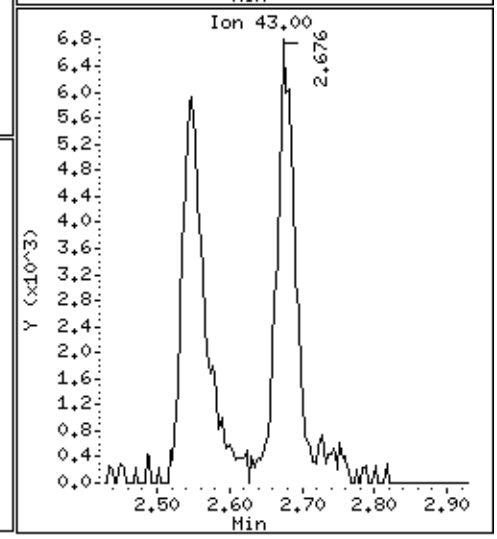


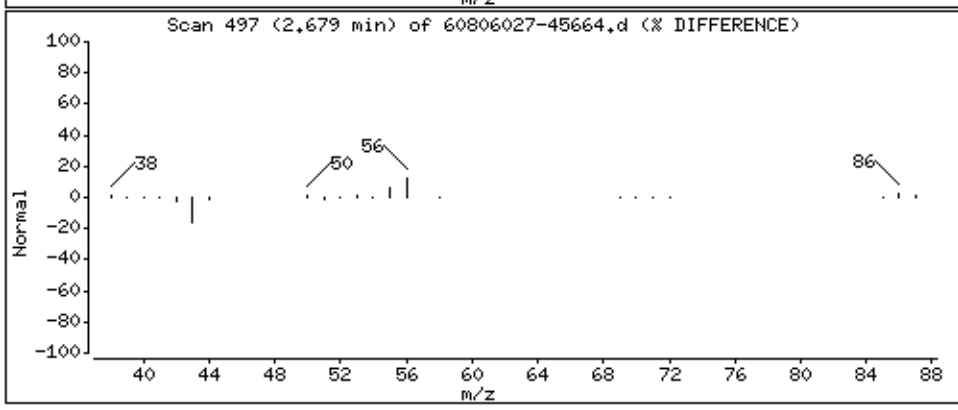






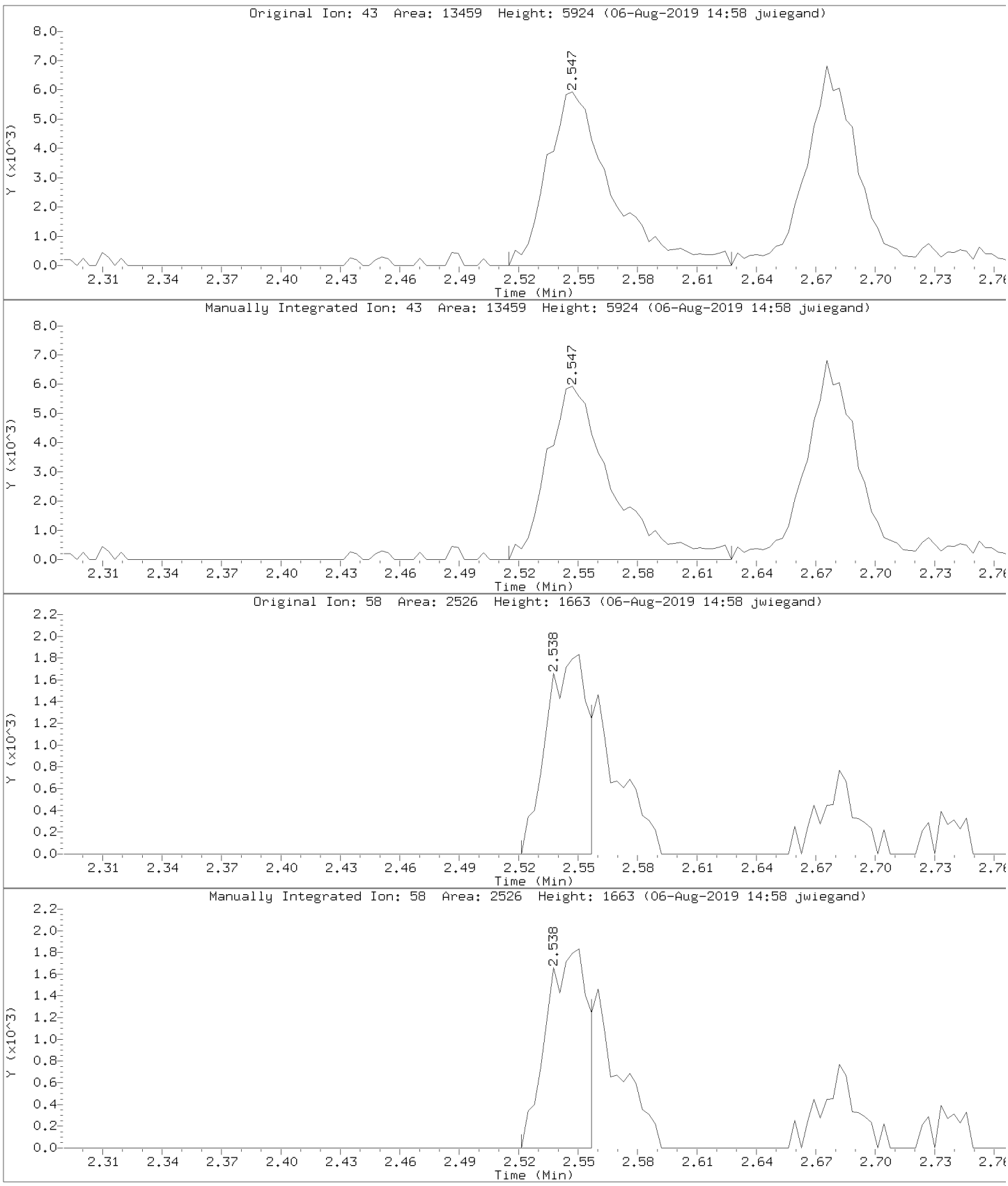






Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806027-45664.d
Injection Date: 06-AUG-2019 14:19
Instrument: 30mv6a.i
Lab Sample ID: 1725735

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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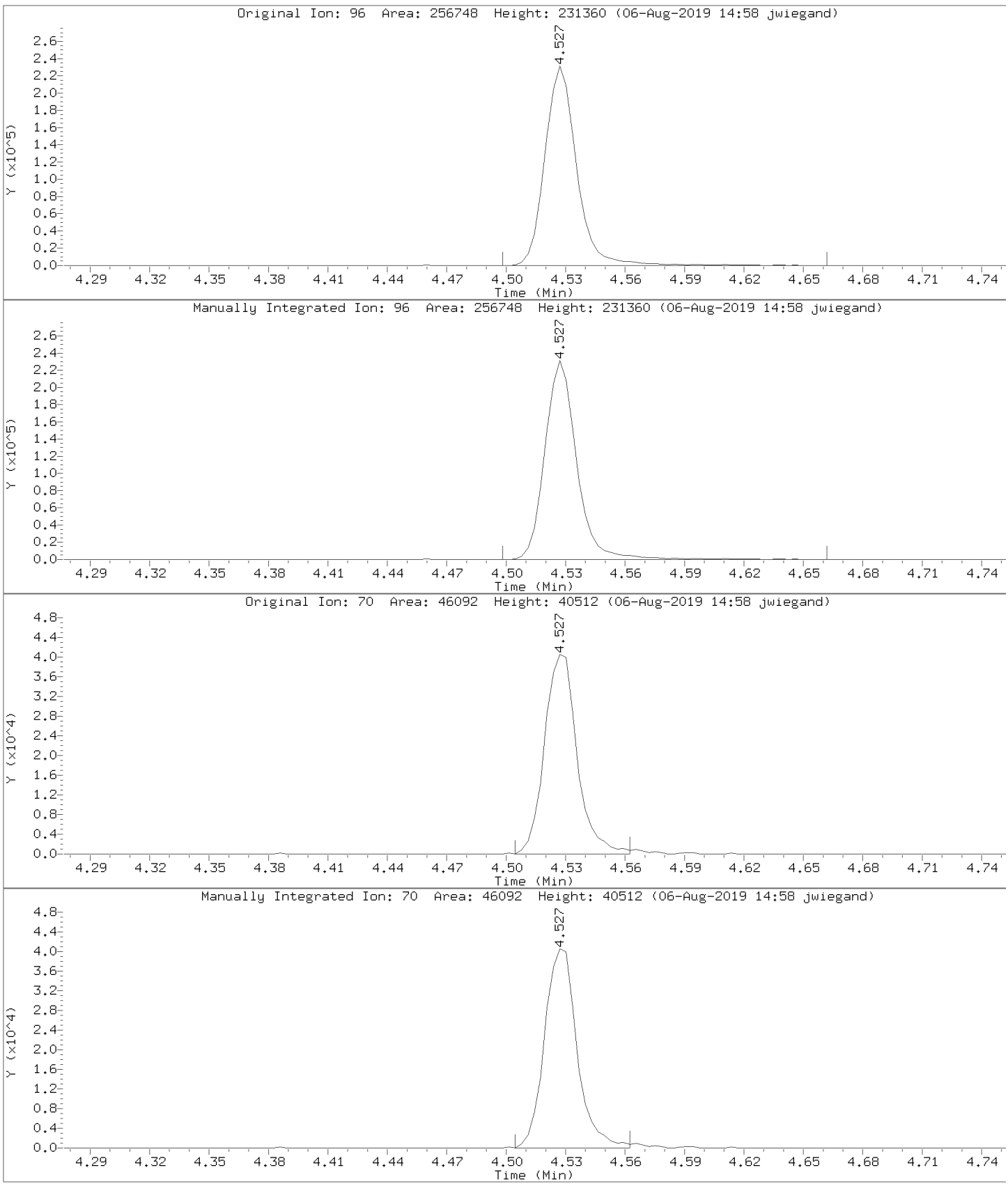
Injection Date: 06-AUG-2019 14:19
Instrument: 30mv6a.i
Lab Sample ID: 1725735

Compound: Fluorobenzene (IS) Review Code: LT
CAS Number: 462-06-6



SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh | Contract: Former EPT-Soil IRM/31401545.0

Date Received: | Matrix: Solid | SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 | Lab Sample ID: 1725736

Date Analyzed: 08/06/2019 10:52 | Lab File ID: 6190806.B\1.B\60806011-45664.D

Initial wt/vol: 5 g | Final wt/vol: 5 mL | Dilution: 1 | Instrument: 30MV6A | Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	27.2	
71-43-2	Benzene	16.1	
74-97-5	Bromochloromethane	16.3	
75-27-4	Bromodichloromethane	17.0	
75-25-2	Bromoform	15.0	
74-83-9	Bromomethane	25.5	
	TOTAL BTEX	97.6	
78-93-3	2-Butanone (MEK)	18.2	
75-15-0	Carbon disulfide	17.0	
56-23-5	Carbon tetrachloride	16.4	
108-90-7	Chlorobenzene	16.3	
75-00-3	Chloroethane	28.0	
67-66-3	Chloroform	16.9	
74-87-3	Chloromethane	21.5	
124-48-1	Dibromochloromethane	15.1	
95-50-1	1,2-Dichlorobenzene	16.1	
541-73-1	1,3-Dichlorobenzene	16.6	
106-46-7	1,4-Dichlorobenzene	16.3	
75-34-3	1,1-Dichloroethane	15.2	
107-06-2	1,2-Dichloroethane	17.1	
540-59-0	1,2-Dichloroethene (Total)	31.7	
75-35-4	1,1-Dichloroethene	13.6	
156-59-2	cis-1,2-Dichloroethene	16.2	
156-60-5	trans-1,2-Dichloroethene	15.5	
78-87-5	1,2-Dichloropropane	15.4	
10061-01-5	cis-1,3-Dichloropropene	16.0	
10061-02-6	trans-1,3-Dichloropropene	15.7	
100-41-4	Ethylbenzene	16.6	
591-78-6	2-Hexanone	18.5	
98-82-8	Isopropylbenzene (Cumene)	17.1	
75-09-2	Methylene Chloride	13.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5	
1634-04-4	Methyl-tert-butyl ether	16.4	
91-20-3	Naphthalene	17.1	
100-42-5	Styrene	15.6	
79-34-5	1,1,2,2-Tetrachloroethane	15.0	
127-18-4	Tetrachloroethene	15.7	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT-Soil IRM/31401545.0

Date Received: Matrix: Solid SDG No.: 30317212

Date Extracted: 08/06/2019 11:08 Lab Sample ID: 1725736

Date Analyzed: 08/06/2019 10:52 Lab File ID: 6190806.B\1.B\60806011-45664.D

Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
108-88-3	Toluene	15.9	
120-82-1	1,2,4-Trichlorobenzene	16.3	
71-55-6	1,1,1-Trichloroethane	16.5	
79-00-5	1,1,2-Trichloroethane	15.3	
79-01-6	Trichloroethene	16.7	
95-63-6	1,2,4-Trimethylbenzene	17.1	
108-67-8	1,3,5-Trimethylbenzene	16.6	
75-01-4	Vinyl chloride	19.6	
1330-20-7	Xylene (Total)	49.0	
179601-23-1	m&p-Xylene	33.1	
95-47-6	o-Xylene	15.9	

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d
Lab Smp Id: 1725736 Client Smp ID: MBLCS
Inj Date : 06-AUG-2019 10:52
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1725736,95834:5,,
Misc Info : 45664,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Meth Date : 06-Aug-2019 10:12 jwiegand Quant Type: ISTD
Cal Date : 22-JUL-2019 11:47 Cal File: 60722015.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.225	(0.271)	39966	30.2931	30.3(QR)	
2 Chloromethane	50	1.347	1.347	(0.298)	50540	21.5104	21.5	
3 Vinyl chloride	62	1.395	1.392	(0.308)	46356	19.6237	19.6	
4 Bromomethane	94	1.587	1.585	(0.351)	12614	25.4992	25.5	
5 Chloroethane	64	1.658	1.655	(0.366)	36686	27.9920	28.0(R)	
6 Trichlorofluoromethane	101	1.741	1.739	(0.385)	61876	25.6714	25.7	
7 Diethyl ether (Ethyl ether)	59	1.937	1.935	(0.428)	39116	16.8683	16.9	
8 Ethanol	45	2.046	2.049	(0.298)	10007		(aQR)	
9 1,1-Dichloroethene	61	2.078	2.076	(0.459)	45841	13.6462	13.6(R)	
10 1,1,2-Trichlorotrifluoroethane	151	2.101	2.095	(0.464)	24672	17.8968	17.9	
11 Carbon disulfide	76	2.104	2.101	(0.465)	94791	17.0407	17.0	
12 Iodomethane	142	2.184	2.178	(0.483)	14918	16.9928	17.0(R)	
13 Acrolein	56	2.322	2.323	(0.513)	5080	15.5305	15.5(M)	LT
14 Allyl chloride	41	2.415	2.413	(0.534)	322694	87.1046	87.1(R)	
15 Methylene Chloride	49	2.499	2.499	(0.552)	70361	13.3541	13.4(R)	
16 Acetone	43	2.550	2.541	(0.563)	32331	27.1565	27.2(RM)	LT
17 trans-1,2-Dichloroethene	61	2.627	2.624	(0.580)	50672	15.4797	15.5	
18 Methyl acetate	74	2.634	2.634	(0.582)	11110	25.0390	25.0	
19 n-Hexane	86	2.682	2.679	(0.592)	8976	15.9186	15.9(Q)	
20 Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	101827	16.3511	16.4(Q)	
21 tert-Butyl Alcohol	59	2.794	2.794	(0.617)	51284	85.9891	86.0(Q)	

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			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	22	Acetonitrile	41	2.948	2.945	(0.651)	35255	87.3172	87.3(QR)	
	23	Diisopropyl ether	45	3.048	3.048	(0.673)	116420	14.0680	14.1	
	24	Chloroprene	53	3.150	3.151	(0.696)	57442	17.5956	17.6	
	25	1,1-Dichloroethane	63	3.179	3.173	(0.702)	65842	15.2445	15.2	
	26	Acrylonitrile	53	3.240	3.247	(0.716)	16376	14.2822	14.3(QM)	LT
	27	Ethyl-tert-butyl ether	59	3.410	3.417	(0.753)	119773	15.9118	15.9	
	28	Vinyl acetate	43	3.433	3.436	(0.758)	55722	8.58976	8.59(R)	
	29	cis-1,2-Dichloroethene	61	3.721	3.722	(0.822)	56070	16.2143	16.2	
	30	2,2-Dichloropropane	77	3.805	3.802	(0.841)	51954	18.0636	18.1	
	31	Cyclohexane	56	3.869	3.869	(0.855)	70411	17.5970	17.6	
	32	Bromochloromethane	130	3.882	3.882	(0.858)	26258	16.3366	16.3	
	33	Chloroform	83	3.940	3.940	(0.870)	63277	16.9025	16.9	
	34	Carbon tetrachloride	117	4.023	4.019	(0.889)	40832	16.3629	16.4	
	35	Ethyl acetate	43	4.029	4.030	(0.890)	51359	16.8821	16.9	
	36	Tetrahydrofuran	42	4.052	4.065	(0.895)	24764	17.2742	17.3	
$	37	Dibromofluoromethane (S)	111	4.062	4.067	(0.897)	83589	32.2824	32.3	
	38	1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	53024	16.4802	16.5	
	39	2-Butanone (MEK)	43	4.148	4.155	(0.916)	32777	18.1754	18.2	
	40	1,1-Dichloropropene	75	4.151	4.152	(0.917)	42998	16.3641	16.4	
	41	Benzene	78	4.302	4.299	(0.950)	128304	16.1140	16.1	
	42	Propionitrile	54	4.328	4.325	(0.956)	10212	16.8460	16.8(Q)	
	43	Methacrylonitrile	41	4.337	4.335	(0.958)	28772	16.2110	16.2	
	44	tert-Amylmethyl ether	73	4.370	4.373	(0.965)	87952	15.3599	15.4	
$	45	1,2-Dichloroethane-d4 (S)	65	4.382	4.380	(0.968)	93284	36.8147	36.8	
	46	Isobutanol	43	4.440	4.444	(0.981)	16058	70.6061	70.6(QR)	
	47	1,2-Dichloroethane	62	4.418	4.418	(0.976)	51929	17.0527	17.0	
*	48	Fluorobenzene (IS)	96	4.527	4.527	(1.000)	302337	30.0000		
	49	Methylcyclohexane	83	4.604	4.604	(1.017)	50693	17.3089	17.3	
	50	Trichloroethene	95	4.610	4.611	(0.783)	36961	16.6559	16.6	
	51	Dibromomethane	174	4.812	4.813	(1.063)	25731	15.8317	15.8	
	52	1,2-Dichloropropane	63	4.854	4.858	(1.072)	38518	15.3809	15.4	
	53	Bromodichloromethane	83	4.883	4.887	(1.079)	44913	17.0214	17.0	
	54	Methyl methacrylate	69	4.947	4.951	(1.093)	24686	15.1261	15.1	
	55	1,4-Dioxane (p-Dioxane)	88	4.973	4.983	(1.099)	6386	161.395	161(RM)	LT
	56	2-Chloroethylvinyl ether	63	5.130	5.131	(1.133)	21605	14.9013	14.9	
	57	cis-1,3-Dichloropropene	75	5.159	5.159	(1.140)	54071	16.0147	16.0	
$	58	Toluene-d8 (S)	98	5.236	5.236	(0.889)	282591	29.3531	29.4	
	59	Toluene	91	5.255	5.259	(0.893)	142382	15.9208	15.9	
	60	2-Nitropropane	43	5.361	5.365	(1.184)	53255	74.9932	75.0(R)	
	61	4-Methyl-2-pentanone (MIBK)	43	5.412	5.416	(1.196)	54701	17.5218	17.5	
	62	Tetrachloroethene	166	5.419	5.423	(0.920)	36636	15.7113	15.7	
	63	trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	51137	15.6514	15.6	
	64	Ethyl methacrylate	41	5.486	5.487	(0.932)	41943	17.4778	17.5(Q)	
	65	1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	31468	15.2705	15.3	
	66	Dibromochloromethane	129	5.579	5.580	(0.948)	35781	15.1401	15.1	
	67	1,3-Dichloropropane	76	5.618	5.618	(0.954)	54563	15.9946	16.0	
	68	1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	34769	16.0140	16.0	
	69	2-Hexanone	43	5.756	5.760	(0.978)	46936	18.4674	18.5	
	70	Ethylbenzene	106	5.894	5.898	(1.001)	57618	16.6078	16.6	
*	71	Chlorobenzene-d5 (IS)	117	5.887	5.888	(1.000)	236626	30.0000		
	72	Chlorobenzene	112	5.894	5.894	(1.001)	105259	16.2680	16.3	
	73	1,1,1,2-Tetrachloroethane	131	5.919	5.917	(1.005)	33857	14.4081	14.4	
	74	m&p-Xylene	106	5.952	5.955	(1.011)	139974	33.1220	33.1	
	75	o-Xylene	106	6.138	6.138	(1.043)	67076	15.8610	15.9	

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	76 Styrene	104	6.157	6.161	(1.046)	113289	15.5949	15.6	
	77 Bromoform	173	6.186	6.186	(0.900)	22932	14.9753	15.0	
	78 Isopropylbenzene (Cumene)	105	6.263	6.267	(0.912)	176429	17.0606	17.1	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.398	(0.931)	99337	29.3529	29.4	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	203058	17.4233	17.4	
	81 Bromobenzene	77	6.446	6.446	(0.938)	74301	16.4756	16.5	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	44097	15.0055	15.0	
	83 1,3,5-Trimethylbenzene	105	6.513	6.514	(0.948)	145762	16.6336	16.6	
	84 2-Chlorotoluene	126	6.516	6.520	(0.949)	45089	16.3877	16.4	
	85 1,2,3-Trichloropropane	110	6.539	6.539	(0.952)	16349	16.3264	16.3	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	18324	17.2102	17.2	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	29042	68.9720	69.0(R)	
	88 4-Chlorotoluene	126	6.587	6.587	(0.959)	47492	16.2690	16.3	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	142283	17.1593	17.2	
	90 1,2,4-Trimethylbenzene	105	6.680	6.684	(0.972)	156030	17.1366	17.1	
	91 sec-Butylbenzene	105	6.728	6.729	(0.979)	197505	17.6311	17.6	
	92 p-Isopropyltoluene	119	6.783	6.783	(0.987)	187219	17.8030	17.8	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	98019	16.5670	16.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	141430	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	99862	16.3489	16.3	
	96 n-Butylbenzene	91	6.966	6.966	(1.014)	156997	17.3507	17.4	
	97 1,2-Dichlorobenzene	146	7.062	7.066	(1.028)	93561	16.0663	16.1	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	141428	29.9744	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.406	(1.078)	14936	16.0345	16.0	
	99 1,3,5-Trichlorobenzene	180	7.412	7.415	(1.079)	68039	17.1652	17.2	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	32087	15.5789	15.6	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	61393	16.3500	16.3	
	102 Naphthalene	128	7.838	7.842	(1.141)	192330	17.1417	17.1	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	57654	16.9842	17.0	
	104 2-Methylnaphthalene	142	8.297	8.298	(1.208)	100737	19.4511	19.4	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60806011-45664.d
Lab Smp Id: 1725736
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664,

Calibration Date: 06-AUG-2019
Calibration Time: 10:00
Client Smp ID: MBLCS
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	323392	161696	646784	302337	-6.51
71 Chlorobenzene-d5	242888	121444	485776	236626	-2.58
94 1,4-Dichlorobenze	151515	75758	303030	141430	-6.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1725736 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\msv6072219a.m
Misc Info: 45664,

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.0	30.3	151.47*	70-130
2 Chloromethane	20.0	21.5	107.55	70-130
3 Vinyl chloride	20.0	19.6	98.12	70-130
4 Bromomethane	20.0	25.5	127.50	70-130
5 Chloroethane	20.0	28.0	139.96*	70-130
6 Trichlorofluoromet	20.0	25.7	128.36	70-130
8 Ethanol	200	0.000	0.00*	10-175
9 1,1-Dichloroethene	20.0	13.6	68.23*	70-130
10 1,1,2-Trichlorotri	20.0	17.9	89.48	50-150
11 Carbon disulfide	20.0	17.0	85.20	70-130
12 Iodomethane	50.0	17.0	33.99*	70-130
13 Acrolein	20.0	15.5	77.65	70-130
14 Allyl chloride	50.0	87.1	174.21*	70-130
15 Methylene Chloride	20.0	13.4	66.77*	70-130
16 Acetone	20.0	27.2	135.78*	70-130
17 trans-1,2-Dichloro	20.0	15.5	77.40	70-130
18 Methyl acetate	20.0	25.0	125.20	70-130
19 n-Hexane	20.0	15.9	79.59	50-150
20 Methyl-tert-butyl	20.0	16.4	81.76	50-150
22 Acetonitrile	50.0	87.3	174.63*	70-130
23 Diisopropyl ether	20.0	14.1	70.34	70-130
24 Chloroprene	20.0	17.6	87.98	70-130
25 1,1-Dichloroethane	20.0	15.2	76.22	70-130
26 Acrylonitrile	20.0	14.3	71.41	70-130
27 Ethyl-tert-butyl e	20.0	15.9	79.56	50-150
28 Vinyl acetate	20.0	8.59	42.95*	70-130
29 cis-1,2-Dichloroet	20.0	16.2	81.07	70-130
30 2,2-Dichloropropan	20.0	18.1	90.32	70-130
31 Cyclohexane	20.0	17.6	87.98	70-130
32 Bromochloromethane	20.0	16.3	81.68	70-130
33 Chloroform	20.0	16.9	84.51	70-130
34 Carbon tetrachlori	20.0	16.4	81.81	70-130
35 Ethyl acetate	20.0	16.9	84.41	70-130
36 Tetrahydrofuran	20.0	17.3	86.37	70-130
38 1,1,1-Trichloroeth	20.0	16.5	82.40	70-130
39 2-Butanone (MEK)	20.0	18.2	90.88	50-150
40 1,1-Dichloropropen	20.0	16.4	81.82	70-130
41 Benzene	20.0	16.1	80.57	70-130
42 Propionitrile	20.0	16.8	84.23	70-130
43 Methacrylonitrile	20.0	16.2	81.05	70-130

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SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl et	20.0	15.4	76.80	50-150
46 Isobutanol	20.0	70.6	353.03*	70-130
47 1,2-Dichloroethane	20.0	17.0	85.26	70-130
49 Methylcyclohexane	20.0	17.3	86.54	70-130
50 Trichloroethene	20.0	16.6	83.28	70-130
51 Dibromomethane	20.0	15.8	79.16	70-130
52 1,2-Dichloropropan	20.0	15.4	76.90	70-130
53 Bromodichlorometha	20.0	17.0	85.11	70-130
54 Methyl methacrylat	20.0	15.1	75.63	70-130
55 1,4-Dioxane (p-Dio	20.0	161	806.98*	50-150
56 2-Chloroethylvinyl	20.0	14.9	74.51	50-150
57 cis-1,3-Dichloropr	20.0	16.0	80.07	70-130
59 Toluene	20.0	15.9	79.60	70-130
60 2-Nitropropane	50.0	75.0	149.99*	70-130
61 4-Methyl-2-pentano	20.0	17.5	87.61	50-150
62 Tetrachloroethene	20.0	15.7	78.56	70-130
63 trans-1,3-Dichloro	20.0	15.6	78.26	70-130
64 Ethyl methacrylate	20.0	17.5	87.39	70-130
65 1,1,2-Trichloroeth	20.0	15.3	76.35	70-130
66 Dibromochlorometha	20.0	15.1	75.70	70-130
67 1,3-Dichloropropan	20.0	16.0	79.97	70-130
69 2-Hexanone	20.0	18.5	92.34	70-130
70 Ethylbenzene	20.0	16.6	83.04	70-130
72 Chlorobenzene	20.0	16.3	81.34	70-130
73 1,1,1,2-Tetrachlor	20.0	14.4	72.04	70-130
74 m&p-Xylene	40.0	33.1	82.81	50-150
75 o-Xylene	20.0	15.9	79.30	70-130
76 Styrene	20.0	15.6	77.97	70-130
77 Bromoform	20.0	15.0	74.88	70-130
80 n-Propylbenzene	20.0	17.4	87.12	70-130
81 Bromobenzene	20.0	16.5	82.38	70-130
82 1,1,2,2-Tetrachlor	20.0	15.0	75.03	70-130
83 1,3,5-Trimethylben	20.0	16.6	83.17	70-130
84 2-Chlorotoluene	20.0	16.4	81.94	70-130
85 1,2,3-Trichloropro	20.0	16.3	81.63	70-130
86 trans-1,4-Dichloro	20.0	17.2	86.05	50-150
87 Cyclohexanone	50.0	69.0	137.94*	70-130
88 4-Chlorotoluene	20.0	16.3	81.34	70-130
90 1,2,4-Trimethylben	20.0	17.1	85.68	70-130
92 p-Isopropyltoluene	20.0	17.8	89.02	50-150
93 1,3-Dichlorobenzen	20.0	16.6	82.84	70-130
95 1,4-Dichlorobenzen	20.0	16.3	81.74	70-130
97 1,2-Dichlorobenzen	20.0	16.1	80.33	70-130
98 1,2-Dibromo-3-chlo	20.0	16.0	80.17	70-130
100 Hexachloro-1,3-but	20.0	15.6	77.89	50-150
101 1,2,4-Trichloroben	20.0	16.3	81.75	70-130
102 Naphthalene	20.0	17.1	85.71	70-130
103 1,2,3-Trichloroben	20.0	17.0	84.92	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	32.3	107.61	70-130

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SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	36.8	122.72	83-138
$ 58 Toluene-d8 (S)	30.0	29.4	97.84	73-124
$ 79 4-Bromofluorobenze	30.0	29.4	97.84	71-124
$ 161 1,2-Dichlorobenzen	30.0	30.0	99.91	10-200

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Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1725736
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45664,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 06-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	30.3	
74-87-3	Chloromethane	21.5	
75-01-4	Vinyl chloride	19.6	
74-83-9	Bromomethane	25.5	
75-00-3	Chloroethane	28.0	
75-69-4	Trichlorofluoromethane	25.7	
60-29-7	Diethyl ether (Ethyl ether)	16.9	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	13.6	
76-13-1	1,1,2-Trichlorotrifluoroetha	17.9	
75-15-0	Carbon disulfide	17.0	
74-88-4	Iodomethane	17.0	
107-02-8	Acrolein	15.5	
107-05-1	Allyl chloride	87.1	
75-09-2	Methylene Chloride	13.4	
67-64-1	Acetone	27.2	
156-60-5	trans-1,2-Dichloroethene	15.5	
79-20-9	Methyl acetate	25.0	
110-54-3	n-Hexane	15.9	
1634-04-4	Methyl-tert-butyl ether	16.4	
75-65-0	tert-Butyl Alcohol	86.0	
75-05-8	Acetonitrile	87.3	
108-20-3	Diisopropyl ether	14.1	
126-99-8	Chloroprene	17.6	
75-34-3	1,1-Dichloroethane	15.2	
107-13-1	Acrylonitrile	14.3	
637-92-3	Ethyl-tert-butyl ether	15.9	
108-05-4	Vinyl acetate	8.59	
156-59-2	cis-1,2-Dichloroethene	16.2	
594-20-7	2,2-Dichloropropane	18.1	
110-82-7	Cyclohexane	17.6	
74-97-5	Bromochloromethane	16.3	
67-66-3	Chloroform	16.9	
56-23-5	Carbon tetrachloride	16.4	
141-78-6	Ethyl acetate	16.9	
109-99-9	Tetrahydrofuran	17.3	
71-55-6	1,1,1-Trichloroethane	16.5	
78-93-3	2-Butanone (MEK)	18.2	
563-58-6	1,1-Dichloropropene	16.4	
71-43-2	Benzene	16.1	
107-12-0	Propionitrile	16.8	
126-98-7	Methacrylonitrile	16.2	

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d
Report Date: 07-Aug-2019 08:14

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1725736
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45664,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 06-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	15.4	
78-83-1	Isobutanol	70.6	
107-06-2	1,2-Dichloroethane	17.0	
108-87-2	Methylcyclohexane	17.3	
79-01-6	Trichloroethene	16.6	
74-95-3	Dibromomethane	15.8	
78-87-5	1,2-Dichloropropane	15.4	
75-27-4	Bromodichloromethane	17.0	
80-62-6	Methyl methacrylate	15.1	
123-91-1	1,4-Dioxane (p-Dioxane)	161	
110-75-8	2-Chloroethylvinyl ether	14.9	
10061-01-5	cis-1,3-Dichloropropene	16.0	
108-88-3	Toluene	15.9	
79-46-9	2-Nitropropane	75.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5	
127-18-4	Tetrachloroethene	15.7	
10061-02-6	trans-1,3-Dichloropropene	15.6	
97-63-2	Ethyl methacrylate	17.5	
79-00-5	1,1,2-Trichloroethane	15.3	
124-48-1	Dibromochloromethane	15.1	
142-28-9	1,3-Dichloropropane	16.0	
106-93-4	1,2-Dibromoethane (EDB)	16.0	
591-78-6	2-Hexanone	18.5	
100-41-4	Ethylbenzene	16.6	
108-90-7	Chlorobenzene	16.3	
630-20-6	1,1,1,2-Tetrachloroethane	14.4	
7816-60-0	m&p-Xylene	33.1	
95-47-6	o-Xylene	15.9	
100-42-5	Styrene	15.6	
75-25-2	Bromoform	15.0	
98-82-8	Isopropylbenzene (Cumene)	17.1	
103-65-1	n-Propylbenzene	17.4	
108-86-1	Bromobenzene	16.5	
79-34-5	1,1,2,2-Tetrachloroethane	15.0	
108-67-8	1,3,5-Trimethylbenzene	16.6	
95-49-8	2-Chlorotoluene	16.4	
96-18-4	1,2,3-Trichloropropane	16.3	
110-57-6	trans-1,4-Dichloro-2-butene	17.2	
108-94-1	Cyclohexanone	69.0	
106-43-4	4-Chlorotoluene	16.3	
98-06-6	tert-Butylbenzene	17.2	
95-63-6	1,2,4-Trimethylbenzene	17.1	

Data File: ...arget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d
Report Date: 07-Aug-2019 08:14

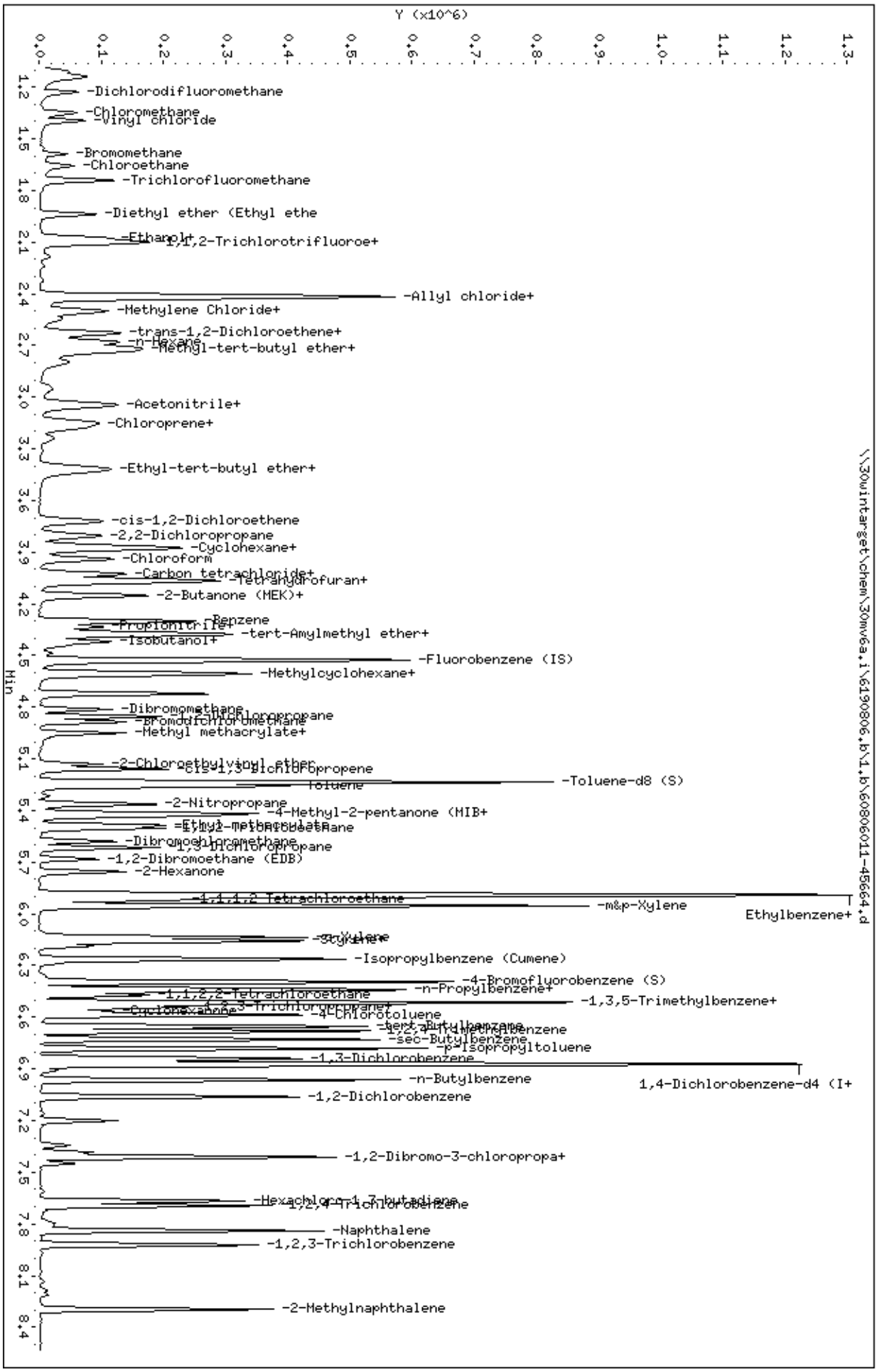
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1725736
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45664,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 06-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	17.6	
99-87-6	p-Isopropyltoluene	17.8	
541-73-1	1,3-Dichlorobenzene	16.6	
106-46-7	1,4-Dichlorobenzene	16.3	
104-51-8	n-Butylbenzene	17.4	
95-50-1	1,2-Dichlorobenzene	16.1	
96-12-8	1,2-Dibromo-3-chloropropane	16.0	
108-70-3	1,3,5-Trichlorobenzene	17.2	
87-68-3	Hexachloro-1,3-butadiene	15.6	
120-82-1	1,2,4-Trichlorobenzene	16.3	
91-20-3	Naphthalene	17.1	
87-61-6	1,2,3-Trichlorobenzene	17.0	
91-57-6	2-Methylnaphthalene	19.4	
1868-53-7	Dibromofluoromethane (S)	32.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	36.8	
2037-26-5	Toluene-d8 (S)	29.4	
460-00-4	4-Bromofluorobenzene (S)	29.4	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 06-AUG-2019 10:52
Client ID: HBLCS
Sample Info: 1725736,95834:5,,
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Propionitrile+
Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

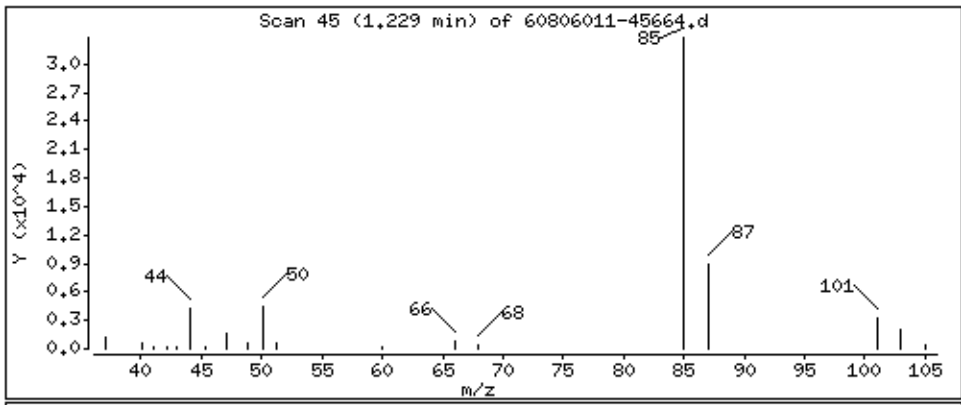
Operator: JEW

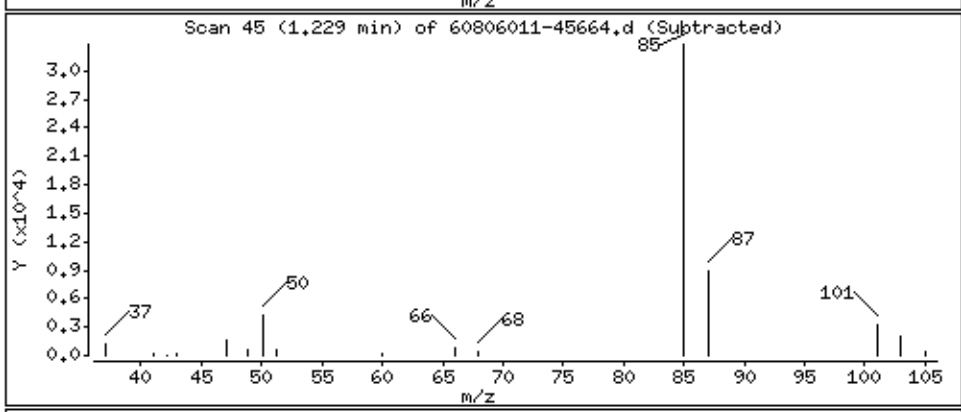
Column phase: RTX-VMS

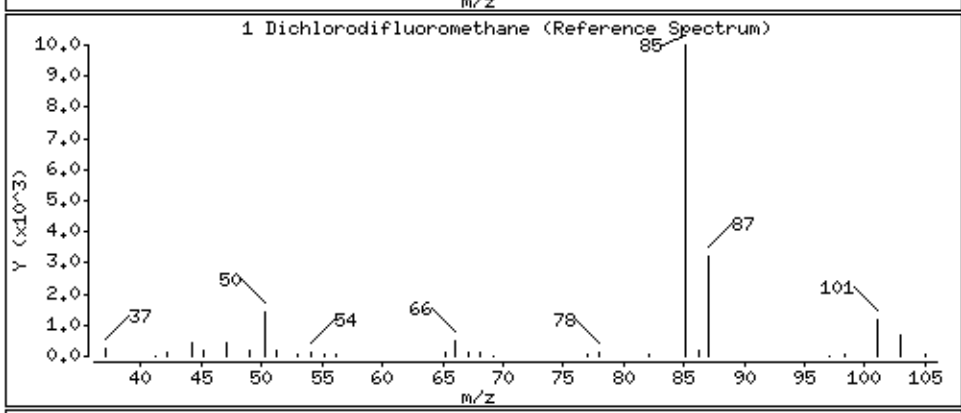
Column diameter: 0.18

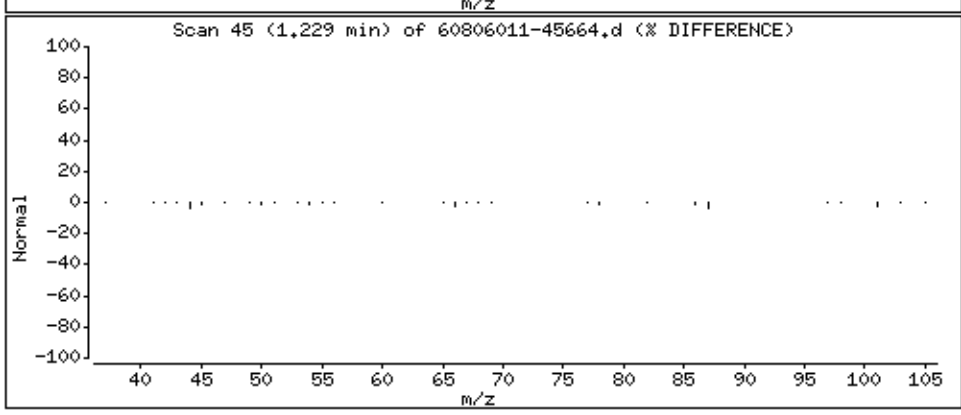
1 Dichlorodifluoromethane

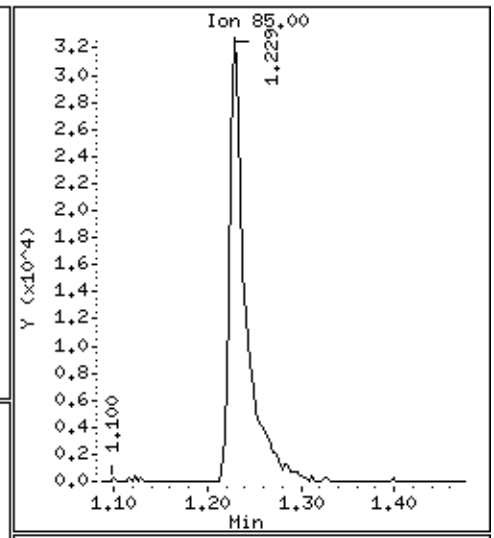
Concentration: 30.3 ug/kg

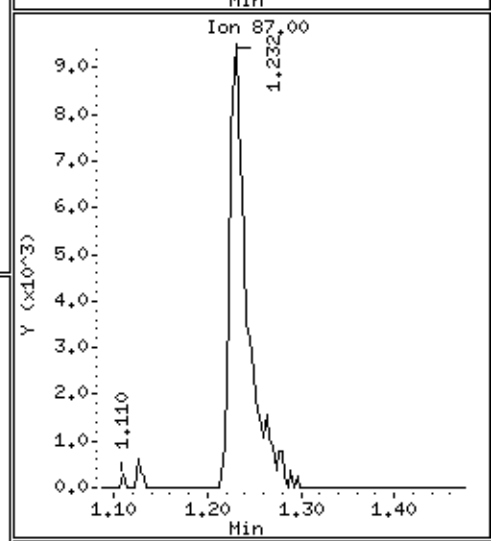


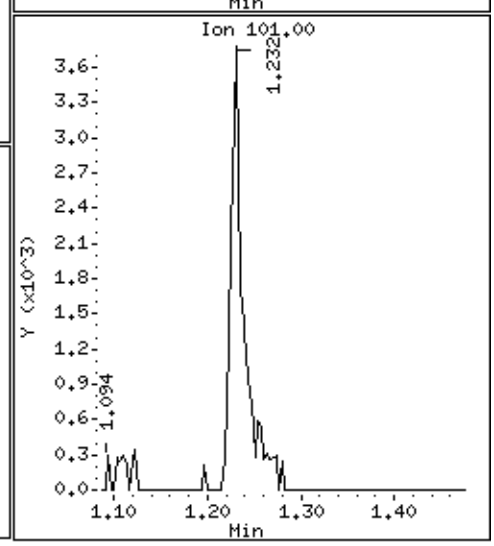












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

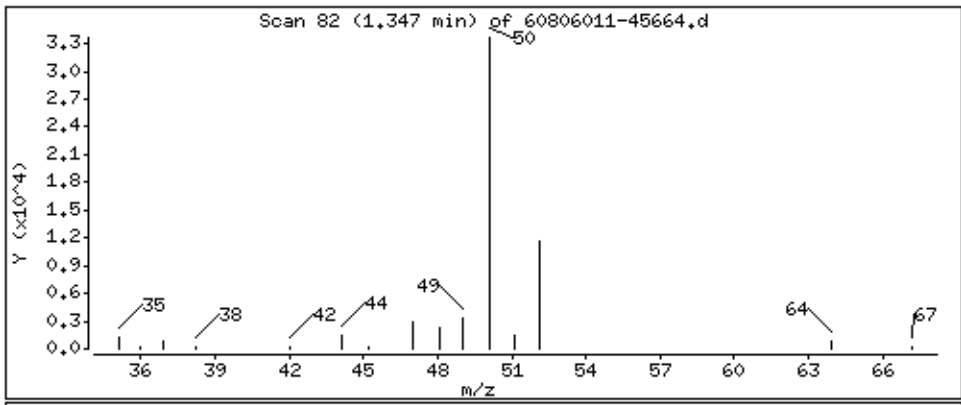
Operator: JEW

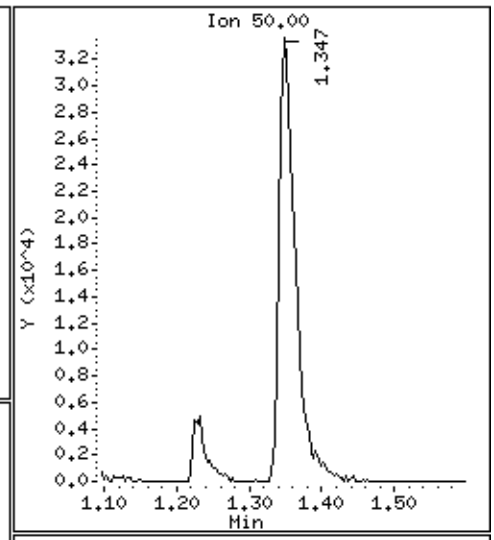
Column phase: RTX-VMS

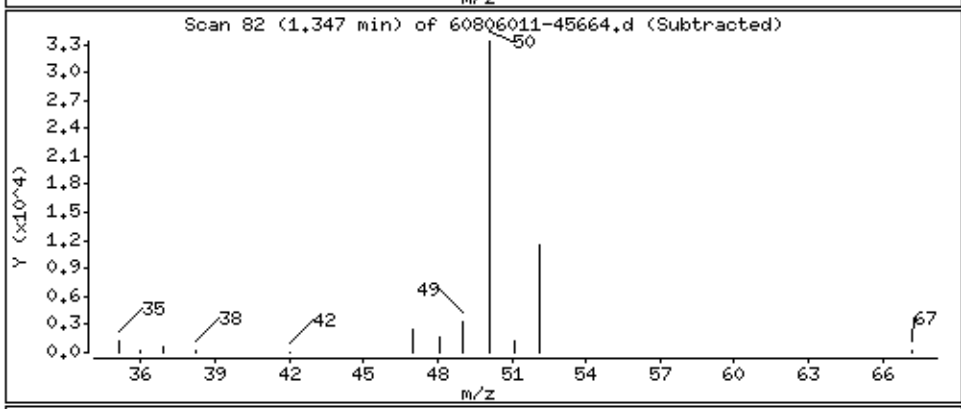
Column diameter: 0.18

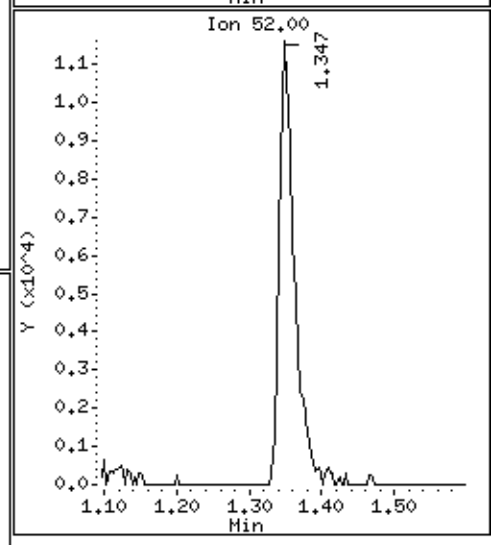
2 Chloromethane

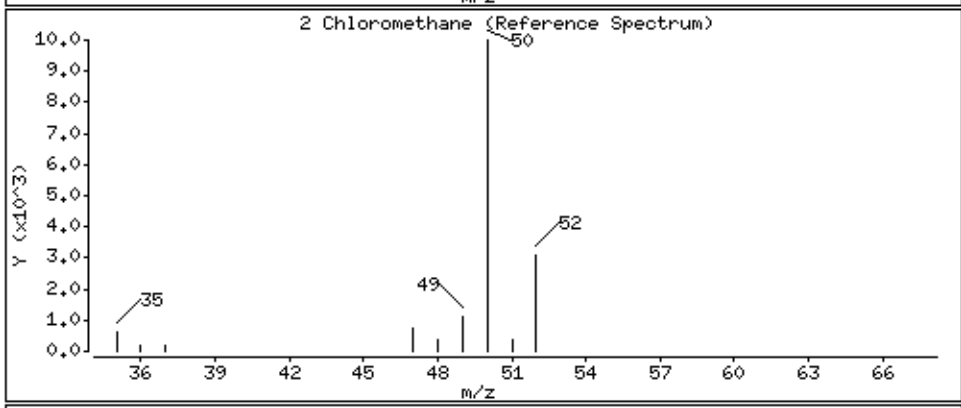
Concentration: 21.5 ug/kg

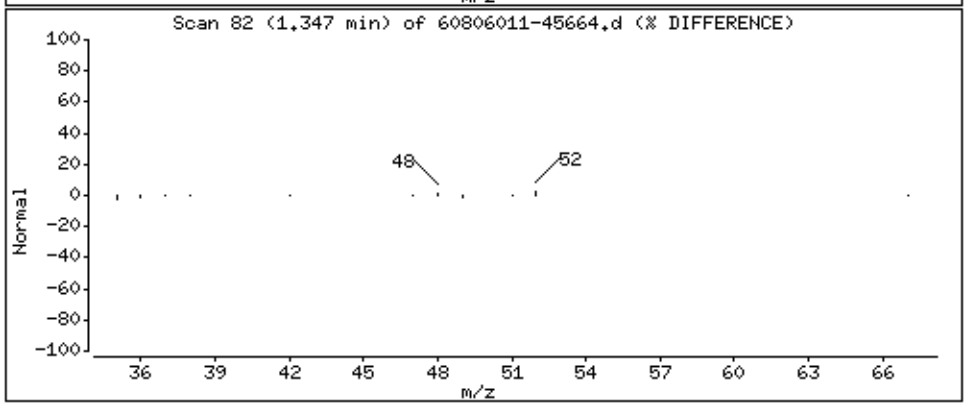












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

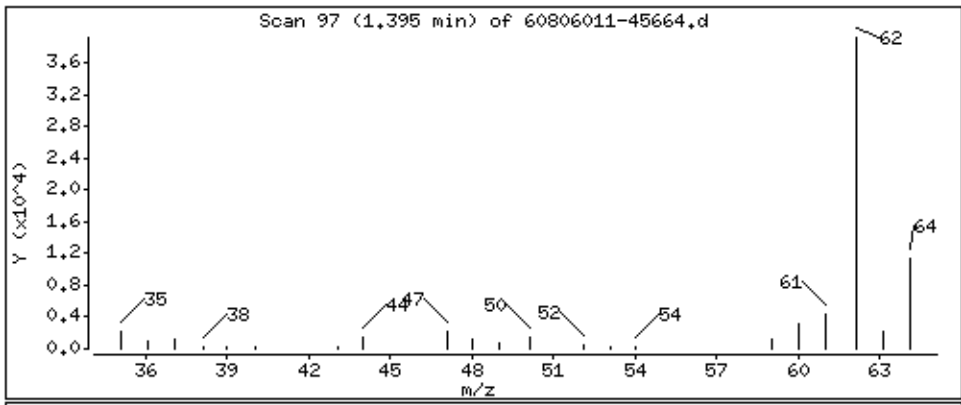
Operator: JEW

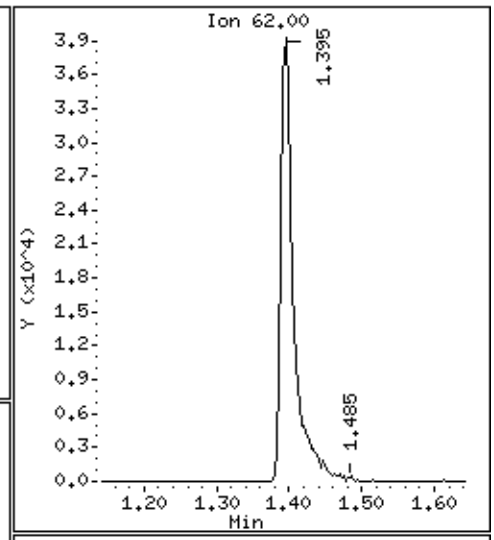
Column phase: RTX-VMS

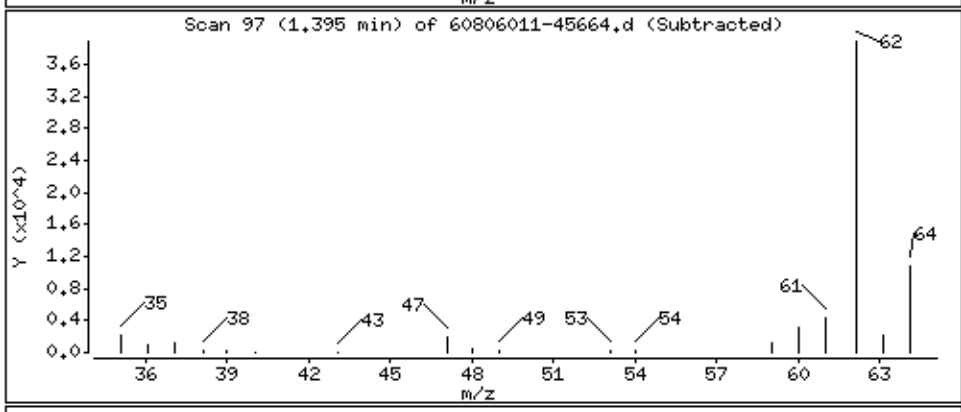
Column diameter: 0.18

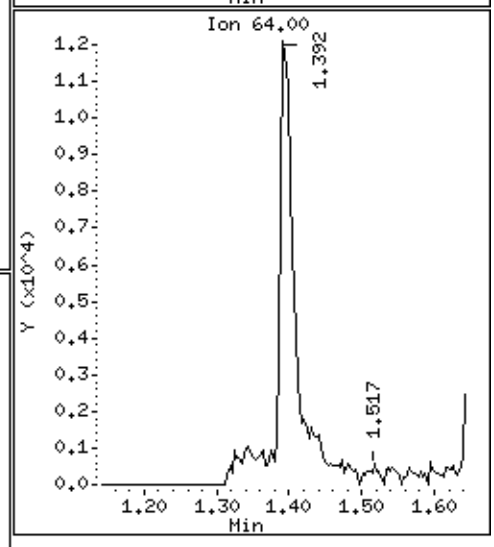
3 Vinyl chloride

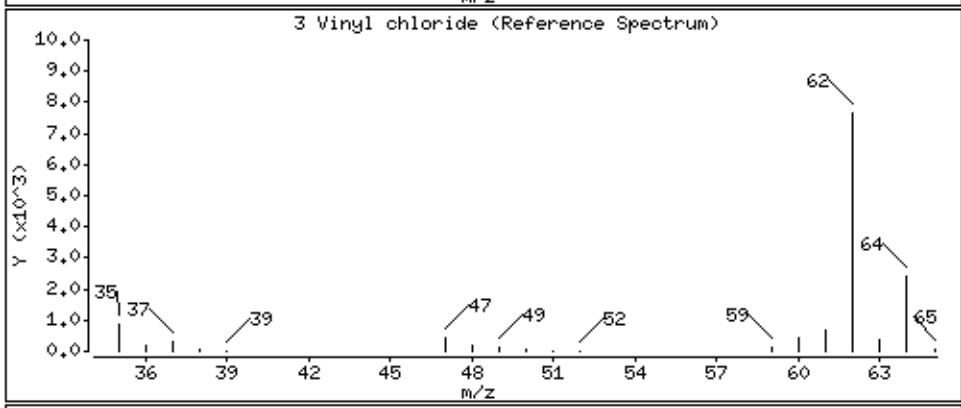
Concentration: 19.6 ug/kg

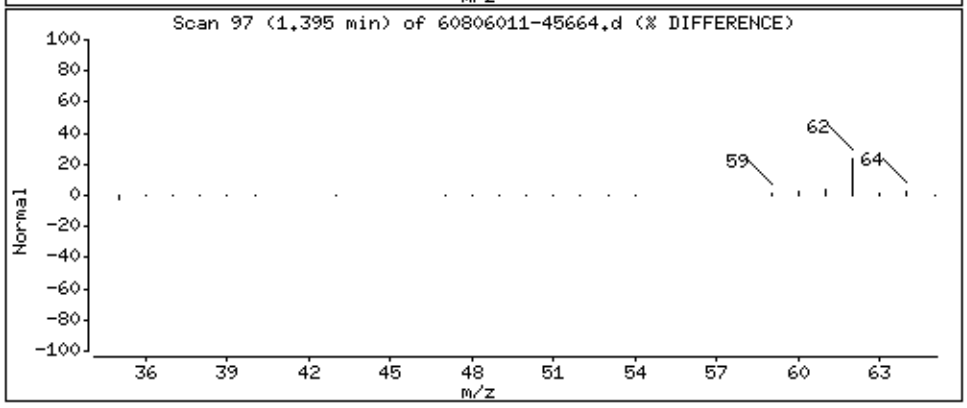












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

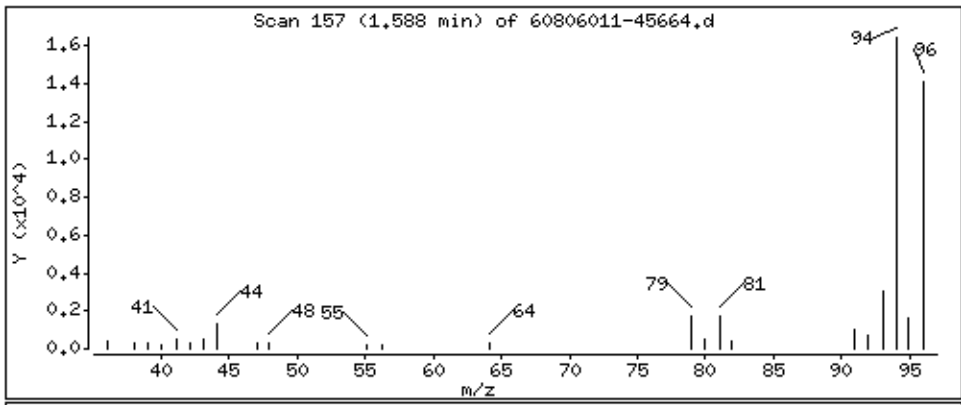
Operator: JEW

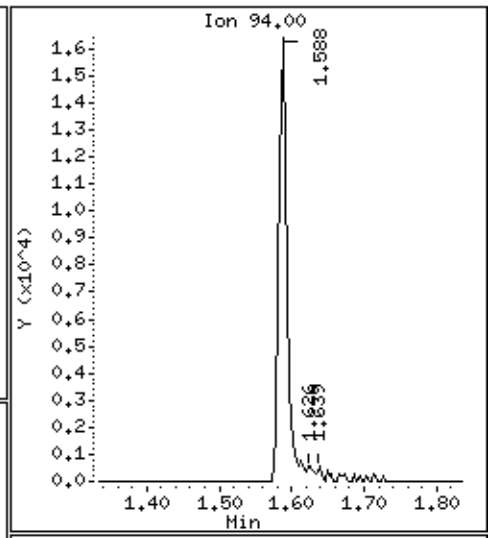
Column phase: RTX-VMS

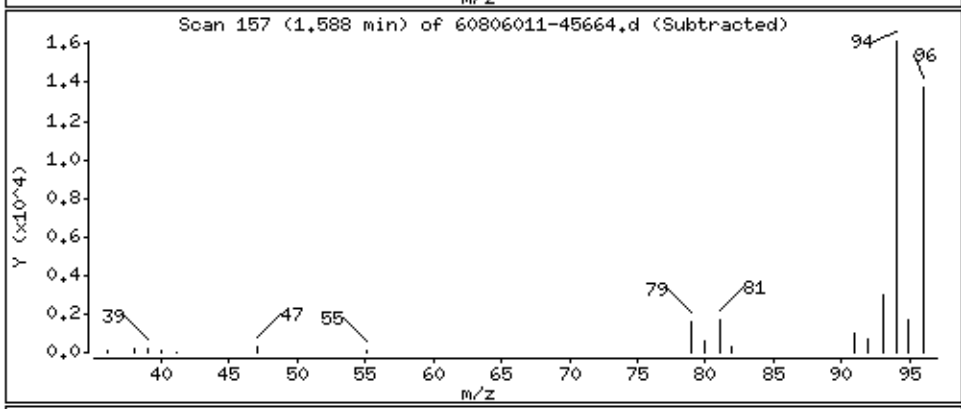
Column diameter: 0.18

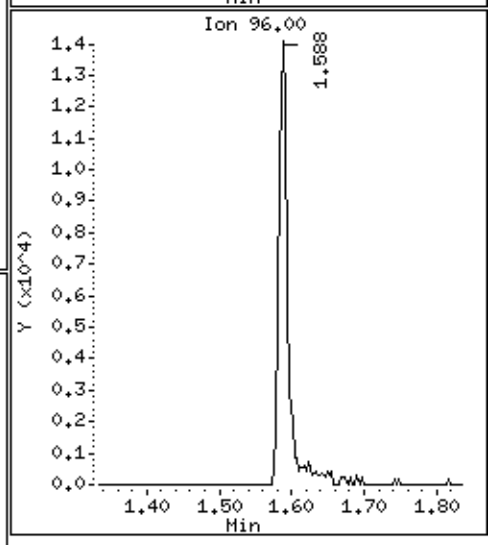
4 Bromomethane

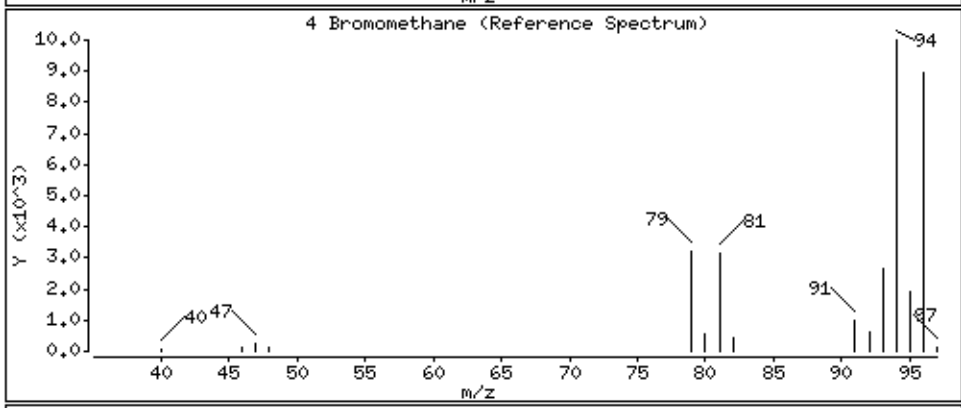
Concentration: 25.5 ug/kg

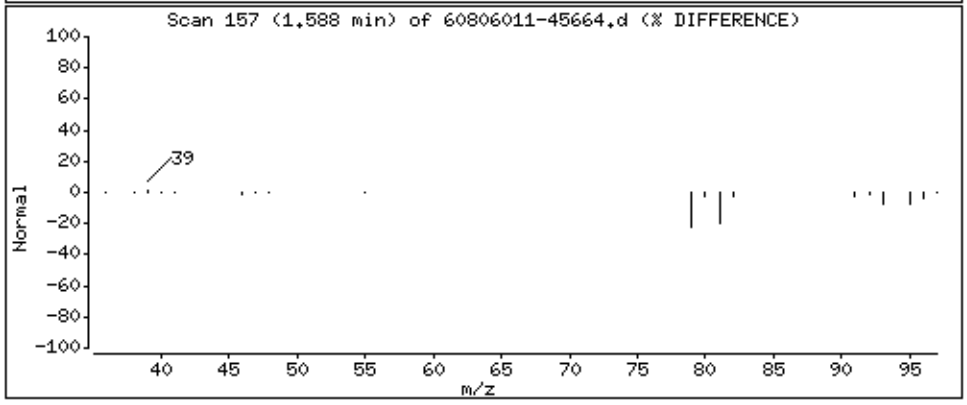












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

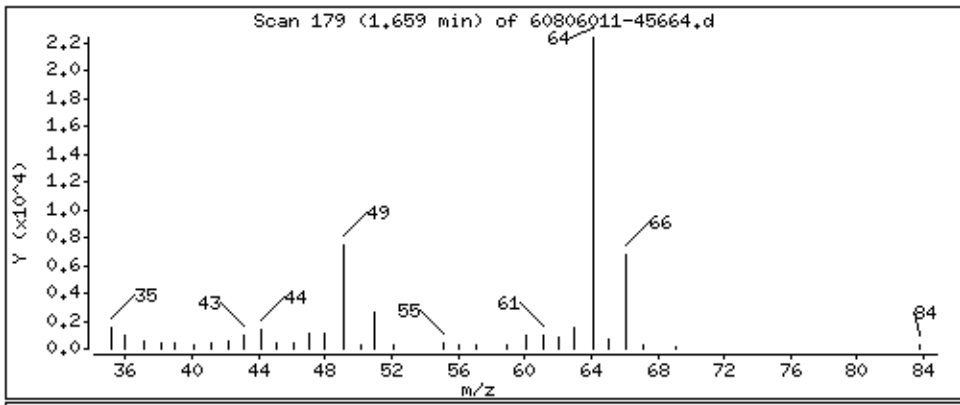
Operator: JEW

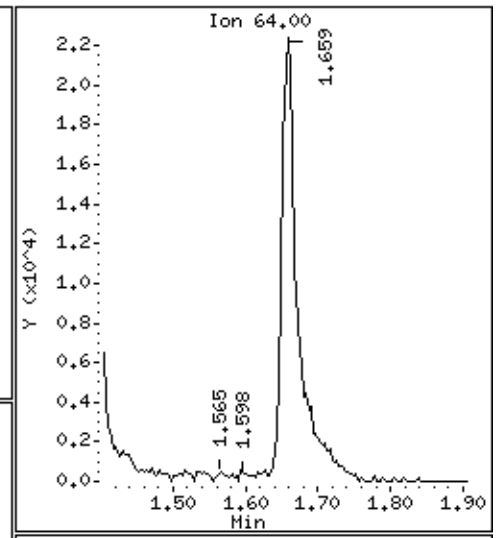
Column phase: RTX-VMS

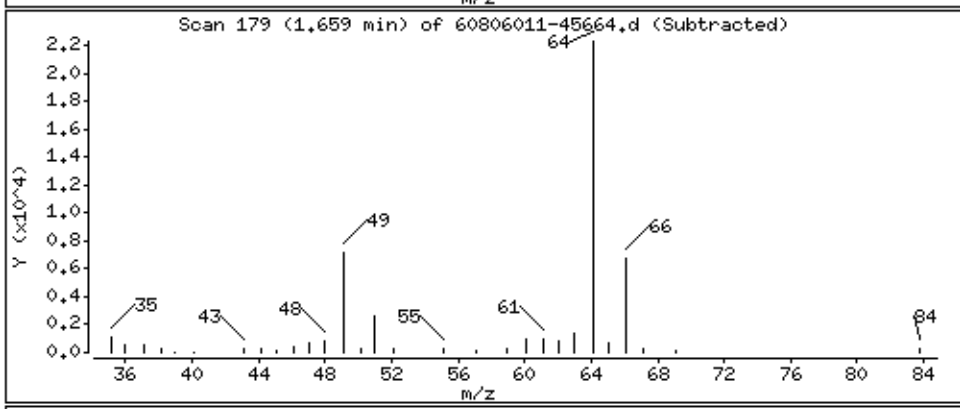
Column diameter: 0.18

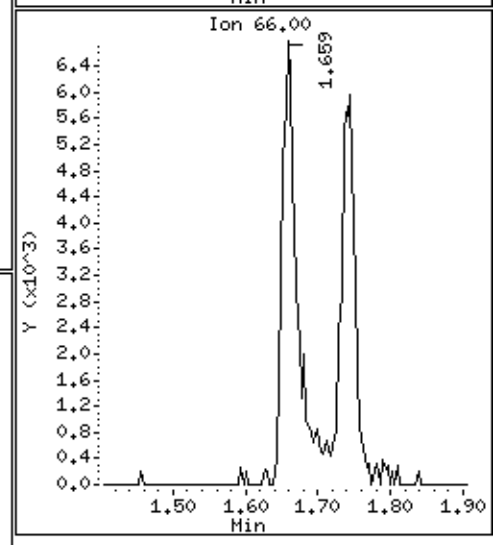
5 Chloroethane

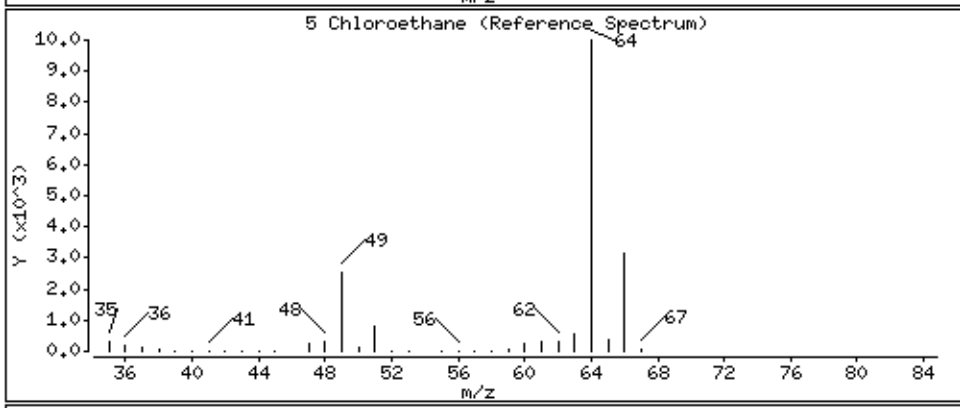
Concentration: 28.0 ug/kg

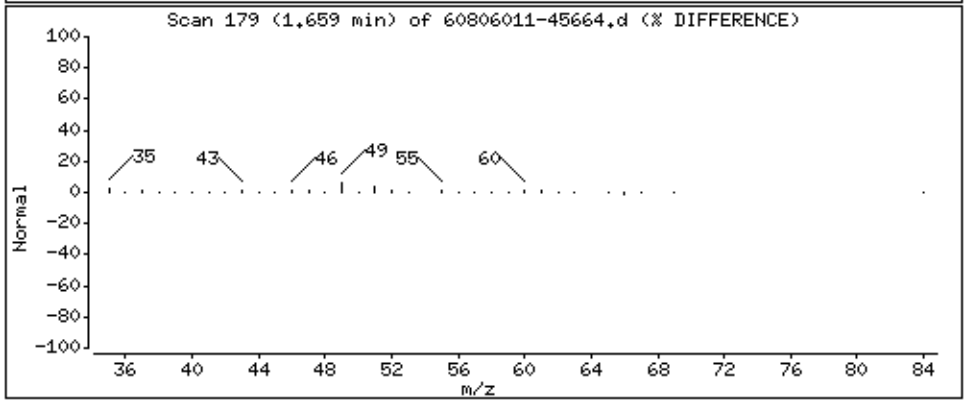












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

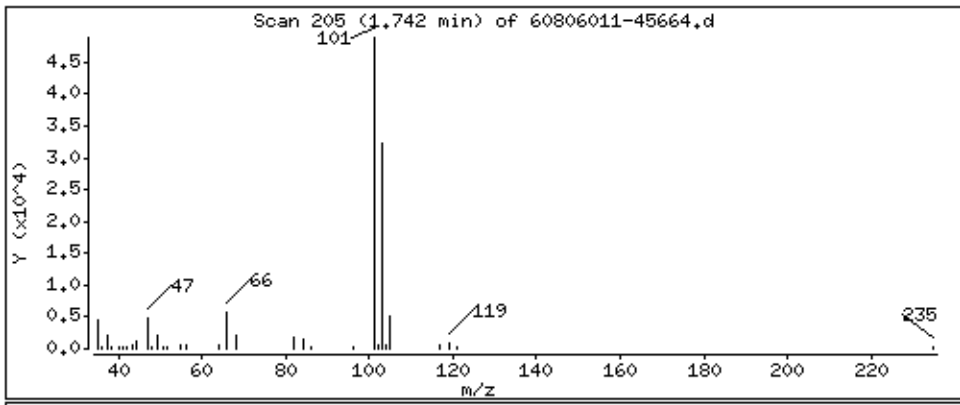
Operator: JEW

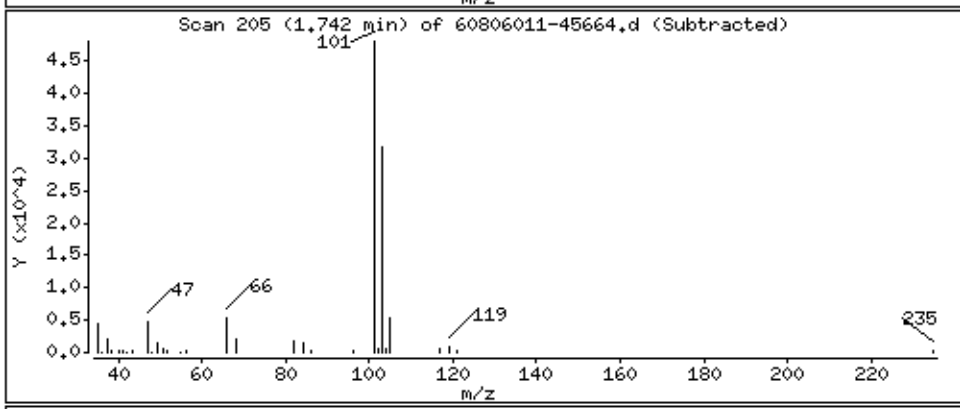
Column phase: RTX-VMS

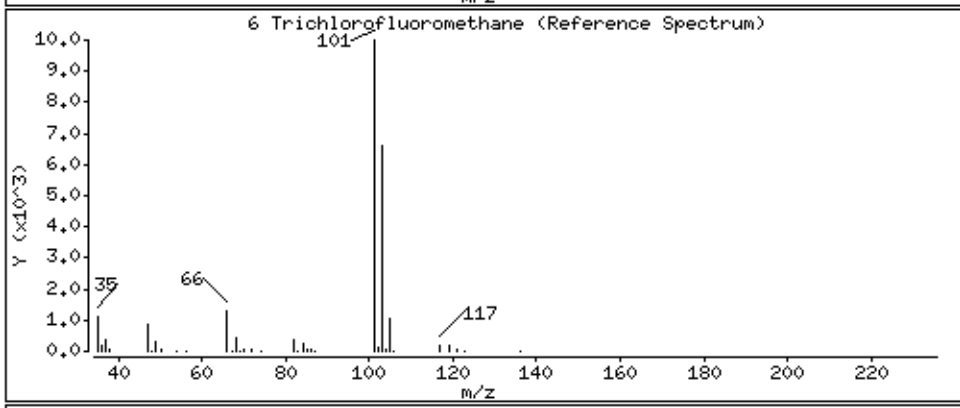
Column diameter: 0.18

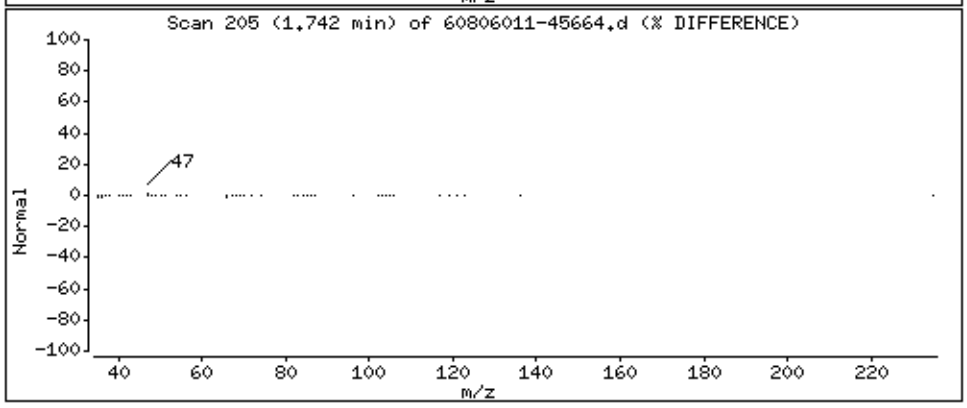
6 Trichlorofluoromethane

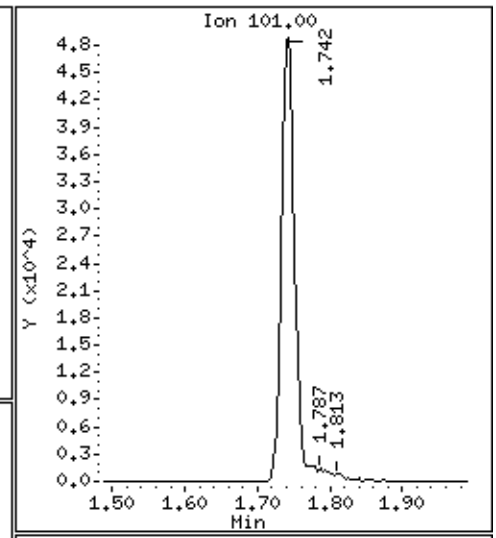
Concentration: 25.7 ug/kg

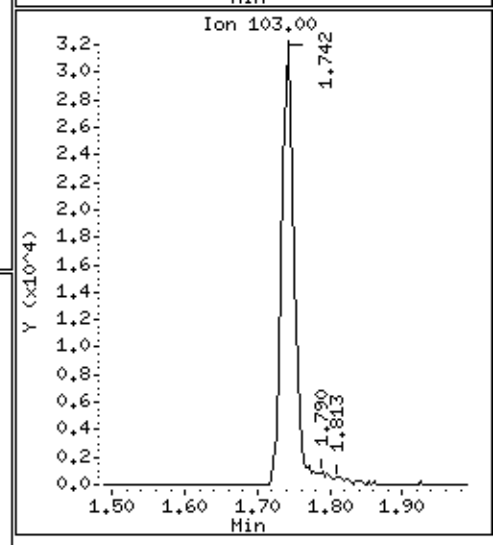












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

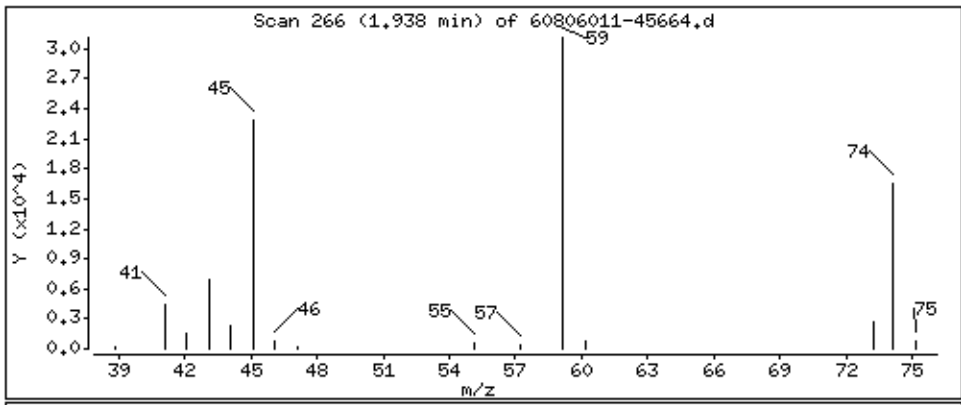
Operator: JEW

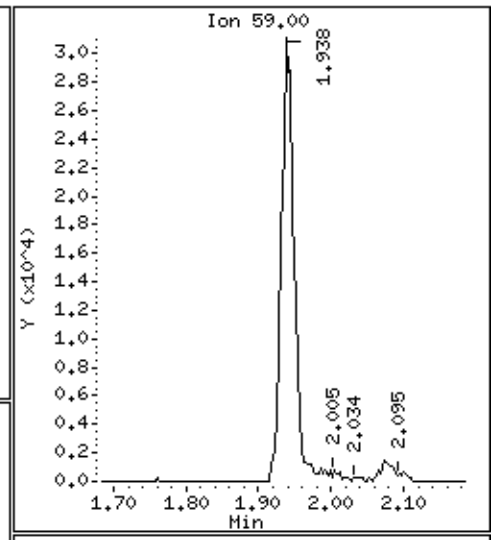
Column phase: RTX-VMS

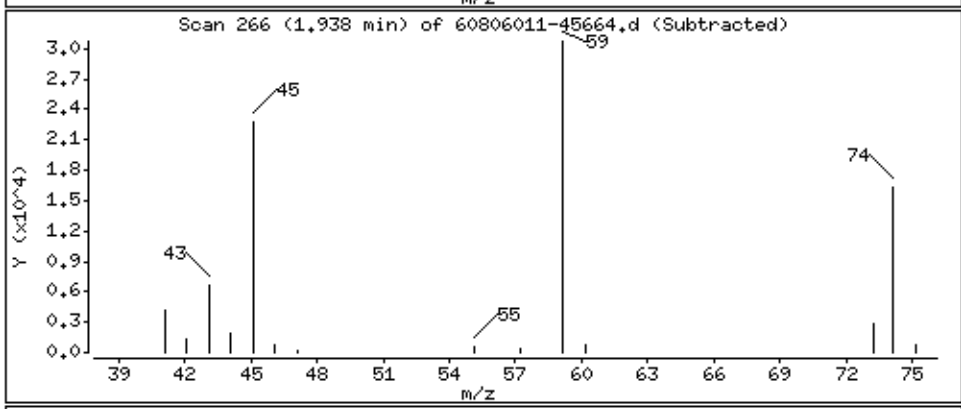
Column diameter: 0.18

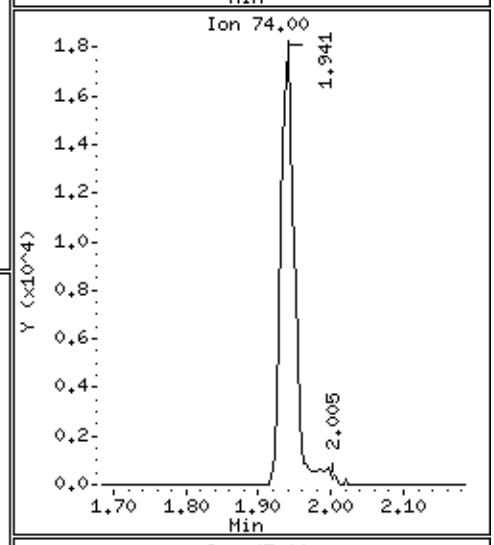
7 Diethyl ether (Ethyl ether)

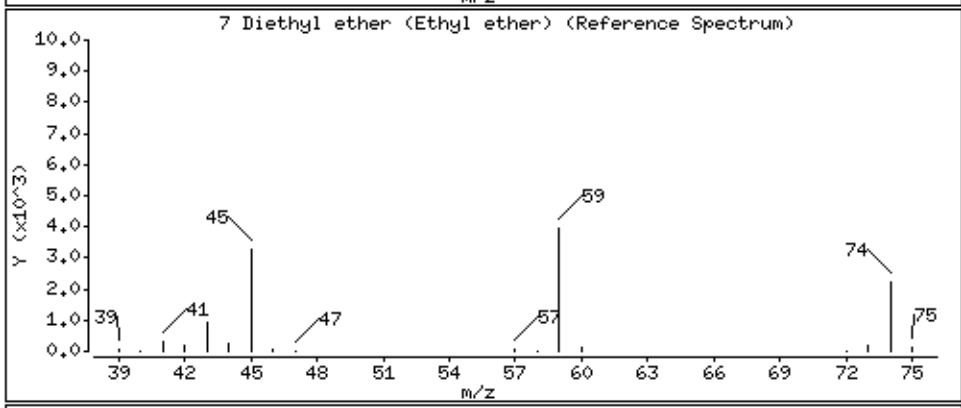
Concentration: 16.9 ug/kg

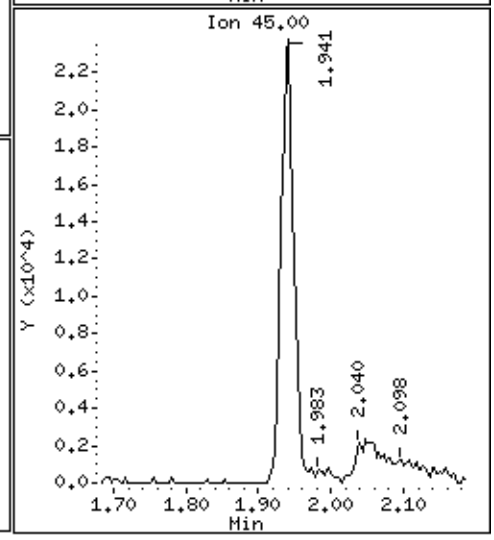


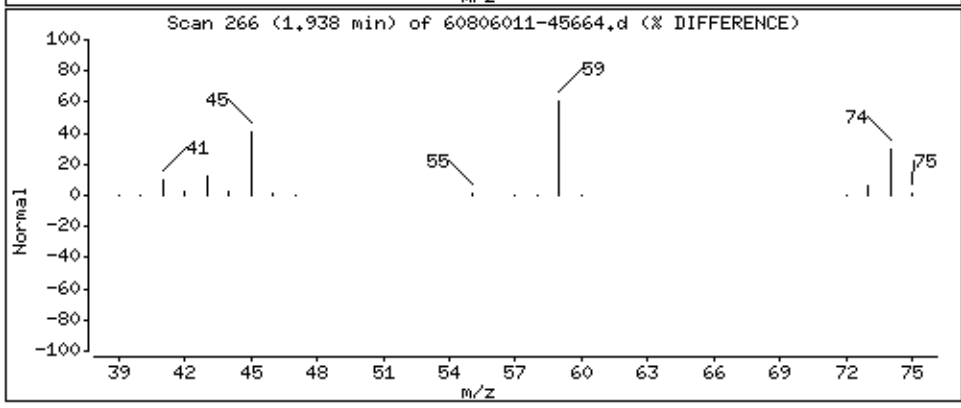












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

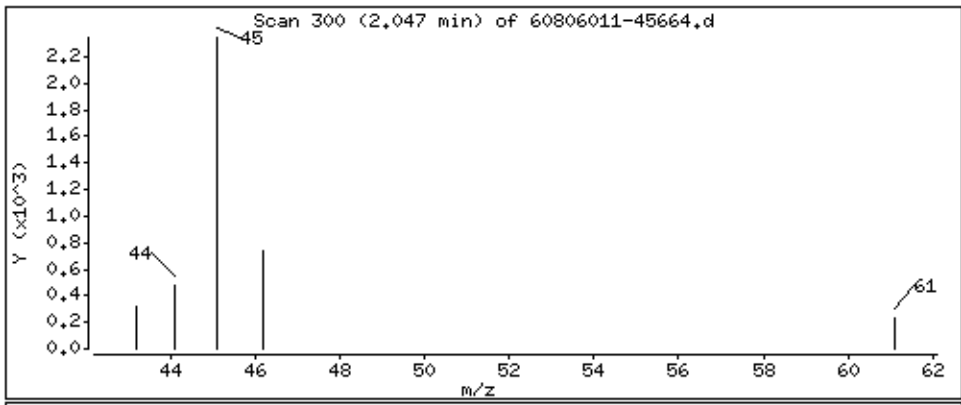
Sample Info: 1725736,95834:5,,

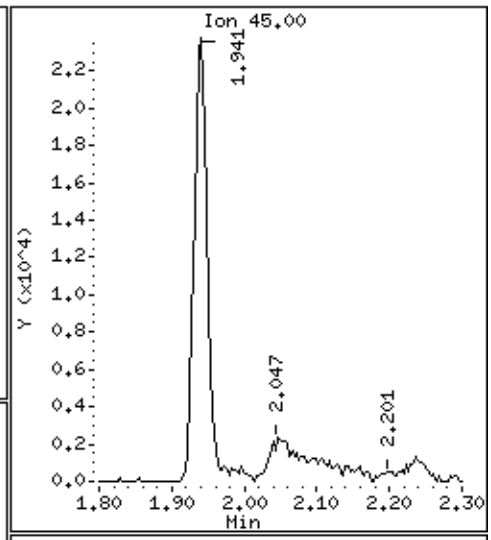
Operator: JEW

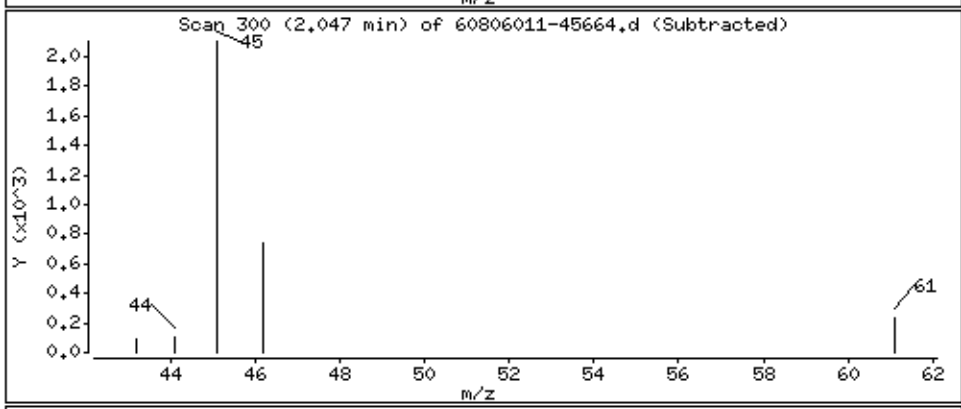
Column phase: RTX-VMS

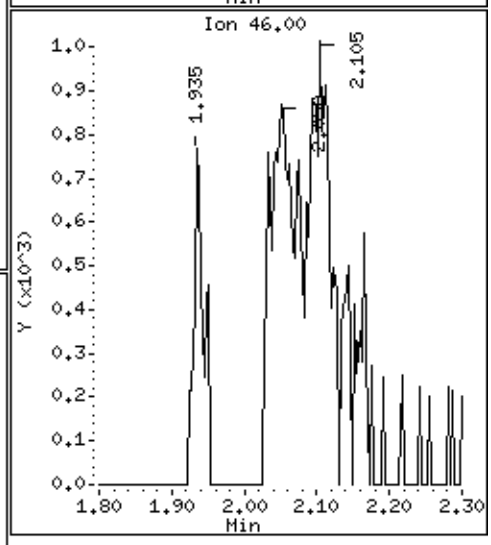
Column diameter: 0.18

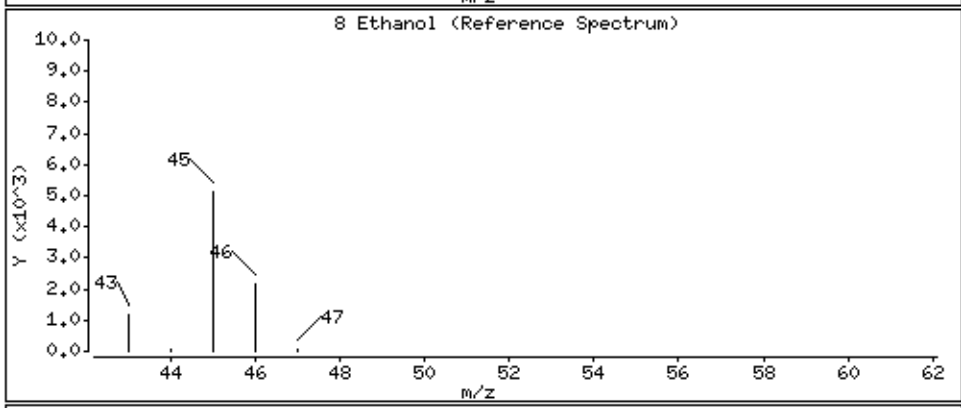
8 Ethanol

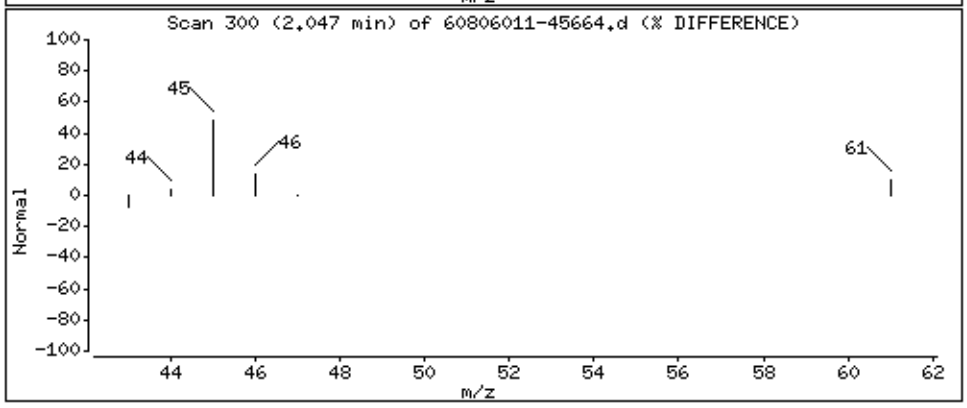












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

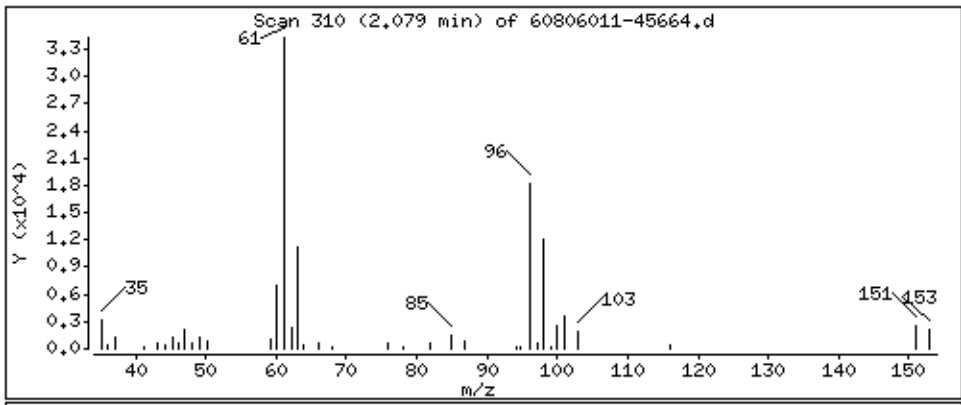
Operator: JEW

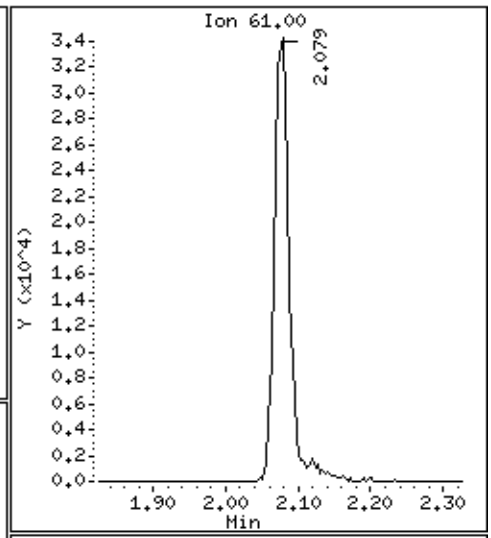
Column phase: RTX-VMS

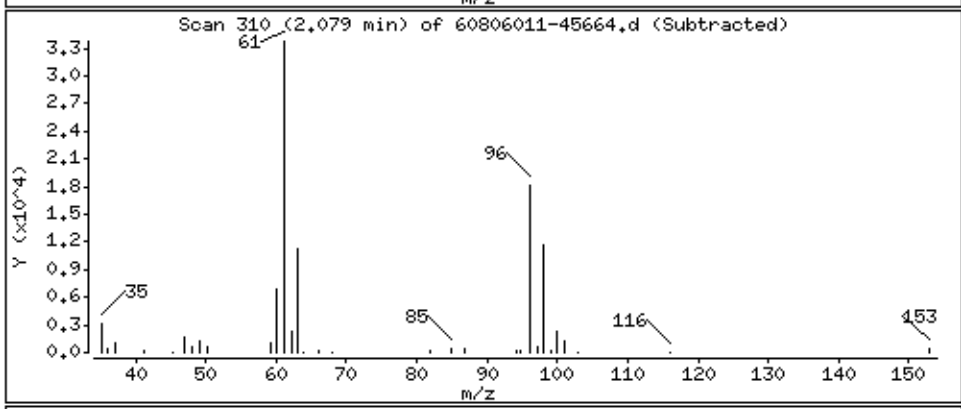
Column diameter: 0.18

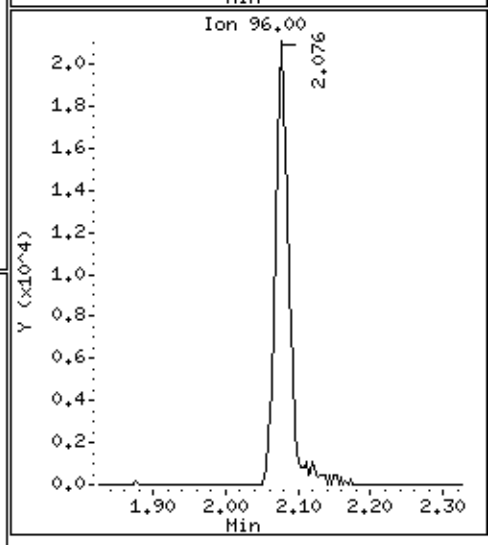
9 1,1-Dichloroethene

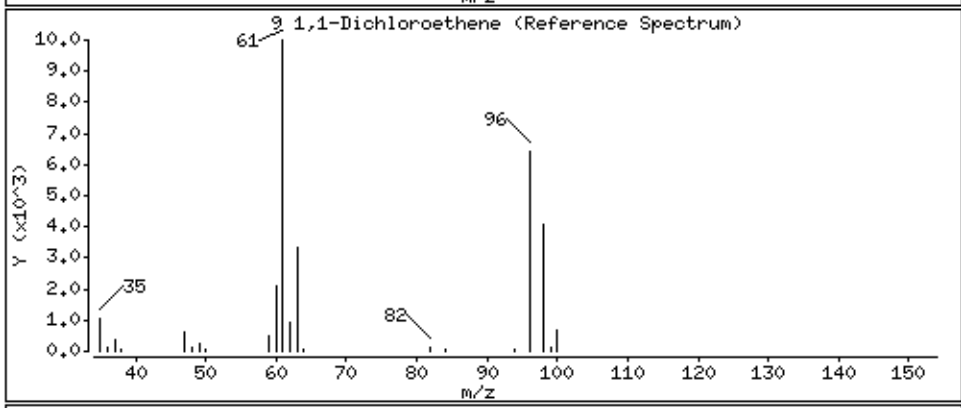
Concentration: 13.6 ug/kg

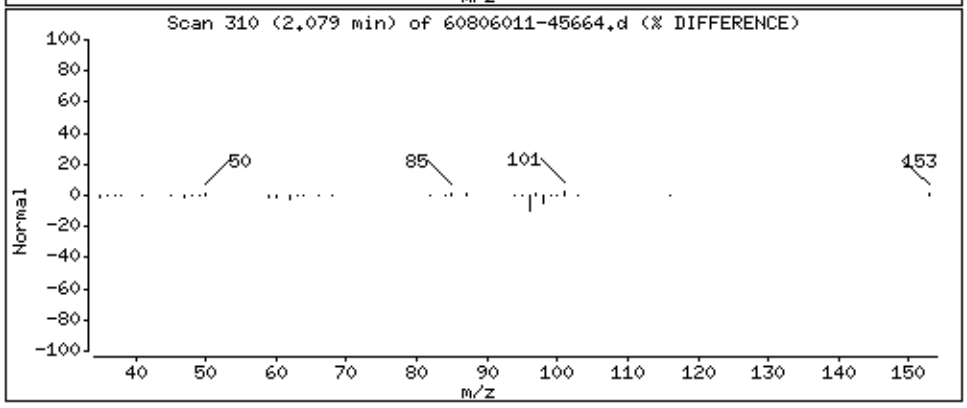












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

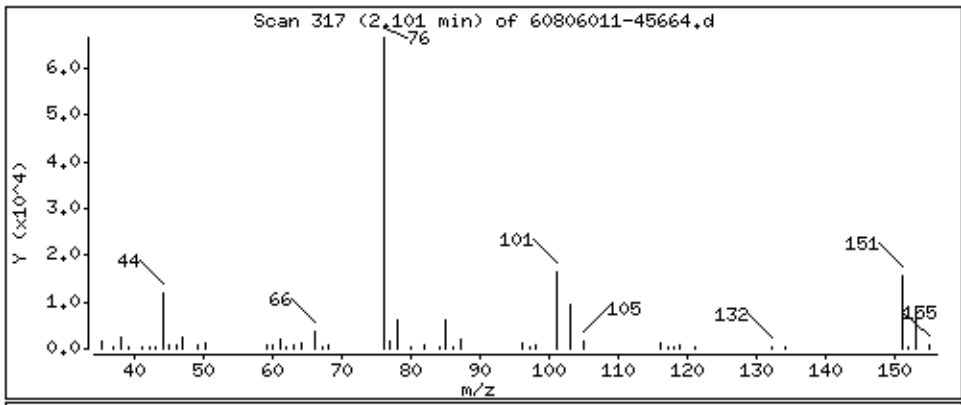
Operator: JEW

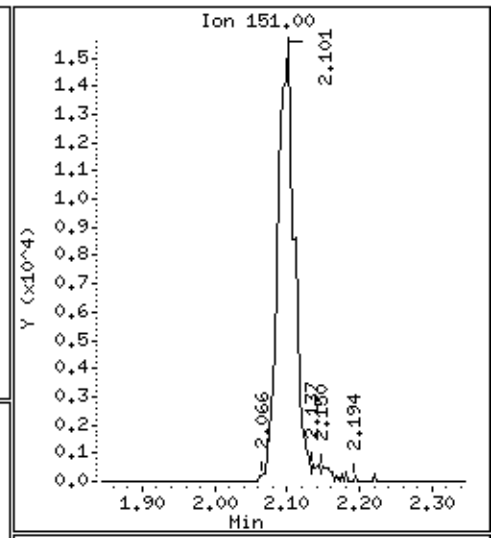
Column phase: RTX-VMS

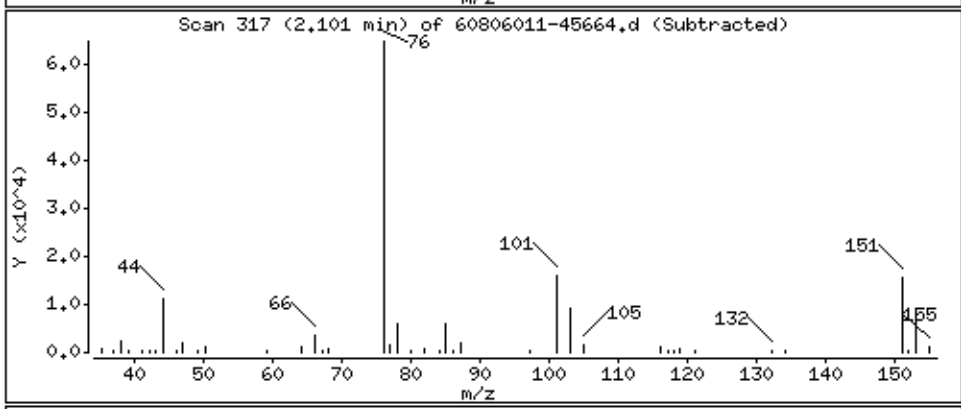
Column diameter: 0.18

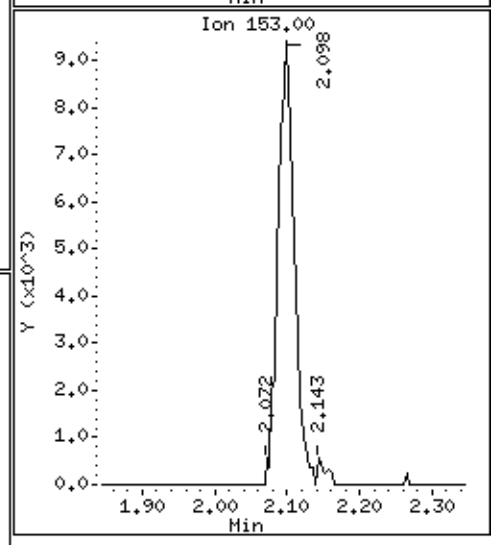
10 1,1,2-Trichlorotrifluoroethane

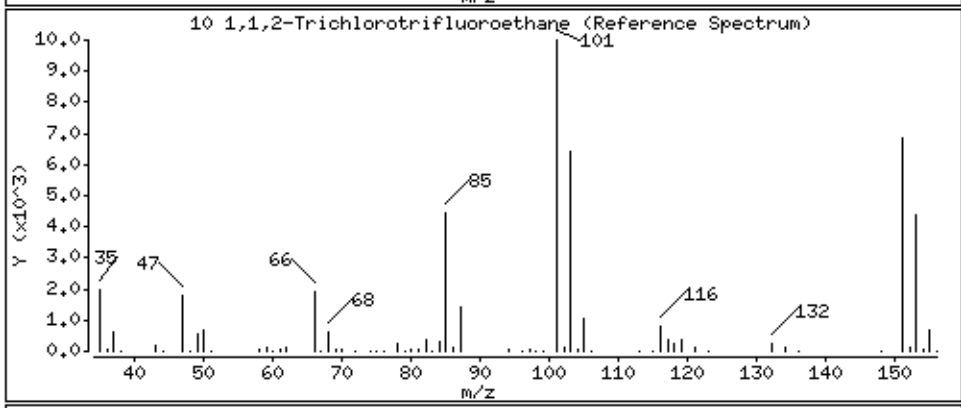
Concentration: 17.9 ug/kg

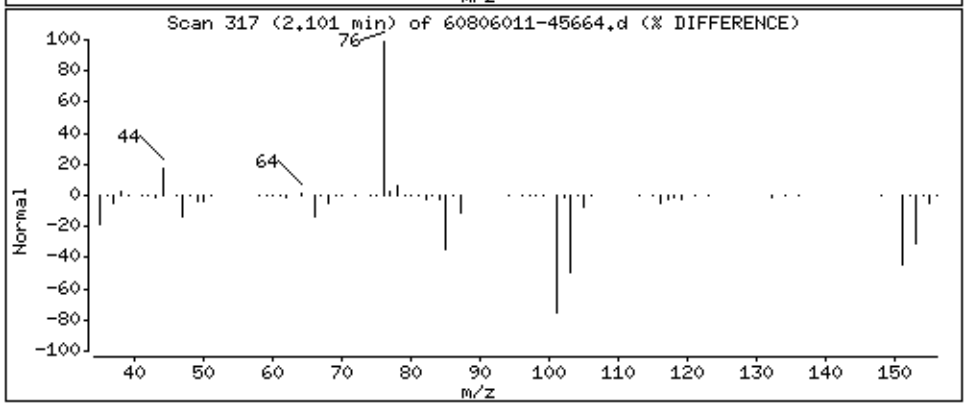












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

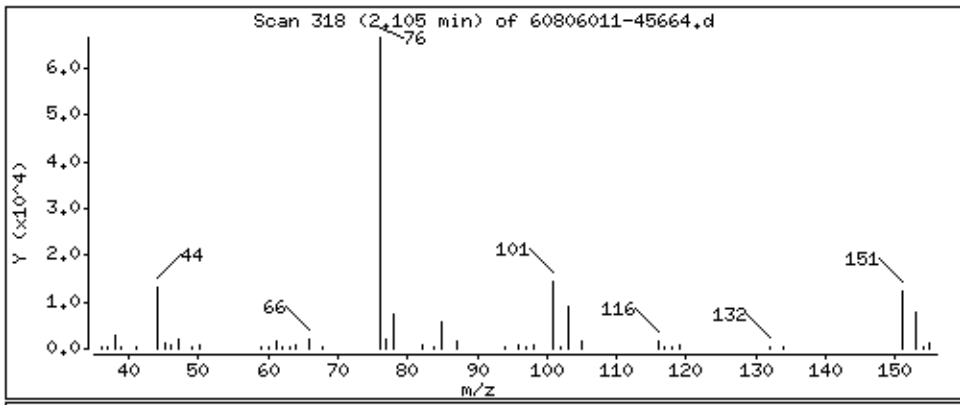
Operator: JEW

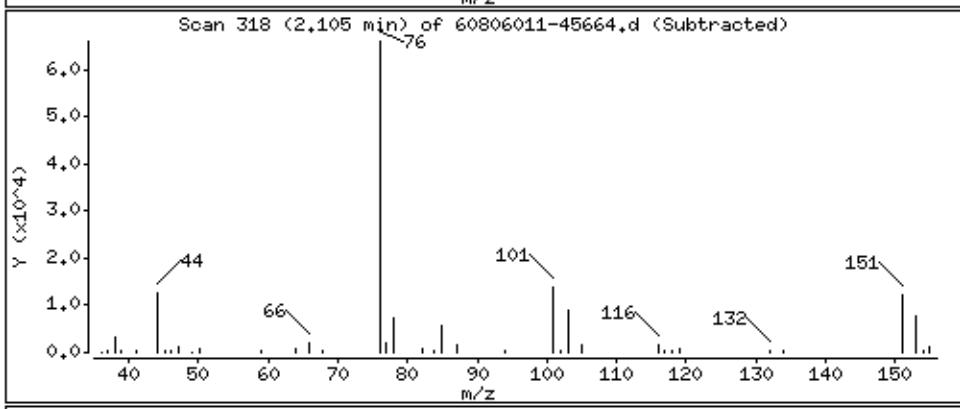
Column phase: RTX-VMS

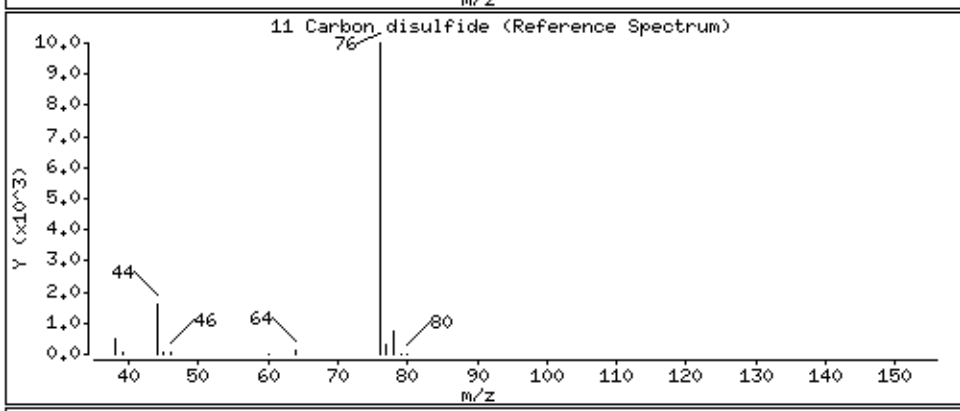
Column diameter: 0.18

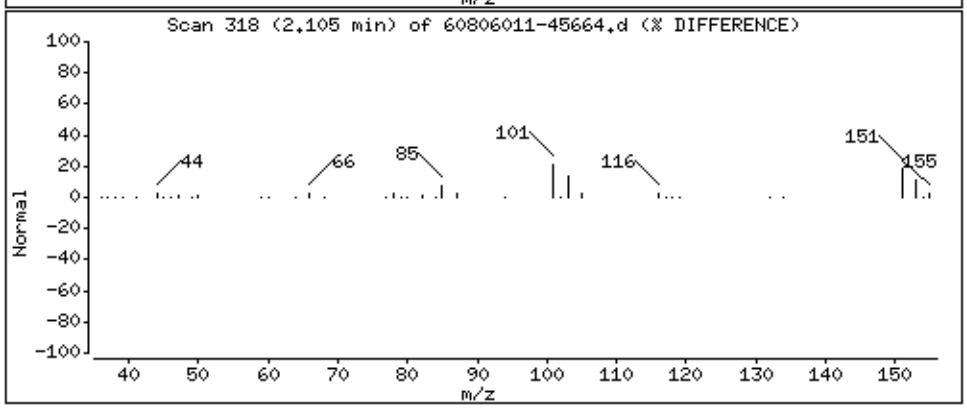
11 Carbon disulfide

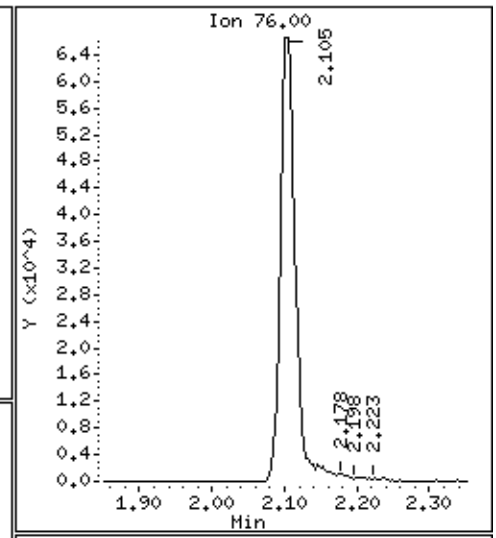
Concentration: 17.0 ug/kg

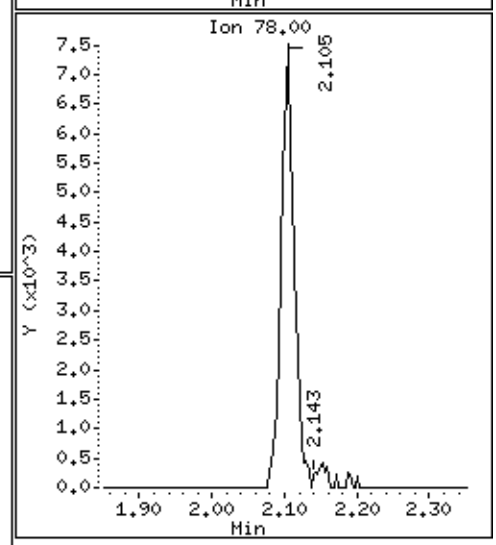












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

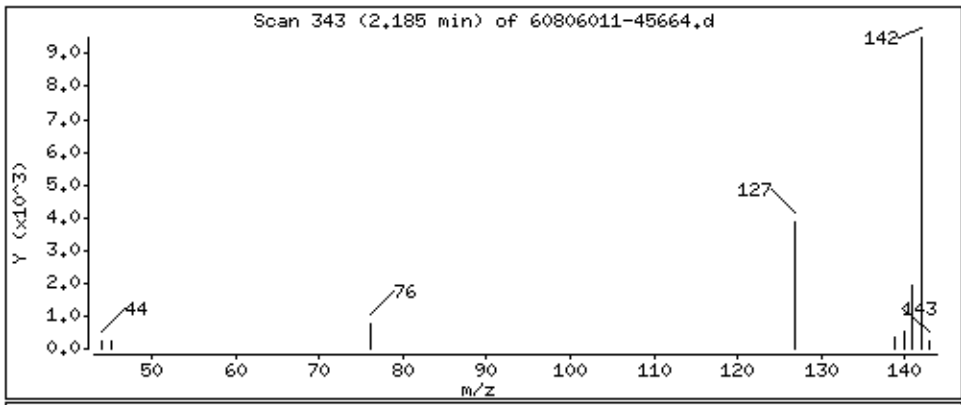
Operator: JEW

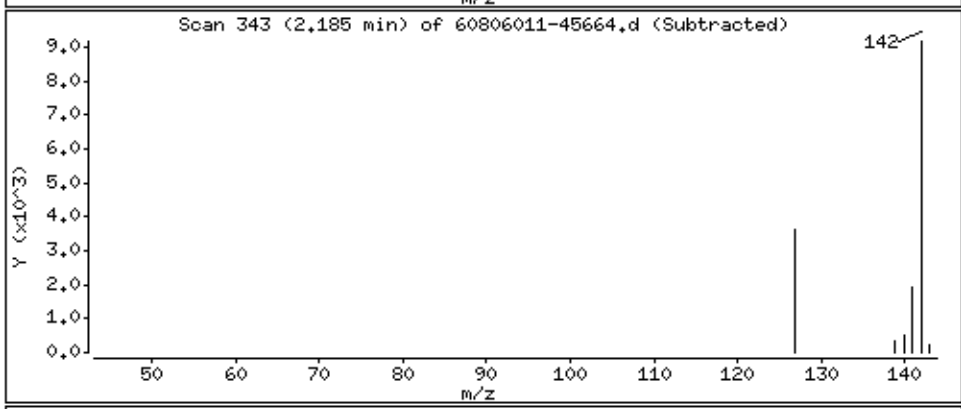
Column phase: RTX-VMS

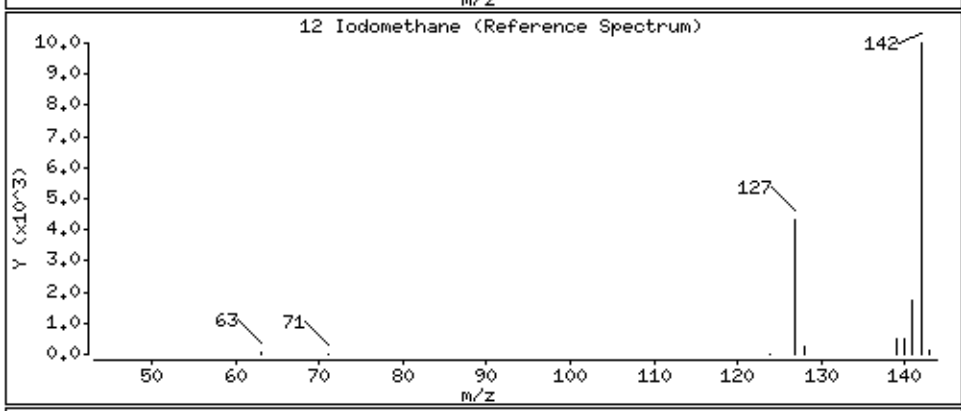
Column diameter: 0.18

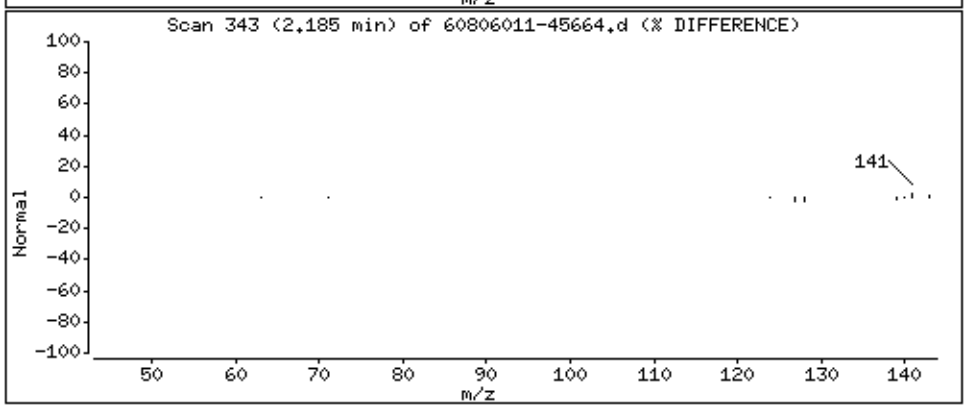
12 Iodomethane

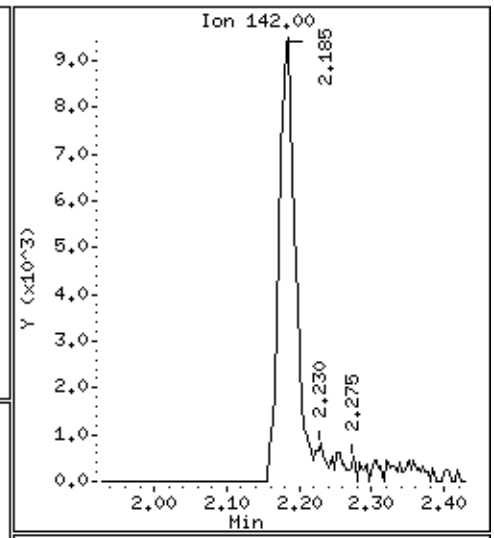
Concentration: 17.0 ug/kg

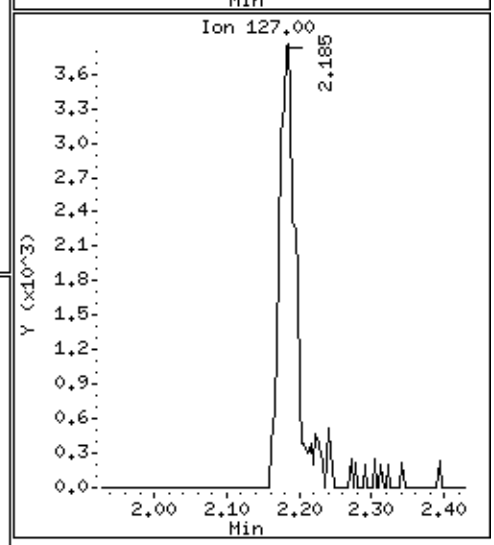












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

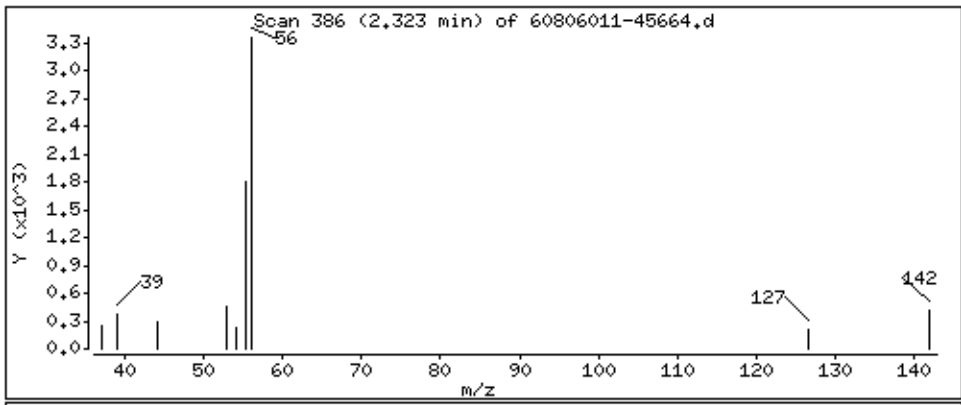
Operator: JEW

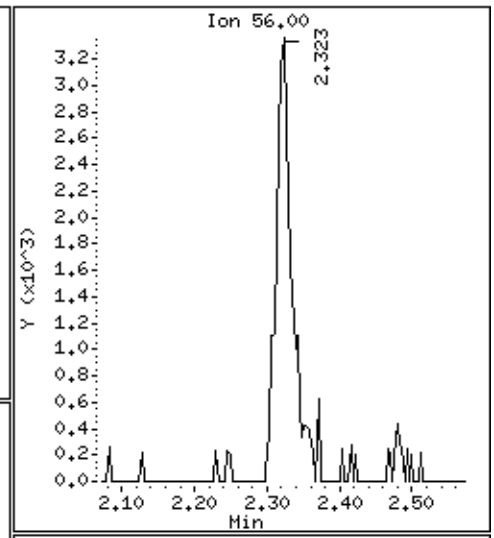
Column phase: RTX-VMS

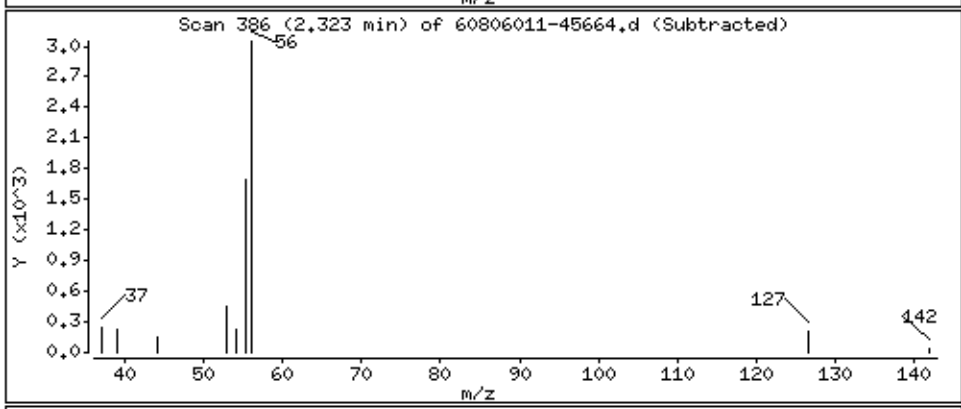
Column diameter: 0.18

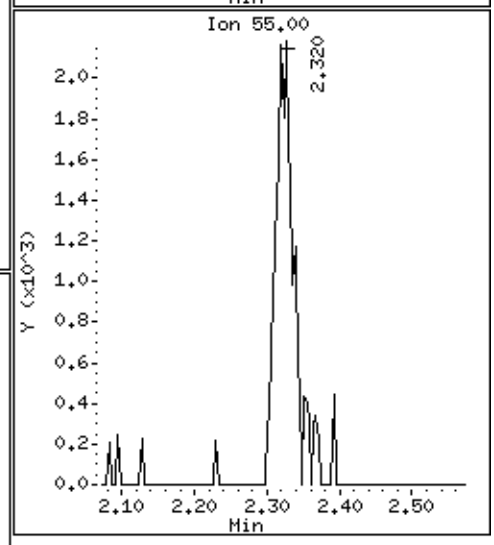
13 Acrolein

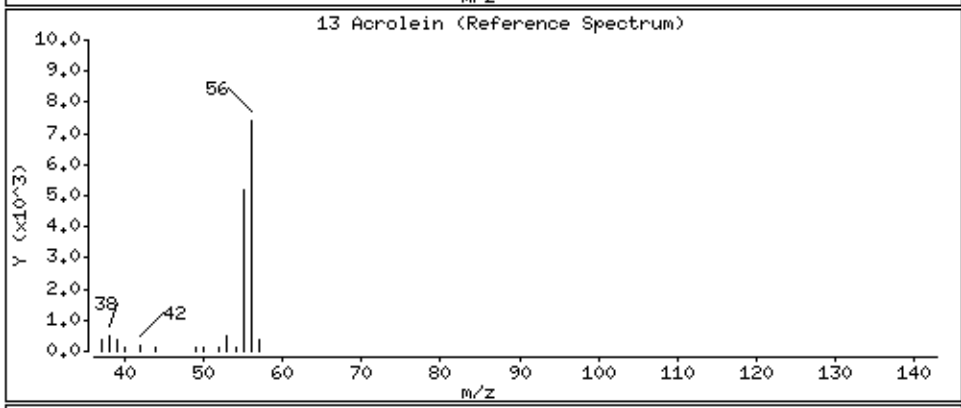
Concentration: 15.5 ug/kg

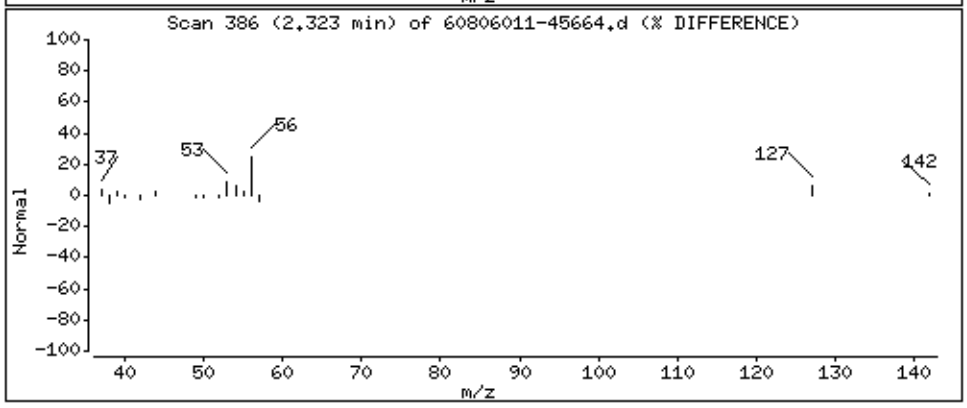












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

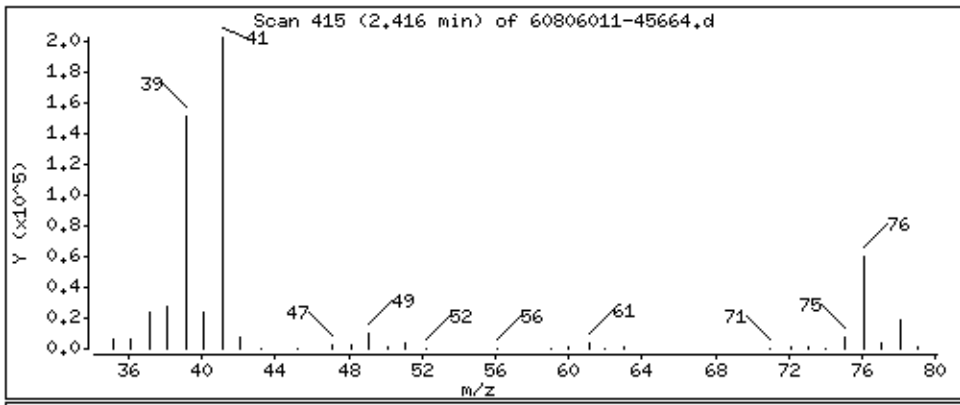
Operator: JEW

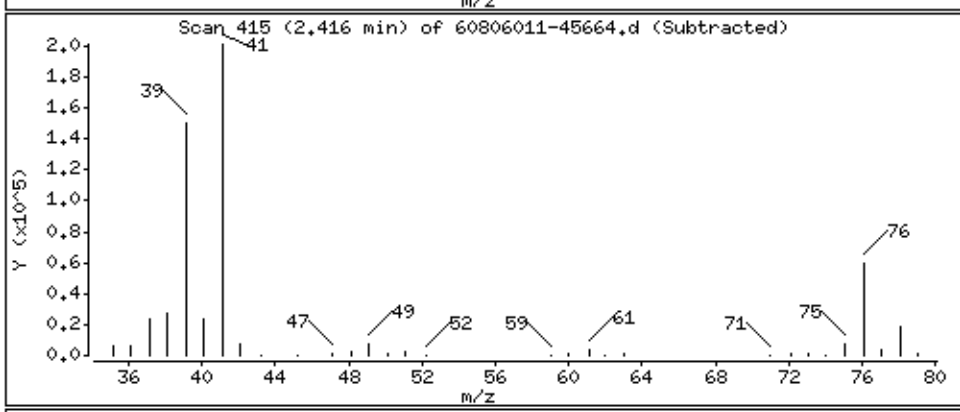
Column phase: RTX-VMS

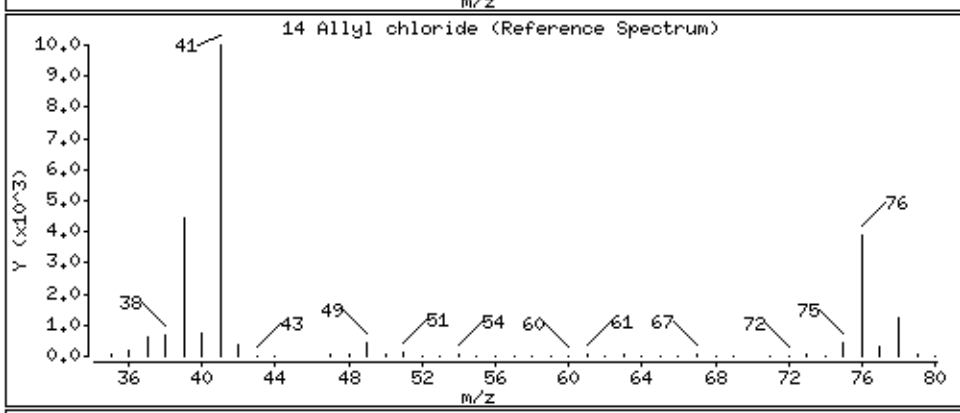
Column diameter: 0.18

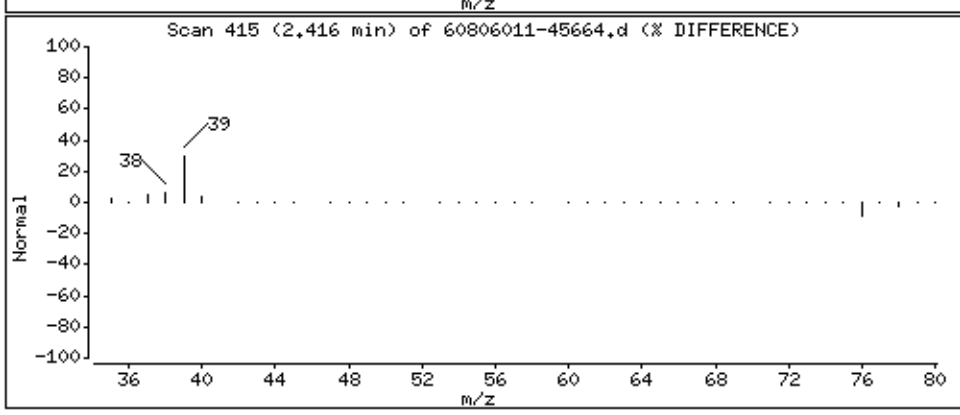
14 Allyl chloride

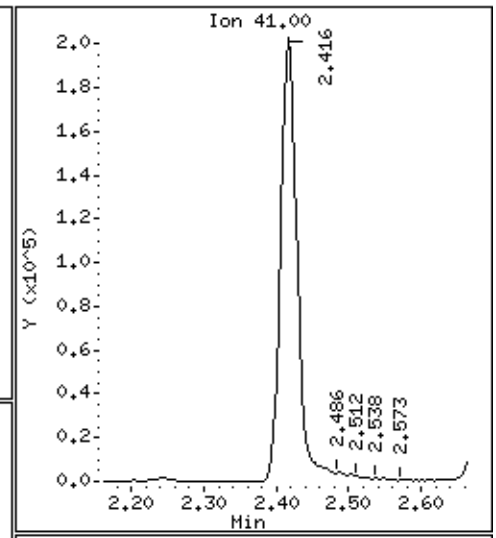
Concentration: 87.1 ug/kg

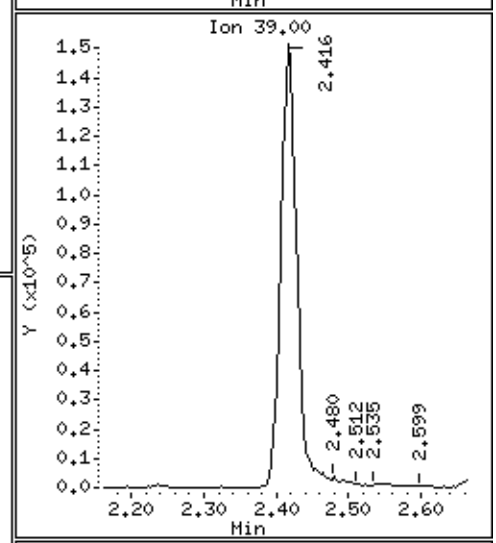


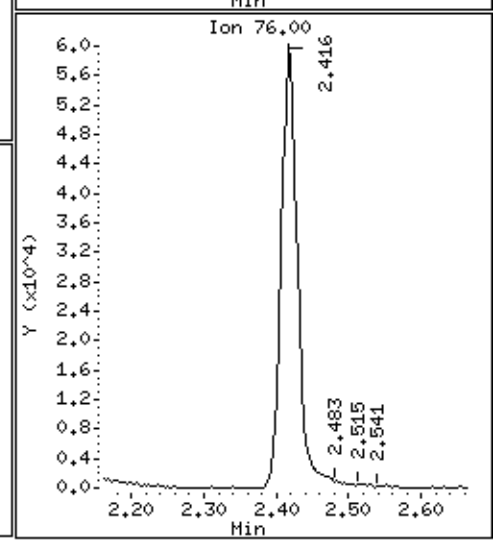












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

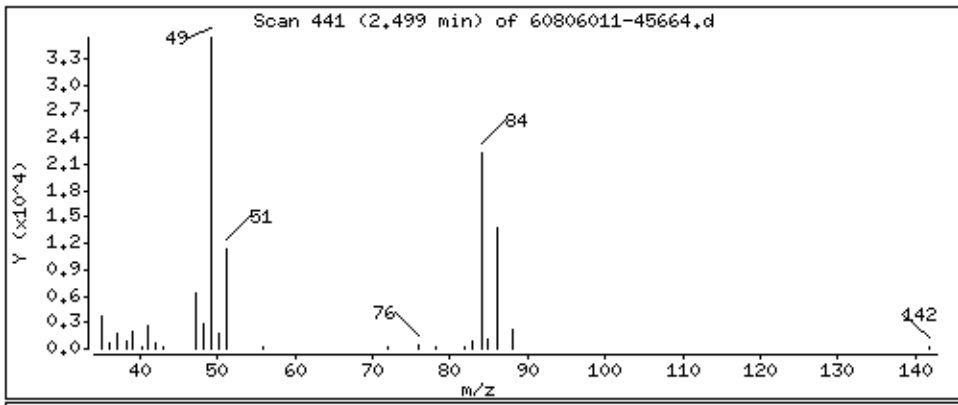
Operator: JEW

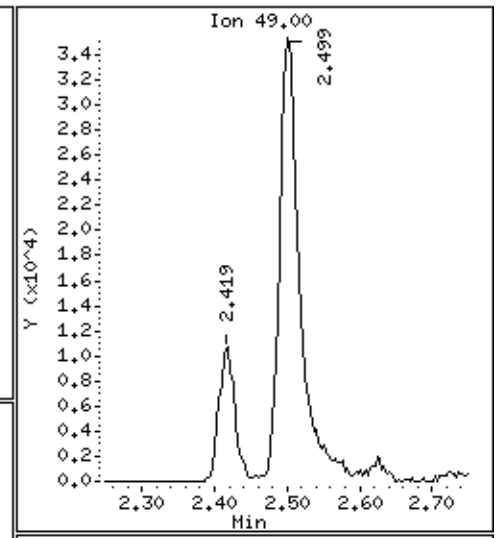
Column phase: RTX-VMS

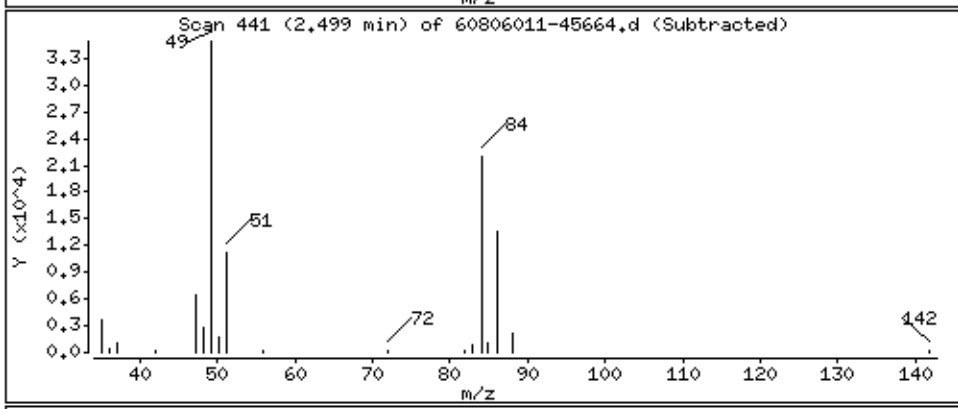
Column diameter: 0.18

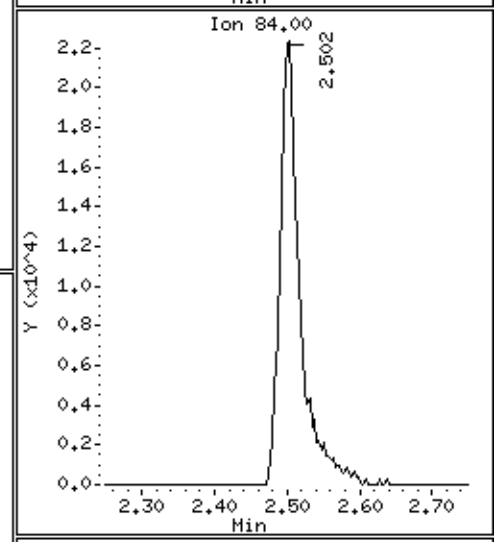
15 Methylene Chloride

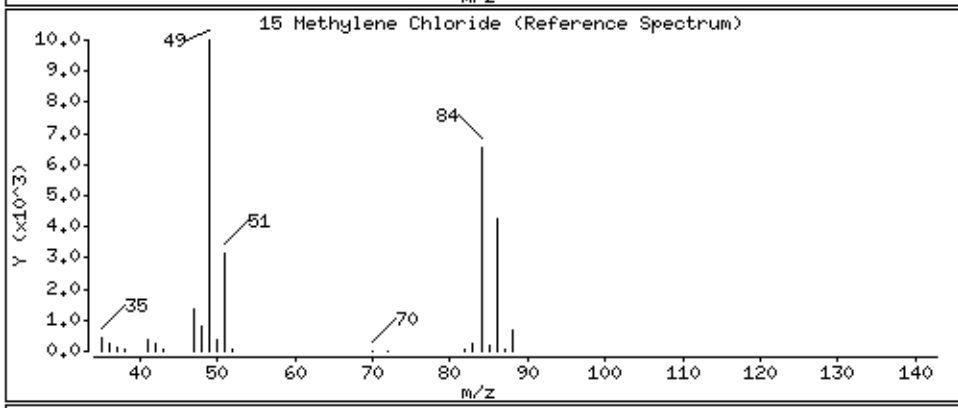
Concentration: 13.4 ug/kg

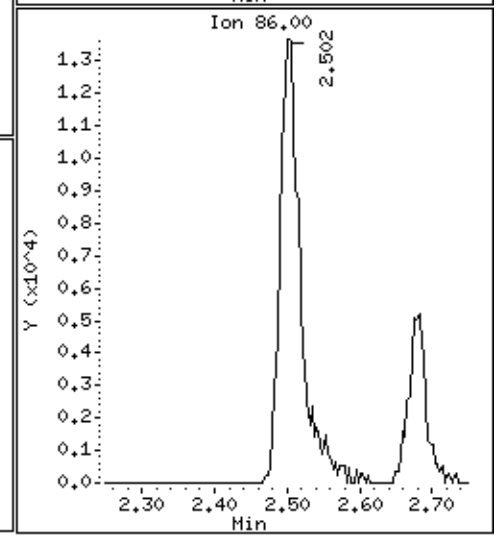


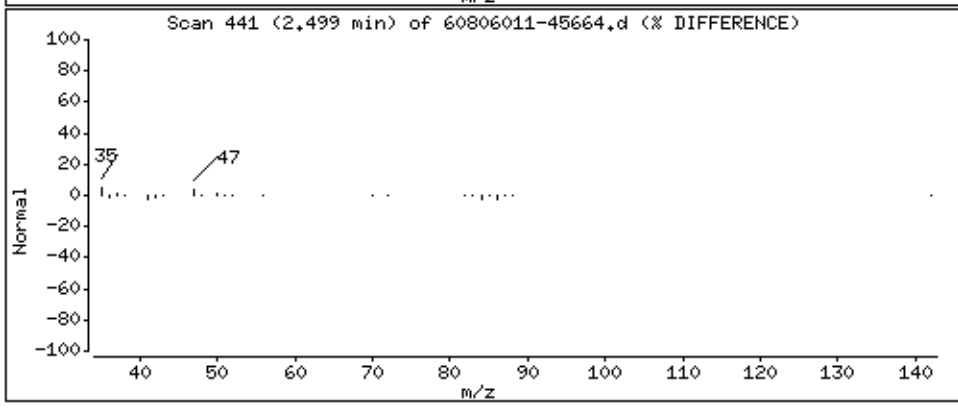












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

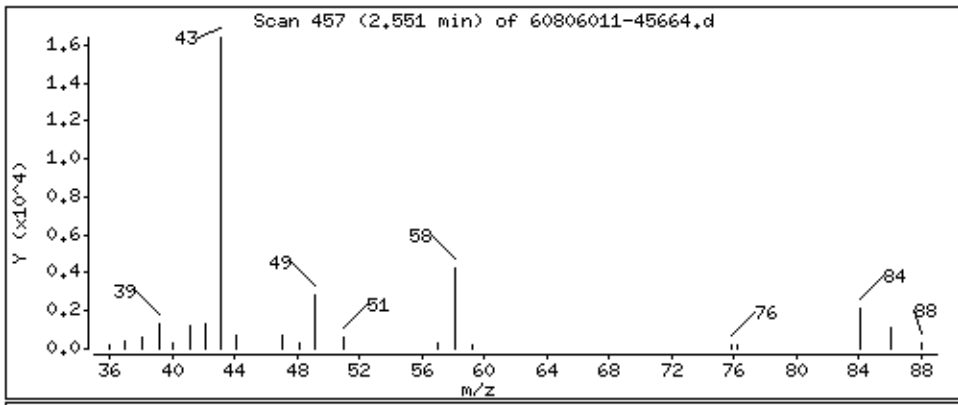
Operator: JEW

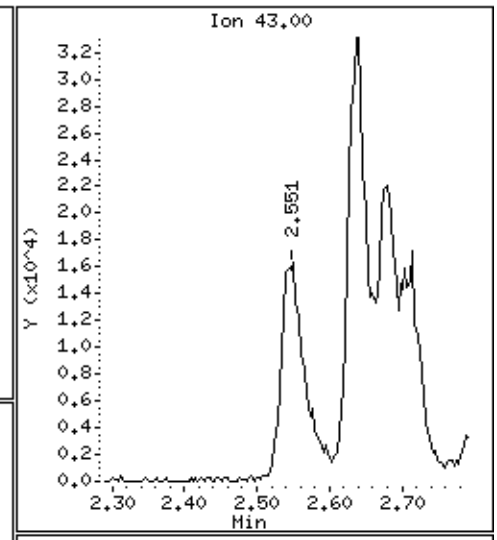
Column phase: RTX-VMS

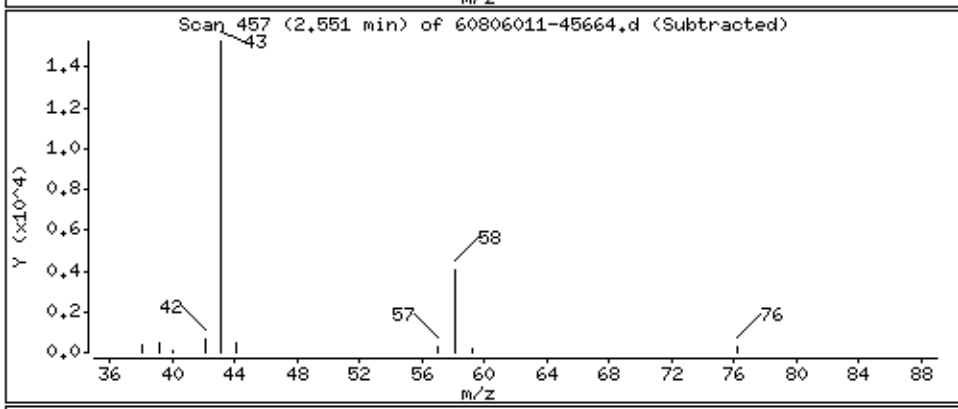
Column diameter: 0.18

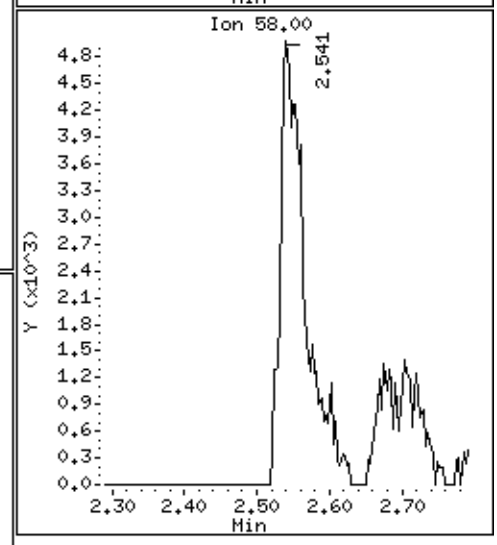
16 Acetone

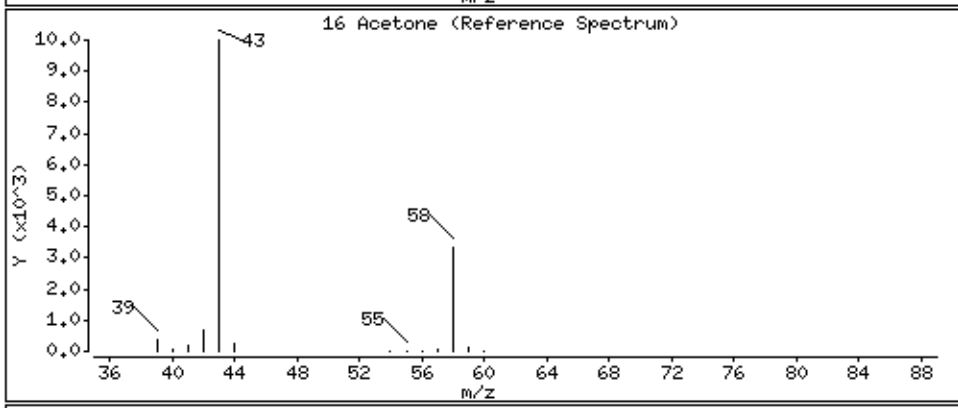
Concentration: 27.2 ug/kg

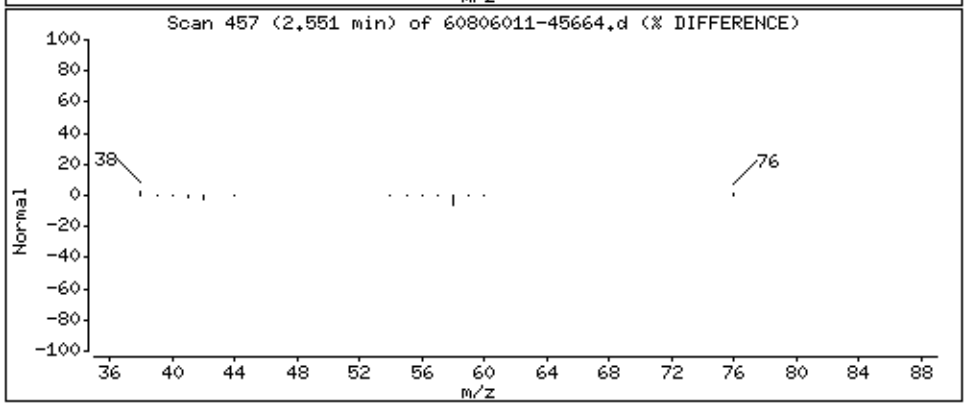












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

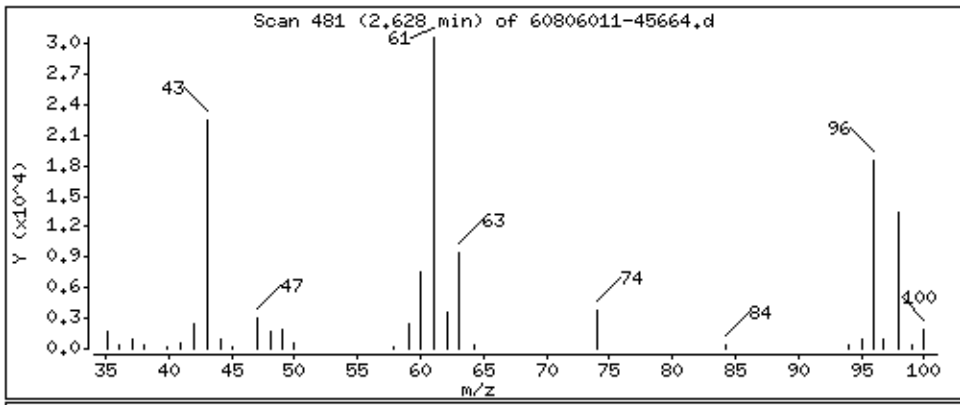
Operator: JEW

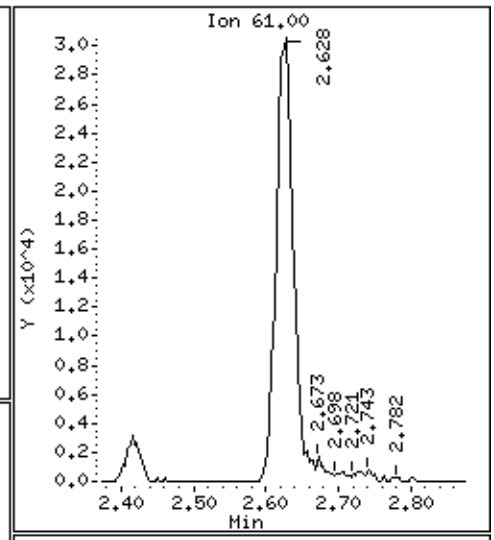
Column phase: RTX-VMS

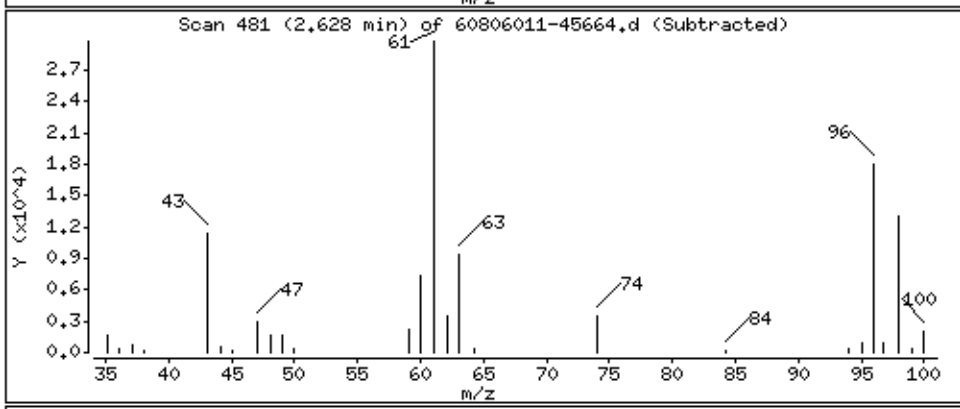
Column diameter: 0.18

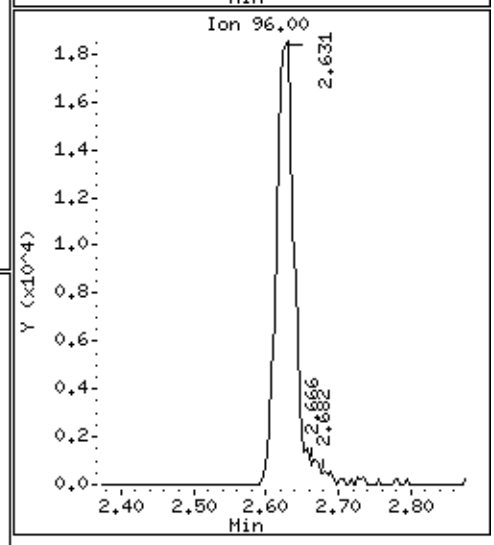
17 trans-1,2-Dichloroethene

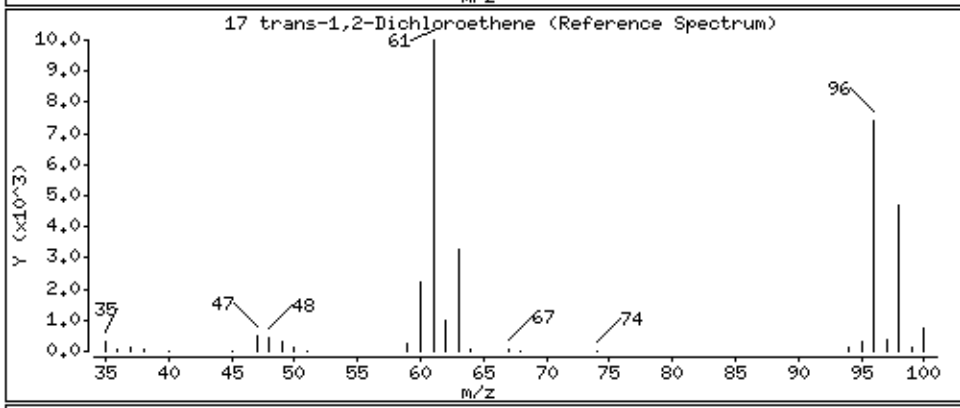
Concentration: 15.5 ug/kg

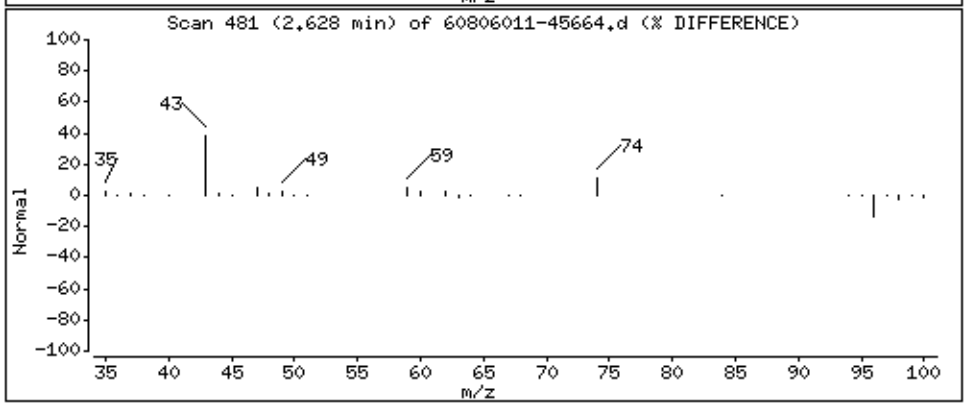












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

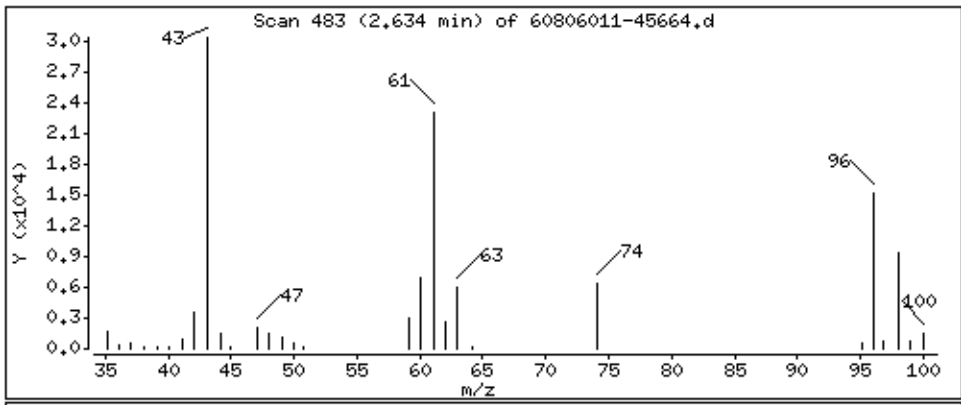
Operator: JEW

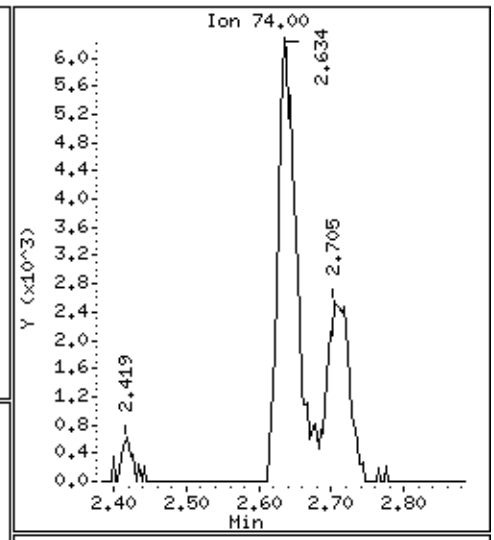
Column phase: RTX-VMS

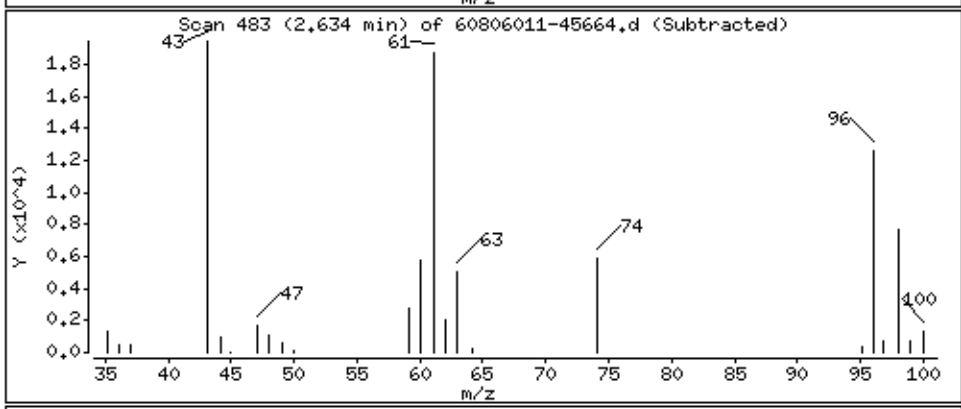
Column diameter: 0.18

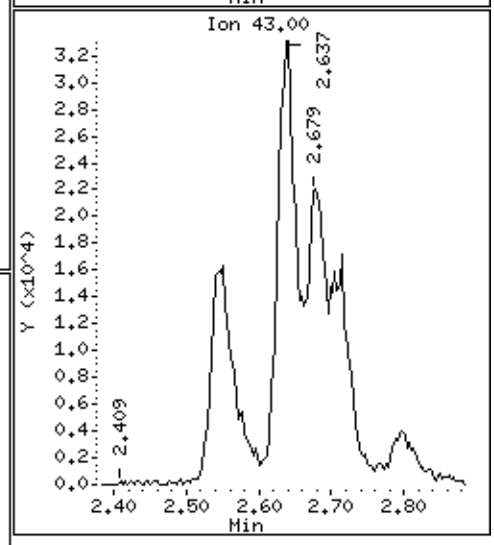
18 Methyl acetate

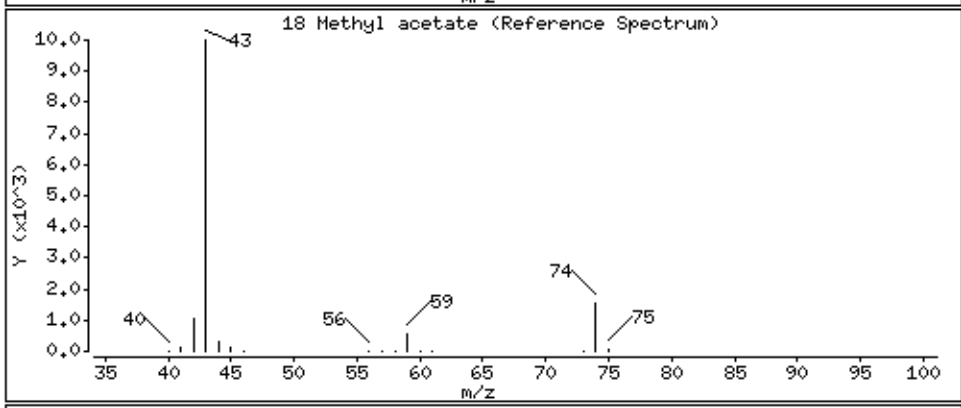
Concentration: 25.0 ug/kg

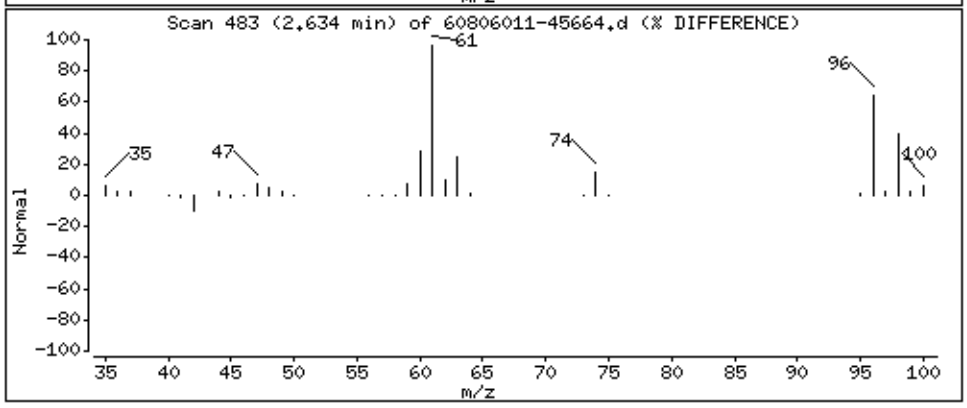












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

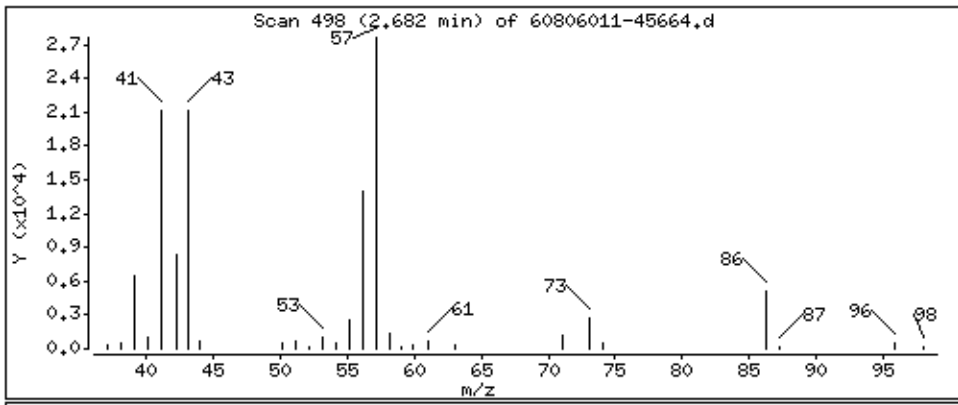
Operator: JEW

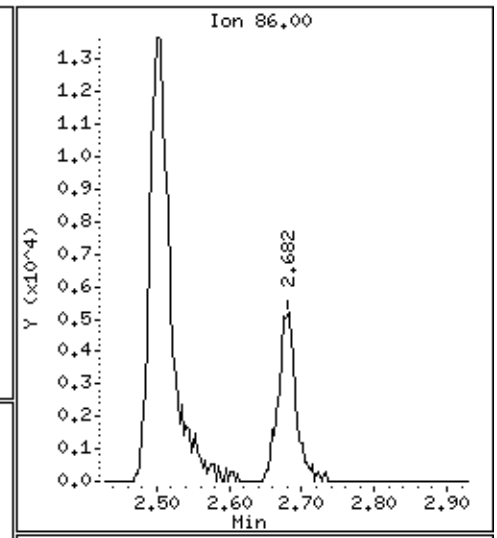
Column phase: RTX-VMS

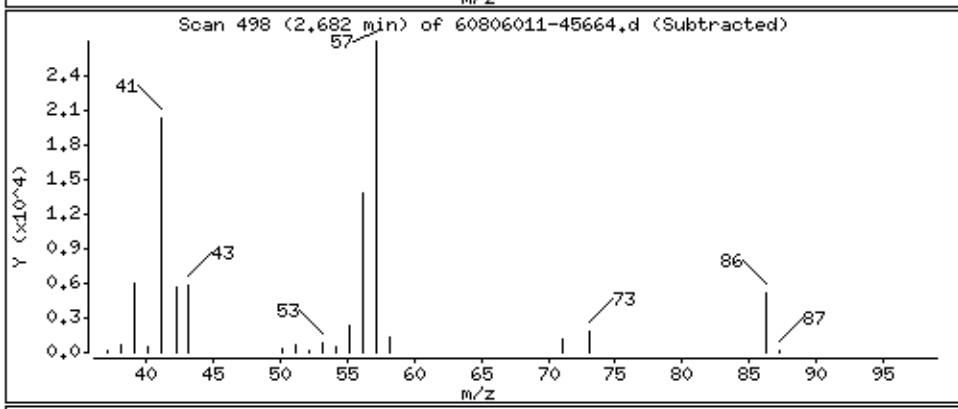
Column diameter: 0.18

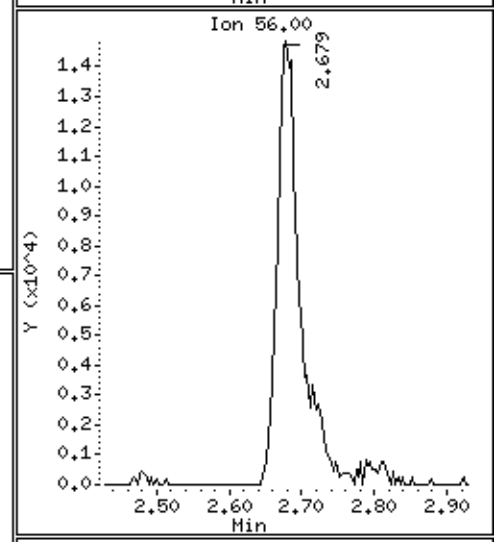
19 n-Hexane

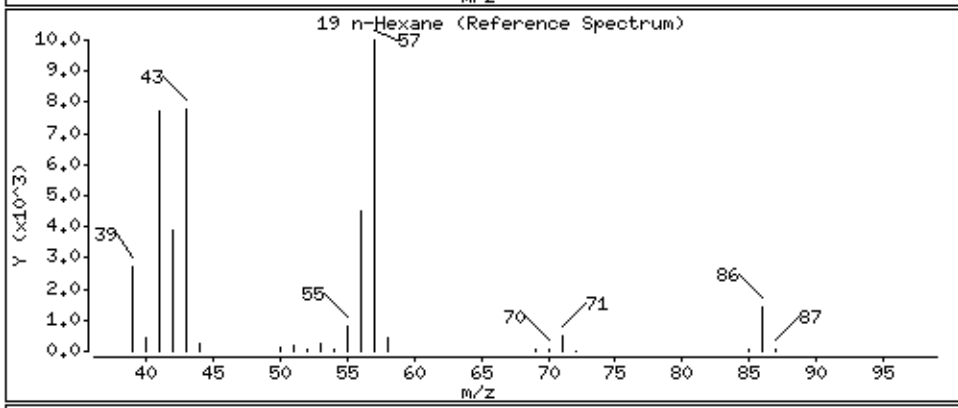
Concentration: 15.9 ug/kg

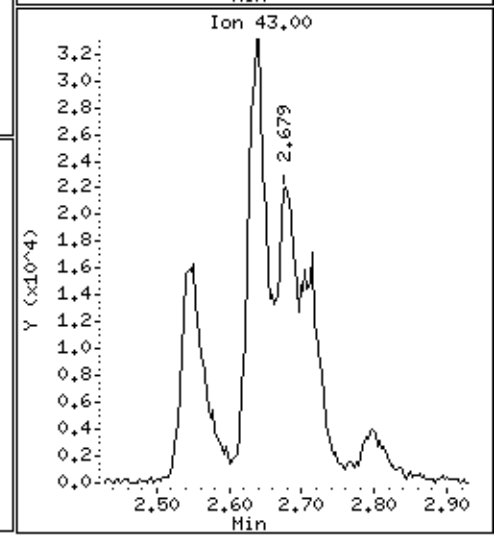


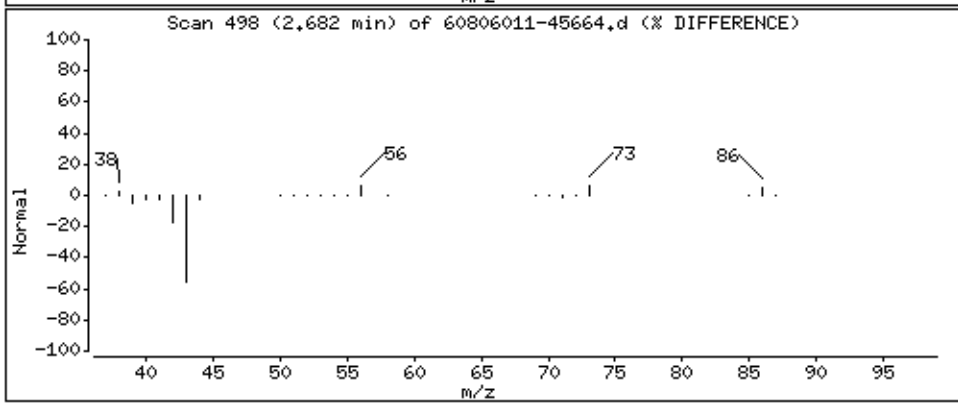












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

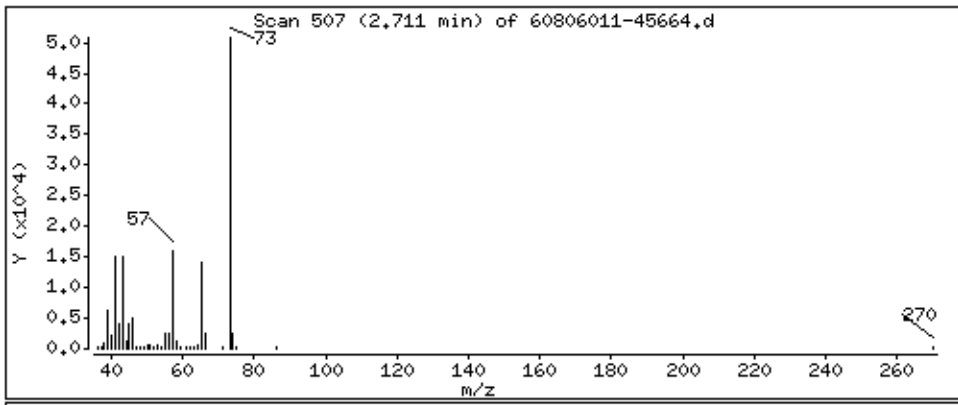
Operator: JEW

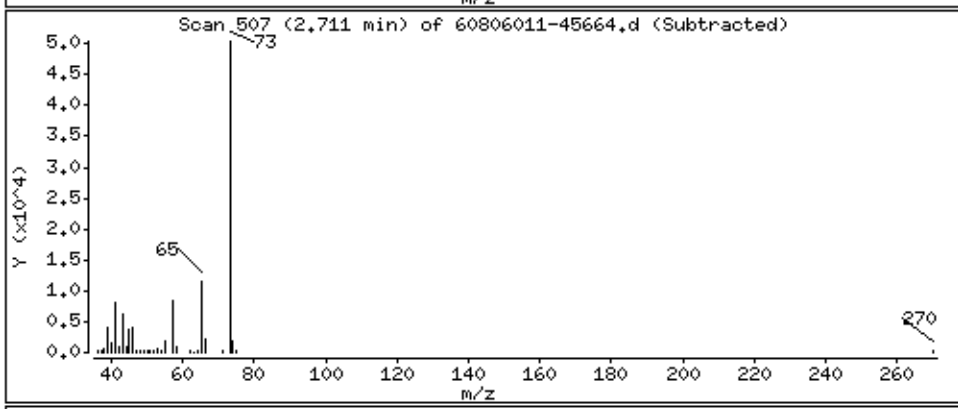
Column phase: RTX-VMS

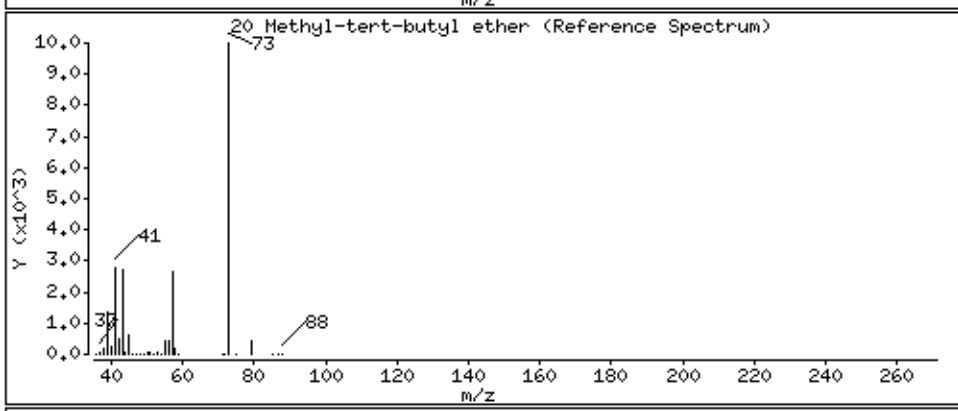
Column diameter: 0.18

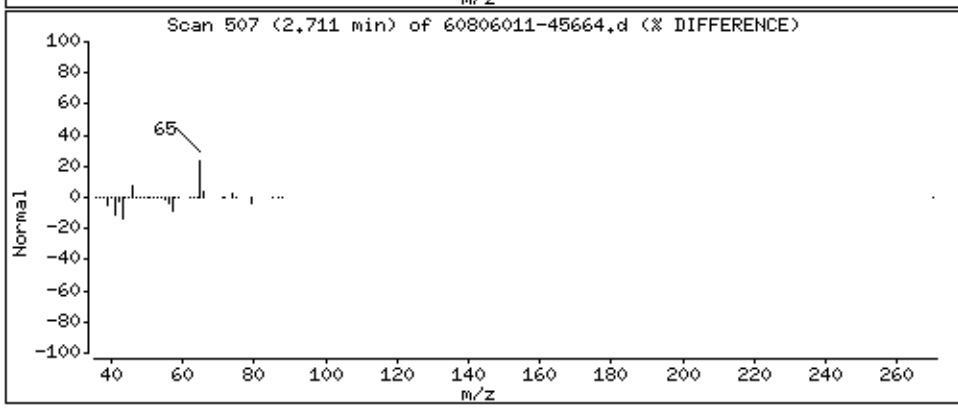
20 Methyl-tert-butyl ether

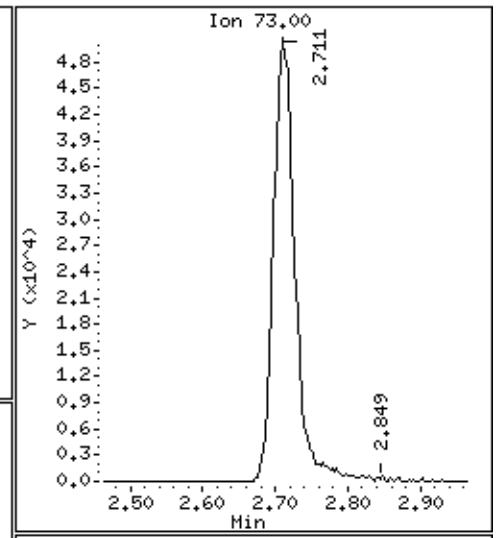
Concentration: 16.4 ug/kg

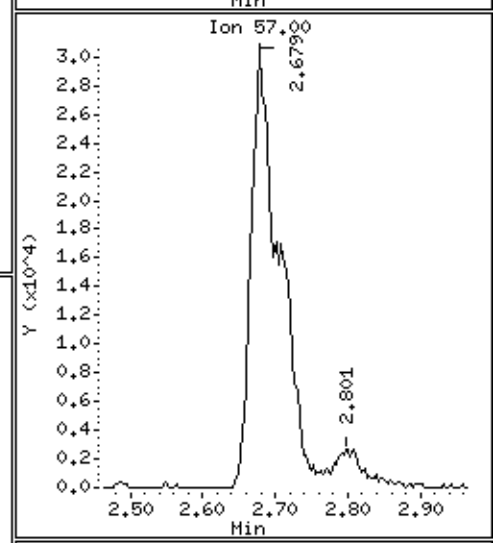


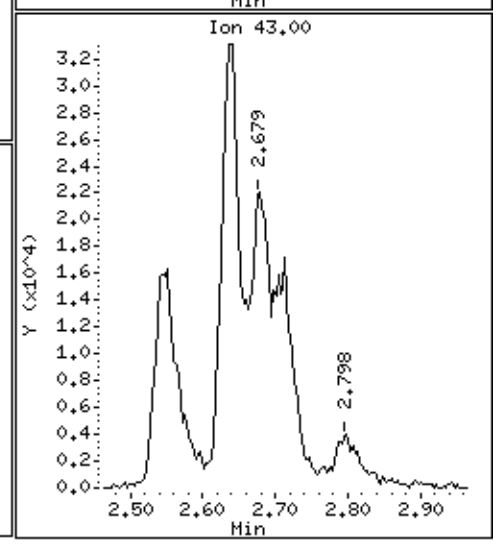












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

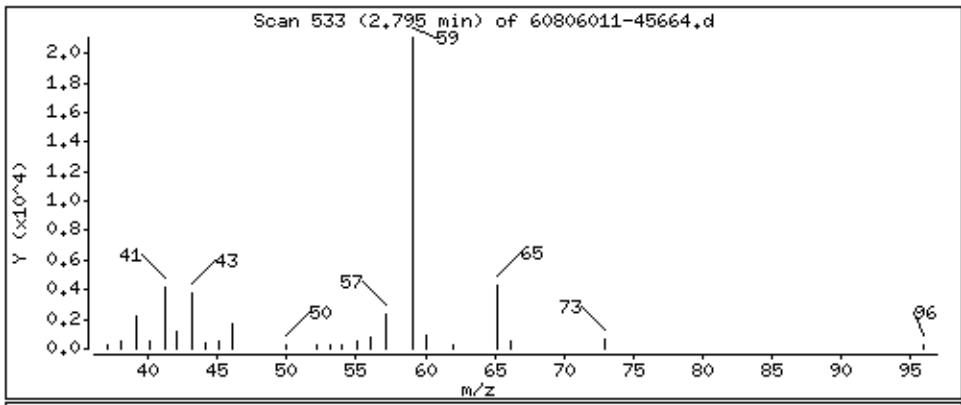
Operator: JEW

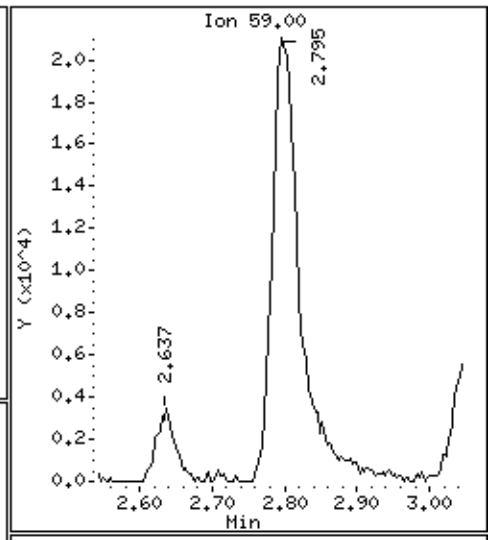
Column phase: RTX-VMS

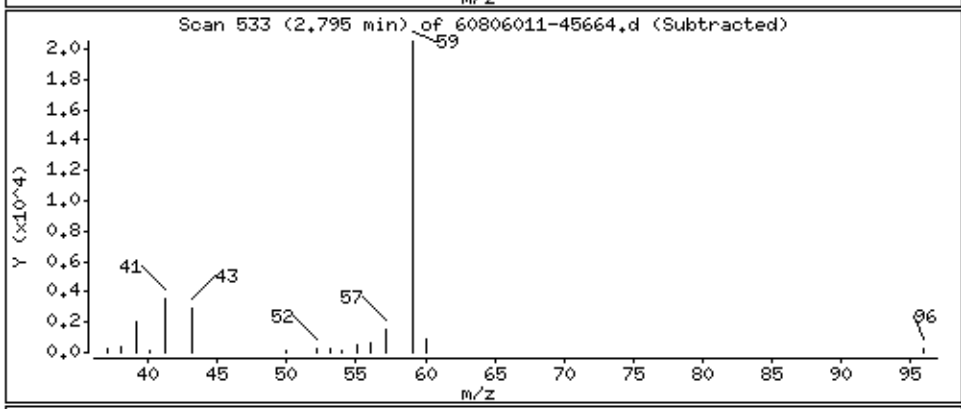
Column diameter: 0.18

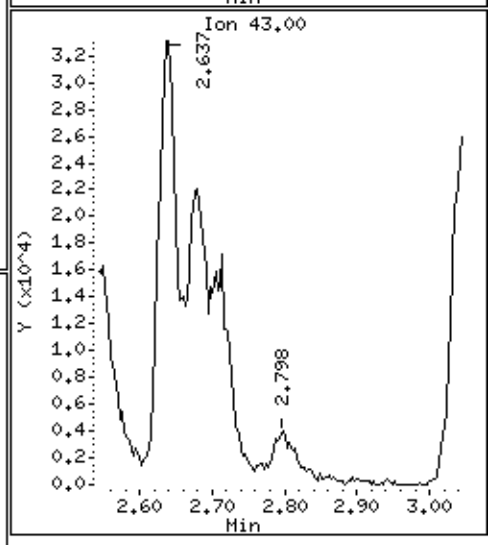
21 tert-Butyl Alcohol

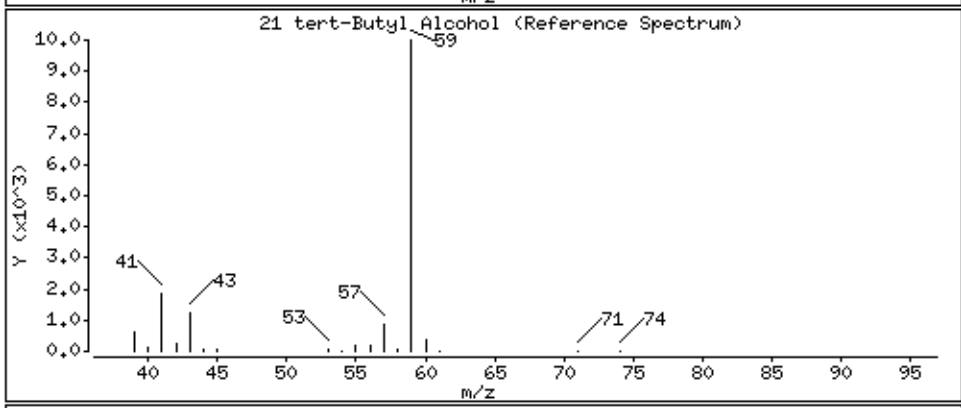
Concentration: 86.0 ug/kg

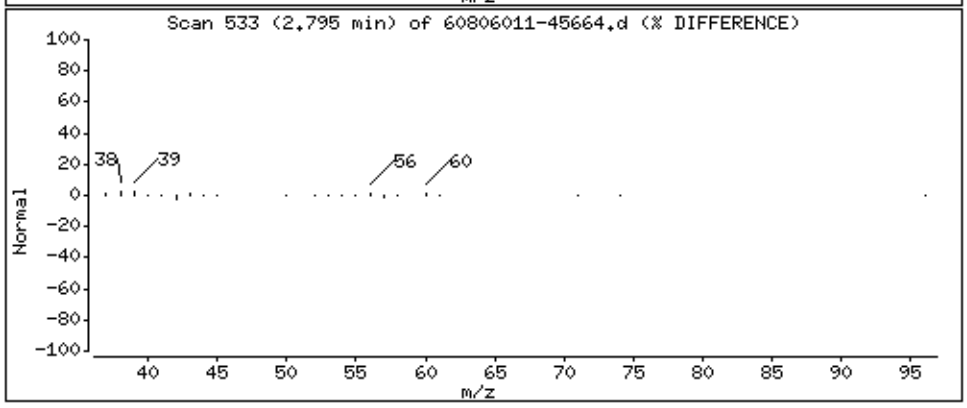












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

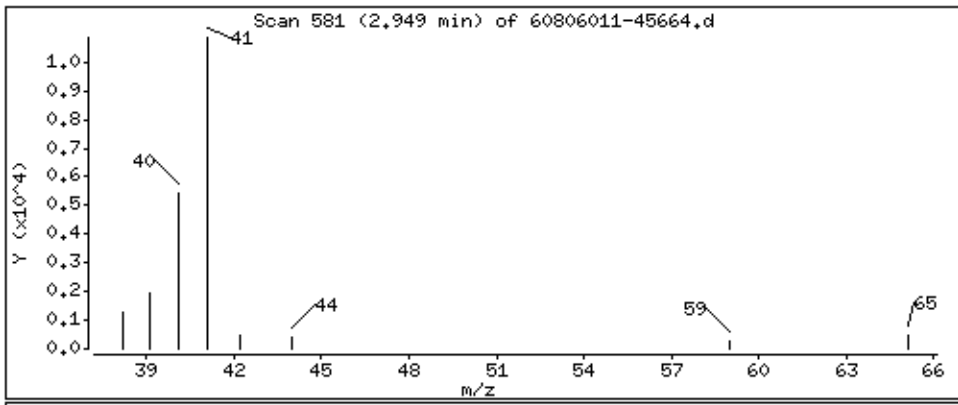
Operator: JEW

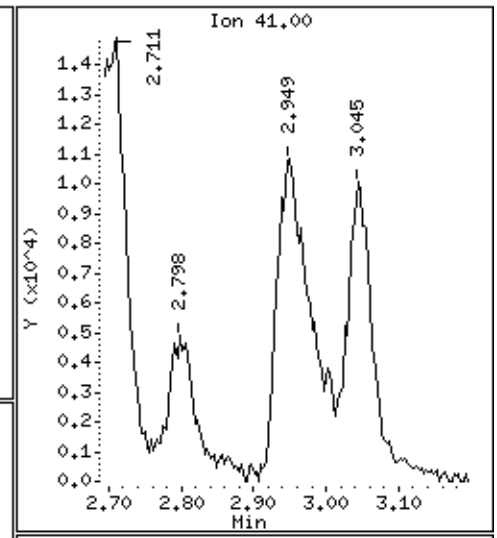
Column phase: RTX-VMS

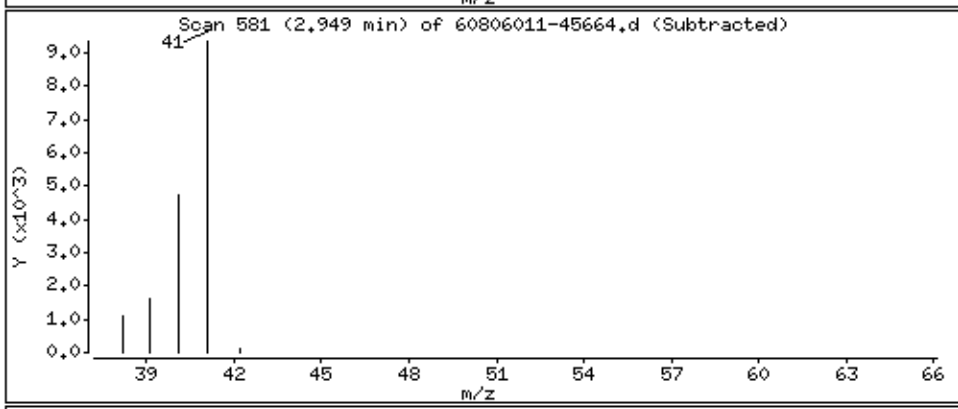
Column diameter: 0.18

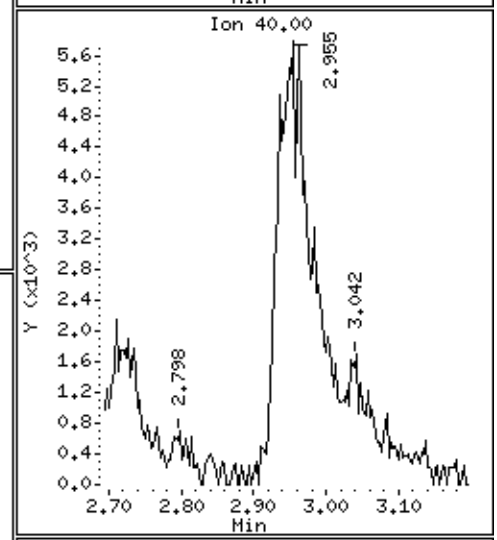
22 Acetonitrile

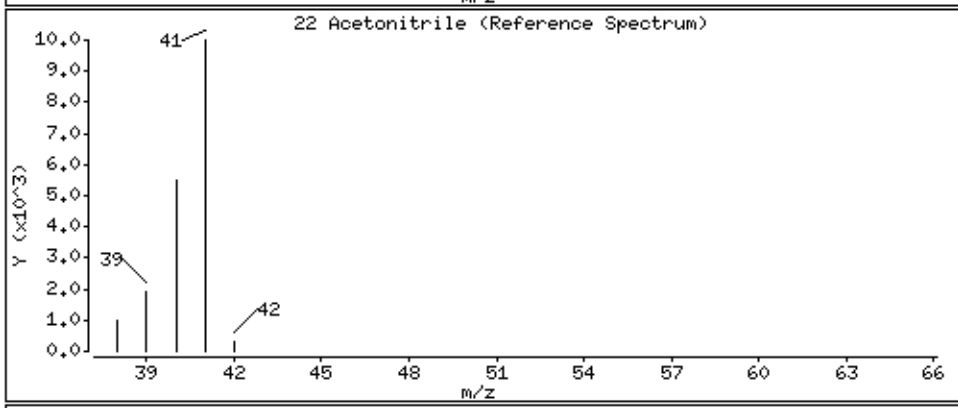
Concentration: 87.3 ug/kg

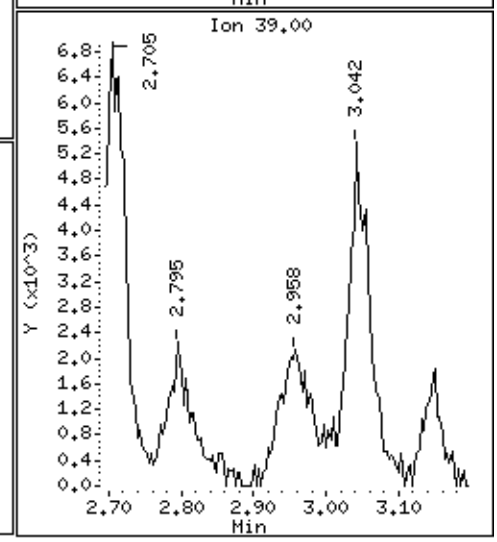


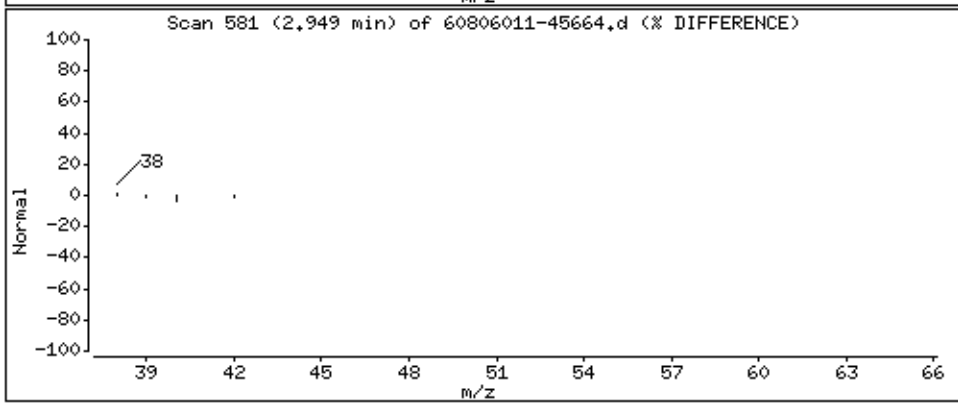












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

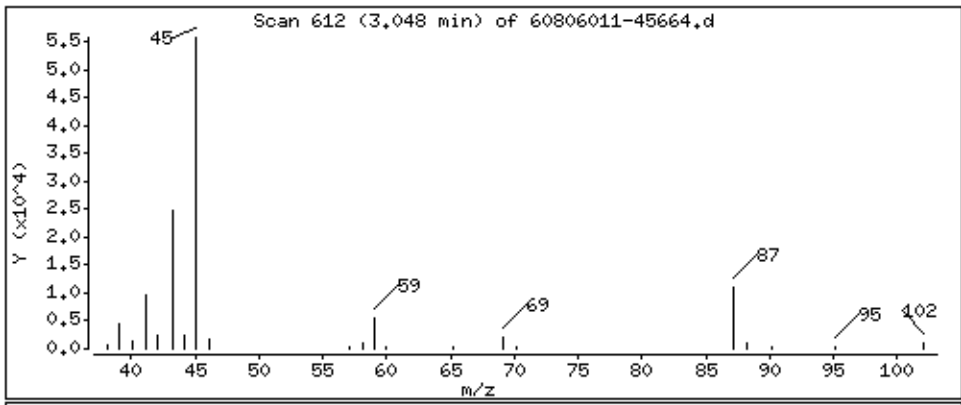
Operator: JEW

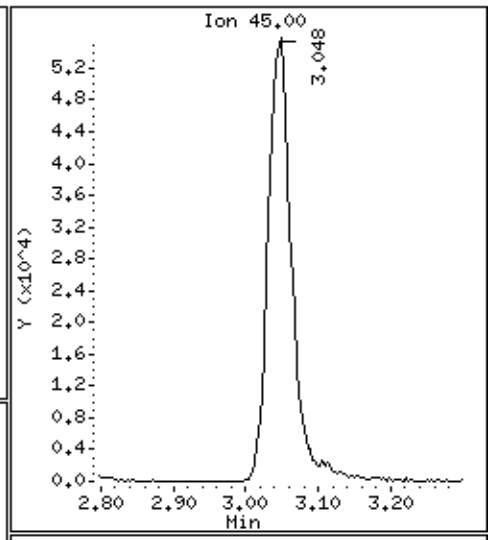
Column phase: RTX-VMS

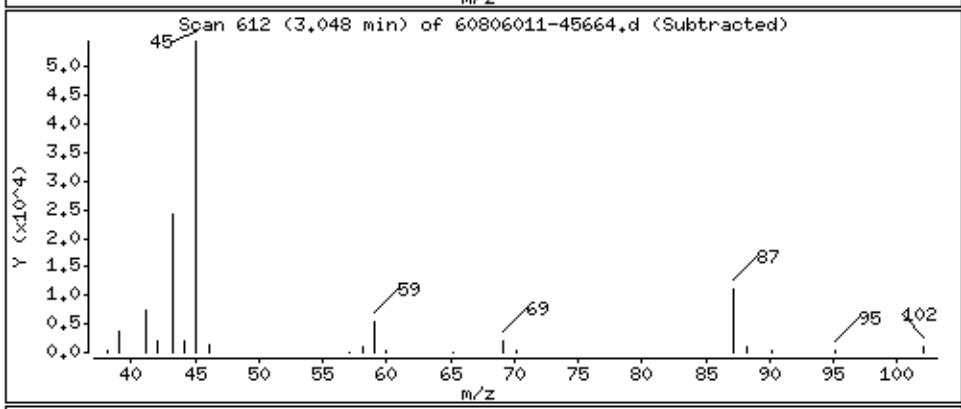
Column diameter: 0.18

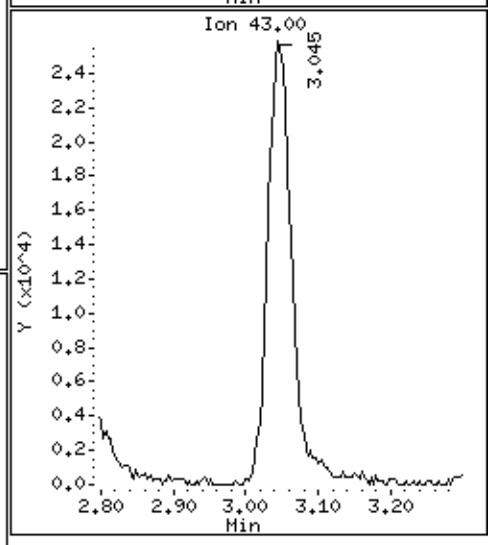
23 Diisopropyl ether

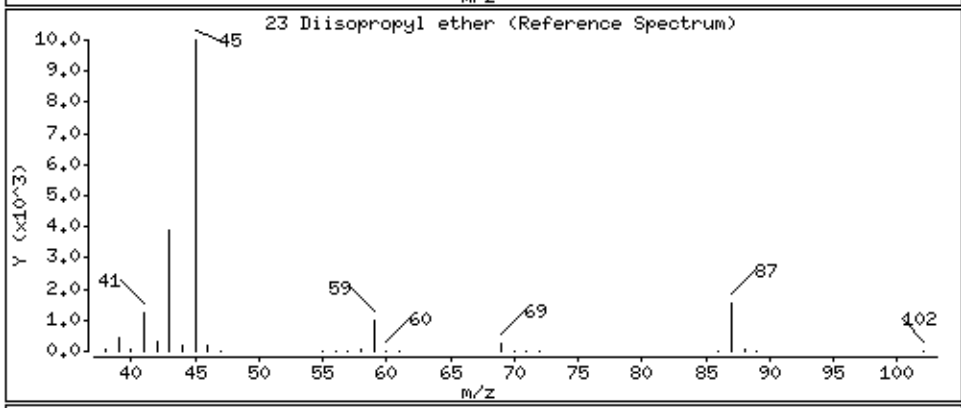
Concentration: 14.1 ug/kg

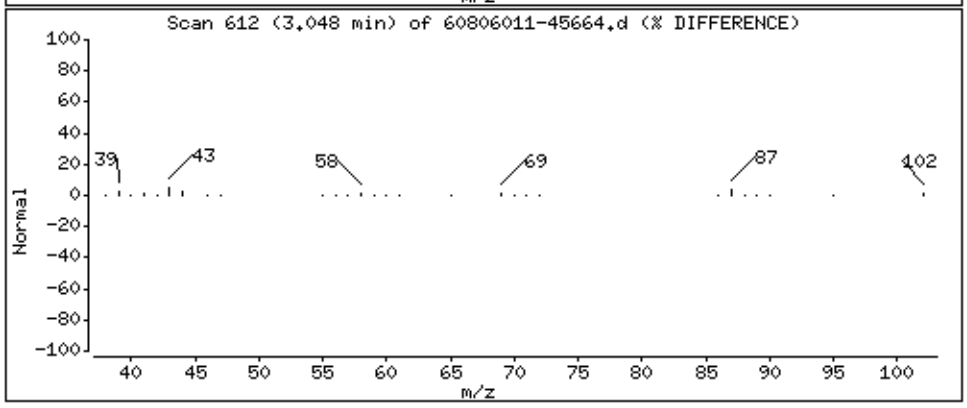












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

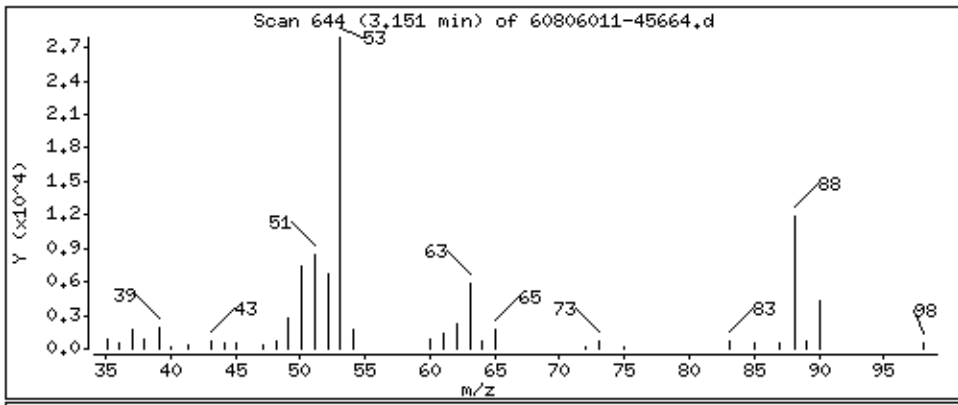
Operator: JEW

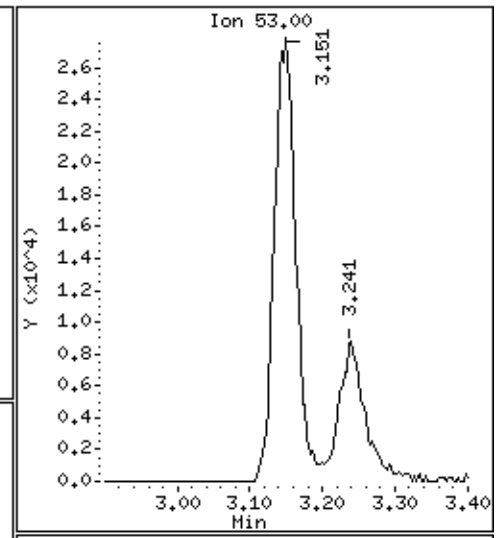
Column phase: RTX-VMS

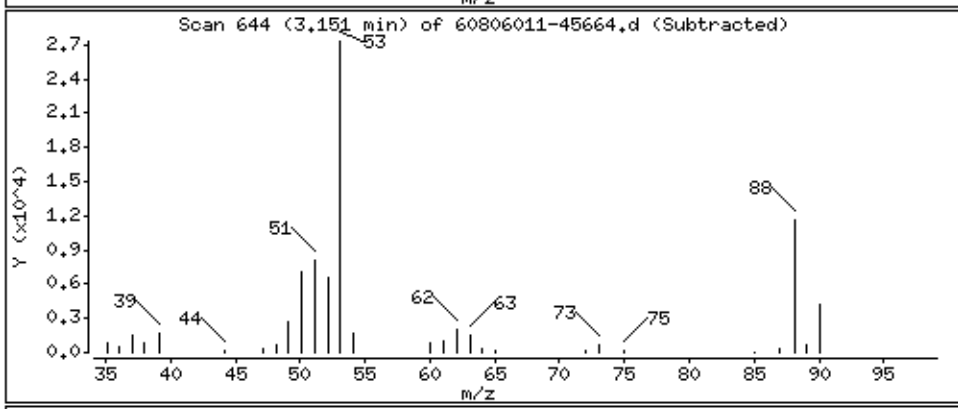
Column diameter: 0.18

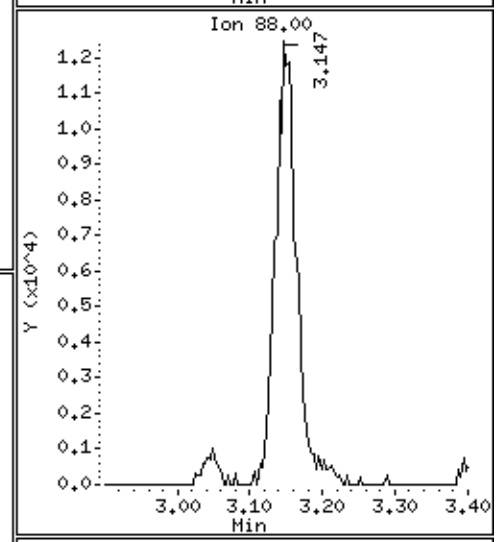
24 Chloroprene

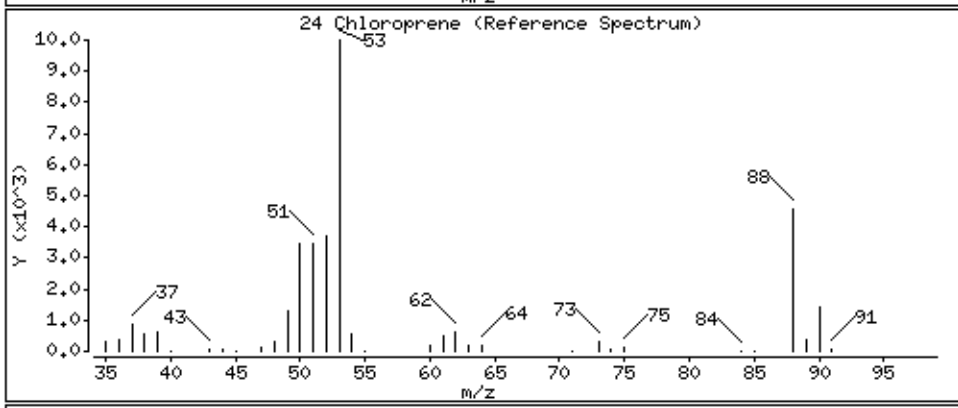
Concentration: 17.6 ug/kg

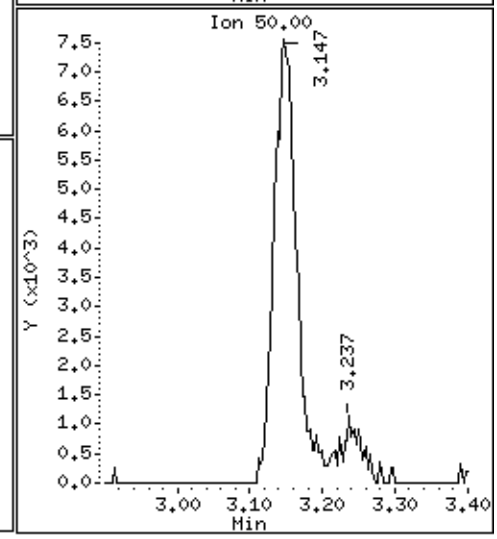


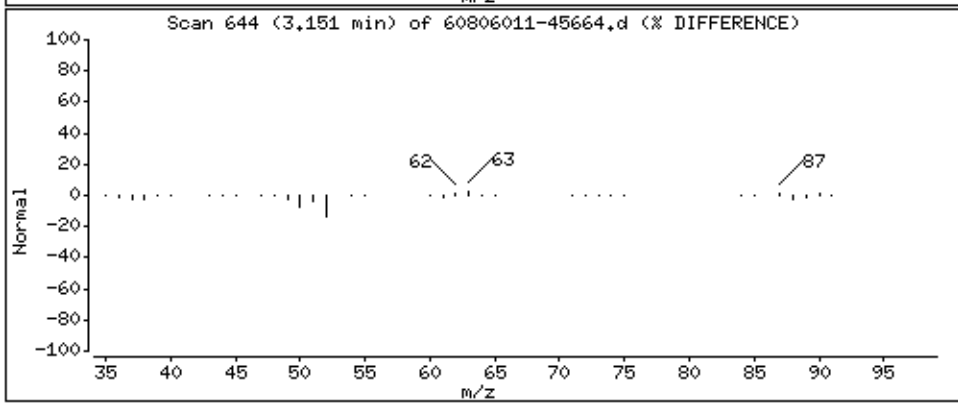












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

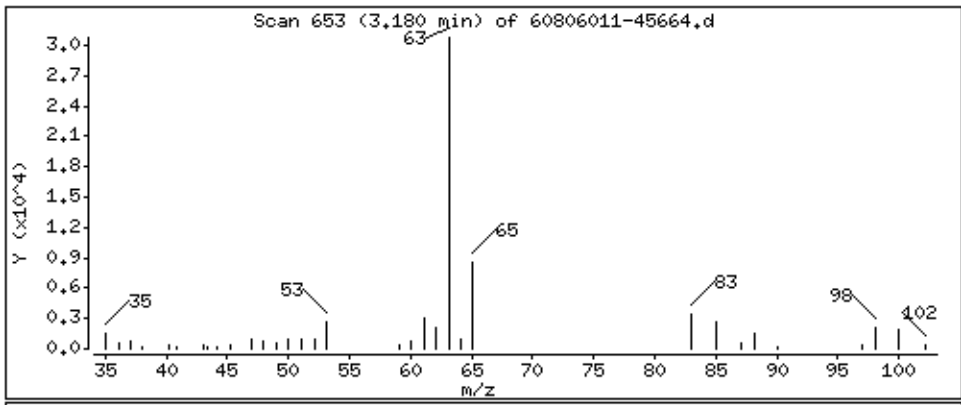
Operator: JEW

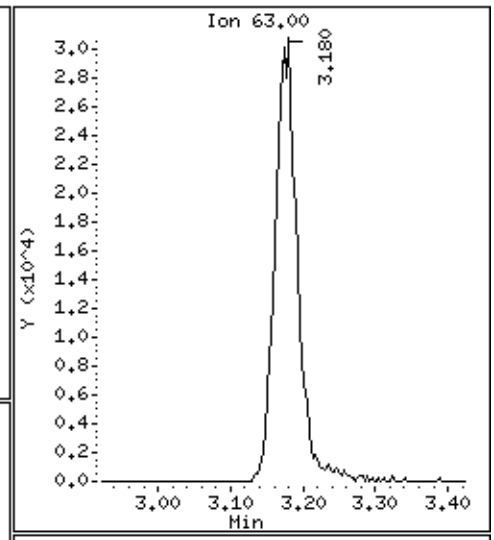
Column phase: RTX-VMS

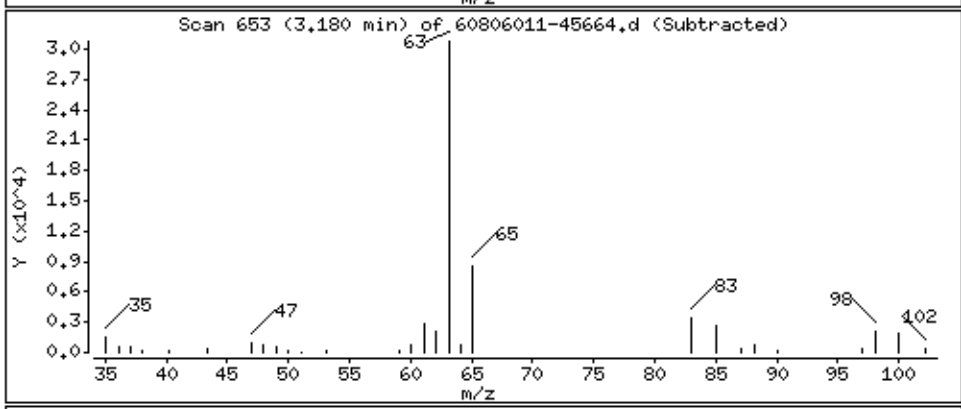
Column diameter: 0.18

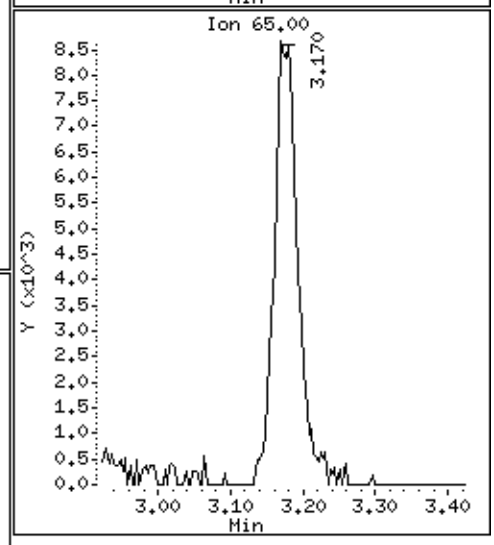
25 1,1-Dichloroethane

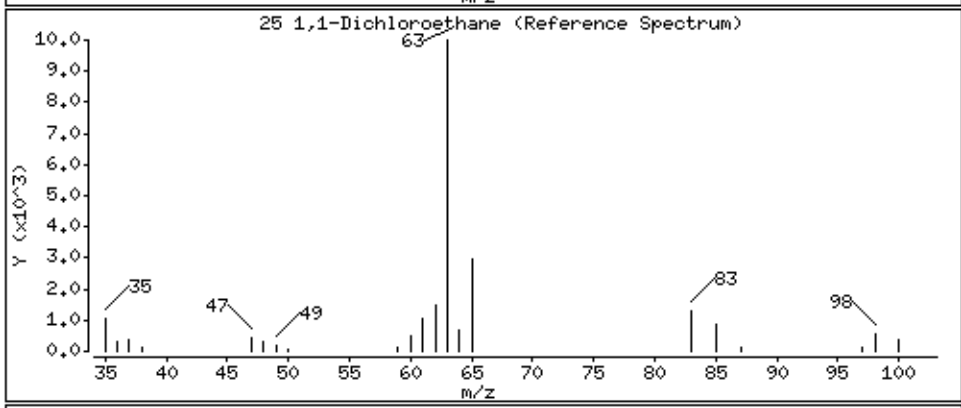
Concentration: 15.2 ug/kg

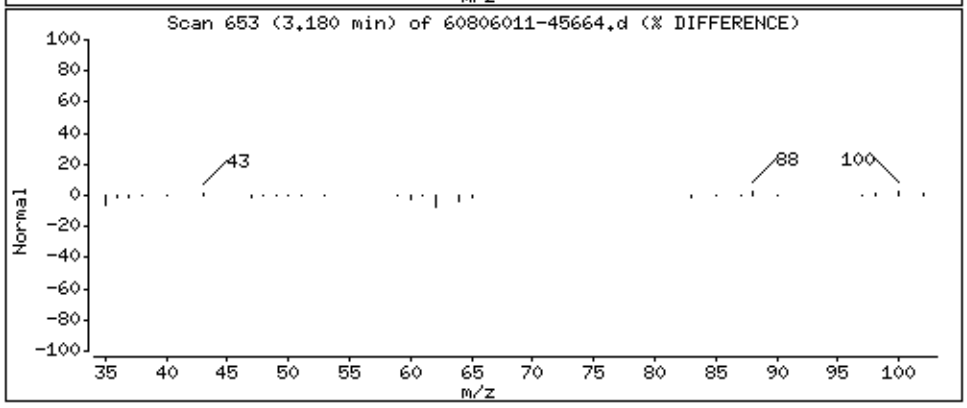












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

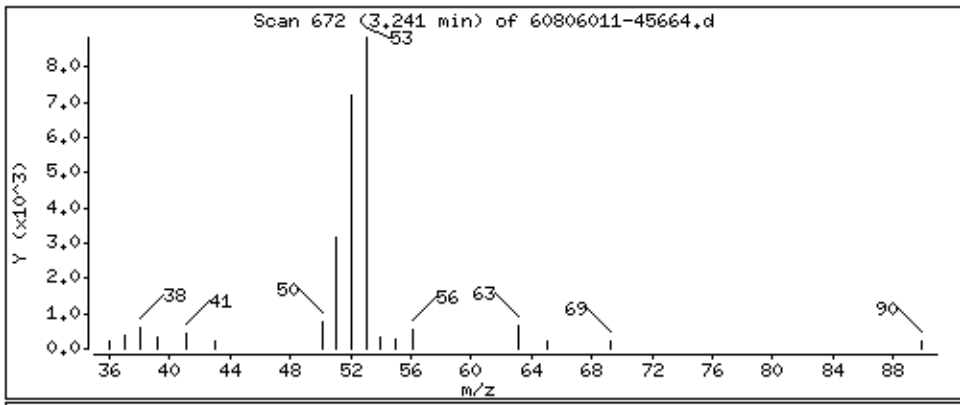
Operator: JEW

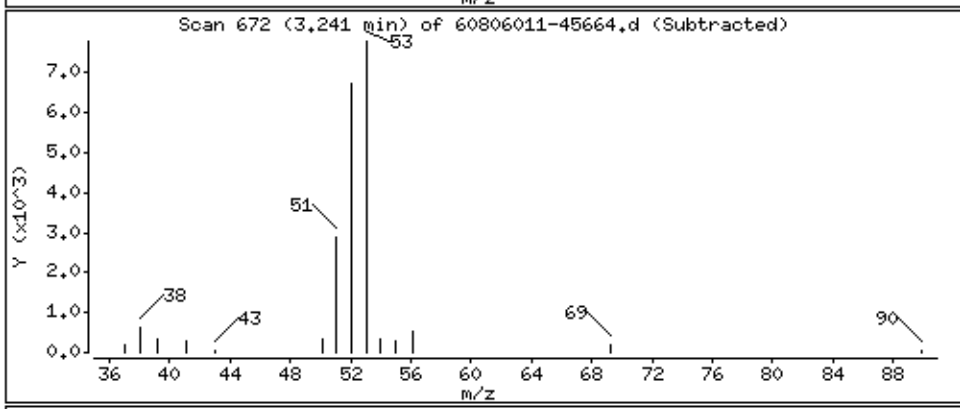
Column phase: RTX-VMS

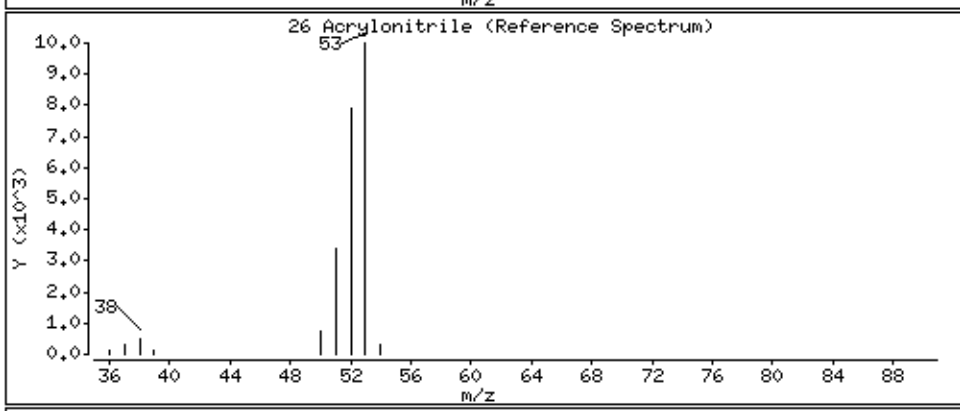
Column diameter: 0.18

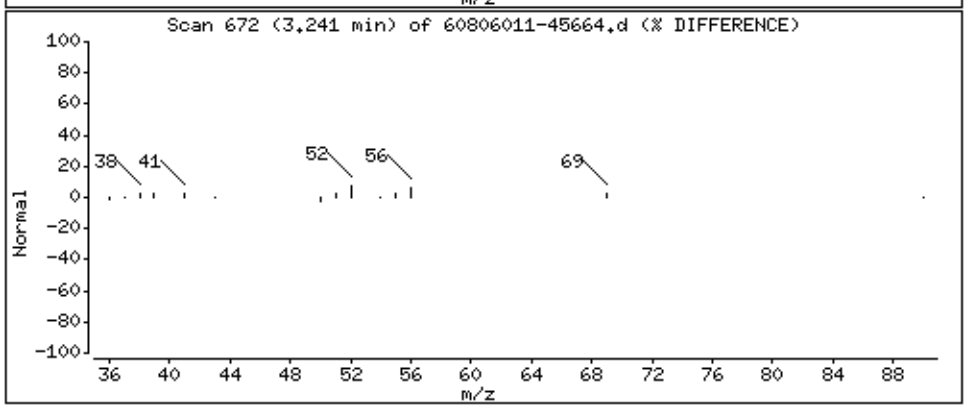
26 Acrylonitrile

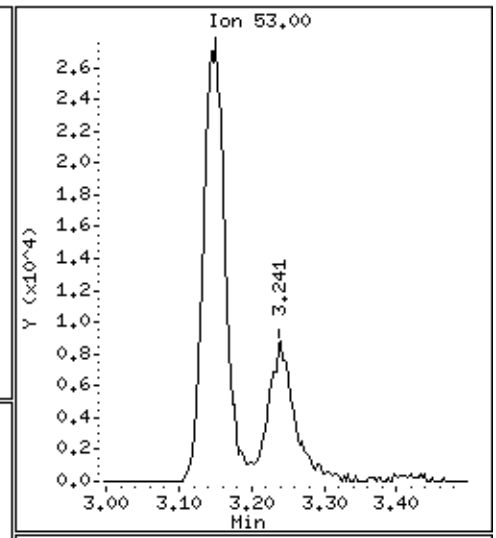
Concentration: 14.3 ug/kg

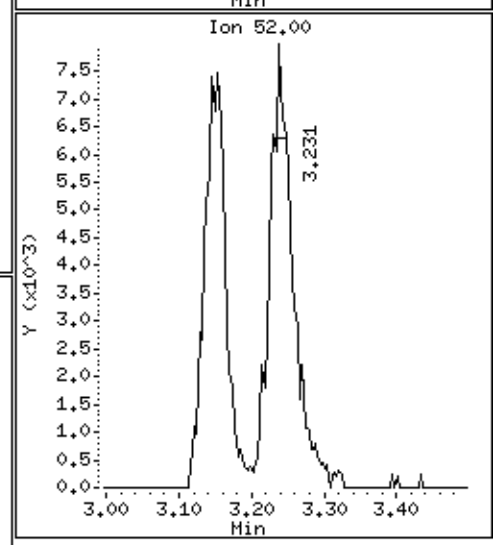












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

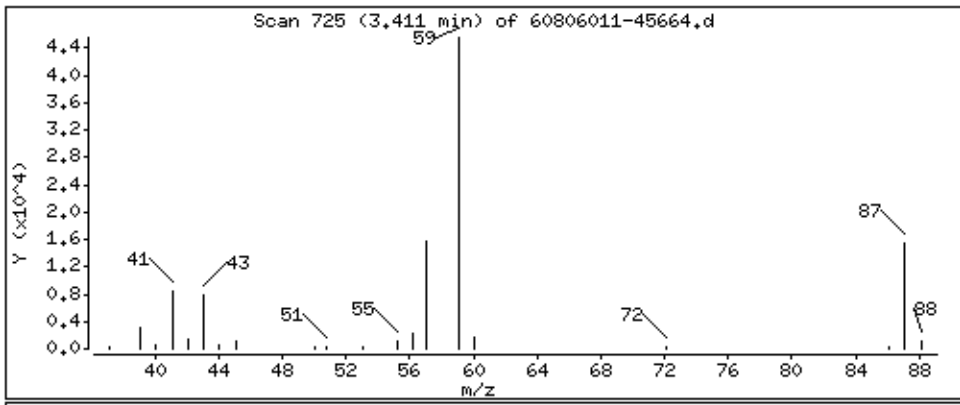
Operator: JEW

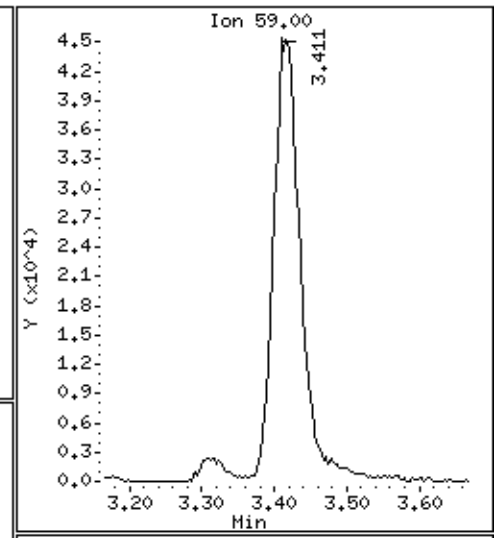
Column phase: RTX-VMS

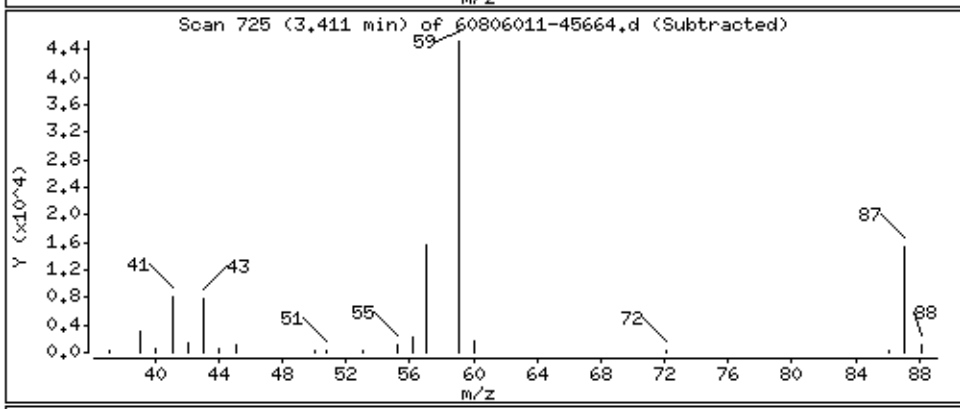
Column diameter: 0.18

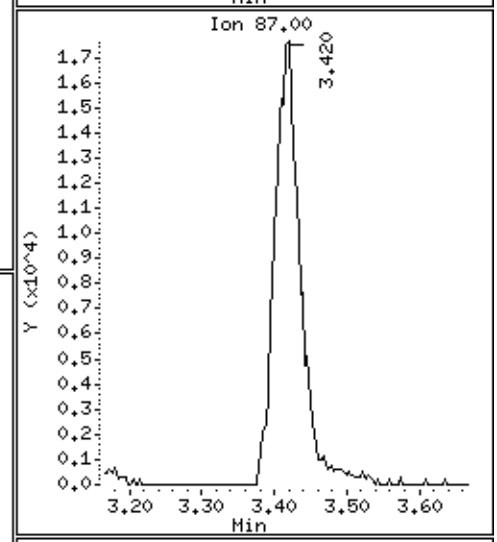
27 Ethyl-tert-butyl ether

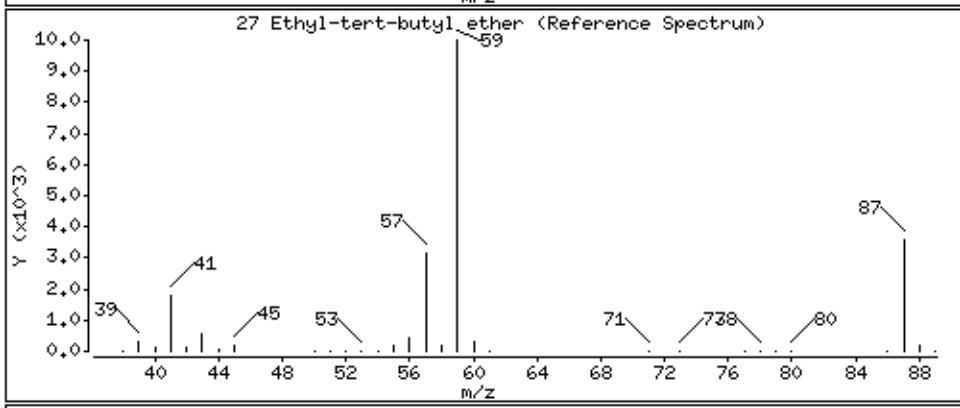
Concentration: 15.9 ug/kg

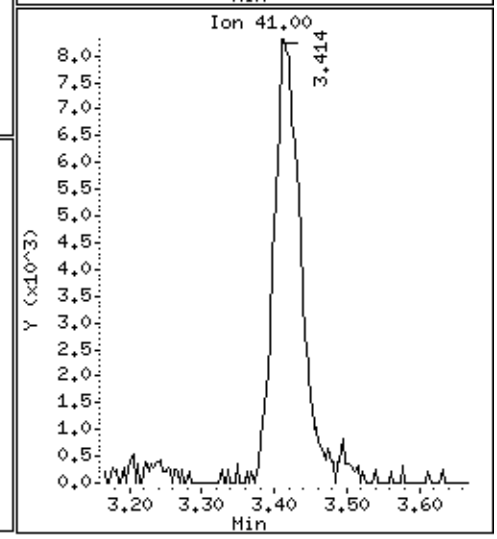


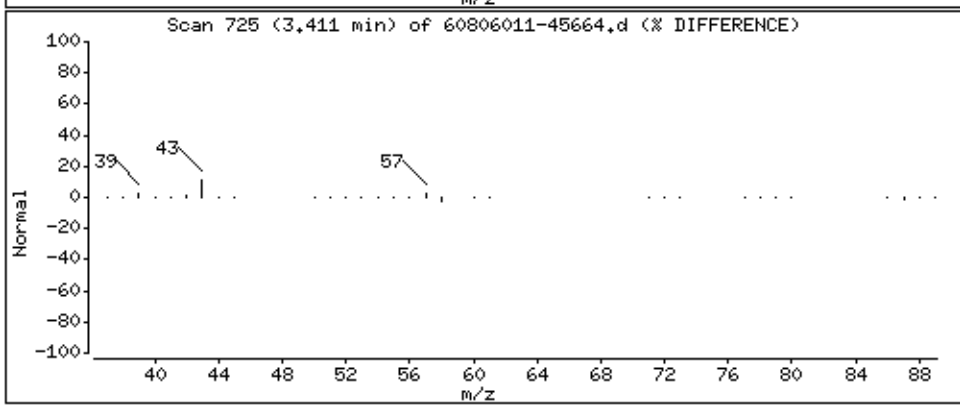












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

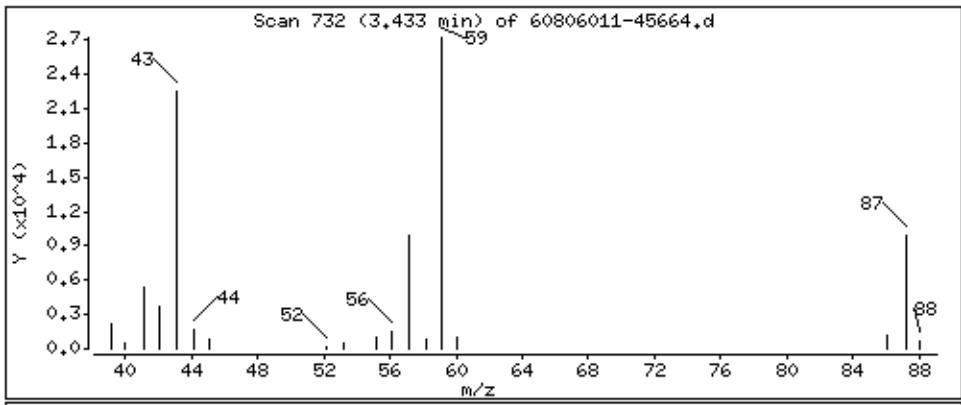
Operator: JEW

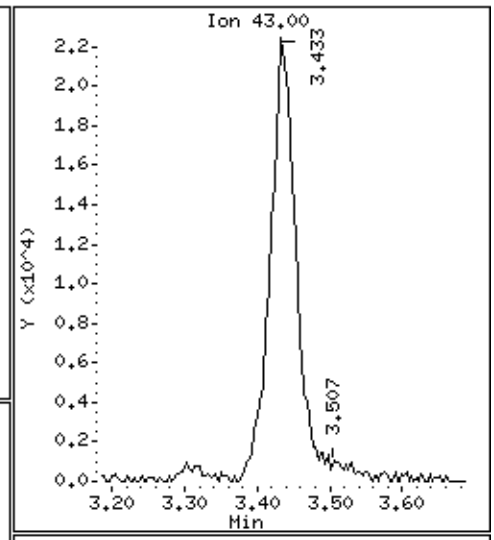
Column phase: RTX-VMS

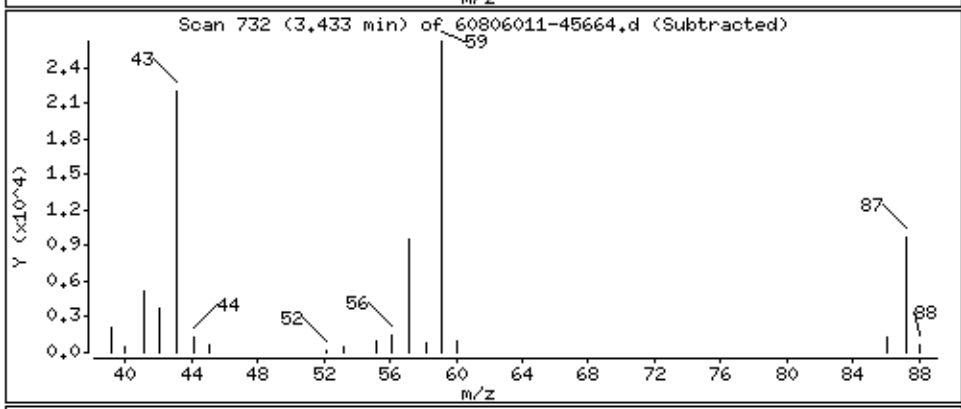
Column diameter: 0.18

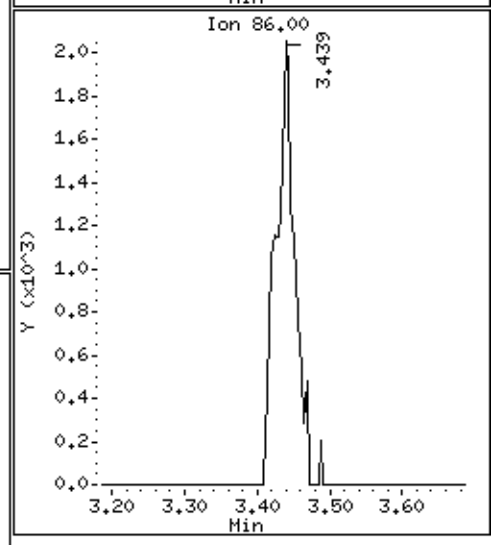
28 Vinyl acetate

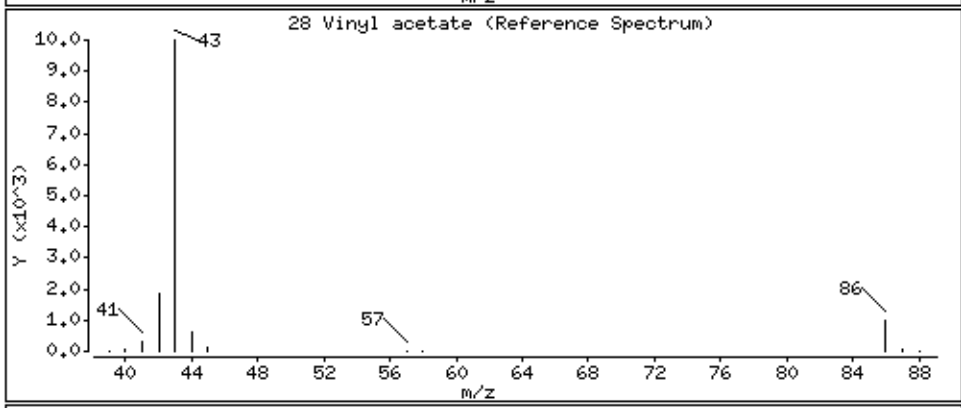
Concentration: 8.59 ug/kg

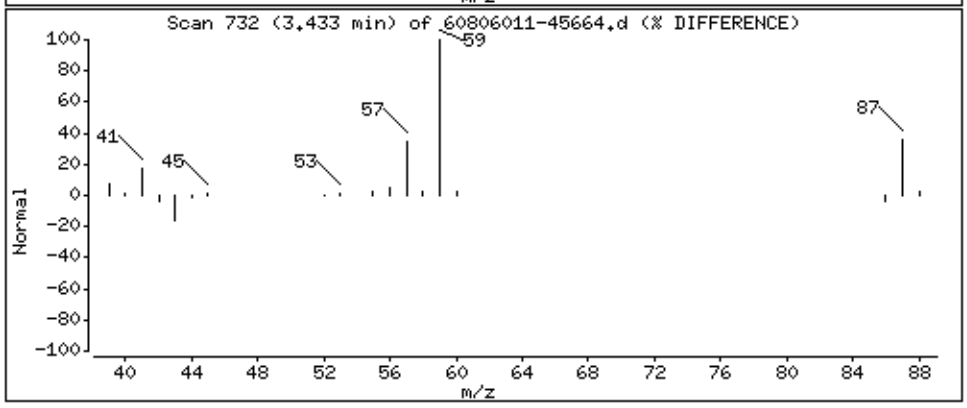












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

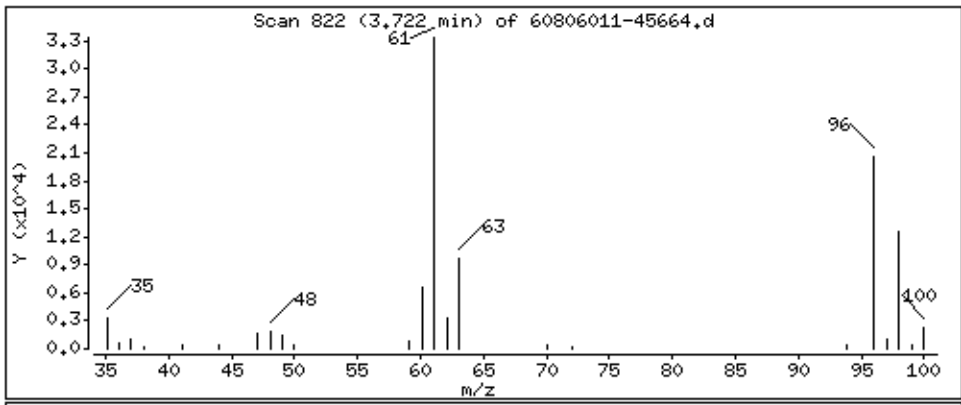
Operator: JEW

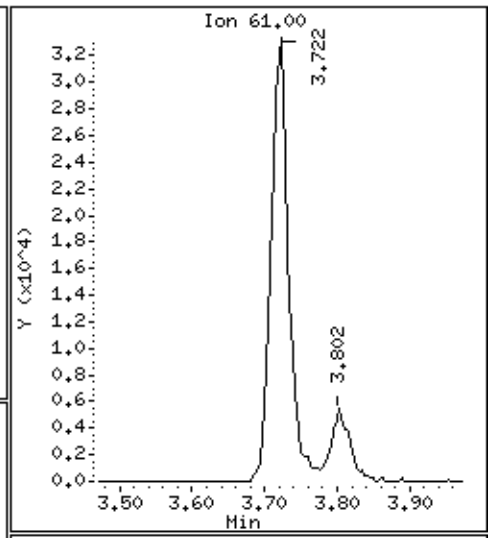
Column phase: RTX-VMS

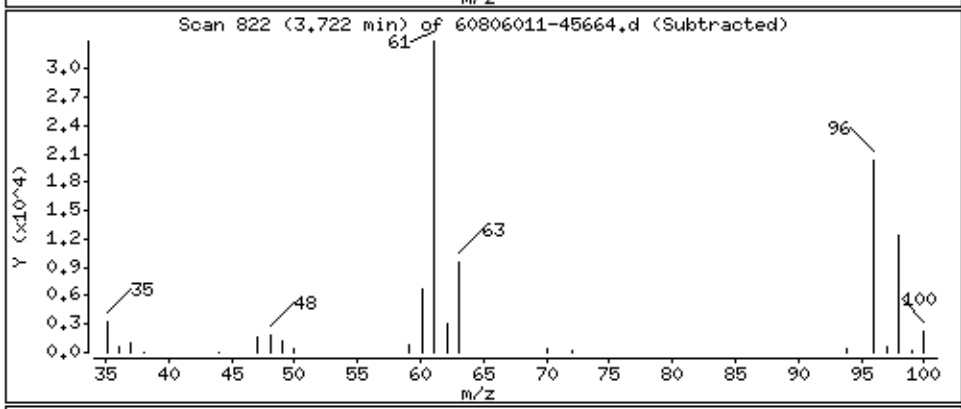
Column diameter: 0.18

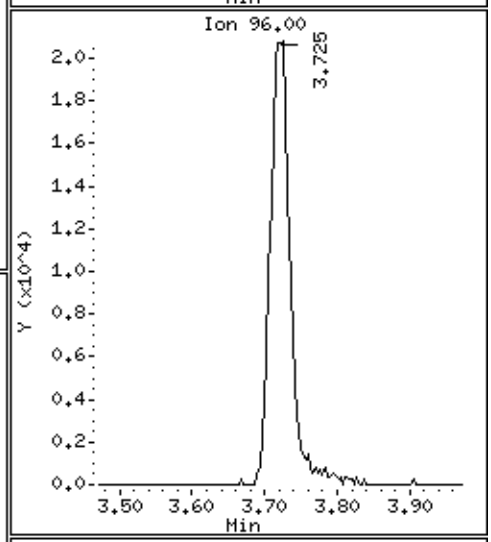
29 cis-1,2-Dichloroethene

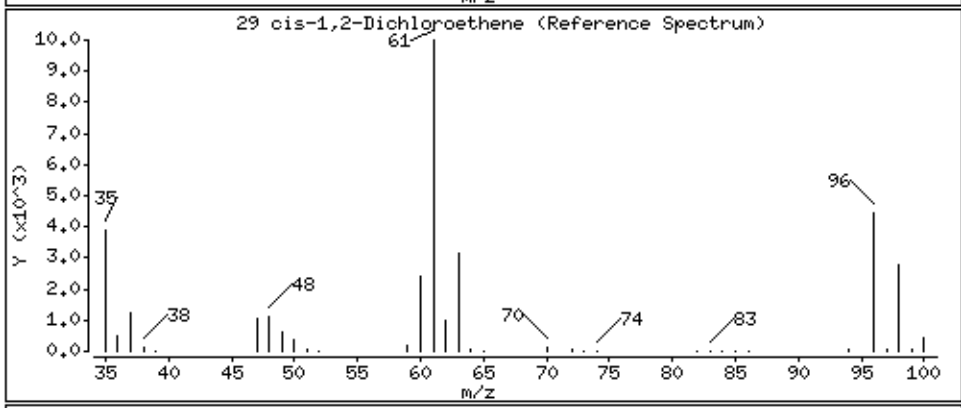
Concentration: 16.2 ug/kg

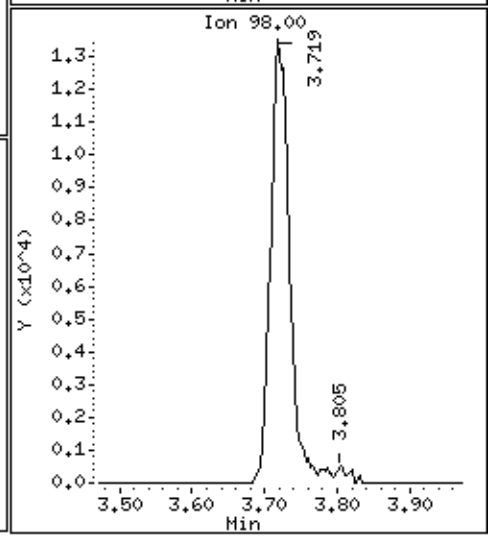


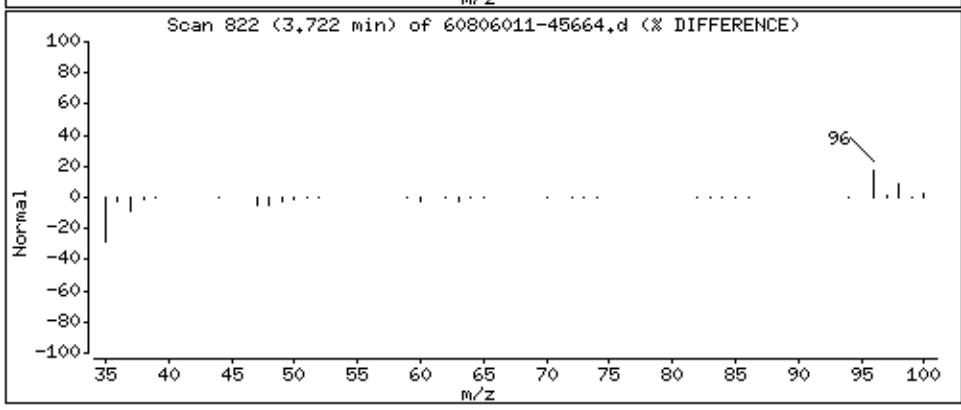












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

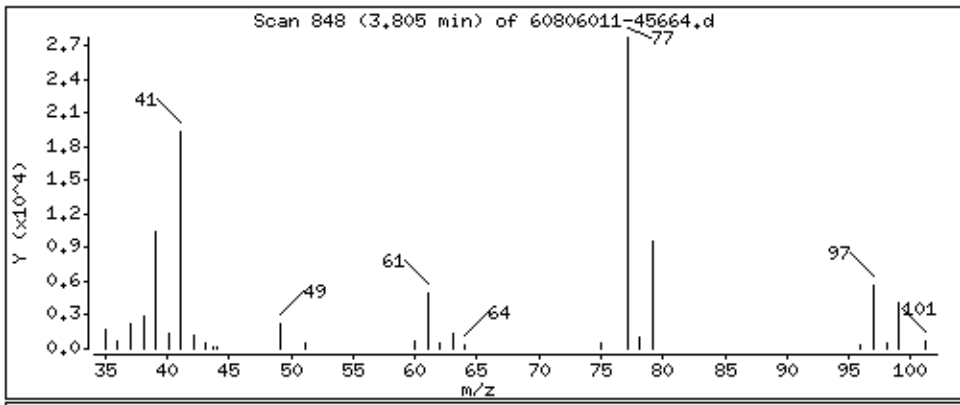
Operator: JEW

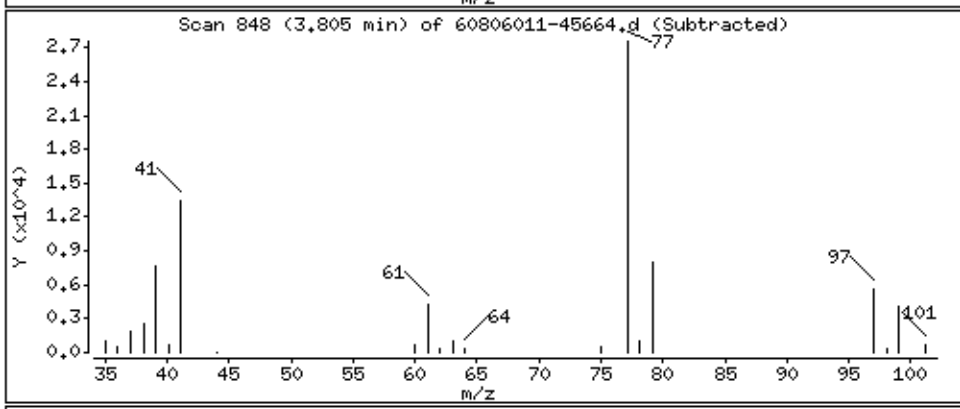
Column phase: RTX-VMS

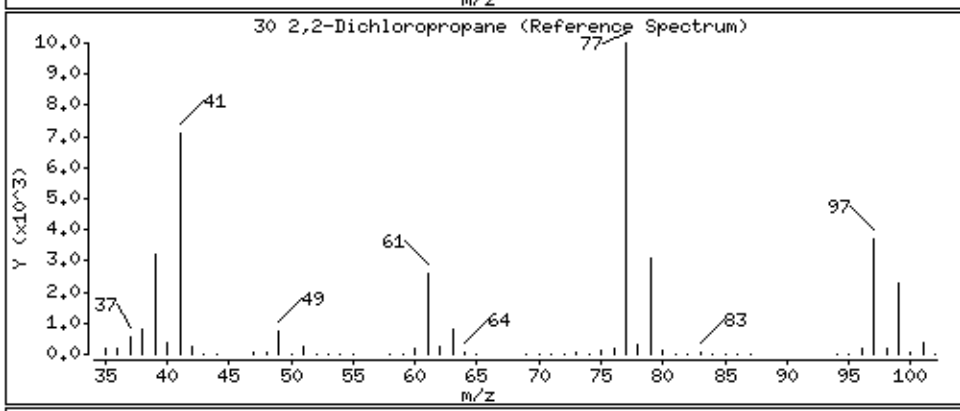
Column diameter: 0.18

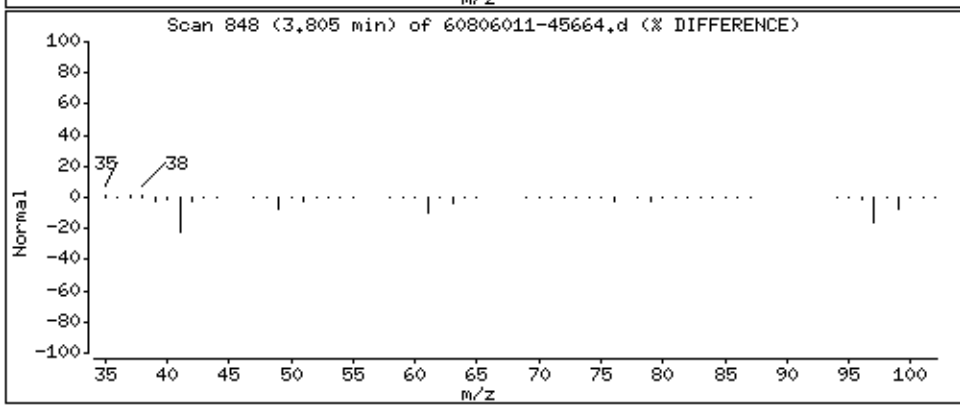
30 2,2-Dichloropropane

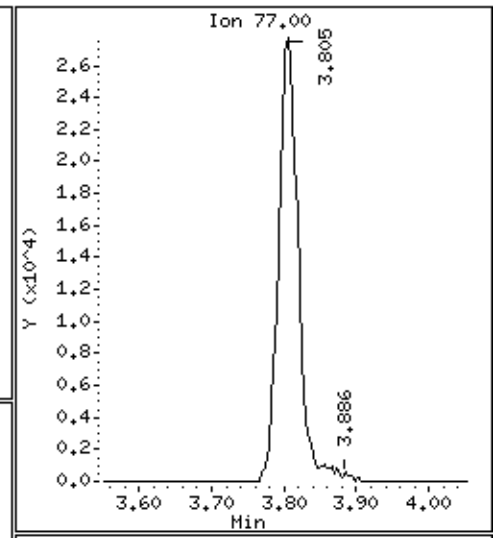
Concentration: 18.1 ug/kg

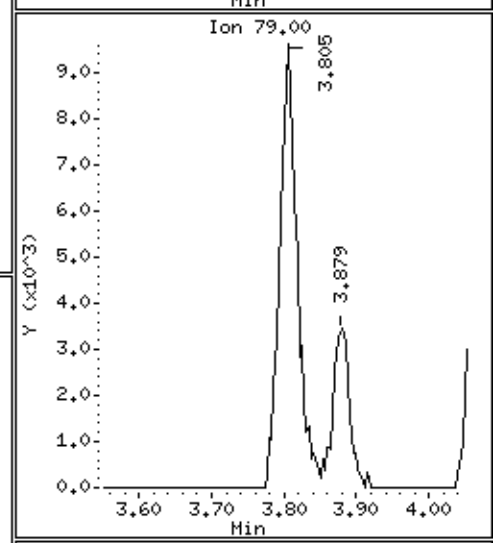


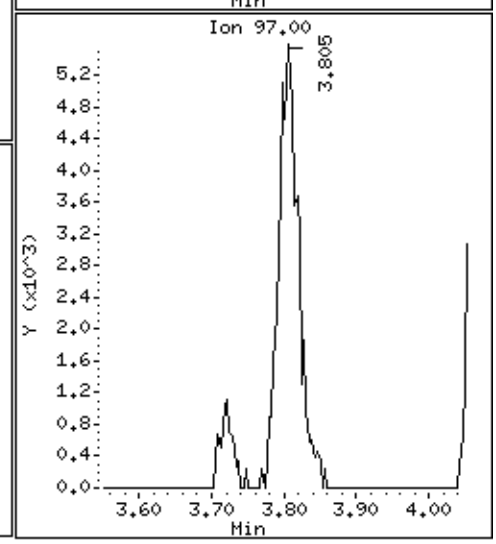












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

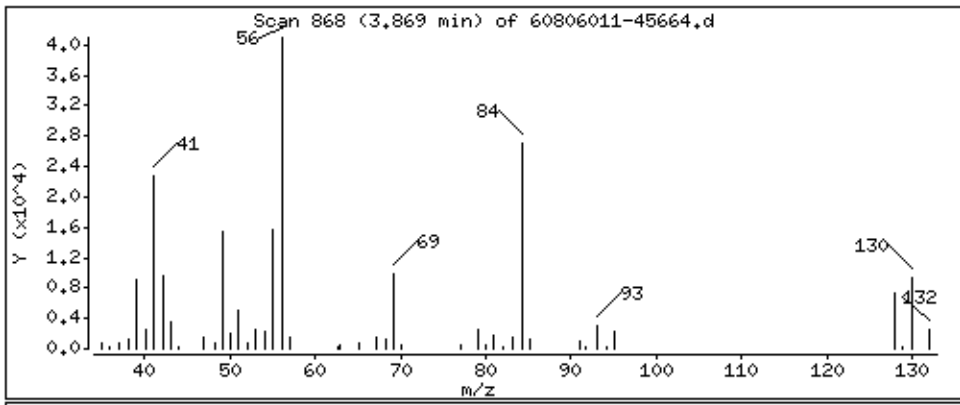
Operator: JEW

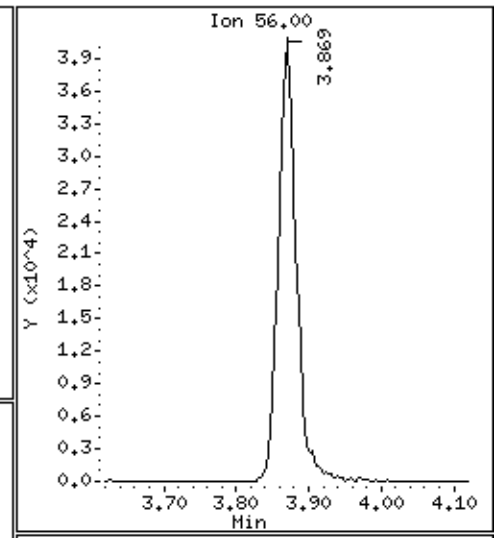
Column phase: RTX-VMS

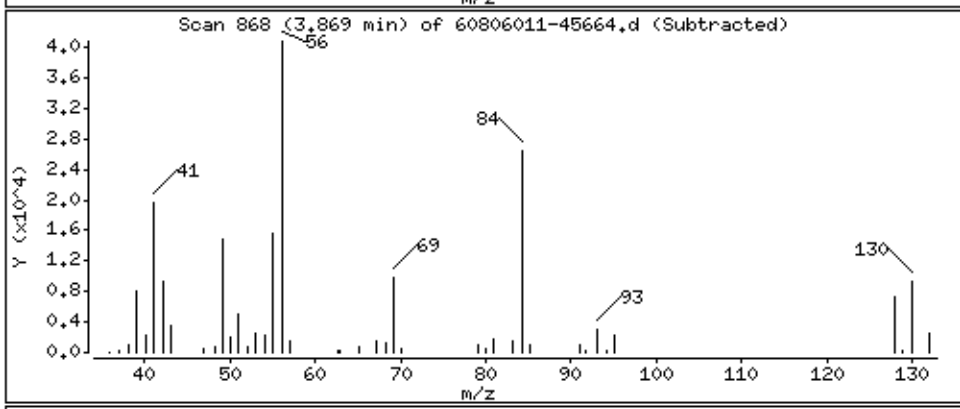
Column diameter: 0.18

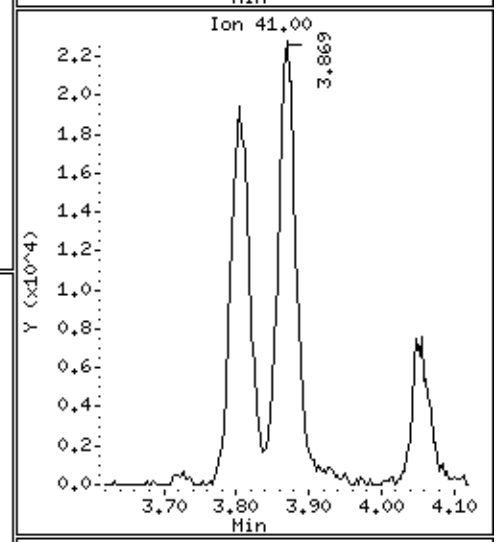
31 Cyclohexane

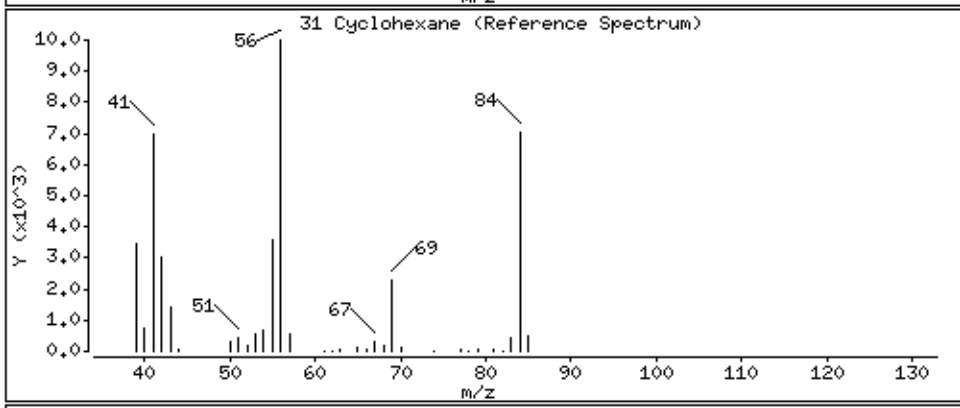
Concentration: 17.6 ug/kg

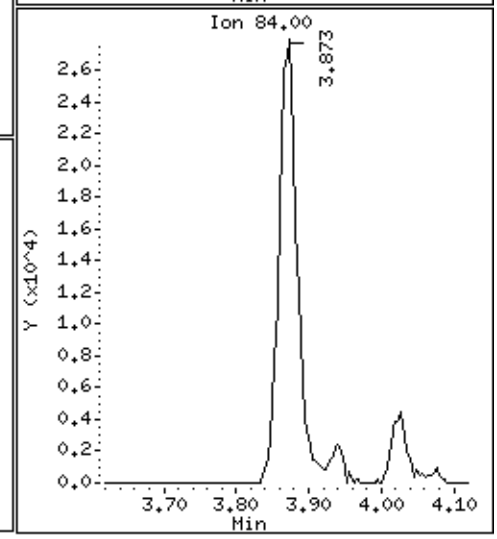


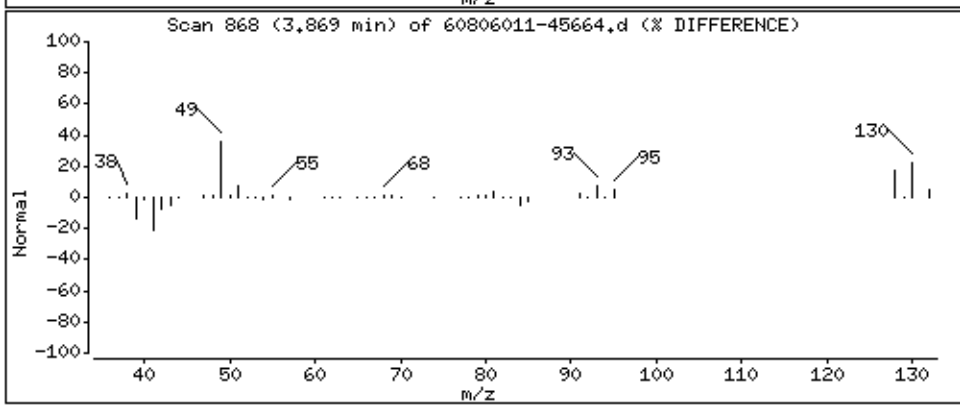












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

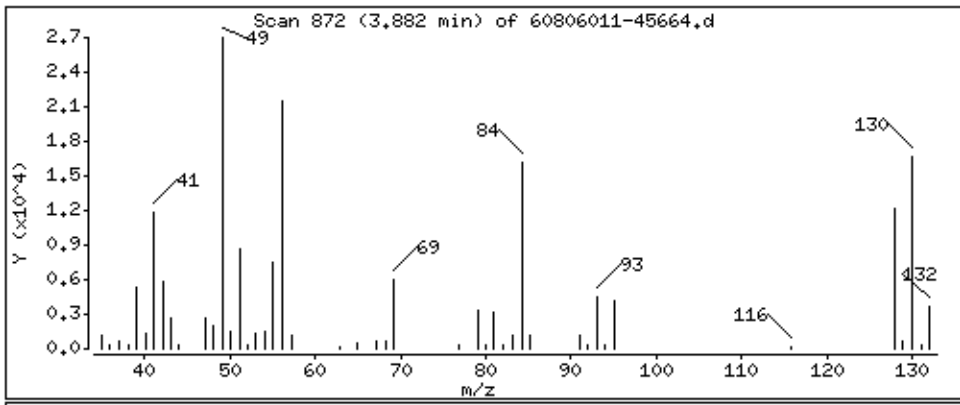
Operator: JEW

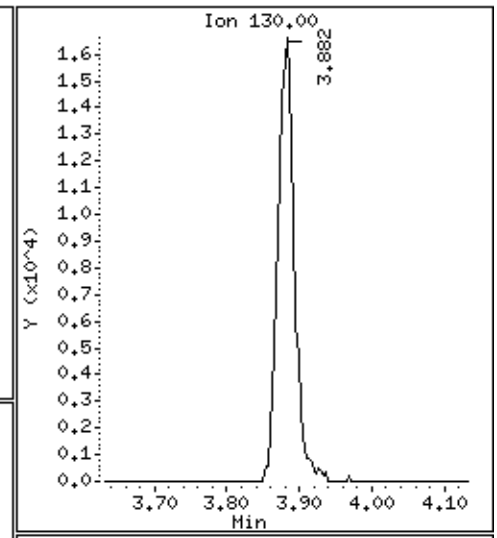
Column phase: RTX-VMS

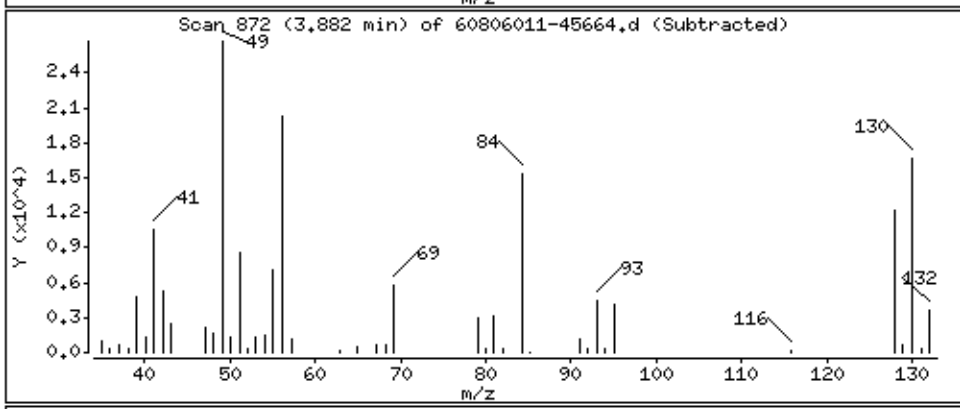
Column diameter: 0.18

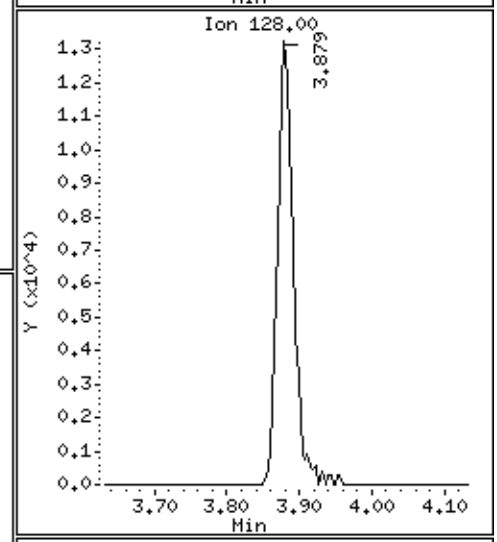
32 Bromochloromethane

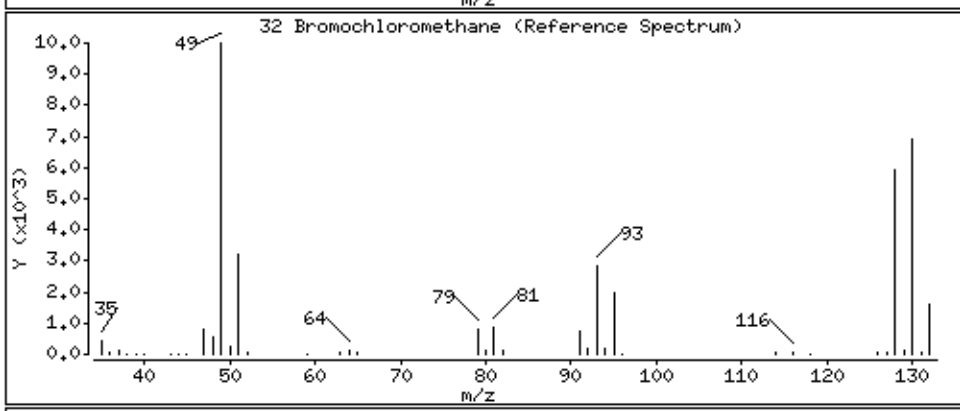
Concentration: 16.3 ug/kg

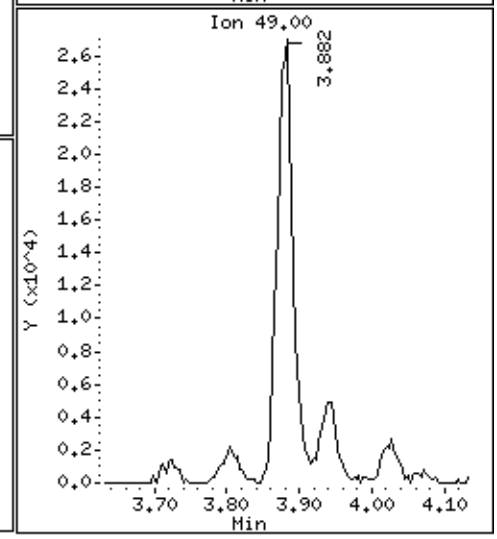


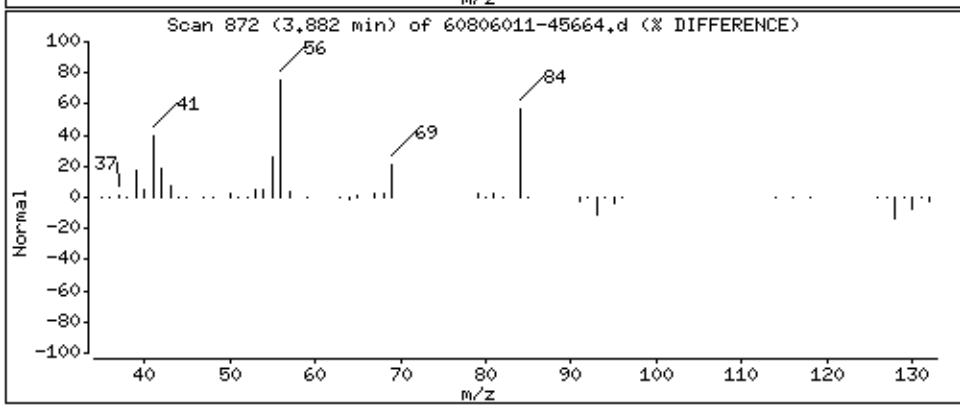












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

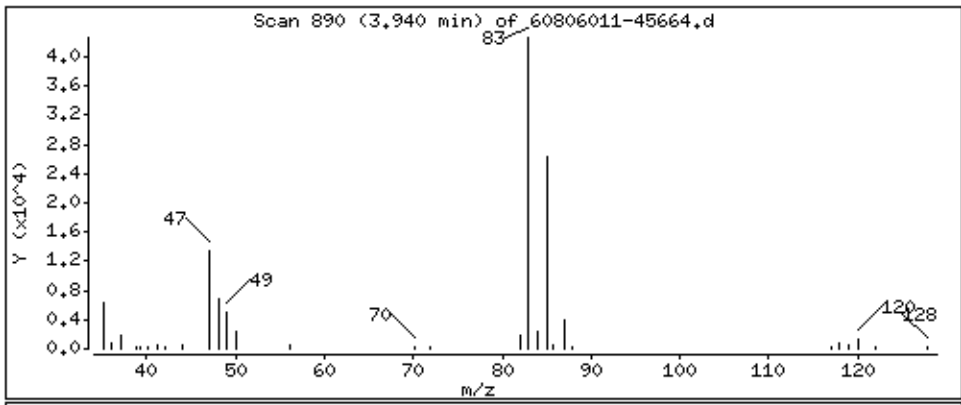
Operator: JEW

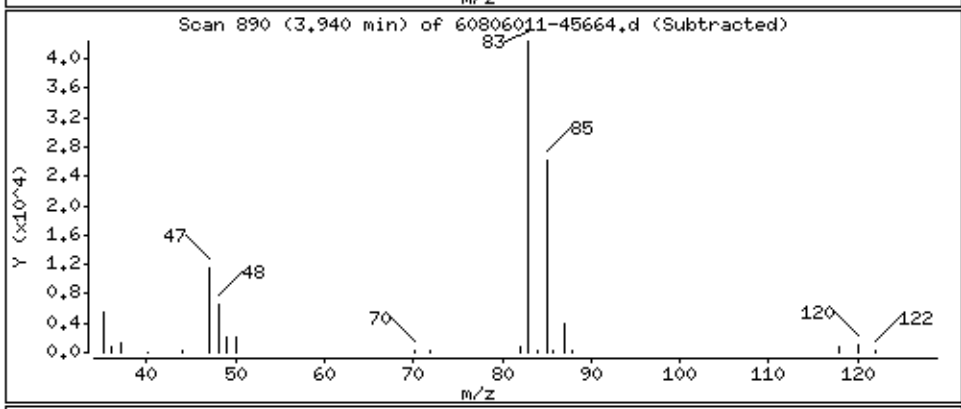
Column phase: RTX-VMS

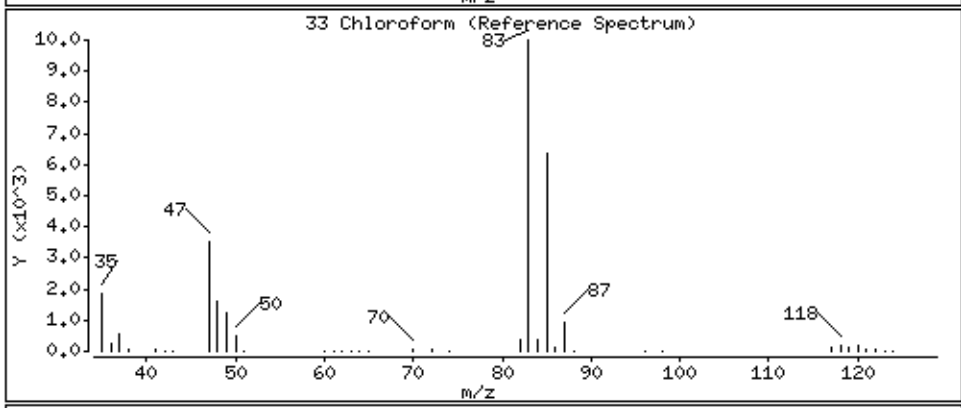
Column diameter: 0.18

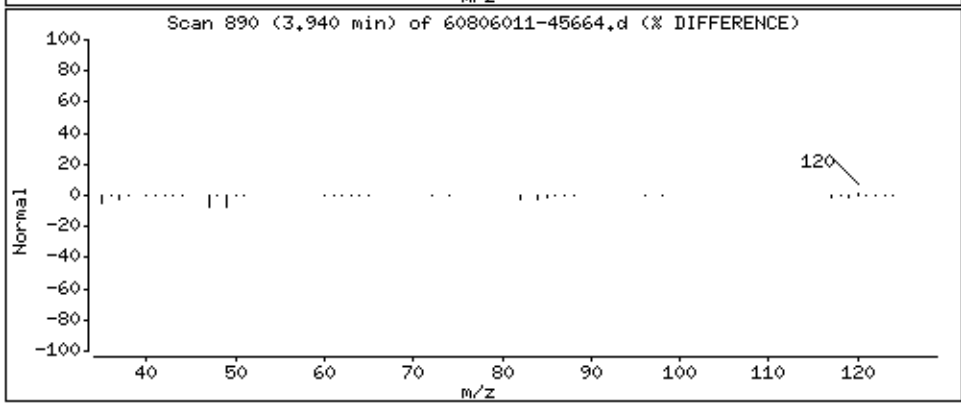
33 Chloroform

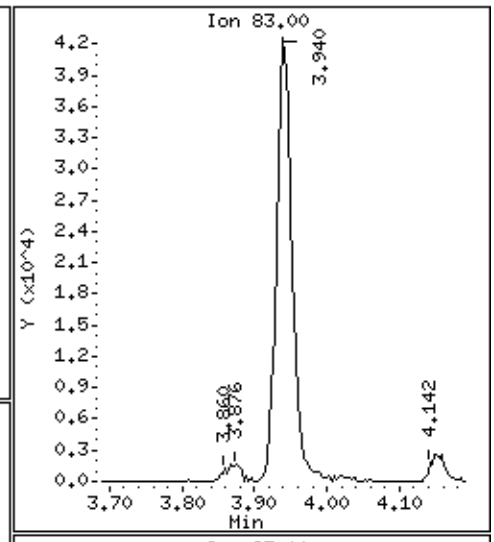
Concentration: 16.9 ug/kg

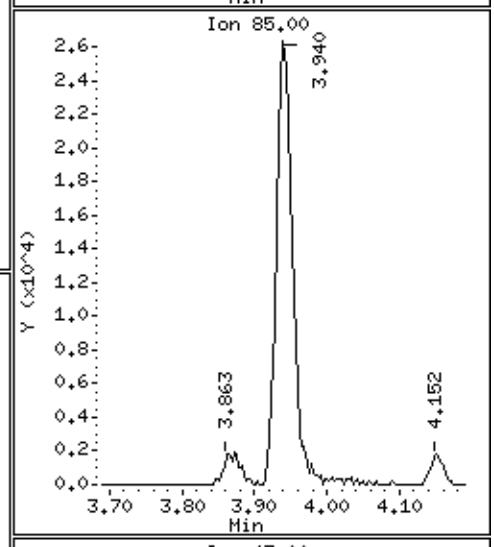


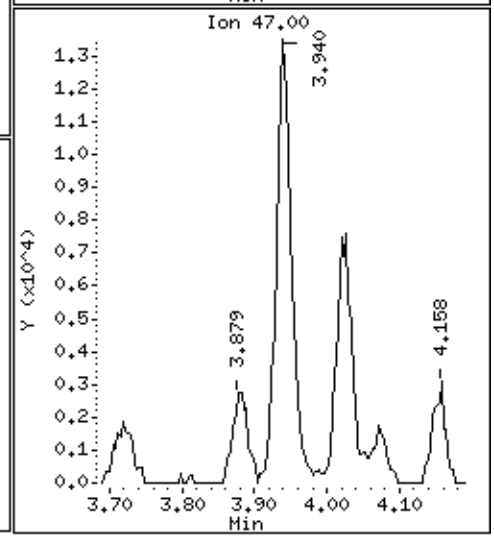












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

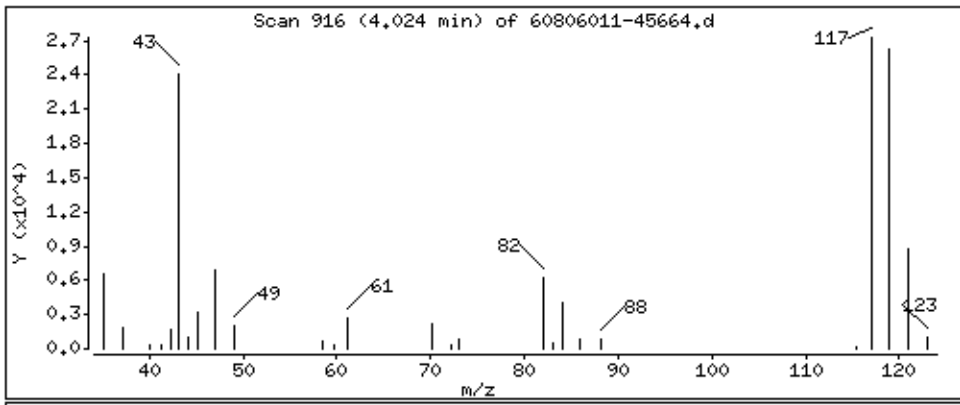
Operator: JEW

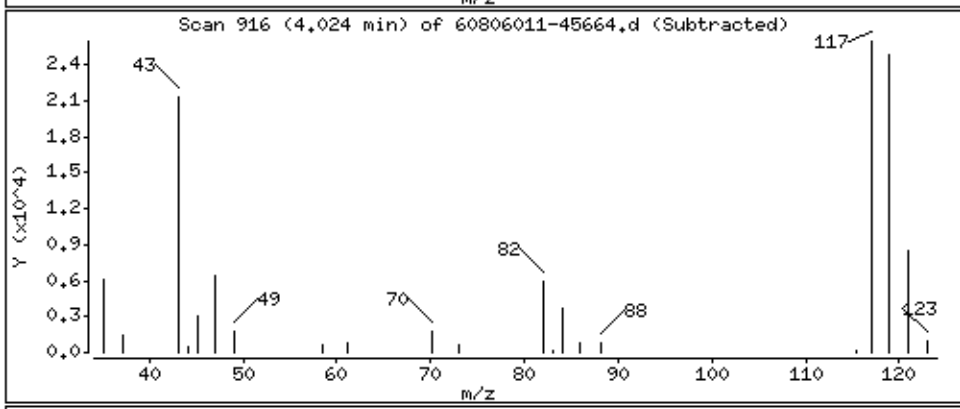
Column phase: RTX-VMS

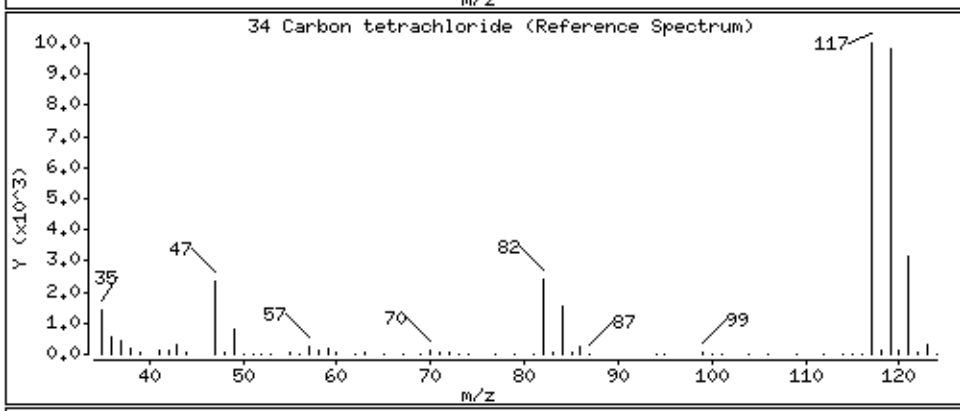
Column diameter: 0.18

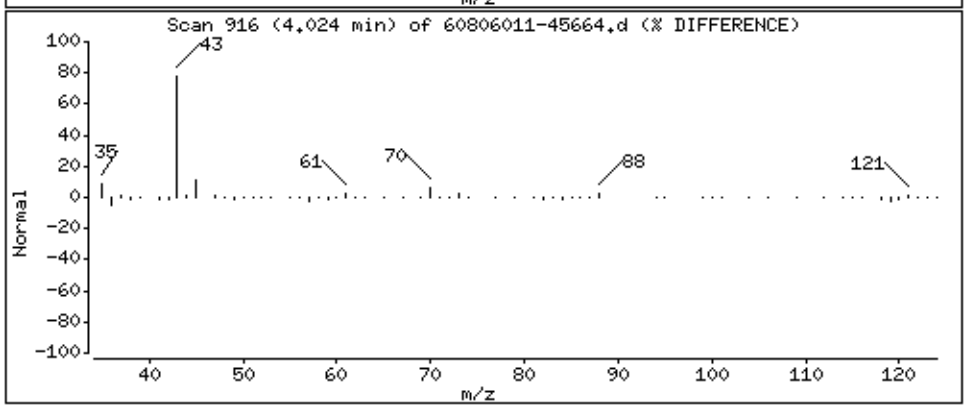
34 Carbon tetrachloride

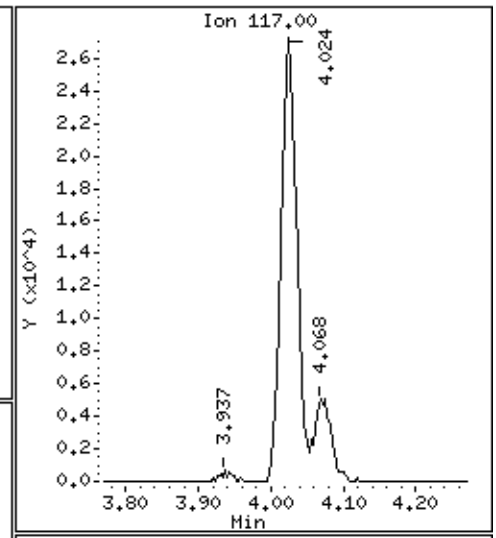
Concentration: 16.4 ug/kg

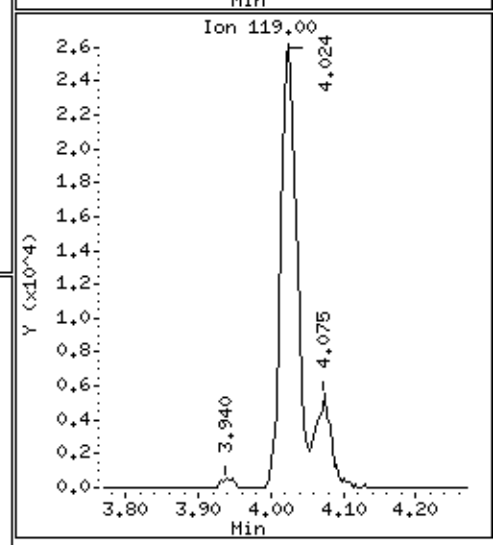












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

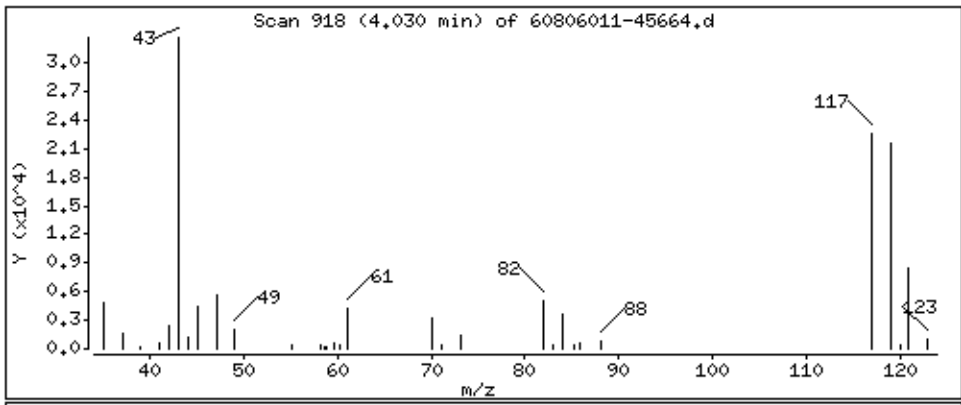
Operator: JEW

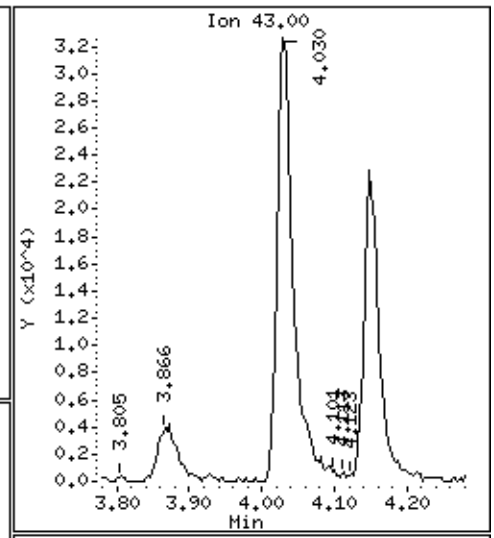
Column phase: RTX-VMS

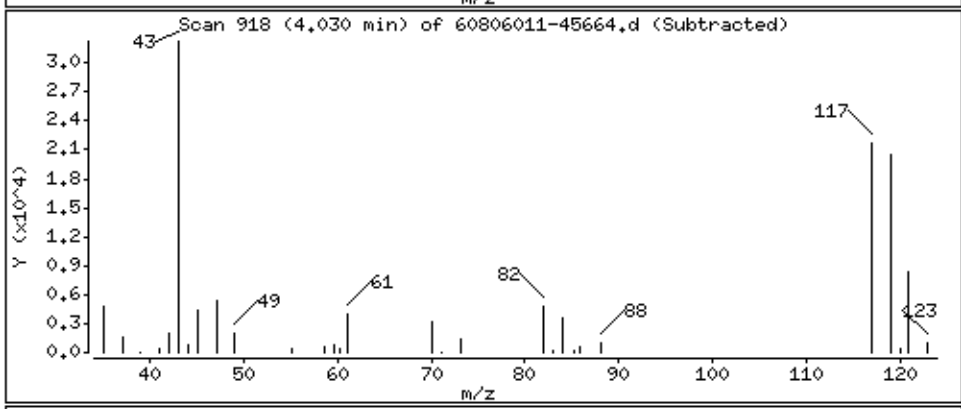
Column diameter: 0.18

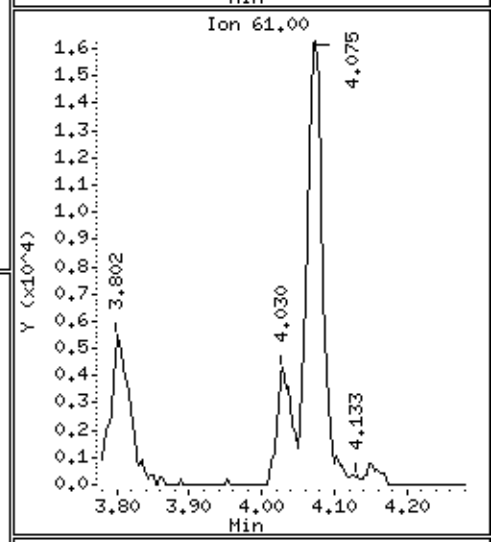
35 Ethyl acetate

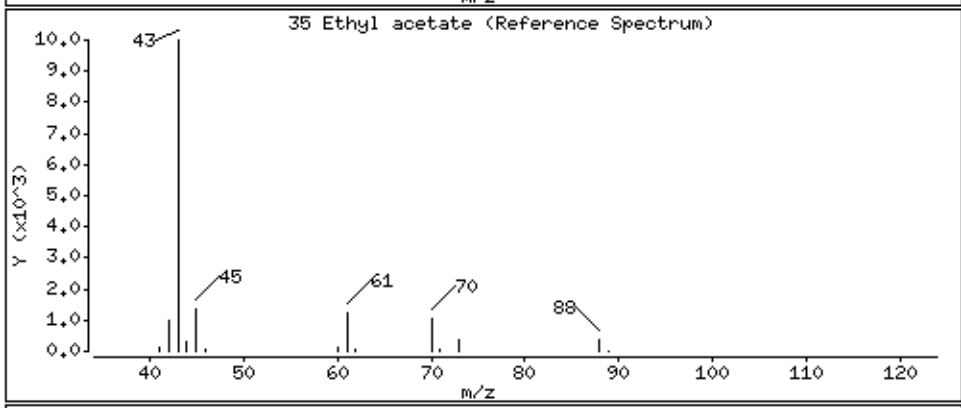
Concentration: 16.9 ug/kg

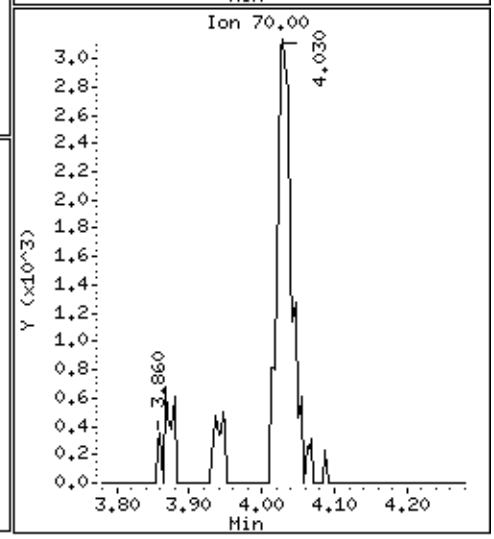


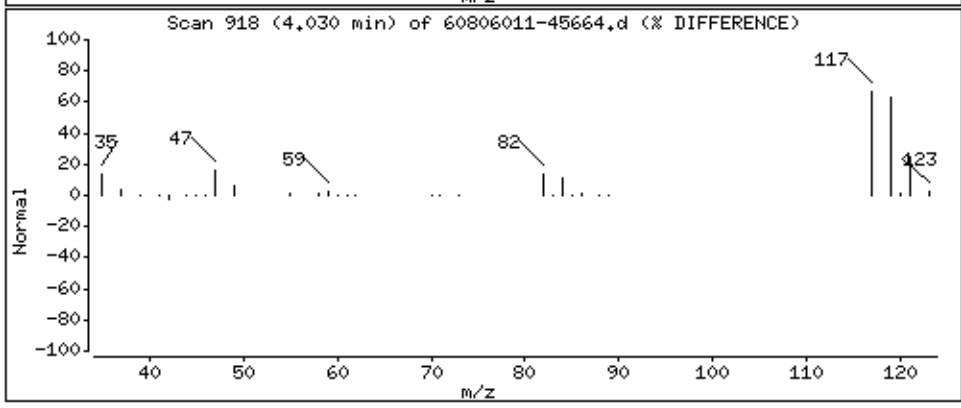












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

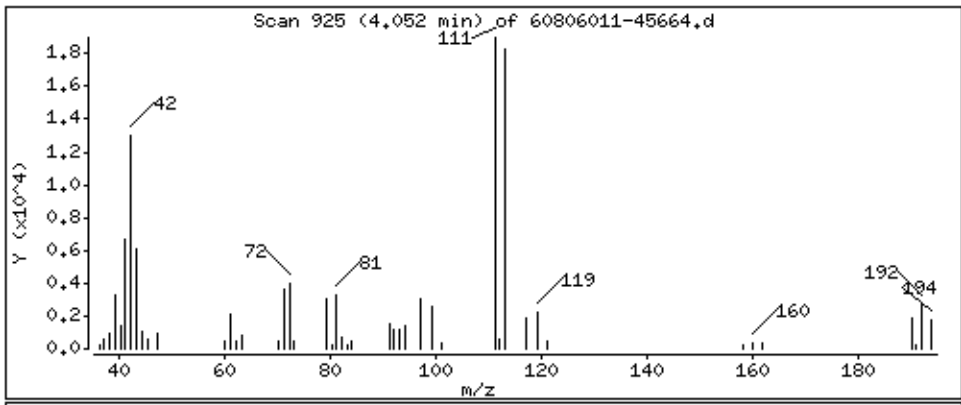
Operator: JEW

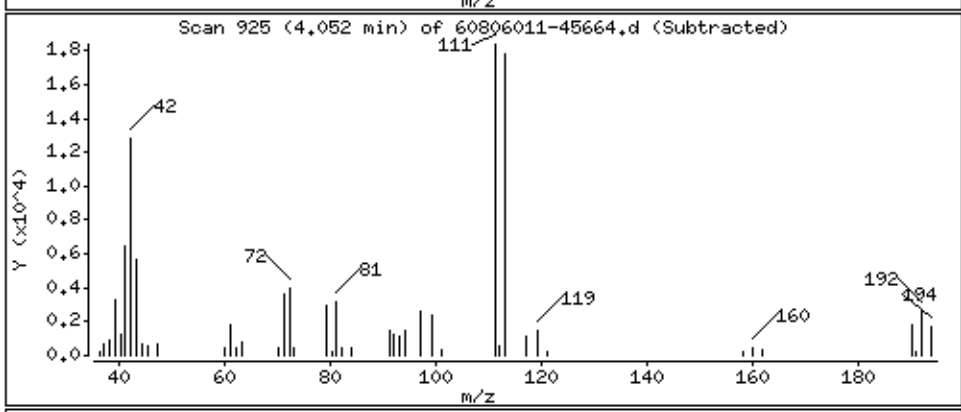
Column phase: RTX-VMS

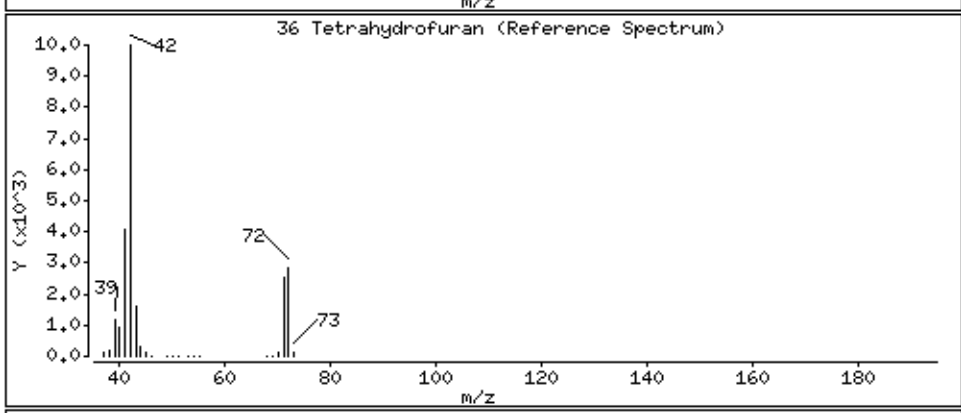
Column diameter: 0.18

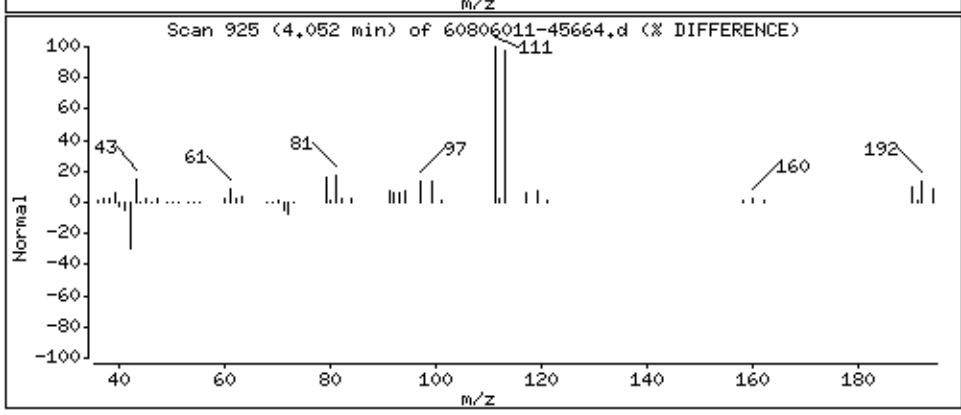
36 Tetrahydrofuran

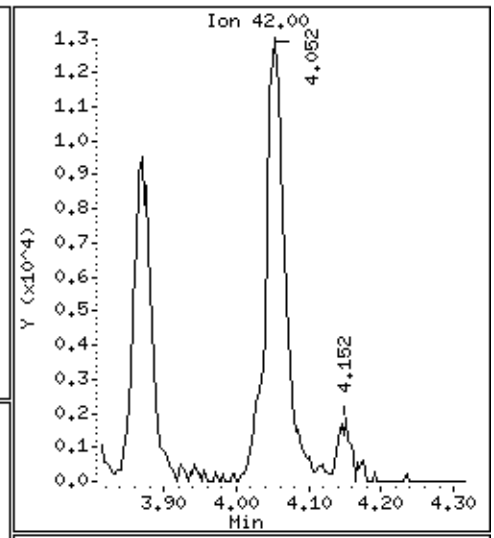
Concentration: 17.3 ug/kg

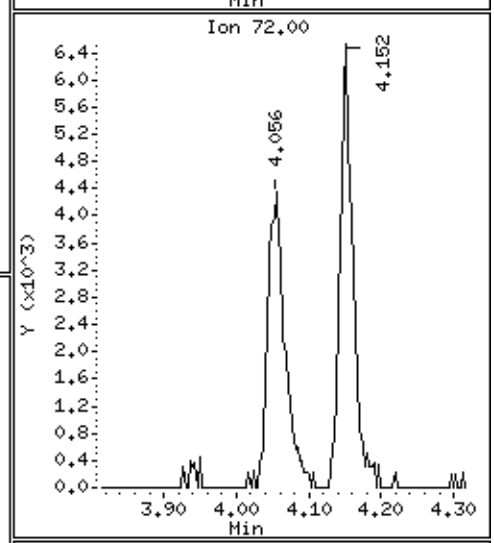


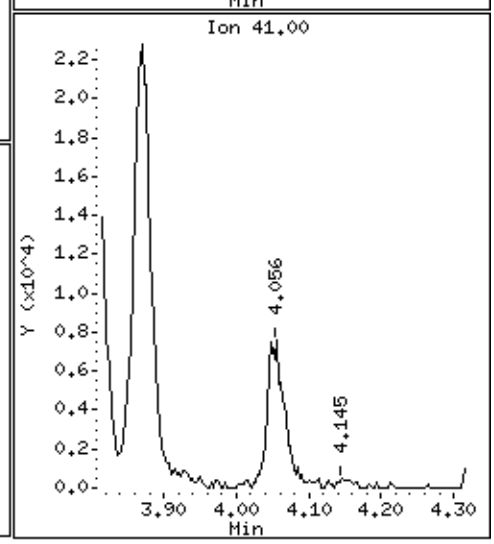












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

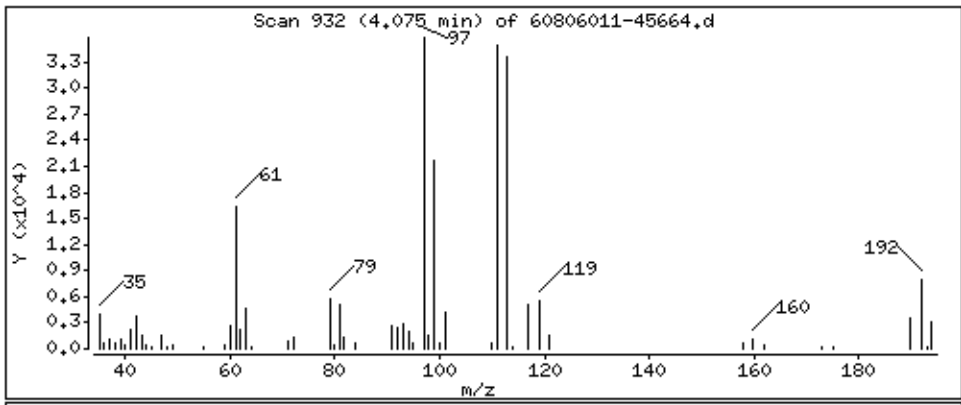
Operator: JEW

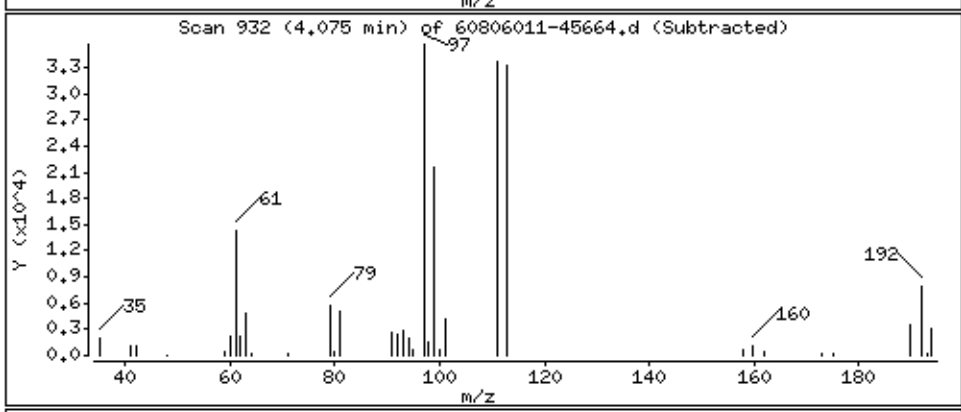
Column phase: RTX-VMS

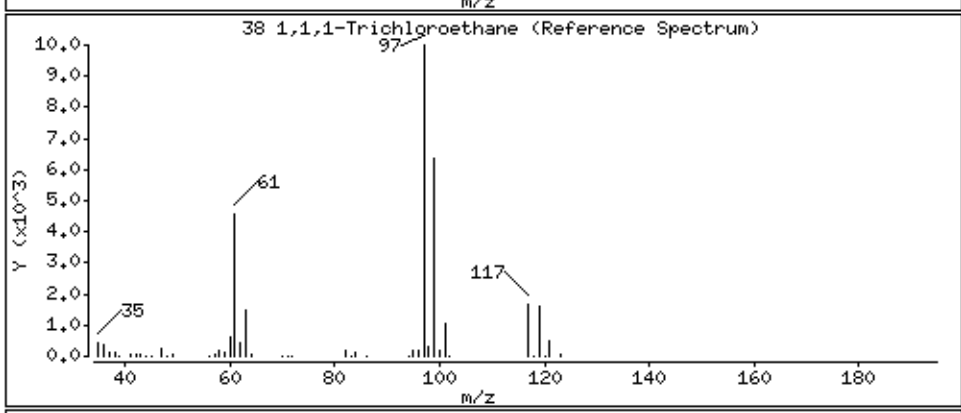
Column diameter: 0.18

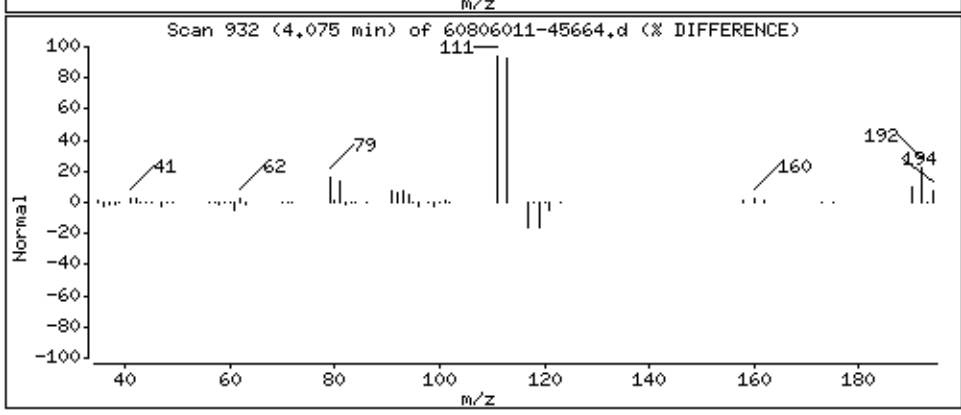
38 1,1,1-Trichloroethane

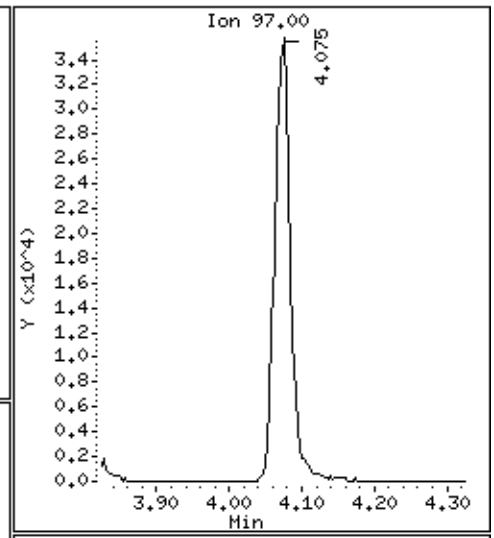
Concentration: 16.5 ug/kg

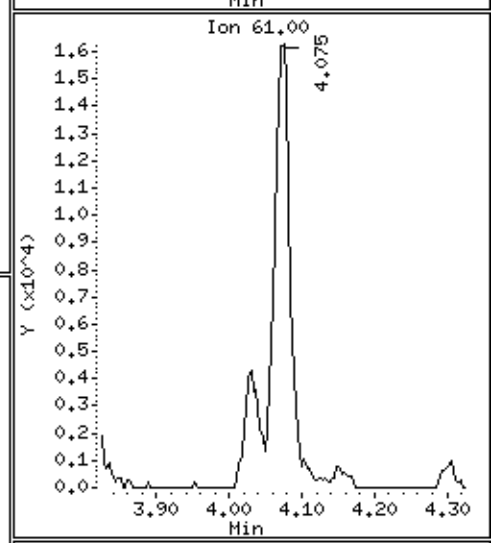


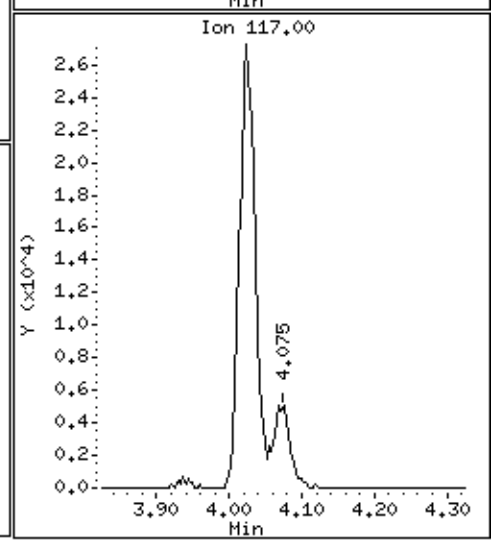












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

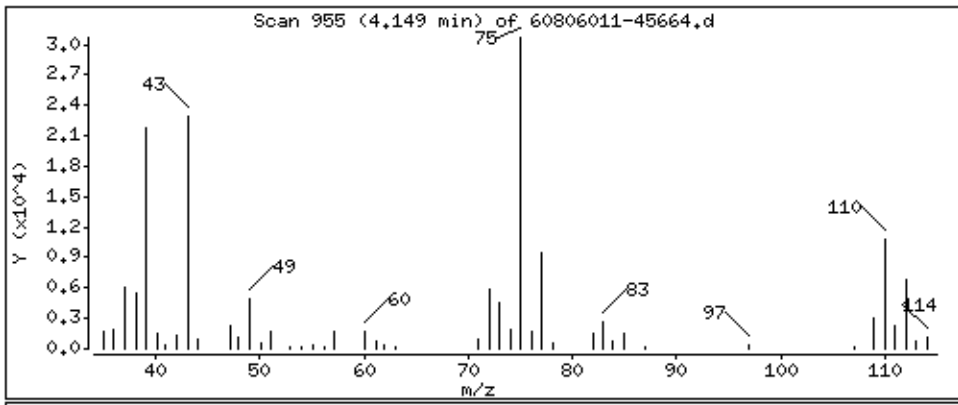
Operator: JEW

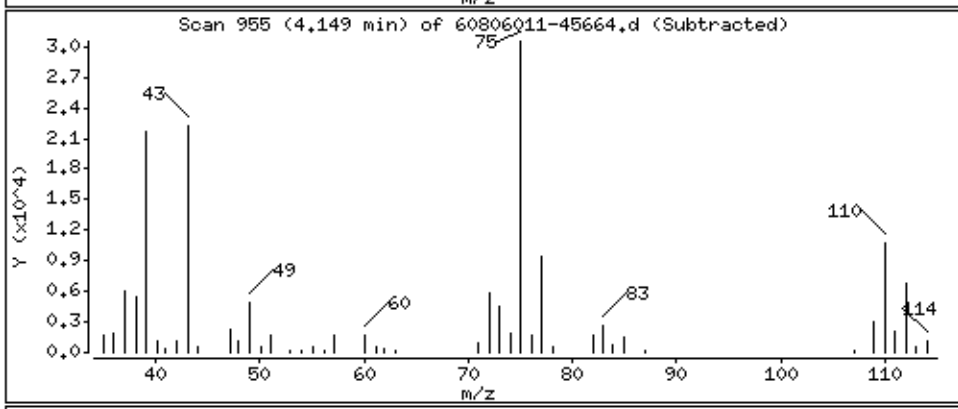
Column phase: RTX-VMS

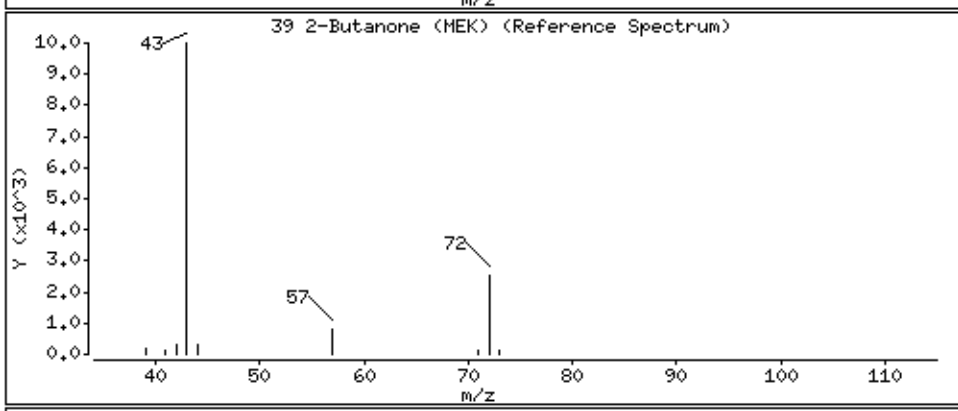
Column diameter: 0.18

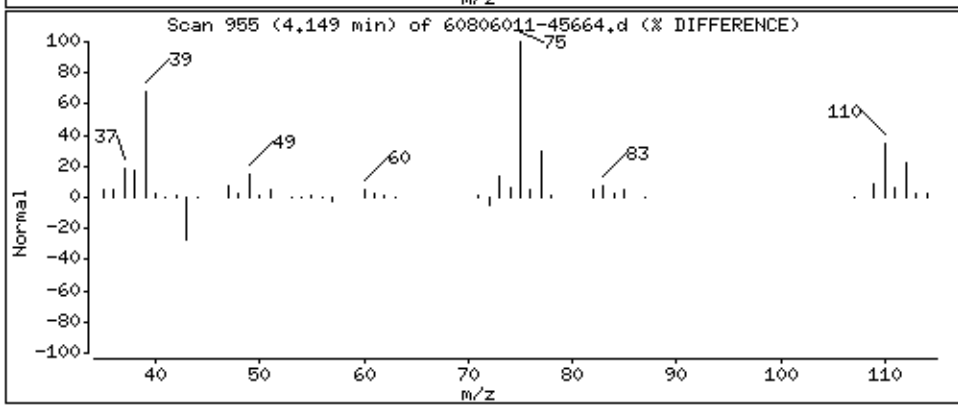
39 2-Butanone (MEK)

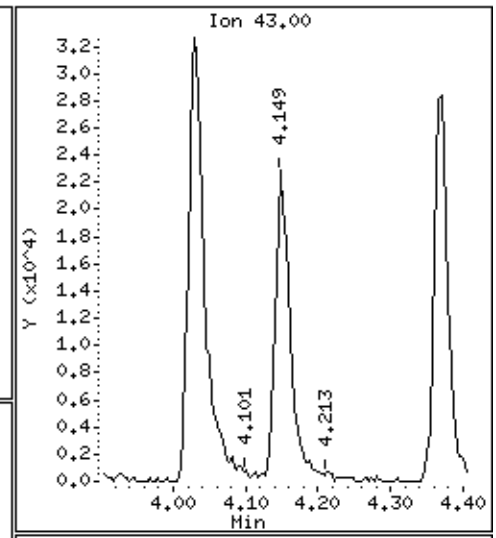
Concentration: 18.2 ug/kg

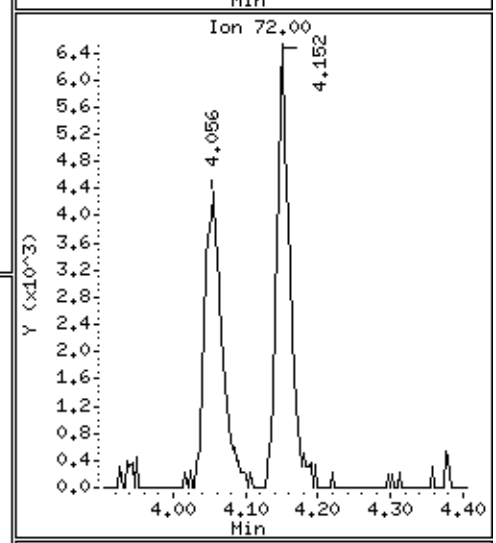


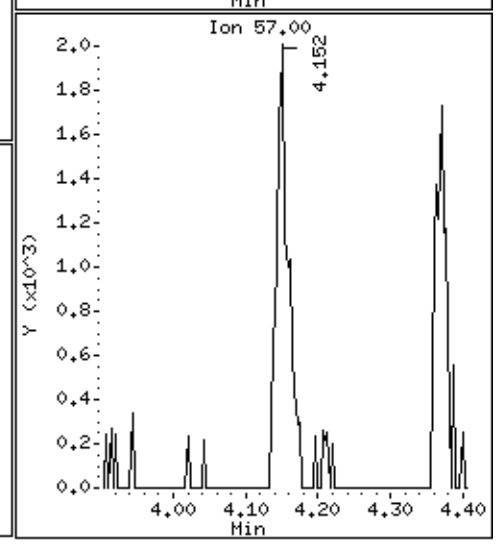












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

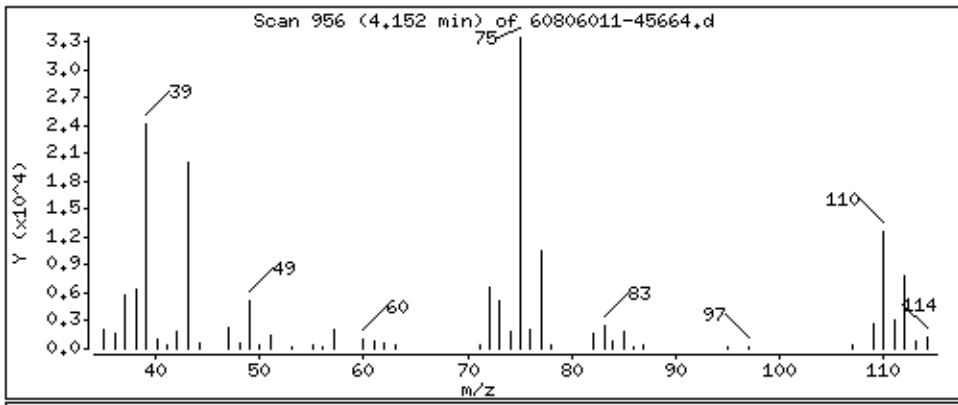
Operator: JEW

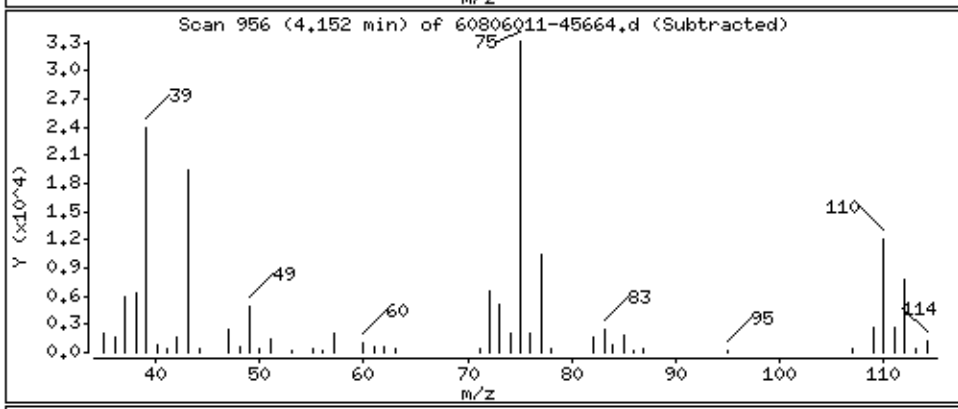
Column phase: RTX-VMS

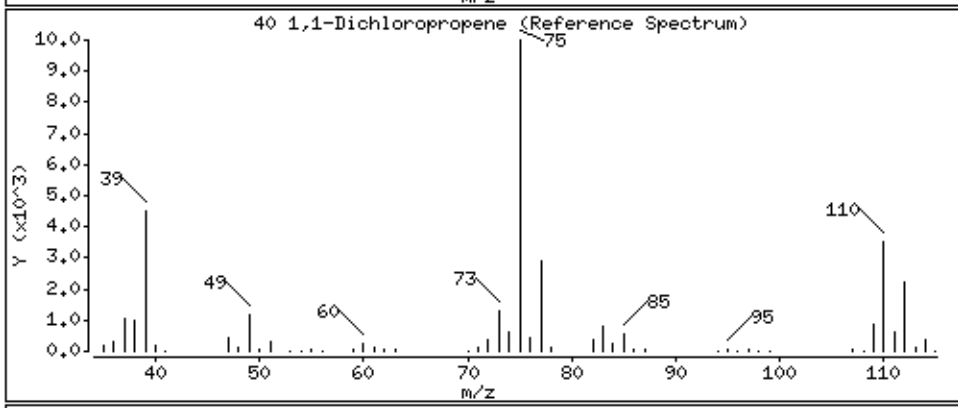
Column diameter: 0.18

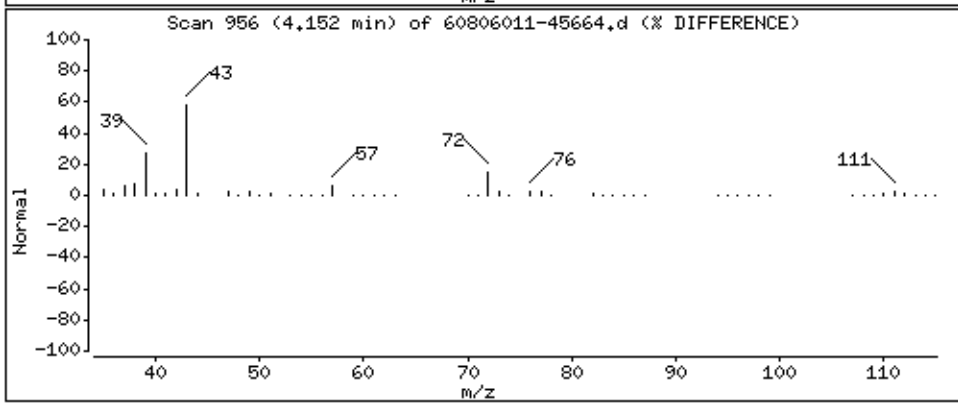
40 1,1-Dichloropropene

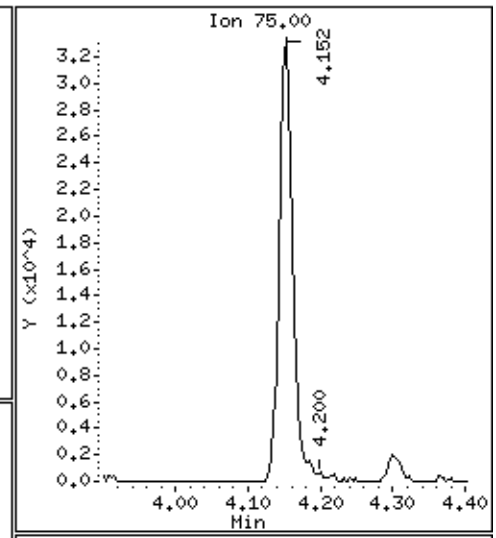
Concentration: 16.4 ug/kg

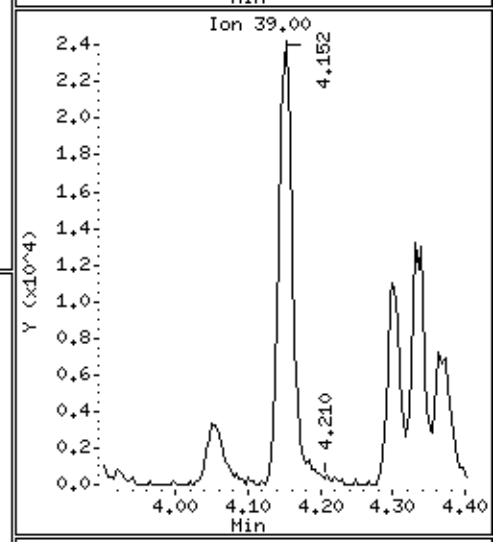


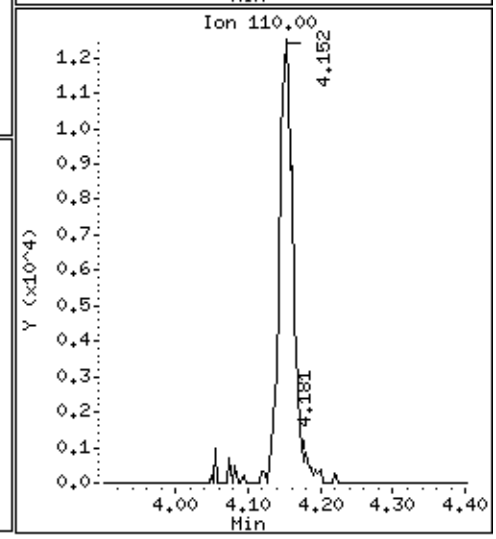












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

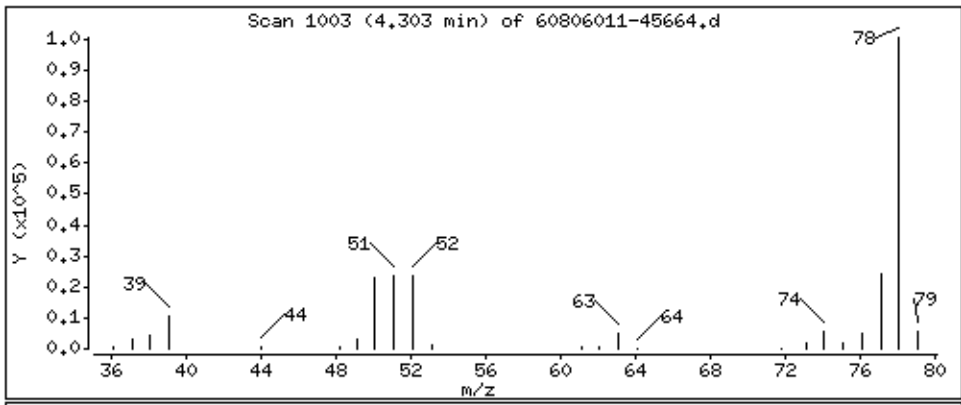
Operator: JEW

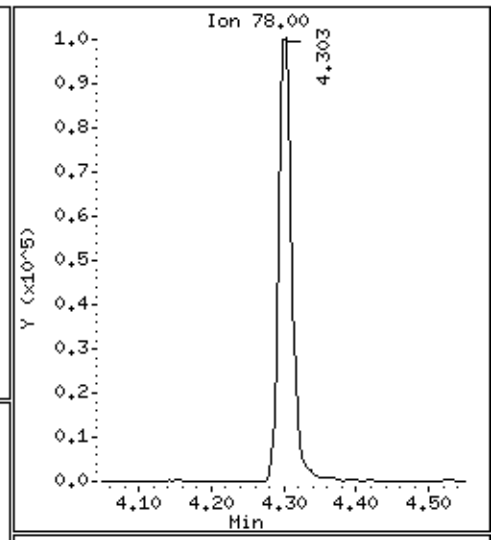
Column phase: RTX-VMS

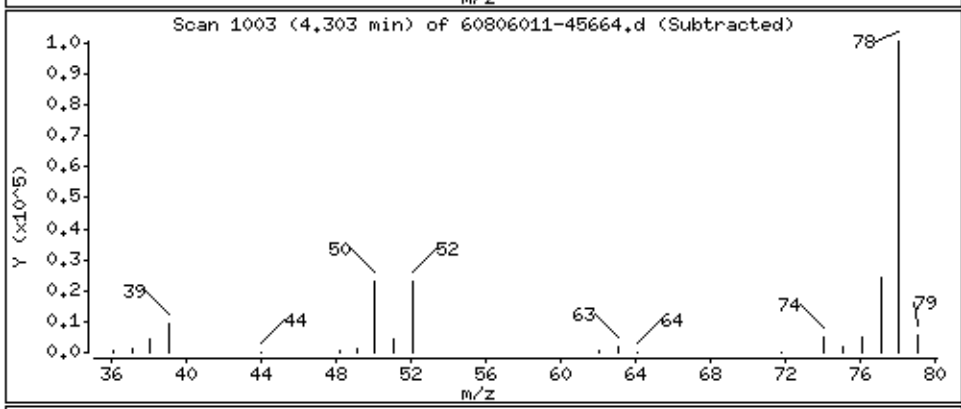
Column diameter: 0.18

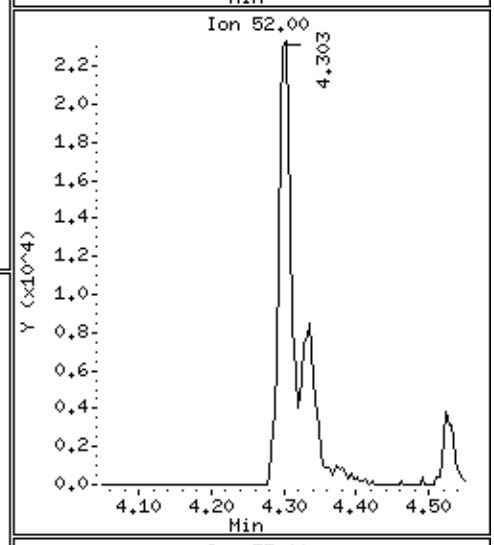
41 Benzene

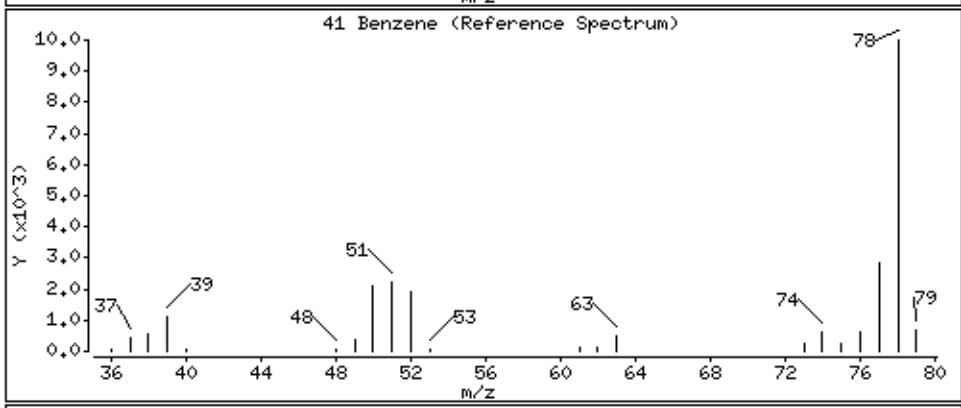
Concentration: 16.1 ug/kg

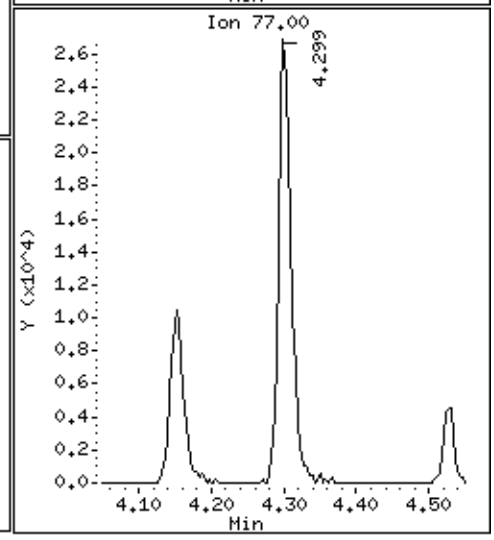


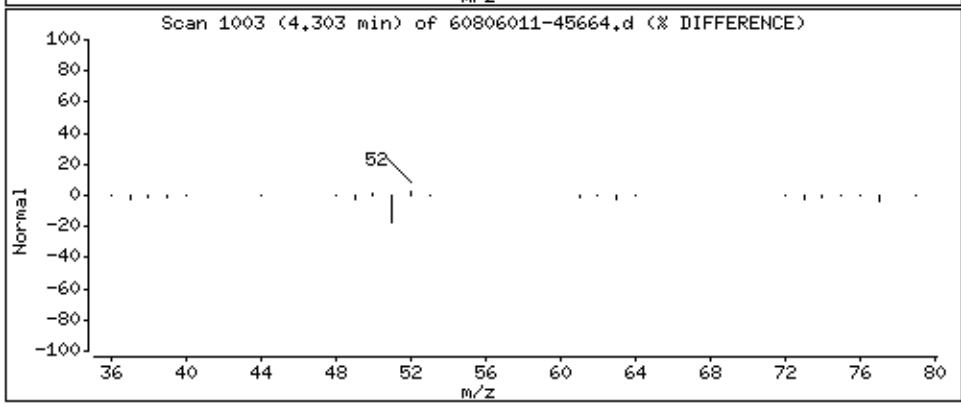












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

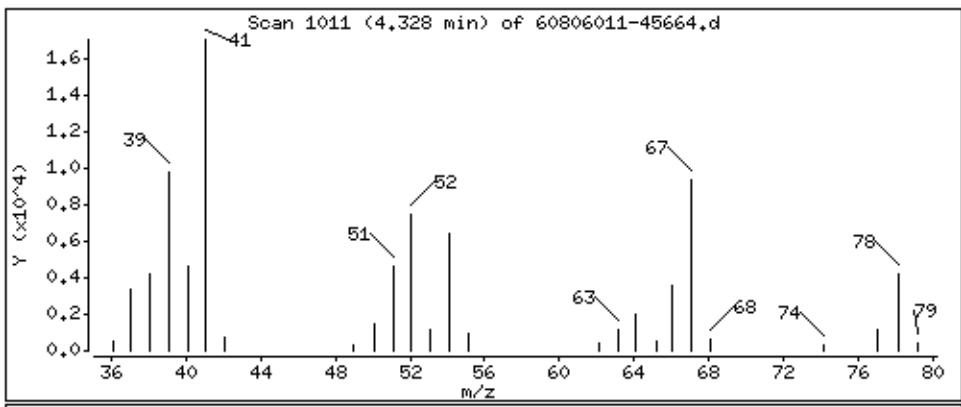
Operator: JEW

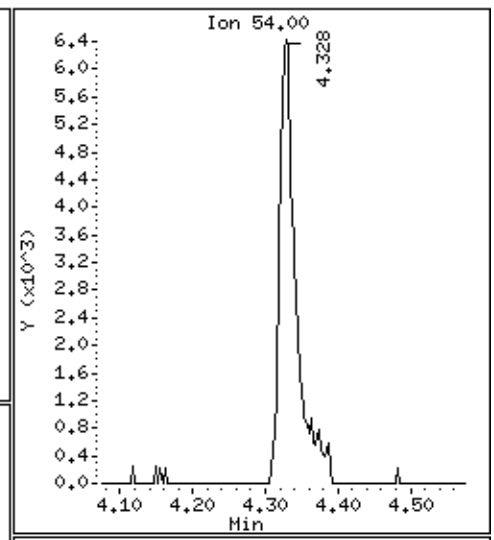
Column phase: RTX-VMS

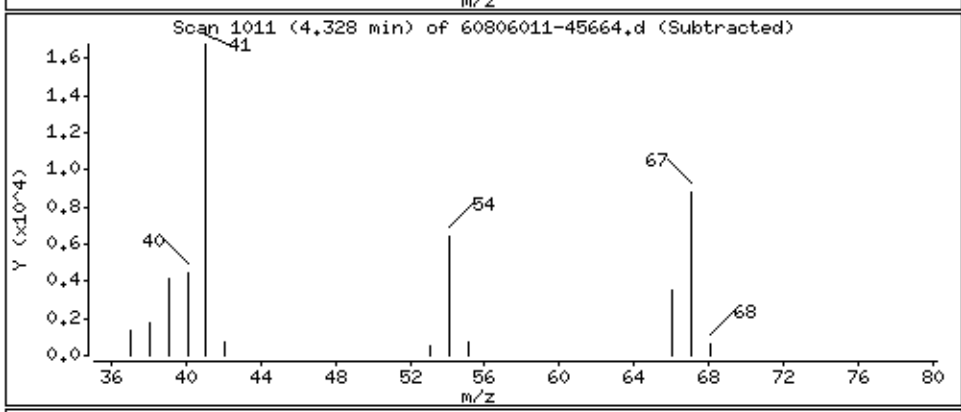
Column diameter: 0.18

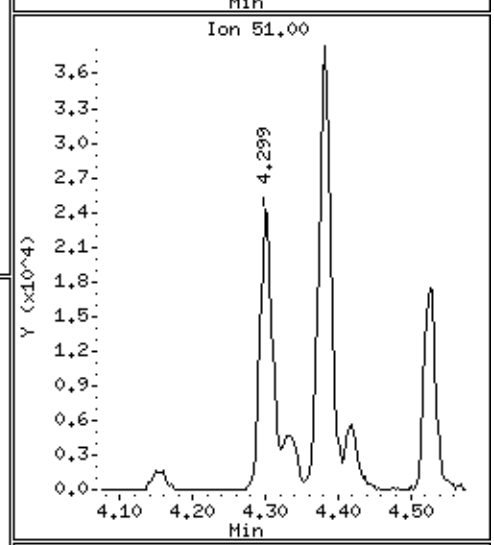
42 Propionitrile

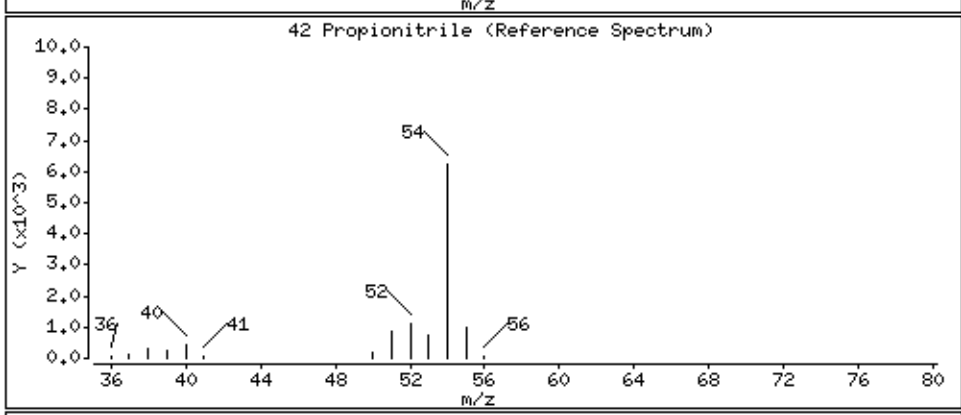
Concentration: 16.8 ug/kg

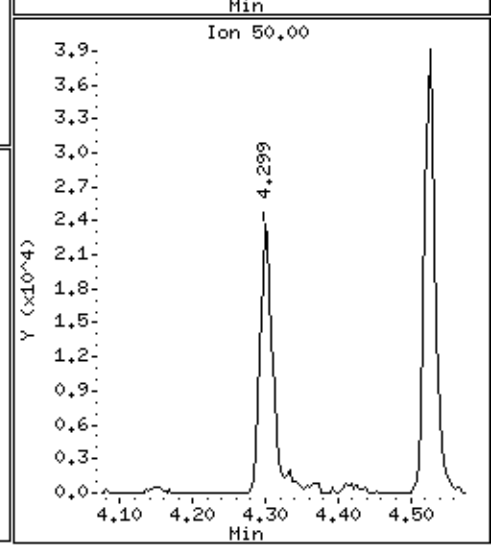


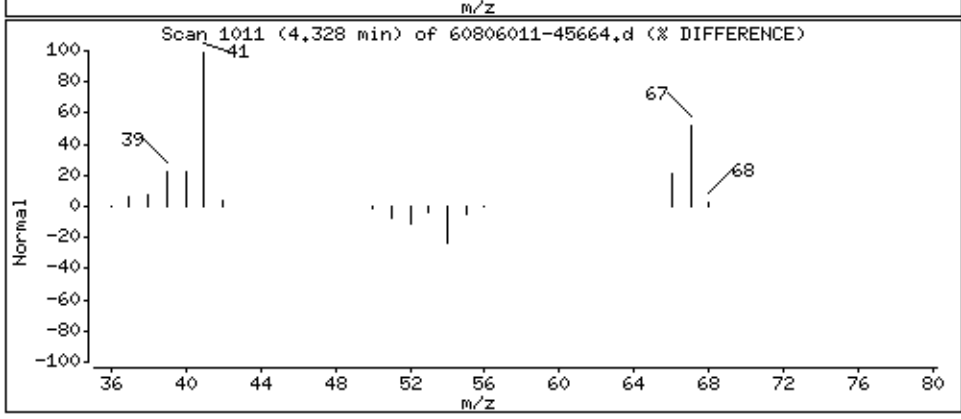












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

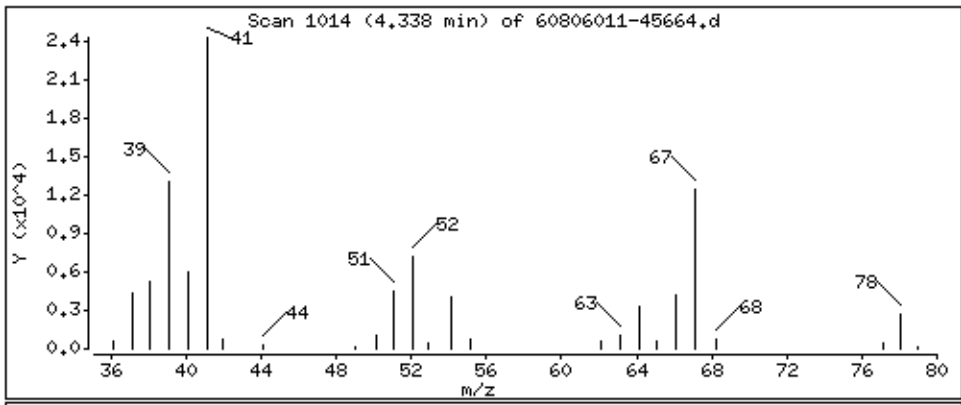
Operator: JEW

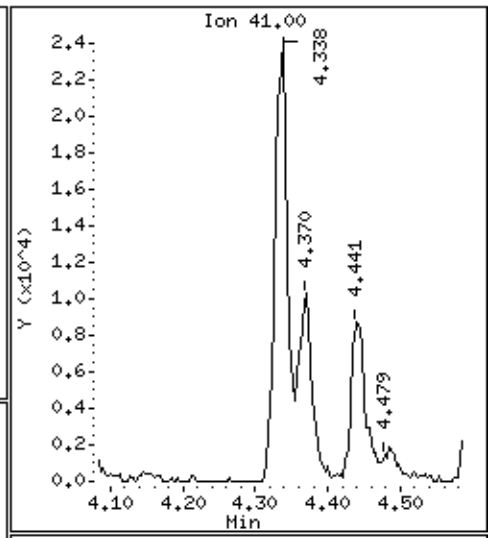
Column phase: RTX-VMS

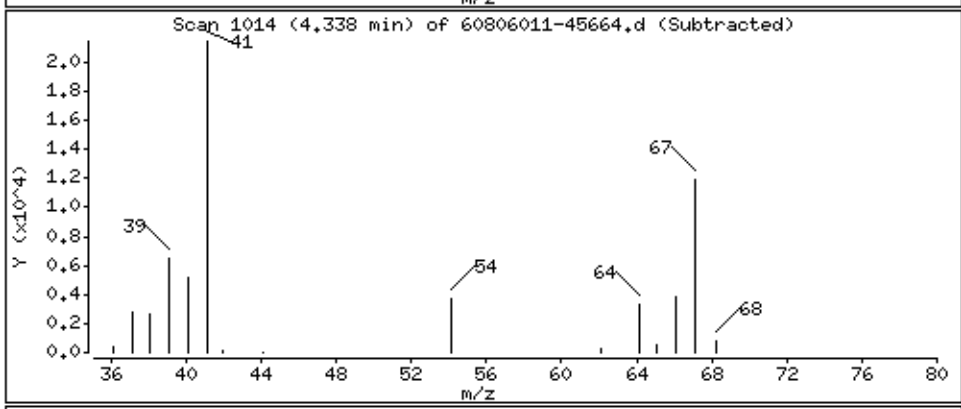
Column diameter: 0.18

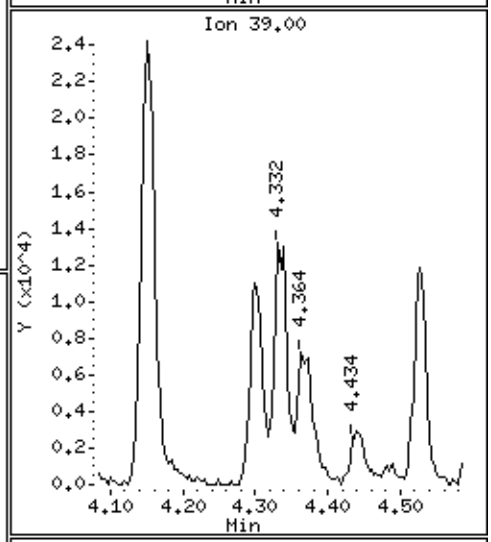
43 Methacrylonitrile

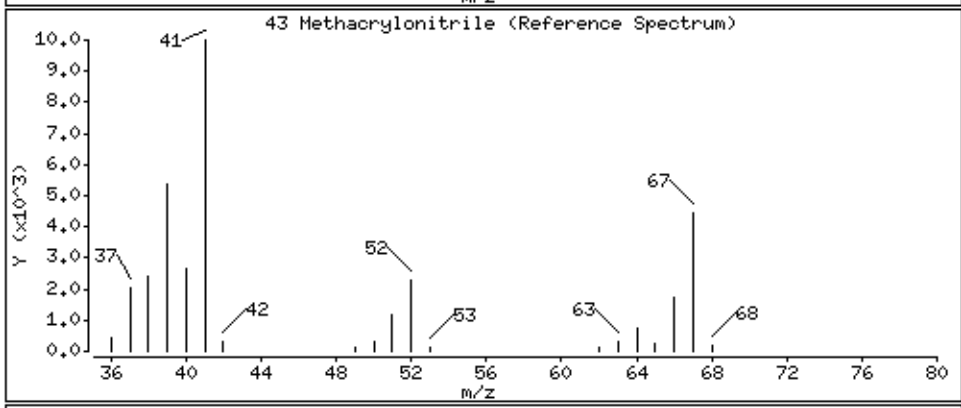
Concentration: 16.2 ug/kg

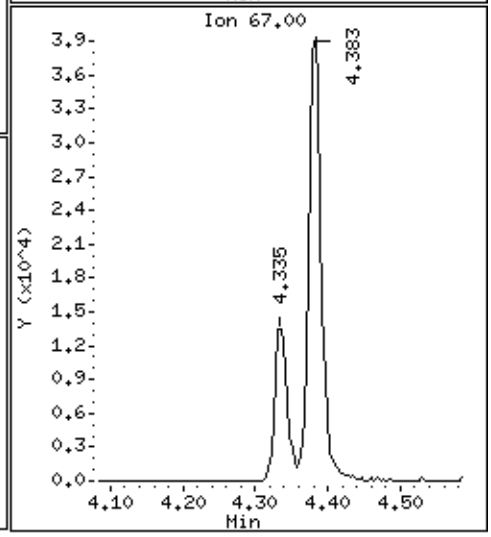


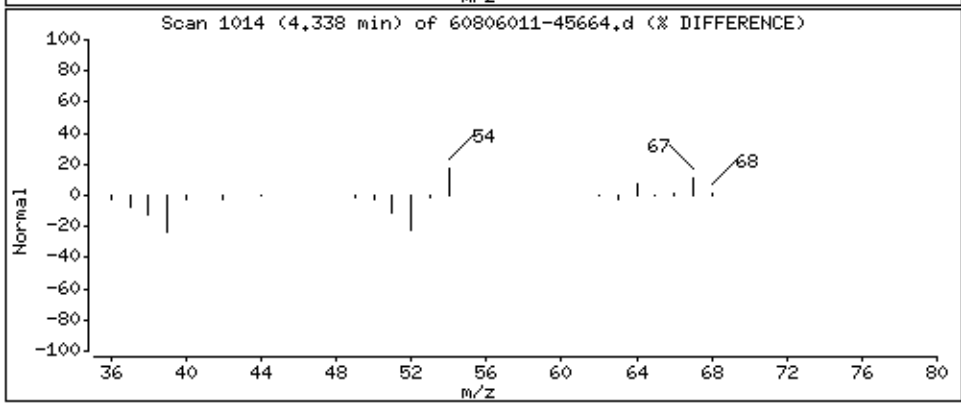












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

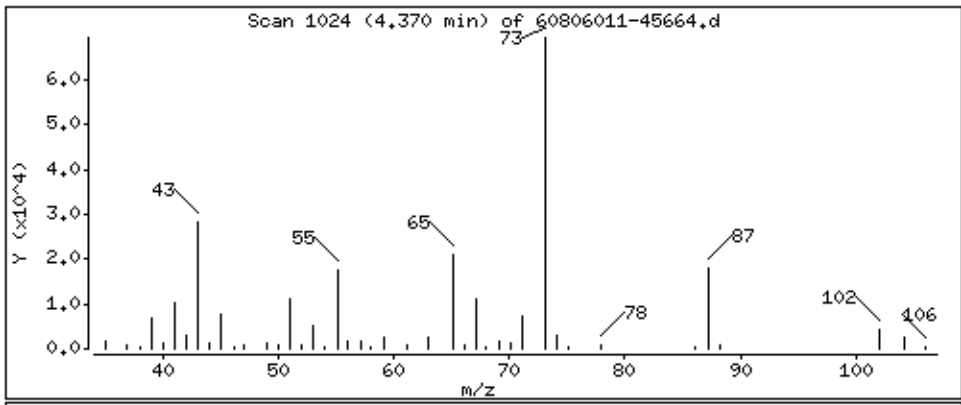
Operator: JEW

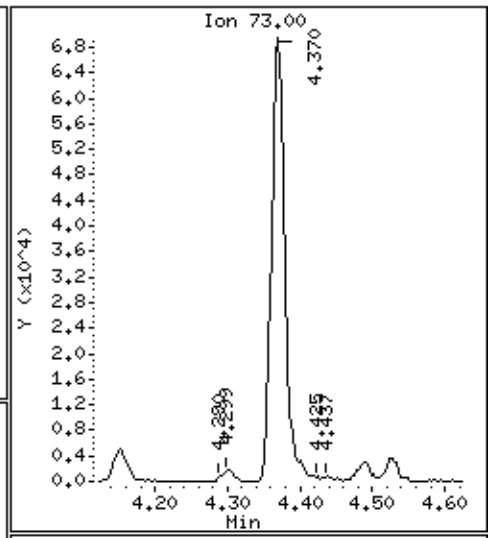
Column phase: RTX-VMS

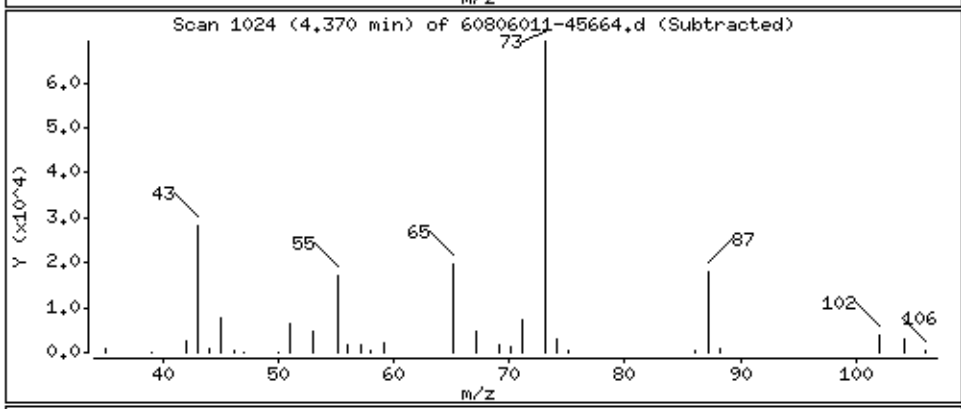
Column diameter: 0.18

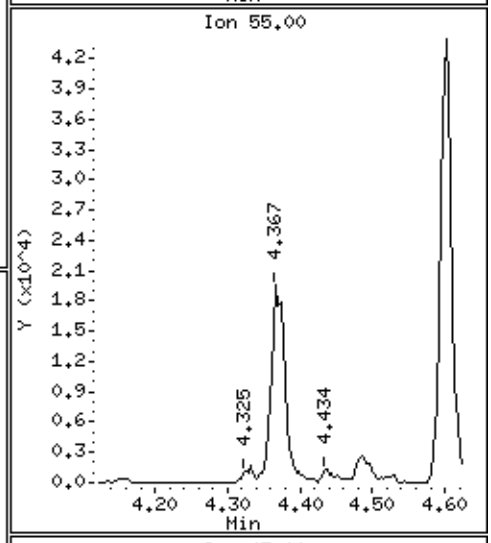
44 tert-Amylmethyl ether

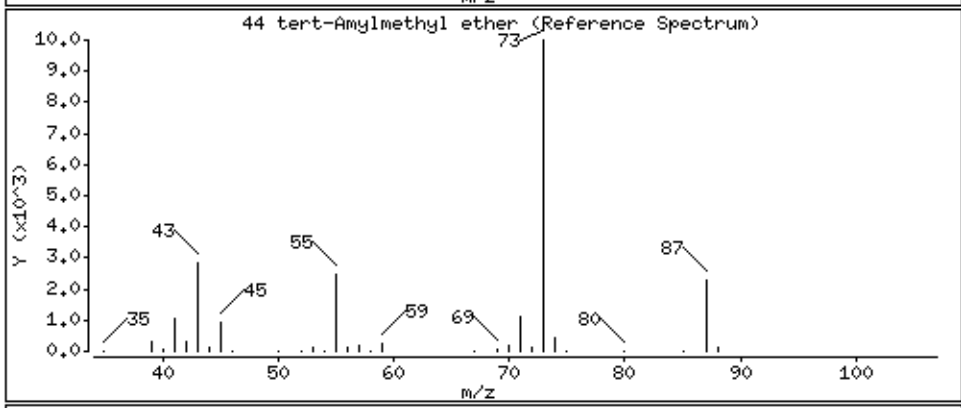
Concentration: 15.4 ug/kg

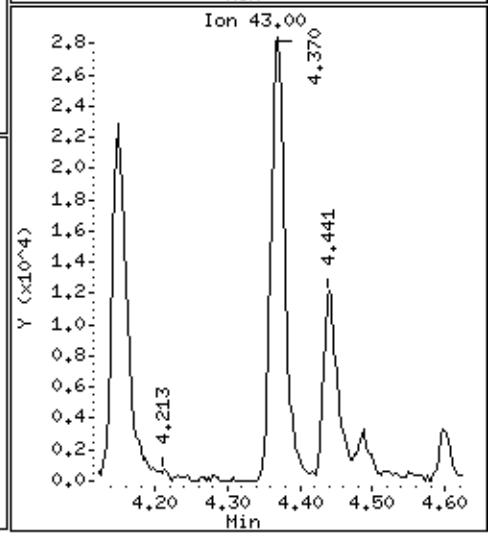


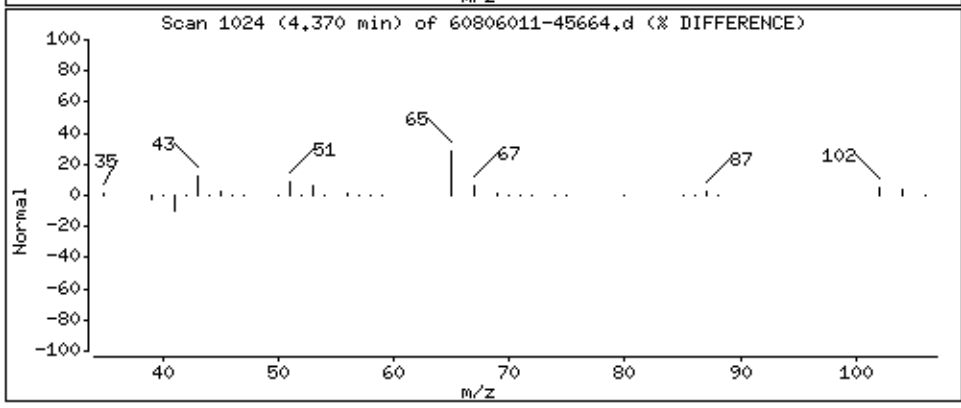












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

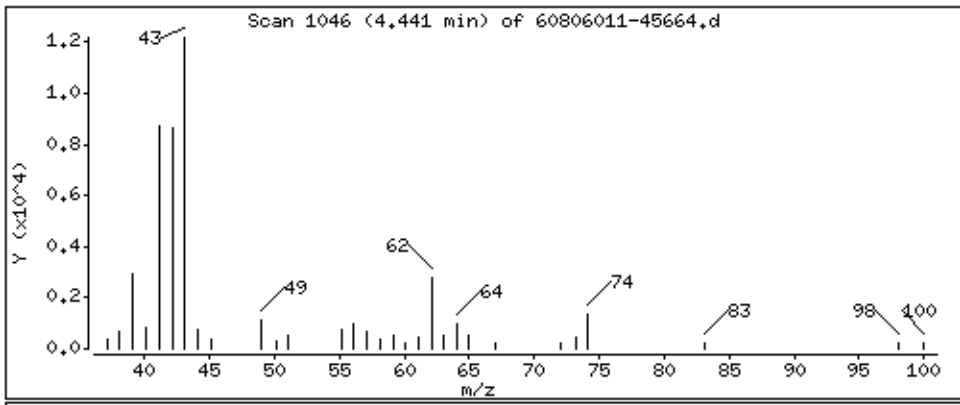
Operator: JEW

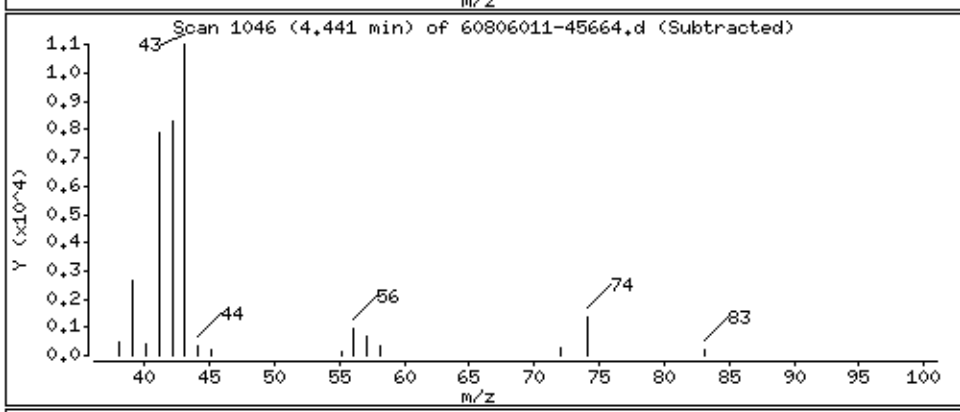
Column phase: RTX-VMS

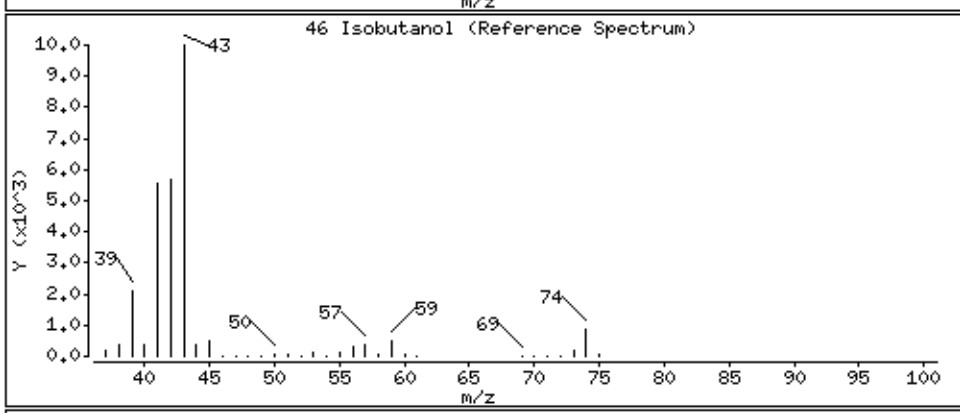
Column diameter: 0.18

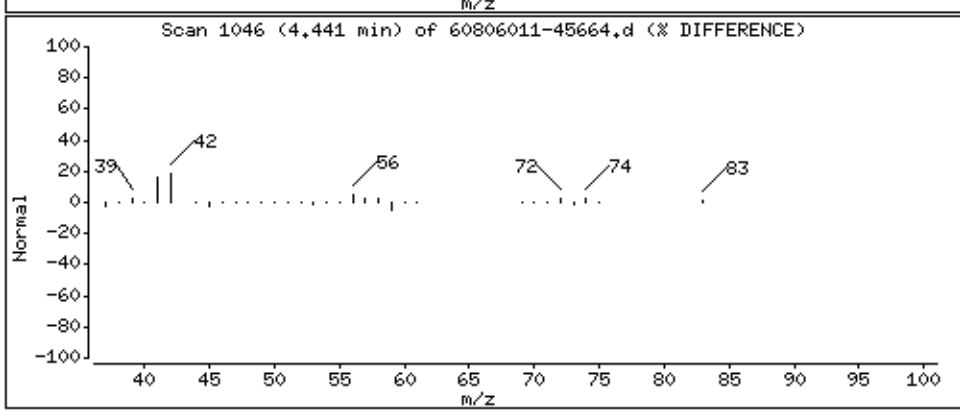
46 Isobutanol

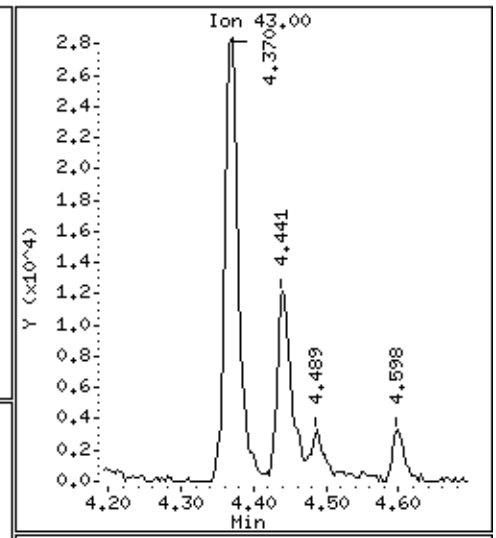
Concentration: 70.6 ug/kg

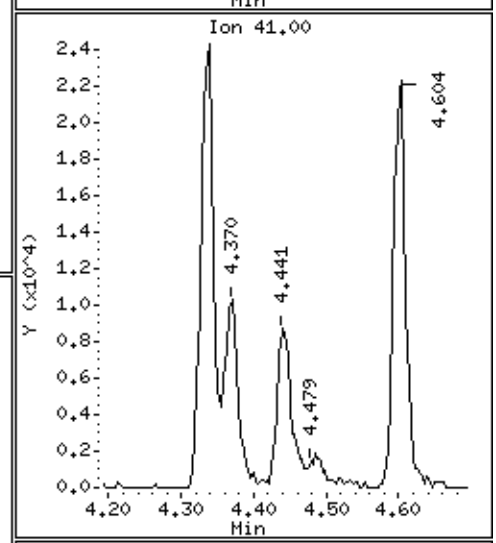


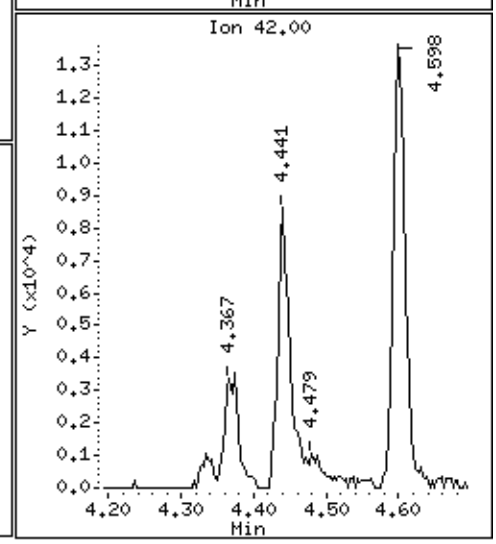












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

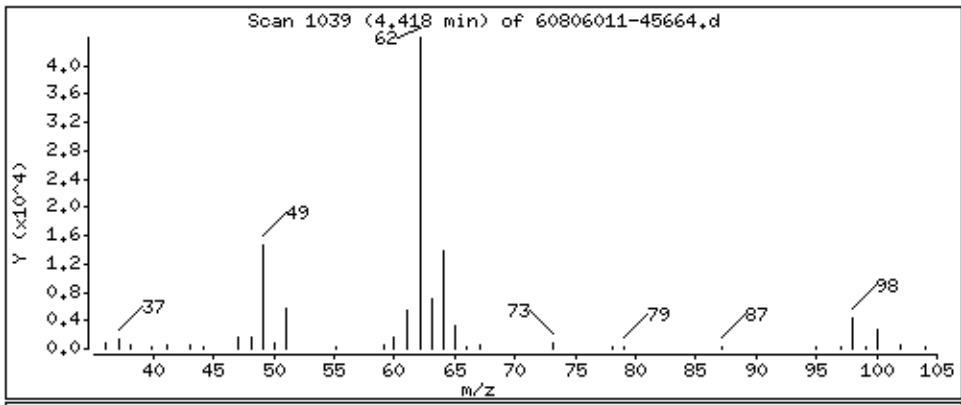
Operator: JEW

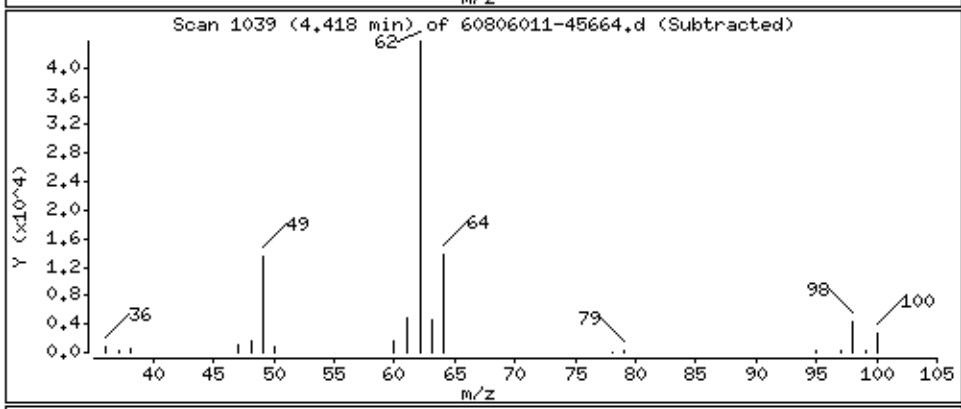
Column phase: RTX-VMS

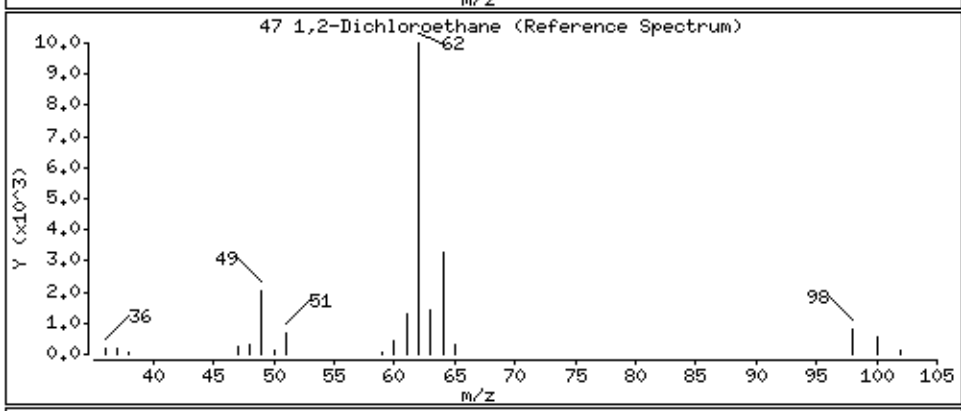
Column diameter: 0.18

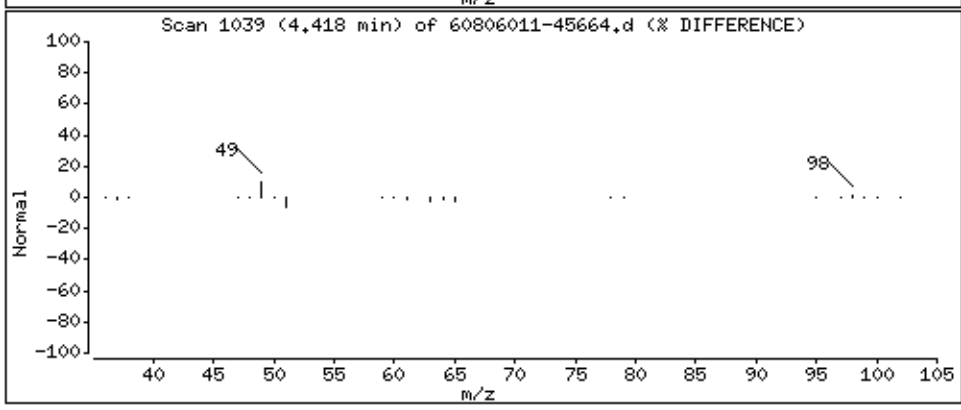
47 1,2-Dichloroethane

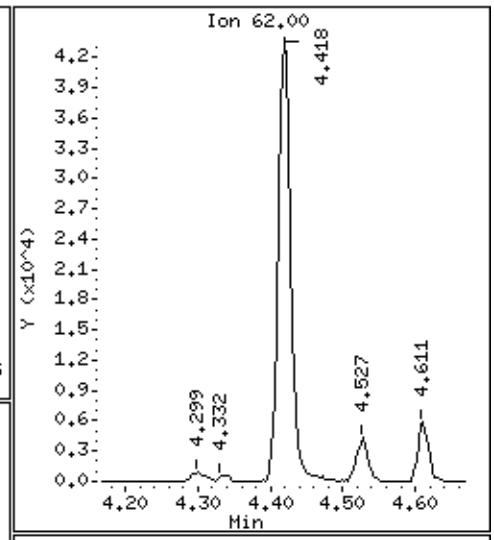
Concentration: 17.0 ug/kg

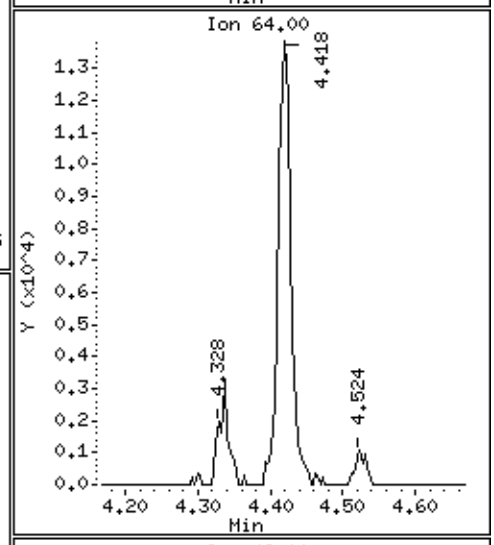


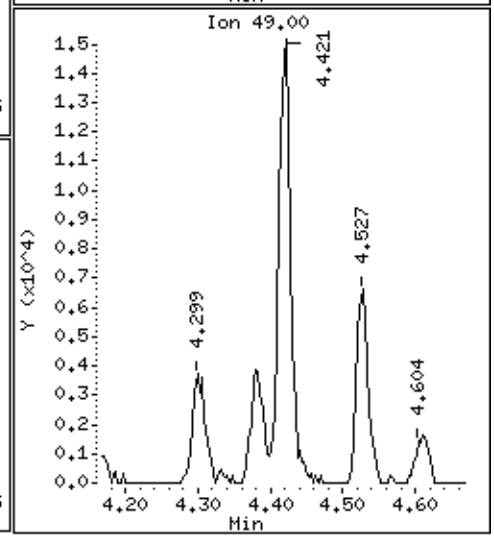












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

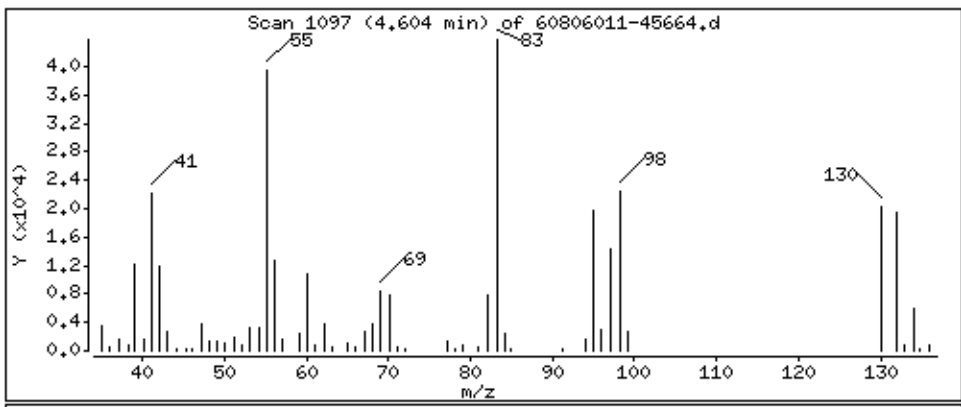
Operator: JEW

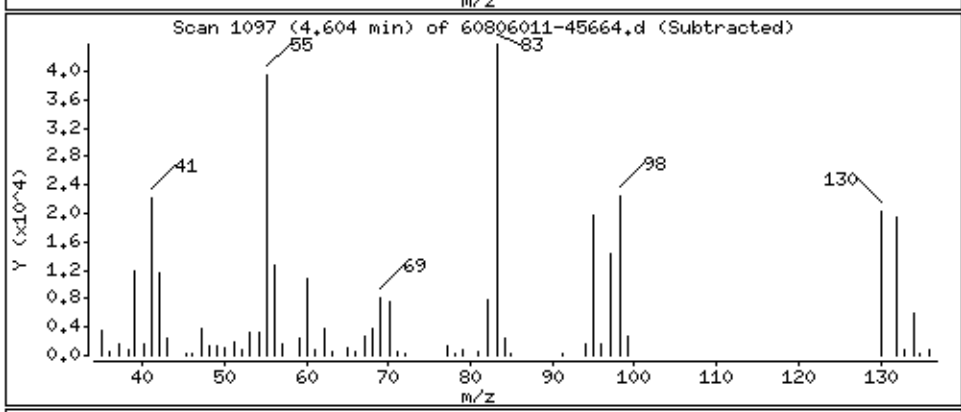
Column phase: RTX-VMS

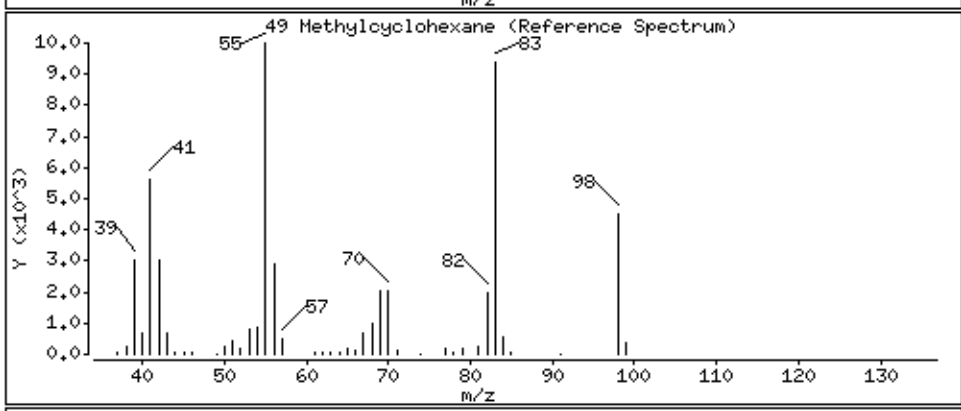
Column diameter: 0.18

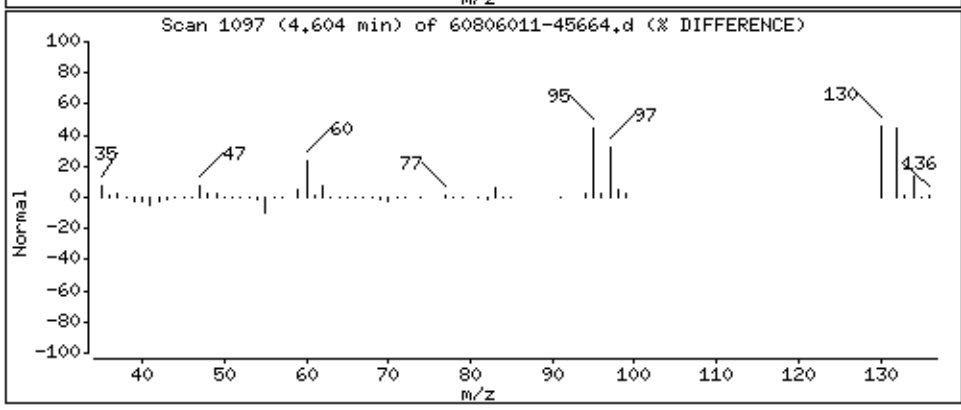
49 Methylcyclohexane

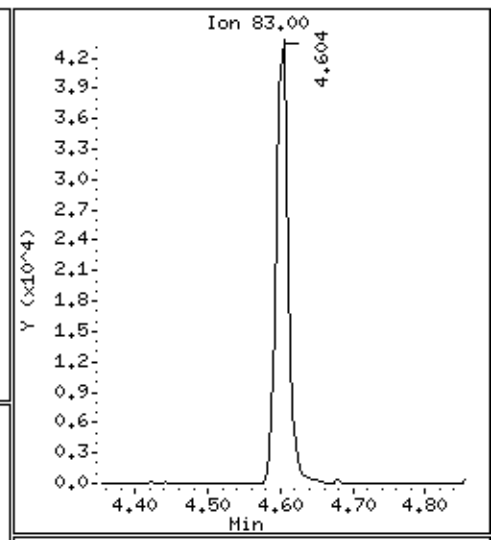
Concentration: 17.3 ug/kg

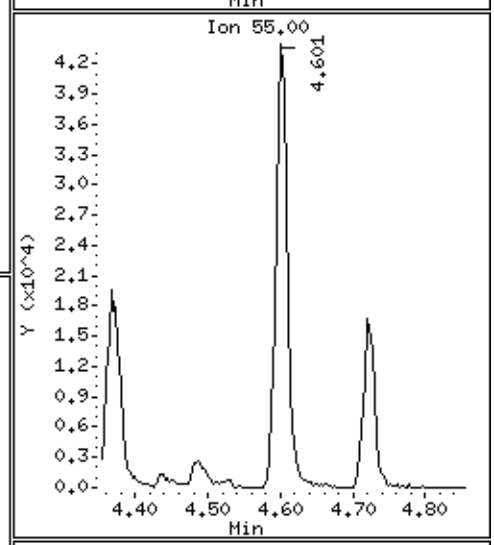


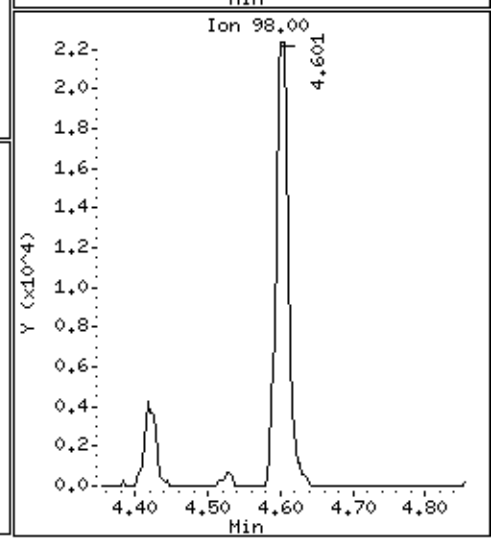












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

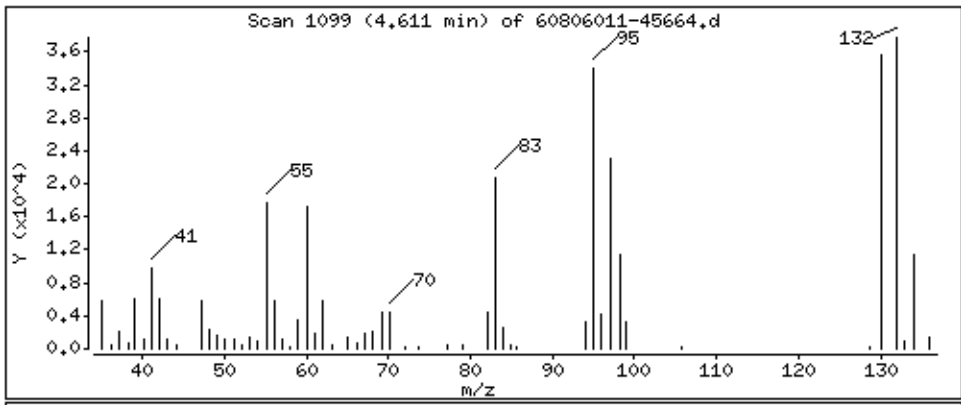
Operator: JEW

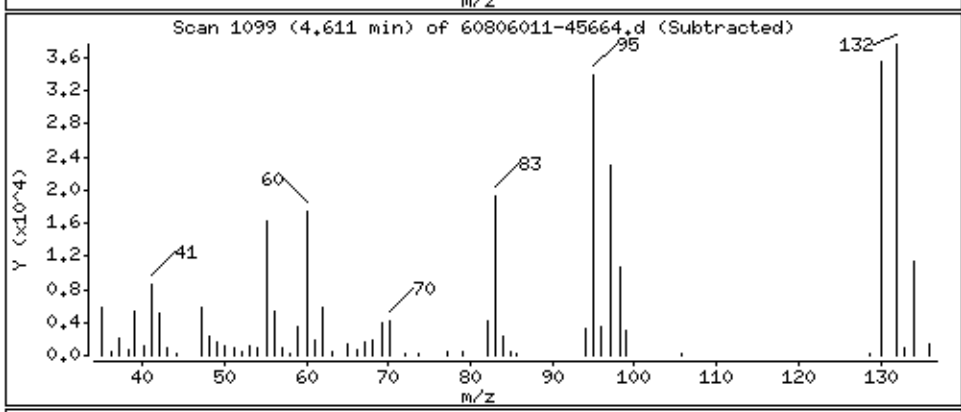
Column phase: RTX-VMS

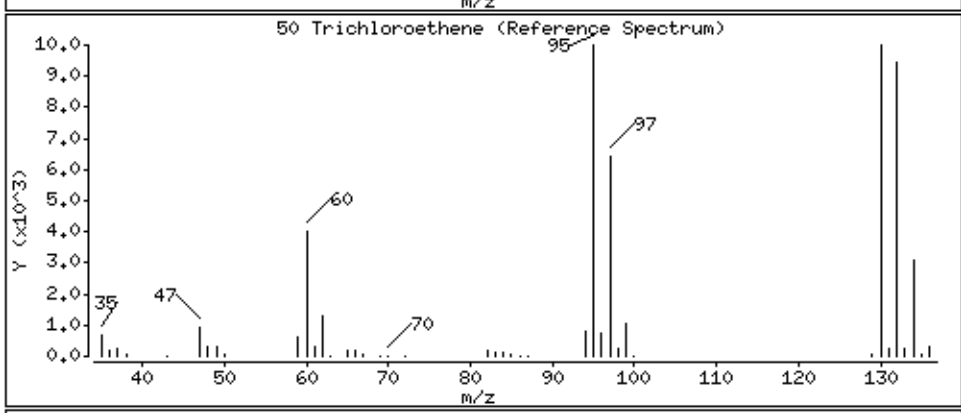
Column diameter: 0.18

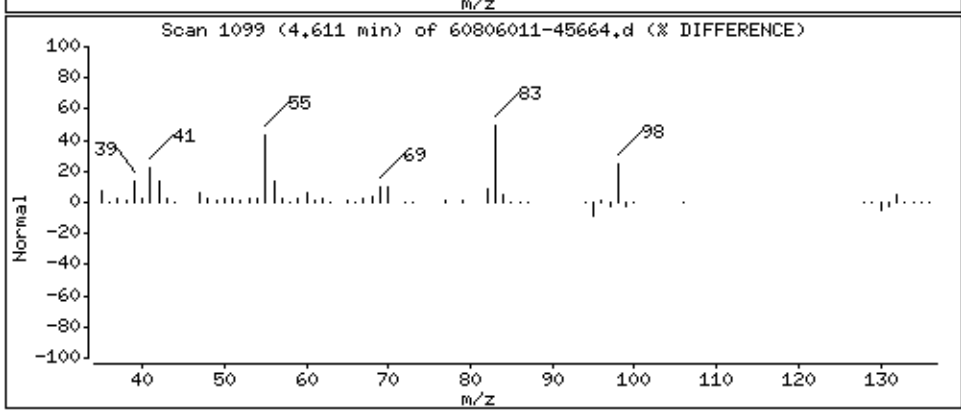
50 Trichloroethene

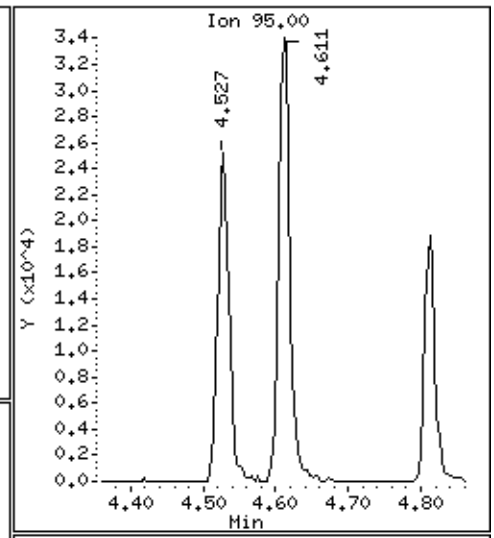
Concentration: 16.6 ug/kg

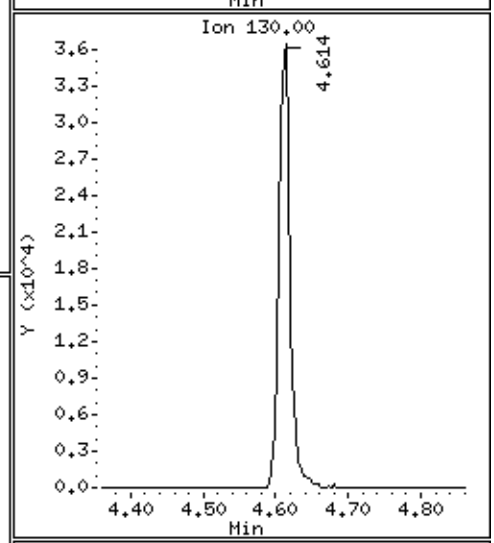


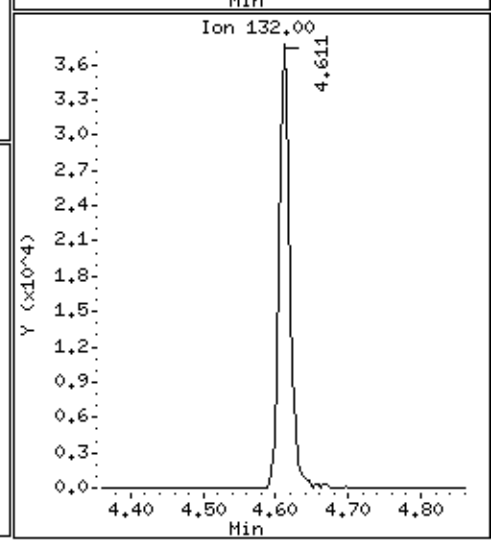












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

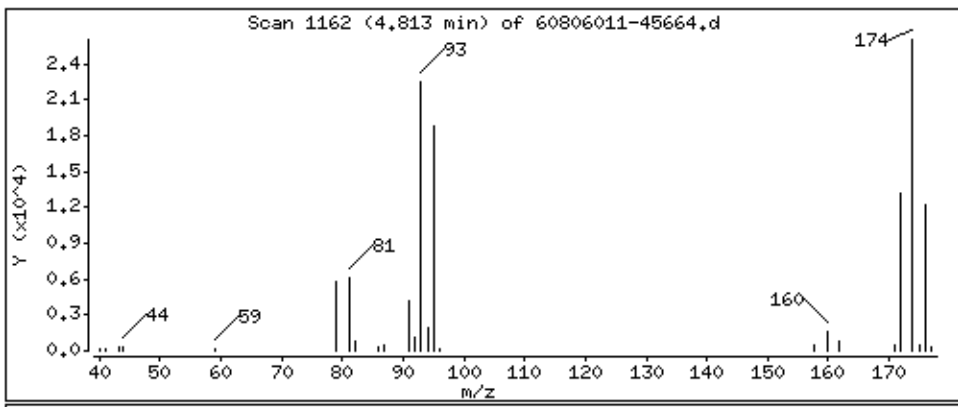
Operator: JEW

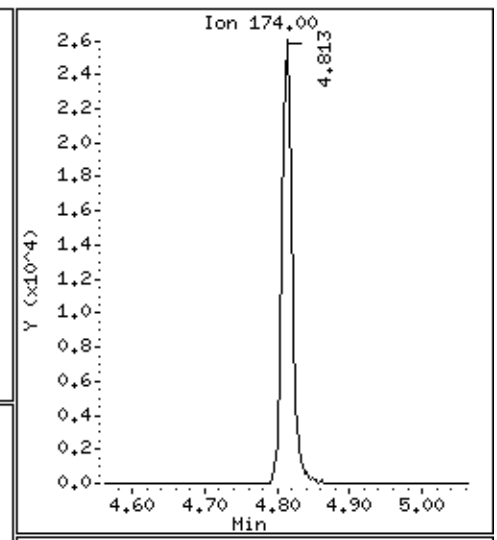
Column phase: RTX-VMS

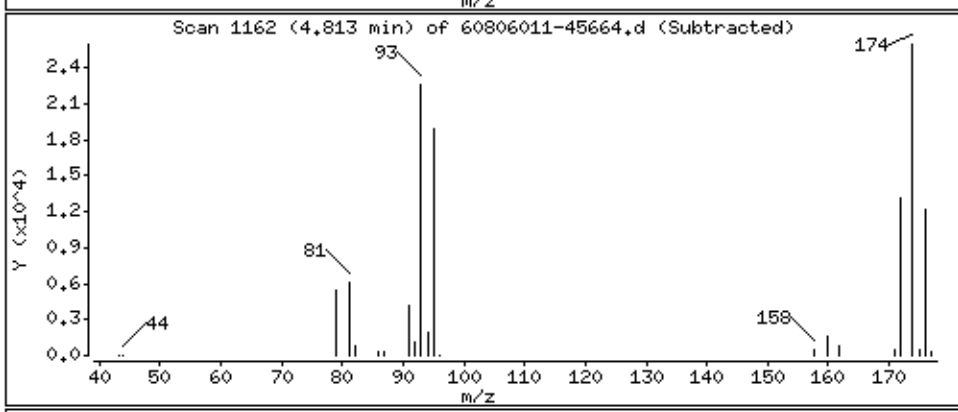
Column diameter: 0.18

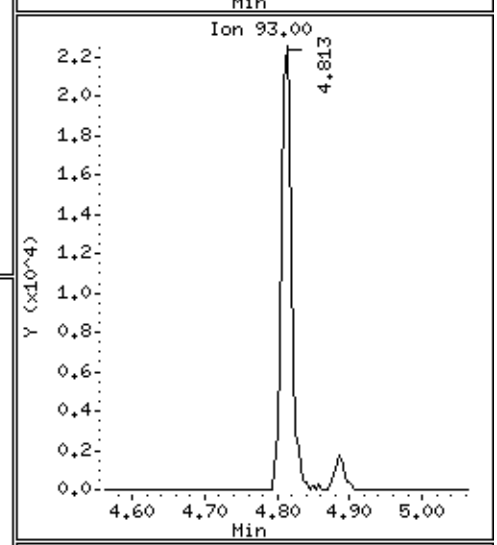
51 Dibromomethane

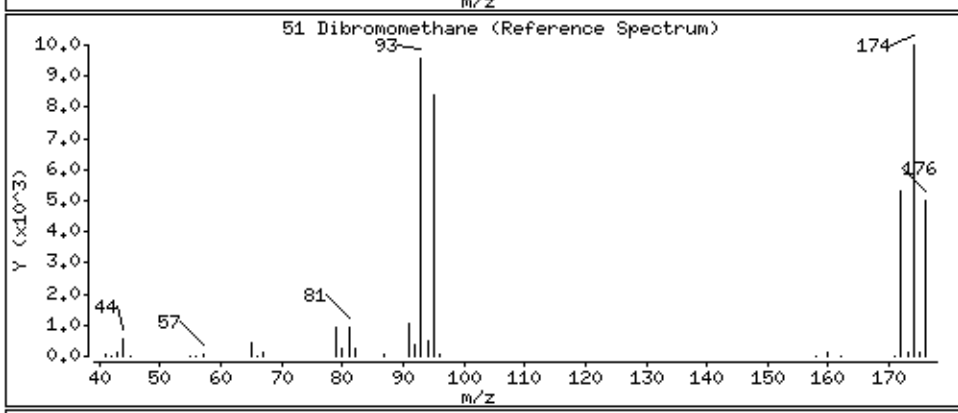
Concentration: 15.8 ug/kg

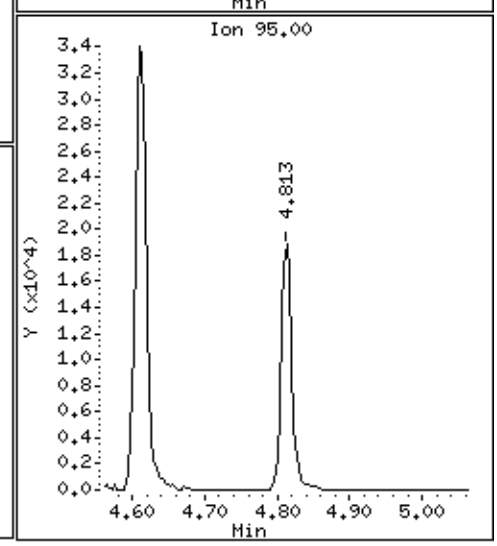


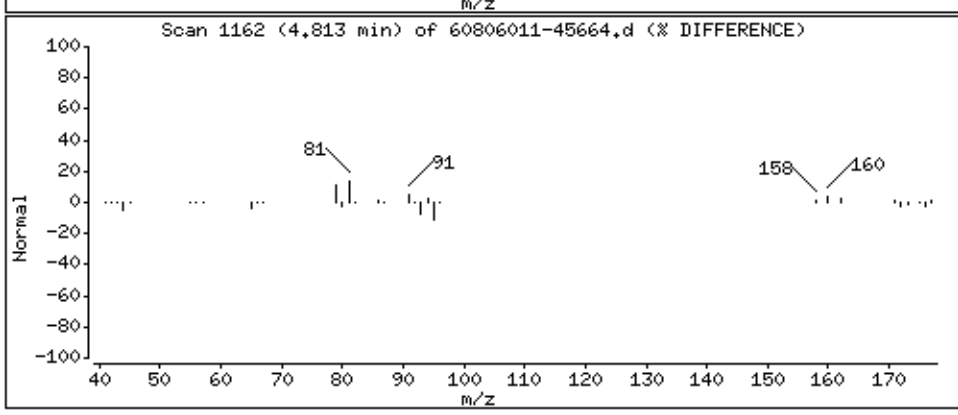












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

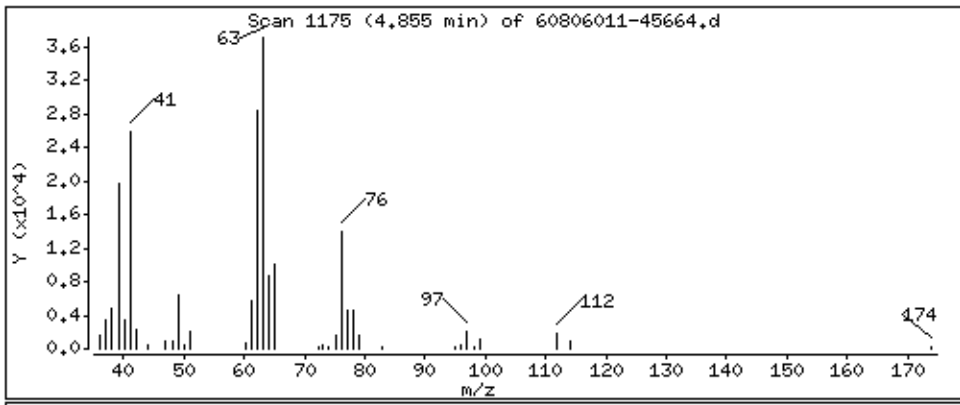
Operator: JEW

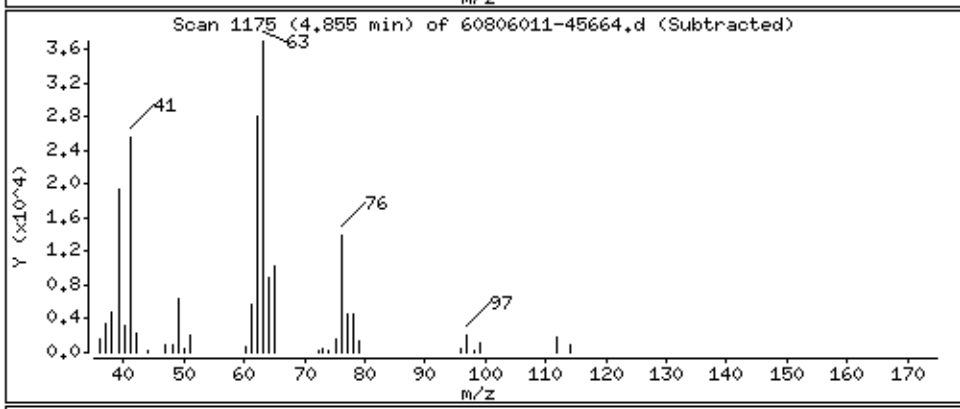
Column phase: RTX-VMS

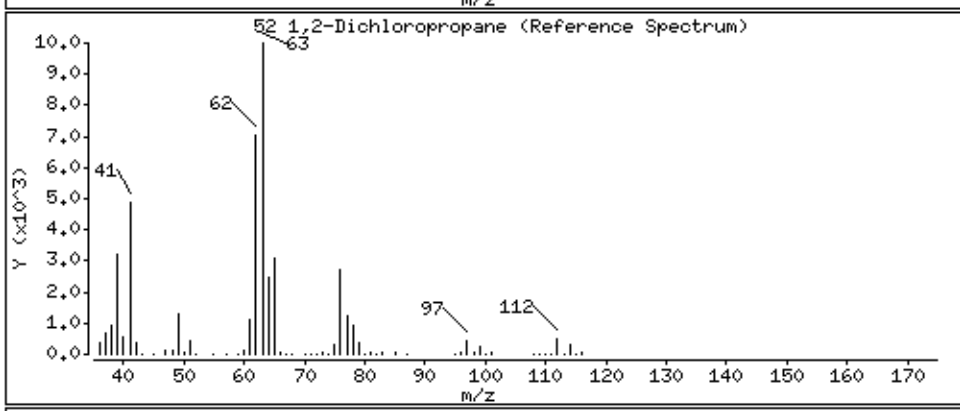
Column diameter: 0.18

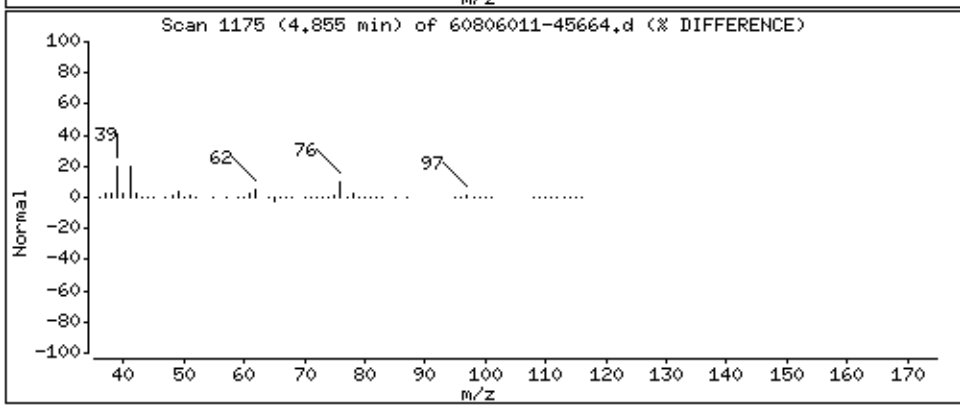
52 1,2-Dichloropropane

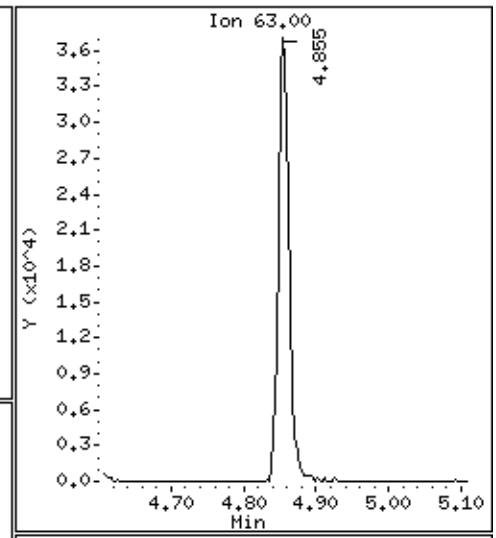
Concentration: 15.4 ug/kg

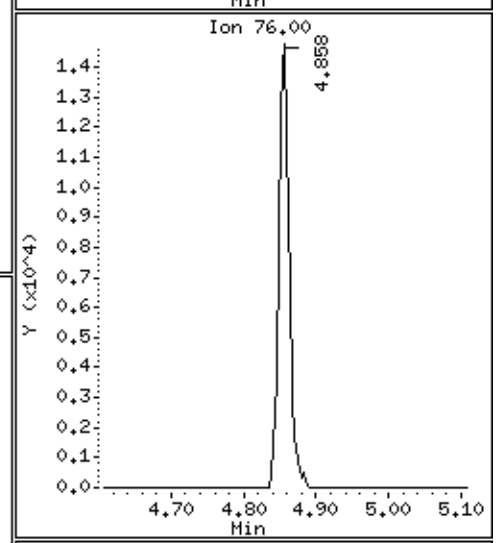


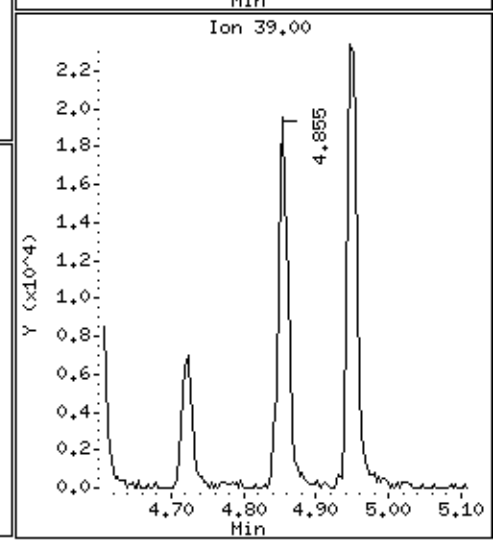












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

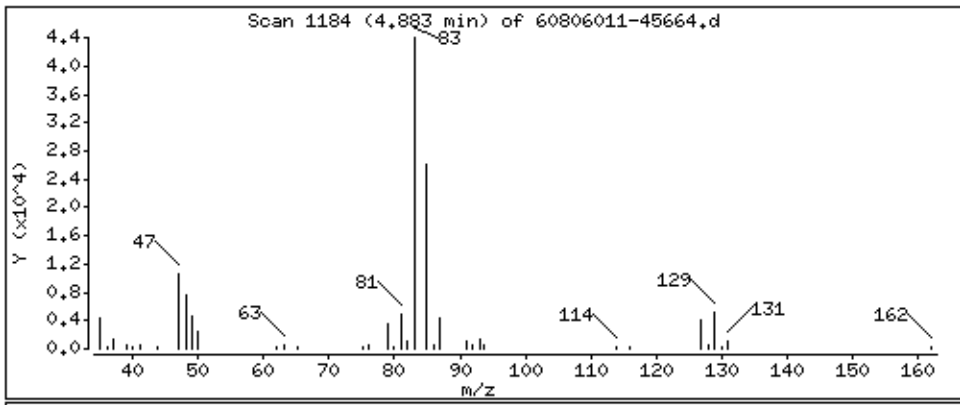
Operator: JEW

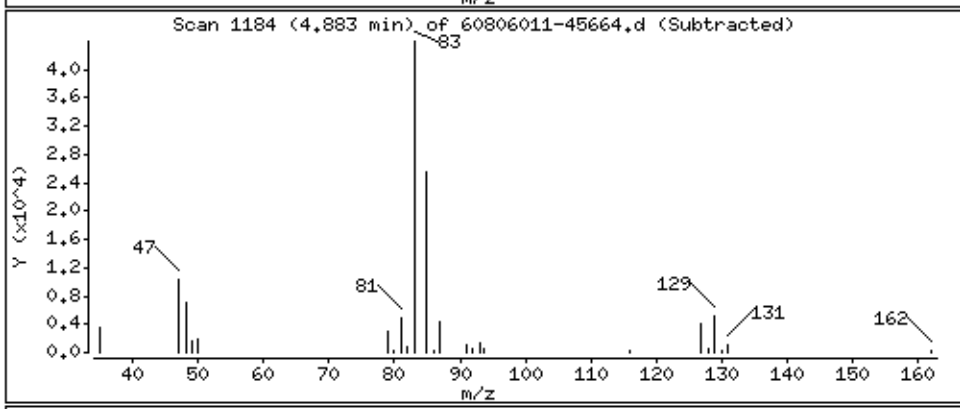
Column phase: RTX-VMS

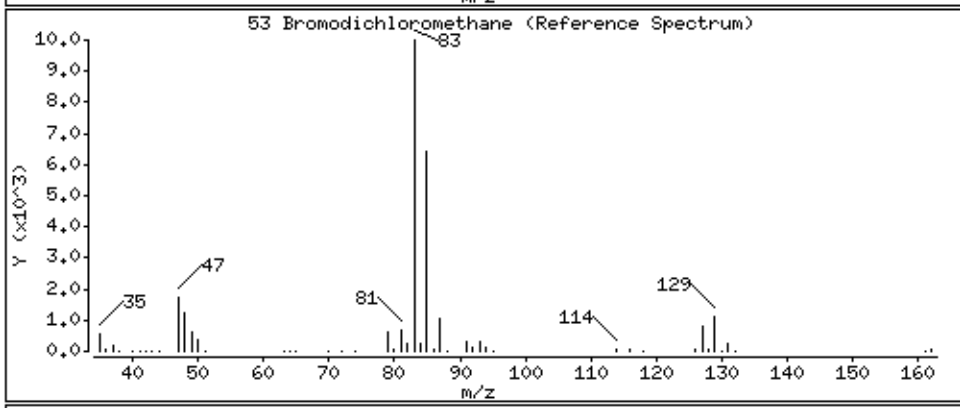
Column diameter: 0.18

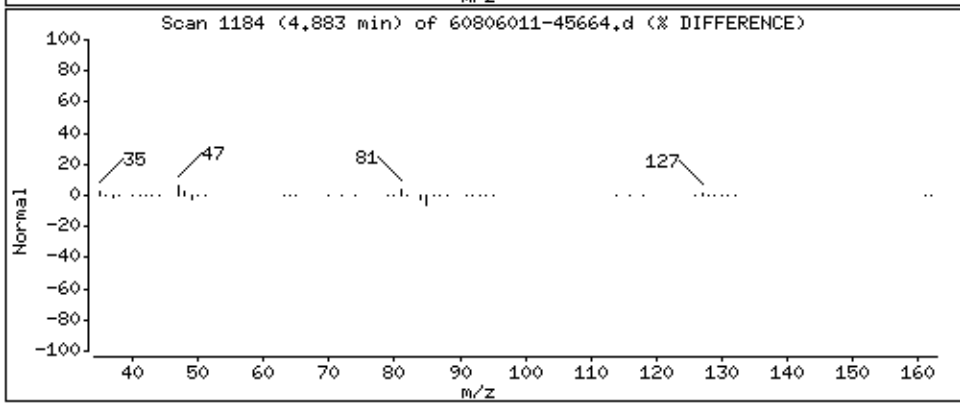
53 Bromodichloromethane

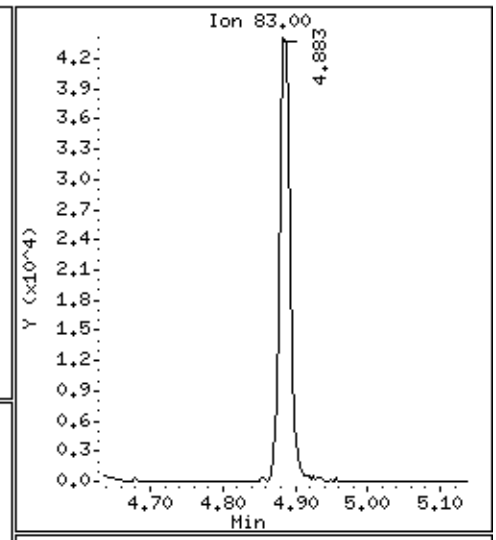
Concentration: 17.0 ug/kg

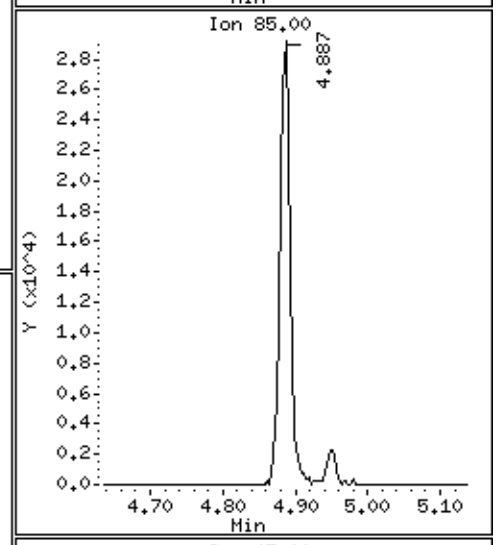


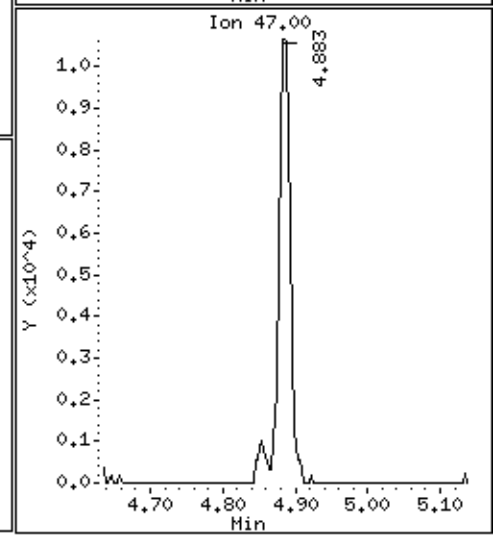












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

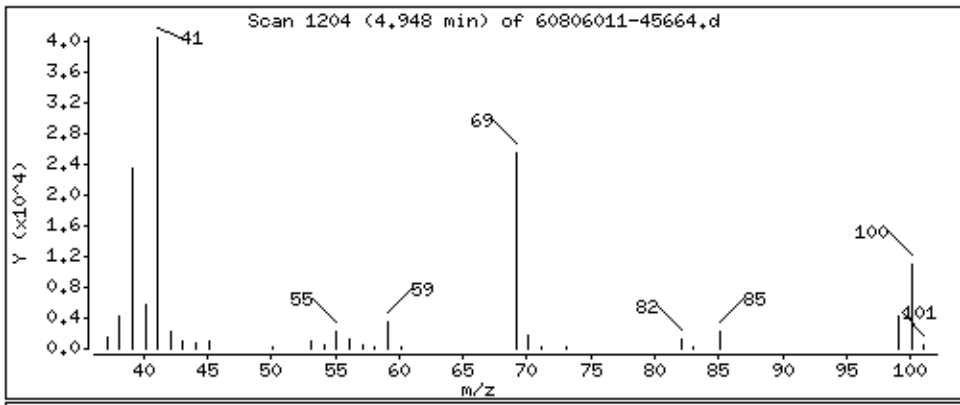
Operator: JEW

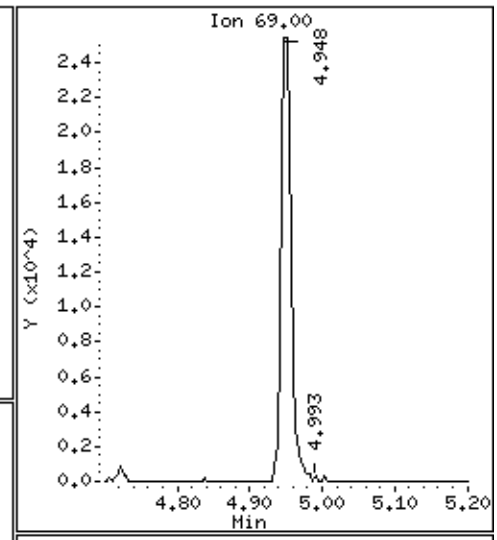
Column phase: RTX-VMS

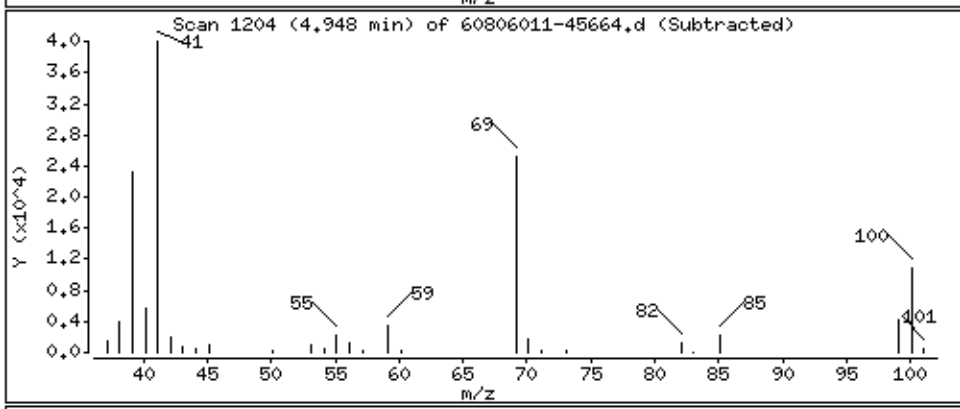
Column diameter: 0.18

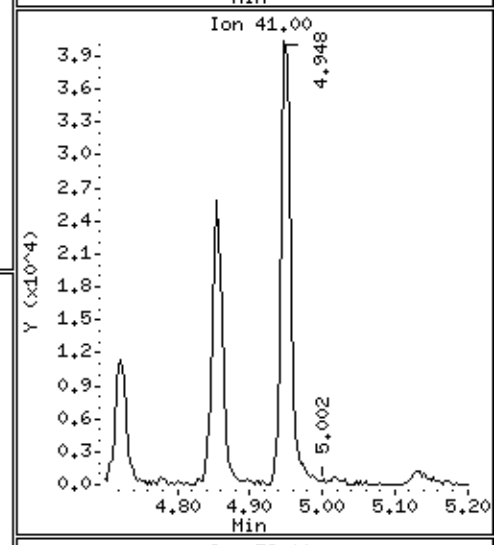
54 Methyl methacrylate

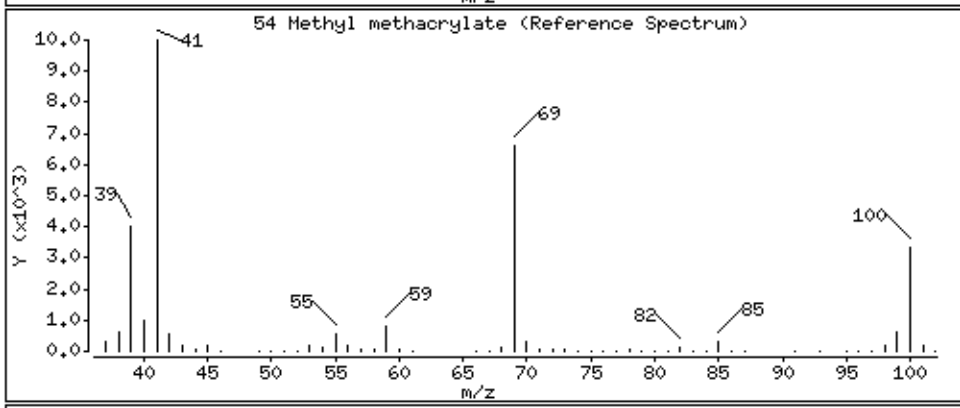
Concentration: 15.1 ug/kg

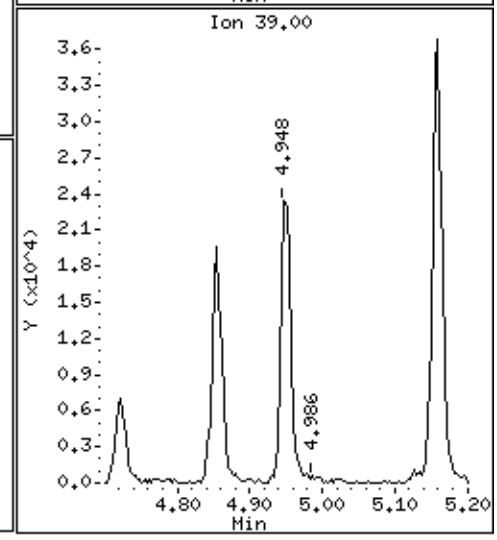


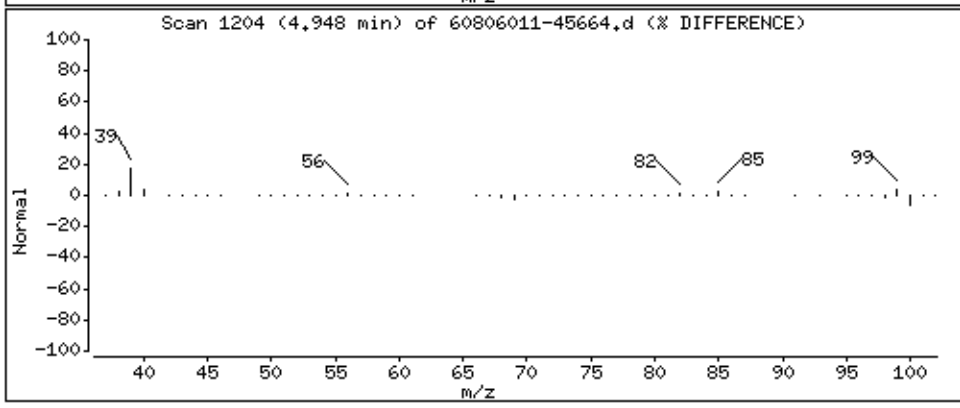












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

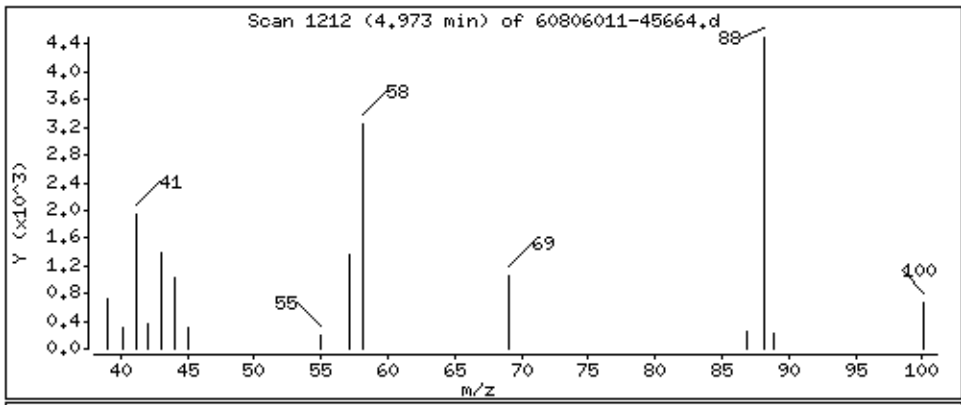
Operator: JEW

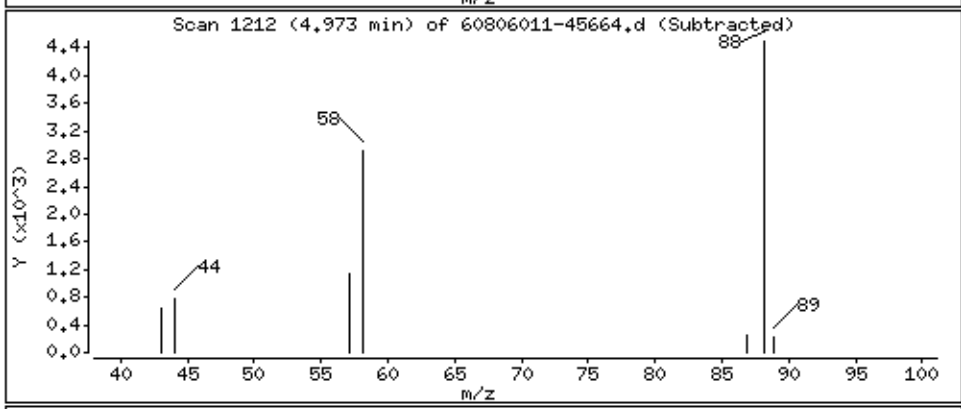
Column phase: RTX-VMS

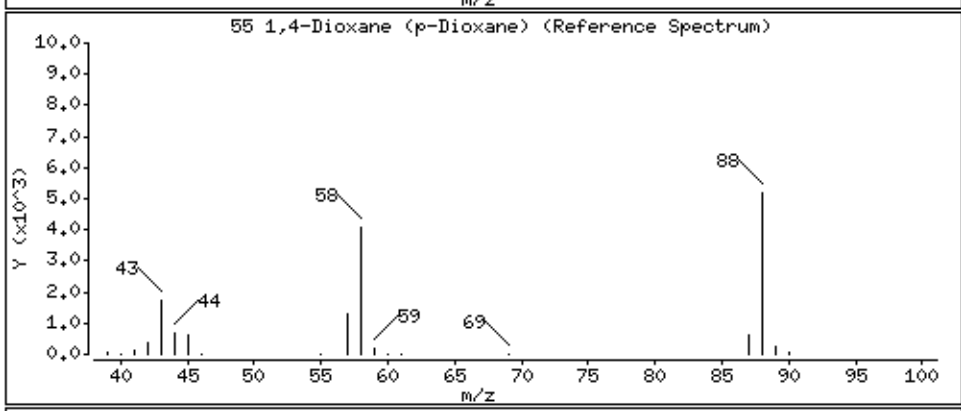
Column diameter: 0.18

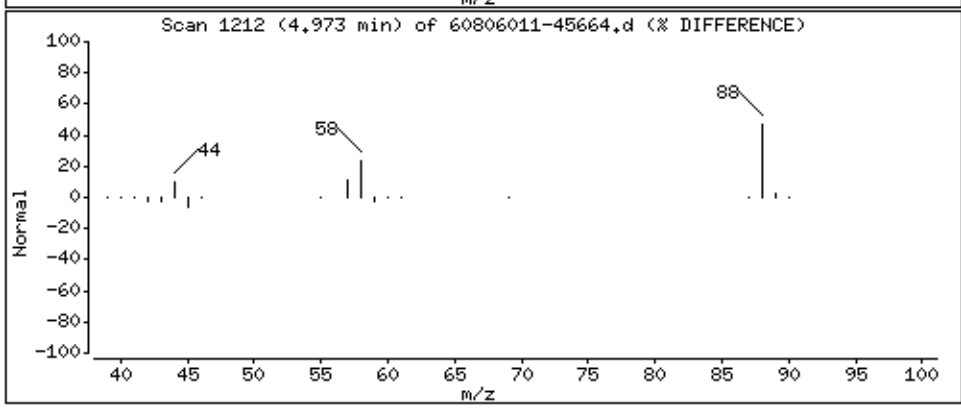
55 1,4-Dioxane (p-Dioxane)

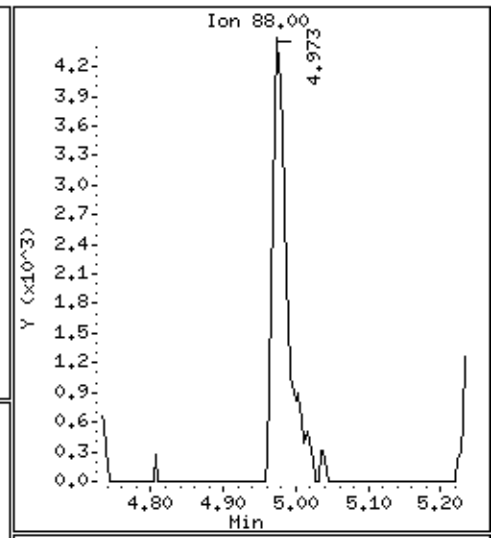
Concentration: 161 ug/kg

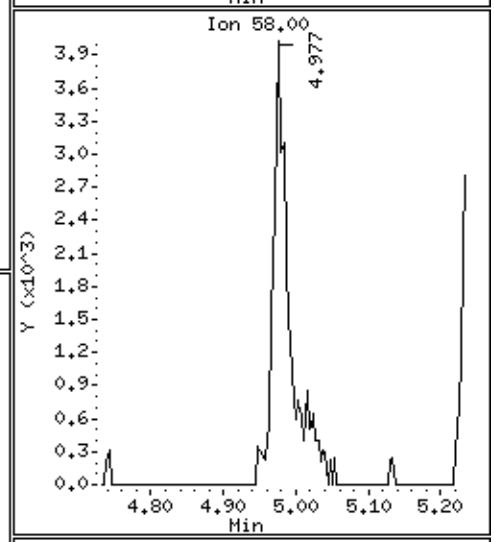


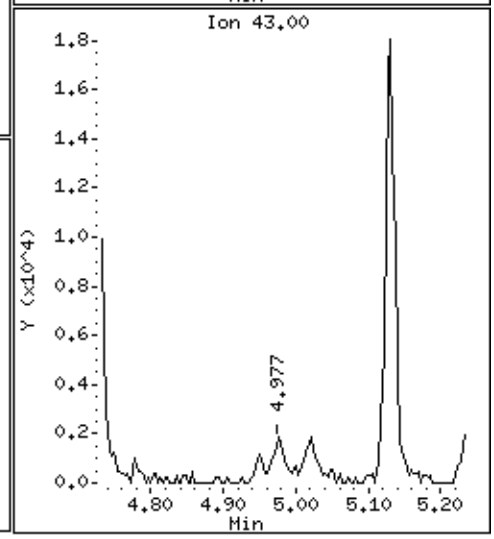












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

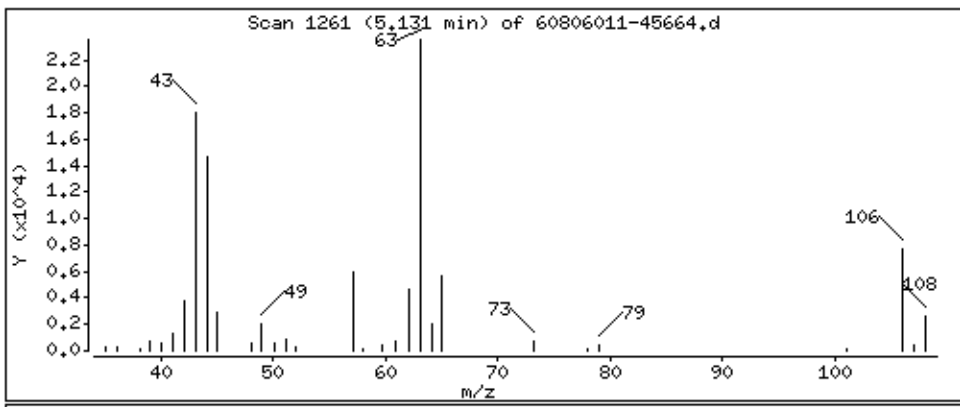
Operator: JEW

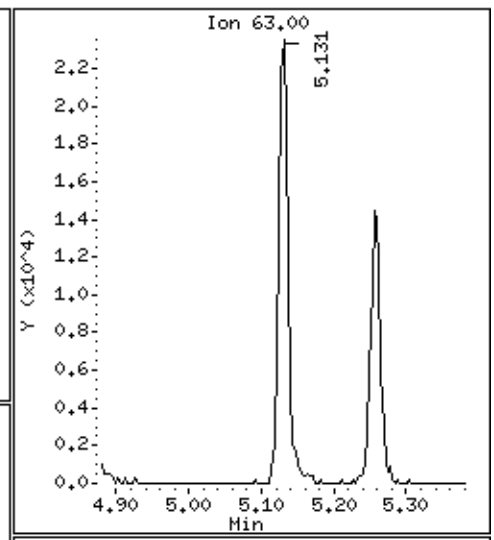
Column phase: RTX-VMS

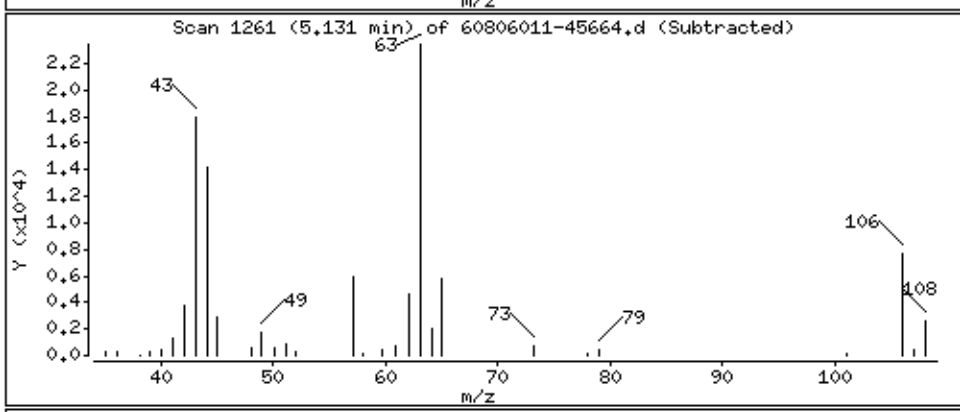
Column diameter: 0.18

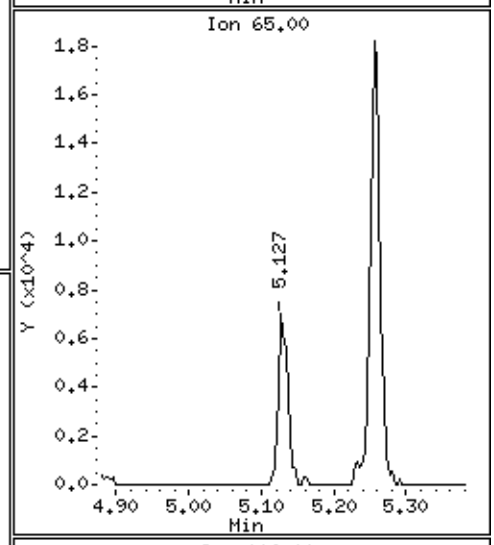
56 2-Chloroethylvinyl ether

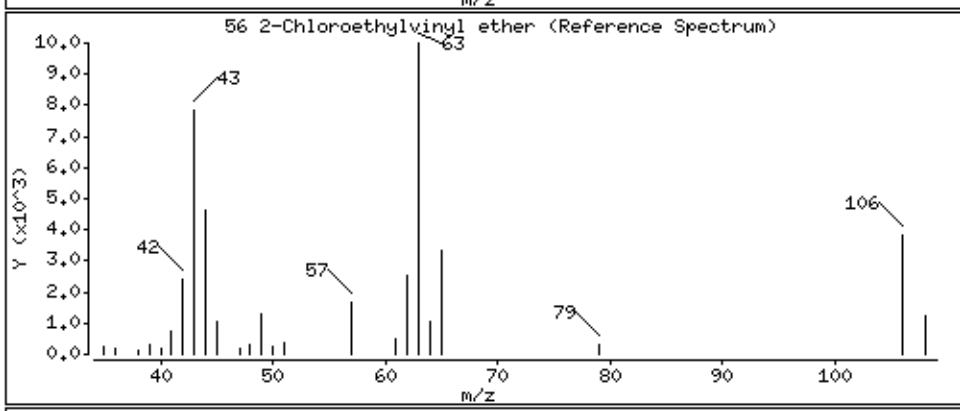
Concentration: 14.9 ug/kg

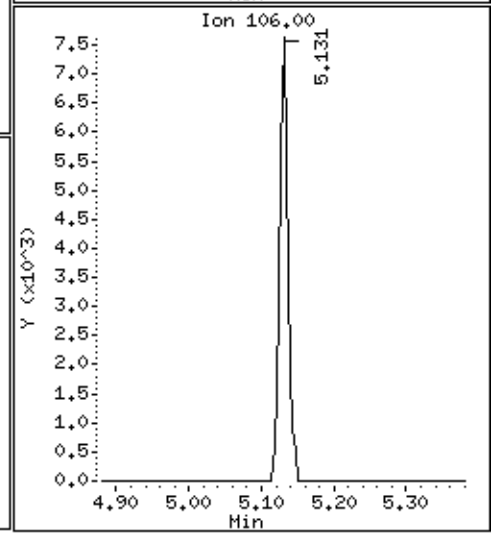


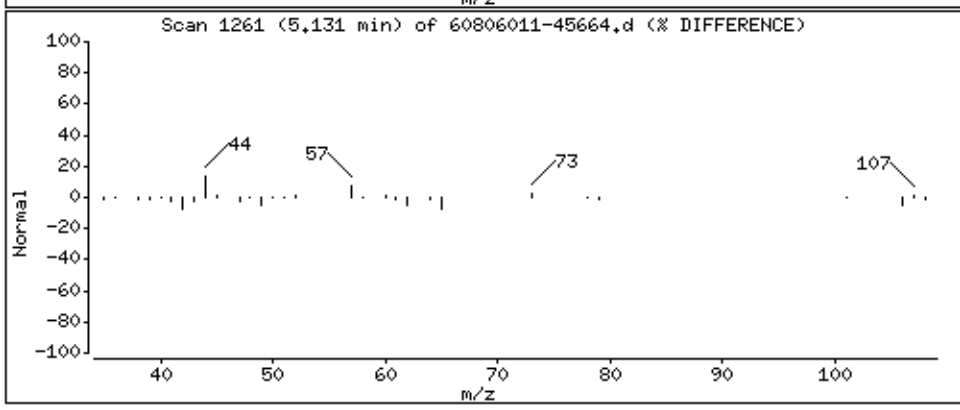












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

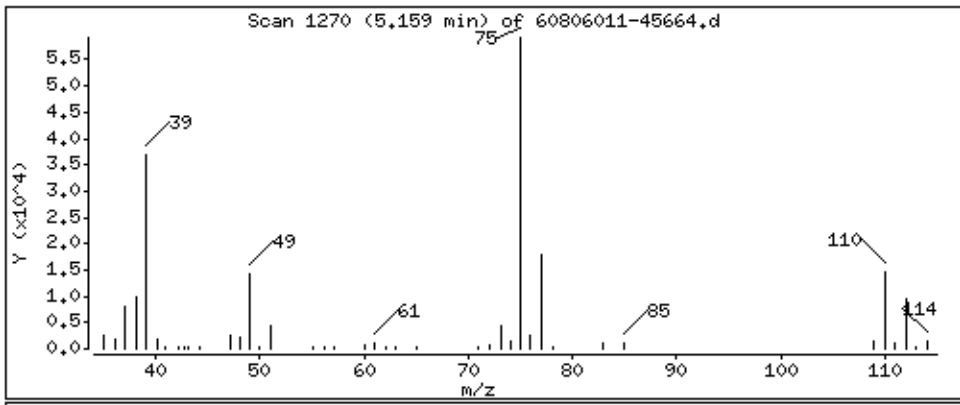
Operator: JEW

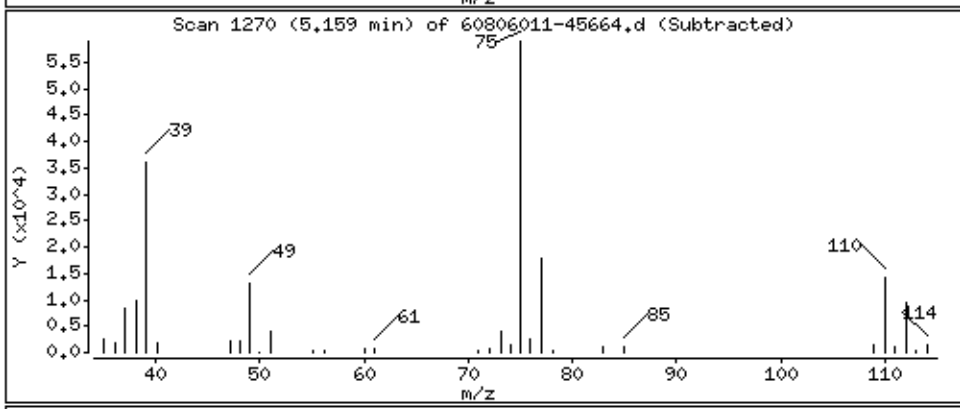
Column phase: RTX-VMS

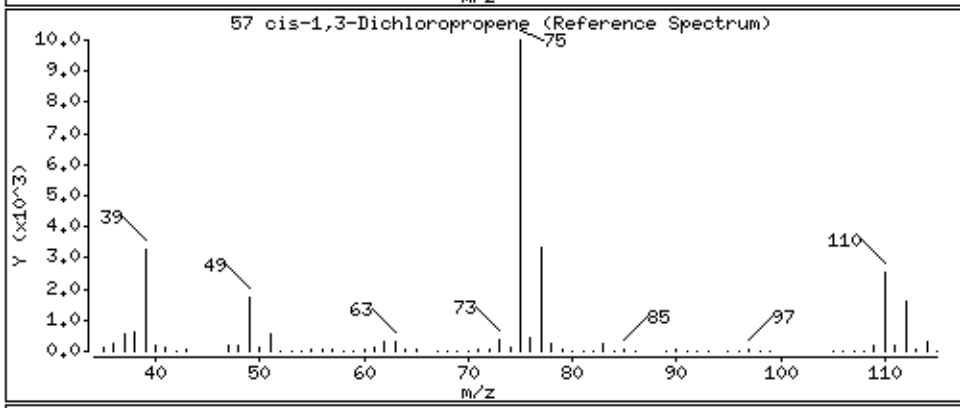
Column diameter: 0.18

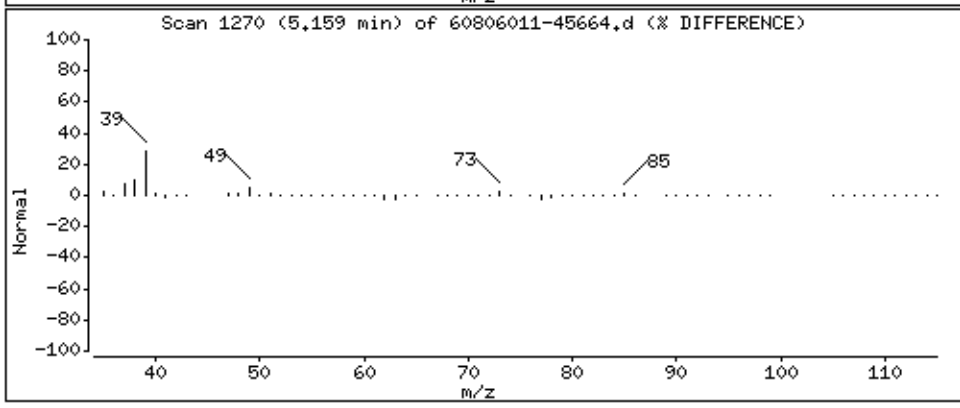
57 cis-1,3-Dichloropropene

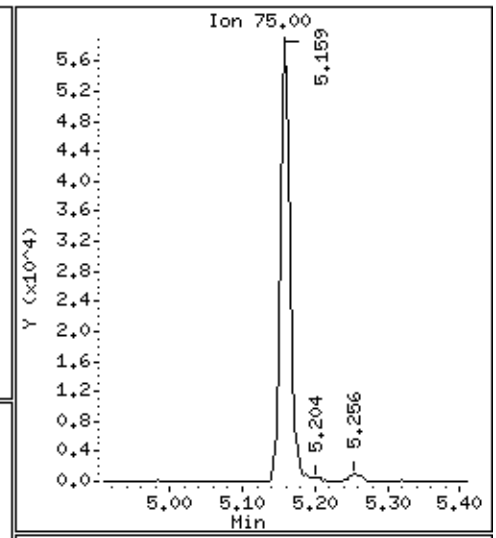
Concentration: 16.0 ug/kg

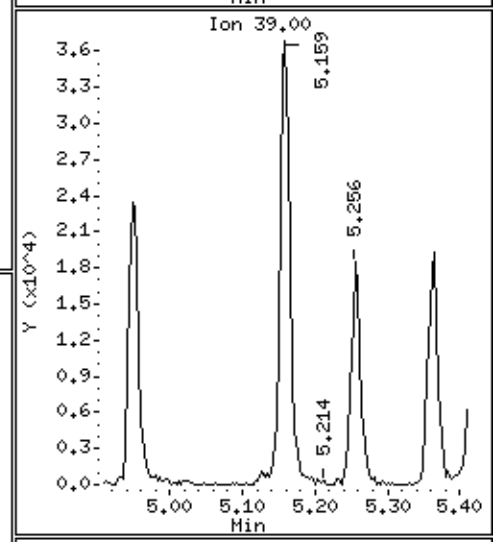


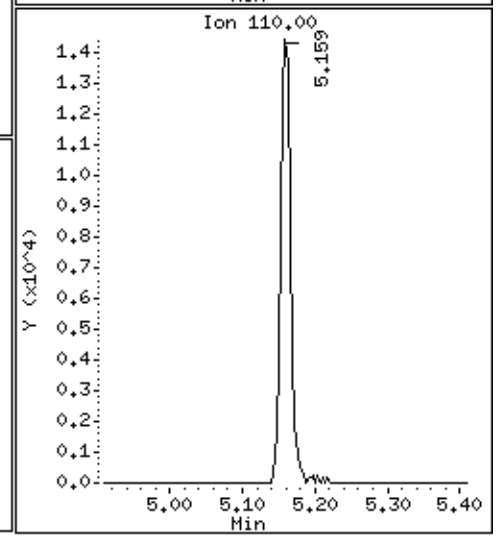












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

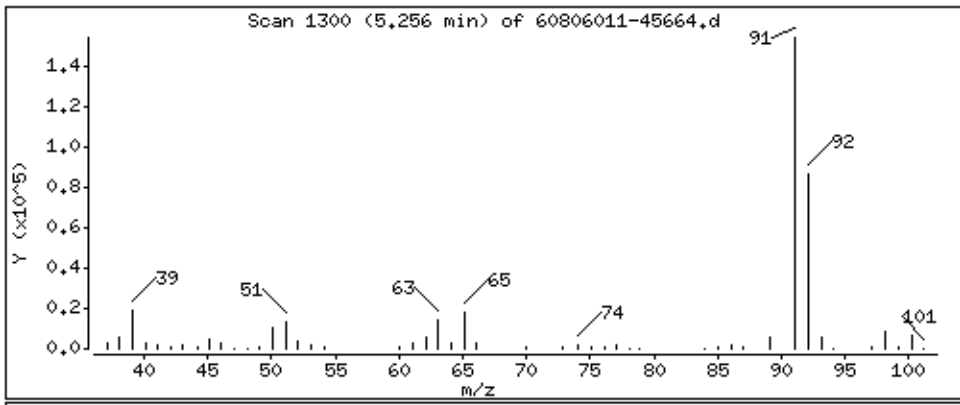
Operator: JEW

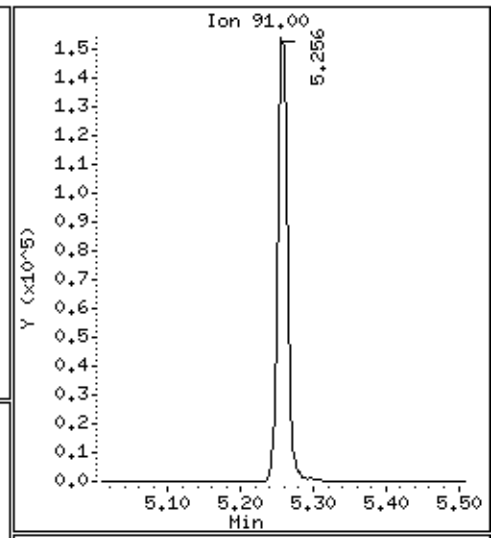
Column phase: RTX-VMS

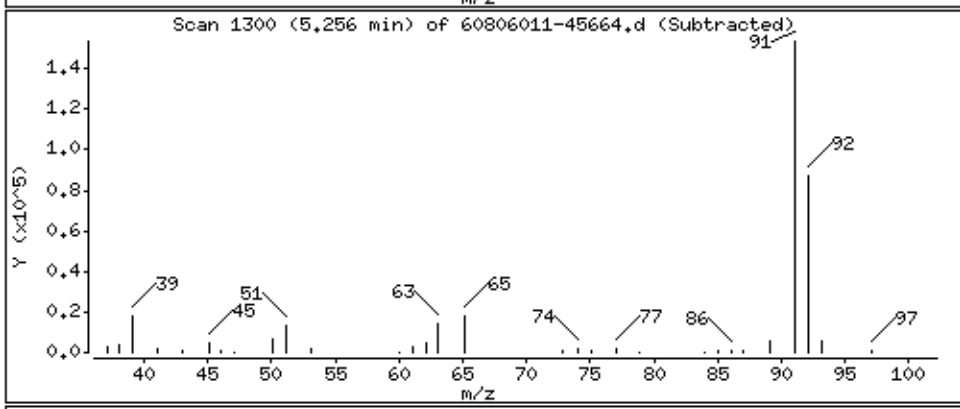
Column diameter: 0.18

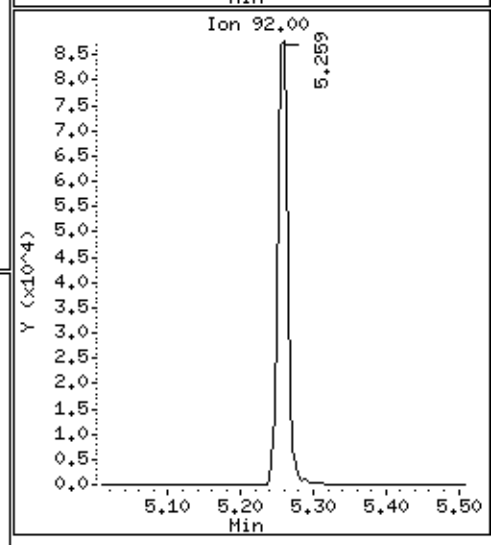
59 Toluene

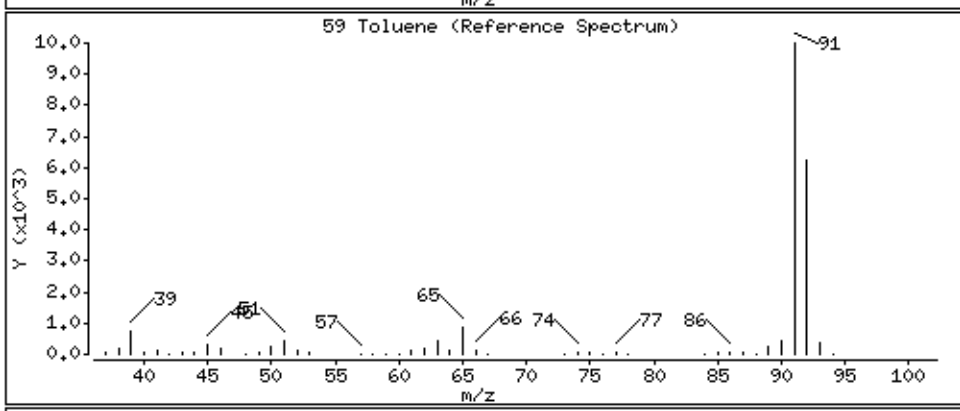
Concentration: 15.9 ug/kg

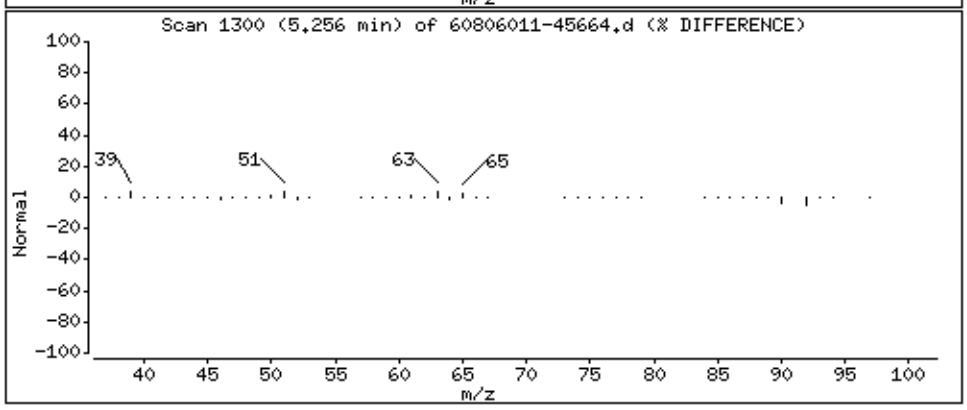












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

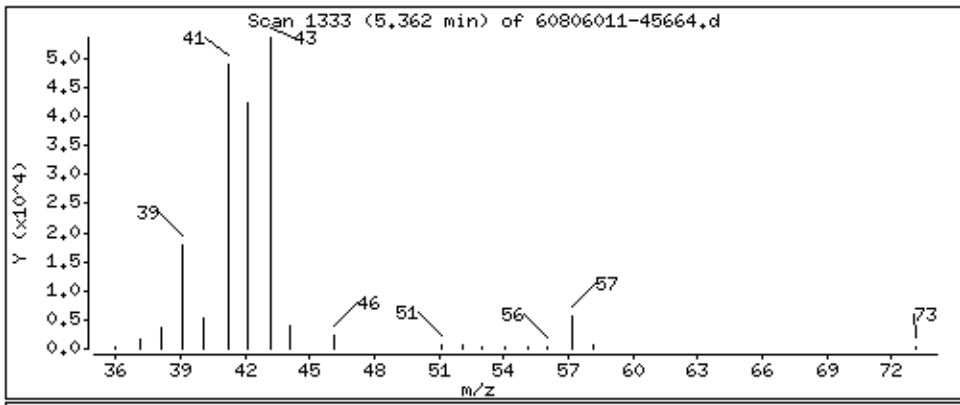
Operator: JEW

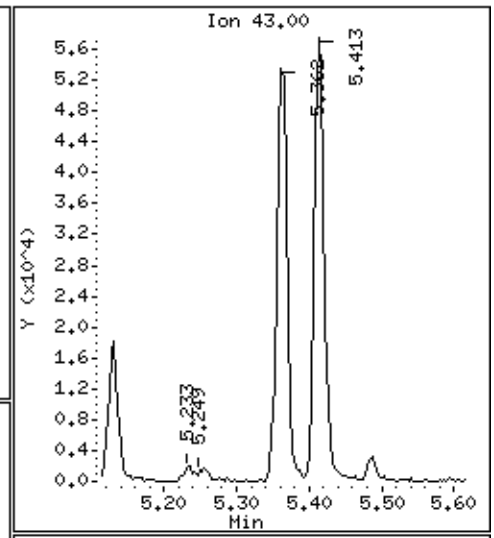
Column phase: RTX-VMS

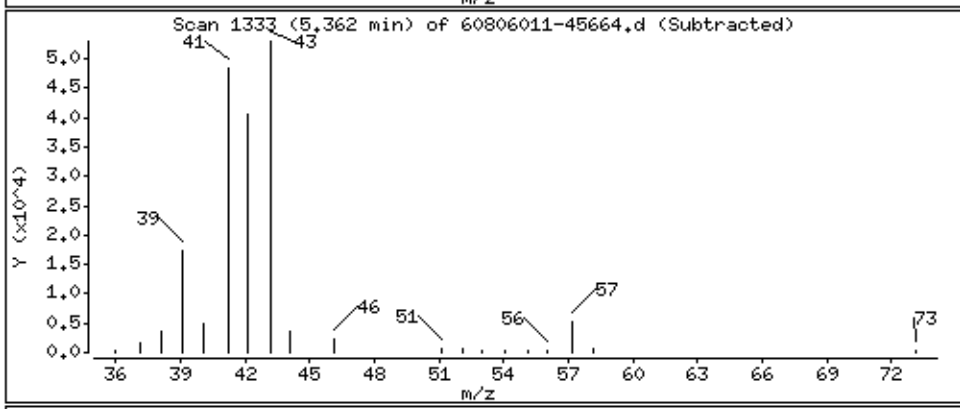
Column diameter: 0.18

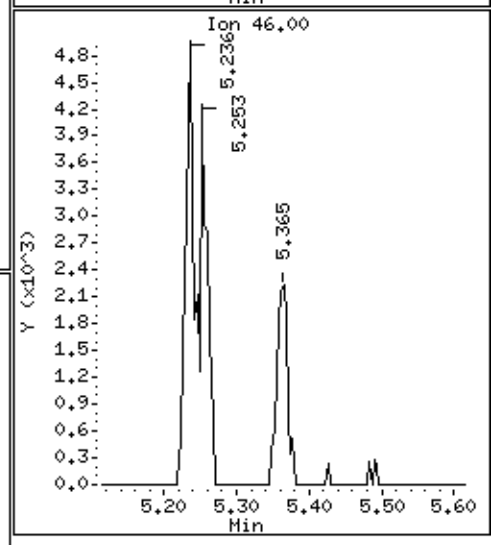
60 2-Nitropropane

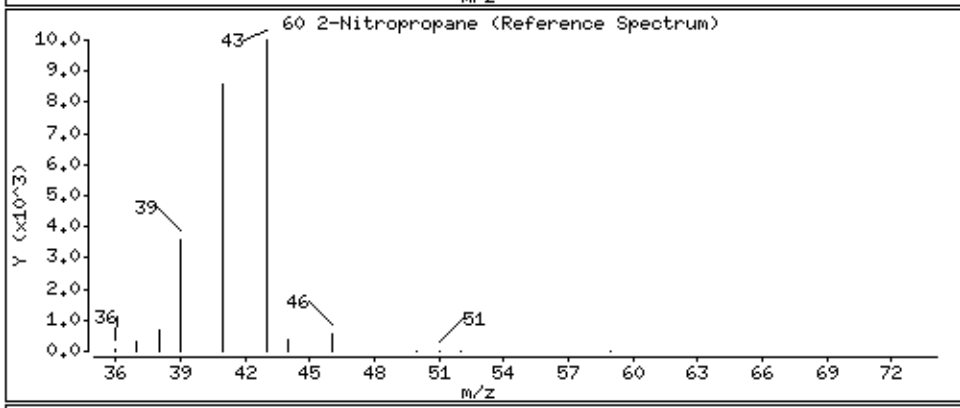
Concentration: 75.0 ug/kg

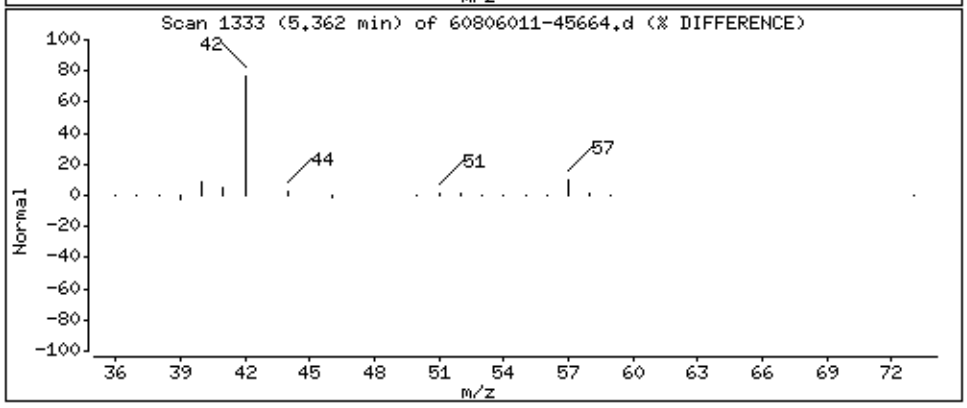












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

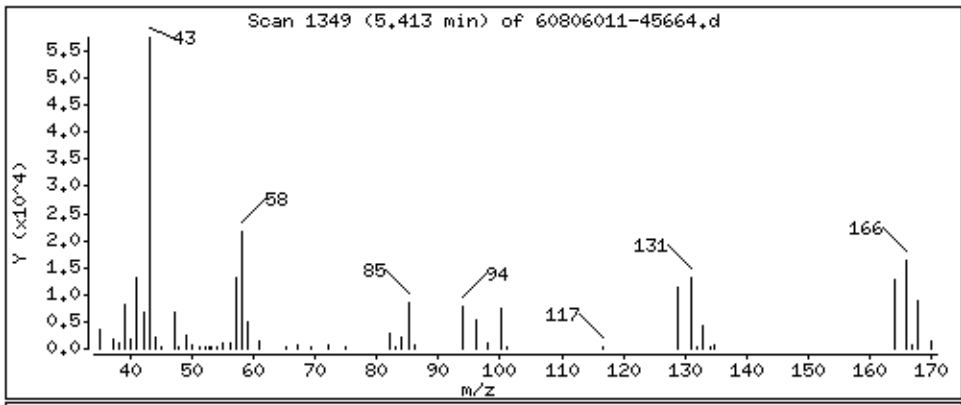
Operator: JEW

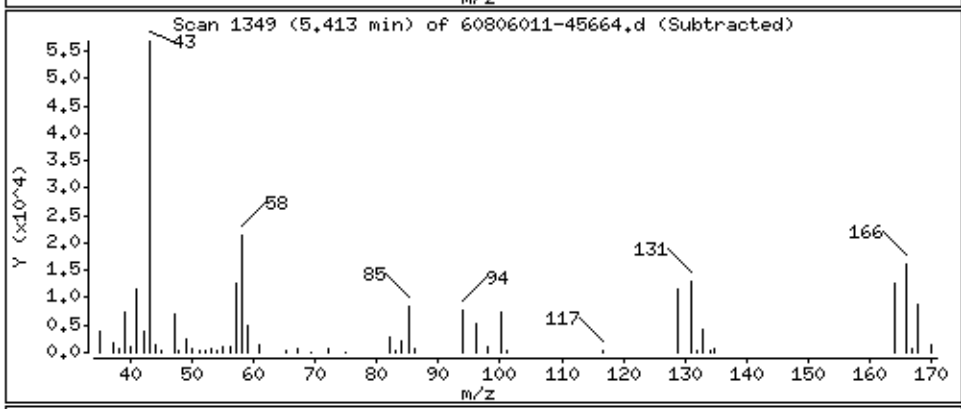
Column phase: RTX-VMS

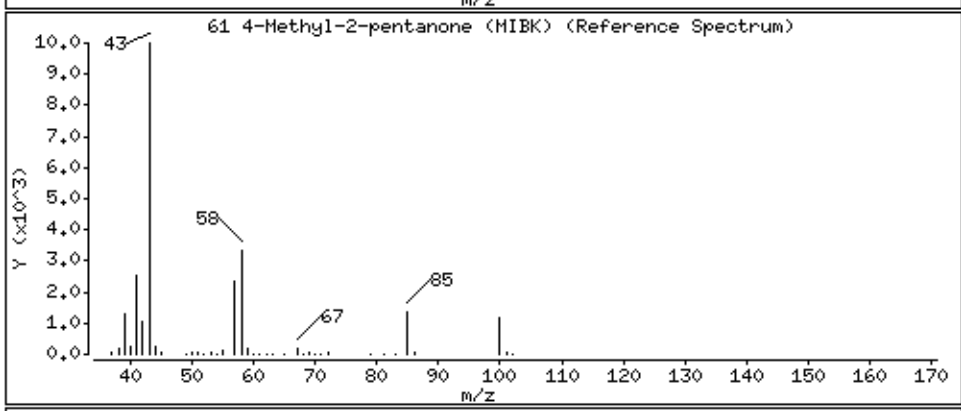
Column diameter: 0.18

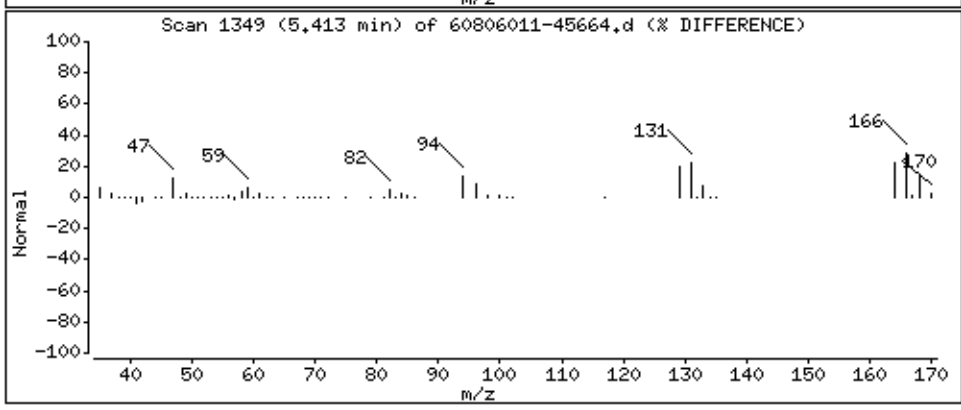
61 4-Methyl-2-pentanone (MIBK)

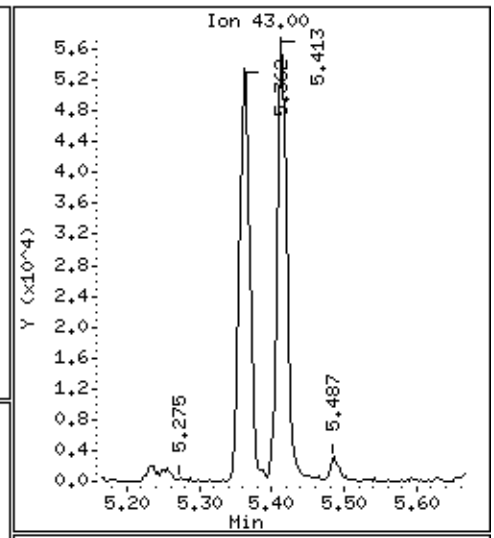
Concentration: 17.5 ug/kg

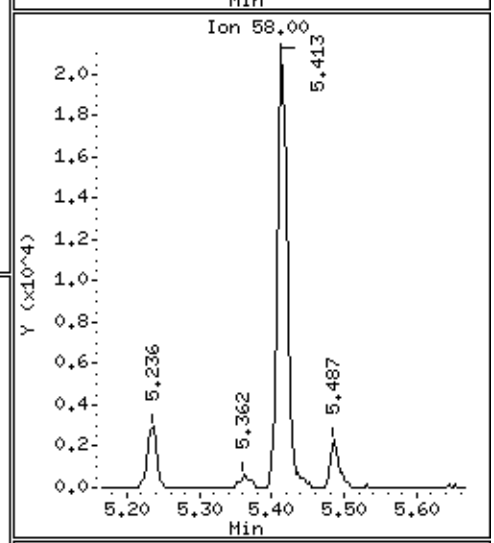


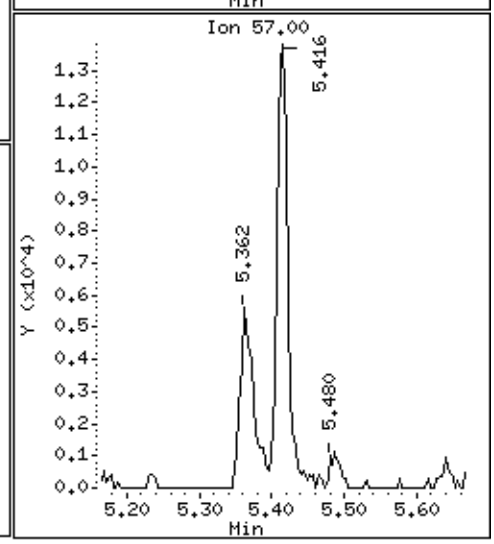












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

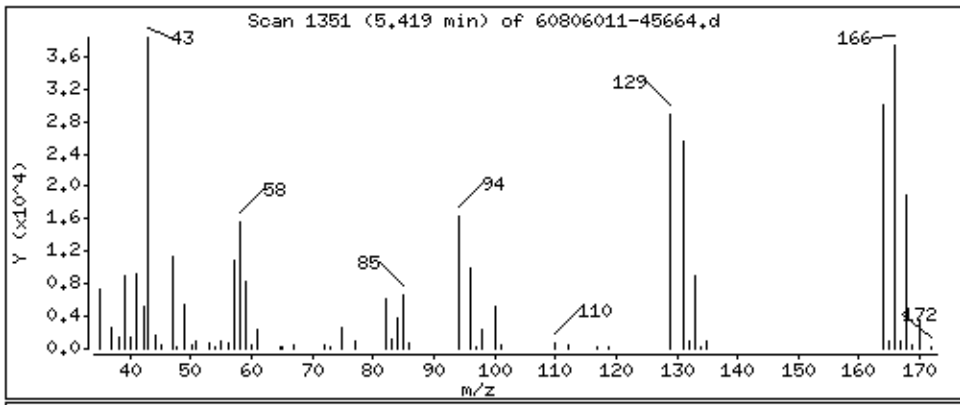
Operator: JEW

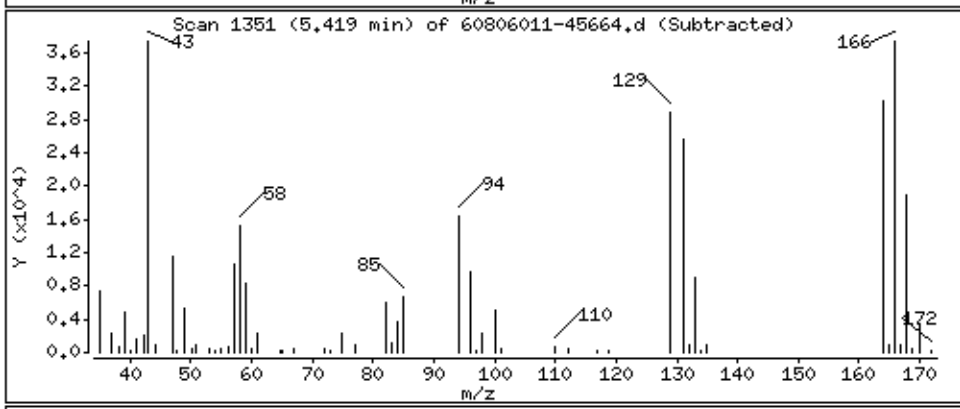
Column phase: RTX-VMS

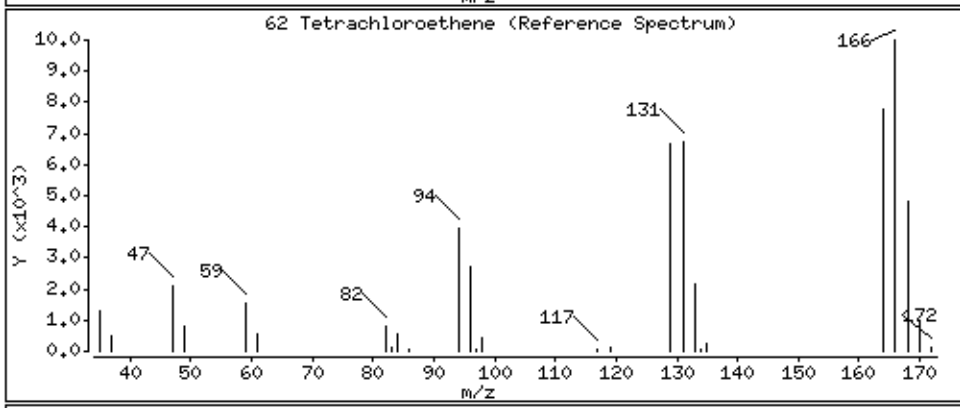
Column diameter: 0.18

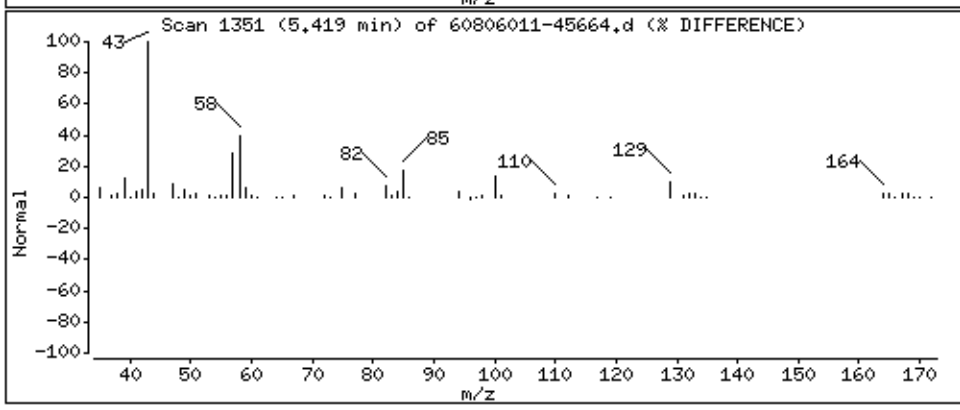
62 Tetrachloroethene

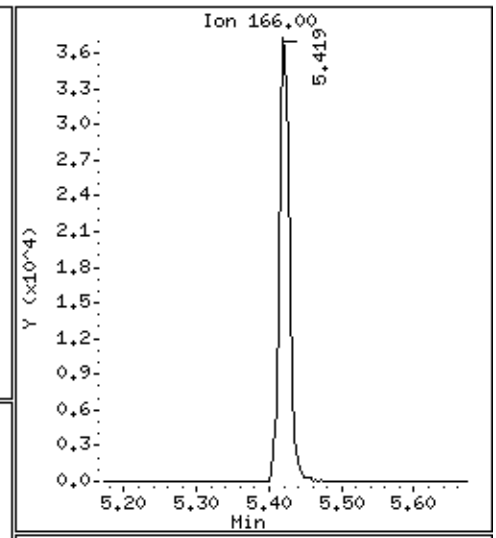
Concentration: 15.7 ug/kg

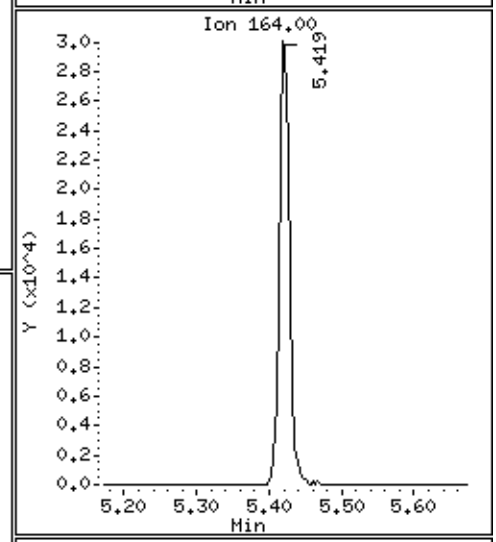


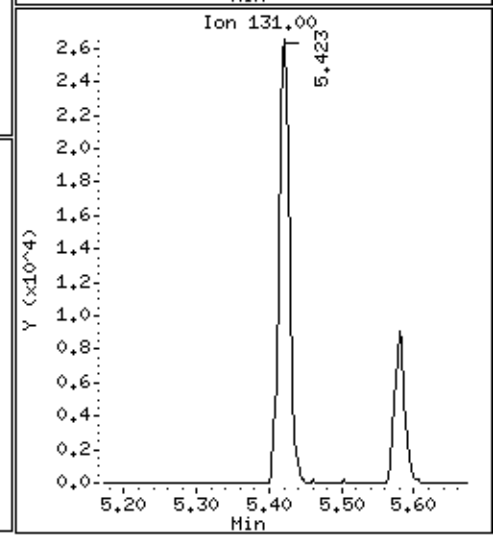












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

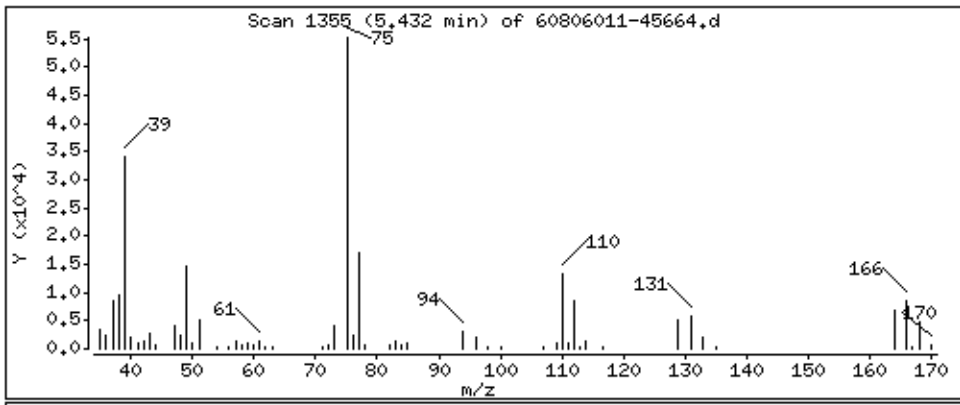
Operator: JEW

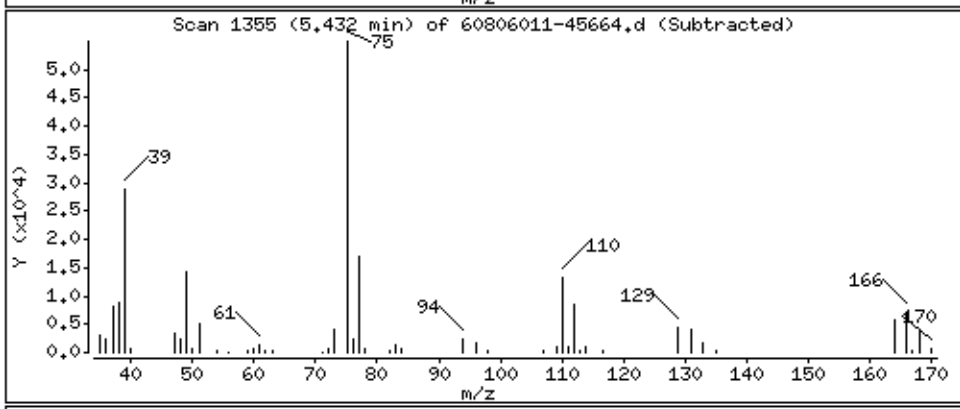
Column phase: RTX-VMS

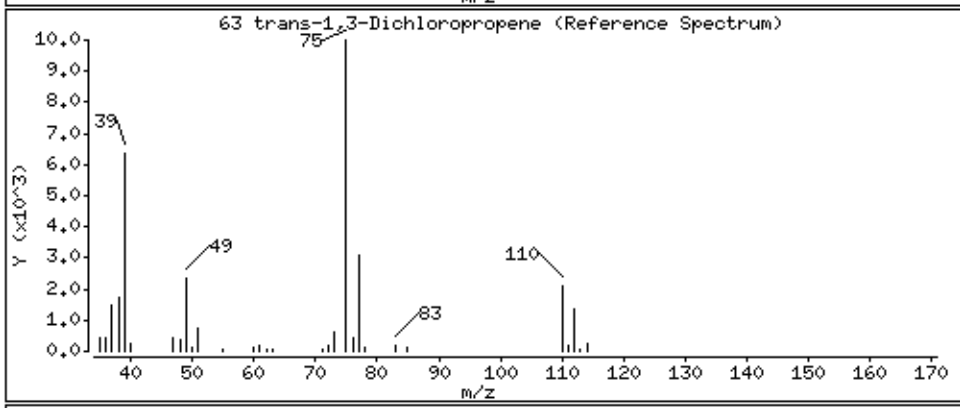
Column diameter: 0.18

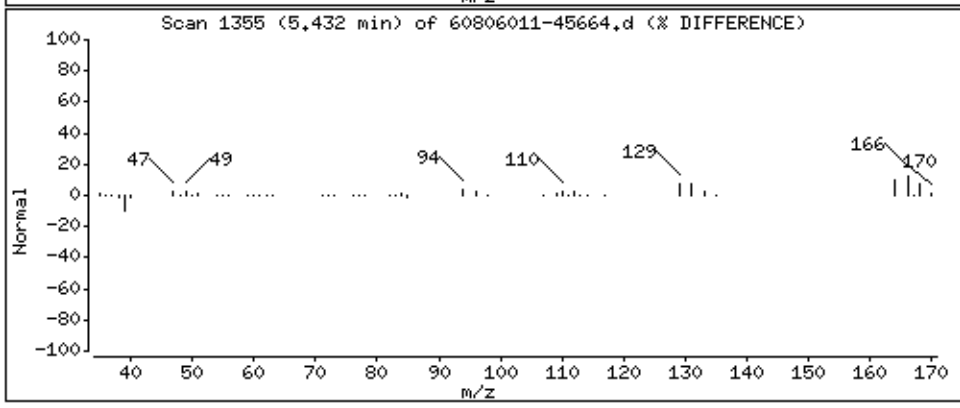
63 trans-1,3-Dichloropropene

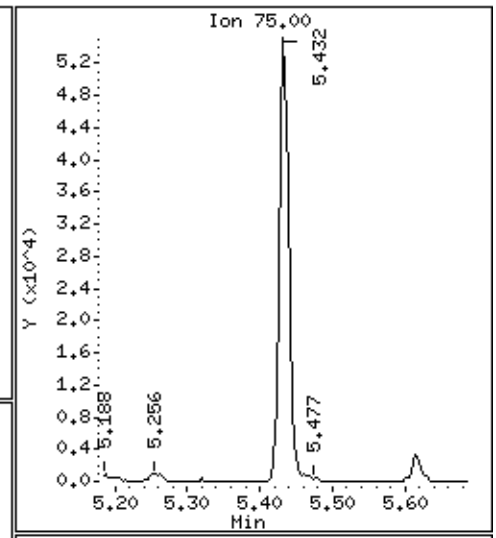
Concentration: 15.6 ug/kg

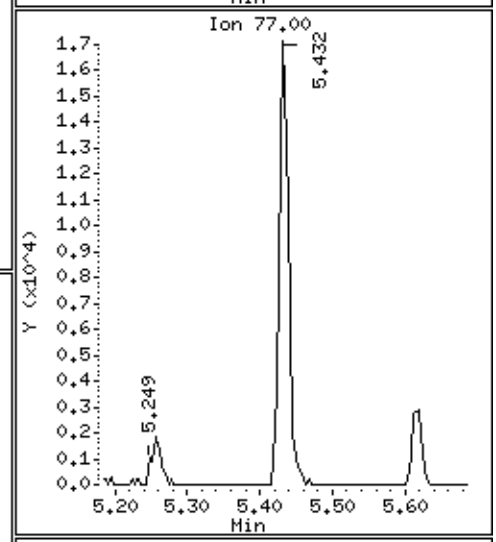


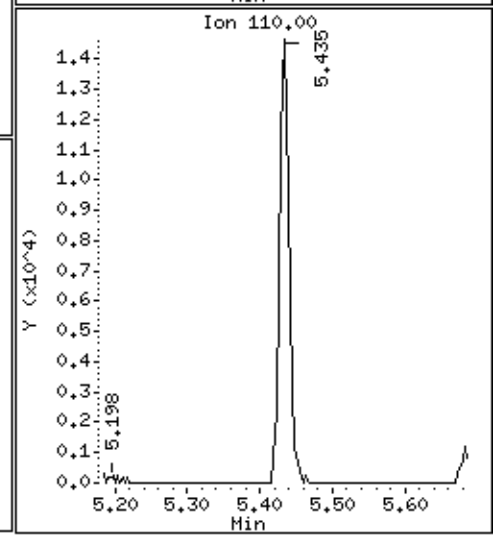












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

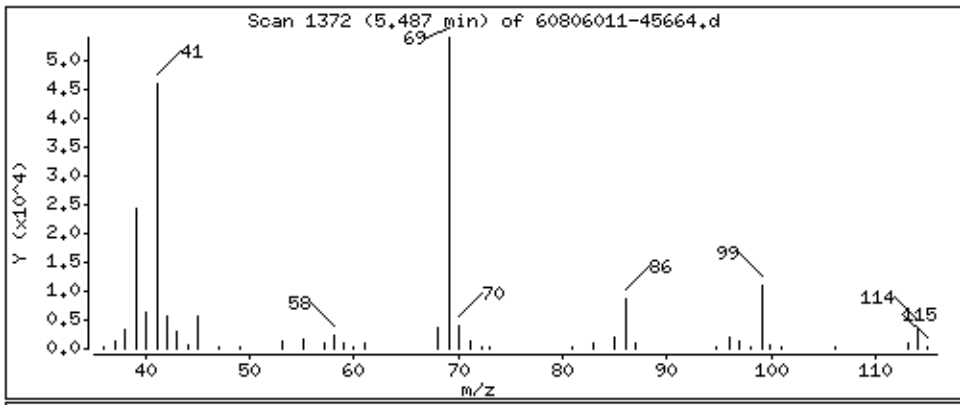
Operator: JEW

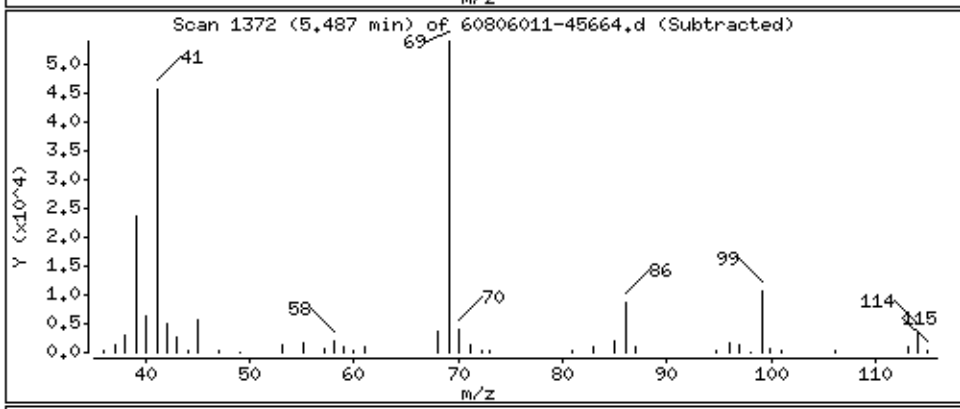
Column phase: RTX-VMS

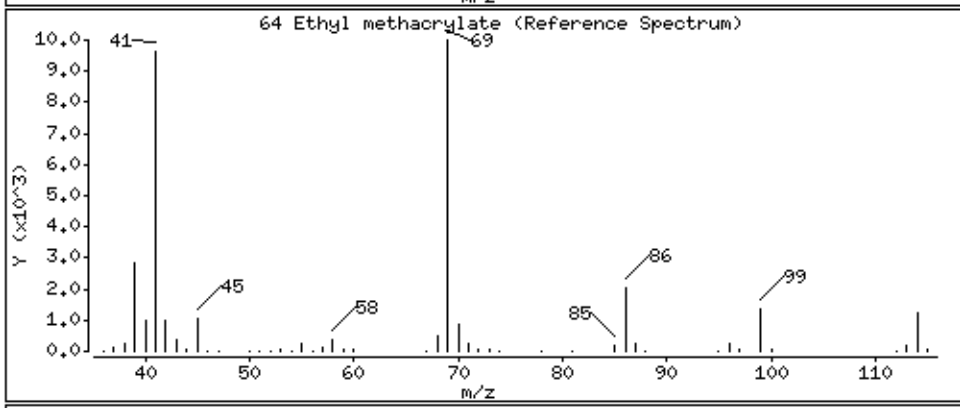
Column diameter: 0.18

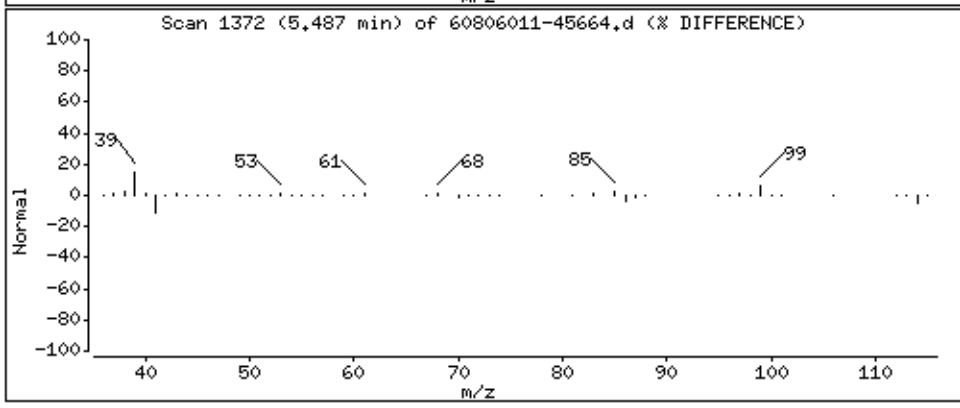
64 Ethyl methacrylate

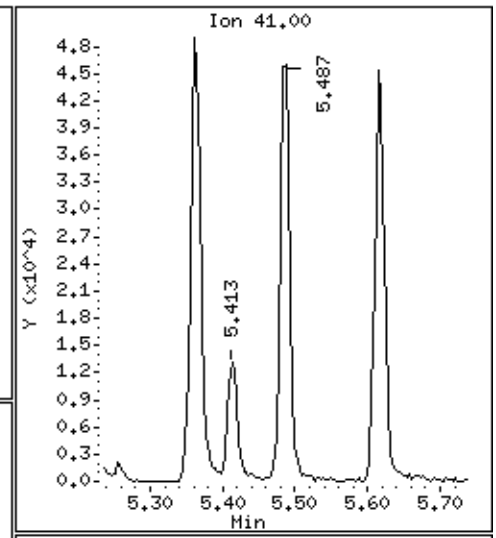
Concentration: 17.5 ug/kg

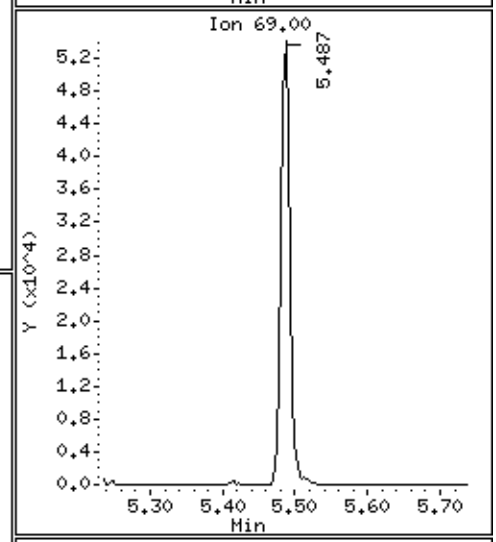


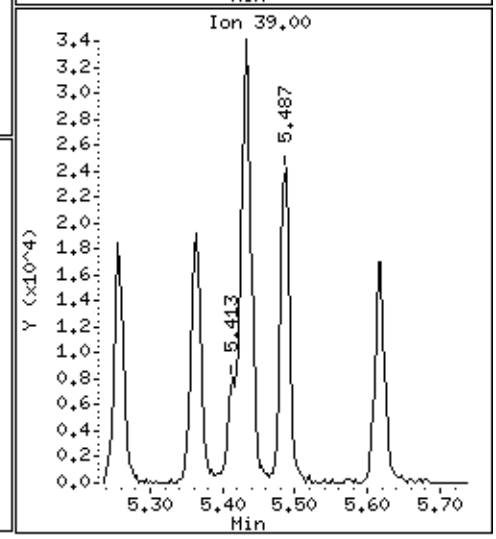












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

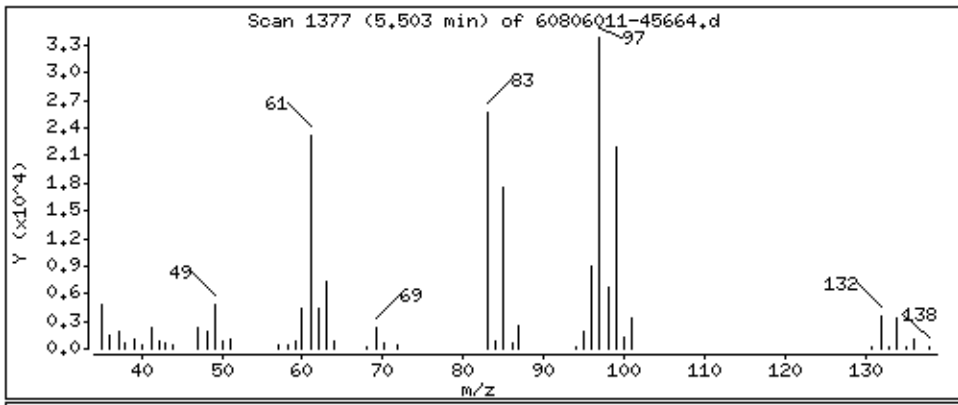
Operator: JEW

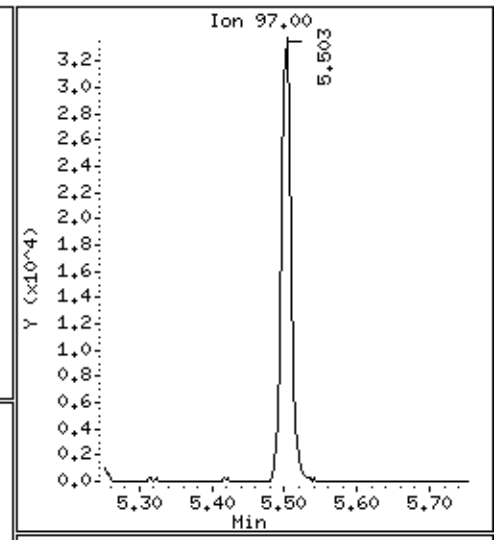
Column phase: RTX-VMS

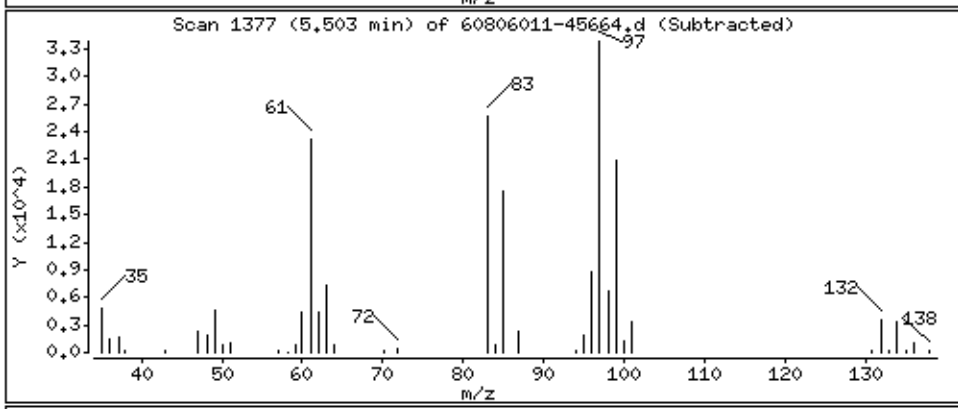
Column diameter: 0.18

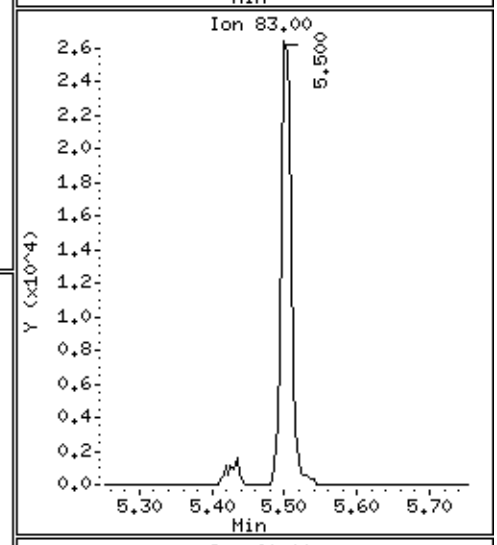
65 1,1,2-Trichloroethane

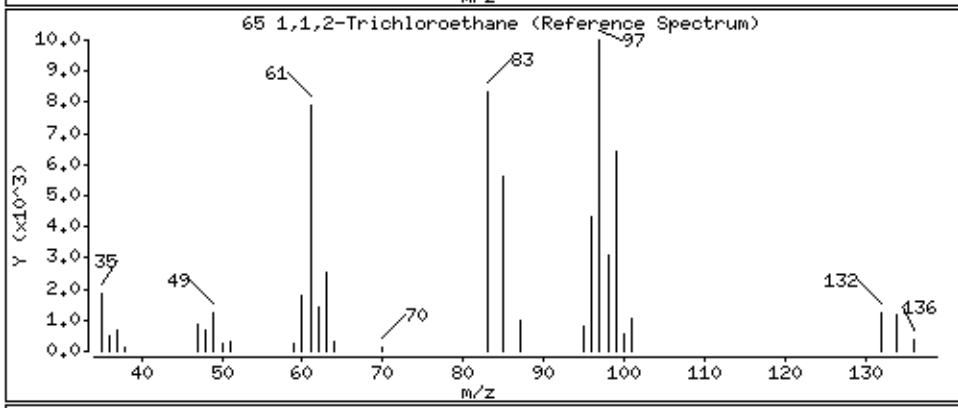
Concentration: 15.3 ug/kg

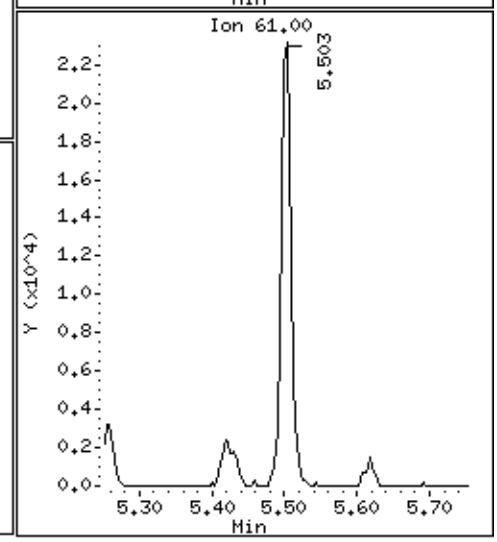


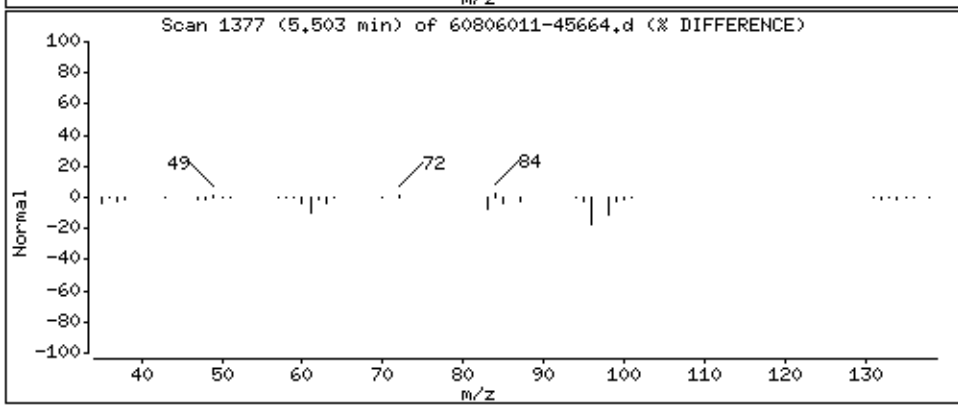












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

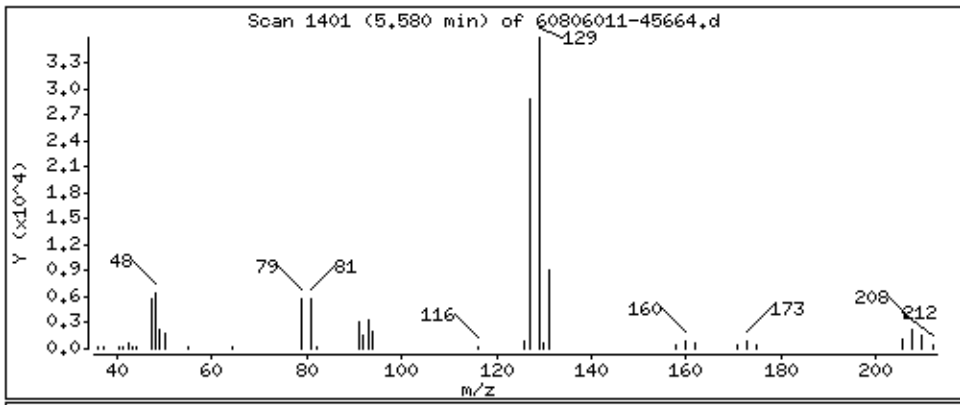
Operator: JEW

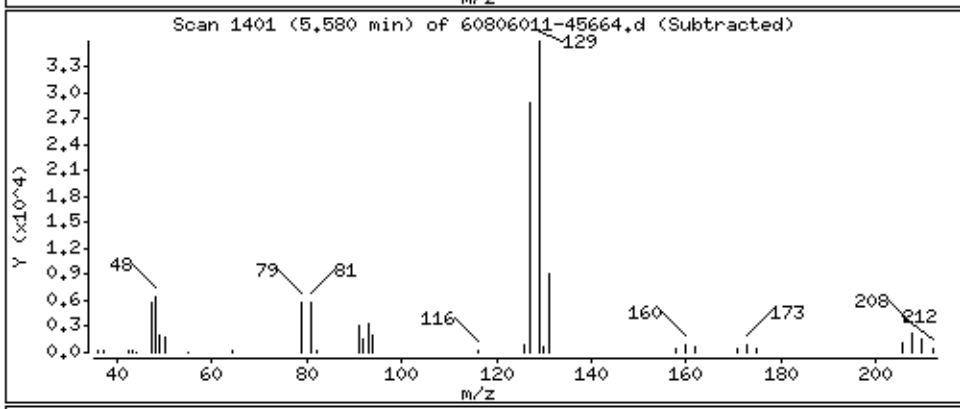
Column phase: RTX-VMS

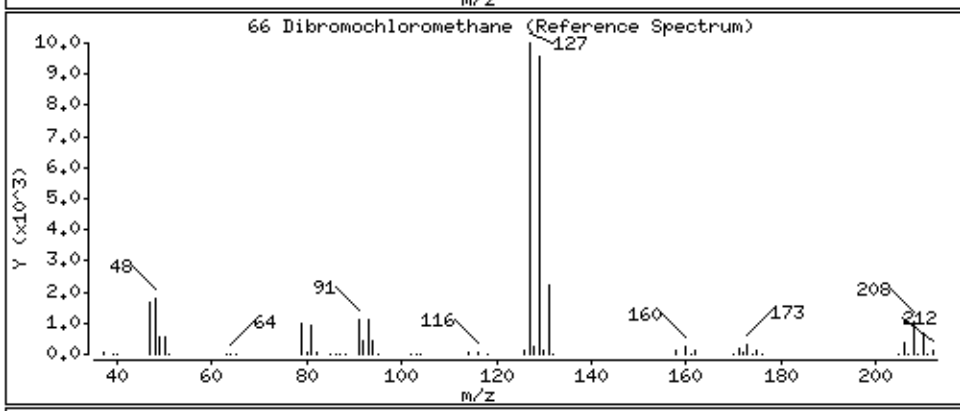
Column diameter: 0.18

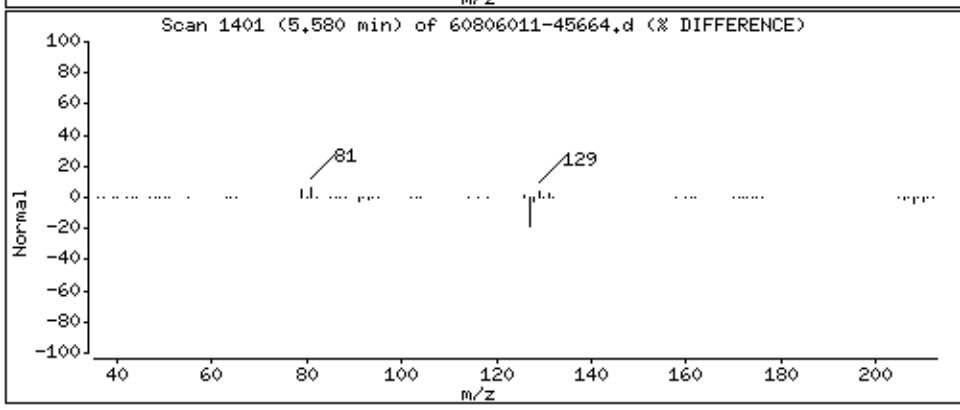
66 Dibromochloromethane

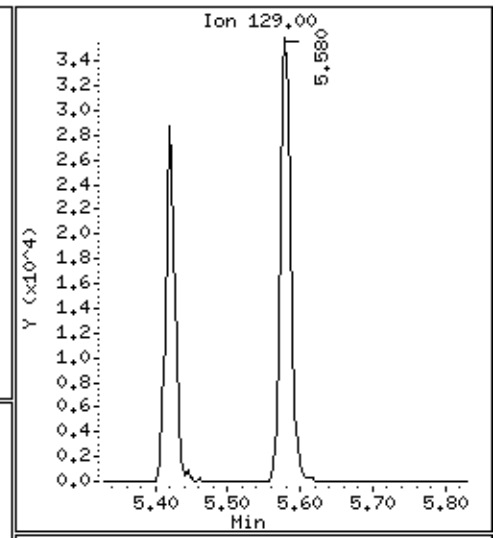
Concentration: 15.1 ug/kg

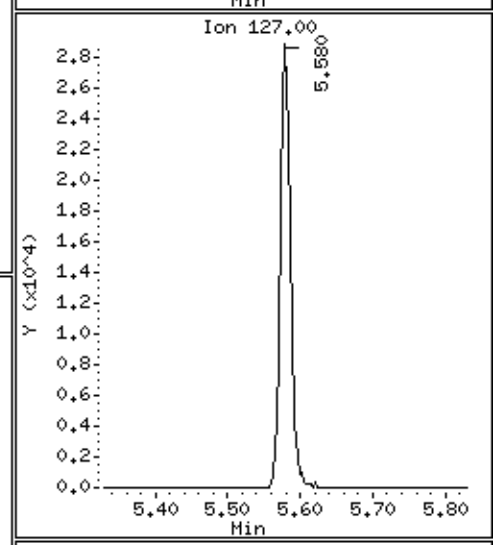


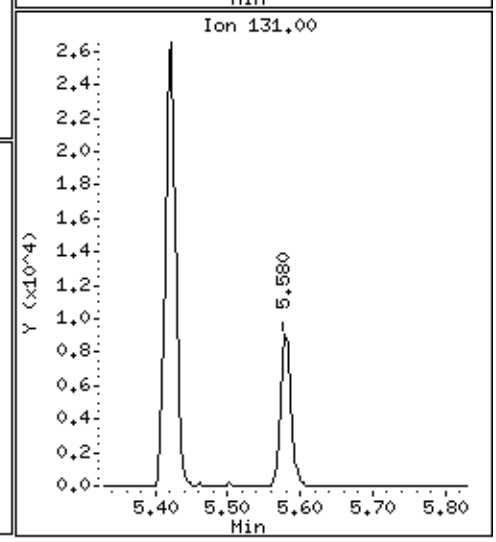












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

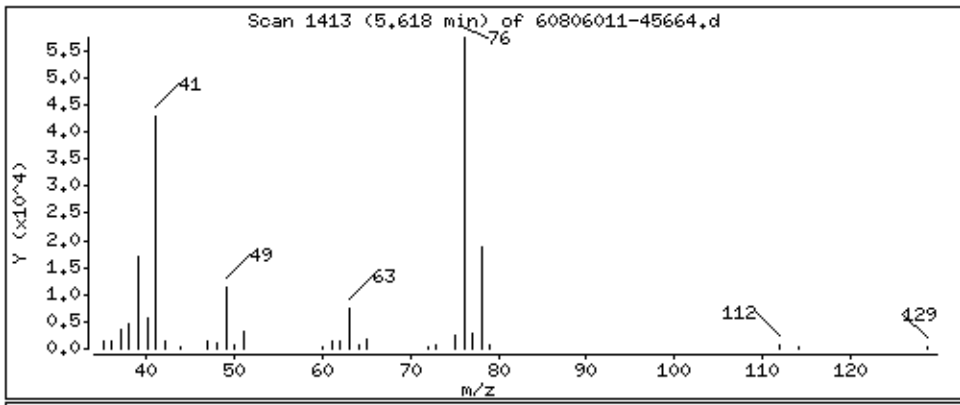
Operator: JEW

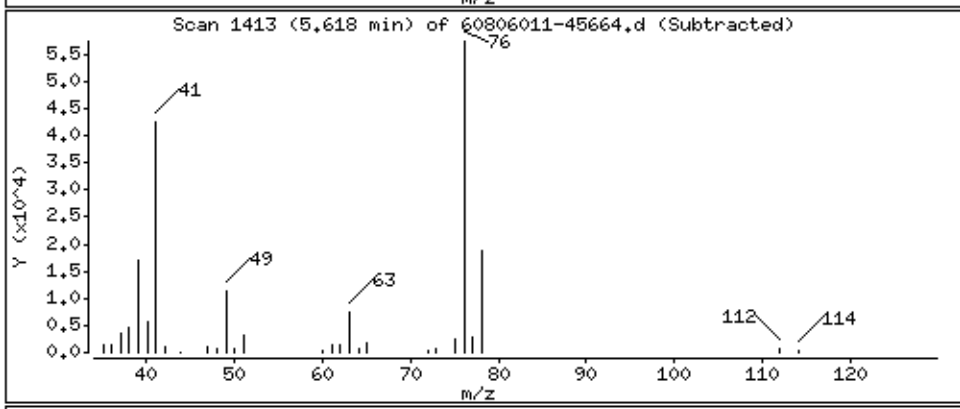
Column phase: RTX-VMS

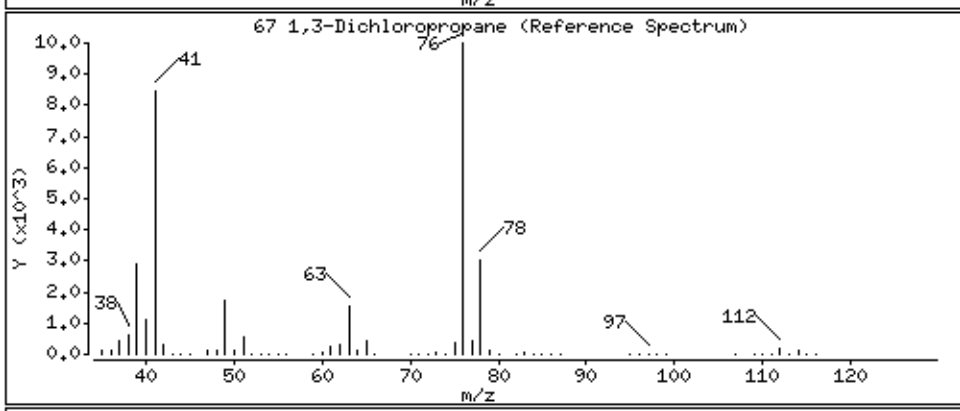
Column diameter: 0.18

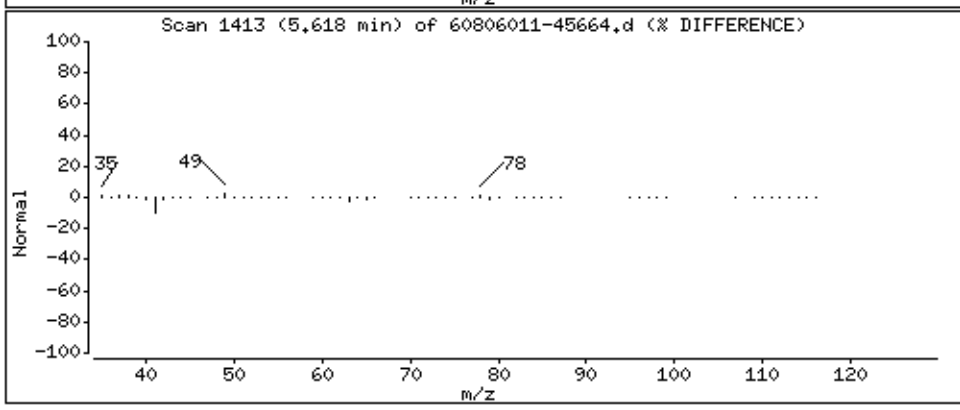
67 1,3-Dichloropropane

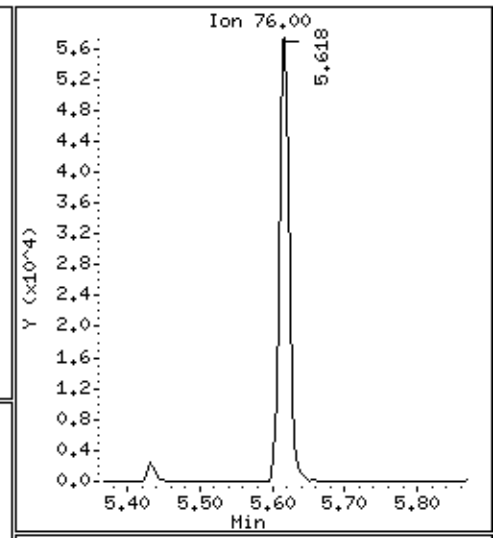
Concentration: 16.0 ug/kg

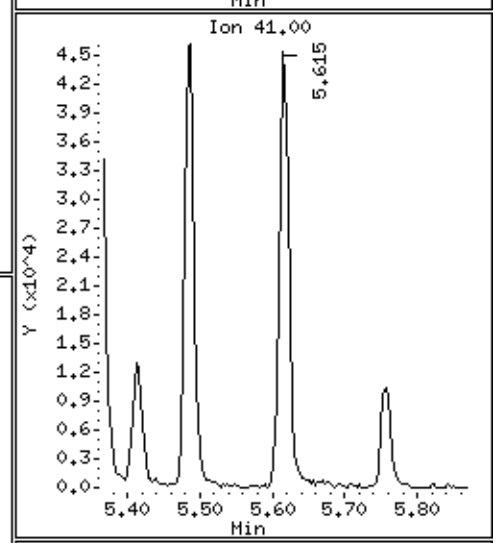


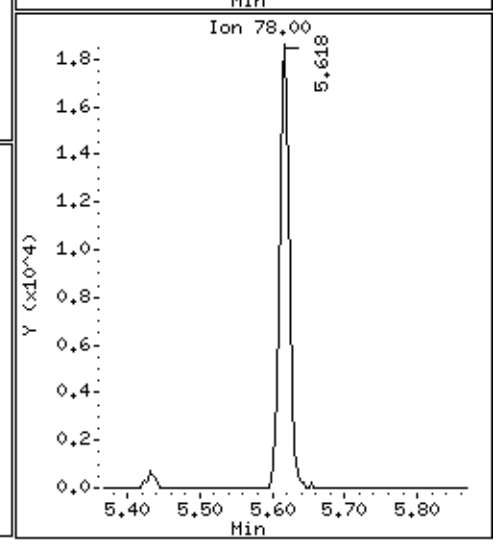












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

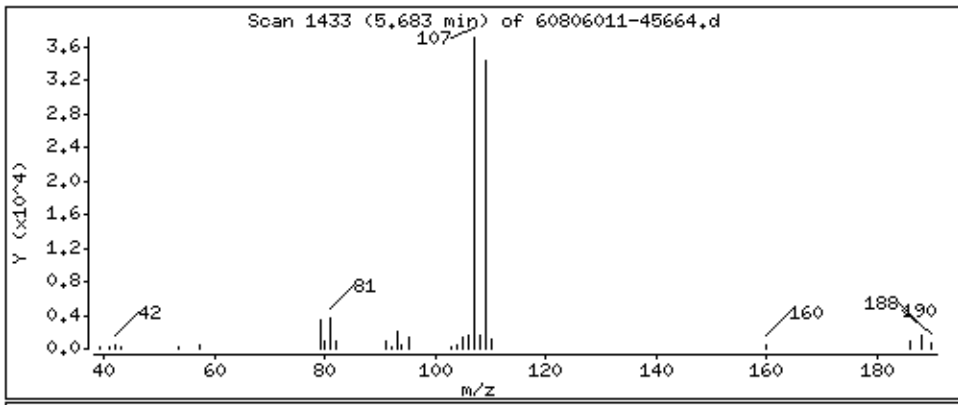
Operator: JEW

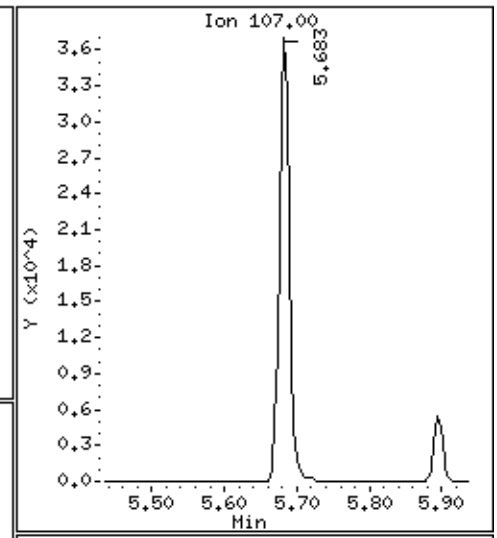
Column phase: RTX-VMS

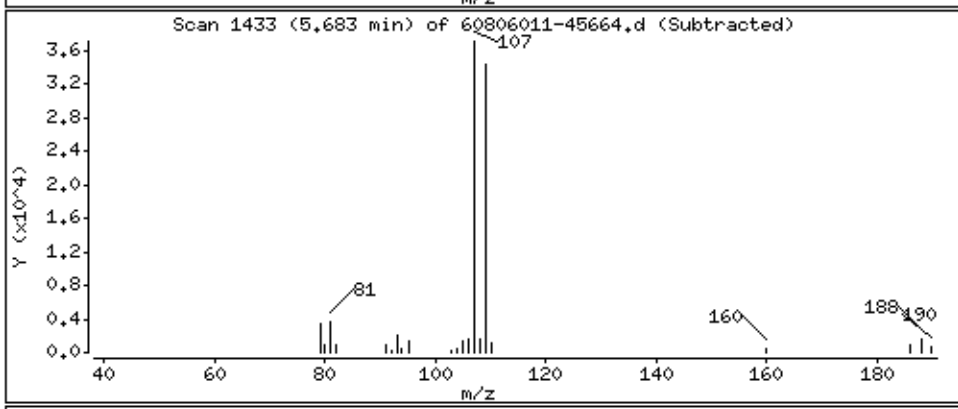
Column diameter: 0.18

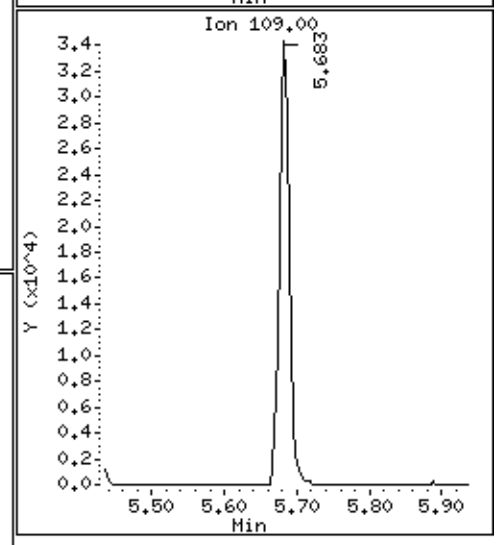
68 1,2-Dibromoethane (EDB)

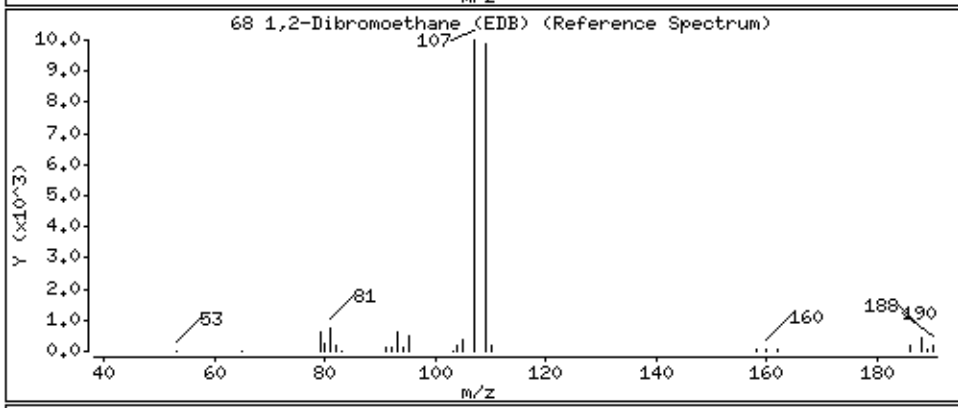
Concentration: 16.0 ug/kg

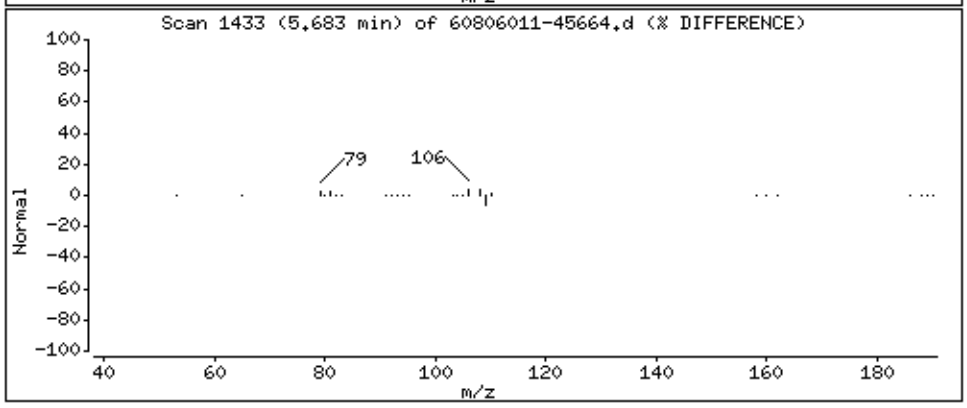












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

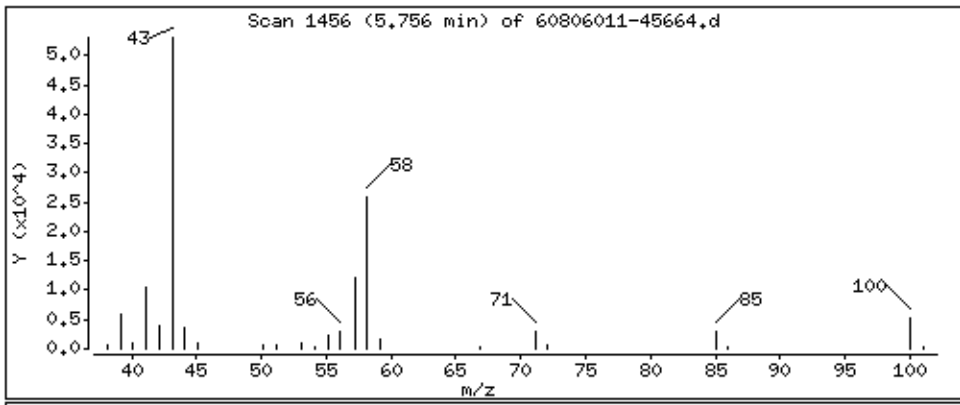
Operator: JEW

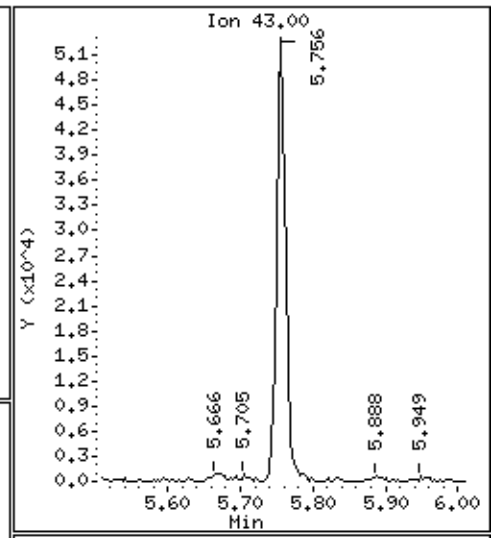
Column phase: RTX-VMS

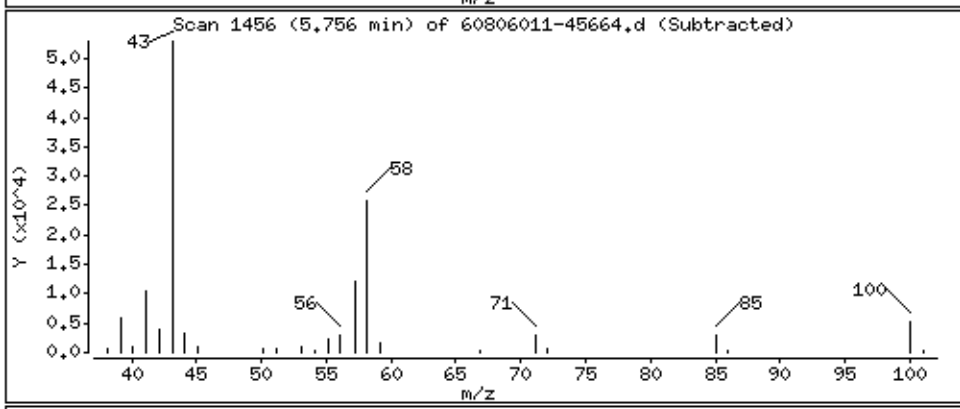
Column diameter: 0.18

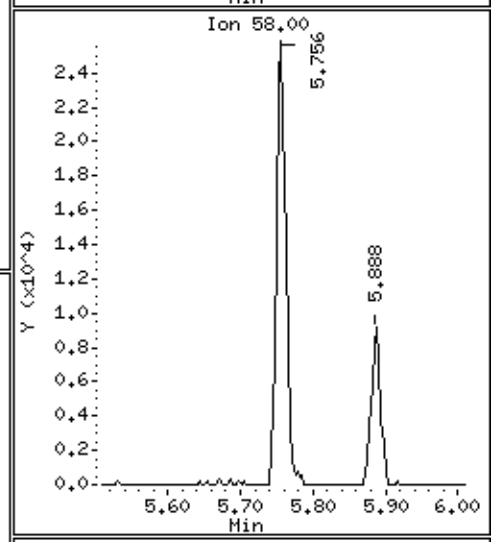
69 2-Hexanone

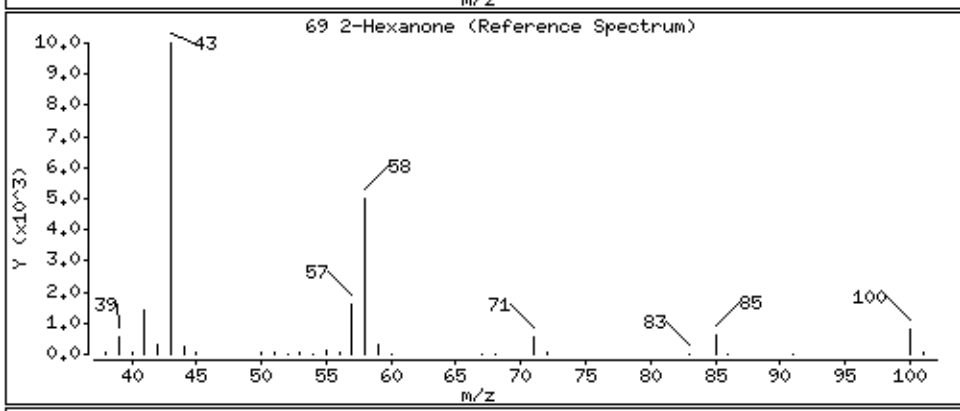
Concentration: 18.5 ug/kg

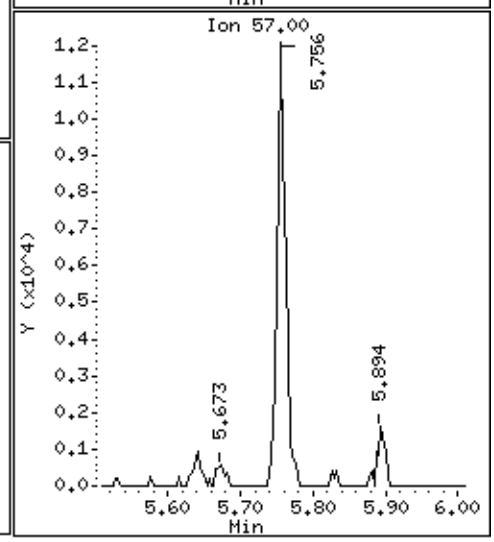


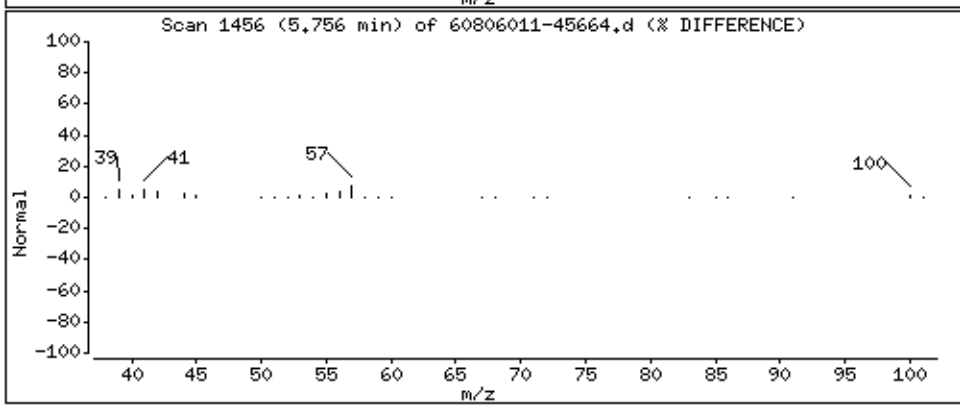












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

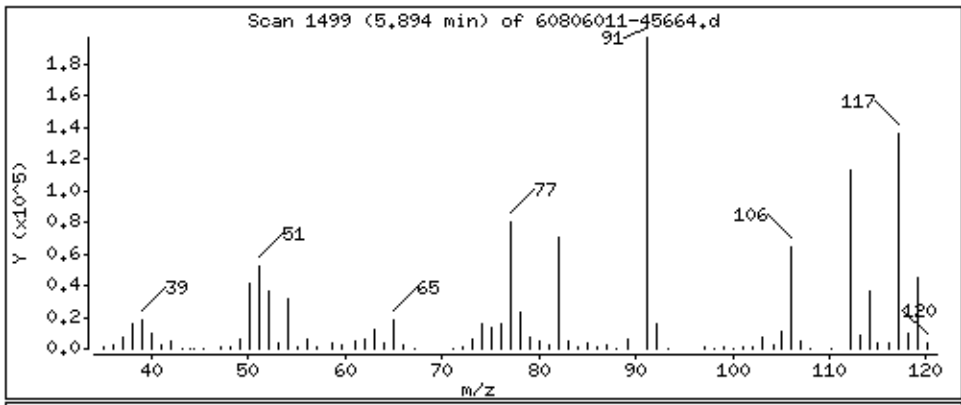
Operator: JEW

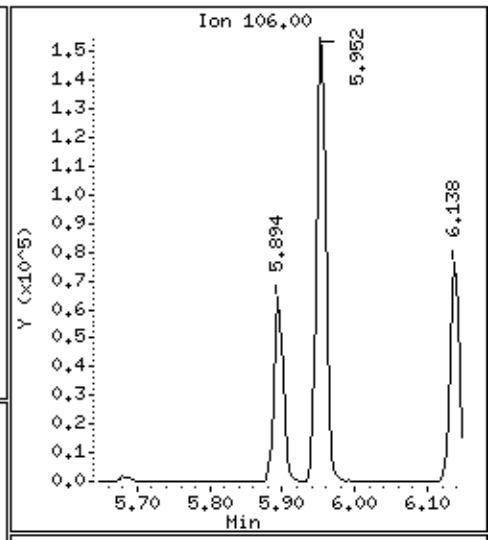
Column phase: RTX-VMS

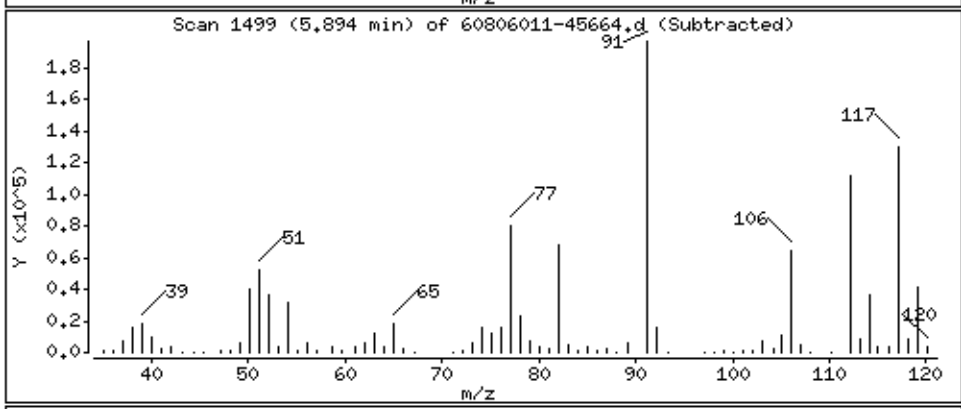
Column diameter: 0.18

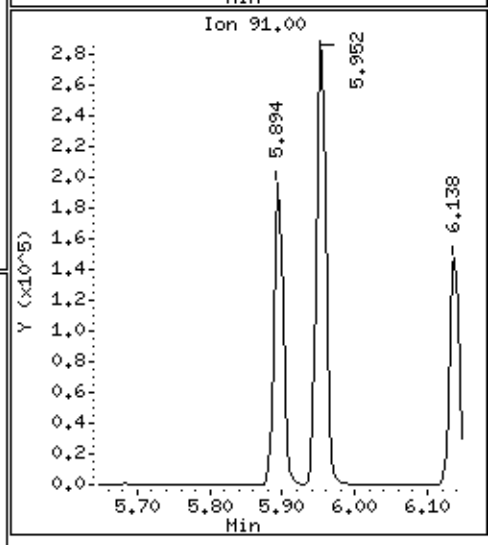
70 Ethylbenzene

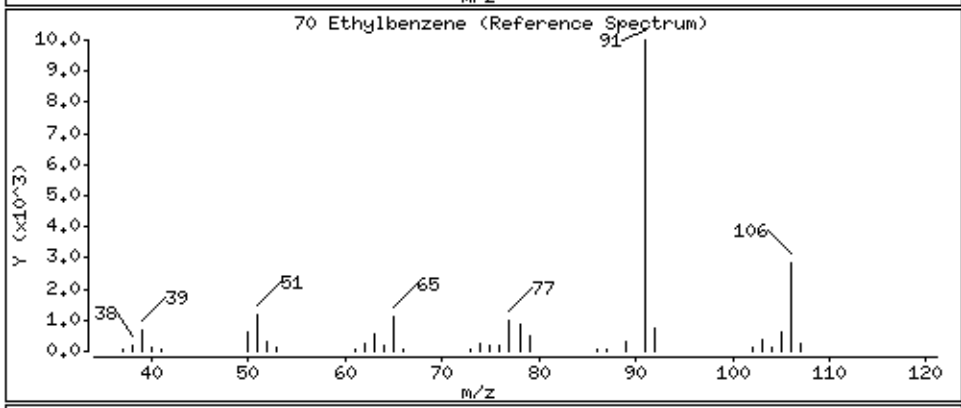
Concentration: 16.6 ug/kg

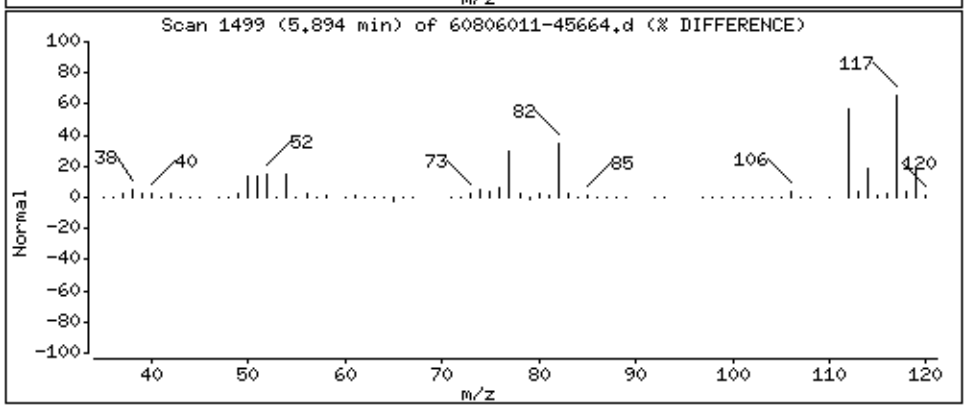












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

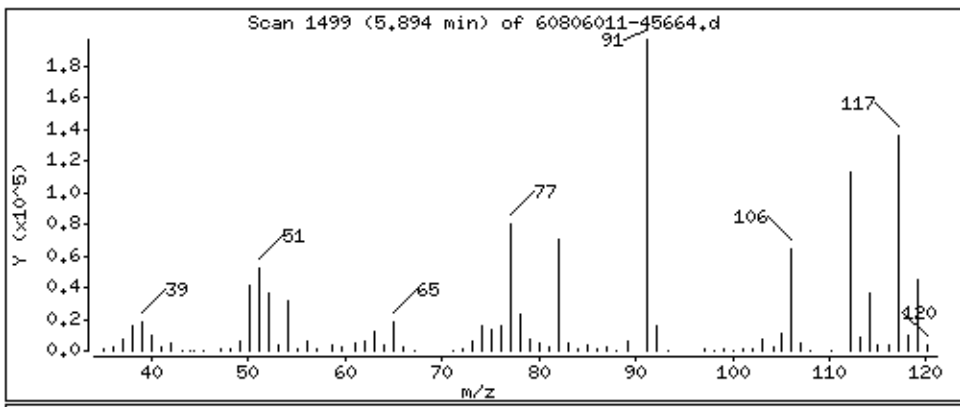
Operator: JEW

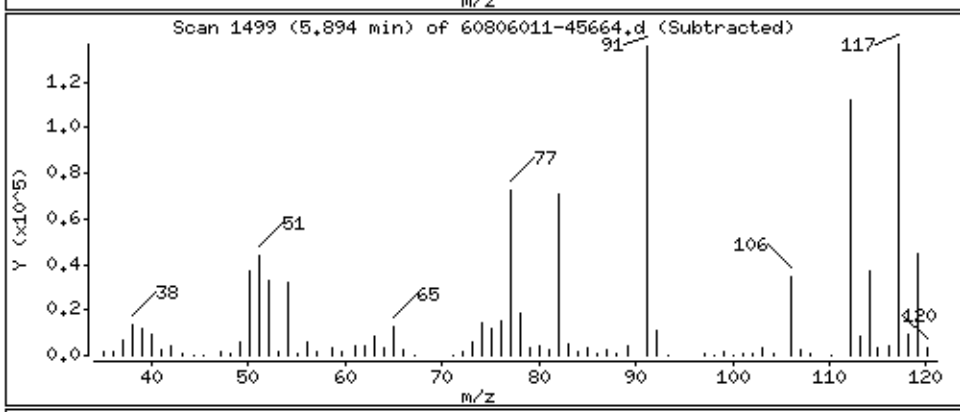
Column phase: RTX-VMS

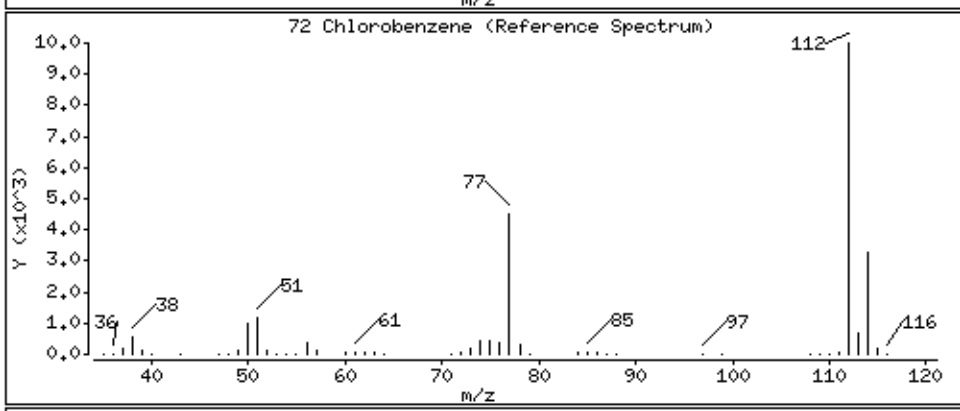
Column diameter: 0.18

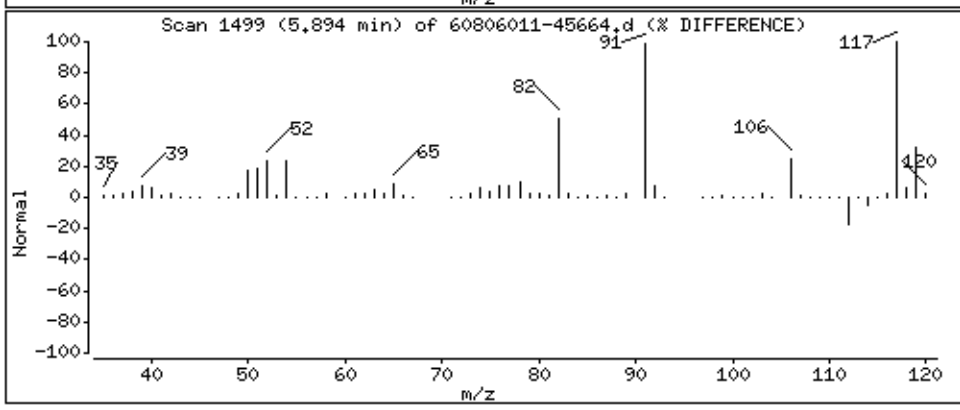
72 Chlorobenzene

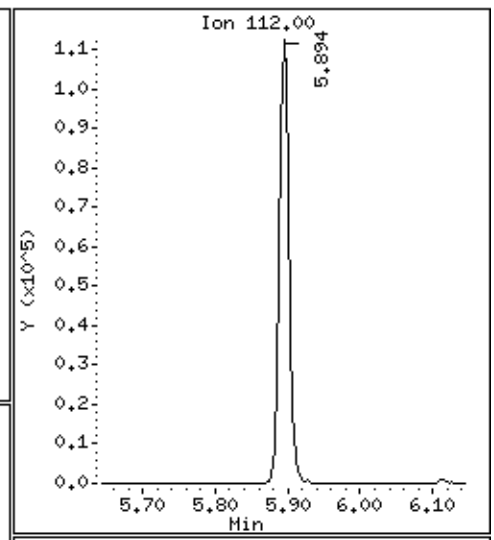
Concentration: 16.3 ug/kg

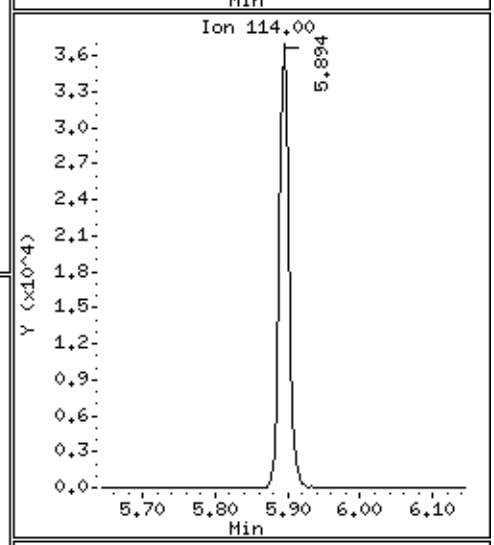


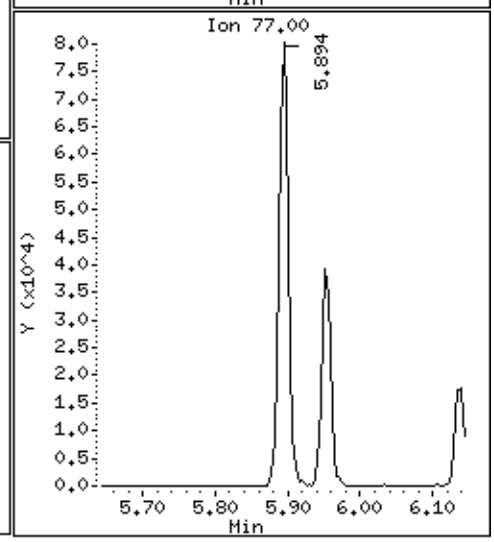












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

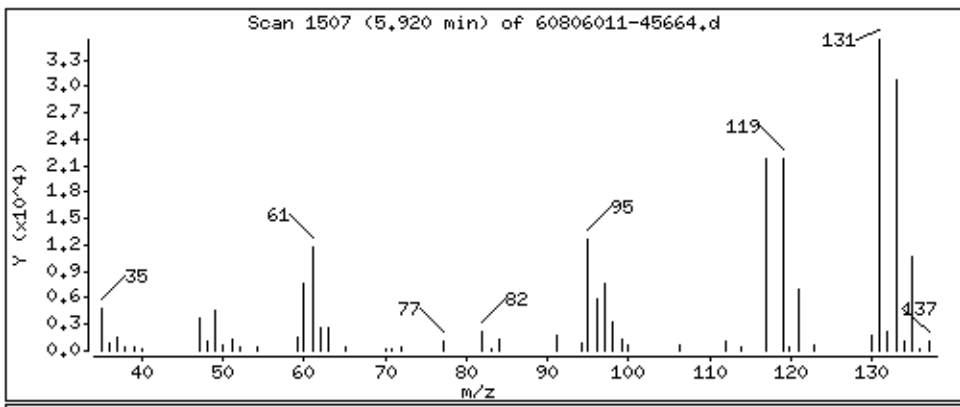
Operator: JEW

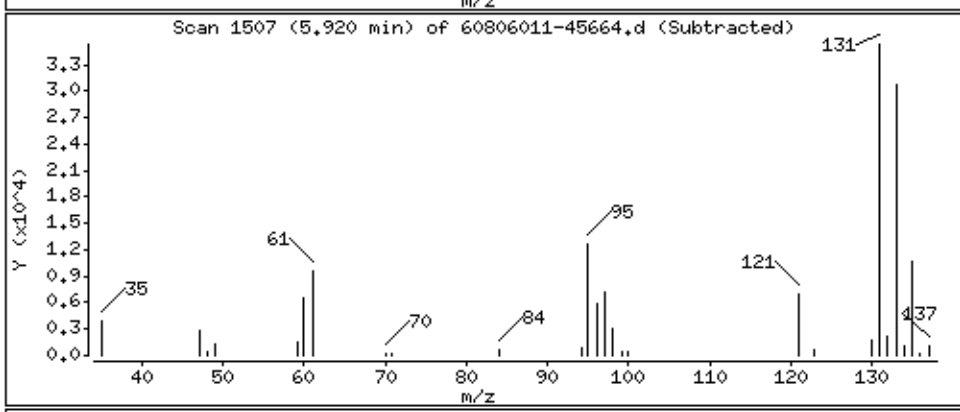
Column phase: RTX-VMS

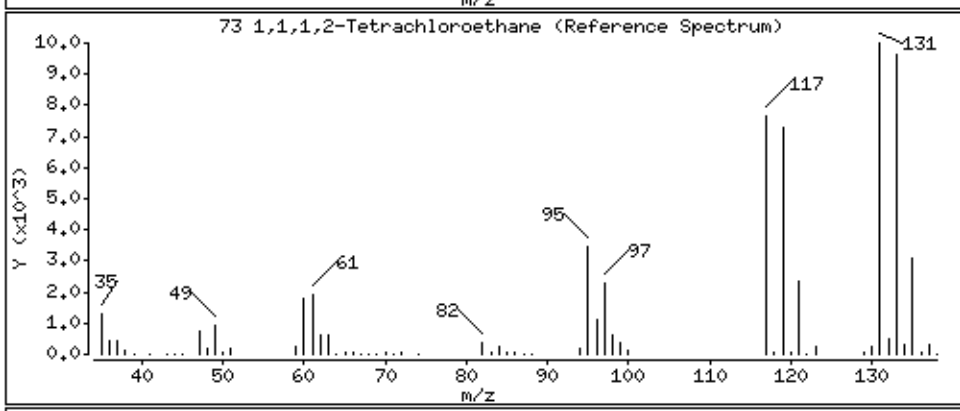
Column diameter: 0.18

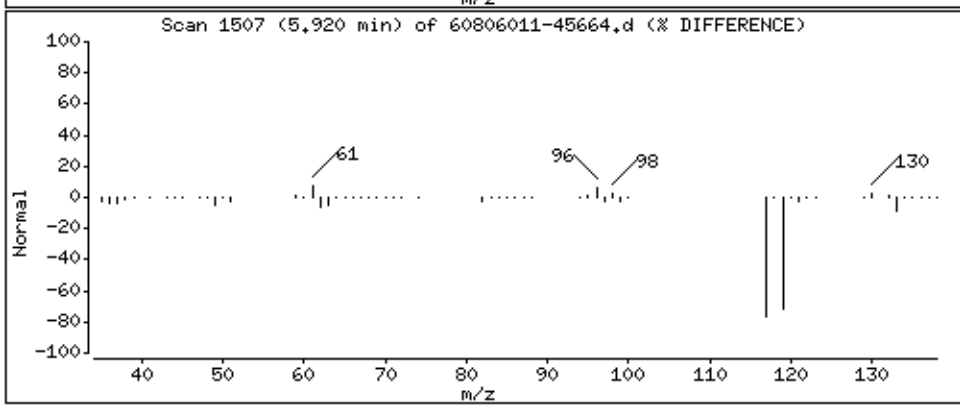
73 1,1,1,2-Tetrachloroethane

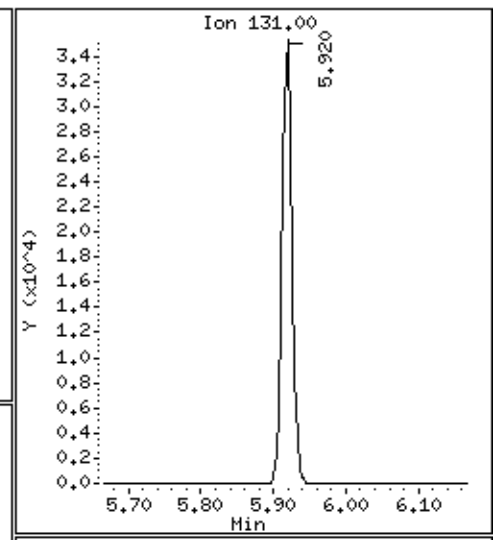
Concentration: 14.4 ug/kg

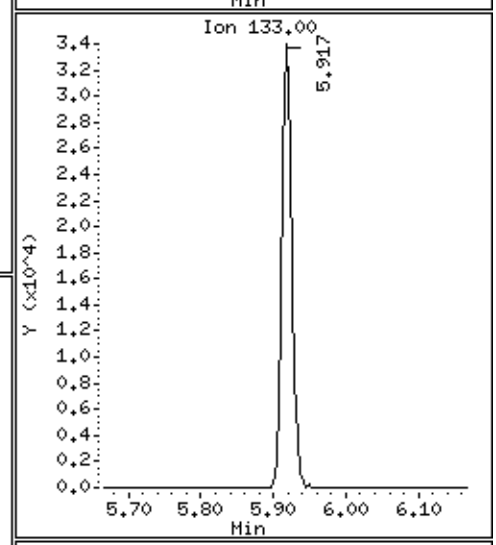


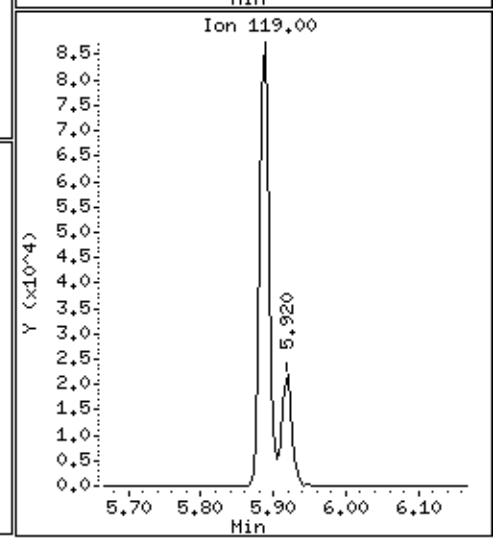












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

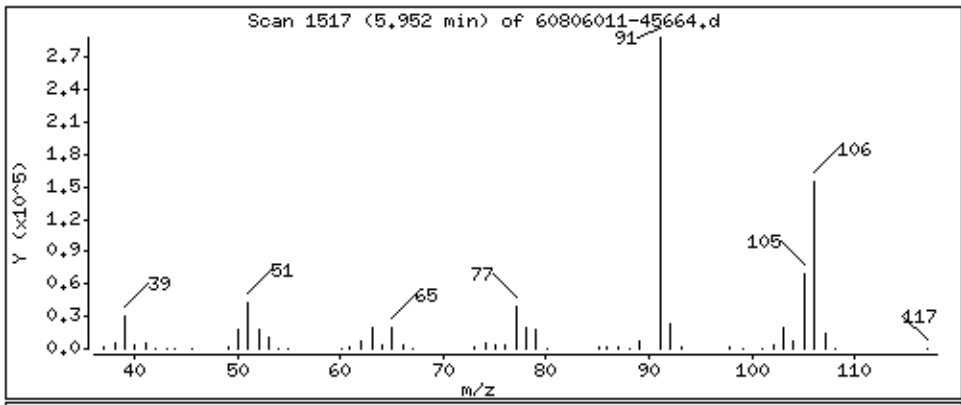
Operator: JEW

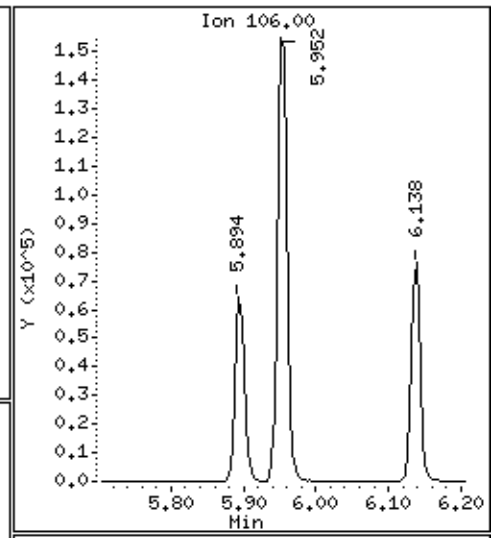
Column phase: RTX-VMS

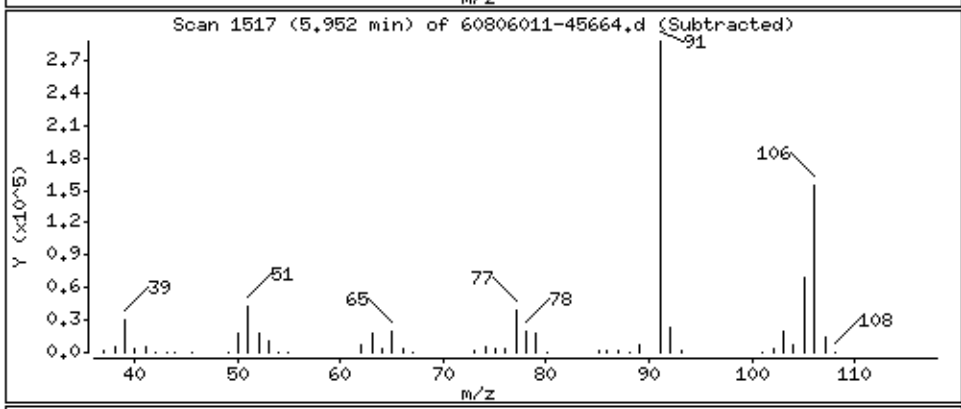
Column diameter: 0.18

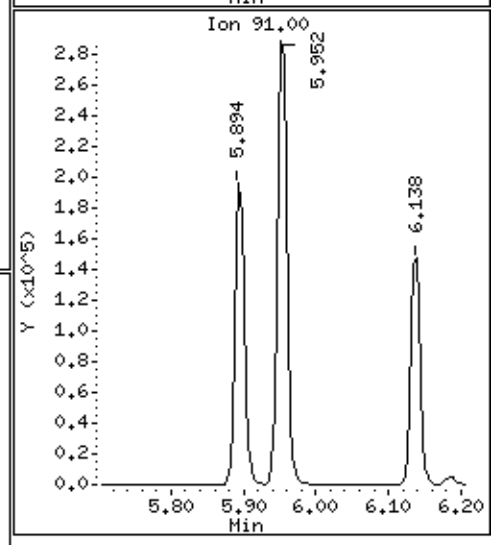
74 m&p-Xylene

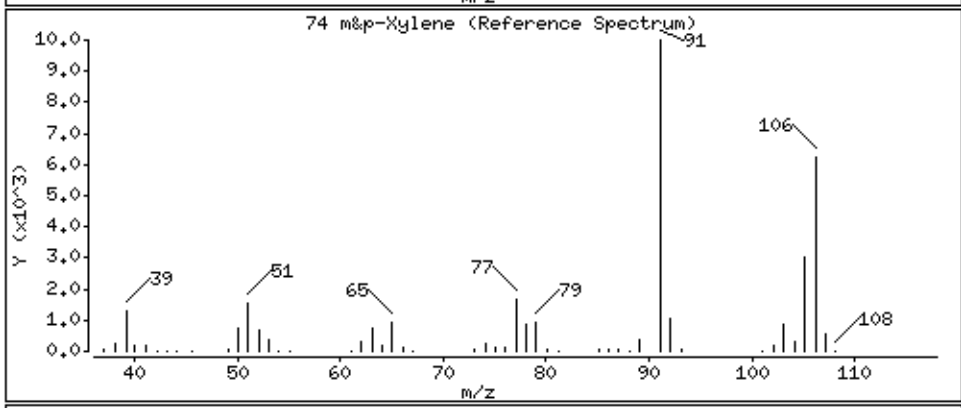
Concentration: 33.1 ug/kg

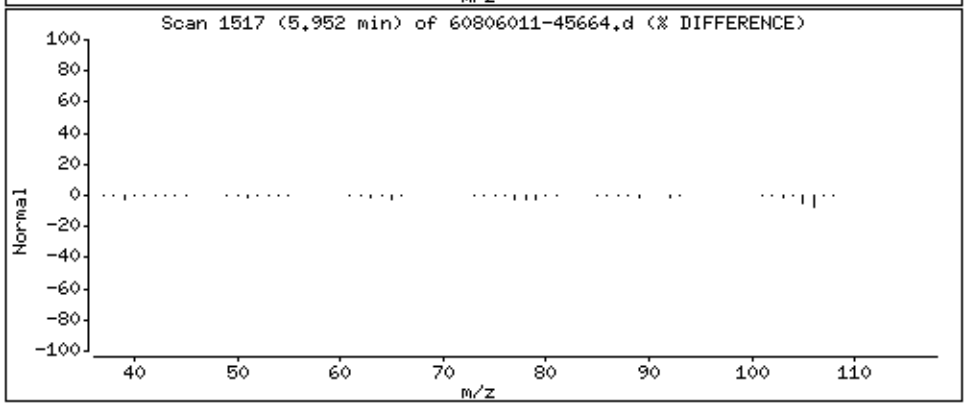












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

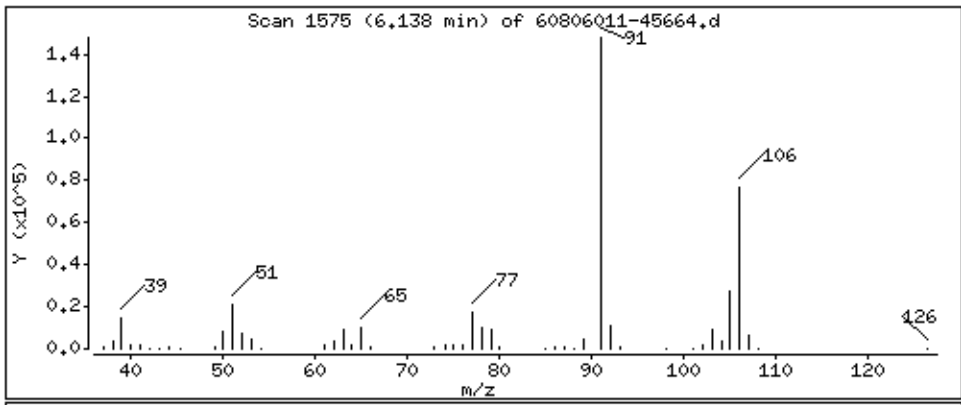
Operator: JEW

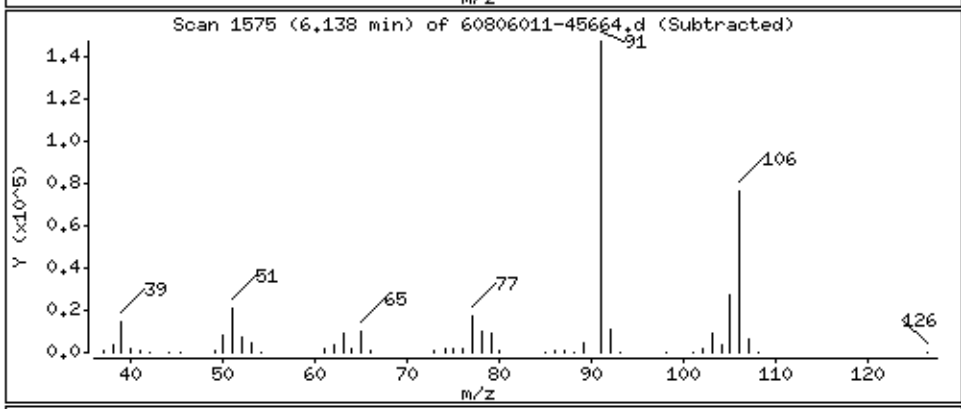
Column phase: RTX-VMS

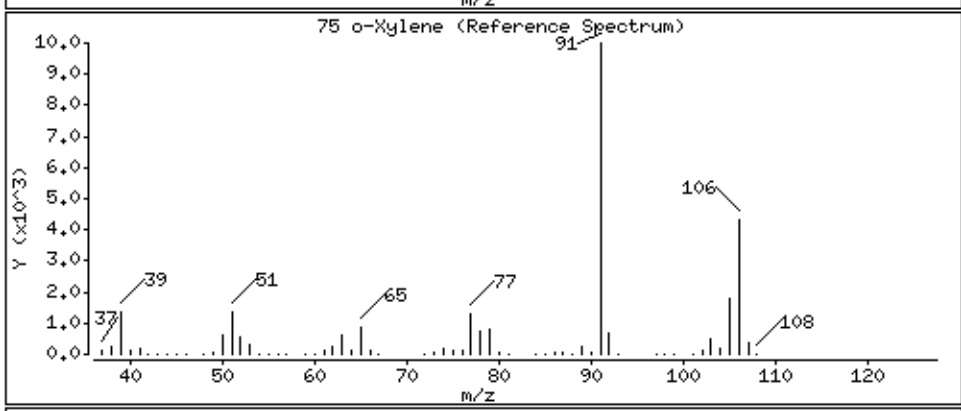
Column diameter: 0.18

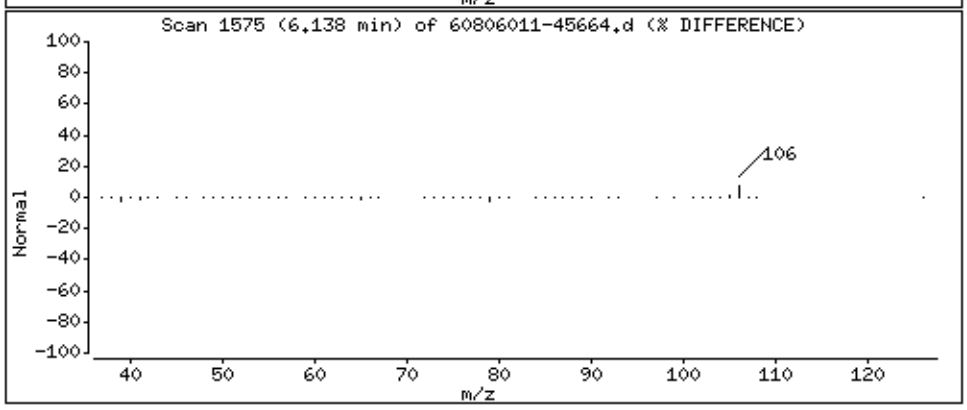
75 o-Xylene

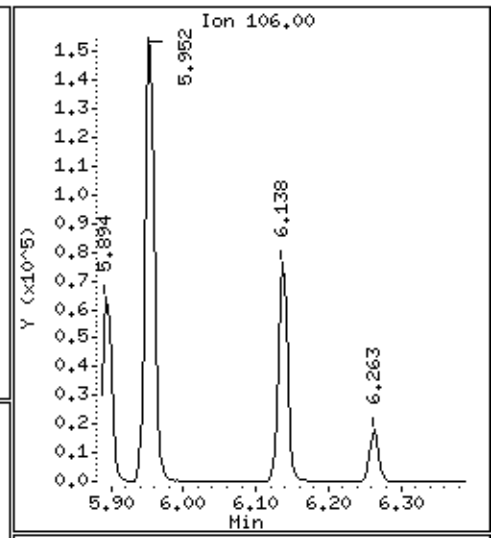
Concentration: 15.9 ug/kg

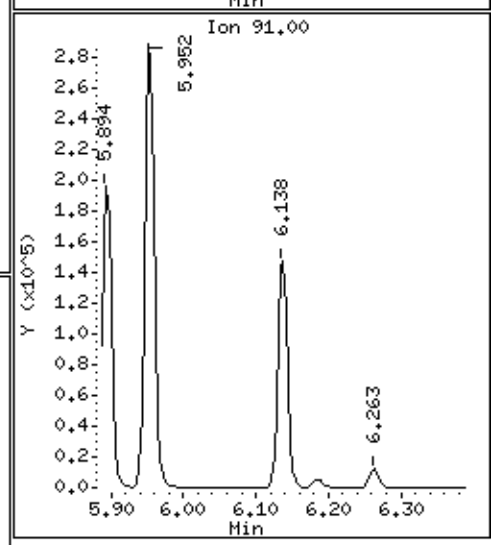












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

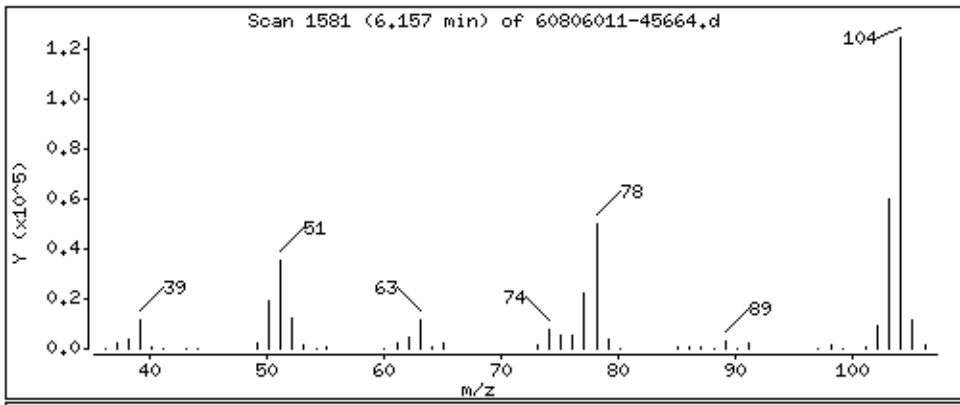
Operator: JEW

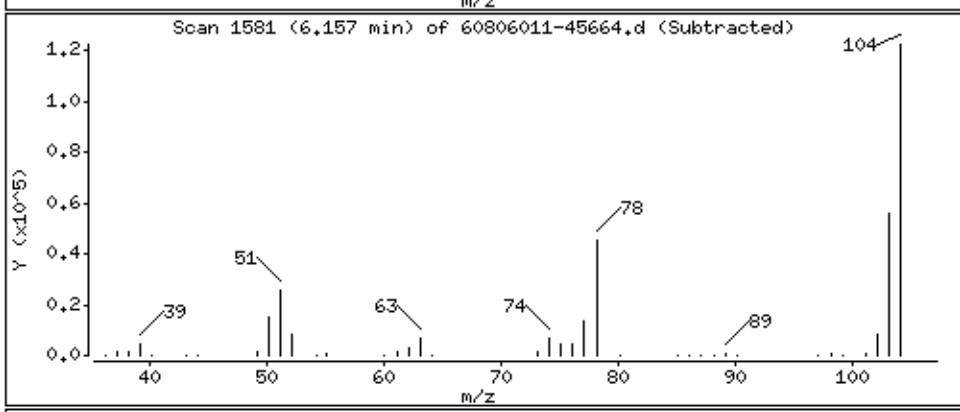
Column phase: RTX-VMS

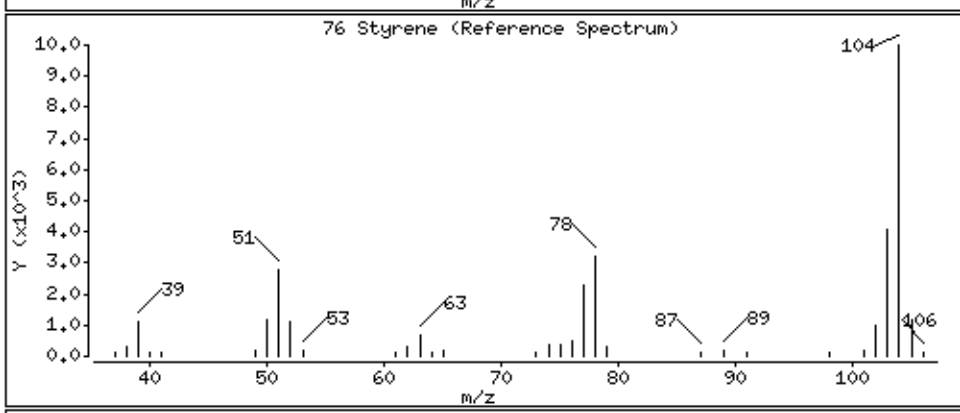
Column diameter: 0.18

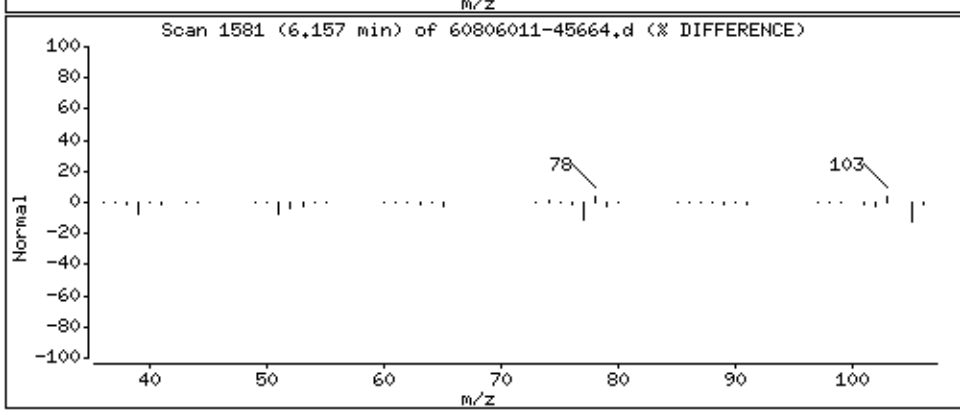
76 Styrene

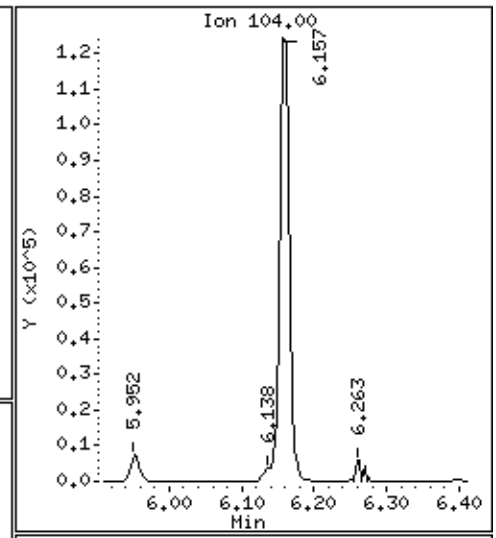
Concentration: 15.6 ug/kg

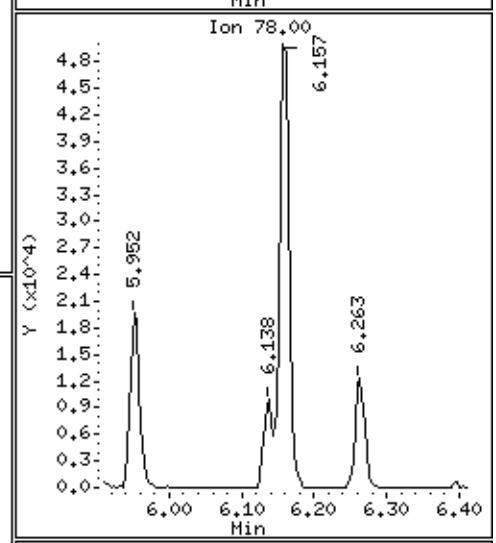


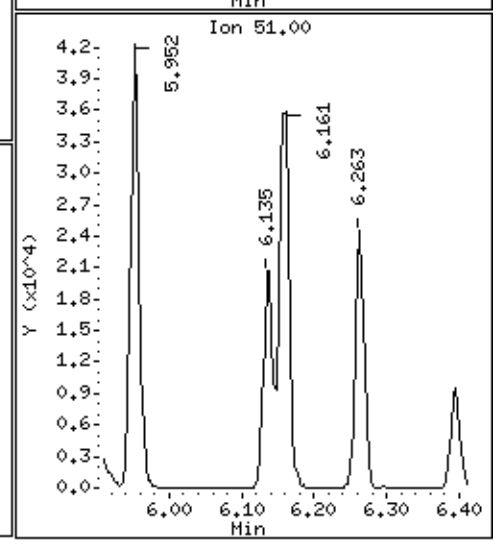












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

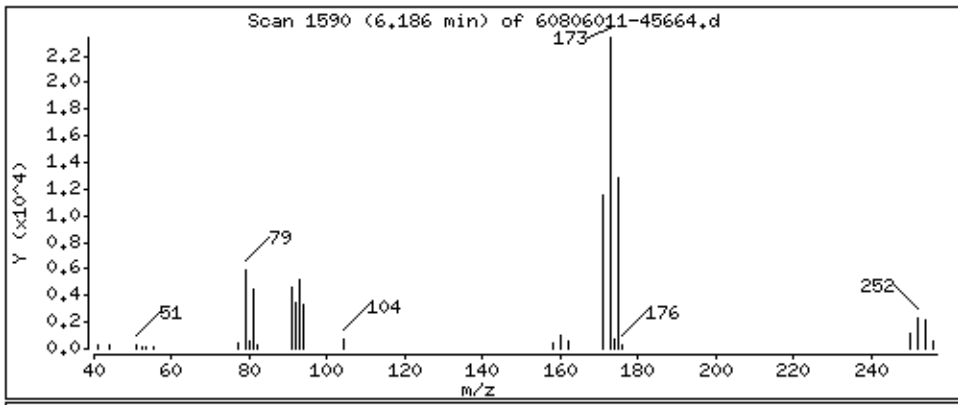
Operator: JEW

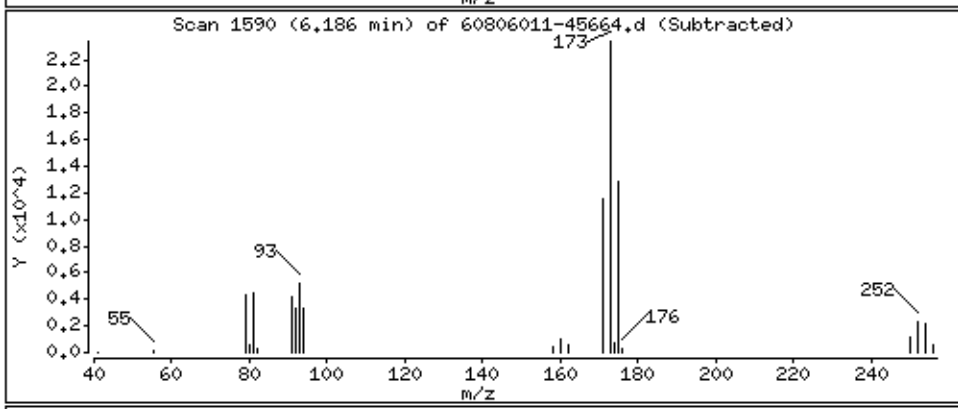
Column phase: RTX-VMS

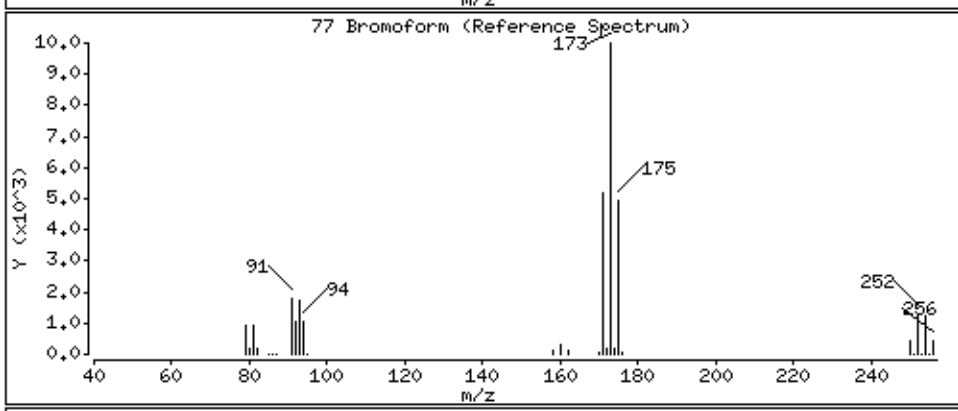
Column diameter: 0.18

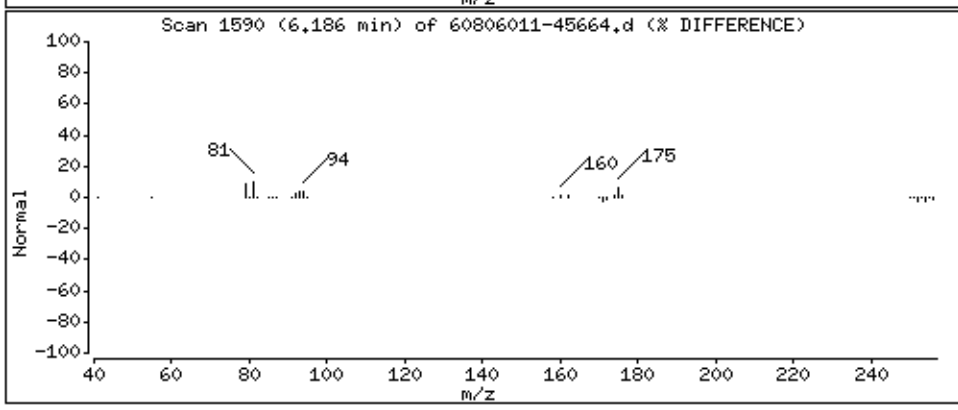
77 Bromoform

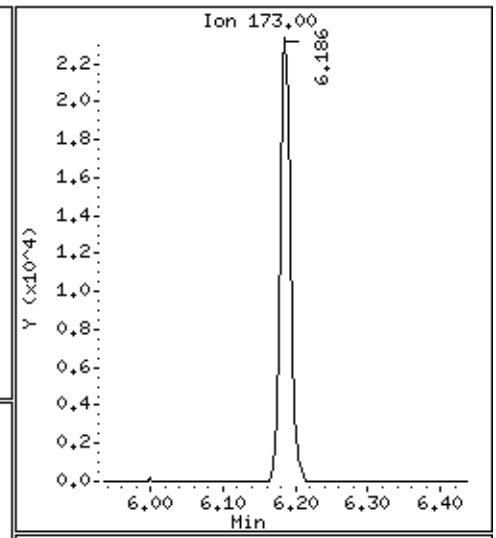
Concentration: 15.0 ug/kg

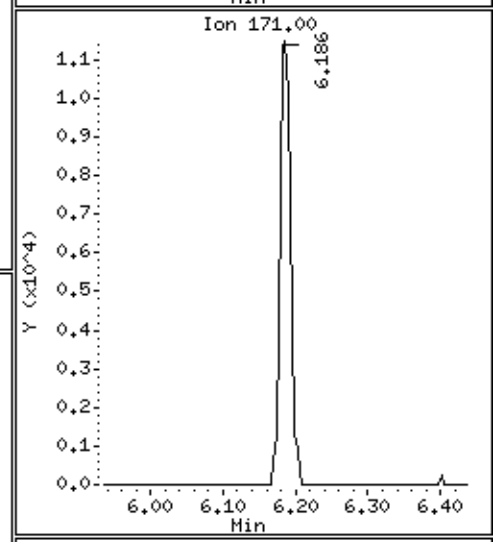


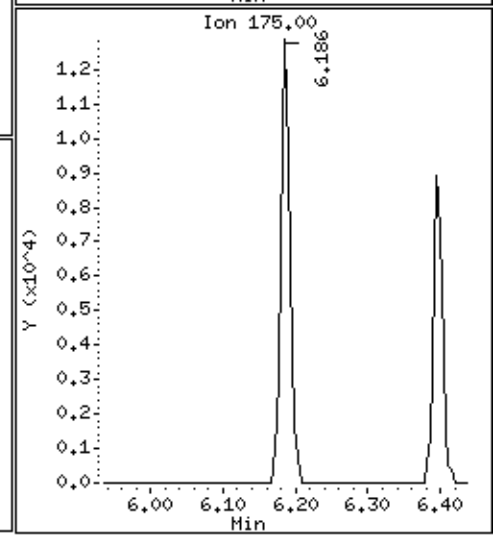












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

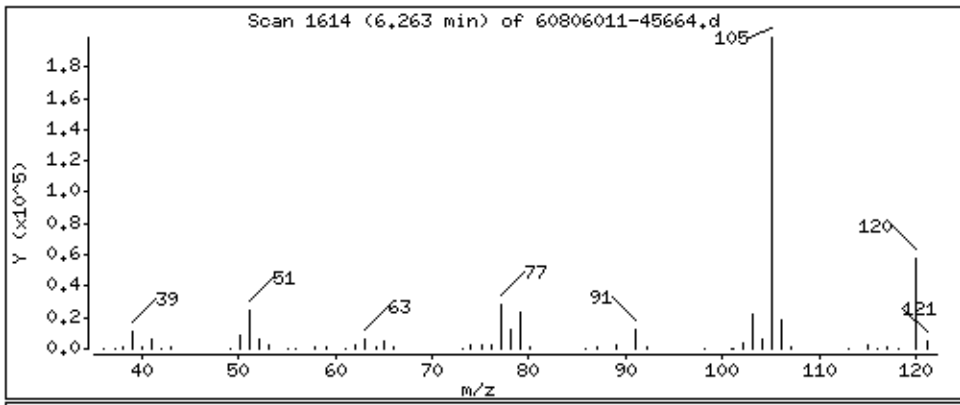
Operator: JEW

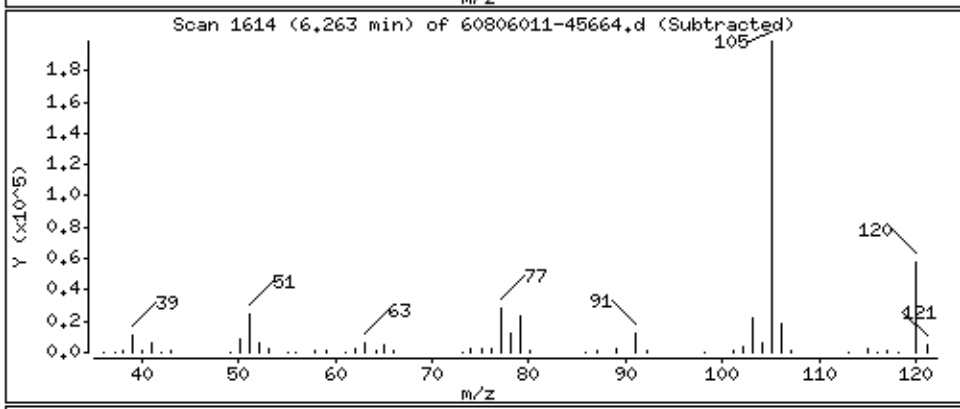
Column phase: RTX-VMS

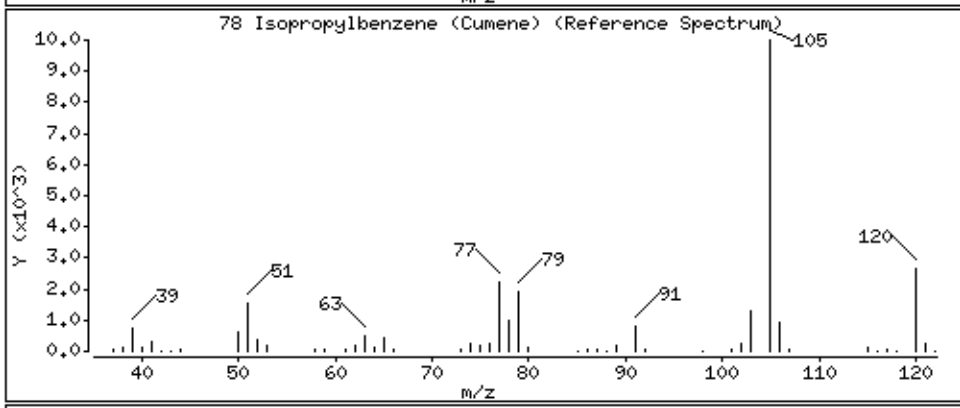
Column diameter: 0.18

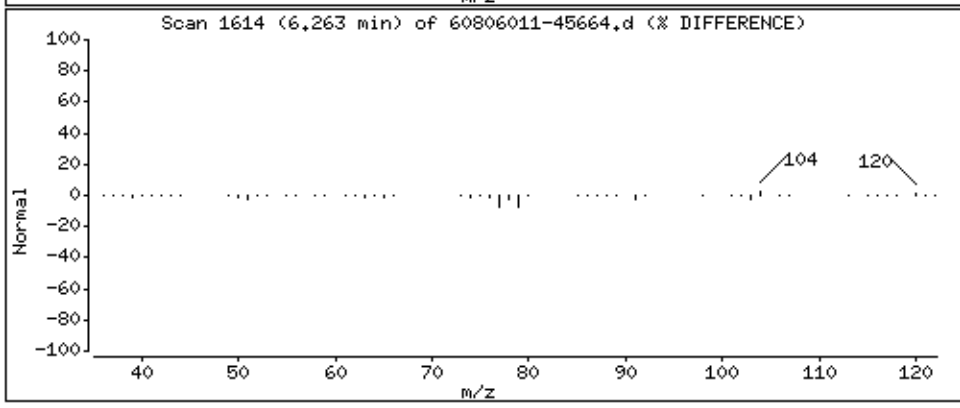
78 Isopropylbenzene (Cumene)

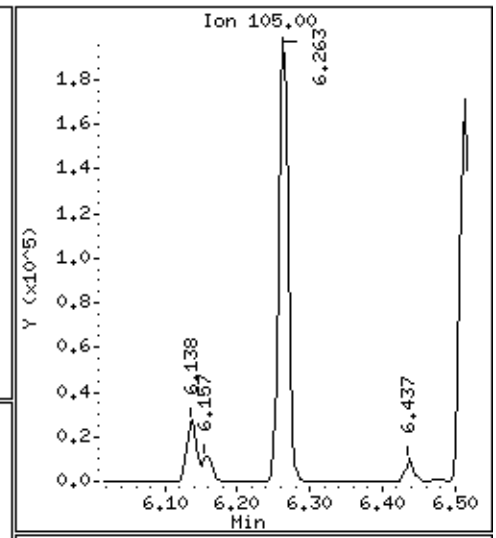
Concentration: 17.1 ug/kg

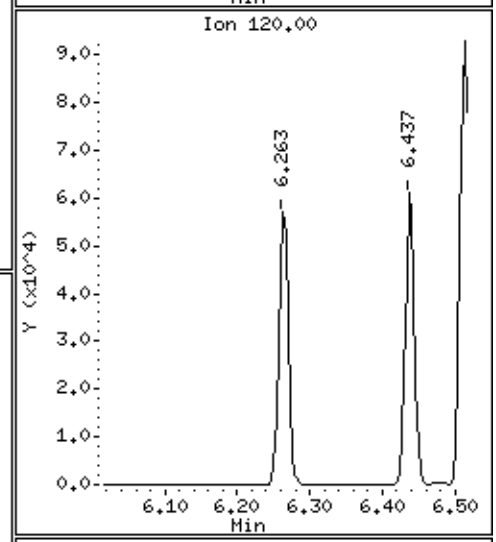


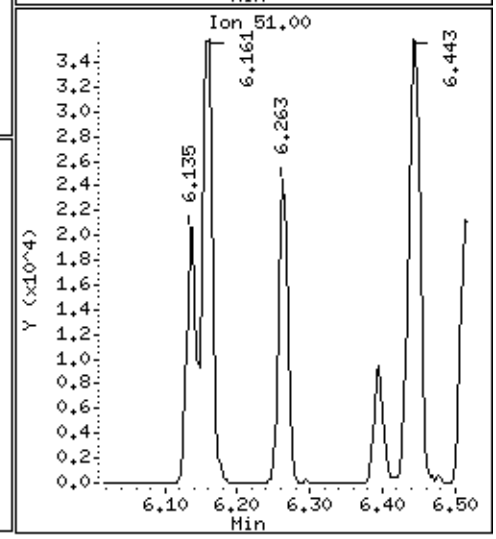












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

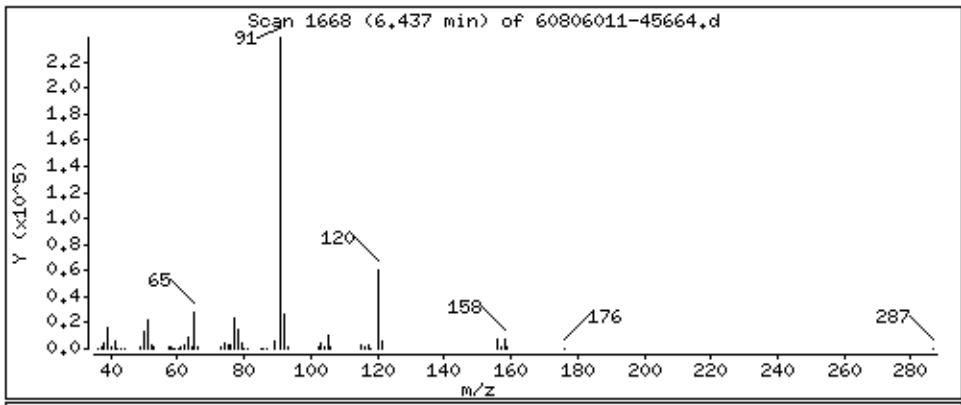
Operator: JEW

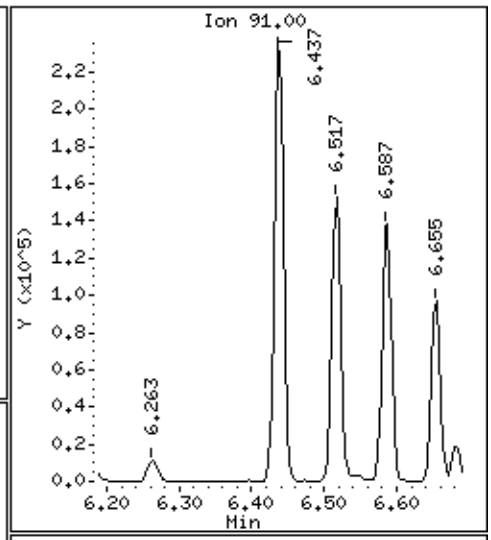
Column phase: RTX-VMS

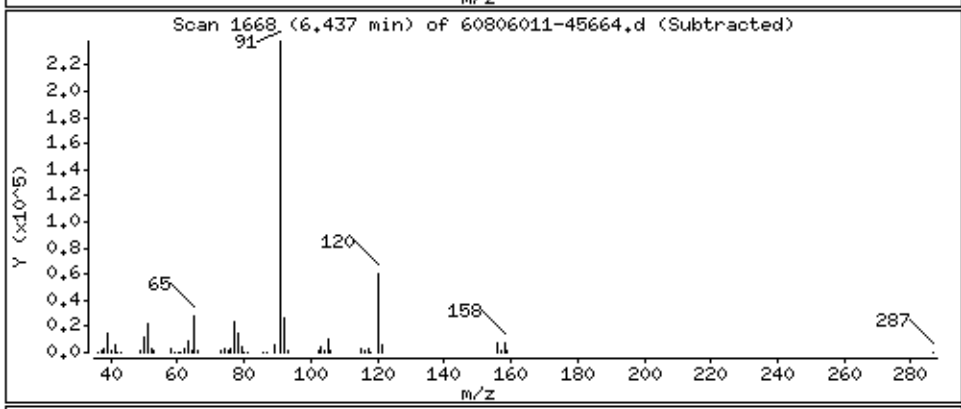
Column diameter: 0.18

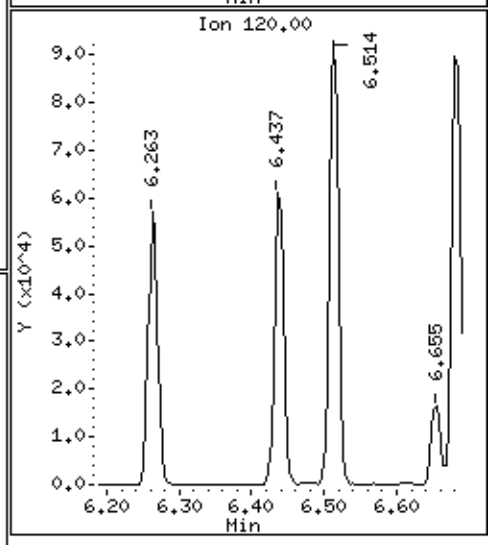
80 n-Propylbenzene

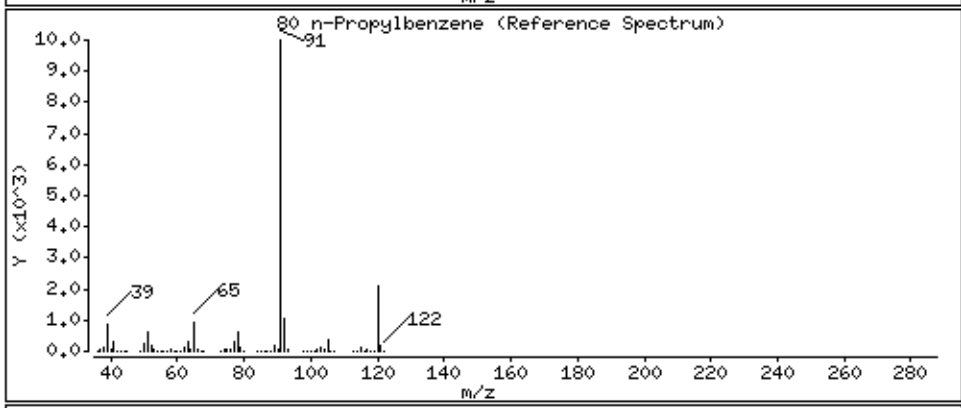
Concentration: 17.4 ug/kg

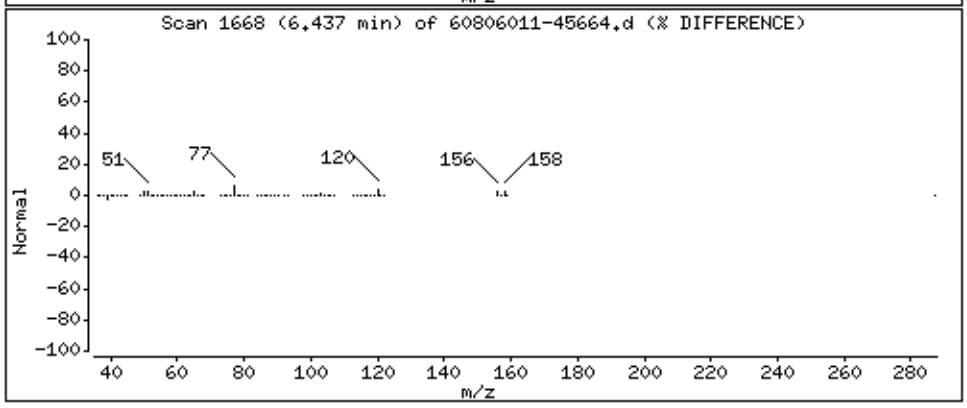












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

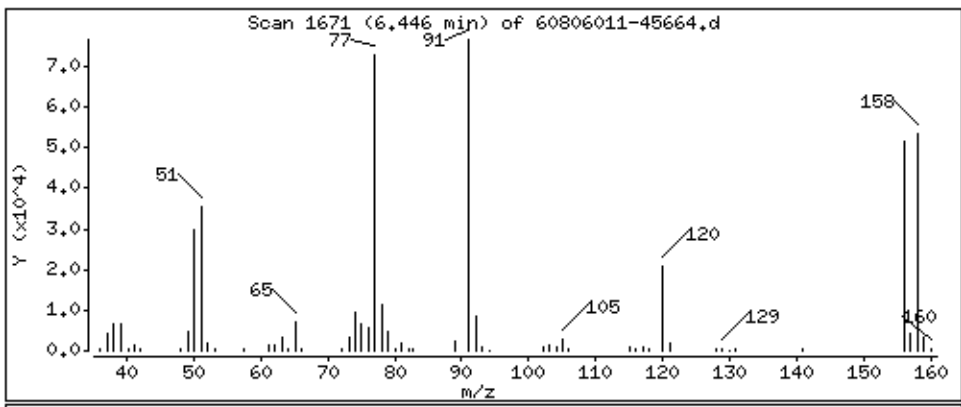
Operator: JEW

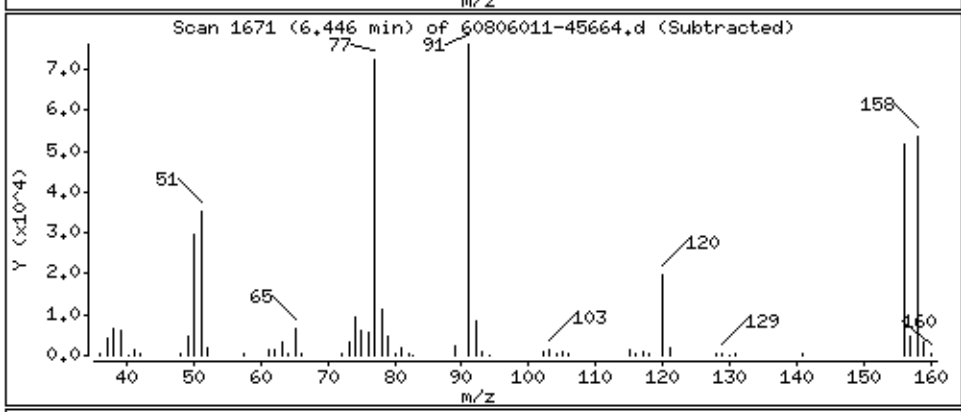
Column phase: RTX-VMS

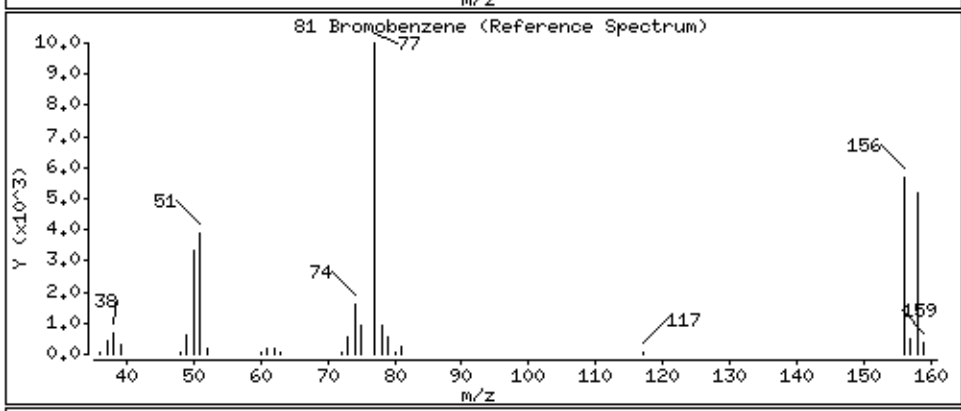
Column diameter: 0.18

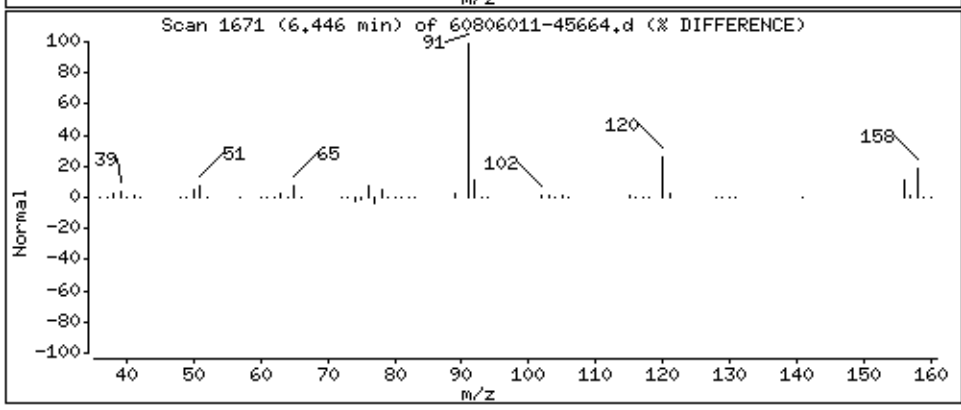
81 Bromobenzene

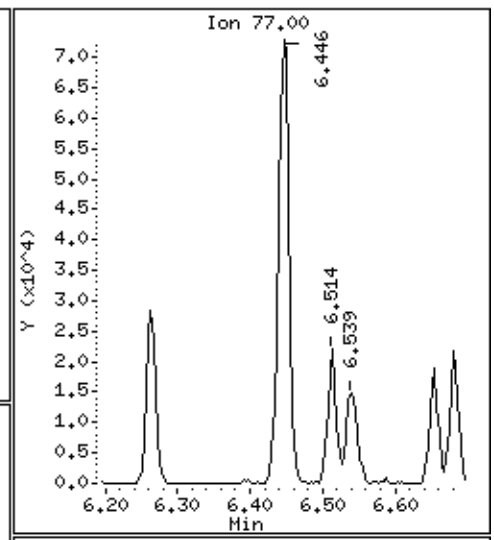
Concentration: 16.5 ug/kg

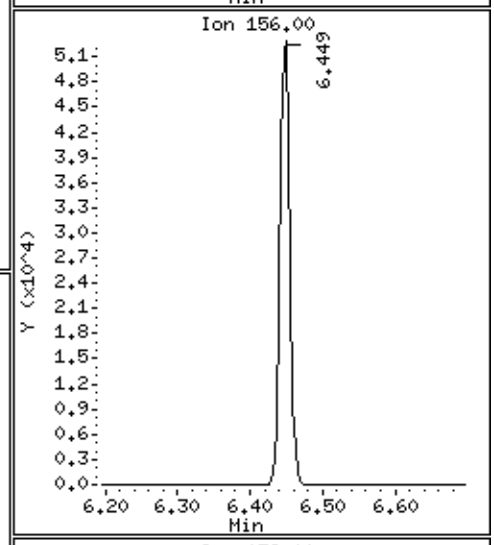


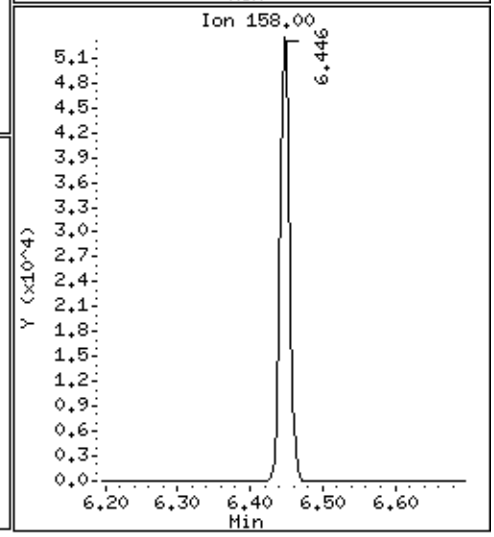












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

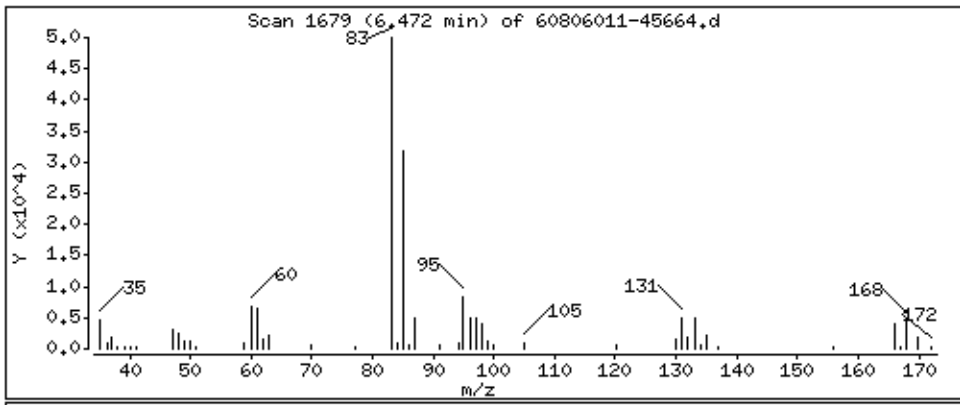
Operator: JEW

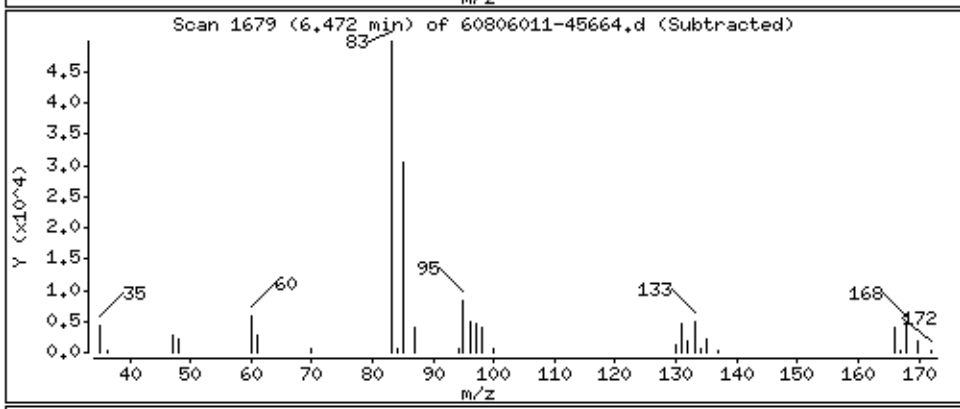
Column phase: RTX-VMS

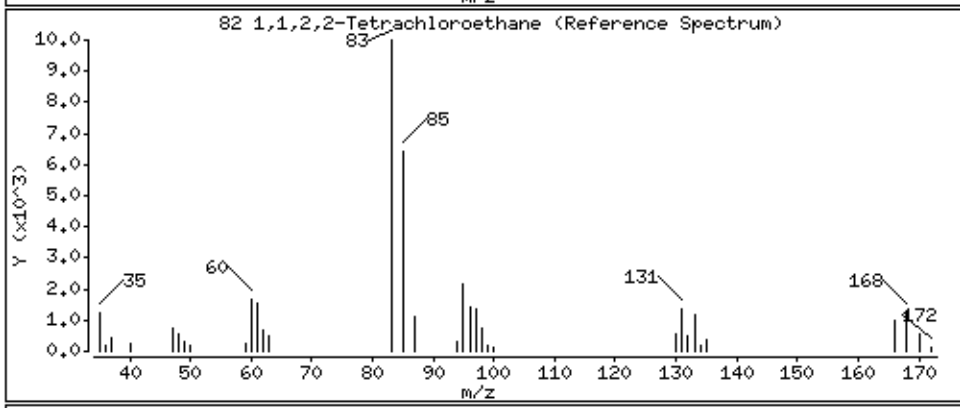
Column diameter: 0.18

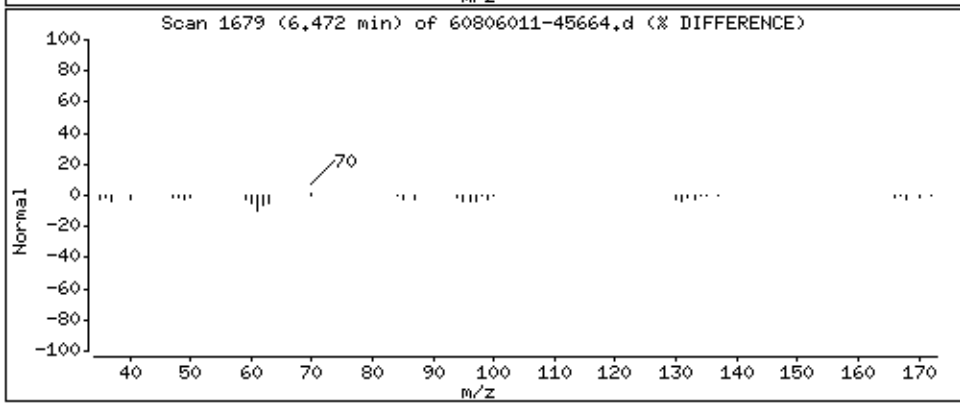
82 1,1,2,2-Tetrachloroethane

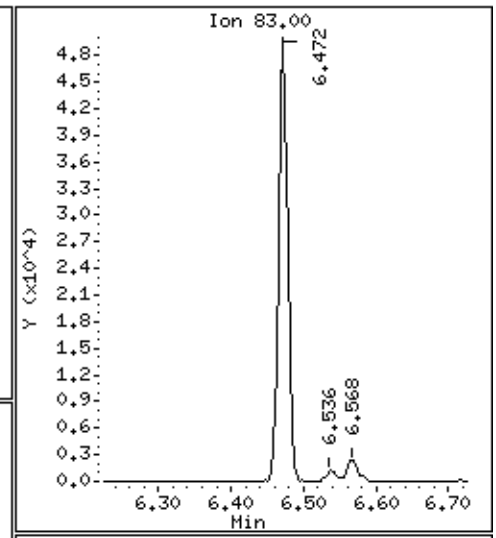
Concentration: 15.0 ug/kg

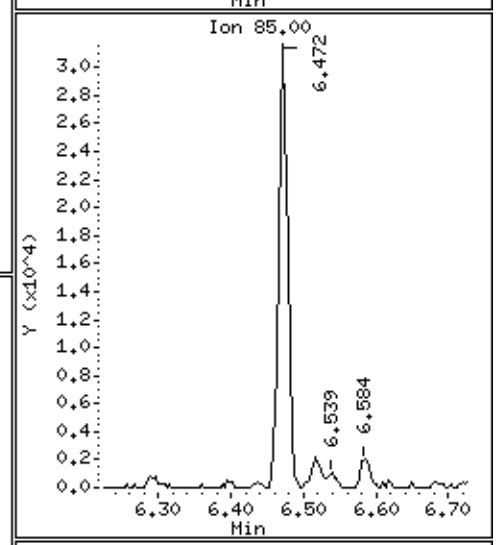


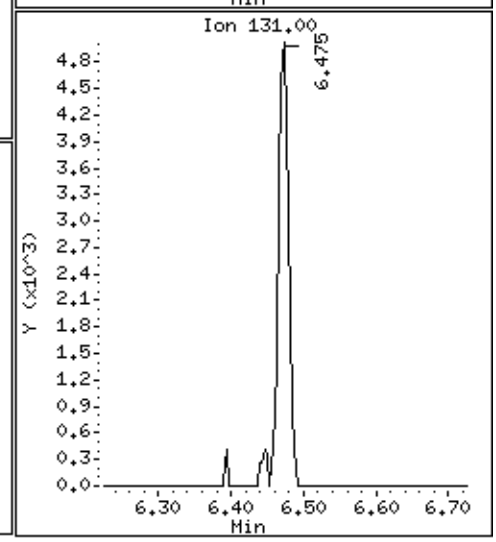












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

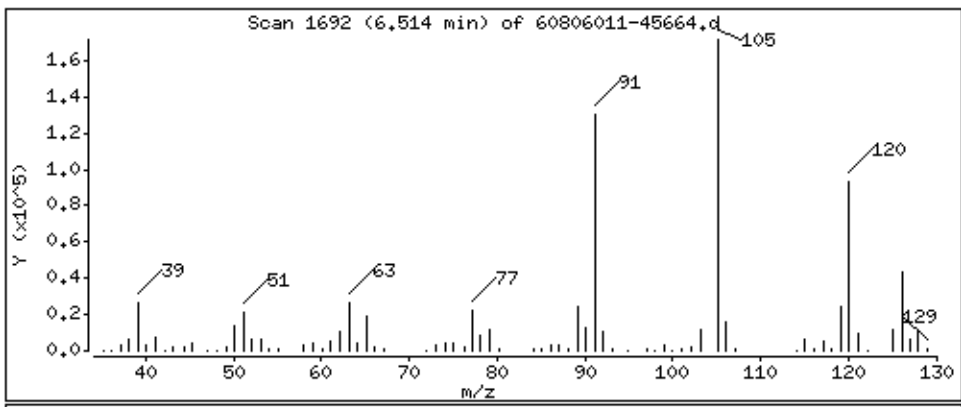
Operator: JEW

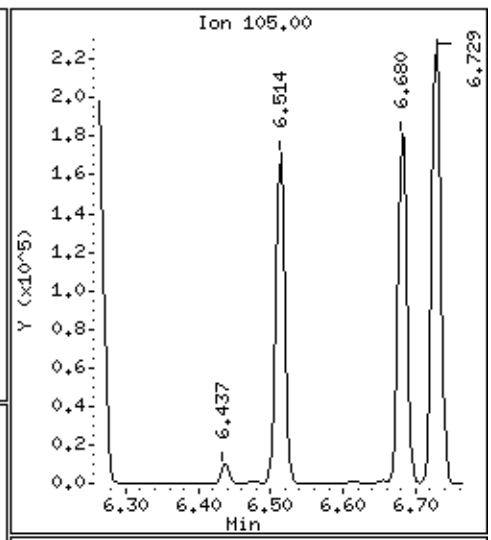
Column phase: RTX-VMS

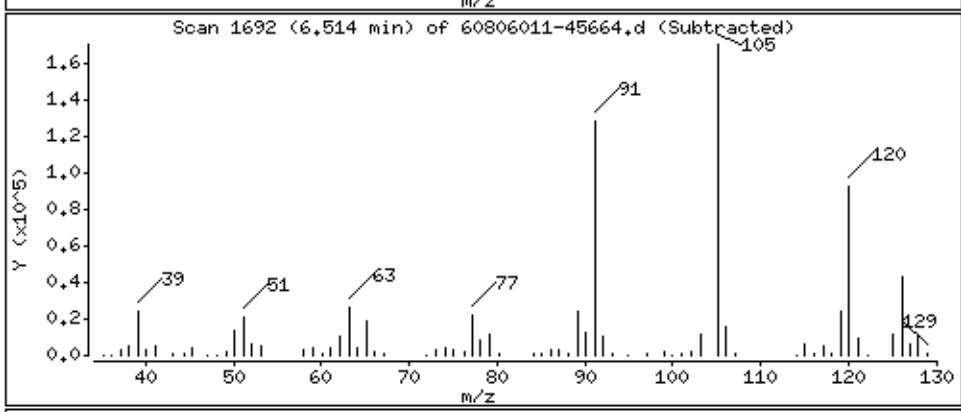
Column diameter: 0.18

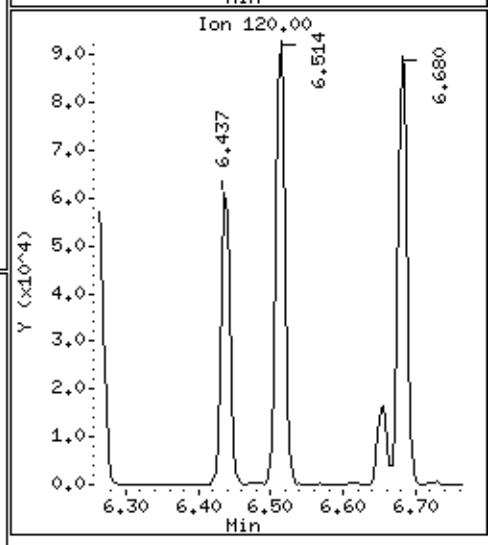
83 1,3,5-Trimethylbenzene

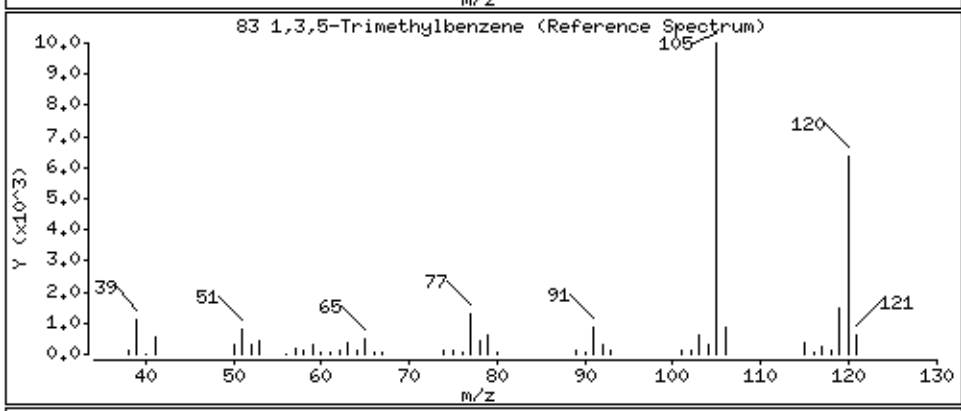
Concentration: 16.6 ug/kg

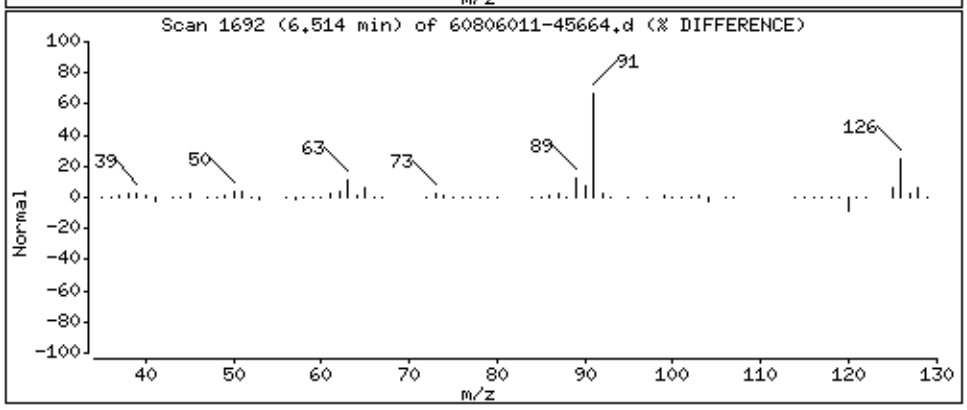












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

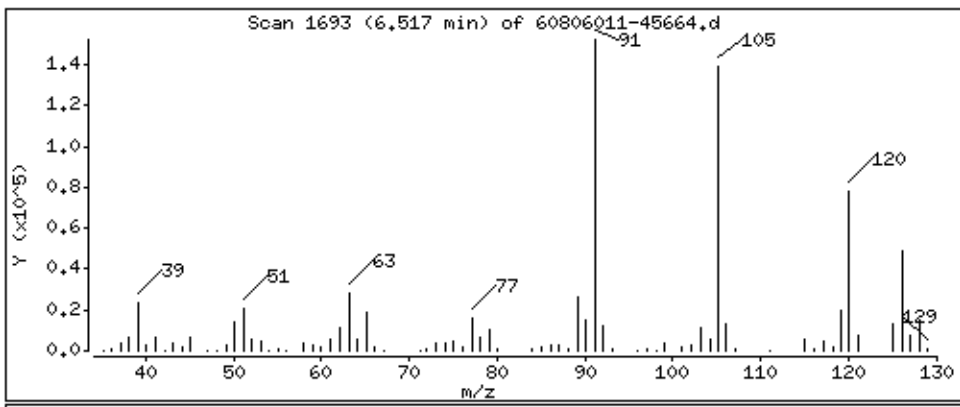
Operator: JEW

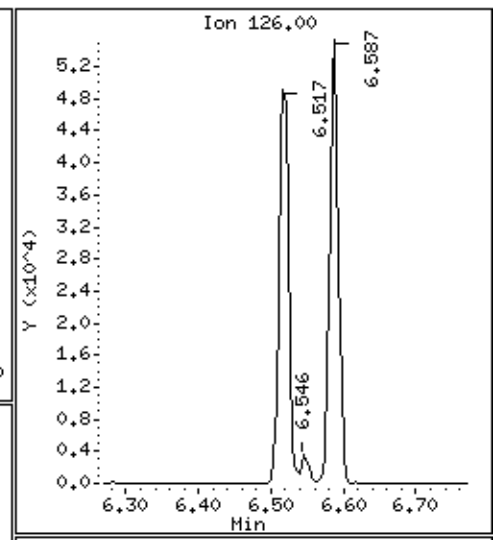
Column phase: RTX-VMS

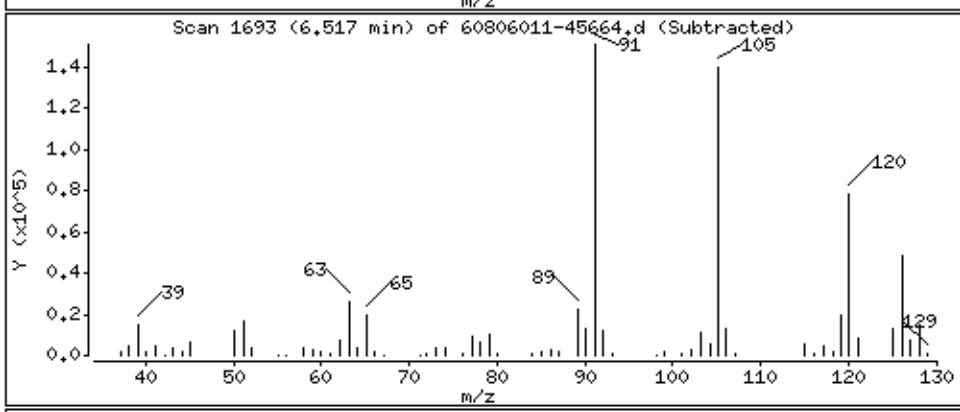
Column diameter: 0.18

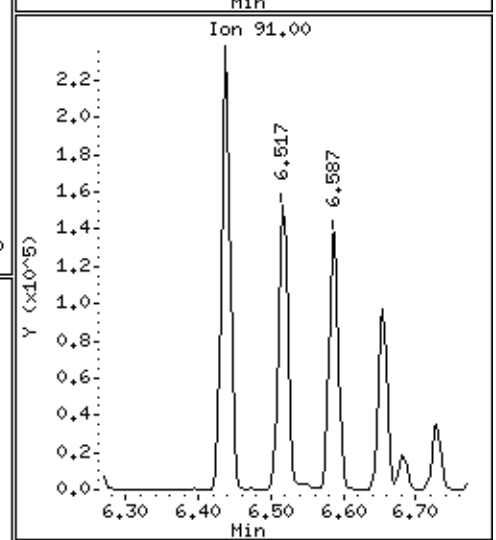
84 2-Chlorotoluene

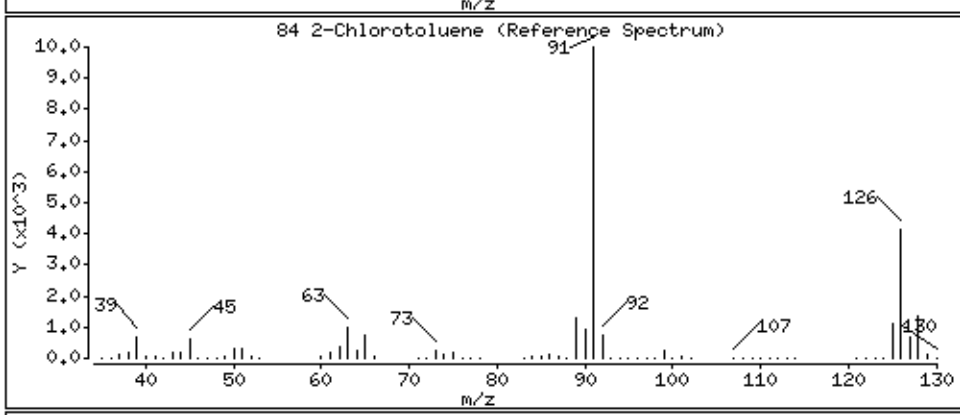
Concentration: 16.4 ug/kg

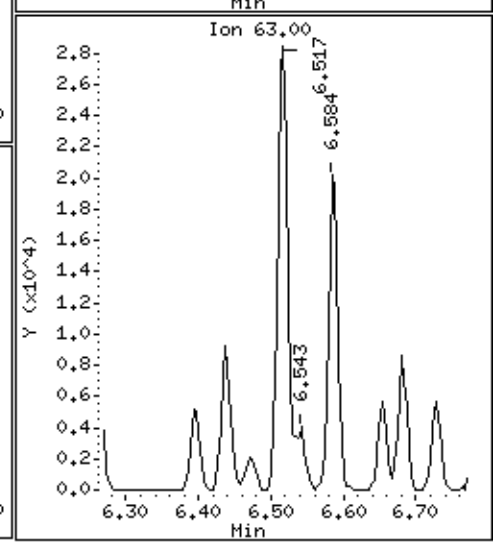


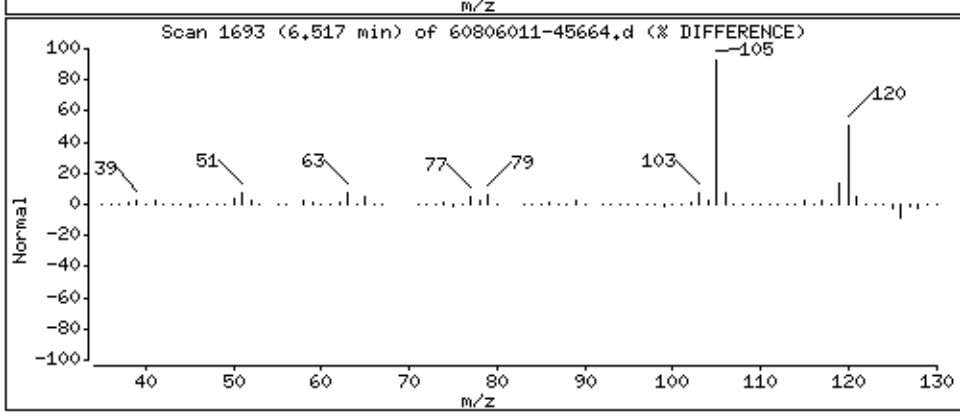












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

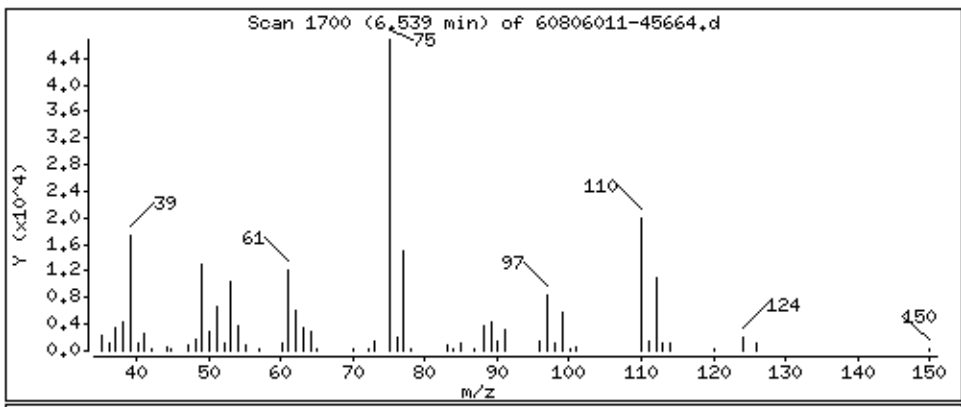
Operator: JEW

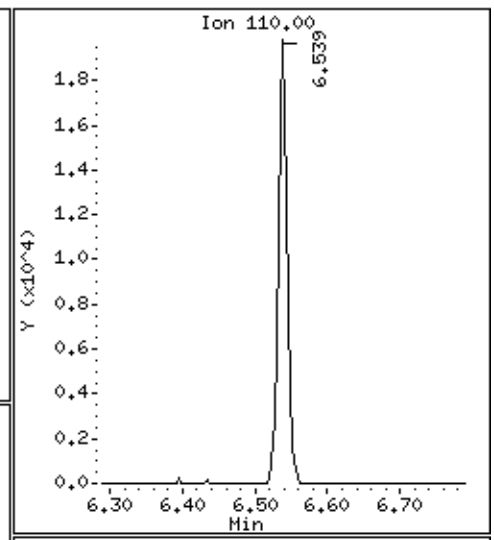
Column phase: RTX-VMS

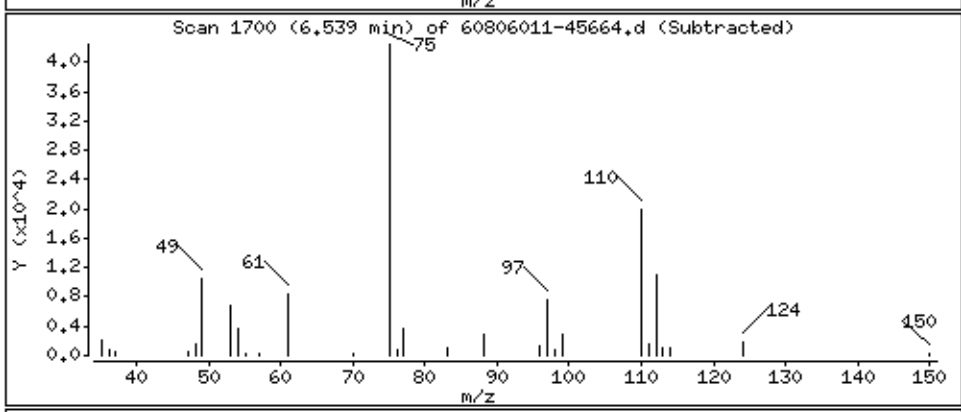
Column diameter: 0.18

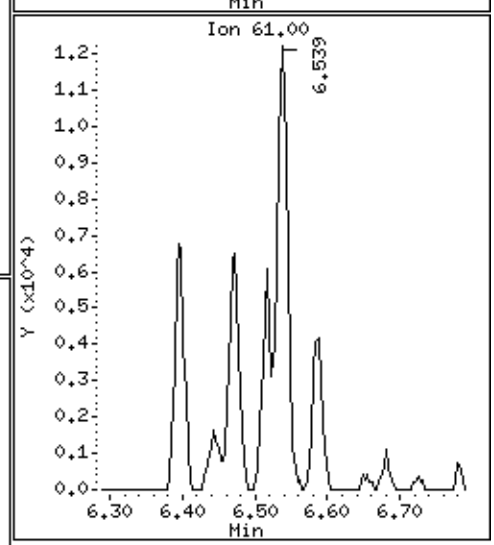
85 1,2,3-Trichloropropane

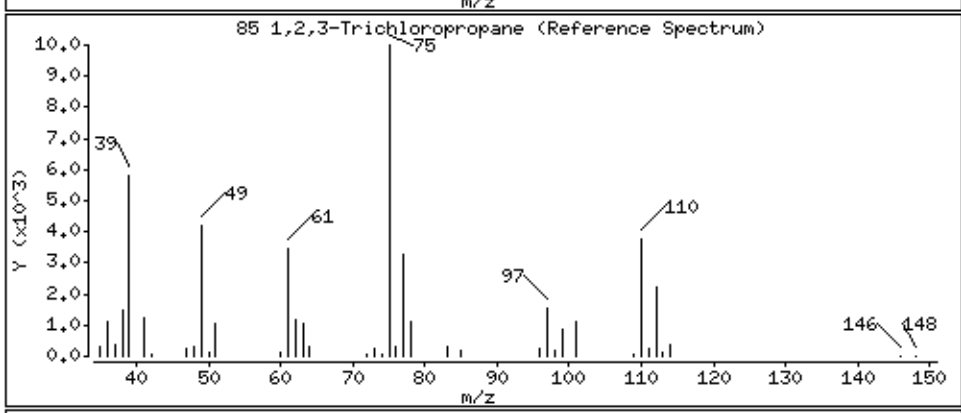
Concentration: 16.3 ug/kg

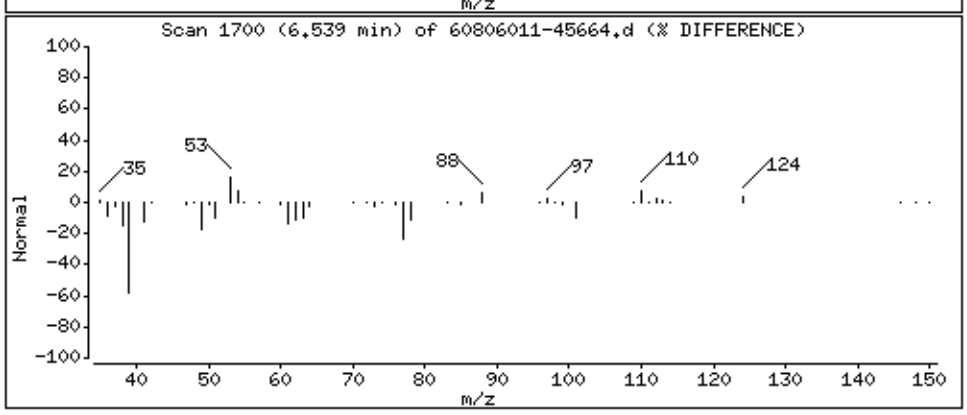












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

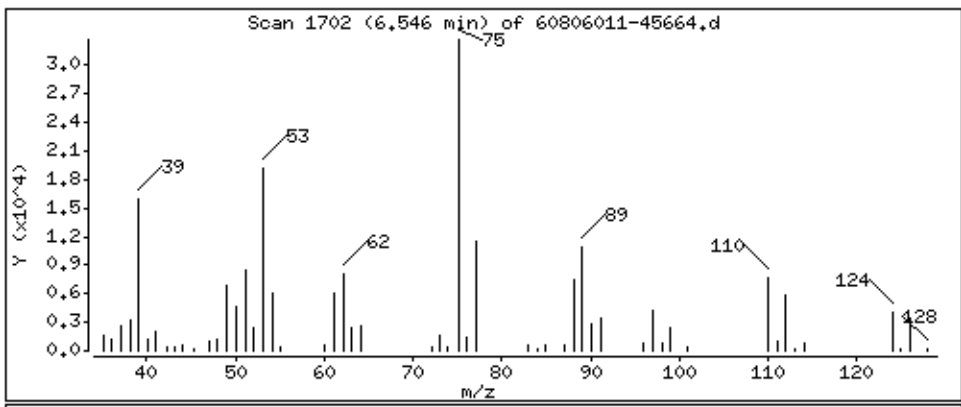
Operator: JEW

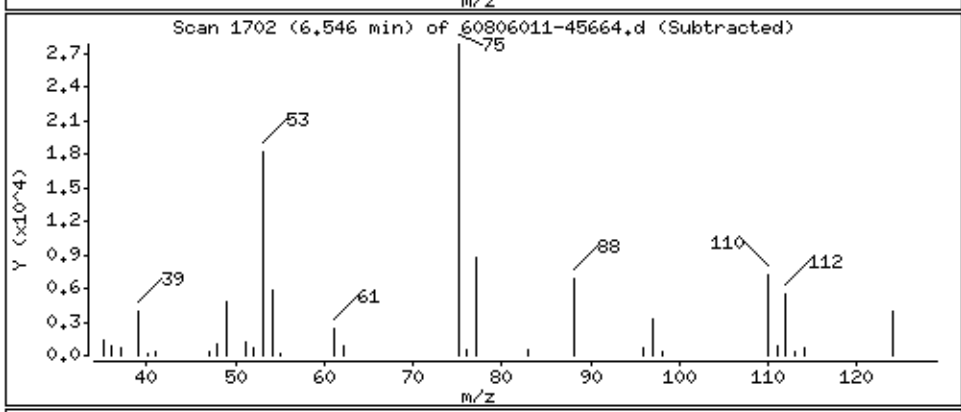
Column phase: RTX-VMS

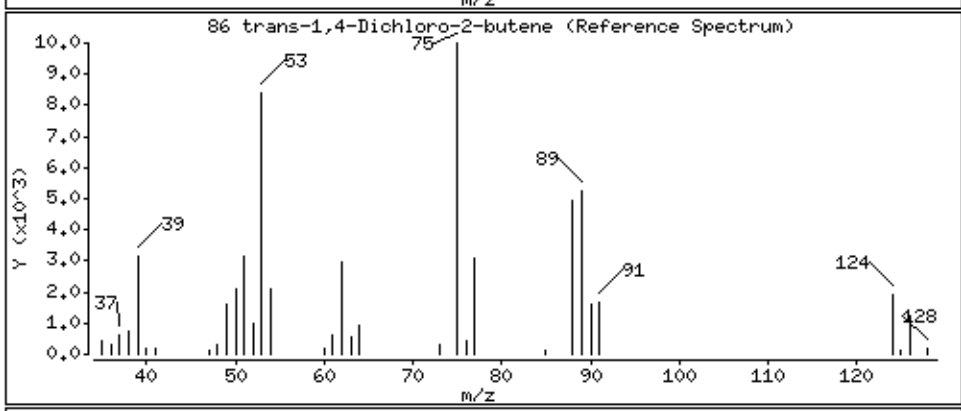
Column diameter: 0.18

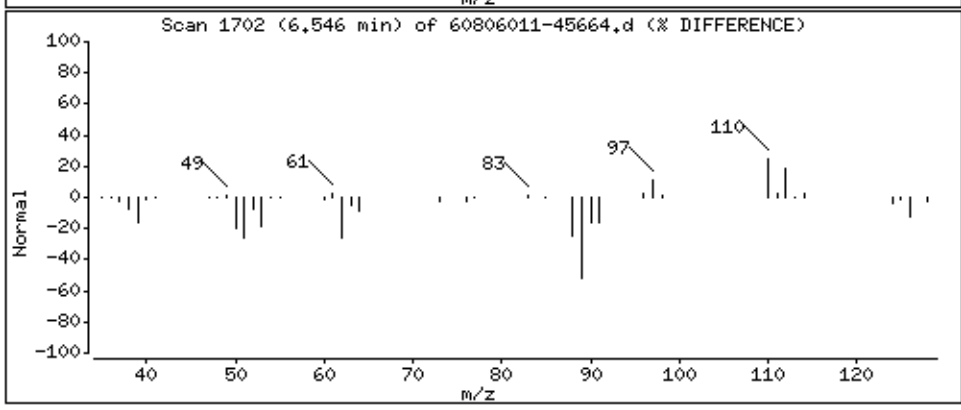
86 trans-1,4-Dichloro-2-butene

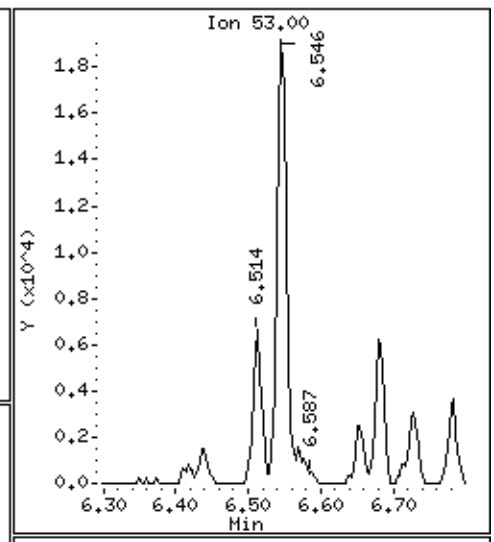
Concentration: 17.2 ug/kg

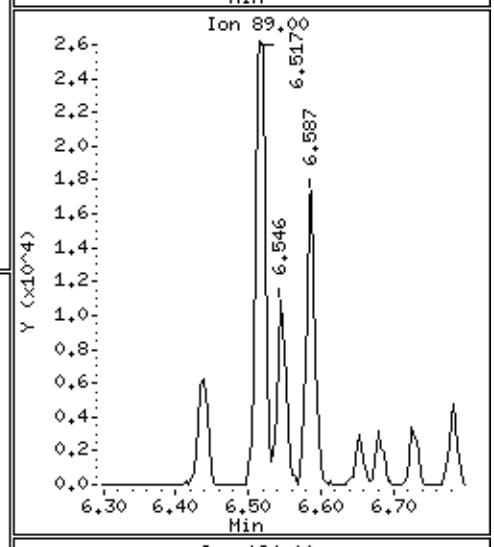


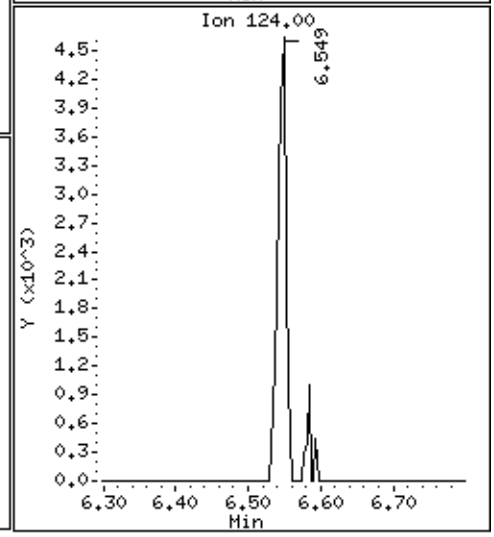












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

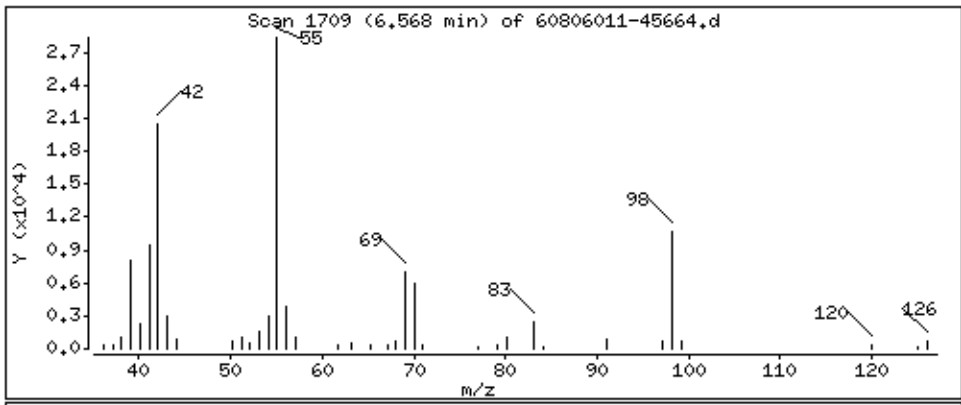
Operator: JEW

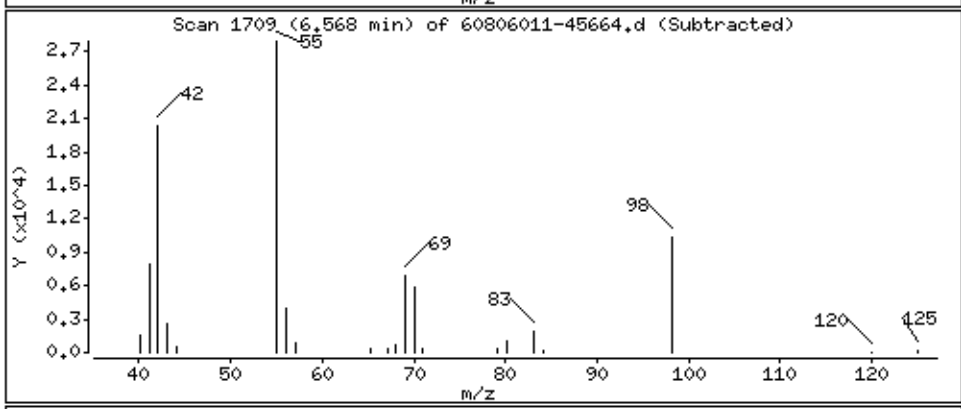
Column phase: RTX-VMS

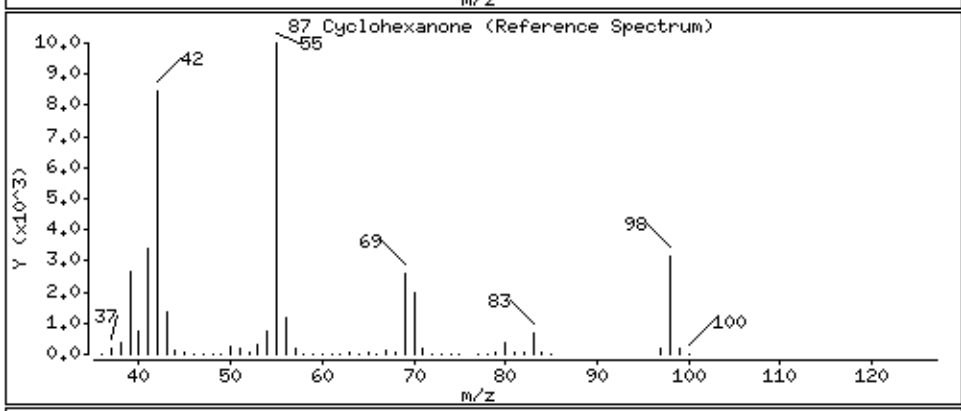
Column diameter: 0.18

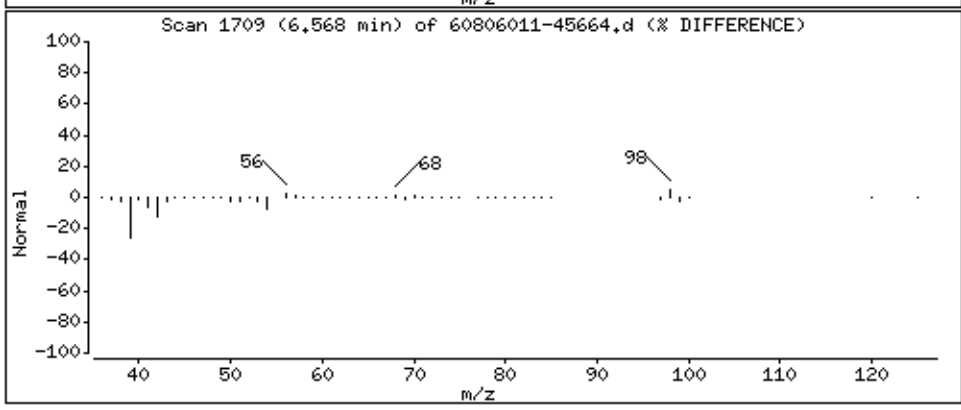
87 Cyclohexanone

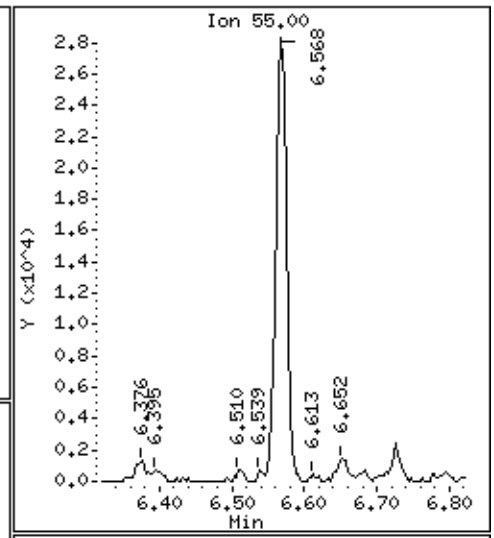
Concentration: 69.0 ug/kg

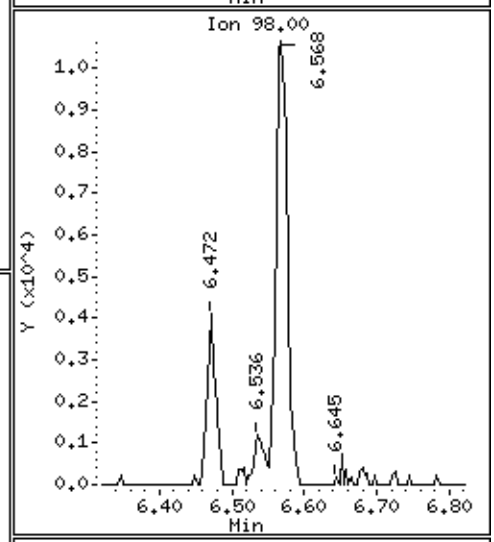


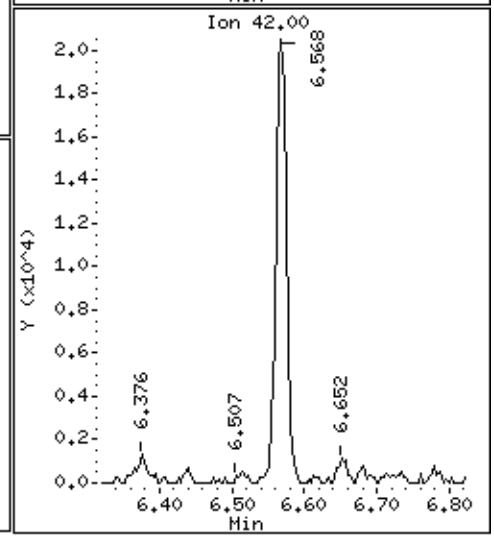












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

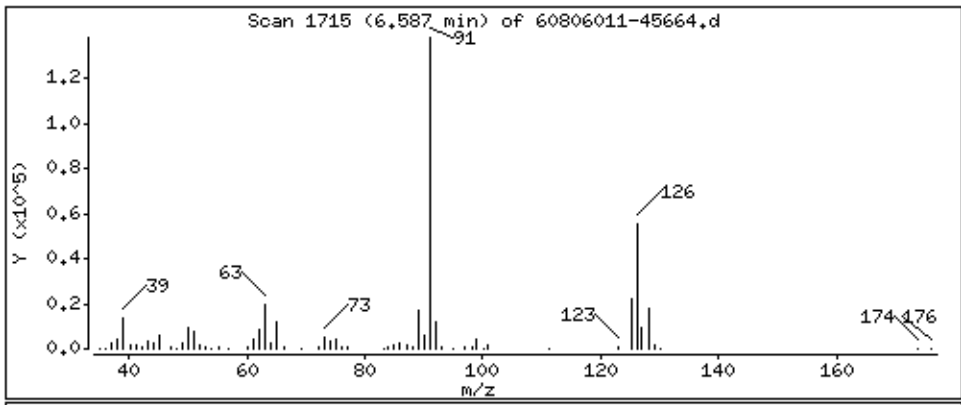
Operator: JEW

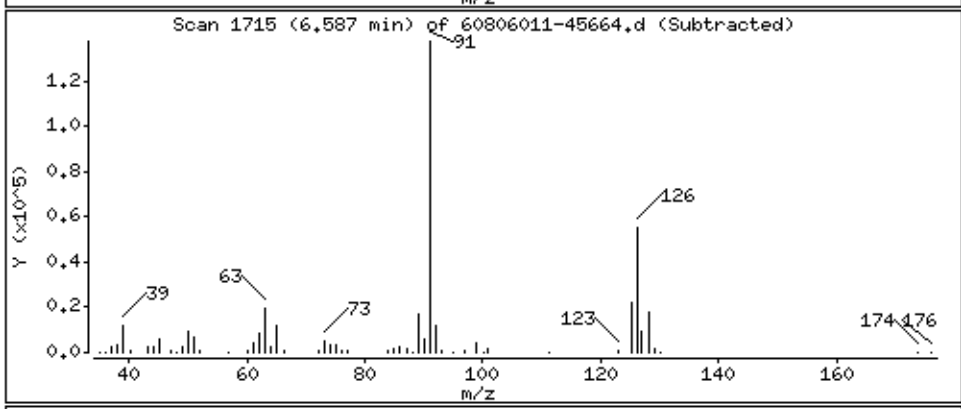
Column phase: RTX-VMS

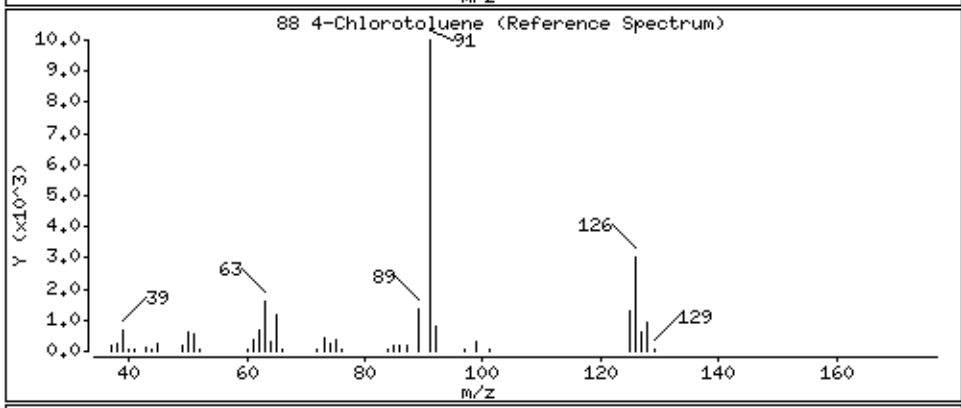
Column diameter: 0.18

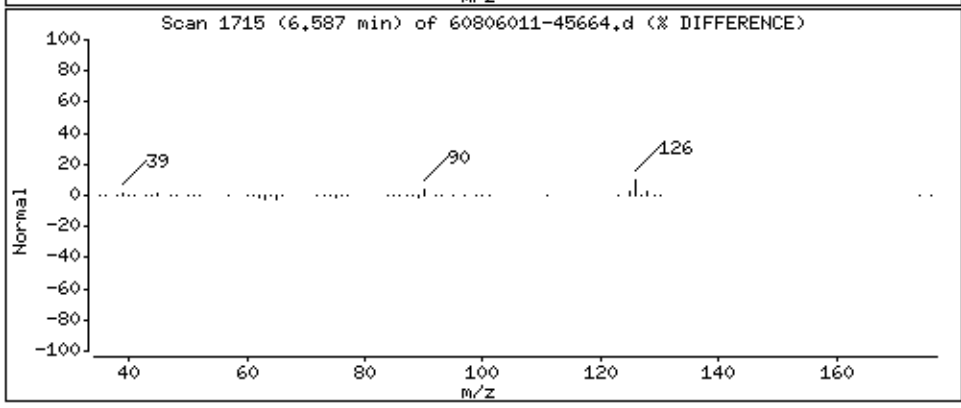
88 4-Chlorotoluene

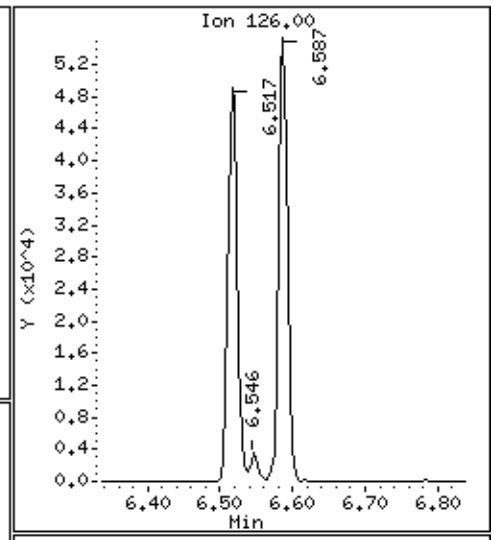
Concentration: 16.3 ug/kg

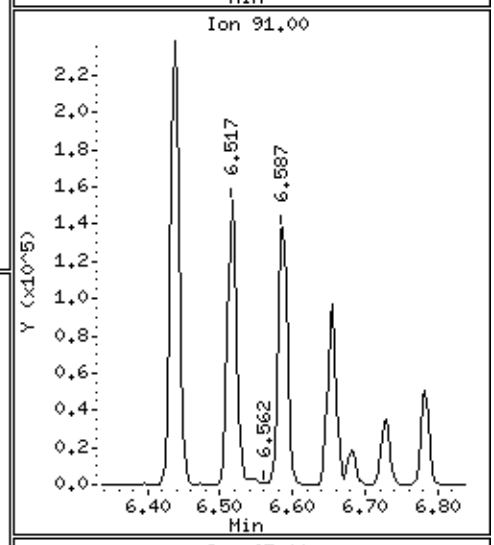


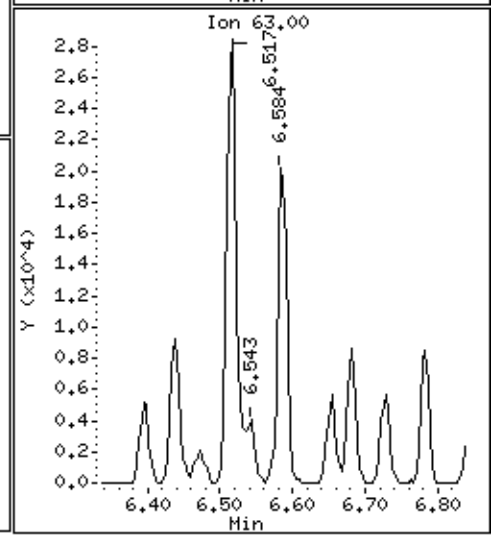












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

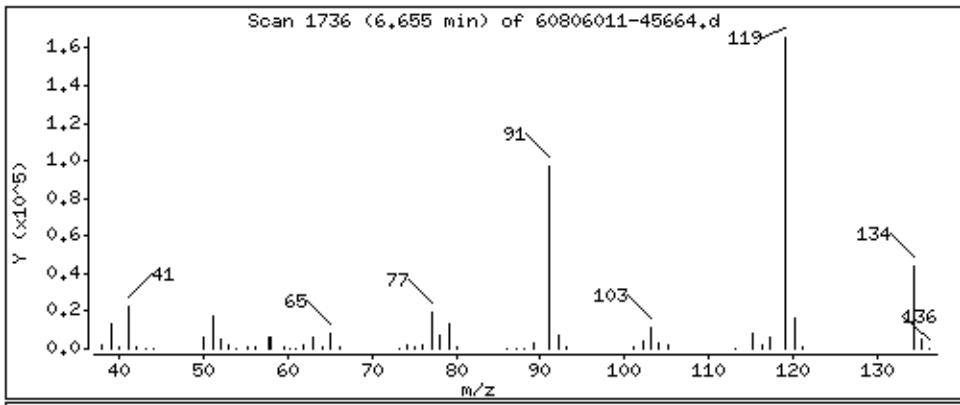
Operator: JEW

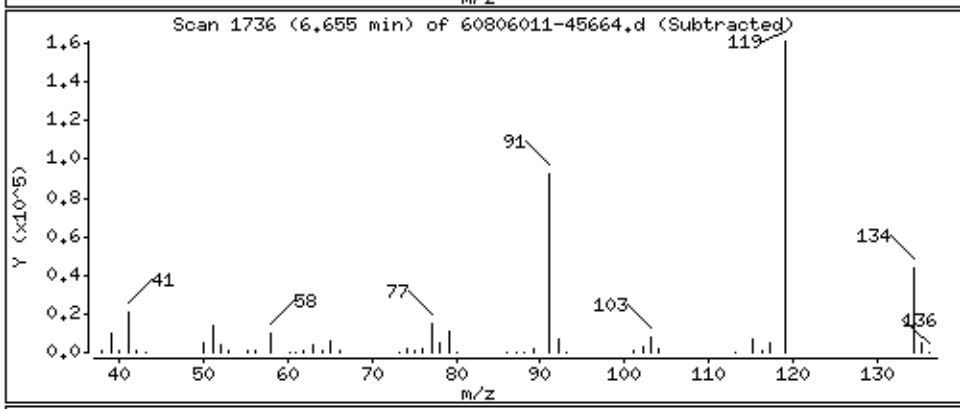
Column phase: RTX-VMS

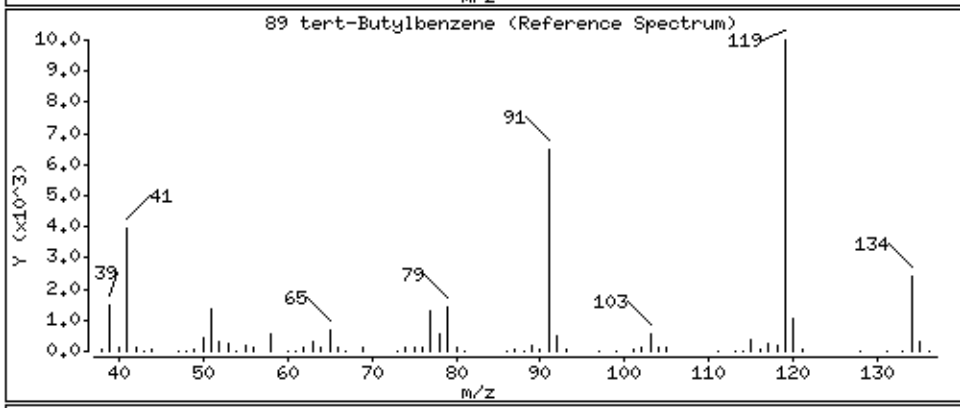
Column diameter: 0.18

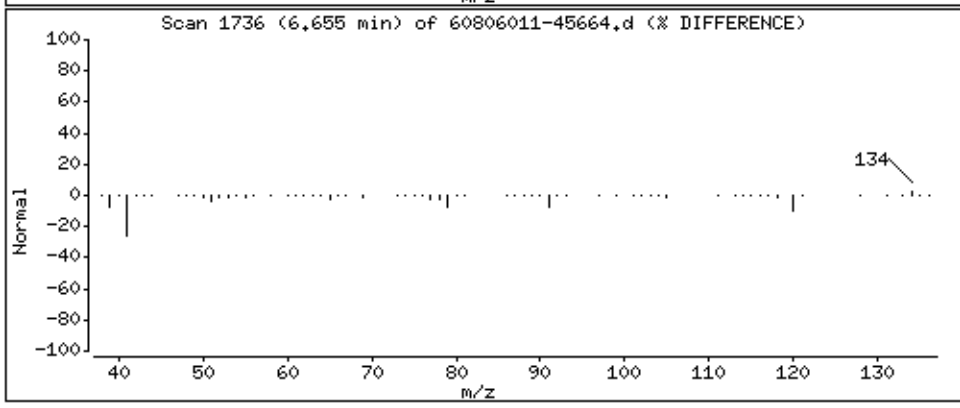
89 tert-Butylbenzene

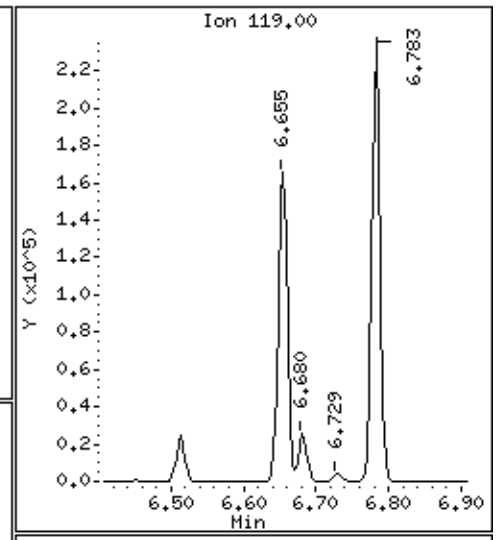
Concentration: 17.2 ug/kg

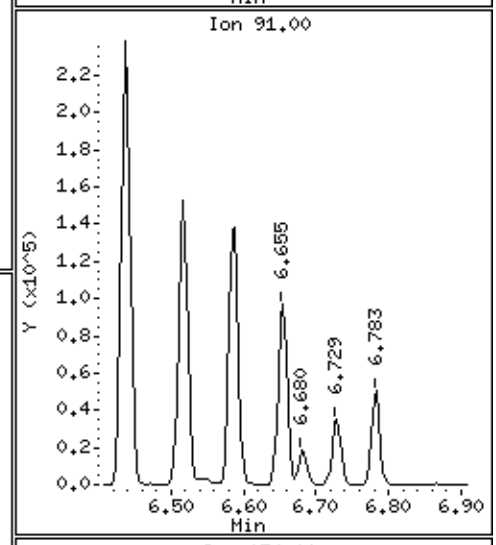


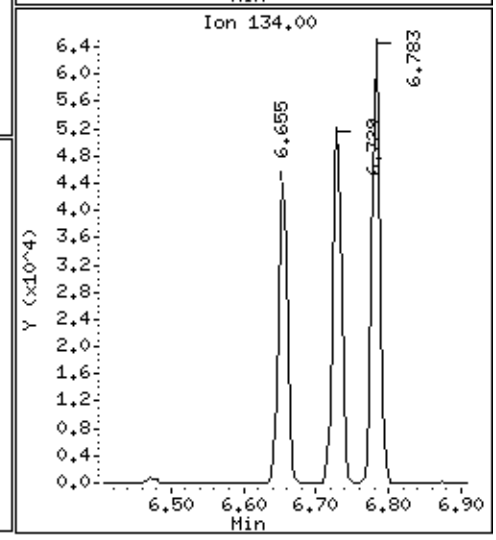












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

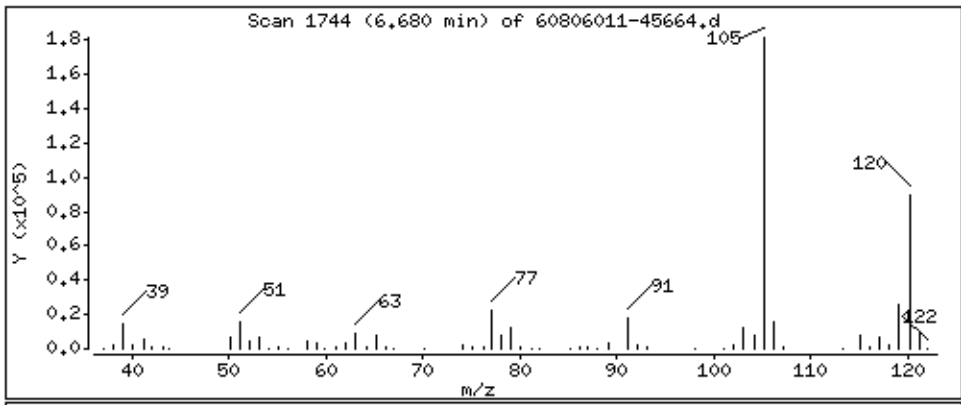
Operator: JEW

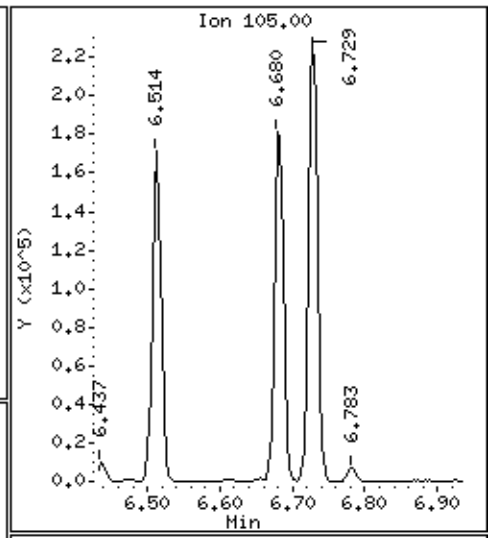
Column phase: RTX-VMS

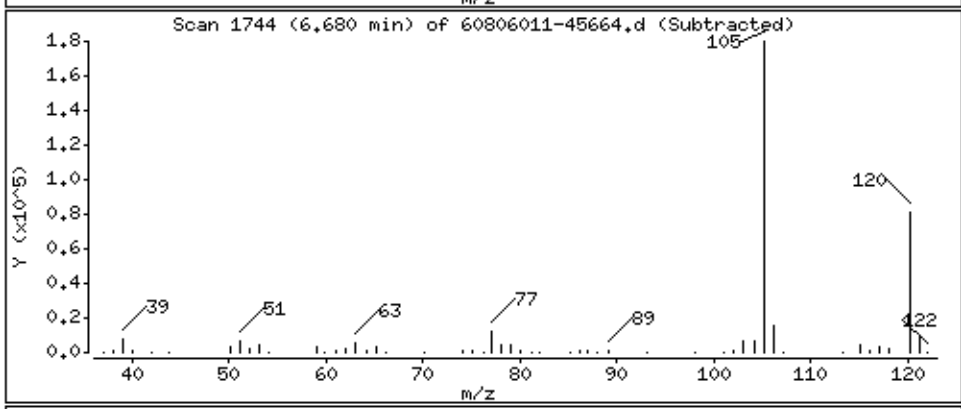
Column diameter: 0.18

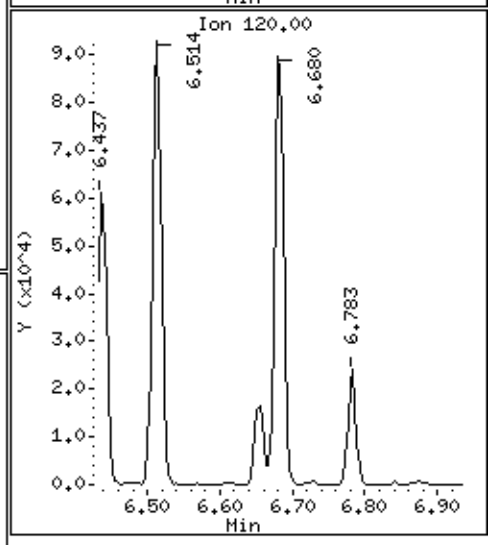
90 1,2,4-Trimethylbenzene

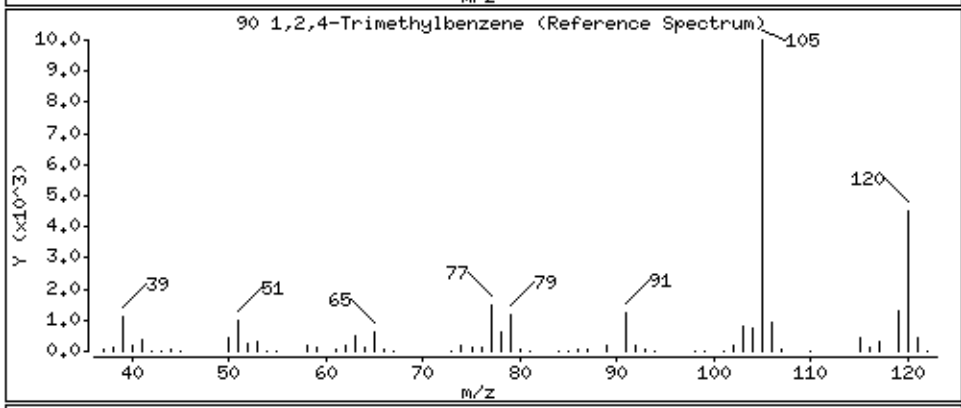
Concentration: 17.1 ug/kg

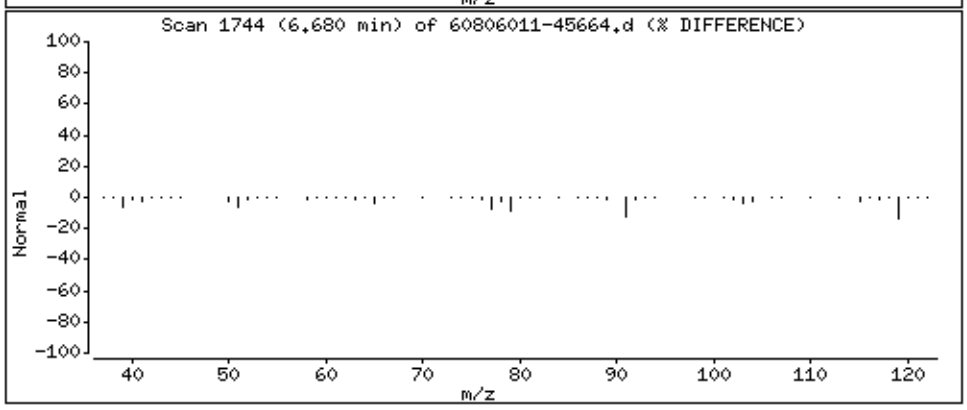












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

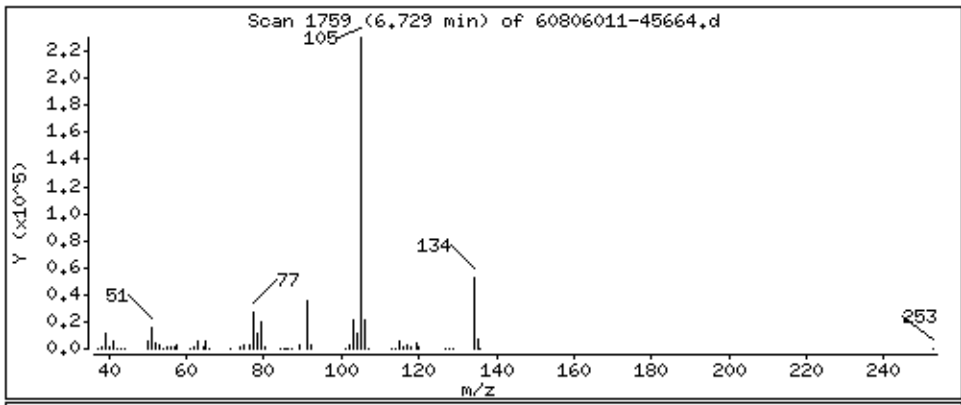
Operator: JEW

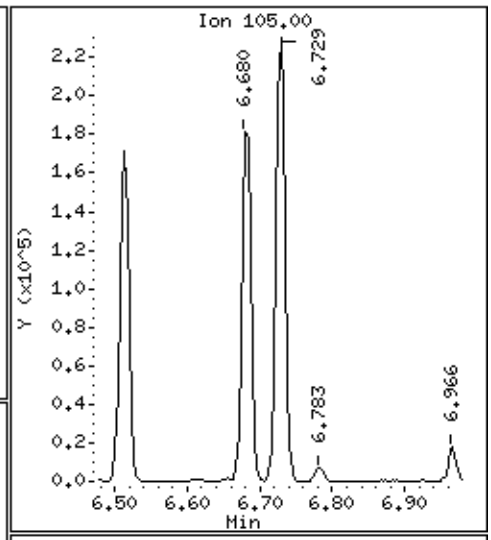
Column phase: RTX-VMS

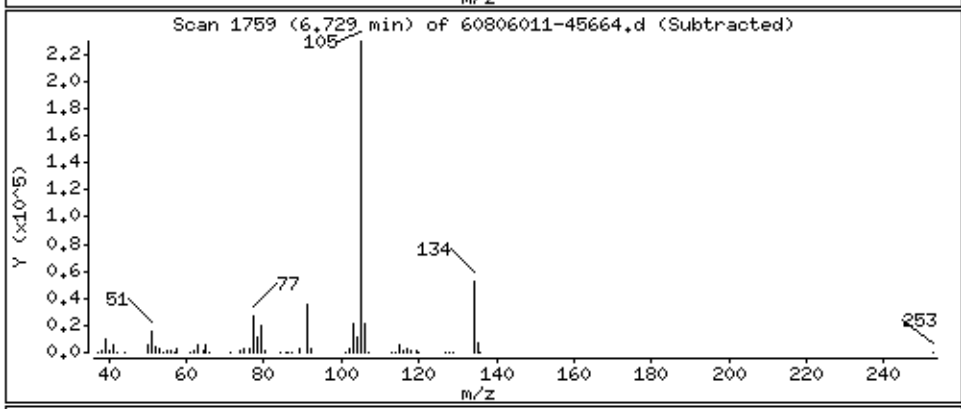
Column diameter: 0.18

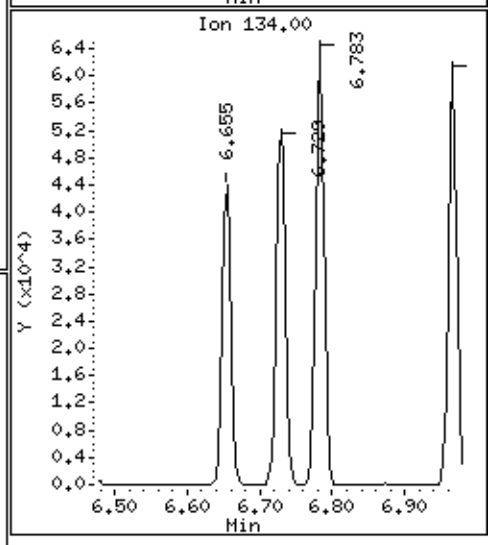
91 sec-Butylbenzene

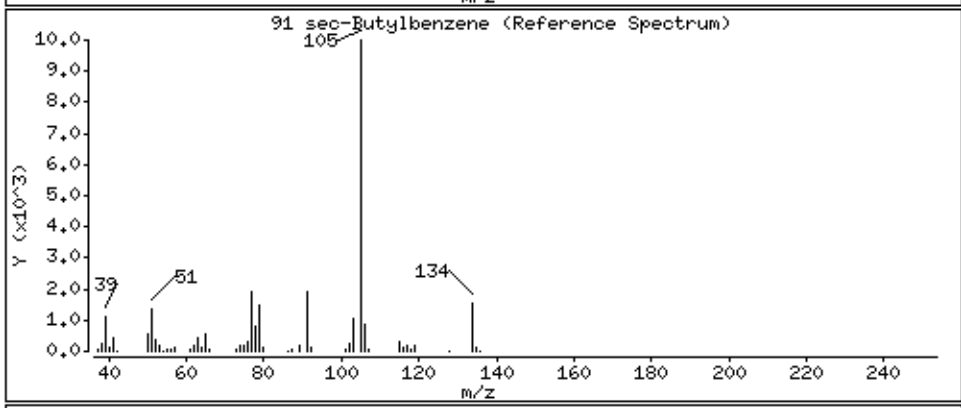
Concentration: 17.6 ug/kg

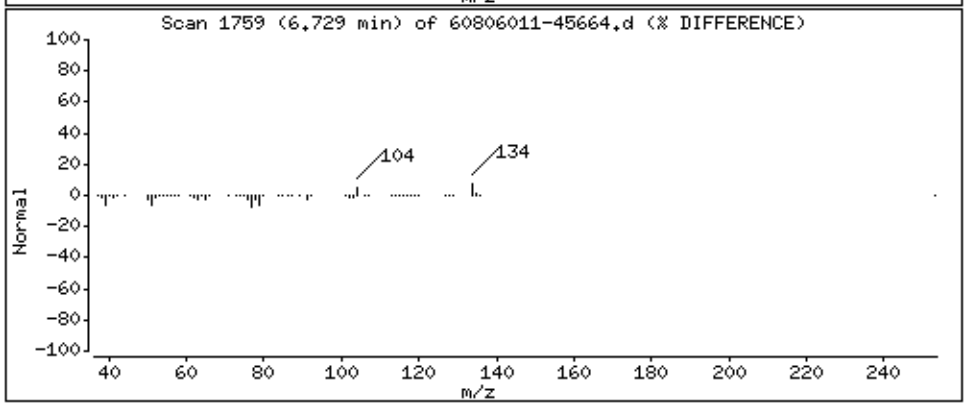












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

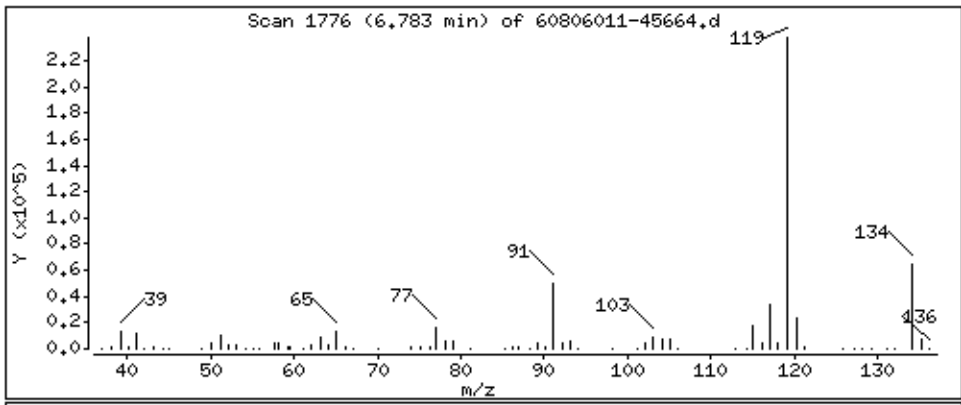
Operator: JEW

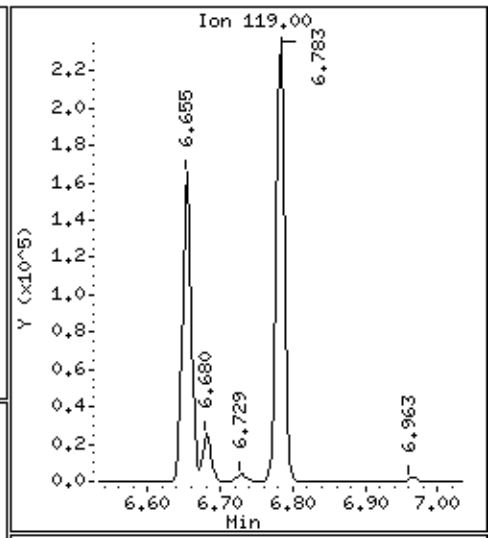
Column phase: RTX-VMS

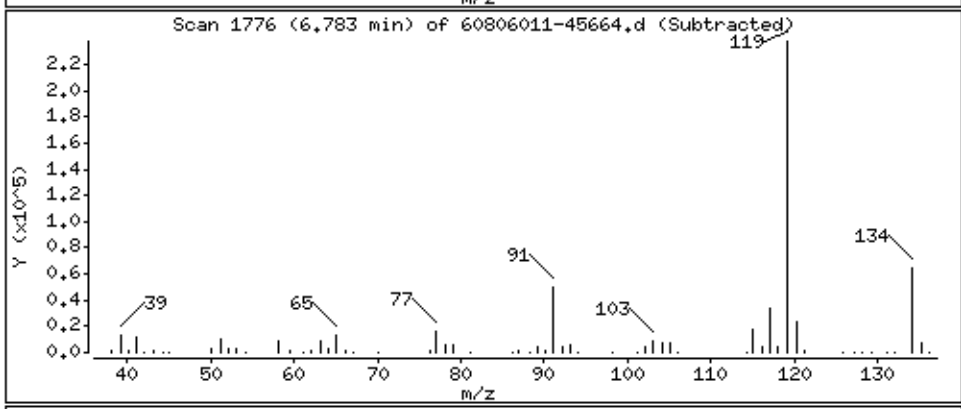
Column diameter: 0.18

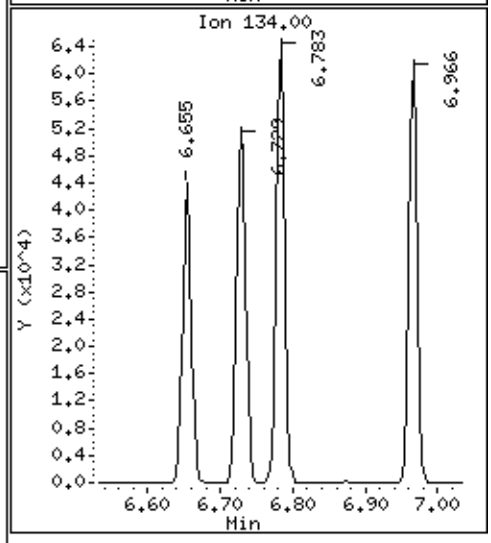
92 p-Isopropyltoluene

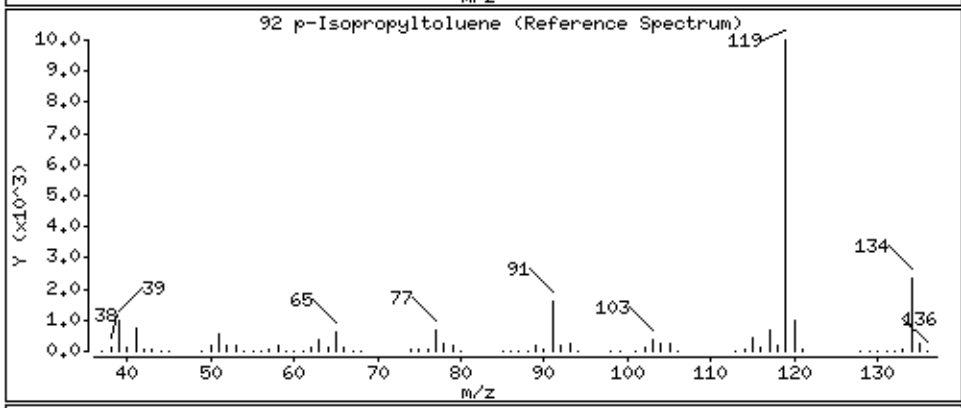
Concentration: 17.8 ug/kg

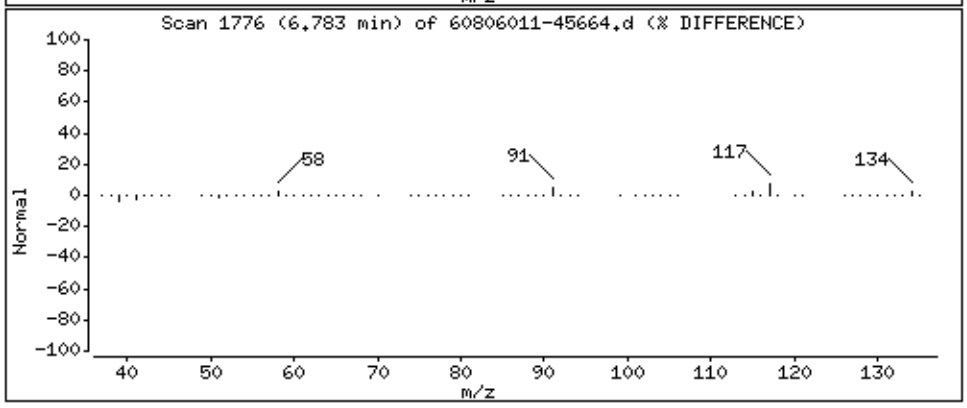












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

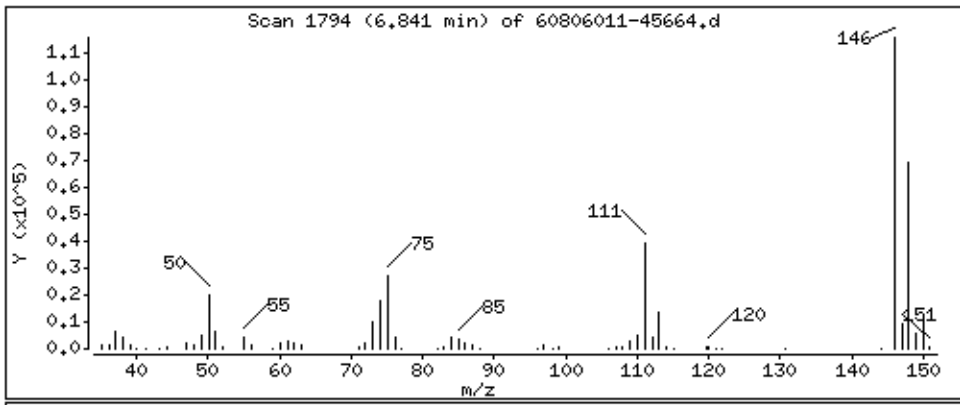
Operator: JEW

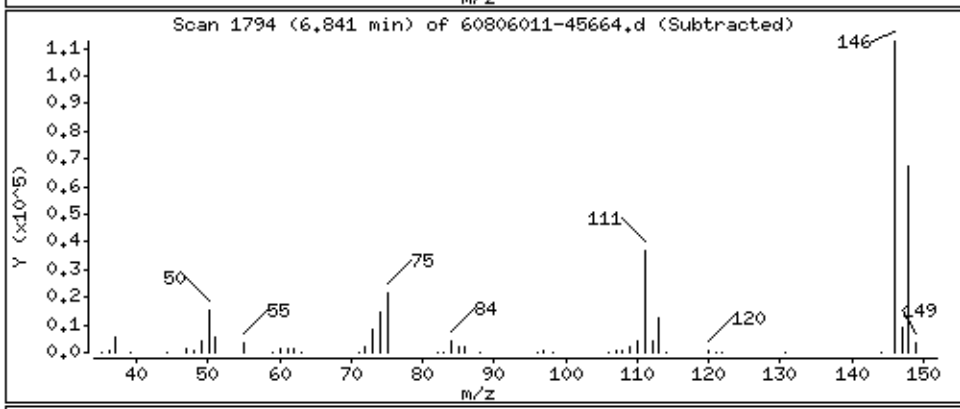
Column phase: RTX-VMS

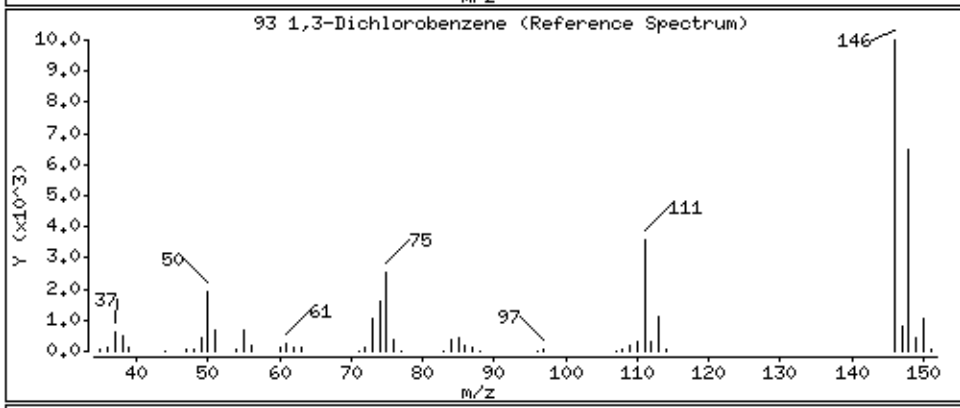
Column diameter: 0.18

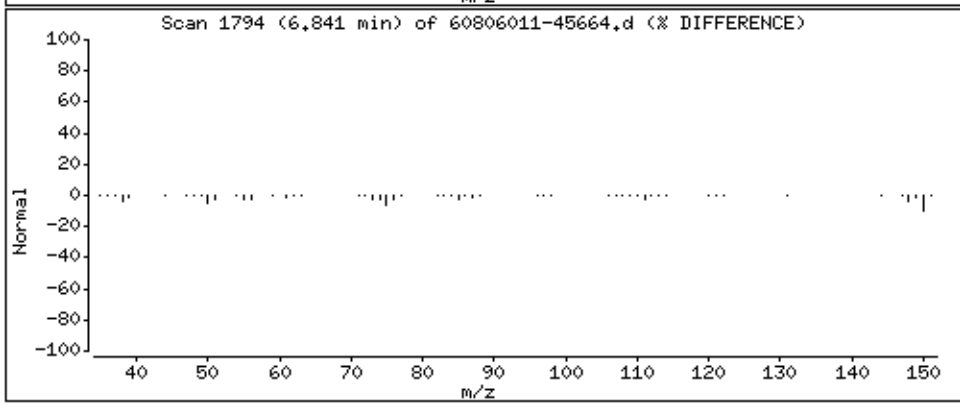
93 1,3-Dichlorobenzene

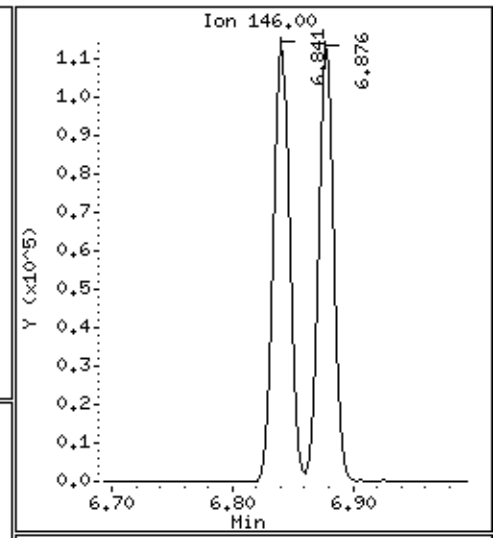
Concentration: 16.6 ug/kg

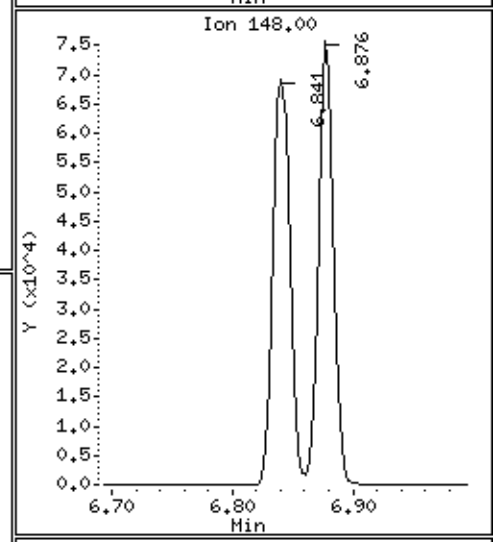


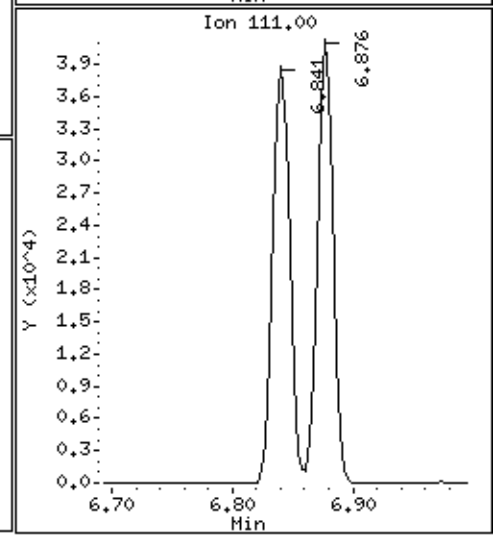












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

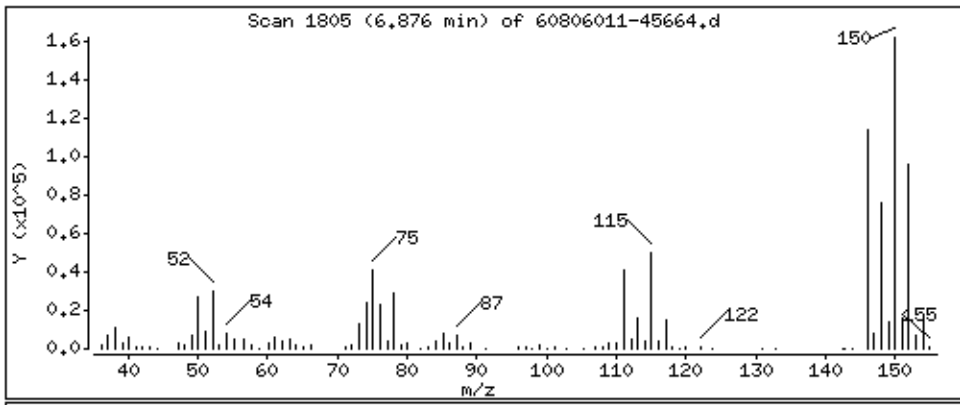
Operator: JEW

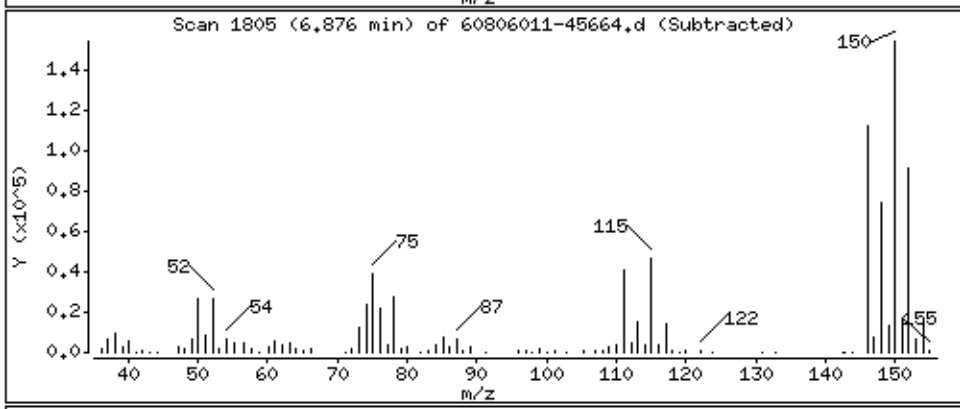
Column phase: RTX-VMS

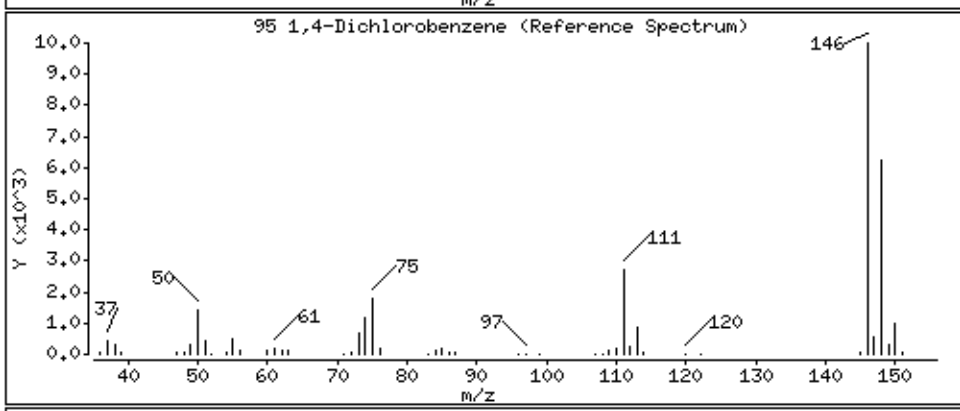
Column diameter: 0.18

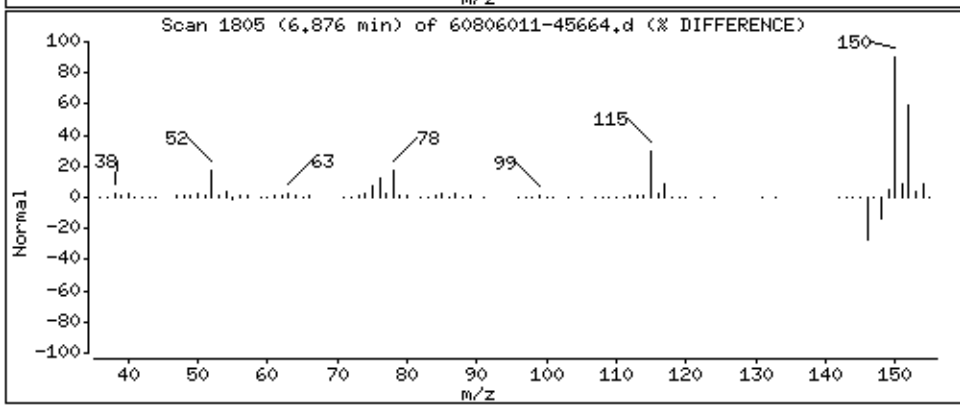
95 1,4-Dichlorobenzene

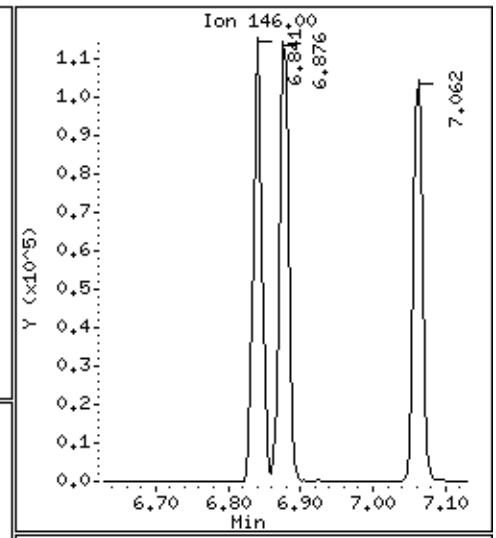
Concentration: 16.3 ug/kg

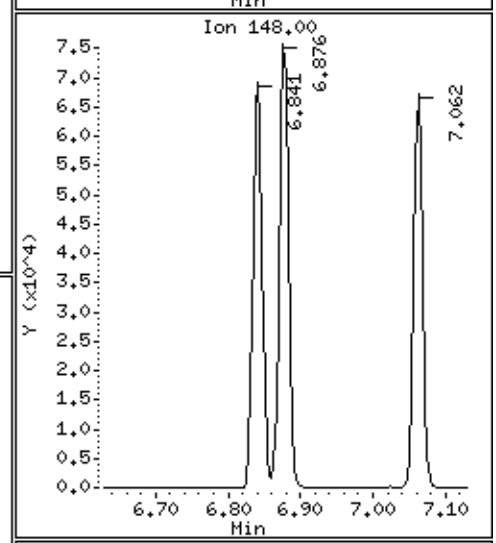


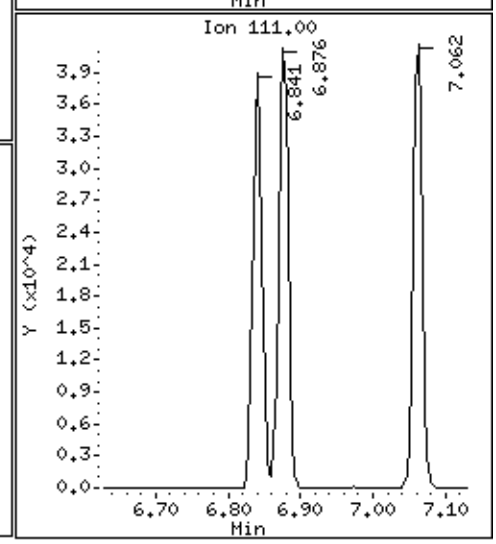












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

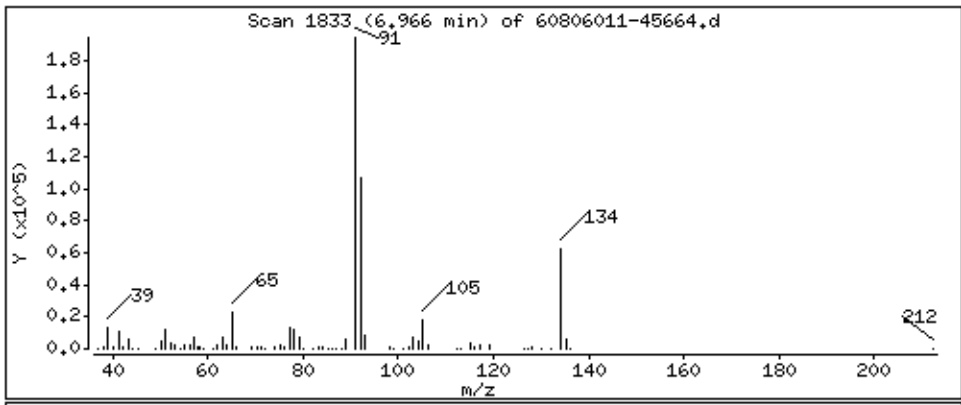
Operator: JEW

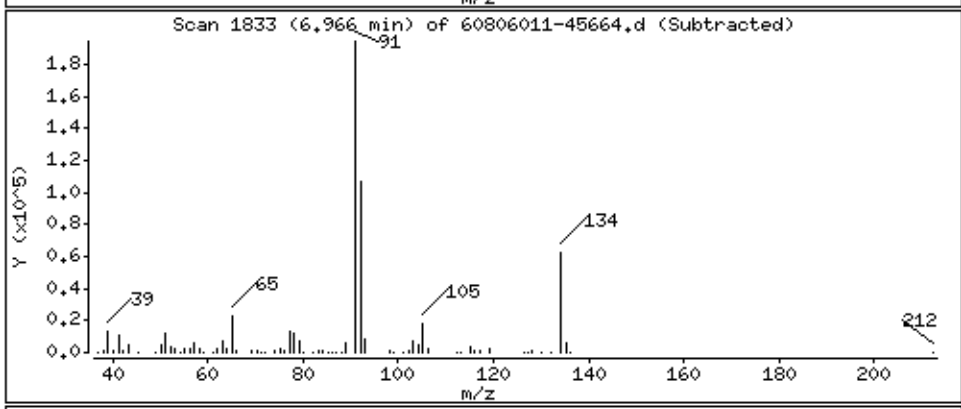
Column phase: RTX-VMS

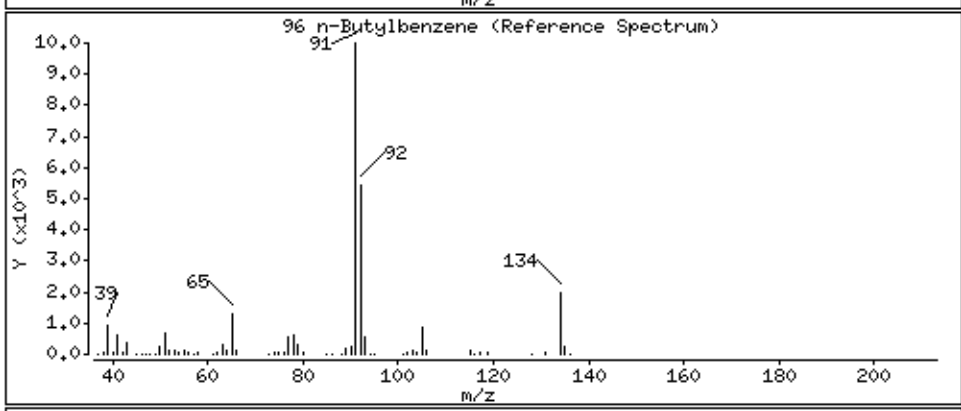
Column diameter: 0.18

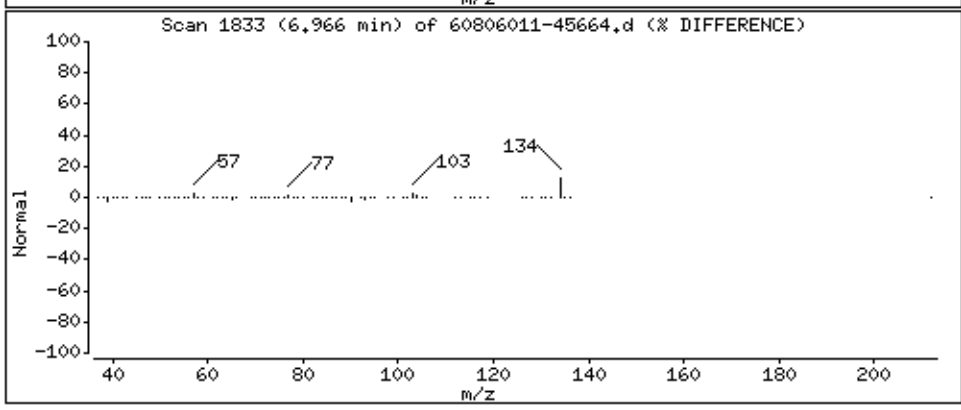
96 n-Butylbenzene

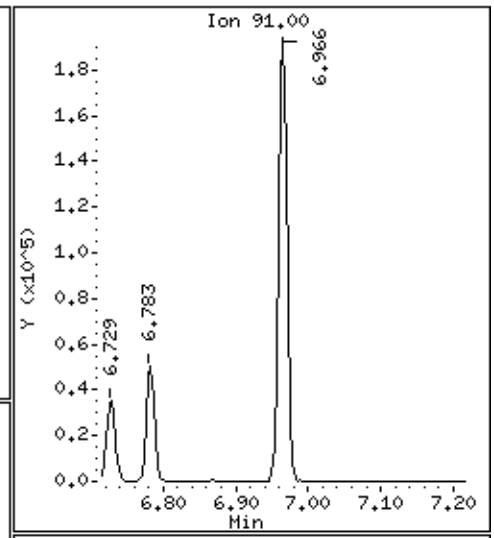
Concentration: 17.4 ug/kg

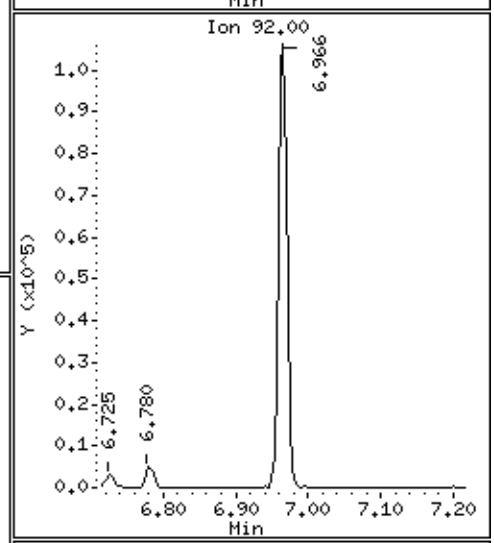


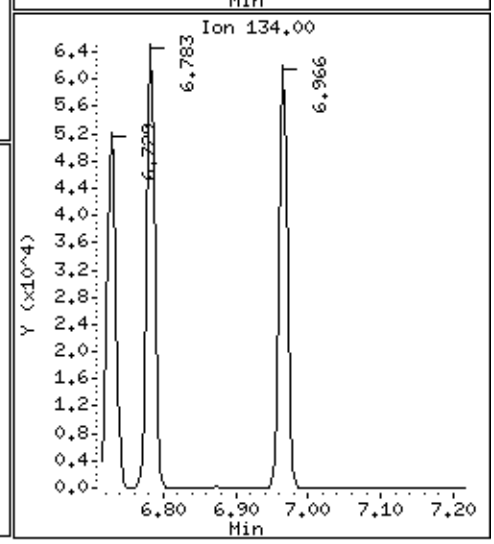












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

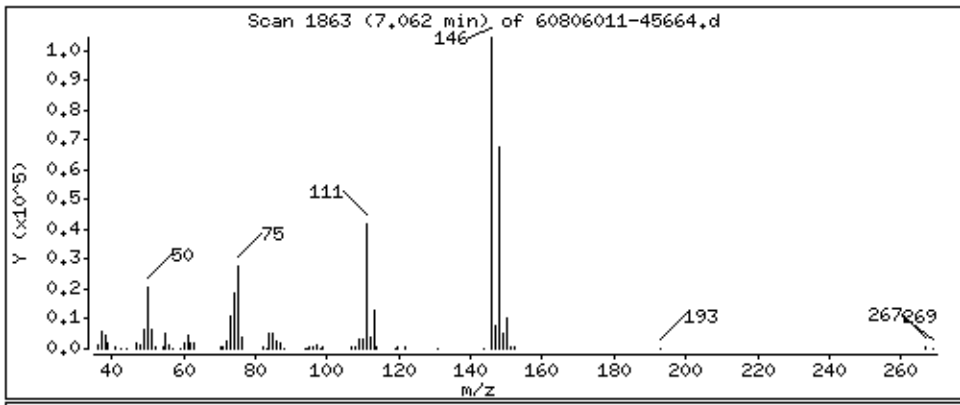
Operator: JEW

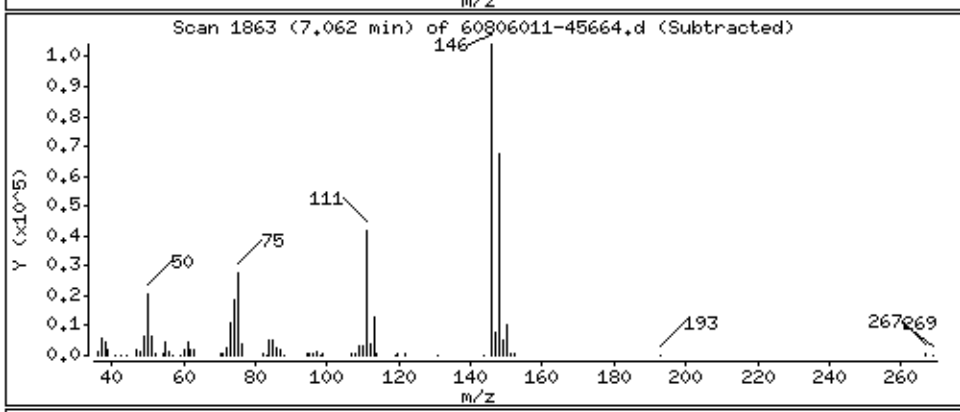
Column phase: RTX-VMS

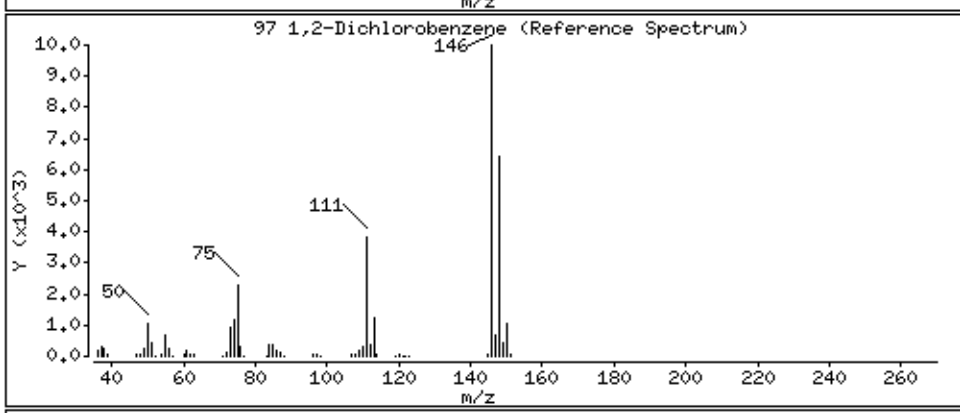
Column diameter: 0.18

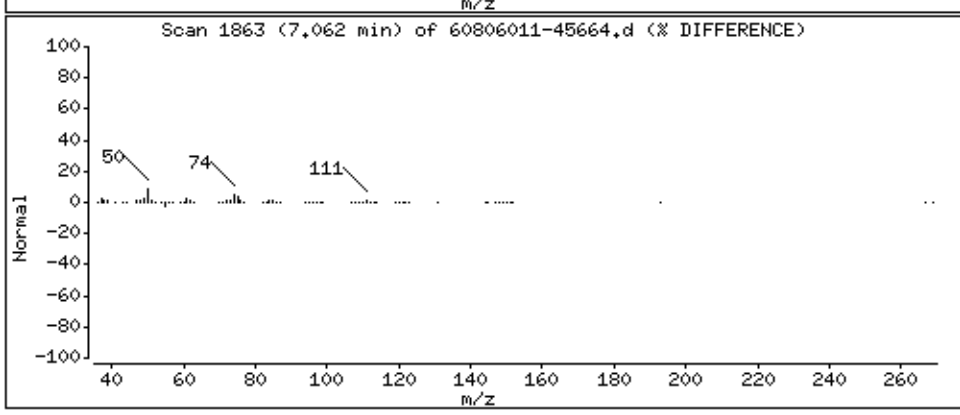
97 1,2-Dichlorobenzene

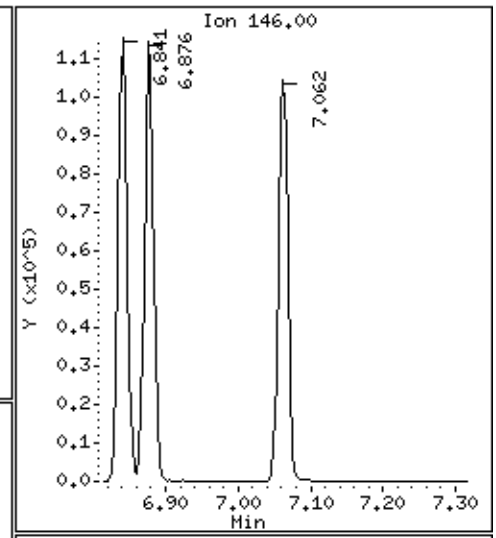
Concentration: 16.1 ug/kg

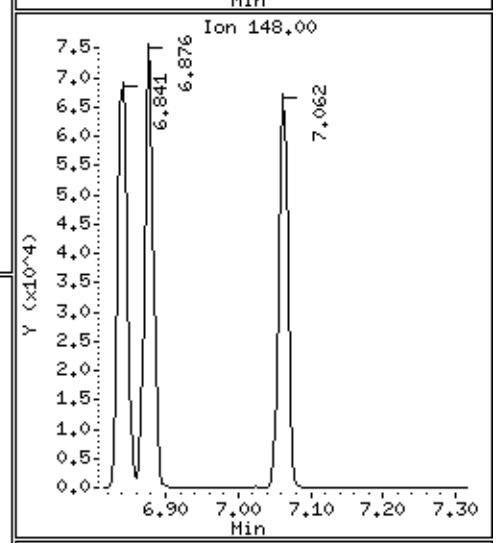


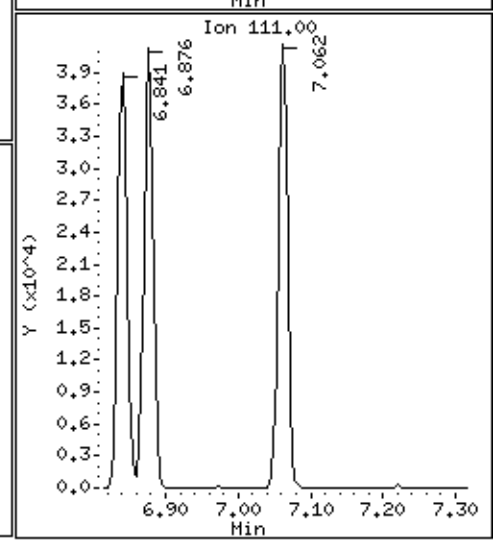












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

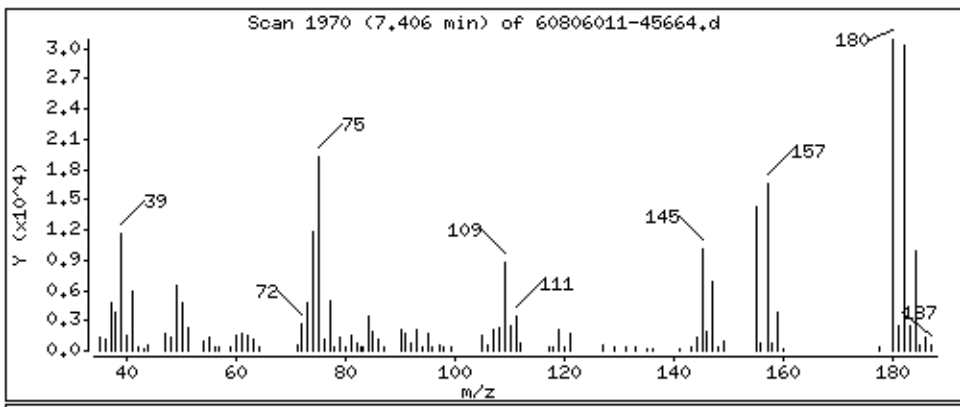
Operator: JEW

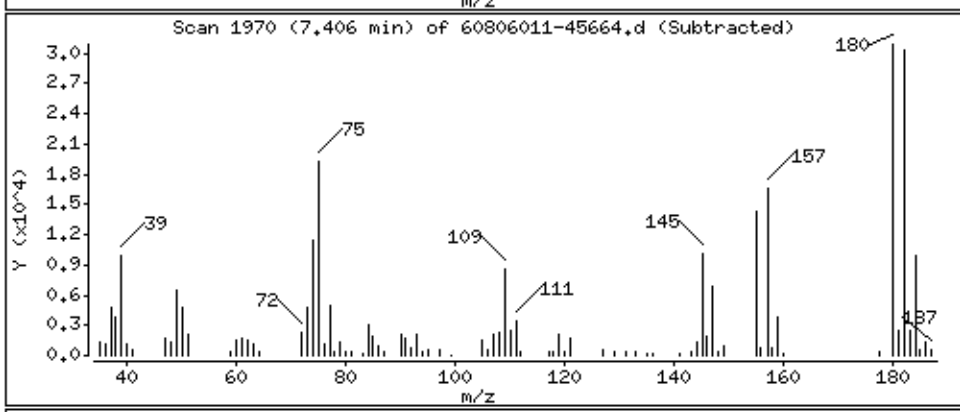
Column phase: RTX-VMS

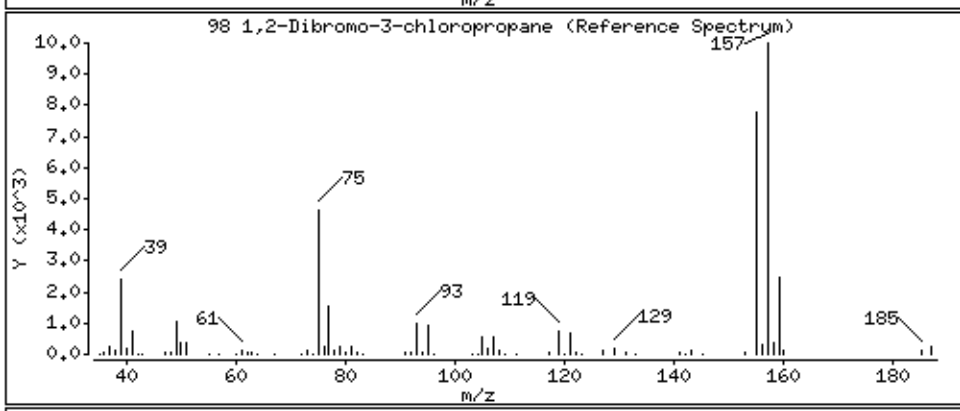
Column diameter: 0.18

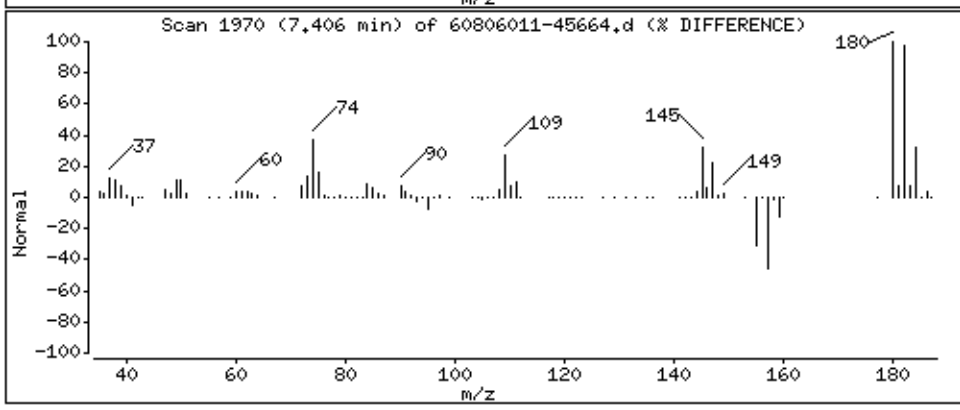
98 1,2-Dibromo-3-chloropropane

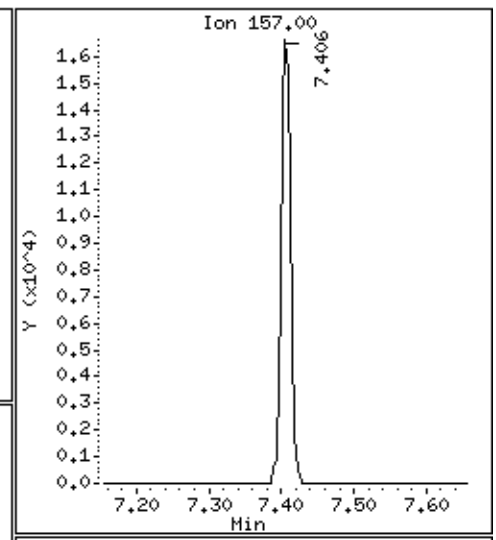
Concentration: 16.0 ug/kg

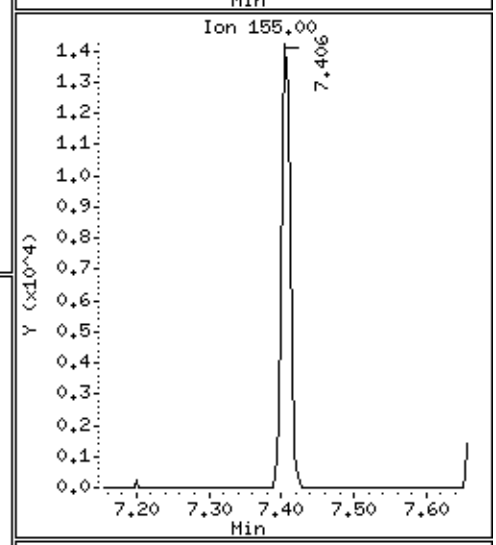


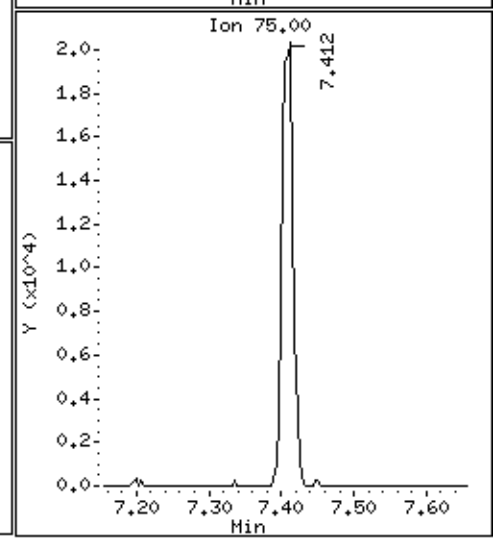












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

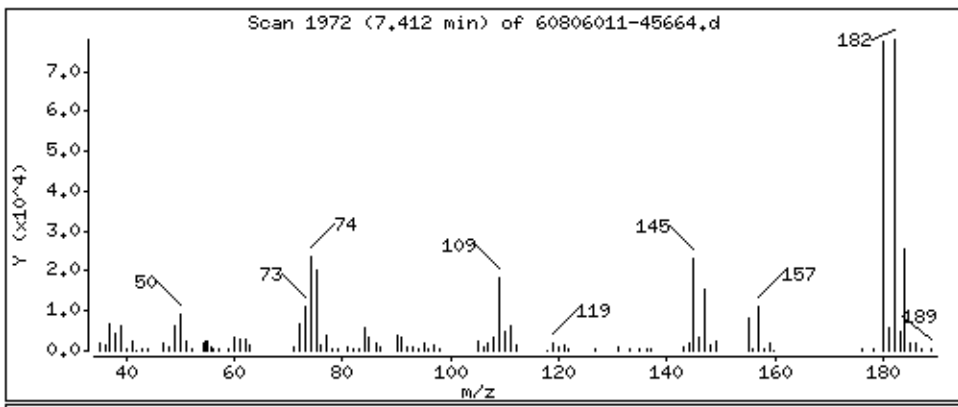
Operator: JEW

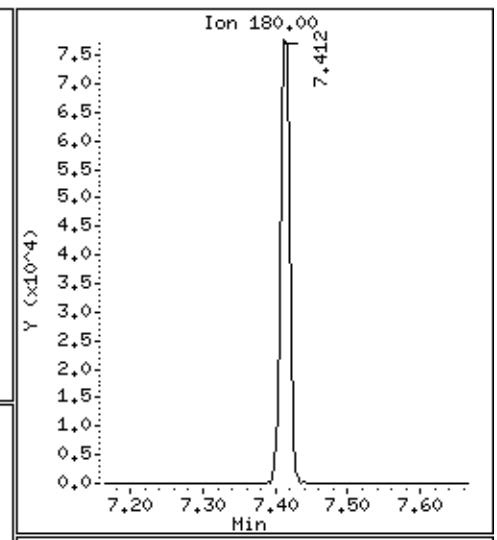
Column phase: RTX-VMS

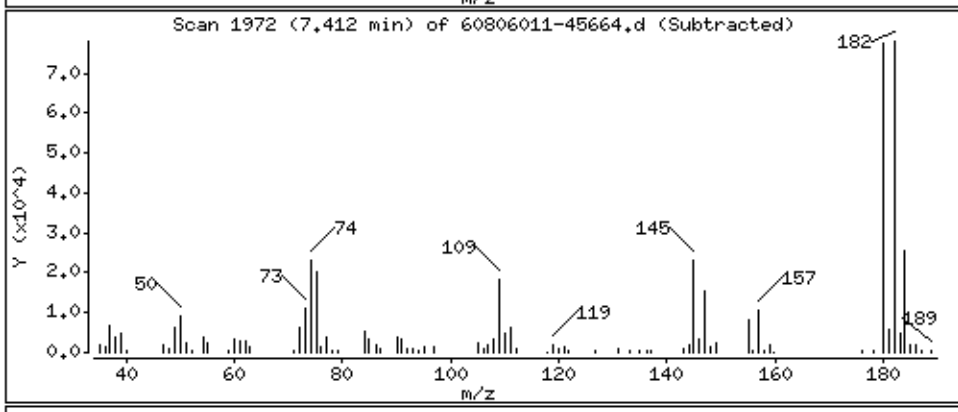
Column diameter: 0.18

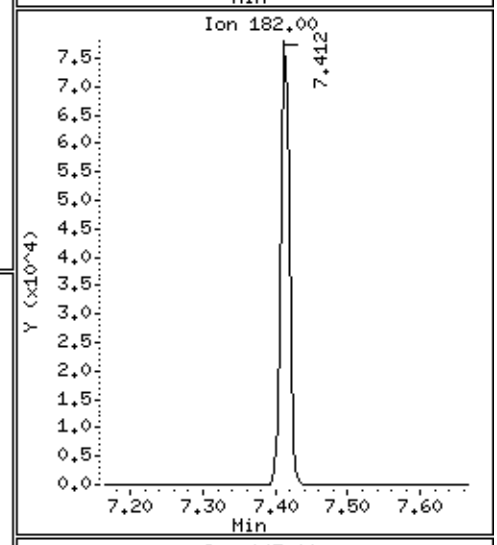
99 1,3,5-Trichlorobenzene

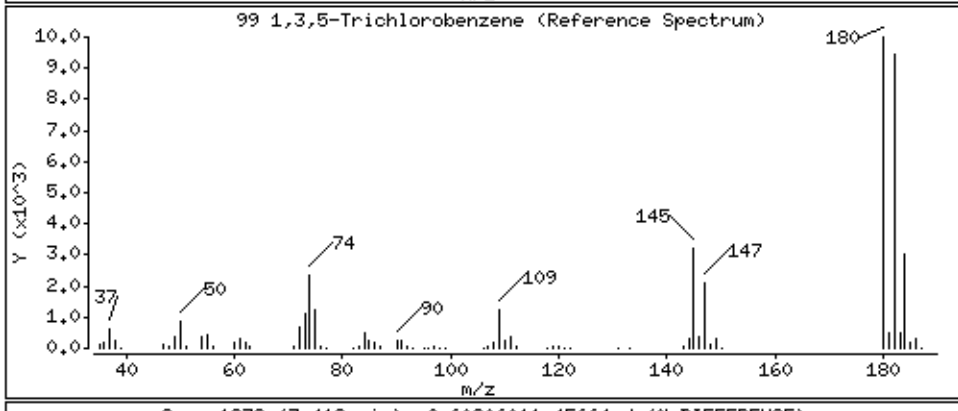
Concentration: 17.2 ug/kg

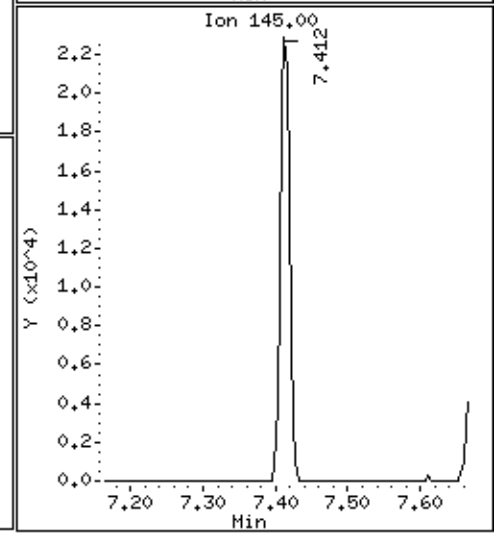


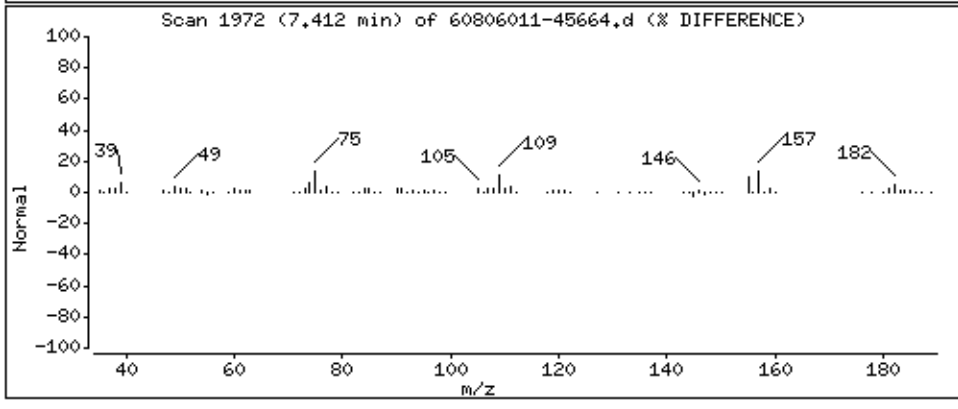












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

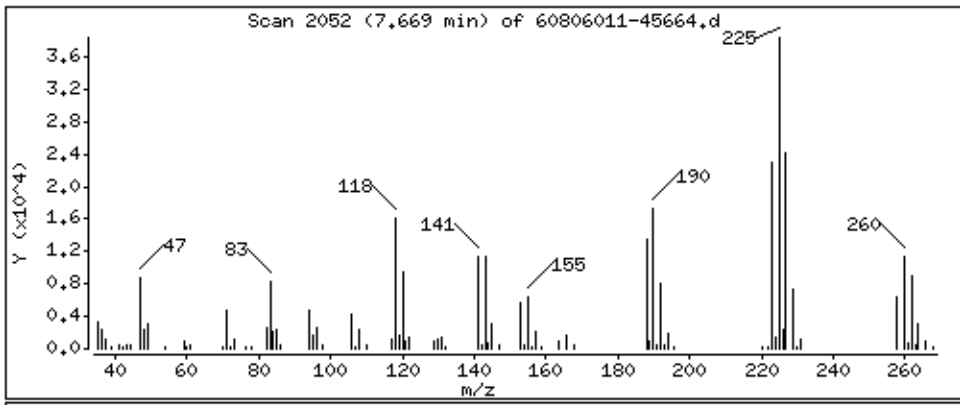
Operator: JEW

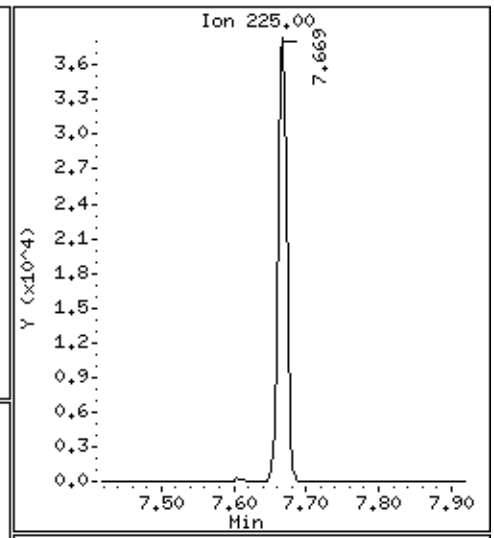
Column phase: RTX-VMS

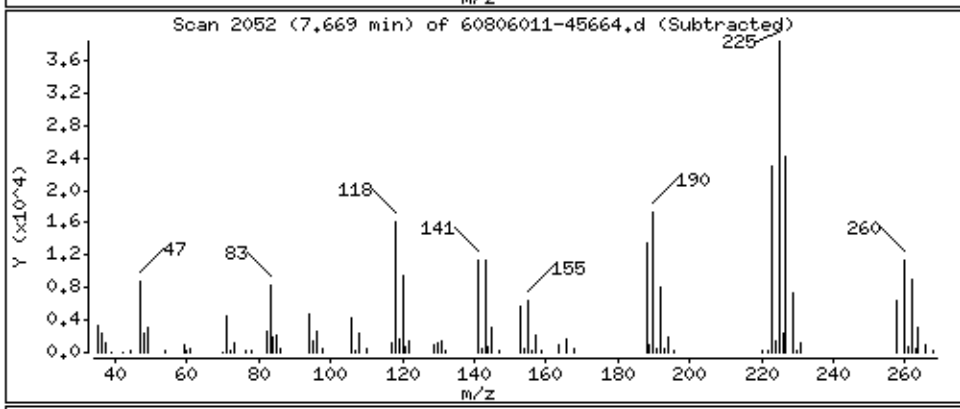
Column diameter: 0.18

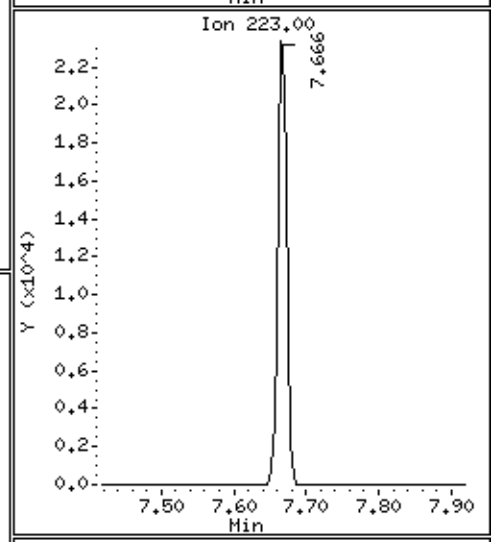
100 Hexachloro-1,3-butadiene

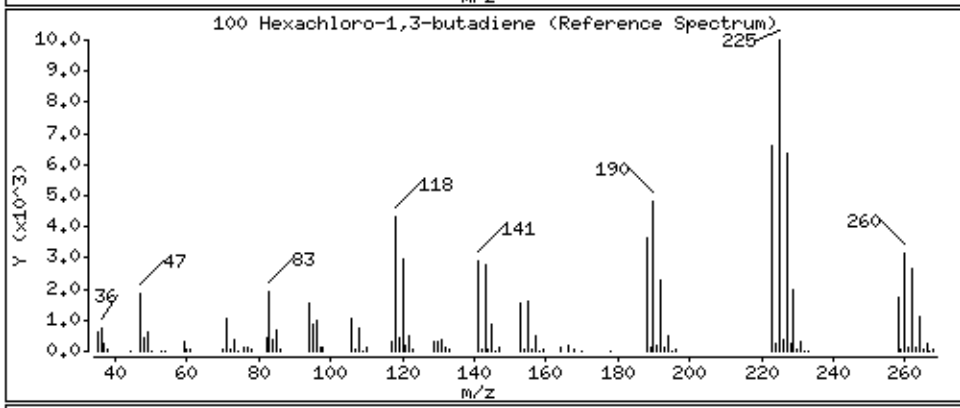
Concentration: 15.6 ug/kg

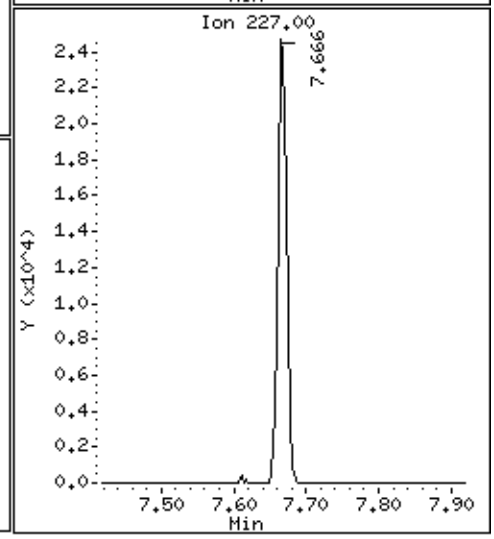


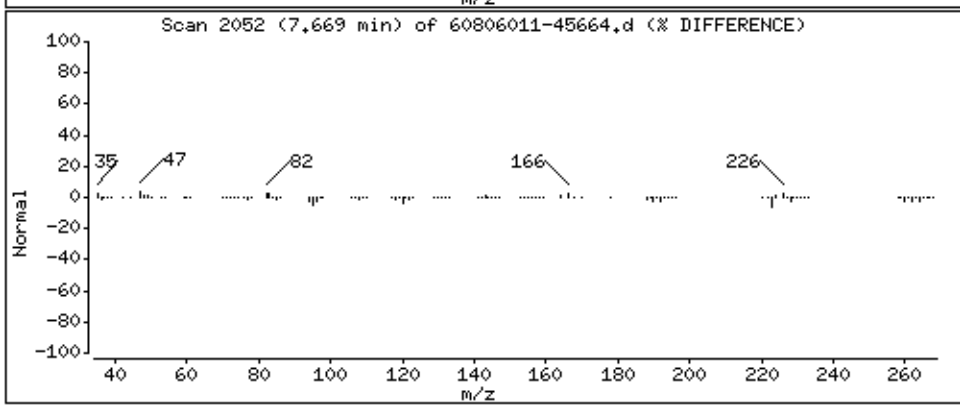












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

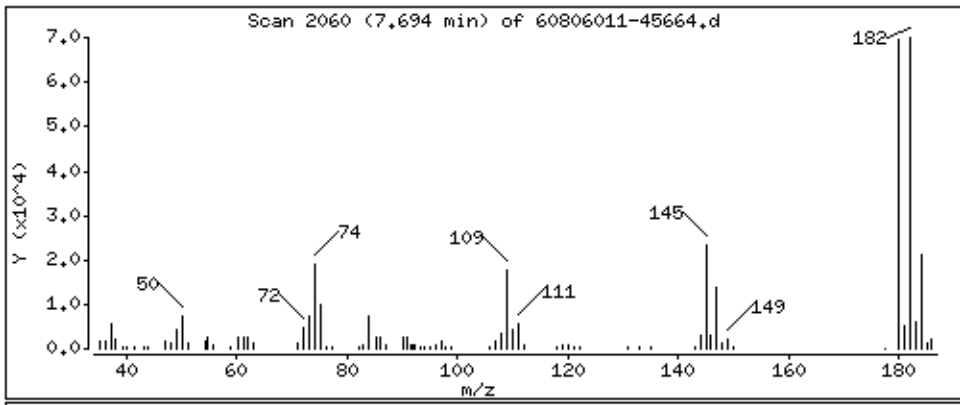
Operator: JEW

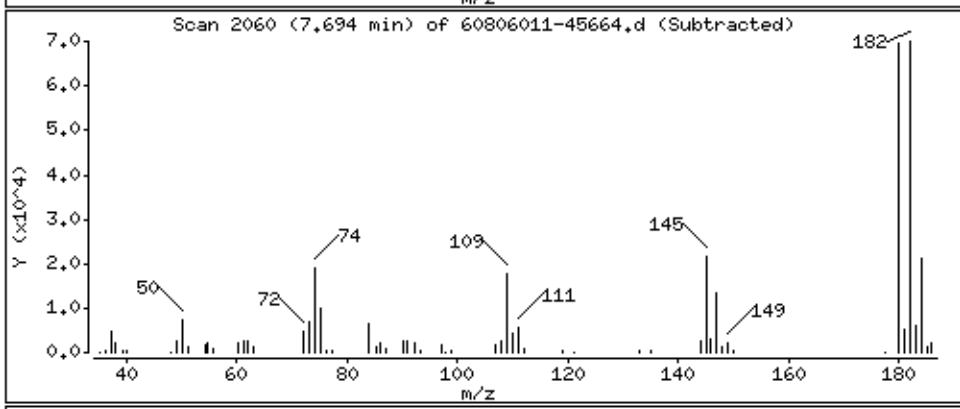
Column phase: RTX-VMS

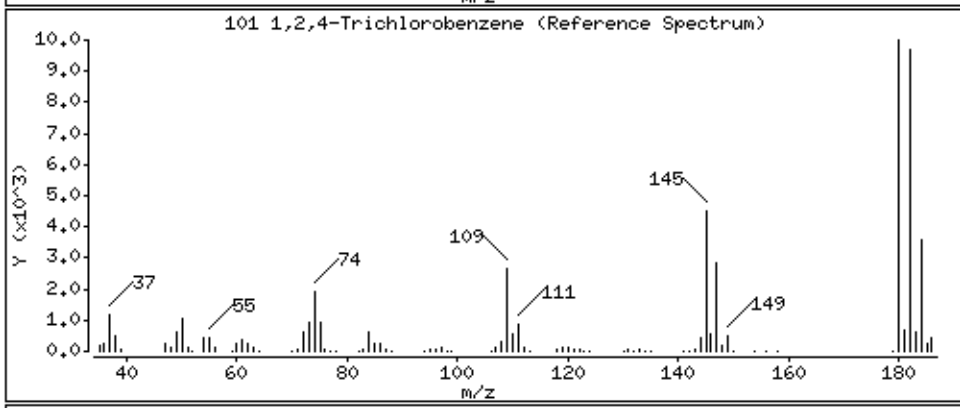
Column diameter: 0.18

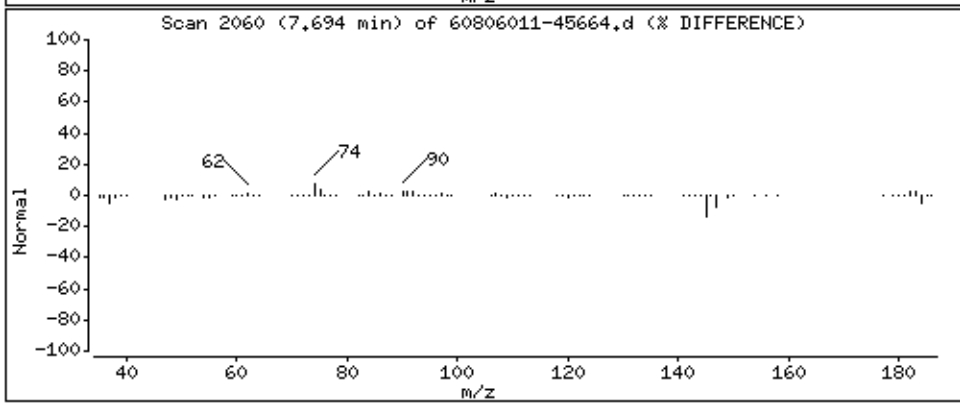
101 1,2,4-Trichlorobenzene

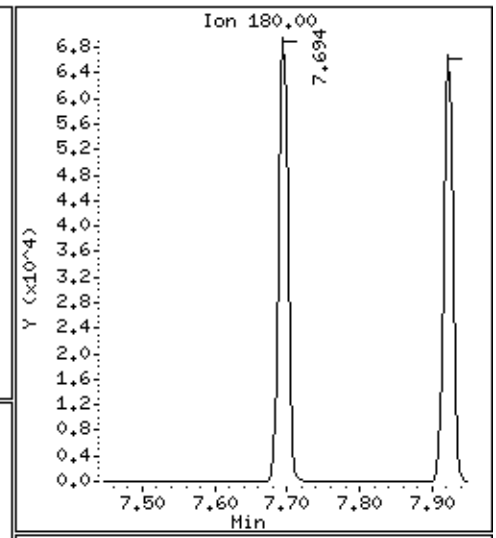
Concentration: 16.3 ug/kg

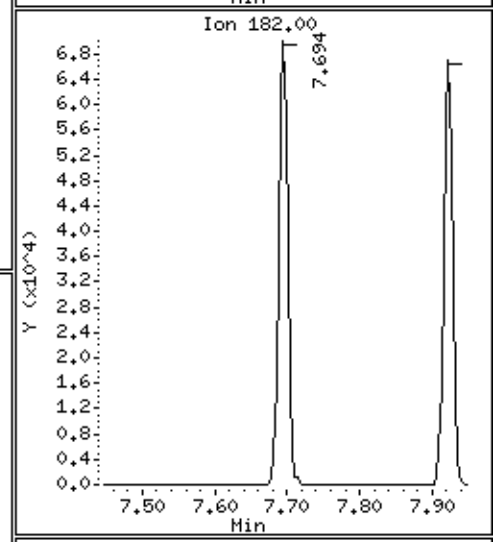


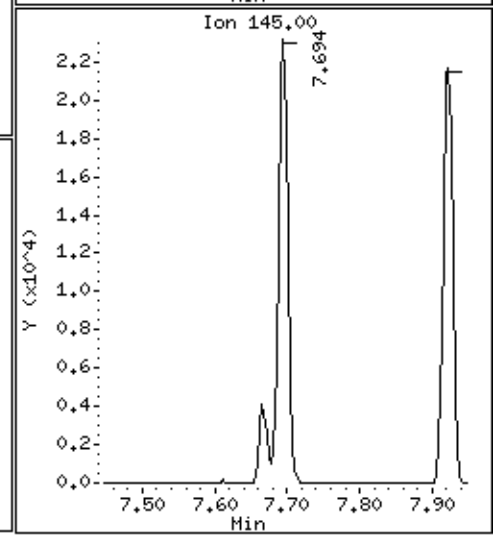












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

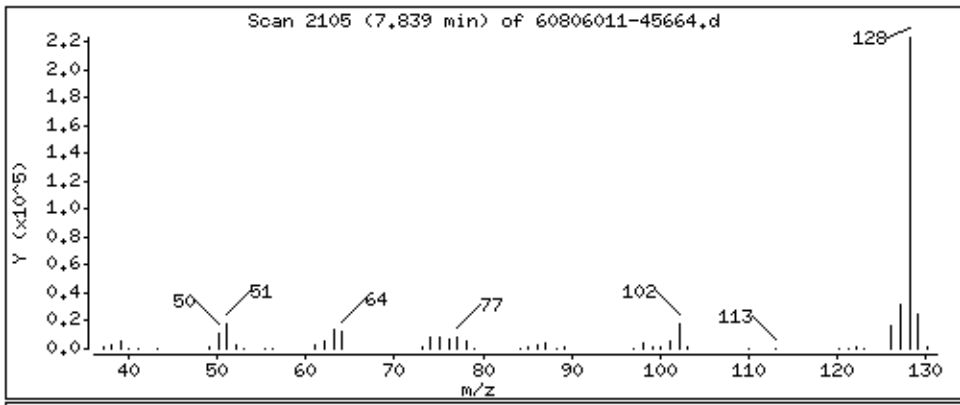
Operator: JEW

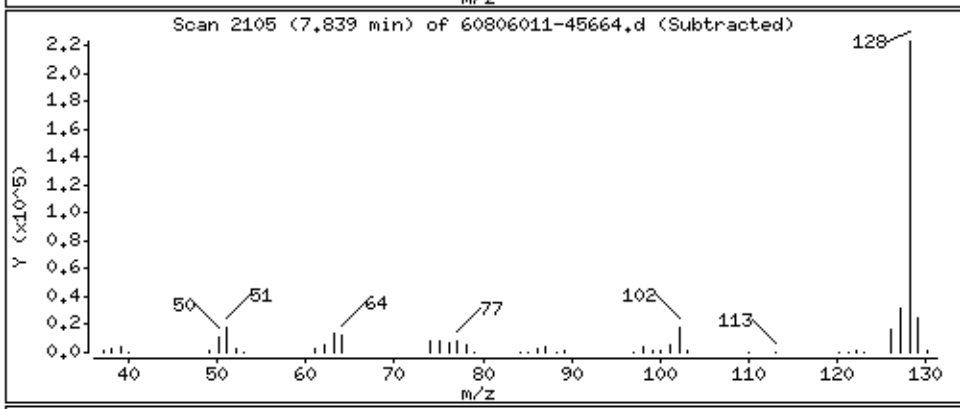
Column phase: RTX-VMS

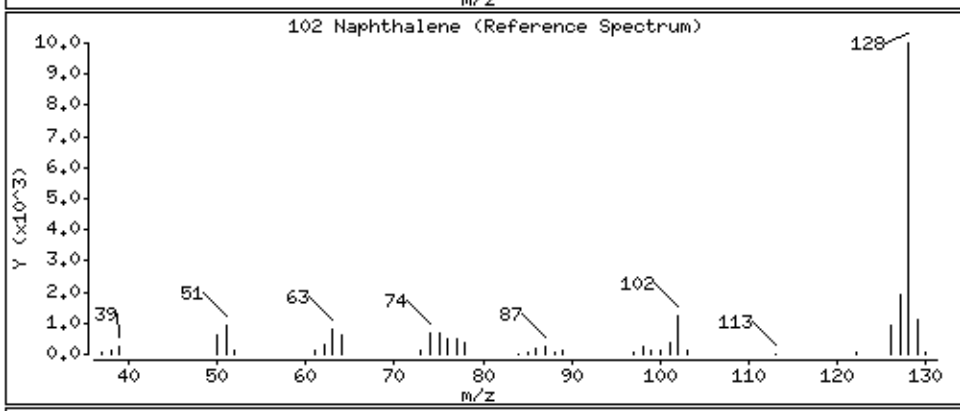
Column diameter: 0.18

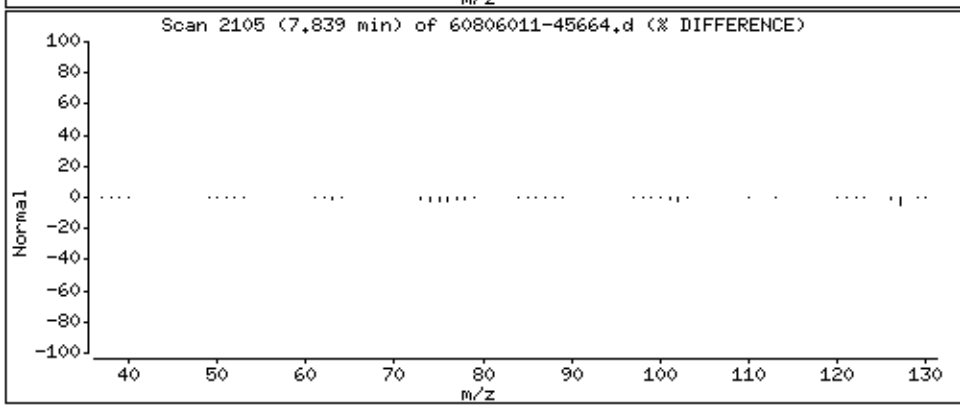
102 Naphthalene

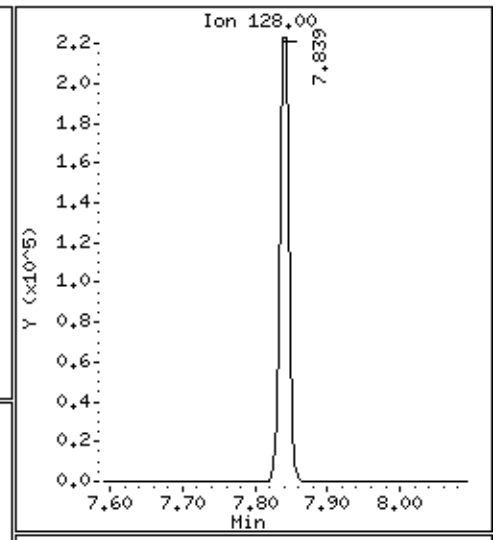
Concentration: 17.1 ug/kg

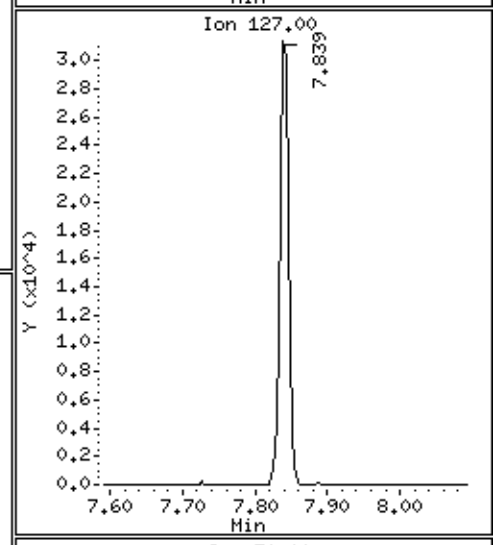


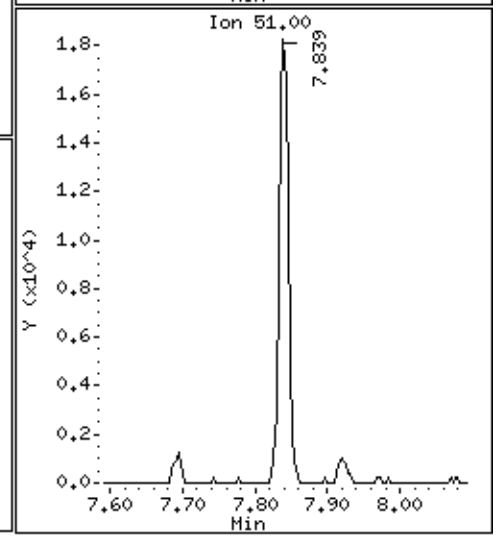












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Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

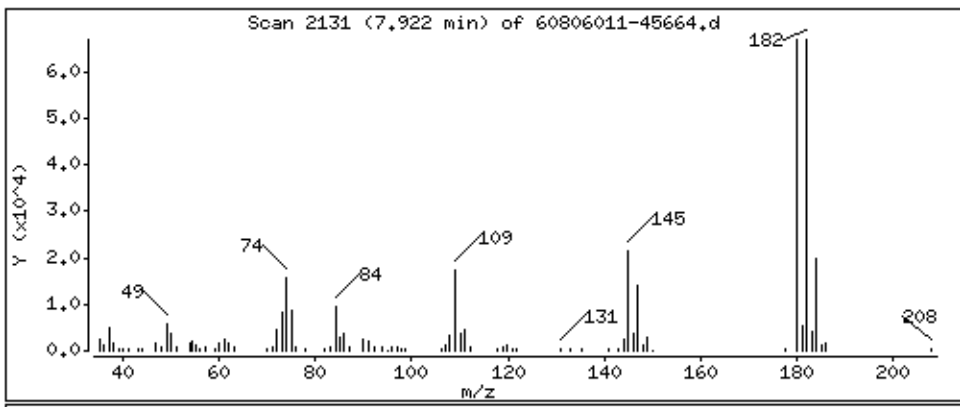
Operator: JEW

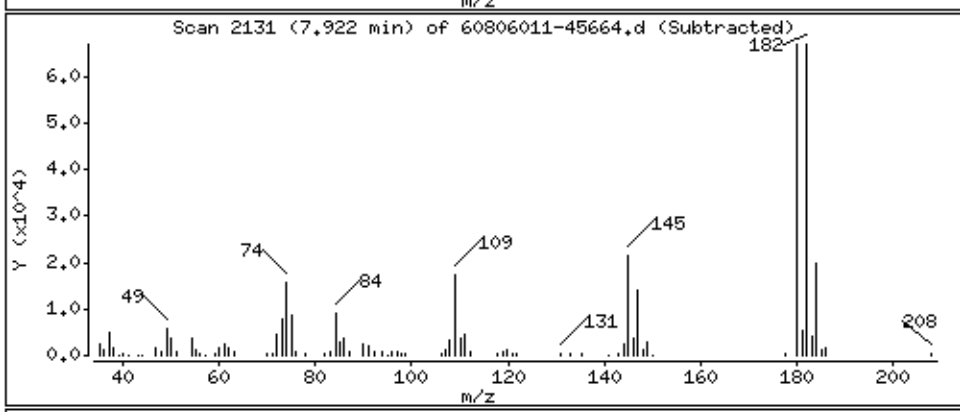
Column phase: RTX-VMS

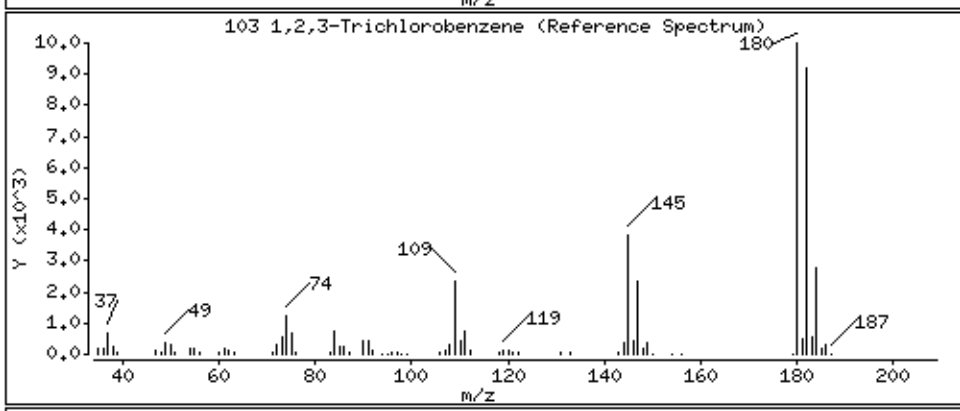
Column diameter: 0.18

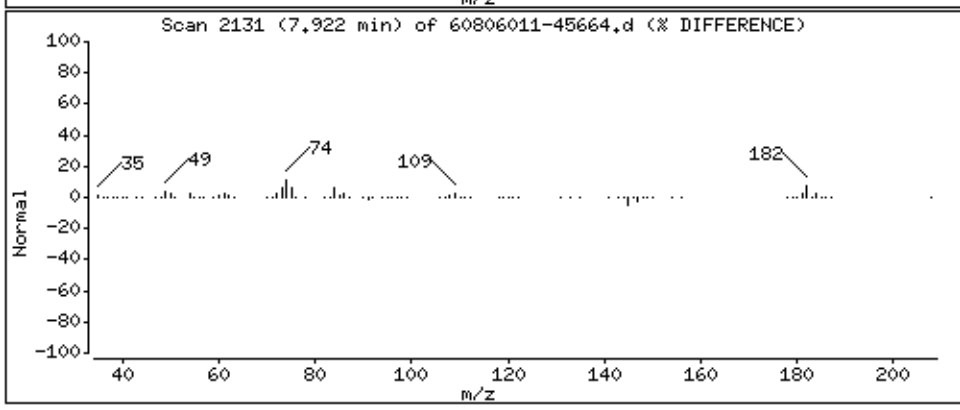
103 1,2,3-Trichlorobenzene

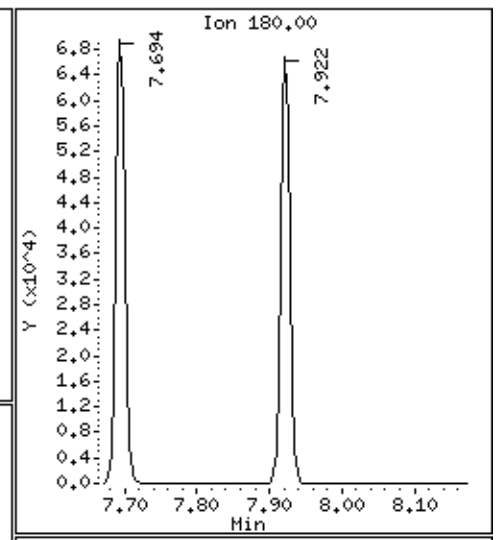
Concentration: 17.0 ug/kg

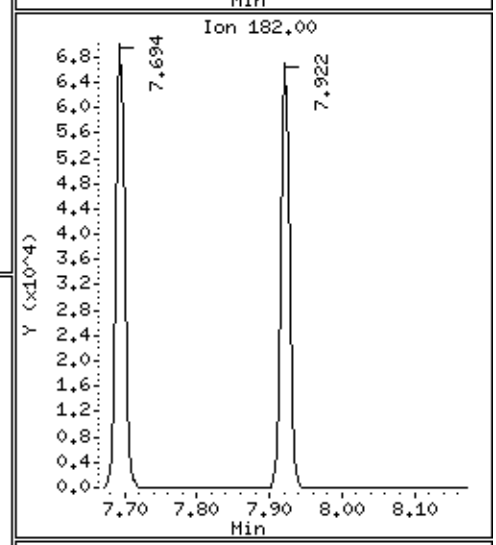


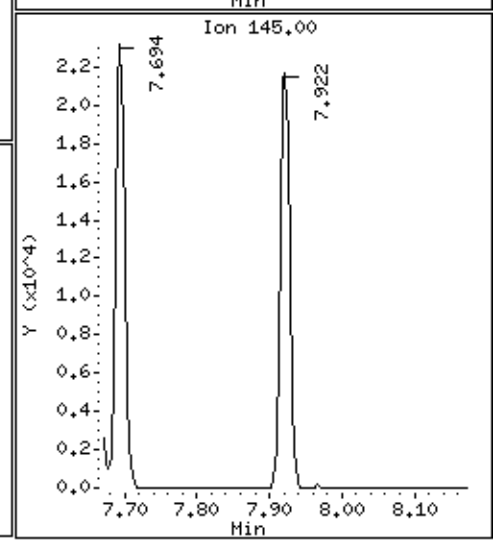












Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b\60806011-45664.d

Date : 06-AUG-2019 10:52

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1725736,95834:5,,

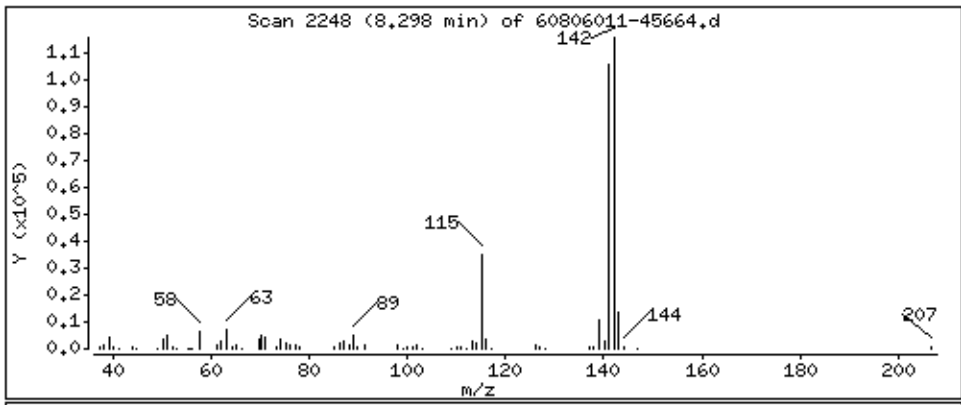
Operator: JEW

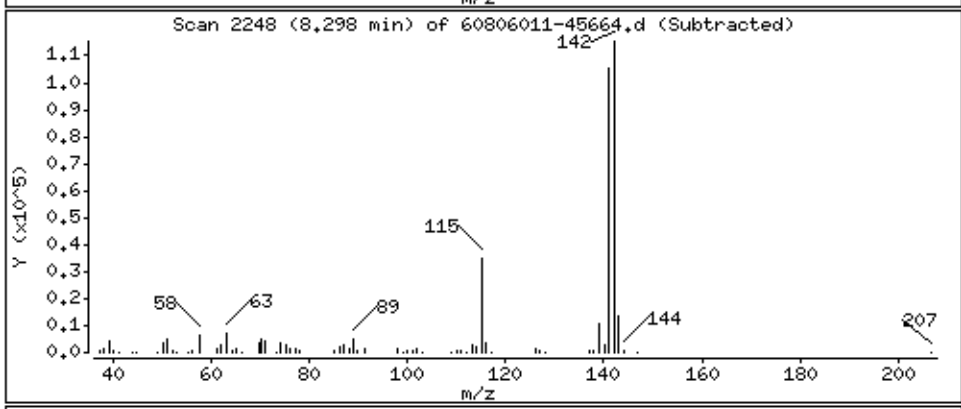
Column phase: RTX-VMS

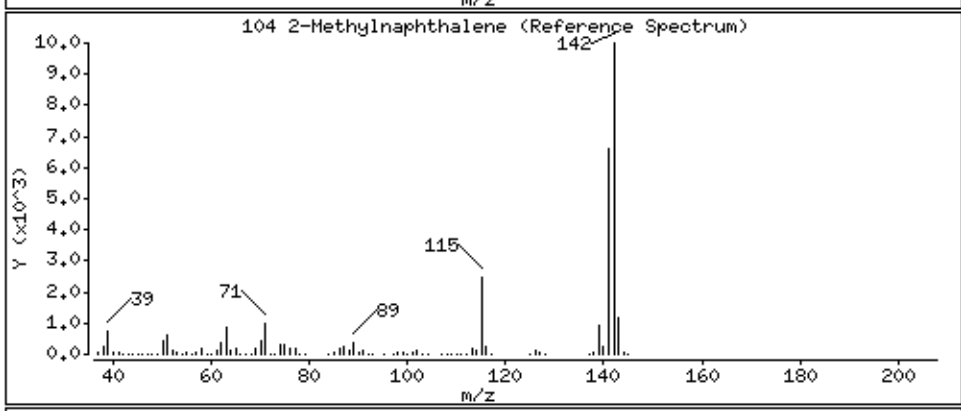
Column diameter: 0.18

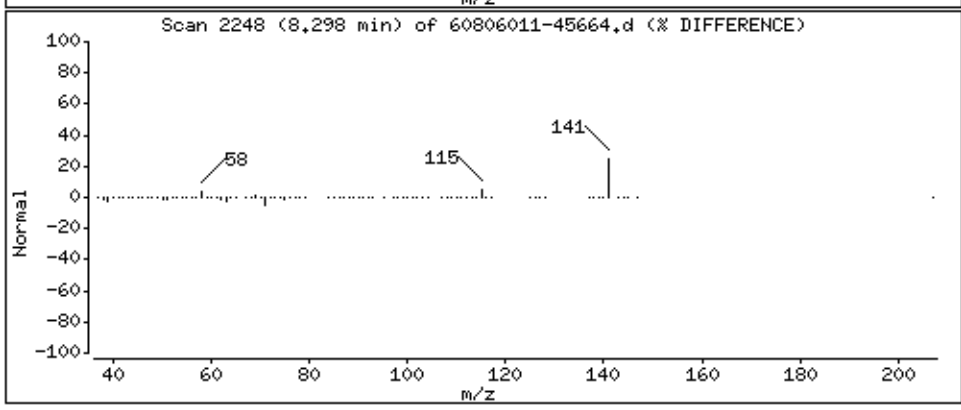
104 2-Methylnaphthalene

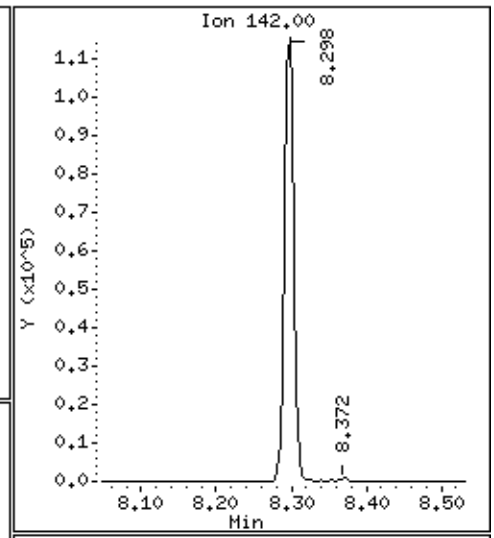
Concentration: 19.4 ug/kg

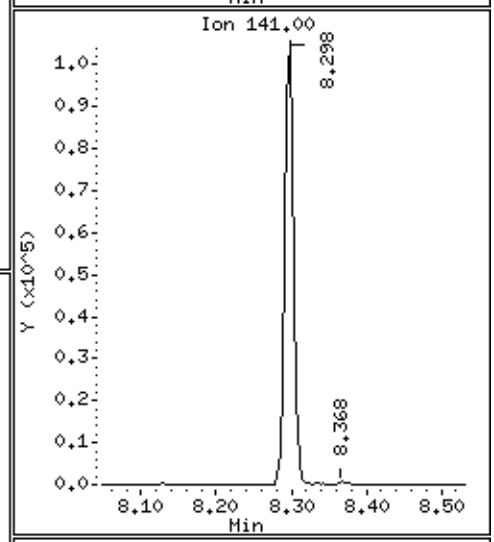


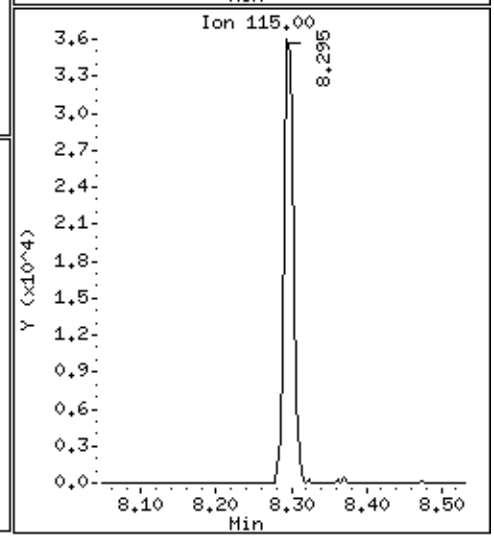






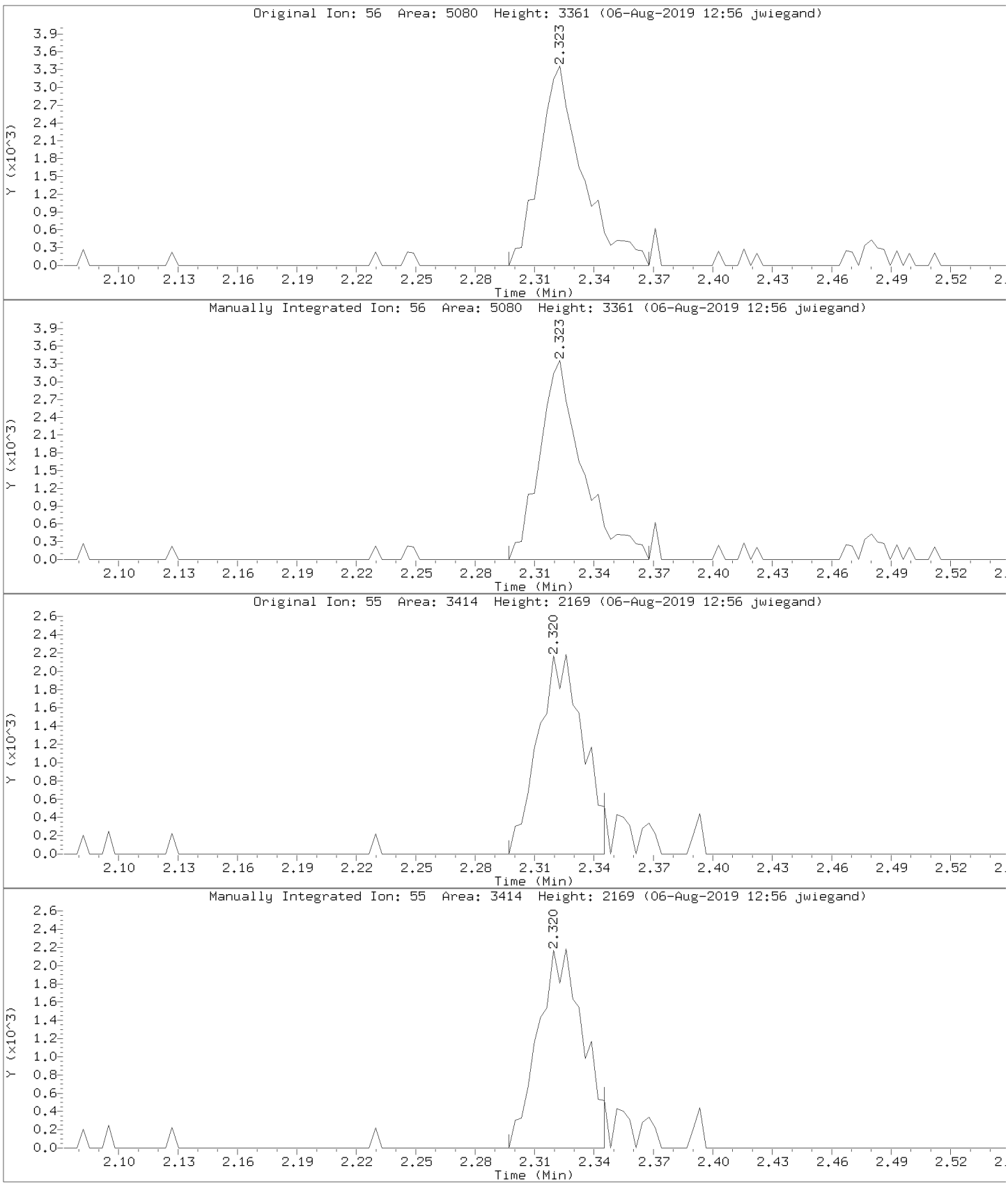






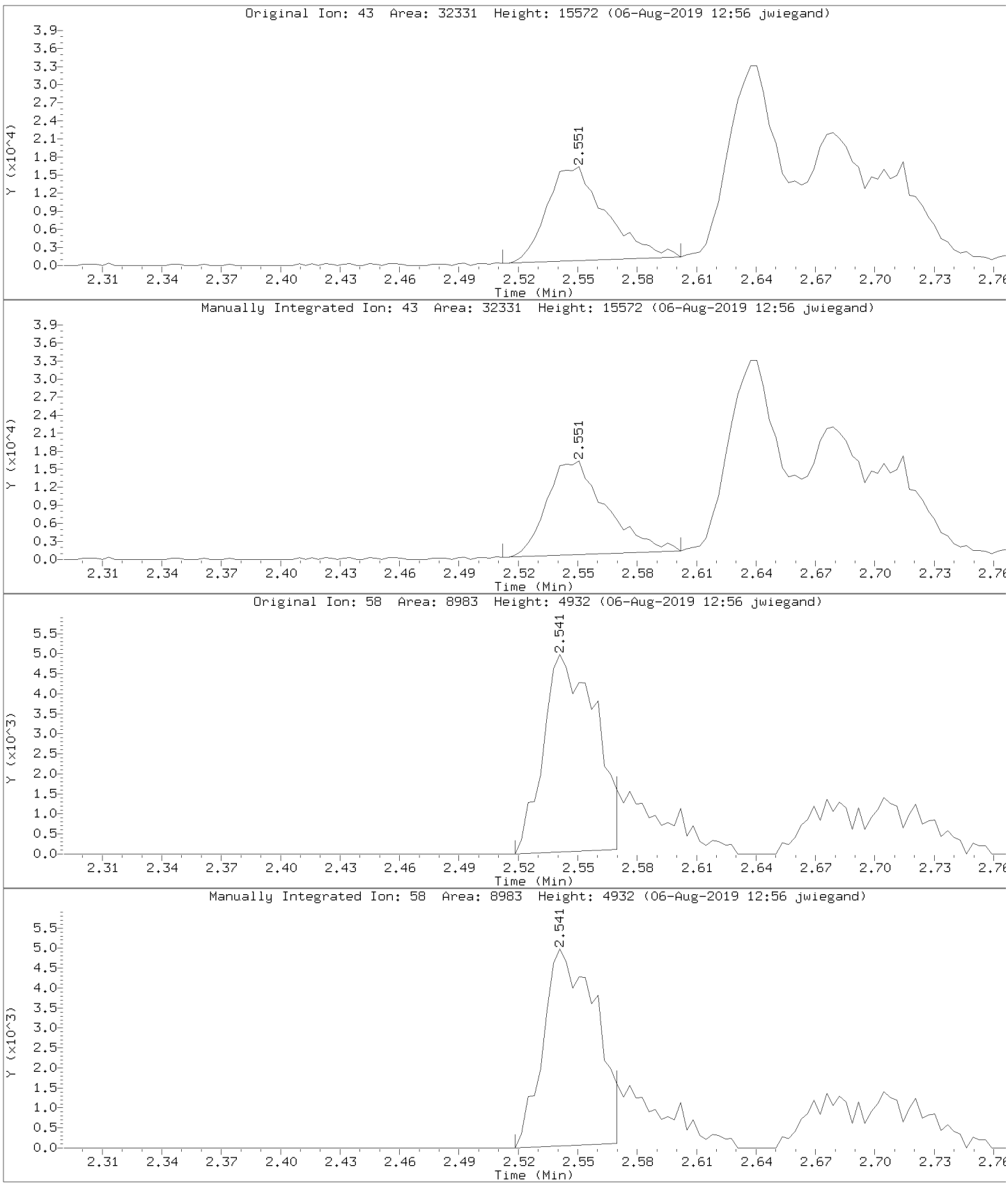
Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806011-45664.d
Injection Date: 06-AUG-2019 10:52
Instrument: 30mv6a.i
Lab Sample ID: 1725736

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



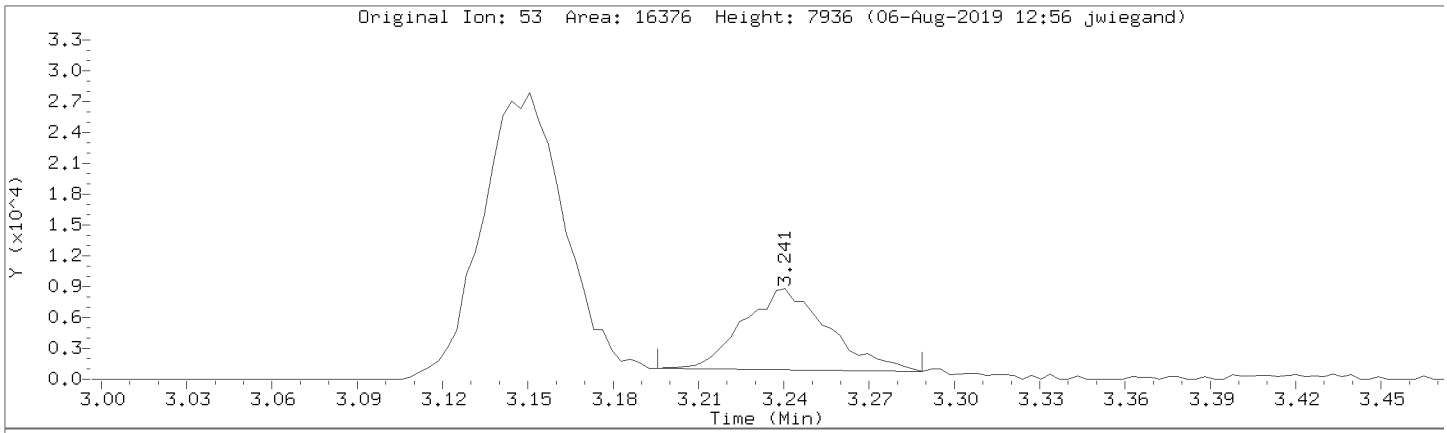
Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806011-45664.d
Injection Date: 06-AUG-2019 10:52
Instrument: 30mv6a.i
Lab Sample ID: 1725736

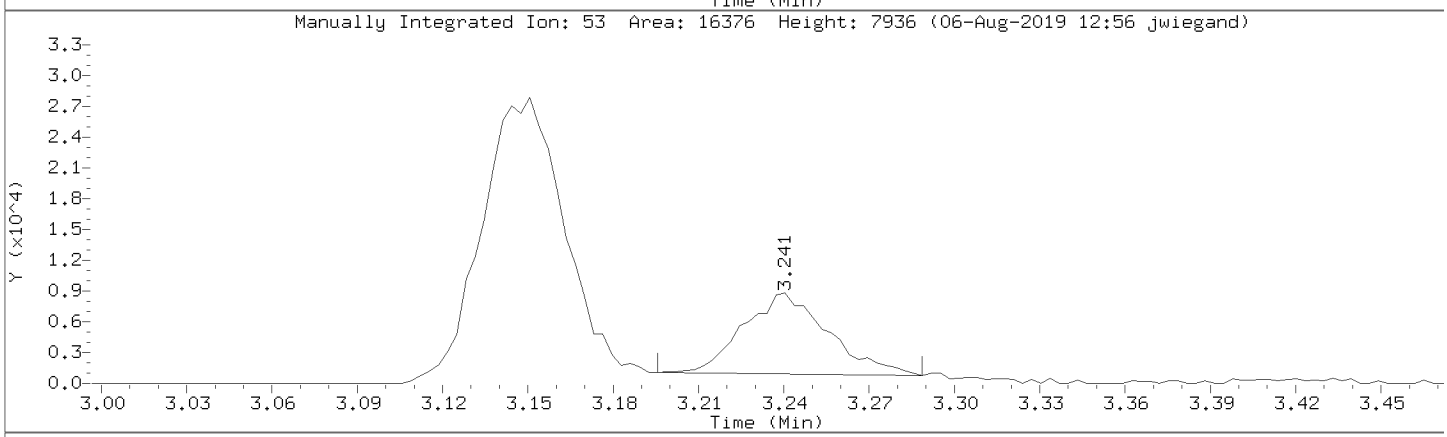
Compound: Acetone Review Code: LT
CAS Number: 67-64-1

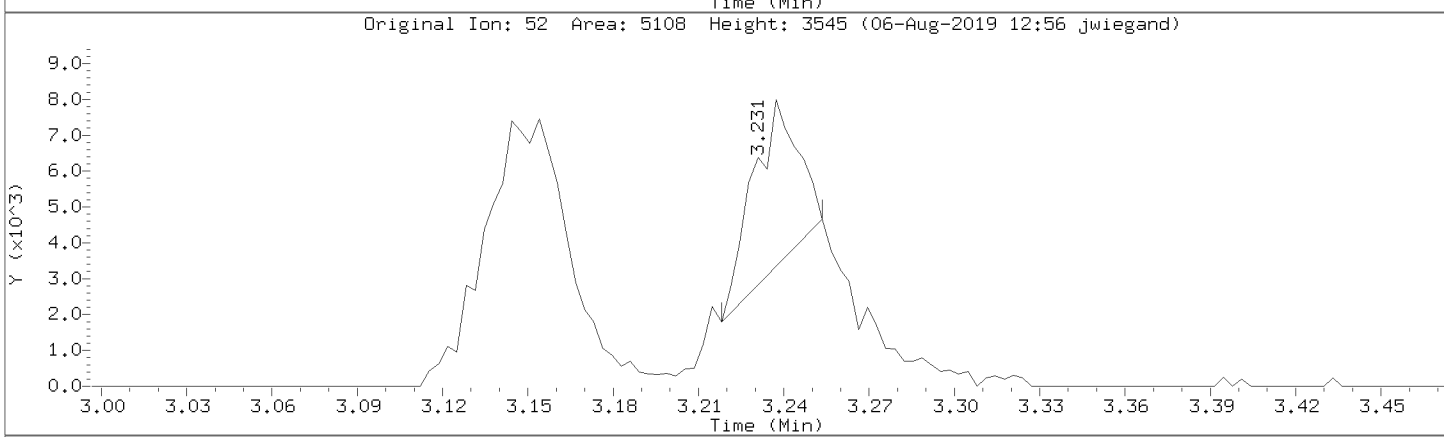


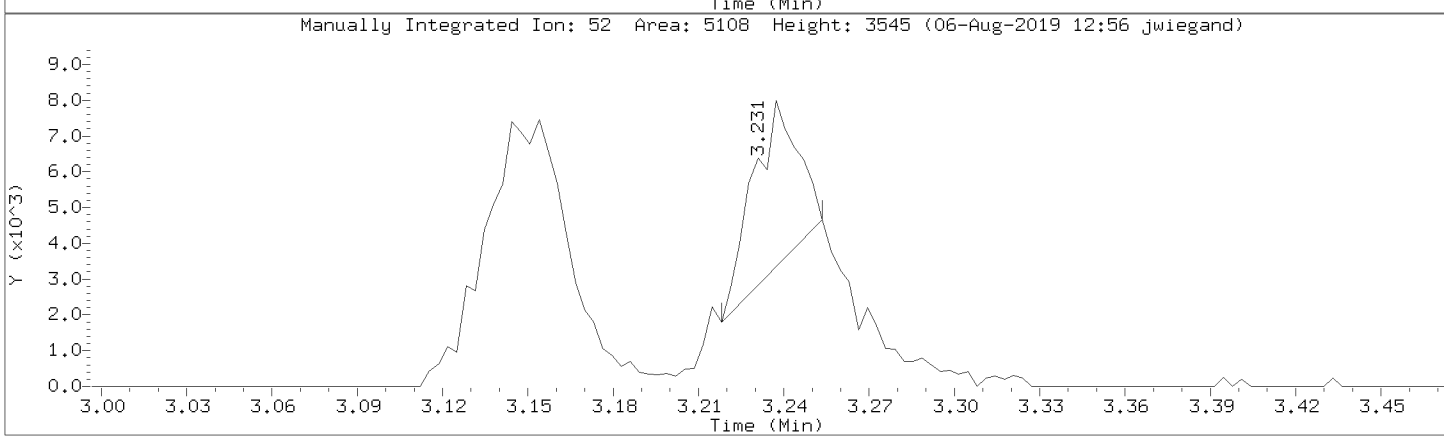
Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806011-45664.d
Injection Date: 06-AUG-2019 10:52
Instrument: 30mv6a.i
Lab Sample ID: 1725736

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



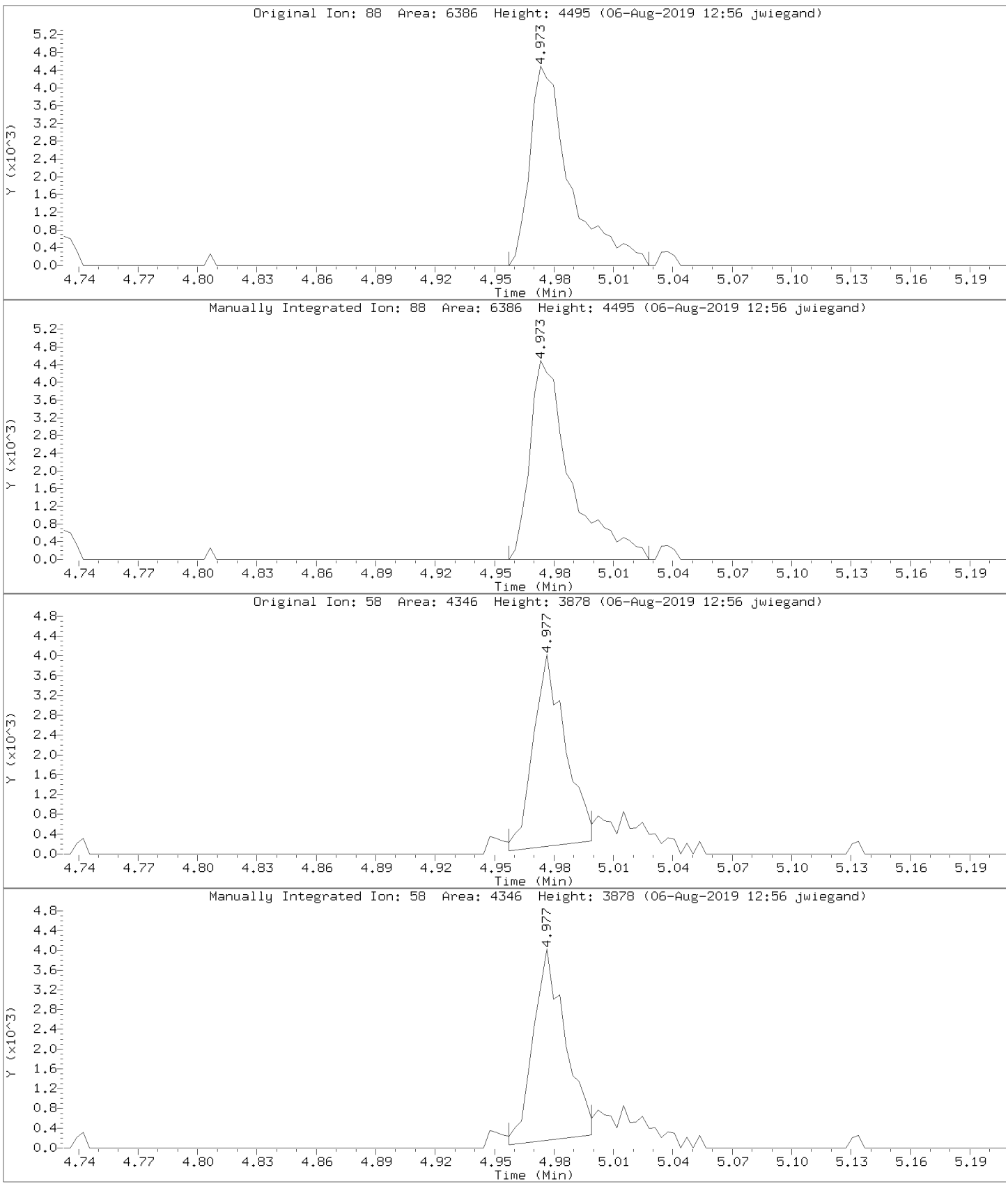




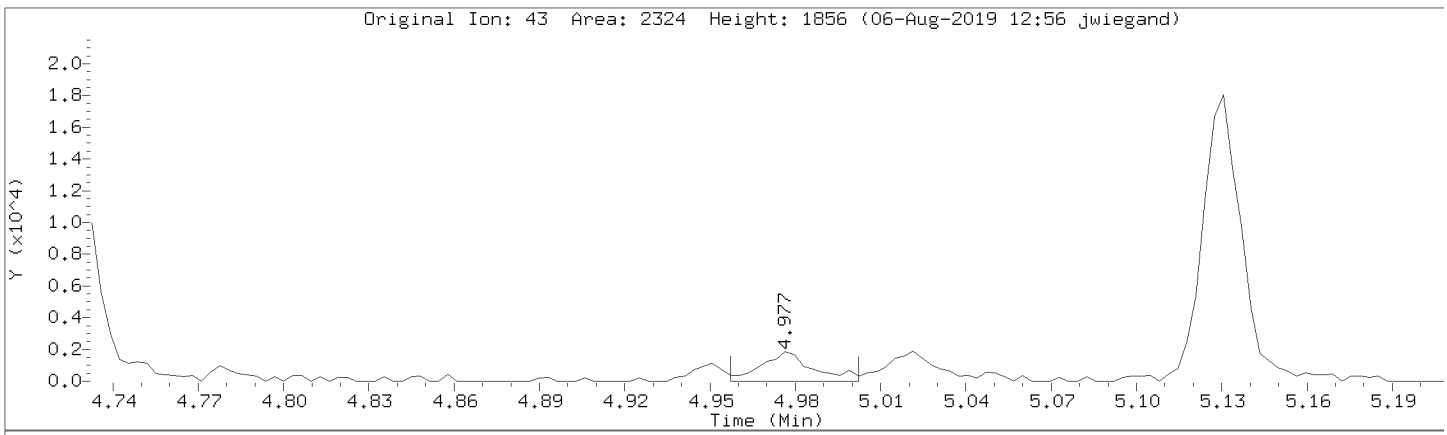


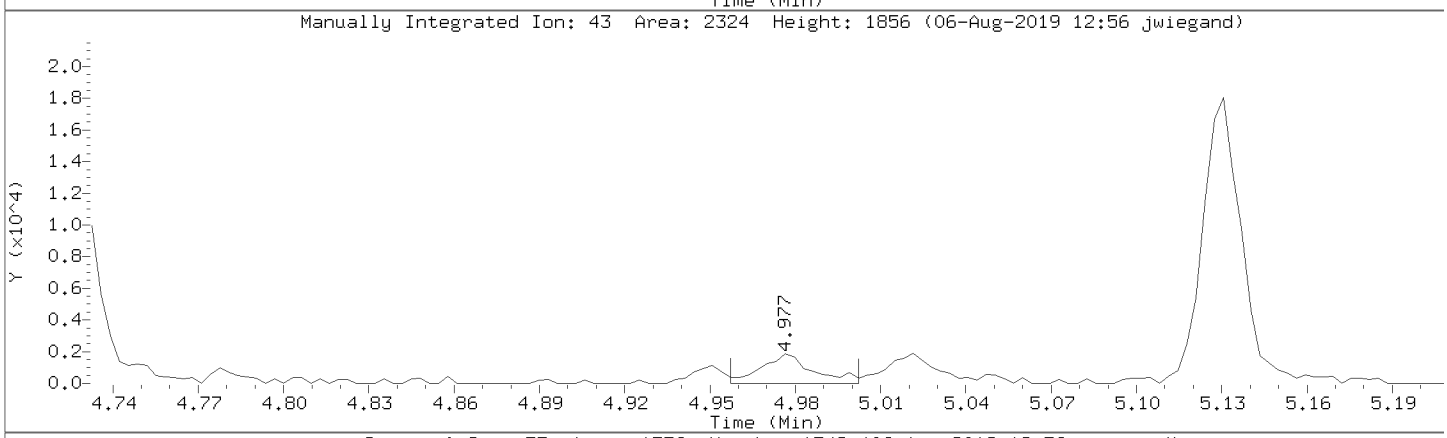
Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806011-45664.d
Injection Date: 06-AUG-2019 10:52
Instrument: 30mv6a.i
Lab Sample ID: 1725736

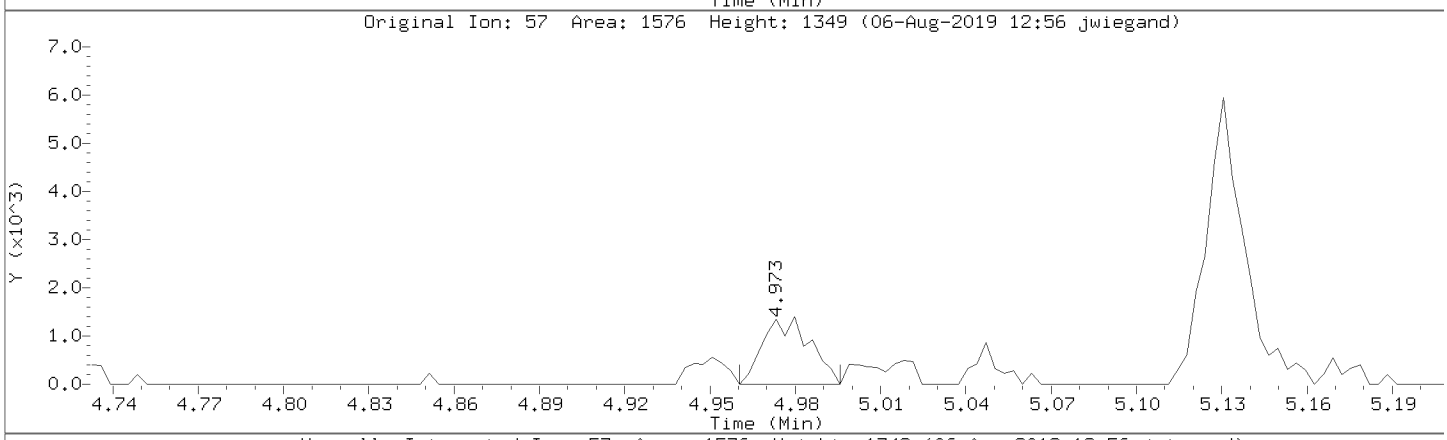
Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

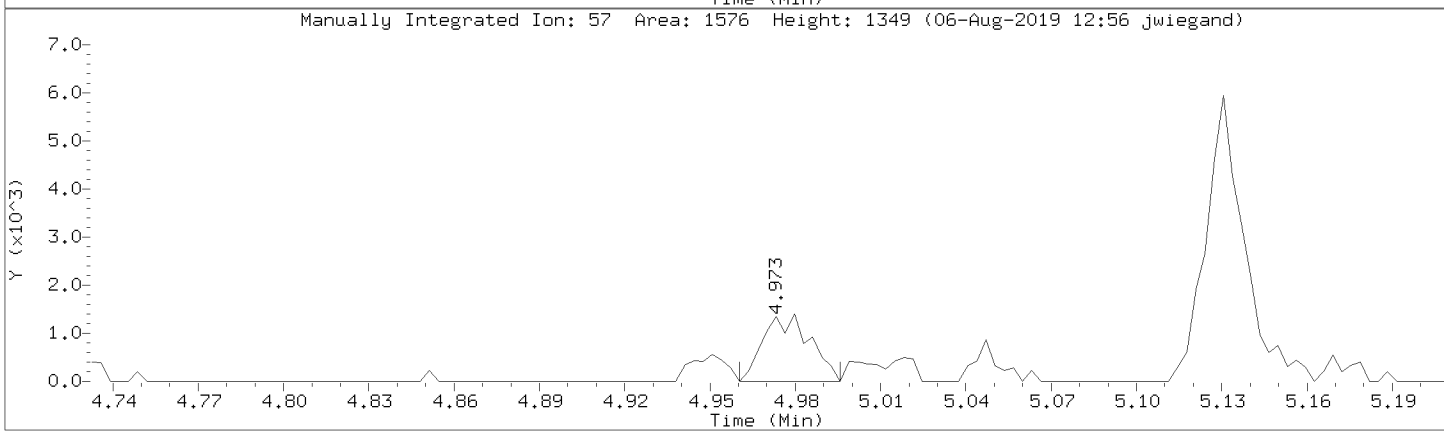


Data File: \\30wintarget\chem\30mv6a.i\6190806.b\1.b/60806011-45664.d
Injection Date: 06-AUG-2019 10:52
Instrument: 30mv6a.i
Lab Sample ID: 1725736









Prep Log Report

Batch Information: msv45662

Template Version: F-PA-O-002-Rev.00 (14Nov2015)

Prep Method	EPA 5035A	Extracted By	JEW	Extracted Date/Time	08/06/2019 11:08:40:484	Instrument	30BA15
Label Weight (g)	0.18	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	# of Labels	Total Weight (g)	Tare Weight (g)	Vial ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8260-SPK (mL)
8260CS_P	BLANK	**1725735**	1				5	5		
8260CS_P	LCS	**1725736**	1				5	5		95855 (5)
8260CS_P	PS	**30317042001**	1	41.64	36.42		5.22	5		
8260CS_P	PS	**30317042003**	1	39.35	35.93		3.42	5		
8260CS_P	PS	**30317042004**	1	42.36	36.7		5.66	5		
8260CS_P	PS	**30317042005**	1	42.64	36.65		5.99	5		
8260CS_P	PS	**30317042006**	1	40.36	36.06		4.3	5		
8260CS_P	PS	**30317042008**	1	41	36.35		4.65	5		
8260CS_P	PS	**30317042010**	1	41.31	36.37		4.94	5		
8260CS_P	PS	**30317042011**	1	41.15	36.64		4.51	5		
8260CS_P	PS	**30317042012**	1	42.45	36.66		5.79	5		
8260CS_P	PS	**30317042013**	1	42.05	36.14		5.91	5		
8260CS_P	PS	**30317042014**	1	41.01	36.22		4.79	5		
8260CS_P	PS	**30317042015**	1	42.94	36.47		6.47	5		
8260CS_P	PS	**30317042016**	1	39.51	36.36		3.15	5		
8260CS_P	PS	**30317212001**	1				4.65	5		
8260CS_P	PS	**30317212002**	1				5	5		

Standard Notes:

95855: MSV water LCS

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [S]:
ISTD lot: 93190:10 Surr. lot:
Tune std: 1 Cal. std: See curve

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60722001.d	blk	S/	SAMPLE	1	< 2	msv6072219a	7/22/19	07:07	JEW	
1/60722003.d	blk	S/	SAMPLE	1	< 2	msv6072219a	7/22/19	07:33	JEW	
1/60722005.d	TUNE, 93190:10	S/45446	SAMPLE	1	7	msv6072219a	7/22/19	07:59	JEW	
1/60722007.d	TUNE, 93190:10	S/45446	SAMPLE	1	< 2	msv6072219a	7/22/19	09:06	JEW	
1/60722009.d	TUNE, 93190:10	S/45446	SAMPLE	1	7	msv6072219a	7/22/19	09:42	JEW	
1/60722011.d	TUNE, 93190:10	S/45446	SAMPLE	1	< 2	msv6072219a	7/22/19	10:38	JEW	
1/60722013.d	TUNE, 93190:10	S/45446	BFB	1	7	bfb390	7/22/19	11:16	JEW	
1/60722015.d	CAL1, 94250:1	S/45446	CALIB_1	1	< 2	msv6072219a	7/22/19	11:47	JEW	
1/60722017.d	CAL2, 94251:1	S/45446	CALIB_2	1	< 2	msv6072219a	7/22/19	12:13	JEW	
1/60722019.d	CAL3, 94252:1	S/45446	CALIB_3	1	< 2	msv6072219a	7/22/19	12:39	JEW	
1/60722021.d	CAL4, 94253:1	S/45446	CALIB_4	1	< 2	msv6072219a	7/22/19	13:05	JEW	
1/60722023.d	CAL5, 94254:1	S/45446	CALIB_5	1	< 2	msv6072219a	7/22/19	13:31	JEW	
1/60722025.d	CAL6, 94255:1	S/45446	CALIB_6	1	< 2	msv6072219a	7/22/19	13:56	JEW	
1/60722027.d	CAL7, 94256:1	S/45446	CALIB_7	1	< 2	msv6072219a	7/22/19	14:22	JEW	
1/60722029.d	CAL8, 94257:1	S/45446	CALIB_8	1	< 2	msv6072219a	7/22/19	14:48	JEW	
1/60722031.d	blk	S/	SAMPLE	1	< 2	msv6072219a	7/22/19	15:14	JEW	
1/60722033.d	blk	S/	SAMPLE	1	< 2	msv6072219a	7/22/19	15:40	JEW	
1/60722035.d	ICV, 94258:1	S/45446	CCALIB_4	1	< 2	msv6072219a	7/22/19	16:06	JEW	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv6a.i\6190722.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:54 07/23/2019 Reviewed By/Date: QRD 7/23/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260
Misc. Prep Info [S]:
ISTD lot: 93190:10 Surr. lot:
Tune std: 1 Cal. std: 95832

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60806001.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/06/19	08:43	JEW	
1/60806003.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/06/19	09:09	JEW	
1/60806005.d	TUNE, 93190:10	S/45446	BFB	1	7	bfb390	8/06/19	09:35	JEW	
1/60806007.d	CCV, 95832:1	S/45446	CCALIB_5	1	< 2	msv6072219a	8/06/19	10:00	JEW	
1/60806009.d	LLCHECK,95833:1,	S/	SAMPLE	1	< 2	msv6072219a	8/06/19	10:26	JEW	
1/60806011-45664.d	1725736,95834:5,	S/45664	LCS	1	< 2	msv6072219a	8/06/19	10:52	JEW	
1/60806013.d	MBLKX50	S/	SAMPLE	1	< 2	msv6072219a	8/06/19	11:18	JEW	
1/60806015-45664.d	1725735	S/45664	BLANK	1	< 2	msv6072219a	8/06/19	11:44	JEW	
1/60806017.d	30317212001	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	12:09	JEW	
1/60806019.d	30317212002	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	12:35	JEW	
1/60806021.d	30317042001	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	13:01	JEW	rr
1/60806023.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/06/19	13:27	JEW	
1/60806025.d	30317042004	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	13:53	JEW	rr
1/60806027-45664.d	1725735	S/45664	BLANK	1	< 2	msv6072219a	8/06/19	14:19	JEW	
1/60806029.d	blk	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	14:44	JEW	
1/60806031.d	30317042008	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	15:10	JEW	rr
1/60806033.d	30317042010	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	15:36	JEW	
1/60806035.d	30317042011	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	16:02	JEW	
1/60806037.d	30317042012	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	16:28	JEW	
1/60806039.d	30317042013	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	16:54	JEW	
1/60806041.d	30317042014	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	17:20	JEW	
1/60806043.d	30317042015	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	17:45	JEW	
1/60806045.d	30317042016	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	18:11	JEW	
1/60806047.d	30317042003	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	18:37	JEW	
1/60806049.d	30317042005	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	19:03	JEW	
1/60806051.d	30317042006	S/45664	SAMPLE	1	< 2	msv6072219a	8/06/19	19:29	JEW	
1/60806053.d	30316626005x50	S/45672	SAMPLE	50	< 2	msv6072219a	8/06/19	19:55	JEW	
1/60806055.d	30316626006x50	S/45672	SAMPLE	50	< 2	msv6072219a	8/06/19	20:21	JEW	
1/60806057.d	30316626013x50	S/45672	SAMPLE	50	< 2	msv6072219a	8/06/19	20:46	JEW	
1/60806059.d	30317030001x50	S/45672	SAMPLE	50	< 2	msv6072219a	8/06/19	21:12	JEW	
1/60806061.d	30316124001x500	S/45672	SAMPLE	500	< 2	msv6072219a	8/06/19	21:38	JEW	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced
✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv6a.i\6190806.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:14 08/07/2019

Reviewed By/Date: ARGD 8/23/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil

Instrument ID: 30MSS1

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1723155	1723155BLANK	91	98	107	95	99	94
1723156	1723156LCS	98	97	99	93	93	95
30317212003	AOC27-3	81	83	89	81	86	92

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(10-160)
(2FBP) = 2-Fluorobiphenyl (S)	(52-102)
(2FPH) = 2-Fluorophenol (S)	(10-147)
(NIT5) = Nitrobenzene-d5 (S)	(45-103)
(PHD6) = Phenol-d6 (S)	(35-120)
(TD14) = Terphenyl-d14 (S)	(53-135)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1723156LCS
Date Extracted: 08/02/2019
Date Analyzed (1): 08/05/2019
Instrument: 30MSS1
LCS Lot No: 94719
Lab File ID: MSS1080519.B\M1080502.D
SDG No.: 30317212

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acenaphthene	3240	3110	96	68-121
Acenaphthylene	3240	3210	99	67-116
Anthracene	3240	3110	96	67-104
Azobenzene	3240	3050	94	58-119
Benzo(a)anthracene	3240	3250	100	75-115
Benzo(a)pyrene	3240	3050	94	72-108
Benzo(b)fluoranthene	3240	3280	101	72-119
Benzo(g,h,i)perylene	3240	3360	104	70-119
Benzo(k)fluoranthene	3240	3200	99	72-118
Benzoic acid	3240	2310J	71	10-112
Benzyl alcohol	3240	3240	100	45-132
4-Bromophenylphenyl ether	3240	3170	98	74-110
Butylbenzylphthalate	3240	3630	112	73-122
Carbazole	3240	3190	98	56-130
4-Chloro-3-methylphenol	3240	3310	102	52-105
4-Chloroaniline	3240	3080	95	20-87
bis(2-Chloroethoxy)methane	3240	3010	93	46-96
bis(2-Chloroethyl) ether	3240	2840	88	53-110
bis(2-Chloroisopropyl) ether	3240	2910	90	51-121
2-Chloronaphthalene	3240	3100	95	69-109
2-Chlorophenol	3240	2960	91	72-106
4-Chlorophenylphenyl ether	3240	3180	98	72-112
Chrysene	3240	3050	94	74-115
Dibenz(a,h)anthracene	3240	3400	105	69-125
Dibenzofuran	3240	3210	99	72-110
1,2-Dichlorobenzene	3240	2680	83	69-103
1,3-Dichlorobenzene	3240	2720	84	67-104
1,4-Dichlorobenzene	3240	2450	76	63-101
3,3'-Dichlorobenzidine	3240	2850	88	48-108
2,4-Dichlorophenol	3240	3140	97	51-100
Diethylphthalate	3240	3380	104	73-115
2,4-Dimethylphenol	3240	3120	96	38-86
Dimethylphthalate	3240	3320	102	69-114
Di-n-butylphthalate	3240	3480	107	77-114
4,6-Dinitro-2-methylphenol	3240	3670	113	61-146
2,4-Dinitrophenol	3240	3050	94	14-147
2,4-Dinitrotoluene	3240	3540	109	73-117
2,6-Dinitrotoluene	3240	3260	101	68-117
Di-n-octylphthalate	3240	3850	119	70-121
bis(2-Ethylhexyl)phthalate	3240	3500	108	72-122
Fluoranthene	3240	3280	101	76-116
Fluorene	3240	3180	98	70-117
Hexachloro-1,3-butadiene	3240	2890	89	45-105
Hexachlorobenzene	3240	3170	98	75-110
Hexachlorocyclopentadiene	3240	2910	90	37-100
Hexachloroethane	3240	2750	85	58-108
Indeno(1,2,3-cd)pyrene	3240	3300	102	71-122

MSSV FULL SCAN - FORM III SVOA-2
SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1723156LCS
Date Extracted: 08/02/2019
Date Analyzed (1): 08/05/2019
Instrument: 30MSS1
LCS Lot No: 94719
Lab File ID: MSS1080519.B\M1080502.D
SDG No.: 30317212

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Isophorone	3240	3200	99	47-89
1-Methylnaphthalene	3240	3040	94	54-86
2-Methylnaphthalene	3240	3090	95	48-94
2-Methylphenol(o-Cresol)	3240	3010	93	60-118
3&4-Methylphenol(m&p Cresol)	6490	6230	96	61-117
Naphthalene	3240	2980	92	50-95
2-Nitroaniline	3240	3490	108	69-126
3-Nitroaniline	3240	3570	110	56-147
4-Nitroaniline	3240	3890	120	54-175
Nitrobenzene	3240	3050	94	48-96
2-Nitrophenol	3240	3120	96	52-96
4-Nitrophenol	3240	3470	107	57-143
N-Nitrosodimethylamine	3240	3400	105	56-102
N-Nitroso-di-n-propylamine	3240	3080	95	56-102
N-Nitrosodiphenylamine	3240	3190	98	83-96
Pentachlorophenol	3240	3790	117	52-162
Phenanthrene	3240	3300	102	72-122
Phenol	3240	3320	102	62-120
Pyrene	3240	3330	103	72-121
1,2,4-Trichlorobenzene	3240	2890	89	54-92
2,4,5-Trichlorophenol	3240	3130	97	66-112
2,4,6-Trichlorophenol	3240	3560	110	62-135

Spike Recovery: 7 out of 69 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh | Matrix Spike - Sample No: 1723157MS

Date Extracted: 08/02/2019 | Date Analyzed (1): 08/05/2019

Instrument: 30MSS1 | Lab File ID: MSS1080519.B\M1080506.D

Parent Sample ID: 30317136012 | SDG No.: 30317212

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,2,4-Trichlorobenzene	3880	ND	2770	84	51-90
1,2-Dichlorobenzene	3880	ND	2570	78	65-100
1,3-Dichlorobenzene	3880	ND	2620	79	63-100
1,4-Dichlorobenzene	3880	ND	2360	72	61-99
1-Methylnaphthalene	3880	ND	2910	88	50-89
2,4,5-Trichlorophenol	3880	ND	3080	93	10-143
2,4,6-Trichlorophenol	3880	ND	3070	93	10-166
2,4-Dichlorophenol	3880	ND	2850	86	33-101
2,4-Dimethylphenol	3880	ND	2530	77	28-80
2,4-Dinitrophenol	3880	ND	2860	87	10-131
2,4-Dinitrotoluene	3880	ND	3290	100	43-120
2,6-Dinitrotoluene	3880	ND	3070	93	47-116
2-Chloronaphthalene	3880	ND	2940	89	53-110
2-Chlorophenol	3880	ND	2800	85	44-118
2-Methylnaphthalene	3880	ND	2930	89	44-91
2-Methylphenol(o-Cresol)	3880	ND	2800	85	37-142
2-Nitroaniline	3880	ND	3190	97	52-121
2-Nitrophenol	3880	ND	2980	90	10-128
3&4-Methylphenol(m&p Cresol)	7760	ND	5660	86	36-135
3,3'-Dichlorobenzidine	3880	ND	2590	79	10-134
3-Nitroaniline	3880	ND	3180	97	45-126
4,6-Dinitro-2-methylphenol	3880	ND	3360	102	10-155
4-Bromophenylphenyl ether	3880	ND	2980	90	69-106
4-Chloro-3-methylphenol	3880	ND	2950	89	47-100
4-Chloroaniline	3880	ND	2580	78	18-77
4-Chlorophenylphenyl ether	3880	ND	3010	91	63-108
4-Nitroaniline	3880	ND	3500	106	27-175
4-Nitrophenol	3880	ND	3560	108	10-159
Acenaphthene	3880	ND	2950	89	59-114
Acenaphthylene	3880	ND	3030	92	56-112
Anthracene	3880	ND	2950	90	52-105
Azobenzene	3880	ND	3060	93	47-116
Benzo(a)anthracene	3880	ND	3090	94	55-120
Benzo(a)pyrene	3880	ND	2810	85	50-112
Benzo(b)fluoranthene	3880	ND	3280	99	40-140
Benzo(g,h,i)perylene	3880	ND	3070	93	10-137
Benzo(k)fluoranthene	3880	ND	2920	88	32-150
Benzoic acid	3880	ND	2630J	79	10-129
Benzyl alcohol	3880	ND	2890	88	10-156
Butylbenzylphthalate	3880	ND	3420	104	65-122
Carbazole	3880	ND	2980	91	65-121
Chrysene	3880	ND	3030	92	53-120
Di-n-butylphthalate	3880	ND	3290	100	68-112
Di-n-octylphthalate	3880	ND	3670	111	57-135
Dibenz(a,h)anthracene	3880	ND	3070	93	10-143
Dibenzofuran	3880	ND	3010	91	67-106
Diethylphthalate	3880	ND	3140	95	64-112

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1723157MS
Date Extracted: 08/02/2019
Date Analyzed (1): 08/05/2019
Instrument: 30MSS1
Lab File ID: MSS1080519.B\M1080506.D
Parent Sample ID: 30317136012
SDG No.: 30317212

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Dimethylphthalate	3880	ND	3070	93	55-115
Fluoranthene	3880	ND	3140	95	48-128
Fluorene	3880	ND	2990	91	62-115
Hexachloro-1,3-butadiene	3880	ND	2770	84	37-107
Hexachlorobenzene	3880	ND	3000	91	63-112
Hexachlorocyclopentadiene	3880	ND	2720	82	10-98
Hexachloroethane	3880	ND	2650	80	40-112
Indeno(1,2,3-cd)pyrene	3880	ND	3090	94	10-139
Isophorone	3880	ND	3020	92	44-87
N-Nitroso-di-n-propylamine	3880	ND	2960	90	45-123
N-Nitrosodimethylamine	3880	ND	3140	95	47-102
N-Nitrosodiphenylamine	3880	ND	2660	81	64-86
Naphthalene	3880	ND	2890	88	41-101
Nitrobenzene	3880	ND	2860	87	41-97
Pentachlorophenol	3880	ND	3340	101	10-175
Phenanthrene	3880	ND	3080	93	51-117
Phenol	3880	ND	3030	92	42-125
Pyrene	3880	ND	3100	94	43-138
bis(2-Chloroethoxy)methane	3880	ND	2870	87	44-91
bis(2-Chloroethyl) ether	3880	ND	2730	83	44-107
bis(2-Chloroisopropyl) ether	3880	ND	2830	86	48-115
bis(2-Ethylhexyl)phthalate	3880	ND	3350	101	61-123

Spike Recovery: 2 out of 69 outside limits.

MSSV FULL SCAN - FORM III SVOA-3

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1723158MSD

Lab File ID (2): MSS1080519.B\M1080507.D Date Analyzed (2): 08/05/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,2,4-Trichlorobenzene	3810	2640	81	5	0-25	51-90
1,2-Dichlorobenzene	3810	2480	76	4	0-25	65-100
1,3-Dichlorobenzene	3810	2540	78	3	0-25	63-100
1,4-Dichlorobenzene	3810	2450	75	3	0-25	61-99
1-Methylnaphthalene	3810	2700	83	8	0-25	50-89
2,4,5-Trichlorophenol	3810	2940	91	5	0-25	10-143
2,4,6-Trichlorophenol	3810	2690	83	13	0-25	10-166
2,4-Dichlorophenol	3810	2670	82	7	0-25	33-101
2,4-Dimethylphenol	3810	2380	73	6	0-25	28-80
2,4-Dinitrophenol	3810	2230	69	25	0-25	10-131
2,4-Dinitrotoluene	3810	2990	92	9	0-25	43-120
2,6-Dinitrotoluene	3810	2820	87	8	0-25	47-116
2-Chloronaphthalene	3810	2750	85	7	0-25	53-110
2-Chlorophenol	3810	2610	80	7	0-25	44-118
2-Methylnaphthalene	3810	2760	85	6	0-25	44-91
2-Methylphenol(o-Cresol)	3810	2710	84	3	0-25	37-142
2-Nitroaniline	3810	2940	91	8	0-25	52-121
2-Nitrophenol	3810	2770	85	7	0-25	10-128
3&4-Methylphenol(m&p Cresol)	7640	5360	83	5	0-25	36-135
3,3'-Dichlorobenzidine	3810	2450	75	6	0-25	10-134
3-Nitroaniline	3810	2890	89	10	0-25	45-126
4,6-Dinitro-2-methylphenol	3810	2910	90	15	0-25	10-155
4-Bromophenylphenyl ether	3810	2780	86	7	0-25	69-106
4-Chloro-3-methylphenol	3810	2750	85	7	0-25	47-100
4-Chloroaniline	3810	2470	76	4	0-25	18-77
4-Chlorophenylphenyl ether	3810	2770	85	8	0-25	63-108
4-Nitroaniline	3810	3070	95	13	0-25	27-175
4-Nitrophenol	3810	3170	98	12	0-25	10-159
Acenaphthene	3810	2720	84	8	0-25	59-114
Acenaphthylene	3810	2780	86	9	0-25	56-112
Anthracene	3810	2770	85	6	0-25	52-105
Azobenzene	3810	2820	87	8	0-25	47-116
Benzo(a)anthracene	3810	2800	86	10	0-25	55-120
Benzo(a)pyrene	3810	2580	80	8	0-25	50-112
Benzo(b)fluoranthene	3810	2580	80	24	0-25	40-140
Benzo(g,h,i)perylene	3810	2730	84	12	0-25	10-137
Benzo(k)fluoranthene	3810	2980	92	2	0-25	32-150
Benzoic acid	3810	1970J	60		0-25	10-129
Benzyl alcohol	3810	2560	79	12	0-25	10-156
Butylbenzylphthalate	3810	3110	96	10	0-25	65-122
Carbazole	3810	2750	85	8	0-25	65-121
Chrysene	3810	2680	83	12	0-25	53-120
Di-n-butylphthalate	3810	3010	93	9	0-25	68-112
Di-n-octylphthalate	3810	3320	102	10	0-25	57-135
Dibenz(a,h)anthracene	3810	2790	86	10	0-25	10-143
Dibenzofuran	3810	2780	86	8	0-25	67-106
Diethylphthalate	3810	2880	89	9	0-25	64-112
Dimethylphthalate	3810	2830	87	8	0-25	55-115
Fluoranthene	3810	2870	88	9	0-25	48-128

MSSV FULL SCAN - FORM III SVOA-4

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS1 Matrix Spike Duplicate - Sample No: 1723158MSD

Lab File ID (2): MSS1080519.B\M1080507.D Date Analyzed (2): 08/05/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Fluorene	3810	2770	85	8	0-25	62-115
Hexachloro-1,3-butadiene	3810	2640	81	5	0-25	37-107
Hexachlorobenzene	3810	2820	87	6	0-25	63-112
Hexachlorocyclopentadiene	3810	2590	80	5	0-25	10-98
Hexachloroethane	3810	2650	82	0	0-25	40-112
Indeno(1,2,3-cd)pyrene	3810	2740	84	12	0-25	10-139
Isophorone	3810	2770	85	9	0-25	44-87
N-Nitroso-di-n-propylamine	3810	2780	86	6	0-25	45-123
N-Nitrosodimethylamine	3810	2930	90	7	0-25	47-102
N-Nitrosodiphenylamine	3810	2530	78	5	0-25	64-86
Naphthalene	3810	2710	83	6	0-25	41-101
Nitrobenzene	3810	2700	83	6	0-25	41-97
Pentachlorophenol	3810	2960	91	12	0-25	10-175
Phenanthrene	3810	2770	85	11	0-25	51-117
Phenol	3810	2860	88	6	0-25	42-125
Pyrene	3810	2800	86	10	0-25	43-138
bis(2-Chloroethoxy)methane	3810	2640	81	8	0-25	44-91
bis(2-Chloroethyl) ether	3810	2570	79	6	0-25	44-107
bis(2-Chloroisopropyl) ether	3810	2670	82	6	0-25	48-115
bis(2-Ethylhexyl)phthalate	3810	3020	92	10	0-25	61-123

RPD: 0 out of 68 outside limits.

Spike Recovery: 0 out of 69 outside limits.

SAMPLE NO.

1723155BLANK

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil

Instrument ID: 30MSS1 Matrix: Solid Lab Sample ID: 1723155

Lab File ID: MSS1080519.B\M1080501.D Date Analyzed: 08/05/2019 Time: 15:50

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1723156LCS	1723156	MSS1080519.B\M1080502.D	08/05/2019 16:13
AOC27-3	30317212003	MSS1080519.B\M1080518.D	08/05/2019 22:16

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil
Lab File ID: MSS1073019.B\M10730T1.D DFTPP Injection Date: 07/30/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 14:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	34.73	
68	Less than 2.00% of mass 69	0.40	(1.03)[1]
69	Mass 69 relative abundance	38.69	
70	Less than 2.00% of mass 69	0.35	(0.91)[1]
127	40.00 - 60.00% of mass 198	48.86	
197	Less than 1.00% of mass 198	0.15	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.56	
275	10.00 - 30.00% of mass 198	26.14	
365	Greater than 1.00% of mass 198	3.63	
441	Present, but less than mass 443	15.44	
442	Greater than 40.00% of mass 198	108.86	
443	17.00 - 23.00% of mass 442	20.87	(19.18)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11385917CAL7	11385917CAL7	MSS1073019.B\M10730Y1.D	07/30/2019	14:25
11385920CAL6	11385920CAL6	MSS1073019.B\M10730Y2.D	07/30/2019	14:48
11385913CAL5	11385913CAL5	MSS1073019.B\M10730Y3.D	07/30/2019	15:11
11385914CAL4	11385914CAL4	MSS1073019.B\M10730Y4.D	07/30/2019	15:33
11385924CAL3	11385924CAL3	MSS1073019.B\M10730Y5.D	07/30/2019	15:56
11385918CAL2	11385918CAL2	MSS1073019.B\M10730Y6.D	07/30/2019	16:19
11385916CAL1	11385916CAL1	MSS1073019.B\M10730Y7.D	07/30/2019	16:42
11385919ICV	11385919ICV	MSS1073019.B\M10730Y8.D	07/30/2019	17:05

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil
Lab File ID: MSS1080519.B\M10805T1.D DFTPP Injection Date: 08/05/2019
Instrument ID: 30MSS1 DFTPP Injection Time: 14:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	33.61	
68	Less than 2.00% of mass 69	0.06	(0.15)[1]
69	Mass 69 relative abundance	38.61	
70	Less than 2.00% of mass 69	0.17	(0.43)[1]
127	40.00 - 60.00% of mass 198	48.96	
197	Less than 1.00% of mass 198	0.10	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.57	
275	10.00 - 30.00% of mass 198	27.72	
365	Greater than 1.00% of mass 198	3.48	
441	Present, but less than mass 443	15.57	
442	Greater than 40.00% of mass 198	110.15	
443	17.00 - 23.00% of mass 442	21.24	(19.28)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11385975CCV	11385975CCV	MSS1080519.B\M10805S1.D	08/05/2019	15:04
1723155BLANK	1723155BLANK	MSS1080519.B\M1080501.D	08/05/2019	15:50
1723156LCS	1723156LCS	MSS1080519.B\M1080502.D	08/05/2019	16:13
AOC27-3	30317212003	MSS1080519.B\M1080518.D	08/05/2019	22:16

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil IRM/31401545.0

Sample ID : 11385975CCV Date Analyzed: 08/05/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 15:04

Lab File ID: MSS1080519.B\M10805S1.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		760679	6.099	1341275	10.25	315628	3.663	1342555	4.662
UPPER LIMIT		1521358	6.599	2682550	10.75	631256	4.163	2685110	5.162
LOWER LIMIT		380339.5	5.599	670637.5	9.75	157814	3.163	671277.5	4.162
LAB SAMPLE ID	SAMPLE NO.								
1723155	1723155BLANK	642348	6.093	1045925	10.244	272730	3.663	1174816	4.656
1723156	1723156LCS	752247	6.094	1274395	10.25	327224	3.658	1370372	4.657
30317212003	AOC27-3	703446	6.089	1078905	10.245	303309	3.653	1293747	4.652

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30317212 Contract: Former EPT-Soil IRM/31401545.0

Sample ID : 11385975CCV Date Analyzed: 08/05/2019

Instrument ID: 30MSS1 GC Column: Col 1 Time Analyzed: 15:04

Lab File ID: MSS1080519.B\M10805S1.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		1305915	7.466	1325204	11.59
UPPER LIMIT		2611830	7.966	2650408	12.09
LOWER LIMIT		652957.5	6.966	662602	11.09
LAB SAMPLE ID	SAMPLE NO.				
1723155	1723155BLANK	1063163	7.461	1137607	11.585
1723156	1723156LCS	1303062	7.467	1234778	11.591
30317212003	AOC27-3	1217781	7.456	1249506	11.591

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

AOC27-3

Lab Name: Pace Analytical - Pittsburgh | Contract: Former EPT-Soil IRM/31401545.0
Date Received: 08/01/2019 09:30 | Matrix: Solid | SDG No.: 30317212
Date Extracted: 08/02/2019 08:36 | Lab Sample ID: 30317212003
Date Analyzed: 08/05/2019 22:16 | Lab File ID: MSS1080519.B\M1080518.D
Initial wt/vol: 15.13 g | Final wt/vol: 5 mL | Dilution: 1 | Instrument: 30MSS1 | Percent Moisture: 4.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
83-32-9	Acenaphthene	ND	U
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
103-33-3	Azobenzene	ND	U
56-55-3	Benzo(a)anthracene	708	
50-32-8	Benzo(a)pyrene	645	
205-99-2	Benzo(b)fluoranthene	604	
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	644	
65-85-0	Benzoic acid	ND	U
100-51-6	Benzyl alcohol	ND	U
101-55-3	4-Bromophenylphenyl ether	ND	U
85-68-7	Butylbenzylphthalate	ND	U
86-74-8	Carbazole	ND	U
59-50-7	4-Chloro-3-methylphenol	ND	U
106-47-8	4-Chloroaniline	ND	U
111-91-1	bis(2-Chloroethoxy)methane	ND	U
111-44-4	bis(2-Chloroethyl) ether	ND	U
108-60-1	bis(2-Chloroisopropyl) ether	ND	U
91-58-7	2-Chloronaphthalene	ND	U
95-57-8	2-Chlorophenol	ND	U
7005-72-3	4-Chlorophenylphenyl ether	ND	U
218-01-9	Chrysene	751	
53-70-3	Dibenz(a,h)anthracene	ND	U
132-64-9	Dibenzofuran	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
91-94-1	3,3'-Dichlorobenzidine	ND	U
120-83-2	2,4-Dichlorophenol	ND	U
84-66-2	Diethylphthalate	ND	U
105-67-9	2,4-Dimethylphenol	ND	U
131-11-3	Dimethylphthalate	ND	U
84-74-2	Di-n-butylphthalate	ND	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	U
51-28-5	2,4-Dinitrophenol	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-2
SEMI-VOLATILE ORGANICS ANALYSIS DATA

AOC27-3

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM/31401545.0
Date Received: 08/01/2019 09:30
Matrix: Solid
SDG No.: 30317212
Date Extracted: 08/02/2019 08:36
Lab Sample ID: 30317212003
Date Analyzed: 08/05/2019 22:16
Lab File ID: MSS1080519.B\M1080518.D
Initial wt/vol: 15.13 g
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30MSS1
Percent Moisture: 4.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
606-20-2	2,6-Dinitrotoluene	ND	U
117-84-0	Di-n-octylphthalate	ND	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	U
206-44-0	Fluoranthene	1500	
86-73-7	Fluorene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
77-47-4	Hexachlorocyclopentadiene	ND	U
67-72-1	Hexachloroethane	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
78-59-1	Isophorone	ND	U
90-12-0	1-Methylnaphthalene	ND	U
91-57-6	2-Methylnaphthalene	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
91-20-3	Naphthalene	ND	U
88-74-4	2-Nitroaniline	ND	U
99-09-2	3-Nitroaniline	ND	U
100-01-6	4-Nitroaniline	ND	U
98-95-3	Nitrobenzene	ND	U
88-75-5	2-Nitrophenol	ND	U
100-02-7	4-Nitrophenol	ND	U
62-75-9	N-Nitrosodimethylamine	ND	U
621-64-7	N-Nitroso-di-n-propylamine	ND	U
86-30-6	N-Nitrosodiphenylamine	ND	U
87-86-5	Pentachlorophenol	ND	U
85-01-8	Phenanthrene	824	
108-95-2	Phenol	ND	U
129-00-0	Pyrene	1380	
120-82-1	1,2,4-Trichlorobenzene	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d
Lab Smp Id: 30317212003 Client Smp ID: AOC27-3
Inj Date : 05-AUG-2019 22:16
Operator : EAC Inst ID: 30mss1.i
Smp Info : 30317212003
Misc Info : 14918
Comment   :
Method   : \\30wintarget\chem\30mss1.i\mss1080519.b\8270073019.m
Meth Date : 06-Aug-2019 16:16 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.130	Weigth of sample extracted (g)
M	4.360	% Moisture
Cpnd Variable		Local Compound Variable

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/Kg)	REVIEW C
	1	N-Nitrosodimethylamine	74	Compound Not Detected.						(D)
	2	Pyridine	79	Compound Not Detected.						(D)
$	3	2-Fluorophenol (S)	112	2.792	2.759	(0.765)	596986	6.68383	2310	
$	4	Phenol-d6 (S)	99	3.422	3.422	(0.937)	747169	6.47333	2240	
	5	Benzaldehyde	77	3.348	3.347	(0.917)	1722	0.02161	7.47	
	6	Phenol	94	3.428	3.432	(0.939)	1744	0.01436	4.96	
	7	Aniline	66	Compound Not Detected.						(D)
	8	bis(2-Chloroethyl)ether	63	Compound Not Detected.						(D)
	9	2-Chlorophenol	128	3.529	3.529	(0.966)	569	0.00554	1.92	
	10	1,3-Dichlorobenzene	146	3.631	3.635	(0.994)	234	0.00208	0.717	
*	11	1,4-Dichlorobenzene-d4 (IS)	152	3.652	3.662	(1.000)	303309	4.00000		
	12	1,4-Dichlorobenzene	146	3.668	3.678	(1.004)	208	0.00170	0.589	
	13	Benzyl Alcohol	79	Compound Not Detected.						(D)
	14	1,2-Dichlorobenzene	146	3.802	3.817	(1.041)	238	0.00215	0.743	
	15	2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	16	bis(2-Chloroisopropyl)ether	45	Compound Not Detected.						(D)
	17	3&4-Methylphenol(m&p Cresol)	108	3.989	3.988	(1.092)	1224	0.01230	4.25	
	18	N-Nitroso-di-n-propylamine	70	Compound Not Detected.						(D)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	19 Acetophenone	105	Compound Not Detected.						(D)
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.096	4.106	(0.881)	204895	4.06521	1400	
	22 Nitrobenzene	77	Compound Not Detected.						(D)
	23 Isophorone	82	Compound Not Detected.						(D)
	24 2,4-Dimethylphenol	107	Compound Not Detected.						(D)
	25 2-Nitrophenol	139	Compound Not Detected.						(D)
	26 Benzoic acid	105	4.437	4.490	(0.954)	3114	0.05280	18.2(H)	WP
	27 bis(2-Chloroethoxy)methane	93	4.470	4.474	(0.961)	313	0.00262	0.905	
	28 2,4-Dichlorophenol	162	Compound Not Detected.						
	29 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.651	4.661	(1.000)	1293747	4.00000		
	31 Naphthalene	128	4.667	4.677	(1.003)	22232	0.07301	25.2	
	32 4-Chloroaniline	65	Compound Not Detected.						(D)
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	34 Caprolactam	55	Compound Not Detected.						(D)
	35 4-Chloro-3-methylphenol	107	Compound Not Detected.						(D)
	36 2-Methylnaphthalene	142	5.223	5.227	(1.123)	8181	0.03885	13.4	
	37 1-Methylnaphthalene	142	5.308	5.318	(1.141)	7645	0.03887	13.4(MH)	LT
	38 Hexachlorocyclopentadiene	237	Compound Not Detected.						
	39 1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.533	5.543	(0.909)	913236	4.16510	1440	
	43 Biphenyl (Diphenyl)	154	Compound Not Detected.						(D)
	44 2-Chloronaphthalene	164	Compound Not Detected.						(D)
	45 2-Nitroaniline	138	Compound Not Detected.						(D)
	46 Dimethylphthalate	163	Compound Not Detected.						
	47 2,6-Dinitrotoluene	165	Compound Not Detected.						(D)
	48 Acenaphthylene	152	Compound Not Detected.						(D)
	49 3-Nitroaniline	65	Compound Not Detected.						(D)
*	50 Acenaphthene-d10 (IS)	164	6.088	6.098	(1.000)	703446	4.00000		
	51 2,4-Dinitrophenol	184	Compound Not Detected.						(D)
	52 Acenaphthene	153	6.115	6.125	(1.004)	44400	0.23751	82.1	
	53 4-Nitrophenol	109	6.195	6.200	(1.018)	81	0.00343	1.18	
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						(D)
	55 Dibenzofuran	168	6.243	6.253	(1.025)	23987	0.09086	31.4	
	56 2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
	57 Diethylphthalate	149	6.468	6.477	(1.062)	1080	0.00547	1.89	
	58 4-Chlorophenylphenyl ether	204	Compound Not Detected.						
	59 Fluorene	166	6.526	6.536	(1.072)	35041	0.15948	55.1	
	60 4-Nitroaniline	108	Compound Not Detected.						(D)
	61 4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						(D)
	62 N-Nitrosodiphenylamine	169	6.628	6.638	(0.889)	1820	0.00943	3.26	
	63 Azobenzene	77	Compound Not Detected.						(D)
	64 1,2-Diphenylhydrazine	77	Compound Not Detected.						(D)
$	65 2,4,6-Tribromophenol (S)	330	6.756	6.766	(0.906)	256215	6.05857	2090	
	66 4-Bromophenylphenyl ether	248	Compound Not Detected.						(D)
	67 Hexachlorobenzene	284	Compound Not Detected.						
	68 Atrazine	200	Compound Not Detected.						
	69 Pentachlorophenol	266	Compound Not Detected.						
*	70 Phenanthrene-d10 (IS)	188	7.456	7.466	(1.000)	1217781	4.00000		
	71 Phenanthrene	178	7.483	7.492	(1.004)	808031	2.38589	824	
	72 Anthracene	178	7.525	7.541	(1.009)	123127	0.39514	136	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	73 Carbazole	167	7.702	7.712	(1.033)	84766	0.30200	104	
	74 Di-n-butylphthalate	149	8.145	8.155	(1.092)	13396	0.04222	14.6	
	75 Fluoranthene	202	8.754	8.759	(1.174)	1454223	4.33105	1500	
	76 Pyrene	202	8.984	8.994	(0.877)	1243214	3.99578	1380	
$	77 Terphenyl-d14 (S)	244	9.171	9.175	(0.895)	1189125	4.62040	1600	
	78 Butylbenzylphthalate	149	9.716	9.725	(0.948)	2814	0.02353	8.13	
	79 3,3'-Dichlorobenzidine	252	Compound Not Detected.						(D)
	80 bis(2-Ethylhexyl)phthalate	149	10.330	10.334	(1.008)	59632	0.34769	120	
	81 Benzo(a)anthracene	228	10.228	10.233	(0.998)	622741	2.05039	708	
*	82 Chrysene-d12 (IS)	240	10.244	10.249	(1.000)	1078905	4.00000		
	83 Chrysene	228	10.266	10.276	(1.002)	623606	2.17396	751	
	84 Di-n-octylphthalate	149	10.944	10.917	(0.944)	8954	0.03169	11.0	
	85 Benzo(b)fluoranthene	252	11.259	11.264	(0.971)	616878	1.74685	604	
	86 Benzo(k)fluoranthene	252	11.275	11.285	(0.973)	696834	1.86451	644	
	87 Benzo(a)pyrene	252	11.537	11.542	(0.995)	586535	1.86560	645	
*	88 Perylene-d12 (IS)	264	11.591	11.590	(1.000)	1249506	4.00000		
	89 Indeno(1,2,3-cd)pyrene	276	12.435	12.439	(1.073)	346500	0.87165	301	
	90 Dibenz(a,h)anthracene	278	12.435	12.445	(1.073)	123847	0.37116	128	
	91 Benzo(g,h,i)perylene	276	12.643	12.653	(1.091)	263123	0.80905	280	

QC Flag Legend

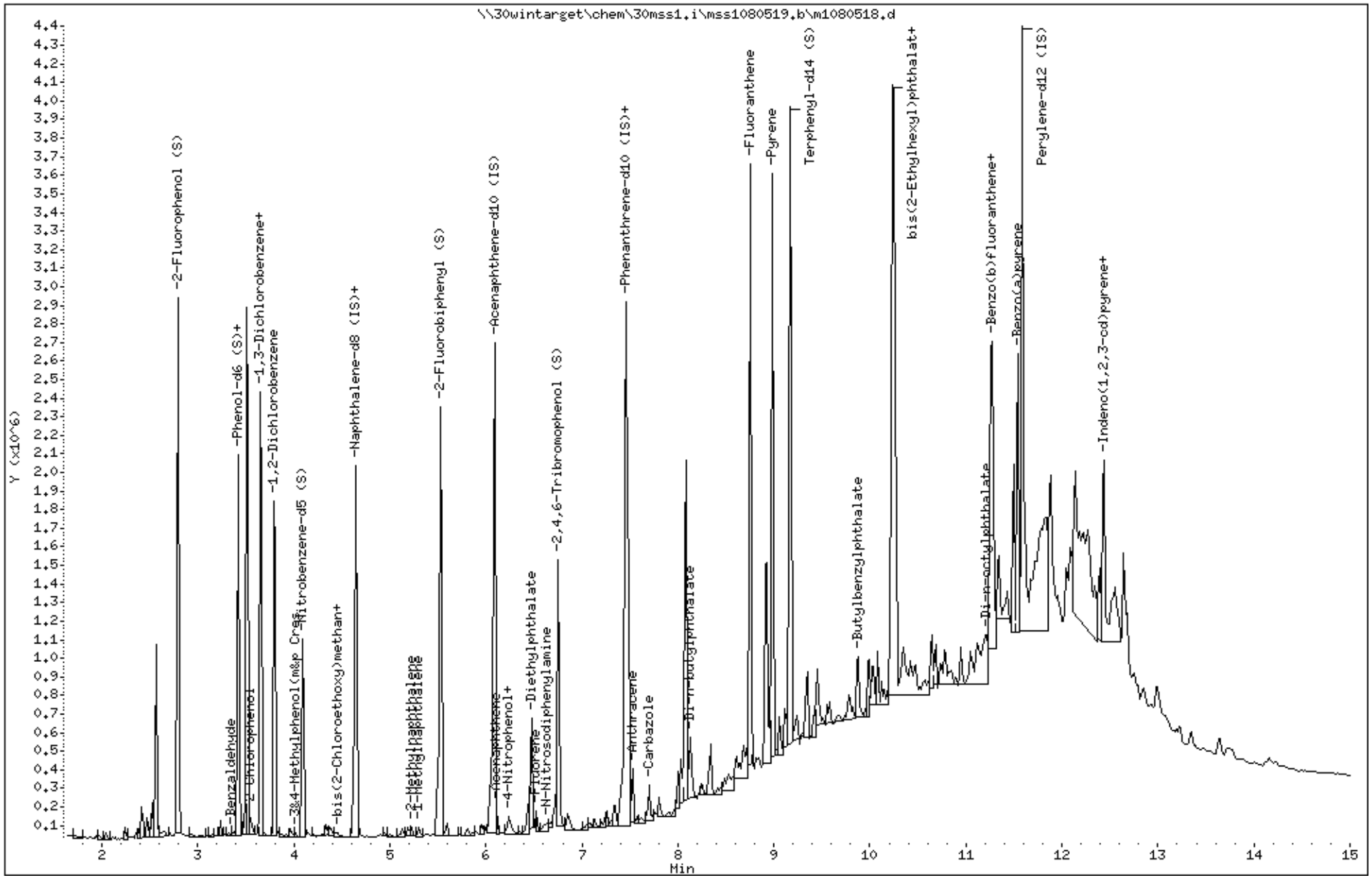
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d
Date : 05-AUG-2019 22:16
Client ID: A0C27-3
Sample Info: 30317212003
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

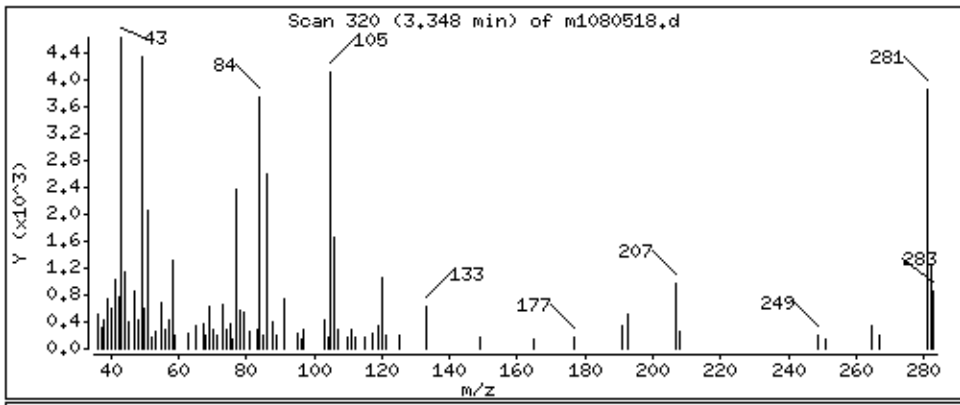
Operator: EAC

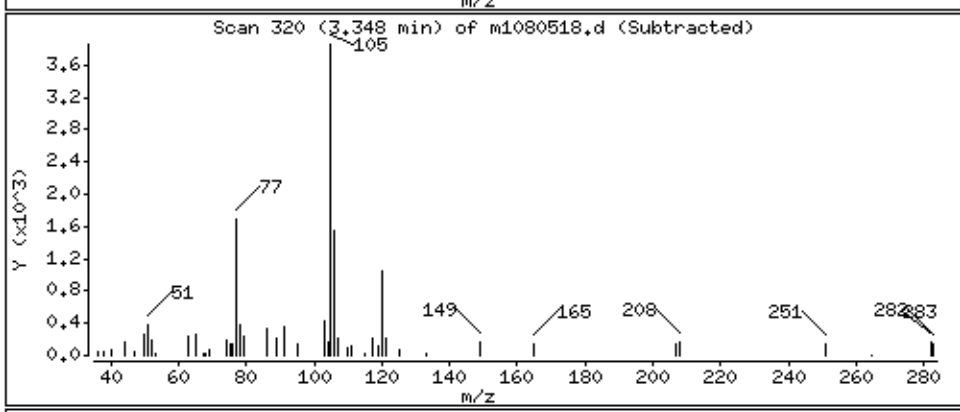
Column phase: RTX-5MS

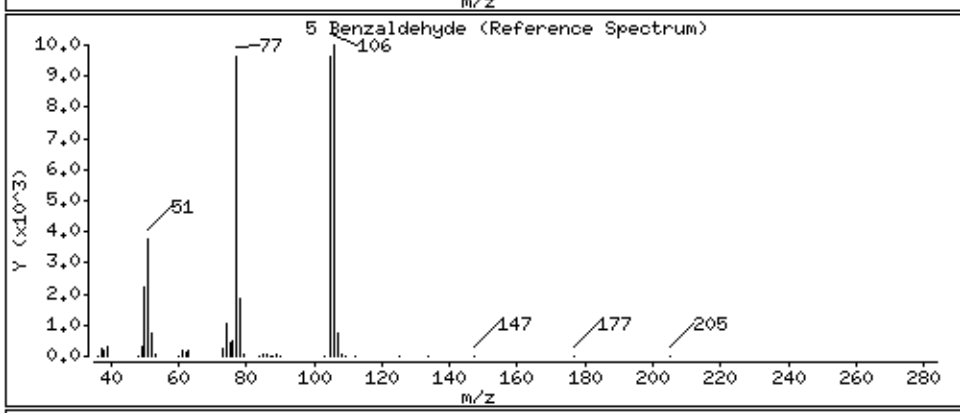
Column diameter: 0.18

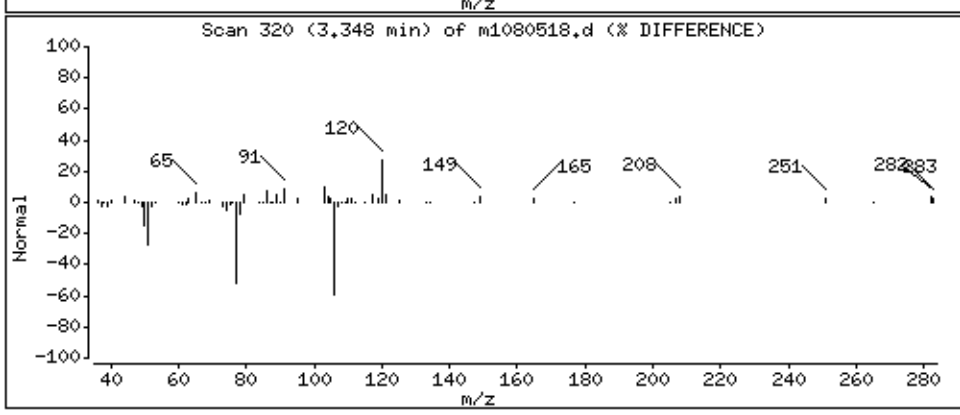
5 Benzaldehyde

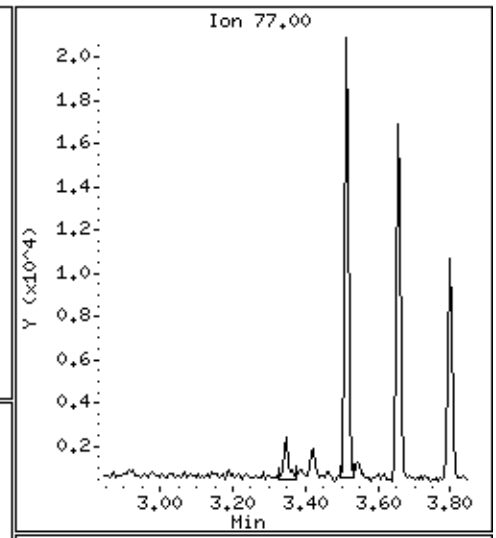
Concentration: 7.47 ug/Kg

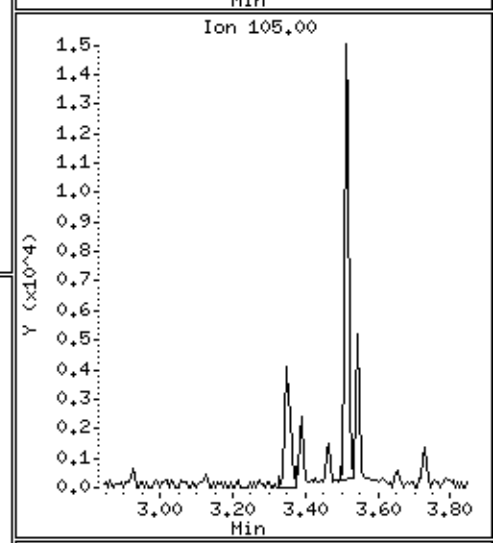


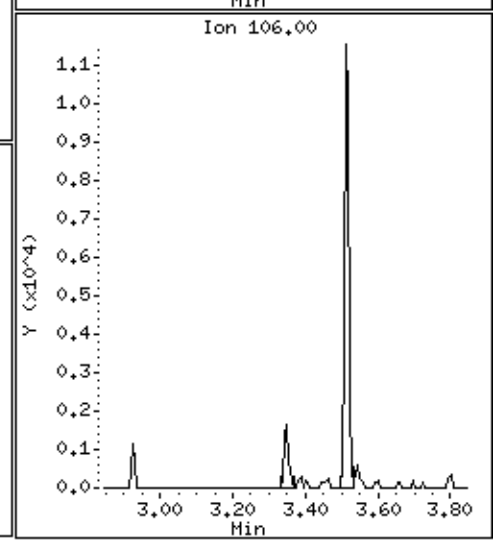












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

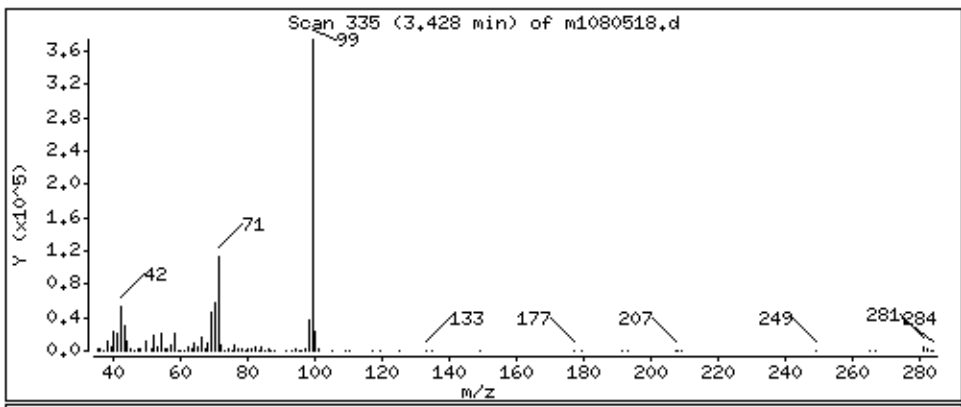
Operator: EAC

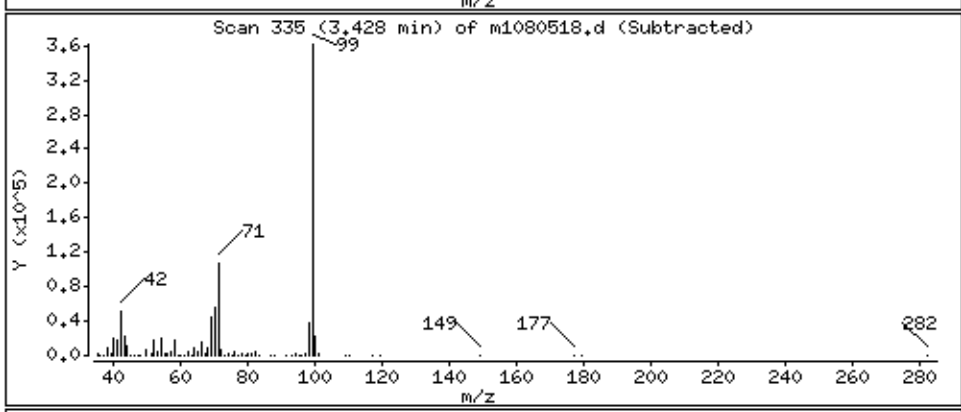
Column phase: RTX-5MS

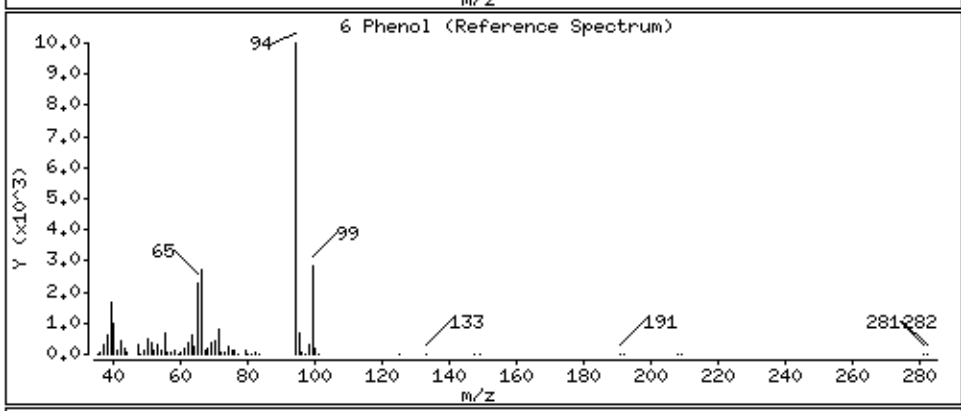
Column diameter: 0.18

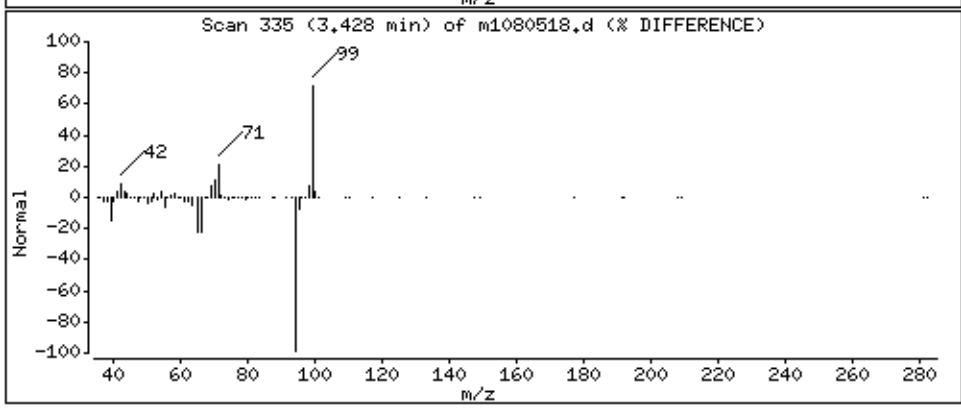
6 Phenol

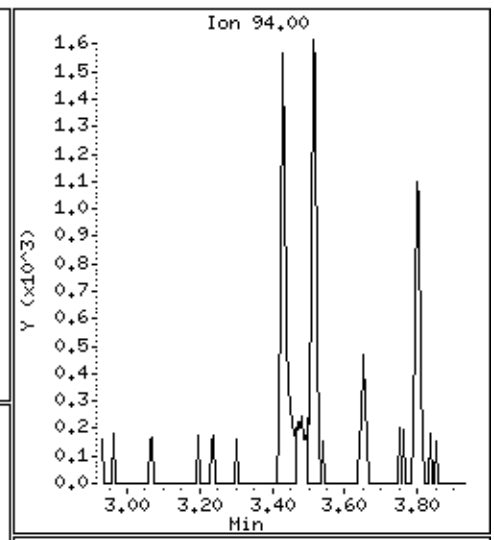
Concentration: 4.96 ug/Kg

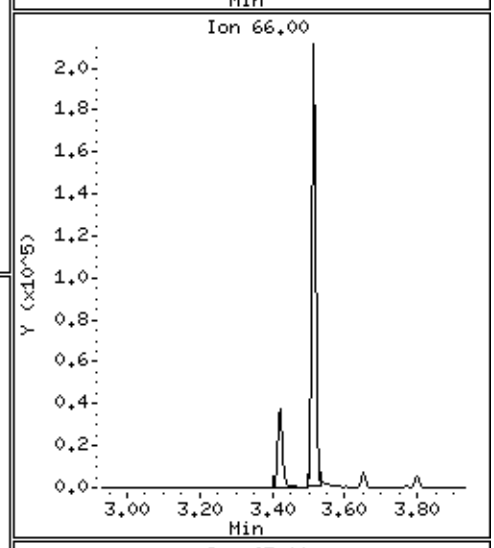


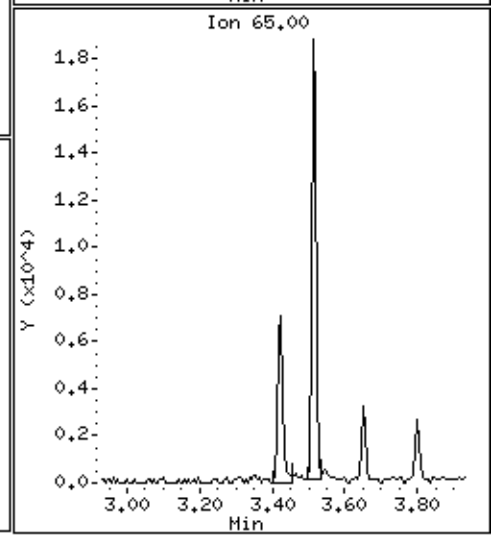












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

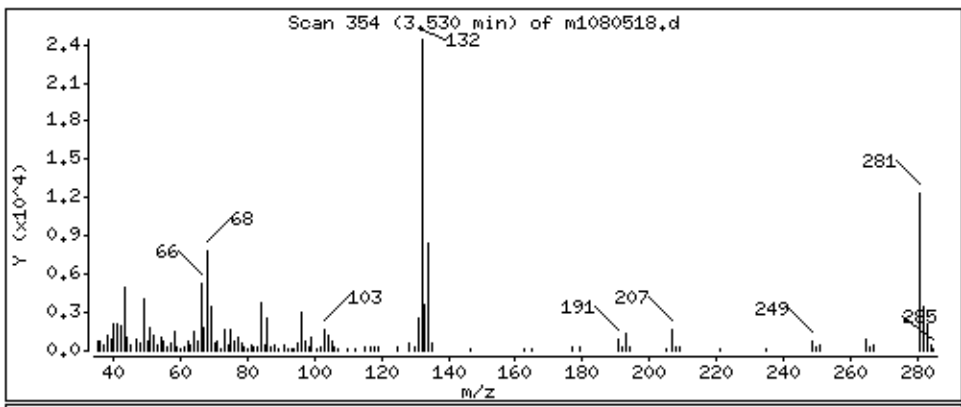
Operator: EAC

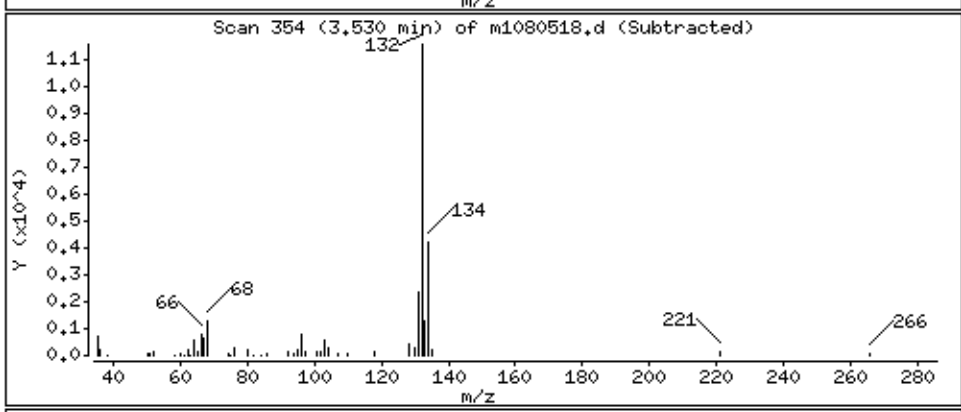
Column phase: RTX-5MS

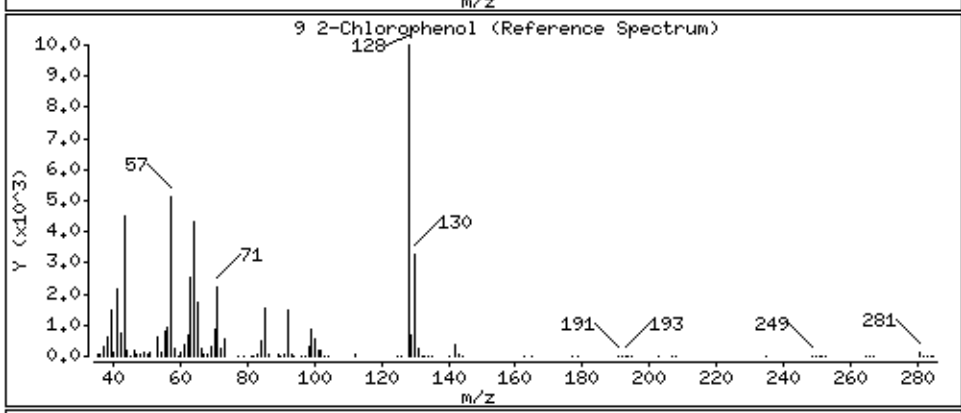
Column diameter: 0.18

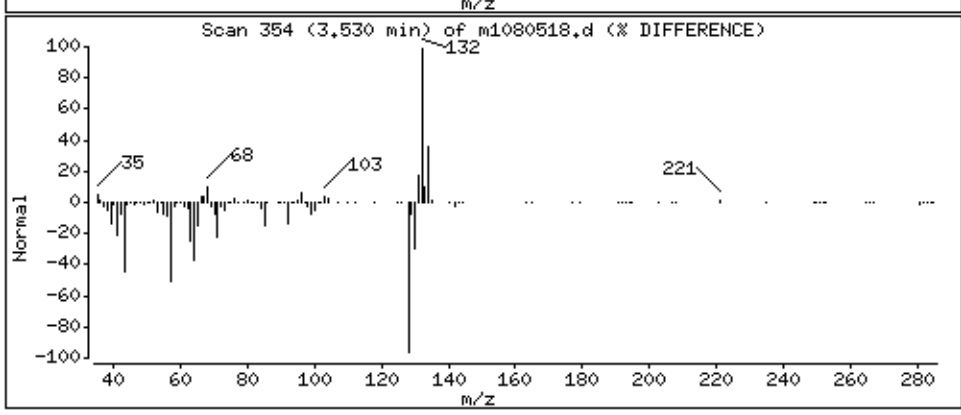
9 2-Chlorophenol

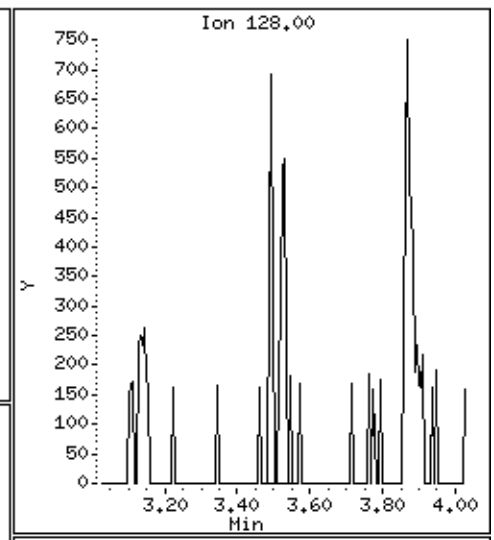
Concentration: 1.92 ug/Kg

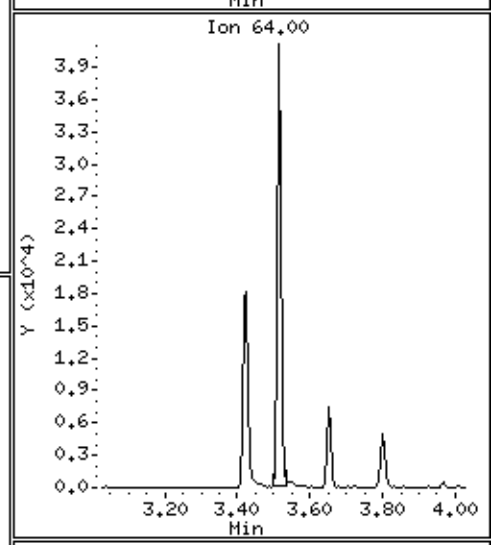


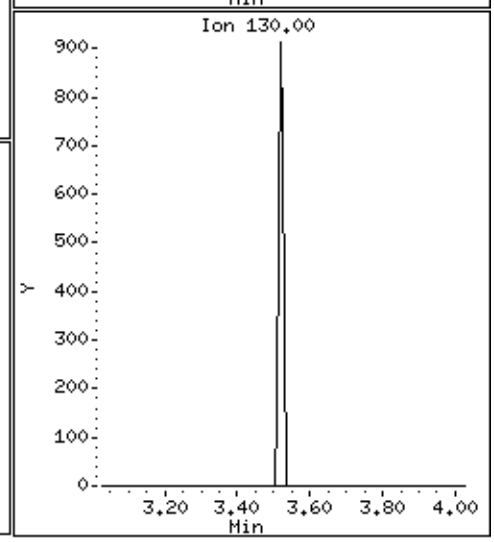












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

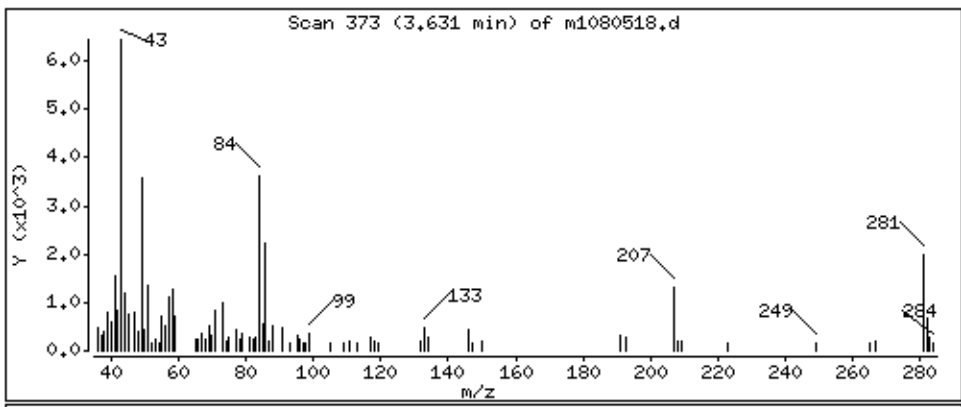
Operator: EAC

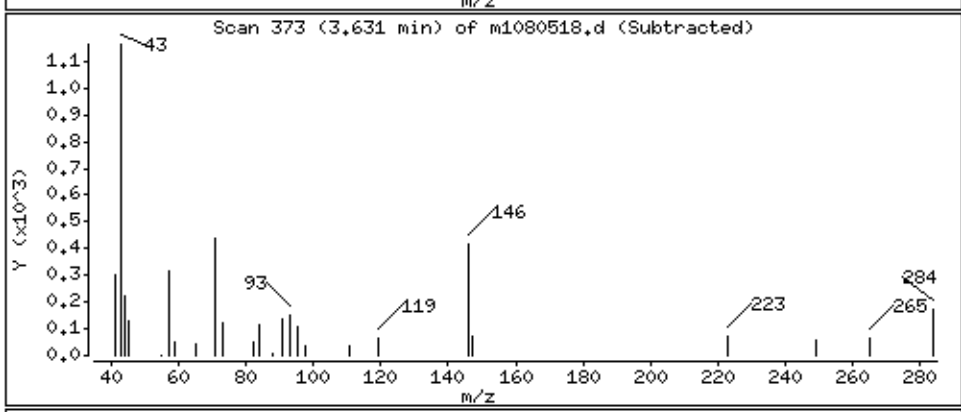
Column phase: RTX-5MS

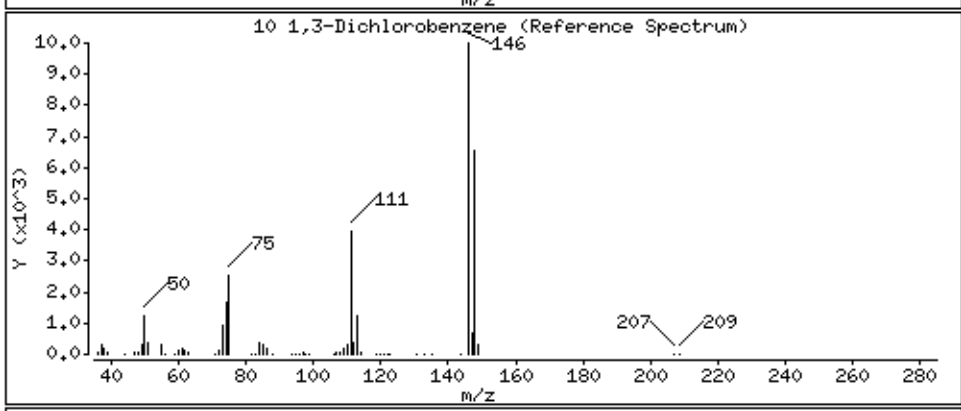
Column diameter: 0.18

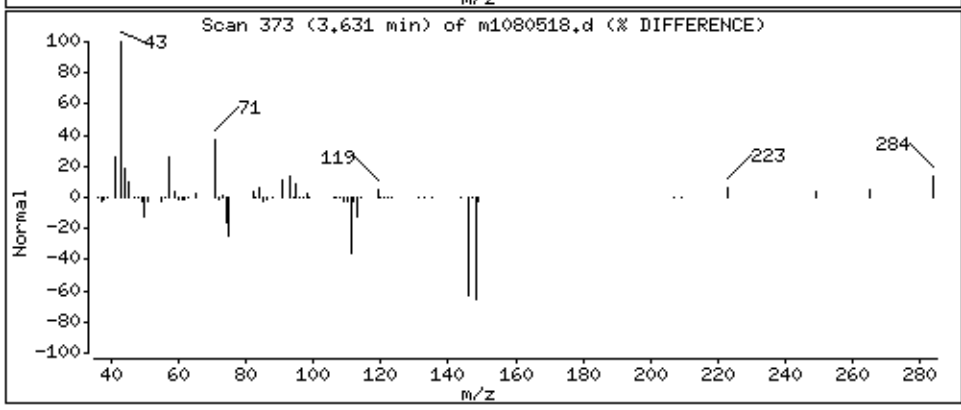
10 1,3-Dichlorobenzene

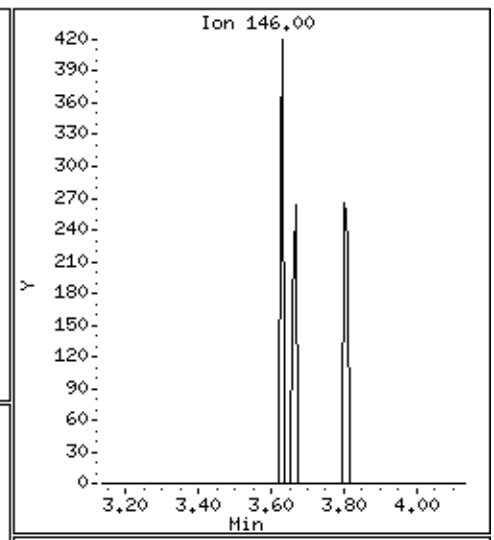
Concentration: 0.717 ug/Kg

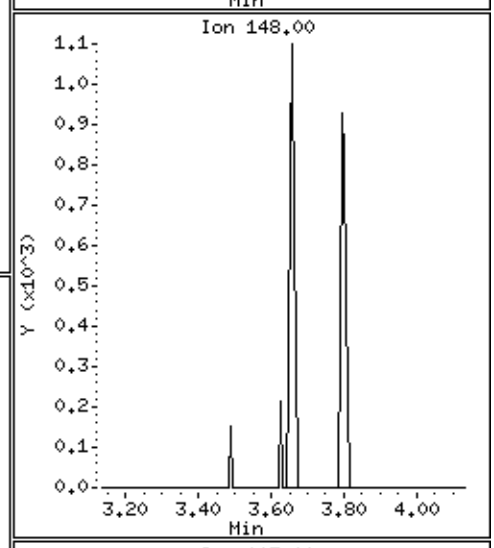


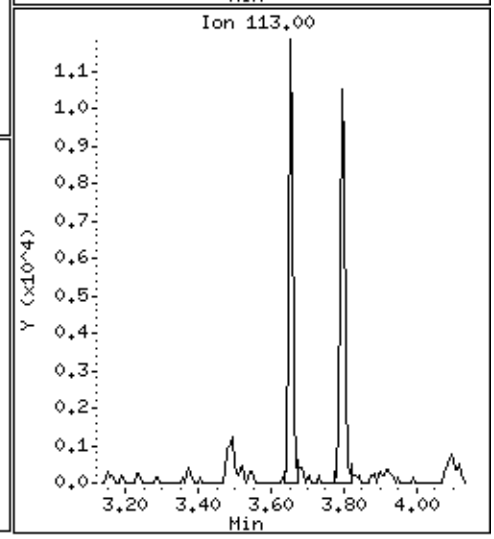












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

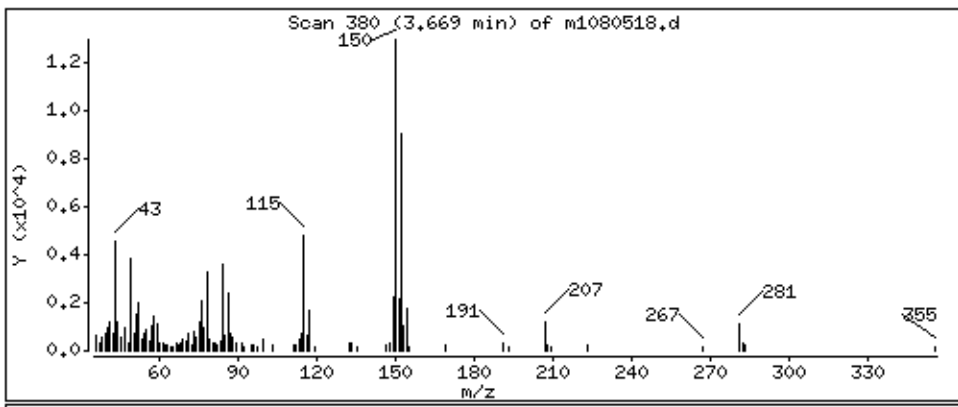
Operator: EAC

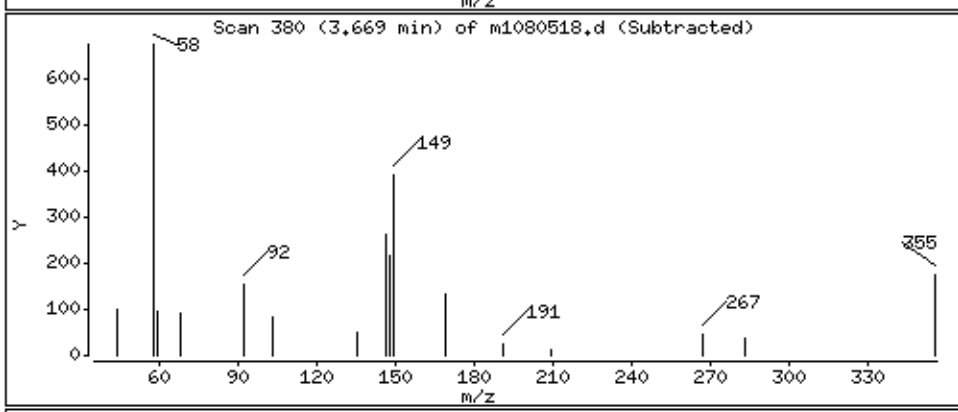
Column phase: RTX-5MS

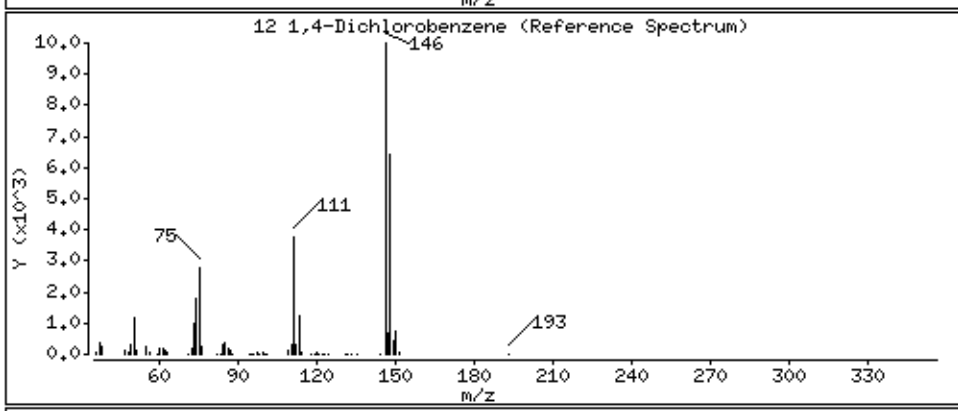
Column diameter: 0.18

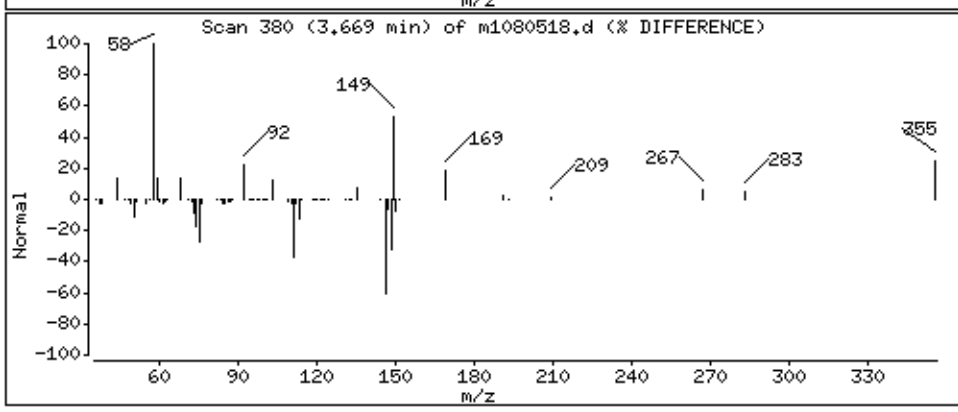
12 1,4-Dichlorobenzene

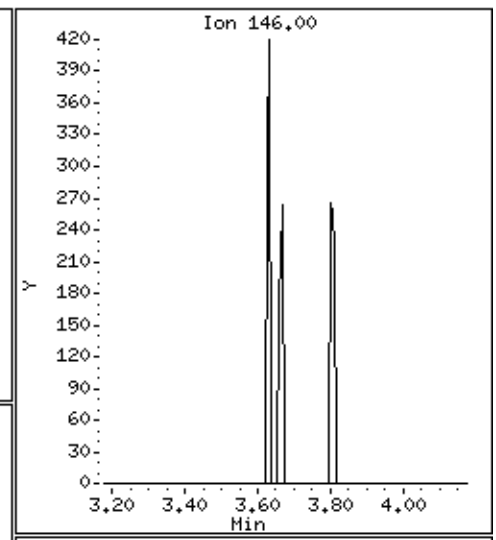
Concentration: 0.589 ug/Kg

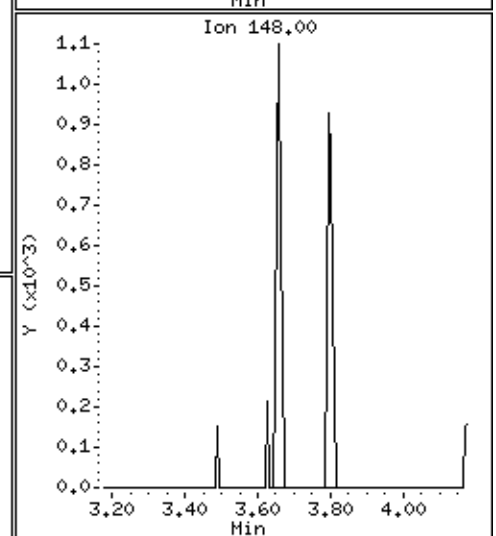


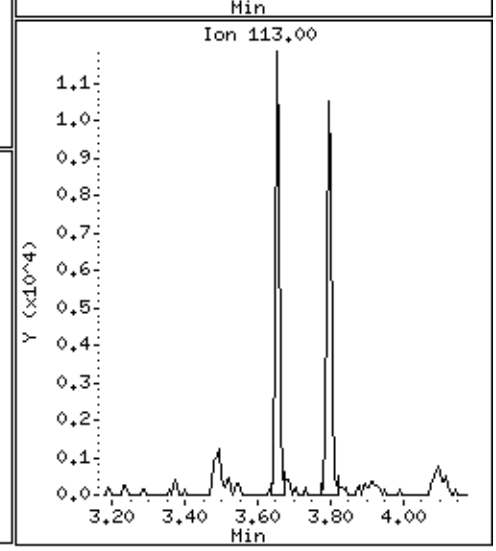












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

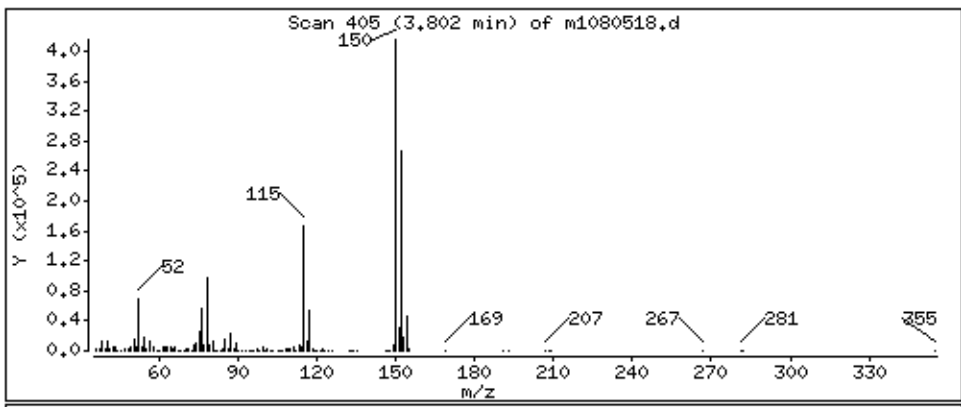
Operator: EAC

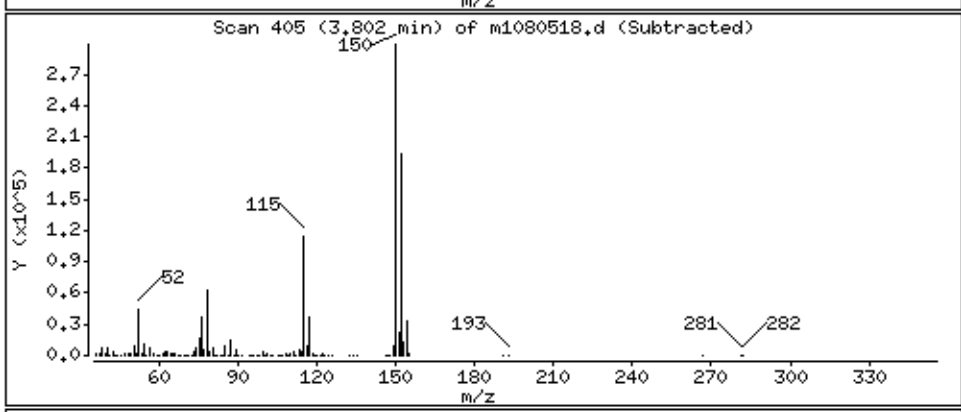
Column phase: RTX-5MS

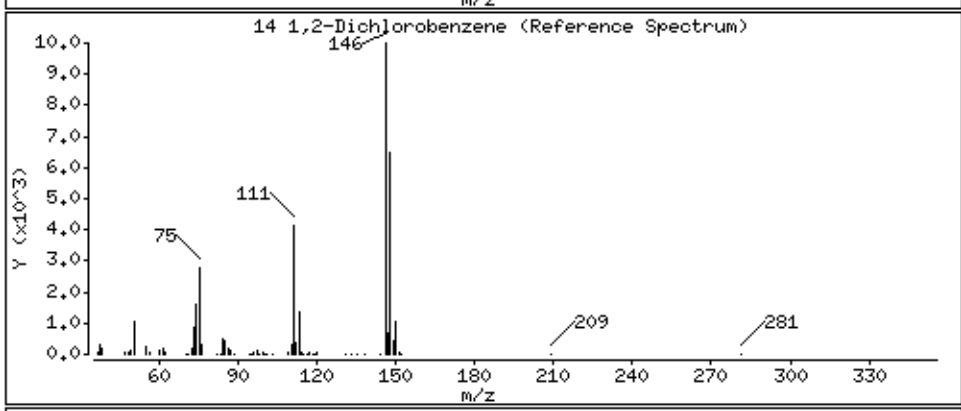
Column diameter: 0.18

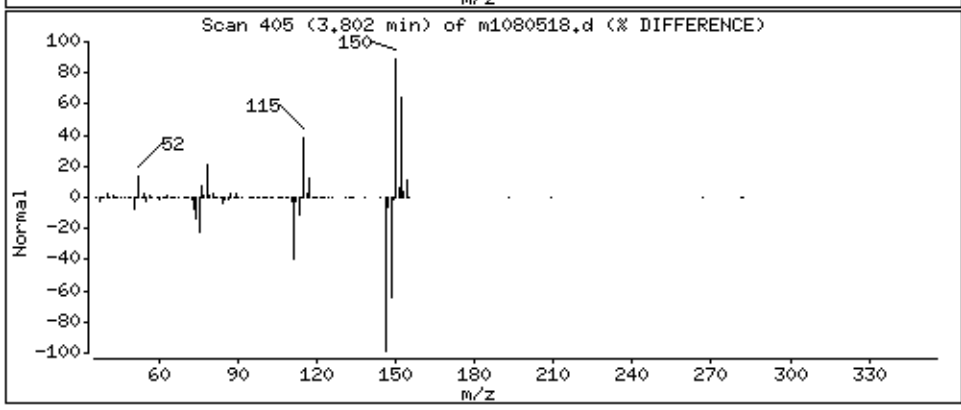
14 1,2-Dichlorobenzene

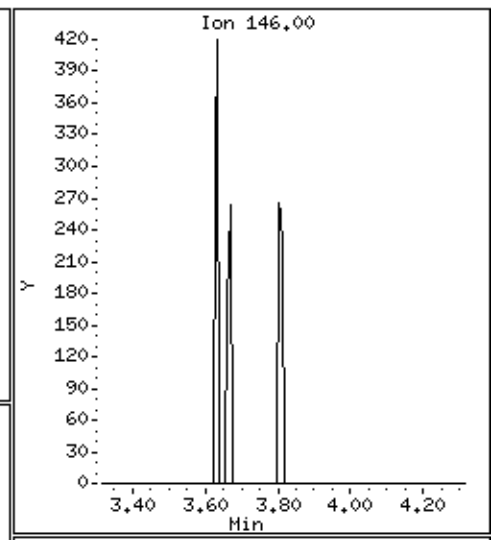
Concentration: 0.743 ug/Kg

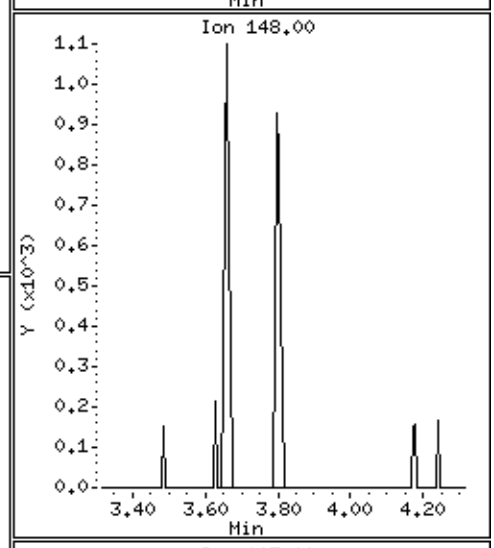


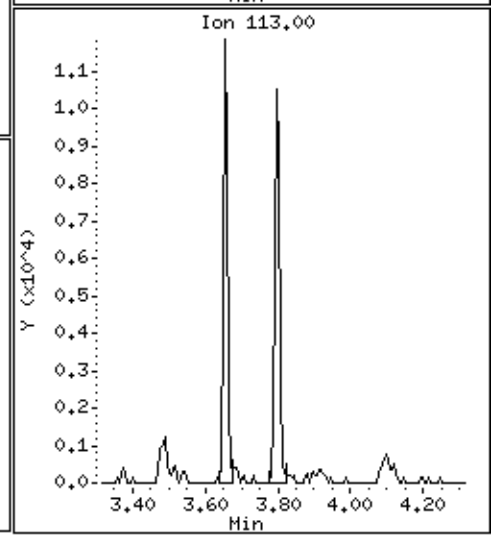












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

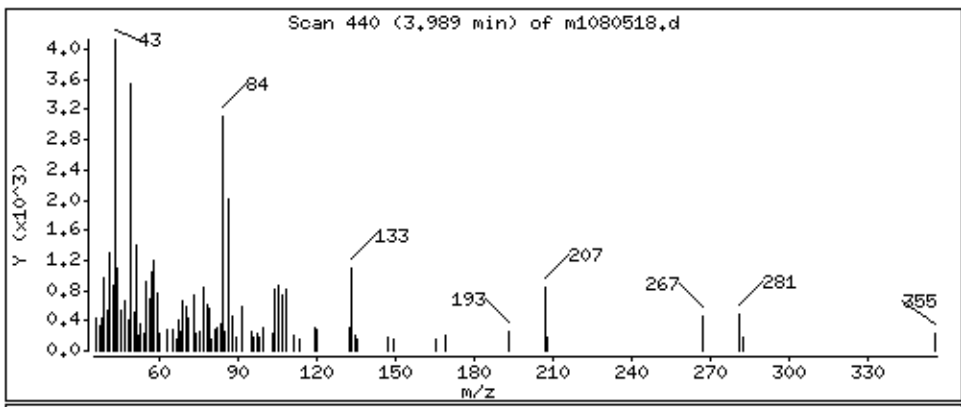
Operator: EAC

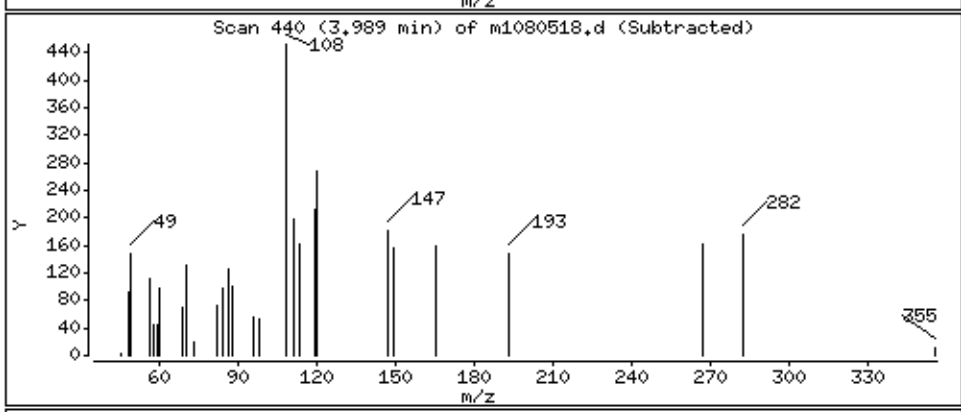
Column phase: RTX-5MS

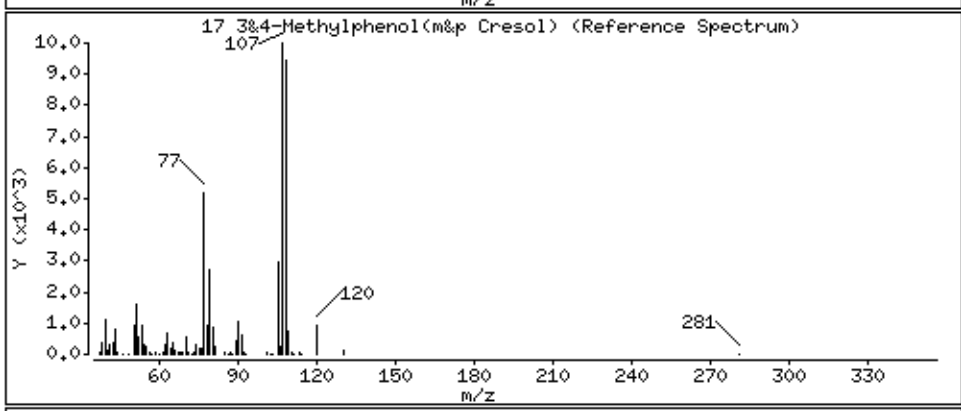
Column diameter: 0.18

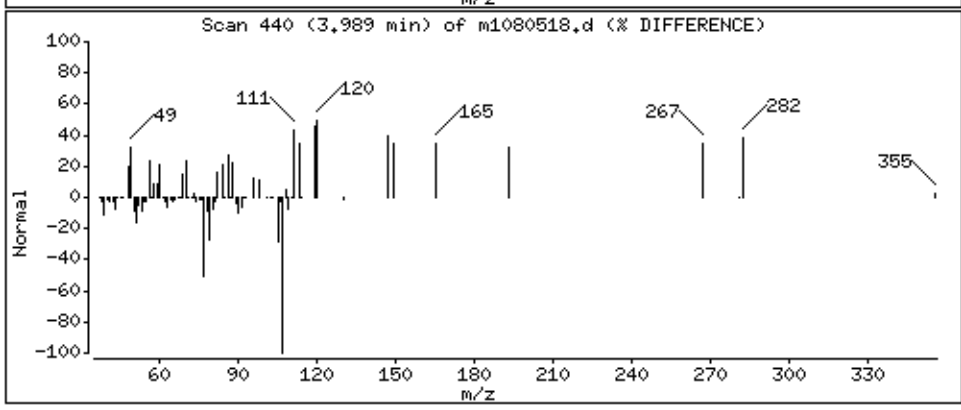
17 3&4-Methylphenol(m&p Cresol)

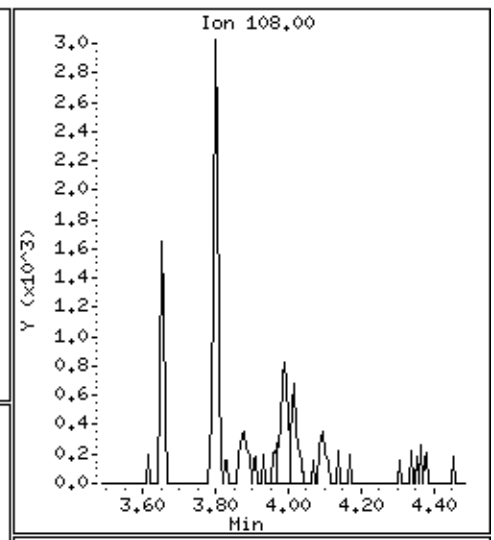
Concentration: 4.25 ug/Kg

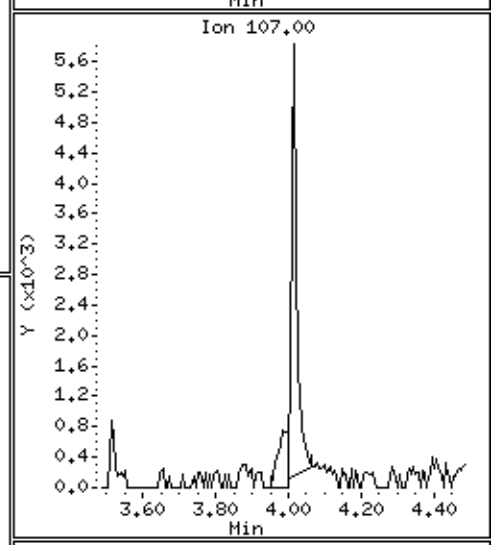


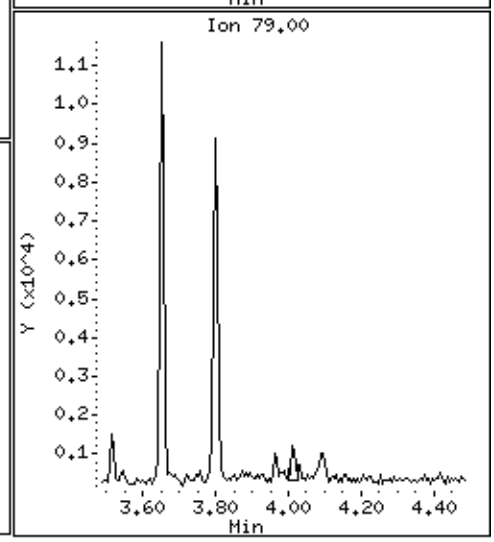












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

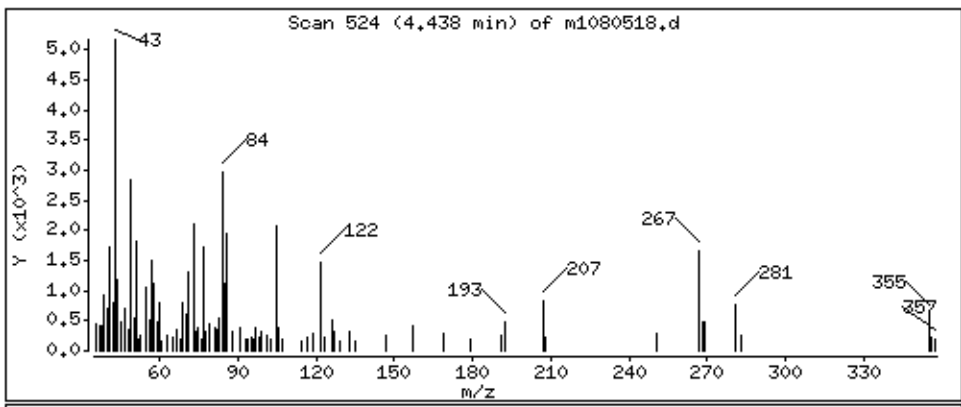
Operator: EAC

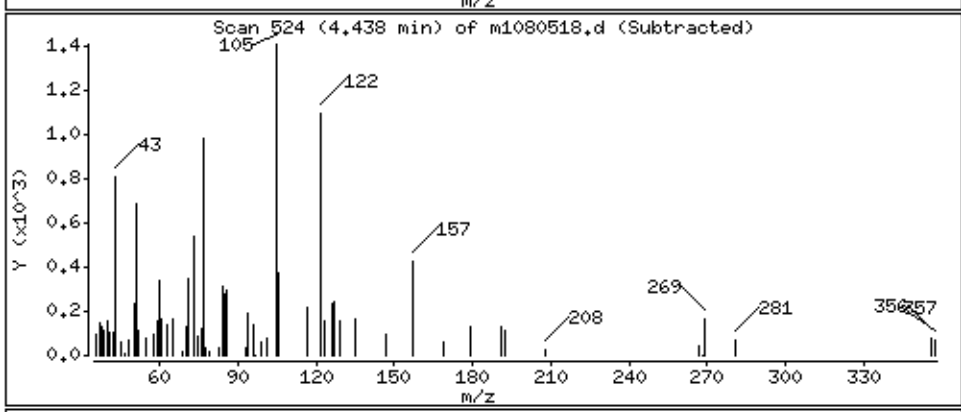
Column phase: RTX-5MS

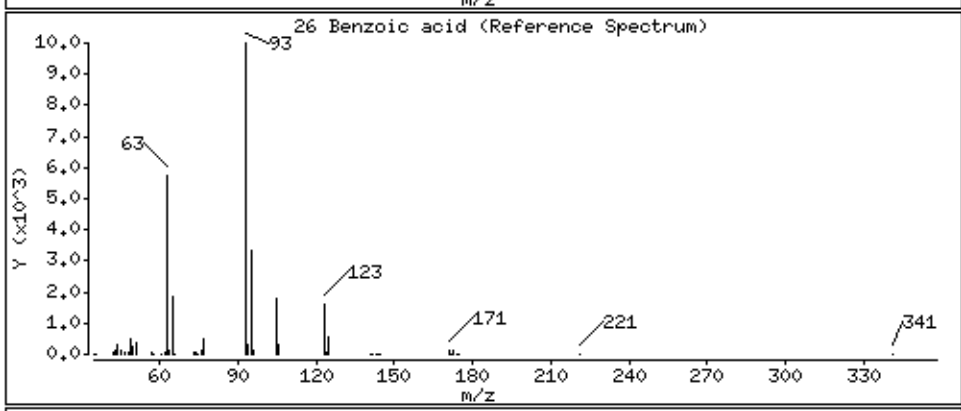
Column diameter: 0.18

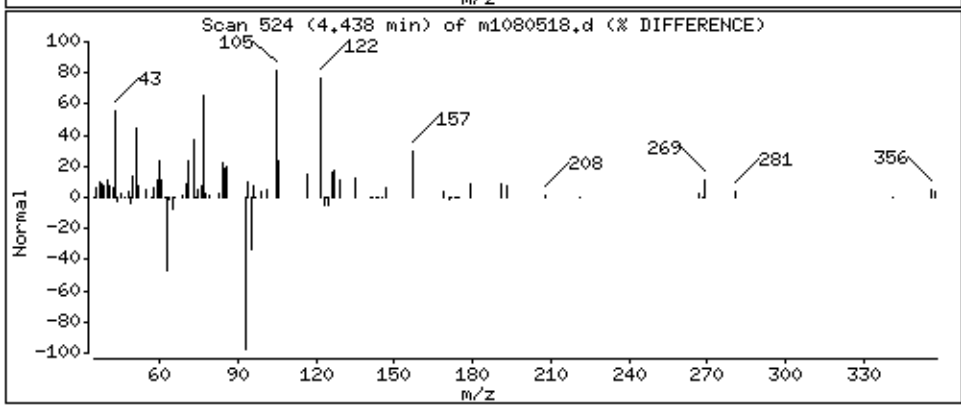
26 Benzoic acid

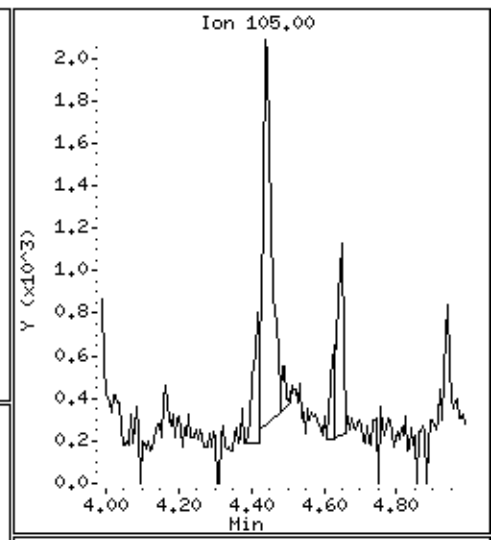
Concentration: 18.2 ug/Kg

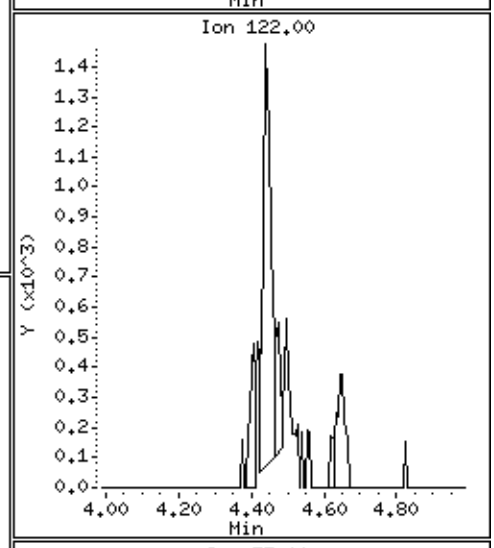


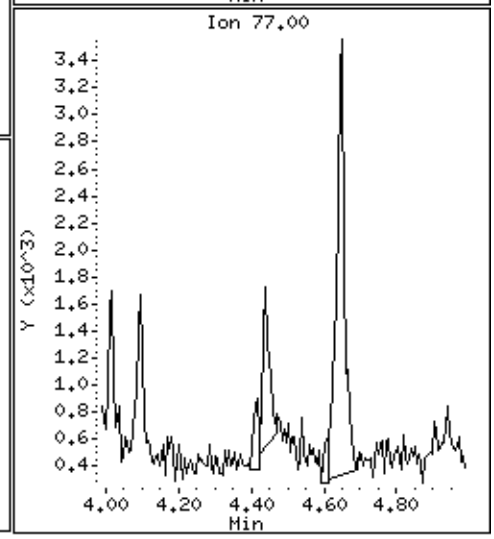












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

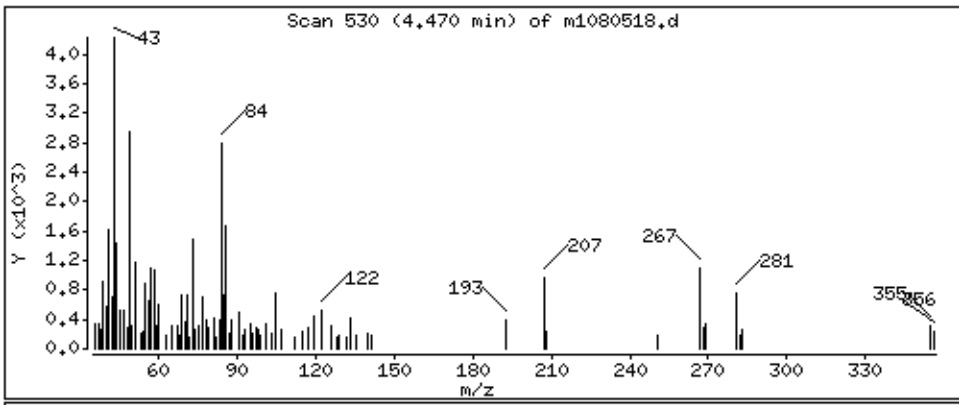
Operator: EAC

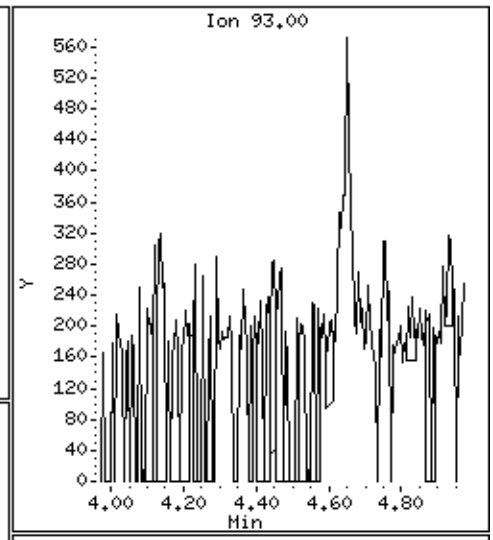
Column phase: RTX-5MS

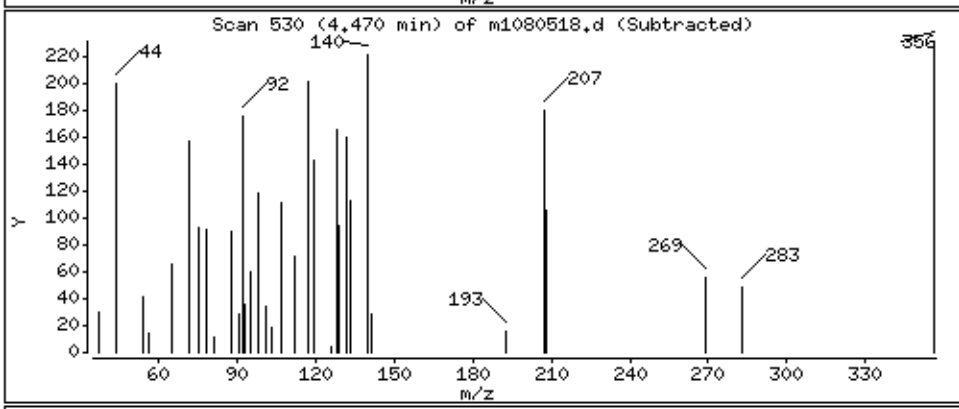
Column diameter: 0.18

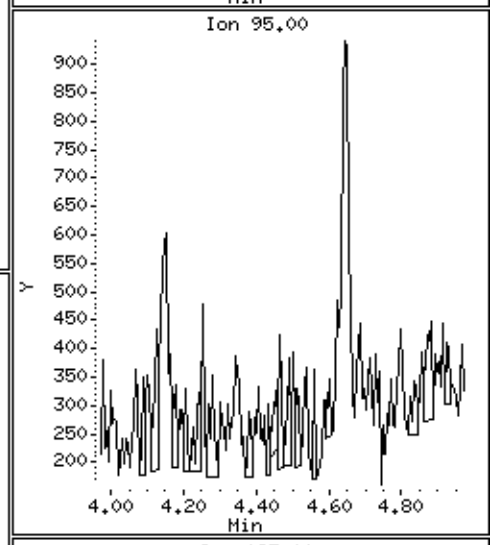
27 bis(2-Chloroethoxy)methane

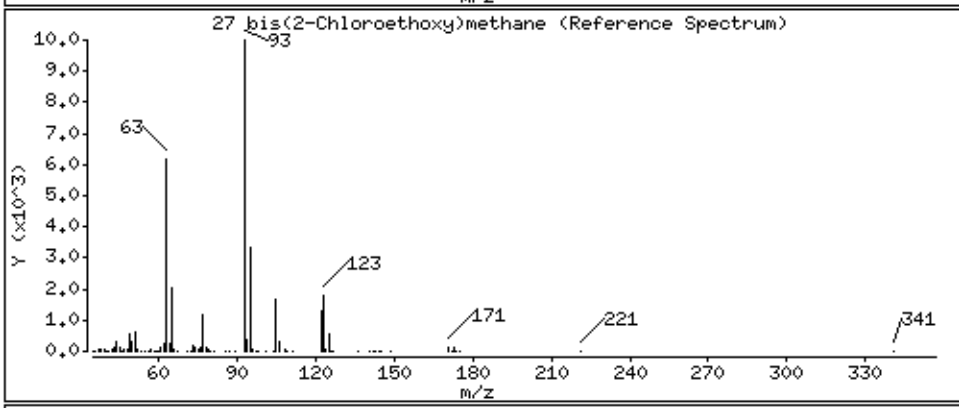
Concentration: 0.905 ug/Kg

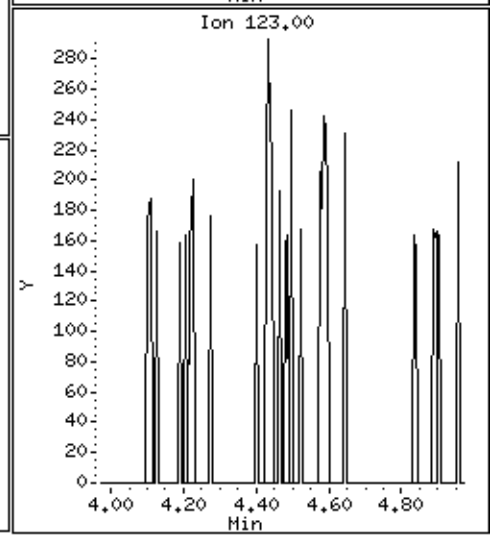


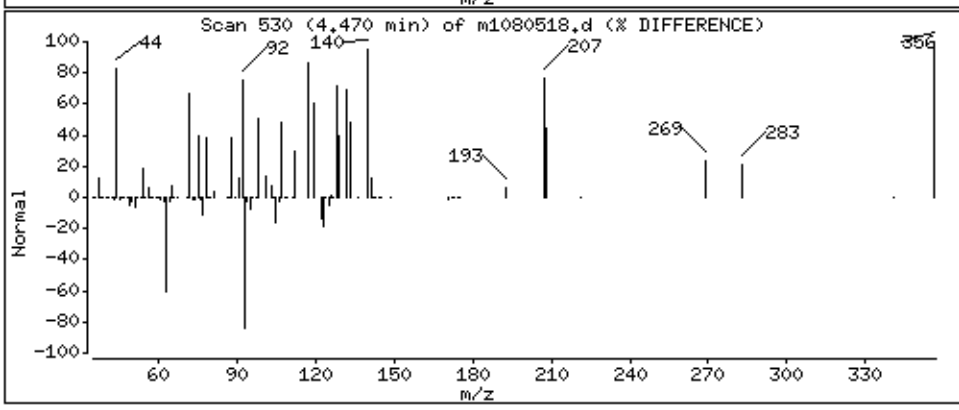












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

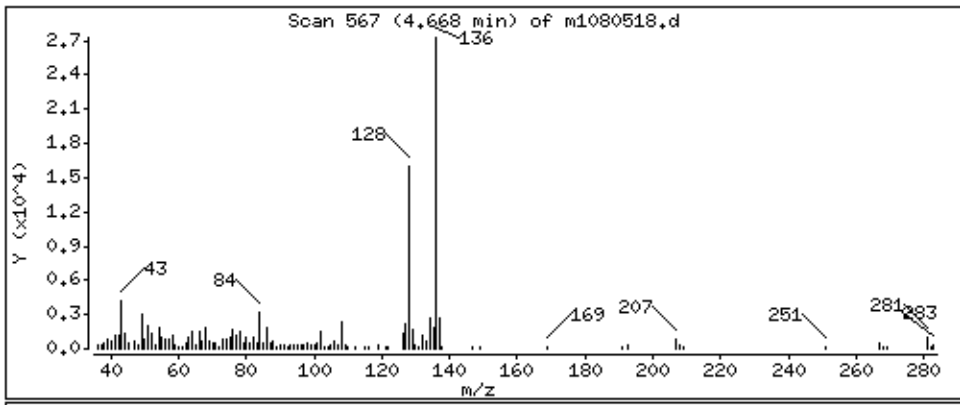
Operator: EAC

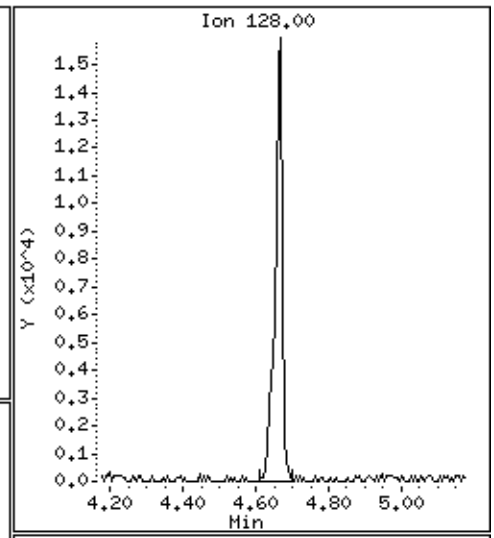
Column phase: RTX-5MS

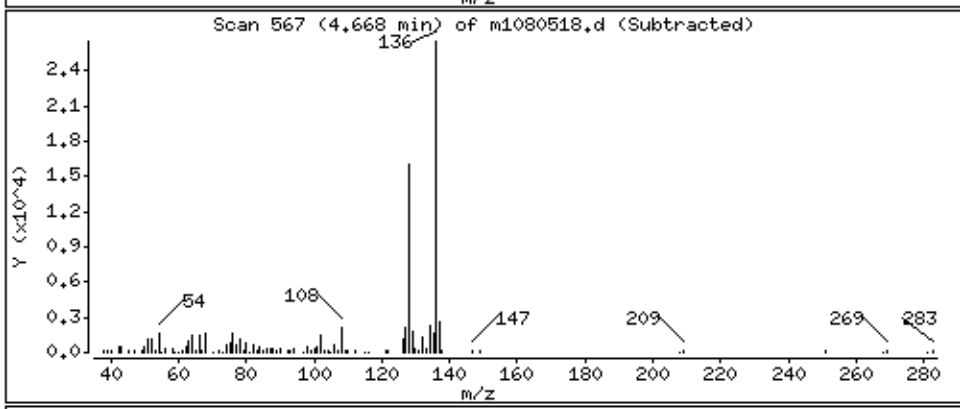
Column diameter: 0.18

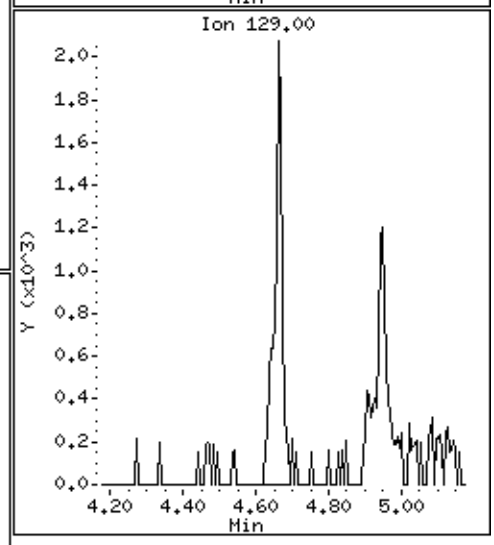
31 Naphthalene

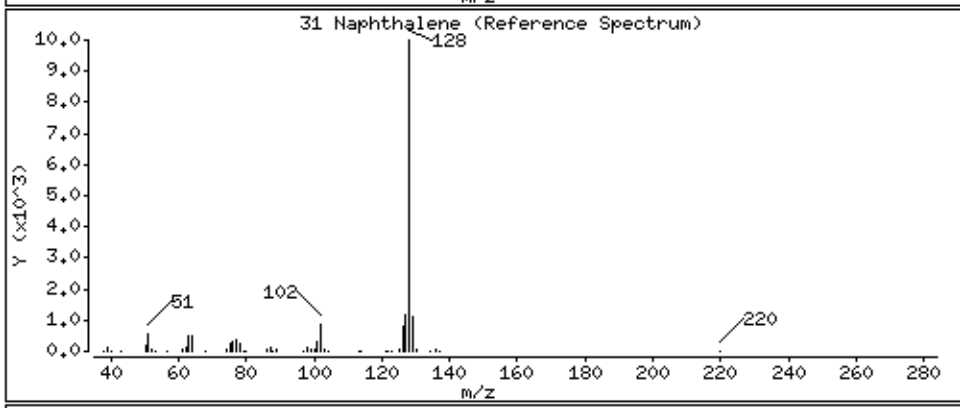
Concentration: 25.2 ug/Kg

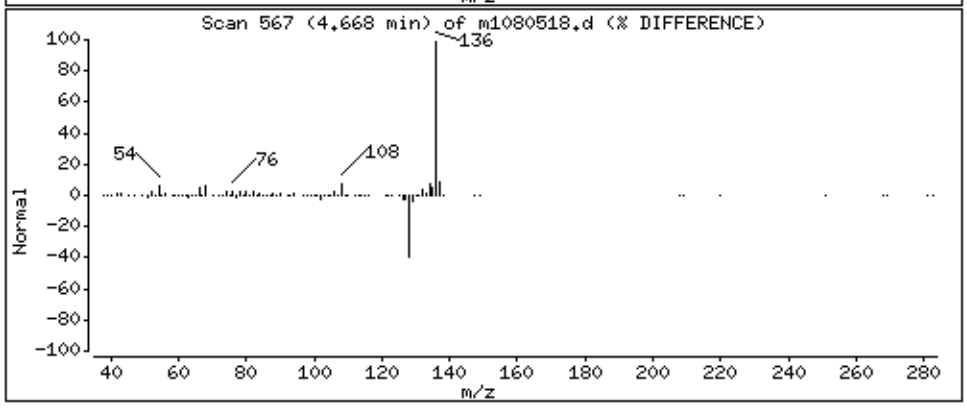












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

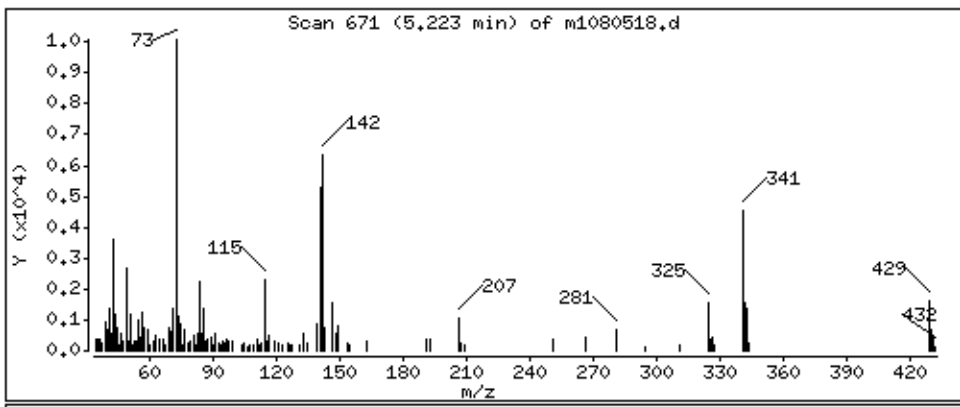
Operator: EAC

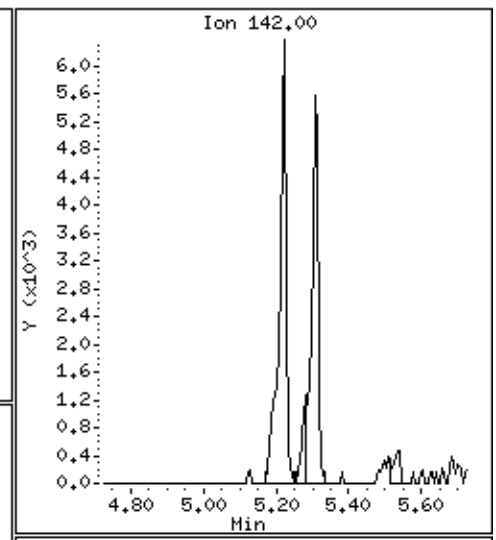
Column phase: RTX-5MS

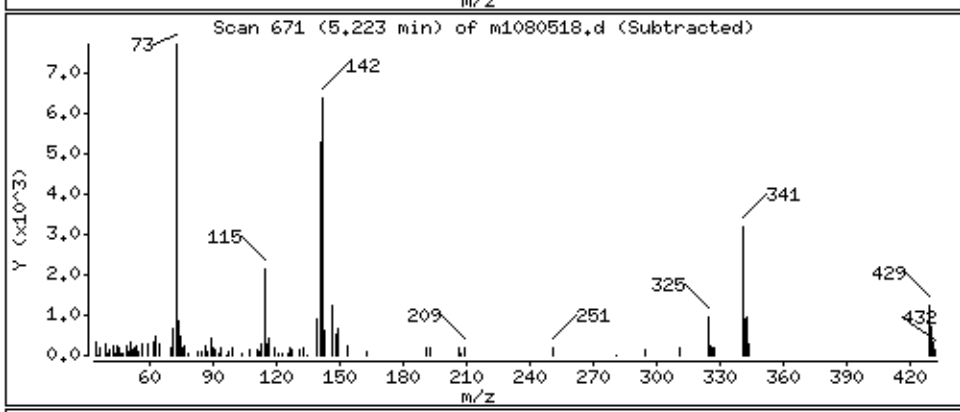
Column diameter: 0.18

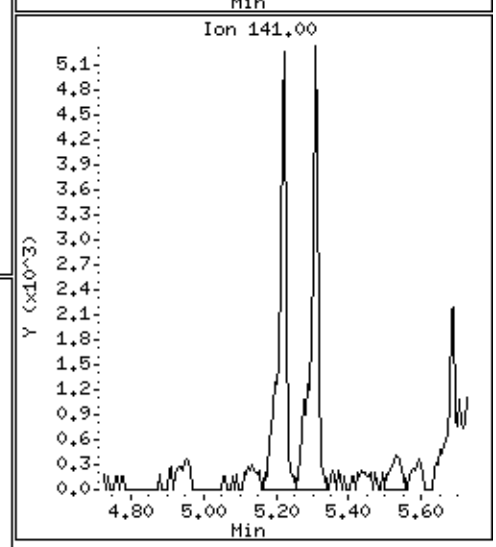
36 2-Methylnaphthalene

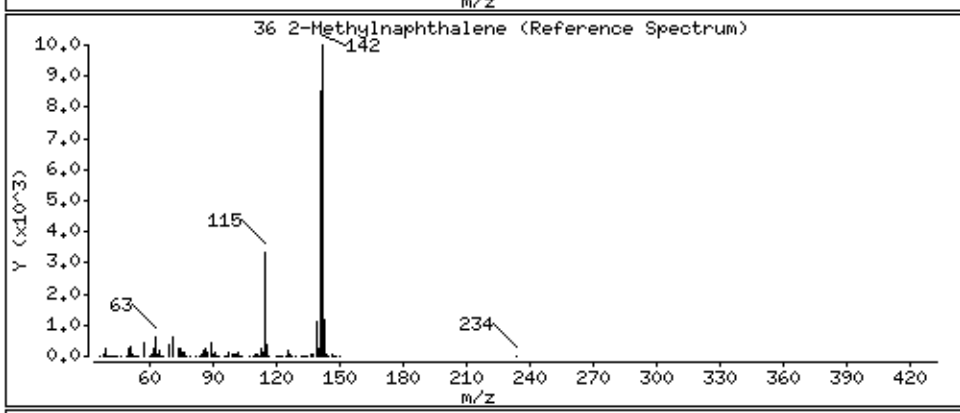
Concentration: 13.4 ug/Kg

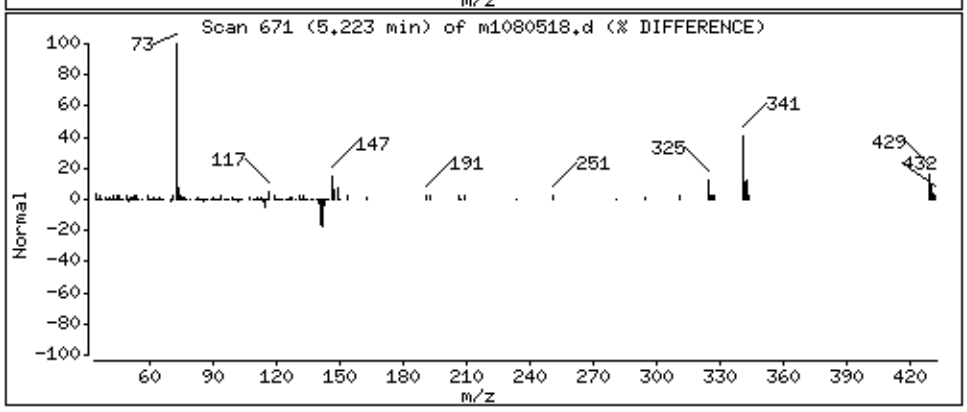












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

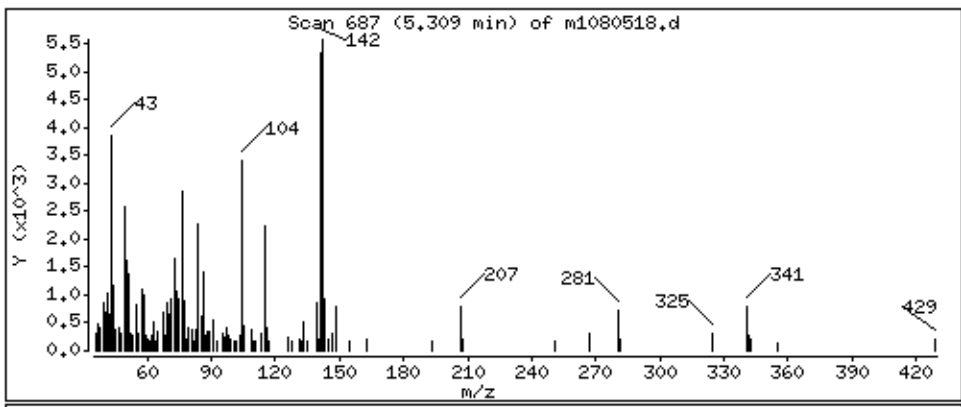
Operator: EAC

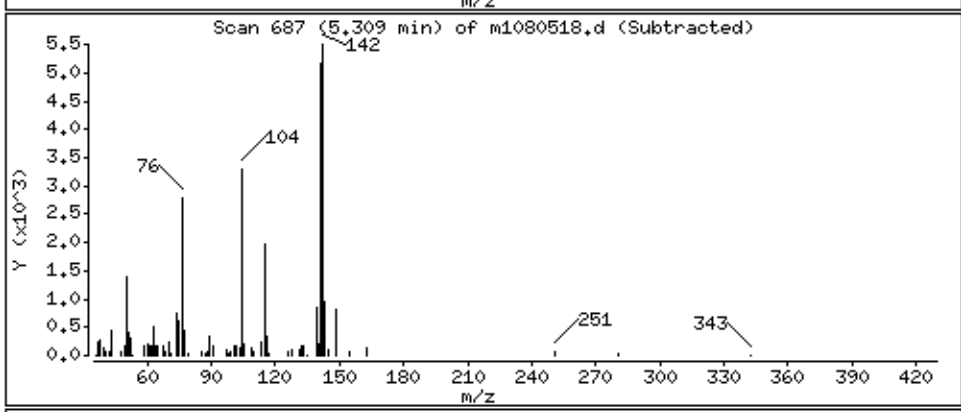
Column phase: RTX-5MS

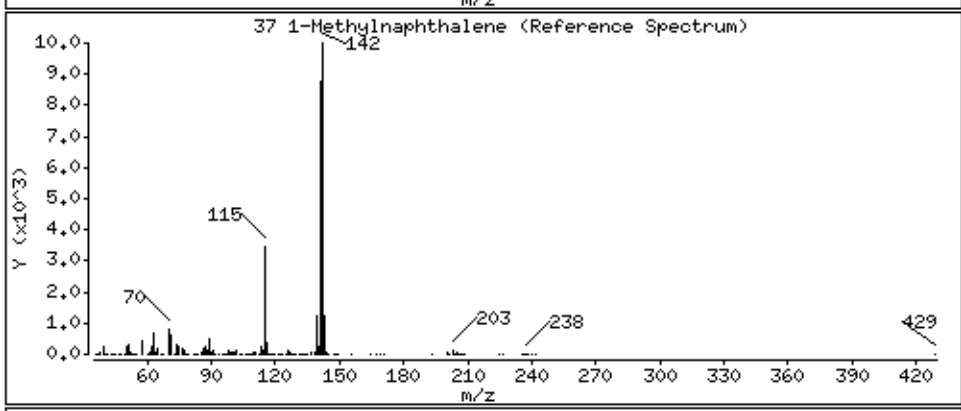
Column diameter: 0.18

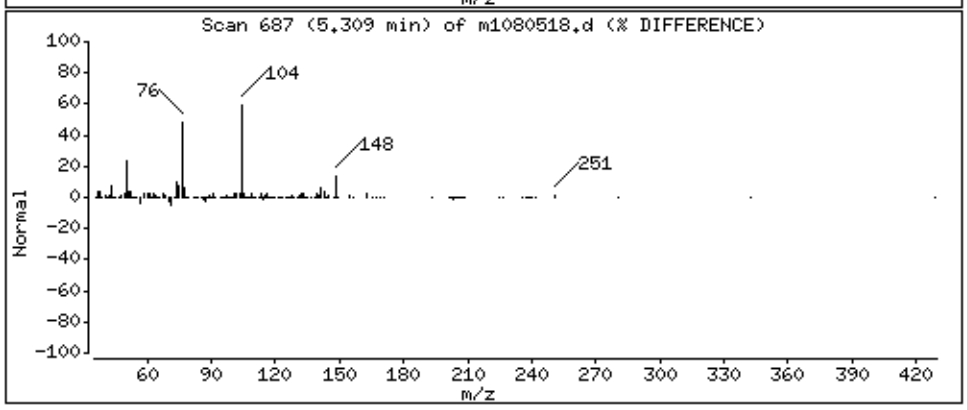
37 1-Methylnaphthalene

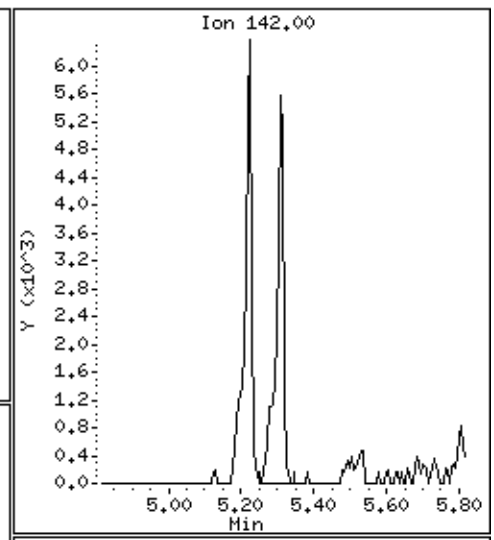
Concentration: 13.4 ug/Kg

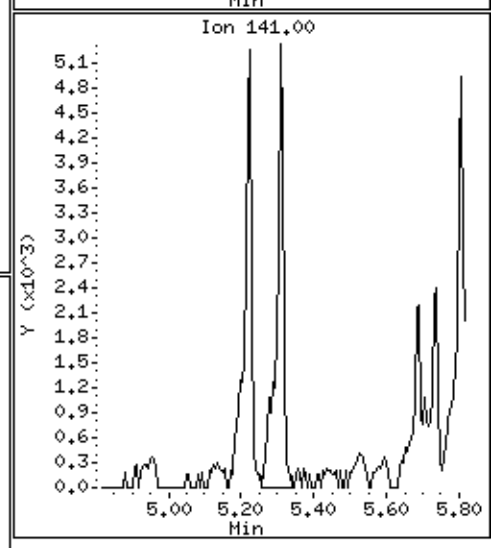












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

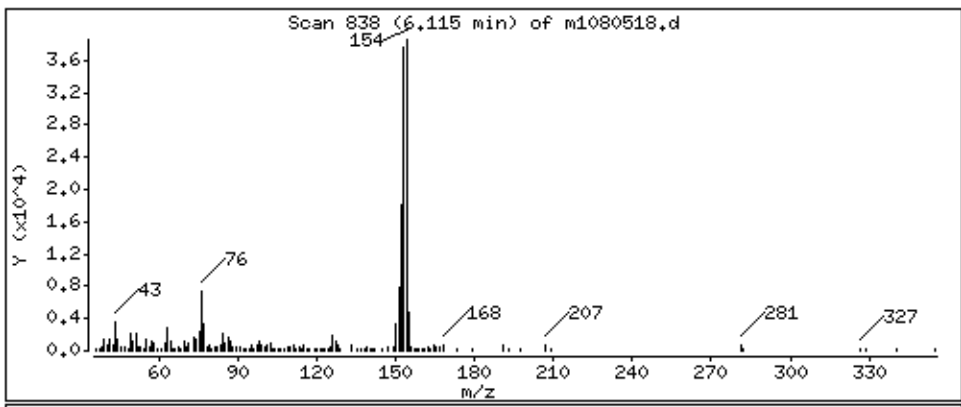
Operator: EAC

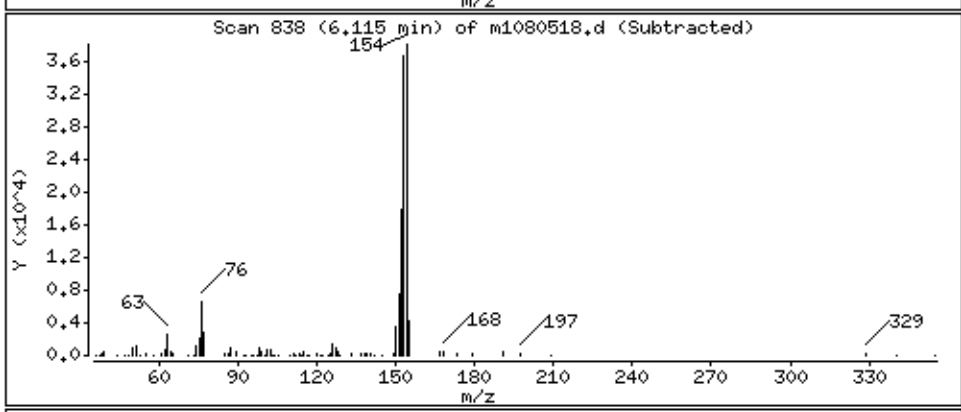
Column phase: RTX-5MS

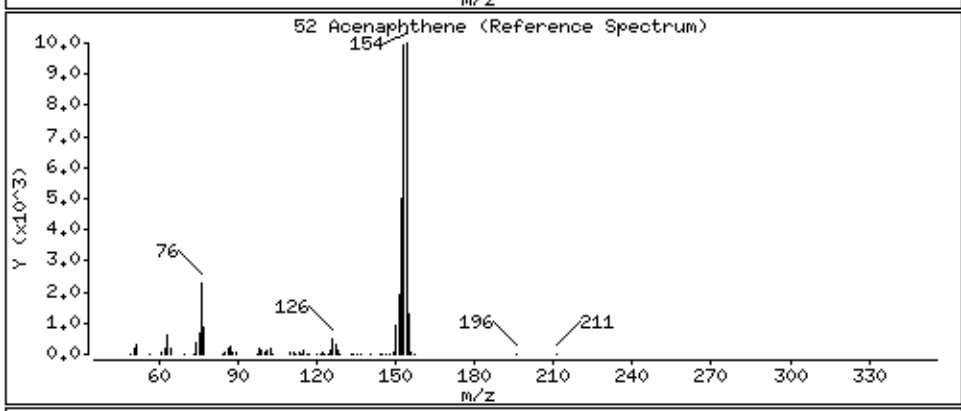
Column diameter: 0.18

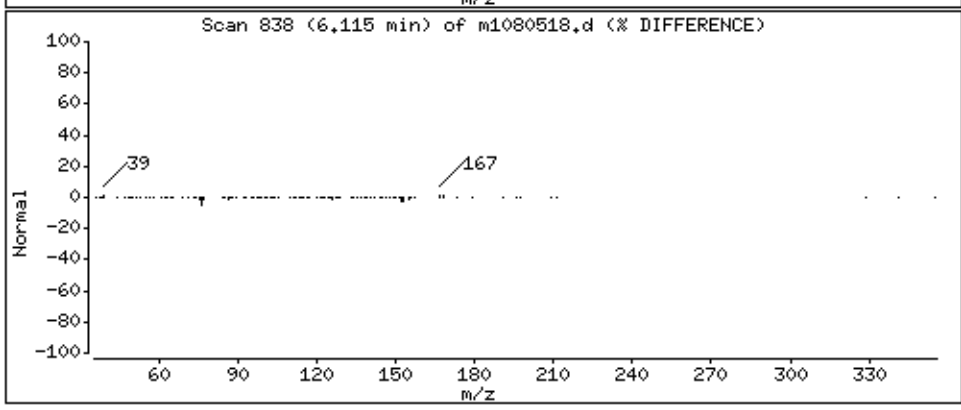
52 Acenaphthene

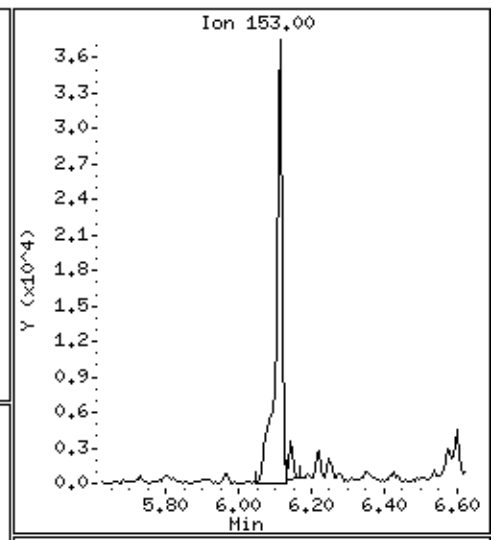
Concentration: 82.1 ug/Kg

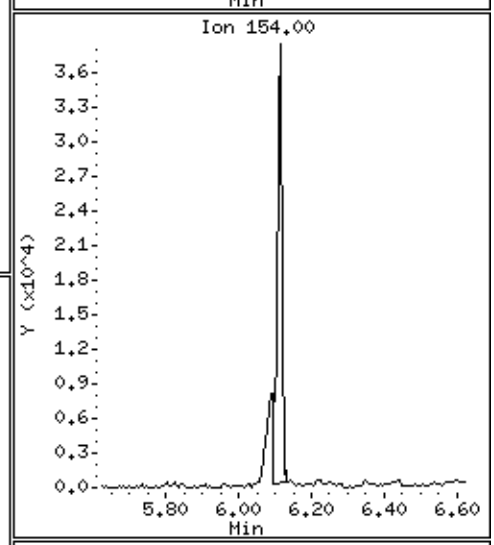


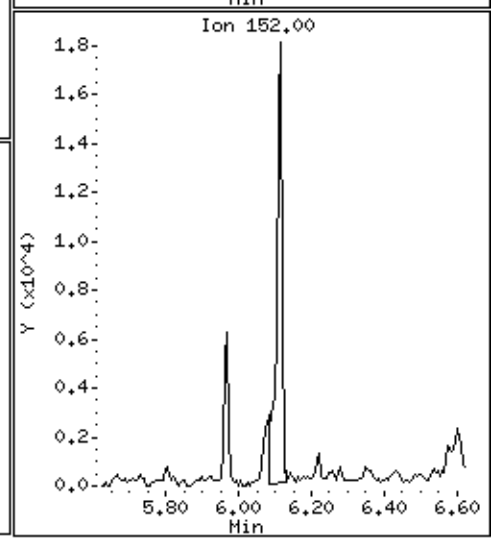












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

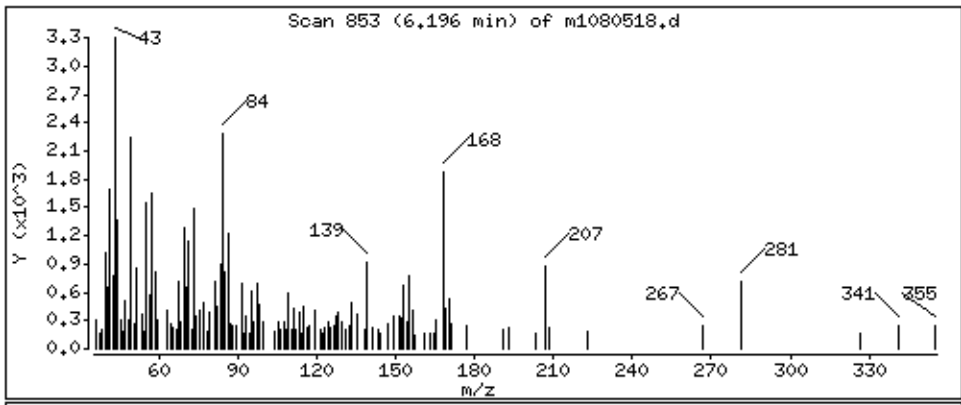
Operator: EAC

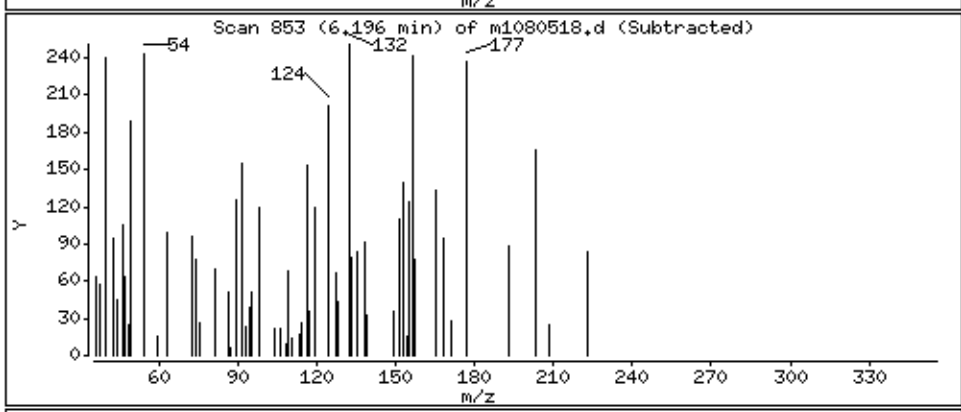
Column phase: RTX-5MS

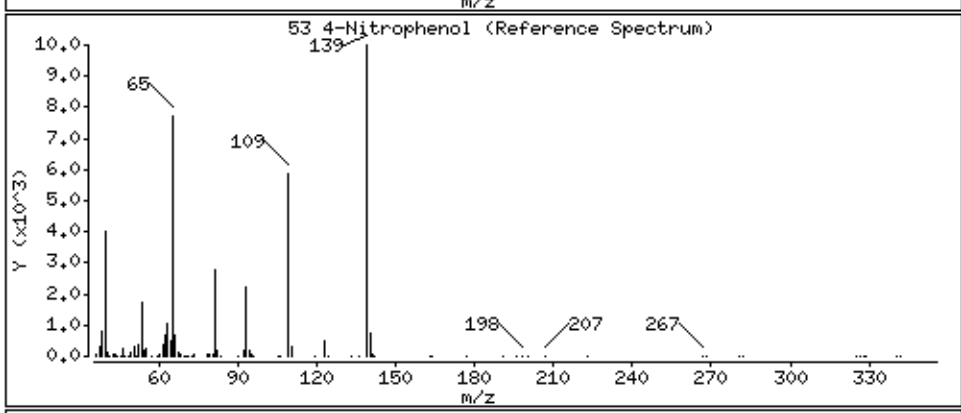
Column diameter: 0.18

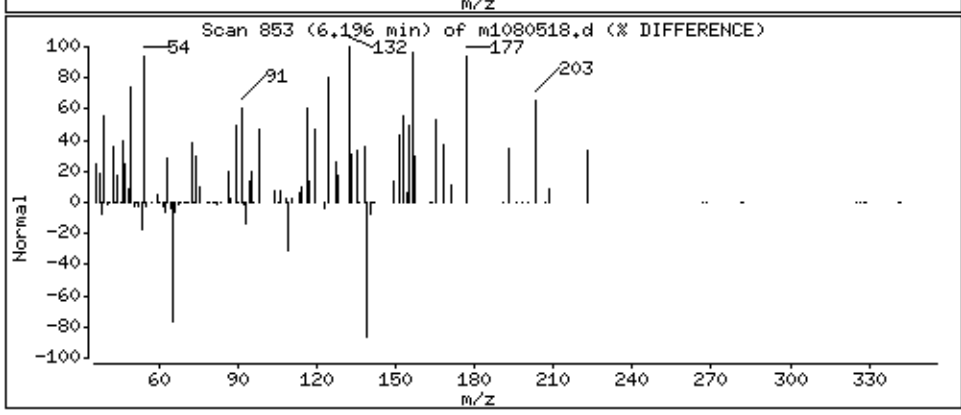
53 4-Nitrophenol

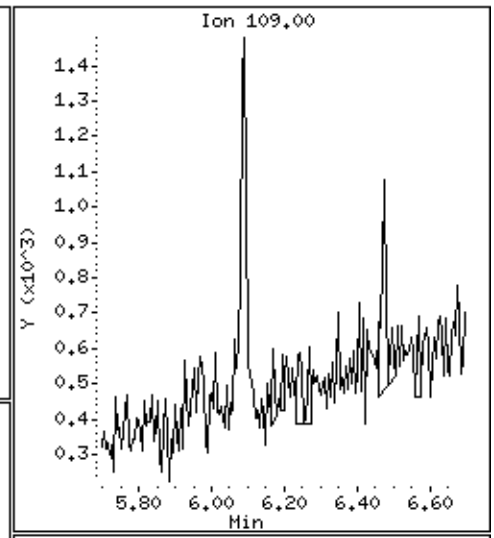
Concentration: 1.18 ug/Kg

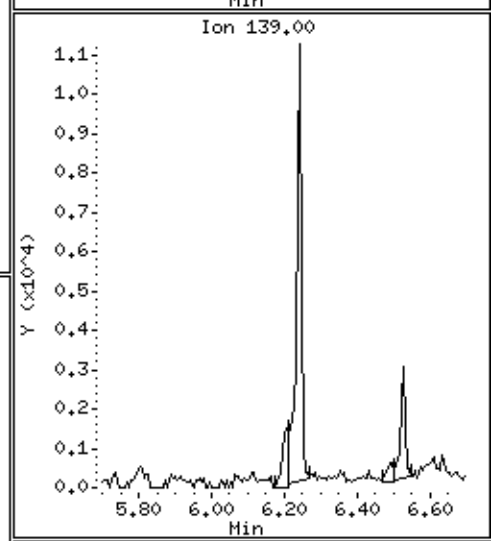


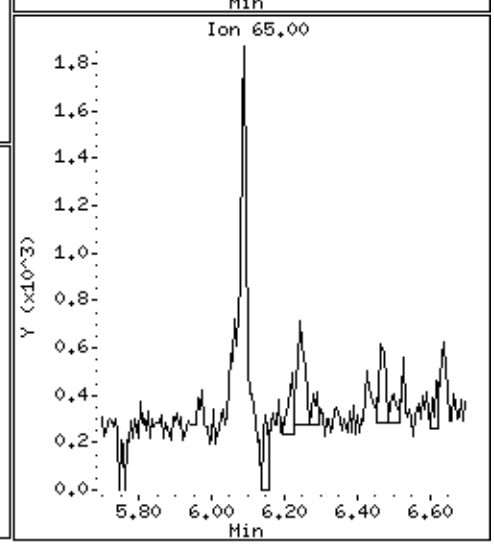












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

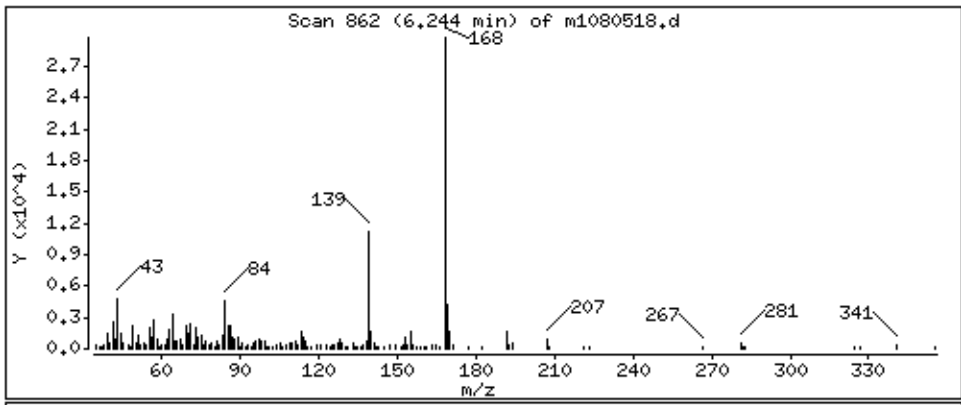
Operator: EAC

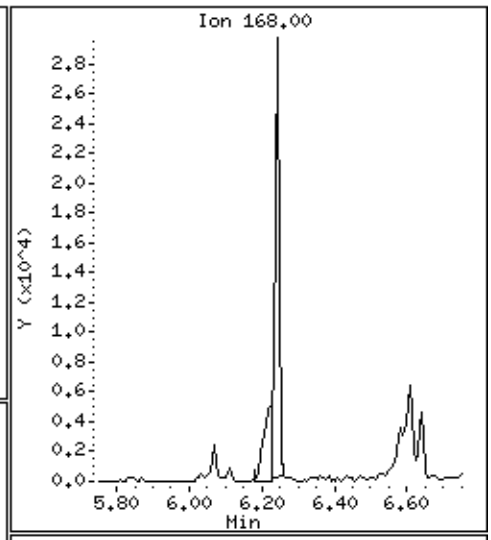
Column phase: RTX-5MS

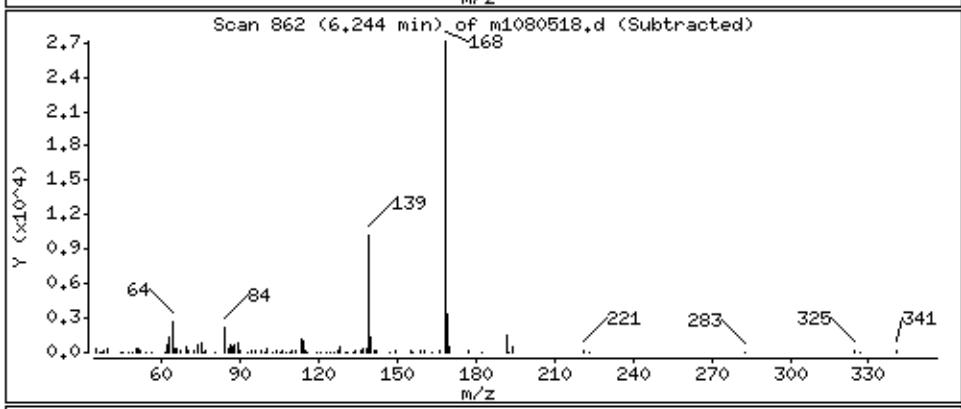
Column diameter: 0.18

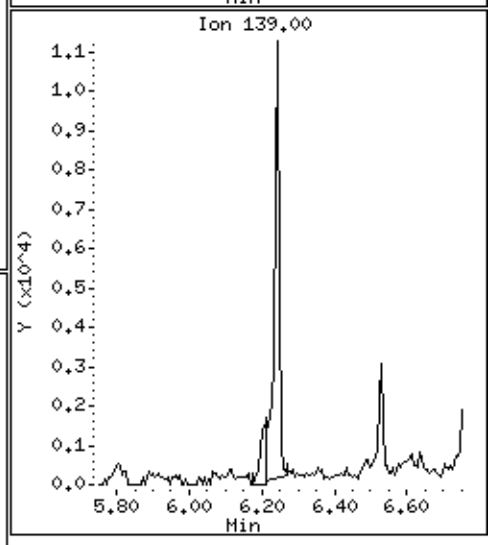
55 Dibenzofuran

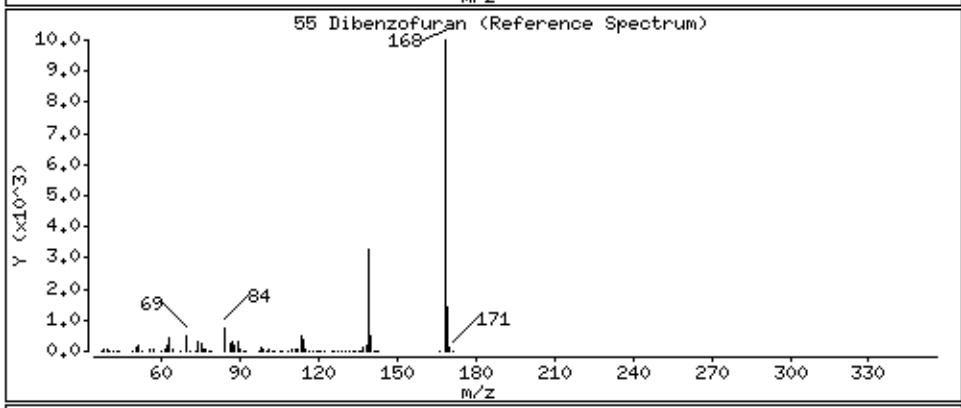
Concentration: 31.4 ug/Kg

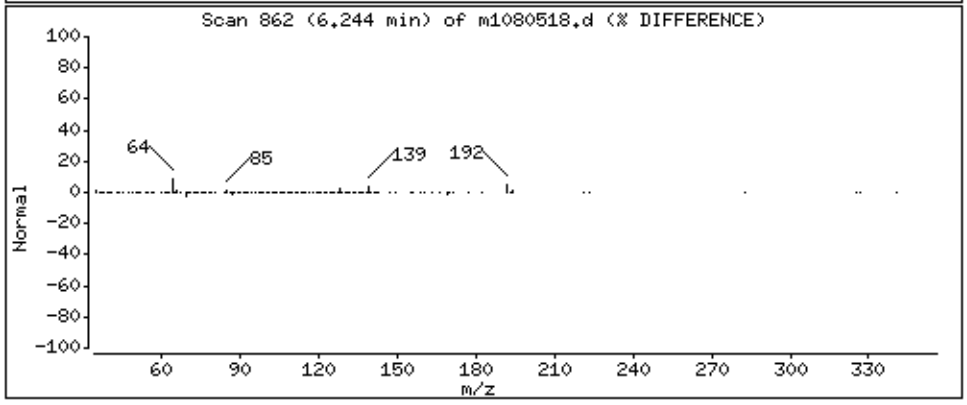












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

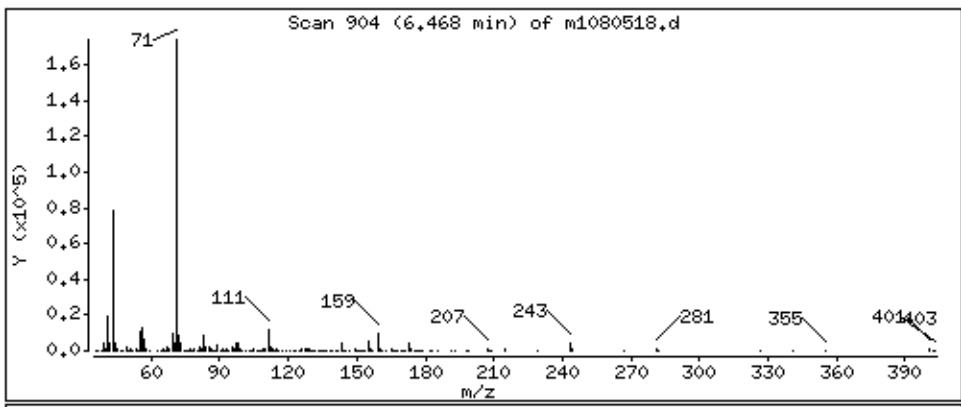
Operator: EAC

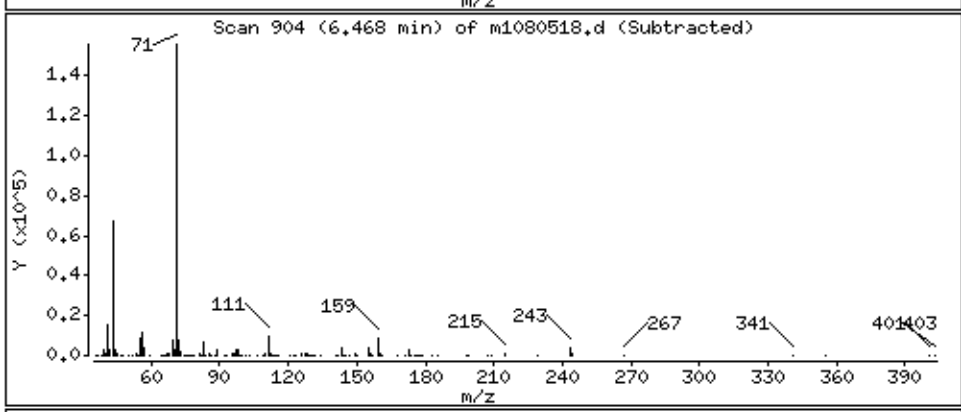
Column phase: RTX-5MS

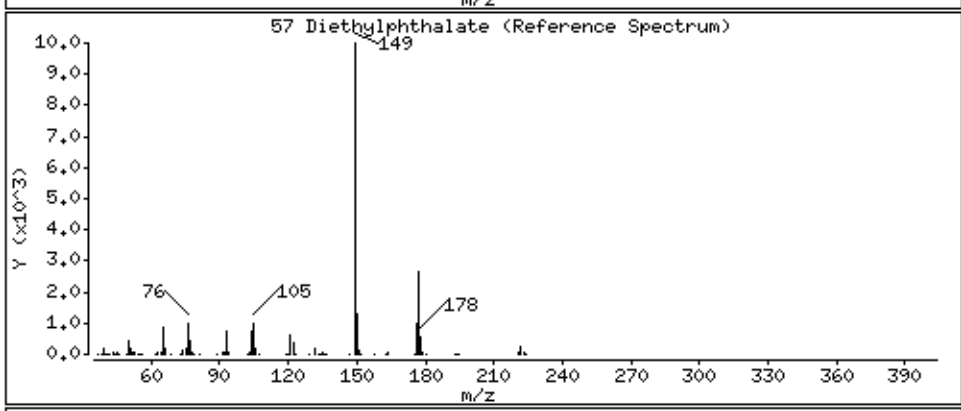
Column diameter: 0.18

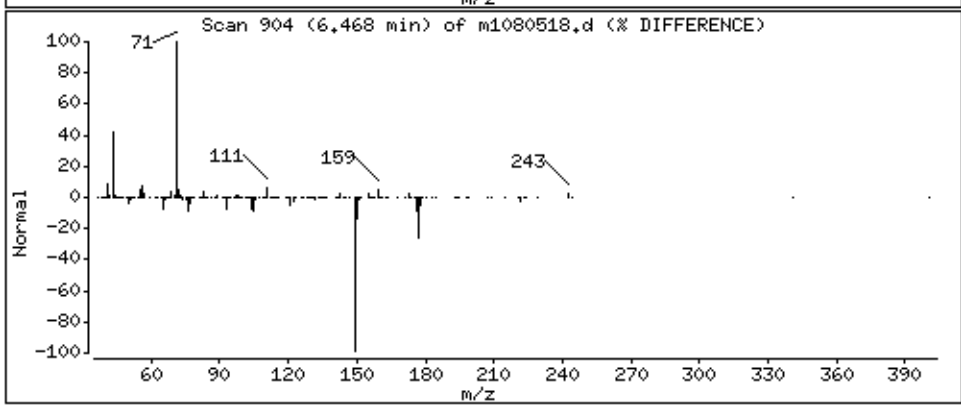
57 Diethylphthalate

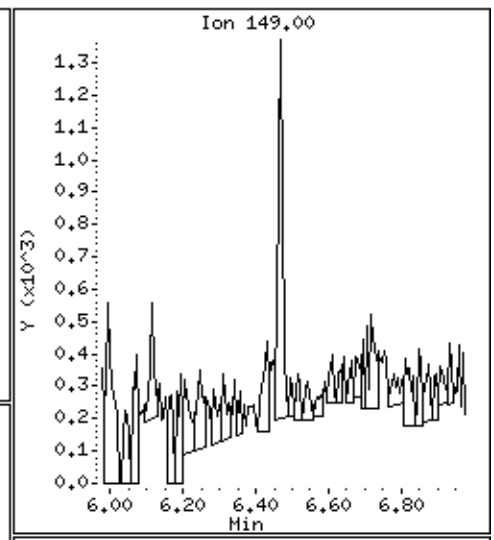
Concentration: 1.89 ug/Kg

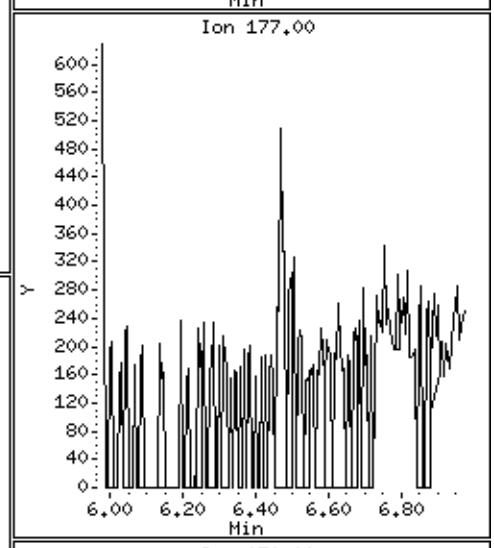


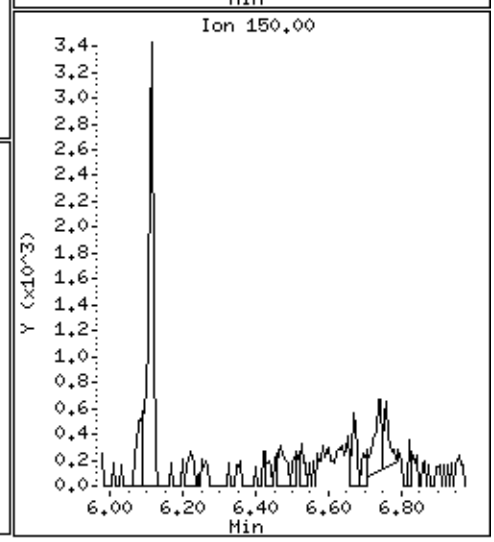












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

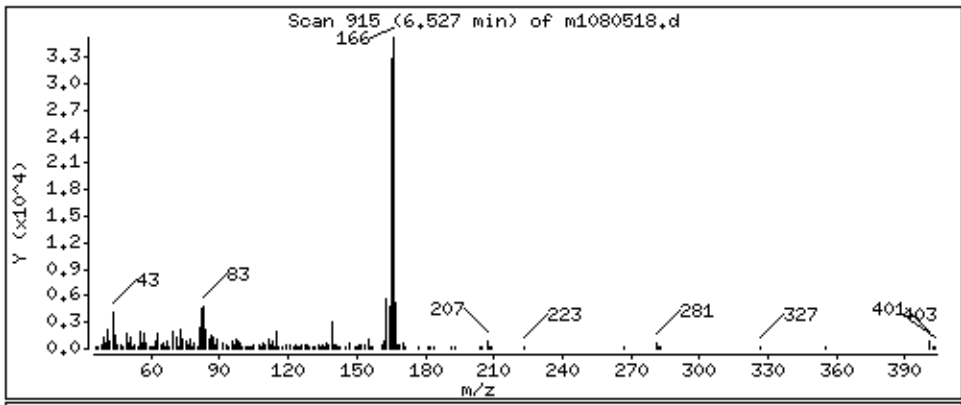
Operator: EAC

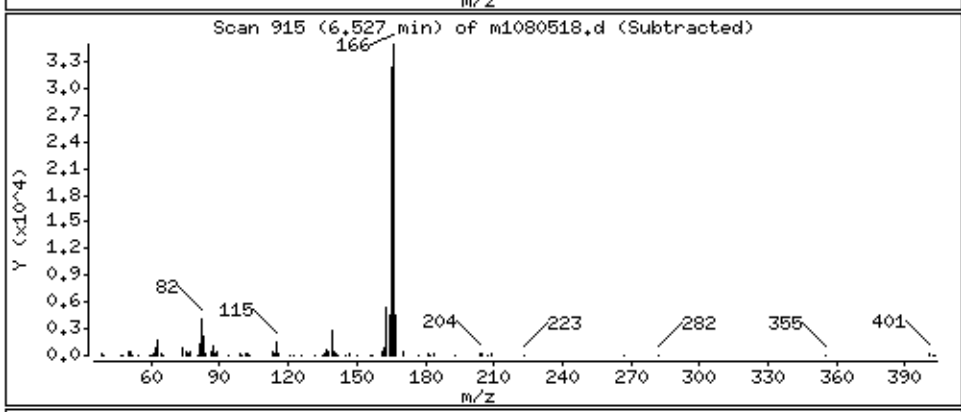
Column phase: RTX-5MS

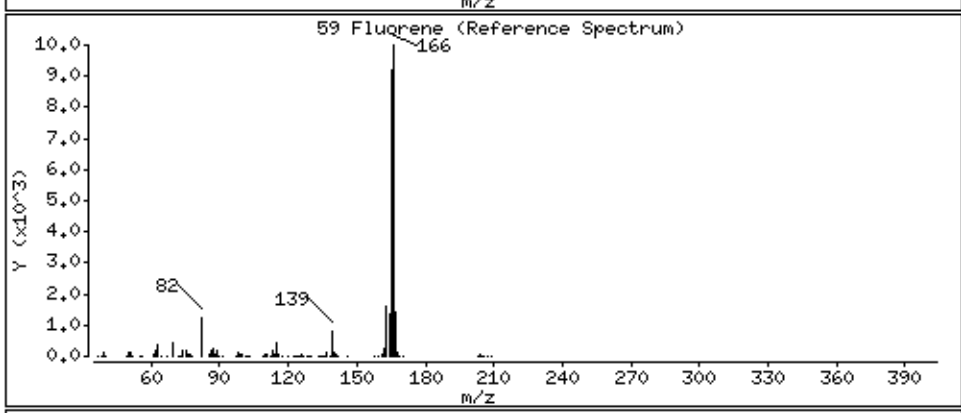
Column diameter: 0.18

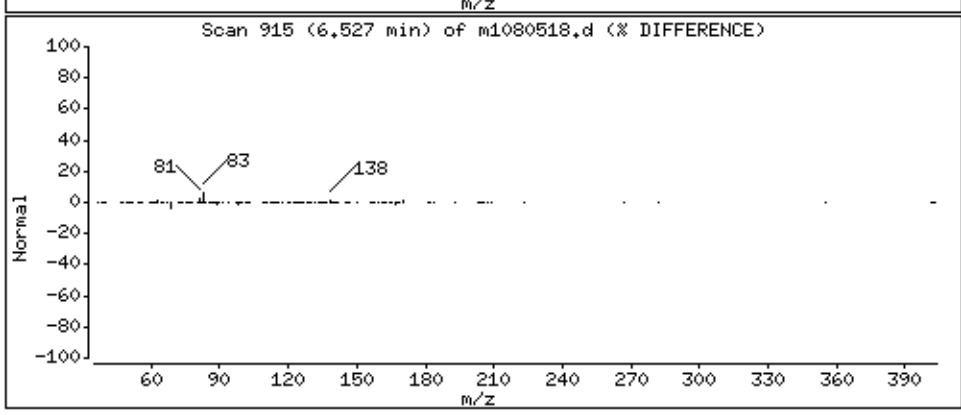
59 Fluorene

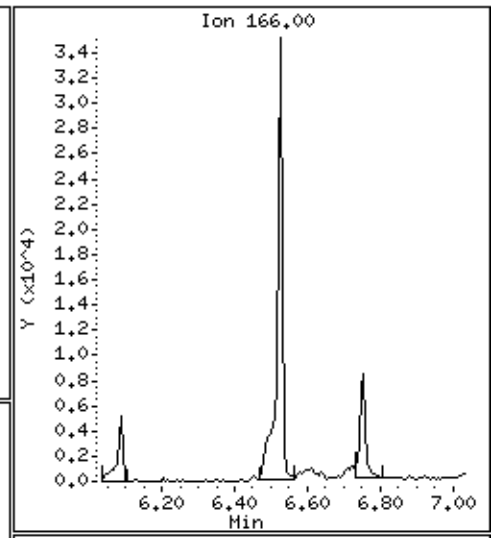
Concentration: 55.1 ug/Kg

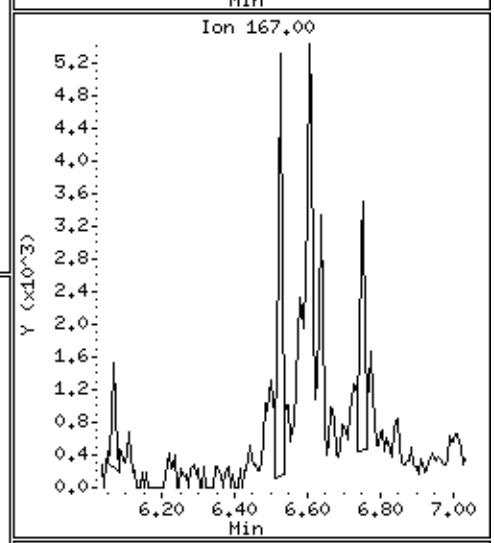


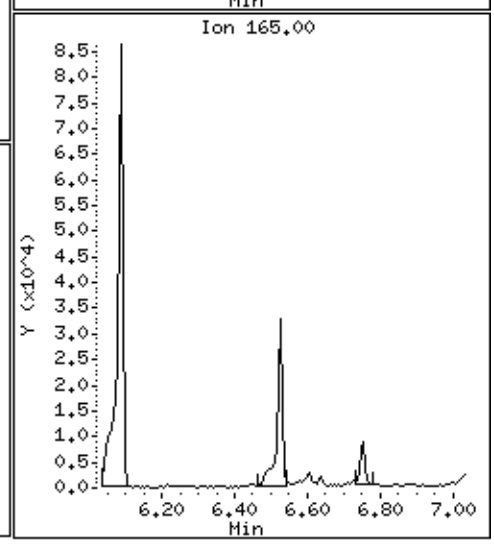












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

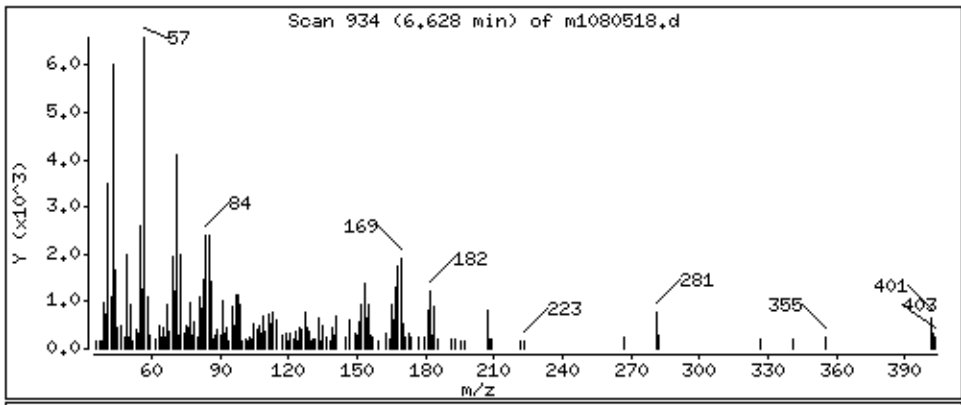
Operator: EAC

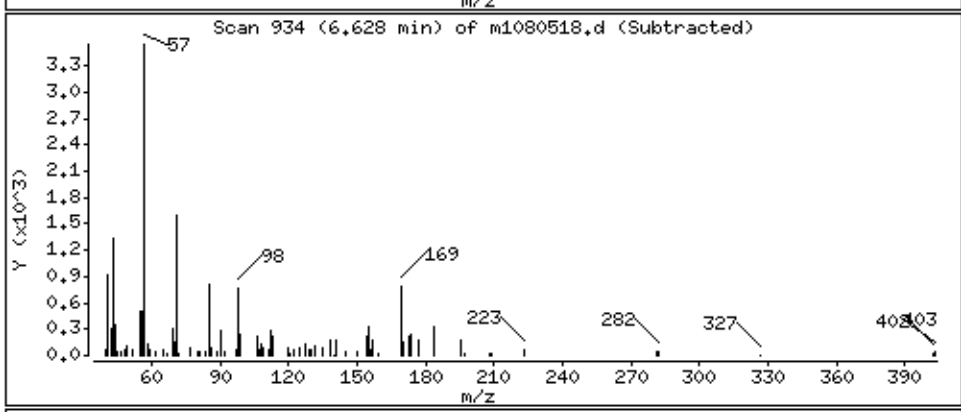
Column phase: RTX-5MS

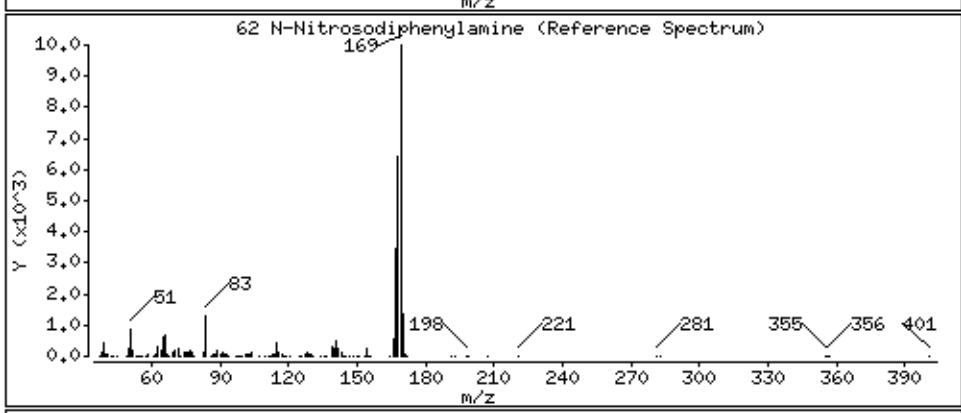
Column diameter: 0.18

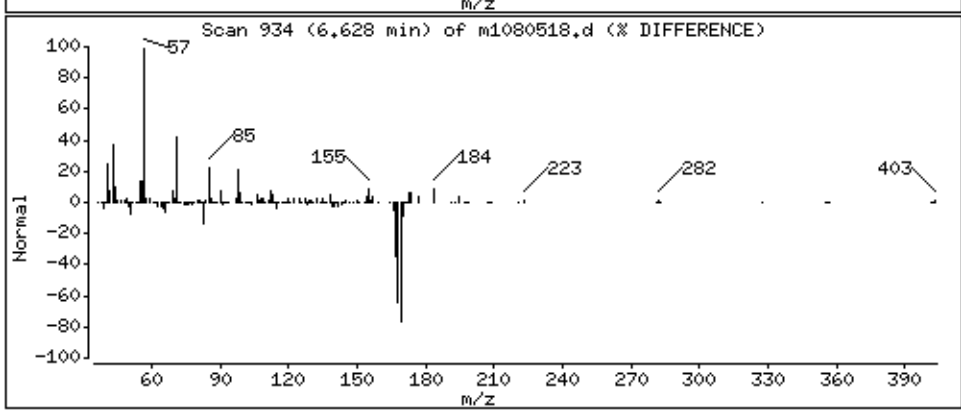
62 N-Nitrosodiphenylamine

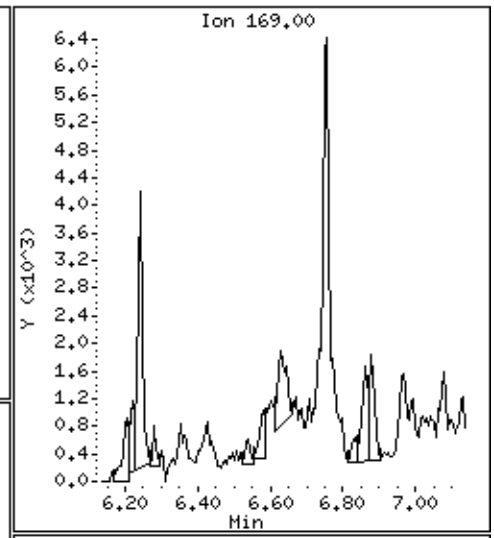
Concentration: 3.26 ug/Kg

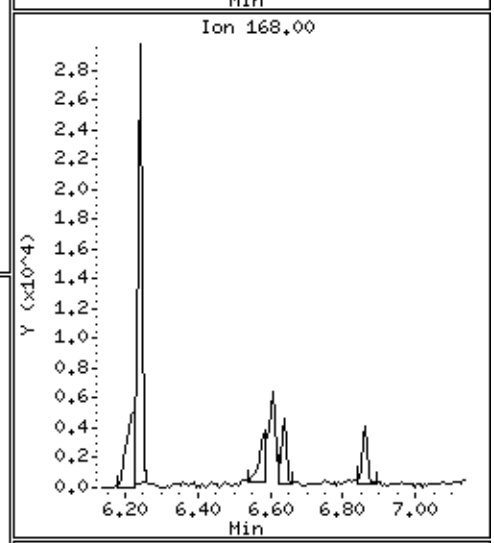


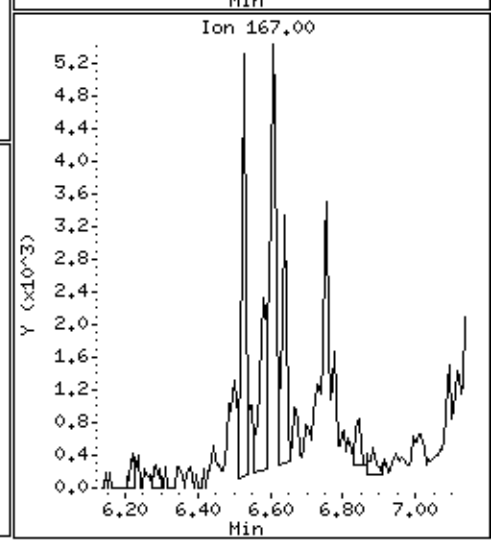












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

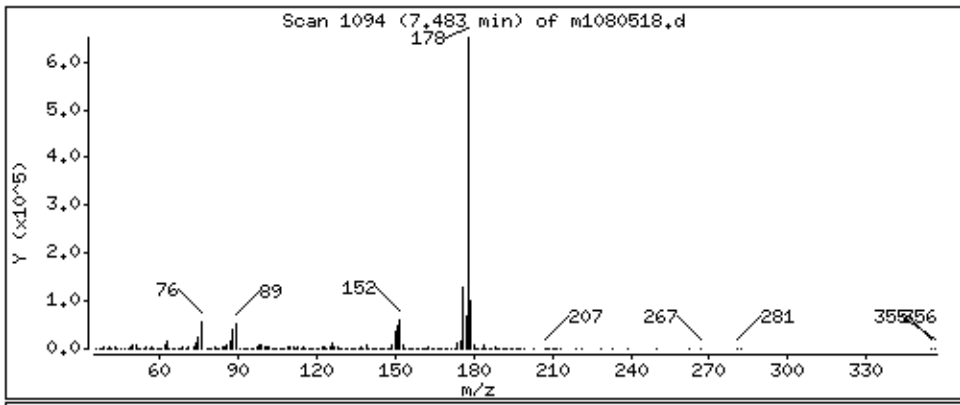
Operator: EAC

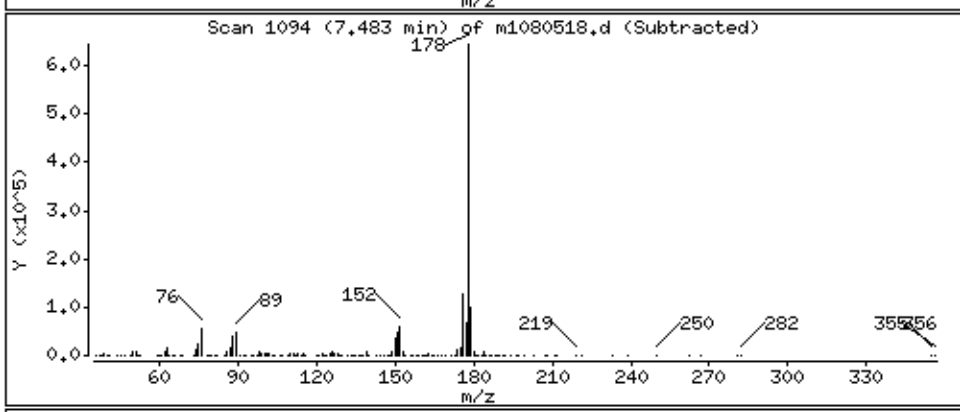
Column phase: RTX-5MS

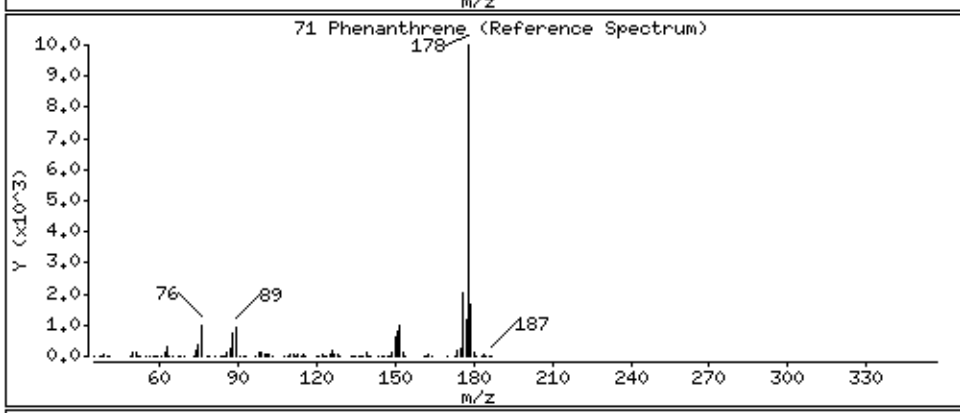
Column diameter: 0.18

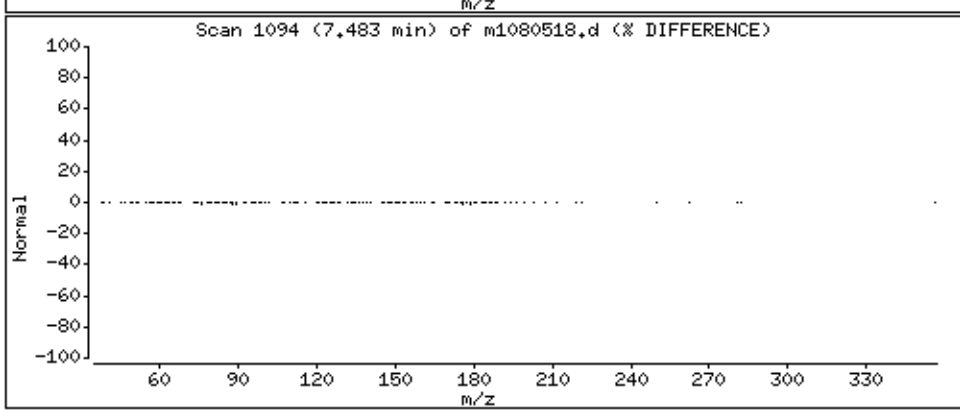
71 Phenanthrene

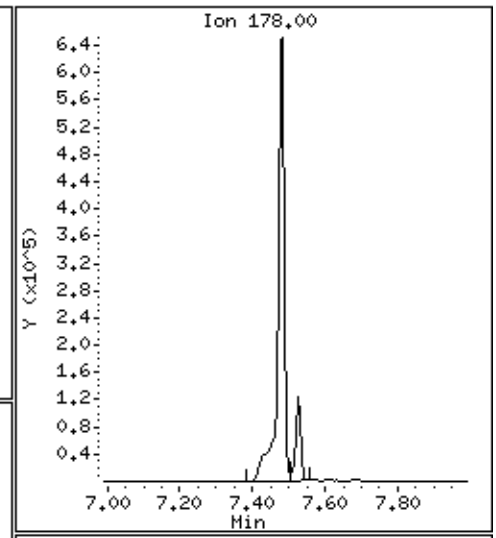
Concentration: 824 ug/Kg

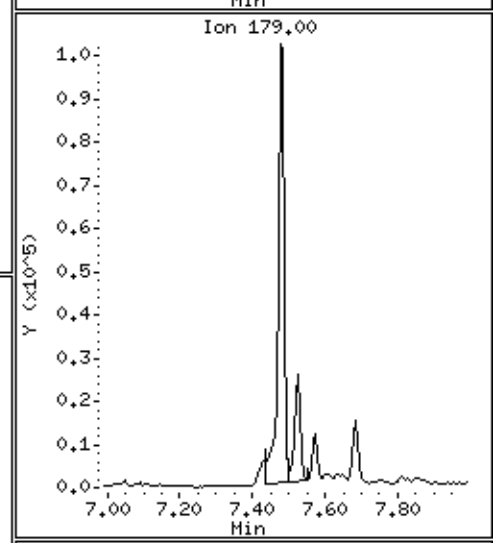


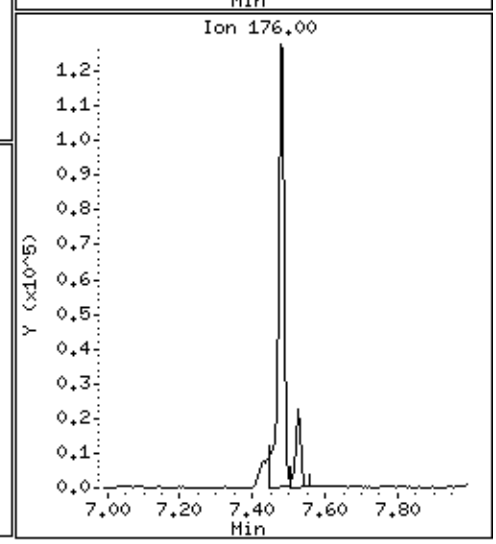












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

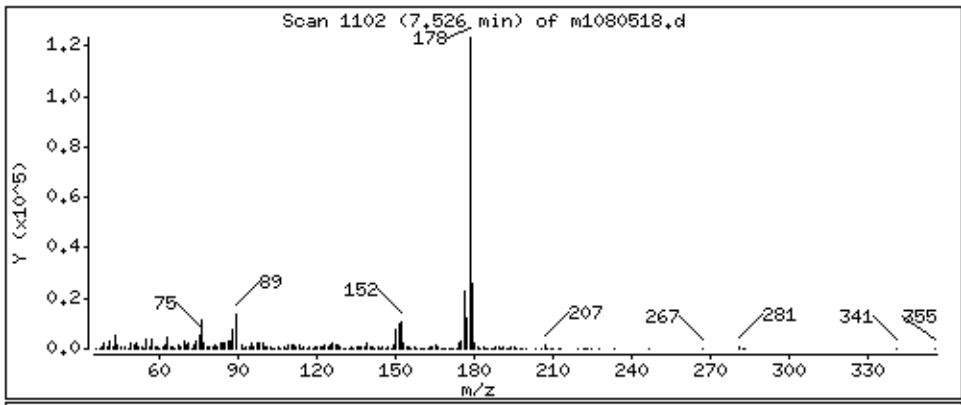
Operator: EAC

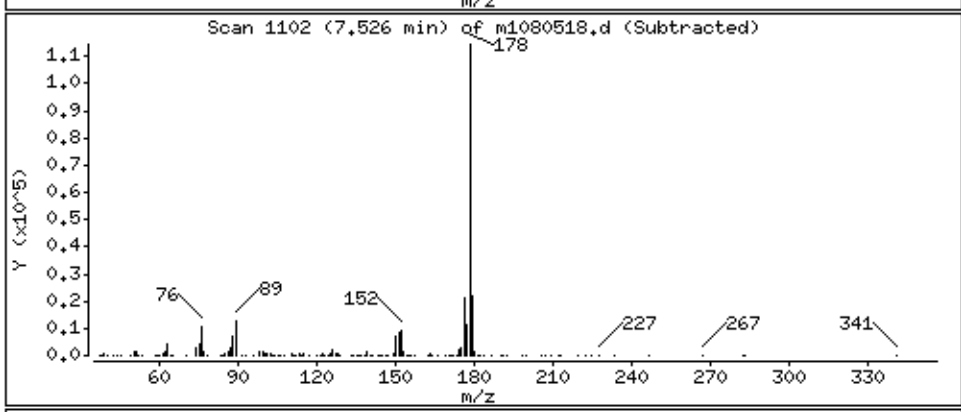
Column phase: RTX-5MS

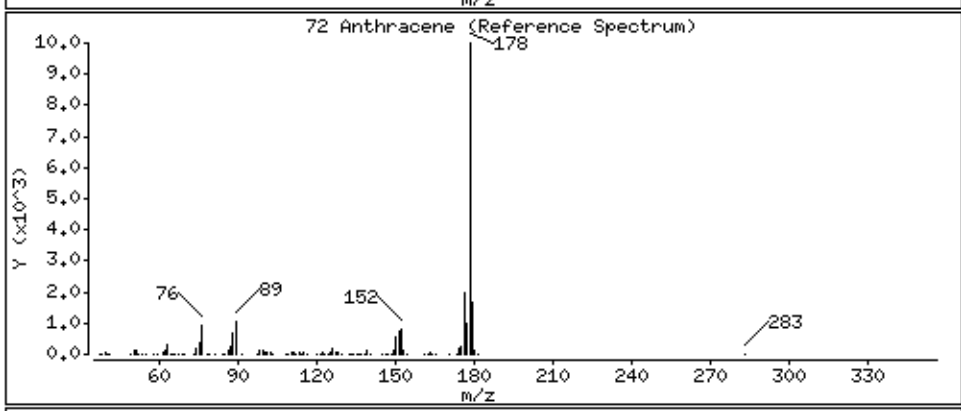
Column diameter: 0.18

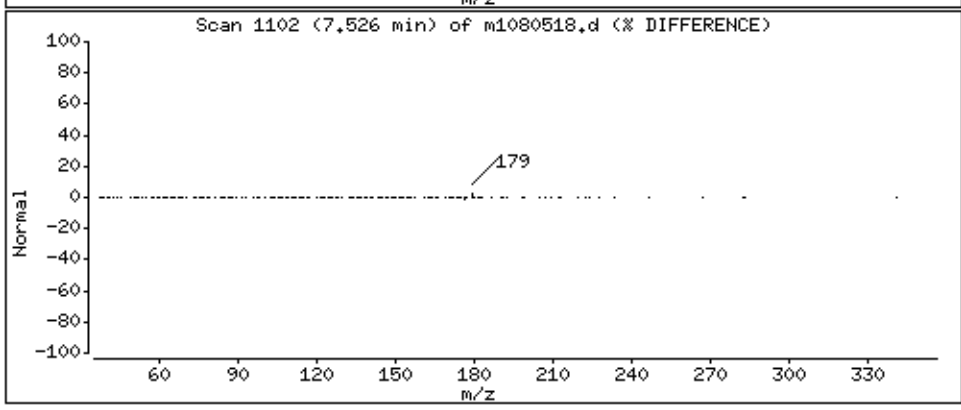
72 Anthracene

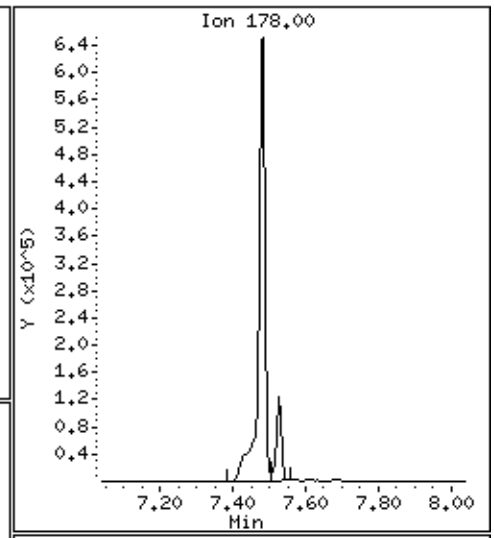
Concentration: 136 ug/Kg

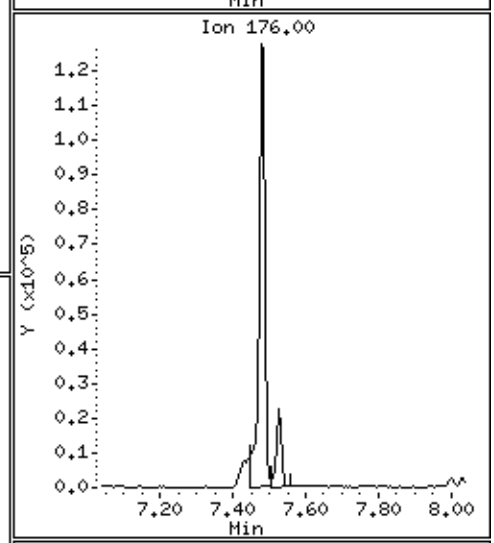


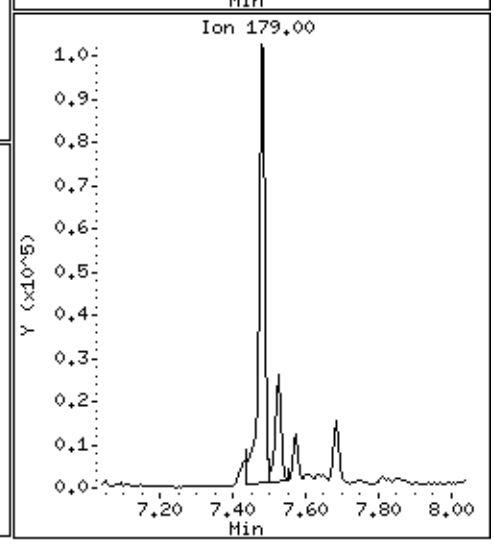












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

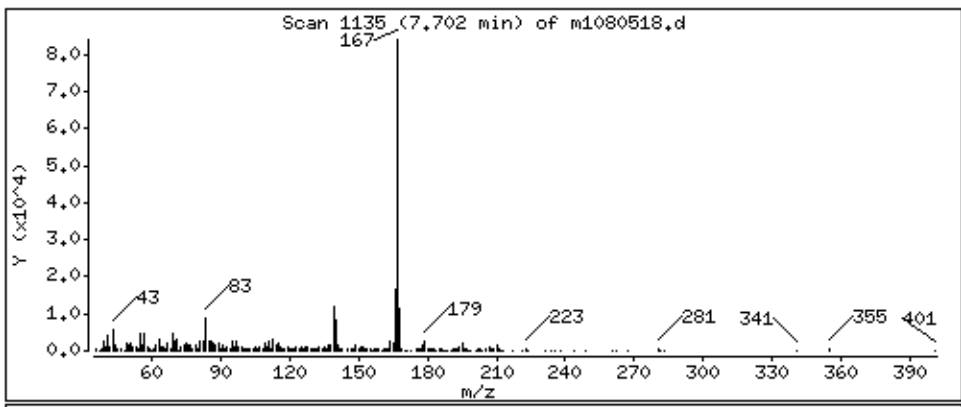
Operator: EAC

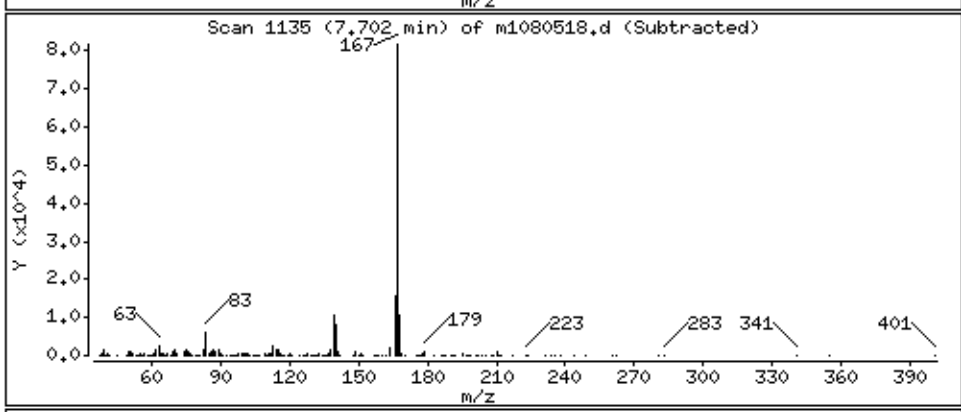
Column phase: RTX-5MS

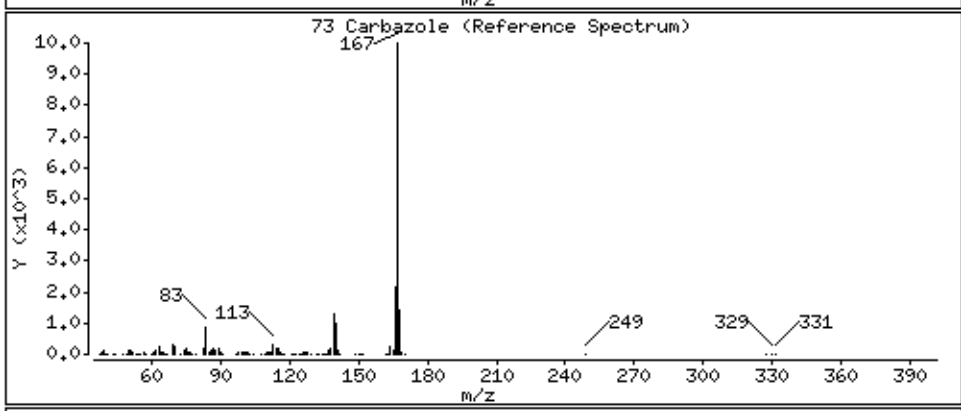
Column diameter: 0.18

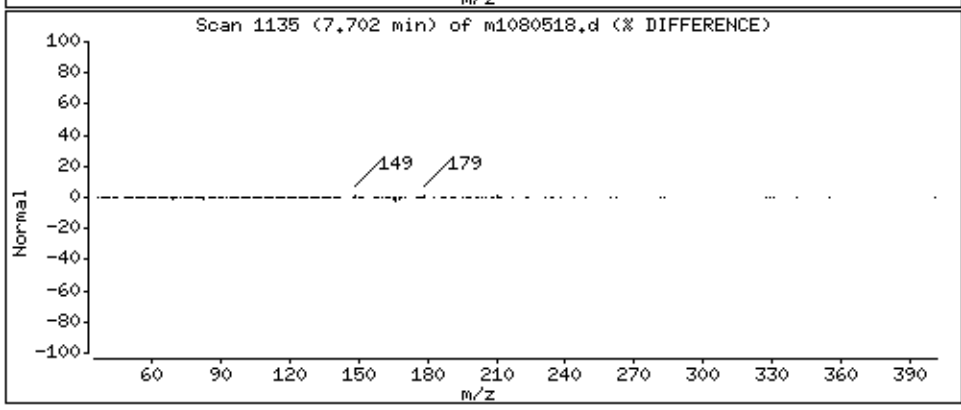
73 Carbazole

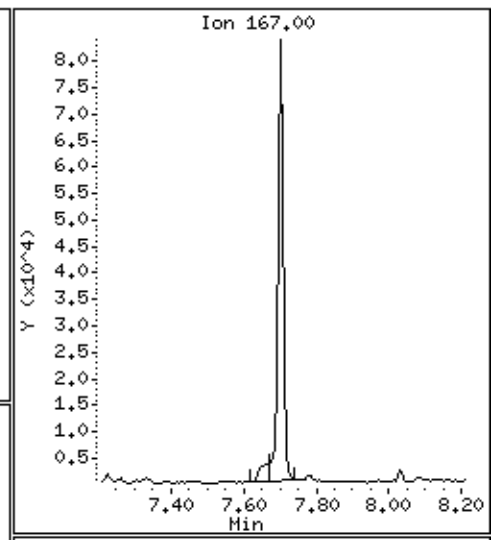
Concentration: 104 ug/Kg

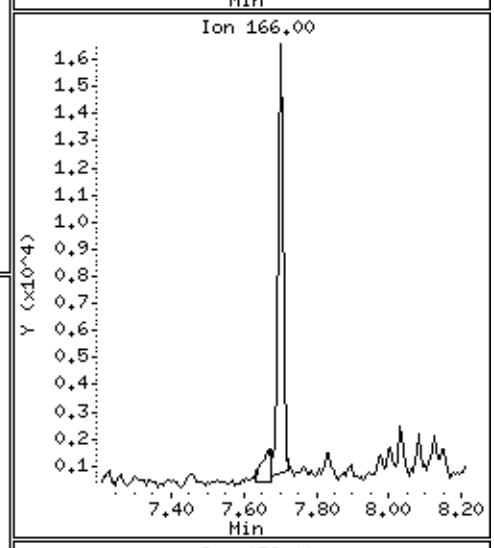


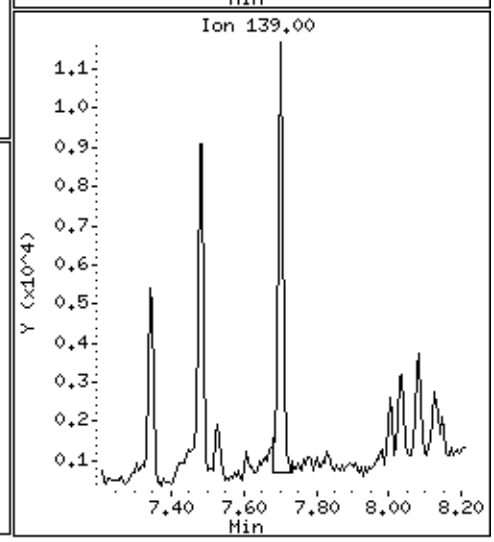












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

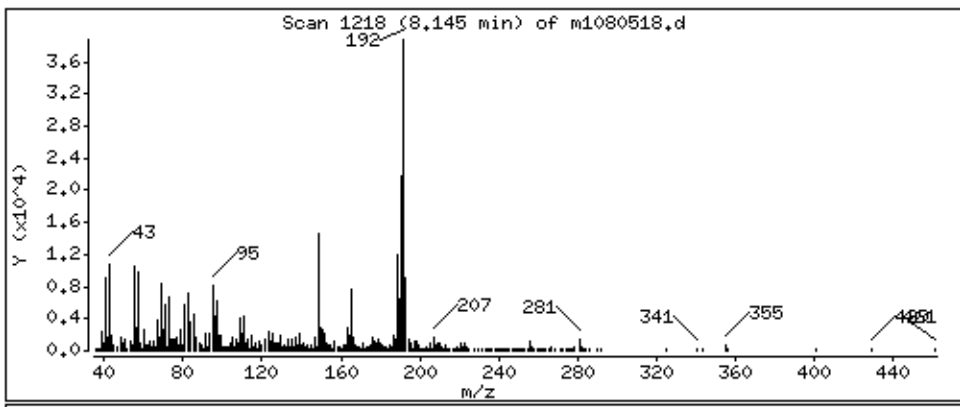
Operator: EAC

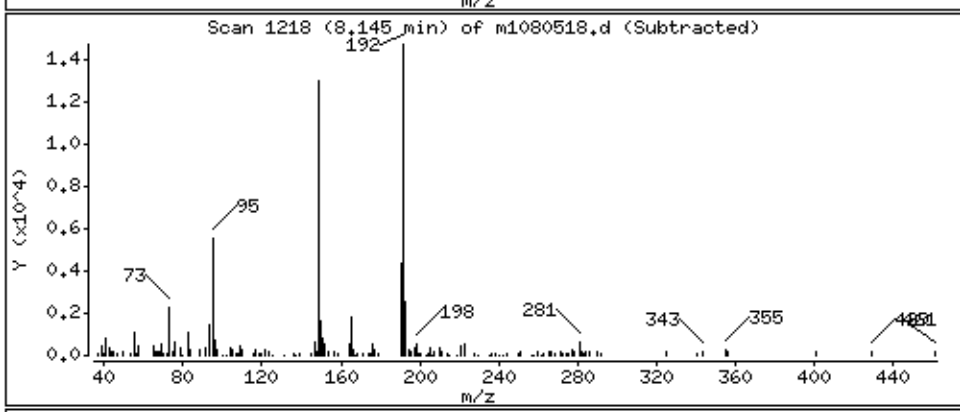
Column phase: RTX-5MS

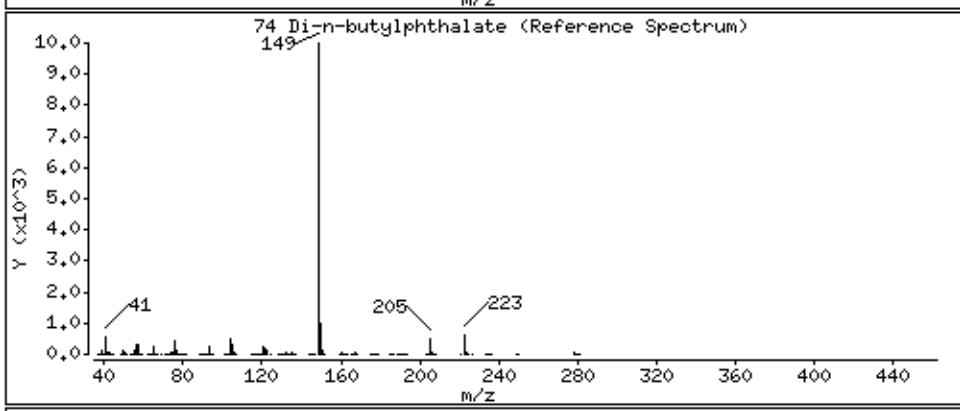
Column diameter: 0.18

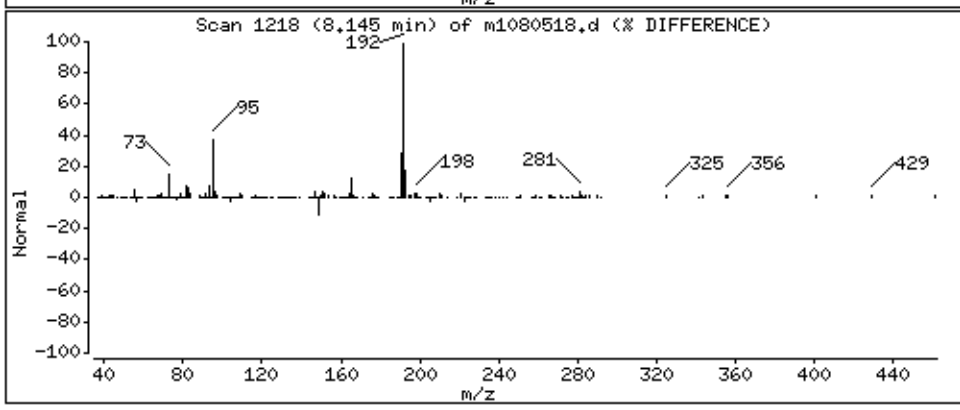
74 Di-n-butylphthalate

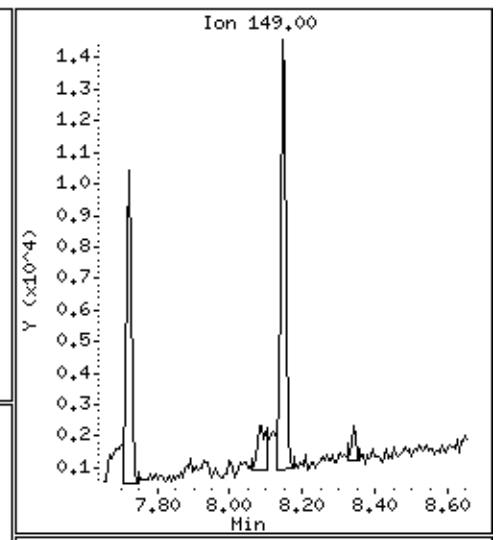
Concentration: 14.6 ug/Kg

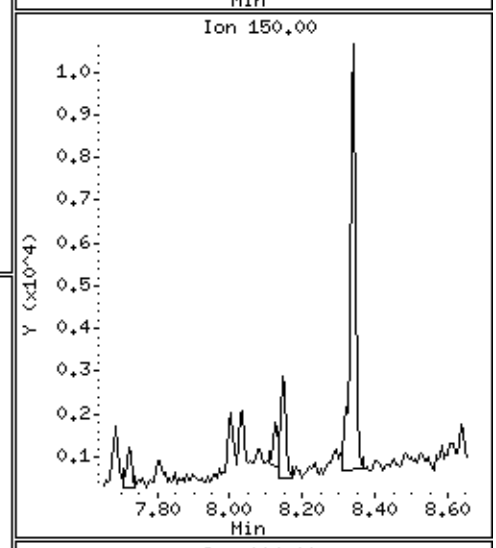


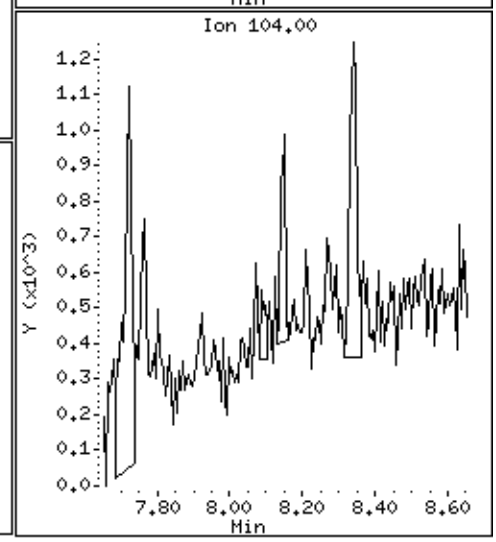












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

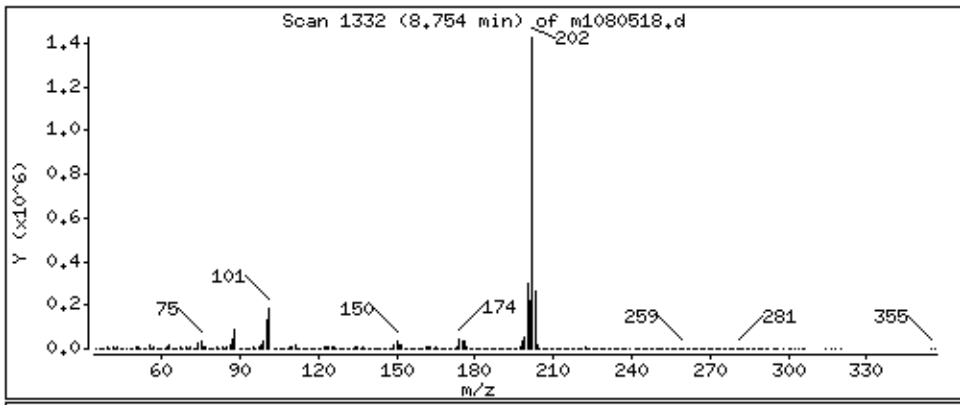
Operator: EAC

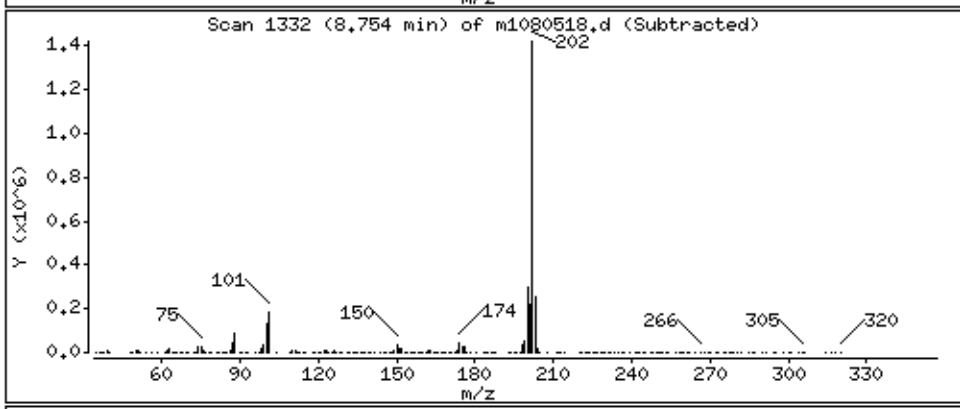
Column phase: RTX-5MS

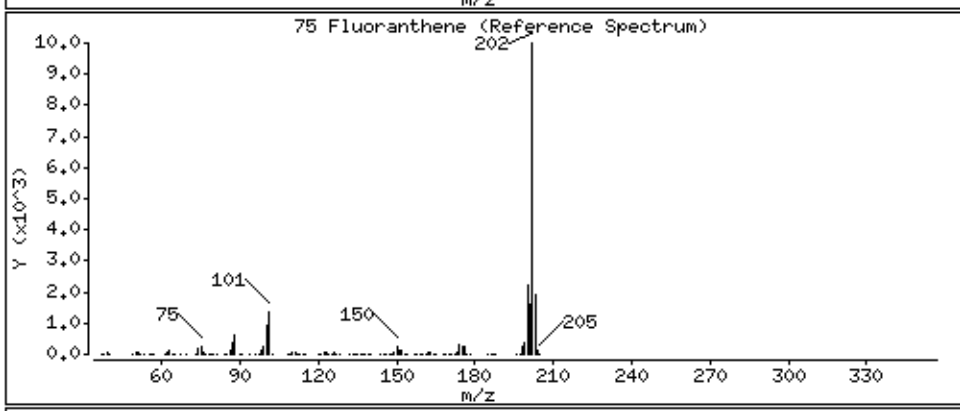
Column diameter: 0.18

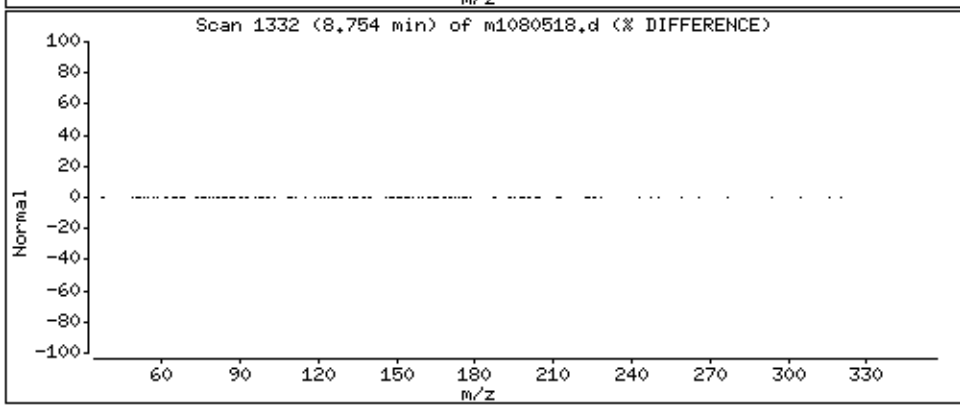
75 Fluoranthene

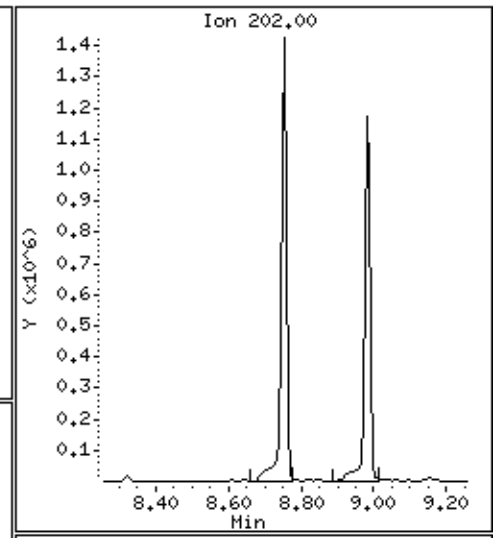
Concentration: 1500 ug/Kg

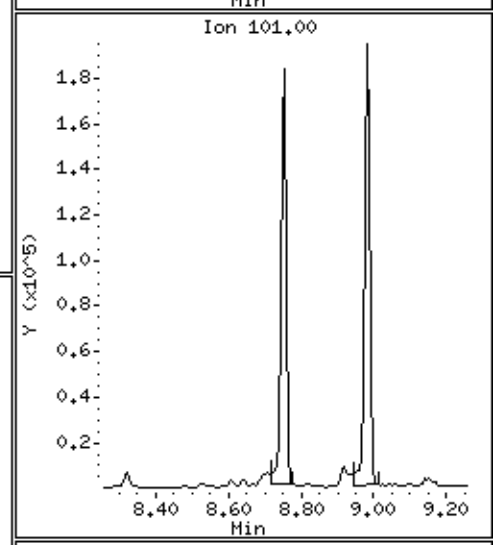


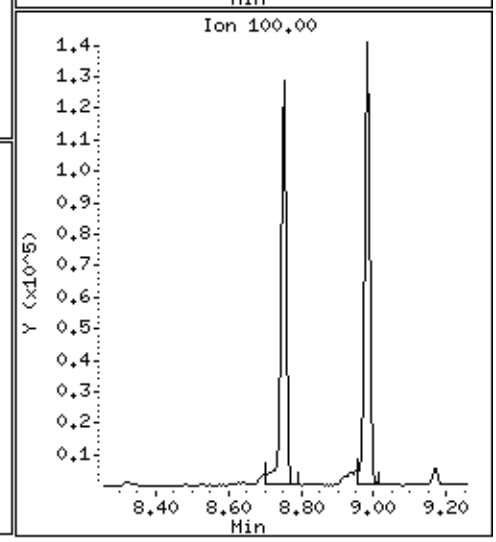












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

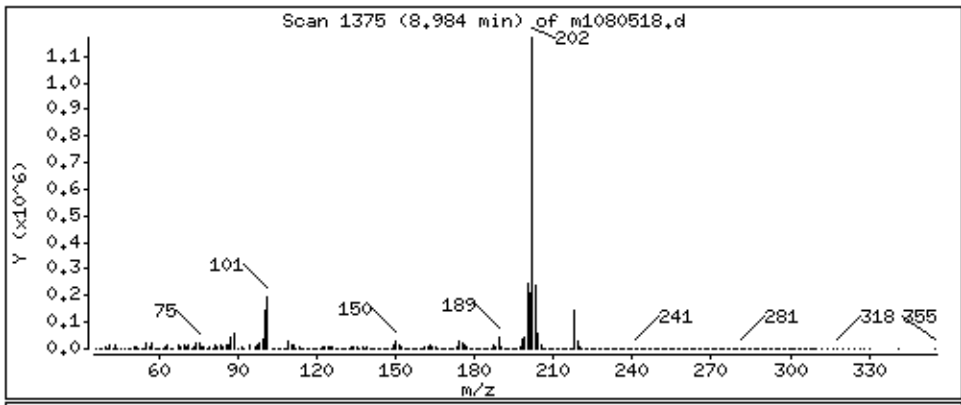
Operator: EAC

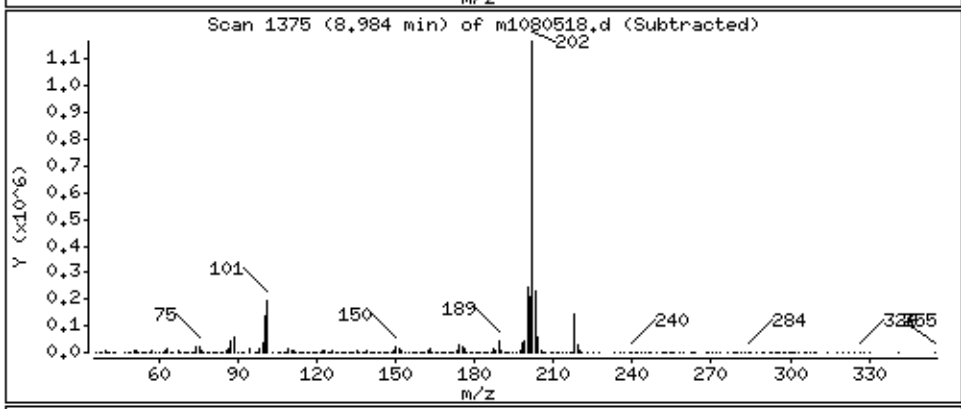
Column phase: RTX-5MS

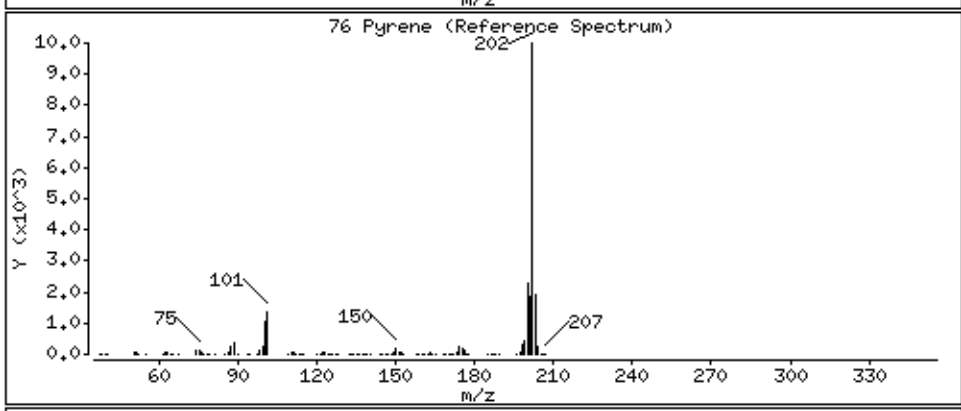
Column diameter: 0.18

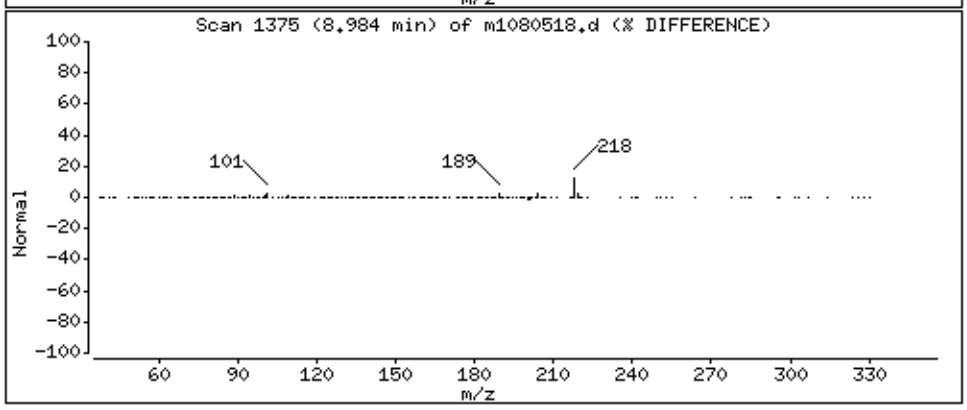
76 Pyrene

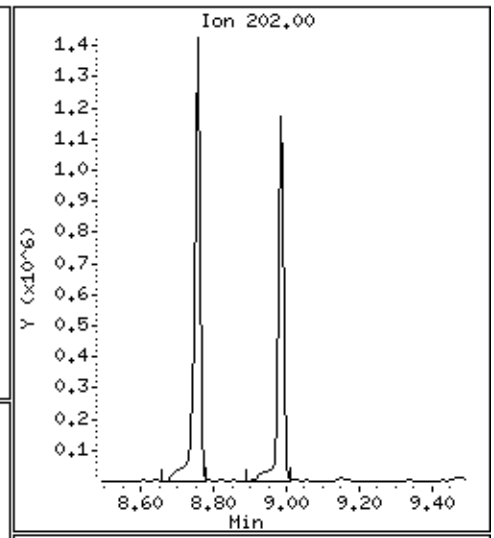
Concentration: 1380 ug/Kg

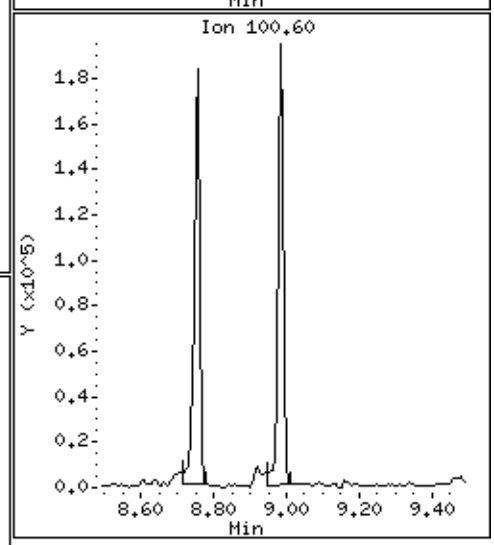












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

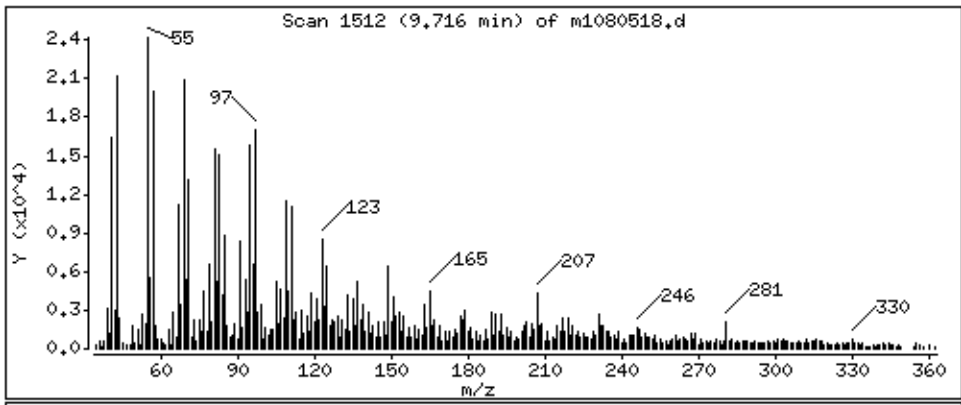
Operator: EAC

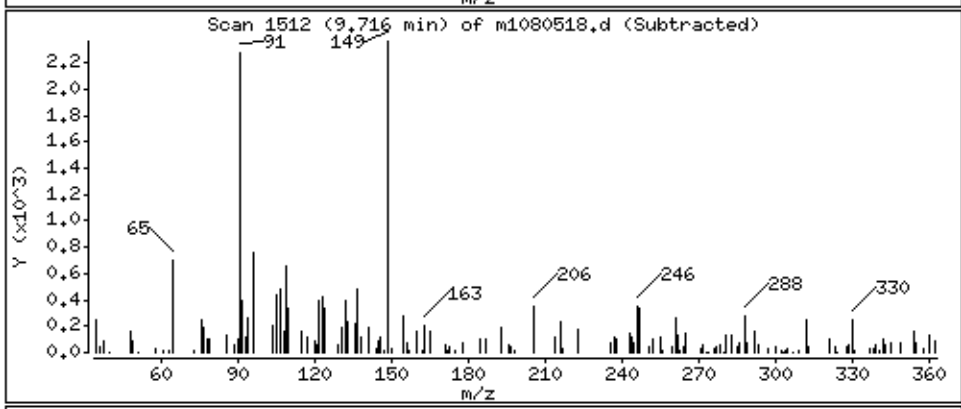
Column phase: RTX-5MS

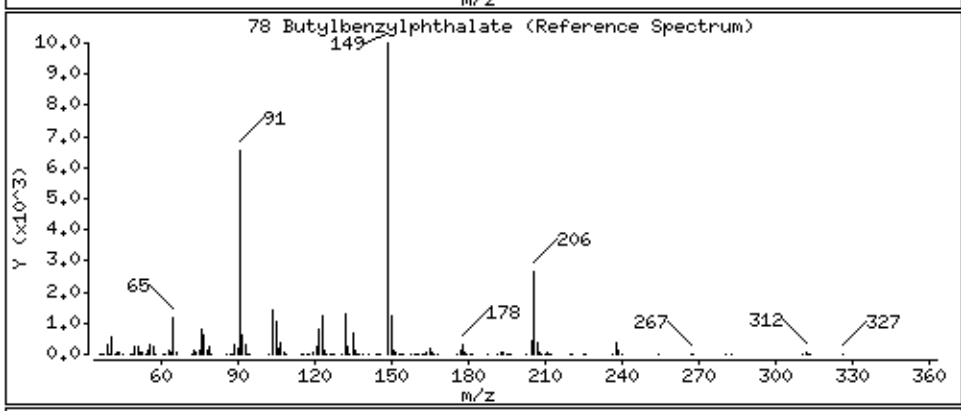
Column diameter: 0.18

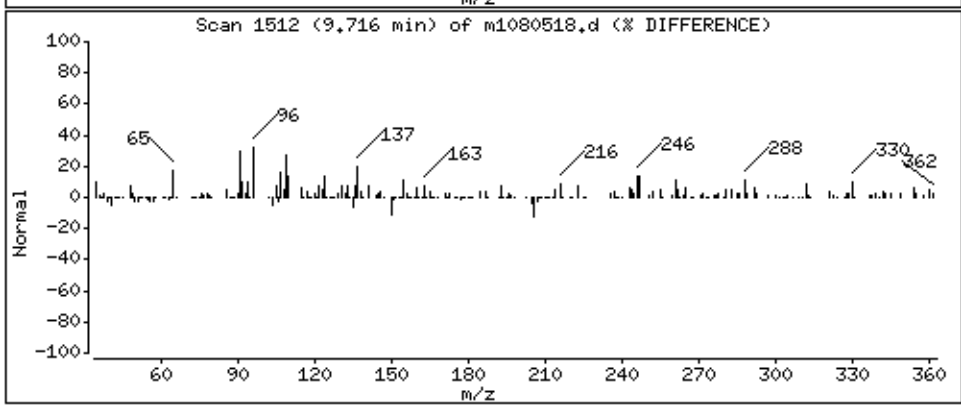
78 Butylbenzylphthalate

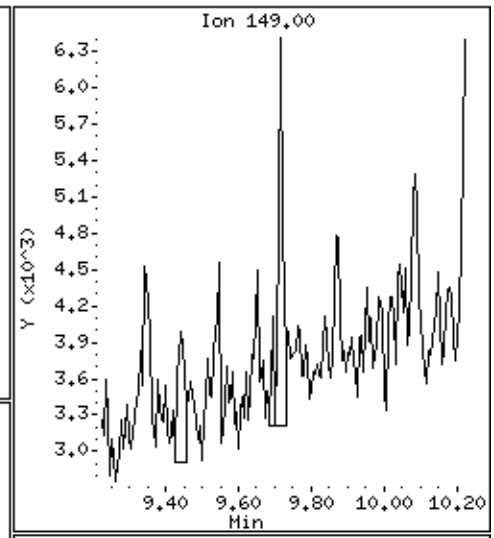
Concentration: 8.13 ug/Kg

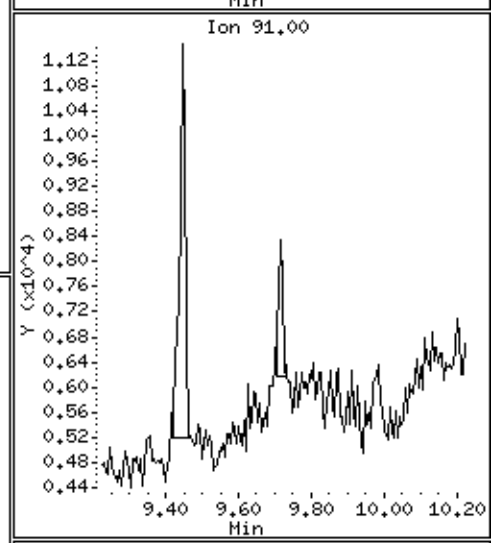


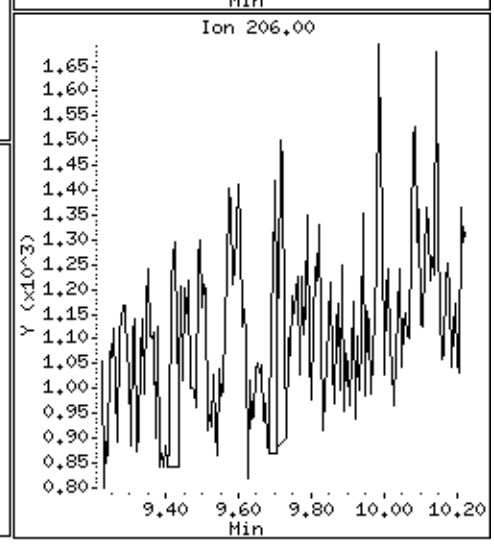












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

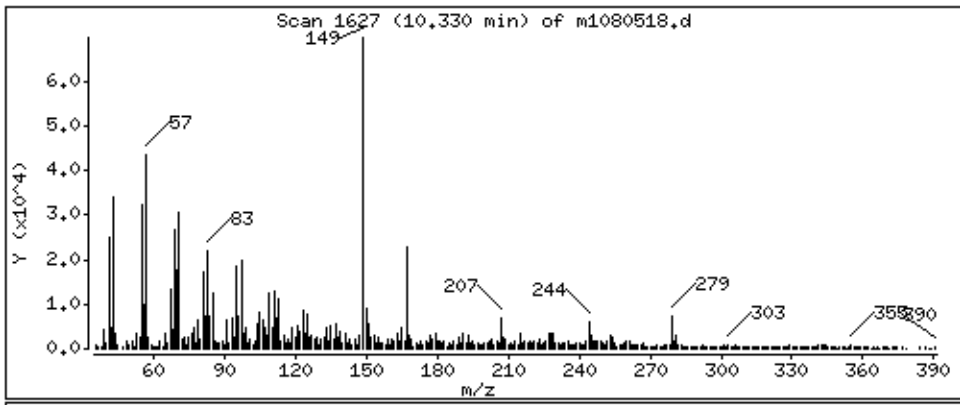
Operator: EAC

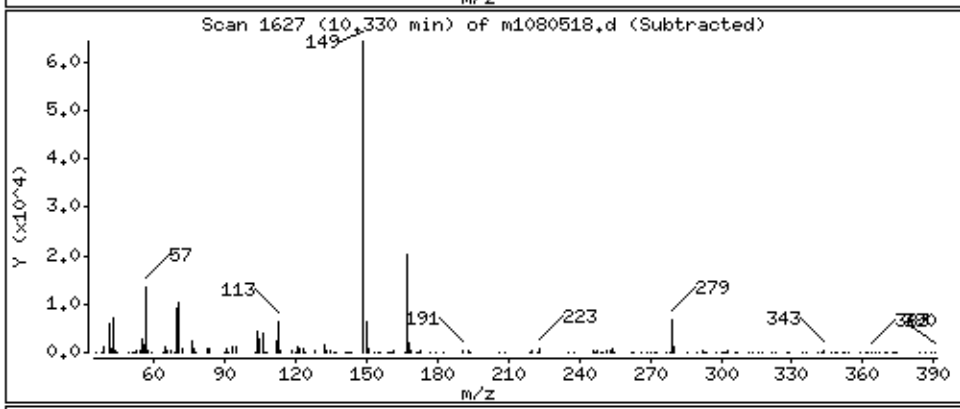
Column phase: RTX-5MS

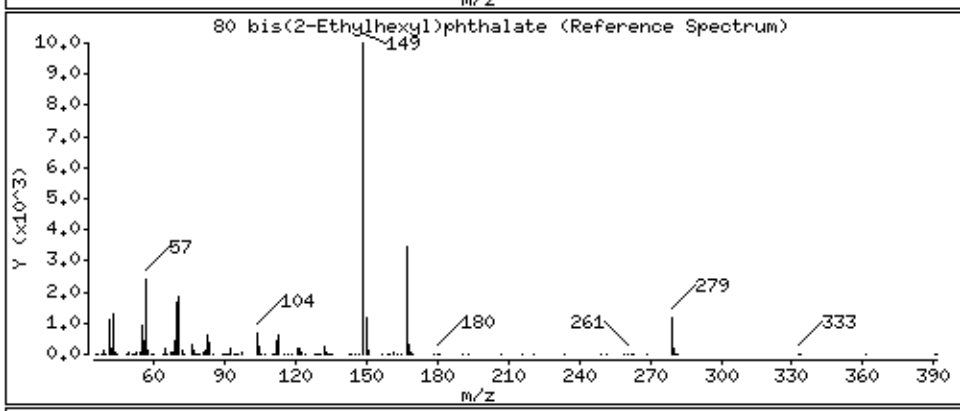
Column diameter: 0.18

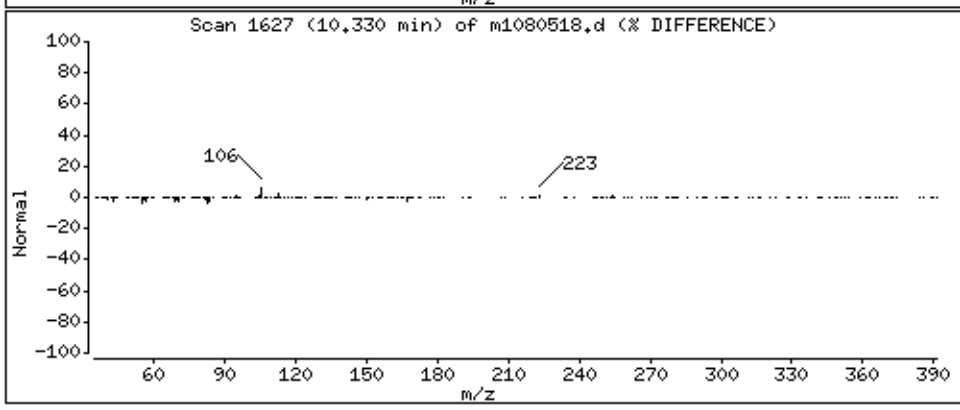
80 bis(2-Ethylhexyl)phthalate

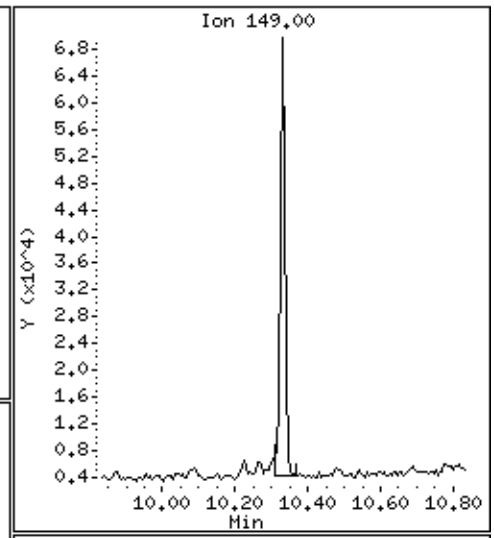
Concentration: 120 ug/Kg

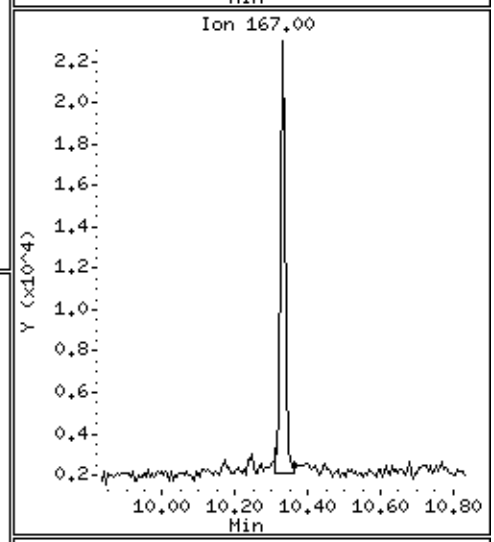


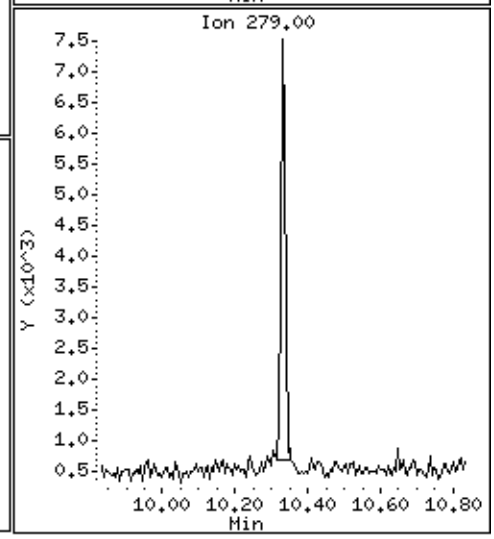












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Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

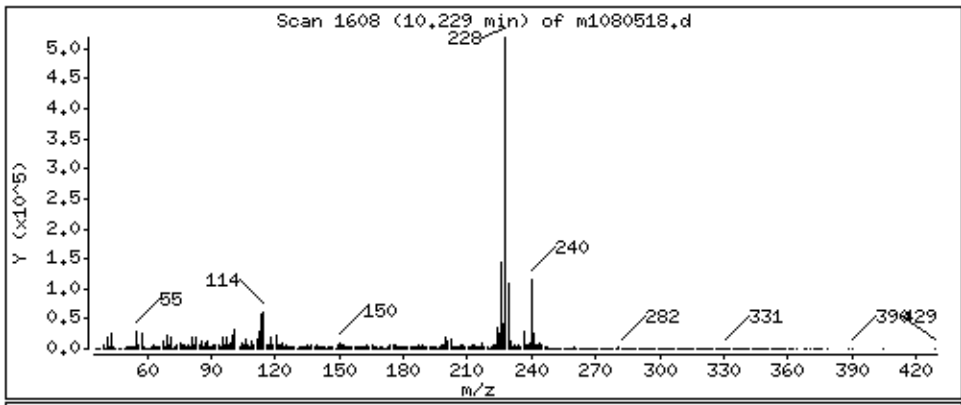
Operator: EAC

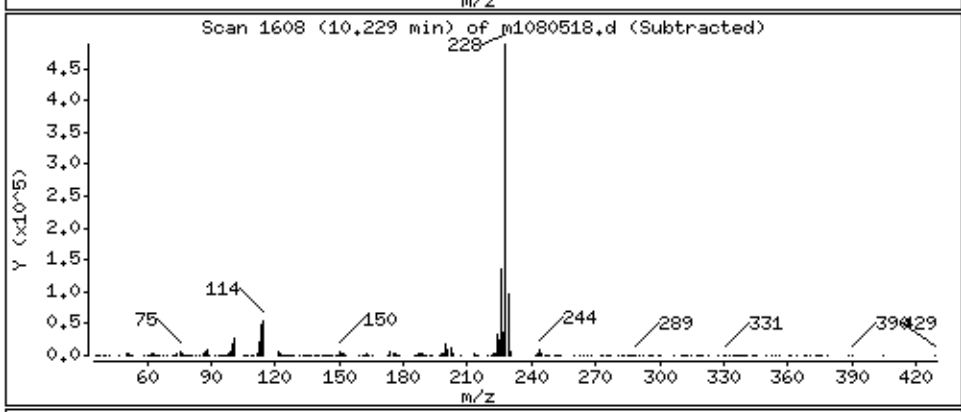
Column phase: RTX-5MS

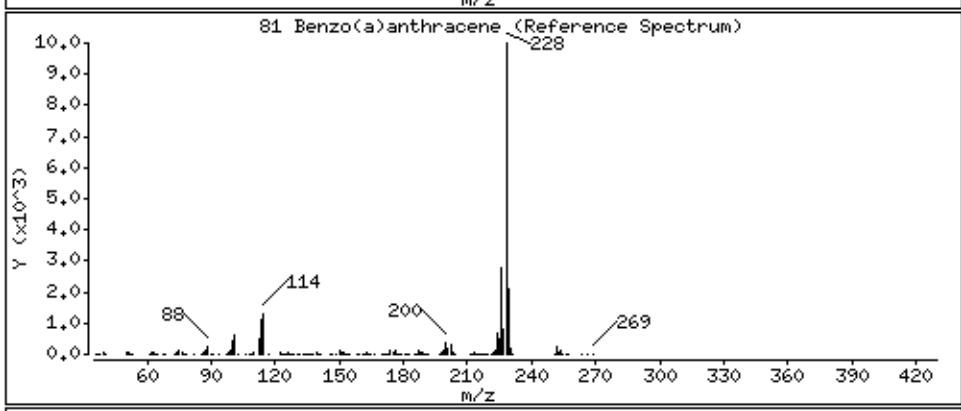
Column diameter: 0.18

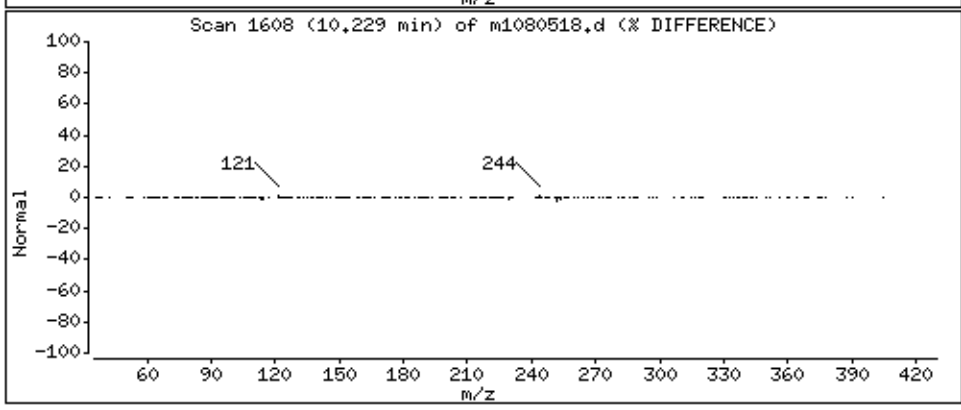
81 Benzo(a)anthracene

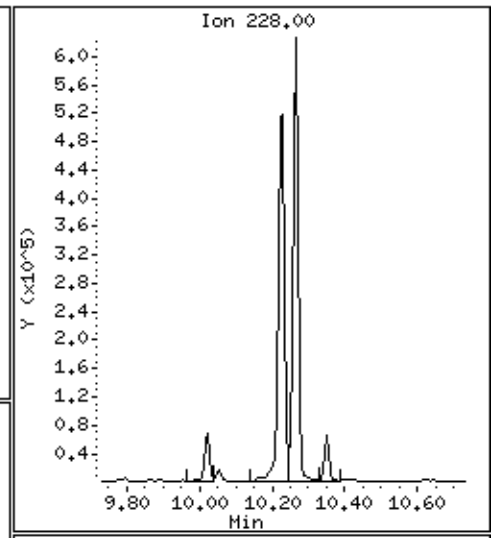
Concentration: 708 ug/Kg

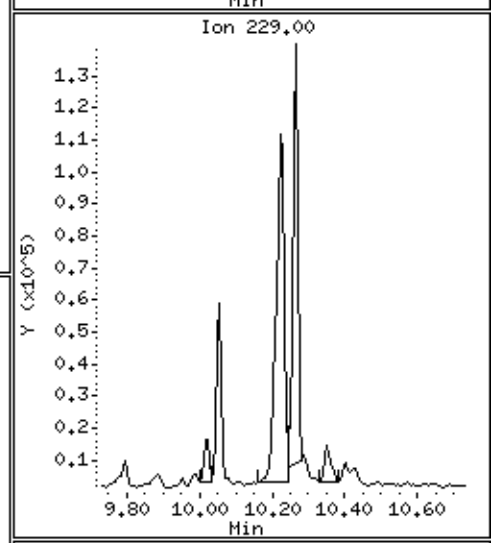


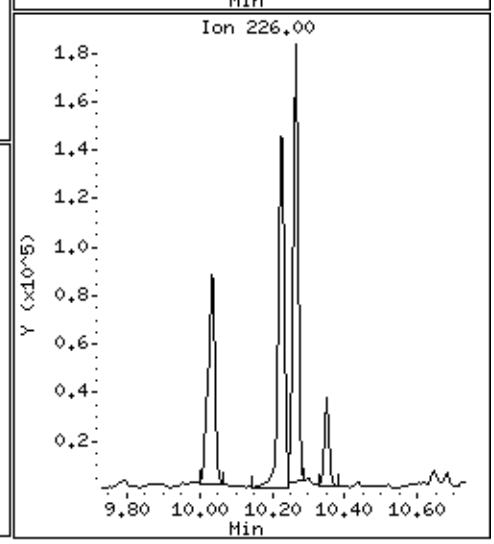












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

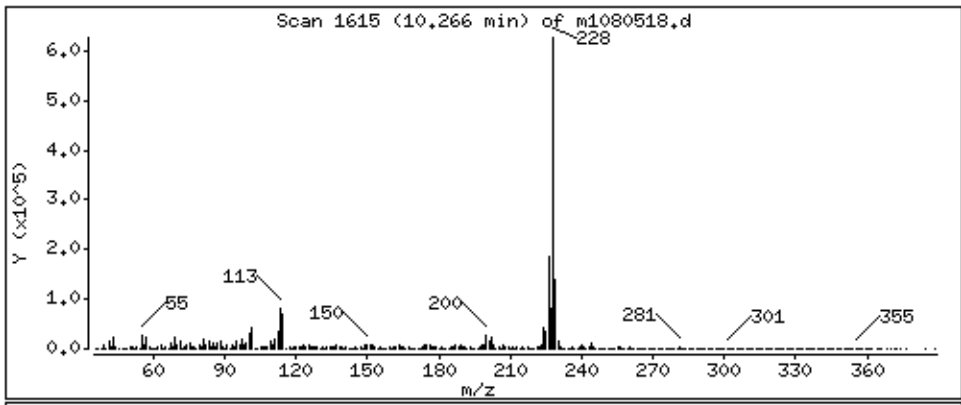
Operator: EAC

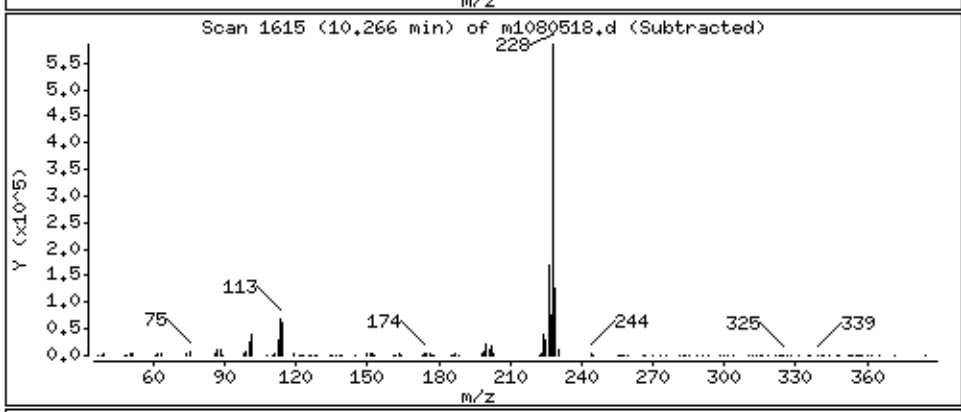
Column phase: RTX-5MS

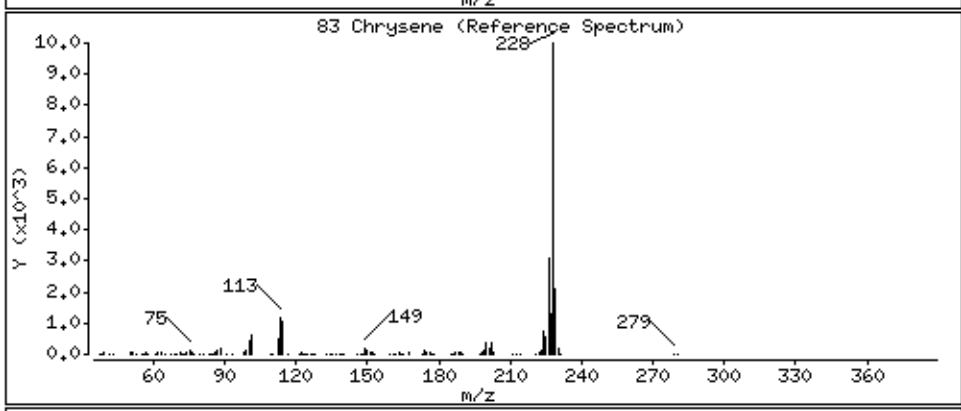
Column diameter: 0.18

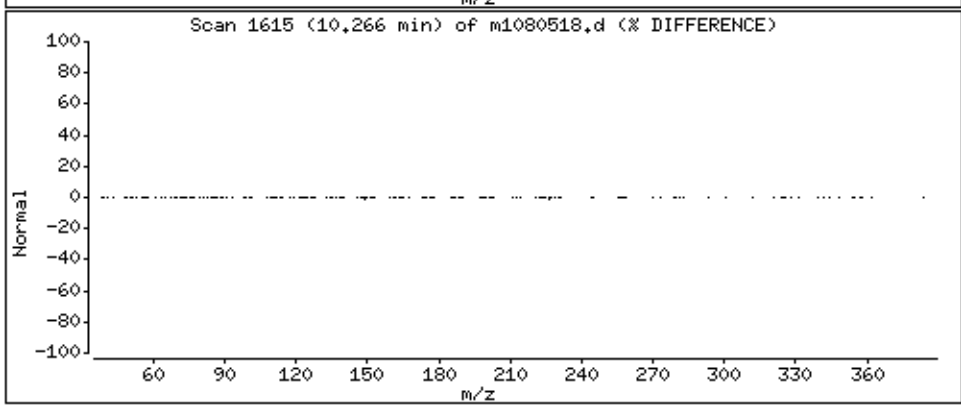
83 Chrysene

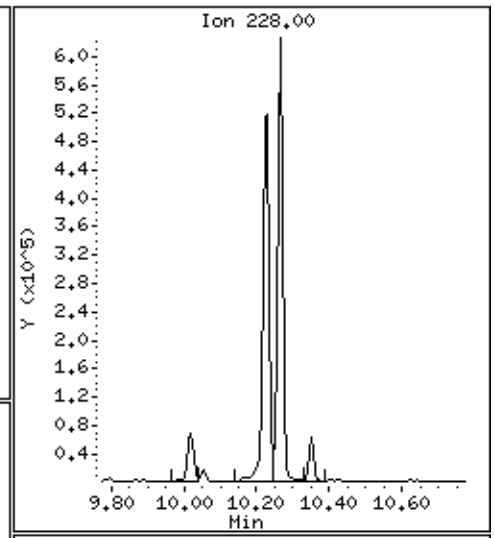
Concentration: 751 ug/Kg

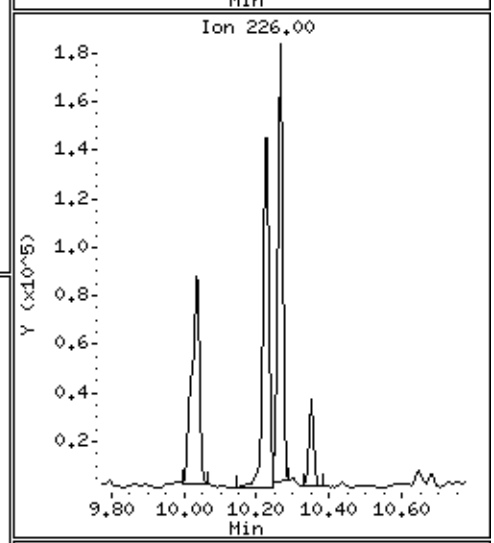


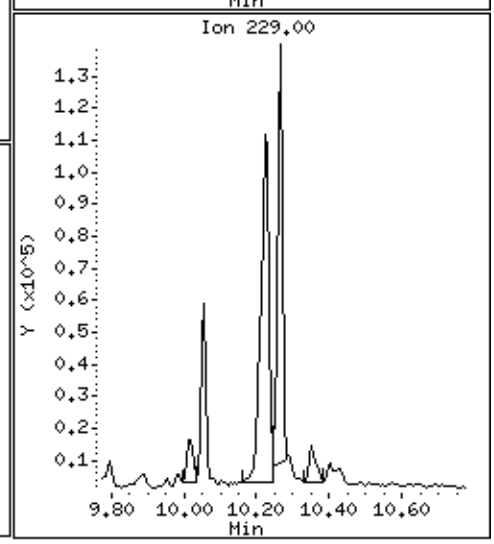












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Date : 05-AUG-2019 22:16

Client ID: A0C27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

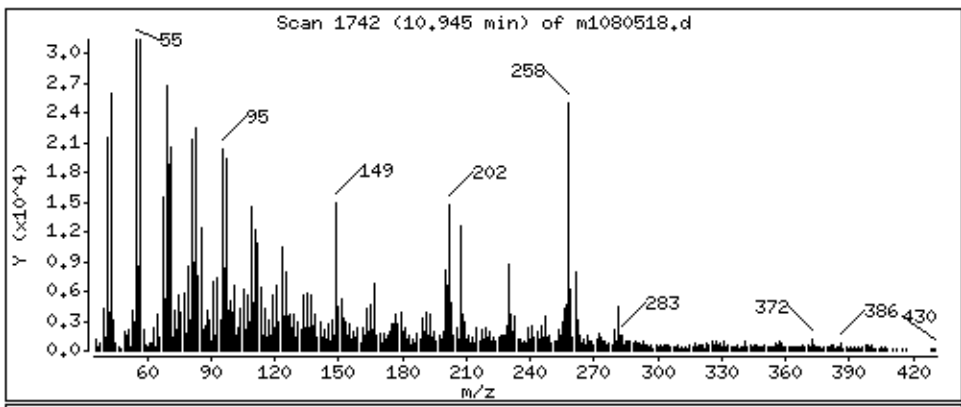
Operator: EAC

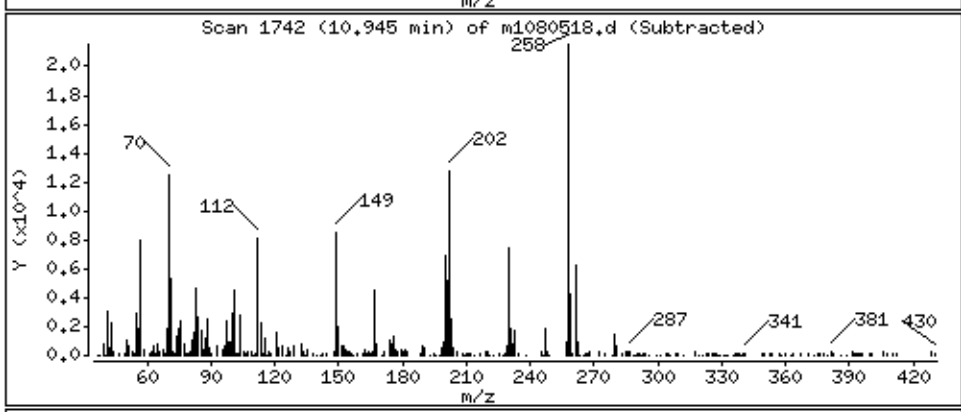
Column phase: RTX-5MS

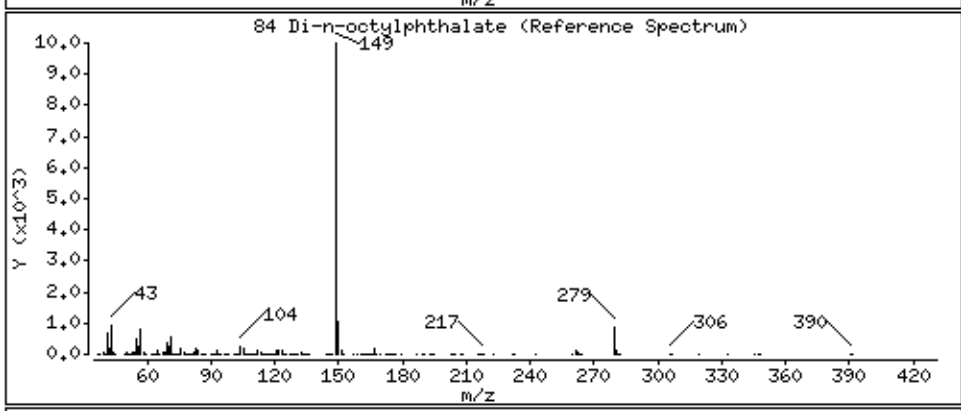
Column diameter: 0.18

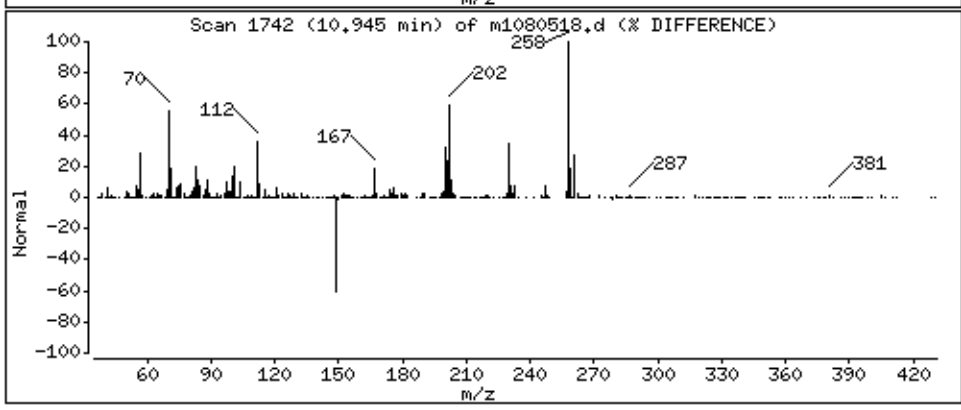
84 Di-n-octylphthalate

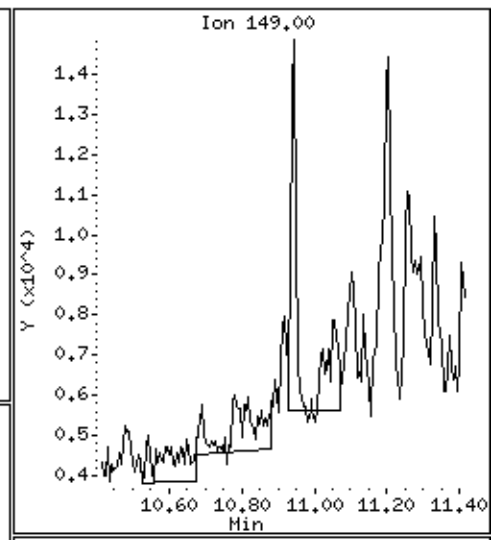
Concentration: 11.0 ug/Kg

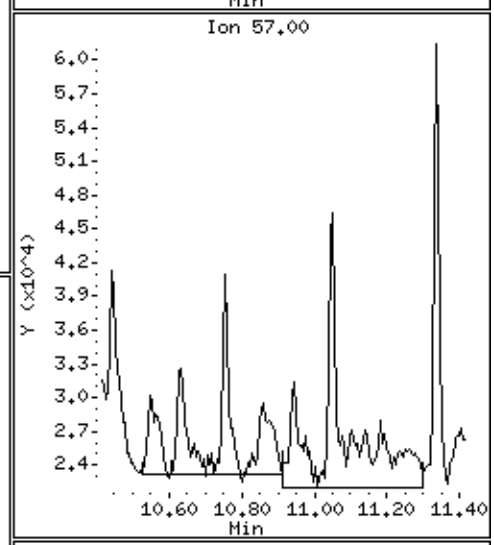


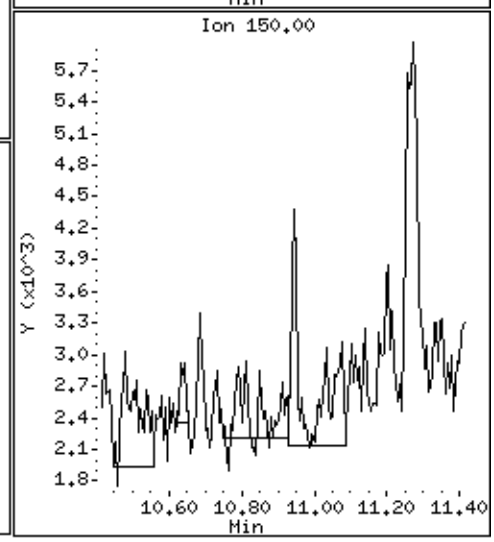












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

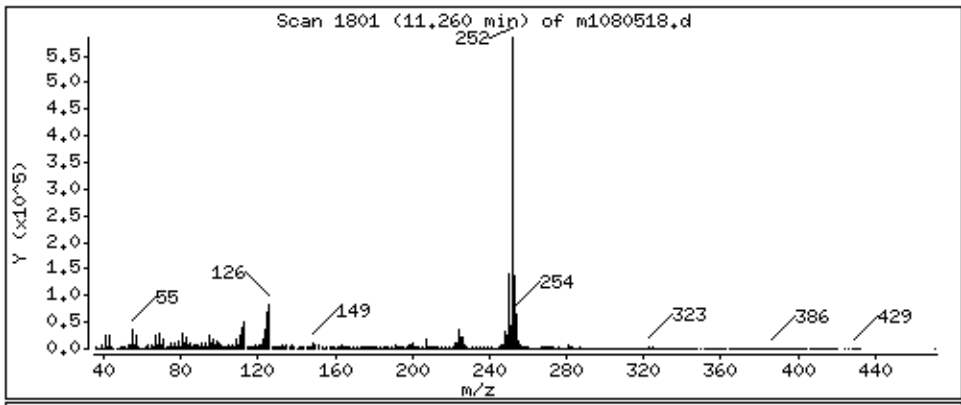
Operator: EAC

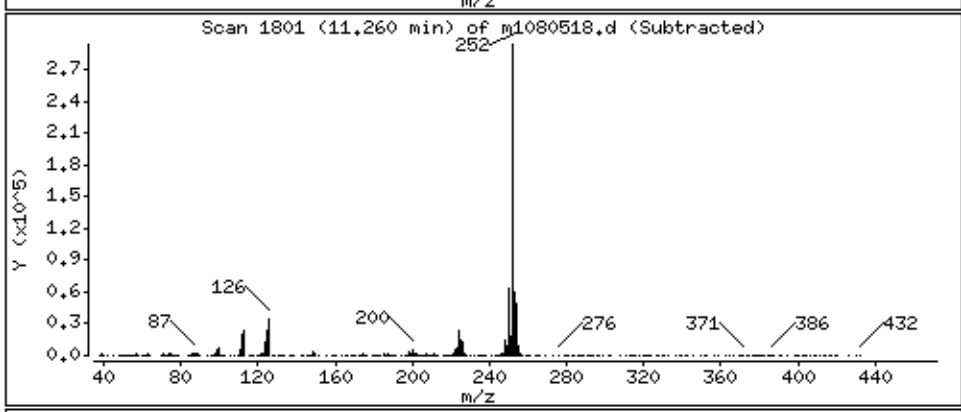
Column phase: RTX-5MS

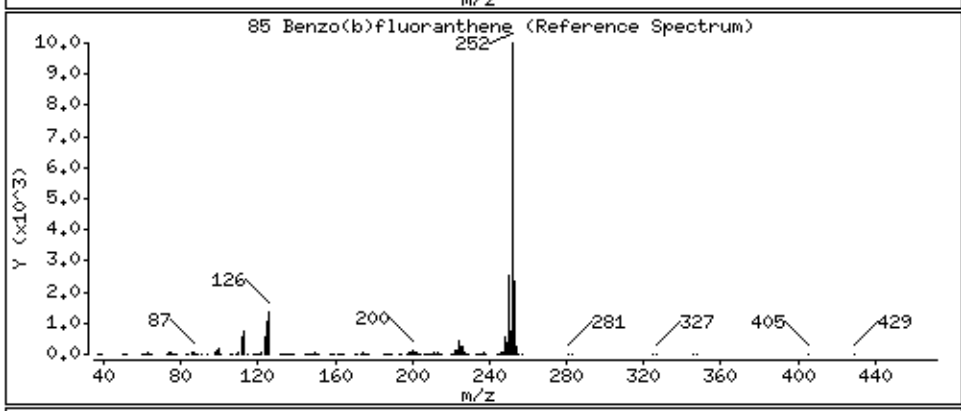
Column diameter: 0.18

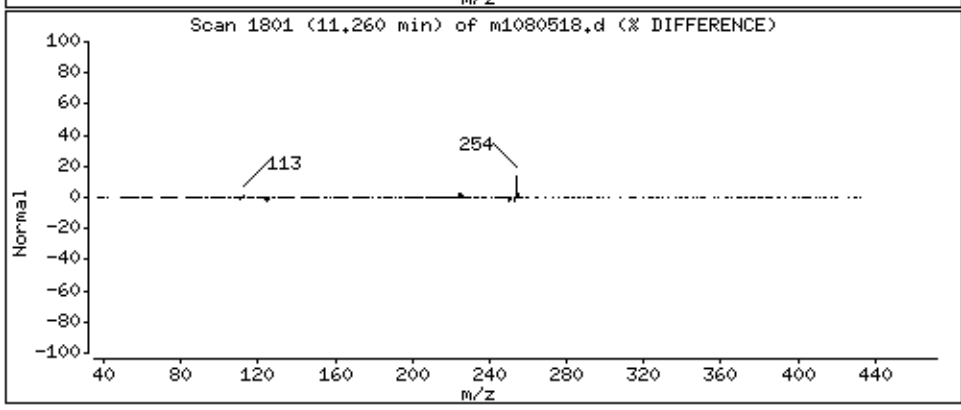
85 Benzo(b)fluoranthene

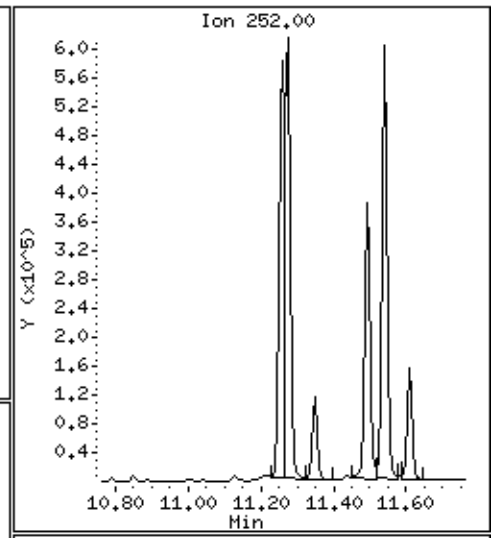
Concentration: 604 ug/Kg

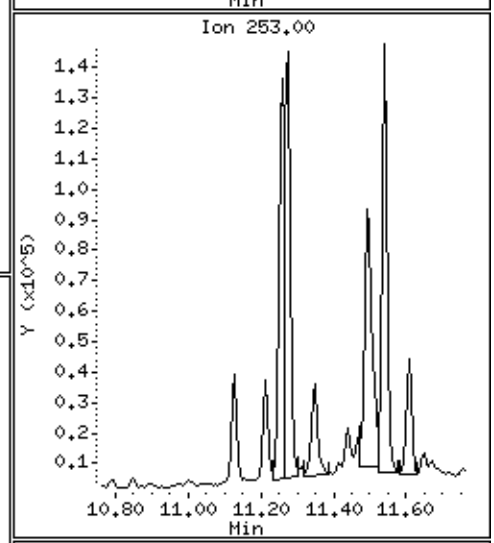


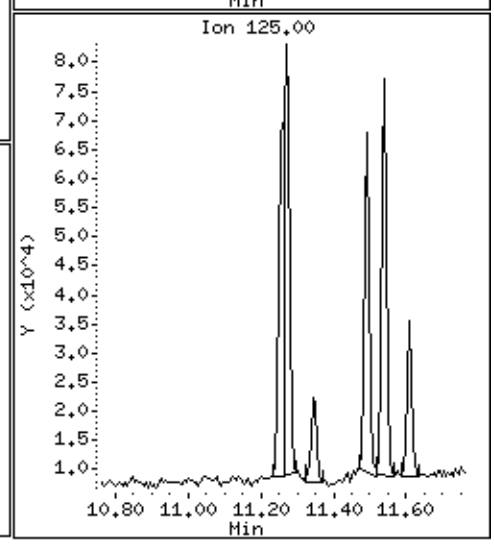












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

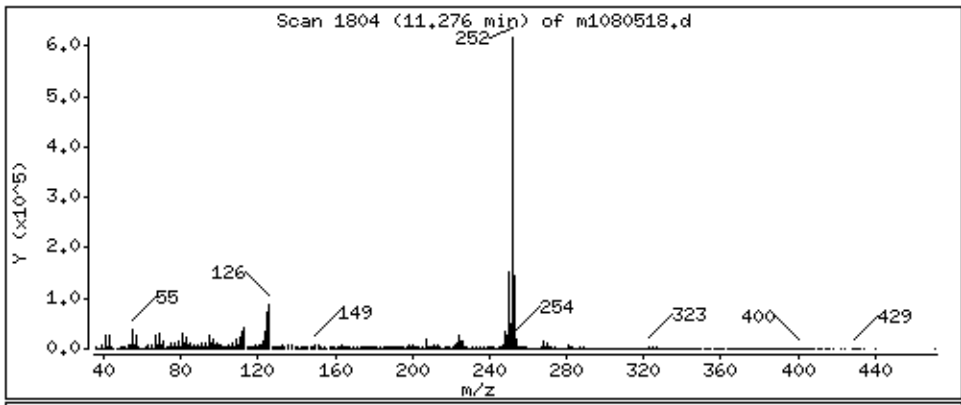
Operator: EAC

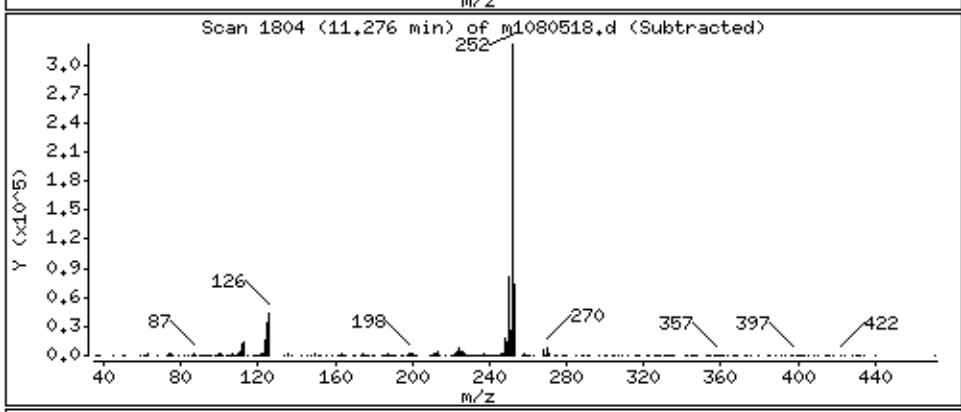
Column phase: RTX-5MS

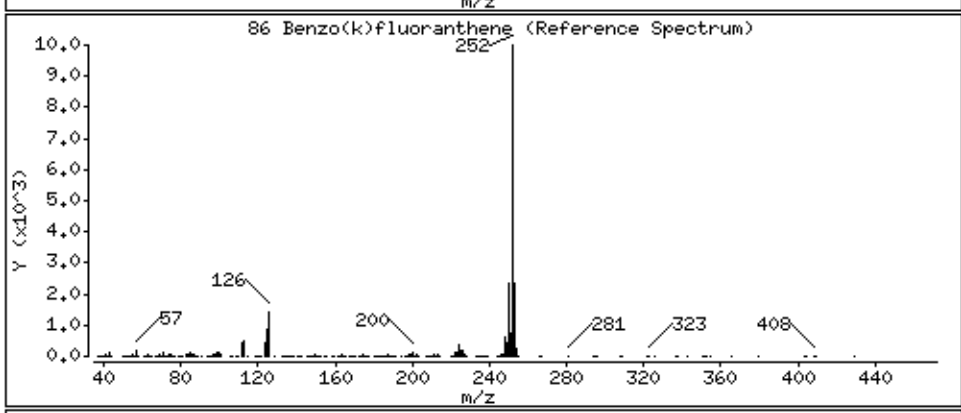
Column diameter: 0.18

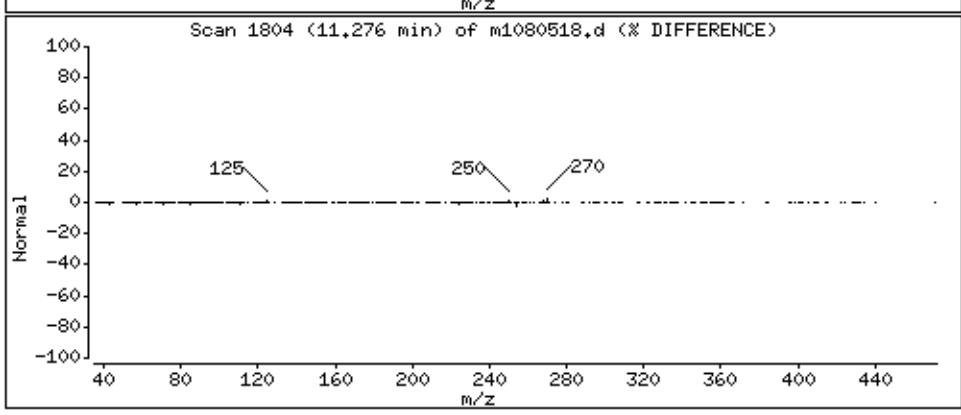
86 Benzo(k)fluoranthene

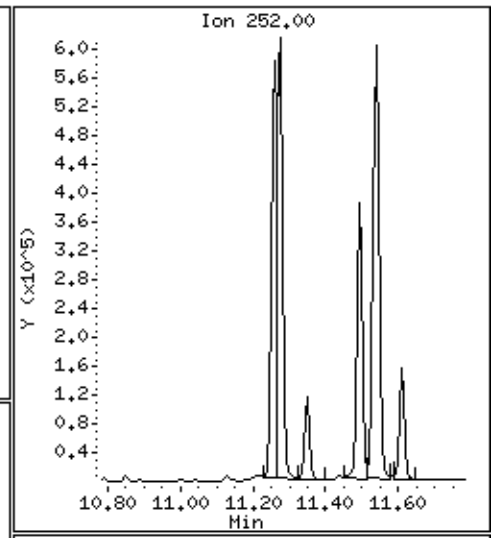
Concentration: 644 ug/Kg

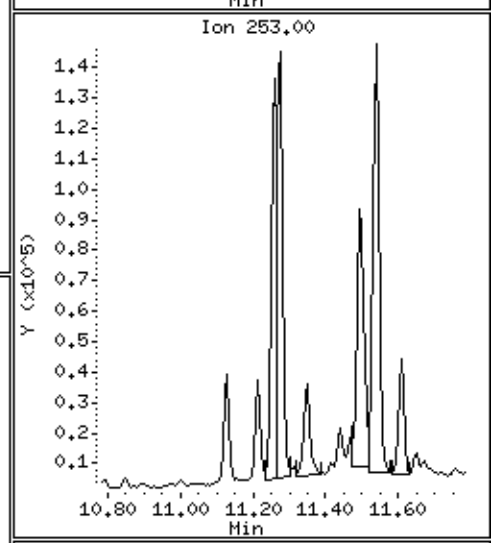


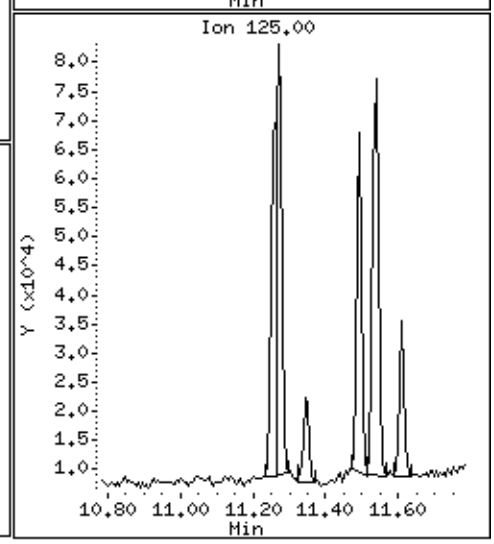












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

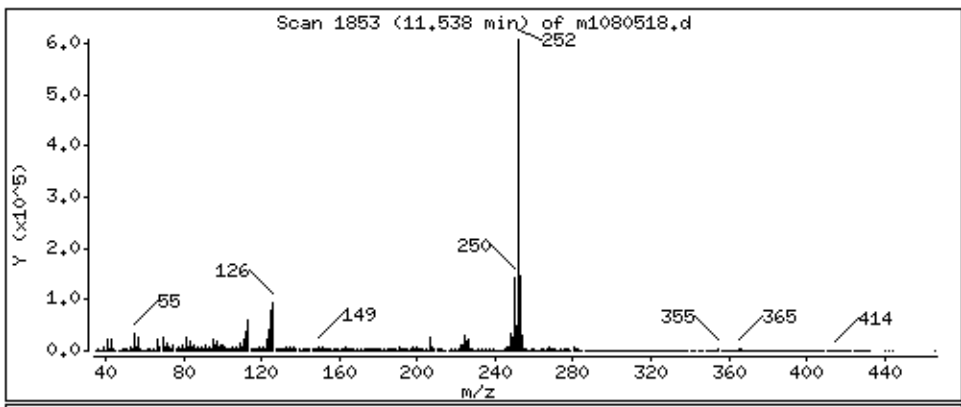
Operator: EAC

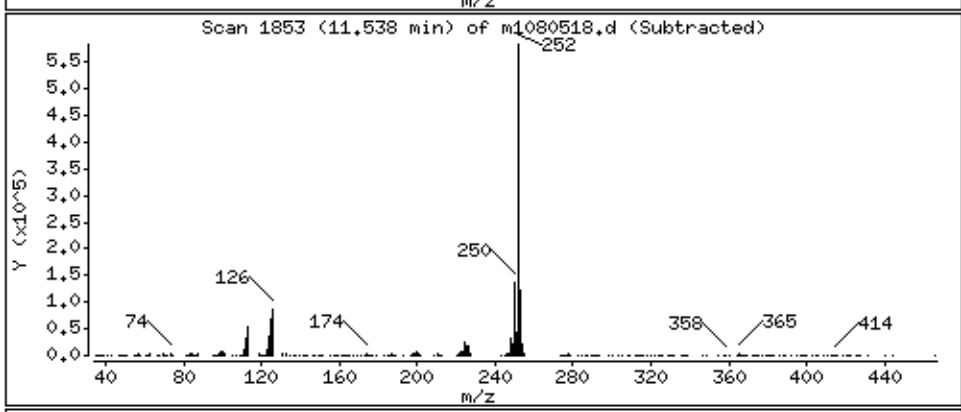
Column phase: RTX-5MS

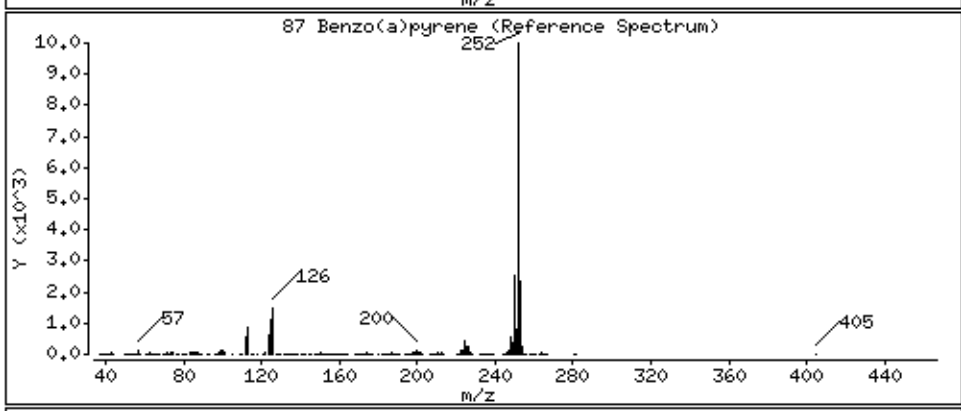
Column diameter: 0.18

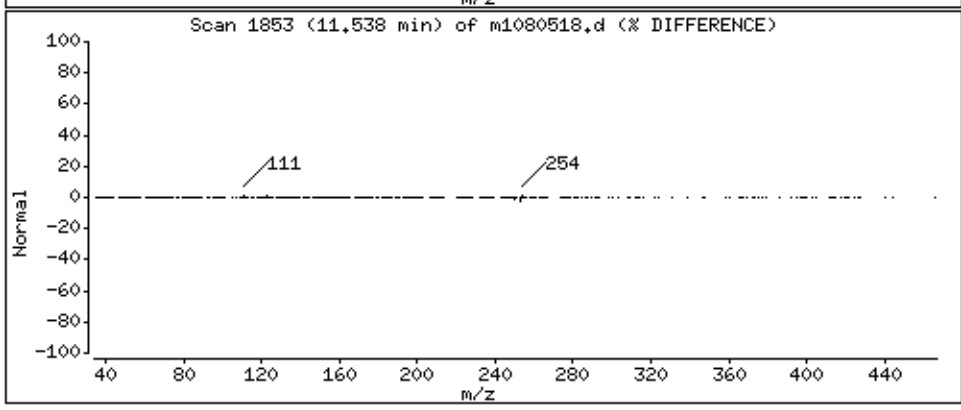
87 Benzo(a)pyrene

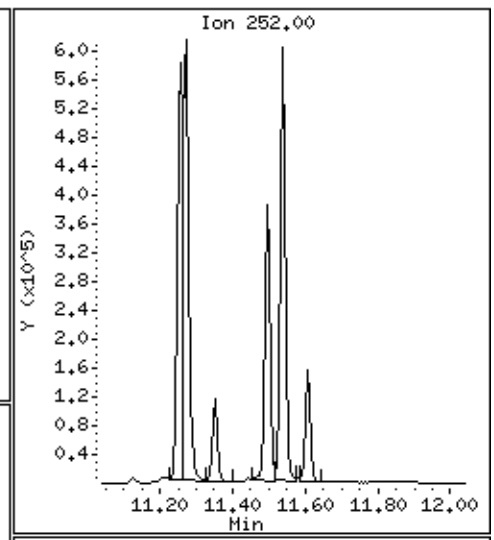
Concentration: 645 ug/Kg

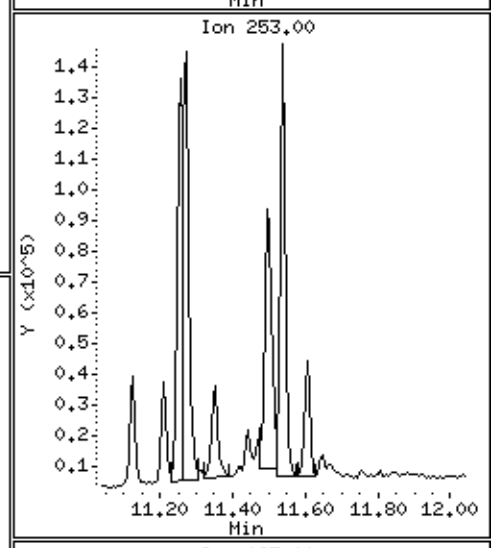


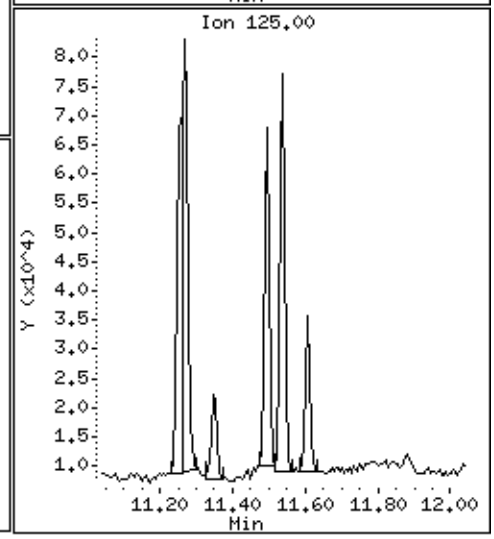












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

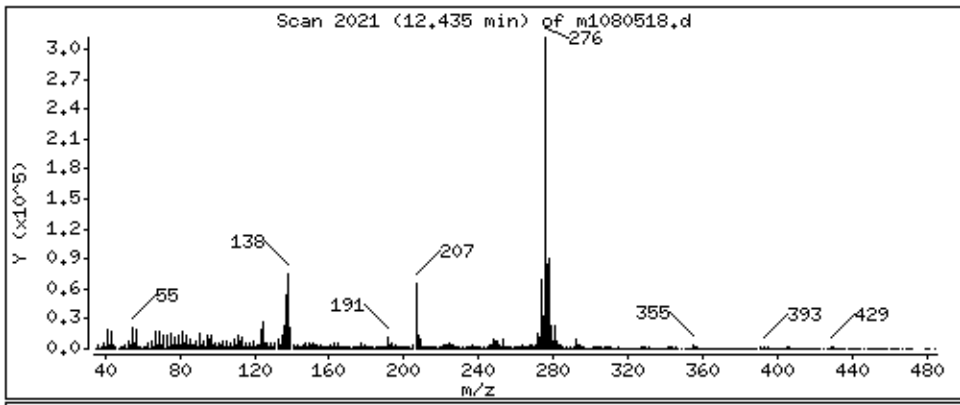
Operator: EAC

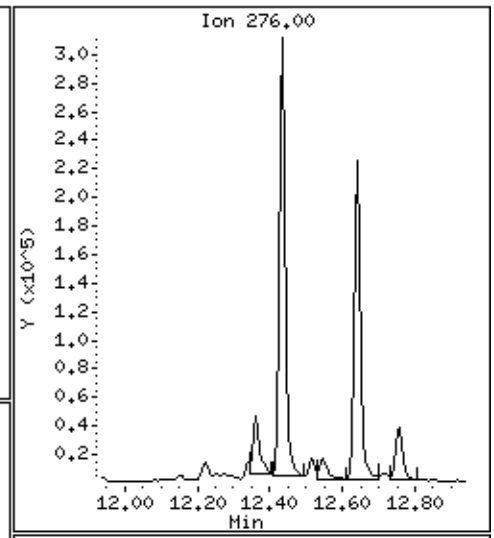
Column phase: RTX-5MS

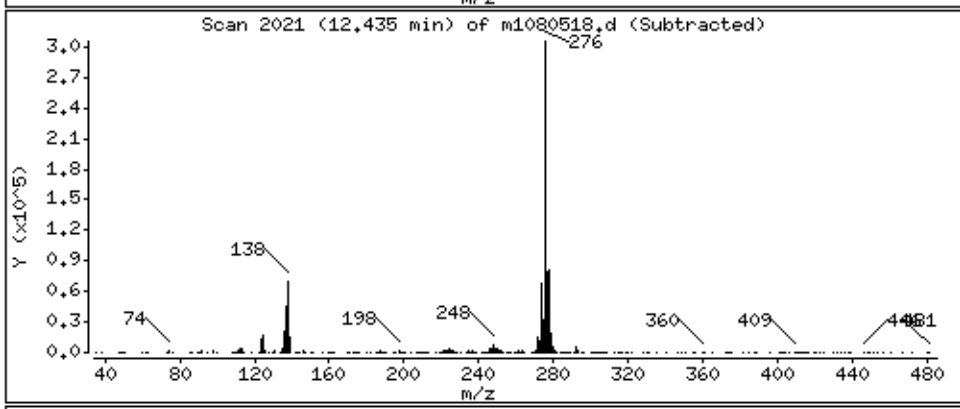
Column diameter: 0.18

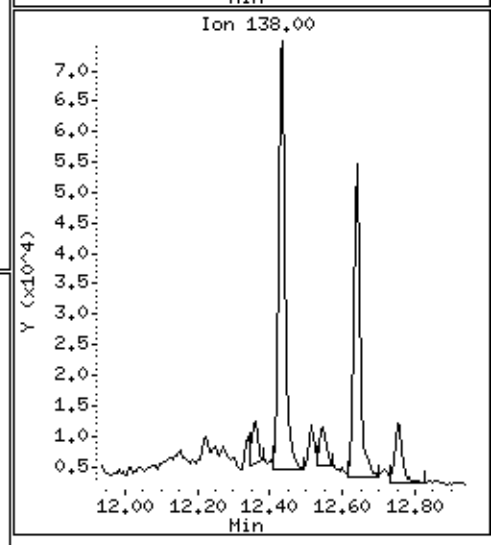
89 Indeno(1,2,3-cd)pyrene

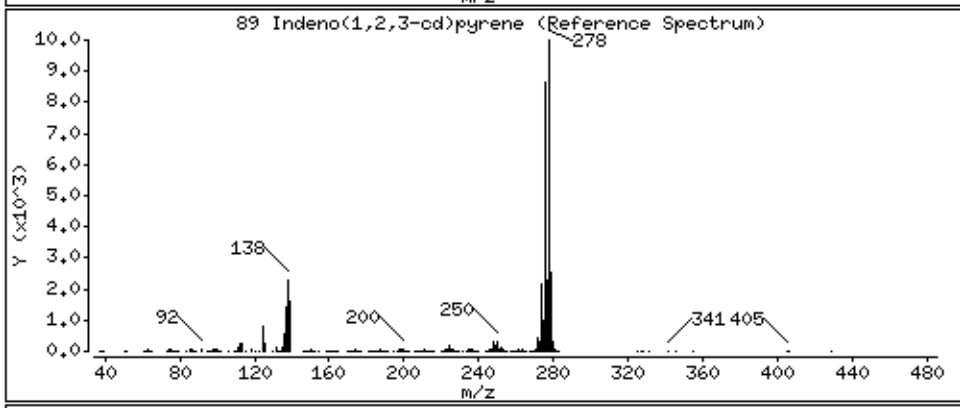
Concentration: 301 ug/Kg

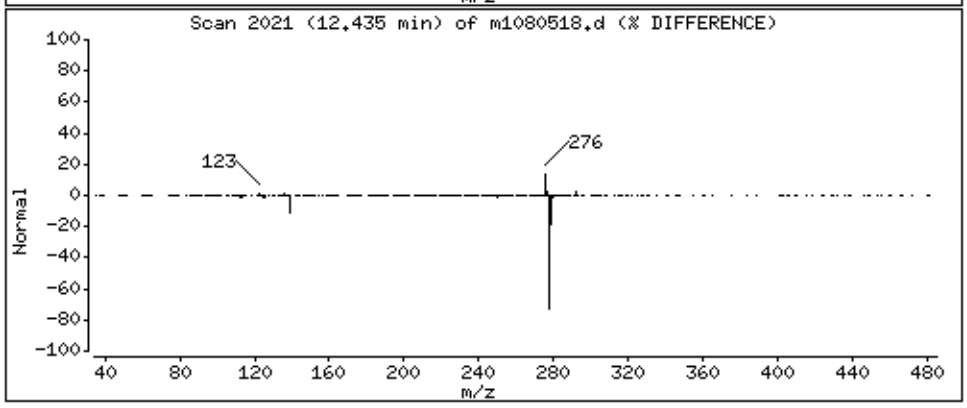












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

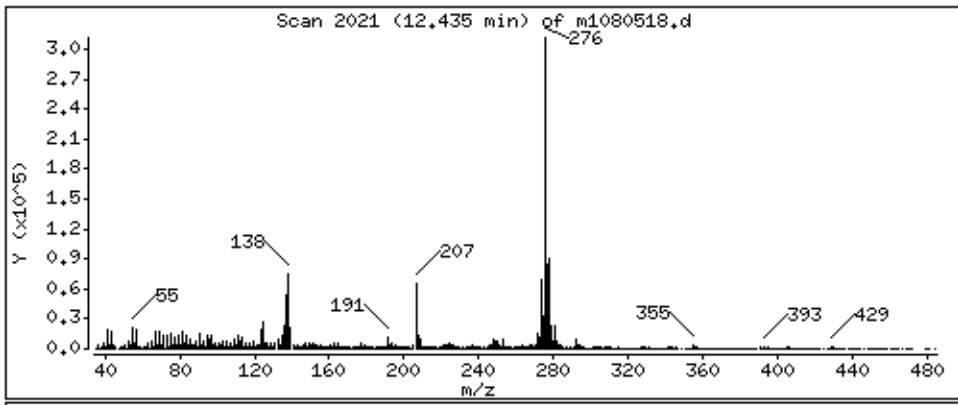
Operator: EAC

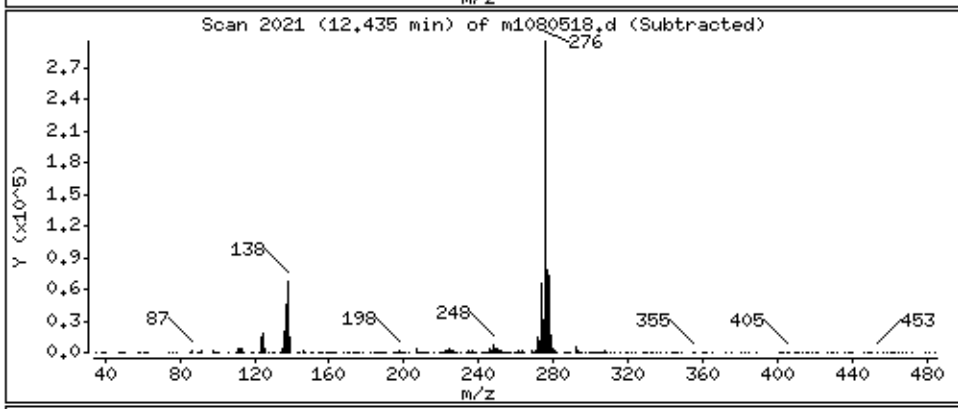
Column phase: RTX-5MS

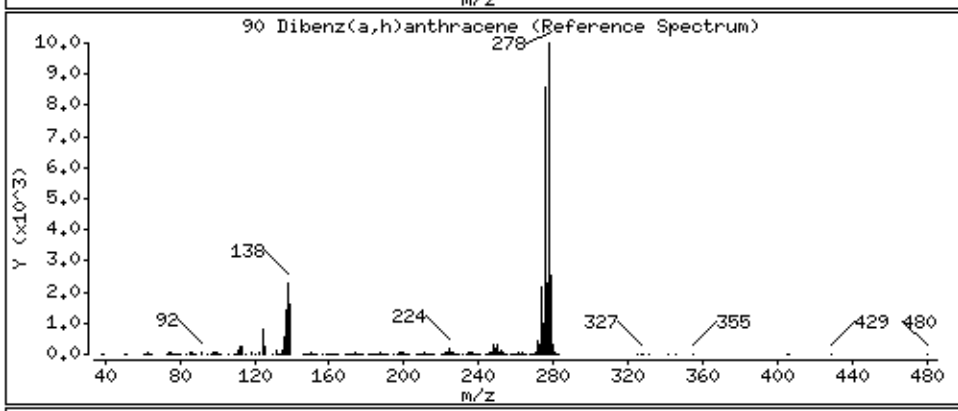
Column diameter: 0.18

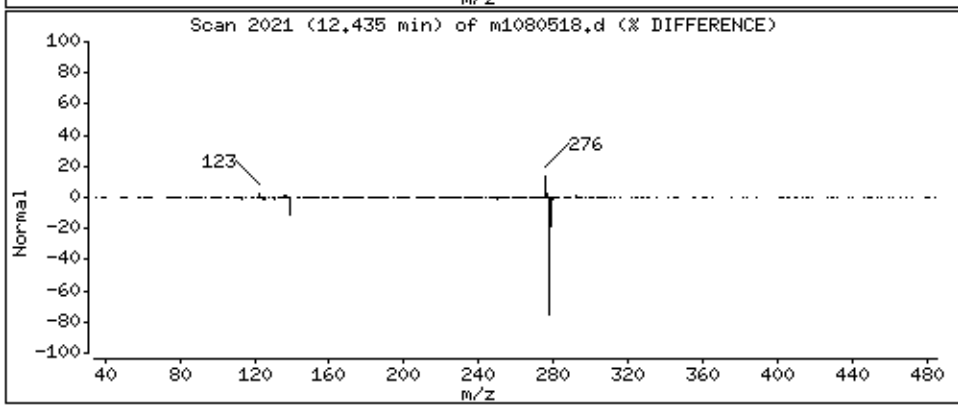
90 Dibenz(a,h)anthracene

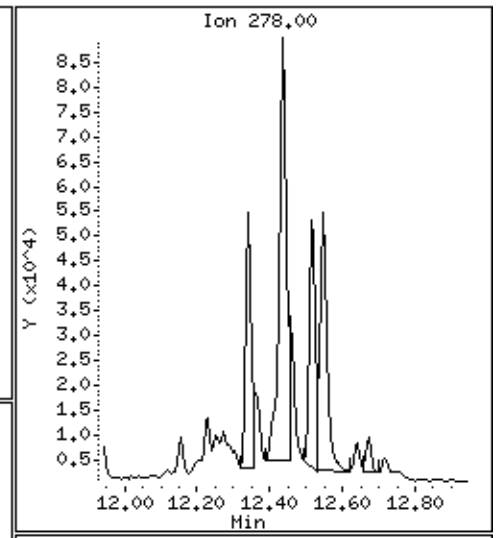
Concentration: 128 ug/Kg

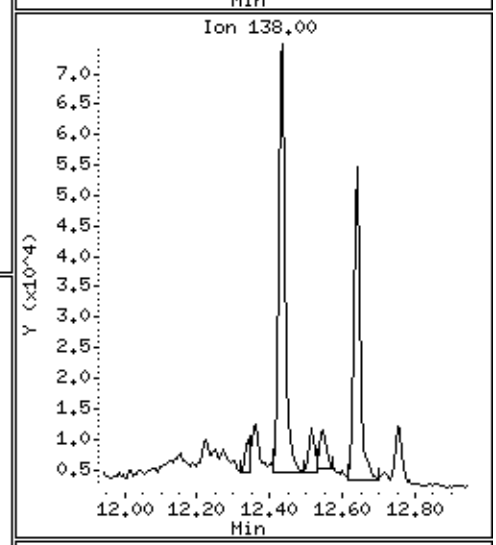


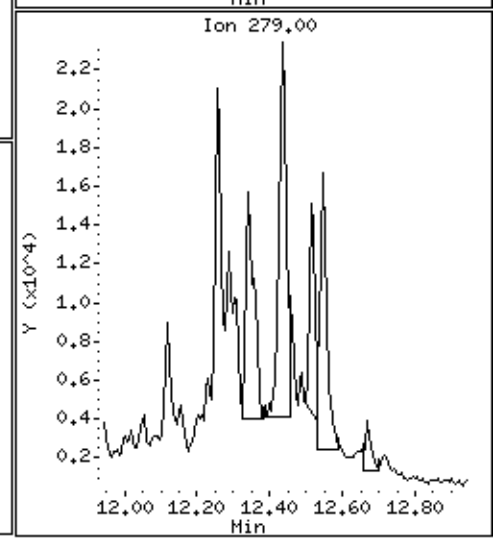












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080518.d

Date : 05-AUG-2019 22:16

Client ID: AOC27-3

Instrument: 30mss1.i

Sample Info: 30317212003

Volume Injected (uL): 1.0

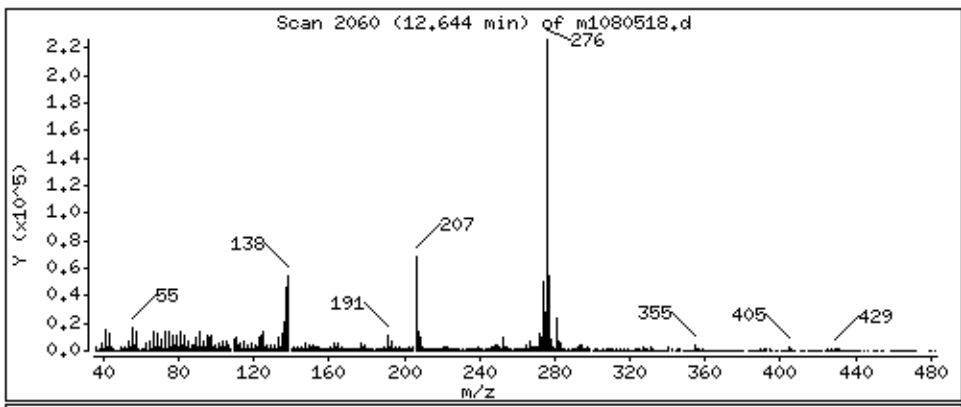
Operator: EAC

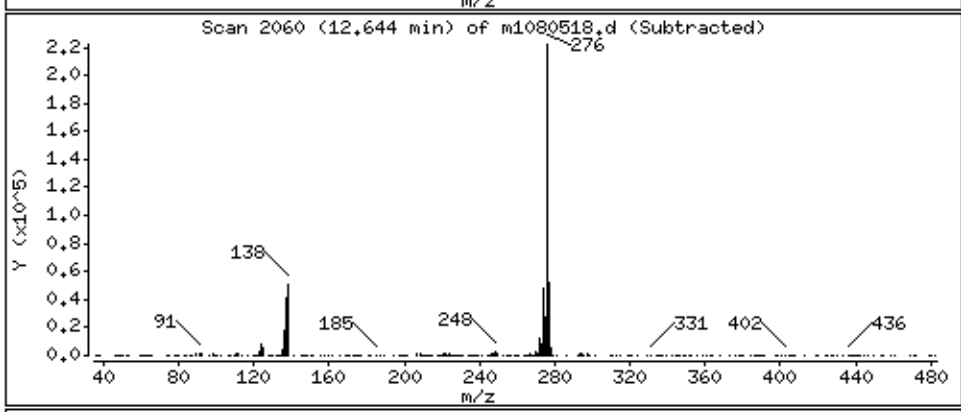
Column phase: RTX-5MS

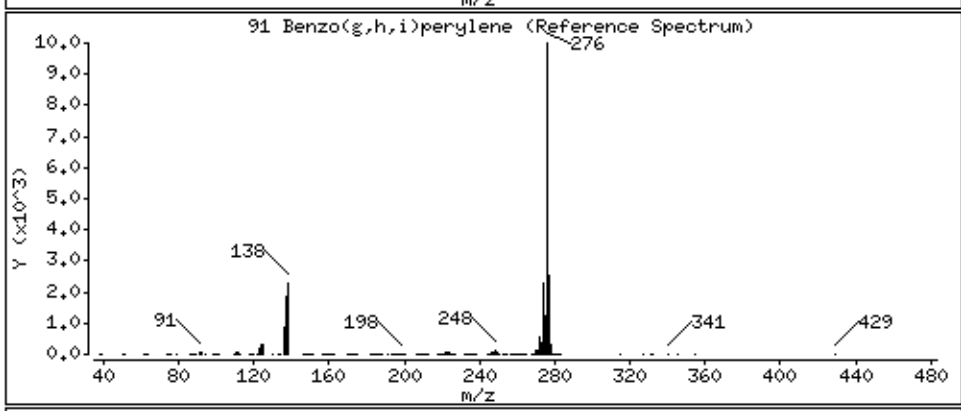
Column diameter: 0.18

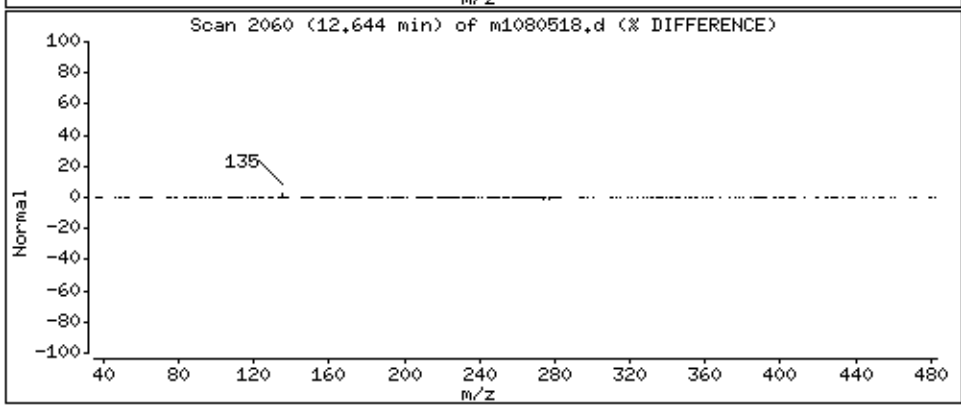
91 Benzo(g,h,i)perylene

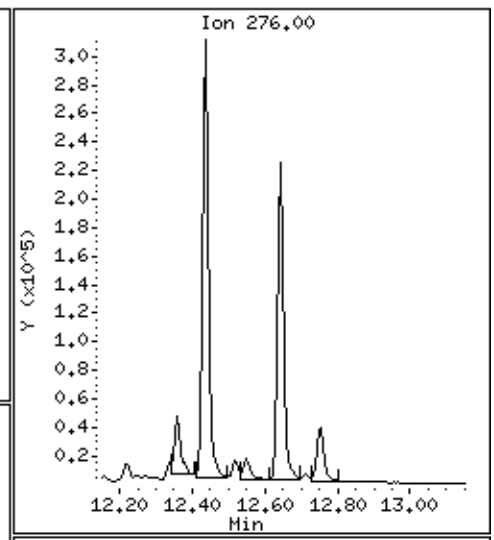
Concentration: 280 ug/Kg

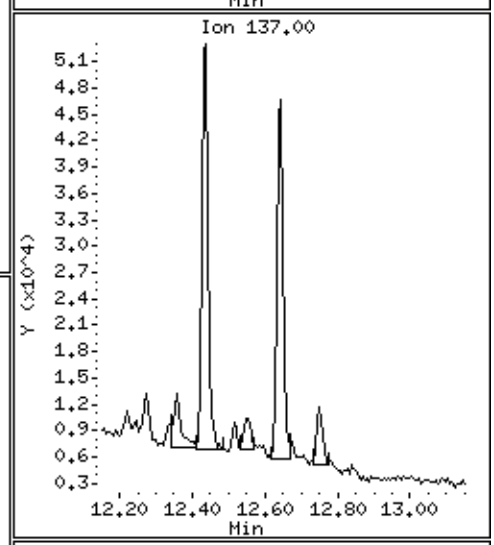


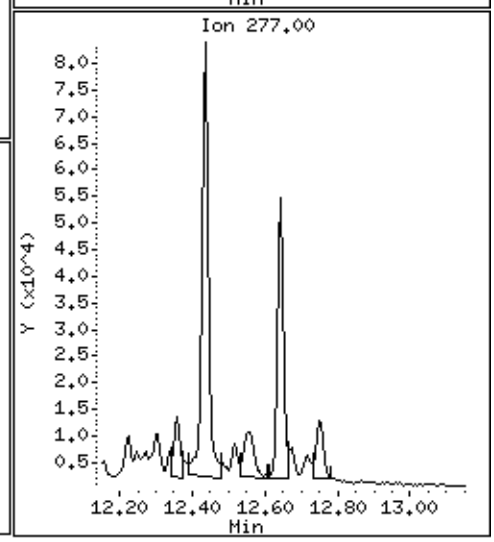






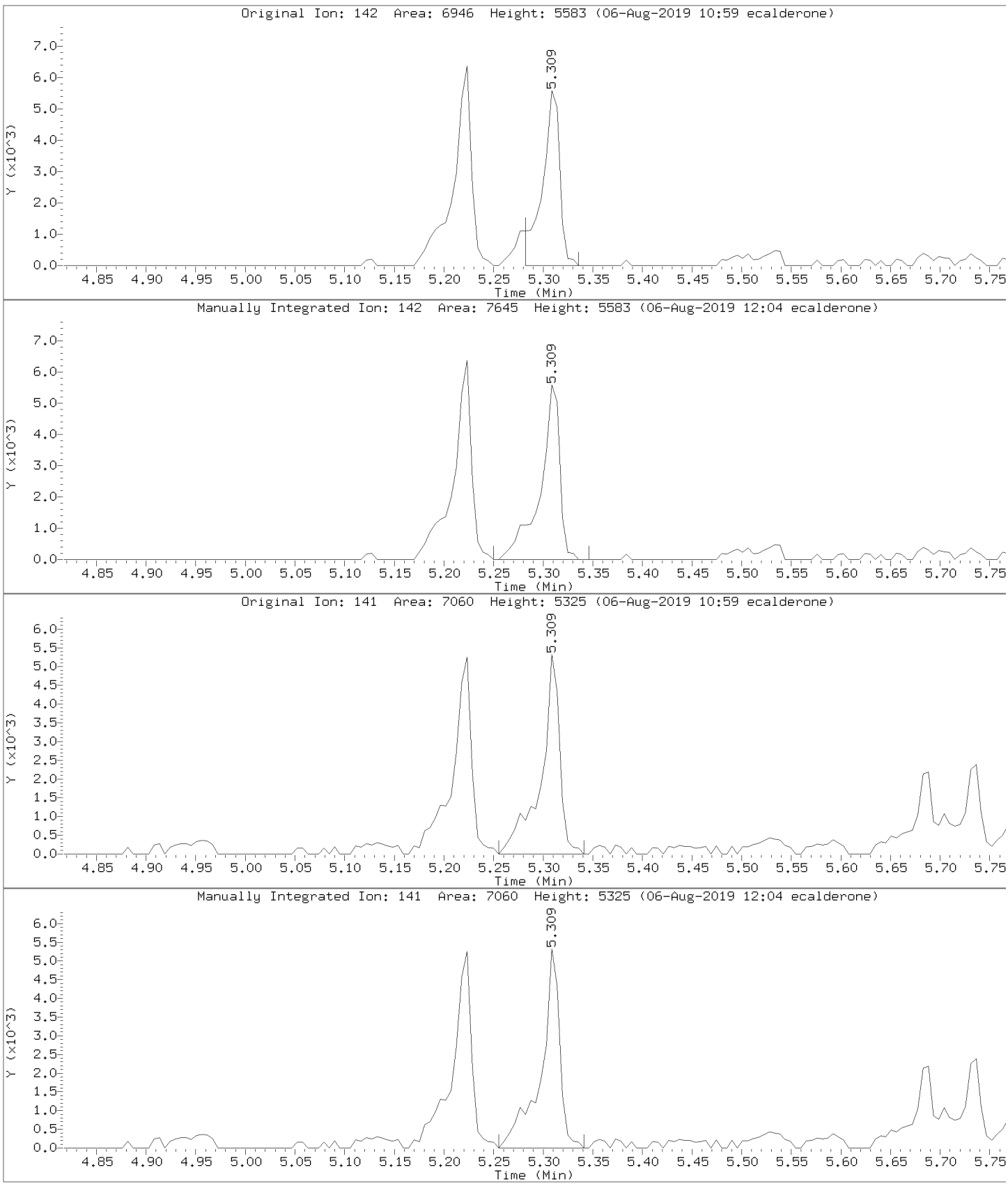






Data File: \\30wintarget\chem\30mss1.i\mss1080519.b/m1080518.d
Injection Date: 05-AUG-2019 22:16
Instrument: 30mss1.i
Lab Sample ID: 30317212003

Compound: 1-Methylnaphthalene Review Code: LT
CAS Number: 90-12-0



MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthene	Averaged	1.13546	1.10174	1.05830	1.06071	1.02607	1.05412
Acenaphthylene	Averaged	1.73884	1.71859	1.66641	1.65882	1.58858	1.61203
Anthracene	Averaged	1.09588	1.04882	1.06150	1.04387	0.98090	0.99002
Azobenzene	Averaged	0.69221	0.66397	0.66070	0.64435	0.61042	0.63638
Benzo(a)anthracene	Averaged	1.14642	1.10066	1.12027	1.16781	1.09652	1.17444
Benzo(a)pyrene	Averaged	0.94247	0.97760	1.02397	1.06331	1.03065	1.07701
Benzo(b)fluoranthene	Averaged	0.95965	1.02658	1.23775	1.08423	1.10416	1.32986
Benzo(g,h,i)perylene	Averaged	1.05267	1.03325	0.95580	1.03970	1.06045	1.12429
Benzo(k)fluoranthene	Averaged	1.35335	1.32500	1.12310	1.28160	1.22647	1.10758
Benzoic acid	Averaged		0.11895	0.17049	0.18943	0.19540	0.21666
Benzyl alcohol	Averaged	1.00819	1.01905	1.05000	1.05936	1.01263	1.06561
4-Bromophenylphenyl ether	Averaged	0.23111	0.22700	0.22721	0.23396	0.22994	0.24231
Butylbenzylphthalate	Averaged	0.35510	0.41069	0.43579	0.46967	0.46537	0.51364
Carbazole	Averaged	0.98386	0.96568	0.95837	0.93235	0.87873	0.91068
4-Chloro-3-methylphenol	Averaged	0.25655	0.25658	0.25767	0.26362	0.26021	0.27006
4-Chloroaniline	Averaged	0.10215	0.09985	0.10071	0.09978	0.09660	0.10191
bis(2-Chloroethoxy)methane	Averaged	0.38192	0.37870	0.36760	0.36913	0.35970	0.36940
bis(2-Chloroethyl) ether	Averaged	0.95126	0.88744	0.88542	0.88550	0.86183	0.90463
bis(2-Chloroisopropyl) ether	Averaged	1.64154	1.54521	1.52537	1.52402	1.46337	1.49191
2-Chloronaphthalene	Averaged	0.36931	0.36763	0.35645	0.36131	0.34857	0.36699
2-Chlorophenol	Averaged	1.39618	1.34574	1.37186	1.39794	1.31281	1.34495
4-Chlorophenylphenyl ether	Averaged	0.64611	0.63361	0.61586	0.63333	0.61342	0.63832
Chrysene	Averaged	1.16238	1.09362	1.06976	1.08731	1.01895	1.04777
Dibenz(a,h)anthracene	Averaged	1.01980	1.03088	1.03706	1.10905	1.10609	1.16857
Dibenzofuran	Averaged	1.63500	1.59111	1.52726	1.51168	1.42695	1.45209
1,2-Dichlorobenzene	Averaged	1.58422	1.47624	1.44202	1.47372	1.39448	1.42166
1,3-Dichlorobenzene	Averaged	1.59567	1.50800	1.49315	1.51351	1.39275	1.46291
1,4-Dichlorobenzene	Averaged	1.75221	1.64732	1.52212	1.62785	1.59708	1.58020
3,3'-Dichlorobenzidine	Averaged	0.33310	0.37448	0.40485	0.44718	0.45084	0.47748
2,4-Dichlorophenol	Averaged	0.26425	0.26385	0.26556	0.26986	0.25944	0.27056
Diethylphthalate	Averaged	1.14477	1.13461	1.12358	1.13620	1.10434	1.12666
2,4-Dimethylphenol	Averaged	0.32528	0.32560	0.31997	0.32323	0.31610	0.32300
Dimethylphthalate	Averaged	1.23795	1.20607	1.16351	1.18052	1.13929	1.16388
Di-n-butylphthalate	Averaged	0.99624	1.03449	1.05556	1.08998	1.04528	1.06990
4,6-Dinitro-2-methylphenol	Averaged	0.08734	0.10447	0.12300	0.13313	0.13478	0.14639

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/14/2019 11:26

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
2,4-Dinitrophenol	Averaged		0.10862	0.13623	0.15188	0.15653	0.17192
2,4-Dinitrotoluene	Averaged	0.31757	0.34523	0.35930	0.36824	0.36172	0.37544
2,6-Dinitrotoluene	Averaged	0.27206	0.28063	0.27415	0.28462	0.28070	0.29035
Di-n-octylphthalate	Averaged	0.68068	0.80028	0.90201	0.96934	1.00024	1.09190
bis(2-Ethylhexyl)phthalate	Averaged	0.53814	0.58728	0.65649	0.67572	0.66965	0.67496
Fluoranthene	Averaged	1.13840	1.11856	1.09974	1.12003	1.08087	1.11099
Fluorene	Averaged	1.30582	1.28308	1.24879	1.25803	1.20378	1.24873
Hexachloro-1,3-butadiene	Averaged	0.17638	0.16820	0.16401	0.16863	0.16438	0.16802
Hexachlorobenzene	Averaged	0.26480	0.25658	0.25092	0.26086	0.25670	0.26696
Hexachlorocyclopentadiene	Averaged	0.30776	0.33716	0.35568	0.37658	0.37208	0.40739
Hexachloroethane	Averaged	0.60274	0.57665	0.58368	0.58660	0.56418	0.57981
Indeno(1,2,3-cd)pyrene	Averaged	1.23244	1.21173	1.20500	1.31180	1.31856	1.39638
Isophorone	Averaged	0.59871	0.59510	0.58346	0.59437	0.58327	0.58914
1-Methylnaphthalene	Averaged	0.64647	0.62697	0.61099	0.60889	0.59237	0.59680
2-Methylnaphthalene	Averaged	0.69775	0.67212	0.65430	0.65200	0.62879	0.63896
2-Methylphenol(o-Cresol)	Averaged	1.29884	1.25859	1.23167	1.29121	1.22469	1.27299
3&4-Methylphenol(m&p Cresol)	Averaged	1.32859	1.30259	1.31987	1.33328	1.27633	1.31568
Naphthalene	Averaged	1.03875	0.99887	0.95113	0.93894	0.90129	0.89642
2-Nitroaniline	Averaged	0.31258	0.34339	0.35687	0.37512	0.36383	0.38713
3-Nitroaniline	Averaged	0.30931	0.31426	0.31318	0.28867	0.28119	0.31082
4-Nitroaniline	Averaged	0.18849	0.19437	0.16175	0.14275	0.14018	0.15842
Nitrobenzene	Averaged	0.32588	0.32557	0.31989	0.32197	0.31390	0.32394
2-Nitrophenol	Averaged	0.15787	0.16962	0.17174	0.17933	0.17239	0.17906
4-Nitrophenol	Averaged	0.11881	0.13104	0.13798	0.13745	0.13564	0.15355
N-Nitrosodimethylamine	Averaged	0.69012	0.66920	0.69607	0.72890	0.69424	0.74719
N-Nitroso-di-n-propylamine	Averaged	0.98125	0.96490	0.96965	0.96645	0.94176	0.96889
N-Nitrosodiphenylamine	Averaged	0.66761	0.64227	0.63831	0.62573	0.60669	0.64054
Pentachlorophenol	Averaged	0.09910	0.11959	0.13469	0.14998	0.15228	0.16105
Phenanthrene	Averaged	1.21038	1.15555	1.10801	1.10703	1.05565	1.10033
Phenol	Averaged	1.64744	1.60764	1.63296	1.62810	1.54135	1.58969
Pyrene	Averaged	1.19493	1.14884	1.17811	1.18355	1.11111	1.19104
1,2,4-Trichlorobenzene	Averaged	0.31652	0.30376	0.29239	0.30040	0.29098	0.29772
2,4,5-Trichlorophenol	Averaged	0.30138	0.31336	0.31919	0.32817	0.31126	0.32325
2,4,6-Trichlorophenol	Averaged	0.35255	0.36538	0.35835	0.37541	0.37504	0.40529
2-Fluorobiphenyl (S)	Averaged	1.34548	1.31176	1.25515	1.24912	1.19618	1.22190

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/14/2019 11:26

MSSV FULL SCAN - FORM VI SVOA-3

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
2-Fluorophenol (S)	Averaged	1.14023	1.17978	1.19158	1.21146	1.15719	1.19403
Nitrobenzene-d5 (S)	Averaged	0.15021	0.15546	0.15461	0.15935	0.15383	0.15969
Phenol-d6 (S)	Averaged	1.54789	1.52176	1.52805	1.55336	1.47320	1.52713
Terphenyl-d14 (S)	Averaged	0.96132	0.94311	0.94890	1.00084	0.90723	1.01033
2,4,6-Tribromophenol (S)	Averaged	0.11956	0.12600	0.13445	0.14403	0.14368	0.15060

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-4

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
Acenaphthene	Averaged	1.00447	4.14475			1.06298	
Acenaphthylene	Averaged	1.50610	4.87037			1.64134	
Anthracene	Averaged	0.94354	5.21132			1.02350	
Azobenzene	Averaged	0.59776	5.04433			0.64368	
Benzo(a)anthracene	Averaged	1.07605	3.35257			1.12602	
Benzo(a)pyrene	Averaged	0.93020	5.71405			1.00646	
Benzo(b)fluoranthene	Averaged	1.17119	11.17314			1.13049	
Benzo(g,h,i)perylene	Averaged	1.02172	4.82540			1.04112	
Benzo(k)fluoranthene	Averaged	0.95791	11.79420			1.19643	
Benzoic acid	Averaged	0.20320	18.98531			0.18235	
Benzyl alcohol	Averaged	1.06806	2.51784			1.04041	
4-Bromophenylphenyl ether	Averaged	0.23990	2.58434			0.23306	
Butylbenzylphthalate	Averaged	0.45378	11.32716			0.44343	
Carbazole	Averaged	0.82393	6.06882			0.92194	
4-Chloro-3-methylphenol	Averaged	0.26683	2.03998			0.26164	
4-Chloroaniline	Averaged	0.09692	2.21895			0.09970	
bis(2-Chloroethoxy)methane	Averaged	0.36055	2.26041			0.36957	
bis(2-Chloroethyl) ether	Averaged	0.95022	3.80891			0.90376	
bis(2-Chloroisopropyl) ether	Averaged	1.50375	3.70985			1.52788	
2-Chloronaphthalene	Averaged	0.35326	2.21460			0.36050	
2-Chlorophenol	Averaged	1.30483	2.74650			1.35347	
4-Chlorophenylphenyl ether	Averaged	0.62346	1.90941			0.62916	
Chrysene	Averaged	0.96467	5.85828			1.06350	
Dibenz(a,h)anthracene	Averaged	1.00576	5.64089			1.06817	
Dibenzofuran	Averaged	1.36474	6.27929			1.50126	
1,2-Dichlorobenzene	Averaged	1.42093	4.28823			1.45904	
1,3-Dichlorobenzene	Averaged	1.43903	4.32097			1.48643	
1,4-Dichlorobenzene	Averaged	1.54511	4.73788			1.61027	
3,3'-Dichlorobenzidine	Averaged	0.44995	12.20470			0.41970	
2,4-Dichlorophenol	Averaged	0.26661	1.42895			0.26573	
Diethylphthalate	Averaged	1.08267	1.91233			1.12183	
2,4-Dimethylphenol	Averaged	0.31575	1.27442			0.32128	
Dimethylphthalate	Averaged	1.09930	3.83009			1.17008	
Di-n-butylphthalate	Averaged	1.00385	3.24947			1.04218	
4,6-Dinitro-2-methylphenol	Averaged	0.13666	16.78829			0.12368	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/14/2019 11:26

MSSV FULL SCAN - FORM VI SVOA-5

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
2,4-Dinitrophenol	Averaged	0.17228	16.16509			0.14958	
2,4-Dinitrotoluene	Averaged	0.37625	5.76849			0.35768	
2,6-Dinitrotoluene	Averaged	0.27561	2.28641			0.27973	
Di-n-octylphthalate	Averaged	0.88632	14.95658			0.90440	
bis(2-Ethylhexyl)phthalate	Averaged	0.64883	8.31251			0.63587	
Fluoranthene	Averaged	1.05158	2.61574			1.10288	
Fluorene	Averaged	1.19750	3.12875			1.24939	
Hexachloro-1,3-butadiene	Averaged	0.16603	2.47454			0.16795	
Hexachlorobenzene	Averaged	0.26849	2.45193			0.26076	
Hexachlorocyclopentadiene	Averaged	0.39537	9.39594			0.36458	
Hexachloroethane	Averaged	0.59534	2.15514			0.58414	
Indeno(1,2,3-cd)pyrene	Averaged	1.23211	5.60248			1.27258	
Isophorone	Averaged	0.56893	1.71946			0.58757	
1-Methylnaphthalene	Averaged	0.57421	3.89236			0.60810	
2-Methylnaphthalene	Averaged	0.61331	4.30023			0.65103	
2-Methylphenol(o-Cresol)	Averaged	1.27218	2.21865			1.26431	
3&4-Methylphenol(m&p Cresol)	Averaged	1.30726	1.45521			1.31194	
Naphthalene	Averaged	0.86473	6.48889			0.94145	
2-Nitroaniline	Averaged	0.37496	6.94547			0.35913	
3-Nitroaniline	Averaged	0.29876	4.32805			0.30231	
4-Nitroaniline	Averaged	0.15008	13.19308			0.16229	
Nitrobenzene	Averaged	0.31478	1.52930			0.32085	
2-Nitrophenol	Averaged	0.17764	4.35690			0.17252	
4-Nitrophenol	Averaged	0.12568	8.16045			0.13431	
N-Nitrosodimethylamine	Averaged	0.74565	4.26849			0.71019	
N-Nitroso-di-n-propylamine	Averaged	0.97219	1.25327			0.96644	
N-Nitrosodiphenylamine	Averaged	0.61528	3.17122			0.63377	
Pentachlorophenol	Averaged	0.16344	16.90087			0.14002	
Phenanthrene	Averaged	1.04998	5.02828			1.11242	
Phenol	Averaged	1.56246	2.43565			1.60138	
Pyrene	Averaged	1.06699	4.17810			1.15351	
1,2,4-Trichlorobenzene	Averaged	0.29258	2.99625			0.29919	
2,4,5-Trichlorophenol	Averaged	0.32600	2.98221			0.31751	
2,4,6-Trichlorophenol	Averaged	0.38382	4.70766			0.37369	
2-Fluorobiphenyl (S)	Averaged	1.14781	5.38168			1.24677	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-6

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS1 GC Column: Col 1 SDG No.: 30317212

Calibration Date(s): 07/30/2019 07/30/2019 Calibration Time(s): 14:25 16:42

LAB FILE ID

CAL1 = MSS1073019.B\M10730Y7.D CAL2 = MSS1073019.B\M10730Y6.D CAL3 = MSS1073019.B\M10730Y5.D

CAL4 = MSS1073019.B\M10730Y4.D CAL5 = MSS1073019.B\M10730Y3.D CAL6 = MSS1073019.B\M10730Y2.D

CAL7 = MSS1073019.B\M10730Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
2-Fluorophenol (S)	Averaged	1.17111	2.04189			1.17791	
Nitrobenzene-d5 (S)	Averaged	0.15769	2.15928			0.15583	
Phenol-d6 (S)	Averaged	1.50388	1.78438			1.52218	
Terphenyl-d14 (S)	Averaged	0.90744	4.26127			0.95417	
2,4,6-Tribromophenol (S)	Averaged	0.15403	9.17720			0.13891	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 30-JUL-2019 14:25
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal7
Misc Info : 14899,94269:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 14:25 Cal File: m10730y1.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.157	2.140	(0.545)	1258545	20.0000	20.4(A)	
	2 Pyridine	79	2.141	2.140	(0.541)	1908897	20.0000	20.4(A)	
$	3 2-Fluorophenol (S)	112	3.055	3.048	(0.772)	1976659	20.0000	19.3	
$	4 Phenol-d6 (S)	99	3.701	3.690	(0.935)	2538325	20.0000	19.4	
	5 Benzaldehyde	77	3.648	3.636	(0.922)	1751949	20.0000	19.4	
	6 Phenol	94	3.712	3.695	(0.938)	2637191	20.0000	19.2	
	7 Aniline	66	3.744	3.732	(0.946)	1196905	20.0000	19.8	
	8 bis(2-Chloroethyl)ether	63	3.776	3.764	(0.954)	1603831	20.0000	21.5(A)	
	9 2-Chlorophenol	128	3.824	3.818	(0.966)	2202365	20.0000	18.7	
	10 1,3-Dichlorobenzene	146	3.931	3.925	(0.993)	2428874	20.0000	19.0	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.958	3.951	(1.000)	337570	4.00000		
	12 1,4-Dichlorobenzene	146	3.968	3.962	(1.003)	2607913	20.0000	19.0	
	13 Benzyl Alcohol	79	4.070	4.058	(1.028)	1802725	20.0000	20.2(A)	
	14 1,2-Dichlorobenzene	146	4.113	4.106	(1.039)	2398321	20.0000	19.3	
	15 2-Methylphenol(o-Cresol)	108	4.155	4.144	(1.050)	2147255	20.0000	19.7	
	16 bis(2-Chloroisopropyl)ether	45	4.182	4.176	(1.057)	2538099	20.0000	19.7	
	17 3&4-Methylphenol(m&p Cresol)	108	4.273	4.256	(1.080)	2206465	20.0000	19.6	
	18 N-Nitroso-di-n-propylamine	70	4.305	4.283	(1.088)	1640903	20.0000	20.1(A)	
	19 Acetophenone	105	4.284	4.272	(1.082)	2949901	20.0000	19.3	
	20 Hexachloroethane	117	4.353	4.347	(1.100)	1004837	20.0000	20.3(A)	
$	21 Nitrobenzene-d5 (S)	128	4.407	4.395	(0.889)	1145395	20.0000	19.8	
	22 Nitrobenzene	77	4.417	4.405	(0.891)	2286429	20.0000	19.6	
	23 Isophorone	82	4.599	4.587	(0.928)	4132395	20.0000	19.1	
	24 2,4-Dimethylphenol	107	4.679	4.672	(0.944)	2293431	20.0000	19.5	
	25 2-Nitrophenol	139	4.668	4.656	(0.942)	1290253	20.0000	0.159	
	26 Benzoic acid	105	4.791	4.731	(0.967)	1475942	20.0000	21.4(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	4.759	4.747	(0.960)	2618840	20.0000	19.5	
	28 2,4-Dichlorophenol	162	4.850	4.838	(0.978)	1936532	20.0000	19.8	
	29 1,2,4-Trichlorobenzene	180	4.919	4.913	(0.992)	2125145	20.0000	19.5	
*	30 Naphthalene-d8 (IS)	136	4.957	4.950	(1.000)	1452699	4.00000		
	31 Naphthalene	128	4.973	4.966	(1.003)	6280944	20.0000	18.4	
	32 4-Chloroaniline	65	5.021	5.014	(1.013)	703942	20.0000	19.4	
	33 Hexachloro-1,3-butadiene	225	5.112	5.105	(1.031)	1205983	20.0000	19.7	
	34 Caprolactam	55	5.315	5.260	(1.072)	707734	20.0000	17.8(MH)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.405	5.394	(1.091)	1938089	20.0000	20.2(A)	
	36	2-Methylnaphthalene	142	5.528	5.522	(1.115)	4454748	20.0000	18.8	
	37	1-Methylnaphthalene	142	5.619	5.613	(1.134)	4170759	20.0000	18.9	
	38	Hexachlorocyclopentadiene	237	5.710	5.709	(0.892)	1606488	20.0000	0.744	
	39	1,2,4,5-Tetrachlorobenzene	216	5.699	5.693	(0.890)	2049818	20.0000	19.3	
	40	2,4,6-Trichlorophenol	196	5.774	5.768	(0.902)	1559543	20.0000	20.4(A)	
	41	2,4,5-Trichlorophenol	196	5.811	5.800	(0.907)	1324603	20.0000	19.9	
$	42	2-Fluorobiphenyl (S)	172	5.838	5.832	(0.912)	4663824	20.0000	18.4	
	43	Biphenyl (Diphenyl)	154	5.913	5.907	(0.923)	5190115	20.0000	18.2	
	44	2-Chloronaphthalene	164	5.929	5.923	(0.926)	1435390	20.0000	19.6	
	45	2-Nitroaniline	138	6.031	6.019	(0.942)	1523552	20.0000	20.0	
	46	Dimethylphthalate	163	6.201	6.184	(0.968)	4466694	20.0000	18.6(MH)	LT
	47	2,6-Dinitrotoluene	165	6.255	6.243	(0.977)	1119852	20.0000	19.4	
	48	Acenaphthylene	152	6.282	6.275	(0.981)	6119622	20.0000	18.2	
	49	3-Nitroaniline	65	6.372	6.355	(0.995)	1213914	20.0000	20.7(AM)	LT
*	50	Acenaphthene-d10 (IS)	164	6.404	6.398	(1.000)	812644	4.00000		
	51	2,4-Dinitrophenol	184	6.458	6.441	(1.008)	700000	20.0000	0.131	
	52	Acenaphthene	153	6.431	6.425	(1.004)	4081370	20.0000	18.9	
	53	4-Nitrophenol	109	6.501	6.478	(1.015)	510664	20.0000	18.3(H)	
	54	2,4-Dinitrotoluene	165	6.581	6.569	(1.028)	1528788	20.0000	0.693	
	55	Dibenzofuran	168	6.559	6.553	(1.024)	5545243	20.0000	18.0	
	56	2,3,4,6-Tetrachlorophenol	232	6.698	6.692	(1.046)	1231683	20.0000	20.3(A)	
	57	Diethylphthalate	149	6.794	6.777	(1.061)	4399141	20.0000	19.0(MH)	LT
	58	4-Chlorophenylphenyl ether	204	6.859	6.852	(1.071)	2533243	20.0000	19.7(M)	LT
	59	Fluorene	166	6.875	6.863	(1.073)	4865704	20.0000	19.0	
	60	4-Nitroaniline	108	6.928	6.900	(1.082)	609827	20.0000	21.0(AM)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.971	6.943	(0.887)	935056	20.0000	0.0910(H)	
	62	N-Nitrosodiphenylamine	169	6.987	6.970	(0.889)	4209835	20.0000	19.7	
	63	Azobenzene	77	7.019	7.007	(0.893)	4089940	20.0000	18.6	
	64	1,2-Diphenylhydrazine	77	7.019	7.007	(0.893)	4089940	20.0000	18.6	
$	65	2,4,6-Tribromophenol (S)	330	7.142	7.130	(0.909)	1053888	20.0000	0.111	
	66	4-Bromophenylphenyl ether	248	7.366	7.360	(0.937)	1641466	20.0000	20.5(A)	
	67	Hexachlorobenzene	284	7.537	7.525	(0.959)	1837017	20.0000	20.6(A)	
	68	Atrazine	200	7.580	7.557	(0.965)	1341258	20.0000	18.2	
	69	Pentachlorophenol	266	7.724	7.707	(0.983)	1118250	20.0000	0.122	
*	70	Phenanthrene-d10 (IS)	188	7.858	7.846	(1.000)	1368431	4.00000		
	71	Phenanthrene	178	7.884	7.872	(1.003)	7184093	20.0000	19.0	
	72	Anthracene	178	7.932	7.915	(1.010)	6455813	20.0000	18.1	
	73	Carbazole	167	8.103	8.086	(1.031)	5637424	20.0000	17.7	
	74	Di-n-butylphthalate	149	8.515	8.503	(1.084)	6868497	20.0000	18.4	
	75	Fluoranthene	202	9.150	9.139	(1.165)	7195066	20.0000	18.8	
	76	Pyrene	202	9.385	9.374	(0.882)	7397121	20.0000	18.0	
$	77	Terphenyl-d14 (S)	244	9.546	9.539	(0.898)	6291032	20.0000	18.1	
	78	Butylbenzylphthalate	149	10.080	10.068	(0.948)	3145888	20.0000	19.3	
	79	3,3'-Dichlorobenzidine	252	10.603	10.586	(0.997)	3119387	20.0000	20.1(A)	
	80	bis(2-Ethylhexyl)phthalate	149	10.678	10.672	(1.004)	4498124	20.0000	19.2	
	81	Benzo(a)anthracene	228	10.619	10.608	(0.998)	7459915	20.0000	18.4	
*	82	Chrysene-d12 (IS)	240	10.635	10.624	(1.000)	1386540	4.00000		
	83	Chrysene	228	10.667	10.650	(1.003)	6687797	20.0000	17.7	
	84	Di-n-octylphthalate	149	11.266	11.254	(0.940)	6476548	20.0000	4.30	
	85	Benzo(b)fluoranthene	252	11.661	11.644	(0.973)	8558141	20.0000	21.6(A)	
	86	Benzo(k)fluoranthene	252	11.682	11.665	(0.975)	6999685	20.0000	14.9	
	87	Benzo(a)pyrene	252	11.950	11.927	(0.997)	6797192	20.0000	17.5	
*	88	Perylene-d12 (IS)	264	11.987	11.975	(1.000)	1461448	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.917	12.889	(1.078)	9003320	20.0000	8.08	
90 Dibenz(a,h)anthracene	278	12.922	12.894	(1.078)	7349334	20.0000	5.58	
91 Benzo(g,h,i)perylene	276	13.173	13.140	(1.099)	7465951	20.0000	19.6	

QC Flag Legend

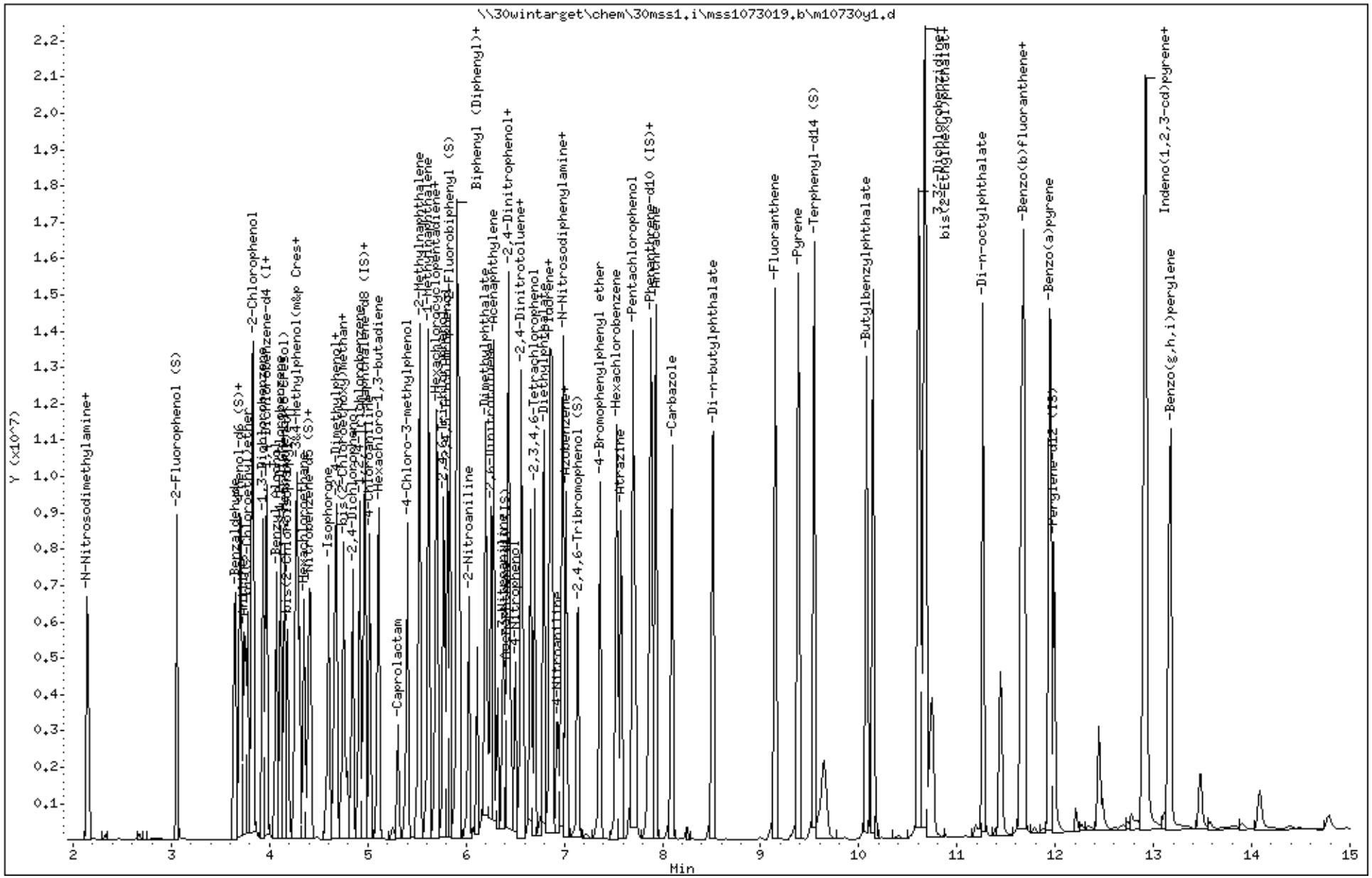
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y1.d
Date : 30-JUL-2019 14:25
Client ID: CAL7
Sample Info: CAL7

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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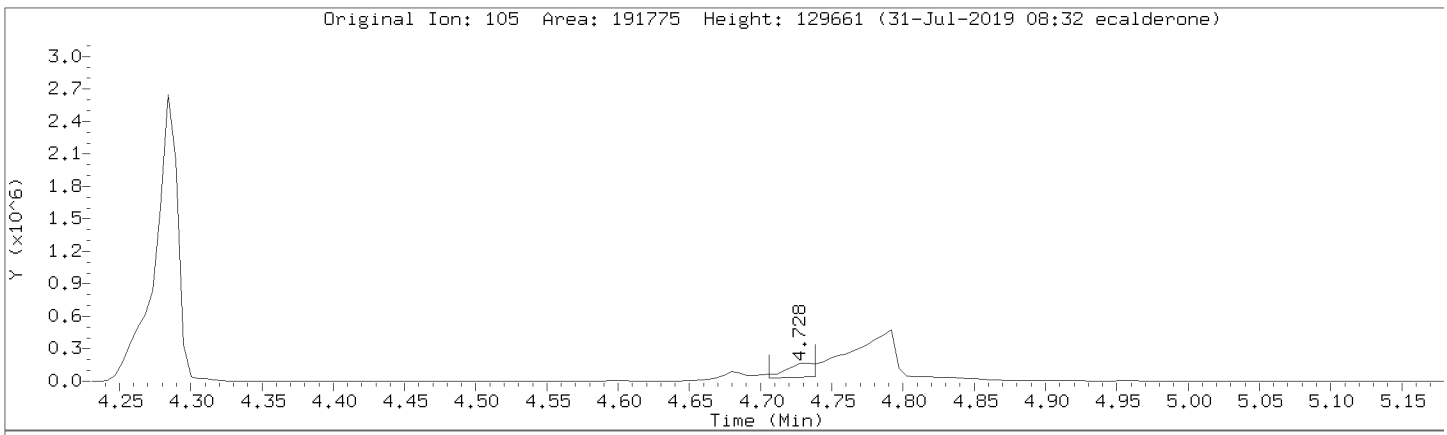
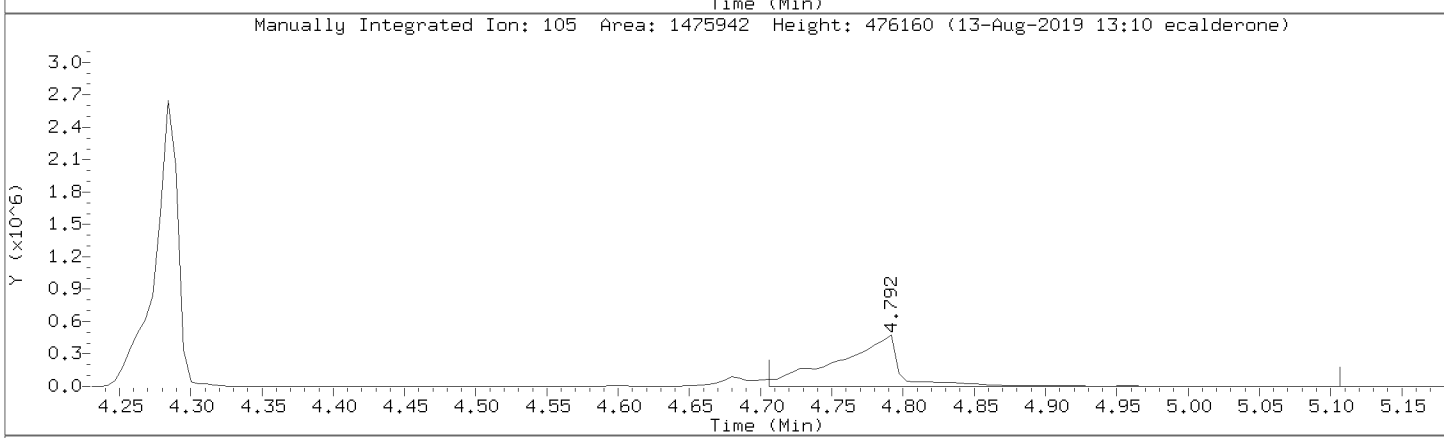
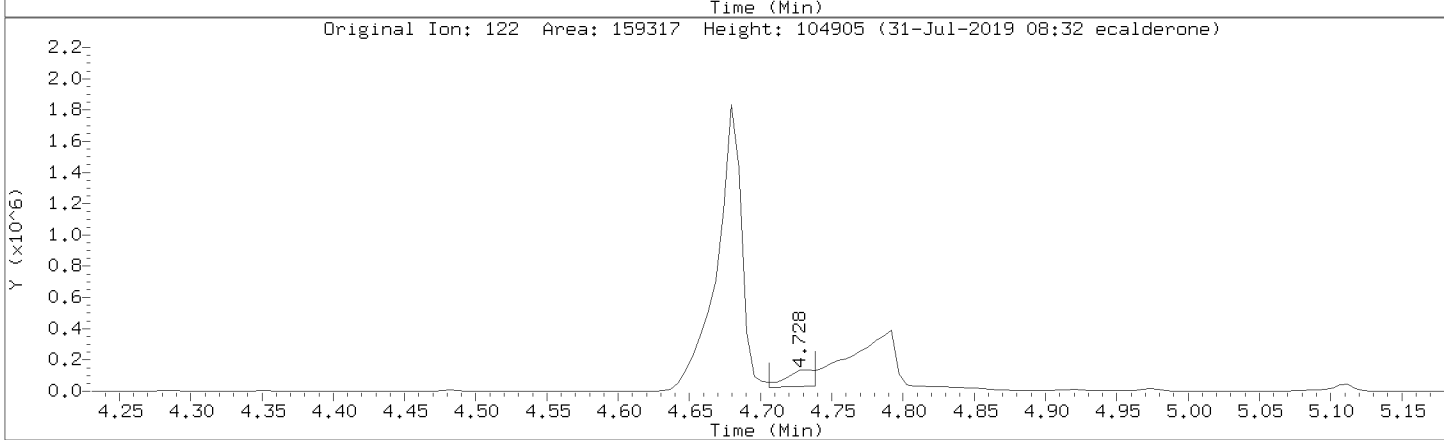
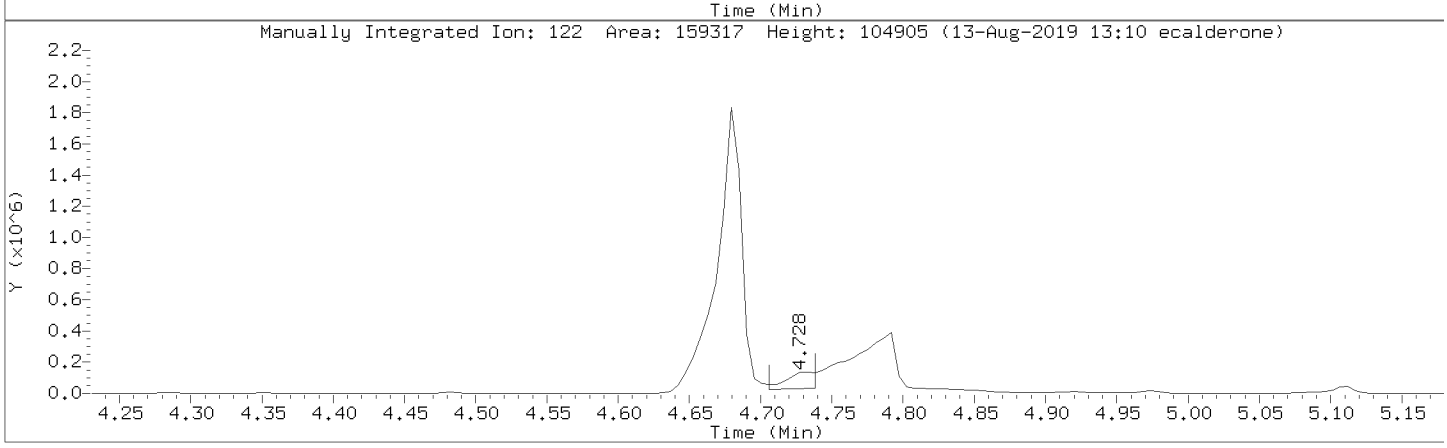
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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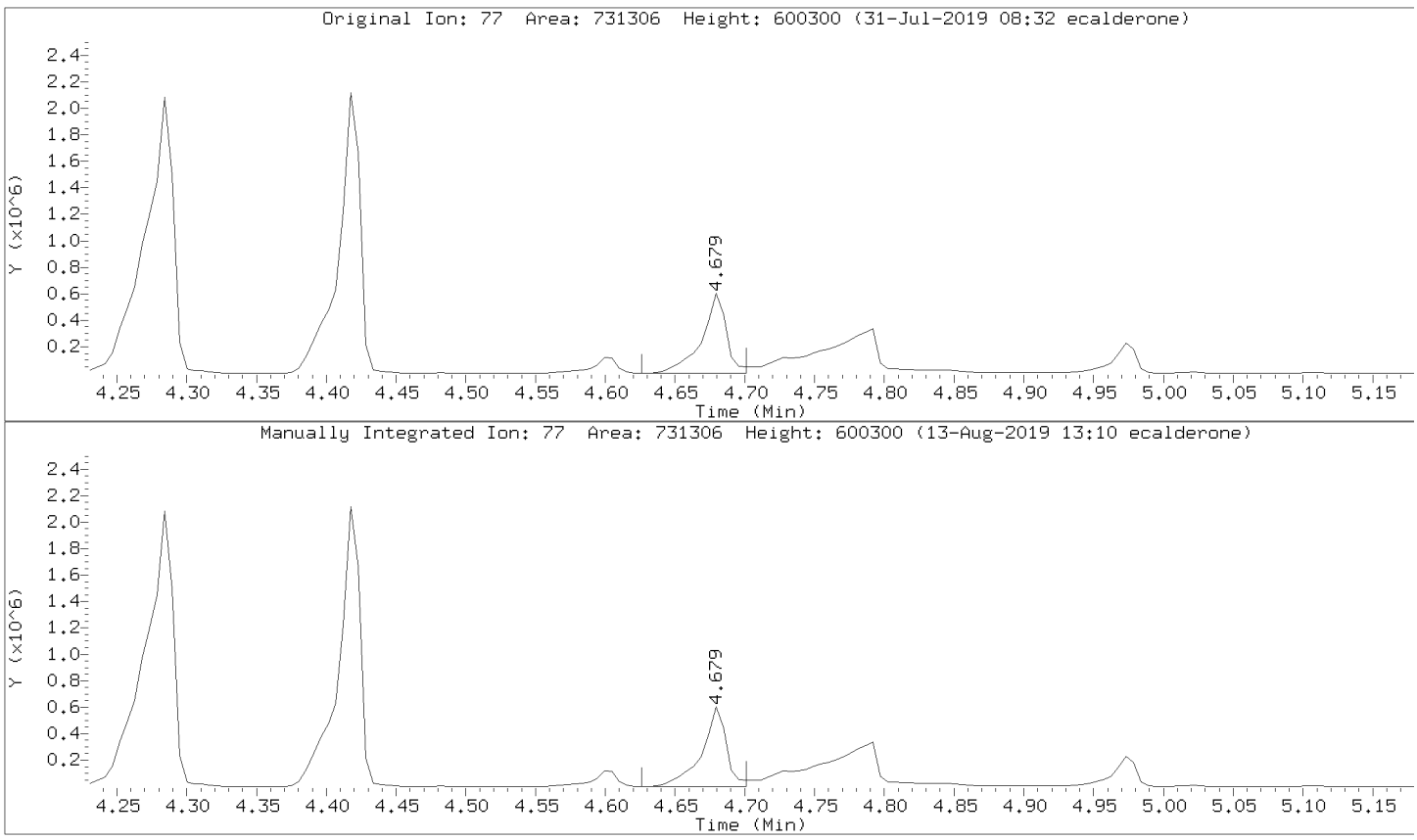
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7



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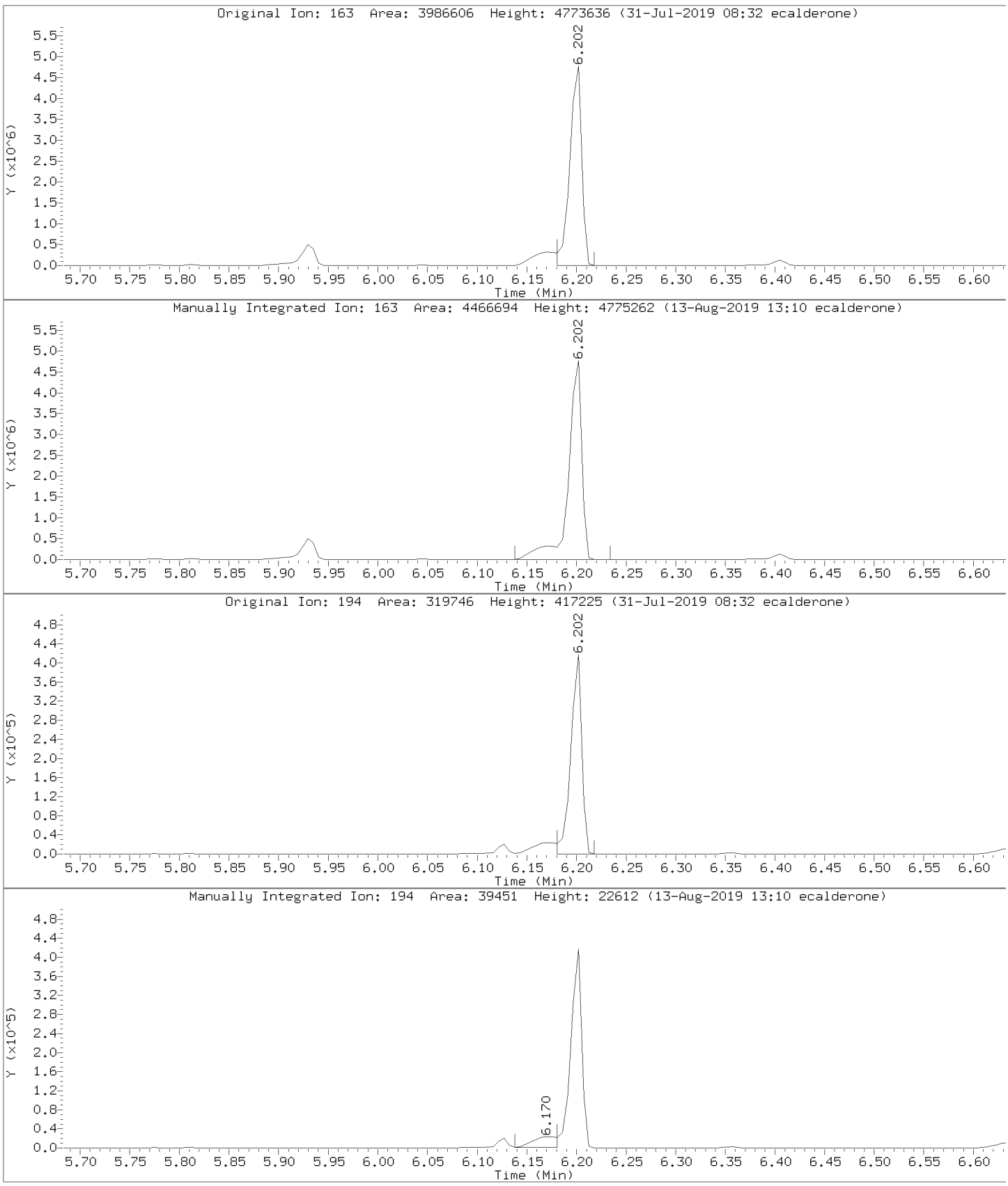
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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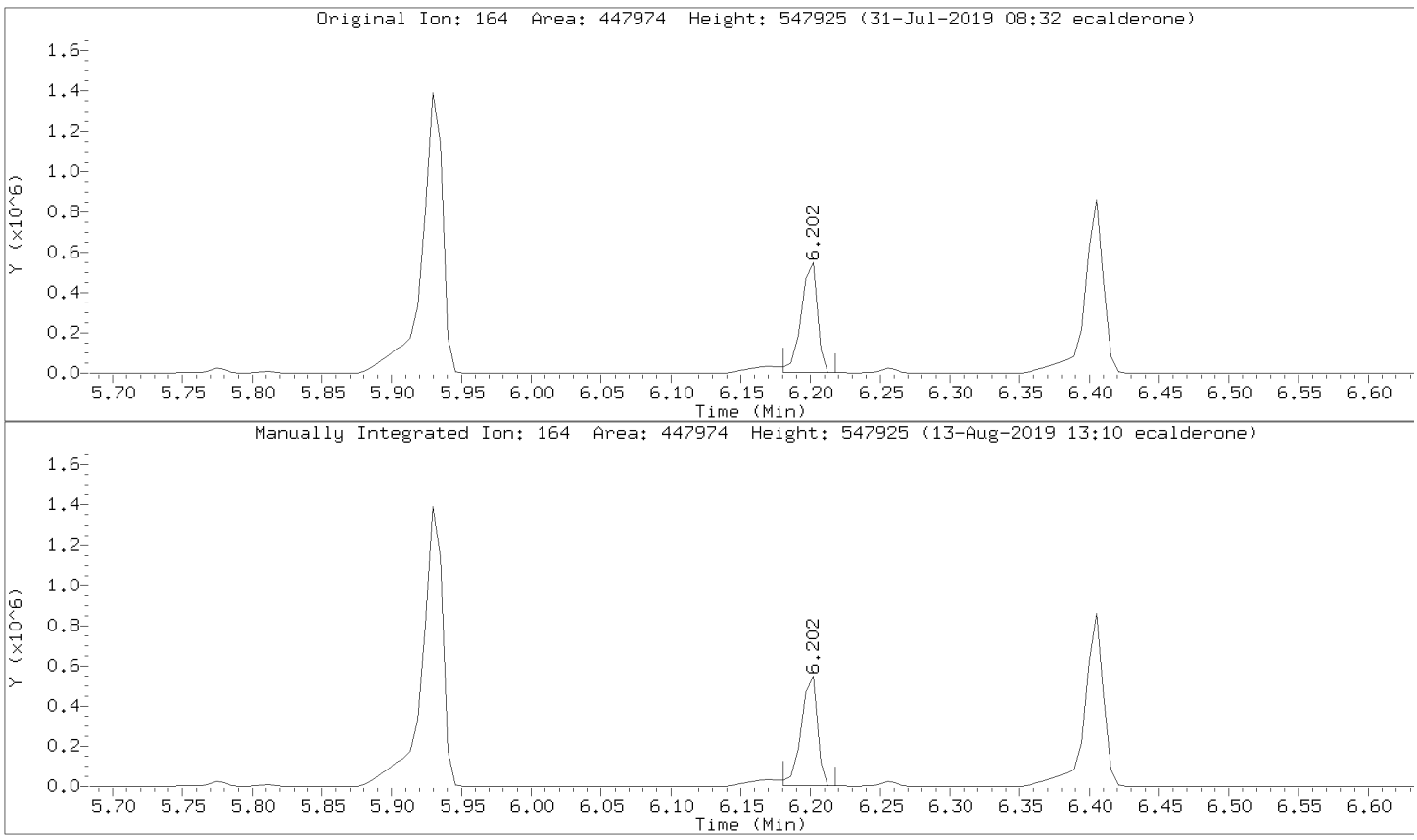
Instrument: 30mss1.i
Lab Sample ID: CAL7



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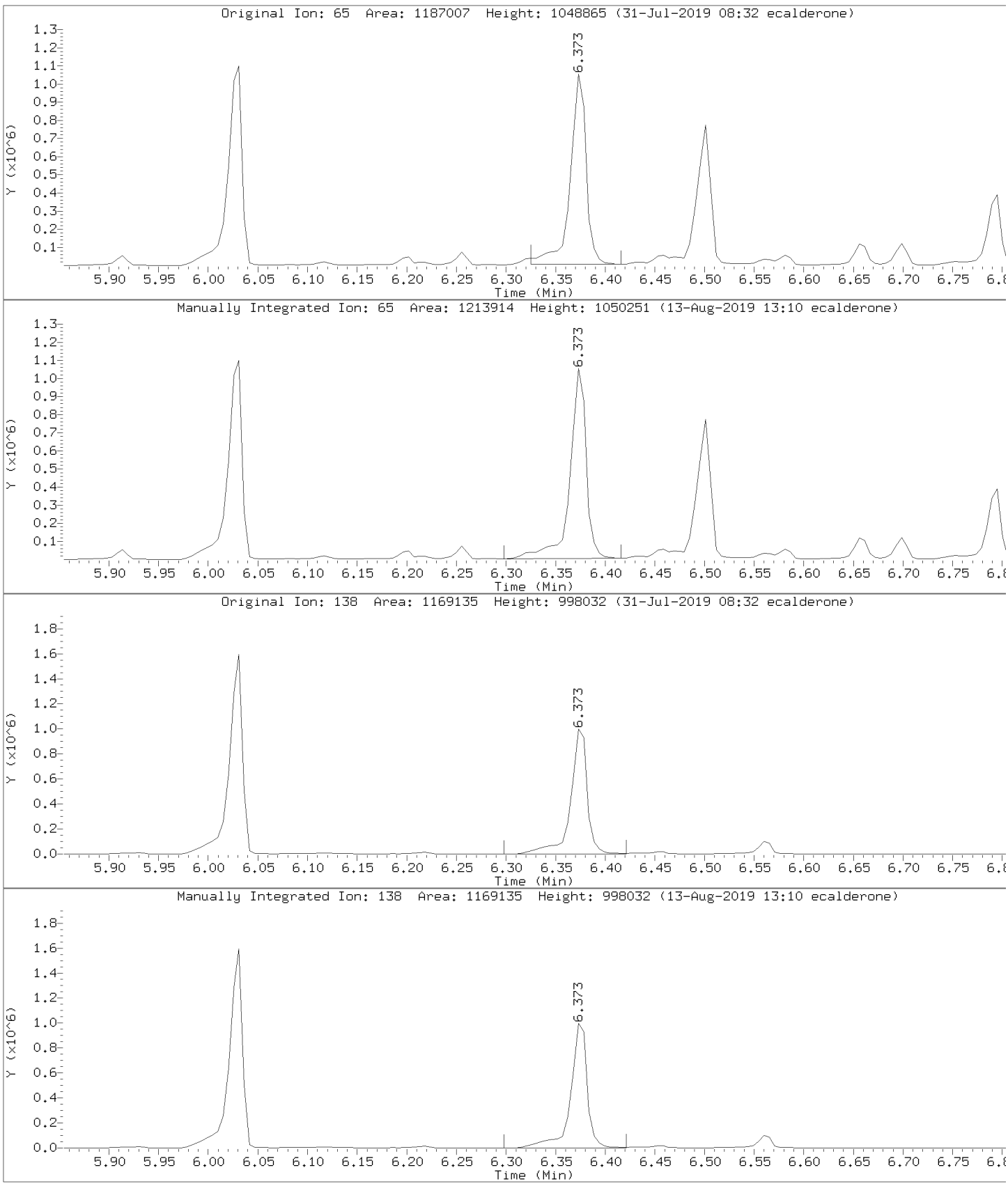
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 3-Nitroaniline Review Code: LT
CAS Number: 99-09-2



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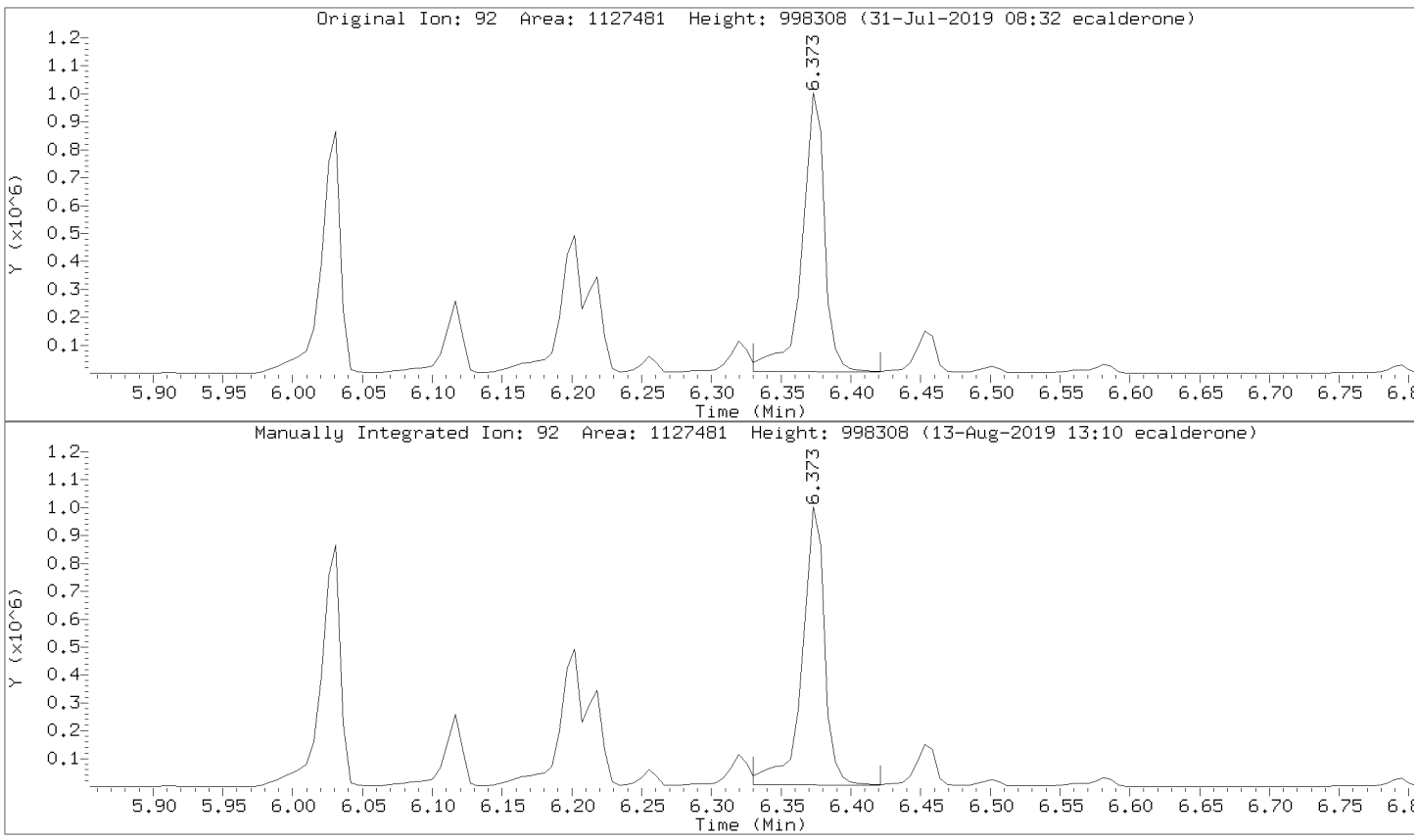
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7



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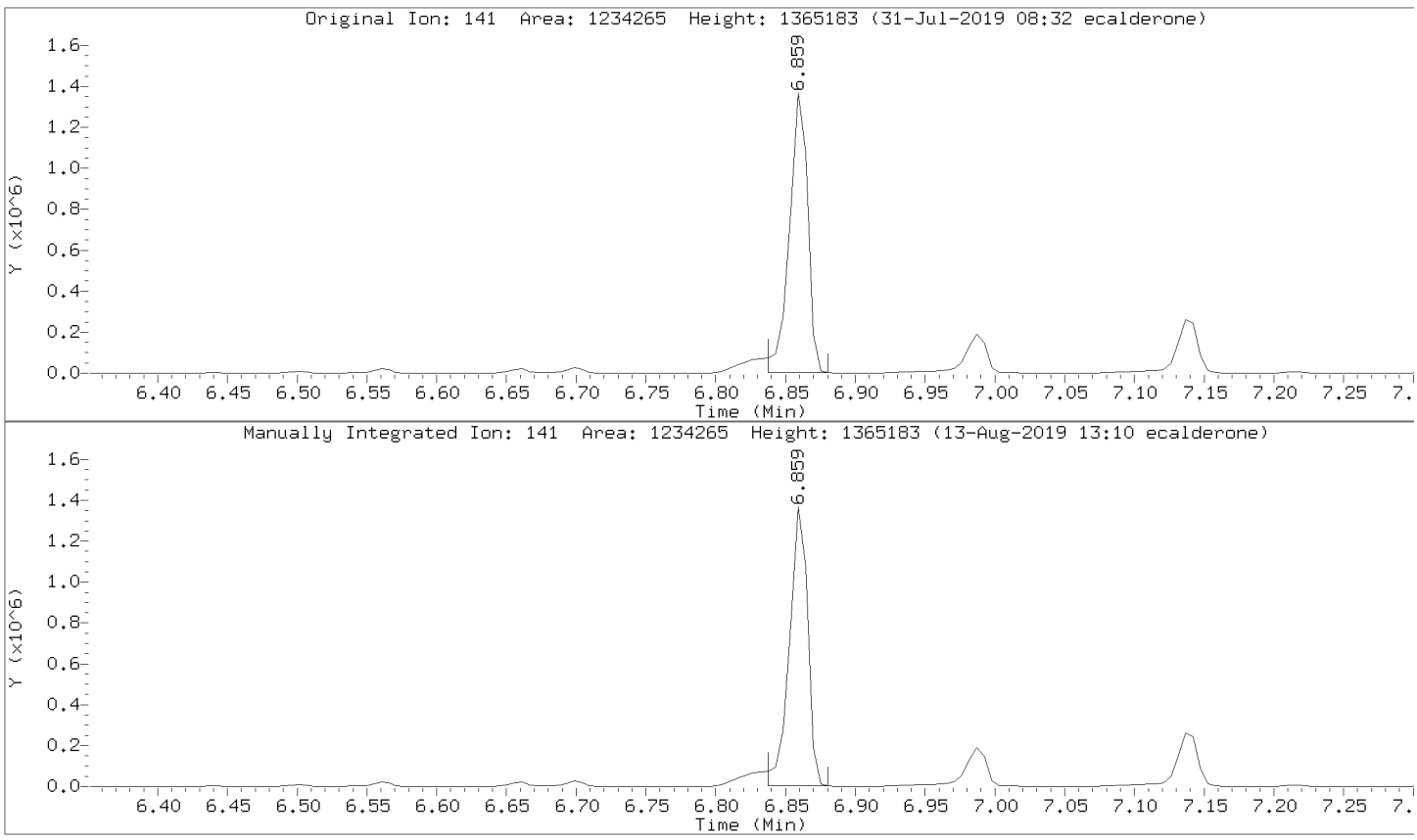
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Chlorophenylphenyl ether Review Code: LT
CAS Number: 7005-72-3



Data File: \\30wintarget\chem\30mss1.i\mss1073019.b/m10730y1.d
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7



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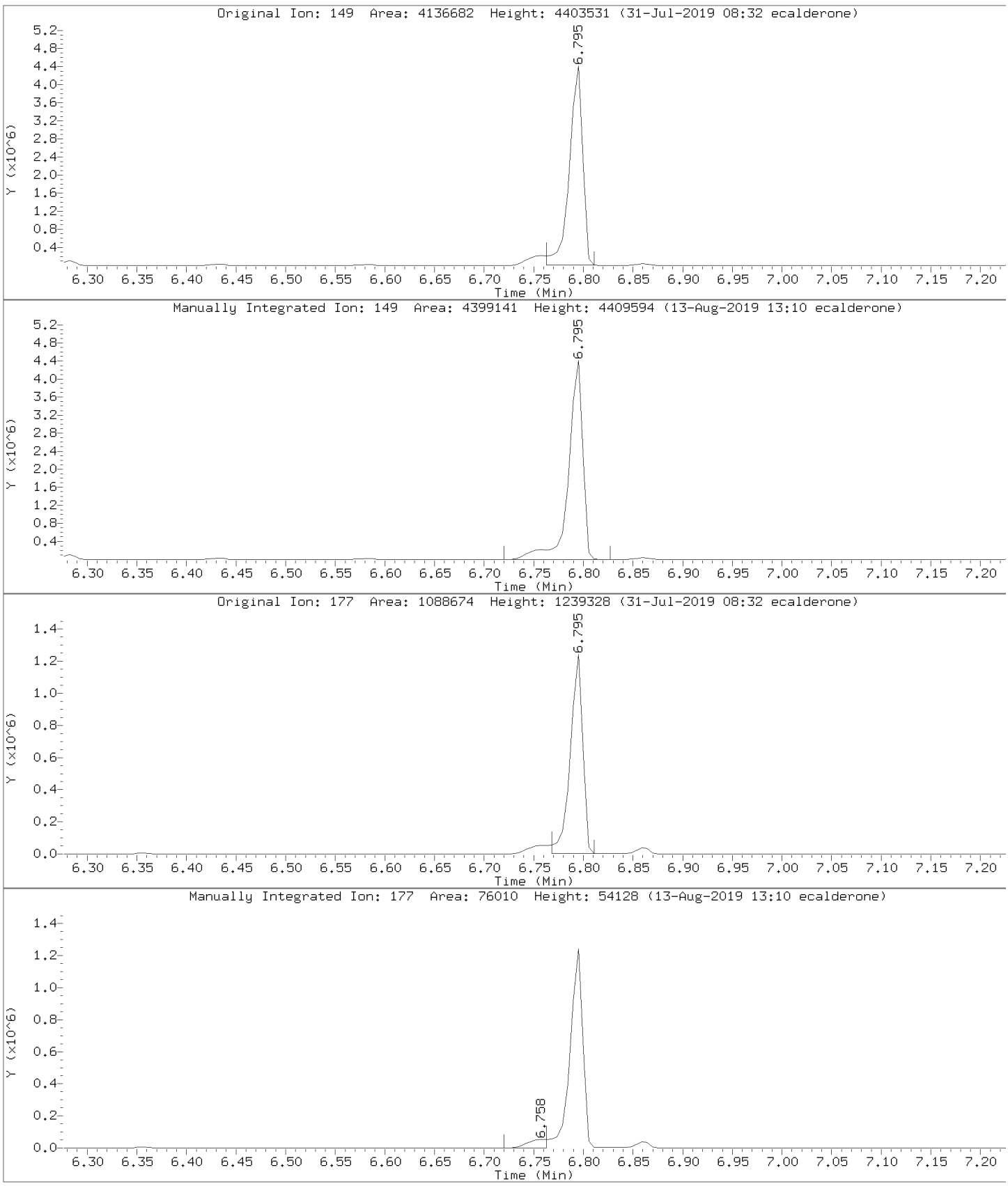
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2



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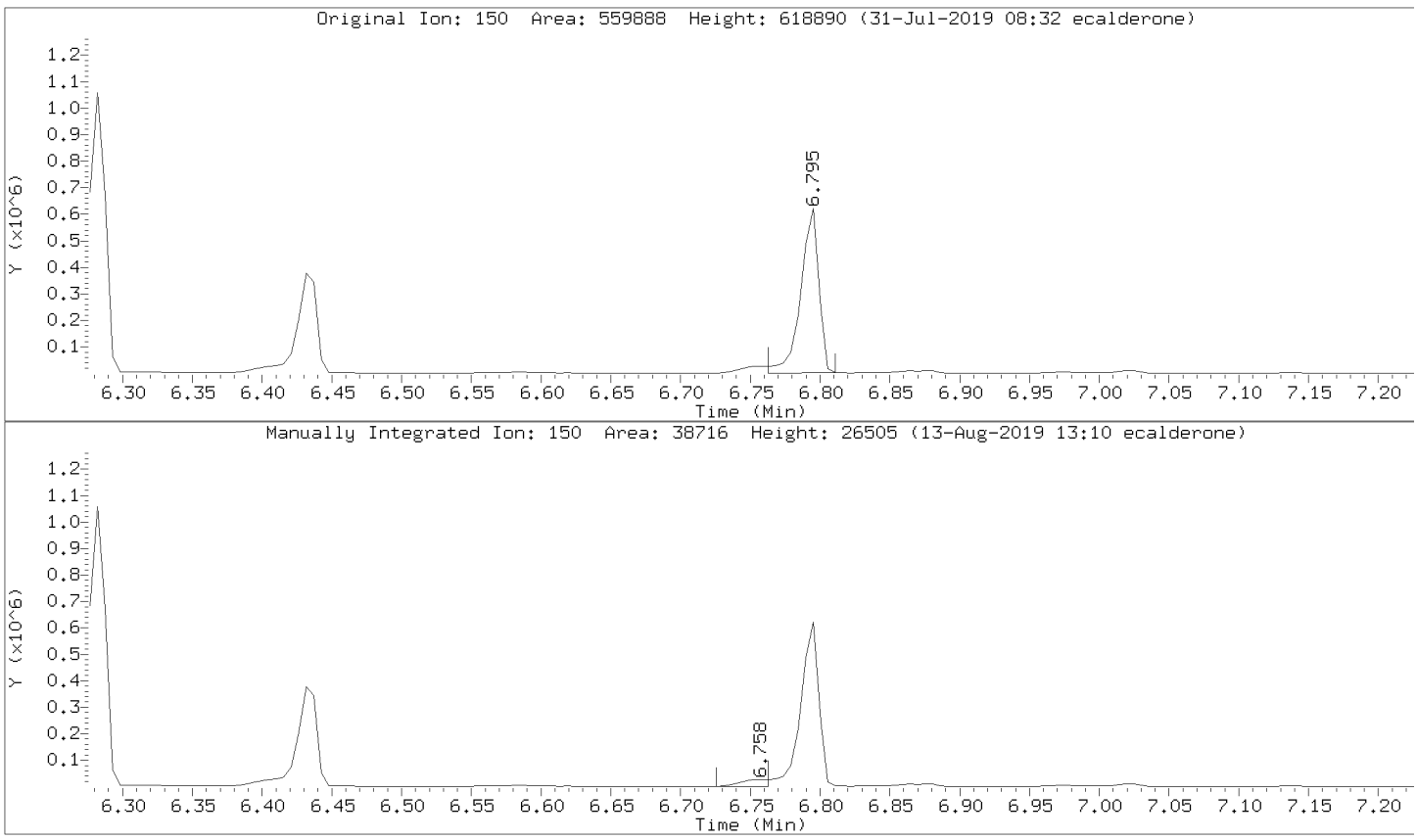
Instrument: 30mss1.i
Lab Sample ID: CAL7



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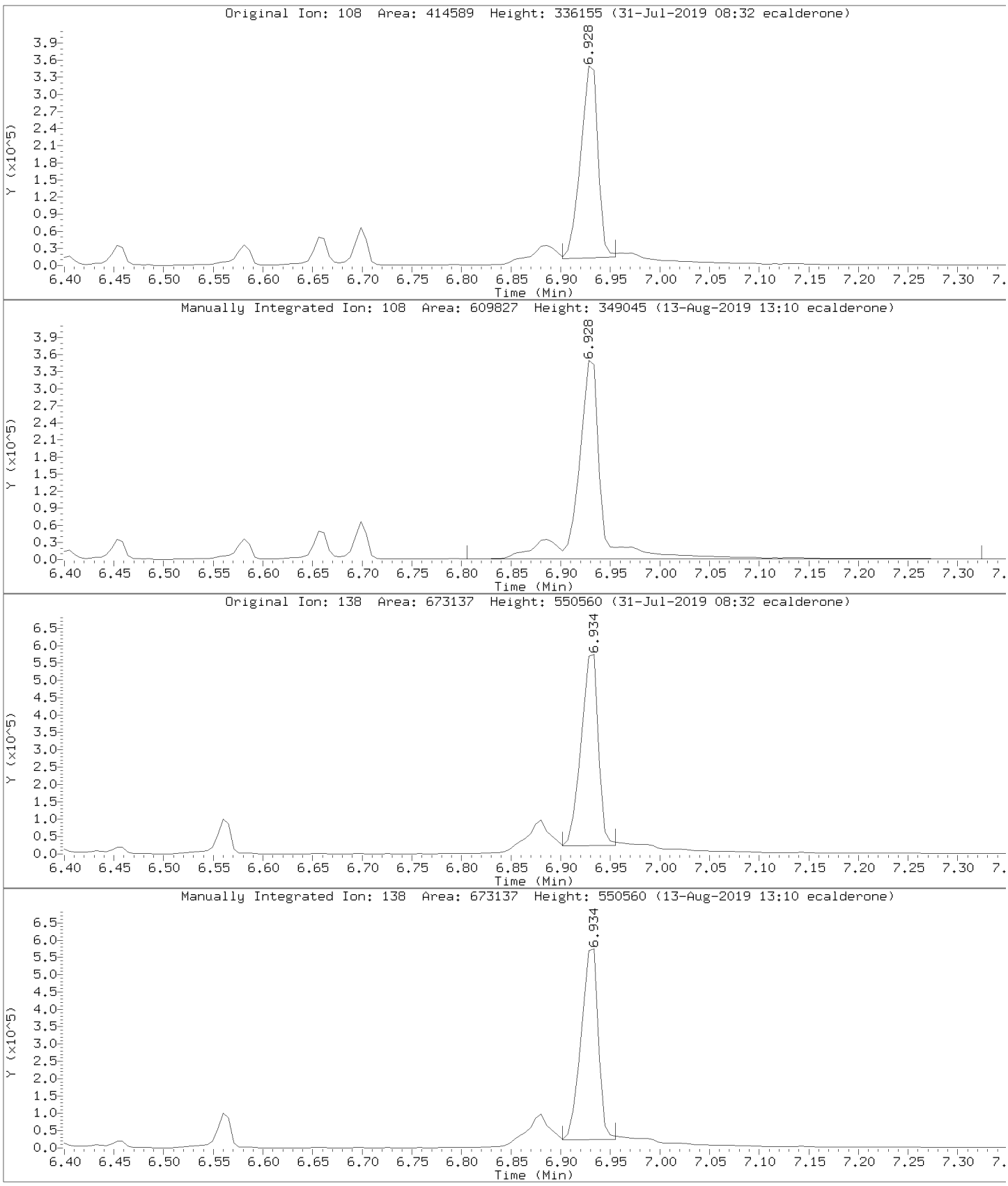
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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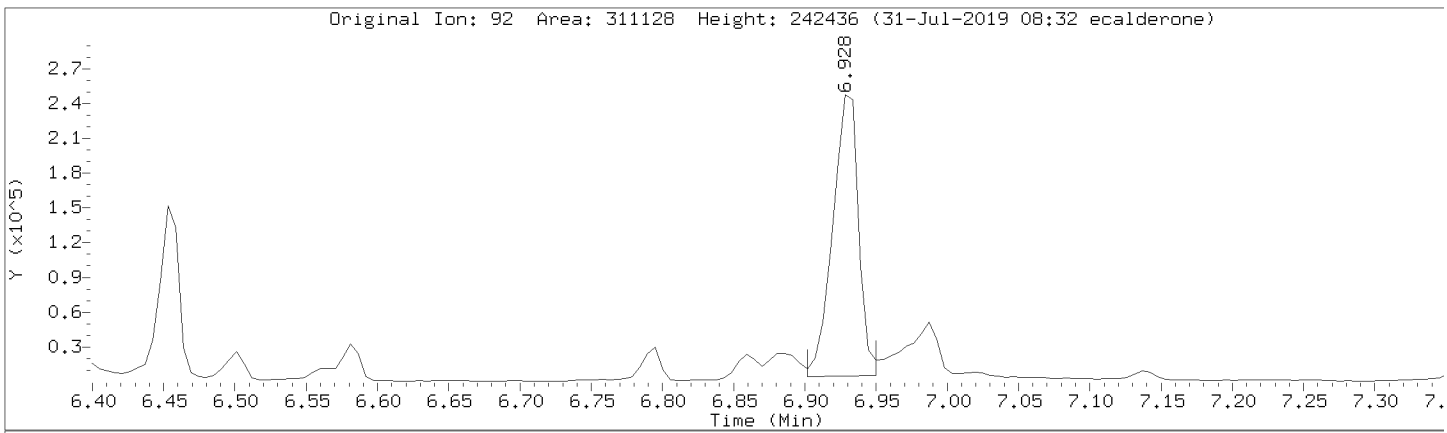
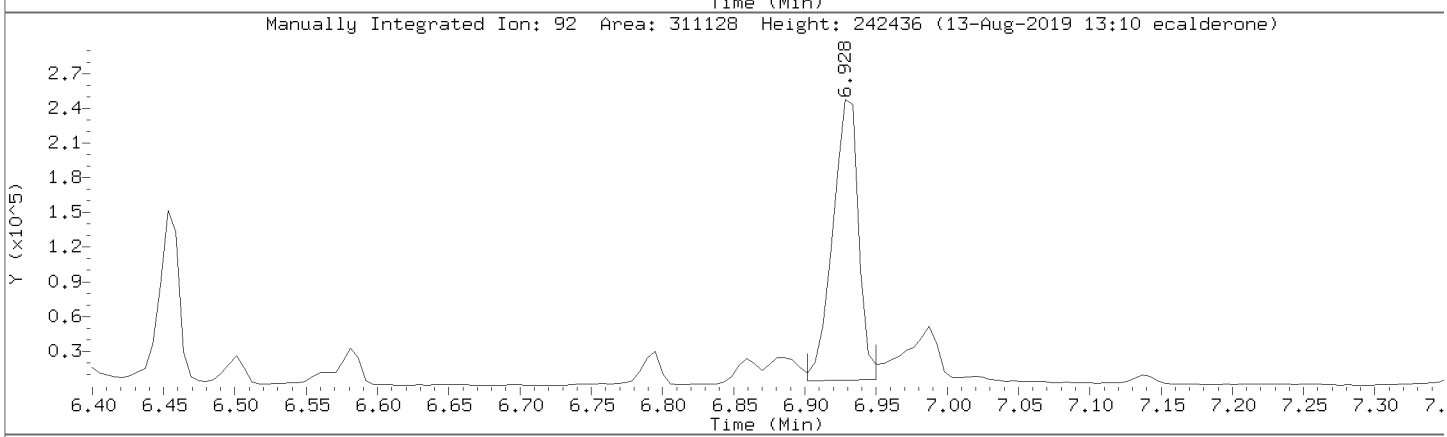
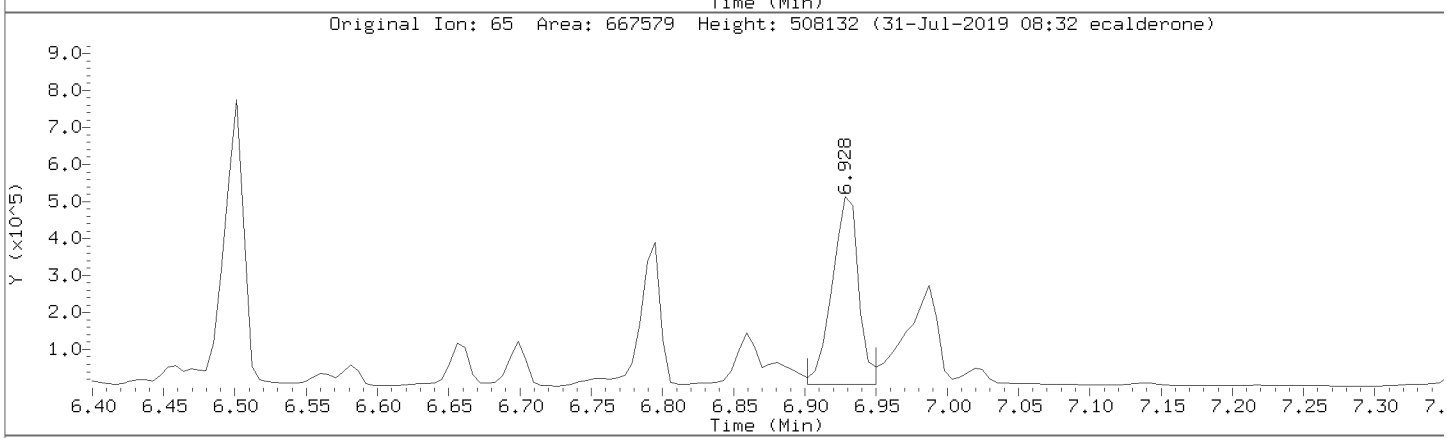
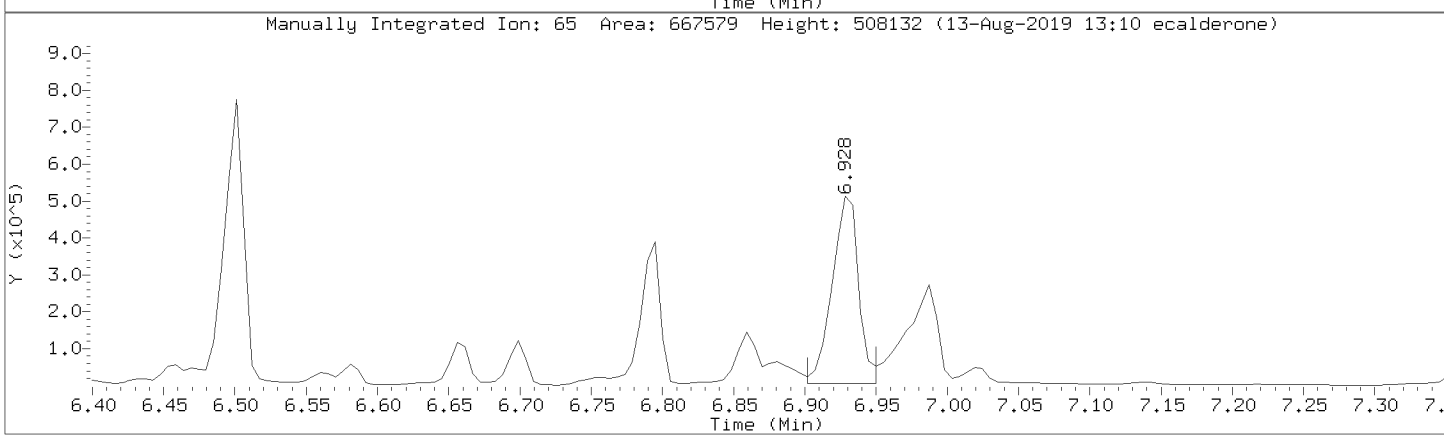
Lab Sample ID: CAL7









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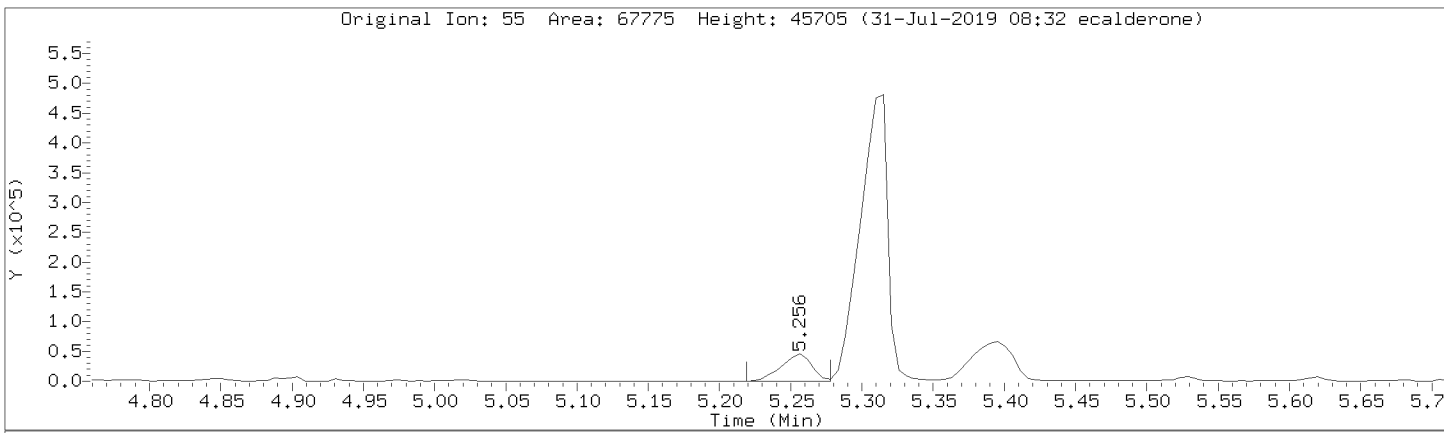
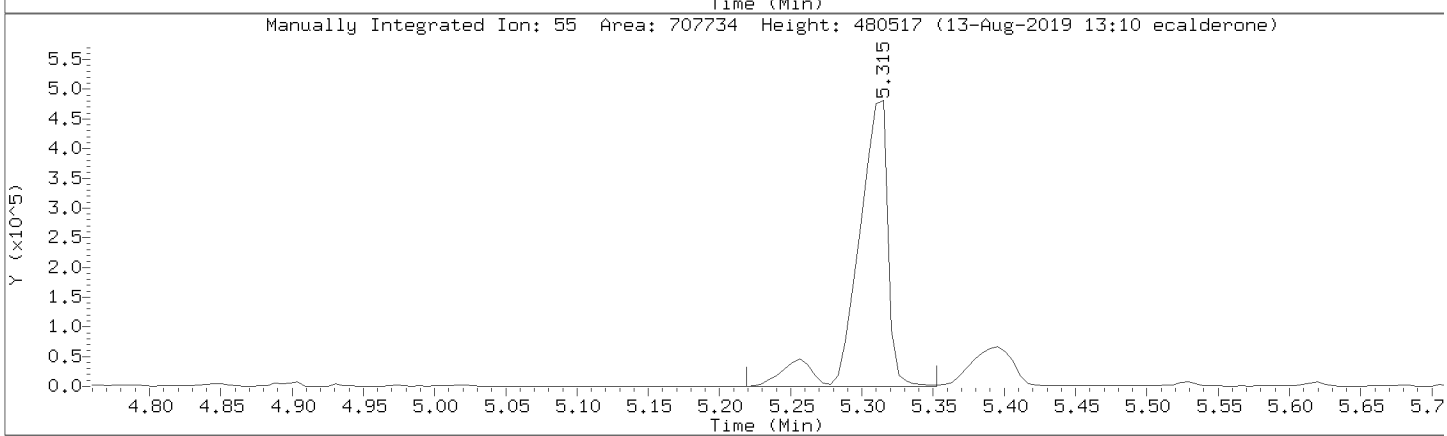
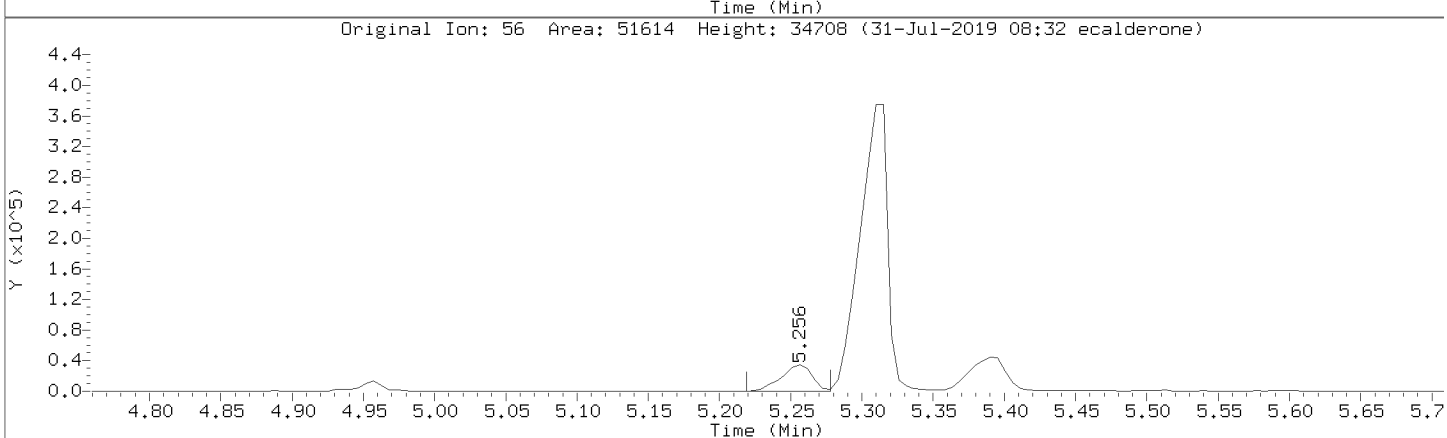
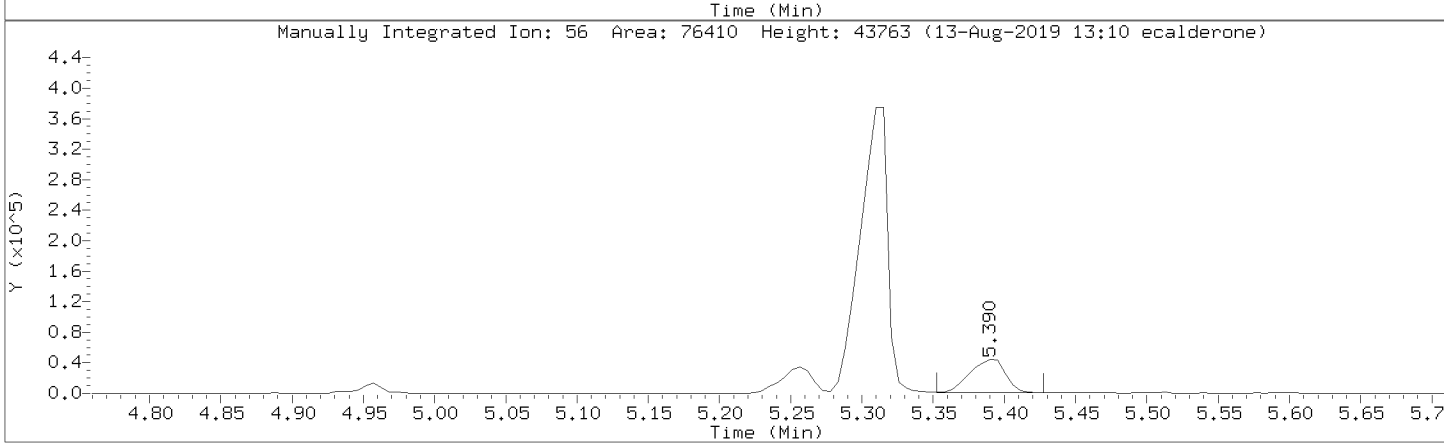
Injection Date: 30-JUL-2019 14:25
Instrument: 30mss1.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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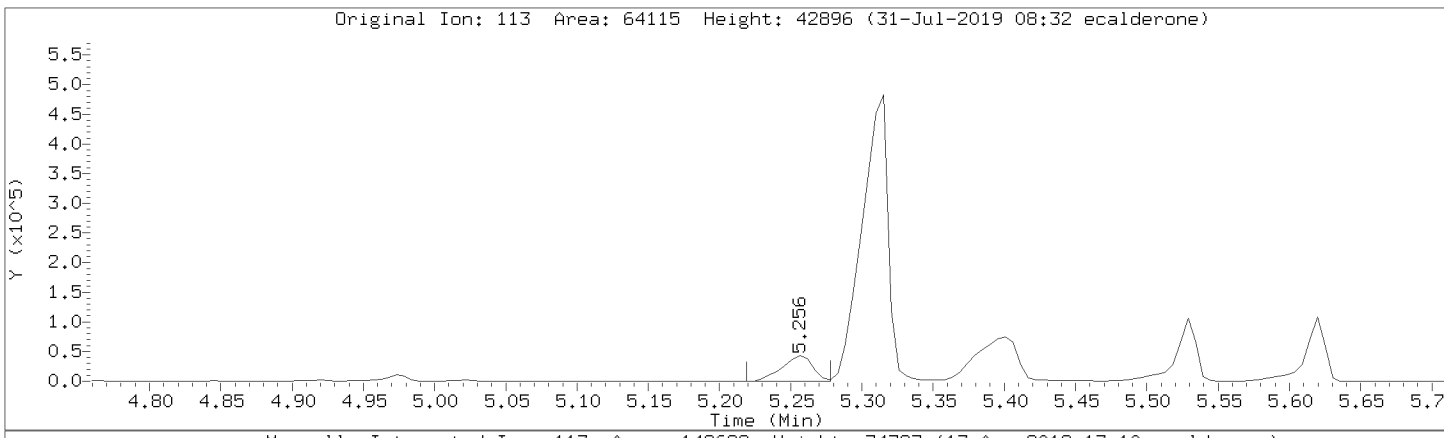
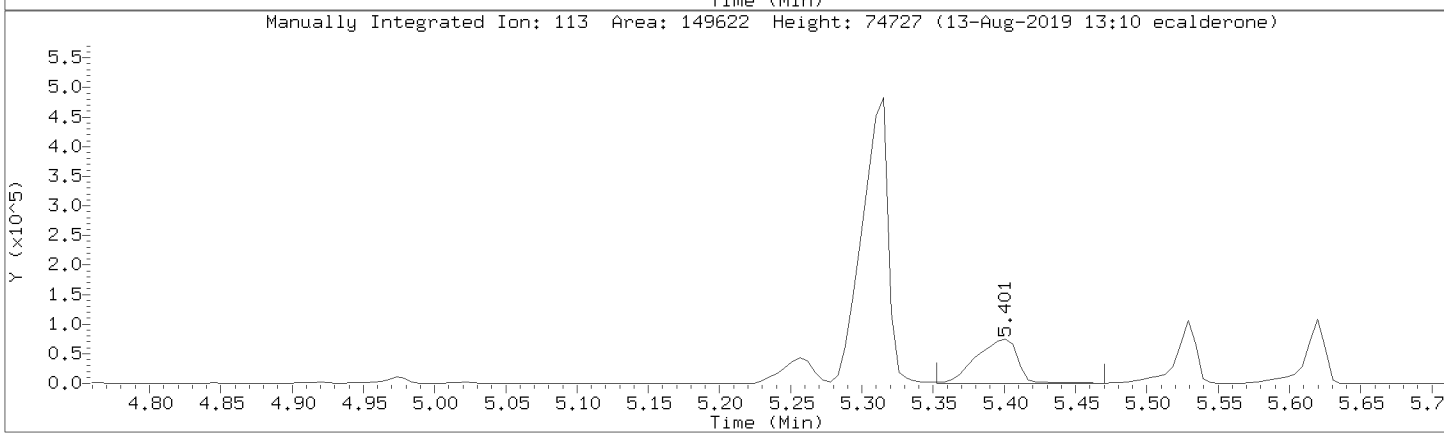
Lab Sample ID: CAL7





Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y2.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 30-JUL-2019 14:48
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal6
Misc Info : 14899,94270:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 14:48 Cal File: m10730y2.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.135	2.140	(0.540)	1041389	16.0000	16.2	
	2 Pyridine	79	2.130	2.140	(0.539)	1560714	16.0000	16.0	
$	3 2-Fluorophenol (S)	112	3.049	3.048	(0.772)	1664159	16.0000	16.0	
$	4 Phenol-d6 (S)	99	3.695	3.690	(0.935)	2128413	16.0000	16.0	
	5 Benzaldehyde	77	3.637	3.636	(0.920)	1469281	16.0000	16.0	
	6 Phenol	94	3.701	3.695	(0.936)	2215602	16.0000	15.9	
	7 Aniline	66	3.738	3.732	(0.946)	1034684	16.0000	16.7	
	8 bis(2-Chloroethyl)ether	63	3.770	3.764	(0.954)	1260819	16.0000	15.8	
	9 2-Chlorophenol	128	3.818	3.818	(0.966)	1874511	16.0000	15.9	
	10 1,3-Dichlorobenzene	146	3.925	3.925	(0.993)	2038913	16.0000	15.8	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.952	3.951	(1.000)	348434	4.00000		
	12 1,4-Dichlorobenzene	146	3.962	3.962	(1.003)	2202382	16.0000	15.9	
	13 Benzyl Alcohol	79	4.064	4.058	(1.028)	1485175	16.0000	16.0	
	14 1,2-Dichlorobenzene	146	4.107	4.106	(1.039)	1981422	16.0000	15.7	
	15 2-Methylphenol(o-Cresol)	108	4.149	4.144	(1.050)	1774216	16.0000	15.9	
	16 bis(2-Chloroisopropyl)ether	45	4.176	4.176	(1.057)	2079334	16.0000	15.8	
	17 3&4-Methylphenol(m&p Cresol)	108	4.262	4.256	(1.078)	1833706	16.0000	15.9	
	18 N-Nitroso-di-n-propylamine	70	4.294	4.283	(1.087)	1350377	16.0000	16.0	
	19 Acetophenone	105	4.278	4.272	(1.082)	2476859	16.0000	16.0	
	20 Hexachloroethane	117	4.347	4.347	(1.100)	808098	16.0000	15.7	
$	21 Nitrobenzene-d5 (S)	128	4.400	4.395	(0.888)	930813	16.0000	16.1	
	22 Nitrobenzene	77	4.411	4.405	(0.890)	1888248	16.0000	16.3	
	23 Isophorone	82	4.593	4.587	(0.927)	3434053	16.0000	16.2	
	24 2,4-Dimethylphenol	107	4.673	4.672	(0.943)	1882748	16.0000	16.2	
	25 2-Nitrophenol	139	4.662	4.656	(0.941)	1043709	16.0000	4.02	
	26 Benzoic acid	105	4.774	4.731	(0.963)	1262895	16.0000	17.6(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.753	4.747	(0.959)	2153235	16.0000	16.2	
	28 2,4-Dichlorophenol	162	4.844	4.838	(0.977)	1577079	16.0000	16.1	
	29 1,2,4-Trichlorobenzene	180	4.919	4.913	(0.992)	1735428	16.0000	16.1	
*	30 Naphthalene-d8 (IS)	136	4.956	4.950	(1.000)	1457241	4.00000		
	31 Naphthalene	128	4.972	4.966	(1.003)	5225175	16.0000	15.9	
	32 4-Chloroaniline	65	5.015	5.014	(1.012)	594057	16.0000	16.6	
	33 Hexachloro-1,3-butadiene	225	5.106	5.105	(1.030)	979411	16.0000	16.1	
	34 Caprolactam	55	5.298	5.260	(1.069)	582214	16.0000	15.5(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.399	5.394	(1.089)	1574144	16.0000	16.3	
	36 2-Methylnaphthalene	142	5.528	5.522	(1.115)	3724497	16.0000	16.2	
	37 1-Methylnaphthalene	142	5.618	5.613	(1.134)	3478721	16.0000	16.1	
	38 Hexachlorocyclopentadiene	237	5.709	5.709	(0.892)	1294668	16.0000	4.15	
	39 1,2,4,5-Tetrachlorobenzene	216	5.699	5.693	(0.891)	1679919	16.0000	16.5	
	40 2,4,6-Trichlorophenol	196	5.773	5.768	(0.902)	1287984	16.0000	17.1	
	41 2,4,5-Trichlorophenol	196	5.805	5.800	(0.907)	1027264	16.0000	15.8	
$	42 2-Fluorobiphenyl (S)	172	5.832	5.832	(0.911)	3883152	16.0000	16.3	
	43 Biphenyl (Diphenyl)	154	5.912	5.907	(0.924)	4372600	16.0000	16.4	
	44 2-Chloronaphthalene	164	5.928	5.923	(0.927)	1166266	16.0000	16.4	
	45 2-Nitroaniline	138	6.024	6.019	(0.942)	1230289	16.0000	16.5	
	46 Dimethylphthalate	163	6.195	6.184	(0.968)	3698772	16.0000	16.3	
	47 2,6-Dinitrotoluene	165	6.254	6.243	(0.977)	922726	16.0000	16.6	
	48 Acenaphthylene	152	6.281	6.275	(0.982)	5122951	16.0000	16.3	
	49 3-Nitroaniline	65	6.366	6.355	(0.995)	987778	16.0000	16.9	
*	50 Acenaphthene-d10 (IS)	164	6.398	6.398	(1.000)	794490	4.00000		
	51 2,4-Dinitrophenol	184	6.452	6.441	(1.008)	546350	16.0000	4.06	
	52 Acenaphthene	153	6.430	6.425	(1.005)	3349948	16.0000	16.3	
	53 4-Nitrophenol	109	6.495	6.478	(1.015)	487984	16.0000	18.7	
	54 2,4-Dinitrotoluene	165	6.575	6.569	(1.028)	1193140	16.0000	4.00	
	55 Dibenzofuran	168	6.559	6.553	(1.025)	4614683	16.0000	16.2	
	56 2,3,4,6-Tetrachlorophenol	232	6.698	6.692	(1.047)	972750	16.0000	16.3	
	57 Diethylphthalate	149	6.788	6.777	(1.061)	3580485	16.0000	16.2	
	58 4-Chlorophenylphenyl ether	204	6.858	6.852	(1.072)	2028558	16.0000	16.2	
	59 Fluorene	166	6.874	6.863	(1.074)	3968428	16.0000	16.3	
	60 4-Nitroaniline	108	6.922	6.900	(1.082)	503449	16.0000	17.3(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.959	6.943	(0.886)	777799	16.0000	4.30	
	62 N-Nitrosodiphenylamine	169	6.981	6.970	(0.889)	3403269	16.0000	16.5	
	63 Azobenzene	77	7.018	7.007	(0.894)	3381198	16.0000	16.4	
	64 1,2-Diphenylhydrazine	77	7.018	7.007	(0.894)	3381198	16.0000	16.4	
$	65 2,4,6-Tribromophenol (S)	330	7.136	7.130	(0.909)	800136	16.0000	3.96	
	66 4-Bromophenylphenyl ether	248	7.360	7.360	(0.937)	1287423	16.0000	16.4	
	67 Hexachlorobenzene	284	7.531	7.525	(0.959)	1418381	16.0000	16.1	
	68 Atrazine	200	7.574	7.557	(0.965)	1056549	16.0000	15.5(H)	
	69 Pentachlorophenol	266	7.718	7.707	(0.983)	855674	16.0000	4.00	
*	70 Phenanthrene-d10 (IS)	188	7.851	7.846	(1.000)	1328287	4.00000		
	71 Phenanthrene	178	7.878	7.872	(1.003)	5846238	16.0000	16.3	
	72 Anthracene	178	7.926	7.915	(1.010)	5260104	16.0000	15.9	
	73 Carbazole	167	8.097	8.086	(1.031)	4838604	16.0000	16.6	
	74 Di-n-butylphthalate	149	8.509	8.503	(1.084)	5684519	16.0000	16.4	
	75 Fluoranthene	202	9.144	9.139	(1.165)	5902855	16.0000	16.4	
	76 Pyrene	202	9.379	9.374	(0.882)	6063795	16.0000	16.9	
$	77 Terphenyl-d14 (S)	244	9.545	9.539	(0.898)	5143745	16.0000	16.9	
	78 Butylbenzylphthalate	149	10.074	10.068	(0.947)	2615015	16.0000	17.8	
	79 3,3'-Dichlorobenzidine	252	10.603	10.586	(0.997)	2430920	16.0000	17.1	
	80 bis(2-Ethylhexyl)phthalate	149	10.677	10.672	(1.004)	3436360	16.0000	16.3	
	81 Benzo(a)anthracene	228	10.619	10.608	(0.998)	5979280	16.0000	16.7	
*	82 Chrysene-d12 (IS)	240	10.635	10.624	(1.000)	1272794	4.00000		
	83 Chrysene	228	10.661	10.650	(1.002)	5334371	16.0000	16.3	
	84 Di-n-octylphthalate	149	11.260	11.254	(0.940)	5498782	16.0000	4.23	
	85 Benzo(b)fluoranthene	252	11.655	11.644	(0.973)	6697139	16.0000	18.9	
	86 Benzo(k)fluoranthene	252	11.676	11.665	(0.975)	5577726	16.0000	15.8	
	87 Benzo(a)pyrene	252	11.938	11.927	(0.996)	5423770	16.0000	17.3	
*	88 Perylene-d12 (IS)	264	11.981	11.975	(1.000)	1258989	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.910	12.889	(1.078)	7032121	16.0000	4.51	
90 Dibenz(a,h)anthracene	278	12.910	12.894	(1.078)	5884889	16.0000	4.62	
91 Benzo(g,h,i)perylene	276	13.162	13.140	(1.099)	5661869	16.0000	17.4	

QC Flag Legend

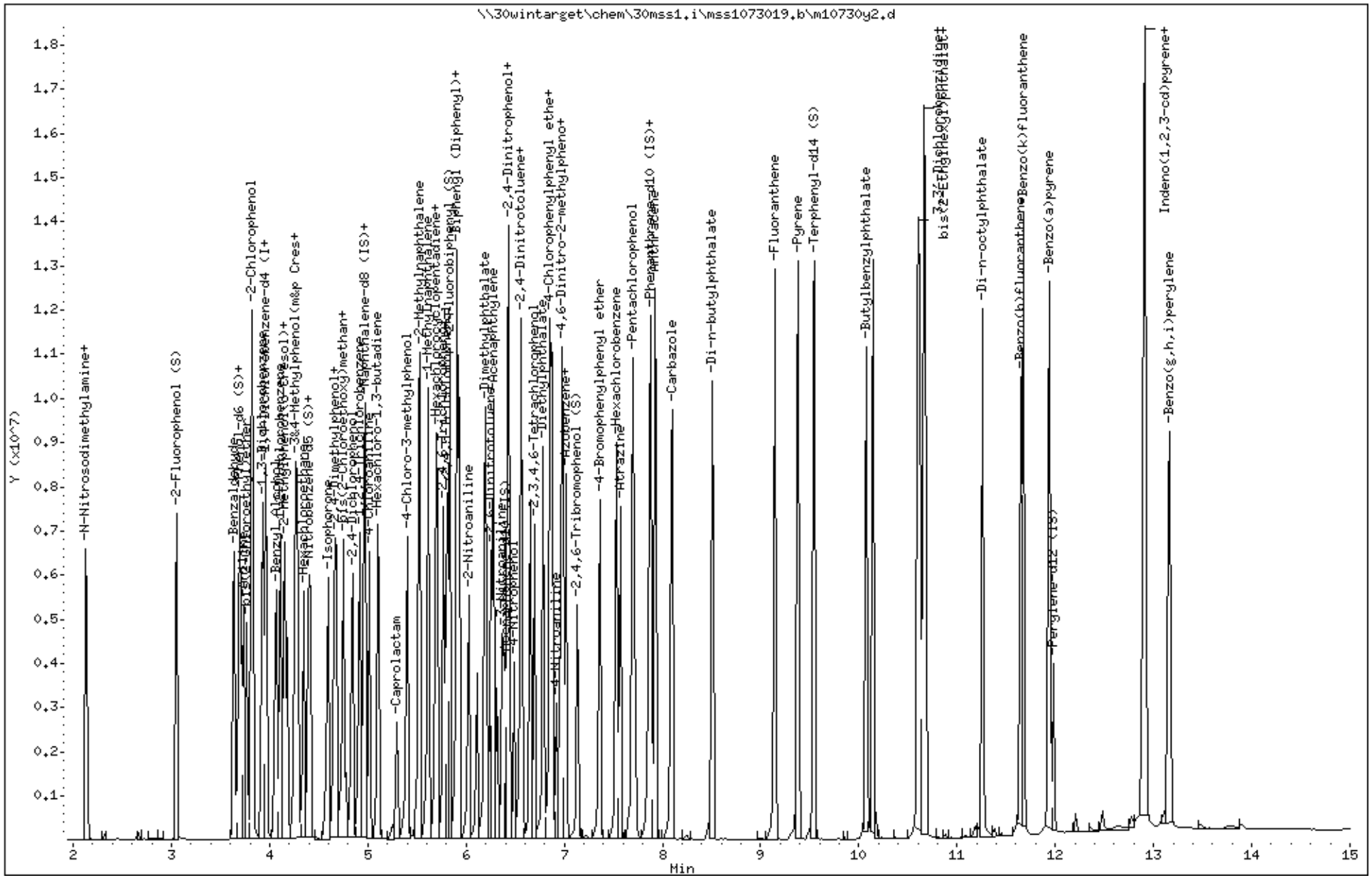
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y2.d
Date : 30-JUL-2019 14:48
Client ID: CAL6
Sample Info: CAL6

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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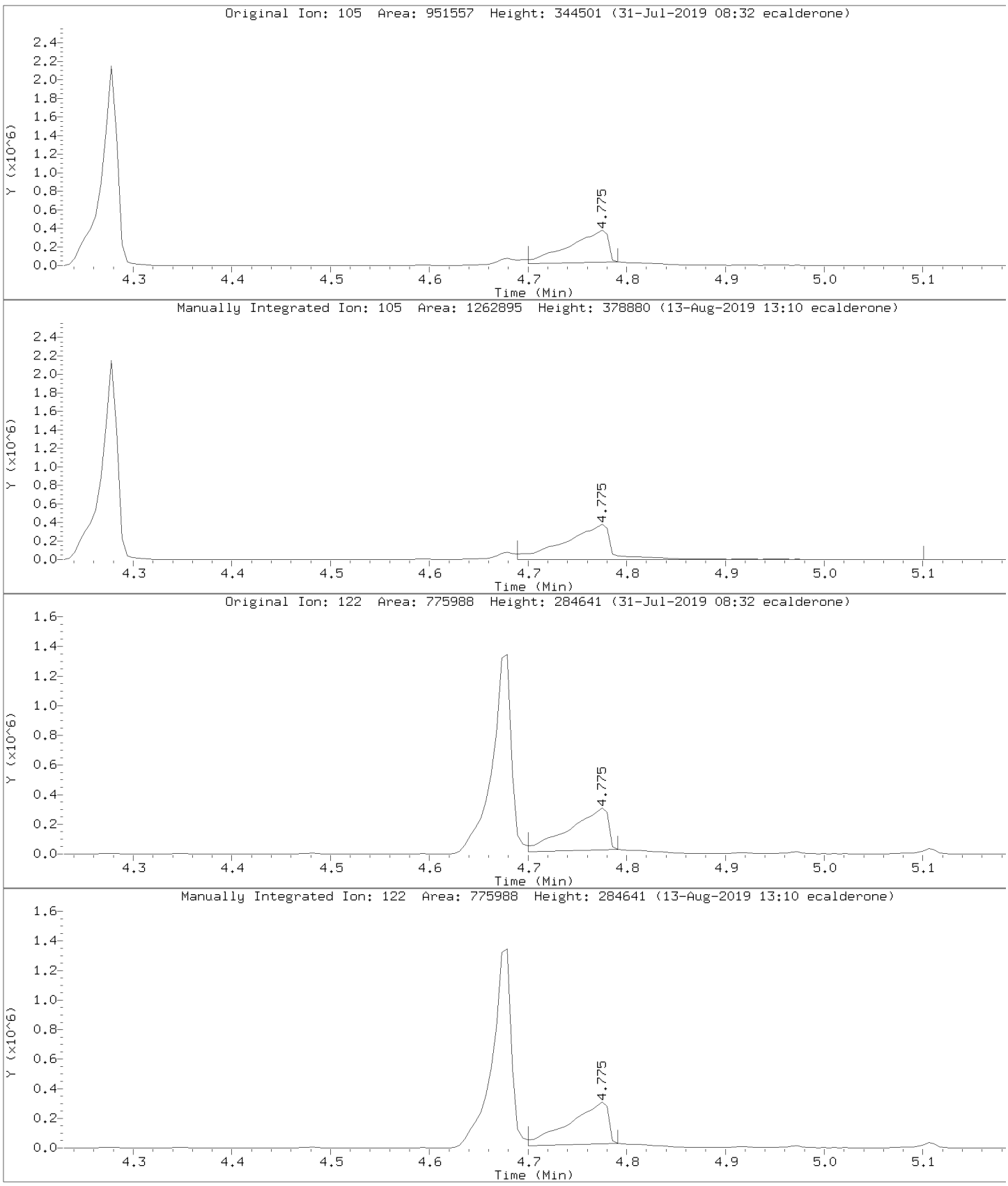
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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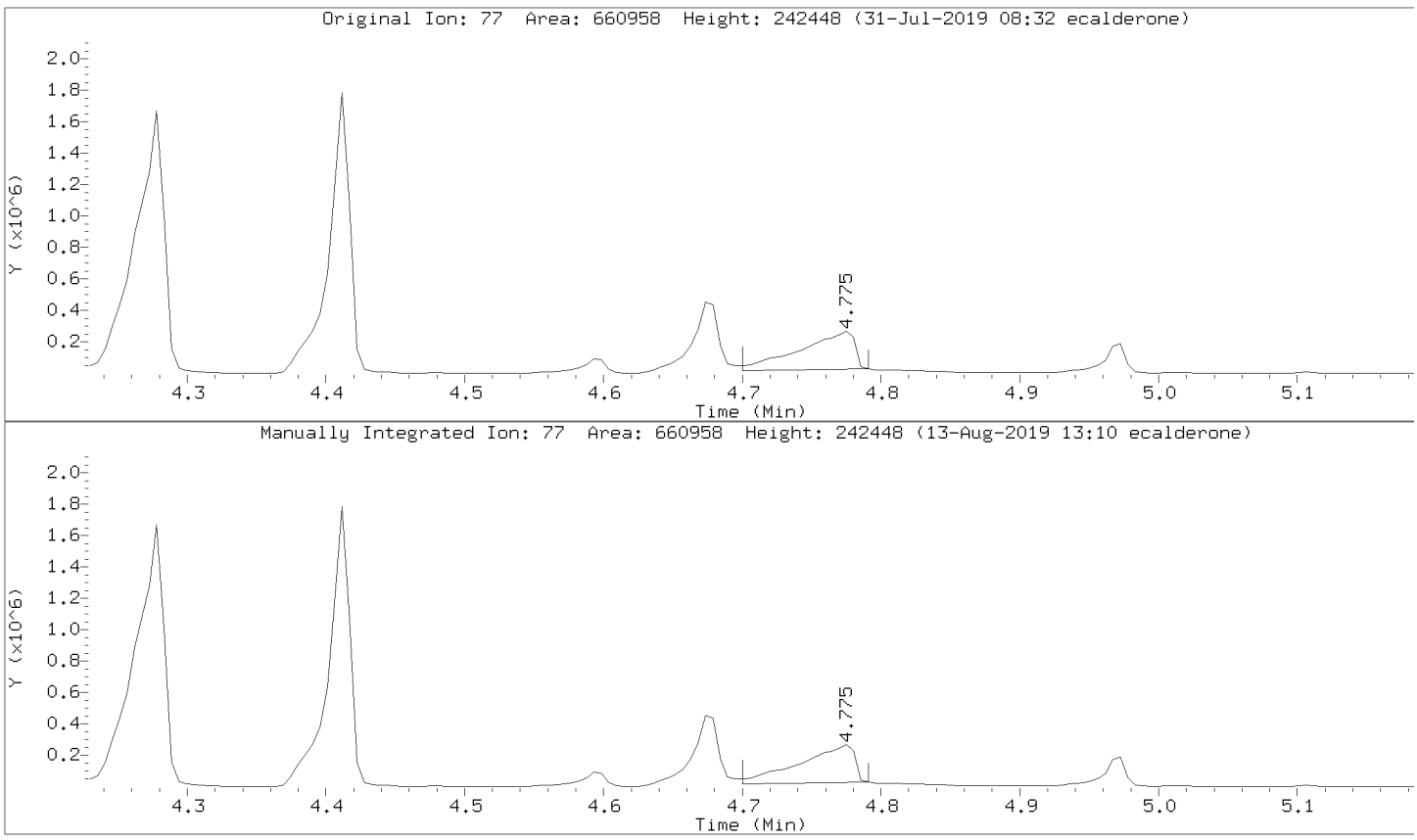
Lab Sample ID: CAL6



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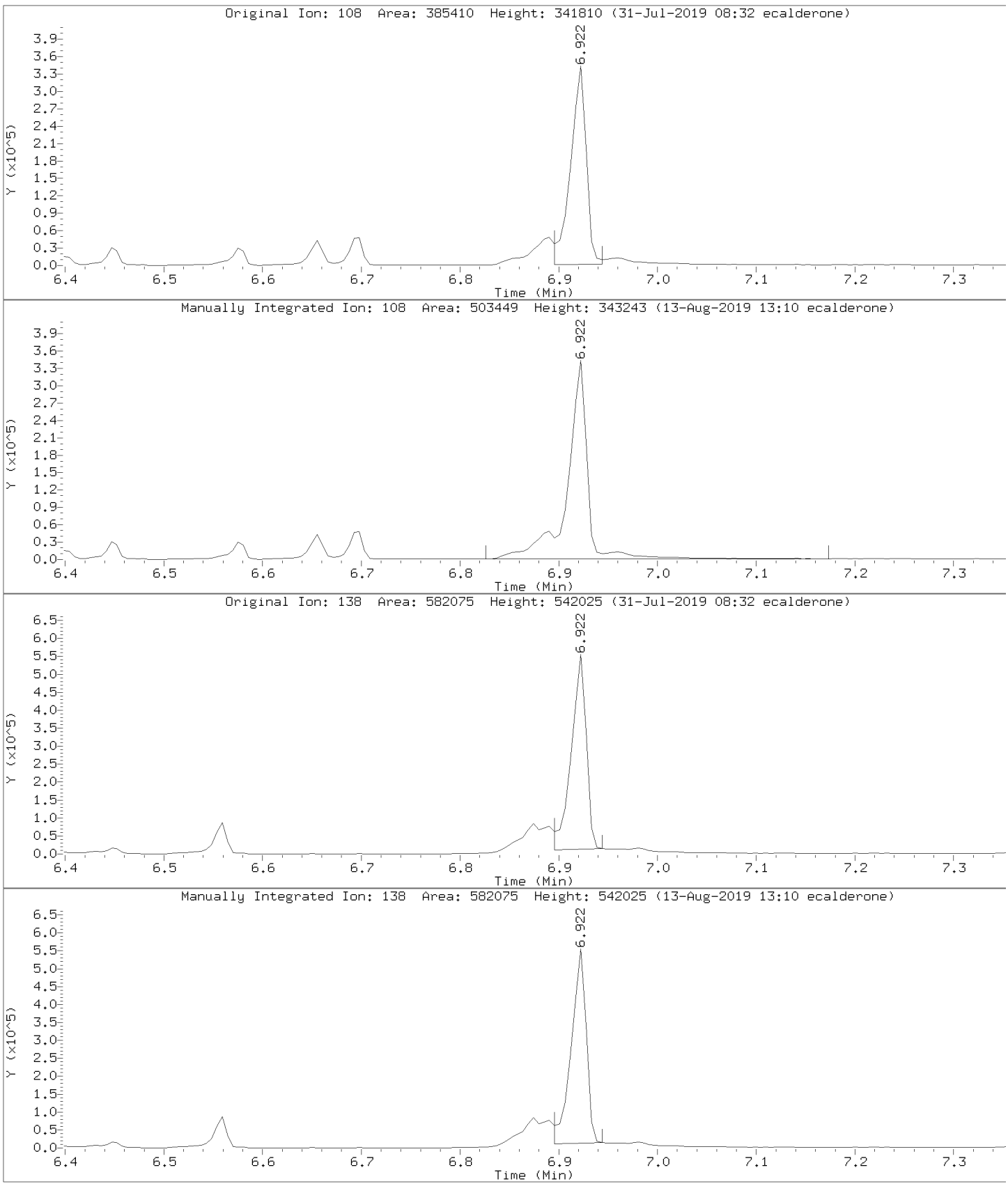
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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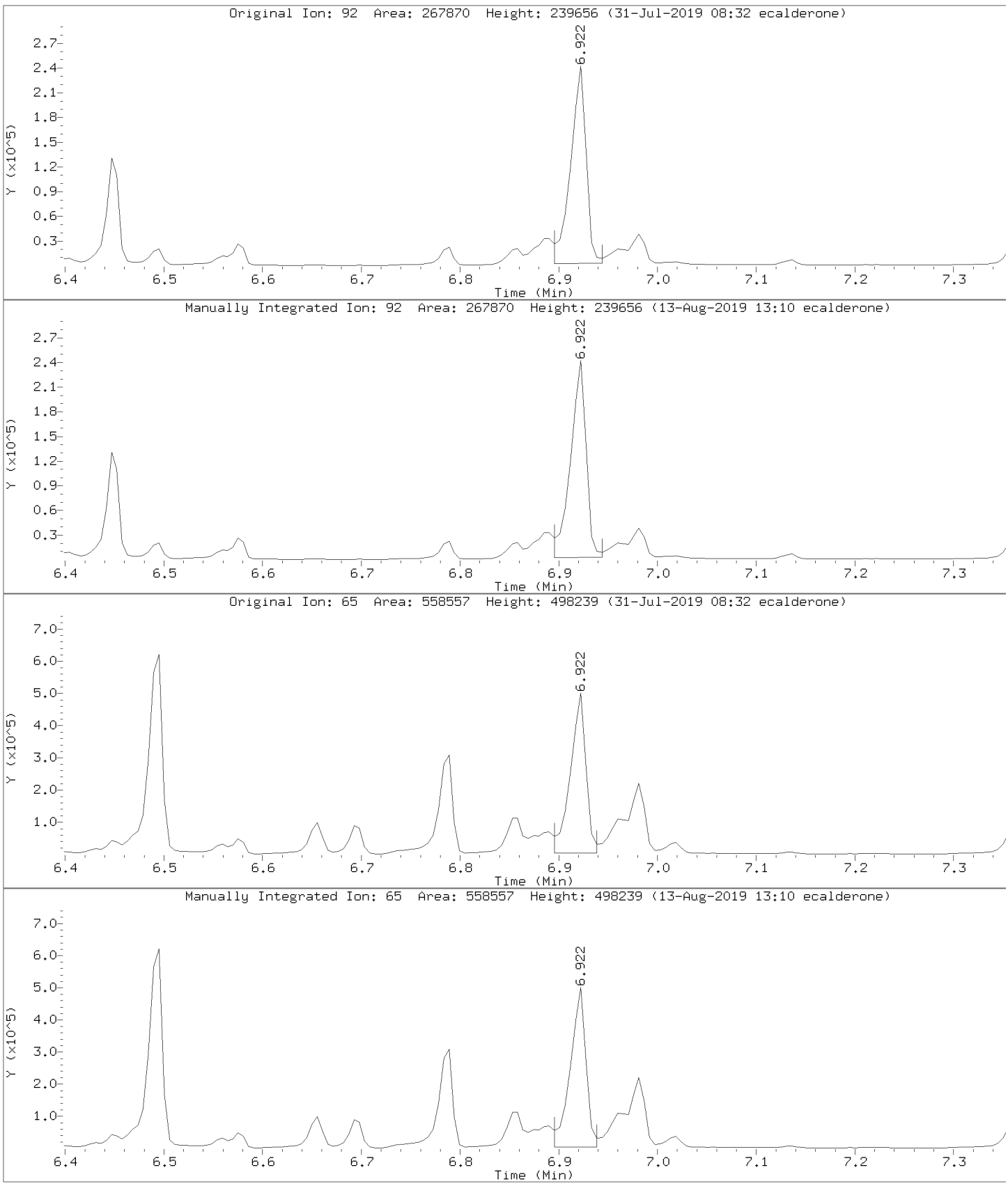

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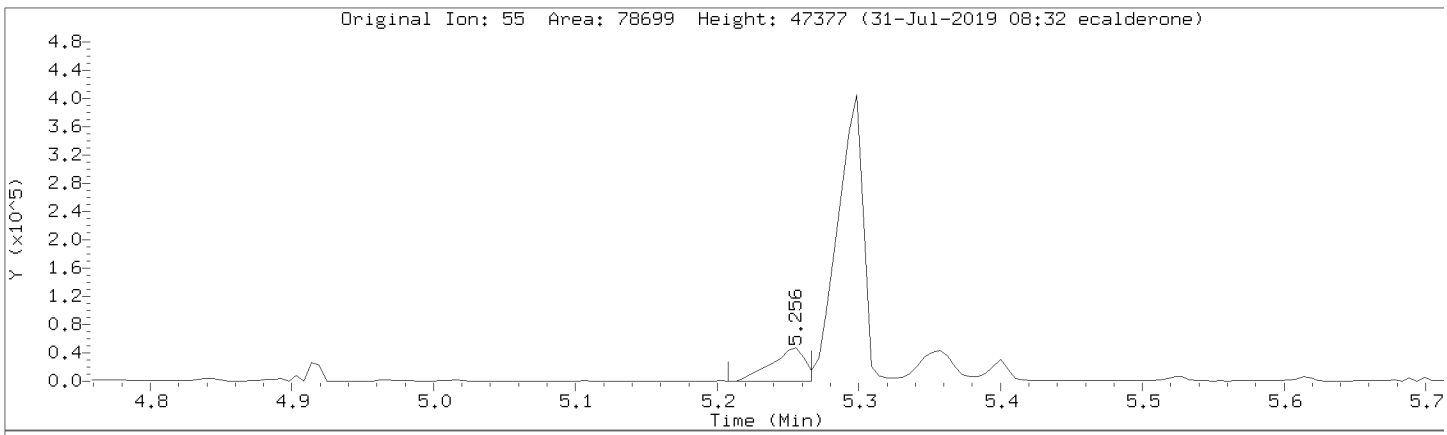
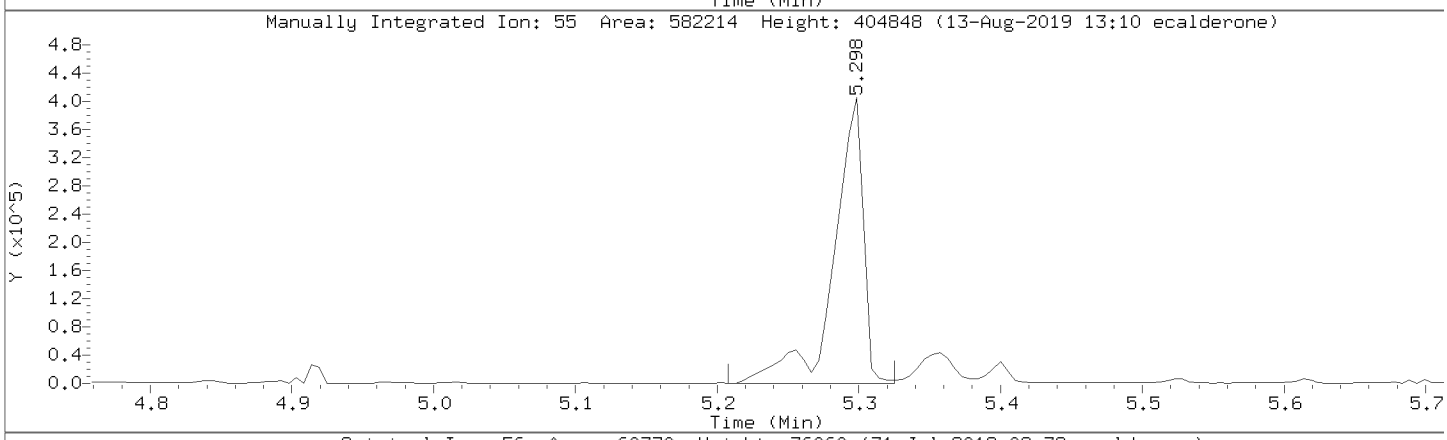
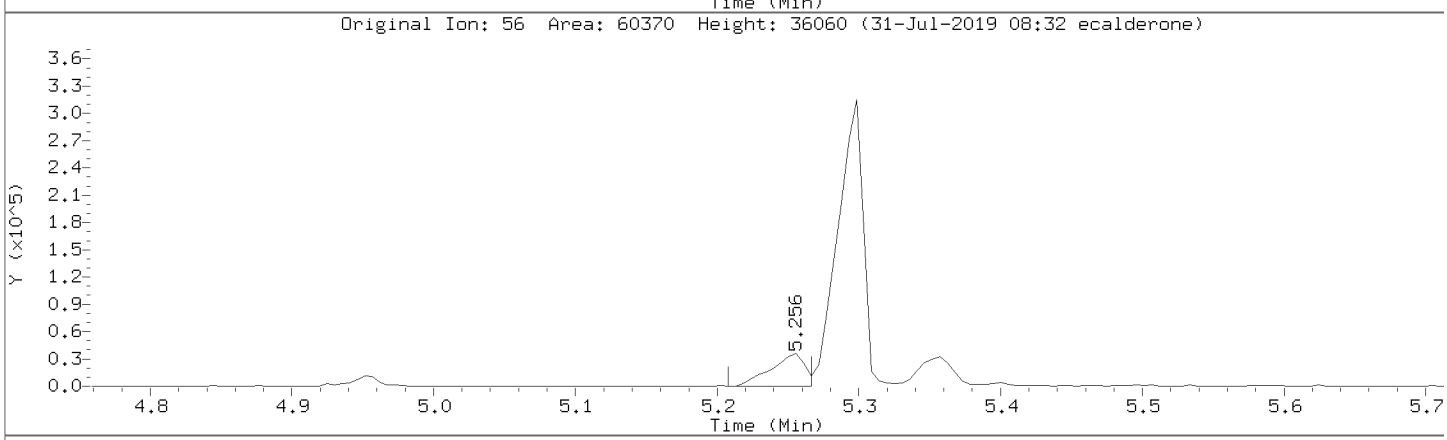
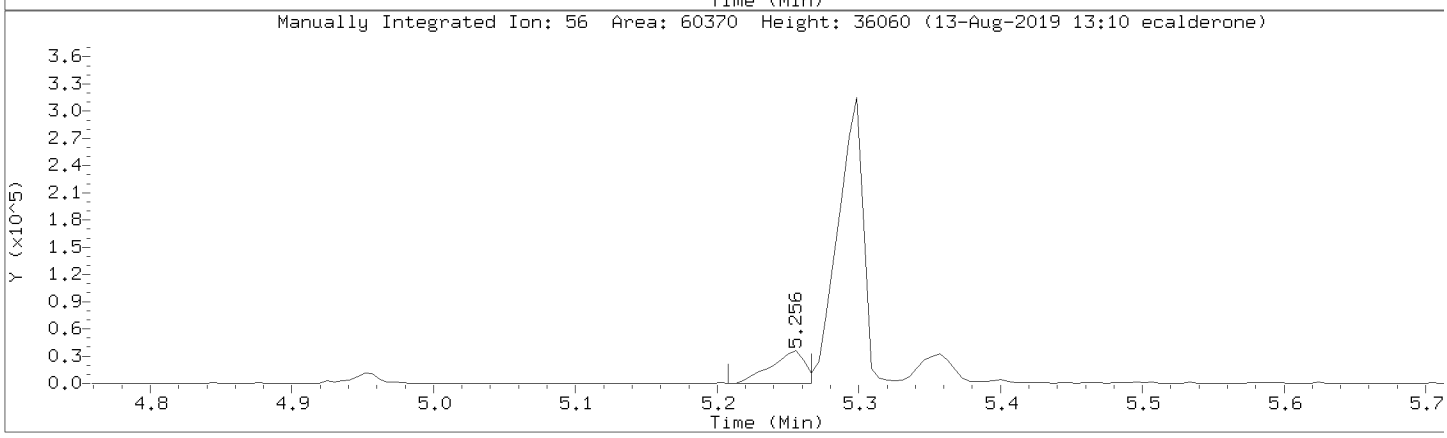
Instrument: 30mss1.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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Injection Date: 30-JUL-2019 14:48
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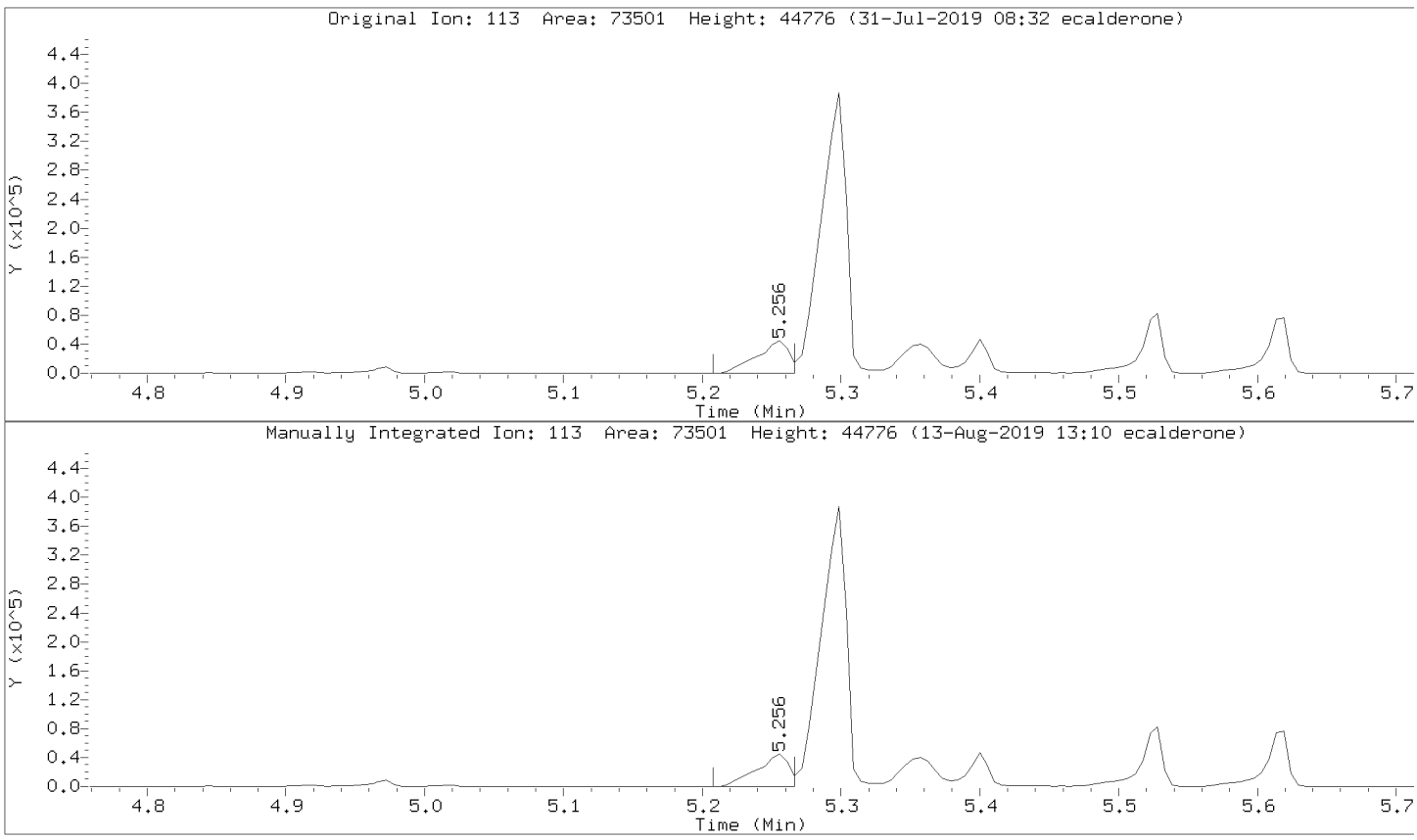
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y3.d
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Inj Date : 30-JUL-2019 15:11
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal5
Misc Info : 14899,94271:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 15:11 Cal File: m10730y3.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.149	2.140	(0.543)	704391	12.0000	11.2	
	2 Pyridine	79	2.139	2.140	(0.541)	1064122	12.0000	11.2	
$	3 2-Fluorophenol (S)	112	3.052	3.048	(0.772)	1174121	12.0000	11.6	
$	4 Phenol-d6 (S)	99	3.693	3.690	(0.934)	1494745	12.0000	11.6	
	5 Benzaldehyde	77	3.645	3.636	(0.922)	1026961	12.0000	11.5	
	6 Phenol	94	3.704	3.695	(0.937)	1563898	12.0000	11.6	
	7 Aniline	66	3.741	3.732	(0.946)	714315	12.0000	11.7	
	8 bis(2-Chloroethyl)ether	63	3.773	3.764	(0.954)	874437	12.0000	11.3	
	9 2-Chlorophenol	128	3.821	3.818	(0.966)	1332014	12.0000	11.7	
	10 1,3-Dichlorobenzene	146	3.928	3.925	(0.993)	1413123	12.0000	11.4	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.955	3.951	(1.000)	338209	4.00000		
	12 1,4-Dichlorobenzene	146	3.966	3.962	(1.003)	1620440	12.0000	12.1	
	13 Benzyl Alcohol	79	4.067	4.058	(1.028)	1027437	12.0000	11.4	
	14 1,2-Dichlorobenzene	146	4.110	4.106	(1.039)	1414875	12.0000	11.6	
	15 2-Methylphenol(o-Cresol)	108	4.147	4.144	(1.049)	1242606	12.0000	11.5	
	16 bis(2-Chloroisopropyl)ether	45	4.179	4.176	(1.057)	1484772	12.0000	11.6	
	17 3&4-Methylphenol(m&p Cresol)	108	4.265	4.256	(1.078)	1294997	12.0000	11.6	
	18 N-Nitroso-di-n-propylamine	70	4.297	4.283	(1.086)	955532	12.0000	11.7	
	19 Acetophenone	105	4.281	4.272	(1.082)	1767503	12.0000	11.8	
	20 Hexachloroethane	117	4.350	4.347	(1.100)	572434	12.0000	11.5	
$	21 Nitrobenzene-d5 (S)	128	4.398	4.395	(0.888)	646414	12.0000	11.6	
	22 Nitrobenzene	77	4.414	4.405	(0.891)	1319067	12.0000	11.8	
	23 Isophorone	82	4.596	4.587	(0.928)	2451036	12.0000	12.0	
	24 2,4-Dimethylphenol	107	4.676	4.672	(0.944)	1328326	12.0000	11.8	
	25 2-Nitrophenol	139	4.660	4.656	(0.941)	724408	12.0000	11.5	
	26 Benzoic acid	105	4.762	4.731	(0.961)	821099	12.0000	11.5(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.751	4.747	(0.959)	1511553	12.0000	11.8	
	28 2,4-Dichlorophenol	162	4.842	4.838	(0.977)	1090221	12.0000	11.6	
	29 1,2,4-Trichlorobenzene	180	4.916	4.913	(0.992)	1222746	12.0000	11.8	
*	30 Naphthalene-d8 (IS)	136	4.954	4.950	(1.000)	1400745	4.00000		
	31 Naphthalene	128	4.970	4.966	(1.003)	3787438	12.0000	12.0	
	32 4-Chloroaniline	65	5.013	5.014	(1.012)	405919	12.0000	11.6	
	33 Hexachloro-1,3-butadiene	225	5.109	5.105	(1.031)	690758	12.0000	11.8	
	34 Caprolactam	55	5.285	5.260	(1.067)	402793	12.0000	11.2(M)	LT

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.397	5.394	(1.089)	1093454	12.0000	11.7	
	36 2-Methylnaphthalene	142	5.525	5.522	(1.115)	2642307	12.0000	11.9	
	37 1-Methylnaphthalene	142	5.616	5.613	(1.134)	2489259	12.0000	12.0	
	38 Hexachlorocyclopentadiene	237	5.707	5.709	(0.892)	866934	12.0000	11.0	
	39 1,2,4,5-Tetrachlorobenzene	216	5.696	5.693	(0.890)	1182016	12.0000	11.7	
	40 2,4,6-Trichlorophenol	196	5.771	5.768	(0.902)	873841	12.0000	11.6	
	41 2,4,5-Trichlorophenol	196	5.803	5.800	(0.907)	725216	12.0000	11.5	
$	42 2-Fluorobiphenyl (S)	172	5.835	5.832	(0.912)	2787051	12.0000	11.9	
	43 Biphenyl (Diphenyl)	154	5.910	5.907	(0.923)	3129200	12.0000	11.9	
	44 2-Chloronaphthalene	164	5.926	5.923	(0.926)	812146	12.0000	11.6	
	45 2-Nitroaniline	138	6.022	6.019	(0.941)	847717	12.0000	11.5	
	46 Dimethylphthalate	163	6.193	6.184	(0.967)	2654513	12.0000	11.9(MH)	LT
	47 2,6-Dinitrotoluene	165	6.247	6.243	(0.976)	654019	12.0000	11.9	
	48 Acenaphthylene	152	6.279	6.275	(0.981)	3701332	12.0000	12.0	
	49 3-Nitroaniline	65	6.364	6.355	(0.994)	655169	12.0000	11.3	
*	50 Acenaphthene-d10 (IS)	164	6.402	6.398	(1.000)	776656	4.00000		
	51 2,4-Dinitrophenol	184	6.444	6.441	(1.007)	364701	12.0000	11.3	
	52 Acenaphthene	153	6.428	6.425	(1.004)	2390714	12.0000	11.8	
	53 4-Nitrophenol	109	6.487	6.478	(1.013)	316045	12.0000	11.7	
	54 2,4-Dinitrotoluene	165	6.573	6.569	(1.027)	842787	12.0000	11.6	
	55 Dibenzofuran	168	6.556	6.553	(1.024)	3324749	12.0000	11.9	
	56 2,3,4,6-Tetrachlorophenol	232	6.695	6.692	(1.046)	685855	12.0000	11.7	
	57 Diethylphthalate	149	6.786	6.777	(1.060)	2573073	12.0000	11.9	
	58 4-Chlorophenylphenyl ether	204	6.856	6.852	(1.071)	1429240	12.0000	11.6	
	59 Fluorene	166	6.872	6.863	(1.073)	2804764	12.0000	11.7	
	60 4-Nitroaniline	108	6.914	6.900	(1.080)	326606	12.0000	11.2(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.957	6.943	(0.886)	526180	12.0000	11.0	
	62 N-Nitrosodiphenylamine	169	6.979	6.970	(0.889)	2368502	12.0000	11.6	
	63 Azobenzene	77	7.016	7.007	(0.894)	2383069	12.0000	11.7	
	64 1,2-Diphenylhydrazine	77	7.016	7.007	(0.894)	2383069	12.0000	11.7	
$	65 2,4,6-Tribromophenol (S)	330	7.133	7.130	(0.909)	560933	12.0000	11.7	
	66 4-Bromophenylphenyl ether	248	7.358	7.360	(0.937)	897680	12.0000	11.6	
	67 Hexachlorobenzene	284	7.534	7.525	(0.960)	1002143	12.0000	11.6	
	68 Atrazine	200	7.566	7.557	(0.964)	774052	12.0000	11.7	
	69 Pentachlorophenol	266	7.716	7.707	(0.983)	594483	12.0000	11.6	
*	70 Phenanthrene-d10 (IS)	188	7.849	7.846	(1.000)	1301333	4.00000		
	71 Phenanthrene	178	7.876	7.872	(1.003)	4121275	12.0000	11.7	
	72 Anthracene	178	7.924	7.915	(1.010)	3829425	12.0000	11.9	
	73 Carbazole	167	8.090	8.086	(1.031)	3430565	12.0000	11.9	
	74 Di-n-butylphthalate	149	8.506	8.503	(1.084)	4080768	12.0000	11.9	
	75 Fluoranthene	202	9.142	9.139	(1.165)	4219724	12.0000	11.8	
	76 Pyrene	202	9.377	9.374	(0.882)	4373774	12.0000	11.6	
$	77 Terphenyl-d14 (S)	244	9.543	9.539	(0.897)	3571206	12.0000	11.2	
	78 Butylbenzylphthalate	149	10.072	10.068	(0.947)	1831881	12.0000	11.6	
	79 3,3'-Dichlorobenzidine	252	10.595	10.586	(0.996)	1774665	12.0000	12.1	
	80 bis(2-Ethylhexyl)phthalate	149	10.675	10.672	(1.004)	2636010	12.0000	12.0	
	81 Benzo(a)anthracene	228	10.611	10.608	(0.998)	4316341	12.0000	11.5	
*	82 Chrysene-d12 (IS)	240	10.633	10.624	(1.000)	1312129	4.00000		
	83 Chrysene	228	10.659	10.650	(1.002)	4010999	12.0000	11.8	
	84 Di-n-octylphthalate	149	11.258	11.254	(0.940)	3974281	12.0000	2.87	
	85 Benzo(b)fluoranthene	252	11.648	11.644	(0.972)	4387181	12.0000	11.1	
	86 Benzo(k)fluoranthene	252	11.674	11.665	(0.975)	4873156	12.0000	13.2	
	87 Benzo(a)pyrene	252	11.936	11.927	(0.996)	4095103	12.0000	12.1	
*	88 Perylene-d12 (IS)	264	11.979	11.975	(1.000)	1324442	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.903	12.889	(1.077)	5239075	12.0000	10.8	
90 Dibenz(a,h)anthracene	278	12.903	12.894	(1.077)	4394865	12.0000	10.7	
91 Benzo(g,h,i)perylene	276	13.159	13.140	(1.099)	4213499	12.0000	12.0	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y3.d
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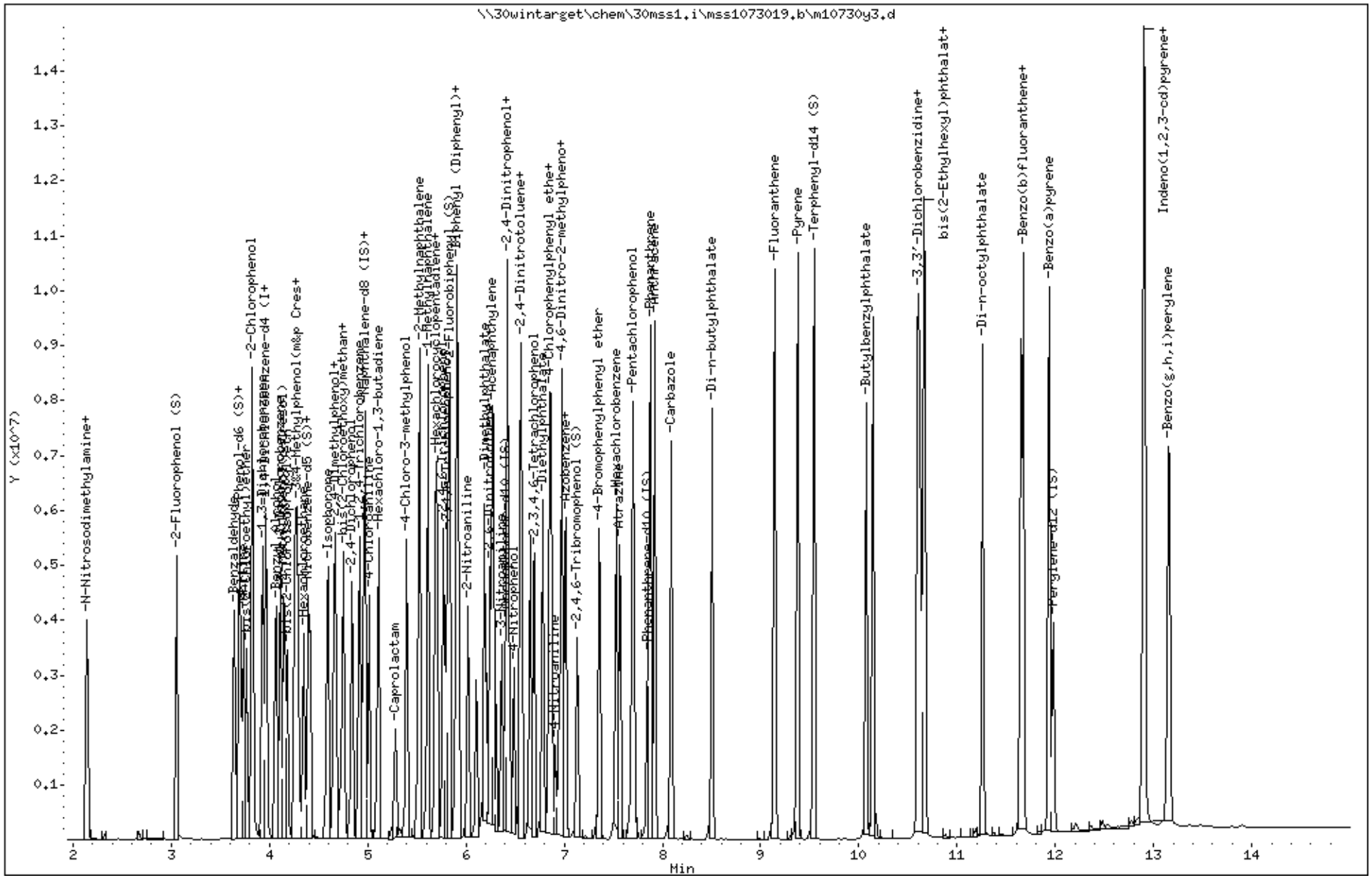
Client ID: CAL5
Sample Info: CAL5

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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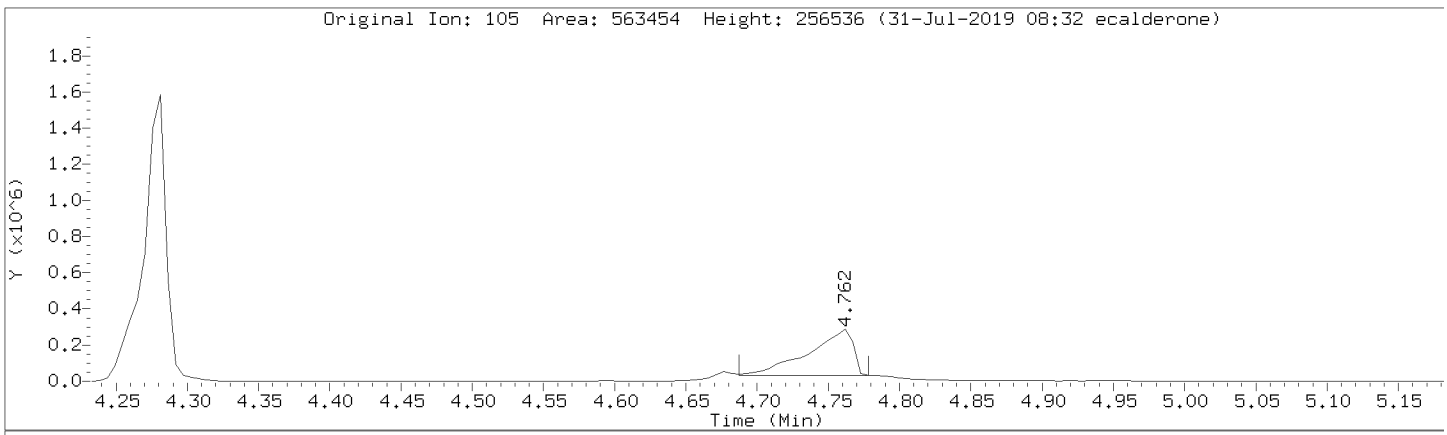
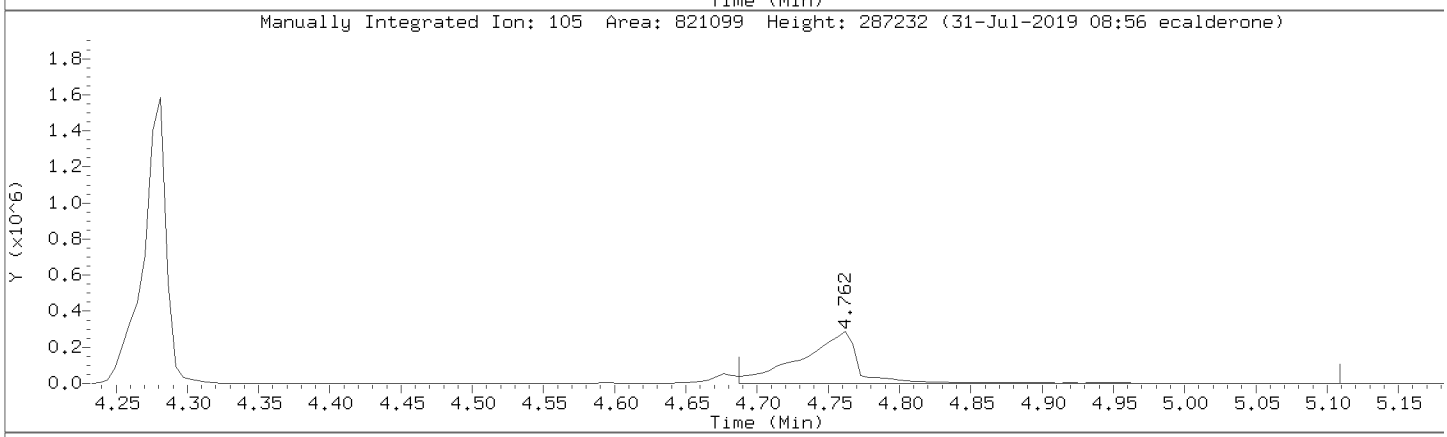
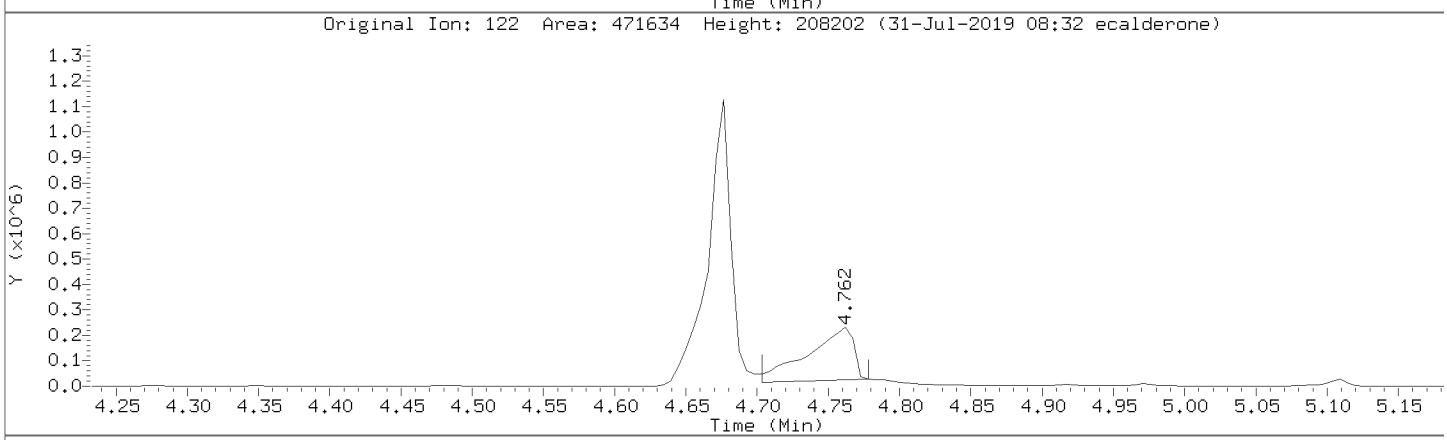
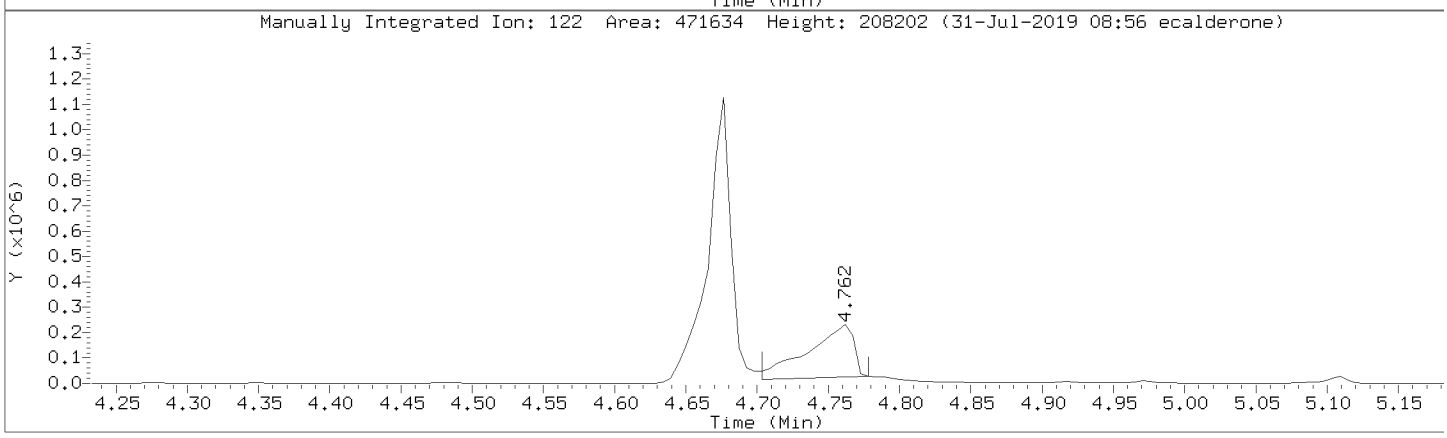
Injection Date: 30-JUL-2019 15:11
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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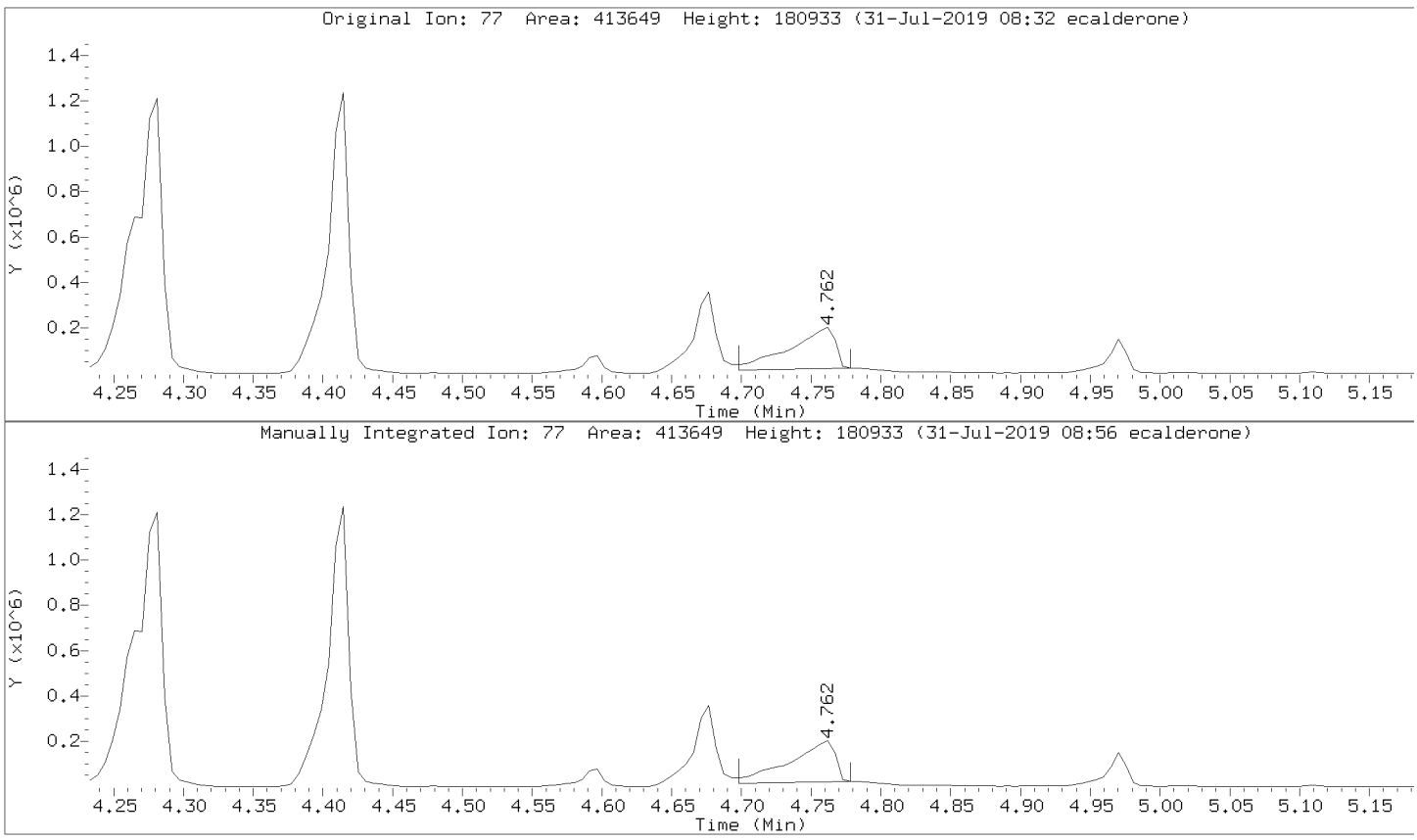
Injection Date: 30-JUL-2019 15:11
Instrument: 30mss1.i
Lab Sample ID: CAL5



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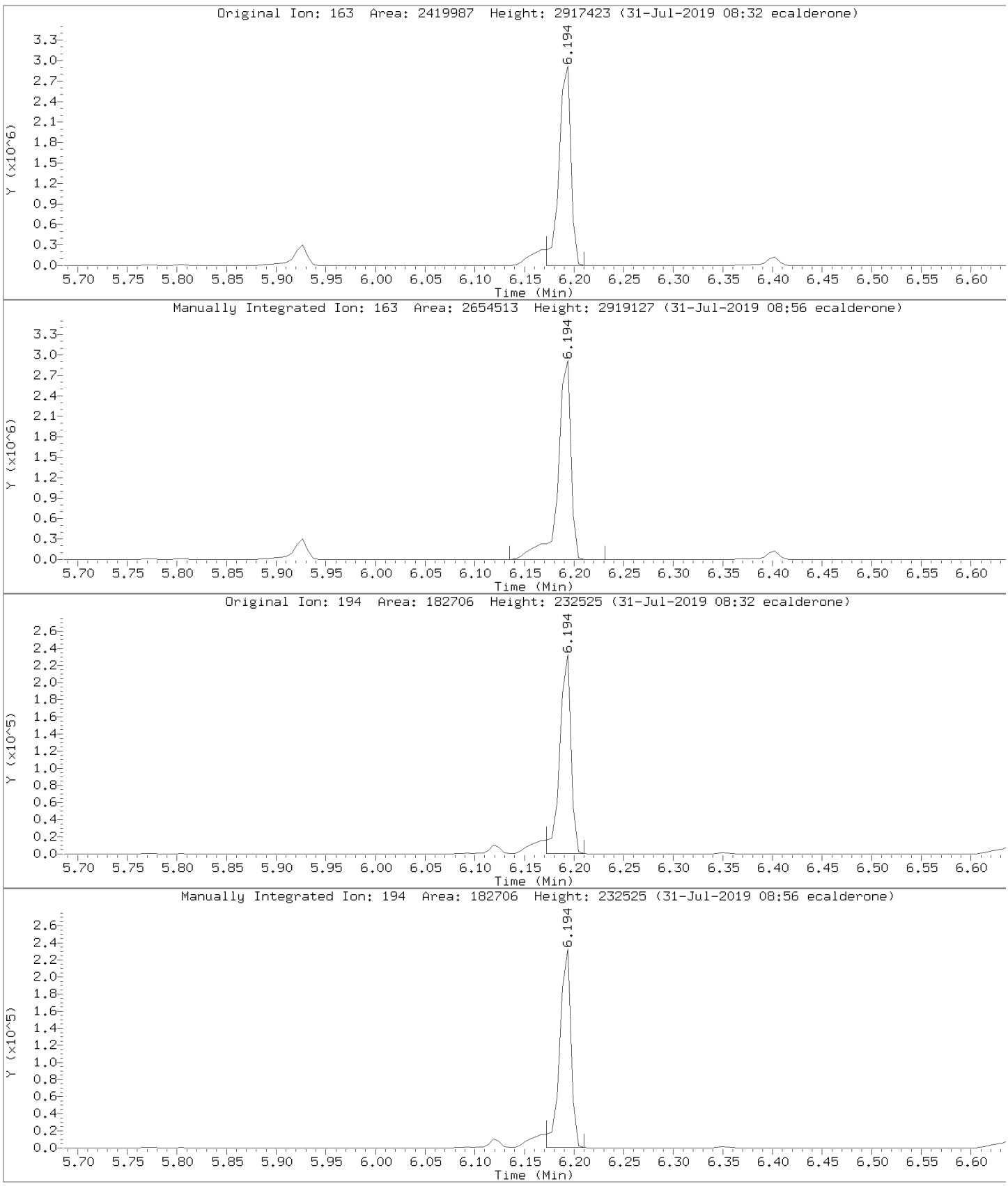
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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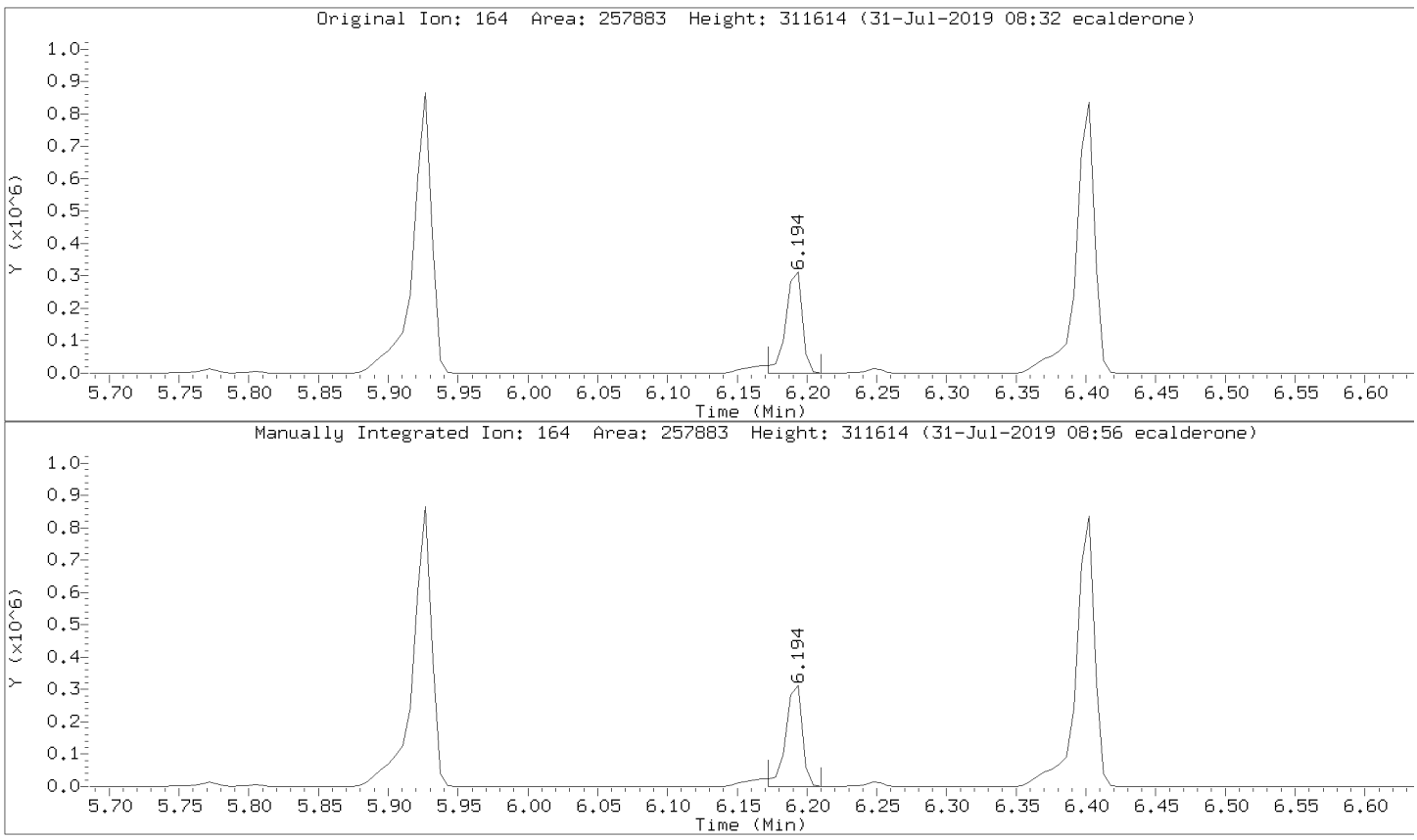
Injection Date: 30-JUL-2019 15:11
Instrument: 30mss1.i
Lab Sample ID: CAL5



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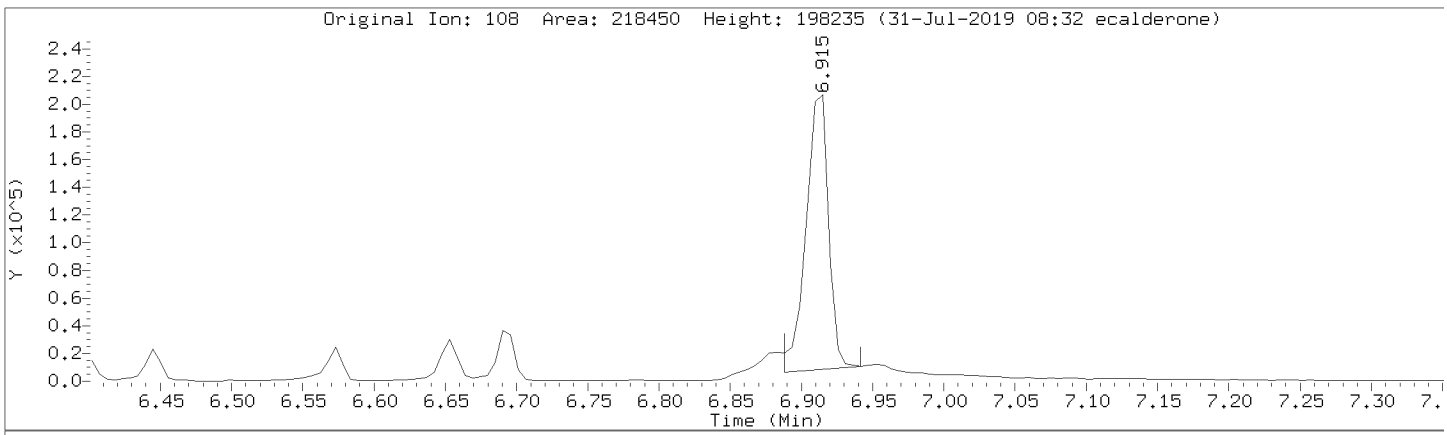
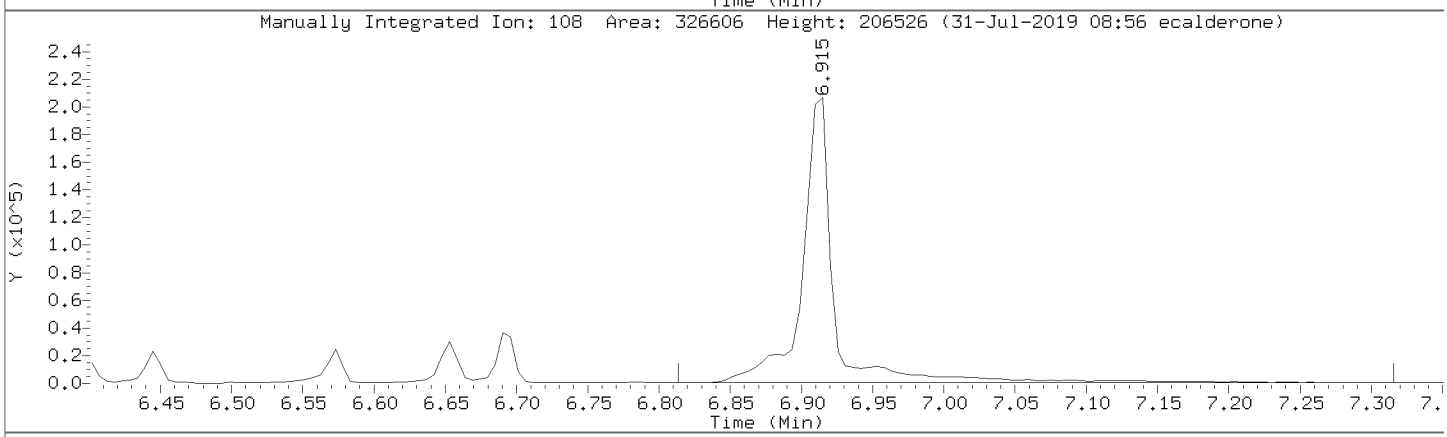
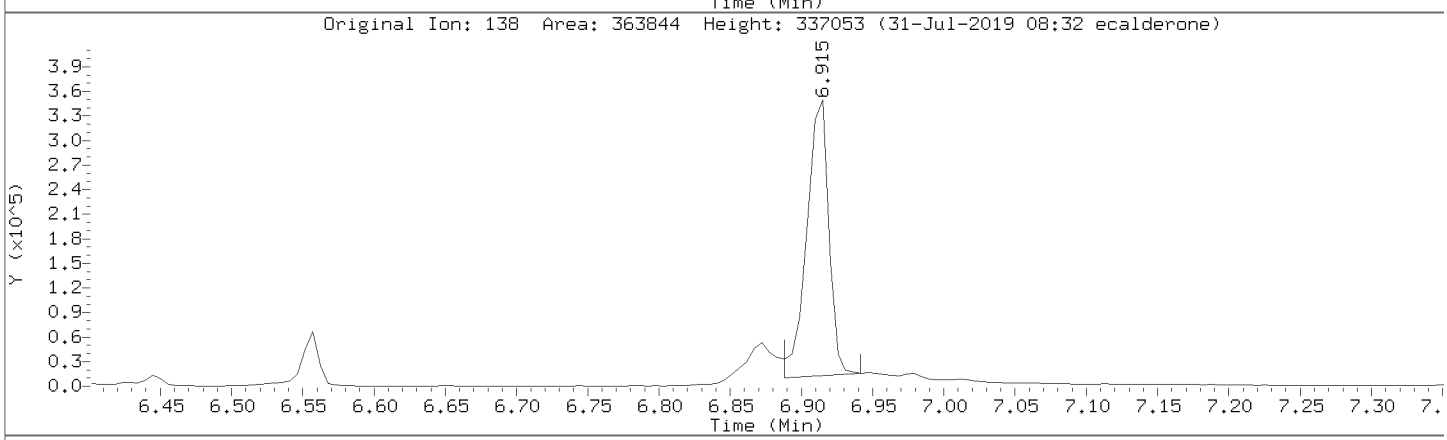
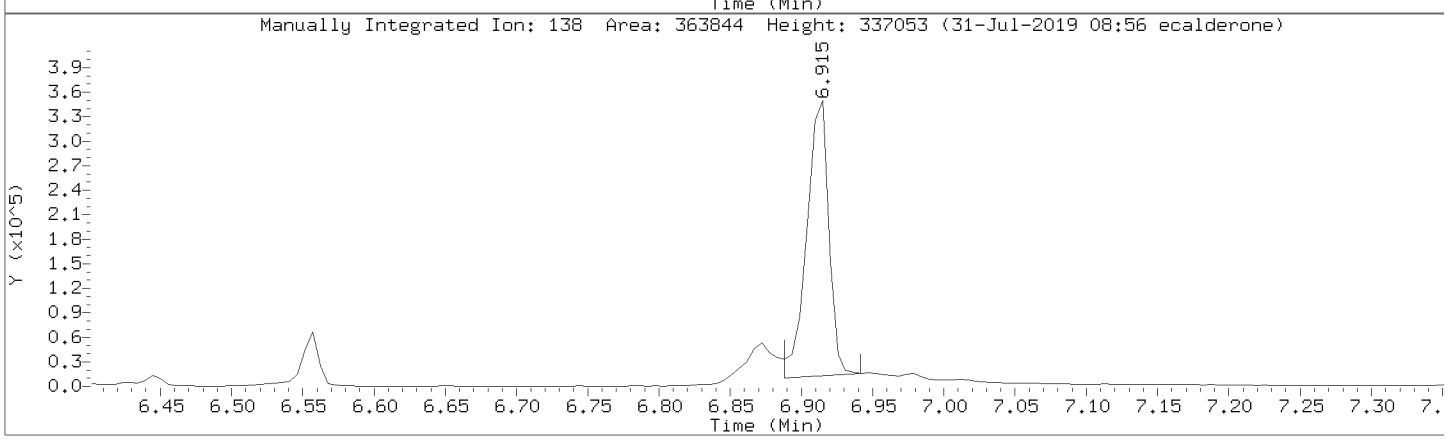
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6









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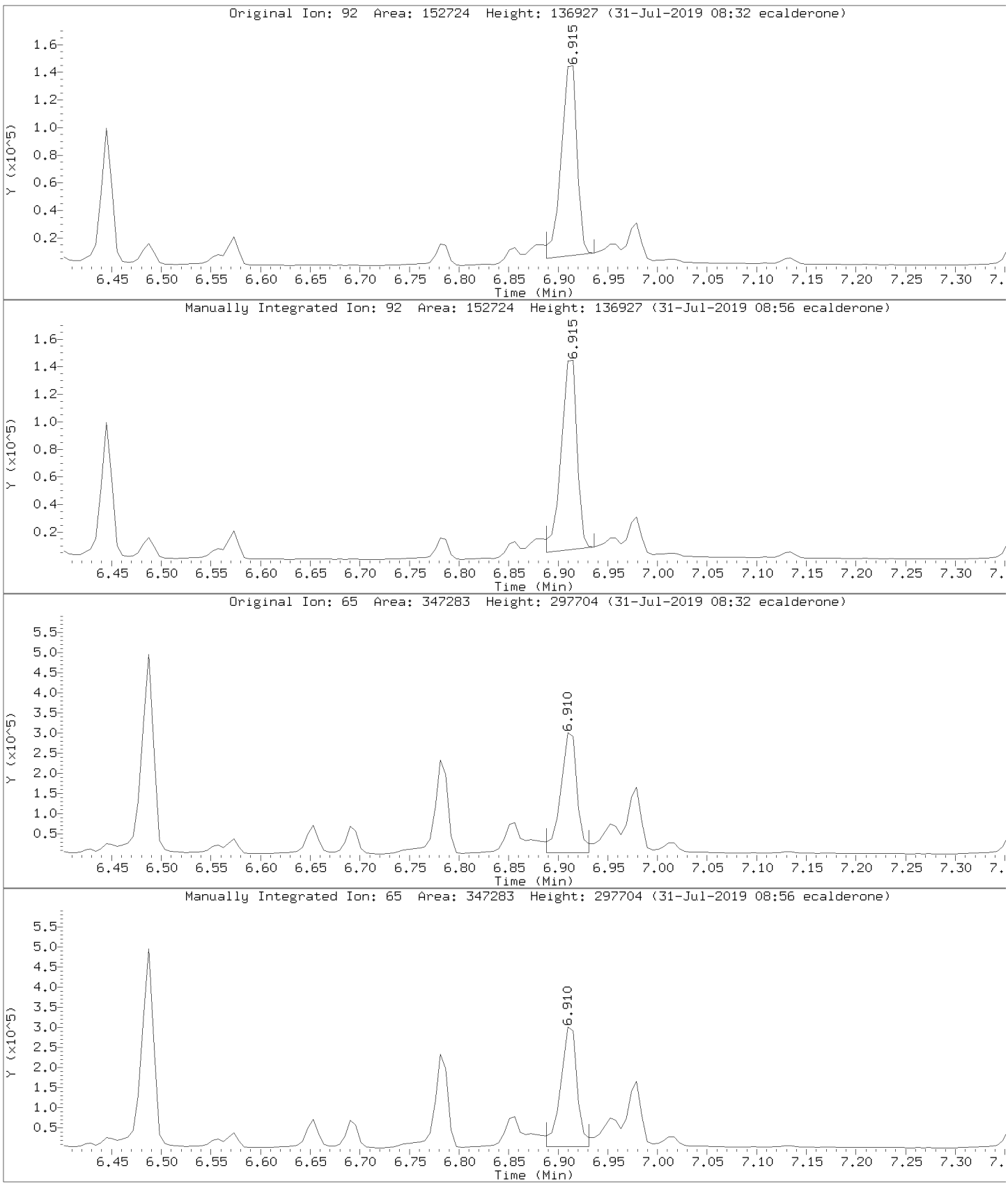
Lab Sample ID: CAL5



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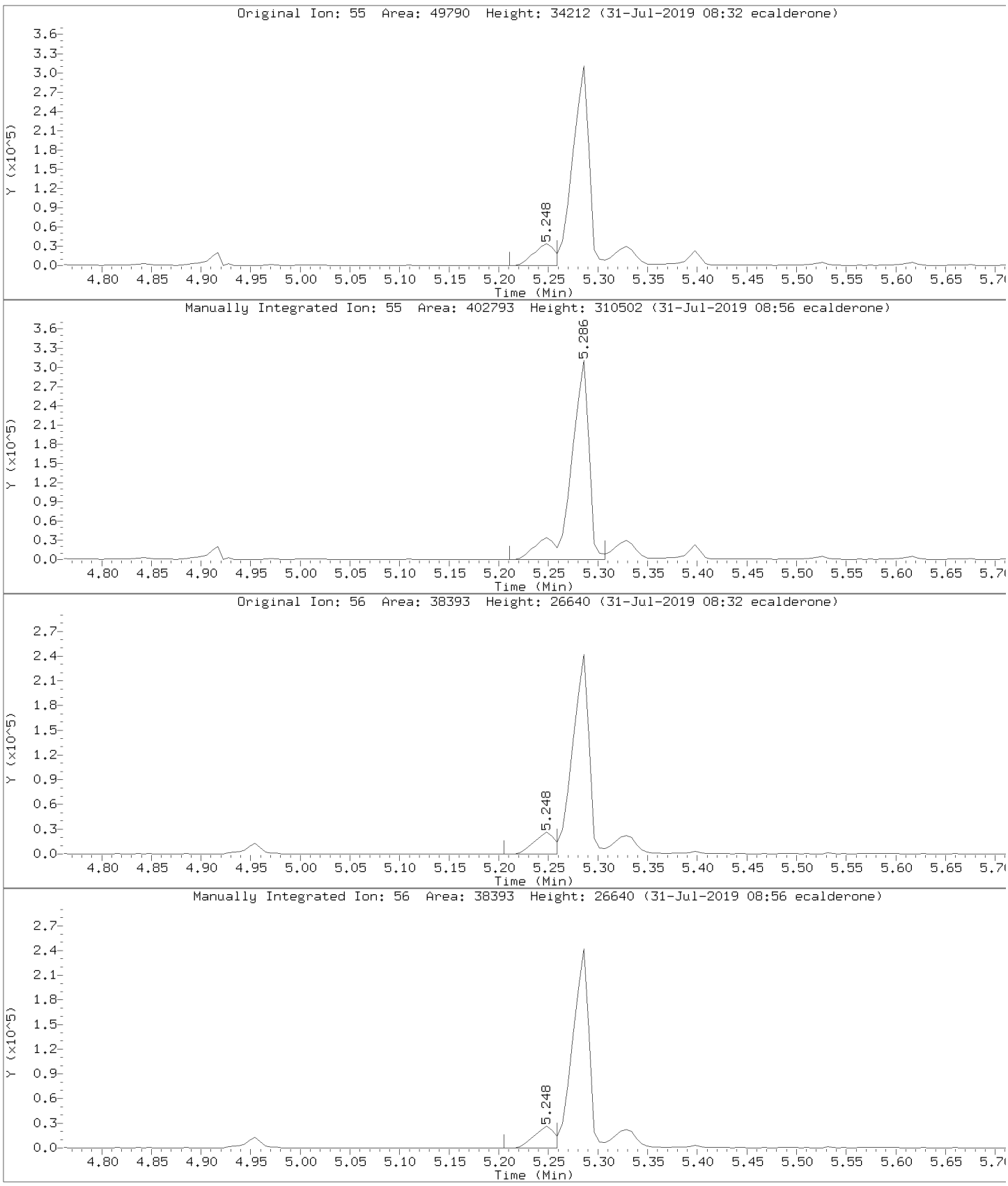
Injection Date: 30-JUL-2019 15:11
Instrument: 30mss1.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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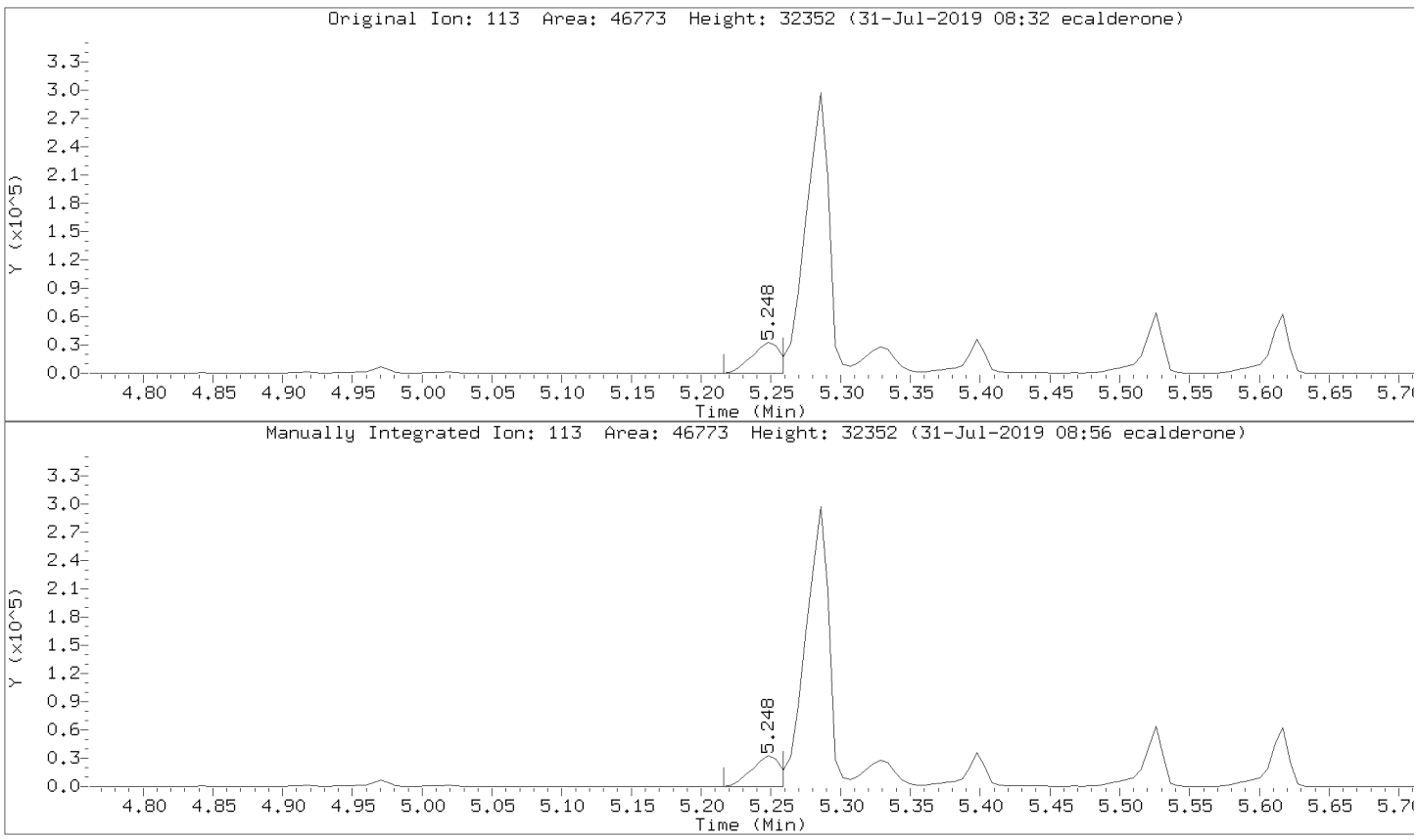
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y4.d
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Inj Date : 30-JUL-2019 15:33
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal4
Misc Info : 14899,94272:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 15:33 Cal File: m10730y4.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	1 N-Nitrosodimethylamine	74	2.156	2.140	(0.546)	499962	8.00000			
	2 Pyridine	79	2.146	2.140	(0.543)	758326	8.00000			
$	3 2-Fluorophenol (S)	112	3.054	3.048	(0.773)	830960	8.00000			
$	4 Phenol-d6 (S)	99	3.690	3.690	(0.934)	1065471	8.00000			
	5 Benzaldehyde	77	3.641	3.636	(0.922)	731797	8.00000			
	6 Phenol	94	3.700	3.695	(0.936)	1116740	8.00000			
	7 Aniline	66	3.738	3.732	(0.946)	491362	8.00000			
	8 bis(2-Chloroethyl)ether	63	3.770	3.764	(0.954)	607375	8.00000			
	9 2-Chlorophenol	128	3.818	3.818	(0.966)	958868	8.00000			
	10 1,3-Dichlorobenzene	146	3.930	3.925	(0.995)	1038136	8.00000			
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.951	3.951	(1.000)	342957	4.00000			
	12 1,4-Dichlorobenzene	146	3.967	3.962	(1.004)	1116565	8.00000			
	13 Benzyl Alcohol	79	4.063	4.058	(1.028)	726632	8.00000			
	14 1,2-Dichlorobenzene	146	4.112	4.106	(1.041)	1010845	8.00000			
	15 2-Methylphenol(o-Cresol)	108	4.149	4.144	(1.050)	885662	8.00000			
	16 bis(2-Chloroisopropyl)ether	45	4.181	4.176	(1.058)	1045345	8.00000			
	17 3&4-Methylphenol(m&p Cresol)	108	4.261	4.256	(1.078)	914514	8.00000			
	18 N-Nitroso-di-n-propylamine	70	4.293	4.283	(1.087)	662902	8.00000			
	19 Acetophenone	105	4.277	4.272	(1.082)	1239392	8.00000			
	20 Hexachloroethane	117	4.347	4.347	(1.100)	402355	8.00000			
$	21 Nitrobenzene-d5 (S)	128	4.400	4.395	(0.888)	462954	8.00000			
	22 Nitrobenzene	77	4.411	4.405	(0.890)	935409	8.00000			
	23 Isophorone	82	4.592	4.587	(0.927)	1726800	8.00000			
	24 2,4-Dimethylphenol	107	4.672	4.672	(0.943)	939061	8.00000			
	25 2-Nitrophenol	139	4.662	4.656	(0.941)	521002	8.00000			
	26 Benzoic acid	105	4.753	4.731	(0.959)	550341	8.00000		(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.753	4.747	(0.959)	1072433	8.00000			
	28 2,4-Dichlorophenol	162	4.843	4.838	(0.977)	784020	8.00000			
	29 1,2,4-Trichlorobenzene	180	4.918	4.913	(0.992)	872736	8.00000			
*	30 Naphthalene-d8 (IS)	136	4.956	4.950	(1.000)	1452635	4.00000			
	31 Naphthalene	128	4.972	4.966	(1.003)	2727871	8.00000			
	32 4-Chloroaniline	65	5.014	5.014	(1.012)	289887	8.00000			
	33 Hexachloro-1,3-butadiene	225	5.111	5.105	(1.031)	489902	8.00000			
	34 Caprolactam	55	5.276	5.260	(1.065)	317134	8.00000		(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	35 4-Chloro-3-methylphenol	107	5.394	5.394	(1.088)	765883	8.00000			
	36 2-Methylnaphthalene	142	5.522	5.522	(1.114)	1894243	8.00000			
	37 1-Methylnaphthalene	142	5.613	5.613	(1.133)	1768994	8.00000			
	38 Hexachlorocyclopentadiene	237	5.709	5.709	(0.892)	606703	8.00000			
	39 1,2,4,5-Tetrachlorobenzene	216	5.693	5.693	(0.890)	842927	8.00000			
	40 2,4,6-Trichlorophenol	196	5.773	5.768	(0.902)	604819	8.00000			
	41 2,4,5-Trichlorophenol	196	5.805	5.800	(0.907)	528714	8.00000			
$	42 2-Fluorobiphenyl (S)	172	5.832	5.832	(0.911)	2012438	8.00000			
	43 Biphenyl (Diphenyl)	154	5.907	5.907	(0.923)	2265279	8.00000			
	44 2-Chloronaphthalene	164	5.923	5.923	(0.926)	582110	8.00000			
	45 2-Nitroaniline	138	6.024	6.019	(0.942)	604358	8.00000			
	46 Dimethylphthalate	163	6.190	6.184	(0.967)	1901919	8.00000		(M)	LT
	47 2,6-Dinitrotoluene	165	6.248	6.243	(0.977)	458543	8.00000			
	48 Acenaphthylene	152	6.275	6.275	(0.981)	2672512	8.00000			
	49 3-Nitroaniline	65	6.361	6.355	(0.994)	465067	8.00000			
*	50 Acenaphthene-d10 (IS)	164	6.398	6.398	(1.000)	805544	4.00000			
	51 2,4-Dinitrophenol	184	6.446	6.441	(1.008)	244700	8.00000			
	52 Acenaphthene	153	6.425	6.425	(1.004)	1708902	8.00000			
	53 4-Nitrophenol	109	6.483	6.478	(1.013)	221441	8.00000			
	54 2,4-Dinitrotoluene	165	6.569	6.569	(1.027)	593261	8.00000			
	55 Dibenzofuran	168	6.553	6.553	(1.024)	2435444	8.00000			
	56 2,3,4,6-Tetrachlorophenol	232	6.692	6.692	(1.046)	481510	8.00000			
	57 Diethylphthalate	149	6.783	6.777	(1.060)	1830520	8.00000			
	58 4-Chlorophenylphenyl ether	204	6.852	6.852	(1.071)	1020347	8.00000			
	59 Fluorene	166	6.868	6.863	(1.073)	2026800	8.00000			
	60 4-Nitroaniline	108	6.906	6.900	(1.079)	229982	8.00000		(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.948	6.943	(0.886)	360104	8.00000			
	62 N-Nitrosodiphenylamine	169	6.975	6.970	(0.889)	1692492	8.00000			
	63 Azobenzene	77	7.012	7.007	(0.894)	1742853	8.00000			
	64 1,2-Diphenylhydrazine	77	7.012	7.007	(0.894)	1742853	8.00000			
$	65 2,4,6-Tribromophenol (S)	330	7.130	7.130	(0.909)	389582	8.00000			
	66 4-Bromophenylphenyl ether	248	7.360	7.360	(0.938)	632837	8.00000			
	67 Hexachlorobenzene	284	7.531	7.525	(0.960)	705593	8.00000			
	68 Atrazine	200	7.563	7.557	(0.964)	582726	8.00000			
	69 Pentachlorophenol	266	7.712	7.707	(0.983)	405664	8.00000			
*	70 Phenanthrene-d10 (IS)	188	7.846	7.846	(1.000)	1352422	4.00000			
	71 Phenanthrene	178	7.872	7.872	(1.003)	2994341	8.00000			
	72 Anthracene	178	7.921	7.915	(1.010)	2823497	8.00000			
	73 Carbazole	167	8.091	8.086	(1.031)	2521862	8.00000			
	74 Di-n-butylphthalate	149	8.508	8.503	(1.084)	2948239	8.00000			
	75 Fluoranthene	202	9.139	9.139	(1.165)	3029499	8.00000			
	76 Pyrene	202	9.379	9.374	(0.882)	3106986	8.00000			
$	77 Terphenyl-d14 (S)	244	9.539	9.539	(0.897)	2627325	8.00000			
	78 Butylbenzylphthalate	149	10.073	10.068	(0.948)	1232941	8.00000			
	79 3,3'-Dichlorobenzidine	252	10.592	10.586	(0.996)	1173913	8.00000			
	80 bis(2-Ethylhexyl)phthalate	149	10.672	10.672	(1.004)	1773852	8.00000			
	81 Benzo(a)anthracene	228	10.608	10.608	(0.998)	3065649	8.00000			
*	82 Chrysene-d12 (IS)	240	10.629	10.624	(1.000)	1312566	4.00000			
	83 Chrysene	228	10.656	10.650	(1.002)	2854326	8.00000			
	84 Di-n-octylphthalate	149	11.254	11.254	(0.940)	2776022	8.00000			
	85 Benzo(b)fluoranthene	252	11.644	11.644	(0.972)	3105071	8.00000			
	86 Benzo(k)fluoranthene	252	11.671	11.665	(0.975)	3670281	8.00000			
	87 Benzo(a)pyrene	252	11.932	11.927	(0.996)	3045158	8.00000			
*	88 Perylene-d12 (IS)	264	11.975	11.975	(1.000)	1431919	4.00000			

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.899	12.889	(1.077)	3756793	8.00000		
90 Dibenz(a,h)anthracene	278	12.899	12.894	(1.077)	3176148	8.00000		
91 Benzo(g,h,i)perylene	276	13.150	13.140	(1.098)	2977529	8.00000		

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y4.d
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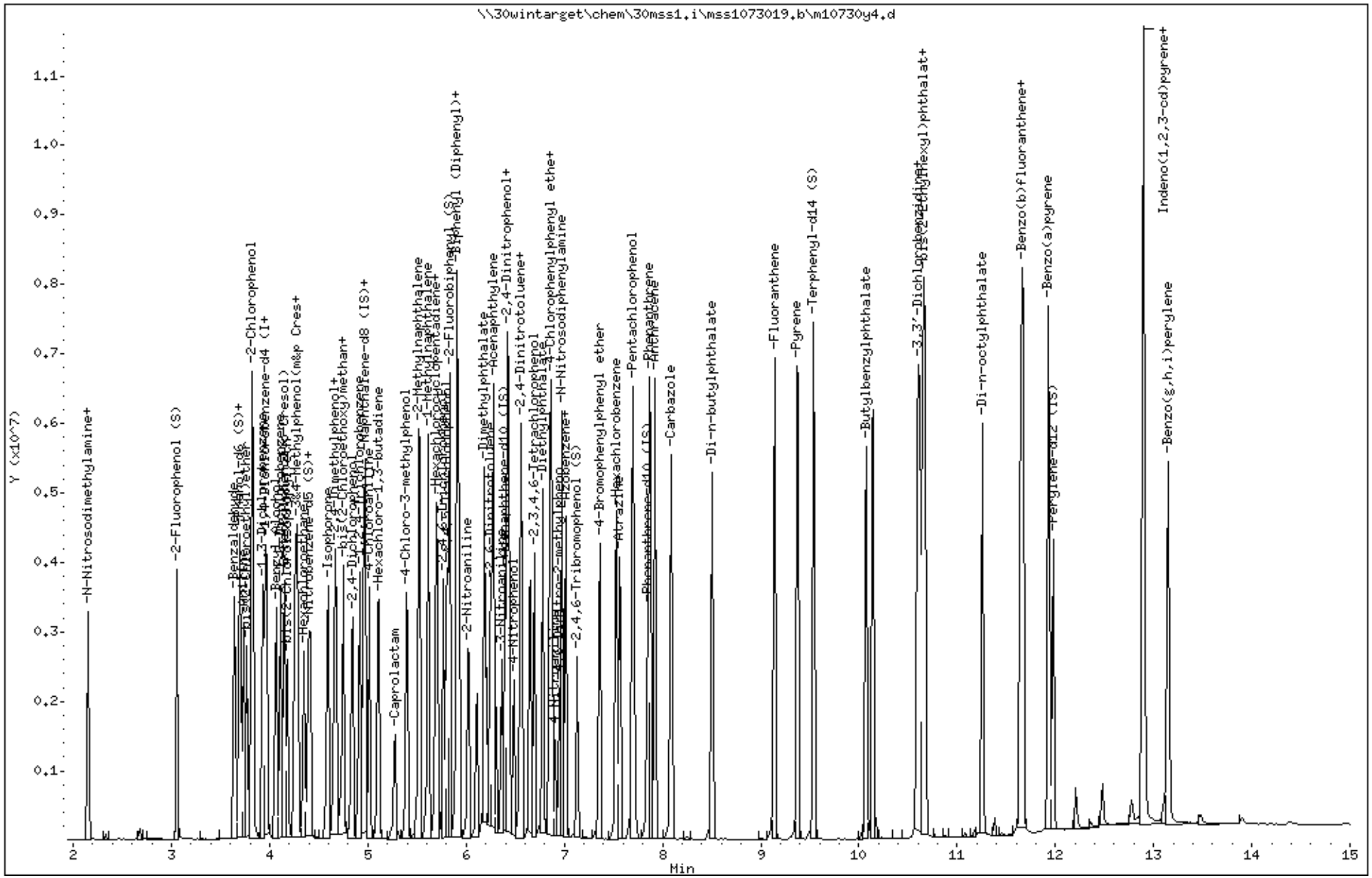
Client ID: CAL4
Sample Info: CAL4

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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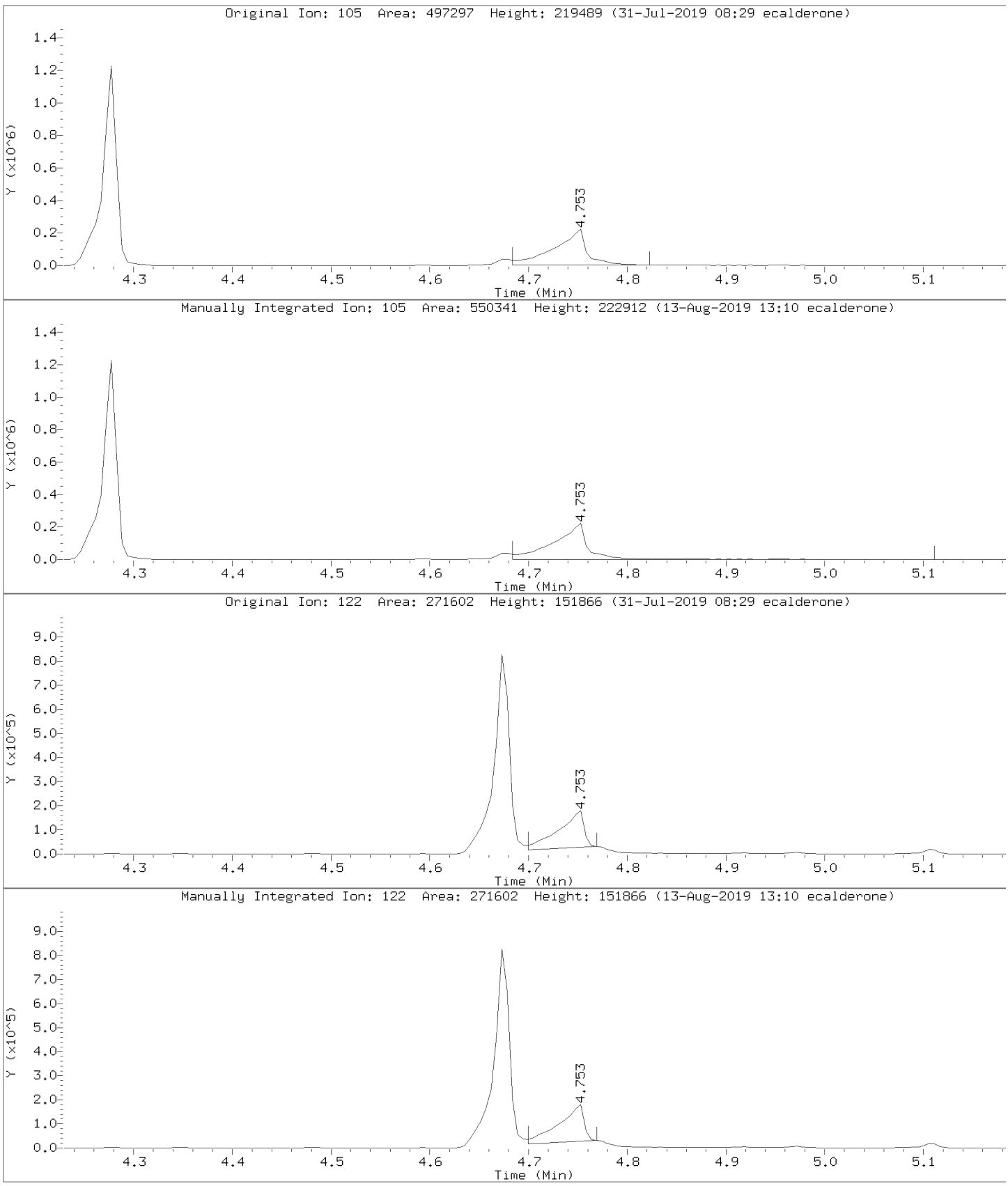
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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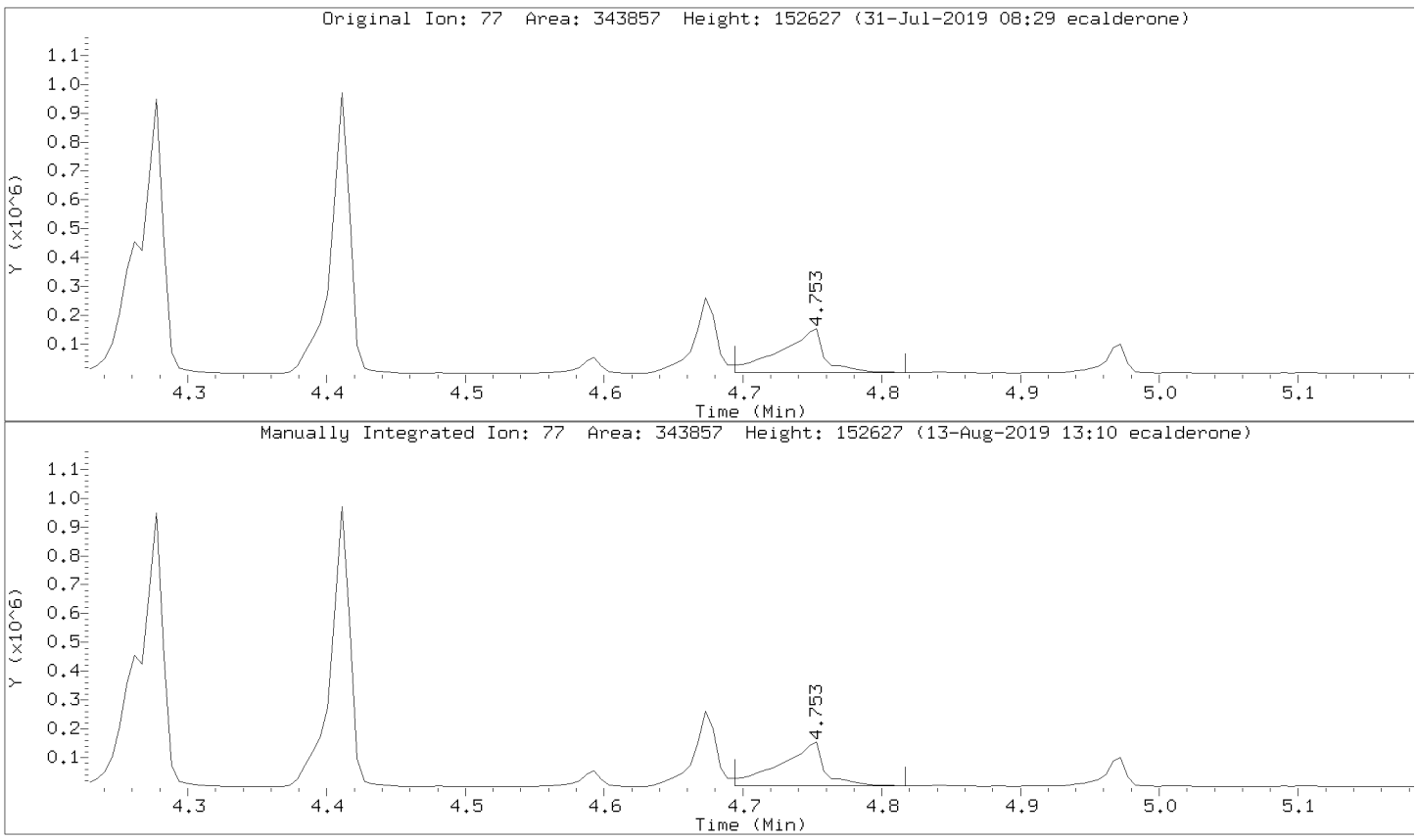

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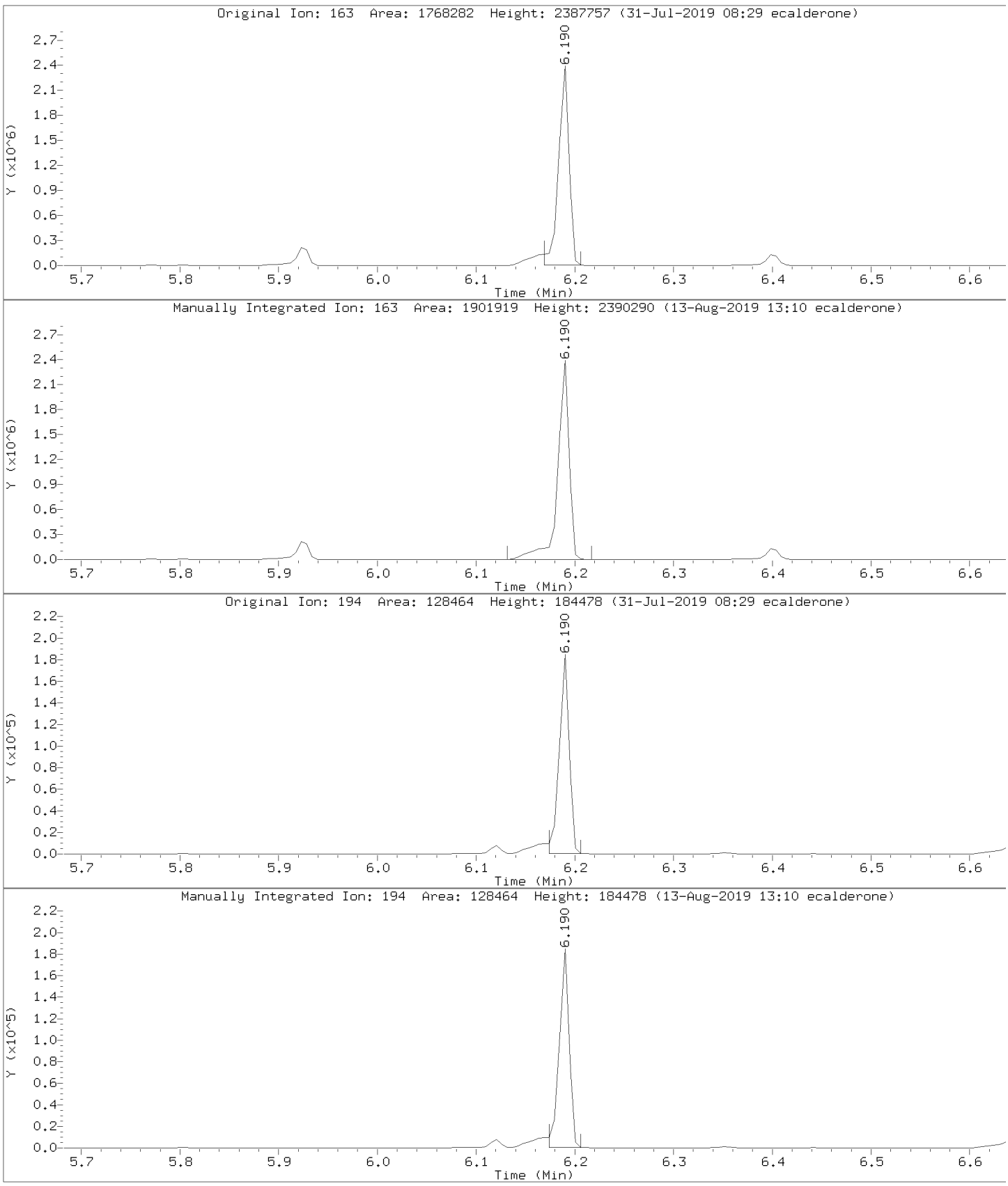
Injection Date: 30-JUL-2019 15:33
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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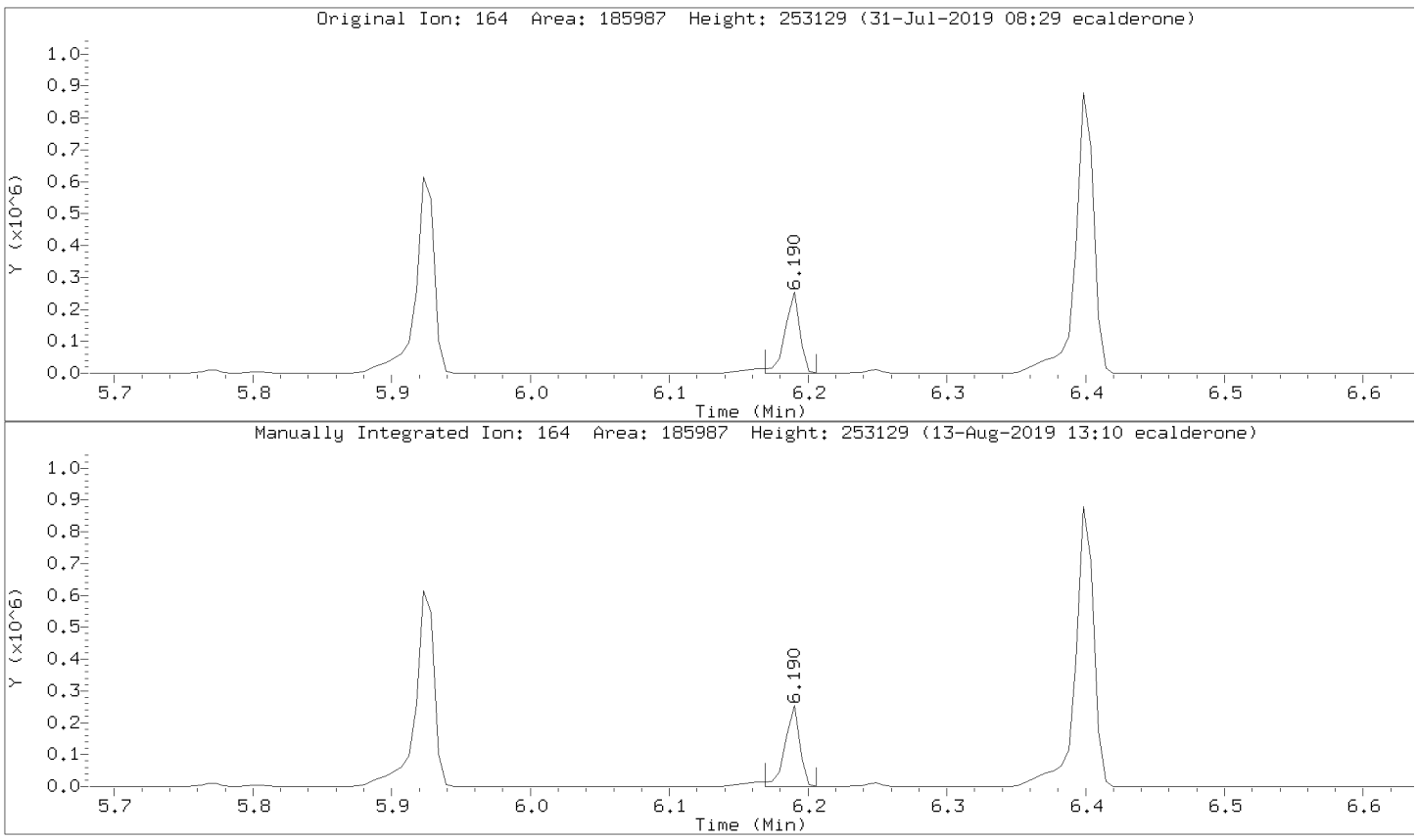
Lab Sample ID: CAL4



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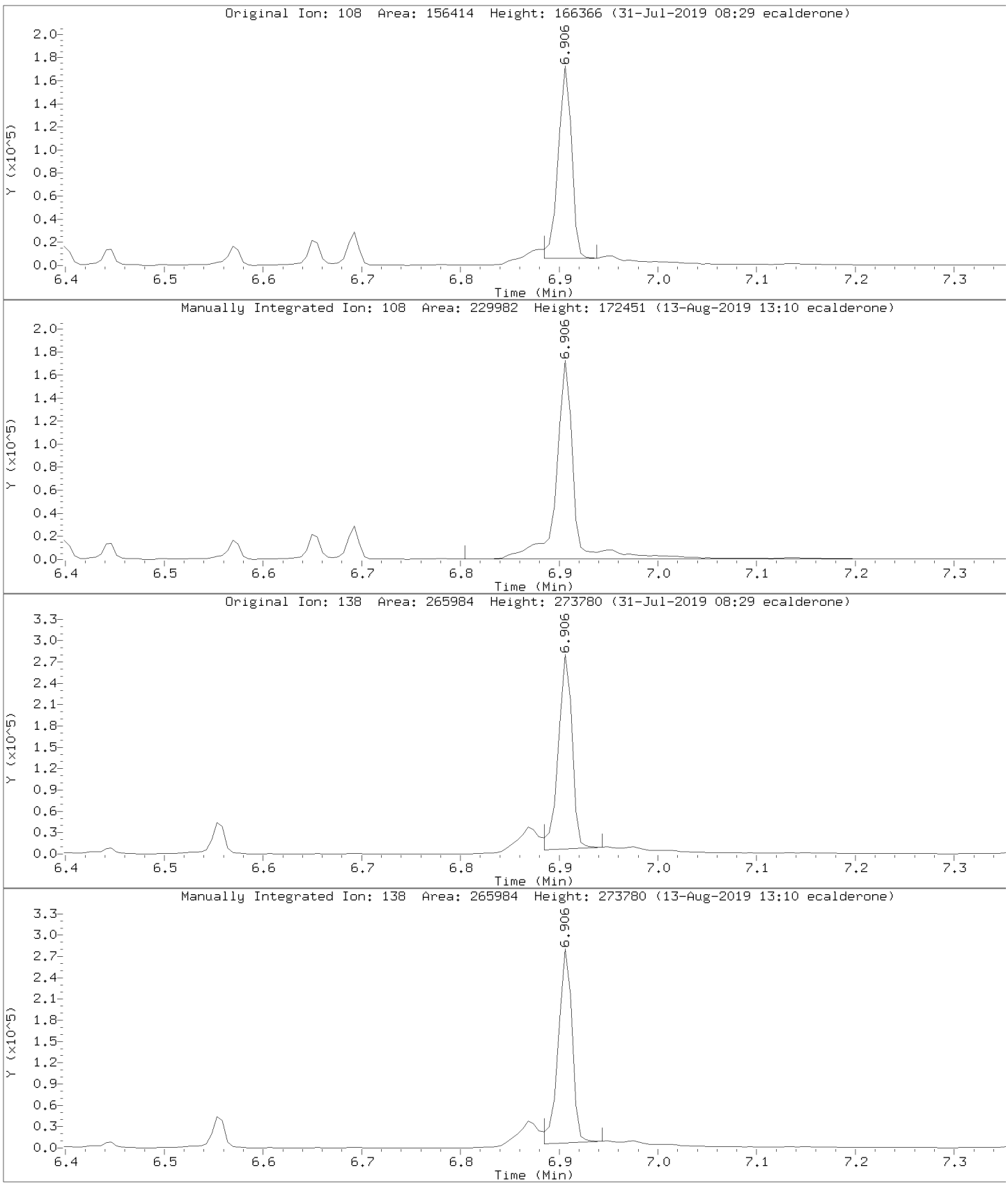
Injection Date: 30-JUL-2019 15:33
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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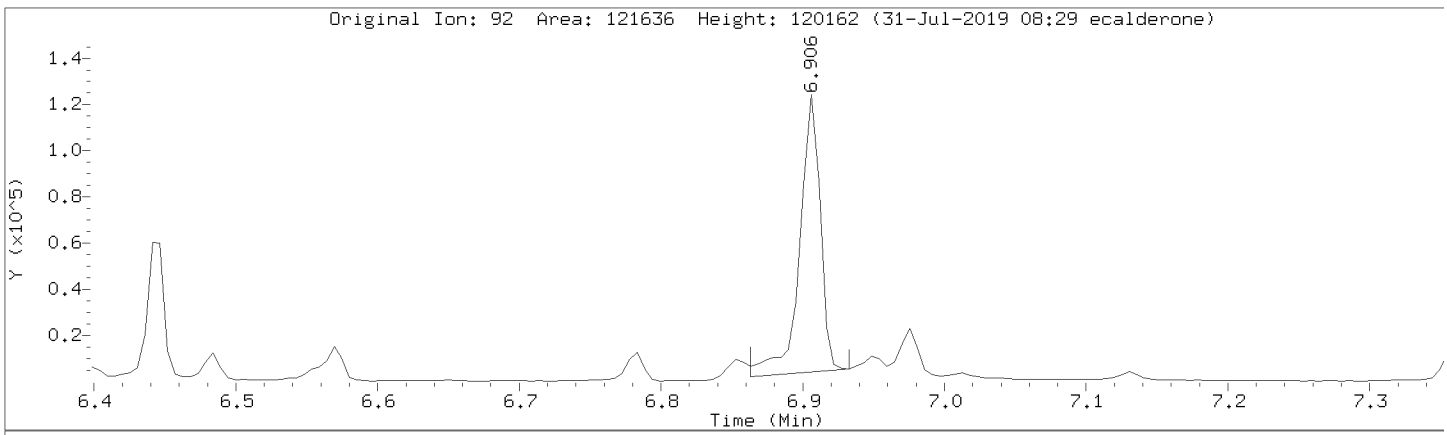
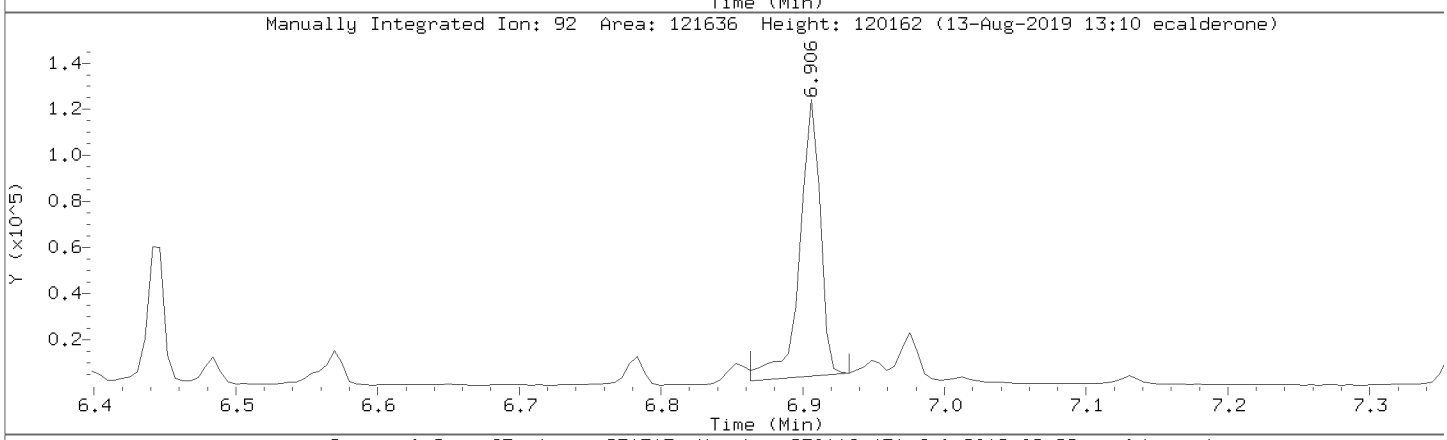
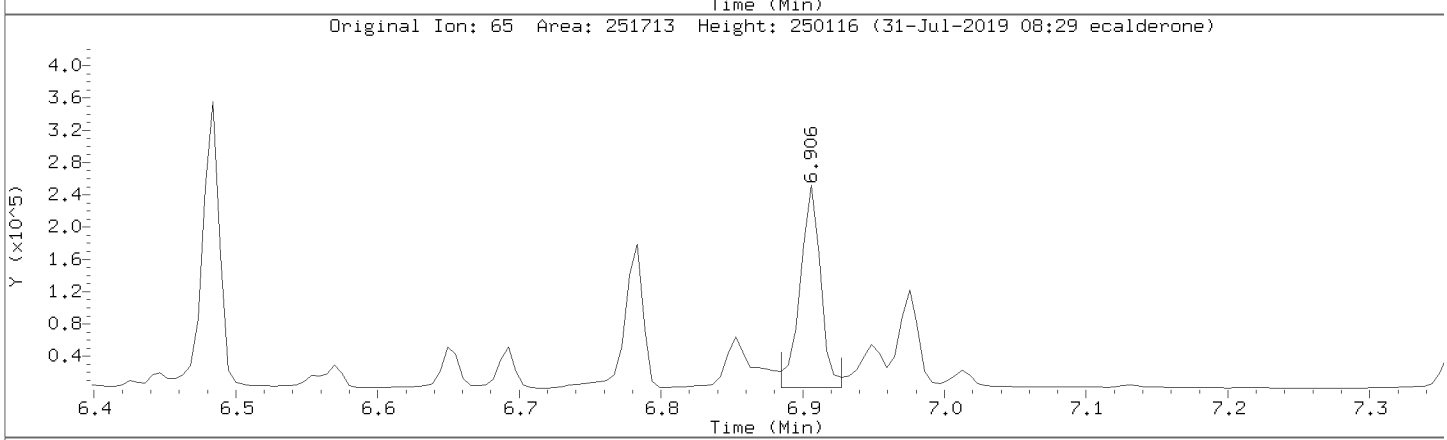
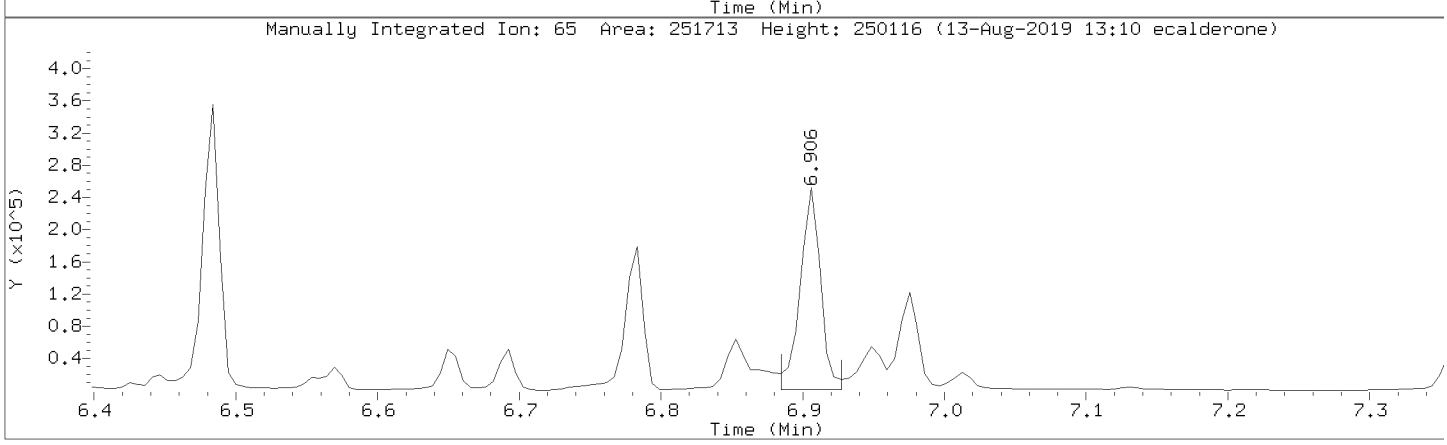
Lab Sample ID: CAL4









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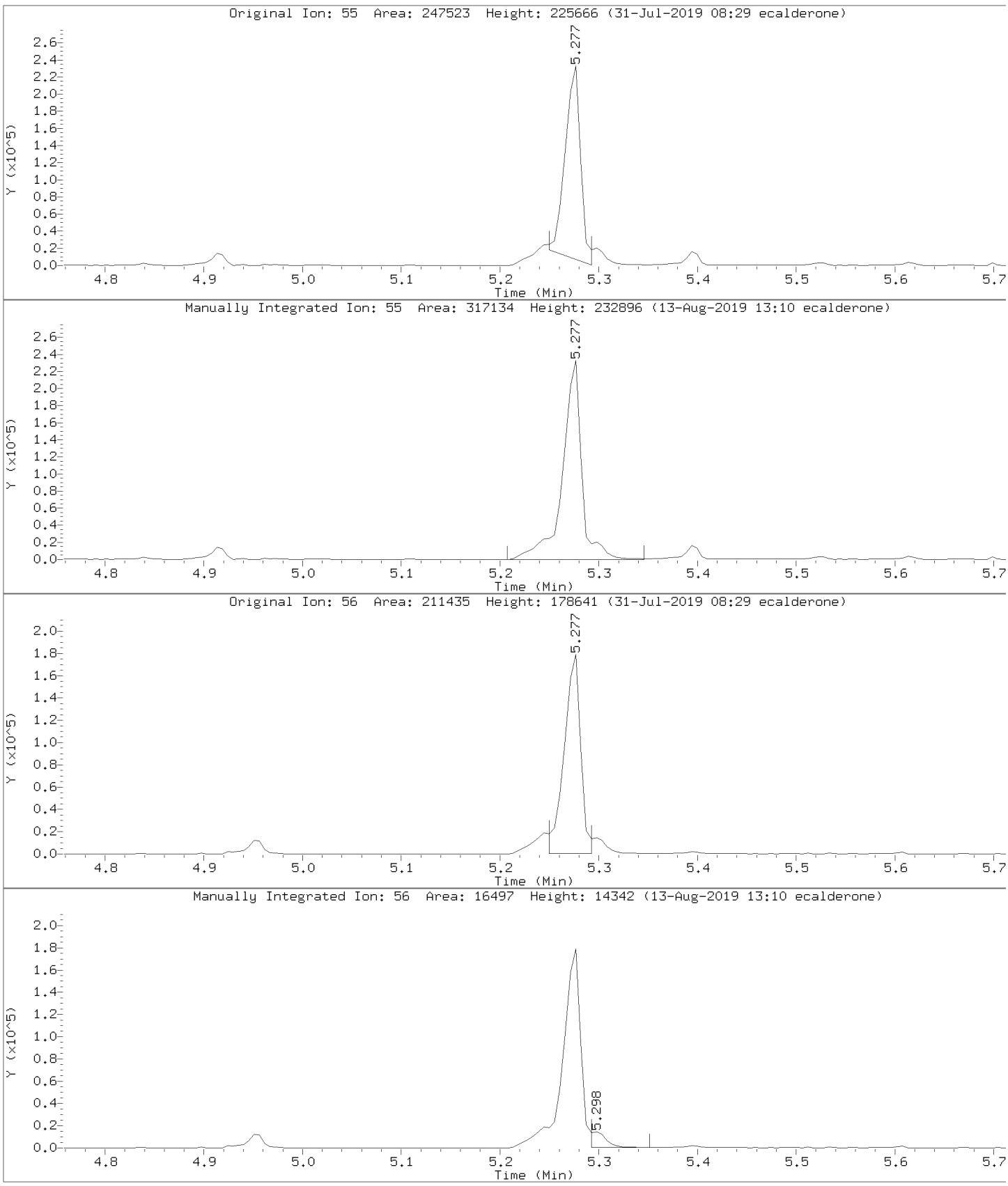
Injection Date: 30-JUL-2019 15:33
Instrument: 30mss1.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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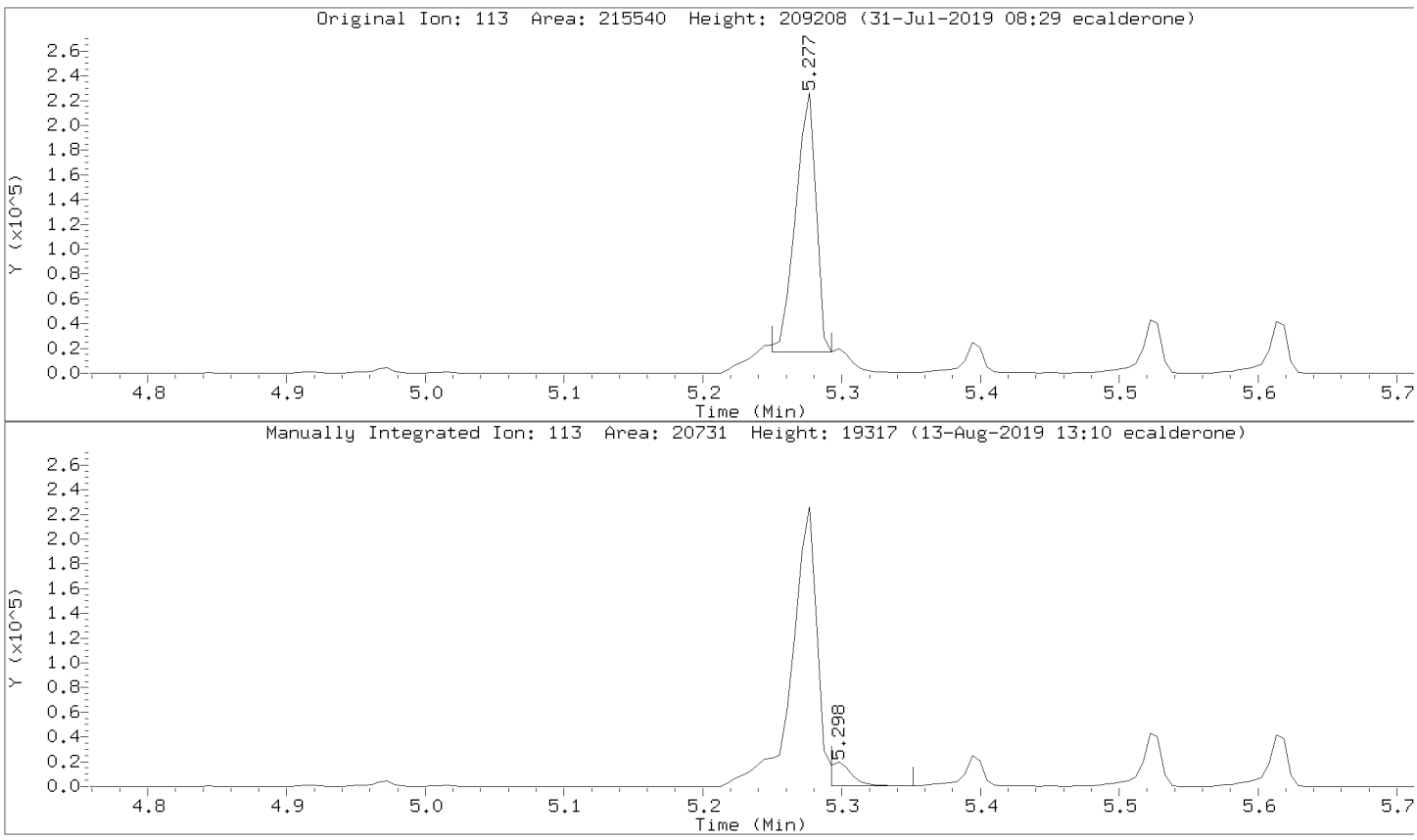
Injection Date: 30-JUL-2019 15:33
Instrument: 30mss1.i
Lab Sample ID: CAL4



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Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y5.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 30-JUL-2019 15:56
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal3
Misc Info : 14899,94273:1
Comment :
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Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 15:56 Cal File: m10730y5.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.140	2.140	(0.542)	229525	4.00000	3.82	
	2 Pyridine	79	2.140	2.140	(0.542)	346329	4.00000	3.81	
$	3 2-Fluorophenol (S)	112	3.048	3.048	(0.772)	392918	4.00000	4.03	
$	4 Phenol-d6 (S)	99	3.690	3.690	(0.934)	503866	4.00000	4.04	
	5 Benzaldehyde	77	3.636	3.636	(0.920)	352098	4.00000	4.10	
	6 Phenol	94	3.695	3.695	(0.935)	538461	4.00000	4.13	
	7 Aniline	66	3.732	3.732	(0.945)	224494	4.00000	3.79	
	8 bis(2-Chloroethyl)ether	63	3.764	3.764	(0.953)	291962	4.00000	3.93	
	9 2-Chlorophenol	128	3.818	3.818	(0.966)	452363	4.00000	4.09	
	10 1,3-Dichlorobenzene	146	3.925	3.925	(0.993)	492358	4.00000	4.11	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.951	3.951	(1.000)	329745	4.00000		
	12 1,4-Dichlorobenzene	146	3.962	3.962	(1.003)	501913	4.00000	3.84	
	13 Benzyl Alcohol	79	4.058	4.058	(1.027)	346232	4.00000	3.99	
	14 1,2-Dichlorobenzene	146	4.106	4.106	(1.039)	475500	4.00000	4.04	
	15 2-Methylphenol(o-Cresol)	108	4.144	4.144	(1.049)	406138	4.00000	3.89	
	16 bis(2-Chloroisopropyl)ether	45	4.176	4.176	(1.057)	502982	4.00000	4.08	
	17 3&4-Methylphenol(m&p Cresol)	108	4.256	4.256	(1.077)	435220	4.00000	4.04	
	18 N-Nitroso-di-n-propylamine	70	4.283	4.283	(1.084)	319737	4.00000	4.03	
	19 Acetophenone	105	4.272	4.272	(1.081)	606782	4.00000	4.16	
	20 Hexachloroethane	117	4.347	4.347	(1.100)	192464	4.00000	4.02	
$	21 Nitrobenzene-d5 (S)	128	4.395	4.395	(0.888)	218996	4.00000	3.92	
	22 Nitrobenzene	77	4.405	4.405	(0.890)	453113	4.00000	4.02	
	23 Isophorone	82	4.587	4.587	(0.927)	826453	4.00000	4.00	
	24 2,4-Dimethylphenol	107	4.672	4.672	(0.944)	453235	4.00000	4.00	
	25 2-Nitrophenol	139	4.656	4.656	(0.941)	243265	4.00000	3.55	
	26 Benzoic acid	105	4.731	4.731	(0.956)	241491	4.00000	3.39(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.747	4.747	(0.959)	520701	4.00000	4.03	
	28 2,4-Dichlorophenol	162	4.838	4.838	(0.977)	376165	4.00000	3.98	
	29 1,2,4-Trichlorobenzene	180	4.913	4.913	(0.992)	414156	4.00000	3.96	
*	30 Naphthalene-d8 (IS)	136	4.950	4.950	(1.000)	1416471	4.00000		
	31 Naphthalene	128	4.966	4.966	(1.003)	1347255	4.00000	4.22	
	32 4-Chloroaniline	65	5.014	5.014	(1.013)	142658	4.00000	4.08	
	33 Hexachloro-1,3-butadiene	225	5.105	5.105	(1.031)	232310	4.00000	3.93	
	34 Caprolactam	55	5.260	5.260	(1.063)	150317	4.00000	4.22	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.394	5.394	(1.090)	364976	4.00000	3.89	
	36 2-Methylnaphthalene	142	5.522	5.522	(1.115)	926804	4.00000	4.13	
	37 1-Methylnaphthalene	142	5.613	5.613	(1.134)	865455	4.00000	4.12	
	38 Hexachlorocyclopentadiene	237	5.709	5.709	(0.892)	279676	4.00000	4.48	
	39 1,2,4,5-Tetrachlorobenzene	216	5.693	5.693	(0.890)	402102	4.00000	3.96	
	40 2,4,6-Trichlorophenol	196	5.768	5.768	(0.901)	281771	4.00000	3.72	
	41 2,4,5-Trichlorophenol	196	5.800	5.800	(0.906)	250980	4.00000	3.96	
$	42 2-Fluorobiphenyl (S)	172	5.832	5.832	(0.911)	986936	4.00000	4.17	
	43 Biphenyl (Diphenyl)	154	5.907	5.907	(0.923)	1116926	4.00000	4.21	
	44 2-Chloronaphthalene	164	5.923	5.923	(0.926)	280279	4.00000	3.99	
	45 2-Nitroaniline	138	6.019	6.019	(0.941)	280608	4.00000	3.80	
	46 Dimethylphthalate	163	6.184	6.184	(0.967)	914879	4.00000	4.06	
	47 2,6-Dinitrotoluene	165	6.243	6.243	(0.976)	215564	4.00000	3.88	
	48 Acenaphthylene	152	6.275	6.275	(0.981)	1310313	4.00000	4.19	
	49 3-Nitroaniline	65	6.355	6.355	(0.993)	246257	4.00000	4.25	
*	50 Acenaphthene-d10 (IS)	164	6.398	6.398	(1.000)	786308	4.00000		
	51 2,4-Dinitrophenol	184	6.441	6.441	(1.007)	107122	4.00000	4.41	
	52 Acenaphthene	153	6.425	6.425	(1.004)	832147	4.00000	4.08	
	53 4-Nitrophenol	109	6.478	6.478	(1.013)	108497	4.00000	4.00	
	54 2,4-Dinitrotoluene	165	6.569	6.569	(1.027)	282522	4.00000	3.80	
	55 Dibenzofuran	168	6.553	6.553	(1.024)	1200896	4.00000	4.24	
	56 2,3,4,6-Tetrachlorophenol	232	6.692	6.692	(1.046)	225960	4.00000	3.82	
	57 Diethylphthalate	149	6.777	6.777	(1.059)	883483	4.00000	4.04	
	58 4-Chlorophenylphenyl ether	204	6.852	6.852	(1.071)	484254	4.00000	3.93	
	59 Fluorene	166	6.863	6.863	(1.073)	981931	4.00000	4.07	
	60 4-Nitroaniline	108	6.900	6.900	(1.078)	127187	4.00000	4.38	
	61 4,6-Dinitro-2-methylphenol	198	6.943	6.943	(0.885)	161265	4.00000	4.98	
	62 N-Nitrosodiphenylamine	169	6.970	6.970	(0.888)	836863	4.00000	4.10	
	63 Azobenzene	77	7.007	7.007	(0.893)	866223	4.00000	4.25	
	64 1,2-Diphenylhydrazine	77	7.007	7.007	(0.893)	866223	4.00000	4.25	
$	65 2,4,6-Tribromophenol (S)	330	7.130	7.130	(0.909)	176277	4.00000	3.54	
	66 4-Bromophenylphenyl ether	248	7.360	7.360	(0.938)	297891	4.00000	3.84	
	67 Hexachlorobenzene	284	7.525	7.525	(0.959)	328971	4.00000	3.81	
	68 Atrazine	200	7.557	7.557	(0.963)	271357	4.00000	4.10	
	69 Pentachlorophenol	266	7.707	7.707	(0.982)	176588	4.00000	3.86	
*	70 Phenanthrene-d10 (IS)	188	7.846	7.846	(1.000)	1311065	4.00000		
	71 Phenanthrene	178	7.872	7.872	(1.003)	1452678	4.00000	4.11	
	72 Anthracene	178	7.915	7.915	(1.009)	1391697	4.00000	4.29	
	73 Carbazole	167	8.086	8.086	(1.031)	1256481	4.00000	4.32	
	74 Di-n-butylphthalate	149	8.503	8.503	(1.084)	1383904	4.00000	4.01	
	75 Fluoranthene	202	9.139	9.139	(1.165)	1441835	4.00000	4.03	
	76 Pyrene	202	9.374	9.374	(0.882)	1492021	4.00000	4.14	
$	77 Terphenyl-d14 (S)	244	9.539	9.539	(0.898)	1201745	4.00000	3.97	
	78 Butylbenzylphthalate	149	10.068	10.068	(0.948)	551909	4.00000	3.66	
	79 3,3'-Dichlorobenzidine	252	10.586	10.586	(0.996)	512729	4.00000	3.61	
	80 bis(2-Ethylhexyl)phthalate	149	10.672	10.672	(1.005)	831418	4.00000	3.94	
	81 Benzo(a)anthracene	228	10.608	10.608	(0.998)	1418772	4.00000	3.97	
*	82 Chrysene-d12 (IS)	240	10.624	10.624	(1.000)	1266457	4.00000		
	83 Chrysene	228	10.650	10.650	(1.002)	1354800	4.00000	4.16	
	84 Di-n-octylphthalate	149	11.254	11.254	(0.940)	1228315	4.00000	1.86	
	85 Benzo(b)fluoranthene	252	11.644	11.644	(0.972)	1685512	4.00000	4.22	
	86 Benzo(k)fluoranthene	252	11.665	11.665	(0.974)	1529396	4.00000	3.93	
	87 Benzo(a)pyrene	252	11.927	11.927	(0.996)	1394403	4.00000	3.99	
*	88 Perylene-d12 (IS)	264	11.975	11.975	(1.000)	1361757	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.889	12.889	(1.076)	1640923	4.00000	5.19	
90 Dibenz(a,h)anthracene	278	12.894	12.894	(1.077)	1412228	4.00000	5.31	
91 Benzo(g,h,i)perylene	276	13.140	13.140	(1.097)	1301569	4.00000	3.60	

QC Flag Legend

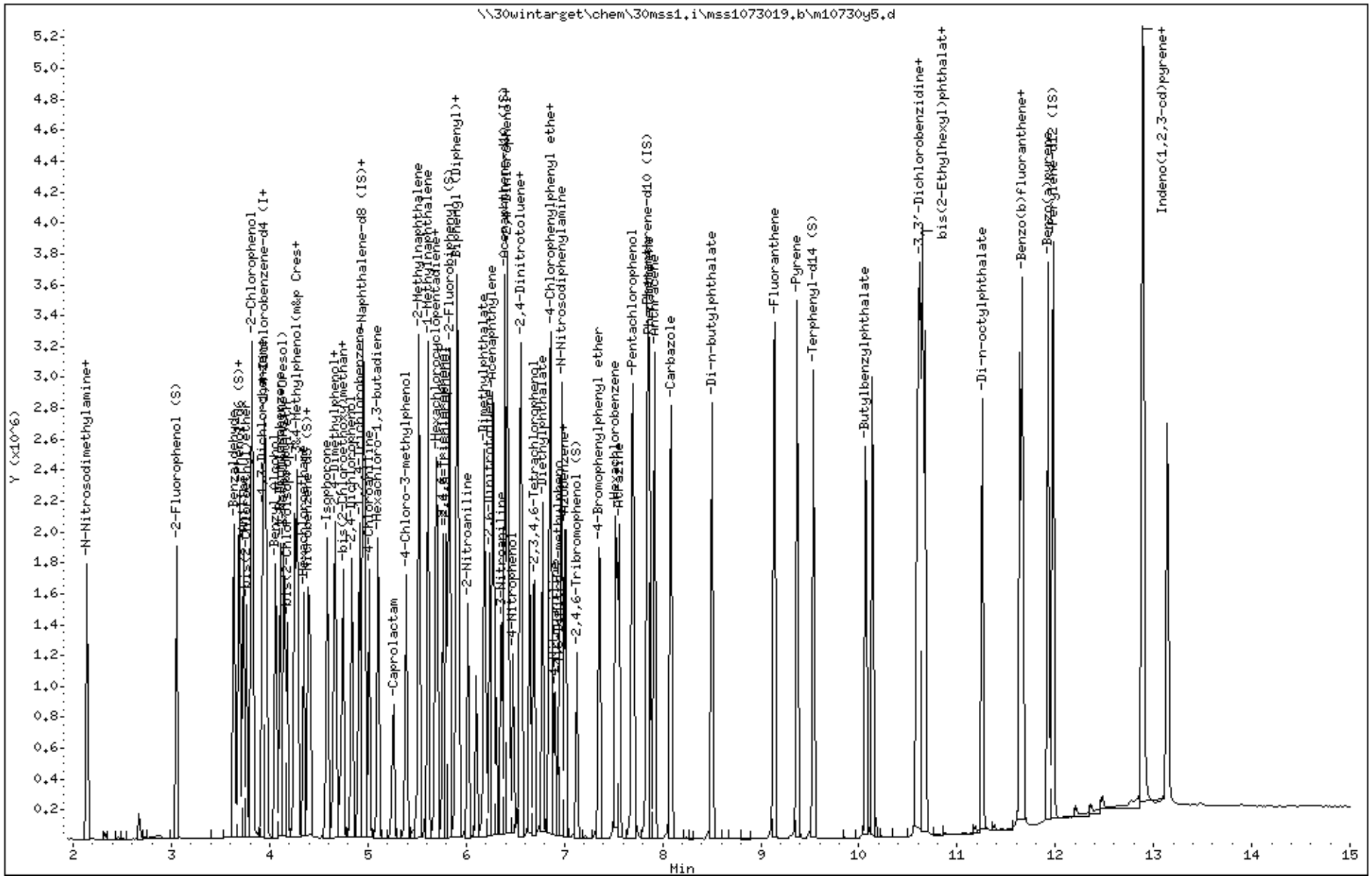
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y5.d
Date : 30-JUL-2019 15:56
Client ID: CAL3
Sample Info: CAL3

Instrument: 30mss1.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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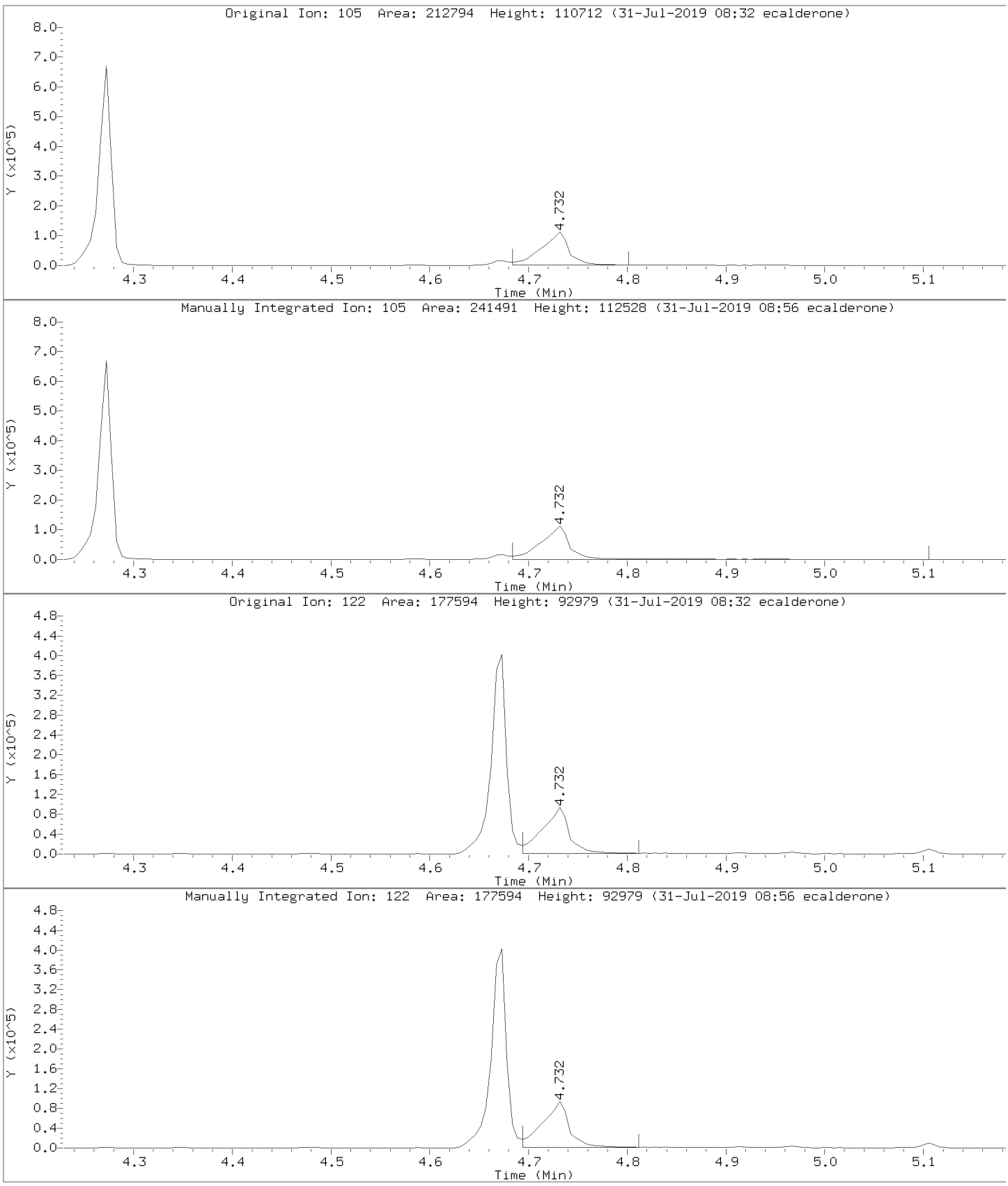
Injection Date: 30-JUL-2019 15:56
Instrument: 30mss1.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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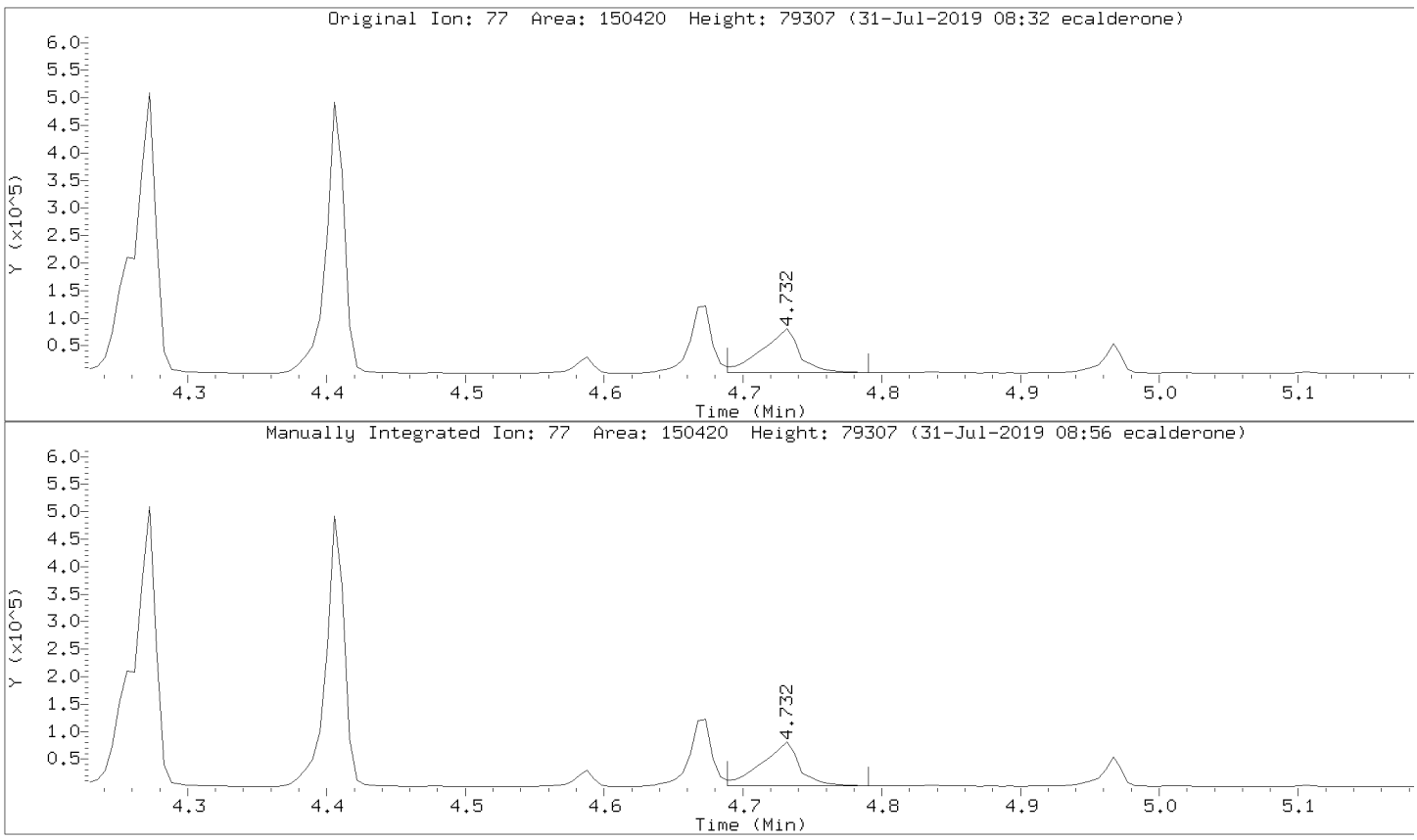
Injection Date: 30-JUL-2019 15:56
Instrument: 30mss1.i
Lab Sample ID: CAL3



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Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y6.d
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Inj Date : 30-JUL-2019 16:19
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal2
Misc Info : 14899,94274:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:19 Cal File: m10730y6.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.149	2.140	(0.544)	111906	2.00000	1.85	
	2 Pyridine	79	2.144	2.140	(0.543)	170785	2.00000	1.87	
$	3 2-Fluorophenol (S)	112	3.052	3.048	(0.773)	197288	2.00000	1.99	
$	4 Phenol-d6 (S)	99	3.688	3.690	(0.934)	254474	2.00000	2.01	
	5 Benzaldehyde	77	3.640	3.636	(0.922)	173339	2.00000	1.98	
	6 Phenol	94	3.693	3.695	(0.935)	268836	2.00000	2.02	
	7 Aniline	66	3.736	3.732	(0.946)	120424	2.00000	2.03	
	8 bis(2-Chloroethyl)ether	63	3.763	3.764	(0.953)	148401	2.00000	1.98	
	9 2-Chlorophenol	128	3.816	3.818	(0.966)	225040	2.00000	2.00	
	10 1,3-Dichlorobenzene	146	3.928	3.925	(0.995)	252173	2.00000	2.06	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.950	3.951	(1.000)	334448	4.00000		
	12 1,4-Dichlorobenzene	146	3.960	3.962	(1.003)	275471	2.00000	2.09	
	13 Benzyl Alcohol	79	4.056	4.058	(1.027)	170409	2.00000	1.94	
	14 1,2-Dichlorobenzene	146	4.110	4.106	(1.041)	246863	2.00000	2.06	
	15 2-Methylphenol(o-Cresol)	108	4.142	4.144	(1.049)	210467	2.00000	2.00	
	16 bis(2-Chloroisopropyl)ether	45	4.174	4.176	(1.057)	258396	2.00000	2.06	
	17 3&4-Methylphenol(m&p Cresol)	108	4.254	4.256	(1.077)	217825	2.00000	1.99	
	18 N-Nitroso-di-n-propylamine	70	4.286	4.283	(1.085)	161355	2.00000	2.00	
	19 Acetophenone	105	4.270	4.272	(1.081)	305573	2.00000	2.05	
	20 Hexachloroethane	117	4.345	4.347	(1.100)	96429	2.00000	1.98	
$	21 Nitrobenzene-d5 (S)	128	4.393	4.395	(0.888)	108111	2.00000	1.98	
	22 Nitrobenzene	77	4.409	4.405	(0.891)	226417	2.00000	2.04	
	23 Isophorone	82	4.585	4.587	(0.927)	413862	2.00000	2.04	
	24 2,4-Dimethylphenol	107	4.671	4.672	(0.944)	226438	2.00000	2.04	
	25 2-Nitrophenol	139	4.660	4.656	(0.942)	117964	2.00000	1.97	
	26 Benzoic acid	105	4.719	4.731	(0.954)	82721	2.00000	1.22(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.746	4.747	(0.959)	263369	2.00000	2.07	
	28 2,4-Dichlorophenol	162	4.836	4.838	(0.977)	183494	2.00000	1.98	
	29 1,2,4-Trichlorobenzene	180	4.911	4.913	(0.992)	211251	2.00000	2.06	
*	30 Naphthalene-d8 (IS)	136	4.949	4.950	(1.000)	1390894	4.00000		
	31 Naphthalene	128	4.965	4.966	(1.003)	694662	2.00000	2.19	
	32 4-Chloroaniline	65	5.013	5.014	(1.013)	69442	2.00000	2.01	
	33 Hexachloro-1,3-butadiene	225	5.109	5.105	(1.032)	116972	2.00000	2.02	
	34 Caprolactam	55	5.248	5.260	(1.060)	68828	2.00000	1.95	

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.387	5.394	(1.089)	178441	2.00000	1.95	
36	2-Methylnaphthalene	142	5.520	5.522	(1.115)	467426	2.00000	2.11	
37	1-Methylnaphthalene	142	5.611	5.613	(1.134)	436026	2.00000	2.10	
38	Hexachlorocyclopentadiene	237	5.707	5.709	(0.892)	128797	2.00000	2.17	
39	1,2,4,5-Tetrachlorobenzene	216	5.691	5.693	(0.890)	201395	2.00000	2.05	
40	2,4,6-Trichlorophenol	196	5.766	5.768	(0.901)	139578	2.00000	1.92	
41	2,4,5-Trichlorophenol	196	5.798	5.800	(0.906)	119706	2.00000	1.95	
$ 42	2-Fluorobiphenyl (S)	172	5.830	5.832	(0.911)	501097	2.00000	2.16	
43	Biphenyl (Diphenyl)	154	5.905	5.907	(0.923)	570552	2.00000	2.19	
44	2-Chloronaphthalene	164	5.921	5.923	(0.926)	140436	2.00000	2.06	
45	2-Nitroaniline	138	6.017	6.019	(0.941)	131175	2.00000	1.85	
46	Dimethylphthalate	163	6.183	6.184	(0.967)	460725	2.00000	2.10	
47	2,6-Dinitrotoluene	165	6.241	6.243	(0.976)	107202	2.00000	2.00	
48	Acenaphthylene	152	6.273	6.275	(0.981)	656511	2.00000	2.14	
49	3-Nitroaniline	65	6.354	6.355	(0.993)	120049	2.00000	2.10	
* 50	Acenaphthene-d10 (IS)	164	6.396	6.398	(1.000)	764009	4.00000		
51	2,4-Dinitrophenol	184	6.439	6.441	(1.007)	41495	2.00000	2.04	
52	Acenaphthene	153	6.423	6.425	(1.004)	420868	2.00000	2.12	
53	4-Nitrophenol	109	6.476	6.478	(1.013)	50057	2.00000	1.90	
54	2,4-Dinitrotoluene	165	6.567	6.569	(1.027)	131878	2.00000	1.89	
55	Dibenzofuran	168	6.551	6.553	(1.024)	607810	2.00000	2.18	
56	2,3,4,6-Tetrachlorophenol	232	6.690	6.692	(1.046)	109040	2.00000	1.92	
57	Diethylphthalate	149	6.776	6.777	(1.059)	433425	2.00000	2.04	
58	4-Chlorophenylphenyl ether	204	6.850	6.852	(1.071)	242042	2.00000	2.03	
59	Fluorene	166	6.861	6.863	(1.073)	490144	2.00000	2.08	
60	4-Nitroaniline	108	6.893	6.900	(1.078)	74250	2.00000	2.58(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.941	6.943	(0.885)	66804	2.00000	2.35	
62	N-Nitrosodiphenylamine	169	6.968	6.970	(0.888)	410700	2.00000	2.05	
63	Azobenzene	77	7.011	7.007	(0.894)	424576	2.00000	2.11	
64	1,2-Diphenylhydrazine	77	7.011	7.007	(0.894)	424576	2.00000	2.11	
$ 65	2,4,6-Tribromophenol (S)	330	7.128	7.130	(0.909)	80572	2.00000	1.91	
66	4-Bromophenylphenyl ether	248	7.358	7.360	(0.938)	145156	2.00000	1.93	
67	Hexachlorobenzene	284	7.529	7.525	(0.960)	164069	2.00000	1.97	
68	Atrazine	200	7.556	7.557	(0.963)	126686	2.00000	1.95	
69	Pentachlorophenol	266	7.705	7.707	(0.982)	76471	2.00000	2.07	
* 70	Phenanthrene-d10 (IS)	188	7.844	7.846	(1.000)	1278900	4.00000		
71	Phenanthrene	178	7.871	7.872	(1.003)	738916	2.00000	2.13	
72	Anthracene	178	7.919	7.915	(1.010)	670667	2.00000	2.09	
73	Carbazole	167	8.084	8.086	(1.031)	617506	2.00000	2.14	
74	Di-n-butylphthalate	149	8.501	8.503	(1.084)	661504	2.00000	1.96	
75	Fluoranthene	202	9.137	9.139	(1.165)	715263	2.00000	2.05	
76	Pyrene	202	9.372	9.374	(0.882)	744053	2.00000	2.00	
$ 77	Terphenyl-d14 (S)	244	9.537	9.539	(0.898)	610811	2.00000	1.98	
78	Butylbenzylphthalate	149	10.066	10.068	(0.948)	265990	2.00000	1.76	
79	3,3'-Dichlorobenzidine	252	10.585	10.586	(0.996)	242533	2.00000	1.72	
80	bis(2-Ethylhexyl)phthalate	149	10.670	10.672	(1.005)	380355	2.00000	1.76	
81	Benzo(a)anthracene	228	10.606	10.608	(0.998)	712849	2.00000	1.95	
* 82	Chrysene-d12 (IS)	240	10.622	10.624	(1.000)	1295317	4.00000		
83	Chrysene	228	10.649	10.650	(1.002)	708293	2.00000	2.11	
84	Di-n-octylphthalate	149	11.252	11.254	(0.940)	538754	2.00000	1.57	
85	Benzo(b)fluoranthene	252	11.637	11.644	(0.972)	691099	2.00000	1.73	
86	Benzo(k)fluoranthene	252	11.658	11.665	(0.974)	891994	2.00000	2.32	
87	Benzo(a)pyrene	252	11.925	11.927	(0.996)	658127	2.00000	1.91	
* 88	Perylene-d12 (IS)	264	11.973	11.975	(1.000)	1346407	4.00000		

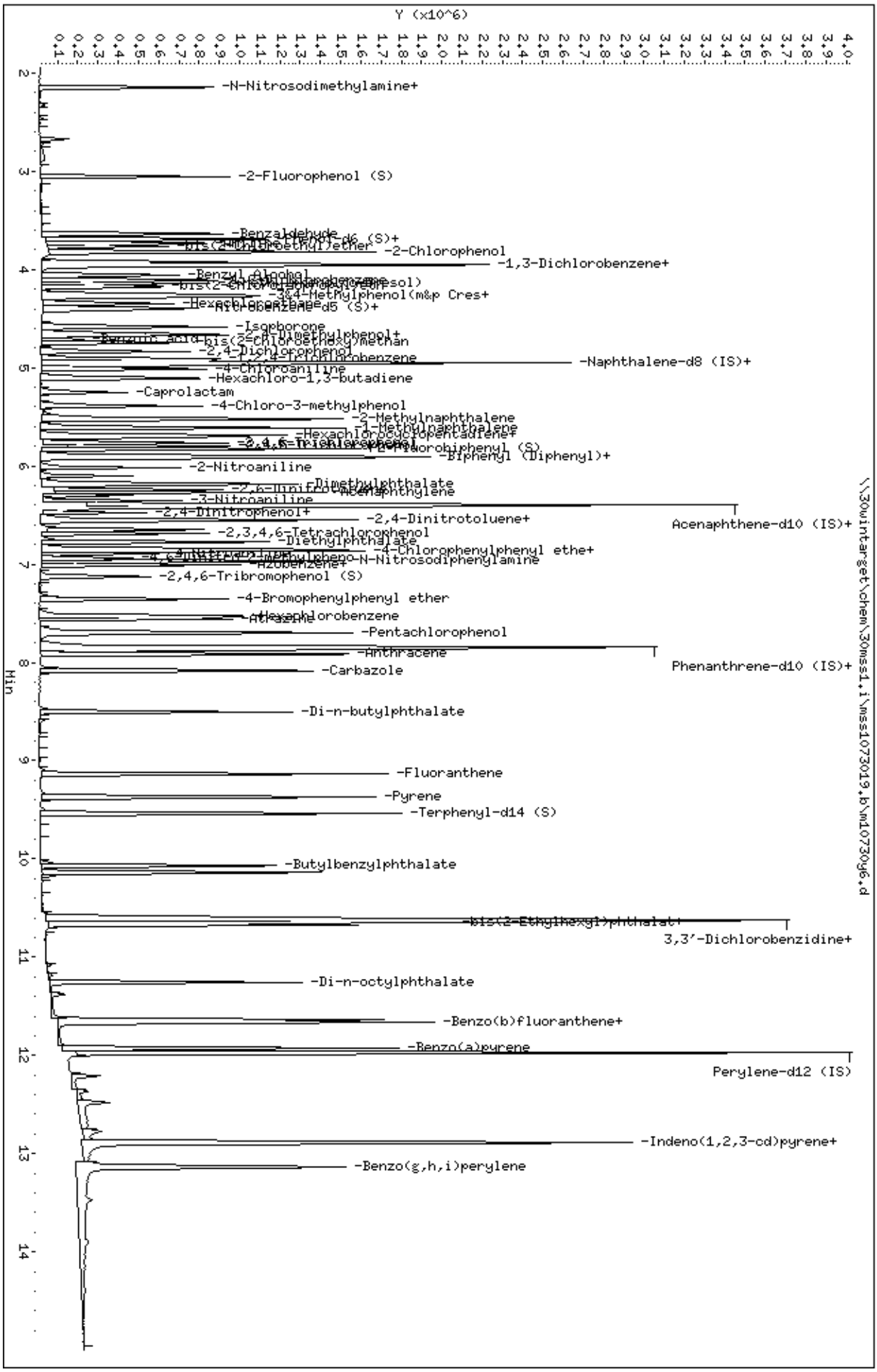
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.887	12.889	(1.076)	815740	2.00000	2.77	
90 Dibenz(a,h)anthracene	278	12.887	12.894	(1.076)	693990	2.00000	2.77	
91 Benzo(g,h,i)perylene	276	13.138	13.140	(1.097)	695590	2.00000	1.99	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).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Sample Info: CAL2
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Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18
\\30wintarget\chem\30mss1.i\mss1073019.b\m1073oy6.d
Y (x10^6)
Min
-N-Nitrosodimethylamine+
-2-Fluorophenol (S)
-Benzaldehyde
-2-Chlorophenol
-1,3-Dichlorobenzene+
-Benzyl Alcohol
-Hexachloroethane
-Isophorone
-Naphthalene-d8 (IS)+
-Caprolactam
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-Hexachlorocyclopentadiene+
-Biphenyl (Diphenyl)+
-2-Nitroaniline
-Dimethylphthalate
-3-Nitroaniline
-2,4-Dinitrophenol+
-2,4-Dinitrotoluene+
Acenaphthene-d10 (IS)+
-2,3,4,6-Tetrachlorophenol
-Diethylphthalate
-4-Chlorophenylphenyl ethe+
-N-Nitrosodiphenylamine
-2,4,6-Tribromophenol (S)
-4-Bromophenylphenyl ether
-Hexachlorobenzene
-Pentachlorophenol
-Anthracene
Phenanthrene-d10 (IS)+
-Carbazole
-Di-n-butylphthalate
-Fluoranthene
-Pyrene
-Terphenyl-d14 (S)
-Butylbenzylphthalate
-bis(2-Ethylhexyl)phthalat+
3,3'-Dichlorobenzidine+
-Di-n-octylphthalate
-Benzo(b)fluoranthene+
-Benzo(a)pyrene
Perylene-d12 (IS)
-Indeno(1,2,3-cd)pyrene+
-Benzo(g,h,i)perylene

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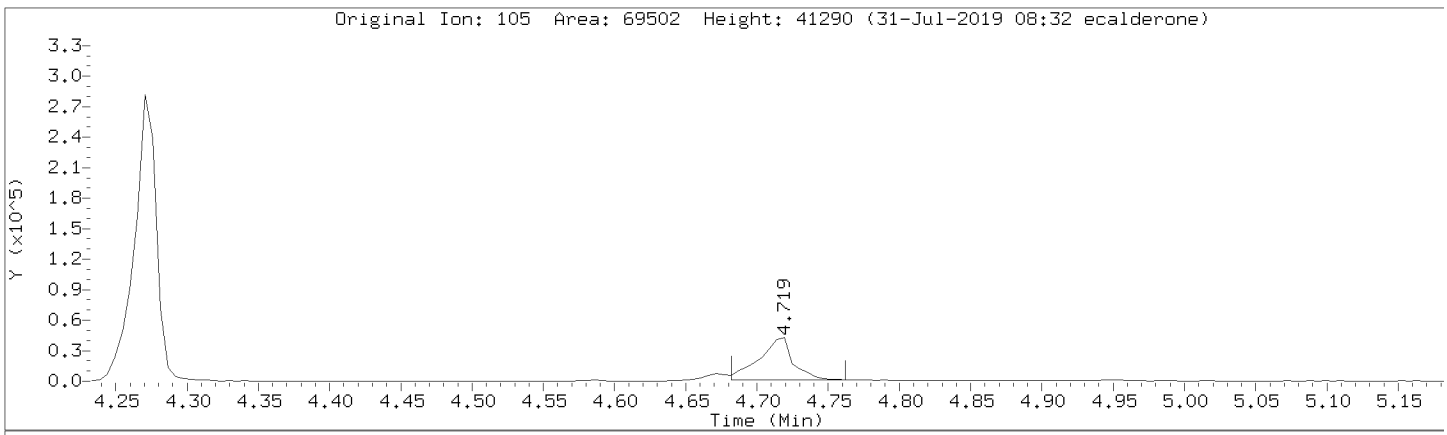
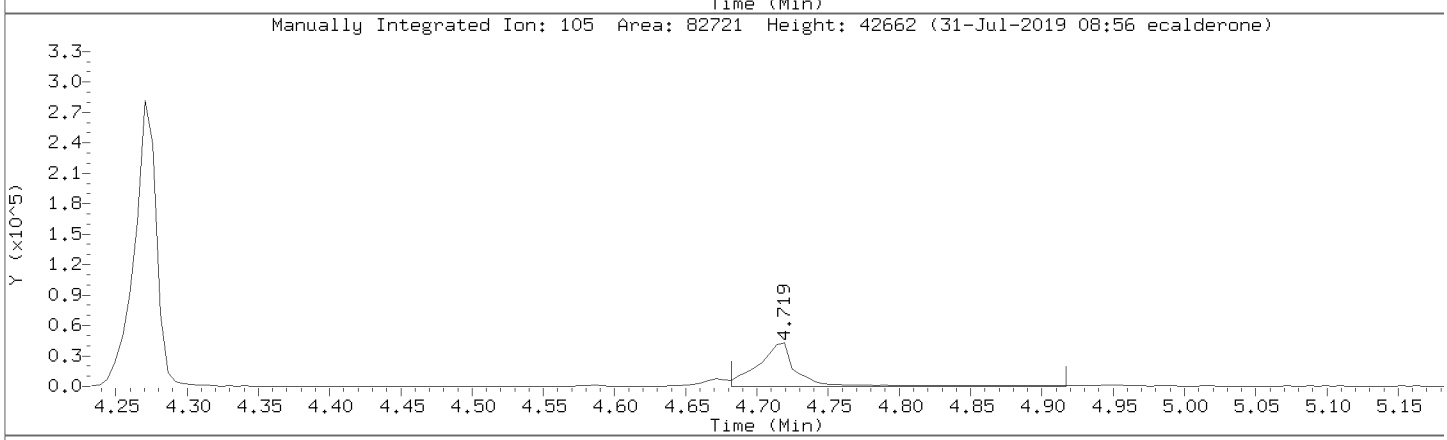
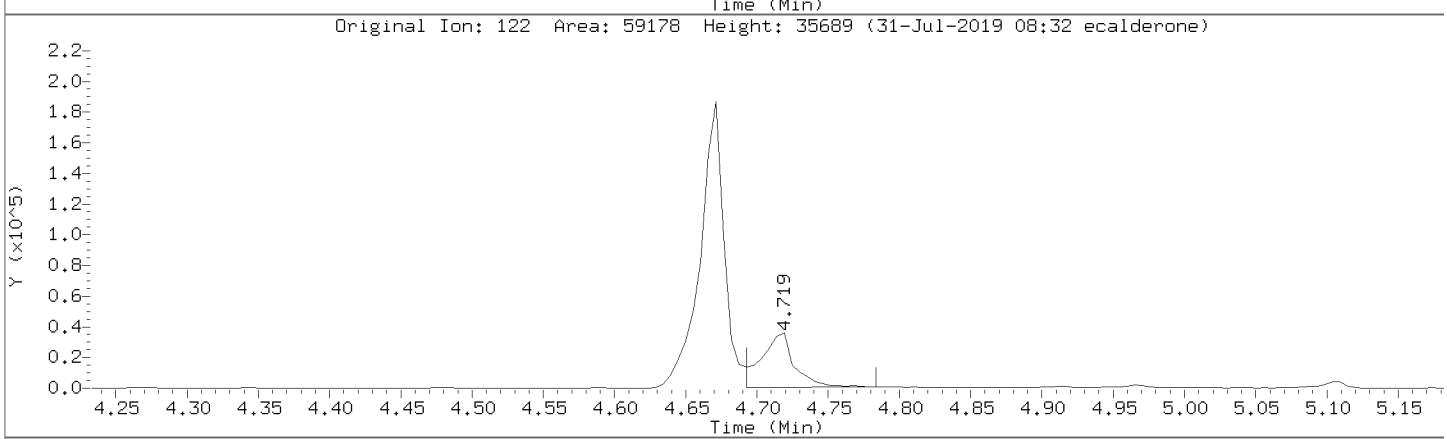
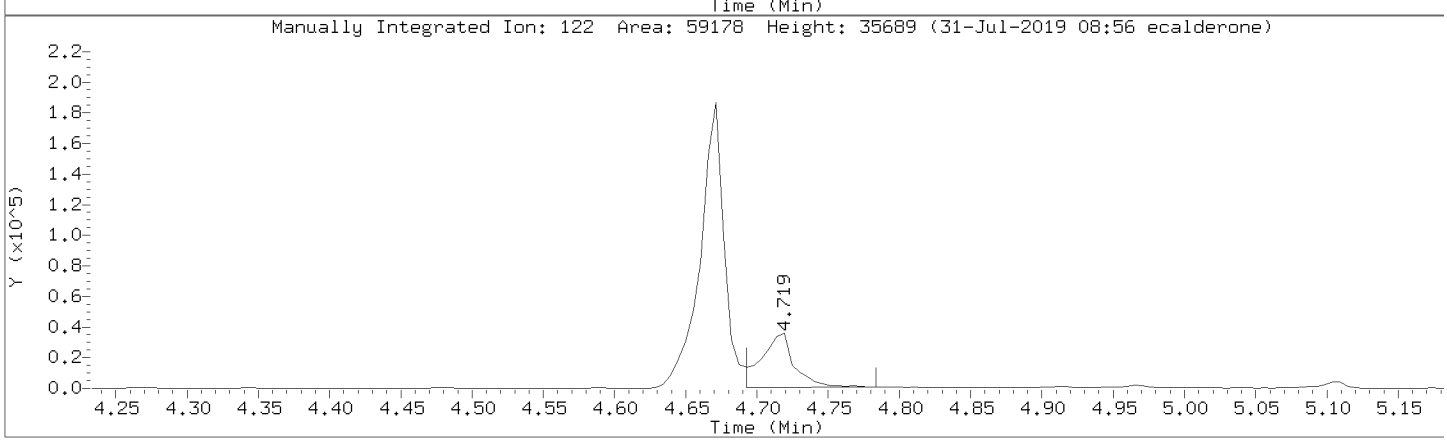
Instrument: 30mss1.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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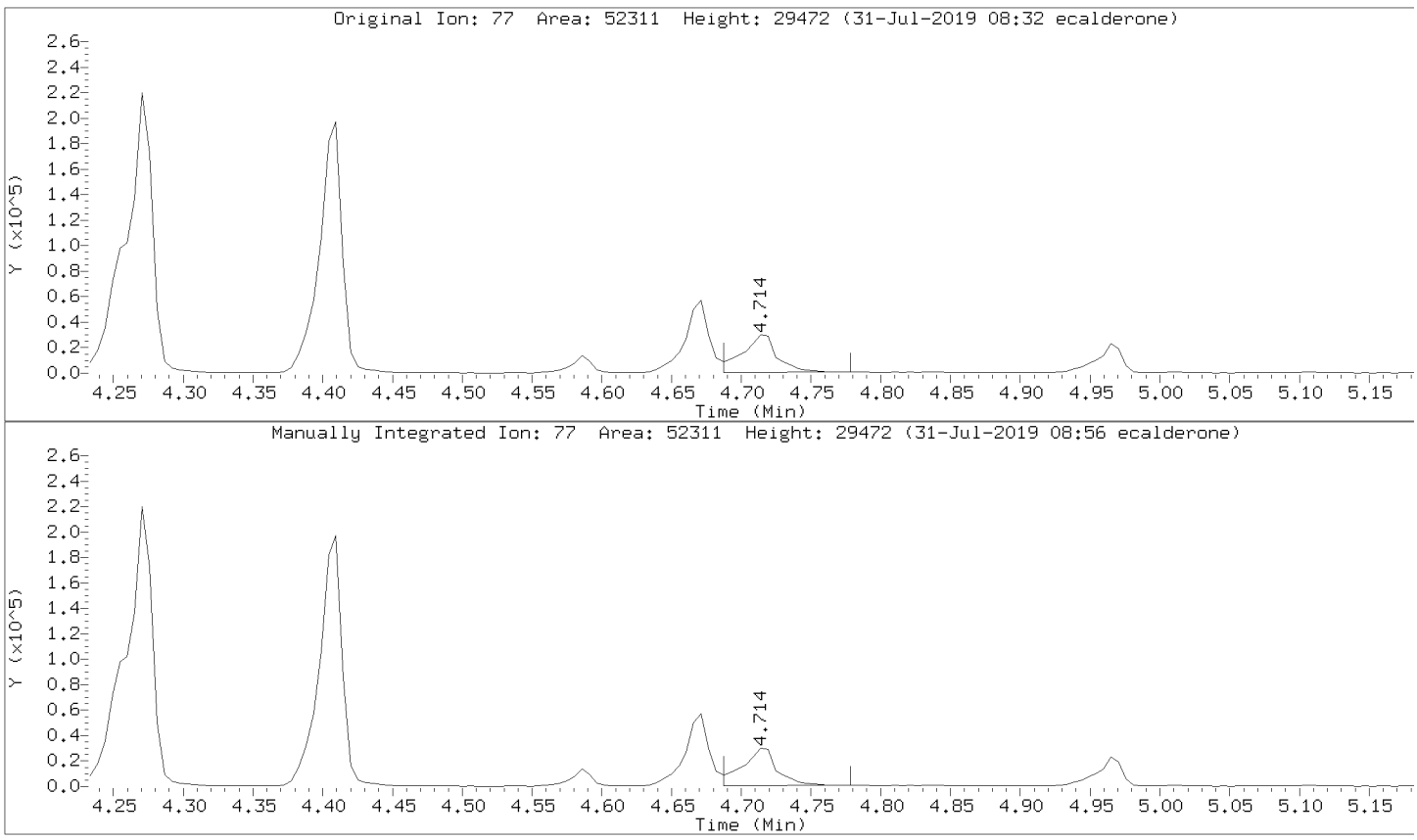

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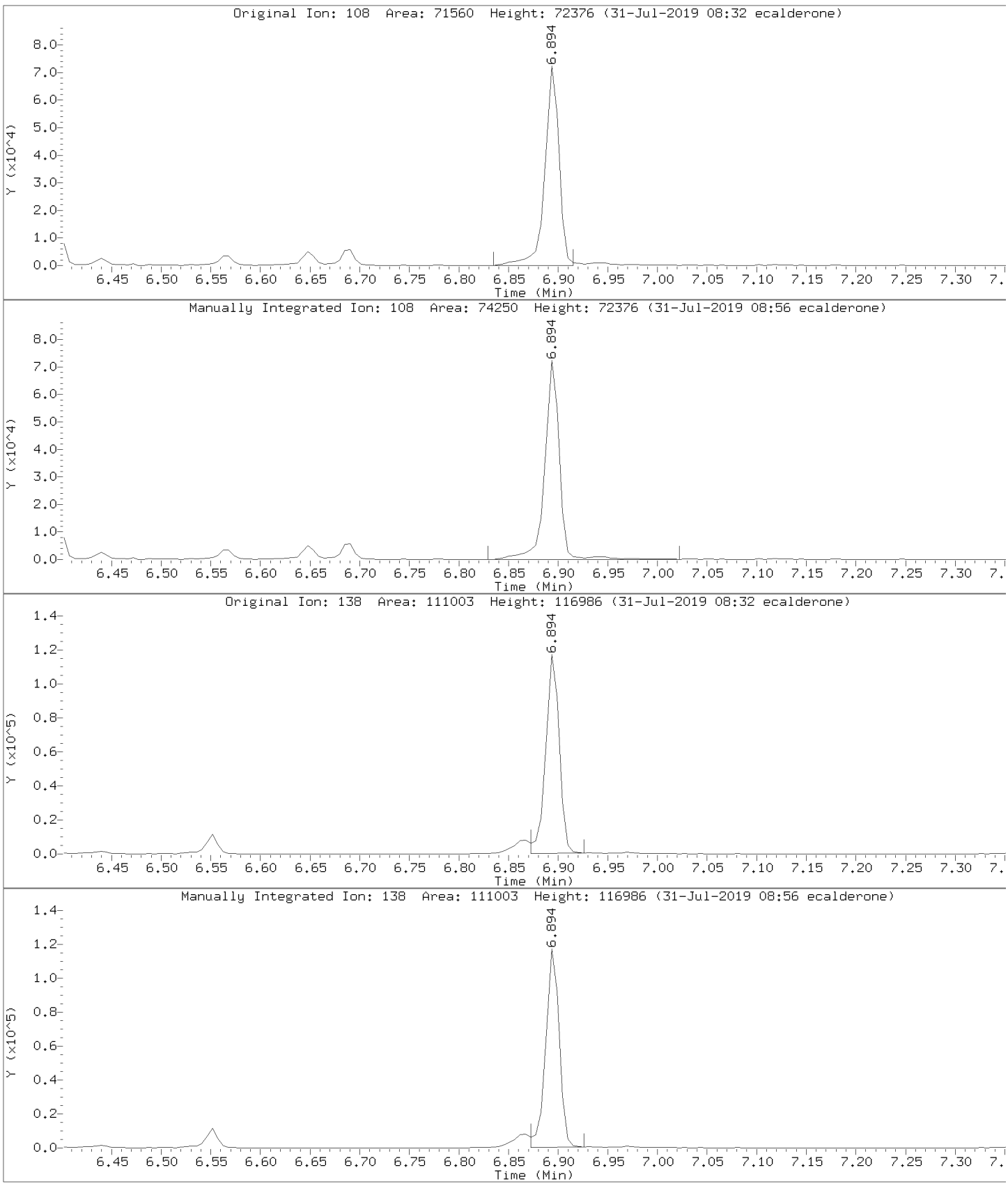
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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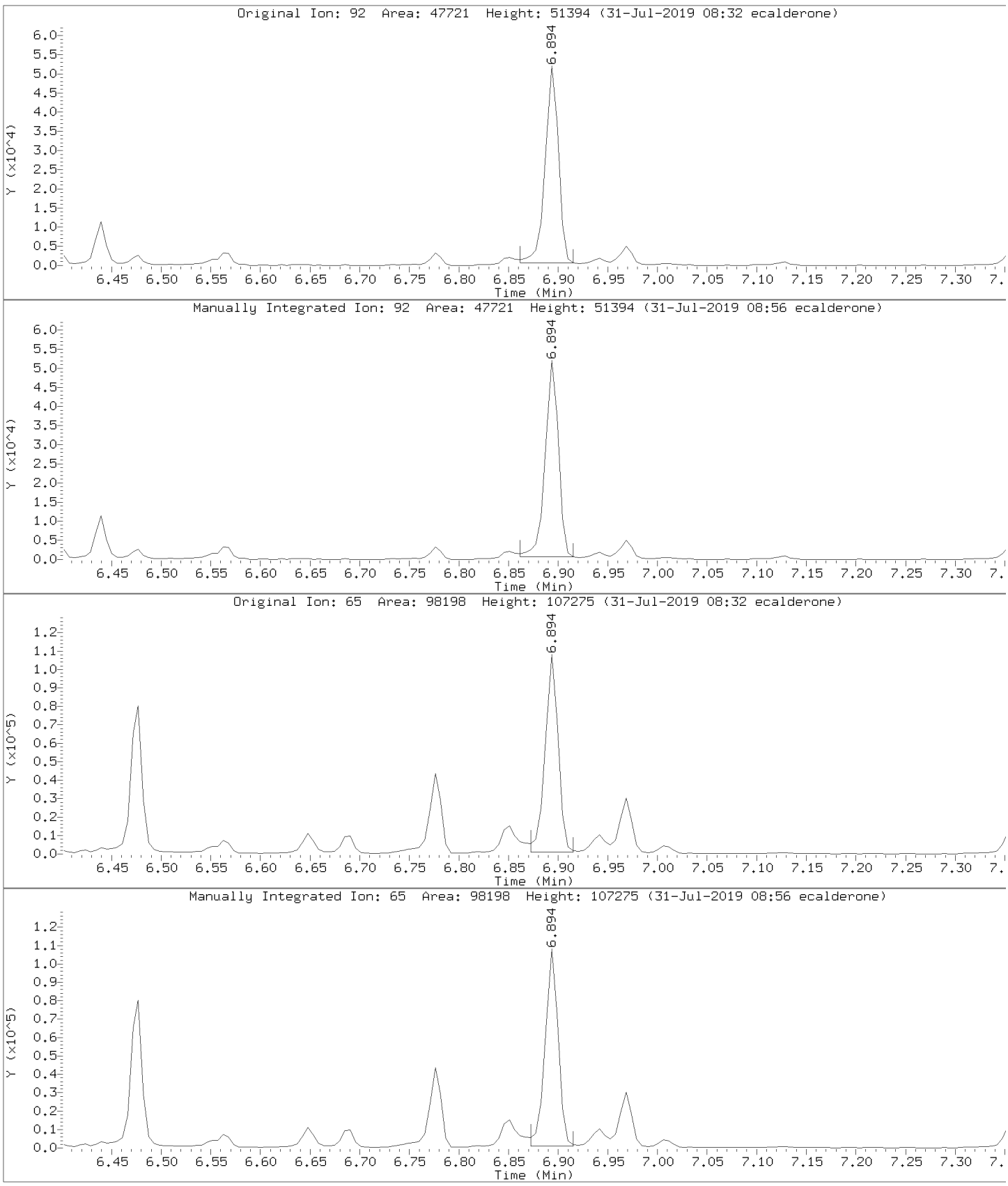

Pace Analytical Services, Inc.

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Inj Date : 30-JUL-2019 16:42
Operator : EAC Inst ID: 30mss1.i
Smp Info : cal1
Misc Info : 14899,94275:1
Comment :
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Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.151	2.140	(0.544)	54902	1.00000	0.967	
	2 Pyridine	79	2.146	2.140	(0.543)	82114	1.00000	0.956	
$	3 2-Fluorophenol (S)	112	3.054	3.048	(0.773)	90711	1.00000	0.963	
$	4 Phenol-d6 (S)	99	3.690	3.690	(0.934)	123142	1.00000	1.02	
	5 Benzaldehyde	77	3.642	3.636	(0.922)	85908	1.00000	1.03	
	6 Phenol	94	3.695	3.695	(0.935)	131062	1.00000	1.03	
	7 Aniline	66	3.738	3.732	(0.946)	59212	1.00000	1.04	
	8 bis(2-Chloroethyl)ether	63	3.770	3.764	(0.954)	75677	1.00000	1.06	
	9 2-Chlorophenol	128	3.818	3.818	(0.966)	111073	1.00000	1.04	
	10 1,3-Dichlorobenzene	146	3.925	3.925	(0.993)	126943	1.00000	1.09	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.952	3.951	(1.000)	318219	4.00000		
	12 1,4-Dichlorobenzene	146	3.962	3.962	(1.003)	139397	1.00000	1.10	
	13 Benzyl Alcohol	79	4.058	4.058	(1.027)	80206	1.00000	0.964	
	14 1,2-Dichlorobenzene	146	4.112	4.106	(1.041)	126032	1.00000	1.10	
	15 2-Methylphenol(o-Cresol)	108	4.144	4.144	(1.049)	103329	1.00000	1.03	
	16 bis(2-Chloroisopropyl)ether	45	4.176	4.176	(1.057)	130592	1.00000	1.09	
	17 3&4-Methylphenol(m&p Cresol)	108	4.256	4.256	(1.077)	105696	1.00000	1.01	
	18 N-Nitroso-di-n-propylamine	70	4.283	4.283	(1.084)	78063	1.00000	1.02	
	19 Acetophenone	105	4.272	4.272	(1.081)	148996	1.00000	1.05	
	20 Hexachloroethane	117	4.347	4.347	(1.100)	47951	1.00000	1.04	
$	21 Nitrobenzene-d5 (S)	128	4.395	4.395	(0.888)	50539	1.00000	0.958	
	22 Nitrobenzene	77	4.406	4.405	(0.890)	109641	1.00000	1.02	
	23 Isophorone	82	4.587	4.587	(0.927)	201434	1.00000	1.02	
	24 2,4-Dimethylphenol	107	4.667	4.672	(0.943)	109441	1.00000	1.01	
	25 2-Nitrophenol	139	4.657	4.656	(0.941)	53114	1.00000	0.959	
	26 Benzoic acid	105	4.710	4.731	(0.951)	27304	1.00000	0.416(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.748	4.747	(0.959)	128495	1.00000	1.04	
	28 2,4-Dichlorophenol	162	4.838	4.838	(0.977)	88905	1.00000	0.993	
	29 1,2,4-Trichlorobenzene	180	4.913	4.913	(0.992)	106491	1.00000	1.07	
*	30 Naphthalene-d8 (IS)	136	4.951	4.950	(1.000)	1345792	4.00000		
	31 Naphthalene	128	4.967	4.966	(1.003)	349485	1.00000	1.12	
	32 4-Chloroaniline	65	5.009	5.014	(1.012)	34369	1.00000	1.03	
	33 Hexachloro-1,3-butadiene	225	5.105	5.105	(1.031)	59344	1.00000	1.06	
	34 Caprolactam	55	5.244	5.260	(1.059)	30678	1.00000	0.901	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.389	5.394	(1.088)	86316	1.00000	0.977	
	36 2-Methylnaphthalene	142	5.522	5.522	(1.115)	234756	1.00000	1.08	
	37 1-Methylnaphthalene	142	5.613	5.613	(1.134)	217504	1.00000	1.07	
	38 Hexachlorocyclopentadiene	237	5.709	5.709	(0.893)	57199	1.00000	1.10	
	39 1,2,4,5-Tetrachlorobenzene	216	5.693	5.693	(0.891)	101765	1.00000	1.06	
	40 2,4,6-Trichlorophenol	196	5.768	5.768	(0.902)	65524	1.00000	0.935	
	41 2,4,5-Trichlorophenol	196	5.800	5.800	(0.907)	56013	1.00000	0.941	
$	42 2-Fluorobiphenyl (S)	172	5.827	5.832	(0.911)	250064	1.00000	1.09	
	43 Biphenyl (Diphenyl)	154	5.901	5.907	(0.923)	284366	1.00000	1.10	
	44 2-Chloronaphthalene	164	5.917	5.923	(0.926)	68639	1.00000	1.03	
	45 2-Nitroaniline	138	6.019	6.019	(0.942)	58094	1.00000	0.852	
	46 Dimethylphthalate	163	6.179	6.184	(0.967)	230080	1.00000	1.07	
	47 2,6-Dinitrotoluene	165	6.238	6.243	(0.976)	50564	1.00000	0.968(M)	LT
	48 Acenaphthylene	152	6.270	6.275	(0.981)	323173	1.00000	1.07	
	49 3-Nitroaniline	65	6.356	6.355	(0.994)	57487	1.00000	1.03	
*	50 Acenaphthene-d10 (IS)	164	6.393	6.398	(1.000)	743422	4.00000		
	51 2,4-Dinitrophenol	184	6.441	6.441	(1.008)	14572	1.00000	1.14	
	52 Acenaphthene	153	6.420	6.425	(1.004)	211031	1.00000	1.08	
	53 4-Nitrophenol	109	6.473	6.478	(1.013)	22082	1.00000	0.868	
	54 2,4-Dinitrotoluene	165	6.564	6.569	(1.027)	59023	1.00000	0.927	
	55 Dibenzofuran	168	6.548	6.553	(1.024)	303873	1.00000	1.10	
	56 2,3,4,6-Tetrachlorophenol	232	6.687	6.692	(1.046)	49972	1.00000	0.909	
	57 Diethylphthalate	149	6.772	6.777	(1.059)	212761	1.00000	1.02(M)	LT
	58 4-Chlorophenylphenyl ether	204	6.847	6.852	(1.071)	120084	1.00000	1.03(M)	LT
	59 Fluorene	166	6.863	6.863	(1.074)	242694	1.00000	1.05	
	60 4-Nitroaniline	108	6.890	6.900	(1.078)	35032	1.00000	1.19(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	6.938	6.943	(0.884)	26628	1.00000	1.33	
	62 N-Nitrosodiphenylamine	169	6.965	6.970	(0.888)	203538	1.00000	1.06	
	63 Azobenzene	77	7.007	7.007	(0.893)	211039	1.00000	1.09	
	64 1,2-Diphenylhydrazine	77	7.007	7.007	(0.893)	211039	1.00000	1.09	
$	65 2,4,6-Tribromophenol (S)	330	7.125	7.130	(0.908)	36451	1.00000	1.02	
	66 4-Bromophenylphenyl ether	248	7.355	7.360	(0.937)	70459	1.00000	0.990	
	67 Hexachlorobenzene	284	7.525	7.525	(0.959)	80732	1.00000	1.02	
	68 Atrazine	200	7.552	7.557	(0.963)	59292	1.00000	0.961	
	69 Pentachlorophenol	266	7.707	7.707	(0.982)	30214	1.00000	1.10	
*	70 Phenanthrene-d10 (IS)	188	7.846	7.846	(1.000)	1219510	4.00000		
	71 Phenanthrene	178	7.867	7.872	(1.003)	369018	1.00000	1.10	
	72 Anthracene	178	7.915	7.915	(1.009)	334110	1.00000	1.08	
	73 Carbazole	167	8.081	8.086	(1.030)	299956	1.00000	1.08	
	74 Di-n-butylphthalate	149	8.503	8.503	(1.084)	303730	1.00000	0.949	
	75 Fluoranthene	202	9.133	9.139	(1.164)	347073	1.00000	1.04	
	76 Pyrene	202	9.369	9.374	(0.882)	361688	1.00000	1.04	
$	77 Terphenyl-d14 (S)	244	9.534	9.539	(0.897)	290980	1.00000	1.01	
	78 Butylbenzylphthalate	149	10.068	10.068	(0.948)	107485	1.00000	0.775	
	79 3,3'-Dichlorobenzidine	252	10.587	10.586	(0.996)	100826	1.00000	0.794	
	80 bis(2-Ethylhexyl)phthalate	149	10.672	10.672	(1.005)	162888	1.00000	0.825	
	81 Benzo(a)anthracene	228	10.603	10.608	(0.998)	347007	1.00000	1.02	
*	82 Chrysene-d12 (IS)	240	10.624	10.624	(1.000)	1210746	4.00000		
	83 Chrysene	228	10.645	10.650	(1.002)	351838	1.00000	1.11	
	84 Di-n-octylphthalate	149	11.254	11.254	(0.940)	220794	1.00000	0.835	
	85 Benzo(b)fluoranthene	252	11.639	11.644	(0.972)	311283	1.00000	0.828	
	86 Benzo(k)fluoranthene	252	11.655	11.665	(0.973)	438988	1.00000	1.16	
	87 Benzo(a)pyrene	252	11.922	11.927	(0.996)	305711	1.00000	0.927	
*	88 Perylene-d12 (IS)	264	11.975	11.975	(1.000)	1297487	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.884	12.889	(1.076)	399768	1.00000	1.53	
90 Dibenz(a,h)anthracene	278	12.884	12.894	(1.076)	330794	1.00000	1.52	
91 Benzo(g,h,i)perylene	276	13.135	13.140	(1.097)	341455	1.00000	1.01	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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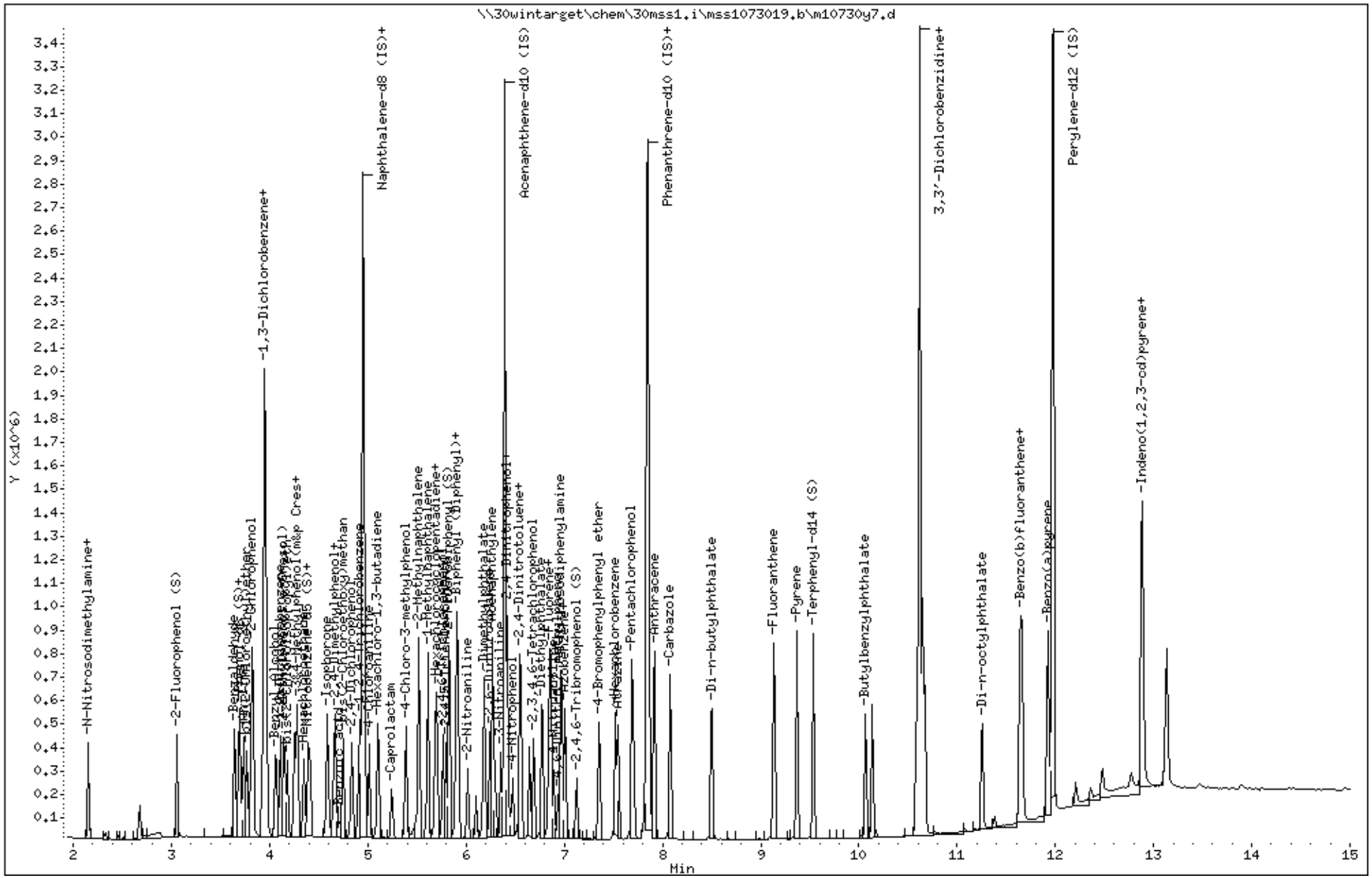

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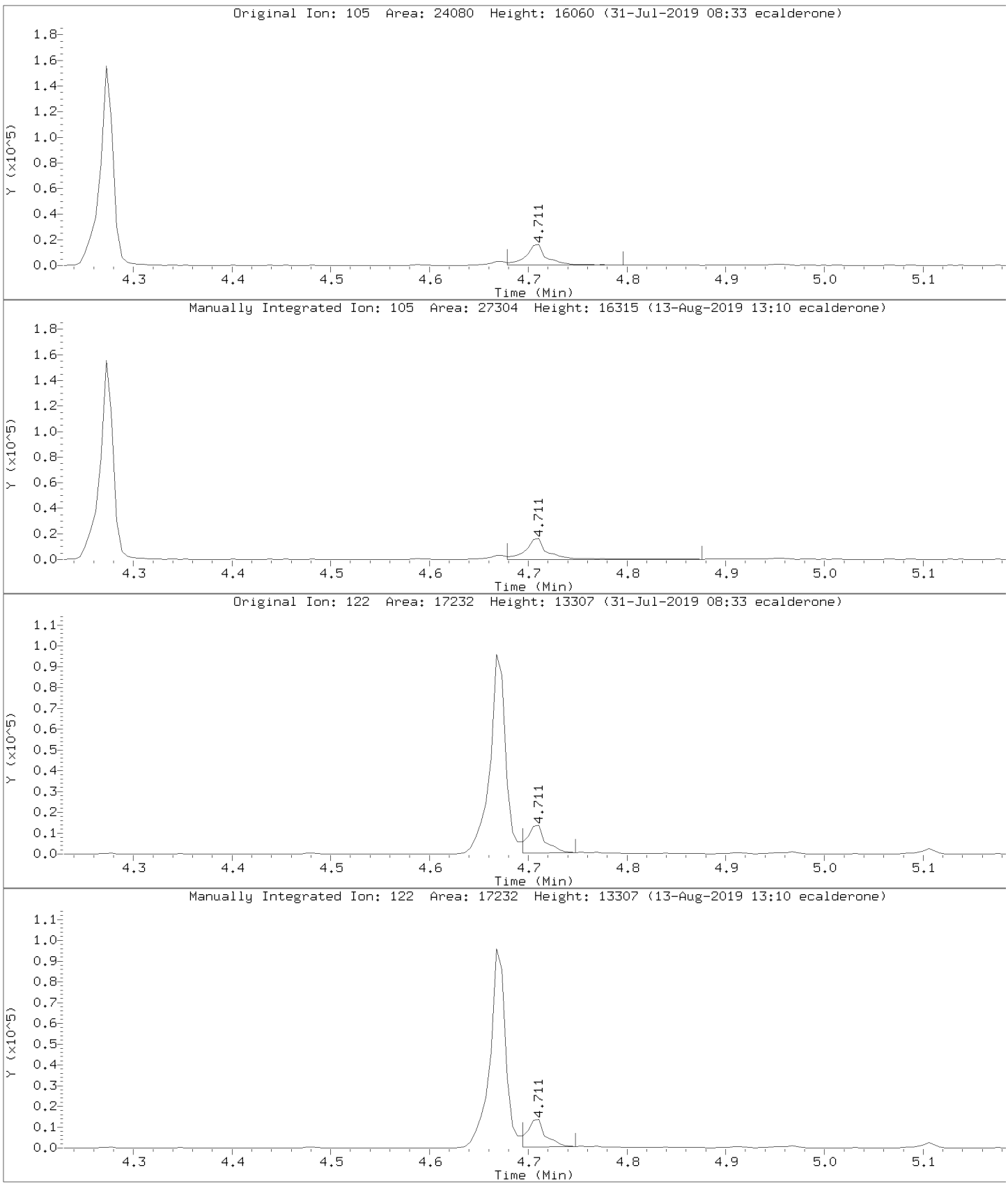
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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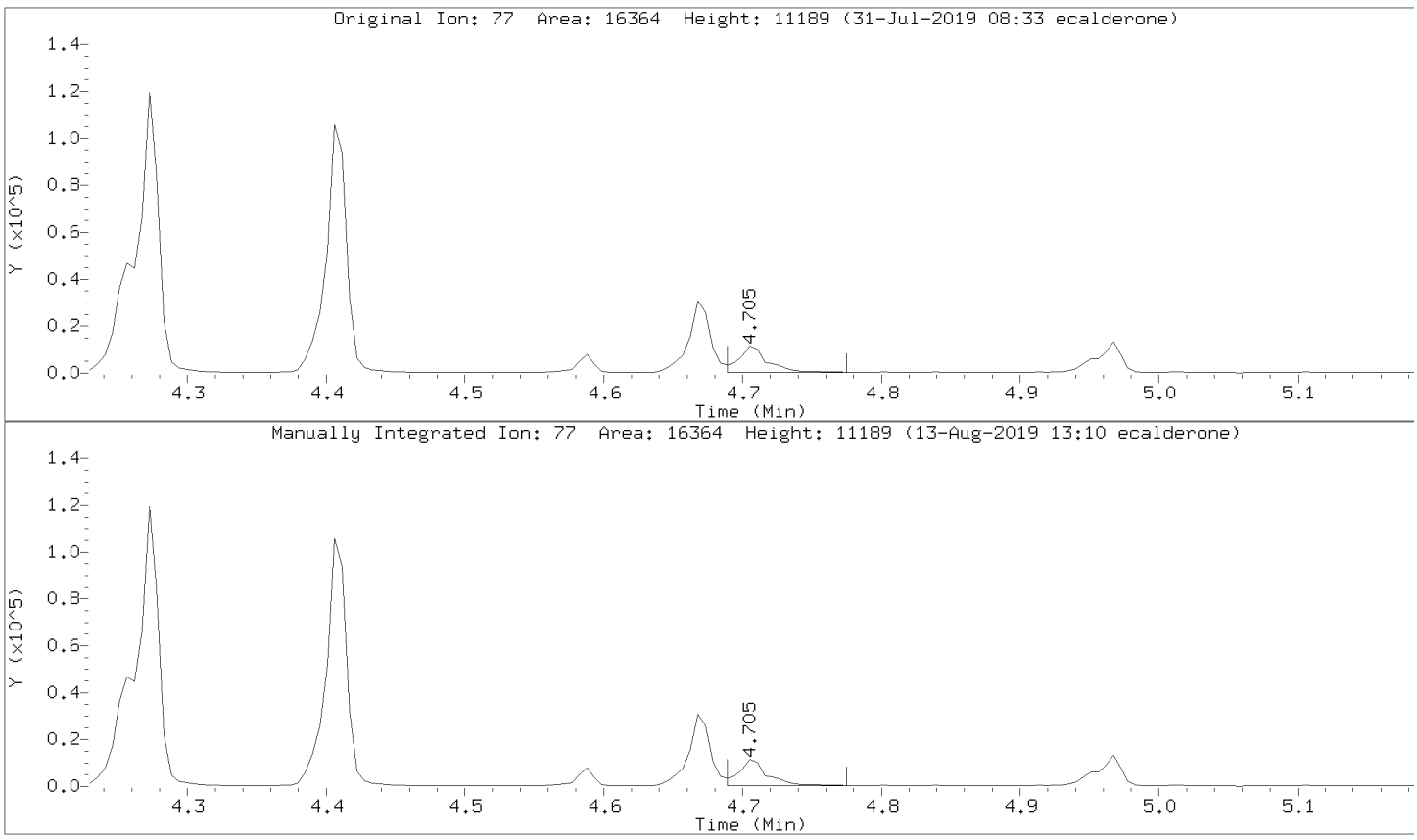

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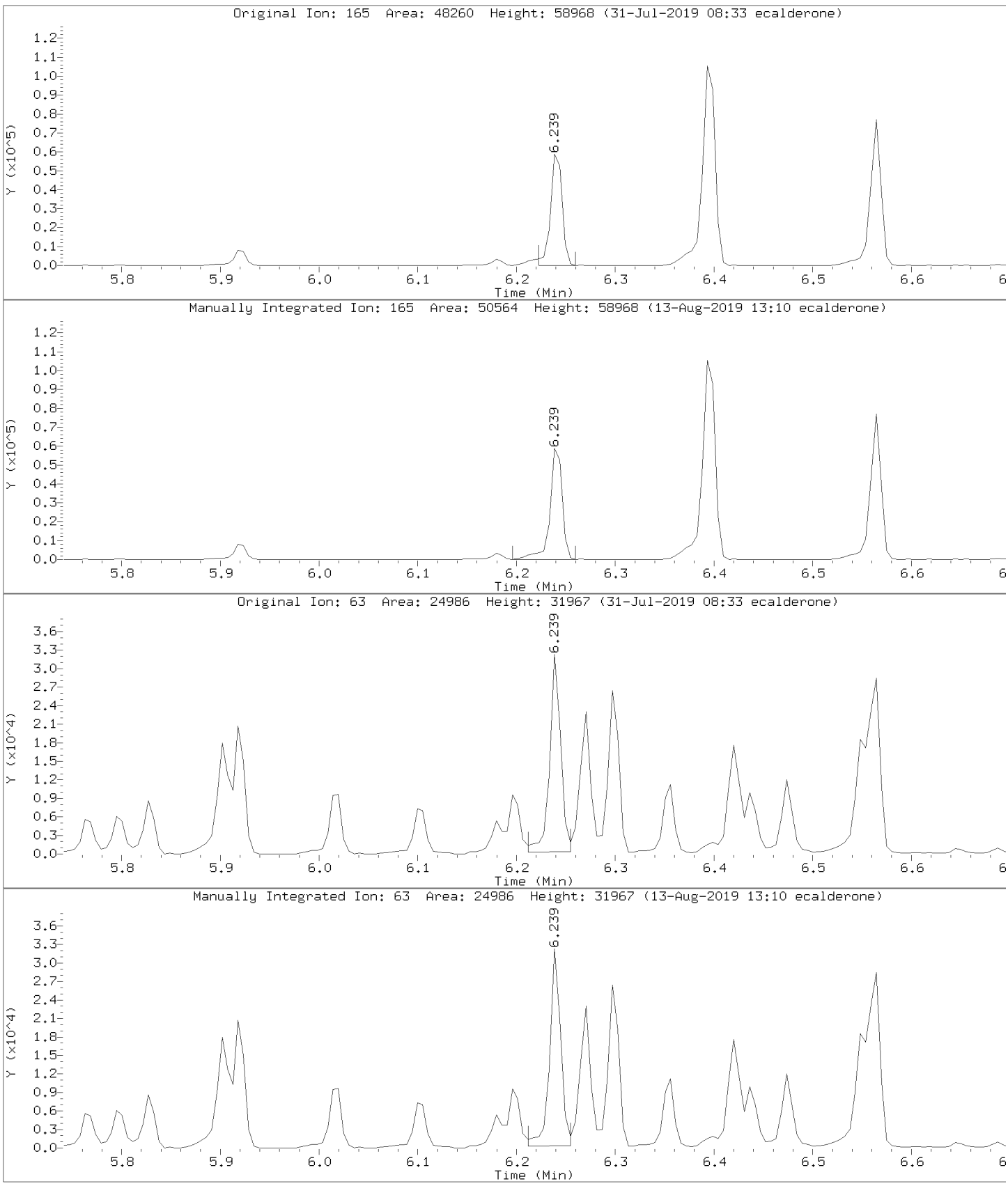
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 2,6-Dinitrotoluene Review Code: LT
CAS Number: 606-20-2



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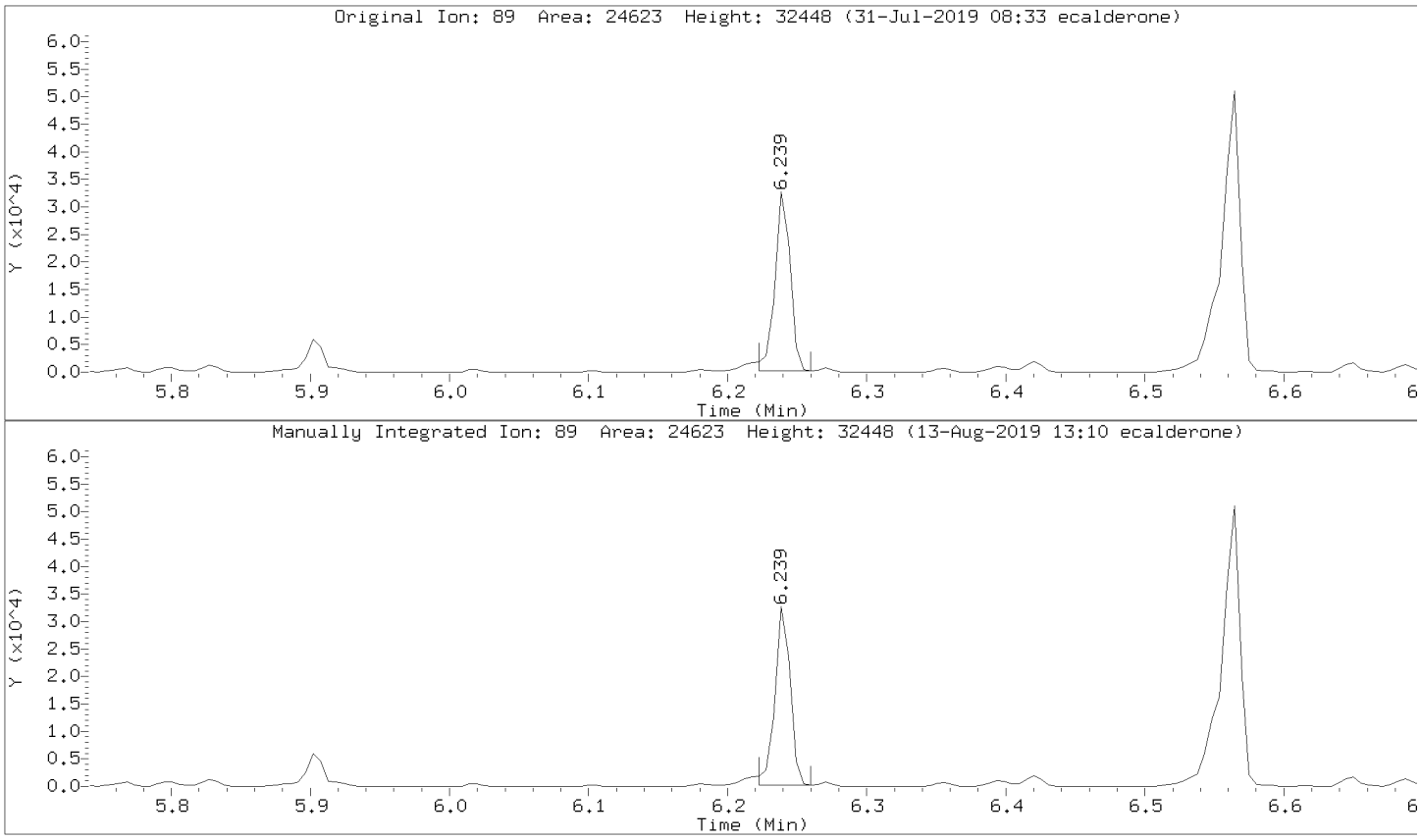
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1



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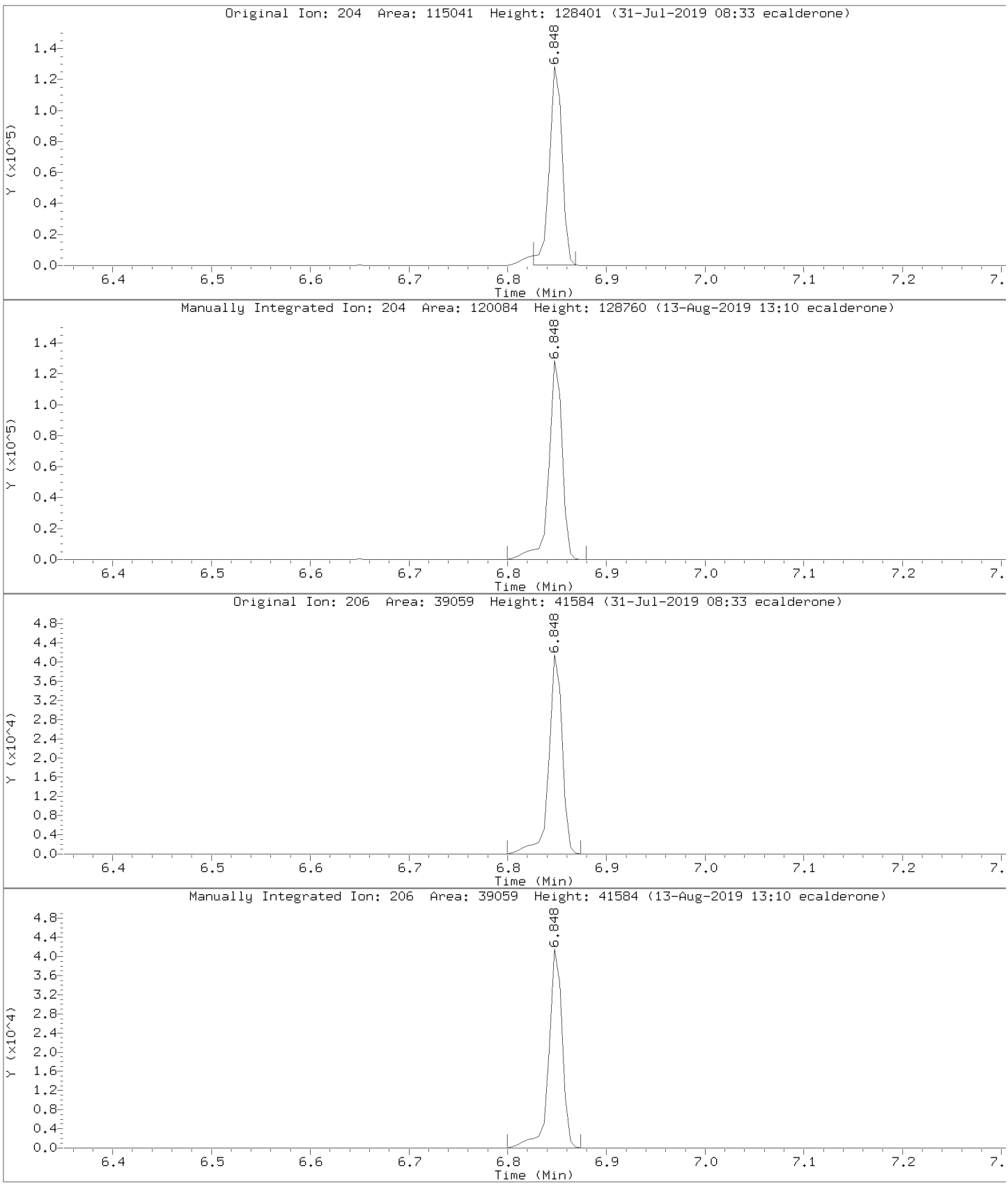
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Chlorophenylphenyl ether Review Code: LT
CAS Number: 7005-72-3



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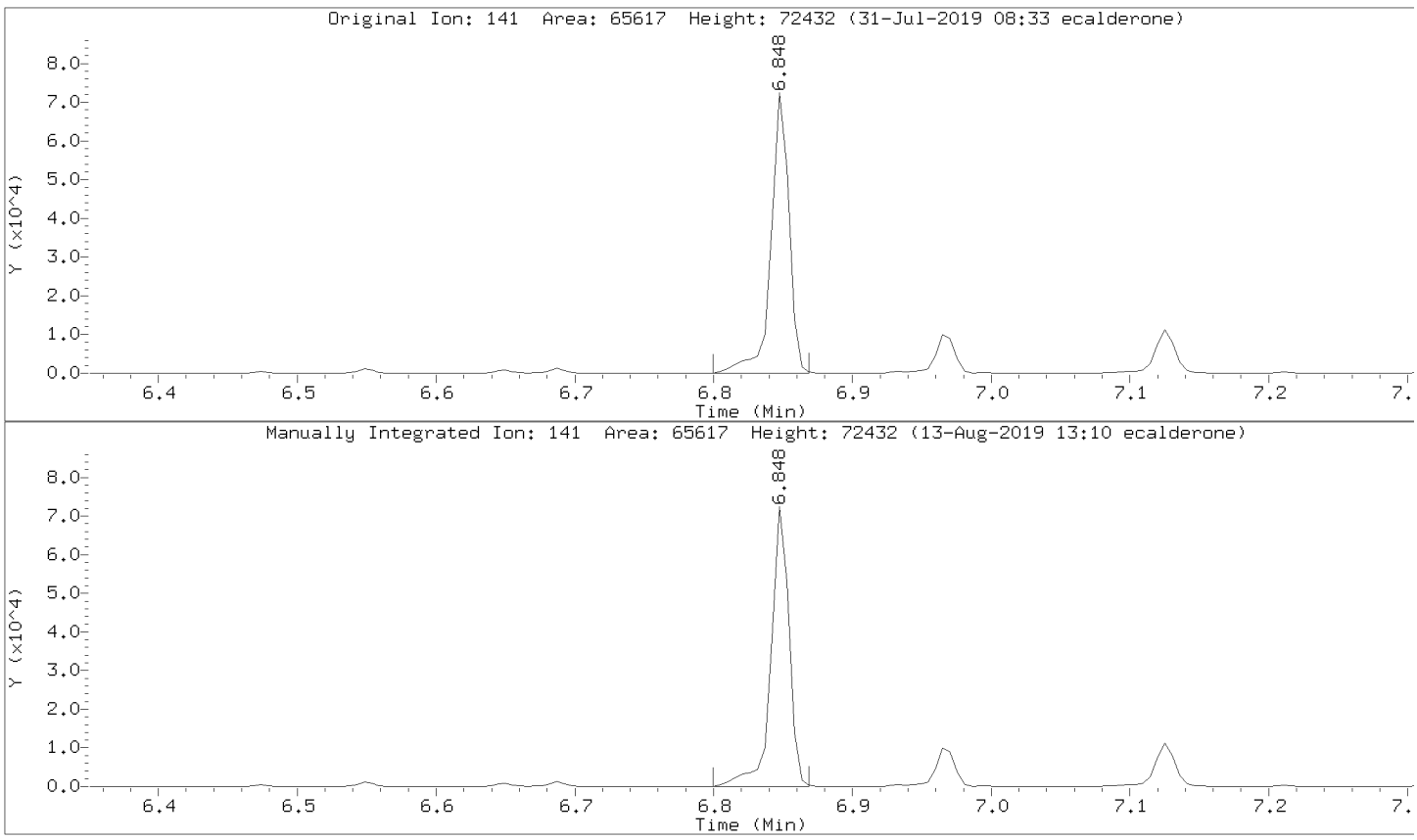
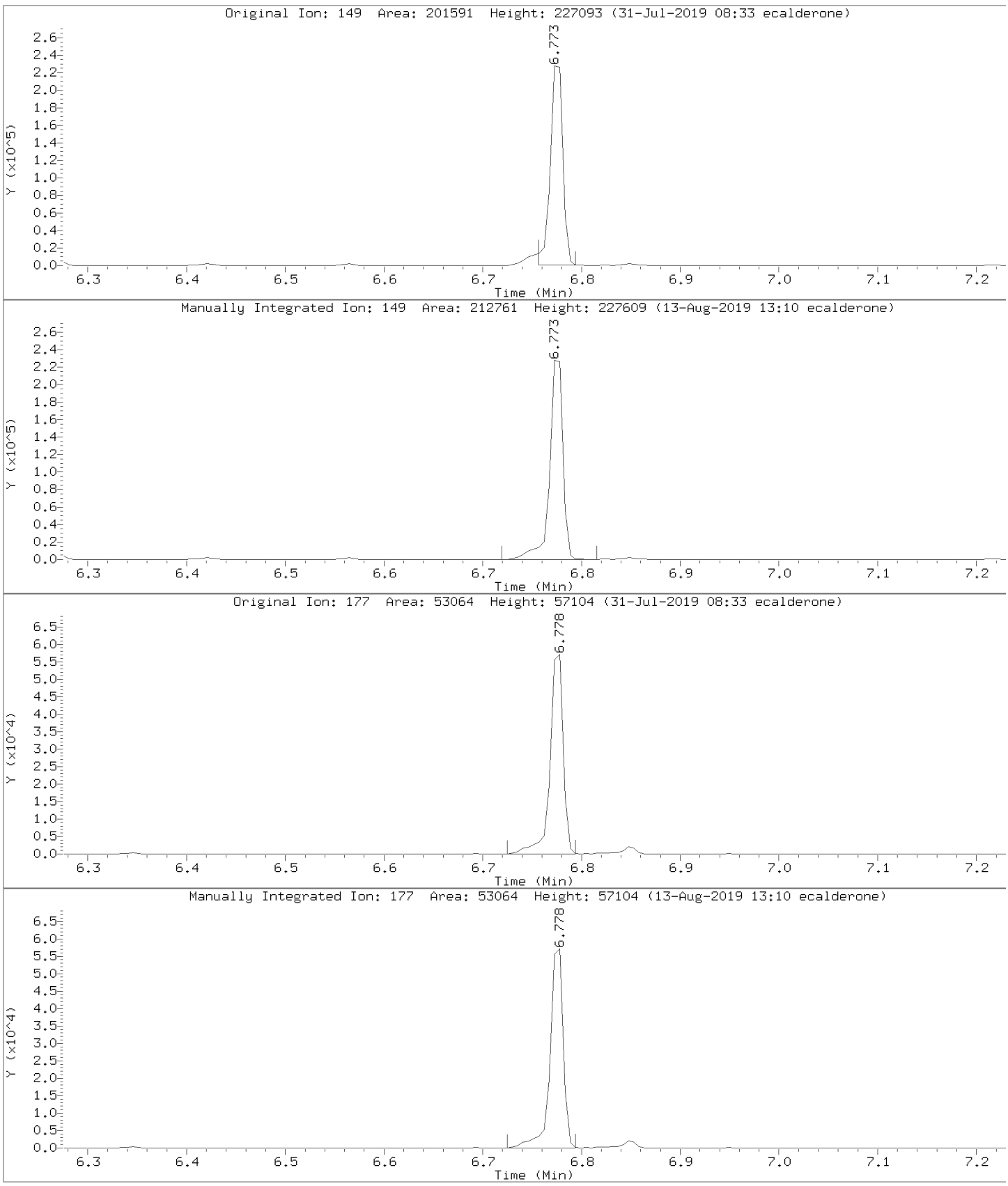
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

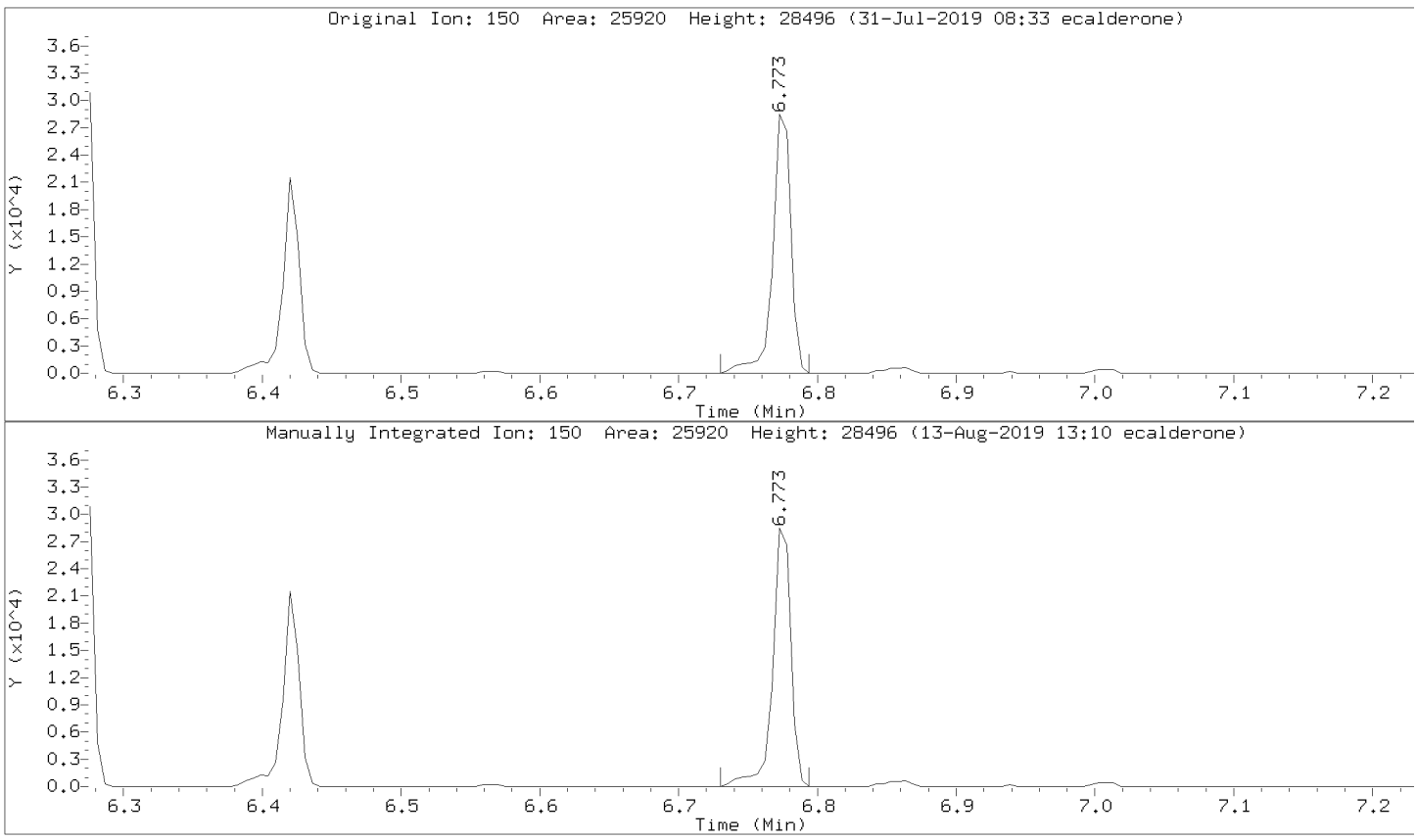


Data File: \\30wintarget\chem\30mss1.i\mss1073019.b/m10730y7.d
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2

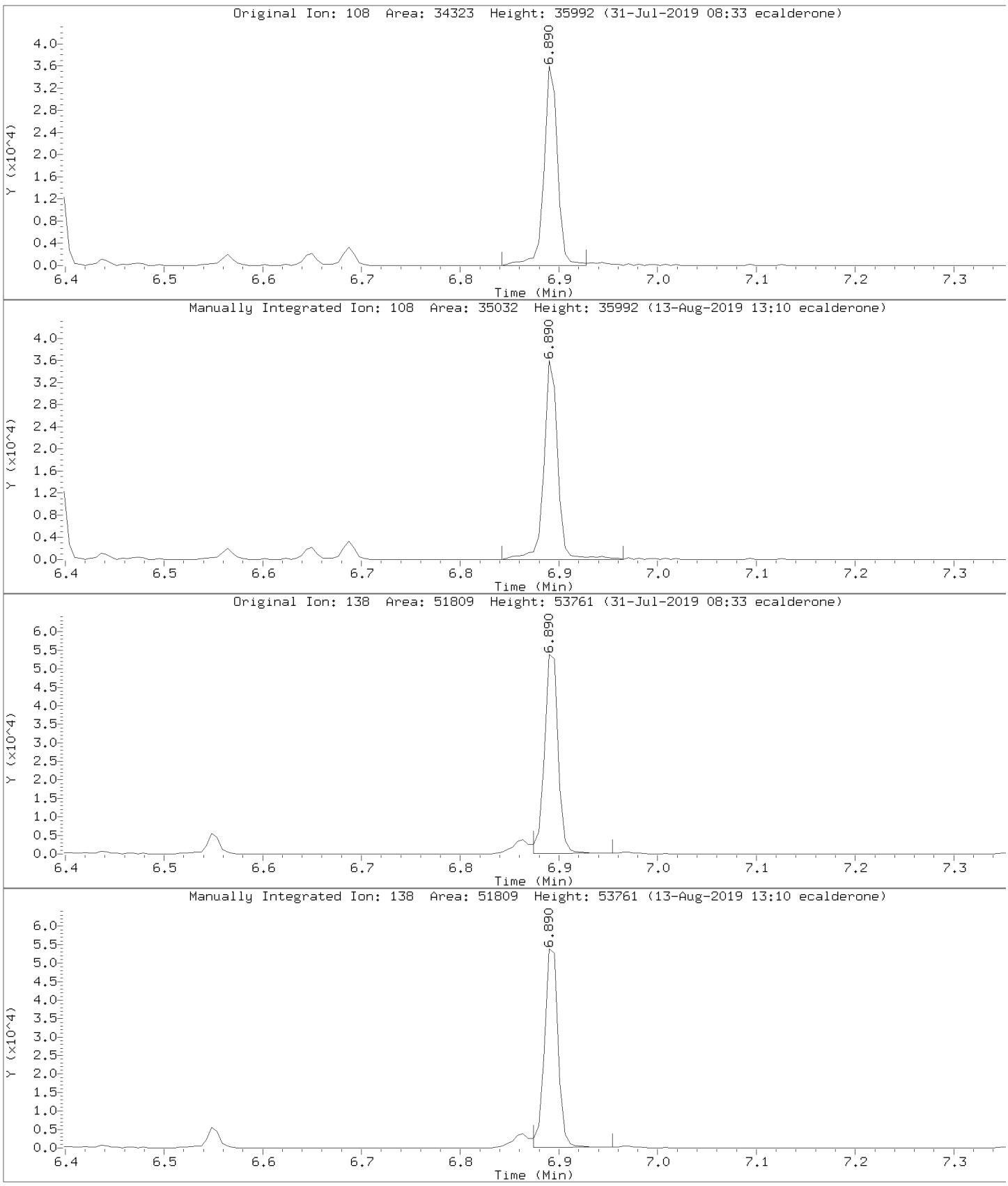


Data File: \\30wintarget\chem\30mss1.i\mss1073019.b/m10730y7.d
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

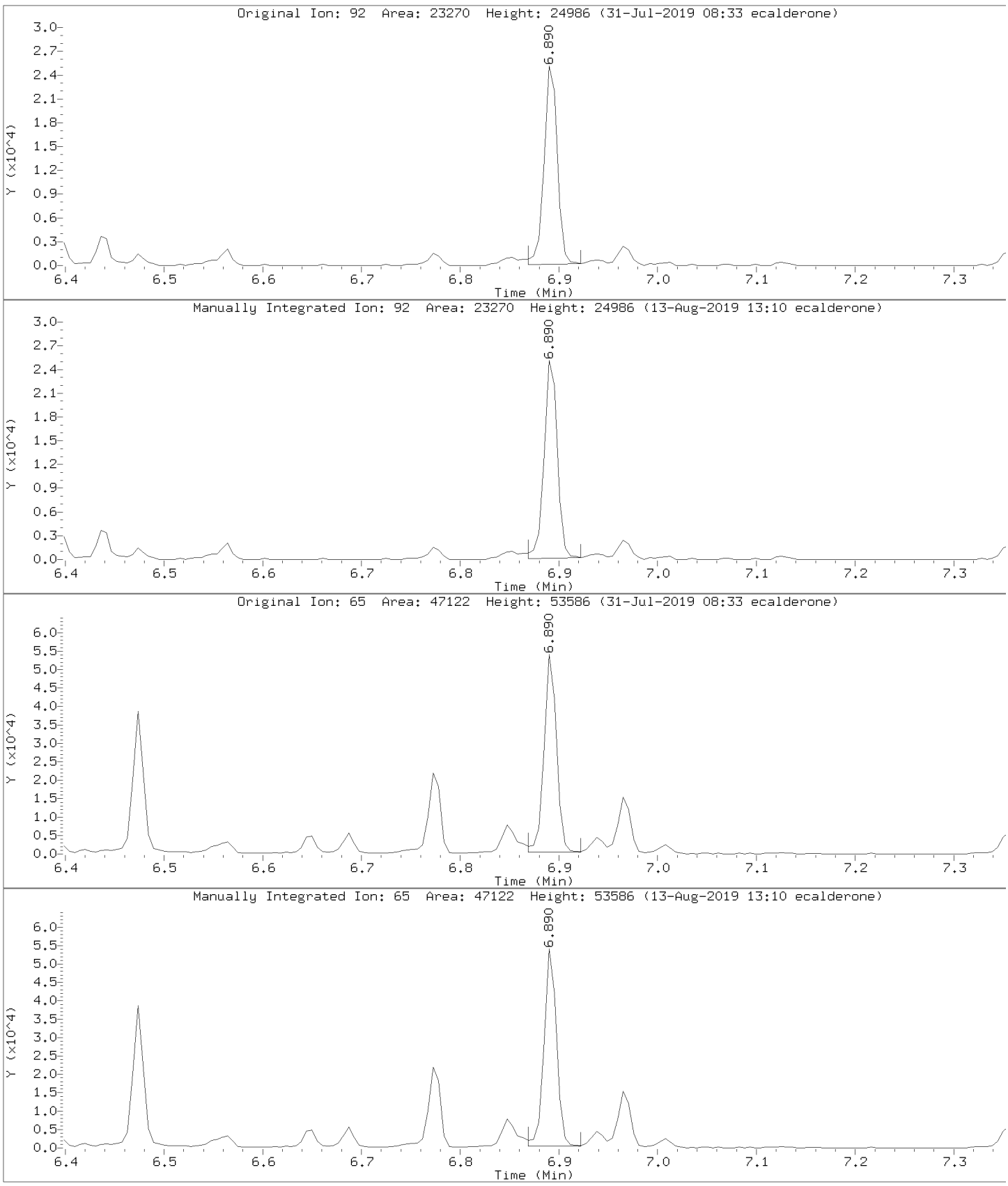


Data File: \\30wintarget\chem\30mss1.i\mss1073019.b/m10730y7.d
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



Data File: \\30wintarget\chem\30mss1.i\mss1073019.b/m10730y7.d
Injection Date: 30-JUL-2019 16:42
Instrument: 30mss1.i
Lab Sample ID: CAL1



SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11385919ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/30/2019 Time: 17:05

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1073019.B\M10730Y8.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.06298	1.09580	0.0500	3.0878	20.0000
Acenaphthylene	Averaged	1.64134	1.71715	0.0500	4.6188	20.0000
Anthracene	Averaged	1.02350	1.08968	0.0500	6.4660	20.0000
Azobenzene	Averaged	0.64368	0.69664	0.0500	8.2270	20.0000
Benzo(a)anthracene	Averaged	1.12602	1.14176	0.0500	1.3974	20.0000
Benzo(a)pyrene	Averaged	1.00646	0.99294	0.0500	-1.3429	20.0000
Benzo(b)fluoranthene	Averaged	1.13049	1.16439	0.0500	2.9989	20.0000
Benzo(g,h,i)perylene	Averaged	1.04112	1.11493	0.0500	7.0885	20.0000
Benzo(k)fluoranthene	Averaged	1.19643	1.25016	0.0500	4.4913	20.0000
Benzoic acid	Averaged	0.18235	0.19379	0.0500	6.2717	20.0000
Benzyl alcohol	Averaged	1.04041	1.04315	0.0500	0.2628	20.0000
4-Bromophenylphenyl ether	Averaged	0.23306	0.24211	0.0500	3.8833	20.0000
Butylbenzylphthalate	Averaged	0.44343	0.48761	0.0500	9.9624	20.0000
Carbazole	Averaged	0.92194	0.88087	0.0500	-4.4547	20.0000
4-Chloro-3-methylphenol	Averaged	0.26164	0.26868	0.0500	2.6887	20.0000
4-Chloroaniline	Averaged	0.09970	0.10130	0.0500	1.6000	20.0000
bis(2-Chloroethoxy)methane	Averaged	0.36957	0.37050	0.0500	0.2514	20.0000
bis(2-Chloroethyl) ether	Averaged	0.90376	0.89196	0.0500	-1.3053	20.0000
bis(2-Chloroisopropyl) ether	Averaged	1.52788	1.50326	0.0500	-1.6113	20.0000
2-Chloronaphthalene	Averaged	0.36050	0.36615	0.0500	1.5660	20.0000
2-Chlorophenol	Averaged	1.35347	1.37997	0.0500	1.9577	20.0000
4-Chlorophenylphenyl ether	Averaged	0.62916	0.64296	0.0500	2.1940	20.0000
Chrysene	Averaged	1.06350	1.10224	0.0500	3.6432	20.0000
Dibenz(a,h)anthracene	Averaged	1.06817	1.17781	0.0500	10.2635	20.0000
Dibenzofuran	Averaged	1.50126	1.55260	0.0500	3.4198	20.0000
1,2-Dichlorobenzene	Averaged	1.45904	1.39229	0.0500	-4.5750	20.0000
1,3-Dichlorobenzene	Averaged	1.48643	1.45132	0.0500	-2.3618	20.0000
1,4-Dichlorobenzene	Averaged	1.61027	1.52408	0.0500	-5.3526	20.0000
3,3'-Dichlorobenzidine	Averaged	0.41970	0.37465	0.0500	-10.7328	20.0000
2,4-Dichlorophenol	Averaged	0.26573	0.27174	0.0500	2.2587	20.0000
Diethylphthalate	Averaged	1.12183	1.16971	0.0500	4.2681	20.0000
2,4-Dimethylphenol	Averaged	0.32128	0.33260	0.0500	3.5235	20.0000
Dimethylphthalate	Averaged	1.17008	1.13031	0.0500	-3.3982	20.0000
Di-n-butylphthalate	Averaged	1.04218	1.15223	0.0500	10.5589	20.0000
4,6-Dinitro-2-methylphenol	Averaged	0.12368	0.13515	0.0500	9.2741	20.0000
2,4-Dinitrophenol	Averaged	0.14958	0.15514	0.0500	3.7166	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-2
MSSV FULL SCAN INITIAL CALIBRATION DATA

11385919ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/30/2019 Time: 17:05

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1073019.B\M10730Y8.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
2,4-Dinitrotoluene	Averaged	0.35768	0.38720	0.0500	8.2528	20.0000
2,6-Dinitrotoluene	Averaged	0.27973	0.29110	0.0500	4.0650	20.0000
Di-n-octylphthalate	Averaged	0.90440	1.00551	0.0500	11.1807	20.0000
bis(2-Ethylhexyl)phthalate	Averaged	0.63587	0.69679	0.0500	9.5807	20.0000
Fluoranthene	Averaged	1.10288	1.18516	0.0500	7.4604	20.0000
Fluorene	Averaged	1.24939	1.29018	0.0500	3.2650	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16795	0.17139	0.0500	2.0511	20.0000
Hexachlorobenzene	Averaged	0.26076	0.27907	0.0500	7.0244	20.0000
Hexachlorocyclopentadiene	Averaged	0.36458	0.37936	0.0500	4.0556	20.0000
Hexachloroethane	Averaged	0.58414	0.57908	0.0500	-0.8671	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.27258	1.37232	0.0500	7.8376	20.0000
Isophorone	Averaged	0.58757	0.61146	0.0500	4.0658	20.0000
1-Methylnaphthalene	Averaged	0.60810	0.63353	0.0500	4.1821	20.0000
2-Methylnaphthalene	Averaged	0.65103	0.68033	0.0500	4.5003	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.26431	1.29126	0.0500	2.1311	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.31194	2.73086	0.0500	4.0770	20.0000
Naphthalene	Averaged	0.94145	0.96097	0.0500	2.0738	20.0000
2-Nitroaniline	Averaged	0.35913	0.38062	0.0500	5.9866	20.0000
3-Nitroaniline	Averaged	0.30231	0.28948	0.0500	-4.2454	20.0000
4-Nitroaniline	Averaged	0.16229	0.13857	0.0500	-14.6173	20.0000
Nitrobenzene	Averaged	0.32085	0.32757	0.0500	2.0947	20.0000
2-Nitrophenol	Averaged	0.17252	0.18102	0.0500	4.9264	20.0000
4-Nitrophenol	Averaged	0.13431	0.14176	0.0500	5.5447	20.0000
N-Nitrosodimethylamine	Averaged	0.71019	0.68292	0.0500	-3.8403	20.0000
N-Nitroso-di-n-propylamine	Averaged	0.96644	0.97469	0.0500	0.8536	20.0000
N-Nitrosodiphenylamine	Averaged	0.63377	0.64810	0.0500	2.2605	20.0000
Pentachlorophenol	Averaged	0.14002	0.16127	0.0500	15.1777	20.0000
Phenanthrene	Averaged	1.11242	1.13824	0.0500	2.3215	20.0000
Phenol	Averaged	1.60138	1.59356	0.0500	-0.4879	20.0000
Pyrene	Averaged	1.15351	1.15438	0.0500	0.0758	20.0000
1,2,4-Trichlorobenzene	Averaged	0.29919	0.30264	0.0500	1.1540	20.0000
2,4,5-Trichlorophenol	Averaged	0.31751	0.33883	0.0500	6.7122	20.0000
2,4,6-Trichlorophenol	Averaged	0.37369	0.39511	0.0500	5.7310	20.0000
2-Fluorobiphenyl (S)	Averaged	1.24677	1.29213	0.0500	3.6380	20.0000
2-Fluorophenol (S)	Averaged	1.17791	1.06305	0.0500	-9.7512	20.0000
Nitrobenzene-d5 (S)	Averaged	0.15583	0.15858	0.0500	1.7601	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-3
MSSV FULL SCAN INITIAL CALIBRATION DATA

11385919ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 07/30/2019 Time: 17:05

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1073019.B\M10730Y8.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Phenol-d6 (S)	Averaged	1.52218	1.51878	0.0500	-0.2233	20.0000
Terphenyl-d14 (S)	Averaged	0.95417	0.90264	0.0500	-5.4003	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.13891	0.14420	0.0500	3.8092	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11385975CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/05/2019 Time: 15:04

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1080519.B\M10805S1.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.06298	1.03422	0.0500	-2.7055	20.0000
Acenaphthylene	Averaged	1.64134	1.62095	0.0500	-1.2424	20.0000
Anthracene	Averaged	1.02350	1.04433	0.0500	2.0354	20.0000
Azobenzene	Averaged	0.64368	0.67312	0.0500	4.5724	20.0000
Benzo(a)anthracene	Averaged	1.12602	1.09270	0.0500	-2.9593	20.0000
Benzo(a)pyrene	Averaged	1.00646	1.02572	0.0500	1.9132	20.0000
Benzo(b)fluoranthene	Averaged	1.13049	1.17734	0.0500	4.1444	20.0000
Benzo(g,h,i)perylene	Averaged	1.04112	1.05842	0.0500	1.6611	20.0000
Benzo(k)fluoranthene	Averaged	1.19643	1.12690	0.0500	-5.8111	20.0000
Benzoic acid	Averaged	0.18235	0.22430	0.0500	23.0014	20.0000
Benzyl alcohol	Averaged	1.04041	1.11573	0.0500	7.2396	20.0000
4-Bromophenylphenyl ether	Averaged	0.23306	0.23151	0.0500	-0.6644	20.0000
Butylbenzylphthalate	Averaged	0.44343	0.47365	0.0500	6.8147	20.0000
Carbazole	Averaged	0.92194	0.95543	0.0500	3.6321	20.0000
4-Chloro-3-methylphenol	Averaged	0.26164	0.27907	0.0500	6.6585	20.0000
4-Chloroaniline	Averaged	0.09970	0.10655	0.0500	6.8716	20.0000
bis(2-Chloroethoxy)methane	Averaged	0.36957	0.37605	0.0500	1.7533	20.0000
bis(2-Chloroethyl) ether	Averaged	0.90376	0.87624	0.0500	-3.0452	20.0000
bis(2-Chloroisopropyl) ether	Averaged	1.52788	1.56475	0.0500	2.4130	20.0000
2-Chloronaphthalene	Averaged	0.36050	0.35733	0.0500	-0.8796	20.0000
2-Chlorophenol	Averaged	1.35347	1.38917	0.0500	2.6377	20.0000
4-Chlorophenylphenyl ether	Averaged	0.62916	0.61178	0.0500	-2.7624	20.0000
Chrysene	Averaged	1.06350	1.01992	0.0500	-4.0969	20.0000
Dibenz(a,h)anthracene	Averaged	1.06817	1.09839	0.0500	2.8287	20.0000
Dibenzofuran	Averaged	1.50126	1.48783	0.0500	-0.8948	20.0000
1,2-Dichlorobenzene	Averaged	1.45904	1.42875	0.0500	-2.0759	20.0000
1,3-Dichlorobenzene	Averaged	1.48643	1.49819	0.0500	0.7912	20.0000
1,4-Dichlorobenzene	Averaged	1.61027	1.53352	0.0500	-4.7666	20.0000
3,3'-Dichlorobenzidine	Averaged	0.41970	0.44747	0.0500	6.6179	20.0000
2,4-Dichlorophenol	Averaged	0.26573	0.27674	0.0500	4.1411	20.0000
Diethylphthalate	Averaged	1.12183	1.14189	0.0500	1.7876	20.0000
2,4-Dimethylphenol	Averaged	0.32128	0.32694	0.0500	1.7639	20.0000
Dimethylphthalate	Averaged	1.17008	1.14408	0.0500	-2.2217	20.0000
Di-n-butylphthalate	Averaged	1.04218	1.09428	0.0500	4.9991	20.0000
4,6-Dinitro-2-methylphenol	Averaged	0.12368	0.14248	0.0500	15.2015	20.0000
2,4-Dinitrophenol	Averaged	0.14958	0.16473	0.0500	10.1300	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-2
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11385975CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/05/2019 Time: 15:04

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1080519.B\M10805S1.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
2,4-Dinitrotoluene	Averaged	0.35768	0.38091	0.0500	6.4965	20.0000
2,6-Dinitrotoluene	Averaged	0.27973	0.28732	0.0500	2.7142	20.0000
Di-n-octylphthalate	Averaged	0.90440	1.05993	0.0500	17.1970	20.0000
bis(2-Ethylhexyl)phthalate	Averaged	0.63587	0.65052	0.0500	2.3042	20.0000
Fluoranthene	Averaged	1.10288	1.11994	0.0500	1.5468	20.0000
Fluorene	Averaged	1.24939	1.21587	0.0500	-2.6829	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16795	0.16862	0.0500	0.4005	20.0000
Hexachlorobenzene	Averaged	0.26076	0.25400	0.0500	-2.5903	20.0000
Hexachlorocyclopentadiene	Averaged	0.36458	0.37337	0.0500	2.4133	20.0000
Hexachloroethane	Averaged	0.58414	0.59260	0.0500	1.4481	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.27258	1.30420	0.0500	2.4848	20.0000
Isophorone	Averaged	0.58757	0.59991	0.0500	2.0999	20.0000
1-Methylnaphthalene	Averaged	0.60810	0.61118	0.0500	0.5060	20.0000
2-Methylnaphthalene	Averaged	0.65103	0.64887	0.0500	-0.3319	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.26431	1.29425	0.0500	2.3682	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.31194	1.32011	0.0500	0.6223	20.0000
Naphthalene	Averaged	0.94145	0.92156	0.0500	-2.1122	20.0000
2-Nitroaniline	Averaged	0.35913	0.38451	0.0500	7.0676	20.0000
3-Nitroaniline	Averaged	0.30231	0.32712	0.0500	8.2064	20.0000
4-Nitroaniline	Averaged	0.16229	0.19271	0.0500	18.7435	20.0000
Nitrobenzene	Averaged	0.32085	0.33464	0.0500	4.2992	20.0000
2-Nitrophenol	Averaged	0.17252	0.18333	0.0500	6.2676	20.0000
4-Nitrophenol	Averaged	0.13431	0.15786	0.0500	17.5329	20.0000
N-Nitrosodimethylamine	Averaged	0.71019	0.87206	0.0500	22.7913	20.0000
N-Nitroso-di-n-propylamine	Averaged	0.96644	0.99262	0.0500	2.7088	20.0000
N-Nitrosodiphenylamine	Averaged	0.63377	0.62501	0.0500	-1.3821	20.0000
Pentachlorophenol	Averaged	0.14002	0.15231	0.0500	8.7771	20.0000
Phenanthrene	Averaged	1.11242	1.06641	0.0500	-4.1364	20.0000
Phenol	Averaged	1.60138	1.70548	0.0500	6.5010	20.0000
Pyrene	Averaged	1.15351	1.11974	0.0500	-2.9272	20.0000
1,2,4-Trichlorobenzene	Averaged	0.29919	0.29566	0.0500	-1.1813	20.0000
2,4,5-Trichlorophenol	Averaged	0.31751	0.34316	0.0500	8.0779	20.0000
2,4,6-Trichlorophenol	Averaged	0.37369	0.36377	0.0500	-2.6561	20.0000
2-Fluorobiphenyl (S)	Averaged	1.24677	1.20692	0.0500	-3.1963	20.0000
2-Fluorophenol (S)	Averaged	1.17791	1.27995	0.0500	8.6622	20.0000
Nitrobenzene-d5 (S)	Averaged	0.15583	0.16077	0.0500	3.1688	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-3
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11385975CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/05/2019 Time: 15:04

Instrument ID: 30MSS1 GC Column: Col 1 Init. Calib. Date(s): 07/30/2019 07/30/2019

Lab File ID: MSS1080519.B\M10805S1.D Init. Calib. Time(s): 14:25 16:42

SDG No.: 30317212

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Phenol-d6 (S)	Averaged	1.52218	1.58216	0.0500	3.9402	20.0000
Terphenyl-d14 (S)	Averaged	0.95417	0.96006	0.0500	0.6172	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.13891	0.14727	0.0500	6.0213	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y8.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 30-JUL-2019 17:05
Operator : EAC Inst ID: 30mss1.i
Smp Info : icv
Misc Info : 14899,95128:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1073019.b\8270073019.m
Meth Date : 31-Jul-2019 13:50 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.159	2.140	(0.546)	450382	8.00000	7.69	
	2 Pyridine	79	2.148	2.140	(0.543)	762765	8.00000	8.62	
$	3 2-Fluorophenol (S)	112	3.057	3.048	(0.773)	701077	8.00000	7.22	
$	4 Phenol-d6 (S)	99	3.692	3.690	(0.934)	1001627	8.00000	7.98	
	5 Benzaldehyde	77	3.644	3.636	(0.922)	279076	8.00000	3.22	
	6 Phenol	94	3.703	3.695	(0.937)	1050946	8.00000	7.96	
	7 Aniline	66	3.740	3.732	(0.946)	477231	8.00000	8.08	
	8 bis(2-Chloroethyl)ether	63	3.772	3.764	(0.954)	588242	8.00000	7.90	
	9 2-Chlorophenol	128	3.820	3.818	(0.966)	910083	8.00000	8.16	
	10 1,3-Dichlorobenzene	146	3.927	3.925	(0.993)	957140	8.00000	7.81	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.954	3.951	(1.000)	329747	4.00000		
	12 1,4-Dichlorobenzene	146	3.965	3.962	(1.003)	1005121	8.00000	7.57	
	13 Benzyl Alcohol	79	4.066	4.058	(1.028)	687949	8.00000	8.02	
	14 1,2-Dichlorobenzene	146	4.114	4.106	(1.041)	918206	8.00000	7.63	
	15 2-Methylphenol(o-Cresol)	108	4.152	4.144	(1.050)	851576	8.00000	8.17	
	16 bis(2-Chloroisopropyl)ether	45	4.184	4.176	(1.058)	991392	8.00000	7.87	
	17 3&4-Methylphenol(m&p Cresol)	108	4.264	4.256	(1.078)	1800987	16.0000	16.6	
	18 N-Nitroso-di-n-propylamine	70	4.296	4.283	(1.086)	642802	8.00000	8.07	
	19 Acetophenone	105	4.280	4.272	(1.082)	1232985	8.00000	8.30	
	20 Hexachloroethane	117	4.349	4.347	(1.100)	381897	8.00000	7.93	
$	21 Nitrobenzene-d5 (S)	128	4.397	4.395	(0.888)	436255	8.00000	8.14	
	22 Nitrobenzene	77	4.413	4.405	(0.891)	901166	8.00000	8.17	
	23 Isophorone	82	4.595	4.587	(0.928)	1682166	8.00000	8.32	
	24 2,4-Dimethylphenol	107	4.675	4.672	(0.944)	914999	8.00000	8.28	
	25 2-Nitrophenol	139	4.664	4.656	(0.942)	497997	8.00000	8.39	
	26 Benzoic acid	105	4.750	4.731	(0.959)	533131	8.00000	8.50(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.750	4.747	(0.959)	1019282	8.00000	8.02	
	28 2,4-Dichlorophenol	162	4.841	4.838	(0.977)	747566	8.00000	8.18	
	29 1,2,4-Trichlorobenzene	180	4.916	4.913	(0.992)	832599	8.00000	8.09	
*	30 Naphthalene-d8 (IS)	136	4.953	4.950	(1.000)	1375541	4.00000		
	31 Naphthalene	128	4.969	4.966	(1.003)	2643710	8.00000	8.16	
	32 4-Chloroaniline	65	5.017	5.014	(1.013)	278681	8.00000	8.13	
	33 Hexachloro-1,3-butadiene	225	5.108	5.105	(1.031)	471521	8.00000	8.16	
	34 Caprolactam	55	5.273	5.260	(1.065)	295174	8.00000	8.60(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.396	5.394	(1.089)	739158	8.00000	8.22	
	36	2-Methylnaphthalene	142	5.525	5.522	(1.115)	1871650	8.00000	8.36	
	37	1-Methylnaphthalene	142	5.615	5.613	(1.134)	1742898	8.00000	8.33	
	38	Hexachlorocyclopentadiene	237	5.712	5.709	(0.892)	572599	8.00000	8.32	
	39	1,2,4,5-Tetrachlorobenzene	216	5.696	5.693	(0.890)	834864	8.00000	8.49	
	40	2,4,6-Trichlorophenol	196	5.770	5.768	(0.902)	596368	8.00000	8.46	
	41	2,4,5-Trichlorophenol	196	5.802	5.800	(0.907)	511418	8.00000	8.54	
$	42	2-Fluorobiphenyl (S)	172	5.834	5.832	(0.912)	1950309	8.00000	8.29	
	43	Biphenyl (Diphenyl)	154	5.909	5.907	(0.923)	2189150	8.00000	8.25	
	44	2-Chloronaphthalene	164	5.925	5.923	(0.926)	552657	8.00000	8.12	
	45	2-Nitroaniline	138	6.021	6.019	(0.941)	574507	8.00000	8.48	
	46	Dimethylphthalate	163	6.187	6.184	(0.967)	1706070	8.00000	7.73(H)	
	47	2,6-Dinitrotoluene	165	6.246	6.243	(0.976)	439382	8.00000	8.32	
	48	Acenaphthylene	152	6.272	6.275	(0.980)	2591828	8.00000	8.37	
	49	3-Nitroaniline	65	6.363	6.355	(0.994)	436932	8.00000	7.66	
*	50	Acenaphthene-d10 (IS)	164	6.401	6.398	(1.000)	754689	4.00000		
	51	2,4-Dinitrophenol	184	6.443	6.441	(1.007)	234160	8.00000	8.30	
	52	Acenaphthene	153	6.427	6.425	(1.004)	1653980	8.00000	8.25	
	53	4-Nitrophenol	109	6.481	6.478	(1.013)	213962	8.00000	8.44	
	54	2,4-Dinitrotoluene	165	6.572	6.569	(1.027)	584426	8.00000	8.66	
	55	Dibenzofuran	168	6.556	6.553	(1.024)	2343461	8.00000	8.27	
	56	2,3,4,6-Tetrachlorophenol	232	6.689	6.692	(1.045)	474560	8.00000	8.61	
	57	Diethylphthalate	149	6.780	6.777	(1.059)	1765541	8.00000	8.34(M)	LT
	58	4-Chlorophenylphenyl ether	204	6.855	6.852	(1.071)	970472	8.00000	8.18	
	59	Fluorene	166	6.865	6.863	(1.073)	1947374	8.00000	8.26	
	60	4-Nitroaniline	108	6.903	6.900	(1.078)	209153	8.00000	6.83(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.951	6.943	(0.886)	337649	8.00000	8.74	
	62	N-Nitrosodiphenylamine	169	6.972	6.970	(0.888)	1619127	8.00000	8.18	
	63	Azobenzene	77	7.010	7.007	(0.893)	1740391	8.00000	8.66	
	64	1,2-Diphenylhydrazine	77	7.010	7.007	(0.893)	1740391	8.00000	8.66	
$	65	2,4,6-Tribromophenol (S)	330	7.133	7.130	(0.909)	360247	8.00000	8.30	
	66	4-Bromophenylphenyl ether	248	7.357	7.360	(0.937)	604863	8.00000	8.31	
	67	Hexachlorobenzene	284	7.528	7.525	(0.959)	697201	8.00000	8.56	
	68	Atrazine	200	7.565	7.557	(0.964)	509631	8.00000	8.11	
	69	Pentachlorophenol	266	7.710	7.707	(0.982)	402891	8.00000	9.21	
*	70	Phenanthrene-d10 (IS)	188	7.848	7.846	(1.000)	1249134	4.00000		
	71	Phenanthrene	178	7.875	7.872	(1.003)	2843641	8.00000	8.18	
	72	Anthracene	178	7.923	7.915	(1.010)	2722319	8.00000	8.52	
	73	Carbazole	167	8.089	8.086	(1.031)	2200656	8.00000	7.64	
	74	Di-n-butylphthalate	149	8.505	8.503	(1.084)	2878573	8.00000	8.84	
	75	Fluoranthene	202	9.141	9.139	(1.165)	2960850	8.00000	8.60	
	76	Pyrene	202	9.376	9.374	(0.882)	2978415	8.00000	8.01	
$	77	Terphenyl-d14 (S)	244	9.542	9.539	(0.898)	2328891	8.00000	7.57	
	78	Butylbenzylphthalate	149	10.071	10.068	(0.948)	1258080	8.00000	8.80	
	79	3,3'-Dichlorobenzidine	252	10.594	10.586	(0.997)	966636	8.00000	7.14	
	80	bis(2-Ethylhexyl)phthalate	149	10.674	10.672	(1.005)	1797775	8.00000	8.77	
	81	Benzo(a)anthracene	228	10.610	10.608	(0.998)	2945840	8.00000	8.11	
*	82	Chrysene-d12 (IS)	240	10.626	10.624	(1.000)	1290045	4.00000		
	83	Chrysene	228	10.653	10.650	(1.002)	2843878	8.00000	8.29	
	84	Di-n-octylphthalate	149	11.257	11.254	(0.940)	2736761	8.00000	8.89	
	85	Benzo(b)fluoranthene	252	11.647	11.644	(0.972)	3169185	8.00000	8.24	
	86	Benzo(k)fluoranthene	252	11.668	11.665	(0.974)	3402641	8.00000	8.36(H)	WP
	87	Benzo(a)pyrene	252	11.935	11.927	(0.996)	2702549	8.00000	7.89	
*	88	Perylene-d12 (IS)	264	11.978	11.975	(1.000)	1360877	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	12.897	12.889	(1.077)	3735105	8.00000	8.63	
90 Dibenz(a,h)anthracene	278	12.897	12.894	(1.077)	3205699	8.00000	8.82	
91 Benzo(g,h,i)perylene	276	13.153	13.140	(1.098)	3034552	8.00000	8.57	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730y8.d
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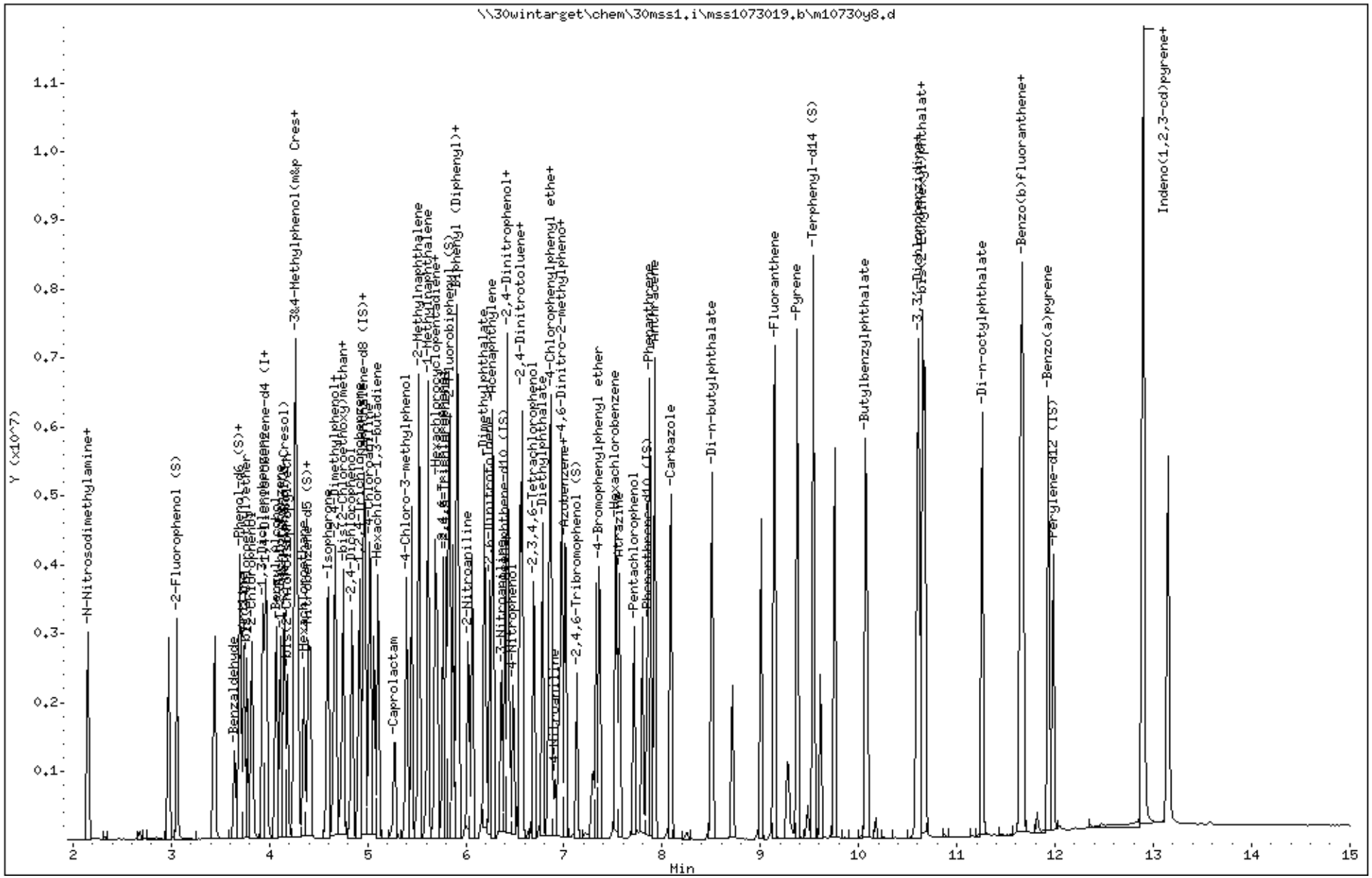
Client ID: ICV
Sample Info: ICV

Instrument: 30mss1.i

Operator: EAC
Column diameter: 0.18

Column phase: RTX-5MS



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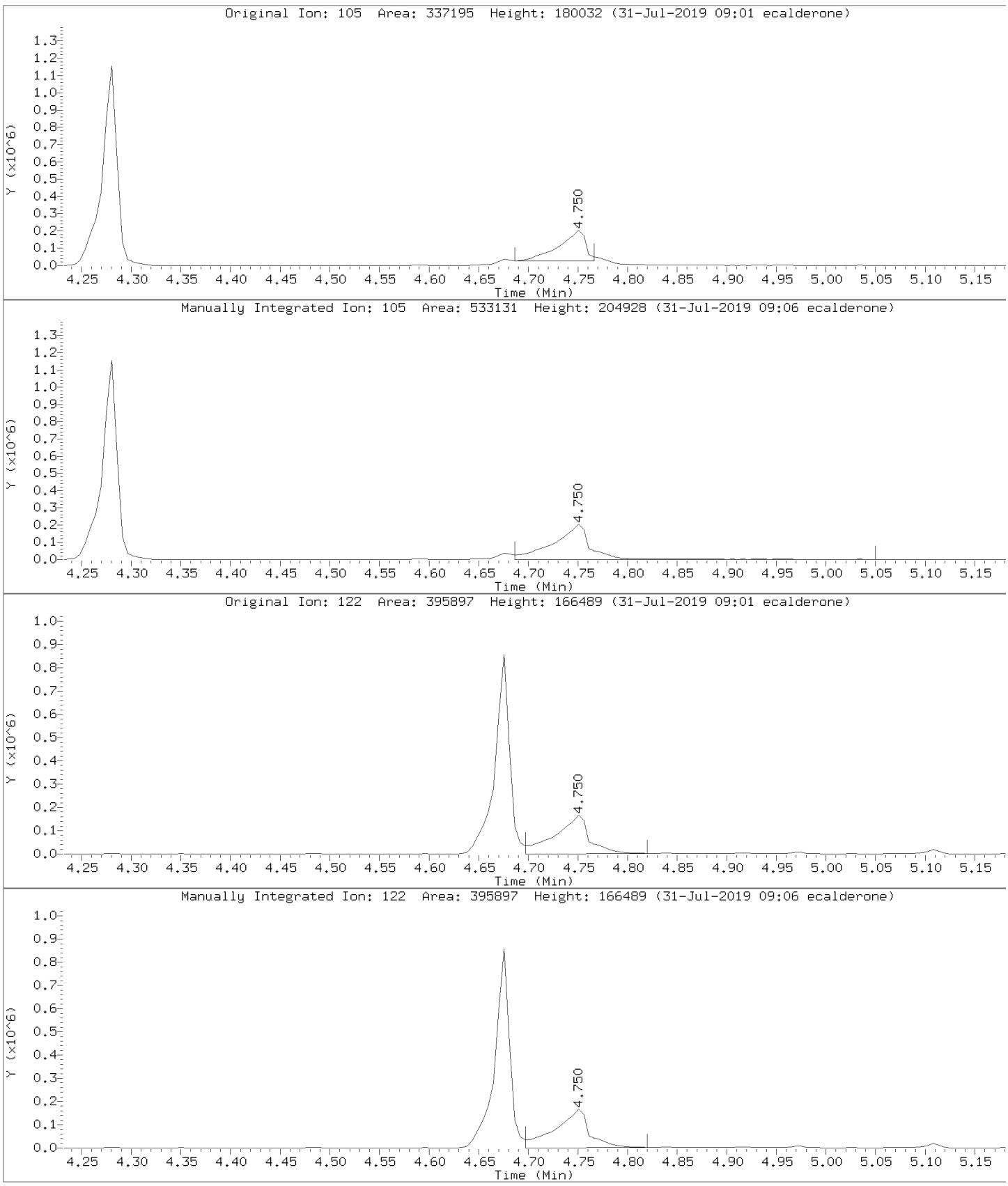
Injection Date: 30-JUL-2019 17:05
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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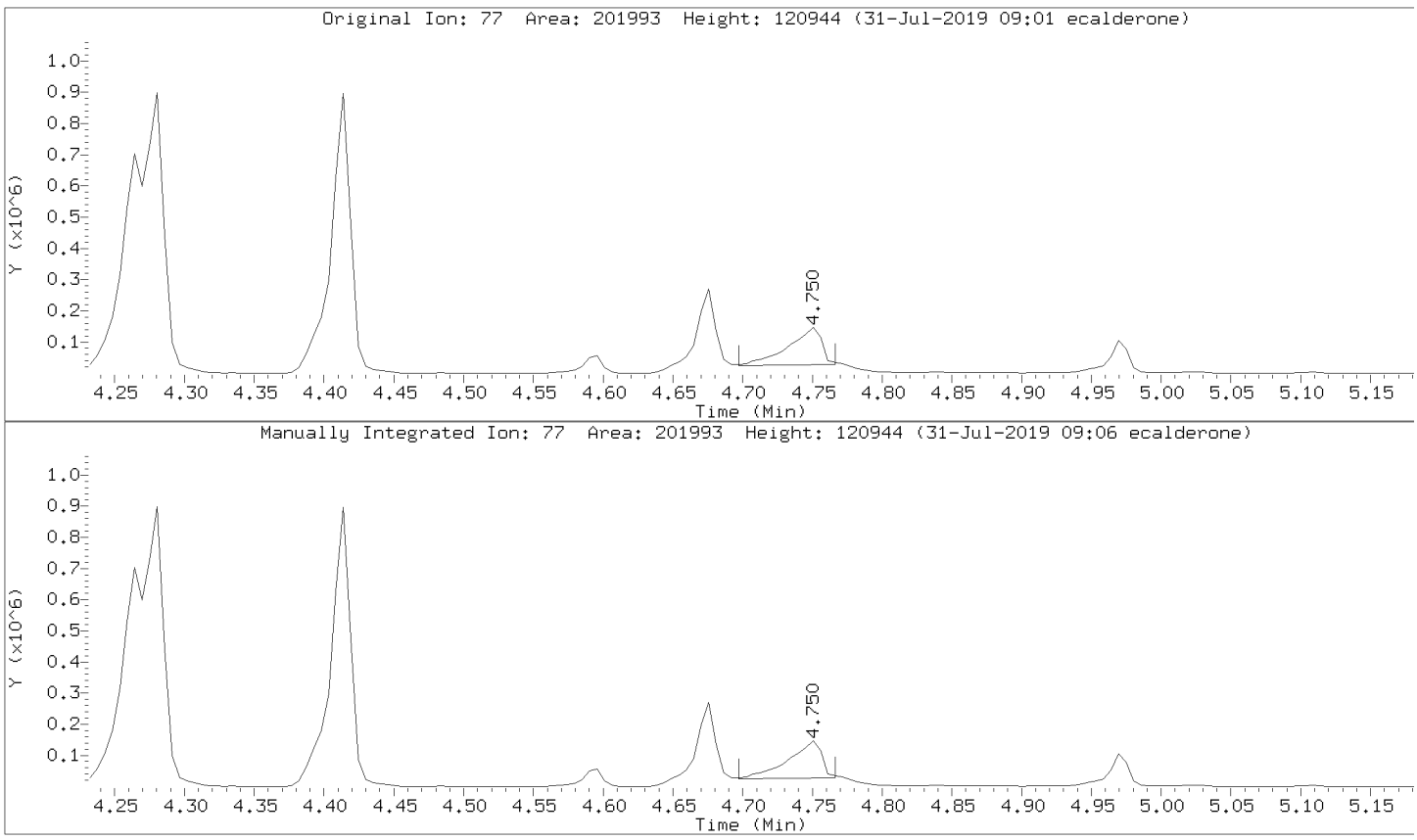
Lab Sample ID: ICV



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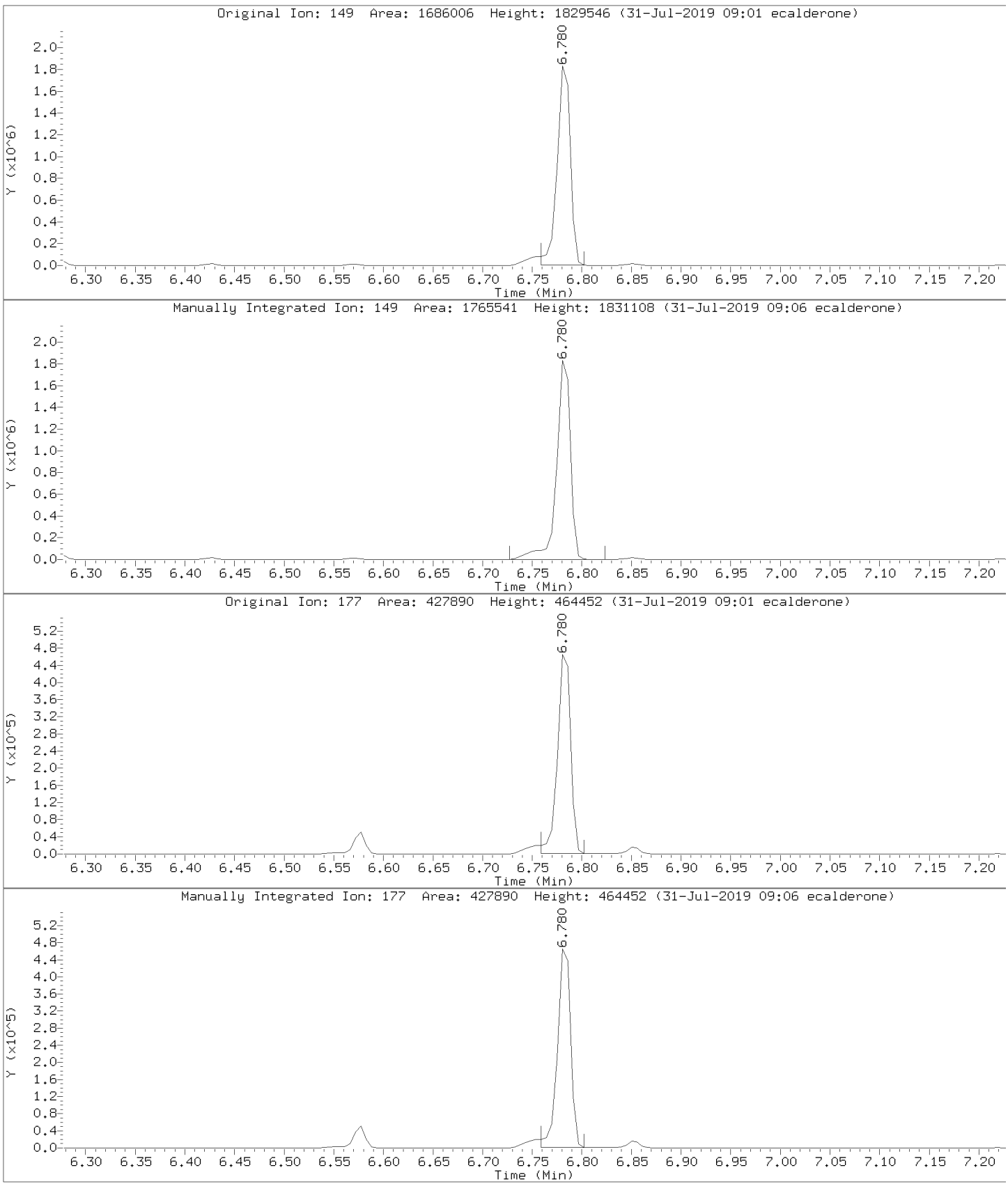
Injection Date: 30-JUL-2019 17:05
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Diethylphthalate Review Code: LT
CAS Number: 84-66-2



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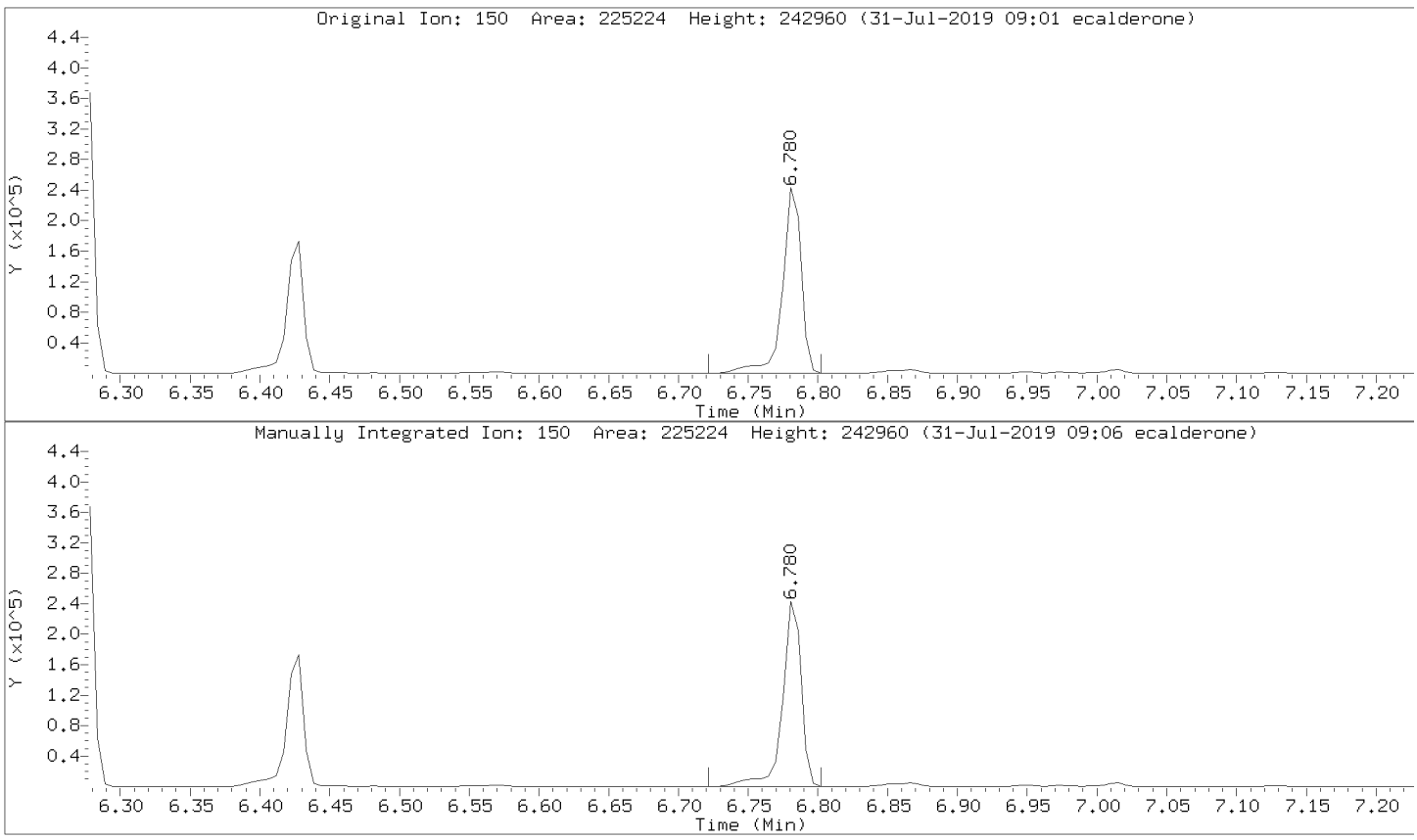
Instrument: 30mss1.i
Lab Sample ID: ICV



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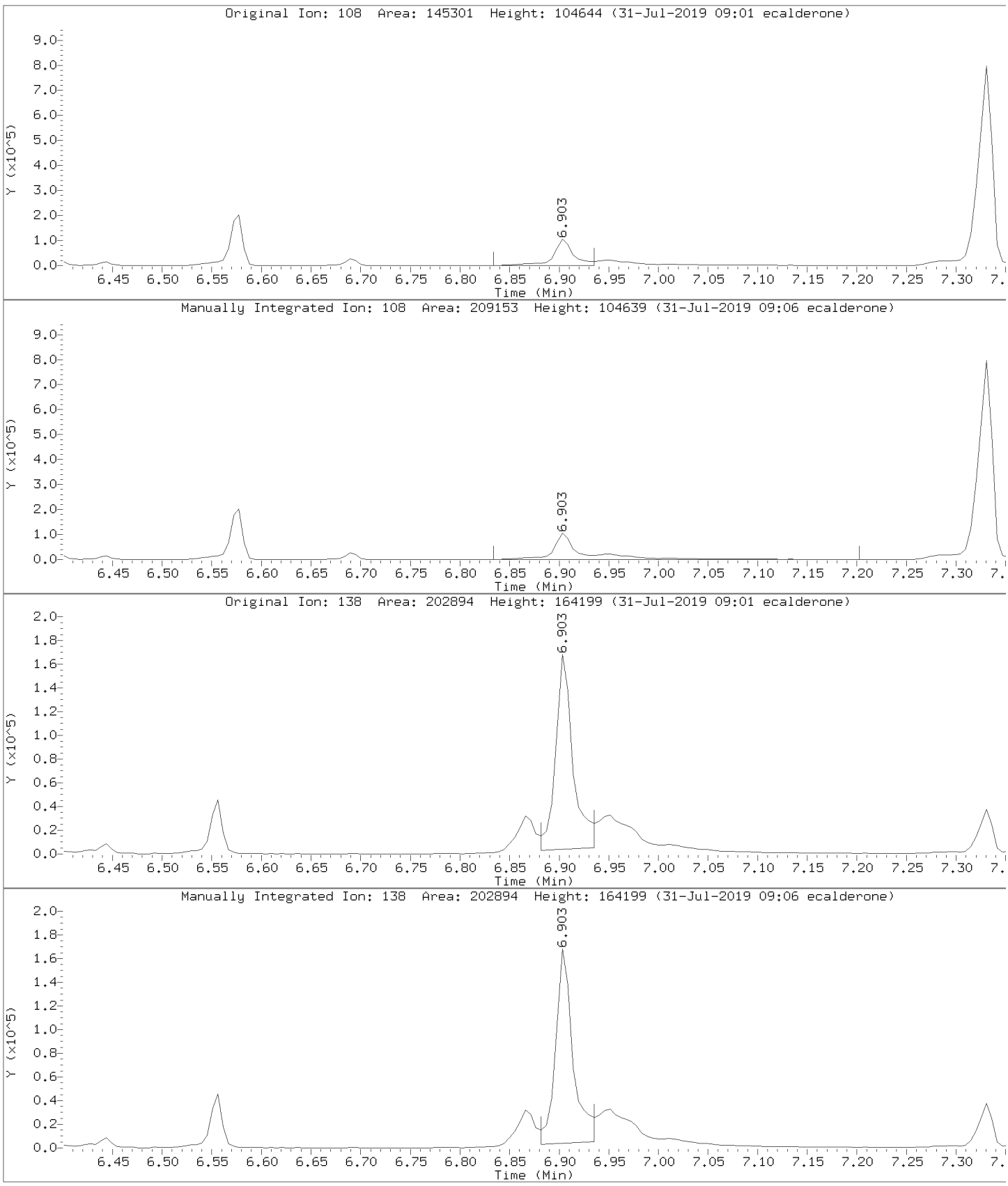
Injection Date: 30-JUL-2019 17:05
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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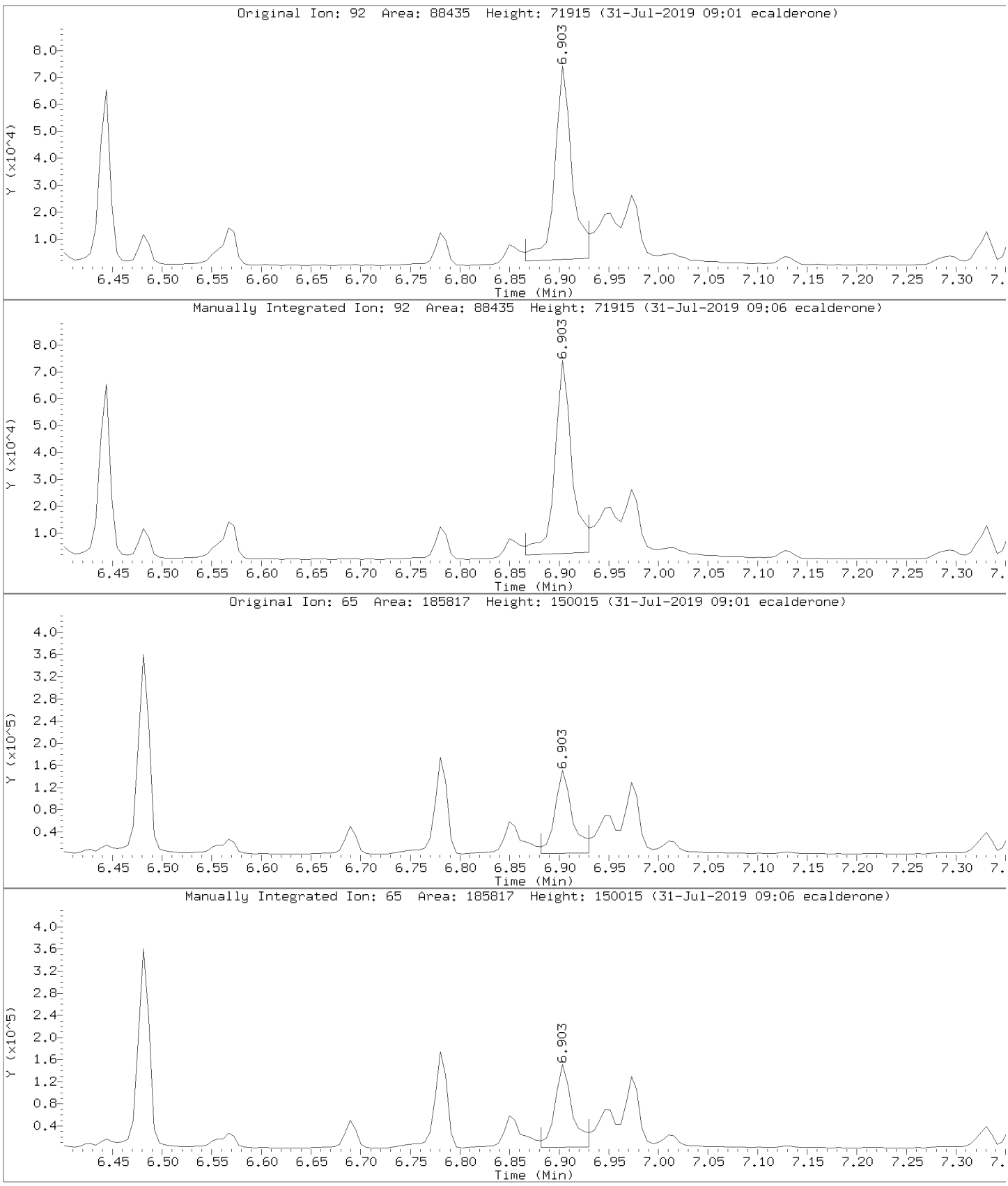
Lab Sample ID: ICV



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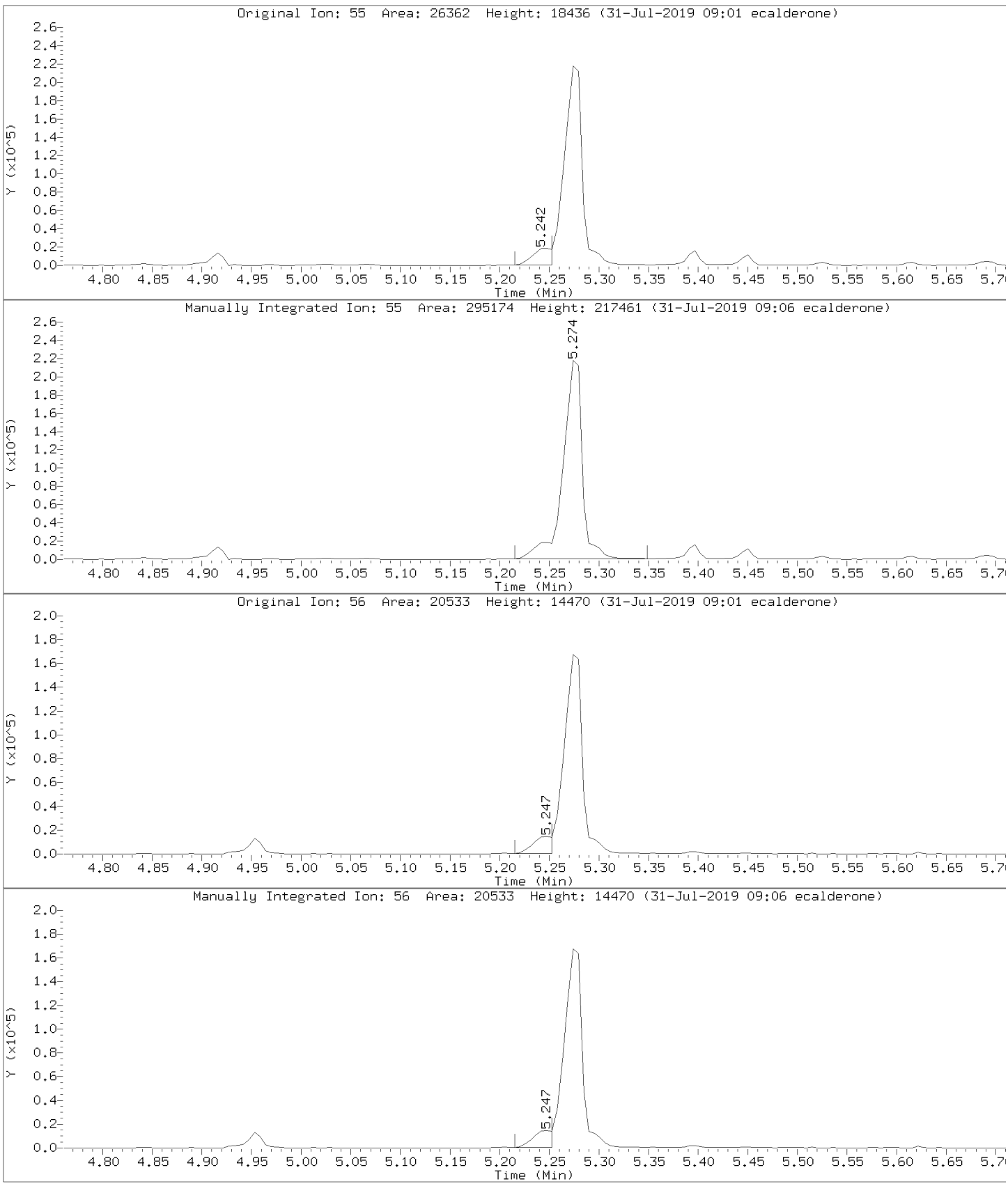
Injection Date: 30-JUL-2019 17:05
Instrument: 30mss1.i
Lab Sample ID: ICV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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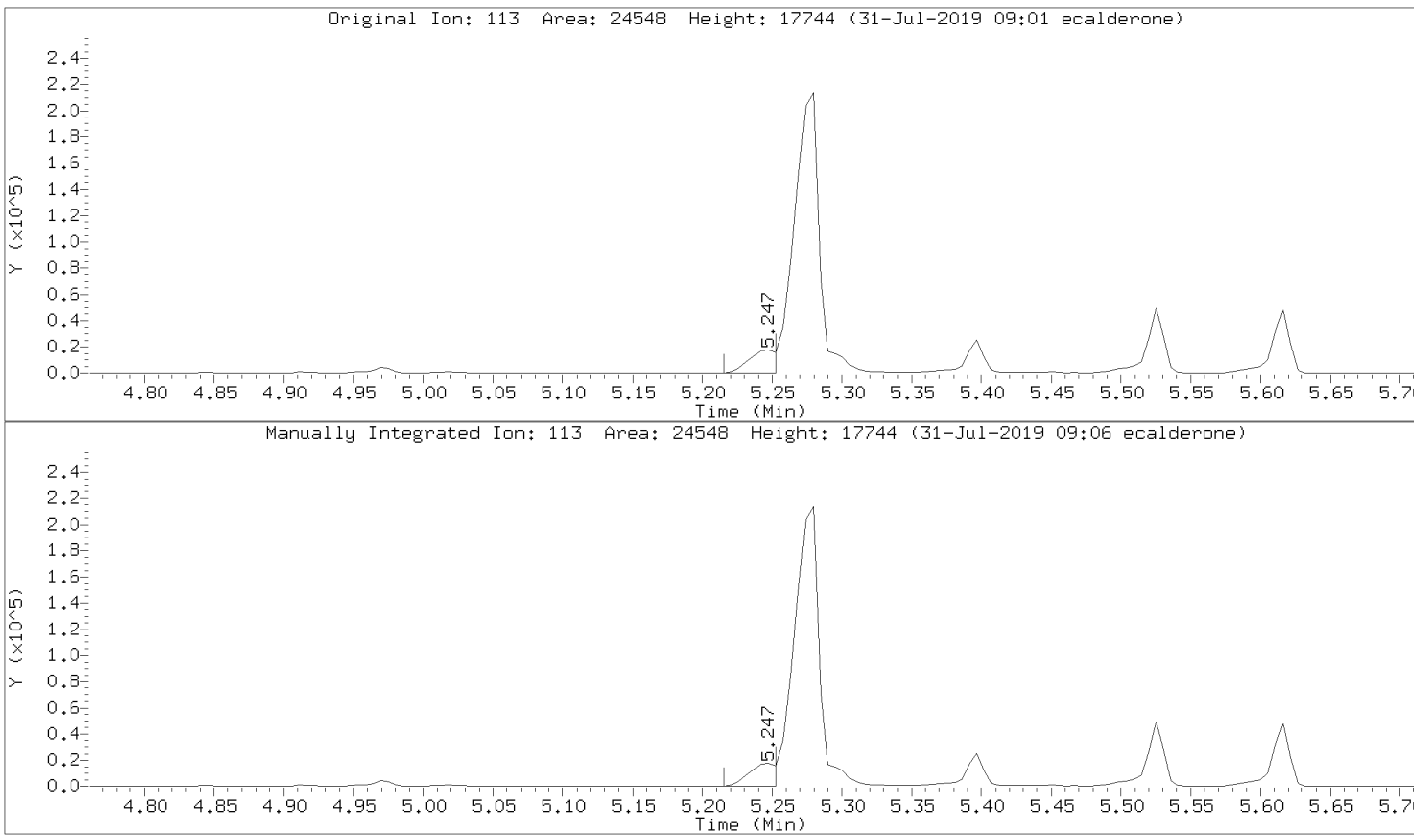

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1080519.b\m10805s1.d
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Inj Date : 05-AUG-2019 15:04
Operator : SJG Inst ID: 30mss1.i
Smp Info : ccv
Misc Info : 14899,94272:1
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1080519.b\8270073019.m
Meth Date : 06-Aug-2019 16:16 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.728	1.728	(0.472)	550491	8.00000	9.82	
	2 Pyridine	79	1.723	1.723	(0.471)	829213	8.00000	9.80	
$	3 2-Fluorophenol (S)	112	2.759	2.759	(0.753)	807974	8.00000	8.69	
$	4 Phenol-d6 (S)	99	3.422	3.422	(0.934)	998746	8.00000	8.32	
	5 Benzaldehyde	77	3.347	3.347	(0.914)	691866	8.00000	8.34	
	6 Phenol	94	3.432	3.432	(0.937)	1076597	8.00000	8.52	
	7 Aniline	66	3.448	3.448	(0.942)	465477	8.00000	8.23	
	8 bis(2-Chloroethyl)ether	63	3.486	3.486	(0.952)	553129	8.00000	7.76	
	9 2-Chlorophenol	128	3.529	3.529	(0.964)	876925	8.00000	8.21	
	10 1,3-Dichlorobenzene	146	3.635	3.635	(0.993)	945742	8.00000	8.06	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.662	3.662	(1.000)	315628	4.00000		
	12 1,4-Dichlorobenzene	146	3.678	3.678	(1.004)	968041	8.00000	7.62	
	13 Benzyl Alcohol	79	3.780	3.780	(1.032)	704314	8.00000	8.58	
	14 1,2-Dichlorobenzene	146	3.817	3.817	(1.042)	901908	8.00000	7.83	
	15 2-Methylphenol(o-Cresol)	108	3.876	3.876	(1.058)	817006	8.00000	8.19	
	16 bis(2-Chloroisopropyl)ether	45	3.897	3.897	(1.064)	987756	8.00000	8.19	
	17 3&4-Methylphenol(m&p Cresol)	108	3.988	3.988	(1.089)	833326	8.00000	8.05	
	18 N-Nitroso-di-n-propylamine	70	4.009	4.009	(1.095)	626597	8.00000	8.22	
	19 Acetophenone	105	3.988	3.988	(1.089)	1133380	8.00000	7.97	
	20 Hexachloroethane	117	4.057	4.057	(1.108)	374082	8.00000	8.12	
$	21 Nitrobenzene-d5 (S)	128	4.106	4.106	(0.881)	431688	8.00000	8.25	
	22 Nitrobenzene	77	4.122	4.122	(0.884)	898548	8.00000	8.34	
	23 Isophorone	82	4.303	4.303	(0.923)	1610812	8.00000	8.17	
	24 2,4-Dimethylphenol	107	4.399	4.399	(0.944)	877878	8.00000	8.14	
	25 2-Nitrophenol	139	4.373	4.373	(0.938)	492268	8.00000	8.50	
	26 Benzoic acid	105	4.490	4.490	(0.963)	602261	8.00000	9.84(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.474	4.474	(0.960)	1009743	8.00000	8.14	
	28 2,4-Dichlorophenol	162	4.554	4.554	(0.977)	743070	8.00000	8.33	
	29 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.992)	793872	8.00000	7.90	
*	30 Naphthalene-d8 (IS)	136	4.661	4.661	(1.000)	1342555	4.00000		
	31 Naphthalene	128	4.677	4.677	(1.003)	2474495	8.00000	7.83	
	32 4-Chloroaniline	65	4.725	4.725	(1.014)	286111	8.00000	8.55	
	33 Hexachloro-1,3-butadiene	225	4.821	4.821	(1.034)	452770	8.00000	8.03	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	34	Caprolactam	55	4.992	4.992	(1.071)	311029	8.00000	9.28	
	35	4-Chloro-3-methylphenol	107	5.121	5.121	(1.099)	749322	8.00000	8.53	
	36	2-Methylnaphthalene	142	5.227	5.227	(1.121)	1742295	8.00000	7.97	
	37	1-Methylnaphthalene	142	5.318	5.318	(1.141)	1641078	8.00000	8.04	
	38	Hexachlorocyclopentadiene	237	5.414	5.414	(0.888)	568035	8.00000	8.19	
	39	1,2,4,5-Tetrachlorobenzene	216	5.398	5.398	(0.885)	769543	8.00000	7.76	
	40	2,4,6-Trichlorophenol	196	5.478	5.478	(0.898)	553419	8.00000	7.79	
	41	2,4,5-Trichlorophenol	196	5.511	5.511	(0.904)	522074	8.00000	8.65	
$	42	2-Fluorobiphenyl (S)	172	5.543	5.543	(0.909)	1836158	8.00000	7.74	
	43	Biphenyl (Diphenyl)	154	5.612	5.612	(0.920)	2085776	8.00000	7.80	
	44	2-Chloronaphthalene	164	5.623	5.623	(0.922)	543630	8.00000	7.93	
	45	2-Nitroaniline	138	5.730	5.730	(0.940)	584973	8.00000	8.56	
	46	Dimethylphthalate	163	5.901	5.901	(0.968)	1740555	8.00000	7.82	
	47	2,6-Dinitrotoluene	165	5.954	5.954	(0.976)	437121	8.00000	8.22	
	48	Acenaphthylene	152	5.970	5.970	(0.979)	2466042	8.00000	7.90	
	49	3-Nitroaniline	65	6.066	6.066	(0.995)	497669	8.00000	8.66	
*	50	Acenaphthene-d10 (IS)	164	6.098	6.098	(1.000)	760679	4.00000		
	51	2,4-Dinitrophenol	184	6.152	6.152	(1.009)	250613	8.00000	8.81	
	52	Acenaphthene	153	6.125	6.125	(1.004)	1573421	8.00000	7.78	
	53	4-Nitrophenol	109	6.200	6.200	(1.017)	240156	8.00000	9.40	
	54	2,4-Dinitrotoluene	165	6.274	6.274	(1.029)	579508	8.00000	8.52	
	55	Dibenzofuran	168	6.253	6.253	(1.025)	2263518	8.00000	7.93	
	56	2,3,4,6-Tetrachlorophenol	232	6.387	6.387	(1.047)	481345	8.00000	8.67	
	57	Diethylphthalate	149	6.477	6.477	(1.062)	1737218	8.00000	8.14	
	58	4-Chlorophenylphenyl ether	204	6.531	6.531	(1.071)	930733	8.00000	7.78	
	59	Fluorene	166	6.536	6.536	(1.072)	1849774	8.00000	7.78	
	60	4-Nitroaniline	108	6.579	6.579	(1.079)	293182	8.00000	9.50(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.611	6.611	(0.886)	372145	8.00000	9.22	
	62	N-Nitrosodiphenylamine	169	6.638	6.638	(0.889)	1632430	8.00000	7.89	
	63	Azobenzene	77	6.664	6.664	(0.893)	1758063	8.00000	8.36	
	64	1,2-Diphenylhydrazine	77	6.664	6.664	(0.893)	1758063	8.00000	8.36	
$	65	2,4,6-Tribromophenol (S)	330	6.766	6.766	(0.906)	384648	8.00000	8.48	
	66	4-Bromophenylphenyl ether	248	6.980	6.980	(0.935)	604675	8.00000	7.95	
	67	Hexachlorobenzene	284	7.145	7.145	(0.957)	663412	8.00000	7.79	
	68	Atrazine	200	7.204	7.204	(0.965)	556167	8.00000	8.47	
	69	Pentachlorophenol	266	7.332	7.332	(0.982)	397798	8.00000	8.70	
*	70	Phenanthrene-d10 (IS)	188	7.466	7.466	(1.000)	1305915	4.00000		
	71	Phenanthrene	178	7.492	7.492	(1.004)	2785270	8.00000	7.67	
	72	Anthracene	178	7.541	7.541	(1.010)	2727625	8.00000	8.16	
	73	Carbazole	167	7.712	7.712	(1.033)	2495418	8.00000	8.29	
	74	Di-n-butylphthalate	149	8.155	8.155	(1.092)	2858084	8.00000	8.40	
	75	Fluoranthene	202	8.759	8.759	(1.173)	2925097	8.00000	8.12	
	76	Pyrene	202	8.994	8.994	(0.877)	3003770	8.00000	7.76	
$	77	Terphenyl-d14 (S)	244	9.175	9.175	(0.895)	2575399	8.00000	8.05	
	78	Butylbenzylphthalate	149	9.725	9.725	(0.949)	1270598	8.00000	8.54	
	79	3,3'-Dichlorobenzidine	252	10.228	10.228	(0.998)	1200368	8.00000	8.53	
	80	bis(2-Ethylhexyl)phthalate	149	10.334	10.334	(1.008)	1745050	8.00000	8.18	
	81	Benzo(a)anthracene	228	10.233	10.233	(0.998)	2931225	8.00000	7.76	
*	82	Chrysene-d12 (IS)	240	10.249	10.249	(1.000)	1341275	4.00000		
	83	Chrysene	228	10.276	10.276	(1.003)	2735998	8.00000	7.67	
	84	Di-n-octylphthalate	149	10.917	10.917	(0.942)	2809235	8.00000	9.38	
	85	Benzo(b)fluoranthene	252	11.264	11.264	(0.972)	3120433	8.00000	8.33	
	86	Benzo(k)fluoranthene	252	11.285	11.285	(0.974)	2986754	8.00000	7.54	
	87	Benzo(a)pyrene	252	11.542	11.542	(0.996)	2718566	8.00000	8.15	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	11.590	11.590	(1.000)	1325204	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	12.439	12.439	(1.073)	3456651	8.00000	8.20	
90 Dibenz(a,h)anthracene	278	12.445	12.445	(1.074)	2911180	8.00000	8.23	
91 Benzo(g,h,i)perylene	276	12.653	12.653	(1.092)	2805242	8.00000	8.13	

QC Flag Legend

M - Compound response manually integrated.

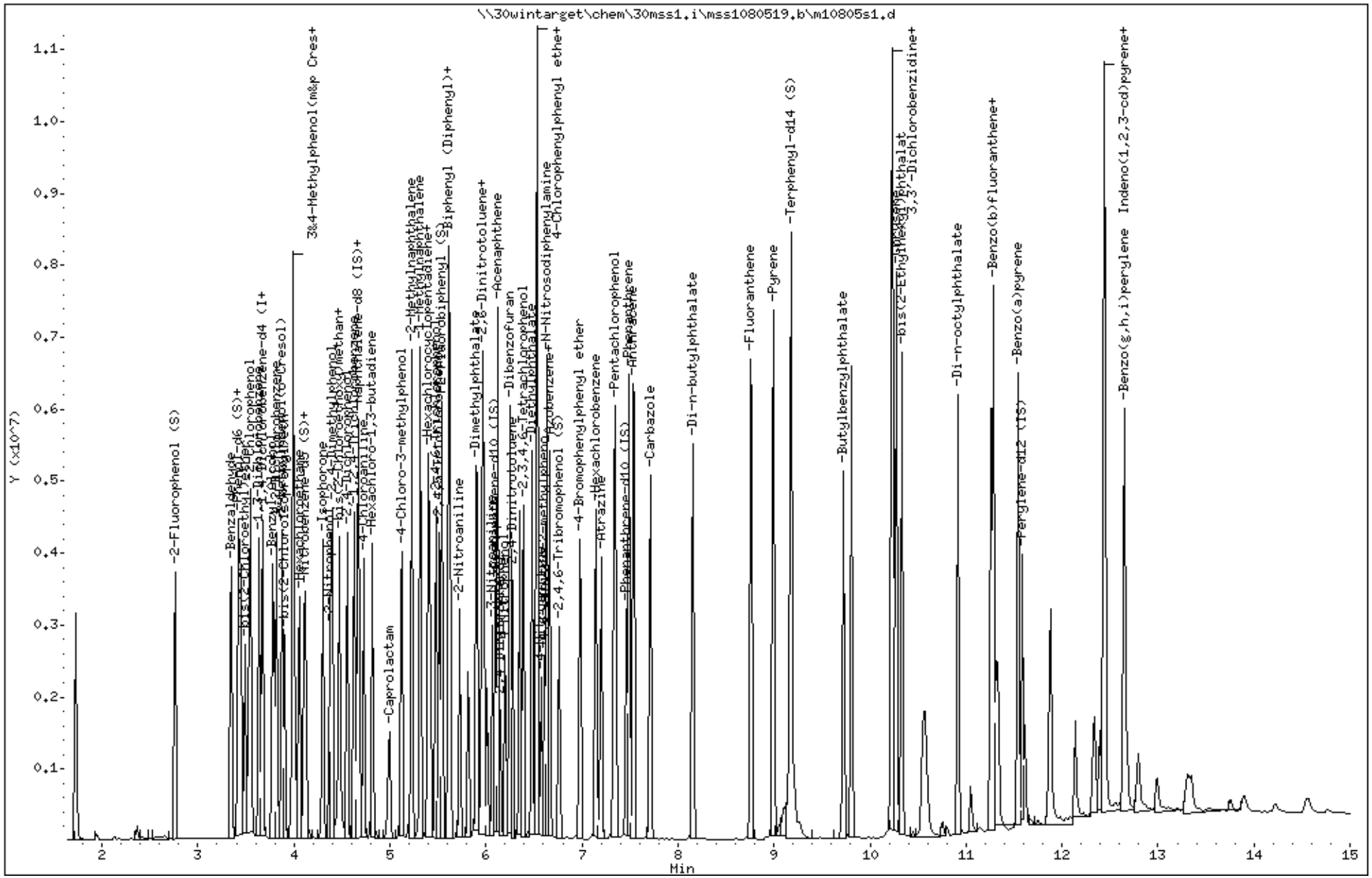
Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m10805s1.d
Date : 05-AUG-2019 15:04
Client ID: CCV
Sample Info: CCV

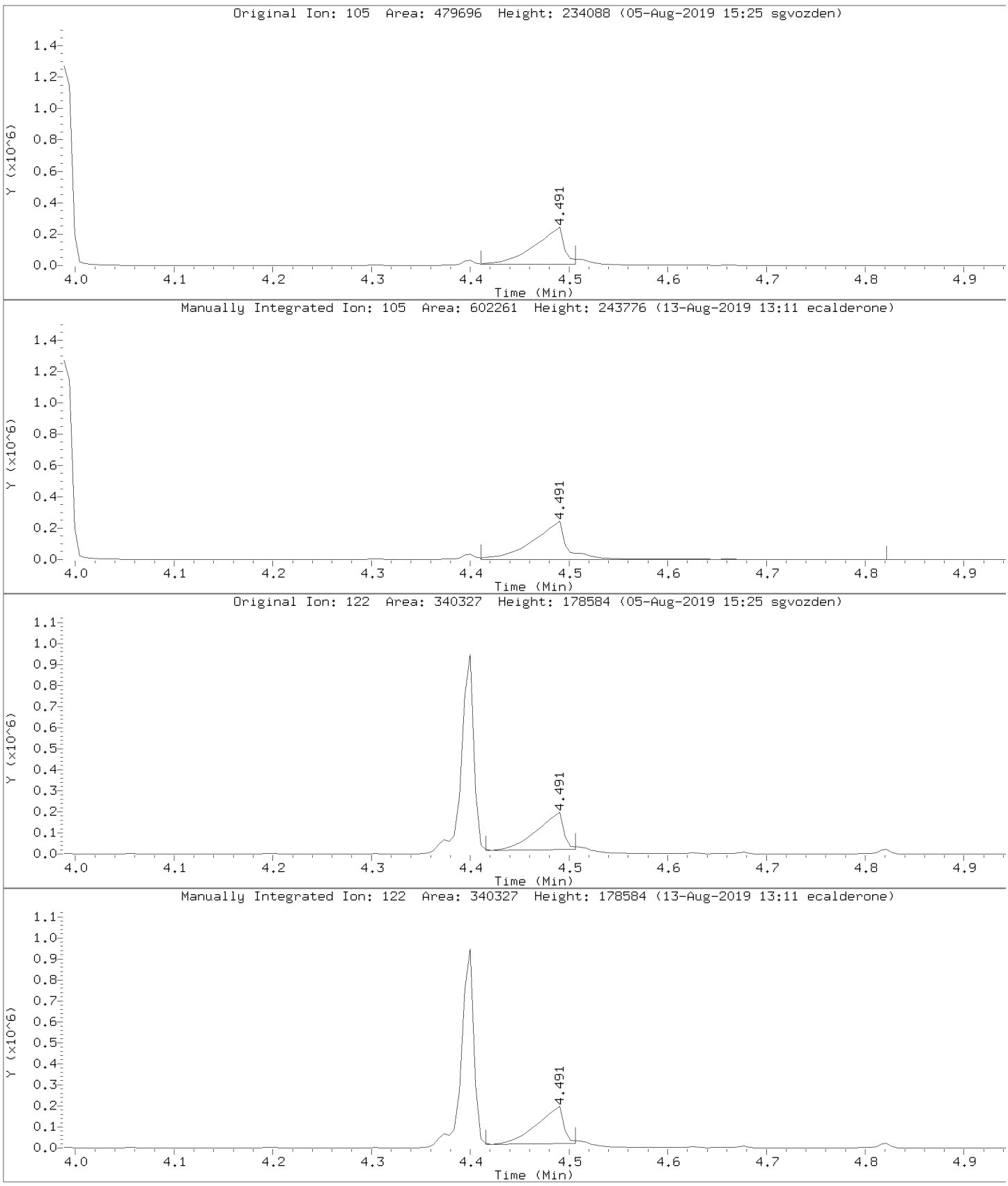
Instrument: 30mss1.i

Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1080519.b/m10805s1.d
Injection Date: 05-AUG-2019 15:04
Instrument: 30mss1.i
Lab Sample ID: CCV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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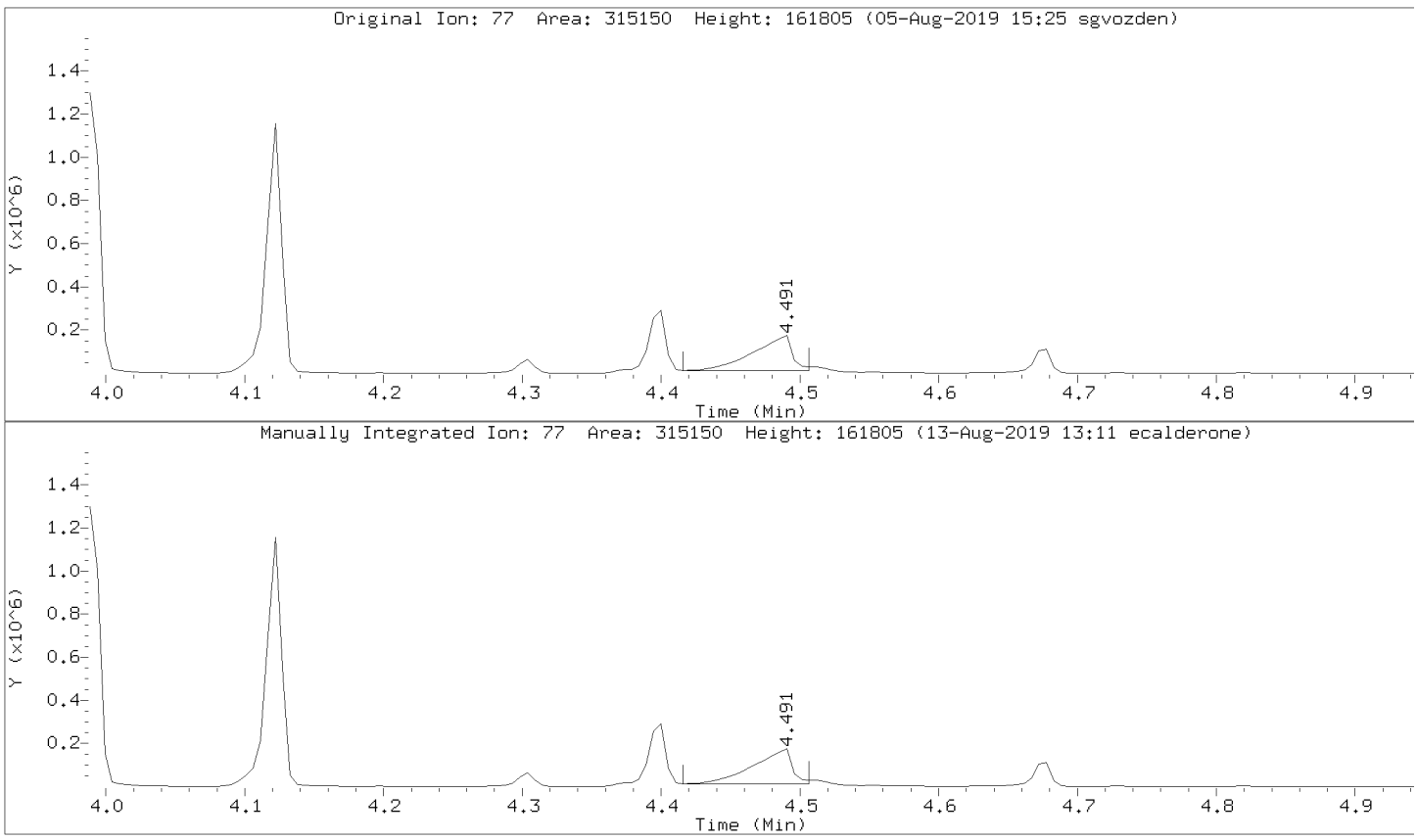
Injection Date: 05-AUG-2019 15:04
Instrument: 30mss1.i
Lab Sample ID: CCV



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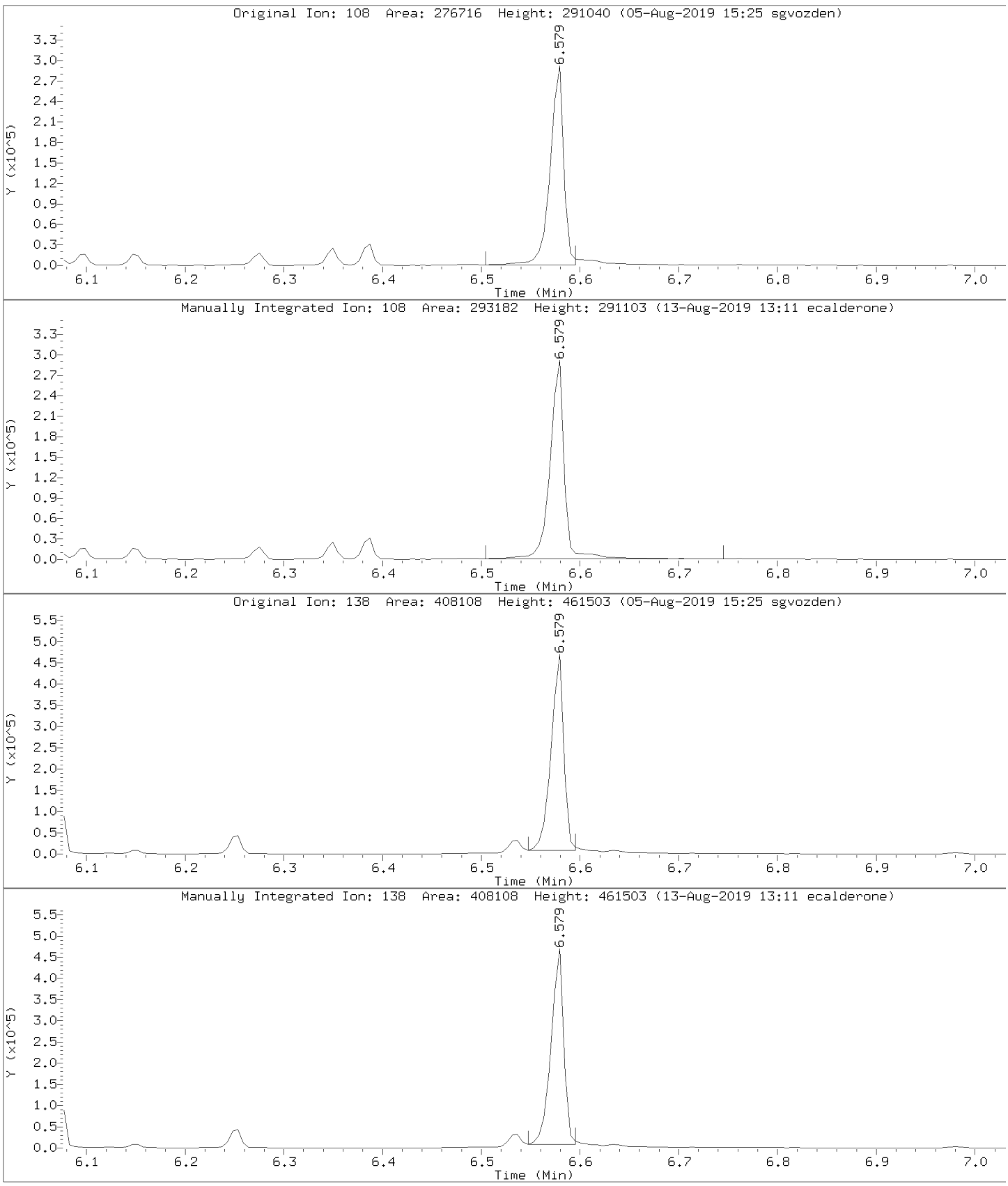
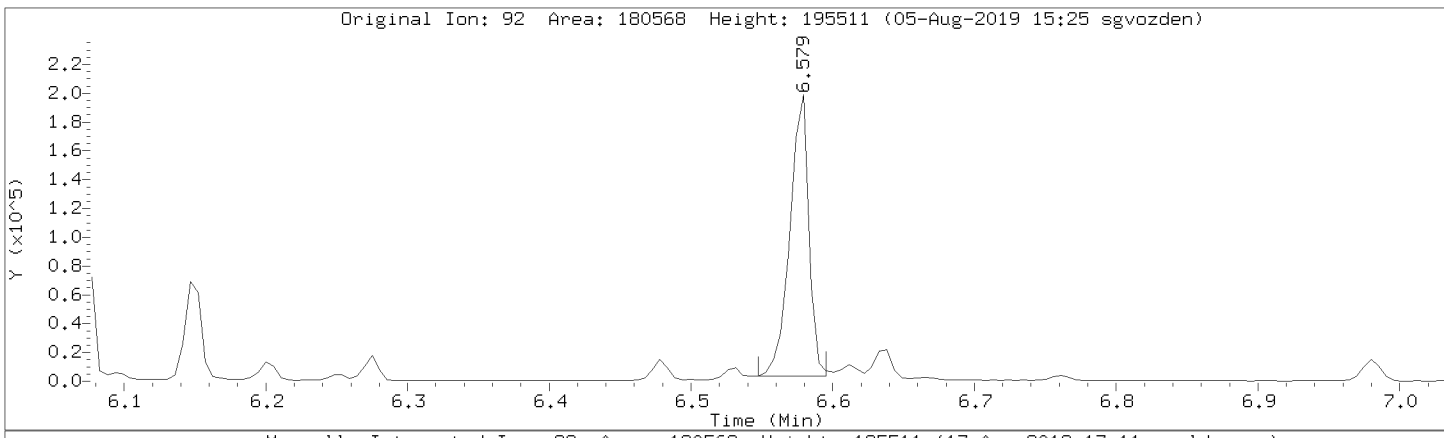
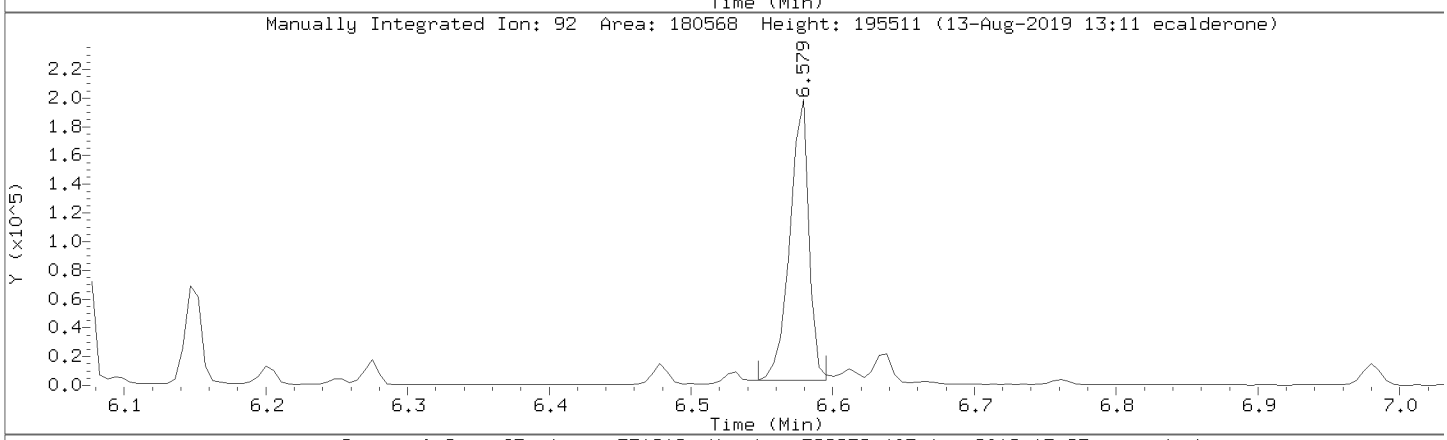
Injection Date: 05-AUG-2019 15:04
Instrument: 30mss1.i
Lab Sample ID: CCV

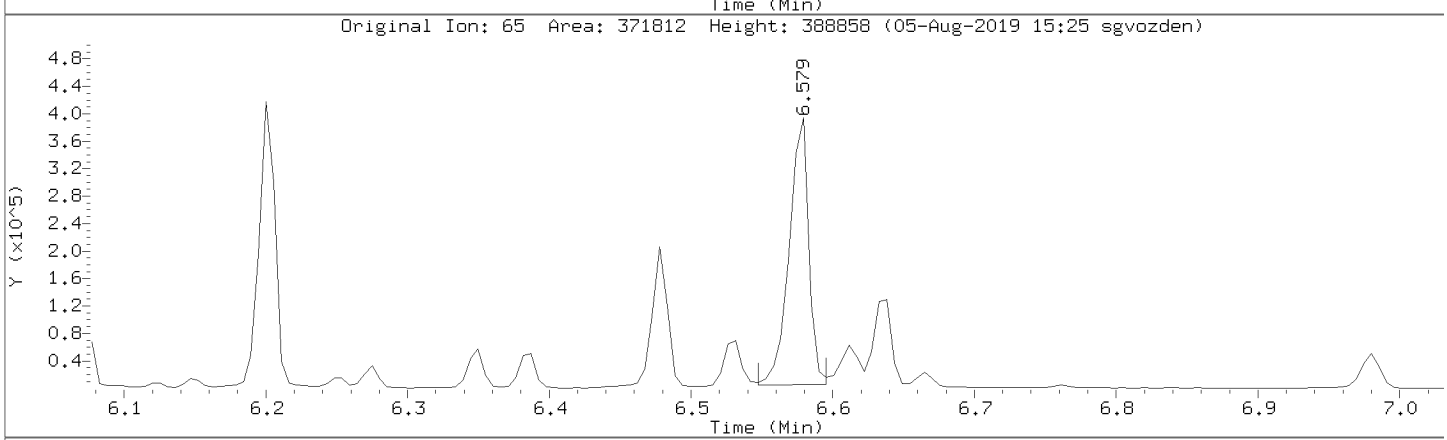
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6

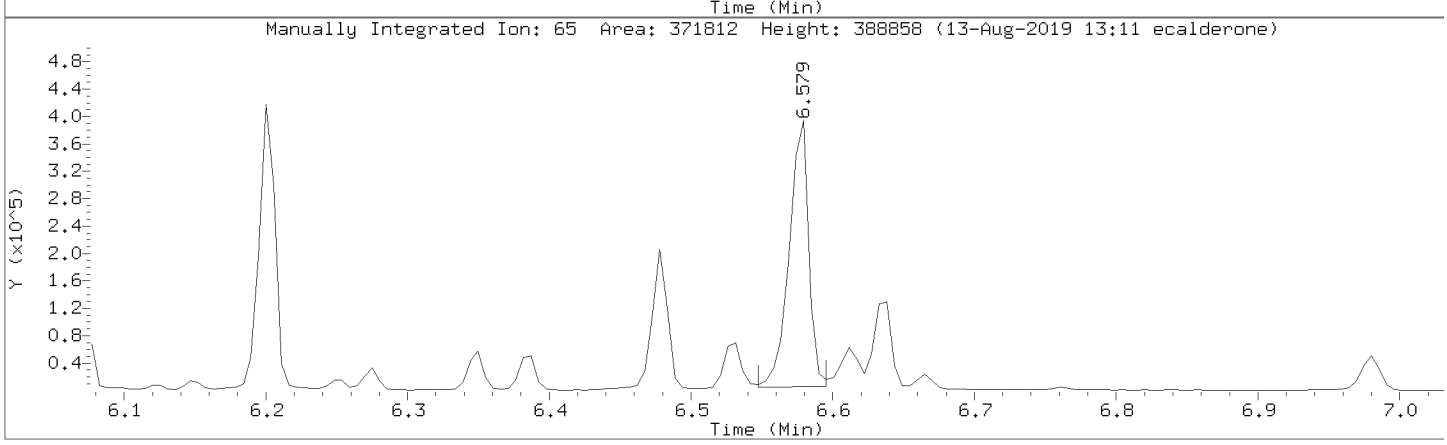


Data File: \\30wintarget\chem\30mss1.i\mss1080519.b/m10805s1.d
Injection Date: 05-AUG-2019 15:04
Instrument: 30mss1.i
Lab Sample ID: CCV









Data File: \\30wintarget\chem\30mss1.i\mss1073019.b\m10730t1.d

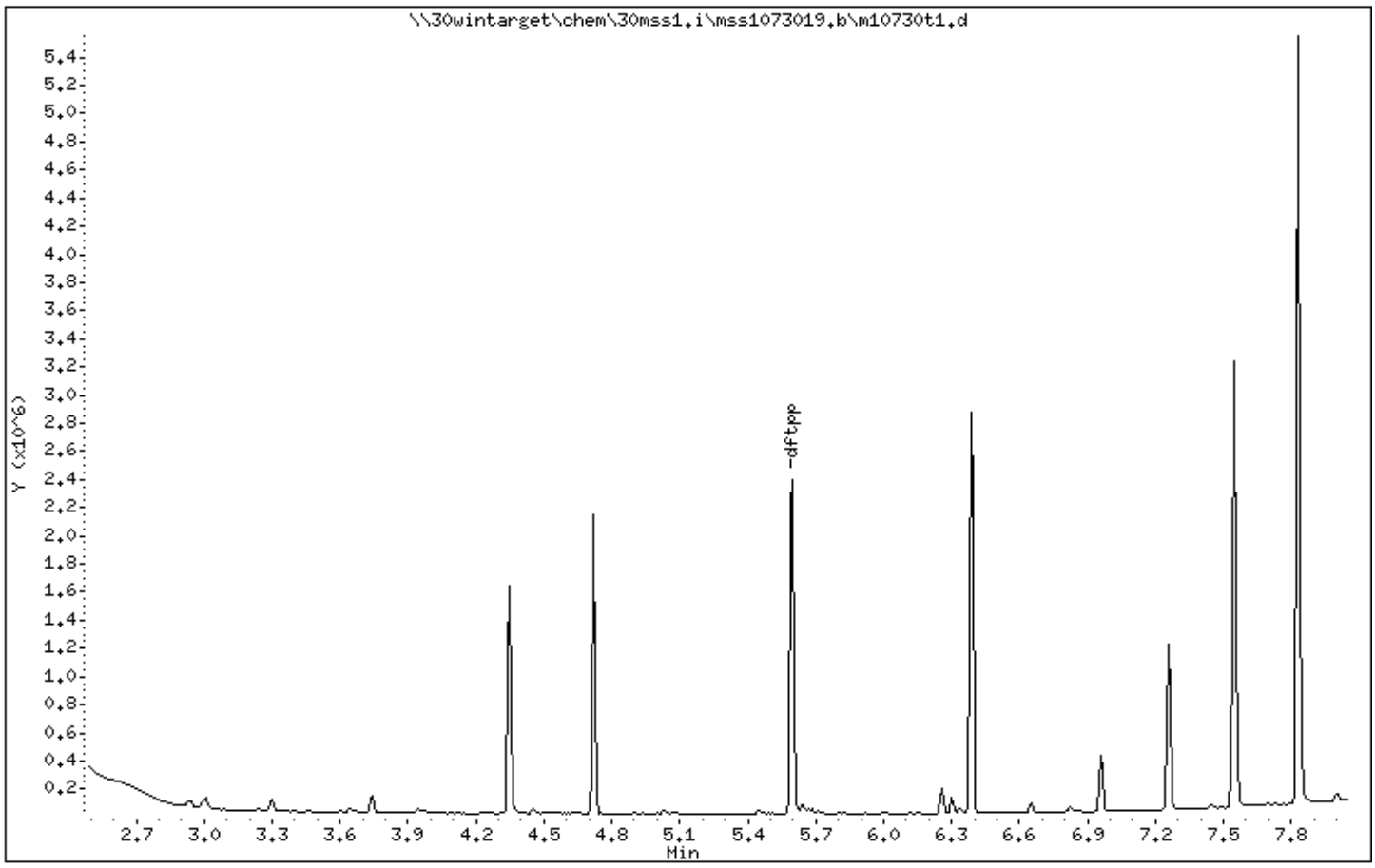
Date : 30-JUL-2019 14:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18



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Date : 30-JUL-2019 14:11

Client ID: DFTPP

Instrument: 30mss1.i

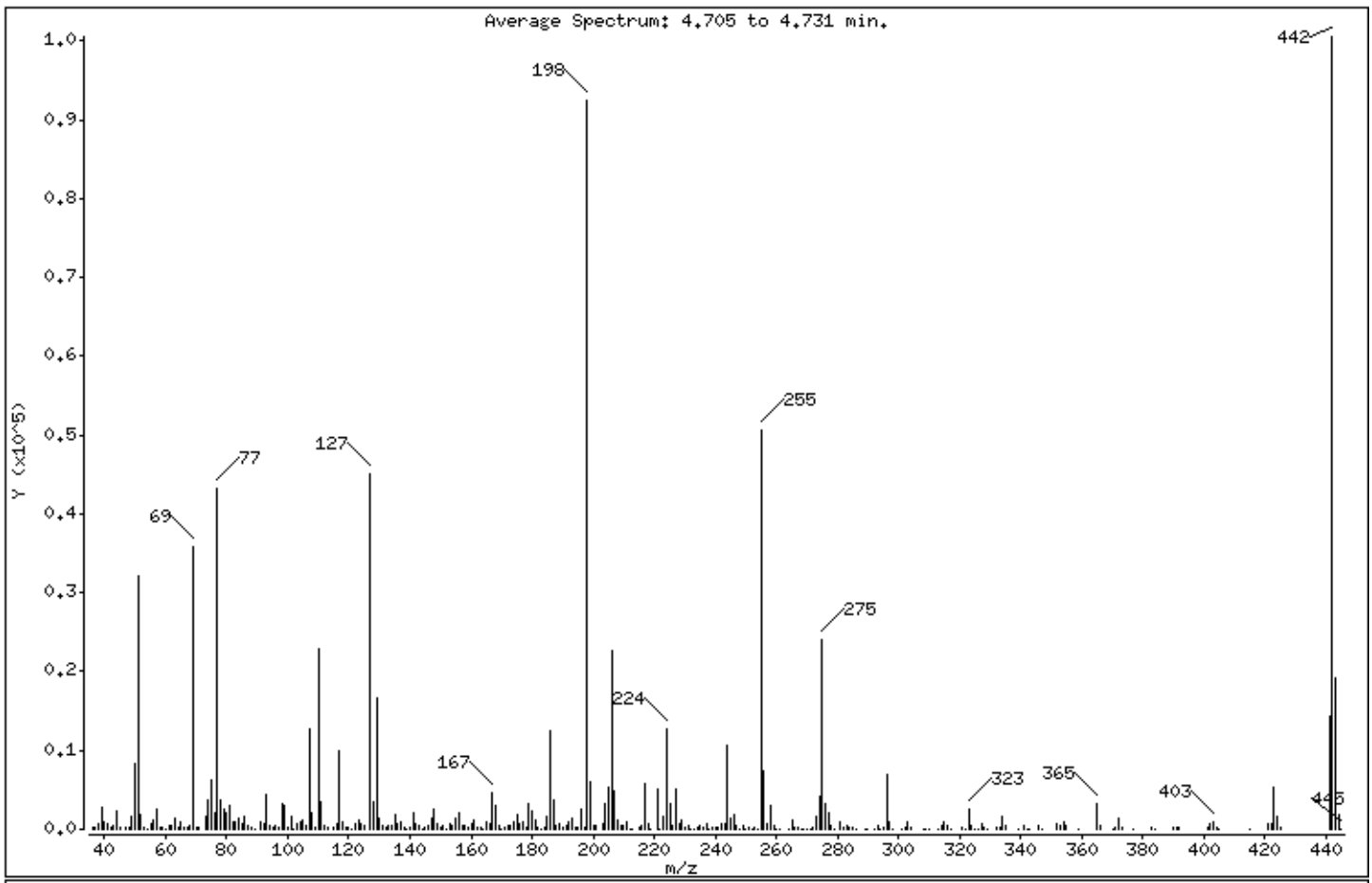
Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.73
68	Less than 2.00% of mass 69	0.40 (1.03)
69	Mass 69 relative abundance	38.69
70	Less than 2.00% of mass 69	0.35 (0.91)
127	40.00 - 60.00% of mass 198	48.86
197	Less than 1.00% of mass 198	0.15
199	5.00 - 9.00% of mass 198	6.56
275	10.00 - 30.00% of mass 198	26.14
365	Greater than 1.00% of mass 198	3.63
441	Present, but less than mass 443	15.44
442	Greater than 40.00% of mass 198	108.86
443	17.00 - 23.00% of mass 442	20.87 (19.18)

Date : 30-JUL-2019 14:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10730t1.d
Spectrum: Average Spectrum: 4.705 to 4.731 min.
Location of Maximum: 442.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	287	119.00	227	199.00	6060	284.00	171
37.00	227	120.00	173	200.00	503	285.00	332
38.00	620	121.00	109	201.00	514	286.00	39
39.00	2771	122.00	725	203.00	601	289.00	76
40.00	872	123.00	1230	204.00	3349	290.00	26
41.00	664	124.00	591	205.00	5406	292.00	40
42.00	254	125.00	566	206.00	22672	293.00	465
43.00	569	127.00	45144	207.00	4758	294.00	111
44.00	2207	128.00	3416	208.00	1171	295.00	126
45.00	338	129.00	16608	209.00	577	296.00	6926
47.00	333	130.00	1444	210.00	383	297.00	986
48.00	180	131.00	373	211.00	922	298.00	57
49.00	1562	132.00	236	212.00	33	301.00	72
50.00	8239	133.00	528	213.00	30	302.00	133
51.00	32080	134.00	513	215.00	242	303.00	815
52.00	1829	135.00	1779	216.00	469	304.00	220
53.00	201	136.00	651	217.00	5671	308.00	30
54.00	29	137.00	916	218.00	800	309.00	30
55.00	635	138.00	172	219.00	26	310.00	76
56.00	1108	139.00	59	221.00	5135	313.00	69
57.00	2575	140.00	208	222.00	35	314.00	370
58.00	186	141.00	1990	223.00	1533	315.00	812
59.00	176	142.00	687	224.00	12784	316.00	408
60.00	26	143.00	542	225.00	3178	317.00	50
61.00	464	144.00	110	226.00	397	321.00	226
62.00	497	145.00	164	227.00	5148	322.00	57
63.00	1362	146.00	391	228.00	769	323.00	2496
64.00	302	147.00	1479	229.00	1100	324.00	454
65.00	869	148.00	2632	230.00	145	325.00	91
66.00	152	149.00	752	231.00	461	326.00	59
67.00	264	150.00	207	232.00	83	327.00	627
68.00	367	151.00	401	233.00	109	328.00	276
69.00	35744	152.00	114	234.00	288	329.00	65
70.00	327	153.00	688	235.00	360	332.00	211
71.00	224	154.00	572	236.00	271	333.00	205

Date : 30-JUL-2019 14:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10730t1.d
Spectrum: Average Spectrum: 4.705 to 4.731 min.
Location of Maximum: 442.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	1710	155.00	1283	237.00	586	334.00	1664
74.00	3671	156.00	2000	238.00	33	335.00	405
75.00	6165	157.00	401	239.00	199	339.00	27
76.00	2189	158.00	445	240.00	163	341.00	482
77.00	43296	159.00	339	241.00	282	342.00	111
78.00	3719	160.00	603	242.00	690	343.00	53
79.00	2545	161.00	1055	243.00	693	346.00	566
80.00	2045	162.00	314	244.00	10529	347.00	114
81.00	3087	163.00	138	245.00	1370	352.00	779
82.00	847	164.00	113	246.00	1840	353.00	457
83.00	944	165.00	909	247.00	415	354.00	812
84.00	1306	166.00	612	248.00	43	355.00	402
85.00	669	167.00	4720	249.00	395	359.00	25
86.00	1557	168.00	3042	250.00	63	365.00	3352
87.00	499	169.00	472	251.00	125	366.00	542
88.00	328	170.00	105	252.00	44	370.00	100
89.00	64	171.00	161	253.00	312	371.00	201
91.00	887	172.00	386	254.00	103	372.00	1491
92.00	771	173.00	500	255.00	50520	373.00	301
93.00	4341	174.00	902	256.00	7502	377.00	30
94.00	366	175.00	1770	257.00	616	383.00	346
95.00	292	176.00	595	258.00	3076	384.00	82
96.00	526	177.00	865	259.00	459	390.00	212
97.00	230	178.00	327	260.00	45	391.00	122
98.00	3259	179.00	3235	261.00	43	392.00	116
99.00	3016	180.00	2378	264.00	78	401.00	153
100.00	293	181.00	1128	265.00	1169	402.00	690
101.00	1534	182.00	203	266.00	206	403.00	854
102.00	66	183.00	109	267.00	252	404.00	346
103.00	581	184.00	198	268.00	54	405.00	69
104.00	859	185.00	1570	269.00	32	415.00	59
105.00	1094	186.00	12437	270.00	31	421.00	734
106.00	363	187.00	3608	271.00	107	422.00	659
107.00	12736	188.00	406	272.00	149	423.00	5419
108.00	2045	189.00	773	273.00	1660	424.00	1654

Date : 30-JUL-2019 14:11

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: EAC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10730t1.d
Spectrum: Average Spectrum: 4.705 to 4.731 min.
Location of Maximum: 442.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
109.00	128	190.00	152	274.00	4095	425.00	168
110.00	22792	191.00	574	275.00	24144	441.00	14264
111.00	3562	192.00	1012	276.00	3217	442.00	100568
112.00	487	193.00	1421	277.00	1974	443.00	19280
113.00	176	194.00	271	278.00	355	444.00	1824
115.00	164	195.00	207	279.00	75	445.00	45
116.00	687	196.00	2483	281.00	898		
117.00	10013	197.00	143	282.00	330		
118.00	843	198.00	92392	283.00	388		

Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m10805t1.d

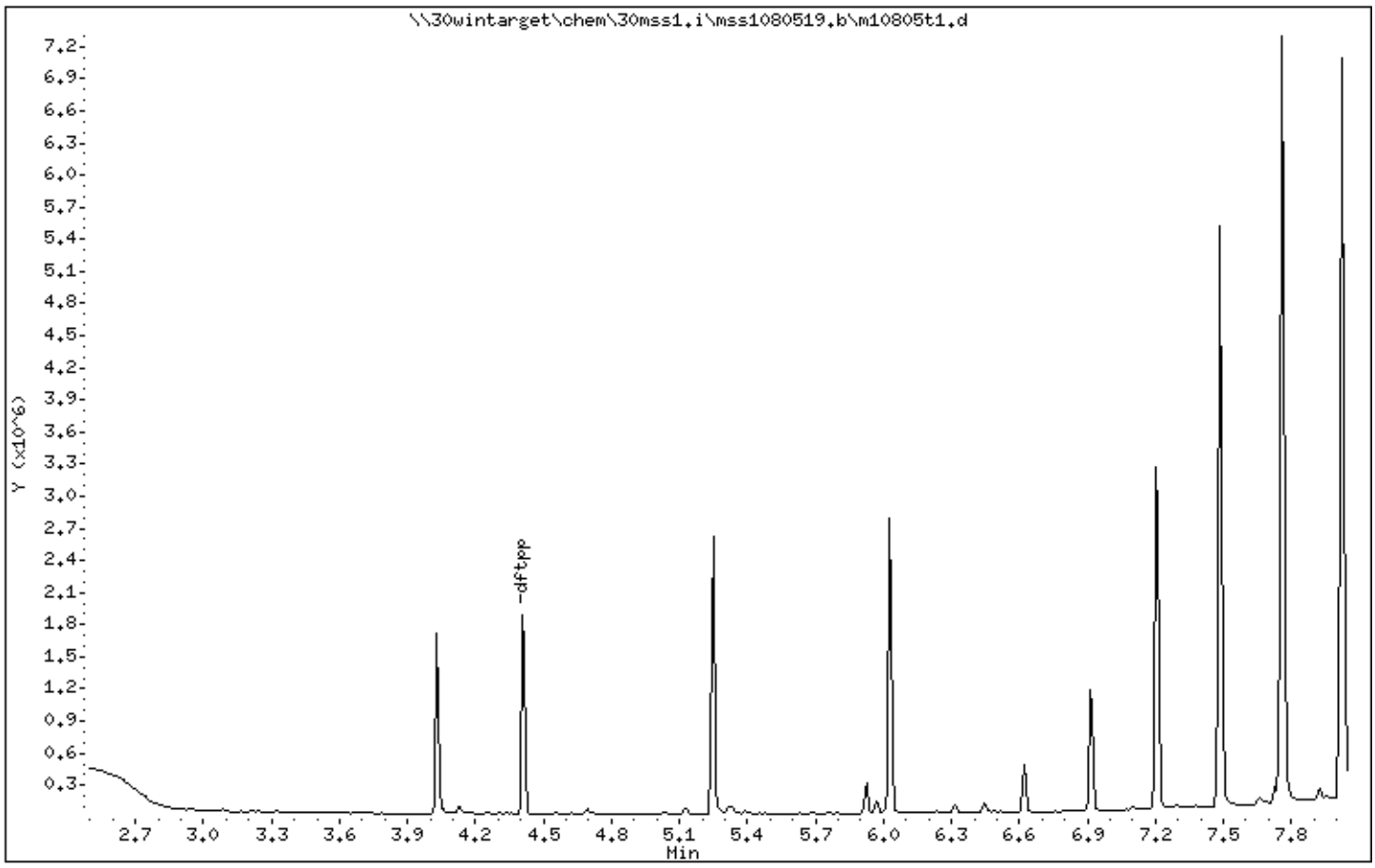
Date : 05-AUG-2019 14:47

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m10805t1.d

Date : 05-AUG-2019 14:47

Client ID: DFTPP

Instrument: 30mss1.i

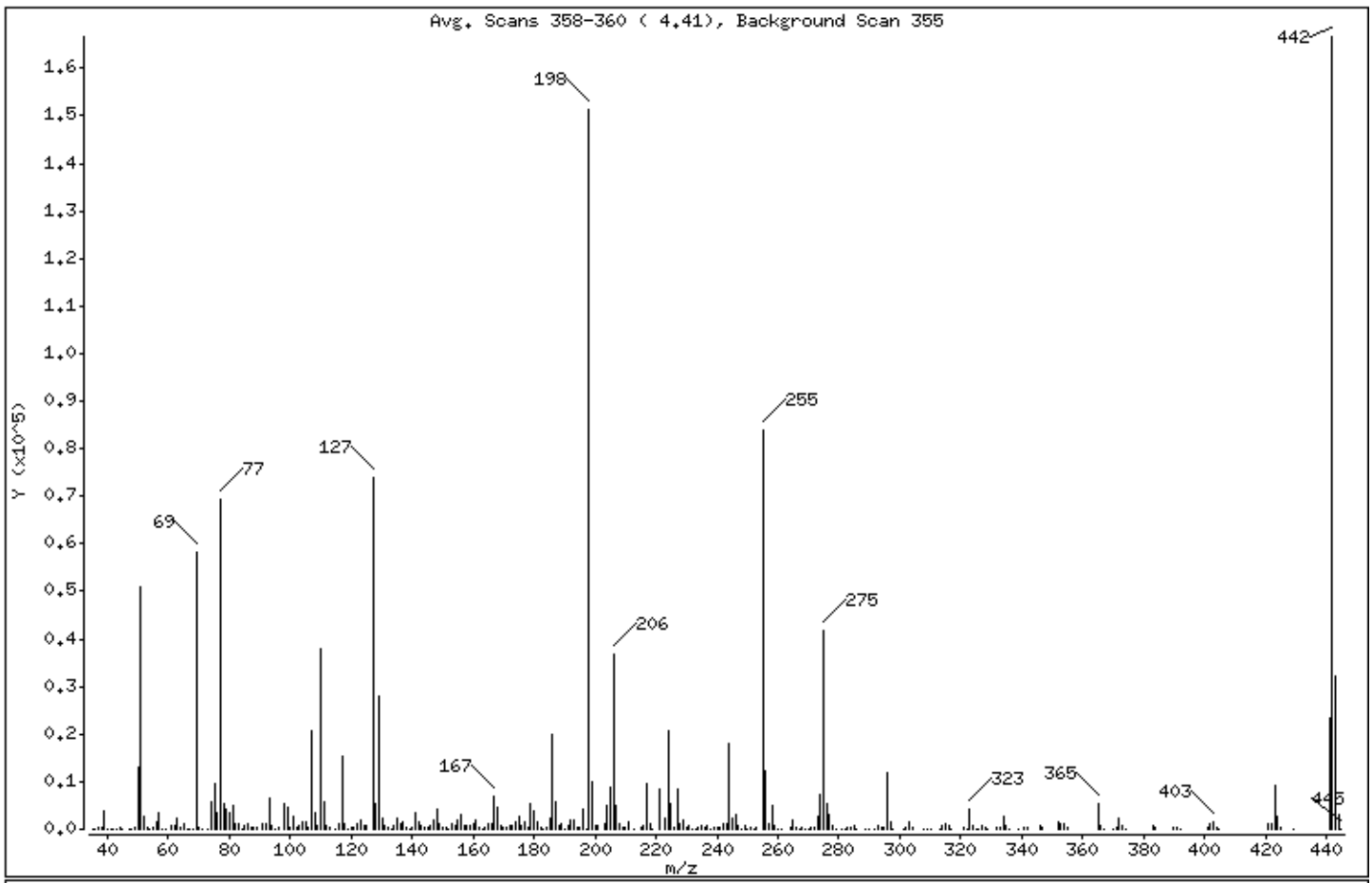
Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.61
68	Less than 2.00% of mass 69	0.06 (0.15)
69	Mass 69 relative abundance	38.61
70	Less than 2.00% of mass 69	0.17 (0.43)
127	40.00 - 60.00% of mass 198	48.96
197	Less than 1.00% of mass 198	0.10
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	27.72
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	15.57
442	Greater than 40.00% of mass 198	110.15
443	17.00 - 23.00% of mass 442	21.24 (19.28)

Date : 05-AUG-2019 14:47

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10805t1.d
Spectrum: Avg. Scans 358-360 (4.41), Background Scan 355
Location of Maximum: 442.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	108	119.00	155	198.00	151296	285.00	613
36.00	80	120.00	340	199.00	9940	286.00	141
37.00	247	121.00	212	200.00	808	289.00	128
38.00	532	122.00	1287	201.00	757	290.00	113
39.00	3699	123.00	2071	203.00	1028	292.00	145
40.00	157	124.00	891	204.00	5100	293.00	811
41.00	64	125.00	940	205.00	8794	294.00	204
42.00	34	127.00	74080	206.00	36768	295.00	362
43.00	44	128.00	5457	207.00	4812	296.00	11792
44.00	253	129.00	27888	208.00	1245	297.00	1628
45.00	164	130.00	2257	209.00	387	298.00	116
47.00	47	131.00	578	210.00	395	301.00	163
48.00	81	132.00	399	211.00	1452	302.00	199
49.00	203	133.00	79	213.00	53	303.00	1387
50.00	12903	134.00	604	215.00	416	304.00	320
51.00	50848	135.00	2221	216.00	794	308.00	162
52.00	2654	136.00	977	217.00	9739	309.00	52
53.00	237	137.00	1369	218.00	1201	310.00	89
54.00	52	138.00	351	219.00	145	313.00	105
55.00	296	139.00	140	221.00	8589	314.00	618
56.00	1380	140.00	395	223.00	2414	315.00	1249
57.00	3588	141.00	3523	224.00	20616	316.00	756
58.00	118	142.00	1357	225.00	5277	317.00	125
59.00	77	143.00	935	226.00	574	321.00	394
61.00	745	144.00	198	227.00	8406	322.00	172
62.00	826	145.00	251	228.00	1143	323.00	4184
63.00	2353	146.00	596	229.00	1876	324.00	775
64.00	397	147.00	1920	230.00	317	325.00	68
65.00	1118	148.00	4194	231.00	865	326.00	123
66.00	90	149.00	977	232.00	162	327.00	770
67.00	87	150.00	324	233.00	142	328.00	428
68.00	90	151.00	542	234.00	501	329.00	126
69.00	58416	152.00	168	235.00	700	332.00	266
70.00	254	153.00	1100	236.00	443	333.00	365
71.00	31	154.00	952	237.00	935	334.00	2502

Date : 05-AUG-2019 14:47

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10805t1.d
Spectrum: Avg. Scans 358-360 (4.41), Background Scan 355
Location of Maximum: 442.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	120	155.00	1928	238.00	72	335.00	589
74.00	5932	156.00	2996	239.00	384	336.00	53
75.00	9634	157.00	621	240.00	308	339.00	58
76.00	3380	158.00	700	241.00	512	341.00	468
77.00	69424	159.00	608	242.00	1100	342.00	291
78.00	5398	160.00	1112	243.00	1174	346.00	911
79.00	4040	161.00	1768	244.00	17824	347.00	200
80.00	3382	162.00	542	245.00	2400	352.00	1454
81.00	4876	163.00	115	246.00	3187	353.00	958
82.00	1031	164.00	218	247.00	698	354.00	1293
83.00	1139	165.00	1174	248.00	55	355.00	355
84.00	7	166.00	1056	249.00	624	365.00	5265
85.00	806	167.00	7084	250.00	116	366.00	915
86.00	972	168.00	4447	251.00	275	367.00	55
87.00	549	169.00	681	252.00	123	370.00	123
88.00	223	170.00	228	253.00	272	371.00	248
89.00	207	171.00	308	255.00	83744	372.00	2434
91.00	1078	172.00	598	256.00	12114	373.00	591
92.00	1095	173.00	832	257.00	1055	374.00	59
93.00	6567	174.00	1495	258.00	4853	383.00	636
94.00	613	175.00	2850	259.00	782	384.00	197
95.00	143	176.00	869	260.00	71	390.00	319
96.00	476	177.00	1381	261.00	152	391.00	223
98.00	5334	178.00	510	264.00	202	392.00	161
99.00	4687	179.00	5332	265.00	1989	401.00	192
100.00	421	180.00	3684	266.00	392	402.00	1034
101.00	2612	181.00	1657	267.00	176	403.00	1520
102.00	208	182.00	297	268.00	230	404.00	564
103.00	791	183.00	179	269.00	59	405.00	122
104.00	1593	184.00	414	270.00	151	421.00	1287
105.00	1584	185.00	2403	271.00	231	422.00	1203
106.00	567	186.00	20008	272.00	227	423.00	9284
107.00	20872	187.00	5822	273.00	2552	424.00	2548
108.00	3324	188.00	642	274.00	7395	425.00	247
109.00	633	189.00	1277	275.00	41936	429.00	56

Date : 05-AUG-2019 14:47

Client ID: DFTPP Instrument: 30mss1.i

Sample Info: DFTPP

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m10805t1.d
Spectrum: Avg. Scans 358-360 (4.41), Background Scan 355
Location of Maximum: 442.00
Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
110.00	37944	190.00	170	276.00	5481	441.00	23552
111.00	5880	191.00	611	277.00	3256	442.00	166656
112.00	754	192.00	1741	278.00	684	443.00	32136
113.00	222	193.00	1949	279.00	148	444.00	3119
115.00	53	194.00	482	281.00	161	445.00	158
116.00	1108	195.00	354	282.00	109		
117.00	15247	196.00	4148	283.00	438		
118.00	1286	197.00	157	284.00	334		

SAMPLE NO.

BLANK

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM/31401545.0
Date Received:
Matrix: Solid
SDG No.: 30317212
Date Extracted: 08/02/2019 08:36
Lab Sample ID: 1723155
Date Analyzed: 08/05/2019 15:50
Lab File ID: MSS1080519.B\M1080501.D
Initial wt/vol: 15.31 g
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30MSS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
83-32-9	Acenaphthene	ND	U
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
103-33-3	Azobenzene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
65-85-0	Benzoic acid	ND	U
100-51-6	Benzyl alcohol	ND	U
101-55-3	4-Bromophenylphenyl ether	ND	U
85-68-7	Butylbenzylphthalate	ND	U
86-74-8	Carbazole	ND	U
59-50-7	4-Chloro-3-methylphenol	ND	U
106-47-8	4-Chloroaniline	ND	U
111-91-1	bis(2-Chloroethoxy)methane	ND	U
111-44-4	bis(2-Chloroethyl) ether	ND	U
108-60-1	bis(2-Chloroisopropyl) ether	ND	U
91-58-7	2-Chloronaphthalene	ND	U
95-57-8	2-Chlorophenol	ND	U
7005-72-3	4-Chlorophenylphenyl ether	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
132-64-9	Dibenzofuran	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
91-94-1	3,3'-Dichlorobenzidine	ND	U
120-83-2	2,4-Dichlorophenol	ND	U
84-66-2	Diethylphthalate	ND	U
105-67-9	2,4-Dimethylphenol	ND	U
131-11-3	Dimethylphthalate	ND	U
84-74-2	Di-n-butylphthalate	ND	U
534-52-1	4,6-Dinitro-2-methylphenol	ND	U
51-28-5	2,4-Dinitrophenol	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-2
SEMI-VOLATILE ORGANICS ANALYSIS DATA

BLANK

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM/31401545.0
Date Received:
Matrix: Solid SDG No.: 30317212
Date Extracted: 08/02/2019 08:36
Lab Sample ID: 1723155
Date Analyzed: 08/05/2019 15:50
Lab File ID: MSS1080519.B\M1080501.D
Initial wt/vol: 15.31 g Final wt/vol: 5 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
606-20-2	2,6-Dinitrotoluene	ND	U
117-84-0	Di-n-octylphthalate	ND	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
77-47-4	Hexachlorocyclopentadiene	ND	U
67-72-1	Hexachloroethane	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
78-59-1	Isophorone	ND	U
90-12-0	1-Methylnaphthalene	ND	U
91-57-6	2-Methylnaphthalene	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
91-20-3	Naphthalene	ND	U
88-74-4	2-Nitroaniline	ND	U
99-09-2	3-Nitroaniline	ND	U
100-01-6	4-Nitroaniline	ND	U
98-95-3	Nitrobenzene	ND	U
88-75-5	2-Nitrophenol	ND	U
100-02-7	4-Nitrophenol	ND	U
62-75-9	N-Nitrosodimethylamine	ND	U
621-64-7	N-Nitroso-di-n-propylamine	ND	U
86-30-6	N-Nitrosodiphenylamine	ND	U
87-86-5	Pentachlorophenol	ND	U
85-01-8	Phenanthrene	ND	U
108-95-2	Phenol	ND	U
129-00-0	Pyrene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d
Lab Smp Id: 1723155 Client Smp ID: MB
Inj Date : 05-AUG-2019 15:50
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1723155
Misc Info : 14918
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1080519.b\8270073019.m
Meth Date : 06-Aug-2019 16:16 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.310	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	1 N-Nitrosodimethylamine	74	Compound Not Detected.						(D)
	2 Pyridine	79	1.723	1.723	(0.471)	100	0.00137	0.446	
$	3 2-Fluorophenol (S)	112	2.797	2.759	(0.764)	644136	8.02031	2620	
$	4 Phenol-d6 (S)	99	3.427	3.422	(0.936)	768329	7.40301	2420	
	5 Benzaldehyde	77	Compound Not Detected.						(D)
	6 Phenol	94	3.432	3.432	(0.937)	669	0.00613	2.00	
	7 Aniline	66	Compound Not Detected.						(D)
	8 bis(2-Chloroethyl)ether	63	Compound Not Detected.						(D)
	9 2-Chlorophenol	128	3.534	3.529	(0.965)	201	0.00218	0.711	
	10 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.662	3.662	(1.000)	272730	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	13 Benzyl Alcohol	79	Compound Not Detected.						(D)
	14 1,2-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						(D)
	16 bis(2-Chloroisopropyl)ether	45	Compound Not Detected.						(D)
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						(D)
	18 N-Nitroso-di-n-propylamine	70	4.100	4.009	(1.120)	60398	0.91659	299	
	19 Acetophenone	105	Compound Not Detected.						(D)

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/Kg)	REVIEW C
	20	Hexachloroethane	117	Compound Not Detected.						
$	21	Nitrobenzene-d5 (S)	128	4.100	4.106	(0.881)	216449	4.72918	1540	
	22	Nitrobenzene	77	Compound Not Detected.						
	23	Isophorone	82	Compound Not Detected.						(D)
	24	2,4-Dimethylphenol	107	Compound Not Detected.						
	25	2-Nitrophenol	139	Compound Not Detected.						(D)
	26	Benzoic acid	105	4.437	4.490	(0.953)	1841	0.03437	11.2	
	27	bis(2-Chloroethoxy)methane	93	Compound Not Detected.						
	28	2,4-Dichlorophenol	162	Compound Not Detected.						
	29	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	30	Naphthalene-d8 (IS)	136	4.656	4.661	(1.000)	1174816	4.00000		
	31	Naphthalene	128	4.672	4.677	(1.003)	2617	0.00946	3.09	
	32	4-Chloroaniline	65	Compound Not Detected.						(D)
	33	Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	34	Caprolactam	55	Compound Not Detected.						
	35	4-Chloro-3-methylphenol	107	Compound Not Detected.						(D)
	36	2-Methylnaphthalene	142	5.227	5.227	(1.123)	307	0.00161	0.524	
	37	1-Methylnaphthalene	142	5.318	5.318	(1.142)	246	0.00138	0.450	
	38	Hexachlorocyclopentadiene	237	Compound Not Detected.						
	39	1,2,4,5-Tetrachlorobenzene	216	Compound Not Detected.						
	40	2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41	2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42	2-Fluorobiphenyl (S)	172	5.537	5.543	(0.909)	982411	4.90678	1600	
	43	Biphenyl (Diphenyl)	154	Compound Not Detected.						(D)
	44	2-Chloronaphthalene	164	Compound Not Detected.						
	45	2-Nitroaniline	138	Compound Not Detected.						(D)
	46	Dimethylphthalate	163	Compound Not Detected.						
	47	2,6-Dinitrotoluene	165	Compound Not Detected.						
	48	Acenaphthylene	152	Compound Not Detected.						(D)
	49	3-Nitroaniline	65	Compound Not Detected.						(D)
*	50	Acenaphthene-d10 (IS)	164	6.093	6.098	(1.000)	642348	4.00000		
	51	2,4-Dinitrophenol	184	Compound Not Detected.						
	52	Acenaphthene	153	Compound Not Detected.						
	53	4-Nitrophenol	109	Compound Not Detected.						
	54	2,4-Dinitrotoluene	165	Compound Not Detected.						
	55	Dibenzofuran	168	Compound Not Detected.						
	56	2,3,4,6-Tetrachlorophenol	232	Compound Not Detected.						
	57	Diethylphthalate	149	6.472	6.477	(1.062)	663	0.00368	1.20	
	58	4-Chlorophenylphenyl ether	204	Compound Not Detected.						
	59	Fluorene	166	Compound Not Detected.						(D)
	60	4-Nitroaniline	108	Compound Not Detected.						(D)
	61	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.						(D)
	62	N-Nitrosodiphenylamine	169	Compound Not Detected.						(D)
	63	Azobenzene	77	Compound Not Detected.						(D)
	64	1,2-Diphenylhydrazine	77	Compound Not Detected.						(D)
$	65	2,4,6-Tribromophenol (S)	330	6.760	6.766	(0.906)	252409	6.83659	2230	
	66	4-Bromophenylphenyl ether	248	Compound Not Detected.						(D)
	67	Hexachlorobenzene	284	Compound Not Detected.						
	68	Atrazine	200	Compound Not Detected.						
	69	Pentachlorophenol	266	Compound Not Detected.						
*	70	Phenanthrene-d10 (IS)	188	7.460	7.466	(1.000)	1063163	4.00000		
	71	Phenanthrene	178	Compound Not Detected.						
	72	Anthracene	178	Compound Not Detected.						
	73	Carbazole	167	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	74 Di-n-butylphthalate	149	8.149	8.155	(1.092)	3712	0.01340	4.38	
	75 Fluoranthene	202	Compound Not Detected.						(D)
	76 Pyrene	202	Compound Not Detected.						(D)
$	77 Terphenyl-d14 (S)	244	9.175	9.175	(0.896)	1178791	4.72467	1540	
	78 Butylbenzylphthalate	149	9.715	9.725	(0.948)	649	0.00560	1.83	
	79 3,3'-Dichlorobenzidine	252	Compound Not Detected.						(D)
	80 bis(2-Ethylhexyl)phthalate	149	10.334	10.334	(1.009)	6221	0.03742	12.2	
	81 Benzo(a)anthracene	228	Compound Not Detected.						(D)
*	82 Chrysene-d12 (IS)	240	10.244	10.249	(1.000)	1045925	4.00000		
	83 Chrysene	228	Compound Not Detected.						(D)
	84 Di-n-octylphthalate	149	10.943	10.917	(0.945)	1436	0.00558	1.82	
	85 Benzo(b)fluoranthene	252	Compound Not Detected.						(D)
	86 Benzo(k)fluoranthene	252	11.285	11.285	(0.974)	206	6e-004	0.198	
	87 Benzo(a)pyrene	252	Compound Not Detected.						(D)
*	88 Perylene-d12 (IS)	264	11.584	11.590	(1.000)	1137607	4.00000		
	89 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
	90 Dibenz(a,h)anthracene	278	Compound Not Detected.						
	91 Benzo(g,h,i)perylene	276	Compound Not Detected.						

QC Flag Legend

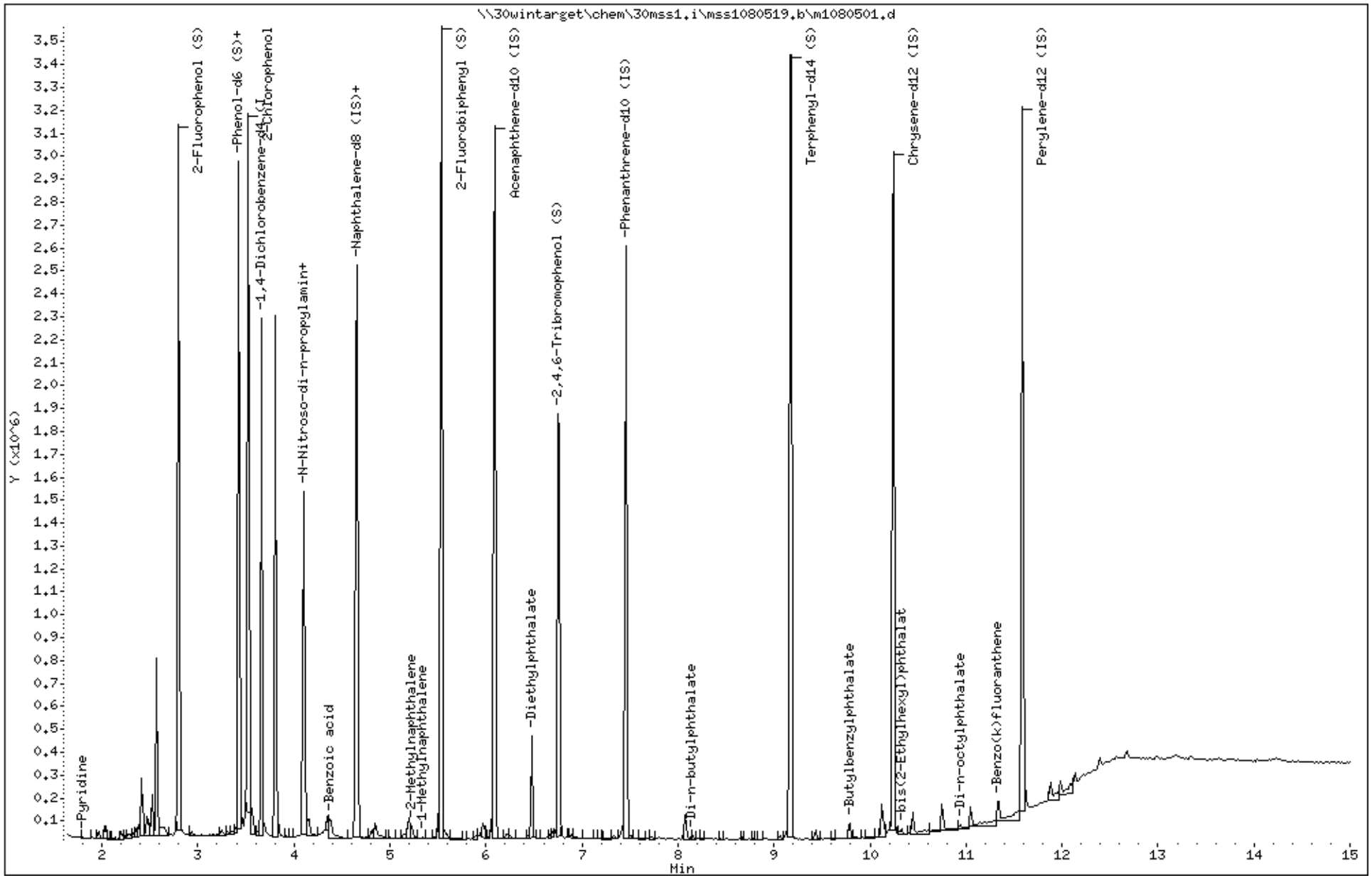
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d
Date : 05-AUG-2019 15:50
Client ID: MB
Sample Info: 1723155
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss1.i
Operator: EAC
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d

Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

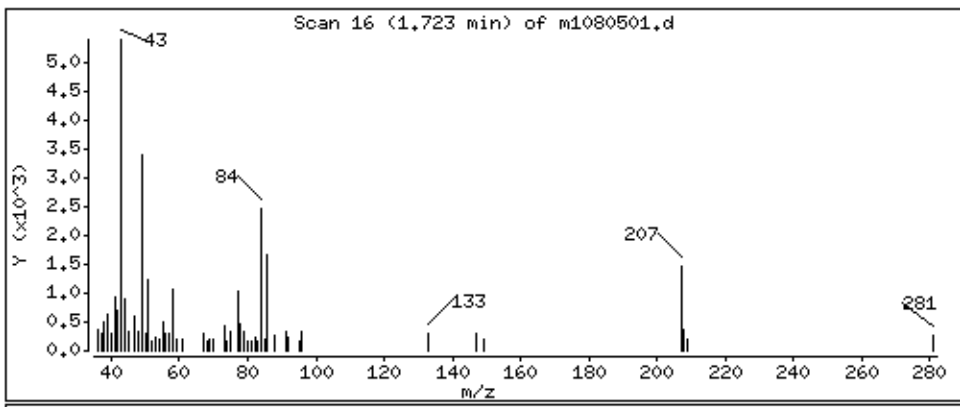
Operator: EAC

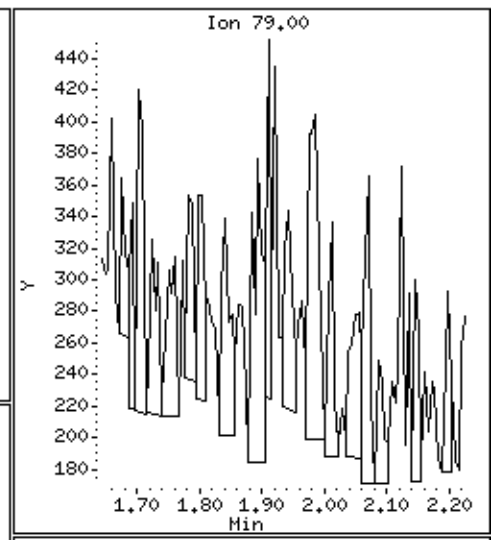
Column phase: RTX-5MS

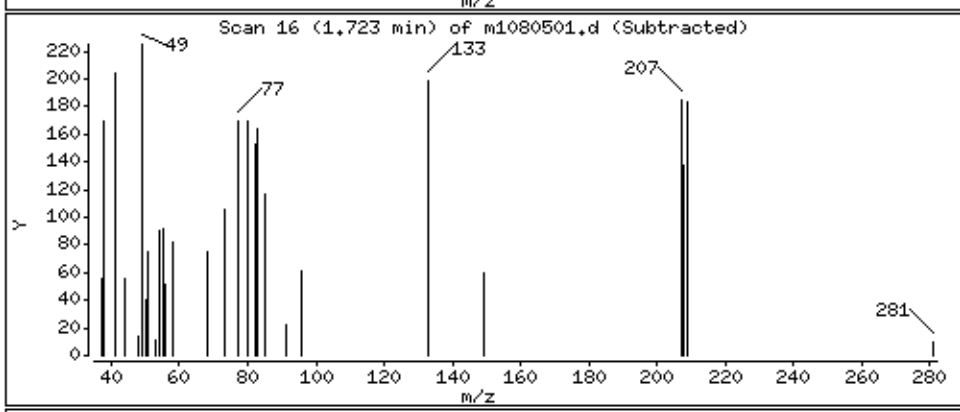
Column diameter: 0.18

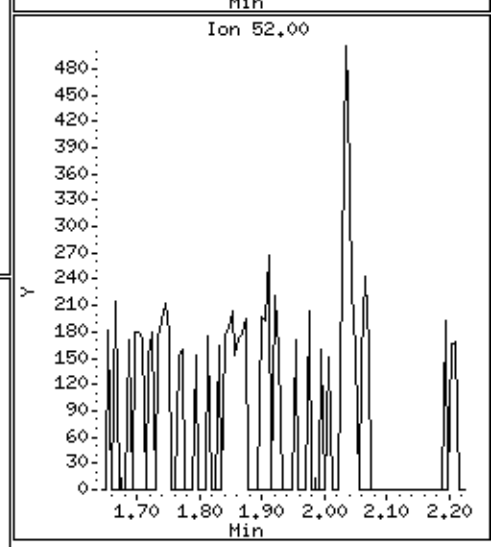
2 Pyridine

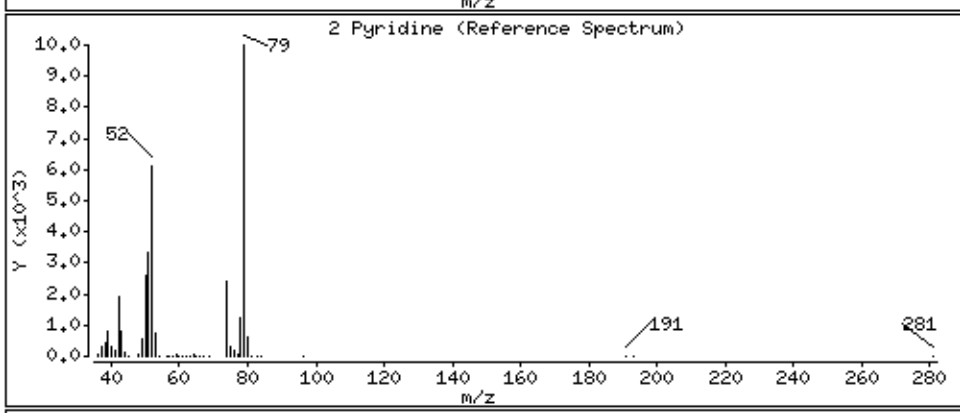
Concentration: 0.446 ug/Kg

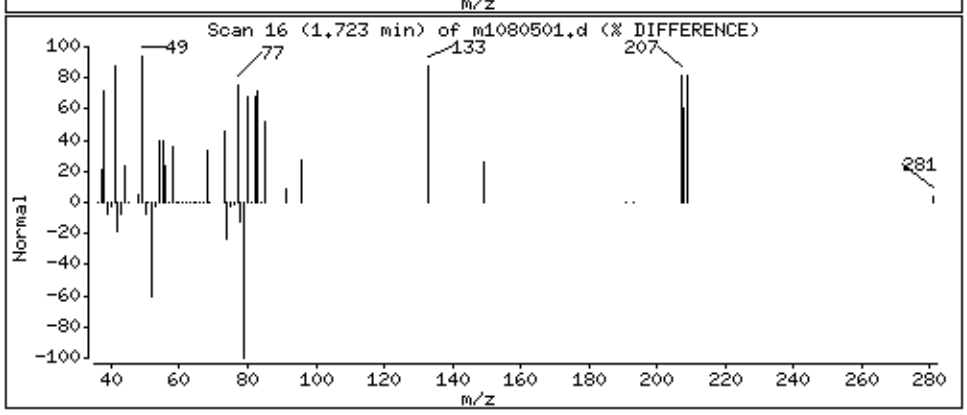












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

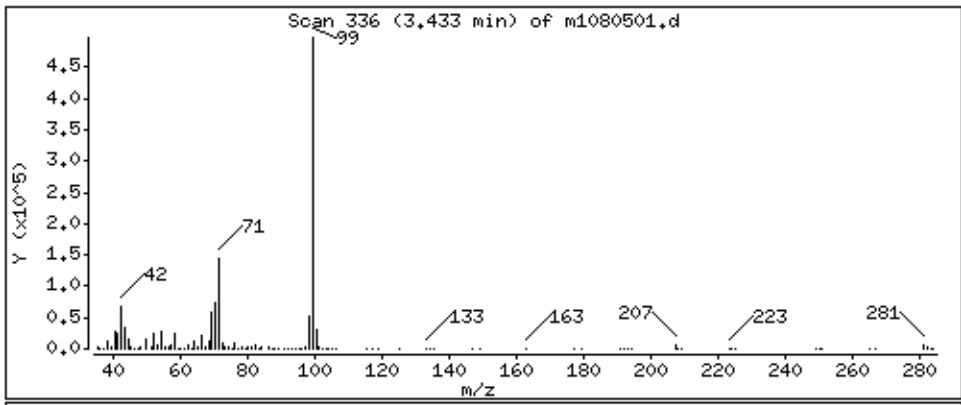
Operator: EAC

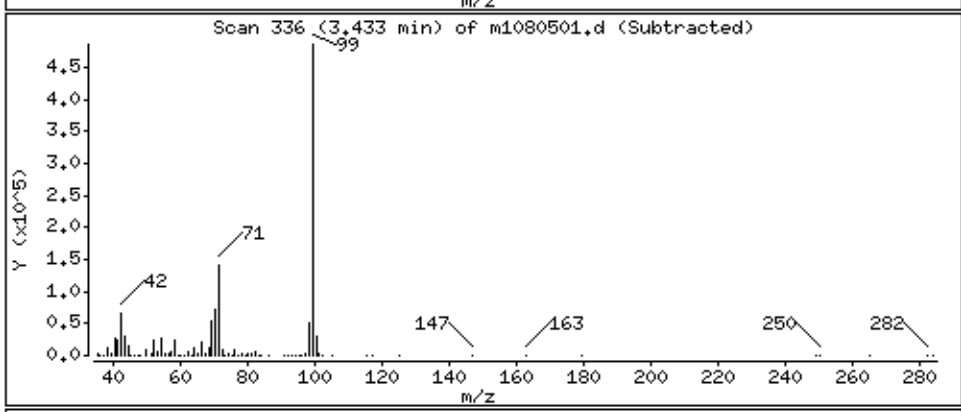
Column phase: RTX-5MS

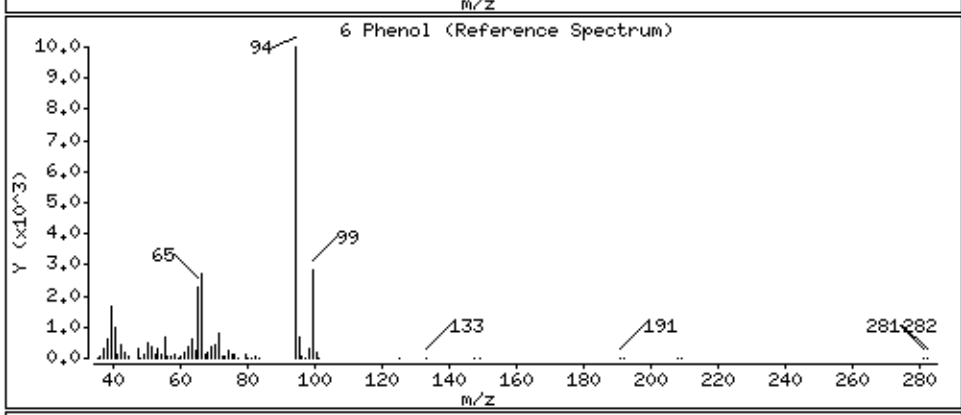
Column diameter: 0.18

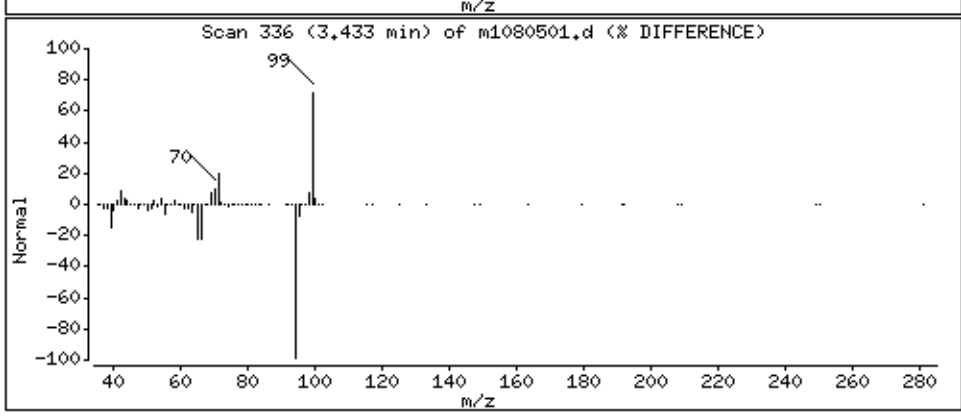
6 Phenol

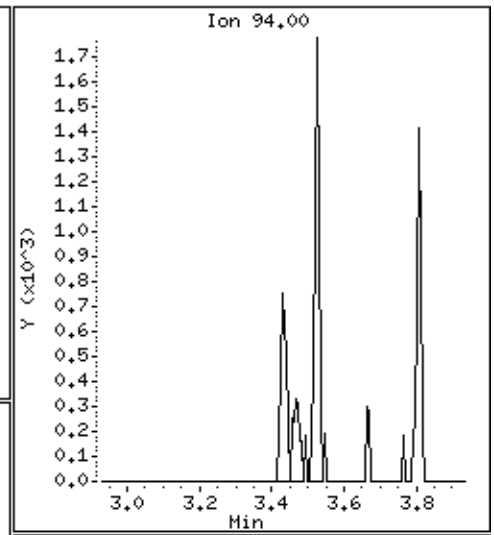
Concentration: 2.00 ug/Kg

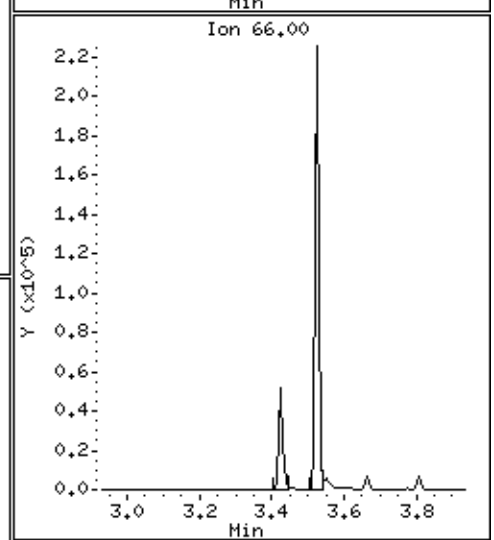


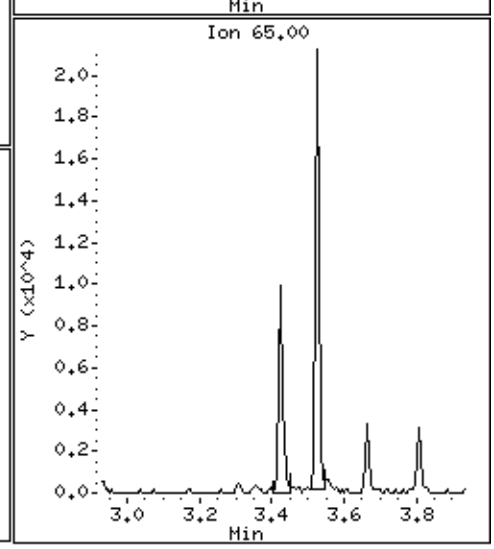












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

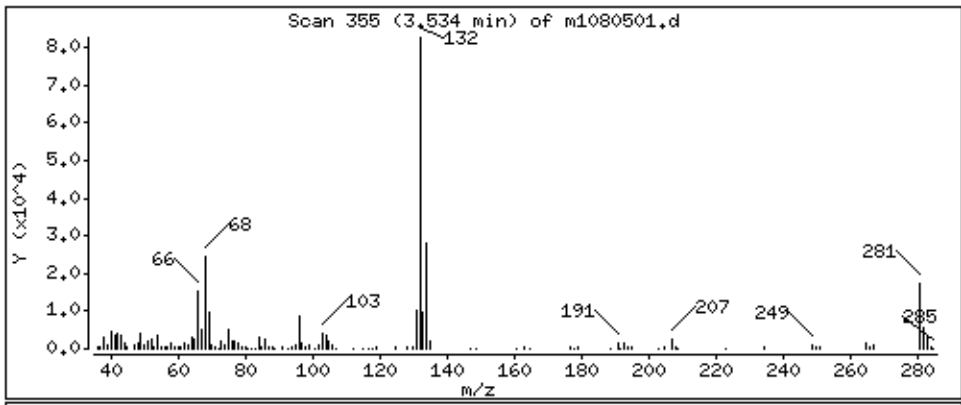
Operator: EAC

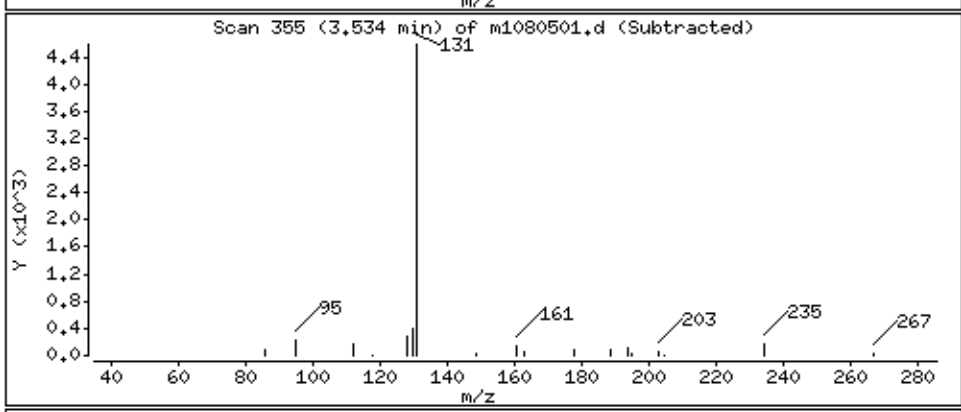
Column phase: RTX-5MS

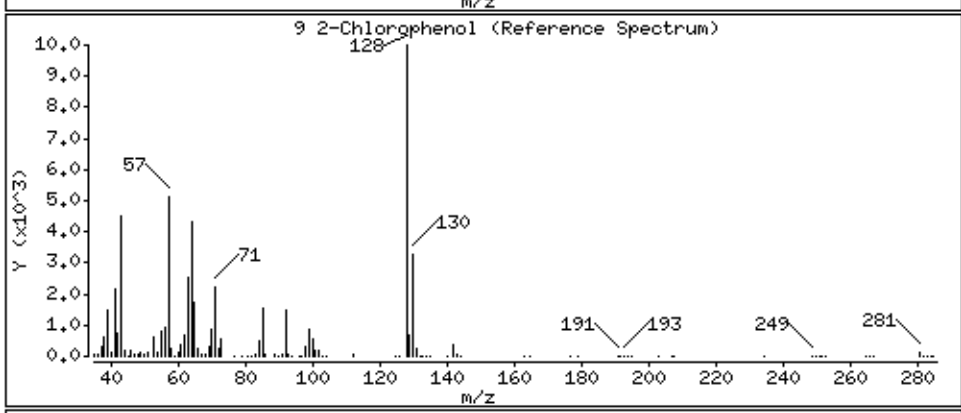
Column diameter: 0.18

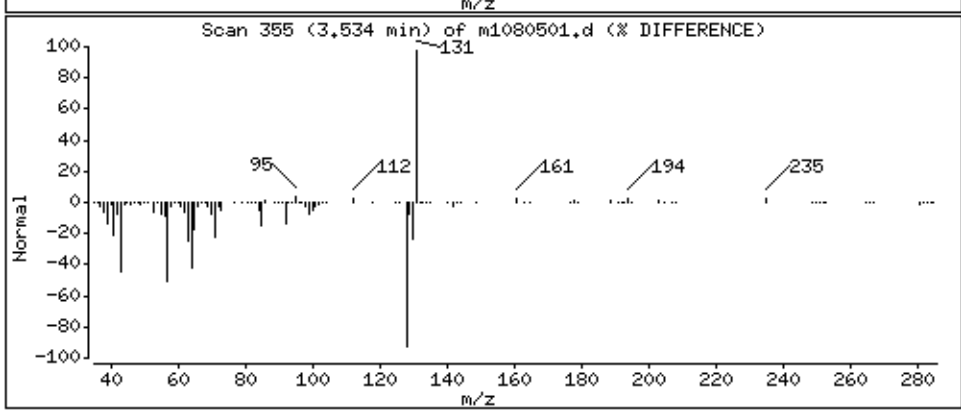
9 2-Chlorophenol

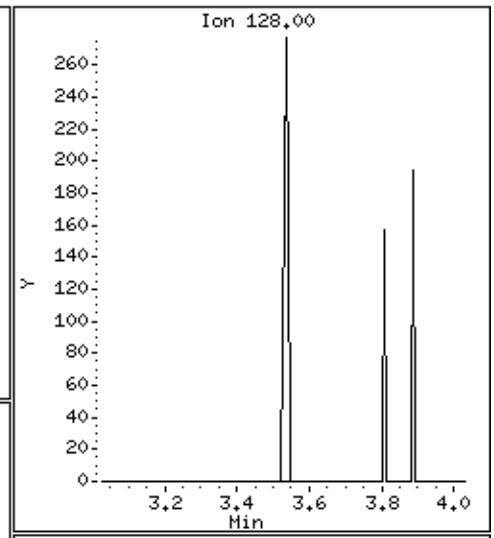
Concentration: 0.711 ug/Kg

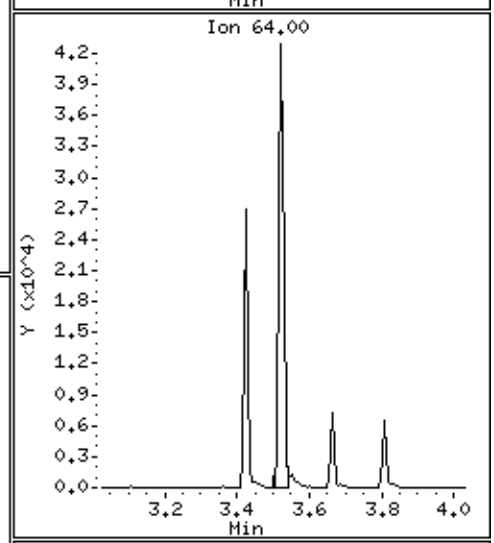


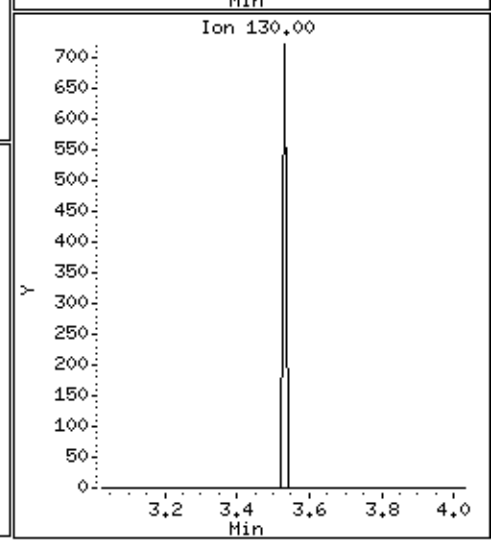












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

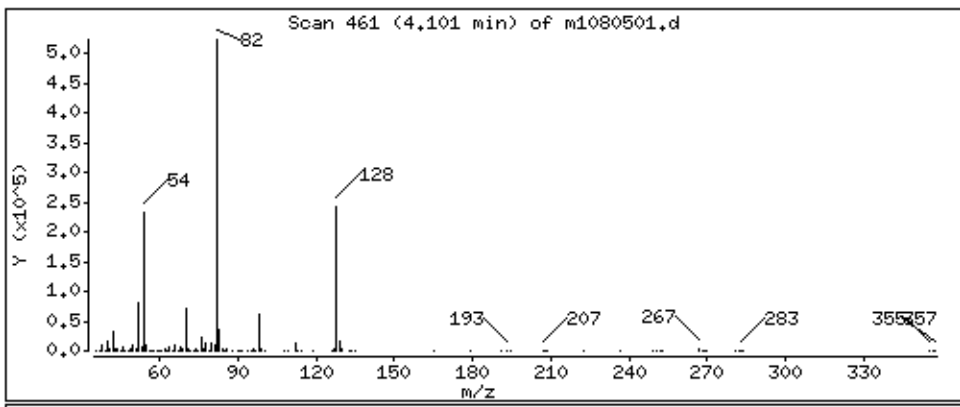
Operator: EAC

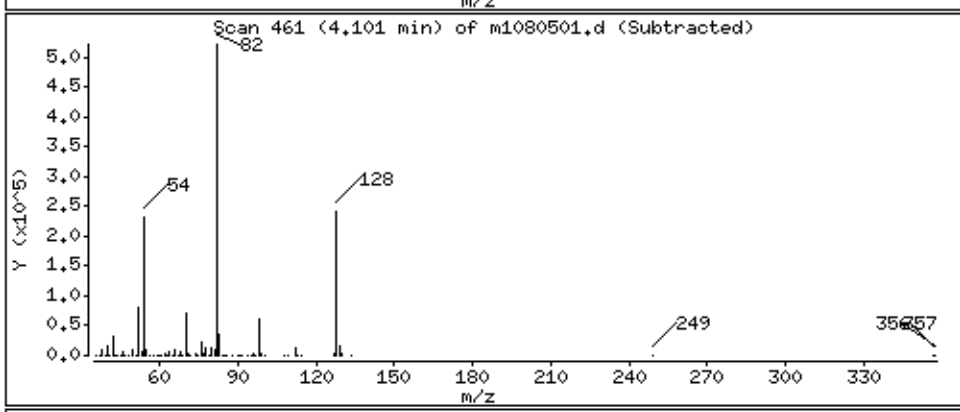
Column phase: RTX-5MS

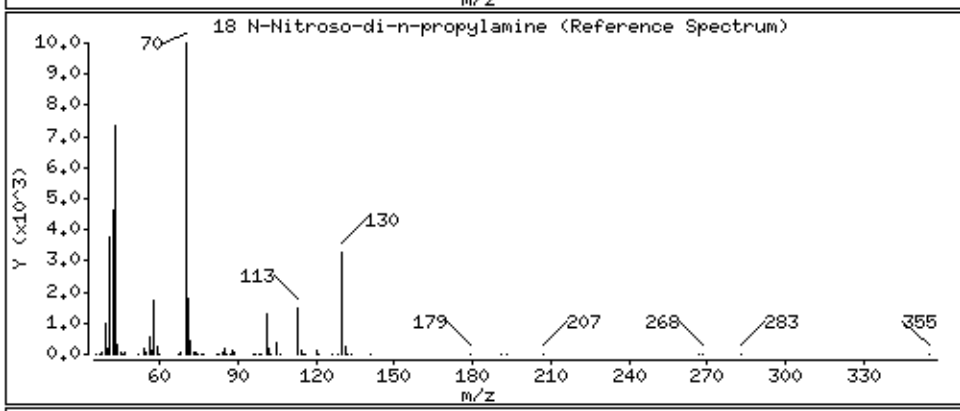
Column diameter: 0.18

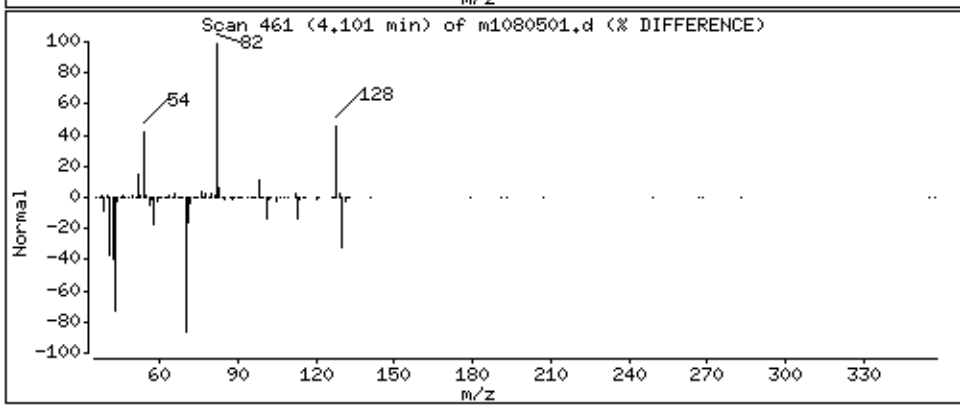
18 N-Nitroso-di-n-propylamine

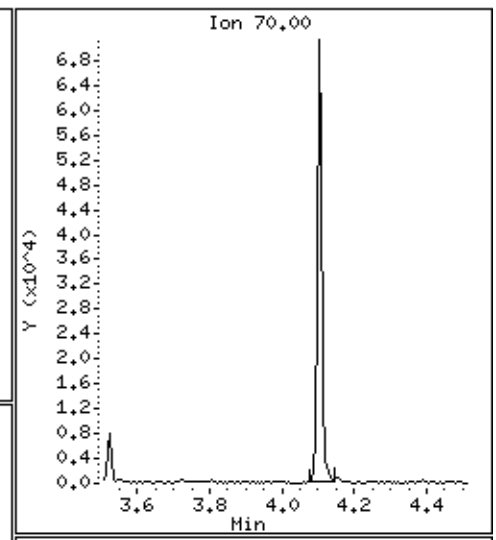
Concentration: 299 ug/Kg

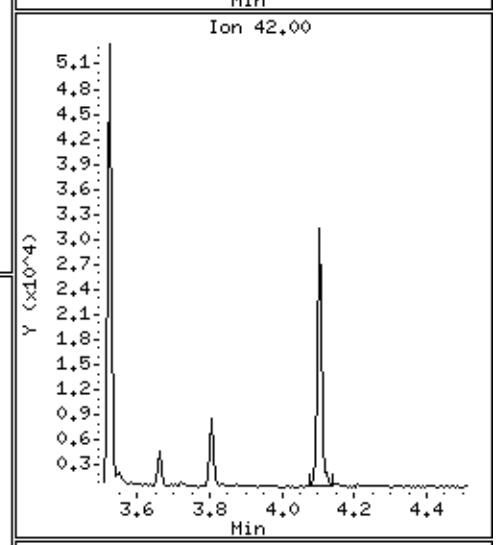


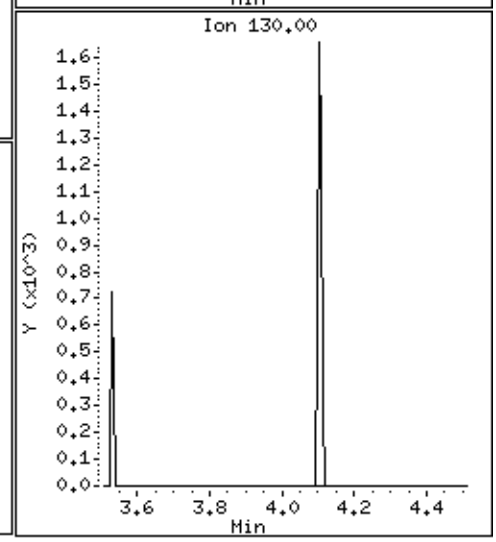












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

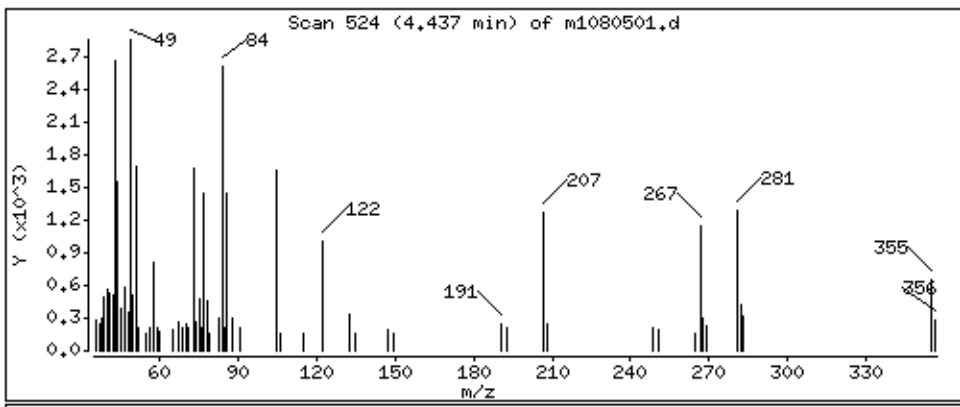
Operator: EAC

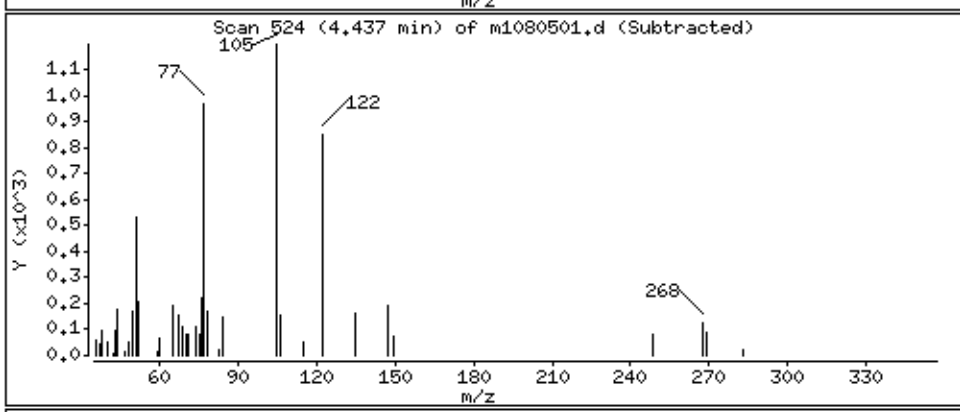
Column phase: RTX-5MS

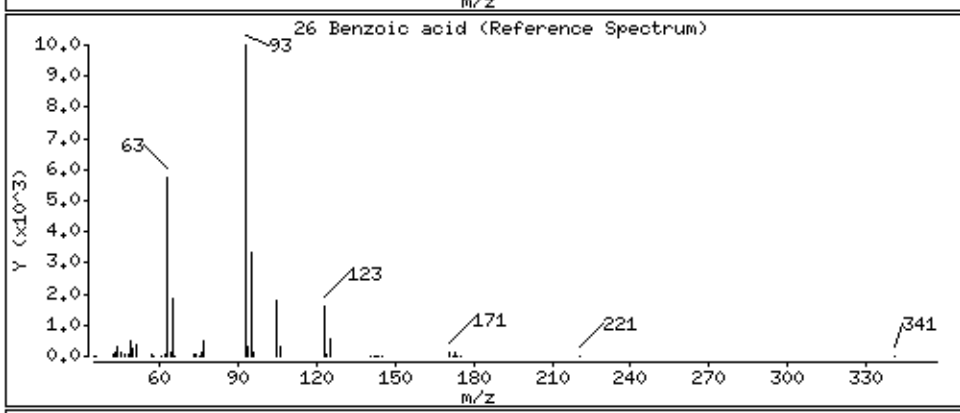
Column diameter: 0.18

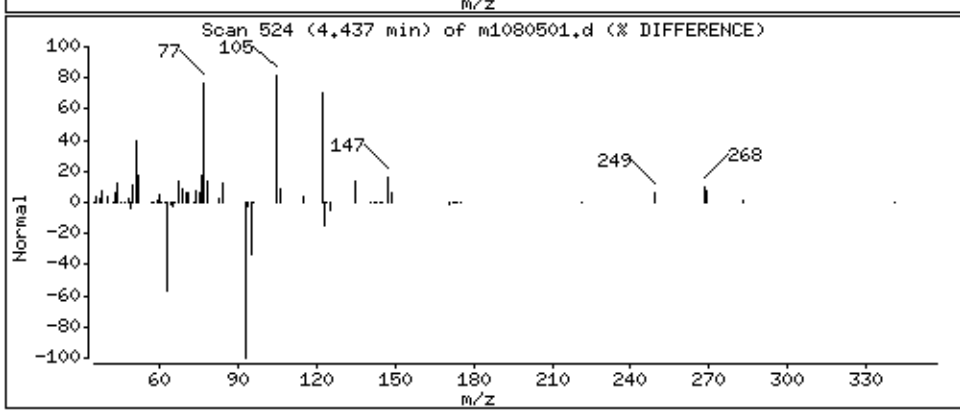
26 Benzoic acid

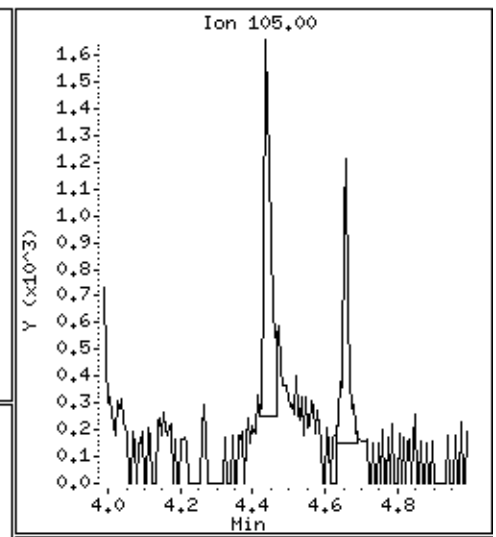
Concentration: 11.2 ug/Kg

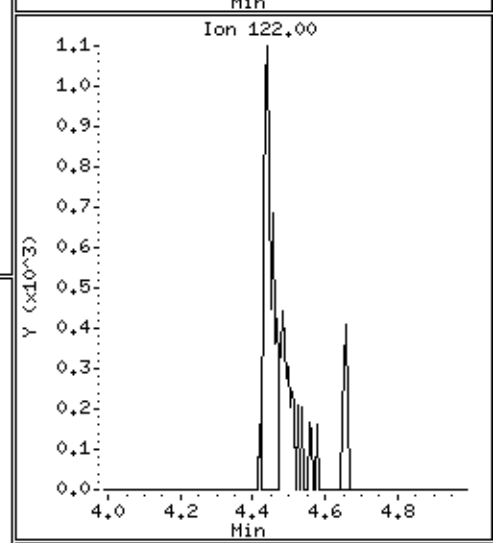


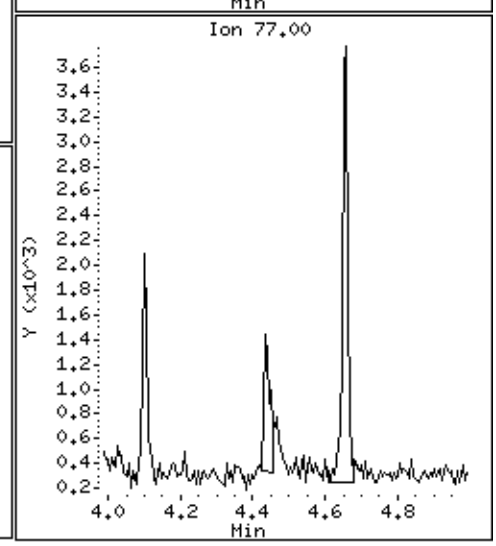












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

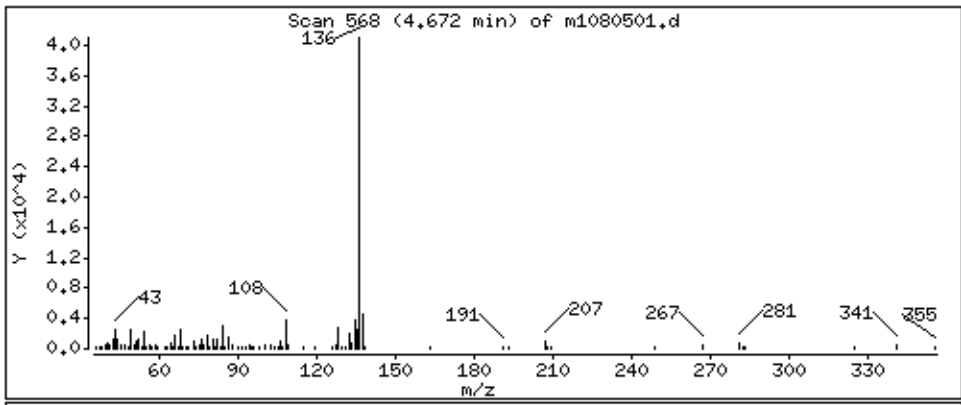
Operator: EAC

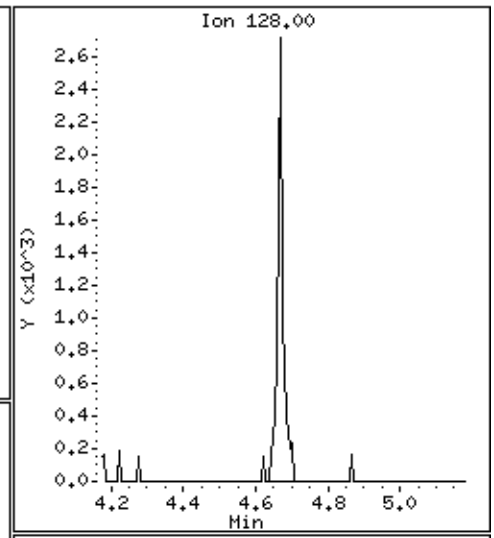
Column phase: RTX-5MS

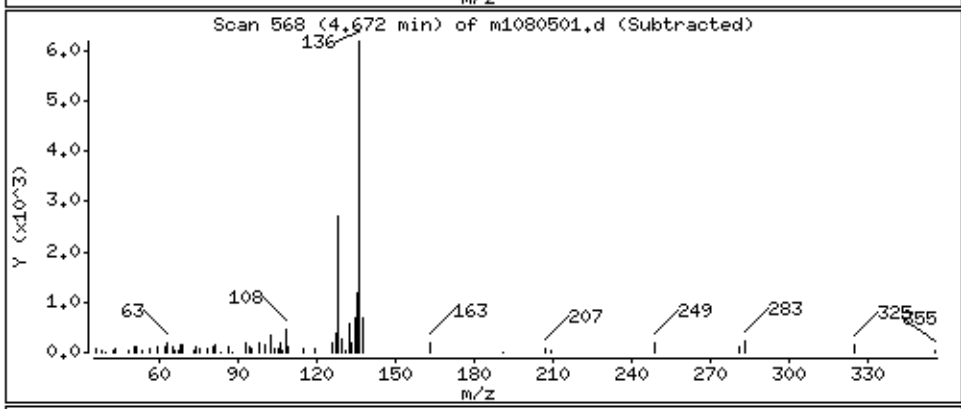
Column diameter: 0.18

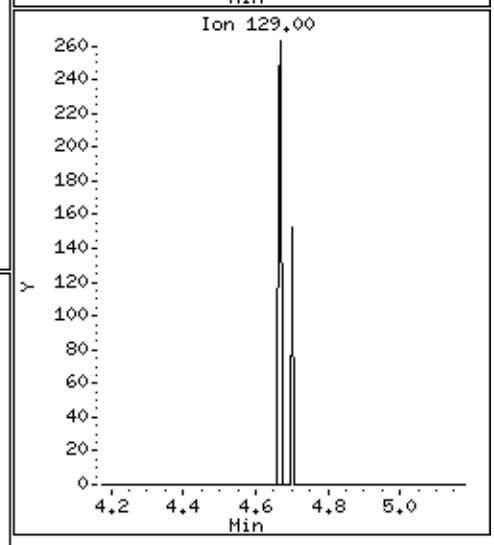
31 Naphthalene

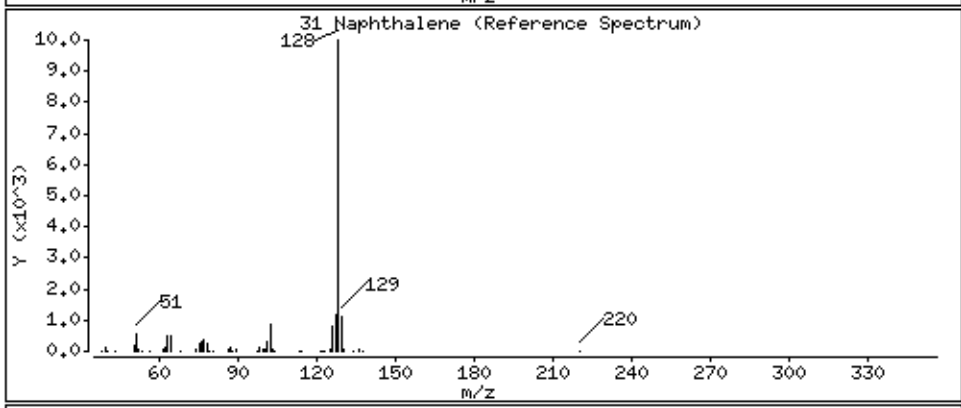
Concentration: 3.09 ug/Kg

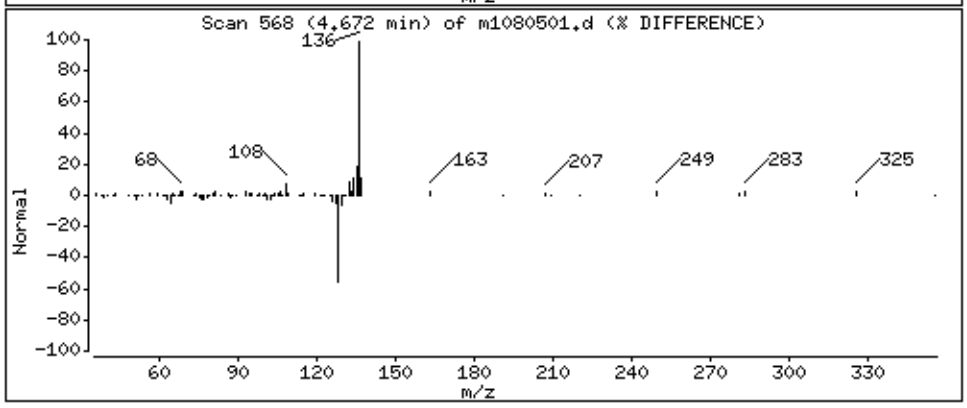












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

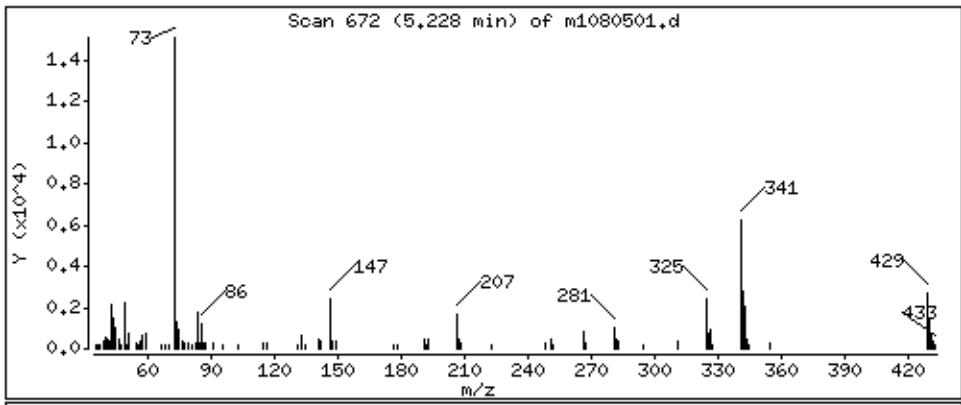
Operator: EAC

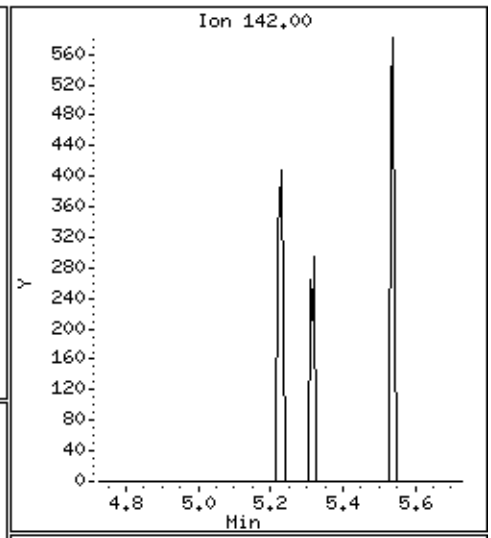
Column phase: RTX-5MS

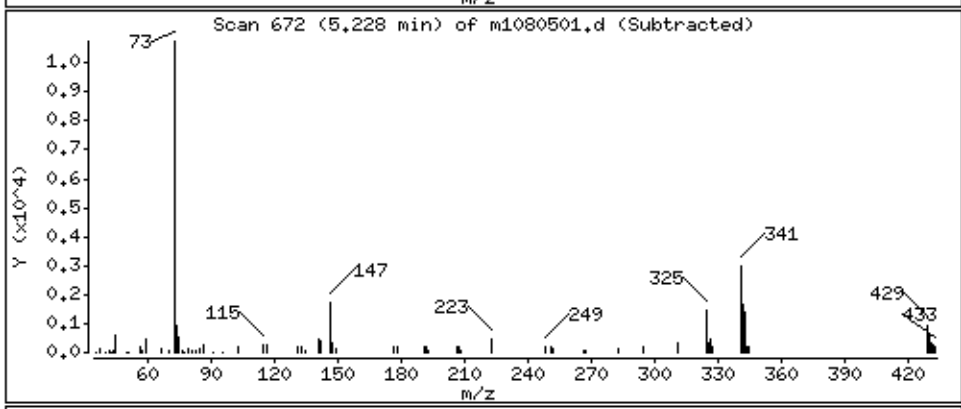
Column diameter: 0.18

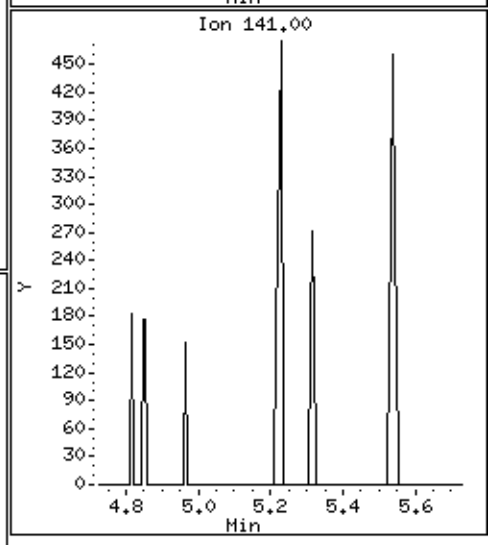
36 2-Methylnaphthalene

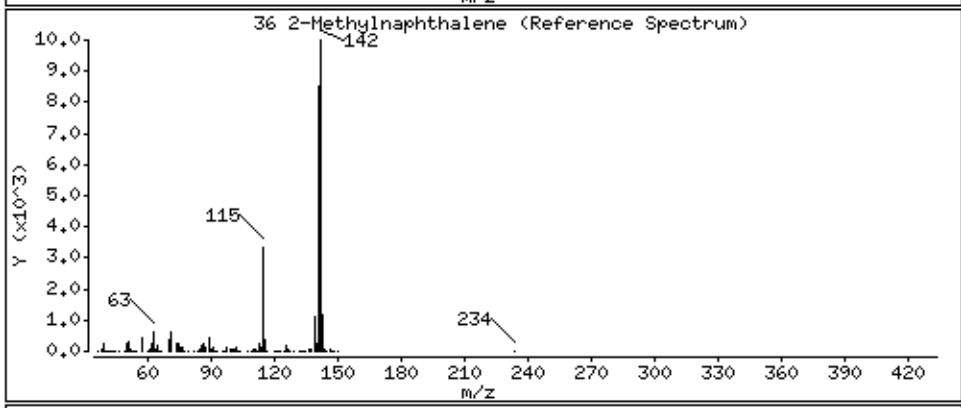
Concentration: 0.524 ug/Kg

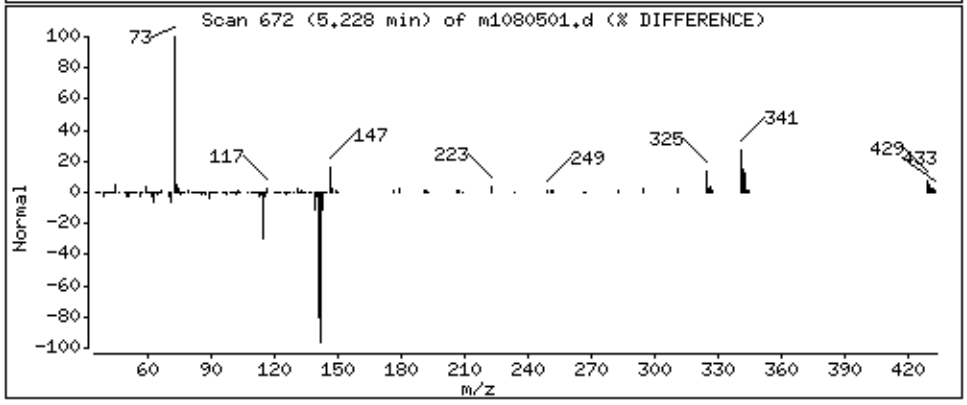












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

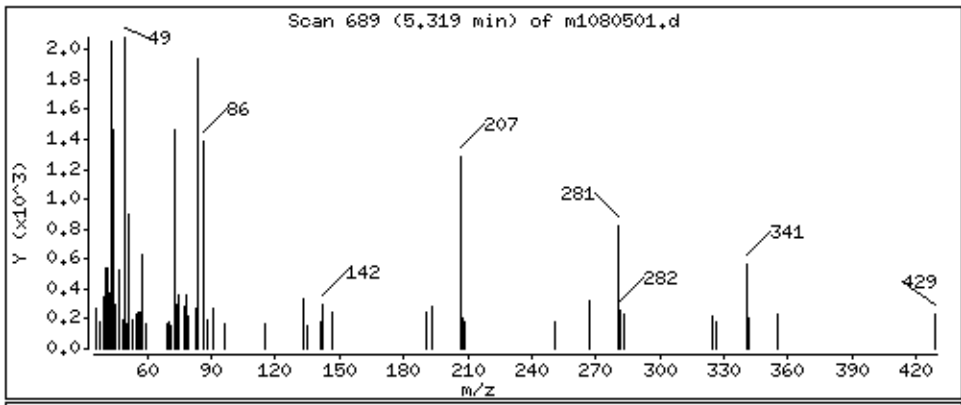
Operator: EAC

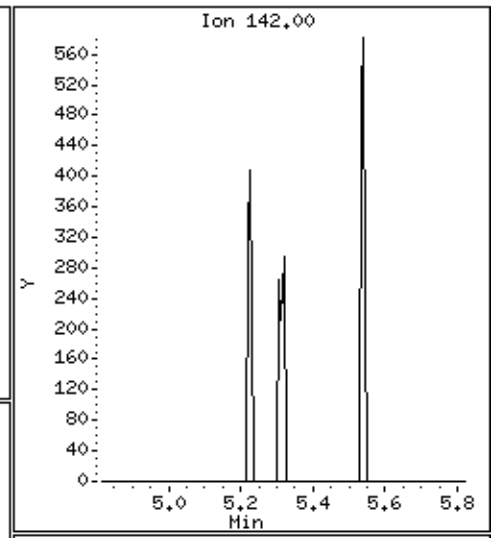
Column phase: RTX-5MS

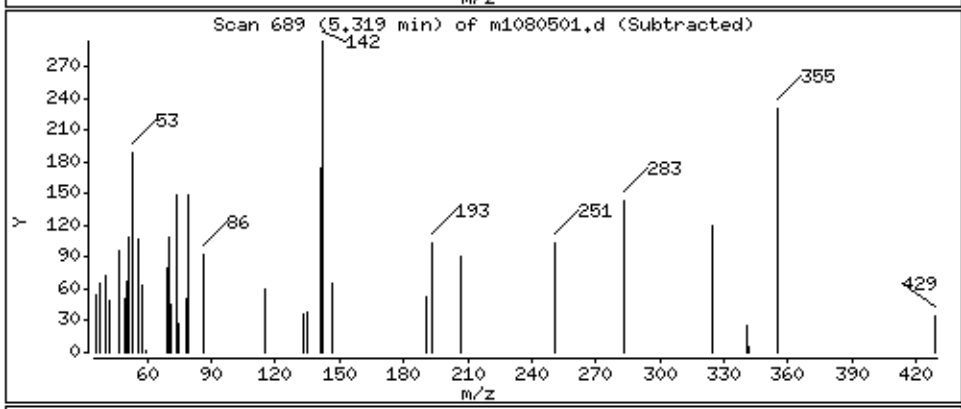
Column diameter: 0.18

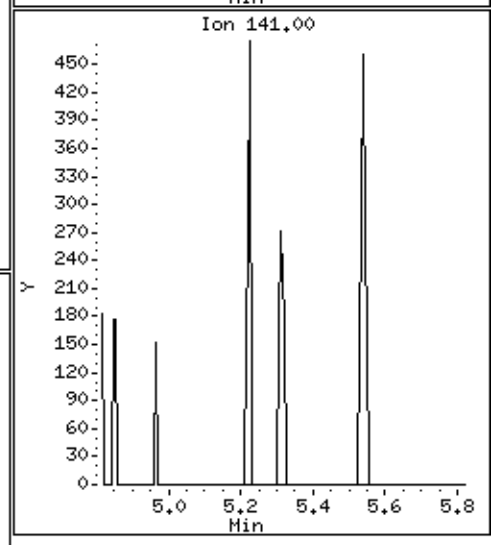
37 1-Methylnaphthalene

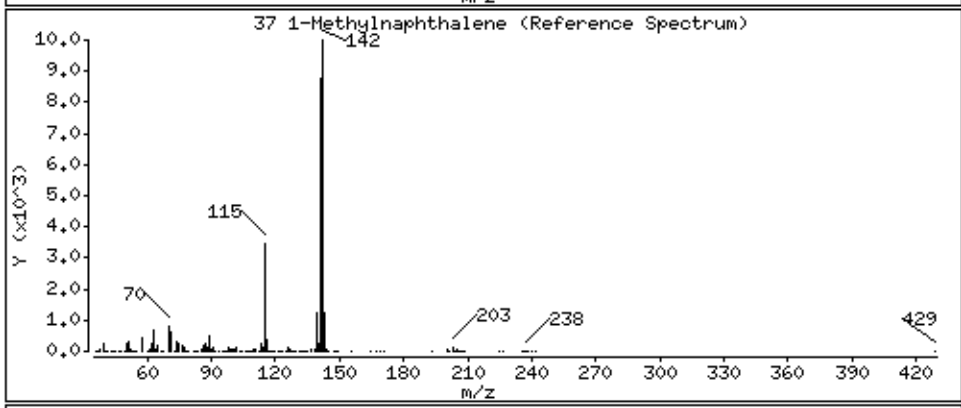
Concentration: 0.450 ug/Kg

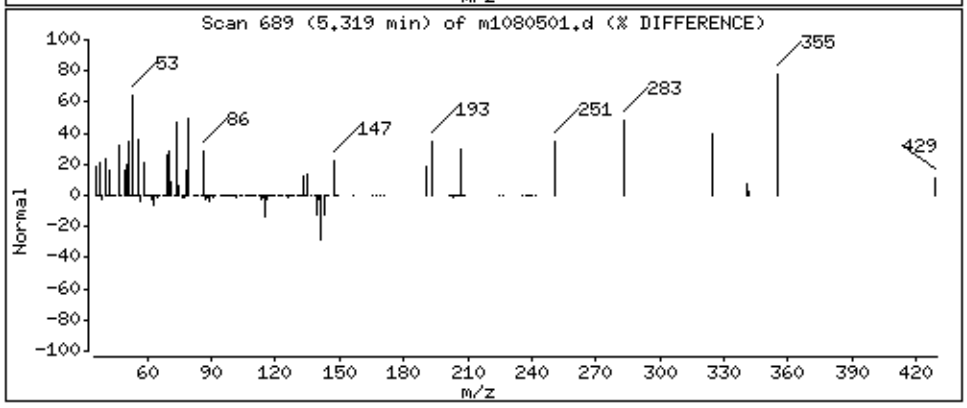












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

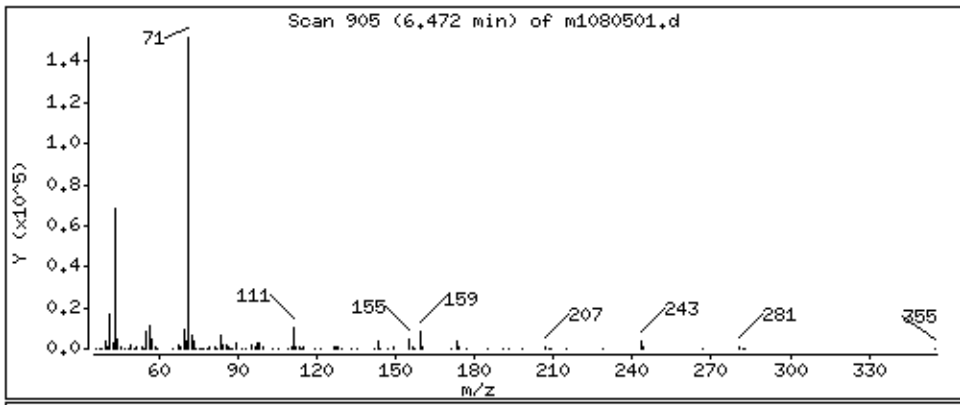
Operator: EAC

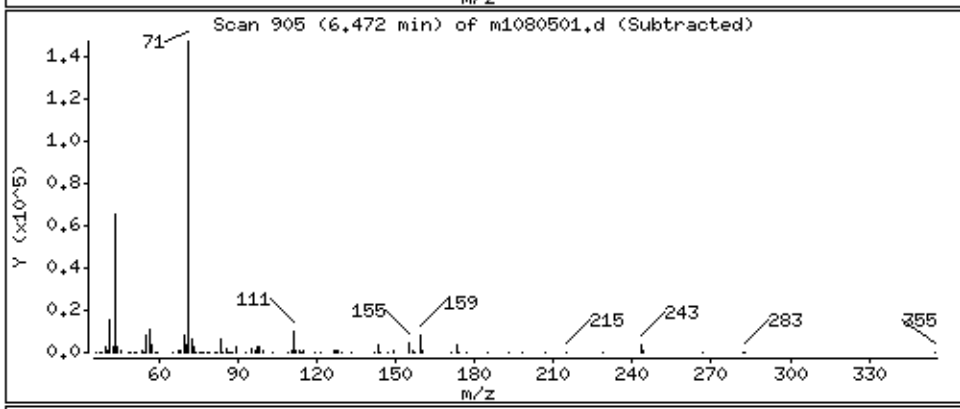
Column phase: RTX-5MS

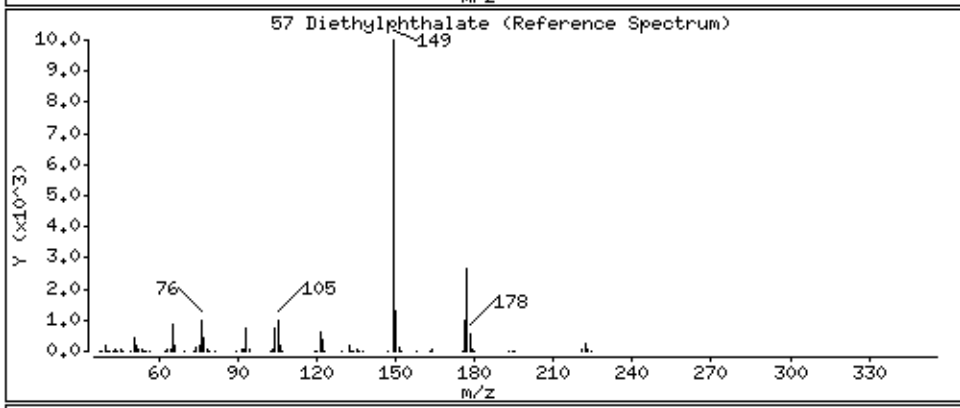
Column diameter: 0.18

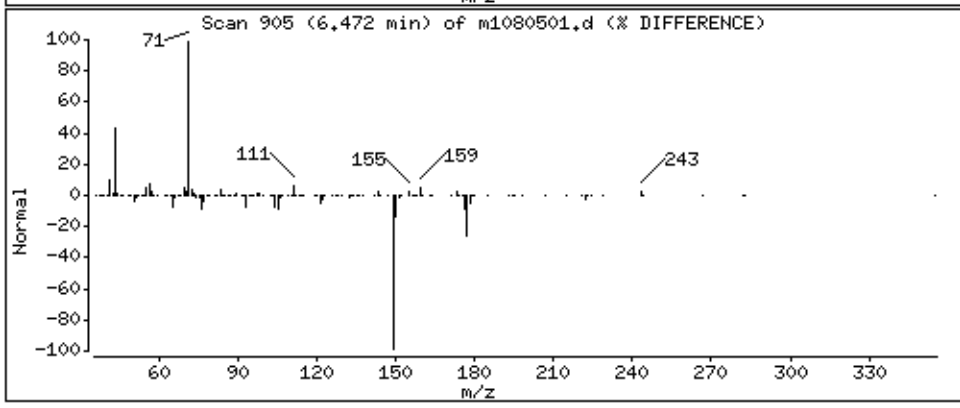
57 Diethylphthalate

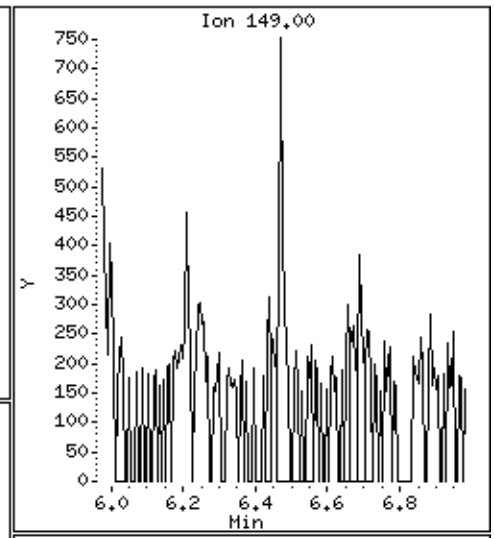
Concentration: 1.20 ug/Kg

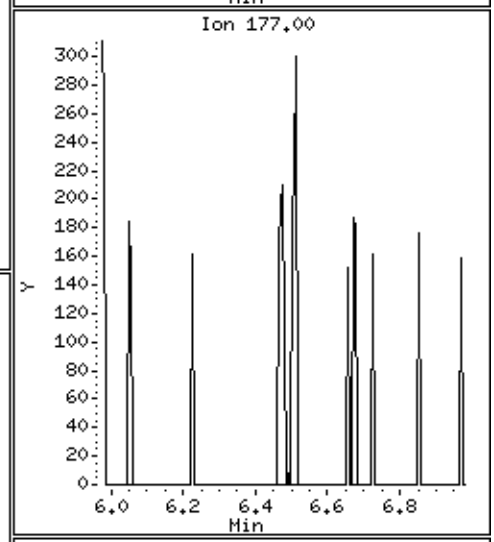


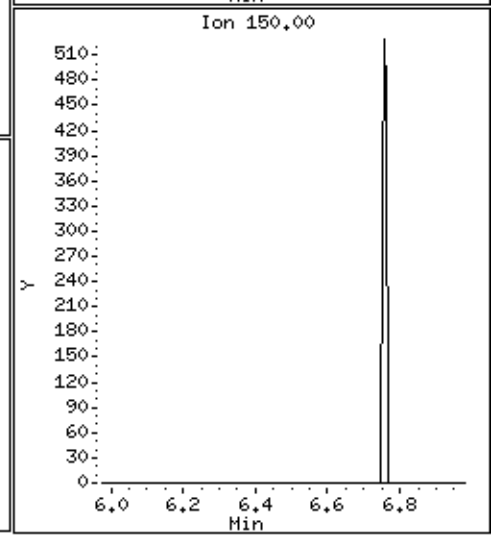












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Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

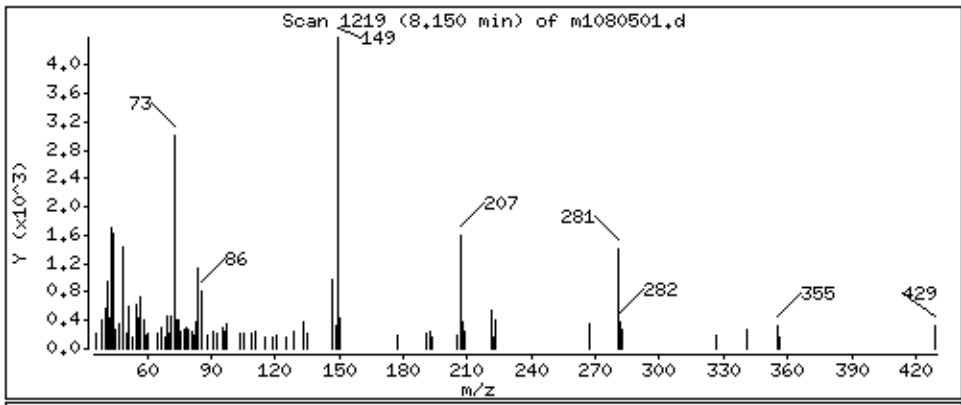
Operator: EAC

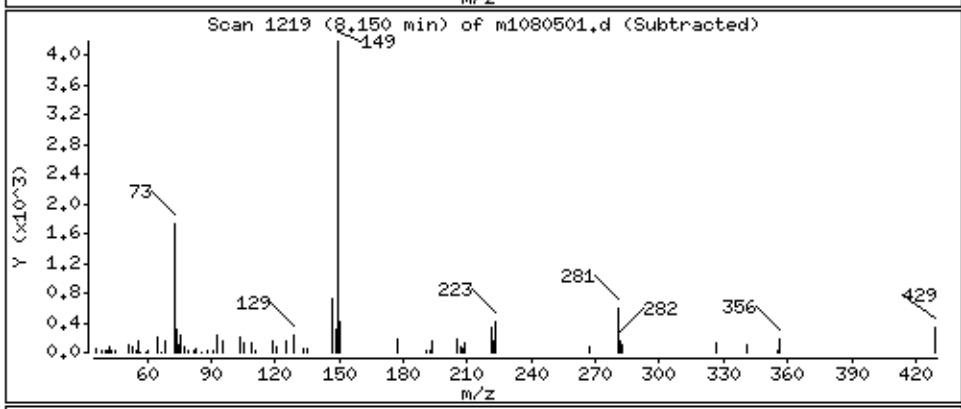
Column phase: RTX-5MS

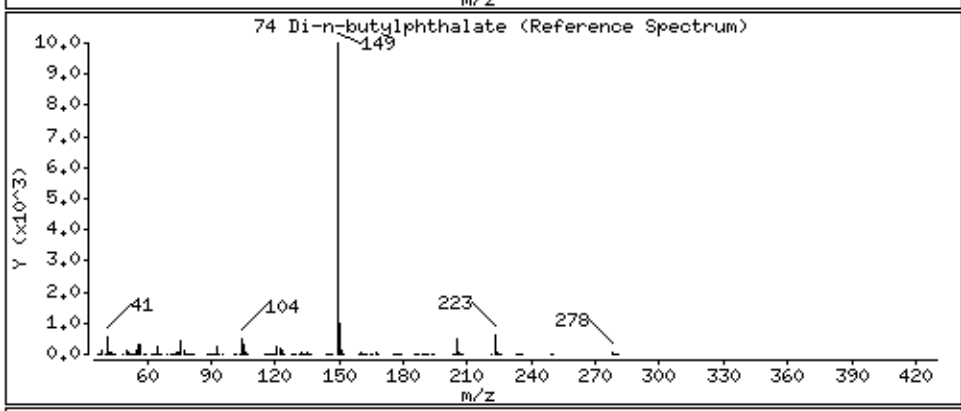
Column diameter: 0.18

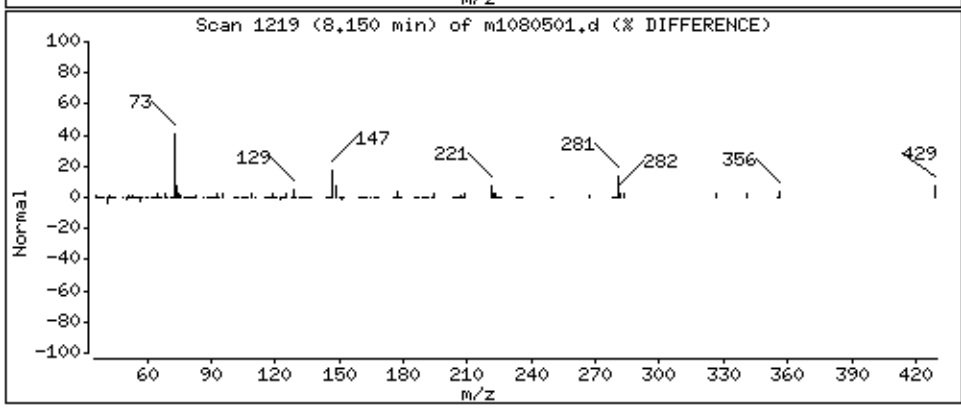
74 Di-n-butylphthalate

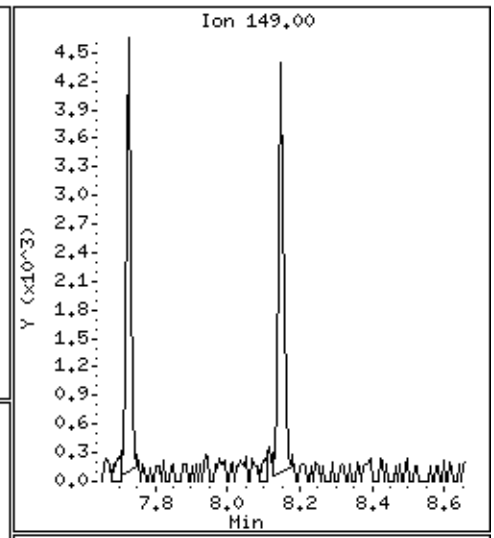
Concentration: 4.38 ug/Kg

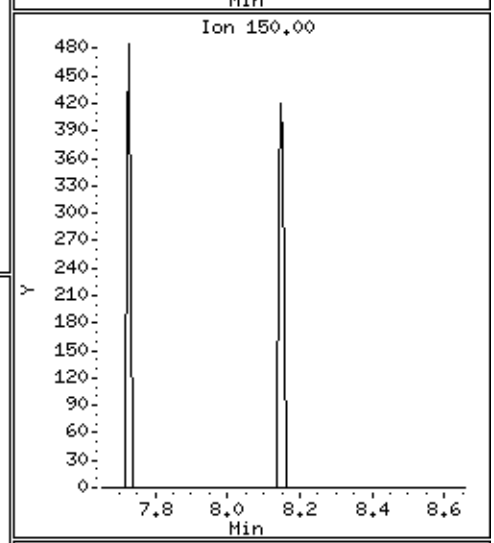


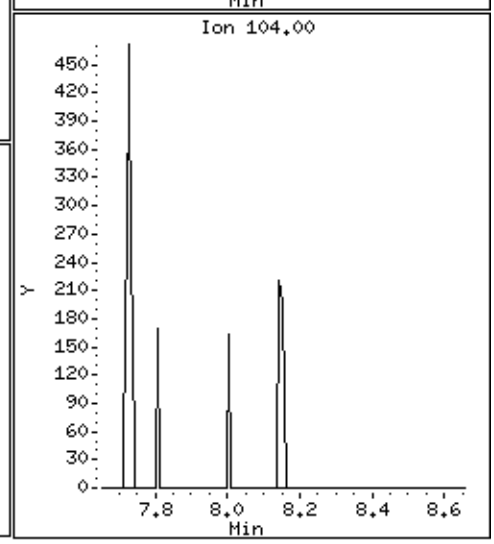












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d

Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

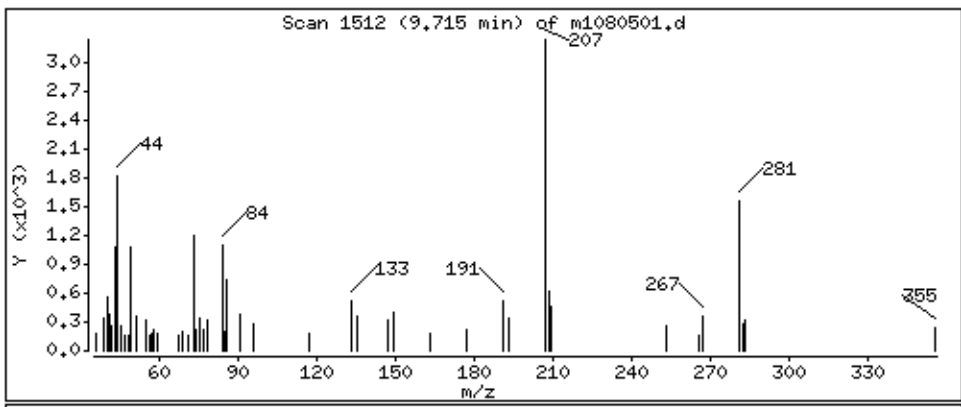
Operator: EAC

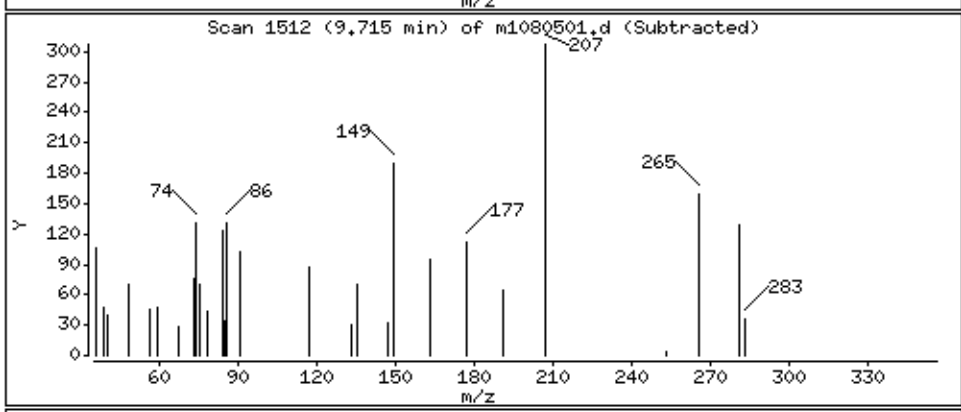
Column phase: RTX-5MS

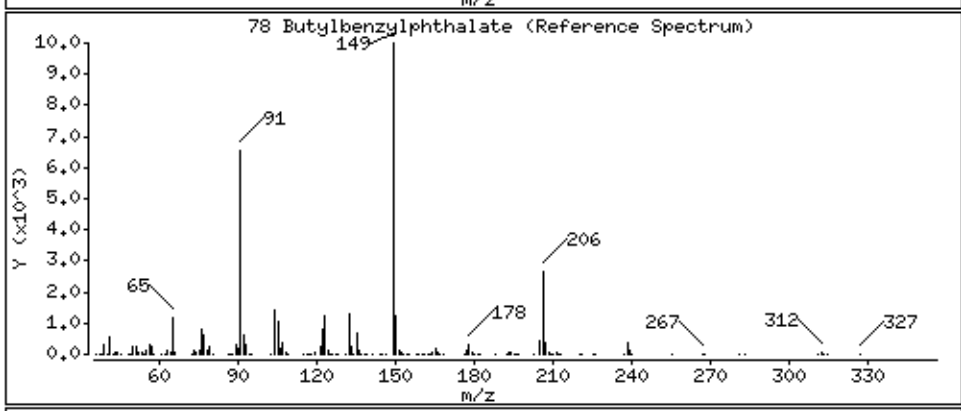
Column diameter: 0.18

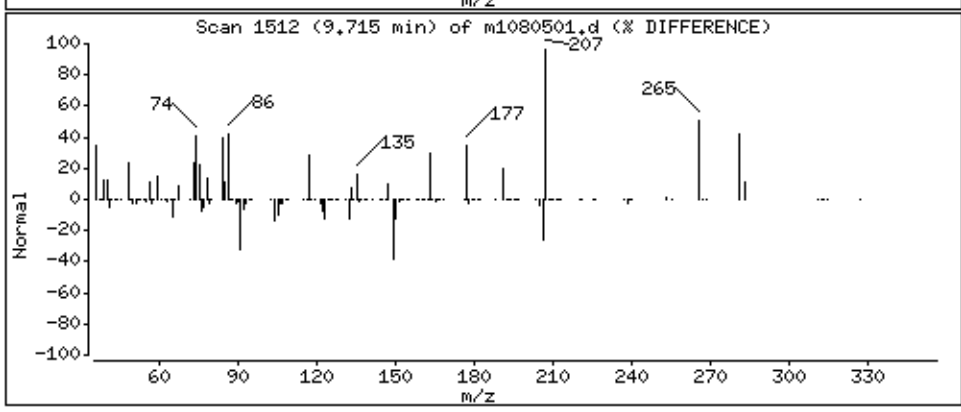
78 Butylbenzylphthalate

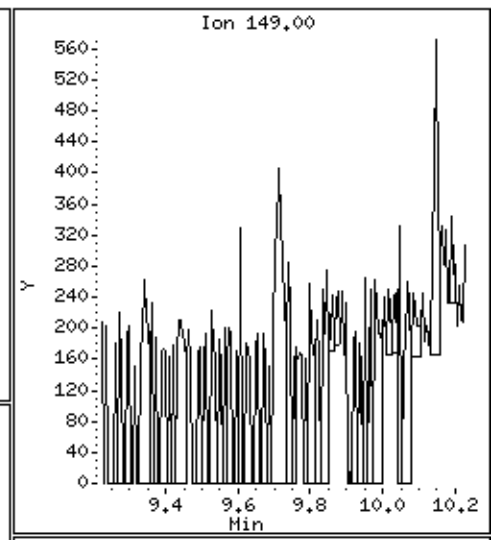
Concentration: 1.83 ug/Kg

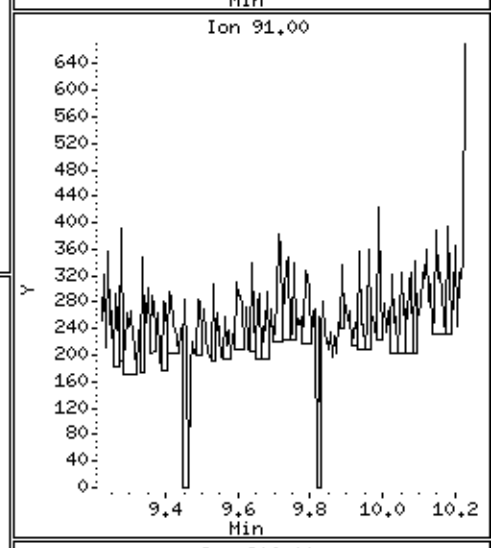


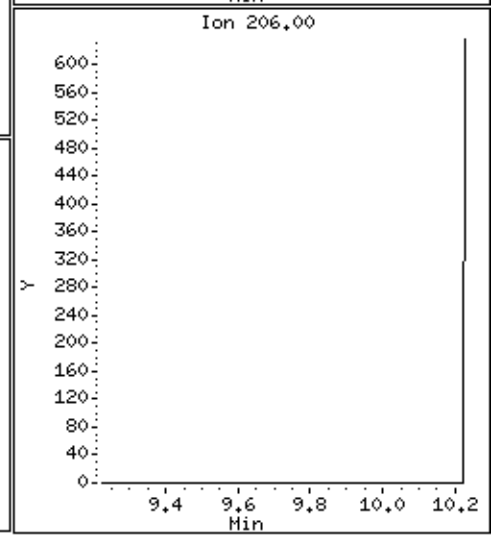












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d

Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

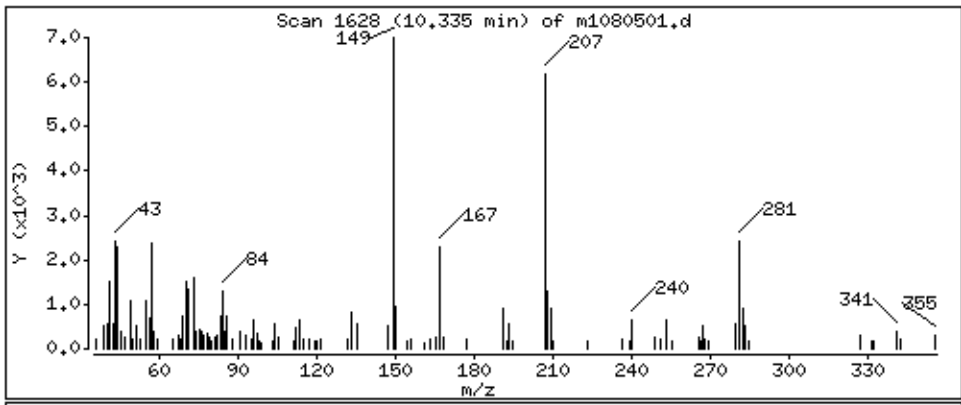
Operator: EAC

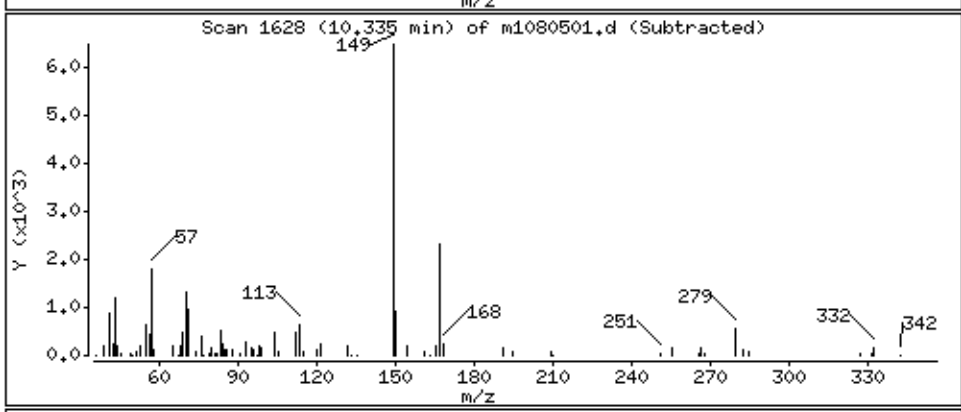
Column phase: RTX-5MS

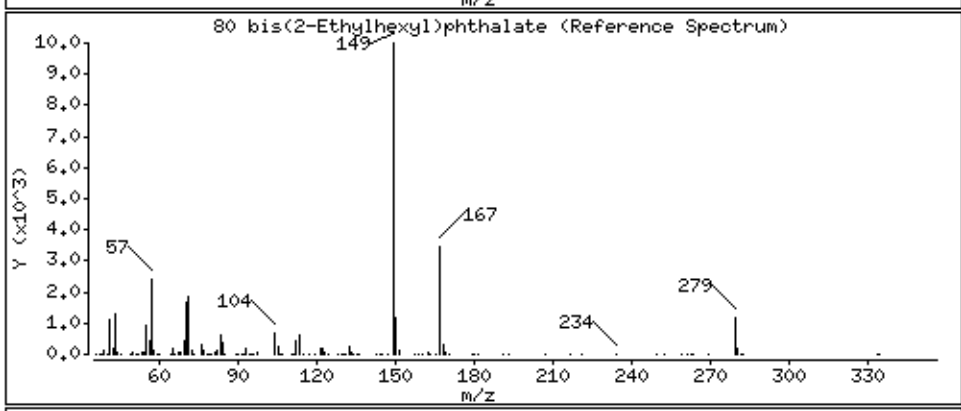
Column diameter: 0.18

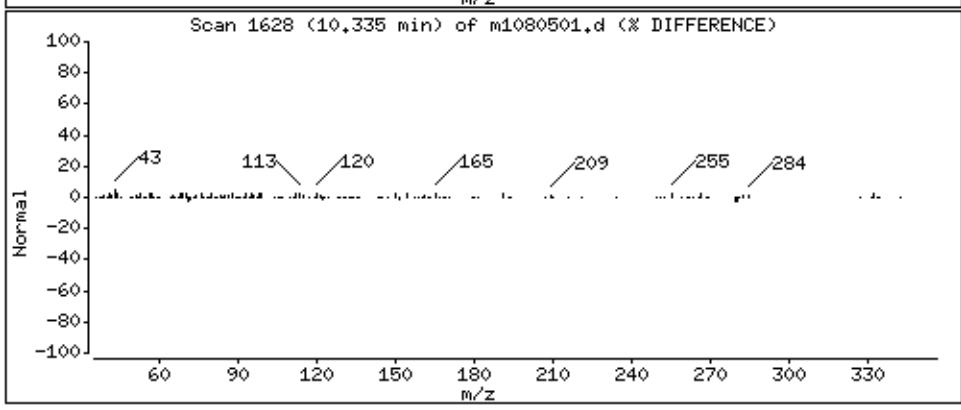
80 bis(2-Ethylhexyl)phthalate

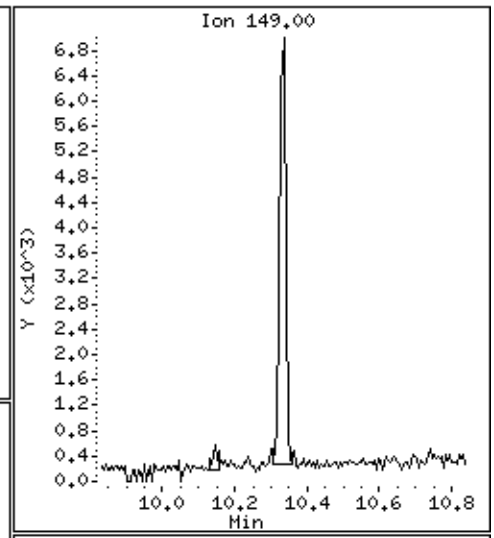
Concentration: 12.2 ug/Kg

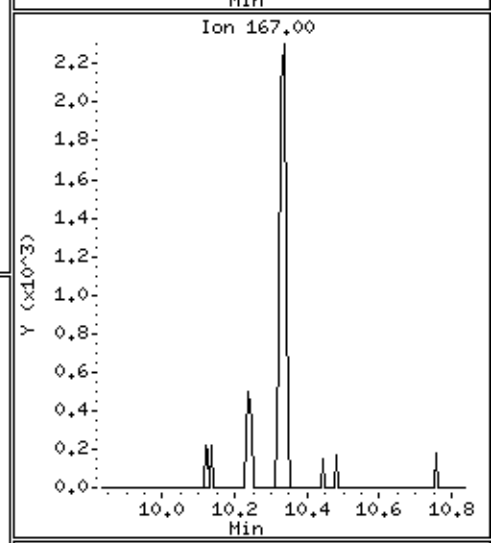


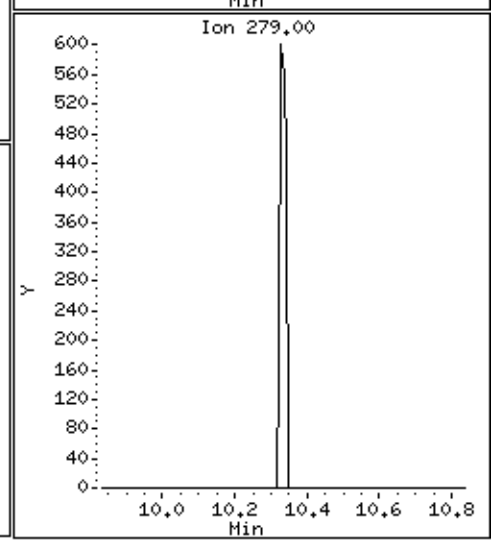












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d

Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

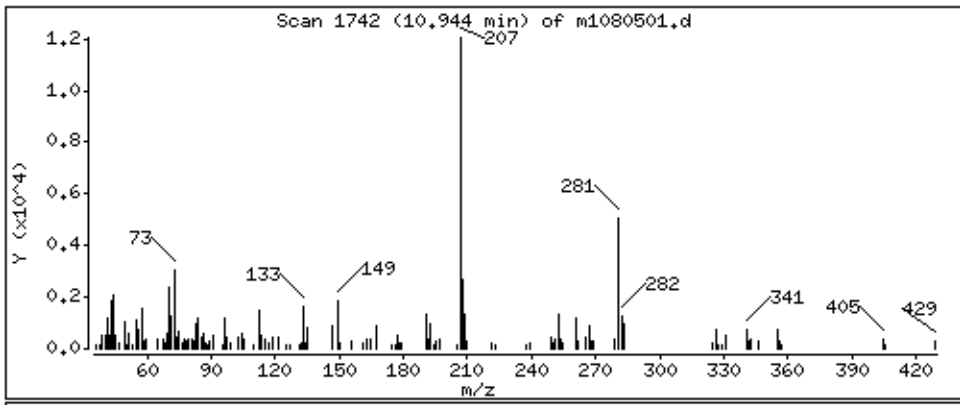
Operator: EAC

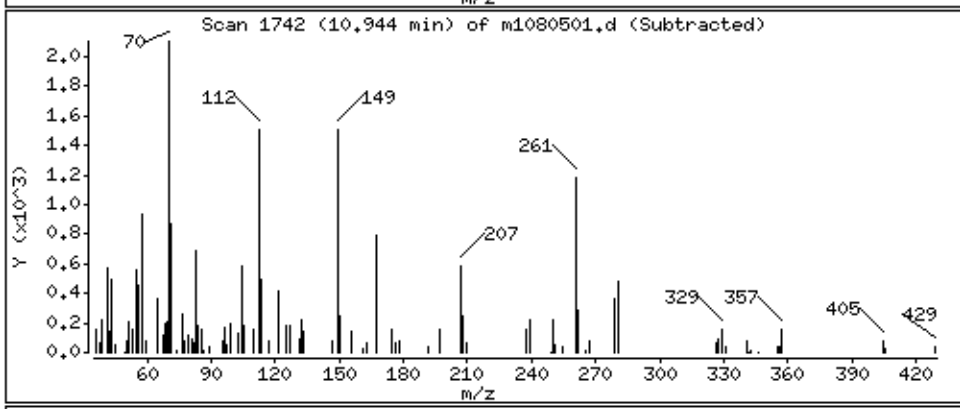
Column phase: RTX-5MS

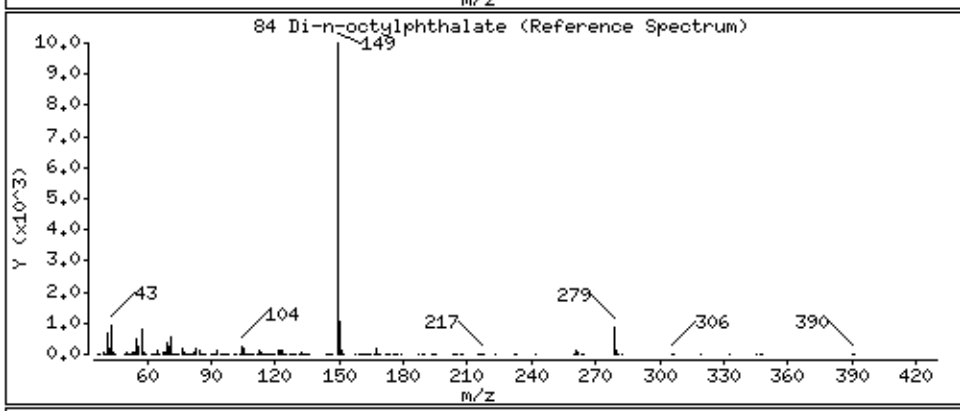
Column diameter: 0.18

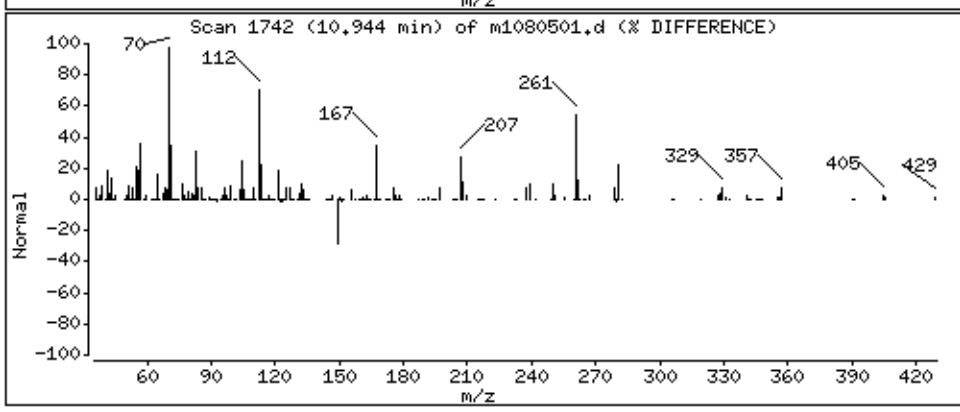
84 Di-n-octylphthalate

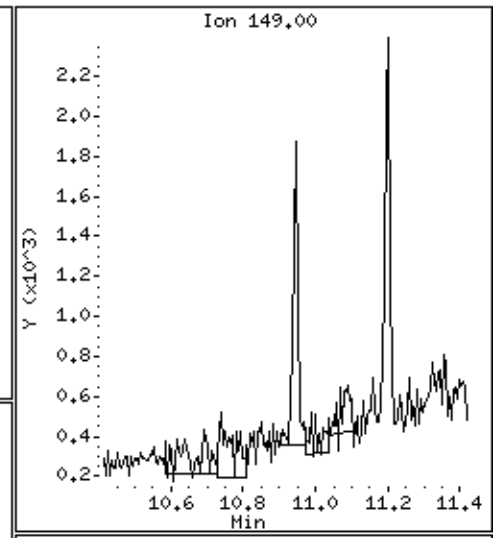
Concentration: 1.82 ug/Kg

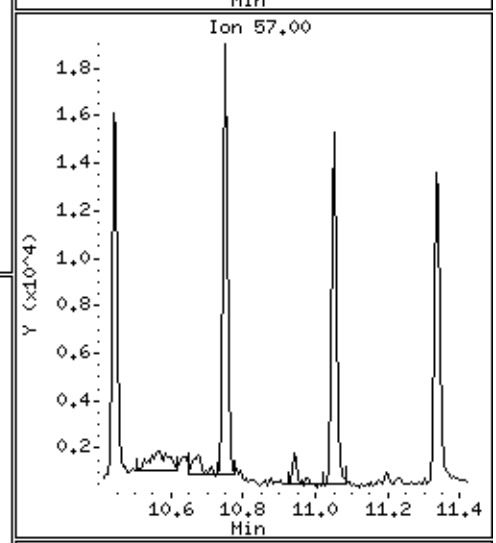


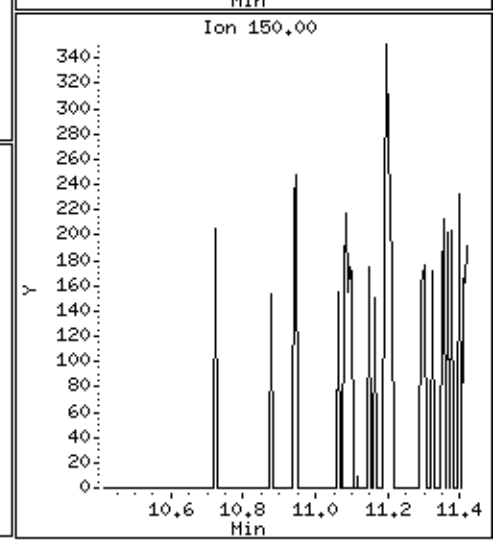












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080501.d

Date : 05-AUG-2019 15:50

Client ID: MB

Instrument: 30mss1.i

Sample Info: 1723155

Volume Injected (uL): 1.0

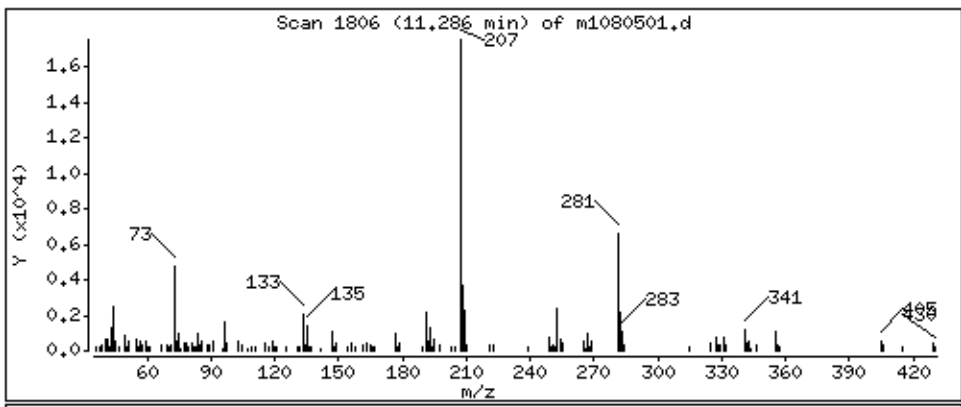
Operator: EAC

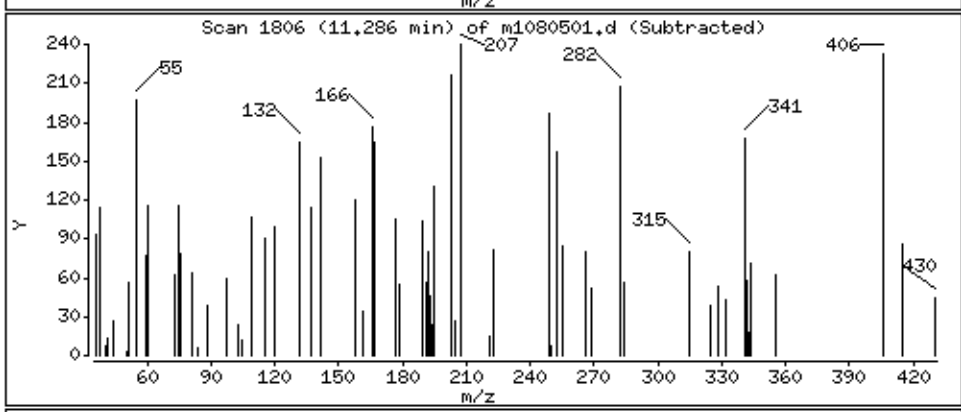
Column phase: RTX-5MS

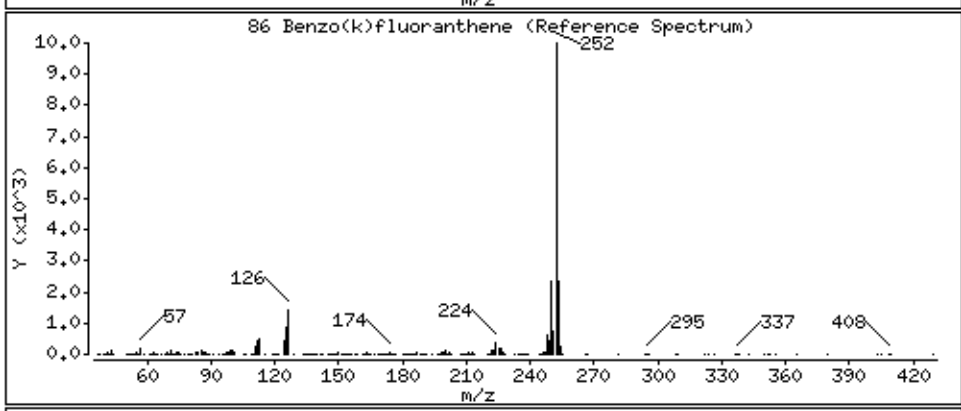
Column diameter: 0.18

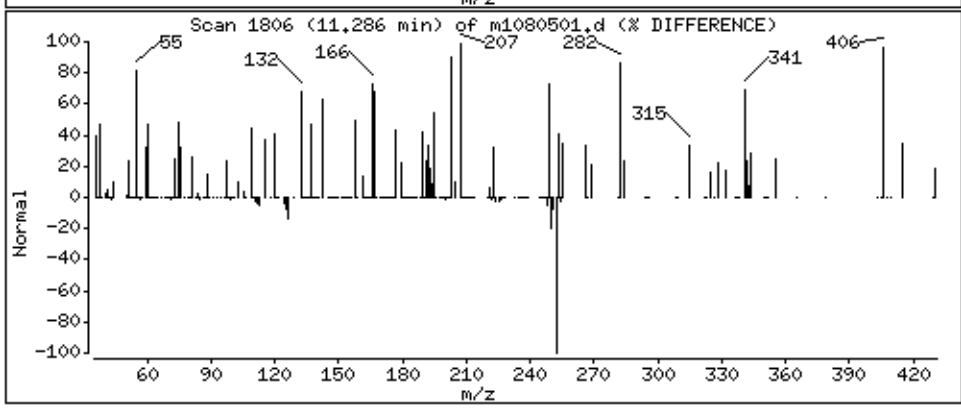
86 Benzo(k)fluoranthene

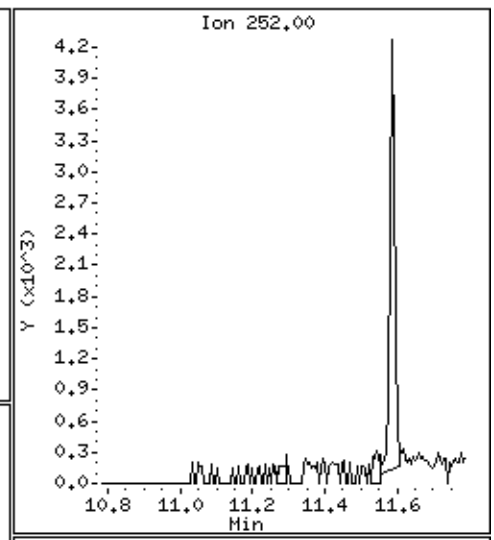
Concentration: 0.198 ug/Kg

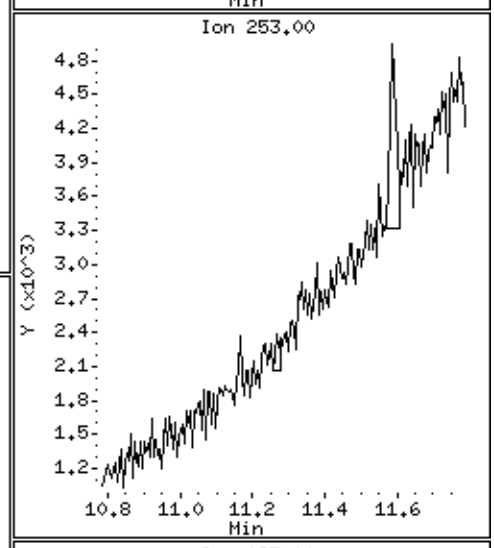


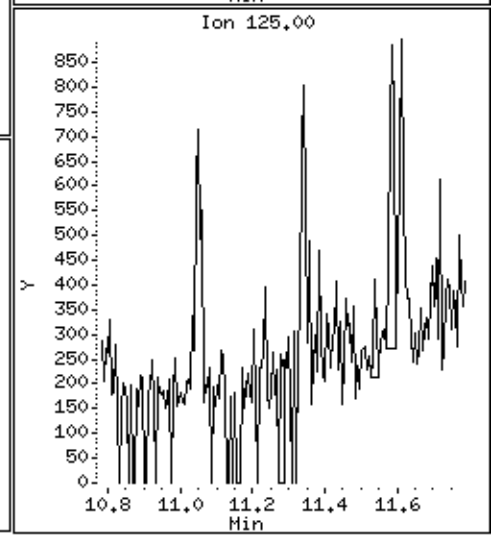












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b/m1080501.d
Injection Date: 05-AUG-2019 15:50
Instrument: 30mss1.i
Lab Sample ID: 1723155
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

LCS

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM/31401545.0
Date Received:
Matrix: Solid
SDG No.: 30317212
Date Extracted: 08/02/2019 08:36
Lab Sample ID: 1723156
Date Analyzed: 08/05/2019 16:13
Lab File ID: MSS1080519.B\M1080502.D
Initial wt/vol: 15.41 g
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30MSS1
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
83-32-9	Acenaphthene	3110	
208-96-8	Acenaphthylene	3210	
120-12-7	Anthracene	3110	
103-33-3	Azobenzene	3050	
56-55-3	Benzo(a)anthracene	3250	
50-32-8	Benzo(a)pyrene	3050	
205-99-2	Benzo(b)fluoranthene	3280	
191-24-2	Benzo(g,h,i)perylene	3360	
207-08-9	Benzo(k)fluoranthene	3200	
65-85-0	Benzoic acid	2310	J
100-51-6	Benzyl alcohol	3240	
101-55-3	4-Bromophenylphenyl ether	3170	
85-68-7	Butylbenzylphthalate	3630	
86-74-8	Carbazole	3190	
59-50-7	4-Chloro-3-methylphenol	3310	
106-47-8	4-Chloroaniline	3080	
111-91-1	bis(2-Chloroethoxy)methane	3010	
111-44-4	bis(2-Chloroethyl) ether	2840	
108-60-1	bis(2-Chloroisopropyl) ether	2910	
91-58-7	2-Chloronaphthalene	3100	
95-57-8	2-Chlorophenol	2960	
7005-72-3	4-Chlorophenylphenyl ether	3180	
218-01-9	Chrysene	3050	
53-70-3	Dibenz(a,h)anthracene	3400	
132-64-9	Dibenzofuran	3210	
95-50-1	1,2-Dichlorobenzene	2680	
541-73-1	1,3-Dichlorobenzene	2720	
106-46-7	1,4-Dichlorobenzene	2450	
91-94-1	3,3'-Dichlorobenzidine	2850	
120-83-2	2,4-Dichlorophenol	3140	
84-66-2	Diethylphthalate	3380	
105-67-9	2,4-Dimethylphenol	3120	
131-11-3	Dimethylphthalate	3320	
84-74-2	Di-n-butylphthalate	3480	
534-52-1	4,6-Dinitro-2-methylphenol	3670	
51-28-5	2,4-Dinitrophenol	3050	
121-14-2	2,4-Dinitrotoluene	3540	

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-2
SEMI-VOLATILE ORGANICS ANALYSIS DATA

LCS

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT-Soil IRM/31401545.0
Date Received:
Matrix: Solid SDG No.: 30317212
Date Extracted: 08/02/2019 08:36
Lab Sample ID: 1723156
Date Analyzed: 08/05/2019 16:13
Lab File ID: MSS1080519.B\M1080502.D
Initial wt/vol: 15.41 g Final wt/vol: 5 mL Dilution: 1
Instrument: 30MSS1 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
606-20-2	2,6-Dinitrotoluene	3260	
117-84-0	Di-n-octylphthalate	3850	
117-81-7	bis(2-Ethylhexyl)phthalate	3500	
206-44-0	Fluoranthene	3280	
86-73-7	Fluorene	3180	
87-68-3	Hexachloro-1,3-butadiene	2890	
118-74-1	Hexachlorobenzene	3170	
77-47-4	Hexachlorocyclopentadiene	2910	
67-72-1	Hexachloroethane	2750	
193-39-5	Indeno(1,2,3-cd)pyrene	3300	
78-59-1	Isophorone	3200	
90-12-0	1-Methylnaphthalene	3040	
91-57-6	2-Methylnaphthalene	3090	
95-48-7	2-Methylphenol(o-Cresol)	3010	
	3&4-Methylphenol(m&p Cresol)	6230	
91-20-3	Naphthalene	2980	
88-74-4	2-Nitroaniline	3490	
99-09-2	3-Nitroaniline	3570	
100-01-6	4-Nitroaniline	3890	
98-95-3	Nitrobenzene	3050	
88-75-5	2-Nitrophenol	3120	
100-02-7	4-Nitrophenol	3470	
62-75-9	N-Nitrosodimethylamine	3400	
621-64-7	N-Nitroso-di-n-propylamine	3080	
86-30-6	N-Nitrosodiphenylamine	3190	
87-86-5	Pentachlorophenol	3790	
85-01-8	Phenanthrene	3300	
108-95-2	Phenol	3320	
129-00-0	Pyrene	3330	
120-82-1	1,2,4-Trichlorobenzene	2890	
95-95-4	2,4,5-Trichlorophenol	3130	
88-06-2	2,4,6-Trichlorophenol	3560	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d
Lab Smp Id: 1723156 Client Smp ID: MBLCS
Inj Date : 05-AUG-2019 16:13
Operator : EAC Inst ID: 30mss1.i
Smp Info : 1723156
Misc Info : 14918
Comment :
Method : \\30wintarget\chem\30mss1.i\mss1080519.b\8270073019.m
Meth Date : 06-Aug-2019 16:16 ecalderone Quant Type: ISTD
Cal Date : 30-JUL-2019 16:42 Cal File: m10730y7.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSS1WS10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.410	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.852	1.728	(0.506)	608005	10.4651	3400	
	2 Pyridine	79	1.857	1.723	(0.508)	901754	10.2760	3330	
$	3 2-Fluorophenol (S)	112	2.797	2.759	(0.765)	713328	7.40271	2400	
$	4 Phenol-d6 (S)	99	3.422	3.422	(0.936)	870735	6.99254	2270	
	5 Benzaldehyde	77	3.347	3.347	(0.915)	219158	2.54954	827	
	6 Phenol	94	3.428	3.432	(0.937)	1340223	10.2305	3320	
	7 Aniline	66	3.444	3.448	(0.942)	459058	7.82934	2540	
	8 bis(2-Chloroethyl)ether	63	3.481	3.486	(0.952)	647674	8.76032	2840	
	9 2-Chlorophenol	128	3.529	3.529	(0.965)	1010387	9.12541	2960	
	10 1,3-Dichlorobenzene	146	3.631	3.635	(0.993)	1019160	8.38132	2720	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.657	3.662	(1.000)	327224	4.00000		
	12 1,4-Dichlorobenzene	146	3.668	3.678	(1.003)	995268	7.55537	2450	
	13 Benzyl Alcohol	79	3.775	3.780	(1.032)	849248	9.97801	3240	
	14 1,2-Dichlorobenzene	146	3.812	3.817	(1.042)	985033	8.25275	2680	
	15 2-Methylphenol(o-Cresol)	108	3.876	3.876	(1.060)	960957	9.29104	3010	
	16 bis(2-Chloroisopropyl)ether	45	3.892	3.897	(1.064)	1122367	8.97967	2910	
	17 3&4-Methylphenol(m&p Cresol)	108	3.988	3.988	(1.091)	2060876	19.2022	6230	
	18 N-Nitroso-di-n-propylamine	70	4.004	4.009	(1.095)	750901	9.49779	3080	

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/Kg)	REVIEW C
19	Acetophenone	105	3.983	3.988	(1.089)	1360971	9.23216	3000	
20	Hexachloroethane	117	4.047	4.057	(1.107)	405617	8.48816	2750	
$ 21	Nitrobenzene-d5 (S)	128	4.101	4.106	(0.881)	247724	4.64013	1500	
22	Nitrobenzene	77	4.111	4.122	(0.883)	1034595	9.41226	3050	
23	Isophorone	82	4.298	4.303	(0.923)	1986541	9.86874	3200	
24	2,4-Dimethylphenol	107	4.394	4.399	(0.944)	1057328	9.60623	3120	
25	2-Nitrophenol	139	4.368	4.373	(0.938)	568753	9.62291	3120	
26	Benzoic acid	105	4.480	4.490	(0.962)	444306	7.11199	2310(M)	LT
27	bis(2-Chloroethoxy)methane	93	4.469	4.474	(0.960)	1173962	9.27204	3010	
28	2,4-Dichlorophenol	162	4.555	4.554	(0.978)	881685	9.68477	3140	
29	1,2,4-Trichlorobenzene	180	4.619	4.624	(0.992)	912819	8.90547	2890	
* 30	Naphthalene-d8 (IS)	136	4.656	4.661	(1.000)	1370372	4.00000		
31	Naphthalene	128	4.672	4.677	(1.003)	2964851	9.19239	2980	
32	4-Chloroaniline	65	4.726	4.725	(1.015)	323854	9.48114	3080	
33	Hexachloro-1,3-butadiene	225	4.816	4.821	(1.034)	512392	8.90521	2890	
34	Caprolactam	55	4.993	4.992	(1.072)	375436	10.9806	3560(MH)	LT
35	4-Chloro-3-methylphenol	107	5.121	5.121	(1.100)	915280	10.2109	3310	
36	2-Methylnaphthalene	142	5.228	5.227	(1.123)	2121277	9.51077	3080	
37	1-Methylnaphthalene	142	5.313	5.318	(1.141)	1953722	9.37798	3040	
38	Hexachlorocyclopentadiene	237	5.415	5.414	(0.889)	614761	8.96641	2910	
39	1,2,4,5-Tetrachlorobenzene	216	5.399	5.398	(0.886)	927806	9.46220	3070	
40	2,4,6-Trichlorophenol	196	5.479	5.478	(0.899)	771981	10.9848	3560	
41	2,4,5-Trichlorophenol	196	5.511	5.511	(0.904)	576614	9.65653	3130	
$ 42	2-Fluorobiphenyl (S)	172	5.538	5.543	(0.909)	1138909	4.85738	1580	
43	Biphenyl (Diphenyl)	154	5.612	5.612	(0.921)	2552121	9.64763	3130	
44	2-Chloronaphthalene	164	5.623	5.623	(0.923)	647418	9.54938	3100	
45	2-Nitroaniline	138	5.730	5.730	(0.940)	726699	10.7599	3490	
46	Dimethylphthalate	163	5.901	5.901	(0.968)	2249442	10.2226	3320(MH)	LT
47	2,6-Dinitrotoluene	165	5.954	5.954	(0.977)	528851	10.0529	3260	
48	Acenaphthylene	152	5.970	5.970	(0.980)	3051548	9.88602	3210	
49	3-Nitroaniline	65	6.067	6.066	(0.996)	625164	10.9961	3570	
* 50	Acenaphthene-d10 (IS)	164	6.093	6.098	(1.000)	752247	4.00000		
51	2,4-Dinitrophenol	184	6.147	6.152	(1.009)	264354	9.39764	3050	
52	Acenaphthene	153	6.120	6.125	(1.004)	1915846	9.58374	3110	
53	4-Nitrophenol	109	6.200	6.200	(1.018)	270435	10.7068	3470	
54	2,4-Dinitrotoluene	165	6.275	6.274	(1.030)	734167	10.9144	3540	
55	Dibenzofuran	168	6.248	6.253	(1.025)	2789569	9.88054	3200	
56	2,3,4,6-Tetrachlorophenol	232	6.382	6.387	(1.047)	600008	10.9256	3540	
57	Diethylphthalate	149	6.478	6.477	(1.063)	2194919	10.4037	3380	
58	4-Chlorophenylphenyl ether	204	6.531	6.531	(1.072)	1158519	9.79136	3180	
59	Fluorene	166	6.531	6.536	(1.072)	2301039	9.79321	3180	
60	4-Nitroaniline	108	6.574	6.579	(1.079)	365686	11.9815	3890(M)	LT
61	4,6-Dinitro-2-methylphenol	198	6.611	6.611	(0.886)	455805	11.3127	3670	
62	N-Nitrosodiphenylamine	169	6.633	6.638	(0.888)	2030579	9.83515	3190	
63	Azobenzene	77	6.665	6.664	(0.893)	1969583	9.39284	3050	
64	1,2-Diphenylhydrazine	77	6.665	6.664	(0.893)	1969583	9.39284	3050	
$ 65	2,4,6-Tribromophenol (S)	330	6.761	6.766	(0.906)	332670	7.35162	2380	
66	4-Bromophenylphenyl ether	248	6.980	6.980	(0.935)	740862	9.75798	3170	
67	Hexachlorobenzene	284	7.146	7.145	(0.957)	830031	9.77132	3170	
68	Atrazine	200	7.204	7.204	(0.965)	606398	9.25332	3000	
69	Pentachlorophenol	266	7.333	7.332	(0.982)	532344	11.6710	3790	
* 70	Phenanthrene-d10 (IS)	188	7.466	7.466	(1.000)	1303062	4.00000		
71	Phenanthrene	178	7.493	7.492	(1.004)	3687024	10.1742	3300	
72	Anthracene	178	7.541	7.541	(1.010)	3190891	9.57013	3100	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	73 Carbazole	167	7.712	7.712	(1.033)	2953722	9.83469	3190	
	74 Di-n-butylphthalate	149	8.155	8.155	(1.092)	3644340	10.7342	3480	
	75 Fluoranthene	202	8.764	8.759	(1.174)	3632717	10.1111	3280	
	76 Pyrene	202	8.994	8.994	(0.878)	3773662	10.2683	3330	
$	77 Terphenyl-d14 (S)	244	9.176	9.175	(0.895)	1451441	4.77453	1550	
	78 Butylbenzylphthalate	149	9.726	9.725	(0.949)	1579657	11.1812	3630	
	79 3,3'-Dichlorobenzidine	252	10.228	10.228	(0.998)	1175151	8.78847	2850	
	80 bis(2-Ethylhexyl)phthalate	149	10.335	10.334	(1.008)	2182816	10.7747	3500	
	81 Benzo(a)anthracene	228	10.233	10.233	(0.998)	3592359	10.0136	3250	
*	82 Chrysene-d12 (IS)	240	10.249	10.249	(1.000)	1274395	4.00000		
	83 Chrysene	228	10.276	10.276	(1.003)	3182264	9.39197	3050	
	84 Di-n-octylphthalate	149	10.917	10.917	(0.942)	3314659	11.8727	3850	
	85 Benzo(b)fluoranthene	252	11.264	11.264	(0.972)	3525471	10.1023	3280	
	86 Benzo(k)fluoranthene	252	11.286	11.285	(0.974)	3645506	9.87056	3200	
	87 Benzo(a)pyrene	252	11.542	11.542	(0.996)	2920504	9.40010	3050	
*	88 Perylene-d12 (IS)	264	11.590	11.590	(1.000)	1234778	4.00000		
	89 Indeno(1,2,3-cd)pyrene	276	12.440	12.439	(1.073)	4001395	10.1859	3300	
	90 Dibenz(a,h)anthracene	278	12.445	12.445	(1.074)	3453731	10.4741	3400	
	91 Benzo(g,h,i)perylene	276	12.653	12.653	(1.092)	3333080	10.3708	3360	

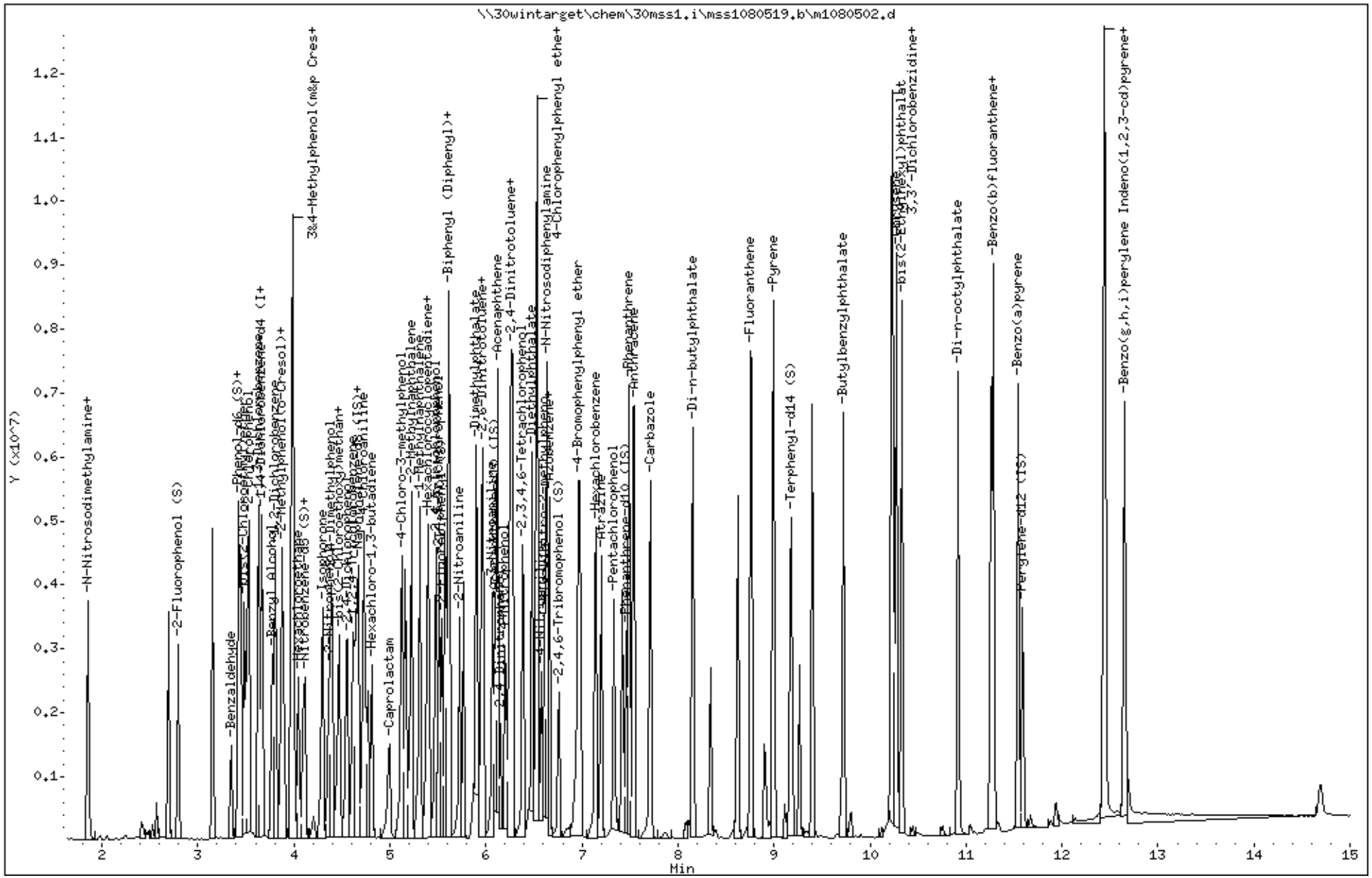
QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d
Date : 05-AUG-2019 16:13
Client ID: MBLCS
Instrument: 30mss1.i
Sample Info: 1723156
Volume Injected (uL): 1.0
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

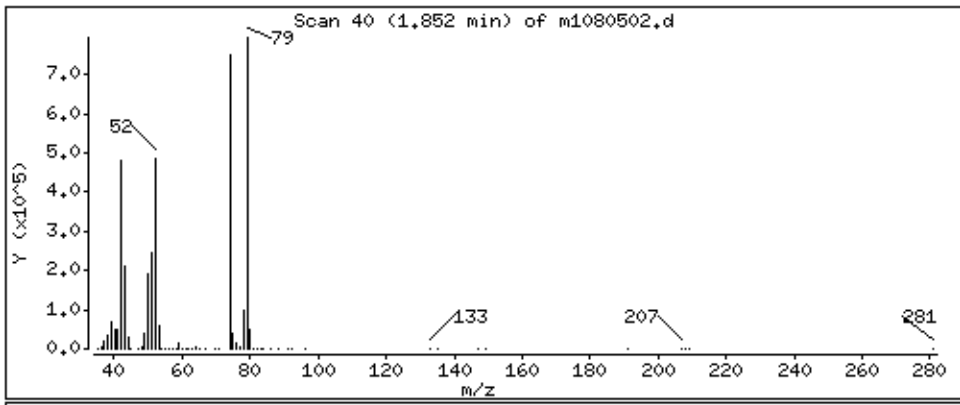
Operator: EAC

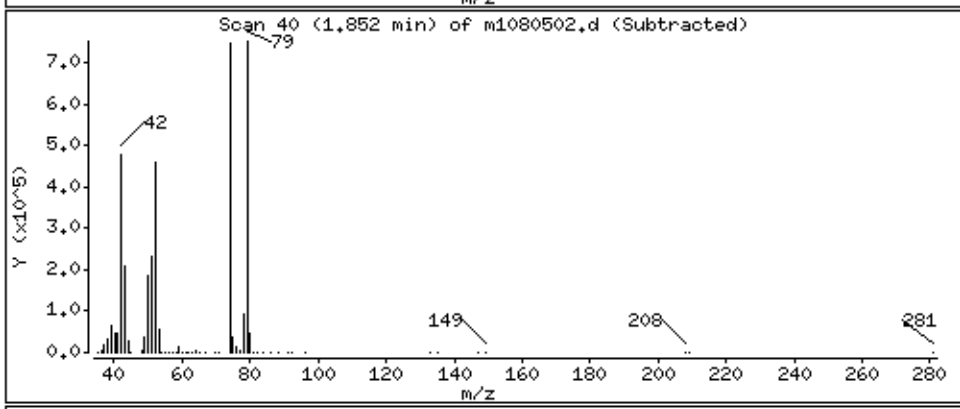
Column phase: RTX-5MS

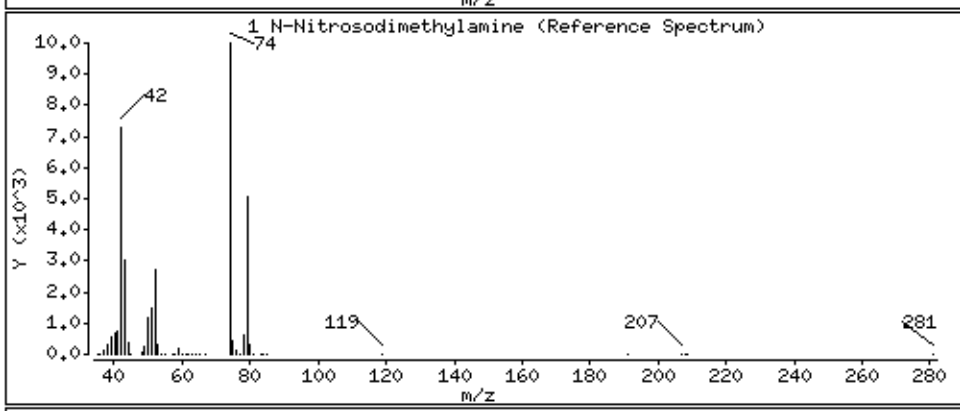
Column diameter: 0.18

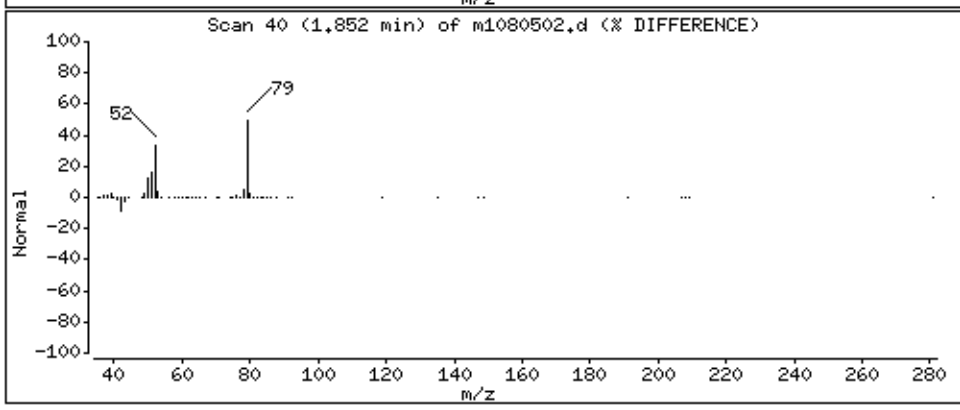
1 N-Nitrosodimethylamine

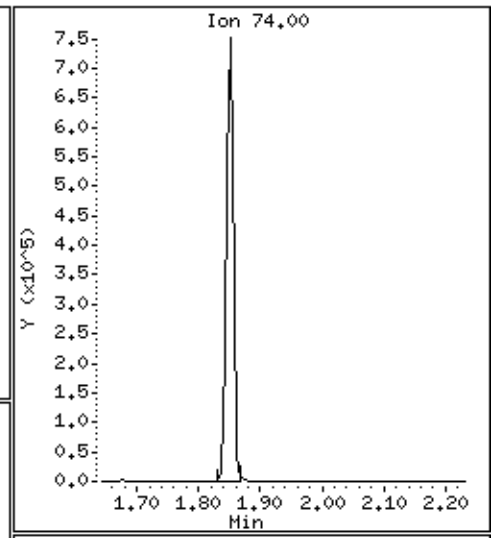
Concentration: 3400 ug/Kg

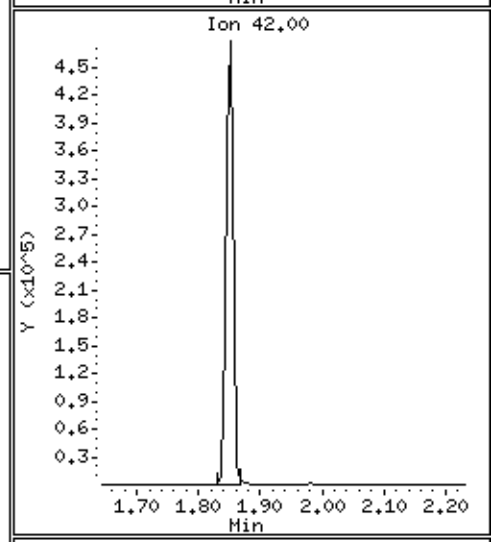


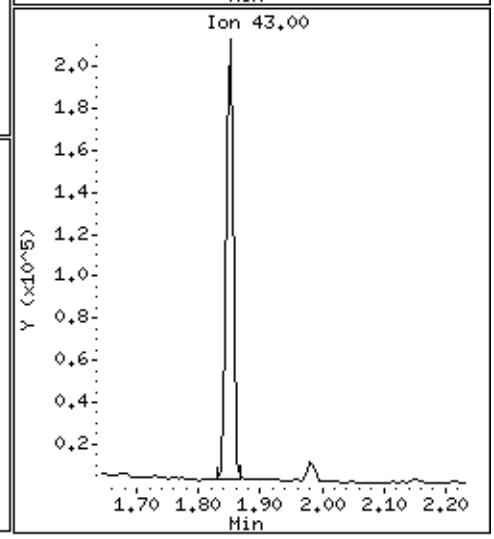












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

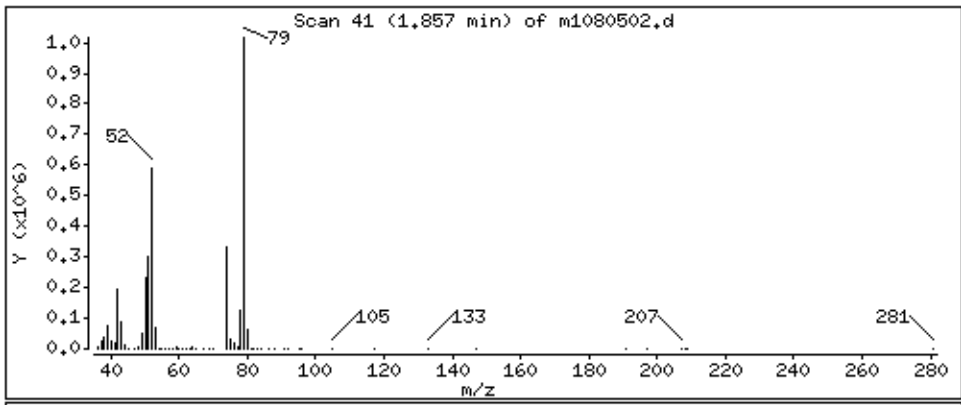
Operator: EAC

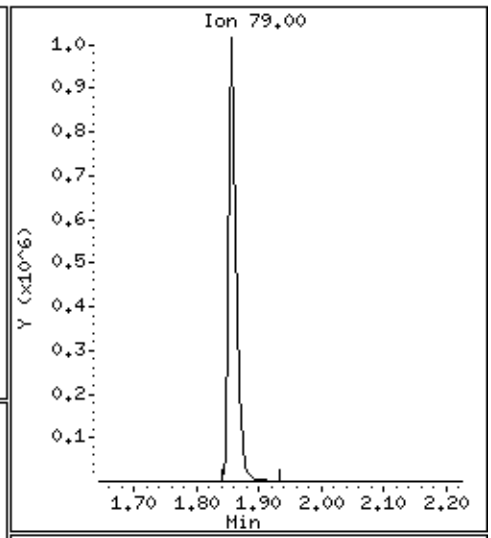
Column phase: RTX-5MS

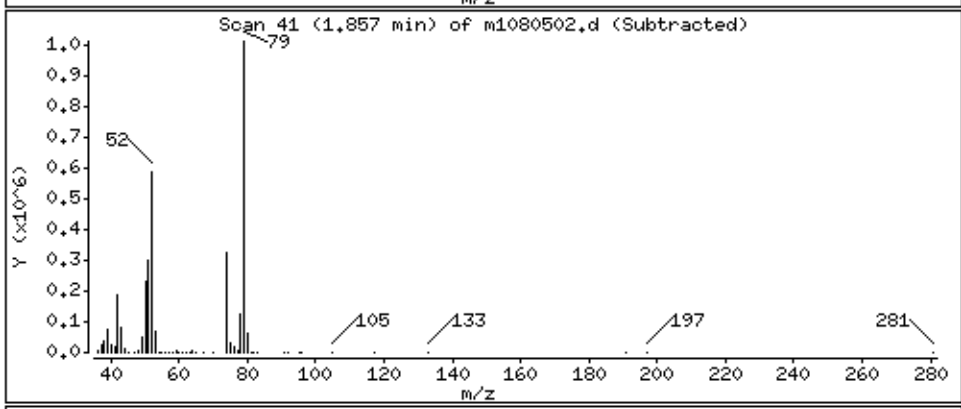
Column diameter: 0.18

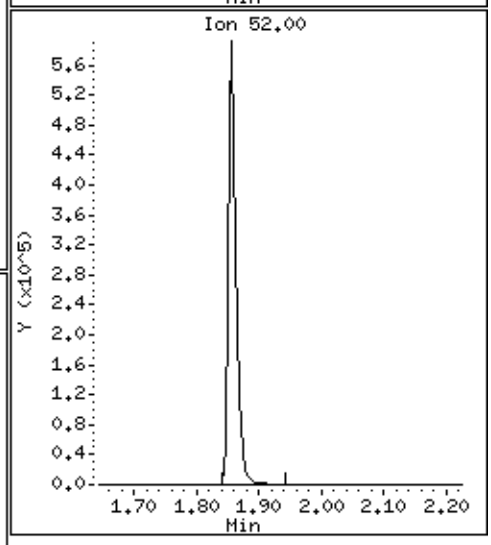
2 Pyridine

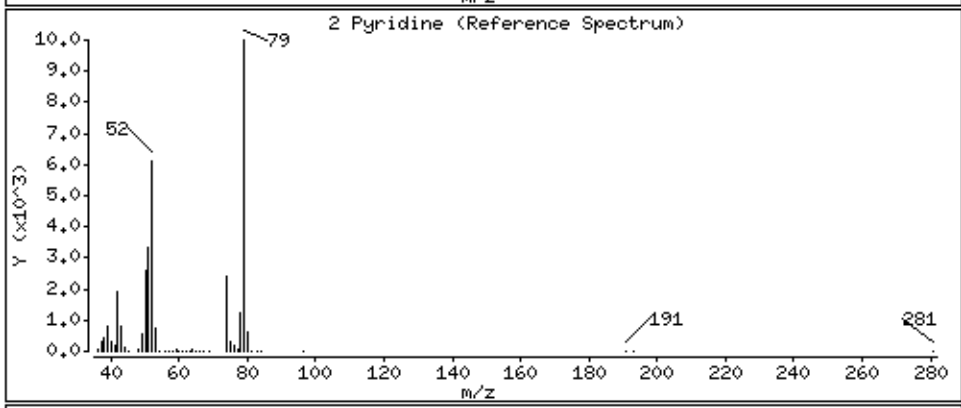
Concentration: 3330 ug/Kg

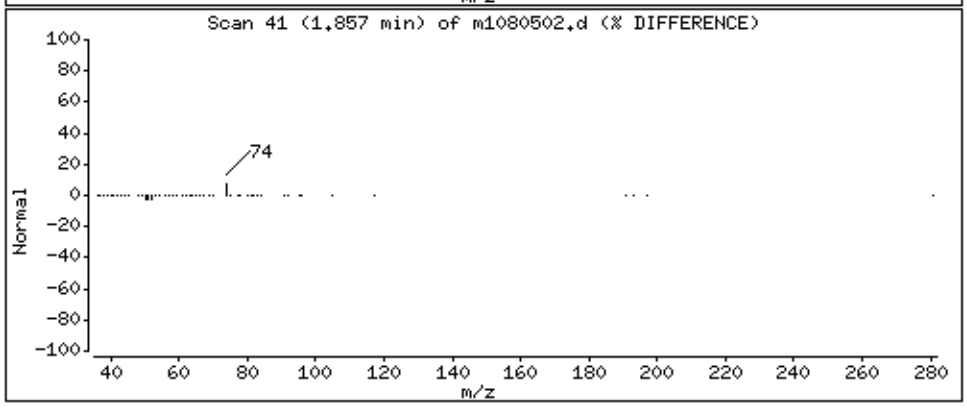












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

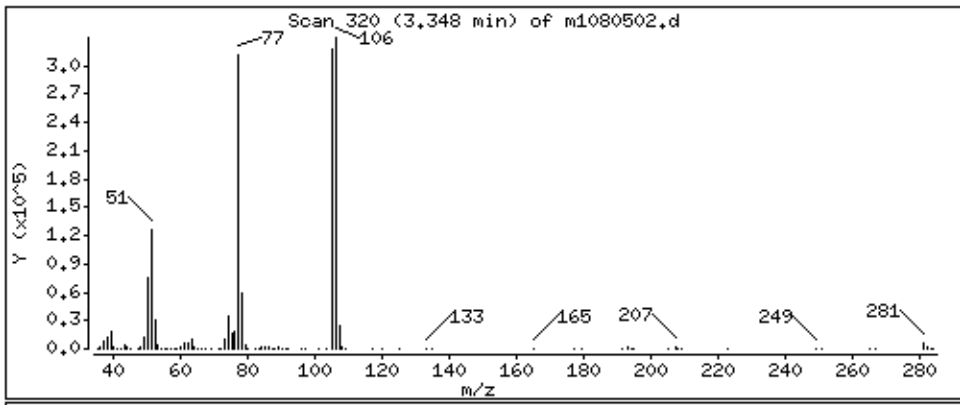
Operator: EAC

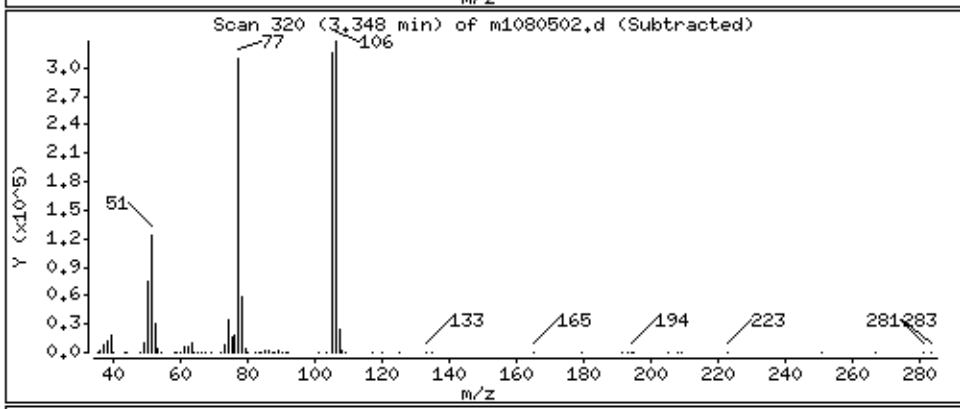
Column phase: RTX-5MS

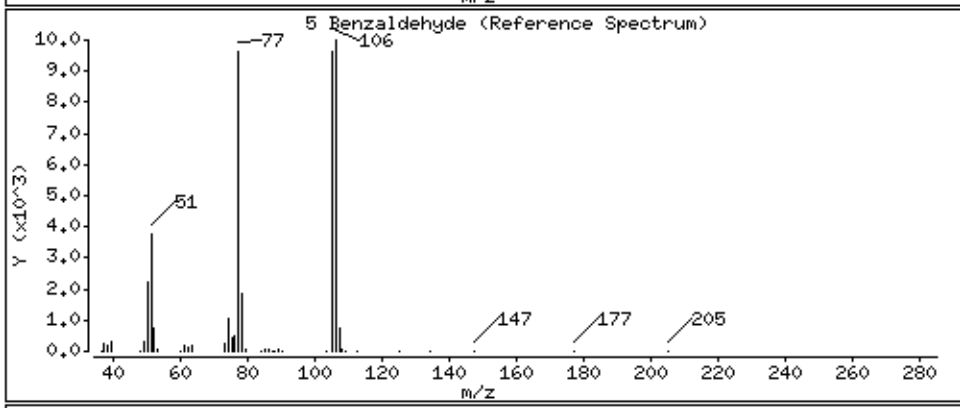
Column diameter: 0.18

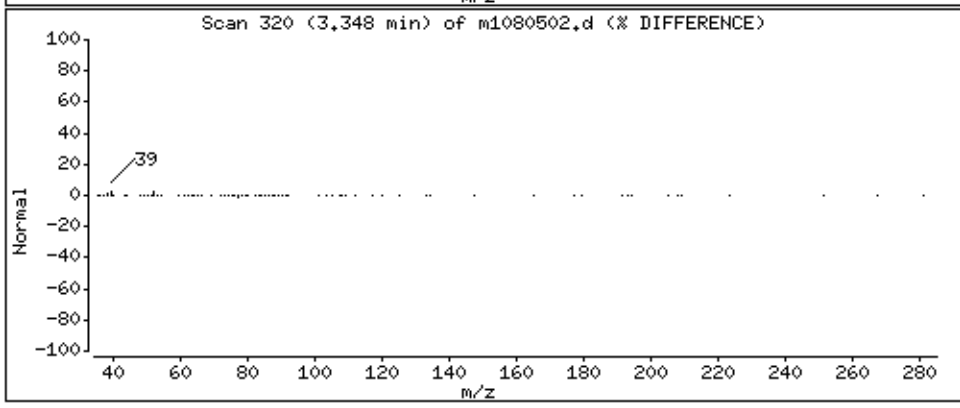
5 Benzaldehyde

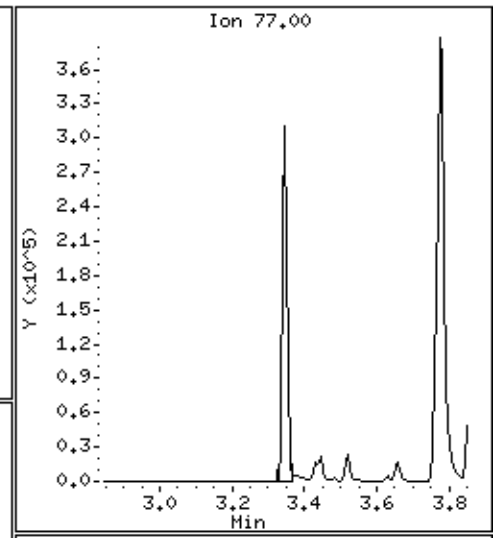
Concentration: 827 ug/Kg

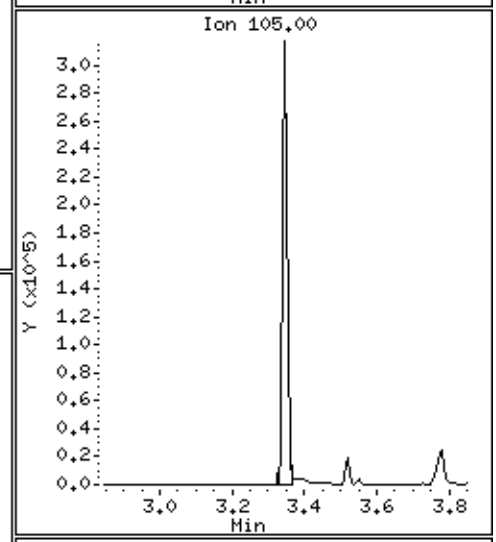


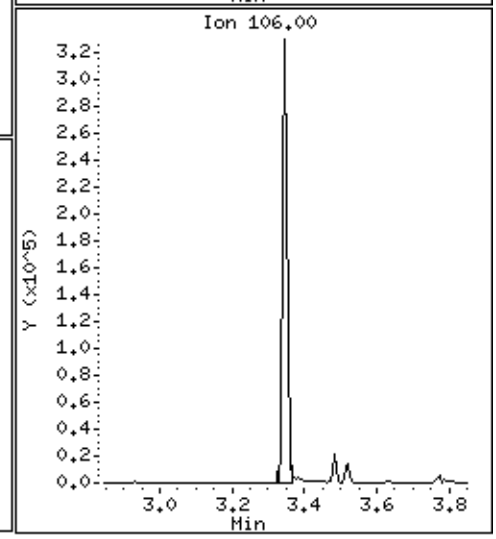












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

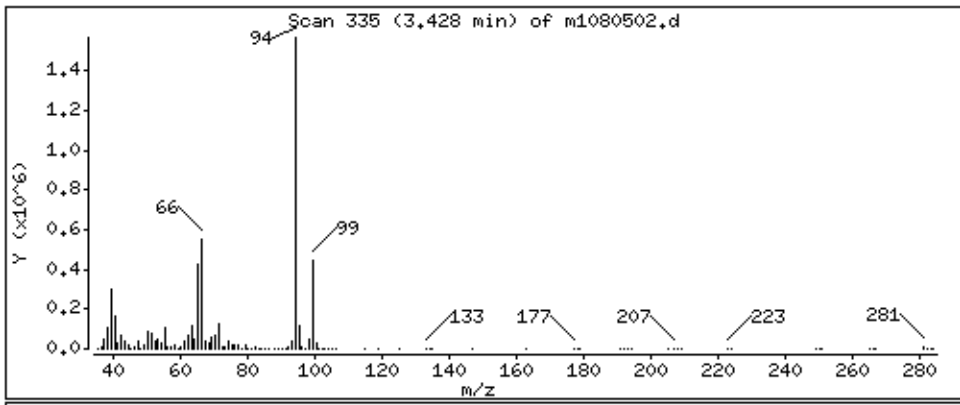
Operator: EAC

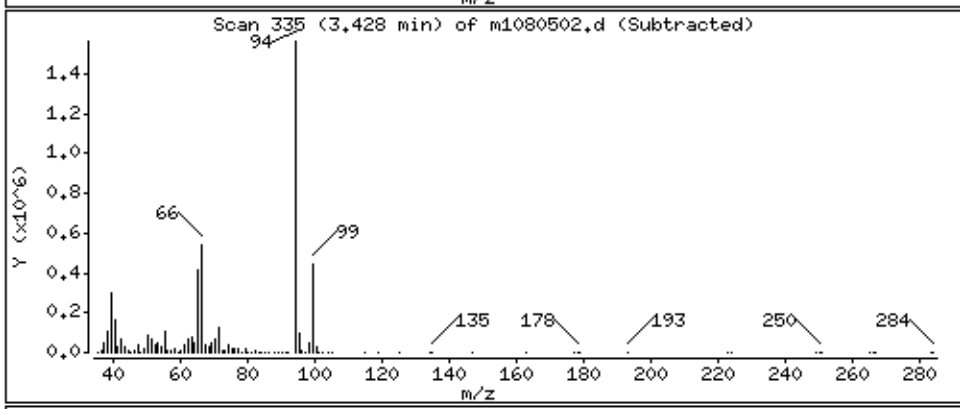
Column phase: RTX-5MS

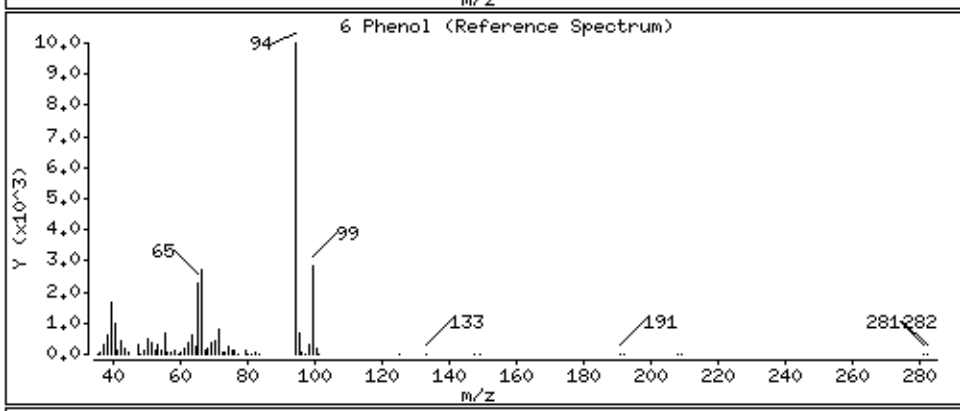
Column diameter: 0.18

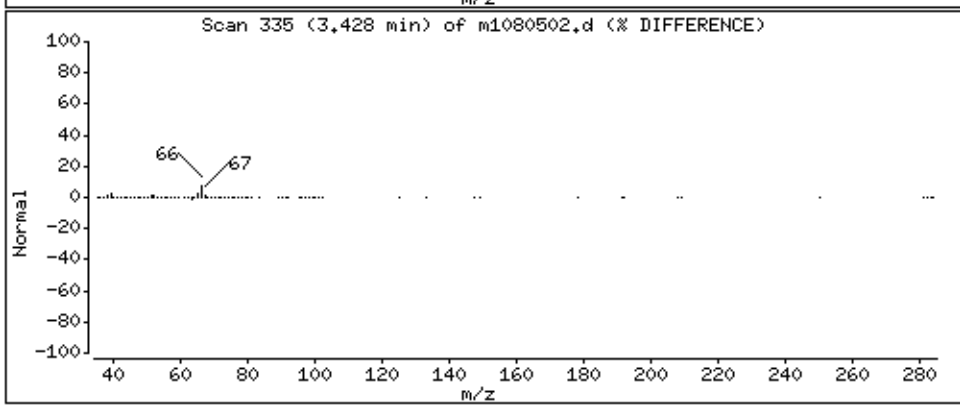
6 Phenol

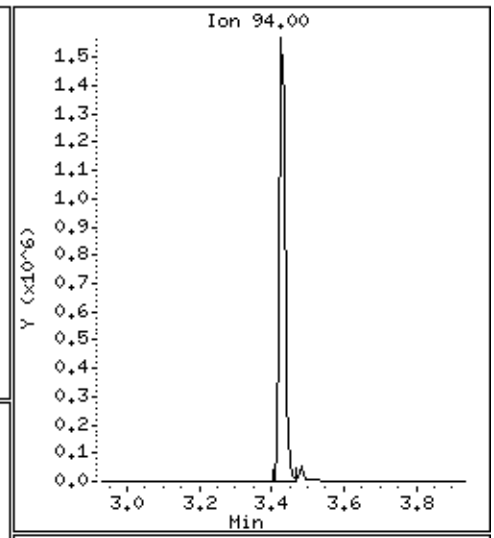
Concentration: 3320 ug/Kg

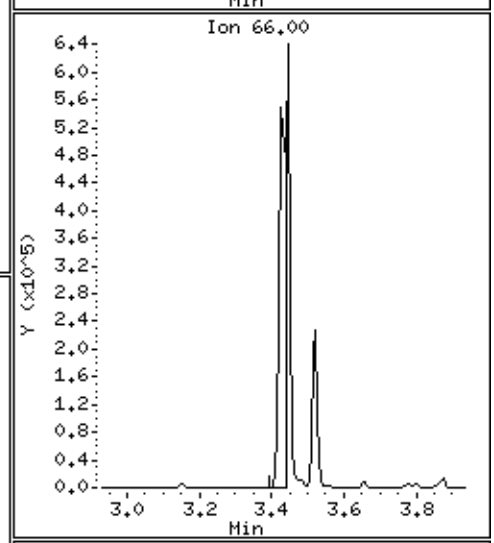


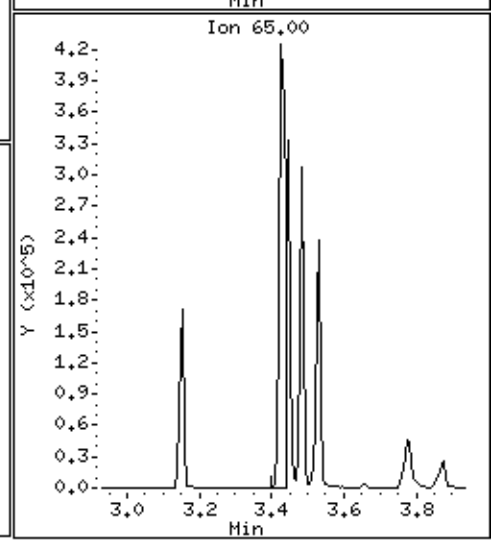












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

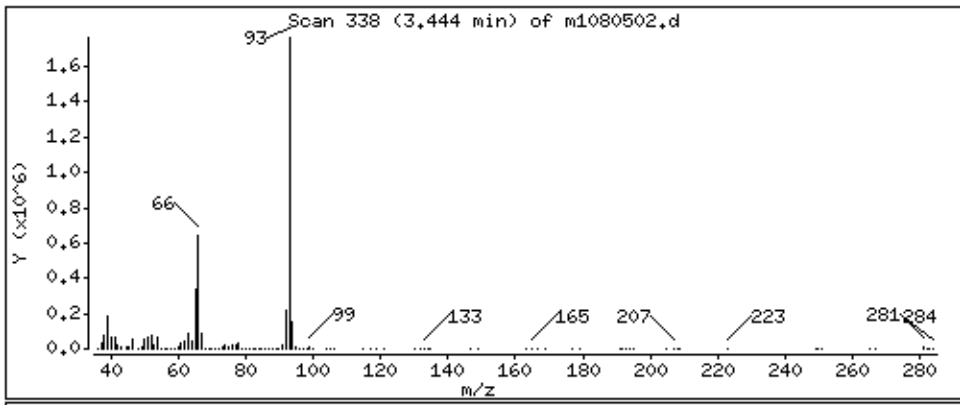
Operator: EAC

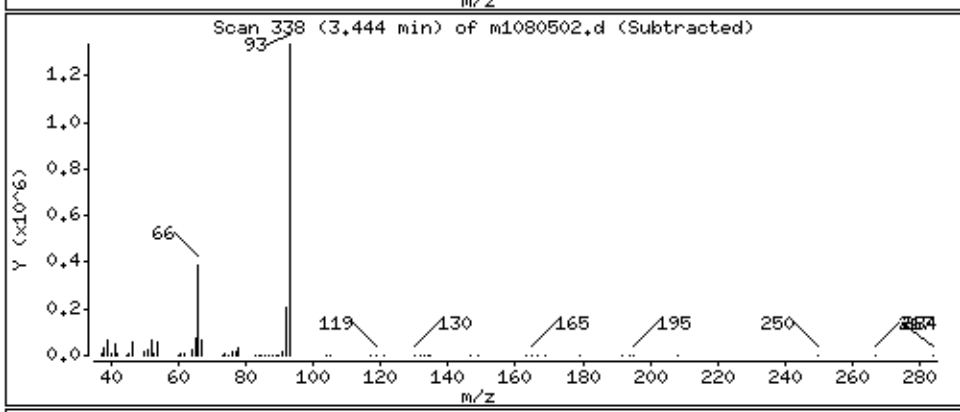
Column phase: RTX-5MS

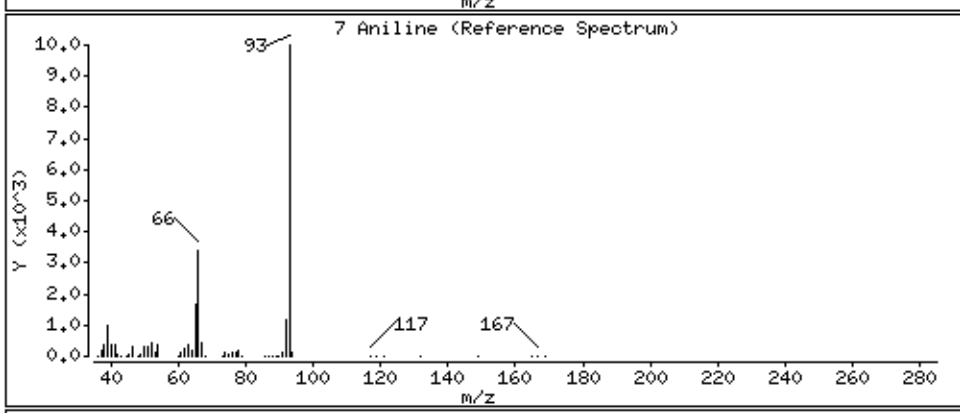
Column diameter: 0.18

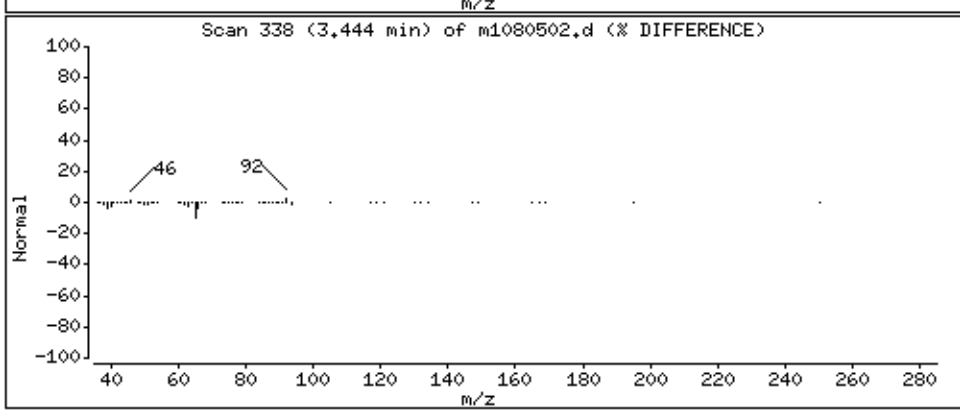
7 Aniline

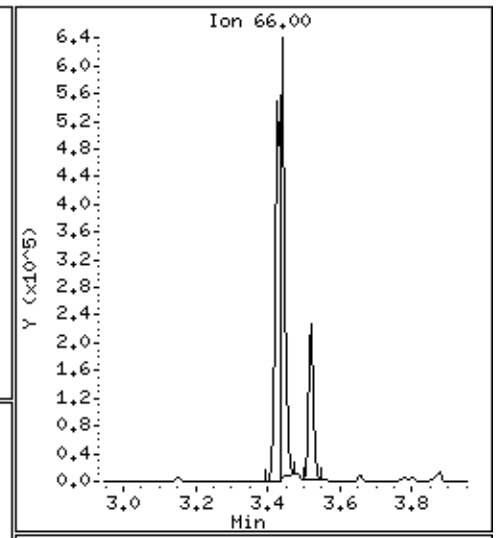
Concentration: 2540 ug/Kg

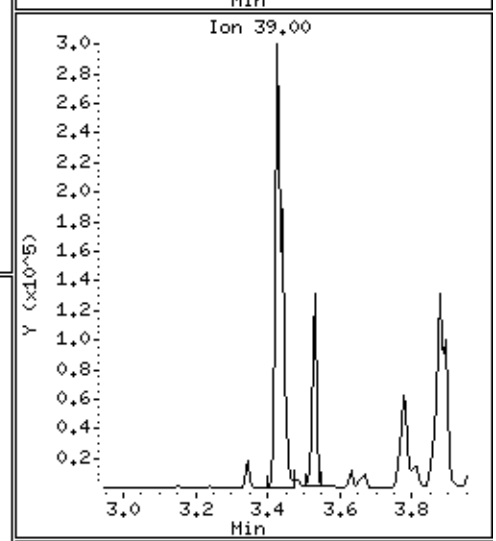


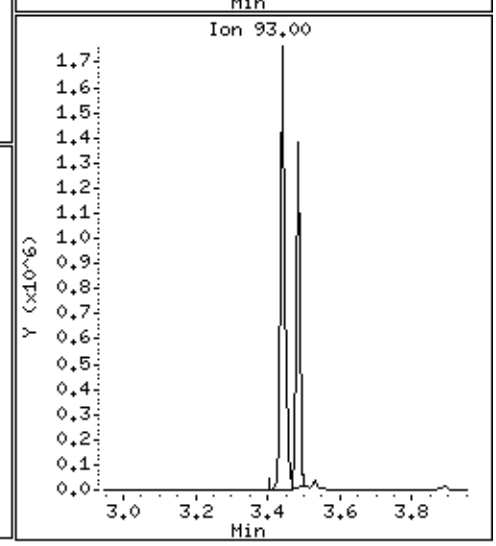












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

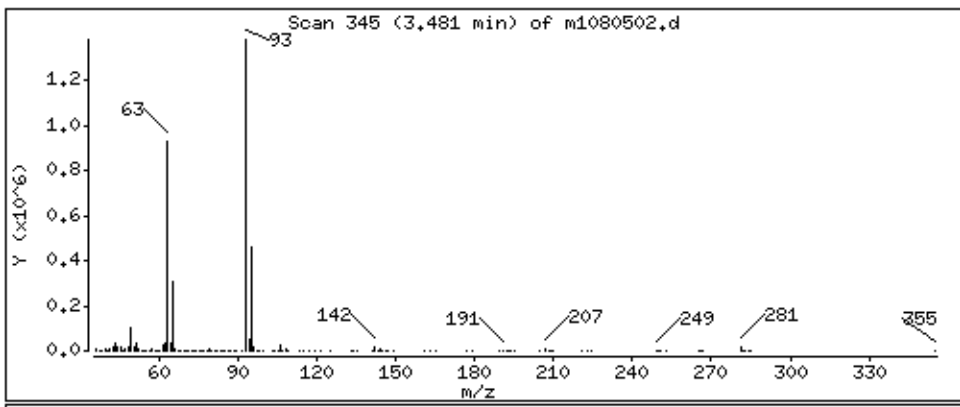
Operator: EAC

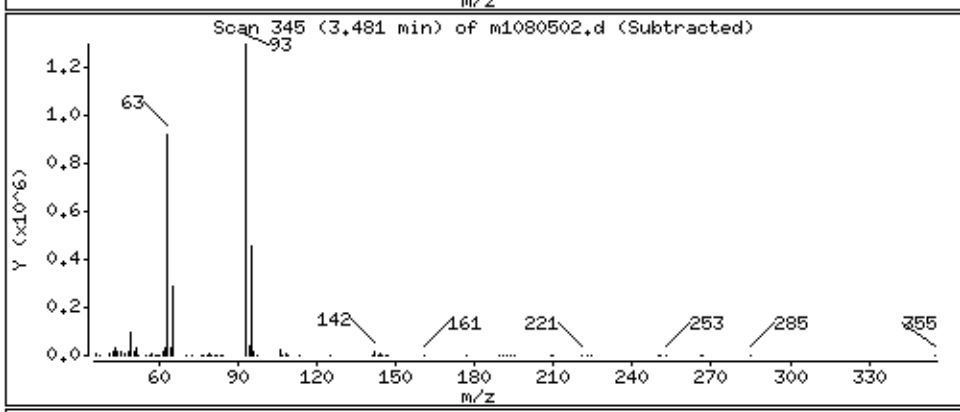
Column phase: RTX-5MS

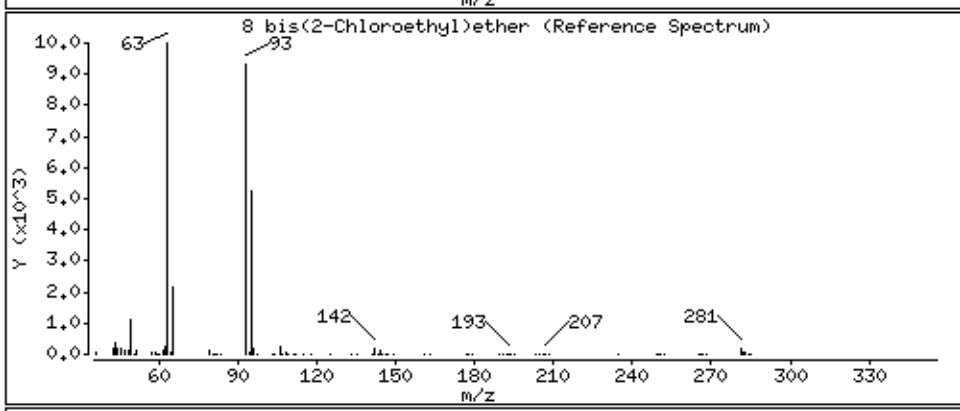
Column diameter: 0.18

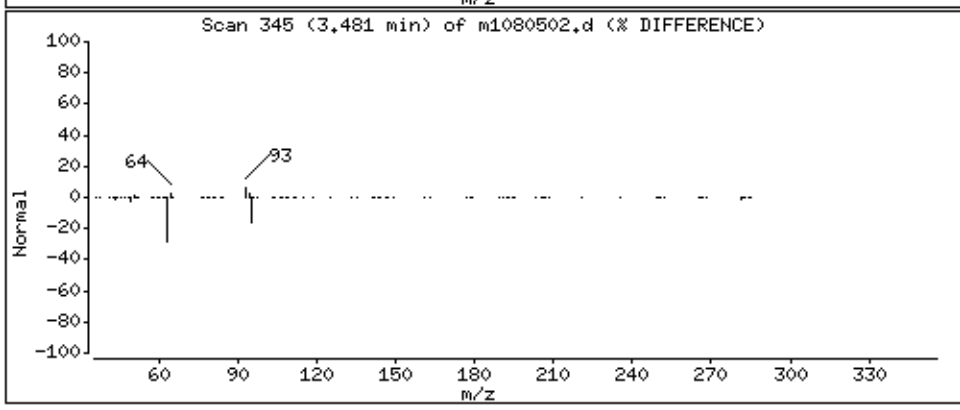
8 bis(2-Chloroethyl)ether

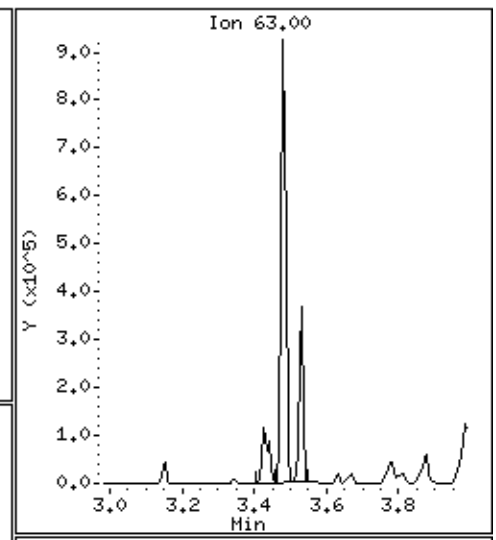
Concentration: 2840 ug/Kg

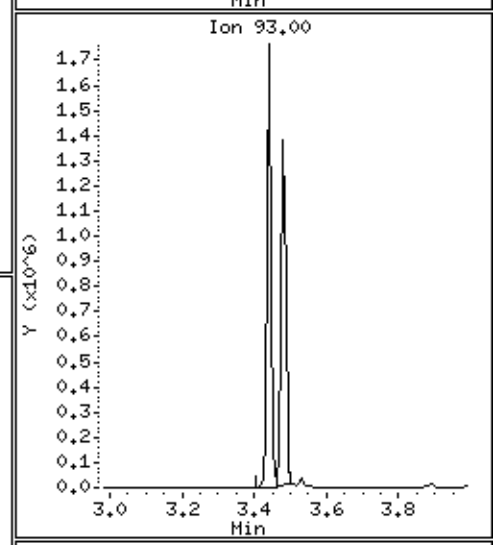


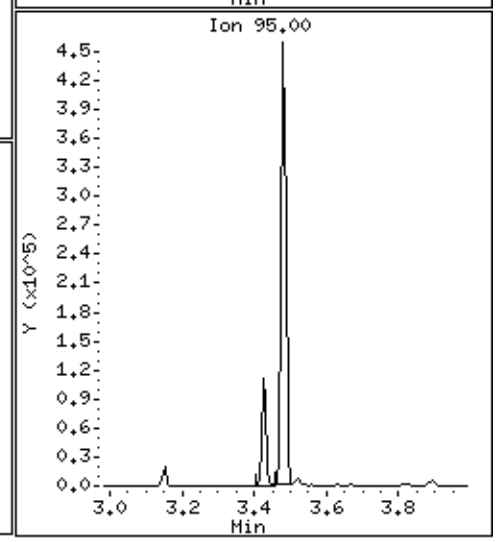












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

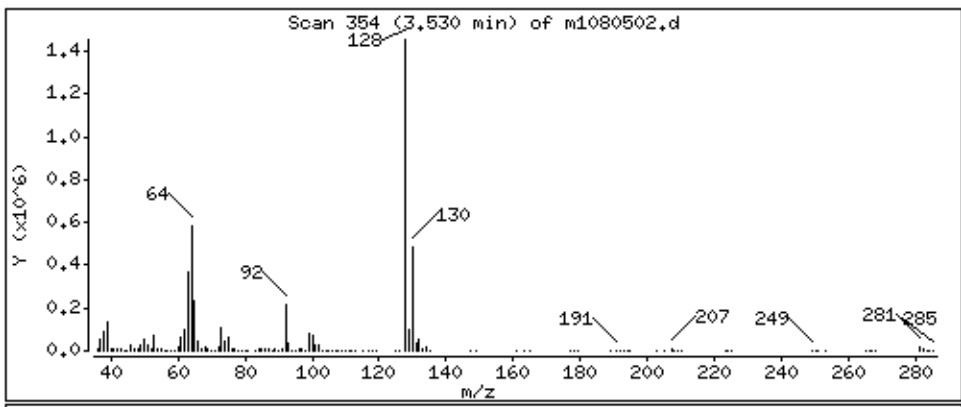
Operator: EAC

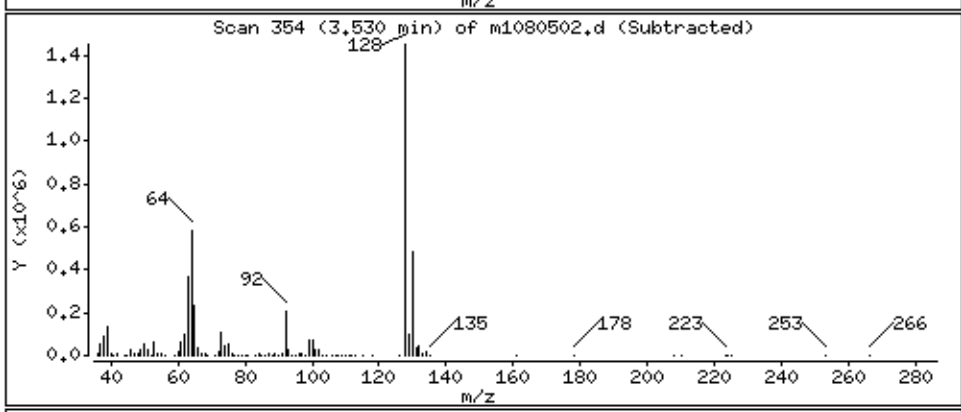
Column phase: RTX-5MS

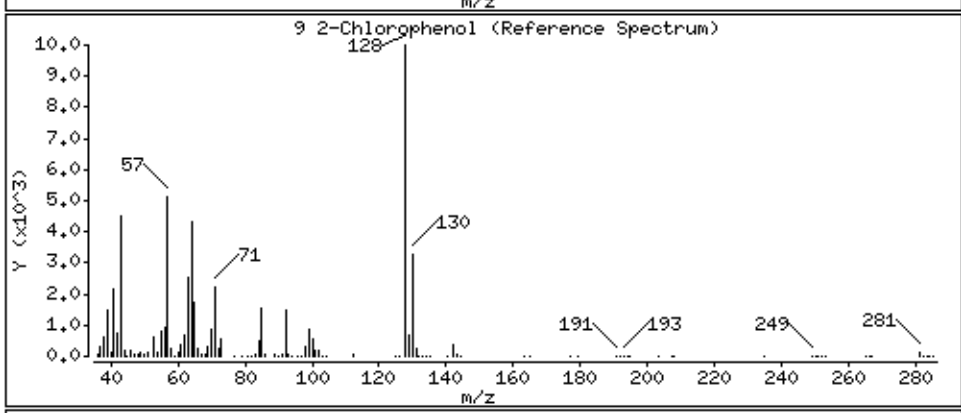
Column diameter: 0.18

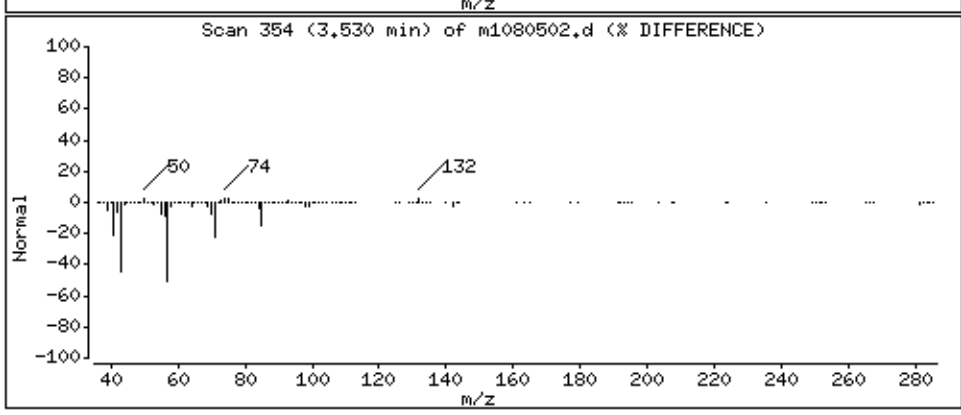
9 2-Chlorophenol

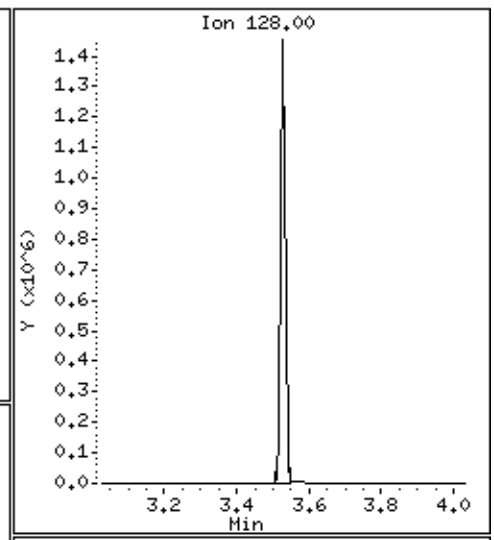
Concentration: 2960 ug/Kg

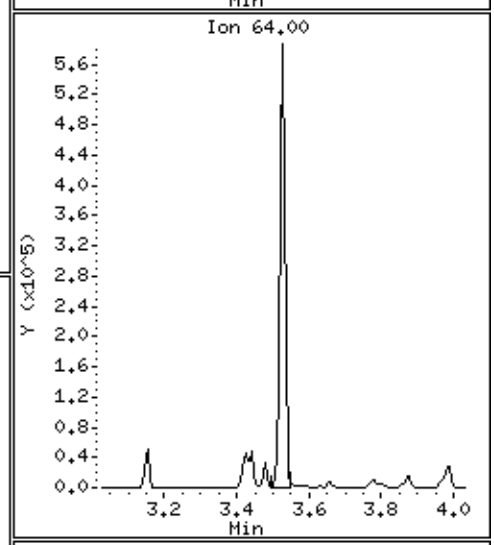


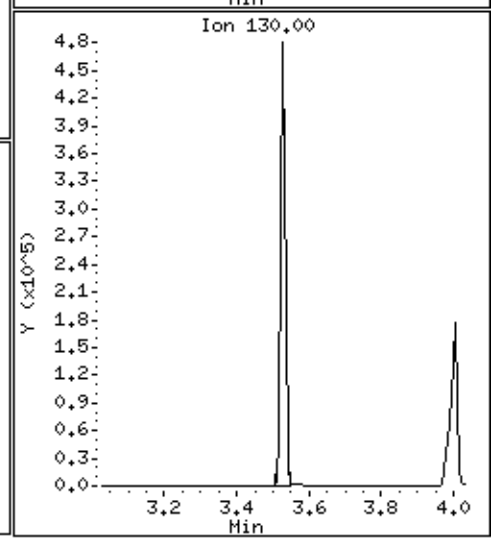












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

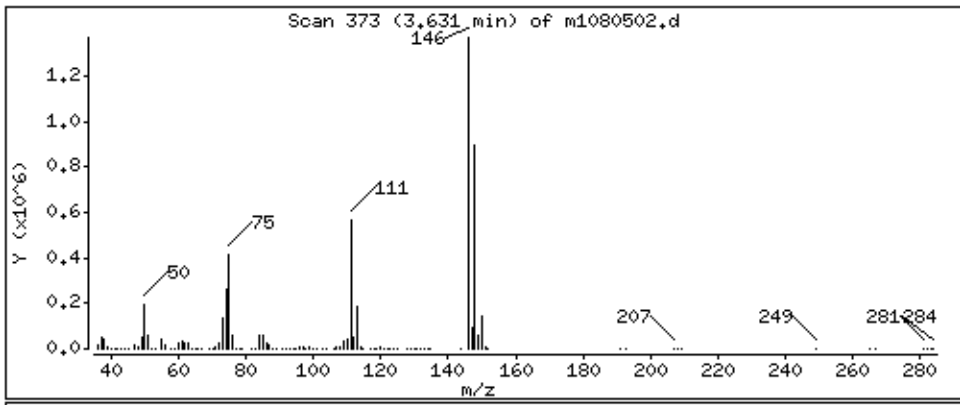
Operator: EAC

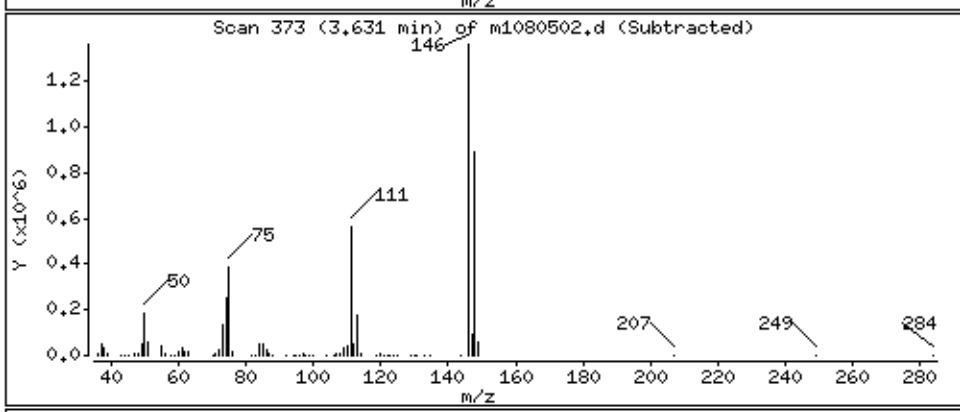
Column phase: RTX-5MS

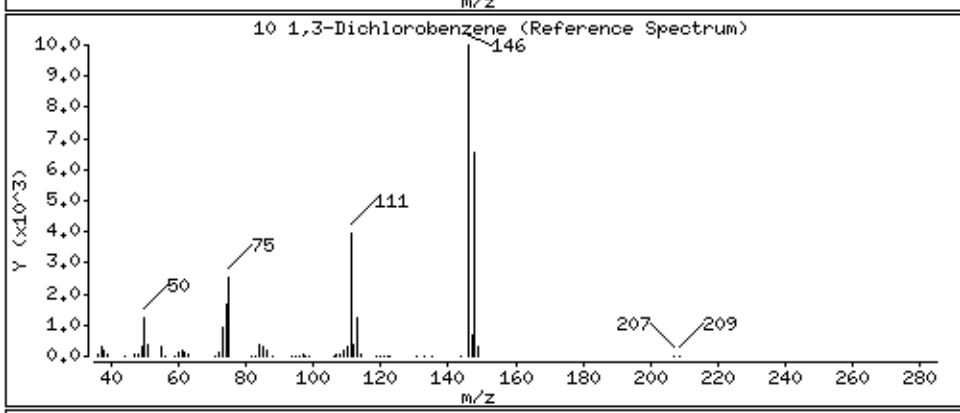
Column diameter: 0.18

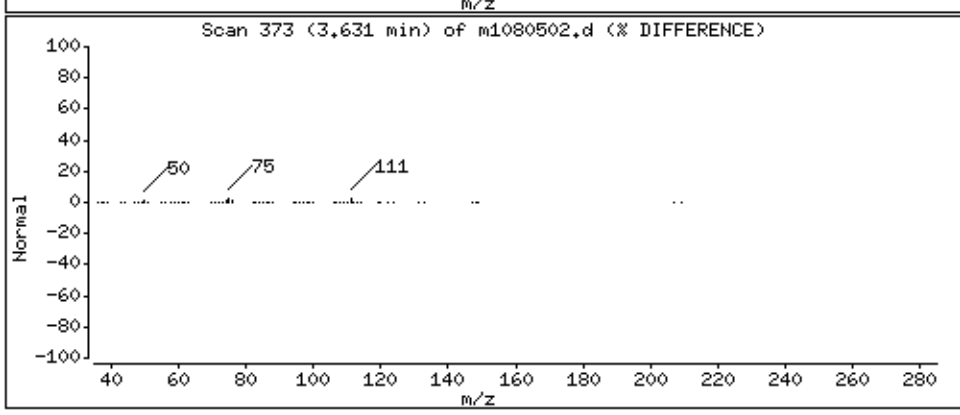
10 1,3-Dichlorobenzene

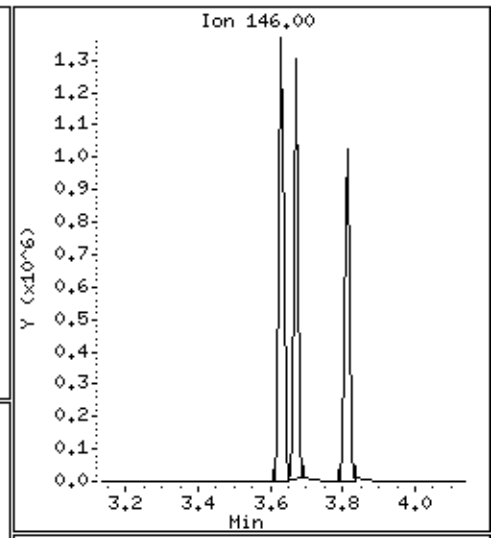
Concentration: 2720 ug/Kg

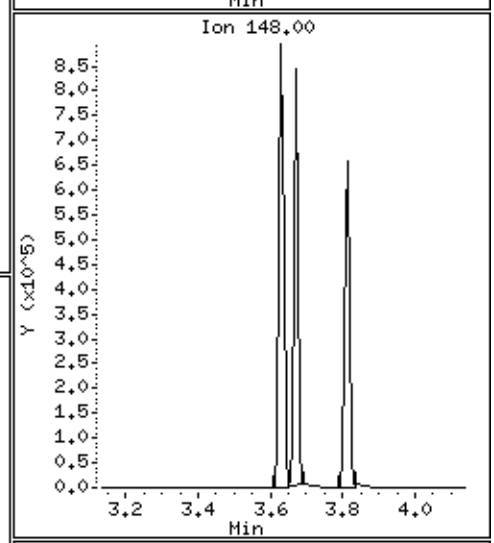


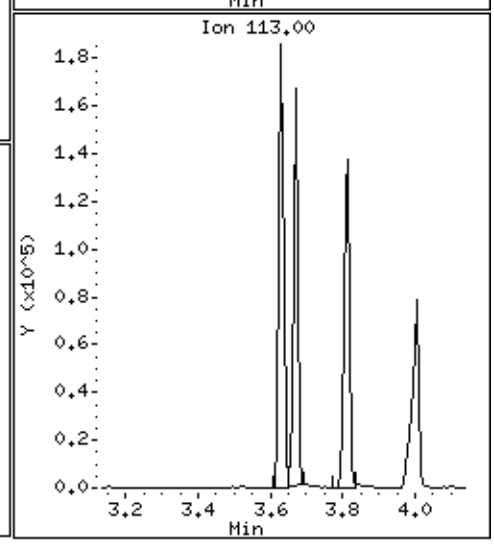












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

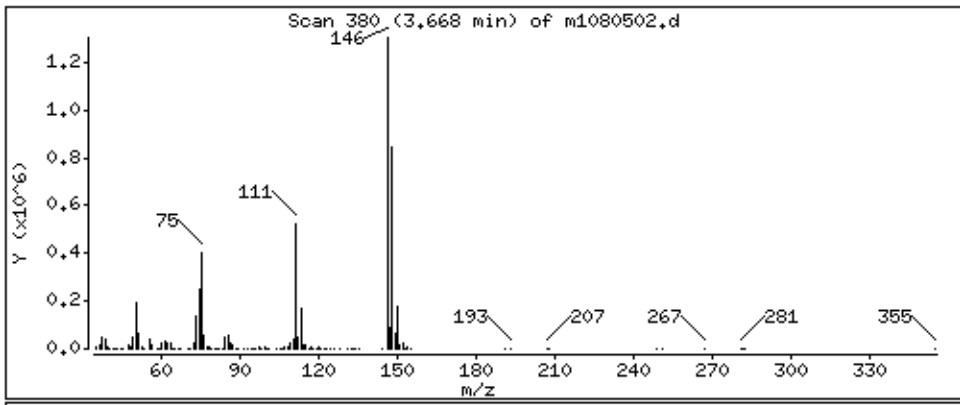
Operator: EAC

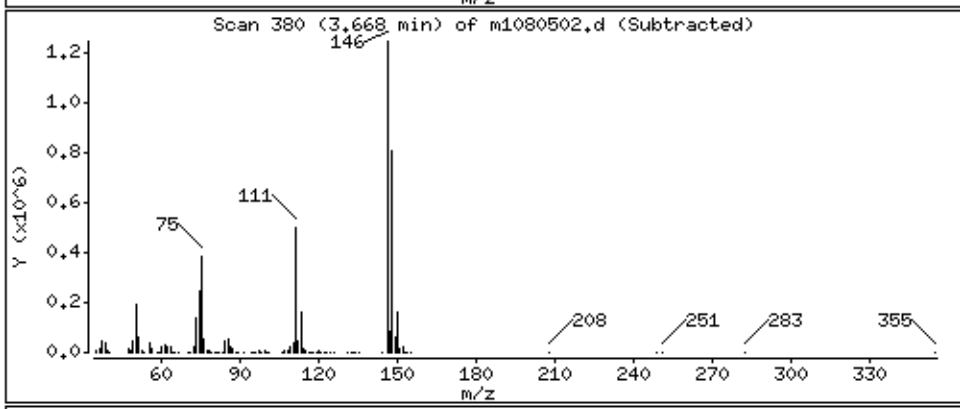
Column phase: RTX-5MS

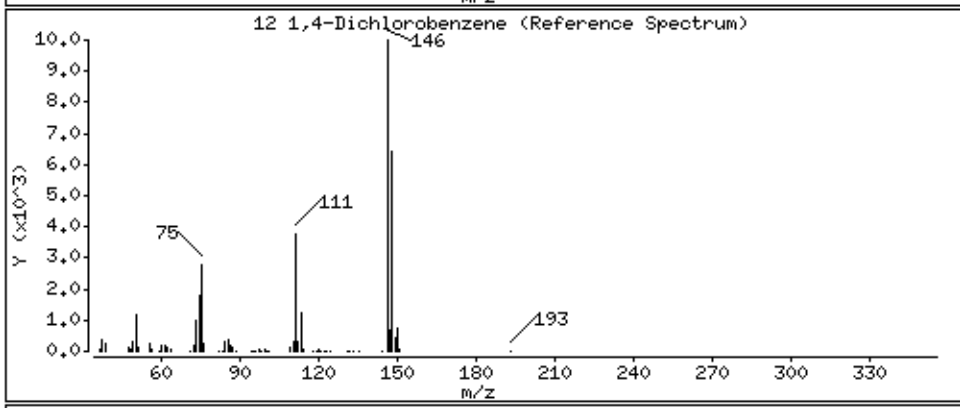
Column diameter: 0.18

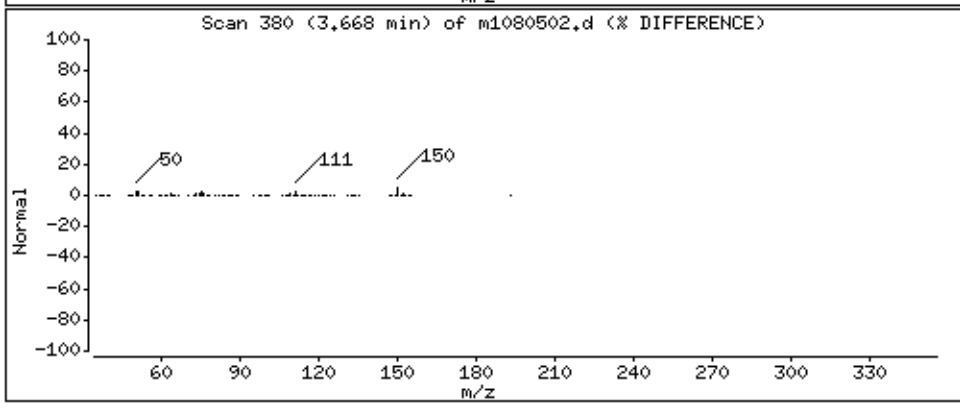
12 1,4-Dichlorobenzene

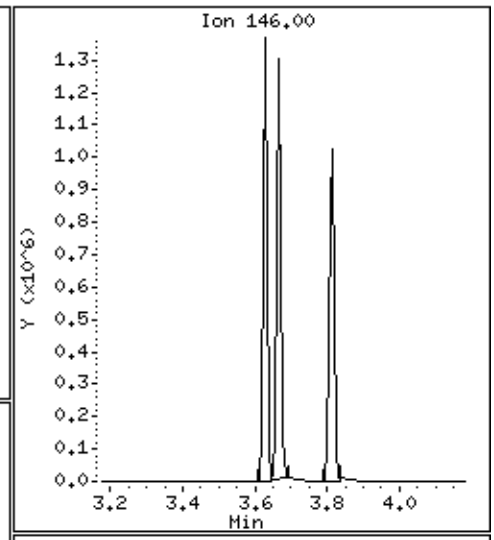
Concentration: 2450 ug/Kg

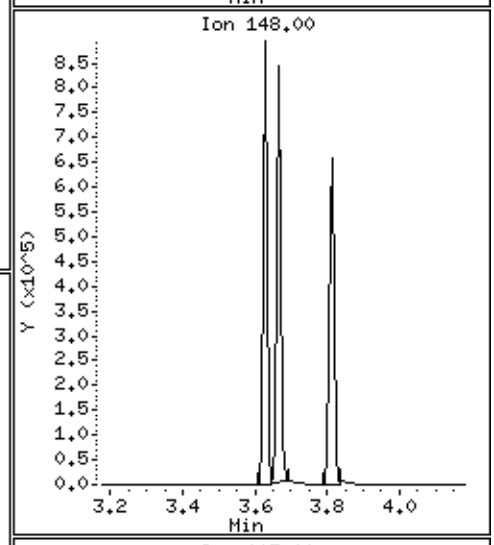


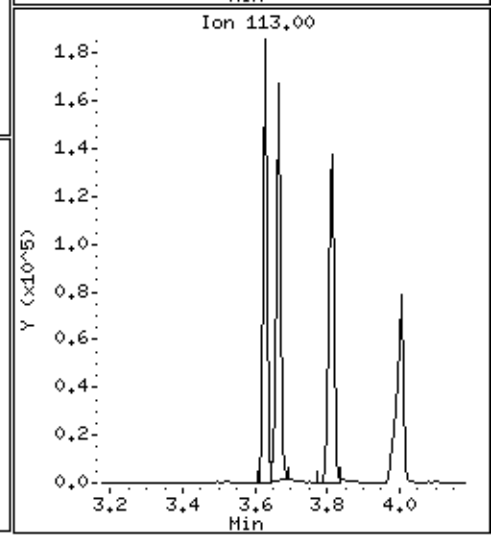












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

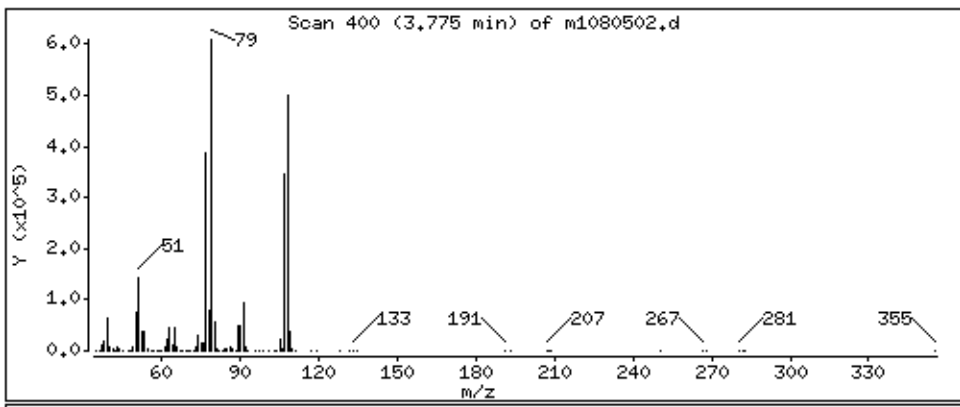
Operator: EAC

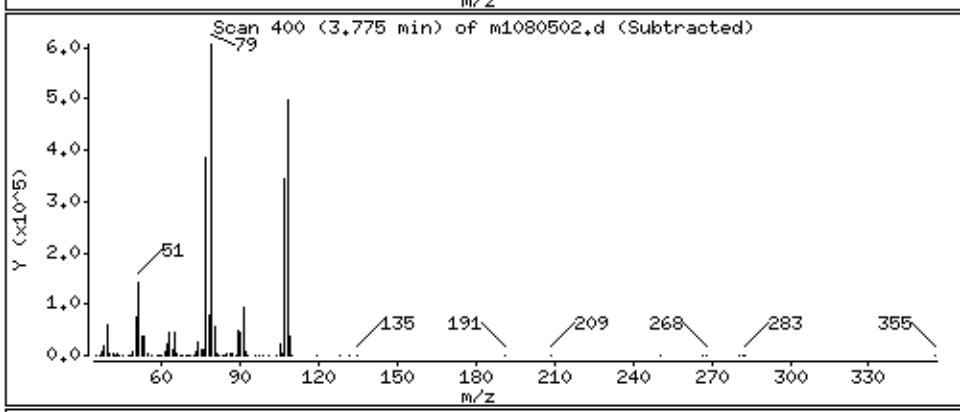
Column phase: RTX-5MS

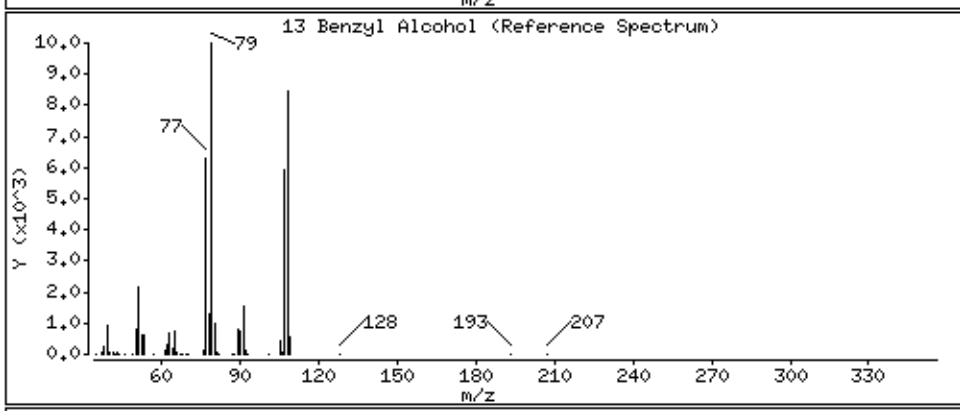
Column diameter: 0.18

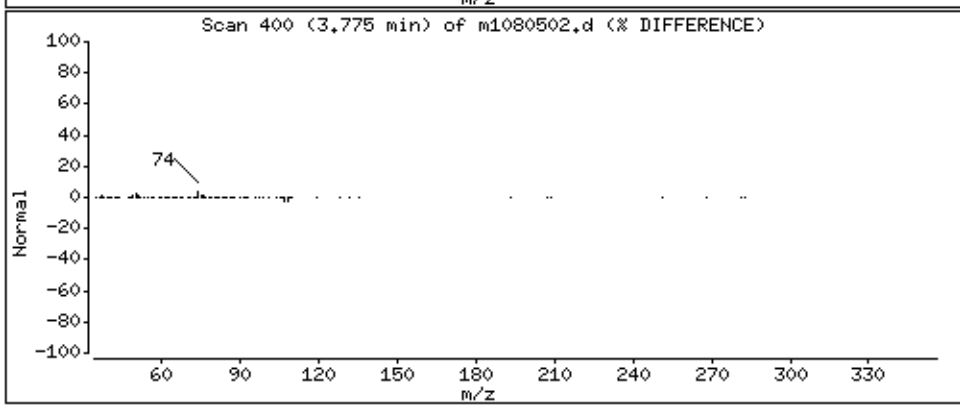
13 Benzyl Alcohol

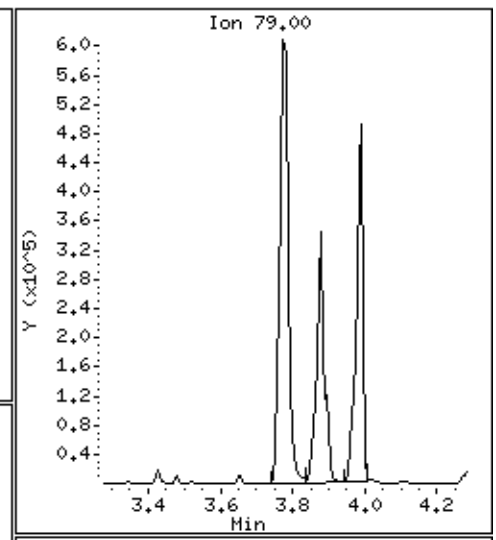
Concentration: 3240 ug/Kg

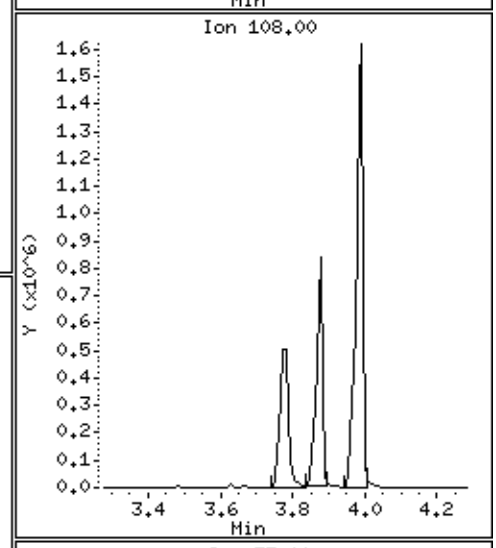


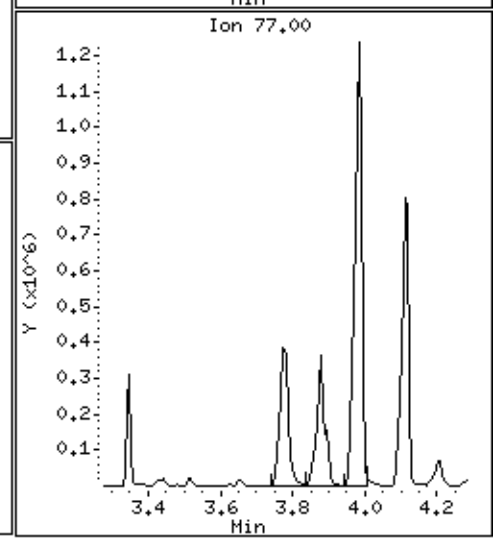












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

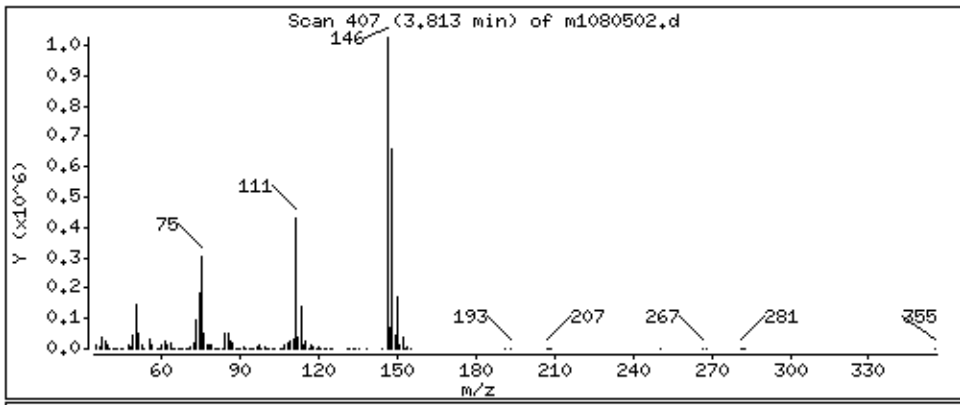
Operator: EAC

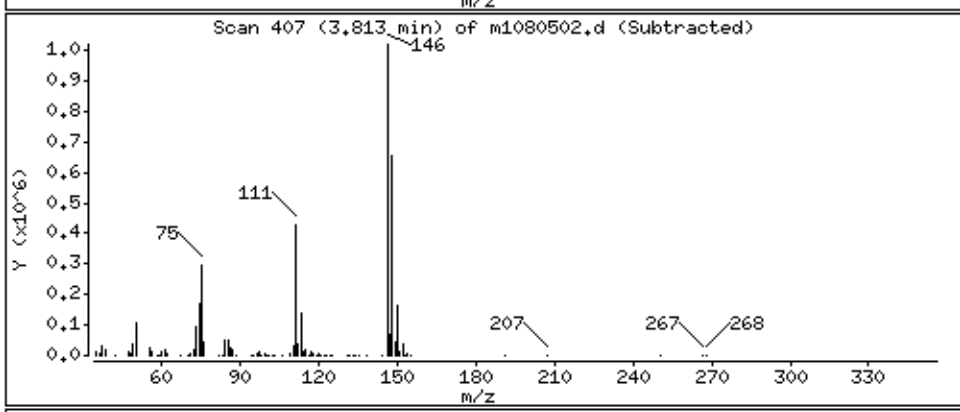
Column phase: RTX-5MS

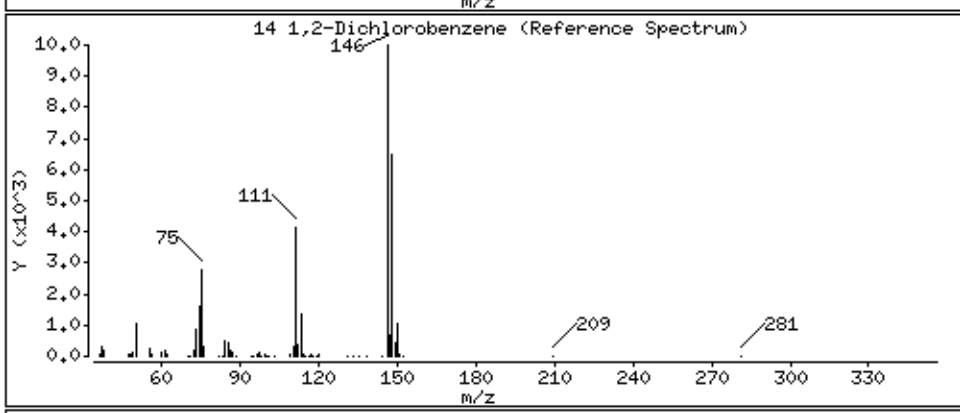
Column diameter: 0.18

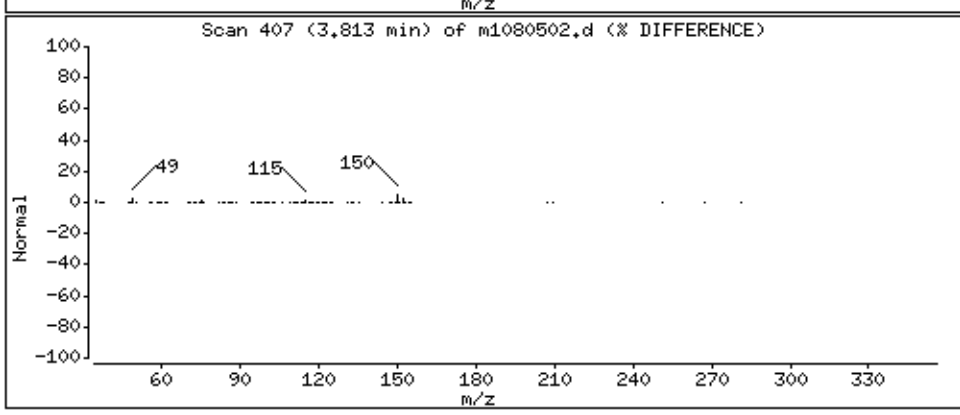
14 1,2-Dichlorobenzene

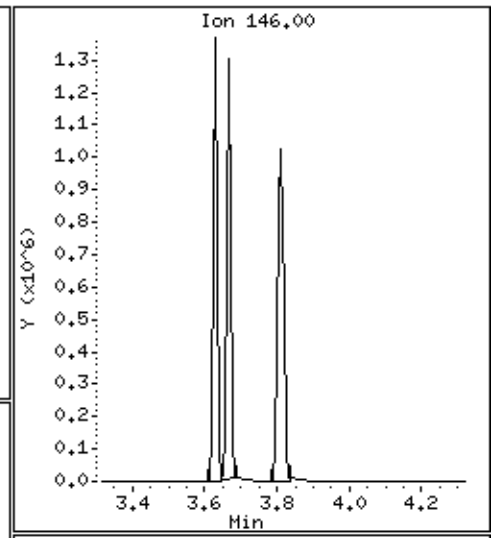
Concentration: 2680 ug/Kg

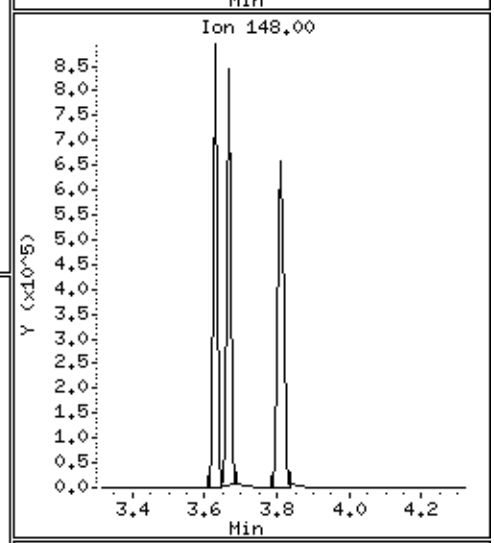


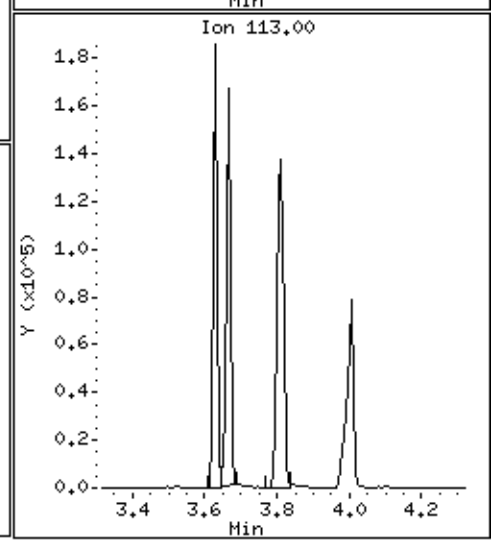












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

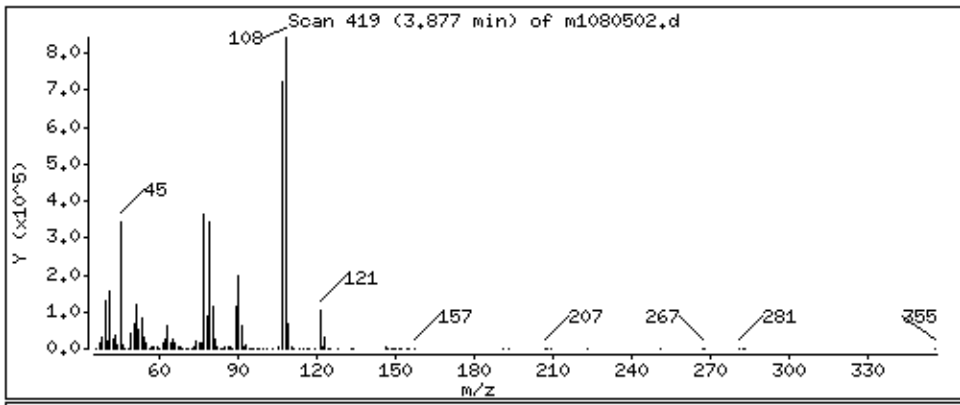
Operator: EAC

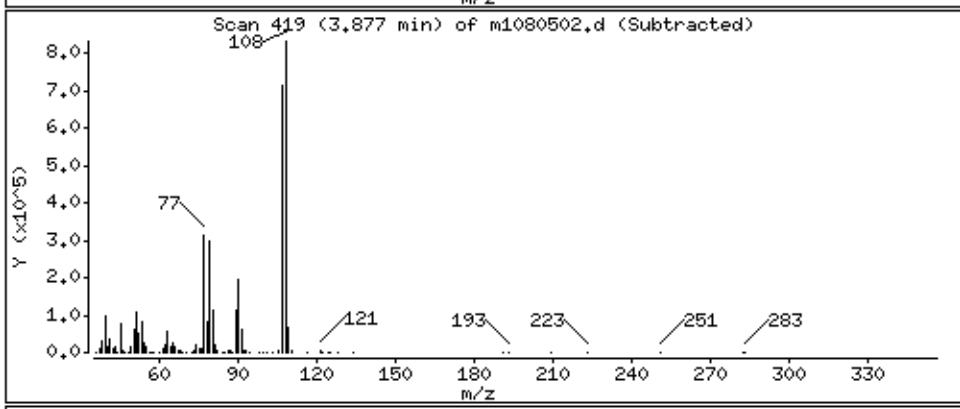
Column phase: RTX-5MS

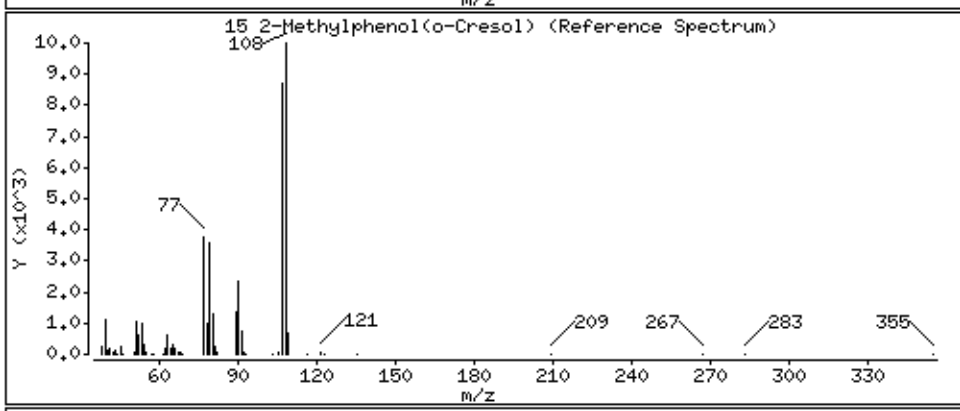
Column diameter: 0.18

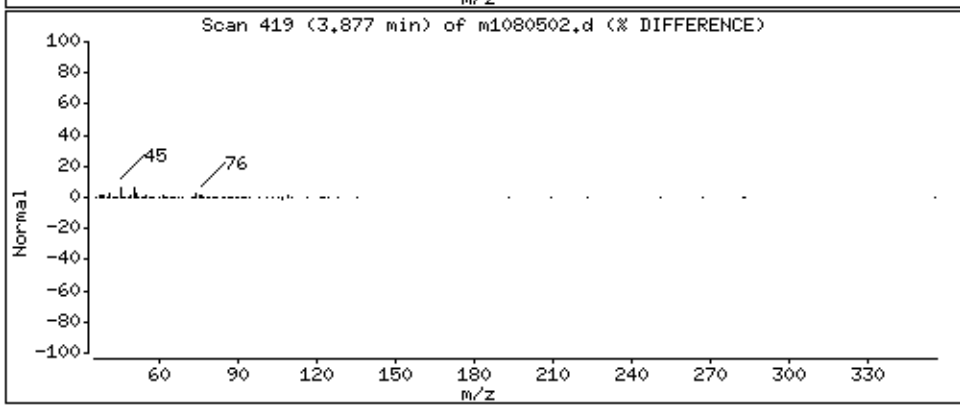
15 2-Methylphenol(o-Cresol)

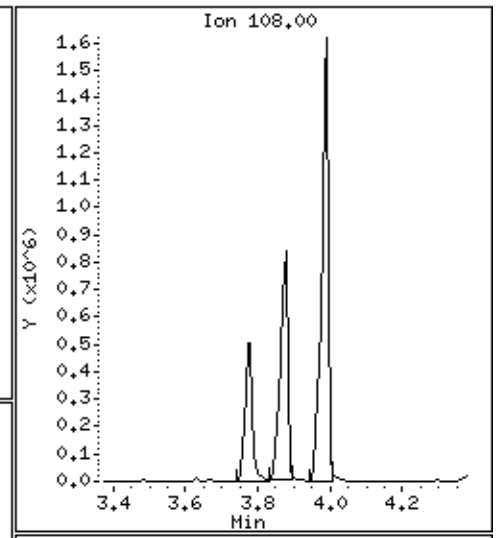
Concentration: 3010 ug/Kg

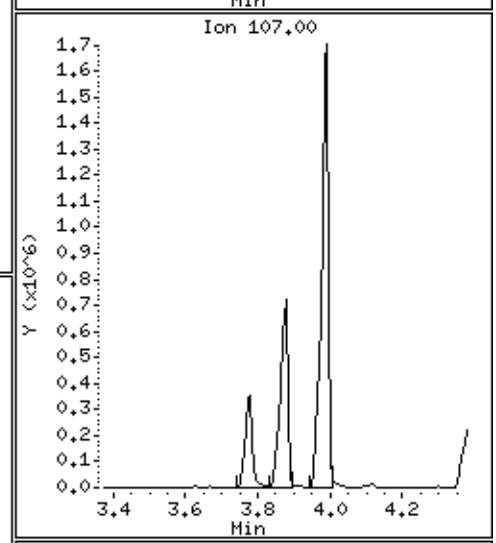


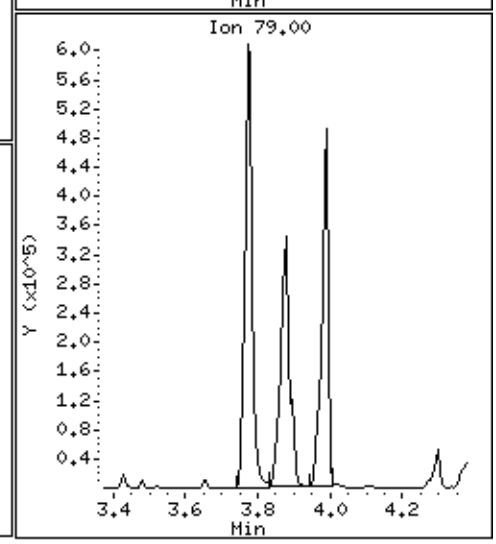












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

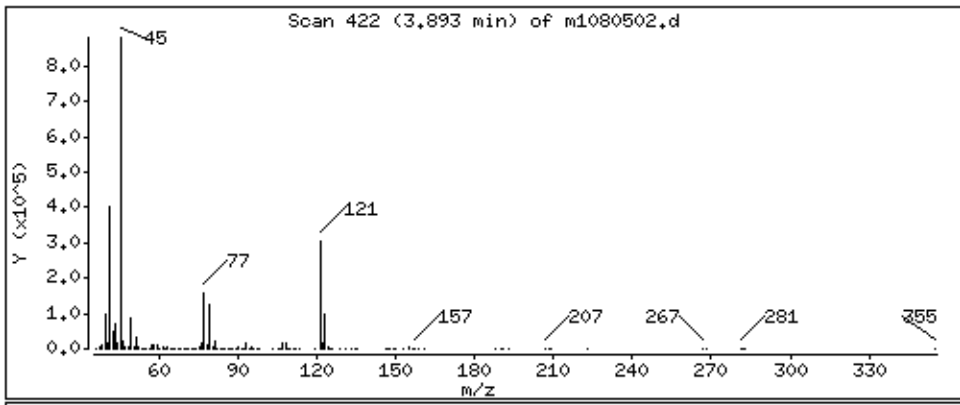
Operator: EAC

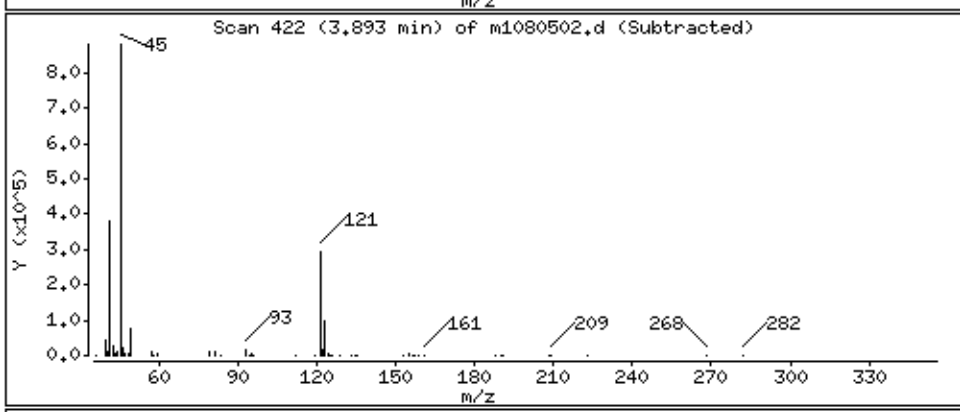
Column phase: RTX-5MS

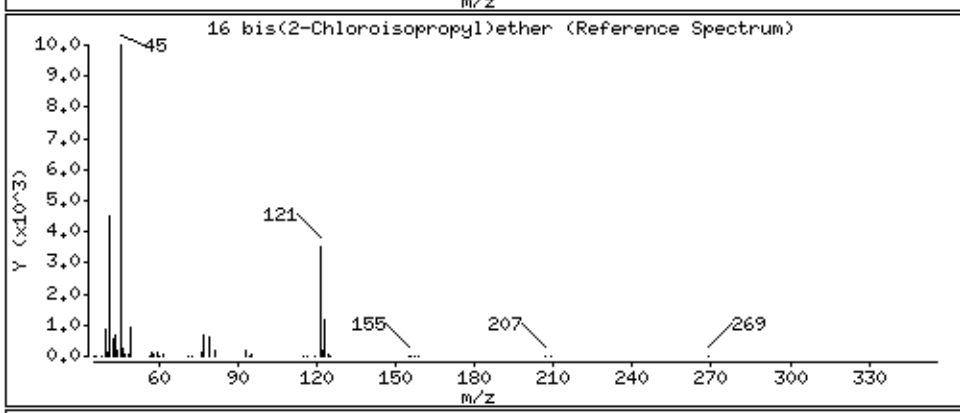
Column diameter: 0.18

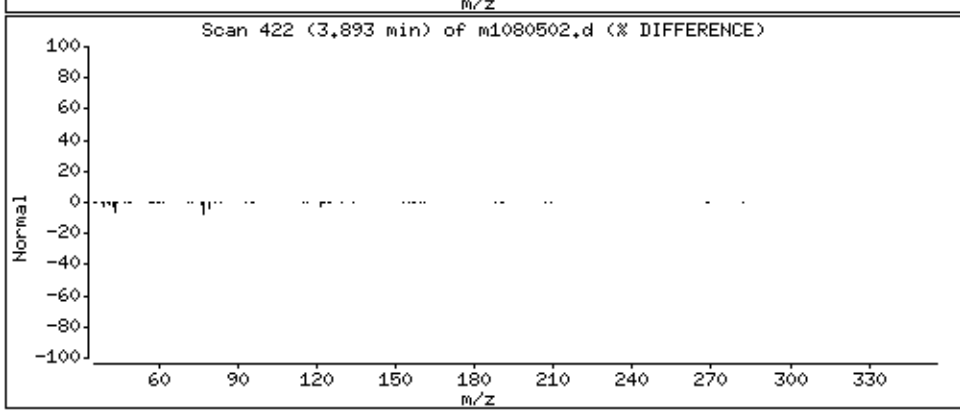
16 bis(2-Chloroisopropyl)ether

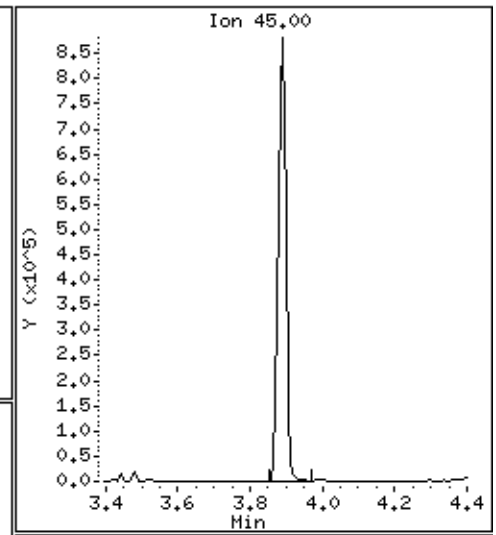
Concentration: 2910 ug/Kg

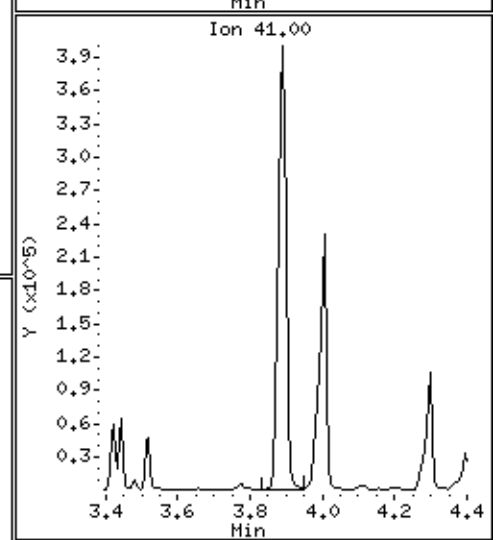


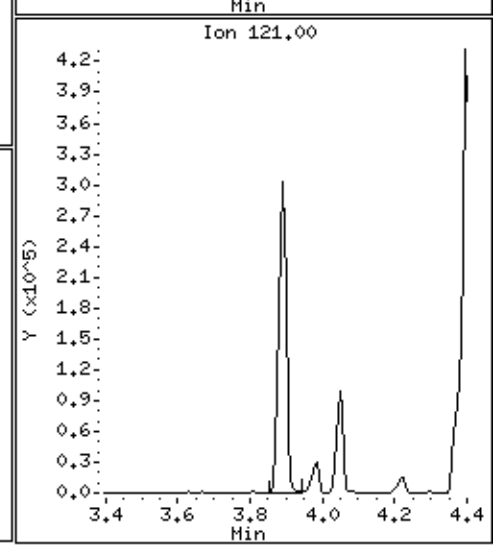












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

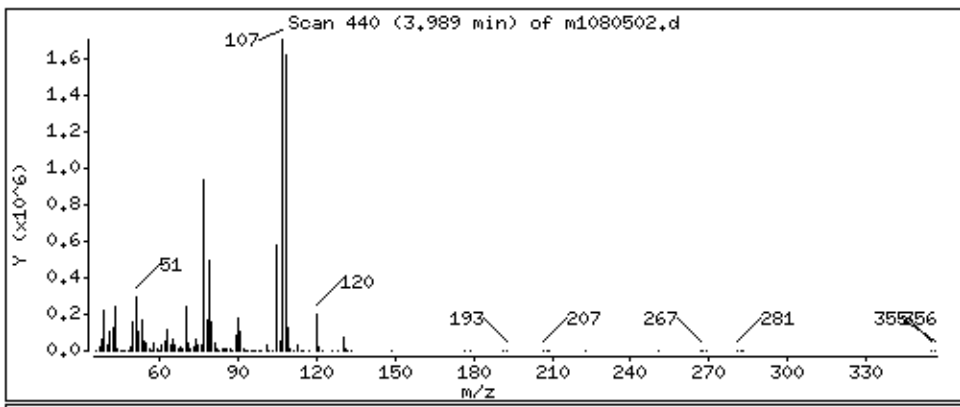
Operator: EAC

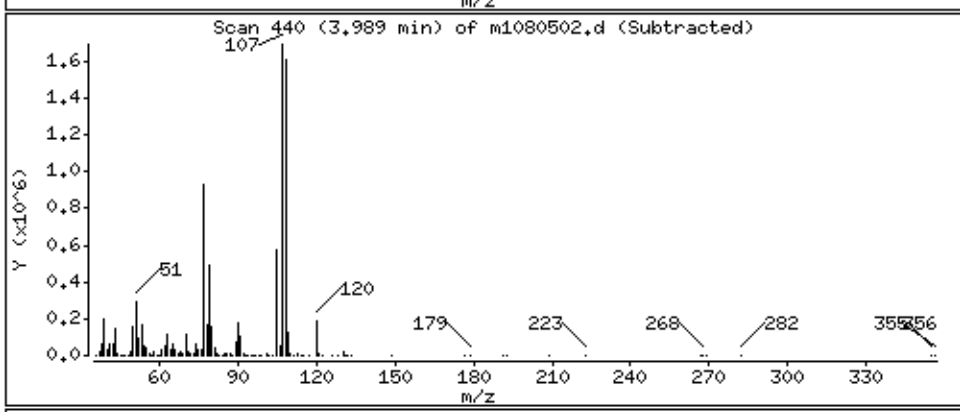
Column phase: RTX-5MS

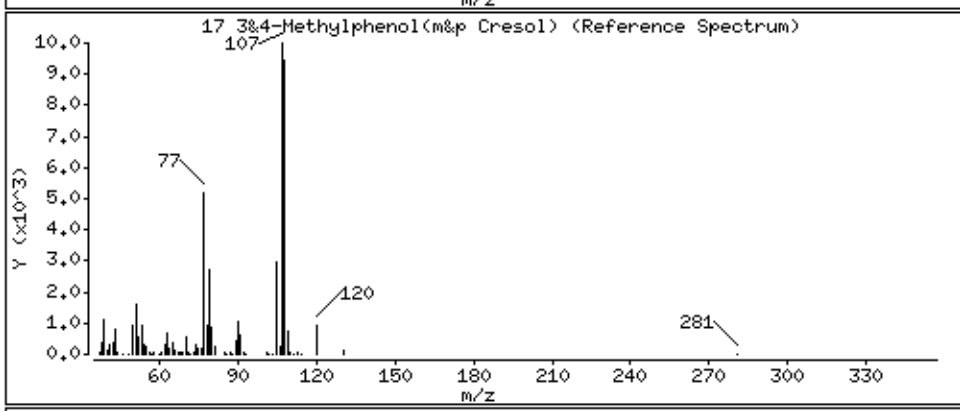
Column diameter: 0.18

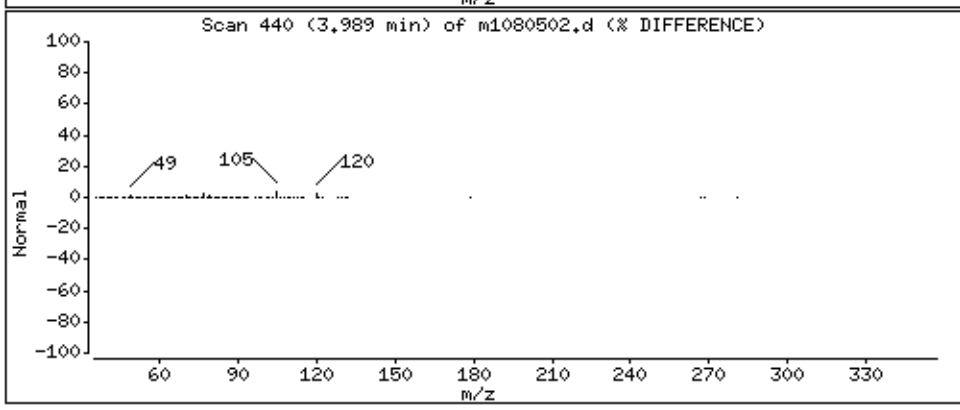
17 3&4-Methylphenol(m&p Cresol)

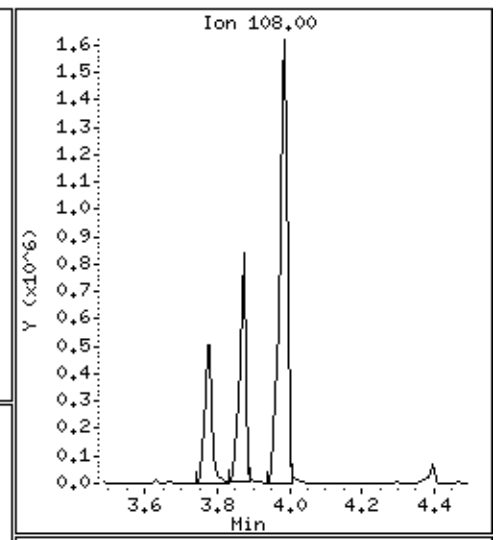
Concentration: 6230 ug/Kg

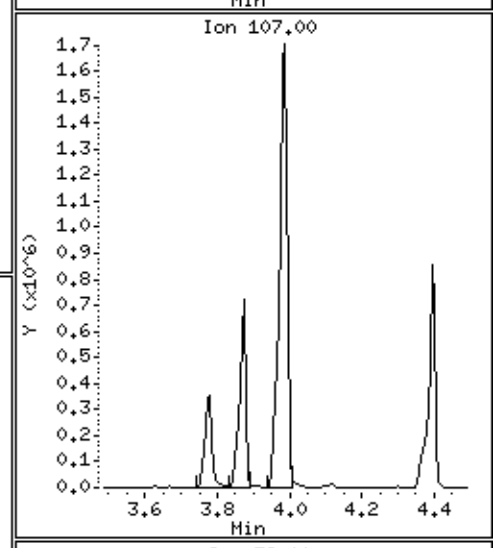


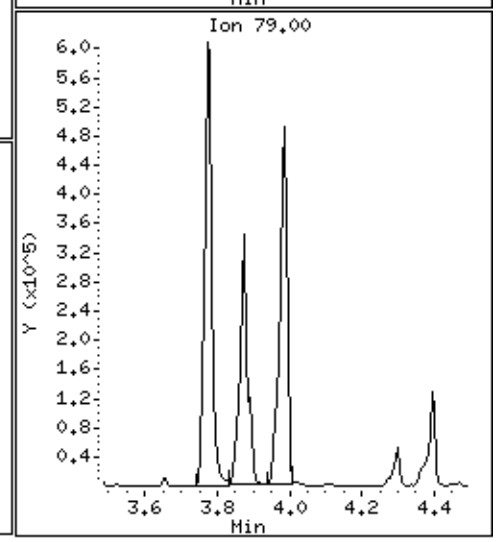












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

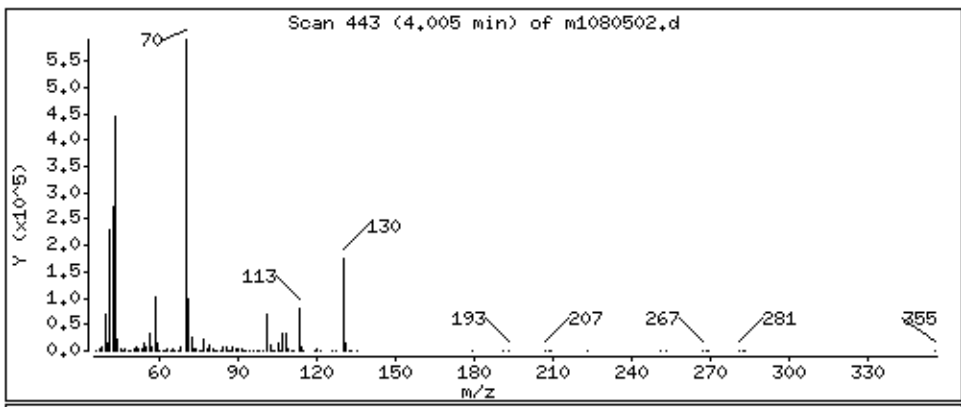
Operator: EAC

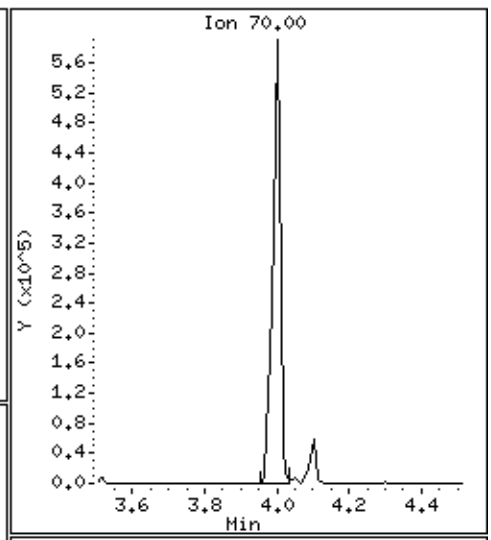
Column phase: RTX-5MS

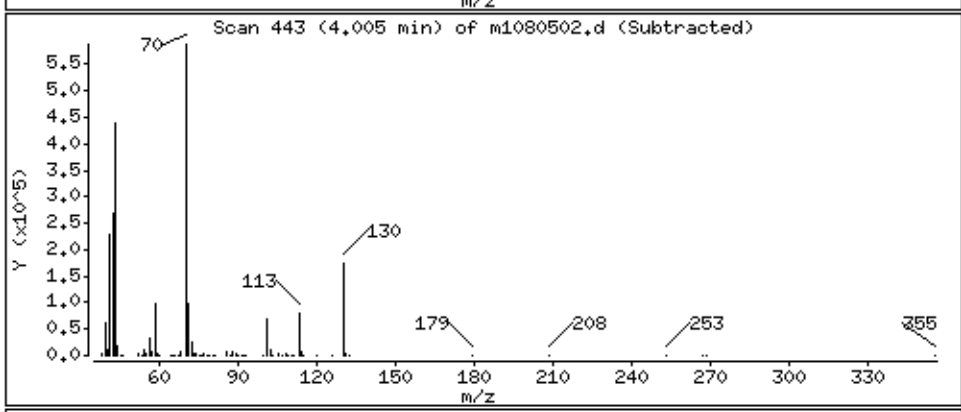
Column diameter: 0.18

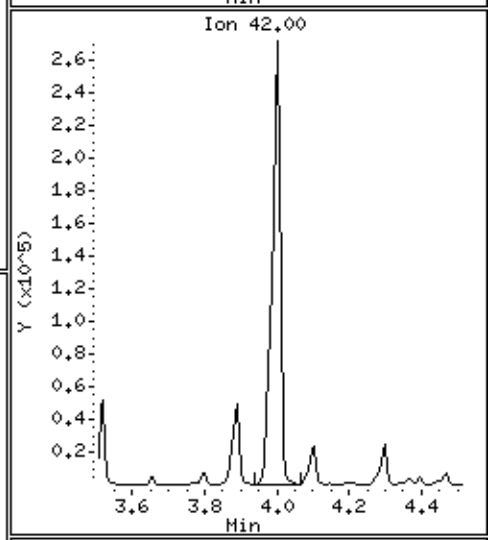
18 N-Nitroso-di-n-propylamine

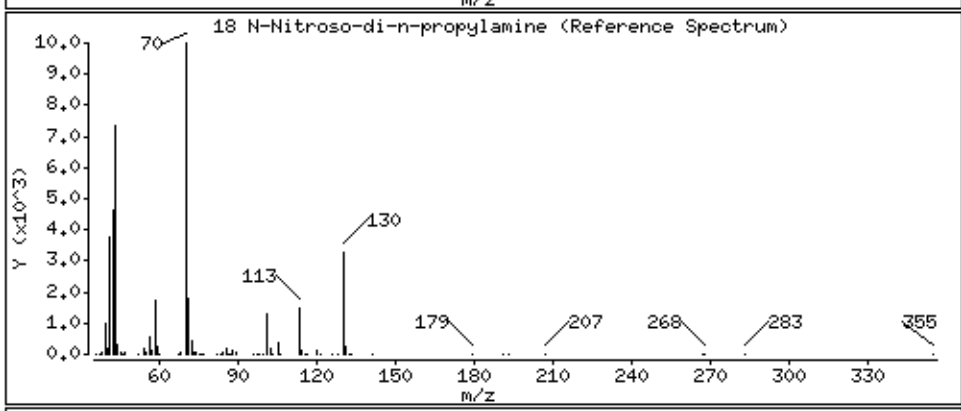
Concentration: 3080 ug/Kg

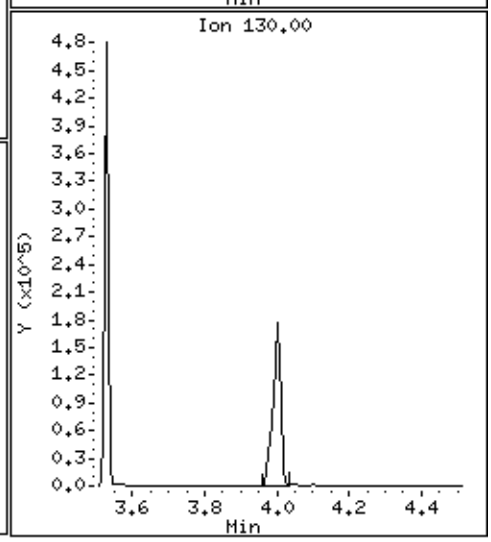


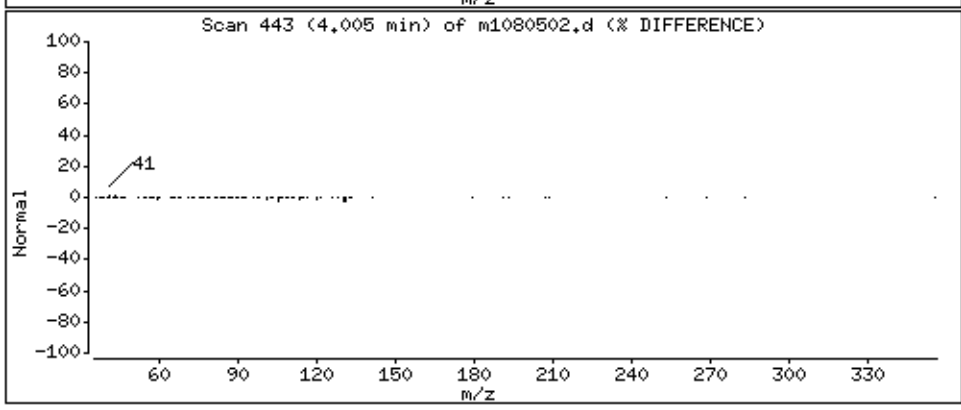












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

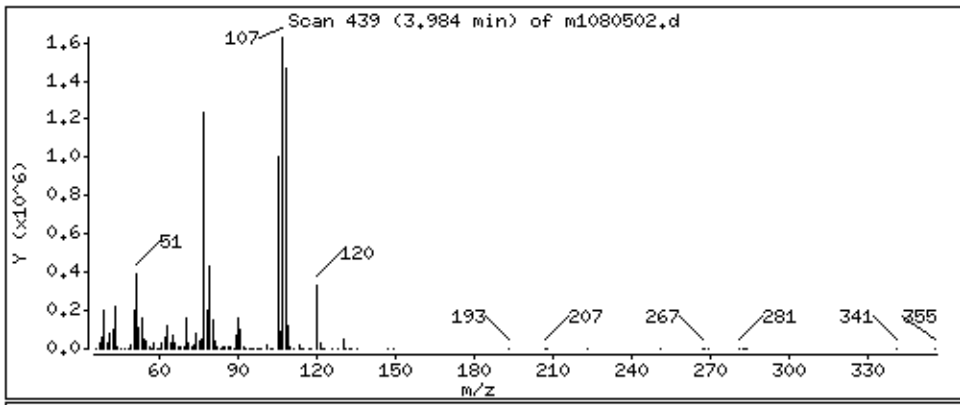
Operator: EAC

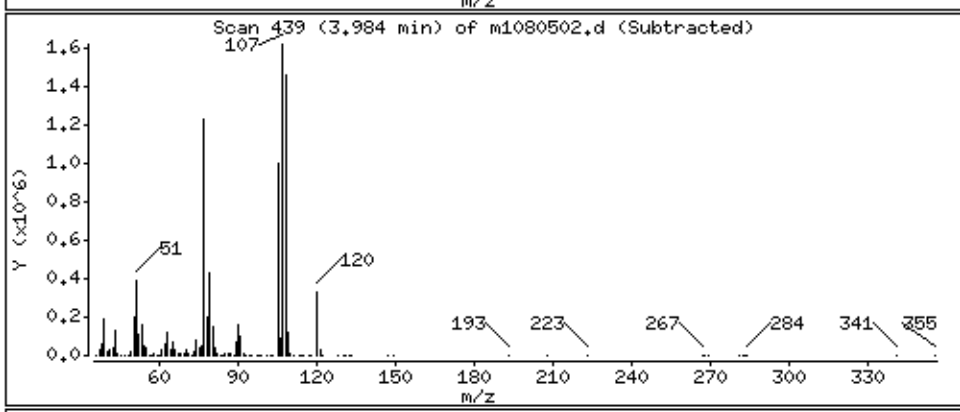
Column phase: RTX-5MS

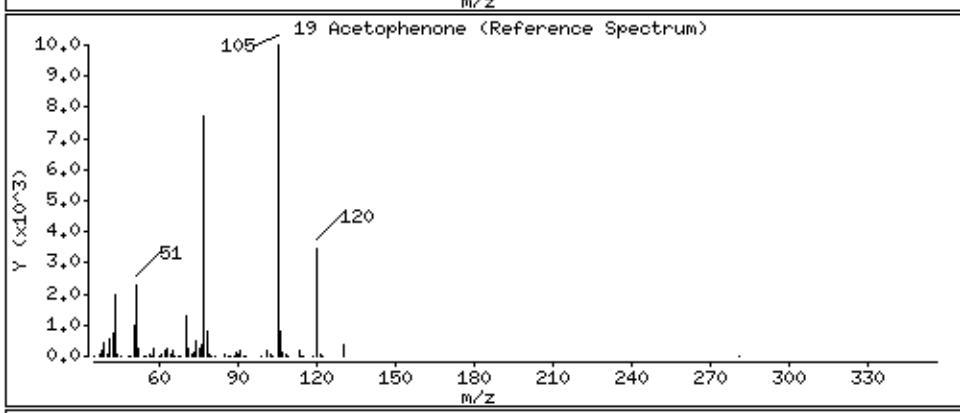
Column diameter: 0.18

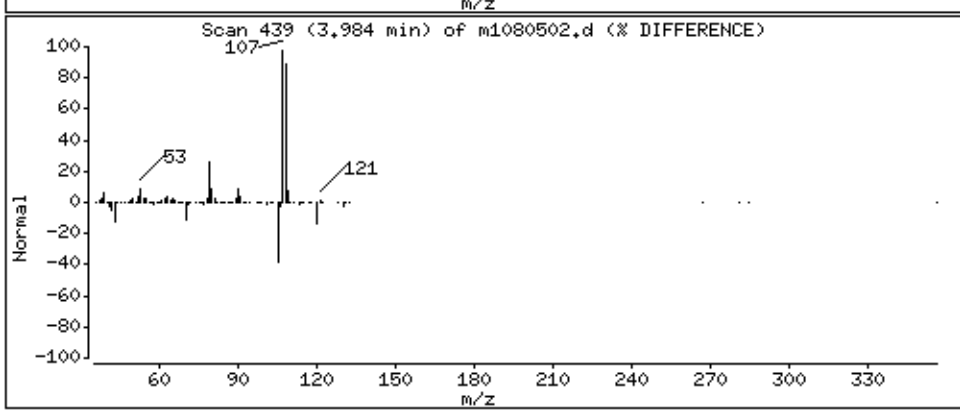
19 Acetophenone

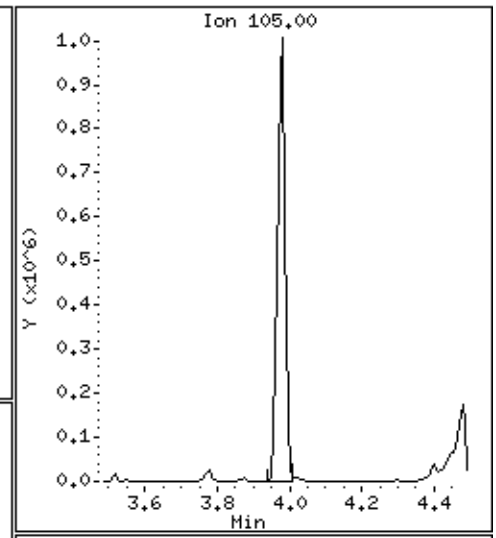
Concentration: 3000 ug/Kg

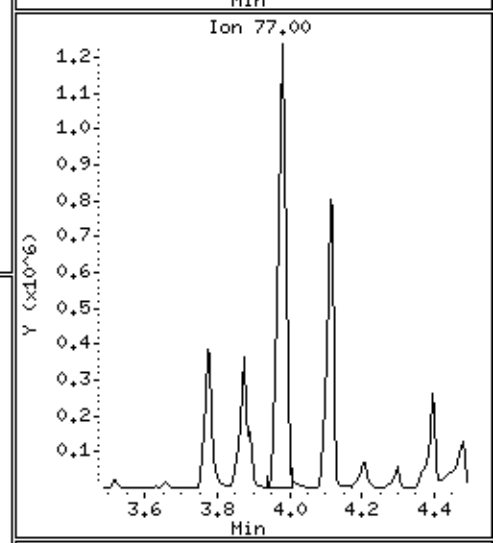


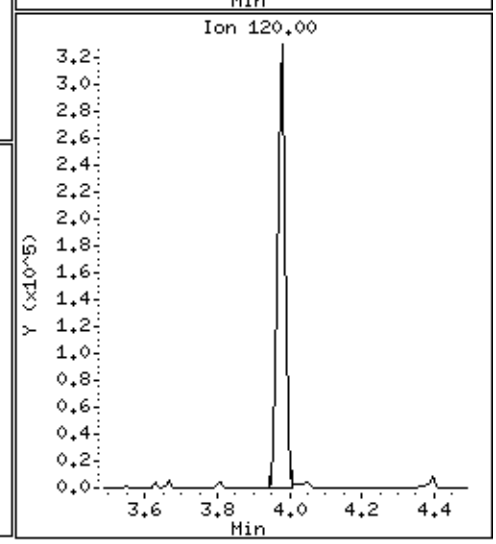












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

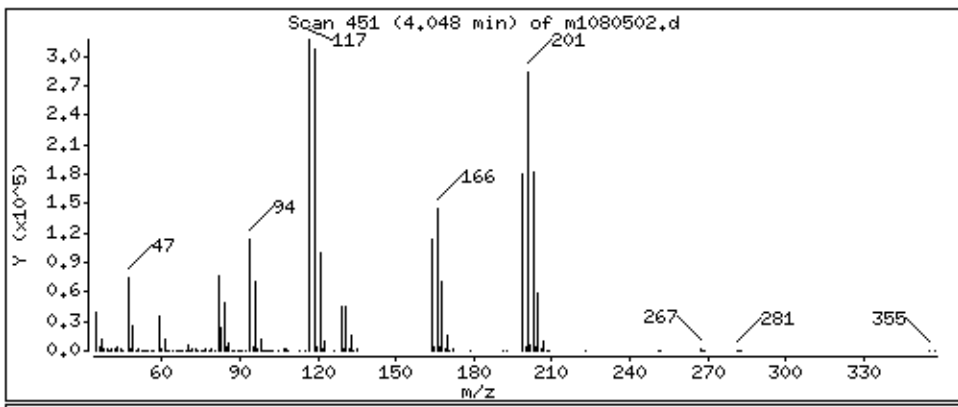
Operator: EAC

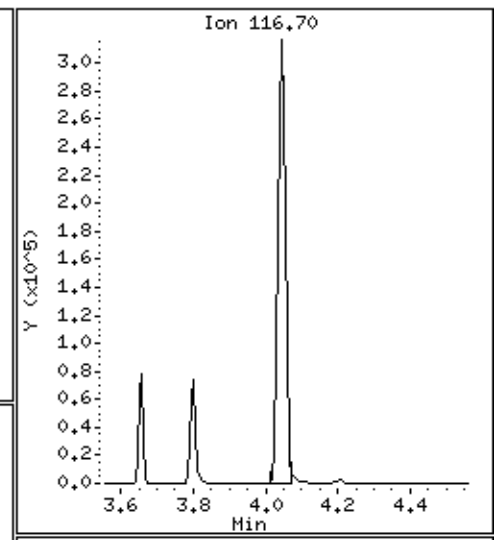
Column phase: RTX-5MS

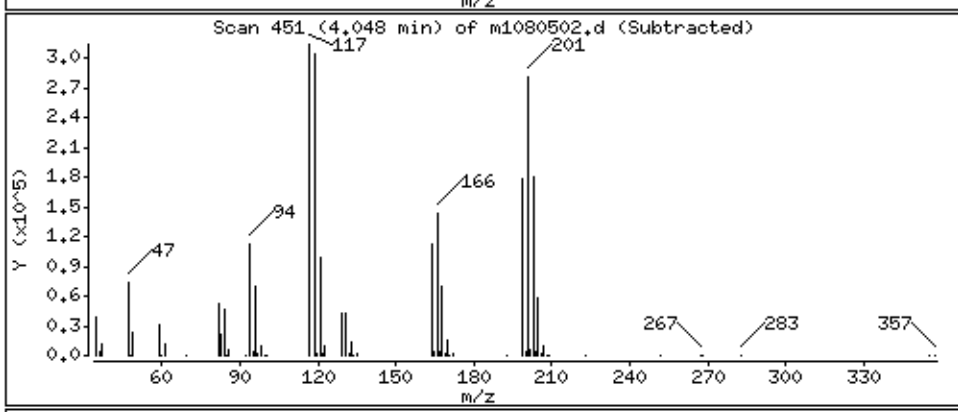
Column diameter: 0.18

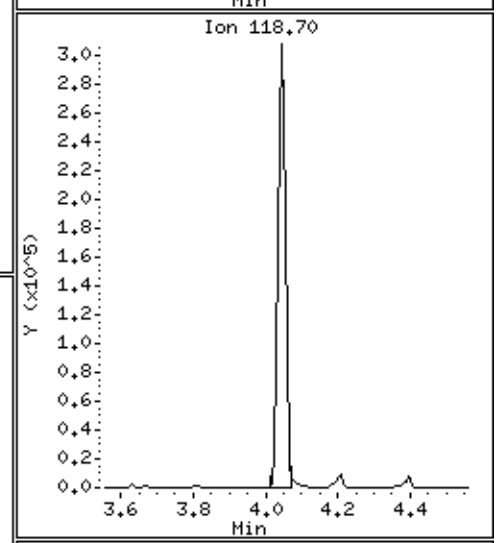
20 Hexachloroethane

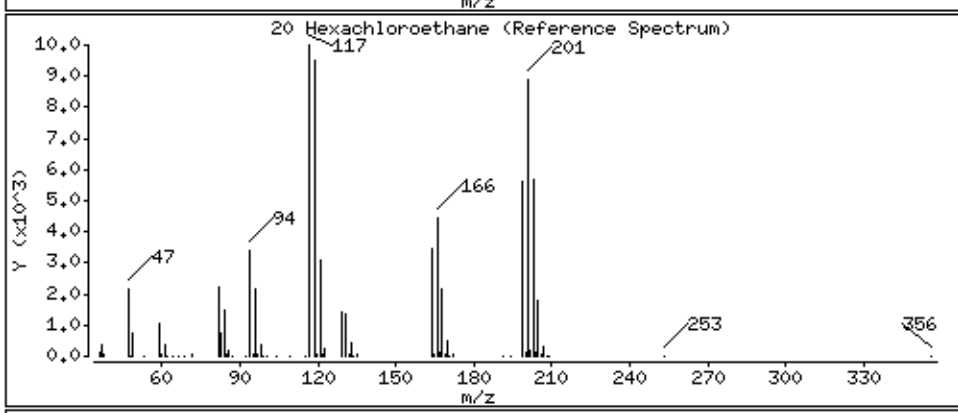
Concentration: 2750 ug/Kg

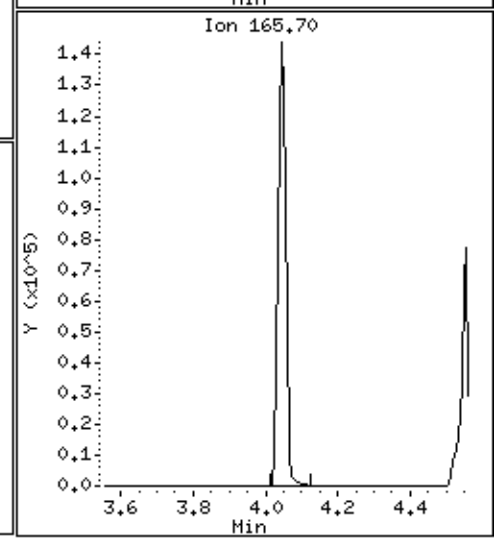


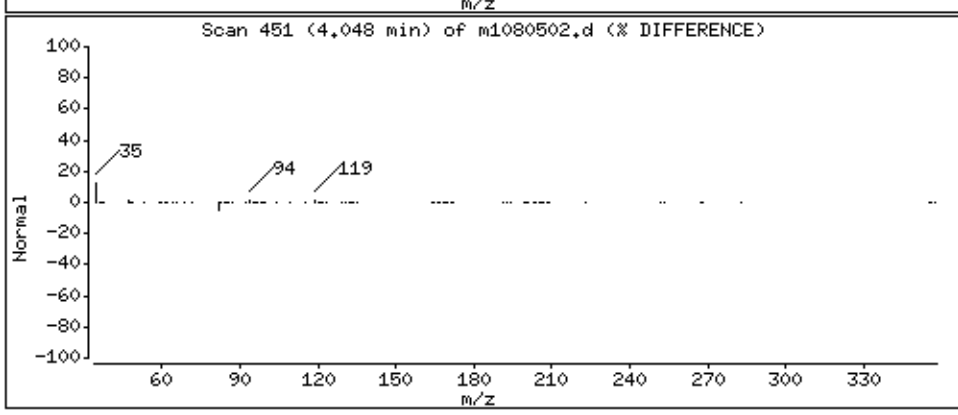












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

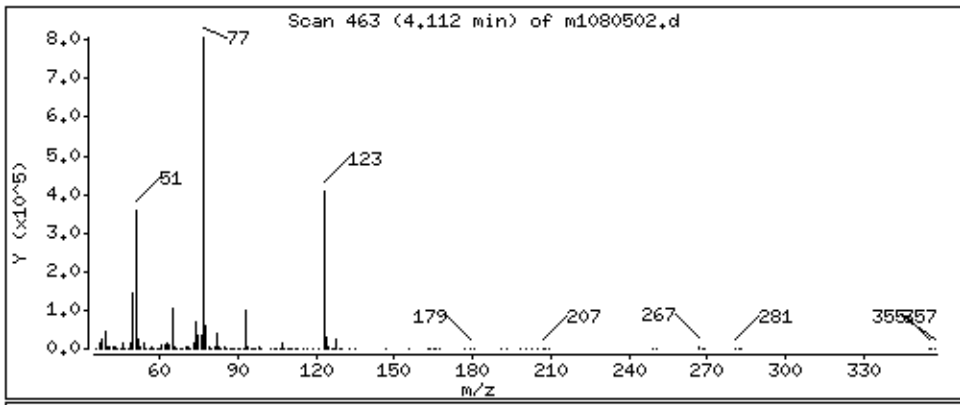
Operator: EAC

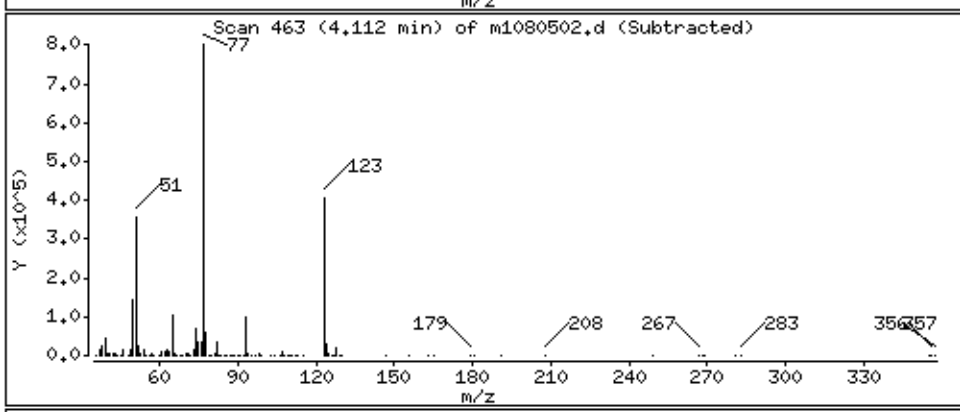
Column phase: RTX-5MS

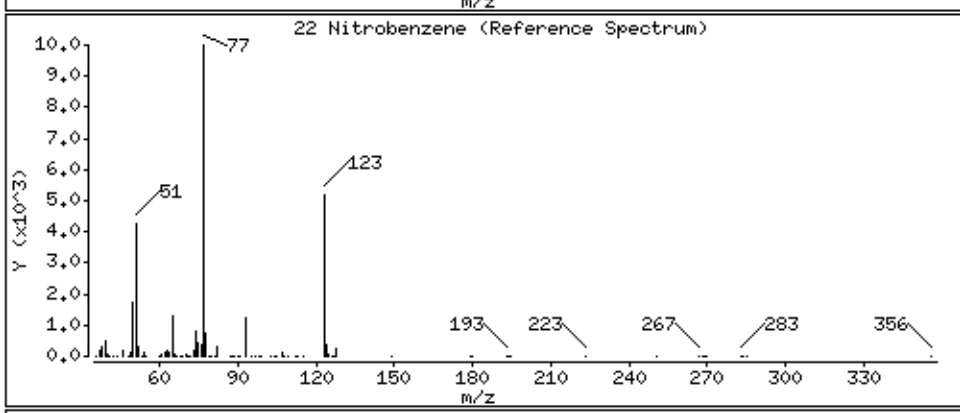
Column diameter: 0.18

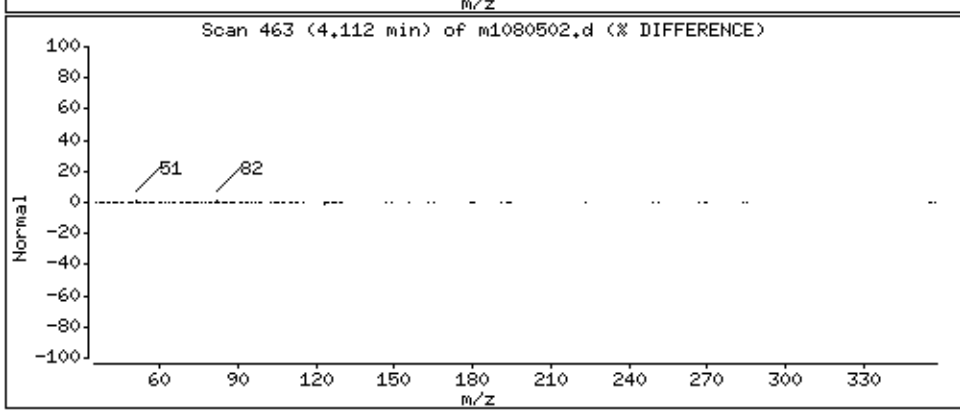
22 Nitrobenzene

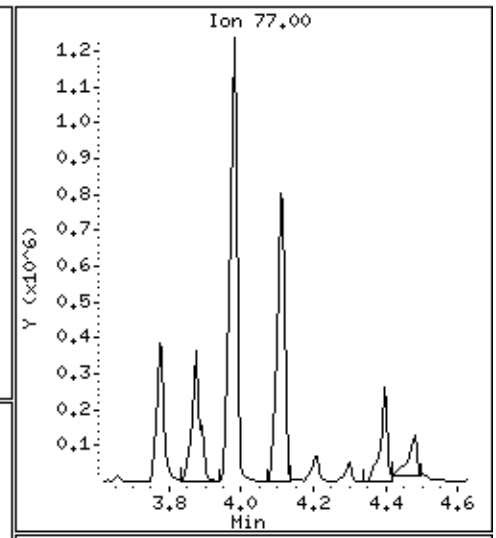
Concentration: 3050 ug/Kg

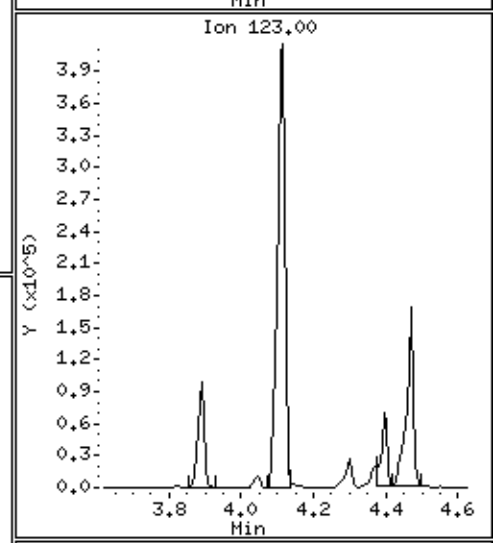


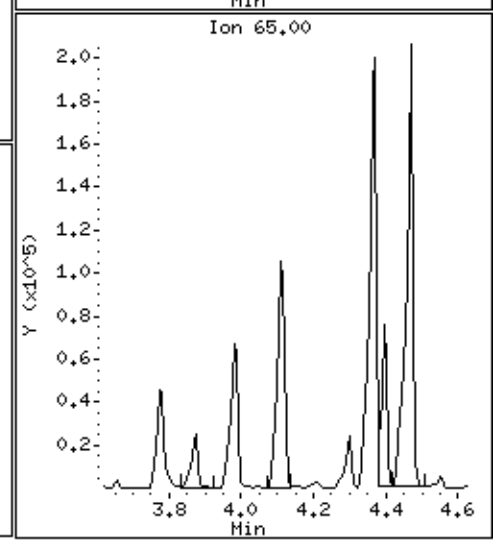












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

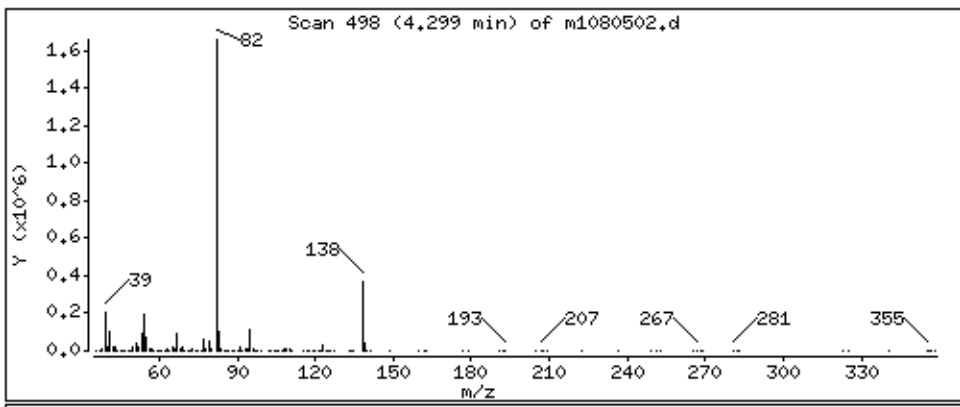
Operator: EAC

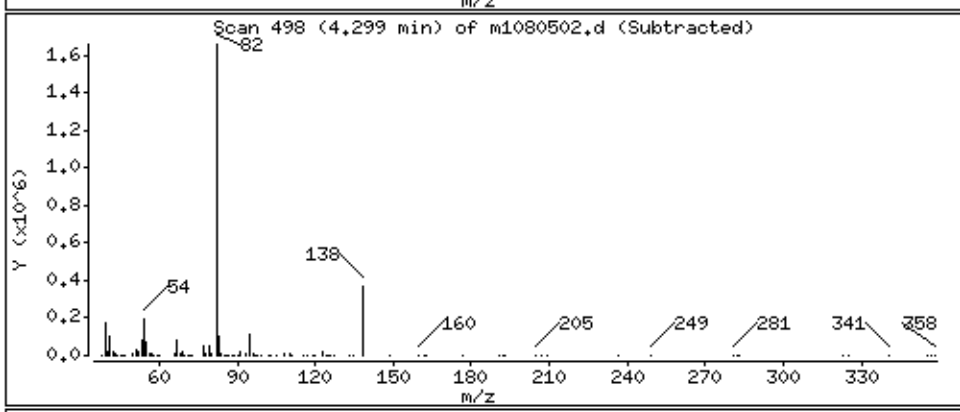
Column phase: RTX-5MS

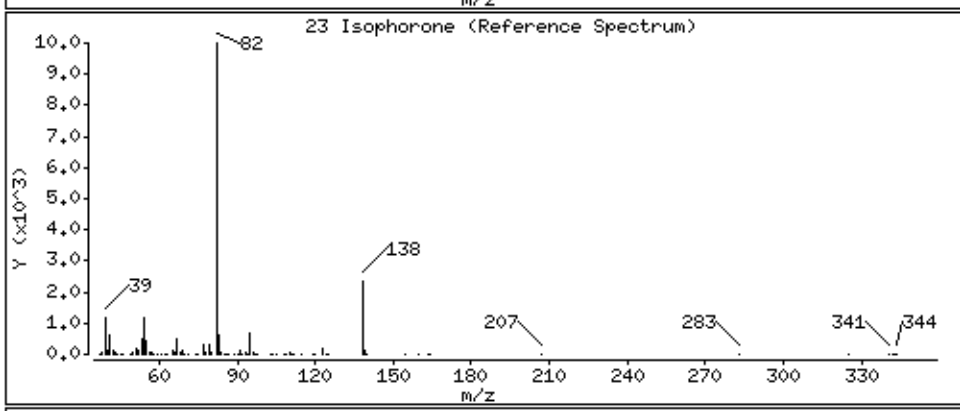
Column diameter: 0.18

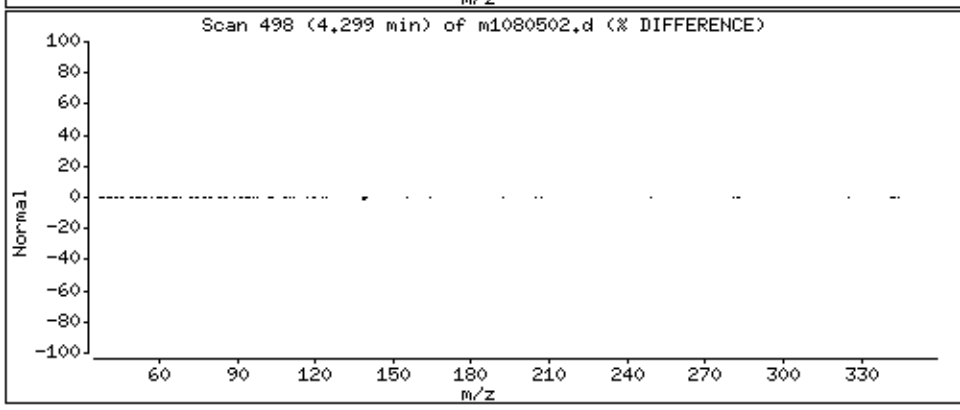
23 Isophorone

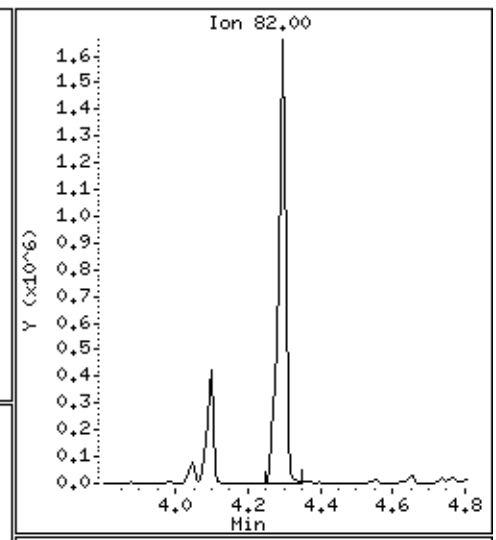
Concentration: 3200 ug/Kg

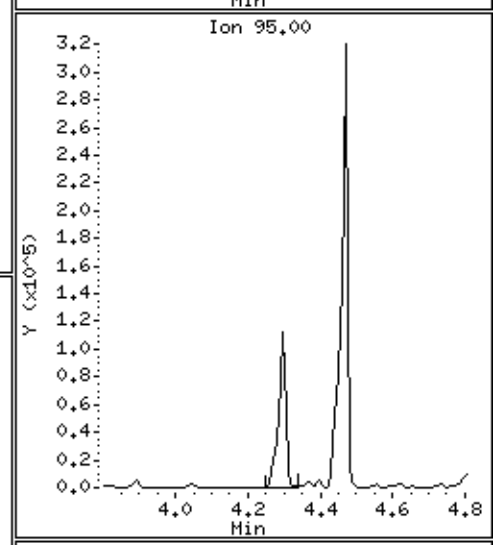


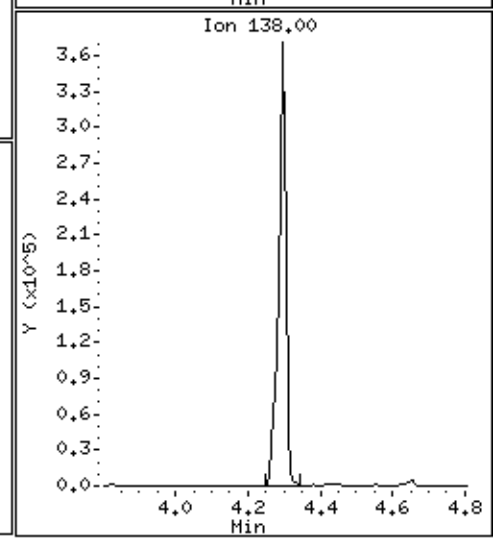












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

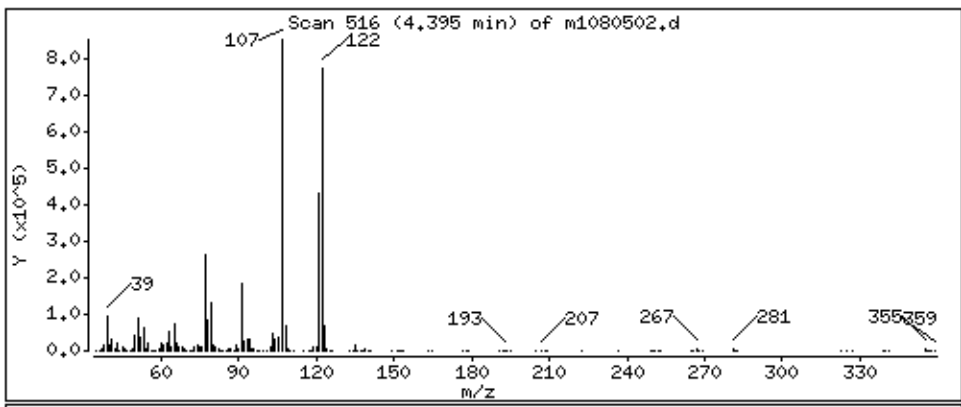
Operator: EAC

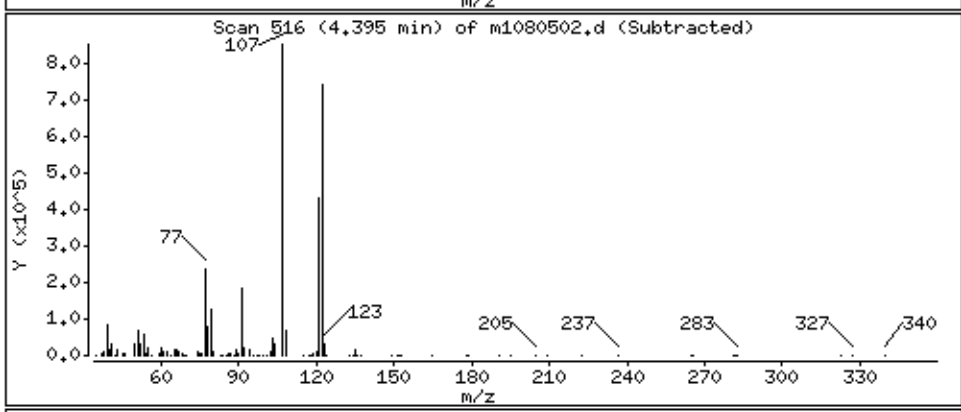
Column phase: RTX-5MS

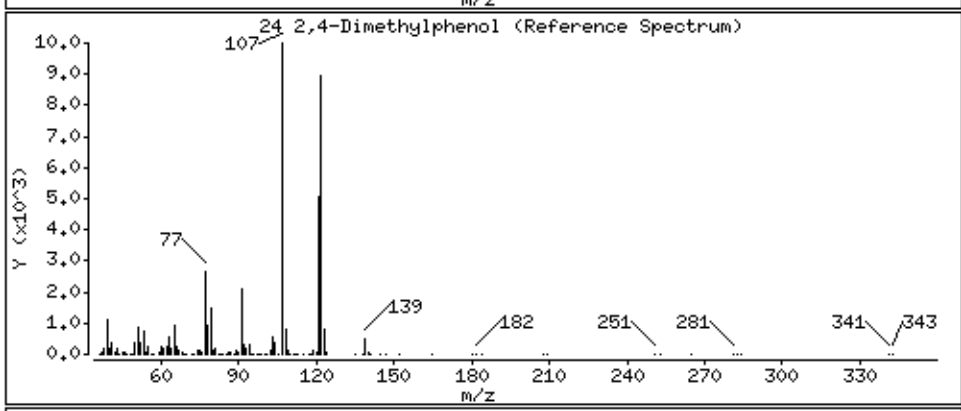
Column diameter: 0.18

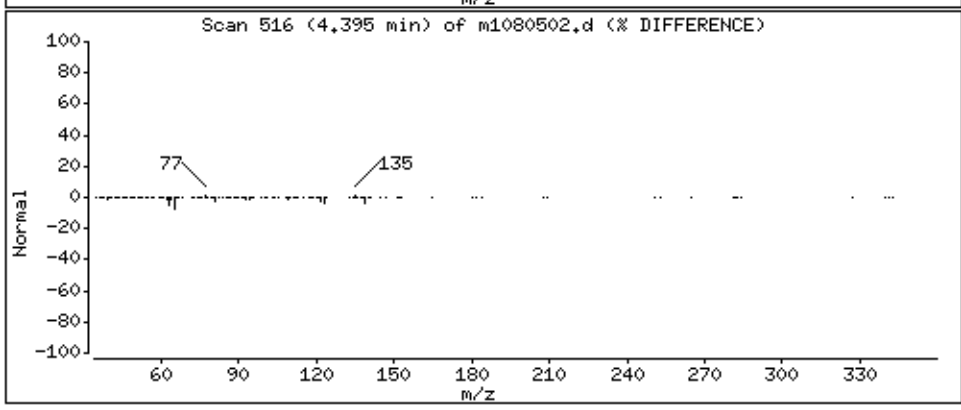
24 2,4-Dimethylphenol

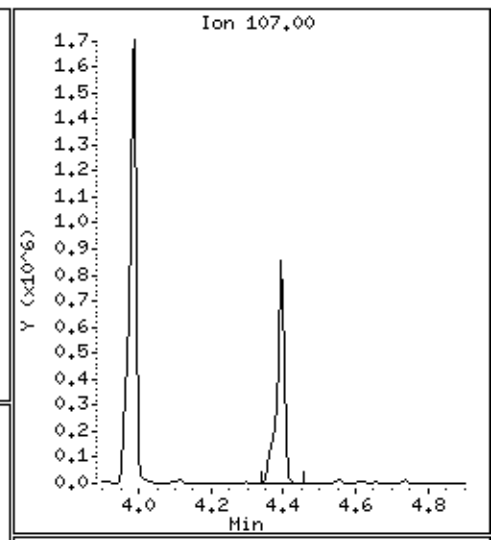
Concentration: 3120 ug/Kg

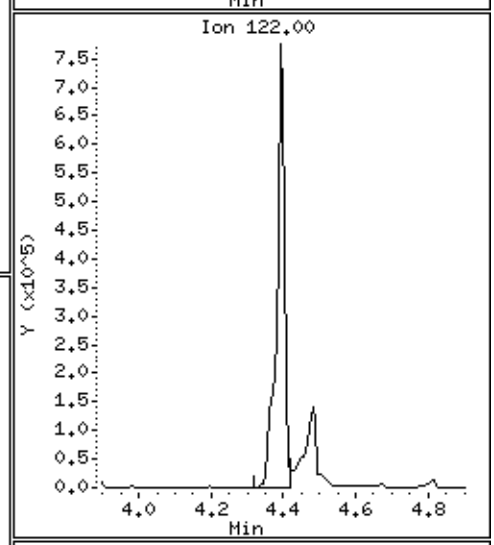


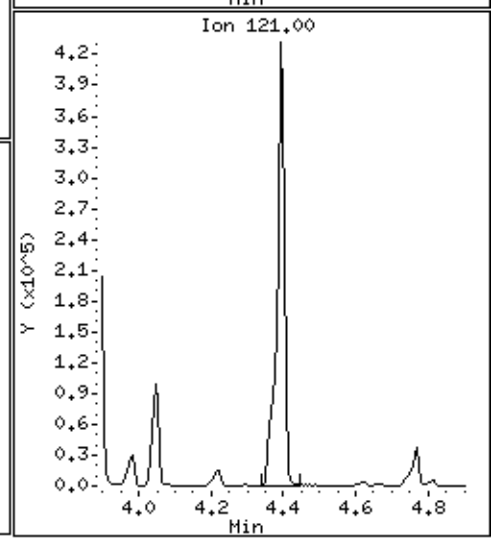












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

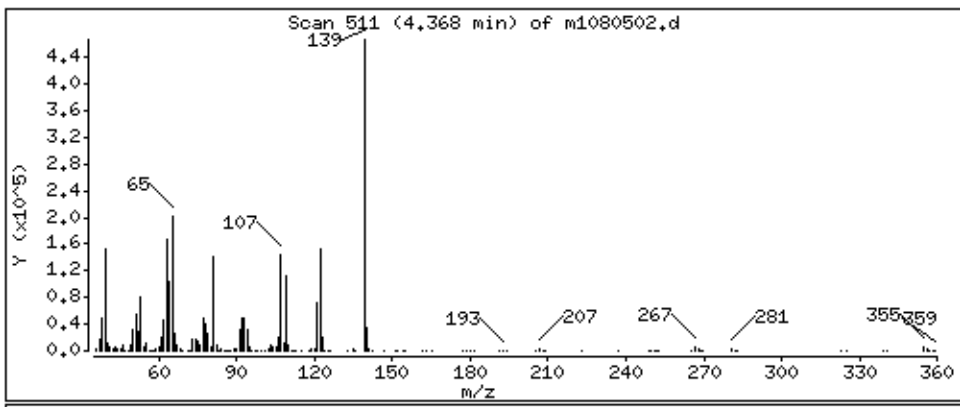
Operator: EAC

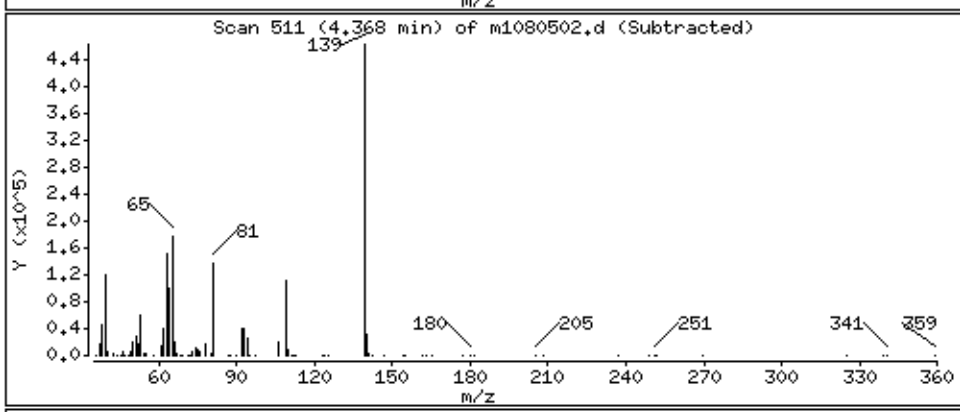
Column phase: RTX-5MS

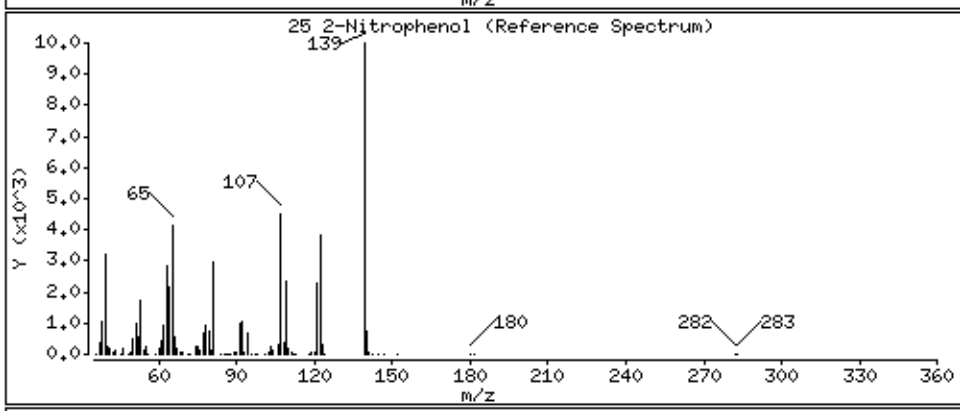
Column diameter: 0.18

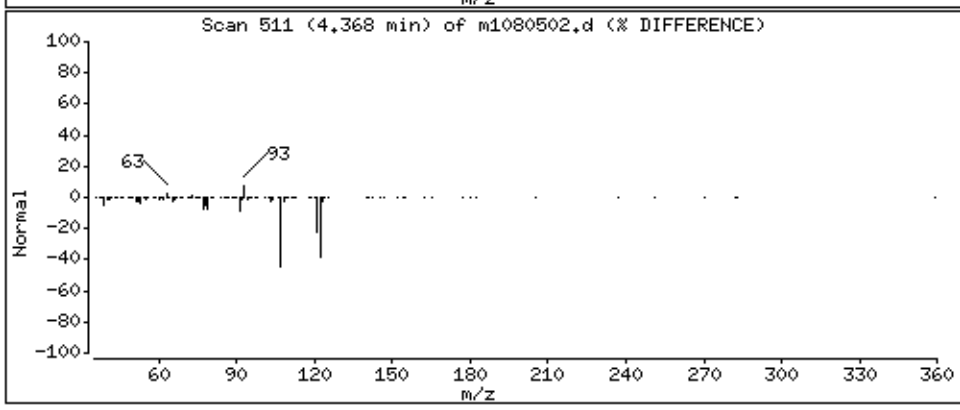
25 2-Nitrophenol

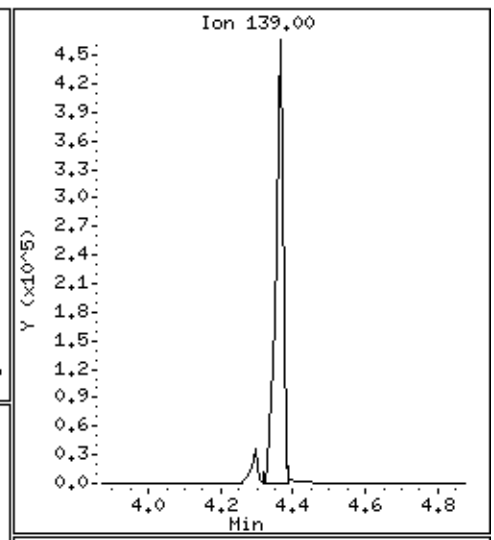
Concentration: 3120 ug/Kg

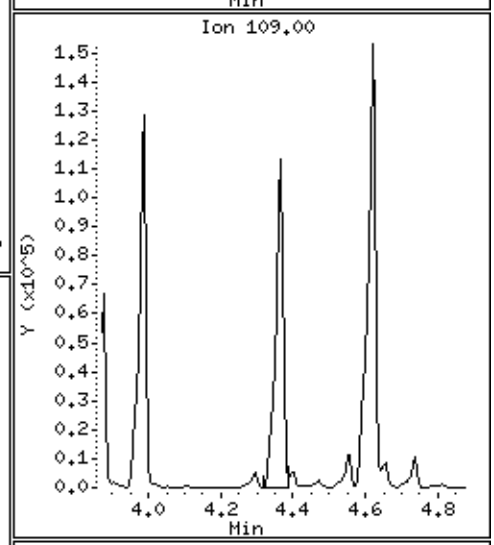


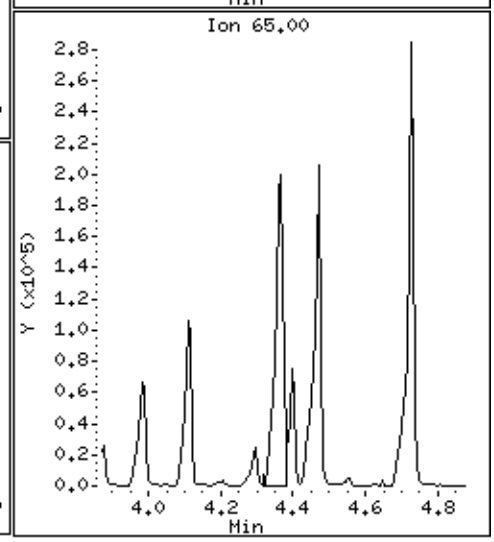












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

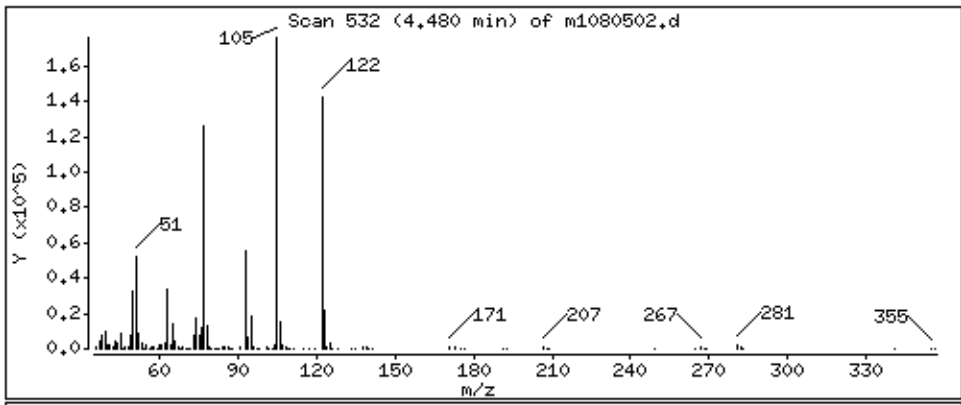
Operator: EAC

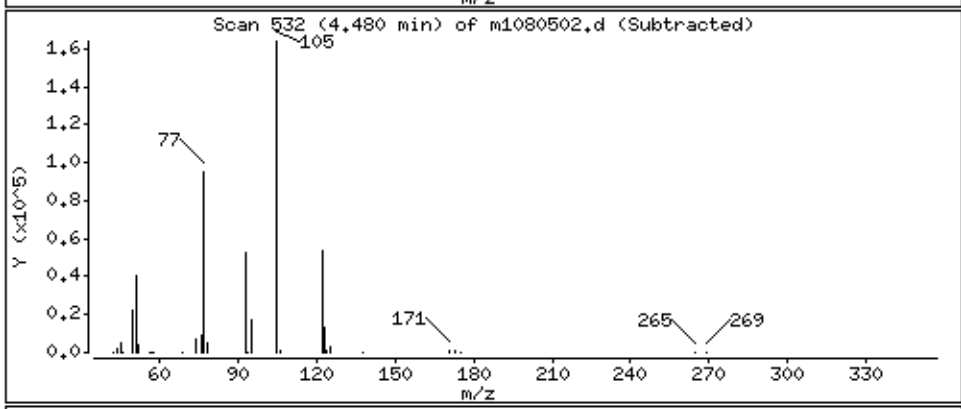
Column phase: RTX-5MS

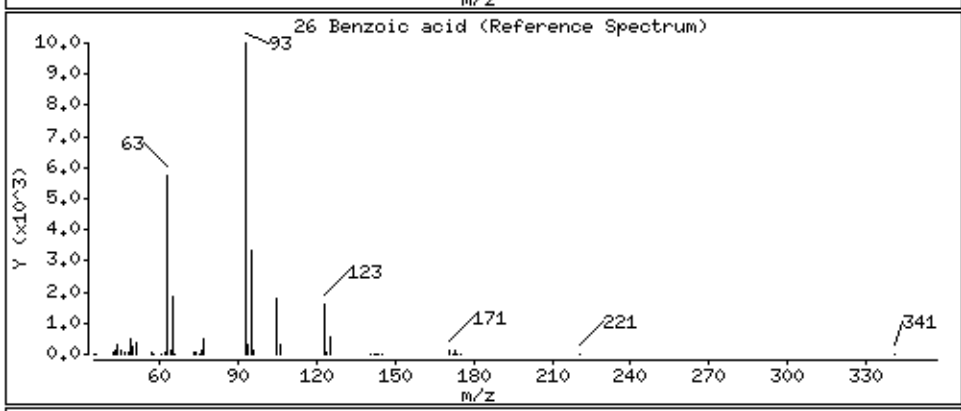
Column diameter: 0.18

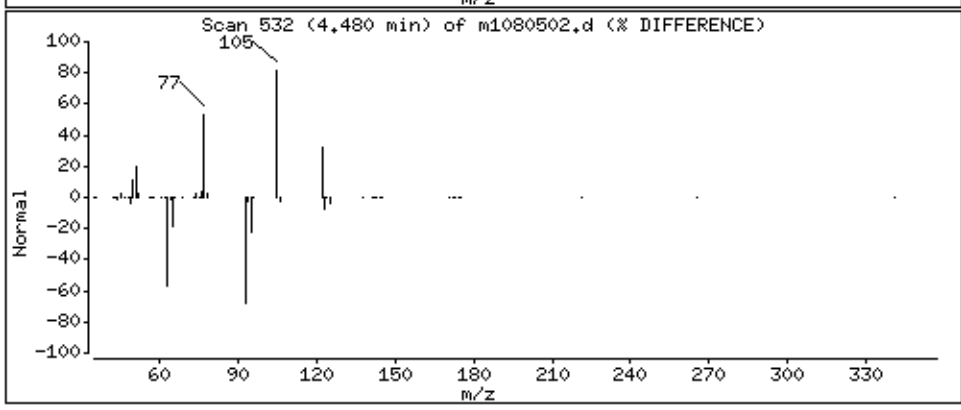
26 Benzoic acid

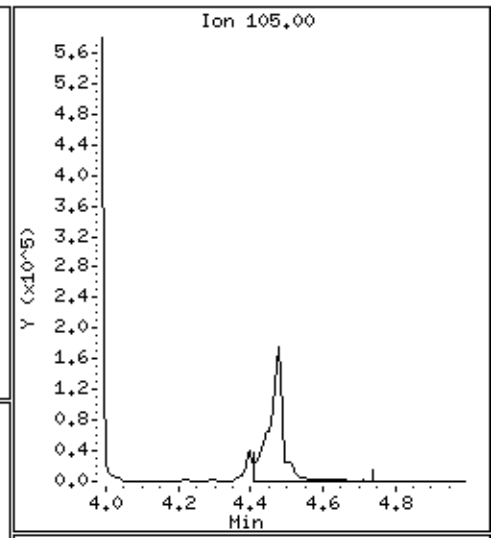
Concentration: 2310 ug/Kg

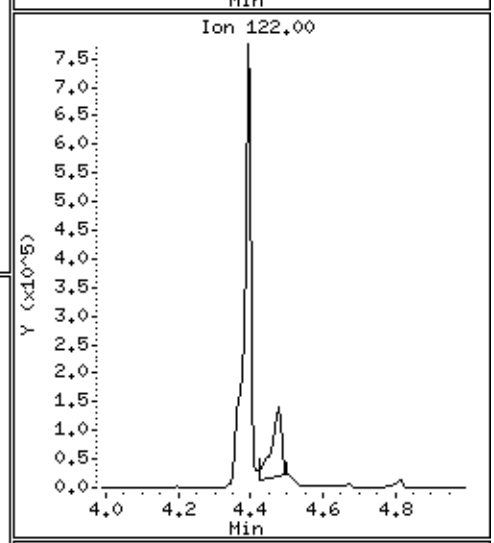


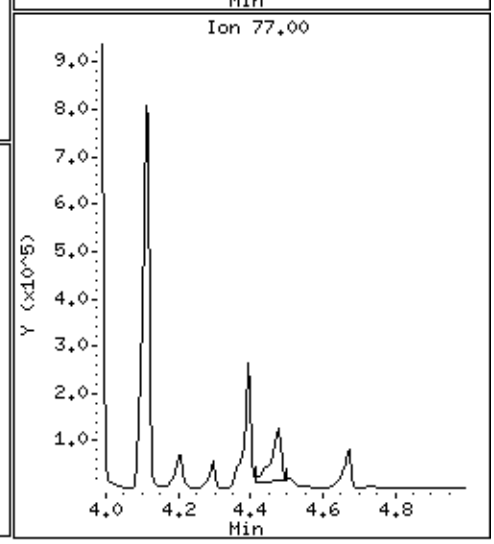












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

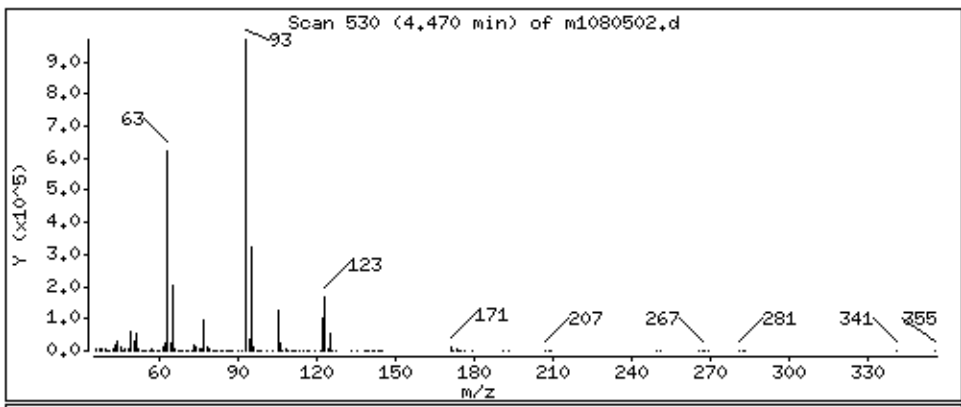
Operator: EAC

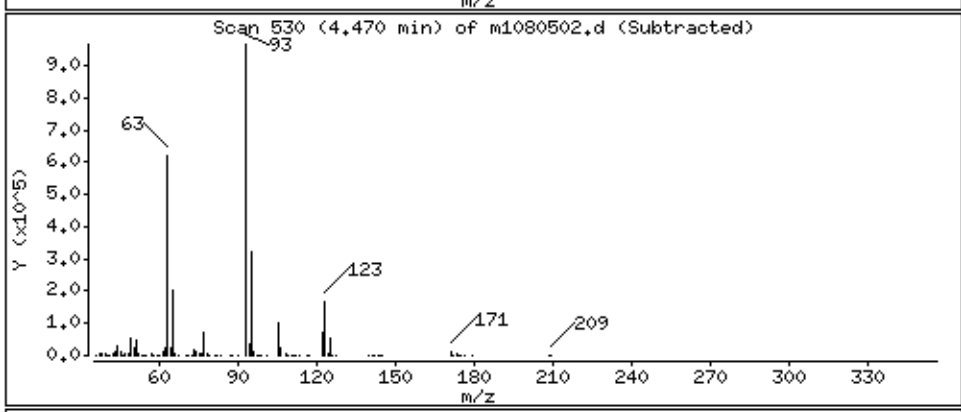
Column phase: RTX-5MS

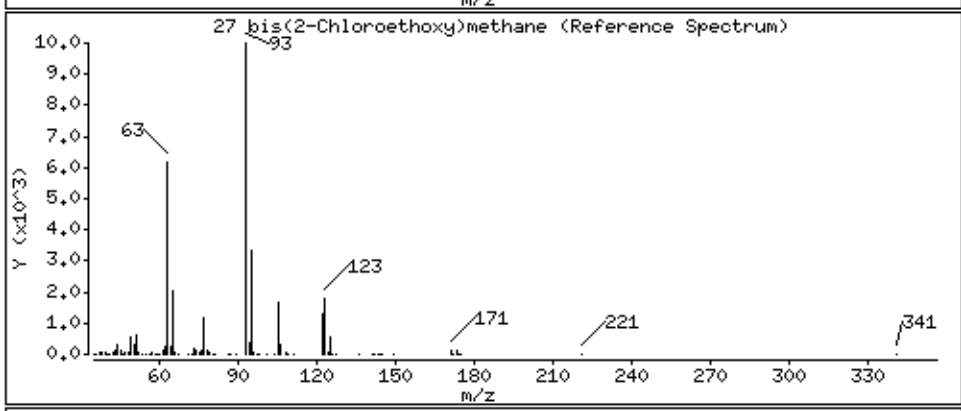
Column diameter: 0.18

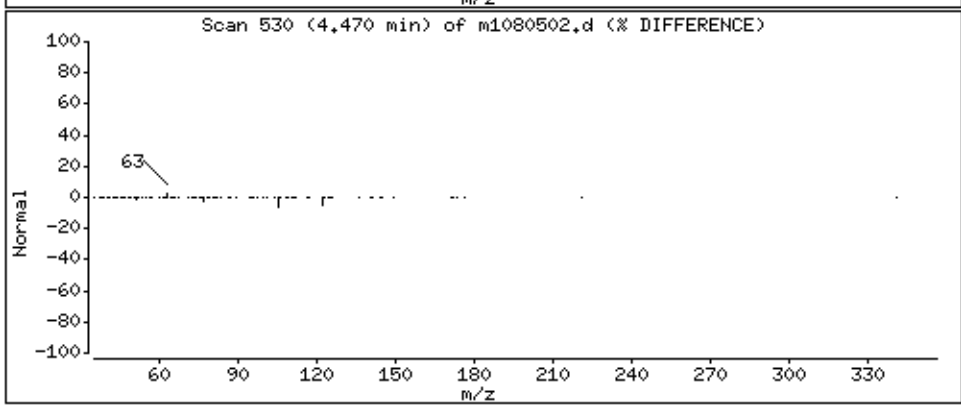
27 bis(2-Chloroethoxy)methane

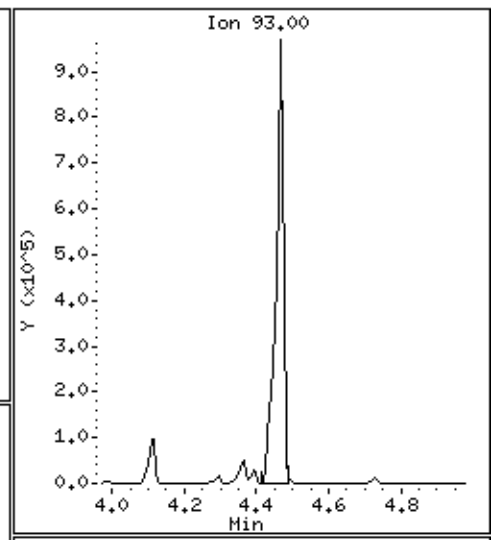
Concentration: 3010 ug/Kg

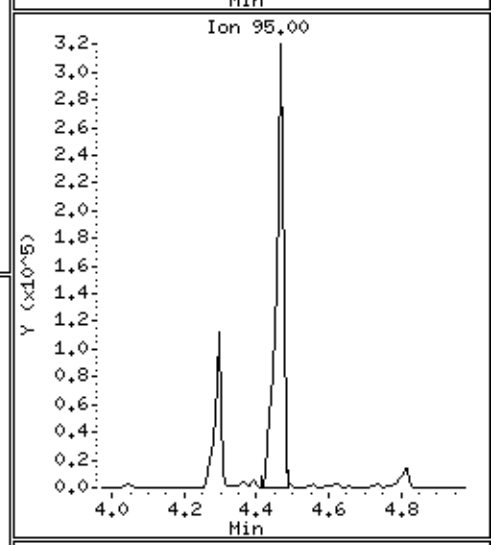


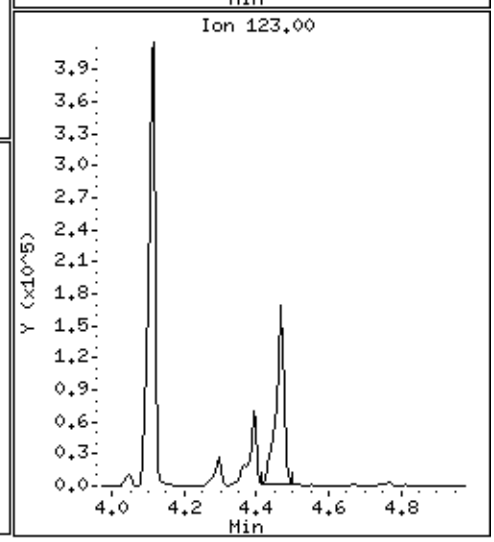












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

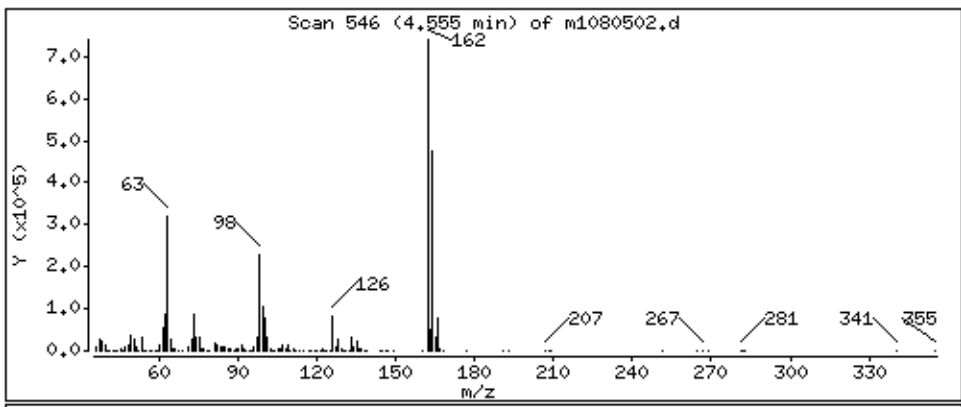
Operator: EAC

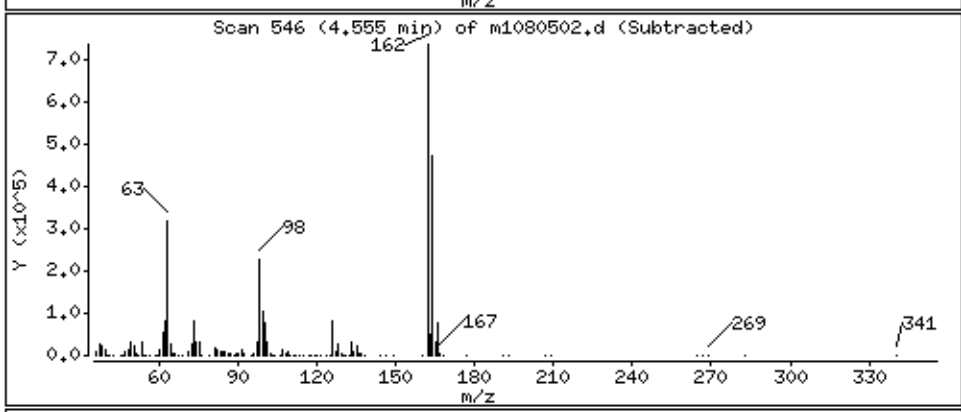
Column phase: RTX-5MS

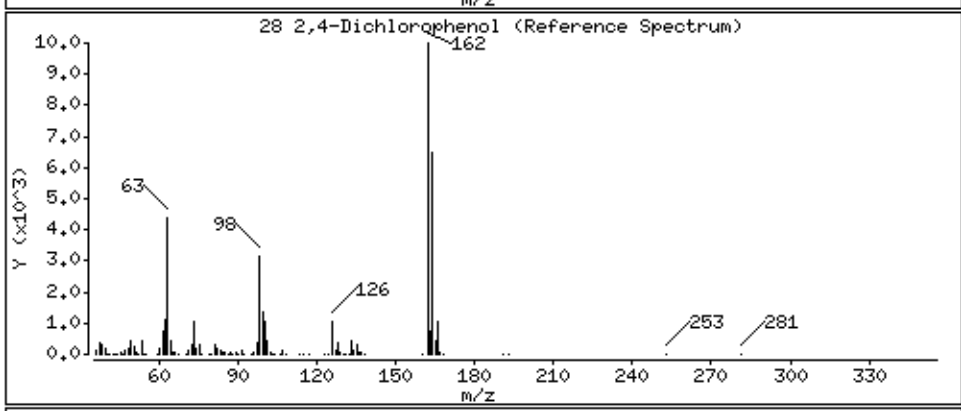
Column diameter: 0.18

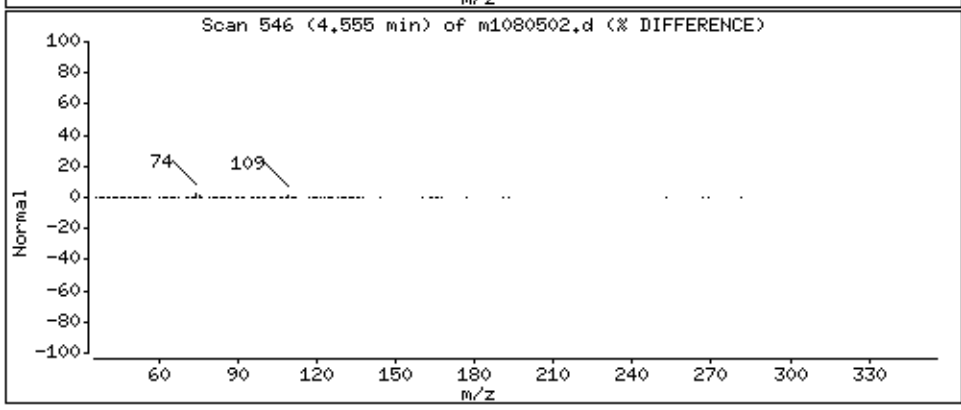
28 2,4-Dichlorophenol

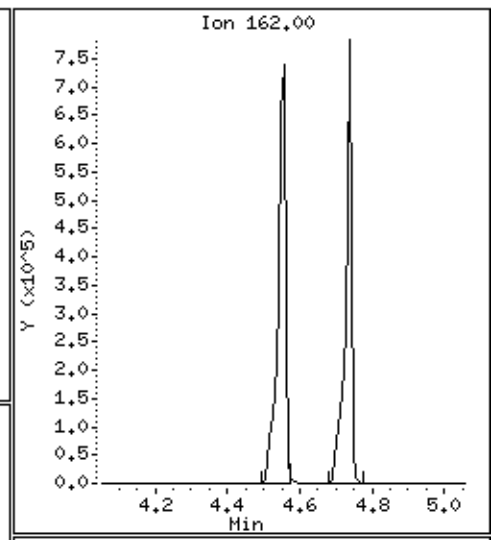
Concentration: 3140 ug/Kg

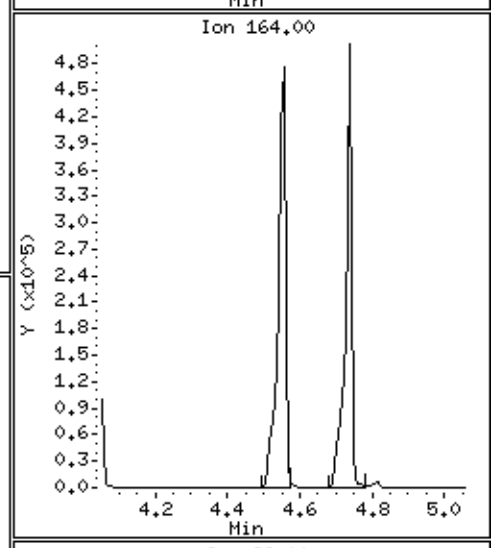


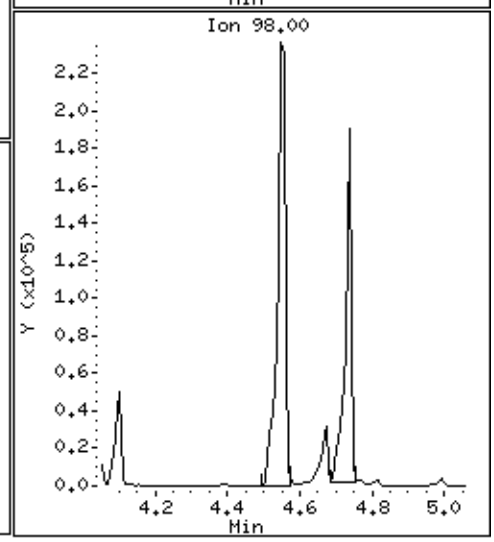












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

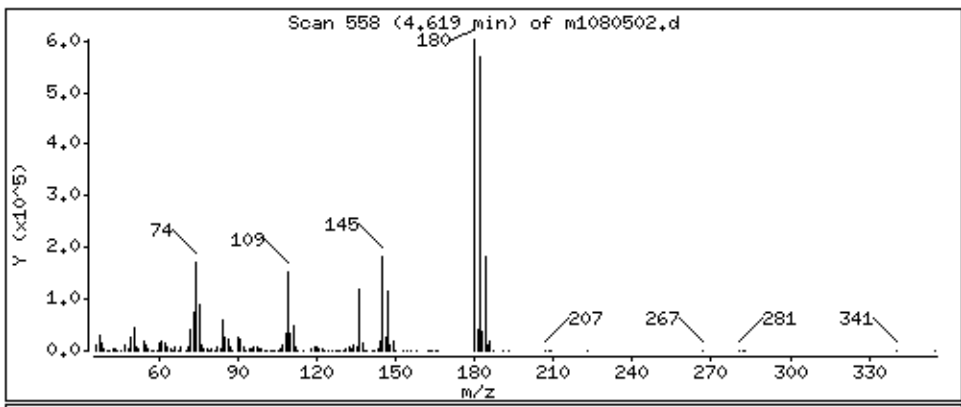
Operator: EAC

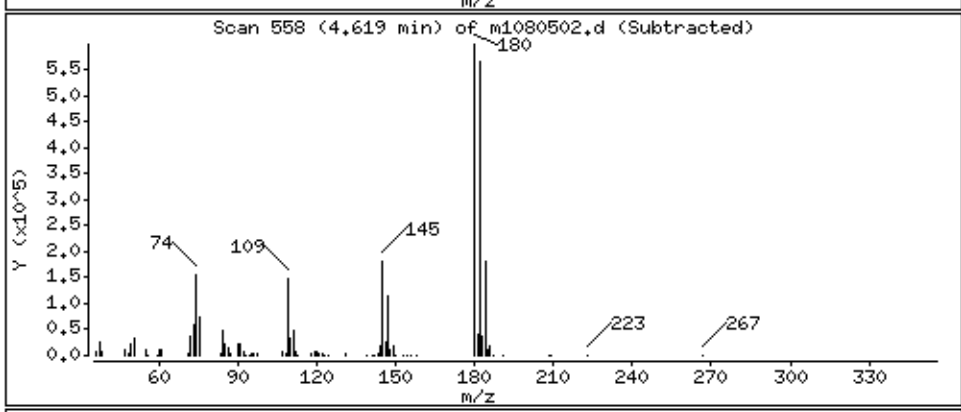
Column phase: RTX-5MS

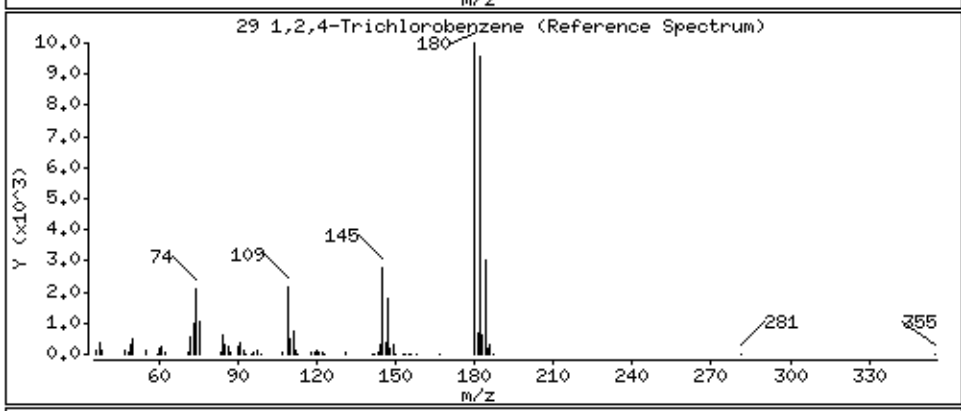
Column diameter: 0.18

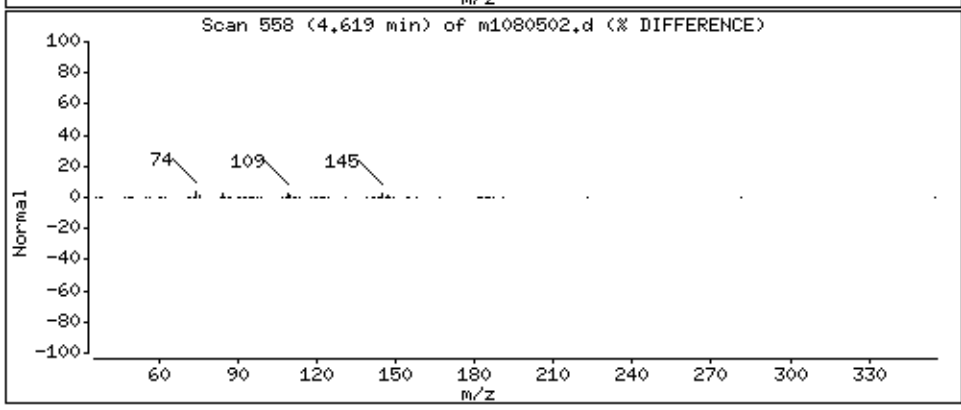
29 1,2,4-Trichlorobenzene

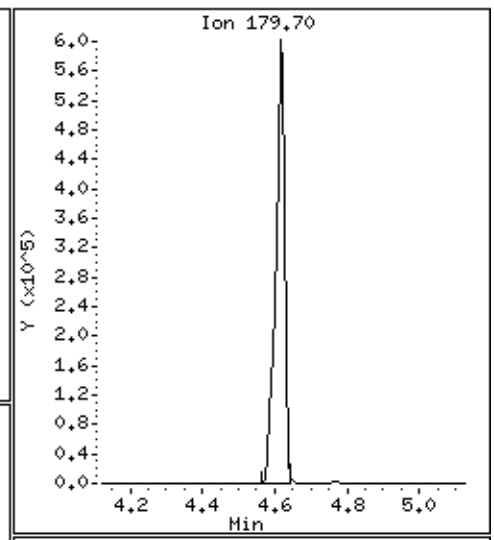
Concentration: 2890 ug/Kg

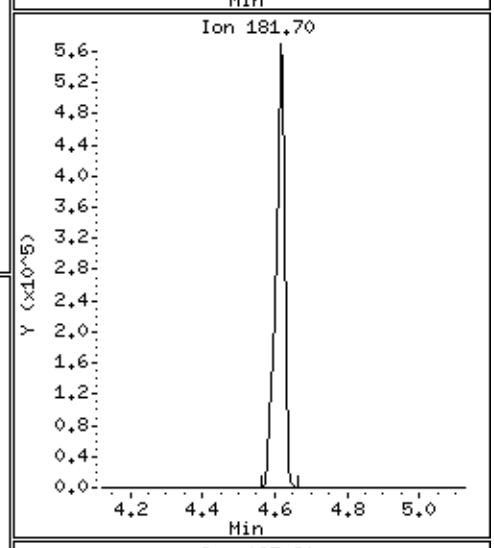


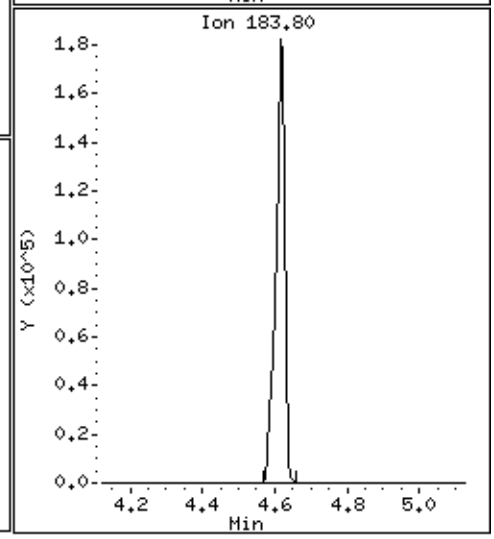












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

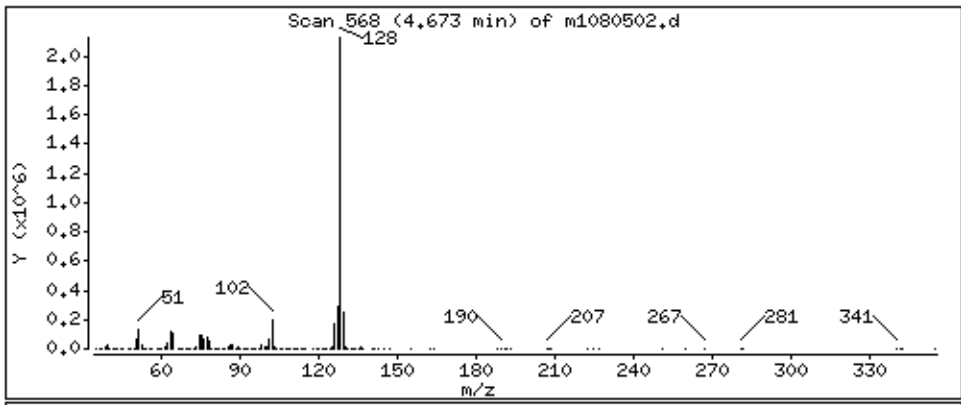
Operator: EAC

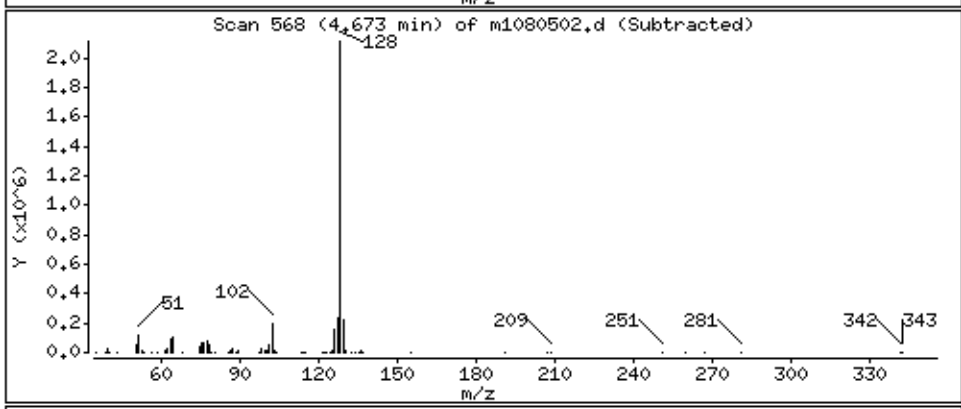
Column phase: RTX-5MS

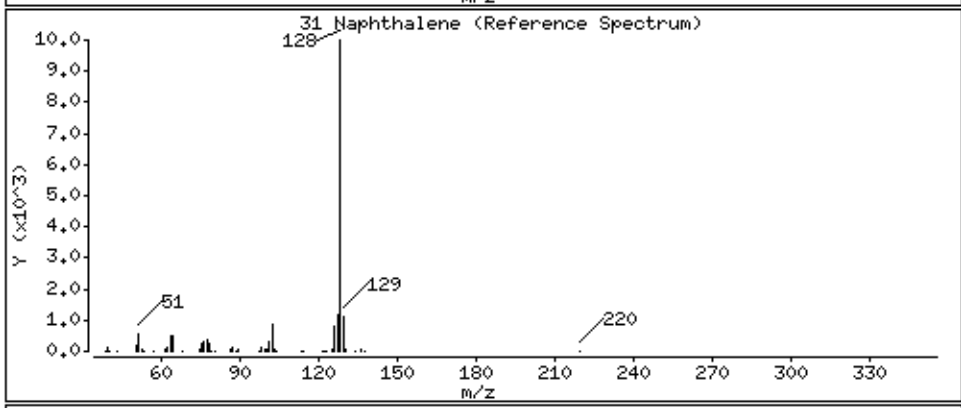
Column diameter: 0.18

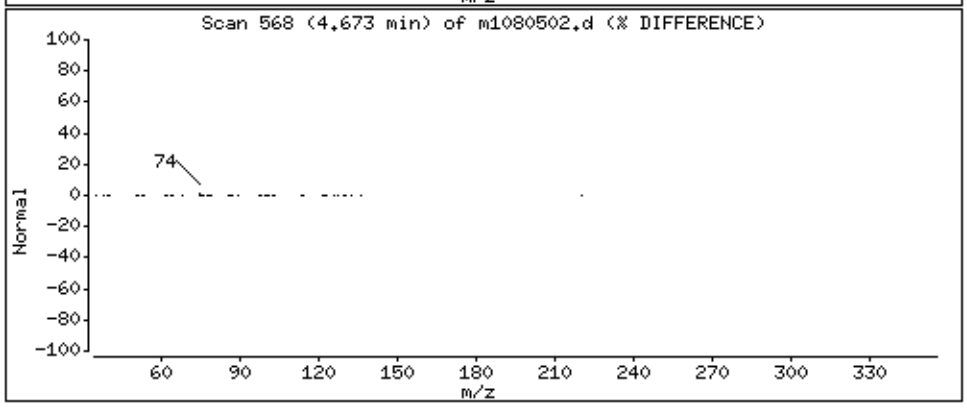
31 Naphthalene

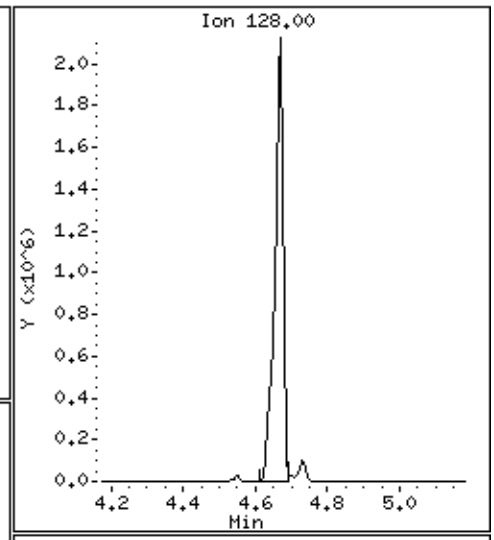
Concentration: 2980 ug/Kg

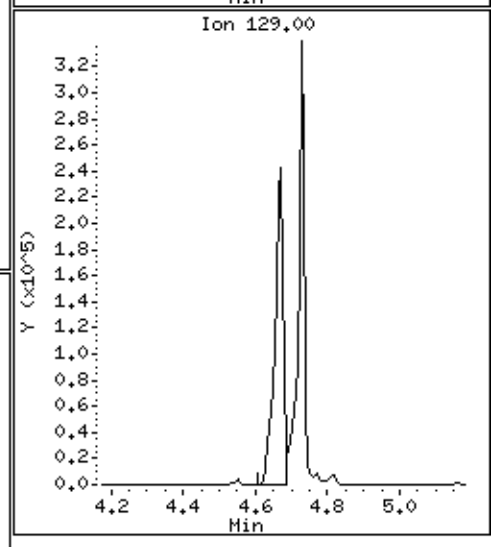












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

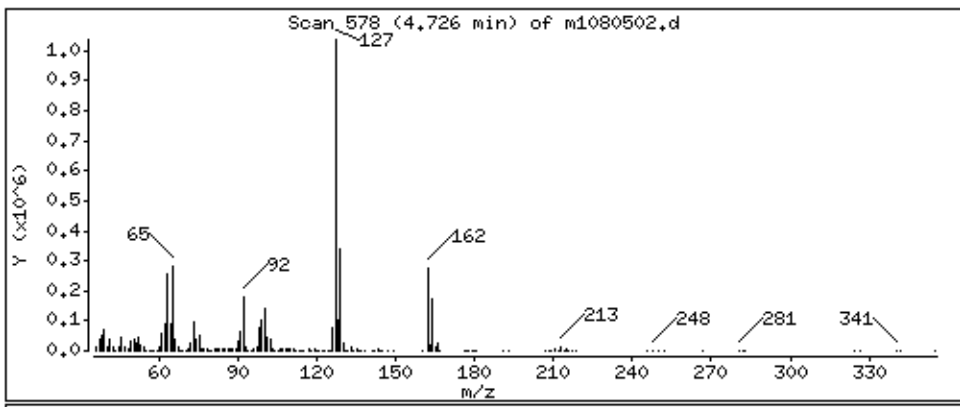
Operator: EAC

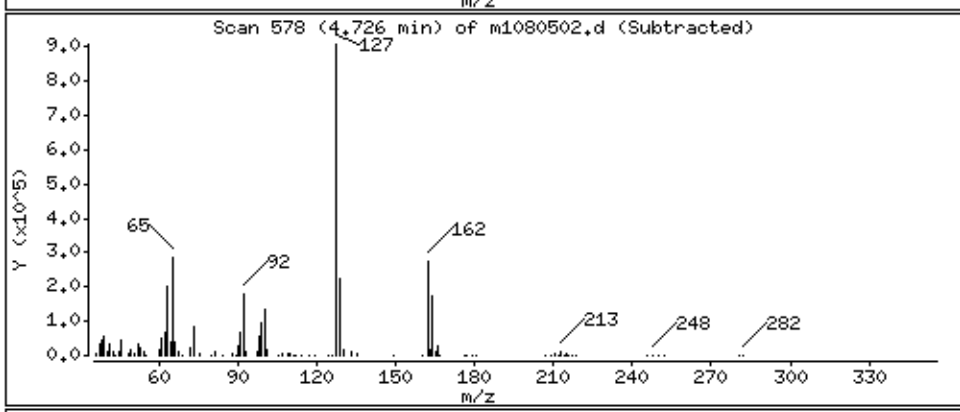
Column phase: RTX-5MS

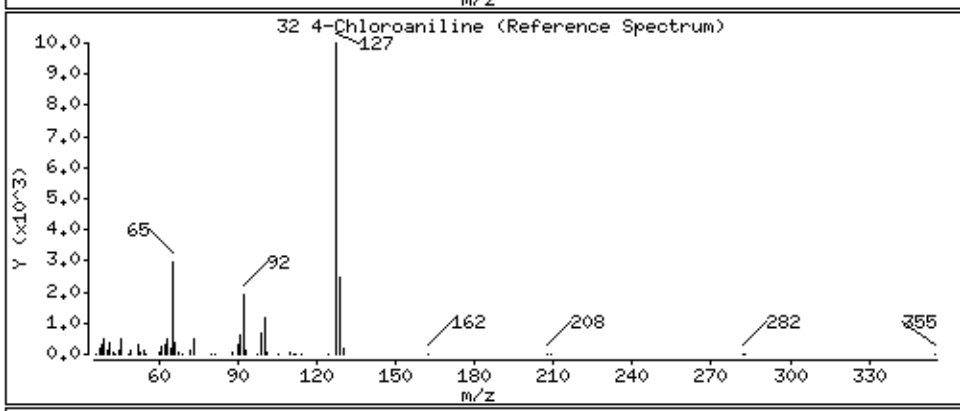
Column diameter: 0.18

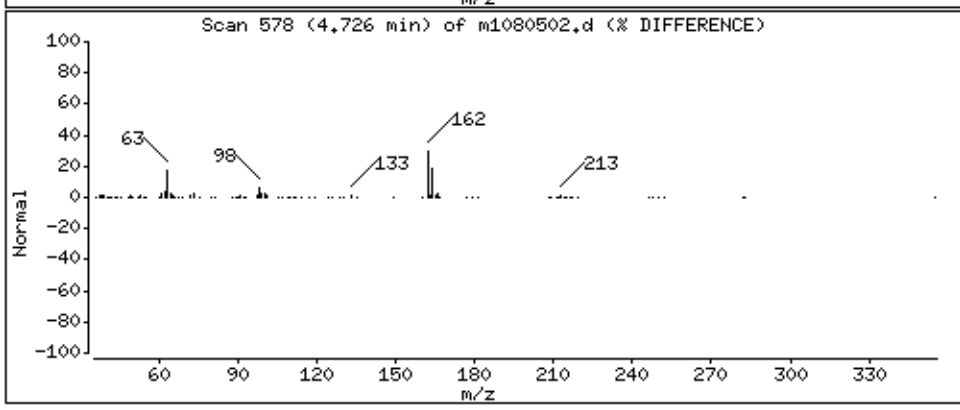
32 4-Chloroaniline

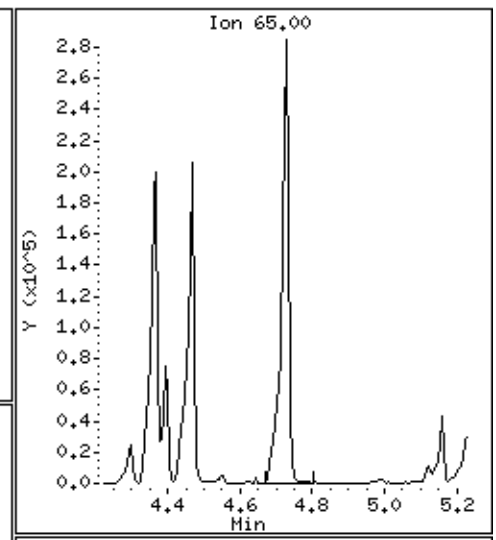
Concentration: 3080 ug/Kg

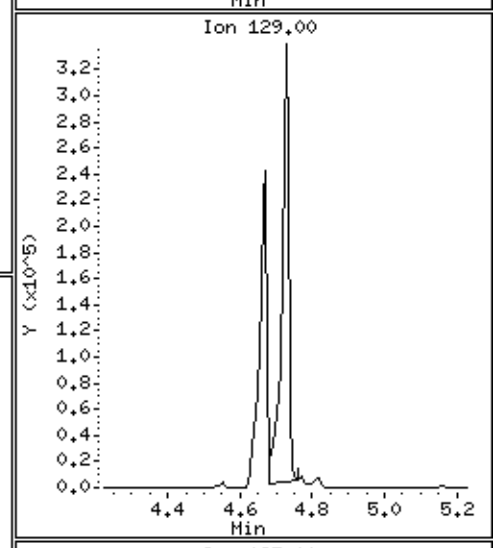


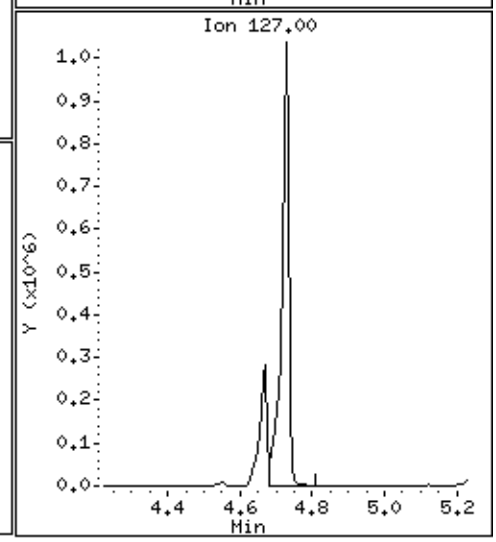












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

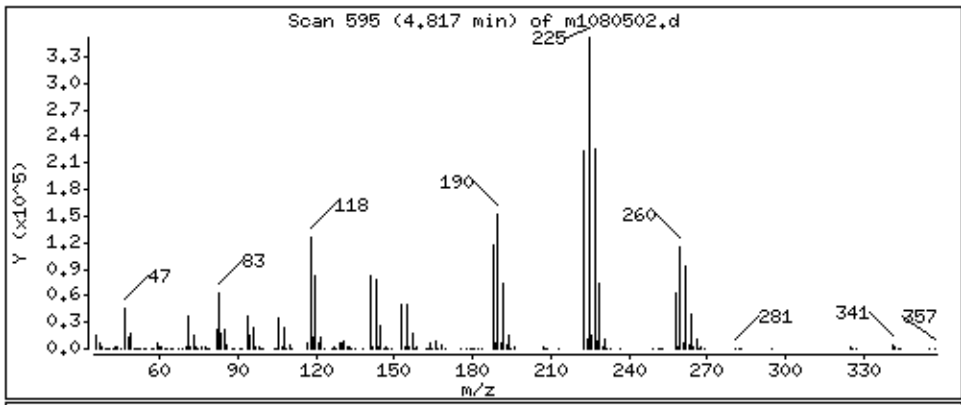
Operator: EAC

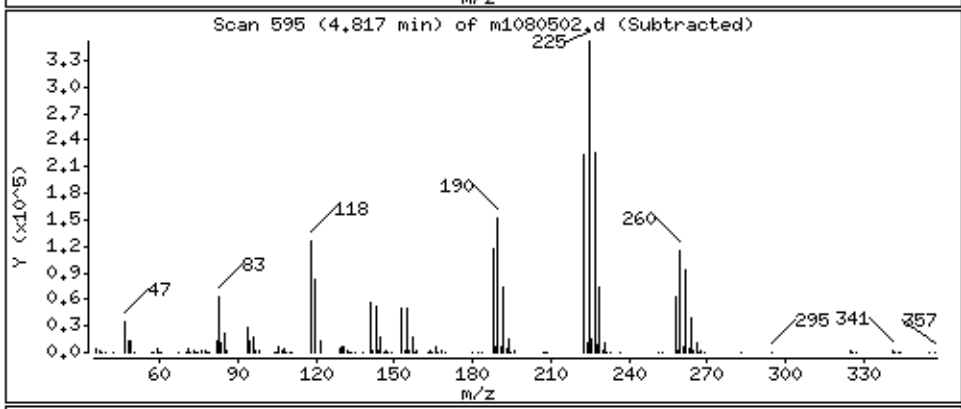
Column phase: RTX-5MS

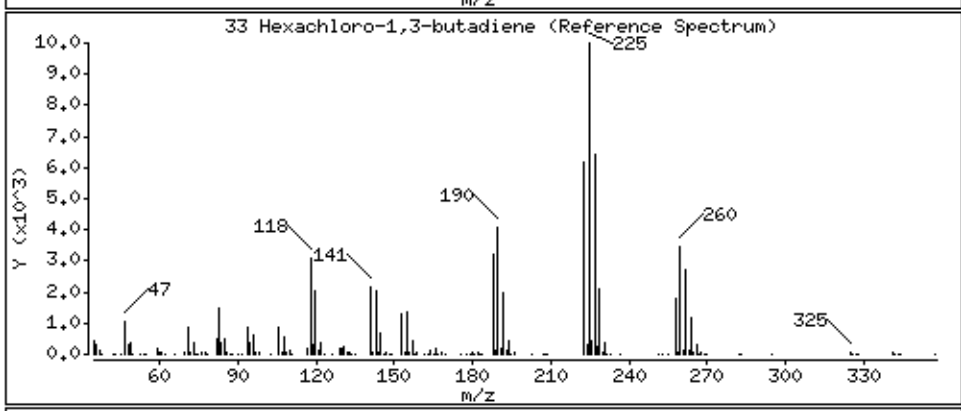
Column diameter: 0.18

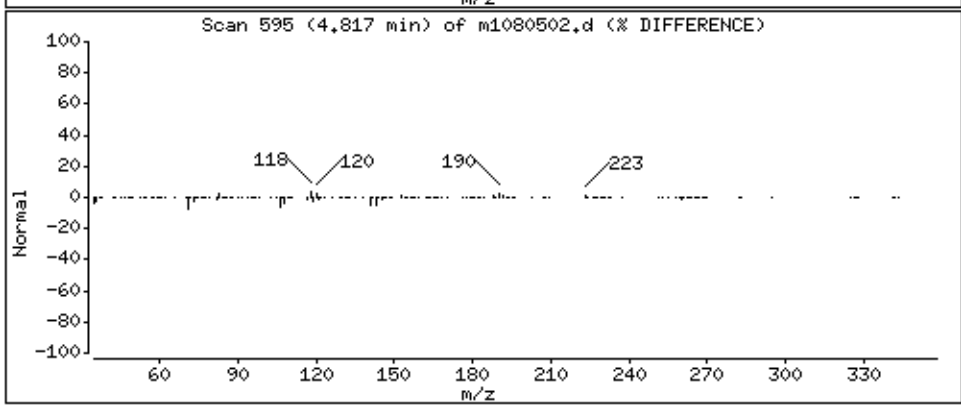
33 Hexachloro-1,3-butadiene

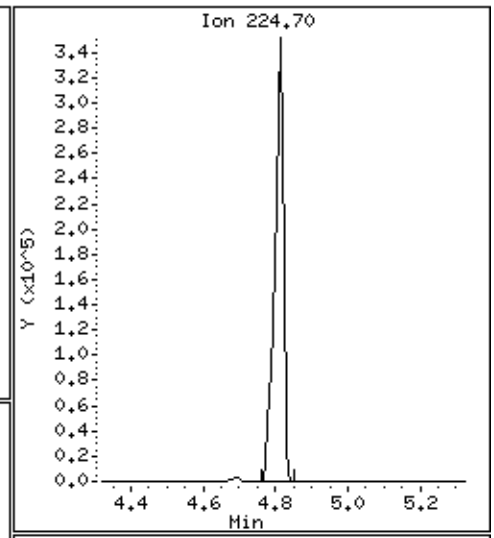
Concentration: 2890 ug/Kg

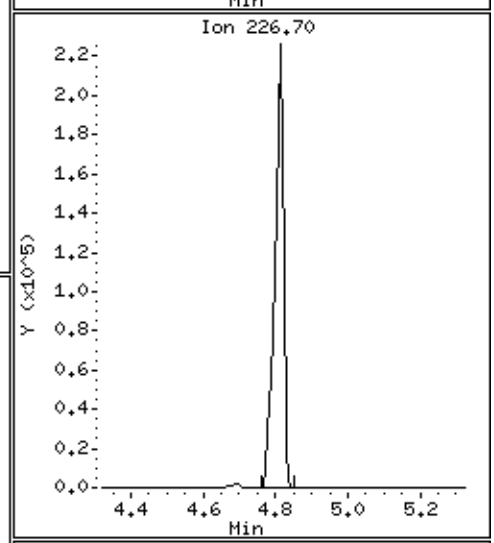


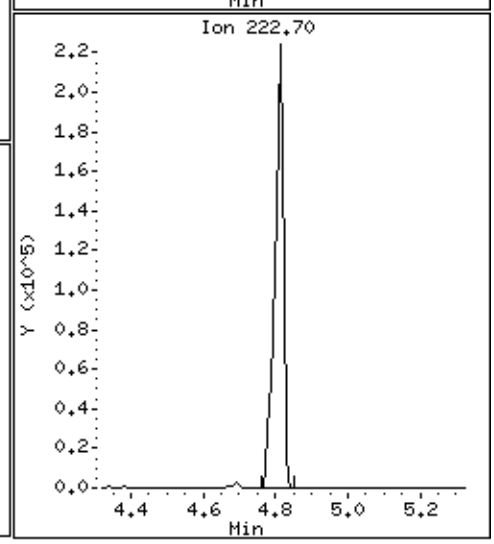












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

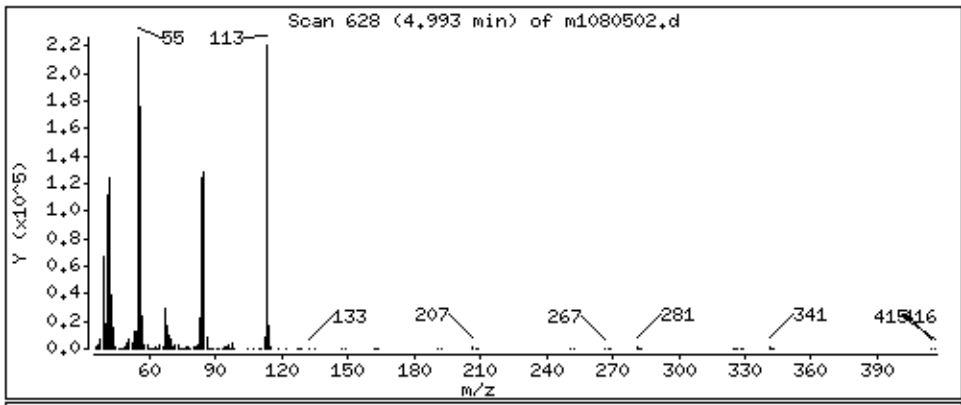
Operator: EAC

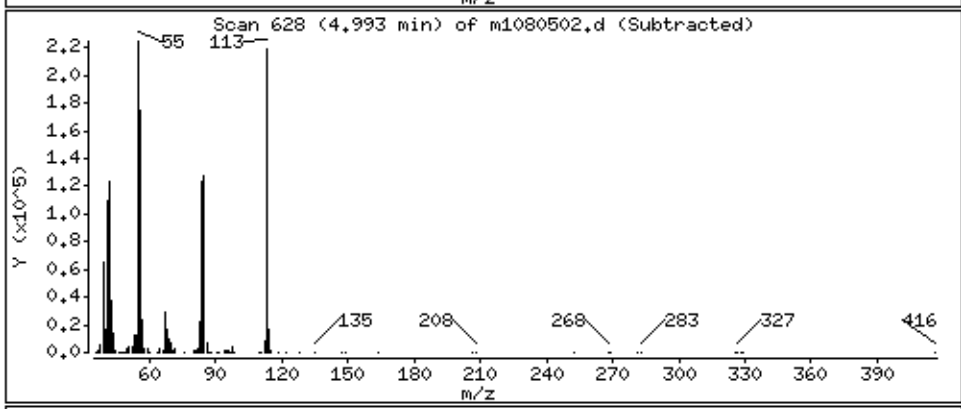
Column phase: RTX-5MS

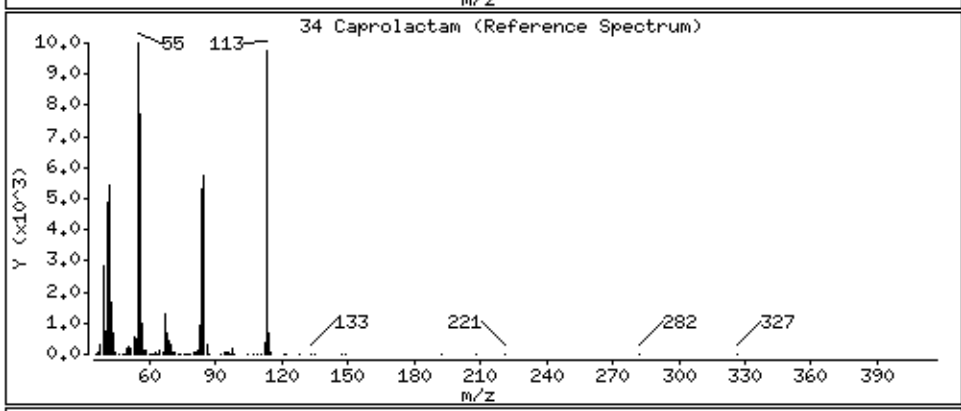
Column diameter: 0.18

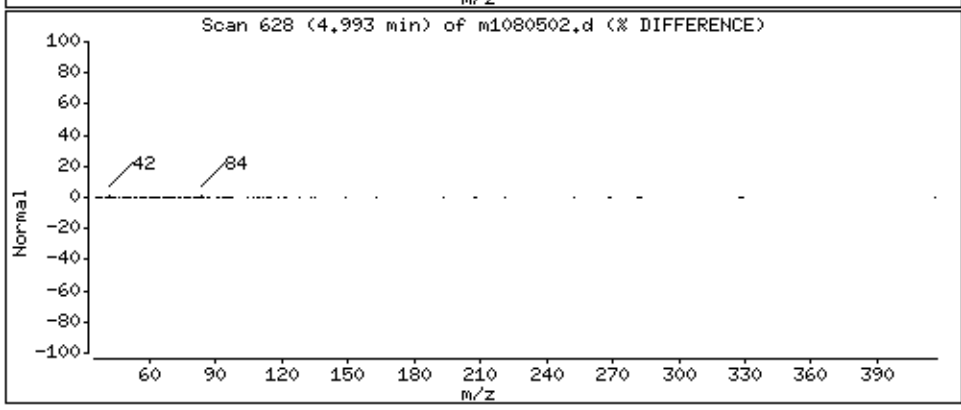
34 Caprolactam

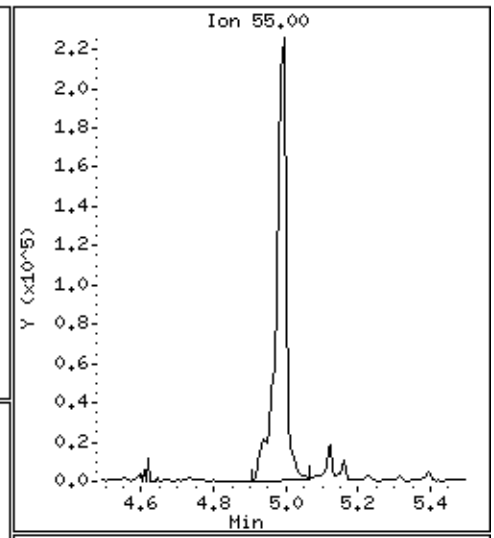
Concentration: 3560 ug/Kg

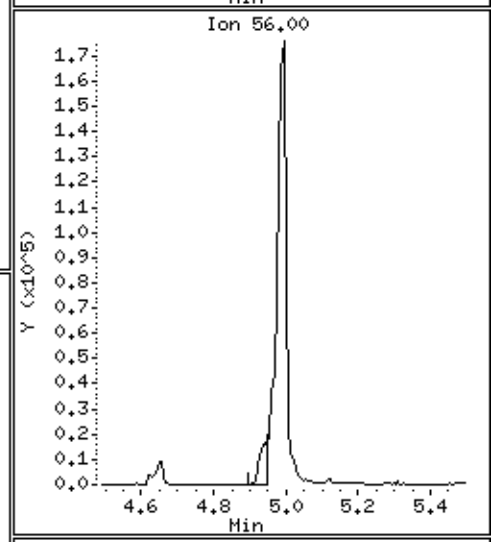


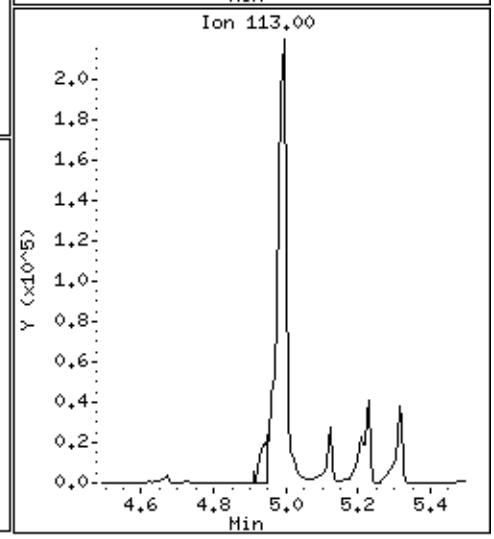












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

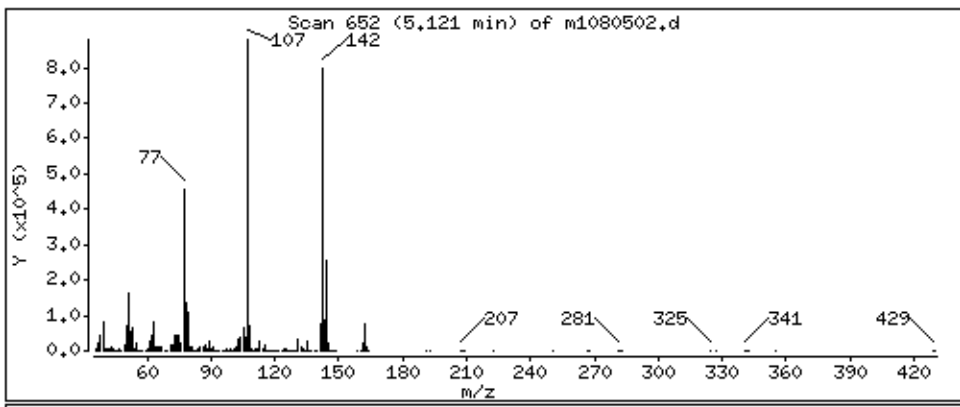
Operator: EAC

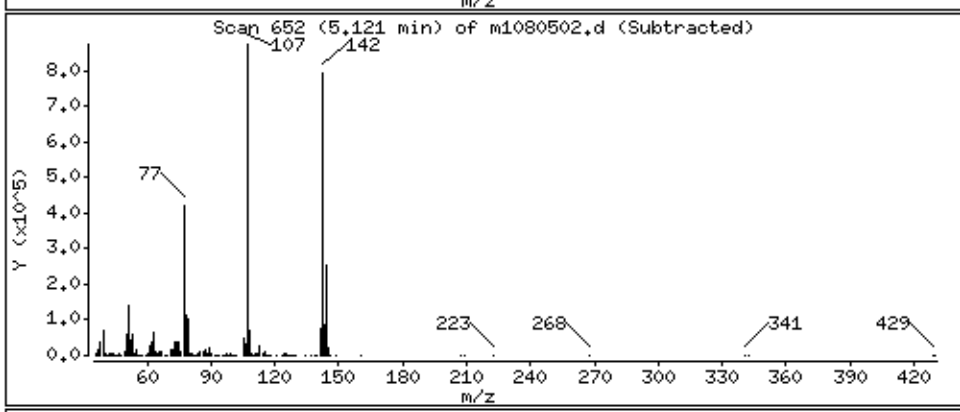
Column phase: RTX-5MS

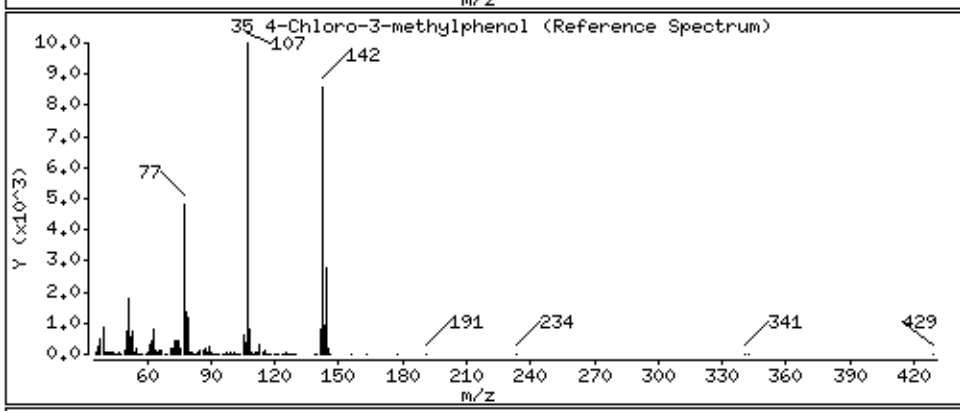
Column diameter: 0.18

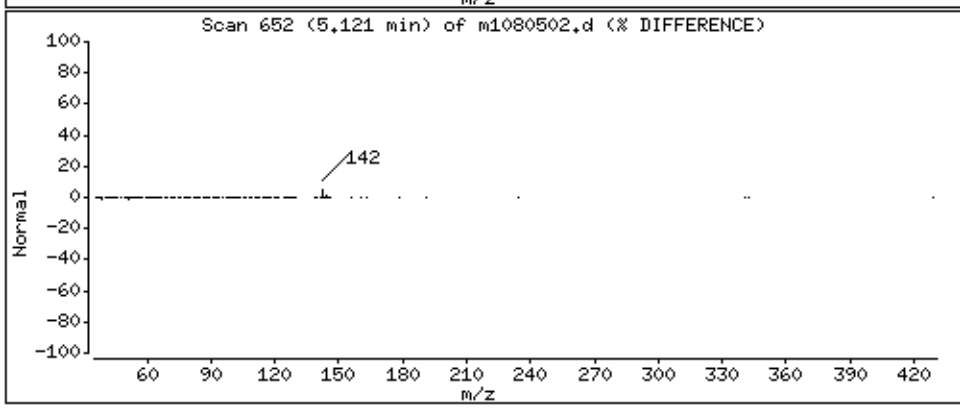
35 4-Chloro-3-methylphenol

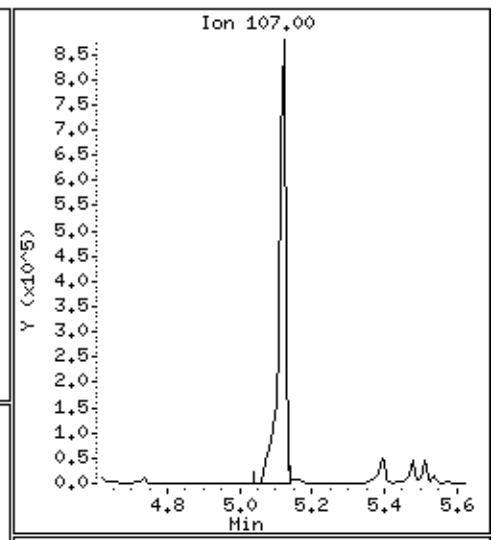
Concentration: 3310 ug/Kg

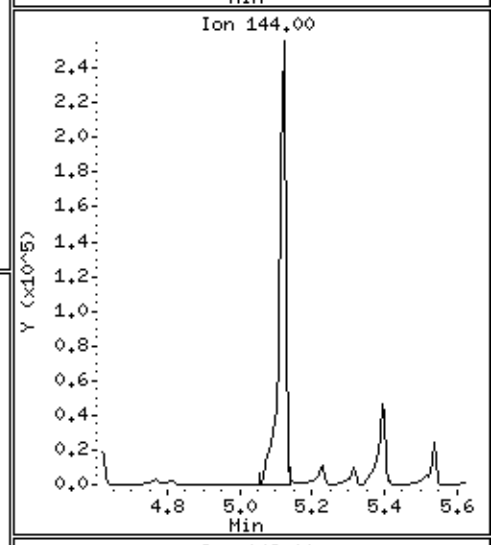


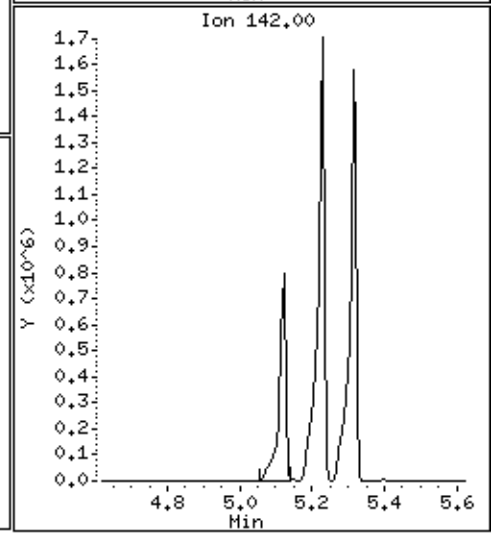












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

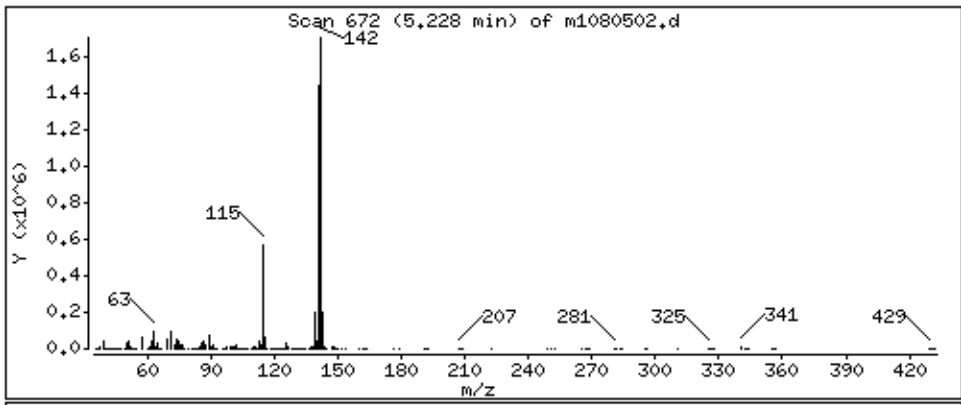
Operator: EAC

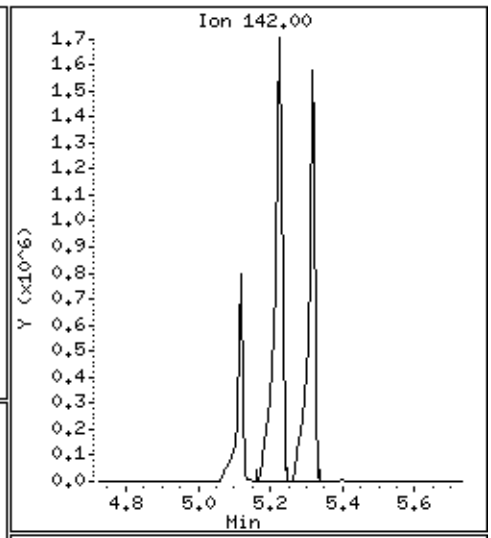
Column phase: RTX-5MS

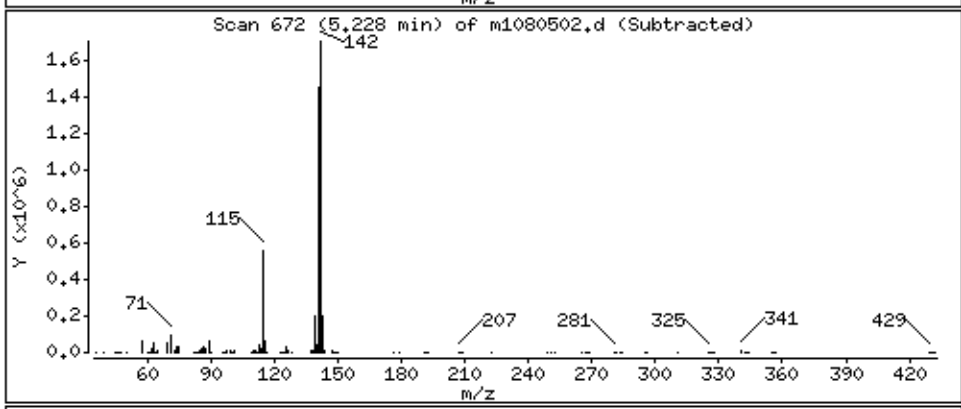
Column diameter: 0.18

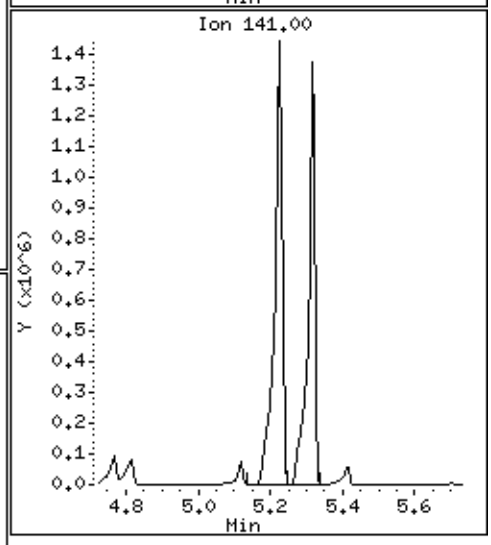
36 2-Methylnaphthalene

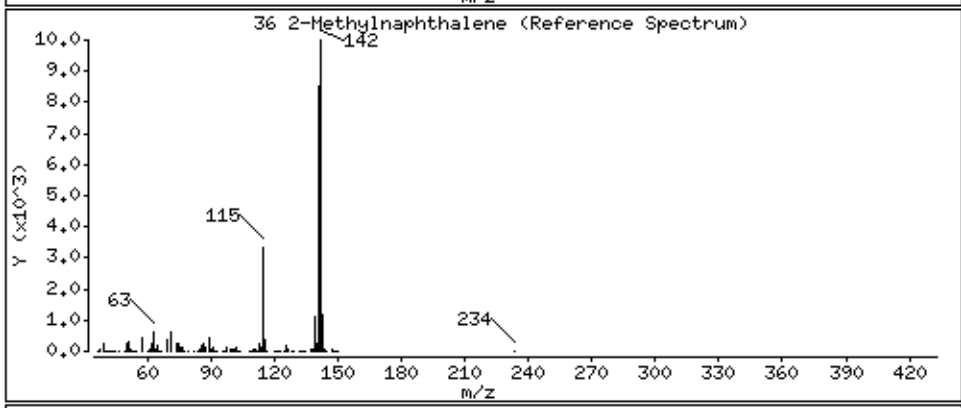
Concentration: 3080 ug/Kg

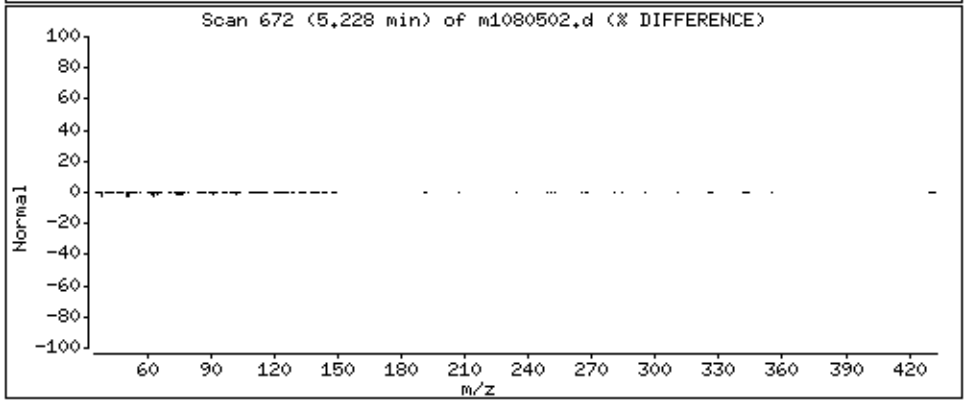












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

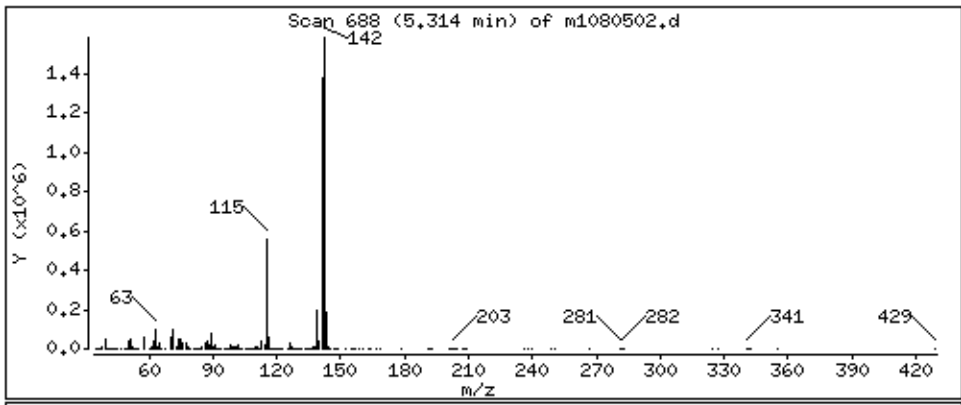
Operator: EAC

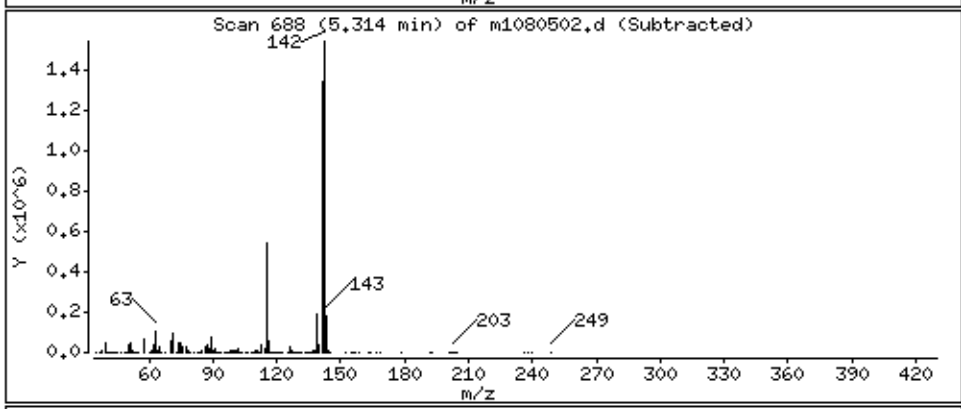
Column phase: RTX-5MS

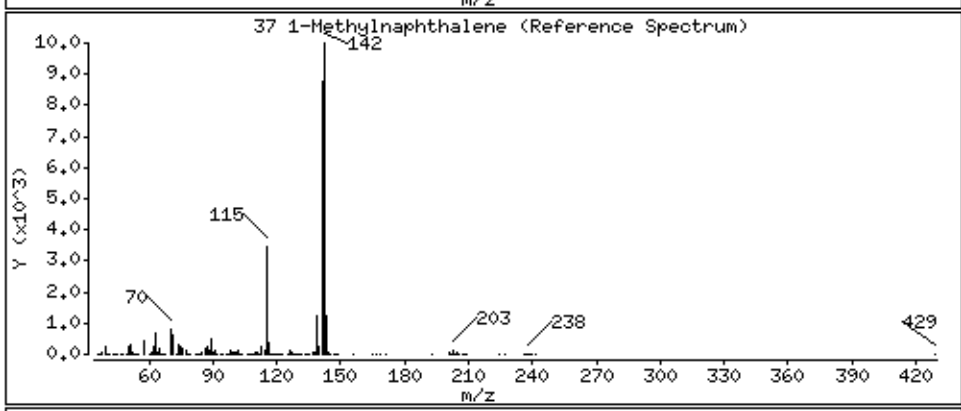
Column diameter: 0.18

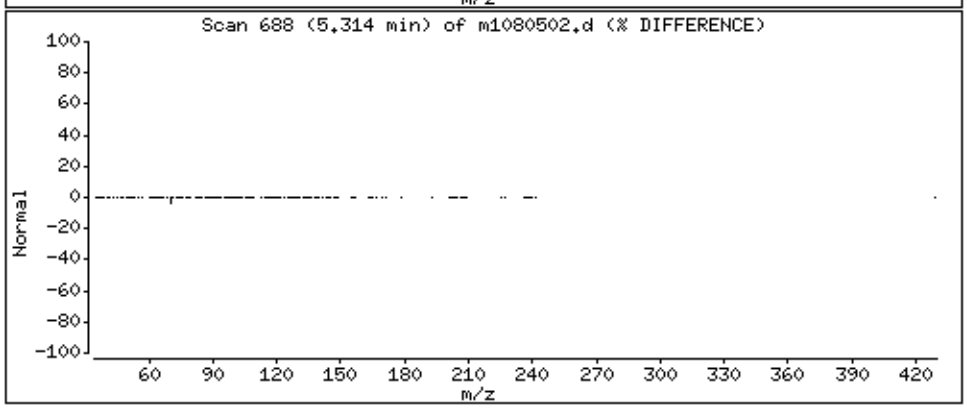
37 1-Methylnaphthalene

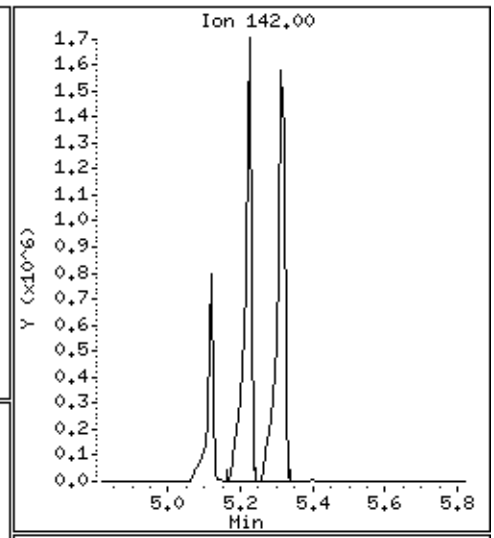
Concentration: 3040 ug/Kg

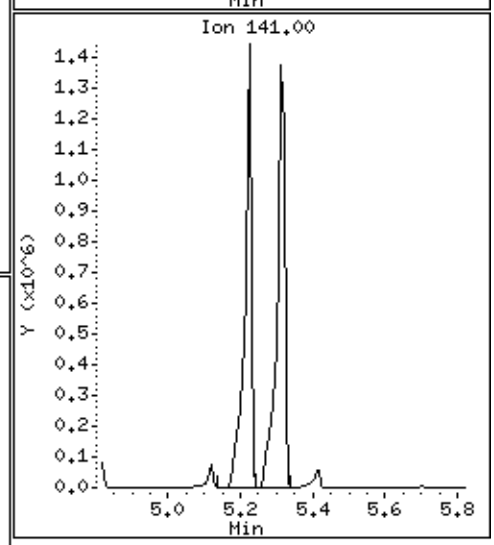












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

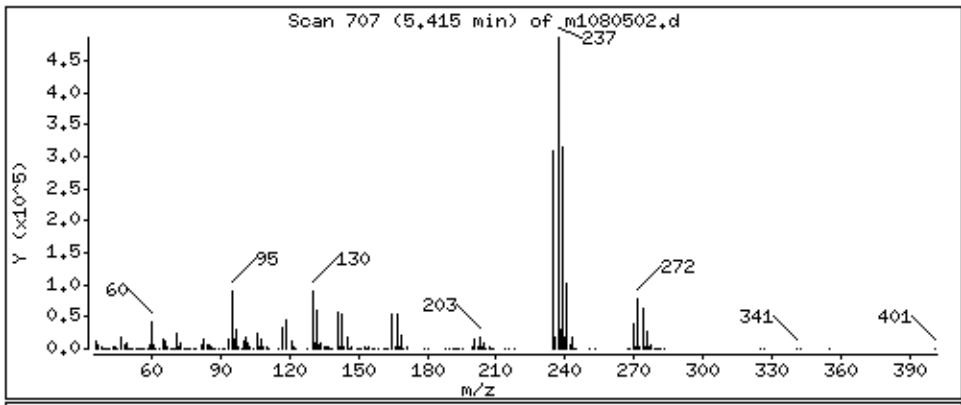
Operator: EAC

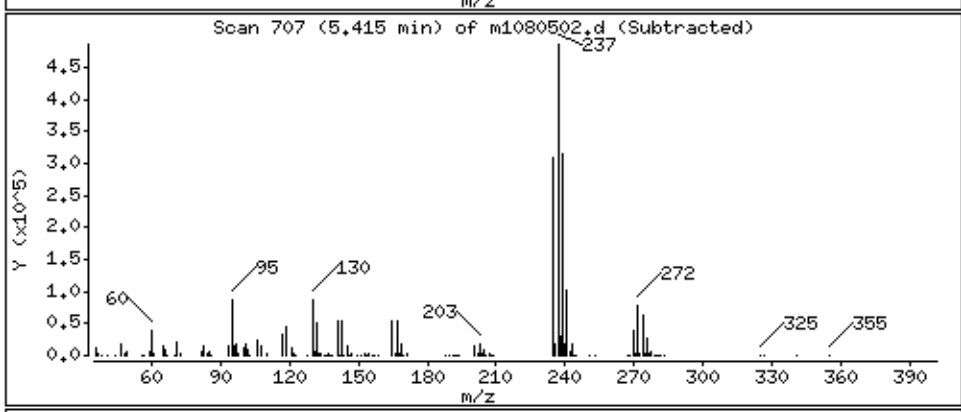
Column phase: RTX-5MS

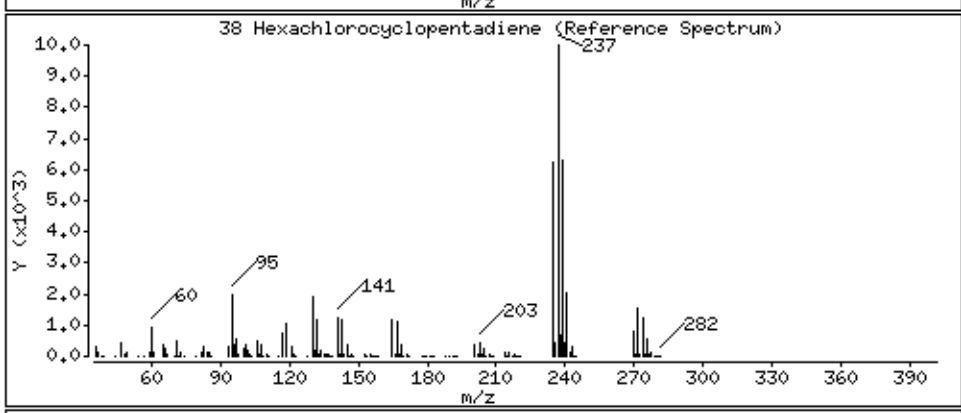
Column diameter: 0.18

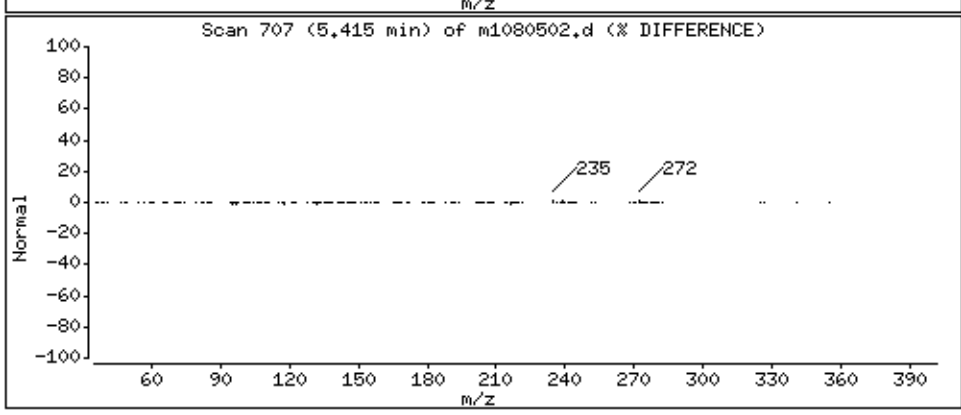
38 Hexachlorocyclopentadiene

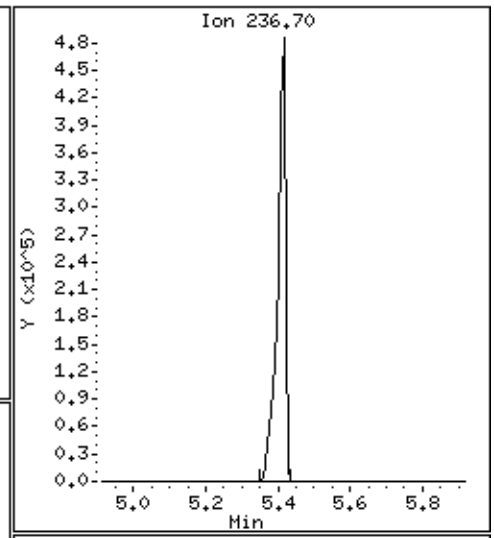
Concentration: 2910 ug/Kg

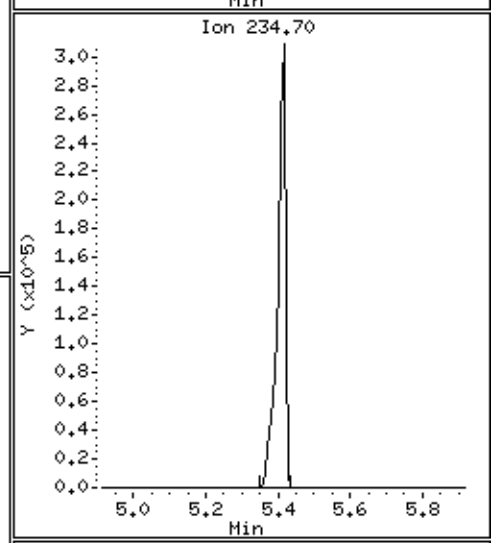


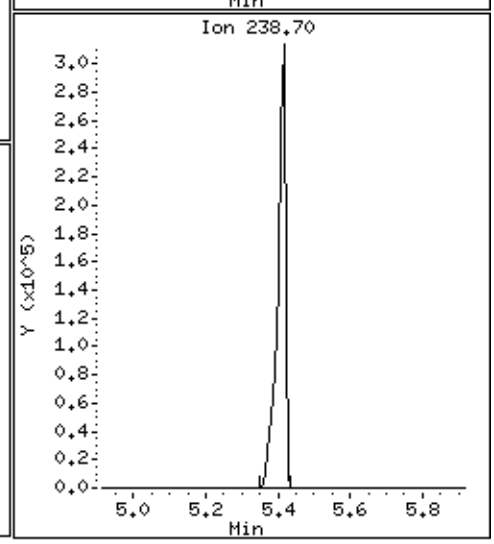












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

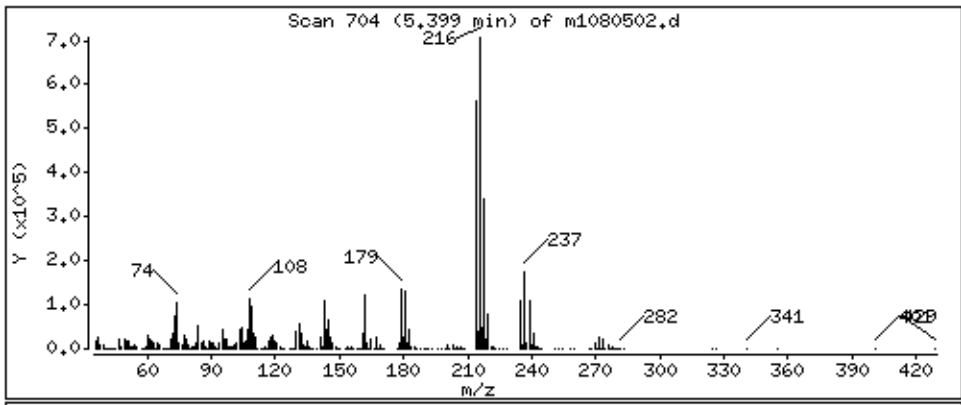
Operator: EAC

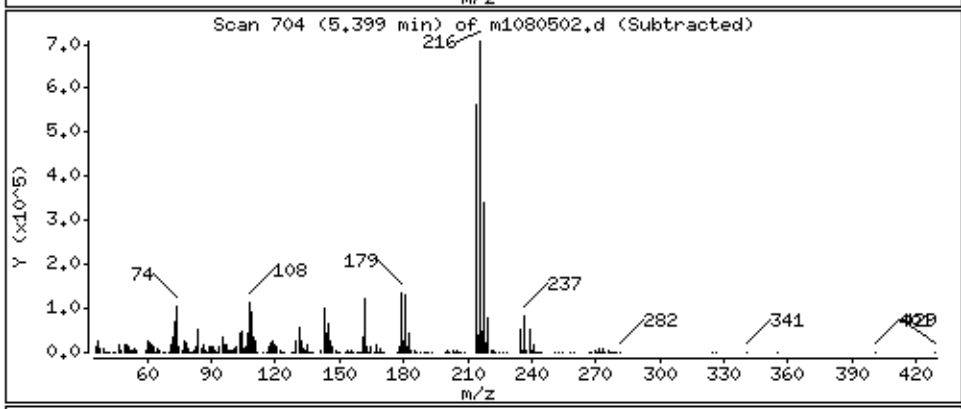
Column phase: RTX-5MS

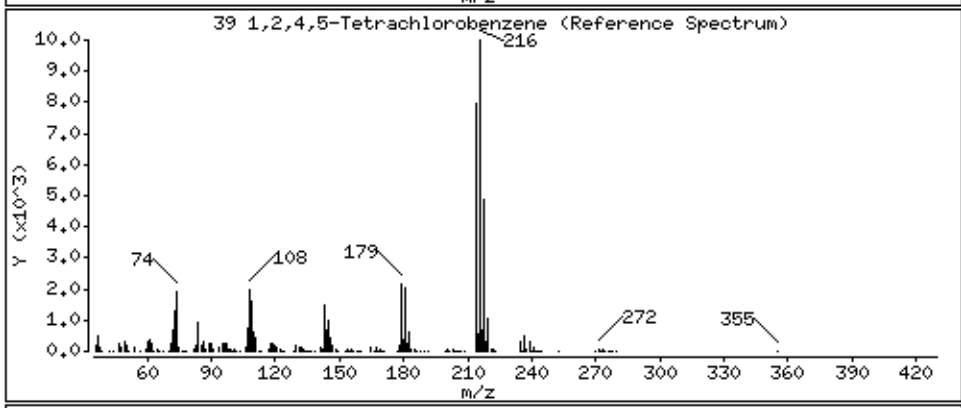
Column diameter: 0.18

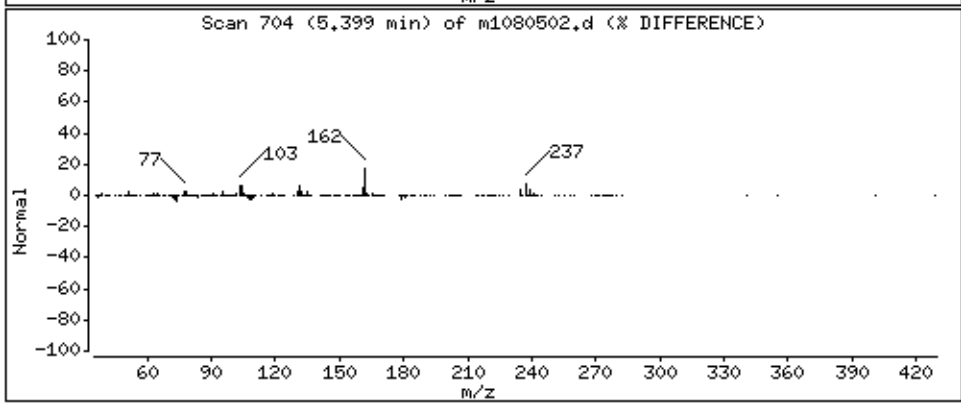
39 1,2,4,5-Tetrachlorobenzene

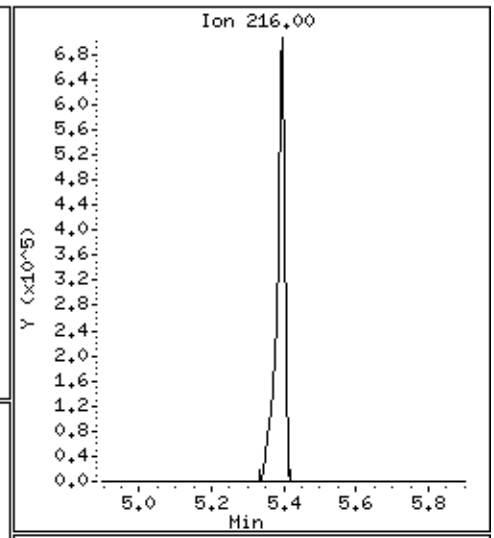
Concentration: 3070 ug/Kg

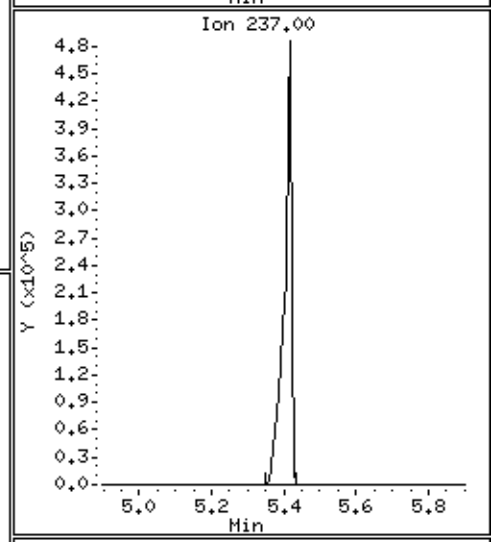


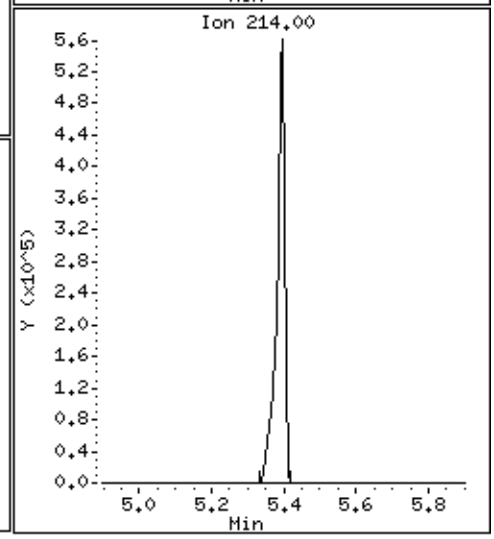












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

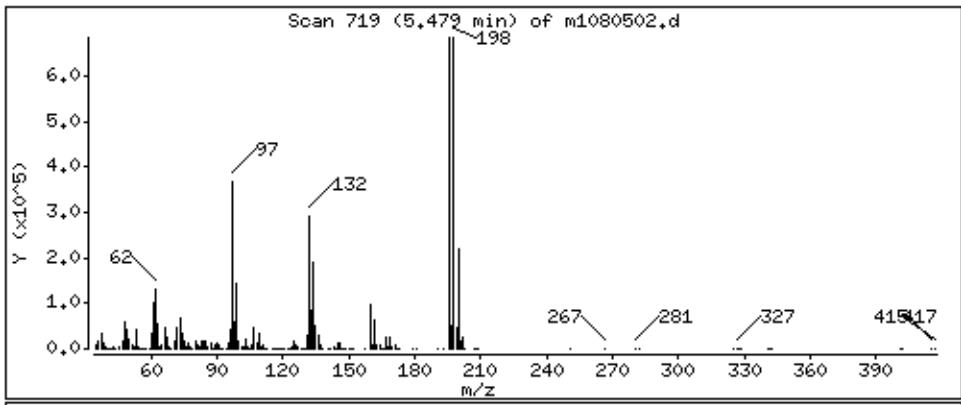
Operator: EAC

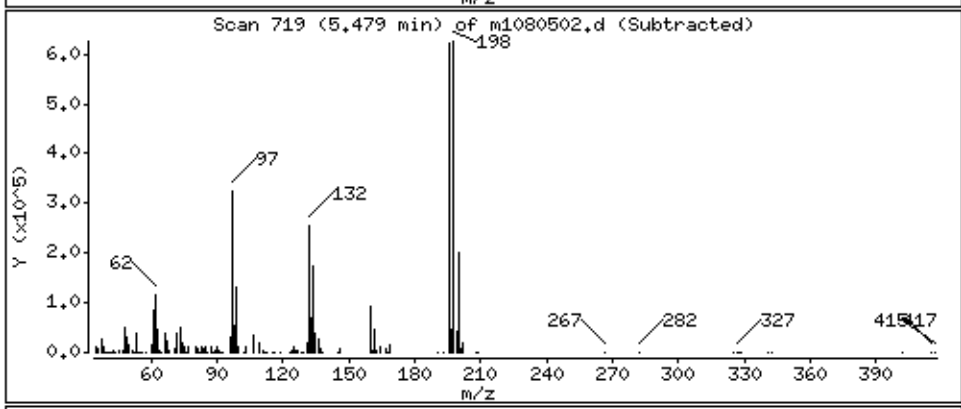
Column phase: RTX-5MS

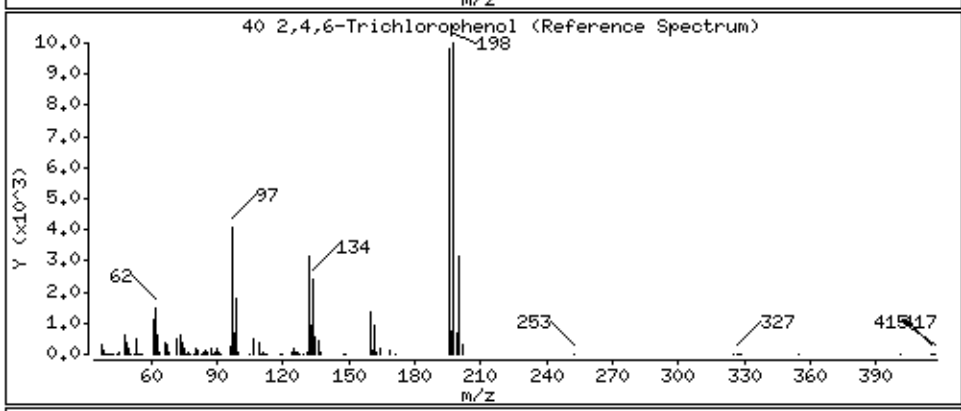
Column diameter: 0.18

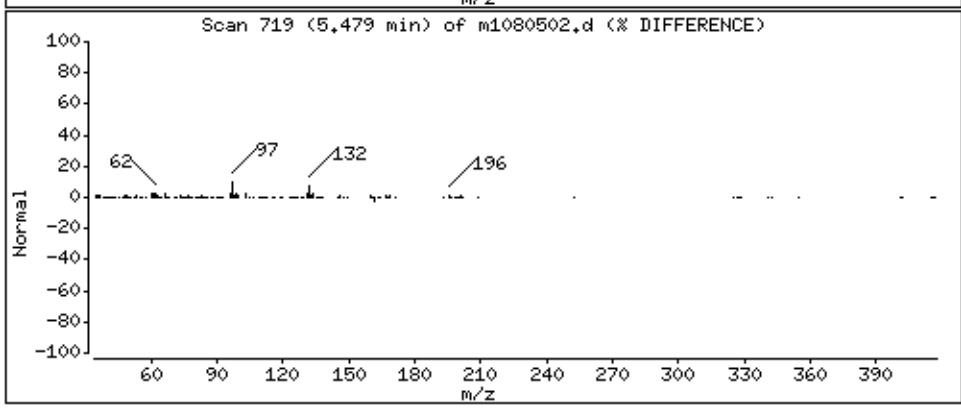
40 2,4,6-Trichlorophenol

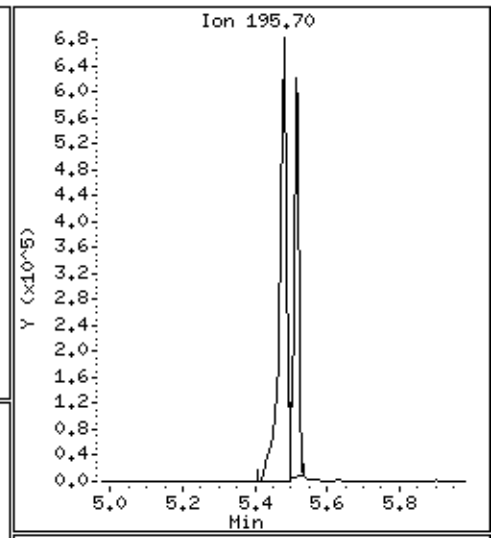
Concentration: 3560 ug/Kg

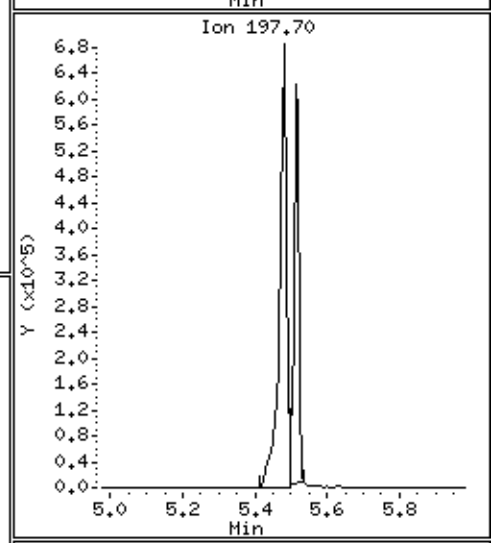


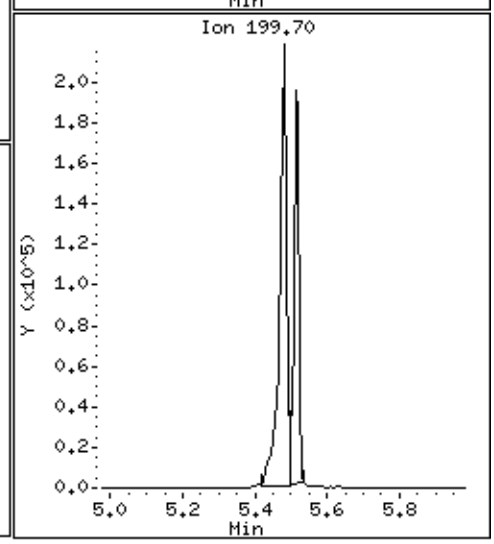












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

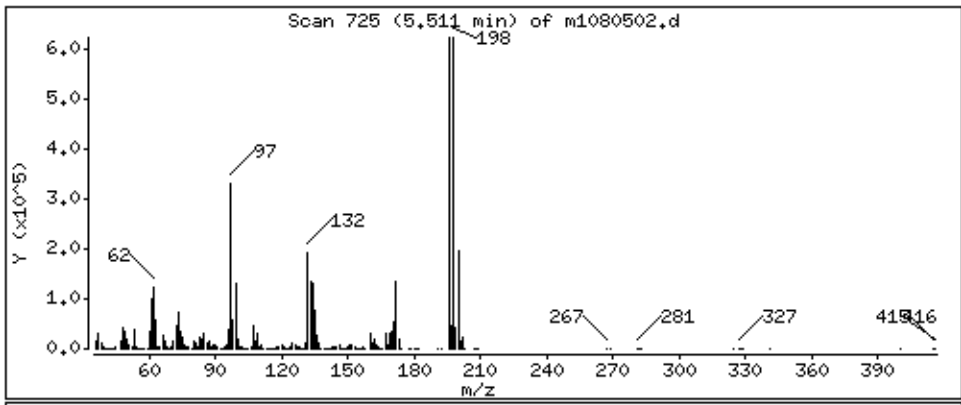
Operator: EAC

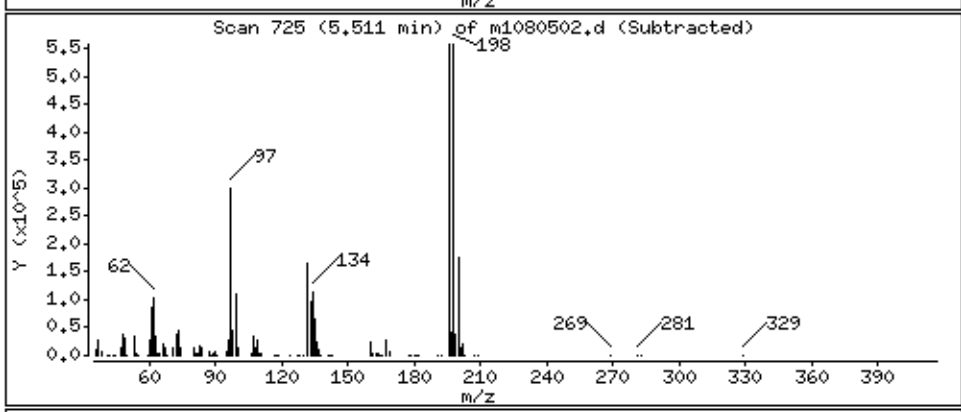
Column phase: RTX-5MS

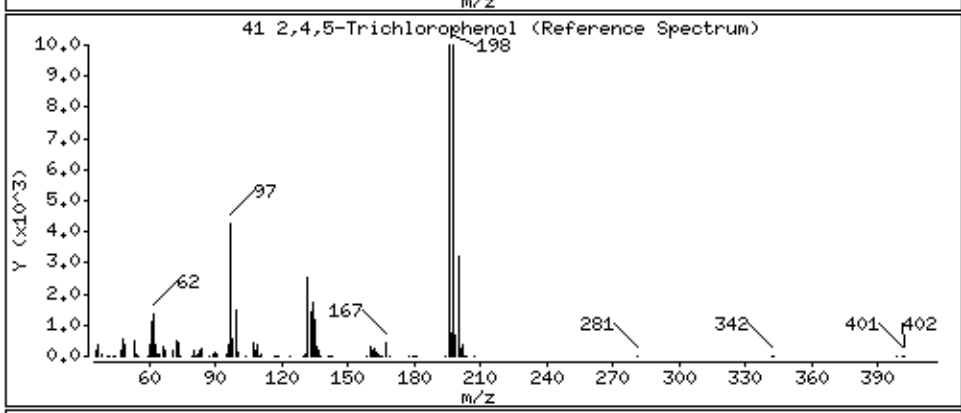
Column diameter: 0.18

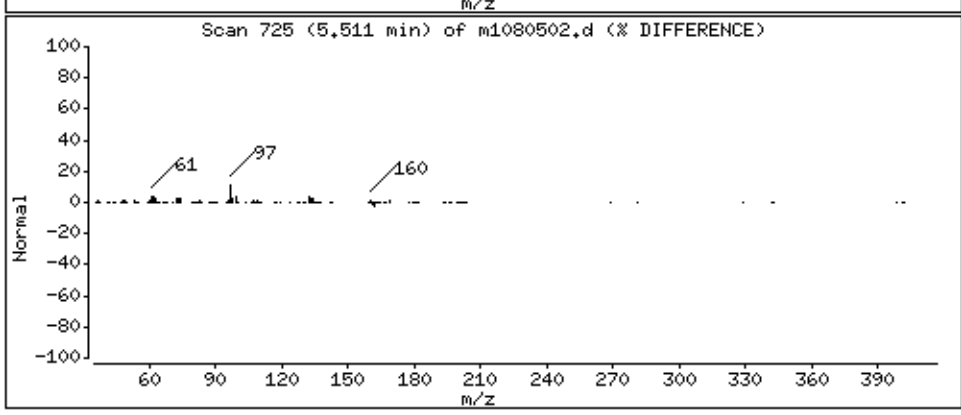
41 2,4,5-Trichlorophenol

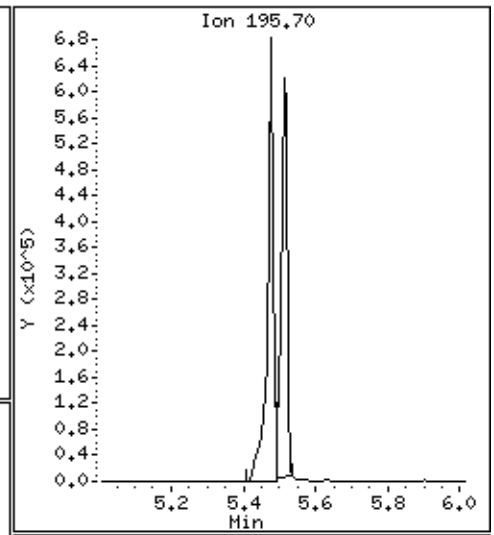
Concentration: 3130 ug/Kg

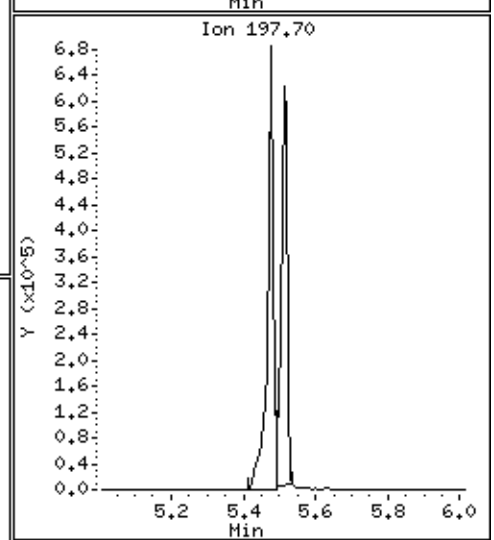


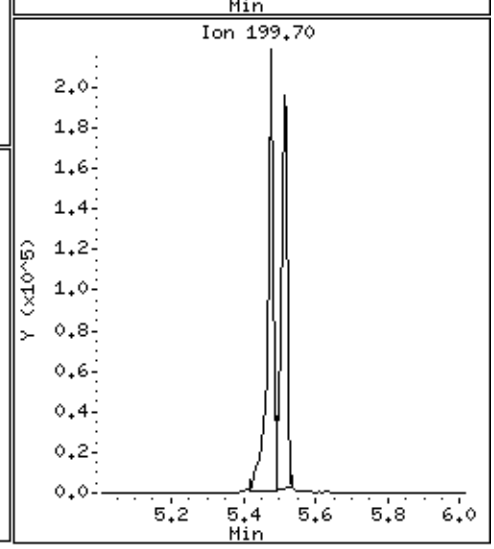












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

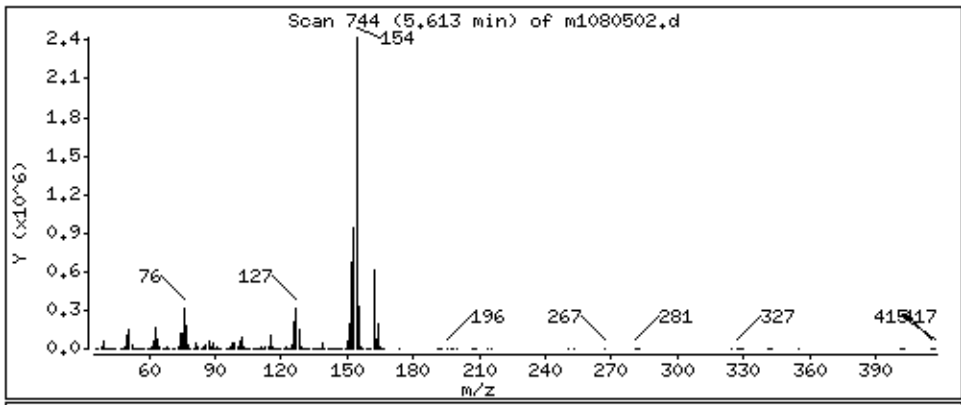
Operator: EAC

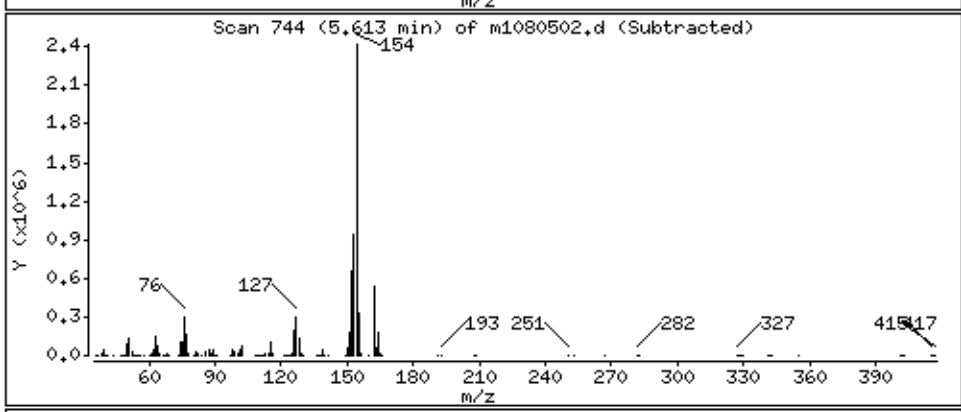
Column phase: RTX-5MS

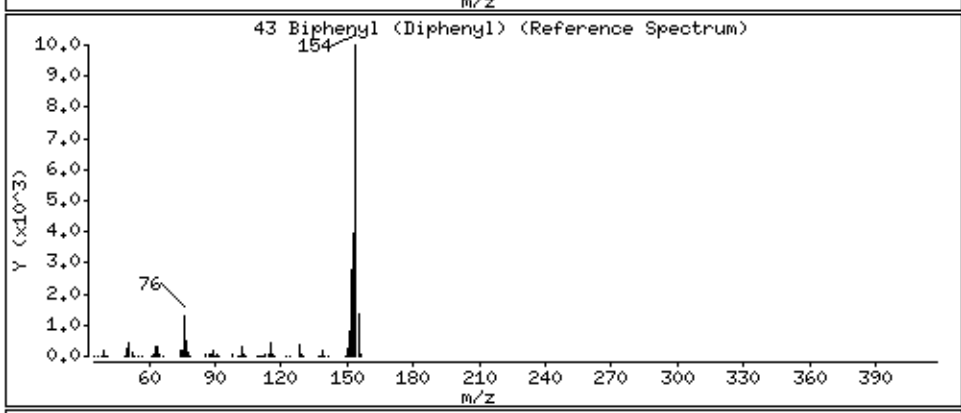
Column diameter: 0.18

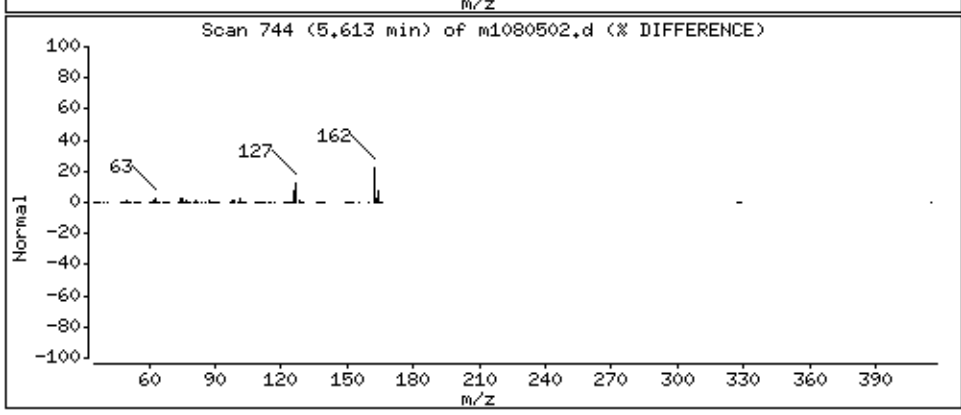
43 Biphenyl (Diphenyl)

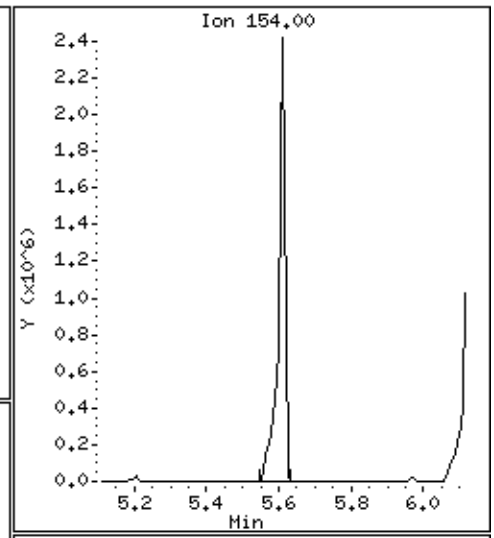
Concentration: 3130 ug/Kg

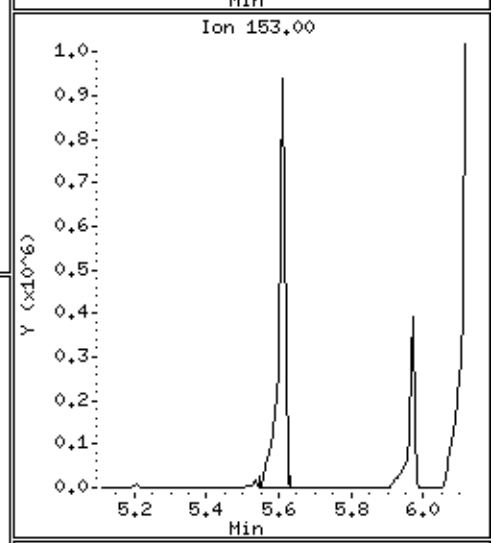


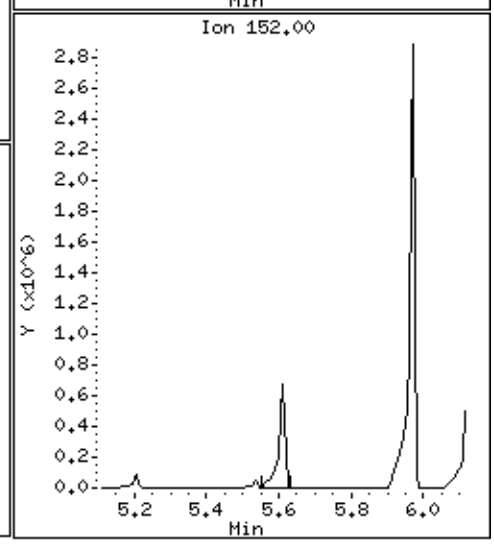












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

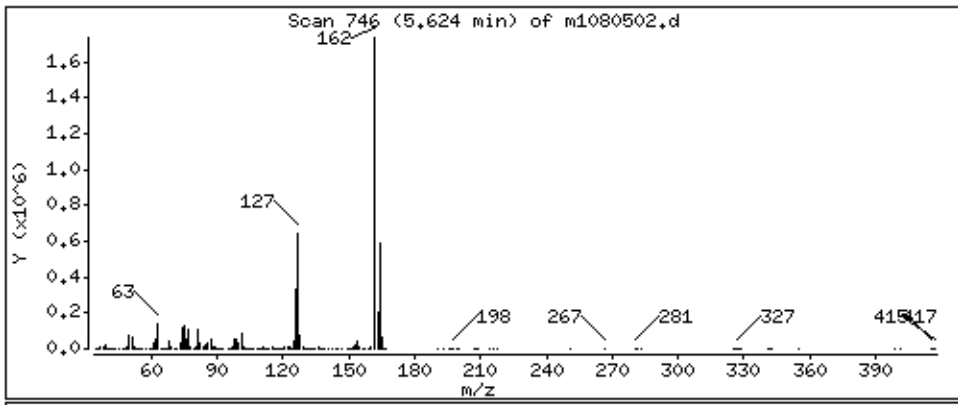
Operator: EAC

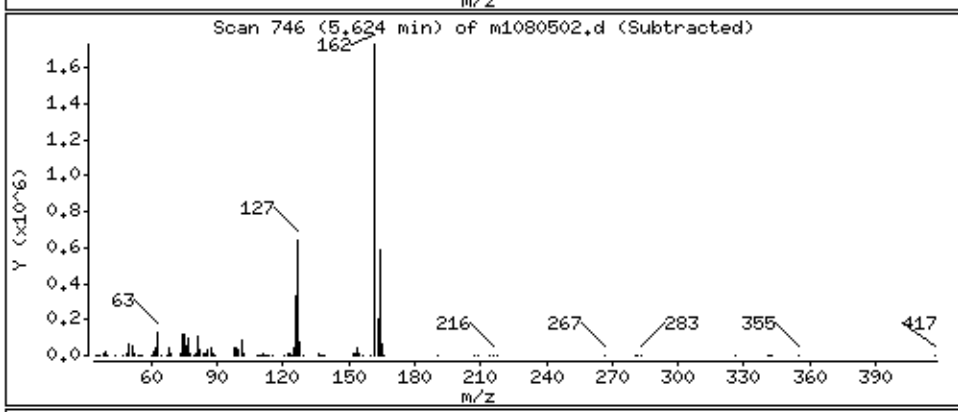
Column phase: RTX-5MS

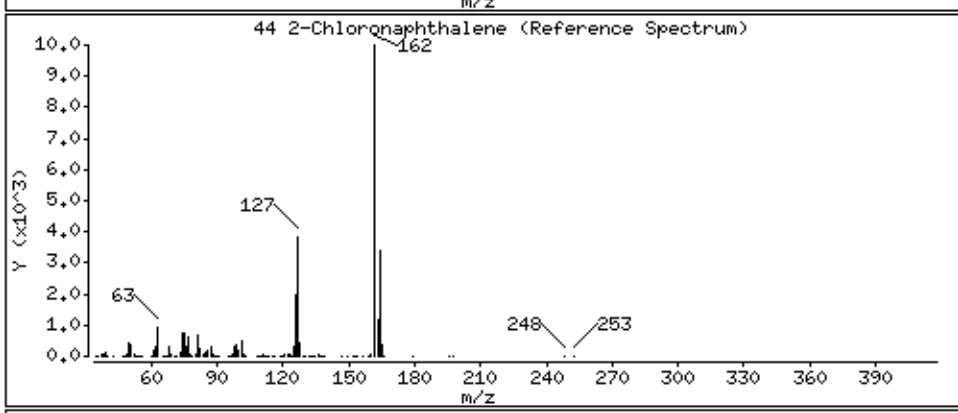
Column diameter: 0.18

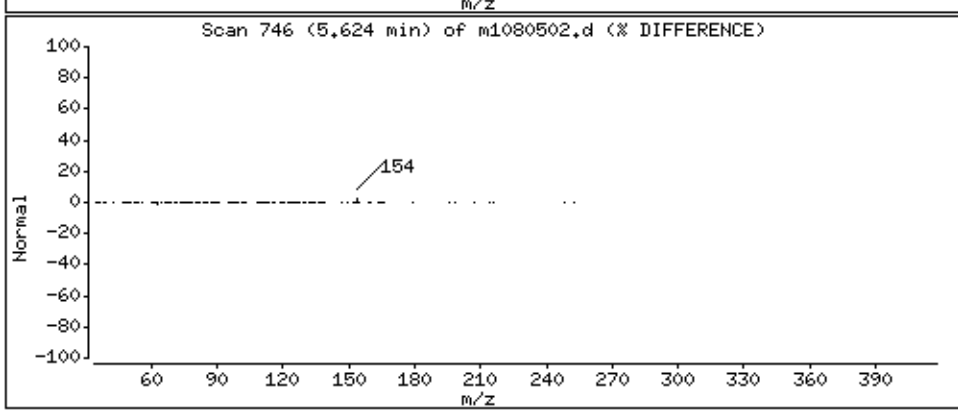
44 2-Chloronaphthalene

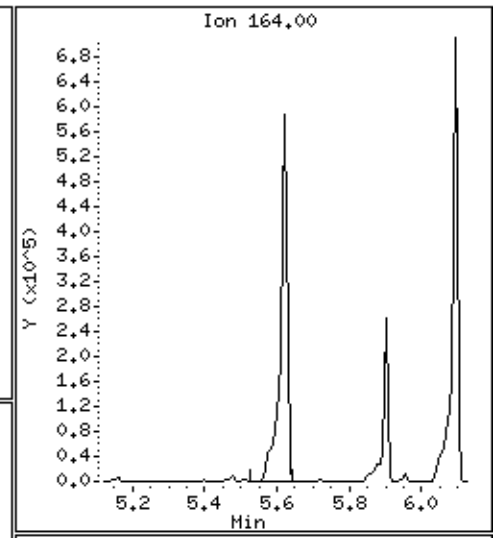
Concentration: 3100 ug/Kg

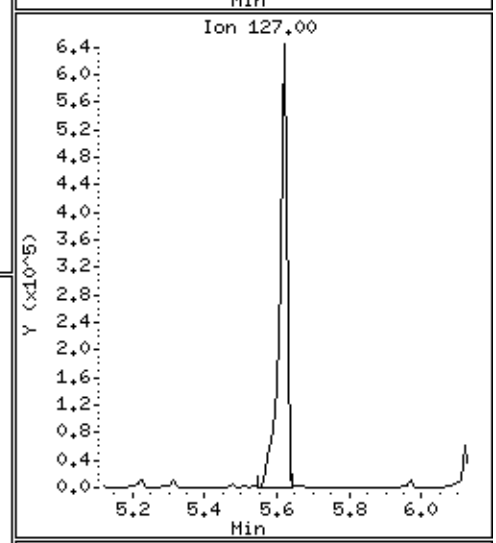


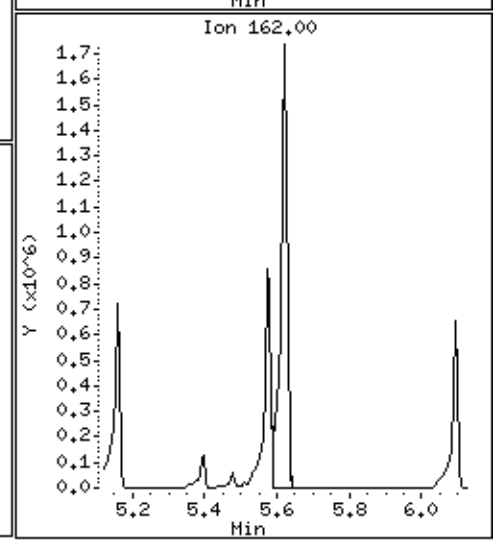












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

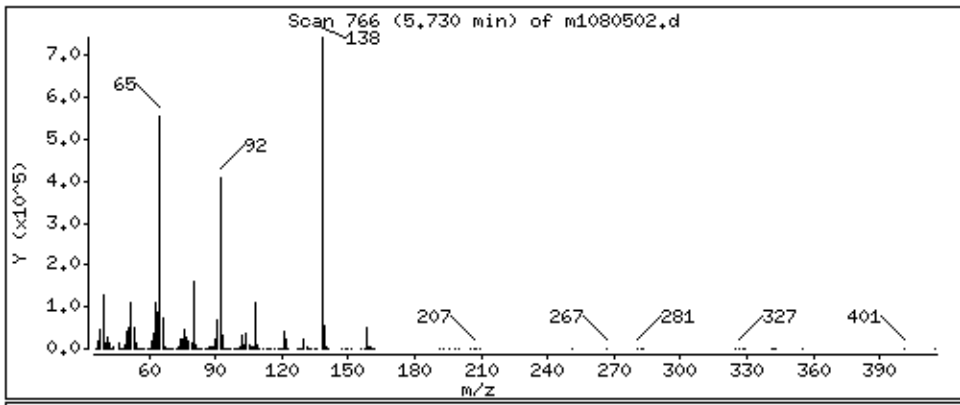
Operator: EAC

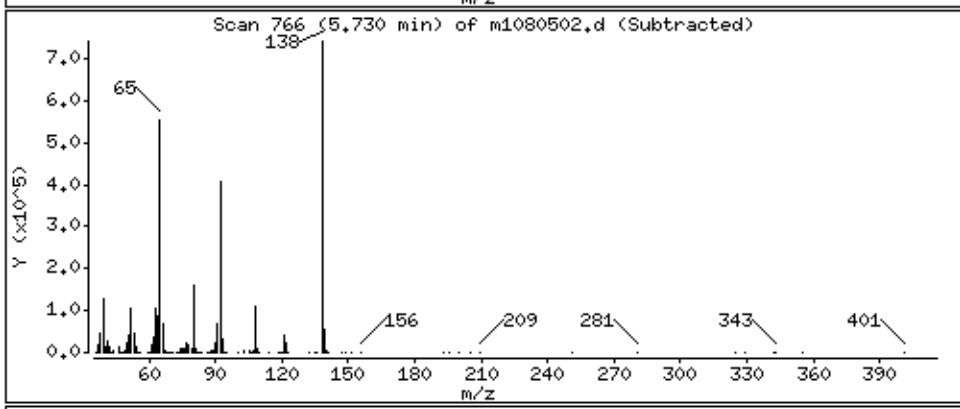
Column phase: RTX-5MS

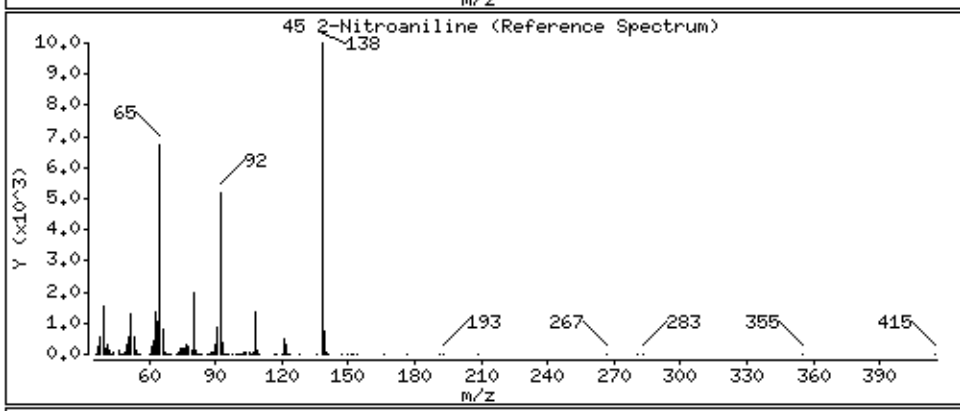
Column diameter: 0.18

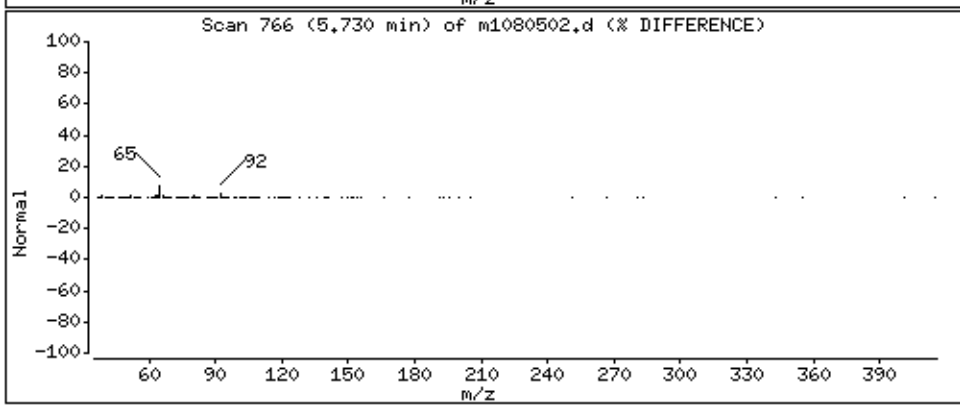
45 2-Nitroaniline

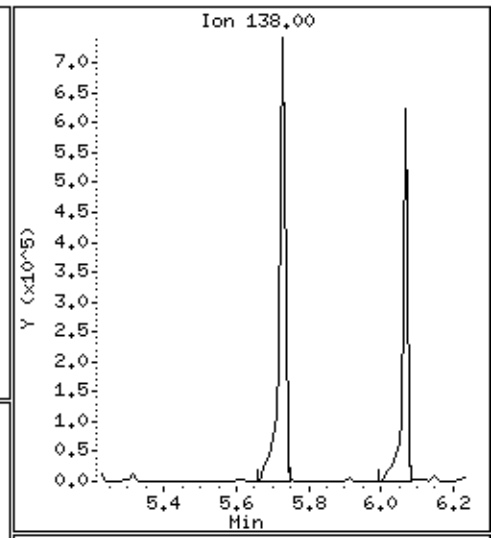
Concentration: 3490 ug/Kg

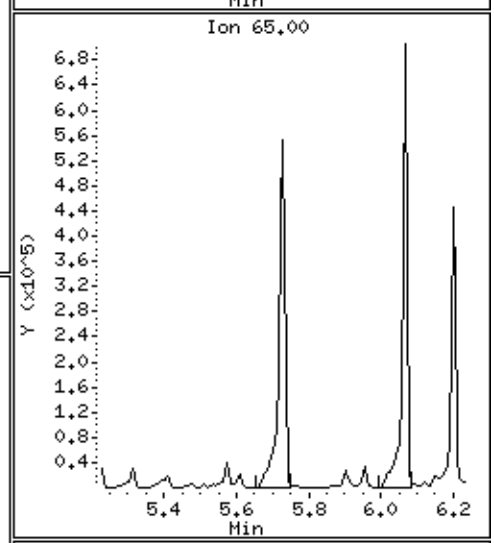


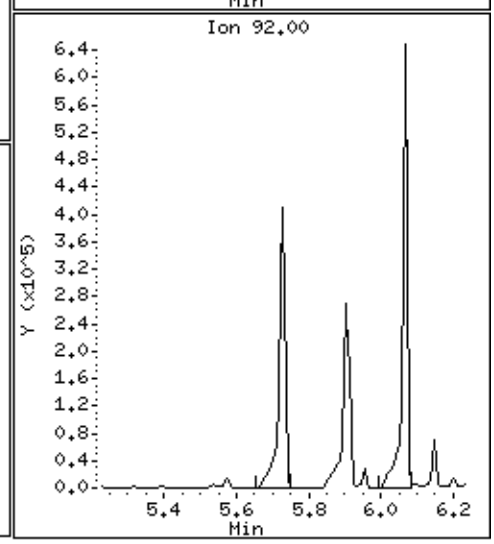












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

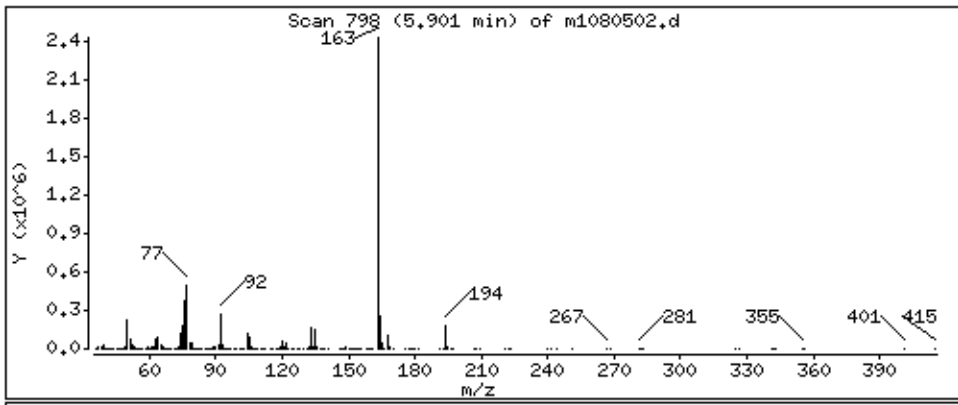
Operator: EAC

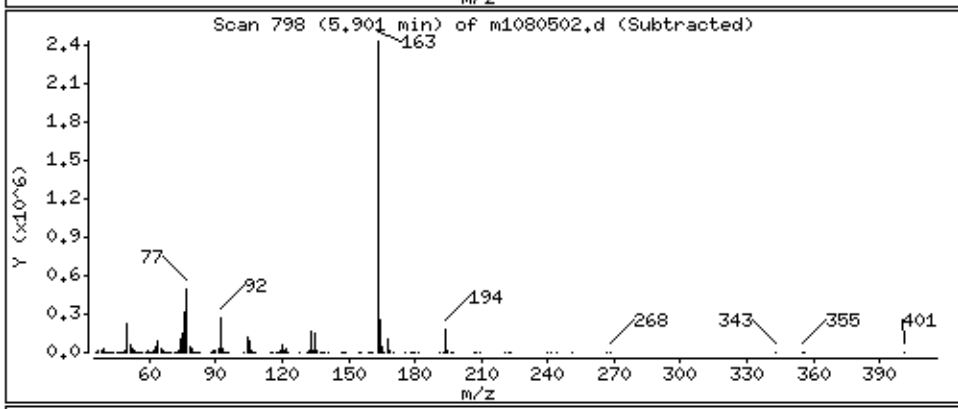
Column phase: RTX-5MS

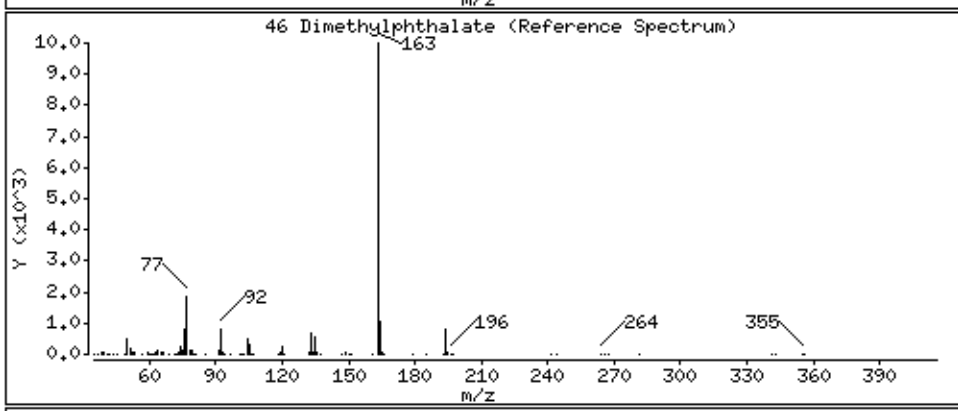
Column diameter: 0.18

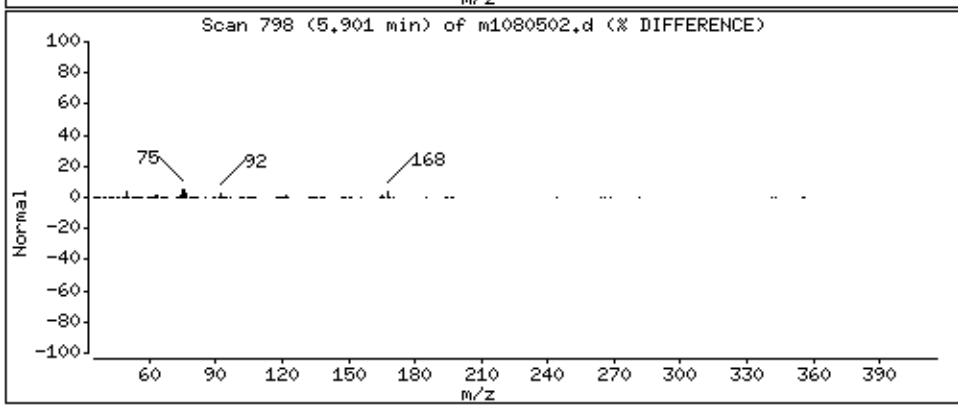
46 Dimethylphthalate

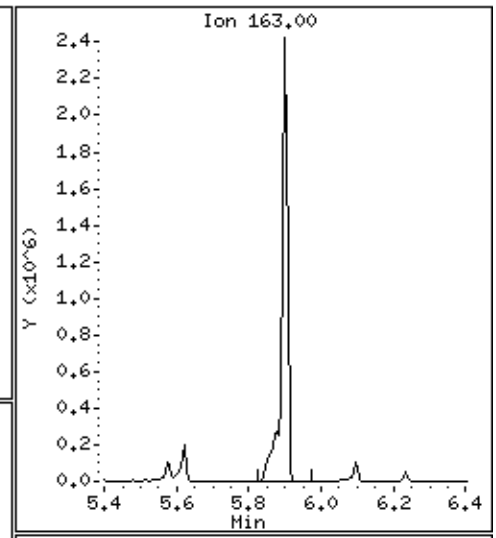
Concentration: 3320 ug/Kg

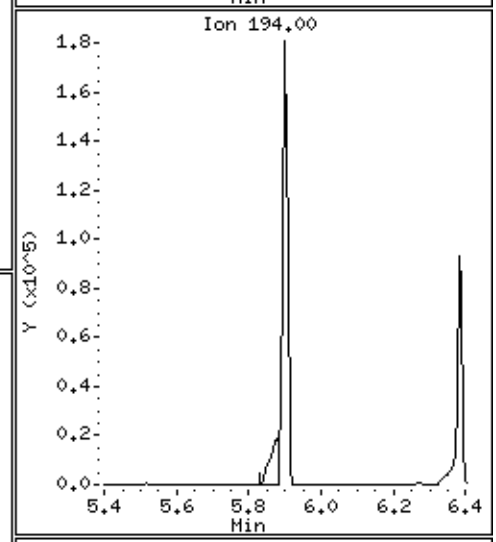


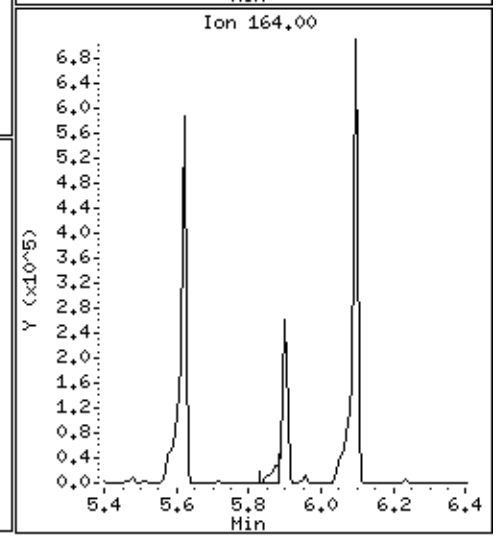












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

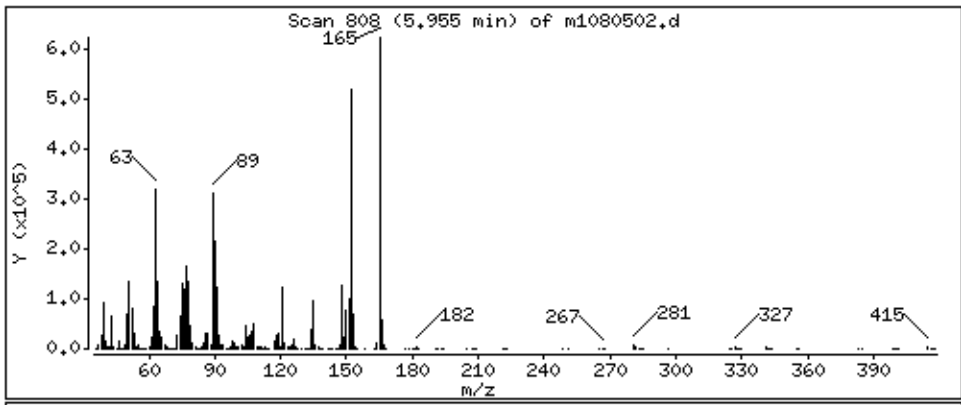
Operator: EAC

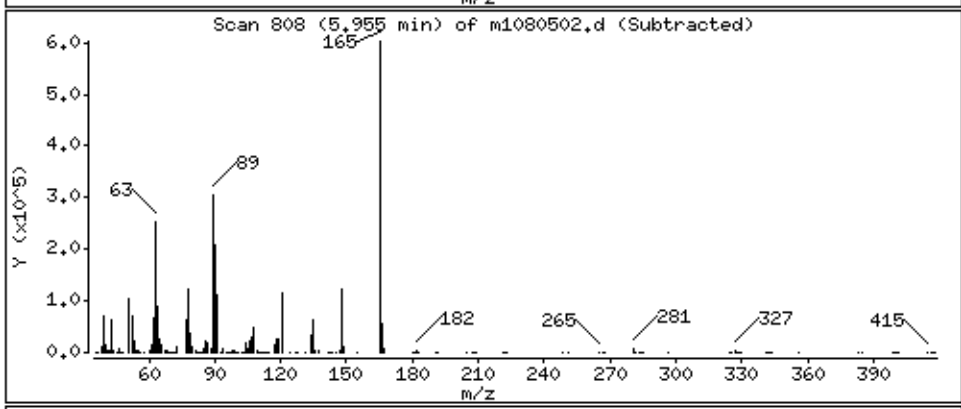
Column phase: RTX-5MS

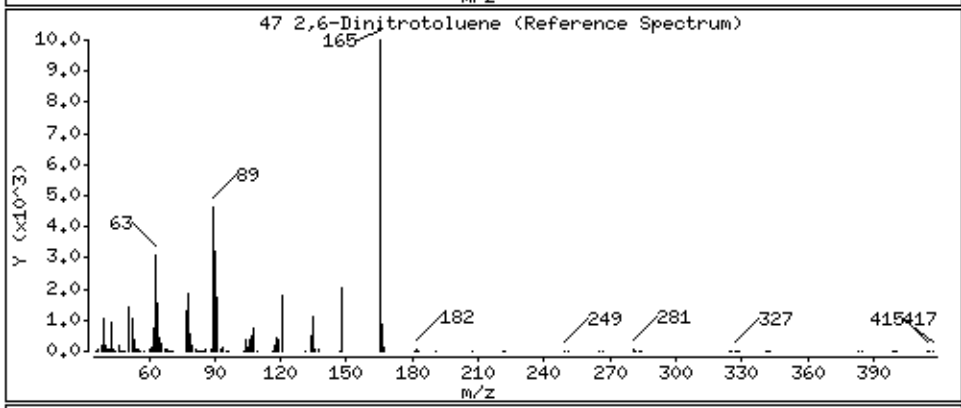
Column diameter: 0.18

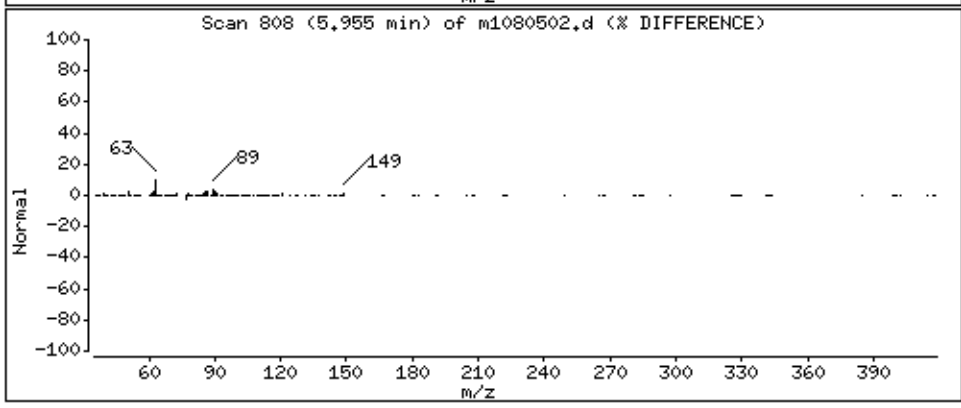
47 2,6-Dinitrotoluene

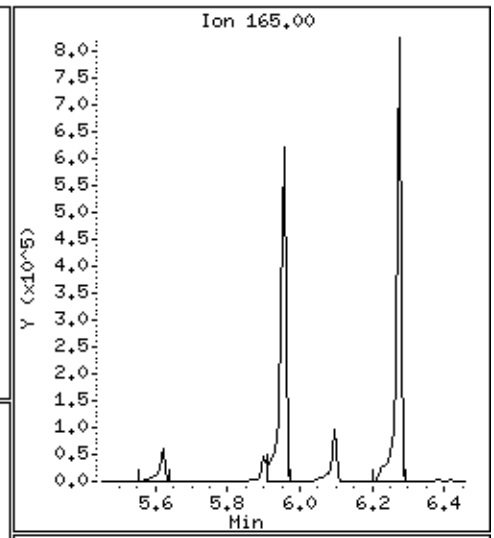
Concentration: 3260 ug/Kg

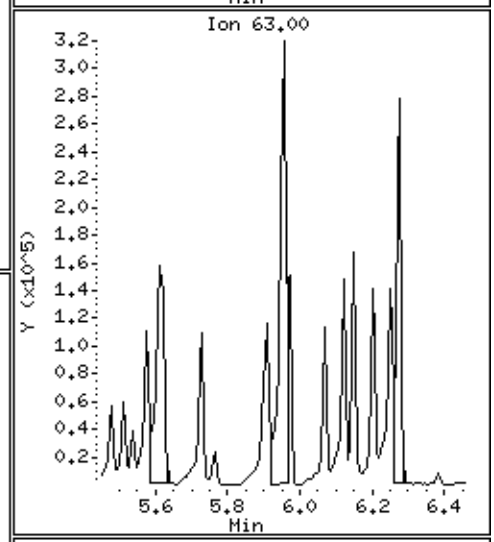


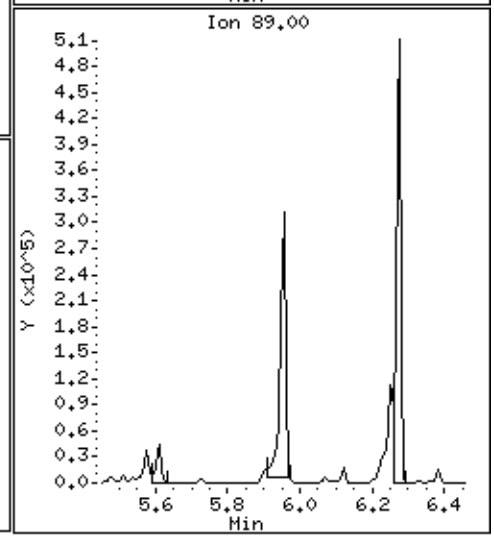












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

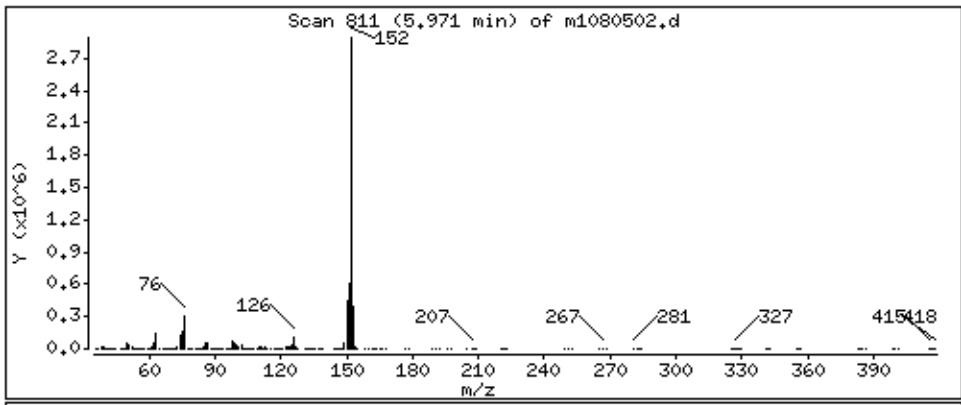
Operator: EAC

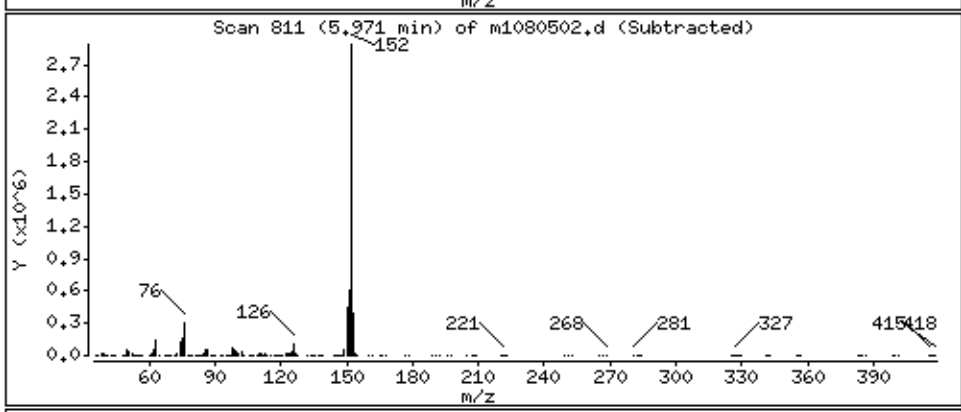
Column phase: RTX-5MS

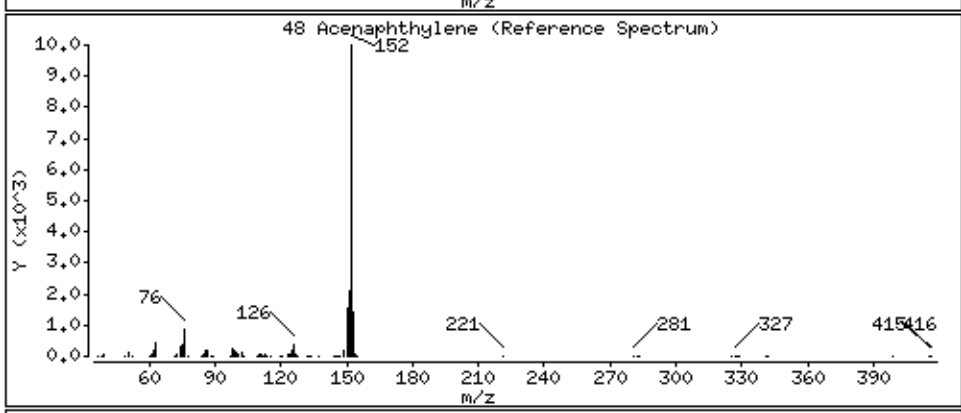
Column diameter: 0.18

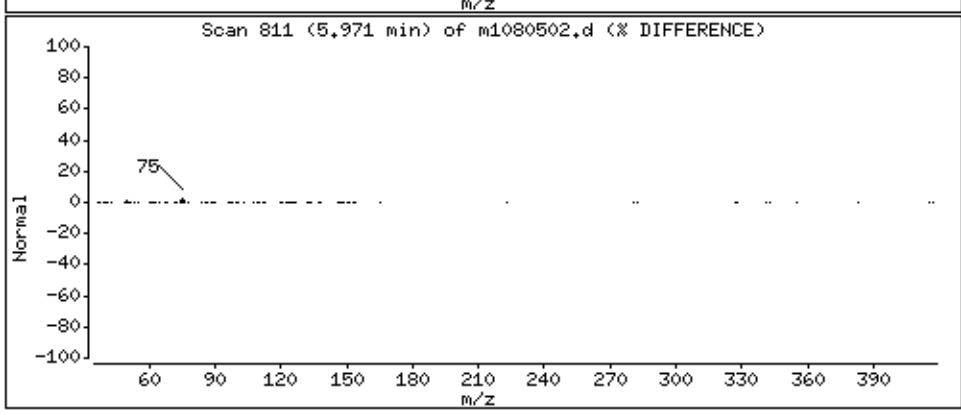
48 Acenaphthylene

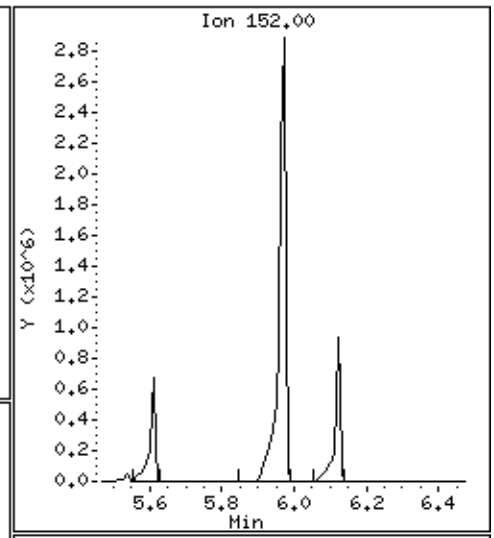
Concentration: 3210 ug/Kg

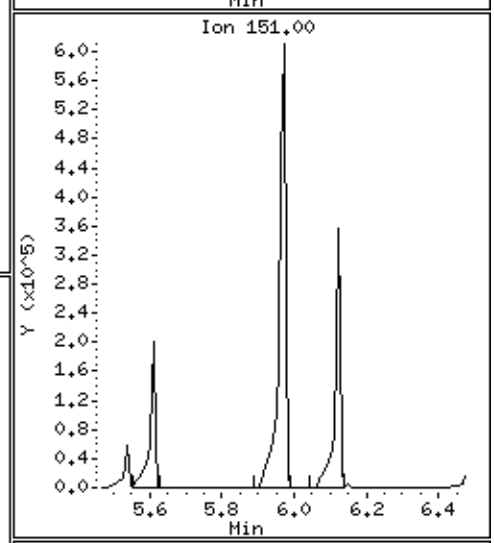


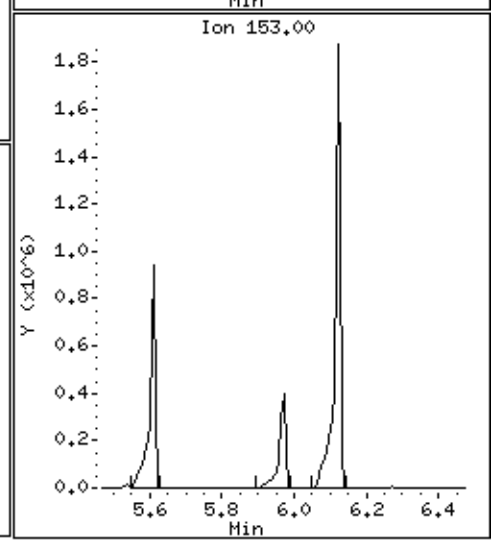












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

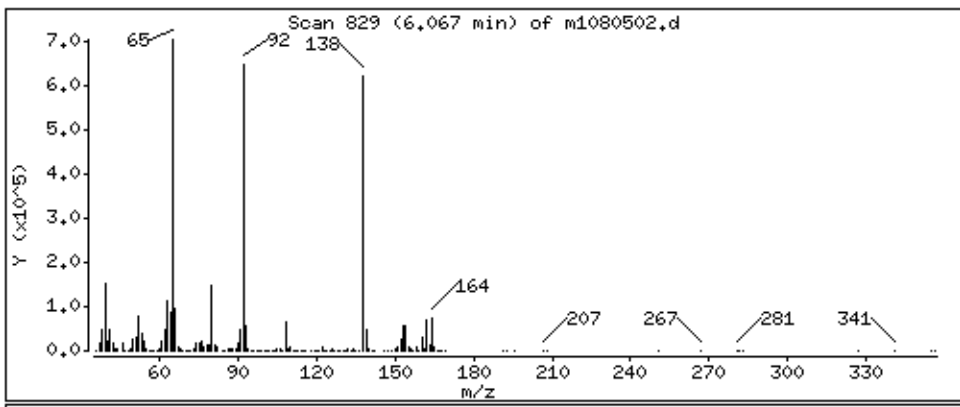
Operator: EAC

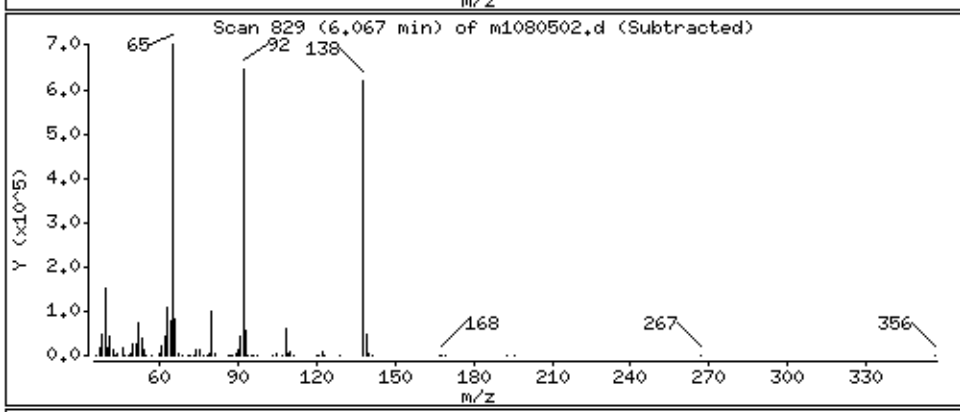
Column phase: RTX-5MS

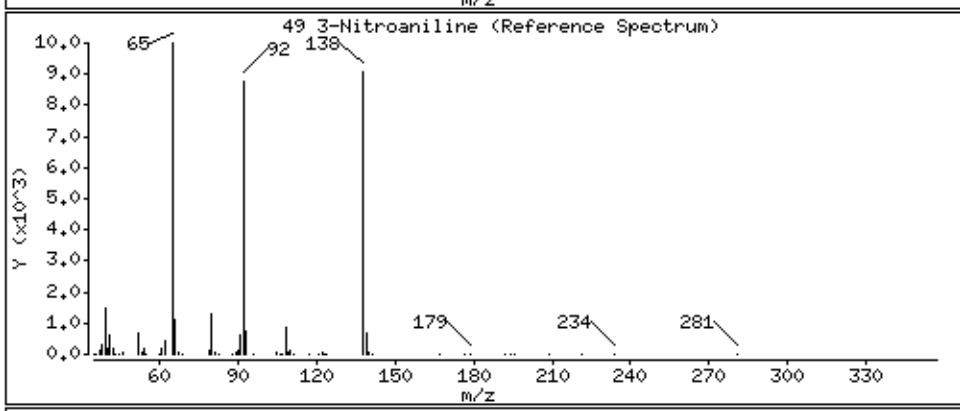
Column diameter: 0.18

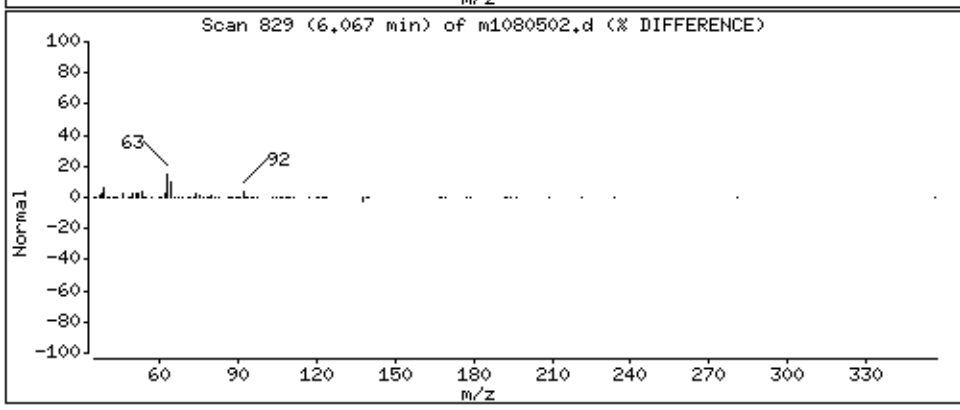
49 3-Nitroaniline

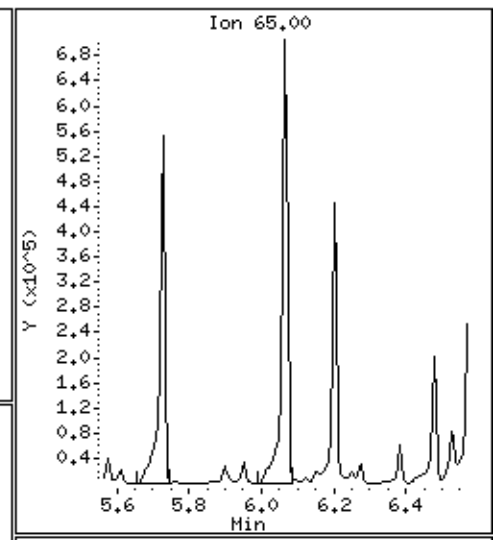
Concentration: 3570 ug/Kg

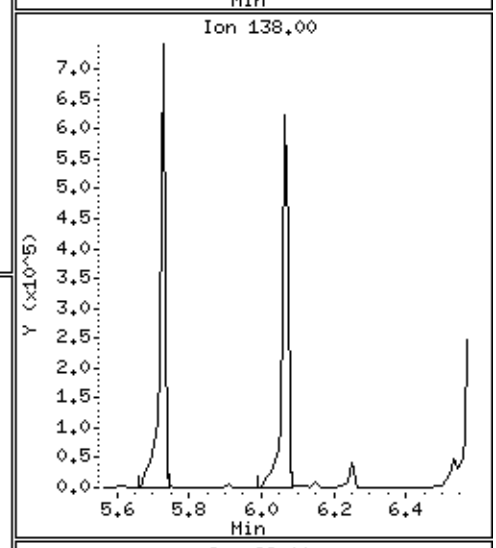


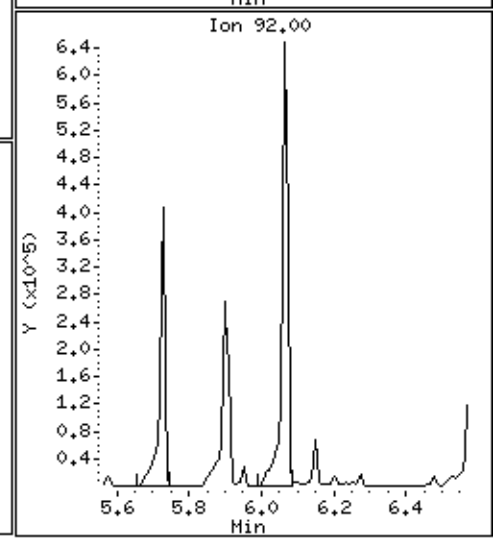












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

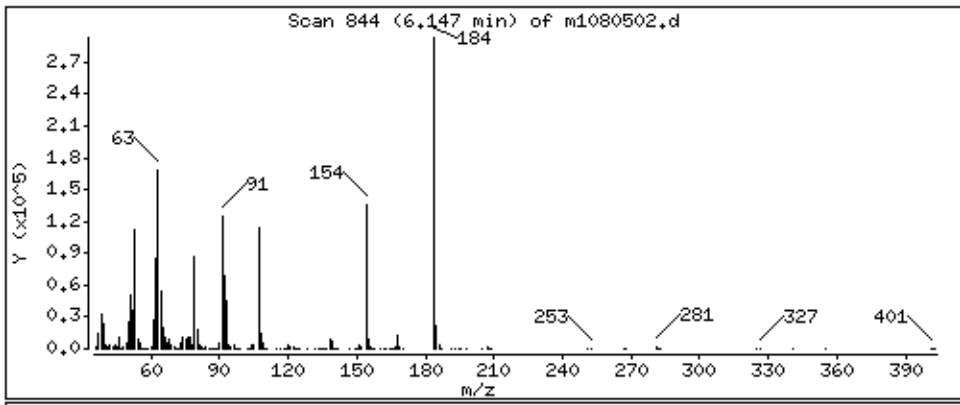
Operator: EAC

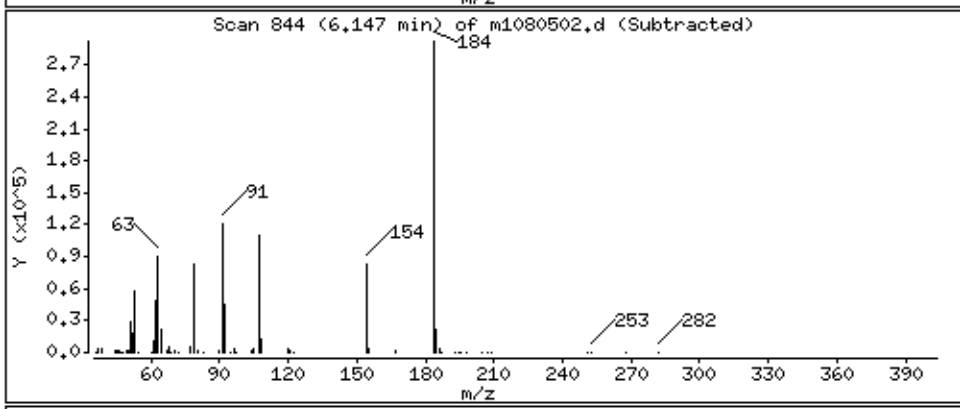
Column phase: RTX-5MS

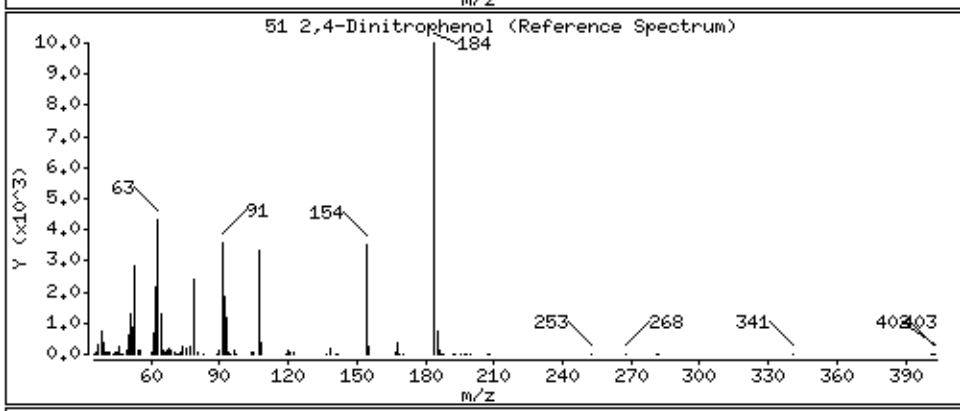
Column diameter: 0.18

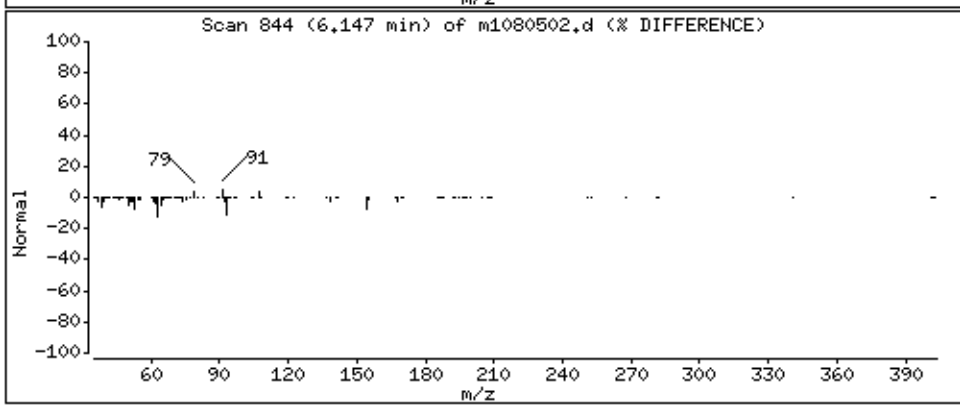
51 2,4-Dinitrophenol

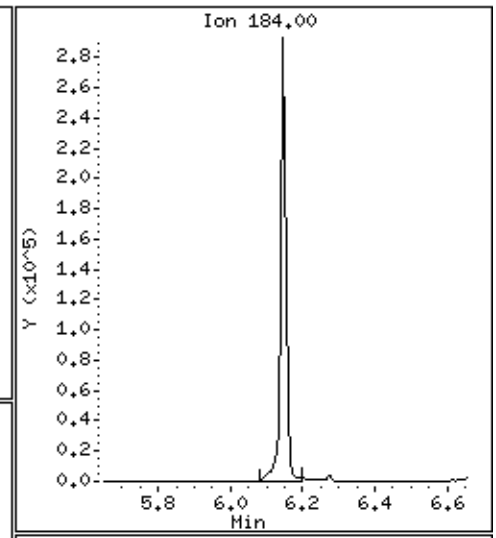
Concentration: 3050 ug/Kg

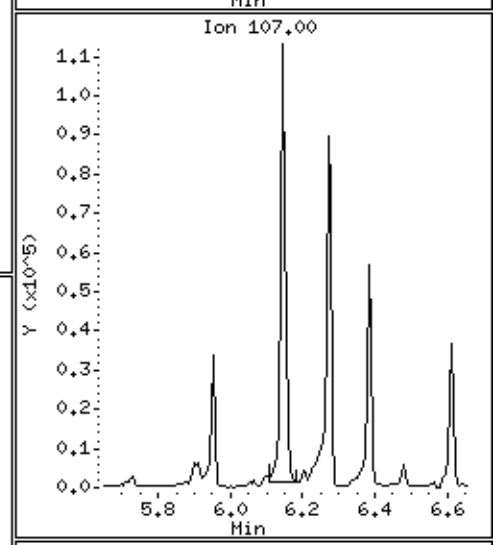


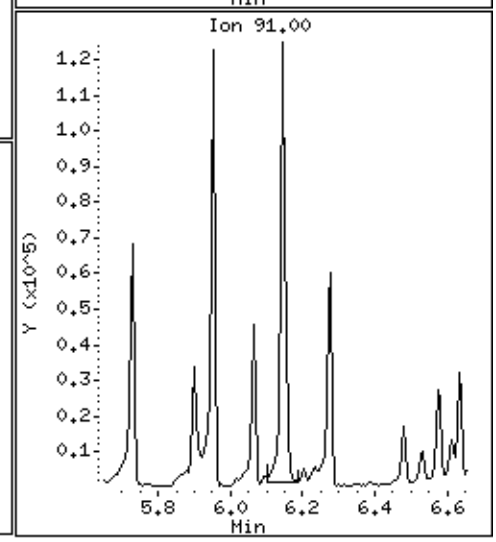












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

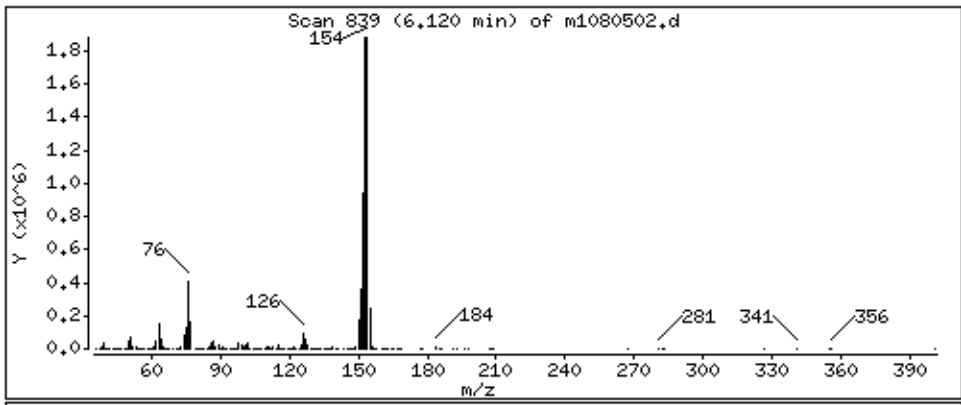
Operator: EAC

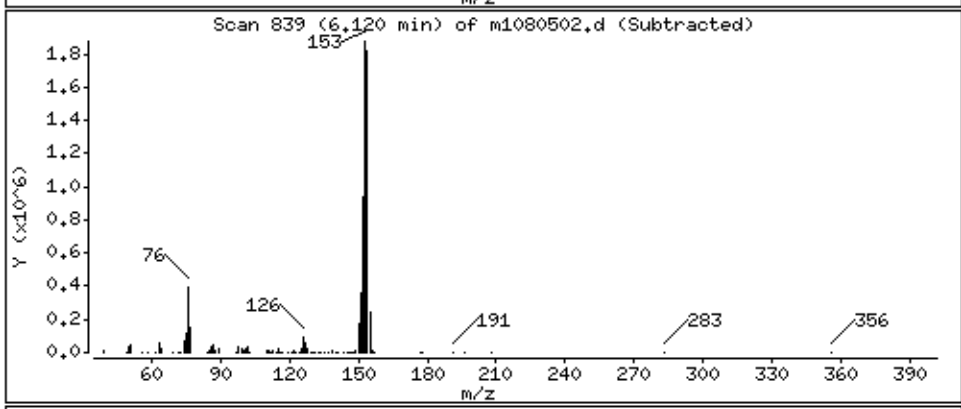
Column phase: RTX-5MS

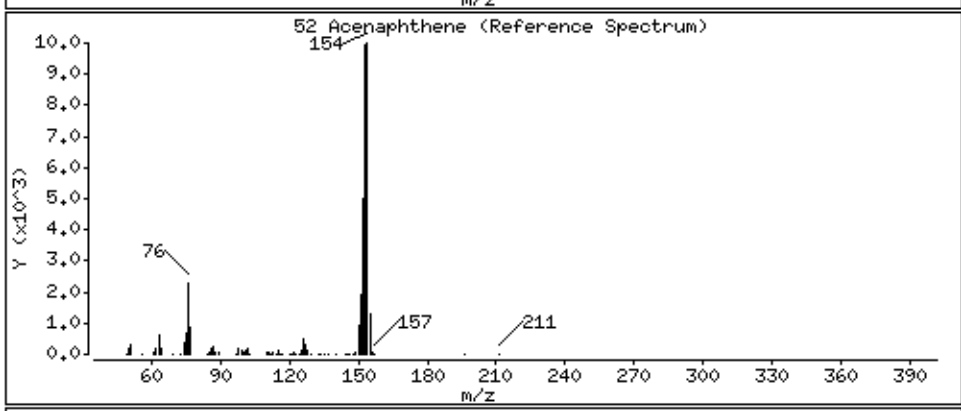
Column diameter: 0.18

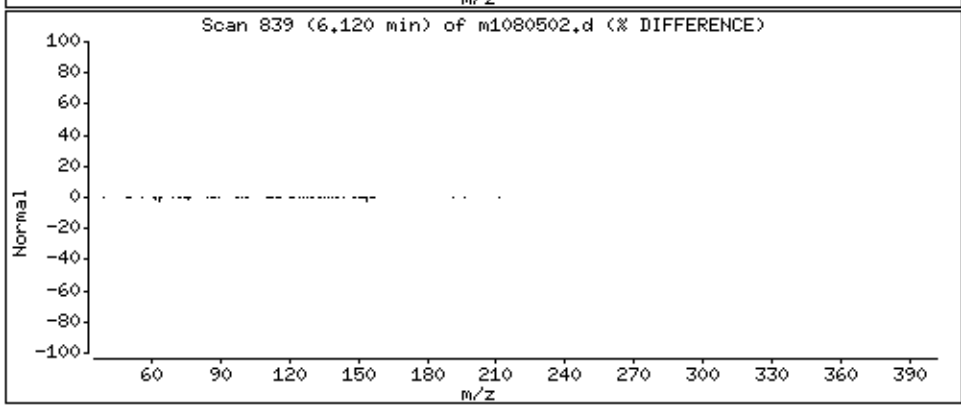
52 Acenaphthene

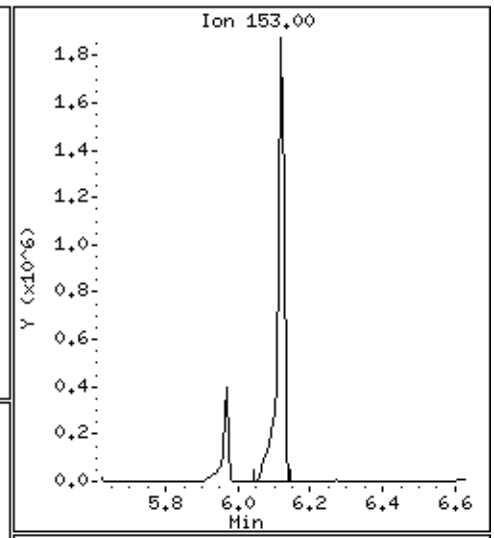
Concentration: 3110 ug/Kg

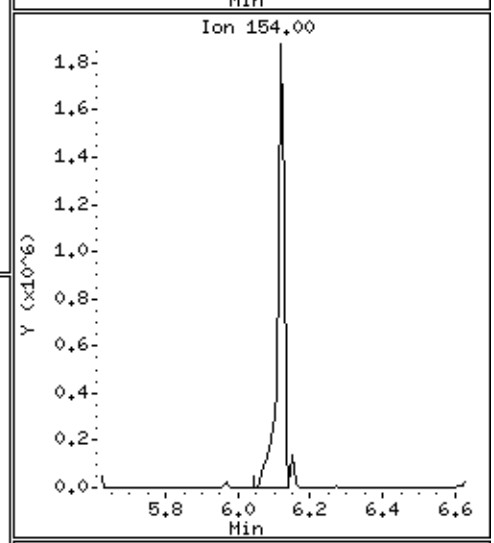


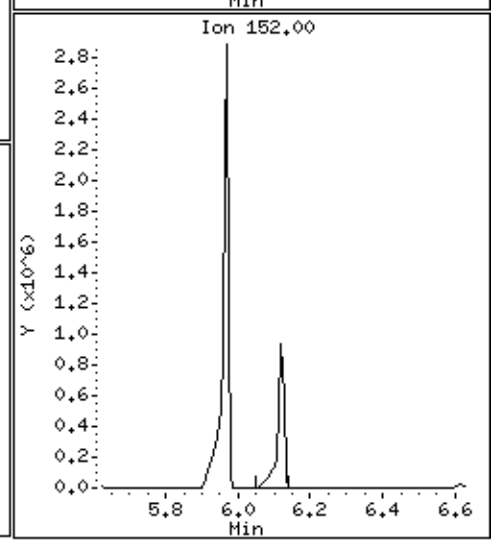












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

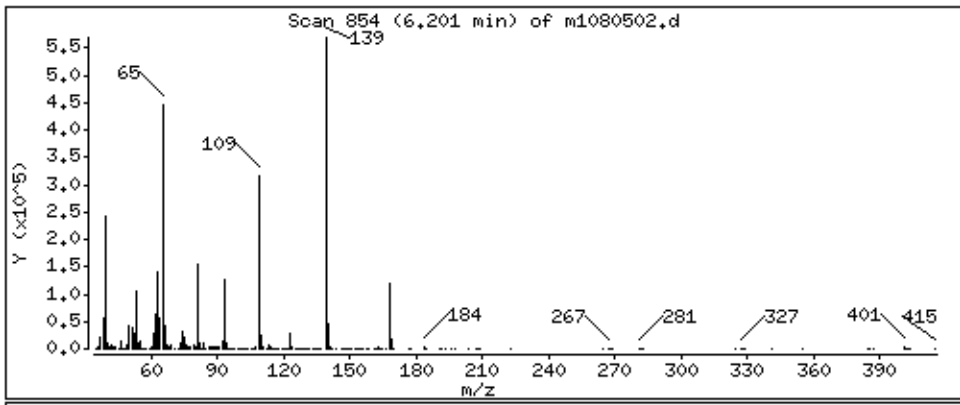
Operator: EAC

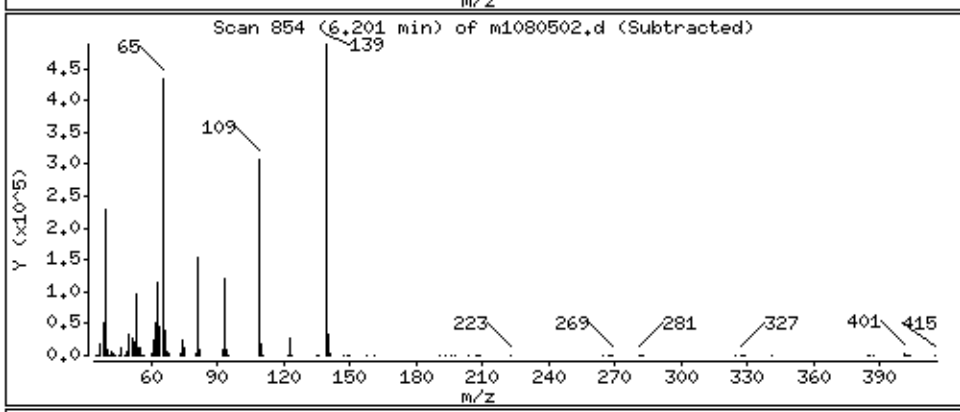
Column phase: RTX-5MS

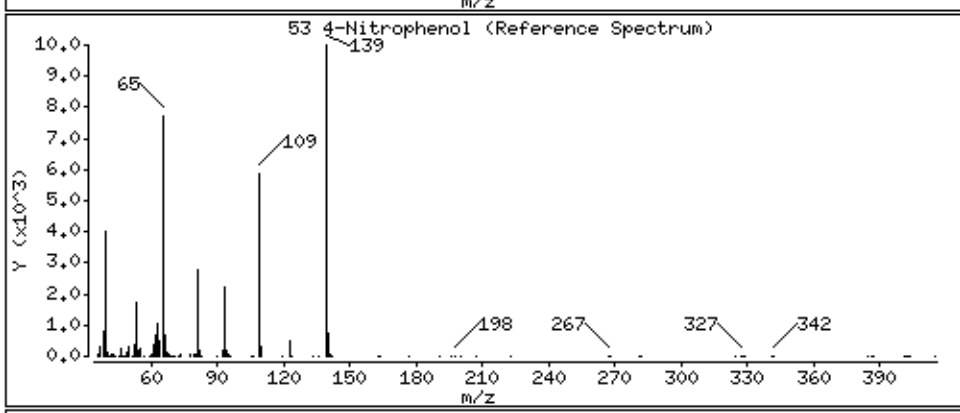
Column diameter: 0.18

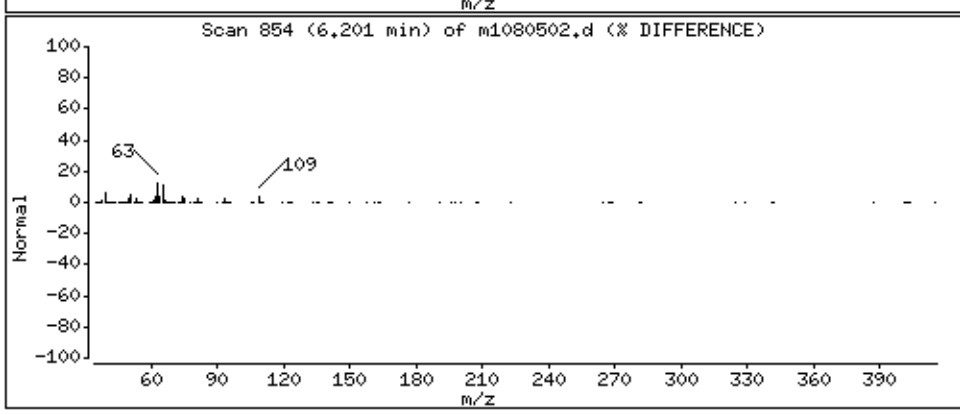
53 4-Nitrophenol

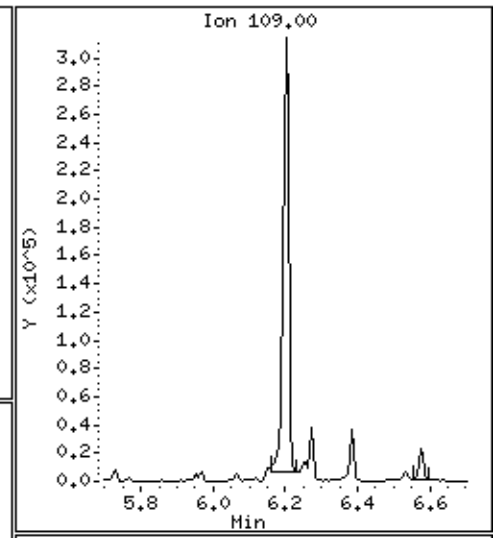
Concentration: 3470 ug/Kg

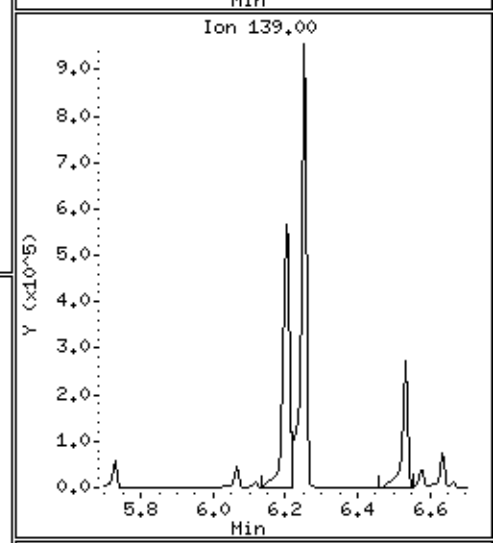


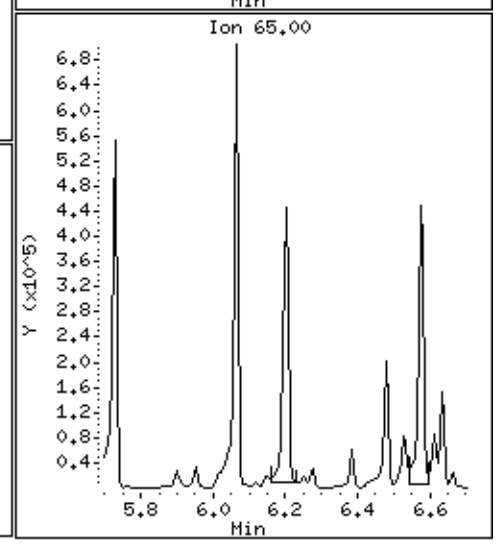












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

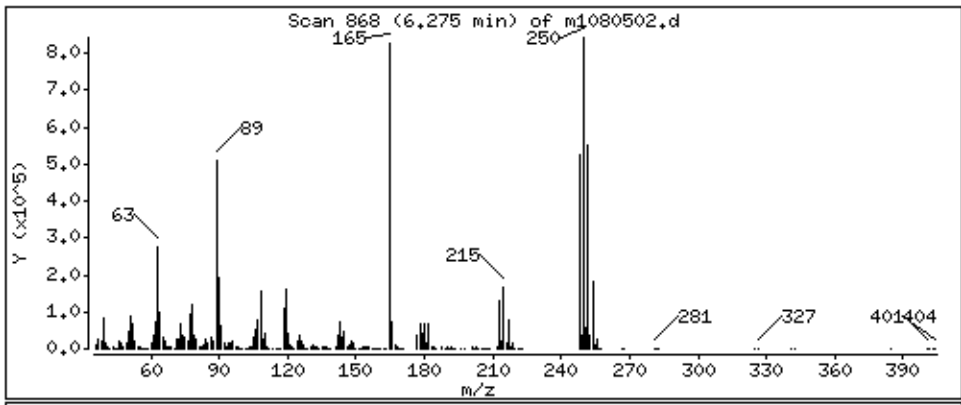
Operator: EAC

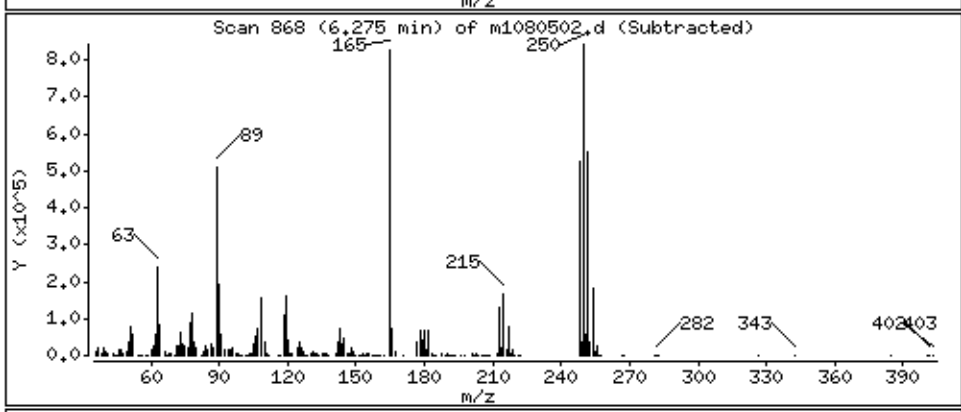
Column phase: RTX-5MS

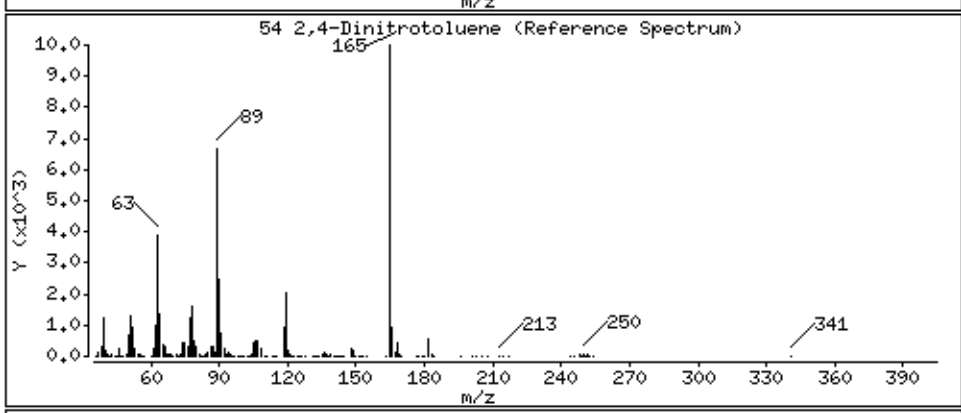
Column diameter: 0.18

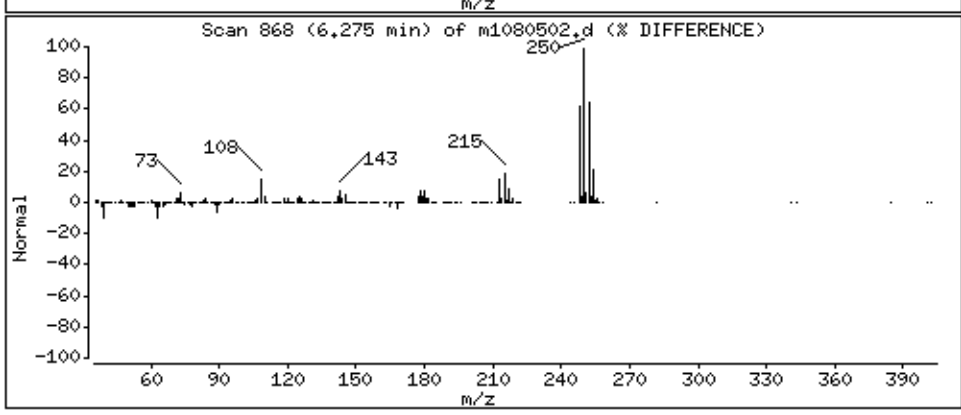
54 2,4-Dinitrotoluene

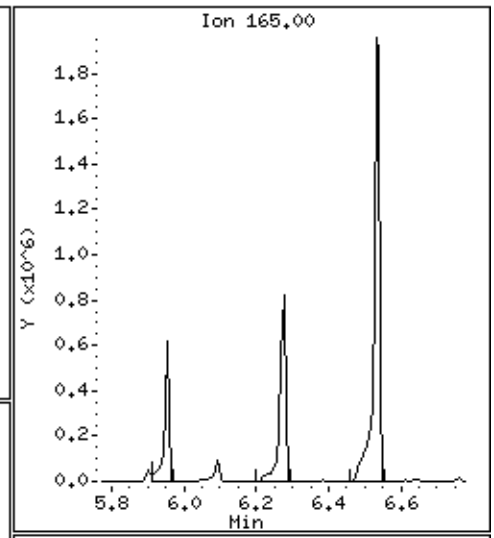
Concentration: 3540 ug/Kg

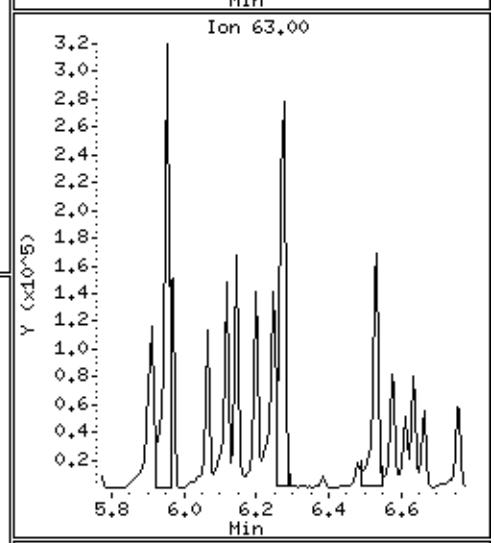


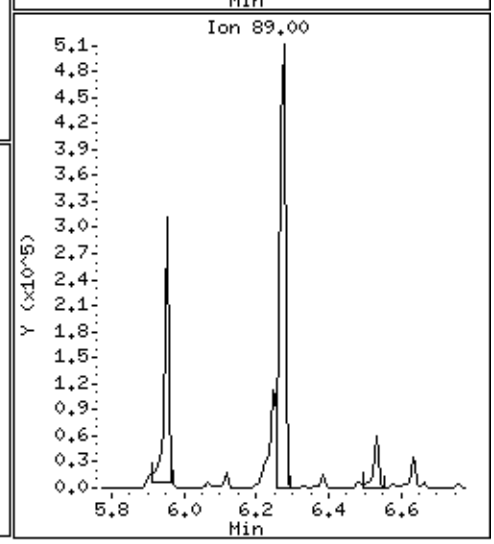












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

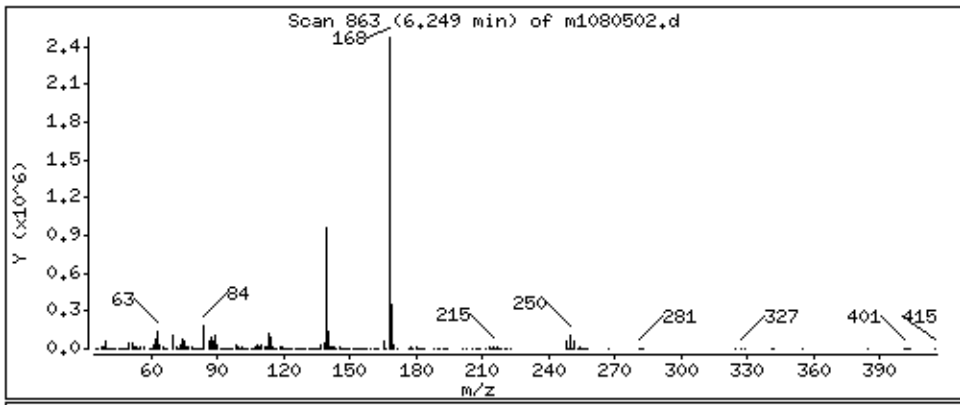
Operator: EAC

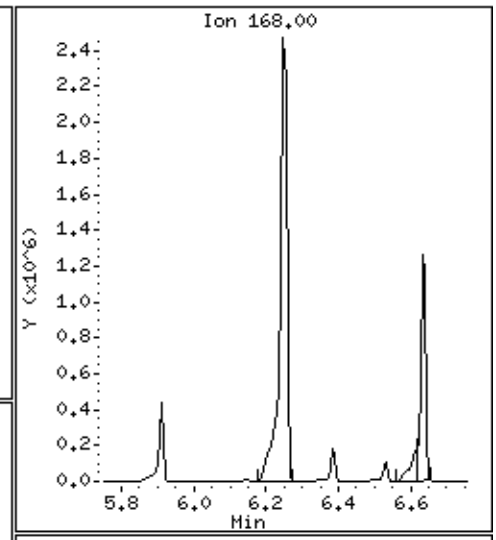
Column phase: RTX-5MS

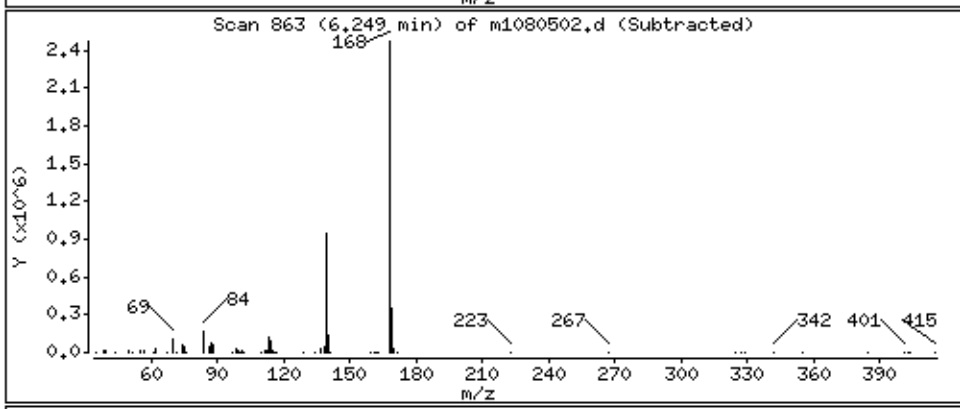
Column diameter: 0.18

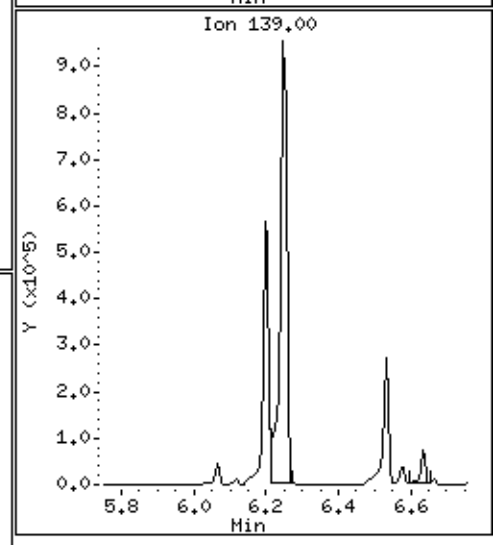
55 Dibenzofuran

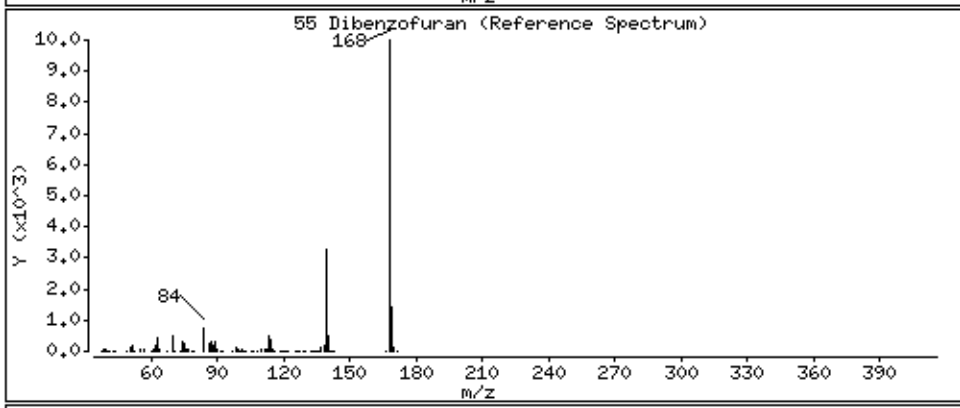
Concentration: 3200 ug/Kg

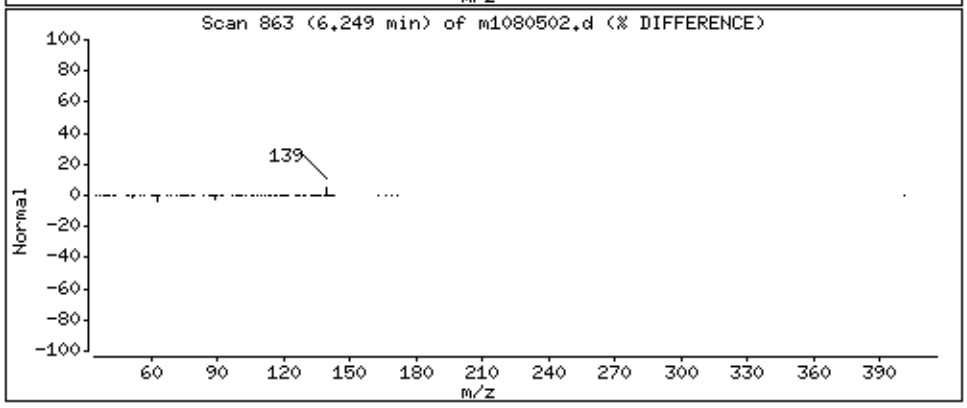












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

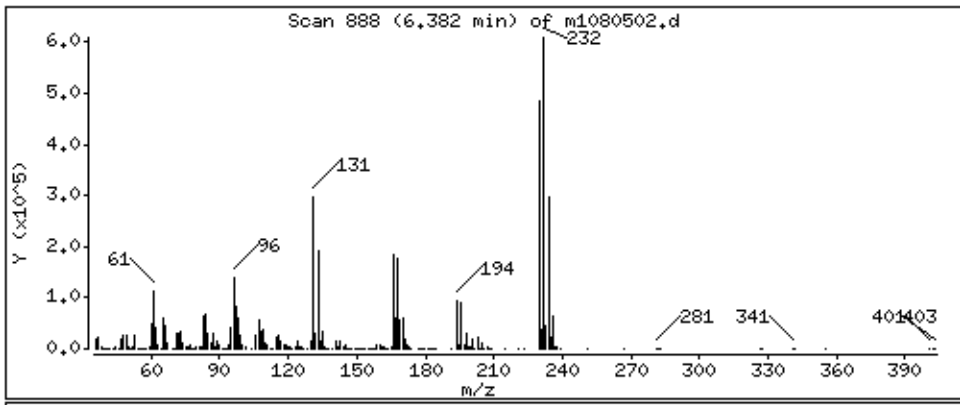
Operator: EAC

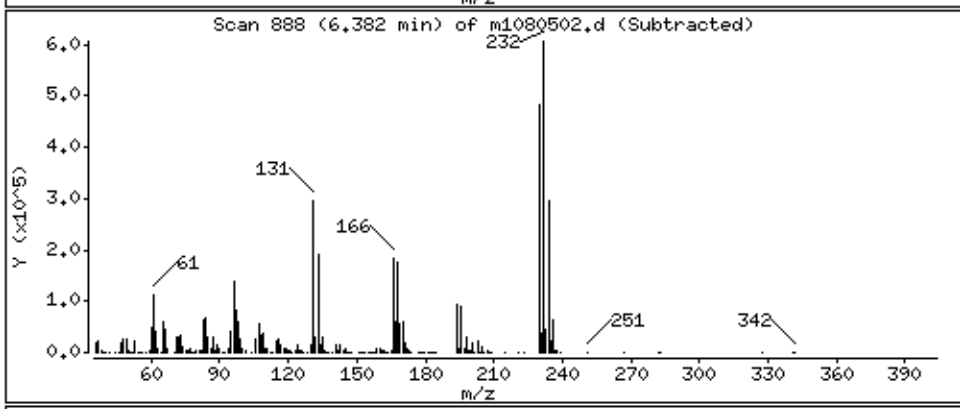
Column phase: RTX-5MS

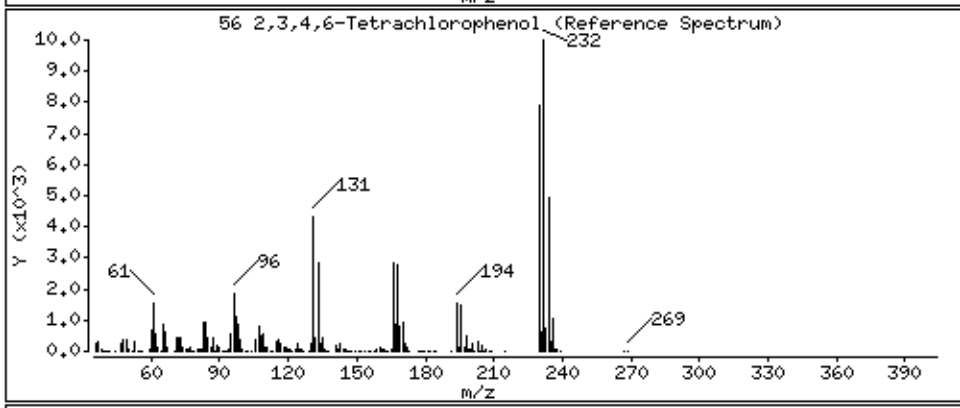
Column diameter: 0.18

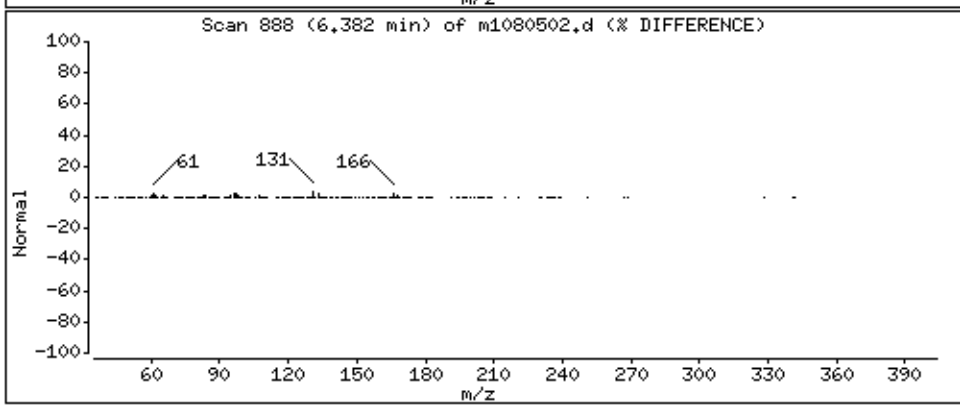
56 2,3,4,6-Tetrachlorophenol

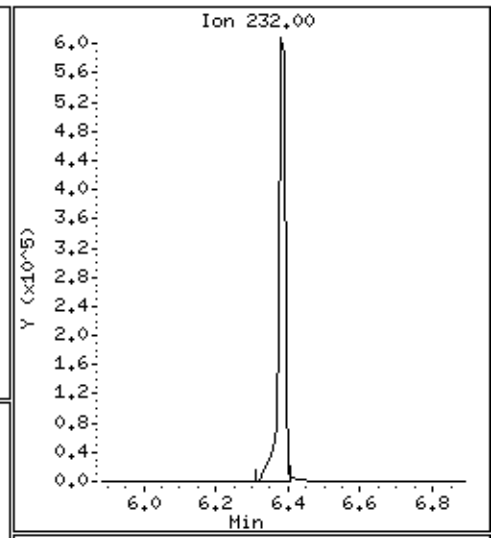
Concentration: 3540 ug/Kg

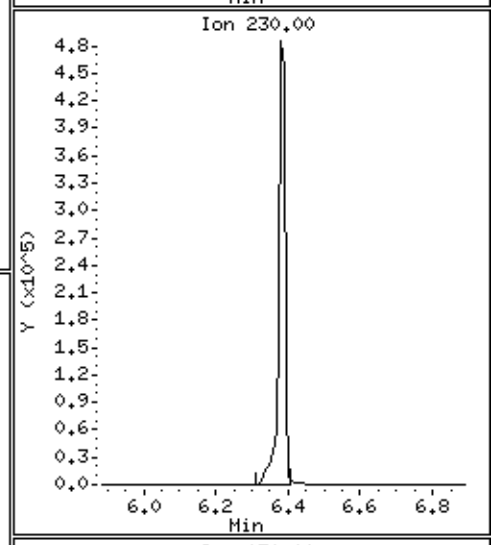


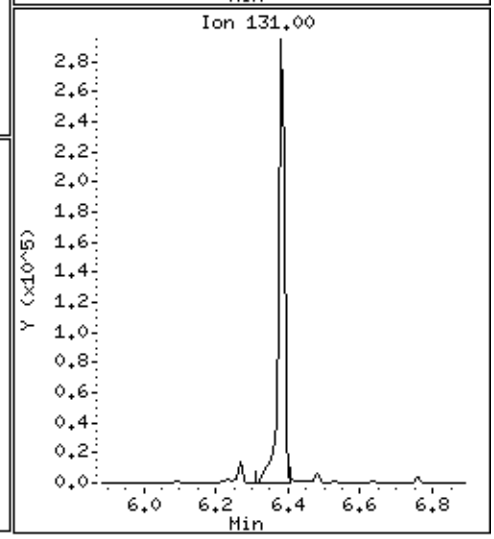












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

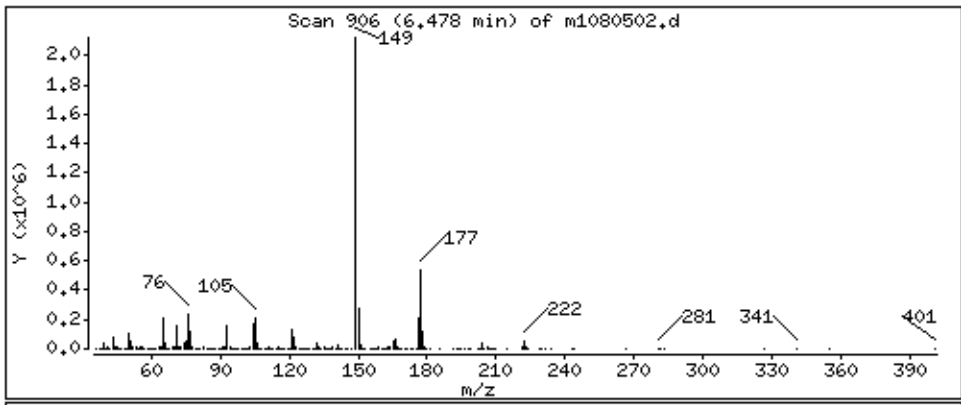
Operator: EAC

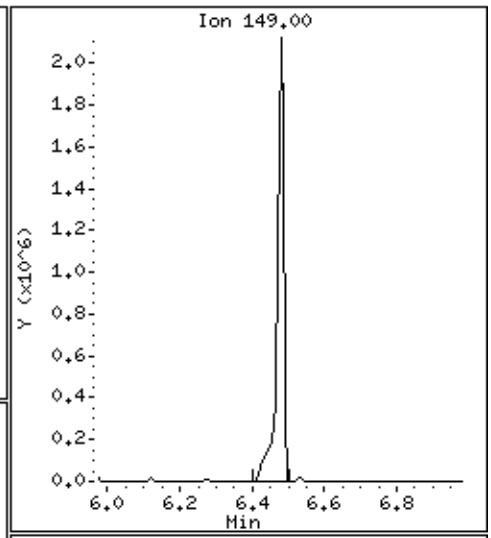
Column phase: RTX-5MS

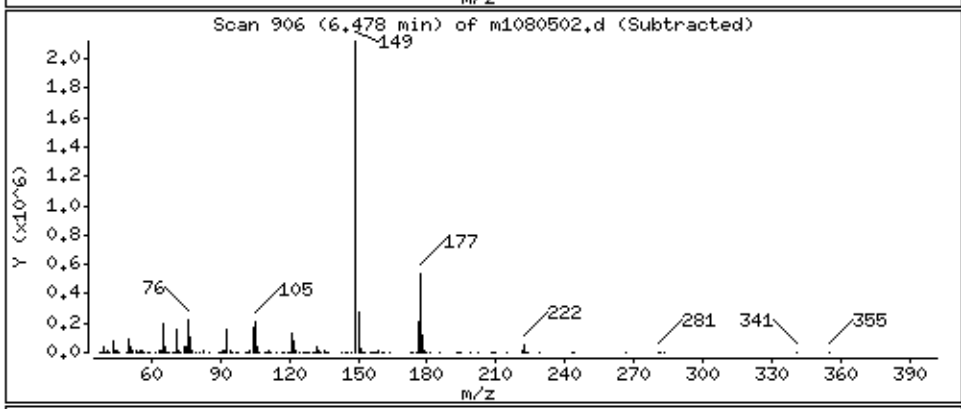
Column diameter: 0.18

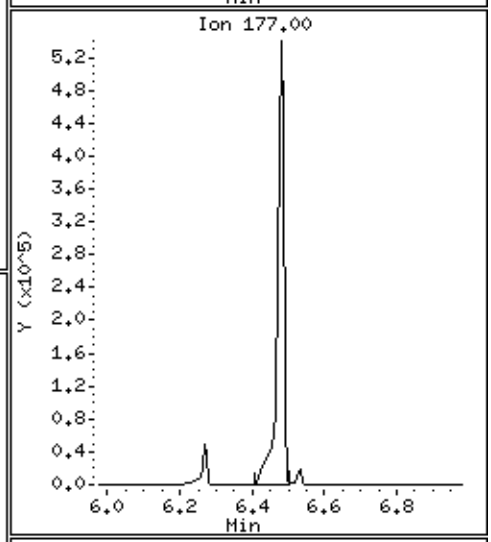
57 Diethylphthalate

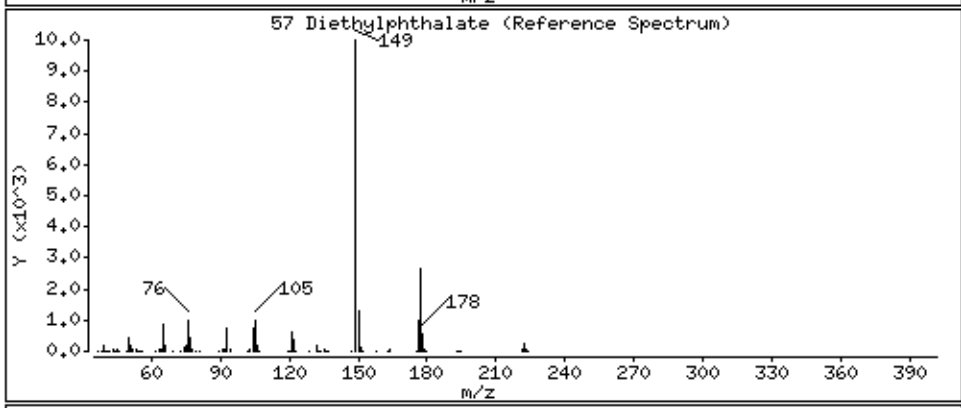
Concentration: 3380 ug/Kg

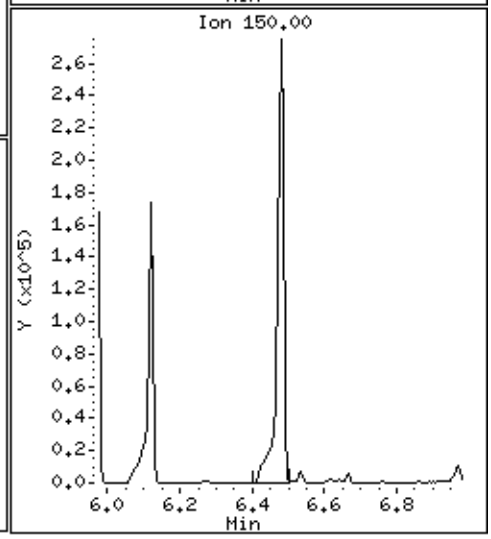


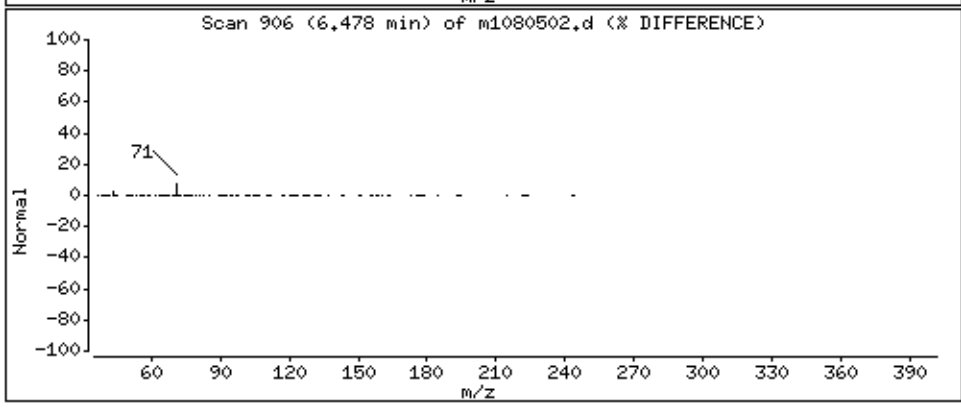












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

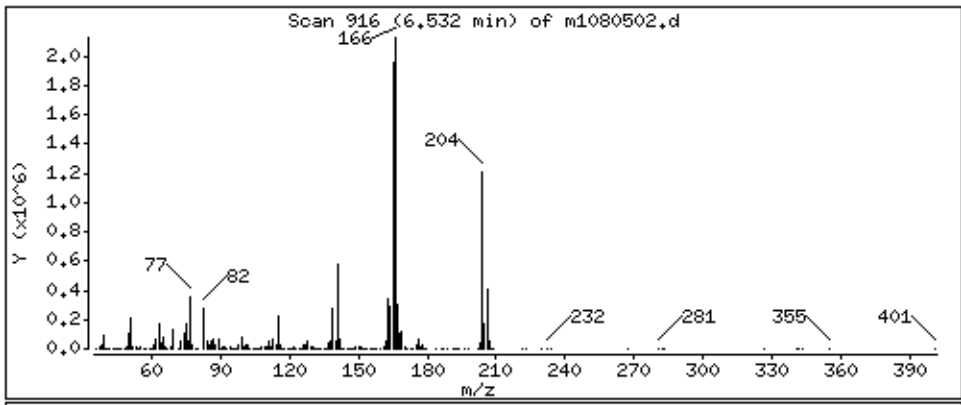
Operator: EAC

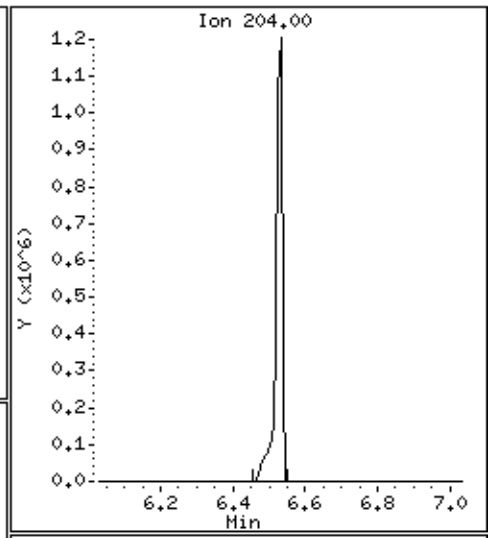
Column phase: RTX-5MS

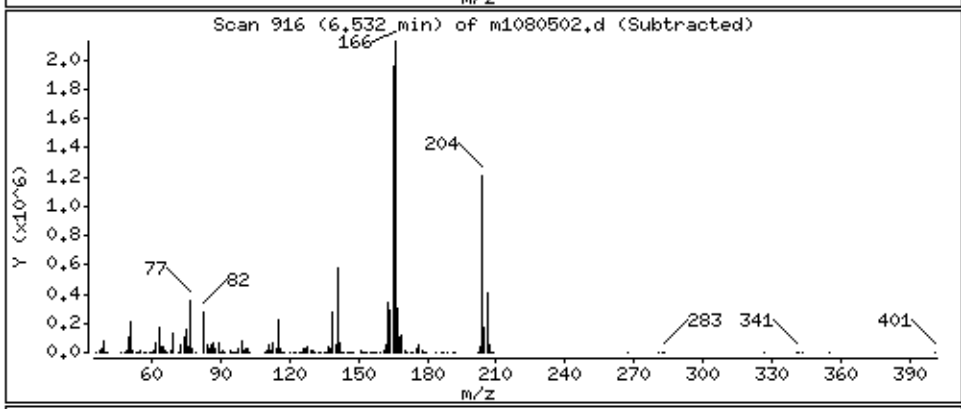
Column diameter: 0.18

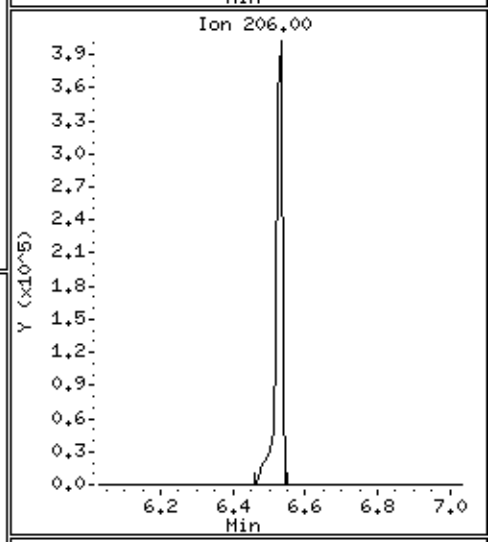
58 4-Chlorophenylphenyl ether

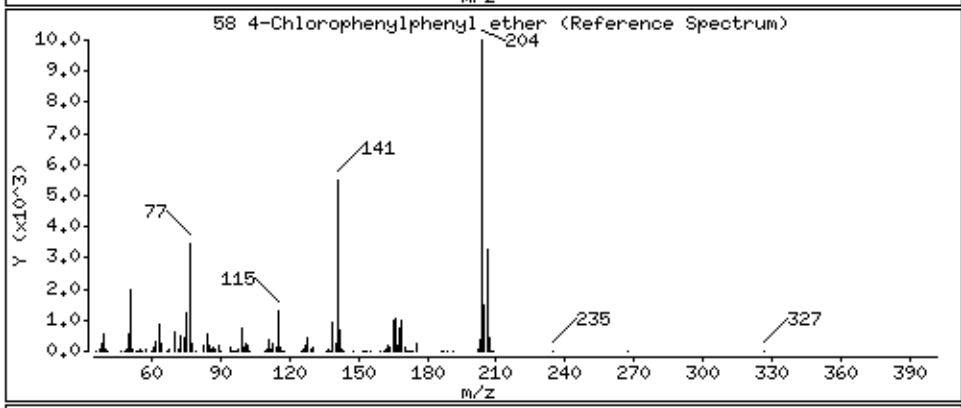
Concentration: 3180 ug/Kg

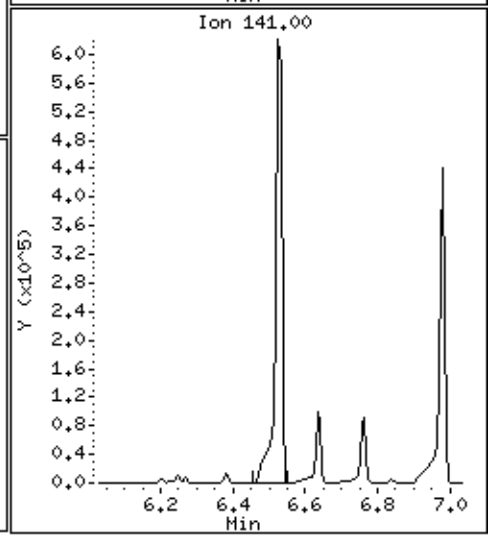


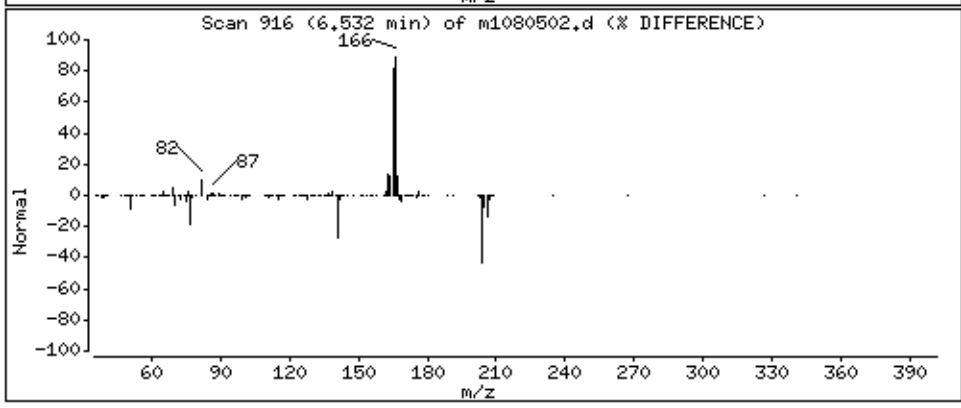












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

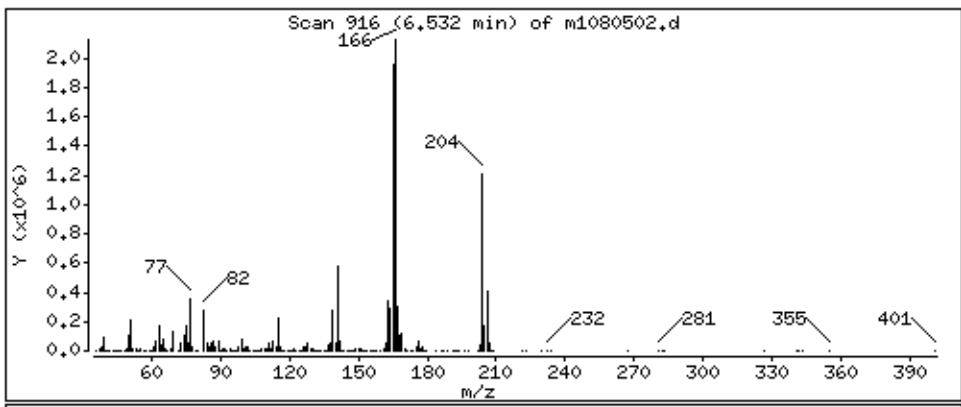
Operator: EAC

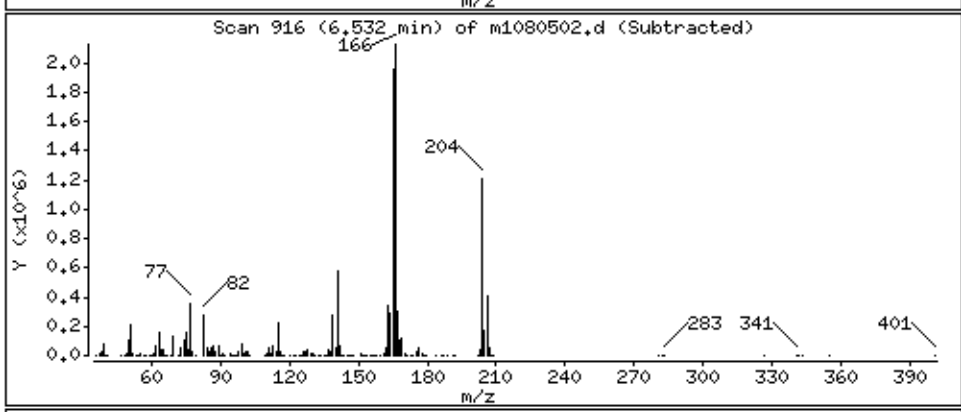
Column phase: RTX-5MS

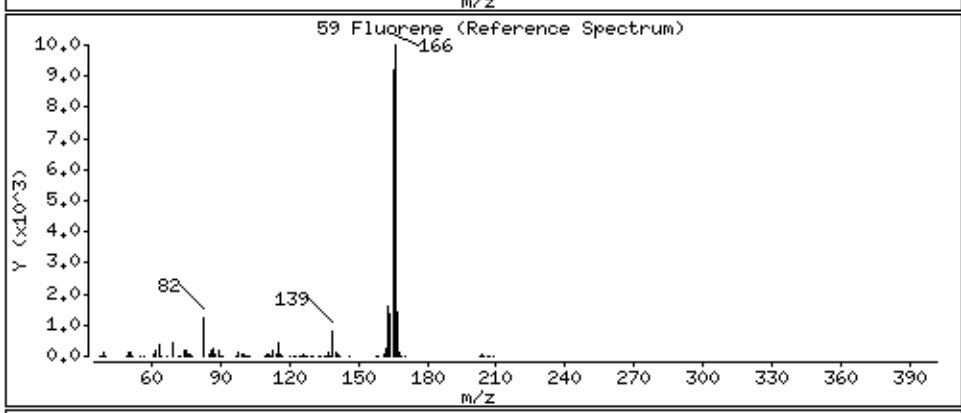
Column diameter: 0.18

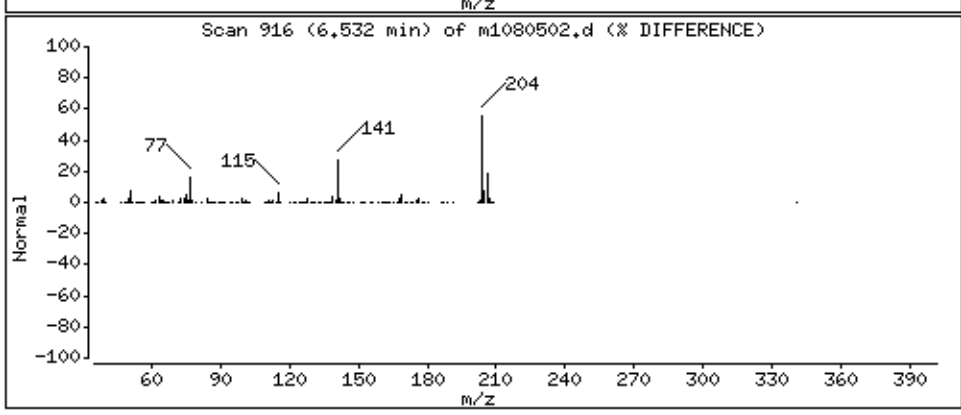
59 Fluorene

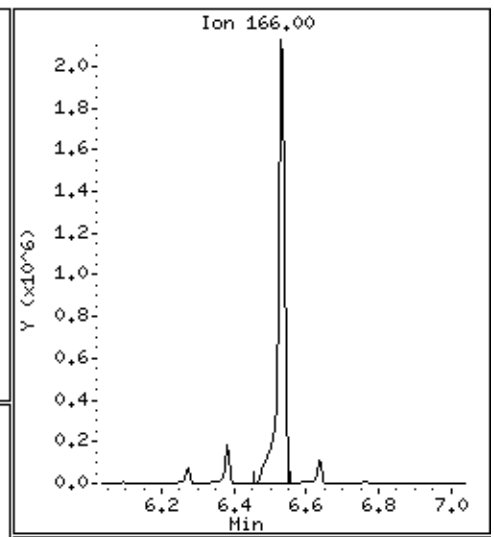
Concentration: 3180 ug/Kg

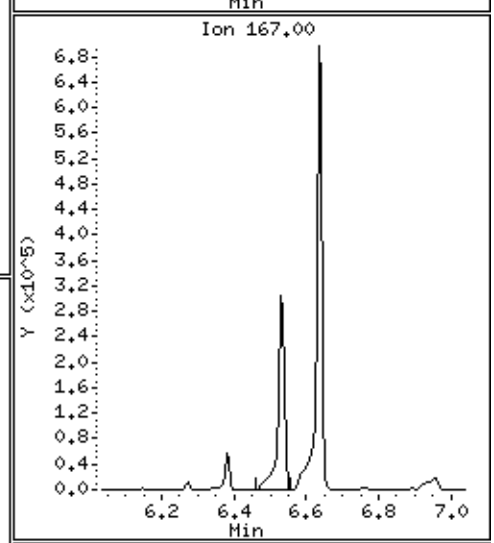


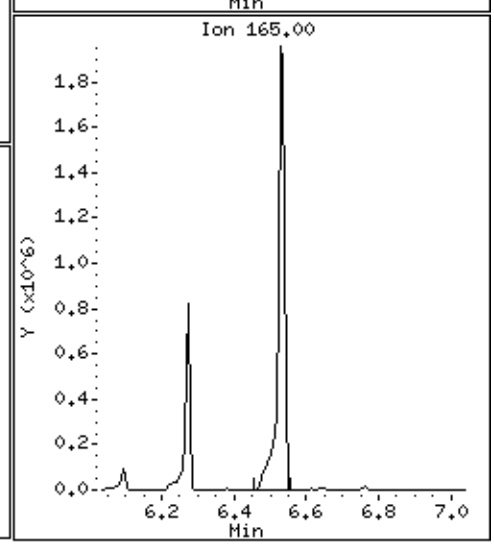












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

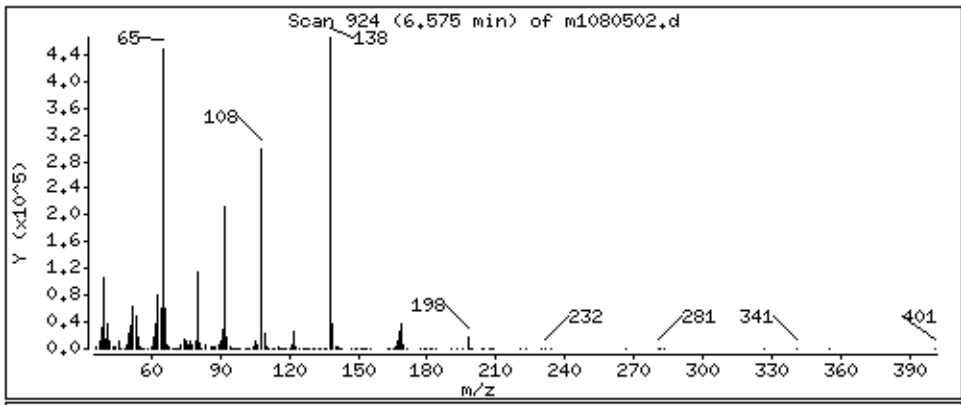
Operator: EAC

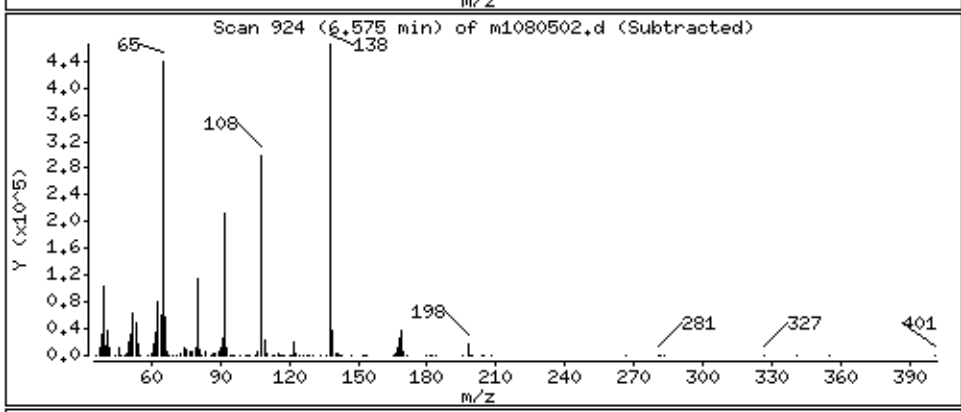
Column phase: RTX-5MS

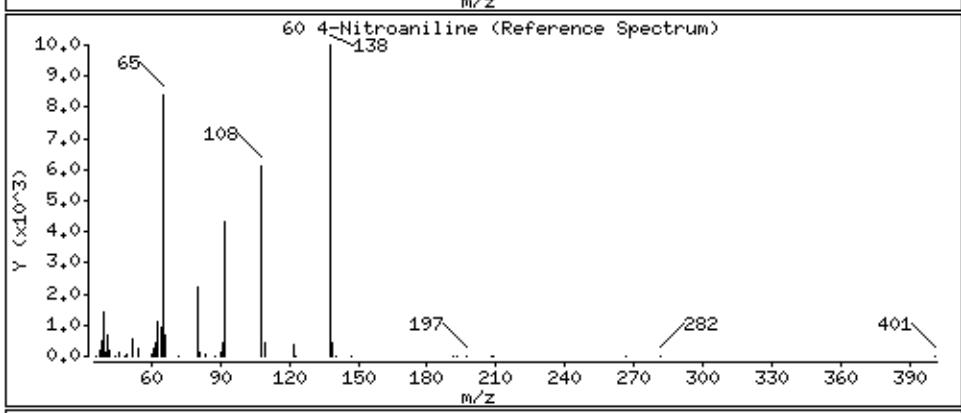
Column diameter: 0.18

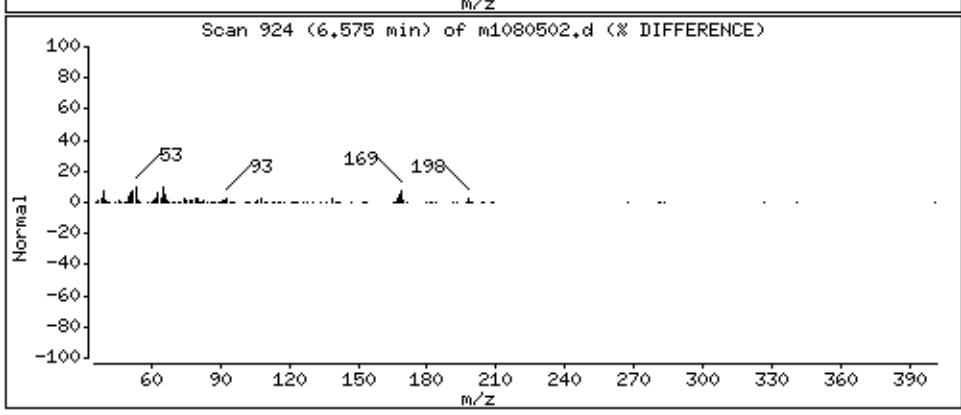
60 4-Nitroaniline

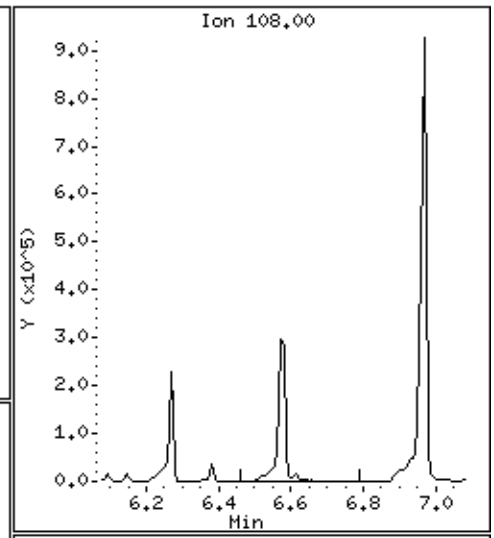
Concentration: 3890 ug/Kg

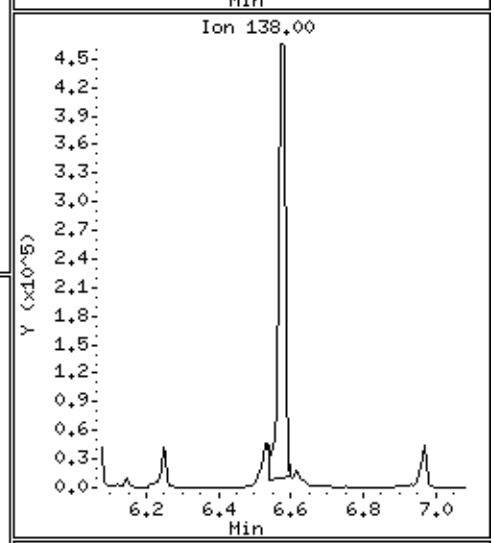


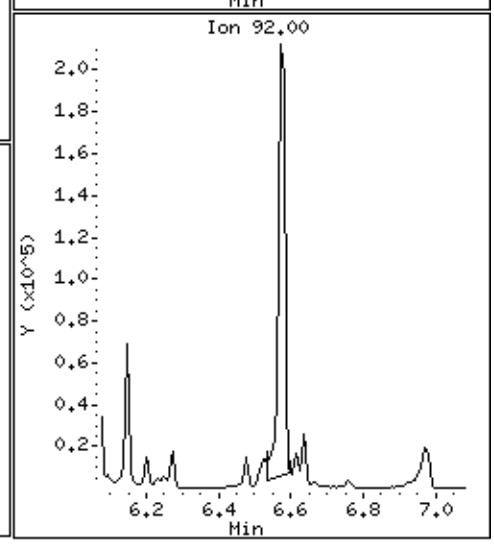












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

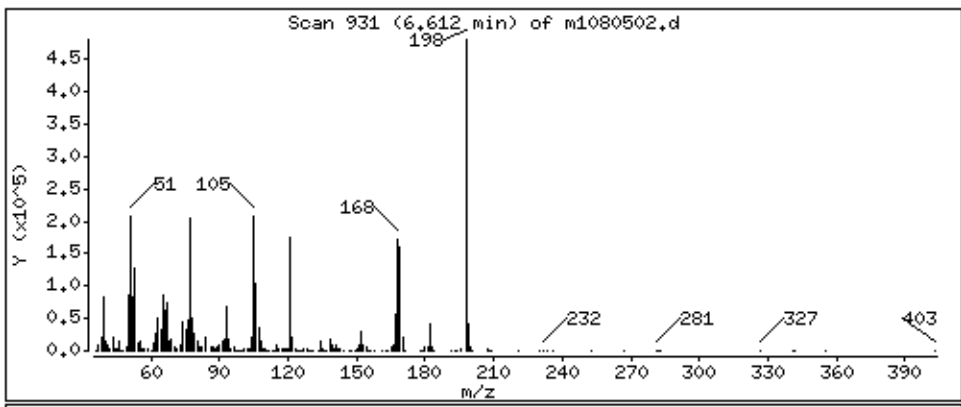
Operator: EAC

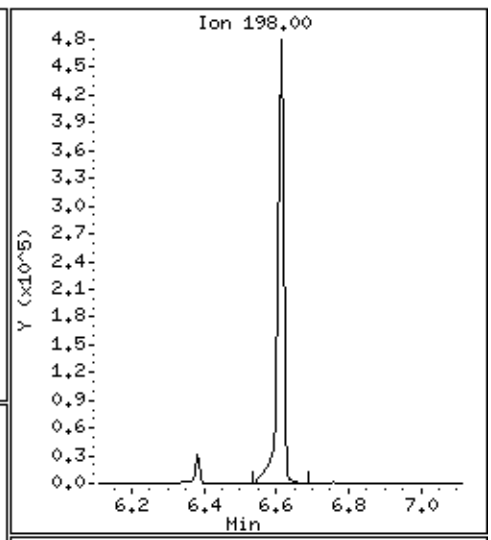
Column phase: RTX-5MS

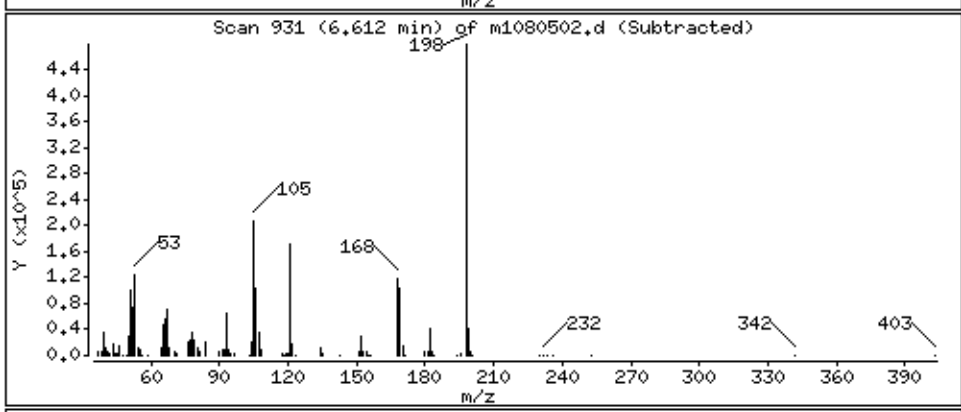
Column diameter: 0.18

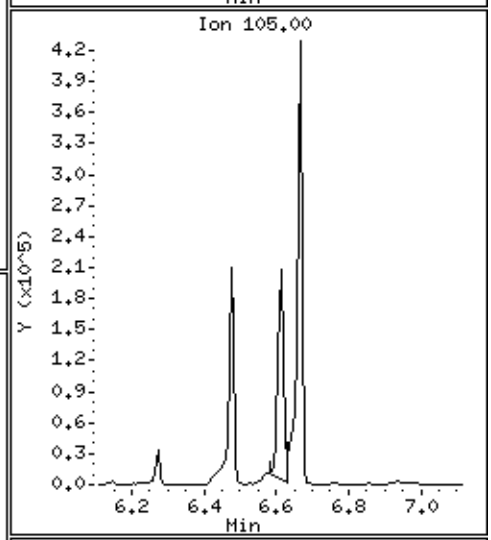
61 4,6-Dinitro-2-methylphenol

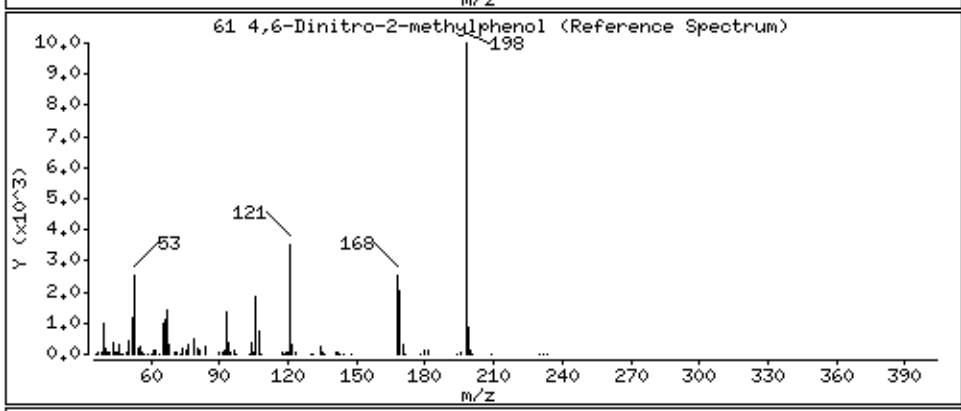
Concentration: 3670 ug/Kg

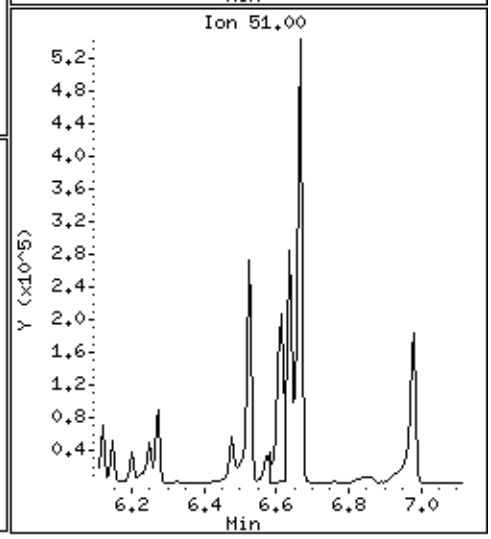


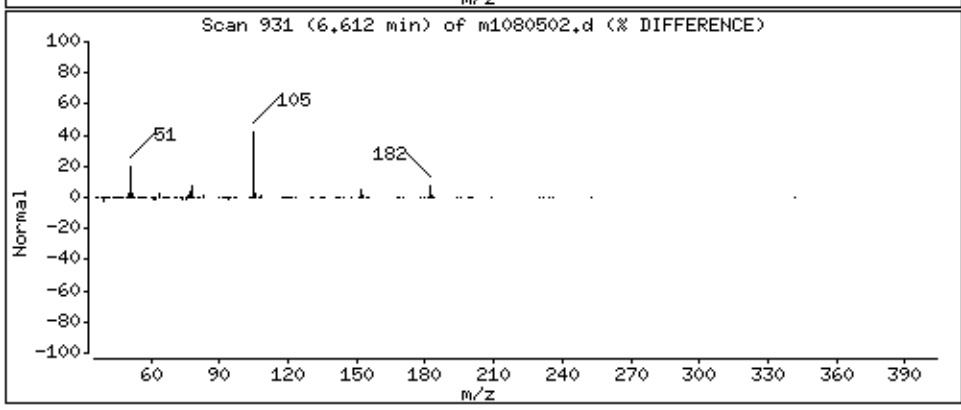












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

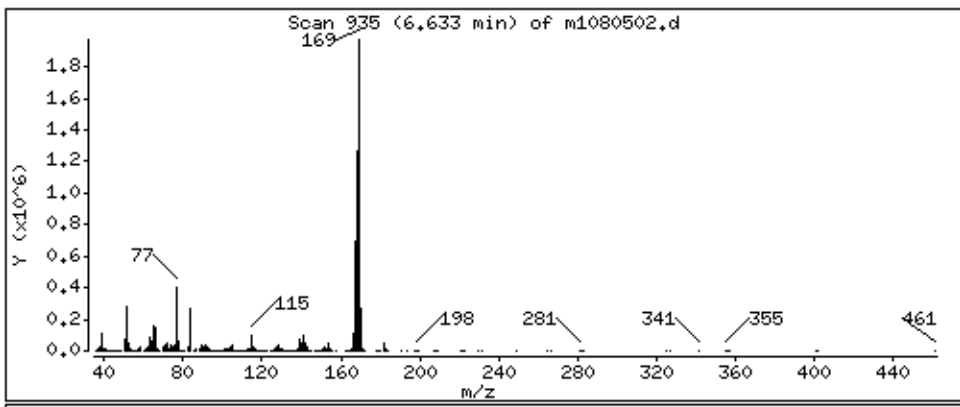
Operator: EAC

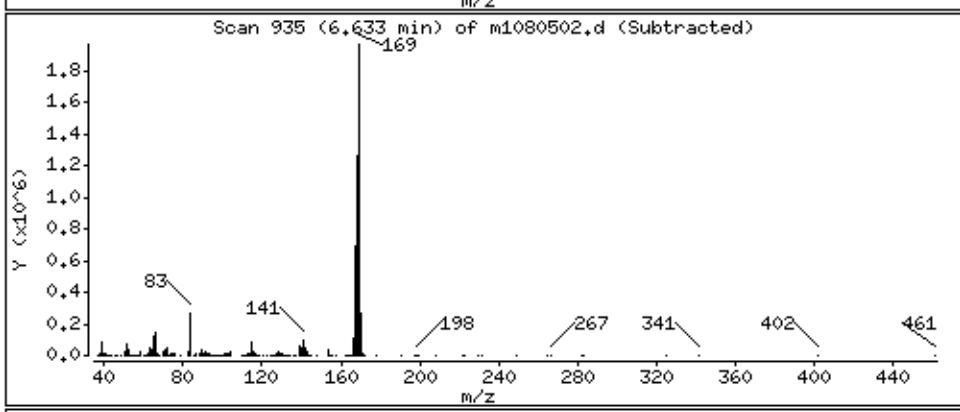
Column phase: RTX-5MS

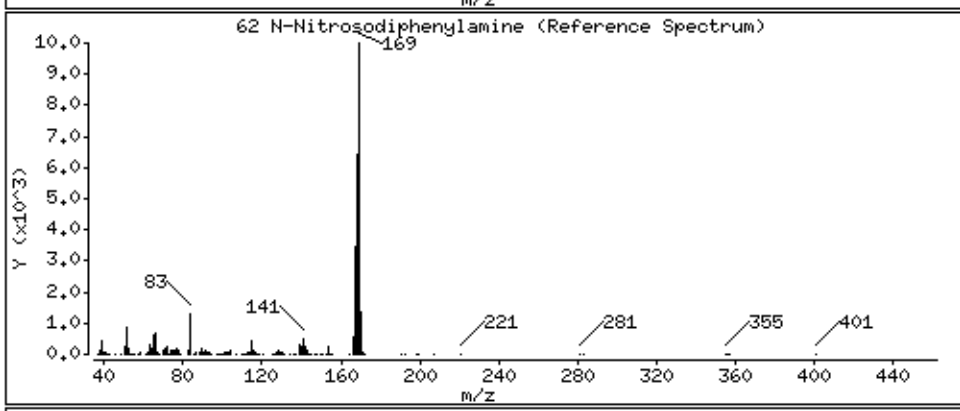
Column diameter: 0.18

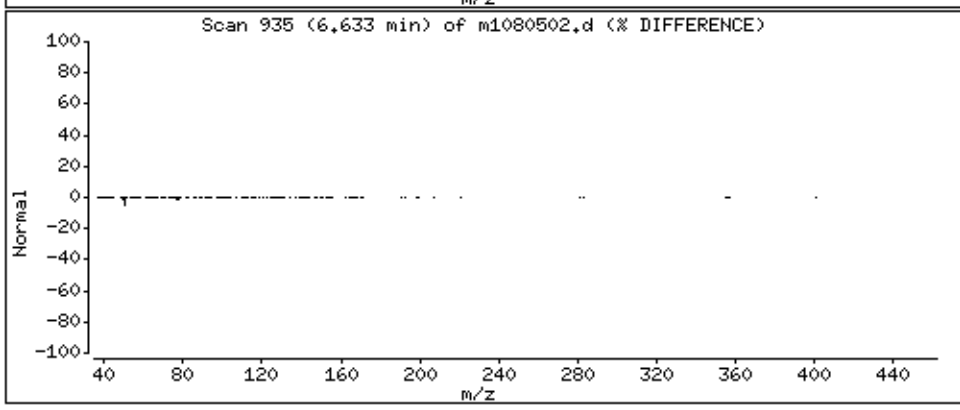
62 N-Nitrosodiphenylamine

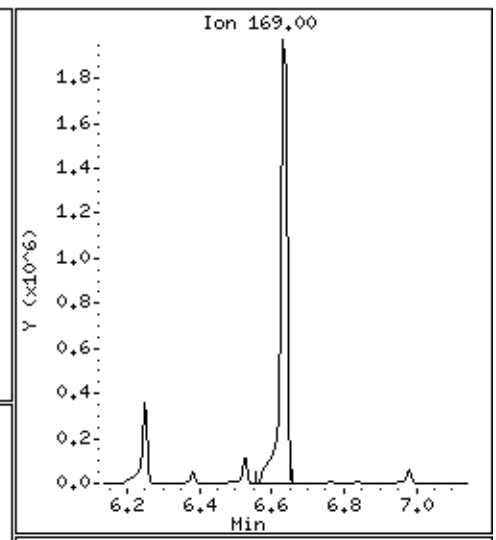
Concentration: 3190 ug/Kg

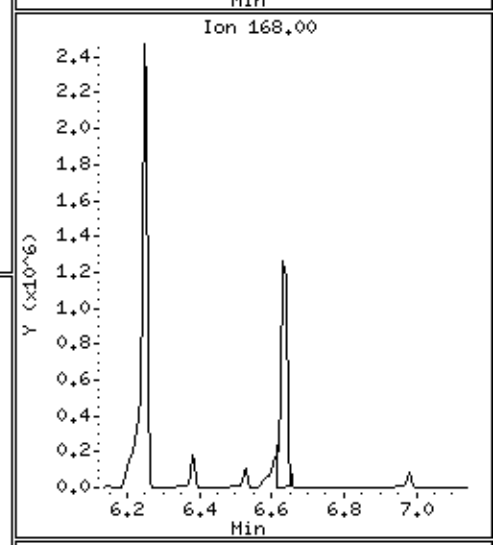


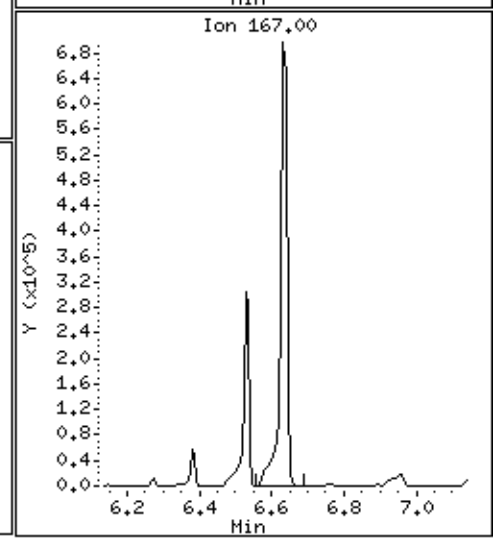












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

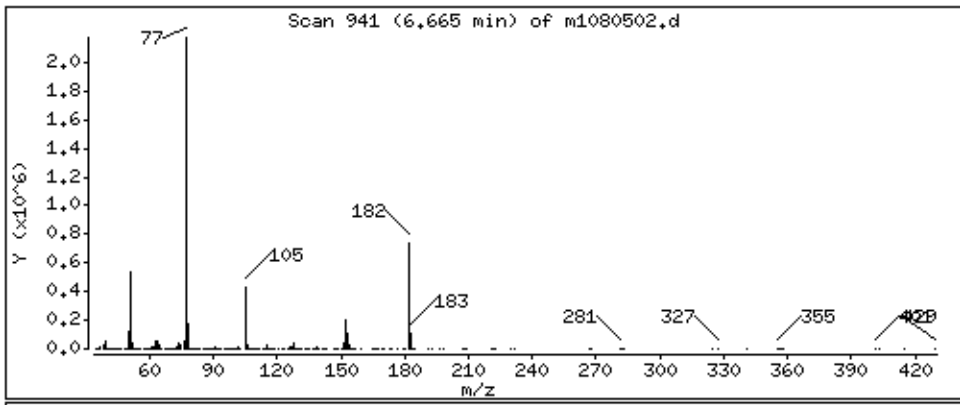
Operator: EAC

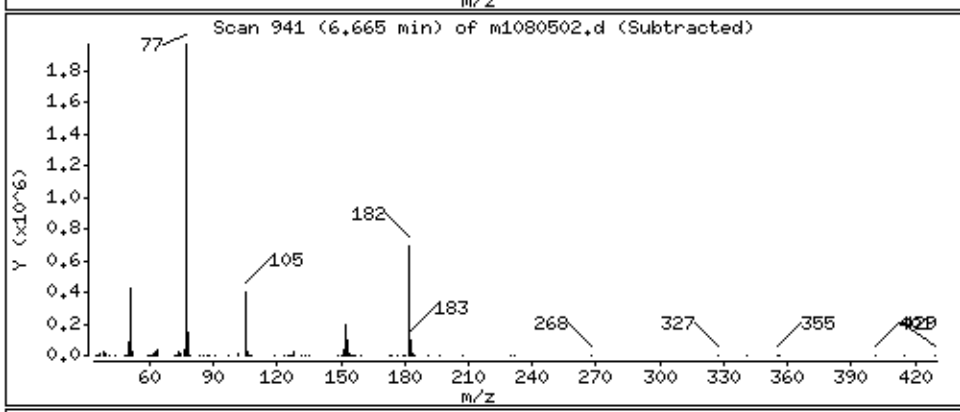
Column phase: RTX-5MS

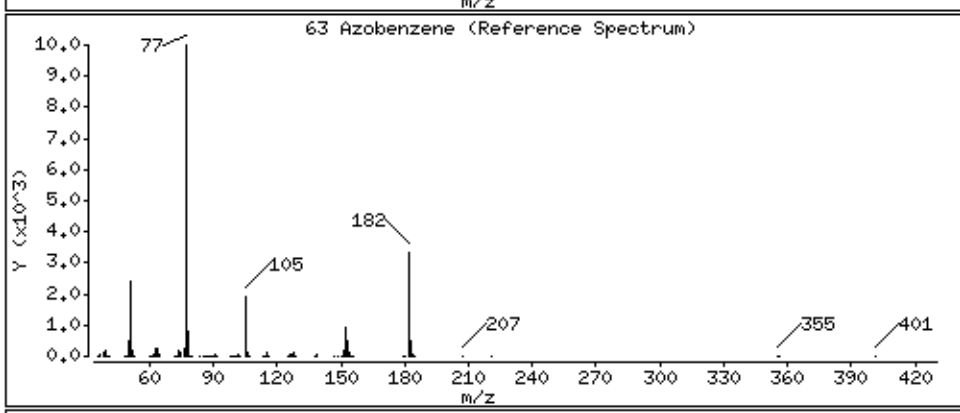
Column diameter: 0.18

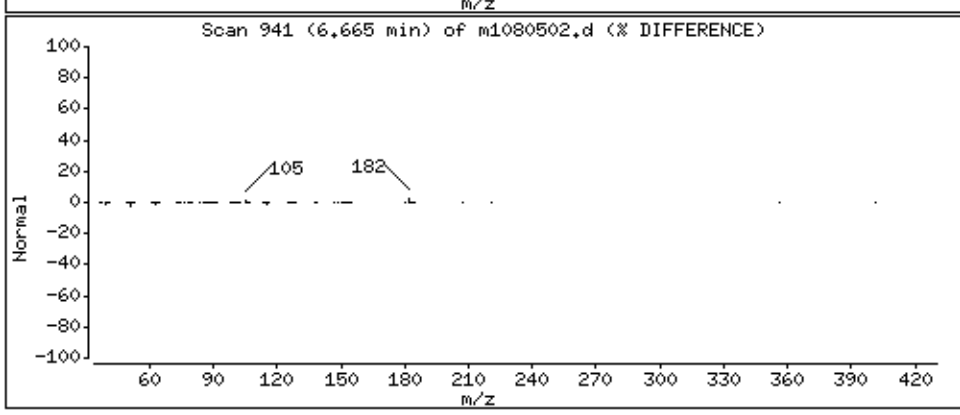
63 Azobenzene

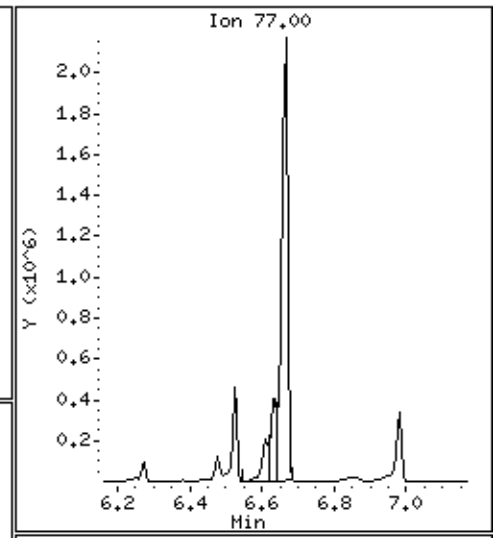
Concentration: 3050 ug/Kg

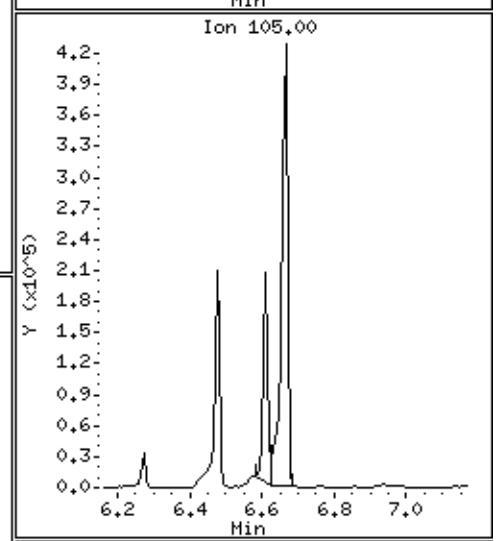


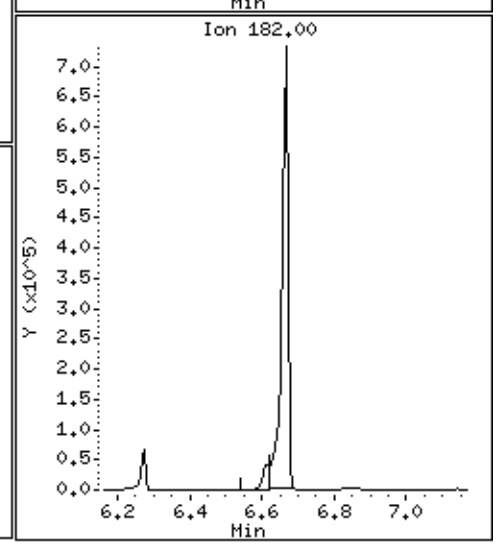












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

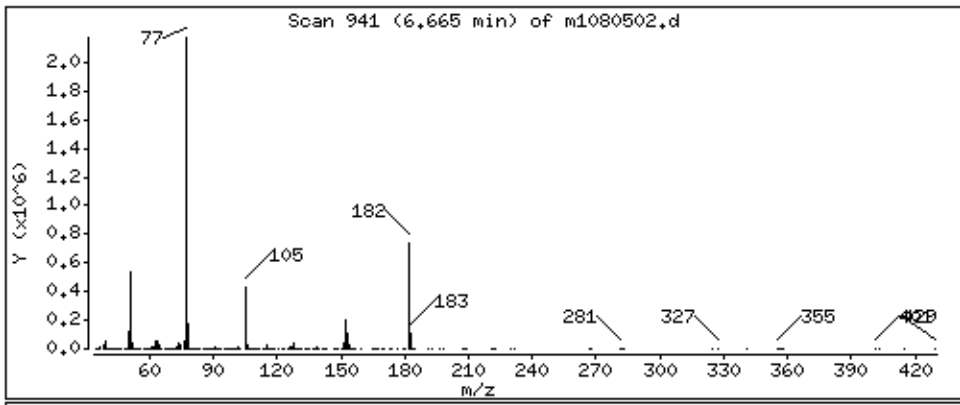
Operator: EAC

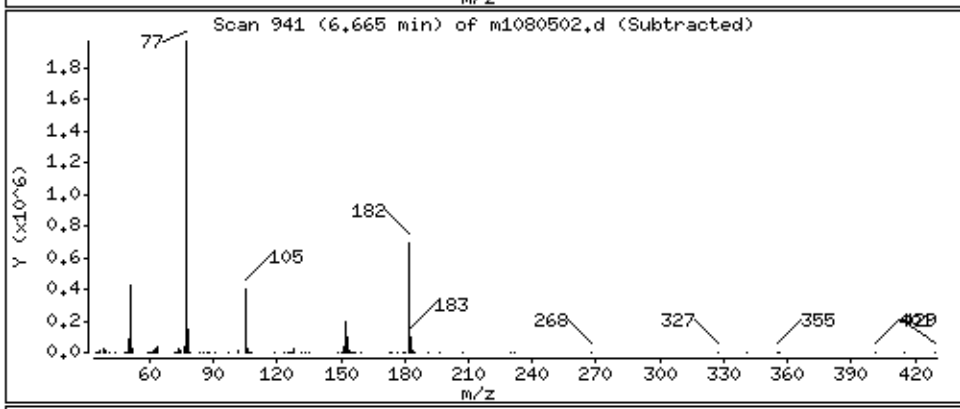
Column phase: RTX-5MS

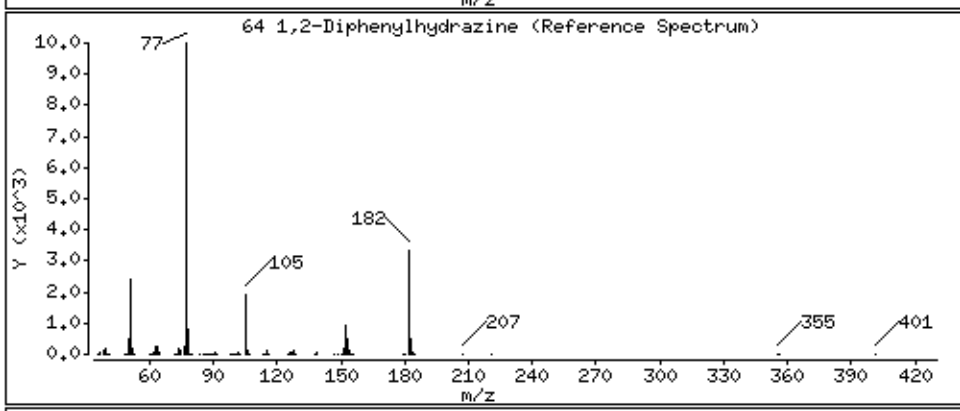
Column diameter: 0.18

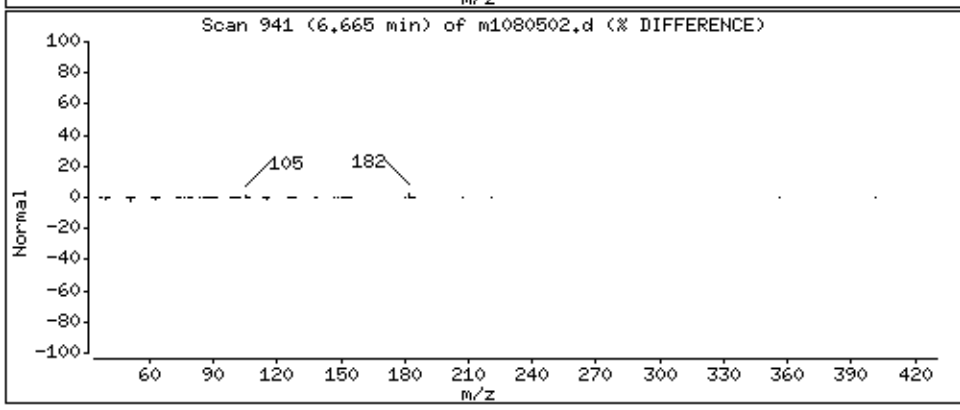
64 1,2-Diphenylhydrazine

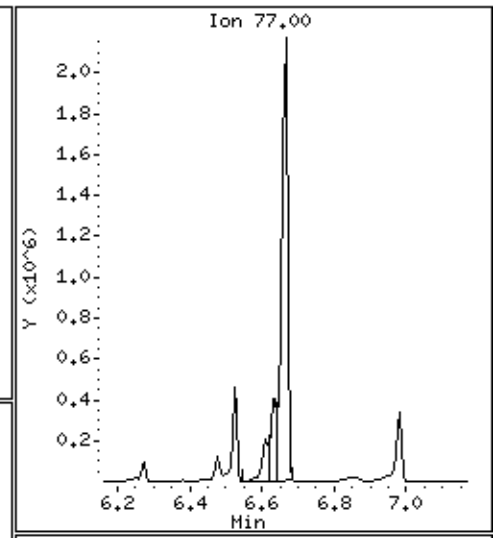
Concentration: 3050 ug/Kg

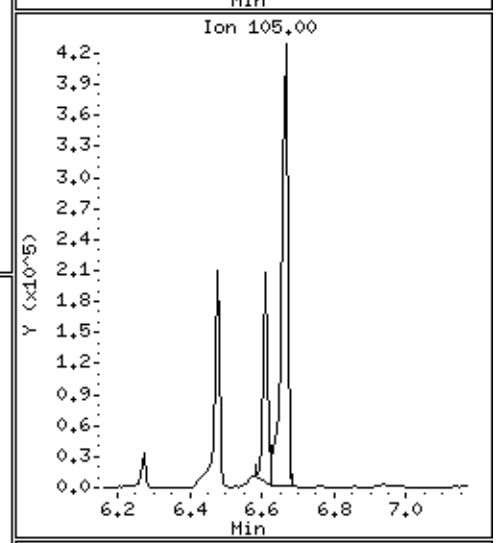


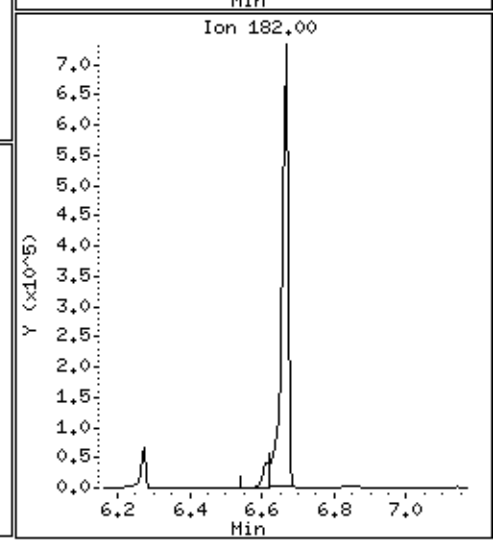












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

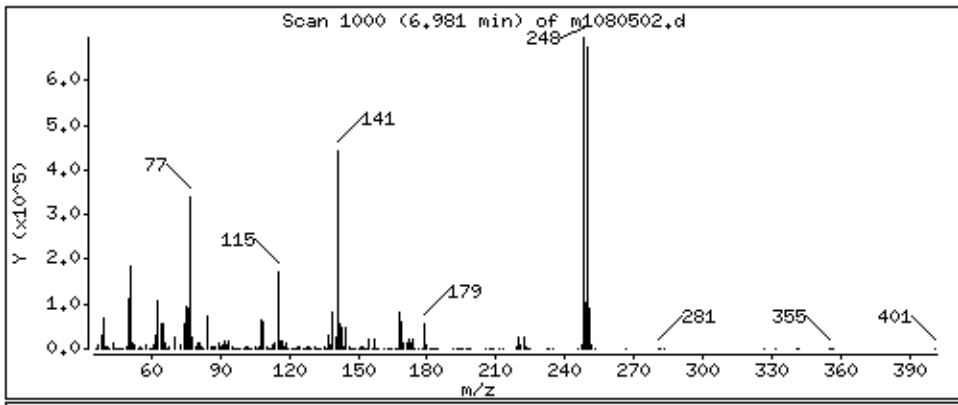
Operator: EAC

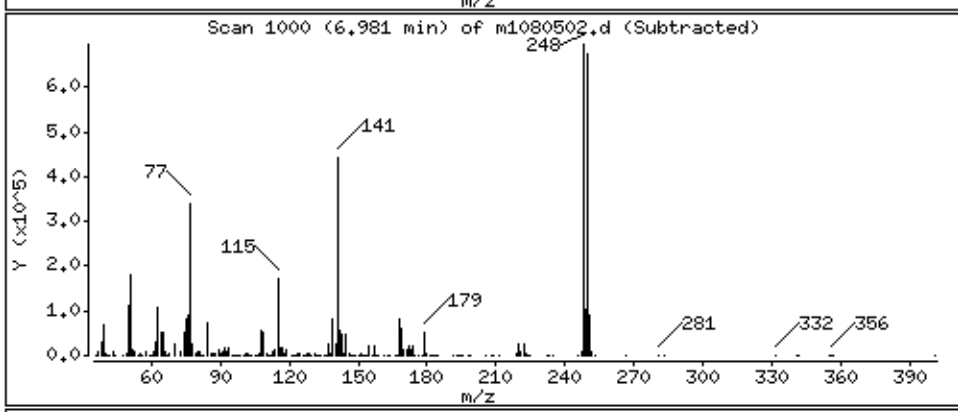
Column phase: RTX-5MS

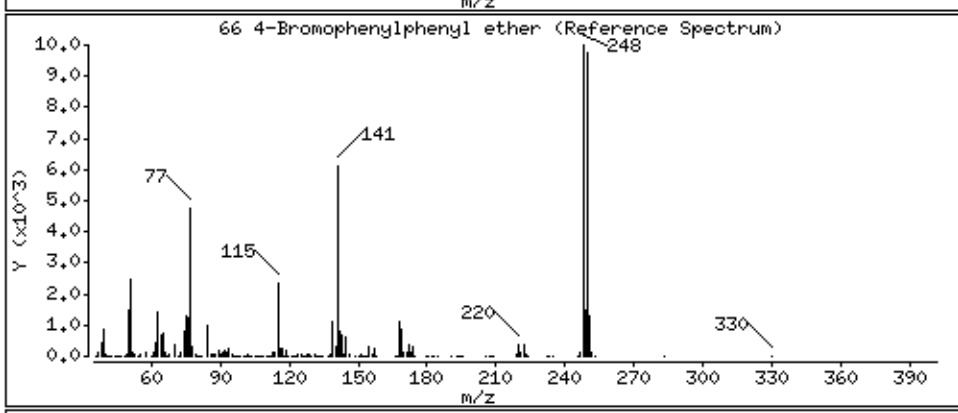
Column diameter: 0.18

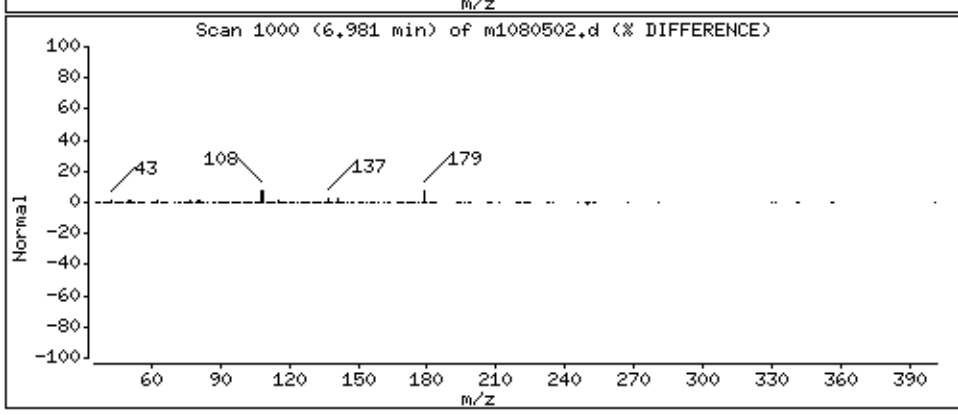
66 4-Bromophenylphenyl ether

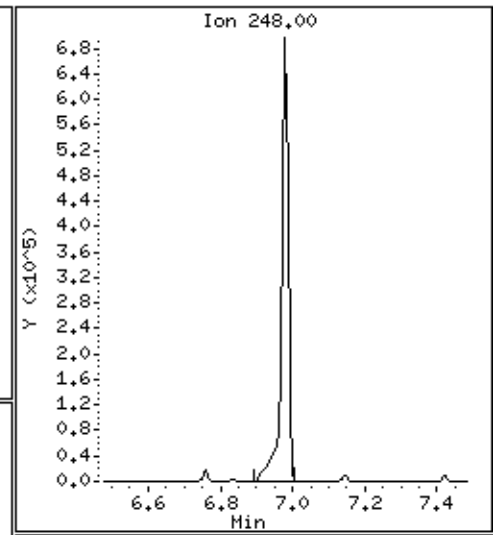
Concentration: 3170 ug/Kg

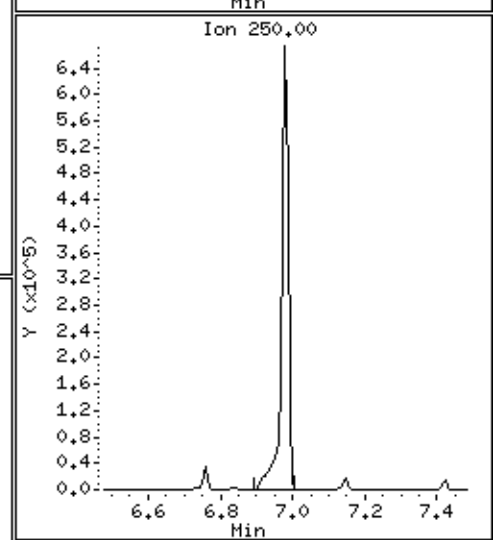


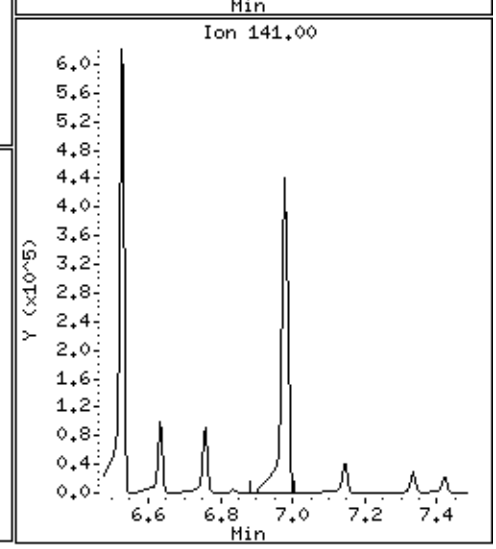












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

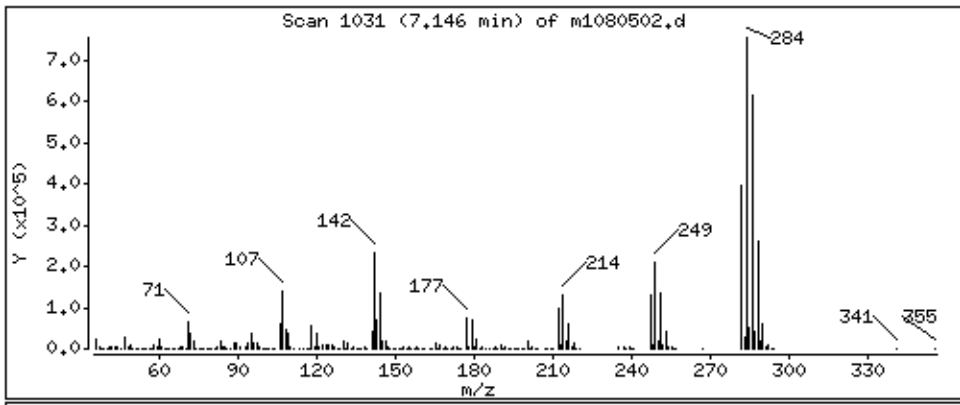
Operator: EAC

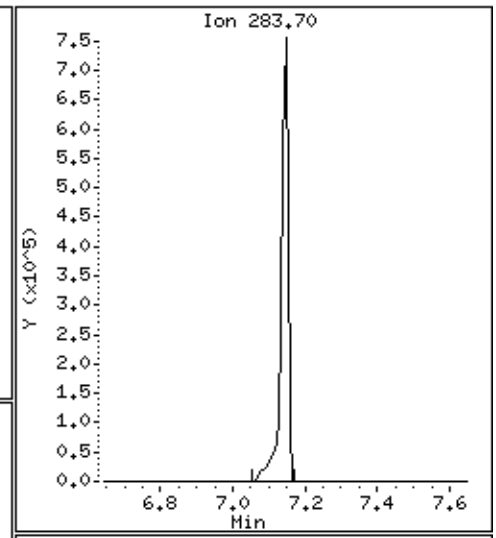
Column phase: RTX-5MS

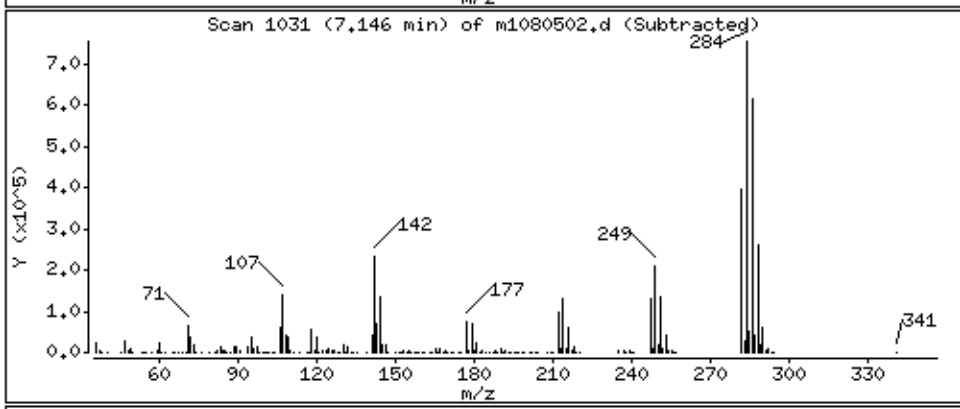
Column diameter: 0.18

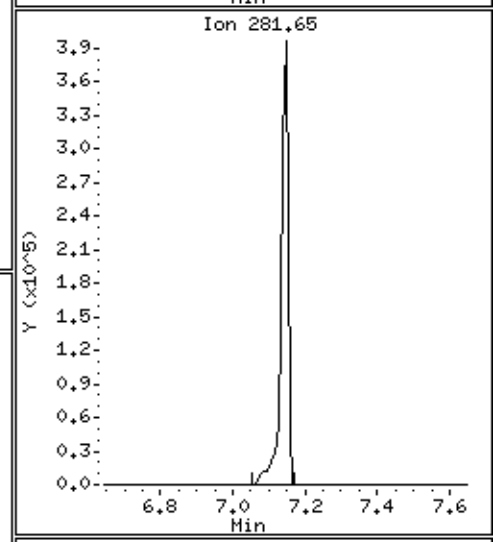
67 Hexachlorobenzene

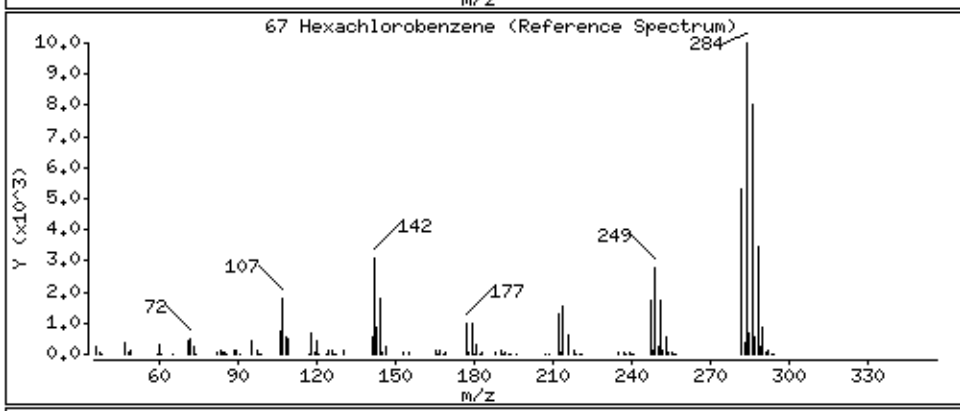
Concentration: 3170 ug/Kg

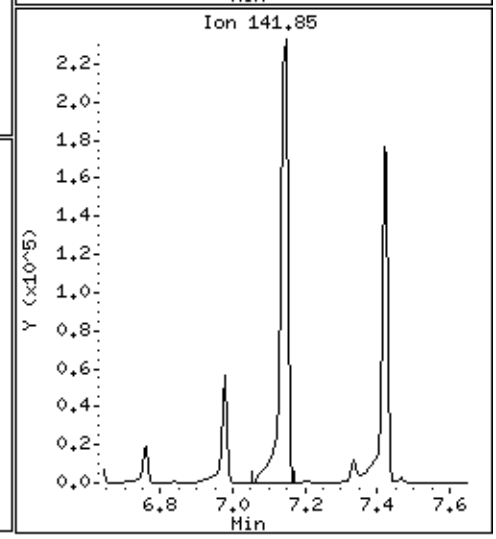


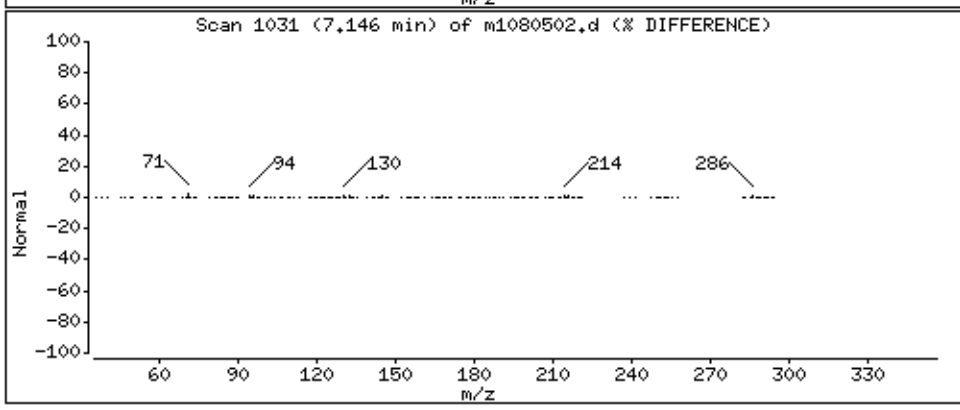












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

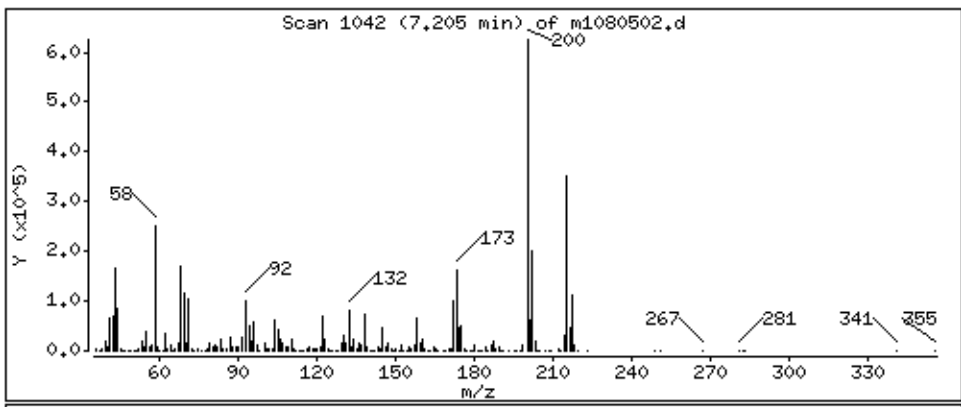
Operator: EAC

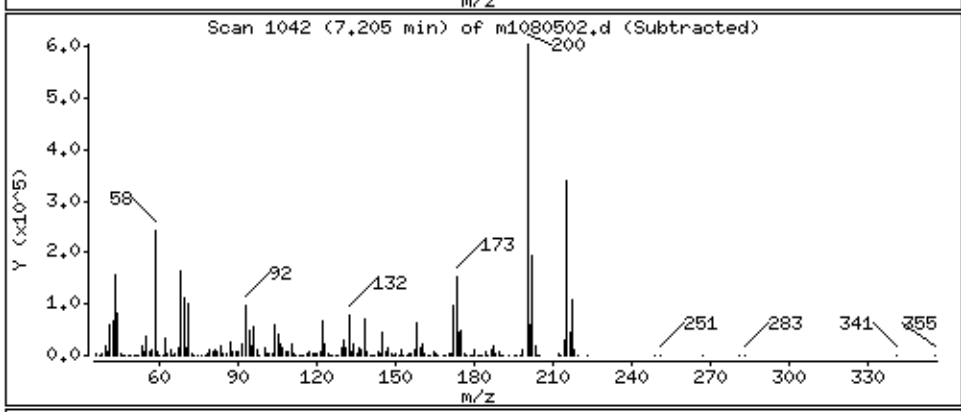
Column phase: RTX-5MS

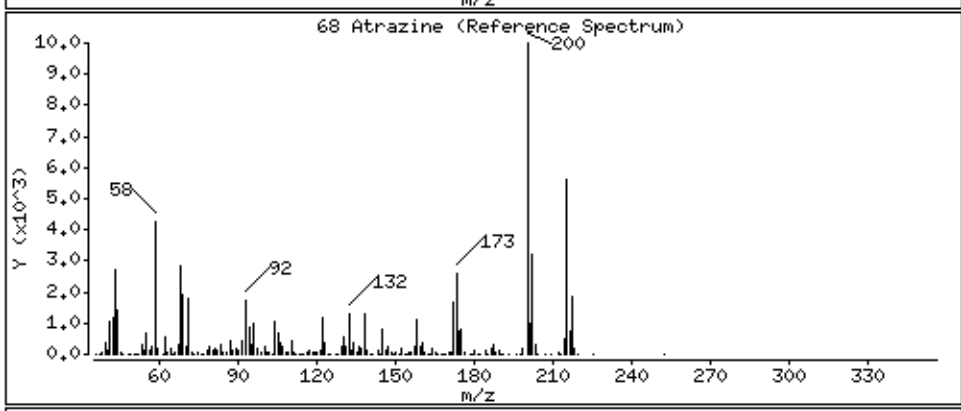
Column diameter: 0.18

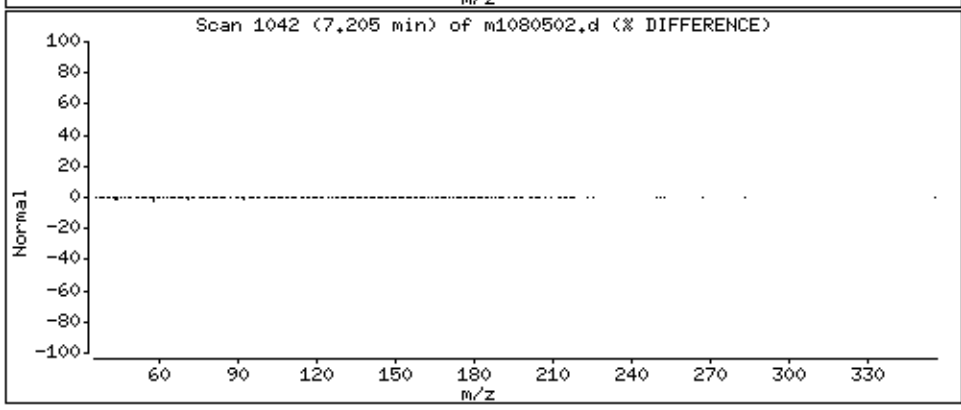
68 Atrazine

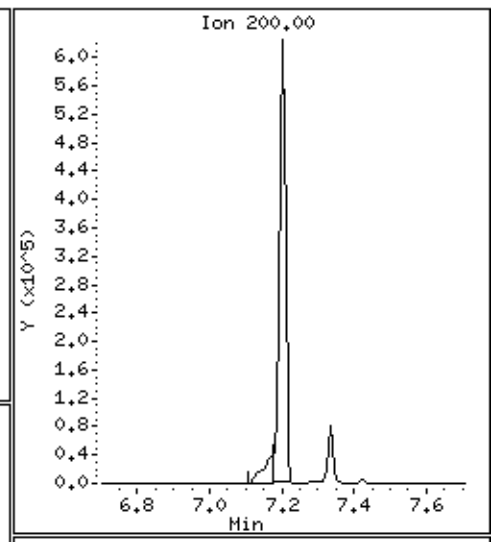
Concentration: 3000 ug/Kg

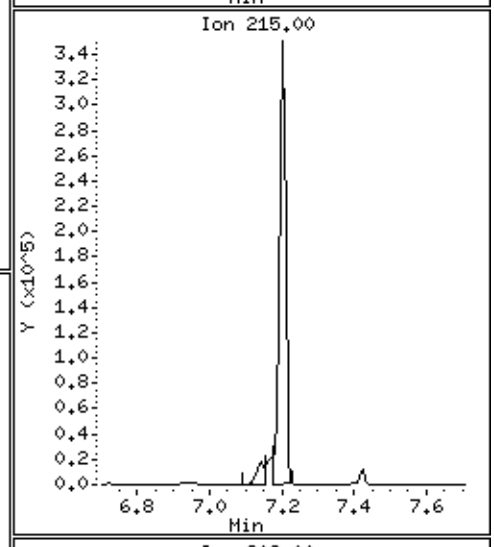


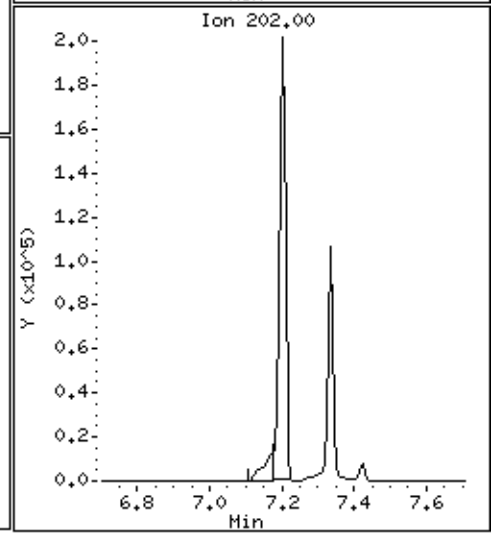












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

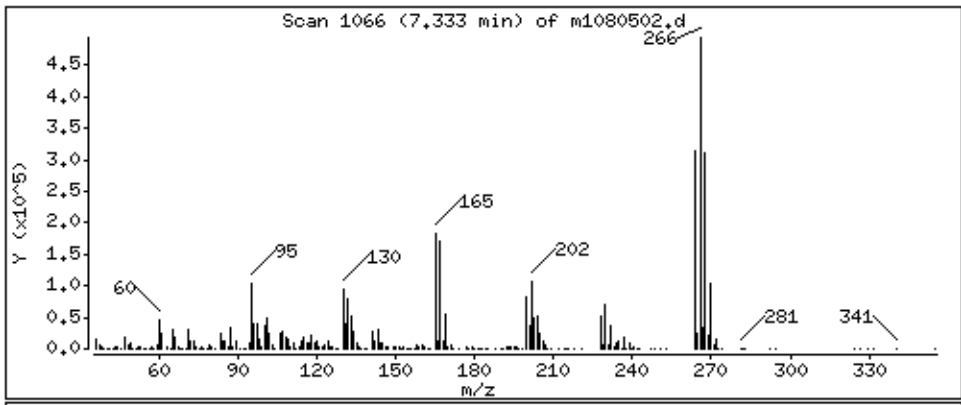
Operator: EAC

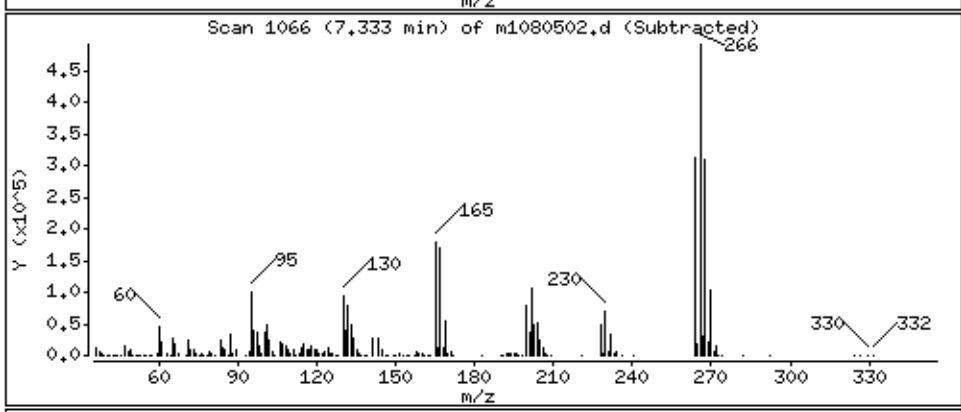
Column phase: RTX-5MS

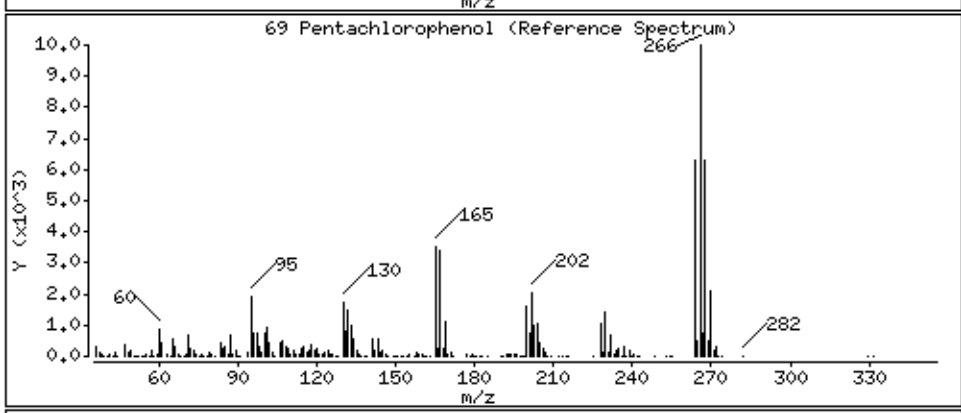
Column diameter: 0.18

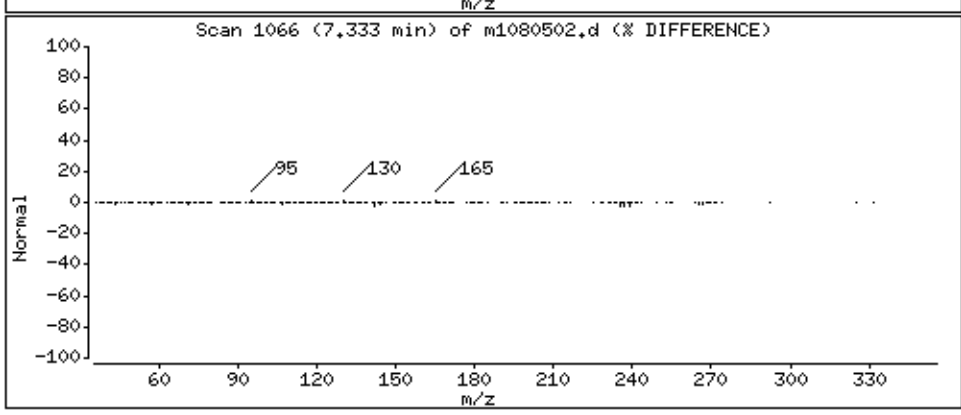
69 Pentachlorophenol

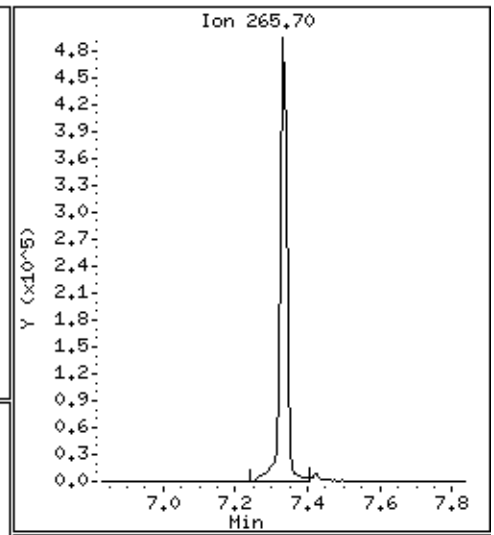
Concentration: 3790 ug/Kg

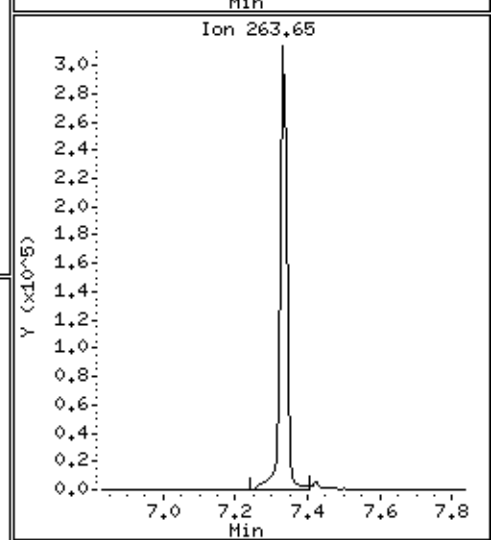


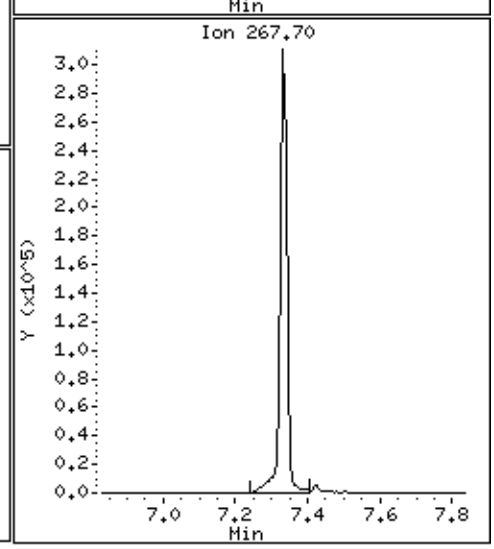












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

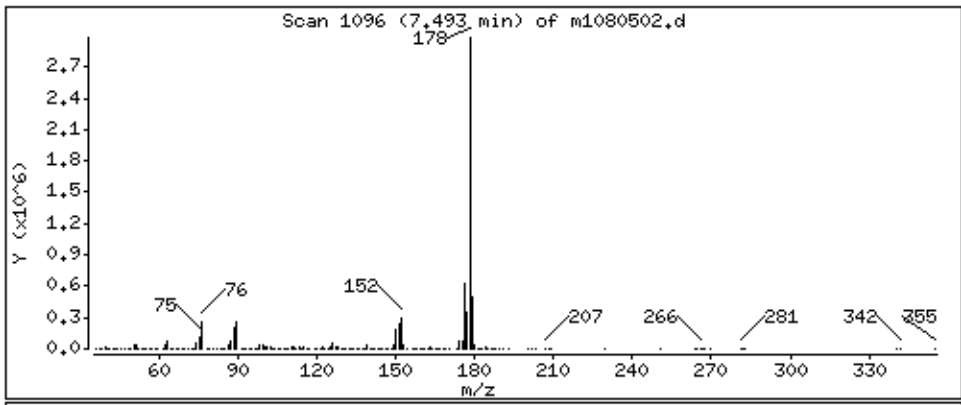
Operator: EAC

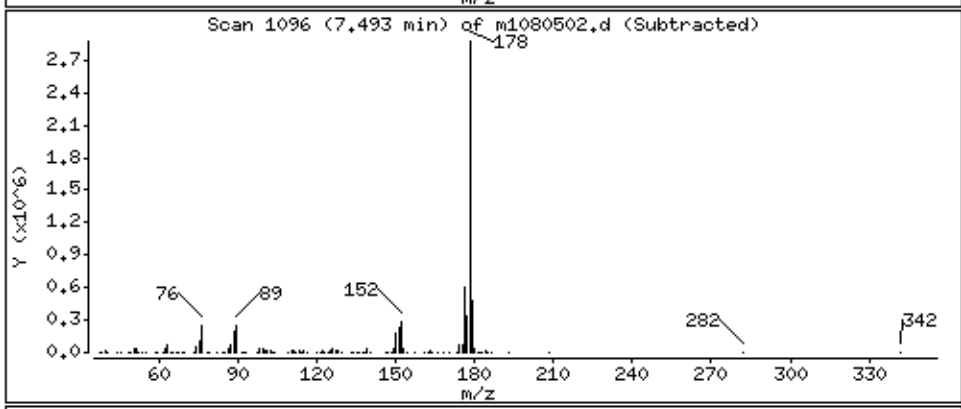
Column phase: RTX-5MS

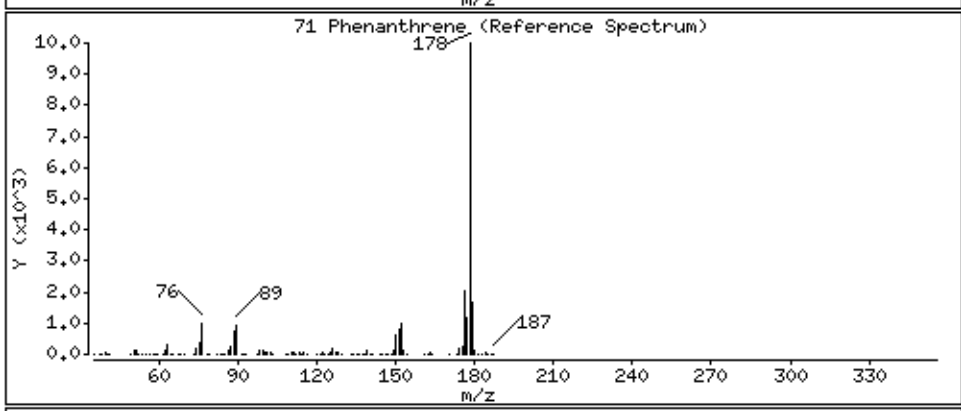
Column diameter: 0.18

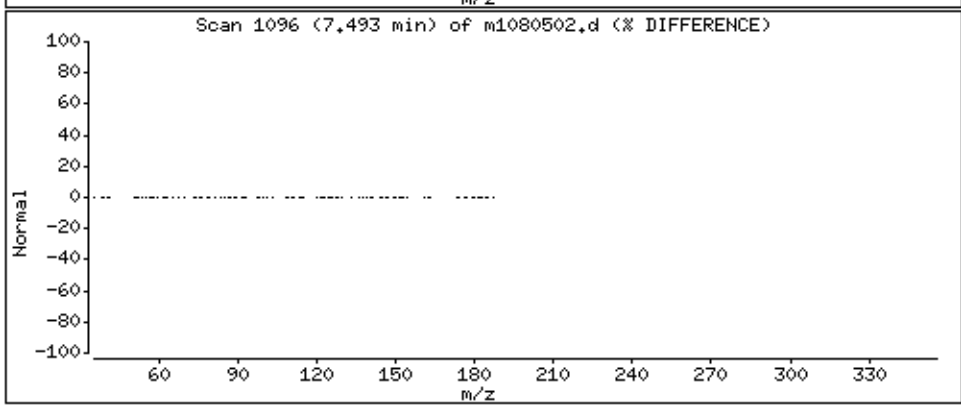
71 Phenanthrene

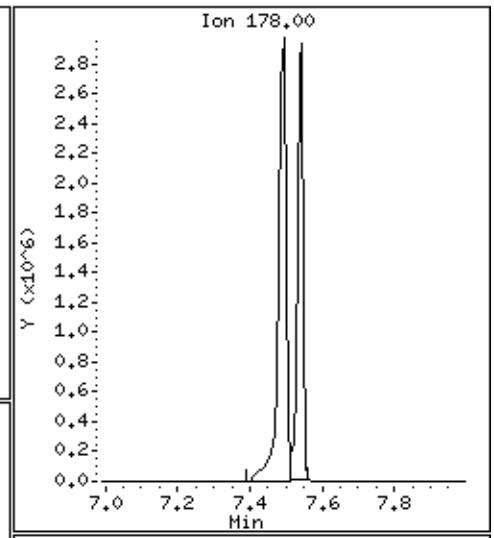
Concentration: 3300 ug/Kg

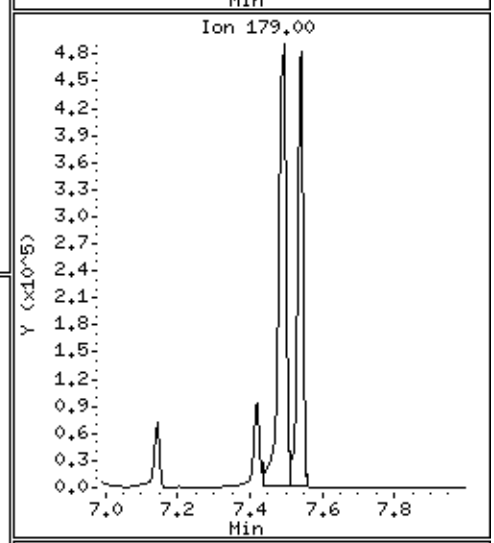


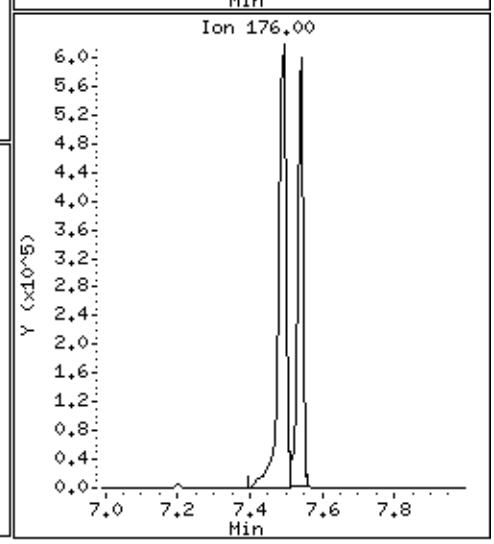












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

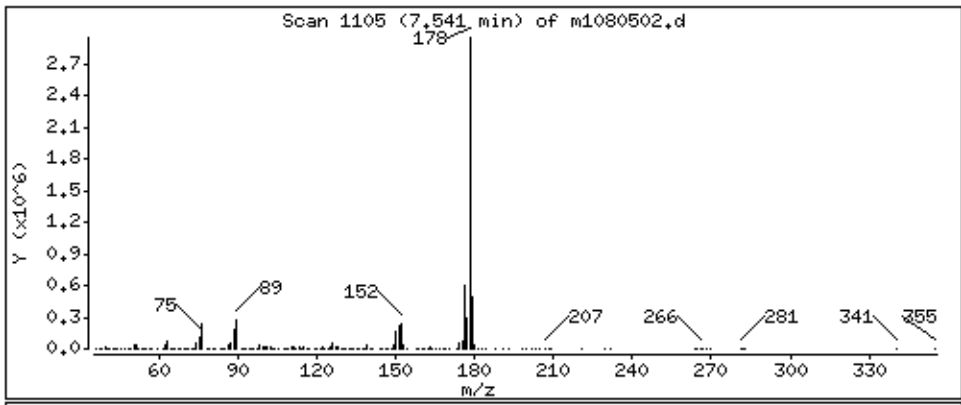
Operator: EAC

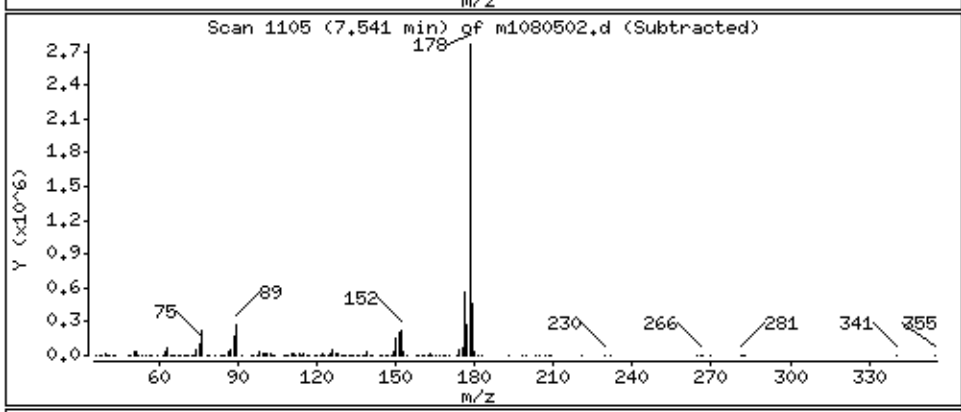
Column phase: RTX-5MS

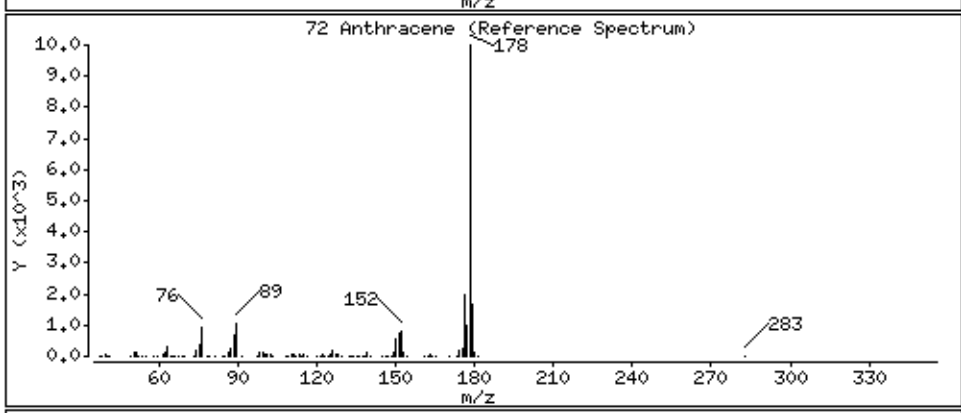
Column diameter: 0.18

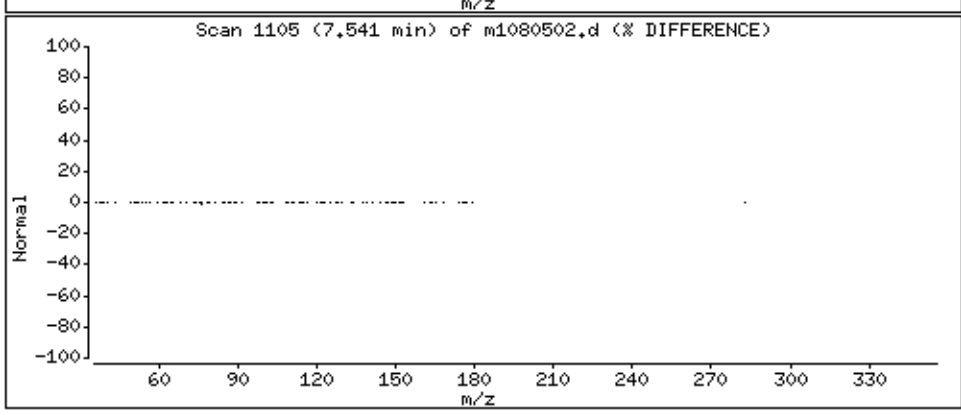
72 Anthracene

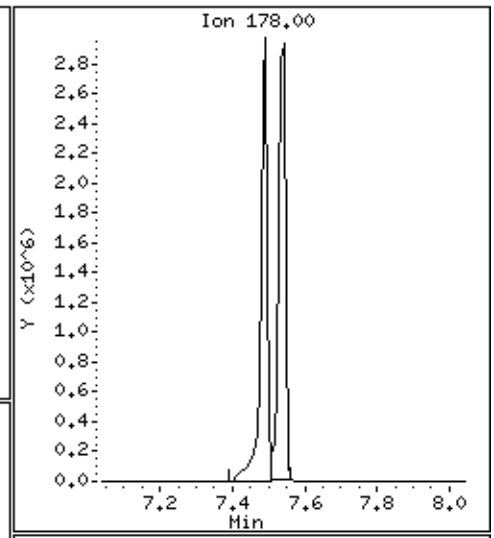
Concentration: 3100 ug/Kg

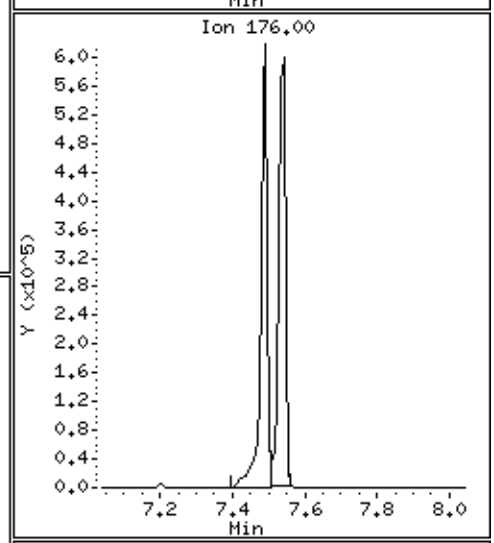


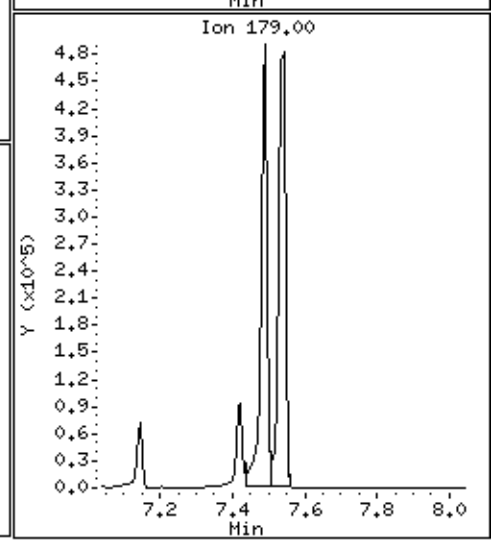












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

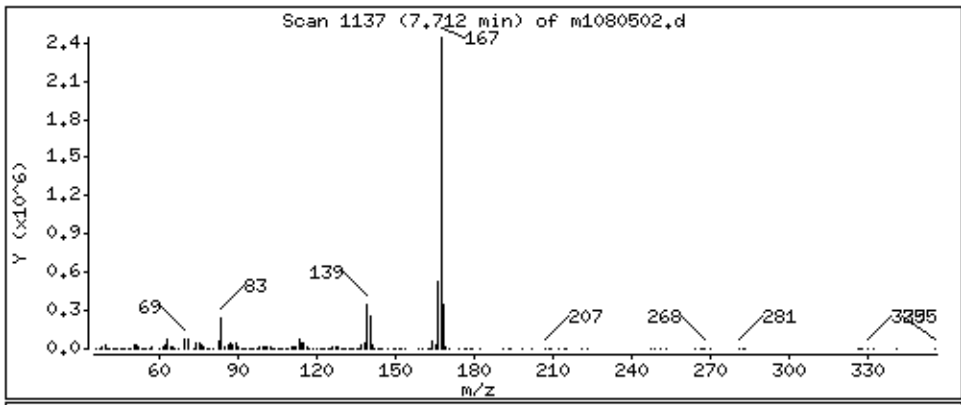
Operator: EAC

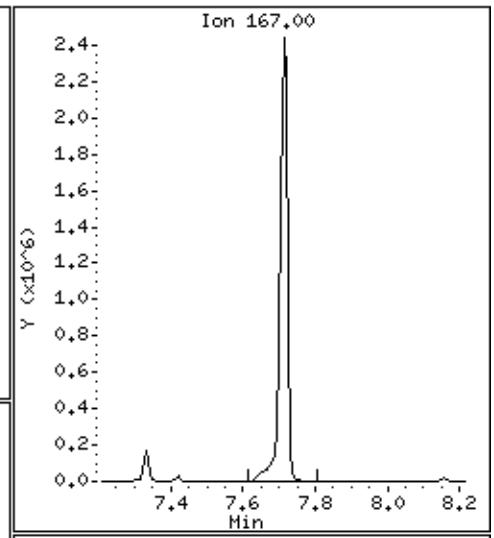
Column phase: RTX-5MS

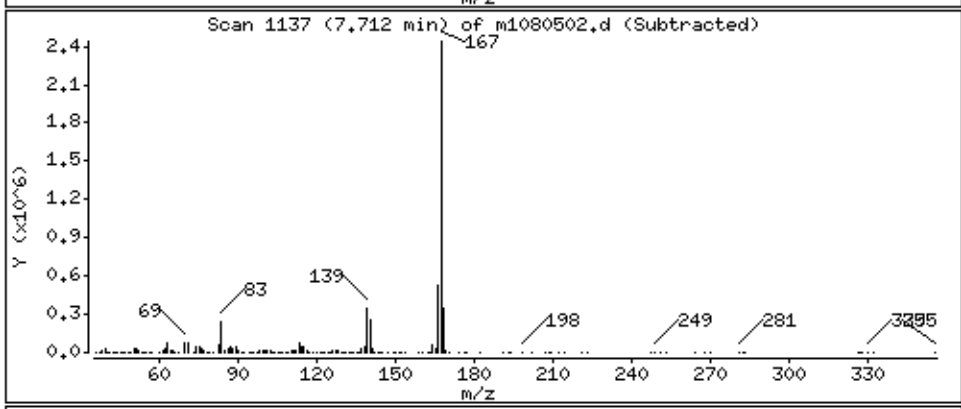
Column diameter: 0.18

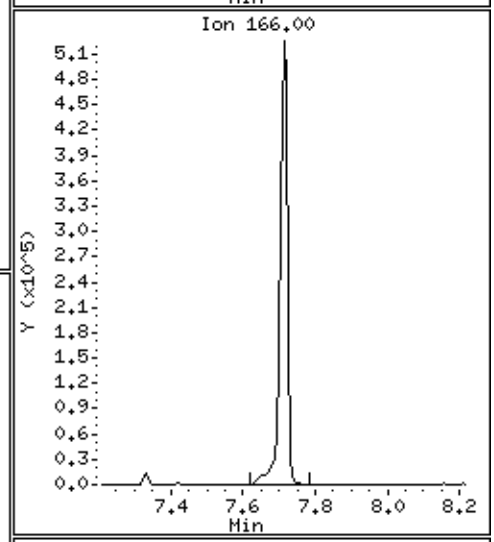
73 Carbazole

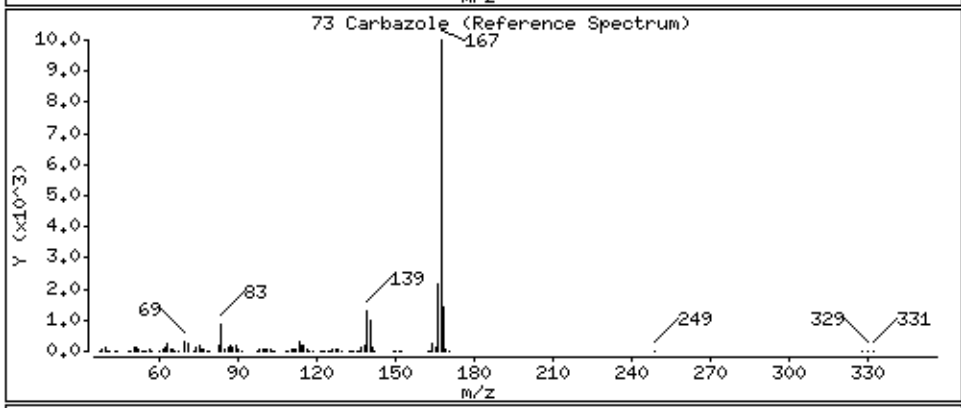
Concentration: 3190 ug/Kg

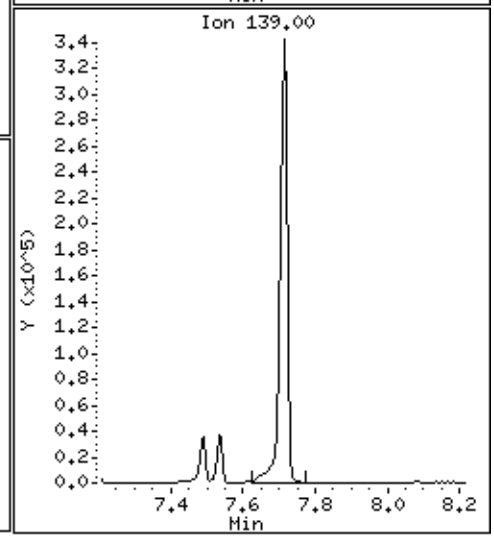


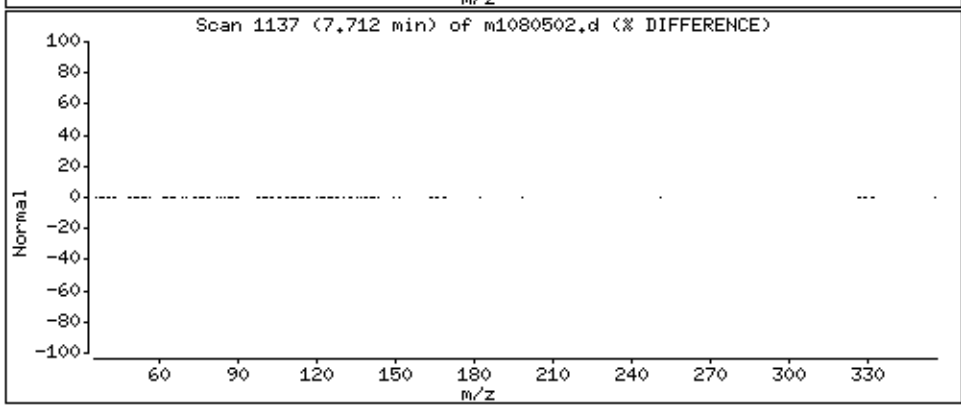












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

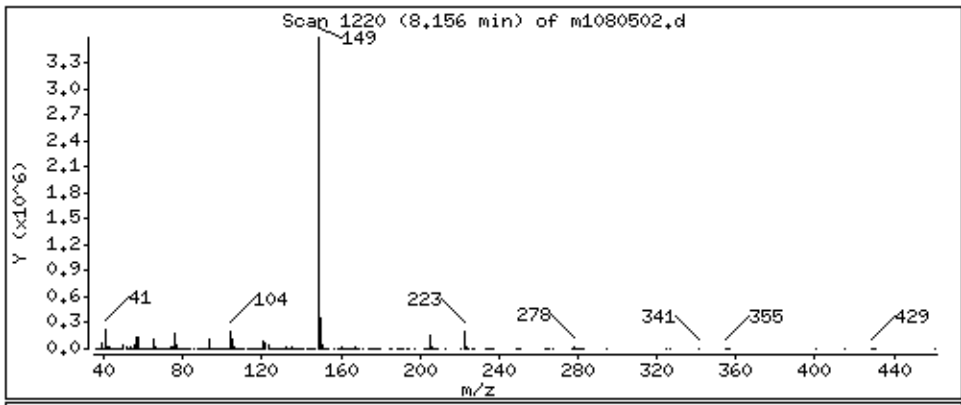
Operator: EAC

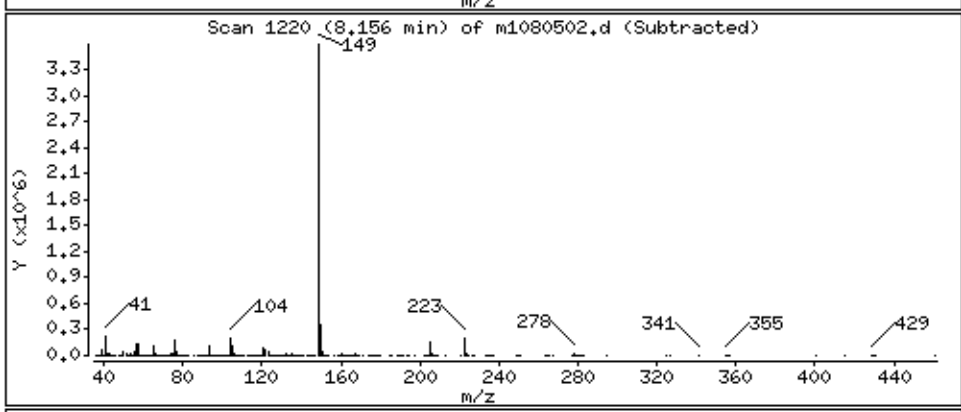
Column phase: RTX-5MS

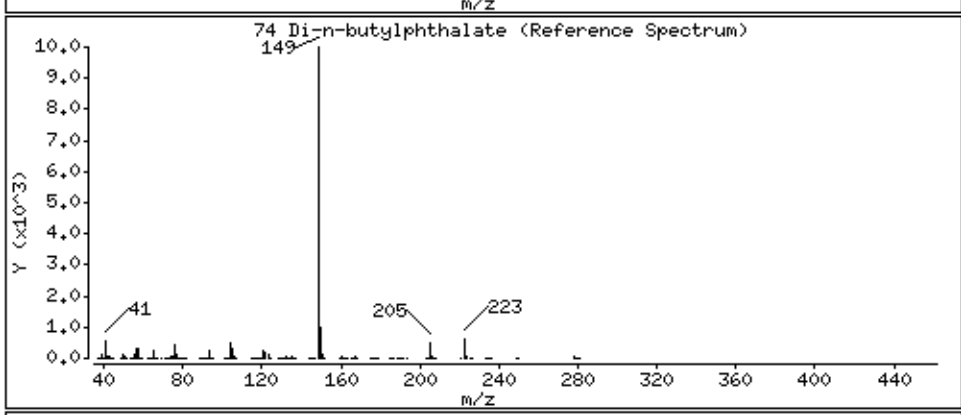
Column diameter: 0.18

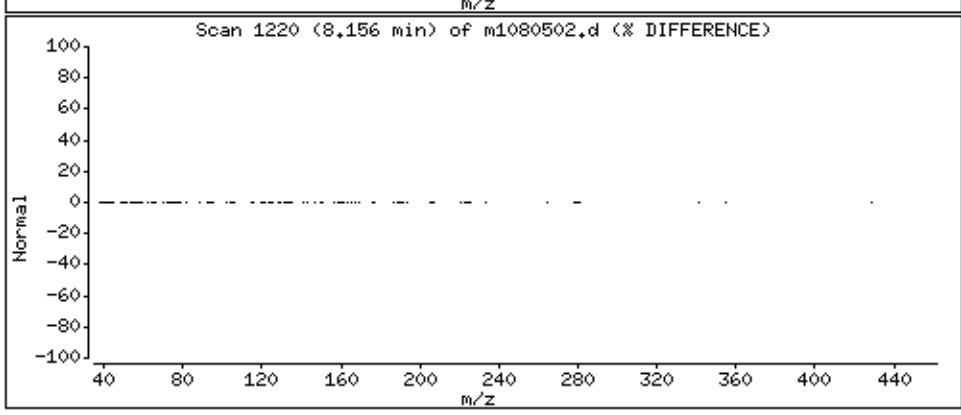
74 Di-n-butylphthalate

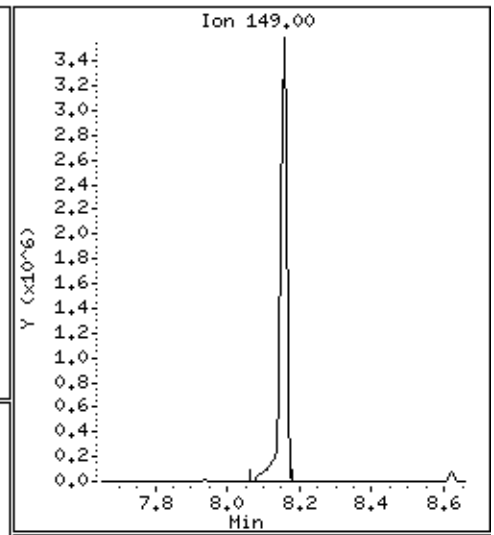
Concentration: 3480 ug/Kg

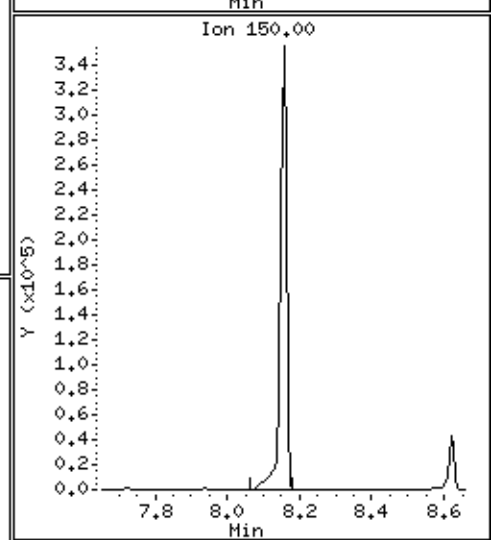


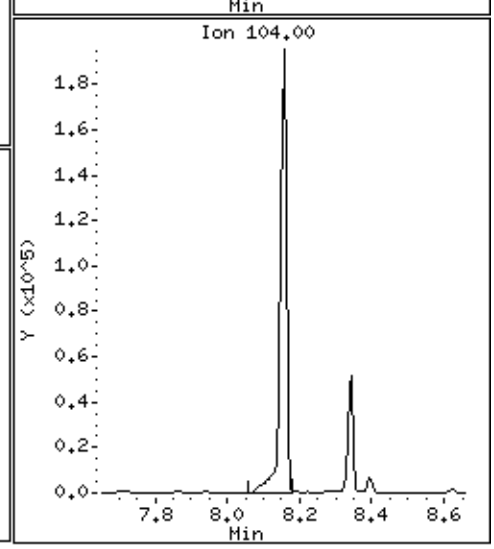












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

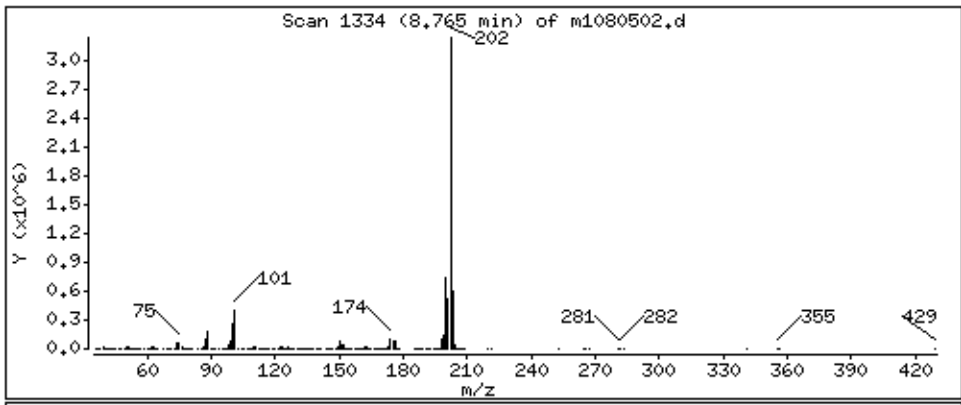
Operator: EAC

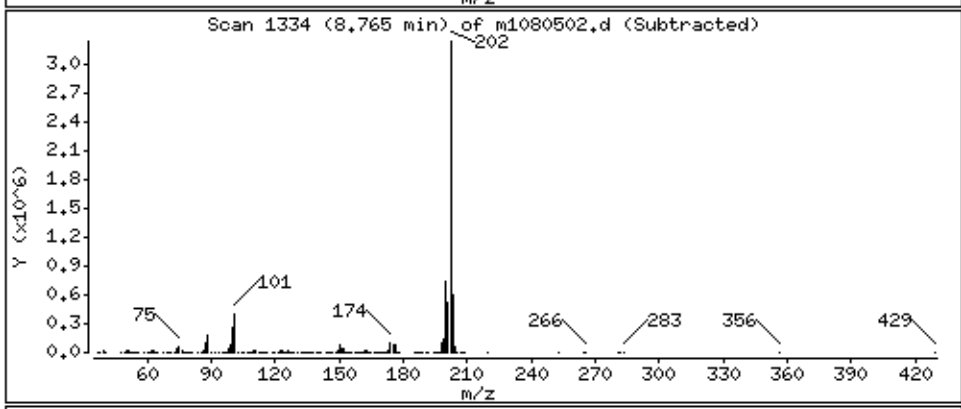
Column phase: RTX-5MS

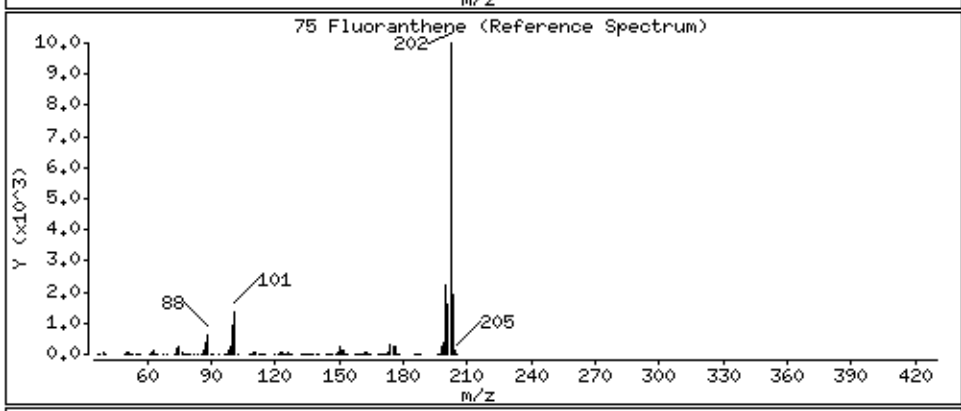
Column diameter: 0.18

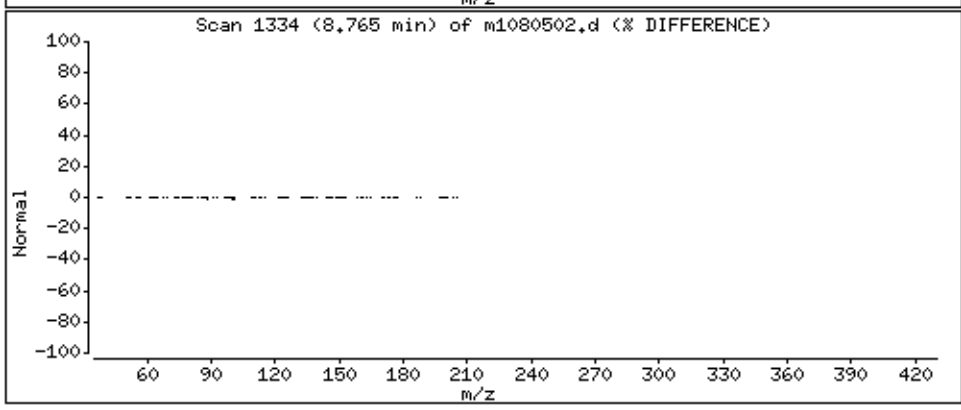
75 Fluoranthene

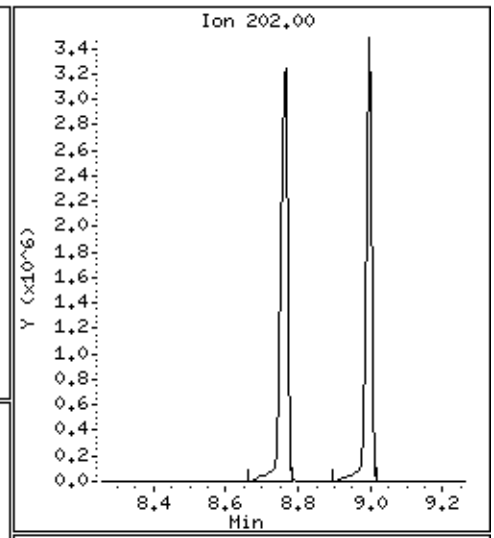
Concentration: 3280 ug/Kg

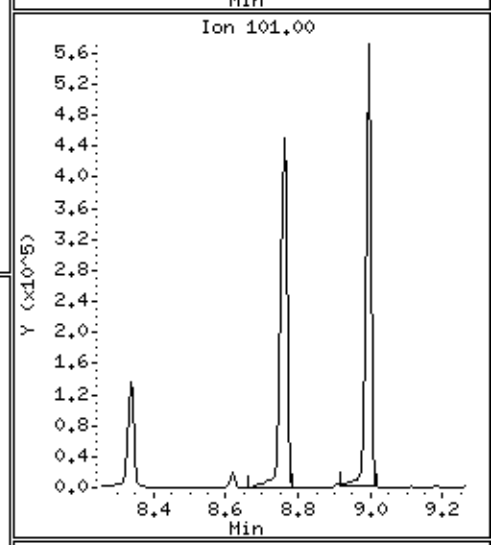


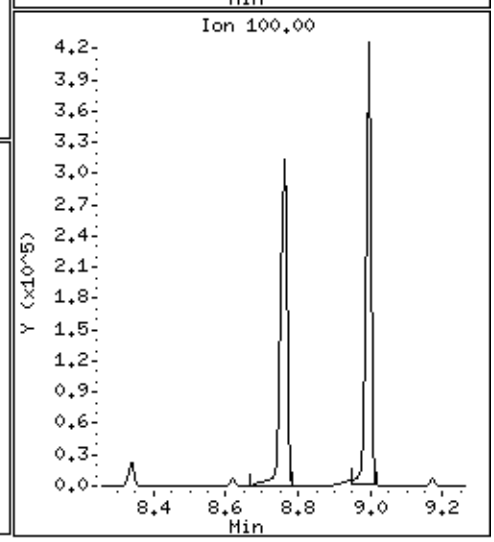












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

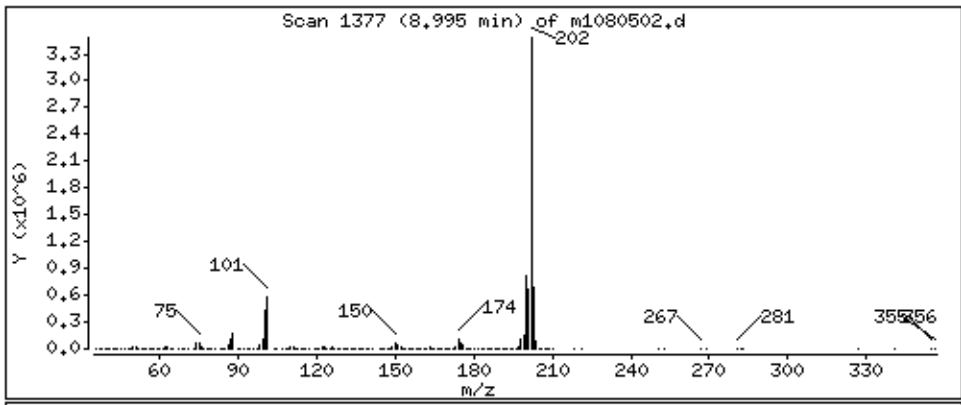
Operator: EAC

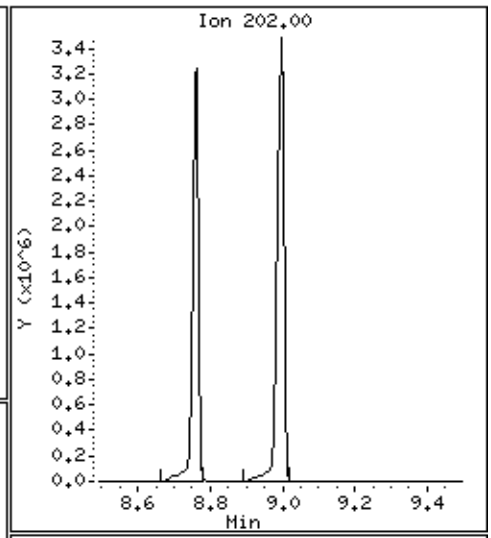
Column phase: RTX-5MS

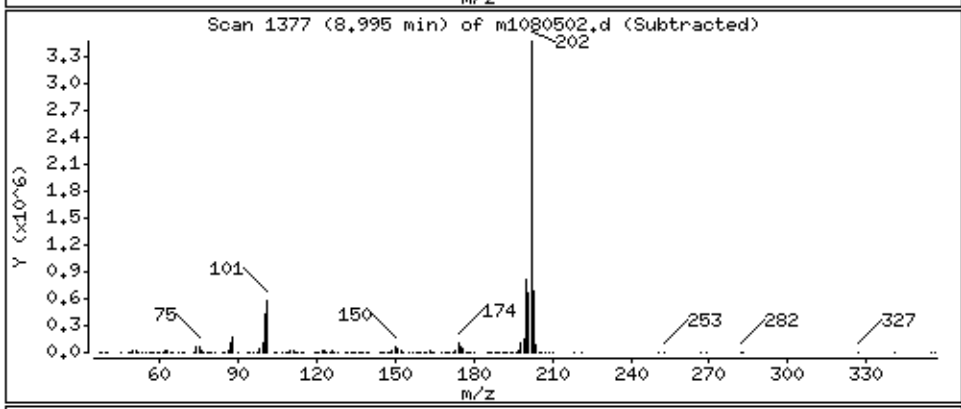
Column diameter: 0.18

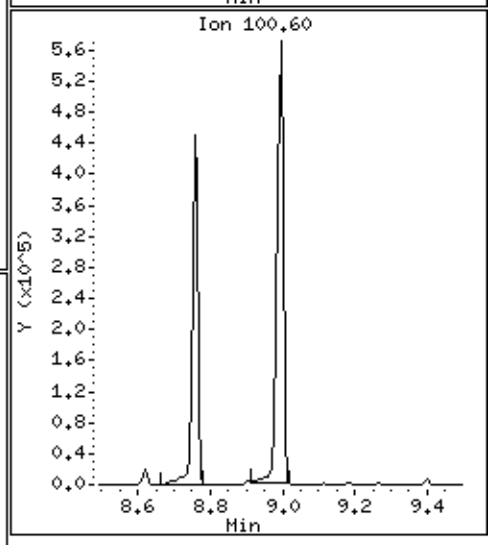
76 Pyrene

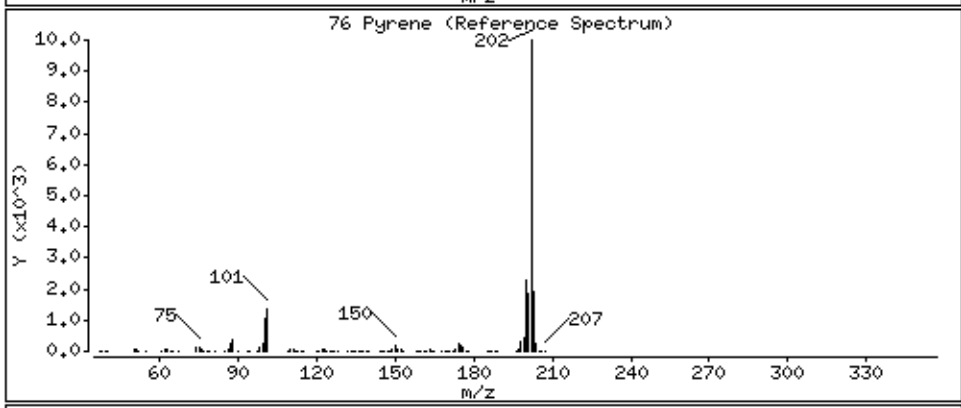
Concentration: 3330 ug/Kg

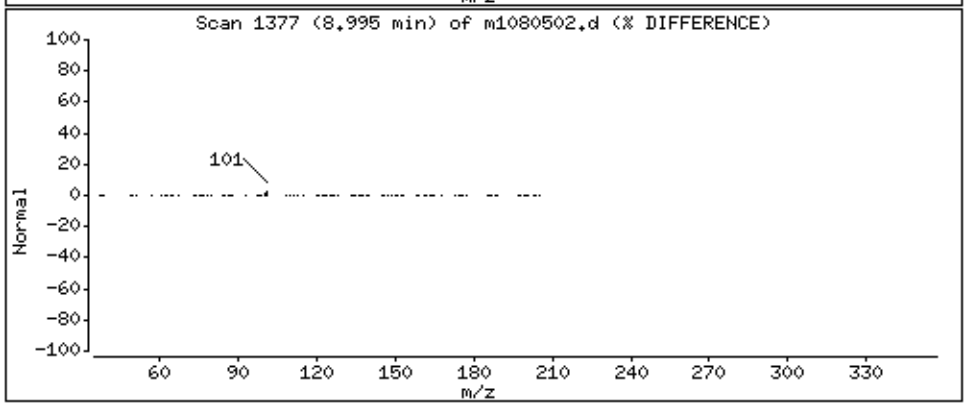












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

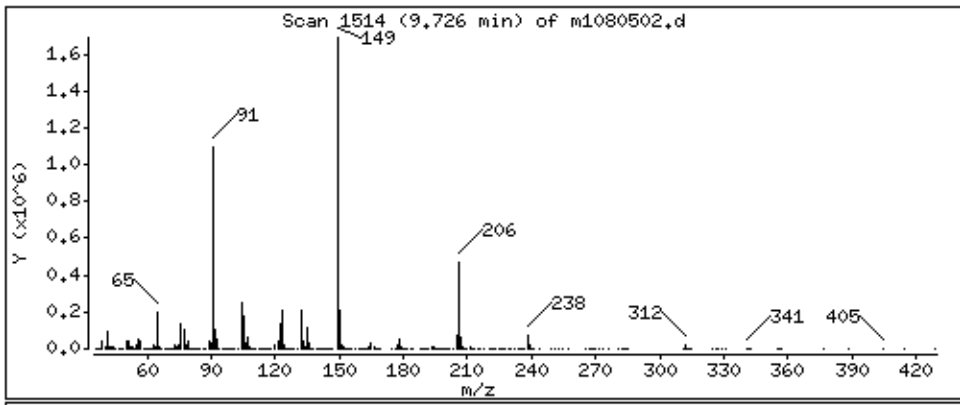
Operator: EAC

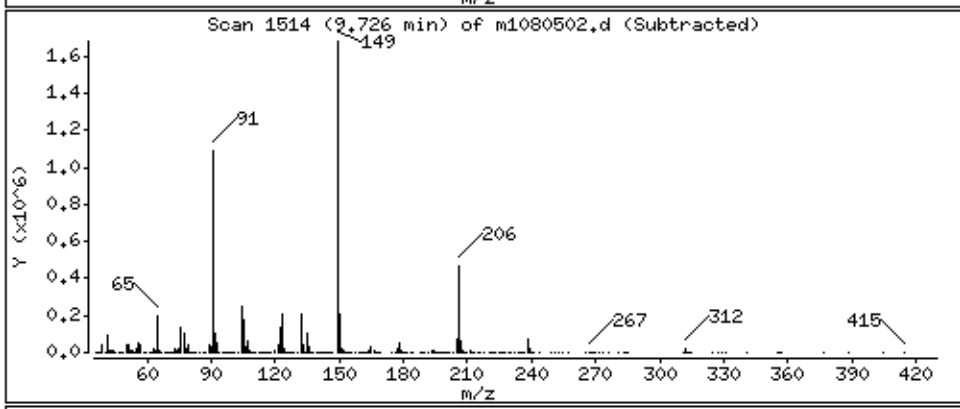
Column phase: RTX-5MS

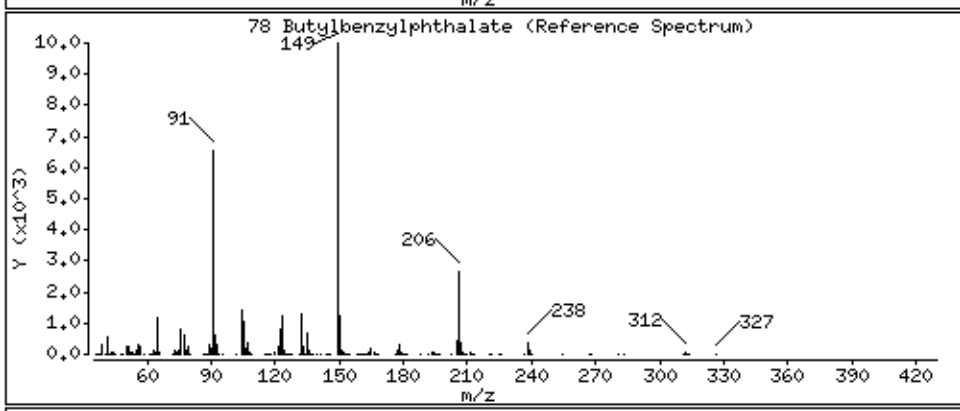
Column diameter: 0.18

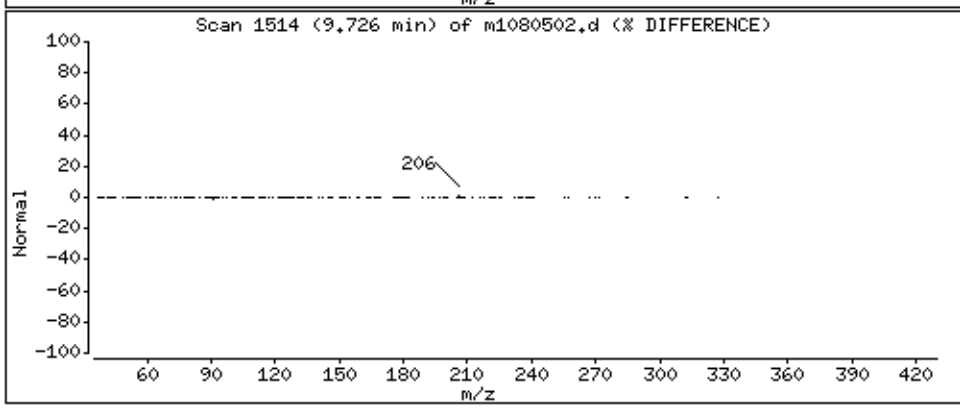
78 Butylbenzylphthalate

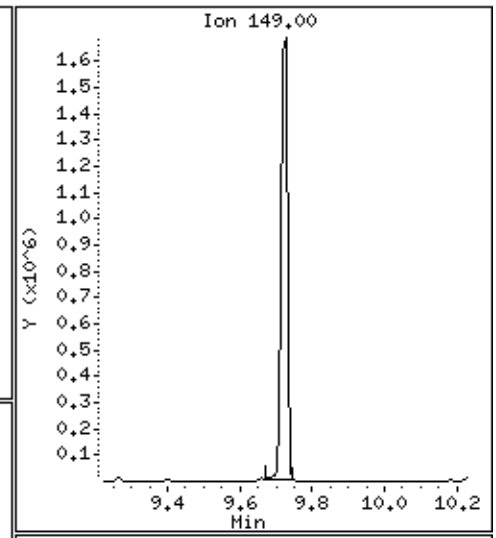
Concentration: 3630 ug/Kg

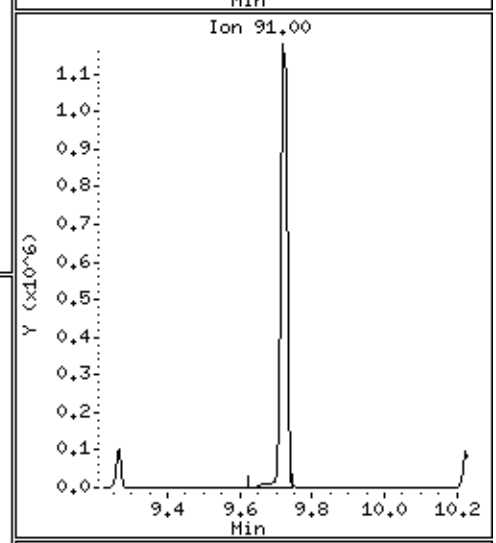


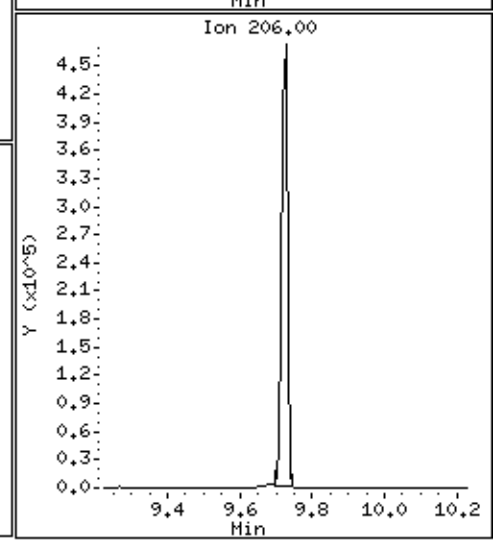












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

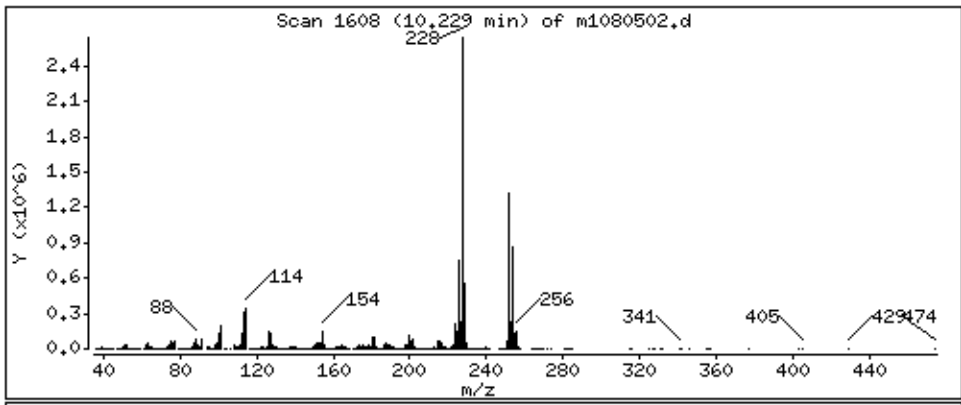
Operator: EAC

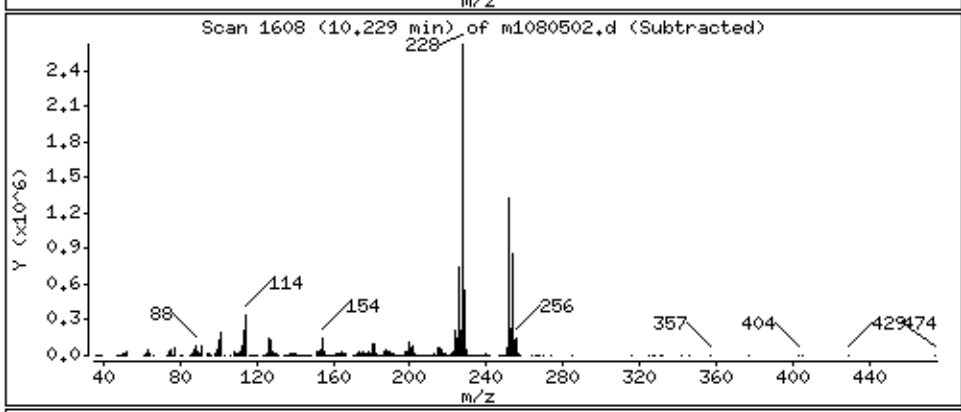
Column phase: RTX-5MS

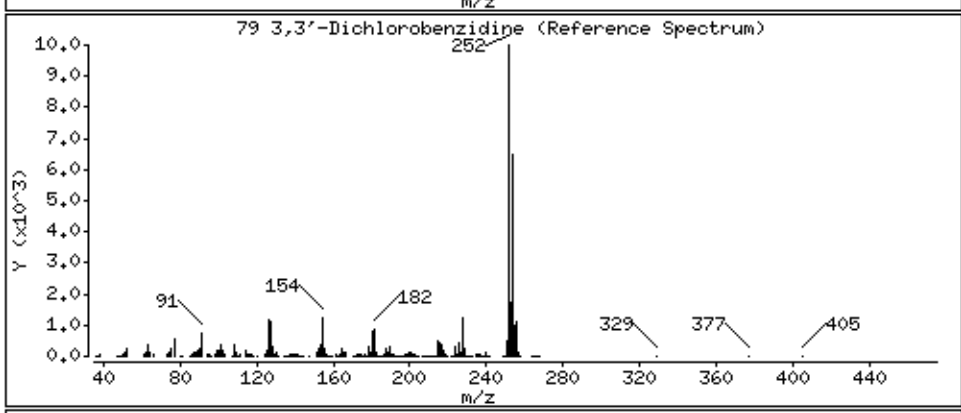
Column diameter: 0.18

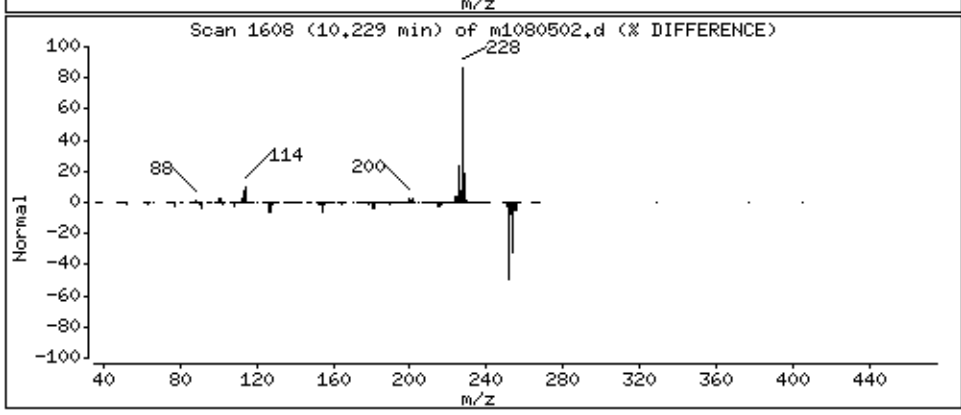
79 3,3'-Dichlorobenzidine

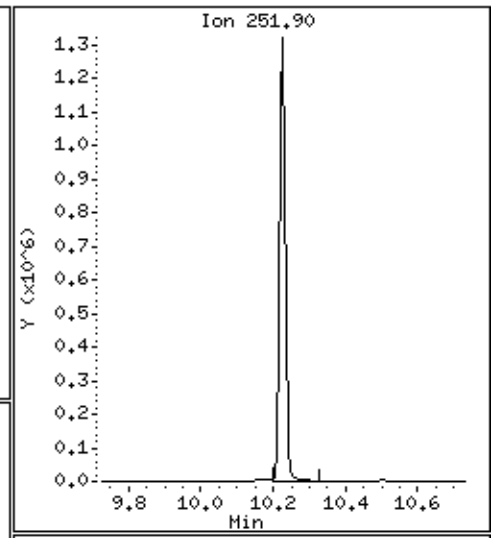
Concentration: 2850 ug/Kg

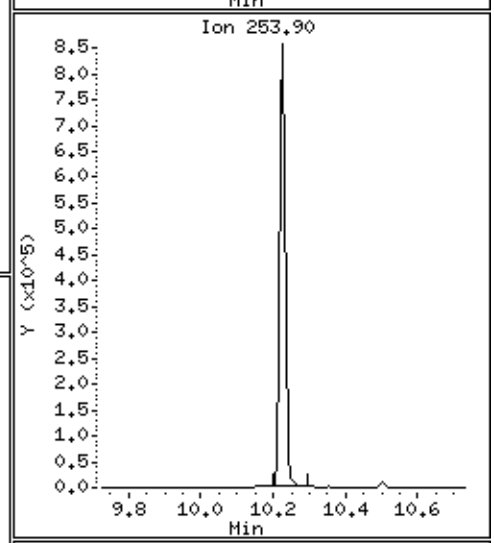


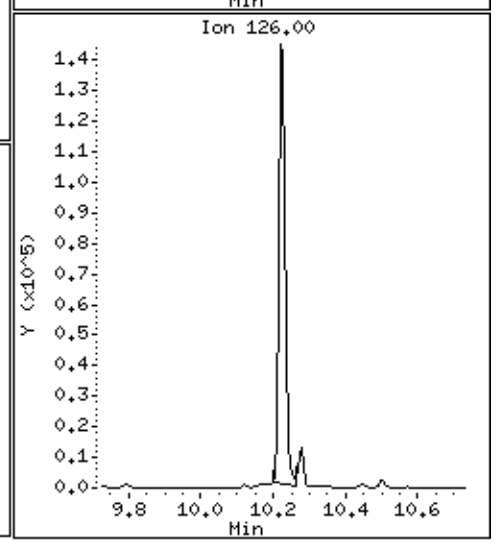












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

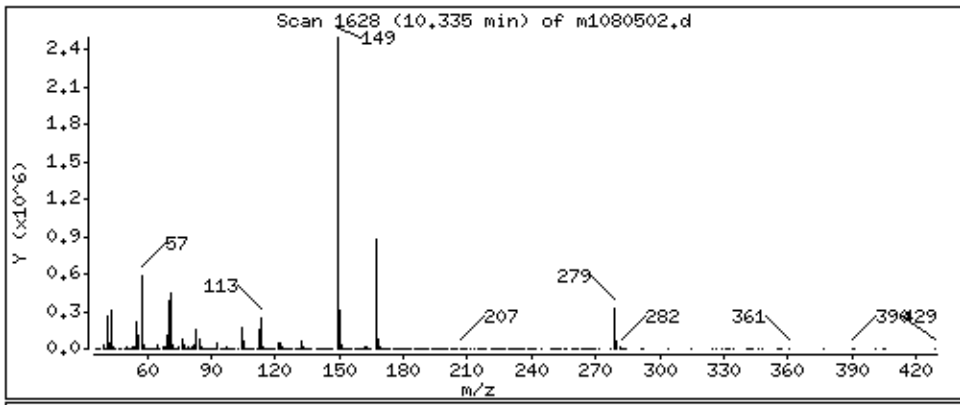
Operator: EAC

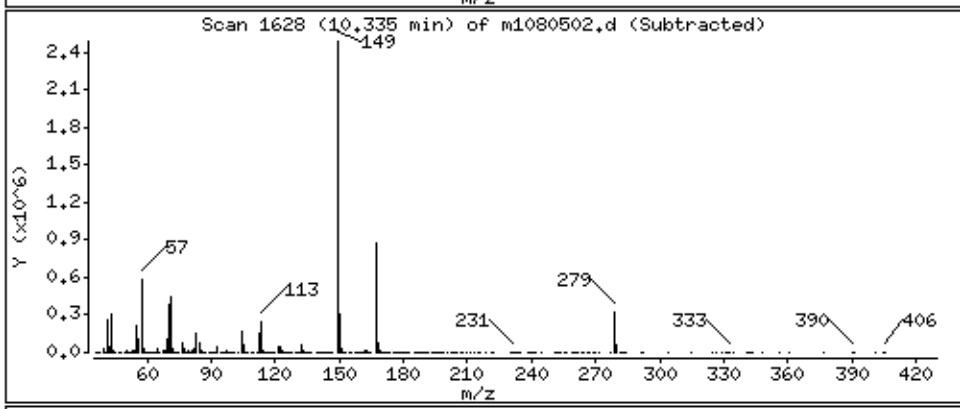
Column phase: RTX-5MS

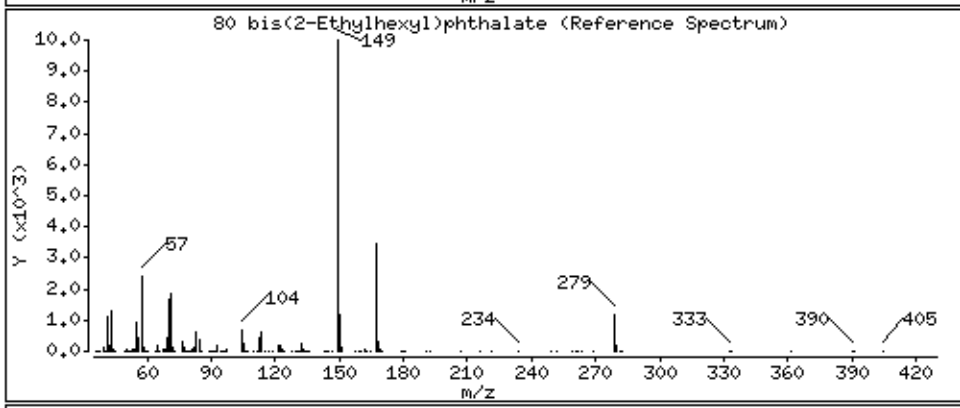
Column diameter: 0.18

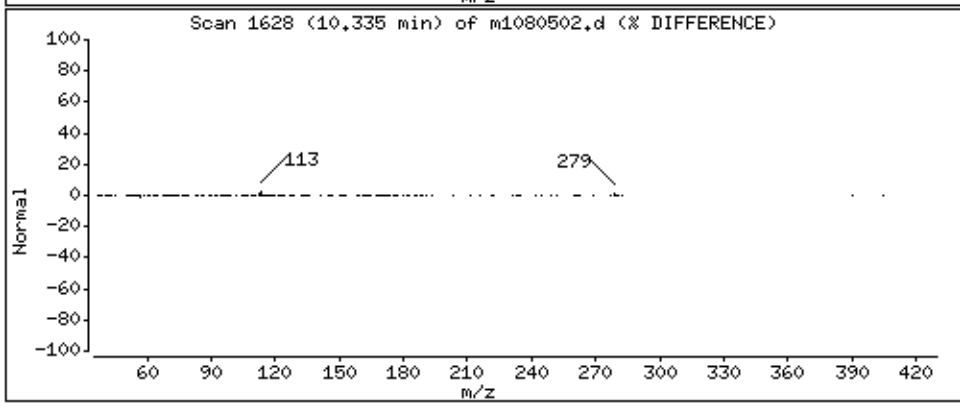
80 bis(2-Ethylhexyl)phthalate

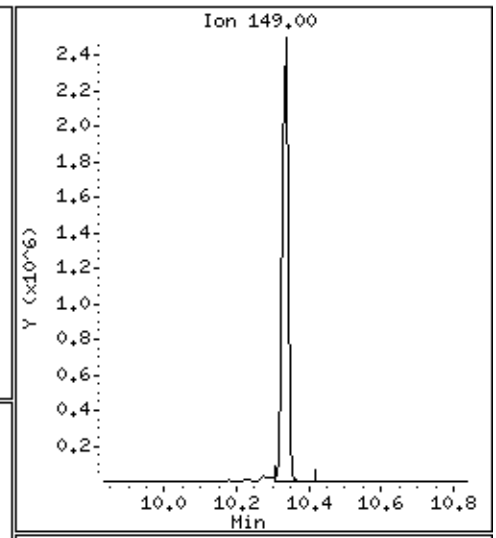
Concentration: 3500 ug/Kg

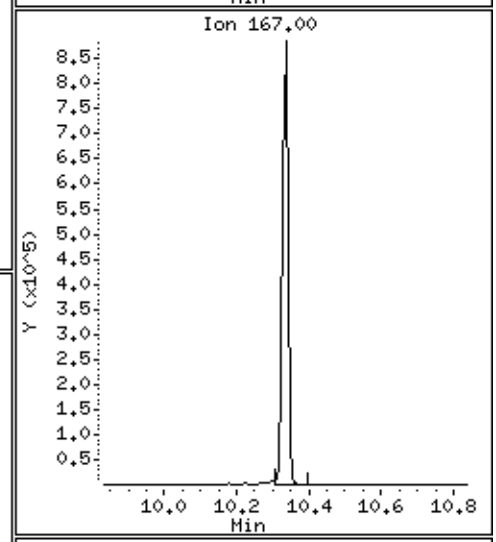


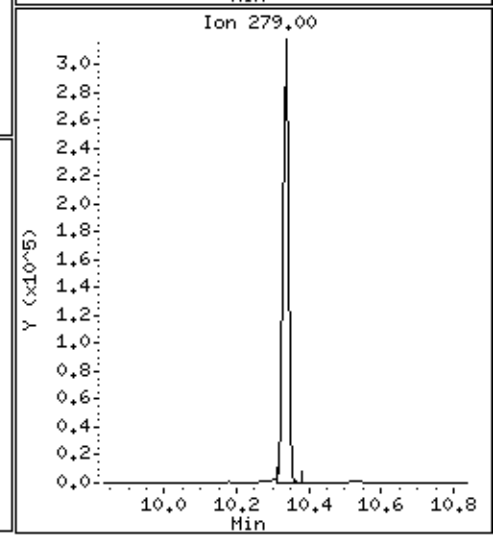












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

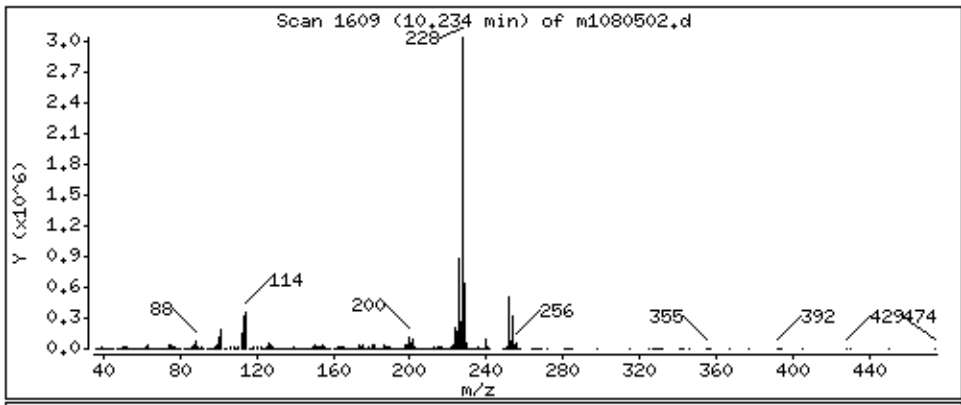
Operator: EAC

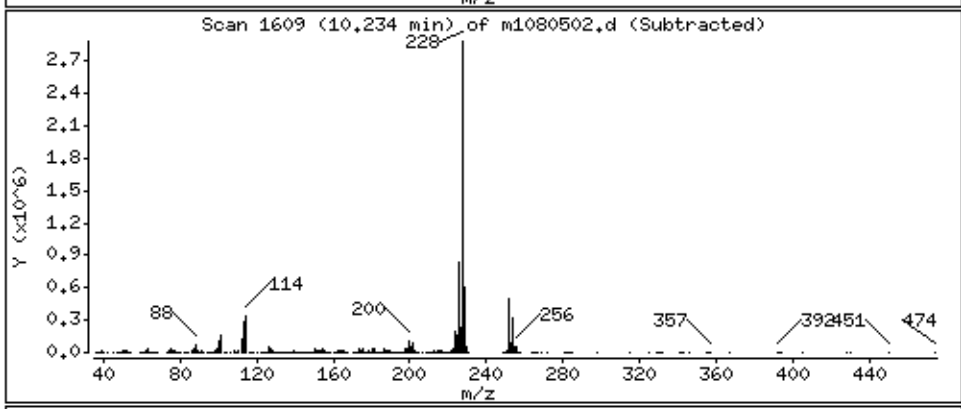
Column phase: RTX-5MS

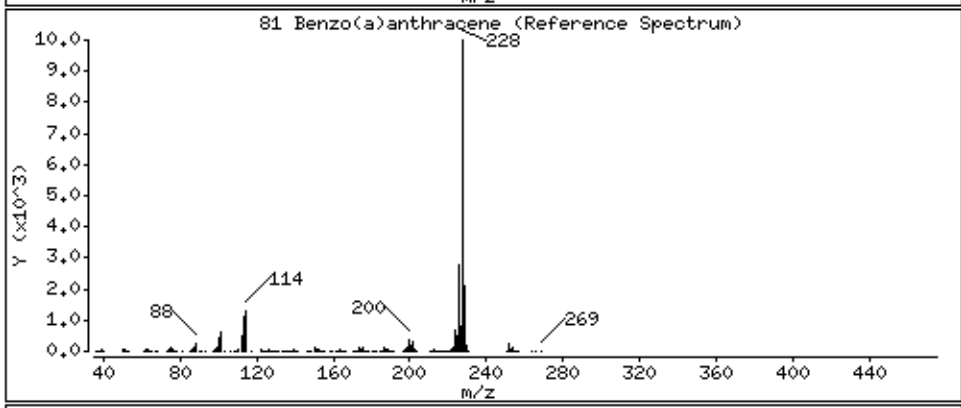
Column diameter: 0.18

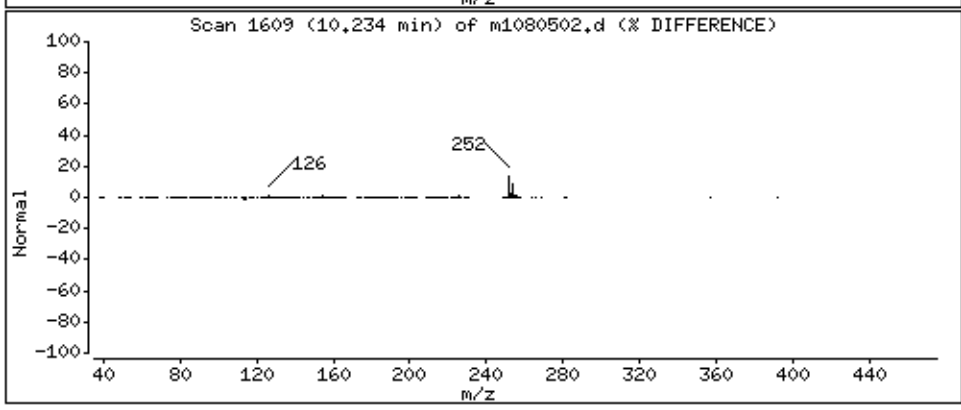
81 Benzo(a)anthracene

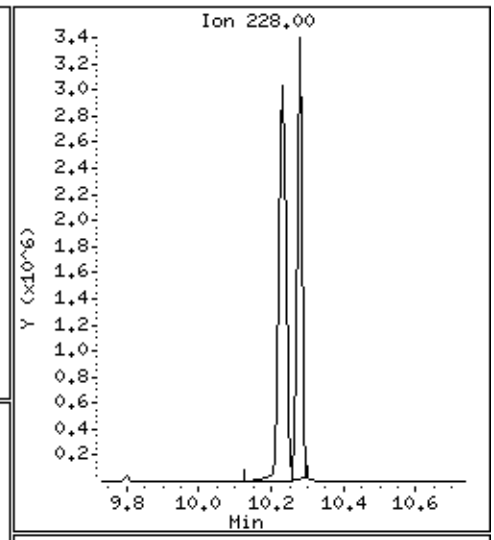
Concentration: 3250 ug/Kg

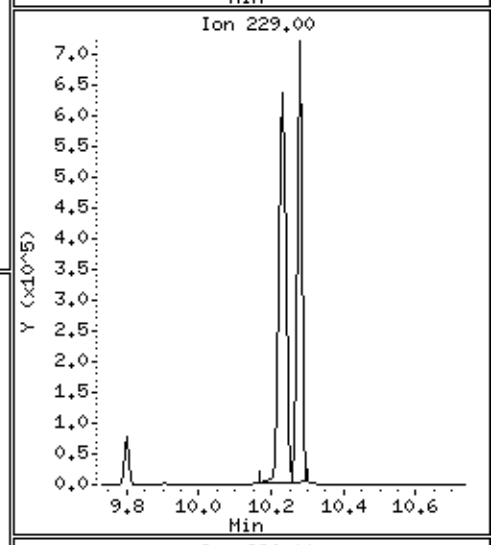


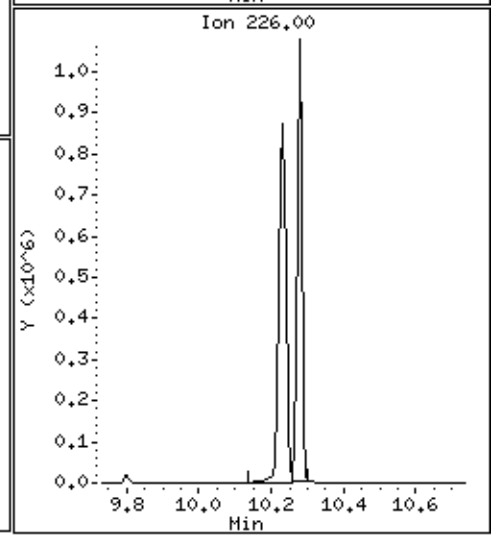












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

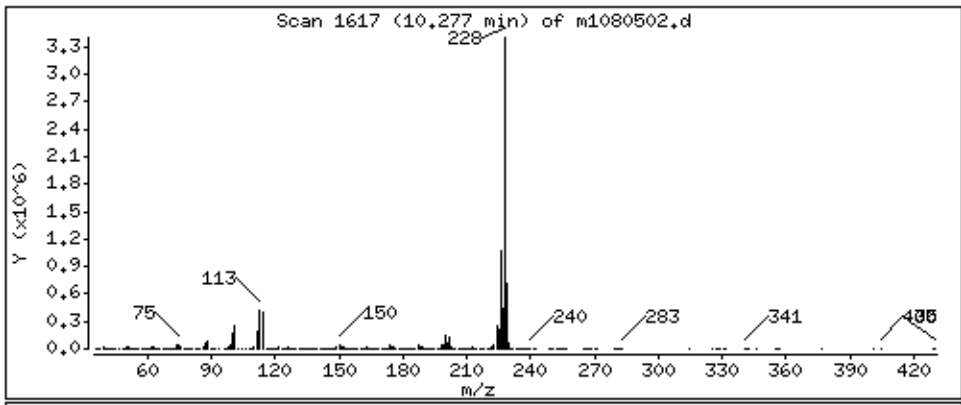
Operator: EAC

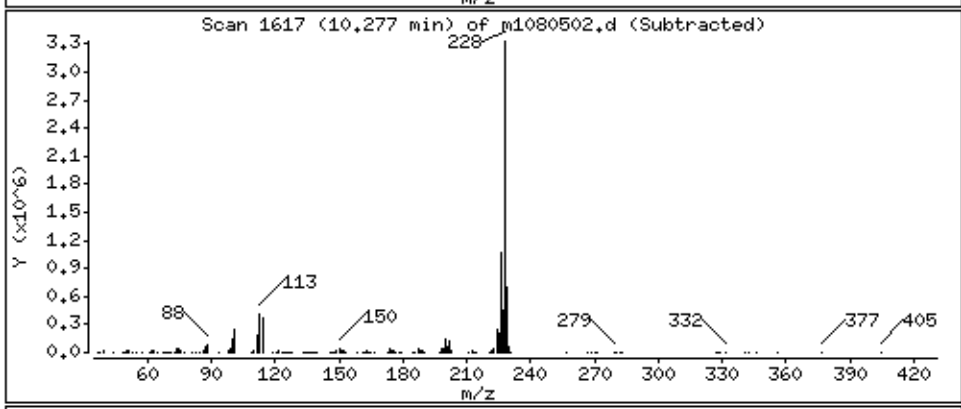
Column phase: RTX-5MS

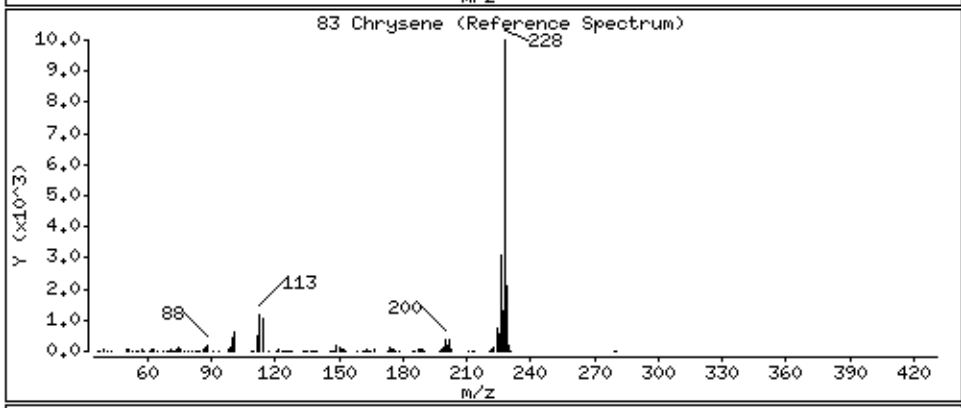
Column diameter: 0.18

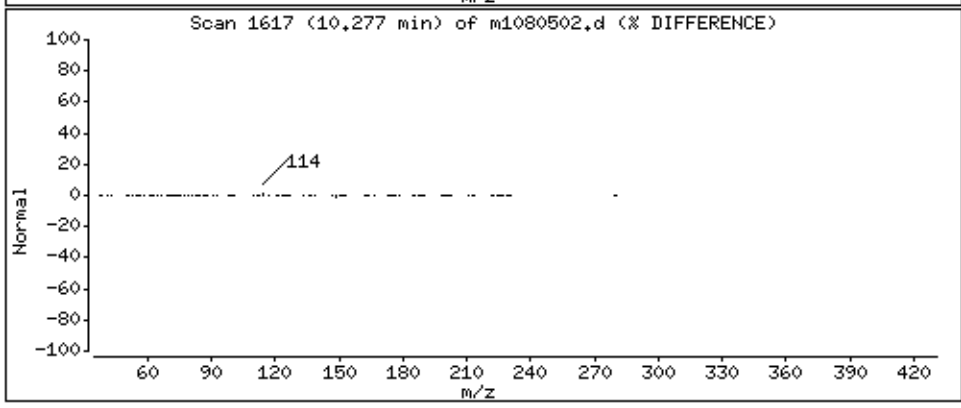
83 Chrysene

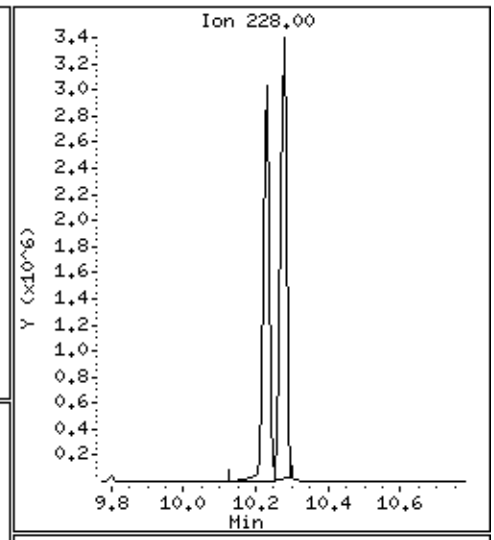
Concentration: 3050 ug/Kg

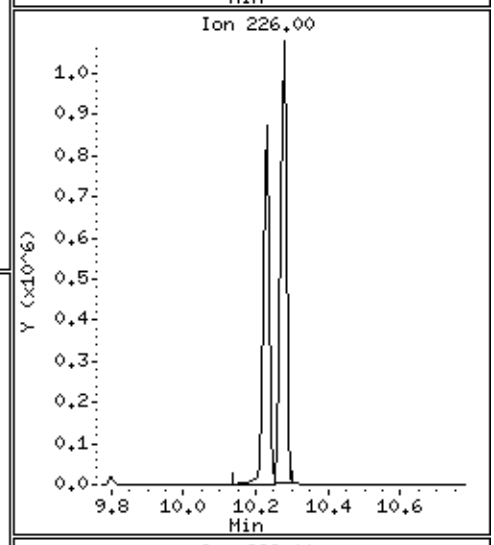


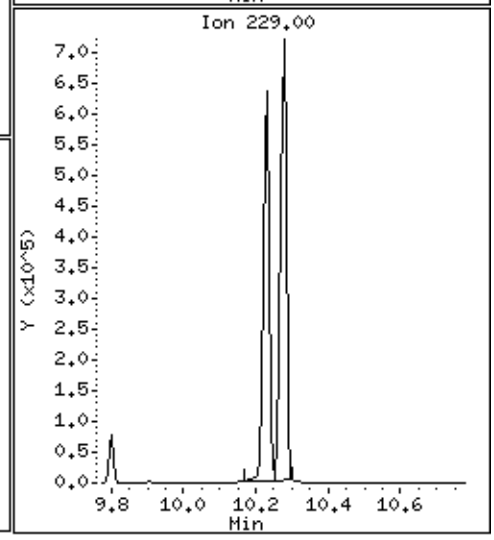












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

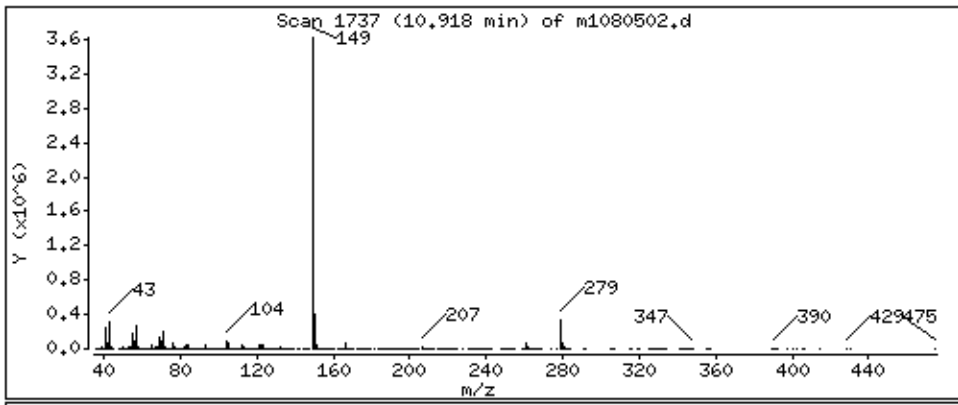
Operator: EAC

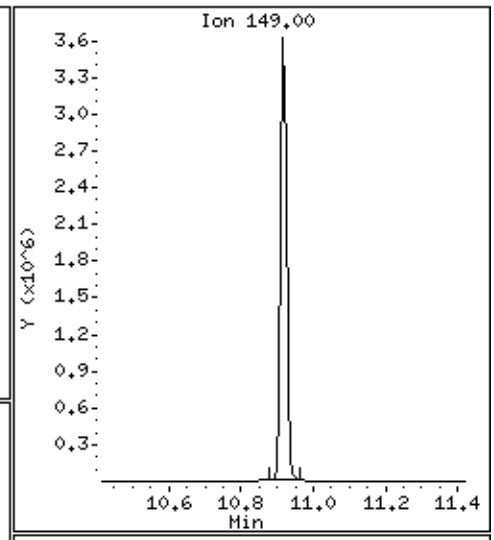
Column phase: RTX-5MS

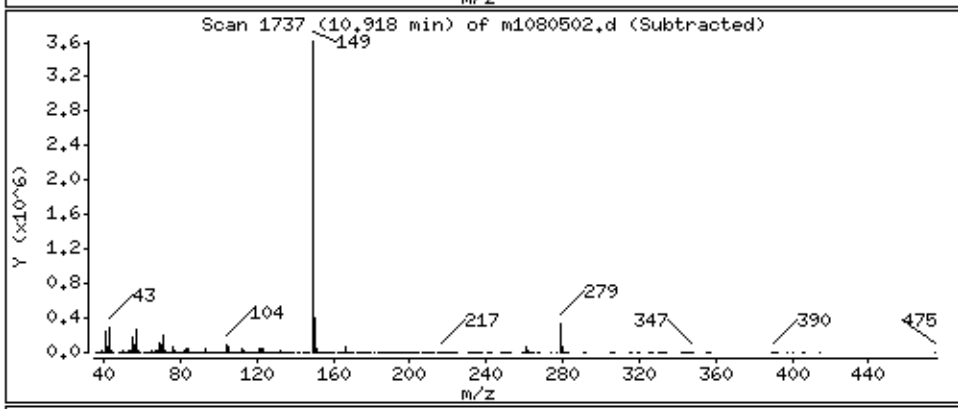
Column diameter: 0.18

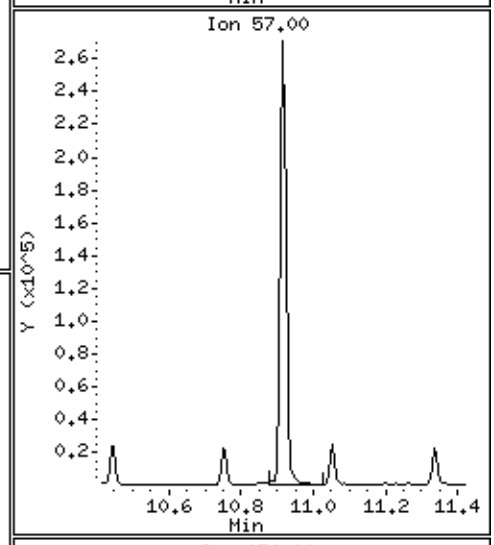
84 Di-n-octylphthalate

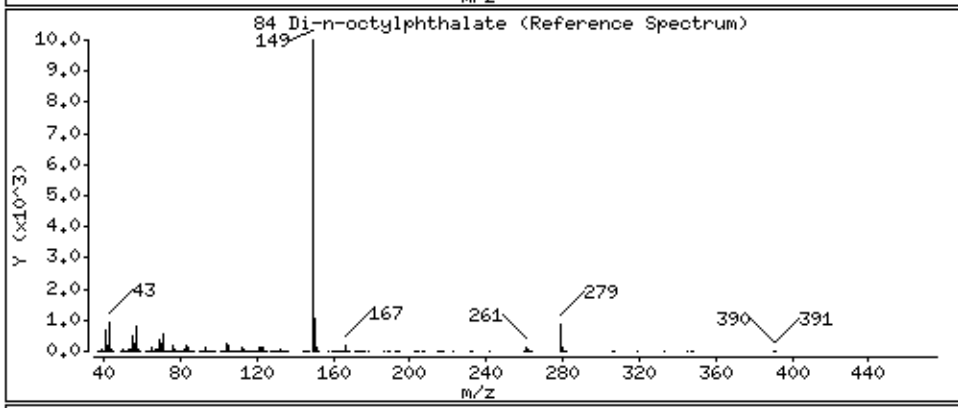
Concentration: 3850 ug/Kg

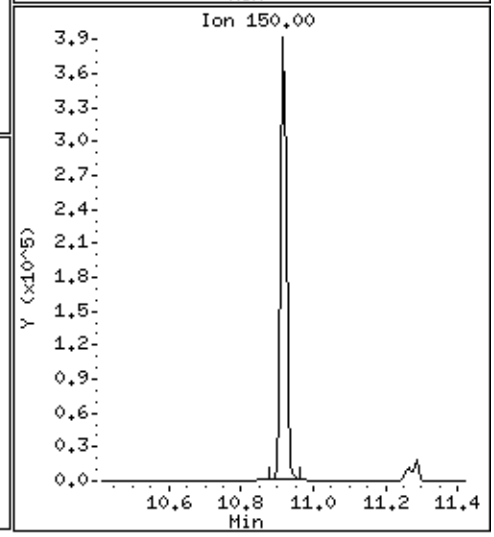


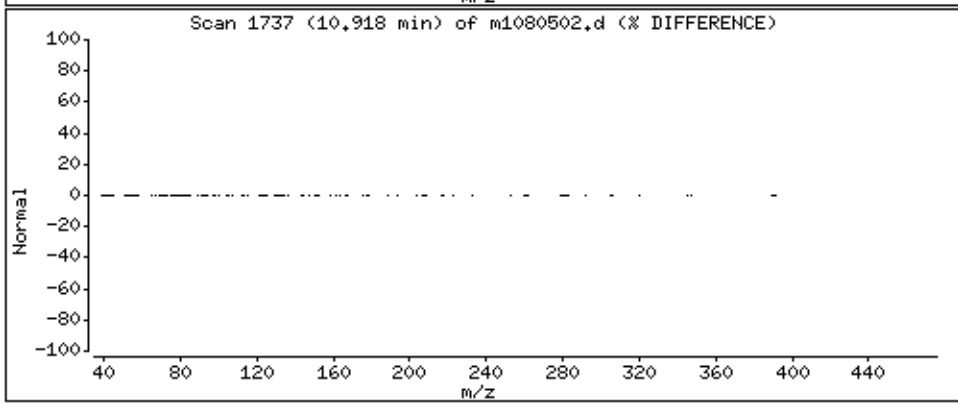












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

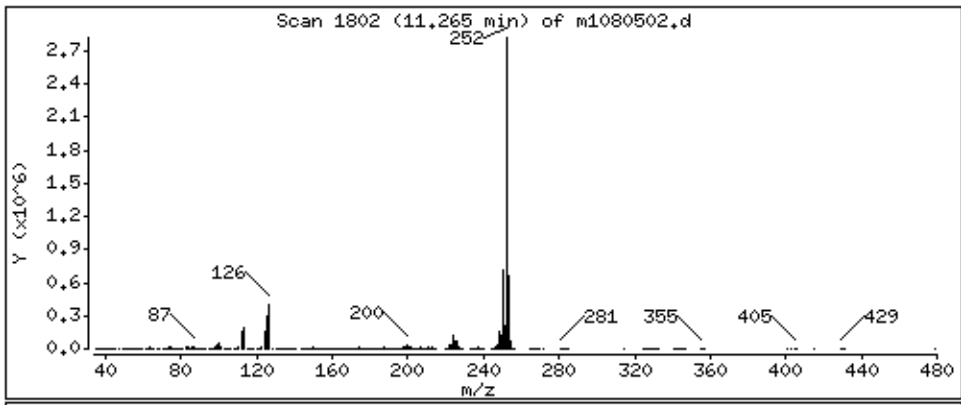
Operator: EAC

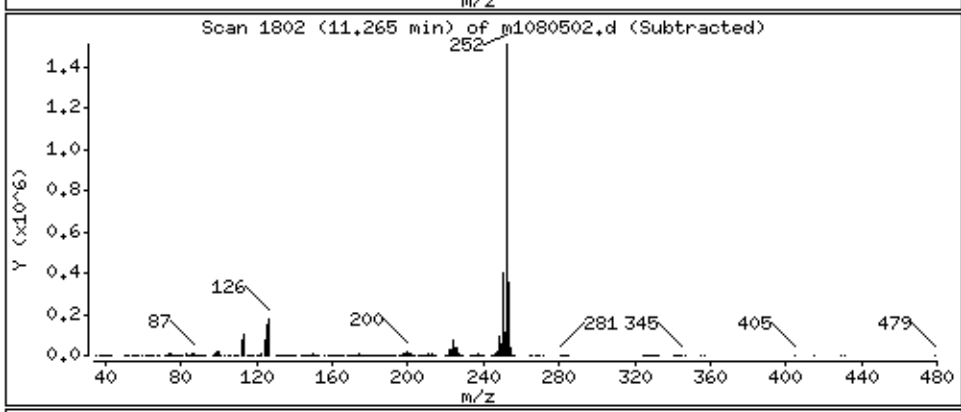
Column phase: RTX-5MS

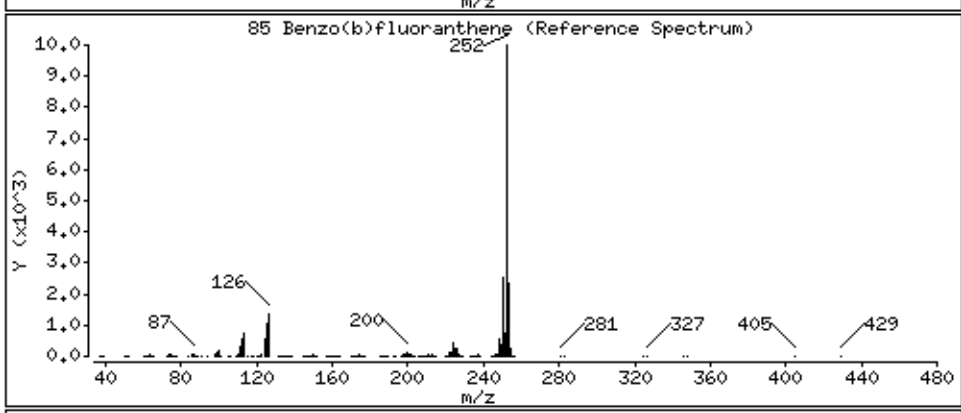
Column diameter: 0.18

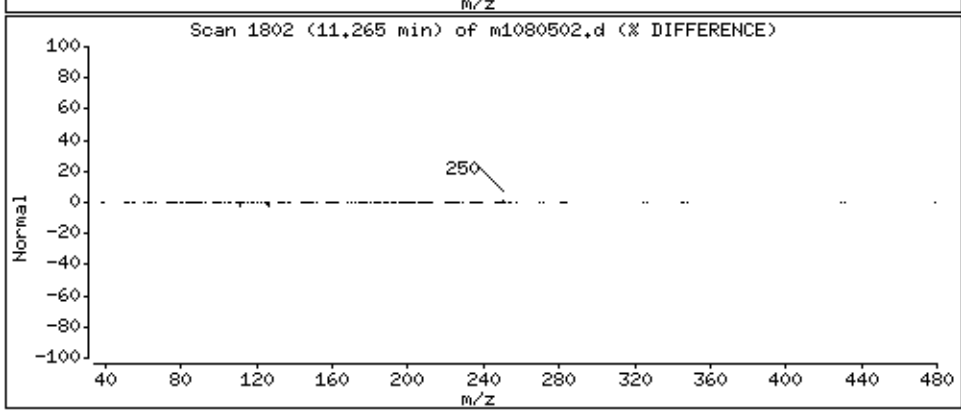
85 Benzo(b)fluoranthene

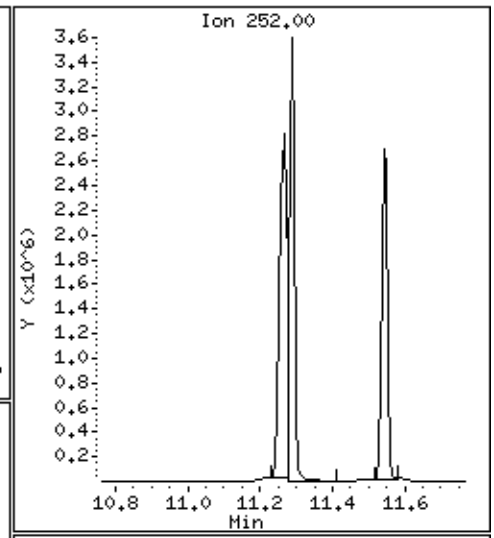
Concentration: 3280 ug/Kg

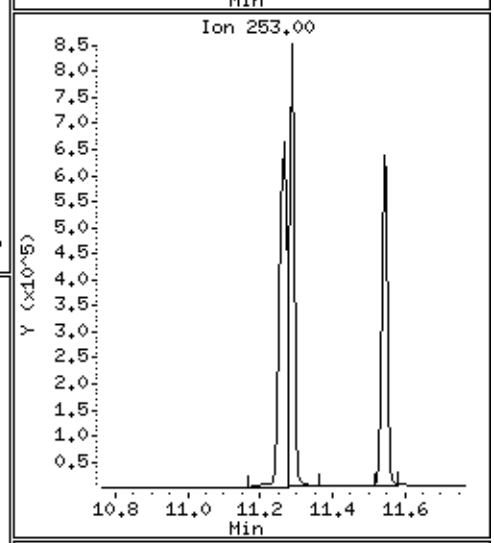


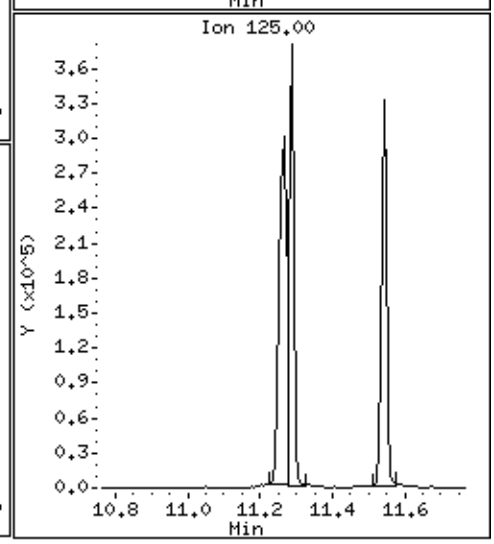












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

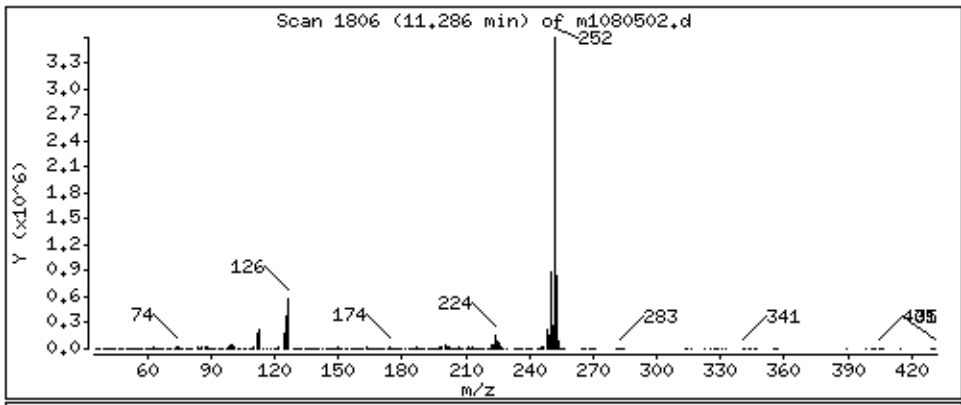
Operator: EAC

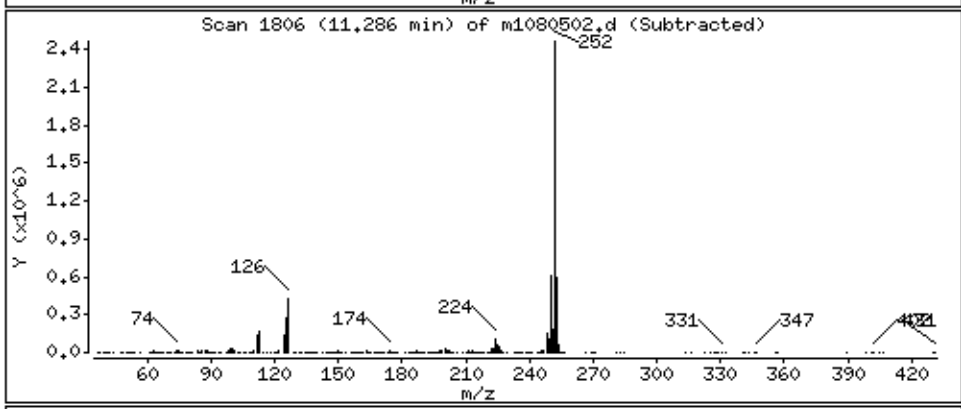
Column phase: RTX-5MS

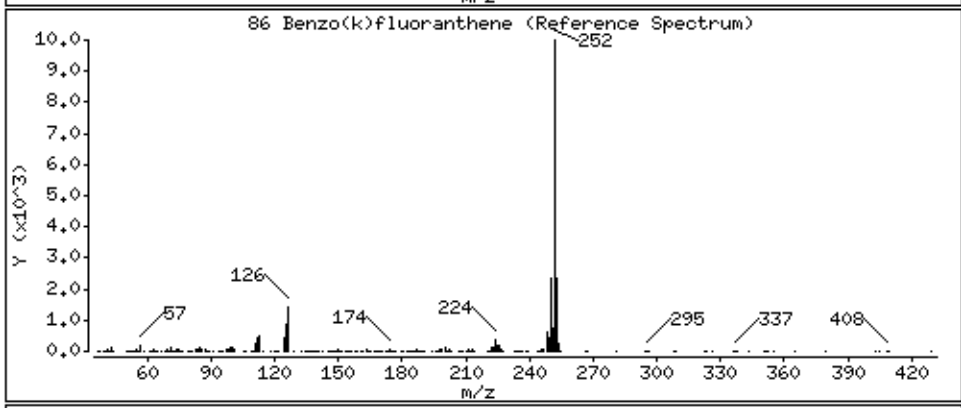
Column diameter: 0.18

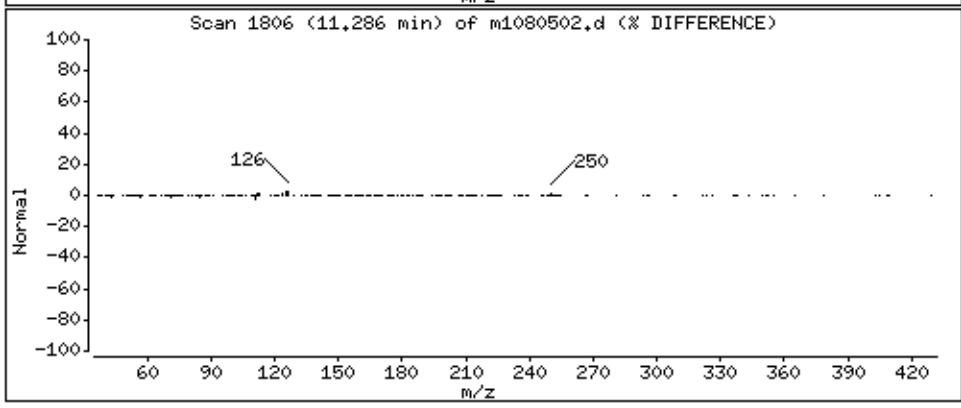
86 Benzo(k)fluoranthene

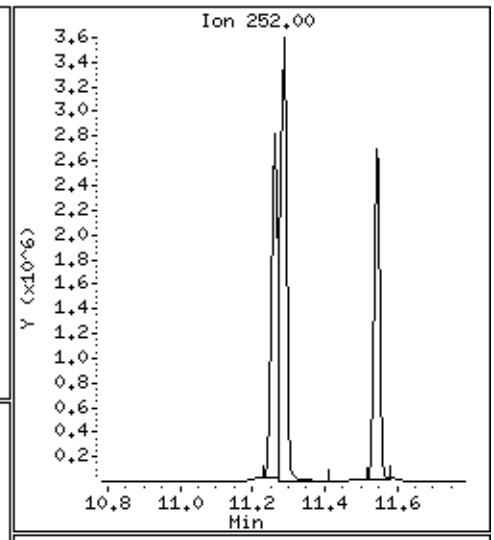
Concentration: 3200 ug/Kg

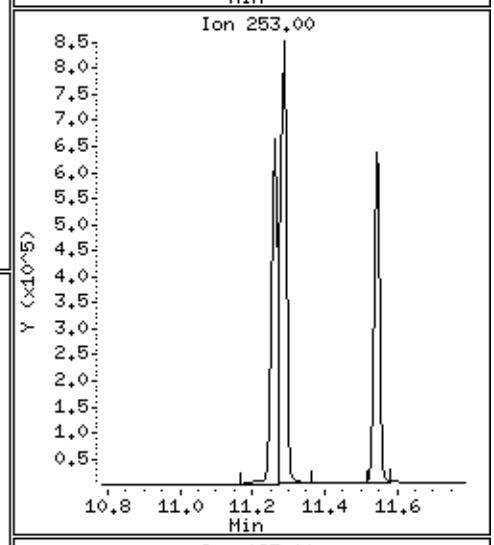


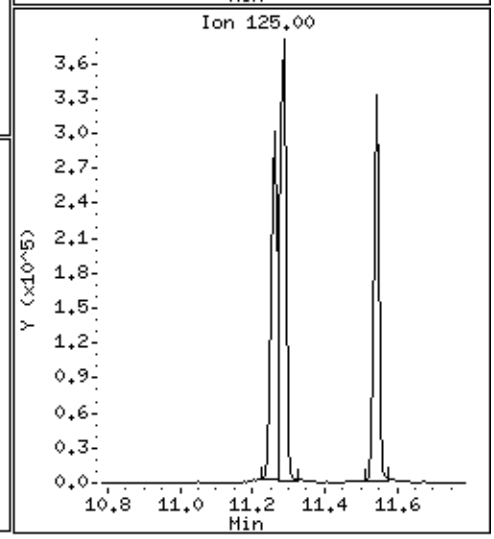












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Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

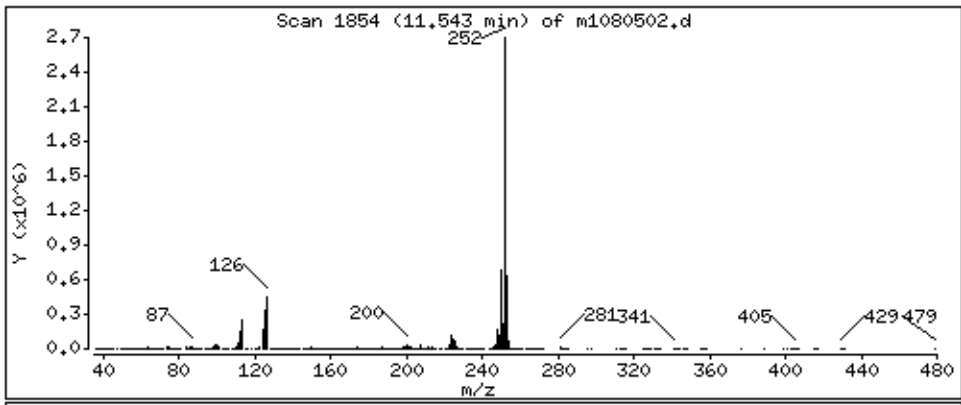
Operator: EAC

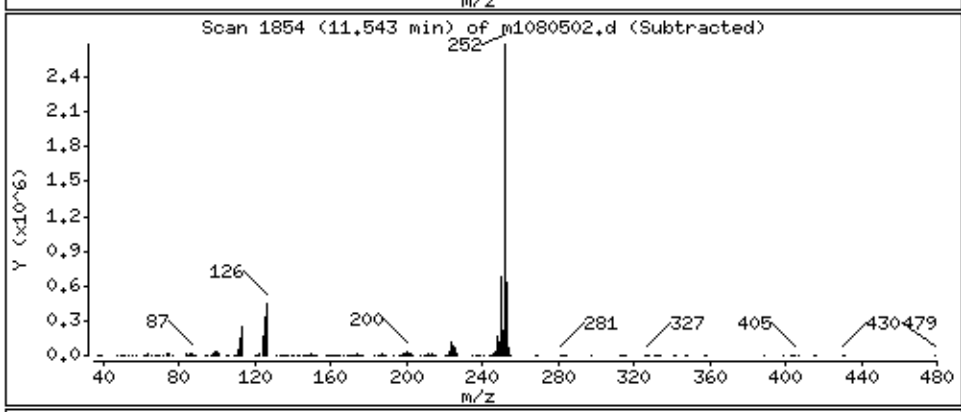
Column phase: RTX-5MS

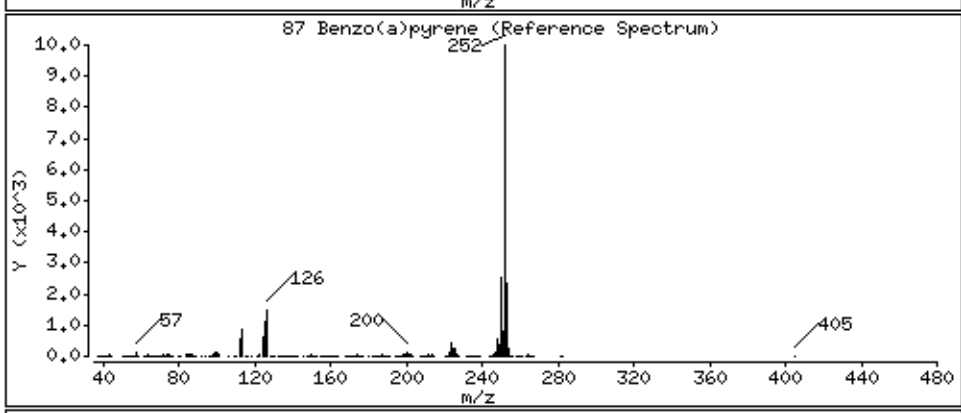
Column diameter: 0.18

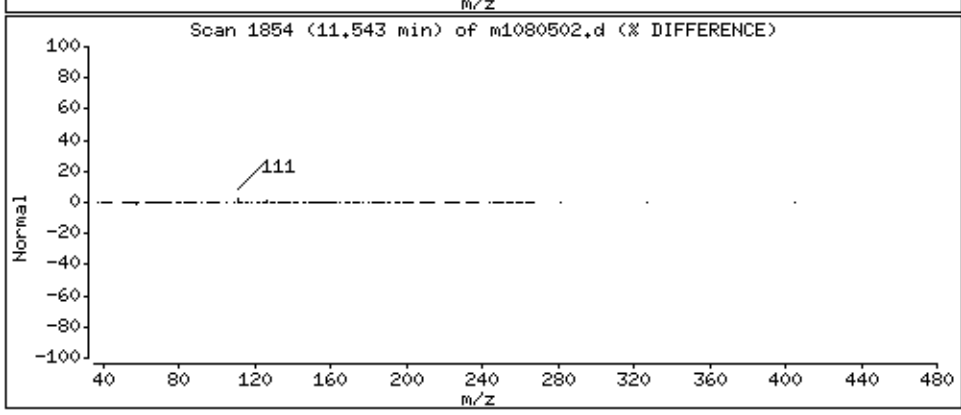
87 Benzo(a)pyrene

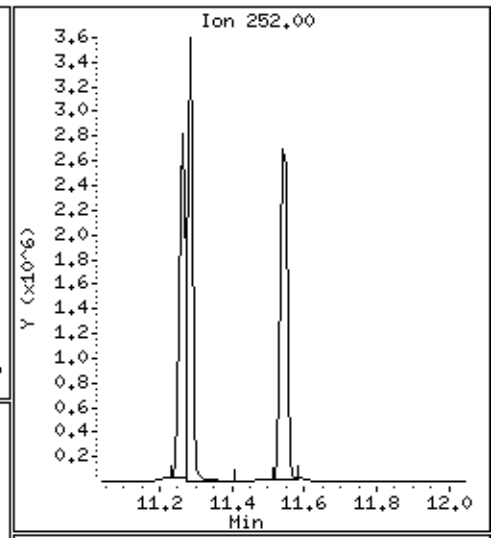
Concentration: 3050 ug/Kg

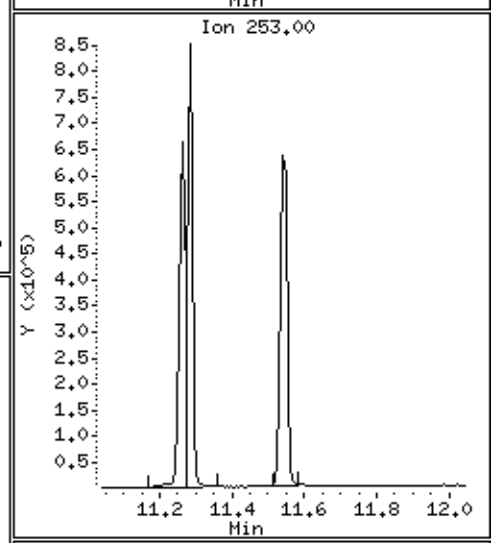


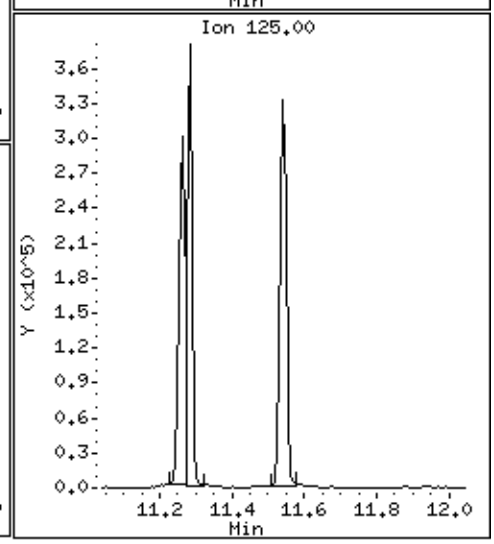












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

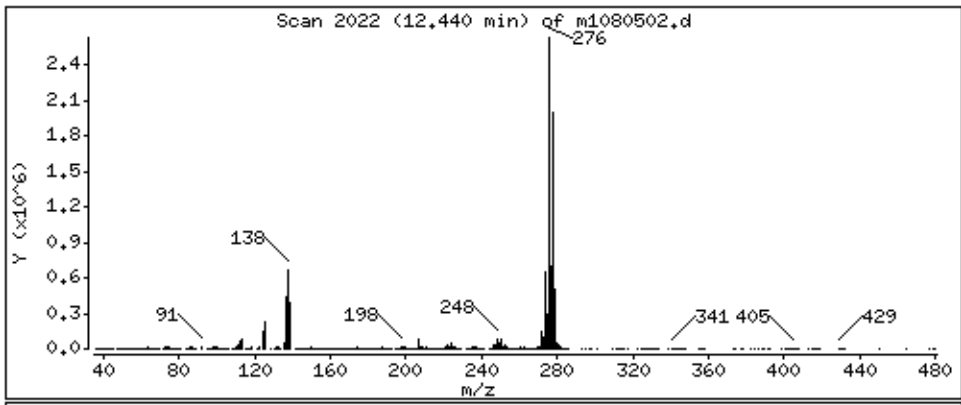
Operator: EAC

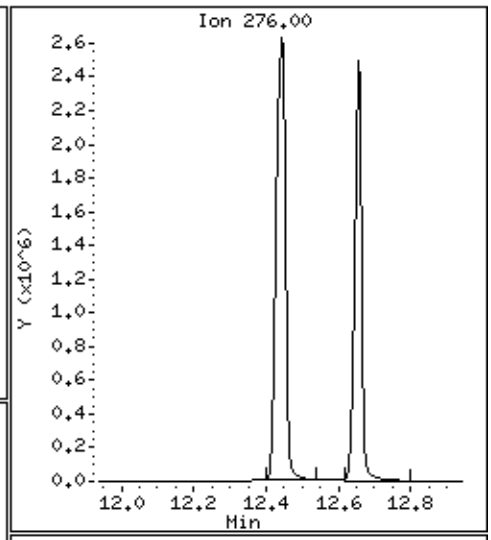
Column phase: RTX-5MS

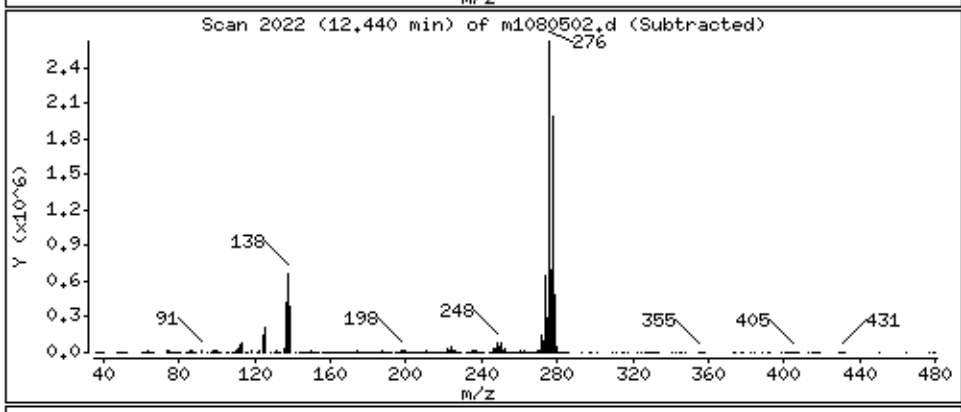
Column diameter: 0.18

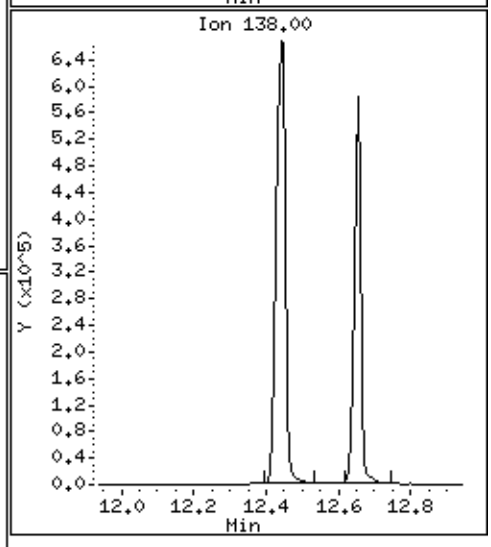
89 Indeno(1,2,3-cd)pyrene

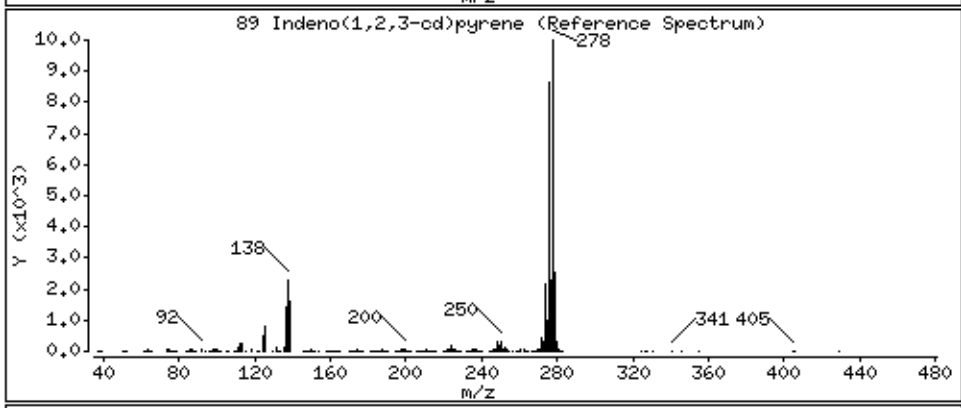
Concentration: 3300 ug/Kg

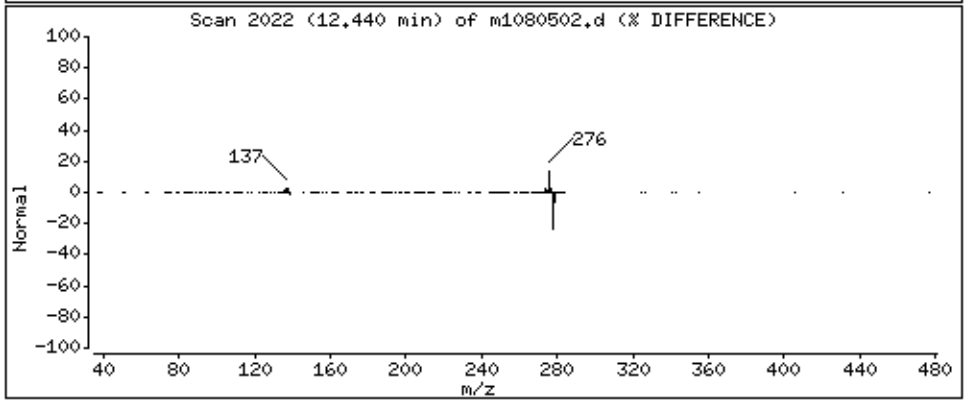












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

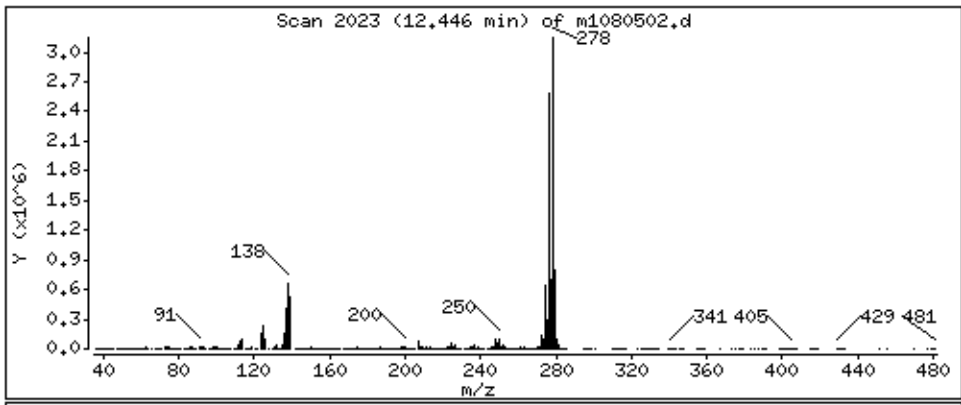
Operator: EAC

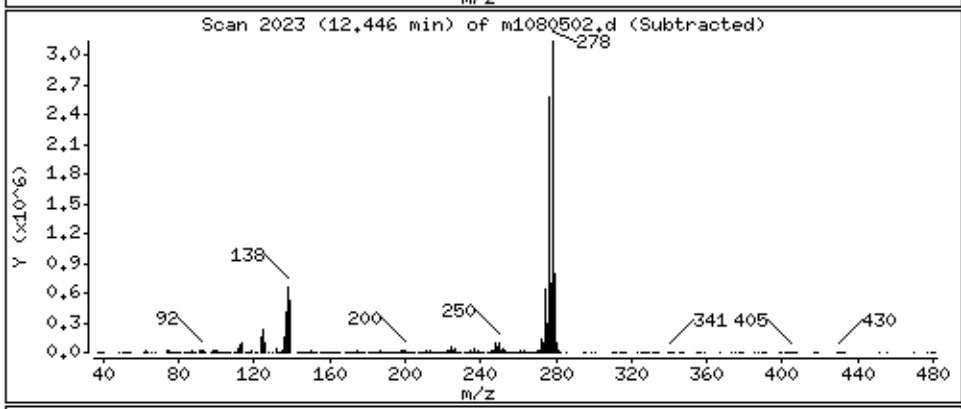
Column phase: RTX-5MS

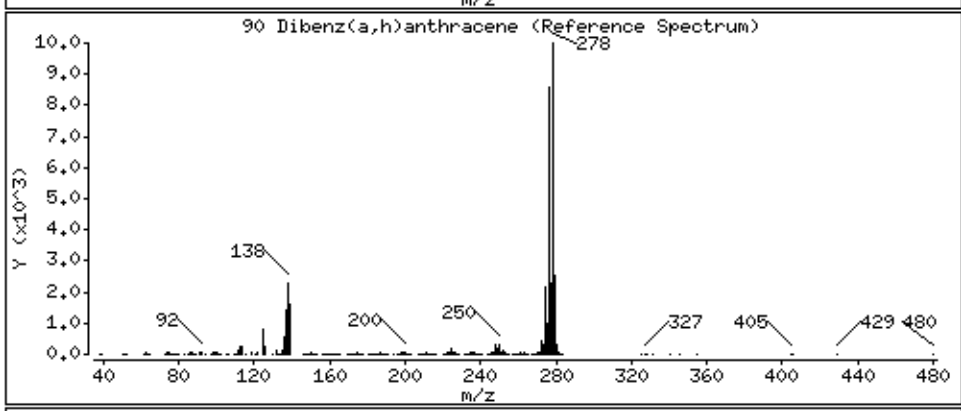
Column diameter: 0.18

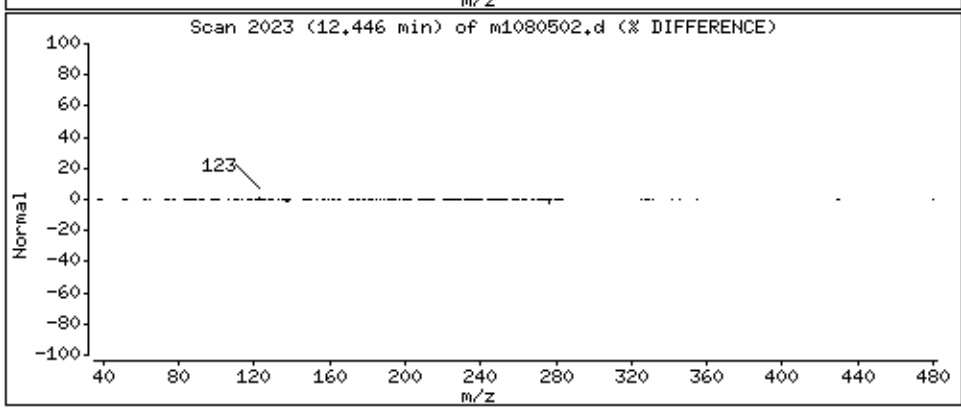
90 Dibenz(a,h)anthracene

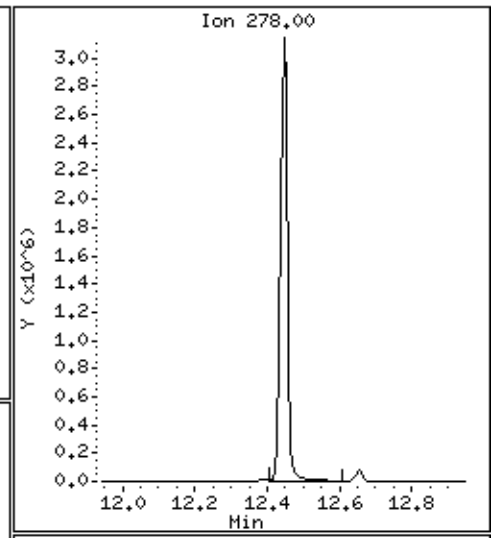
Concentration: 3400 ug/Kg

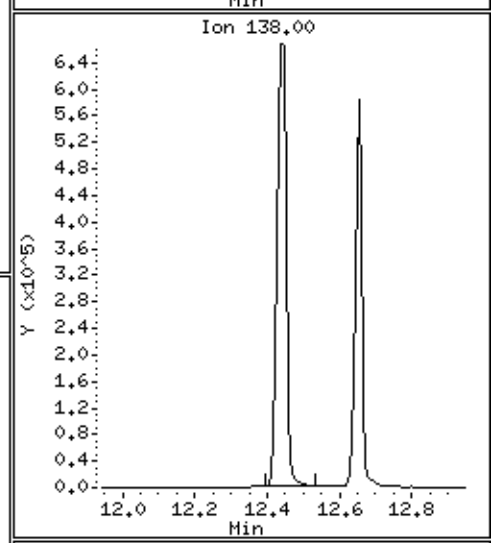


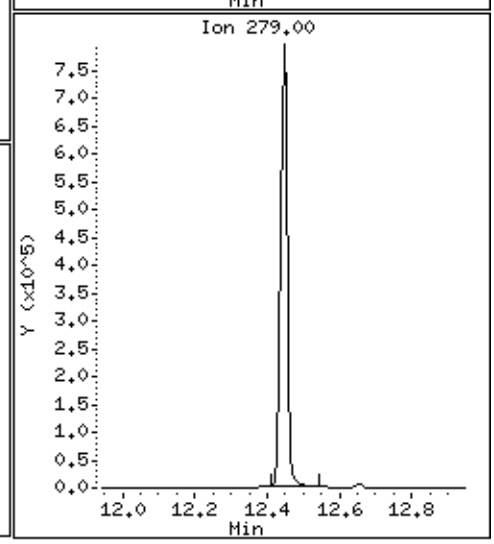












Data File: \\30wintarget\chem\30mss1.i\mss1080519.b\m1080502.d

Date : 05-AUG-2019 16:13

Client ID: MBLCS

Instrument: 30mss1.i

Sample Info: 1723156

Volume Injected (uL): 1.0

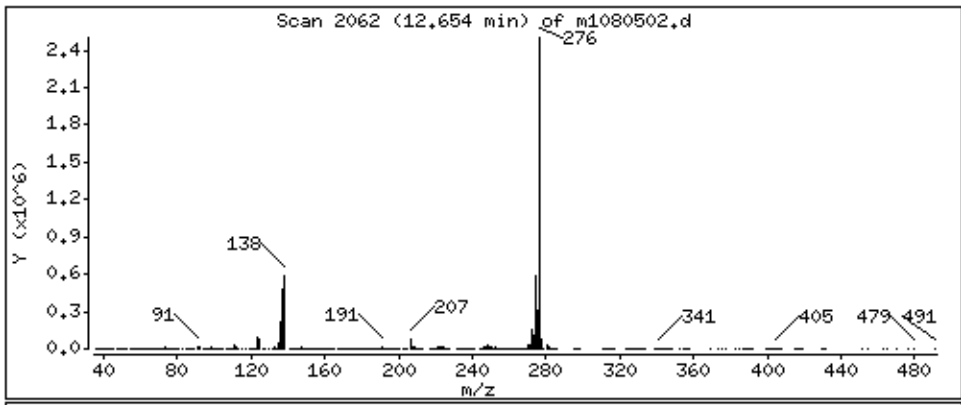
Operator: EAC

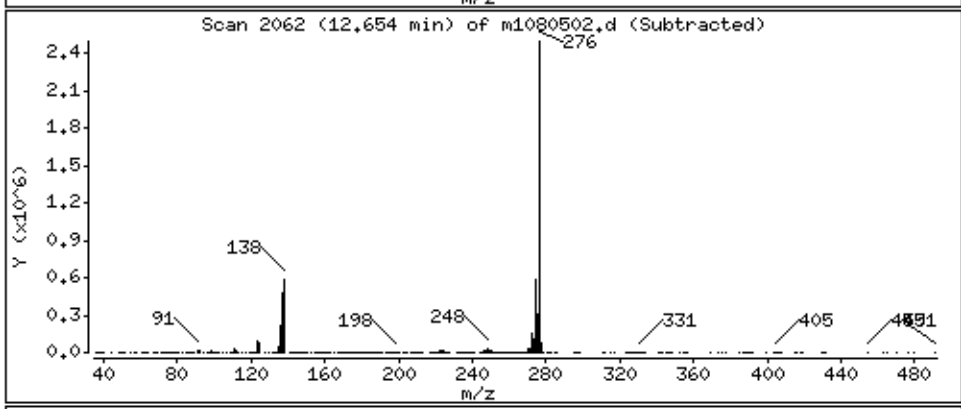
Column phase: RTX-5MS

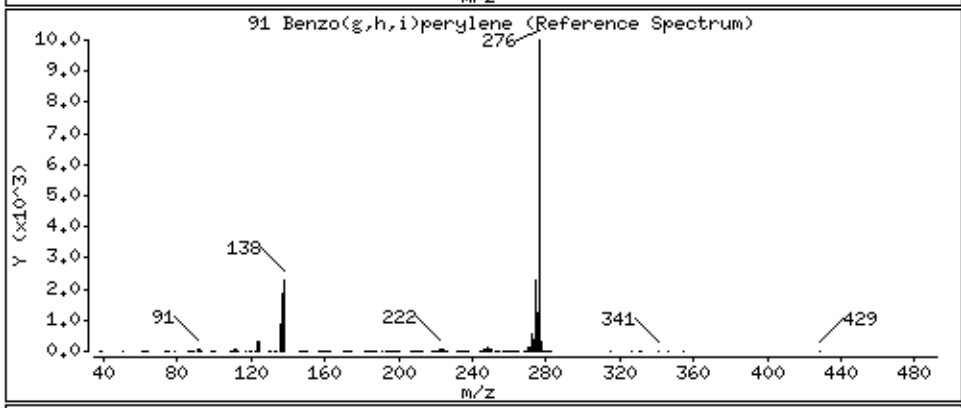
Column diameter: 0.18

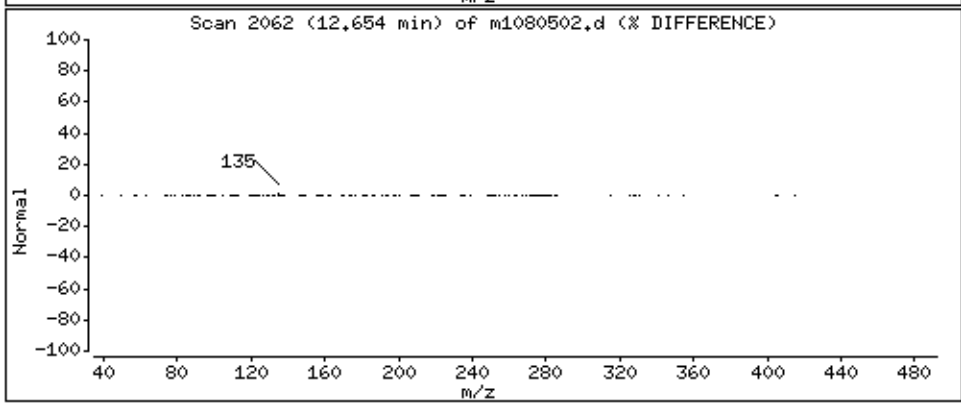
91 Benzo(g,h,i)perylene

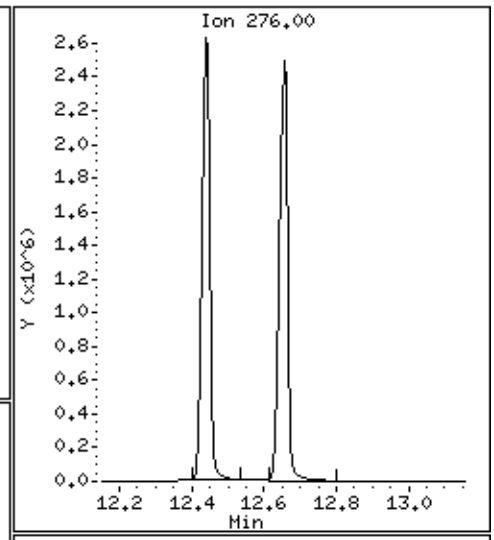
Concentration: 3360 ug/Kg

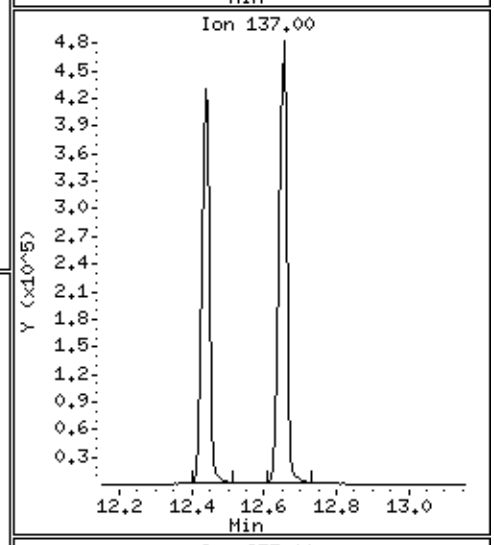


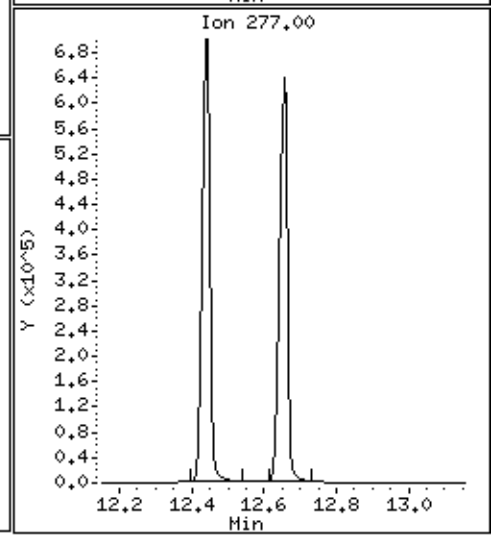






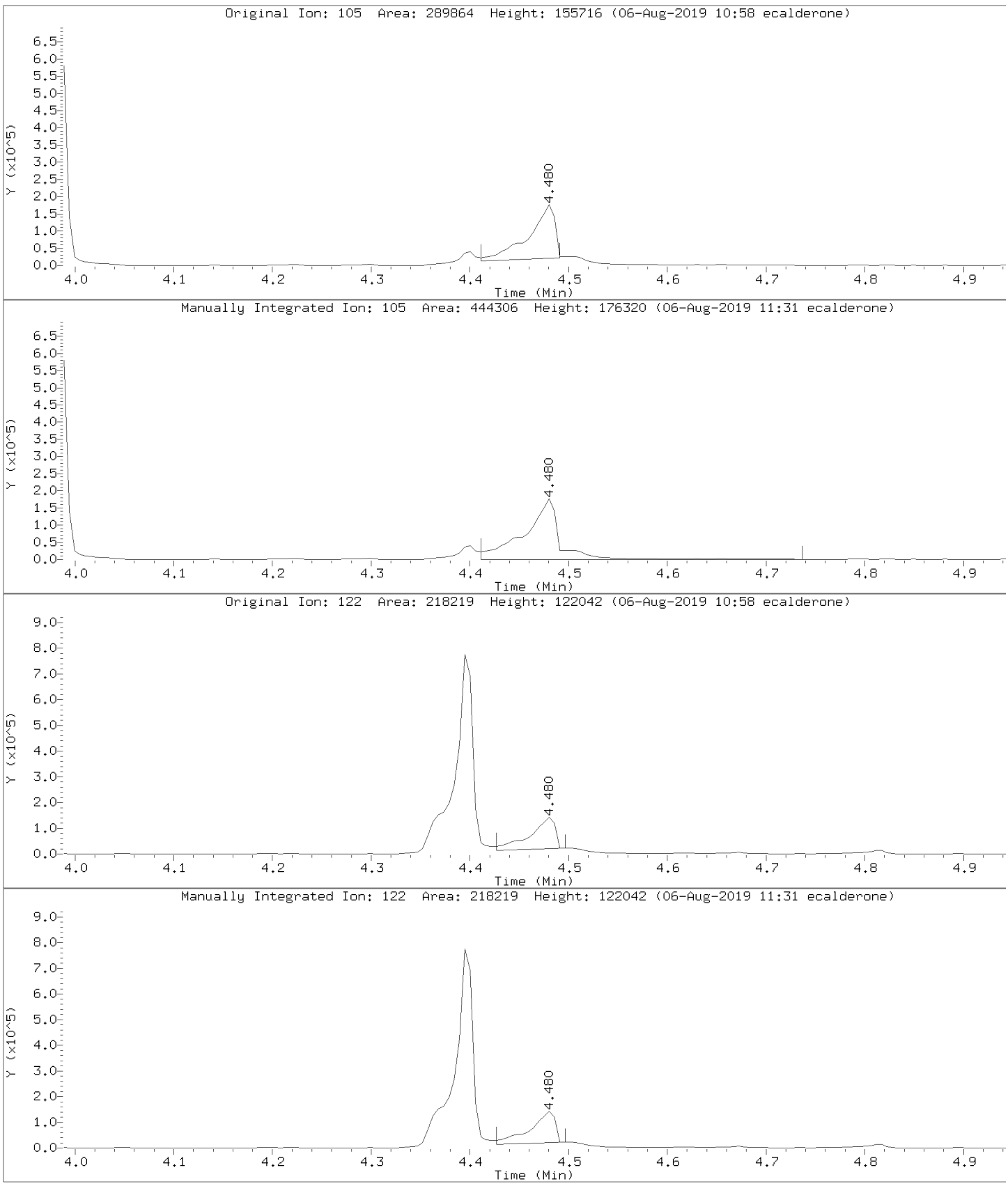






Data File: \\30wintarget\chem\30mss1.i\mss1080519.b/m1080502.d
Injection Date: 05-AUG-2019 16:13
Instrument: 30mss1.i
Lab Sample ID: 1723156

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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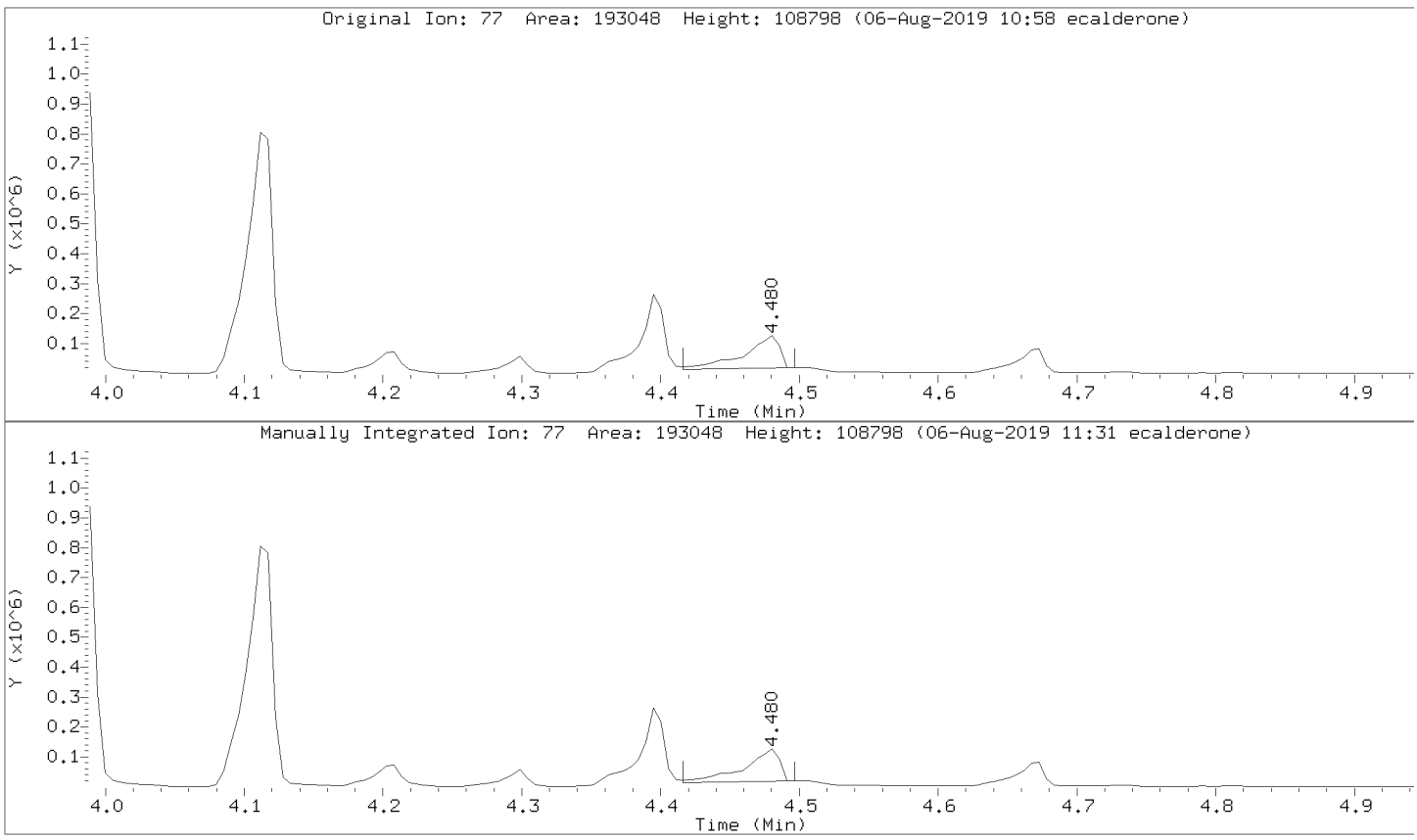
Injection Date: 05-AUG-2019 16:13
Instrument: 30mss1.i
Lab Sample ID: 1723156



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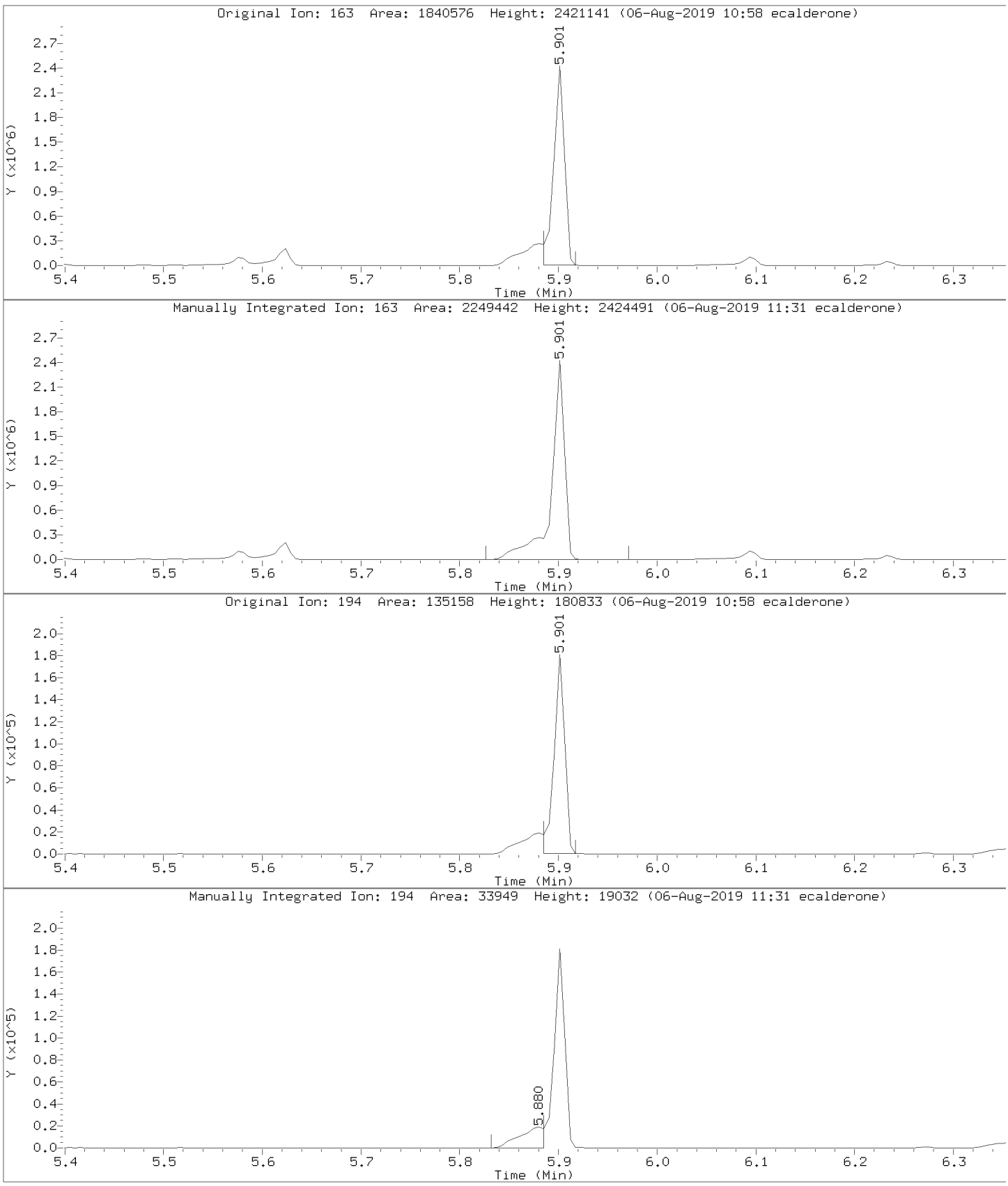
Injection Date: 05-AUG-2019 16:13
Instrument: 30mss1.i
Lab Sample ID: 1723156

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3



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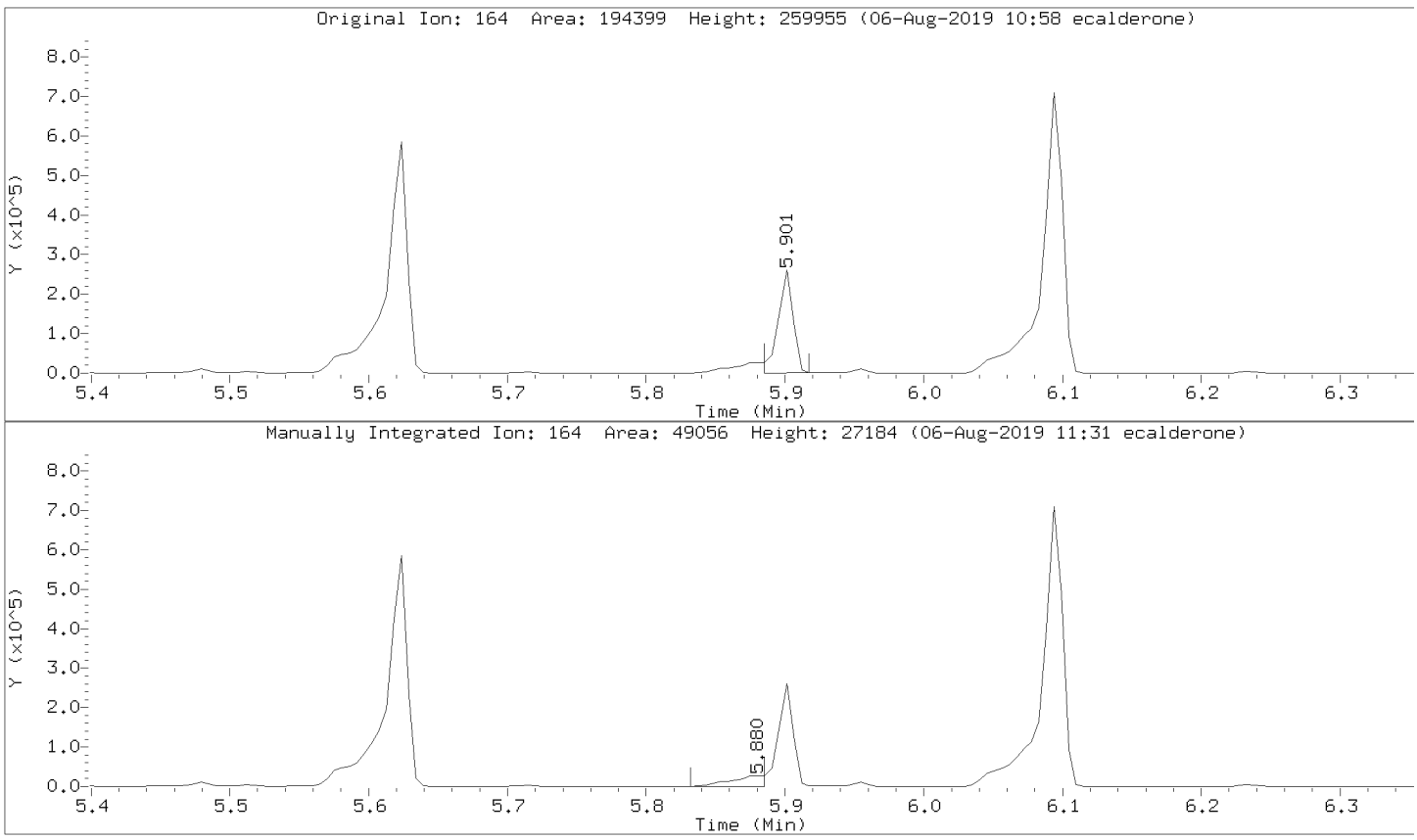
Instrument: 30mss1.i
Lab Sample ID: 1723156



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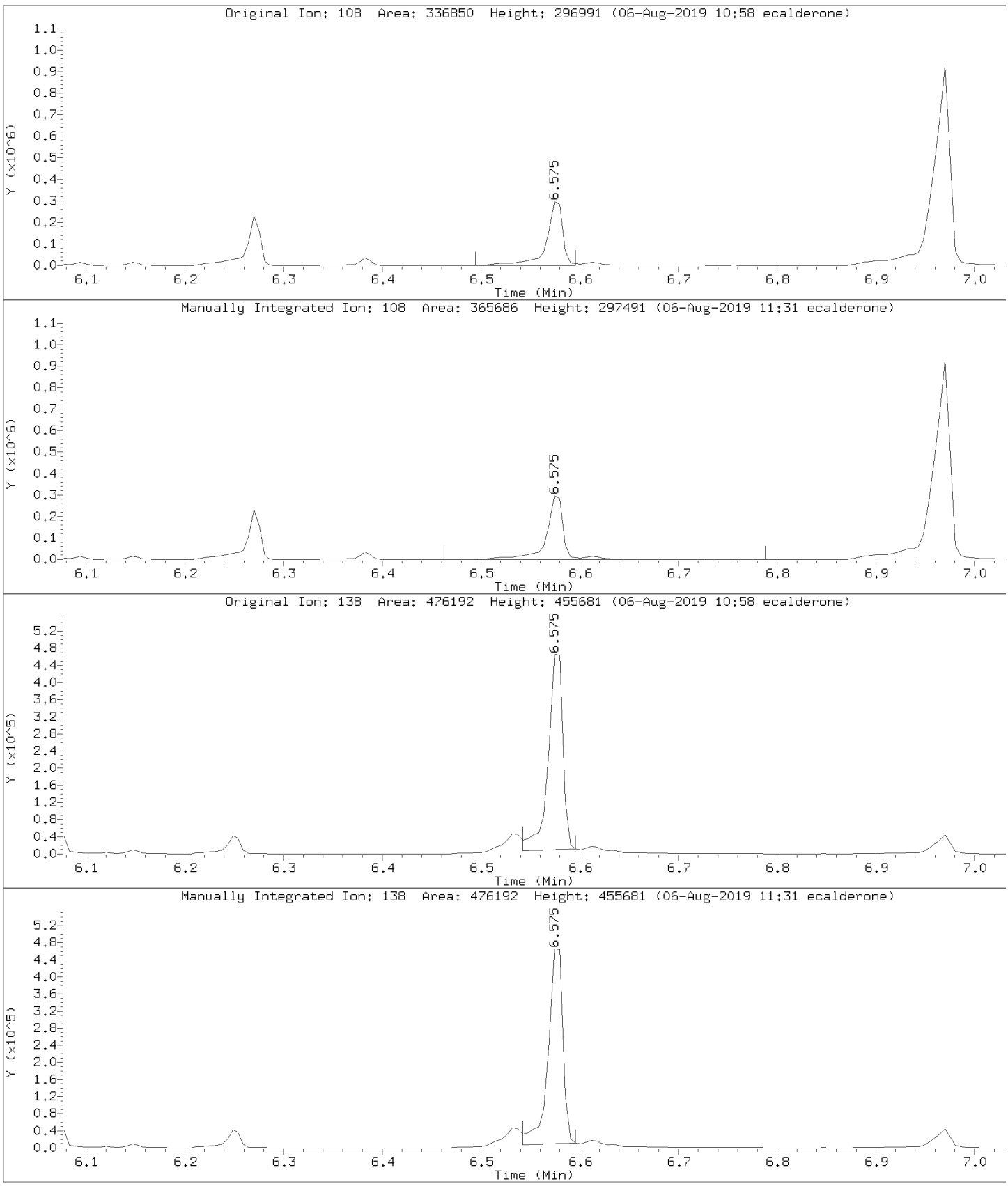
Injection Date: 05-AUG-2019 16:13
Instrument: 30mss1.i
Lab Sample ID: 1723156

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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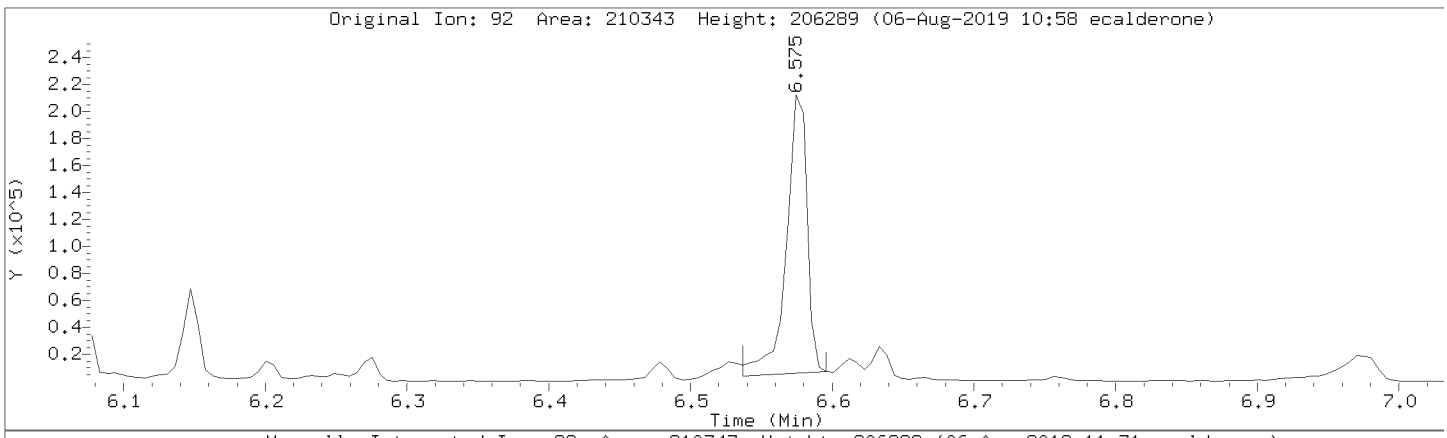
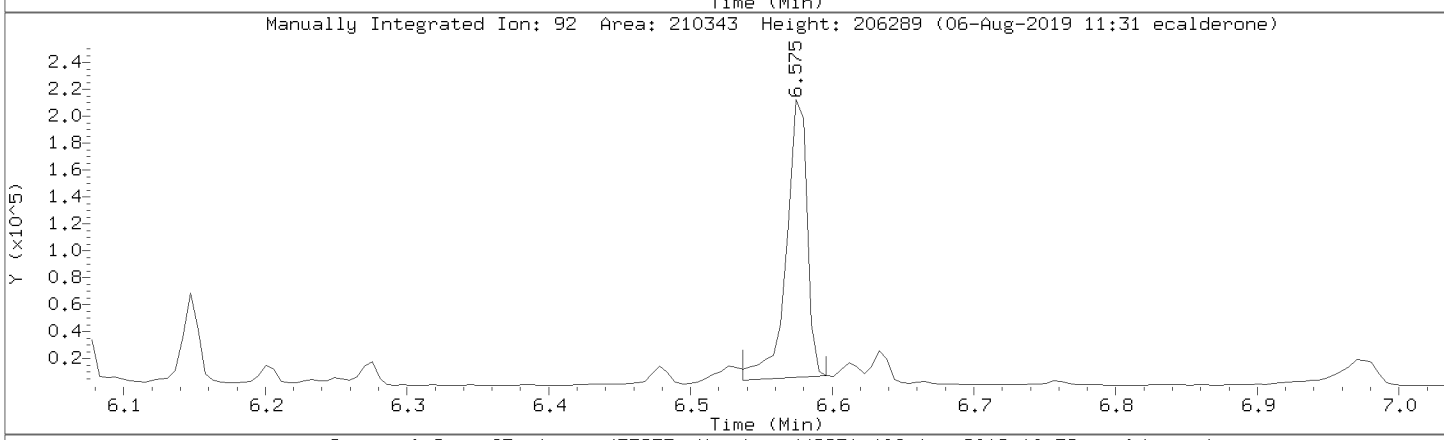
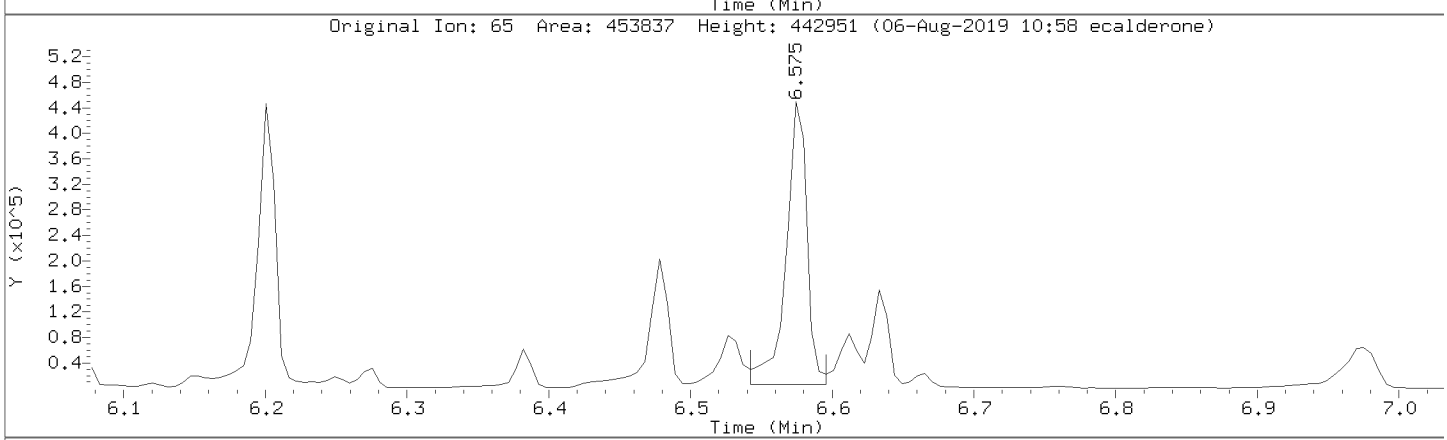
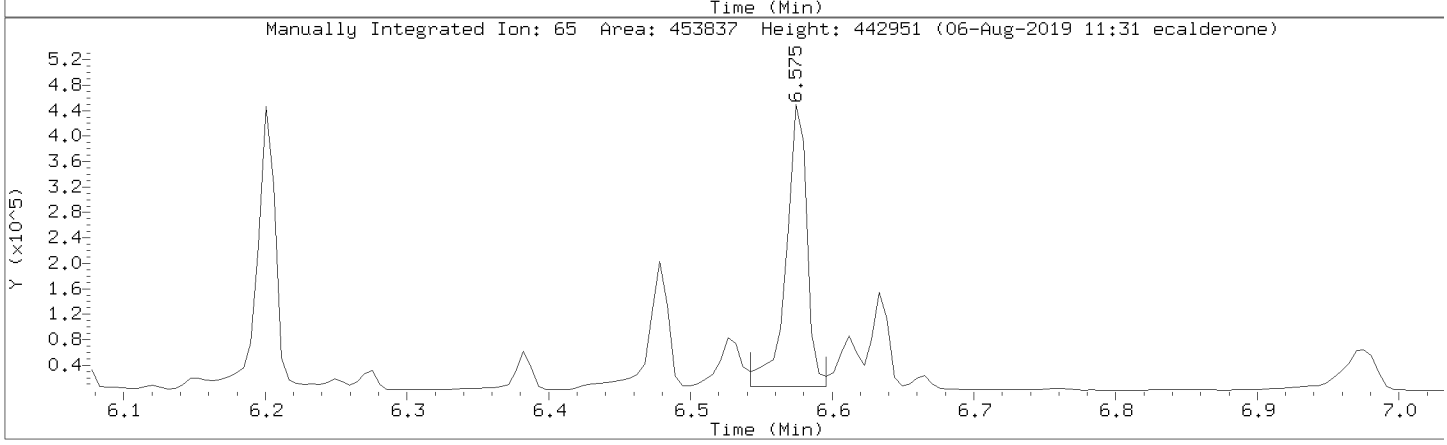
Lab Sample ID: 1723156









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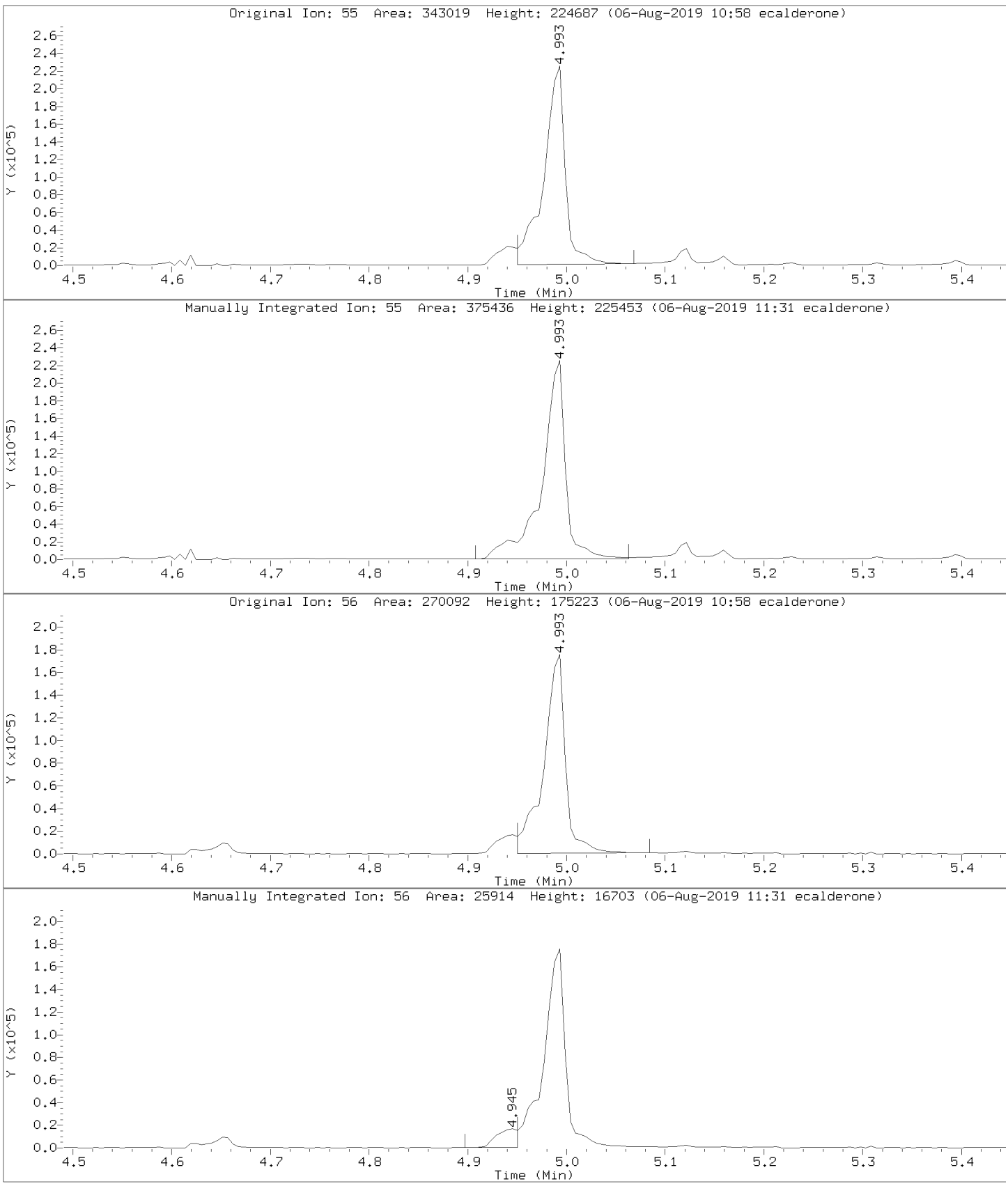
Injection Date: 05-AUG-2019 16:13
Instrument: 30mss1.i
Lab Sample ID: 1723156

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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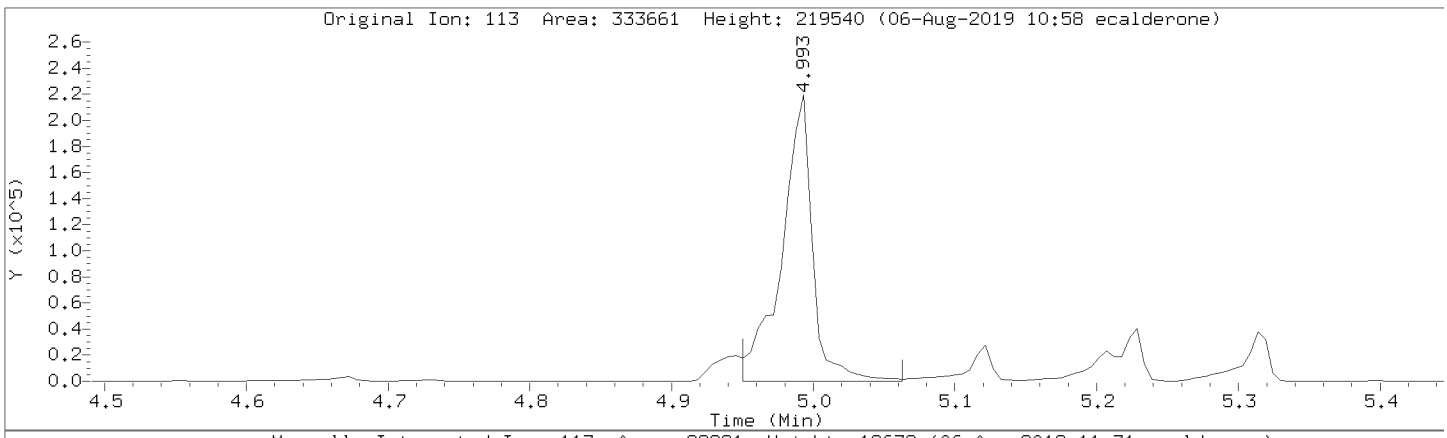
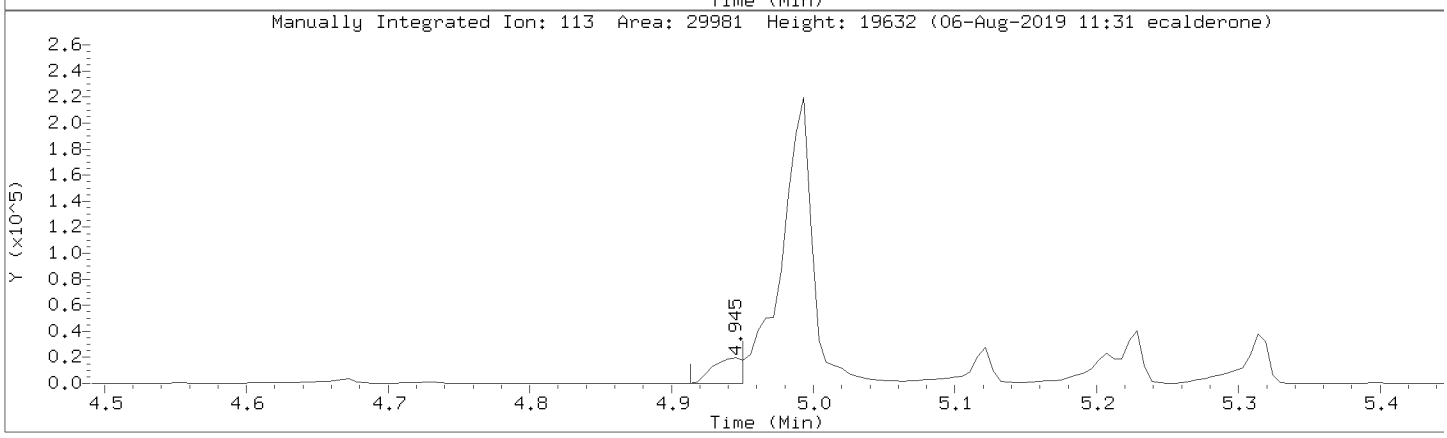
Instrument: 30mss1.i
Lab Sample ID: 1723156





Prep Log Report

Batch Information: OEXT 38823/354748 BNA-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D
Instrument	30BA13	Extracted By	JPD	Extracted Date/Time	08/02/2019 08:36:48:031	Extraction End Date/Time	08/02/2019 14:18:39:014
Witnessed By		Spiked By	JPD	Spiked By Date/Time	08/02/2019 09:16:26:015	Concentrated By	JPD
Concentrated By Date	08/02/2019 13:06:37:343	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR033
Syringe ID 2	NA	Methylene Chloride	94745	1:1 MeCl/Acetone	94663	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	90590	Gravity Filters	95299	Reviewed By	BBR
Reviewed By Date	08/09/2019 02:02	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8270SS-SPK (mL)	8270SS-SS (mL)
8270DSM_P	BLANK	**1723155**		TVAP006	15.31	5			92714 (.5)
8270DSM_P	LCS	**1723156**		TVAP006	15.41	5		94719 (.5)	92714 (.5)
8270DSM_P	OQS	**30315262001**		TVAP006	5.34	5	1*		92714 (.5)
8270DSM_P	PS	**30317136004**		TVAP006	15.32	5			92714 (.5)
8270DSM_P	PS	**30317136005**		TVAP006	15.2	5			92714 (.5)
8270DSM_P	PS	**30317136006**		TVAP006	15.21	5			92714 (.5)
8270DSM_P	PS	**30317136008**		TVAP005	15.43	5			92714 (.5)
8270DSM_P	PS	**30317136009**		TVAP005	15.05	5			92714 (.5)
8270DSM_P	PS	**30317136012**		TVAP005	15.44	5			92714 (.5)
8270DSM_P	MS	**1723157**		TVAP005	15.17	5		94719 (.5)	92714 (.5)
8270DSM_P	MSD	**1723158**		TVAP005	15.41	5		94719 (.5)	92714 (.5)
8270DSM_P	PS	**30317212003**		TVAP005	15.13	5			92714 (.5)
8270DSM_P	PS	**30317092001**		TVAP003	15.47	5			92714 (.5)
8270DSM_P	PS	**30317092002**		TVAP003	15.22	5			92714 (.5)
8270DSM_P	PS	**30317092003**		TVAP003	15.26	5			92714 (.5)
8270DSM_P	PS	**30317092004**		TVAP003	15.22	5			92714 (.5)
8270DSM_P	PS	**30317092005**		TVAP003	15.37	5			92714 (.5)
8270DSM_P	PS	**30317092006**		TVAP003	15.08	5			92714 (.5)

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8270SS-SPK (mL)	8270SS-SS (mL)
8270DSM_P	PS	**30317092007**		TVAP007	15.26	5			92714 (.5)
8270DSM_P	PS	**30317092008**		TVAP007	15.44	5			92714 (.5)

Sample Notes:

1*: Low-Density Matrix

Standard Notes:

92714: OEXT 8270 BNA surrogate 50/75

94719: NOT O2Si - USE 2.5 of 91361, not 5mL

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RTX-5MS 20m X 0.18mm Helium — Method: 8270D/TCL20/625
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 94046:10 — Surr. lot: see extraction sheets
Tune std: 71378 — Cal. std: 95128

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10730t1.d	DFTPP	N/14899	DFTPP	1	625tune	7/30/19	14:11	EAC	
1/m10730y1.d	CAL7	N/14899	CALIB_7	1	8270073019	7/30/19	14:25	EAC	
1/m10730y2.d	CAL6	N/14899	CALIB_6	1	8270073019	7/30/19	14:48	EAC	
1/m10730y3.d	CAL5	N/14899	CALIB_5	1	8270073019	7/30/19	15:11	EAC	
1/m10730y4.d	CAL4	N/14899	CALIB_4	1	8270073019	7/30/19	15:33	EAC	
1/m10730y5.d	CAL3	N/14899	CALIB_3	1	8270073019	7/30/19	15:56	EAC	
1/m10730y6.d	CAL2	N/14899	CALIB_2	1	8270073019	7/30/19	16:19	EAC	
1/m10730y7.d	CAL1	N/14899	CALIB_1	1	8270073019	7/30/19	16:42	EAC	
1/m10730y8.d	ICV	N/14899	CCALIB_8	1	8270073019	7/30/19	17:05	EAC	
1/m10730s1.d	CCV	N/BENZIDINE	CCALIB_4	1	benzidine072519	7/30/19	17:56	SJG	
1/m1073001.d	1718744	S/14891	BLANK	1	benzidine072519	7/30/19	18:40	EAC	
1/m1073002.d	1718745	S/14891	LCS	1	benzidine072519	7/30/19	19:02	EAC	
1/m1073003.d	30313347001X20	L/14875	SAMPLE	20	8270073019	7/30/19	19:24	EAC	
1/m1073004.d	1715548X20	L/14875	MS	20	8270073019	7/30/19	19:47	EAC	
1/m1073005.d	1715549X20	L/14875	MSD	20	8270073019	7/30/19	20:10	EAC	
1/m1073006.d	30315924001	S/14891	SAMPLE	1	benzidine072519	7/30/19	20:32	EAC	
1/m1073007.d	1718746	S/14891	MS	1	benzidine072519	7/30/19	20:55	EAC	
1/m1073008.d	1718747	S/14891	MSD	1	benzidine072519	7/30/19	21:17	EAC	
1/m1073009.d	30315526001	L/14879	SAMPLE	1	benzidine072519	7/30/19	21:39	EAC	
1/m1073010.d	30315526002	L/14879	SAMPLE	1	benzidine072519	7/30/19	22:02	EAC	
1/m1073011.d	30315526003	L/14879	SAMPLE	1	benzidine072519	7/30/19	22:24	EAC	
1/m1073012.d	30315526004	L/14879	SAMPLE	1	benzidine072519	7/30/19	22:47	EAC	
1/m1073013.d	30315526005	L/14879	SAMPLE	1	benzidine072519	7/30/19	23:09	EAC	
1/m1073014.d	30315526006	L/14879	SAMPLE	1	benzidine072519	7/30/19	23:31	EAC	
1/m1073015.d	30315526007	L/14879	SAMPLE	1	benzidine072519	7/30/19	23:54	EAC	
1/m1073016.d	30315526008	L/14879	SAMPLE	1	benzidine072519	7/31/19	00:16	EAC	
1/m1073017.d	30315526009	L/14879	SAMPLE	1	benzidine072519	7/31/19	00:38	EAC	
1/m1073018.d	30315526010	L/14879	SAMPLE	1	benzidine072519	7/31/19	01:00	EAC	
1/m1073019.d	30314347001X10	L/14860	SAMPLE	10	8270073019	7/31/19	01:22	EAC	1,2,5 RR St.
1/m1073020.d	30314535001X10	L/14860	SAMPLE	10	8270073019	7/31/19	01:45	EAC	X RR St. 7/31/19
1/m1073021.d	30314533001X10	L/14860	SAMPLE	10	8270073019	7/31/19	02:07	EAC	X RR St.
1/m1073022.d	30314533002X10	L/14860	SAMPLE	10	8270073019	7/31/19	02:30	EAC	X 10x DIL
1/m1073023.d	30314500001X10	L/14860	SAMPLE	10	8270073019	7/31/19	02:52	EAC	1 RR St.

Check Maintenance Items Performed:
- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 7/31/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1073019.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:20 07/31/2019

Reviewed By/Date: SJG 7-31-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RTX-5MS 20m X 0.18mm Helium Method:

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 94046:10 Surr. lot:

Tune std: _____ Cal. std: _____

see page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1073024.d	7097868002X10	L/14860	SAMPLE	10	8270073019	7/31/19	03:15	EAC	625
1/m1073025.d	30315011001X10	L/14860	SAMPLE	10	8270073019	7/31/19	03:37	EAC	1 RR 51
1/m1073026.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	03:59	EAC	
1/m1073027.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	04:22	EAC	
1/m1073028.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	04:44	EAC	
1/m1073029.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	05:07	EAC	
1/m1073030.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	05:29	EAC	
1/m1073031.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	05:51	EAC	
1/m1073032.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	06:14	EAC	
1/m1073033.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	06:36	EAC	
1/m1073034.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	06:58	EAC	
1/m1073035.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	07:20	EAC	
1/m1073036.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	07:43	EAC	
1/m1073037.d	RINSE	N/	SAMPLE	1	8270073019	7/31/19	08:05	EAC	
1/m1073039.d	30314347001	L/14860	SAMPLE	1	8270073019	7/31/19	10:15	EAC	
1/m1073040.d	30314533001	L/14860	SAMPLE	1	8270073019	7/31/19	10:37	EAC	
1/m1073041.d	30314500001	L/14860	SAMPLE	1	8270073019	7/31/19	11:00	EAC	
1/m1073042.d	30315011001	L/14860	SAMPLE	1	8270073019	7/31/19	11:22	EAC	
1/m1073043.d	30314533002X100	L/14860	SAMPLE	100	8270073019	7/31/19	11:56	EAC	

EAC 7/31/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1073019.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:20 07/31/2019

Reviewed By/Date: SJC 7-31-19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss1.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 94016
Tune std: 79378

Method: EPA 625/8270D
Surr. lot: See extraction sheets
Cal. std: 94272/93244

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m10805t1.d	DFTPP	N/14899	DFTPP	1	625tune	8/05/19	14:47	SJG	
1/m10805s1.d	CCV	N/14899	CCALIB_4	1	8270073019	8/05/19	15:04	SJG	
1/m10805s2.d	CCV	N/Benzidine	CCALIB_4	1	benzidine080219	8/05/19	15:27	SJG	
1/m1080501.d	1723155	S/14918	BLANK	1	8270073019	8/05/19	15:50	EAC	
1/m1080502.d	1723156	S/14918	LCS	1	8270073019	8/05/19	16:13	EAC	
1/m1080503.d	1723938	S/14920	BLANK	1	8270073019	8/05/19	16:36	EAC	
1/m1080504.d	1723939	S/14920	LCS	1	8270073019	8/05/19	16:59	EAC	
1/m1080505.d	30317136012	S/14918	SAMPLE	1	8270073019	8/05/19	17:21	EAC	
1/m1080506.d	1723157	S/14918	MS	1	8270073019	8/05/19	17:44	EAC	
1/m1080507.d	1723158	S/14918	MSD	1	8270073019	8/05/19	18:07	EAC	
1/m1080508.d	30316036001	L/14894	SAMPLE	1	8270073019	8/05/19	18:30	EAC	
1/m1080509.d	30316036003	L/14894	SAMPLE	1	8270073019	8/05/19	18:53	EAC	
1/m1080510.d	30316036004	L/14894	SAMPLE	1	8270073019	8/05/19	19:16	EAC	pH 6
1/m1080511.d	30316036005X10	L/14894	SAMPLE	10	8270073019	8/05/19	19:38	EAC	pH 6
1/m1080512.d	30317042001	S/14920	SAMPLE	1	8270073019	8/05/19	20:01	EAC	
1/m1080513.d	1723940	S/14920	MS	1	8270073019	8/05/19	20:24	EAC	
1/m1080514.d	1723941	S/14920	MSD	1	8270073019	8/05/19	20:46	EAC	
1/m1080515.d	30317042003	S/14920	SAMPLE	1	8270073019	8/05/19	21:08	EAC	
1/m1080516.d	30317042004	S/14920	SAMPLE	1	8270073019	8/05/19	21:31	EAC	
1/m1080517.d	30317042005	S/14920	SAMPLE	1	8270073019	8/05/19	21:53	EAC	
1/m1080518.d	30317212003	S/14918	SAMPLE	1	8270073019	8/05/19	22:16	EAC	
1/m1080519.d	30317042015	S/14920	SAMPLE	1	8270073019	8/05/19	22:38	EAC	
1/m1080520.d	30317042012	S/14920	SAMPLE	1	8270073019	8/05/19	23:01	EAC	ip
1/m1080521.d	30317042013	S/14920	SAMPLE	1	8270073019	8/05/19	23:23	EAC	
1/m1080522.d	30317042014	S/14920	SAMPLE	1	8270073019	8/05/19	23:46	EAC	X5
1/m1080523.d	30317042011	S/14920	SAMPLE	1	8270073019	8/06/19	00:08	EAC	
1/m1080524.d	30316036002	L/14894	SAMPLE	1	8270073019	8/06/19	00:30	EAC	C12pH6 X5
1/m1080525.d	30317042006	S/14920	SAMPLE	1	8270073019	8/06/19	00:53	EAC	
1/m1080526.d	30317042010	S/14920	SAMPLE	1	8270073019	8/06/19	01:15	EAC	
1/m1080527.d	30317042008	S/14920	SAMPLE	1	8270073019	8/06/19	01:37	EAC	X5
1/m1080528.d	30317042016X10	S/14920	SAMPLE	10	8270073019	8/06/19	02:00	EAC	
1/m1080529.d	30314898001X50	L/14877	SAMPLE	50	8270073019	8/06/19	02:22	EAC	623
1/m1080530.d	30314898003X50	L/14877	SAMPLE	50	8270073019	8/06/19	02:44	EAC	1

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 8/6/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1080519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:18 08/06/2019

Reviewed By/Date: SJG 8-6-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss1.i

Column RXI-5MS 20m X 0.18mm He Method: EPA 625

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 94046:10 Surr. lot:

Tune std: _____ Cal. std: _____

see page 1

Instrument name..... 30MSS1

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m1080531.d	30314898003X200	L/14877	SAMPLE	200	8270073019	8/06/19	03:07	EAC	625
1/m1080532.d	30314990001	L/14877	SAMPLE	1	8270073019	8/06/19	03:30	EAC	
1/m1080533.d	30315891001	L/14893	SAMPLE	1	8270073019	8/06/19	03:52	EAC	
1/m1080534.d	30315893001	L/14893	SAMPLE	1	8270073019	8/06/19	04:15	EAC	
1/m1080535.d	30315889001	L/14893	SAMPLE	1	8270073019	8/06/19	04:37	EAC	
1/m1080536.d	30315889002X100	L/14893	SAMPLE	100	8270073019	8/06/19	04:59	EAC	pile 5x5x
1/m1080537.d	30315308001	L/14885	SAMPLE	1	8270073019	8/06/19	05:22	EAC	pile
1/m1080538.d	30315496002	L/14885	SAMPLE	1	8270073019	8/06/19	05:44	EAC	pile
1/m1080539.d	30315438001	L/14885	SAMPLE	1	8270073019	8/06/19	06:07	EAC	
1/m1080540.d	30315994001	L/14885	SAMPLE	1	8270073019	8/06/19	06:29	EAC	
1/m1080541.d	30315889001	N/RE	SAMPLE	1	8270073019	8/06/19	06:52	EAC	
1/m1080542.d	30315889002X10	N/RE	SAMPLE	1	8270073019	8/06/19	07:14	EAC	
1/m1080543.d	30315889002X100	N/RE	SAMPLE	1	8270073019	8/06/19	07:36	EAC	
1/m1080544.d	30315892001X10	N/RE	SAMPLE	1	8270073019	8/06/19	07:58	EAC	
1/m1080545.d	RINSE	N/	SAMPLE	1	8270073019	8/06/19	08:21	EAC	
1/m1080546.d	RINSE	N/	SAMPLE	1	8270073019	8/06/19	08:43	EAC	
1/m1080547.d	RINSE	N/	SAMPLE	1	8270073019	8/06/19	09:06	EAC	
1/m1080548.d	RINSE	N/	SAMPLE	1	8270073019	8/06/19	09:28	EAC	

SJG 8/6/19

File Path 1: \\30wintarget\chem\30mss1.i\mss1080519.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 11:18 08/06/2019

Reviewed By/Date: SJG 8-6-19 Page: 2 of 2

Prep Log Report

Batch Information: PMST 8741/355201

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	SHD	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 08/05/2019 17:26 | SHD	Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 08/06/2019 08:15| VAK
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30316367002**	Y			82.28	17.72	08/05/2019 16:38:11	8.77	1.06	10.43	8.77	M	
DRY WEIGHT	DUP	**1725420**	Y			81.83	18.17	08/05/2019 16:38:17	6.25	1.07	7.4	6.25	M	
DRY WEIGHT	PS	**30316367003**	Y			79.76	20.24	08/05/2019 16:38:22	10.81	1.04	13.29	10.81	M	
DRY WEIGHT	DUP	**1725421**	Y			80.19	19.81	08/05/2019 16:38:27	9.43	1.05	11.5	9.43	M	
DRY WEIGHT	PS	**30316367004**	Y			80.41	19.59	08/05/2019 16:38:32	7.76	1.07	9.39	7.76	M	
DRY WEIGHT	PS	**30316367005**	Y			81.11	18.89	08/05/2019 16:38:37	7.91	1.04	9.51	7.91	M	
DRY WEIGHT	PS	**30316367006**	Y			82.17	17.83	08/05/2019 16:38:42	12.17	1.06	14.58	12.17	M	
DRY WEIGHT	PS	**30316367007**	Y			80.50	19.50	08/05/2019 16:38:49	7.86	1.05	9.51	7.86	M	
DRY WEIGHT	PS	**30316367008**	Y			85.17	14.83	08/05/2019 16:38:54	8.39	1.04	9.67	8.39	M	
DRY WEIGHT	PS	**30316367009**	Y			84.13	15.87	08/05/2019 16:38:59	13.81	1.03	16.22	13.81	M	
DRY WEIGHT	PS	**30316367010**	Y			84.04	15.96	08/05/2019 16:39:04	12.11	1.05	14.21	12.11	M	
DRY WEIGHT	PS	**30316367011**	Y			82.99	17.01	08/05/2019 16:39:08	14.28	1.06	16.99	14.28	M	
DRY WEIGHT	PS	**30316367012**	Y			84.72	15.28	08/05/2019 16:39:13	13.31	1.06	15.52	13.31	M	
DRY WEIGHT	PS	**30316916001**	Y			79.38	20.62	08/05/2019 16:39:19	11.84	1.06	14.64	11.84	M	
DRY WEIGHT	PS	**30316916002**	Y			80.19	19.81	08/05/2019 16:39:25	6.12	1.06	7.37	6.12	M	
DRY WEIGHT	PS	**30316916003**	Y			81.09	18.91	08/05/2019 16:39:29	9.67	1.05	11.68	9.67	M	
DRY WEIGHT	PS	**30316916004**	Y			93.65	6.348	08/05/2019 16:39:34	10.06	1.06	10.67	10.06	M	
DRY WEIGHT	PS	**30316916005**	Y			96.26	3.736	08/05/2019 16:39:39	9.81	1.05	10.15	9.81	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30316916006**	Y			72.77	27.23	08/05/2019 16:39:43	9.6	1.05	12.8	9.6	M	
DRY WEIGHT	PS	**30317212001**	Y			92.20	7.802	08/05/2019 16:39:49	8.13	1.04	8.73	8.13	M	
DRY WEIGHT	PS	**30317212002**	Y			93.81	6.192	08/05/2019 16:39:54	10.13	1.04	10.73	10.13	M	
DRY WEIGHT	PS	**30317212003**	Y			95.64	4.360	08/05/2019 16:39:59	14.21	1.05	14.81	14.21	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30318799

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Percent Moisture
Percent Moisture 1699
Subcontracted Data - Pace National Center for Testing and Innovation
Herbicides 1701

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

August 20, 2019

Mr. Dave Rykaczewski
WSP Environment & Energy
750 Holiday Drive, Suite 410
Pittsburgh, PA 15220

RE: Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Dear Mr. Rykaczewski:
Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

cc: Ms. Erin Huntley, WSP Environment & Energy

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CERTIFICATIONS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical National Certification IDs

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Pace Analytical National Certification IDs

North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: VT2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 9980939910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

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SAMPLE SUMMARY

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30318799001	**AOC 32 DITCH & AOC 35G**	Solid	08/08/19 13:30	08/09/19 09:30

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SAMPLE ANALYTE COUNT

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 8081B	TAW	9	PASI-PA
		EPA 8082A	CWB	10	PASI-PA
		EPA 8151A	LEL	3	PAN
		EPA 6010C	CTS	7	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	17	PASI-PA
		EPA 8270D	SJG	18	PASI-PA
		EPA 8260C	ARG	14	PASI-PA
		ASTM D2974-87	VAK	1	PASI-PA
		EPA 1010	CMR	1	PASI-PA
		EPA 9045D	ZMH	1	PASI-PA
		EPA 9014	PAS	1	PASI-PA
		SM 4500S2F-2011	PAS	1	PASI-PA

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8081B**
Description: 8081B GCS Pesticides, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8081B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 356372

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- LB (Lab ID: 1727835)
  - Decachlorobiphenyl (S)
- LB (Lab ID: 1729490)
  - Decachlorobiphenyl (S)
- LCS (Lab ID: 1730795)
  - Decachlorobiphenyl (S)
- MS (Lab ID: 1730796)
  - Decachlorobiphenyl (S)
- MSD (Lab ID: 1730797)
  - Decachlorobiphenyl (S)

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8081B**
Description: 8081B GCS Pesticides, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8082A**
Description: 8082A GCS PCB
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 356731

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30317695109

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 1732398)
  - PCB-1016 (Aroclor 1016)

R1: RPD value was outside control limits.

- MSD (Lab ID: 1732398)
  - PCB-1016 (Aroclor 1016)
  - PCB-1260 (Aroclor 1260)

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8151A**
Description: Chlorinated Herb. (GC) 8151A
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8151A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 6010C**
Description: 6010C MET ICP, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 6010C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 356285

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30318799001

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 1730484)
  - Barium

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 7470A**
Description: 7470 Mercury, TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 7470A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

ip: Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.
- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: 356065

IS: The internal standard response is below criteria. Results may be biased high.
- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)
  - Benzo(a)pyrene
  - Benzo(g,h,i)perylene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 356065

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)
  - 2-Fluorobiphenyl (S)

ST: Surrogate recovery was above laboratory control limits. Results may be biased high.
- MSD (Lab ID: 1729428)
  - 2-Fluorobiphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 356065

1c: The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased low

- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
- BLANK (Lab ID: 1729425)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
- LCS (Lab ID: 1729426)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
- MS (Lab ID: 1729427)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
- MSD (Lab ID: 1729428)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8270D**
Description: 8270D MSSV TCLP Solid Phase
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3535A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 356257

ST: Surrogate recovery was above laboratory control limits. Results may be biased high.

- LCS (Lab ID: 1730388)
  - 2-Fluorophenol (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 356592

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30318799001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1731938)
  - Vinyl chloride
- MSD (Lab ID: 1731939)
  - Vinyl chloride

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1731938)
  - Vinyl chloride
- MSD (Lab ID: 1731939)
  - Vinyl chloride

R1: RPD value was outside control limits.

- MSD (Lab ID: 1731939)
  - Benzene
  - Trichloroethene

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 8260C**
Description: 8260C MSV TCLP
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 1010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 9045D**
Description: 9045D pH Soil
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 9045D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- AOC 32 DITCH & AOC 35G (Lab ID: 30318799001)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **EPA 9014**
Description: 733C S Reactive Cyanide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for EPA 9014. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Method: **SM 4500S2F-2011**
Description: 734S Reactive Sulfide
Client: WSP Environment & Energy - Pittsburgh, PA
Date: August 20, 2019

General Information:
1 sample was analyzed for SM 4500S2F-2011. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Sample: AOC 32 DITCH & AOC 35G **Lab ID: 30318799001** Collected: 08/08/19 13:30 Received: 08/09/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides, TCLP	Analytical Method: EPA 8081B Preparation Method: EPA 3510C								
	Leachate Method/Date: EPA 1311; 08/11/19 10:00 Initial pH: 8.5; Final pH: 5.54								
gamma-BHC (Lindane)	ND	ug/L	0.10	0.0024	1	08/13/19 09:14	08/14/19 20:22	58-89-9	
Chlordane (Technical)	ND	ug/L	1.0	0.040	1	08/13/19 09:14	08/14/19 20:22	57-74-9	
Endrin	ND	ug/L	0.20	0.0049	1	08/13/19 09:14	08/14/19 20:22	72-20-8	
Heptachlor	ND	ug/L	0.10	0.0021	1	08/13/19 09:14	08/14/19 20:22	76-44-8	
Heptachlor epoxide	ND	ug/L	0.10	0.0015	1	08/13/19 09:14	08/14/19 20:22	1024-57-3	
Methoxychlor	ND	ug/L	1.0	0.014	1	08/13/19 09:14	08/14/19 20:22	72-43-5	
Toxaphene	ND	ug/L	2.0	0.17	1	08/13/19 09:14	08/14/19 20:22	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	90	%.	24-108		1	08/13/19 09:14	08/14/19 20:22	2051-24-3	CH
Tetrachloro-m-xylene (S)	70	%.	44-93		1	08/13/19 09:14	08/14/19 20:22	877-09-8	CH
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	208	128	10	08/14/19 18:52	08/19/19 19:10	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	208	184	10	08/14/19 18:52	08/19/19 19:10	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	208	189	10	08/14/19 18:52	08/19/19 19:10	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	208	152	10	08/14/19 18:52	08/19/19 19:10	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	208	119	10	08/14/19 18:52	08/19/19 19:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**2140**	ug/kg	208	111	10	08/14/19 18:52	08/19/19 19:10	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	208	118	10	08/14/19 18:52	08/19/19 19:10	11096-82-5	
PCB, Total	**2140**	ug/kg	1870	1170	10	08/14/19 18:52	08/19/19 19:10	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	64	%.	34-114		10	08/14/19 18:52	08/19/19 19:10	877-09-8	
Decachlorobiphenyl (S)	84	%.	38-139		10	08/14/19 18:52	08/19/19 19:10	2051-24-3	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A								
	Leachate Method/Date: 1311; 08/15/19 14:02 Initial pH: 7.42; Final pH: 6.03								
2,4,5-TP (Silvex)	ND	mg/L	0.00200	0.000667	1	08/16/19 12:37	08/19/19 11:41	93-72-1	
2,4-D	ND	mg/L	0.00200	0.000667	1	08/16/19 12:37	08/19/19 11:41	94-75-7	
Surrogates									
2,4-DCAA (S)	68.2	%	14.0-158		1	08/16/19 12:37	08/19/19 11:41	19719-28-9	
6010C MET ICP, TCLP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A								
	Leachate Method/Date: EPA 1311; 08/11/19 10:00 Initial pH: 8.5; Final pH: 5.54								
Arsenic	ND	mg/L	0.025	0.010	1	08/12/19 14:41	08/14/19 07:20	7440-38-2	
Barium	**0.82**	mg/L	0.050	0.0034	1	08/12/19 14:41	08/14/19 07:20	7440-39-3	MH
Cadmium	ND	mg/L	0.015	0.0017	1	08/12/19 14:41	08/14/19 07:20	7440-43-9	
Chromium	ND	mg/L	0.025	0.0017	1	08/12/19 14:41	08/14/19 07:20	7440-47-3	
Lead	ND	mg/L	0.025	0.025	1	08/12/19 14:41	08/14/19 07:20	7439-92-1	
Selenium	ND	mg/L	0.040	0.027	1	08/12/19 14:41	08/14/19 09:05	7782-49-2	
Silver	ND	mg/L	0.030	0.0072	1	08/12/19 14:41	08/14/19 07:20	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
	Leachate Method/Date: EPA 1311; 08/11/19 10:00 Initial pH: 8.5; Final pH: 5.54								
Mercury	ND	ug/L	1.0	0.030	1	08/12/19 15:57	08/12/19 22:28	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Sample: AOC 32 DITCH & AOC 35G **Lab ID: 30318799001** Collected: 08/08/19 13:30 Received: 08/09/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546								
Acenaphthylene	**361**	ug/kg	81.4	5.8	10	08/12/19 08:36	08/12/19 23:37	208-96-8	
Anthracene	**2920**	ug/kg	81.4	7.4	10	08/12/19 08:36	08/12/19 23:37	120-12-7	
Benzo(a)anthracene	**9750**	ug/kg	81.4	9.5	10	08/12/19 08:36	08/12/19 23:37	56-55-3	
Benzo(a)pyrene	**9520**	ug/kg	81.4	5.1	10	08/12/19 08:36	08/12/19 23:37	50-32-8	1c,IS
Benzo(b)fluoranthene	**20000**	ug/kg	814	97.5	100	08/12/19 08:36	08/13/19 16:53	205-99-2	1c,ip
Benzo(g,h,i)perylene	**869**	ug/kg	81.4	12.3	10	08/12/19 08:36	08/12/19 23:37	191-24-2	IS
Benzo(k)fluoranthene	**17700**	ug/kg	814	136	100	08/12/19 08:36	08/13/19 16:53	207-08-9	ip
Chrysene	**8000**	ug/kg	81.4	4.2	10	08/12/19 08:36	08/12/19 23:37	218-01-9	
Dibenz(a,h)anthracene	**406**	ug/kg	81.4	18.1	10	08/12/19 08:36	08/12/19 23:37	53-70-3	IS
Fluoranthene	**27000**	ug/kg	814	61.7	100	08/12/19 08:36	08/13/19 16:53	206-44-0	
Fluorene	**1570**	ug/kg	81.4	7.5	10	08/12/19 08:36	08/12/19 23:37	86-73-7	
Indeno(1,2,3-cd)pyrene	**1180**	ug/kg	81.4	15.5	10	08/12/19 08:36	08/12/19 23:37	193-39-5	IS
Naphthalene	**1370**	ug/kg	81.4	15.8	10	08/12/19 08:36	08/12/19 23:37	91-20-3	
Phenanthrene	**15300**	ug/kg	81.4	7.2	10	08/12/19 08:36	08/12/19 23:37	85-01-8	
Pyrene	**21600**	ug/kg	814	91.4	100	08/12/19 08:36	08/13/19 16:53	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	98	%.	43-97		10	08/12/19 08:36	08/12/19 23:37	321-60-8	S4
Terphenyl-d14 (S)	101	%.	56-106		10	08/12/19 08:36	08/12/19 23:37	1718-51-0	
8270D MSSV TCLP Solid Phase	Analytical Method: EPA 8270D Preparation Method: EPA 3535A Leachate Method/Date: EPA 1311; 08/11/19 10:00 Initial pH: 8.5; Final pH: 5.54								
1,4-Dichlorobenzene	ND	ug/L	500	47.9	1	08/12/19 13:34	08/12/19 21:41	106-46-7	
2,4-Dinitrotoluene	ND	ug/L	100	23.3	1	08/12/19 13:34	08/12/19 21:41	121-14-2	
Hexachloro-1,3-butadiene	ND	ug/L	100	61.6	1	08/12/19 13:34	08/12/19 21:41	87-68-3	
Hexachlorobenzene	ND	ug/L	100	22.8	1	08/12/19 13:34	08/12/19 21:41	118-74-1	
Hexachloroethane	ND	ug/L	200	55.5	1	08/12/19 13:34	08/12/19 21:41	67-72-1	
2-Methylphenol(o-Cresol)	ND	ug/L	2000	22.1	1	08/12/19 13:34	08/12/19 21:41	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2000	40.4	1	08/12/19 13:34	08/12/19 21:41		
Nitrobenzene	ND	ug/L	100	42.6	1	08/12/19 13:34	08/12/19 21:41	98-95-3	
Pentachlorophenol	ND	ug/L	5000	25.6	1	08/12/19 13:34	08/12/19 21:41	87-86-5	
Pyridine	ND	ug/L	250	19.3	1	08/12/19 13:34	08/12/19 21:41	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	5000	19.7	1	08/12/19 13:34	08/12/19 21:41	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	100	23.4	1	08/12/19 13:34	08/12/19 21:41	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	80	%.	61-105		1	08/12/19 13:34	08/12/19 21:41	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	56-90		1	08/12/19 13:34	08/12/19 21:41	321-60-8	
Terphenyl-d14 (S)	83	%.	32-90		1	08/12/19 13:34	08/12/19 21:41	1718-51-0	
Phenol-d6 (S)	80	%.	64-101		1	08/12/19 13:34	08/12/19 21:41	13127-88-3	
2-Fluorophenol (S)	72	%.	61-116		1	08/12/19 13:34	08/12/19 21:41	367-12-4	
2,4,6-Tribromophenol (S)	64	%.	55-108		1	08/12/19 13:34	08/12/19 21:41	118-79-6	
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 08/12/19 13:59								
Benzene	ND	ug/L	50.0	8.7	10		08/14/19 18:34	71-43-2	R1
2-Butanone (MEK)	ND	ug/L	100	9.1	10		08/14/19 18:34	78-93-3	
Carbon tetrachloride	ND	ug/L	50.0	17.2	10		08/14/19 18:34	56-23-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Sample: AOC 32 DITCH & AOC 35G **Lab ID: 30318799001** Collected: 08/08/19 13:30 Received: 08/09/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV TCLP	Analytical Method: EPA 8260C Leachate Method/Date: EPA 1311; 08/12/19 13:59								
Chlorobenzene	ND	ug/L	50.0	7.8	10		08/14/19 18:34	108-90-7	
Chloroform	ND	ug/L	50.0	15.0	10		08/14/19 18:34	67-66-3	
1,2-Dichloroethane	ND	ug/L	50.0	12.9	10		08/14/19 18:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	50.0	18.6	10		08/14/19 18:34	75-35-4	
Tetrachloroethene	ND	ug/L	50.0	17.3	10		08/14/19 18:34	127-18-4	
Trichloroethene	ND	ug/L	50.0	14.7	10		08/14/19 18:34	79-01-6	R1
Vinyl chloride	ND	ug/L	50.0	21.5	10		08/14/19 18:34	75-01-4	M1,ML
Surrogates									
1,2-Dichloroethane-d4 (S)	113	%.	70-130		10		08/14/19 18:34	17060-07-0	
Toluene-d8 (S)	99	%.	70-130		10		08/14/19 18:34	2037-26-5	
4-Bromofluorobenzene (S)	99	%.	70-130		10		08/14/19 18:34	460-00-4	
Dibromofluoromethane (S)	110	%.	70-130		10		08/14/19 18:34	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.0**	%	0.10	0.10	1		08/15/19 14:25		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**>200**	deg F	60.0		1		08/16/19 14:26		
9045D pH Soil	Analytical Method: EPA 9045D								
pH in water at 25 degrees C	**7.5**	Std. Units	2.0	2.0	1		08/09/19 21:33		H3
733C S Reactive Cyanide	Analytical Method: EPA 9014 Preparation Method: SW-846 7.3.3.2								
Cyanide, Reactive	ND	mg/kg	1.2	0.50	1	08/12/19 17:28	08/12/19 17:59		
734S Reactive Sulfide	Analytical Method: SM 4500S2F-2011 Preparation Method: SW-846 7.3.4.2								
Sulfide, Reactive	ND	mg/kg	12.4	12.4	1	08/12/19 17:28	08/12/19 17:37		

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 1329942
QC Batch Method: 8151A
Associated Lab Samples: 30318799001

Analysis Method: EPA 8151A
Analysis Description: Chlorinated Herb. (GC) 8151A

METHOD BLANK: R3441834-1 Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
2,4-D	mg/L	ND	0.00200	0.000667	08/19/19 11:12	
2,4,5-TP (Silvex)	mg/L	ND	0.00200	0.000667	08/19/19 11:12	
2,4-DCAA (S)	%	67.6	14.0-158		08/19/19 11:12	

LABORATORY CONTROL SAMPLE: R3441834-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	mg/L	0.0500	0.0376	75.2	50.0-120	P9
2,4,5-TP (Silvex)	mg/L	0.0500	0.0376	75.2	50.0-125	P9
2,4-DCAA (S)	%			73.2	14.0-158	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3441834-3 R3441834-4

Parameter	Units	30318799001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-D	mg/L	ND	0.0500	0.0500	0.0363	0.0404	72.6	80.8	50.0-120	10.7	20	P9
2,4,5-TP (Silvex)	mg/L	ND	0.0500	0.0500	0.0360	0.0398	72.0	79.6	50.0-125	10.0	20	P9
2,4-DCAA (S)	%						65.8	72.6	14.0-158			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356319 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 30318799001

METHOD BLANK: 1730580 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	08/12/19 21:35	

METHOD BLANK: 1729491 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	08/12/19 21:42	

METHOD BLANK: 1729492 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	1.0	0.030	08/12/19 21:44	

LABORATORY CONTROL SAMPLE: 1730581

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	102	80-120	

MATRIX SPIKE SAMPLE: 1730583

Parameter	Units	30317384005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.8	110	75-125	

MATRIX SPIKE SAMPLE: 1730585

Parameter	Units	30318428001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.7	108	75-125	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

SAMPLE DUPLICATE: 1730582

Parameter	Units	30317384005 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 1730584

Parameter	Units	30318428001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356285
QC Batch Method: EPA 3005A
Analysis Method: EPA 6010C
Analysis Description: 6010C MET TCLP
Associated Lab Samples: 30318799001

METHOD BLANK: 1730480 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	08/14/19 07:09	
Barium	mg/L	ND	0.050	0.0034	08/14/19 07:09	
Cadmium	mg/L	ND	0.015	0.0017	08/14/19 07:09	
Chromium	mg/L	ND	0.025	0.0017	08/14/19 07:09	
Lead	mg/L	ND	0.025	0.025	08/14/19 07:09	
Selenium	mg/L	ND	0.040	0.027	08/14/19 08:49	
Silver	mg/L	ND	0.030	0.0072	08/14/19 07:09	

METHOD BLANK: 1729491 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	08/14/19 07:13	
Barium	mg/L	ND	0.050	0.0034	08/14/19 07:13	
Cadmium	mg/L	ND	0.015	0.0017	08/14/19 07:13	
Chromium	mg/L	ND	0.025	0.0017	08/14/19 07:13	
Lead	mg/L	ND	0.025	0.025	08/14/19 07:13	
Selenium	mg/L	ND	0.040	0.027	08/14/19 08:58	
Silver	mg/L	ND	0.030	0.0072	08/14/19 07:13	

METHOD BLANK: 1729492 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.025	0.010	08/14/19 07:15	
Barium	mg/L	ND	0.050	0.0034	08/14/19 07:15	
Cadmium	mg/L	ND	0.015	0.0017	08/14/19 07:15	
Chromium	mg/L	ND	0.025	0.0017	08/14/19 07:15	
Lead	mg/L	ND	0.025	0.025	08/14/19 07:15	
Selenium	mg/L	ND	0.040	0.027	08/14/19 09:00	
Silver	mg/L	ND	0.030	0.0072	08/14/19 07:15	

LABORATORY CONTROL SAMPLE: 1730481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.52	104	80-120	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

LABORATORY CONTROL SAMPLE: 1730481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L	0.5	0.57	114	80-120	
Cadmium	mg/L	0.5	0.55	110	80-120	
Chromium	mg/L	0.5	0.56	111	80-120	
Lead	mg/L	0.5	0.55	111	80-120	
Selenium	mg/L	0.5	0.56	113	80-120	
Silver	mg/L	0.25	0.26	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1730483 1730484

Parameter	Units	30318799001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.5	0.5	0.54	0.55	107	110	75-125	3	20	
Barium	mg/L	0.82	0.5	0.5	1.4	1.4	110	126	75-125	5	20	MH
Cadmium	mg/L	ND	0.5	0.5	0.56	0.57	110	113	75-125	2	20	
Chromium	mg/L	ND	0.5	0.5	0.50	0.51	99	102	75-125	3	20	
Lead	mg/L	ND	0.5	0.5	0.54	0.55	105	107	75-125	2	20	
Selenium	mg/L	ND	0.5	0.5	0.60	0.59	121	119	75-125	2	20	
Silver	mg/L	ND	0.25	0.25	0.29	0.30	117	121	75-125	3	20	

SAMPLE DUPLICATE: 1730482

Parameter	Units	30318799001 Result	Dup Result	RPD	Max RPD	Qualifiers
Arsenic	mg/L	ND	ND		20	
Barium	mg/L	0.82	0.80	2	20	
Cadmium	mg/L	ND	.0048J		20	
Chromium	mg/L	ND	ND		20	
Lead	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Silver	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356592 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV TCLP
Associated Lab Samples: 30318799001

METHOD BLANK: 1730356 Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1-Dichloroethene	ug/L	ND	50.0	18.6	08/14/19 13:24	
1,2-Dichloroethane	ug/L	ND	50.0	12.9	08/14/19 13:24	
2-Butanone (MEK)	ug/L	ND	100	9.1	08/14/19 13:24	
Benzene	ug/L	ND	50.0	8.7	08/14/19 13:24	
Carbon tetrachloride	ug/L	ND	50.0	17.2	08/14/19 13:24	
Chlorobenzene	ug/L	ND	50.0	7.8	08/14/19 13:24	
Chloroform	ug/L	ND	50.0	15.0	08/14/19 13:24	
Tetrachloroethene	ug/L	ND	50.0	17.3	08/14/19 13:24	
Trichloroethene	ug/L	ND	50.0	14.7	08/14/19 13:24	
Vinyl chloride	ug/L	ND	50.0	21.5	08/14/19 13:24	
1,2-Dichloroethane-d4 (S)	%.	106	70-130		08/14/19 13:24	
4-Bromofluorobenzene (S)	%.	98	70-130		08/14/19 13:24	
Dibromofluoromethane (S)	%.	109	70-130		08/14/19 13:24	
Toluene-d8 (S)	%.	99	70-130		08/14/19 13:24	

LABORATORY CONTROL SAMPLE: 1731940

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	20	16.2	81	45-124	
1,2-Dichloroethane	ug/L	20	17.5	88	57-110	
2-Butanone (MEK)	ug/L	20	17.4	87	46-117	
Benzene	ug/L	20	17.3	87	63-110	
Carbon tetrachloride	ug/L	20	18.8	94	59-114	
Chlorobenzene	ug/L	20	17.4	87	70-130	
Chloroform	ug/L	20	17.4	87	65-108	
Tetrachloroethene	ug/L	20	16.2	81	64-114	
Trichloroethene	ug/L	20	16.9	84	61-112	
Vinyl chloride	ug/L	20	20.4	102	54-142	
1,2-Dichloroethane-d4 (S)	%.			109	70-130	
4-Bromofluorobenzene (S)	%.			100	70-130	
Dibromofluoromethane (S)	%.			109	70-130	
Toluene-d8 (S)	%.			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1731938 1731939

Parameter	Units	30318799001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	200	200	91.7	73.7	46	37	10-133	22	30	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1731938 1731939

Parameter	Units	30318799001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	200	200	157	118	79	59	24-111	28	30	
2-Butanone (MEK)	ug/L	ND	200	200	157	123	79	61	10-175	24	30	
Benzene	ug/L	ND	200	200	147	100	74	50	15-121	38	30	R1
Carbon tetrachloride	ug/L	ND	200	200	148	113	74	56	20-125	27	30	
Chlorobenzene	ug/L	ND	200	200	176	137	85	65	10-122	25	30	
Chloroform	ug/L	ND	200	200	161	125	81	63	27-117	25	30	
Tetrachloroethene	ug/L	ND	200	200	173	130	86	65	13-125	28	30	
Trichloroethene	ug/L	ND	200	200	167	122	80	58	10-133	31	30	R1
Vinyl chloride	ug/L	ND	200	200	ND	ND	0	0	10-133		30	M1,ML
1,2-Dichloroethane-d4 (S)	%.						98	105	70-130			
4-Bromofluorobenzene (S)	%.						98	101	70-130			
Dibromofluoromethane (S)	%.						99	101	70-130			
Toluene-d8 (S)	%.						97	98	70-130			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356372 Analysis Method: EPA 8081B
QC Batch Method: EPA 3510C Analysis Description: 8081 GCS TCLP Pesticides
Associated Lab Samples: 30318799001

METHOD BLANK: 1727835 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlordane (Technical)	ug/L	ND	1.0	0.040	08/14/19 18:55	
Endrin	ug/L	ND	0.20	0.0049	08/14/19 18:55	
gamma-BHC (Lindane)	ug/L	ND	0.10	0.0024	08/14/19 18:55	
Heptachlor	ug/L	ND	0.10	0.0021	08/14/19 18:55	
Heptachlor epoxide	ug/L	ND	0.10	0.0015	08/14/19 18:55	
Methoxychlor	ug/L	ND	1.0	0.014	08/14/19 18:55	
Toxaphene	ug/L	ND	2.0	0.17	08/14/19 18:55	
Decachlorobiphenyl (S)	%.	89	24-108		08/14/19 18:55	CH
Tetrachloro-m-xylene (S)	%.	68	44-93		08/14/19 18:55	

METHOD BLANK: 1729490 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlordane (Technical)	ug/L	ND	1.0	0.040	08/14/19 19:14	
Endrin	ug/L	ND	0.20	0.0049	08/14/19 19:14	
gamma-BHC (Lindane)	ug/L	ND	0.10	0.0024	08/14/19 19:14	
Heptachlor	ug/L	ND	0.10	0.0021	08/14/19 19:14	
Heptachlor epoxide	ug/L	ND	0.10	0.0015	08/14/19 19:14	
Methoxychlor	ug/L	ND	1.0	0.014	08/14/19 19:14	
Toxaphene	ug/L	ND	2.0	0.17	08/14/19 19:14	
Decachlorobiphenyl (S)	%.	87	24-108		08/14/19 19:14	CH
Tetrachloro-m-xylene (S)	%.	66	44-93		08/14/19 19:14	

LABORATORY CONTROL SAMPLE: 1730795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin	ug/L	1.6	1.3	81	60-103	
gamma-BHC (Lindane)	ug/L	0.8	0.64	80	58-99	
Heptachlor	ug/L	0.8	0.55	69	51-104	
Heptachlor epoxide	ug/L	0.8	0.65	81	59-98	
Methoxychlor	ug/L	8	5.9	73	58-108	
Decachlorobiphenyl (S)	%.			96	24-108	CH
Tetrachloro-m-xylene (S)	%.			70	44-93	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1730796 1730797

Parameter	Units	30318386001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Endrin	ug/L	0.20 U	2	2	1.6	1.6	80	81	33-142	1	25	
gamma-BHC (Lindane)	ug/L	0.10 U	1	1	0.85	0.85	84	84	10-146	0	25	
Heptachlor	ug/L	0.10 U	1	1	0.75	0.75	75	75	10-138	0	25	
Heptachlor epoxide	ug/L	0.10 U	1	1	0.81	0.81	81	81	39-115	0	25	
Methoxychlor	ug/L	1.0 U	10	10	7.3	7.7	73	77	10-158	5	25	
Decachlorobiphenyl (S)	%.						90	92	24-108			CH
Tetrachloro-m-xylene (S)	%.						70	71	44-93			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356731 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082A GCS PCB
Associated Lab Samples: 30318799001

METHOD BLANK: 1732395 Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	16.7	10.3	08/16/19 20:51	
PCB-1221 (Aroclor 1221)	ug/kg	ND	16.7	14.8	08/16/19 20:51	
PCB-1232 (Aroclor 1232)	ug/kg	ND	16.7	15.2	08/16/19 20:51	
PCB-1242 (Aroclor 1242)	ug/kg	ND	16.7	12.2	08/16/19 20:51	
PCB-1248 (Aroclor 1248)	ug/kg	ND	16.7	9.6	08/16/19 20:51	
PCB-1254 (Aroclor 1254)	ug/kg	ND	16.7	8.9	08/16/19 20:51	
PCB-1260 (Aroclor 1260)	ug/kg	ND	16.7	9.5	08/16/19 20:51	
Decachlorobiphenyl (S)	%.	80	38-139		08/16/19 20:51	
Tetrachloro-m-xylene (S)	%.	73	34-114		08/16/19 20:51	

LABORATORY CONTROL SAMPLE: 1732396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	129	78	61-105	
PCB-1260 (Aroclor 1260)	ug/kg	167	133	80	70-100	
Decachlorobiphenyl (S)	%.			84	38-139	
Tetrachloro-m-xylene (S)	%.			78	34-114	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1732397 1732398

Parameter	Units	30317695109 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND	183	183	160	262	87	142	24-137	48	25	MH,R1
PCB-1260 (Aroclor 1260)	ug/kg	ND	183	183	165	263	82	135	19-156	46	25	R1
Decachlorobiphenyl (S)	%.						73	81	38-139			
Tetrachloro-m-xylene (S)	%.						70	75	34-114			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356065
QC Batch Method: EPA 3546
Analysis Method: EPA 8270D by SIM
Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30318799001

METHOD BLANK: 1729425
Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Acenaphthylene	ug/kg	ND	6.5	0.47	08/12/19 14:01	
Anthracene	ug/kg	ND	6.5	0.59	08/12/19 14:01	
Benzo(a)anthracene	ug/kg	ND	6.5	0.77	08/12/19 14:01	
Benzo(a)pyrene	ug/kg	ND	6.5	0.41	08/12/19 14:01	1c
Benzo(b)fluoranthene	ug/kg	ND	6.5	0.78	08/12/19 14:01	1c
Benzo(g,h,i)perylene	ug/kg	ND	6.5	0.99	08/12/19 14:01	
Benzo(k)fluoranthene	ug/kg	ND	6.5	1.1	08/12/19 14:01	
Chrysene	ug/kg	ND	6.5	0.34	08/12/19 14:01	
Dibenz(a,h)anthracene	ug/kg	ND	6.5	1.5	08/12/19 14:01	
Fluoranthene	ug/kg	ND	6.5	0.50	08/12/19 14:01	
Fluorene	ug/kg	ND	6.5	0.61	08/12/19 14:01	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.5	1.2	08/12/19 14:01	
Naphthalene	ug/kg	ND	6.5	1.3	08/12/19 14:01	
Phenanthrene	ug/kg	ND	6.5	0.58	08/12/19 14:01	
Pyrene	ug/kg	ND	6.5	0.73	08/12/19 14:01	
2-Fluorobiphenyl (S)	%.	94	43-97		08/12/19 14:01	
Terphenyl-d14 (S)	%.	92	56-106		08/12/19 14:01	

LABORATORY CONTROL SAMPLE: 1729426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthylene	ug/kg	129	124	96	42-109	
Anthracene	ug/kg	129	114	89	54-110	
Benzo(a)anthracene	ug/kg	129	136	105	59-119	
Benzo(a)pyrene	ug/kg	129	115	89	55-125	1c
Benzo(b)fluoranthene	ug/kg	129	119	92	54-131	1c
Benzo(g,h,i)perylene	ug/kg	129	125	97	54-122	
Benzo(k)fluoranthene	ug/kg	129	121	94	57-123	
Chrysene	ug/kg	129	114	88	62-111	
Dibenz(a,h)anthracene	ug/kg	129	126	98	60-124	
Fluoranthene	ug/kg	129	123	96	60-116	
Fluorene	ug/kg	129	115	89	49-110	
Indeno(1,2,3-cd)pyrene	ug/kg	129	128	100	59-122	
Naphthalene	ug/kg	129	103	80	42-97	
Phenanthrene	ug/kg	129	113	87	52-107	
Pyrene	ug/kg	129	123	95	60-117	
2-Fluorobiphenyl (S)	%.			94	43-97	
Terphenyl-d14 (S)	%.			91	56-106	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1729427 1729428

Parameter	Units	30318504001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthylene	ug/kg	0.028 mg/kg	142	144	184	172	110	100	26-144	7	20	
Anthracene	ug/kg	0.014 mg/kg	142	144	135	146	86	92	10-166	8	20	
Benzo(a)anthracene	ug/kg	0.032 mg/kg	142	144	155	177	87	100	10-175	13	20	
Benzo(a)pyrene	ug/kg	0.021 mg/kg	142	144	114	135	66	79	10-175	16	20	1c
Benzo(b)fluoranthene	ug/kg	0.090 mg/kg	142	144	151	175	43	60	10-175	15	20	1c
Benzo(g,h,i)perylene	ug/kg	0.032 mg/kg	142	144	98.1	110	47	54	10-171	11	20	
Benzo(k)fluoranthene	ug/kg	0.079 mg/kg	142	144	118	140	27	42	10-160	17	20	
Chrysene	ug/kg	0.061 mg/kg	142	144	143	169	58	75	10-175	17	20	
Dibenz(a,h)anthracene	ug/kg	0.0095 mg/kg	142	144	101	108	65	69	10-149	6	20	
Fluoranthene	ug/kg	0.055 mg/kg	142	144	169	196	80	98	10-175	15	20	
Fluorene	ug/kg	ND	142	144	133	141	91	94	31-136	5	20	
Indeno(1,2,3-cd)pyrene	ug/kg	0.024 mg/kg	142	144	105	114	57	63	10-151	8	20	
Naphthalene	ug/kg	0.045 mg/kg	142	144	175	159	92	79	10-149	10	20	
Phenanthrene	ug/kg	0.051 mg/kg	142	144	166	190	81	97	10-175	14	20	
Pyrene	ug/kg	0.052 mg/kg	142	144	164	189	79	96	10-175	14	20	
2-Fluorobiphenyl (S)	%.						97	98	43-97			ST
Terphenyl-d14 (S)	%.						88	92	56-106			

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356257
QC Batch Method: EPA 3535A
Analysis Method: EPA 8270D
Analysis Description: 8270D TCLP MSSV
Associated Lab Samples: 30318799001

METHOD BLANK: 1729490
Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	500	47.9	08/12/19 18:04	
2,4,5-Trichlorophenol	ug/L	ND	5000	19.7	08/12/19 18:04	
2,4,6-Trichlorophenol	ug/L	ND	100	23.4	08/12/19 18:04	
2,4-Dinitrotoluene	ug/L	ND	100	23.3	08/12/19 18:04	
2-Methylphenol(o-Cresol)	ug/L	ND	2000	22.1	08/12/19 18:04	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2000	40.4	08/12/19 18:04	
Hexachloro-1,3-butadiene	ug/L	ND	100	61.6	08/12/19 18:04	
Hexachlorobenzene	ug/L	ND	100	22.8	08/12/19 18:04	
Hexachloroethane	ug/L	ND	200	55.5	08/12/19 18:04	
Nitrobenzene	ug/L	ND	100	42.6	08/12/19 18:04	
Pentachlorophenol	ug/L	ND	5000	25.6	08/12/19 18:04	
Pyridine	ug/L	ND	250	19.3	08/12/19 18:04	
2,4,6-Tribromophenol (S)	%.	80	55-108		08/12/19 18:04	
2-Fluorobiphenyl (S)	%.	75	56-90		08/12/19 18:04	
2-Fluorophenol (S)	%.	111	61-116		08/12/19 18:04	
Nitrobenzene-d5 (S)	%.	77	61-105		08/12/19 18:04	
Phenol-d6 (S)	%.	77	64-101		08/12/19 18:04	
Terphenyl-d14 (S)	%.	52	32-90		08/12/19 18:04	

LABORATORY CONTROL SAMPLE: 1730388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	500	293J	59	38-85	
2,4,5-Trichlorophenol	ug/L	500	439J	88	60-110	
2,4,6-Trichlorophenol	ug/L	500	418	84	62-110	
2,4-Dinitrotoluene	ug/L	500	386	77	51-102	
2-Methylphenol(o-Cresol)	ug/L	500	404J	81	60-106	
3&4-Methylphenol(m&p Cresol)	ug/L	1000	830J	83	64-106	
Hexachloro-1,3-butadiene	ug/L	500	313	63	27-97	
Hexachlorobenzene	ug/L	500	279	56	36-66	
Hexachloroethane	ug/L	500	293	59	37-89	
Nitrobenzene	ug/L	500	384	77	64-108	
Pentachlorophenol	ug/L	500	409J	82	47-107	
Pyridine	ug/L	500	162J	32	20-54	
2,4,6-Tribromophenol (S)	%.			85	55-108	
2-Fluorobiphenyl (S)	%.			77	56-90	
2-Fluorophenol (S)	%.			133	61-116	ST
Nitrobenzene-d5 (S)	%.			82	61-105	
Phenol-d6 (S)	%.			80	64-101	
Terphenyl-d14 (S)	%.			63	32-90	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1730389 1730390

Parameter	Units	30318388001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	ND	500	500	295J	310J	59	62	51-85		20	
2,4,5-Trichlorophenol	ug/L	ND	500	500	417J	443J	83	89	65-108		20	
2,4,6-Trichlorophenol	ug/L	ND	500	500	467	424	93	85	61-110	10	20	
2,4-Dinitrotoluene	ug/L	ND	500	500	363	369	73	74	52-106	2	20	
2-Methylphenol(o-Cresol)	ug/L	ND	500	500	415J	424J	83	85	65-105		20	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	1000	1000	847J	864J	85	86	69-106		20	
Hexachloro-1,3-butadiene	ug/L	ND	500	500	318	321	64	64	44-90	1	20	
Hexachlorobenzene	ug/L	ND	500	500	311	301	62	60	36-68	3	20	
Hexachloroethane	ug/L	ND	500	500	301	308	60	62	48-94	2	20	
Nitrobenzene	ug/L	ND	500	500	390	398	78	80	66-106	2	20	
Pentachlorophenol	ug/L	ND	500	500	378J	404J	76	81	49-120		20	
Pyridine	ug/L	ND	500	500	185J	202J	37	40	10-72		20	
2,4,6-Tribromophenol (S)	%.						86	83	55-108			
2-Fluorobiphenyl (S)	%.						72	70	56-90			
2-Fluorophenol (S)	%.						77	112	61-116			
Nitrobenzene-d5 (S)	%.						81	79	61-105			
Phenol-d6 (S)	%.						80	81	64-101			
Terphenyl-d14 (S)	%.						67	69	32-90			

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356919
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30318799001

SAMPLE DUPLICATE: 1733277

Parameter	Units	30317695111 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	28.0	17.9	44	20	D6

SAMPLE DUPLICATE: 1733278

Parameter	Units	30317885001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.5	9.8	8	20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 357056 Analysis Method: EPA 1010
QC Batch Method: EPA 1010 Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 30318799001

METHOD BLANK: 1734120 Matrix: Water
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Flashpoint	deg F	>200	60.0		08/16/19 10:02	

SAMPLE DUPLICATE: 1734121

Parameter	Units	30316656003 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	>200	>200			

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356053 Analysis Method: EPA 9045D
QC Batch Method: EPA 9045D Analysis Description: 9045D pH
Associated Lab Samples: 30318799001

SAMPLE DUPLICATE: 1729379

Parameter	Units	30318799001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH in water at 25 degrees C	Std. Units	7.5	7.6	1	10	H3

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356263 Analysis Method: EPA 9014
QC Batch Method: SW-846 7.3.3.2 Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 30318799001

METHOD BLANK: 1730416 Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	1.0	0.40	08/12/19 17:52	

LABORATORY CONTROL SAMPLE: 1730417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide, Reactive	mg/kg	99.9	ND	0	0-8	

SAMPLE DUPLICATE: 1730418

Parameter	Units	30319042001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		20	

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QUALITY CONTROL DATA

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

QC Batch: 356260
QC Batch Method: SW-846 7.3.4.2
Analysis Method: SM 4500S2F-2011
Analysis Description: 734S Reactive Sulfide
Associated Lab Samples: 30318799001

METHOD BLANK: 1730406 Matrix: Solid
Associated Lab Samples: 30318799001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	10	10	08/12/19 17:37	

LABORATORY CONTROL SAMPLE: 1730407

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Reactive	mg/kg	200	40.0	20	0-52	

SAMPLE DUPLICATE: 1730408

Parameter	Units	30319042001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	

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Greensburg, PA 15601
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QUALIFIERS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PAN	Pace Analytical National
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1c	The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased low
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H3	Sample was received or analysis requested beyond the recognized method holding time.
IS	The internal standard response is below criteria. Results may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
P9	RPD between the primary and confirmatory analysis exceeded 40%.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
ST	Surrogate recovery was above laboratory control limits. Results may be biased high.

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

ANALYTE QUALIFIERS

ip Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Former EPT Site-Soil IRM/31401
Pace Project No.: 30318799

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 3510C	356372	EPA 8081B	356451
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 3546	356731	EPA 8082A	356783
30318799001	**AOC 32 DITCH & AOC 35G**	8151A	1329942	EPA 8151A	1329942
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 3005A	356285	EPA 6010C	356347
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 7470A	356319	EPA 7470A	356342
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 3546	356065	EPA 8270D by SIM	356251
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 3535A	356257	EPA 8270D	356298
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 8260C	356592		
30318799001	**AOC 32 DITCH & AOC 35G**	ASTM D2974-87	356919		
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 1010	357056		
30318799001	**AOC 32 DITCH & AOC 35G**	EPA 9045D	356053		
30318799001	**AOC 32 DITCH & AOC 35G**	SW-846 7.3.3.2	356263	EPA 9014	356332
30318799001	**AOC 32 DITCH & AOC 35G**	SW-846 7.3.4.2	356260	SM 4500S2F-2011	356333

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE O

WO# : 30318799

30318799

ber or

Company: WSP	Billing Information: Environmental Accounts Payable WSP 13530 Dulles Technology Drive Herndon, VA
Address: 11 Stanwix St, Suite 950, Pittsburgh, PA	
Report To: Dave.Rykaczewski@wsp.com	Email To:
Copy To: Erin.Huntley@wsp.com	Site Collection Info/Address: 620 S Aurora St
Customer Project Name/Number: Former EPT-Soil IRM/31401545.001	State: NY County/City: Tompkins/Ithaca Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET
Phone: 412-375-0282 Email: see above	Site/Facility ID #:
Compliance Monitoring? [ ] Yes [ ] No	
Collected By (print): Dan Cummings	Purchase Order #: Quote #:
DW PWS ID #: DW Location Code:	
Collected By (signature): [signature]	Turnaround Date Required: 5 DAY TAT
Immediately Packed on Ice: [✓] Yes [ ] No	
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: ____ [ ] Hold: ____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [✓] 5 Day (Expedite Charges Apply)
Field Filtered (if applicable): [ ] Yes [ ] No Analysis: ____	

Container Preservative Type: U U U U U U U U U

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TCLP VOCs, SVOCs, RCRA 8 Metals	TCLP Pesticides, Herbicides	Total PCBs	Total PAHs	Corrosivity by pH	Ignitability / Flashpoint	Reactive Sulfide	Reactive Cyanide	% Solids (Moisture Content)		Lab Profile/Line:
AOC 32 DITCH & AOC 35 G	SL	C	—	—	8/8/19	1330		5	X	X	X	X	X	X	X	X	X		001

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: ____	
Sample pH Acceptable	Y N NA
pH Strips: ____	
Sulfide Present	Y N NA
Lead Acetate Strips: ____	

LAB USE ONLY:
Lab Sample # / Comments:

JLB/JLB

Customer Remarks / Special Conditions / Possible Hazards: NYASP Category B data deliverable

Type of Ice Used: Wet Blue Dry None

Packing Material Used: bubble bag

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 8132103 2384103

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 11
Cooler 1 Temp Upon Receipt: 2.1 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.1 oC
Comments: JLB 08/09/19

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature] /WSP	8/8/19 1600	FedEx	8/8/19 1600
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
		[signature] PACE	08/09/19 0935
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

H159

Chain of Custody

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☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: [X] Yes ☐ No
Owner Received Date: 8/9/2019

ASAP or
Results Requested By: 8/16/2019

Workorder: 30318799 **Workorder Name:** Former EPT Site-Soil IRM/31401

Report To

Rachel Christner
Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3,4
Greensburg, PA 15601
Phone 724-850-5611

Subcontract To

Pace Analytical National
12065 Lebanon Road
Mount Juliet, TN 37122
(615)773-9756

Requested Analysis

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	8151 TCLP Herbicides	LAB USE ONLY
1	AOC 32 DITCH & AOC 35G	PS	8/8/2019 13:30	30318799001	Solid	1	X	-01
2								
3								
4								
5								

1127562

Transfers

	Released By	Date/Time	Received By	Date/Time
1	[signature]	8/9/1600	[signature]	8-10-19
2				
3				

Comments

*Extraction to be done at National
Level IV package required

mg/L ug/L
mg/kg ug/kg
Other :
MDL reporting
ND reporting

Cooler Temperature on Receipt 26/1.2°C 42 **Custody Seal** Y or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

4942 9063 8638

RAD SCREEN: <0.5 mR/hr

1127562

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Pace Analytical National
12065 Lebanon Road
Mount Juliet, TN 37122
(615)773-9756

INTER_LABORATORY WORK ORDER # 30318799
(To be completed by sending lab)

Sending Project No:	30318799
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	08/09/19
REQUESTED COMPLETION DATE:	**8/16/2019** OR ASAP

Sending Region	IR30-Pittsburgh	Sending Project Mgr.	Rachel Christner
Receiving Region	IR850-Pace National	External Client	WSP Environment & Energy - Pittsburgh, PA
State of Sample Origin	NY	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight _____ Cert. Needed _____

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8151 TCLP Herbicides	WGFU		Unpreserved	1	$168.75	$168.75
					TOTAL	$168.75

Special Requirements: _____

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC Semivolatiles	31	$168.75	$135.00	$33.75
	TOTAL	$168.75	$135.00	$33.75

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Chain of Custody Included: [X] Yes [ ] No Return Samples to Sending Region: [ ] Yes [X] No

Matrix: [ ] Drinking Water [X] Soil [ ] Water [ ] Air [ ] Other (identify) _____

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 30318799

30318799

Company: WSP	Billing Information: Environmental Accounts Payable WSP 13530 Dulles Technology Drive Herndon, VA
Address: 11 Stanwix St, Suite 950, Pittsburgh, PA	
Report To: Dave.Rykaczewski@wsp.com	Email To:
Copy To: Erin.Hunter@wsp.com	Site Collection Info/Address: 620 S Aurora St,
Customer Project Name/Number: Former ERT - Soil IRM / 31401545.001	State: NY County/City: Tompkins/Ithaca Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 412-375-0282 Email: see above	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Dan Cummings	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: 5 DAY TAT Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [X] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Container Preservative Type: U U U U U U U U U

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TCLP VOCs, SVOCs, RCRA 8 Metals	TCLP Pesticides, Herbicides	Total PCBs	Total PAHs	Corrosivity by pH	Ignitability/Flashpoint	Reactive Sulfide	Reactive Cyanide	% Solids (Moisture Content)	Analyses	Lab Profile/Line:
AOC 32 DITCH & AOC 35 FG	SL	C	—	—	8/8/19	1330		5	X	X	X	X	X	X	X	X	X		001

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

JAP | JAB

Customer Remarks / Special Conditions / Possible Hazards: NYASP Category B data deliverable

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Bubble bag

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 8132-1030 2384103

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 11
Cooler 1 Temp Upon Receipt: 2.1 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.1 oC
Comments:

JAP 08/09/19

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

Relinquished by/Company: (Signature) WSP	Date/Time: 8/8/19 1600	Received by/Company: (Signature) FedEx	Date/Time: 8/8/19 1600
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature) PACE	Date/Time: 08/09/19 0925
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Non Conformance(s): YES / (NO)

Page: 1 of: 1

1127562

Pace Analytical Prep Log Report

Batch Information: TCLP 8785/355732; 8786/355733

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/08/2019 13:42:03:453	Tumbler Start Temp. (C)	20.7
Tumbler End Temp. (C)	22.7	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 94232	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	1727835	Y		M	30TBL5	HP001				4.88		0	0
TCLP	PS	30316656001	Y		N	30TBL5	HP001	Other	Y	Y	7.47	4.58	5	100
TCLP	PS	30317044001	Y		O	30TBL5	HP001	Other	Y	Y	8.49	2.99	5	100
TCLP	PS	30316720001	Y		P	30TBL5	HP001	Aqueous	Y	Y	7.39	1.64	5	100
TCLP	PS	30317749001	Y		Q	30TBL5	HP001	Other	Y	Y	6.04	1.75	5	100
TCLP	PS	30318054001	Y		R	30TBL5	HP001	Other	Y	Y	9.81	1.79	5	100
TCLP	PS	30317875001	Y		S	30TBL5	HP001	Water	Y	Y	8.61	1.38	5	100
TCLP	PS	30317875002	Y		T	30TBL5	HP001	Other	Y	Y	10.5	1.64	5	100
TCLP	PS	30317570001	Y		U	30TBL5	HP001	Water	Y	Y	7.68	1.63	5	100
TCLP	PS	30318415001	Y		V	30TBL5	HP001	Other	Y	Y	7.92	1.72	5	100
TCLP	PS	30318063001	Y		A	30TBL5	HP001	Other	Y	Y	9.46	2.38	5	100
TCLP	PS	30318386001	Y		B	30TBL5	HP001	Other	Y	Y	6.74	1.8	5	100
1311MET_L	LB	1727844	Y		M	30TBL5	HP001				4.88		0	0
1311MET_L	PS	30316656001	Y		N	30TBL5	HP001	Other	Y	Y	7.47	4.58	5	100
1311MET_L	PS	30317044001	Y		O	30TBL5	HP001	Other	Y	Y	8.49	2.99	5	100
1311MET_L	PS	30316720001	Y		P	30TBL5	HP001	Aqueous	Y	Y	7.39	1.64	5	100
1311MET_L	PS	30317749001	Y		Q	30TBL5	HP001	Other	Y	Y	6.04	1.75	5	100
1311MET_L	PS	30318054001	Y		R	30TBL5	HP001	Other	Y	Y	9.81	1.79	5	100
1311MET_L	PS	30317875001	Y		S	30TBL5	HP001	Water	Y	Y	8.61	1.38	5	100
1311MET_L	PS	30317875002	Y		T	30TBL5	HP001	Other	Y	Y	10.5	1.64	5	100
1311MET_L	PS	30317570001	Y		U	30TBL5	HP001	Water	Y	Y	7.68	1.63	5	100

1127562

Pace Analytical Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30317875001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	7.63	08/09/2019 08:36:36:882		476	477.6	1.6
TCLP	PS	**30317875002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.73	08/09/2019 08:36:36:882				
TCLP	PS	**30317570001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.99	08/09/2019 08:36:36:882		475.8	477.7	1.9
TCLP	PS	**30318415001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.57	08/09/2019 08:38:53:825				
TCLP	PS	**30318063001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.75	08/09/2019 08:38:53:825				
TCLP	PS	**30318386001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.35	08/09/2019 08:38:53:825				
1311MET_L	LB	**1727844**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.61	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30316656001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.33	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30317044001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	6.86	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30316720001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.21	08/09/2019 08:34:21:210	Y	482.6	489.4	6.8
1311MET_L	PS	**30317749001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.71	08/09/2019 08:34:21:210	Y			
1311MET_L	PS	**30318054001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.59	08/09/2019 08:34:21:210	Y			
1311MET_L	PS	**30317875001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	7.63	08/09/2019 08:36:36:882	Y	476	477.6	1.6
1311MET_L	PS	**30317875002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.73	08/09/2019 08:36:36:882	Y			
1311MET_L	PS	**30317570001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.99	08/09/2019 08:36:36:882	Y	475.8	477.7	1.9

Fri, 9 Aug 2019 11:39:58 -0400

1127582

Pace Analytical Prep Log Report

Sample Notes:

1*: powder/rock

Fri, 9 Aug 2019 11:39:58 -0400

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: PACEGPA		SDG#:	112762
Cooler Received/Opened On: 8/10/19	Temperature:	2.7	
Received By: Lexxi Romero			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		✓	
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

AOC 32 DITCH & AOC 35G

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Lab Sample ID: 30318799001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	mg/L	1	08/14/2019 07:20
7440-39-3	Barium	0.82		mg/L	1	08/14/2019 07:20
7440-43-9	Cadmium	ND	U	mg/L	1	08/14/2019 07:20
7440-47-3	Chromium	ND	U	mg/L	1	08/14/2019 07:20
7439-92-1	Lead	ND	U	mg/L	1	08/14/2019 07:20
7782-49-2	Selenium	ND	U	mg/L	1	08/14/2019 09:05
7440-22-4	Silver	ND	U	mg/L	1	08/14/2019 07:20

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 96524

Continuing Calibration Verification Source: 96112

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	08/14/2019 06:14				08/14/2019 06:19			08/14/2019 06:49			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	2000	1970	98.3	90-110	1000	1010	101.1	1000	997	99.7	90-110
Barium	2000	2060	103.2	90-110	1000	1000	100.0	1000	1040	104.5	90-110
Cadmium	2000	2030	101.4	90-110	1000	1020	101.5	1000	1010	101.2	90-110
Chromium	2000	2070	103.4	90-110	1000	1010	100.7	1000	1040	103.6	90-110
Lead	2000	2100	105.2	90-110	1000	1010	101.3	1000	1010	100.8	90-110
Silver	1000	1050	105.2	90-110	500	508	101.5	500	514	102.9	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 96112

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification						
	08/14/2019 07:04			08/14/2019 07:32			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Arsenic	1000	995	99.5	1000	986	98.6	90-110
Barium	1000	1060	106.2	1000	1060	105.6	90-110
Cadmium	1000	1010	100.6	1000	1000	100.5	90-110
Chromium	1000	1030	103.1	1000	1030	102.8	90-110
Lead	1000	999	99.9	1000	990	99.0	90-110
Silver	500	508	101.7	500	509	101.8	90-110

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 96524

Continuing Calibration Verification Source: 96112

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	08/14/2019 08:15				08/14/2019 08:19			08/14/2019 08:54			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Selenium	2000	2040	102.0	90-110	1000	1010	101.1	1000	1050	104.8	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 96112

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification						
	08/14/2019 09:14			08/14/2019 10:03			Control Limit
Analyte	True	Found	%R	True	Found	%R	
Selenium	1000	1060	105.7	1000	997	99.7	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

CRDL Check Standard Source: 96219 Analysis Date/Time: 08/14/2019 06:26

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	5.4	107.5	70-130
Barium	10.0	11.1	111.1	70-130
Cadmium	3.0	3.1	104.0	70-130
Chromium	5.0	5.4	107.3	70-130
Lead	5.0	5.6	112.1	70-130
Silver	6.0	6.2	103.8	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

CRDL Check Standard Source: 96219 Analysis Date/Time: 08/14/2019 07:47

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.3	85.7	70-130
Barium	10.0	11.2	112.0	70-130
Cadmium	3.0	3.1	102.0	70-130
Chromium	5.0	5.5	110.6	70-130
Lead	5.0	4.6	91.3	70-130
Silver	6.0	6.7	111.5	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

CRDL Check Standard Source: 96219 Analysis Date/Time: 08/14/2019 08:29

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Selenium	8.0	8.5	105.9	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

CRDL Check Standard Source: 96219 Analysis Date/Time: 08/14/2019 09:25

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Selenium	8.0	7.4	92.0	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	08/14/2019 06:16	C	08/14/2019 06:51	C	08/14/2019 07:06	C	08/14/2019 07:34	C	1730480	C
Arsenic	2.0	U	-3.0	J	2.0	U	2.0	U	ND	U
Barium	0.68	U	0.68	U	0.68	U	0.68	U	ND	U
Cadmium	0.34	U	0.34	U	0.34	U	0.34	U	ND	U
Chromium	0.35	U	0.35	U	0.35	U	0.35	U	ND	U
Lead	4.9	U	4.9	U	4.9	U	4.9	U	ND	U
Silver	1.4	U	1.4	U	1.4	U	1.4	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1729491	C
Arsenic									ND	U
Barium									ND	U
Cadmium									ND	U
Chromium									ND	U
Lead									ND	U
Silver									ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1729492	C
Arsenic									ND	U
Barium									ND	U
Cadmium									ND	U
Chromium									ND	U
Lead									ND	U
Silver									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	08/14/2019 08:17	C	08/14/2019 08:56	C	08/14/2019 09:16	C	08/14/2019 10:05	C	1730480	C
Selenium	5.5	U	5.5	U	5.5	U	5.5	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1729491	C
Selenium									ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1729492	C
Selenium									ND	U

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Solution A Run Date: 08/14/2019 06:21

ICS Source: 94717,94828 Solution AB Run Date: 08/14/2019 06:23

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	52780	105.6	51740	103.5	80-120
Arsenic			-0.7247		2.284		
Barium		500	0.2817		504.2	100.8	80-120
Cadmium		1000	0.6796		1022	102.2	80-120
Calcium	50000	50000	52500	105	51610	103.2	80-120
Chromium		500	0.0076		506.6	101.3	80-120
Iron	20000	20000	20550	102.8	20320	101.6	80-120
Lead		1000	-2.367		1001	100.1	80-120
Magnesium	50000	50000	52300	104.6	51500	103	80-120
Selenium			0.6593		-0.5955		
Silver		1000	-0.3233		1046	104.6	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Solution A Run Date: 08/14/2019 07:38

ICS Source: 94717,94828 Solution AB Run Date: 08/14/2019 07:41

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	53680	107.4	52830	105.7	80-120
Arsenic			0.5657		1.325		
Barium		500	0.0799		523.7	104.7	80-120
Cadmium		1000	0.5503		1004	100.4	80-120
Calcium	50000	50000	54140	108.3	53070	106.1	80-120
Chromium		500	-0.2578		507.1	101.4	80-120
Iron	20000	20000	21310	106.6	20870	104.4	80-120
Lead		1000	-3.879		977.6	97.8	80-120
Magnesium	50000	50000	54080	108.2	52830	105.7	80-120
Selenium			1.254		0.0963		
Silver		1000	-0.162		1042	104.2	80-120

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Solution A Run Date: 08/14/2019 08:21

ICS Source: 94717,94828 Solution AB Run Date: 08/14/2019 08:24

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	52290	104.6	51840	103.7	80-120
Arsenic			-0.9825		1.941		
Barium		500	0.2317		497.6	99.5	80-120
Cadmium		1000	0.5403		1010	101	80-120
Calcium	50000	50000	50880	101.8	50560	101.1	80-120
Chromium		500	0.0521		503.4	100.7	80-120
Iron	20000	20000	20130	100.7	19990	100	80-120
Lead		1000	-1.949		993.8	99.4	80-120
Magnesium	50000	50000	51580	103.2	50940	101.9	80-120
Selenium			-3.699		-4.766		
Silver		1000	-0.4319		1040	104	80-120

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Solution A Run Date: 08/14/2019 09:19

ICS Source: 94717,94828 Solution AB Run Date: 08/14/2019 09:22

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	54050	108.1	53570	107.1	80-120
Arsenic			-2.14		1.549		
Barium		500	0.166		514.5	102.9	80-120
Cadmium		1000	0.4615		1044	104.4	80-120
Calcium	50000	50000	53160	106.3	52770	105.5	80-120
Chromium		500	-0.1652		524.7	104.9	80-120
Iron	20000	20000	20790	104	20790	104	80-120
Lead		1000	-1.638		1034	103.4	80-120
Magnesium	50000	50000	53760	107.5	53450	106.9	80-120
Selenium			-0.6918		-0.9218		
Silver		1000	-0.4682		1078	107.8	80-120

SAMPLE NO.

1730483MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Basis: Wet Parent Sample ID: AOC 32 DITCH & AOC 35G

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.54	ND	0.50	107
Barium	mg/L	75-125	1.4	0.82	0.50	110
Cadmium	mg/L	75-125	0.56	ND	0.50	110
Chromium	mg/L	75-125	0.50	ND	0.50	99
Lead	mg/L	75-125	0.54	ND	0.50	105
Selenium	mg/L	75-125	0.60	ND	0.50	121
Silver	mg/L	75-125	0.29	ND	0.25	117

SAMPLE NO.

1730484MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Basis: Wet Parent Sample ID: AOC 32 DITCH & AOC 35G

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	mg/L	75-125	0.55	ND	0.50	110
Barium	mg/L	75-125	1.4	0.82	0.50	126*
Cadmium	mg/L	75-125	0.57	ND	0.50	113
Chromium	mg/L	75-125	0.51	ND	0.50	102
Lead	mg/L	75-125	0.55	ND	0.50	107
Selenium	mg/L	75-125	0.59	ND	0.50	119
Silver	mg/L	75-125	0.30	ND	0.25	121

* Spike Recovery outside QC Limits

SAMPLE NO.

1730482DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	ND	
Barium	20	0.82	0.80	2
Cadmium	20	ND	0.0048J	
Chromium	20	ND	ND	
Lead	20	ND	ND	
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1730484MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	0.54	0.55	3
Barium	20	1.4	1.4	5
Cadmium	20	0.56	0.57	2
Chromium	20	0.50	0.51	3
Lead	20	0.54	0.55	2
Selenium	20	0.60	0.59	2
Silver	20	0.29	0.30	3

SAMPLE NO.

1730481LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	mg/L	0.50	0.52	104	80	120
Barium	mg/L	0.50	0.57	114	80	120
Cadmium	mg/L	0.50	0.55	110	80	120
Chromium	mg/L	0.50	0.56	111	80	120
Lead	mg/L	0.50	0.55	111	80	120
Selenium	mg/L	0.50	0.56	113	80	120
Silver	mg/L	0.25	0.26	105	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: None Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Lead	5.0	4.9	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 3005A Instrument ID: 30ICP2

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Arsenic	0.025	0.010	11/14/2018
Barium	0.050	0.0034	11/14/2018
Cadmium	0.015	0.0017	11/14/2018
Chromium	0.025	0.0017	11/14/2018
Lead	0.025	0.025	11/14/2018
Selenium	0.040	0.027	11/14/2018
Silver	0.030	0.0072	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	7	V	-0.000010	0.000000	No
			Mn	0.000224	0.000000	No
			Cu	-0.000017	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.001213	0.000000	No
			Zr	0.006142	0.000000	No
			Fe	0.000009	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.335136	0.000000	No
			Zr	0.011123	0.000000	No
			Ca	0.000126	0.000000	No
			V	0.000716	0.000000	No
			Fe	-0.000080	0.000000	No
As 189.042 {478}	☒	8	Be	0.000082	0.000000	No
			Al	-0.000010	0.000000	No
			V	0.000009	0.000000	No
			Cr	-0.005878	0.000000	No
			Fe	-0.000008	0.000000	No
			Co	0.000030	0.000000	No
			Mo	0.000055	0.000000	No
			Tl	0.000011	0.000000	No
B 208.959 {461}	☒	4	Ti	0.000132	0.000000	No
			Mo	0.023149	0.000000	No
			Si	0.000180	0.000000	No
			V	0.002695	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	0.000136	0.000000	No
			Mo	-0.000019	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.006748	0.000000	No
Cd 228.802 {447}	☒	4	V	0.000070	0.000000	No
			Fe	0.000000	0.000000	No
			Ni	-0.000009	0.000000	No
			As	0.010303	0.000000	No
Co 228.616 {447}	☒	4	Ti	0.002208	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.004109	0.000000	No
			Ni	0.000111	0.000000	No
Cr 267.716 {126}	☒	2	Al	0.000006	0.000000	No
			Mn	0.000260	0.000000	No
Cu 324.754 {104}	☒	5	K	0.000004	0.000000	No
			V	-0.000071	0.000000	No
			Fe	-0.000155	0.000000	No
			Co	-0.000531	0.000000	No
			Mo	0.000478	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.002210	0.000000	No
			Mo	-0.000957	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000004	0.000000	No
Mo 202.030 {467}	☒	1	V	0.000400	0.000000	No
Na 818.326 { 41}	☒	1	Fe	0.001190	0.000000	No
Ni 231.604 {446}	☒	None				
P 177.495 {490}	☒	2	Ni	0.001261	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.003153	0.000000	No
Pb 220.353 {453}	☒	6	Al	0.000276	0.000000	No
			Si	0.000044	0.000000	No
			Mn	0.000090	0.000000	No
			Fe	0.000021	0.000000	No
			Cu	0.000517	0.000000	No
			Mo	-0.001816	0.000000	No
S 182.034 {485}	☒	8	Al	-0.000089	0.000000	No
			Mn	0.004470	0.000000	No
			Ti	-0.000441	0.000000	No
			V	-0.000354	0.000000	No
			Ni	-0.000410	0.000000	No
			Ca	0.000007	0.000000	No
			Fe	-0.000155	0.000000	No
			Mo	-0.007427	0.000000	No
Sb 206.833 {463}	☒	6	Al	-0.000007	0.000000	No
			Cr	0.024085	0.000000	No
			Fe	0.000007	0.000000	No
			Mo	-0.004113	0.000000	No
			Zr	-0.000778	0.000000	No
			Ti	0.001270	0.000000	No
Se 196.090 {472}	☒	3	Al	-0.000003	0.000000	No
			Mn	0.000486	0.000000	No
			Mo	0.000145	0.000000	No
Si 251.611 {134}	☒	2	V	0.052413	0.000000	No
			Mo	0.010972	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000015	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000218	0.000000	No
			Mo	0.000136	0.000000	No
			Ca	0.000007	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.001394	0.000000	No
			V	-0.012857	0.000000	No
			Cr	0.000322	0.000000	No
			Mn	0.001221	0.000000	No
			Fe	0.000008	0.000000	No
			Co	0.000561	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000258	0.000000	No
			Cr	-0.004547	0.000000	No
			Mn	-0.001050	0.000000	No
			Fe	-0.000004	0.000000	No
			Mo	-0.000036	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000244	0.000000	No
			Mn	0.000036	0.000000	No
			Fe	-0.000003	0.000000	No
			Co	0.000004	0.000000	No
			Ni	-0.000002	0.000000	No
			Mo	0.000153	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil

Instrument ID: 30ICP2 Effective Date: 11/21/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	50000
Lead	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 3005A Batch: MPRP 26428

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1729491	1729491LB	08/12/2019	50	50
1729492	1729492LB	08/12/2019	50	50
1730480	1730480BLANK	08/12/2019	50	50
1730481	1730481LCS	08/12/2019	50	50
1730482	1730482DUP	08/12/2019	50	50
1730483	1730483MS	08/12/2019	50	50
1730484	1730484MSD	08/12/2019	50	50
30318799001	AOC 32 DITCH & AOC 35G	08/12/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 08/14/2019 06:10 End Date: 08/14/2019 07:47

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Pb
11392220CAL0	11392220CAL0	1	08/14/2019	06:10	X	X	X	X	X	X
11392221CAL1	11392221CAL1	1	08/14/2019	06:12	X	X	X	X	X	X
11392222ICV	11392222ICV	1	08/14/2019	06:14	X	X	X	X	X	X
11392223ICB	11392223ICB	1	08/14/2019	06:16	X	X	X	X	X	X
11392224CCV	11392224CCV	1	08/14/2019	06:19	X	X	X	X	X	X
11392225ICSA	11392225ICSA	1	08/14/2019	06:21	X	X	X	X	X	X
11392226ICSAB	11392226ICSAB	1	08/14/2019	06:23	X	X	X	X	X	X
11392227CRDL	11392227CRDL	1	08/14/2019	06:26	X	X	X	X	X	X
11392228CCV	11392228CCV	1	08/14/2019	06:49	X	X	X	X	X	X
11392229CCB	11392229CCB	1	08/14/2019	06:51	X	X	X	X	X	X
11392230CCV	11392230CCV	1	08/14/2019	07:04	X	X	X	X	X	X
11392231CCB	11392231CCB	1	08/14/2019	07:06	X	X	X	X	X	X
1730480BLANK	1730480	1	08/14/2019	07:09	X	X	X	X	X	X
1730481LCS	1730481	1	08/14/2019	07:11	X	X	X	X	X	X
1729491LB	1729491	1	08/14/2019	07:13	X	X	X	X	X	X
1729492LB	1729492	1	08/14/2019	07:15	X	X	X	X	X	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/14/2019	07:20	X	X	X	X	X	X
1730482DUP	1730482	1	08/14/2019	07:22	X	X	X	X	X	X
1730483MS	1730483	1	08/14/2019	07:24	X	X	X	X	X	X
1730484MSD	1730484	1	08/14/2019	07:27	X	X	X	X	X	X
11392282CCV	11392282CCV	1	08/14/2019	07:32	X	X	X	X	X	X
11392283CCB	11392283CCB	1	08/14/2019	07:34	X	X	X	X	X	X
11392284ICSA	11392284ICSA	1	08/14/2019	07:38	X	X	X	X	X	X
11392285ICSAB	11392285ICSAB	1	08/14/2019	07:41	X	X	X	X	X	X
11392286CRDL	11392286CRDL	1	08/14/2019	07:47	X	X	X	X	X	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 08/14/2019 08:11 End Date: 08/14/2019 10:05

Sample Name	Lab Sample ID	D/F	Date	Time	Se
11392287CAL0	11392287CAL0	1	08/14/2019	08:11	X
11392288CAL1	11392288CAL1	1	08/14/2019	08:13	X
11392289ICV	11392289ICV	1	08/14/2019	08:15	X
11392290ICB	11392290ICB	1	08/14/2019	08:17	X
11392291CCV	11392291CCV	1	08/14/2019	08:19	X
11392292ICSA	11392292ICSA	1	08/14/2019	08:21	X
11392293ICSAB	11392293ICSAB	1	08/14/2019	08:24	X
11392294CRDL	11392294CRDL	1	08/14/2019	08:29	X
1730480BLANK	1730480	1	08/14/2019	08:49	X
1730481LCS	1730481	1	08/14/2019	08:52	X
11392295CCV	11392295CCV	1	08/14/2019	08:54	X
11392296CCB	11392296CCB	1	08/14/2019	08:56	X
1729491LB	1729491	1	08/14/2019	08:58	X
1729492LB	1729492	1	08/14/2019	09:00	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/14/2019	09:05	X
1730482DUP	1730482	1	08/14/2019	09:07	X
1730483MS	1730483	1	08/14/2019	09:10	X
1730484MSD	1730484	1	08/14/2019	09:12	X
11392297CCV	11392297CCV	1	08/14/2019	09:14	X
11392298CCB	11392298CCB	1	08/14/2019	09:16	X
11392299ICSA	11392299ICSA	1	08/14/2019	09:19	X
11392300ICSAB	11392300ICSAB	1	08/14/2019	09:22	X
11392301CRDL	11392301CRDL	1	08/14/2019	09:25	X
11392302CCV	11392302CCV	1	08/14/2019	10:03	X
11392303CCB	11392303CCB	1	08/14/2019	10:05	X

Sample Name: CAL0 Acquired: 8/14/2019 6:10:17 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0007**	**-.0002**	**.0001**	**.0012**	**-.0001**	**.0011**
Stddev	.0000	.0000	.0000	.0001	.0000	.0000	.0001
%RSD	.3477	5.186	6.674	72.92	1.798	52.61	10.01
#1	-.0001	.0008	-.0002	.0002	.0012	-.0001	.0012
#2	-.0001	.0007	-.0002	.0001	.0012	-.0001	.0010

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**-.0004**	**.0001**	**.0007**	**.0001**	**3362.**	**.0002**
Stddev	.0002	.0001	.0000	.0001	.0000	10.	.0004
%RSD	498.7	25.48	32.19	9.295	41.00	.3105	191.5
#1	-.0001	-.0005	.0001	.0007	.0001	3355.	.0005
#2	.0002	-.0003	.0001	.0006	.0001	3370.	-.0001

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**-.0001**	**.0000**	**.0004**	**-.0018**	**-.0002**	**.0003**
Stddev	.0002	.0001	.0000	.0000	.0003	.0001	.0000
%RSD	116.8	81.45	101.6	5.810	17.21	70.05	13.71
#1	.0003	-.0001	.0001	.0004	-.0020	-.0002	.0002
#2	.0000	-.0000	.0000	.0004	-.0016	-.0001	.0003

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**-.0003**	**.0000**	**.0000**	**.0002**	**.0001**	**.0007**
Stddev	.0007	.0001	.0001	.0001	.0000	.0000	.0001
%RSD	5984.	32.87	763.8	298.6	21.48	4.289	19.03
#1	.0005	-.0002	-.0001	-.0000	.0001	.0002	.0006
#2	-.0005	-.0004	.0001	.0001	.0002	.0001	.0007

Sample Name: CAL0 Acquired: 8/14/2019 6:10:17 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**-.0006**	**.0000**	**6605.**	**108600.**	**22870.**	**.0007**
Stddev	.0000	.0001	.0000	3.	91.	59.	.0001
%RSD	14.72	12.31	39.10	.0460	.0835	.2598	18.87
#1	-.0002	-.0007	.0000	6607.	108500.	22820.	.0008
#2	-.0002	-.0006	.0000	6603.	108700.	22910.	.0006

Elem	Zr3391
Units	Cts/S
Avg	**-.0001**
Stddev	.0001
%RSD	51.17
#1	-.0001
#2	-.0002

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3362.5**	**6605.0**	**108610.**	**22865.**
Stddev	10.4	3.0	91.	59.
%RSD	.31051	.04601	.08354	.25981
#1	3355.1	6607.1	108540.	22823.
#2	3369.9	6602.8	108670.	22907.

Sample Name: CAL1 Acquired: 8/14/2019 6:12:42 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1238**	**.6937**	**.1480**	**.3982**	**4.923**	**5.388**	**1.005**
Stddev	.0024	.0032	.0019	.0071	.058	.051	.015
%RSD	1.933	.4544	1.315	1.791	1.172	.9382	1.516
#1	.1221	.6915	.1466	.3931	4.882	5.352	.9941
#2	.1255	.6960	.1494	.4032	4.964	5.424	1.016

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.620**	**3.562**	**.2994**	**.2311**	**.6565**	**3210.**	**.4720**
Stddev	.049	.060	.0022	.0028	.0074	2.	.0140
%RSD	1.340	1.680	.7500	1.228	1.127	.0735	2.976
#1	3.586	3.520	.2979	.2291	.6513	3211.	.4621
#2	3.654	3.605	.3010	.2331	.6618	3208.	.4819

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.034**	**.1508**	**.6252**	**1.455**	**.0594**	**.9627**	**.1313**
Stddev	.016	.0018	.0073	.028	.0008	.0140	.0016
%RSD	1.521	1.199	1.160	1.891	1.410	1.455	1.206
#1	1.023	.1495	.6201	1.436	.0588	.9528	.1302
#2	1.046	.1521	.6303	1.475	.0600	.9726	.1324

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7346**	**.6861**	**.2045**	**.1076**	**.1758**	**.3498**	**9.165**
Stddev	.0139	.0092	.0037	.0018	.0022	.0050	.173
%RSD	1.898	1.342	1.815	1.628	1.249	1.429	1.889
#1	.7247	.6796	.2019	.1064	.1742	.3463	9.043
#2	.7445	.6926	.2071	.1088	.1773	.3533	9.287

Sample Name: CAL1 Acquired: 8/14/2019 6:12:42 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6203**	**.2986**	**.3584**	**6473.**	**106200.**	**22680.**	**2.007**
Stddev	.0079	.0048	.0042	4.	250.	66.	.023
%RSD	1.268	1.614	1.159	.0688	.2359	.2931	1.152
#1	.6147	.2952	.3555	6470.	106000.	22640.	1.990
#2	.6258	.3020	.3613	6476.	106300.	22730.	2.023

Elem	Zr3391
Units	Cts/S
Avg	**.4131**
Stddev	.0033
%RSD	.7933
#1	.4107
#2	.4154

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3209.8**	**6473.0**	**106170.**	**22682.**
Stddev	2.4	4.5	250.	66.
%RSD	.07347	.06877	.23587	.29314
#1	3211.4	6469.8	106000.	22635.
#2	3208.1	6476.1	106350.	22729.

Sample Name: ICV Acquired: 8/14/2019 6:14:47 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1052.**	**20810.**	**1966.**	**2056.**	**2064.**	**2081.**	**21220.**	**2028.**	**1993.**
Stddev	14.	535.	10.	4.	51.	49.	518.	18.	15.
%RSD	1.360	2.568	.5255	.1798	2.466	2.359	2.439	.8967	.7472
#1	1042.	20440.	1958.	2053.	2028.	2046.	20850.	2016.	1982.
#2	1063.	21190.	1973.	2058.	2100.	2116.	21580.	2041.	2003.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2069.**	**2057.**	**20930.**	**94.72**	**21300.**	**2091.**	**21160.**	**2065.**	**2093.**
Stddev	18.	56.	484.	.33	753.	55.	520.	51.	22.
%RSD	.8588	2.723	2.314	.3502	3.533	2.635	2.458	2.491	1.046
#1	2057.	2017.	20590.	94.95	20770.	2052.	20790.	2029.	2078.
#2	2082.	2097.	21270.	94.48	21840.	2130.	21520.	2102.	2109.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21130.**	**2020.**	**2035.**	**2104.**	**20640.**	**2059.**	**2035.**	**10550.**	**2073.**
Stddev	430.	9.	11.	21.	211.	18.	13.	267.	17.
%RSD	2.037	.4486	.5490	1.010	1.024	.8600	.6286	2.534	.8384
#1	20820.	2013.	2027.	2089.	20490.	2047.	2026.	10360.	2060.
#2	21430.	2026.	2042.	2119.	20790.	2072.	2044.	10740.	2085.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 8/14/2019 6:14:47 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2055.**	**2079.**	**2006.**	**2107.**	**97.32**	**97.05**	**98.99**	**2029.**	**2083.**
Stddev	66.	24.	26.	25.	.05	.09	.16	11.	49.
%RSD	3.218	1.142	1.298	1.164	.0489	.0966	.1608	.5253	2.351
#1	2008.	2062.	1987.	2090.	97.35	96.98	98.88	2022.	2048.
#2	2102.	2096.	2024.	2125.	97.28	97.11	99.10	2037.	2117.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3184.9**	**6427.8**	**105400.**	**22634.**
Stddev	11.2	3.1	102.	36.
%RSD	.35015	.04887	.09659	.16081
#1	3192.8	6430.0	105330.	22608.
#2	3177.0	6425.5	105470.	22660.

Sample Name: ICB Acquired: 8/14/2019 6:16:54 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1731**	**6.760**	**1.079**	**.0794**	**.4497**	**.4424**	**6.909**	**.0348**	**.1968**
Stddev	.0464	2.023	.134	.4262	.2478	.1078	2.000	.0207	.1847
%RSD	26.77	29.92	12.40	537.0	55.12	24.38	28.94	59.55	93.86
#1	.2059	8.190	.9840	-.2220	.6249	.5186	8.323	.0494	.3274
#2	.1403	5.330	1.173	.3807	.2744	.3661	5.495	.0201	.0662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0138**	**.5244**	**4.559**	**99.59**	**36.88**	**.3010**	**11.59**	**.3980**	**2.076**
Stddev	.0902	.5335	3.066	.20	6.41	1.356	7.71	.0688	.357
%RSD	654.2	101.7	67.26	.2022	17.39	450.6	66.50	17.29	17.19
#1	-.0500	.1471	6.727	99.45	41.42	1.260	17.04	.4467	2.328
#2	.0776	.9017	2.391	99.73	32.34	-.6581	6.141	.3494	1.824
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-108.3**	**.2181**	**-1.861**	**-.4750**	**2.468**	**.8796**	**1.833**	**1.913**	**.1425**
Stddev	189.3	.4549	.057	.5259	2.555	.1238	.052	1.592	.8009
%RSD	174.8	208.6	3.046	110.7	103.5	14.07	2.818	83.22	562.2
#1	25.57	.5398	-1.901	-.1031	4.275	.9671	1.797	3.038	.7088
#2	-242.1	-.1036	-1.821	-.8468	.6610	.7921	1.870	.7872	-.4239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 8/14/2019 6:16:54 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.4440**	**.4611**	**-.6849**	**.1303**	**99.74**	**99.65**	**98.92**	**.0815**	**.1430**
Stddev	.1340	.1414	.5690	.2977	.33	.32	.57	.0808	.0072
%RSD	30.19	30.67	83.08	228.4	.3296	.3210	.5746	99.13	5.005
#1	.5387	.5611	-1.087	.3408	99.51	99.88	98.52	.0244	.1480
#2	.3492	.3611	-.2825	-.0802	99.98	99.43	99.32	.1387	.1379
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3348.8**	**6588.0**	**108230.**	**22619.**
Stddev	6.8	21.7	347.	130.
%RSD	.20224	.32962	.32100	.57461
#1	3344.0	6572.7	108470.	22527.
#2	3353.6	6603.4	107980.	22711.

Sample Name: CCV Acquired: 8/14/2019 6:19:11 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.5**	**9930.**	**1011.**	**1019.**	**1000.**	**1001.**	**10200.**	**1015.**	**1012.**
Stddev	12.0	152.	9.	9.	15.	16.	203.	15.	11.
%RSD	2.359	1.526	.8916	.9079	1.456	1.618	1.990	1.514	1.072
#1	499.0	9823.	1005.	1013.	989.9	989.3	10060.	1004.	1005.
#2	515.9	10040.	1018.	1026.	1011.	1012.	10340.	1026.	1020.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1007.**	**1003.**	**10180.**	**96.92**	**9974.**	**984.6**	**10120.**	**994.8**	**1016.**
Stddev	18.	13.	138.	.14	292.	14.5	202.	16.8	13.
%RSD	1.816	1.344	1.359	.1496	2.925	1.478	1.994	1.690	1.286
#1	993.6	993.5	10080.	97.03	9768.	974.3	9981.	982.9	1006.
#2	1020.	1013.	10280.	96.82	10180.	994.9	10270.	1007.	1025.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10020.**	**1026.**	**1011.**	**1013.**	**10180.**	**1021.**	**1012.**	**5041.**	**1028.**
Stddev	144.	12.	14.	12.	168.	16.	19.	69.	13.
%RSD	1.440	1.150	1.432	1.145	1.655	1.531	1.882	1.363	1.229
#1	9919.	1018.	1001.	1005.	10060.	1010.	998.6	4992.	1019.
#2	10120.	1034.	1022.	1021.	10300.	1032.	1026.	5089.	1037.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 6:19:11 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1017.	1010.	1006.	1003.	98.81	98.60	98.05	1029.	1007.
Stddev	17.	19.	18.	22.	.18	.03	.11	14.	17.
%RSD	1.623	1.856	1.835	2.155	.1806	.0280	.1073	1.397	1.700
#1	1005.	996.5	992.7	987.7	98.93	98.58	98.12	1019.	995.0
#2	1029.	1023.	1019.	1018.	98.68	98.62	97.97	1039.	1019.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3259.0	6526.1	107090.	22419.
Stddev	4.9	11.8	30.	24.
%RSD	.14961	.18057	.02804	.10734
#1	3262.5	6534.5	107070.	22436.
#2	3255.6	6517.8	107110.	22402.

Sample Name: ICSA Acquired: 8/14/2019 6:21:14 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3233**	**52780.**	**-.7247**	**1.155**	**.2817**	**.2076**	**52500.**	**.6796**	**.0654**
Stddev	.0242	802.	.4725	.395	.0091	.1338	760.	.1088	.2241
%RSD	7.481	1.519	65.20	34.22	3.224	64.44	1.448	16.01	342.8
#1	-.3404	52210.	-.3906	1.435	.2753	.3022	51960.	.6026	-.0931
#2	-.3062	53350.	-1.059	.8758	.2881	.1130	53030.	.7566	.2238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0076**	**.9392**	**20550.**	**94.57**	**39.30**	**.4674**	**52300.**	**.1246**	**.8307**
Stddev	.0610	.1234	166.	.17	8.18	.2016	890.	.1481	.2695
%RSD	807.4	13.14	.8066	.1851	20.83	43.14	1.702	118.8	32.44
#1	.0507	.8519	20430.	94.70	45.09	.6100	51670.	.0199	.6402
#2	-.0356	1.026	20670.	94.45	33.51	.3248	52930.	.2293	1.021
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**17.58**	**.6011**	**-2.435**	**-2.367**	**-9.666**	**-3.966**	**.6593**	**3.780**	**4.994**
Stddev	77.28	.1239	.676	1.130	.963	.522	3.159	.253	.025
%RSD	439.6	20.60	27.78	47.73	9.962	13.17	479.1	6.684	.5111
#1	-37.06	.6886	-1.956	-3.165	-8.985	-3.597	2.893	3.959	5.012
#2	72.23	.5135	-2.913	-1.568	-10.35	-4.336	-1.574	3.602	4.976
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 8/14/2019 6:21:14 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0659**	**.5778**	**-2.170**	**.8065**	**96.62**	**96.59**	**98.70**	**-.2064**	**-.3683**
Stddev	.0627	.0174	2.081	.0533	.01	.44	.33	.0407	.2036
%RSD	95.28	3.010	95.90	6.613	.0129	.4604	.3302	19.72	55.27
#1	-.0215	.5901	-3.642	.8442	96.63	96.28	98.47	-.2351	-.5123
#2	-.1102	.5655	-.6985	.7688	96.61	96.91	98.93	-.1776	-.2244
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3180.0**	**6381.5**	**104910.**	**22568.**
Stddev	5.9	.8	483.	75.
%RSD	.18509	.01288	.46041	.33017
#1	3184.1	6382.1	104570.	22515.
#2	3175.8	6380.9	105250.	22621.

Sample Name: ICSAB Acquired: 8/14/2019 6:23:27 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1046.**	**51740.**	**2.284**	**-.7701**	**504.2**	**515.1**	**51610.**	**1022.**	**499.6**
Stddev	18.	408.	1.637	.6915	6.1	5.8	805.	19.	8.4
%RSD	1.762	.7888	71.65	89.80	1.201	1.128	1.559	1.813	1.690
#1	1033.	51460.	3.441	-.2811	499.9	511.0	51050.	1009.	493.7
#2	1059.	52030.	1.127	-1.259	508.5	519.2	52180.	1035.	505.6
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.6**	**505.8**	**20320.**	**94.42**	**20.99**	**1.129**	**51500.**	**495.0**	**.4630**
Stddev	7.1	3.0	266.	.27	2.70	.344	712.	6.4	.1372
%RSD	1.394	.5887	1.307	.2819	12.87	30.43	1.383	1.291	29.64
#1	501.6	503.7	20130.	94.61	19.08	.8861	50990.	490.5	.5600
#2	511.6	507.9	20510.	94.23	22.90	1.372	52000.	499.5	.3659
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-42.41**	**998.8**	**-1.775**	**1001.**	**-15.41**	**-3.665**	**-.5955**	**-24.33**	**.8128**
Stddev	82.52	20.9	.421	17.	.60	1.197	.8185	1.95	.7367
%RSD	194.6	2.095	23.72	1.705	3.877	32.65	137.5	8.029	90.64
#1	15.94	984.0	-1.478	989.2	-14.99	-2.819	-1.174	-22.95	1.334
#2	-100.8	1014.	-2.073	1013.	-15.83	-4.512	-.0167	-25.71	.2919
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 8/14/2019 6:23:27 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2461**	**.5445**	**-2.400**	**509.3**	**96.63**	**96.69**	**97.91**	**1001.**	**-.2492**
Stddev	.0108	.1295	.151	8.4	.31	.00	.17	15.	.0604
%RSD	4.399	23.79	6.310	1.640	.3249	.0019	.1687	1.539	24.22
#1	-.2384	.6360	-2.507	503.4	96.86	96.69	97.79	990.0	-.2919
#2	-.2537	.4529	-2.293	515.3	96.41	96.69	98.03	1012.	-.2065
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3174.9**	**6382.6**	**105010.**	**22388.**
Stddev	9.0	20.7	2.	38.
%RSD	.28195	.32489	.00191	.16875
#1	3181.3	6397.3	105010.	22361.
#2	3168.6	6368.0	105010.	22414.

Sample Name: CRDL Acquired: 8/14/2019 6:26:17 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.229**	**59.85**	**5.375**	**51.07**	**11.11**	**1.090**	**1085.**	**3.121**	**4.748**
Stddev	.066	6.36	.097	1.40	.13	.009	.	.010	.036
%RSD	1.060	10.63	1.811	2.750	1.212	.7808	.0411	.3189	.7635
#1	6.183	64.35	5.444	50.08	11.01	1.096	1085.	3.128	4.773
#2	6.276	55.36	5.306	52.06	11.20	1.084	1086.	3.114	4.722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.366**	**5.161**	**83.90**	**99.06**	**542.7**	**41.34**	**225.4**	**5.565**	**21.21**
Stddev	.239	1.495	1.40	.17	2.7	.53	13.9	.050	.06
%RSD	4.450	28.96	1.663	.1694	.4960	1.286	6.155	.9041	.2729
#1	5.535	6.218	84.89	99.18	540.8	41.72	215.6	5.530	21.26
#2	5.197	4.104	82.92	98.94	544.6	40.97	235.2	5.601	21.17
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1107.**	**10.52**	**49.21**	**5.603**	**55.63**	**5.285**	**9.202**	**106.5**	**51.72**
Stddev	12.	.38	.08	.446	.04	1.610	4.481	.4	1.35
%RSD	1.088	3.596	.1726	7.961	.0734	30.47	48.70	.3524	2.603
#1	1116.	10.25	49.27	5.919	55.66	6.423	12.37	106.8	50.76
#2	1098.	10.79	49.15	5.288	55.60	4.146	6.034	106.3	52.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 8/14/2019 6:26:17 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.657**	**5.054**	**9.217**	**5.078**	**99.52**	**99.79**	**98.89**	**10.58**	**67.99**
Stddev	.018	.125	1.642	.181	.08	.04	.40	.04	1.23
%RSD	.3183	2.468	17.82	3.566	.0840	.0434	.4068	.4103	1.812
#1	5.670	4.966	10.38	4.950	99.58	99.76	98.60	10.55	67.12
#2	5.645	5.143	8.056	5.206	99.46	99.82	99.17	10.61	68.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3330.8**	**6573.5**	**108380.**	**22611.**
Stddev	5.6	5.5	47.	92.
%RSD	.16936	.08395	.04344	.40677
#1	3334.8	6577.4	108340.	22546.
#2	3326.9	6569.6	108410.	22676.

Sample Name: CCV Acquired: 8/14/2019 6:49:29 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.3**	**10450.**	**996.9**	**996.2**	**1045.**	**1050.**	**10780.**	**1012.**	**1005.**
Stddev	4.7	34.	9.9	3.7	9.	8.	102.	13.	12.
%RSD	.9049	.3276	.9910	.3753	.8380	.7708	.9441	1.331	1.155
#1	511.0	10420.	989.9	993.6	1039.	1044.	10710.	1002.	997.3
#2	517.6	10470.	1004.	998.9	1051.	1056.	10850.	1021.	1014.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1036.**	**1050.**	**10700.**	**98.27**	**10420.**	**1019.**	**10740.**	**1050.**	**1005.**
Stddev	2.	12.	86.	.06	178.	9.	81.	9.	11.
%RSD	.2151	1.180	.8073	.0587	1.707	.8818	.7522	.8680	1.046
#1	1034.	1042.	10640.	98.31	10300.	1013.	10680.	1044.	997.4
#2	1037.	1059.	10760.	98.23	10550.	1025.	10800.	1057.	1012.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10640.**	**1016.**	**1003.**	**1008.**	**10120.**	**1006.**	**1002.**	**5295.**	**1018.**
Stddev	159.	10.	12.	15.	152.	12.	6.	34.	11.
%RSD	1.490	.9595	1.242	1.482	1.501	1.160	.5570	.6371	1.072
#1	10530.	1009.	993.8	997.0	10010.	997.8	997.9	5271.	1011.
#2	10760.	1022.	1011.	1018.	10230.	1014.	1006.	5319.	1026.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 6:49:29 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1063.	1031.	998.4	1020.	100.5	99.62	98.36	1023.	1069.
Stddev	8.	4.	14.7	4.	.2	.32	.21	14.	.
%RSD	.7226	.4268	1.471	.3614	.1951	.3198	.2135	1.416	.0256
#1	1058.	1028.	988.0	1018.	100.3	99.39	98.51	1013.	1069.
#2	1069.	1034.	1009.	1023.	100.6	99.84	98.21	1033.	1069.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3304.4	6635.2	108190.	22491.
Stddev	1.9	12.9	346.	48.
%RSD	.05868	.19509	.31978	.21352
#1	3305.8	6626.1	107950.	22525.
#2	3303.0	6644.4	108430.	22457.

Sample Name: CCB Acquired: 8/14/2019 6:51:34 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0514**	**3.044**	**-3.023**	**.6455**	**.2038**	**.2350**	**22.96**	**.0150**	**-.0720**
Stddev	.0383	5.054	.426	.4135	.0482	.0661	1.07	.0786	.1105
%RSD	74.64	166.0	14.10	64.07	23.67	28.13	4.643	525.1	153.6
#1	.0785	6.617	-2.721	.3531	.2379	.2818	22.21	-.0406	.0062
#2	.0243	-.5294	-3.324	.9379	.1697	.1883	23.71	.0706	-.1501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2913**	**.1991**	**18.46**	**100.2**	**18.15**	**-.3312**	**17.27**	**2.210**	**.4270**
Stddev	.0314	.7234	.48	.0	7.85	.1974	5.38	.156	.2788
%RSD	10.78	363.3	2.619	.0134	43.26	59.59	31.17	7.062	65.28
#1	.3135	-.3124	18.12	100.2	23.70	-.1916	13.47	2.321	.2299
#2	.2691	.7106	18.80	100.2	12.60	-.4708	21.08	2.100	.6241
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-75.35**	**-.2228**	**-1.828**	**-1.800**	**-1.878**	**-1.126**	**2.255**	**.6976**	**.2711**
Stddev	40.88	.0153	1.185	.610	2.839	.981	.770	4.729	.8911
%RSD	54.26	6.871	64.81	33.91	151.2	87.08	34.13	677.8	328.6
#1	-104.3	-.2337	-2.665	-2.231	.1298	-.4328	1.711	4.041	.9012
#2	-46.44	-.2120	-.9901	-1.368	-3.885	-1.820	2.799	-2.646	-.3589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 6:51:34 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1696	.2914	-.4834	-.0605	100.8	100.3	97.63	-.0734	-.1814
Stddev	.0177	.0098	.0114	.0945	.0	.2	.02	.0158	.7271
%RSD	10.42	3.371	2.355	156.3	.0031	.1770	.0193	21.50	400.9
#1	.1821	.2845	-.4754	-.1273	100.8	100.4	97.64	-.0622	.3328
#2	.1571	.2983	-.4915	.0064	100.8	100.1	97.62	-.0845	-.6955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3370.4	6659.6	108880.	22323.
Stddev	.5	.2	193.	4.
%RSD	.01339	.00305	.17703	.01933
#1	3370.1	6659.5	109020.	22326.
#2	3370.8	6659.8	108750.	22320.

Sample Name: CCV Acquired: 8/14/2019 7:04:00 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.5**	**10490.**	**994.8**	**994.8**	**1062.**	**1051.**	**10730.**	**1006.**	**1000.0**
Stddev	4.6	22.	16.5	9.5	3.	1.	36.	12.	14.32
%RSD	.9014	.2079	1.658	.9517	.2848	.1311	.3362	1.220	1.432
#1	505.3	10480.	983.2	988.1	1060.	1050.	10710.	997.5	989.8
#2	511.7	10510.	1006.	1001.	1064.	1052.	10760.	1015.	1010.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1031.**	**1060.**	**10740.**	**96.40**	**10410.**	**1038.**	**10570.**	**1047.**	**997.3**
Stddev	1.	3.	27.	.03	127.	5.	47.	3.	12.8
%RSD	.1143	.2673	.2467	.0277	1.217	.4954	.4418	.2830	1.282
#1	1030.	1058.	10720.	96.38	10320.	1034.	10530.	1045.	988.2
#2	1032.	1062.	10760.	96.42	10490.	1041.	10600.	1050.	1006.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10390.**	**1009.**	**1006.**	**998.9**	**10120.**	**1003.**	**998.7**	**5302.**	**1013.**
Stddev	147.	11.	13.	16.6	137.	8.	6.4	25.	11.
%RSD	1.417	1.058	1.326	1.659	1.351	.7954	.6432	.4699	1.080
#1	10290.	1001.	996.3	987.2	10020.	997.5	994.1	5284.	1006.
#2	10490.	1016.	1015.	1011.	10220.	1009.	1003.	5319.	1021.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 7:04:00 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1073.	1024.	982.8	1010.	98.50	98.17	96.49	1017.	1077.
Stddev	1.	4.	17.9	6.	.32	.16	.04	15.	8.
%RSD	.1192	.3852	1.826	.6424	.3296	.1586	.0466	1.459	.7757
#1	1072.	1022.	970.1	1005.	98.27	98.06	96.46	1007.	1083.
#2	1074.	1027.	995.5	1015.	98.73	98.28	96.52	1028.	1071.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3241.5	6505.8	106620.	22063.
Stddev	.9	21.4	169.	10.
%RSD	.02773	.32963	.15858	.04663
#1	3240.8	6490.6	106500.	22056.
#2	3242.1	6520.9	106730.	22070.

Sample Name: CCB Acquired: 8/14/2019 7:06:03 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2163**	**8.280**	**.0294**	**.1660**	**.1550**	**.2085**	**10.80**	**.0414**	**.0569**
Stddev	.0743	9.486	.7470	.1147	.1087	.0799	1.13	.1474	.1571
%RSD	34.34	114.6	2544.	69.12	70.13	38.31	10.47	356.0	276.0
#1	.1638	14.99	.5576	.2471	.2319	.2650	11.60	.1457	.1680
#2	.2688	1.573	-.4989	.0849	.0782	.1520	9.999	-.0628	-.0542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1789**	**.8268**	**11.65**	**99.64**	**11.41**	**1.101**	**14.06**	**1.288**	**1.053**
Stddev	.1025	.7380	2.73	.24	20.11	.215	10.52	.037	.353
%RSD	57.32	89.26	23.42	.2385	176.1	19.51	74.86	2.905	33.53
#1	.2514	.3050	13.58	99.81	-2.802	1.253	21.50	1.261	1.302
#2	.1064	1.349	9.723	99.47	25.63	.9492	6.616	1.314	.8031
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-97.56**	**.1831**	**-2.012**	**-.6009**	**1.408**	**.1514**	**.7127**	**1.154**	**.9916**
Stddev	75.50	.2784	1.375	.6614	1.389	2.607	.2014	3.349	.2936
%RSD	77.39	152.0	68.32	110.1	98.61	1722.	28.26	290.3	29.61
#1	-44.17	-.0137	-2.985	-.1332	2.390	1.994	.5703	3.522	1.199
#2	-150.9	.3800	-1.040	-1.069	.4262	-1.692	.8551	-1.214	.7840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 7:06:03 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1764	.2478	-.9807	-.0704	100.4	99.57	97.51	-.1155	-.1006
Stddev	.0028	.0918	1.128	.0584	.2	.02	.29	.0840	.6846
%RSD	1.575	37.05	115.0	83.01	.2460	.0188	.2946	72.75	680.4
#1	.1784	.3127	-1.778	-.0291	100.6	99.56	97.31	-.1748	.3835
#2	.1744	.1828	-.1834	-.1116	100.3	99.58	97.71	-.0561	-.5847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3350.4	6633.3	108140.	22296.
Stddev	8.0	16.3	20.	66.
%RSD	.23850	.24595	.01875	.29462
#1	3356.1	6644.8	108130.	22250.
#2	3344.8	6621.7	108160.	22343.

Sample Name: 1730480_27246 Acquired: 8/14/2019 7:09:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1220	6.793	1.668	.6792	.0532	.0035	4.979	-.1019	-.1774
Stddev	.0453	2.731	2.046	.6076	.1165	.0183	2.900	.0582	.2831
%RSD	37.11	40.20	122.7	89.46	218.8	515.8	58.23	57.16	159.6
#1	.0900	4.862	3.116	1.109	-.0291	-.0094	2.929	-.0607	-.3776
#2	.1540	8.724	.2214	.2495	.1356	.0165	7.030	-.1431	.0227

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1069	-.2951	2.933	99.11	-3.136	-.7349	14.11	.3562	-.0399
Stddev	.1173	.0094	2.497	.47	3.159	.4901	5.28	.1406	.1785
%RSD	109.7	3.172	85.12	.4702	100.7	66.69	37.40	39.46	447.6
#1	.1898	-.3017	4.699	98.78	-5.369	-.3883	17.84	.2568	.0863
#2	.0240	-.2885	1.168	99.44	-.9022	-1.081	10.38	.4556	-.1661

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-48.85	.5076	-.3772	-.7238	1.983	-1.081	1.762	-1.174	-.3322
Stddev	194.2	.2782	.2003	1.394	2.676	2.305	.919	2.167	.0679
%RSD	397.5	54.80	53.10	192.6	134.9	213.2	52.14	184.5	20.44
#1	88.47	.7044	-.2356	.2621	.0908	-2.711	2.412	-2.707	-.2842
#2	-186.2	.3109	-.5189	-1.710	3.876	.5485	1.112	.3578	-.3803

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0155	.0087	.3005	-.0483	99.91	100.2	97.92	2.253	-.3908
Stddev	.0135	.0233	.9441	.0129	.12	.1	.35	.011	.4430
%RSD	87.19	269.0	314.1	26.78	.1249	.0722	.3559	.4721	113.3
#1	-.0251	-.0078	-.3670	-.0574	99.82	100.2	98.17	2.245	-.0776
#2	-.0059	.0252	.9681	-.0392	100.00	100.3	97.68	2.260	-.7040

Sample Name: 1730480_27246 Acquired: 8/14/2019 7:09:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3332.5	6599.1	108870.	22390.
Stddev	15.7	8.2	79.	80.
%RSD	.47023	.12495	.07221	.35587
#1	3321.4	6593.3	108820.	22447.
#2	3343.6	6604.9	108930.	22334.

Sample Name: 1730481_27246 Acquired: 8/14/2019 7:11:26 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**263.5**	**5353.**	**519.8**	**505.5**	**570.5**	**567.9**	**5474.**	**548.9**	**528.1**
Stddev	4.1	.	7.8	7.8	4.5	.1	47.	7.9	6.4
%RSD	1.575	.0082	1.495	1.541	.7885	.0172	.8625	1.433	1.210
#1	260.6	5353.	514.3	500.0	567.4	567.8	5440.	543.4	523.6
#2	266.5	5353.	525.3	511.1	573.7	568.0	5507.	554.5	532.7

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**555.8**	**568.0**	**5431.**	**98.30**	**5369.**	**569.7**	**5357.**	**560.2**	**515.7**
Stddev	7.6	4.6	20.	.07	87.	2.4	6.	3.3	4.6
%RSD	1.374	.8149	.3603	.0719	1.619	.4260	.1172	.5806	.8907
#1	550.4	564.7	5418.	98.35	5307.	568.0	5352.	557.9	512.4
#2	561.2	571.3	5445.	98.25	5430.	571.4	5361.	562.5	518.9

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5418.**	**547.2**	**543.5**	**553.3**	**5187.**	**519.5**	**540.3**	**2671.**	**525.5**
Stddev	110.	4.8	6.9	5.1	64.	3.9	7.4	1.	4.2
%RSD	2.021	.8793	1.271	.9178	1.243	.7581	1.373	.0250	.7919
#1	5340.	543.8	538.6	549.7	5142.	516.7	535.0	2670.	522.6
#2	5495.	550.6	548.4	556.9	5233.	522.3	545.5	2671.	528.5

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**583.5**	**519.5**	**520.9**	**547.7**	**99.42**	**99.37**	**98.77**	**552.1**	**526.2**
Stddev	2.9	6.3	8.3	6.7	.06	.51	.12	5.6	5.5
%RSD	.4953	1.204	1.601	1.226	.0559	.5119	.1188	1.008	1.040
#1	581.4	515.0	515.0	543.0	99.46	99.73	98.85	548.1	522.4
#2	585.5	523.9	526.8	552.5	99.38	99.01	98.68	556.0	530.1

Sample Name: 1730481_27246 Acquired: 8/14/2019 7:11:26 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3305.4	6566.7	107920.	22584.
Stddev	2.4	3.7	552.	27.
%RSD	.07194	.05592	.51188	.11881
#1	3307.1	6569.3	108310.	22603.
#2	3303.7	6564.1	107530.	22565.

Sample Name: 1729491_27246 Acquired: 8/14/2019 7:13:28 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2882**	**10.95**	**2.454**	**14.31**	**10.99**	**.1557**	**142.0**
Stddev	.0464	1.35	1.132	1.34	.04	.0221	5.7
%RSD	16.11	12.32	46.10	9.360	.3922	14.21	4.029
#1	.3210	9.996	3.255	15.26	10.96	.1713	137.9
#2	.2553	11.90	1.654	13.37	11.02	.1401	146.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2829**	**-1.324**	**2.326**	**1.972**	**25.39**	**79.63**	**437.2**
Stddev	.0306	.036	.128	.459	.22	.22	104.0
%RSD	10.81	2.695	5.500	23.27	.8748	.2789	23.79
#1	.2613	-1.349	2.236	1.647	25.55	79.79	363.7
#2	.3045	-1.298	2.416	2.296	25.24	79.47	510.7

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.319**	**37.27**	**2.234**	**1.501**	**1467000.**	**4.936**	**4.194**
Stddev	1.612	.59	.215	.396	16070.	.124	1.120
%RSD	48.59	1.590	9.625	26.37	1.095	2.507	26.70
#1	2.178	36.86	2.386	1.780	1456000.	4.849	4.986
#2	4.459	37.69	2.082	1.221	1478000.	5.024	3.402

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.270**	**21.31**	**-.1977**	**3.822**	**36.79**	**.6949**	**1.255**
Stddev	1.831	1.13	.8352	2.052	.34	.2412	.059
%RSD	56.00	5.295	422.4	53.70	.9228	34.70	4.686
#1	1.975	20.51	.3928	5.273	37.03	.5244	1.297
#2	4.565	22.10	-.7883	2.371	36.55	.8655	1.213

Sample Name: 1729491_27246 Acquired: 8/14/2019 7:13:28 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0833	-1.005	-.1006	87.10	86.34	93.36	7.711
Stddev	.1165	.126	.3563	.12	.16	.61	.169
%RSD	139.8	12.55	354.1	.1369	.1796	.6567	2.193
#1	.1657	-.9156	-.3525	87.19	86.45	92.92	7.591
#2	.0010	-1.094	.1513	87.02	86.23	93.79	7.831

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.0161
Stddev	.0407
%RSD	253.6
#1	.0448
#2	-.0127

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2677.6	5753.1	93770.	21346.
Stddev	7.5	7.9	168.	140.
%RSD	.27893	.13692	.17956	.65672
#1	2682.9	5758.7	93889.	21247.
#2	2672.3	5747.5	93651.	21445.

Sample Name: 1729492_27246 Acquired: 8/14/2019 7:15:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3448**	**4.869**	**4.131**	**9.036**	**5.494**	**.0259**	**149.2**
Stddev	.0158	10.54	1.371	.468	.080	.0430	4.3
%RSD	4.587	216.5	33.19	5.179	1.450	166.3	2.880
#1	.3560	12.32	3.162	9.367	5.438	.0563	146.1
#2	.3336	-2.584	5.101	8.705	5.551	-.0046	152.2

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1939**	**-1.716**	**2.142**	**.1411**	**14.88**	**79.52**	**688.7**
Stddev	.0276	.258	.230	.8709	2.87	.10	53.6
%RSD	14.21	15.01	10.75	617.3	19.27	.1200	7.783
#1	.1744	-1.899	1.979	-.4747	16.90	79.59	650.8
#2	.2134	-1.534	2.305	.7569	12.85	79.45	726.6

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.675**	**42.53**	**.8512**	**1.652**	**1505000.**	**.7664**	**35.21**
Stddev	2.048	7.88	.0107	.349	21380.	.0109	3.55
%RSD	21.17	18.52	1.255	21.14	1.421	1.422	10.07
#1	8.227	48.10	.8587	1.899	1490000.	.7741	32.71
#2	11.12	36.96	.8436	1.405	1520000.	.7587	37.72

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.140**	**32.45**	**-2.117**	**2.394**	**32.57**	**1.107**	**.7196**
Stddev	.864	1.22	1.243	4.062	3.17	.166	.0025
%RSD	75.75	3.753	58.72	169.7	9.721	15.02	.3519
#1	-1.751	33.31	-2.996	-.4783	30.33	1.225	.7179
#2	-.5293	31.59	-1.238	5.267	34.81	.9895	.7214

Sample Name: 1729492_27246 Acquired: 8/14/2019 7:15:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1295**	**-1.439**	**-.0230**	**86.74**	**86.33**	**93.25**	**6.114**
Stddev	.0241	1.327	.1968	.15	.16	.22	.047
%RSD	18.58	92.23	854.0	.1715	.1898	.2306	.7751
#1	-.1466	-.5004	-.1622	86.85	86.45	93.41	6.080
#2	-.1125	-2.377	.1161	86.63	86.22	93.10	6.147

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**-.0900**
Stddev	.1306
%RSD	145.2
#1	-.1823
#2	.0024

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2673.8**	**5729.2**	**93763.**	**21323.**
Stddev	3.2	9.8	178.	49.
%RSD	.11995	.17153	.18979	.23055
#1	2676.1	5736.1	93888.	21358.
#2	2671.5	5722.2	93637.	21288.

Sample Name: 30318799001_27246 Acquired: 8/14/2019 7:20:27 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.9817**	**91.95**	**4.800**	**47.17**	**817.5**	**-.5092**	**498700.**
Stddev	.2526	13.49	.513	.64	5.9	.0286	5725.
%RSD	25.73	14.67	10.68	1.365	.7227	5.620	1.148
#1	-1.160	101.5	5.163	46.71	813.3	-.4890	494600.
#2	-.8031	82.41	4.438	47.62	821.6	-.5294	502700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.640**	**18.81**	**.5363**	**15.67**	**62.20**	**74.36**	**5654.**
Stddev	.494	.20	.1791	.90	.19	.13	137.
%RSD	7.441	1.049	33.39	5.737	.2976	.1699	2.420
#1	6.989	18.67	.6629	15.04	62.07	74.45	5557.
#2	6.291	18.95	.4097	16.31	62.33	74.27	5750.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.49**	**20890.**	**3653.**	**4.865**	**1538000.**	**40.21**	**145.4**
Stddev	.45	68.	24.	.142	18160.	.34	4.0
%RSD	1.849	.3251	.6457	2.923	1.180	.8529	2.717
#1	24.17	20840.	3636.	4.765	1525000.	40.46	142.6
#2	24.81	20940.	3670.	4.966	1551000.	39.97	148.2

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.60**	**14750.**	**-2.835**	**.6951**	**2010.**	**1.646**	**1155.**
Stddev	1.53	110.	.944	2.295	2.	1.214	9.
%RSD	12.11	.7463	33.30	330.2	.0988	73.73	.7824
#1	11.52	14670.	-3.503	-.9278	2009.	2.504	1148.
#2	13.68	14820.	-2.168	2.318	2012.	.7879	1161.

Sample Name: 30318799001_27246 Acquired: 8/14/2019 7:20:27 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7518**	**-3.909**	**2.221**	**82.06**	**82.88**	**90.46**	**169.6**
Stddev	.1845	.389	.196	.16	.00	.80	1.5
%RSD	24.54	9.960	8.804	.1907	.0050	.8841	.8776
#1	-.6213	-4.184	2.359	81.95	82.88	89.90	168.5
#2	-.8822	-3.634	2.083	82.17	82.88	91.03	170.6

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.1373**
Stddev	.3506
%RSD	255.3
#1	-.1106
#2	.3853

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2500.3**	**5420.0**	**90013.**	**20685.**
Stddev	4.2	10.3	5.	183.
%RSD	.16986	.19074	.00502	.88411
#1	2503.3	5412.7	90017.	20555.
#2	2497.3	5427.3	90010.	20814.

Sample Name: 1730482_27246 Acquired: 8/14/2019 7:22:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7952**	**84.60**	**7.423**	**46.23**	**800.8**	**-.4920**	**496000.**
Stddev	.2759	10.47	.722	1.25	12.2	.0072	13090.
%RSD	34.70	12.37	9.728	2.711	1.518	1.459	2.638
#1	-.9903	92.00	7.934	45.34	792.2	-.4870	486700.
#2	-.6001	77.20	6.913	47.12	809.4	-.4971	505300.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.762**	**18.53**	**.4943**	**15.84**	**61.46**	**74.25**	**5590.**
Stddev	.098	.06	.0052	1.24	.12	.17	174.
%RSD	2.060	.3278	1.045	7.818	.1874	.2309	3.120
#1	4.832	18.49	.4979	16.72	61.54	74.37	5467.
#2	4.693	18.57	.4906	14.97	61.38	74.13	5714.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**24.41**	**20830.**	**3623.**	**4.760**	**1518000.**	**39.60**	**147.6**
Stddev	.09	327.	64.	.527	31000.	.68	.7
%RSD	.3764	1.568	1.755	11.08	2.043	1.726	.4934
#1	24.47	20600.	3578.	5.133	1496000.	39.12	148.1
#2	24.34	21060.	3668.	4.387	1539000.	40.08	147.1

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.02**	**14650.**	**-2.209**	**.0771**	**1997.**	**1.613**	**1138.**
Stddev	.76	141.	1.337	.9415	24.	.878	17.
%RSD	6.338	.9593	60.54	1221.	1.179	54.45	1.523
#1	12.56	14550.	-3.155	.7429	1980.	2.234	1126.
#2	11.48	14750.	-1.263	-.5886	2014.	.9919	1151.

Sample Name: 1730482_27246 Acquired: 8/14/2019 7:22:42 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5271**	**-3.972**	**2.124**	**81.68**	**83.09**	**90.22**	**168.2**
Stddev	.0809	2.600	.079	.21	.11	.09	2.1
%RSD	15.34	65.46	3.740	.2603	.1289	.1026	1.221
#1	-.5843	-2.134	2.068	81.83	83.01	90.16	166.7
#2	-.4699	-5.810	2.180	81.53	83.16	90.29	169.6

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**-1.271**
Stddev	.193
%RSD	15.20
#1	-1.134
#2	-1.407

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2496.6**	**5395.2**	**90240.**	**20630.**
Stddev	5.8	14.0	116.	21.
%RSD	.23094	.26029	.12894	.10255
#1	2500.7	5405.1	90158.	20615.
#2	2492.5	5385.2	90322.	20645.

Sample Name: 1730483_27246 Acquired: 8/14/2019 7:24:58 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**293.0**	**5445.**	**537.8**	**571.1**	**1368.**	**521.6**	**502200.**
Stddev	3.6	24.	3.7	10.2	26.	6.7	7782.
%RSD	1.223	.4367	.6960	1.778	1.895	1.279	1.549
#1	290.5	5428.	535.1	563.9	1350.	516.9	496700.
#2	295.6	5461.	540.4	578.3	1386.	526.3	507700.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**558.0**	**528.7**	**496.0**	**562.7**	**5122.**	**74.09**	**11660.**
Stddev	7.6	4.9	4.0	8.8	89.	.21	333.
%RSD	1.363	.9220	.7977	1.570	1.743	.2780	2.858
#1	552.7	525.3	493.2	556.4	5059.	73.94	11420.
#2	563.4	532.2	498.8	568.9	5185.	74.23	11890.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**614.8**	**25620.**	**4124.**	**570.8**	**1532000.**	**511.0**	**687.9**
Stddev	11.6	370.	58.	6.5	29990.	5.1	7.6
%RSD	1.891	1.445	1.410	1.146	1.957	1.007	1.101
#1	606.5	25360.	4083.	566.2	1511000.	507.4	682.6
#2	623.0	25880.	4165.	575.5	1553000.	514.6	693.3

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**538.4**	**20390.**	**552.6**	**558.4**	**4946.**	**491.9**	**1684.**
Stddev	3.4	276.	9.2	12.5	88.	5.9	24.
%RSD	.6306	1.352	1.667	2.236	1.772	1.204	1.397
#1	536.0	20190.	546.1	549.6	4884.	487.8	1668.
#2	540.8	20580.	559.1	567.2	5008.	496.1	1701.

Sample Name: 1730483_27246 Acquired: 8/14/2019 7:24:58 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**517.2**	**457.7**	**514.3**	**82.14**	**83.36**	**90.54**	**646.2**
Stddev	4.3	7.7	4.1	.04	.19	.07	9.7
%RSD	.8295	1.691	.7953	.0470	.2260	.0753	1.504
#1	514.2	452.3	511.4	82.17	83.23	90.58	639.4
#2	520.3	463.2	517.2	82.11	83.49	90.49	653.1

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**524.5**
Stddev	10.3
%RSD	1.955
#1	517.2
#2	531.7

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2491.2**	**5425.5**	**90536.**	**20701.**
Stddev	6.9	2.5	205.	16.
%RSD	.27801	.04698	.22601	.07531
#1	2486.3	5427.3	90391.	20712.
#2	2496.1	5423.7	90680.	20690.

Sample Name: 1730484_27246 Acquired: 8/14/2019 7:27:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**302.8**	**5808.**	**553.8**	**583.8**	**1445.**	**543.2**	**532900.**
Stddev	1.9	56.	1.8	3.8	13.	7.0	10000.
%RSD	.6351	.9681	.3301	.6553	.9037	1.283	1.877
#1	301.5	5768.	552.5	581.1	1436.	538.3	525800.
#2	304.2	5848.	555.1	586.5	1455.	548.2	540000.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**570.5**	**537.7**	**509.5**	**590.3**	**5475.**	**73.31**	**12610.**
Stddev	4.7	2.4	1.2	4.9	46.	.02	196.
%RSD	.8306	.4543	.2325	.8362	.8374	.0275	1.552
#1	567.2	536.0	508.7	586.8	5442.	73.29	12470.
#2	573.9	539.4	510.3	593.8	5507.	73.32	12750.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**644.6**	**27150.**	**4355.**	**578.4**	**1637000.**	**522.6**	**710.2**
Stddev	8.4	306.	63.	2.1	20250.	.7	6.1
%RSD	1.309	1.127	1.454	.3580	1.237	.1346	.8612
#1	638.7	26930.	4310.	576.9	1623000.	522.1	705.8
#2	650.6	27370.	4399.	579.9	1652000.	523.1	714.5

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**546.7**	**21130.**	**565.1**	**580.8**	**5212.**	**502.1**	**1775.**
Stddev	1.8	134.	.7	6.1	50.	3.0	19.
%RSD	.3210	.6333	.1166	1.054	.9679	.5954	1.076
#1	545.4	21040.	565.5	576.4	5176.	500.0	1761.
#2	547.9	21230.	564.6	585.1	5248.	504.2	1788.

Sample Name: 1730484_27246 Acquired: 8/14/2019 7:27:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**530.7**	**464.6**	**530.4**	**80.93**	**82.57**	**89.23**	**658.8**
Stddev	1.1	6.6	.8	.01	.01	.19	3.7
%RSD	.2145	1.428	.1426	.0132	.0124	.2158	.5664
#1	529.9	459.9	529.9	80.94	82.57	89.09	656.2
#2	531.5	469.3	530.9	80.92	82.56	89.36	661.5

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**554.6**
Stddev	6.2
%RSD	1.120
#1	550.2
#2	559.0

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2465.0**	**5345.4**	**89673.**	**20402.**
Stddev	.7	.7	11.	44.
%RSD	.02750	.01323	.01239	.21575
#1	2464.5	5345.9	89681.	20371.
#2	2465.5	5344.9	89665.	20433.

Sample Name: CCV Acquired: 8/14/2019 7:32:33 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.8**	**10440.**	**985.8**	**977.7**	**1056.**	**1045.**	**10700.**	**1005.**	**988.7**
Stddev	2.7	16.	14.1	1.1	6.	5.	66.	11.	9.8
%RSD	.5249	.1536	1.429	.1150	.5908	.4463	.6189	1.108	.9895
#1	506.9	10430.	975.8	976.9	1052.	1042.	10650.	996.8	981.7
#2	510.7	10450.	995.7	978.5	1060.	1049.	10740.	1013.	995.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1028.**	**1054.**	**10590.**	**96.09**	**10450.**	**1032.**	**10540.**	**1031.**	**986.8**
Stddev	3.	8.	124.	.15	78.	3.	94.	8.	5.7
%RSD	.2527	.7501	1.167	.1610	.7479	.3247	.8893	.7729	.5805
#1	1027.	1048.	10510.	96.20	10390.	1030.	10480.	1025.	982.7
#2	1030.	1059.	10680.	95.99	10500.	1034.	10610.	1037.	990.8
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10660.**	**997.4**	**995.4**	**989.9**	**10050.**	**995.1**	**988.2**	**5243.**	**1009.**
Stddev	144.	7.7	5.5	15.7	134.	10.6	3.0	23.	8.
%RSD	1.351	.7730	.5496	1.583	1.336	1.067	.3011	.4364	.7953
#1	10560.	992.0	991.6	978.9	9951.	987.6	986.1	5227.	1003.
#2	10760.	1003.	999.3	1001.	10140.	1003.	990.3	5259.	1014.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 7:32:33 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1068.**	**1025.**	**981.8**	**1007.**	**98.43**	**97.82**	**96.27**	**1006.**	**1070.**
Stddev	3.	1.	18.6	4.	.31	.31	.14	11.	1.
%RSD	.2942	.1150	1.897	.4042	.3124	.3139	.1505	1.122	.0634
#1	1066.	1024.	968.7	1004.	98.22	97.61	96.17	998.5	1070.
#2	1071.	1026.	995.0	1010.	98.65	98.04	96.37	1014.	1069.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3231.2**	**6501.5**	**106240.**	**22012.**
Stddev	5.2	20.3	334.	33.
%RSD	.16102	.31244	.31393	.15046
#1	3234.9	6487.2	106010.	21989.
#2	3227.5	6515.9	106480.	22036.

Sample Name: CCB Acquired: 8/14/2019 7:34:38 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2246**	**1.181**	**-.1727**	**.4007**	**.3601**	**.2227**	**18.18**	**.0731**	**-.1915**
Stddev	.2696	5.735	.1181	.0715	.0688	.0703	7.07	.0306	.1997
%RSD	120.1	485.7	68.36	17.85	19.10	31.57	38.91	41.93	104.3
#1	.4153	-2.875	-.0892	.4512	.4087	.2724	23.18	.0947	-.3328
#2	.0339	5.237	-.2562	.3501	.3115	.1730	13.18	.0514	-.0503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0255**	**-.0729**	**4.779**	**99.44**	**94.43**	**1.615**	**1.278**	**.4236**	**1.200**
Stddev	.0252	.5476	.572	.04	2.55	.360	.940	.1370	.262
%RSD	98.94	751.6	11.96	.0355	2.697	22.28	73.55	32.35	21.86
#1	-.0433	-.4600	4.375	99.42	92.63	1.869	1.943	.5205	1.385
#2	-.0077	.3143	5.184	99.47	96.23	1.361	.6134	.3267	1.014
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-10.08**	**.2258**	**-1.902**	**-1.515**	**-.5455**	**-1.168**	**-.0512**	**1.552**	**-.3365**
Stddev	41.22	.2362	1.547	.671	.8469	1.537	2.530	2.374	.2593
%RSD	408.9	104.6	81.30	44.29	155.2	131.6	4939.	153.0	77.06
#1	-39.23	.3928	-2.996	-1.989	.0533	-2.255	1.737	-.1272	-.1531
#2	19.07	.0588	-.8088	-1.041	-1.144	-.0807	-1.840	3.230	-.5198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 7:34:38 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2057	.1840	.4055	-.0616	99.95	99.80	95.77	-.0815	.0505
Stddev	.1090	.0164	1.097	.1070	.39	.22	.15	.0498	.6090
%RSD	52.97	8.899	270.5	173.6	.3917	.2254	.1574	61.09	1205.
#1	.2828	.1955	1.181	-.1373	99.67	99.96	95.66	-.0463	-.3801
#2	.1287	.1724	-.3700	.0140	100.2	99.64	95.88	-.1167	.4811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3343.8	6601.5	108390.	21898.
Stddev	1.2	25.9	244.	34.
%RSD	.03551	.39175	.22538	.15743
#1	3342.9	6583.2	108560.	21874.
#2	3344.6	6619.7	108210.	21923.

Sample Name: ICSA Acquired: 8/14/2019 7:38:18 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1620**	**53680.**	**.5657**	**-.0446**	**.0799**	**-.0855**	**54140.**	**.5503**	**-.0537**
Stddev	.0499	355.	.7441	.1882	.0063	.0048	295.	.0493	.2050
%RSD	30.81	.6619	131.5	422.1	7.841	5.665	.5455	8.951	381.6
#1	-.1972	53420.	.0395	.0885	.0754	-.0889	53930.	.5155	-.1986
#2	-.1267	53930.	1.092	-.1776	.0843	-.0821	54340.	.5852	.0912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2578**	**1.928**	**21310.**	**95.74**	**64.26**	**.7599**	**54080.**	**.1104**	**.1343**
Stddev	.1275	.311	76.	.02	10.65	.0655	274.	.0512	.2906
%RSD	49.45	16.12	.3567	.0185	16.58	8.623	.5062	46.31	216.3
#1	-.1677	2.148	21250.	95.73	56.72	.7136	53880.	.0743	.3399
#2	-.3479	1.708	21360.	95.75	71.79	.8062	54270.	.1466	-.0712
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.87**	**.0854**	**-2.092**	**-3.879**	**-10.21**	**-3.177**	**1.254**	**1.998**	**3.809**
Stddev	4.42	.0957	.690	.548	4.68	.604	4.235	.522	.232
%RSD	15.86	112.1	32.97	14.13	45.78	19.02	337.7	26.15	6.100
#1	24.75	.1531	-1.605	-4.267	-6.908	-3.605	-1.740	1.629	3.645
#2	31.00	.0177	-2.580	-3.492	-13.52	-2.750	4.248	2.367	3.973
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 8/14/2019 7:38:18 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3404**	**.3446**	**-2.159**	**.6526**	**97.98**	**96.93**	**95.57**	**-.1616**	**-.3964**
Stddev	.0022	.2868	.496	.2303	.18	.84	.09	.1639	.0599
%RSD	.6326	83.24	22.97	35.28	.1816	.8635	.0901	101.4	15.10
#1	-.3389	.5474	-2.509	.4898	97.86	96.33	95.51	-.2775	-.3541
#2	-.3419	.1418	-1.808	.8154	98.11	97.52	95.63	-.0458	-.4387
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3219.2**	**6471.8**	**105270.**	**21852.**
Stddev	.6	11.8	909.	20.
%RSD	.01849	.18162	.86346	.09012
#1	3218.8	6463.5	104630.	21839.
#2	3219.7	6480.1	105910.	21866.

Sample Name: ICSAB Acquired: 8/14/2019 7:41:05 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1042.**	**52830.**	**1.325**	**-.9158**	**523.7**	**524.4**	**53070.**	**1004.**	**484.3**
Stddev	15.	189.	1.698	.0193	3.8	3.0	694.	2.	1.5
%RSD	1.454	.3580	128.1	2.113	.7259	.5661	1.307	.1672	.3143
#1	1031.	52690.	2.526	-.9021	521.0	522.3	52580.	1003.	485.4
#2	1053.	52960.	.1249	-.9294	526.4	526.5	53560.	1005.	483.2
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.1**	**519.8**	**20870.**	**95.80**	**59.79**	**.8230**	**52830.**	**503.7**	**-.0657**
Stddev	5.4	7.0	244.	.02	7.00	.5583	817.	5.2	.0719
%RSD	1.071	1.341	1.168	.0238	11.70	67.83	1.547	1.031	109.5
#1	503.2	514.9	20700.	95.82	54.85	1.218	52260.	500.0	-.0148
#2	510.9	524.7	21040.	95.78	64.74	.4283	53410.	507.4	-.1166
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-150.4**	**969.6**	**-2.019**	**977.6**	**-14.20**	**-4.377**	**.0963**	**-19.94**	**.2585**
Stddev	40.1	1.0	.703	3.9	.22	1.304	.3197	1.82	.8656
%RSD	26.64	.1043	34.79	.4024	1.571	29.79	332.1	9.105	334.9
#1	-122.1	970.3	-2.516	974.8	-14.35	-5.299	-.1298	-21.23	-.3536
#2	-178.8	968.9	-1.523	980.3	-14.04	-3.455	.3223	-18.66	.8706
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 8/14/2019 7:41:05 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.2992	.3100	-1.188	501.2	98.16	98.42	96.33	972.8	.0077
Stddev	.0046	.0589	.176	5.9	.00	.05	1.00	2.4	.1124
%RSD	1.547	19.00	14.83	1.167	.0049	.0554	1.040	.2514	1452.
#1	-.3025	.3517	-1.313	497.0	98.17	98.38	97.04	974.5	.0872
#2	-.2960	.2684	-1.064	505.3	98.16	98.46	95.62	971.0	-.0718
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.3	6483.6	106890.	22026.
Stddev	.8	.3	59.	229.
%RSD	.02376	.00492	.05537	1.0397
#1	3221.8	6483.8	106850.	22188.
#2	3220.8	6483.4	106940.	21864.

Sample Name: CRDL Acquired: 8/14/2019 7:47:32 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.688**	**55.48**	**4.286**	**50.97**	**11.20**	**1.057**	**1099.**	**3.060**	**5.266**
Stddev	.149	.60	.690	.00	.24	.019	19.	.077	.264
%RSD	2.229	1.083	16.11	.0076	2.176	1.755	1.763	2.511	5.009
#1	6.583	55.91	4.774	50.97	11.02	1.044	1085.	3.114	5.453
#2	6.794	55.06	3.798	50.97	11.37	1.070	1113.	3.006	5.080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.528**	**4.957**	**81.78**	**97.40**	**591.9**	**41.69**	**226.1**	**5.218**	**20.93**
Stddev	.405	.560	1.60	.56	18.6	.67	2.3	.117	.43
%RSD	7.328	11.29	1.956	.5715	3.147	1.609	1.033	2.235	2.044
#1	5.242	4.561	80.65	97.00	578.8	41.22	224.4	5.300	21.23
#2	5.815	5.352	82.92	97.79	605.1	42.17	227.7	5.135	20.62
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1123.**	**10.67**	**50.19**	**4.563**	**56.61**	**5.572**	**11.23**	**110.4**	**52.49**
Stddev	67.	.02	.33	.193	3.88	2.082	1.49	.1	.88
%RSD	5.952	.1519	.6657	4.223	6.855	37.37	13.28	.1305	1.681
#1	1075.	10.68	49.95	4.426	53.86	4.100	10.18	110.3	51.87
#2	1170.	10.66	50.42	4.699	59.35	7.045	12.29	110.5	53.12
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 8/14/2019 7:47:32 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.696**	**5.265**	**8.500**	**5.094**	**98.78**	**97.33**	**93.77**	**10.85**	**73.60**
Stddev	.183	.118	.396	.174	.08	.02	.24	.12	.67
%RSD	3.217	2.241	4.657	3.424	.0785	.0222	.2578	1.151	.9107
#1	5.567	5.182	8.780	4.970	98.72	97.31	93.59	10.93	73.13
#2	5.826	5.348	8.220	5.217	98.83	97.34	93.94	10.76	74.08
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3275.0**	**6524.2**	**105700.**	**21440.**
Stddev	18.7	5.1	23.	55.
%RSD	.57153	.07847	.02219	.25785
#1	3261.7	6520.6	105690.	21401.
#2	3288.2	6527.9	105720.	21479.

Sample Name: CAL0 Acquired: 8/14/2019 8:11:00 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0007**	**-.0000**	**.0001**	**.0012**	**-.0001**	**.0008**
Stddev	.0000	.0000	.0000	.0001	.0001	.0000	.0003
%RSD	83.61	5.210	42.66	117.9	5.238	32.28	32.92
#1	-.0001	.0007	-.0000	.0001	.0012	-.0000	.0010
#2	-.0000	.0007	-.0000	.0000	.0013	-.0001	.0006

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0005**	**.0000**	**.0008**	**.0001**	**3319.**	**.0008**
Stddev	.0002	.0001	.0000	.0002	.0000	6.	.0001
%RSD	167.0	18.11	55.97	22.59	25.72	.1798	15.69
#1	.0002	-.0005	.0000	.0007	.0001	3324.	.0009
#2	-.0000	-.0006	.0001	.0009	.0001	3315.	.0007

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**-.0001**	**.0001**	**.0003**	**-.0021**	**-.0001**	**.0002**
Stddev	.0003	.0000	.0001	.0000	.0003	.0001	.0001
%RSD	1155.	34.04	89.07	2.898	13.96	78.90	32.74
#1	-.0002	-.0000	.0001	.0003	-.0023	-.0001	.0002
#2	.0002	-.0001	.0000	.0003	-.0019	-.0000	.0001

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**-.0003**	**-.0001**	**.0001**	**.0001**	**.0001**	**.0003**
Stddev	.0003	.0000	.0001	.0001	.0001	.0001	.0000
%RSD	263.1	12.02	215.8	120.7	49.29	82.56	10.30
#1	.0001	-.0003	-.0002	.0001	.0001	.0000	.0003
#2	-.0004	-.0003	.0000	.0000	.0002	.0001	.0003

Sample Name: CAL0 Acquired: 8/14/2019 8:11:00 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**-.0009**	**.0000**	**6597.**	**107700.**	**21910.**	**.0002**
Stddev	.0000	.0001	.0000	20.	36.	122.	.0002
%RSD	3.730	15.04	51.62	.3059	.0333	.5551	113.8
#1	-.0002	-.0008	.0000	6611.	107700.	21820.	.0000
#2	-.0002	-.0010	.0000	6583.	107600.	21990.	.0003

Elem	Zr3391
Units	Cts/S
Avg	**-.0003**
Stddev	.0001
%RSD	29.05
#1	-.0002
#2	-.0003

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3319.3**	**6597.1**	**107660.**	**21906.**
Stddev	6.0	20.2	36.	122.
%RSD	.17977	.30593	.03334	.55508
#1	3323.5	6611.4	107680.	21820.
#2	3315.1	6582.9	107630.	21992.

Sample Name: CAL1 Acquired: 8/14/2019 8:13:23 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1251**	**.7036**	**.1443**	**.3774**	**5.202**	**5.542**	**1.066**
Stddev	.0014	.0005	.0016	.0038	.023	.014	.007
%RSD	1.145	.0647	1.142	1.005	.4490	.2441	.6186
#1	.1240	.7039	.1432	.3747	5.185	5.533	1.061
#2	.1261	.7033	.1455	.3801	5.218	5.552	1.071

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.646**	**3.508**	**.3067**	**.2432**	**.6906**	**3176.**	**.4937**
Stddev	.046	.038	.0010	.0012	.0032	3.	.0085
%RSD	1.252	1.088	.3409	.4903	.4584	.1079	1.713
#1	3.614	3.481	.3060	.2423	.6883	3178.	.4877
#2	3.679	3.535	.3075	.2440	.6928	3173.	.4996

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.072**	**.1572**	**.6371**	**1.415**	**.0622**	**.9410**	**.1298**
Stddev	.005	.0014	.0031	.016	.0004	.0120	.0012
%RSD	.5157	.8662	.4935	1.152	.5694	1.277	.9429
#1	1.068	.1562	.6349	1.403	.0620	.9325	.1289
#2	1.076	.1581	.6393	1.426	.0625	.9495	.1306

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7314**	**.6981**	**.2006**	**.1040**	**.1819**	**.3464**	**9.492**
Stddev	.0094	.0087	.0017	.0019	.0012	.0039	.221
%RSD	1.280	1.252	.8440	1.853	.6520	1.120	2.331
#1	.7248	.6919	.1994	.1026	.1811	.3437	9.335
#2	.7380	.7042	.2018	.1054	.1827	.3492	9.648

Sample Name: CAL1 Acquired: 8/14/2019 8:13:23 Type: Cal
Method: Pace-65002-2-CETAC1(v1787) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6315**	**.2943**	**.3598**	**6502.**	**106100.**	**21750.**	**1.991**
Stddev	.0042	.0049	.0026	4.	174.	12.	.028
%RSD	.6699	1.676	.7177	.0624	.1637	.0545	1.414
#1	.6286	.2908	.3580	6505.	105900.	21740.	1.971
#2	.6345	.2978	.3617	6499.	106200.	21760.	2.011

Elem	Zr3391
Units	Cts/S
Avg	**.4325**
Stddev	.0009
%RSD	.2166
#1	.4331
#2	.4318

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3175.7**	**6501.7**	**106060.**	**21750.**
Stddev	3.4	4.1	174.	12.
%RSD	.10794	.06236	.16374	.05449
#1	3178.1	6504.6	105940.	21742.
#2	3173.2	6498.8	106190.	21758.

Sample Name: ICV Acquired: 8/14/2019 8:15:28 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1051.**	**20680.**	**1973.**	**2063.**	**2051.**	**2059.**	**20890.**	**2031.**	**1999.**
Stddev	8.	113.	18.	24.	11.	11.	159.	12.	10.
%RSD	.7427	.5453	.9252	1.182	.5398	.5544	.7629	.5881	.4960
#1	1045.	20600.	1960.	2046.	2043.	2051.	20780.	2022.	1992.
#2	1056.	20760.	1986.	2080.	2059.	2067.	21000.	2039.	2006.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2072.**	**2035.**	**20790.**	**95.01**	**20980.**	**2077.**	**20800.**	**2051.**	**2092.**
Stddev	5.	10.	88.	.26	307.	16.	120.	9.	17.
%RSD	.2311	.4761	.4254	.2731	1.461	.7665	.5768	.4346	.8142
#1	2068.	2028.	20720.	95.20	20760.	2066.	20710.	2044.	2080.
#2	2075.	2041.	20850.	94.83	21200.	2088.	20880.	2057.	2104.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21010.**	**2032.**	**2040.**	**2107.**	**20580.**	**2047.**	**2040.**	**10430.**	**2084.**
Stddev	436.	13.	14.	11.	140.	24.	18.	54.	6.
%RSD	2.078	.6381	.6936	.5333	.6801	1.155	.8903	.5135	.2919
#1	20700.	2023.	2030.	2100.	20480.	2030.	2027.	10390.	2080.
#2	21310.	2041.	2050.	2115.	20680.	2064.	2053.	10470.	2088.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 8/14/2019 8:15:28 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2062.**	**2072.**	**2016.**	**2101.**	**97.66**	**97.15**	**98.57**	**2048.**	**2045.**
Stddev	22.	11.	13.	11.	.51	.12	.35	5.	19.
%RSD	1.073	.5221	.6680	.5105	.5224	.1255	.3543	.2230	.9136
#1	2046.	2064.	2006.	2093.	98.02	97.06	98.32	2045.	2031.
#2	2078.	2079.	2025.	2108.	97.30	97.23	98.81	2051.	2058.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3153.8**	**6442.9**	**104590.**	**21592.**
Stddev	8.6	33.7	131.	77.
%RSD	.27306	.52237	.12545	.35433
#1	3159.9	6466.7	104500.	21538.
#2	3147.7	6419.1	104680.	21646.

Sample Name: ICB Acquired: 8/14/2019 8:17:35 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0474	7.981	-1.276	1.317	.2469	.3789	5.200	.0354	.0691
Stddev	.0031	5.316	1.159	.127	.0547	.1142	.313	.1618	.1994
%RSD	6.459	66.61	90.87	9.664	22.17	30.14	6.016	456.9	288.5
#1	.0452	4.222	-.4560	1.227	.2856	.4597	4.978	.1498	-.0719
#2	.0496	11.74	-2.095	1.407	.2082	.2982	5.421	-.0790	.2101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2213	.5045	4.597	99.92	2.713	1.436	8.673	.3931	2.314
Stddev	.1574	1.142	4.185	.11	6.761	.499	4.746	.0410	.373
%RSD	71.12	226.3	91.03	.1124	249.2	34.78	54.72	10.44	16.11
#1	.3326	1.312	7.556	99.84	7.494	1.789	12.03	.4222	2.577
#2	.1100	-.3029	1.638	100.0	-2.068	1.083	5.317	.3641	2.050
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	35.56	.1178	.5924	-1.962	-.8025	-.3341	-.1988	6.527	.6533
Stddev	39.79	.5593	.3765	.671	1.935	.4945	2.316	3.868	.3497
%RSD	111.9	474.9	63.55	34.19	241.1	148.0	1165.	59.26	53.53
#1	7.425	.5133	.3262	-1.488	.5659	-.6838	1.439	9.262	.9006
#2	63.69	-.2777	.8587	-2.436	-2.171	.0156	-1.836	3.792	.4060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 8/14/2019 8:17:35 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4196	.4766	1.603	.1681	99.82	99.44	99.13	.4871	.4930
Stddev	.0961	.0459	.804	.0116	.34	.17	.44	.0948	.0815
%RSD	22.90	9.625	50.13	6.894	.3418	.1723	.4412	19.45	16.54
#1	.4876	.5090	1.035	.1599	99.58	99.32	98.82	.4201	.4353
#2	.3517	.4442	2.172	.1763	100.1	99.56	99.44	.5541	.5507
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3316.7	6585.1	107050.	21716.
Stddev	3.7	22.5	184.	96.
%RSD	.11238	.34180	.17234	.44117
#1	3314.0	6569.2	106920.	21648.
#2	3319.3	6601.0	107180.	21784.

Sample Name: CCV Acquired: 8/14/2019 8:19:52 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.7**	**10250.**	**1005.**	**1025.**	**1000.**	**1017.**	**10150.**	**995.4**	**1003.**
Stddev	3.4	46.	15.	14.	3.	2.	31.	13.0	17.
%RSD	.6709	.4497	1.470	1.389	.2680	.2265	.3069	1.309	1.734
#1	500.3	10280.	994.2	1015.	1002.	1019.	10170.	986.2	991.1
#2	505.1	10220.	1015.	1035.	998.2	1016.	10130.	1005.	1016.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1006.**	**1001.**	**10170.**	**97.70**	**9917.**	**986.6**	**10220.**	**1015.**	**1011.**
Stddev	2.	.	48.	.01	54.	4.4	46.	4.	20.
%RSD	.1535	.0386	.4676	.0135	.5472	.4491	.4511	.3759	1.963
#1	1007.	1001.	10200.	97.71	9879.	989.8	10250.	1018.	996.6
#2	1005.	1001.	10130.	97.69	9955.	983.5	10190.	1013.	1025.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10180.**	**1016.**	**1009.**	**997.2**	**9945.**	**1009.**	**1011.**	**5099.**	**1015.**
Stddev	84.	13.	20.	20.1	121.	14.	12.	27.	15.
%RSD	.8281	1.293	2.021	2.010	1.216	1.405	1.160	.5269	1.510
#1	10240.	1007.	994.6	983.0	9860.	998.9	1003.	5118.	1005.
#2	10120.	1025.	1023.	1011.	10030.	1019.	1020.	5080.	1026.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 8:19:52 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1029.	1005.	998.6	1001.	99.38	99.11	99.64	1019.	1006.
Stddev	1.	1.	21.7	.	.25	.22	.80	19.	3.
%RSD	.1302	.0640	2.172	.0004	.2506	.2238	.7997	1.847	.2713
#1	1030.	1004.	983.3	1001.	99.20	98.95	99.07	1006.	1008.
#2	1029.	1005.	1014.	1001.	99.56	99.26	100.2	1032.	1004.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3243.0	6556.2	106700.	21827.
Stddev	.4	16.4	239.	175.
%RSD	.01347	.25060	.22380	.79967
#1	3243.4	6544.6	106530.	21703.
#2	3242.7	6567.8	106870.	21950.

Sample Name: ICSA Acquired: 8/14/2019 8:21:56 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4319**	**52290.**	**-.9825**	**.6288**	**.2317**	**.1834**	**50880.**	**.5403**	**.2549**
Stddev	.0484	99.	1.948	.8809	.0339	.0559	159.	.0908	.3051
%RSD	11.20	.1885	198.3	140.1	14.63	30.48	.3116	16.80	119.7
#1	-.4662	52220.	-2.360	.0059	.2557	.2229	50760.	.6045	.4706
#2	-.3977	52360.	.3950	1.252	.2077	.1438	50990.	.4761	.0392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0521**	**.1140**	**20130.**	**95.95**	**-1.278**	**.8712**	**51580.**	**.0178**	**1.325**
Stddev	.2155	.6773	37.	.17	12.51	.0679	119.	.0003	.081
%RSD	414.0	594.0	.1849	.1726	979.5	7.797	.2299	1.776	6.127
#1	-.1003	-.3649	20100.	95.83	7.571	.8232	51500.	.0180	1.382
#2	.2045	.5929	20160.	96.07	-10.13	.9193	51670.	.0175	1.267
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.16**	**.2242**	**-.2467**	**-1.949**	**-10.68**	**-.2158**	**-3.699**	**6.349**	**5.256**
Stddev	102.2	.7791	1.129	.035	1.02	.4812	.004	2.619	.269
%RSD	188.6	347.5	457.6	1.788	9.550	223.0	.1033	41.25	5.120
#1	-18.08	.7751	-1.045	-1.924	-9.959	.1244	-3.702	8.201	5.066
#2	126.4	-.3267	.5515	-1.973	-11.40	-.5561	-3.697	4.497	5.446
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 8/14/2019 8:21:56 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0450	.7038	.5318	.9671	97.78	97.23	99.30	.4570	.5274
Stddev	.0041	.0012	.6225	.0550	.27	.10	.38	.1777	.0285
%RSD	9.167	.1670	117.1	5.686	.2786	.1024	.3787	38.89	5.397
#1	.0479	.7047	.0916	1.006	97.59	97.30	99.03	.5826	.5475
#2	.0421	.7030	.9720	.9283	97.98	97.16	99.56	.3313	.5072
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.9	6450.9	104680.	21752.
Stddev	5.5	18.0	107.	82.
%RSD	.17259	.27861	.10238	.37872
#1	3181.0	6438.2	104750.	21694.
#2	3188.8	6463.6	104600.	21811.

Sample Name: ICSAB Acquired: 8/14/2019 8:24:10 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1040.**	**51840.**	**1.941**	**-1.113**	**497.6**	**512.0**	**50560.**	**1010.**	**500.7**
Stddev	14.	100.	1.756	.027	1.5	1.9	281.	11.	4.8
%RSD	1.303	.1930	90.45	2.427	.2955	.3806	.5557	1.117	.9536
#1	1030.	51770.	.6995	-1.132	496.6	510.6	50360.	1002.	497.3
#2	1049.	51910.	3.182	-1.094	498.6	513.4	50760.	1018.	504.0
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.4**	**497.9**	**19990.**	**95.72**	**-2.968**	**.8910**	**50940.**	**494.5**	**.7910**
Stddev	3.7	.6	92.	.09	9.969	.2500	322.	1.9	.1258
%RSD	.7266	.1247	.4590	.0949	335.9	28.06	.6317	.3837	15.90
#1	500.8	497.5	19930.	95.65	4.082	.7141	50710.	493.2	.8799
#2	505.9	498.4	20060.	95.78	-10.02	1.068	51160.	495.9	.7021
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.39**	**1006.**	**-1.542**	**993.8**	**-15.76**	**-3.953**	**-4.766**	**-17.64**	**1.539**
Stddev	106.2	8.	1.237	10.8	.54	.345	.451	4.26	.827
%RSD	276.6	.7724	80.22	1.085	3.413	8.718	9.459	24.16	53.69
#1	113.5	1001.	-.6673	986.2	-15.38	-4.196	-5.085	-14.63	.9548
#2	-36.69	1012.	-2.417	1001.	-16.14	-3.709	-4.448	-20.66	2.124
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 8/14/2019 8:24:10 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2043**	**.4812**	**.9774**	**507.6**	**97.41**	**97.32**	**99.88**	**1001.**	**.0586**
Stddev	.0077	.0731	1.784	4.0	.26	.30	.04	10.	.3855
%RSD	3.755	15.19	182.6	.7867	.2681	.3125	.0409	1.046	657.3
#1	-.1989	.4295	-.2844	504.8	97.22	97.53	99.91	993.3	.3312
#2	-.2097	.5329	2.239	510.4	97.59	97.10	99.85	1008.	-.2139
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3177.2**	**6426.1**	**104770.**	**21881.**
Stddev	3.0	17.2	327.	9.
%RSD	.09487	.26815	.31253	.04093
#1	3175.1	6413.9	105000.	21887.
#2	3179.3	6438.3	104540.	21874.

Sample Name: CRDL Acquired: 8/14/2019 8:29:08 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.973**	**54.60**	**3.552**	**51.72**	**10.24**	**1.009**	**1011.**	**3.046**	**4.859**
Stddev	.051	.41	.603	.17	.16	.029	5.	.071	.217
%RSD	.8463	.7424	16.98	.3306	1.572	2.923	.4595	2.325	4.457
#1	6.008	54.31	3.126	51.84	10.13	1.030	1008.	3.096	4.706
#2	5.937	54.89	3.978	51.60	10.35	.9880	1014.	2.996	5.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.133**	**4.076**	**74.17**	**101.3**	**488.9**	**40.13**	**207.0**	**4.875**	**21.20**
Stddev	.129	.721	1.13	.1	18.3	.15	2.7	.023	.01
%RSD	2.512	17.68	1.528	.1267	3.747	.3725	1.286	.4703	.0319
#1	5.224	4.585	73.37	101.2	476.0	40.03	205.1	4.891	21.20
#2	5.042	3.566	74.97	101.4	501.9	40.24	208.8	4.859	21.19
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1072.**	**9.933**	**49.58**	**3.770**	**51.74**	**6.424**	**8.470**	**102.6**	**51.35**
Stddev	118.	.181	.02	1.032	2.72	.822	.217	.2	.90
%RSD	11.02	1.821	.0334	27.37	5.251	12.79	2.558	.2424	1.759
#1	988.1	10.06	49.59	3.041	49.82	5.843	8.317	102.8	51.99
#2	1155.	9.805	49.57	4.500	53.66	7.004	8.623	102.4	50.71
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 8/14/2019 8:29:08 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.478**	**5.125**	**10.28**	**5.010**	**101.7**	**101.5**	**101.7**	**11.11**	**68.96**
Stddev	.003	.315	.03	.080	.1	.3	.0	.00	.96
%RSD	.0507	6.152	.2930	1.588	.0870	.3207	.0306	.0052	1.389
#1	5.480	4.902	10.30	4.953	101.7	101.3	101.7	11.11	68.28
#2	5.476	5.348	10.25	5.066	101.8	101.7	101.7	11.10	69.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3362.6**	**6712.5**	**109280.**	**22280.**
Stddev	4.3	5.8	350.	7.
%RSD	.12668	.08699	.32070	.03062
#1	3359.6	6708.4	109030.	22285.
#2	3365.6	6716.7	109530.	22275.

Sample Name: 1730480_27246 Acquired: 8/14/2019 8:49:59 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4108**	**19.00**	**-1.186**	**.4157**	**-.0633**	**-.0306**	**701.2**	**-.0168**	**-.0810**
Stddev	.1403	.78	.562	.0487	.1405	.0263	90.6	.0041	.4287
%RSD	34.15	4.090	47.41	11.72	221.9	85.90	12.93	24.56	529.6
#1	-.3116	18.45	-1.584	.4501	.0360	-.0492	765.3	-.0197	-.3841
#2	-.5099	19.55	-.7886	.3812	-.1626	-.0120	637.1	-.0139	.2222

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.787**	**-.1298**	**556.0**	**100.1**	**-5.680**	**.0453**	**123.3**	**87.51**	**.2989**
Stddev	.599	.3032	65.8	.8	3.332	.8405	7.7	11.94	.2651
%RSD	21.49	233.6	11.83	.8163	58.66	1857.	6.237	13.64	88.69
#1	3.211	.0846	602.5	99.54	-8.037	-.5491	128.7	95.96	.4864
#2	2.364	-.3442	509.5	100.7	-3.324	.6396	117.9	79.07	.1115

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.363**	**-.0879**	**2.862**	**.1211**	**-.3611**	**-.3503**	**.6689**	**2.792**	**.2881**
Stddev	17.37	.2742	2.862	.1784	1.281	.8245	.7151	3.239	.2252
%RSD	1274.	312.1	100.0	147.2	354.8	235.4	106.9	116.0	78.18
#1	-10.92	.1060	4.886	-.0050	.5448	.2327	.1632	5.083	.1289
#2	13.64	-.2818	.8379	.2473	-1.267	-.9334	1.175	.5017	.4474

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.3934**	**4.628**	**-.1779**	**1.014**	**101.1**	**100.6**	**99.28**	**2.923**	**.4647**
Stddev	.0730	.380	.4646	.120	.1	.2	.62	.021	.5897
%RSD	18.55	8.220	261.2	11.87	.1482	.2042	.6207	.7210	126.9
#1	.4450	4.897	.1506	1.100	101.0	100.8	98.85	2.938	.8816
#2	.3418	4.359	-.5065	.9292	101.2	100.5	99.72	2.908	.0477

Sample Name: 1730480_27246 Acquired: 8/14/2019 8:49:59 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3323.2	6670.9	108320.	21749.
Stddev	27.1	9.9	221.	135.
%RSD	.81631	.14823	.20415	.62072
#1	3304.0	6663.9	108480.	21654.
#2	3342.3	6677.9	108170.	21845.

Sample Name: 1730481_27246 Acquired: 8/14/2019 8:52:11 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**266.5**	**5350.**	**538.6**	**532.7**	**548.9**	**561.3**	**5409.**	**553.9**	**547.1**
Stddev	1.7	71.	13.4	10.9	4.5	3.2	47.	6.5	7.2
%RSD	.6446	1.335	2.493	2.047	.8108	.5749	.8682	1.165	1.324
#1	265.3	5300.	529.1	525.0	545.7	559.0	5376.	549.3	542.0
#2	267.7	5401.	548.1	540.4	552.0	563.6	5443.	558.5	552.3

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**564.0**	**549.2**	**5334.**	**97.74**	**5154.**	**546.3**	**5328.**	**563.8**	**536.4**
Stddev	4.5	4.8	34.	.12	63.	5.7	41.	2.5	8.9
%RSD	.7989	.8797	.6421	.1255	1.227	1.038	.7678	.4384	1.662
#1	560.8	545.8	5310.	97.65	5110.	542.3	5299.	562.1	530.1
#2	567.2	552.7	5358.	97.82	5199.	550.3	5357.	565.6	542.7

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5378.**	**565.4**	**562.3**	**573.8**	**5225.**	**530.9**	**563.2**	**2635.**	**538.5**
Stddev	95.	7.9	13.0	10.7	76.	11.4	5.4	1.	6.8
%RSD	1.774	1.389	2.305	1.857	1.451	2.153	.9556	.0494	1.256
#1	5445.	559.9	553.1	566.2	5172.	522.8	559.4	2636.	533.7
#2	5311.	571.0	571.4	581.3	5279.	539.0	567.0	2634.	543.3

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**570.5**	**525.2**	**536.1**	**560.5**	**98.79**	**98.49**	**98.58**	**573.0**	**531.3**
Stddev	4.0	3.0	7.5	3.8	.03	.13	.52	7.3	2.1
%RSD	.7048	.5717	1.390	.6783	.0323	.1324	.5281	1.278	.4005
#1	567.7	523.1	530.9	557.8	98.81	98.40	98.21	567.8	529.8
#2	573.3	527.3	541.4	563.2	98.77	98.58	98.94	578.2	532.8

Sample Name: 1730481_27246 Acquired: 8/14/2019 8:52:11 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3244.2	6517.4	106030.	21594.
Stddev	4.1	2.1	140.	114.
%RSD	.12554	.03227	.13242	.52813
#1	3241.4	6518.9	105930.	21514.
#2	3247.1	6515.9	106130.	21675.

Sample Name: CCV Acquired: 8/14/2019 8:54:16 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**527.4**	**10510.**	**1044.**	**1057.**	**1025.**	**1045.**	**10520.**	**1039.**	**1057.**
Stddev	6.9	98.	11.	2.	10.	5.	58.	11.	13.
%RSD	1.311	.9313	1.021	.2353	.9643	.4683	.5509	1.106	1.232
#1	522.5	10440.	1036.	1056.	1018.	1041.	10480.	1031.	1048.
#2	532.3	10580.	1051.	1059.	1032.	1048.	10560.	1048.	1067.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1056.**	**1030.**	**10410.**	**96.68**	**10290.**	**1006.**	**10530.**	**1043.**	**1061.**
Stddev	7.	6.	50.	.11	187.	12.	19.	3.	10.
%RSD	.6924	.5958	.4839	.1139	1.820	1.149	.1766	.3014	.9844
#1	1051.	1025.	10370.	96.60	10160.	998.0	10520.	1041.	1053.
#2	1061.	1034.	10440.	96.75	10420.	1014.	10550.	1045.	1068.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10490.**	**1063.**	**1053.**	**1054.**	**10390.**	**1046.**	**1048.**	**5240.**	**1059.**
Stddev	50.	7.	9.	14.	98.	8.	3.	32.	11.
%RSD	.4760	.6812	.8432	1.300	.9425	.7785	.2687	.6158	1.055
#1	10520.	1058.	1047.	1044.	10320.	1041.	1046.	5218.	1051.
#2	10450.	1068.	1060.	1064.	10460.	1052.	1050.	5263.	1067.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 8:54:16 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1057.**	**1053.**	**1048.**	**1049.**	**99.09**	**97.72**	**97.17**	**1072.**	**1050.**
Stddev	8.	10.	17.	11.	.63	.06	.63	12.	3.
%RSD	.7494	.9212	1.626	1.051	.6388	.0636	.6490	1.104	.2663
#1	1051.	1046.	1036.	1041.	98.65	97.68	96.72	1064.	1048.
#2	1062.	1060.	1060.	1057.	99.54	97.77	97.61	1081.	1052.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3209.0**	**6537.3**	**105210.**	**21286.**
Stddev	3.7	41.8	67.	138.
%RSD	.11388	.63877	.06363	.64904
#1	3206.4	6507.8	105160.	21188.
#2	3211.5	6566.9	105250.	21384.

Sample Name: CCB Acquired: 8/14/2019 8:56:20 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0372**	**10.09**	**-2.372**	**.9354**	**.1149**	**.2834**	**27.93**	**.0193**	**.0480**
Stddev	.2724	8.27	2.404	.0923	.1578	.0533	1.37	.1082	.0410
%RSD	732.9	81.91	101.4	9.867	137.4	18.80	4.895	559.6	85.37
#1	.1555	15.94	-.6721	.8701	.2264	.3211	26.97	.0959	.0770
#2	-.2298	4.247	-4.072	1.001	.0033	.2457	28.90	-.0572	.0190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1836**	**.0190**	**13.44**	**98.23**	**-6.877**	**.3329**	**12.01**	**1.912**	**1.094**
Stddev	.0619	.9346	.24	.08	7.504	.3705	13.87	.009	.502
%RSD	33.71	4909.	1.802	.0768	109.1	111.3	115.4	.4858	45.89
#1	.2273	-.6418	13.27	98.18	-12.18	.0709	21.82	1.905	1.449
#2	.1398	.6799	13.61	98.28	-1.571	.5949	2.207	1.918	.7392
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.386**	**.0677**	**-.1938**	**-.5797**	**-3.022**	**-1.274**	**3.223**	**6.019**	**-.2207**
Stddev	37.25	.1184	.0997	.7998	1.895	.274	1.293	.994	.6743
%RSD	504.4	175.0	51.48	138.0	62.71	21.52	40.11	16.51	305.5
#1	33.73	.1514	-.2643	-.0142	-4.362	-1.468	2.309	5.317	.2561
#2	-18.96	-.0161	-.1232	-1.145	-1.682	-1.080	4.138	6.722	-.6975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 8:56:20 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3166	.2946	.4524	.1757	99.04	98.34	96.38	.4760	.3422
Stddev	.0771	.0114	.2165	.0606	.01	.18	.28	.0768	.4768
%RSD	24.35	3.884	47.86	34.48	.0089	.1864	.2917	16.14	139.3
#1	.3711	.3027	.2993	.2185	99.05	98.47	96.58	.4217	.0051
#2	.2621	.2865	.6055	.1329	99.03	98.21	96.18	.5303	.6794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3260.6	6533.8	105870.	21114.
Stddev	2.5	.6	197.	62.
%RSD	.07685	.00887	.18639	.29168
#1	3258.8	6534.2	106010.	21157.
#2	3262.4	6533.4	105730.	21070.

Sample Name: 1729491_27246 Acquired: 8/14/2019 8:58:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2671**	**7.708**	**3.928**	**14.99**	**10.20**	**.0208**	**144.2**
Stddev	.2964	5.577	1.344	.37	.03	.0187	1.9
%RSD	110.9	72.35	34.20	2.438	.3305	89.87	1.291
#1	.0576	3.764	4.878	15.25	10.17	.0340	145.5
#2	.4767	11.65	2.978	14.73	10.22	.0076	142.9

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2004**	**-1.144**	**2.370**	**.9074**	**28.13**	**80.95**	**327.9**
Stddev	.0579	.003	.035	.9801	1.91	.08	69.2
%RSD	28.88	.2719	1.478	108.0	6.802	.1002	21.11
#1	.1594	-1.146	2.345	1.600	29.48	81.00	279.0
#2	.2413	-1.142	2.394	.2144	26.78	80.89	376.9

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.714**	**28.47**	**2.936**	**1.589**	**1416000.**	**4.538**	**4.165**
Stddev	1.933	20.68	.159	.354	7178.	.023	1.383
%RSD	52.06	72.63	5.413	22.29	.5068	.5098	33.21
#1	2.347	13.85	2.823	1.839	1411000.	4.521	5.143
#2	5.081	43.09	3.048	1.339	1421000.	4.554	3.187

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.928**	**15.77**	**-.4266**	**1.841**	**45.35**	**1.313**	**1.190**
Stddev	1.202	1.85	.7352	.605	11.65	.316	.062
%RSD	30.59	11.76	172.3	32.86	25.68	24.07	5.197
#1	3.079	17.08	-.9465	2.268	53.59	1.089	1.234
#2	4.778	14.46	.0932	1.413	37.12	1.536	1.146

Sample Name: 1729491_27246 Acquired: 8/14/2019 8:58:34 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2508	-.0316	-.0614	88.40	86.95	94.17	8.565
Stddev	.0716	.9423	.0483	.08	.15	1.12	.086
%RSD	28.55	2985.	78.65	.0867	.1715	1.185	1.005
#1	.2002	.6348	-.0955	88.45	87.05	93.38	8.504
#2	.3015	-.6979	-.0272	88.34	86.84	94.96	8.626

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	-.0073
Stddev	.3893
%RSD	5350.
#1	.2680
#2	-.2826

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2686.9	5831.6	93605.	20628.
Stddev	2.7	5.1	160.	244.
%RSD	.10016	.08667	.17146	1.1846
#1	2688.8	5835.2	93719.	20456.
#2	2685.0	5828.1	93492.	20801.

Sample Name: 1729492_27246 Acquired: 8/14/2019 9:00:47 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1977	4.581	1.402	10.08	5.110	-.0072	151.7
Stddev	.3293	.790	1.534	.39	.092	.0012	4.8
%RSD	166.6	17.24	109.4	3.897	1.811	16.81	3.133
#1	-.0352	5.139	.3174	9.798	5.045	-.0063	148.3
#2	.4306	4.022	2.487	10.35	5.175	-.0081	155.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1149	-1.544	1.969	-1.447	19.27	81.01	517.5
Stddev	.0326	.212	.027	.298	1.98	.13	25.9
%RSD	28.43	13.73	1.394	20.59	10.28	.1632	4.996
#1	.0918	-1.394	1.950	-1.657	17.87	81.10	499.2
#2	.1379	-1.694	1.988	-1.236	20.67	80.91	535.7

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	7.396	36.14	1.323	1.475	1427000.	.6104	35.52
Stddev	.958	8.71	.061	.058	18960.	.3970	.68
%RSD	12.95	24.11	4.594	3.942	1.329	65.04	1.917
#1	6.719	42.30	1.366	1.434	1413000.	.3296	35.04
#2	8.073	29.98	1.280	1.516	1440000.	.8911	36.01

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.9562	33.13	.1877	3.875	34.51	1.215	.7448
Stddev	.0262	.09	.9131	1.176	3.21	.380	.0388
%RSD	2.739	.2840	486.6	30.34	9.289	31.27	5.213
#1	-.9377	33.07	.8334	4.707	32.24	1.484	.7173
#2	-.9747	33.20	-.4580	3.044	36.78	.9464	.7722

Sample Name: 1729492_27246 Acquired: 8/14/2019 9:00:47 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1205	.7838	.0812	88.35	87.25	94.88	7.144
Stddev	.1257	3.098	.2286	.27	.10	.07	.018
%RSD	104.3	395.3	281.4	.3077	.1111	.0785	.2476
#1	.0317	2.974	-.0804	88.54	87.18	94.83	7.156
#2	.2094	-1.407	.2428	88.16	87.32	94.93	7.131

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	.0909
Stddev	.8574
%RSD	943.0
#1	.6972
#2	-.5153

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2688.9	5828.6	93930.	20785.
Stddev	4.4	17.9	104.	16.
%RSD	.16320	.30766	.11111	.07853
#1	2692.0	5841.3	93856.	20773.
#2	2685.8	5816.0	94004.	20796.

Sample Name: 30318799001_27246 Acquired: 8/14/2019 9:05:30 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.162**	**85.99**	**4.347**	**48.38**	**780.2**	**-.5341**	**477000.**
Stddev	.281	4.42	2.065	.42	12.7	.0200	9854.
%RSD	24.18	5.136	47.51	.8692	1.625	3.736	2.066
#1	-.9637	89.11	5.807	48.08	771.2	-.5200	470000.
#2	-1.361	82.87	2.887	48.68	789.1	-.5482	483900.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.454**	**19.65**	**.7475**	**13.54**	**61.11**	**75.19**	**5329.**
Stddev	.938	.20	.0110	.16	1.78	.08	175.
%RSD	12.58	1.016	1.471	1.206	2.911	.1091	3.291
#1	8.117	19.79	.7553	13.42	59.85	75.24	5205.
#2	6.790	19.50	.7398	13.65	62.36	75.13	5453.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21.83**	**20290.**	**3583.**	**5.330**	**1471000.**	**40.04**	**149.9**
Stddev	.29	403.	63.	.646	36010.	.30	3.4
%RSD	1.333	1.986	1.768	12.12	2.447	.7558	2.246
#1	21.63	20010.	3538.	5.787	1446000.	40.25	147.6
#2	22.04	20580.	3628.	4.873	1497000.	39.82	152.3

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.13**	**14730.**	**-2.295**	**-4.494**	**1943.**	**2.642**	**1111.**
Stddev	.55	131.	3.700	4.962	42.	.099	23.
%RSD	4.544	.8921	161.3	110.4	2.139	3.763	2.042
#1	12.52	14640.	-4.911	-.9849	1914.	2.571	1095.
#2	11.74	14830.	.3220	-8.003	1973.	2.712	1127.

Sample Name: 30318799001_27246 Acquired: 8/14/2019 9:05:30 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5719**	**-1.917**	**2.249**	**82.52**	**83.94**	**91.78**	**174.0**
Stddev	.1344	.469	.244	.34	.01	.24	2.3
%RSD	23.50	24.49	10.85	.4166	.0140	.2575	1.350
#1	-.6670	-1.585	2.076	82.27	83.95	91.95	172.3
#2	-.4769	-2.248	2.421	82.76	83.94	91.61	175.7

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.8199**
Stddev	.0312
%RSD	3.809
#1	.8420
#2	.7978

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2495.7**	**5443.8**	**90373.**	**20105.**
Stddev	2.7	22.7	13.	52.
%RSD	.10908	.41657	.01403	.25748
#1	2497.6	5427.7	90382.	20142.
#2	2493.8	5459.8	90364.	20069.

Sample Name: 1730482_27246 Acquired: 8/14/2019 9:07:46 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.037**	**96.42**	**4.641**	**48.01**	**766.1**	**-.5256**	**479600.**
Stddev	.131	3.09	3.297	.41	13.8	.0218	7872.
%RSD	12.67	3.209	71.04	.8536	1.805	4.156	1.642
#1	-.9437	98.61	2.309	48.30	756.3	-.5101	474000.
#2	-1.129	94.23	6.972	47.72	775.8	-.5410	485100.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.830**	**18.76**	**.7278**	**13.36**	**61.48**	**75.67**	**5280.**
Stddev	.262	.27	.5137	.27	.20	.11	195.
%RSD	5.414	1.421	70.57	2.021	.3230	.1483	3.695
#1	5.014	18.95	1.091	13.17	61.62	75.59	5142.
#2	4.645	18.57	.3646	13.55	61.34	75.75	5418.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21.64**	**20550.**	**3595.**	**5.057**	**1466000.**	**39.68**	**150.1**
Stddev	.85	325.	50.	.300	28980.	.43	1.3
%RSD	3.933	1.580	1.390	5.924	1.977	1.091	.8570
#1	21.04	20320.	3560.	5.269	1446000.	39.37	151.0
#2	22.24	20780.	3631.	4.846	1487000.	39.99	149.2

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.28**	**14430.**	**-1.578**	**1.677**	**1954.**	**2.385**	**1105.**
Stddev	1.31	70.	3.746	.793	30.	.110	18.
%RSD	10.66	.4847	237.3	47.32	1.543	4.616	1.659
#1	13.20	14380.	-4.227	2.238	1933.	2.463	1092.
#2	11.35	14480.	1.070	1.116	1975.	2.307	1117.

Sample Name: 1730482_27246 Acquired: 8/14/2019 9:07:46 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4791**	**-3.063**	**2.016**	**83.03**	**83.73**	**91.22**	**171.7**
Stddev	.2680	.271	.402	.17	.11	.27	.6
%RSD	55.95	8.860	19.92	.1991	.1314	.2978	.3618
#1	-.2896	-2.871	2.300	82.91	83.65	91.41	171.2
#2	-.6686	-3.254	1.732	83.15	83.81	91.03	172.1

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**.6208**
Stddev	.7375
%RSD	118.8
#1	1.142
#2	.0993

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2511.6**	**5477.7**	**90144.**	**19983.**
Stddev	3.7	10.9	118.	60.
%RSD	.14831	.19905	.13138	.29784
#1	2509.0	5470.0	90061.	20025.
#2	2514.3	5485.4	90228.	19941.

Sample Name: 1730483_27246 Acquired: 8/14/2019 9:10:01 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**300.1**	**5515.**	**574.3**	**623.5**	**1338.**	**524.0**	**496000.**
Stddev	4.3	70.	7.6	5.1	23.	5.4	11010.
%RSD	1.423	1.270	1.331	.8158	1.716	1.024	2.221
#1	297.1	5465.	568.9	619.9	1322.	520.2	488200.
#2	303.2	5564.	579.7	627.1	1354.	527.8	503800.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**569.3**	**557.1**	**506.9**	**553.5**	**5053.**	**73.33**	**11430.**
Stddev	4.1	7.5	4.9	10.4	42.	.10	345.
%RSD	.7128	1.342	.9746	1.876	.8233	.1306	3.023
#1	566.5	551.8	503.4	546.1	5023.	73.40	11180.
#2	572.2	562.4	510.4	560.8	5082.	73.26	11670.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**597.2**	**25750.**	**4187.**	**605.2**	**1516000.**	**539.2**	**728.8**
Stddev	12.5	88.	46.	10.6	28880.	6.5	8.8
%RSD	2.087	.3406	1.105	1.754	1.905	1.206	1.207
#1	588.4	25680.	4154.	597.7	1496000.	534.6	722.6
#2	606.0	25810.	4219.	612.7	1537000.	543.8	735.1

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**563.9**	**20780.**	**577.5**	**603.0**	**4961.**	**516.3**	**1678.**
Stddev	5.5	173.	3.4	10.2	71.	3.8	29.
%RSD	.9792	.8334	.5882	1.689	1.433	.7301	1.741
#1	560.0	20660.	575.1	595.8	4911.	513.6	1657.
#2	567.8	20900.	579.9	610.2	5012.	518.9	1698.

Sample Name: 1730483_27246 Acquired: 8/14/2019 9:10:01 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**529.0**	**481.0**	**535.8**	**80.71**	**81.72**	**90.36**	**682.7**
Stddev	6.6	1.9	7.3	.05	.16	.46	8.2
%RSD	1.250	.3977	1.370	.0659	.1939	.5101	1.207
#1	524.3	479.6	530.6	80.67	81.83	90.03	676.9
#2	533.6	482.3	541.0	80.74	81.61	90.68	688.5

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	**514.4**
Stddev	9.1
%RSD	1.772
#1	508.0
#2	520.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2434.0**	**5324.3**	**87980.**	**19794.**
Stddev	3.2	3.5	171.	101.
%RSD	.13063	.06588	.19394	.51008
#1	2436.2	5321.8	88101.	19723.
#2	2431.7	5326.8	87859.	19866.

Sample Name: 1730484_27246 Acquired: 8/14/2019 9:12:10 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**297.2**	**5565.**	**567.0**	**616.1**	**1335.**	**518.1**	**496600.**
Stddev	5.3	74.	2.2	5.1	12.	4.3	5189.
%RSD	1.798	1.326	.3818	.8258	.9246	.8314	1.045
#1	293.4	5513.	565.5	612.5	1327.	515.1	492900.
#2	301.0	5618.	568.5	619.7	1344.	521.2	500300.

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664
IS Ref	(Y_2243)	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**569.9**	**556.5**	**502.6**	**546.3**	**5146.**	**72.89**	**11470.**
Stddev	6.6	5.6	7.4	3.2	8.	.48	255.
%RSD	1.153	1.013	1.478	.5818	.1599	.6638	2.219
#1	565.3	552.5	497.3	544.1	5140.	73.23	11290.
#2	574.6	560.5	507.9	548.6	5152.	72.55	11650.

Elem	Li6707	Mg2790	Mn2576	Mo2020	Na8183	Ni2316	P_1774
IS Ref	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**591.4**	**25730.**	**4174.**	**600.1**	**1515000.**	**538.3**	**728.1**
Stddev	9.7	6.	26.	7.9	22100.	4.2	2.2
%RSD	1.642	.0236	.6127	1.317	1.459	.7860	.2975
#1	584.6	25740.	4156.	594.5	1499000.	535.3	726.6
#2	598.3	25730.	4192.	605.7	1530000.	541.3	729.6

Elem	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899	Sr4077
IS Ref	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**561.6**	**21090.**	**574.2**	**593.4**	**4898.**	**511.8**	**1673.**
Stddev	8.4	240.	8.1	7.7	30.	2.6	20.
%RSD	1.502	1.137	1.416	1.292	.6069	.5075	1.192
#1	555.6	20920.	568.4	588.0	4877.	510.0	1659.
#2	567.6	21260.	579.9	598.8	4919.	513.6	1687.

Sample Name: 1730484_27246 Acquired: 8/14/2019 9:12:10 Type: Unk
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062
IS Ref	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	522.1	477.0	531.3	80.45	81.52	90.24	683.3
Stddev	7.3	.3	8.0	.33	.32	.87	3.7
%RSD	1.400	.0686	1.512	.4137	.3984	.9601	.5351
#1	516.9	476.8	525.6	80.68	81.75	89.63	680.7
#2	527.3	477.3	537.0	80.21	81.30	90.86	685.8

Elem	Zr3391
IS Ref	(Y_3710)
Units	ppb
Avg	520.4
Stddev	5.3
%RSD	1.017
#1	516.7
#2	524.1

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2419.5	5307.3	87768.	19769.
Stddev	16.1	22.0	350.	190.
%RSD	.66375	.41370	.39845	.96008
#1	2430.8	5322.8	88016.	19635.
#2	2408.1	5291.8	87521.	19903.

Sample Name: CCV Acquired: 8/14/2019 9:14:21 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**522.1**	**10570.**	**1049.**	**1070.**	**1030.**	**1048.**	**10690.**	**1031.**
Stddev	7.5	4.	10.	17.	5.	1.	1.	14.
%RSD	1.439	.0376	.9822	1.601	.4975	.1416	.0050	1.372
#1	516.7	10570.	1042.	1058.	1026.	1047.	10690.	1021.
#2	527.4	10570.	1057.	1082.	1033.	1049.	10690.	1041.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1049.**	**1052.**	**1033.**	**10430.**	**95.01**	**10260.**	**1011.**	**10530.**
Stddev	9.	13.	1.	28.	.17	108.	6.	36.
%RSD	.8508	1.239	.1078	.2713	.1792	1.051	.6174	.3424
#1	1043.	1043.	1034.	10410.	95.13	10180.	1006.	10500.
#2	1055.	1062.	1032.	10450.	94.89	10330.	1015.	10550.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1045.**	**1060.**	F **11050.**	**1059.**	**1060.**	**1041.**	**10320.**	**1051.**
Stddev	2.	8.	75.	10.	16.	6.	163.	13.
%RSD	.1949	.7655	.6758	.9609	1.521	.5910	1.575	1.210
#1	1043.	1055.	11000.	1052.	1049.	1037.	10210.	1042.
#2	1046.	1066.	11100.	1066.	1072.	1046.	10440.	1060.
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			10000.					
Range			10.00%					

Sample Name: CCV Acquired: 8/14/2019 9:14:21 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1057.**	**5233.**	**1058.**	**1062.**	**1049.**	**1036.**	**1048.**	**96.71**
Stddev	12.	28.	10.	3.	13.	20.	12.	.55
%RSD	1.134	.5427	.9373	.2493	1.193	1.927	1.171	.5697
#1	1048.	5213.	1051.	1060.	1040.	1022.	1039.	97.10
#2	1065.	5253.	1065.	1064.	1058.	1050.	1056.	96.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value								
Range								

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb
Avg	**96.27**	**95.83**	**1066.**	**1058.**
Stddev	.19	.41	11.	.
%RSD	.1947	.4278	1.010	.0311
#1	96.41	95.54	1058.	1058.
#2	96.14	96.12	1073.	1057.
Check ?	None	None	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3153.6**	**6380.0**	**103650.**	**20992.**
Stddev	5.7	36.4	202.	90.
%RSD	.17919	.56974	.19467	.42781
#1	3157.6	6405.7	103790.	20928.
#2	3149.6	6354.3	103500.	21055.

Sample Name: CCB Acquired: 8/14/2019 9:16:25 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0396	6.555	-3.117	.5084	.2992	.2841	23.58	.1476	-.3739
Stddev	.5215	4.360	2.510	.3103	.0663	.0538	.12	.1688	.1602
%RSD	1317.	66.51	80.55	61.02	22.14	18.95	.4927	114.4	42.86
#1	.4084	9.638	-1.342	.7278	.3461	.3222	23.67	.0282	-.2606
#2	-.3292	3.473	-4.892	.2890	.2524	.2461	23.50	.2670	-.4872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.4791	-.1078	4.656	97.40	43.35	2.680	.9659	.4870	1.723
Stddev	.1169	1.446	2.020	.06	4.21	1.107	4.874	.0422	.670
%RSD	24.39	1342.	43.40	.0598	9.705	41.32	504.6	8.658	38.90
#1	.3964	.9144	6.085	97.44	40.38	3.463	-2.481	.5168	2.197
#2	.5617	-1.130	3.227	97.36	46.33	1.897	4.413	.4572	1.249
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	114.4	-.2607	.7332	-1.584	-.7330	-.4392	.5942	-.9453	.3178
Stddev	126.7	.6332	1.030	.985	1.279	2.603	3.286	.9975	.0015
%RSD	110.7	242.9	140.5	62.16	174.5	592.8	553.0	105.5	.4734
#1	204.0	.1870	.0049	-2.280	-1.637	-2.280	2.918	-1.651	.3189
#2	24.85	-.7084	1.461	-.8878	.1713	1.402	-1.729	-.2400	.3167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 9:16:25 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3813	.2713	1.766	-.0416	97.91	97.05	95.18	.5422	.2533
Stddev	.0739	.1006	.636	.0836	.20	.32	.65	.0067	.0659
%RSD	19.39	37.08	36.05	201.0	.2044	.3259	.6804	1.231	26.03
#1	.4336	.3425	2.216	-.1008	97.77	96.82	94.72	.5470	.2999
#2	.3290	.2002	1.316	.0175	98.05	97.27	95.64	.5375	.2067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3232.9	6459.3	104480.	20851.
Stddev	1.9	13.2	341.	142.
%RSD	.05983	.20444	.32591	.68039
#1	3234.3	6450.0	104240.	20750.
#2	3231.6	6468.7	104720.	20951.

Sample Name: ICSA Acquired: 8/14/2019 9:19:07 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4682**	**54050.**	**-2.140**	**.4115**	**.1660**	**-.0734**	**53160.**	**.4615**	**-.2176**
Stddev	.1325	916.	1.687	.0047	.0120	.0132	931.	.1717	.2416
%RSD	28.30	1.695	78.85	1.142	7.206	18.01	1.752	37.21	111.0
#1	-.5619	53400.	-3.333	.4149	.1575	-.0641	52500.	.3401	-.0468
#2	-.3745	54700.	-.9467	.4082	.1744	-.0828	53820.	.5829	-.3885
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1652**	**.8488**	**20790.**	**92.67**	**26.47**	**1.802**	**53760.**	**.0774**	**.8596**
Stddev	.0391	1.303	320.	.07	5.45	.169	779.	.1453	.0482
%RSD	23.69	153.6	1.540	.0767	20.57	9.380	1.448	187.7	5.607
#1	-.1375	1.770	20560.	92.72	30.32	1.683	53210.	.1802	.8255
#2	-.1928	-.0729	21010.	92.62	22.62	1.922	54310.	-.0253	.8937
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**122.3**	**.3053**	**-.5018**	**-1.638**	**-6.853**	**-.3055**	**-.6918**	**.5399**	**5.510**
Stddev	18.5	.3351	1.286	2.607	.011	2.736	1.226	1.199	.358
%RSD	15.14	109.8	256.3	159.2	.1554	895.7	177.3	222.2	6.500
#1	135.4	.0684	.4075	.2054	-6.845	1.629	-1.559	1.388	5.257
#2	109.2	.5423	-1.411	-3.481	-6.860	-2.240	.1753	-.3082	5.764
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 8/14/2019 9:19:07 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2117**	**.5484**	**-.7863**	**.5490**	**95.08**	**95.01**	**95.77**	**.3925**	**.5453**
Stddev	.0111	.1500	.7351	.2641	.03	.28	.27	.0084	.8166
%RSD	5.263	27.35	93.49	48.10	.0335	.2969	.2813	2.151	149.8
#1	-.2038	.6545	-.2665	.3623	95.10	95.21	95.58	.3865	1.123
#2	-.2196	.4424	-1.306	.7358	95.06	94.81	95.96	.3985	-.0322
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	None	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3076.1**	**6272.6**	**102290.**	**20979.**
Stddev	2.4	2.1	304.	59.
%RSD	.07670	.03347	.29689	.28127
#1	3077.8	6274.1	102500.	20937.
#2	3074.5	6271.1	102070.	21021.

Sample Name: ICSAB Acquired: 8/14/2019 9:22:14 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1078.**	**53570.**	**1.549**	**-1.378**	**514.5**	**528.7**	**52770.**	**1044.**	**518.2**
Stddev	12.	402.	4.940	.186	3.2	3.8	510.	1.	3.2
%RSD	1.157	.7506	318.9	13.53	.6261	.7159	.9667	.0531	.6134
#1	1069.	53280.	5.042	-1.246	512.2	526.0	52410.	1044.	515.9
#2	1086.	53850.	-1.944	-1.509	516.8	531.3	53130.	1044.	520.4
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**524.7**	**513.8**	**20790.**	**93.04**	**32.70**	**.3160**	**53450.**	**511.6**	**-.0303**
Stddev	3.1	2.1	131.	.23	28.45	.5068	762.	4.8	.1763
%RSD	.5991	.4183	.6278	.2489	87.00	160.4	1.425	.9356	581.2
#1	522.5	512.3	20700.	92.87	52.81	-.0423	52910.	508.2	-.1550
#2	526.9	515.3	20880.	93.20	12.58	.6743	53990.	514.9	.0943
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.40**	**1031.**	**-.3118**	**1034.**	**-18.27**	**-4.659**	**-.9218**	**-19.77**	**1.122**
Stddev	9.76	4.	.6687	3.	7.58	.875	.1819	.83	.736
%RSD	25.43	.3801	214.4	.2980	41.49	18.78	19.73	4.205	65.55
#1	45.30	1028.	.1610	1032.	-12.91	-4.041	-.7932	-20.36	1.642
#2	31.49	1034.	-.7847	1036.	-23.63	-5.278	-1.050	-19.19	.6020
Check ?	None	Chk Pass	None	Chk Pass	None	None	None	None	None
Value									
Range									

Sample Name: ICSAB Acquired: 8/14/2019 9:22:14 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2517**	**.5200**	**-.2481**	**525.2**	**95.52**	**95.23**	**95.37**	**1045.**	**.2894**
Stddev	.0019	.0631	.8421	4.3	.26	.01	.79	4.	.1415
%RSD	.7744	12.13	339.4	.8173	.2702	.0056	.8259	.3566	48.90
#1	-.2531	.5646	.3473	522.1	95.34	95.23	95.93	1042.	.1893
#2	-.2503	.4754	-.8436	528.2	95.70	95.23	94.82	1047.	.3895
Check ?	None	None	None	Chk Pass	None	None	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3088.2**	**6301.6**	**102520.**	**20893.**
Stddev	7.7	17.0	6.	173.
%RSD	.24889	.27019	.00563	.82593
#1	3082.8	6289.5	102530.	21015.
#2	3093.6	6313.6	102520.	20771.

Sample Name: CRDL Acquired: 8/14/2019 9:25:29 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.060**	**57.62**	**2.543**	**52.15**	**10.88**	**1.050**	**1073.**	**3.022**	**5.137**
Stddev	.393	3.73	1.789	.33	.07	.004	4.	.012	.509
%RSD	6.485	6.473	70.38	.6343	.6225	.4268	.3614	.3971	9.908
#1	5.782	54.98	3.808	51.92	10.83	1.053	1071.	3.031	5.497
#2	6.338	60.25	1.277	52.39	10.93	1.047	1076.	3.014	4.777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.312**	**4.423**	**78.17**	**99.92**	**528.9**	**41.44**	**223.6**	**5.234**	**22.04**
Stddev	.207	.793	1.38	.30	30.9	.13	1.8	.009	.02
%RSD	3.901	17.94	1.769	.3027	5.848	.3224	.7920	.1674	.0766
#1	5.165	3.862	77.20	99.71	507.0	41.54	222.4	5.228	22.05
#2	5.458	4.984	79.15	100.1	550.7	41.35	224.9	5.240	22.02
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1272.**	**10.42**	**48.92**	**3.085**	**50.20**	**5.904**	**7.362**	**111.8**	**51.72**
Stddev	109.	.08	.19	1.963	2.93	1.295	.946	1.6	.45
%RSD	8.562	.7904	.3833	63.64	5.831	21.92	12.85	1.398	.8618
#1	1349.	10.36	49.05	4.473	48.13	6.820	6.693	112.9	51.40
#2	1195.	10.48	48.79	1.697	52.27	4.989	8.031	110.7	52.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 8/14/2019 9:25:29 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.707**	**5.091**	**10.87**	**5.217**	**100.7**	**100.1**	**97.85**	**11.55**	**67.23**
Stddev	.066	.226	1.19	.017	.1	.0	.30	.08	.76
%RSD	1.154	4.443	10.99	.3267	.1109	.0389	.3032	.6514	1.136
#1	5.754	4.931	10.03	5.205	100.8	100.1	98.06	11.60	66.69
#2	5.661	5.251	11.72	5.230	100.7	100.1	97.64	11.49	67.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3316.7**	**6645.4**	**107780.**	**21436.**
Stddev	10.0	7.4	42.	65.
%RSD	.30268	.11092	.03886	.30324
#1	3309.7	6650.6	107750.	21482.
#2	3323.8	6640.2	107810.	21390.

Sample Name: CCV Acquired: 8/14/2019 10:03:22 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**510.3**	**9995.**	**996.5**	**1001.**	**999.9**	**999.3**	**10260.**	**1012.**	**1009.**
Stddev	7.7	49.	12.3	12.	9.2	5.4	70.	12.	7.
%RSD	1.506	.4923	1.237	1.154	.9206	.5385	.6838	1.180	.6727
#1	504.9	9960.	987.8	993.2	993.4	995.5	10210.	1004.	1005.
#2	515.7	10030.	1005.	1010.	1006.	1003.	10310.	1021.	1014.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1024.**	**999.3**	**10320.**	**99.20**	**10040.**	**975.3**	**10250.**	**1000.**	**1005.**
Stddev	12.	6.4	54.	.33	179.	11.5	64.	8.	9.
%RSD	1.213	.6446	.5228	.3374	1.785	1.181	.6208	.8374	.8981
#1	1016.	994.7	10280.	99.44	9914.	967.2	10210.	994.6	998.9
#2	1033.	1004.	10360.	98.97	10170.	983.5	10300.	1006.	1012.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10130.**	**1014.**	**1009.**	**1012.**	**10090.**	**1001.**	**996.7**	**5065.**	**1021.**
Stddev	96.	9.	16.	4.	141.	11.	12.5	43.	7.
%RSD	.9478	.8471	1.627	.4411	1.393	1.068	1.252	.8499	.6456
#1	10060.	1008.	997.6	1009.	9986.	993.4	987.9	5034.	1016.
#2	10200.	1020.	1021.	1015.	10180.	1009.	1006.	5095.	1025.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 8/14/2019 10:03:22 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1016.**	**1016.**	**1008.**	**1004.**	**102.1**	**100.3**	**97.83**	**1030.**	**988.4**
Stddev	7.	13.	14.	12.	.4	.2	.11	5.	5.2
%RSD	.6889	1.264	1.430	1.175	.4294	.2073	.1102	.4467	.5269
#1	1011.	1007.	997.4	995.2	102.4	100.5	97.90	1027.	984.7
#2	1021.	1025.	1018.	1012.	101.7	100.2	97.75	1033.	992.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3292.9**	**6732.7**	**108020.**	**21430.**
Stddev	11.1	28.9	224.	24.
%RSD	.33743	.42941	.20732	.11025
#1	3300.8	6753.2	108180.	21447.
#2	3285.1	6712.3	107860.	21414.

Sample Name: CCB Acquired: 8/14/2019 10:05:26 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1525**	**7.232**	**-2.622**	**1.595**	**.1553**	**.2149**	**7.856**	**-.0319**	**.0485**
Stddev	.0400	4.574	1.188	1.033	.0479	.0338	3.752	.0242	.0896
%RSD	26.26	63.24	45.32	64.80	30.87	15.72	47.75	75.84	184.6
#1	-.1808	3.998	-1.782	.8641	.1892	.2388	10.51	-.0491	.1118
#2	-.1242	10.47	-3.462	2.326	.1214	.1910	5.203	-.0148	-.0148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0043**	**.3148**	**17.38**	**100.2**	**21.78**	**.8849**	**4.004**	**.4361**	**.9862**
Stddev	.1736	.6760	.49	.0	25.02	.7934	2.345	.1988	.2197
%RSD	4071.	214.7	2.847	.0167	114.9	89.66	58.57	45.58	22.28
#1	.1270	.7928	17.03	100.2	39.47	1.446	5.662	.5767	.8308
#2	-.1185	-.1632	17.73	100.2	4.090	.3239	2.345	.2956	1.142
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-92.53**	**-.0379**	**-1.156**	**1.419**	**-2.582**	**.0221**	**-.4461**	**7.485**	**.5683**
Stddev	135.3	.2489	1.215	.659	3.107	.1669	2.405	.774	.7077
%RSD	146.2	656.2	105.1	46.44	120.3	753.7	539.0	10.34	124.5
#1	3.144	-.2139	-.2974	1.885	-4.779	.1402	-2.146	8.032	.0678
#2	-188.2	.1381	-2.016	.9529	-.3852	-.0959	1.254	6.938	1.069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 8/14/2019 10:05:26 Type: QC
Method: Pace-65002-2-CETAC1(v1787) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2603	.3158	1.663	.1446	101.2	100.6	96.59	1.009	.1105
Stddev	.0527	.0842	.081	.1083	.1	.1	.94	.109	.3174
%RSD	20.26	26.65	4.843	74.94	.1379	.0666	.9726	10.79	287.3
#1	.2975	.3753	1.606	.2212	101.1	100.5	95.92	1.086	-.1140
#2	.2230	.2563	1.720	.0680	101.3	100.6	97.25	.9323	.3349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3326.6	6675.1	108290.	21159.
Stddev	.6	9.2	72.	206.
%RSD	.01671	.13788	.06664	.97264
#1	3327.0	6668.6	108240.	21013.
#2	3326.2	6681.6	108340.	21305.

Prep Log Report

Batch Information: TCLP 8789/356078; 8790/356079

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/11/2019 10:00:16:351	Tumbler Start Temp. (C)	20.5
Tumbler End Temp. (C)	22.8	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 94232	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1729490**	N		N	30TBL5	HP001				4.88		0	0
TCLP	PS	**30318388001**	N		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100
TCLP	PS	**30318428001**	N		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
TCLP	PS	**30318231001**	N		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
TCLP	PS	**30318712001**	N		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
TCLP	PS	**30318575003**	N		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
TCLP	PS	**30318799001**	N		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100
TCLP	PS	**30315970001**	N		U	30TBL5	HP001	Other	Y	Y	8.07	1.83	5	100
1311MET_L	LB	**1729491**	Y		N	30TBL5	HP001				4.88		0	0
1311MET_L	LB	**1729492**	Y		1	30TBL5	HP001				4.88		5	100
1311MET_L	PS	**30315970002**	Y		2	30TBL5	HP001	Other	Y	Y	7.91	1.95	5	100
1311MET_L	PS	**30317384001**	Y		3	30TBL5	HP001	Other	Y	Y	6.54	1.78	5	100
1311MET_L	PS	**30317384002**	Y		4	30TBL5	HP001	Other	Y	Y	6.19	1.77	5	100
1311MET_L	PS	**30317384003**	Y		5	30TBL5	HP001	Other	Y	Y	7.05	1.75	5	100
1311MET_L	PS	**30317384004**	Y		6	30TBL5	HP001	Other	Y	Y	7.66	1.74	5	100
1311MET_L	PS	**30317384005**	Y		7	30TBL5	HP001	Other	Y	Y	7.44	1.76	5	100
1311MET_L	PS	**30317486001**	Y		8	30TBL5	HP001	Other	Y	Y	7.13	1.73	5	100
1311MET_L	PS	**30317747003**	Y		9	30TBL5	HP001	Other	Y	Y	8.52	1.78	5	100
1311MET_L	PS	**30317660001**	Y		10	30TBL5	HP001	Other	Y	Y	7.47	1.72	5	100
1311MET_L	PS	**30318430001**	Y		11	30TBL5	HP001	Other	Y	Y	9.46	1.73	5	100
1311MET_L	PS	**30318388001**	Y		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30318428001**	Y		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
1311MET_L	PS	**30318231001**	Y		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
1311MET_L	PS	**30318712001**	Y		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
1311MET_L	PS	**30318575003**	Y		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
1311MET_L	PS	**30318799001**	Y		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1729490**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071				
TCLP	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798				
TCLP	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367				
TCLP	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063				
TCLP	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797				
TCLP	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414				
TCLP	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981				
TCLP	PS	**30315970001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.86	08/12/2019 11:45:59:124				
1311MET_L	LB	**1729491**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1729492**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.68	08/12/2019 09:39:51:525	Y			
1311MET_L	PS	**30315970002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.86	08/12/2019 12:18:51:065	Y			
1311MET_L	PS	**30317384001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 09:39:53:326	Y			
1311MET_L	PS	**30317384002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.64	08/12/2019 09:39:53:996	Y			
1311MET_L	PS	**30317384003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.65	08/12/2019 09:39:54:668	Y			
1311MET_L	PS	**30317384004**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:18:841	Y			
1311MET_L	PS	**30317384005**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.14	08/12/2019 09:54:19:554	Y			
1311MET_L	PS	**30317486001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.70	08/12/2019 09:54:20:282	Y			
1311MET_L	PS	**30317747003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.02	08/12/2019 09:54:20:986	Y			
1311MET_L	PS	**30317660001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:21:634	Y			
1311MET_L	PS	**30318430001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.82	08/12/2019 09:54:22:257	Y			
1311MET_L	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798	Y			
1311MET_L	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367	Y			
1311MET_L	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063	Y			
1311MET_L	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414	Y			
1311MET_L	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1729490**								2000	
TCLP	PS	**30318388001**								2000	rock
TCLP	PS	**30318428001**								2000	mud/rock
TCLP	PS	**30318231001**								2000	mulch
TCLP	PS	**30318712001**								2000	sludge
TCLP	PS	**30318575003**								2000	1*
TCLP	PS	**30318799001**								2000	mulch/rock
TCLP	PS	**30315970001**								2000	soil
1311MET_L	LB	**1729491**								2000	
1311MET_L	LB	**1729492**								2000	
1311MET_L	PS	**30315970002**								2000	soil
1311MET_L	PS	**30317384001**								2000	mud/rock
1311MET_L	PS	**30317384002**								2000	mud/rock
1311MET_L	PS	**30317384003**								2000	mud/rock
1311MET_L	PS	**30317384004**								2000	dirt/rock
1311MET_L	PS	**30317384005**								2000	dirt/rock
1311MET_L	PS	**30317486001**								2000	brick
1311MET_L	PS	**30317747003**								2000	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30317660001**								2000	sludge
1311MET_L	PS	**30318430001**								2000	mud/rock
1311MET_L	PS	**30318388001**								2000	rock
1311MET_L	PS	**30318428001**								2000	mud/rock
1311MET_L	PS	**30318231001**								2000	mulch
1311MET_L	PS	**30318712001**								2000	sludge
1311MET_L	PS	**30318575003**								2000	1*
1311MET_L	PS	**30318799001**								2000	mulch/rock

Sample Notes:

1*: rock/concrete

Prep Log Report

Batch Information: MPRP 356285-3005 B TCLP

Template Version: F-PA-I-001-Rev.00 (5May2016)

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	08/12/2019 14:41:29:199
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	96.4	Correction Factor (C)	-0.3
Corrected Temp. (C)	96.10	Therm. Position	7.2	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	08/12/2019 15:18:14:807
Digestion End Time	08/12/2019 20:38:41:456	Digestion Vessel	91657	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B ST_P	BLANK	**1730480**	Water	Yes	50	94232 (1)	95935 (2.5)	50					
3005B ST_P	LCS	**1730481**	Water	Yes	50	94232 (1)	95935 (2.5)	50			93196 (125)	93197 (125)	93198 (125)
3005B ST_P	PS	**30318799001**	Solid	Yes	50	94232 (1)	95935 (2.5)	50					
3005B ST_P	DUP	**1730482**	Solid	Yes	50	94232 (1)	95935 (2.5)	50					
3005B ST_P	MS	**1730483**	Solid	Yes	50	94232 (1)	95935 (2.5)	50			93196 (125)	93197 (125)	93198 (125)
3005B ST_P	MSD	**1730484**	Solid	Yes	50	94232 (1)	95935 (2.5)	50			93196 (125)	93197 (125)	93198 (125)
3005B ST_P	PS	**30315970002**	Solid	Yes	50	94232 (1)	95935 (2.5)	50					
3005B ST_P	LB	**1729491**	Water	Yes	50	94232 (1)	95935 (2.5)	50		EF 1G 8/11			
3005B ST_P	LB	**1729492**	Water	Yes	50	94232 (1)	95935 (2.5)	50		EF 1P 8/11			

Standard Notes:

93196: 6010-SPK1 ICP

93197: 6010-SPK2 ICP

93198: 6010-SPK3 ICP

SAMPLE NO.

AOC 32 DITCH & AOC 35G

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Lab Sample ID: 30318799001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	08/12/2019 22:28

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 96483

Continuing Calibration Verification Source: 96481

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	08/12/2019 20:52				08/12/2019 20:54			08/12/2019 21:17			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	1.0	101.0	90-110	5.0	5.1	102.2	5.0	5.1	101.6	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 96481

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification									
	08/12/2019 21:37			08/12/2019 21:58			08/12/2019 22:23			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Mercury	5.0	5.0	101.0	5.0	5.0	100.4	5.0	5.2	103.0	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 96481

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification			
	08/12/2019 22:33			Control Limit
Analyte	True	Found	%R	
Mercury	5.0	5.2	103.8	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

CRDL Check Standard Source: 95934,96444,96478 Analysis Date/Time: 08/12/2019 20:57

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.20	100.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	08/12/2019 20:55	C	08/12/2019 21:19	C	08/12/2019 21:38	C	08/12/2019 22:00	C	1730580	C
Mercury	0.030	U	0.030	U	0.030	U	0.030	U	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)						Leachate Blank	
		C	08/12/2019 22:24	C	08/12/2019 22:35	C		C	1729491	C
Mercury			0.030	U	0.030	U			ND	U

FORM III INORGANIC-3

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Leachate Blank	
		C		C		C		C	1729492	C
Mercury									ND	U

SAMPLE NO.

1730583MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Basis: Wet Parent Sample ID: 30317384005

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.8	ND	2.5	110

SAMPLE NO.

1730585MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Basis: Wet Parent Sample ID: 30318428001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.7	ND	2.5	108

SAMPLE NO.

1730582DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1730584DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	ND	

SAMPLE NO.

1730581LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	1.0	102	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	1.0	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 7470A Batch: MERP 11050

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1729491	1729491LB	08/12/2019	25	25
1729492	1729492LB	08/12/2019	25	25
1730580	1730580BLANK	08/12/2019	25	25
1730581	1730581LCS	08/12/2019	25	25
1730582	1730582DUP	08/12/2019	25	25
1730583	1730583MS	08/12/2019	25	25
1730584	1730584DUP	08/12/2019	25	25
1730585	1730585MS	08/12/2019	25	25
30318799001	AOC 32 DITCH & AOC 35G	08/12/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 08/12/2019 20:40 End Date: 08/12/2019 22:35

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11383319CAL0	11383319CAL0	1	08/12/2019	20:40	X
11383320CAL1	11383320CAL1	1	08/12/2019	20:42	X
11383321CAL2	11383321CAL2	1	08/12/2019	20:43	X
11383322CAL3	11383322CAL3	1	08/12/2019	20:45	X
11383323CAL4	11383323CAL4	1	08/12/2019	20:47	X
11383324CAL5	11383324CAL5	1	08/12/2019	20:48	X
11383325ICV	11383325ICV	1	08/12/2019	20:52	X
11383326CCV	11383326CCV	1	08/12/2019	20:54	X
11383327ICB	11383327ICB	1	08/12/2019	20:55	X
11383328CRDL	11383328CRDL	1	08/12/2019	20:57	X
11383329CCV	11383329CCV	1	08/12/2019	21:17	X
11383330CCB	11383330CCB	1	08/12/2019	21:19	X
1730580BLANK	1730580	1	08/12/2019	21:35	X
11383332CCV	11383332CCV	1	08/12/2019	21:37	X
11383333CCB	11383333CCB	1	08/12/2019	21:38	X
1730581LCS	1730581	1	08/12/2019	21:40	X
1729491LB	1729491	1	08/12/2019	21:42	X
1729492LB	1729492	1	08/12/2019	21:44	X
30317384005	30317384005	1	08/12/2019	21:46	X
1730582DUP	1730582	1	08/12/2019	21:48	X
1730583MS	1730583	1	08/12/2019	21:50	X
11383334CCV	11383334CCV	1	08/12/2019	21:58	X
11383335CCB	11383335CCB	1	08/12/2019	22:00	X
30318428001	30318428001	1	08/12/2019	22:14	X
1730584DUP	1730584	1	08/12/2019	22:16	X
1730585MS	1730585	1	08/12/2019	22:18	X
11383336CCV	11383336CCV	1	08/12/2019	22:23	X
11383337CCB	11383337CCB	1	08/12/2019	22:24	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/12/2019	22:28	X
11383338CCV	11383338CCV	1	08/12/2019	22:33	X
11383339CCB	11383339CCB	1	08/12/2019	22:35	X

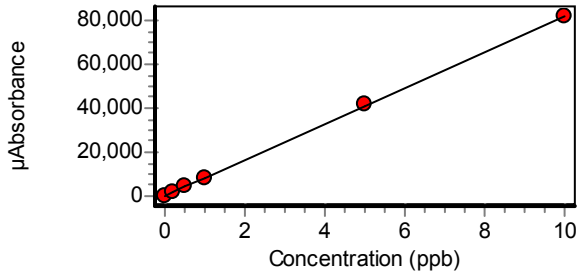
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg081219C.wsz
Date Started: 7/6/2016 3:55:19 PM
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	08/12/19 08:40:44 pm	0.00	-114	20.48		1.00	1.00
											1.00	
	Replicates	-135.4	-120.5	-120.3	-80.8							
CAL1					STD	08/12/19 08:42:20 pm	0.20	1395	2.94		1.00	1.00
											1.00	
	Replicates	1358.8	1362.5	1440.8	1419.2							
CAL2					STD	08/12/19 08:43:57 pm	0.50	4015	1.45		1.00	1.00
											1.00	
	Replicates	3966.4	3962.8	4066.8	4063.5							
CAL3					STD	08/12/19 08:45:35 pm	1.00	8240	0.77		1.00	1.00
											1.00	
	Replicates	8179.3	8192.0	8297.0	8292.5							
CAL4					STD	08/12/19 08:47:13 pm	5.00	41393	0.91		1.00	1.00
											1.00	
	Replicates	40886.9	41331.3	41620.9	41732.6							
CAL5					STD	08/12/19 08:48:51 pm	10.00	81597	0.59		1.00	1.00
											1.00	
	Replicates	80982.4	81465.8	81893.1	82045.8							

Calibration

Equation: A = -35.325 + 8187.893C
R2: 0.99993
SEE: 299.3605
Flags:



ICV					ICV	08/12/19 08:52:21 pm	1.01	8261	0.56		1.00	1.00
	% Recovery	101.32									1.00	
	Replicates	8225.0	8237.6	8327.5	8252.6							
CCV					CCV	08/12/19 08:54:00 pm	5.11	41788	0.75		1.00	1.00
	% Recovery	102.16									1.00	
	Replicates	41414.3	41667.6	41940.5	42130.3							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
ICB					ICB	08/12/19 08:55:40 pm	-0.01	-137	16.40		1.00	1.00
											1.00	
	Replicates	-124.8	-130.0	-170.7	-123.4							
CRDL					CRDL	08/12/19 08:57:20 pm	0.20	1615	1.68		1.00	1.00
	% Recovery	100.79									1.00	
	Replicates	1639.2	1623.6	1576.2	1621.7							
1730572_12518					PBK	08/12/19 08:58:57 pm	0.01	18	337.24		1.00	1.00
											1.00	
	Replicates	97.2	-43.5	27.8	-9.9							
1730573_12518					LCS	08/12/19 09:02:40 pm	0.90	7335	1.05		1.00	1.00
	% Recovery	90.02									1.00	
	Replicates	7235.7	7326.7	7358.6	7420.7							
30318462009_12518					UNK	08/12/19 09:04:18 pm	0.00	-66	52.15		1.00	1.00
											1.00	
	Replicates	-39.3	-106.2	-35.5	-84.4							
1730574_12518					DUP	08/12/19 09:05:56 pm	0.01	59	60.19		1.00	1.00
			RPD	0.00							1.00	
	Replicates	42.9	90.1	16.5	86.1							
1730575_12518					MSK	08/12/19 09:07:34 pm	2.53	20677	1.00		1.00	1.00
	% Recovery	101.34									1.00	
	Replicates	20393.7	20650.0	20832.3	20832.7							
30318462013_12518					UNK	08/12/19 09:09:11 pm	0.01	33	88.85		1.00	1.00
											1.00	
	Replicates	69.0	33.4	-3.1	33.2							
30318768005_12518					UNK	08/12/19 09:10:49 pm	0.00	-19	43.55		1.00	1.00
											1.00	
	Replicates	-6.8	-23.5	-24.3	-20.3							
30318768009_12518					UNK	08/12/19 09:12:27 pm	0.01	45	85.41		1.00	1.00
											1.00	
	Replicates	21.8	11.5	97.8	49.8							
30318871001_12518					UNK	08/12/19 09:14:06 pm	0.00	-9	552.27		1.00	1.00
											1.00	
	Replicates	9.1	-55.5	-46.0	55.1							
30317868001_12518					UNK	08/12/19 09:15:44 pm	0.01	27	121.00		1.00	1.00
											1.00	
	Replicates	26.5	66.1	27.8	-13.2							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV				CCV	08/12/19 09:17:24 pm	5.08	41571	1.10		1.00	1.00
% Recovery	101.63									1.00	
Replicates	40997.3	41425.9	41836.4	42023.4							
CCB				CCB	08/12/19 09:19:04 pm	0.00	-48	155.82		1.00	1.00
										1.00	
Replicates	6.5	-26.3	-13.8	-158.1							
1730576_12519				PBK	08/12/19 09:20:42 pm	-0.01	-78	48.04		1.00	1.00
										1.00	
Replicates	-47.5	-123.5	-95.5	-47.1							
1730577_12519				LCS	08/12/19 09:22:20 pm	1.01	8262	0.83		1.00	1.00
% Recovery	101.34									1.00	
Replicates	8211.0	8227.6	8246.1	8363.0							
30318687003_12519				UNK	08/12/19 09:23:58 pm	0.00	-73	40.15		1.00	1.00
										1.00	
Replicates	-30.1	-86.6	-78.8	-95.4							
1730578_12519				DUP	08/12/19 09:25:37 pm	0.00	-8	661.23		1.00	1.00
		RPD 0.00								1.00	
Replicates	30.9	4.4	15.4	-81.0							
1730579_12519				MSK	08/12/19 09:27:16 pm	2.58	21080	0.85		1.00	1.00
% Recovery	103.34									1.00	
Replicates	20867.2	21030.4	21128.1	21296.1							
30318687001_12519				UNK	08/12/19 09:28:54 pm	0.03	202	20.83		1.00	1.00
										1.00	
Replicates	174.6	201.5	169.8	261.3							
30318687002_12519				UNK	08/12/19 09:30:33 pm	0.04	274	19.94		1.00	1.00
										1.00	
Replicates	233.4	273.1	352.1	239.0							
30318898001_12519				UNK	08/12/19 09:32:11 pm	0.01	29	139.86		1.00	1.00
										1.00	
Replicates	40.3	70.7	33.7	-27.3							
30318240002_12519				UNK	08/12/19 09:33:50 pm	0.27	2179	2.06		1.00	1.00
										1.00	
Replicates	2170.4	2119.7	2209.7	2218.1							
1730580_12520				PBK	08/12/19 09:35:30 pm	0.00	-37	36.84		1.00	1.00
										1.00	
Replicates	-21.1	-52.7	-32.1	-44.1							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV					CCV	08/12/19 09:37:09 pm	5.05	41312	0.61		1.00	1.00
	% Recovery	101.00									1.00	
	Replicates	41020.5	41210.4	41411.2	41604.7							
CCB					CCB	08/12/19 09:38:49 pm	0.01	15	150.52		1.00	1.00
											1.00	
	Replicates	27.3	-18.2	19.9	31.3							
1730581_12520					LCS	08/12/19 09:40:28 pm	1.02	8319	1.98		1.00	1.00
	% Recovery	102.03									1.00	
	Replicates	8085.2	8322.2	8451.4	8416.0							
1729491_12520					MB	08/12/19 09:42:07 pm	0.01	17	235.99	Z	1.00	1.00
											1.00	
	Replicates	30.5	-19.3	67.0	-10.7							
1729492_12520					MB	08/12/19 09:44:03 pm	0.01	26	210.31	Z	1.00	1.00
											1.00	
	Replicates	-28.9	-13.1	81.4	65.9							
30317384005_12520					UNK	08/12/19 09:46:44 pm	0.02	94	52.65		1.00	1.00
											1.00	
	Replicates	32.2	75.6	135.8	131.8							
1730582_12520					DUP	08/12/19 09:48:24 pm	0.02	114	22.65		1.00	1.00
		RPD	0.00								1.00	
	Replicates	89.7	132.1	94.8	140.9							
1730583_12520					MSK	08/12/19 09:50:03 pm	2.76	22527	0.35		1.00	1.00
	% Recovery	109.59									1.00	
	Replicates	22450.9	22472.3	22561.7	22621.8							
30317384001_12520					UNK	08/12/19 09:51:42 pm	0.01	8	611.91		1.00	1.00
											1.00	
	Replicates	10.1	-48.7	-1.8	73.2							
30317384002_12520					UNK	08/12/19 09:53:21 pm	0.01	75	60.15		1.00	1.00
											1.00	
	Replicates	67.5	49.5	42.9	141.5							
30317384003_12520					UNK	08/12/19 09:55:01 pm	0.01	73	46.46		1.00	1.00
											1.00	
	Replicates	52.2	64.5	51.5	122.5							
30317384004_12520					UNK	08/12/19 09:56:41 pm	0.00	-23	105.61		1.00	1.00
											1.00	
	Replicates	-3.7	-8.9	-21.6	-57.2							

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV				CCV	08/12/19 09:58:20 pm	5.02	41071	0.82		1.00	1.00
% Recovery	100.41									1.00	
Replicates	40654.1	40956.9	41263.9	41407.9							
CCB				CCB	08/12/19 10:00:01 pm	-0.01	-96	20.90		1.00	1.00
										1.00	
Replicates	-123.4	-80.6	-100.6	-81.4							
30315970002_12520				UNK	08/12/19 10:01:40 pm	89.91	736109	0.04	O	1.00	1.00
										1.00	
Replicates	736365.9	736289.8	736078.3	735700.1							
30318388001_12520				UNK	08/12/19 10:08:12 pm	0.01	56	79.19		1.00	1.00
										1.00	
Replicates	8.8	53.1	115.4	46.1							
30318712001_12520				UNK	08/12/19 10:09:52 pm	0.01	51	45.97		1.00	1.00
										1.00	
Replicates	28.0	79.1	35.9	61.7							
30317486001_12520				UNK	08/12/19 10:11:32 pm	0.01	21	74.78		1.00	1.00
										1.00	
Replicates	42.7	11.3	8.4	20.6							
30317660001_12520				UNK	08/12/19 10:13:12 pm	0.00	5	755.33		1.00	1.00
										1.00	
Replicates	-32.3	8.5	56.0	-12.2							
30318428001_12520				UNK	08/12/19 10:14:52 pm	0.01	42	92.01		1.00	1.00
										1.00	
Replicates	70.8	81.1	10.1	7.6							
1730584_12520				DUP	08/12/19 10:16:31 pm	0.01	70	25.16		1.00	1.00
	RPD	0.00								1.00	
Replicates	59.7	93.2	53.6	71.7							
1730585_12520				MSK	08/12/19 10:18:12 pm	2.71	22115	0.42		1.00	1.00
% Recovery	107.83									1.00	
Replicates	22150.9	22012.1	22070.6	22226.3							
30318231001_12520				UNK	08/12/19 10:19:52 pm	0.02	132	57.20		1.00	1.00
										1.00	
Replicates	77.2	241.5	121.5	87.5							
30317747003_12520				UNK	08/12/19 10:21:33 pm	0.13	1002	3.54		1.00	1.00
										1.00	
Replicates	1027.9	1033.3	958.5	987.3							

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol.
											ODF	
CCV					CCV	08/12/19 10:23:12 pm	5.15	42129	0.72		1.00	1.00
	% Recovery	102.99									1.00	
	Replicates	41764.7	41989.6	42362.4	42398.1							
CCB					CCB	08/12/19 10:24:52 pm	0.00	-67	71.73		1.00	1.00
											1.00	
	Replicates	-26.7	-68.9	-134.4	-38.7							
30318575003_12520					UNK	08/12/19 10:26:56 pm	0.00	1	419.78		1.00	1.00
											1.00	
	Replicates	8.1	58.4	-14.3	-48.9							
30318799001_12520					UNK	08/12/19 10:28:36 pm	0.01	43	47.79		1.00	1.00
											1.00	
	Replicates	27.3	40.1	32.4	73.2							
30315970002_12520x100					UNK	08/12/19 10:30:17 pm	7.98	65327	0.31		1.00	1.00
											1.00	
	Replicates	65038.2	65473.1	65457.1	65339.6							
CCV					CCV	08/12/19 10:33:22 pm	5.19	42452	0.38		1.00	1.00
	% Recovery	103.78									1.00	
	Replicates	42247.8	42402.5	42544.9	42614.7							
CCB					CCB	08/12/19 10:35:02 pm	-0.02	-202	15.73		1.00	1.00
											1.00	
	Replicates	-221.9	-236.8	-172.3	-178.5							

Prep Log Report

Batch Information: TCLP 8789/356078; 8790/356079

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/11/2019 10:00:16:351	Tumbler Start Temp. (C)	20.5
Tumbler End Temp. (C)	22.8	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 94232	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1729490**	N		N	30TBL5	HP001				4.88		0	0
TCLP	PS	**30318388001**	N		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100
TCLP	PS	**30318428001**	N		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
TCLP	PS	**30318231001**	N		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
TCLP	PS	**30318712001**	N		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
TCLP	PS	**30318575003**	N		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
TCLP	PS	**30318799001**	N		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100
TCLP	PS	**30315970001**	N		U	30TBL5	HP001	Other	Y	Y	8.07	1.83	5	100
1311MET_L	LB	**1729491**	Y		N	30TBL5	HP001				4.88		0	0
1311MET_L	LB	**1729492**	Y		1	30TBL5	HP001				4.88		5	100
1311MET_L	PS	**30315970002**	Y		2	30TBL5	HP001	Other	Y	Y	7.91	1.95	5	100
1311MET_L	PS	**30317384001**	Y		3	30TBL5	HP001	Other	Y	Y	6.54	1.78	5	100
1311MET_L	PS	**30317384002**	Y		4	30TBL5	HP001	Other	Y	Y	6.19	1.77	5	100
1311MET_L	PS	**30317384003**	Y		5	30TBL5	HP001	Other	Y	Y	7.05	1.75	5	100
1311MET_L	PS	**30317384004**	Y		6	30TBL5	HP001	Other	Y	Y	7.66	1.74	5	100
1311MET_L	PS	**30317384005**	Y		7	30TBL5	HP001	Other	Y	Y	7.44	1.76	5	100
1311MET_L	PS	**30317486001**	Y		8	30TBL5	HP001	Other	Y	Y	7.13	1.73	5	100
1311MET_L	PS	**30317747003**	Y		9	30TBL5	HP001	Other	Y	Y	8.52	1.78	5	100
1311MET_L	PS	**30317660001**	Y		10	30TBL5	HP001	Other	Y	Y	7.47	1.72	5	100
1311MET_L	PS	**30318430001**	Y		11	30TBL5	HP001	Other	Y	Y	9.46	1.73	5	100
1311MET_L	PS	**30318388001**	Y		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30318428001**	Y		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
1311MET_L	PS	**30318231001**	Y		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
1311MET_L	PS	**30318712001**	Y		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
1311MET_L	PS	**30318575003**	Y		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
1311MET_L	PS	**30318799001**	Y		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1729490**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071				
TCLP	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798				
TCLP	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367				
TCLP	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063				
TCLP	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797				
TCLP	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414				
TCLP	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981				
TCLP	PS	**30315970001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.86	08/12/2019 11:45:59:124				
1311MET_L	LB	**1729491**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1729492**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.68	08/12/2019 09:39:51:525	Y			
1311MET_L	PS	**30315970002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.86	08/12/2019 12:18:51:065	Y			
1311MET_L	PS	**30317384001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 09:39:53:326	Y			
1311MET_L	PS	**30317384002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.64	08/12/2019 09:39:53:996	Y			
1311MET_L	PS	**30317384003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.65	08/12/2019 09:39:54:668	Y			
1311MET_L	PS	**30317384004**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:18:841	Y			
1311MET_L	PS	**30317384005**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.14	08/12/2019 09:54:19:554	Y			
1311MET_L	PS	**30317486001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.70	08/12/2019 09:54:20:282	Y			
1311MET_L	PS	**30317747003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.02	08/12/2019 09:54:20:986	Y			
1311MET_L	PS	**30317660001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:21:634	Y			
1311MET_L	PS	**30318430001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.82	08/12/2019 09:54:22:257	Y			
1311MET_L	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798	Y			
1311MET_L	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367	Y			
1311MET_L	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063	Y			
1311MET_L	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414	Y			
1311MET_L	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1729490**								2000	
TCLP	PS	**30318388001**								2000	rock
TCLP	PS	**30318428001**								2000	mud/rock
TCLP	PS	**30318231001**								2000	mulch
TCLP	PS	**30318712001**								2000	sludge
TCLP	PS	**30318575003**								2000	1*
TCLP	PS	**30318799001**								2000	mulch/rock
TCLP	PS	**30315970001**								2000	soil
1311MET_L	LB	**1729491**								2000	
1311MET_L	LB	**1729492**								2000	
1311MET_L	PS	**30315970002**								2000	soil
1311MET_L	PS	**30317384001**								2000	mud/rock
1311MET_L	PS	**30317384002**								2000	mud/rock
1311MET_L	PS	**30317384003**								2000	mud/rock
1311MET_L	PS	**30317384004**								2000	dirt/rock
1311MET_L	PS	**30317384005**								2000	dirt/rock
1311MET_L	PS	**30317486001**								2000	brick
1311MET_L	PS	**30317747003**								2000	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30317660001**								2000	sludge
1311MET_L	PS	**30318430001**								2000	mud/rock
1311MET_L	PS	**30318388001**								2000	rock
1311MET_L	PS	**30318428001**								2000	mud/rock
1311MET_L	PS	**30318231001**								2000	mulch
1311MET_L	PS	**30318712001**								2000	sludge
1311MET_L	PS	**30318575003**								2000	1*
1311MET_L	PS	**30318799001**								2000	mulch/rock

Sample Notes:

1*: rock/concrete

Prep Log Report

Batch Information: MERP 356319-7470 TCLP

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	08/12/2019 15:57:15:537
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	95.6	Correction Factor (C)	-0.2
Corrected Temp. (C)	95.40	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	7.2	Digestion Start Time	08/12/2019 17:06:09:698
Digestion End Time	08/12/2019 19:06:12:007	Digestion Vessel	91657	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By		Reviewed By Date		Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	BLANK	**1730580**	Y	Water	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	LCS	**1730581**	Y	Water	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317384005**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	DUP	**1730582**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	MS	**1730583**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			95828 (.25)
7470 ST_P	PS	**30317384001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317384002**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317384003**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317384004**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30315970002**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30318388001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30318712001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317486001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317660001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30318428001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	DUP	**1730584**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 ST_P	MS	**1730585**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			95828 (.25)
7470 ST_P	PS	**30318231001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30317747003**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30318575003**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	PS	**30318799001**	Y	Solid	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25			
7470 ST_P	LB	**1729491**	Y	Water	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25		EF 1G 8/11	
7470 ST_P	LB	**1729492**	Y	Water	Yes	25	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	25		EF 1P 8/11	
HG WATER_Q	CAL0	**CAL0**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	CAL1	**CAL1**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	CAL2	**CAL2**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	CAL3	**CAL3**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	CAL4	**CAL4**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	CAL5	**CAL5**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			
HG WATER_Q	ICV	**ICV**	Y	Water	Yes	1	94232 (0.625)	92983 (1.25)	95919 (3.75)	95131 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	BLANK	**1730580**		
7470 ST_P	LCS	**1730581**	90501 (.1)	
7470 ST_P	PS	**30317384005**		
7470 ST_P	DUP	**1730582**		
7470 ST_P	MS	**1730583**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 ST_P	PS	**30317384001**		
7470 ST_P	PS	**30317384002**		
7470 ST_P	PS	**30317384003**		
7470 ST_P	PS	**30317384004**		
7470 ST_P	PS	**30315970002**		
7470 ST_P	PS	**30318388001**		
7470 ST_P	PS	**30318712001**		
7470 ST_P	PS	**30317486001**		
7470 ST_P	PS	**30317660001**		
7470 ST_P	PS	**30318428001**		
7470 ST_P	DUP	**1730584**		
7470 ST_P	MS	**1730585**		
7470 ST_P	PS	**30318231001**		
7470 ST_P	PS	**30317747003**		
7470 ST_P	PS	**30318575003**		
7470 ST_P	PS	**30318799001**		
7470 ST_P	LB	**1729491**		
7470 ST_P	LB	**1729492**		
HG WATER_Q	CAL0	**CAL0**		96491 (1)
HG WATER_Q	CAL1	**CAL1**		96492 (1)
HG WATER_Q	CAL2	**CAL2**		96493 (1)
HG WATER_Q	CAL3	**CAL3**		96494 (1)
HG WATER_Q	CAL4	**CAL4**		96495 (1)
HG WATER_Q	CAL5	**CAL5**		96496 (1)
HG WATER_Q	ICV	**ICV**		96497 (1)

Standard Notes:

96491: CALO

96492: CAL1

Prep Log Report

96493: CAL2 **96494: CAL3** **96495: CAL4** **96496: CAL5**
96497: Hg ICV Source 2

SAMPLE NO.

AOC 32 DITCH & AOC 35G

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Lab Sample ID: 30318799001 Percent Moisture: 20.0

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Cyanide, Reactive	ND	U	mg/kg	1	08/12/2019 17:59
	Flashpoint	>200		deg F	1	08/16/2019 14:26
	Sulfide, Reactive	ND	U	mg/kg	1	08/12/2019 17:37
	pH in water at 25 degrees C	7.5		Std. Units	1	08/09/2019 21:33

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 68828

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	08/09/2019 14:17			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	4.0	4.0	100.8	98.75-101.25
pH in water at 25 degrees C		4.0		98.75-101.25

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 84019

Continuing Calibration Verification Source:

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification			
	08/09/2019 14:17			
Analyte	True	Found	%R	Control Limit
pH at 25 Degrees C	7.0	7.0	99.7	98.5-101.43
pH in water at 25 degrees C		7.0		98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Initial Calibration Verification				Continuing Calibration Verification						
					08/09/2019 21:09			08/09/2019 21:17			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
pH at 25 Degrees C					7.0	7.0	99.9	7.0	7.0	100.0	98.5-101.43
pH in water at 25 degrees C					7.0	7.0	99.9	7.0	7.0	100.0	98.5-101.43

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 80724

Concentration Units: Std. Units Instrument ID: 30WETG

	Continuing Calibration Verification			
	08/09/2019 21:35			Control Limit
Analyte	True	Found	%R	
pH at 25 Degrees C	7.0	7.0	99.9	98.5-101.43
pH in water at 25 degrees C	7.0	7.0	99.9	98.5-101.43

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Initial Calibration Verification Source: 96408

Continuing Calibration Verification Source: 96406

Concentration Units: mg/L Instrument ID: 30WTA1

	Initial Calibration Verification				Continuing Calibration Verification						
	08/12/2019 10:26				08/12/2019 17:51			08/12/2019 18:04			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Cyanide	0.1	0.099	99.1	90-110	0.2	0.20	99.4	0.2	0.20	99.0	90-110

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Water Instrument ID: 30WET6

Method Blank Concentration Units: deg F

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1734120	C
Flashpoint									>200	

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Solid Instrument ID: 30WET0

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1730406	C
Sulfide, Reactive									ND	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract : Former EPT Site-Soil IRM/31401

Method Blank Matrix: Solid Instrument ID: 30WTA1

Method Blank Concentration Units: mg/kg

Analyte	Initial Calibration Blank		Continuing Calibration Blank (mg/L)						Method Blank	
		C	08/12/2019 17:51	C	08/12/2019 18:03	C		C	1730416	C
Cyanide			0.0012	U	0.0012	U				
Cyanide, Reactive									ND	U

SAMPLE NO.

1729379DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: Std. Units

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
pH in water at 25 degrees C	10	7.5	7.6	1

SAMPLE NO.

1730418DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 79.1 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Cyanide, Reactive	20	ND	ND	

SAMPLE NO.

1730408DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid Concentration Units: mg/kg

Percent Moisture: 79.1 Basis: Dry

Analyte	Control Limit	Sample	Duplicate	RPD
Sulfide, Reactive	20	ND	ND	

SAMPLE NO.

1730417LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Cyanide, Reactive	mg/kg	99.9	ND	0	0	8

SAMPLE NO.

1730407LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil

Matrix: Solid

Analyte	Units	True	Found	%R	Limits	
Sulfide, Reactive	mg/kg	200	40.0	20	0	52

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FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: SW-846 7.3.4.2 Instrument ID: 30WET0

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Sulfide, Reactive	10.0	10.0	06/07/2019

FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 9045D Instrument ID: 30WETG

Concentration Units: Std. Units

Analyte	PQL	MDL	MDL Date
pH in water at 25 degrees	2.0	2.0	11/06/2016

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: None Instrument ID: 30WTA1

Concentration Units: mg/L

Analyte	PQL	IDL	IDL Date
Cyanide	0.005	0.0012	01/01/2007

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: SW-846 7.3.3.2 Instrument ID: 30WTA1

Concentration Units: mg/kg

Analyte	PQL	MDL	MDL Date
Cyanide, Reactive	1.0	0.40	11/06/2016

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 9045D Batch: WET 51666

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1729379	1729379DUP	08/09/2019	20.03	20
30318799001	AOC 32 DITCH & AOC 35G	08/09/2019	19.95	20

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: SW-846 7.3.3.2 Batch: WETA 44036

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1730416	1730416BLANK	08/12/2019	10.05	50
1730417	1730417LCS	08/12/2019	10.01	50
1730418	1730418DUP	08/12/2019	10	50
30318799001	AOC 32 DITCH & AOC 35G	08/12/2019	10.08	50

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: SW-846 7.3.4.2 Batch: WETA 44035

Lab Sample ID	Sample Name	Preparation Date	Initial Weight (g)	Final Volume (mL)
1730406	1730406BLANK	08/12/2019	10.05	200
1730407	1730407LCS	08/12/2019	10	200
1730408	1730408DUP	08/12/2019	10	200
30318799001	AOC 32 DITCH & AOC 35G	08/12/2019	10.08	200

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Preparation Method: EPA 1010 Batch: WET 51805

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1734120	1734120BLANK	08/16/2019	1	1
1734121	1734121DUP	08/16/2019	1	1
30318799001	AOC 32 DITCH & AOC 35G	08/16/2019	1	1

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30WET6 Analysis Method: EPA 1010

Start Date: 08/16/2019 10:02 End Date: 08/16/2019 14:26

Sample Name	Lab Sample ID	D/F	Date	Time	flpt
1734120BLANK	1734120	1	08/16/2019	10:02	X
30316656003	30316656003	1	08/16/2019	10:47	X
1734121DUP	1734121	1	08/16/2019	11:04	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/16/2019	14:26	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30WET0 Analysis Method: SM 4500S2F-2011

Start Date: 08/12/2019 17:37 End Date: 08/12/2019 17:37

Sample Name	Lab Sample ID	D/F	Date	Time	rS
1730406BLANK	1730406	1	08/12/2019	17:37	X
1730407LCS	1730407	1	08/12/2019	17:37	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/12/2019	17:37	X
1730408DUP	1730408	1	08/12/2019	17:37	X
30319042001	30319042001	1	08/12/2019	17:37	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30WETG Analysis Method: EPA 9045D

Start Date: 08/09/2019 14:17 End Date: 08/09/2019 21:35

Sample Name	Lab Sample ID	D/F	Date	Time	pH 25	pH 25
11373653CAL1	11373653CAL1	1	08/09/2019	14:17	X	X
11373654CAL2	11373654CAL2	1	08/09/2019	14:17	X	X
11373655CAL3	11373655CAL3	1	08/09/2019	14:17	X	X
11373659CAL4	11373659CAL4	1	08/09/2019	14:17	X	X
11373657CAL5	11373657CAL5	1	08/09/2019	14:17	X	X
11373658ICVA	11373658ICVA	1	08/09/2019	14:17	X	X
11373656ICVB	11373656ICVB	1	08/09/2019	14:17	X	X
11376889CCV	11376889CCV	1	08/09/2019	21:09	X	X
11376891CCV	11376891CCV	1	08/09/2019	21:17	X	X
AOC 32 DITCH & AOC 35G	30318799001	1	08/09/2019	21:33		X
1729379DUP	1729379	1	08/09/2019	21:33		X
11376890CCV	11376890CCV	1	08/09/2019	21:35	X	X

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30318799 Contract: Former EPT Site-Soil IRM/31401

Instrument ID: 30WTA1 Analysis Method: EPA 9014

Start Date: 08/12/2019 10:18 End Date: 08/12/2019 18:12

Sample Name	Lab Sample ID	D/F	Date	Time	CN	rCN
11381464CAL0	11381464CAL0	1	08/12/2019	10:18	X	
11381465CAL1	11381465CAL1	1	08/12/2019	10:21	X	
11381466CAL2	11381466CAL2	1	08/12/2019	10:21	X	
11381467CAL3	11381467CAL3	1	08/12/2019	10:22	X	
11381468CAL4	11381468CAL4	1	08/12/2019	10:22	X	
11381469CAL5	11381469CAL5	1	08/12/2019	10:25	X	
11381470CAL6	11381470CAL6	1	08/12/2019	10:25	X	
11381471ICV	11381471ICV	1	08/12/2019	10:26	X	
11383051CCB	11383051CCB	1	08/12/2019	17:51	X	
11383052CCV	11383052CCV	1	08/12/2019	17:51	X	
1730416BLANK	1730416	1	08/12/2019	17:52		X
1730417LCS	1730417	1	08/12/2019	17:52		X
AOC 32 DITCH & AOC 35G	30318799001	1	08/12/2019	17:59		X
11383053CCB	11383053CCB	1	08/12/2019	18:03	X	
11383054CCV	11383054CCV	1	08/12/2019	18:04	X	
30319042001	30319042001	1	08/12/2019	18:12		X
1730418DUP	1730418	1	08/12/2019	18:12		X

Pace Analytical Services, Inc.
1638 Roseytown Road, Suites 2, 3 & 4
Greensburg
PA 15601

Method : CYN -Unit [ppm] - CN 9014/SM 4500 E,G,I

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	**RBL**	**0.0000**	**0.0009**	**0.00**	**R**	**10:17:01 AM**
DIL-1	**RBL**	**0.0000**	**0.0011**	**0.00**	**R**	**10:17:19 AM**
DIL-1	**RBL**	**0.0000**	**0.0030**	**0.00**	**R**	**10:18:13 AM**
ST-1	**Std-1**	**0.0000**	**-0.0022**	**0.00**	**INV**	**10:18:31 AM**
ST-2	**Std-2**	**0.0100**	**0.0082**	**0.00**		**10:21:13 AM**
ST-3	**Std-3**	**0.0500**	**0.0474**	**0.00**		**10:21:31 AM**
ST-4	**Std-4**	**0.1000**	**0.0933**	**0.00**		**10:22:25 AM**
ST-5	**Std-5**	**0.1500**	**0.1400**	**0.00**		**10:22:43 AM**
ST-6	**Std-6**	**0.2000**	**0.1823**	**0.00**		**10:25:25 AM**
ST-7	**Std-7**	**0.3000**	**0.2759**	**0.00**		**10:25:43 AM**
R-6	**CICV (0.1 ppm)**	**0.0991**	**0.0911**	**99.11**		**10:26:37 AM**
R-5	**CNBK (0 ppm)**	**0.0003**	**0.0000**	**0.00**		**10:26:55 AM**
R-4	**CNCV (0.2 ppm)**	**0.1993**	**0.1835**	**99.64**		**10:29:37 AM**
1	**LCP**	**0.0814**	**0.0748**	**0.00**		**10:29:55 AM**
R-6	**CICV (0.1 ppm)**	**0.0958**	**0.0880**	**95.75**		**10:30:49 AM**
R-5	**CNBK (0 ppm)**	**-0.0007**	**-0.0010**	**0.00**	**INV,LL**	**10:31:07 AM**
R-4	**CNCV (0.2 ppm)**	**0.2008**	**0.1849**	**100.40**		**10:33:49 AM**

Report Date :08/12/2019 **Run Date :8/12/2019** **Operator : WESTCO** **Plan # :20190812002**

Plan Description : CYN08122019A

Pace Analytical Services, Inc.
1638 Roseytown Road, Suites 2, 3 & 4
Greensburg
PA 15601

Method : CYN -Unit [ppm] - CN 9014/SM 4500 E,G,I

Smp#/[Dil Fact]	Sample ID	Conc	OD	%Recovery/RPD	Flag	Analysis Time
DIL-1	RBL	0.0000	0.0011	0.00	R	5:46:58 PM
DIL-1	RBL	0.0000	0.0010	0.00	R	5:47:16 PM
DIL-1	RBL	0.0000	0.0023	0.00	R	5:48:10 PM
R-6	CICV (0.1 ppm)	0.0972	0.0894	97.21		5:48:28 PM
R-5	CNBK (0 ppm)	-0.0007	-0.0010	0.00	INV,LL	5:51:10 PM
R-4	CNCV (0.2 ppm)	0.1988	0.1831	99.40		5:51:28 PM
1	1730416_44049x1	0.0053	0.0046	0.00		5:52:23 PM
2	1730417_44049x1	0.0015	0.0011	0.00		5:52:41 PM
3	40192433001_44049x1	0.0006	0.0003	0.00		5:55:23 PM
4	30318712001_44049x1	0.0006	0.0003	0.00		5:55:41 PM
5	30318908001_44049x1	0.0005	0.0002	0.00		5:56:35 PM
6	30318533001_44049x1	0.0199	0.0181	0.00		5:56:53 PM
7	30318799001_44049x1	0.0031	0.0026	0.00		5:59:35 PM
8	30319005001_44049x1	0.0021	0.0017	0.00		5:59:53 PM
9	30319006001_44049x1	0.0260	0.0237	0.00		6:00:47 PM
10	30319006002_44049x1	0.0094	0.0084	0.00		6:01:05 PM
R-5	CNBK (0 ppm)	0.0007	0.0004	0.00		6:03:47 PM
R-4	CNCV (0.2 ppm)	0.1979	0.1823	98.96		6:04:05 PM
11	92440161002_44049x1	0.0236	0.0215	0.00		6:04:59 PM
12	50232425001_44049x1	0.0008	0.0005	0.00		6:05:17 PM
13	30318722001_44049x1	-0.0001	-0.0004	0.00	INV,LL	6:07:59 PM
14	30318724001_44049x1	0.0459	0.0421	0.00		6:08:17 PM
15	30319046001_44049x1	0.0058	0.0051	0.00		6:09:11 PM
16	30318723001_44049x1	0.0083	0.0074	0.00	EPL	6:09:29 PM
17	30319042001_44049x1	0.0015	0.0011	0.00		6:12:11 PM
18	1730418_44049x1	0.0454	0.0416	0.00		6:12:29 PM
19	30318575003_44049x1	-0.0006	-0.0009	0.00	INV,LL	6:13:23 PM
R-5	CNBK (0 ppm)	-0.0002	-0.0005	0.00	INV,LL	6:13:41 PM
R-4	CNCV (0.2 ppm)	0.1974	0.1818	98.69		6:16:23 PM

Report Date :08/12/2019 **Run Date :08/12/2019** **Operator : WESTCO** **Plan # :20190812006**

Plan Description : CYN08122019E

Prep Log Report

Batch Information: WET 357056 flashpoint2

Template Version: F-PA-I-044-Rev.00 (05Nov2016)

Analysis Method	EPA 1010	Thermometer ID	170327318	Correction Factor (F)	0	Barometric Pressure (in Hg)	28.83
Corrected Barometric Pressure Factor (F)	1.6631	Instrument	30WET6	Analyzed By	CMR	p-Xylene	93223
Xylene Flash Pt (F)	79 deg. F	Acceptance Range:	+/- 2 deg. F	Batch Notes		Reviewed By	BKH
Reviewed By Date	08/16/2019 15:47						

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Matrix	Observed Flashpoint (F)	Flashpoint (F)	Sample Notes
WET GRAV_Q	CCVA	**CCVA**	N	08/16/2019 09:24:08	Water	77.7	79.36	
1010 W	BLANK	**1734120**	Y	08/16/2019 10:02:44	Water	>200	>200	
1010 W	PS	**30316656003**	Y	08/16/2019 10:47:58	Solid	>200	>200	
1010 W	DUP	**1734121**	Y	08/16/2019 11:04:33	Solid	>200	>200	
1010 W	PS	**30317044003**	Y	08/16/2019 11:49:14	Solid	>200	>200	
1010 W	PS	**10486667001**	Y	08/16/2019 12:17:10	Solid	>200	>200	
1010 W	PS	**10486667002**	Y	08/16/2019 12:54:14	Solid	>200	>200	
1010 W	PS	**30317660001**	Y	08/16/2019 13:29:31	Solid	>200	>200	
1010 W	PS	**30318386001**	Y	08/16/2019 14:04:35	Solid	>200	>200	
1010 W	PS	**30318799001**	Y	08/16/2019 14:26:45	Solid	>200	>200	
1010 W	PS	**30319357001**	Y	08/16/2019 14:48:29	Solid	>200	>200	
1010 W	PS	**30319358001**	Y	08/16/2019 15:15:44	Solid	>200	>200	

Prep Log Report

Batch Information: WET 356260/356263 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	08/12/2019 17:28:22:728	Instrument	30BA14
Date/Time On	08/12/2019 13:50:27:428	Date/Time Off	08/12/2019 17:27:56:024	Lead Acetate Solution	96217	Sulfuric Acid	94757
10N Sodium Hydroxide	96362	Reviewed By	EKM	Reviewed By Date	08/13/2019 17:55	Batch Notes	pip007

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1730406**	10.05	200	No			
733C S_P	BLANK	**1730416**	10.05	50	No			
734S S2_P	LCS	**1730407**	10	200	No			96344 (2)
733C S_P	LCS	**1730417**	10.01	50	No		84021 (1)	
734S S2_P	PS	**40192433001**	10	200	No			
733C S_P	PS	**40192433001**	10	50	No			
734S S2_P	PS	**30318712001**	10.06	200	No			
733C S_P	PS	**30318712001**	10.06	50	No			
734S S2_P	PS	**30318908001**	10.08	200	No			
733C S_P	PS	**30318908001**	10.08	50	No			
734S S2_P	PS	**30318533001**	10.04	200	No			
733C S_P	PS	**30318533001**	10.04	50	No			
734S S2_P	PS	**30318799001**	10.08	200	No			
733C S_P	PS	**30318799001**	10.08	50	No			
734S S2_P	PS	**30319005001**	10	200	No			
733C S_P	PS	**30319005001**	10	50	No			
734S S2_P	PS	**30319006001**	10.01	200	No			
733C S_P	PS	**30319006001**	10.01	50	No			
734S S2_P	PS	**30319006002**	10.02	200	No			
733C S_P	PS	**30319006002**	10.02	50	No			
734S S2_P	PS	**92440161002**	10	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**92440161002**	10	50	No			
734S S2_P	PS	**50232425001**	10.08	200	No			
733C S_P	PS	**50232425001**	10.08	50	No			
734S S2_P	PS	**30318722001**	10.03	200	No			
733C S_P	PS	**30318722001**	10.03	50	No			
734S S2_P	PS	**30318724001**	10	200	No			
733C S_P	PS	**30318724001**	10	50	No			
734S S2_P	PS	**30319046001**	10	200	No			
733C S_P	PS	**30319046001**	10	50	No			
734S S2_P	PS	**30318723001**	10.05	200	No			
733C S_P	PS	**30318723001**	10.05	50	No			
734S S2_P	PS	**30319042001**	10.08	200	No			
733C S_P	PS	**30319042001**	10.08	50	No			
734S S2_P	DUP	**1730408**	10	200	No			
733C S_P	DUP	**1730418**	10	50	No			
734S S2_P	PS	**30318855001**	10	200	No			
733C S_P	PS	**30318575003**	10.02	50	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

96344: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 356333 Rx Sulfide

Template Version: F-PA-I-032-Rev.00 (05Nov2016)

Analysis Method	SM 4500S2F-2011	Analyzed By	PAS	Instrument	30WET0	1:1 HCl (mL)	94047 (2)
Starch Indicator Solution (mL)	95291 (1)	Reviewed By	EKM	Reviewed By Date	08/13/2019 17:58	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Run Date/Time	Analysis Vol (mL)	Iodine 0.025N (mL)	Thio Start (mL)	Thio End (mL)	Sodium Thiosulfate 0.025N (mL)	Sulfide, Reactive (mg/L)	Dilution from Prep	Final Sulfide, Reactive (mg/kg)	Sample Notes
734S S2	BLANK	**1730406**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9005	0.0000	
734S S2	LCS	**1730407**	Y	08/12/2019 17:37:17	200	88037 (5)	0	4	74724 (4.00)	2.00	20.0000	40.0000	
734S S2	PS	**40192433001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30318712001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8807	0.0000	
734S S2	PS	**30318908001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30318533001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9203	0.0000	
734S S2	PS	**30318799001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30319005001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30319006001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9800	0.0000	
734S S2	PS	**30319006002**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9601	0.0000	
734S S2	PS	**92440161002**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**50232425001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	PS	**30318722001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9402	0.0000	
734S S2	PS	**30318724001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30319046001**	Y	08/12/2019 17:37:17	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30318723001**	Y	08/12/2019 17:37:18	200	88037 (0)	0	0	74724 (0.00)	0.00	19.9005	0.0000	
734S S2	PS	**30319042001**	Y	08/12/2019 17:37:18	200	88037 (0)	0	0	74724 (0.00)	0.00	19.8413	0.0000	
734S S2	DUP	**1730408**	Y	08/12/2019 17:37:18	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	
734S S2	PS	**30318855001**	Y	08/12/2019 17:37:18	200	88037 (0)	0	0	74724 (0.00)	0.00	20.0000	0.0000	

Prep Log Report

Batch Information: WET 356055 PH CURVE 08092019

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	PH CURVE	Daily Cal Slope	100.2	Cal Date/Time	08/09/2019 14:10:23:944	Analyzed By	ZMH
Instrument	30WETG	Reviewed By	BKH	Reviewed By Date	08/19/2019 15:23	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Notes	CAL-STD
WET pH_Q	CAL1	**CAL1**	Y		08/09/2019 14:17:52		1.99	1.99	1.99			91373 (1)
WET pH_Q	CAL2	**CAL2**	Y		08/09/2019 14:17:53		4.08	4.08	4.08			76233 (1)
WET pH_Q	CAL3	**CAL3**	Y		08/09/2019 14:17:54		7.01	7.01	7.01			80724 (1)
WET pH_Q	CAL4	**CAL4**	Y		08/09/2019 14:17:55		9.96	9.96	9.96			95297 (1)
WET pH_Q	CAL5	**CAL5**	Y		08/09/2019 14:17:56		12.82	12.82	12.82			80723 (1)
WET pH_Q	ICVA	**ICVA**	Y		08/09/2019 14:17:57		4.03	4.03	4.03			68828 (1)
WET pH_Q	ICVB	**ICVB**	Y		08/09/2019 14:17:59		6.98	6.98	6.98			84019 (1)

Standard Notes:

68828: 2nd pH 4 buffer
76233: WET 1st pH 4.0
80723: WET pH 13.0 Buffer
80724: WET pH 7.0 Buffer / CCV
84019: WC29-186-7 ICVB
91373: WET pH 2.0 Buffer
95297: WET pH 10.0 Buffer

Prep Log Report

Batch Information: WET 356118 356052 356053 PH

Template Version: F-PA-I-037-Rev.01 (03Mar2019)

Analysis Method	SM 4500H+B-2011	Daily Cal Slope	100.2	Cal Date/Time	08/09/2019 19:53:50:669	Analyzed By	ZMH
Instrument	30WETG	Balance ID	30BA14	Shaker On ID | Date/Time | Init	08/09/2019 19:53:52:586 | 08/09/2019 19:53 | ZMH	Shaker Off Date/Time | Init	08/09/2019 19:58 | ZMH
Reviewed By	BKH	Reviewed By Date	08/12/2019 16:14	Batch Notes	Consecutive readings must be within +/- 0.1 Std Unit		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Run Date/Time	Matrix	pH Reading #1	pH Reading #2	pH @ 25 deg C	Sample Temp (C)	Sample Weight (g)	Sample Notes	CAL-STD
WET pH_Q	CCV	**CCV**	Y		08/09/2019 21:09:30		6.99	6.96	6.99	19.6			80724 (1)
4500H+B	PS	**30318905001**	Y		08/09/2019 21:13:23	Water	7.39	7.36	7.39	18.9			
4500H+B	DUP	**1729741**	Y		08/09/2019 21:14:09	Water	7.45	7.41	7.45	19.2			
4500H+B	PS	**30318898001**	Y		08/09/2019 21:17:06	Water	6.66	6.58	6.66	18.1			
WET pH_Q	CCV	**CCV**	Y		08/09/2019 21:17:52		7	7.02	7	19.8			80724 (1)
9045 S	PS	**30318393001**	Y		08/09/2019 21:19:13	Solid	7.08	7.06	7.08	19.3	20.01		
9045 S	DUP	**1729377**	Y		08/09/2019 21:19:53	Solid	7.11	7.09	7.11	19.5	19.98		
9045 S	PS	**30318575003**	Y		08/09/2019 21:21:43	Solid	9.39	9.39	9.39	20.1	20.06		
9045 S	PS	**30318829001**	Y		08/09/2019 21:23:18	Solid	6.65	6.65	6.65	19.8	20.01		
9045 S	PS	**30318831001**	Y		08/09/2019 21:24:28	Solid	7.4	7.38	7.4	19.9	20.03		
9045 S	PS	**30318830001**	Y		08/09/2019 21:25:35	Solid	3.43	3.45	3.43	20.1	20.07		
9045 S	PS	**30318855001**	Y		08/09/2019 21:26:27	Solid	10.75	10.73	10.75	19.6	19.99		
9045 S	PS	**30318889001**	Y		08/09/2019 21:29:01	Solid	7.04	7.06	7.04	20.1	20.01		
9045 S	PS	**30318908001**	Y		08/09/2019 21:31:46	Solid	6.62	6.65	6.62	20.4	19.97		
9045D S	PS	**30318799001**	Y		08/09/2019 21:33:27	Solid	7.48	7.45	7.48	20.3	19.95		
9045D S	DUP	**1729379**	Y		08/09/2019 21:33:55	Solid	7.55	7.51	7.55	20.4	20.03		
WET pH_Q	CCV	**CCV**	Y		08/09/2019 21:35:43		6.99	6.97	6.99	20.3			80724 (1)

Standard Notes:

80724: WET pH 7.0 Buffer / CCV

Prep Log Report

Batch Information: WET 356260/356263 P Rx

Template Version: F-PA-I-031-Rev.00 (05Nov2016)

Prep Method	SW-846 7.3.4.2	Extracted By	PAS	Extracted Date/Time	08/12/2019 17:28:22:728	Instrument	30BA14
Date/Time On	08/12/2019 13:50:27:428	Date/Time Off	08/12/2019 17:27:56:024	Lead Acetate Solution	96217	Sulfuric Acid	94757
10N Sodium Hydroxide	96362	Reviewed By	EKM	Reviewed By Date	08/13/2019 17:55	Batch Notes	pip007

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
734S S2_P	BLANK	**1730406**	10.05	200	No			
733C S_P	BLANK	**1730416**	10.05	50	No			
734S S2_P	LCS	**1730407**	10	200	No			96344 (2)
733C S_P	LCS	**1730417**	10.01	50	No		84021 (1)	
734S S2_P	PS	**40192433001**	10	200	No			
733C S_P	PS	**40192433001**	10	50	No			
734S S2_P	PS	**30318712001**	10.06	200	No			
733C S_P	PS	**30318712001**	10.06	50	No			
734S S2_P	PS	**30318908001**	10.08	200	No			
733C S_P	PS	**30318908001**	10.08	50	No			
734S S2_P	PS	**30318533001**	10.04	200	No			
733C S_P	PS	**30318533001**	10.04	50	No			
734S S2_P	PS	**30318799001**	10.08	200	No			
733C S_P	PS	**30318799001**	10.08	50	No			
734S S2_P	PS	**30319005001**	10	200	No			
733C S_P	PS	**30319005001**	10	50	No			
734S S2_P	PS	**30319006001**	10.01	200	No			
733C S_P	PS	**30319006001**	10.01	50	No			
734S S2_P	PS	**30319006002**	10.02	200	No			
733C S_P	PS	**30319006002**	10.02	50	No			
734S S2_P	PS	**92440161002**	10	200	No			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Precipitate Present	Sample Notes	CN-SPK (mL)	S-SPK (mL)
733C S_P	PS	**92440161002**	10	50	No			
734S S2_P	PS	**50232425001**	10.08	200	No			
733C S_P	PS	**50232425001**	10.08	50	No			
734S S2_P	PS	**30318722001**	10.03	200	No			
733C S_P	PS	**30318722001**	10.03	50	No			
734S S2_P	PS	**30318724001**	10	200	No			
733C S_P	PS	**30318724001**	10	50	No			
734S S2_P	PS	**30319046001**	10	200	No			
733C S_P	PS	**30319046001**	10	50	No			
734S S2_P	PS	**30318723001**	10.05	200	No			
733C S_P	PS	**30318723001**	10.05	50	No			
734S S2_P	PS	**30319042001**	10.08	200	No			
733C S_P	PS	**30319042001**	10.08	50	No			
734S S2_P	DUP	**1730408**	10	200	No			
733C S_P	DUP	**1730418**	10	50	No			
734S S2_P	PS	**30318855001**	10	200	No			
733C S_P	PS	**30318575003**	10.02	50	No			

Standard Notes:

84021: WET Rx CN Spike Sol'n/2nd CN stock

96344: WET Rx Sulfide Spike Sol'n / 1000 ppm std

Prep Log Report

Batch Information: WET 356332 Rx CN

Template Version: F-PA-I-040-Rev.03 (03Apr2019)

Prep Method	SW-846 7.3.3.2	Analysis Method	EPA 9014	Prepared By	PAS	Prep Date Date/Time	08/12/2019 18:05:55:224
Instrument	30wta1	Chloramine-T Soln. (CN)	96398	NaOH Soln.	None Added	Pyridine-Barbituric Acid Reage	94555
Reviewed By	EKM	Reviewed By Date	08/13/2019 17:55	Batch Notes	Instrument Traceability- (pip007, wc20-98-12), NaOH (92733), Phos Buffer (96026)		

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
WETA CN_Q	CCV	**CCV**				No			96406 (1)
WETA CN_Q	CCB	**CCB**				No			96401 (1)
WETA CN_Q	CAL0	**CAL0**				No			96401 (1)
WETA CN_Q	CAL1	**CAL1**				No			96402 (1)
WETA CN_Q	CAL2	**CAL2**				No			96403 (1)
WETA CN_Q	CAL3	**CAL3**				No			96404 (1)
WETA CN_Q	CAL4	**CAL4**				No			96405 (1)
WETA CN_Q	CAL5	**CAL5**				No			96406 (1)
WETA CN_Q	CAL6	**CAL6**				No			96407 (1)
WETA CN_Q	ICB	**ICB**				No			96401 (1)
WETA CN_Q	ICV	**ICV**				No			96408 (1)
733C S2	BLANK	**1730416**		10.05	50	No	Solid		
733C S2	LCS	**1730417**		10.01	50	No	Solid		
733C S2	PS	**40192433001**		10	50	No	Solid		
733C S2	PS	**30318712001**		10.06	50	No	Solid		
733C S2	PS	**30318908001**		10.08	50	No	Solid		
733C S2	PS	**30318533001**		10.04	50	No	Solid		
733C S2	PS	**30318799001**		10.08	50	No	Solid		
733C S2	PS	**30319005001**		10	50	No	Solid		
733C S2	PS	**30319006001**		10.01	50	No	Solid		
733C S2	PS	**30319006002**		10.02	50	No	Solid		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Amount (g | mL)	Final Volume (mL)	Filtered	Matrix	Sample Notes	CAL-STD
733C S2	PS	**92440161002**		10	50	No	Solid		
733C S2	PS	**50232425001**		10.08	50	No	Water		
733C S2	PS	**30318722001**		10.03	50	No	Solid		
733C S2	PS	**30318724001**		10	50	No	Solid		
733C S2	PS	**30319046001**		10	50	No	Solid		
733C S2	PS	**30318723001**		10.05	50	No	Solid		
733C S2	PS	**30319042001**		10.08	50	No	Solid		
733C S2	DUP	**1730418**		10	50	No	Solid		
733C S2	PS	**30318575003**		10.02	50	No	Solid		

Standard Notes:

96401: WET CN CAL0 **96402: WET-CN-CAL1** **96403: WET-CN-CAL2** **96404: WET-CN-CAL3**
96405: WET-CN-CAL4 **96406: WET-CN-CAL5** **96407: WET-CN-CAL6** **96408: CN ICV**

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MV6A

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1730356	1730356LB	106	98	109	99
1731938	1731938MS	98	98	99	97
1731939	1731939MSD	105	101	101	98
1731940	1731940LCS	109	100	109	96
30318799001	AOC 32 DITCH & AOC 35G	113	99	110	99

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(70-130)
(BFB) = 4-Bromofluorobenzene (S)	(70-130)
(DIBF) = Dibromofluoromethane (S)	(70-130)
(TOL8) = Toluene-d8 (S)	(70-130)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1731940LCS
Date Extracted: 08/14/2019
Date Analyzed (1): 08/14/2019
Instrument: 30MV6A
LCS Lot No: 96668
Lab File ID: 6190814.B\1.B\60814009-45779.D
SDG No.: 30318799

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Benzene	20.0	17.3	87	63-110
2-Butanone (MEK)	20.0	17.4	87	46-117
Carbon tetrachloride	20.0	18.8	94	59-114
Chlorobenzene	20.0	17.4	87	70-130
Chloroform	20.0	17.4	87	65-108
1,2-Dichloroethane	20.0	17.5	88	57-110
1,1-Dichloroethene	20.0	16.2	81	45-124
Tetrachloroethene	20.0	16.2	81	64-114
Trichloroethene	20.0	16.9	84	61-112
Vinyl chloride	20.0	20.4	102	54-142

Spike Recovery: 0 out of 10 outside limits.

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1731938MS

Date Extracted: 08/14/2019

Date Analyzed (1): 08/14/2019

Instrument: 30MV6A

Lab File ID: 6190814.B\1.B\60814049.D

Parent Sample ID: AOC 32 DITCH & AOC 35G

SDG No.: 30318799

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1-Dichloroethene	200	ND	91.7	46	10-133
1,2-Dichloroethane	200	ND	157	79	24-111
2-Butanone (MEK)	200	ND	157	79	10-175
Benzene	200	ND	147	74	15-121
Carbon tetrachloride	200	ND	148	74	20-125
Chlorobenzene	200	ND	176	85	10-122
Chloroform	200	ND	161	81	27-117
Tetrachloroethene	200	ND	173	86	13-125
Trichloroethene	200	ND	167	80	10-133
Vinyl chloride	200	ND	ND	0	10-133

Spike Recovery: 1 out of 10 outside limits.

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV6A Matrix Spike Duplicate - Sample No: 1731939MSD

Lab File ID (2): 6190814.B\1.B\60814051.D Date Analyzed (2): 08/14/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	200	73.7	37	22	0-30	10-133
1,2-Dichloroethane	200	118	59	28	0-30	24-111
2-Butanone (MEK)	200	123	61	24	0-30	10-175
Benzene	200	100	50	38	0-30	15-121
Carbon tetrachloride	200	113	56	27	0-30	20-125
Chlorobenzene	200	137	65	25	0-30	10-122
Chloroform	200	125	63	25	0-30	27-117
Tetrachloroethene	200	130	65	28	0-30	13-125
Trichloroethene	200	122	58	31	0-30	10-133
Vinyl chloride	200	ND	0		0-30	10-133

RPD: 2 out of 9 outside limits.

Spike Recovery: 1 out of 10 outside limits.

SAMPLE NO.

1730356LB

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MV6A Matrix: Solid Lab Sample ID: 1730356

Lab File ID: 6190814.B\1.B\60814023-45779.D Date Analyzed: 08/14/2019 Time: 13:24

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1731940LCS	1731940	6190814.B\1.B\60814009-45779.D	08/14/2019 10:22
AOC 32 DITCH & AOC 35G	30318799001	6190814.B\1.B\60814047.D	08/14/2019 18:34
1731938MS	1731938	6190814.B\1.B\60814049.D	08/14/2019 19:00
1731939MSD	1731939	6190814.B\1.B\60814051.D	08/14/2019 19:26

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: 6190813.B\1.B\60813011.D BFB Injection Date 08/13/2019
Instrument ID: 30MV6A BFB Injection Time 13:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	20.64	
75	30.00 - 60.00% of mass 95	46.28	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.71	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	87.90	
175	5.00 - 9.00% of mass 174	6.56	(7.47)[1]
176	95.00 - 101.00% of mass 174	85.44	(97.19)[1]
177	5.00 - 9.00% of mass 176	5.70	(6.67)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11481125CAL1	11481125CAL1	6190813.B\1.B\60813013.D	08/13/2019	14:23
11474331CAL2	11474331CAL2	6190813.B\1.B\60813015.D	08/13/2019	14:49
11474330CAL3	11474330CAL3	6190813.B\1.B\60813017.D	08/13/2019	15:15
11474332CAL4	11474332CAL4	6190813.B\1.B\60813019.D	08/13/2019	15:41
11474333CAL5	11474333CAL5	6190813.B\1.B\60813021.D	08/13/2019	16:07
11474334CAL6	11474334CAL6	6190813.B\1.B\60813023.D	08/13/2019	16:32
11474329CAL7	11474329CAL7	6190813.B\1.B\60813025.D	08/13/2019	16:58
11474328CAL8	11474328CAL8	6190813.B\1.B\60813027.D	08/13/2019	17:24
11474327ICV	11474327ICV	6190813.B\1.B\60813031.D	08/13/2019	18:16

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: 6190814.B\1.B\60814005-BFB.D BFB Injection Date 08/14/2019
Instrument ID: 30MV6A BFB Injection Time 09:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	19.72	
75	30.00 - 60.00% of mass 95	45.54	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.72	
173	Less than 2.00% of mass 174	0.00	
174	Greater than 50.00% of mass 95	88.01	
175	5.00 - 9.00% of mass 174	6.36	(7.23)[1]
176	95.00 - 101.00% of mass 174	85.04	(96.62)[1]
177	5.00 - 9.00% of mass 176	5.54	(6.52)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11398786CCV	11398786CCV	6190814.B\1.B\60814005.D	08/14/2019	09:30
1731940LCS	1731940LCS	6190814.B\1.B\60814009-45779.D	08/14/2019	10:22
1730356LB	1730356LB	6190814.B\1.B\60814023-45779.D	08/14/2019	13:24
AOC 32 DITCH & AOC 35G	30318799001	6190814.B\1.B\60814047.D	08/14/2019	18:34
1731938MS	1731938MS	6190814.B\1.B\60814049.D	08/14/2019	19:00
1731939MSD	1731939MSD	6190814.B\1.B\60814051.D	08/14/2019	19:26

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11398786CCV Date Analyzed: 08/14/2019

Instrument ID: 30MV6A GC Column: Col 1 Time Analyzed: 09:30

Lab File ID: 6190814.B\1.B\60814005.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		277666	5.888	164337	6.87	365292	4.527
UPPER LIMIT		555332	6.388	328674	7.37	730584	5.027
LOWER LIMIT		138833	5.388	82168.5	6.37	182646	4.027
LAB SAMPLE ID	SAMPLE NO.						
1730356	1730356LB	276132	5.888	163348	6.87	300339	4.527
1731938	1731938MS	261083	5.888	154300	6.87	322479	4.527
1731939	1731939MSD	259407	5.888	150370	6.87	313154	4.527
1731940	1731940LCS	279303	5.888	164689	6.87	322308	4.527
30318799001	AOC 32 DITCH & AOC 35G	262489	5.888	153174	6.87	284263	4.527

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 32 DITCH & AOC 35G

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 18:34 Lab Sample ID: 30318799001

Date Analyzed: 08/14/2019 18:34 Lab File ID: 6190814.B\1.B\60814047.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 14-AUG-2019 18:34
Operator : ARG Inst ID: 30mv6a.i
Smp Info : 30318799001x10
Misc Info : 45779
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclpplus.sub
Target Version: RC10A
Processing Host: 30MSV2WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
	20 Methyl-tert-butyl ether	73	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	2307		(a)	
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	84557	32.8685	32.9	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	83367	33.8972	33.9	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	284263	30.0000		
	50 Trichloroethene	95	4.617	4.614	(0.784)	1490	0.66534	6.65(aQ)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	305949	29.5665	29.6	
	59 Toluene	91	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	262489	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	4523	0.68169	6.82(aQ)	
	70 Ethylbenzene	106	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Report Date: 15-Aug-2019 08:08

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	74	m&p-Xylene	106	Compound Not Detected.						
	75	o-Xylene	106	Compound Not Detected.						
	78	Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79	4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	110753	29.7127	29.7	
	83	1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	90	1,2,4-Trimethylbenzene	105	Compound Not Detected.						
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	153174	30.0000		
	102	Naphthalene	128	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814047.d
Lab Smp Id: 30318799001
Analysis Type: VOA
Quant Type: ISTD
Operator: ARG
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: AOC 32 DITCH &
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	284263	-22.18
71 Chlorobenzene-d5	277666	138833	555332	262489	-5.47
94 1,4-Dichlorobenze	164337	82169	328674	153174	-6.79

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: WSP Environment & E
Client SDG: 30318799
Sample Matrix: Solid
Fraction: VOA
Lab Smp Id: 30318799001
Client Smp ID: AOC 32 DITCH & AOC
Level: LOW
Operator: ARG
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: lcs.spk
Quant Type: ISTD
Sublist File: tclpplus.sub
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	32.9	109.56	0-130
$ 45 1,2-Dichloroethane	30.0	33.9	112.99	0-138
$ 58 Toluene-d8 (S)	30.0	29.6	98.56	0-124
$ 79 4-Bromofluorobenze	30.0	29.7	99.04	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

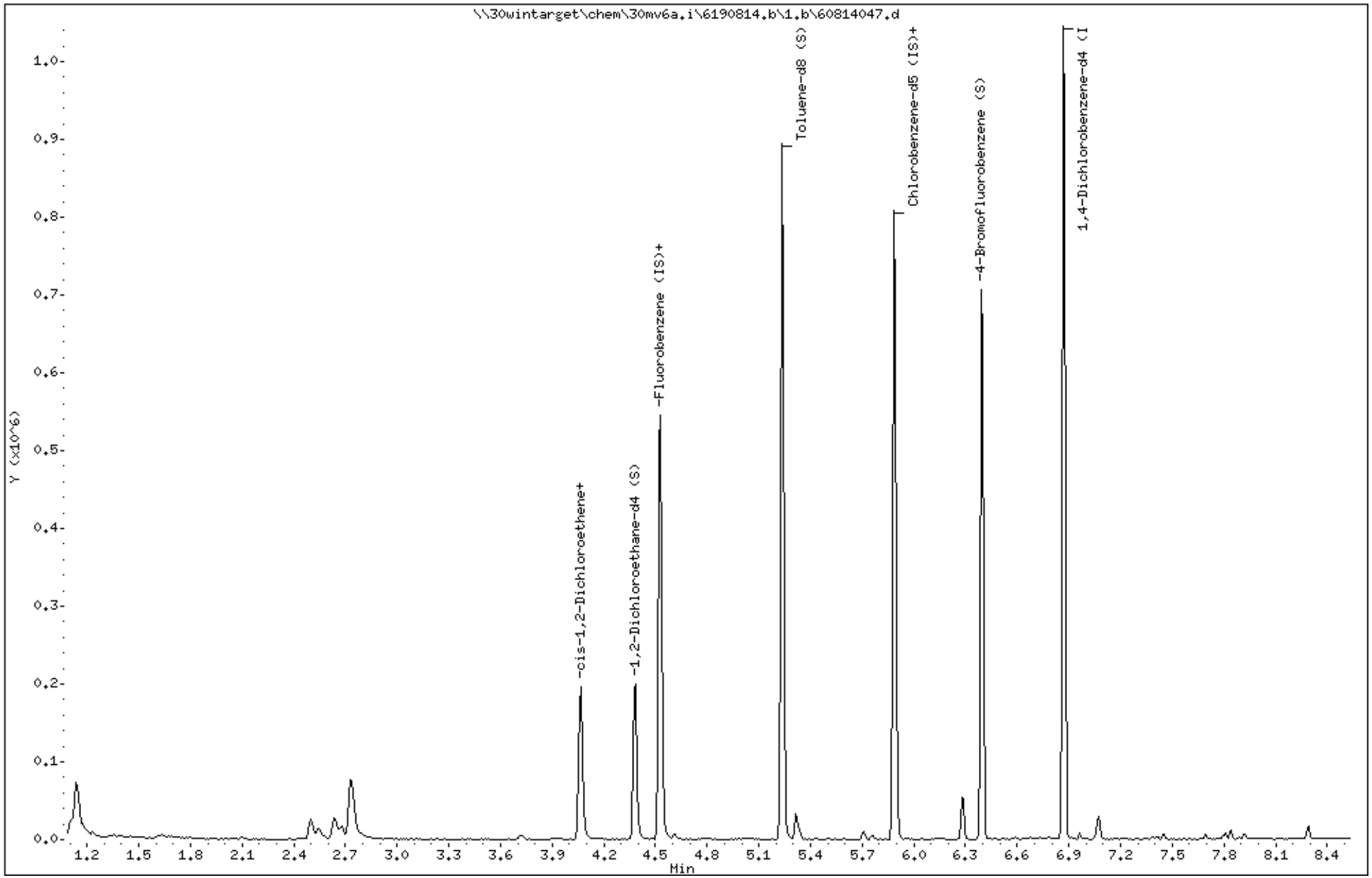
Client Name: WSP Environment & E
Client SDG: 30318799
Lab Smp Id: 30318799001
Client Smp ID: AOC 32 DITCH & AOC
Sample Location:
Sample Point:
Sample Date: 08-AUG-2019
Date Received: 09-AUG-2019
Sample Matrix: SOIL
Quant Type: ISTD
Analysis Type: VOA
Level: LOW
Data Type: MS DATA
Operator: ARG
Misc Info: 45779

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
156-59-2	cis-1,2-Dichloroethene	0.000	J
79-01-6	Trichloroethene	6.65	J
108-90-7	Chlorobenzene	6.82	J
1868-53-7	Dibromofluoromethane (S)	32.9	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.9	
2037-26-5	Toluene-d8 (S)	29.6	
460-00-4	4-Bromofluorobenzene (S)	29.7	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d
Date : 14-AUG-2019 18:34
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001x10

Instrument: 30mv6a.i

Operator: ARG
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d

Date : 14-AUG-2019 18:34

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

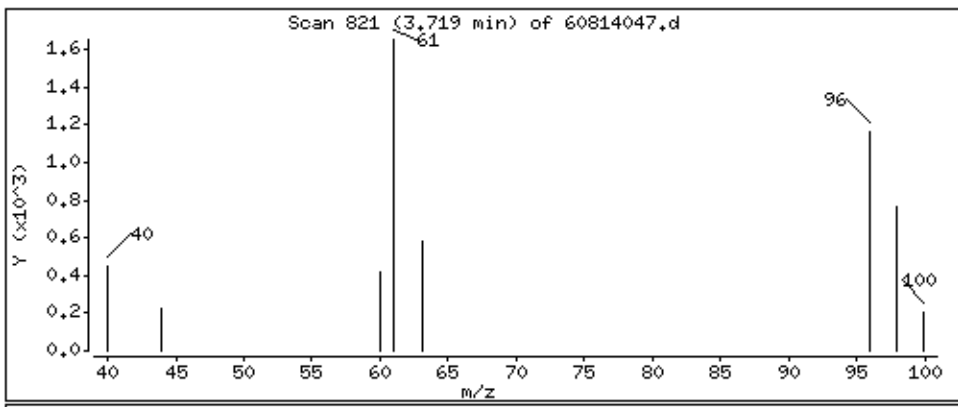
Sample Info: 30318799001x10

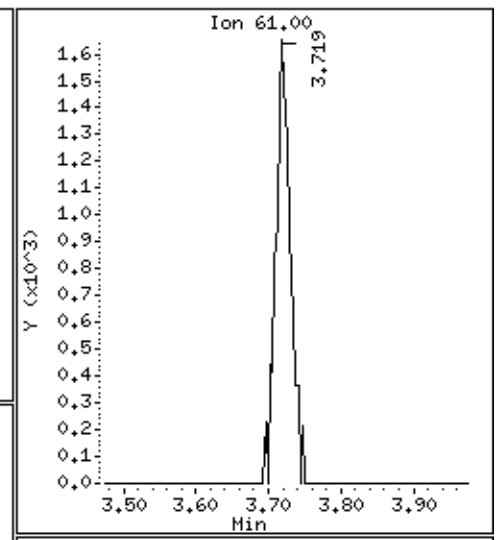
Operator: ARG

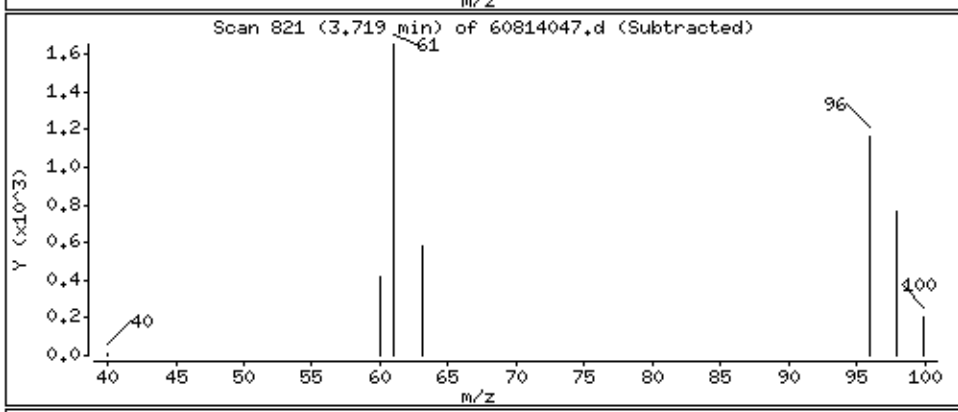
Column phase: RTX-VMS

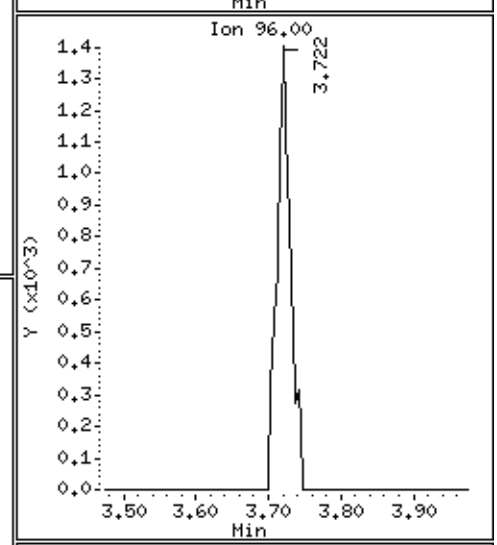
Column diameter: 0.18

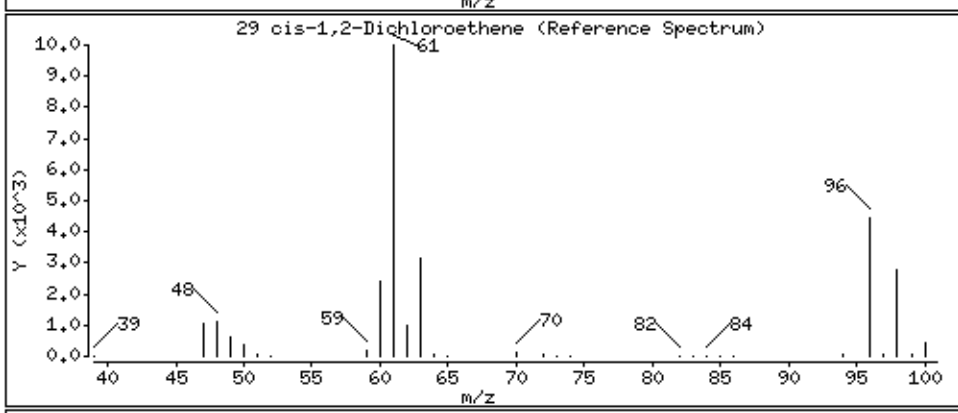
29 cis-1,2-Dichloroethene

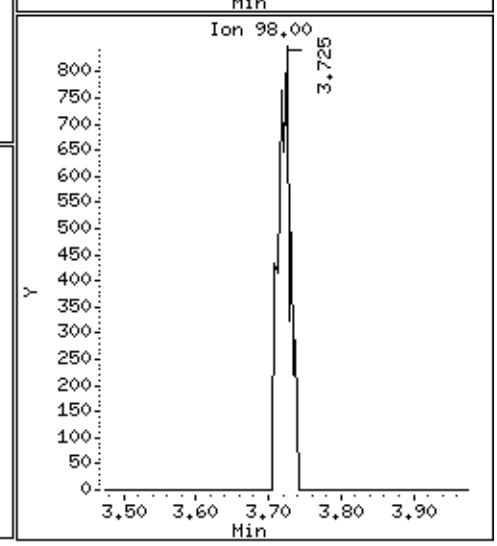


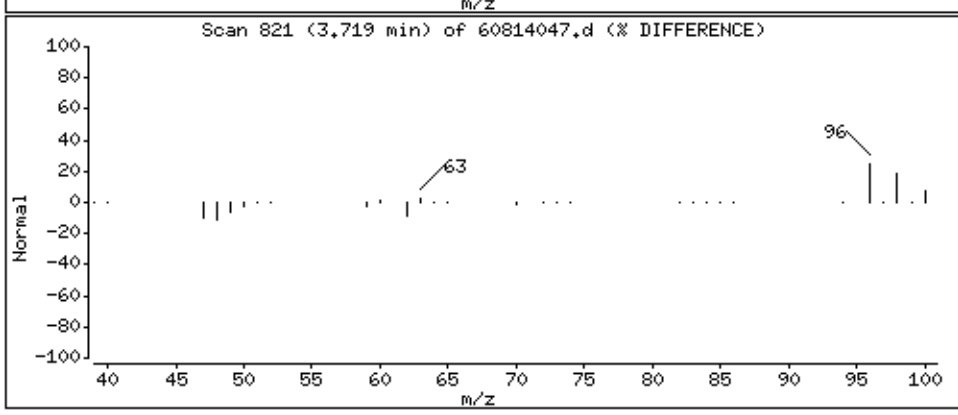












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d

Date : 14-AUG-2019 18:34

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 30318799001x10

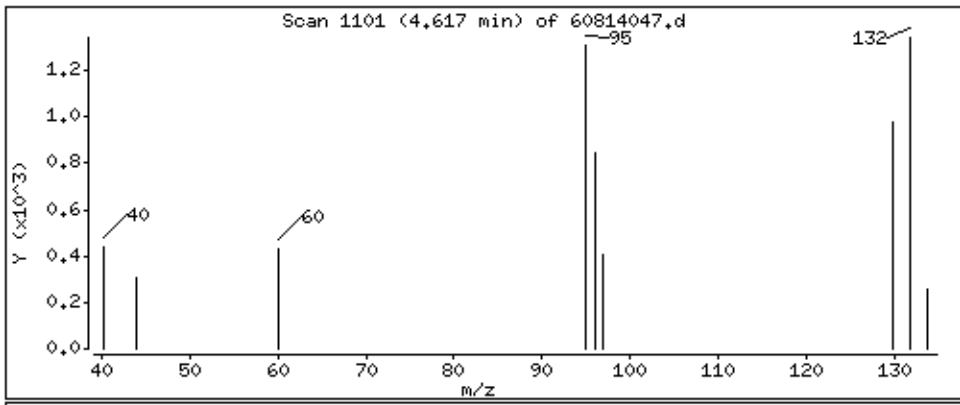
Operator: ARG

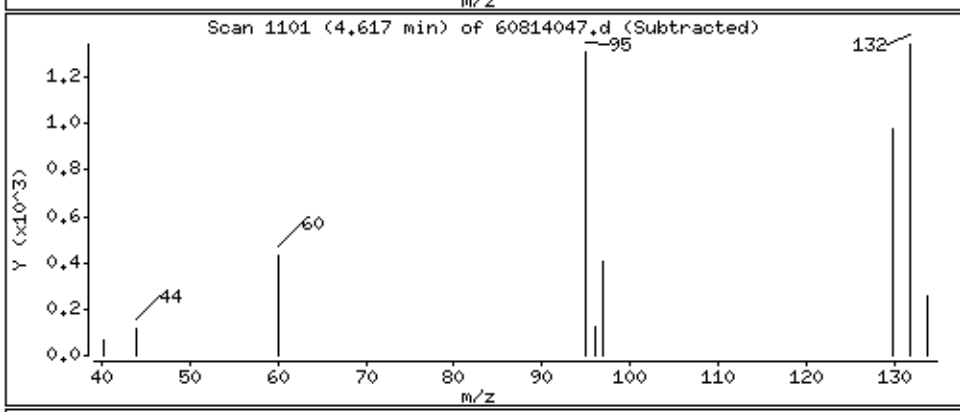
Column phase: RTX-VMS

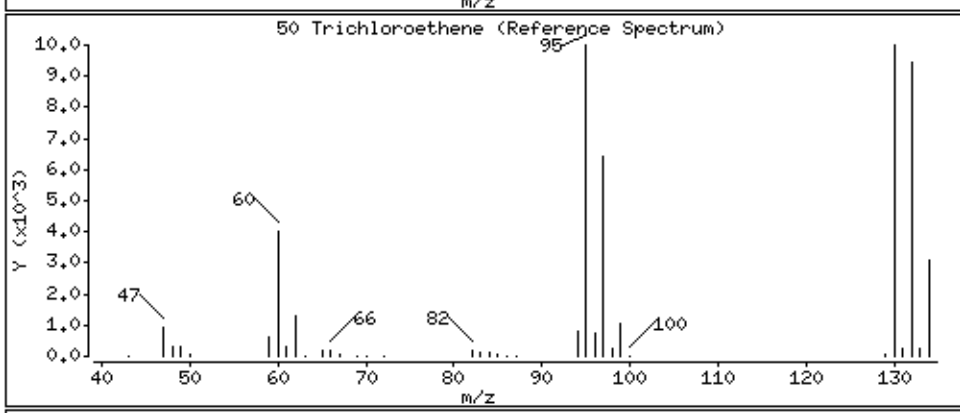
Column diameter: 0.18

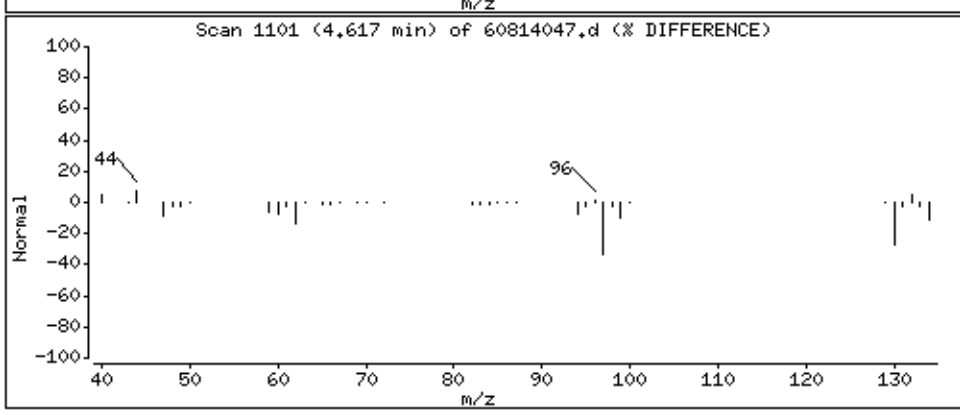
50 Trichloroethene

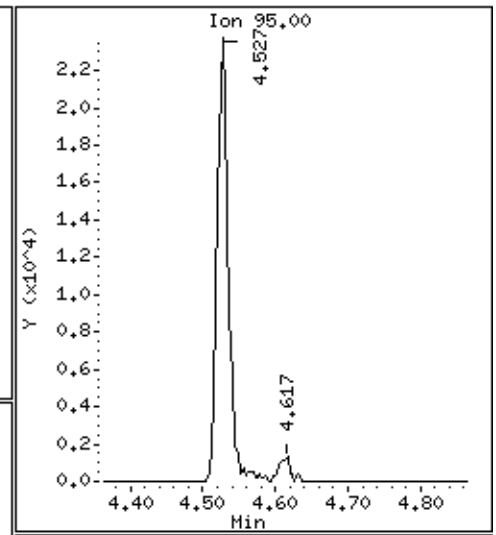
Concentration: 6.65 ug/kg

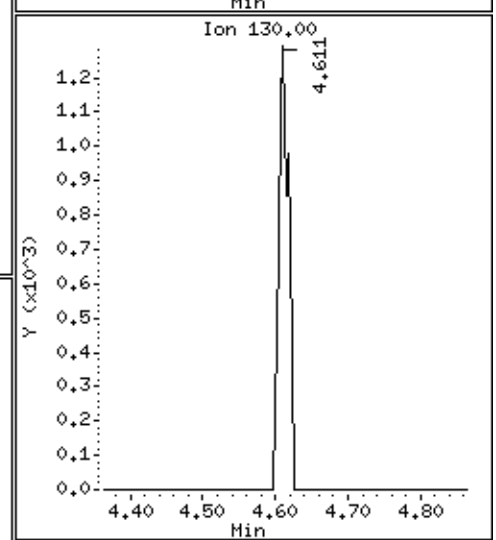


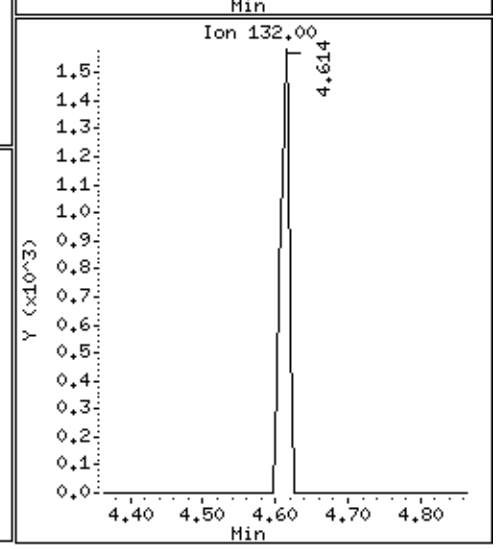












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814047.d

Date : 14-AUG-2019 18:34

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 30318799001x10

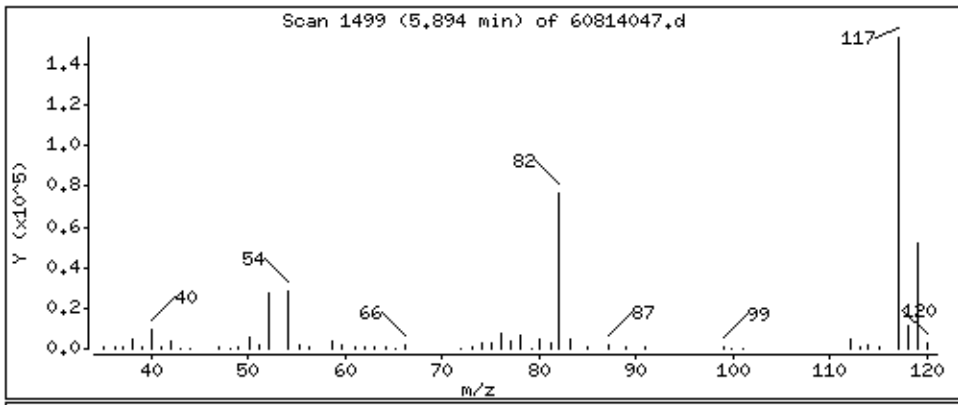
Operator: ARG

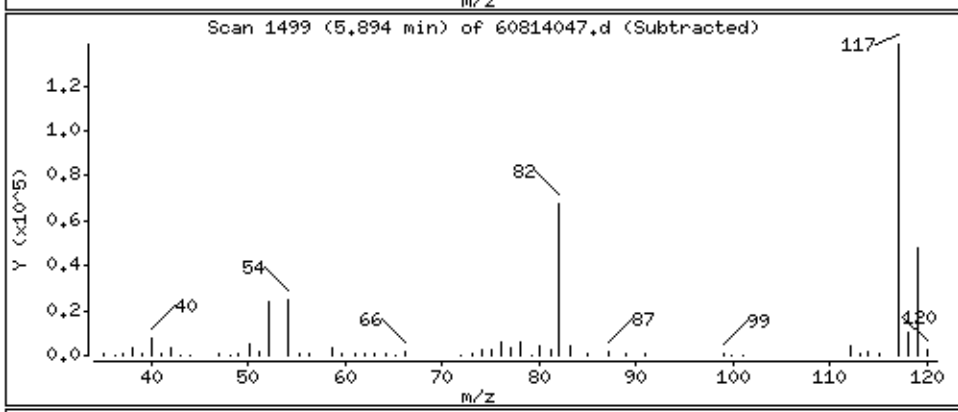
Column phase: RTX-VMS

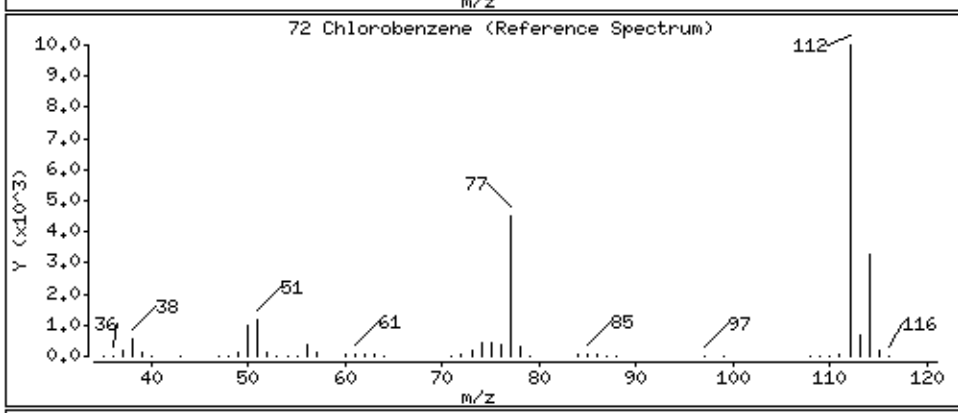
Column diameter: 0.18

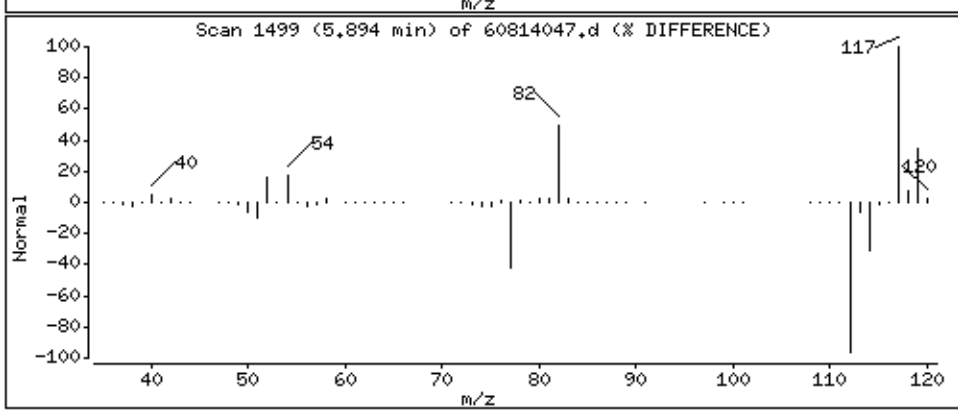
72 Chlorobenzene

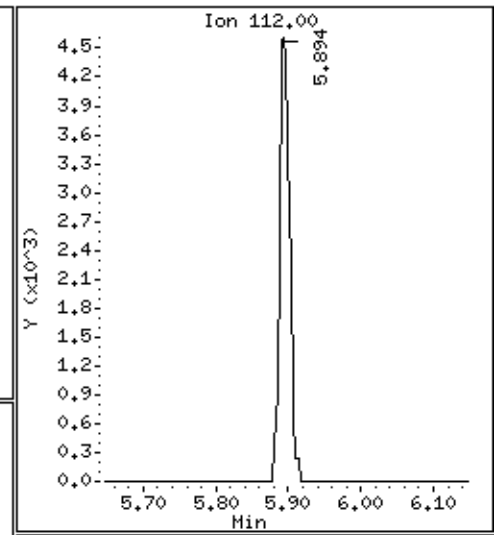
Concentration: 6.82 ug/kg

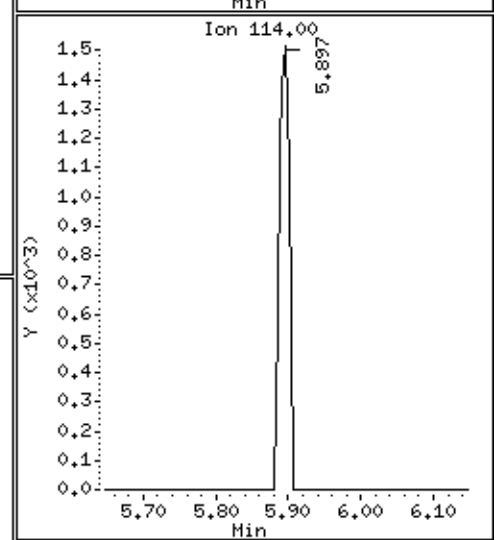


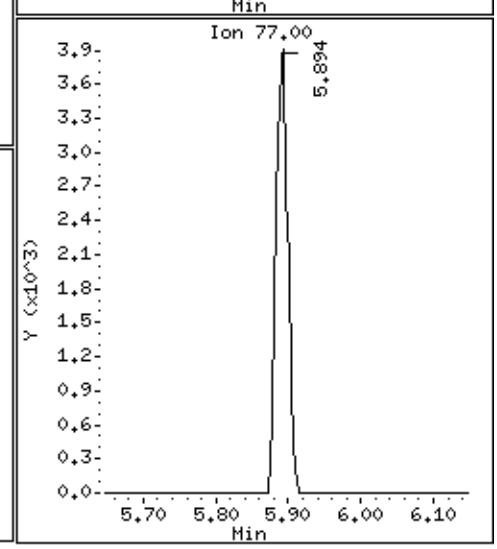












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814047.d
Injection Date: 14-AUG-2019 18:34
Instrument: 30mv6a.i
Lab Sample ID: 30318799001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/13/2019 08/13/2019 Calibration Time(s): 14:23 17:24

LAB FILE ID

CAL1 = 6190813.B\1.B\60813013.D CAL2 = 6190813.B\1.B\60813015.D CAL3 = 6190813.B\1.B\60813017.D

CAL4 = 6190813.B\1.B\60813019.D CAL5 = 6190813.B\1.B\60813021.D CAL6 = 6190813.B\1.B\60813023.D

CAL7 = 6190813.B\1.B\60813025.D CAL8 = 6190813.B\1.B\60813027.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Benzene	Quadratic	0.48168	0.81289	0.83339	0.82842	0.80777	0.72475
2-Butanone (MEK)	Averaged		0.16321	0.14971	0.15839	0.14195	0.13650
Carbon tetrachloride	Averaged		0.25394	0.25183	0.26656	0.25674	0.22968
Chlorobenzene	Averaged		0.74170	0.77989	0.81060	0.78368	0.73416
Chloroform	Averaged		0.41895	0.40800	0.39009	0.35457	0.31494
1,2-Dichloroethane	Averaged		0.33227	0.32643	0.29998	0.27709	0.25134
1,1-Dichloroethene	Averaged		0.37002	0.34199	0.29990	0.30448	0.26439
Tetrachloroethene	Averaged		0.24827	0.23394	0.29201	0.29444	0.28199
Trichloroethene	Averaged		0.20422	0.24186	0.27685	0.28468	0.25961
Vinyl chloride	Quadratic		0.30349	0.28012	0.26007	0.23427	0.20402
4-Bromofluorobenzene (S)	Averaged		0.72245	0.72737	0.73236	0.72608	0.73251
Dibromofluoromethane (S)	Averaged		0.31368	0.29910	0.27276	0.26108	0.25278
1,2-Dichloroethane-d4 (S)	Averaged		0.29575	0.27968	0.25456	0.25132	0.23789
Toluene-d8 (S)	Averaged		1.13480	1.13937	1.15789	1.16664	1.22481

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/13/2019 08/13/2019 Calibration Time(s): 14:23 17:24

LAB FILE ID

CAL1 = 6190813.B\1.B\60813013.D CAL2 = 6190813.B\1.B\60813015.D CAL3 = 6190813.B\1.B\60813017.D

CAL4 = 6190813.B\1.B\60813019.D CAL5 = 6190813.B\1.B\60813021.D CAL6 = 6190813.B\1.B\60813023.D

CAL7 = 6190813.B\1.B\60813025.D CAL8 = 6190813.B\1.B\60813027.D

COMPOUND	CURVE TYPE	CAL7	CAL8
Benzene	Quadratic	0.69678	0.73854
2-Butanone (MEK)	Averaged	0.14647	0.14695
Carbon tetrachloride	Averaged	0.22562	0.24956
Chlorobenzene	Averaged	0.72400	0.73416
Chloroform	Averaged	0.31012	0.32262
1,2-Dichloroethane	Averaged	0.25568	0.25796
1,1-Dichloroethene	Averaged	0.24694	0.27423
Tetrachloroethene	Averaged	0.26790	0.28216
Trichloroethene	Averaged	0.26095	0.26347
Vinyl chloride	Quadratic	0.19422	0.21276
4-Bromofluorobenzene (S)	Averaged	0.72908	0.74047
Dibromofluoromethane (S)	Averaged	0.25637	0.24473
1,2-Dichloroethane-d4 (S)	Averaged	0.24819	0.24950
Toluene-d8 (S)	Averaged	1.23481	1.22028

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV6A GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/13/2019 08/13/2019 Calibration Time(s): 14:23 17:24

LAB FILE ID

CAL1 = 6190813.B\1.B\60813013.D CAL2 = 6190813.B\1.B\60813015.D CAL3 = 6190813.B\1.B\60813017.D

CAL4 = 6190813.B\1.B\60813019.D CAL5 = 6190813.B\1.B\60813021.D CAL6 = 6190813.B\1.B\60813023.D

CAL7 = 6190813.B\1.B\60813025.D CAL8 = 6190813.B\1.B\60813027.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Benzene	Quadratic		0.99943	0.06939870	0.67240	0.00446
2-Butanone (MEK)	Averaged	6.16773			0.14903	
Carbon tetrachloride	Averaged	5.96376			0.24771	
Chlorobenzene	Averaged	4.32783			0.75831	
Chloroform	Averaged	12.74782			0.35990	
1,2-Dichloroethane	Averaged	11.91393			0.28582	
1,1-Dichloroethene	Averaged	14.53651			0.30028	
Tetrachloroethene	Averaged	8.41725			0.27153	
Trichloroethene	Averaged	10.37689			0.25595	
Vinyl chloride	Quadratic		0.99928	0.04965230	0.17460	0.00255
4-Bromofluorobenzene (S)	Averaged	0.79420			0.73005	
Dibromofluoromethane (S)	Averaged	9.44606			0.27150	
1,2-Dichloroethane-d4 (S)	Averaged	7.87628			0.25956	
Toluene-d8 (S)	Averaged	3.61154			1.18266	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 13-AUG-2019 14:23
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal1, 96575:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.228	(0.271)	2140	2.50000	1.22(aQM)	LT
2	Chloromethane	50	1.347	1.347	(0.297)	4228	2.50000	2.36(a)	
3	Vinyl chloride	62	1.395	1.395	(0.308)	2758	2.50000	1.36(aQ)	
4	Bromomethane	94	1.584	1.585	(0.350)	1051	2.50000	1.52(a)	
5	Chloroethane	64	1.661	1.662	(0.367)	3321	2.50000	2.82(M)	LT
6	Trichlorofluoromethane	101	1.741	1.742	(0.384)	3479	2.50000	1.46(a)	
7	Diethyl ether (Ethyl ether)	59	1.944	1.944	(0.429)	4598	2.50000	2.20(aM)	LT
8	Ethanol	45	Compound Not Detected.						
9	1,1-Dichloroethene	61	2.078	2.079	(0.459)	4093	2.50000	1.30(a)	
10	1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	1661	2.50000	1.18(aQ)	
11	Carbon disulfide	76	2.104	2.104	(0.465)	9325	2.50000	2.06(aQ)	
12	Iodomethane	142	2.181	2.181	(0.482)	812	2.50000	0.725(aQ)	
13	Acrolein	56	2.325	2.326	(0.513)	840	2.50000	2.57(QM)	NI
14	Allyl chloride	41	2.418	2.419	(0.534)	26259	12.5000	8.48(Q)	
15	Methylene Chloride	49	2.502	2.502	(0.552)	24545	2.50000	8.37	
16	Acetone	43	2.553	2.554	(0.564)	16774	2.50000	18.4(Q)	
17	trans-1,2-Dichloroethene	61	2.627	2.627	(0.580)	4591	2.50000	1.48(a)	
18	Methyl acetate	74	2.640	2.640	(0.583)	1148	2.50000	2.59(Q)	
19	n-Hexane	86	2.682	2.682	(0.592)	12452	2.50000	22.0(Q)	
20	Methyl-tert-butyl ether	73	2.714	2.714	(0.599)	10892	2.50000	1.78(aQ)	
21	tert-Butyl Alcohol	59	2.797	2.798	(0.618)	5378	12.5000	10.8(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.954	2.955	(0.652)	3985	12.5000	12.4(QM)	NI
	23 Diisopropyl ether	45	3.054	3.054	(0.674)	11971	2.50000	1.68(a)	
	24 Chloroprene	53	3.147	3.147	(0.695)	3310	2.50000	1.10(aM)	LT
	25 1,1-Dichloroethane	63	3.179	3.179	(0.702)	6450	2.50000	1.59(a)	
	26 Acrylonitrile	53	3.246	3.247	(0.717)	2186	2.50000	2.03(aQ)	
	27 Ethyl-tert-butyl ether	59	3.426	3.427	(0.756)	11823	2.50000	1.75(a)	
	28 Vinyl acetate	43	3.439	3.439	(0.759)	9990	2.50000	1.83(a)	
	29 cis-1,2-Dichloroethene	61	3.724	3.725	(0.822)	5425	2.50000	1.98(a)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.840)	4151	2.50000	1.37(aQ)	
	31 Cyclohexane	56	3.875	3.876	(0.856)	4129	2.50000	1.11(a)	
	32 Bromochloromethane	130	3.882	3.882	(0.857)	3319	2.50000	2.07(a)	
	33 Chloroform	83	3.943	3.943	(0.870)	6821	2.50000	1.80(aQ)	
	34 Carbon tetrachloride	117	4.023	4.022	(0.888)	2643	2.50000	1.02(aQ)	
	35 Ethyl acetate	43	4.039	4.038	(0.892)	5556	2.50000	2.14(aQM)	LT
	36 Tetrahydrofuran	42	4.055	4.054	(0.895)	4235	2.50000	3.31(Q)	
$	37 Dibromofluoromethane (S)	111	4.068	4.067	(0.898)	94409	30.0000	33.1	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.899)	4337	2.50000	1.33(a)	
	39 2-Butanone (MEK)	43	4.158	4.158	(0.918)	4388	2.50000	2.80(QM)	NI
	40 1,1-Dichloropropene	75	4.151	4.152	(0.916)	2985	2.50000	1.10(a)	
	41 Benzene	78	4.305	4.306	(0.950)	12641	2.50000	1.72(aQ)	
	42 Propionitrile	54	4.334	4.335	(0.957)	1380	2.50000	2.79(Q)	
	43 Methacrylonitrile	41	4.341	4.341	(0.958)	3213	2.50000	2.12(aQM)	LT
	44 tert-Amylmethyl ether	73	4.373	4.373	(0.965)	10738	2.50000	1.92(aQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.967)	87398	30.0000	32.1	
	46 Isobutanol	43	4.446	4.447	(0.982)	1424	12.5000	7.97(QM)	NI
	47 1,2-Dichloroethane	62	4.418	4.418	(0.975)	6405	2.50000	2.13(a)	
*	48 Fluorobenzene (IS)	96	4.530	4.530	(1.000)	314926	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	3084	2.50000	1.02(a)	
	50 Trichloroethene	95	4.613	4.614	(0.783)	2932	2.50000	1.21(a)	
	51 Dibromomethane	174	4.815	4.816	(1.063)	3237	2.50000	2.03(a)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	3654	2.50000	1.61(a)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	4512	2.50000	1.71(a)	
	54 Methyl methacrylate	69	4.953	4.954	(1.093)	3010	2.50000	1.95(a)	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.980	(1.099)	728	25.0000	20.4(QM)	NI
	56 2-Chloroethylvinyl ether	63	5.133	5.134	(1.133)	912	2.50000	1.74(aQ)	
	57 cis-1,3-Dichloropropene	75	5.162	5.163	(1.140)	5022	2.50000	1.52(a)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	324407	30.0000	29.0	
	59 Toluene	91	5.258	5.259	(0.893)	15921	2.50000	1.57(a)	
	60 2-Nitropropane	43	5.364	5.365	(1.184)	5870	12.5000	8.38(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.419	5.419	(1.196)	6282	2.50000	2.29(a)	
	62 Tetrachloroethene	166	5.425	5.426	(0.921)	3173	2.50000	1.24(a)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	5447	2.50000	1.54(a)	
	64 Ethyl methacrylate	41	5.489	5.490	(0.932)	4733	2.50000	1.96(aQ)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.934)	3640	2.50000	1.71(a)	
	66 Dibromochloromethane	129	5.582	5.583	(0.948)	4083	2.50000	1.60(a)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	6686	2.50000	1.83(a)	
	68 1,2-Dibromoethane (EDB)	107	5.685	5.686	(0.965)	3996	2.50000	1.73(a)	
	69 2-Hexanone	43	5.759	5.759	(0.978)	5658	2.50000	2.30(aQ)	
	70 Ethylbenzene	106	5.900	5.901	(1.002)	5308	2.50000	1.40(a)	
*	71 Chlorobenzene-d5 (IS)	117	5.890	5.891	(1.000)	283783	30.0000		
	72 Chlorobenzene	112	5.897	5.897	(1.001)	11622	2.50000	1.62(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	3445	2.50000	1.31(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	13783	5.00000	2.94	
	75 o-Xylene	106	6.141	6.141	(1.042)	7000	2.50000	1.52(a)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
76	Styrene	104	6.163	6.164	(1.046)	13081	2.50000	1.60(a)	
77	Bromoform	173	6.189	6.189	(0.901)	3034	2.50000	1.65(a)	
78	Isopropylbenzene (Cumene)	105	6.266	6.266	(0.912)	16663	2.50000	1.37(TaQ)	
$ 79	4-Bromofluorobenzene (S)	174	6.401	6.401	(0.931)	119449	30.0000	28.6	
80	n-Propylbenzene	91	6.439	6.440	(0.937)	21054	2.50000	1.49(a)	
81	Bromobenzene	77	6.449	6.449	(0.938)	8905	2.50000	1.72(a)	
82	1,1,2,2-Tetrachloroethane	83	6.474	6.475	(0.942)	6292	2.50000	2.00(a)	
83	1,3,5-Trimethylbenzene	105	6.516	6.517	(0.948)	15629	2.50000	1.52(a)	
84	2-Chlorotoluene	126	6.523	6.523	(0.949)	4878	2.50000	1.59(a)	
85	1,2,3-Trichloropropane	110	6.542	6.542	(0.952)	2067	2.50000	1.94(a)	
86	trans-1,4-Dichloro-2-butene	53	6.548	6.549	(0.953)	1739	2.50000	1.69(aQ)	
87	Cyclohexanone	55	6.571	6.571	(0.956)	3270	12.5000	11.7	
88	4-Chlorotoluene	126	6.590	6.590	(0.959)	5652	2.50000	1.70(a)	
89	tert-Butylbenzene	119	6.657	6.658	(0.969)	12523	2.50000	1.37(a)	
90	1,2,4-Trimethylbenzene	105	6.686	6.687	(0.973)	17171	2.50000	1.59(a)	
91	sec-Butylbenzene	105	6.731	6.732	(0.979)	18277	2.50000	1.38(a)	
92	p-Isopropyltoluene	119	6.786	6.786	(0.987)	17558	2.50000	1.48(a)	
93	1,3-Dichlorobenzene	146	6.844	6.844	(0.996)	12329	2.50000	1.83(a)	
* 94	1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	171681	30.0000		
95	1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	13377	2.50000	1.92(aQ)	
96	n-Butylbenzene	91	6.969	6.969	(1.014)	15335	2.50000	1.46(a)	
97	1,2-Dichlorobenzene	146	7.065	7.065	(1.028)	12461	2.50000	1.91(a)	
$ 161	1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	171686	30.0000	30.0	
98	1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	2108	2.50000	2.17(a)	
99	1,3,5-Trichlorobenzene	180	7.418	7.418	(1.079)	8669	2.50000	1.82(a)	
100	Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	3271	2.50000	1.40(a)	
101	1,2,4-Trichlorobenzene	180	7.697	7.698	(1.120)	8899	2.50000	2.01(a)	
102	Naphthalene	128	7.841	7.842	(1.141)	27448	2.50000	2.21(a)	
103	1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	8099	2.50000	2.08(a)	
104	2-Methylnaphthalene	142	8.294	8.294	(1.207)	13469	2.50000	2.26(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813013.d
Lab Smp Id: CAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL1
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	314926	-13.79
71 Chlorobenzene-d5	277666	138833	555332	283783	2.20
94 1,4-Dichlorobenze	164337	82169	328674	171681	4.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.07
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.05
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	1.22	J
74-87-3	Chloromethane	2.36	J
75-01-4	Vinyl chloride	1.36	J
74-83-9	Bromomethane	1.52	J
75-00-3	Chloroethane	2.82	
75-69-4	Trichlorofluoromethane	1.46	J
60-29-7	Diethyl ether (Ethyl ether)	2.20	J
75-35-4	1,1-Dichloroethene	1.30	J
76-13-1	1,1,2-Trichlorotrifluoroetha	1.18	J
75-15-0	Carbon disulfide	2.06	J
74-88-4	Iodomethane	0.725	J
107-02-8	Acrolein	2.57	
107-05-1	Allyl chloride	8.48	
75-09-2	Methylene Chloride	8.37	
67-64-1	Acetone	18.4	
156-60-5	trans-1,2-Dichloroethene	1.48	J
79-20-9	Methyl acetate	2.59	
110-54-3	n-Hexane	22.0	
1634-04-4	Methyl-tert-butyl ether	1.78	J
75-65-0	tert-Butyl Alcohol	10.8	
75-05-8	Acetonitrile	12.4	
108-20-3	Diisopropyl ether	1.68	J
126-99-8	Chloroprene	1.10	J
75-34-3	1,1-Dichloroethane	1.59	J
107-13-1	Acrylonitrile	2.03	J
637-92-3	Ethyl-tert-butyl ether	1.75	J
108-05-4	Vinyl acetate	1.83	J
156-59-2	cis-1,2-Dichloroethene	1.98	J
594-20-7	2,2-Dichloropropane	1.37	J
110-82-7	Cyclohexane	1.11	J
74-97-5	Bromochloromethane	2.07	J
67-66-3	Chloroform	1.80	J
56-23-5	Carbon tetrachloride	1.02	J
141-78-6	Ethyl acetate	2.14	J
109-99-9	Tetrahydrofuran	3.31	
71-55-6	1,1,1-Trichloroethane	1.33	J
78-93-3	2-Butanone (MEK)	2.80	
563-58-6	1,1-Dichloropropene	1.10	J
71-43-2	Benzene	1.72	J
107-12-0	Propionitrile	2.79	
126-98-7	Methacrylonitrile	2.12	J
994-05-8	tert-Amylmethyl ether	1.92	J

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
78-83-1	Isobutanol	7.97	
107-06-2	1,2-Dichloroethane	2.13	J
108-87-2	Methylcyclohexane	1.02	J
79-01-6	Trichloroethene	1.21	J
74-95-3	Dibromomethane	2.03	J
78-87-5	1,2-Dichloropropane	1.61	J
75-27-4	Bromodichloromethane	1.71	J
80-62-6	Methyl methacrylate	1.95	J
123-91-1	1,4-Dioxane (p-Dioxane)	20.4	
110-75-8	2-Chloroethylvinyl ether	1.74	J
10061-01-5	cis-1,3-Dichloropropene	1.52	J
108-88-3	Toluene	1.57	J
79-46-9	2-Nitropropane	8.38	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.29	J
127-18-4	Tetrachloroethene	1.24	J
10061-02-6	trans-1,3-Dichloropropene	1.54	J
97-63-2	Ethyl methacrylate	1.96	J
79-00-5	1,1,2-Trichloroethane	1.71	J
124-48-1	Dibromochloromethane	1.60	J
142-28-9	1,3-Dichloropropane	1.83	J
106-93-4	1,2-Dibromoethane (EDB)	1.73	J
591-78-6	2-Hexanone	2.30	J
100-41-4	Ethylbenzene	1.40	J
108-90-7	Chlorobenzene	1.62	J
630-20-6	1,1,1,2-Tetrachloroethane	1.31	J
7816-60-0	m&p-Xylene	2.94	
95-47-6	o-Xylene	1.52	J
100-42-5	Styrene	1.60	J
75-25-2	Bromoform	1.65	J
98-82-8	Isopropylbenzene (Cumene)	1.37	J
103-65-1	n-Propylbenzene	1.49	J
108-86-1	Bromobenzene	1.72	J
79-34-5	1,1,2,2-Tetrachloroethane	2.00	J
108-67-8	1,3,5-Trimethylbenzene	1.52	J
95-49-8	2-Chlorotoluene	1.59	J
96-18-4	1,2,3-Trichloropropane	1.94	J
110-57-6	trans-1,4-Dichloro-2-butene	1.69	J
108-94-1	Cyclohexanone	11.7	
106-43-4	4-Chlorotoluene	1.70	J
98-06-6	tert-Butylbenzene	1.37	J
95-63-6	1,2,4-Trimethylbenzene	1.59	J
135-98-8	sec-Butylbenzene	1.38	J

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Report Date: 29-Aug-2019 12:25

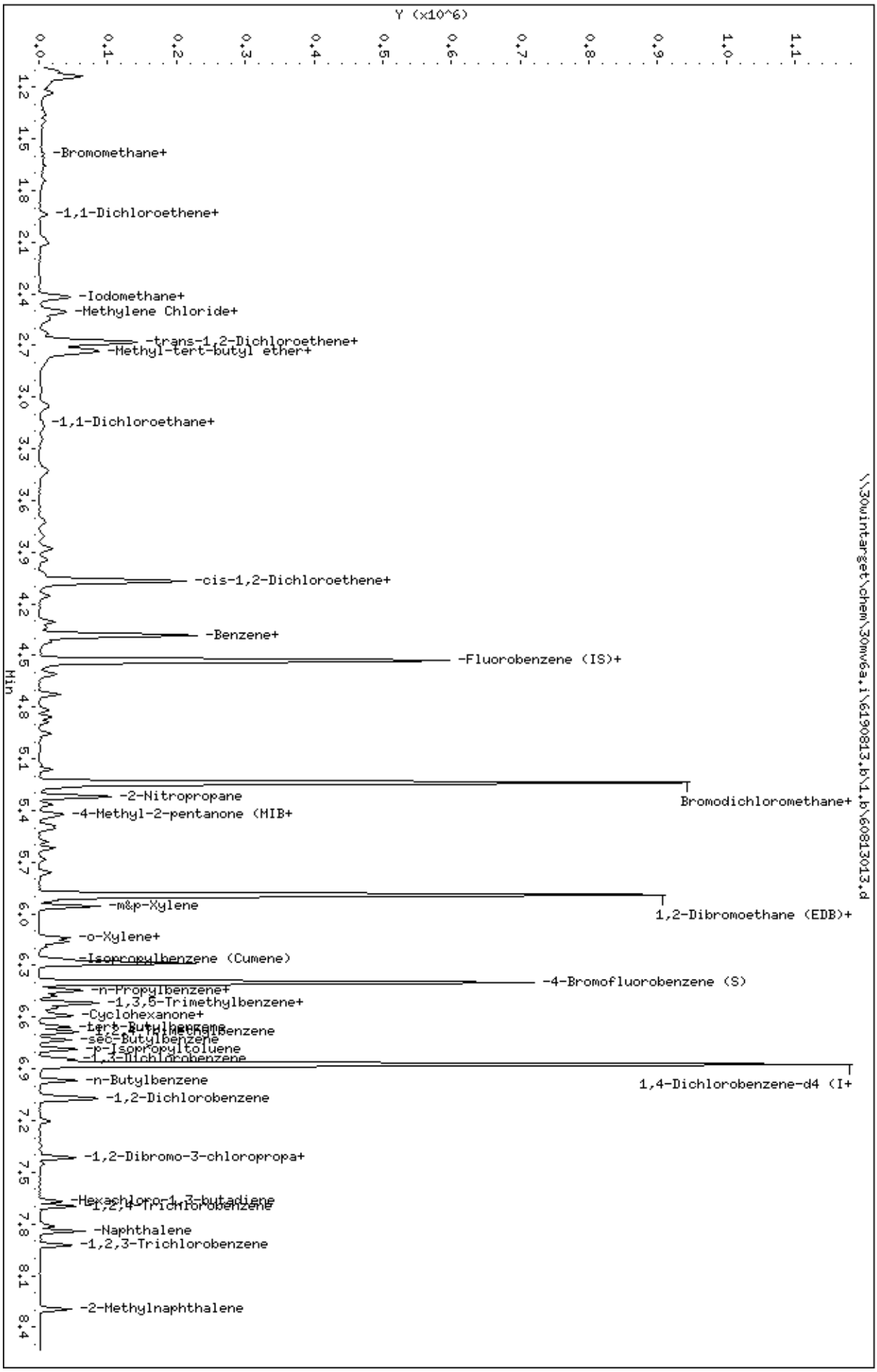
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
99-87-6	p-Isopropyltoluene	1.48	J
541-73-1	1,3-Dichlorobenzene	1.83	J
106-46-7	1,4-Dichlorobenzene	1.92	J
104-51-8	n-Butylbenzene	1.46	J
95-50-1	1,2-Dichlorobenzene	1.91	J
96-12-8	1,2-Dibromo-3-chloropropane	2.17	J
108-70-3	1,3,5-Trichlorobenzene	1.82	J
87-68-3	Hexachloro-1,3-butadiene	1.40	J
120-82-1	1,2,4-Trichlorobenzene	2.01	J
91-20-3	Naphthalene	2.21	J
87-61-6	1,2,3-Trichlorobenzene	2.08	J
91-57-6	2-Methylnaphthalene	2.26	J
1868-53-7	Dibromofluoromethane (S)	33.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.1	
2037-26-5	Toluene-d8 (S)	29.0	
460-00-4	4-Bromofluorobenzene (S)	28.6	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Client ID: CAL1
Sample Info: CAL1, 96575:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813013.d
Y (x10^6)
Min
-Bromomethane+
-1,1-Dichloroethene+
-Iodomethane+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether+
-1,1-Dichloroethane+
-cis-1,2-Dichloroethene+
-Benzene+
-Fluorobenzene (IS)+
Bromodichloromethane+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-m&p-Xylene
1,2-Dibromoethane (EDB)+
-o-Xylene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-sec-Butylbenzene
-p-Isopropyltoluene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

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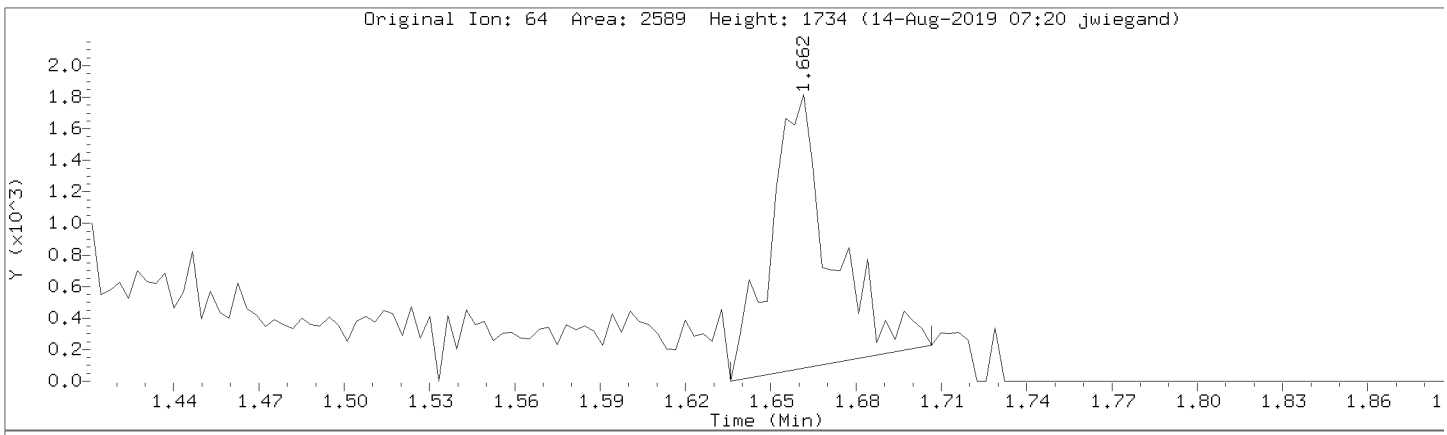
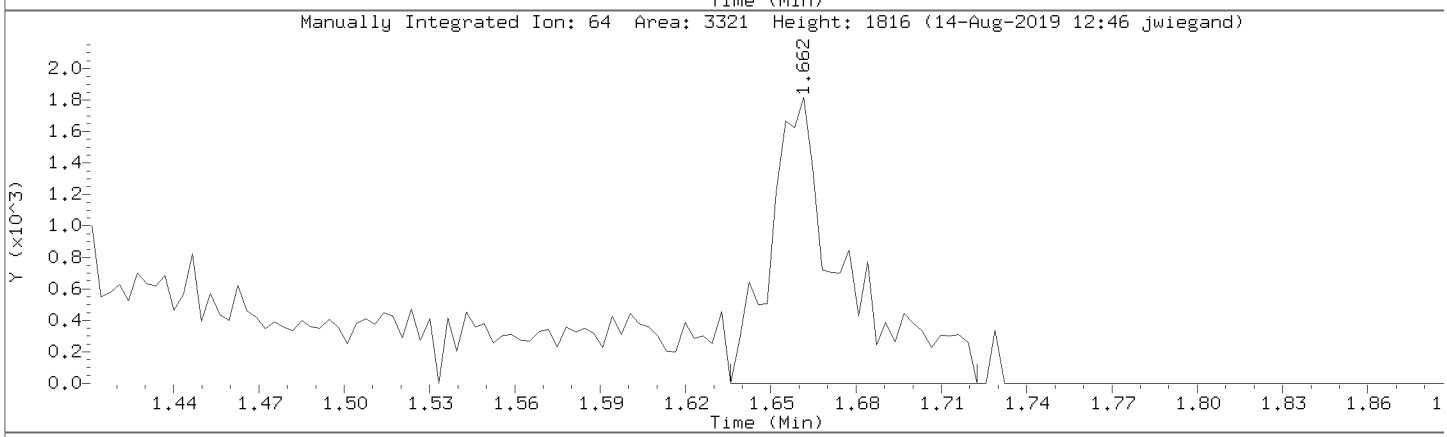
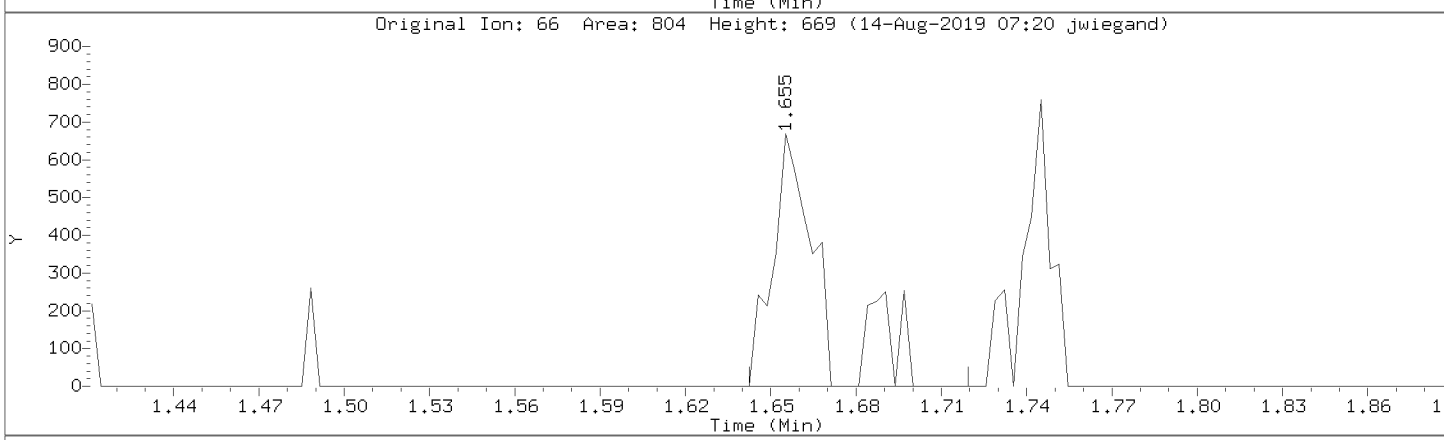
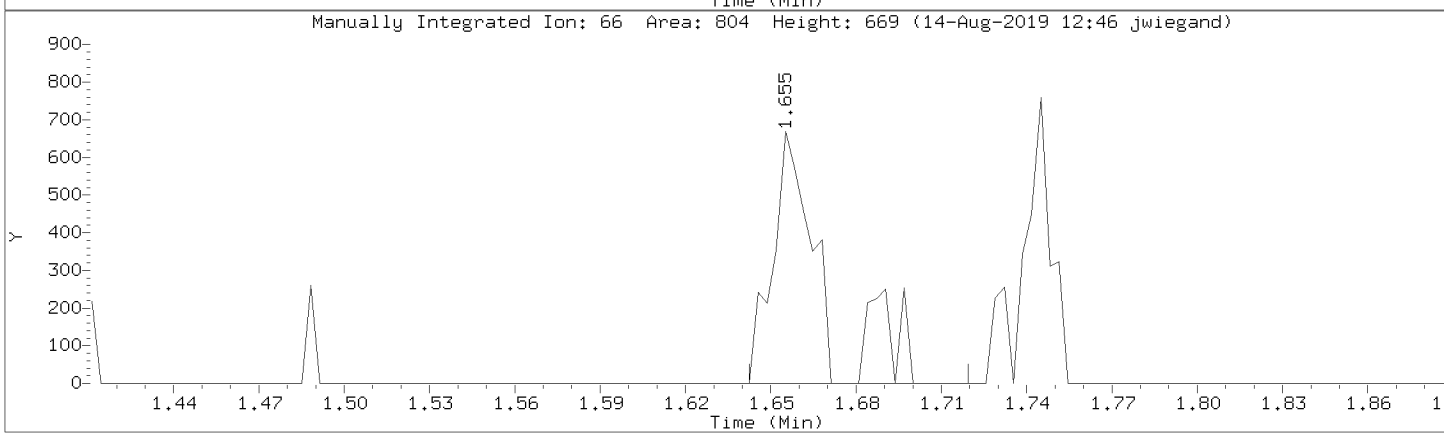
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Chloroethane Review Code: LT
CAS Number: 75-00-3









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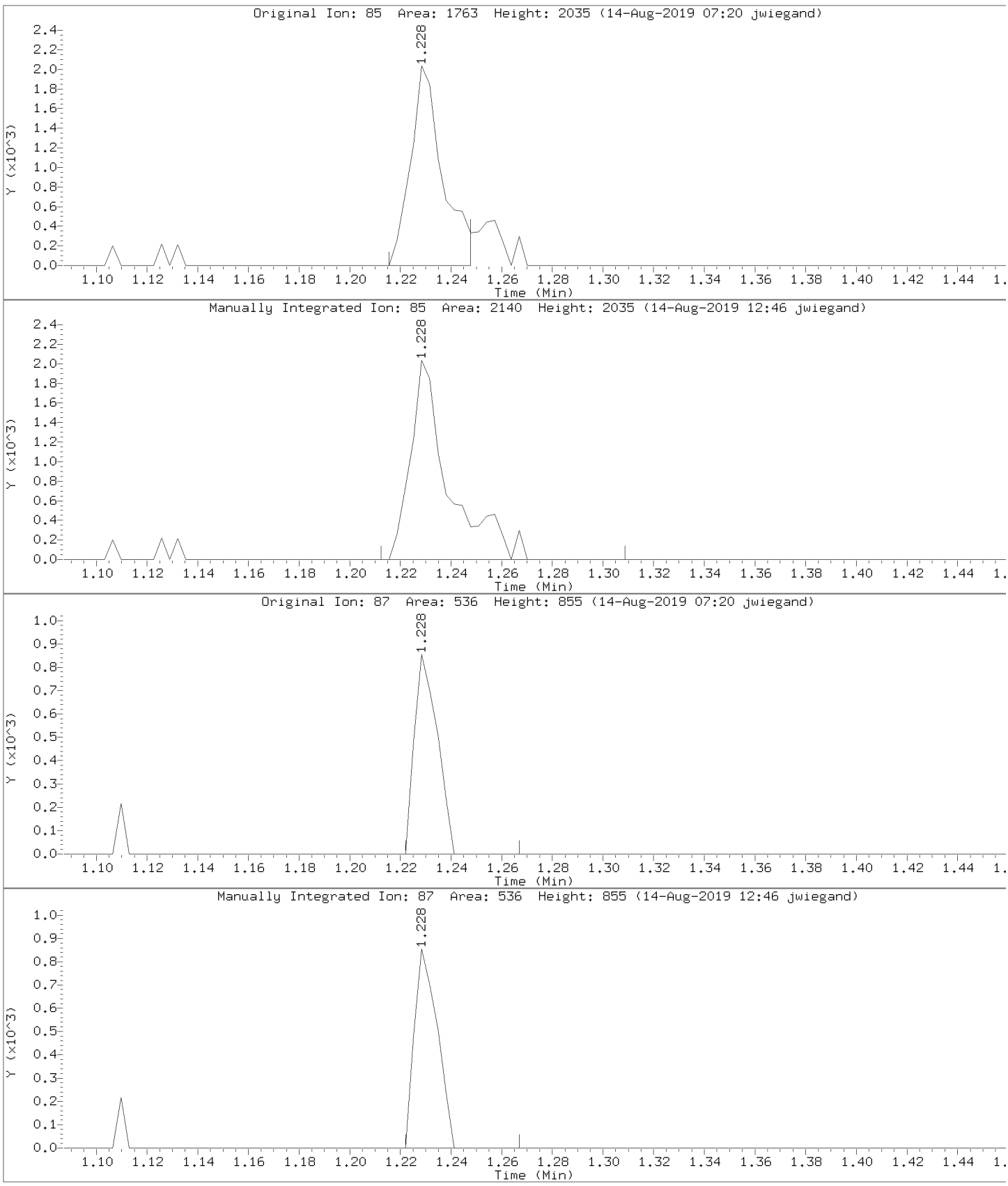
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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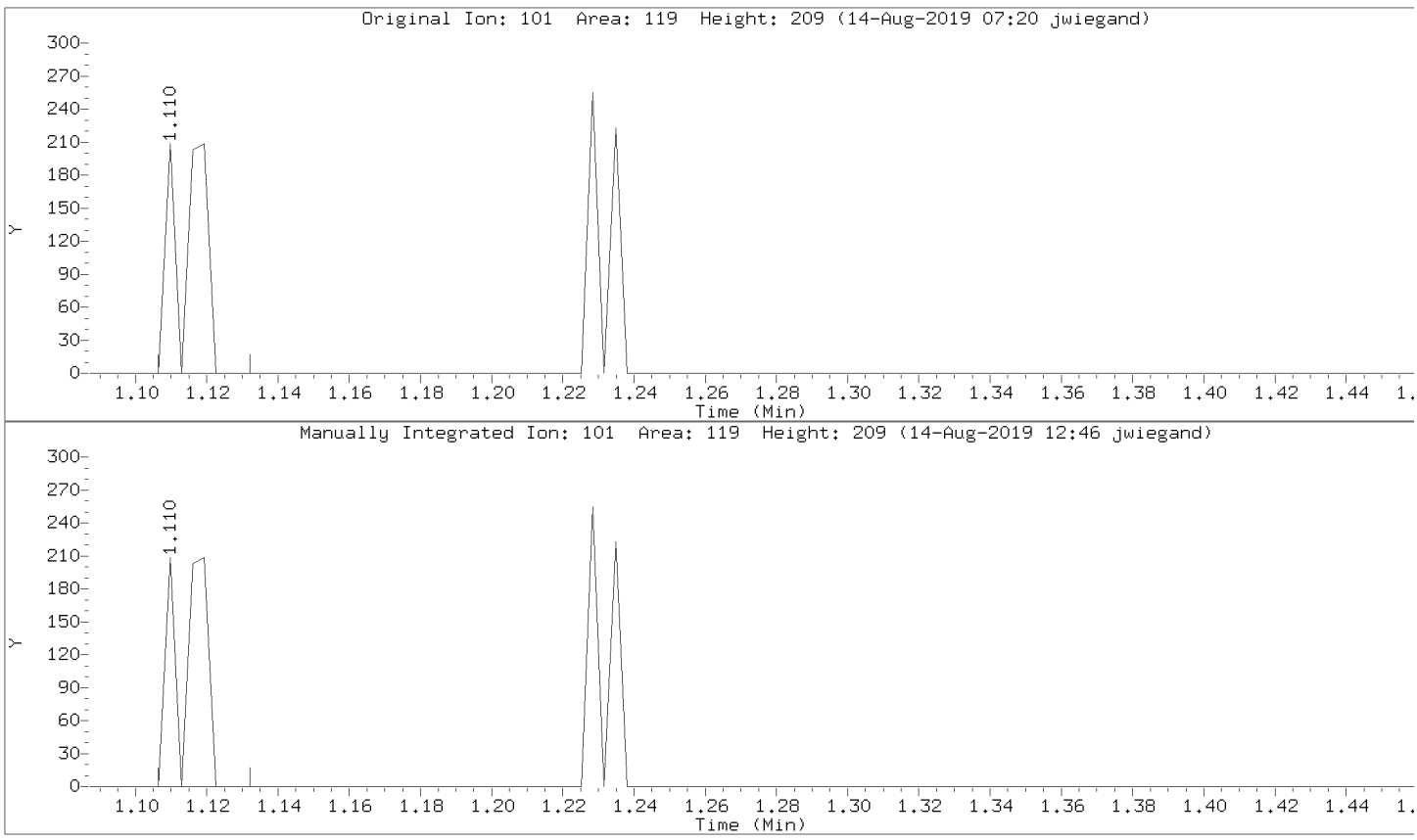
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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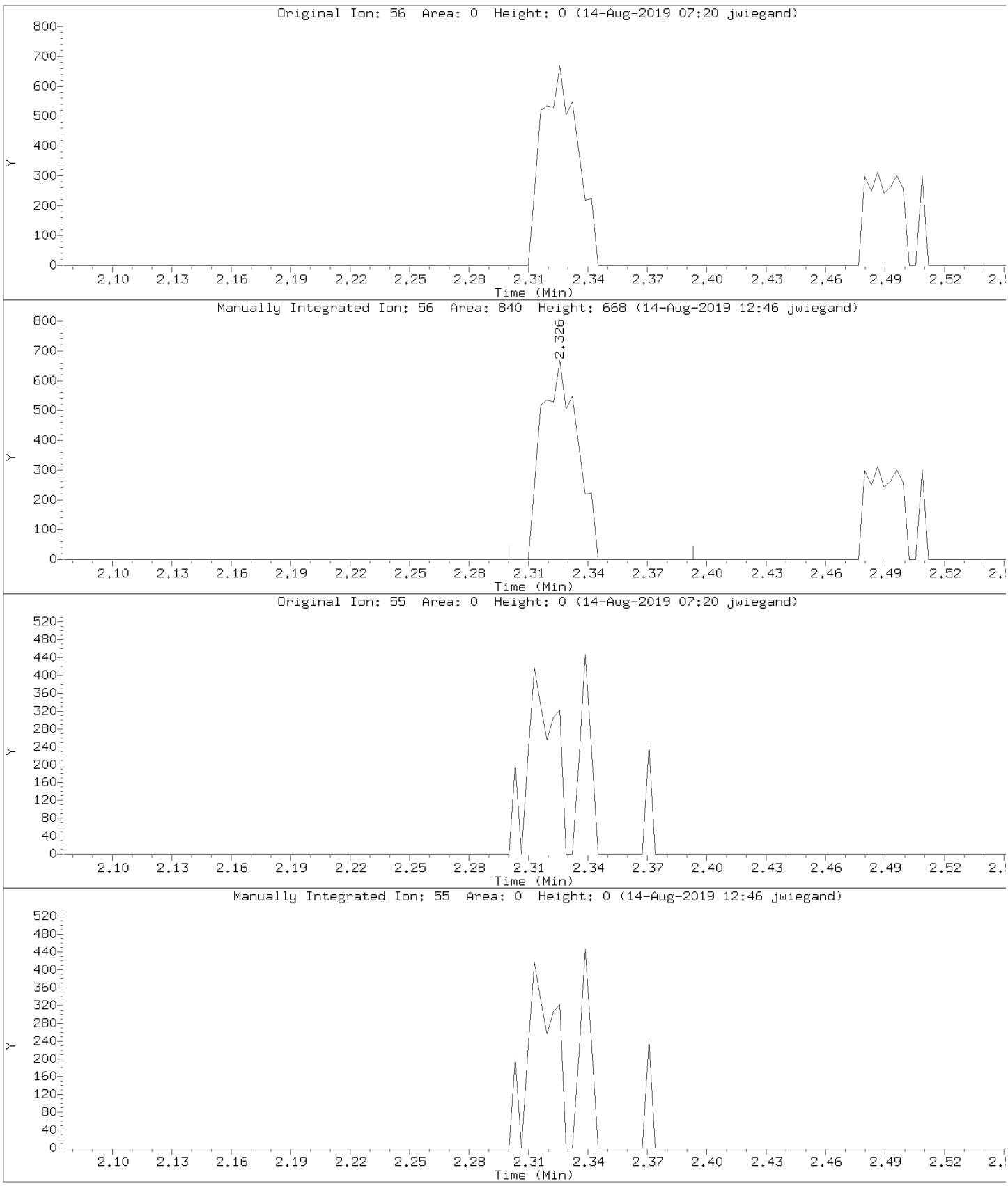
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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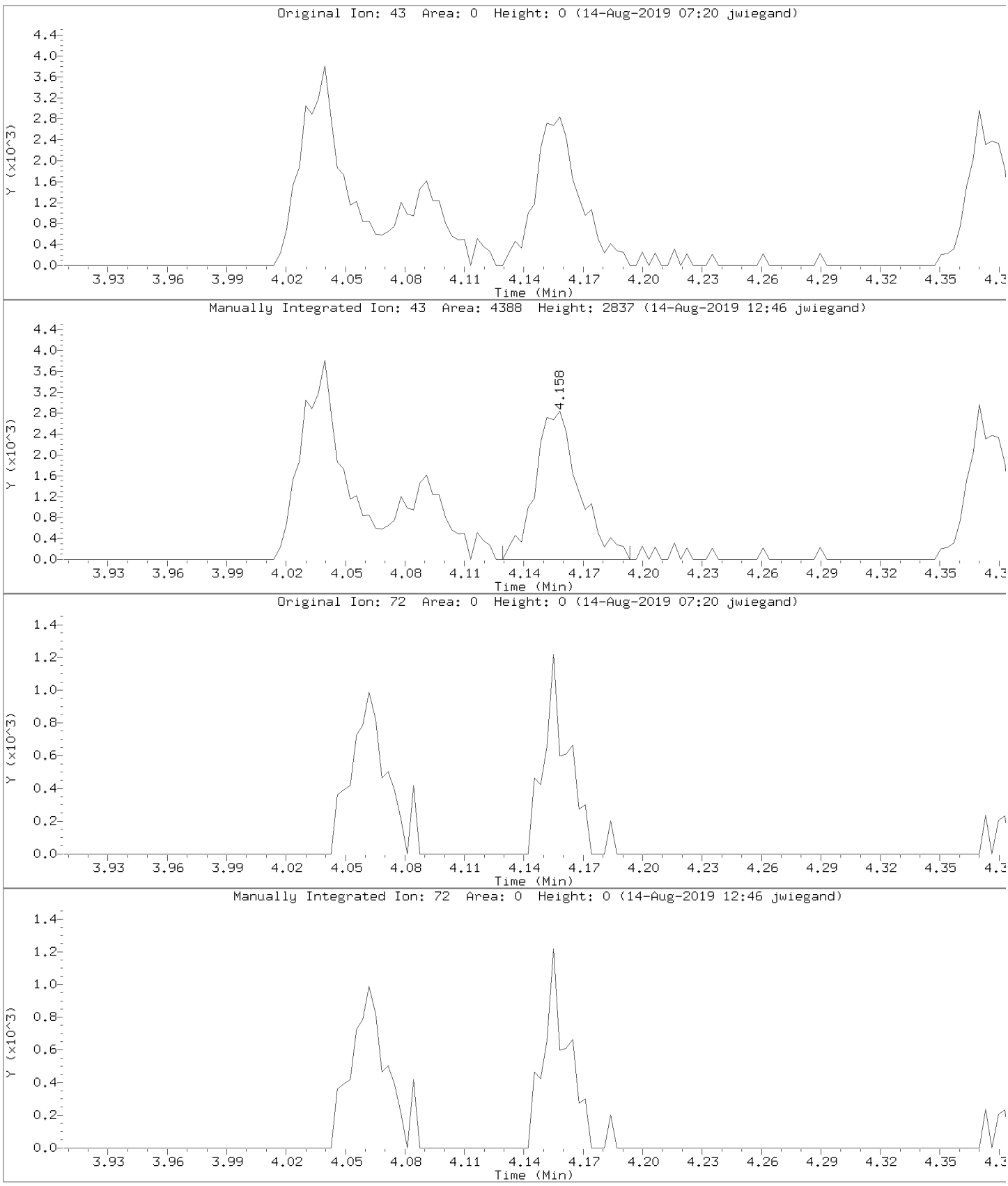
Lab Sample ID: CAL1

Compound: 2-Butanone (MEK) Review Code: NI
CAS Number: 78-93-3



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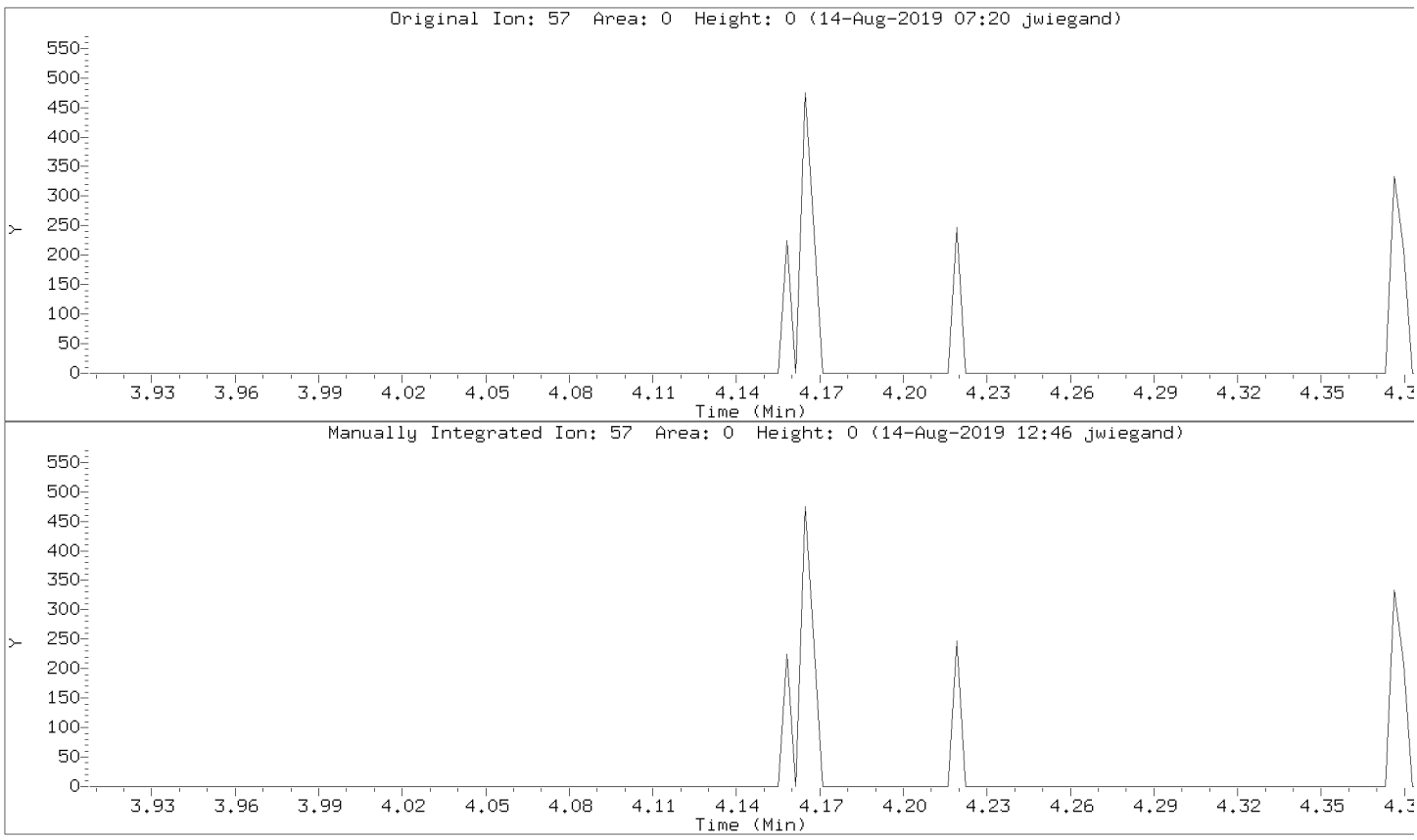
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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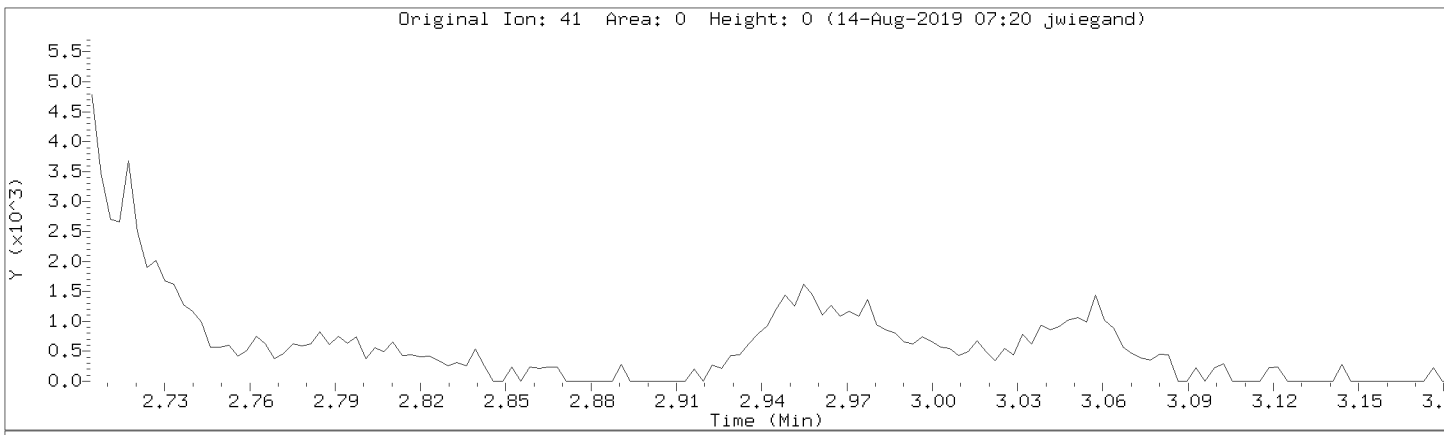
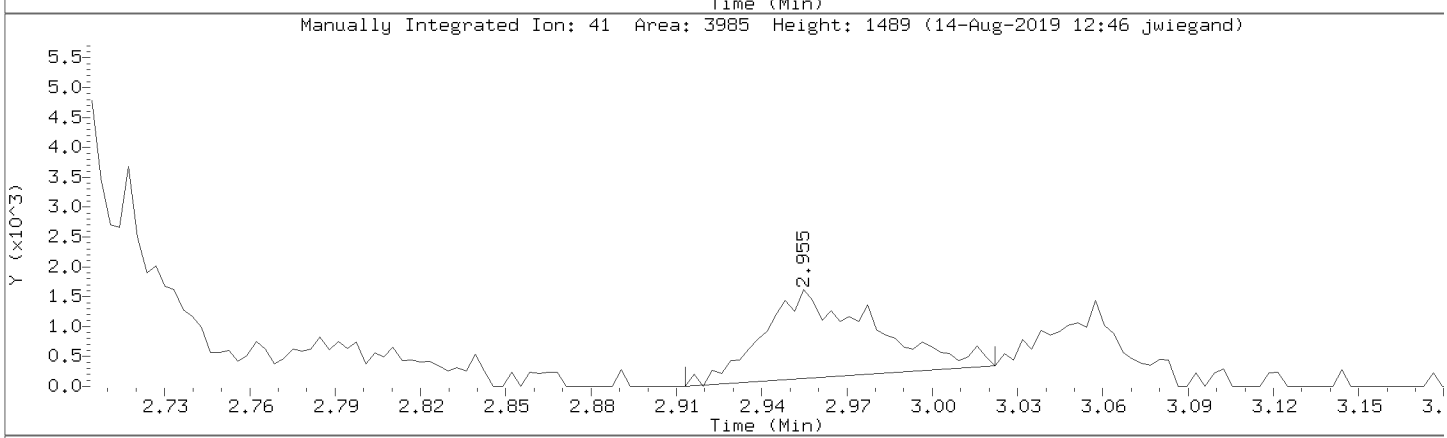
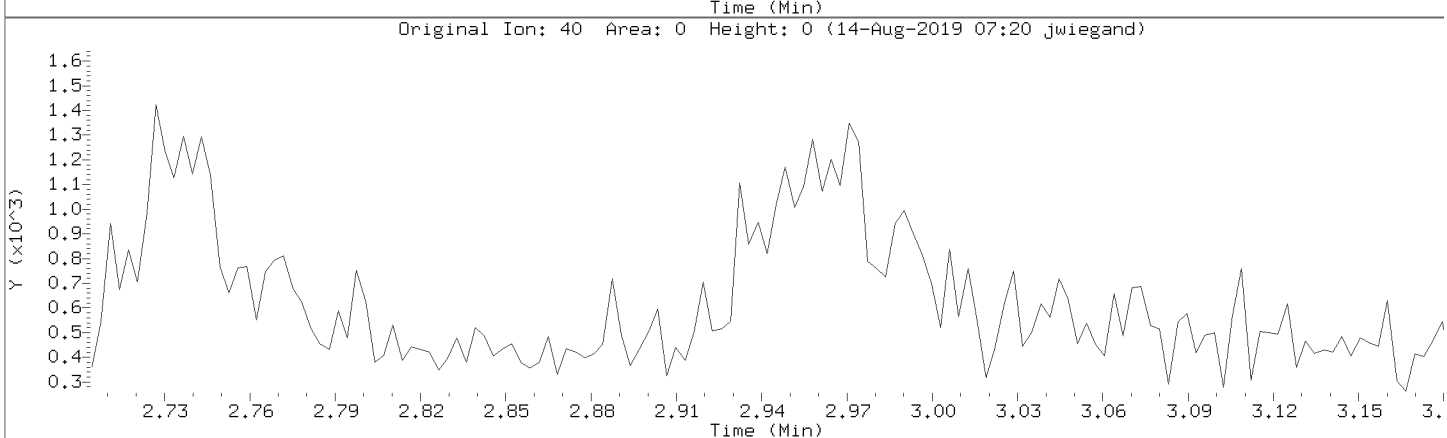
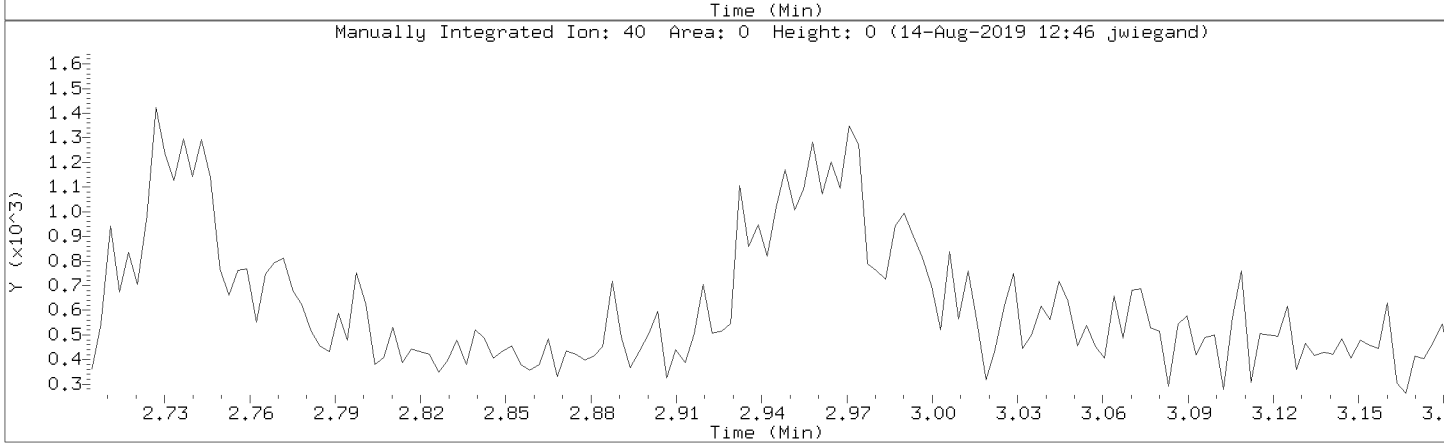
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8









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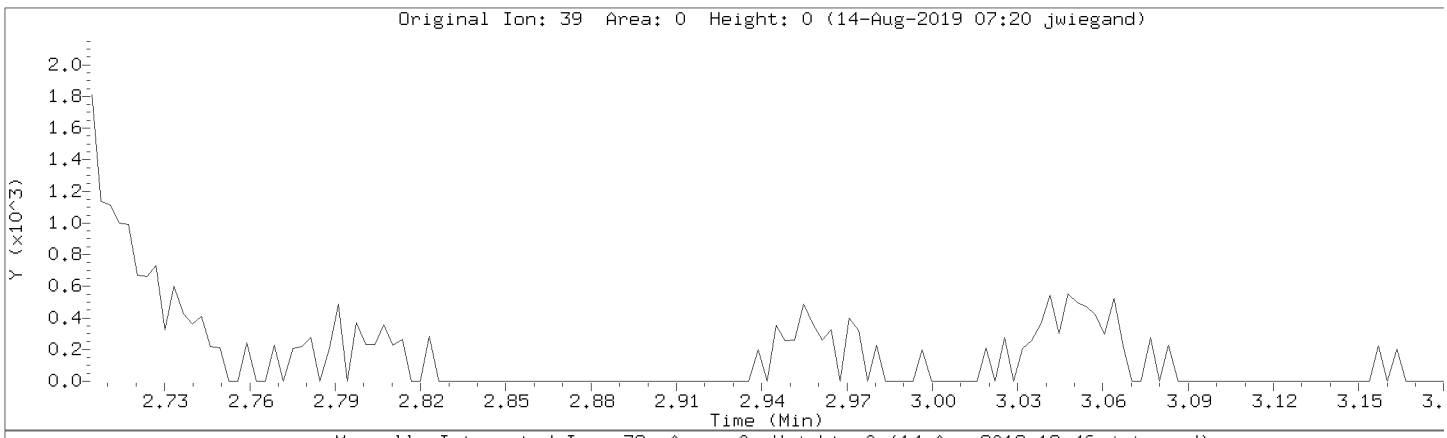
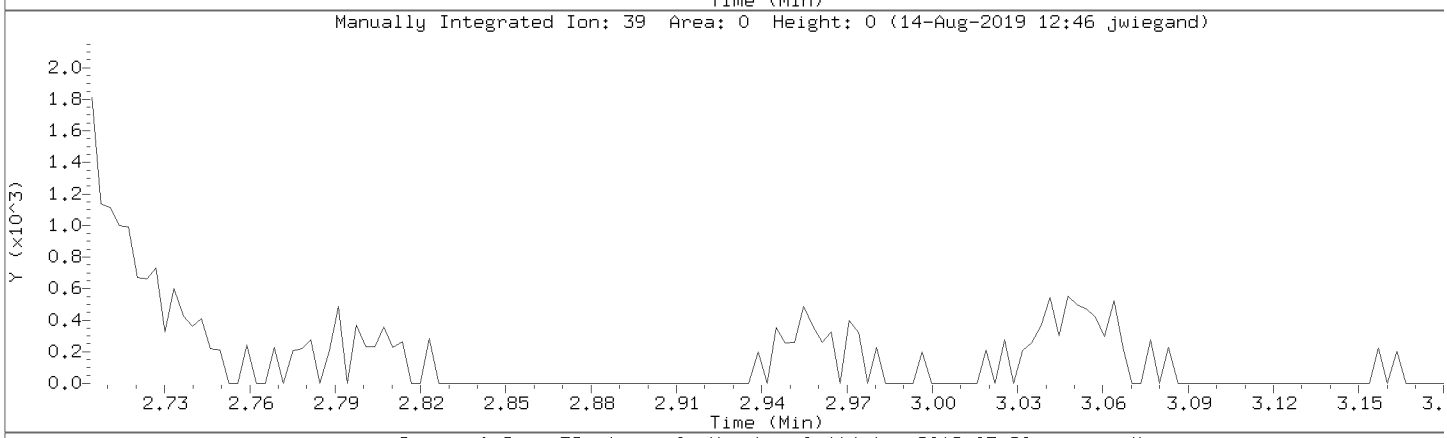
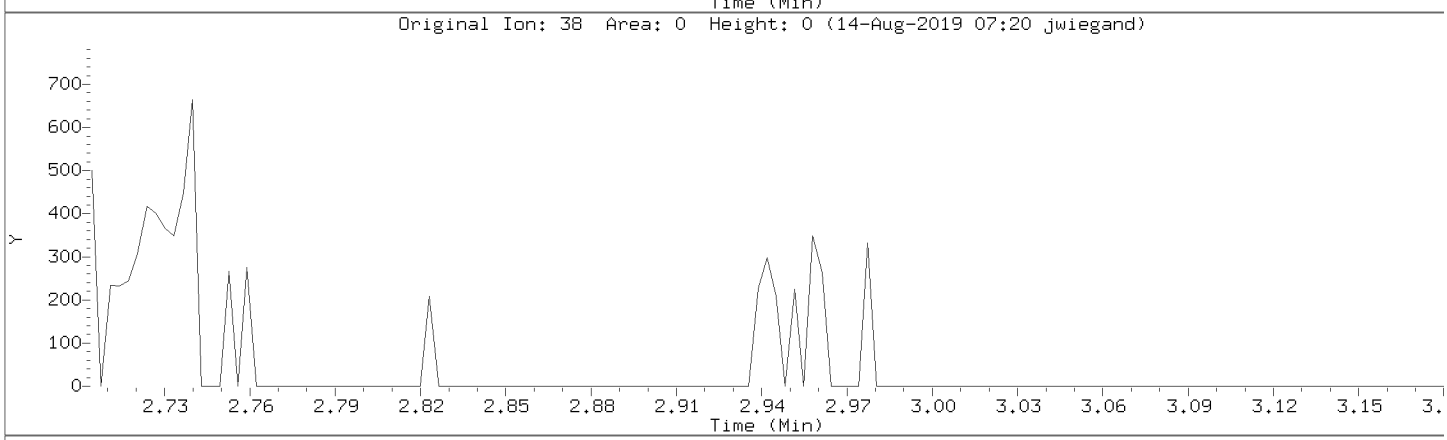
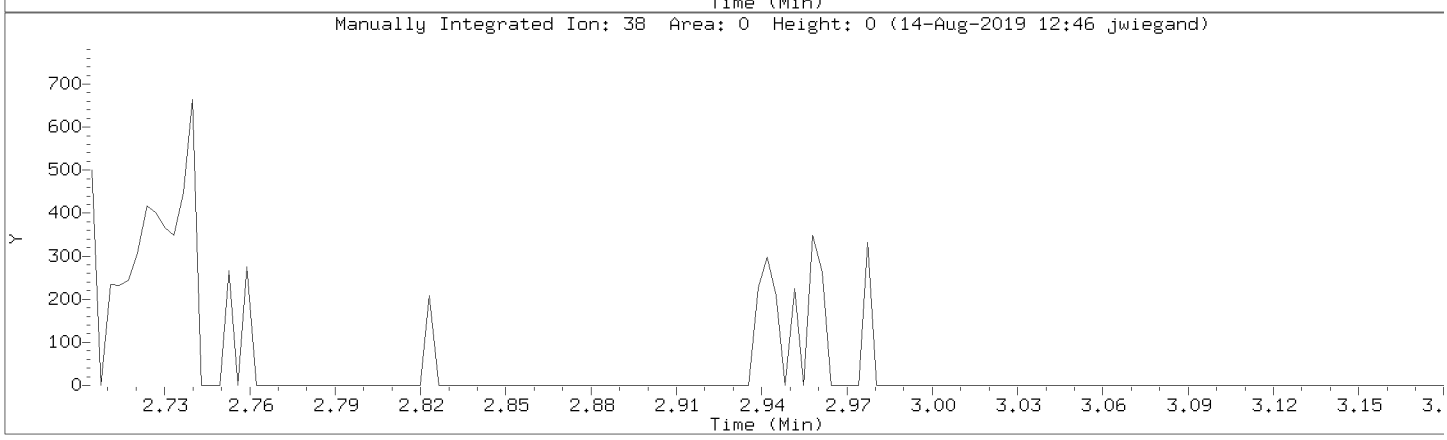
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1









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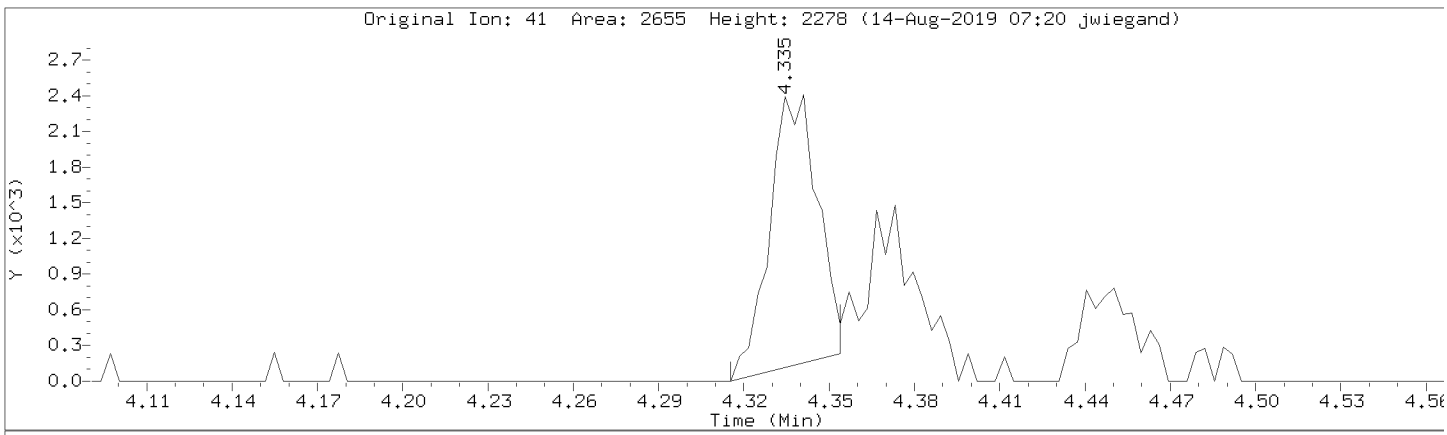
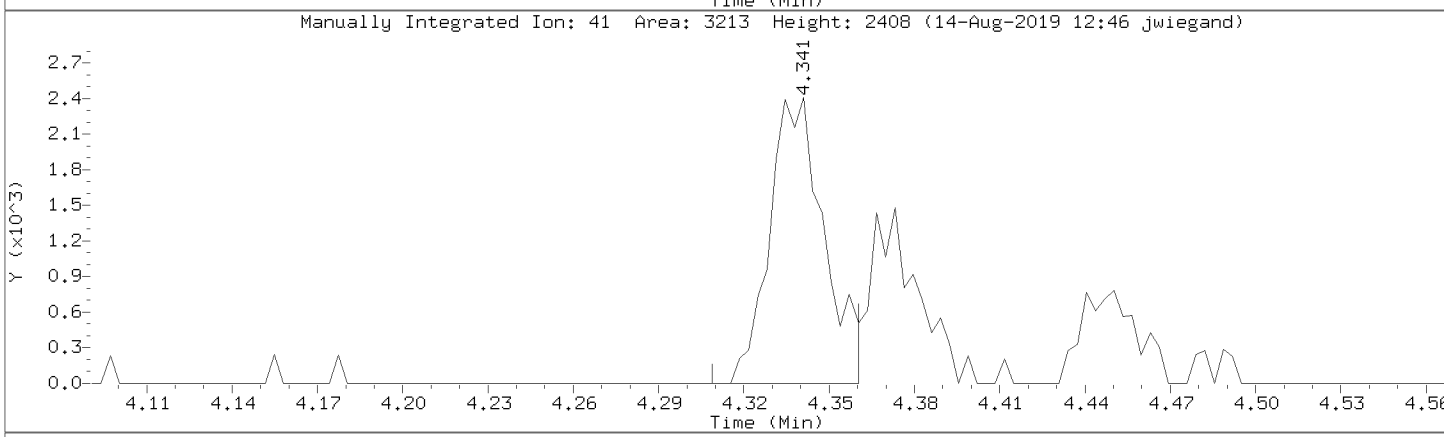
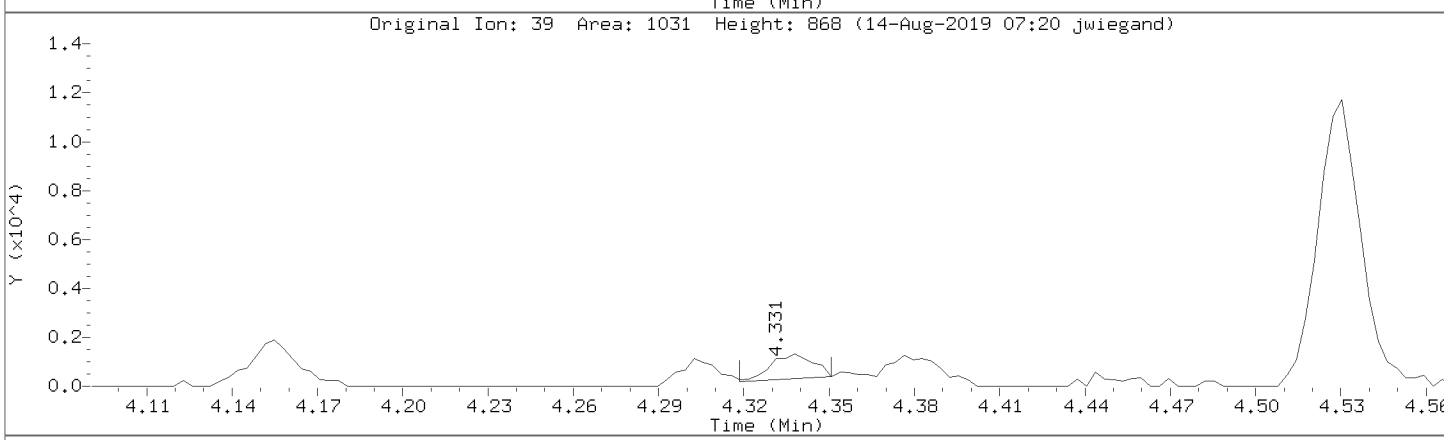
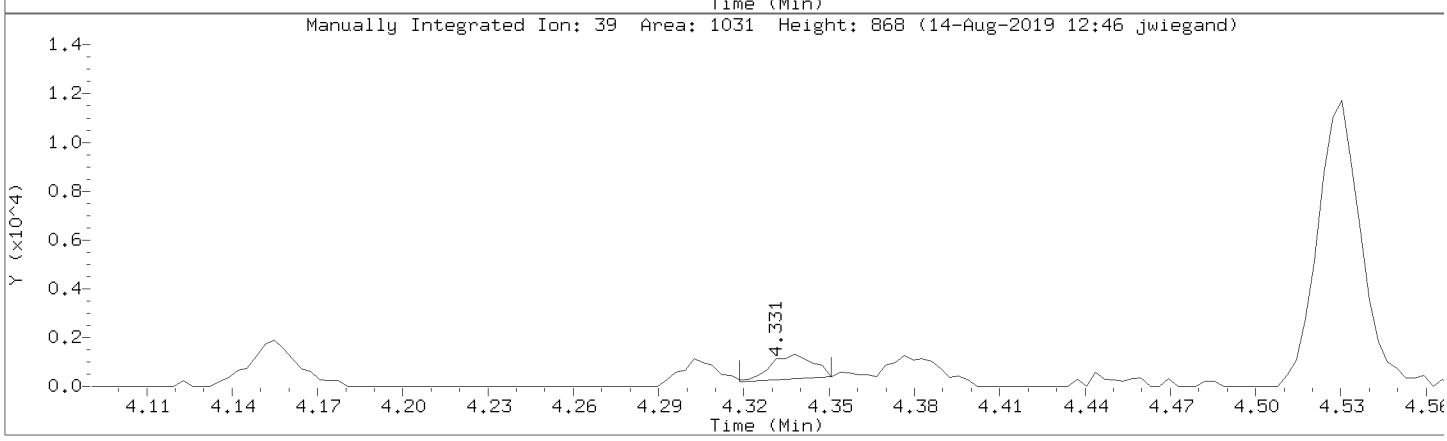
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7









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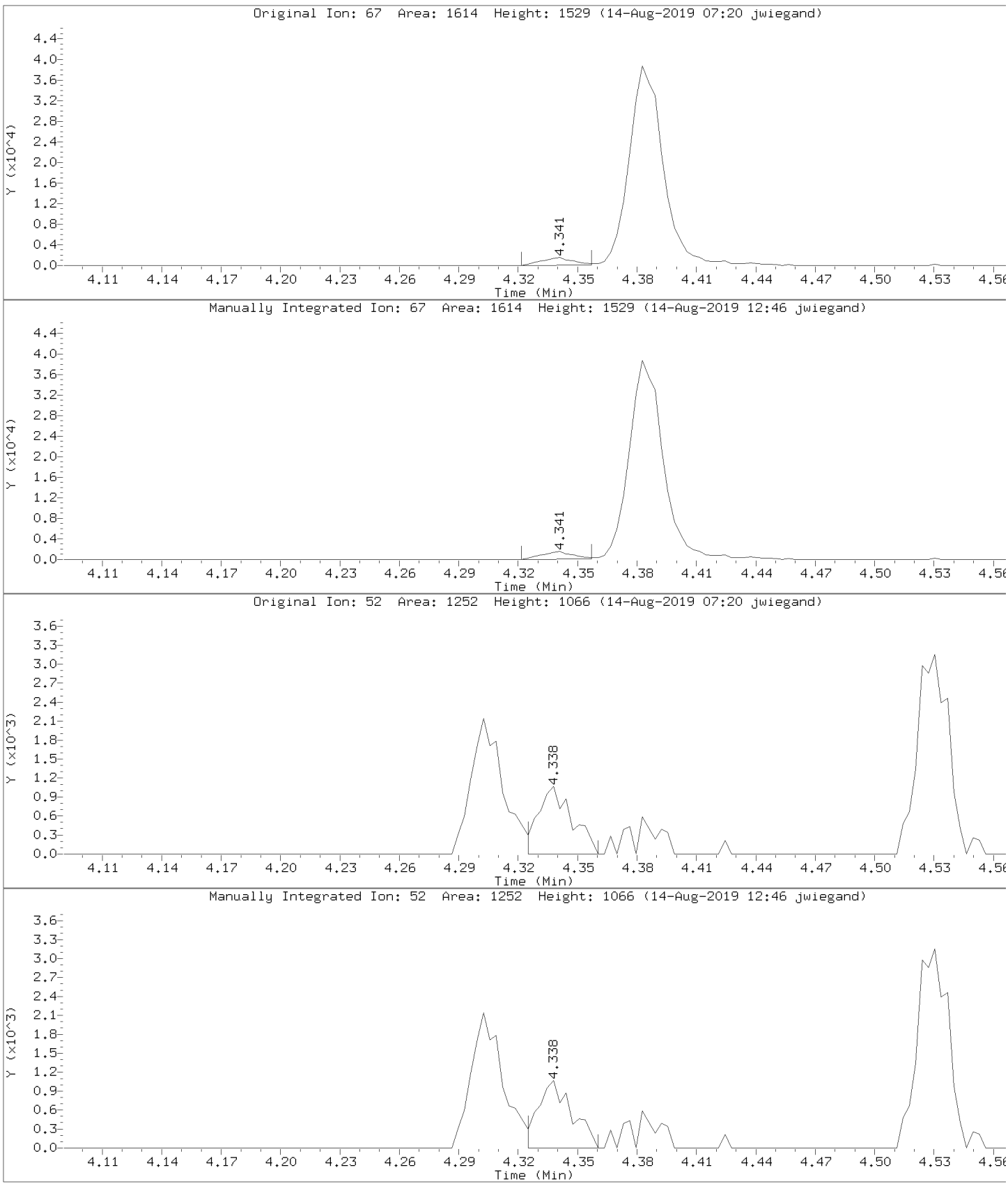
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1



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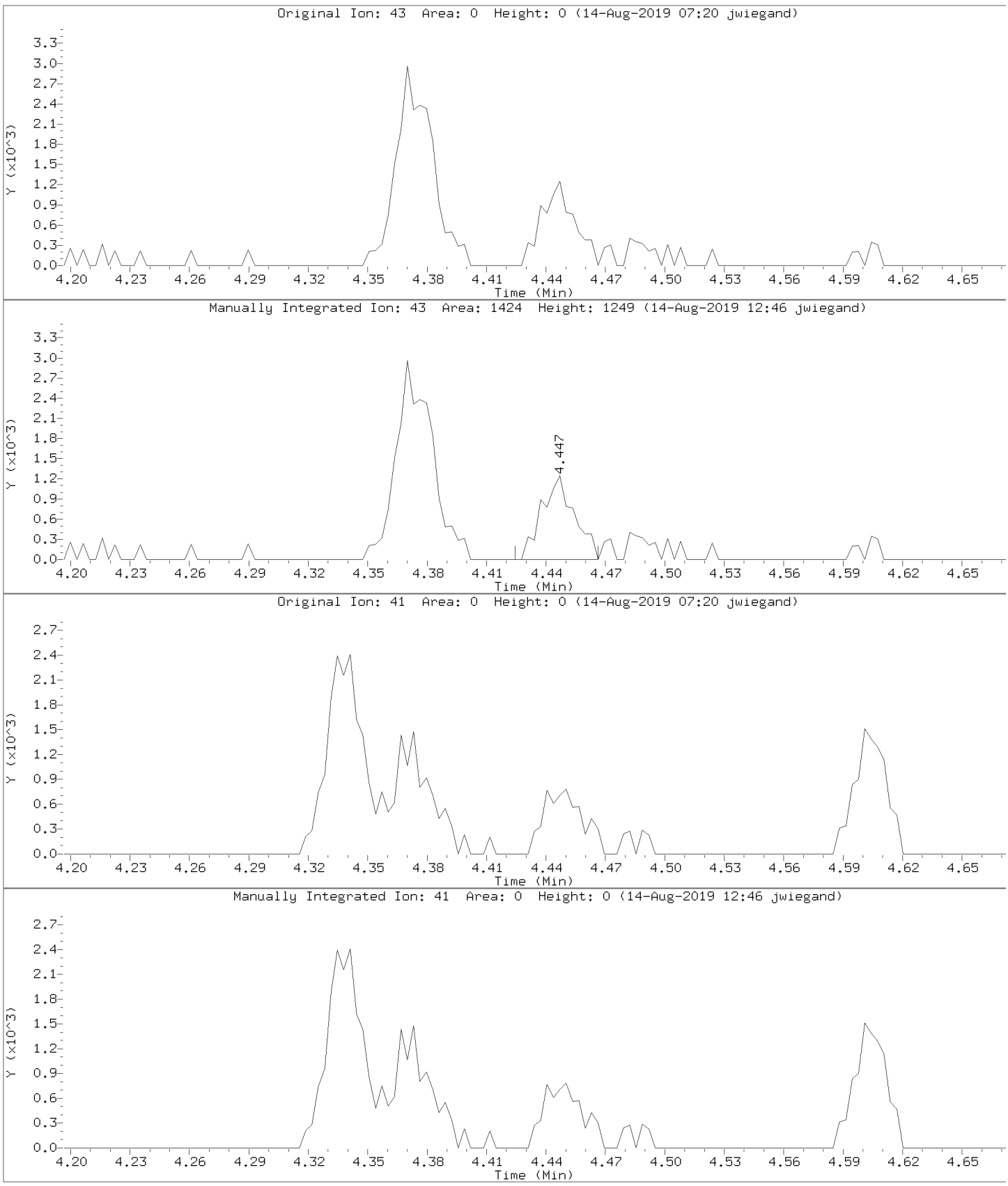
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Isobutanol Review Code: NI
CAS Number: 78-83-1



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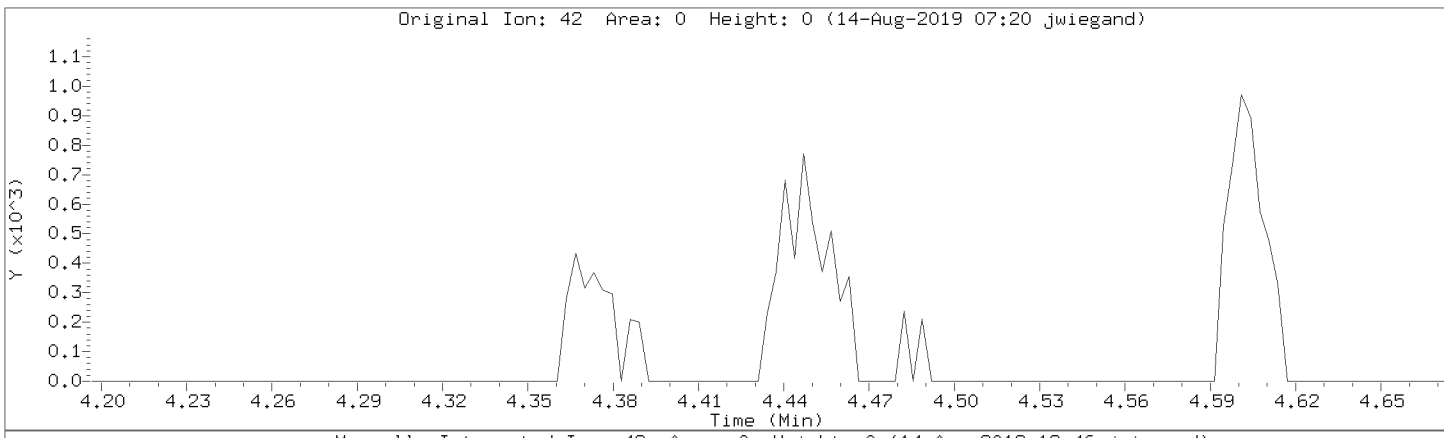
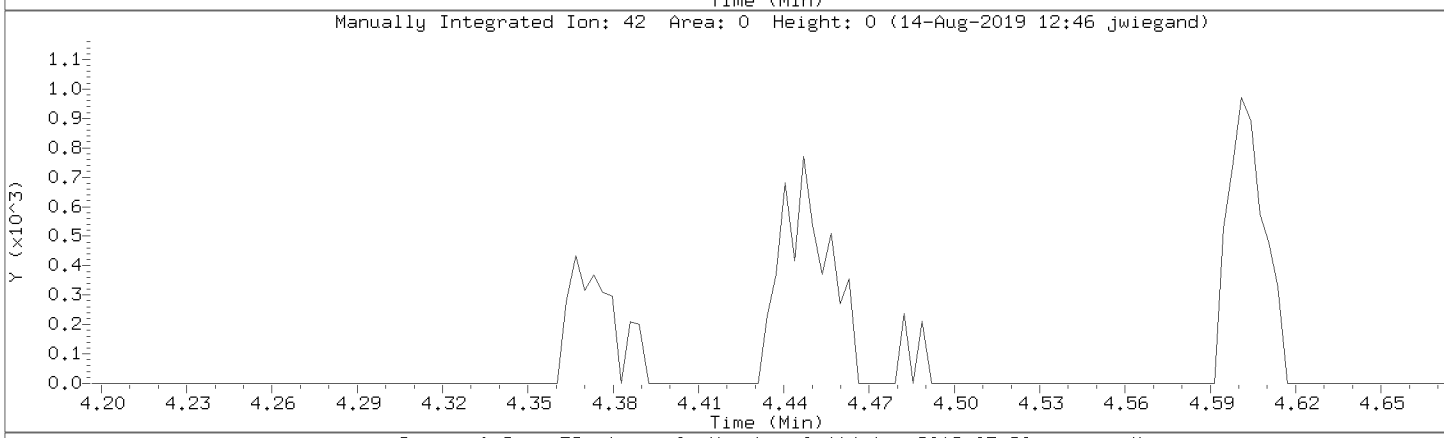
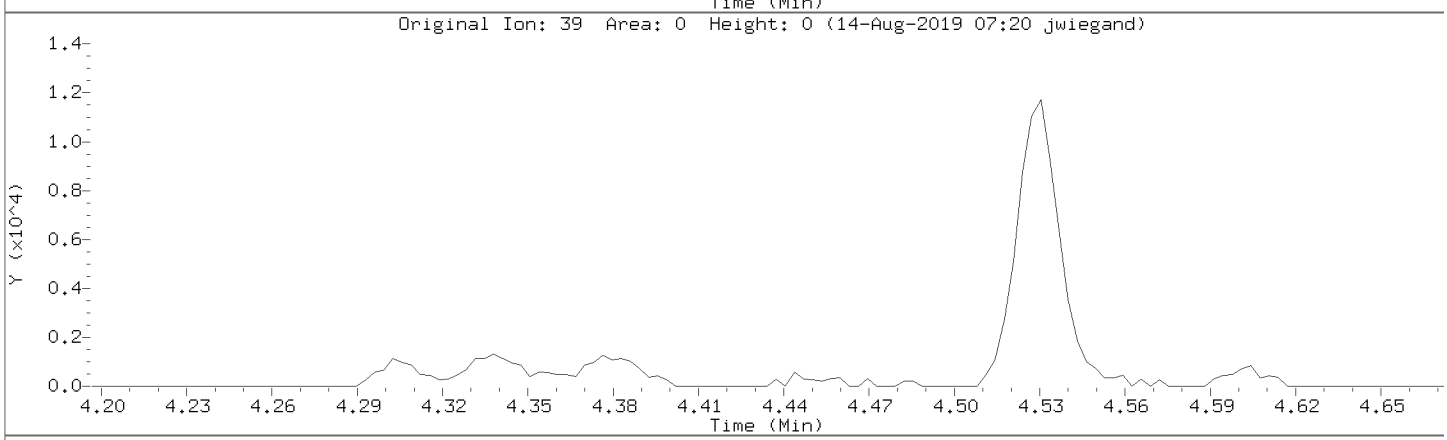
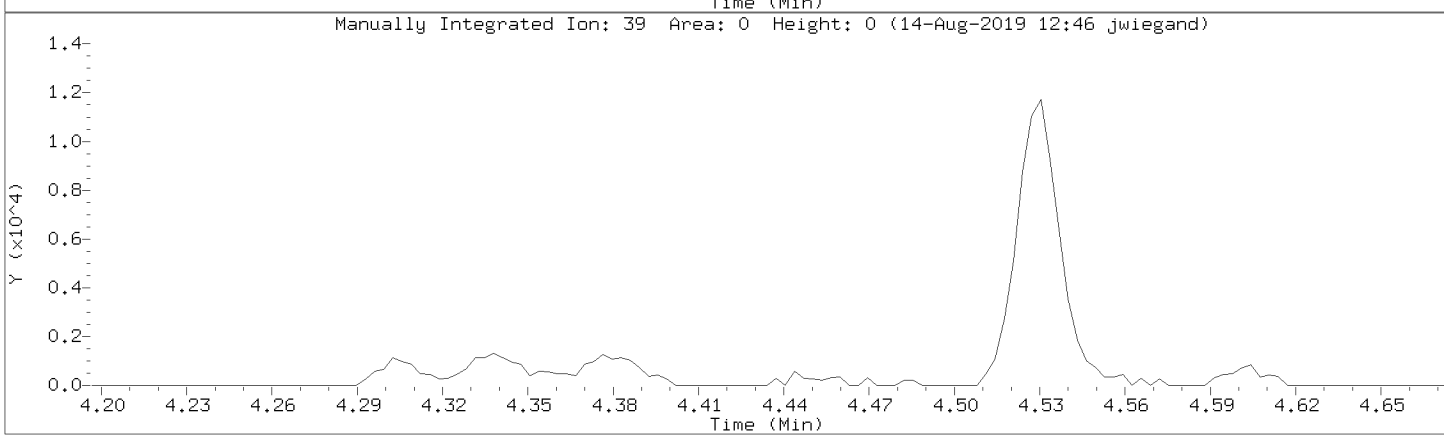
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1









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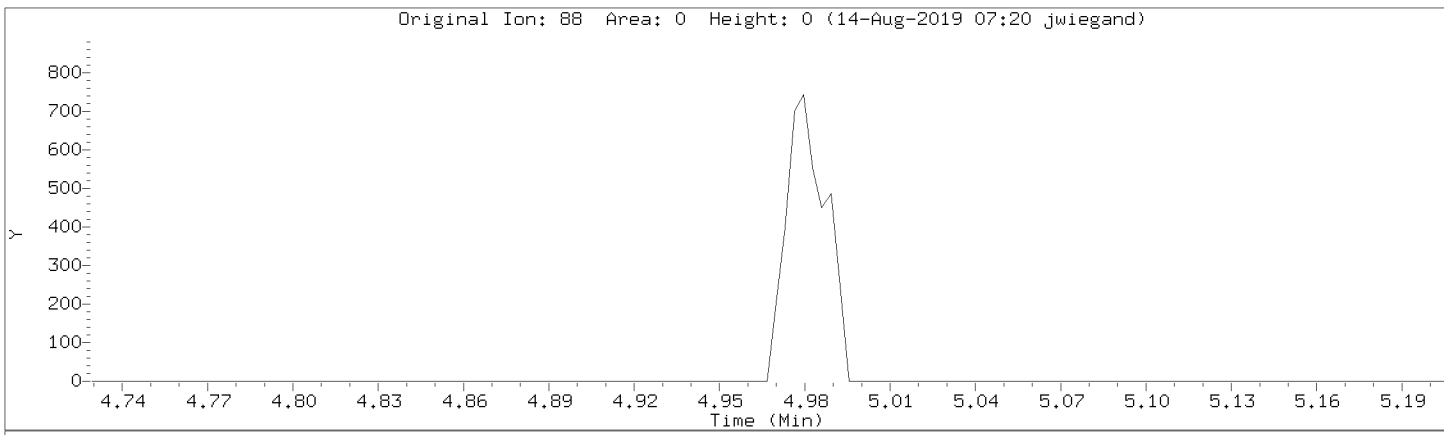
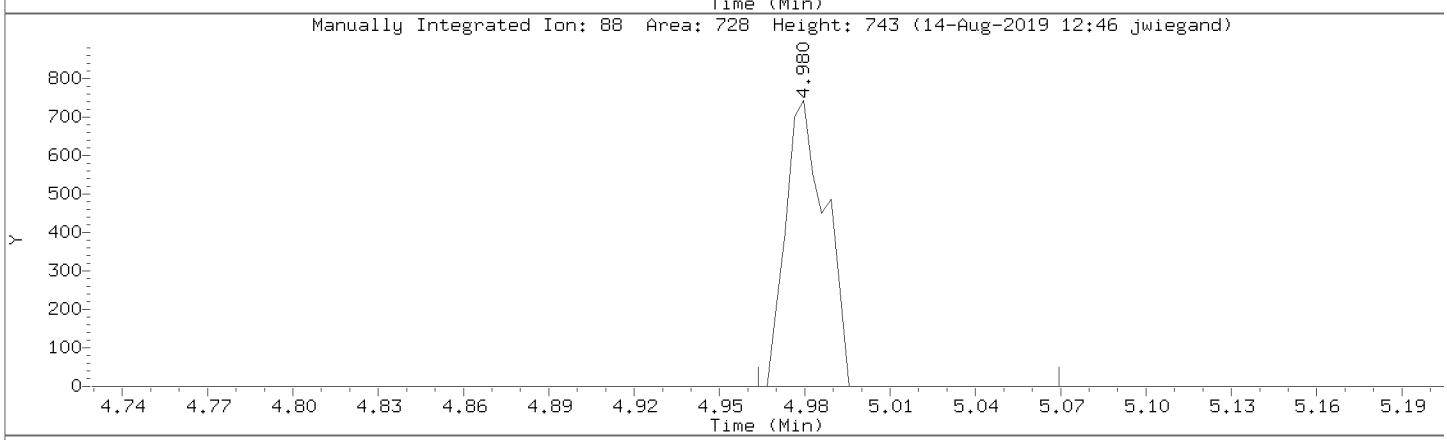
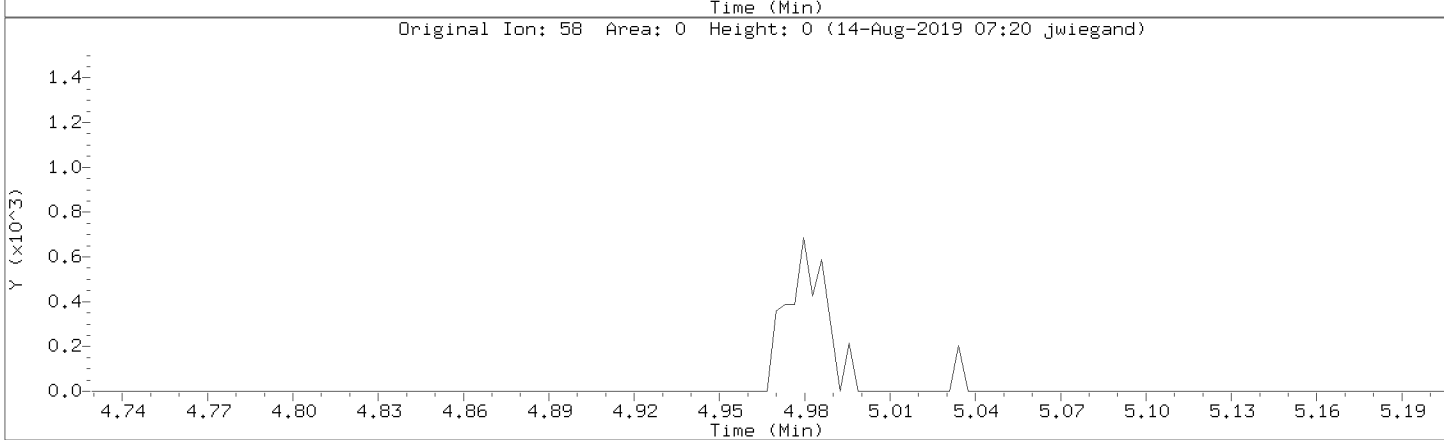
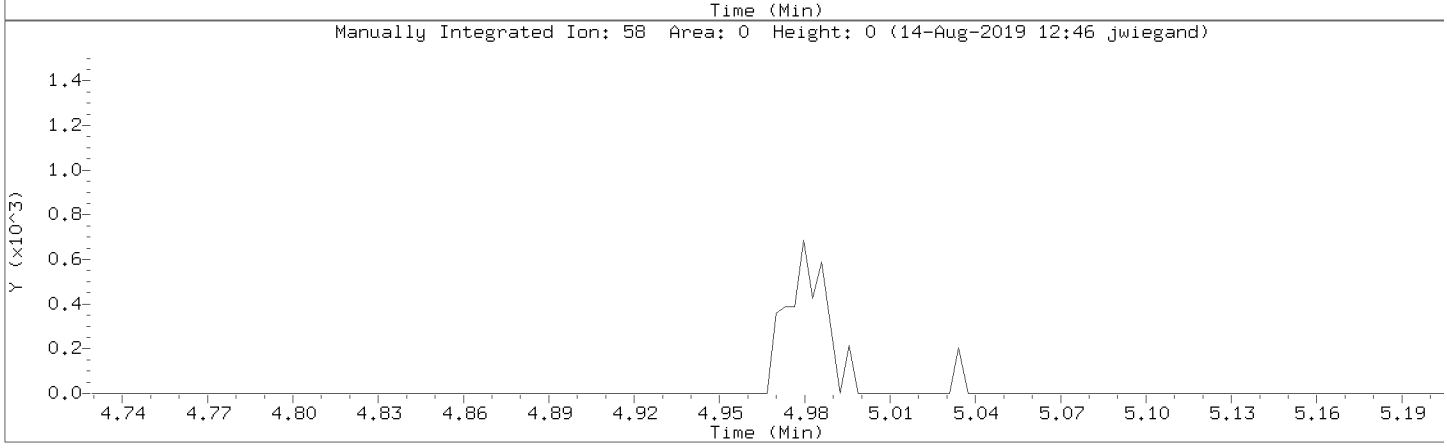
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1









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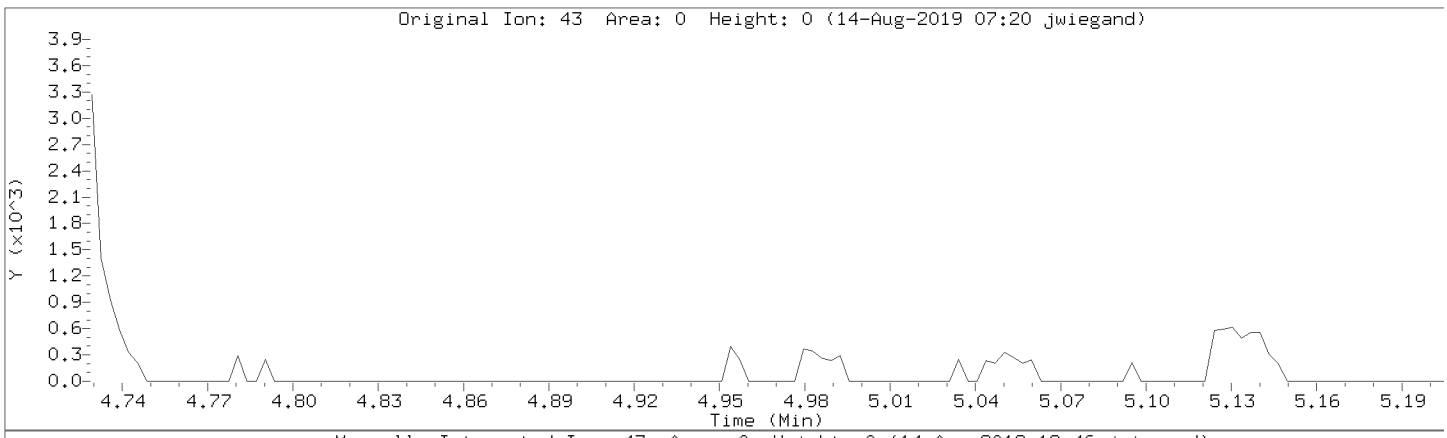
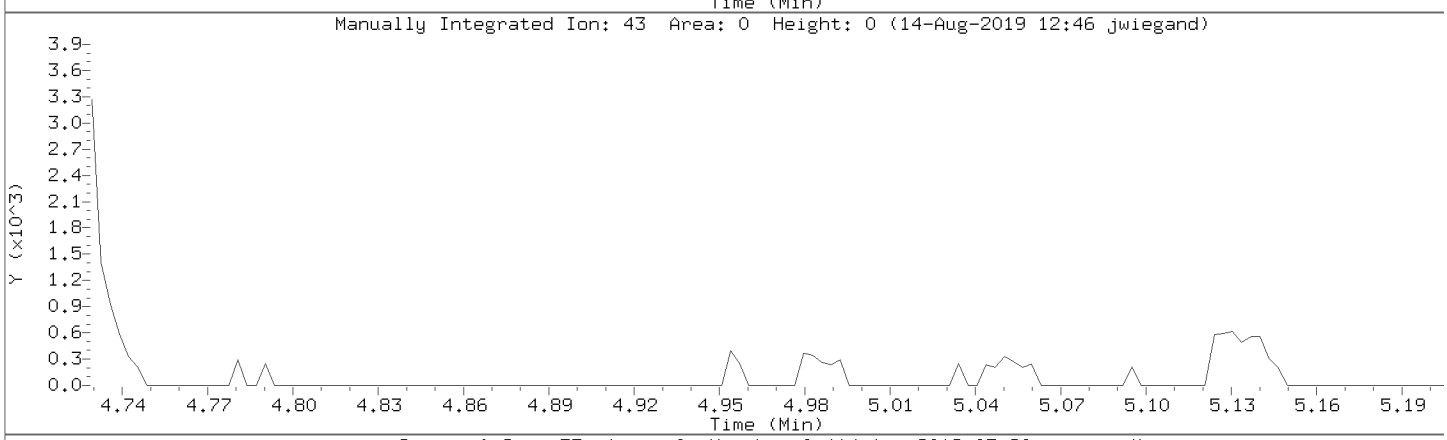
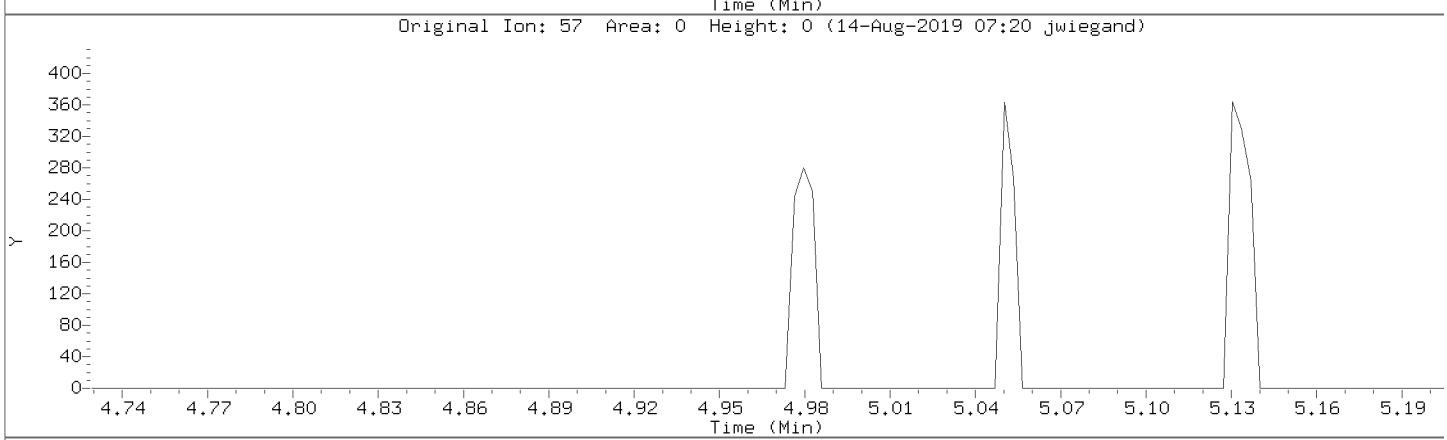
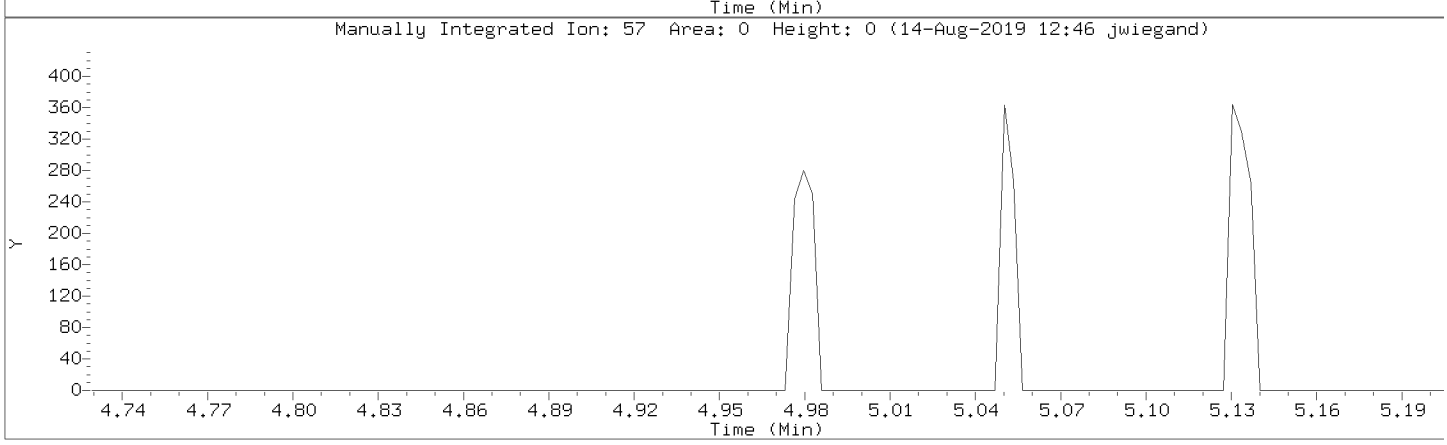
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1









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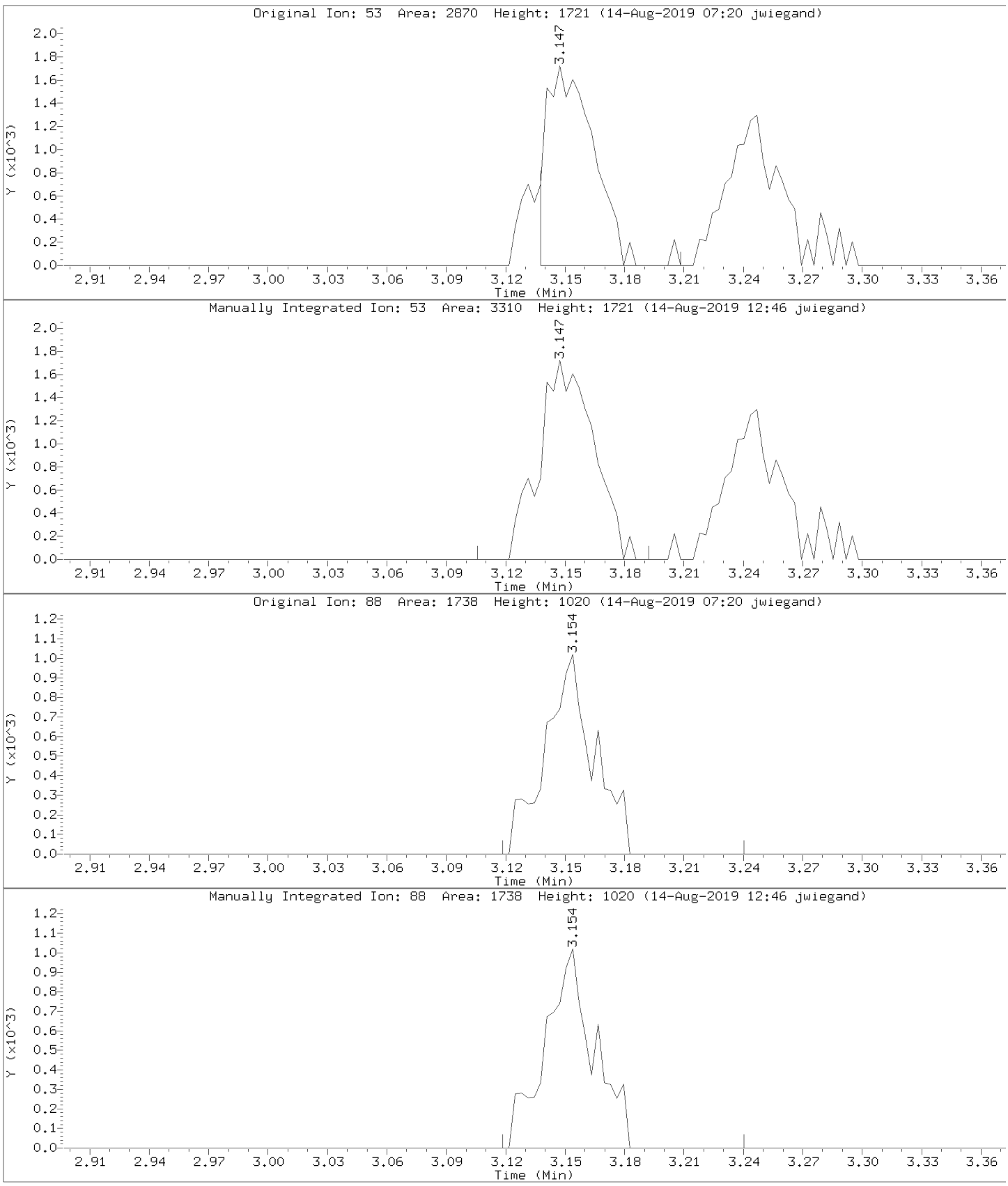
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Chloroprene Review Code: LT
CAS Number: 126-99-8



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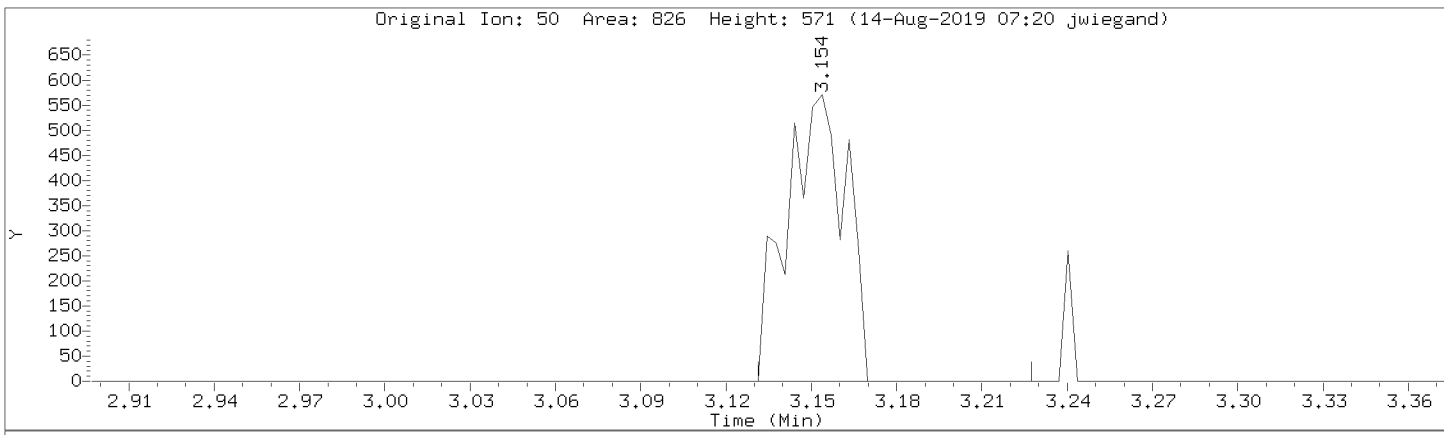

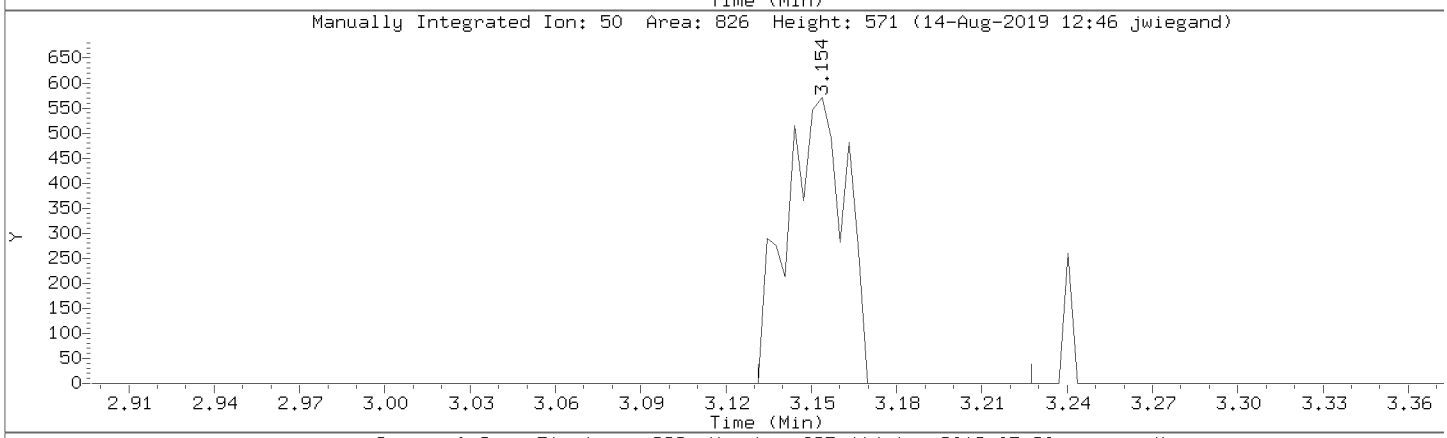

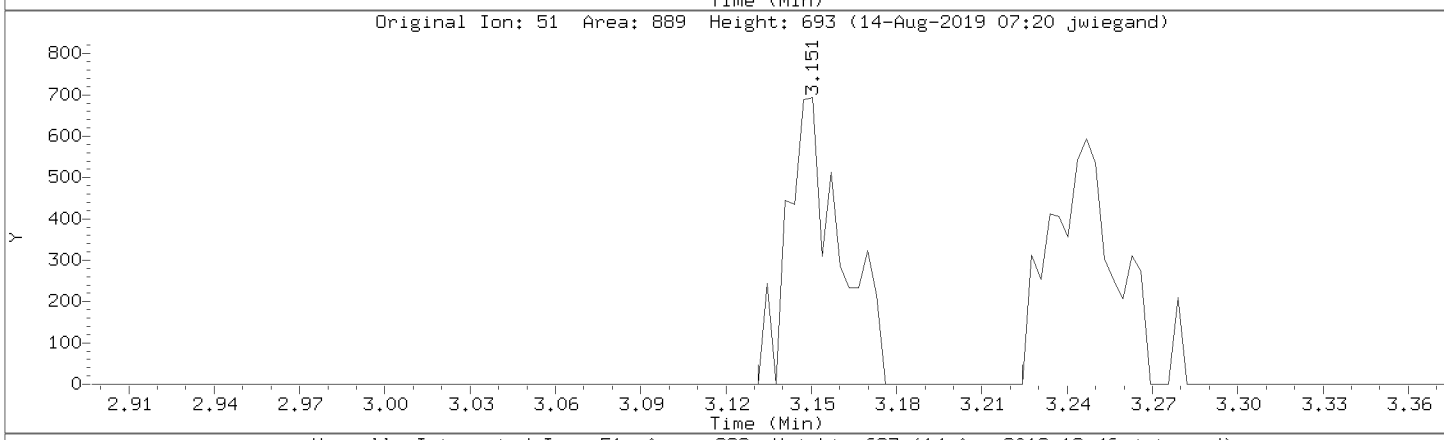

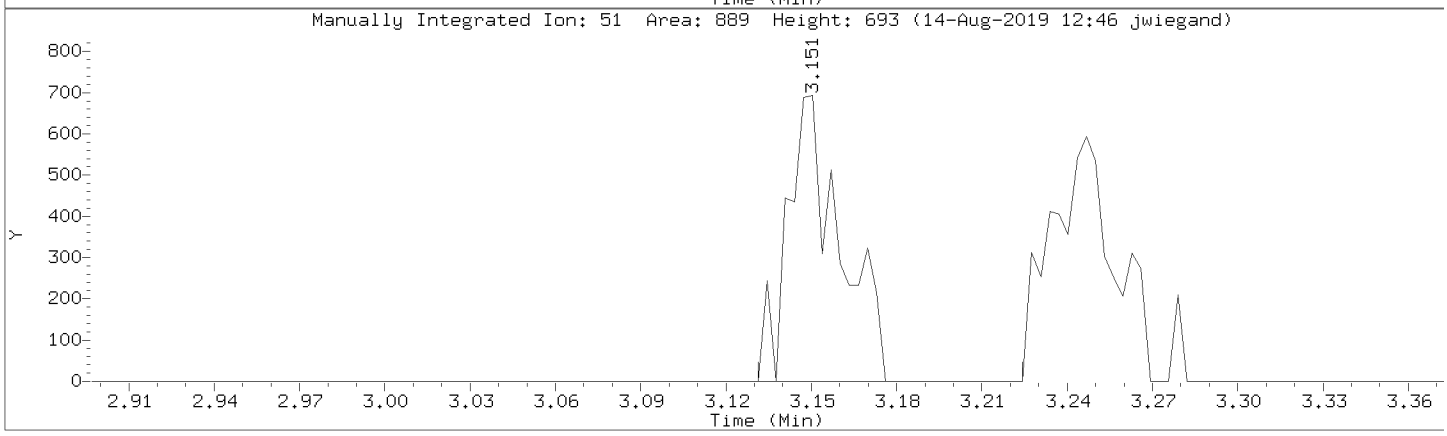

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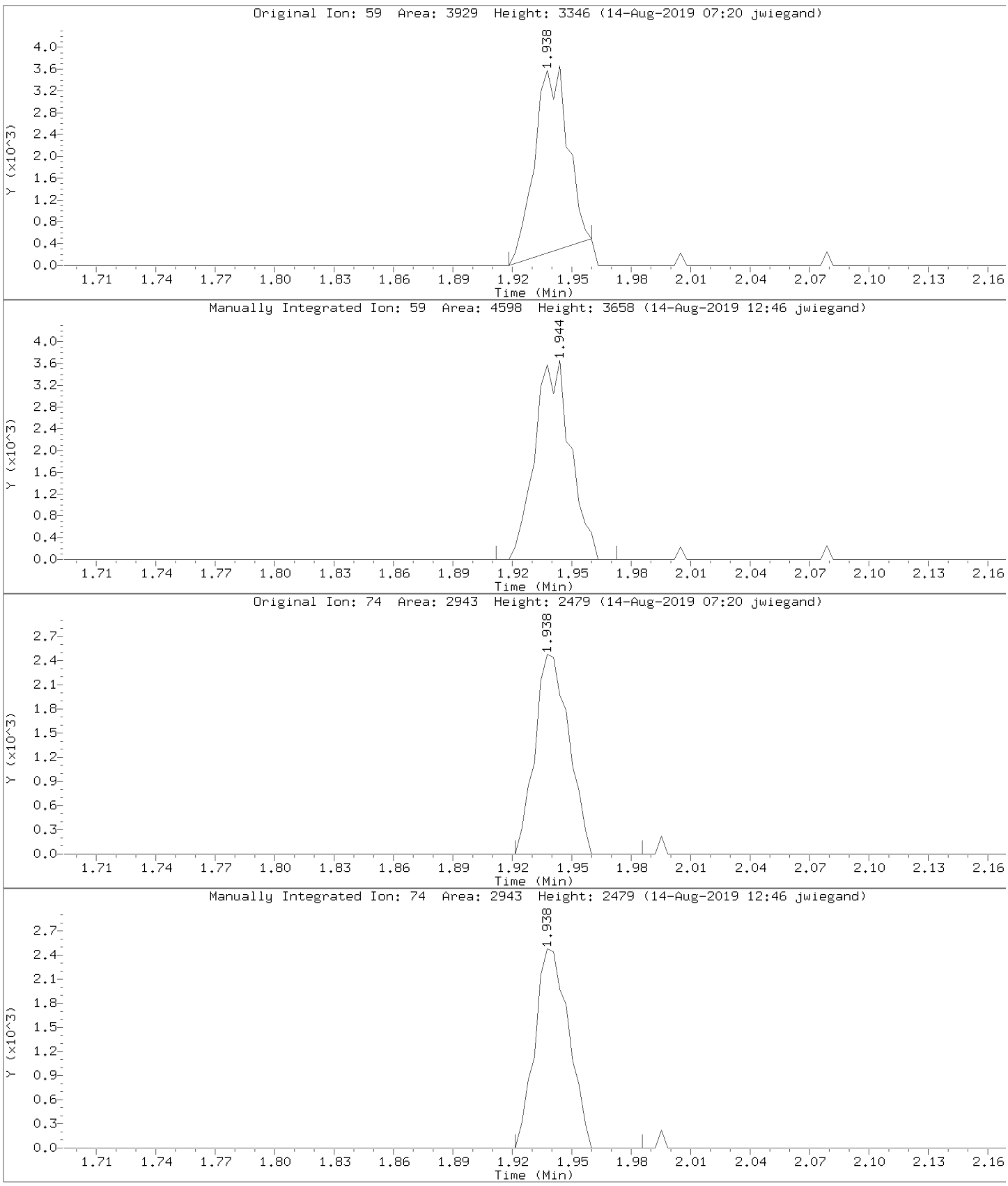
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Diethyl ether (Ethyl ether) Review Code: LT
CAS Number: 60-29-7



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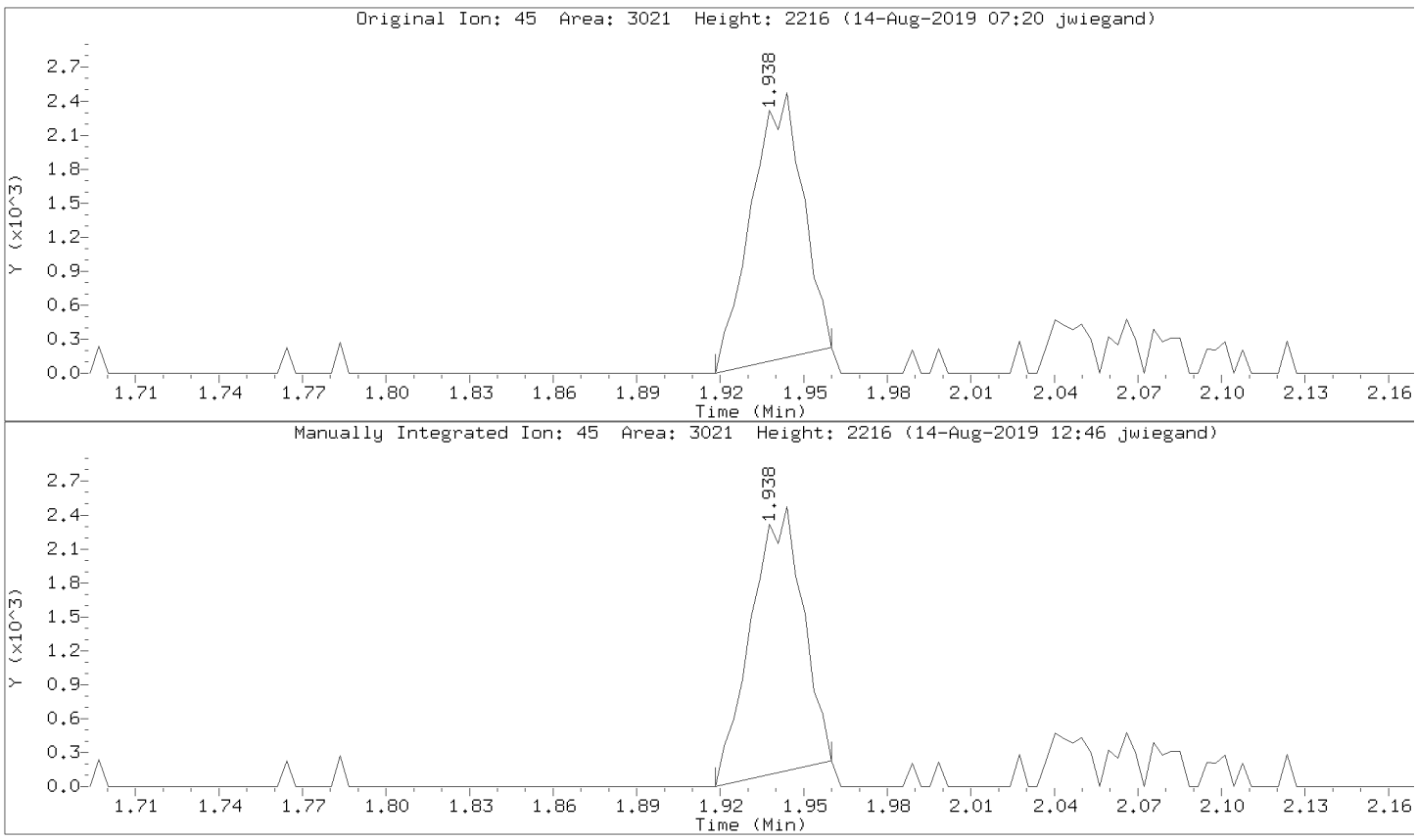
Lab Sample ID: CAL1



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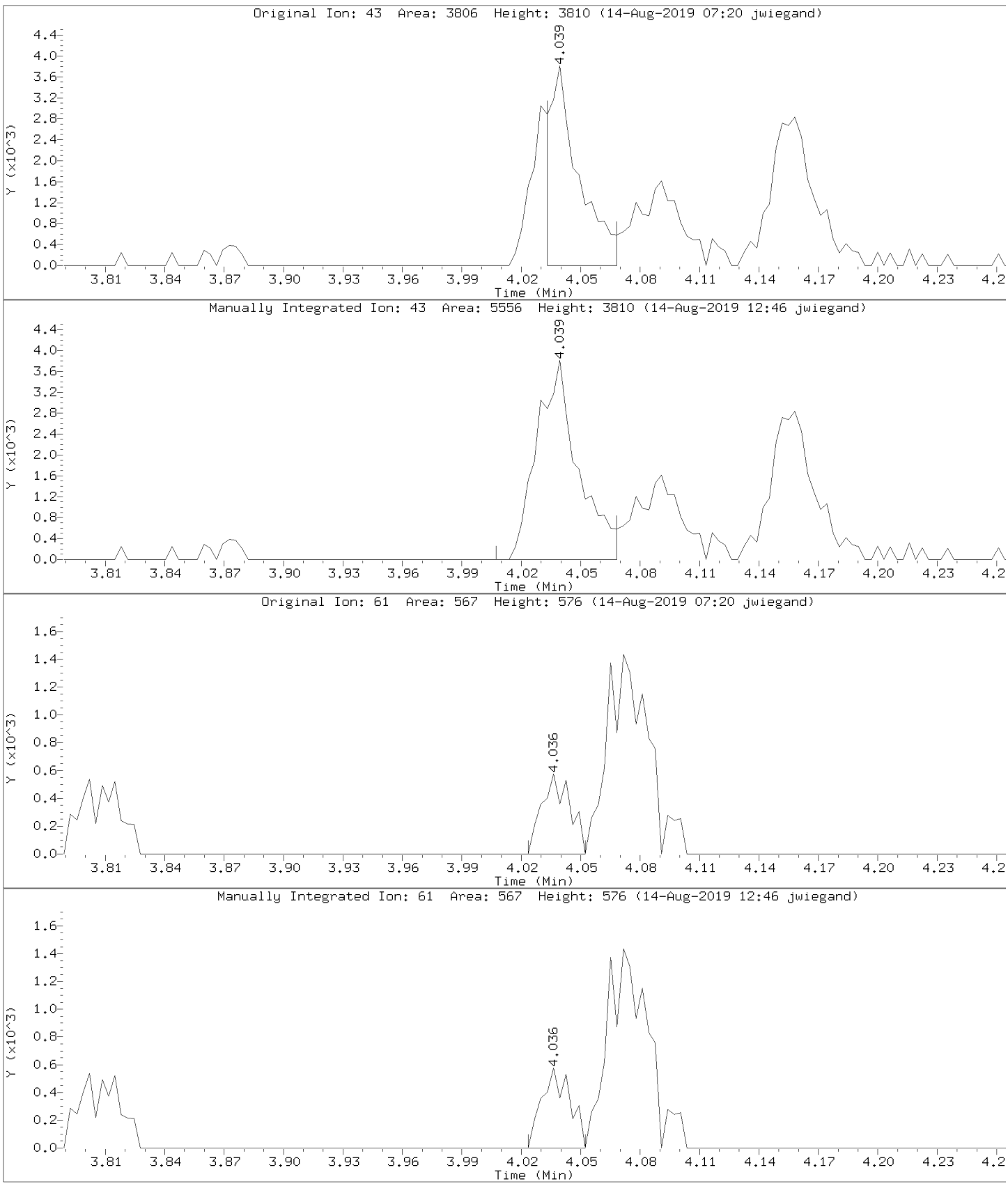
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: Ethyl acetate Review Code: LT
CAS Number: 141-78-6



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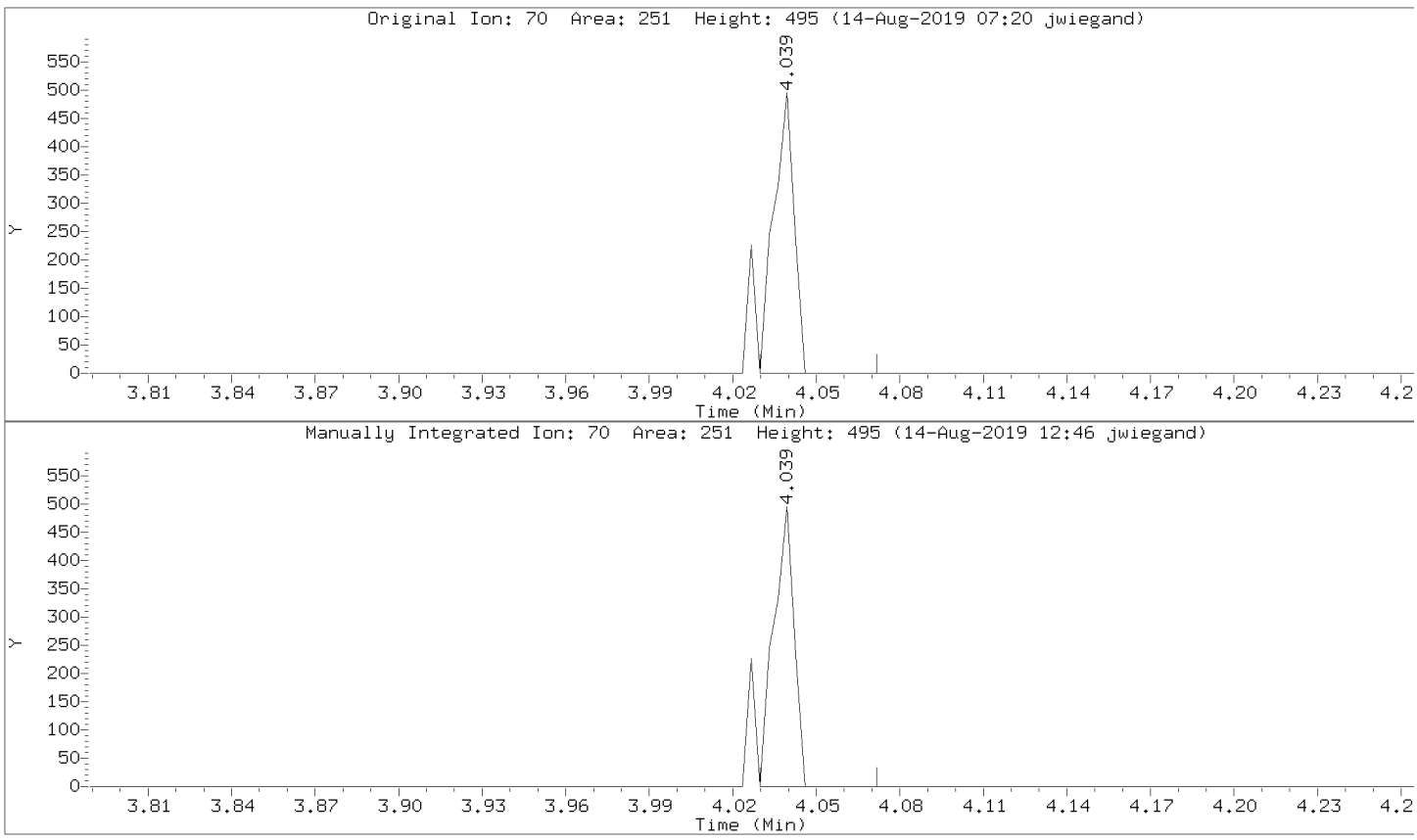

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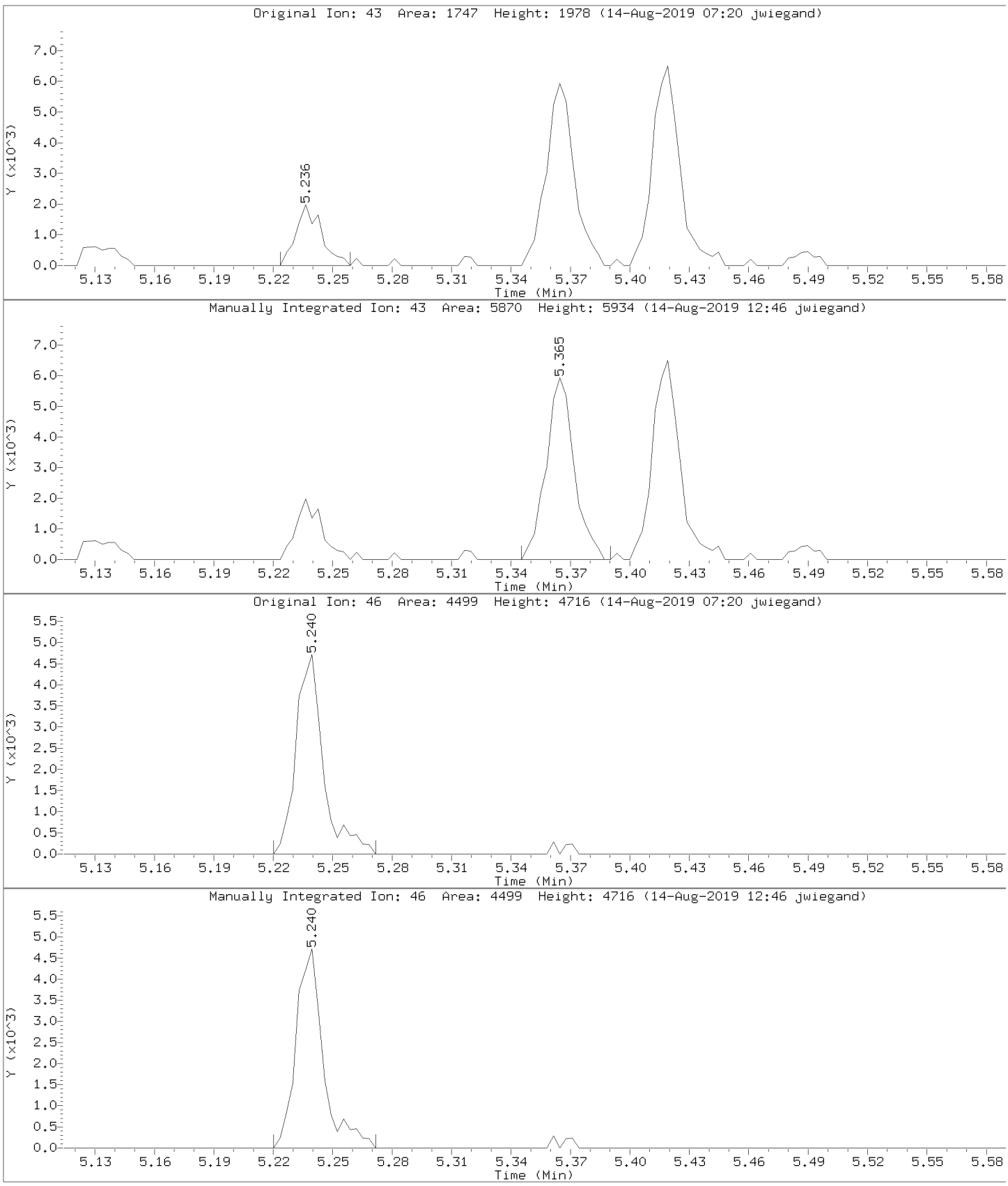
Injection Date: 13-AUG-2019 14:23
Instrument: 30mv6a.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 13-AUG-2019 14:49
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal2, 96576:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 14:49 Cal File: 60813015.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.228	(0.271)	9576	5.00000	6.01(QM)	LT
2 Chloromethane	50	1.347	1.347	(0.298)	15423	5.00000	9.18(M)	BA
3 Vinyl chloride	62	1.392	1.395	(0.307)	14867	5.00000	7.84	
4 Bromomethane	94	1.587	1.585	(0.351)	3768	5.00000	5.99	
5 Chloroethane	64	1.661	1.662	(0.367)	9706	5.00000	8.86	
6 Trichlorofluoromethane	101	1.741	1.742	(0.385)	16608	5.00000	7.49	
7 Diethyl ether (Ethyl ether)	59	1.937	1.944	(0.428)	11672	5.00000	6.19	
8 Ethanol	45	2.049	2.049	(0.298)	2751	50.0000	(aQ)	
9 1,1-Dichloroethene	61	2.078	2.079	(0.459)	18126	5.00000	6.41	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	7264	5.00000	5.66	
11 Carbon disulfide	76	2.104	2.104	(0.465)	34135	5.00000	8.08	
12 Iodomethane	142	2.184	2.181	(0.483)	4595	5.00000	4.31	
13 Acrolein	56	2.316	2.326	(0.512)	1892	5.00000	6.47(QM)	LT
14 Allyl chloride	41	2.418	2.419	(0.534)	100921	25.0000	35.0(Q)	
15 Methylene Chloride	49	2.502	2.502	(0.553)	36176	5.00000	13.2	
16 Acetone	43	2.544	2.554	(0.562)	17944	5.00000	21.2(Q)	
17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	17950	5.00000	6.45(M)	NI
18 Methyl acetate	74	2.643	2.640	(0.584)	2173	5.00000	5.30	
19 n-Hexane	86	2.682	2.682	(0.592)	11386	5.00000	21.6	
20 Methyl-tert-butyl ether	73	2.707	2.714	(0.598)	29085	5.00000	5.10(Q)	
21 tert-Butyl Alcohol	59	2.797	2.798	(0.618)	10790	25.0000	23.1(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.951	2.955	(0.652)	8101	25.0000	27.4(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	33202	5.00000	4.98	
	24 Chloroprene	53	3.150	3.147	(0.696)	14481	5.00000	5.20	
	25 1,1-Dichloroethane	63	3.173	3.179	(0.701)	22432	5.00000	6.13	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	5431	5.00000	5.48(M)	LT
	27 Ethyl-tert-butyl ether	59	3.416	3.427	(0.755)	29686	5.00000	4.66	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	22143	5.00000	4.24(Q)	
	29 cis-1,2-Dichloroethene	61	3.724	3.725	(0.823)	18547	5.00000	7.24	
	30 2,2-Dichloropropane	77	3.801	3.805	(0.840)	15941	5.00000	5.75	
	31 Cyclohexane	56	3.869	3.876	(0.855)	18069	5.00000	5.23	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	9005	5.00000	6.22	
	33 Chloroform	83	3.943	3.943	(0.871)	20523	5.00000	5.98	
	34 Carbon tetrachloride	117	4.026	4.022	(0.889)	12440	5.00000	5.15	
	35 Ethyl acetate	43	4.033	4.038	(0.891)	10882	5.00000	4.42(Q)	
	36 Tetrahydrofuran	42	4.055	4.054	(0.896)	7237	5.00000	6.29	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	92196	30.0000	35.6	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	16724	5.00000	5.59	
	39 2-Butanone (MEK)	43	4.151	4.158	(0.917)	7995	5.00000	5.56(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	12852	5.00000	5.10	
	41 Benzene	78	4.302	4.306	(0.950)	39821	5.00000	5.81	
	42 Propionitrile	54	4.331	4.335	(0.957)	2226	5.00000	4.80(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	7187	5.00000	5.10	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	25242	5.00000	4.82	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	86928	30.0000	35.0	
	46 Isobutanol	43	4.440	4.447	(0.981)	2657	25.0000	15.9(Q)	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	16277	5.00000	5.97	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	293922	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	13115	5.00000	4.60	
	50 Trichloroethene	95	4.610	4.614	(0.783)	9912	5.00000	3.86	
	51 Dibromomethane	174	4.812	4.816	(1.063)	8611	5.00000	5.93	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	10564	5.00000	5.00	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	13034	5.00000	5.34	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	6908	5.00000	4.76	
	55 1,4-Dioxane (p-Dioxane)	88	4.979	4.980	(1.100)	1699	50.0000	51.1(QM)	NI
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	1971	5.00000	3.90	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	14660	5.00000	4.72	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	330478	30.0000	28.6	
	59 Toluene	91	5.258	5.259	(0.893)	51225	5.00000	4.92	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	11585	25.0000	17.7(QM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.419	(1.196)	14334	5.00000	5.72	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	12050	5.00000	4.51	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	13946	5.00000	3.71	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	11878	5.00000	4.76(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	8417	5.00000	3.70	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	9876	5.00000	3.62	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	15177	5.00000	3.93	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	9580	5.00000	3.93	
	69 2-Hexanone	43	5.756	5.759	(0.978)	11353	5.00000	4.42	
	70 Ethylbenzene	106	5.897	5.901	(1.002)	18296	5.00000	4.67	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	291221	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	36000	5.00000	4.87	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.920	(1.005)	9813	5.00000	3.64(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	45708	10.0000	9.41	
	75 o-Xylene	106	6.138	6.141	(1.043)	21670	5.00000	4.52	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	37877	5.00000	4.46	
	77 Bromoform	173	6.186	6.189	(0.900)	6648	5.00000	3.71	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	53612	5.00000	4.46	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.401	(0.931)	120514	30.0000	29.6	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	62670	5.00000	4.49	
	81 Bromobenzene	77	6.446	6.449	(0.938)	23845	5.00000	4.72	
	82 1,1,2,2-Tetrachloroethane	83	6.474	6.475	(0.943)	14398	5.00000	4.65	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	45782	5.00000	4.52	
	84 2-Chlorotoluene	126	6.519	6.523	(0.949)	13830	5.00000	4.57	
	85 1,2,3-Trichloropropane	110	6.535	6.542	(0.951)	4703	5.00000	4.47	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	3868	5.00000	3.73	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	6054	25.0000	21.8	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	14664	5.00000	4.49	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	39556	5.00000	4.37	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.973)	48442	5.00000	4.56	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	57537	5.00000	4.38	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	51200	5.00000	4.36	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	31977	5.00000	4.87	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	166814	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	33218	5.00000	4.90	
	96 n-Butylbenzene	91	6.965	6.969	(1.014)	44194	5.00000	4.23	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	30314	5.00000	4.76	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	166811	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	3805	5.00000	3.90	
	99 1,3,5-Trichlorobenzene	180	7.415	7.418	(1.079)	20687	5.00000	4.40	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	9490	5.00000	4.17	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	18806	5.00000	4.29	
	102 Naphthalene	128	7.838	7.842	(1.141)	55853	5.00000	4.57	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	16545	5.00000	4.28	
	104 2-Methylnaphthalene	142	8.291	8.294	(1.207)	25294	5.00000	4.25	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813015.d
Lab Smp Id: CAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL2
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	293922	-19.54
71 Chlorobenzene-d5	277666	138833	555332	291221	4.88
94 1,4-Dichlorobenze	164337	82169	328674	166814	1.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	6.01	
74-87-3	Chloromethane	9.18	
75-01-4	Vinyl chloride	7.84	
74-83-9	Bromomethane	5.99	
75-00-3	Chloroethane	8.86	
75-69-4	Trichlorofluoromethane	7.49	
60-29-7	Diethyl ether (Ethyl ether)	6.19	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	6.41	
76-13-1	1,1,2-Trichlorotrifluoroetha	5.66	
75-15-0	Carbon disulfide	8.08	
74-88-4	Iodomethane	4.31	
107-02-8	Acrolein	6.47	
107-05-1	Allyl chloride	35.0	
75-09-2	Methylene Chloride	13.2	
67-64-1	Acetone	21.2	
156-60-5	trans-1,2-Dichloroethene	6.45	
79-20-9	Methyl acetate	5.30	
110-54-3	n-Hexane	21.6	
1634-04-4	Methyl-tert-butyl ether	5.10	
75-65-0	tert-Butyl Alcohol	23.1	
75-05-8	Acetonitrile	27.4	
108-20-3	Diisopropyl ether	4.98	
126-99-8	Chloroprene	5.20	
75-34-3	1,1-Dichloroethane	6.13	
107-13-1	Acrylonitrile	5.48	
637-92-3	Ethyl-tert-butyl ether	4.66	
108-05-4	Vinyl acetate	4.24	
156-59-2	cis-1,2-Dichloroethene	7.24	
594-20-7	2,2-Dichloropropane	5.75	
110-82-7	Cyclohexane	5.23	
74-97-5	Bromochloromethane	6.22	
67-66-3	Chloroform	5.98	
56-23-5	Carbon tetrachloride	5.15	
141-78-6	Ethyl acetate	4.42	
109-99-9	Tetrahydrofuran	6.29	
71-55-6	1,1,1-Trichloroethane	5.59	
78-93-3	2-Butanone (MEK)	5.56	
563-58-6	1,1-Dichloropropene	5.10	
71-43-2	Benzene	5.81	
107-12-0	Propionitrile	4.80	
126-98-7	Methacrylonitrile	5.10	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	4.82	
78-83-1	Isobutanol	15.9	
107-06-2	1,2-Dichloroethane	5.97	
108-87-2	Methylcyclohexane	4.60	
79-01-6	Trichloroethene	3.86	
74-95-3	Dibromomethane	5.93	
78-87-5	1,2-Dichloropropane	5.00	
75-27-4	Bromodichloromethane	5.34	
80-62-6	Methyl methacrylate	4.76	
123-91-1	1,4-Dioxane (p-Dioxane)	51.1	
110-75-8	2-Chloroethylvinyl ether	3.90	
10061-01-5	cis-1,3-Dichloropropene	4.72	
108-88-3	Toluene	4.92	
79-46-9	2-Nitropropane	17.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.72	
127-18-4	Tetrachloroethene	4.51	
10061-02-6	trans-1,3-Dichloropropene	3.71	
97-63-2	Ethyl methacrylate	4.76	
79-00-5	1,1,2-Trichloroethane	3.70	
124-48-1	Dibromochloromethane	3.62	
142-28-9	1,3-Dichloropropane	3.93	
106-93-4	1,2-Dibromoethane (EDB)	3.93	
591-78-6	2-Hexanone	4.42	
100-41-4	Ethylbenzene	4.67	
108-90-7	Chlorobenzene	4.87	
630-20-6	1,1,1,2-Tetrachloroethane	3.64	
7816-60-0	m&p-Xylene	9.41	
95-47-6	o-Xylene	4.52	
100-42-5	Styrene	4.46	
75-25-2	Bromoform	3.71	
98-82-8	Isopropylbenzene (Cumene)	4.46	
103-65-1	n-Propylbenzene	4.49	
108-86-1	Bromobenzene	4.72	
79-34-5	1,1,2,2-Tetrachloroethane	4.65	
108-67-8	1,3,5-Trimethylbenzene	4.52	
95-49-8	2-Chlorotoluene	4.57	
96-18-4	1,2,3-Trichloropropane	4.47	
110-57-6	trans-1,4-Dichloro-2-butene	3.73	
108-94-1	Cyclohexanone	21.8	
106-43-4	4-Chlorotoluene	4.49	
98-06-6	tert-Butylbenzene	4.37	
95-63-6	1,2,4-Trimethylbenzene	4.56	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Report Date: 29-Aug-2019 12:25

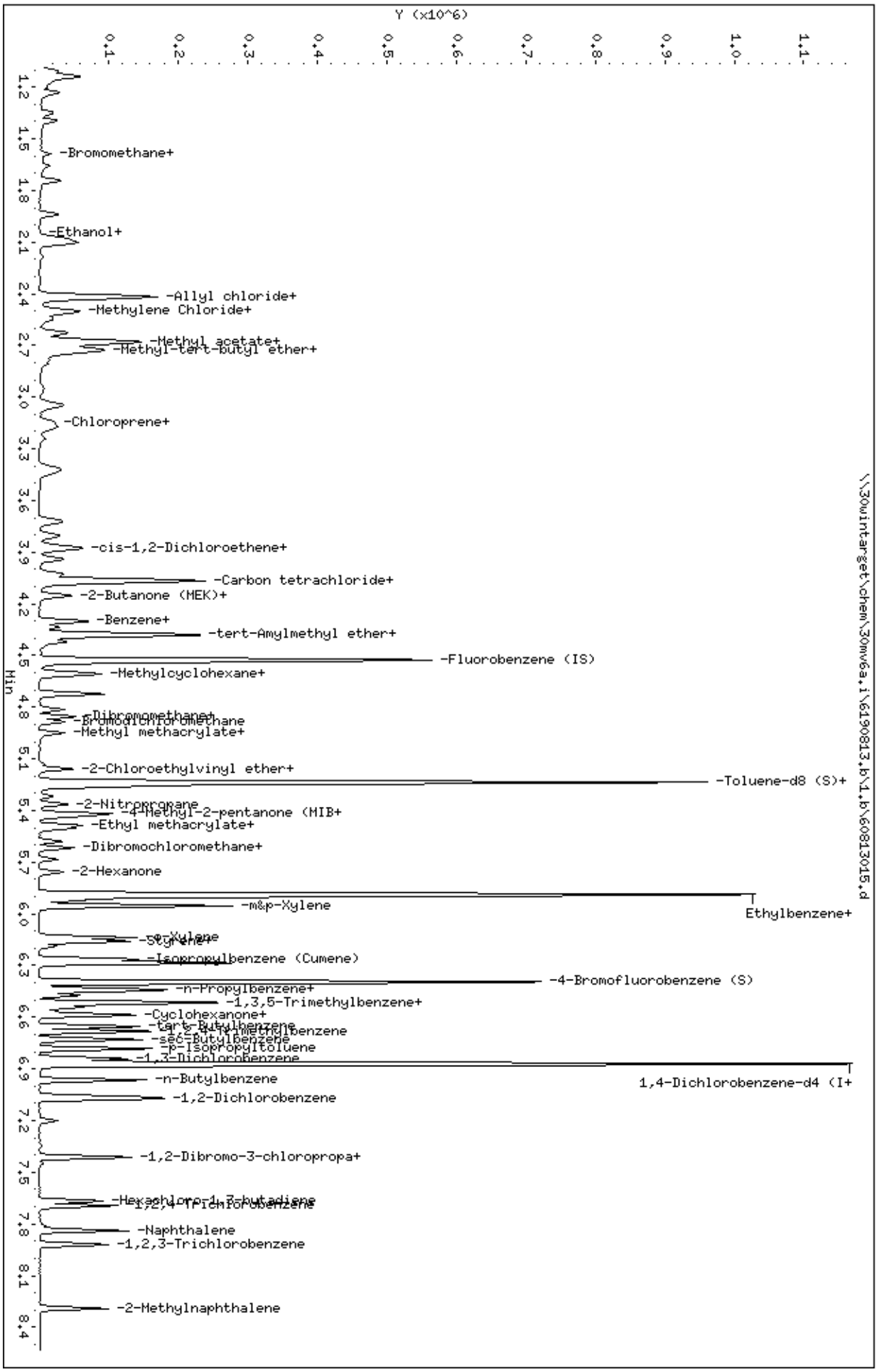
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	4.38	
99-87-6	p-Isopropyltoluene	4.36	
541-73-1	1,3-Dichlorobenzene	4.87	
106-46-7	1,4-Dichlorobenzene	4.90	
104-51-8	n-Butylbenzene	4.23	
95-50-1	1,2-Dichlorobenzene	4.76	
96-12-8	1,2-Dibromo-3-chloropropane	3.90	
108-70-3	1,3,5-Trichlorobenzene	4.40	
87-68-3	Hexachloro-1,3-butadiene	4.17	
120-82-1	1,2,4-Trichlorobenzene	4.29	
91-20-3	Naphthalene	4.57	
87-61-6	1,2,3-Trichlorobenzene	4.28	
91-57-6	2-Methylnaphthalene	4.25	
1868-53-7	Dibromofluoromethane (S)	35.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	35.0	
2037-26-5	Toluene-d8 (S)	28.6	
460-00-4	4-Bromofluorobenzene (S)	29.6	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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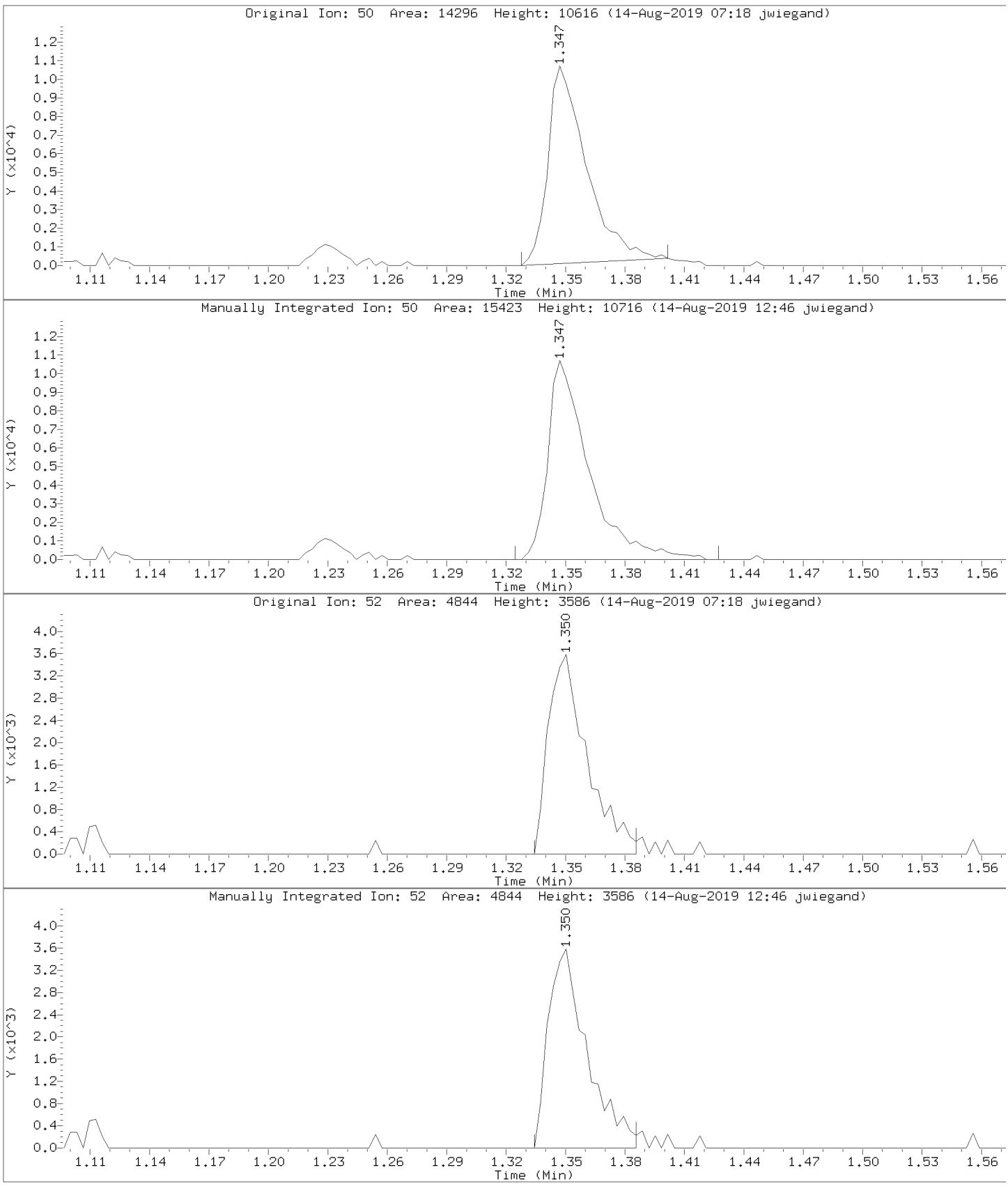
Date : 13-AUG-2019 14:49
Client ID: CAL2
Sample Info: CAL2, 9657:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813015.d
Y (x10^6)
Min
-Bromomethane+
-Ethanol+
-Allyl chloride+
-Methylene Chloride+
-Methyl acetate+
-Methyl-tert-butyl ether+
-Chloroprene+
-cis-1,2-Dichloroethene+
-Carbon tetrachloride+
-2-Butanone (MEK)+
-Benzene+
-tert-Amylmethyl ether+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane+
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether+
-Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane+
-2-Hexanone
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813015.d
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Chloromethane Review Code: BA
CAS Number: 74-87-3



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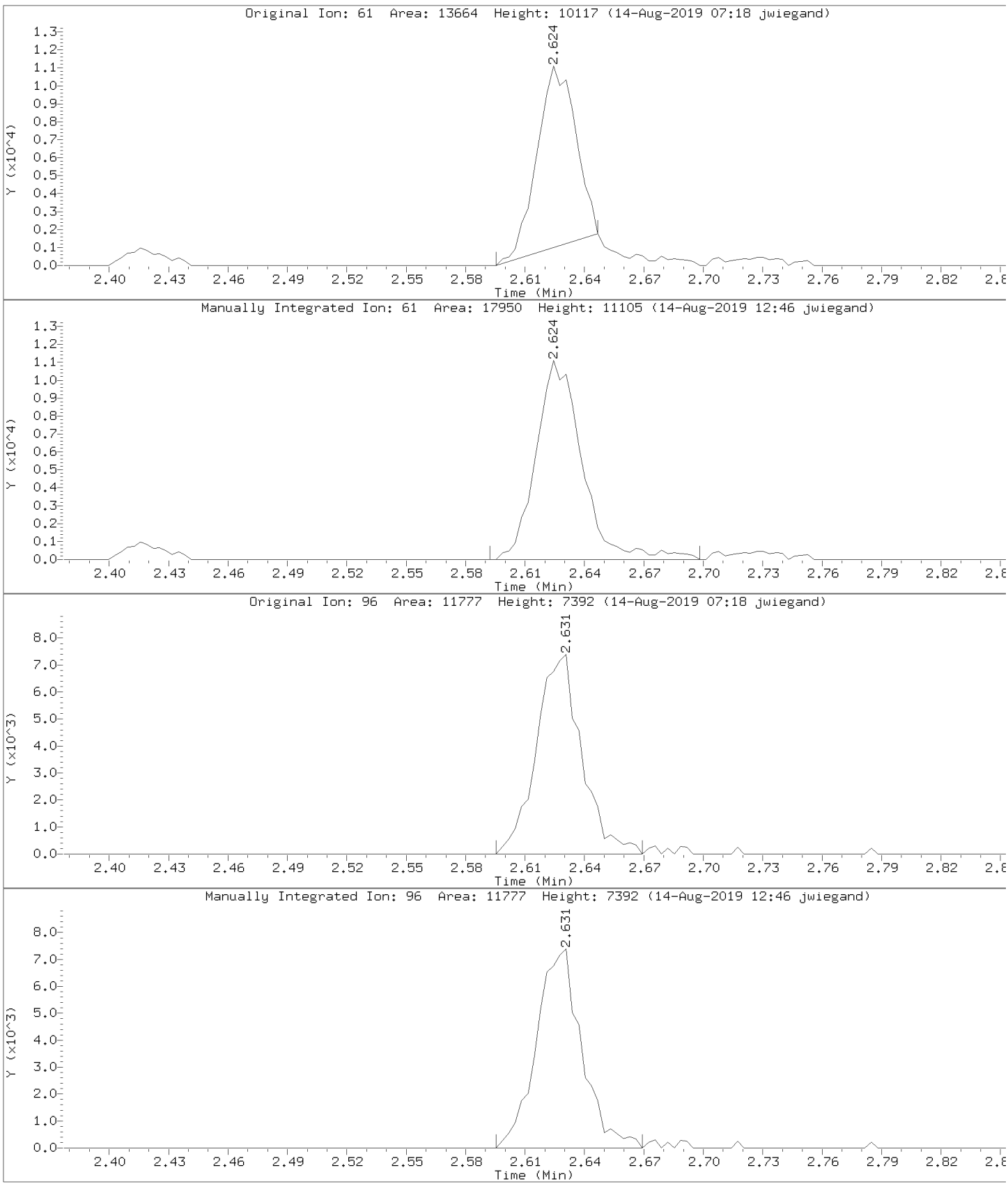
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: trans-1,2-Dichloroethene Review Code: NI
CAS Number: 156-60-5



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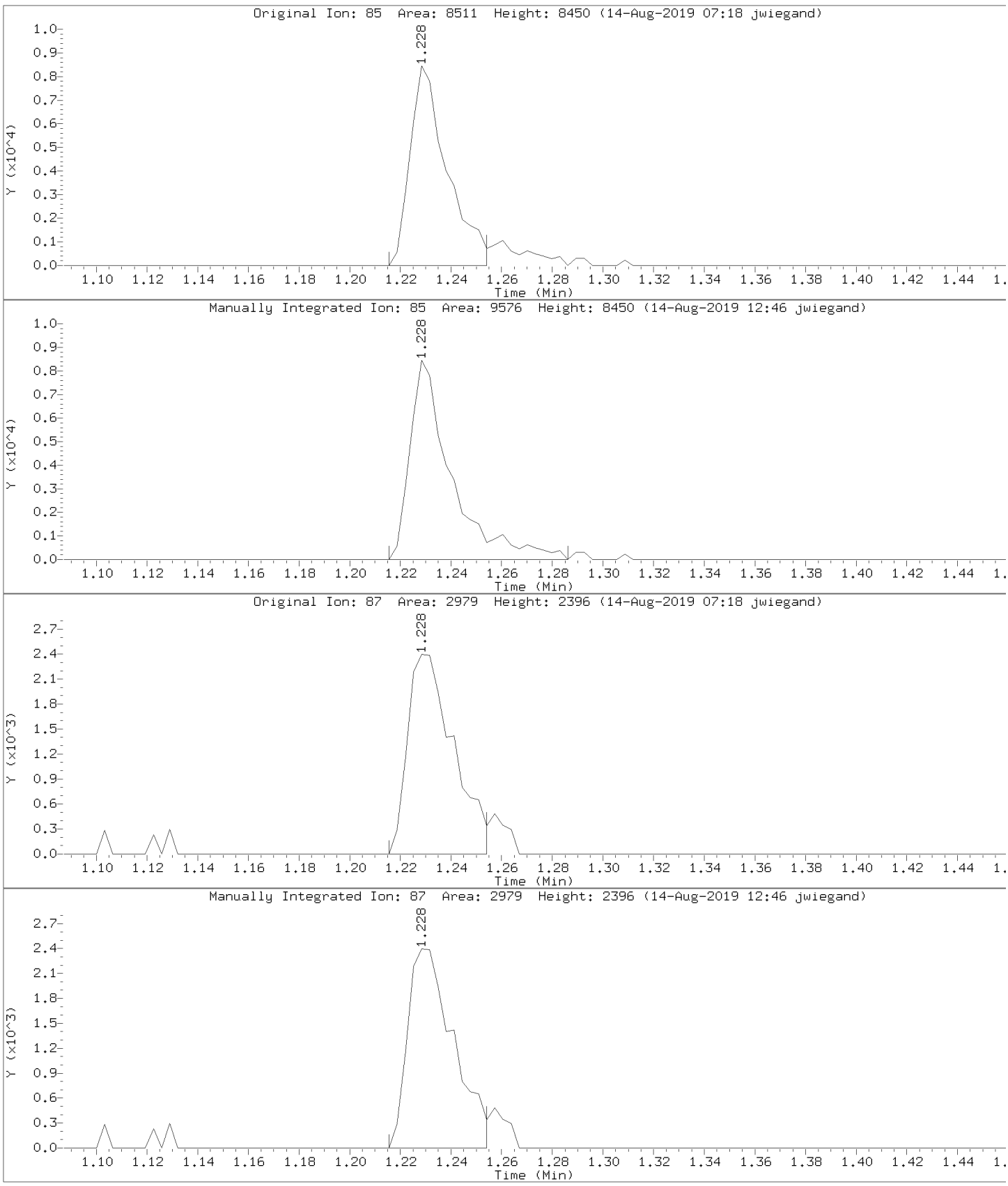
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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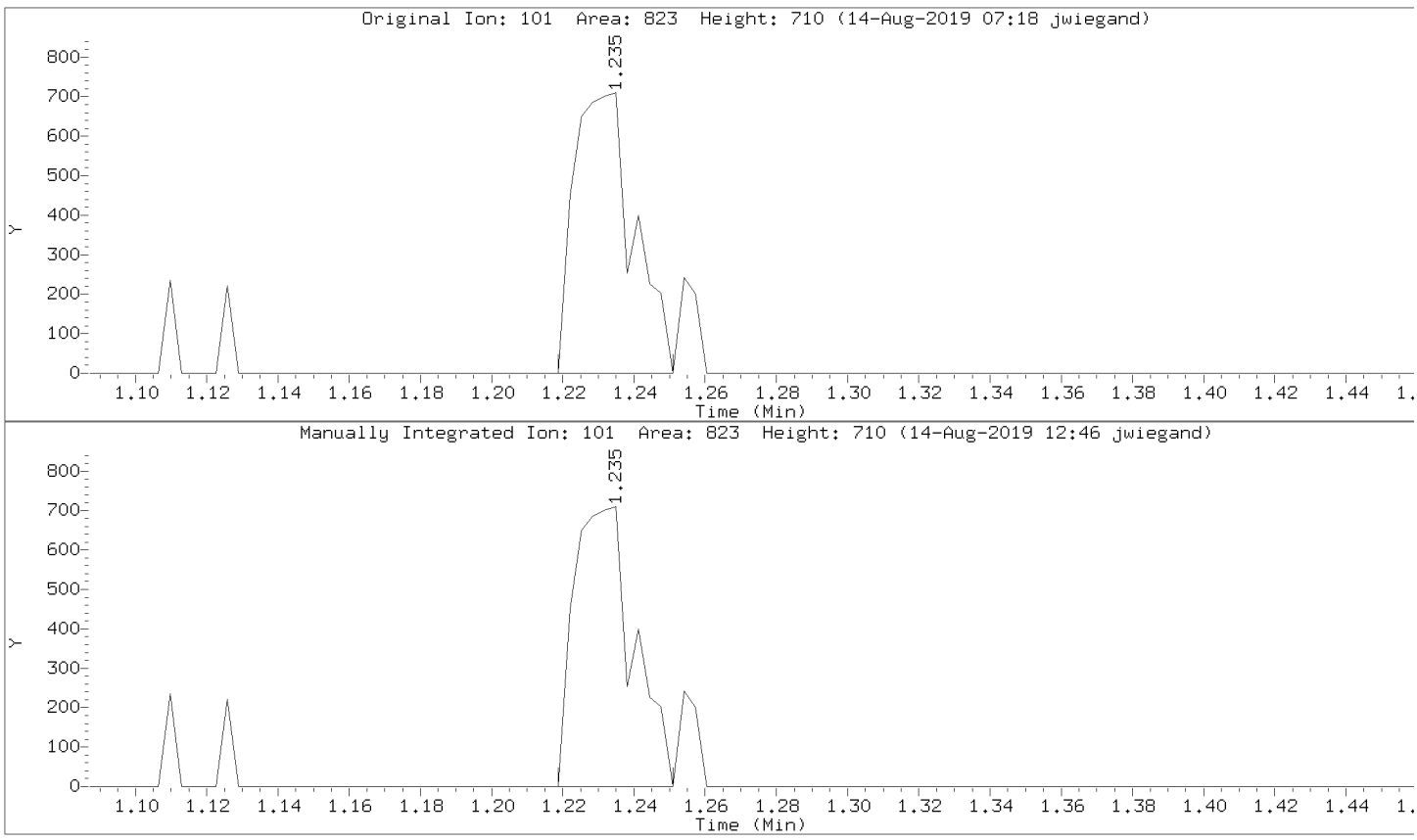
Instrument: 30mv6a.i
Lab Sample ID: CAL2



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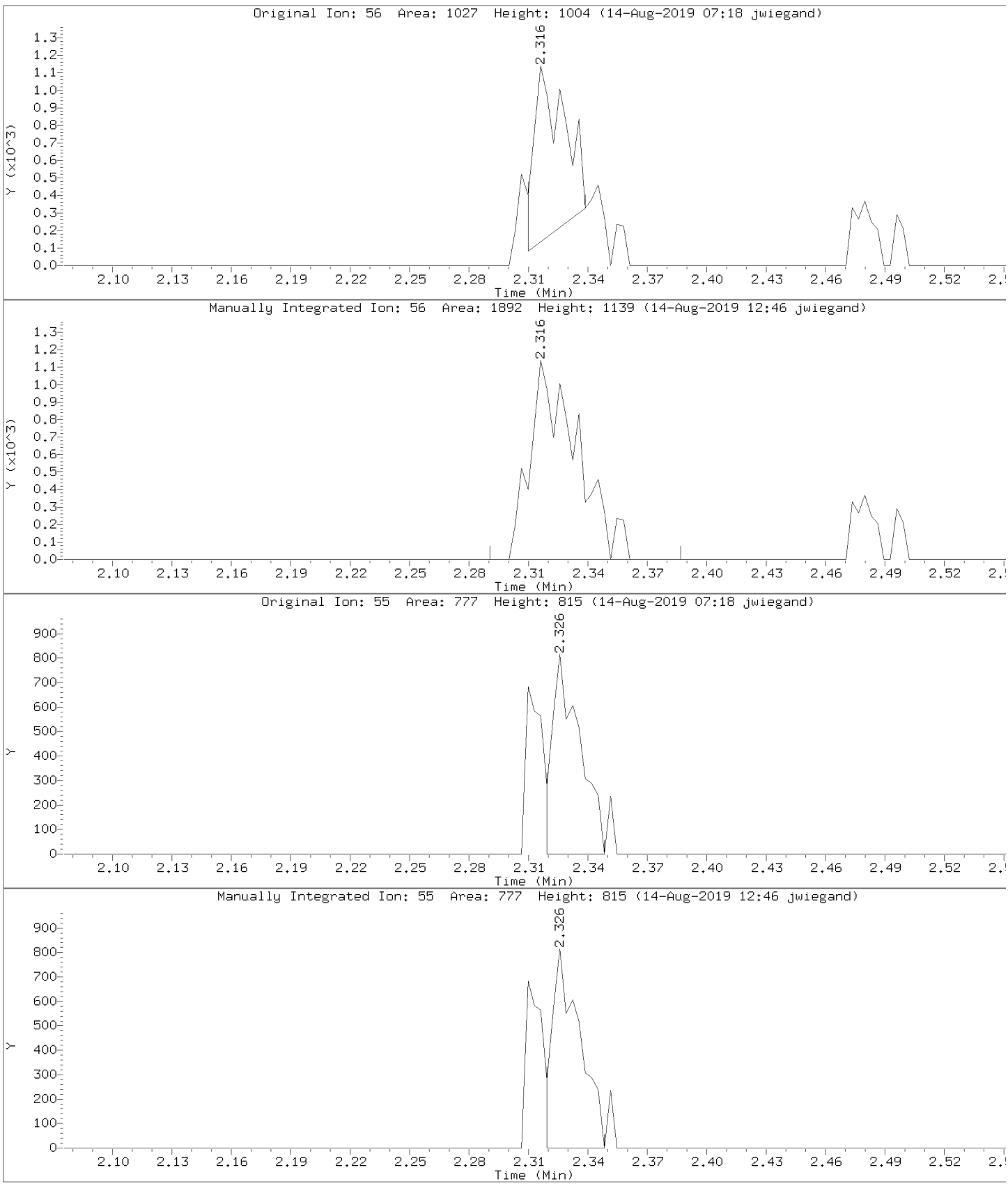
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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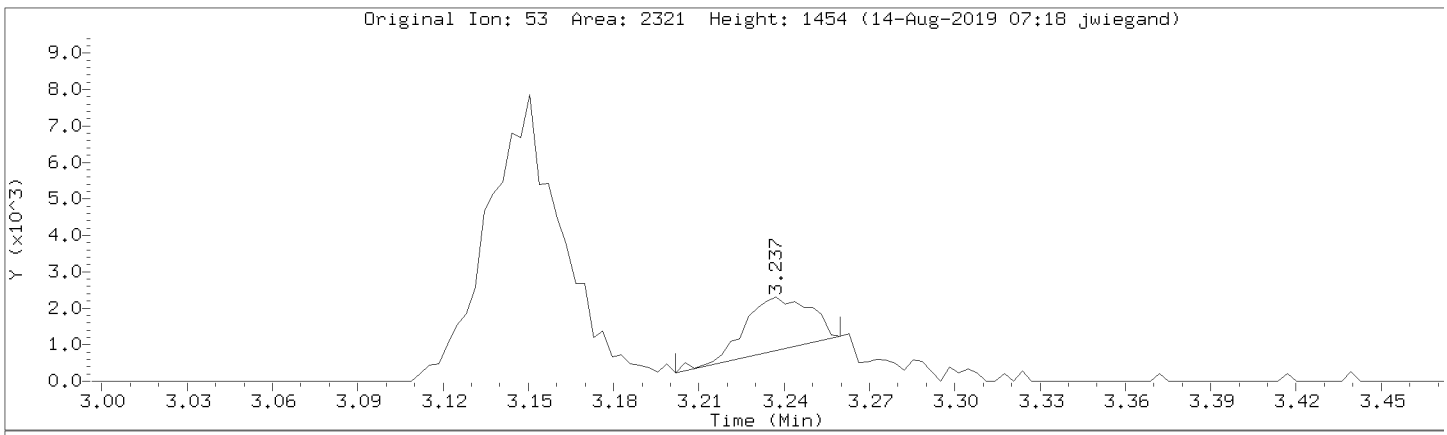
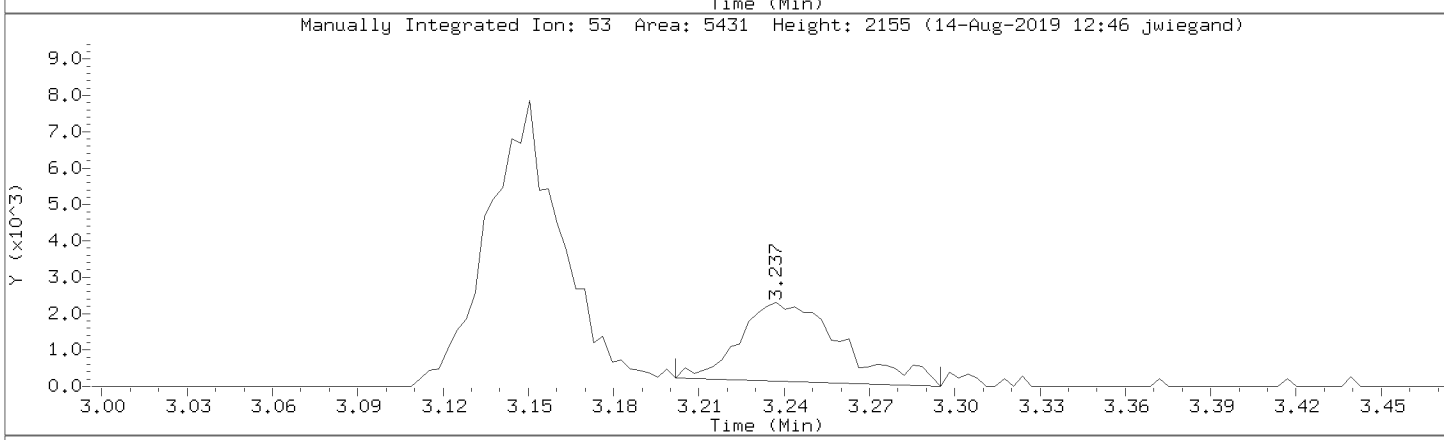
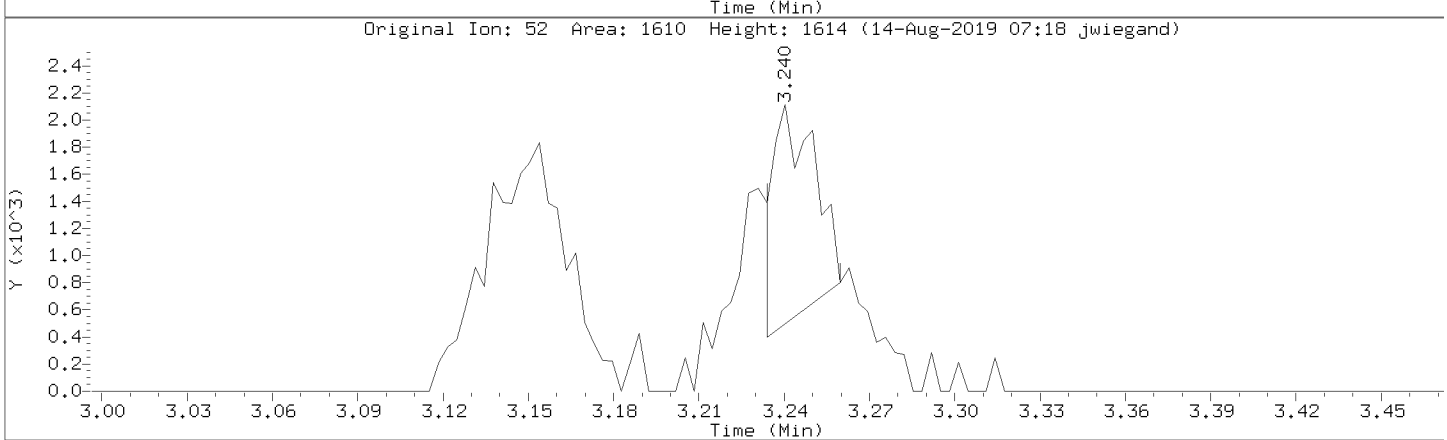
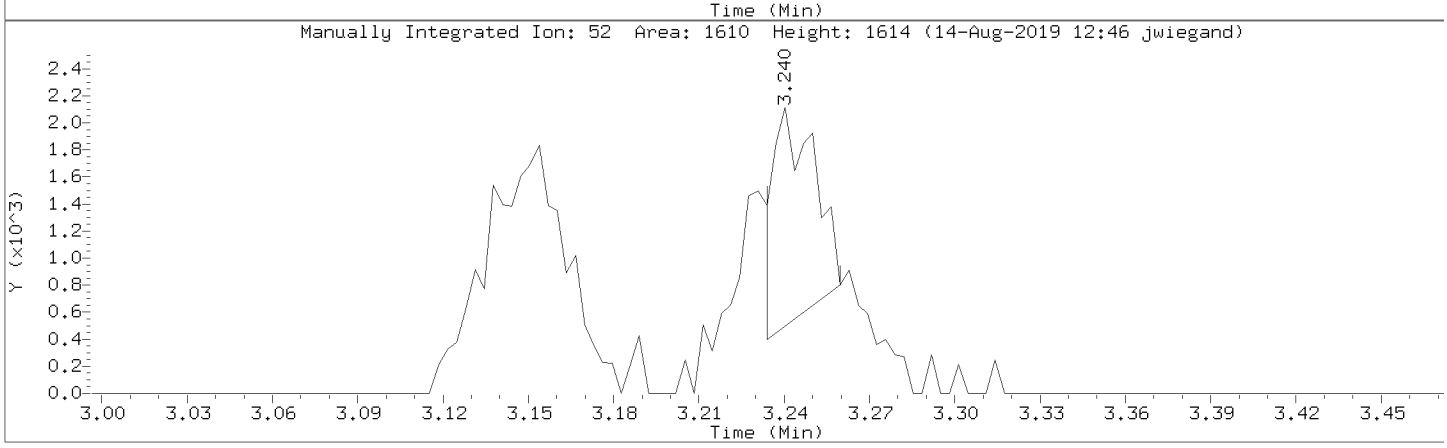
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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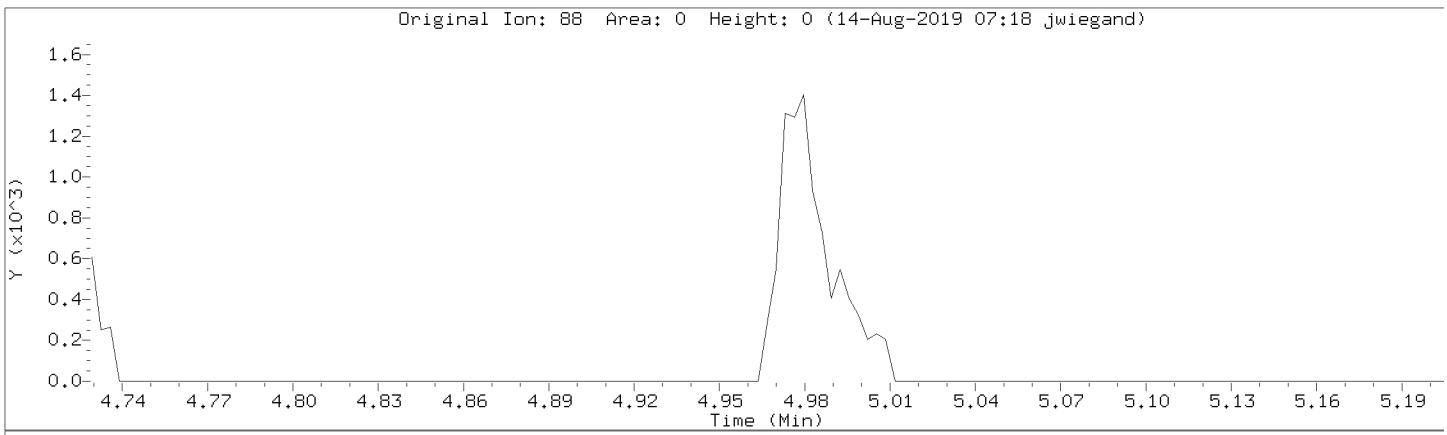
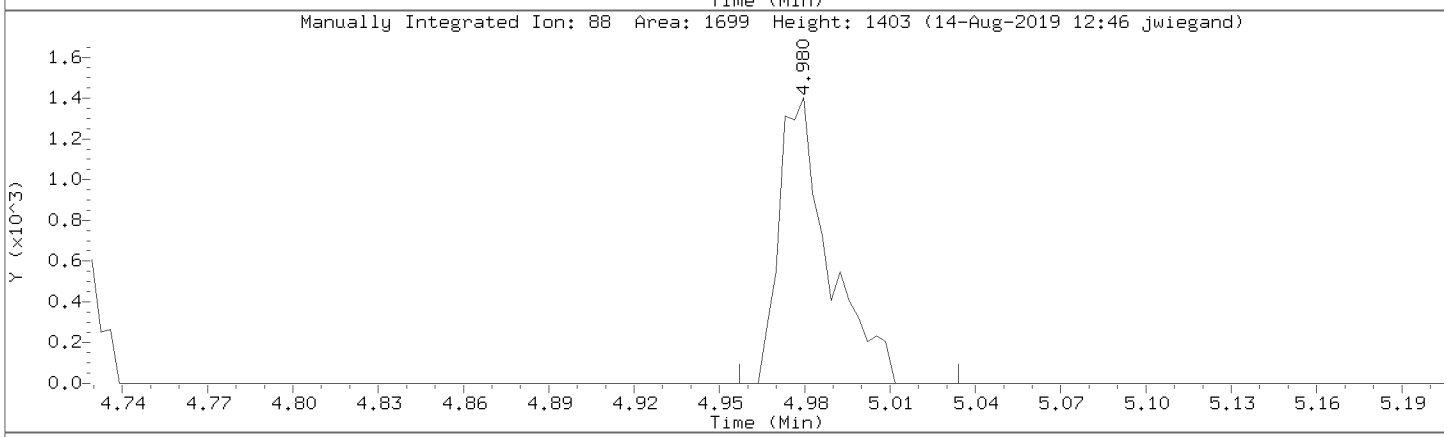
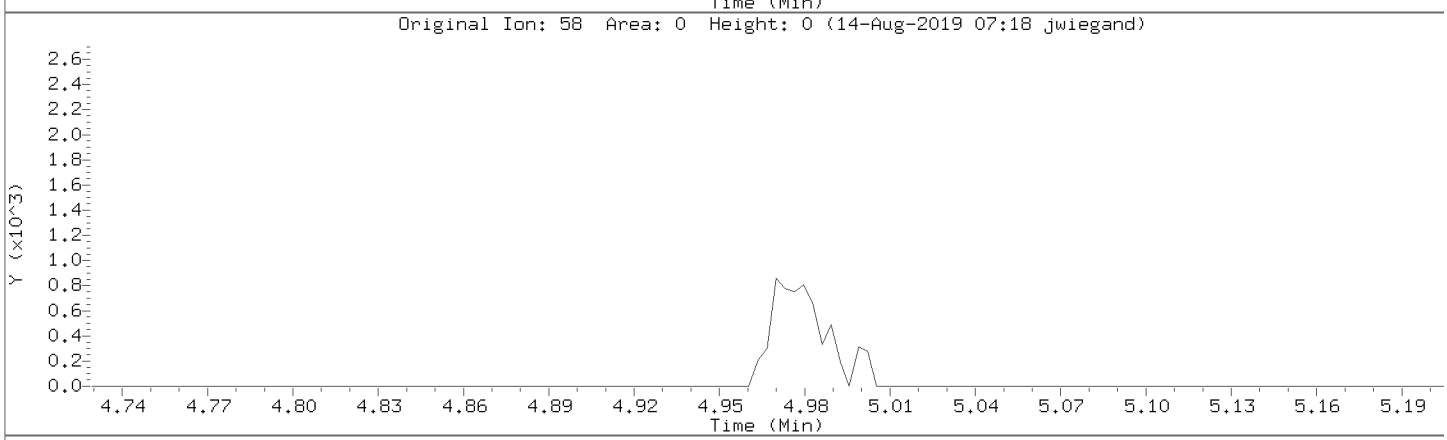
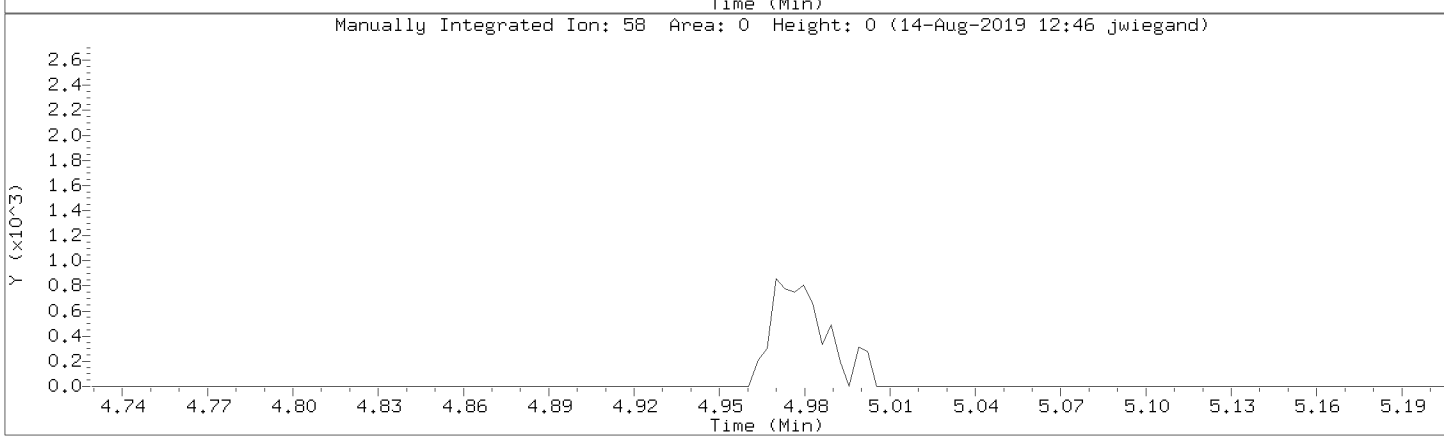
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: 1,4-Dioxane (p-Dioxane) Review Code: NI
CAS Number: 123-91-1









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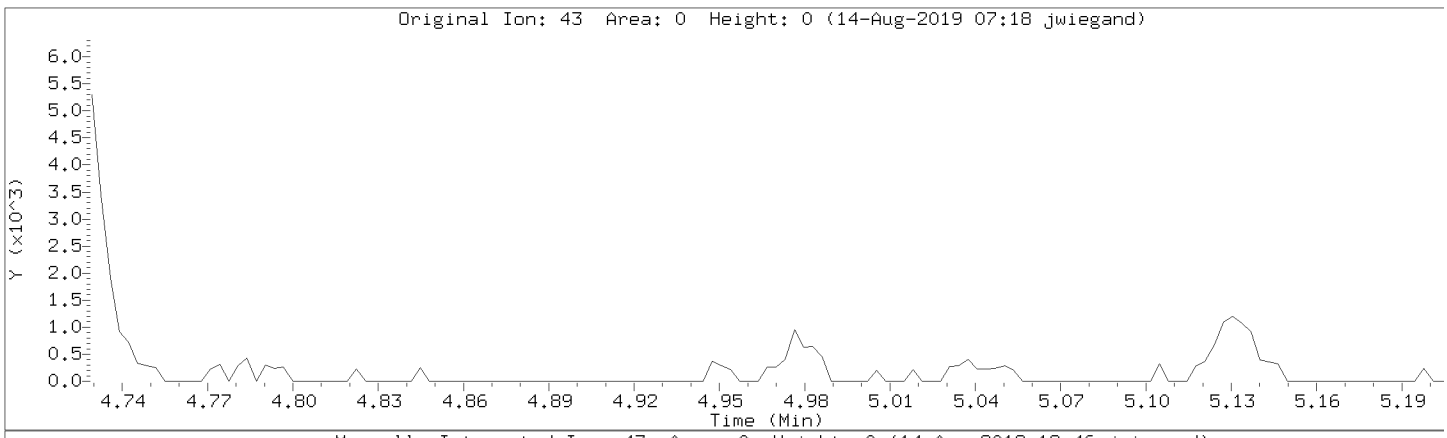
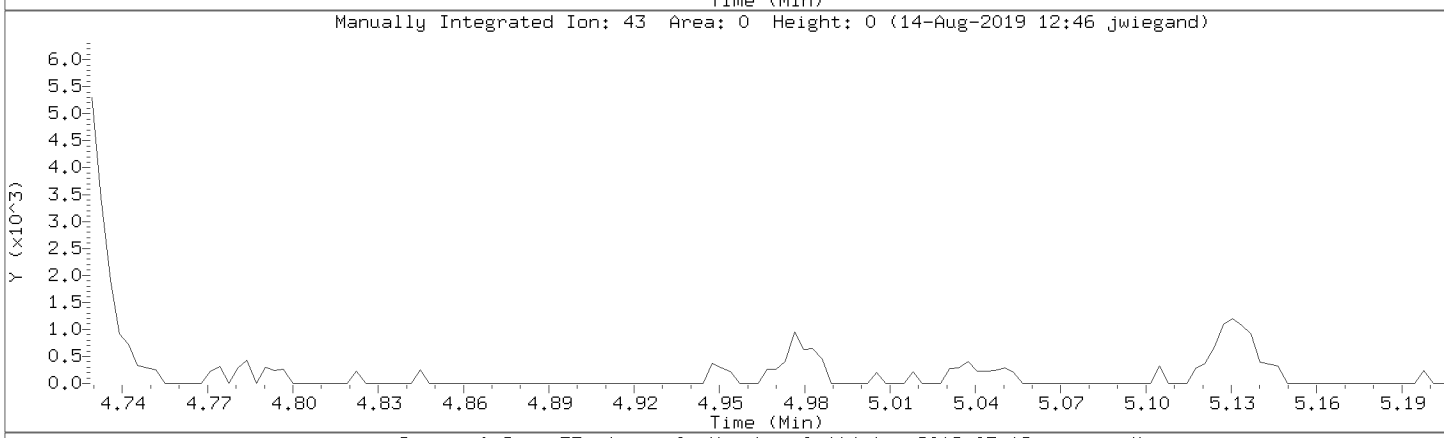
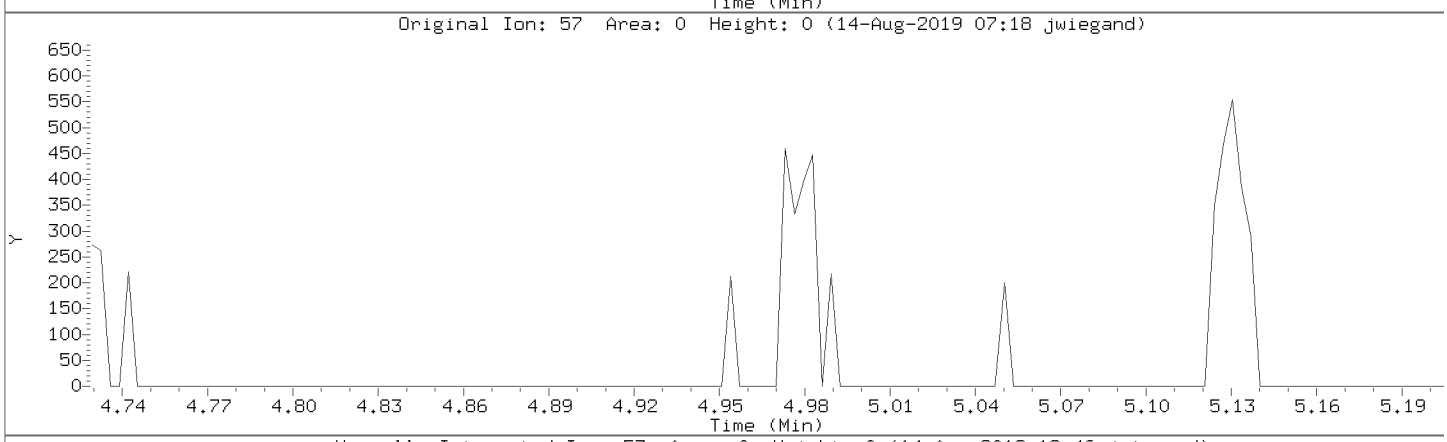
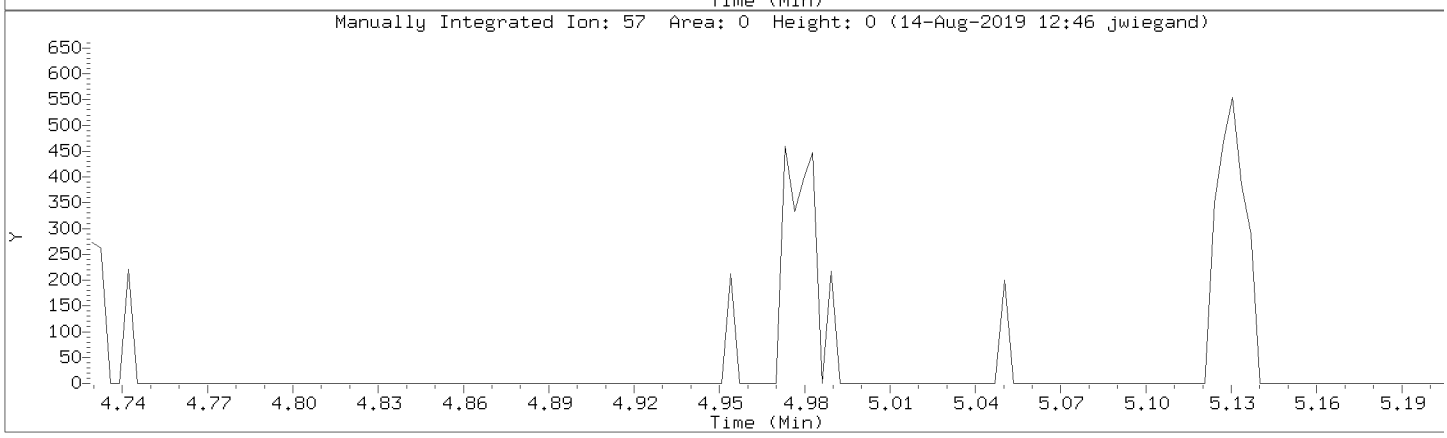
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2



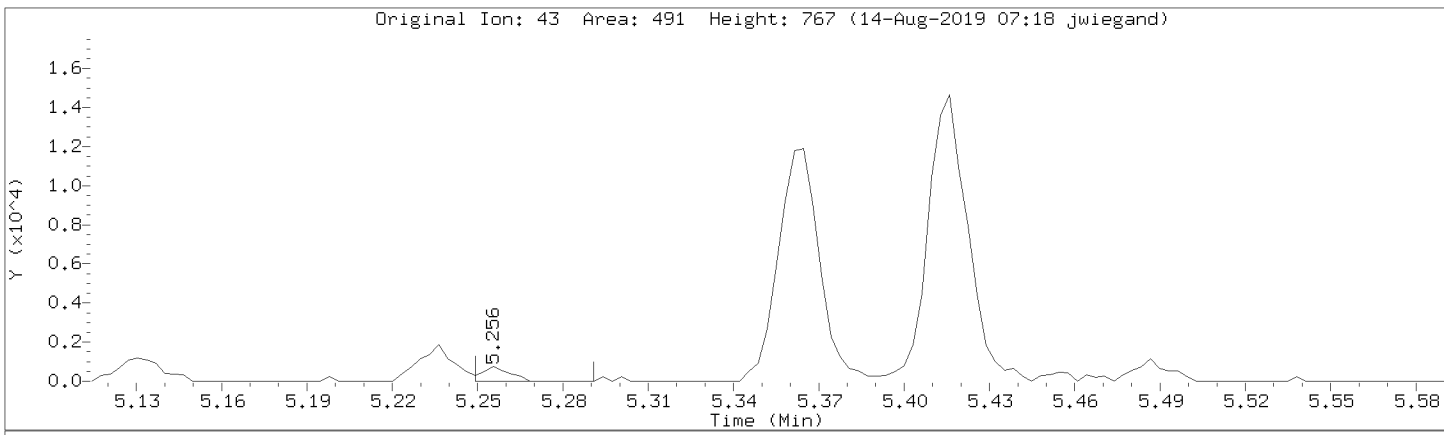


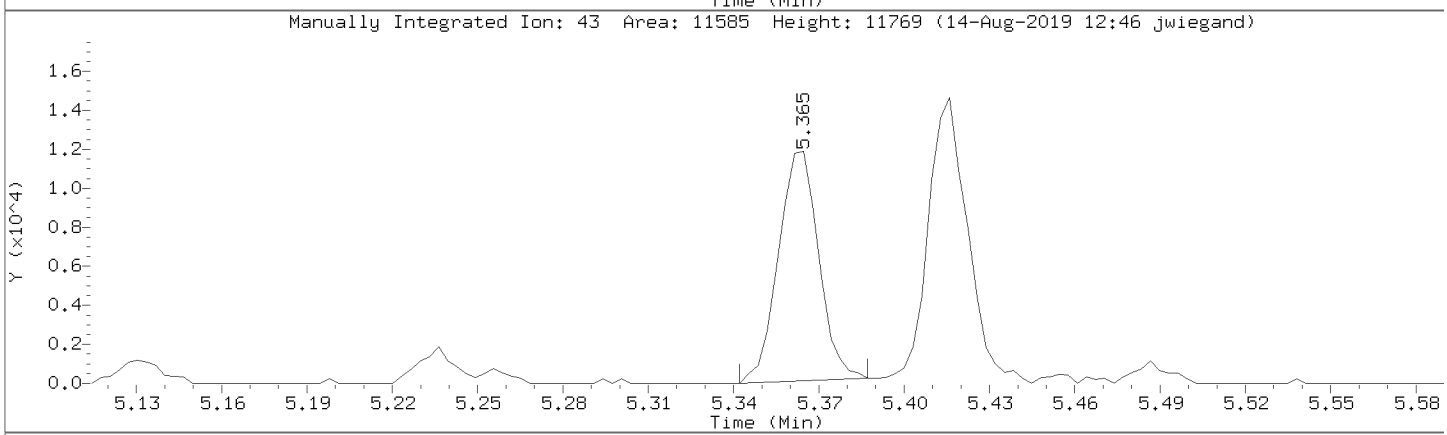


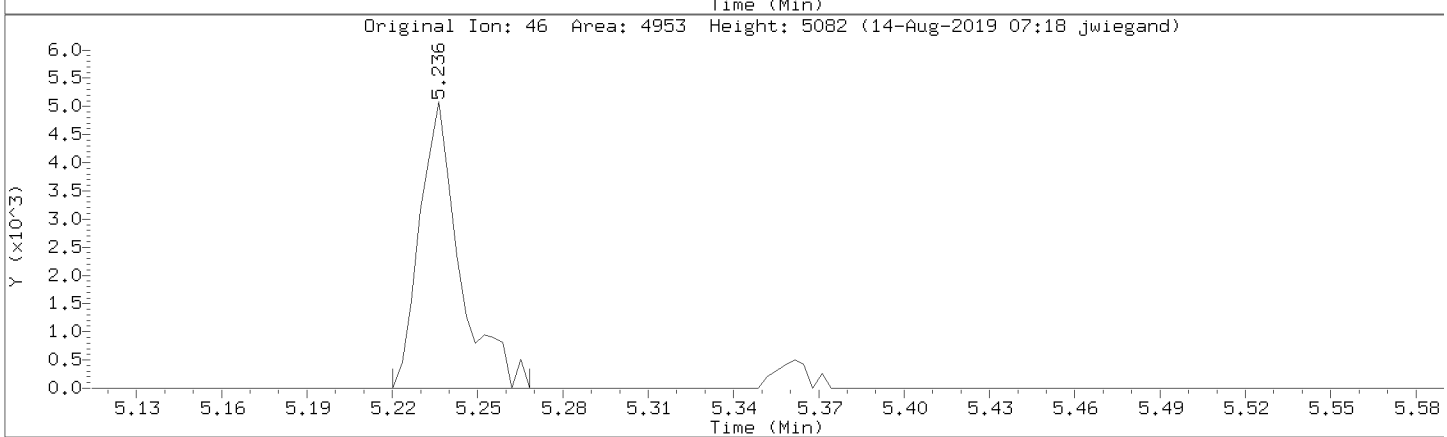


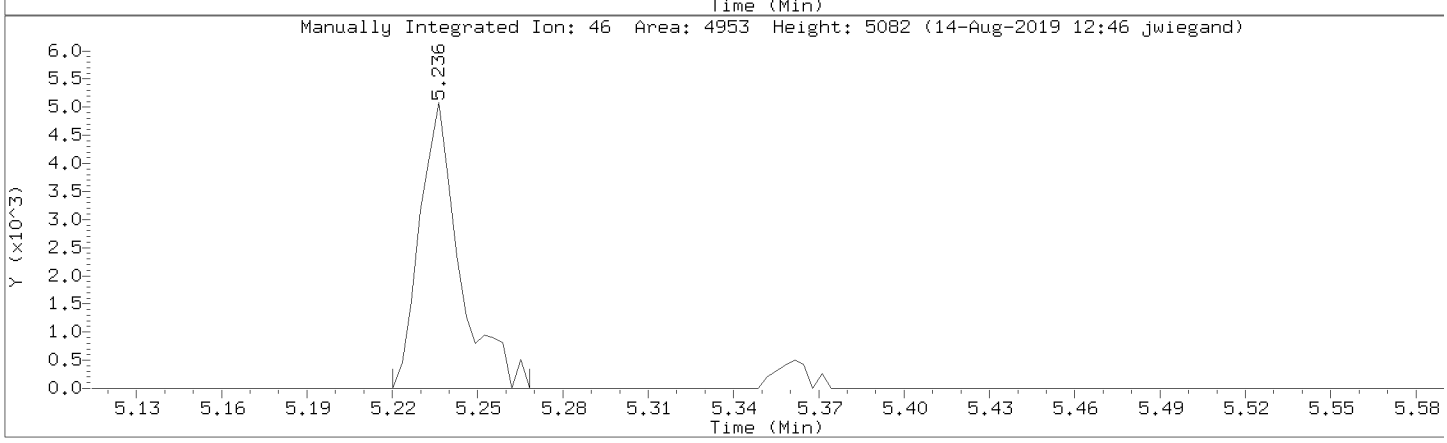
Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813015.d
Injection Date: 13-AUG-2019 14:49
Instrument: 30mv6a.i
Lab Sample ID: CAL2

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9









Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 13-AUG-2019 15:15
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal3, 96577:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 15:15 Cal File: 60813017.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.228	(0.271)	19231	10.0000	11.6		
2	Chloromethane	50	1.350	1.347	(0.298)	30364	10.0000	16.8		
3	Vinyl chloride	62	1.395	1.395	(0.308)	29304	10.0000	14.5	(Q)	
4	Bromomethane	94	1.587	1.585	(0.351)	8103	10.0000	12.6		
5	Chloroethane	64	1.661	1.662	(0.367)	16370	10.0000	14.1		
6	Trichlorofluoromethane	101	1.741	1.742	(0.385)	31668	10.0000	13.4		
7	Diethyl ether (Ethyl ether)	59	1.937	1.944	(0.428)	23508	10.0000	12.1		
8	Ethanol	45	2.046	2.049	(0.298)	4886	100.000		(aQ)	
9	1,1-Dichloroethene	61	2.078	2.079	(0.459)	35776	10.0000	12.3		
10	1,1,2-Trichlorotrifluoroethane	151	2.101	2.097	(0.464)	13691	10.0000	9.98		
11	Carbon disulfide	76	2.104	2.104	(0.465)	63326	10.0000	14.0	(Q)	
12	Iodomethane	142	2.181	2.181	(0.482)	11982	10.0000	10.6		
13	Acrolein	56	2.322	2.326	(0.513)	3384	10.0000	11.0	(M)	LT
14	Allyl chloride	41	2.419	2.419	(0.534)	199189	50.0000	64.9		
15	Methylene Chloride	49	2.502	2.502	(0.553)	55436	10.0000	19.1		
16	Acetone	43	2.547	2.554	(0.563)	22260	10.0000	24.8	(M)	LT
17	trans-1,2-Dichloroethene	61	2.627	2.627	(0.580)	34428	10.0000	12.0		
18	Methyl acetate	74	2.640	2.640	(0.583)	5088	10.0000	12.0		
19	n-Hexane	86	2.675	2.682	(0.591)	14090	10.0000	25.3		
20	Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	62720	10.0000	10.4	(Q)	
21	tert-Butyl Alcohol	59	2.797	2.798	(0.618)	26117	50.0000	52.8		

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.951	2.955	(0.652)	19457	50.0000	64.6(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	66699	10.0000	9.25	
	24 Chloroprene	53	3.147	3.147	(0.695)	32136	10.0000	11.0	
	25 1,1-Dichloroethane	63	3.176	3.179	(0.702)	47656	10.0000	12.7	
	26 Acrylonitrile	53	3.243	3.247	(0.716)	11307	10.0000	10.8(Q)	
	27 Ethyl-tert-butyl ether	59	3.420	3.427	(0.755)	65016	10.0000	9.48	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	51588	10.0000	9.13	
	29 cis-1,2-Dichloroethene	61	3.721	3.725	(0.822)	37089	10.0000	13.6	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	34707	10.0000	12.1	
	31 Cyclohexane	56	3.869	3.876	(0.855)	34465	10.0000	9.21	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	18650	10.0000	12.6	
	33 Chloroform	83	3.943	3.943	(0.871)	42682	10.0000	12.0	
	34 Carbon tetrachloride	117	4.023	4.022	(0.889)	26344	10.0000	10.2	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	26186	10.0000	9.94	
	36 Tetrahydrofuran	42	4.055	4.054	(0.896)	13967	10.0000	11.7	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	93868	30.0000	34.8	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	35983	10.0000	11.6(Q)	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	15661	10.0000	10.2(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	27621	10.0000	10.3	
	41 Benzene	78	4.302	4.306	(0.950)	87183	10.0000	11.9	
	42 Propionitrile	54	4.331	4.335	(0.957)	5253	10.0000	10.7(QM)	LT
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	14674	10.0000	9.70	
	44 tert-Amylmethyl ether	73	4.370	4.373	(0.965)	52174	10.0000	9.22	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	87774	30.0000	33.8	
	46 Isobutanol	43	4.443	4.447	(0.982)	8729	50.0000	48.9(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	34149	10.0000	12.2	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	313836	30.0000		
	49 Methylcyclohexane	83	4.604	4.601	(1.017)	22317	10.0000	6.96	
	50 Trichloroethene	95	4.610	4.614	(0.783)	22868	10.0000	8.99	
	51 Dibromomethane	174	4.812	4.816	(1.063)	17515	10.0000	11.6	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	24199	10.0000	10.9	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	28057	10.0000	10.9	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	14779	10.0000	9.45	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	3771	100.000	108(Q)	
	56 2-Chloroethylvinyl ether	63	5.127	5.134	(1.133)	4429	10.0000	7.92	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	33339	10.0000	10.0	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	323184	30.0000	28.5	
	59 Toluene	91	5.255	5.259	(0.893)	99461	10.0000	9.77	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	28817	50.0000	41.1	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	29885	10.0000	11.4	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	22119	10.0000	8.25	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	31958	10.0000	8.52	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	25064	10.0000	10.4(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	19549	10.0000	8.62(Q)	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	22012	10.0000	8.01	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	34463	10.0000	9.00	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	21211	10.0000	8.74	
	69 2-Hexanone	43	5.756	5.759	(0.978)	25264	10.0000	10.1	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	35542	10.0000	9.18	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	283651	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	73739	10.0000	10.3	
	73 1,1,1,2-Tetrachloroethane	131	5.916	5.920	(1.005)	19542	10.0000	7.42	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	89034	20.0000	18.6	
	75 o-Xylene	106	6.134	6.141	(1.042)	43453	10.0000	9.18	

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Report Date: 29-Aug-2019 12:25

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	76 Styrene	104	6.157	6.164	(1.046)	77100	10.0000	9.19	
	77 Bromoform	173	6.186	6.189	(0.900)	13944	10.0000	7.86	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	104203	10.0000	8.59	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	119771	30.0000	29.8	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	121718	10.0000	8.62	
	81 Bromobenzene	77	6.446	6.449	(0.938)	48116	10.0000	9.57	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	29119	10.0000	9.44	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	87095	10.0000	8.50	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	26911	10.0000	8.84	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.952)	10090	10.0000	9.66	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	8838	10.0000	8.41	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	12738	50.0000	45.9	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	30229	10.0000	9.26	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	73717	10.0000	7.97	
	90 1,2,4-Trimethylbenzene	105	6.680	6.687	(0.972)	93333	10.0000	8.71	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	104314	10.0000	7.74	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	94991	10.0000	7.91	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	59983	10.0000	9.11	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	164663	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	63072	10.0000	9.32	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	81384	10.0000	7.57	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	58946	10.0000	9.25	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	164660	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	8894	10.0000	9.11	
	99 1,3,5-Trichlorobenzene	180	7.412	7.418	(1.079)	39026	10.0000	8.16	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	17074	10.0000	7.59	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	35853	10.0000	8.00	
	102 Naphthalene	128	7.838	7.842	(1.141)	110628	10.0000	9.03	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.153)	32626	10.0000	8.32	
	104 2-Methylnaphthalene	142	8.288	8.294	(1.206)	48806	10.0000	7.98	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813017.d
Lab Smp Id: CAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL3
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	313836	-14.09
71 Chlorobenzene-d5	277666	138833	555332	283651	2.16
94 1,4-Dichlorobenze	164337	82169	328674	164663	0.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	11.6	
74-87-3	Chloromethane	16.8	
75-01-4	Vinyl chloride	14.5	
74-83-9	Bromomethane	12.6	
75-00-3	Chloroethane	14.1	
75-69-4	Trichlorofluoromethane	13.4	
60-29-7	Diethyl ether (Ethyl ether)	12.1	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	12.3	
76-13-1	1,1,2-Trichlorotrifluoroetha	9.98	
75-15-0	Carbon disulfide	14.0	
74-88-4	Iodomethane	10.6	
107-02-8	Acrolein	11.0	
107-05-1	Allyl chloride	64.9	
75-09-2	Methylene Chloride	19.1	
67-64-1	Acetone	24.8	
156-60-5	trans-1,2-Dichloroethene	12.0	
79-20-9	Methyl acetate	12.0	
110-54-3	n-Hexane	25.3	
1634-04-4	Methyl-tert-butyl ether	10.4	
75-65-0	tert-Butyl Alcohol	52.8	
75-05-8	Acetonitrile	64.6	
108-20-3	Diisopropyl ether	9.25	
126-99-8	Chloroprene	11.0	
75-34-3	1,1-Dichloroethane	12.7	
107-13-1	Acrylonitrile	10.8	
637-92-3	Ethyl-tert-butyl ether	9.48	
108-05-4	Vinyl acetate	9.13	
156-59-2	cis-1,2-Dichloroethene	13.6	
594-20-7	2,2-Dichloropropane	12.1	
110-82-7	Cyclohexane	9.21	
74-97-5	Bromochloromethane	12.6	
67-66-3	Chloroform	12.0	
56-23-5	Carbon tetrachloride	10.2	
141-78-6	Ethyl acetate	9.94	
109-99-9	Tetrahydrofuran	11.7	
71-55-6	1,1,1-Trichloroethane	11.6	
78-93-3	2-Butanone (MEK)	10.2	
563-58-6	1,1-Dichloropropene	10.3	
71-43-2	Benzene	11.9	
107-12-0	Propionitrile	10.7	
126-98-7	Methacrylonitrile	9.70	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	9.22	
78-83-1	Isobutanol	48.9	
107-06-2	1,2-Dichloroethane	12.2	
108-87-2	Methylcyclohexane	6.96	
79-01-6	Trichloroethene	8.99	
74-95-3	Dibromomethane	11.6	
78-87-5	1,2-Dichloropropane	10.9	
75-27-4	Bromodichloromethane	10.9	
80-62-6	Methyl methacrylate	9.45	
123-91-1	1,4-Dioxane (p-Dioxane)	108	
110-75-8	2-Chloroethylvinyl ether	7.92	
10061-01-5	cis-1,3-Dichloropropene	10.0	
108-88-3	Toluene	9.77	
79-46-9	2-Nitropropane	41.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	11.4	
127-18-4	Tetrachloroethene	8.25	
10061-02-6	trans-1,3-Dichloropropene	8.52	
97-63-2	Ethyl methacrylate	10.4	
79-00-5	1,1,2-Trichloroethane	8.62	
124-48-1	Dibromochloromethane	8.01	
142-28-9	1,3-Dichloropropane	9.00	
106-93-4	1,2-Dibromoethane (EDB)	8.74	
591-78-6	2-Hexanone	10.1	
100-41-4	Ethylbenzene	9.18	
108-90-7	Chlorobenzene	10.3	
630-20-6	1,1,1,2-Tetrachloroethane	7.42	
7816-60-0	m&p-Xylene	18.6	
95-47-6	o-Xylene	9.18	
100-42-5	Styrene	9.19	
75-25-2	Bromoform	7.86	
98-82-8	Isopropylbenzene (Cumene)	8.59	
103-65-1	n-Propylbenzene	8.62	
108-86-1	Bromobenzene	9.57	
79-34-5	1,1,2,2-Tetrachloroethane	9.44	
108-67-8	1,3,5-Trimethylbenzene	8.50	
95-49-8	2-Chlorotoluene	8.84	
96-18-4	1,2,3-Trichloropropane	9.66	
110-57-6	trans-1,4-Dichloro-2-butene	8.41	
108-94-1	Cyclohexanone	45.9	
106-43-4	4-Chlorotoluene	9.26	
98-06-6	tert-Butylbenzene	7.97	
95-63-6	1,2,4-Trimethylbenzene	8.71	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Report Date: 29-Aug-2019 12:25

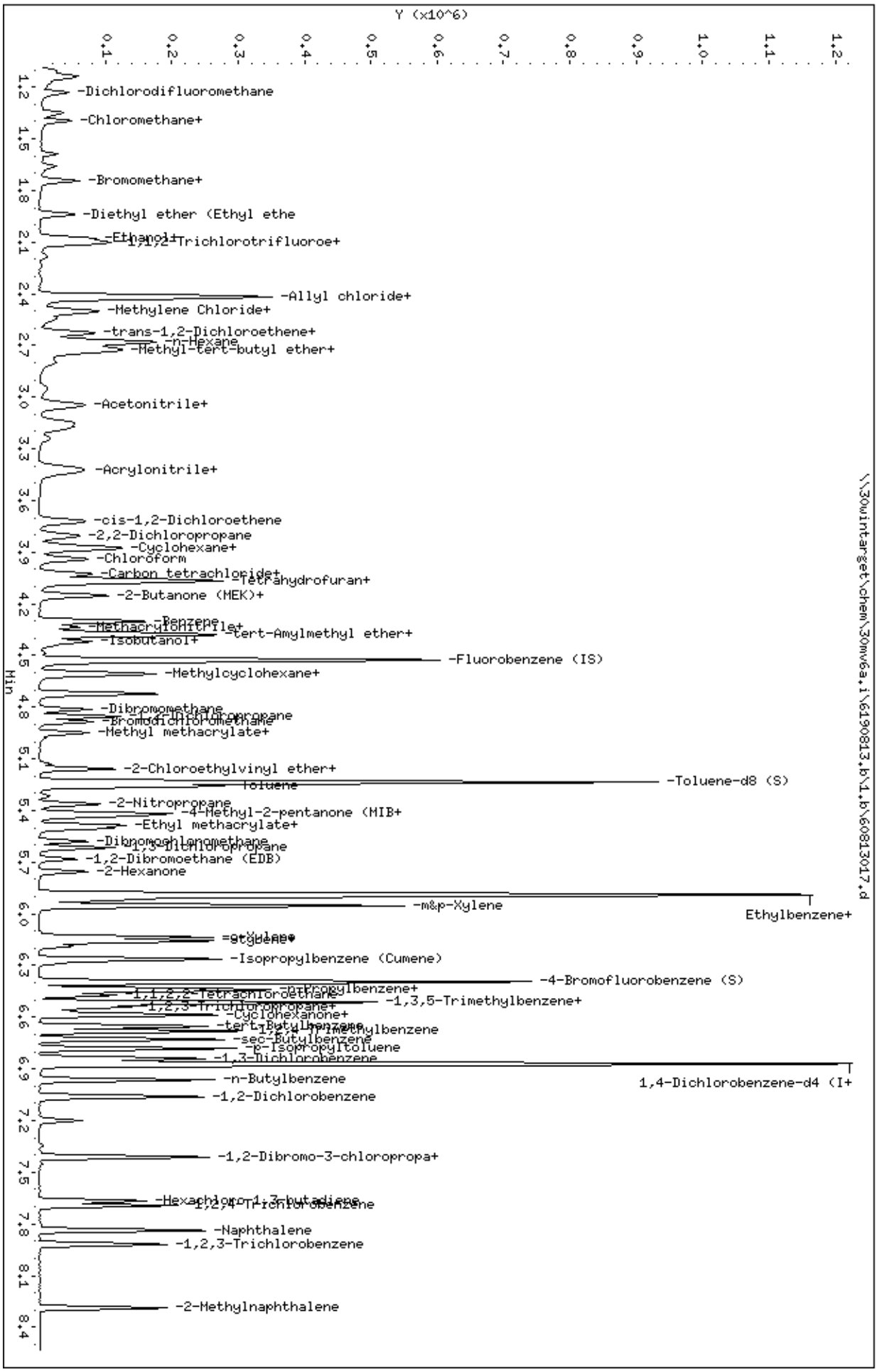
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

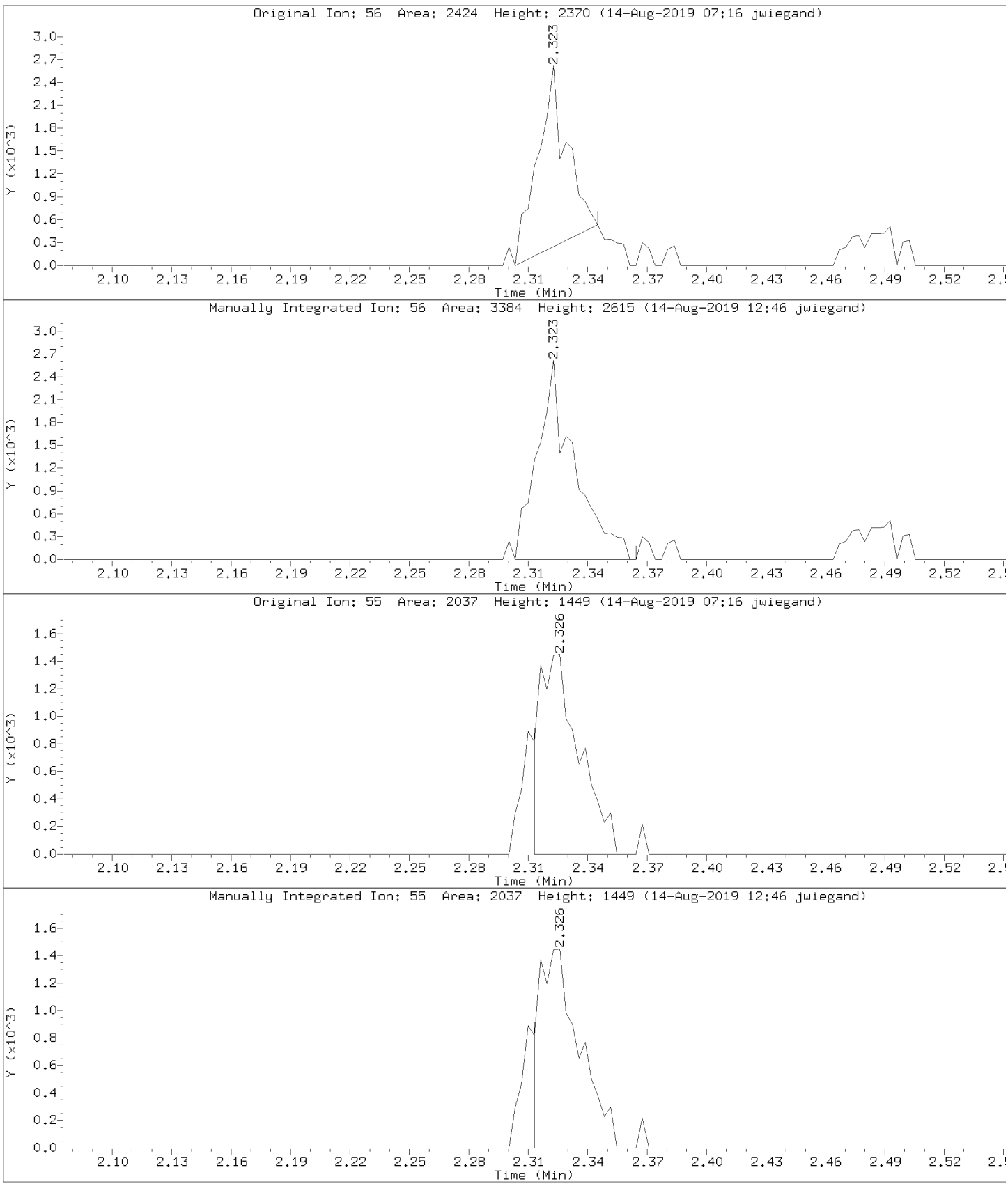
Client SDG: 30MV6A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	7.74	
99-87-6	p-Isopropyltoluene	7.91	
541-73-1	1,3-Dichlorobenzene	9.11	
106-46-7	1,4-Dichlorobenzene	9.32	
104-51-8	n-Butylbenzene	7.57	
95-50-1	1,2-Dichlorobenzene	9.25	
96-12-8	1,2-Dibromo-3-chloropropane	9.11	
108-70-3	1,3,5-Trichlorobenzene	8.16	
87-68-3	Hexachloro-1,3-butadiene	7.59	
120-82-1	1,2,4-Trichlorobenzene	8.00	
91-20-3	Naphthalene	9.03	
87-61-6	1,2,3-Trichlorobenzene	8.32	
91-57-6	2-Methylnaphthalene	7.98	
1868-53-7	Dibromofluoromethane (S)	34.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.8	
2037-26-5	Toluene-d8 (S)	28.5	
460-00-4	4-Bromofluorobenzene (S)	29.8	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	


Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Date : 13-AUG-2019 15:15
Client ID: CAL3
Sample Info: CAL3, 96577:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813017.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane+
-Bromomethane+
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Acrylonitrile+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether+
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
Ethylbenzene+
-m&p-Xylene
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813017.d
Injection Date: 13-AUG-2019 15:15
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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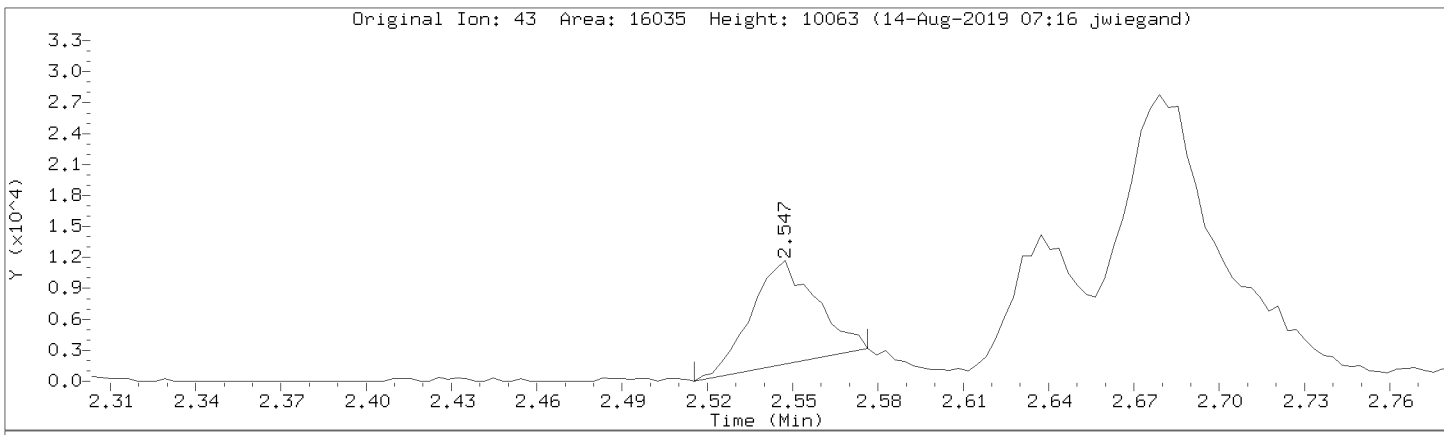
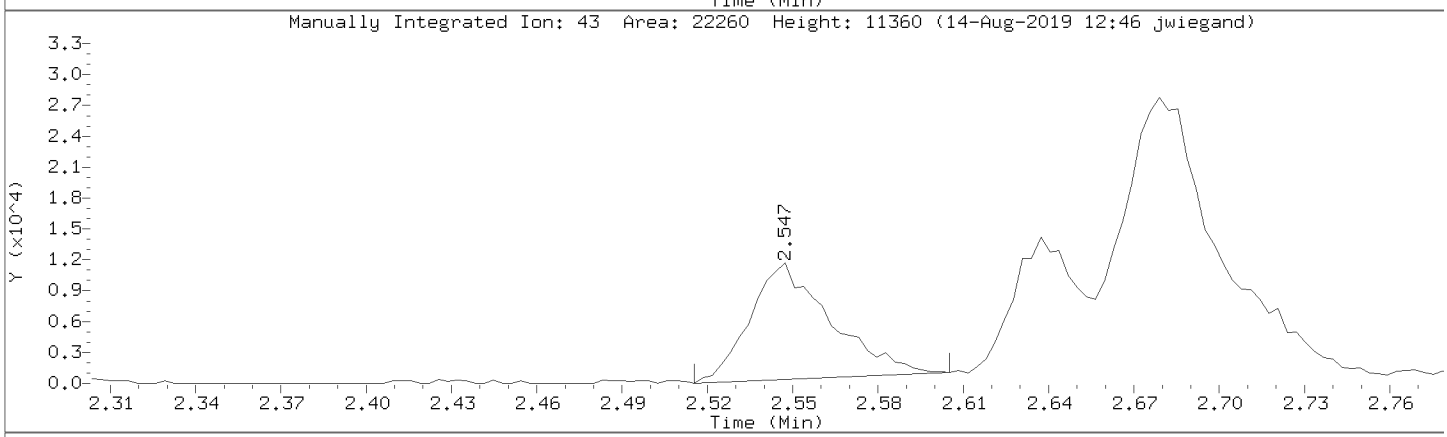
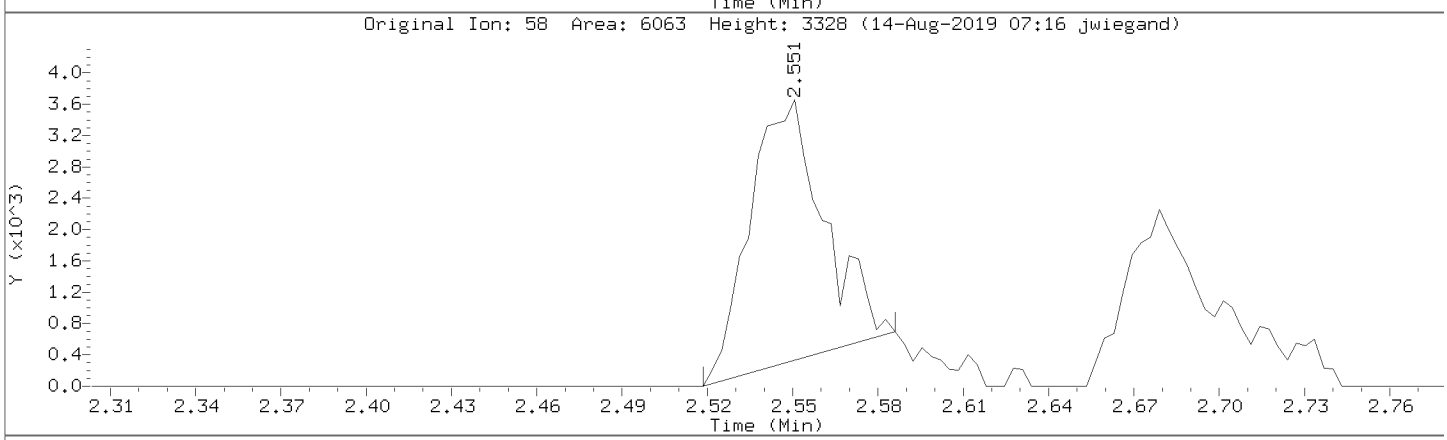
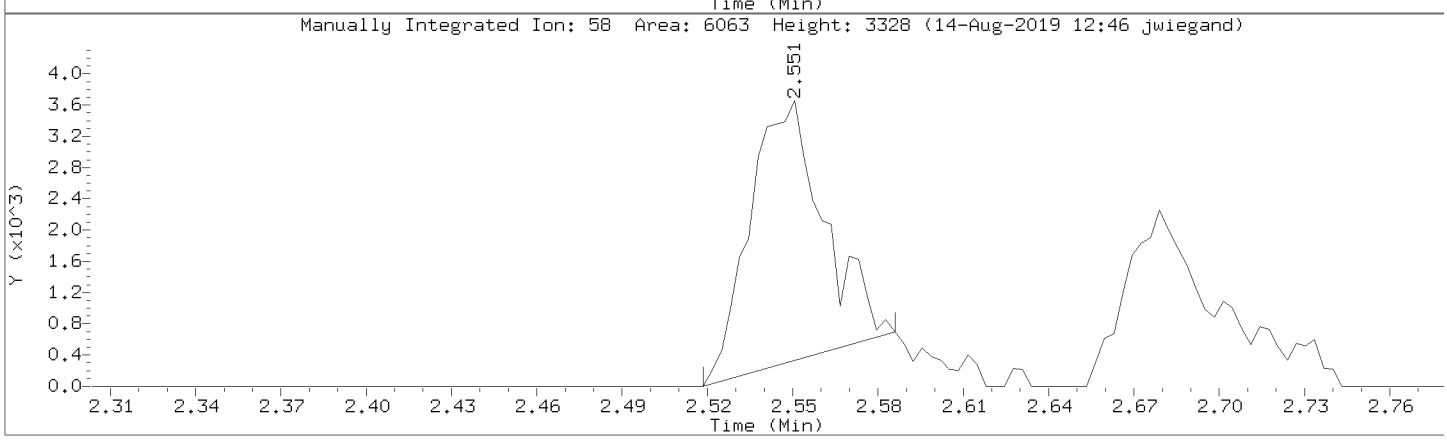
Injection Date: 13-AUG-2019 15:15
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1









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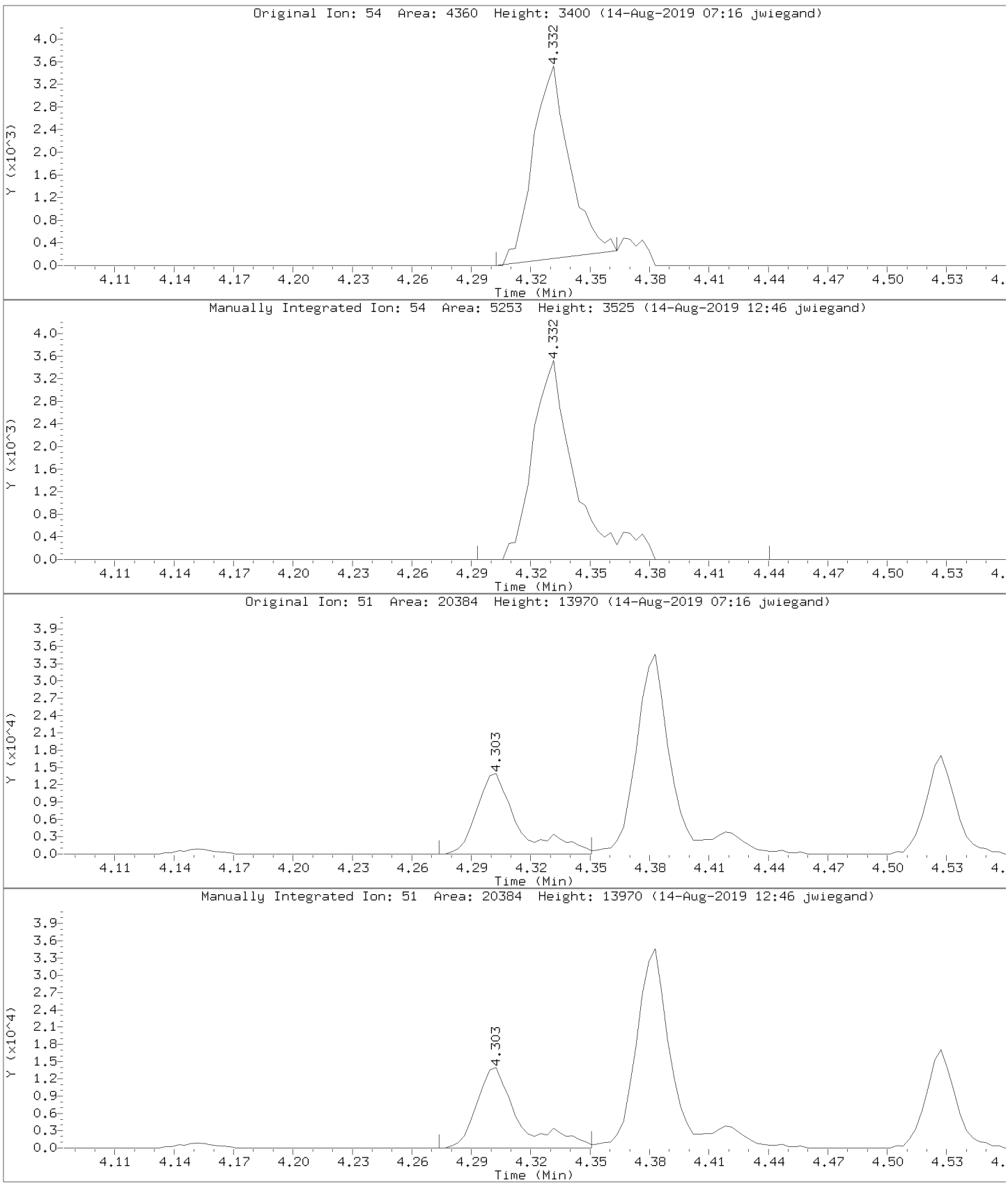
Injection Date: 13-AUG-2019 15:15
Instrument: 30mv6a.i
Lab Sample ID: CAL3

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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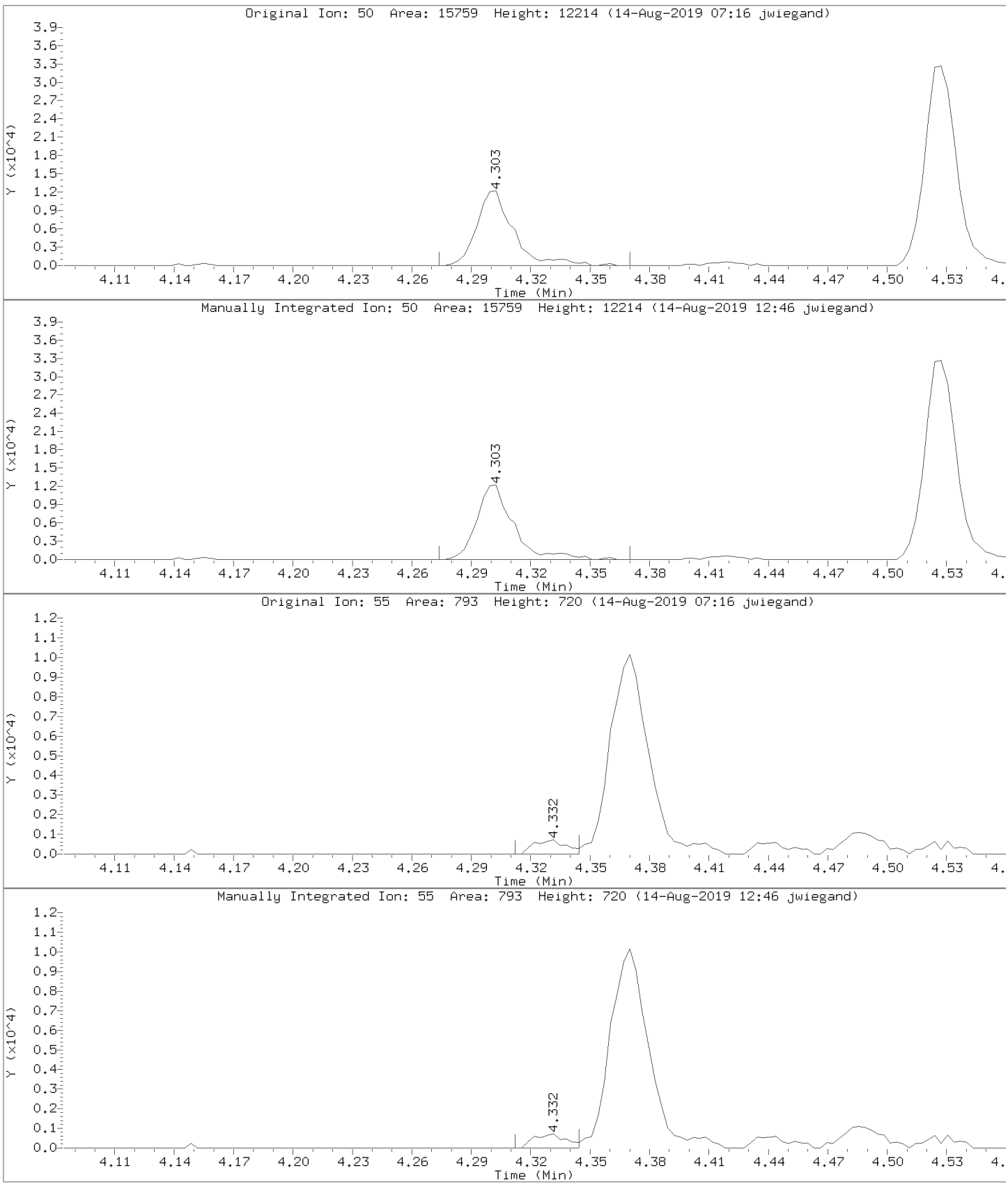
Injection Date: 13-AUG-2019 15:15
Instrument: 30mv6a.i
Lab Sample ID: CAL3



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 13-AUG-2019 15:41
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal4, 96578:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 15:41 Cal File: 60813019.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.228	(0.271)	41901	20.0000	24.6(Q)	
2 Chloromethane	50	1.347	1.347	(0.298)	57522	20.0000	29.6(Q)	
3 Vinyl chloride	62	1.395	1.395	(0.308)	58395	20.0000	27.0(Q)	
4 Bromomethane	94	1.587	1.585	(0.351)	14853	20.0000	21.9(Q)	
5 Chloroethane	64	1.658	1.662	(0.366)	35229	20.0000	28.7(Q)	
6 Trichlorofluoromethane	101	1.741	1.742	(0.385)	68203	20.0000	27.2(Q)	
7 Diethyl ether (Ethyl ether)	59	1.940	1.944	(0.429)	45827	20.0000	22.5(Q)	
8 Ethanol	45	2.046	2.049	(0.298)	12193	200.000	(aQ)	
9 1,1-Dichloroethene	61	2.078	2.079	(0.459)	67339	20.0000	22.0(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	33751	20.0000	23.8(Q)	
11 Carbon disulfide	76	2.104	2.104	(0.465)	124007	20.0000	25.7(Q)	
12 Iodomethane	142	2.184	2.181	(0.483)	24132	20.0000	20.0(Q)	
13 Acrolein	56	2.322	2.326	(0.513)	7462	20.0000	23.4(QM)	LT
14 Allyl chloride	41	2.419	2.419	(0.534)	402573	100.000	123(Q)	
15 Methylene Chloride	49	2.502	2.502	(0.553)	91916	20.0000	29.8(Q)	
16 Acetone	43	2.544	2.554	(0.562)	33312	20.0000	35.3(QM)	LT
17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	70582	20.0000	23.7(QM)	LT
18 Methyl acetate	74	2.637	2.640	(0.583)	9867	20.0000	22.2(Q)	
19 n-Hexane	86	2.685	2.682	(0.593)	23319	20.0000	39.8(Q)	
20 Methyl-tert-butyl ether	73	2.707	2.714	(0.598)	133179	20.0000	20.6(Q)	
21 tert-Butyl Alcohol	59	2.800	2.798	(0.619)	58394	100.000	113(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.951	2.955	(0.652)	38109	100.000	124(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	155484	20.0000	20.1(Q)	
	24 Chloroprene	53	3.150	3.147	(0.696)	70018	20.0000	23.0(Q)	
	25 1,1-Dichloroethane	63	3.176	3.179	(0.702)	91779	20.0000	23.7(Q)	
	26 Acrylonitrile	53	3.243	3.247	(0.716)	20264	20.0000	17.7(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.420	3.427	(0.755)	144373	20.0000	19.5(Q)	
	28 Vinyl acetate	43	3.439	3.439	(0.760)	123273	20.0000	20.4(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	71757	20.0000	24.6(Q)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	65583	20.0000	21.8(Q)	
	31 Cyclohexane	56	3.872	3.876	(0.855)	92023	20.0000	23.8(Q)	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	36243	20.0000	23.6(Q)	
	33 Chloroform	83	3.940	3.943	(0.870)	87589	20.0000	24.0(Q)	
	34 Carbon tetrachloride	117	4.026	4.022	(0.889)	59853	20.0000	22.2(Q)	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	56074	20.0000	19.8(Q)	
	36 Tetrahydrofuran	42	4.052	4.054	(0.895)	28704	20.0000	23.0(Q)	
$	37 Dibromofluoromethane (S)	111	4.068	4.067	(0.899)	91866	30.0000	32.2(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	75804	20.0000	23.5(Q)	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	35564	20.0000	22.2(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	62952	20.0000	22.5(Q)	
	41 Benzene	78	4.302	4.306	(0.950)	186009	20.0000	23.8(Q)	
	42 Propionitrile	54	4.325	4.335	(0.955)	11853	20.0000	23.3(QM)	LT
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	34403	20.0000	21.5(Q)	
	44 tert-Amylmethyl ether	73	4.366	4.373	(0.965)	115534	20.0000	18.8(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	85736	30.0000	31.0(Q)	
	46 Isobutanol	43	4.440	4.447	(0.981)	16520	100.000	85.8(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	67357	20.0000	23.0(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	336802	30.0000	(Q)	
	49 Methylcyclohexane	83	4.604	4.601	(1.017)	70940	20.0000	20.8(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	49971	20.0000	20.7(Q)	
	51 Dibromomethane	174	4.812	4.816	(1.063)	35711	20.0000	22.6(Q)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	51589	20.0000	22.0(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	58206	20.0000	21.5(Q)	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	32961	20.0000	19.6(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.973	4.980	(1.099)	8562	200.000	236(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	10966	20.0000	17.9(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	74048	20.0000	21.0(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	313492	30.0000	28.7(Q)	
	59 Toluene	91	5.255	5.259	(0.893)	202213	20.0000	21.0(Q)	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	65962	100.000	87.0(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	59895	20.0000	21.7(Q)	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	52707	20.0000	20.7(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	68642	20.0000	19.0(Q)	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	48254	20.0000	21.1(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	42321	20.0000	19.4(Q)	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	48146	20.0000	18.0(Q)	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	71279	20.0000	19.4(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	44675	20.0000	19.1(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	50244	20.0000	21.3(Q)	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	80521	20.0000	22.3(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	270745	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	146310	20.0000	21.8(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	44895	20.0000	17.8(Q)	
	74 m&p-Xylene	106	5.952	5.955	(1.011)	195088	40.0000	43.4(Q)	
	75 o-Xylene	106	6.138	6.141	(1.043)	94226	20.0000	21.1(Q)	

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Report Date: 29-Aug-2019 12:25

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	165340	20.0000	20.8(Q)	
	77 Bromoform	173	6.186	6.189	(0.900)	30709	20.0000	17.6(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	252113	20.0000	21.6(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	117910	30.0000	30.0(Q)	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	296992	20.0000	21.9(Q)	
	81 Bromobenzene	77	6.446	6.449	(0.938)	104052	20.0000	21.5(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	59403	20.0000	19.6(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	214302	20.0000	21.8(Q)	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	62770	20.0000	21.4(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.952)	20474	20.0000	20.0(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	19172	20.0000	18.4(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	26522	100.000	97.1(Q)	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	66910	20.0000	21.2(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	189988	20.0000	21.3(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.973)	221986	20.0000	21.5(Q)	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	282192	20.0000	21.8(Q)	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	254394	20.0000	22.1(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	136392	20.0000	21.5(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	160999	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	141057	20.0000	21.7(Q)	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	226935	20.0000	22.0(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	132607	20.0000	21.6(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	161185	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	18258	20.0000	18.9(Q)	
	99 1,3,5-Trichlorobenzene	180	7.412	7.418	(1.079)	100143	20.0000	21.8(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	51259	20.0000	23.3(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	92906	20.0000	21.5(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	251068	20.0000	21.2(Q)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	80566	20.0000	21.3(Q)	
	104 2-Methylnaphthalene	142	8.294	8.294	(1.207)	130276	20.0000	22.4(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813019.d
Lab Smp Id: CAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL4
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	336802	-7.80
71 Chlorobenzene-d5	277666	138833	555332	270745	-2.49
94 1,4-Dichlorobenze	164337	82169	328674	160999	-2.03

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	24.6	
74-87-3	Chloromethane	29.6	
75-01-4	Vinyl chloride	27.0	
74-83-9	Bromomethane	21.9	
75-00-3	Chloroethane	28.7	
75-69-4	Trichlorofluoromethane	27.2	
60-29-7	Diethyl ether (Ethyl ether)	22.5	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	22.0	
76-13-1	1,1,2-Trichlorotrifluoroetha	23.8	
75-15-0	Carbon disulfide	25.7	
74-88-4	Iodomethane	20.0	
107-02-8	Acrolein	23.4	
107-05-1	Allyl chloride	123	
75-09-2	Methylene Chloride	29.8	
67-64-1	Acetone	35.3	
156-60-5	trans-1,2-Dichloroethene	23.7	
79-20-9	Methyl acetate	22.2	
110-54-3	n-Hexane	39.8	
1634-04-4	Methyl-tert-butyl ether	20.6	
75-65-0	tert-Butyl Alcohol	113	
75-05-8	Acetonitrile	124	
108-20-3	Diisopropyl ether	20.1	
126-99-8	Chloroprene	23.0	
75-34-3	1,1-Dichloroethane	23.7	
107-13-1	Acrylonitrile	17.7	
637-92-3	Ethyl-tert-butyl ether	19.5	
108-05-4	Vinyl acetate	20.4	
156-59-2	cis-1,2-Dichloroethene	24.6	
594-20-7	2,2-Dichloropropane	21.8	
110-82-7	Cyclohexane	23.8	
74-97-5	Bromochloromethane	23.6	
67-66-3	Chloroform	24.0	
56-23-5	Carbon tetrachloride	22.2	
141-78-6	Ethyl acetate	19.8	
109-99-9	Tetrahydrofuran	23.0	
71-55-6	1,1,1-Trichloroethane	23.5	
78-93-3	2-Butanone (MEK)	22.2	
563-58-6	1,1-Dichloropropene	22.5	
71-43-2	Benzene	23.8	
107-12-0	Propionitrile	23.3	
126-98-7	Methacrylonitrile	21.5	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	18.8	
78-83-1	Isobutanol	85.8	
107-06-2	1,2-Dichloroethane	23.0	
108-87-2	Methylcyclohexane	20.8	
79-01-6	Trichloroethene	20.7	
74-95-3	Dibromomethane	22.6	
78-87-5	1,2-Dichloropropane	22.0	
75-27-4	Bromodichloromethane	21.5	
80-62-6	Methyl methacrylate	19.6	
123-91-1	1,4-Dioxane (p-Dioxane)	236	
110-75-8	2-Chloroethylvinyl ether	17.9	
10061-01-5	cis-1,3-Dichloropropene	21.0	
108-88-3	Toluene	21.0	
79-46-9	2-Nitropropane	87.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	21.7	
127-18-4	Tetrachloroethene	20.7	
10061-02-6	trans-1,3-Dichloropropene	19.0	
97-63-2	Ethyl methacrylate	21.1	
79-00-5	1,1,2-Trichloroethane	19.4	
124-48-1	Dibromochloromethane	18.0	
142-28-9	1,3-Dichloropropane	19.4	
106-93-4	1,2-Dibromoethane (EDB)	19.1	
591-78-6	2-Hexanone	21.3	
100-41-4	Ethylbenzene	22.3	
108-90-7	Chlorobenzene	21.8	
630-20-6	1,1,1,2-Tetrachloroethane	17.8	
7816-60-0	m&p-Xylene	43.4	
95-47-6	o-Xylene	21.1	
100-42-5	Styrene	20.8	
75-25-2	Bromoform	17.6	
98-82-8	Isopropylbenzene (Cumene)	21.6	
103-65-1	n-Propylbenzene	21.9	
108-86-1	Bromobenzene	21.5	
79-34-5	1,1,2,2-Tetrachloroethane	19.6	
108-67-8	1,3,5-Trimethylbenzene	21.8	
95-49-8	2-Chlorotoluene	21.4	
96-18-4	1,2,3-Trichloropropane	20.0	
110-57-6	trans-1,4-Dichloro-2-butene	18.4	
108-94-1	Cyclohexanone	97.1	
106-43-4	4-Chlorotoluene	21.2	
98-06-6	tert-Butylbenzene	21.3	
95-63-6	1,2,4-Trimethylbenzene	21.5	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Report Date: 29-Aug-2019 12:25

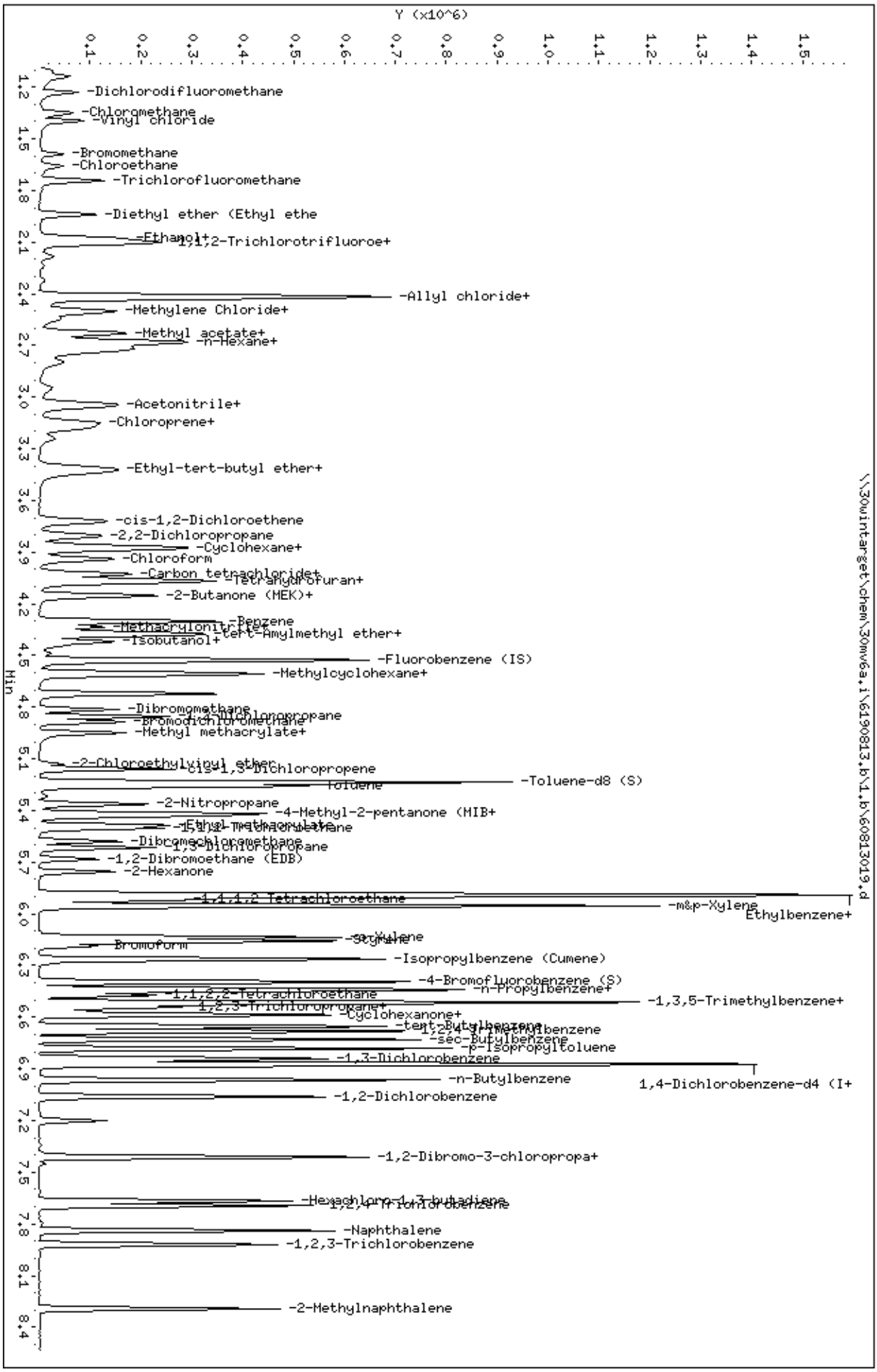
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	21.8	
99-87-6	p-Isopropyltoluene	22.1	
541-73-1	1,3-Dichlorobenzene	21.5	
106-46-7	1,4-Dichlorobenzene	21.7	
104-51-8	n-Butylbenzene	22.0	
95-50-1	1,2-Dichlorobenzene	21.6	
96-12-8	1,2-Dibromo-3-chloropropane	18.9	
108-70-3	1,3,5-Trichlorobenzene	21.8	
87-68-3	Hexachloro-1,3-butadiene	23.3	
120-82-1	1,2,4-Trichlorobenzene	21.5	
91-20-3	Naphthalene	21.2	
87-61-6	1,2,3-Trichlorobenzene	21.3	
91-57-6	2-Methylnaphthalene	22.4	
1868-53-7	Dibromofluoromethane (S)	32.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.0	
2037-26-5	Toluene-d8 (S)	28.7	
460-00-4	4-Bromofluorobenzene (S)	30.0	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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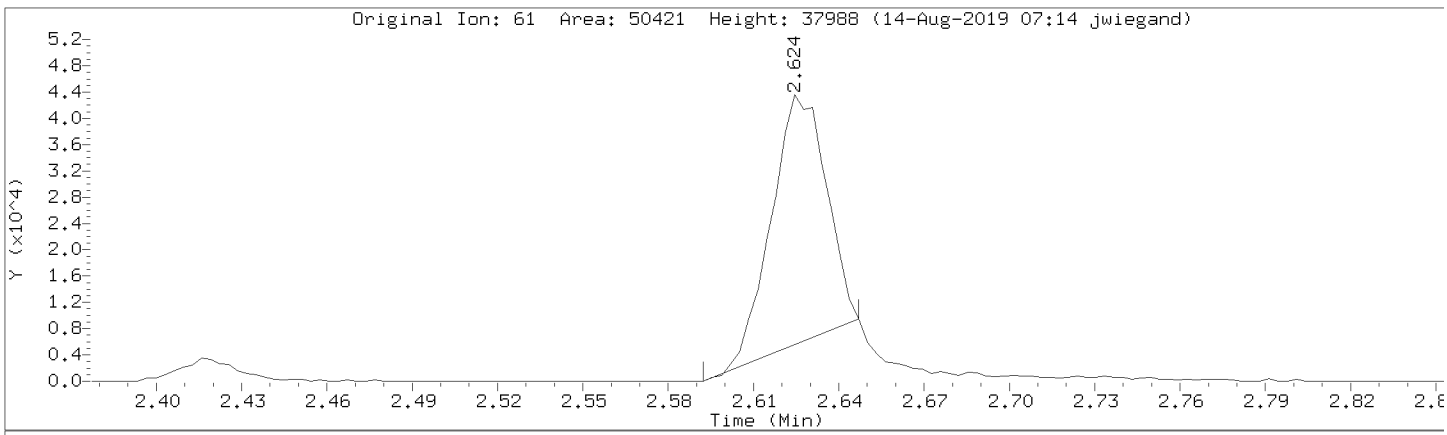
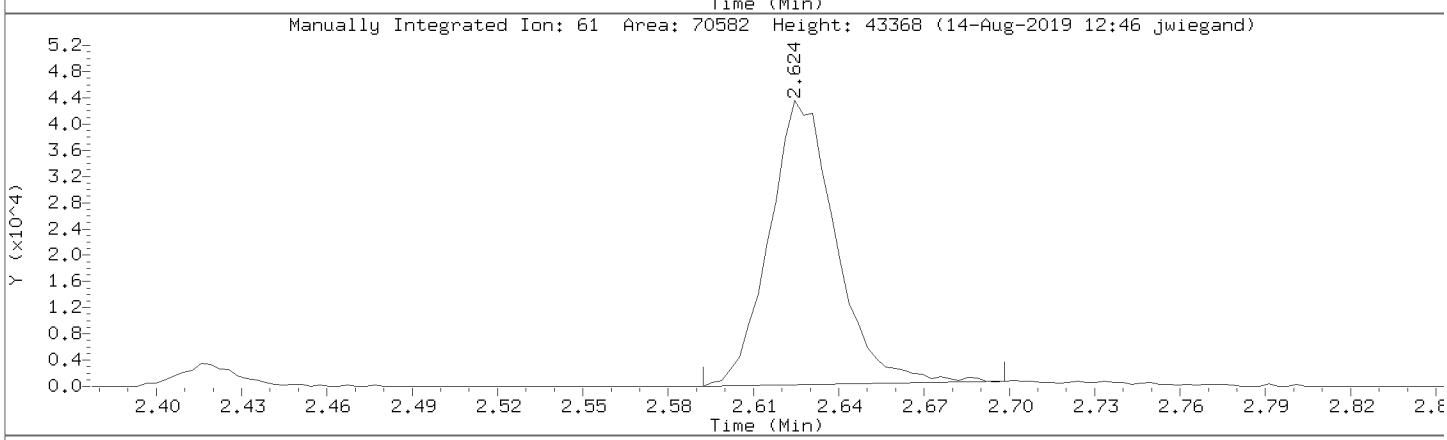
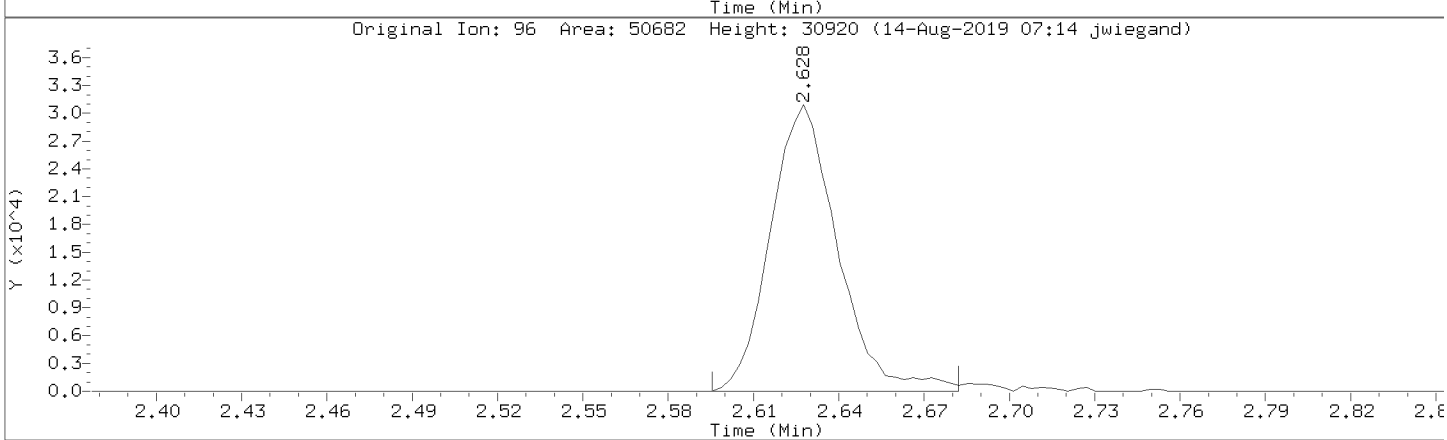
Date : 13-AUG-2019 15:41
Client ID: CAL4
Sample Info: CAL4, 96578:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813019.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-Methyl acetate+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Bromochloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-m&p-Xylene
Ethylbenzene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

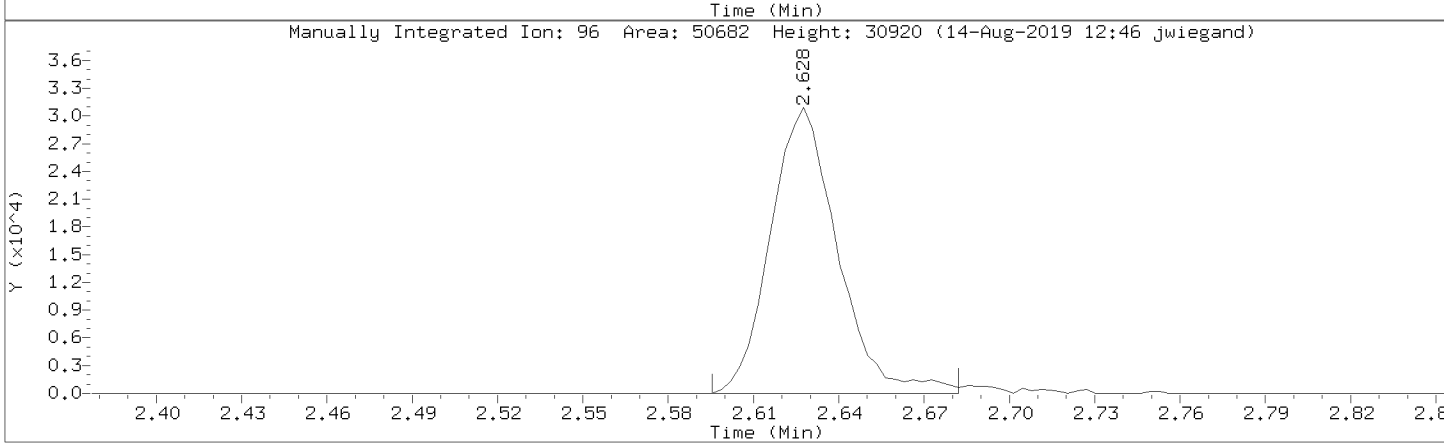
Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813019.d
Injection Date: 13-AUG-2019 15:41
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: trans-1,2-Dichloroethene Review Code: LT
CAS Number: 156-60-5









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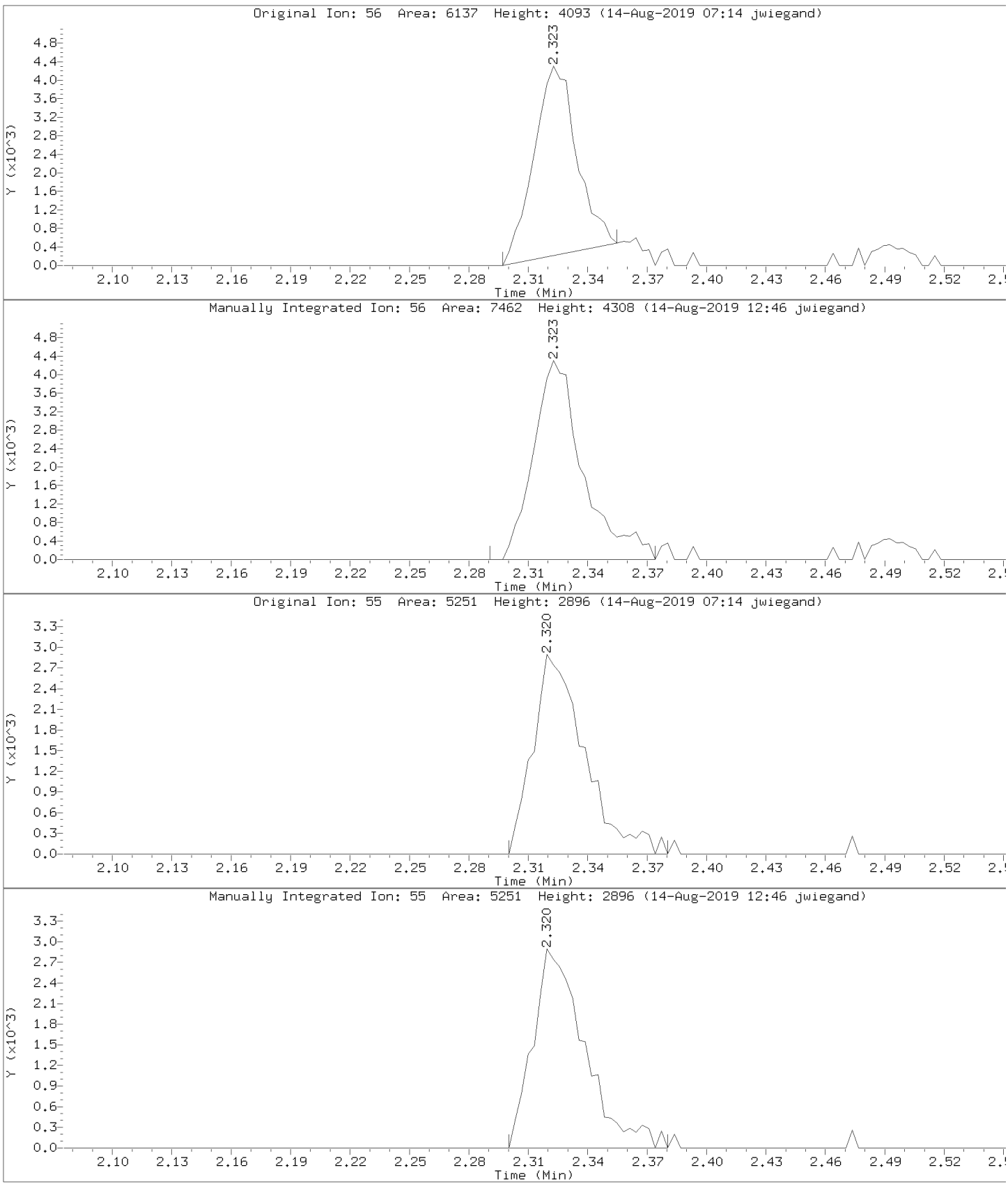
Injection Date: 13-AUG-2019 15:41
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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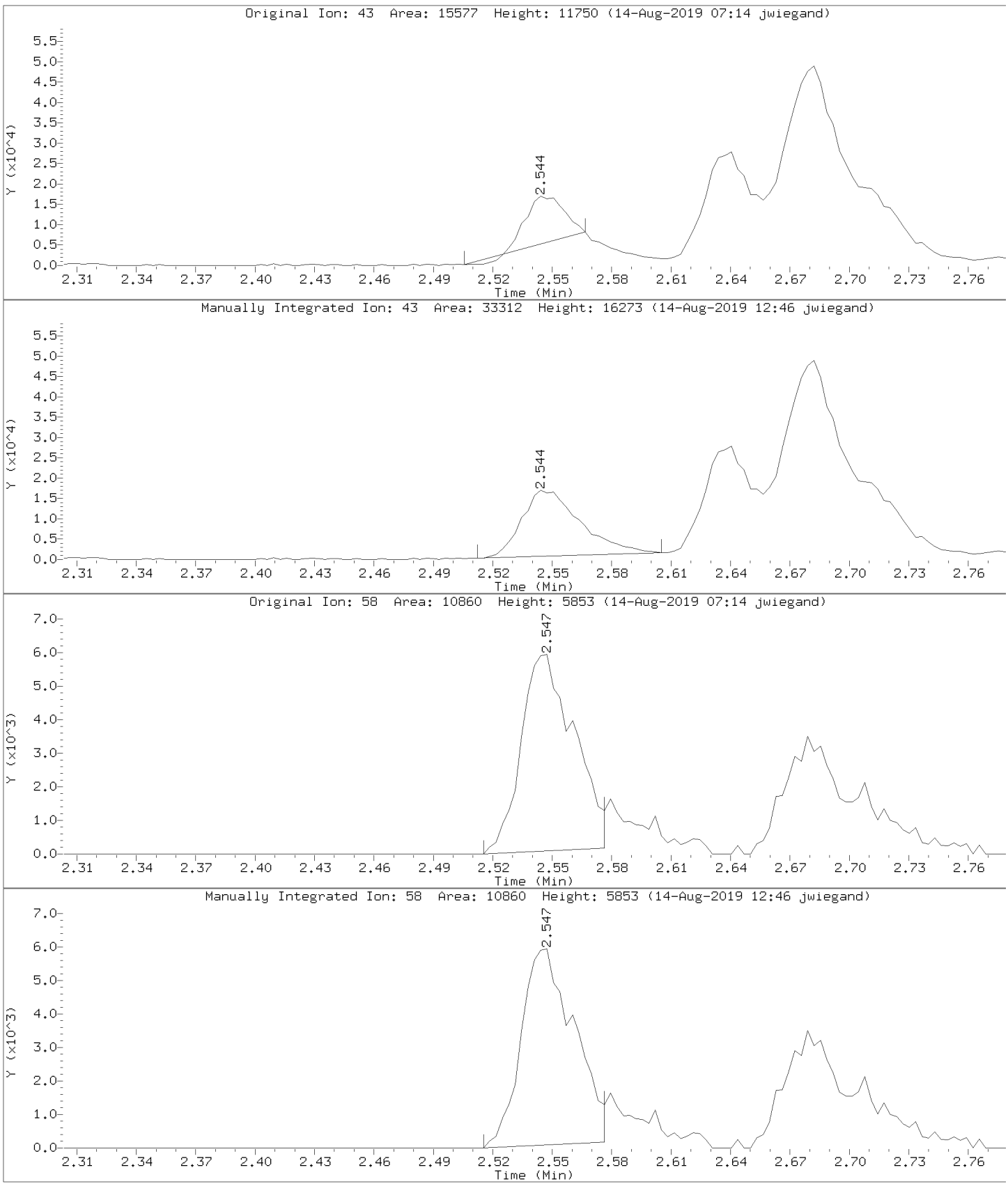
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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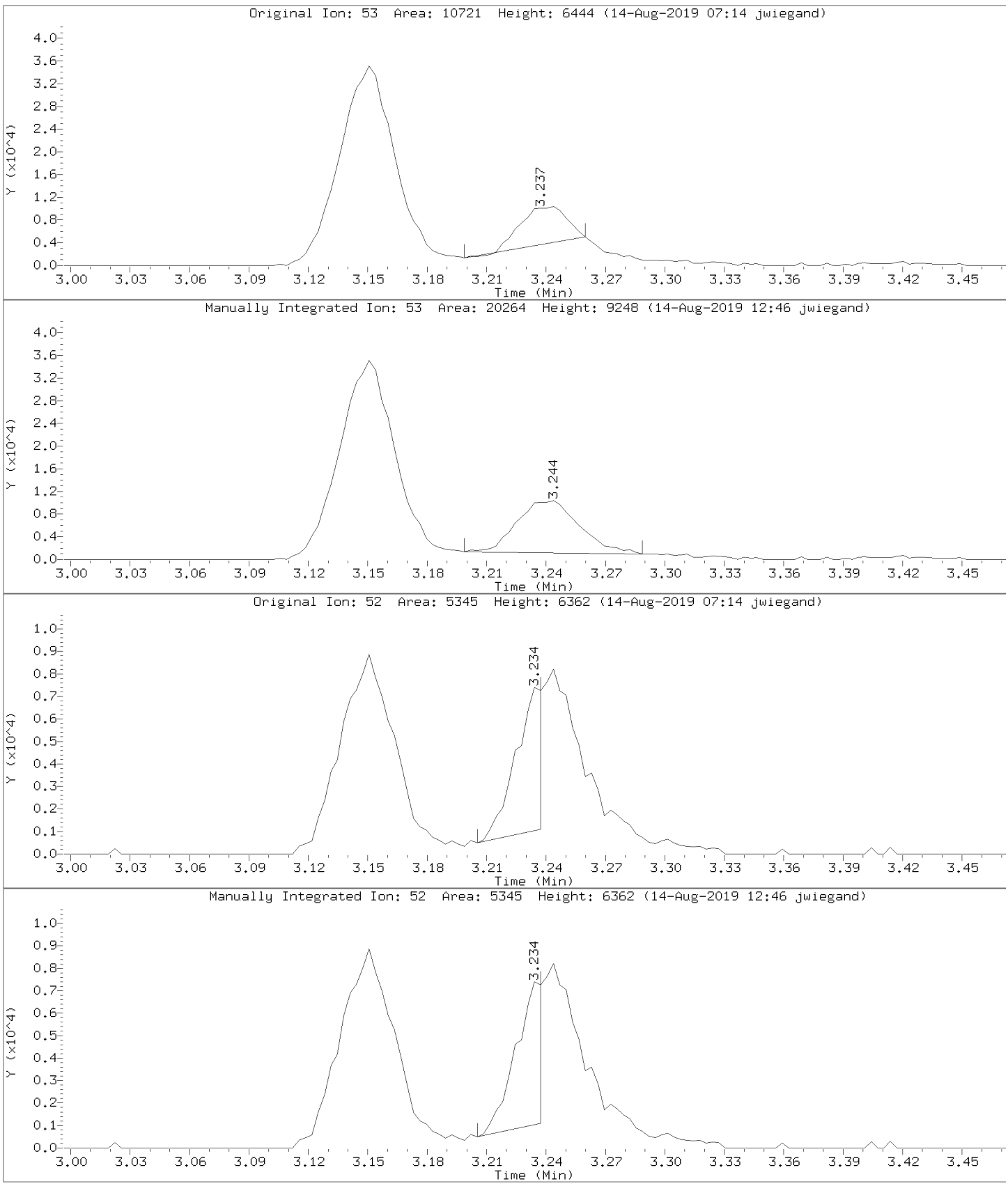
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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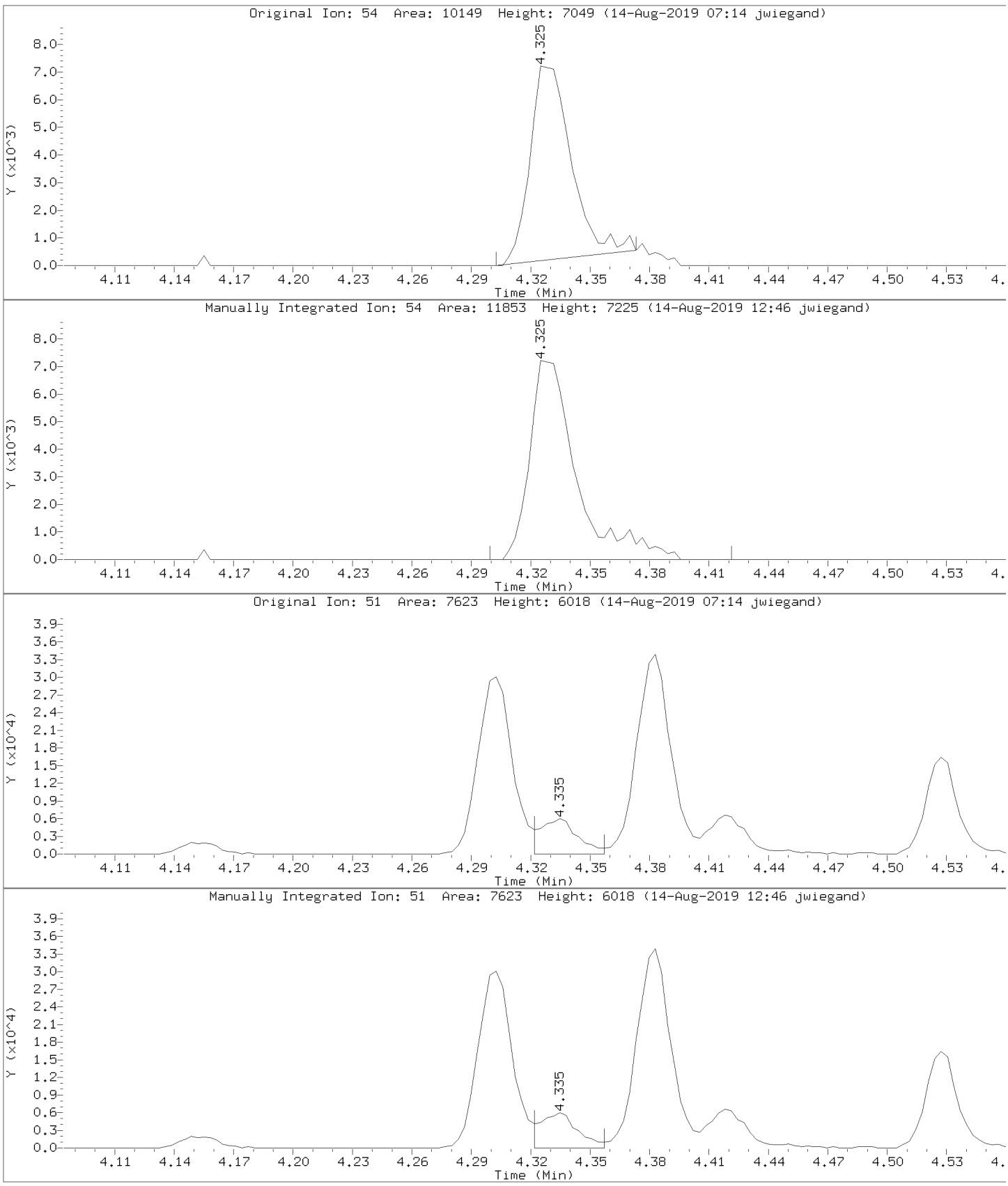
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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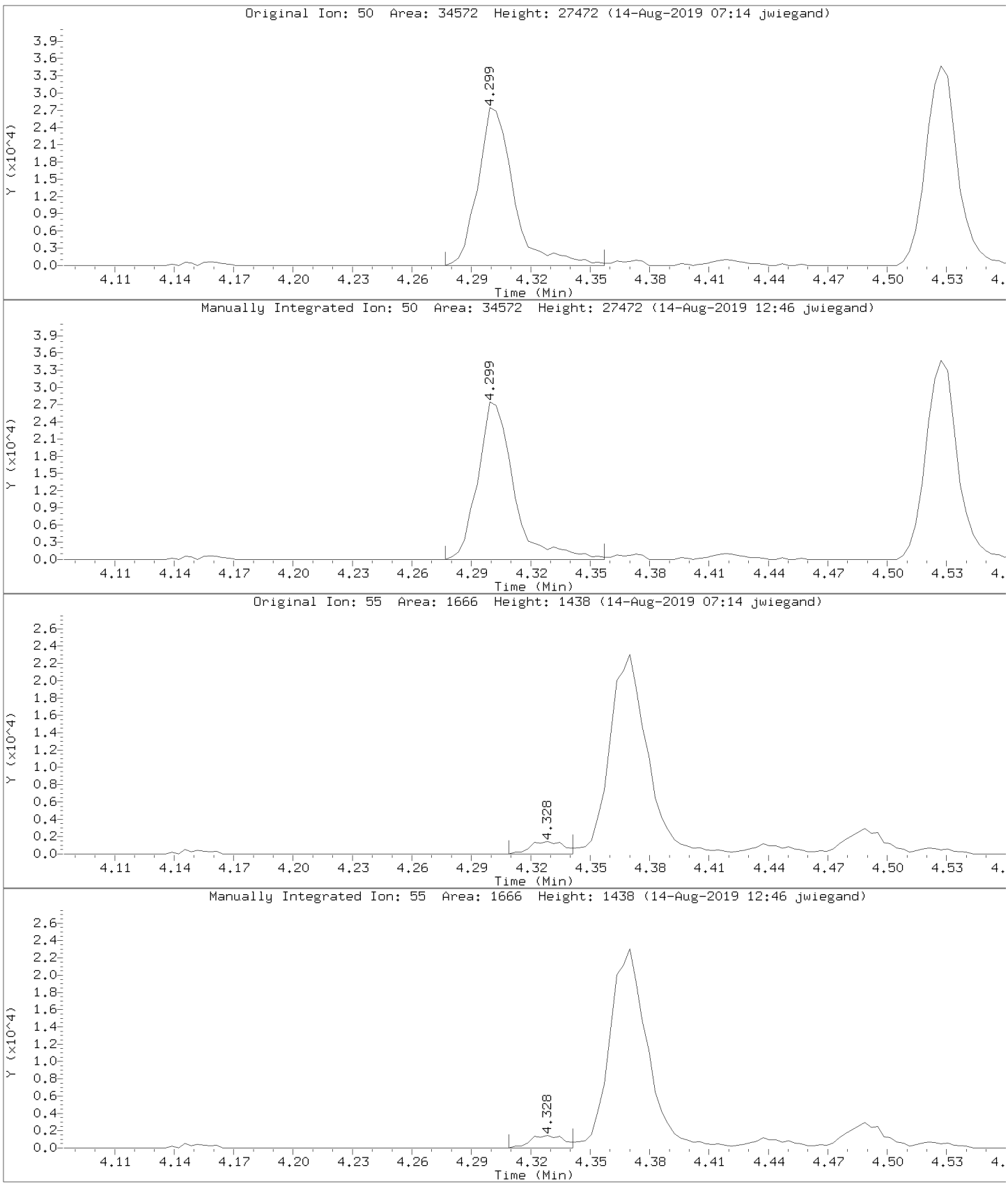
Instrument: 30mv6a.i
Lab Sample ID: CAL4



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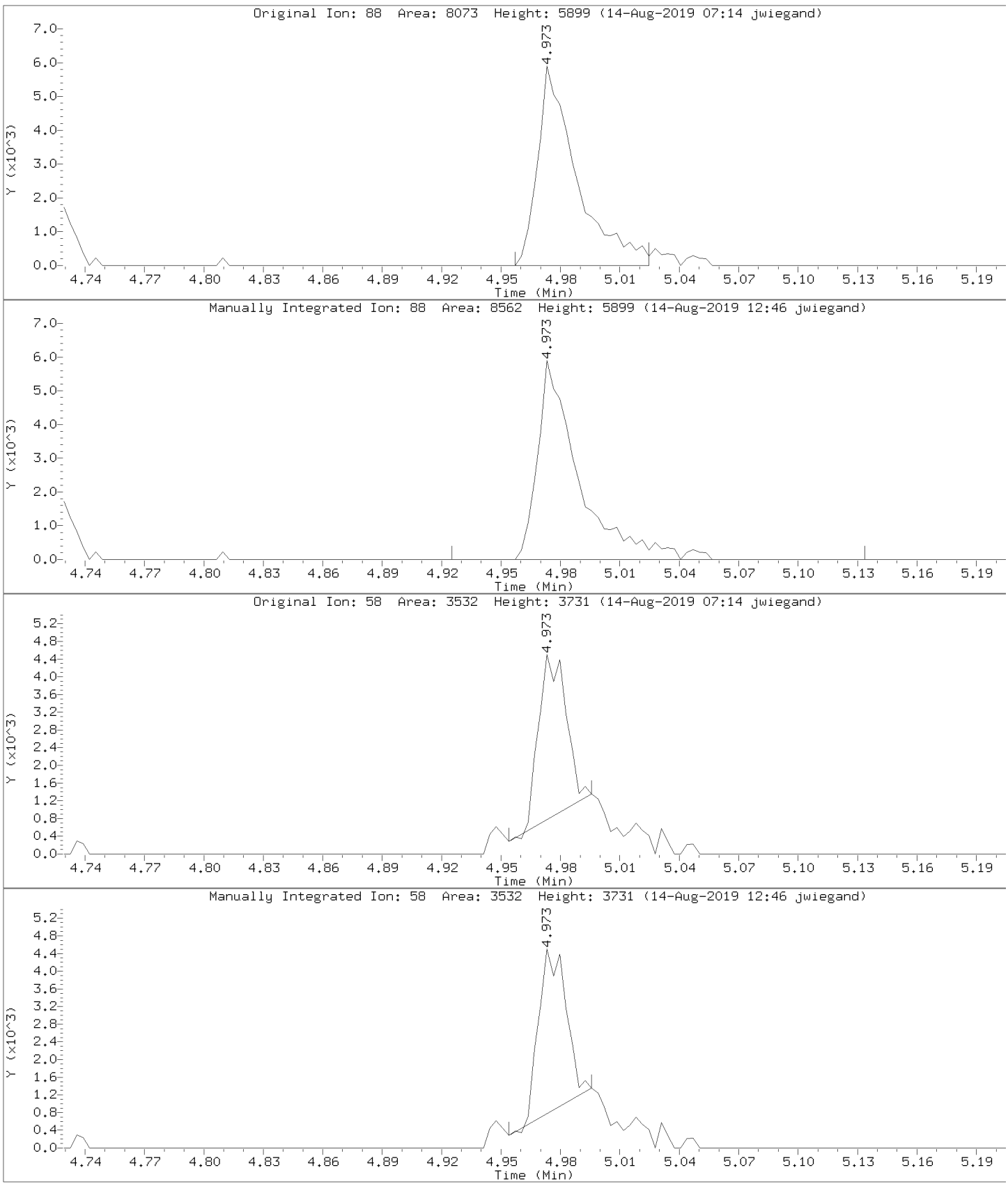
Injection Date: 13-AUG-2019 15:41
Instrument: 30mv6a.i
Lab Sample ID: CAL4

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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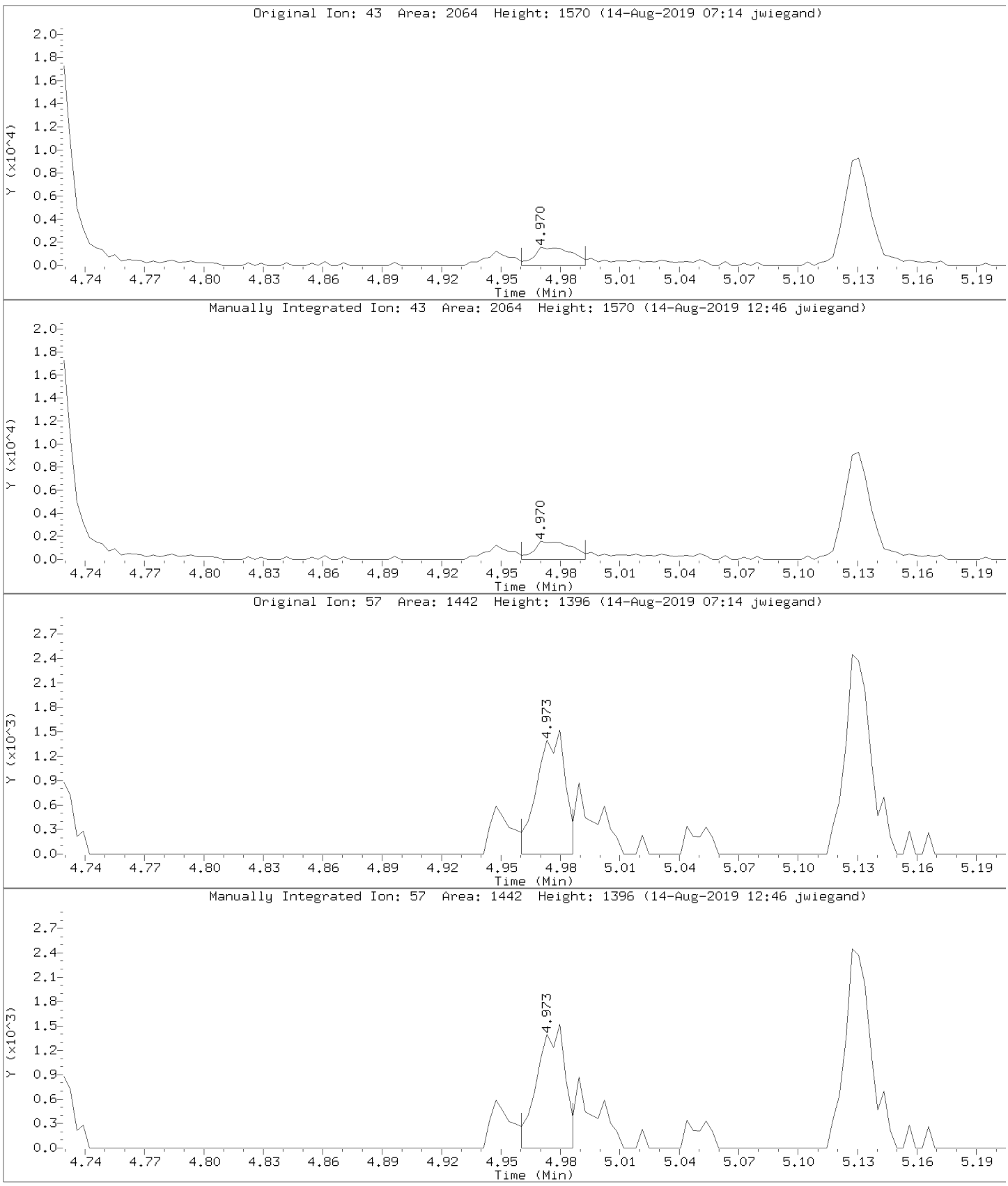
Injection Date: 13-AUG-2019 15:41
Instrument: 30mv6a.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 13-AUG-2019 16:07
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal5, 96579:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 16:07 Cal File: 60813021.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.228	(0.271)	103018	50.0000	58.4(Q)	
2	Chloromethane	50	1.350	1.347	(0.298)	142083	50.0000	67.4(Q)	
3	Vinyl chloride	62	1.395	1.395	(0.308)	142175	50.0000	61.9(Q)	
4	Bromomethane	94	1.587	1.585	(0.351)	37585	50.0000	51.7(Q)	
5	Chloroethane	64	1.655	1.662	(0.366)	80854	50.0000	64.0(Q)	
6	Trichlorofluoromethane	101	1.741	1.742	(0.385)	165753	50.0000	63.2(Q)	
7	Diethyl ether (Ethyl ether)	59	1.940	1.944	(0.429)	113149	50.0000	51.9(Q)	
8	Ethanol	45	2.046	2.049	(0.298)	18714	500.000	(aQ)	
9	1,1-Dichloroethene	61	2.075	2.079	(0.458)	184779	50.0000	58.1(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.097	2.097	(0.463)	84295	50.0000	56.9(Q)	
11	Carbon disulfide	76	2.104	2.104	(0.465)	302200	50.0000	58.2(Q)	
12	Iodomethane	142	2.181	2.181	(0.482)	74884	50.0000	60.2(Q)	
13	Acrolein	56	2.319	2.326	(0.512)	17365	50.0000	50.5(QM)	LT
14	Allyl chloride	41	2.415	2.419	(0.534)	1019888	250.000	297(Q)	
15	Methylene Chloride	49	2.499	2.502	(0.552)	199845	50.0000	61.2(Q)	
16	Acetone	43	2.547	2.554	(0.563)	55627	50.0000	55.7(Q)	
17	trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	177410	50.0000	57.1(Q)	
18	Methyl acetate	74	2.633	2.640	(0.582)	24253	50.0000	50.6(Q)	
19	n-Hexane	86	2.682	2.682	(0.592)	44468	50.0000	73.7(Q)	
20	Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	356644	50.0000	51.5(Q)	
21	tert-Butyl Alcohol	59	2.800	2.798	(0.619)	132238	250.000	232(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.948	2.955	(0.651)	89323	250.000	274(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	428573	50.0000	51.8(Q)	
	24 Chloroprene	53	3.150	3.147	(0.696)	180017	50.0000	56.3(Q)	
	25 1,1-Dichloroethane	63	3.176	3.179	(0.702)	231474	50.0000	57.4(Q)	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	63975	50.0000	52.2(Q)	
	27 Ethyl-tert-butyl ether	59	3.413	3.427	(0.754)	406063	50.0000	51.1(Q)	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	329133	50.0000	50.5(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	183052	50.0000	59.0(Q)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	180993	50.0000	57.7(Q)	
	31 Cyclohexane	56	3.869	3.876	(0.855)	227219	50.0000	56.0(Q)	
	32 Bromochloromethane	130	3.878	3.882	(0.857)	91664	50.0000	57.3(Q)	
	33 Chloroform	83	3.939	3.943	(0.870)	215182	50.0000	56.1(Q)	
	34 Carbon tetrachloride	117	4.023	4.022	(0.889)	155812	50.0000	54.6(Q)	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	151943	50.0000	49.5(Q)	
	36 Tetrahydrofuran	42	4.052	4.054	(0.895)	67839	50.0000	50.5(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	95067	30.0000	31.2(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	190131	50.0000	56.2(Q)	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	86148	50.0000	49.5(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	166281	50.0000	56.8(Q)	
	41 Benzene	78	4.302	4.306	(0.950)	490217	50.0000	58.7(Q)	
	42 Propionitrile	54	4.328	4.335	(0.956)	28424	50.0000	52.4(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	86721	50.0000	50.2(Q)	
	44 tert-Amylmethyl ether	73	4.366	4.373	(0.965)	330042	50.0000	49.6(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	91511	30.0000	30.7(Q)	
	46 Isobutanol	43	4.440	4.447	(0.981)	50240	250.000	238(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	168161	50.0000	54.3(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	364126	30.0000	(Q)	
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	195857	50.0000	54.2(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	130422	50.0000	54.5(Q)	
	51 Dibromomethane	174	4.812	4.816	(1.063)	89574	50.0000	53.4(Q)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	133633	50.0000	53.8(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	151828	50.0000	52.4(Q)	
	54 Methyl methacrylate	69	4.947	4.954	(1.093)	89143	50.0000	48.6(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.973	4.980	(1.099)	20352	500.000	525(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	31286	50.0000	46.3(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	198417	50.0000	52.8(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	320685	30.0000	28.5(Q)	
	59 Toluene	91	5.258	5.259	(0.893)	507173	50.0000	52.6(Q)	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	190260	250.000	226(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	149323	50.0000	50.2(Q)	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	134890	50.0000	53.1(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	180318	50.0000	48.8(Q)	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	117454	50.0000	50.9(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	109904	50.0000	49.7(Q)	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	130827	50.0000	47.6(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	186195	50.0000	49.8(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	118112	50.0000	49.7(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	116827	50.0000	48.5(Q)	
	70 Ethylbenzene	106	5.897	5.901	(1.002)	195677	50.0000	54.6(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	274878	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	359026	50.0000	53.6(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	126404	50.0000	48.9(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	483669	100.000	108(Q)	
	75 o-Xylene	106	6.137	6.141	(1.043)	235554	50.0000	52.6(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	426323	50.0000	53.9(Q)	
	77 Bromoform	173	6.186	6.189	(0.900)	89022	50.0000	49.8(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	635543	50.0000	55.8(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.401	(0.931)	117252	30.0000	29.7(Q)	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	730102	50.0000	55.2(Q)	
	81 Bromobenzene	77	6.446	6.449	(0.938)	253835	50.0000	53.1(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	143972	50.0000	46.6(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	525221	50.0000	54.4(Q)	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	155336	50.0000	53.7(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.952)	48201	50.0000	46.2(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	48983	50.0000	45.8(Q)	
	87 Cyclohexanone	55	6.567	6.571	(0.956)	68668	250.000	251(Q)	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	168029	50.0000	54.2(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	477564	50.0000	54.5(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.973)	550177	50.0000	54.3(Q)	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	702304	50.0000	55.7(Q)	
	92 p-Isopropyltoluene	119	6.782	6.786	(0.987)	627936	50.0000	56.1(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	334548	50.0000	53.5(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	161487	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	345639	50.0000	54.0(Q)	
	96 n-Butylbenzene	91	6.965	6.969	(1.014)	564659	50.0000	56.4(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	323138	50.0000	53.5(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	161484	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	47138	50.0000	48.2(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.418	(1.079)	248087	50.0000	55.3(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	127387	50.0000	58.5(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	231048	50.0000	54.6(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	619815	50.0000	53.0(Q)	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	201799	50.0000	54.2(Q)	
	104 2-Methylnaphthalene	142	8.291	8.294	(1.207)	312800	50.0000	55.8(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813021.d
Lab Smp Id: CAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL5
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	364126	-0.32
71 Chlorobenzene-d5	277666	138833	555332	274878	-1.00
94 1,4-Dichlorobenze	164337	82169	328674	161487	-1.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	58.4	
74-87-3	Chloromethane	67.4	
75-01-4	Vinyl chloride	61.9	
74-83-9	Bromomethane	51.7	
75-00-3	Chloroethane	64.0	
75-69-4	Trichlorofluoromethane	63.2	
60-29-7	Diethyl ether (Ethyl ether)	51.9	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	58.1	
76-13-1	1,1,2-Trichlorotrifluoroetha	56.9	
75-15-0	Carbon disulfide	58.2	
74-88-4	Iodomethane	60.2	
107-02-8	Acrolein	50.5	
107-05-1	Allyl chloride	297	
75-09-2	Methylene Chloride	61.2	
67-64-1	Acetone	55.7	
156-60-5	trans-1,2-Dichloroethene	57.1	
79-20-9	Methyl acetate	50.6	
110-54-3	n-Hexane	73.7	
1634-04-4	Methyl-tert-butyl ether	51.5	
75-65-0	tert-Butyl Alcohol	232	
75-05-8	Acetonitrile	274	
108-20-3	Diisopropyl ether	51.8	
126-99-8	Chloroprene	56.3	
75-34-3	1,1-Dichloroethane	57.4	
107-13-1	Acrylonitrile	52.2	
637-92-3	Ethyl-tert-butyl ether	51.1	
108-05-4	Vinyl acetate	50.5	
156-59-2	cis-1,2-Dichloroethene	59.0	
594-20-7	2,2-Dichloropropane	57.7	
110-82-7	Cyclohexane	56.0	
74-97-5	Bromochloromethane	57.3	
67-66-3	Chloroform	56.1	
56-23-5	Carbon tetrachloride	54.6	
141-78-6	Ethyl acetate	49.5	
109-99-9	Tetrahydrofuran	50.5	
71-55-6	1,1,1-Trichloroethane	56.2	
78-93-3	2-Butanone (MEK)	49.5	
563-58-6	1,1-Dichloropropene	56.8	
71-43-2	Benzene	58.7	
107-12-0	Propionitrile	52.4	
126-98-7	Methacrylonitrile	50.2	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	49.6	
78-83-1	Isobutanol	238	
107-06-2	1,2-Dichloroethane	54.3	
108-87-2	Methylcyclohexane	54.2	
79-01-6	Trichloroethene	54.5	
74-95-3	Dibromomethane	53.4	
78-87-5	1,2-Dichloropropane	53.8	
75-27-4	Bromodichloromethane	52.4	
80-62-6	Methyl methacrylate	48.6	
123-91-1	1,4-Dioxane (p-Dioxane)	525	
110-75-8	2-Chloroethylvinyl ether	46.3	
10061-01-5	cis-1,3-Dichloropropene	52.8	
108-88-3	Toluene	52.6	
79-46-9	2-Nitropropane	226	
108-10-1	4-Methyl-2-pentanone (MIBK)	50.2	
127-18-4	Tetrachloroethene	53.1	
10061-02-6	trans-1,3-Dichloropropene	48.8	
97-63-2	Ethyl methacrylate	50.9	
79-00-5	1,1,2-Trichloroethane	49.7	
124-48-1	Dibromochloromethane	47.6	
142-28-9	1,3-Dichloropropane	49.8	
106-93-4	1,2-Dibromoethane (EDB)	49.7	
591-78-6	2-Hexanone	48.5	
100-41-4	Ethylbenzene	54.6	
108-90-7	Chlorobenzene	53.6	
630-20-6	1,1,1,2-Tetrachloroethane	48.9	
7816-60-0	m&p-Xylene	108	
95-47-6	o-Xylene	52.6	
100-42-5	Styrene	53.9	
75-25-2	Bromoform	49.8	
98-82-8	Isopropylbenzene (Cumene)	55.8	
103-65-1	n-Propylbenzene	55.2	
108-86-1	Bromobenzene	53.1	
79-34-5	1,1,2,2-Tetrachloroethane	46.6	
108-67-8	1,3,5-Trimethylbenzene	54.4	
95-49-8	2-Chlorotoluene	53.7	
96-18-4	1,2,3-Trichloropropane	46.2	
110-57-6	trans-1,4-Dichloro-2-butene	45.8	
108-94-1	Cyclohexanone	251	
106-43-4	4-Chlorotoluene	54.2	
98-06-6	tert-Butylbenzene	54.5	
95-63-6	1,2,4-Trimethylbenzene	54.3	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Report Date: 29-Aug-2019 12:25

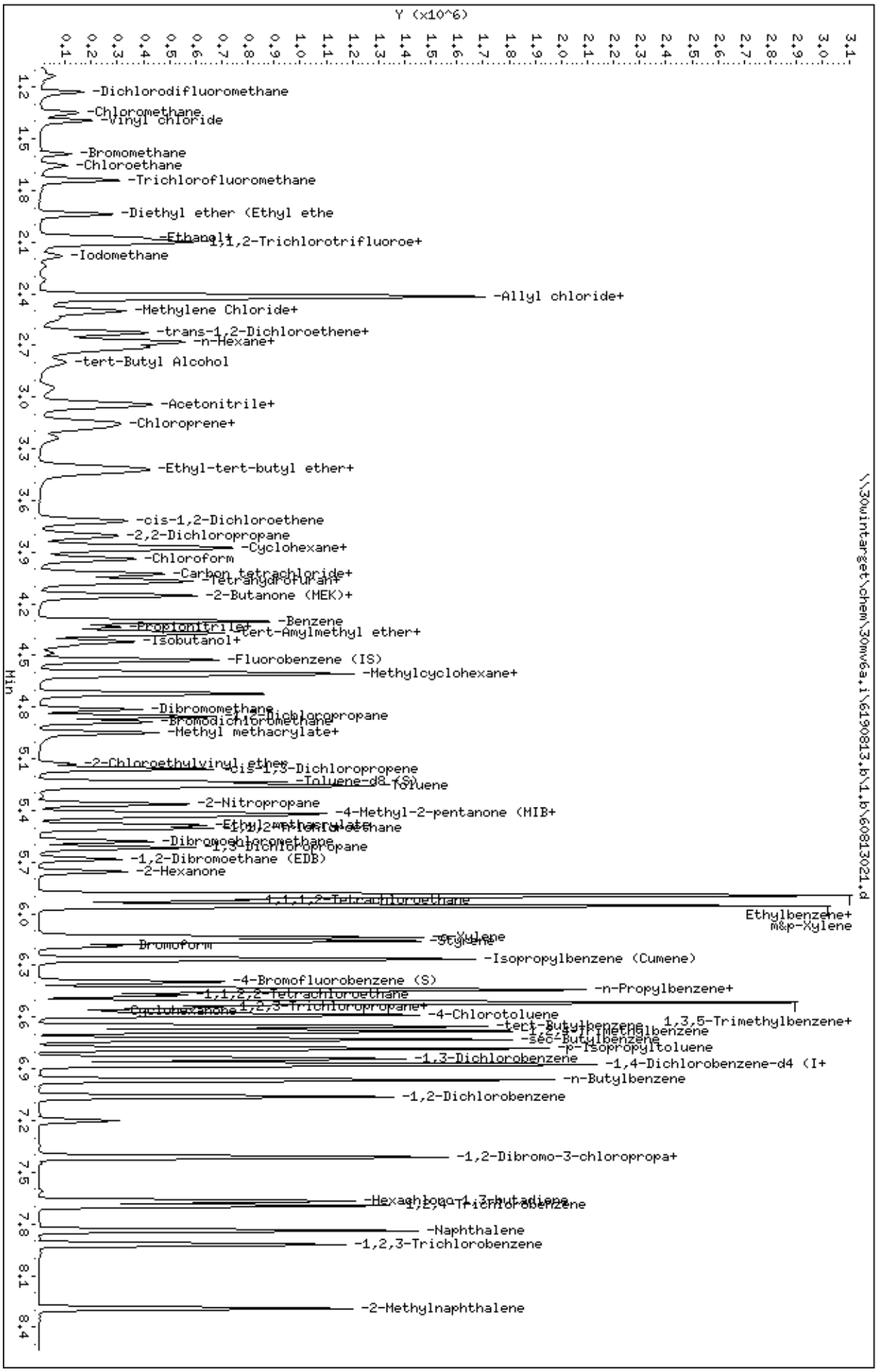
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	55.7	
99-87-6	p-Isopropyltoluene	56.1	
541-73-1	1,3-Dichlorobenzene	53.5	
106-46-7	1,4-Dichlorobenzene	54.0	
104-51-8	n-Butylbenzene	56.4	
95-50-1	1,2-Dichlorobenzene	53.5	
96-12-8	1,2-Dibromo-3-chloropropane	48.2	
108-70-3	1,3,5-Trichlorobenzene	55.3	
87-68-3	Hexachloro-1,3-butadiene	58.5	
120-82-1	1,2,4-Trichlorobenzene	54.6	
91-20-3	Naphthalene	53.0	
87-61-6	1,2,3-Trichlorobenzene	54.2	
91-57-6	2-Methylnaphthalene	55.8	
1868-53-7	Dibromofluoromethane (S)	31.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.7	
2037-26-5	Toluene-d8 (S)	28.5	
460-00-4	4-Bromofluorobenzene (S)	29.7	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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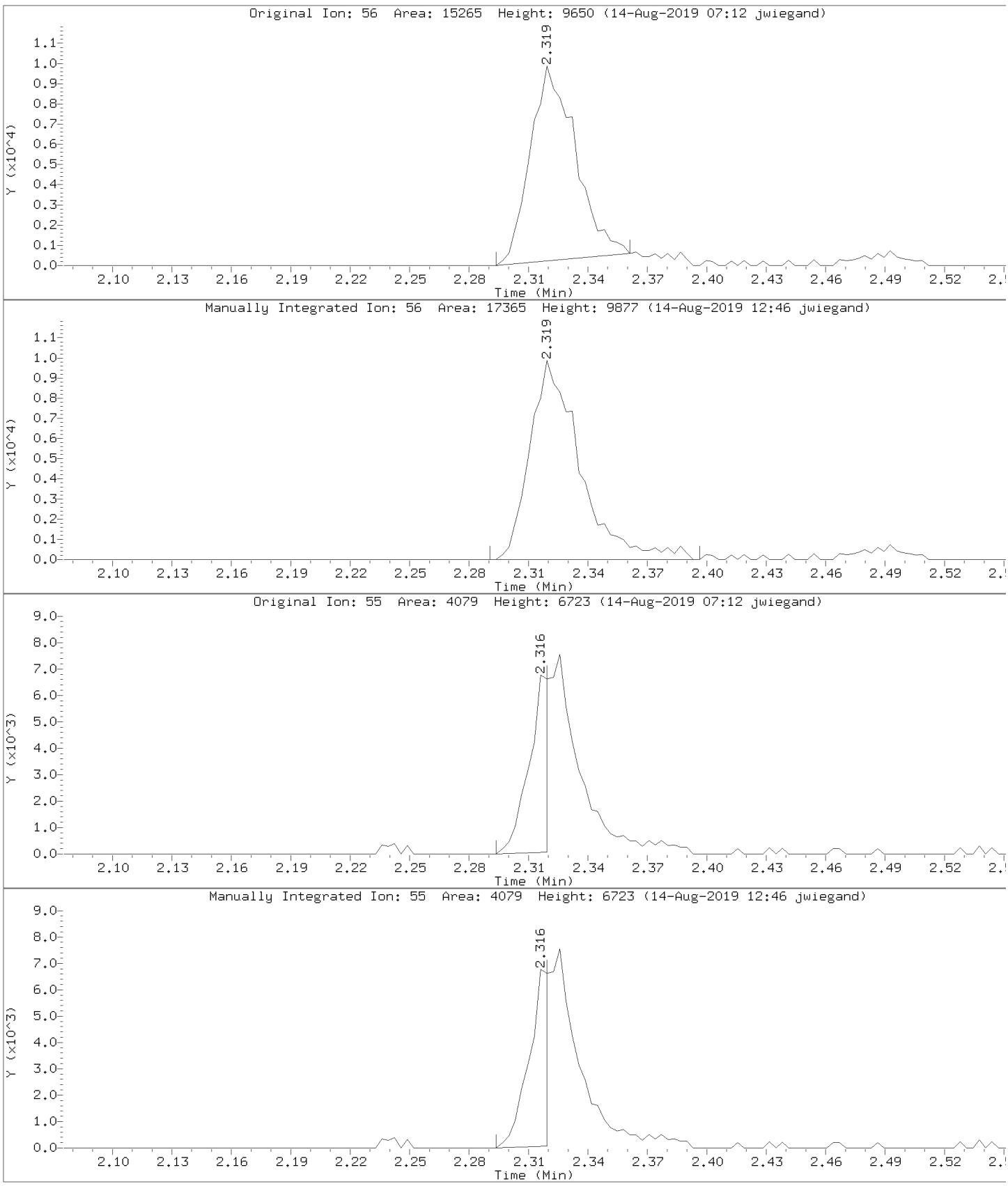
Date : 13-AUG-2019 16:07
Client ID: CAL5
Sample Info: CAL5, 96579:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813021.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Propionitrile+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-Cyclohexanone
1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813021.d
Injection Date: 13-AUG-2019 16:07
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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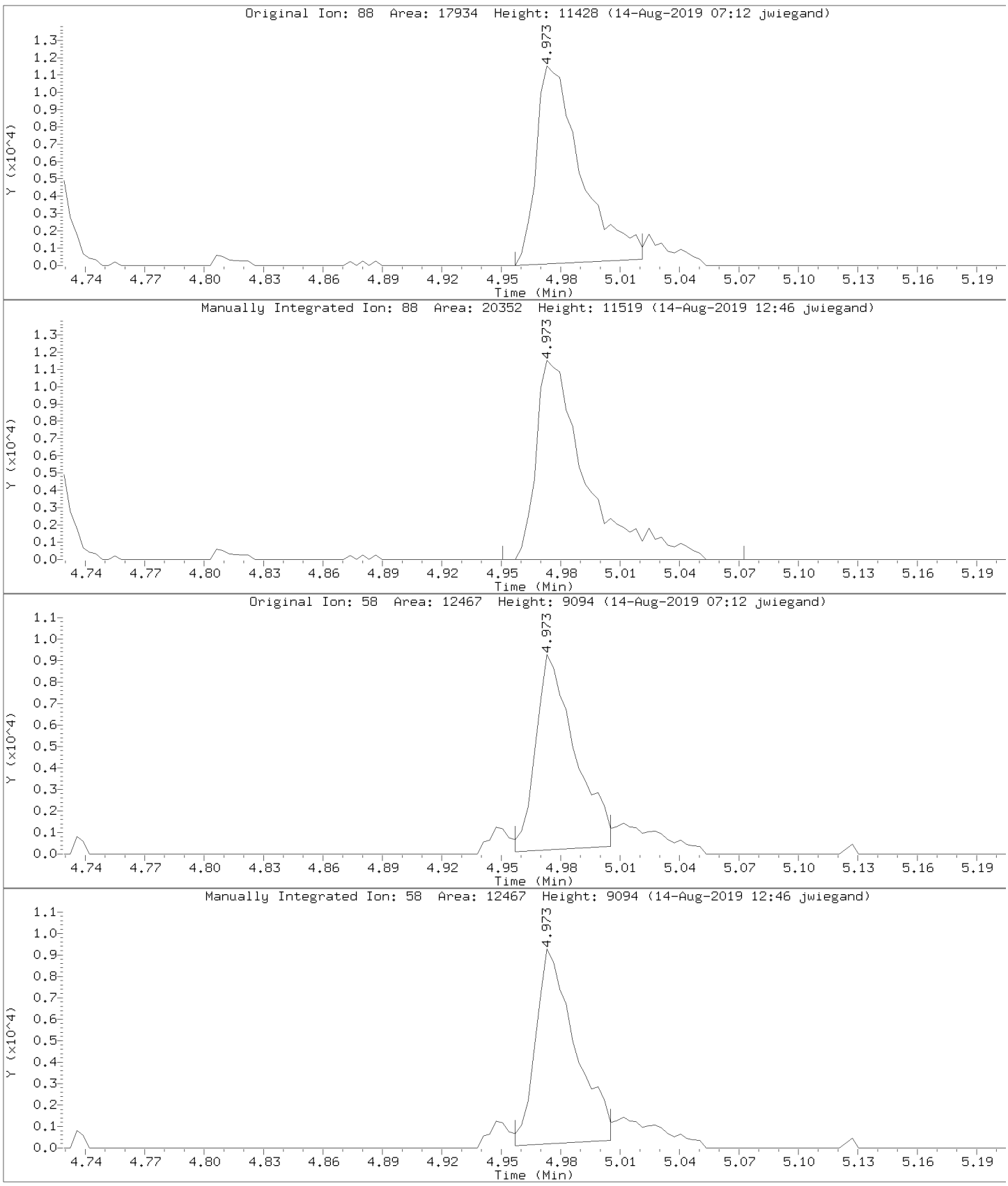
Injection Date: 13-AUG-2019 16:07
Instrument: 30mv6a.i
Lab Sample ID: CAL5

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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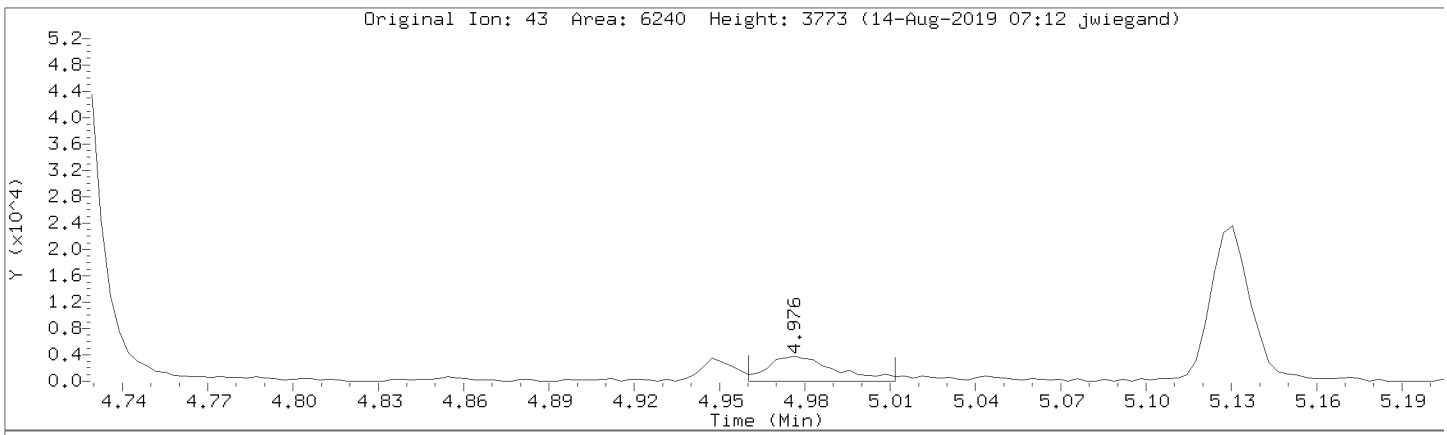
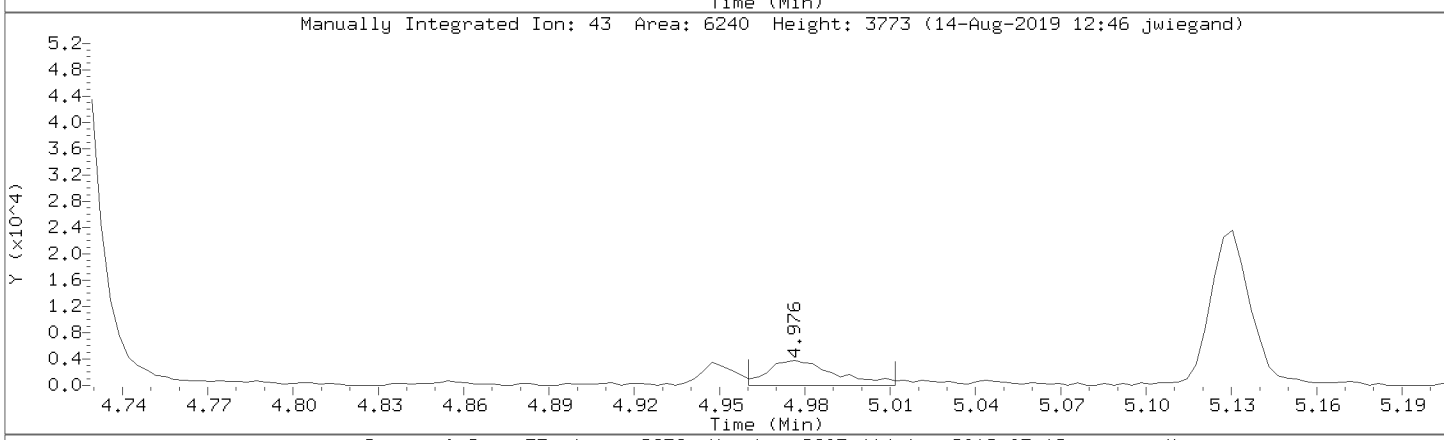
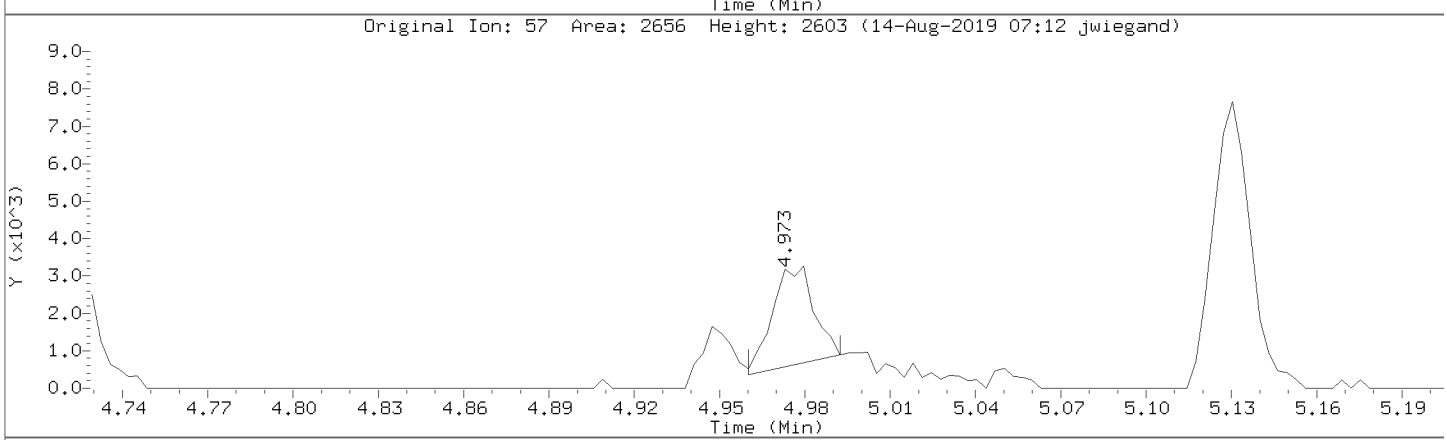
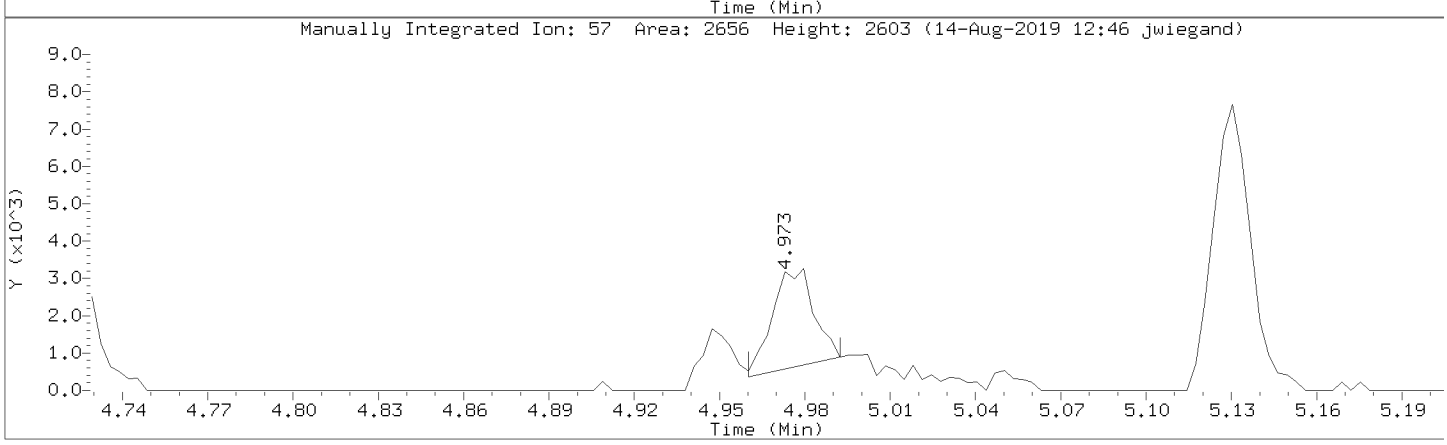
Injection Date: 13-AUG-2019 16:07
Instrument: 30mv6a.i
Lab Sample ID: CAL5









Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813023.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813023.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 13-AUG-2019 16:32
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal6, 96580:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 16:32 Cal File: 60813023.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.228	(0.271)	178493	100.000	97.3(Q)	
2 Chloromethane	50	1.347	1.347	(0.298)	251773	100.000	2.82(Q)	
3 Vinyl chloride	62	1.395	1.395	(0.308)	255333	100.000	3.25(Q)	
4 Bromomethane	94	1.587	1.585	(0.351)	71310	100.000	92.8(Q)	
5 Chloroethane	64	1.655	1.662	(0.366)	135994	100.000	4.10(Q)	
6 Trichlorofluoromethane	101	1.738	1.742	(0.384)	286299	100.000	3.61(Q)	
7 Diethyl ether (Ethyl ether)	59	1.937	1.944	(0.428)	216186	100.000	94.4(Q)	
8 Ethanol	45	2.053	2.049	(0.299)	49789	1000.00	(aQ)	
9 1,1-Dichloroethene	61	2.075	2.079	(0.458)	330881	100.000	101(Q)	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	149847	100.000	97.1(Q)	
11 Carbon disulfide	76	2.101	2.104	(0.464)	542729	100.000	2.97(Q)	
12 Iodomethane	142	2.181	2.181	(0.482)	134399	100.000	107(Q)	
13 Acrolein	56	2.322	2.326	(0.513)	33517	100.000	92.1(Q)	
14 Allyl chloride	41	2.415	2.419	(0.534)	1814604	500.000	18.3(Q)	
15 Methylene Chloride	49	2.499	2.502	(0.552)	351752	100.000	3.33(Q)	
16 Acetone	43	2.547	2.554	(0.563)	103232	100.000	3.77(Q)	
17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	320904	100.000	100(Q)	
18 Methyl acetate	74	2.640	2.640	(0.583)	47325	100.000	93.7(Q)	
19 n-Hexane	86	2.678	2.682	(0.592)	69509	100.000	3.57(Q)	
20 Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	698421	100.000	96.8(Q)	
21 tert-Butyl Alcohol	59	2.804	2.798	(0.619)	288397	500.000	487(Q)	

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.948	2.955	(0.651)	172217	500.000	520(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	837358	100.000	97.1(Q)	
	24 Chloroprene	53	3.147	3.147	(0.695)	328031	100.000	99.4(Q)	
	25 1,1-Dichloroethane	63	3.176	3.179	(0.702)	419638	100.000	101(Q)	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	124841	100.000	98.3(Q)	
	27 Ethyl-tert-butyl ether	59	3.413	3.427	(0.754)	803104	100.000	97.0(Q)	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	655432	100.000	96.4(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	331585	100.000	3.29(Q)	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	325418	100.000	101(Q)	
	31 Cyclohexane	56	3.869	3.876	(0.855)	415712	100.000	99.0(Q)	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	168203	100.000	103(Q)	
	33 Chloroform	83	3.940	3.943	(0.870)	394154	100.000	99.5(Q)	
	34 Carbon tetrachloride	117	4.023	4.022	(0.889)	287447	100.000	96.7(Q)	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	301456	100.000	93.1(Q)	
	36 Tetrahydrofuran	42	4.049	4.054	(0.894)	135524	100.000	96.9(Q)	
$	37 Dibromofluoromethane (S)	111	4.068	4.067	(0.899)	94908	30.0000	30.3(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	346103	100.000	98.9(Q)	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	170836	100.000	93.0(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	302054	100.000	100(Q)	
	41 Benzene	78	4.302	4.306	(0.950)	907030	100.000	3.31(Q)	
	42 Propionitrile	54	4.328	4.335	(0.956)	54110	100.000	95.2(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	174030	100.000	96.7(Q)	
	44 tert-Amylmethyl ether	73	4.370	4.373	(0.965)	661831	100.000	94.6(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	89318	30.0000	28.7(Q)	
	46 Isobutanol	43	4.440	4.447	(0.981)	104967	500.000	15.1(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	314550	100.000	97.9(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	375453	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	363882	100.000	96.6(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	236754	100.000	99.0(Q)	
	51 Dibromomethane	174	4.812	4.816	(1.063)	168476	100.000	96.2(Q)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	250715	100.000	96.9(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	289032	100.000	95.2(Q)	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	181689	100.000	94.2(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	40374	1000.00	1020(QM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	63355	100.000	87.0(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	374630	100.000	95.2(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	335088	30.0000	29.9(Q)	
	59 Toluene	91	5.255	5.259	(0.893)	969641	100.000	102(Q)	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	422901	500.000	14.1(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	304040	100.000	98.6(Q)	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	257161	100.000	102(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	352500	100.000	94.0(Q)	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	225559	100.000	97.4(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	212957	100.000	95.2(Q)	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	260593	100.000	93.0(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	361576	100.000	95.9(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	228777	100.000	95.2(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	234291	100.000	96.6(Q)	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	358956	100.000	101(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	273584	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	669516	100.000	101(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	252650	100.000	3.08(Q)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	884003	200.000	198(Q)	
	75 o-Xylene	106	6.138	6.141	(1.043)	434478	100.000	96.3(Q)	

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		QUANT SIG					AMOUNTS		
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	767897	100.000	96.3(Q)	
	77 Bromoform	173	6.186	6.189	(0.900)	180669	100.000	2.85(Q)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.911)	1147241	100.000	101(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.401	(0.931)	118425	30.0000	29.9(Q)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	1331543	100.000	101(Q)	
	81 Bromobenzene	77	6.446	6.449	(0.938)	465689	100.000	95.9(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	297423	100.000	94.5(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	966506	100.000	99.9(Q)	
	84 2-Chlorotoluene	126	6.516	6.523	(0.948)	284112	100.000	97.3(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.951)	100227	100.000	94.0(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.952)	100850	100.000	91.5(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	132781	500.000	477(Q)	
	88 4-Chlorotoluene	126	6.587	6.590	(0.958)	302474	100.000	96.3(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.968)	877440	100.000	100(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.972)	1017243	100.000	100(Q)	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	1290164	100.000	103(Q)	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	1147812	100.000	104(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.995)	622872	100.000	99.3(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	161671	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	639094	100.000	99.6(Q)	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	1025761	100.000	104(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	599898	100.000	98.8(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	161668	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.077)	92601	100.000	92.2(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.418	(1.079)	460308	100.000	104(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	233177	100.000	3.35(Q)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	429243	100.000	102(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	1198008	100.000	103(Q)	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	381833	100.000	104(Q)	
	104 2-Methylnaphthalene	142	8.291	8.294	(1.206)	580075	100.000	107(Q)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813023.d
Lab Smp Id: CAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL6
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	375453	2.78
71 Chlorobenzene-d5	277666	138833	555332	273584	-1.47
94 1,4-Dichlorobenze	164337	82169	328674	161671	-1.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	97.3	
74-87-3	Chloromethane	2.82	
75-01-4	Vinyl chloride	3.25	
74-83-9	Bromomethane	92.8	
75-00-3	Chloroethane	4.10	
75-69-4	Trichlorofluoromethane	3.61	
60-29-7	Diethyl ether (Ethyl ether)	94.4	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	101	
76-13-1	1,1,2-Trichlorotrifluoroetha	97.1	
75-15-0	Carbon disulfide	2.97	
74-88-4	Iodomethane	107	
107-02-8	Acrolein	92.1	
107-05-1	Allyl chloride	18.3	
75-09-2	Methylene Chloride	3.33	
67-64-1	Acetone	3.77	
156-60-5	trans-1,2-Dichloroethene	100	
79-20-9	Methyl acetate	93.7	
110-54-3	n-Hexane	3.57	
1634-04-4	Methyl-tert-butyl ether	96.8	
75-65-0	tert-Butyl Alcohol	487	
75-05-8	Acetonitrile	520	
108-20-3	Diisopropyl ether	97.1	
126-99-8	Chloroprene	99.4	
75-34-3	1,1-Dichloroethane	101	
107-13-1	Acrylonitrile	98.3	
637-92-3	Ethyl-tert-butyl ether	97.0	
108-05-4	Vinyl acetate	96.4	
156-59-2	cis-1,2-Dichloroethene	3.29	
594-20-7	2,2-Dichloropropane	101	
110-82-7	Cyclohexane	99.0	
74-97-5	Bromochloromethane	103	
67-66-3	Chloroform	99.5	
56-23-5	Carbon tetrachloride	96.7	
141-78-6	Ethyl acetate	93.1	
109-99-9	Tetrahydrofuran	96.9	
71-55-6	1,1,1-Trichloroethane	98.9	
78-93-3	2-Butanone (MEK)	93.0	
563-58-6	1,1-Dichloropropene	100	
71-43-2	Benzene	3.31	
107-12-0	Propionitrile	95.2	
126-98-7	Methacrylonitrile	96.7	

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Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	94.6	
78-83-1	Isobutanol	15.1	
107-06-2	1,2-Dichloroethane	97.9	
108-87-2	Methylcyclohexane	96.6	
79-01-6	Trichloroethene	99.0	
74-95-3	Dibromomethane	96.2	
78-87-5	1,2-Dichloropropane	96.9	
75-27-4	Bromodichloromethane	95.2	
80-62-6	Methyl methacrylate	94.2	
123-91-1	1,4-Dioxane (p-Dioxane)	1020	
110-75-8	2-Chloroethylvinyl ether	87.0	
10061-01-5	cis-1,3-Dichloropropene	95.2	
108-88-3	Toluene	102	
79-46-9	2-Nitropropane	14.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	98.6	
127-18-4	Tetrachloroethene	102	
10061-02-6	trans-1,3-Dichloropropene	94.0	
97-63-2	Ethyl methacrylate	97.4	
79-00-5	1,1,2-Trichloroethane	95.2	
124-48-1	Dibromochloromethane	93.0	
142-28-9	1,3-Dichloropropane	95.9	
106-93-4	1,2-Dibromoethane (EDB)	95.2	
591-78-6	2-Hexanone	96.6	
100-41-4	Ethylbenzene	101	
108-90-7	Chlorobenzene	101	
630-20-6	1,1,1,2-Tetrachloroethane	3.08	
7816-60-0	m&p-Xylene	198	
95-47-6	o-Xylene	96.3	
100-42-5	Styrene	96.3	
75-25-2	Bromoform	2.85	
98-82-8	Isopropylbenzene (Cumene)	101	
103-65-1	n-Propylbenzene	101	
108-86-1	Bromobenzene	95.9	
79-34-5	1,1,2,2-Tetrachloroethane	94.5	
108-67-8	1,3,5-Trimethylbenzene	99.9	
95-49-8	2-Chlorotoluene	97.3	
96-18-4	1,2,3-Trichloropropane	94.0	
110-57-6	trans-1,4-Dichloro-2-butene	91.5	
108-94-1	Cyclohexanone	477	
106-43-4	4-Chlorotoluene	96.3	
98-06-6	tert-Butylbenzene	100	
95-63-6	1,2,4-Trimethylbenzene	100	

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Report Date: 29-Aug-2019 12:25

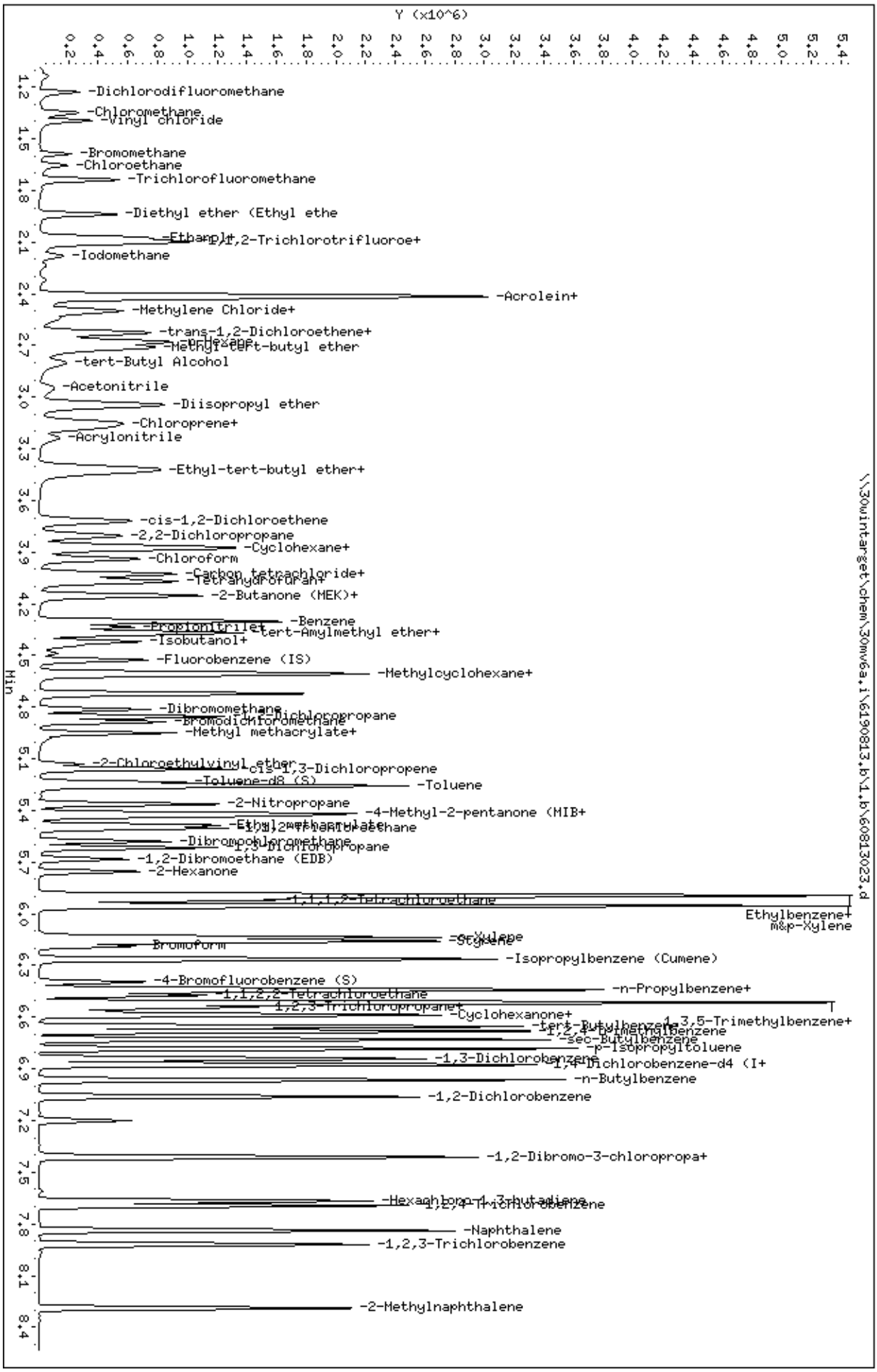
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

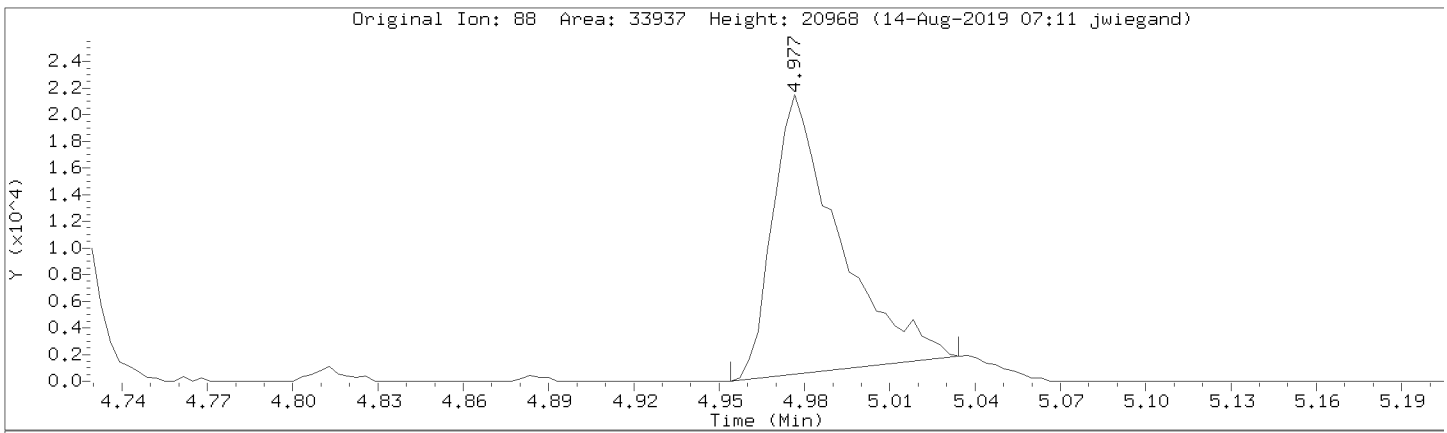
Client SDG: 30MV6A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

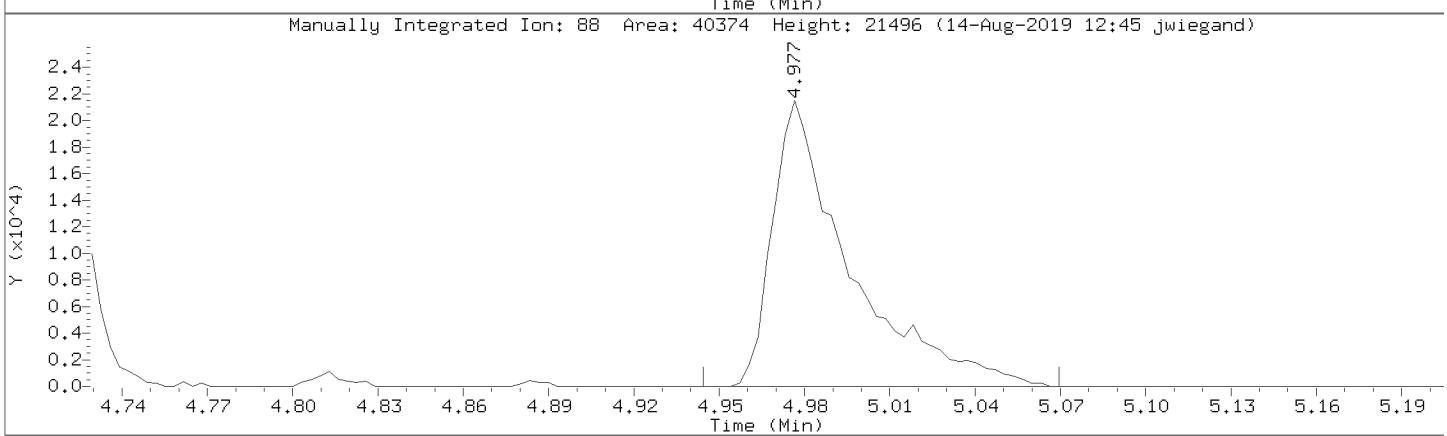
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	103	
99-87-6	p-Isopropyltoluene	104	
541-73-1	1,3-Dichlorobenzene	99.3	
106-46-7	1,4-Dichlorobenzene	99.6	
104-51-8	n-Butylbenzene	104	
95-50-1	1,2-Dichlorobenzene	98.8	
96-12-8	1,2-Dibromo-3-chloropropane	92.2	
108-70-3	1,3,5-Trichlorobenzene	104	
87-68-3	Hexachloro-1,3-butadiene	3.35	
120-82-1	1,2,4-Trichlorobenzene	102	
91-20-3	Naphthalene	103	
87-61-6	1,2,3-Trichlorobenzene	104	
91-57-6	2-Methylnaphthalene	107	
1868-53-7	Dibromofluoromethane (S)	30.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.7	
2037-26-5	Toluene-d8 (S)	29.9	
460-00-4	4-Bromofluorobenzene (S)	29.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	

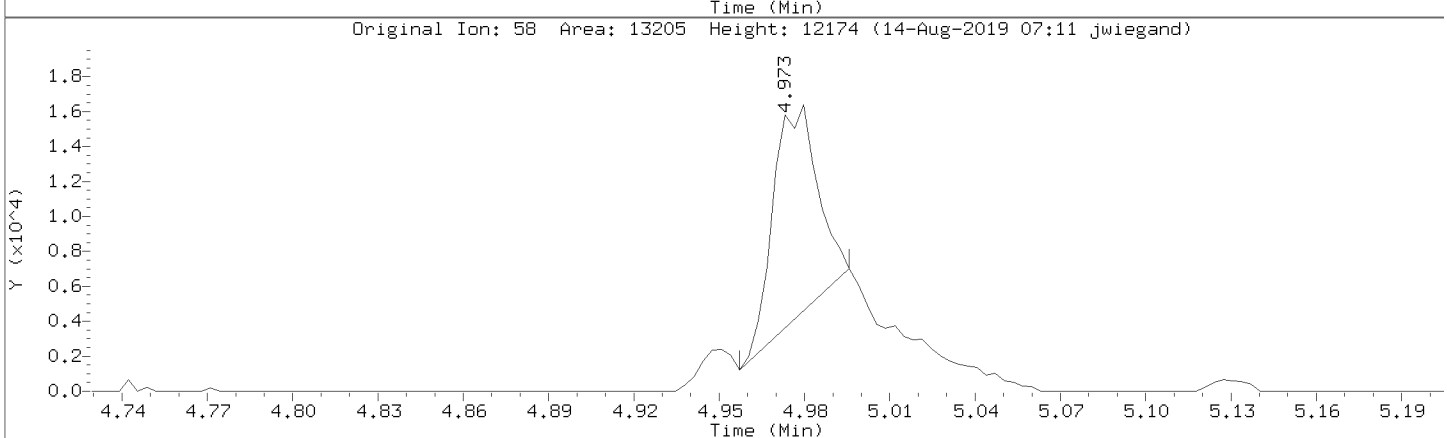

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813023.d
Date : 13-AUG-2019 16:32
Client ID: CAL6
Sample Info: CAL6, 96580:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813023.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene+
-1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

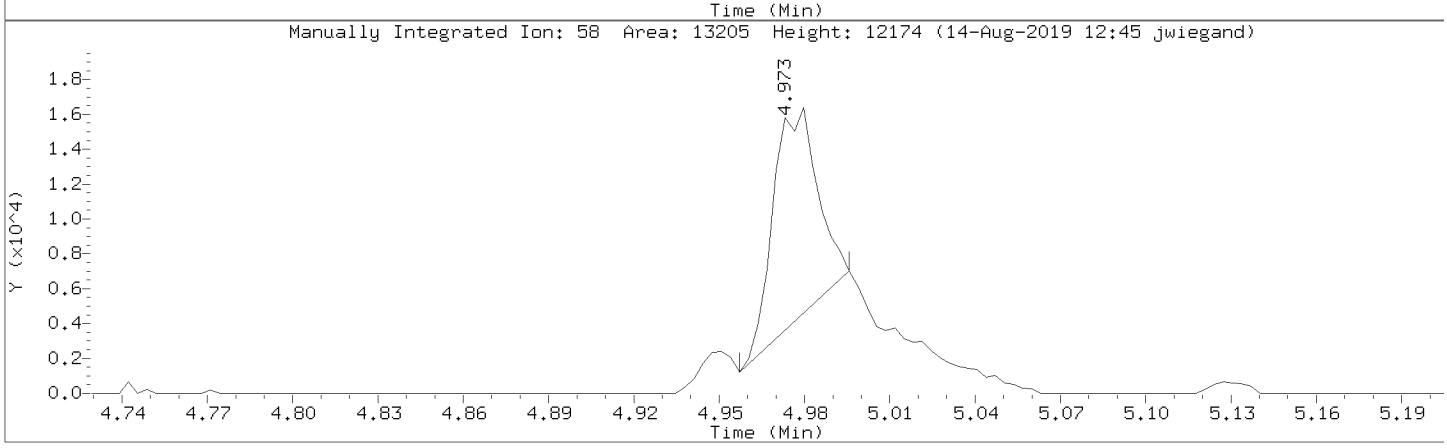
Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813023.d
Injection Date: 13-AUG-2019 16:32
Instrument: 30mv6a.i
Lab Sample ID: CAL6

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

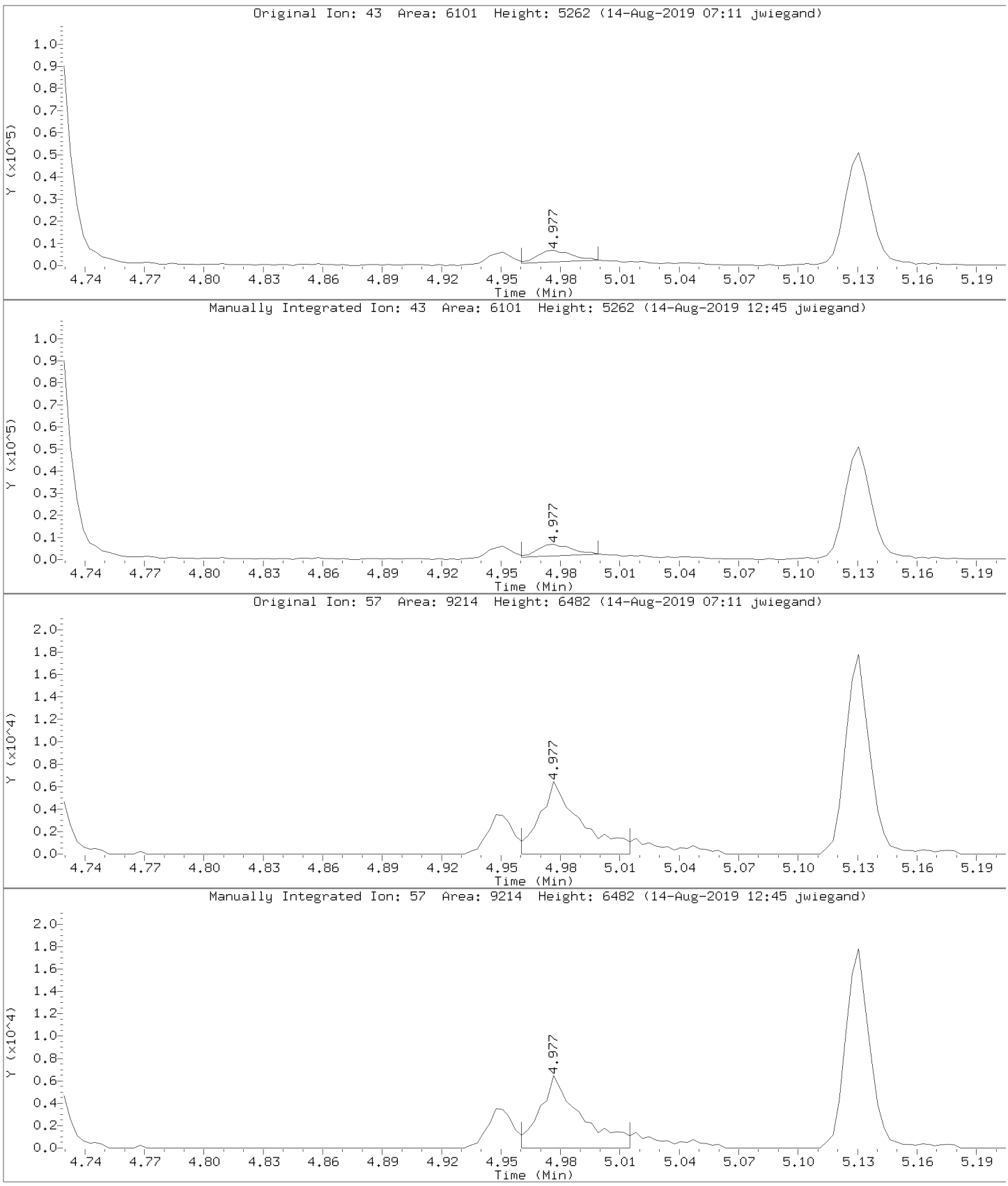








Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813023.d
Injection Date: 13-AUG-2019 16:32
Instrument: 30mv6a.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 13-AUG-2019 16:58
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal7, 96581:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 16:58 Cal File: 60813025.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.225	1.228	(0.271)	345017	200.000	180(Q)	
2	Chloromethane	50	1.347	1.347	(0.298)	485327	200.000	0.323(aQ)	
3	Vinyl chloride	62	1.392	1.395	(0.308)	482397	200.000	0.275(aQ)	
4	Bromomethane	94	1.584	1.585	(0.350)	152512	200.000	200(Q)	
5	Chloroethane	64	1.648	1.662	(0.364)	234804	200.000	0.0547(aQ)	
6	Trichlorofluoromethane	101	1.729	1.742	(0.382)	519861	200.000	0.296(aQ)	
7	Diethyl ether (Ethyl ether)	59	1.937	1.944	(0.428)	454337	200.000	200(Q)	
8	Ethanol	45	2.059	2.049	(0.300)	94227	2000.00	(aQ)	
9	1,1-Dichloroethene	61	2.069	2.079	(0.457)	613340	200.000	180(Q)	
10	1,1,2-Trichlorotrifluoroethane	151	2.091	2.097	(0.462)	292863	200.000	183(Q)	
11	Carbon disulfide	76	2.098	2.104	(0.463)	1132874	200.000	1.50(aQ)	
12	Iodomethane	142	2.178	2.181	(0.481)	293545	200.000	289(Q)	
13	Acrolein	56	2.319	2.326	(0.512)	72598	200.000	202(Q)	
14	Allyl chloride	41	2.412	2.419	(0.533)	3363773	1000.00	2.38(aQ)	
15	Methylene Chloride	49	2.496	2.502	(0.551)	673501	200.000	0.513(aQ)	
16	Acetone	43	2.547	2.554	(0.563)	191934	200.000	0.0370(aQ)	
17	trans-1,2-Dichloroethene	61	2.621	2.627	(0.579)	614406	200.000	187(Q)	
18	Methyl acetate	74	2.637	2.640	(0.583)	99810	200.000	198(Q)	
19	n-Hexane	86	2.675	2.682	(0.591)	120897	200.000	0.0171(aQ)	
20	Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	1433907	200.000	200(Q)	
21	tert-Butyl Alcohol	59	2.807	2.798	(0.620)	591200	1000.00	1010(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.948	2.955	(0.651)	343879	1000.00	1100(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	1688918	200.000	195(Q)	
	24 Chloroprene	53	3.144	3.147	(0.695)	630531	200.000	186(Q)	
	25 1,1-Dichloroethane	63	3.169	3.179	(0.700)	797101	200.000	189(Q)	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	253213	200.000	202(Q)	
	27 Ethyl-tert-butyl ether	59	3.413	3.427	(0.754)	1629520	200.000	197(Q)	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	1342280	200.000	198(Q)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	643156	200.000	0.467(aQ)	
	30 2,2-Dichloropropane	77	3.802	3.805	(0.840)	611102	200.000	182(Q)	
	31 Cyclohexane	56	3.866	3.876	(0.854)	802220	200.000	186(Q)	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	330723	200.000	208(Q)	
	33 Chloroform	83	3.940	3.943	(0.870)	770256	200.000	192(Q)	
	34 Carbon tetrachloride	117	4.023	4.022	(0.889)	560378	200.000	181(Q)	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	636444	200.000	196(Q)	
	36 Tetrahydrofuran	42	4.049	4.054	(0.894)	274461	200.000	196(Q)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	95513	30.0000	31.4(Q)	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	662832	200.000	183(Q)	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	363782	200.000	199(Q)	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	574040	200.000	184(Q)	
	41 Benzene	78	4.299	4.306	(0.950)	1730614	200.000	3.43(Q)	
	42 Propionitrile	54	4.331	4.335	(0.957)	110929	200.000	194(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	360606	200.000	204(Q)	
	44 tert-Amylmethyl ether	73	4.366	4.373	(0.965)	1366224	200.000	194(Q)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.379	4.383	(0.967)	92465	30.0000	29.8(Q)	
	46 Isobutanol	43	4.443	4.447	(0.982)	225913	1000.00	0.0113(aQ)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	635049	200.000	198(Q)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	372558	30.0000	(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	710910	200.000	181(Q)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	460179	200.000	198(Q)	
	51 Dibromomethane	174	4.812	4.816	(1.063)	345448	200.000	198(Q)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	502673	200.000	192(Q)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	588500	200.000	191(Q)	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	370113	200.000	187(Q)	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	80850	2000.00	2100(QM)	BA
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	143203	200.000	196(Q)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	763789	200.000	192(Q)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	326631	30.0000	30.4(Q)	
	59 Toluene	91	5.255	5.259	(0.893)	1807301	200.000	192(Q)	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	939058	1000.00	0.203(aQ)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	591313	200.000	187(Q)	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	472427	200.000	190(Q)	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	732179	200.000	204(Q)	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	452686	200.000	204(Q)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	437111	200.000	204(Q)	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	546834	200.000	204(Q)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	744239	200.000	208(Q)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	470663	200.000	205(Q)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	466000	200.000	198(Q)	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	683901	200.000	198(Q)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	264519	30.0000	(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	1276742	200.000	197(Q)	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	517636	200.000	0.590(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	1752600	400.000	412(Q)	
	75 o-Xylene	106	6.138	6.141	(1.043)	876770	200.000	202(Q)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	1545462	200.000	201(Q)	
	77 Bromoform	173	6.186	6.189	(0.900)	392252	200.000	0.967(aQ)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.911)	2224701	200.000	191(Q)	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.401	(0.930)	117977	30.0000	29.5(Q)	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	2574177	200.000	189(Q)	
	81 Bromobenzene	77	6.446	6.449	(0.938)	940075	200.000	187(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	597277	200.000	180(Q)	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	1879659	200.000	188(Q)	
	84 2-Chlorotoluene	126	6.516	6.523	(0.948)	565735	200.000	188(Q)	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.951)	205175	200.000	185(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.952)	211546	200.000	184(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	279456	1000.00	1010(Q)	
	88 4-Chlorotoluene	126	6.587	6.590	(0.958)	603580	200.000	184(Q)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.968)	1694406	200.000	187(Q)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.972)	1988505	200.000	193(Q)	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	2444874	200.000	191(Q)	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	2175394	200.000	193(Q)	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.995)	1231176	200.000	192(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.872	6.873	(1.000)	161816	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	1261485	200.000	193(Q)	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	1942793	200.000	192(Q)	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	1209085	200.000	198(Q)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.872	6.873	(1.000)	161813	30.0000	30.0(Q)	
	98 1,2-Dibromo-3-chloropropane	157	7.408	7.409	(1.078)	198470	200.000	195(Q)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.418	(1.079)	874968	200.000	194(Q)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	440420	200.000	1.19(aQ)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	841130	200.000	200(Q)	
	102 Naphthalene	128	7.838	7.842	(1.141)	2375022	200.000	210(Q)	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.152)	747134	200.000	206(Q)	
	104 2-Methylnaphthalene	142	8.291	8.294	(1.206)	1083309	200.000	(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813025.d
Lab Smp Id: CAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL7
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	372558	1.99
71 Chlorobenzene-d5	277666	138833	555332	264519	-4.73
94 1,4-Dichlorobenze	164337	82169	328674	161816	-1.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	180	
74-87-3	Chloromethane	0.323	J
75-01-4	Vinyl chloride	0.275	J
74-83-9	Bromomethane	200	
75-00-3	Chloroethane	0.0547	J
75-69-4	Trichlorofluoromethane	0.296	J
60-29-7	Diethyl ether (Ethyl ether)	200	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	180	
76-13-1	1,1,2-Trichlorotrifluoroetha	183	
75-15-0	Carbon disulfide	1.50	J
74-88-4	Iodomethane	289	
107-02-8	Acrolein	202	
107-05-1	Allyl chloride	2.38	J
75-09-2	Methylene Chloride	0.513	J
67-64-1	Acetone	0.0370	J
156-60-5	trans-1,2-Dichloroethene	187	
79-20-9	Methyl acetate	198	
110-54-3	n-Hexane	0.0171	J
1634-04-4	Methyl-tert-butyl ether	200	
75-65-0	tert-Butyl Alcohol	1010	
75-05-8	Acetonitrile	1100	
108-20-3	Diisopropyl ether	195	
126-99-8	Chloroprene	186	
75-34-3	1,1-Dichloroethane	189	
107-13-1	Acrylonitrile	202	
637-92-3	Ethyl-tert-butyl ether	197	
108-05-4	Vinyl acetate	198	
156-59-2	cis-1,2-Dichloroethene	0.467	J
594-20-7	2,2-Dichloropropane	182	
110-82-7	Cyclohexane	186	
74-97-5	Bromochloromethane	208	
67-66-3	Chloroform	192	
56-23-5	Carbon tetrachloride	181	
141-78-6	Ethyl acetate	196	
109-99-9	Tetrahydrofuran	196	
71-55-6	1,1,1-Trichloroethane	183	
78-93-3	2-Butanone (MEK)	199	
563-58-6	1,1-Dichloropropene	184	
71-43-2	Benzene	3.43	
107-12-0	Propionitrile	194	
126-98-7	Methacrylonitrile	204	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	194	
78-83-1	Isobutanol	0.0113	J
107-06-2	1,2-Dichloroethane	198	
108-87-2	Methylcyclohexane	181	
79-01-6	Trichloroethene	198	
74-95-3	Dibromomethane	198	
78-87-5	1,2-Dichloropropane	192	
75-27-4	Bromodichloromethane	191	
80-62-6	Methyl methacrylate	187	
123-91-1	1,4-Dioxane (p-Dioxane)	2100	
110-75-8	2-Chloroethylvinyl ether	196	
10061-01-5	cis-1,3-Dichloropropene	192	
108-88-3	Toluene	192	
79-46-9	2-Nitropropane	0.203	J
108-10-1	4-Methyl-2-pentanone (MIBK)	187	
127-18-4	Tetrachloroethene	190	
10061-02-6	trans-1,3-Dichloropropene	204	
97-63-2	Ethyl methacrylate	204	
79-00-5	1,1,2-Trichloroethane	204	
124-48-1	Dibromochloromethane	204	
142-28-9	1,3-Dichloropropane	208	
106-93-4	1,2-Dibromoethane (EDB)	205	
591-78-6	2-Hexanone	198	
100-41-4	Ethylbenzene	198	
108-90-7	Chlorobenzene	197	
630-20-6	1,1,1,2-Tetrachloroethane	0.590	J
7816-60-0	m&p-Xylene	412	
95-47-6	o-Xylene	202	
100-42-5	Styrene	201	
75-25-2	Bromoform	0.967	J
98-82-8	Isopropylbenzene (Cumene)	191	
103-65-1	n-Propylbenzene	189	
108-86-1	Bromobenzene	187	
79-34-5	1,1,2,2-Tetrachloroethane	180	
108-67-8	1,3,5-Trimethylbenzene	188	
95-49-8	2-Chlorotoluene	188	
96-18-4	1,2,3-Trichloropropane	185	
110-57-6	trans-1,4-Dichloro-2-butene	184	
108-94-1	Cyclohexanone	1010	
106-43-4	4-Chlorotoluene	184	
98-06-6	tert-Butylbenzene	187	
95-63-6	1,2,4-Trimethylbenzene	193	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Report Date: 29-Aug-2019 12:25

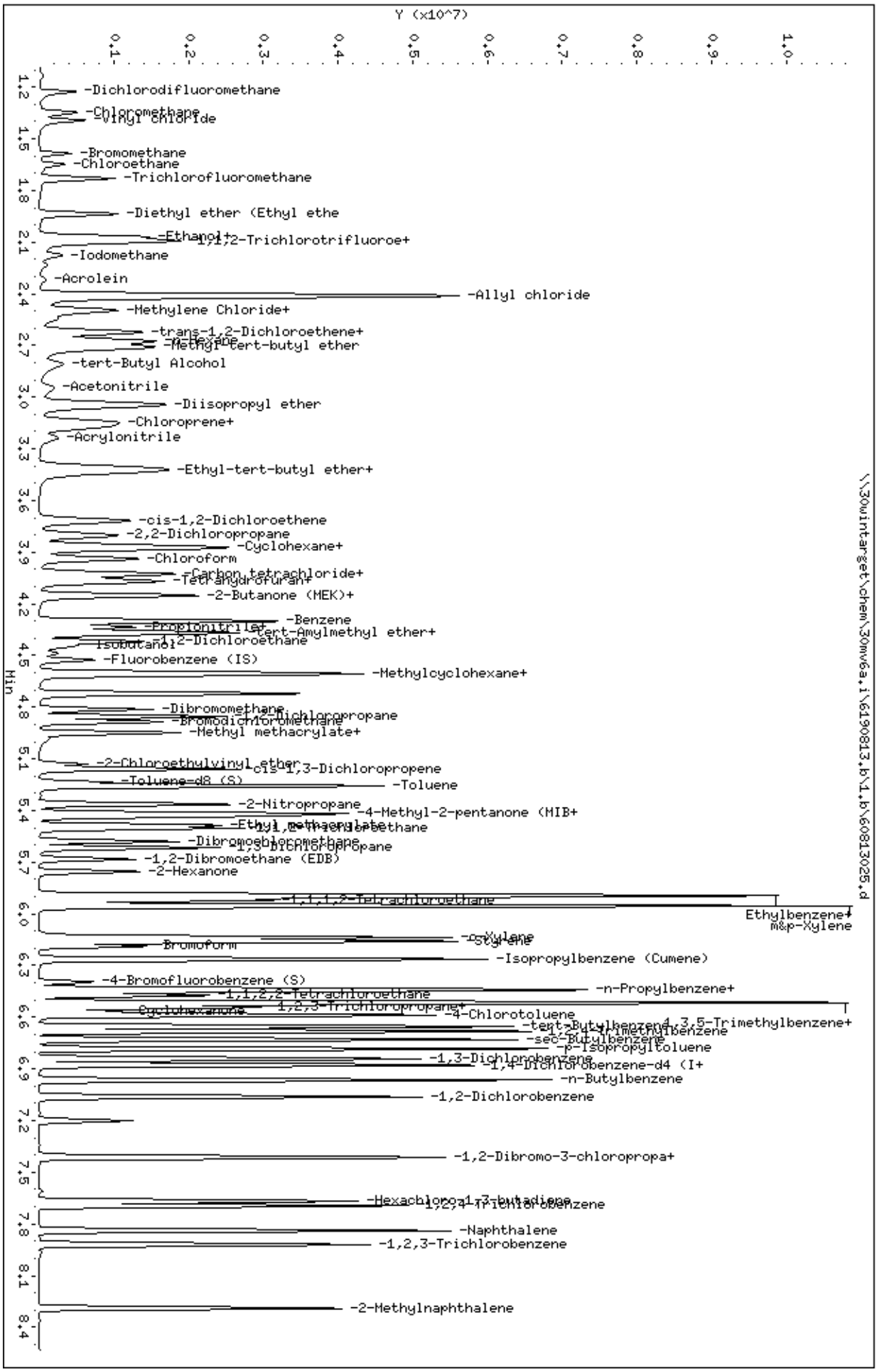
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	191	
99-87-6	p-Isopropyltoluene	193	
541-73-1	1,3-Dichlorobenzene	192	
106-46-7	1,4-Dichlorobenzene	193	
104-51-8	n-Butylbenzene	192	
95-50-1	1,2-Dichlorobenzene	198	
96-12-8	1,2-Dibromo-3-chloropropane	195	
108-70-3	1,3,5-Trichlorobenzene	194	
87-68-3	Hexachloro-1,3-butadiene	1.19	J
120-82-1	1,2,4-Trichlorobenzene	200	
91-20-3	Naphthalene	210	
87-61-6	1,2,3-Trichlorobenzene	206	
91-57-6	2-Methylnaphthalene	0.000	J
1868-53-7	Dibromofluoromethane (S)	31.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.8	
2037-26-5	Toluene-d8 (S)	30.4	
460-00-4	4-Bromofluorobenzene (S)	29.5	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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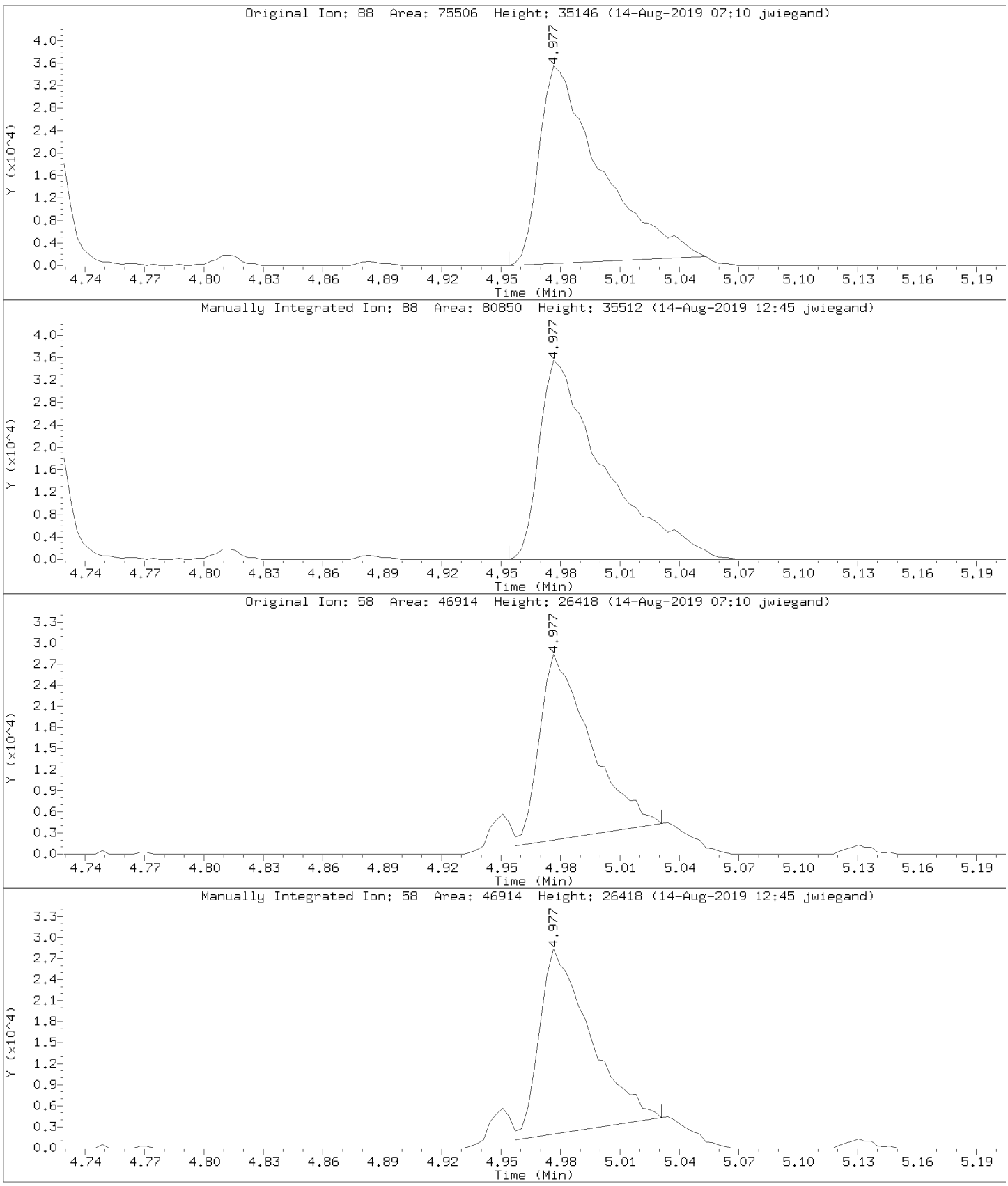
Date : 13-AUG-2019 16:58
Client ID: CAL7
Sample Info: CAL7, 96581:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813025.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene+
-1,3,5-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813025.d
Injection Date: 13-AUG-2019 16:58
Instrument: 30mv6a.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: BA
CAS Number: 123-91-1



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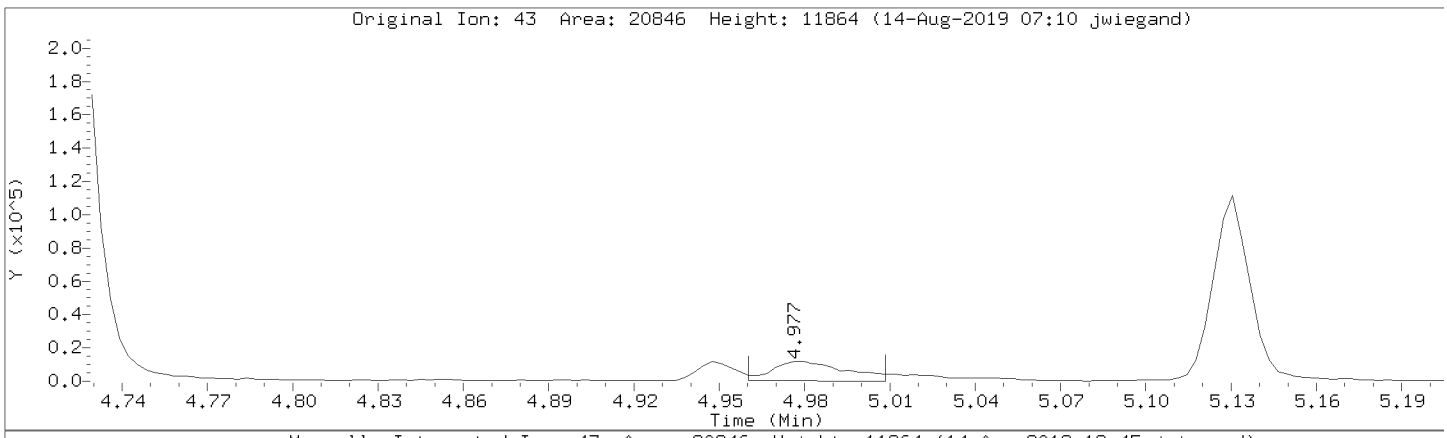
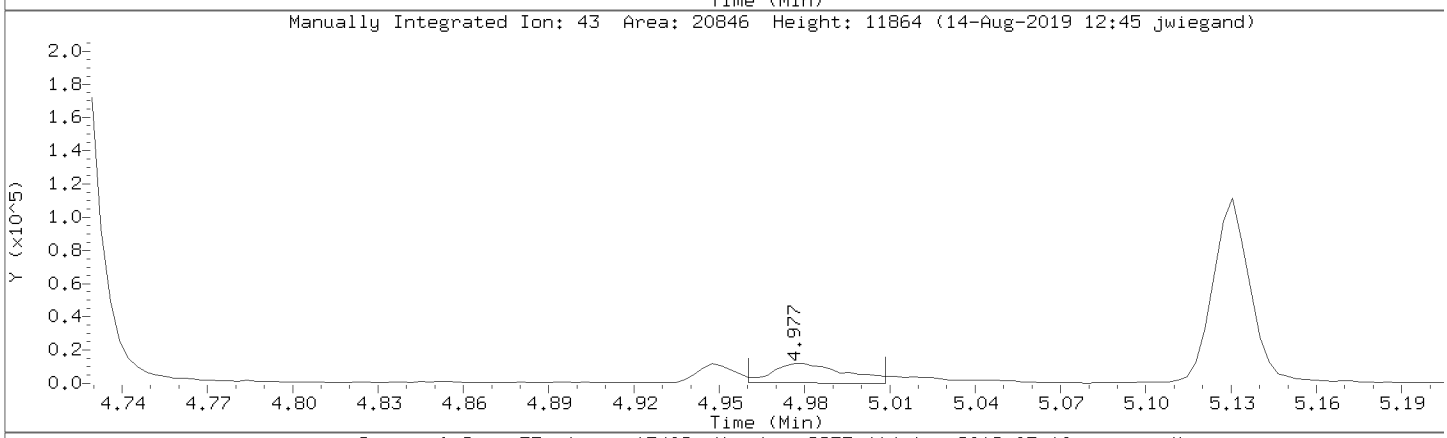
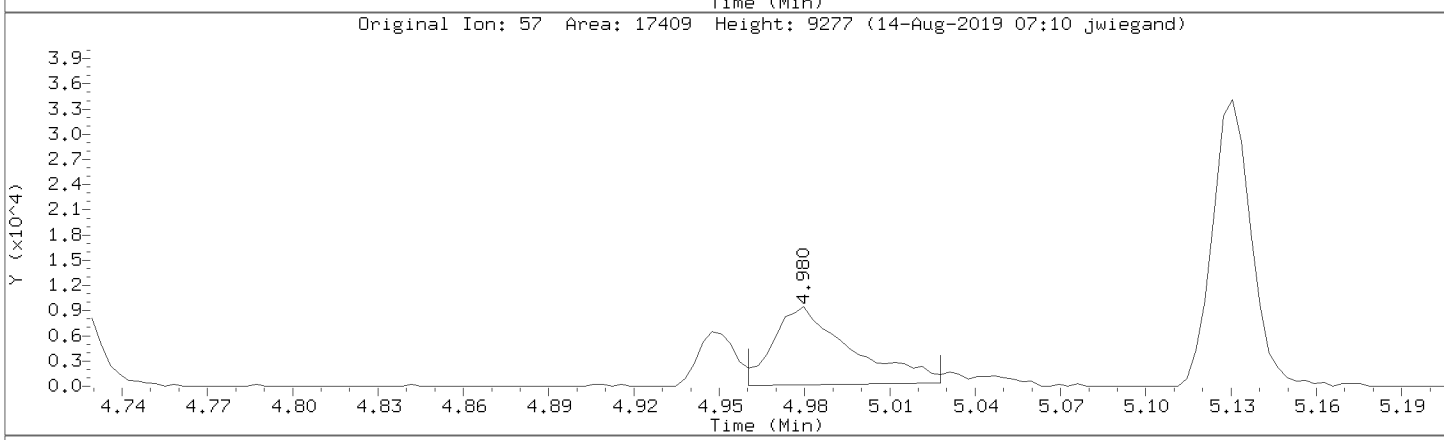
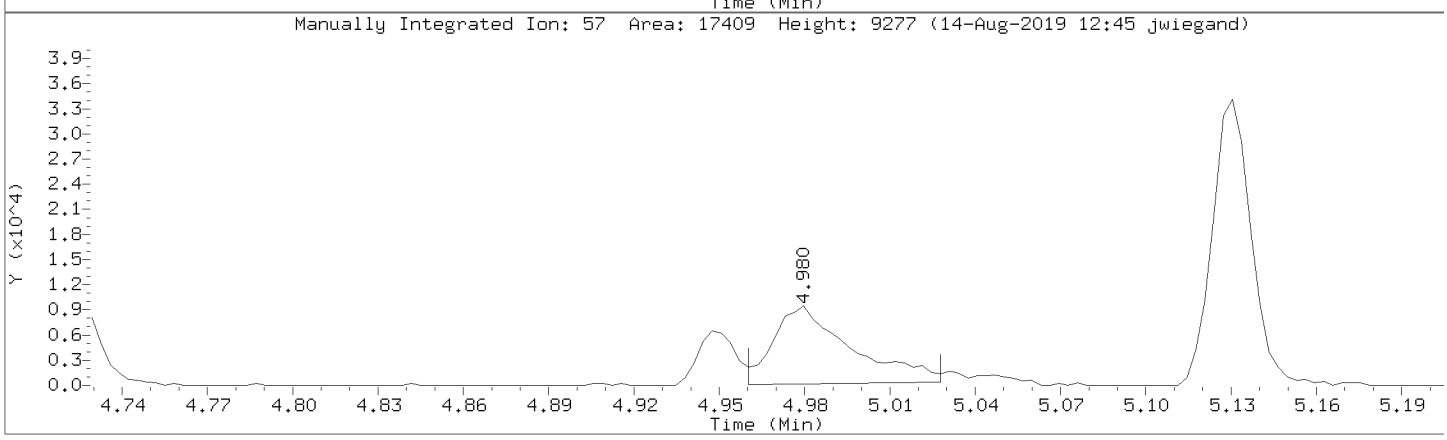
Injection Date: 13-AUG-2019 16:58
Instrument: 30mv6a.i
Lab Sample ID: CAL7









Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 13-AUG-2019 17:24
Operator : JEW Inst ID: 30mv6a.i
Smp Info : cal8, 96582:1
Misc Info : 45773,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 17:24 Cal File: 60813027.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		REVIEW C
1 Dichlorodifluoromethane	85	1.225	1.228	(0.271)	819314	400.000		(aQ)	
2 Chloromethane	50	1.344	1.347	(0.297)	1316739	400.000		(aQ)	
3 Vinyl chloride	62	1.392	1.395	(0.308)	1129804	400.000		(aQ)	
4 Bromomethane	94	1.584	1.585	(0.350)	325986	400.000		(aQ)	
5 Chloroethane	64	1.645	1.662	(0.363)	460669	400.000		(aQ)	
6 Trichlorofluoromethane	101	1.719	1.742	(0.380)	1125450	400.000		(aQ)	
7 Diethyl ether (Ethyl ether)	59	1.934	1.944	(0.427)	972783	400.000		(aQ)	
8 Ethanol	45	2.085	2.049	(0.303)	165590	4000.00		(aQ)	
9 1,1-Dichloroethene	61	2.062	2.079	(0.456)	1456242	400.000		(aQ)	
10 1,1,2-Trichlorotrifluoroethane	151	2.082	2.097	(0.460)	683436	400.000		(aQ)	
11 Carbon disulfide	76	2.088	2.104	(0.461)	2621319	400.000		(aQ)	
12 Iodomethane	142	2.172	2.181	(0.480)	434731	400.000		(aQ)	
13 Acrolein	56	2.319	2.326	(0.512)	153625	400.000		(aQ)	
14 Allyl chloride	41	2.406	2.419	(0.531)	6984413	2000.00		(aQ)	
15 Methylene Chloride	49	2.492	2.502	(0.551)	1507909	400.000		(aQ)	
16 Acetone	43	2.550	2.554	(0.563)	381487	400.000		(aQ)	
17 trans-1,2-Dichloroethene	61	2.614	2.627	(0.578)	1404506	400.000		(aQ)	
18 Methyl acetate	74	2.637	2.640	(0.583)	215370	400.000		(aQ)	
19 n-Hexane	86	2.669	2.682	(0.590)	279738	400.000		(aQ)	
20 Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	3057401	400.000		(aQ)	
21 tert-Butyl Alcohol	59	2.826	2.798	(0.624)	1247130	2000.00		(aQ)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		REVIEW C
	22 Acetonitrile	41	2.951	2.955	(0.652)	670436	2000.00		(aQ)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	3705090	400.000		(aQ)	
	24 Chloroprene	53	3.141	3.147	(0.694)	1453081	400.000		(aQ)	
	25 1,1-Dichloroethane	63	3.169	3.179	(0.700)	1806347	400.000		(aQ)	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	536475	400.000		(aQ)	
	27 Ethyl-tert-butyl ether	59	3.417	3.427	(0.755)	3540551	400.000		(aQ)	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	2896938	400.000		(aQ)	
	29 cis-1,2-Dichloroethene	61	3.715	3.725	(0.821)	1435433	400.000		(aQ)	
	30 2,2-Dichloropropane	77	3.802	3.805	(0.840)	1431691	400.000		(aQ)	
	31 Cyclohexane	56	3.866	3.876	(0.854)	1849185	400.000		(aQ)	
	32 Bromochloromethane	130	3.879	3.882	(0.857)	680167	400.000		(aQ)	
	33 Chloroform	83	3.940	3.943	(0.870)	1713159	400.000		(aQ)	
	34 Carbon tetrachloride	117	4.023	4.022	(0.889)	1325217	400.000		(aQ)	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	1387940	400.000		(aQ)	
	36 Tetrahydrofuran	42	4.049	4.054	(0.894)	600239	400.000		(aQ)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	97468	30.0000		(aQ)	
	38 1,1,1-Trichloroethane	97	4.068	4.075	(0.899)	1552093	400.000		(aQ)	
	39 2-Butanone (MEK)	43	4.151	4.158	(0.917)	780358	400.000		(aQ)	
	40 1,1-Dichloropropene	75	4.148	4.152	(0.916)	1336539	400.000		(aQ)	
	41 Benzene	78	4.299	4.306	(0.950)	3921814	400.000		(aQ)	
	42 Propionitrile	54	4.331	4.335	(0.957)	244949	400.000		(aQ)	
	43 Methacrylonitrile	41	4.338	4.341	(0.958)	756793	400.000		(aQ)	
	44 tert-Amylmethyl ether	73	4.370	4.373	(0.965)	3012572	400.000		(aQ)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	99367	30.0000		(aQ)	
	46 Isobutanol	43	4.450	4.447	(0.983)	493783	2000.00		(aQ)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	1369821	400.000		(aQ)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	398265	30.0000		(Q)	
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	1678204	400.000		(aQ)	
	50 Trichloroethene	95	4.610	4.614	(0.783)	1055635	400.000		(aQ)	
	51 Dibromomethane	174	4.812	4.816	(1.063)	747764	400.000		(aQ)	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	1120885	400.000		(aQ)	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	1317834	400.000		(aQ)	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	845753	400.000		(aQ)	
	55 1,4-Dioxane (p-Dioxane)	88	4.983	4.980	(1.101)	164230	4000.00		(aQM)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	311990	400.000		(aQ)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	1704490	400.000		(aQ)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	366688	30.0000		(aQ)	
	59 Toluene	91	5.258	5.259	(0.893)	4280440	400.000		(aQ)	
	60 2-Nitropropane	43	5.364	5.365	(1.185)	2142628	2000.00		(aQ)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.416	5.419	(1.196)	1353035	400.000		(aQ)	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	1130511	400.000		(aQ)	
	63 trans-1,3-Dichloropropene	75	5.435	5.435	(0.923)	1631977	400.000		(aQ)	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	1005865	400.000		(aQ)	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	973061	400.000		(aQ)	
	66 Dibromochloromethane	129	5.583	5.583	(0.948)	1220615	400.000		(aQ)	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	1621727	400.000		(aQ)	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	1041806	400.000		(aQ)	
	69 2-Hexanone	43	5.756	5.759	(0.978)	1071485	400.000		(aQ)	
	70 Ethylbenzene	106	5.897	5.901	(1.002)	1569364	400.000		(aQ)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	300495	30.0000		(Q)	
	72 Chlorobenzene	112	5.894	5.897	(1.001)	2941505	400.000		(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.920	(1.005)	1207431	400.000		(aQ)	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	3865315	800.000		(aQ)	
	75 o-Xylene	106	6.138	6.141	(1.043)	1973128	400.000		(aQ)	

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	3491971	400.000		(aQ)	
	77 Bromoform	173	6.189	6.189	(0.901)	915370	400.000		(aQ)	
	78 Isopropylbenzene (Cumene)	105	6.266	6.266	(0.912)	4940552	400.000		(aQ)	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.401	(0.931)	127369	30.0000		(aQ)	
	80 n-Propylbenzene	91	6.439	6.440	(0.937)	5778086	400.000		(aQ)	
	81 Bromobenzene	77	6.446	6.449	(0.938)	2133696	400.000		(aQ)	
	82 1,1,2,2-Tetrachloroethane	83	6.475	6.475	(0.942)	1409031	400.000		(aQ)	
	83 1,3,5-Trimethylbenzene	105	6.516	6.517	(0.948)	4240039	400.000		(aQ)	
	84 2-Chlorotoluene	126	6.520	6.523	(0.949)	1282164	400.000		(aQ)	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.951)	471695	400.000		(aQ)	
	86 trans-1,4-Dichloro-2-butene	53	6.548	6.549	(0.953)	488714	400.000		(aQ)	
	87 Cyclohexanone	55	6.571	6.571	(0.956)	589684	2000.00		(aQ)	
	88 4-Chlorotoluene	126	6.590	6.590	(0.959)	1391313	400.000		(aQ)	
	89 tert-Butylbenzene	119	6.654	6.658	(0.968)	3855295	400.000		(aQ)	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.972)	4389516	400.000		(aQ)	
	91 sec-Butylbenzene	105	6.731	6.732	(0.979)	5434360	400.000		(aQ)	
	92 p-Isopropyltoluene	119	6.786	6.786	(0.987)	4799523	400.000		(aQ)	
	93 1,3-Dichlorobenzene	146	6.844	6.844	(0.996)	2720838	400.000		(aQ)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.873	6.873	(1.000)	172011	30.0000		(Q)	
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	2777073	400.000		(aQ)	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	4304801	400.000		(aQ)	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	2599262	400.000		(aQ)	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.873	6.873	(1.000)	172008	30.0000		(aQ)	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.077)	432570	400.000		(aQ)	
	99 1,3,5-Trichlorobenzene	180	7.415	7.418	(1.079)	1917493	400.000		(aQ)	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	1001623	400.000		(aQ)	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	1788856	400.000		(aQ)	
	102 Naphthalene	128	7.838	7.842	(1.141)	4805455	400.000		(aQ)	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	1541759	400.000		(aQ)	
	104 2-Methylnaphthalene	142	8.291	8.294	(1.206)	1832066	400.000		(aQ)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813027.d
Lab Smp Id: CAL8
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CAL8
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	398265	9.03
71 Chlorobenzene-d5	277666	138833	555332	300495	8.22
94 1,4-Dichlorobenze	164337	82169	328674	172011	4.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Dichlorodifluoromethane	0.000	J
74-87-3	Chloromethane	0.000	J
75-01-4	Vinyl chloride	0.000	J
74-83-9	Bromomethane	0.000	J
75-00-3	Chloroethane	0.000	J
75-69-4	Trichlorofluoromethane	0.000	J
60-29-7	Diethyl ether (Ethyl ether)	0.000	J
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	0.000	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.000	J
75-15-0	Carbon disulfide	0.000	J
74-88-4	Iodomethane	0.000	J
107-02-8	Acrolein	0.000	J
107-05-1	Allyl chloride	0.000	J
75-09-2	Methylene Chloride	0.000	J
67-64-1	Acetone	0.000	J
156-60-5	trans-1,2-Dichloroethene	0.000	J
79-20-9	Methyl acetate	0.000	J
110-54-3	n-Hexane	0.000	J
1634-04-4	Methyl-tert-butyl ether	0.000	J
75-65-0	tert-Butyl Alcohol	0.000	J
75-05-8	Acetonitrile	0.000	J
108-20-3	Diisopropyl ether	0.000	J
126-99-8	Chloroprene	0.000	J
75-34-3	1,1-Dichloroethane	0.000	J
107-13-1	Acrylonitrile	0.000	J
637-92-3	Ethyl-tert-butyl ether	0.000	J
108-05-4	Vinyl acetate	0.000	J
156-59-2	cis-1,2-Dichloroethene	0.000	J
594-20-7	2,2-Dichloropropane	0.000	J
110-82-7	Cyclohexane	0.000	J
74-97-5	Bromochloromethane	0.000	J
67-66-3	Chloroform	0.000	J
56-23-5	Carbon tetrachloride	0.000	J
141-78-6	Ethyl acetate	0.000	J
109-99-9	Tetrahydrofuran	0.000	J
71-55-6	1,1,1-Trichloroethane	0.000	J
78-93-3	2-Butanone (MEK)	0.000	J
563-58-6	1,1-Dichloropropene	0.000	J
71-43-2	Benzene	0.000	J
107-12-0	Propionitrile	0.000	J
126-98-7	Methacrylonitrile	0.000	J

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
994-05-8	tert-Amylmethyl ether	0.000	J
78-83-1	Isobutanol	0.000	J
107-06-2	1,2-Dichloroethane	0.000	J
108-87-2	Methylcyclohexane	0.000	J
79-01-6	Trichloroethene	0.000	J
74-95-3	Dibromomethane	0.000	J
78-87-5	1,2-Dichloropropane	0.000	J
75-27-4	Bromodichloromethane	0.000	J
80-62-6	Methyl methacrylate	0.000	J
123-91-1	1,4-Dioxane (p-Dioxane)	0.000	J
110-75-8	2-Chloroethylvinyl ether	0.000	J
10061-01-5	cis-1,3-Dichloropropene	0.000	J
108-88-3	Toluene	0.000	J
79-46-9	2-Nitropropane	0.000	J
108-10-1	4-Methyl-2-pentanone (MIBK)	0.000	J
127-18-4	Tetrachloroethene	0.000	J
10061-02-6	trans-1,3-Dichloropropene	0.000	J
97-63-2	Ethyl methacrylate	0.000	J
79-00-5	1,1,2-Trichloroethane	0.000	J
124-48-1	Dibromochloromethane	0.000	J
142-28-9	1,3-Dichloropropane	0.000	J
106-93-4	1,2-Dibromoethane (EDB)	0.000	J
591-78-6	2-Hexanone	0.000	J
100-41-4	Ethylbenzene	0.000	J
108-90-7	Chlorobenzene	0.000	J
630-20-6	1,1,1,2-Tetrachloroethane	0.000	J
7816-60-0	m&p-Xylene	0.000	J
95-47-6	o-Xylene	0.000	J
100-42-5	Styrene	0.000	J
75-25-2	Bromoform	0.000	J
98-82-8	Isopropylbenzene (Cumene)	0.000	J
103-65-1	n-Propylbenzene	0.000	J
108-86-1	Bromobenzene	0.000	J
79-34-5	1,1,2,2-Tetrachloroethane	0.000	J
108-67-8	1,3,5-Trimethylbenzene	0.000	J
95-49-8	2-Chlorotoluene	0.000	J
96-18-4	1,2,3-Trichloropropane	0.000	J
110-57-6	trans-1,4-Dichloro-2-butene	0.000	J
108-94-1	Cyclohexanone	0.000	J
106-43-4	4-Chlorotoluene	0.000	J
98-06-6	tert-Butylbenzene	0.000	J
95-63-6	1,2,4-Trimethylbenzene	0.000	J

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Report Date: 29-Aug-2019 12:25

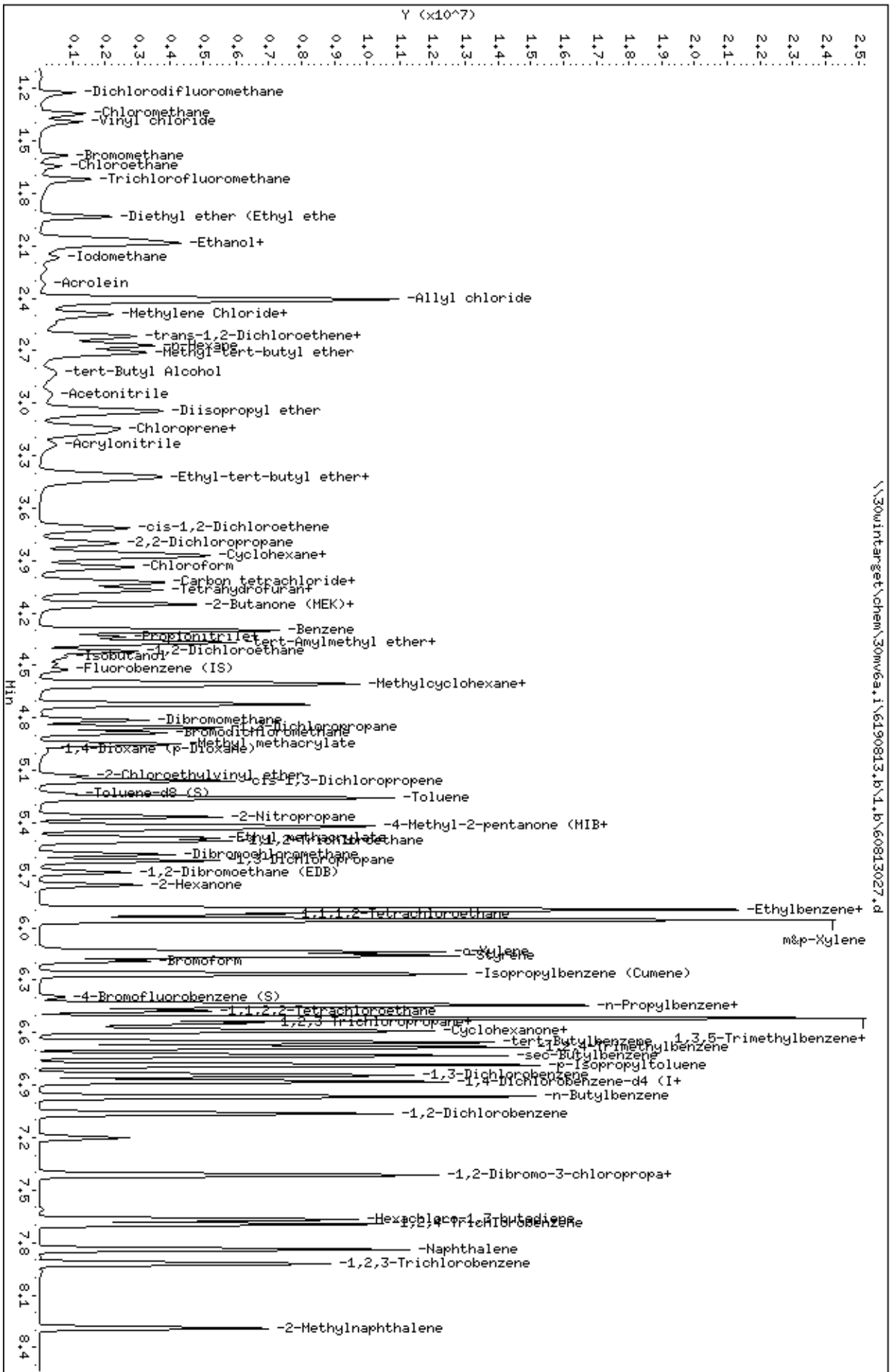
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL8
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45773,

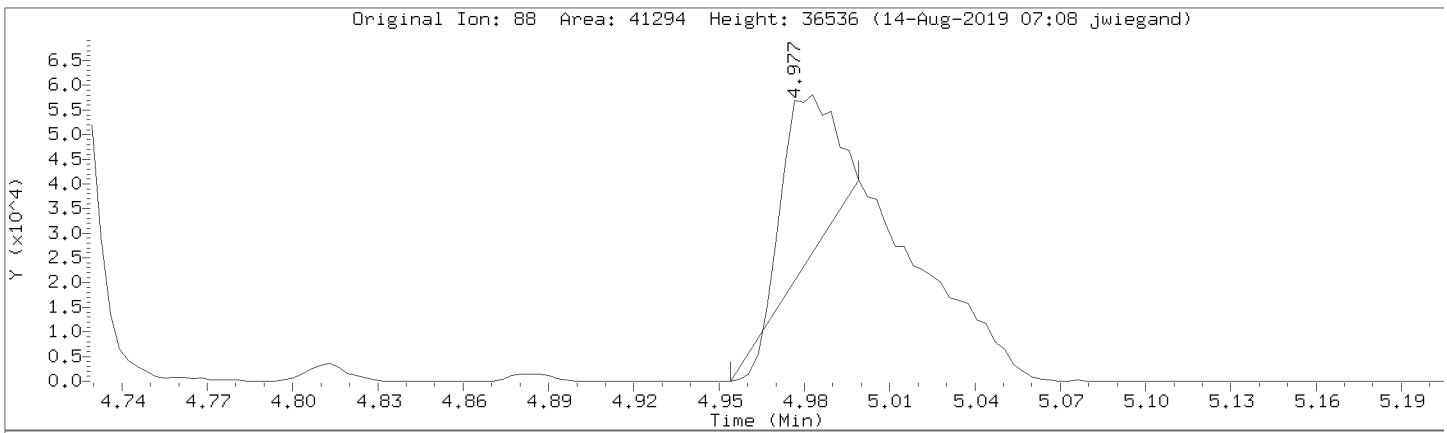
Client SDG: 30MV6A-1
Client Smp ID: CAL8
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: JEW

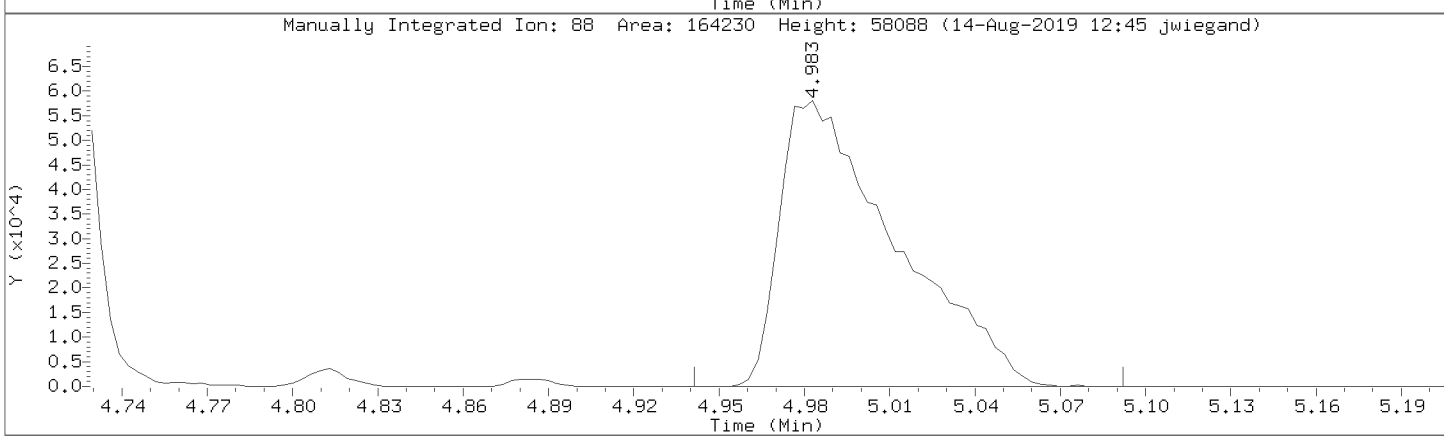
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
135-98-8	sec-Butylbenzene	0.000	J
99-87-6	p-Isopropyltoluene	0.000	J
541-73-1	1,3-Dichlorobenzene	0.000	J
106-46-7	1,4-Dichlorobenzene	0.000	J
104-51-8	n-Butylbenzene	0.000	J
95-50-1	1,2-Dichlorobenzene	0.000	J
96-12-8	1,2-Dibromo-3-chloropropane	0.000	J
108-70-3	1,3,5-Trichlorobenzene	0.000	J
87-68-3	Hexachloro-1,3-butadiene	0.000	J
120-82-1	1,2,4-Trichlorobenzene	0.000	J
91-20-3	Naphthalene	0.000	J
87-61-6	1,2,3-Trichlorobenzene	0.000	J
91-57-6	2-Methylnaphthalene	0.000	J
1868-53-7	Dibromofluoromethane (S)	0.000	J
17060-07-0	1,2-Dichloroethane-d4 (S)	0.000	J
2037-26-5	Toluene-d8 (S)	0.000	J
460-00-4	4-Bromofluorobenzene (S)	0.000	J
----------	1,2-Dichlorobenzene-d4 (S)	0.000	J

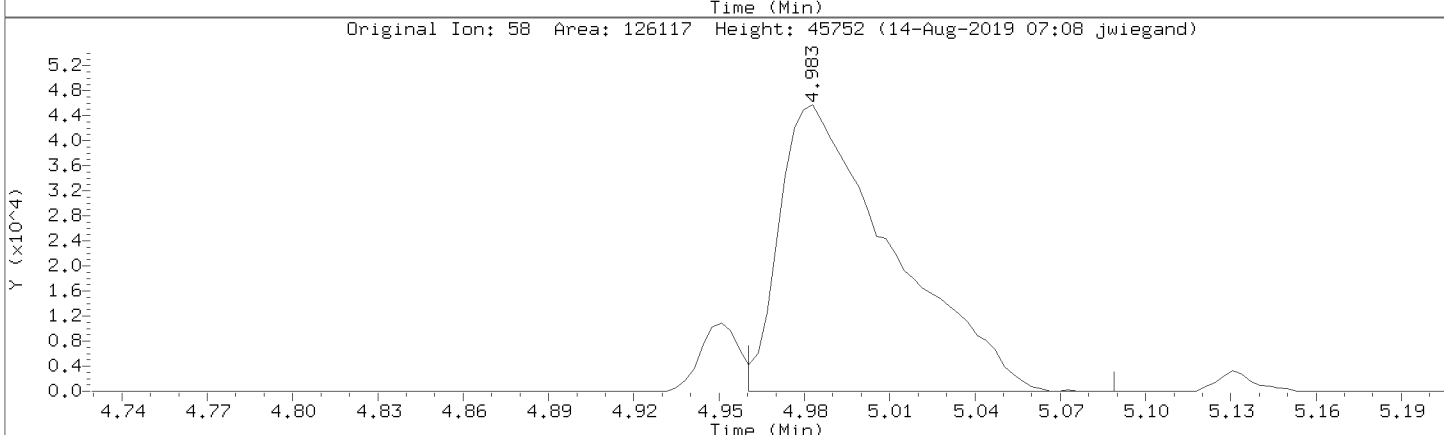

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Date : 13-AUG-2019 17:24
Client ID: CAL8
Sample Info: CAL8, 96582:1
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813027.d
Y (x10^7)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate
-1,4-Dioxane (p-Dioxane)
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-1,1,2-Trichloroethane
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

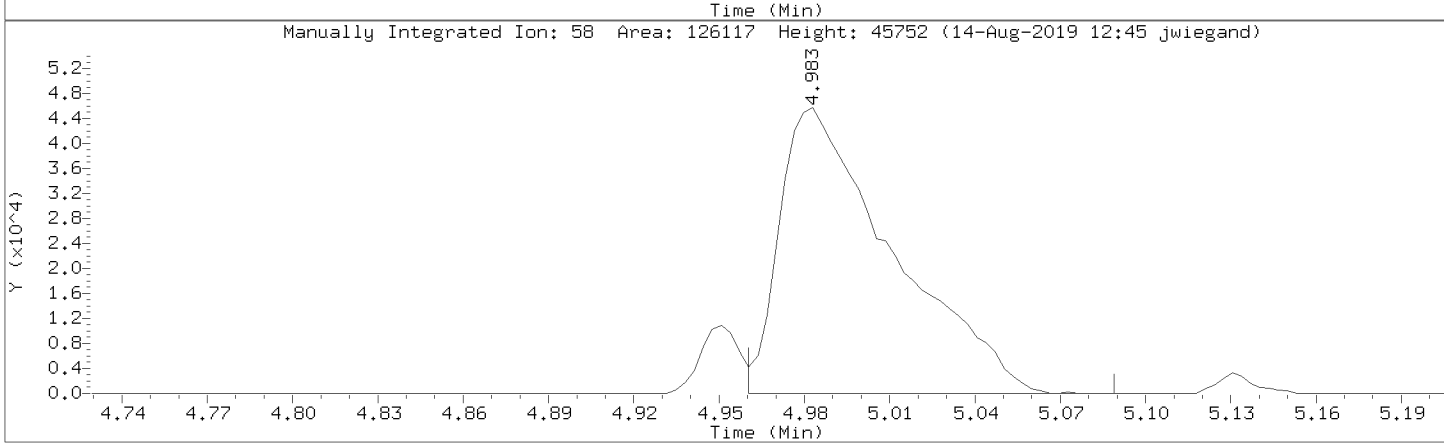
Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813027.d
Injection Date: 13-AUG-2019 17:24
Instrument: 30mv6a.i
Lab Sample ID: CAL8

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

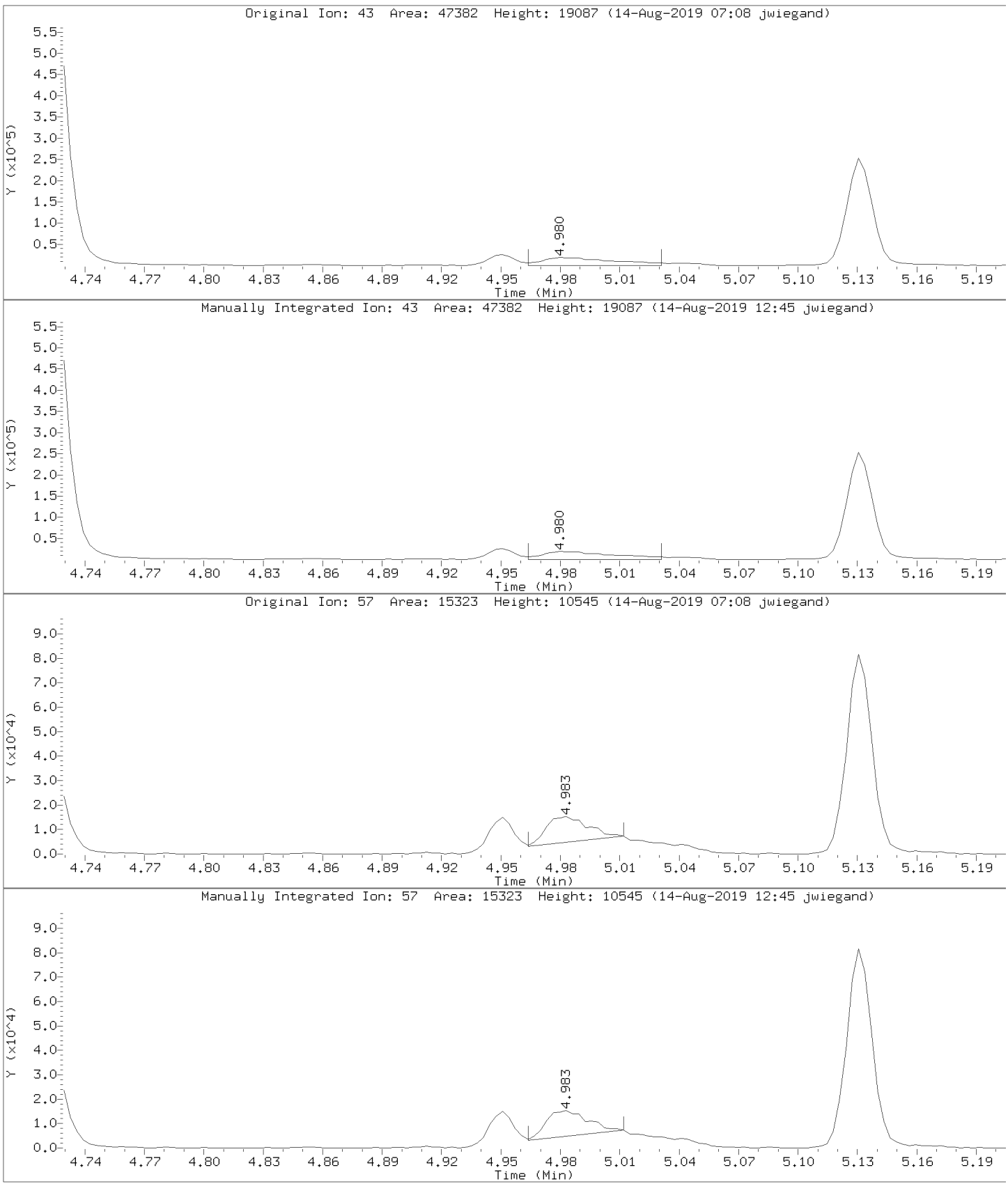








Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813027.d
Injection Date: 13-AUG-2019 17:24
Instrument: 30mv6a.i
Lab Sample ID: CAL8



SAMPLE NO.

11474327ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/13/2019 Time: 18:16

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 08/13/2019 08/13/2019

Lab File ID: 6190813.B\1.B\60813031.D Init. Calib. Time(s): 14:23 17:24

SDG No.: 30318799

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Quadratic	50	18.52453	0.0100	-62.9509	30.0000
2-Butanone (MEK)	Averaged	0.14903	0.05306	0.0100	-10.9944	30.0000
Carbon tetrachloride	Averaged	0.24771	0.09432	0.0100	-4.8107	30.0000
Chlorobenzene	Averaged	0.75831	0.29999	0.3000	-1.0985	30.0000
Chloroform	Averaged	0.35990	0.13750	0.0100	-4.4891	30.0000
1,2-Dichloroethane	Averaged	0.28582	0.10559	0.0100	-7.6475	30.0000
1,1-Dichloroethene	Averaged	0.30028	0.10099	0.0100	-15.9175	30.0000
Tetrachloroethene	Averaged	0.27153	0.10574	0.0100	-2.6464	30.0000
Trichloroethene	Averaged	0.25595	0.09845	0.0100	-3.8356	30.0000
Vinyl chloride	Quadratic	50	20.31143	0.0100	-59.3771	30.0000
4-Bromofluorobenzene (S)	Averaged	0.73005	0.72395	0.0100	-0.8353	30.0000
Dibromofluoromethane (S)	Averaged	0.27150	0.26676	0.0100	-1.7475	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.25956	0.25867	0.0100	-0.3404	30.0000
Toluene-d8 (S)	Averaged	1.18266	1.19023	0.0100	0.6404	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11398786CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/14/2019 Time: 09:30

Instrument ID: 30MV6A GC Column: Col 1 Init. Calib. Date(s): 08/13/2019 08/13/2019

Lab File ID: 6190814.B\1.B\60814005.D Init. Calib. Time(s): 14:23 17:24

SDG No.: 30318799

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Benzene	Quadratic	50	52.38069	0.0100	4.7614	20.0000
2-Butanone (MEK)	Averaged	0.14903	0.14764	0.0100	-0.9312	20.0000
Carbon tetrachloride	Averaged	0.24771	0.24499	0.0100	-1.0976	20.0000
Chlorobenzene	Averaged	0.75831	0.76401	0.3000	0.7512	20.0000
Chloroform	Averaged	0.35990	0.34132	0.0100	-5.1617	20.0000
1,2-Dichloroethane	Averaged	0.28582	0.27341	0.0100	-4.3434	20.0000
1,1-Dichloroethene	Averaged	0.30028	0.28685	0.0100	-4.4725	20.0000
Tetrachloroethene	Averaged	0.27153	0.28862	0.0100	6.2939	20.0000
Trichloroethene	Averaged	0.25595	0.27008	0.0100	5.5207	20.0000
Vinyl chloride	Quadratic	50	54.49673	0.0100	8.9935	20.0000
4-Bromofluorobenzene (S)	Averaged	0.73005	0.71760	0.0100	-1.7049	20.0000
Dibromofluoromethane (S)	Averaged	0.27150	0.26417	0.0100	-2.6981	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.25956	0.24825	0.0100	-4.3556	20.0000
Toluene-d8 (S)	Averaged	1.18266	1.20472	0.0100	1.8659	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 13-AUG-2019 18:16
Operator : JEW Inst ID: 30mv6a.i
Smp Info : icv, 96583:1
Misc Info : 45773,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Meth Date : 14-Aug-2019 12:52 30mv6a.i Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.228	(0.271)	47311	20.0000	24.5(Q)	
2	Chloromethane	50	1.350	1.347	(0.298)	62196	20.0000	22.3	
3	Vinyl chloride	62	1.395	1.395	(0.308)	58511	20.0000	20.3	
4	Bromomethane	94	1.588	1.585	(0.351)	14775	20.0000	19.4	
5	Chloroethane	64	1.658	1.662	(0.366)	35609	20.0000	21.5	
6	Trichlorofluoromethane	101	1.742	1.742	(0.385)	68205	20.0000	20.6	
7	Diethyl ether (Ethyl ether)	59	1.940	1.944	(0.429)	43628	20.0000	19.0	
8	Ethanol	45	2.050	2.049	(0.298)	8006	200.000	(aQ)	
9	1,1-Dichloroethene	61	2.075	2.079	(0.458)	58264	20.0000	16.8	
10	1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	28347	20.0000	18.4	
11	Carbon disulfide	76	2.104	2.104	(0.465)	106941	20.0000	17.0	
12	Iodomethane	142	2.181	2.181	(0.482)	9919	20.0000	8.06	
13	Acrolein	56	2.322	2.326	(0.513)	8050	20.0000	22.4	
14	Allyl chloride	41	2.415	2.419	(0.534)	332325	100.000	76.8	
15	Methylene Chloride	49	2.499	2.502	(0.552)	79610	20.0000	15.5	
16	Acetone	43	2.544	2.554	(0.562)	29646	20.0000	16.7(M)	LT
17	trans-1,2-Dichloroethene	61	2.627	2.627	(0.580)	58706	20.0000	17.2	
18	Methyl acetate	74	2.640	2.640	(0.583)	11806	20.0000	24.2	
19	n-Hexane	86	2.679	2.682	(0.592)	21539	20.0000	17.0(Q)	
20	Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	117483	20.0000	17.4(Q)	
21	tert-Butyl Alcohol	59	2.797	2.798	(0.618)	51038	100.000	93.8(Q)	

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	22 Acetonitrile	41	2.948	2.955	(0.651)	35575	100.000	101(Q)	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	142758	20.0000	18.2	
	24 Chloroprene	53	3.147	3.147	(0.695)	59903	20.0000	18.2	
	25 1,1-Dichloroethane	63	3.173	3.179	(0.701)	79215	20.0000	17.8	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	18096	20.0000	15.3(QM)	LT
	27 Ethyl-tert-butyl ether	59	3.417	3.427	(0.755)	133211	20.0000	17.9	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	74520	20.0000	12.4	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	63787	20.0000	16.8	
	30 2,2-Dichloropropane	77	3.802	3.805	(0.840)	62039	20.0000	18.6	
	31 Cyclohexane	56	3.869	3.876	(0.855)	77600	20.0000	18.9	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	33940	20.0000	19.2	
	33 Chloroform	83	3.940	3.943	(0.870)	79324	20.0000	19.1	
	34 Carbon tetrachloride	117	4.026	4.022	(0.889)	54412	20.0000	19.0	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	49750	20.0000	17.4	
	36 Tetrahydrofuran	42	4.052	4.054	(0.895)	26645	20.0000	19.0	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	92337	30.0000	29.5	
	38 1,1,1-Trichloroethane	97	4.074	4.075	(0.900)	65548	20.0000	18.3	
	39 2-Butanone (MEK)	43	4.151	4.158	(0.917)	30609	20.0000	17.8	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	55711	20.0000	18.7	
	41 Benzene	78	4.299	4.306	(0.950)	168329	20.0000	18.5	
	42 Propionitrile	54	4.325	4.335	(0.955)	10926	20.0000	20.1(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	30253	20.0000	18.2	
	44 tert-Amylmethyl ether	73	4.370	4.373	(0.965)	108540	20.0000	17.7	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	89539	30.0000	29.9	
	46 Isobutanol	43	4.443	4.447	(0.982)	16267	100.000	92.7(Q)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	60914	20.0000	18.5	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	346148	30.0000		
	49 Methylcyclohexane	83	4.601	4.601	(1.016)	64328	20.0000	19.4	
	50 Trichloroethene	95	4.610	4.614	(0.783)	44577	20.0000	19.2	
	51 Dibromomethane	174	4.812	4.816	(1.063)	32621	20.0000	18.6	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	47381	20.0000	19.0	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	57981	20.0000	20.0	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	30489	20.0000	18.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	7326	200.000	187(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	25472	20.0000	44.2	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	69122	20.0000	19.0	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	323343	30.0000	30.2	
	59 Toluene	91	5.258	5.259	(0.893)	196468	20.0000	20.3	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	60270	100.000	91.5	
	61 4-Methyl-2-pentanone (MIBK)	43	5.413	5.419	(1.196)	54863	20.0000	18.2	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	47875	20.0000	19.5	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	65543	20.0000	19.4	
	64 Ethyl methacrylate	41	5.483	5.490	(0.931)	43458	20.0000	18.8	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	40249	20.0000	19.7	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	48179	20.0000	19.7	
	67 1,3-Dichloropropane	76	5.615	5.618	(0.954)	69426	20.0000	19.9	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	44235	20.0000	20.8	
	69 2-Hexanone	43	5.756	5.759	(0.978)	46052	20.0000	19.5	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	73766	20.0000	20.4	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	271664	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	135829	20.0000	19.8	
	73 1,1,1,2-Tetrachloroethane	131	5.920	5.920	(1.005)	46754	20.0000	20.5	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	177684	40.0000	39.5	
	75 o-Xylene	106	6.138	6.141	(1.043)	88936	20.0000	20.2	

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	76 Styrene	104	6.160	6.164	(1.046)	156310	20.0000	20.0	
	77 Bromoform	173	6.186	6.189	(0.900)	32550	20.0000	20.2	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	233900	20.0000	20.4	
$	79 4-Bromofluorobenzene (S)	174	6.398	6.401	(0.931)	117354	30.0000	29.7	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	279586	20.0000	20.9	
	81 Bromobenzene	77	6.446	6.449	(0.938)	96402	20.0000	19.8	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	57020	20.0000	19.2	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	201925	20.0000	20.8	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	60516	20.0000	20.8	
	85 1,2,3-Trichloropropane	110	6.536	6.542	(0.951)	19489	20.0000	19.4	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	17150	20.0000	17.7(Q)	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	24879	100.000	94.0	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	63278	20.0000	20.2	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	181174	20.0000	21.0	
	90 1,2,4-Trimethylbenzene	105	6.680	6.687	(0.972)	213929	20.0000	21.0	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	266938	20.0000	21.3	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	245546	20.0000	21.9	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	128871	20.0000	20.3	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	162103	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	132966	20.0000	20.2	
	96 n-Butylbenzene	91	6.966	6.969	(1.014)	215223	20.0000	21.7	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	124075	20.0000	20.2	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	162100	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	18184	20.0000	19.8	
	99 1,3,5-Trichlorobenzene	180	7.412	7.418	(1.079)	94752	20.0000	21.1	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	44342	20.0000	18.2	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	87754	20.0000	21.0	
	102 Naphthalene	128	7.838	7.842	(1.141)	261527	20.0000	22.3	
	103 1,2,3-Trichlorobenzene	180	7.919	7.922	(1.153)	84292	20.0000	22.9	
	104 2-Methylnaphthalene	142	8.288	8.294	(1.206)	162054	20.0000	28.8	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60813031.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: ICV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	336802	168401	673604	346148	2.77
71 Chlorobenzene-d5	270745	135373	541490	271664	0.34
94 1,4-Dichlorobenze	160999	80500	321998	162103	0.69

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-AUG-2019 18:16
Lab File ID: 60813031.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.16736	0.20502	0.20502	0.010	22.50317	20.00000	Aver	(Q)	<-
2 Chloromethane	20.00000	22.31025	0.26952	0.100	11.55126	20.00000	Quad		
3 Vinyl chloride	20.00000	20.31144	0.25355	0.010	1.55718	20.00000	Quad		
4 Bromomethane	0.06603	0.06403	0.06403	0.010	-3.03916	20.00000	Aver		
5 Chloroethane	20.00000	21.48766	0.15431	0.010	7.43829	20.00000	Quad		
6 Trichlorofluoromethane	20.00000	20.65881	0.29556	0.010	3.29406	20.00000	Quad		
7 Diethyl ether (Ethyl ether)	0.19891	0.18906	0.18906	0.010	-4.95398	20.00000	Aver		
8 Ethanol	++++	0.00741	0.00741	0.010	++++	20.00000	Aver	(aQ)	<-
9 1,1-Dichloroethene	0.30028	0.25248	0.25248	0.010	-15.91749	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.13353	0.12284	0.12284	0.010	-8.00755	20.00000	Aver		
11 Carbon disulfide	20.00000	16.96475	0.46342	0.010	-15.17626	20.00000	Quad		
12 Iodomethane	0.10666	0.04298	0.04298	0.010	-59.70250	20.00000	Aver		<-
13 Acrolein	0.03111	0.03488	0.03488	0.010	12.13684	20.00000	Aver		
14 Allyl chloride	100	76.78581	0.28802	0.010	-23.21419	20.00000	Quad		<-
15 Methylene Chloride	20.00000	15.49026	0.34498	0.010	-22.54868	20.00000	Quad		<-
16 Acetone	20.00000	16.72368	0.12847	0.010	-16.38162	20.00000	Quad	(M)	
17 trans-1,2-Dichloroethene	0.29578	0.25440	0.25440	0.010	-13.99220	20.00000	Aver		
18 Methyl acetate	0.04221	0.05116	0.05116	0.010	21.20757	20.00000	Aver		<-
19 n-Hexane	20.00000	17.00367	0.09334	0.010	-14.98165	20.00000	Quad	(Q)	
20 Methyl-tert-butyl ether	0.58360	0.50910	0.50910	0.010	-12.76590	20.00000	Aver	(Q)	
21 tert-Butyl Alcohol	0.04718	0.04423	0.04423	0.010	-6.23970	20.00000	Aver	(Q)	
22 Acetonitrile	0.03059	0.03083	0.03083	0.010	0.79770	20.00000	Aver	(Q)	
23 Diisopropyl ether	0.68012	0.61863	0.61863	0.010	-9.04104	20.00000	Aver		
24 Chloroprene	0.28584	0.25958	0.25958	0.010	-9.18551	20.00000	Aver		
25 1,1-Dichloroethane	0.38572	0.34327	0.34327	0.100	-11.00516	20.00000	Aver		
26 Acrylonitrile	0.10248	0.07842	0.07842	0.010	-23.47883	20.00000	Aver	(QM)	<-
27 Ethyl-tert-butyl ether	0.64345	0.57726	0.57726	0.010	-10.28651	20.00000	Aver		
28 Vinyl acetate	0.52089	0.32293	0.32293	0.010	-38.00447	20.00000	Aver		<-
29 cis-1,2-Dichloroethene	20.00000	16.81666	0.27642	0.010	-15.91671	20.00000	Quad		
30 2,2-Dichloropropane	0.28903	0.26884	0.26884	0.010	-6.98387	20.00000	Aver		
31 Cyclohexane	0.35514	0.33627	0.33627	0.010	-5.31147	20.00000	Aver		
32 Bromochloromethane	0.15289	0.14708	0.14708	0.010	-3.80028	20.00000	Aver		
33 Chloroform	0.35990	0.34374	0.34374	0.010	-4.48912	20.00000	Aver		
34 Carbon tetrachloride	0.24771	0.23579	0.23579	0.010	-4.81075	20.00000	Aver		
35 Ethyl acetate	0.24729	0.21559	0.21559	0.010	-12.82127	20.00000	Aver		
36 Tetrahydrofuran	0.12181	0.11546	0.11546	0.010	-5.21279	20.00000	Aver		
$ 37 Dibromofluoromethane (S)	0.27150	0.26676	0.26676	0.010	-1.74746	20.00000	Aver		
38 1,1,1-Trichloroethane	0.31028	0.28405	0.28405	0.010	-8.45517	20.00000	Aver		
39 2-Butanone (MEK)	0.14903	0.13264	0.13264	0.010	-10.99440	20.00000	Aver		
40 1,1-Dichloropropene	0.25784	0.24142	0.24142	0.010	-6.37071	20.00000	Aver		
41 Benzene	20.00000	18.52453	0.72944	0.010	-7.37735	20.00000	Quad		

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Report Date: 29-Aug-2019 12:25

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-AUG-2019 18:16
Lab File ID: 60813031.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	0.04704	0.04735	0.04735	0.010	0.64405	20.00000	Aver	(Q)	
	43 Methacrylonitrile	0.14427	0.13110	0.13110	0.010	-9.12704	20.00000	Aver		
	44 tert-Amylmethyl ether	0.53123	0.47035	0.47035	0.010	-11.46080	20.00000	Aver		
$	45 1,2-Dichloroethane-d4 (S)	0.25956	0.25867	0.25867	0.010	-0.34036	20.00000	Aver		
	46 Isobutanol	100	92.73863	0.01410	0.010	-7.26137	20.00000	Quad	(Q)	
	47 1,2-Dichloroethane	0.28582	0.26397	0.26397	0.010	-7.64755	20.00000	Aver		
	49 Methylcyclohexane	0.28753	0.27876	0.27876	0.010	-3.05194	20.00000	Aver		
	50 Trichloroethene	0.25595	0.24613	0.24613	0.010	-3.83564	20.00000	Aver		
	51 Dibromomethane	0.15205	0.14136	0.14136	0.010	-7.03247	20.00000	Aver		
	52 1,2-Dichloropropane	0.21582	0.20532	0.20532	0.010	-4.86380	20.00000	Aver		
	53 Bromodichloromethane	0.25139	0.25126	0.25126	0.010	-0.05417	20.00000	Aver		
	54 Methyl methacrylate	0.14706	0.13212	0.13212	0.010	-10.15981	20.00000	Aver		
	55 1,4-Dioxane (p-Dioxane)	0.00340	0.00317	0.00317	0.010	-6.68174	20.00000	Aver	(M)	<-
	56 2-Chloroethylvinyl ether	0.05000	0.11038	0.11038	0.010	121	20.00000	Aver		<-
	57 cis-1,3-Dichloropropene	0.31465	0.29953	0.29953	0.010	-4.80337	20.00000	Aver		
$	58 Toluene-d8 (S)	1.18266	1.19023	1.19023	0.010	0.64039	20.00000	Aver		
	59 Toluene	1.07017	1.08480	1.08480	0.010	1.36780	20.00000	Aver		
	60 2-Nitropropane	100	91.52116	0.05223	0.010	-8.47884	20.00000	Quad		
	61 4-Methyl-2-pentanone (MIBK)	0.26099	0.23774	0.23774	0.010	-8.90546	20.00000	Aver		
	62 Tetrachloroethene	0.27153	0.26434	0.26434	0.010	-2.64642	20.00000	Aver		
	63 trans-1,3-Dichloropropene	0.37261	0.36190	0.36190	0.010	-2.87506	20.00000	Aver		
	64 Ethyl methacrylate	0.25552	0.23995	0.23995	0.010	-6.09054	20.00000	Aver		
	65 1,1,2-Trichloroethane	0.22554	0.22224	0.22224	0.010	-1.46583	20.00000	Aver		
	66 Dibromochloromethane	0.26987	0.26602	0.26602	0.010	-1.42590	20.00000	Aver		
	67 1,3-Dichloropropane	0.38597	0.38334	0.38334	0.010	-0.68235	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.23422	0.24424	0.24424	0.010	4.27799	20.00000	Aver		
	69 2-Hexanone	0.26044	0.25428	0.25428	0.010	-2.36605	20.00000	Aver		
	70 Ethylbenzene	0.39989	0.40730	0.40730	0.010	1.85386	20.00000	Aver		
	72 Chlorobenzene	0.75831	0.74998	0.74998	0.300	-1.09850	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	20.00000	20.49266	0.25815	0.010	2.46330	20.00000	Quad		
	74 m&p-Xylene	0.49628	0.49054	0.49054	0.010	-1.15559	20.00000	Aver		
	75 o-Xylene	0.48690	0.49106	0.49106	0.010	0.85407	20.00000	Aver		
	76 Styrene	0.86177	0.86307	0.86307	0.010	0.15080	20.00000	Aver		
	77 Bromoform	20.00000	20.21181	0.30120	0.100	1.05903	20.00000	Quad		
	78 Isopropylbenzene (Cumene)	2.12604	2.16436	2.16436	0.010	1.80245	20.00000	Aver		
$	79 4-Bromofluorobenzene (S)	0.73005	0.72395	0.72395	0.010	-0.83528	20.00000	Aver		
	80 n-Propylbenzene	2.47540	2.58711	2.58711	0.010	4.51295	20.00000	Aver		
	81 Bromobenzene	0.90182	0.89204	0.89204	0.010	-1.08407	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	0.55096	0.52763	0.52763	0.300	-4.23419	20.00000	Aver		
	83 1,3,5-Trimethylbenzene	1.79516	1.86849	1.86849	0.010	4.08452	20.00000	Aver		
	84 2-Chlorotoluene	0.53720	0.55998	0.55998	0.010	4.24079	20.00000	Aver		
	85 1,2,3-Trichloropropane	0.18638	0.18034	0.18034	0.010	-3.24228	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Report Date: 29-Aug-2019 12:25

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Report Date: 29-Aug-2019 12:25

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 13-AUG-2019 18:16
Lab File ID: 60813031.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\msv6081319a.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
86 trans-1,4-Dichloro-2-butene	0.17958	0.15870	0.15870	0.010	-11.63168	20.00000	Aver	(Q)	
87 Cyclohexanone	0.04899	0.04604	0.04604	0.010	-6.01367	20.00000	Aver		
88 4-Chlorotoluene	0.57904	0.58554	0.58554	0.010	1.12127	20.00000	Aver		
89 tert-Butylbenzene	1.59859	1.67647	1.67647	0.010	4.87191	20.00000	Aver		
90 1,2,4-Trimethylbenzene	1.88572	1.97957	1.97957	0.010	4.97688	20.00000	Aver		
91 sec-Butylbenzene	2.31977	2.47008	2.47008	0.010	6.47930	20.00000	Aver		
92 p-Isopropyltoluene	2.07351	2.27213	2.27213	0.010	9.57892	20.00000	Aver		
93 1,3-Dichlorobenzene	1.17717	1.19249	1.19249	0.010	1.30201	20.00000	Aver		
95 1,4-Dichlorobenzene	1.21549	1.23038	1.23038	0.010	1.22504	20.00000	Aver		
96 n-Butylbenzene	1.83799	1.99154	1.99154	0.010	8.35421	20.00000	Aver		
97 1,2-Dichlorobenzene	1.13824	1.14811	1.14811	0.010	0.86748	20.00000	Aver		
$ 161 1,2-Dichlorobenzene-d4 (S)	0.99998	0.99998	0.99998	0.010	-0.00003	20.00000	Aver		
98 1,2-Dibromo-3-chloropropane	0.16979	0.16826	0.16826	0.010	-0.90194	20.00000	Aver		
99 1,3,5-Trichlorobenzene	0.83017	0.87678	0.87678	0.010	5.61454	20.00000	Aver		
100 Hexachloro-1,3-butadiene	20.00000	18.17278	0.41031	0.010	-9.13608	20.00000	Quad		
101 1,2,4-Trichlorobenzene	0.77284	0.81202	0.81202	0.010	5.07006	20.00000	Aver		
102 Naphthalene	2.16949	2.42001	2.42001	0.010	11.54724	20.00000	Aver		
103 1,2,3-Trichlorobenzene	0.68047	0.77999	0.77999	0.010	14.62536	20.00000	Aver		
104 2-Methylnaphthalene	1.04259	1.49955	1.49955	0.010	43.82900	20.00000	Aver		<-

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 9.02444
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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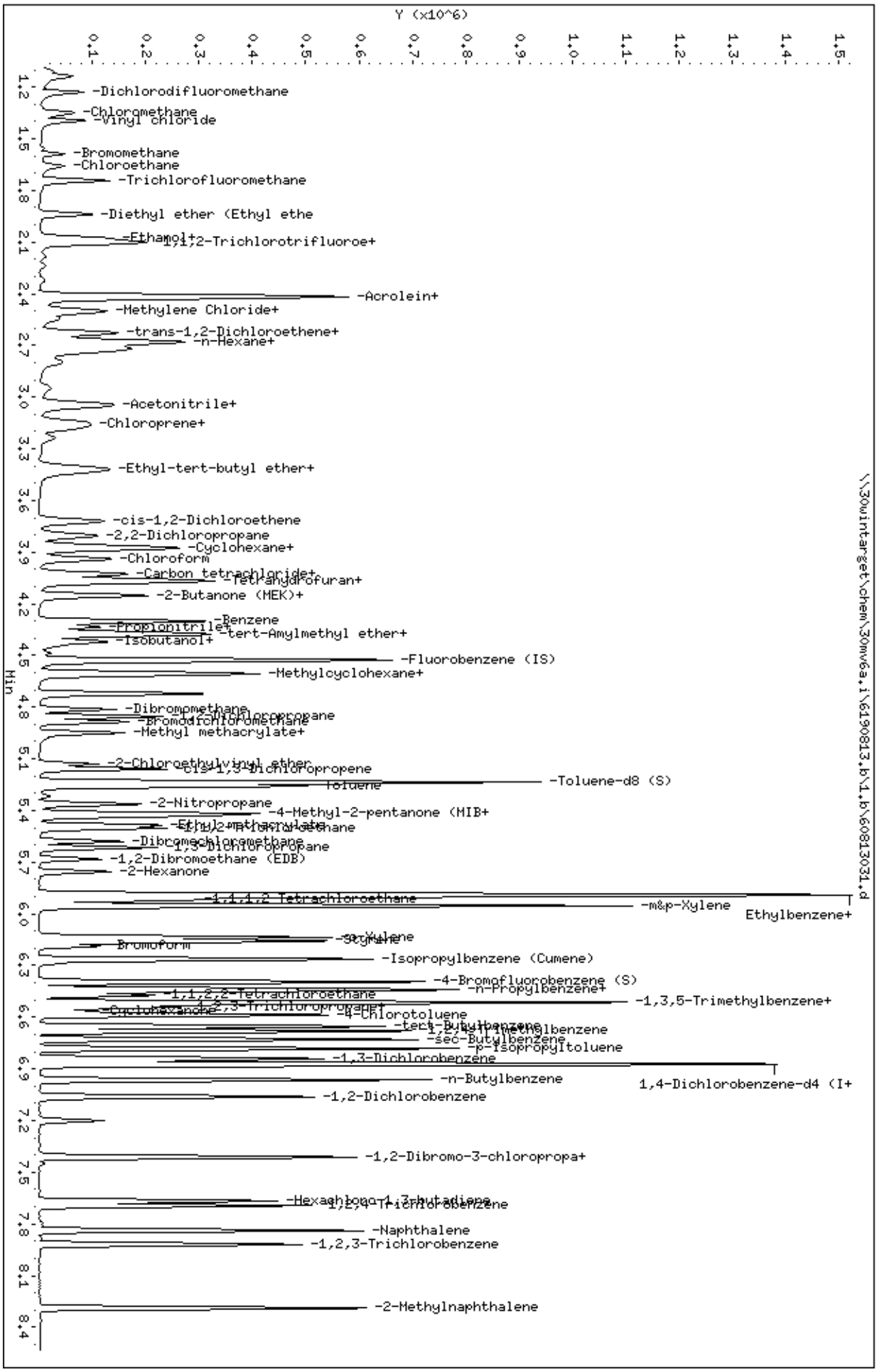
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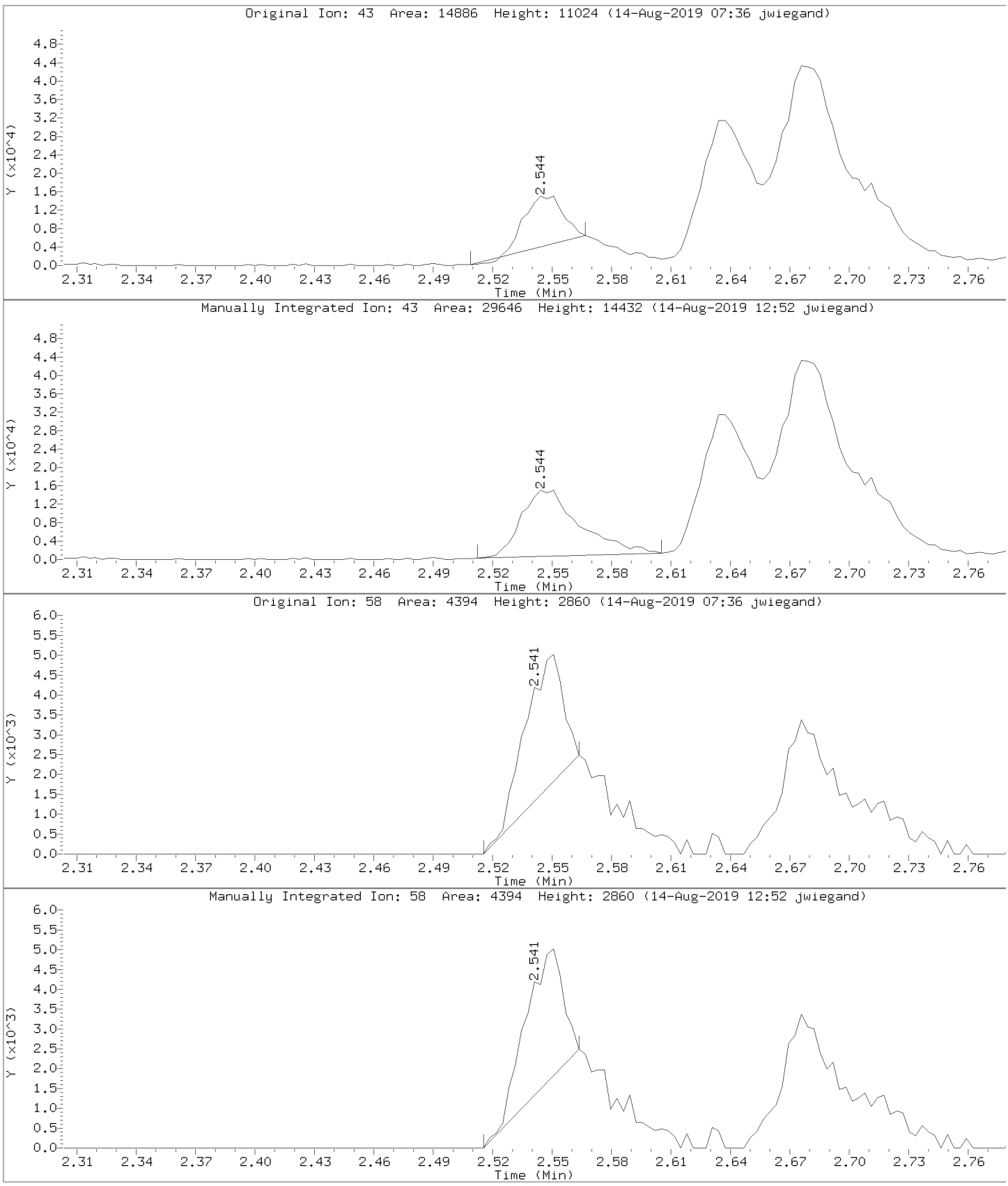
Date : 13-AUG-2019 18:16
Client ID: ICV
Sample Info: ICV, 965831
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813031.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Acrolein+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibrommethane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Dibromochloromethane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b/60813031.d
Injection Date: 13-AUG-2019 18:16
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acetone Review Code: LT
CAS Number: 67-64-1



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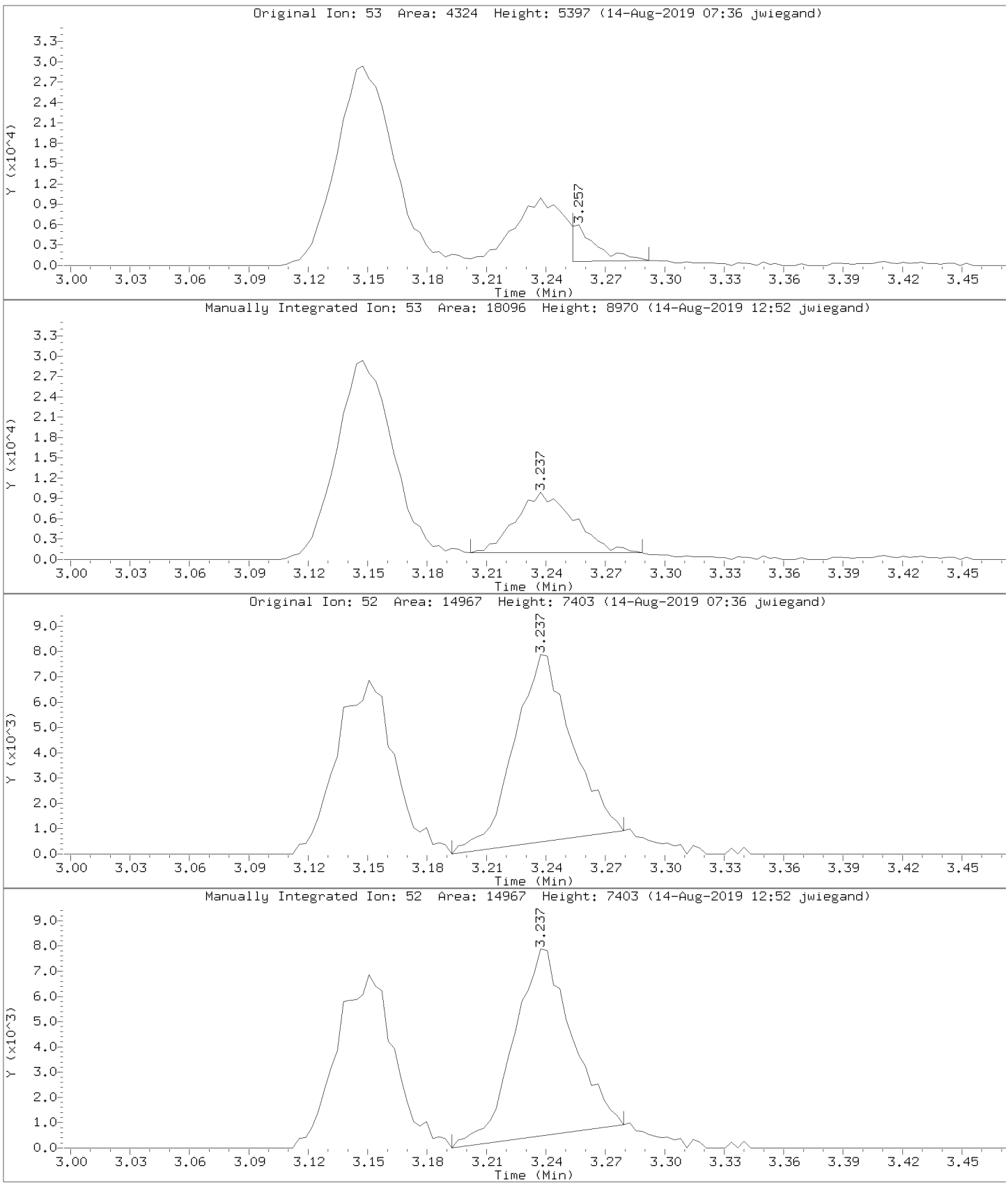
Injection Date: 13-AUG-2019 18:16
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1



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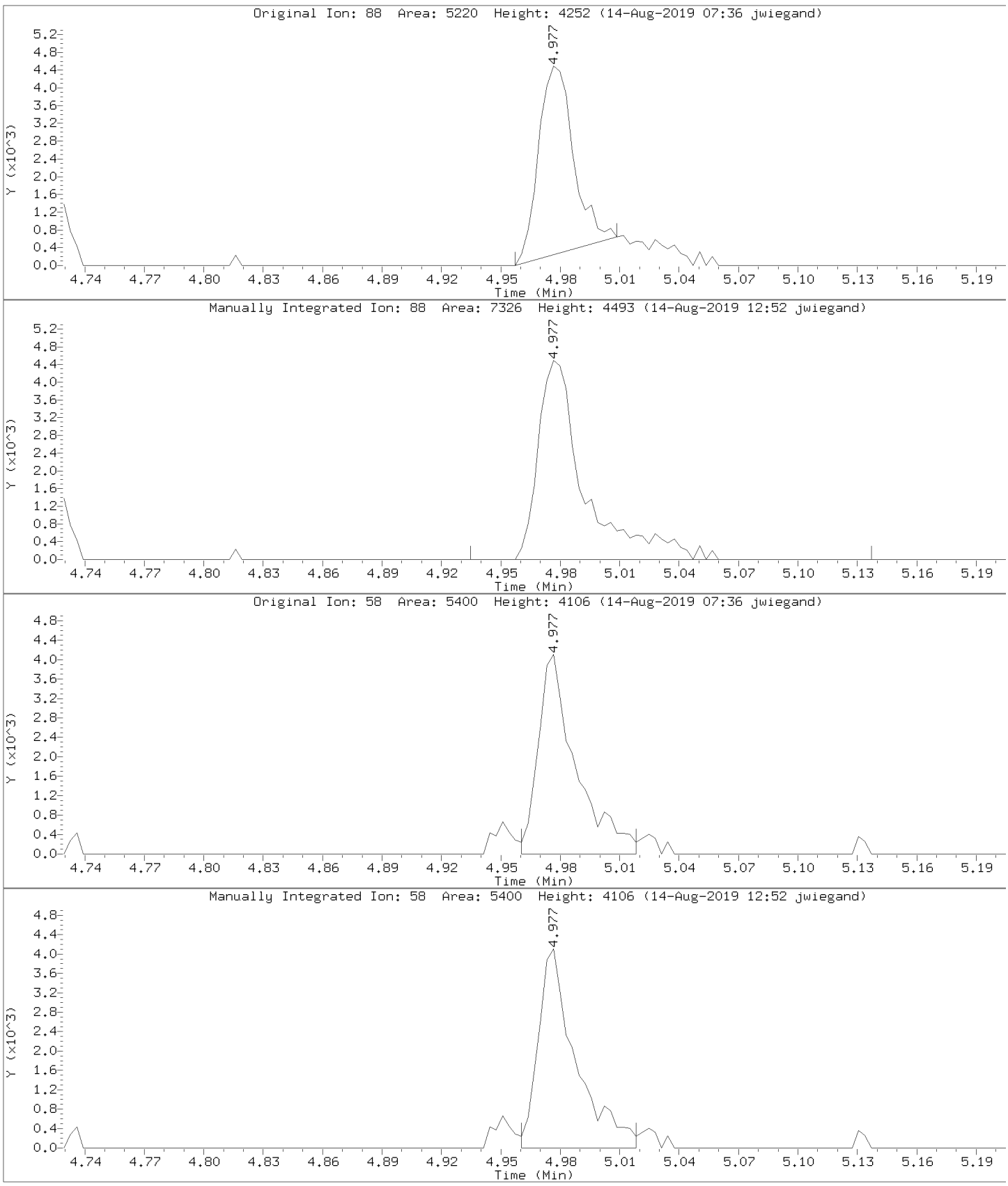
Injection Date: 13-AUG-2019 18:16
Instrument: 30mv6a.i
Lab Sample ID: ICV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



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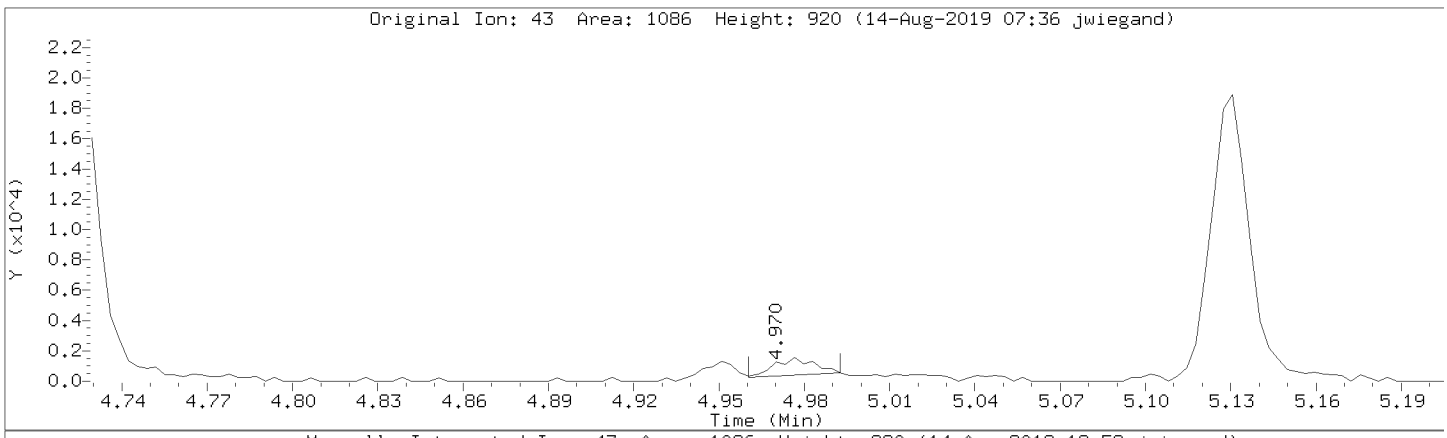
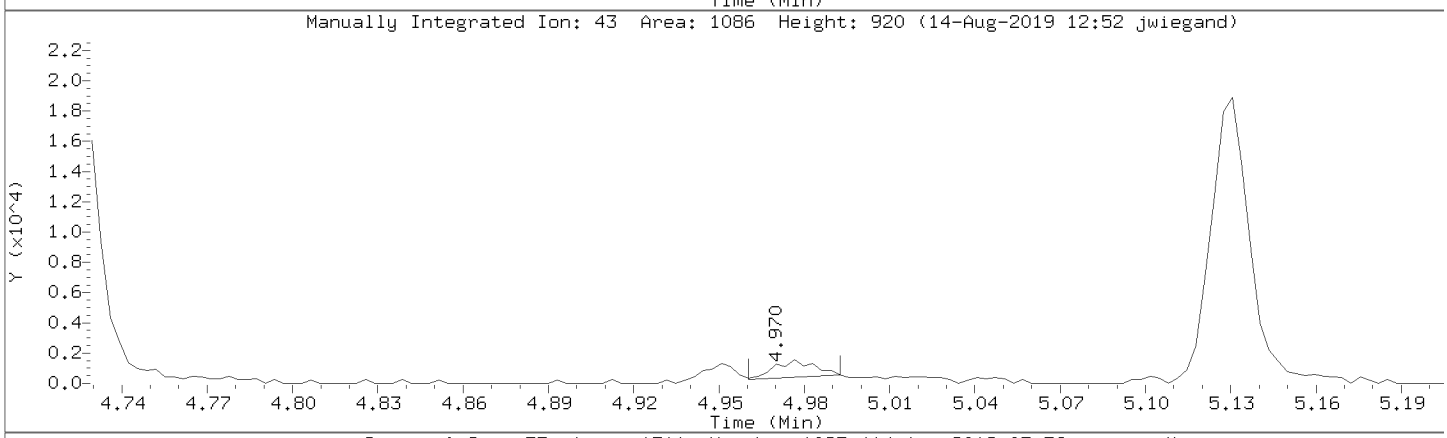
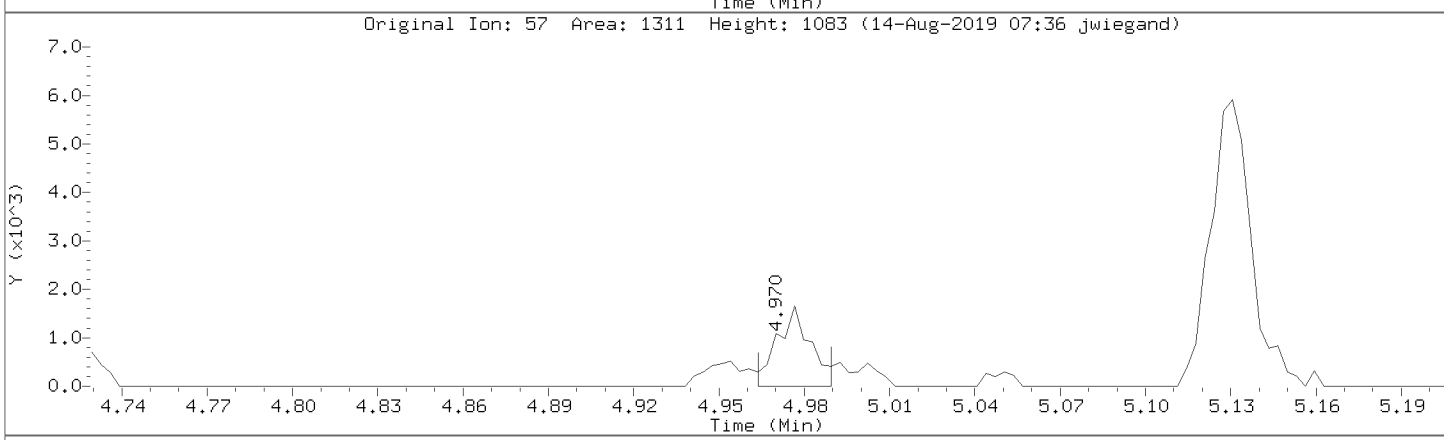
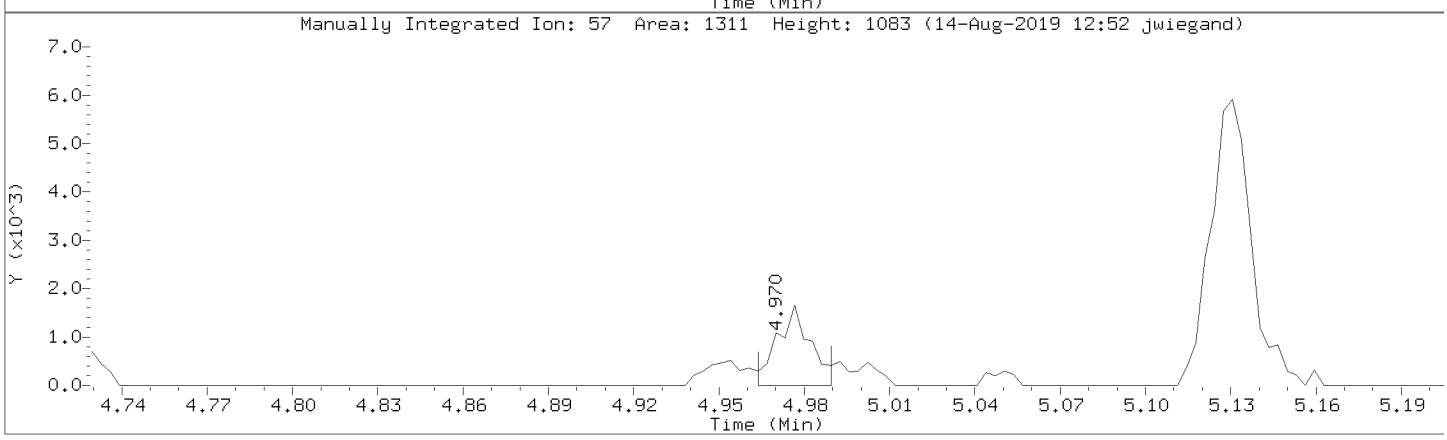
Lab Sample ID: ICV









Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 09:30
Operator : JEW Inst ID: 30mv6a.i
Smp Info : ccv, 96666:1
Misc Info : 45773,
Comment   :
Method   : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV1WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	1.228	1.228	(0.271)	98528	50.0000	48.4(Q)	
2 Chloromethane	50	1.347	1.347	(0.298)	136482	50.0000	57.8	
3 Vinyl chloride	62	1.395	1.395	(0.308)	137071	50.0000	54.5	
4 Bromomethane	94	1.587	1.585	(0.351)	34994	50.0000	43.5	
5 Chloroethane	64	1.655	1.662	(0.366)	77765	50.0000	55.3	
6 Trichlorofluoromethane	101	1.738	1.742	(0.384)	160292	50.0000	55.8	
7 Diethyl ether (Ethyl ether)	59	1.937	1.944	(0.428)	121745	50.0000	50.3	
8 Ethanol	45	2.053	2.049	(0.299)	16643	500.000	(a)	
9 1,1-Dichloroethene	61	2.075	2.079	(0.458)	174639	50.0000	47.8	
10 1,1,2-Trichlorotrifluoroethane	151	2.098	2.097	(0.463)	82581	50.0000	50.8	
11 Carbon disulfide	76	2.101	2.104	(0.464)	314226	50.0000	56.7	
12 Iodomethane	142	2.181	2.181	(0.482)	52470	50.0000	40.4	
13 Acrolein	56	2.322	2.326	(0.513)	16471	50.0000	43.5(M)	BA
14 Allyl chloride	41	2.415	2.419	(0.534)	978758	250.000	266	
15 Methylene Chloride	49	2.499	2.502	(0.552)	189218	50.0000	50.6	
16 Acetone	43	2.544	2.554	(0.562)	57503	50.0000	47.5	
17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	167274	50.0000	46.4	
18 Methyl acetate	74	2.633	2.640	(0.582)	25760	50.0000	50.1	
19 n-Hexane	86	2.678	2.682	(0.592)	29230	50.0000	30.2	
20 Methyl-tert-butyl ether	73	2.707	2.714	(0.598)	370236	50.0000	52.1	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	21 tert-Butyl Alcohol	59	2.797	2.798	(0.618)	142629	250.000	248	
	22 Acetonitrile	41	2.941	2.955	(0.650)	93626	250.000	251	
	23 Diisopropyl ether	45	3.044	3.054	(0.673)	427981	50.0000	51.7	
	24 Chloroprene	53	3.147	3.147	(0.695)	175014	50.0000	50.3	
	25 1,1-Dichloroethane	63	3.173	3.179	(0.701)	222515	50.0000	47.4	
	26 Acrylonitrile	53	3.237	3.247	(0.715)	49365	50.0000	39.6(M)	NI
	27 Ethyl-tert-butyl ether	59	3.416	3.427	(0.755)	406403	50.0000	51.9	
	28 Vinyl acetate	43	3.436	3.439	(0.759)	335285	50.0000	52.9	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	175115	50.0000	52.6	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	159695	50.0000	45.4	
	31 Cyclohexane	56	3.869	3.876	(0.855)	226329	50.0000	52.3	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	89743	50.0000	48.2	
	33 Chloroform	83	3.939	3.943	(0.870)	207804	50.0000	47.4	
	34 Carbon tetrachloride	117	4.026	4.022	(0.889)	149153	50.0000	49.4	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	159565	50.0000	53.0	
	36 Tetrahydrofuran	42	4.049	4.054	(0.894)	71389	50.0000	48.1	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	96501	30.0000	29.2	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	183843	50.0000	48.7	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	89885	50.0000	49.5	
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	156079	50.0000	49.7	
	41 Benzene	78	4.302	4.306	(0.950)	459173	50.0000	52.4	
	42 Propionitrile	54	4.328	4.335	(0.956)	28952	50.0000	50.5	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	89115	50.0000	50.7	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	339277	50.0000	52.4	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	90684	30.0000	28.7	
	46 Isobutanol	43	4.437	4.447	(0.980)	52132	250.000	254	
	47 1,2-Dichloroethane	62	4.421	4.418	(0.977)	166457	50.0000	47.8	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	365292	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	193683	50.0000	55.3	
	50 Trichloroethene	95	4.610	4.614	(0.783)	124987	50.0000	52.8	
	51 Dibromomethane	174	4.812	4.816	(1.063)	89841	50.0000	48.5	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	129180	50.0000	49.2	
	53 Bromodichloromethane	83	4.883	4.887	(1.079)	148906	50.0000	48.6	
	54 Methyl methacrylate	69	4.947	4.954	(1.093)	93118	50.0000	52.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	21334	500.000	515(M)	LT
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	29854	50.0000	49.0	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	192162	50.0000	50.2	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	334511	30.0000	30.6	
	59 Toluene	91	5.255	5.259	(0.893)	506237	50.0000	51.1	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	202543	250.000	251	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	158096	50.0000	49.7	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	133566	50.0000	53.1	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	182382	50.0000	52.9	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	119514	50.0000	50.5	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	109462	50.0000	52.4	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	132154	50.0000	52.9	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	186760	50.0000	52.3	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	116744	50.0000	53.8	
	69 2-Hexanone	43	5.756	5.759	(0.978)	124304	50.0000	51.6	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	187746	50.0000	50.7	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	277666	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	353566	50.0000	50.4	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	125556	50.0000	49.5	
	74 m&p-Xylene	106	5.951	5.955	(1.011)	461687	100.000	100	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	75 o-Xylene	106	6.138	6.141	(1.043)	227756	50.0000	50.5	
	76 Styrene	104	6.160	6.164	(1.046)	409579	50.0000	51.4	
	77 Bromoform	173	6.186	6.189	(0.900)	91501	50.0000	51.4	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	600090	50.0000	51.5	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	117928	30.0000	29.5	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	700070	50.0000	51.6	
	81 Bromobenzene	77	6.446	6.449	(0.938)	247455	50.0000	50.1	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	151718	50.0000	50.3	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	509642	50.0000	51.8	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	150165	50.0000	51.0	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.952)	51223	50.0000	50.2	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	54264	50.0000	55.2	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	79783	250.000	297	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	160730	50.0000	50.7	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	458757	50.0000	52.4	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.973)	535564	50.0000	51.8	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	675713	50.0000	53.2	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	607821	50.0000	53.5	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	329968	50.0000	51.2	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	164337	30.0000		
	95 1,4-Dichlorobenzene	146	6.879	6.879	(1.001)	340324	50.0000	51.1	
	96 n-Butylbenzene	91	6.965	6.969	(1.014)	549862	50.0000	54.6	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	316300	50.0000	50.7	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	164387	30.0000	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	48791	50.0000	52.4	
	99 1,3,5-Trichlorobenzene	180	7.411	7.418	(1.079)	248692	50.0000	54.7	
	100 Hexachloro-1,3-butadiene	225	7.668	7.669	(1.116)	124135	50.0000	54.0	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	233622	50.0000	55.2	
	102 Naphthalene	128	7.838	7.842	(1.141)	620882	50.0000	52.2	
	103 1,2,3-Trichlorobenzene	180	7.922	7.922	(1.153)	202717	50.0000	54.4	
	104 2-Methylnaphthalene	142	8.294	8.294	(1.207)	307638	50.0000	53.9	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  BA: Indicates that the baseline had to be adjusted correctly by the
      analyst.
  NI: Indicates that the peak was not integrated at all by the
      computer software.
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814005.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 13-AUG-2019
Calibration Time: 18:16
Client Smp ID: CCV
Level: LOW
Sample Type: SOIL
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45773,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	336802	168401	673604	365292	8.46
71 Chlorobenzene-d5	270745	135373	541490	277666	2.56
94 1,4-Dichlorobenze	160999	80500	321998	164337	2.07

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-AUG-2019 09:30
Lab File ID: 60814005.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.16736	0.16183	0.16183	0.010	-3.29999	20.00000	Aver	(Q)	
2 Chloromethane	50.00000	57.83041	0.22417	0.100	15.66083	20.00000	Quad		
3 Vinyl chloride	50.00000	54.49674	0.22514	0.010	8.99347	20.00000	Quad		
4 Bromomethane	0.06603	0.05748	0.05748	0.010	-12.95494	20.00000	Aver		
5 Chloroethane	50.00000	55.31646	0.12773	0.010	10.63292	20.00000	Quad		
6 Trichlorofluoromethane	50.00000	55.81964	0.26328	0.010	11.63928	20.00000	Quad		
7 Diethyl ether (Ethyl ether)	0.19891	0.19997	0.19997	0.010	0.53133	20.00000	Aver		
8 Ethanol	++++	0.00608	0.00608	0.010	++++	20.00000	Aver	(a)	<-
9 1,1-Dichloroethene	0.30028	0.28685	0.28685	0.010	-4.47253	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.13353	0.13564	0.13564	0.010	1.57968	20.00000	Aver		
11 Carbon disulfide	50.00000	56.71565	0.51612	0.010	13.43129	20.00000	Quad		
12 Iodomethane	0.10666	0.08618	0.08618	0.010	-19.20156	20.00000	Aver		
13 Acrolein	0.03111	0.02705	0.02705	0.010	-13.03308	20.00000	Aver	(M)	
14 Allyl chloride	250	266	0.32153	0.010	6.25430	20.00000	Quad		
15 Methylene Chloride	50.00000	50.64058	0.31079	0.010	1.28115	20.00000	Quad		
16 Acetone	50.00000	47.50818	0.09445	0.010	-4.98365	20.00000	Quad		
17 trans-1,2-Dichloroethene	0.29578	0.27475	0.27475	0.010	-7.11075	20.00000	Aver		
18 Methyl acetate	0.04221	0.04231	0.04231	0.010	0.24310	20.00000	Aver		
19 n-Hexane	50.00000	30.24421	0.04801	0.010	-39.51158	20.00000	Quad		<-
20 Methyl-tert-butyl ether	0.58360	0.60812	0.60812	0.010	4.20092	20.00000	Aver		
21 tert-Butyl Alcohol	0.04718	0.04685	0.04685	0.010	-0.68500	20.00000	Aver		
22 Acetonitrile	0.03059	0.03076	0.03076	0.010	0.55041	20.00000	Aver		
23 Diisopropyl ether	0.68012	0.70297	0.70297	0.010	3.35969	20.00000	Aver		
24 Chloroprene	0.28584	0.28746	0.28746	0.010	0.56828	20.00000	Aver		
25 1,1-Dichloroethane	0.38572	0.36549	0.36549	0.100	-5.24582	20.00000	Aver		
26 Acrylonitrile	0.10248	0.08108	0.08108	0.010	-20.87753	20.00000	Aver	(M)	<-
27 Ethyl-tert-butyl ether	0.64345	0.66753	0.66753	0.010	3.74239	20.00000	Aver		
28 Vinyl acetate	0.52089	0.55071	0.55071	0.010	5.72637	20.00000	Aver		
29 cis-1,2-Dichloroethene	50.00000	52.56473	0.28763	0.010	5.12946	20.00000	Quad		
30 2,2-Dichloropropane	0.28903	0.26230	0.26230	0.010	-9.24586	20.00000	Aver		
31 Cyclohexane	0.35514	0.37175	0.37175	0.010	4.67851	20.00000	Aver		
32 Bromochloromethane	0.15289	0.14740	0.14740	0.010	-3.58509	20.00000	Aver		
33 Chloroform	0.35990	0.34132	0.34132	0.010	-5.16169	20.00000	Aver		
34 Carbon tetrachloride	0.24771	0.24499	0.24499	0.010	-1.09759	20.00000	Aver		
35 Ethyl acetate	0.24729	0.26209	0.26209	0.010	5.98313	20.00000	Aver		
36 Tetrahydrofuran	0.12181	0.11726	0.11726	0.010	-3.73976	20.00000	Aver		
$ 37 Dibromofluoromethane (S)	0.27150	0.26417	0.26417	0.010	-2.69805	20.00000	Aver		
38 1,1,1-Trichloroethane	0.31028	0.30197	0.30197	0.010	-2.67977	20.00000	Aver		
39 2-Butanone (MEK)	0.14903	0.14764	0.14764	0.010	-0.93116	20.00000	Aver		
40 1,1-Dichloropropene	0.25784	0.25636	0.25636	0.010	-0.57470	20.00000	Aver		
41 Benzene	50.00000	52.38070	0.75420	0.010	4.76140	20.00000	Quad		

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-AUG-2019 09:30
Lab File ID: 60814005.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
42 Propionitrile	0.04704	0.04755	0.04755	0.010	1.08510	20.00000	Aver		
43 Methacrylonitrile	0.14427	0.14637	0.14637	0.010	1.46090	20.00000	Aver		
44 tert-Amylmethyl ether	0.53123	0.55727	0.55727	0.010	4.90154	20.00000	Aver		
$ 45 1,2-Dichloroethane-d4 (S)	0.25956	0.24825	0.24825	0.010	-4.35563	20.00000	Aver		
46 Isobutanol	250	254	0.01713	0.010	1.70497	20.00000	Quad		
47 1,2-Dichloroethane	0.28582	0.27341	0.27341	0.010	-4.34338	20.00000	Aver		
49 Methylcyclohexane	0.28753	0.31813	0.31813	0.010	10.64001	20.00000	Aver		
50 Trichloroethene	0.25595	0.27008	0.27008	0.010	5.52067	20.00000	Aver		
51 Dibromomethane	0.15205	0.14757	0.14757	0.010	-2.95118	20.00000	Aver		
52 1,2-Dichloropropane	0.21582	0.21218	0.21218	0.010	-1.68529	20.00000	Aver		
53 Bromodichloromethane	0.25139	0.24458	0.24458	0.010	-2.70896	20.00000	Aver		
54 Methyl methacrylate	0.14706	0.15295	0.15295	0.010	4.00227	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00340	0.00350	0.00350	0.010	3.00390	20.00000	Aver	(M)	<-
56 2-Chloroethylvinyl ether	0.05000	0.04904	0.04904	0.010	-1.92729	20.00000	Aver		
57 cis-1,3-Dichloropropene	0.31465	0.31563	0.31563	0.010	0.31236	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.18266	1.20472	1.20472	0.010	1.86585	20.00000	Aver		
59 Toluene	1.07017	1.09391	1.09391	0.010	2.21896	20.00000	Aver		
60 2-Nitropropane	250	251	0.06654	0.010	0.30013	20.00000	Quad		
61 4-Methyl-2-pentanone (MIBK)	0.26099	0.25968	0.25968	0.010	-0.50177	20.00000	Aver		
62 Tetrachloroethene	0.27153	0.28862	0.28862	0.010	6.29392	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.37261	0.39410	0.39410	0.010	5.76836	20.00000	Aver		
64 Ethyl methacrylate	0.25552	0.25825	0.25825	0.010	1.07128	20.00000	Aver		
65 1,1,2-Trichloroethane	0.22554	0.23653	0.23653	0.010	4.87320	20.00000	Aver		
66 Dibromochloromethane	0.26987	0.28557	0.28557	0.010	5.81682	20.00000	Aver		
67 1,3-Dichloropropane	0.38597	0.40356	0.40356	0.010	4.55807	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.23422	0.25227	0.25227	0.010	7.70369	20.00000	Aver		
69 2-Hexanone	0.26044	0.26860	0.26860	0.010	3.13518	20.00000	Aver		
70 Ethylbenzene	0.39989	0.40569	0.40569	0.010	1.45217	20.00000	Aver		
72 Chlorobenzene	0.75831	0.76401	0.76401	0.300	0.75121	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	50.00000	49.51871	0.27131	0.010	-0.96258	20.00000	Quad		
74 m&p-Xylene	0.49628	0.49882	0.49882	0.010	0.51267	20.00000	Aver		
75 o-Xylene	0.48690	0.49215	0.49215	0.010	1.07763	20.00000	Aver		
76 Styrene	0.86177	0.88505	0.88505	0.010	2.70101	20.00000	Aver		
77 Bromoform	50.00000	51.35371	0.33407	0.100	2.70741	20.00000	Quad		
78 Isopropylbenzene (Cumene)	2.12604	2.19095	2.19095	0.010	3.05287	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.73005	0.71760	0.71760	0.010	-1.70488	20.00000	Aver		
80 n-Propylbenzene	2.47540	2.55598	2.55598	0.010	3.25518	20.00000	Aver		
81 Bromobenzene	0.90182	0.90347	0.90347	0.010	0.18256	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	0.55096	0.55393	0.55393	0.300	0.53935	20.00000	Aver		
83 1,3,5-Trimethylbenzene	1.79516	1.86072	1.86072	0.010	3.65183	20.00000	Aver		
84 2-Chlorotoluene	0.53720	0.54826	0.54826	0.010	2.05913	20.00000	Aver		
85 1,2,3-Trichloropropane	0.18638	0.18702	0.18702	0.010	0.34062	20.00000	Aver		

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Report Date: 15-Aug-2019 08:07

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv6a.i Injection Date: 14-AUG-2019 09:30
Lab File ID: 60814005.d Init. Cal. Date(s): 13-AUG-2019 13-AUG-2019
Analysis Type: SOIL Init. Cal. Times: 14:23 17:24
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
86 trans-1,4-Dichloro-2-butene	0.17958	0.19812	0.19812	0.010	10.32145	20.00000	Aver	
87 Cyclohexanone	0.04899	0.05826	0.05826	0.010	18.92080	20.00000	Aver	
88 4-Chlorotoluene	0.57904	0.58683	0.58683	0.010	1.34502	20.00000	Aver	
89 tert-Butylbenzene	1.59859	1.67494	1.67494	0.010	4.77598	20.00000	Aver	
90 1,2,4-Trimethylbenzene	1.88572	1.95536	1.95536	0.010	3.69339	20.00000	Aver	
91 sec-Butylbenzene	2.31977	2.46705	2.46705	0.010	6.34884	20.00000	Aver	
92 p-Isopropyltoluene	2.07351	2.21918	2.21918	0.010	7.02508	20.00000	Aver	
93 1,3-Dichlorobenzene	1.17717	1.20472	1.20472	0.010	2.34117	20.00000	Aver	
95 1,4-Dichlorobenzene	1.21549	1.24253	1.24253	0.010	2.22465	20.00000	Aver	
96 n-Butylbenzene	1.83799	2.00756	2.00756	0.010	9.22612	20.00000	Aver	
97 1,2-Dichlorobenzene	1.13824	1.15482	1.15482	0.010	1.45694	20.00000	Aver	
$ 161 1,2-Dichlorobenzene-d4 (S)	0.99998	1.00030	1.00030	0.010	0.03225	20.00000	Aver	
98 1,2-Dibromo-3-chloropropane	0.16979	0.17814	0.17814	0.010	4.91344	20.00000	Aver	
99 1,3,5-Trichlorobenzene	0.83017	0.90798	0.90798	0.010	9.37368	20.00000	Aver	
100 Hexachloro-1,3-butadiene	50.00000	54.00966	0.45322	0.010	8.01931	20.00000	Quad	
101 1,2,4-Trichlorobenzene	0.77284	0.85296	0.85296	0.010	10.36757	20.00000	Aver	
102 Naphthalene	2.16949	2.26686	2.26686	0.010	4.48815	20.00000	Aver	
103 1,2,3-Trichlorobenzene	0.68047	0.74013	0.74013	0.010	8.76777	20.00000	Aver	
104 2-Methylnaphthalene	1.04259	1.12320	1.12320	0.010	7.73142	20.00000	Aver	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.06013
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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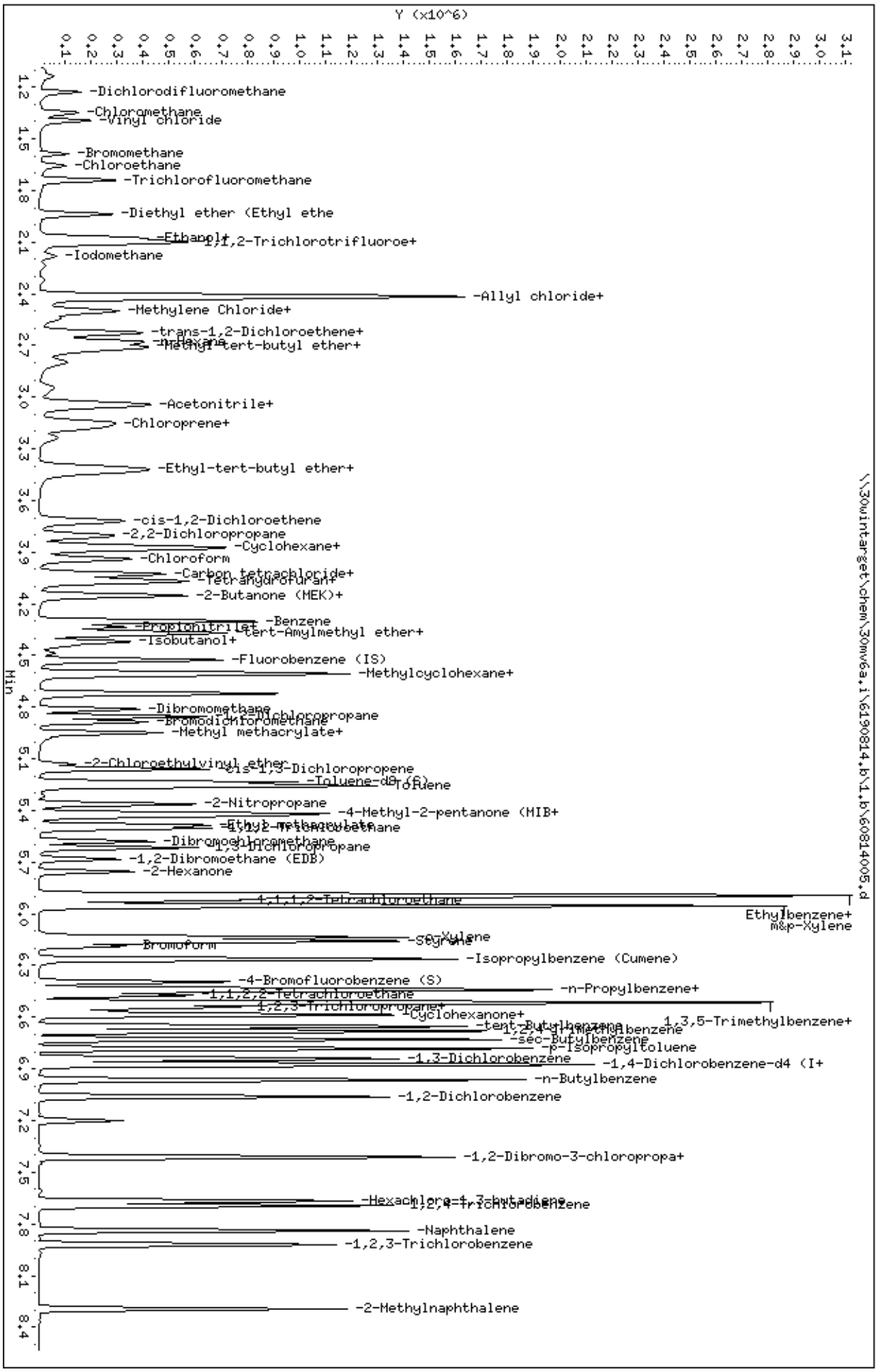
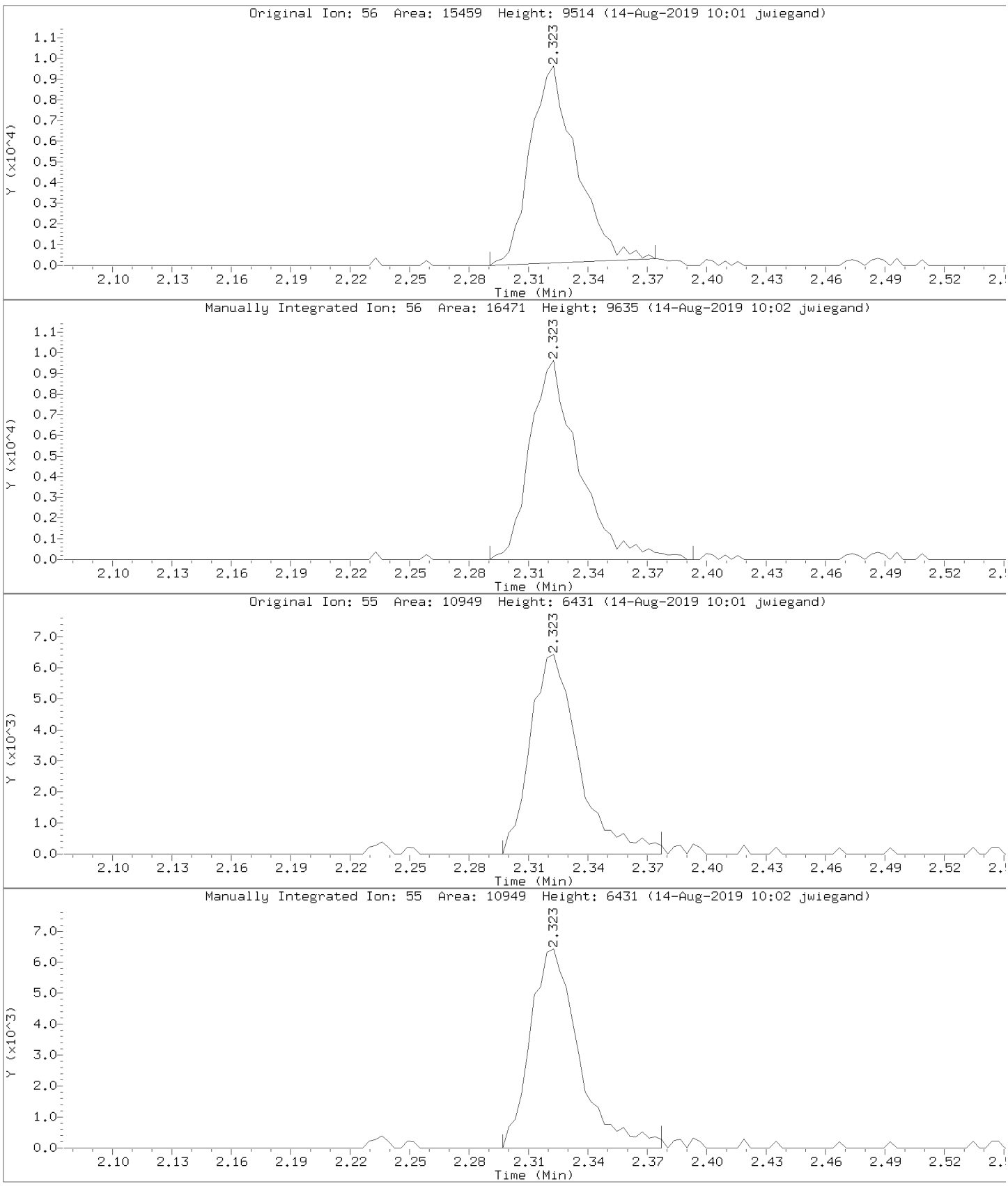

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Date : 14-AUG-2019 09:30
Client ID: CCV
Sample Info: CCV, 966661
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl tert-butyl ether+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Propionitrile
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-trans-1,3-Dichloropropene
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Ethylbenzene+
m&p-Xylene
-o-Xylene
Bromoform
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
1,3,5-Trimethylbenzene+
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

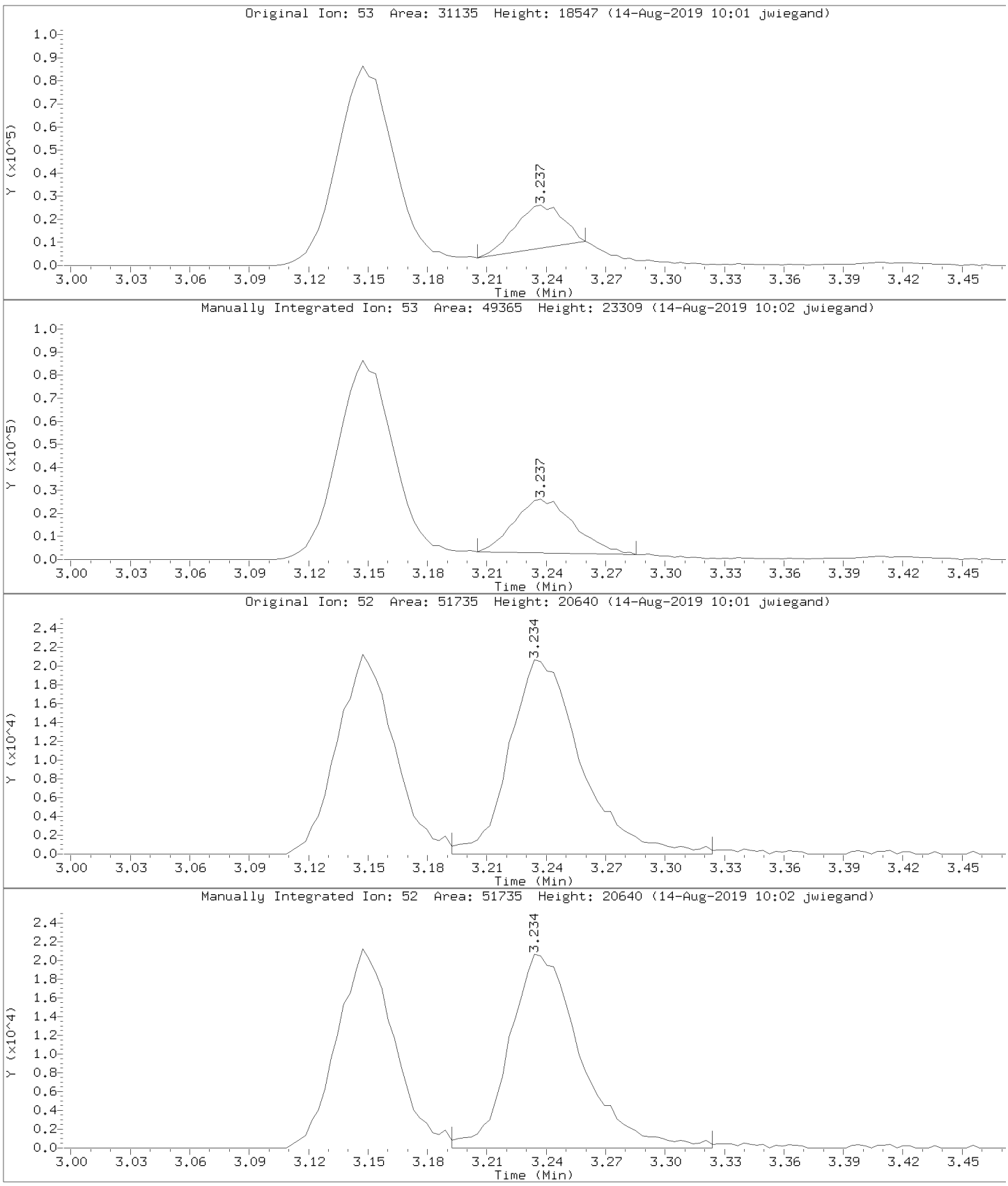
Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814005.d
Injection Date: 14-AUG-2019 09:30
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrolein Review Code: BA
CAS Number: 107-02-8



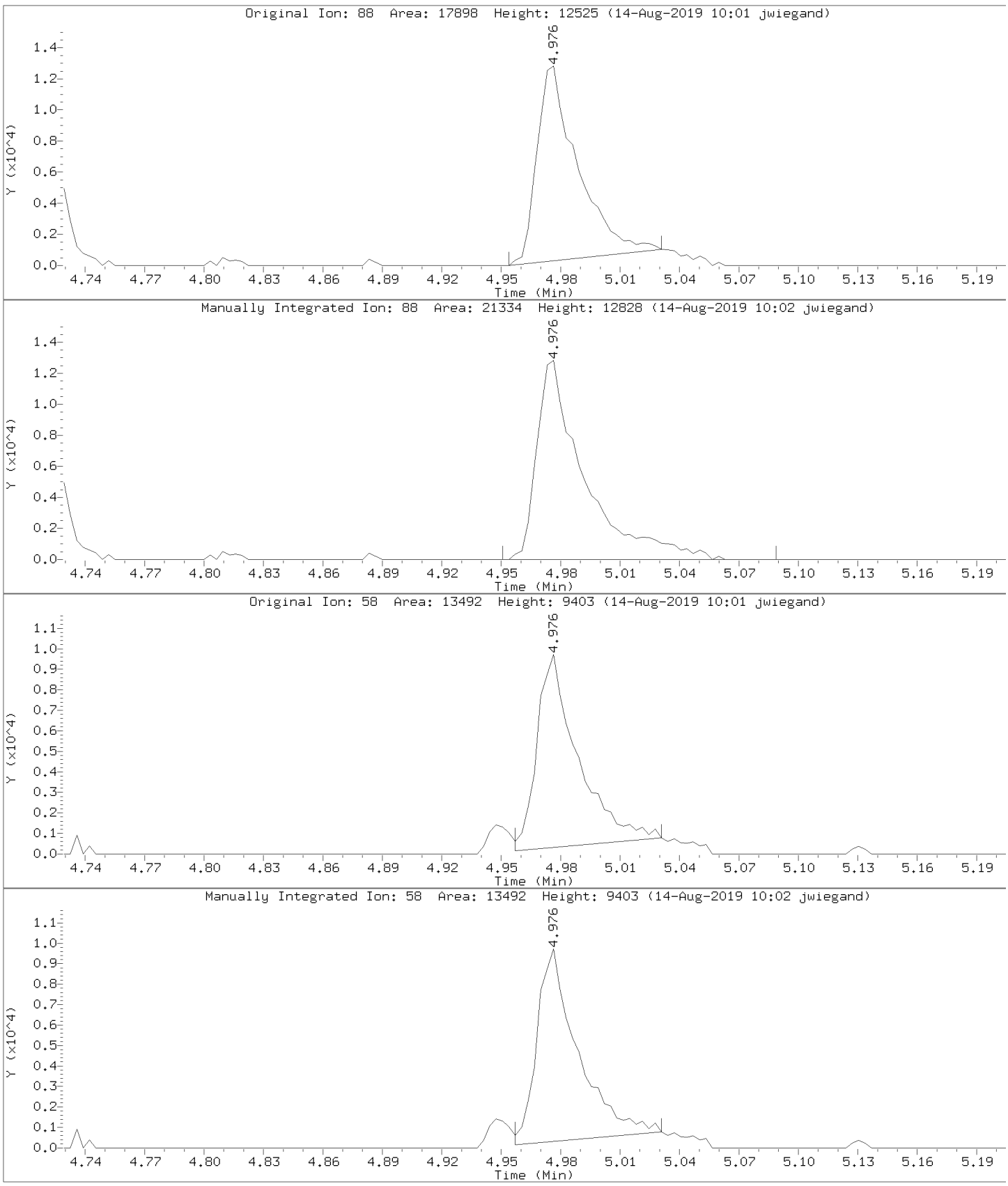
Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814005.d
Injection Date: 14-AUG-2019 09:30
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: Acrylonitrile Review Code: NI
CAS Number: 107-13-1

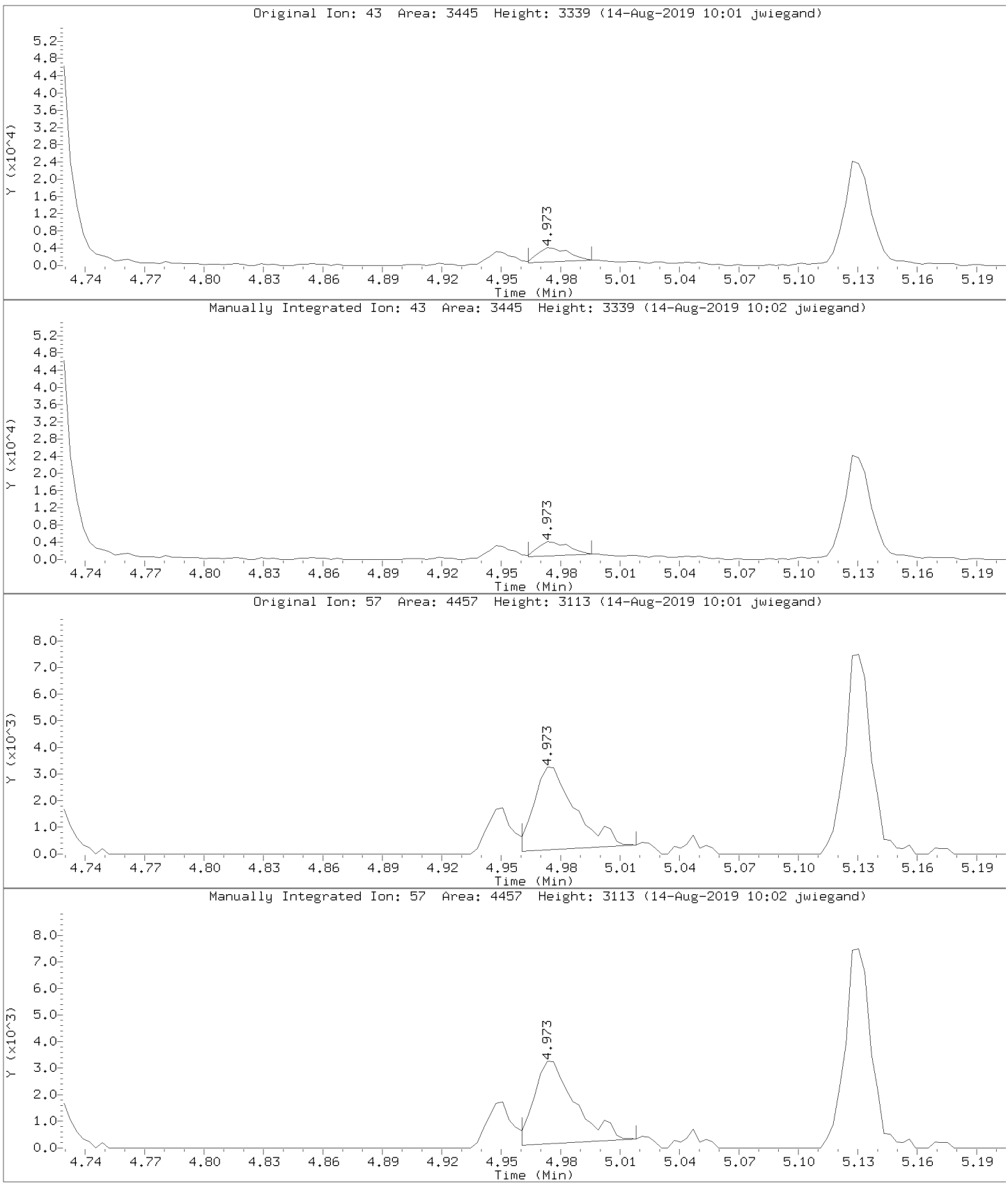


Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814005.d
Injection Date: 14-AUG-2019 09:30
Instrument: 30mv6a.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1



Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814005.d
Injection Date: 14-AUG-2019 09:30
Instrument: 30mv6a.i
Lab Sample ID: CCV



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813011.d

Date : 13-AUG-2019 13:01

Client ID: TUNE

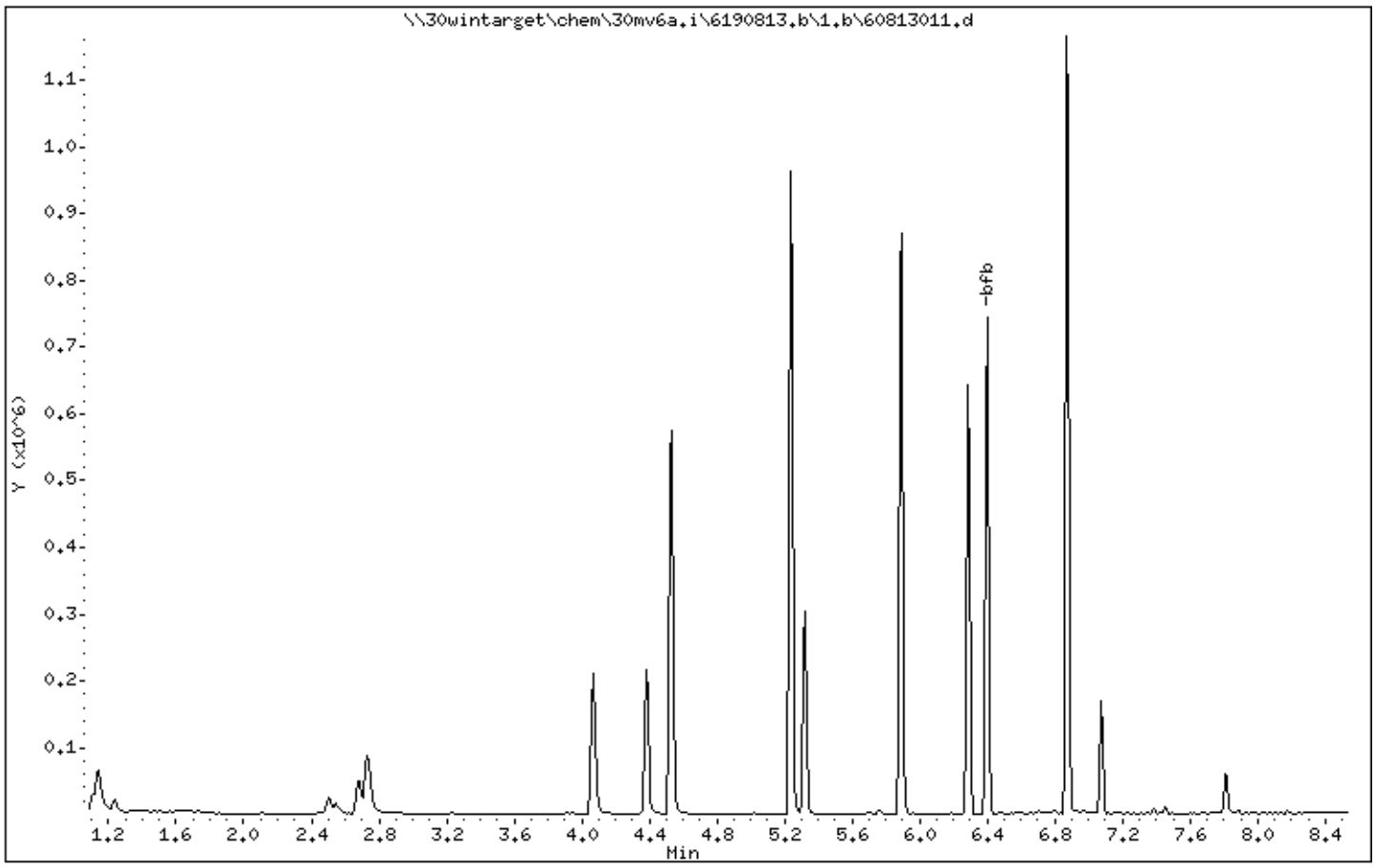
Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190813.b\1.b\60813011.d

Date : 13-AUG-2019 13:01

Client ID: TUNE

Instrument: 30mv6a.i

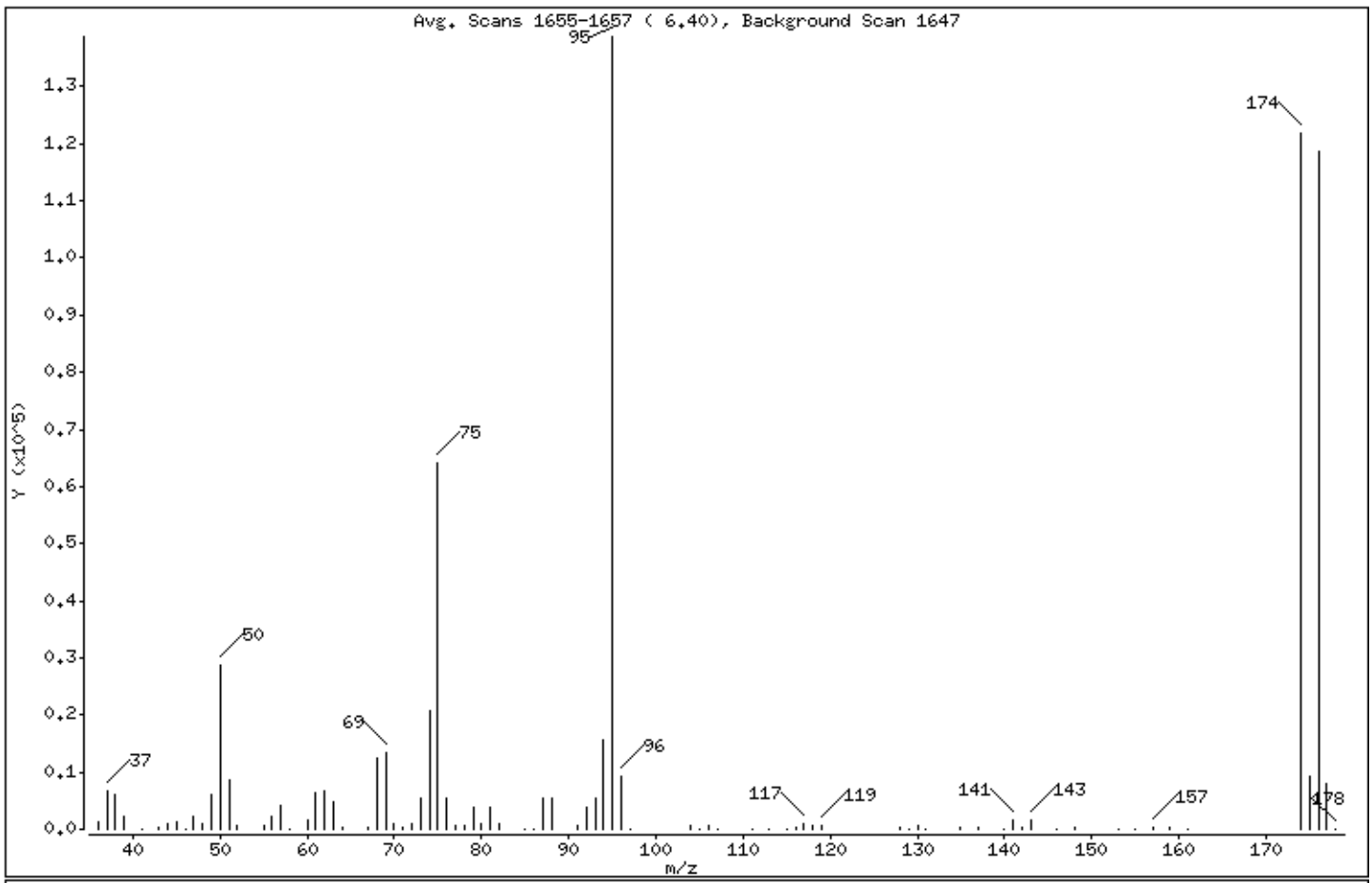
Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.64
75	30.00 - 60.00% of mass 95	46.28
96	5.00 - 9.00% of mass 95	6.71
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	87.90
175	5.00 - 9.00% of mass 174	6.56 (7.47)
176	95.00 - 101.00% of mass 174	85.44 (97.19)
177	5.00 - 9.00% of mass 176	5.70 (6.67)

Date : 13-AUG-2019 13:01

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60813011.d
Spectrum: Avg. Scans 1655-1657 (6.40), Background Scan 1647
Location of Maximum: 95.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1337	63.00	4729	91.00	624	135.00	379
37.00	6723	64.00	377	92.00	3715	137.00	266
38.00	5985	67.00	439	93.00	5523	140.00	131
39.00	2200	68.00	12390	94.00	15652	141.00	1717
41.00	92	69.00	13266	95.00	138752	142.00	221
43.00	473	70.00	1089	96.00	9306	143.00	1567
44.00	859	71.00	243	97.00	150	146.00	74
45.00	1375	72.00	875	104.00	612	148.00	351
46.00	66	73.00	5524	105.00	145	153.00	69
47.00	2289	74.00	20848	106.00	634	155.00	106
48.00	1036	75.00	64208	107.00	99	157.00	344
49.00	6072	76.00	5308	111.00	86	159.00	188
50.00	28640	77.00	758	113.00	140	161.00	156
51.00	8630	78.00	565	115.00	83	174.00	121968
52.00	501	79.00	3874	116.00	447	175.00	9107
55.00	709	80.00	1060	117.00	855	176.00	118544
56.00	2203	81.00	3881	118.00	531	177.00	7904
57.00	4050	82.00	835	119.00	718	178.00	71
58.00	118	85.00	82	128.00	440		
60.00	1546	86.00	66	129.00	81		
61.00	6486	87.00	5376	130.00	618		
62.00	6558	88.00	5279	131.00	96		

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005-bfb.d

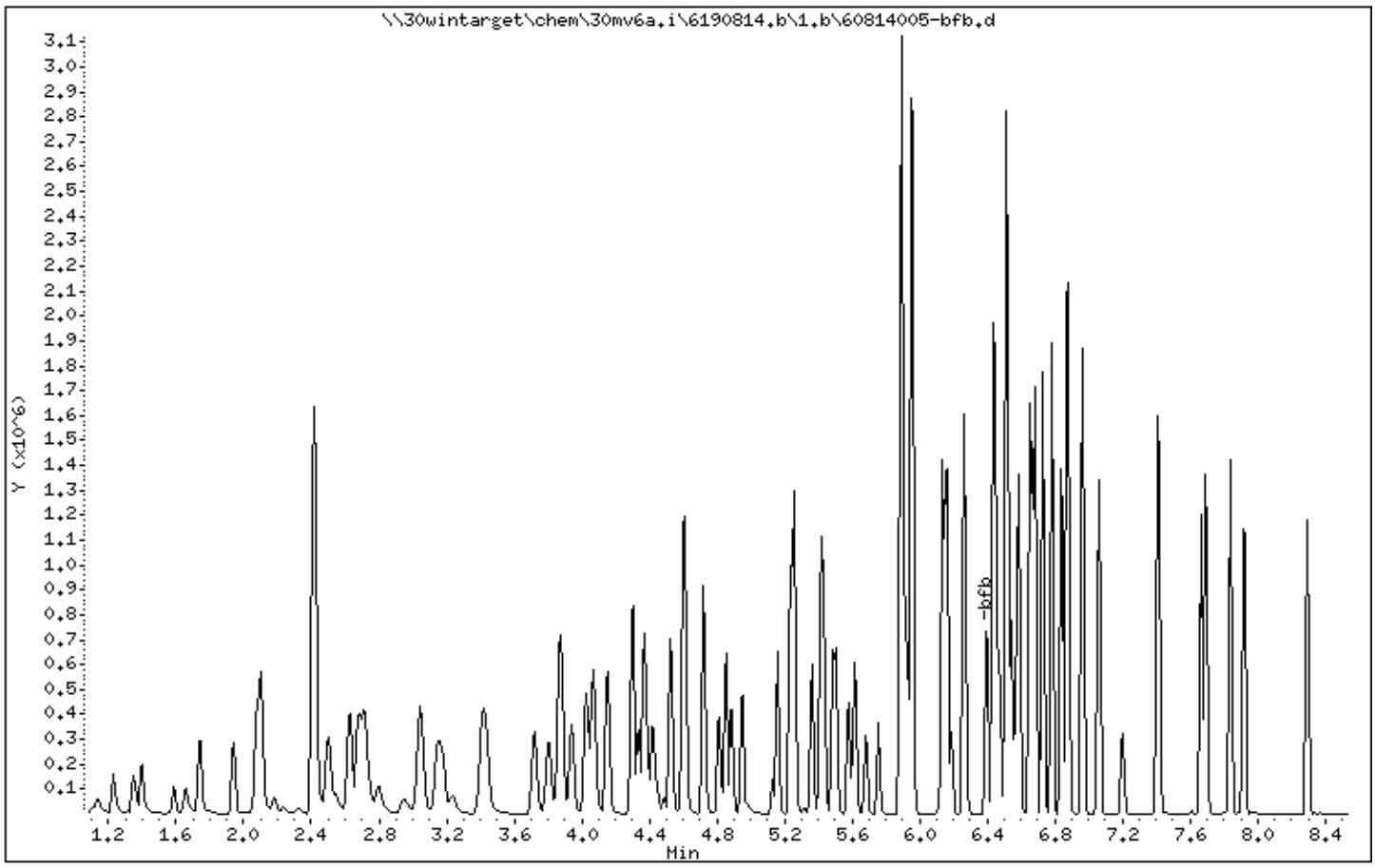
Date : 14-AUG-2019 09:30

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00



Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814005-bfb.d

Date : 14-AUG-2019 09:30

Client ID: TUNE

Instrument: 30mv6a.i

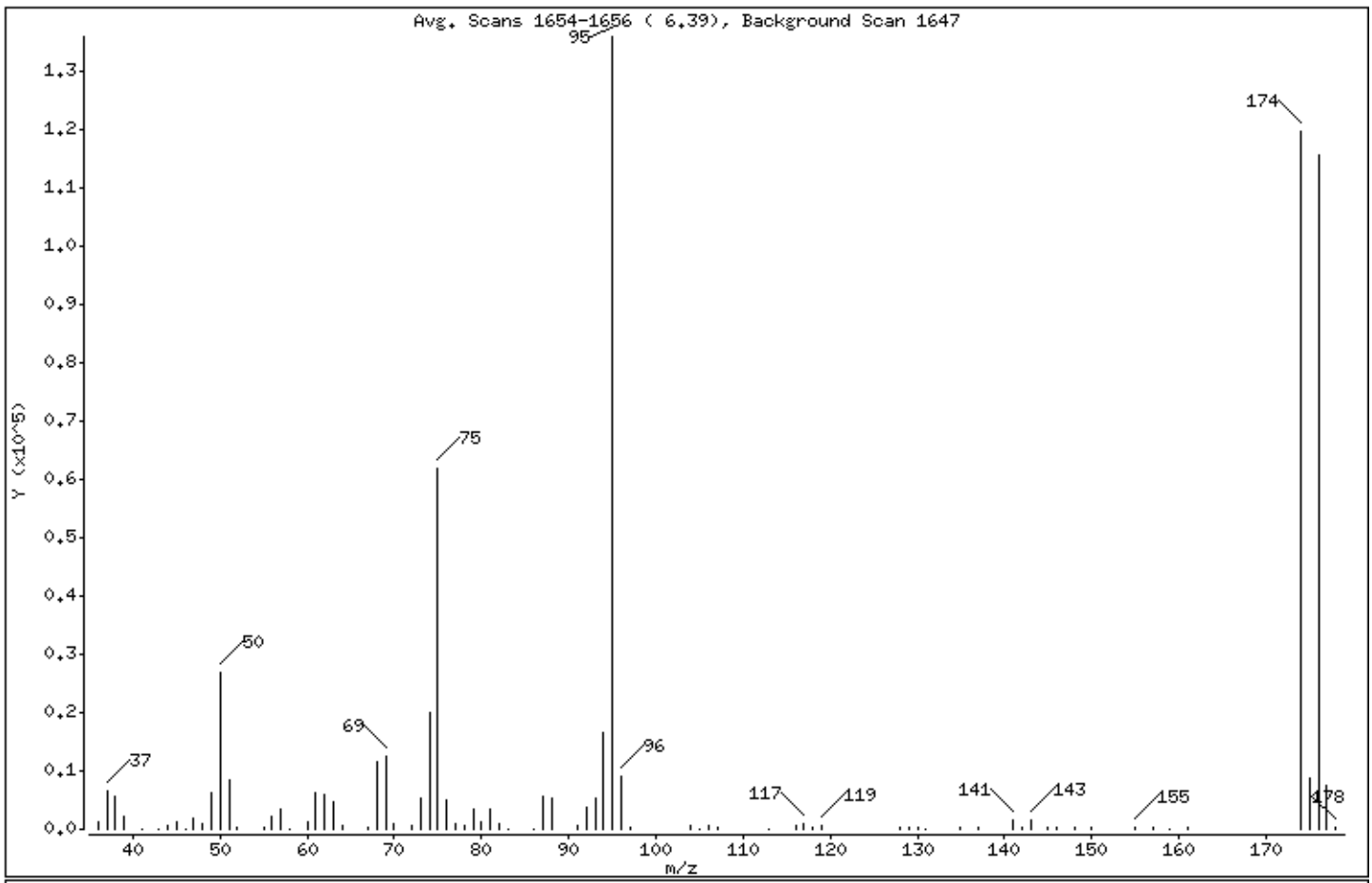
Sample Info: TUNE, 93190:10

Operator: JEW

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.72
75	30.00 - 60.00% of mass 95	45.54
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	88.01
175	5.00 - 9.00% of mass 174	6.36 (7.23)
176	95.00 - 101.00% of mass 174	85.04 (96.62)
177	5.00 - 9.00% of mass 176	5.54 (6.52)

Date : 14-AUG-2019 09:30

Client ID: TUNE Instrument: 30mv6a.i

Sample Info: TUNE, 93190:10

Operator: JEW

Column phase: Column diameter: 2.00

Data File: 60814005-bfb.d
Spectrum: Avg. Scans 1654-1656 (6.39), Background Scan 1647
Location of Maximum: 95.00
Number of points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1153	62.00	5799	88.00	5303	135.00	224
37.00	6479	63.00	4619	91.00	525	137.00	205
38.00	5677	64.00	551	92.00	3610	141.00	1699
39.00	2158	67.00	373	93.00	5335	142.00	222
41.00	73	68.00	11694	94.00	16472	143.00	1663
43.00	123	69.00	12621	95.00	135872	145.00	173
44.00	531	70.00	989	96.00	9133	146.00	161
45.00	1125	72.00	776	97.00	274	148.00	295
46.00	73	73.00	5248	104.00	638	150.00	160
47.00	2001	74.00	20048	105.00	138	155.00	468
48.00	808	75.00	61872	106.00	601	157.00	279
49.00	6177	76.00	4886	107.00	178	159.00	110
50.00	26792	77.00	860	113.00	73	161.00	197
51.00	8376	78.00	613	116.00	512	174.00	119584
52.00	375	79.00	3434	117.00	962	175.00	8647
55.00	456	80.00	1178	118.00	451	176.00	115544
56.00	2223	81.00	3583	119.00	621	177.00	7528
57.00	3501	82.00	953	128.00	453	178.00	219
58.00	92	83.00	76	129.00	251		
60.00	1390	86.00	67	130.00	402		
61.00	6319	87.00	5630	131.00	68		

SAMPLE NO.

LB

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/12/2019 12:01 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 13:24 Lab Sample ID: 1730356

Date Analyzed: 08/14/2019 13:24 Lab File ID: 6190814.B\1.B\60814023-45779.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	ND	U
78-93-3	2-Butanone (MEK)	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
67-66-3	Chloroform	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
127-18-4	Tetrachloroethene	ND	U
79-01-6	Trichloroethene	ND	U
75-01-4	Vinyl chloride	ND	U

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Lab Smp Id: 1730356 Client Smp ID: LB for HBN 356242 [
Inj Date : 14-AUG-2019 13:24
Operator : ARG Inst ID: 30mv6a.i
Smp Info : 1730356x10
Misc Info : 45779
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclpplus.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	Compound Not Detected.						
	9 1,1-Dichloroethene	61	Compound Not Detected.						
	17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
	20 Methyl-tert-butyl ether	73	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Carbon Tetrachloride	117	Compound Not Detected.						
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	88730	32.6445	32.6	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	82807	31.8673	31.9	
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	300339	30.0000		
	50 Trichloroethene	95	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	322872	29.6603	29.7	
	59 Toluene	91	5.258	5.259	(0.893)	2146	0.21786	2.18(a)	
	62 Tetrachloroethene	166	Compound Not Detected.						
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	276132	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	18261	2.61626	26.2(a)	
	70 Ethylbenzene	106	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Report Date: 15-Aug-2019 08:08

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/kg)	REVIEW C
	75	o-Xylene	106	Compound Not Detected.						
	78	Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79	4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	117322	29.5146	29.5	
	83	1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	90	1,2,4-Trimethylbenzene	105	Compound Not Detected.						
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	163348	30.0000		
	102	Naphthalene	128	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
D - User disabled compound identification.

Review Codes Legend

:

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814023-45779.d
Lab Smp Id: 1730356
Analysis Type: VOA
Quant Type: ISTD
Operator: ARG
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: LB for HBN 356
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	300339	-17.78
71 Chlorobenzene-d5	277666	138833	555332	276132	-0.55
94 1,4-Dichlorobenze	164337	82169	328674	163348	-0.60

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1730356 Client Smp ID: LB for HBN 356242 [
Level: LOW Operator: ARG
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclpplus.sub
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	32.6	108.81	0-130
$ 45 1,2-Dichloroethane	30.0	31.9	106.22	0-138
$ 58 Toluene-d8 (S)	30.0	29.7	98.87	0-124
$ 79 4-Bromofluorobenze	30.0	29.5	98.38	0-124

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

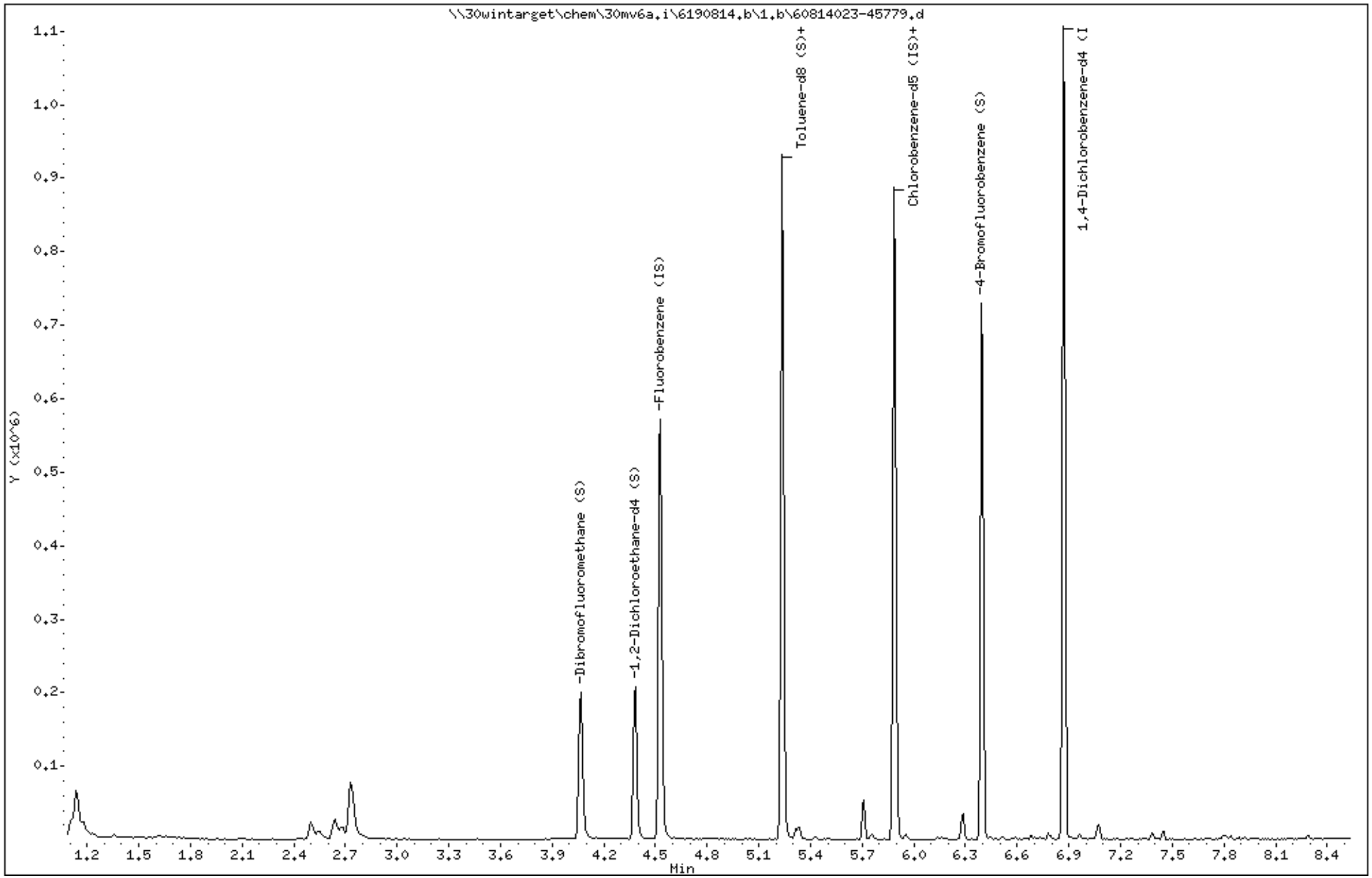
Client Name:
Lab Smp Id: 1730356
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779

Client SDG: 1.b
Client Smp ID: LB for HBN 356242 [
Sample Point:
Date Received: 12-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: ARG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
108-88-3	Toluene	2.18	J
108-90-7	Chlorobenzene	26.2	J
1868-53-7	Dibromofluoromethane (S)	32.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.9	
2037-26-5	Toluene-d8 (S)	29.7	
460-00-4	4-Bromofluorobenzene (S)	29.5	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d
Date : 14-AUG-2019 13:24
Client ID: LB for HBN 356242 [
Sample Info: 1730356x10

Instrument: 30mv6a.i
Operator: ARG
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d

Date : 14-AUG-2019 13:24

Client ID: LB for HBN 356242 [

Instrument: 30mv6a.i

Sample Info: 1730356x10

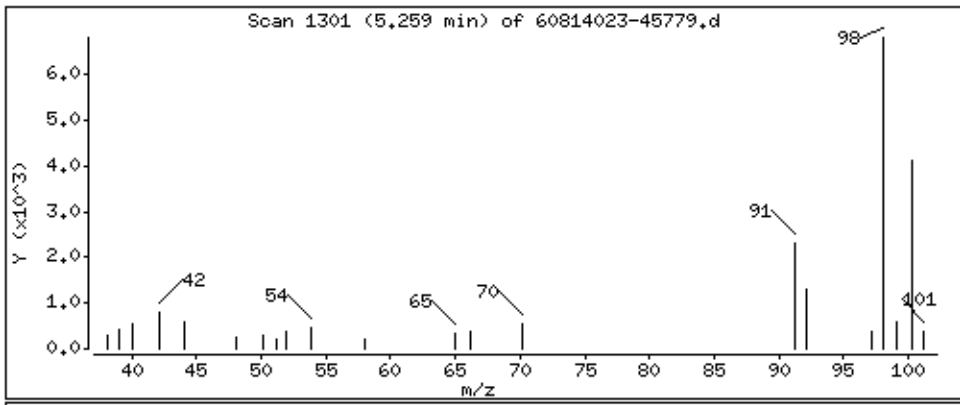
Operator: ARG

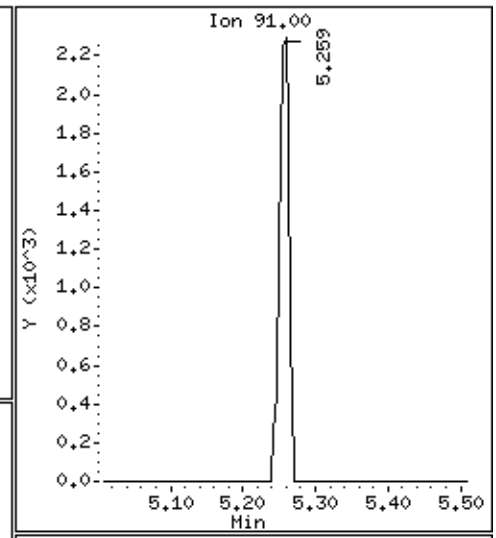
Column phase: RTX-VMS

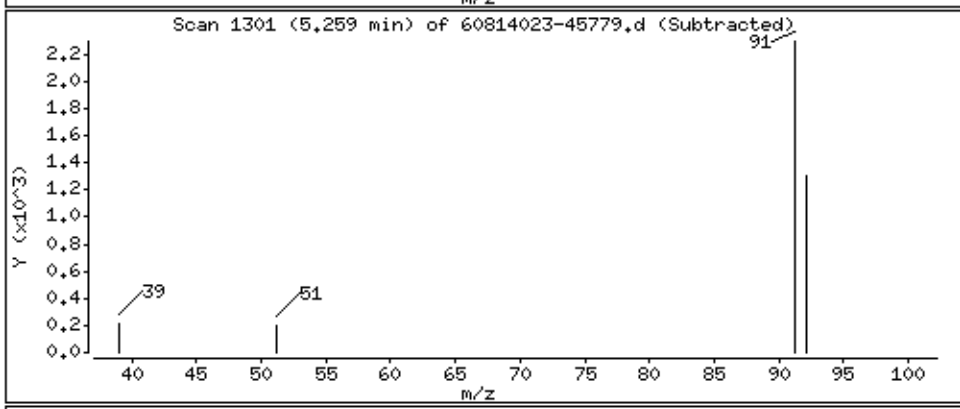
Column diameter: 0.18

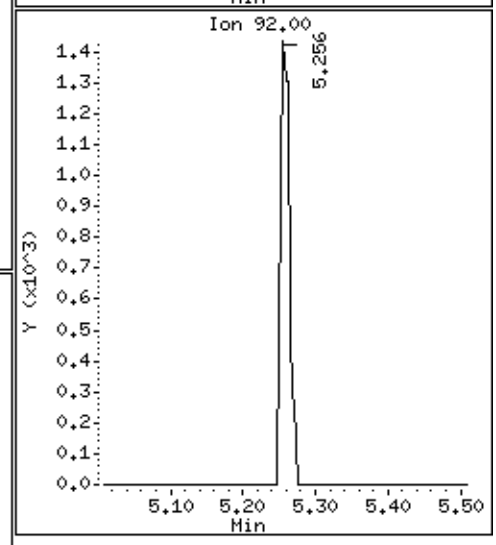
59 Toluene

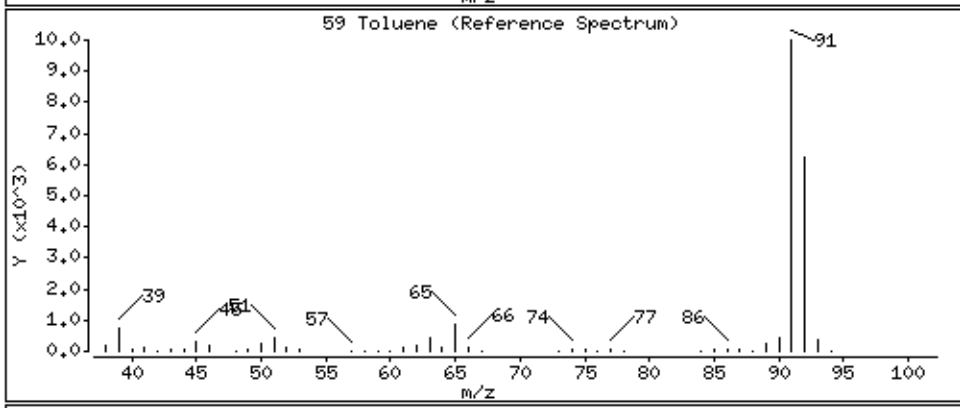
Concentration: 2.18 ug/kg

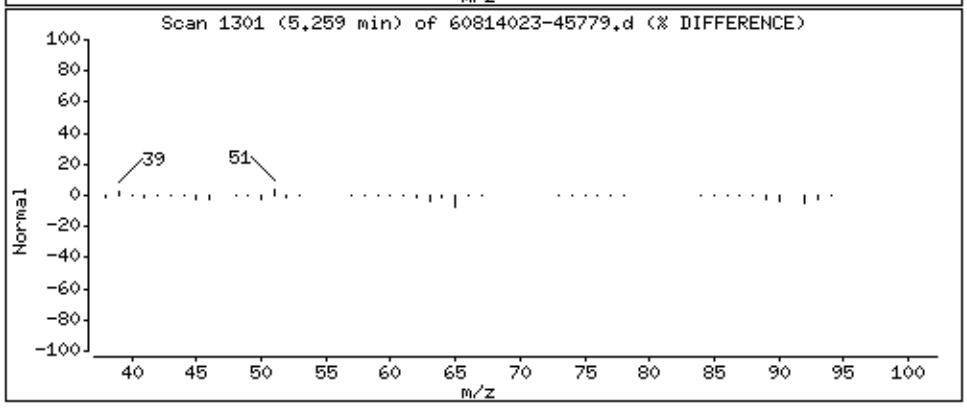












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814023-45779.d

Date : 14-AUG-2019 13:24

Client ID: LB for HBN 356242 [

Instrument: 30mv6a.i

Sample Info: 1730356x10

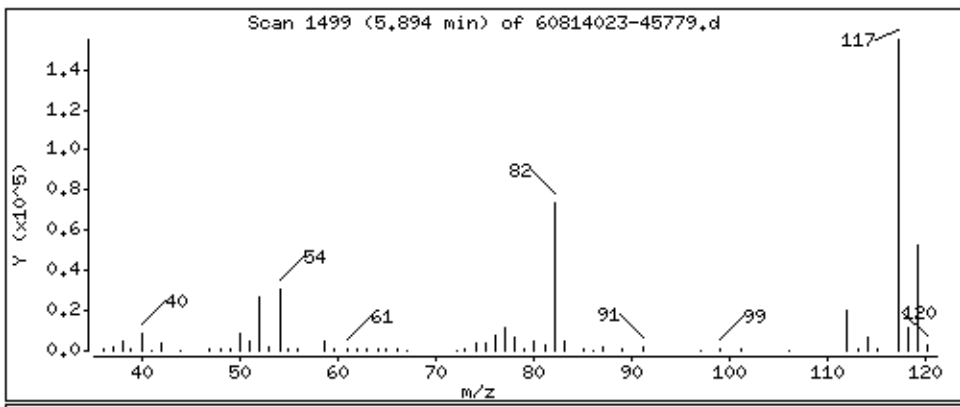
Operator: ARG

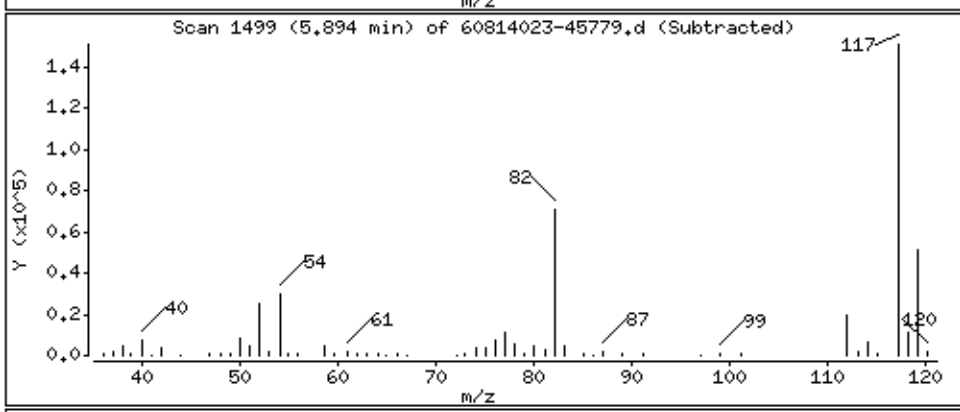
Column phase: RTX-VMS

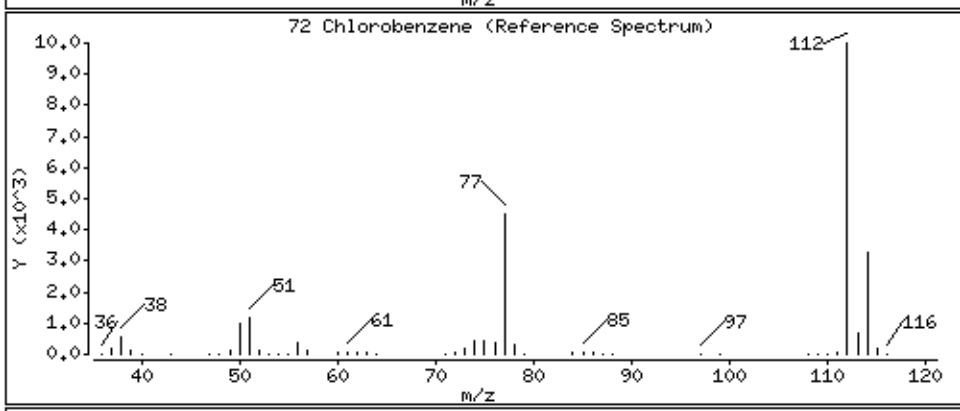
Column diameter: 0.18

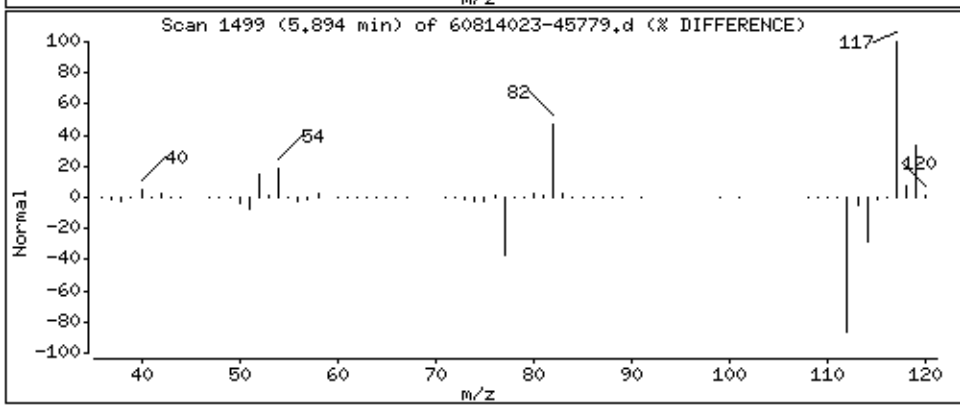
72 Chlorobenzene

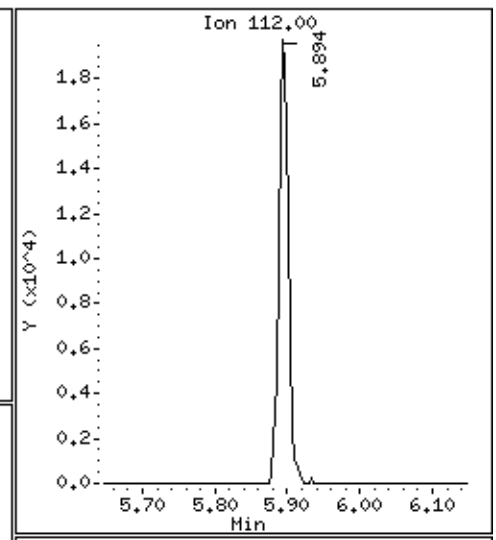
Concentration: 26.2 ug/kg

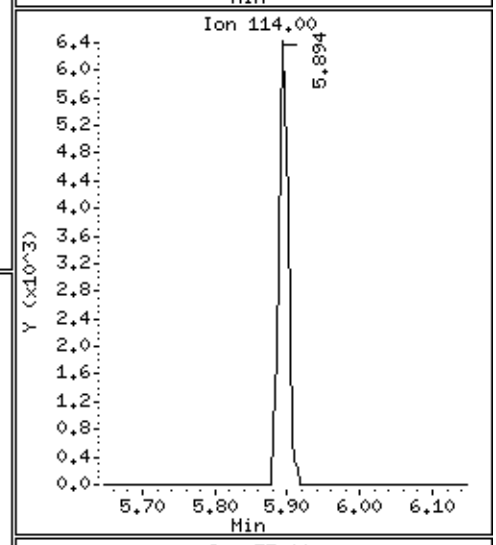


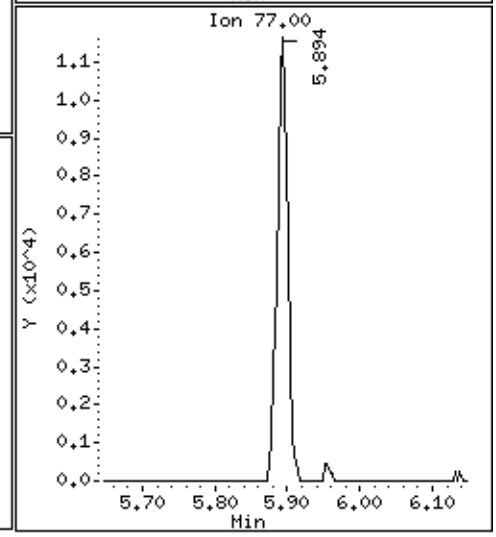












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814023-45779.d
Injection Date: 14-AUG-2019 13:24
Instrument: 30mv6a.i
Lab Sample ID: 1730356
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: Matrix: Water SDG No.: 30318799

Date Extracted: 08/14/2019 10:22 Lab Sample ID: 1731940

Date Analyzed: 08/14/2019 10:22 Lab File ID: 6190814.B\1.B\60814009-45779.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	17.3	
78-93-3	2-Butanone (MEK)	17.4	
56-23-5	Carbon tetrachloride	18.8	
108-90-7	Chlorobenzene	17.4	
67-66-3	Chloroform	17.4	
107-06-2	1,2-Dichloroethane	17.5	
75-35-4	1,1-Dichloroethene	16.2	
127-18-4	Tetrachloroethene	16.2	
79-01-6	Trichloroethene	16.9	
75-01-4	Vinyl chloride	20.4	

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Lab Smp Id: 1731940 Client Smp ID: MBLCS
Inj Date : 14-AUG-2019 10:22
Operator : JEW Inst ID: 30mv6a.i
Smp Info : 1731940,96668:5,,
Misc Info : 45779,
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	1.228	1.228	(0.271)	40718	22.6460	22.6(M)	LT
2	Chloromethane	50	1.347	1.347	(0.298)	55803	21.0419	21.0	
3	Vinyl chloride	62	1.395	1.395	(0.308)	54603	20.3751	20.4	
4	Bromomethane	94	1.587	1.585	(0.351)	12222	17.2279	17.2	
5	Chloroethane	64	1.658	1.662	(0.366)	31122	19.5757	19.6	
6	Trichlorofluoromethane	101	1.741	1.742	(0.385)	60952	19.5051	19.5	
7	Diethyl ether (Ethyl ether)	59	1.940	1.944	(0.429)	35635	16.6750	16.7	
8	Ethanol	45	2.046	2.049	(0.298)	4491		(aQR)	
9	1,1-Dichloroethene	61	2.075	2.079	(0.458)	52406	16.2445	16.2	
10	1,1,2-Trichlorotrifluoroethane	151	2.094	2.097	(0.463)	24129	16.8192	16.8(Q)	
11	Carbon disulfide	76	2.104	2.104	(0.465)	94131	15.7197	15.7	
12	Iodomethane	142	2.184	2.181	(0.483)	16576	14.4647	14.5(R)	
13	Acrolein	56	2.316	2.326	(0.512)	7243	21.6716	21.7(M)	NI
14	Allyl chloride	41	2.415	2.419	(0.534)	290659	70.4257	70.4(R)	
15	Methylene Chloride	49	2.502	2.502	(0.553)	69573	13.7422	13.7(R)	
16	Acetone	43	2.544	2.554	(0.562)	35415	27.1047	27.1(QR)	
17	trans-1,2-Dichloroethene	61	2.627	2.627	(0.580)	51340	16.1559	16.2	
18	Methyl acetate	74	2.643	2.640	(0.584)	10326	22.7709	22.8	
19	n-Hexane	86	2.675	2.682	(0.591)	7773		(aQR)	
20	Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	106620	17.0048	17.0(Q)	
21	tert-Butyl Alcohol	59	2.797	2.798	(0.618)	48985	96.6450	96.6(Q)	
22	Acetonitrile	41	2.951	2.955	(0.652)	34365	104.571	104(QR)	
23	Diisopropyl ether	45	3.041	3.054	(0.672)	110793	15.1628	15.2	

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	3.147	3.147	(0.695)	52524	17.1035	17.1	
	25 1,1-Dichloroethane	63	3.173	3.179	(0.701)	70908	17.1109	17.1	
	26 Acrylonitrile	53	3.240	3.247	(0.716)	17163	15.5888	15.6(M)	LT
	27 Ethyl-tert-butyl ether	59	3.416	3.427	(0.755)	104727	15.1495	15.1	
	28 Vinyl acetate	43	3.432	3.439	(0.758)	55295	9.88085	9.88(R)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	57609	16.1402	16.1	
	30 2,2-Dichloropropane	77	3.805	3.805	(0.841)	51623	16.6248	16.6	
	31 Cyclohexane	56	3.869	3.876	(0.855)	68827	18.0391	18.0	
	32 Bromochloromethane	130	3.882	3.882	(0.858)	31243	19.0211	19.0	
	33 Chloroform	83	3.943	3.943	(0.871)	67219	17.3845	17.4	
	34 Carbon tetrachloride	117	4.026	4.022	(0.889)	50019	18.7953	18.8	
	35 Ethyl acetate	43	4.029	4.038	(0.890)	39418	14.8365	14.8	
	36 Tetrahydrofuran	42	4.055	4.054	(0.896)	24387	18.6343	18.6	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	95687	32.8045	32.8	
	38 1,1,1-Trichloroethane	97	4.071	4.075	(0.899)	58118	17.4344	17.4	
	39 2-Butanone (MEK)	43	4.148	4.158	(0.916)	27833	17.3840	17.4(M)	LT
	40 1,1-Dichloropropene	75	4.151	4.152	(0.917)	48215	17.4050	17.4	
	41 Benzene	78	4.302	4.306	(0.950)	148099	17.3383	17.3	
	42 Propionitrile	54	4.331	4.335	(0.957)	9055	17.9158	17.9(Q)	
	43 Methacrylonitrile	41	4.334	4.341	(0.957)	27636	17.8304	17.8	
	44 tert-Amylmethyl ether	73	4.369	4.373	(0.965)	85410	14.9649	15.0	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	91297	32.7398	32.7	
	46 Isobutanol	43	4.443	4.447	(0.982)	14994	91.9352	91.9(R)	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	53799	17.5197	17.5	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	322308	30.0000		
	49 Methylcyclohexane	83	4.600	4.601	(1.016)	49578	16.0490	16.0	
	50 Trichloroethene	95	4.610	4.614	(0.783)	40179	16.8612	16.9	
	51 Dibromomethane	174	4.812	4.816	(1.063)	29945	18.3307	18.3	
	52 1,2-Dichloropropane	63	4.854	4.854	(1.072)	40994	17.6800	17.7	
	53 Bromodichloromethane	83	4.886	4.887	(1.079)	51415	19.0366	19.0	
	54 Methyl methacrylate	69	4.950	4.954	(1.094)	25303	16.0148	16.0	
	55 1,4-Dioxane (p-Dioxane)	88	4.976	4.980	(1.099)	6143	168.074	168(QR)	
	56 2-Chloroethylvinyl ether	63	5.130	5.134	(1.133)	20650	38.4419	38.4(R)	
	57 cis-1,3-Dichloropropene	75	5.159	5.163	(1.140)	58474	17.2977	17.3	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	315963	28.6961	28.7	
	59 Toluene	91	5.258	5.259	(0.893)	169312	16.9935	17.0	
	60 2-Nitropropane	43	5.361	5.365	(1.184)	52937	87.3319	87.3(R)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.412	5.419	(1.196)	49047	17.4923	17.5	
	62 Tetrachloroethene	166	5.422	5.426	(0.921)	41052	16.2392	16.2	
	63 trans-1,3-Dichloropropene	75	5.432	5.435	(0.923)	53637	15.4616	15.5	
	64 Ethyl methacrylate	41	5.486	5.490	(0.932)	39494	16.6019	16.6	
	65 1,1,2-Trichloroethane	97	5.502	5.503	(0.935)	34003	16.1933	16.2	
	66 Dibromochloromethane	129	5.579	5.583	(0.948)	40979	16.3100	16.3	
	67 1,3-Dichloropropane	76	5.618	5.618	(0.954)	57910	16.1155	16.1	
	68 1,2-Dibromoethane (EDB)	107	5.682	5.686	(0.965)	36690	16.8252	16.8	
	69 2-Hexanone	43	5.756	5.759	(0.978)	42505	17.5299	17.5	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	66710	17.9184	17.9	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	279303	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	122619	17.3682	17.4	
	73 1,1,1,2-Tetrachloroethane	131	5.919	5.920	(1.005)	37486	16.5471	16.5	
	74 m&p-Xylene	106	5.955	5.955	(1.011)	159542	34.5299	34.5	
	75 o-Xylene	106	6.138	6.141	(1.043)	79690	17.5795	17.6	
	76 Styrene	104	6.160	6.164	(1.046)	139591	17.3985	17.4	
	77 Bromoform	173	6.189	6.189	(0.901)	26629	16.7286	16.7	

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	210552	18.0403	18.0	
$	79 4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	119967	29.9343	29.9	
	80 n-Propylbenzene	91	6.436	6.440	(0.937)	242904	17.8750	17.9	
	81 Bromobenzene	77	6.446	6.449	(0.938)	86560	17.4845	17.5	
	82 1,1,2,2-Tetrachloroethane	83	6.471	6.475	(0.942)	51057	16.8809	16.9	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	170717	17.3232	17.3	
	84 2-Chlorotoluene	126	6.516	6.523	(0.949)	50971	17.2841	17.3	
	85 1,2,3-Trichloropropane	110	6.539	6.542	(0.952)	17704	17.3031	17.3	
	86 trans-1,4-Dichloro-2-butene	53	6.545	6.549	(0.953)	14742	14.9536	15.0	
	87 Cyclohexanone	55	6.568	6.571	(0.956)	22855	84.9845	85.0(R)	
	88 4-Chlorotoluene	126	6.587	6.590	(0.959)	54847	17.2544	17.2	
	89 tert-Butylbenzene	119	6.654	6.658	(0.969)	158205	18.0277	18.0	
	90 1,2,4-Trimethylbenzene	105	6.683	6.687	(0.973)	184324	17.8058	17.8	
	91 sec-Butylbenzene	105	6.728	6.732	(0.979)	230987	18.1384	18.1	
	92 p-Isopropyltoluene	119	6.783	6.786	(0.987)	206318	18.1254	18.1	
	93 1,3-Dichlorobenzene	146	6.840	6.844	(0.996)	112792	17.4541	17.4	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	164689	30.0000		
	95 1,4-Dichlorobenzene	146	6.876	6.879	(1.001)	116374	17.4405	17.4	
	96 n-Butylbenzene	91	6.965	6.969	(1.014)	180175	17.8570	17.8	
	97 1,2-Dichlorobenzene	146	7.062	7.065	(1.028)	111309	17.8137	17.8	
$	161 1,2-Dichlorobenzene-d4 (S)	152	6.869	6.873	(1.000)	164687	30.0002	30.0	
	98 1,2-Dibromo-3-chloropropane	157	7.405	7.409	(1.078)	17564	18.8432	18.8	
	99 1,3,5-Trichlorobenzene	180	7.411	7.418	(1.079)	80668	17.7008	17.7	
	100 Hexachloro-1,3-butadiene	225	7.665	7.669	(1.116)	36562	14.3050	14.3	
	101 1,2,4-Trichlorobenzene	180	7.694	7.698	(1.120)	74613	17.5866	17.6	
	102 Naphthalene	128	7.838	7.842	(1.141)	227507	19.1026	19.1	
	103 1,2,3-Trichlorobenzene	180	7.918	7.922	(1.153)	70844	18.9650	19.0	
	104 2-Methylnaphthalene	142	8.294	8.294	(1.207)	121781	21.2776	21.3	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814009-45779.d
Lab Smp Id: 1731940
Analysis Type: VOA
Quant Type: ISTD
Operator: JEW
Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: MBLCS
Level: LOW
Sample Type: WATER
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779,

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	322308	-11.77
71 Chlorobenzene-d5	277666	138833	555332	279303	0.59
94 1,4-Dichlorobenze	164337	82169	328674	164689	0.21

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Liquid Fraction: VOA
Lab Smp Id: 1731940 Client Smp ID: MBLCS
Level: LOW Operator: JEW
Data Type: MS DATA SampleType: LCS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779,

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	20.0	22.6	113.23	70-130
2 Chloromethane	20.0	21.0	105.21	70-130
3 Vinyl chloride	20.0	20.4	101.88	70-130
4 Bromomethane	20.0	17.2	86.14	70-130
5 Chloroethane	20.0	19.6	97.88	70-130
6 Trichlorofluoromet	20.0	19.5	97.53	70-130
8 Ethanol	200	0.000	0.00*	10-175
9 1,1-Dichloroethene	20.0	16.2	81.22	70-130
10 1,1,2-Trichlorotri	20.0	16.8	84.10	50-150
11 Carbon disulfide	20.0	15.7	78.60	70-130
12 Iodomethane	50.0	14.5	28.93*	70-130
13 Acrolein	20.0	21.7	108.36	70-130
14 Allyl chloride	50.0	70.4	140.85*	70-130
15 Methylene Chloride	20.0	13.7	68.71*	70-130
16 Acetone	20.0	27.1	135.52*	70-130
17 trans-1,2-Dichloro	20.0	16.2	80.78	70-130
18 Methyl acetate	20.0	22.8	113.85	70-130
19 n-Hexane	20.0	0.000	0.00*	50-150
20 Methyl-tert-butyl	20.0	17.0	85.02	50-150
22 Acetonitrile	50.0	104	209.14*	70-130
23 Diisopropyl ether	20.0	15.2	75.81	70-130
24 Chloroprene	20.0	17.1	85.52	70-130
25 1,1-Dichloroethane	20.0	17.1	85.55	70-130
26 Acrylonitrile	20.0	15.6	77.94	70-130
27 Ethyl-tert-butyl e	20.0	15.1	75.75	50-150
28 Vinyl acetate	20.0	9.88	49.40*	70-130
29 cis-1,2-Dichloroet	20.0	16.1	80.70	70-130
30 2,2-Dichloropropan	20.0	16.6	83.12	70-130
31 Cyclohexane	20.0	18.0	90.20	70-130
32 Bromochloromethane	20.0	19.0	95.11	70-130
33 Chloroform	20.0	17.4	86.92	70-130
34 Carbon tetrachlori	20.0	18.8	93.98	70-130
35 Ethyl acetate	20.0	14.8	74.18	70-130
36 Tetrahydrofuran	20.0	18.6	93.17	70-130
38 1,1,1-Trichloroeth	20.0	17.4	87.17	70-130
39 2-Butanone (MEK)	20.0	17.4	86.92	50-150
40 1,1-Dichloropropen	20.0	17.4	87.02	70-130
41 Benzene	20.0	17.3	86.69	70-130
42 Propionitrile	20.0	17.9	89.58	70-130
43 Methacrylonitrile	20.0	17.8	89.15	70-130

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
44	tert-Amylmethyl et	20.0	15.0	74.82	50-150
46	Isobutanol	20.0	91.9	459.68*	70-130
47	1,2-Dichloroethane	20.0	17.5	87.60	70-130
49	Methylcyclohexane	20.0	16.0	80.25	70-130
50	Trichloroethene	20.0	16.9	84.31	70-130
51	Dibromomethane	20.0	18.3	91.65	70-130
52	1,2-Dichloropropan	20.0	17.7	88.40	70-130
53	Bromodichlorometha	20.0	19.0	95.18	70-130
54	Methyl methacrylat	20.0	16.0	80.07	70-130
55	1,4-Dioxane (p-Dio	20.0	168	840.37*	50-150
56	2-Chloroethylvinyl	20.0	38.4	192.21*	50-150
57	cis-1,3-Dichloropr	20.0	17.3	86.49	70-130
59	Toluene	20.0	17.0	84.97	70-130
60	2-Nitropropane	50.0	87.3	174.66*	70-130
61	4-Methyl-2-pentano	20.0	17.5	87.46	50-150
62	Tetrachloroethene	20.0	16.2	81.20	70-130
63	trans-1,3-Dichloro	20.0	15.5	77.31	70-130
64	Ethyl methacrylate	20.0	16.6	83.01	70-130
65	1,1,2-Trichloroeth	20.0	16.2	80.97	70-130
66	Dibromochlorometha	20.0	16.3	81.55	70-130
67	1,3-Dichloropropan	20.0	16.1	80.58	70-130
69	2-Hexanone	20.0	17.5	87.65	70-130
70	Ethylbenzene	20.0	17.9	89.59	70-130
72	Chlorobenzene	20.0	17.4	86.84	70-130
73	1,1,1,2-Tetrachlor	20.0	16.5	82.74	70-130
74	m&p-Xylene	40.0	34.5	86.32	50-150
75	o-Xylene	20.0	17.6	87.90	70-130
76	Styrene	20.0	17.4	86.99	70-130
77	Bromoform	20.0	16.7	83.64	70-130
80	n-Propylbenzene	20.0	17.9	89.37	70-130
81	Bromobenzene	20.0	17.5	87.42	70-130
82	1,1,2,2-Tetrachlor	20.0	16.9	84.40	70-130
83	1,3,5-Trimethylben	20.0	17.3	86.62	70-130
84	2-Chlorotoluene	20.0	17.3	86.42	70-130
85	1,2,3-Trichloropro	20.0	17.3	86.52	70-130
86	trans-1,4-Dichloro	20.0	15.0	74.77	50-150
87	Cyclohexanone	50.0	85.0	169.97*	70-130
88	4-Chlorotoluene	20.0	17.2	86.27	70-130
90	1,2,4-Trimethylben	20.0	17.8	89.03	70-130
92	p-Isopropyltoluene	20.0	18.1	90.63	50-150
93	1,3-Dichlorobenzen	20.0	17.4	87.27	70-130
95	1,4-Dichlorobenzen	20.0	17.4	87.20	70-130
97	1,2-Dichlorobenzen	20.0	17.8	89.07	70-130
98	1,2-Dibromo-3-chlo	20.0	18.8	94.22	70-130
100	Hexachloro-1,3-but	20.0	14.3	71.52	50-150
101	1,2,4-Trichloroben	20.0	17.6	87.93	70-130
102	Naphthalene	20.0	19.1	95.51	70-130
103	1,2,3-Trichloroben	20.0	19.0	94.83	70-130

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	32.8	109.35	70-130

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	32.7	109.13	70-130
$ 58 Toluene-d8 (S)	30.0	28.7	95.65	70-130
$ 79 4-Bromofluorobenze	30.0	29.9	99.78	70-130
$ 161 1,2-Dichlorobenzen	30.0	30.0	100.00	10-200

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1731940
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Dichlorodifluoromethane	22.6	
74-87-3	Chloromethane	21.0	
75-01-4	Vinyl chloride	20.4	
74-83-9	Bromomethane	17.2	
75-00-3	Chloroethane	19.6	
75-69-4	Trichlorofluoromethane	19.5	
60-29-7	Diethyl ether (Ethyl ether)	16.7	
64-17-5	Ethanol	0.000	J
75-35-4	1,1-Dichloroethene	16.2	
76-13-1	1,1,2-Trichlorotrifluoroetha	16.8	
75-15-0	Carbon disulfide	15.7	
74-88-4	Iodomethane	14.5	
107-02-8	Acrolein	21.7	
107-05-1	Allyl chloride	70.4	
75-09-2	Methylene Chloride	13.7	
67-64-1	Acetone	27.1	
156-60-5	trans-1,2-Dichloroethene	16.2	
79-20-9	Methyl acetate	22.8	
110-54-3	n-Hexane	0.000	J
1634-04-4	Methyl-tert-butyl ether	17.0	
75-65-0	tert-Butyl Alcohol	96.6	
75-05-8	Acetonitrile	104	
108-20-3	Diisopropyl ether	15.2	
126-99-8	Chloroprene	17.1	
75-34-3	1,1-Dichloroethane	17.1	
107-13-1	Acrylonitrile	15.6	
637-92-3	Ethyl-tert-butyl ether	15.1	
108-05-4	Vinyl acetate	9.88	
156-59-2	cis-1,2-Dichloroethene	16.1	
594-20-7	2,2-Dichloropropane	16.6	
110-82-7	Cyclohexane	18.0	
74-97-5	Bromochloromethane	19.0	
67-66-3	Chloroform	17.4	
56-23-5	Carbon tetrachloride	18.8	
141-78-6	Ethyl acetate	14.8	
109-99-9	Tetrahydrofuran	18.6	
71-55-6	1,1,1-Trichloroethane	17.4	
78-93-3	2-Butanone (MEK)	17.4	
563-58-6	1,1-Dichloropropene	17.4	
71-43-2	Benzene	17.3	
107-12-0	Propionitrile	17.9	
126-98-7	Methacrylonitrile	17.8	

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1731940
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	15.0	
78-83-1	Isobutanol	91.9	
107-06-2	1,2-Dichloroethane	17.5	
108-87-2	Methylcyclohexane	16.0	
79-01-6	Trichloroethene	16.9	
74-95-3	Dibromomethane	18.3	
78-87-5	1,2-Dichloropropane	17.7	
75-27-4	Bromodichloromethane	19.0	
80-62-6	Methyl methacrylate	16.0	
123-91-1	1,4-Dioxane (p-Dioxane)	168	
110-75-8	2-Chloroethylvinyl ether	38.4	
10061-01-5	cis-1,3-Dichloropropene	17.3	
108-88-3	Toluene	17.0	
79-46-9	2-Nitropropane	87.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5	
127-18-4	Tetrachloroethene	16.2	
10061-02-6	trans-1,3-Dichloropropene	15.5	
97-63-2	Ethyl methacrylate	16.6	
79-00-5	1,1,2-Trichloroethane	16.2	
124-48-1	Dibromochloromethane	16.3	
142-28-9	1,3-Dichloropropane	16.1	
106-93-4	1,2-Dibromoethane (EDB)	16.8	
591-78-6	2-Hexanone	17.5	
100-41-4	Ethylbenzene	17.9	
108-90-7	Chlorobenzene	17.4	
630-20-6	1,1,1,2-Tetrachloroethane	16.5	
7816-60-0	m&p-Xylene	34.5	
95-47-6	o-Xylene	17.6	
100-42-5	Styrene	17.4	
75-25-2	Bromoform	16.7	
98-82-8	Isopropylbenzene (Cumene)	18.0	
103-65-1	n-Propylbenzene	17.9	
108-86-1	Bromobenzene	17.5	
79-34-5	1,1,2,2-Tetrachloroethane	16.9	
108-67-8	1,3,5-Trimethylbenzene	17.3	
95-49-8	2-Chlorotoluene	17.3	
96-18-4	1,2,3-Trichloropropane	17.3	
110-57-6	trans-1,4-Dichloro-2-butene	15.0	
108-94-1	Cyclohexanone	85.0	
106-43-4	4-Chlorotoluene	17.2	
98-06-6	tert-Butylbenzene	18.0	
95-63-6	1,2,4-Trimethylbenzene	17.8	

Data File: ...arget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Report Date: 15-Aug-2019 08:08

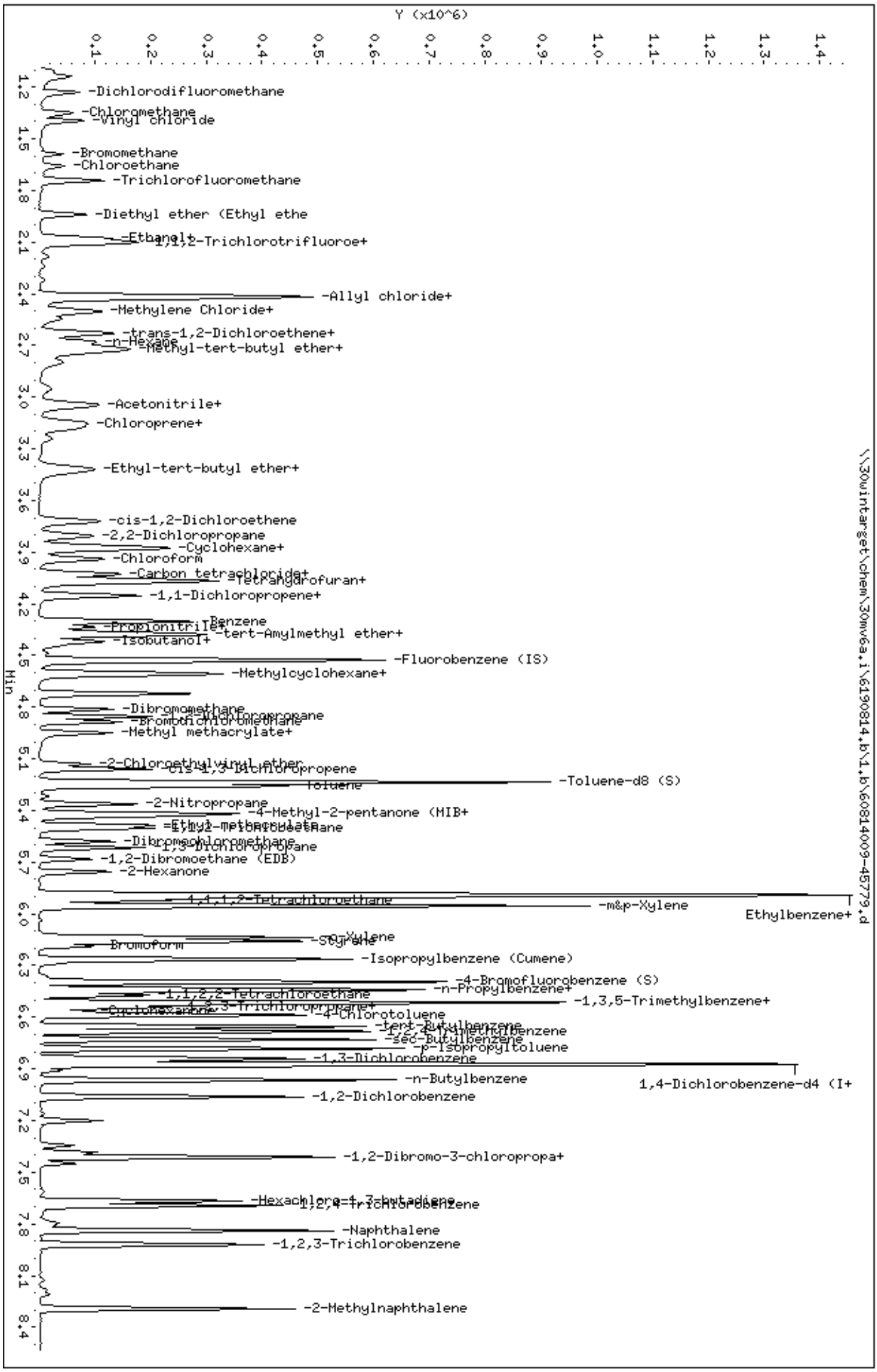
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1731940
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779,

Client SDG: 1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: JEW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	18.1	
99-87-6	p-Isopropyltoluene	18.1	
541-73-1	1,3-Dichlorobenzene	17.4	
106-46-7	1,4-Dichlorobenzene	17.4	
104-51-8	n-Butylbenzene	17.8	
95-50-1	1,2-Dichlorobenzene	17.8	
96-12-8	1,2-Dibromo-3-chloropropane	18.8	
108-70-3	1,3,5-Trichlorobenzene	17.7	
87-68-3	Hexachloro-1,3-butadiene	14.3	
120-82-1	1,2,4-Trichlorobenzene	17.6	
91-20-3	Naphthalene	19.1	
87-61-6	1,2,3-Trichlorobenzene	19.0	
91-57-6	2-Methylnaphthalene	21.3	
1868-53-7	Dibromofluoromethane (S)	32.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.7	
2037-26-5	Toluene-d8 (S)	28.7	
460-00-4	4-Bromofluorobenzene (S)	29.9	
----------	1,2-Dichlorobenzene-d4 (S)	30.0	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Date : 14-AUG-2019 10:22
Client ID: HBLCS
Sample Info: 1731940,96668:5,,
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv6a.i
Operator: JEW
Column diameter: 0.18
\\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d
Y (x10^6)
Min
-Dichlorodifluoromethane
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride+
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile+
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride+
-Tetrahydrofuran+
-1,1-Dichloropropene+
-Propionitrile+
-Benzene
-tert-Amylmethyl ether+
-Isobutanol+
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-Dichloropropane
-Bromochloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate
-Dibromochloromethane
1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Ethylbenzene+
-o-Xylene
-Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane+
-Cyclohexanone
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

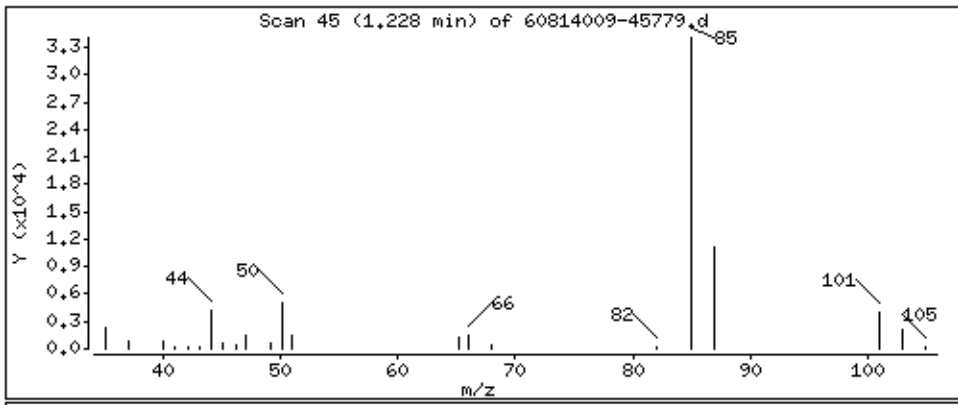
Operator: JEW

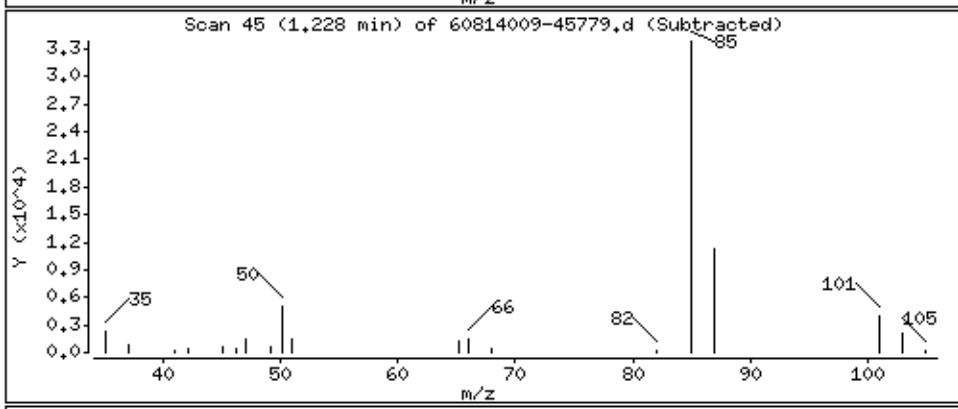
Column phase: RTX-VMS

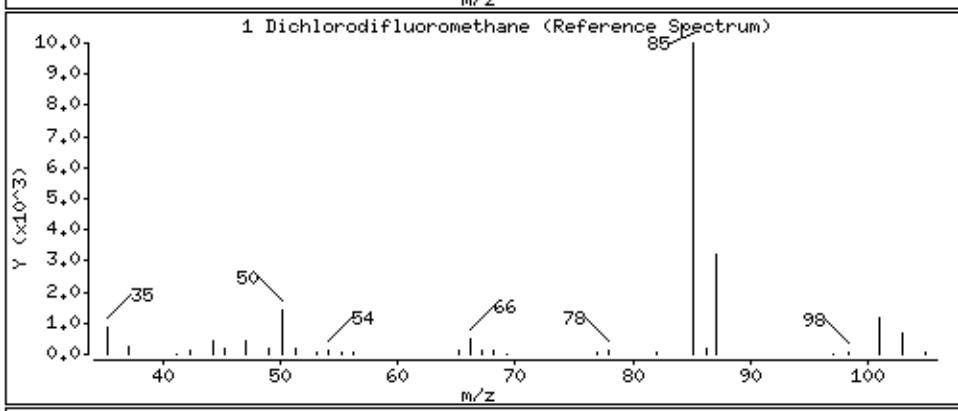
Column diameter: 0.18

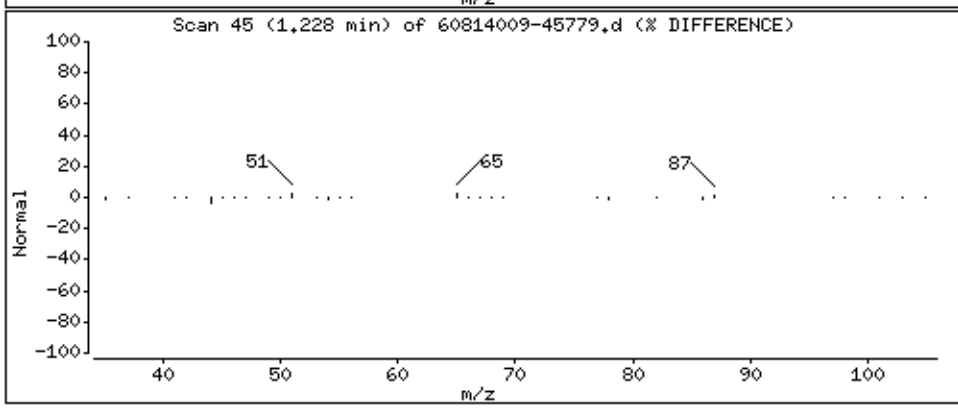
1 Dichlorodifluoromethane

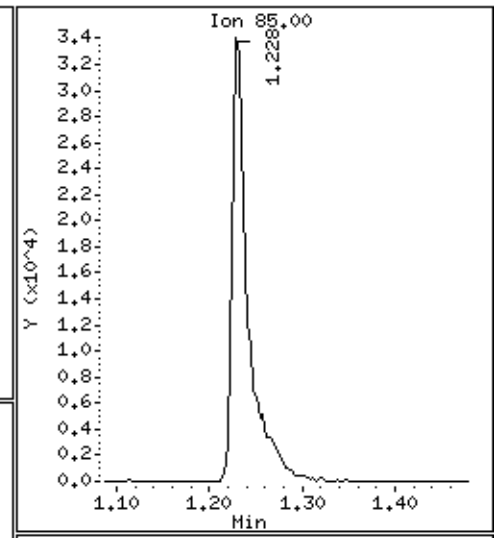
Concentration: 22.6 ug/L

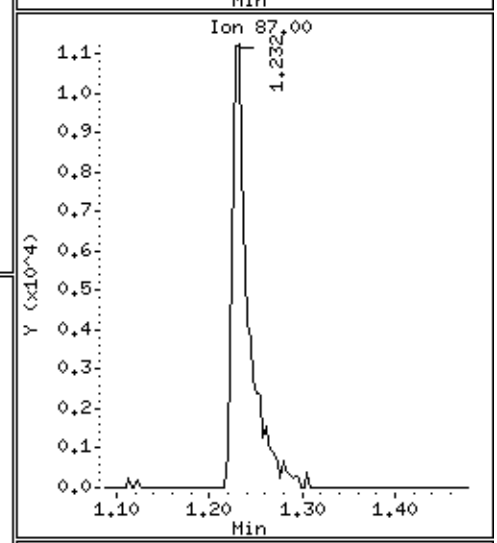


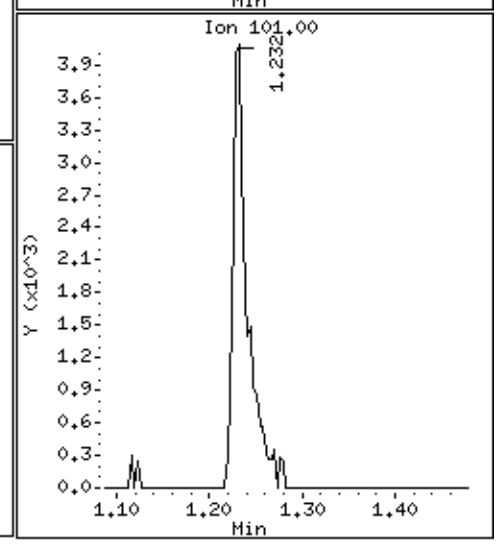












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

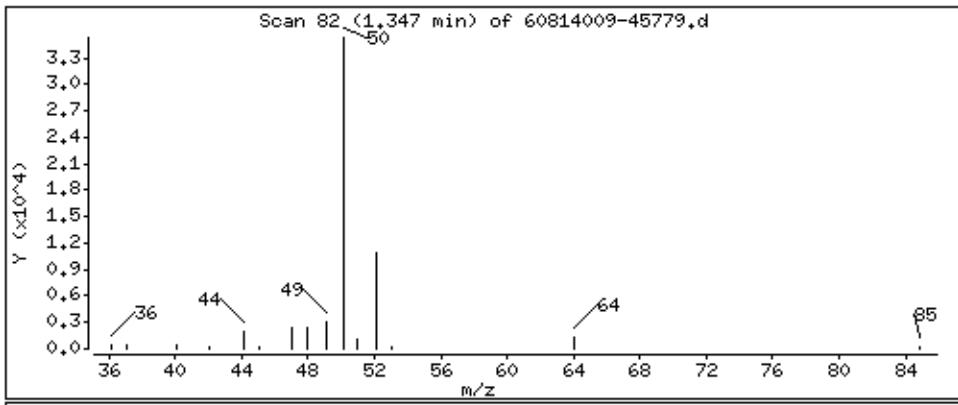
Operator: JEW

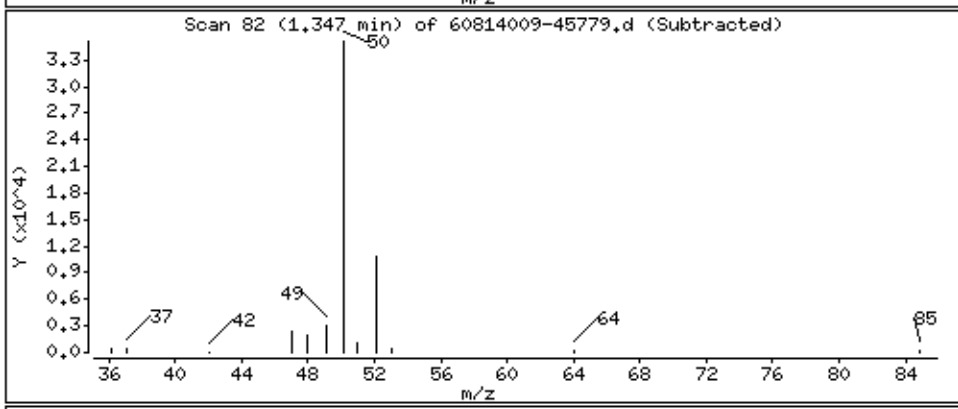
Column phase: RTX-VMS

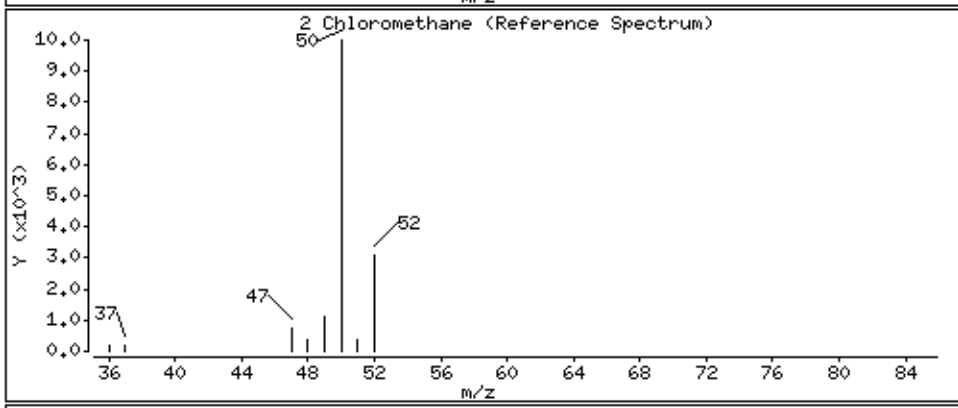
Column diameter: 0.18

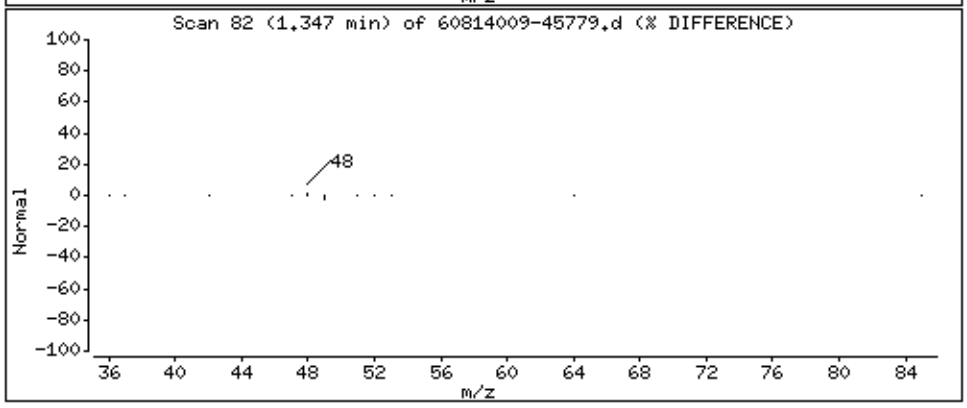
2 Chloromethane

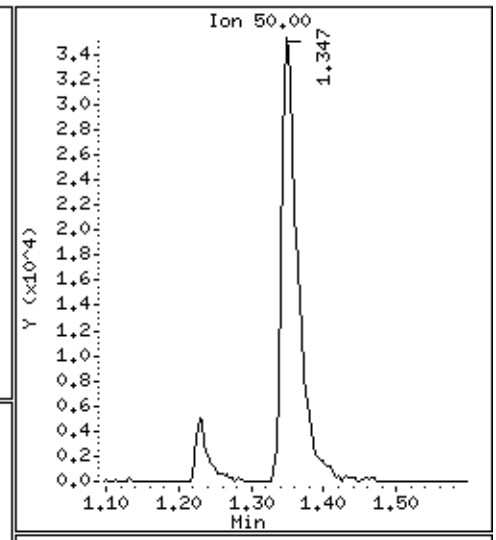
Concentration: 21.0 ug/L

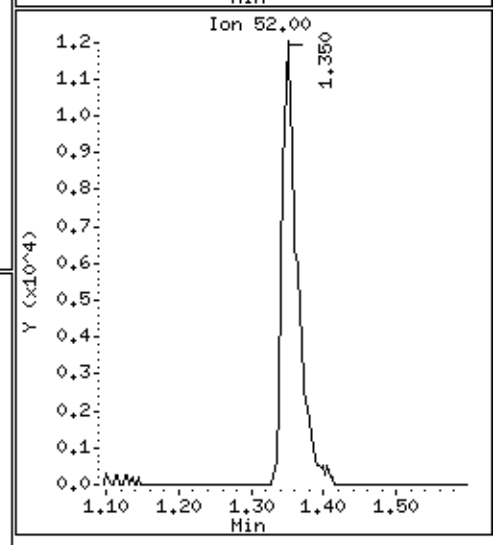












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

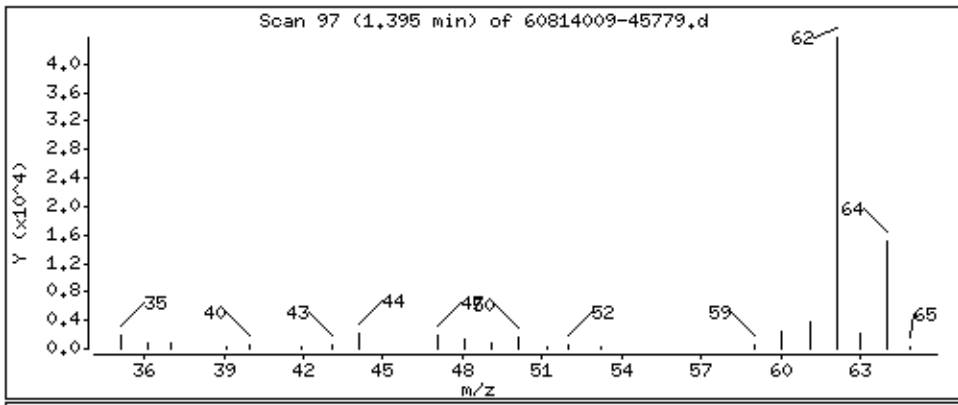
Operator: JEW

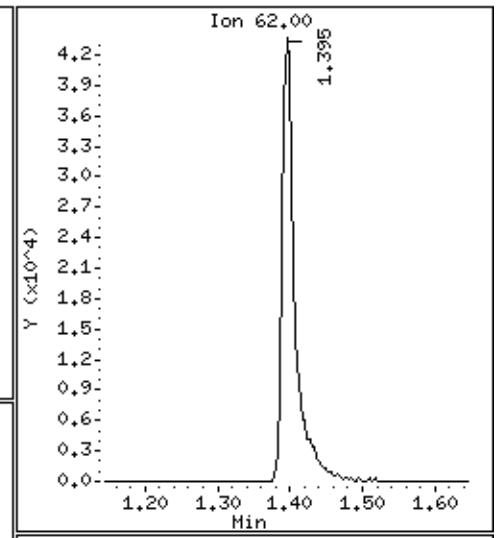
Column phase: RTX-VMS

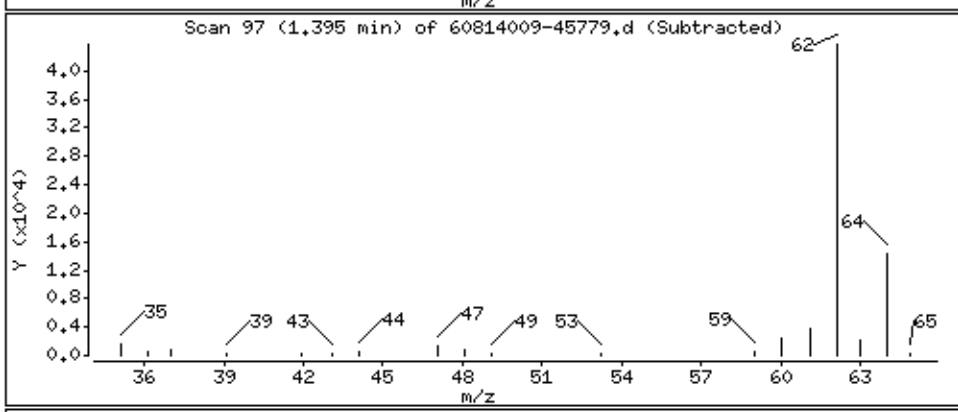
Column diameter: 0.18

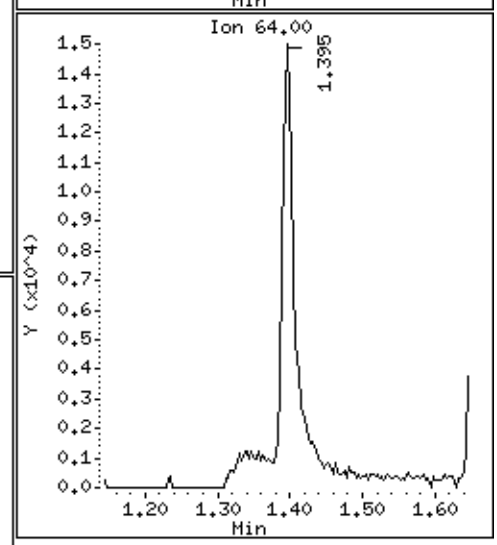
3 Vinyl chloride

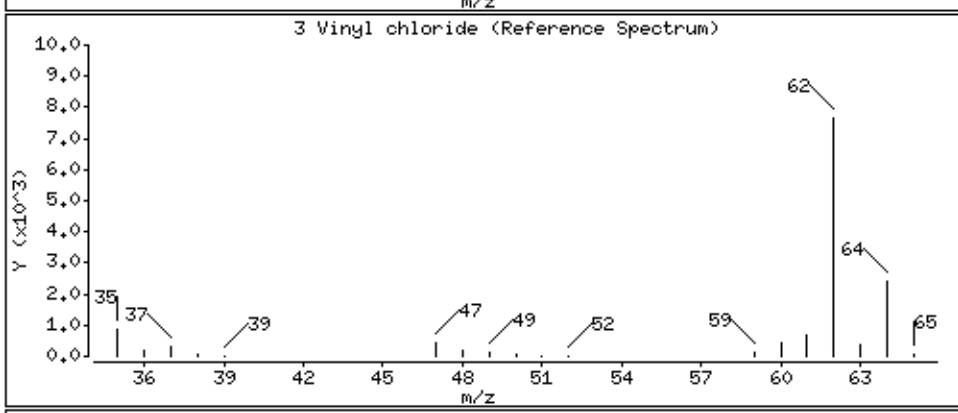
Concentration: 20.4 ug/L

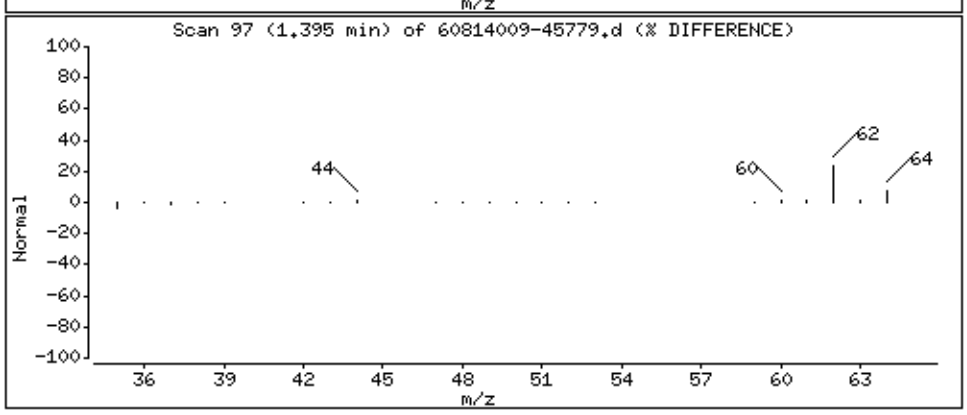












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

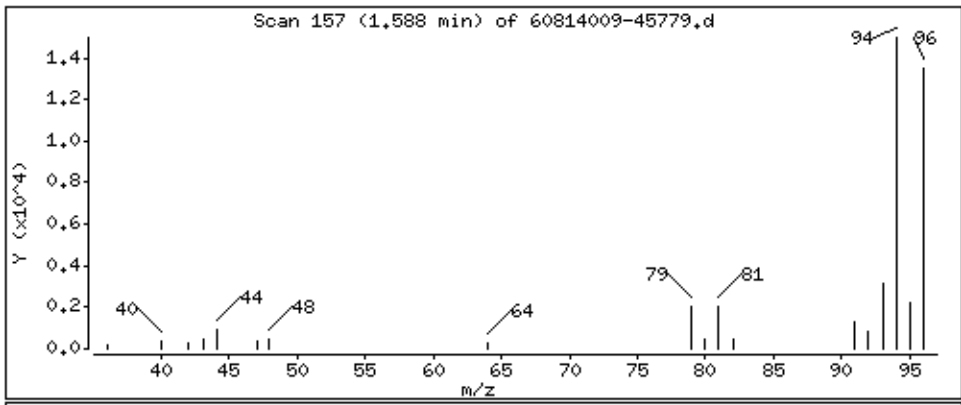
Operator: JEW

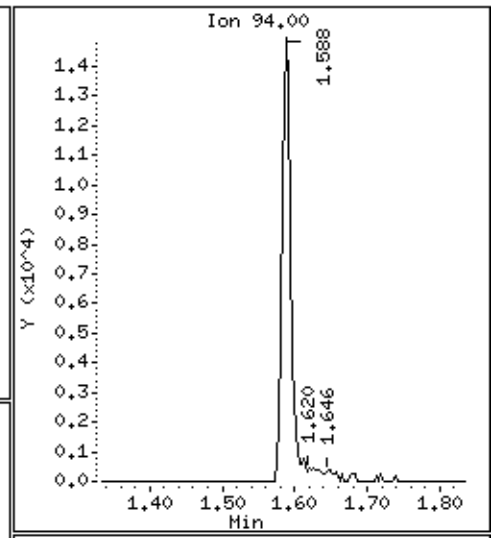
Column phase: RTX-VMS

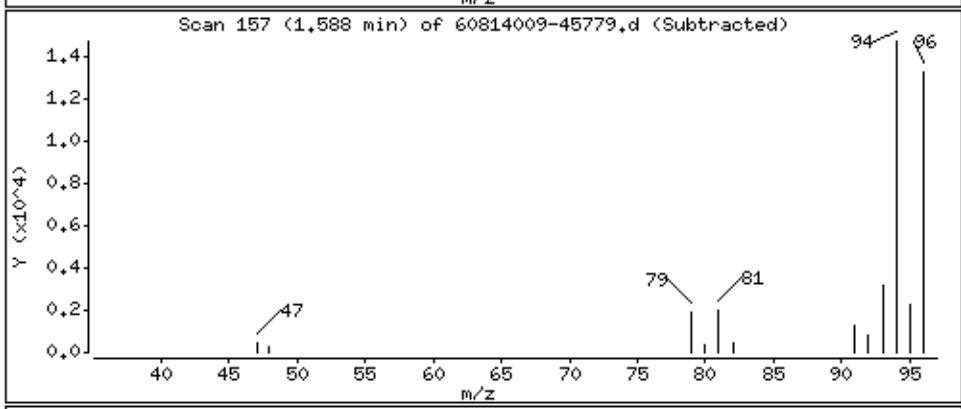
Column diameter: 0.18

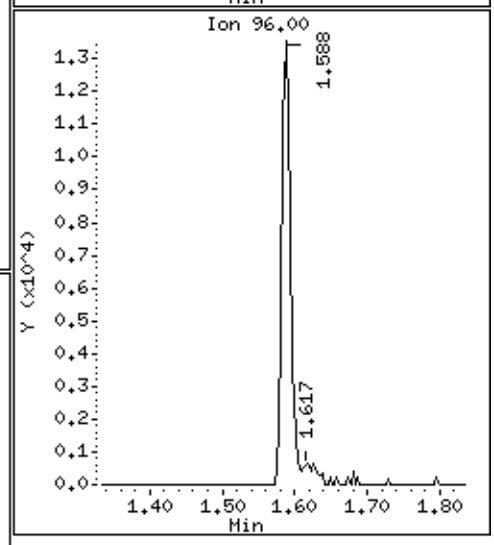
4 Bromomethane

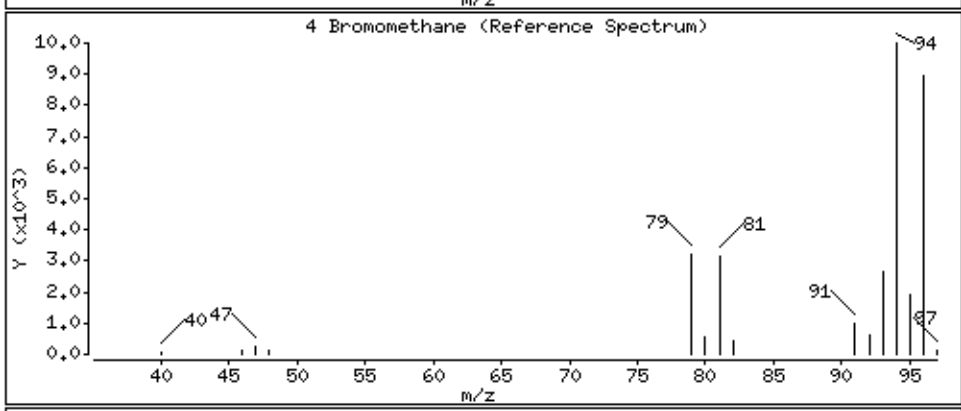
Concentration: 17.2 ug/L

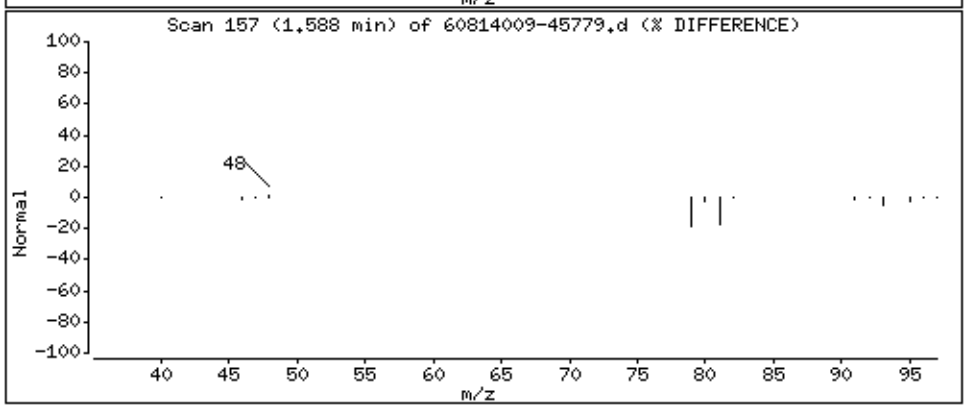












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

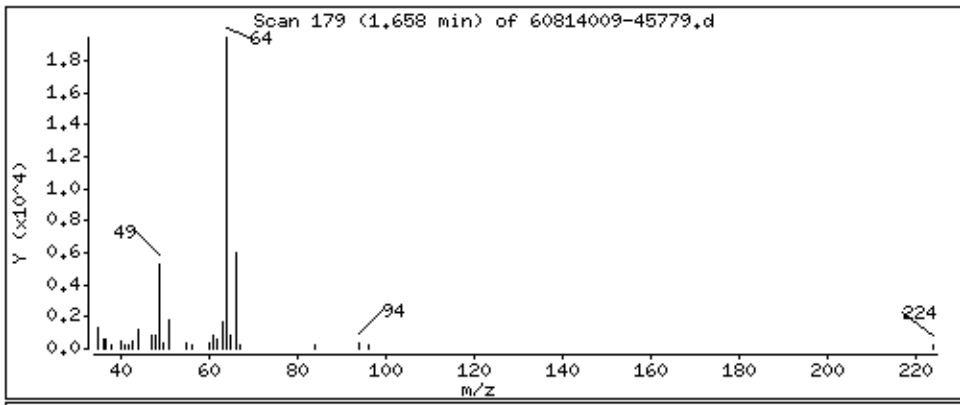
Operator: JEW

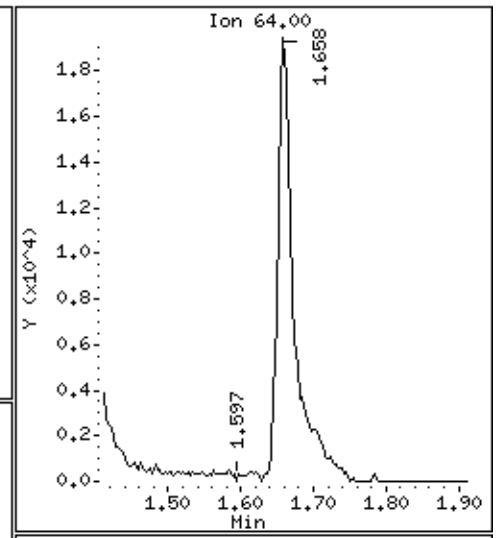
Column phase: RTX-VMS

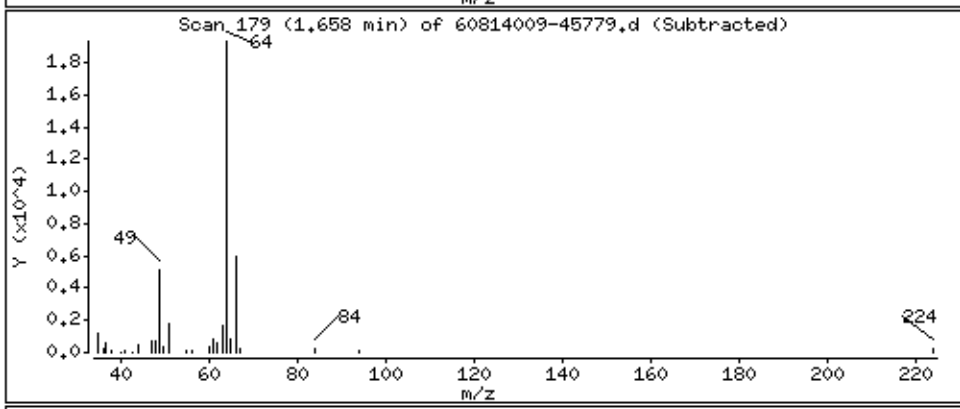
Column diameter: 0.18

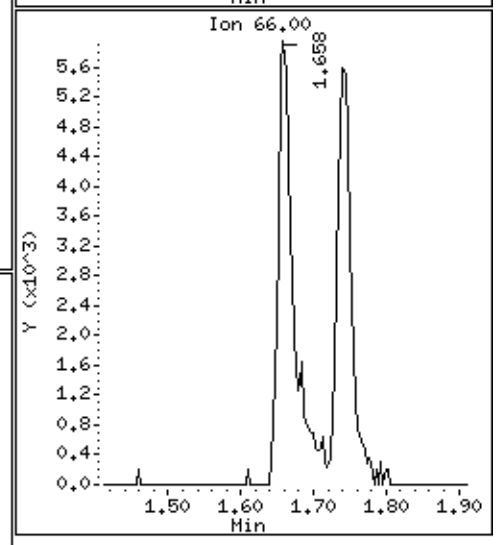
5 Chloroethane

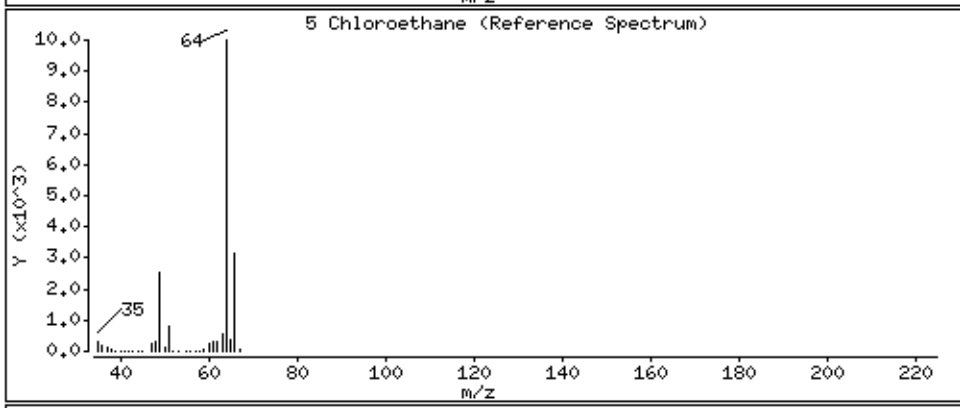
Concentration: 19.6 ug/L

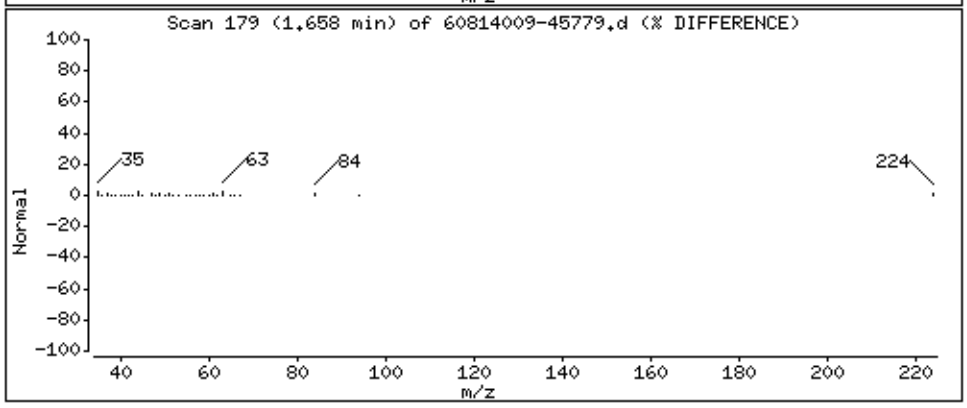












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

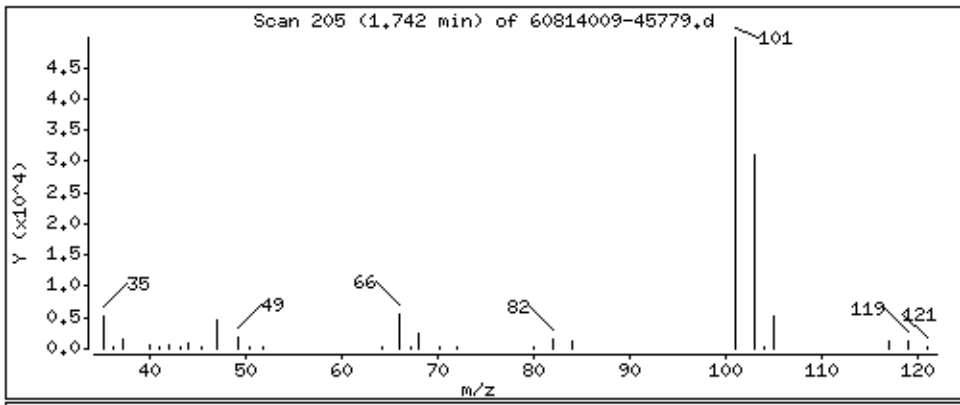
Operator: JEW

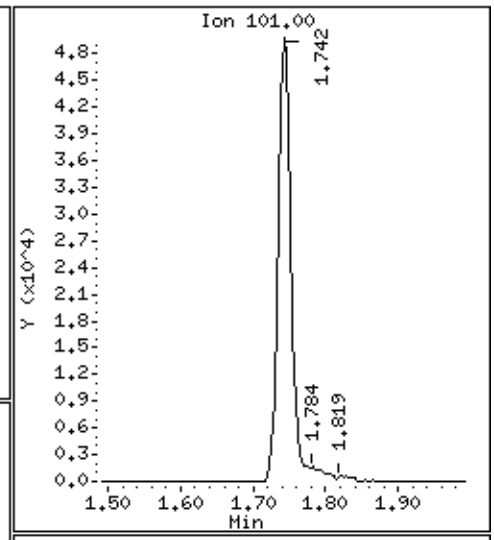
Column phase: RTX-VMS

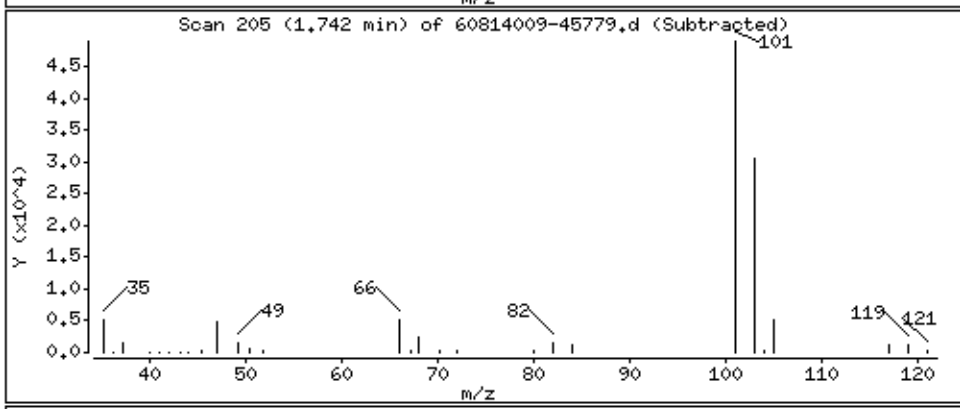
Column diameter: 0.18

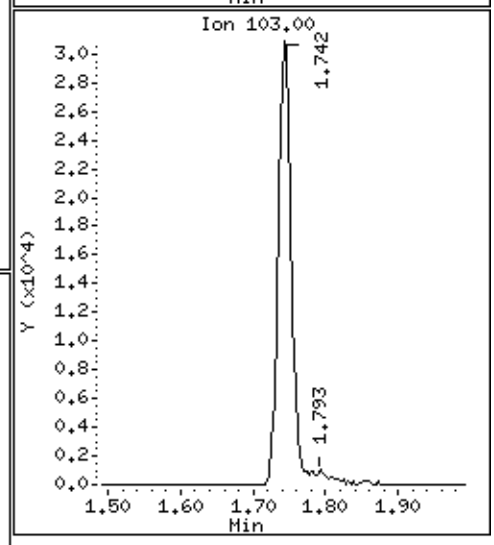
6 Trichlorofluoromethane

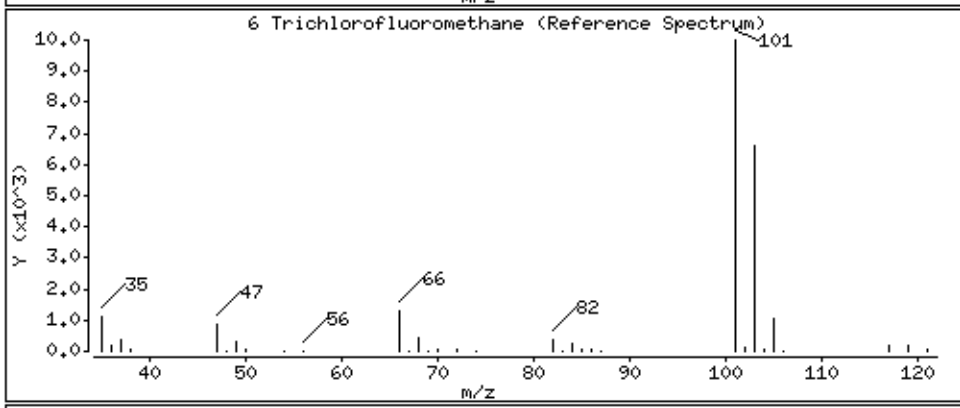
Concentration: 19.5 ug/L

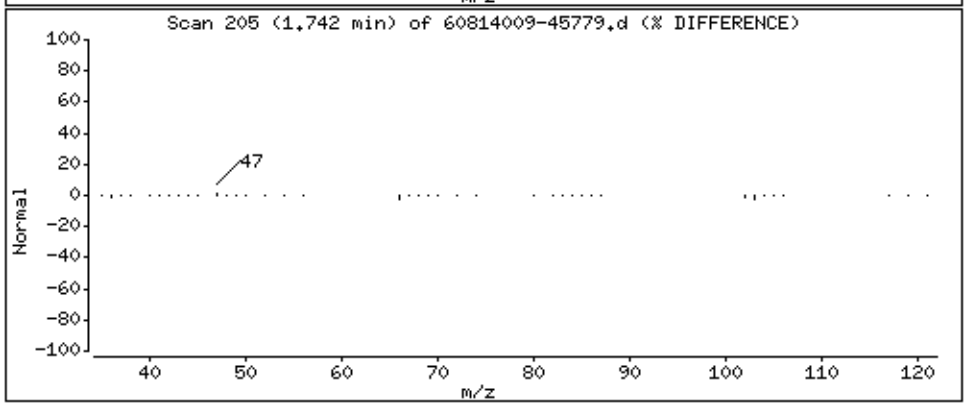












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

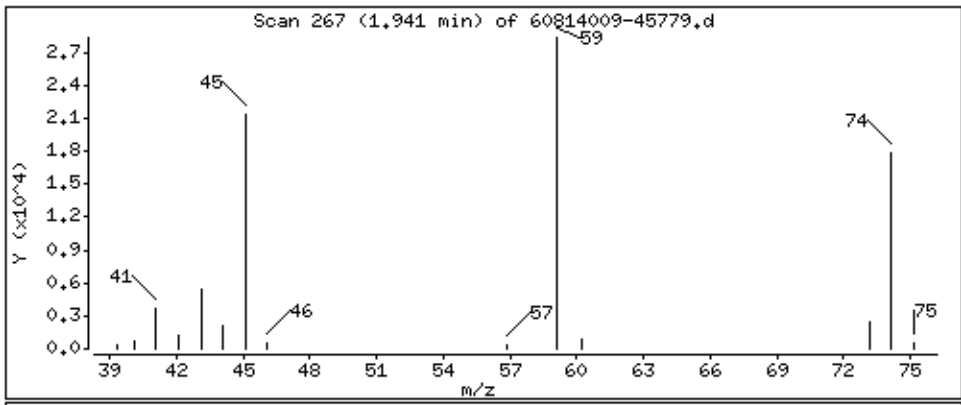
Operator: JEW

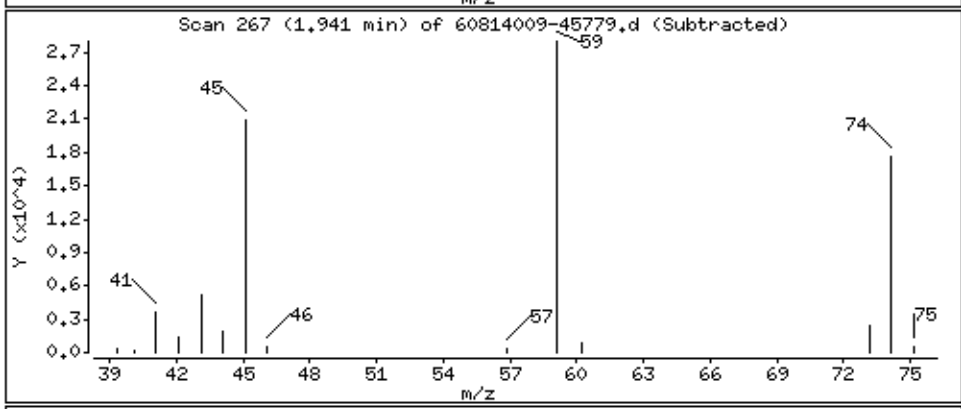
Column phase: RTX-VMS

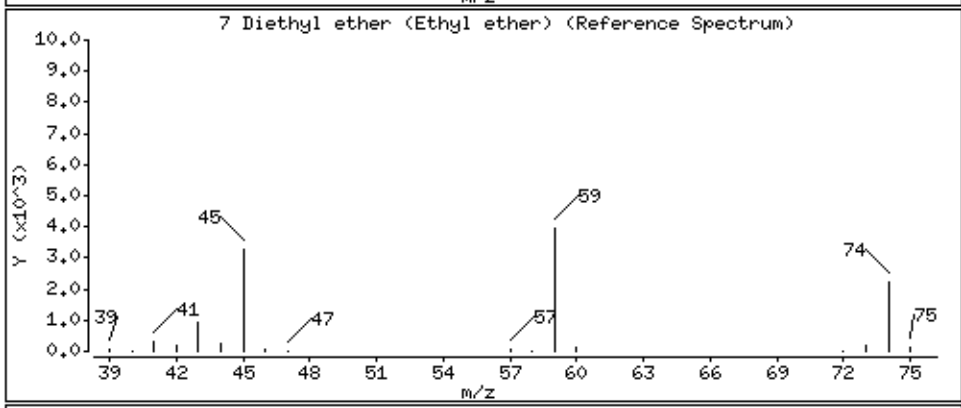
Column diameter: 0.18

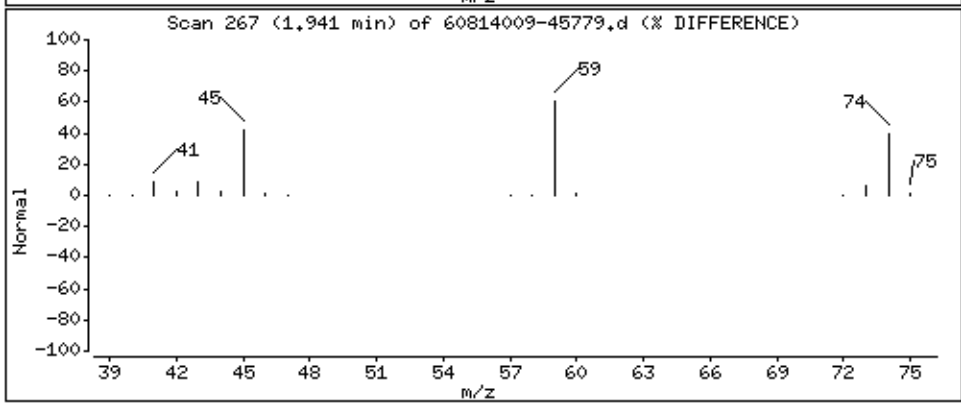
7 Diethyl ether (Ethyl ether)

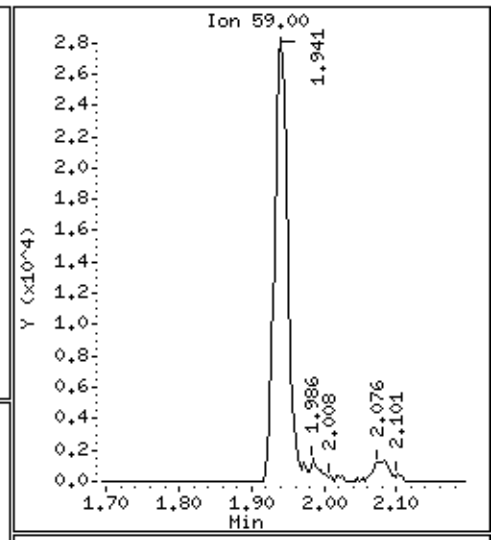
Concentration: 16.7 ug/L

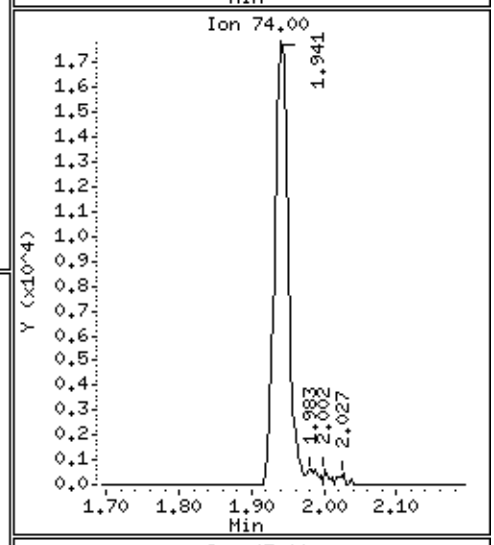


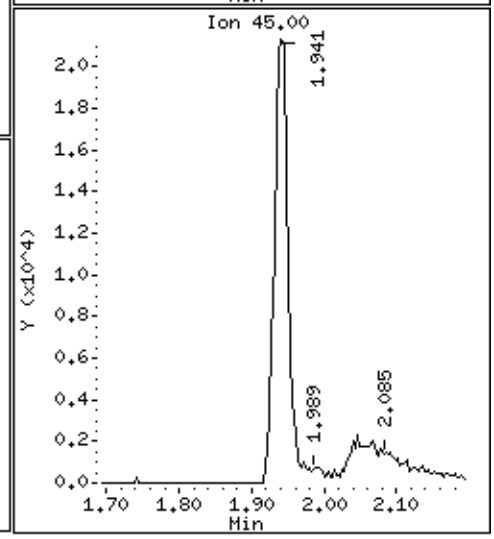












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

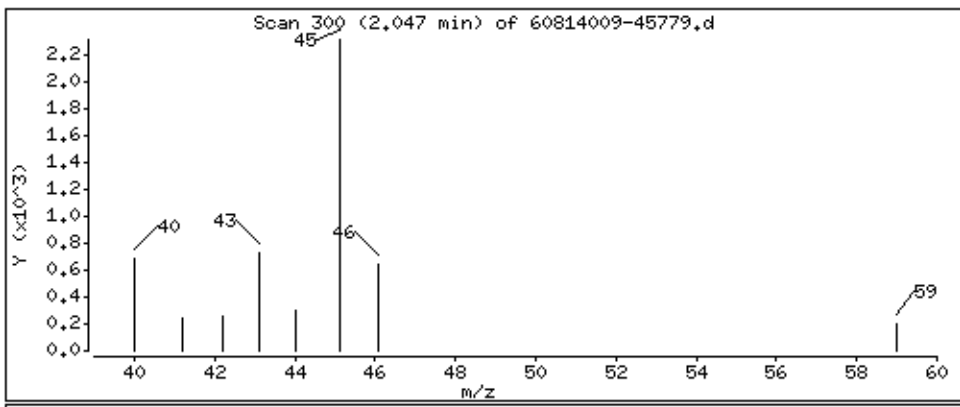
Purge Volume: 5.0

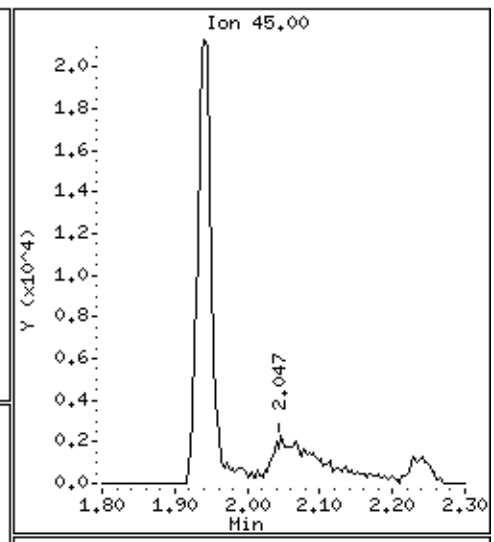
Operator: JEW

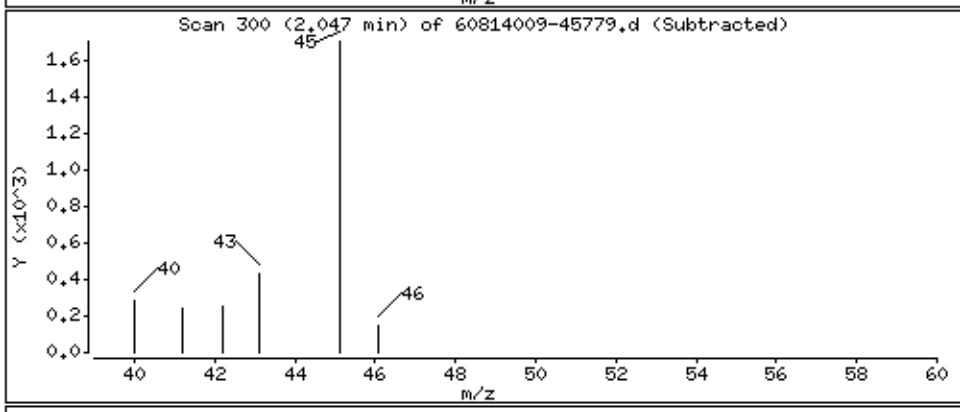
Column phase: RTX-VMS

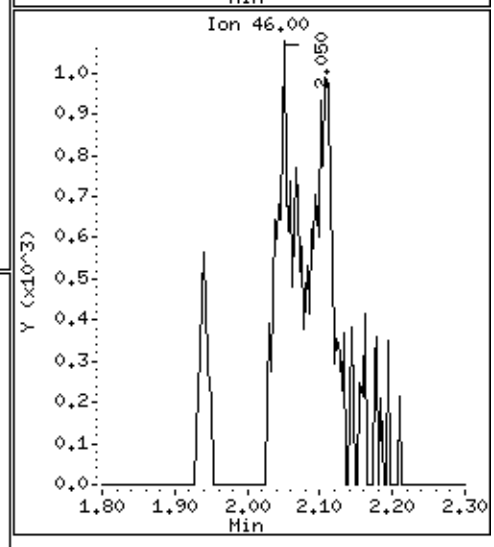
Column diameter: 0.18

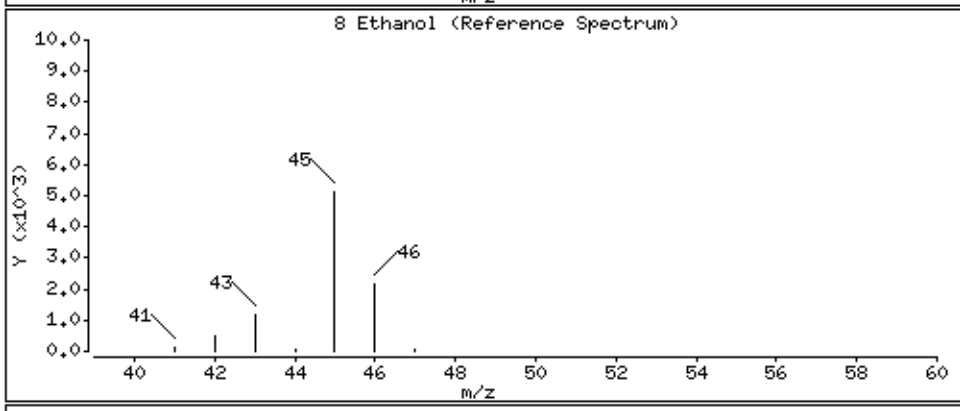
8 Ethanol

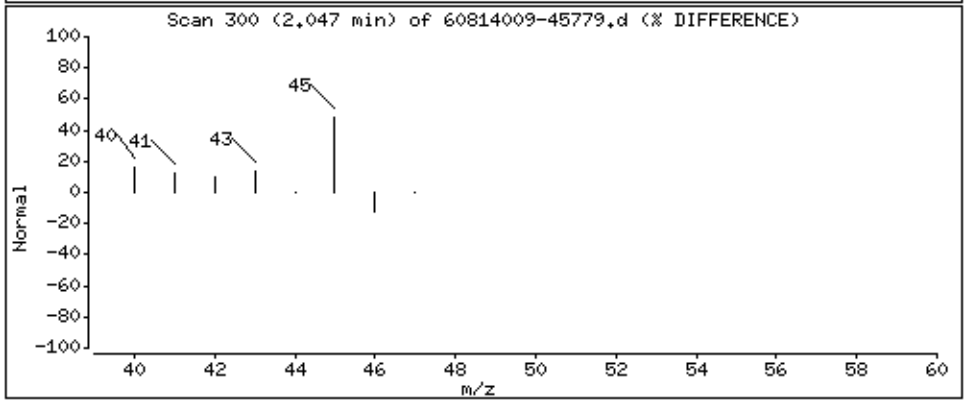












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

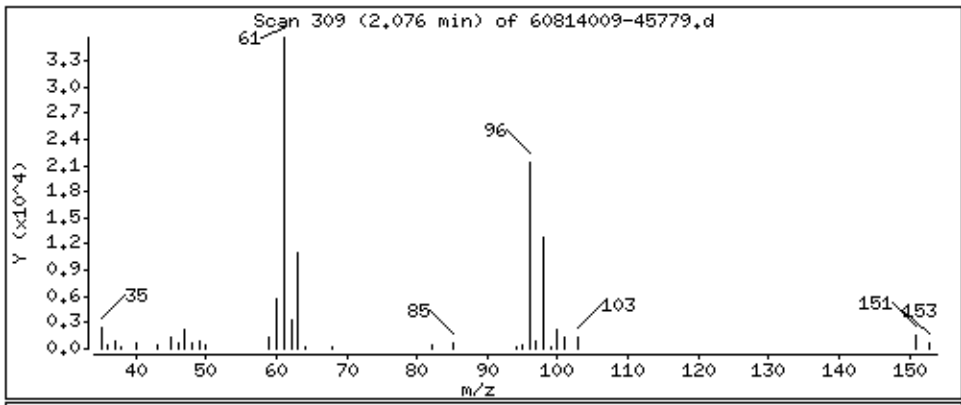
Operator: JEW

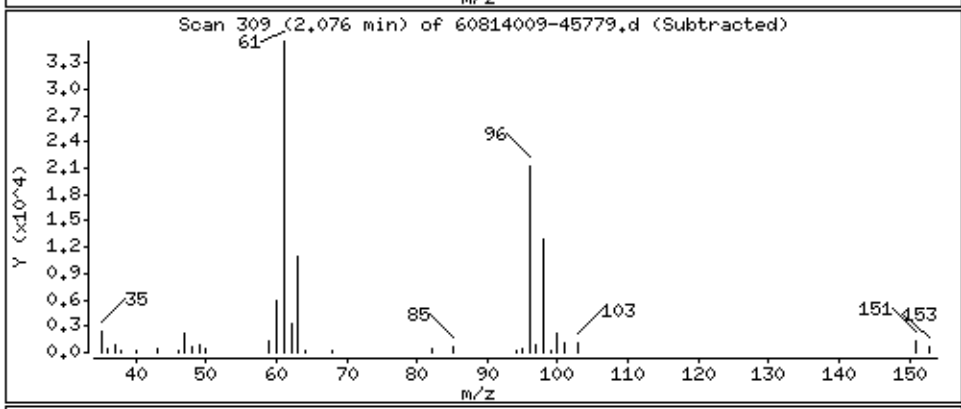
Column phase: RTX-VMS

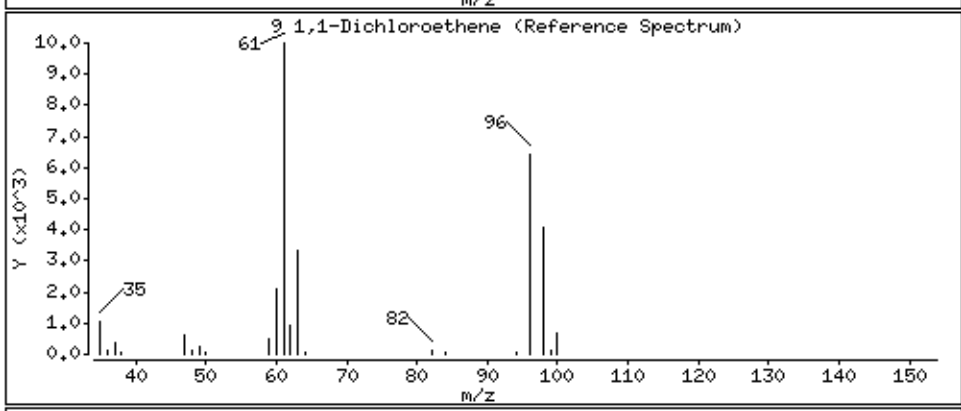
Column diameter: 0.18

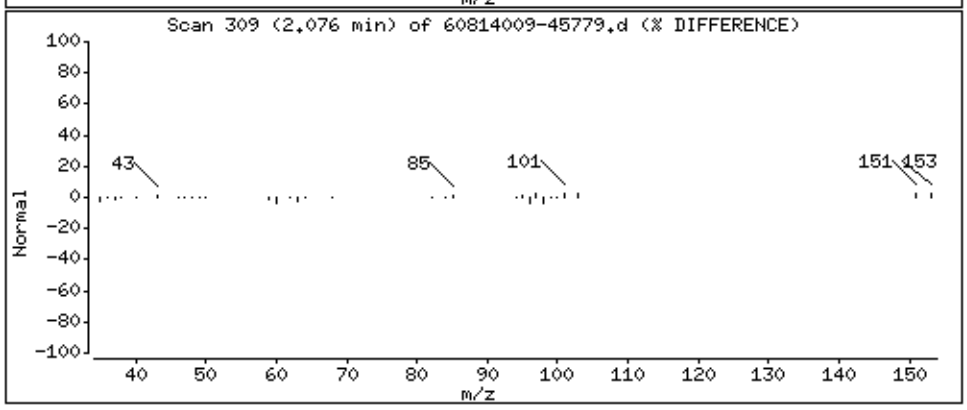
9 1,1-Dichloroethene

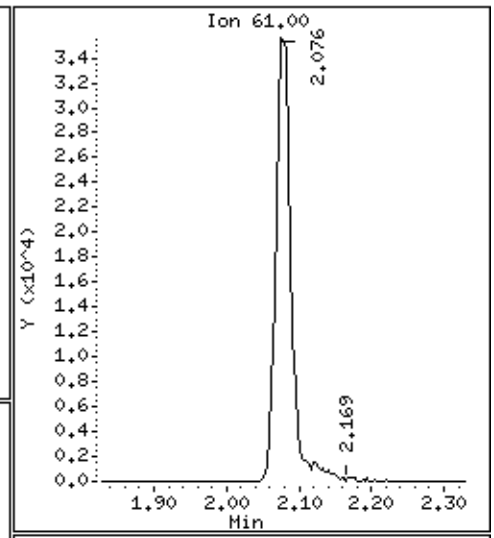
Concentration: 16.2 ug/L

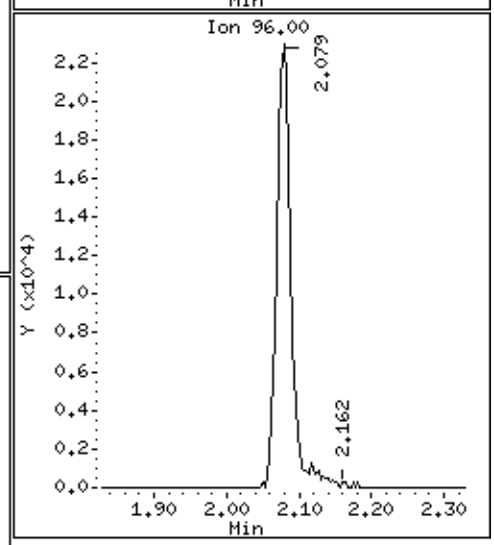












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

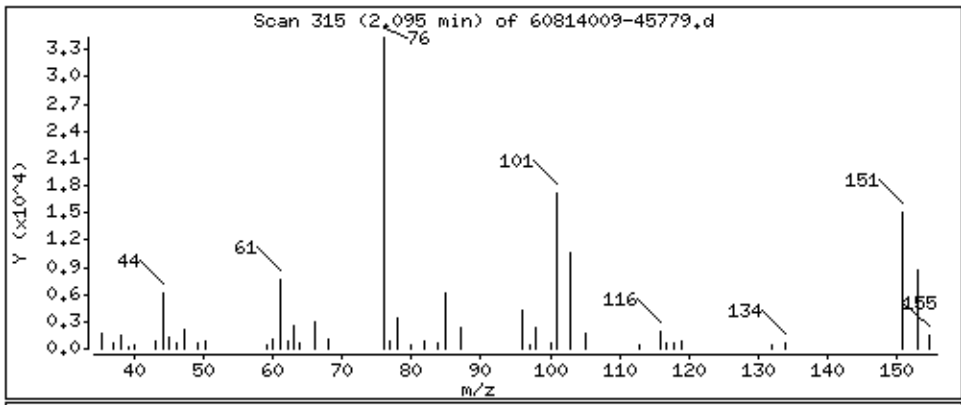
Operator: JEW

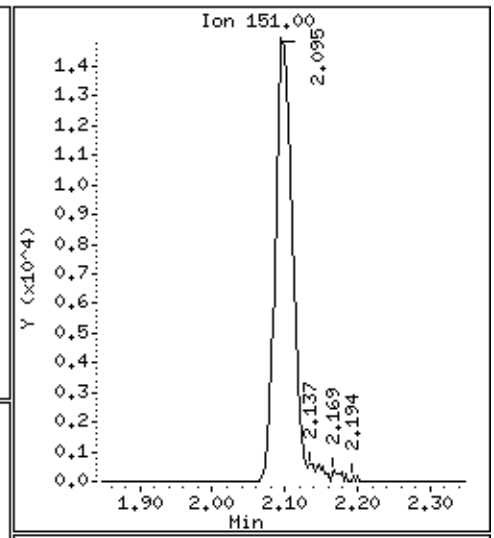
Column phase: RTX-VMS

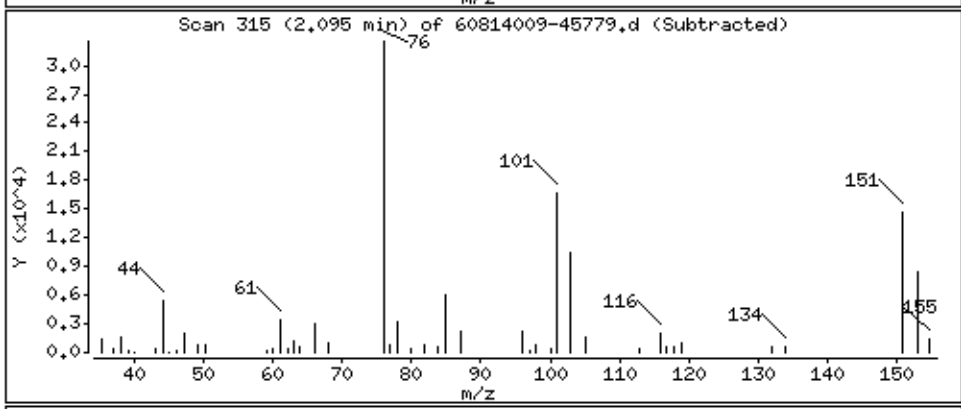
Column diameter: 0.18

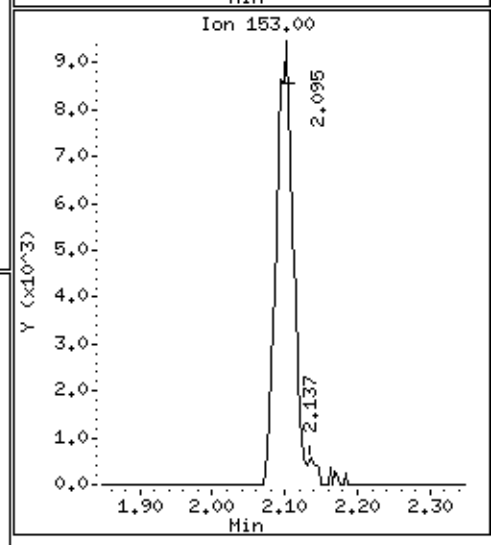
10 1,1,2-Trichlorotrifluoroethane

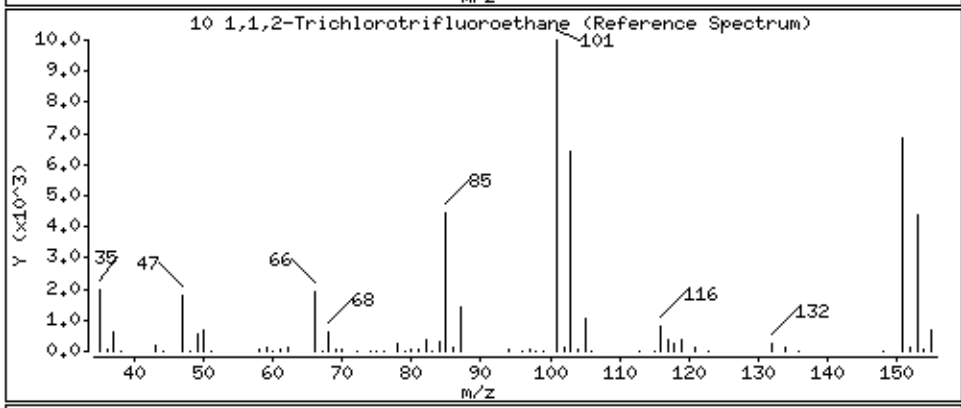
Concentration: 16.8 ug/L

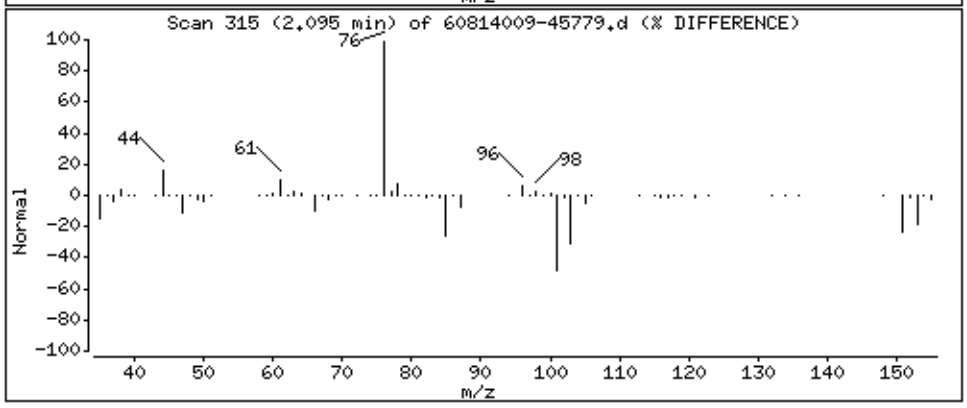












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

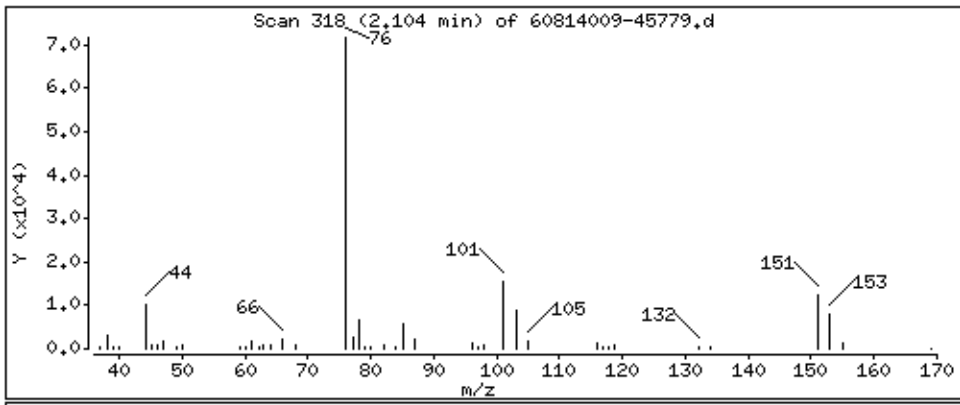
Operator: JEW

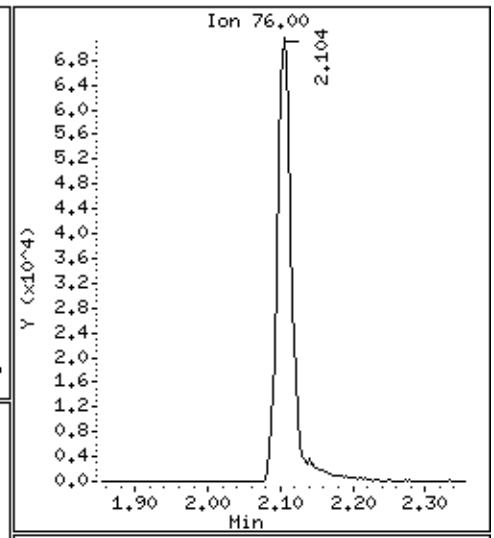
Column phase: RTX-VMS

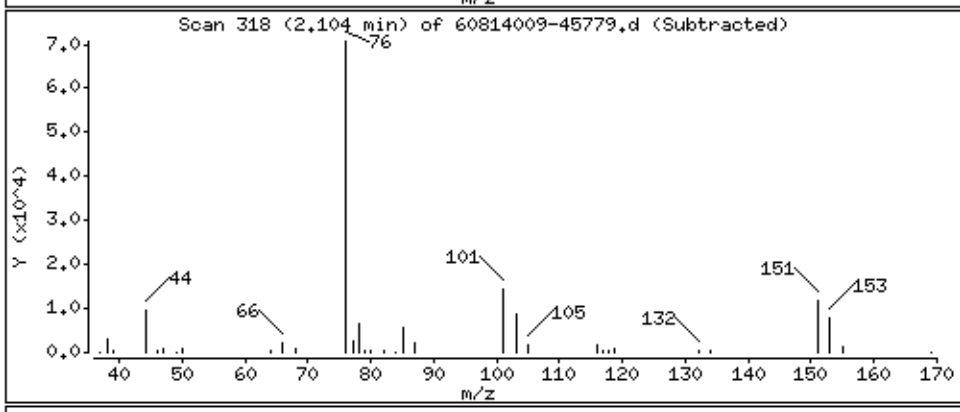
Column diameter: 0.18

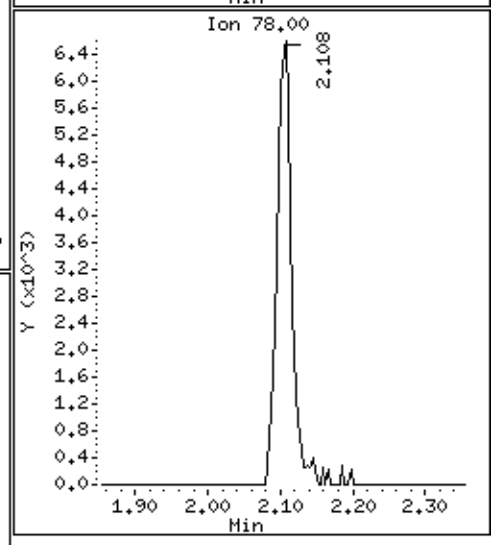
11 Carbon disulfide

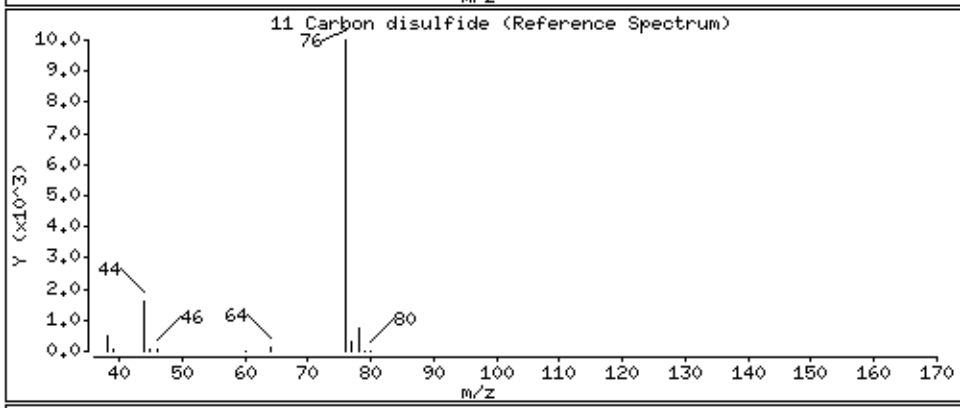
Concentration: 15.7 ug/L

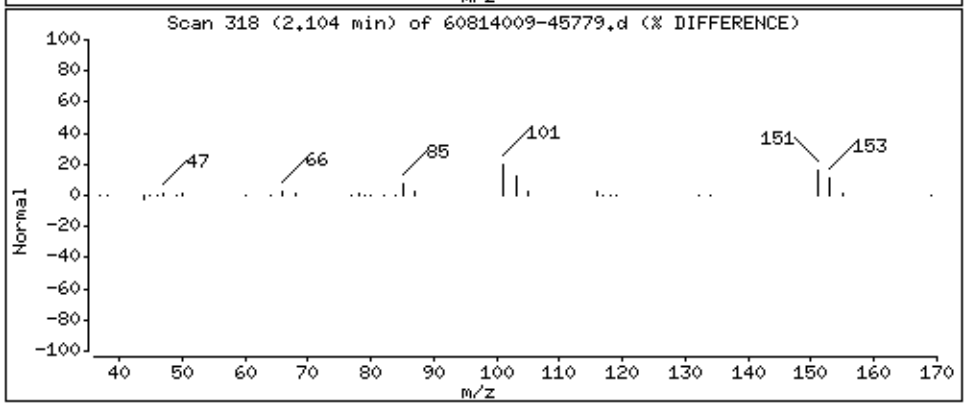












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

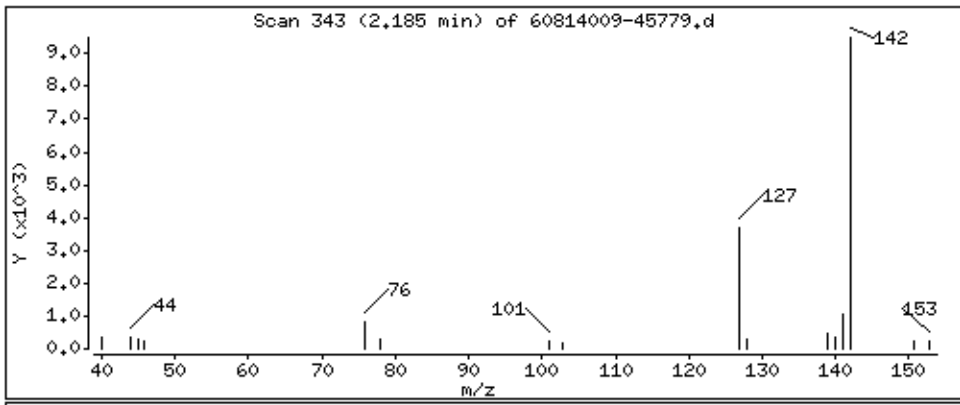
Operator: JEW

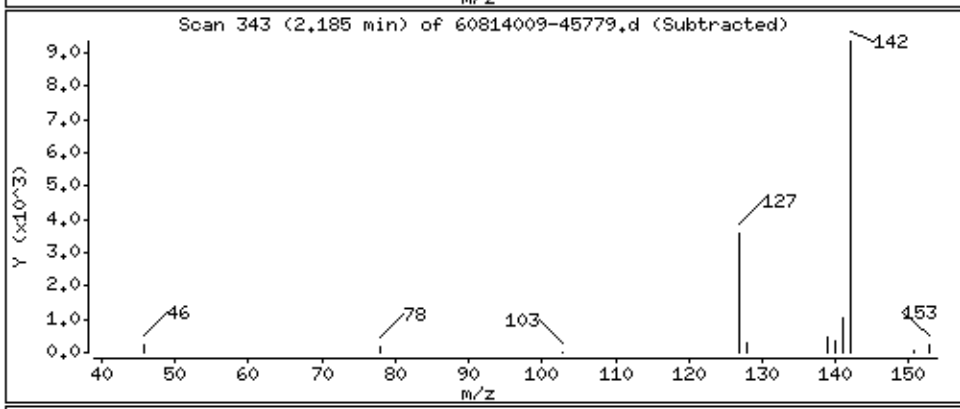
Column phase: RTX-VMS

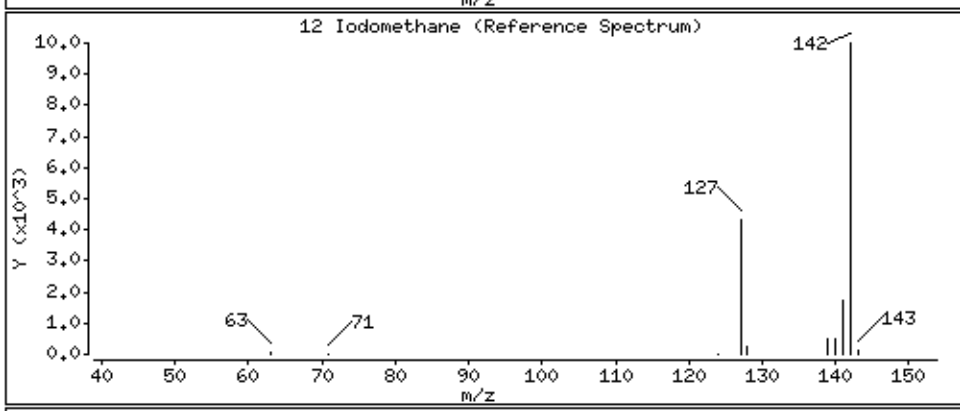
Column diameter: 0.18

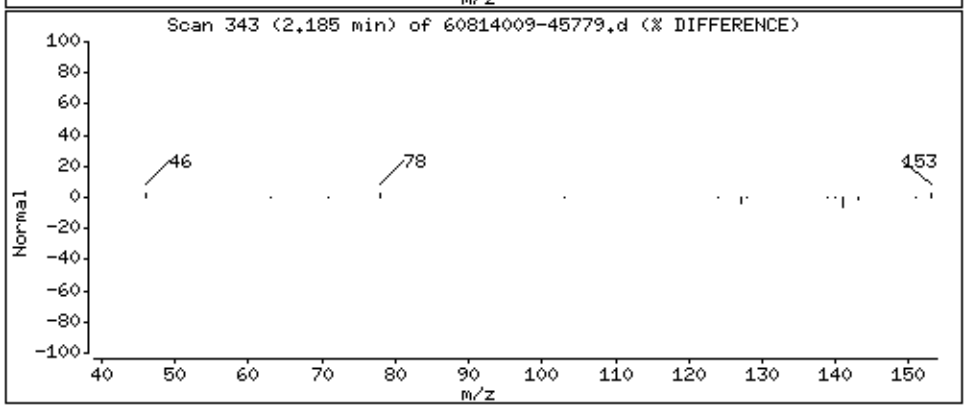
12 Iodomethane

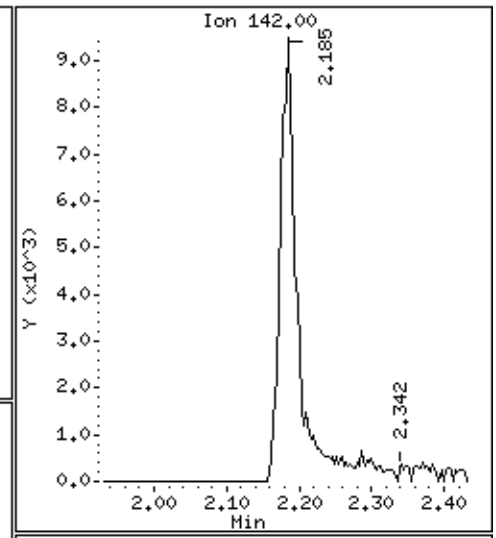
Concentration: 14.5 ug/L

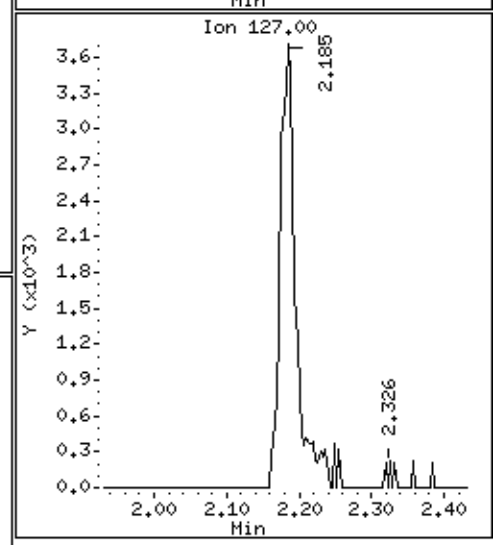












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

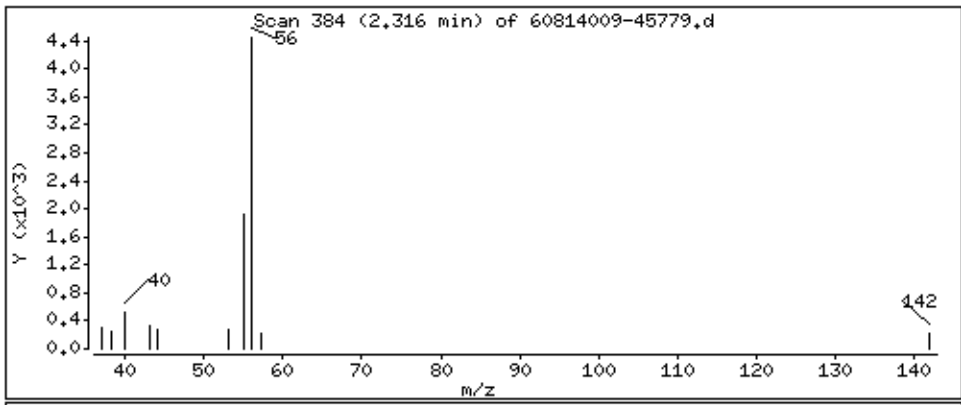
Operator: JEW

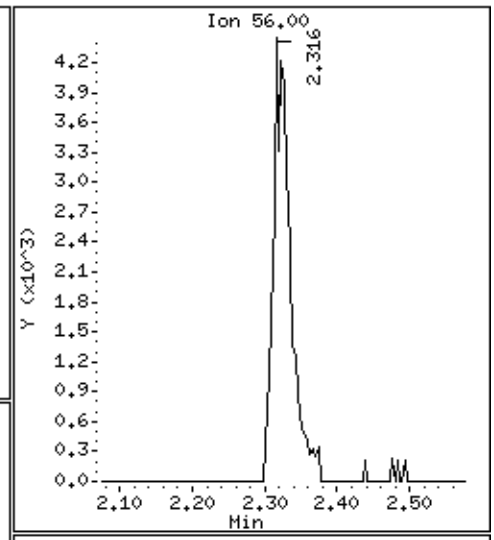
Column phase: RTX-VMS

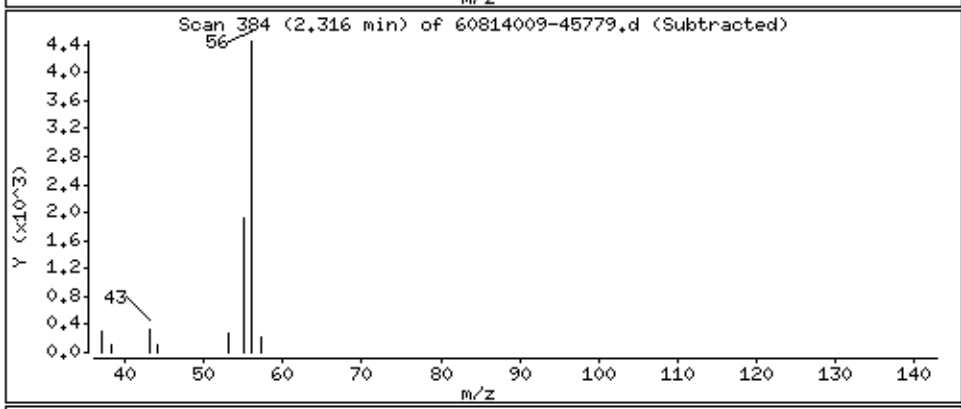
Column diameter: 0.18

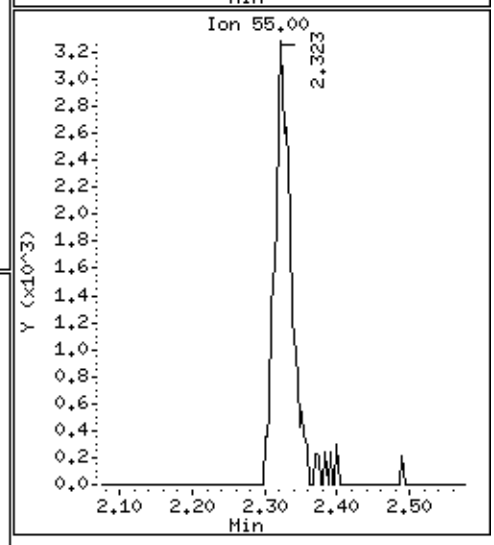
13 Acrolein

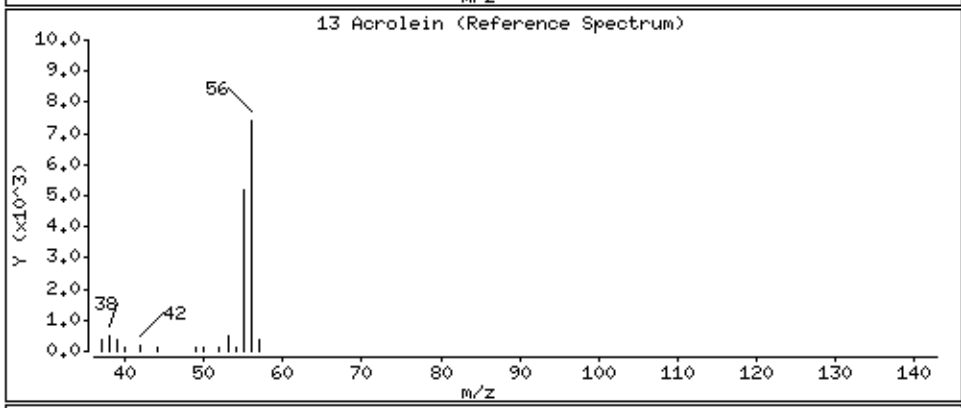
Concentration: 21.7 ug/L

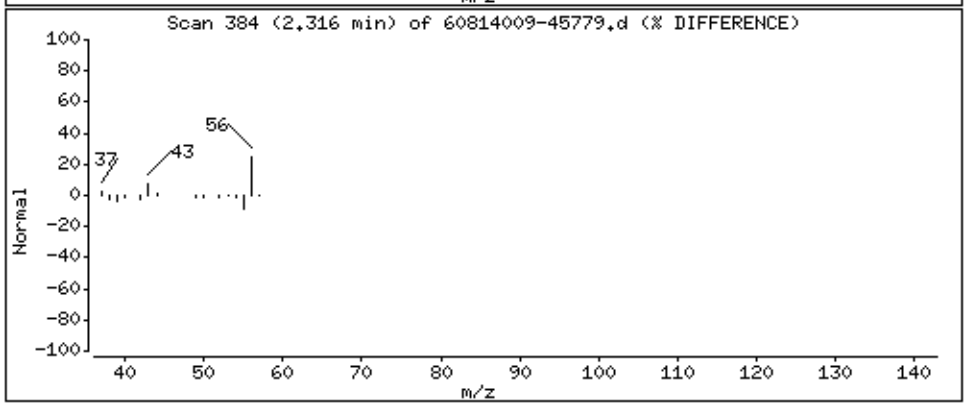












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

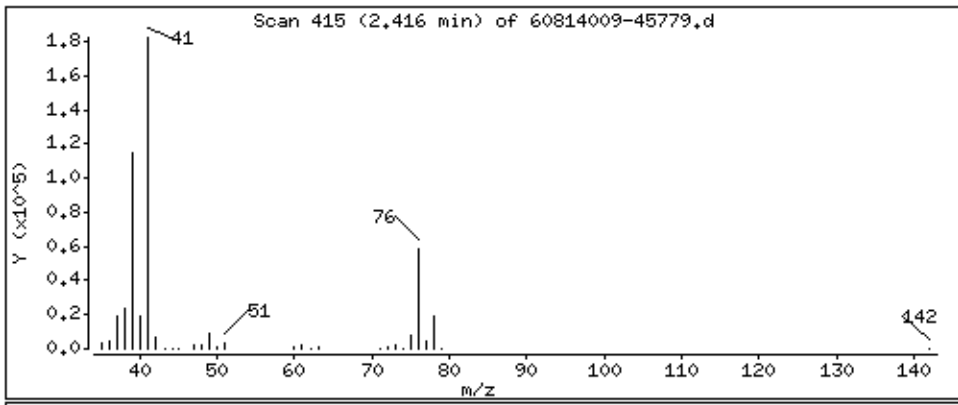
Operator: JEW

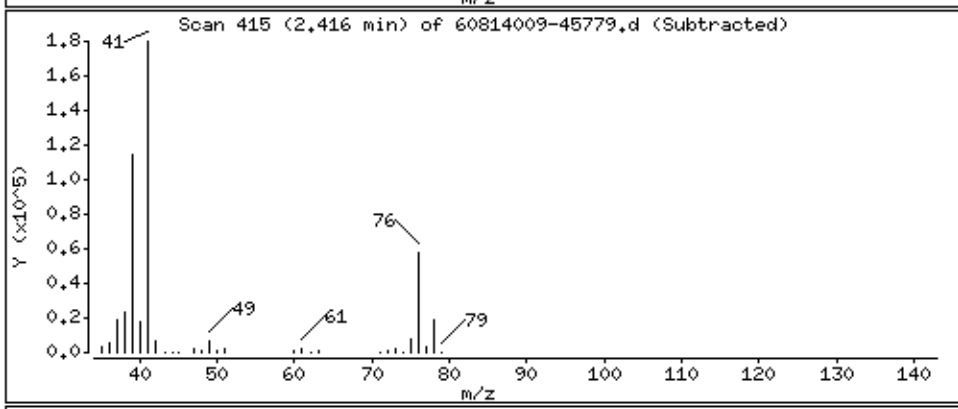
Column phase: RTX-VMS

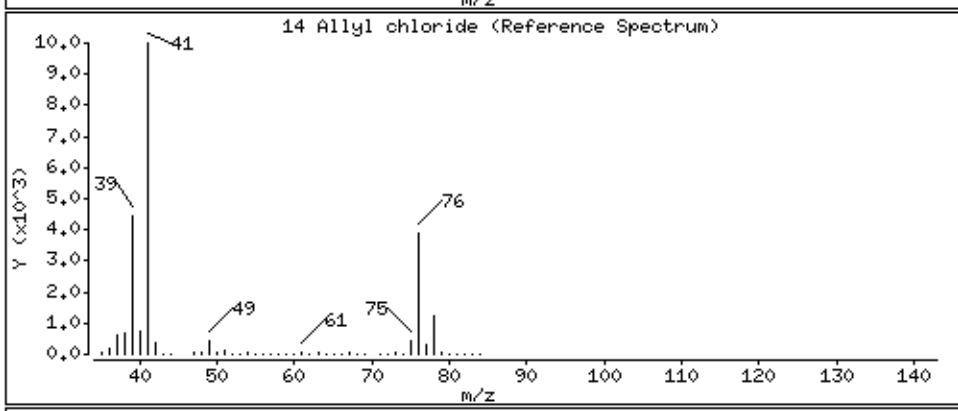
Column diameter: 0.18

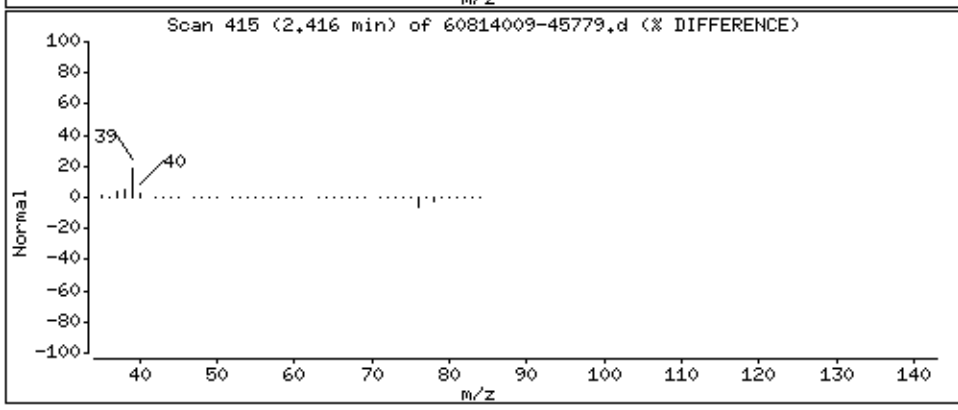
14 Allyl chloride

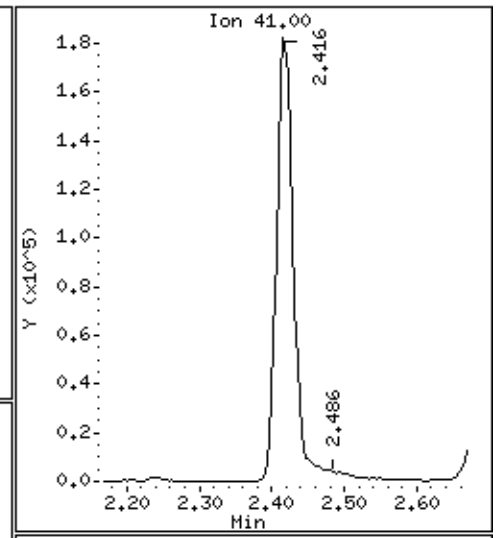
Concentration: 70.4 ug/L

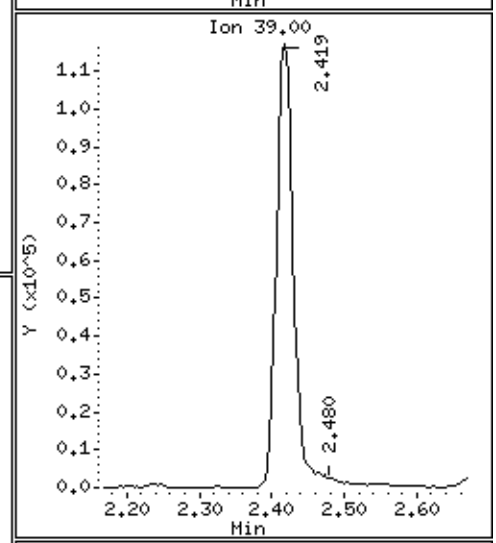


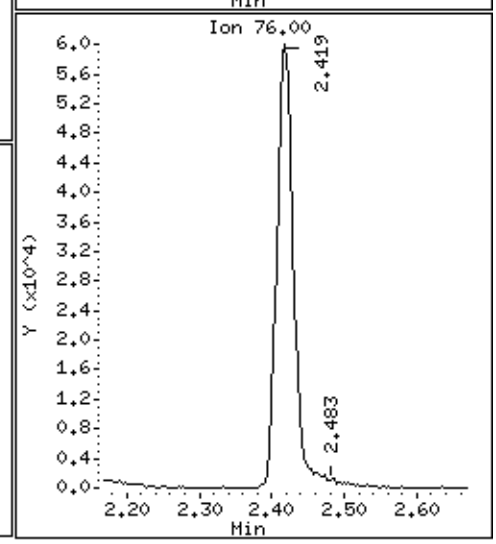












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

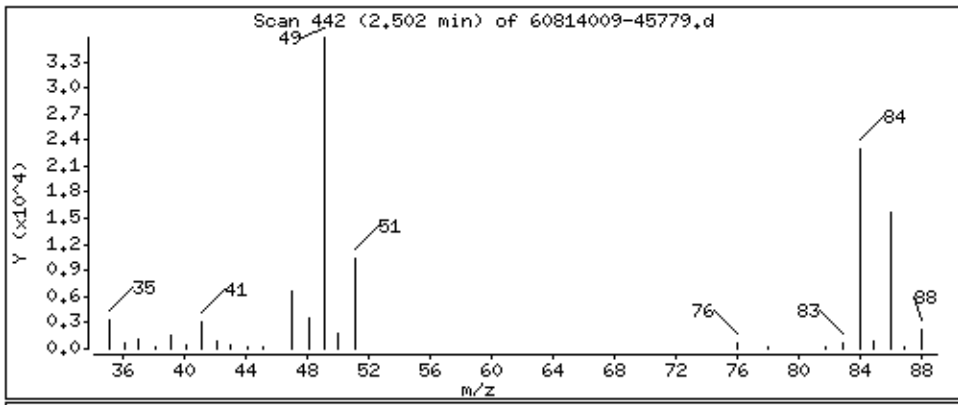
Operator: JEW

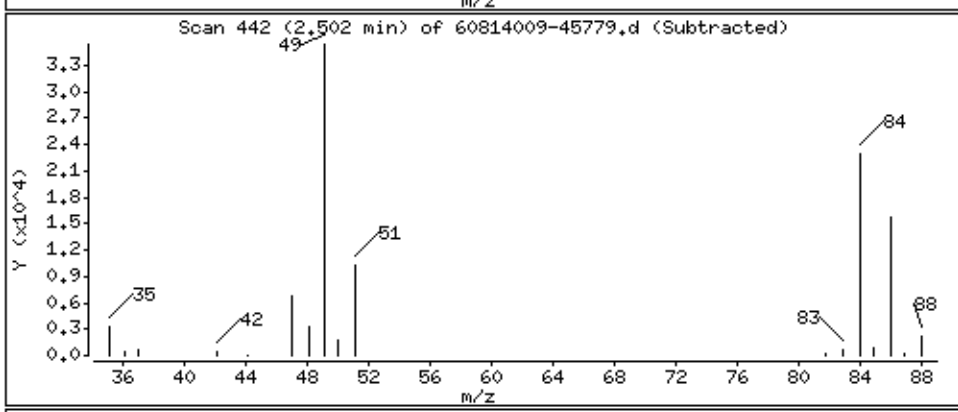
Column phase: RTX-VMS

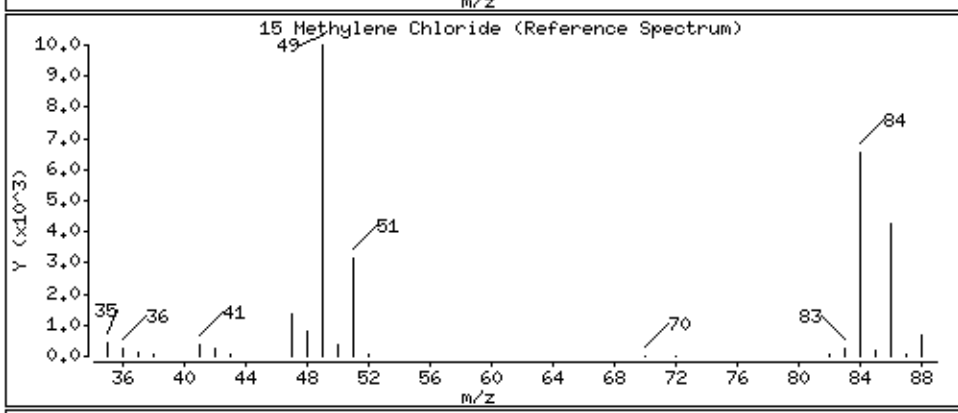
Column diameter: 0.18

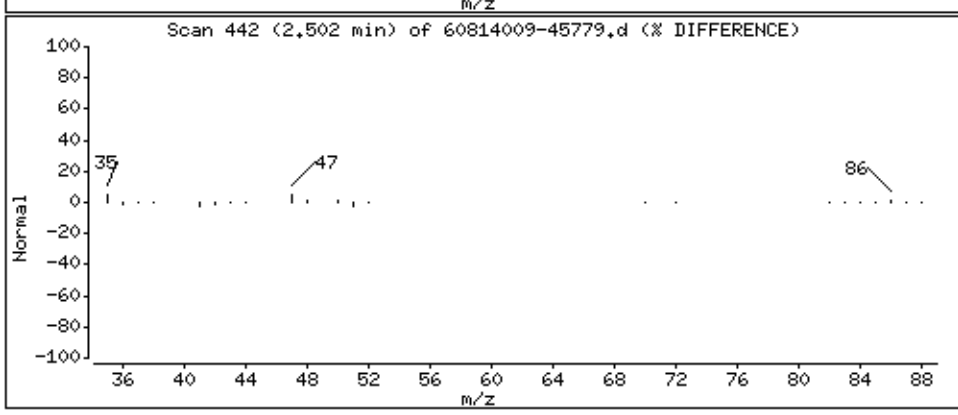
15 Methylene Chloride

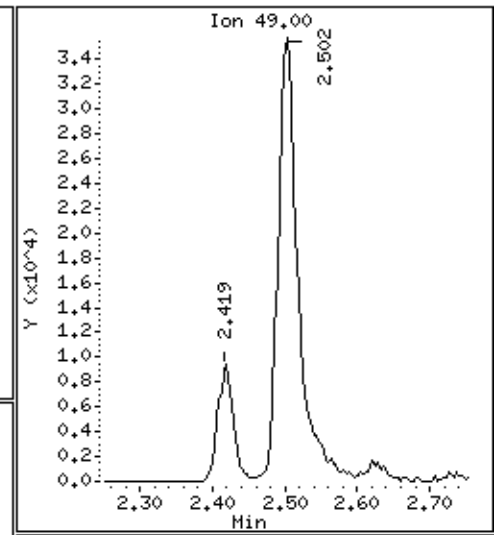
Concentration: 13.7 ug/L

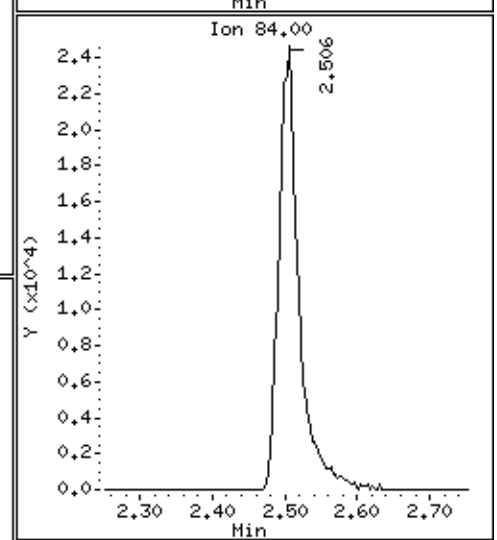


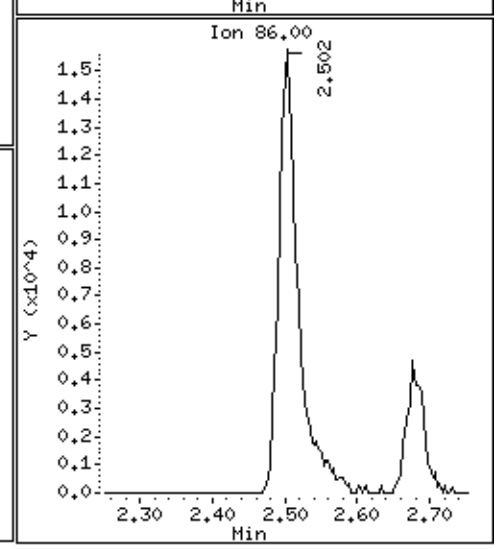












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

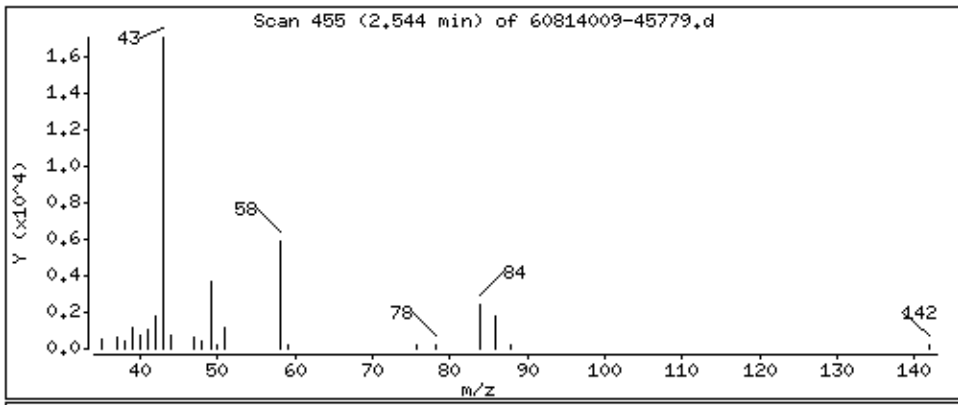
Operator: JEW

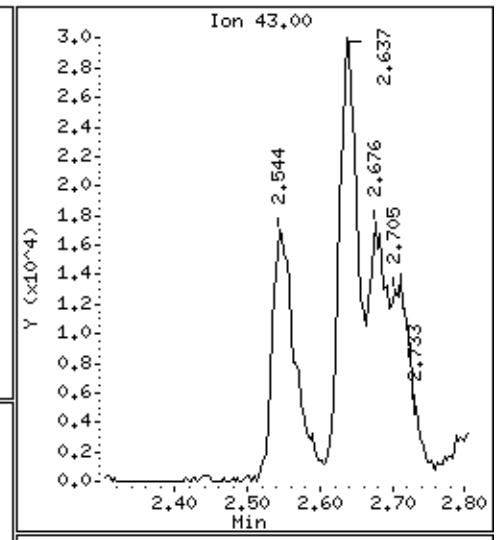
Column phase: RTX-VMS

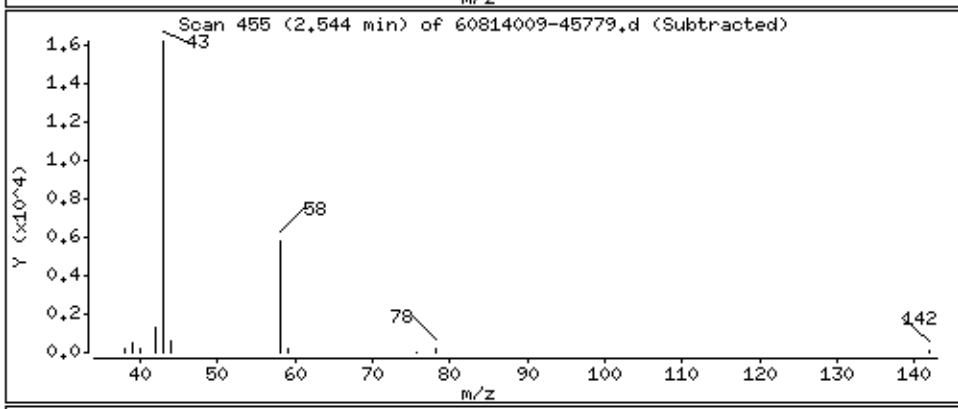
Column diameter: 0.18

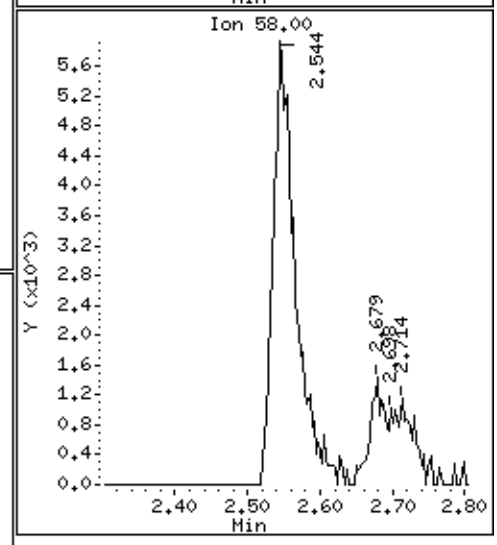
16 Acetone

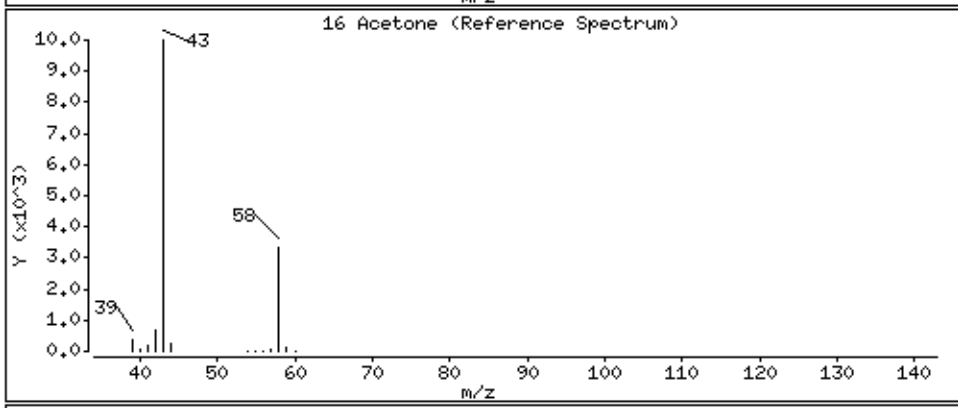
Concentration: 27.1 ug/L

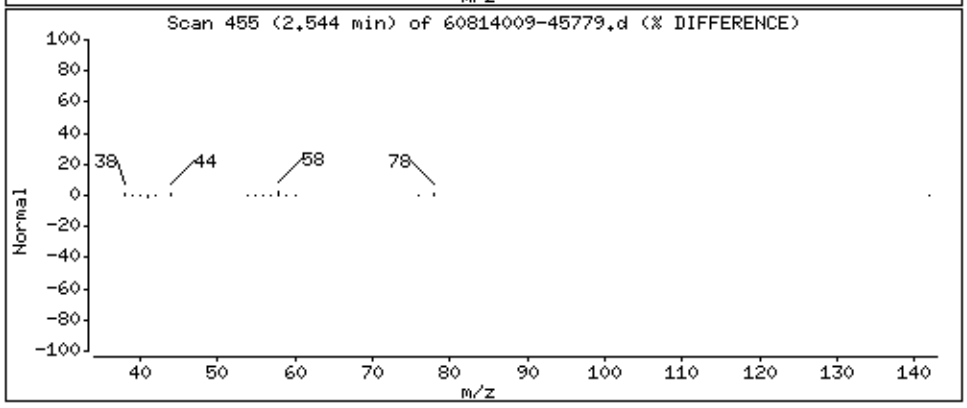












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

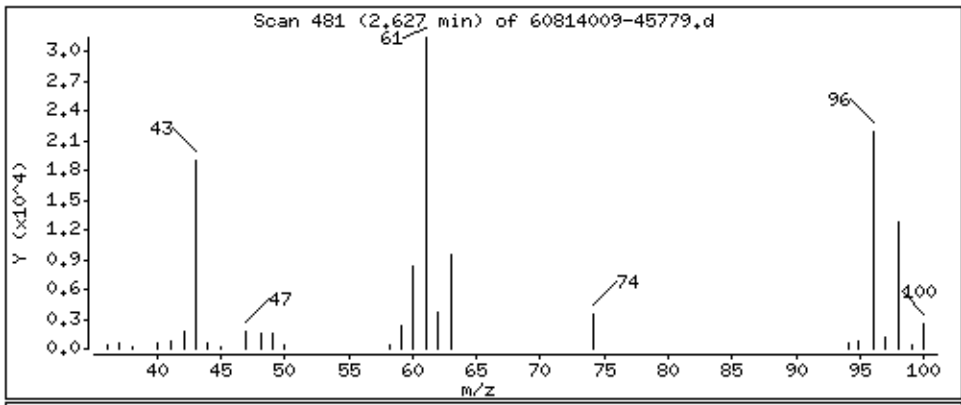
Operator: JEW

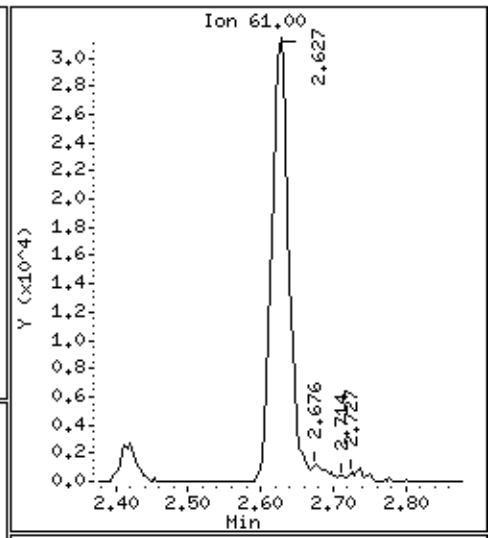
Column phase: RTX-VMS

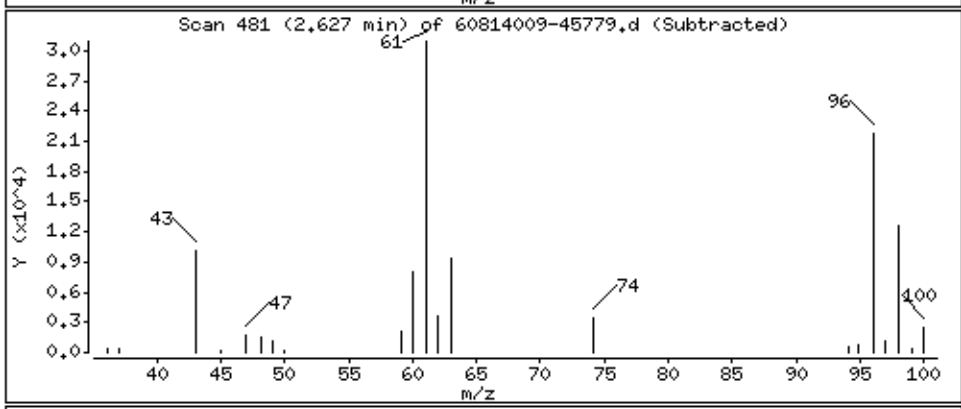
Column diameter: 0.18

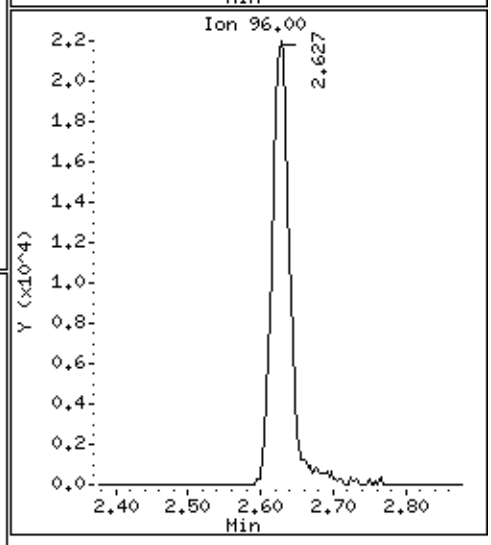
17 trans-1,2-Dichloroethene

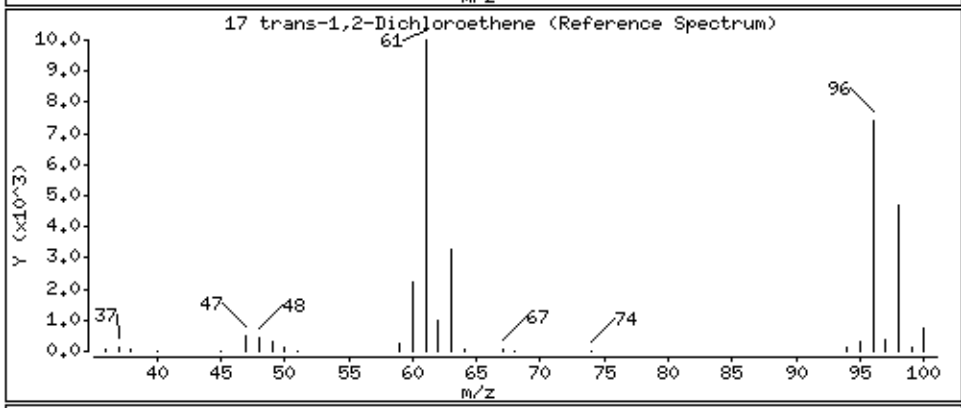
Concentration: 16.2 ug/L

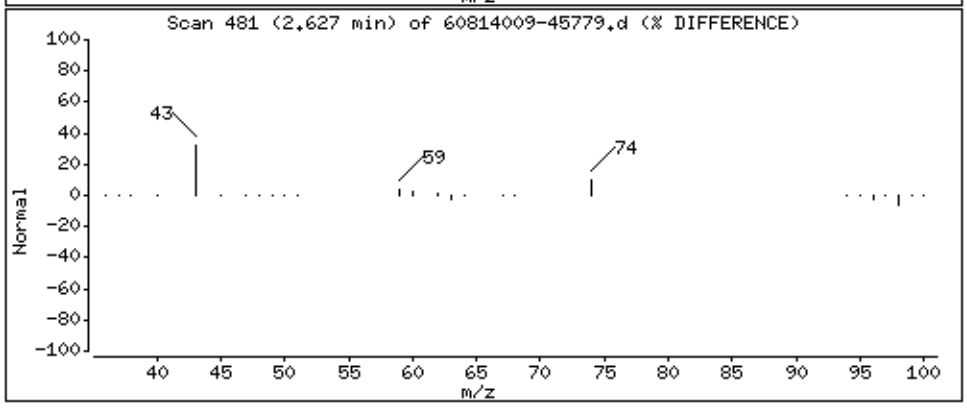












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

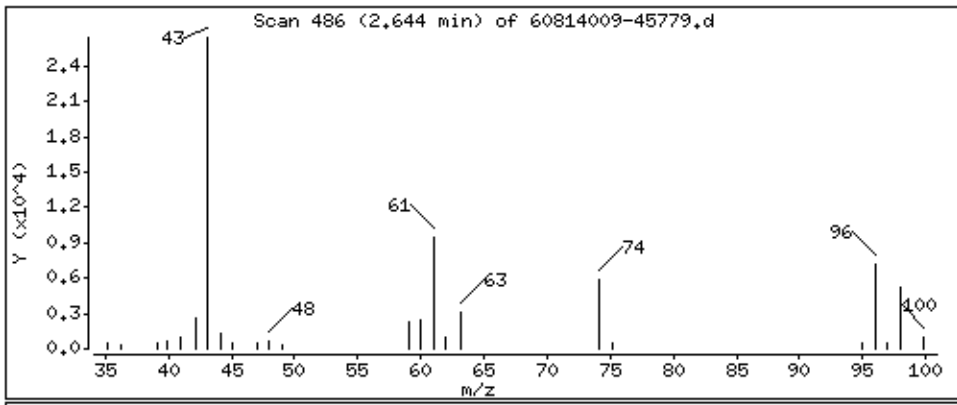
Operator: JEW

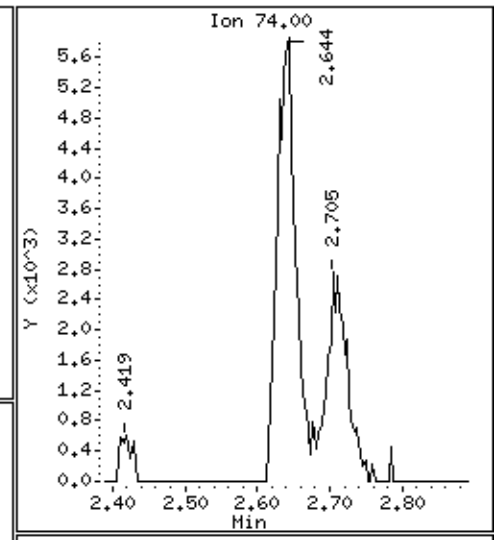
Column phase: RTX-VMS

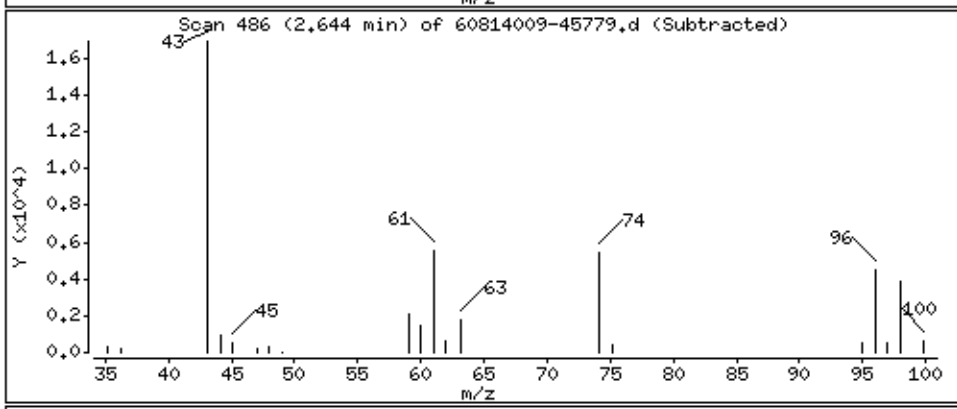
Column diameter: 0.18

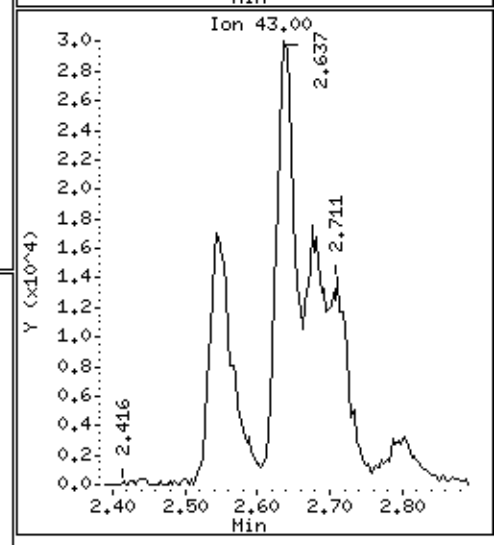
18 Methyl acetate

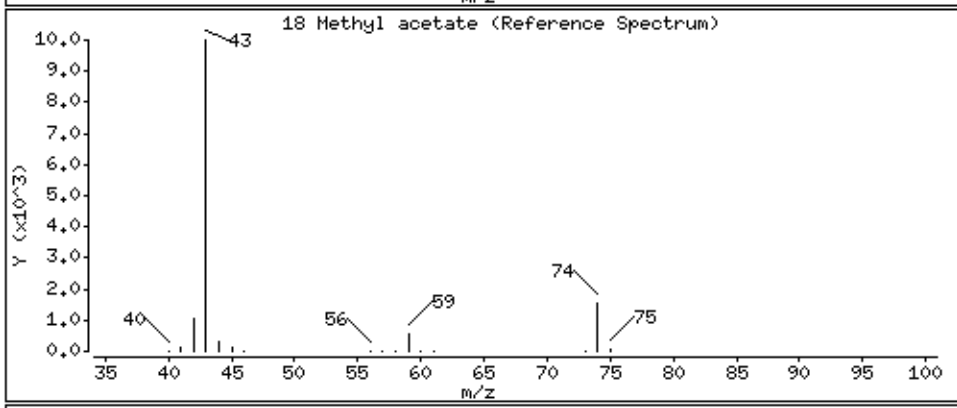
Concentration: 22.8 ug/L

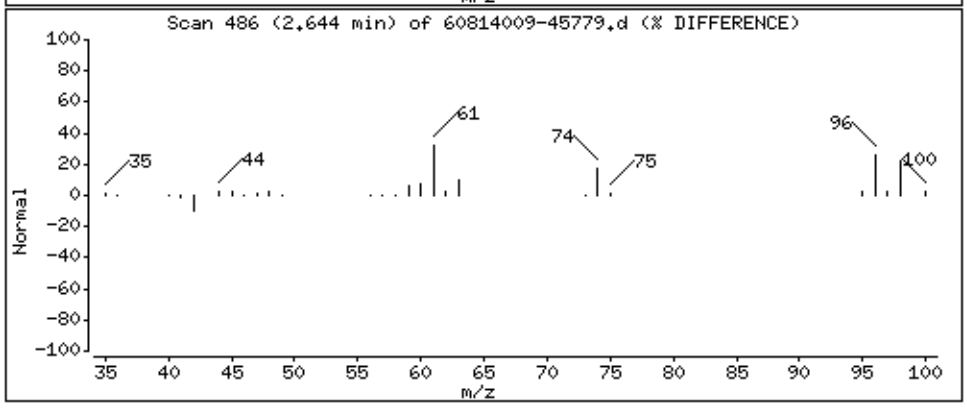












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

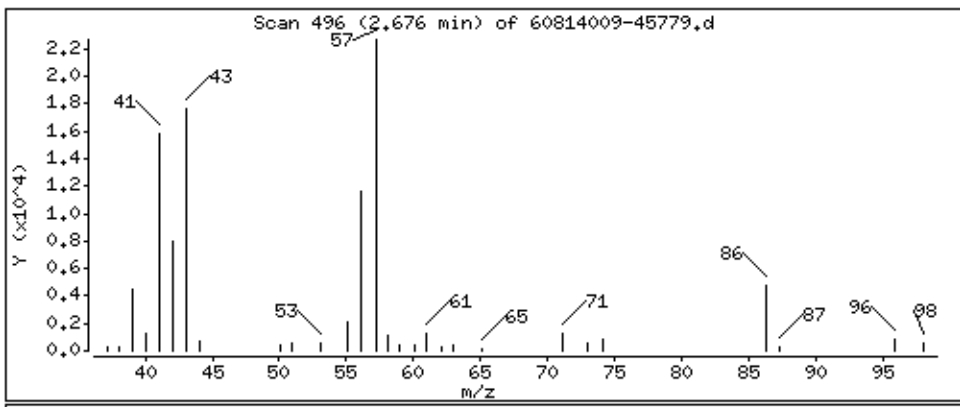
Purge Volume: 5.0

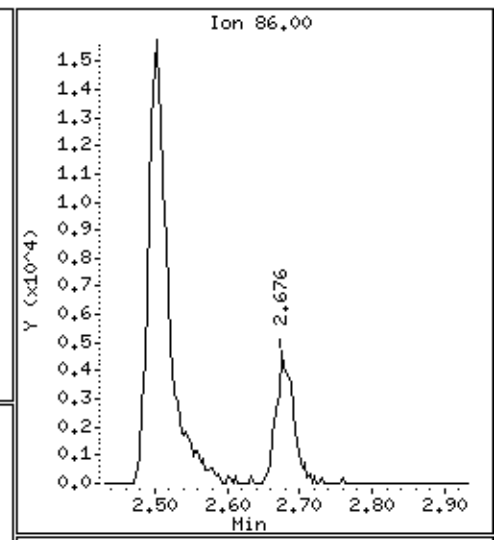
Operator: JEW

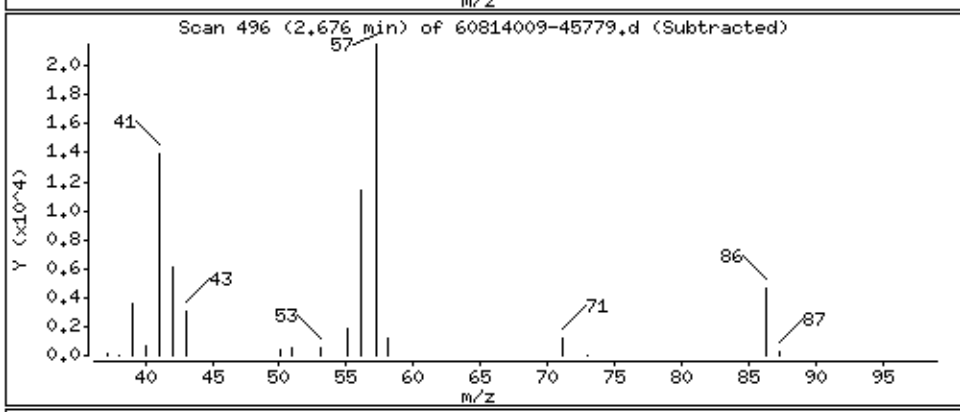
Column phase: RTX-VMS

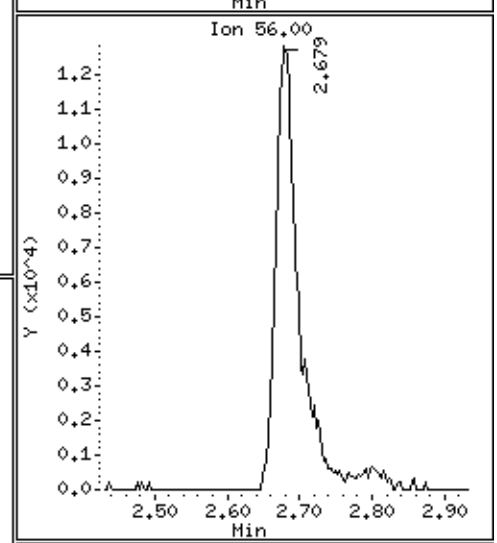
Column diameter: 0.18

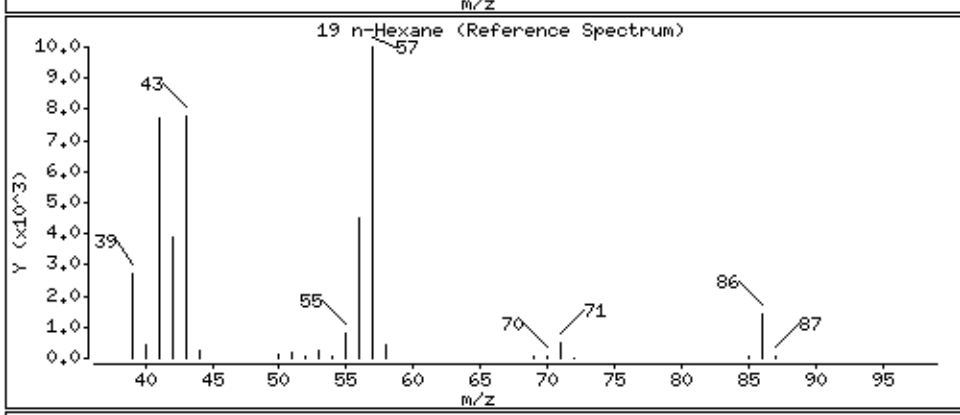
19 n-Hexane

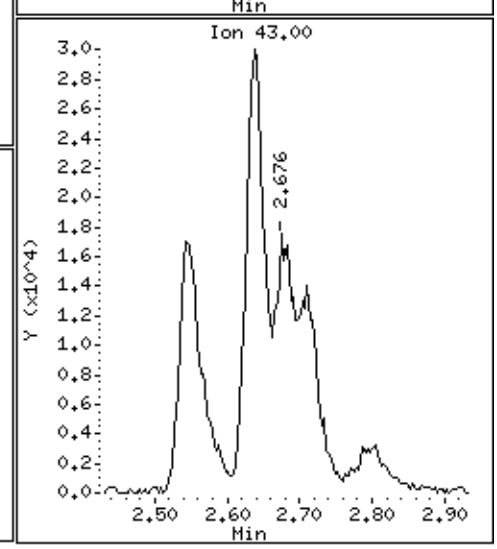


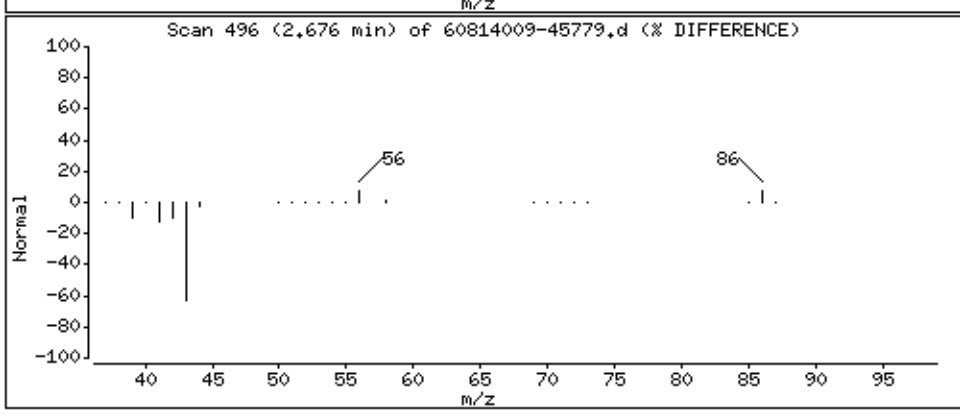












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

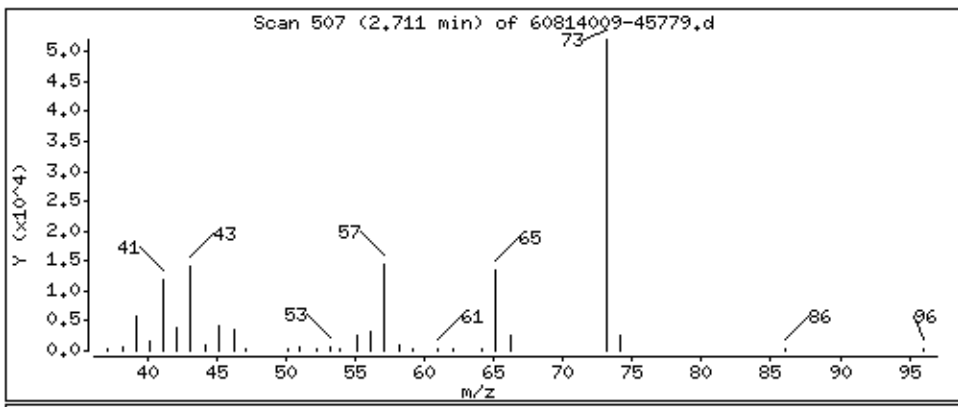
Operator: JEW

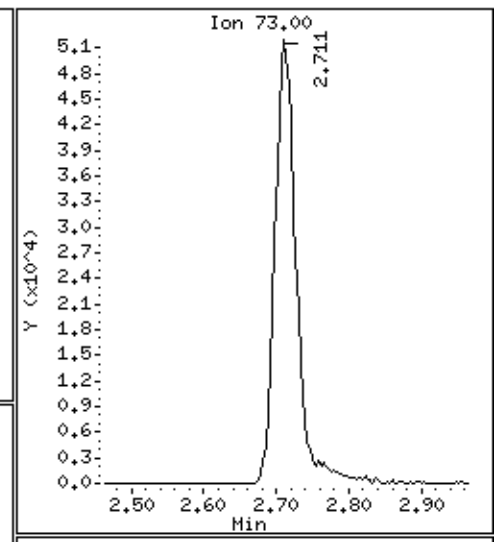
Column phase: RTX-VMS

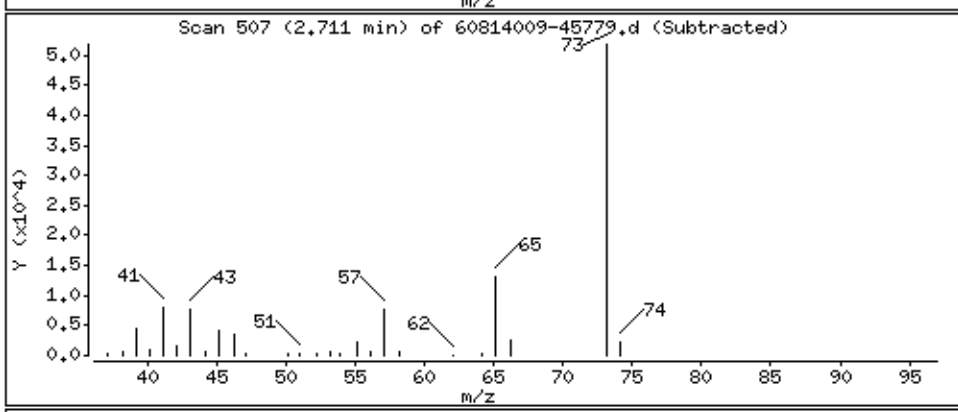
Column diameter: 0.18

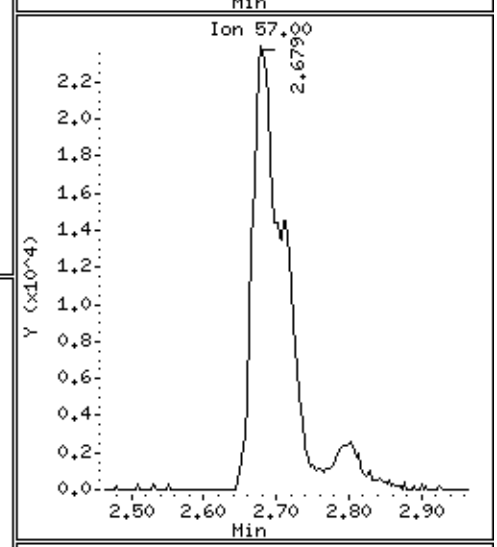
20 Methyl-tert-butyl ether

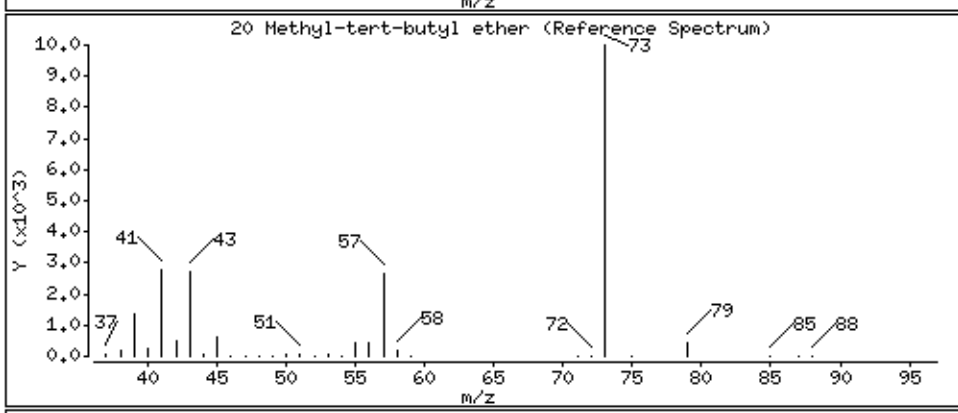
Concentration: 17.0 ug/L

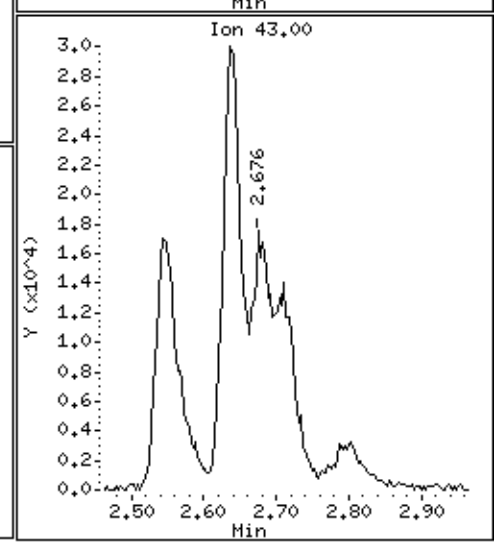


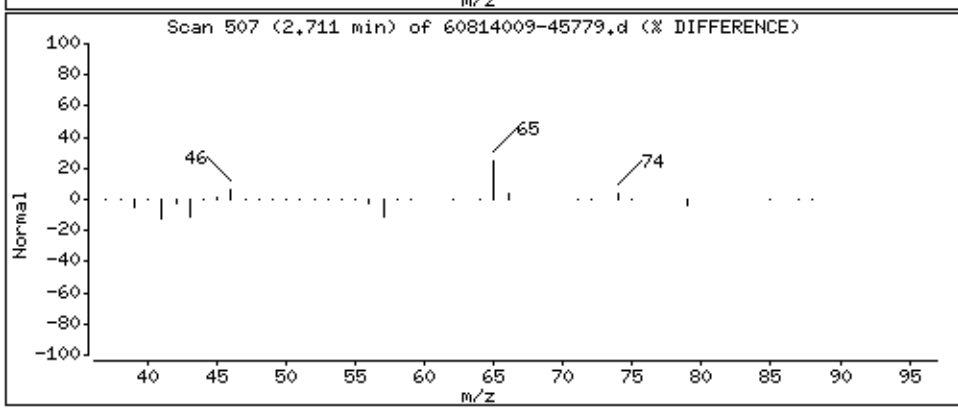












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

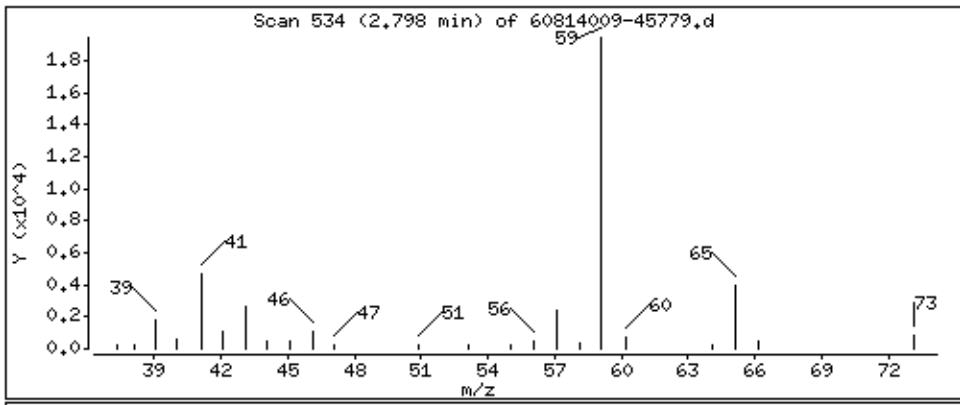
Operator: JEW

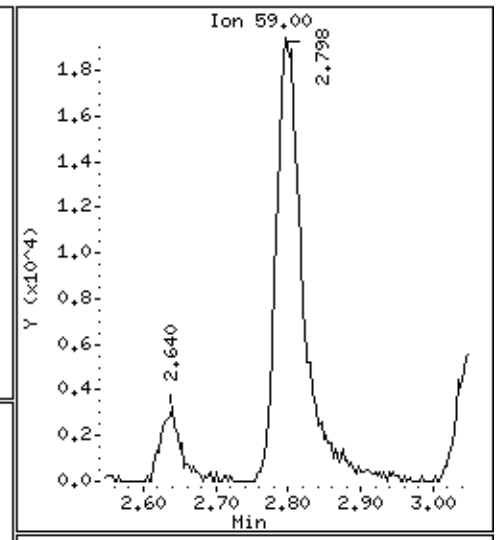
Column phase: RTX-VMS

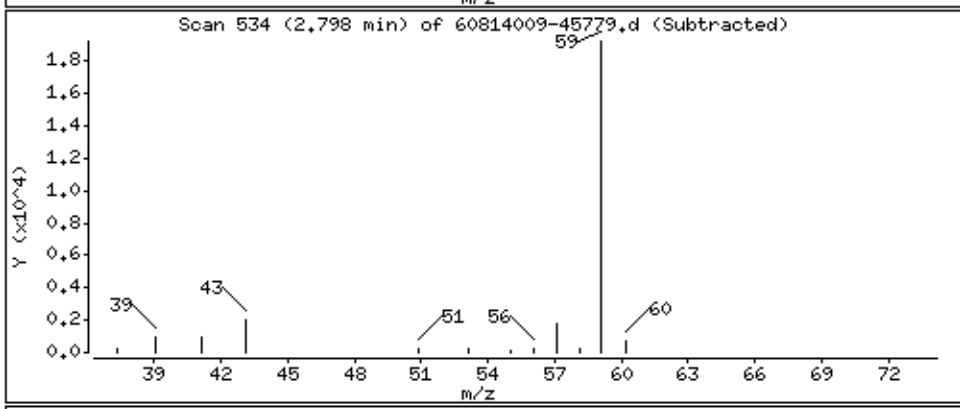
Column diameter: 0.18

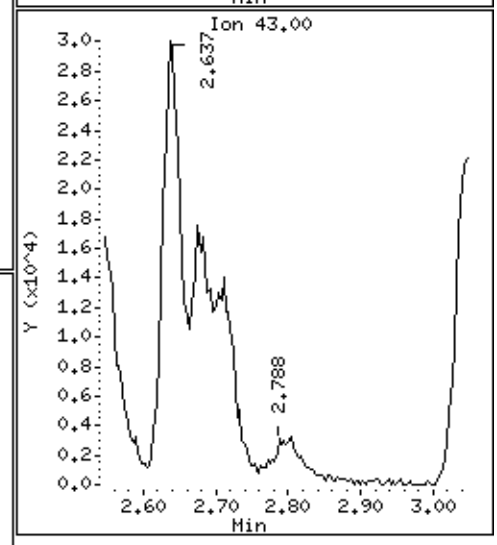
21 tert-Butyl Alcohol

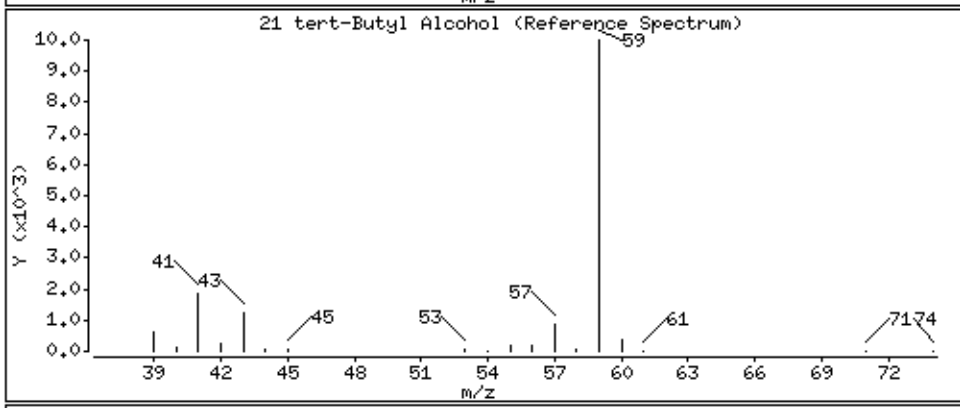
Concentration: 96.6 ug/L

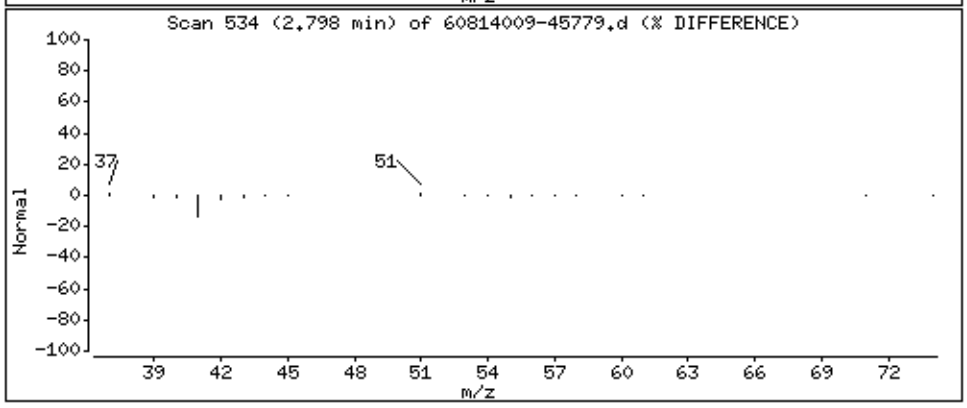












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

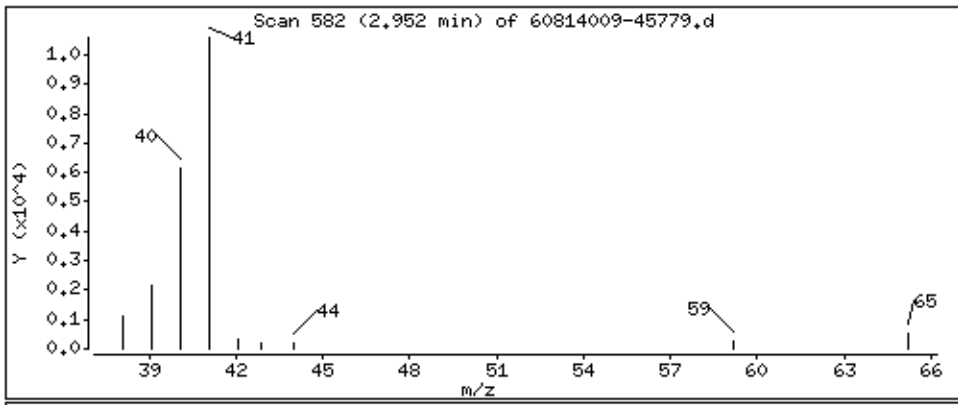
Operator: JEW

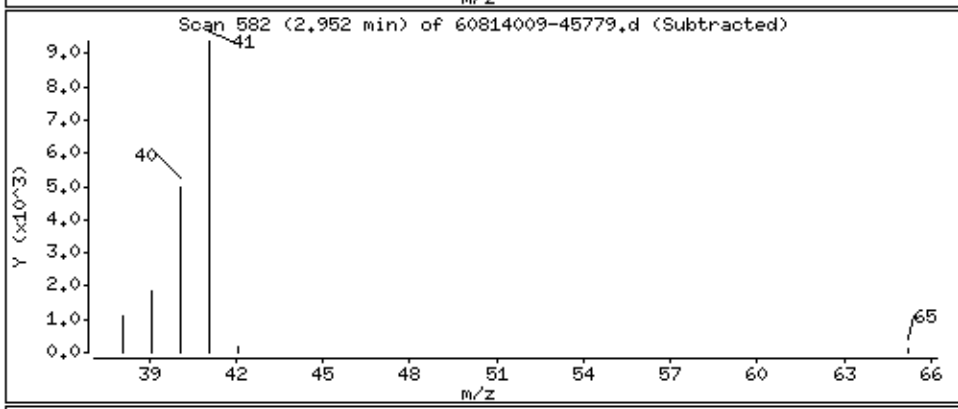
Column phase: RTX-VMS

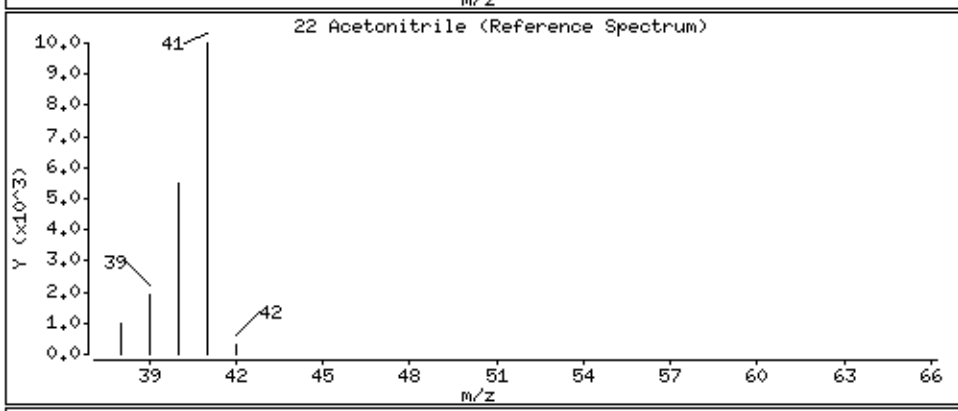
Column diameter: 0.18

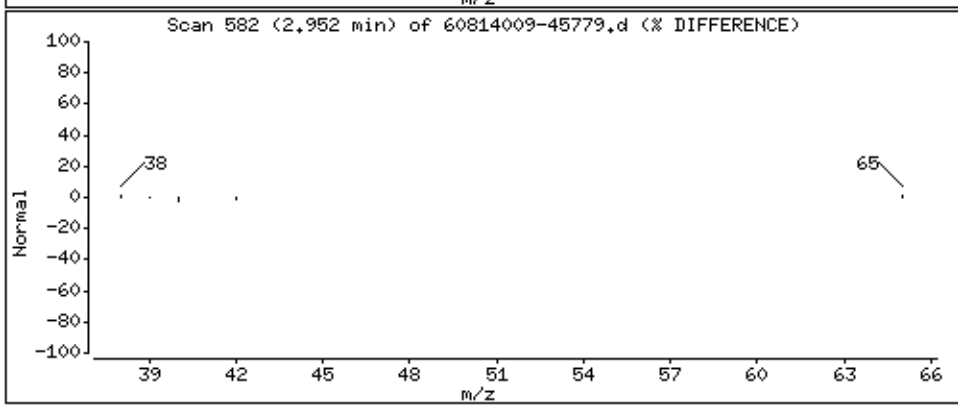
22 Acetonitrile

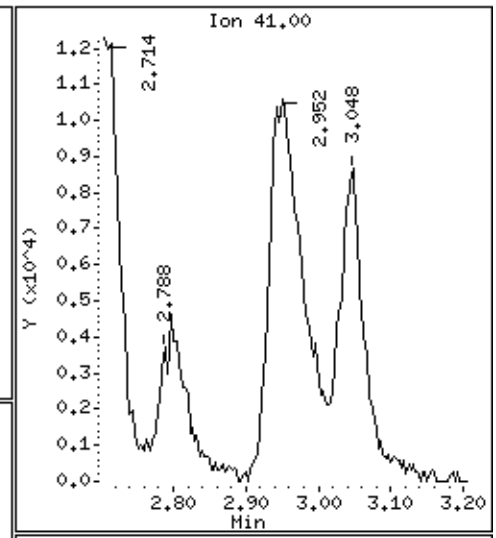
Concentration: 104 ug/L

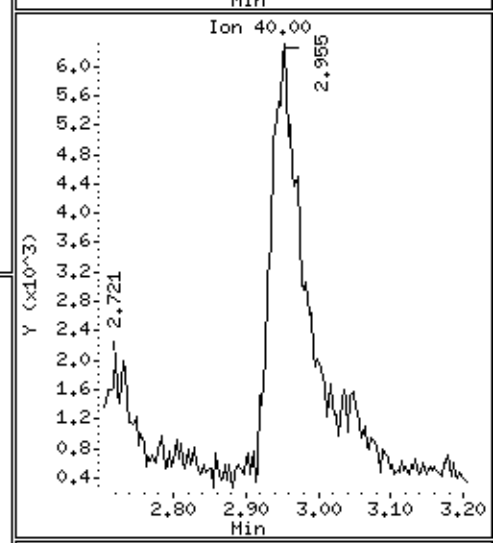


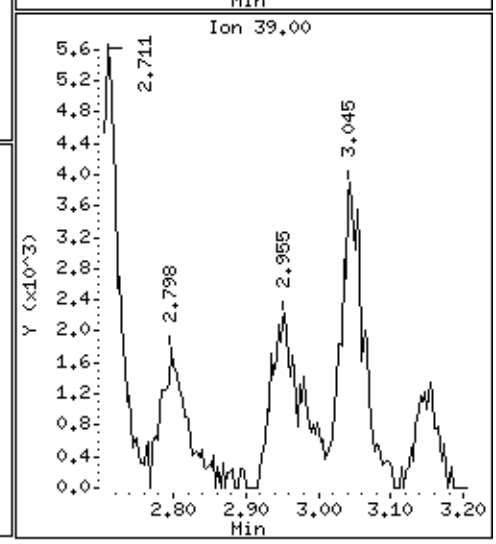












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

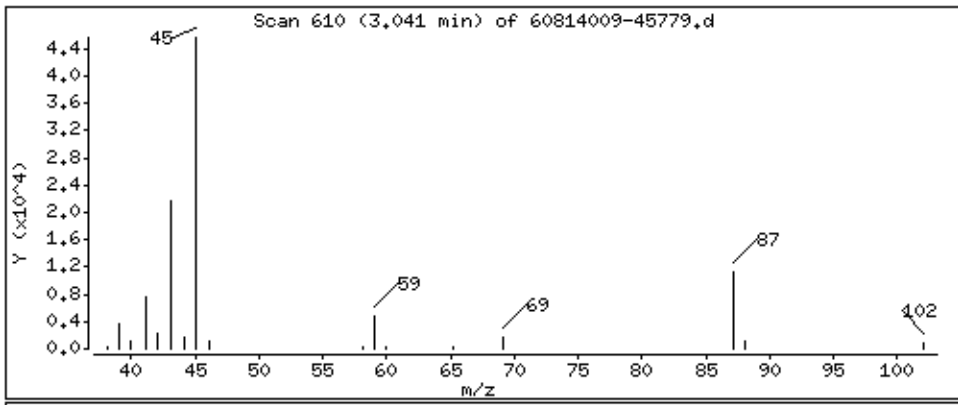
Operator: JEW

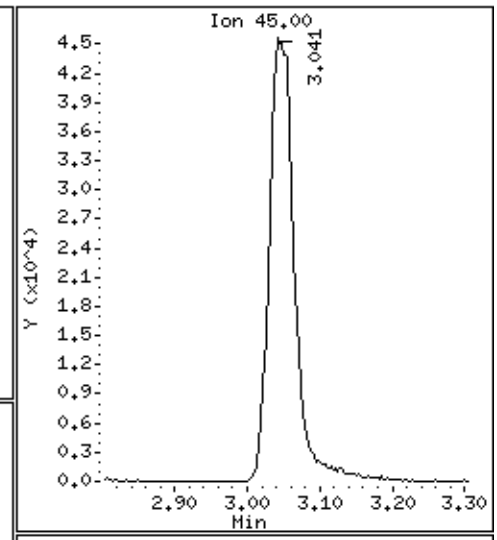
Column phase: RTX-VMS

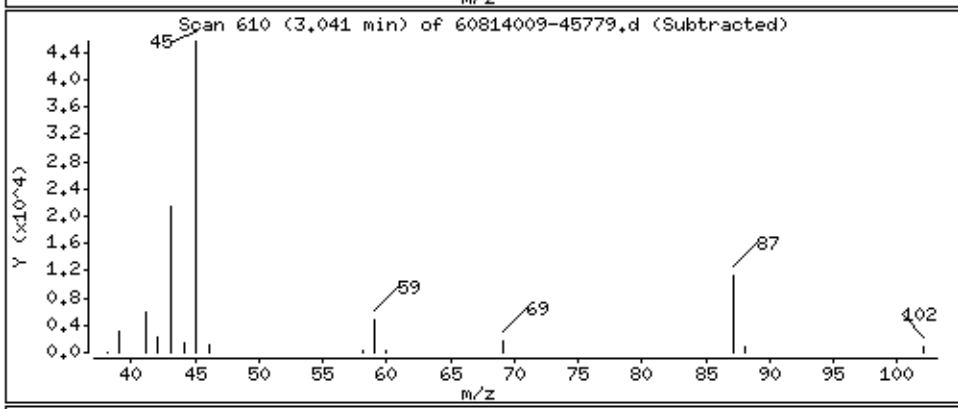
Column diameter: 0.18

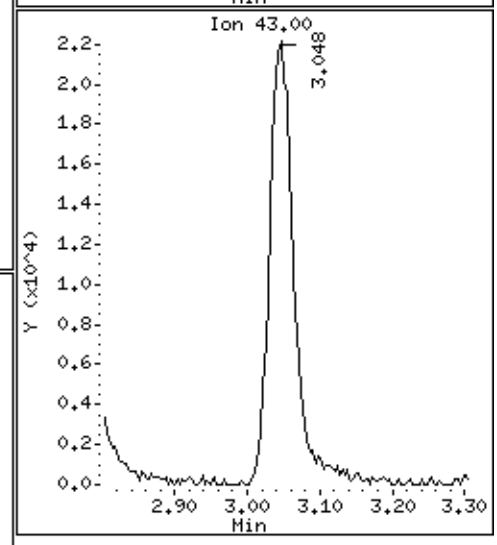
23 Diisopropyl ether

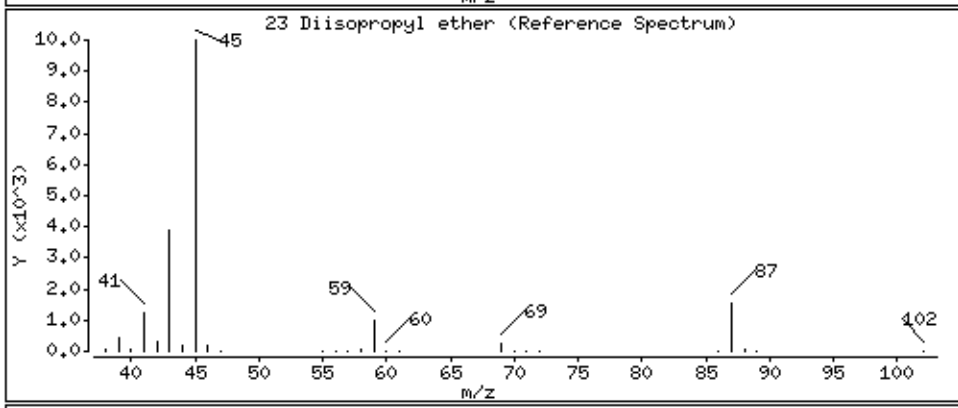
Concentration: 15.2 ug/L

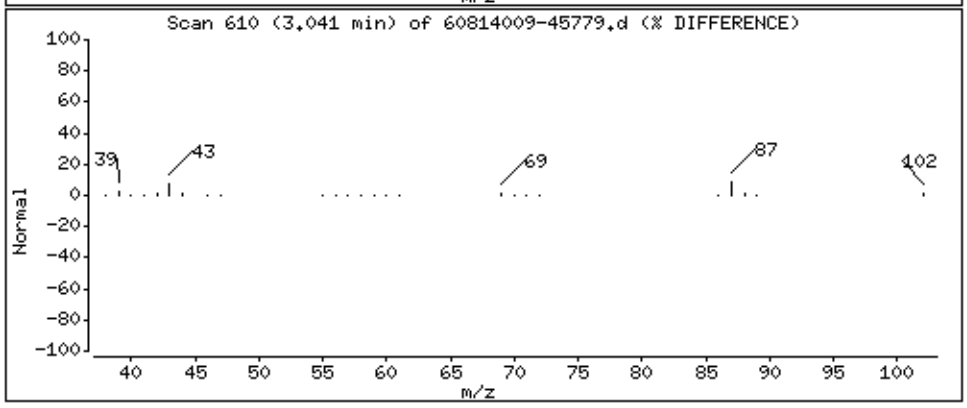












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

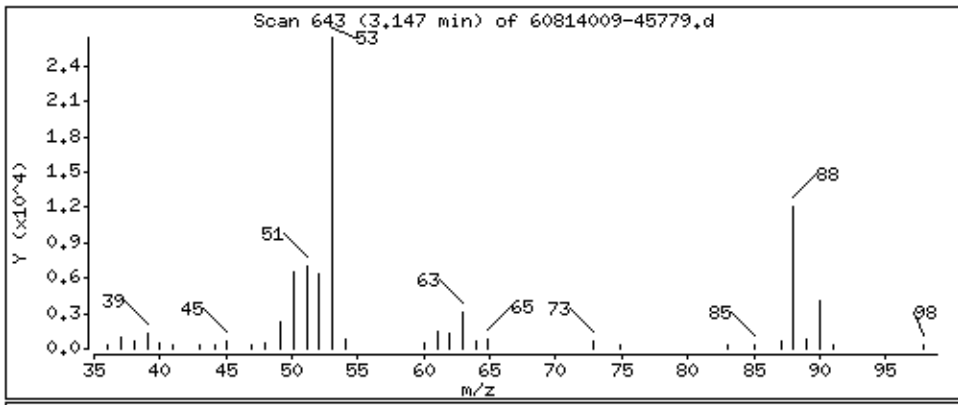
Operator: JEW

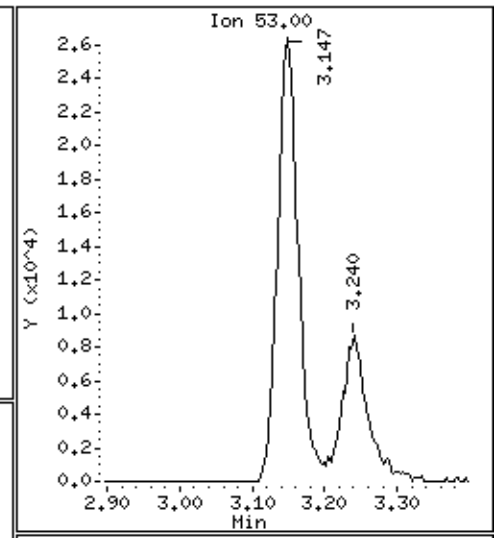
Column phase: RTX-VMS

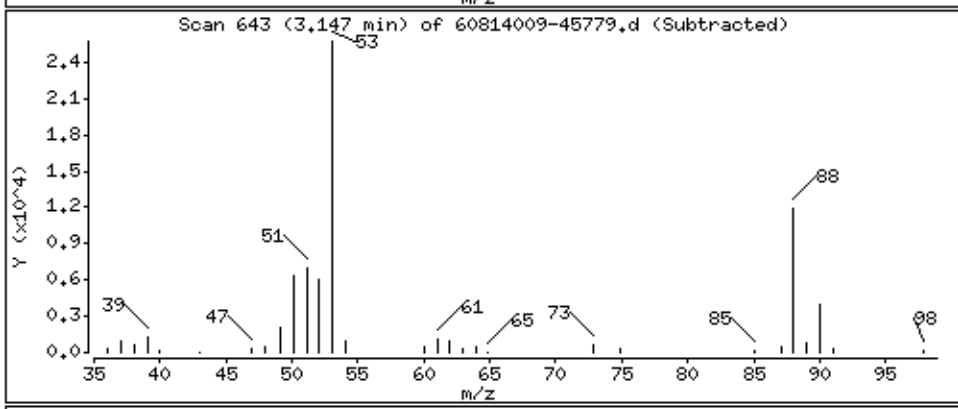
Column diameter: 0.18

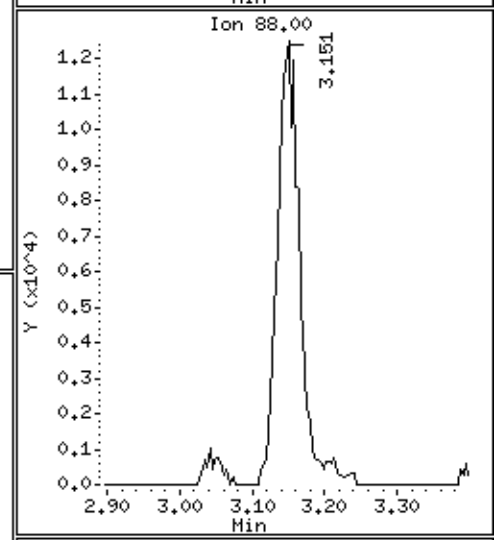
24 Chloroprene

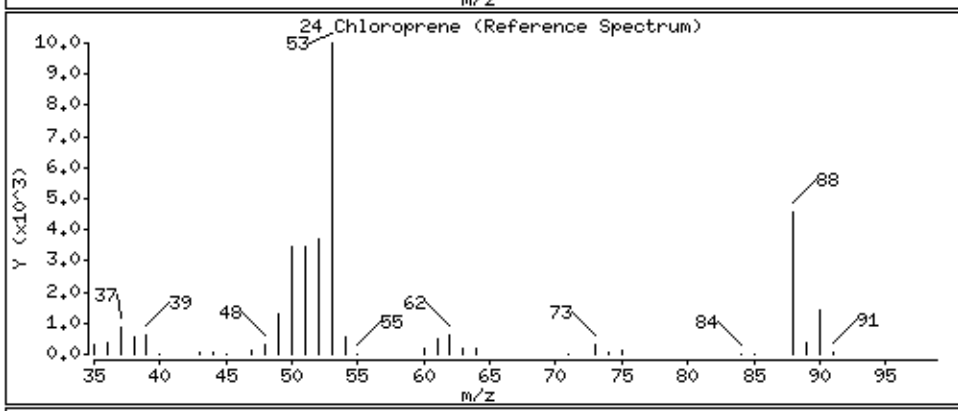
Concentration: 17.1 ug/L

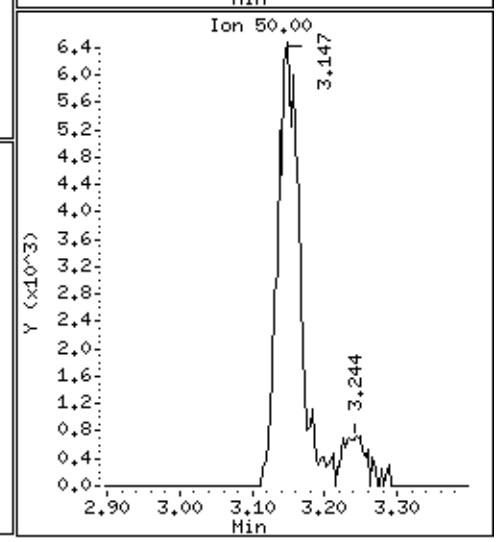


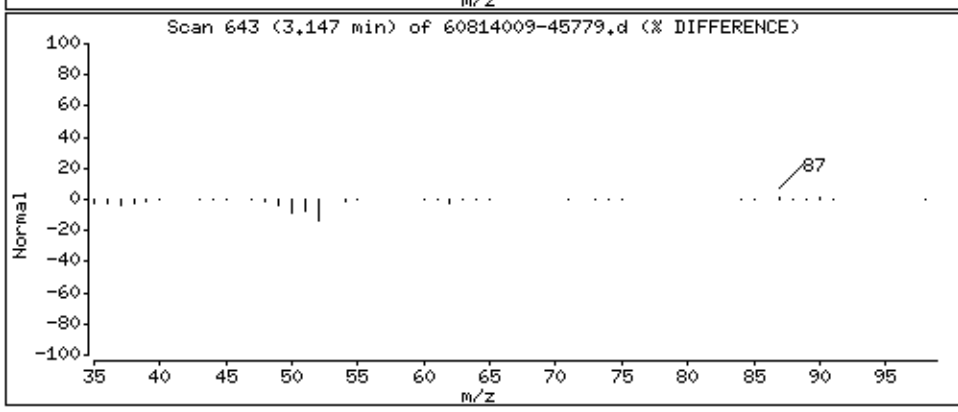












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

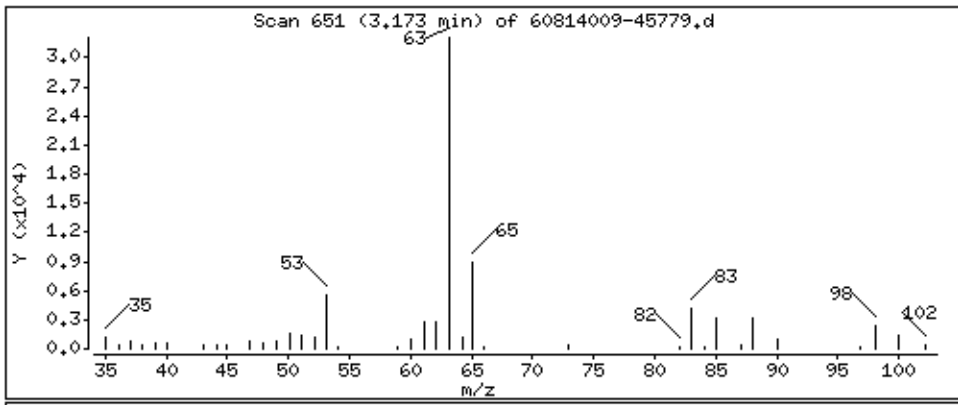
Operator: JEW

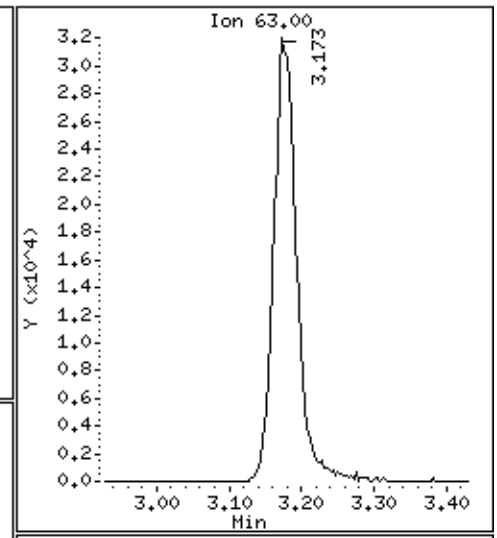
Column phase: RTX-VMS

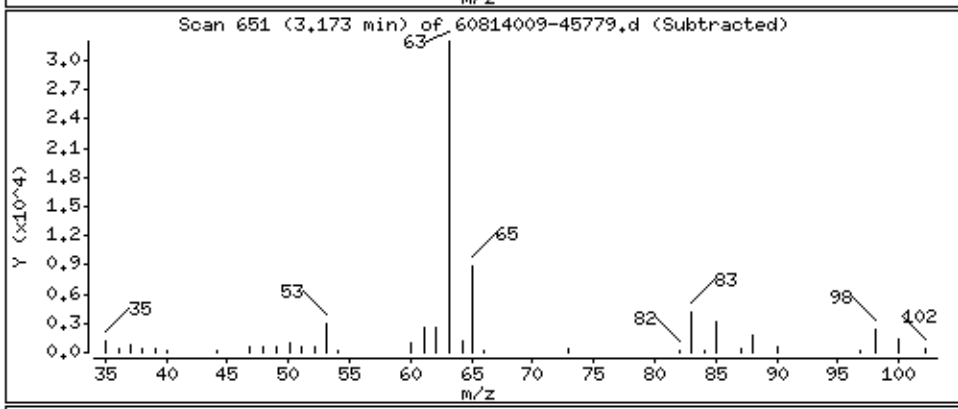
Column diameter: 0.18

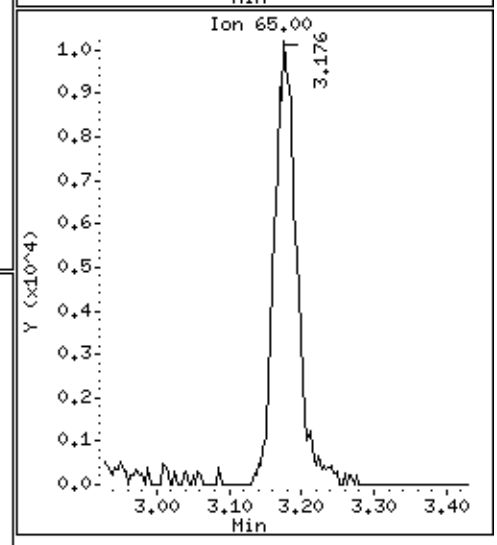
25 1,1-Dichloroethane

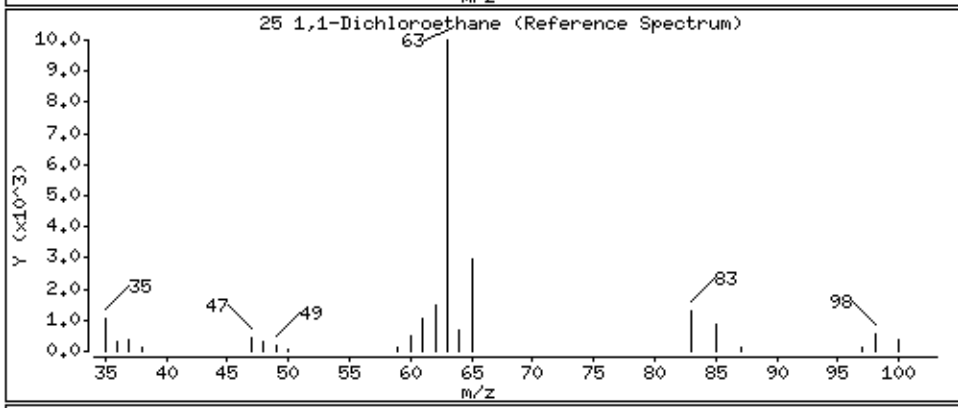
Concentration: 17.1 ug/L

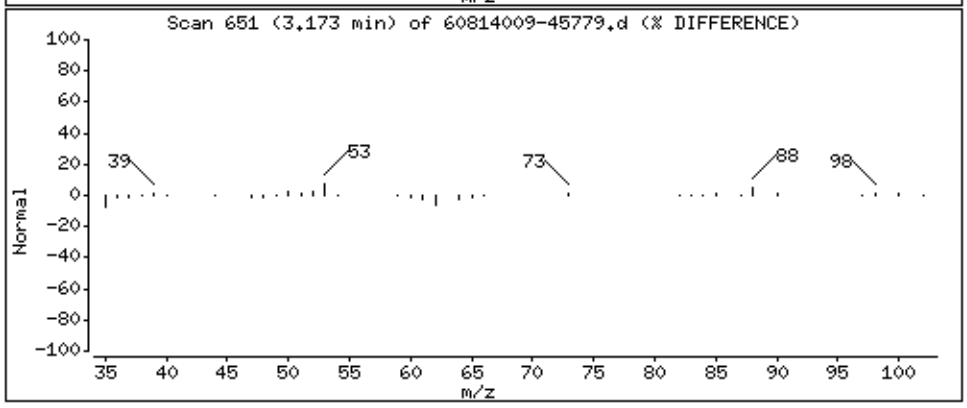












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

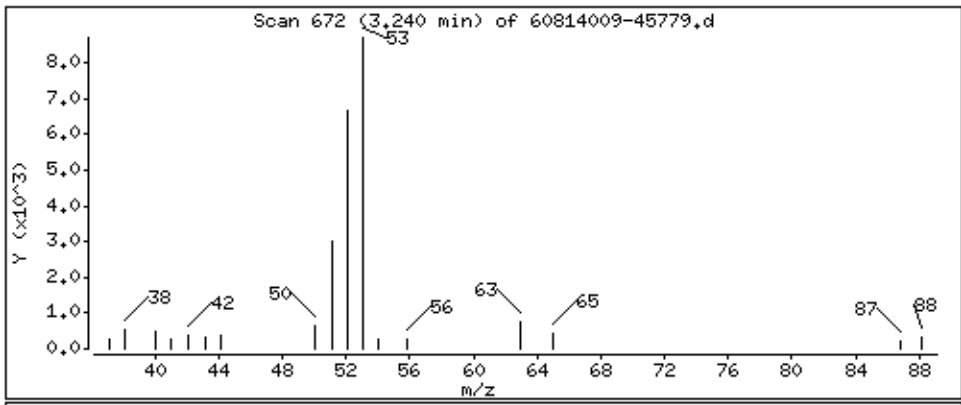
Operator: JEW

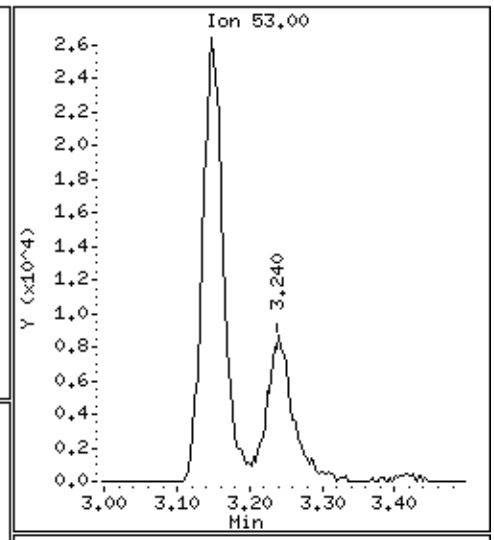
Column phase: RTX-VMS

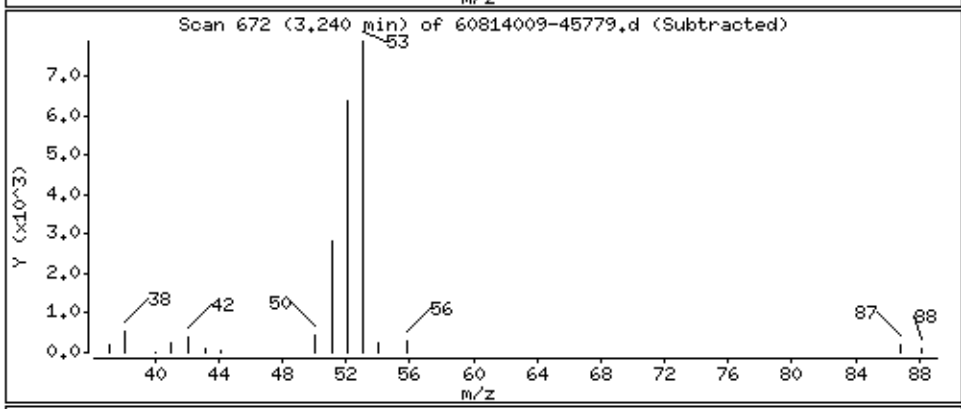
Column diameter: 0.18

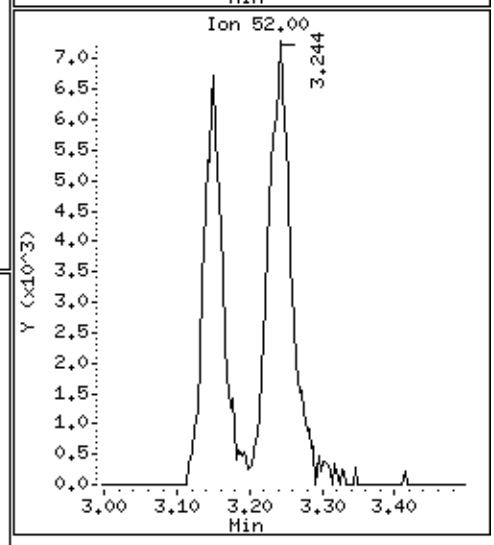
26 Acrylonitrile

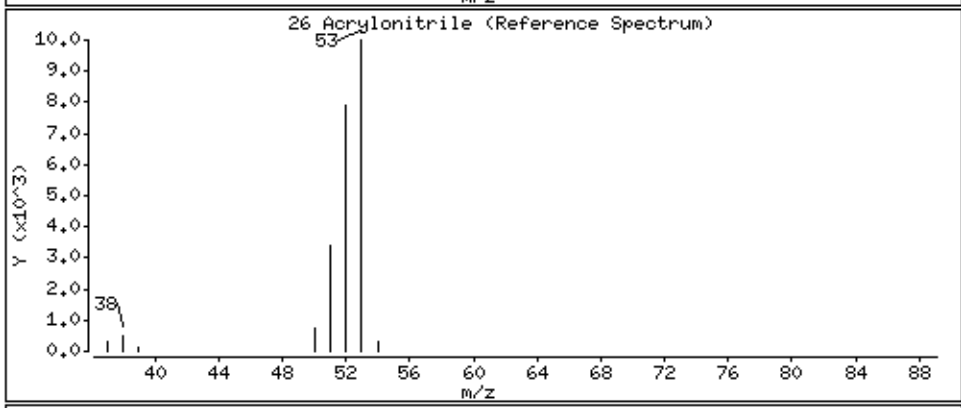
Concentration: 15.6 ug/L

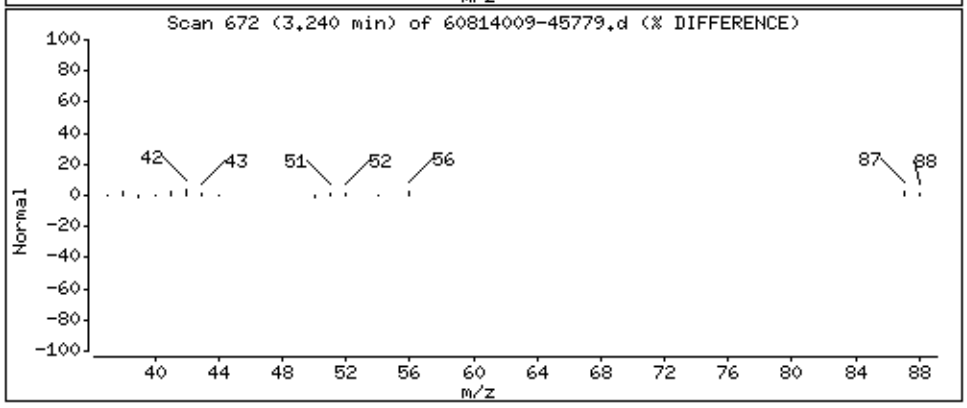












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

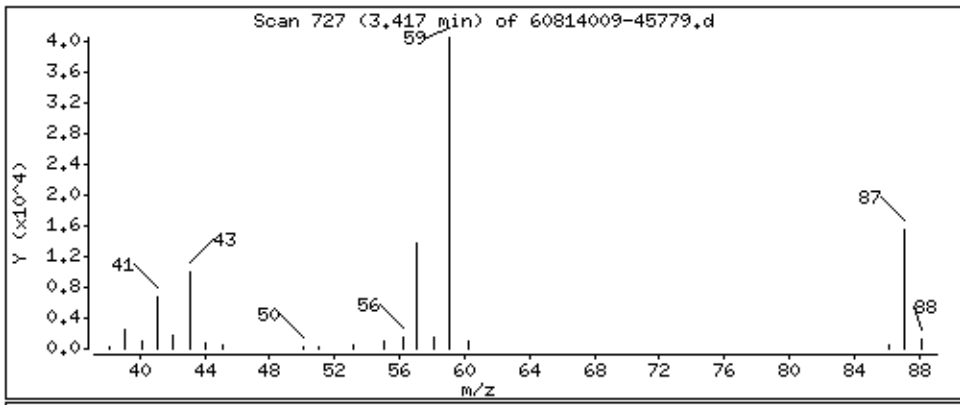
Operator: JEW

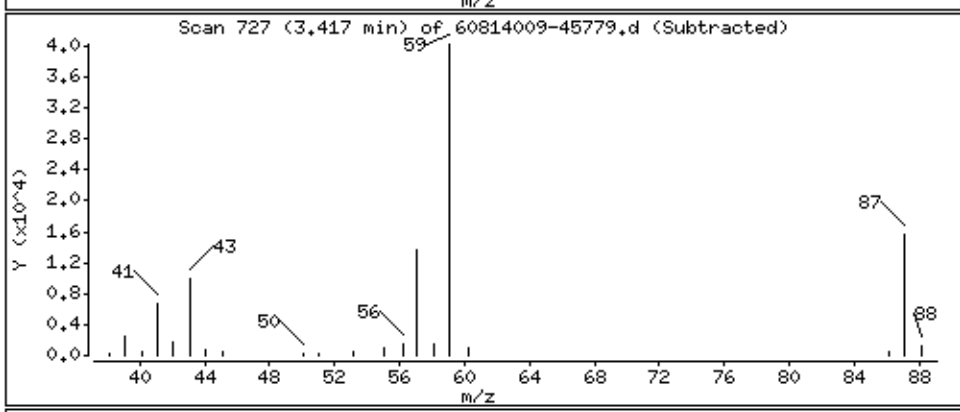
Column phase: RTX-VMS

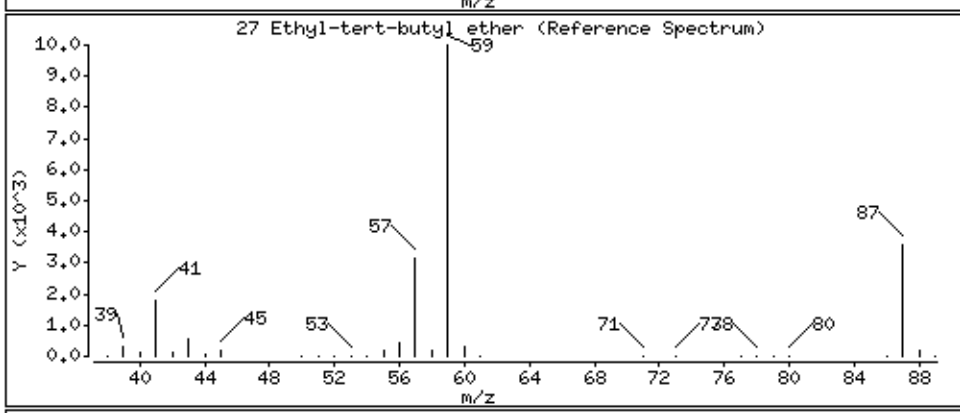
Column diameter: 0.18

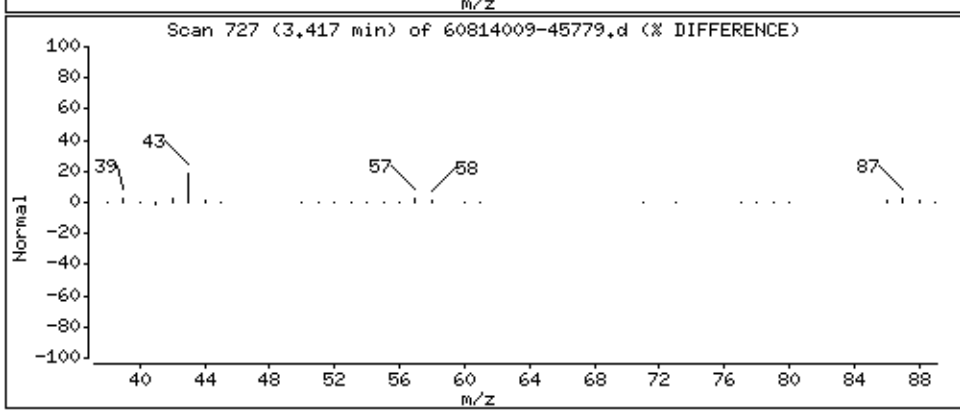
27 Ethyl-tert-butyl ether

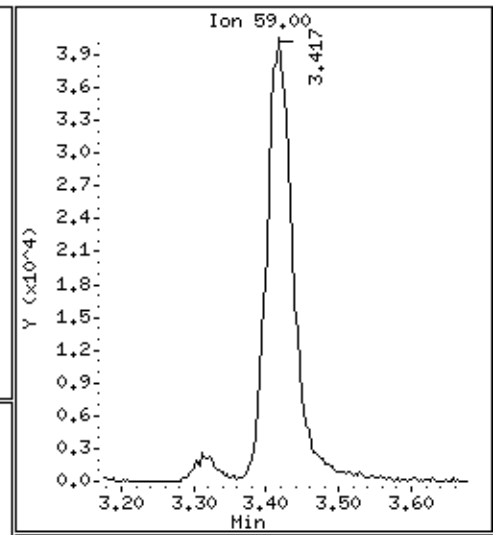
Concentration: 15.1 ug/L

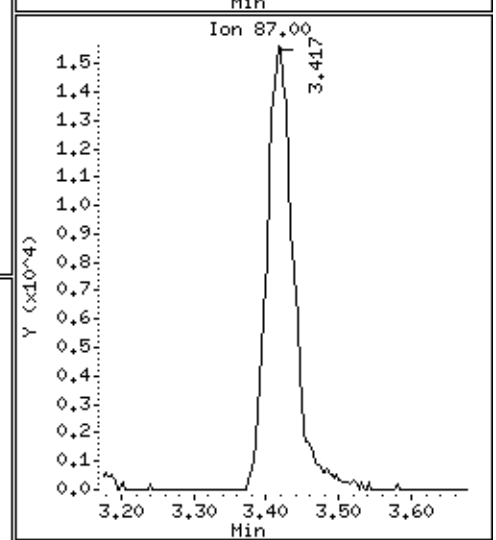


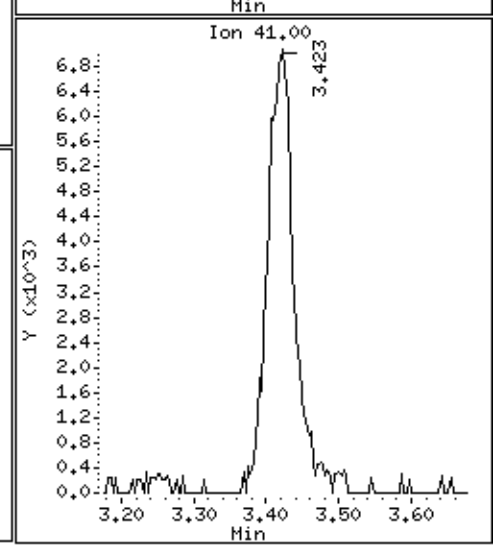












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

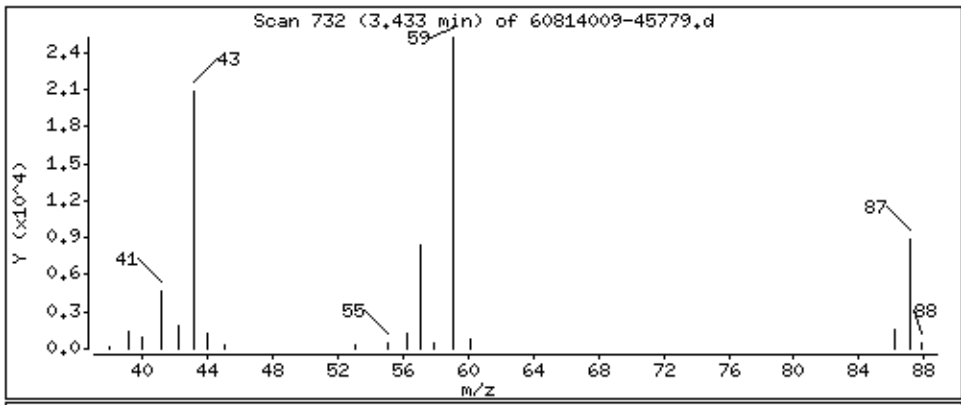
Operator: JEW

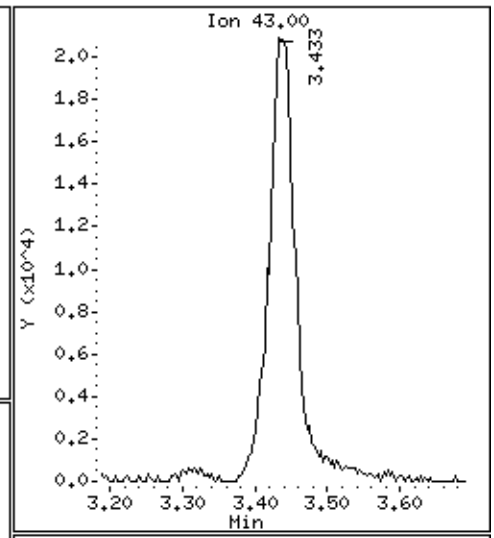
Column phase: RTX-VMS

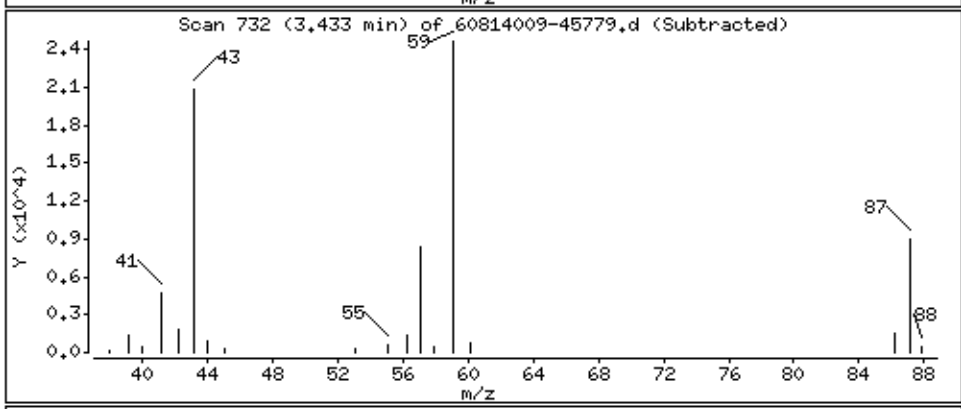
Column diameter: 0.18

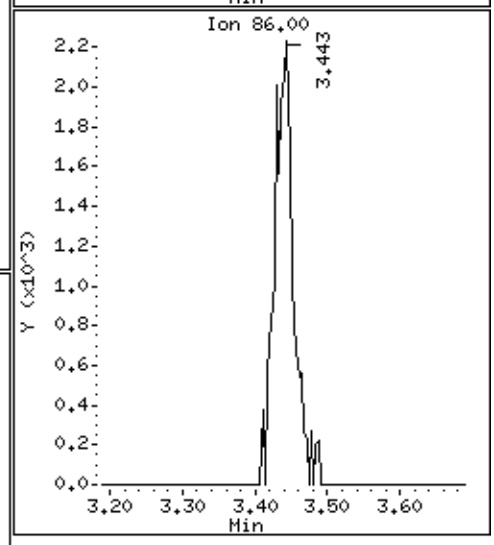
28 Vinyl acetate

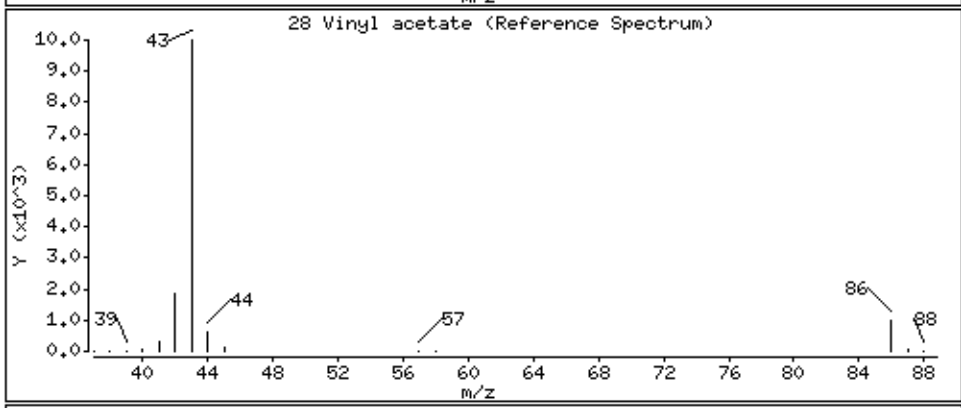
Concentration: 9.88 ug/L

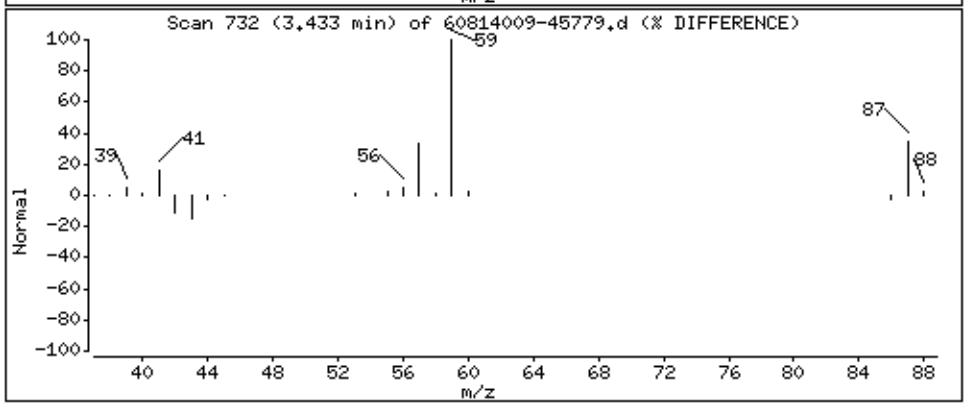












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

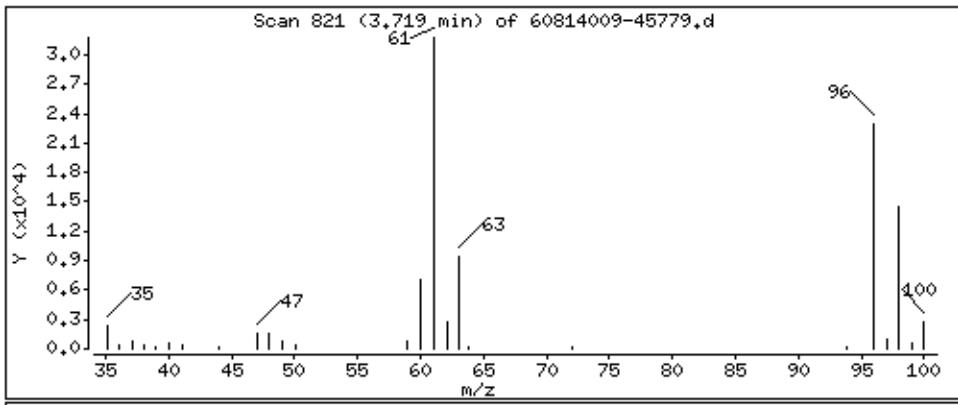
Operator: JEW

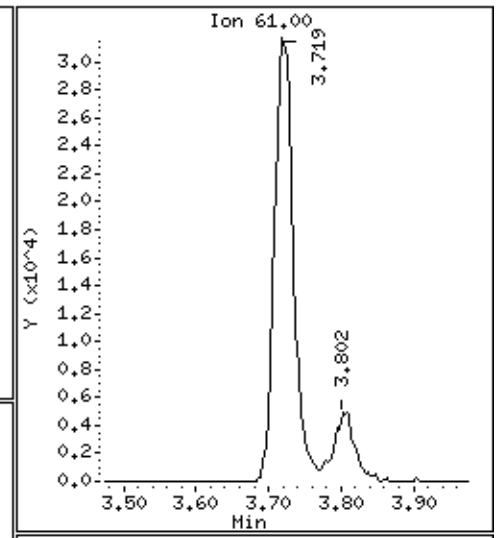
Column phase: RTX-VMS

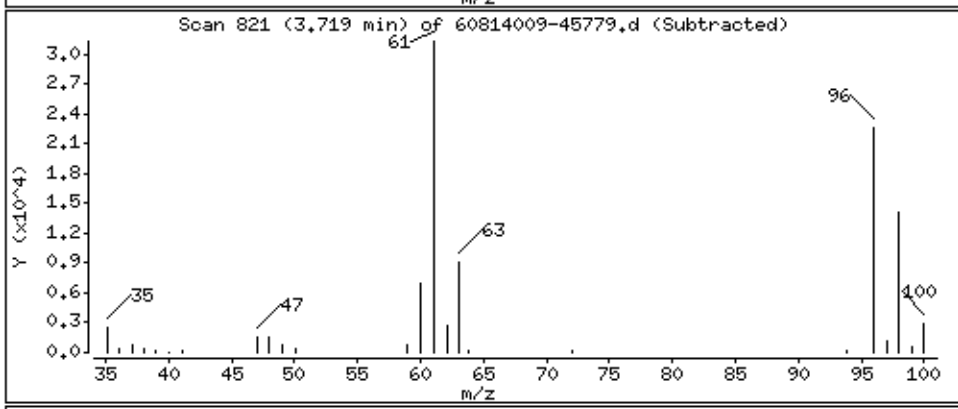
Column diameter: 0.18

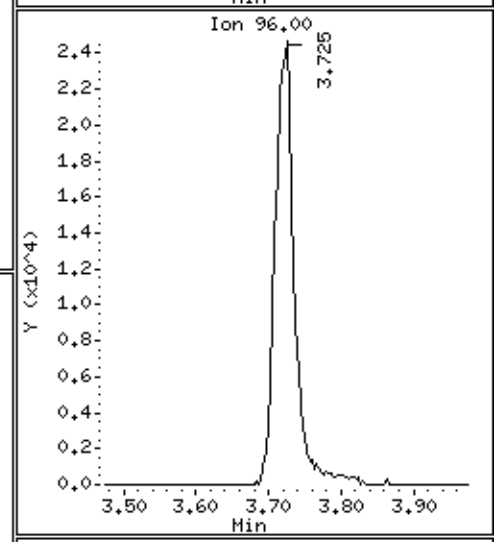
29 cis-1,2-Dichloroethene

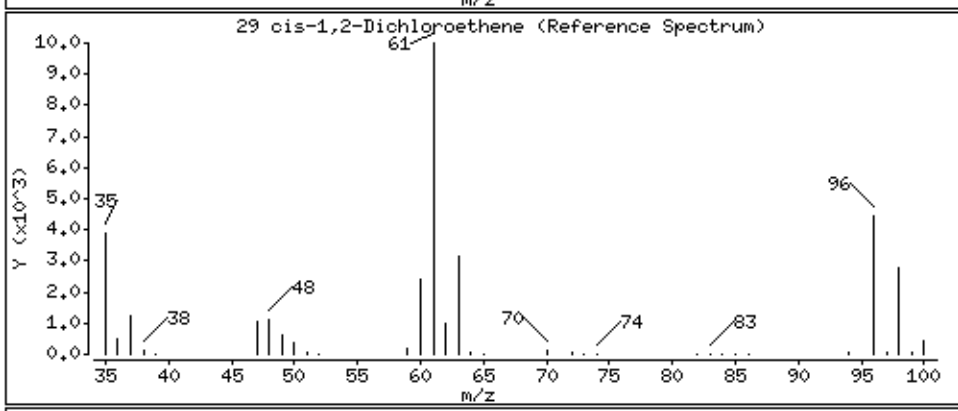
Concentration: 16.1 ug/L

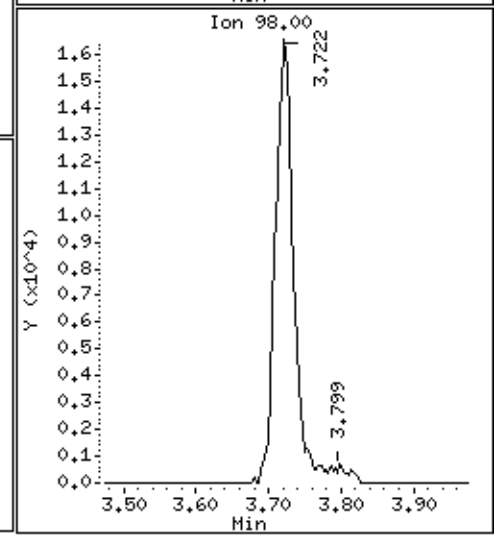


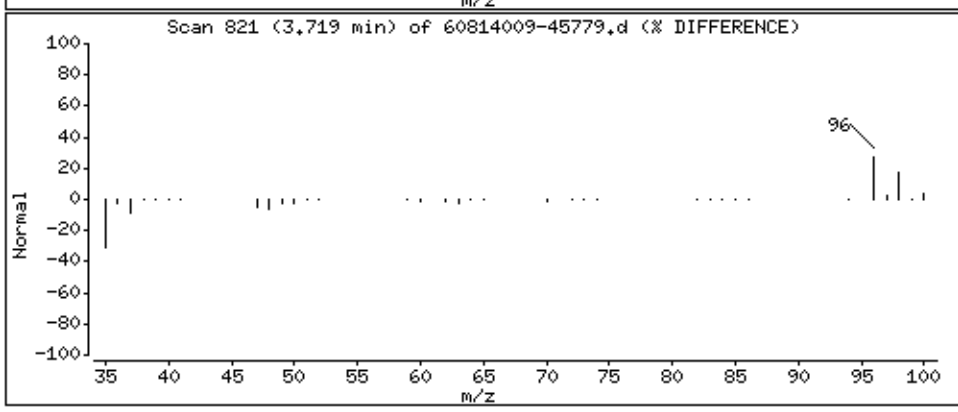












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

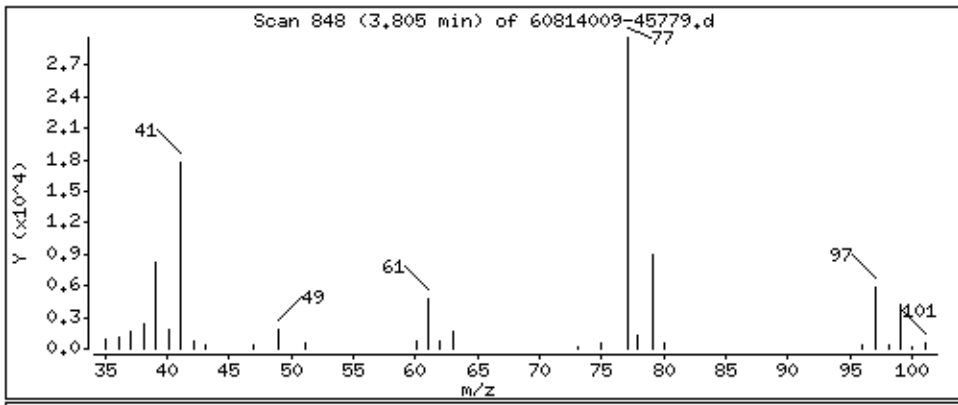
Operator: JEW

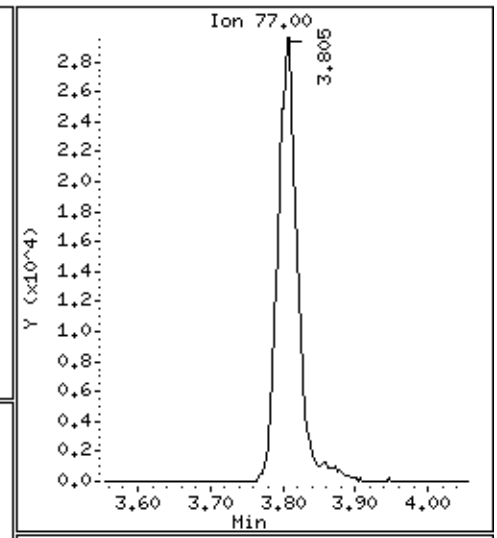
Column phase: RTX-VMS

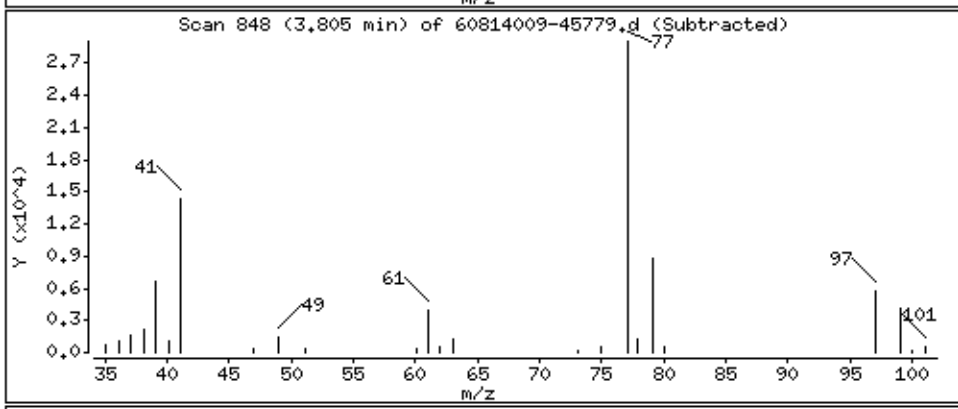
Column diameter: 0.18

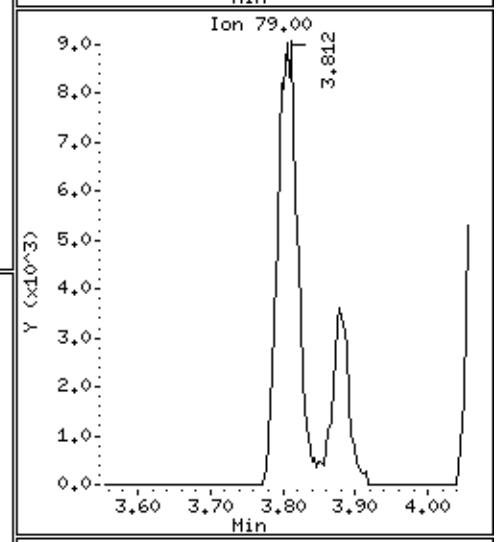
30 2,2-Dichloropropane

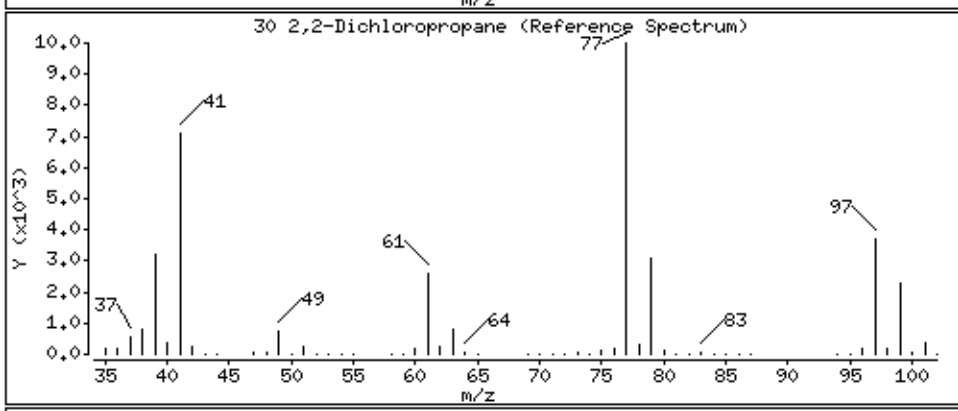
Concentration: 16.6 ug/L

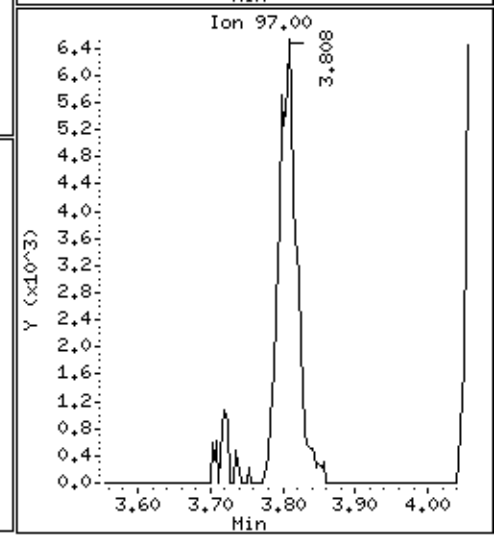


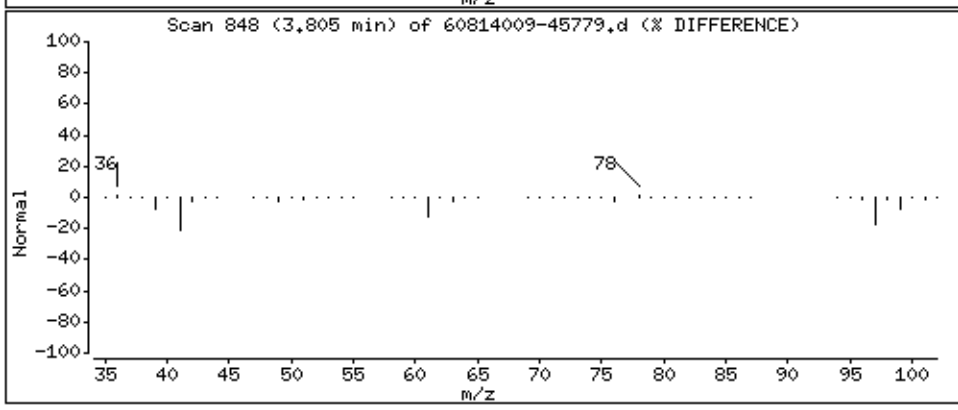












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

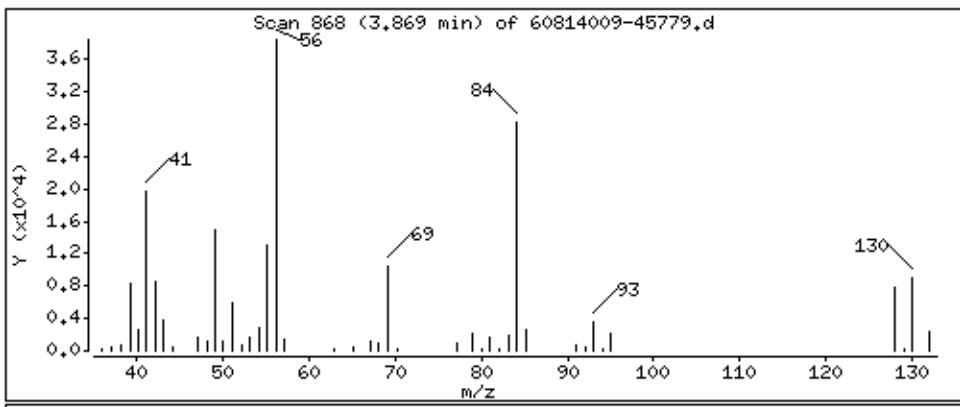
Operator: JEW

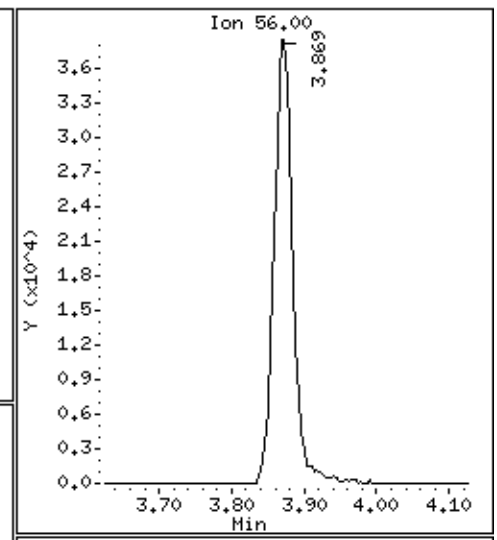
Column phase: RTX-VMS

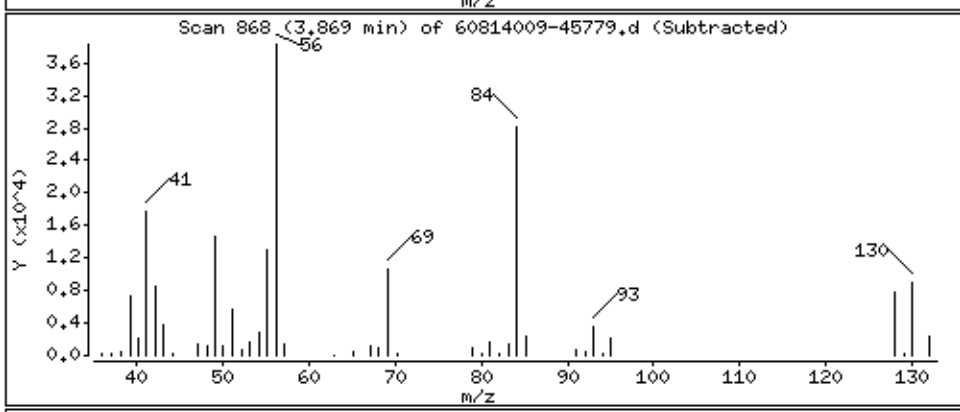
Column diameter: 0.18

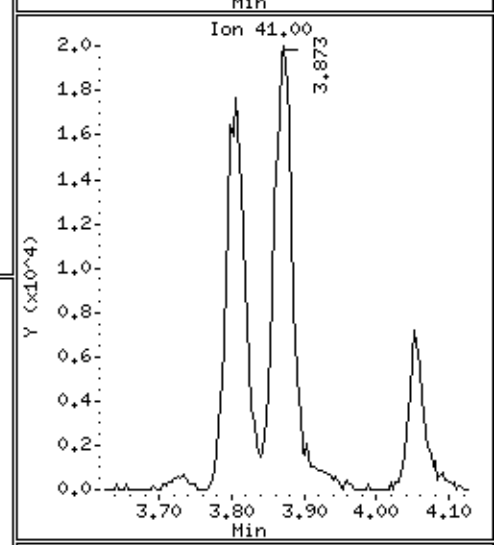
31 Cyclohexane

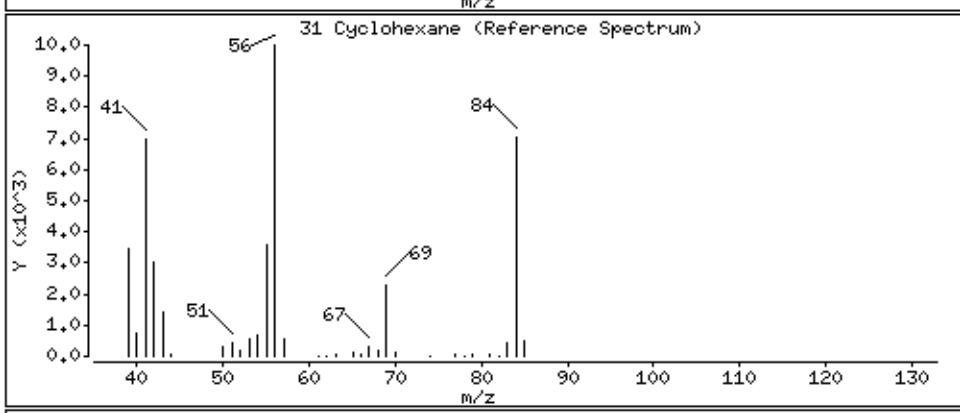
Concentration: 18.0 ug/L

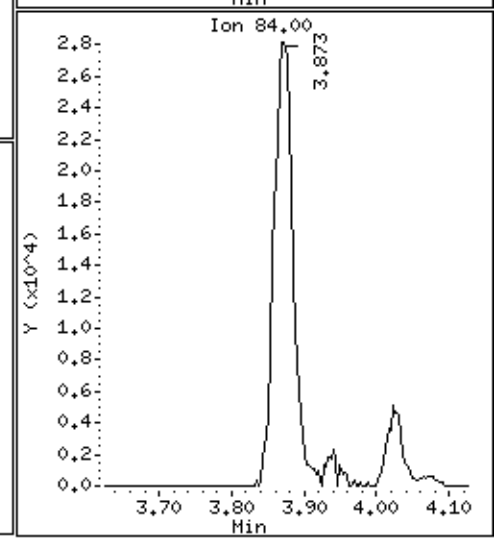


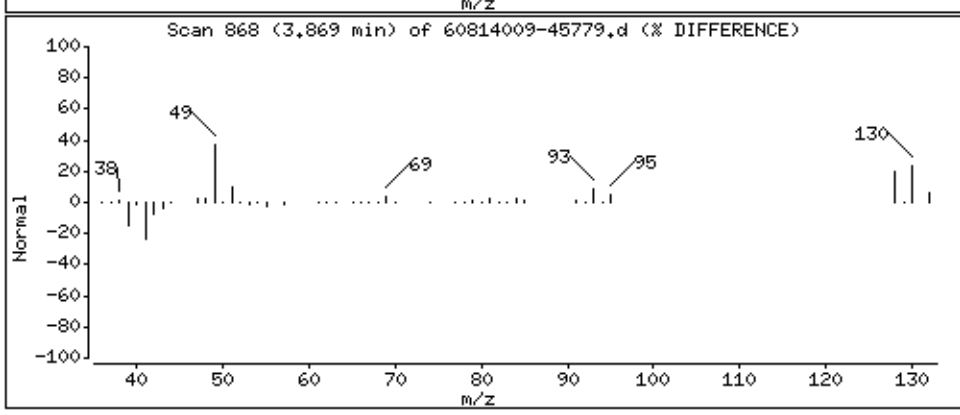












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

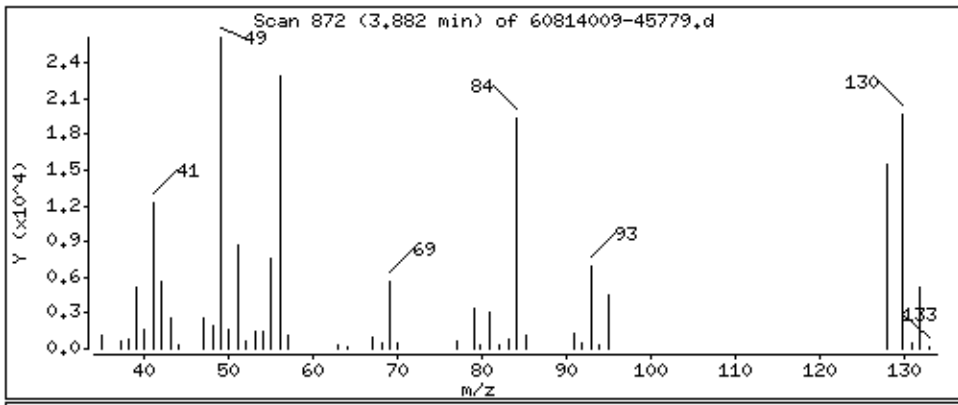
Operator: JEW

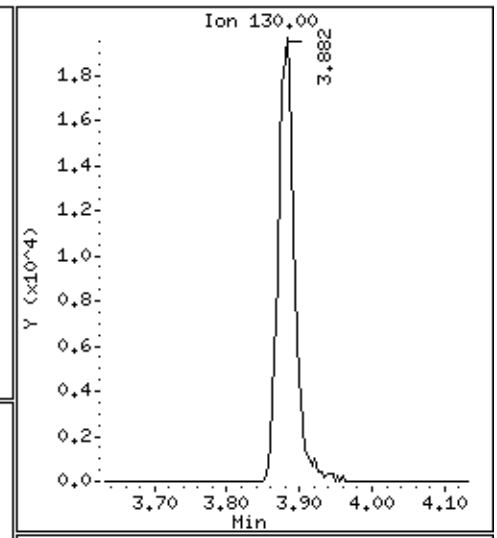
Column phase: RTX-VMS

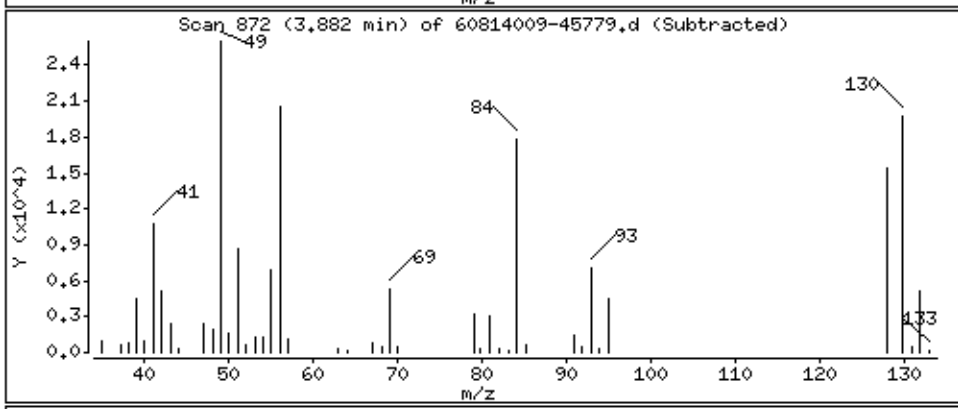
Column diameter: 0.18

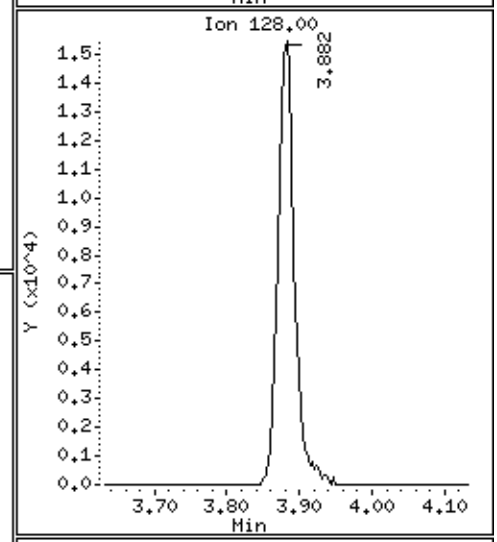
32 Bromochloromethane

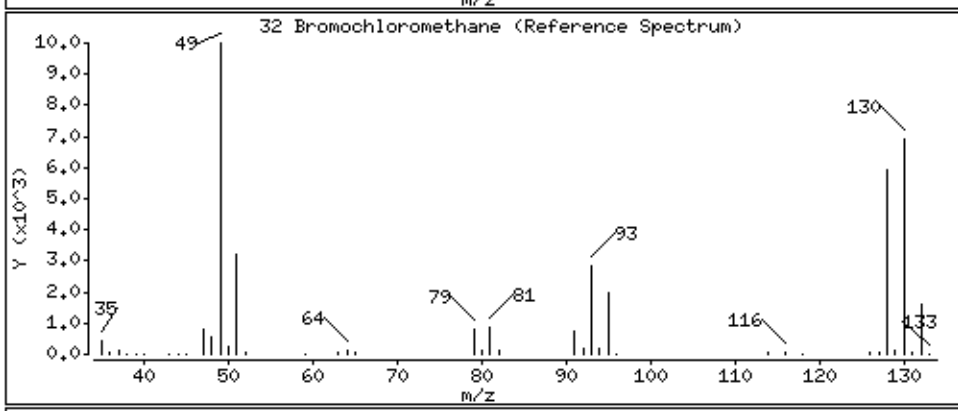
Concentration: 19.0 ug/L

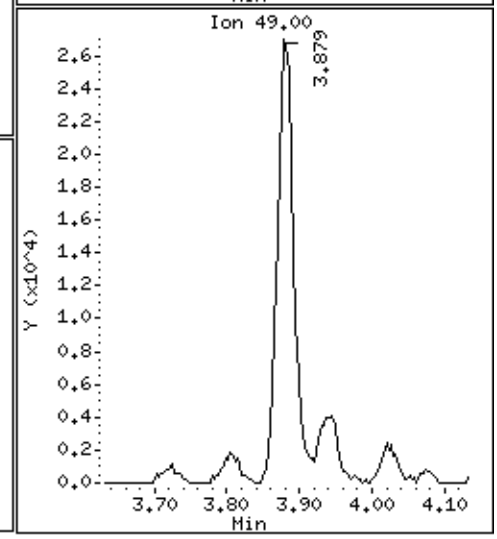


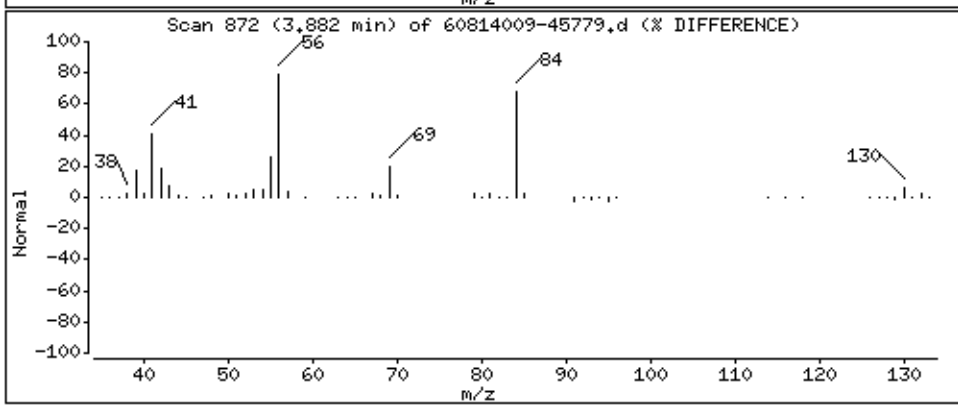












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

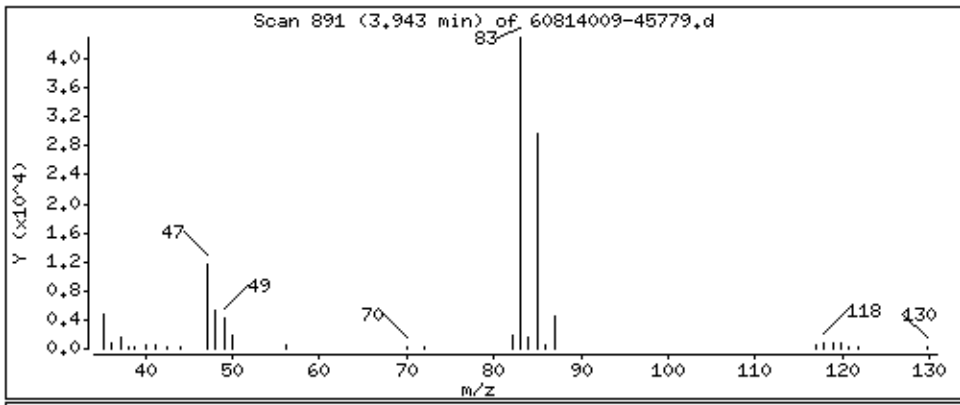
Operator: JEW

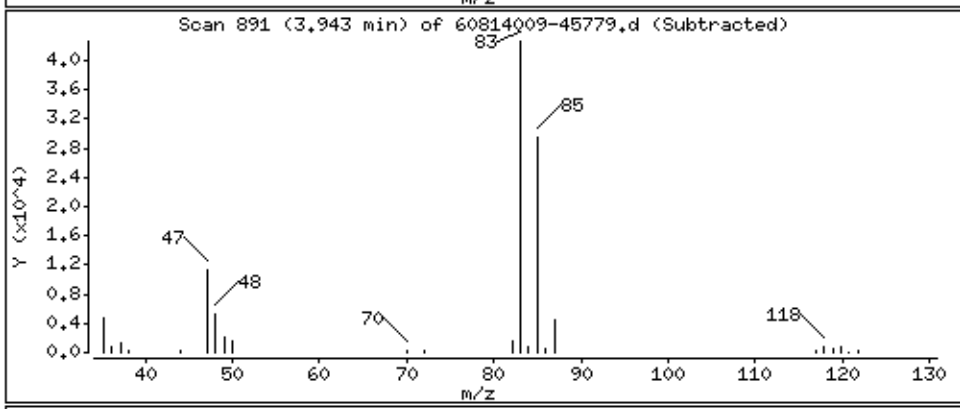
Column phase: RTX-VMS

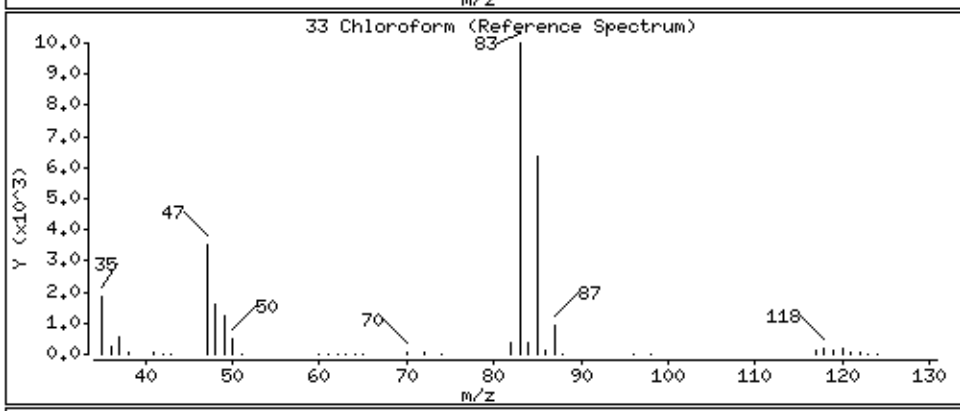
Column diameter: 0.18

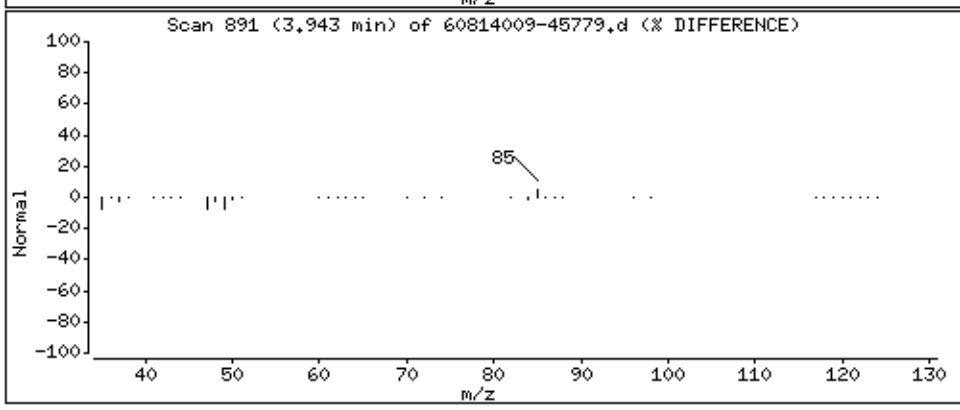
33 Chloroform

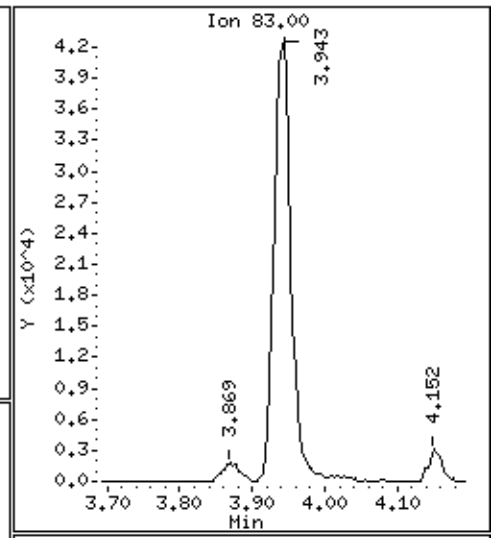
Concentration: 17.4 ug/L

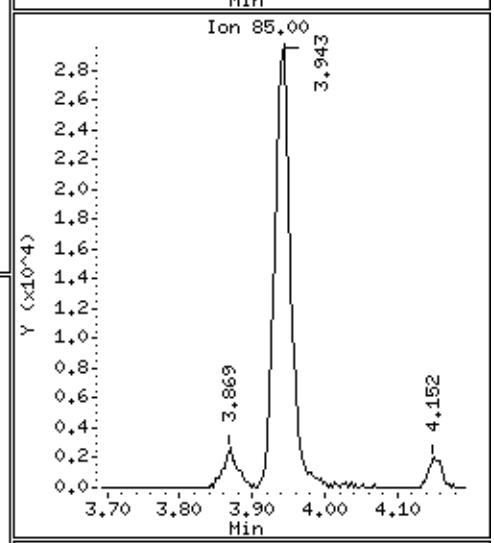


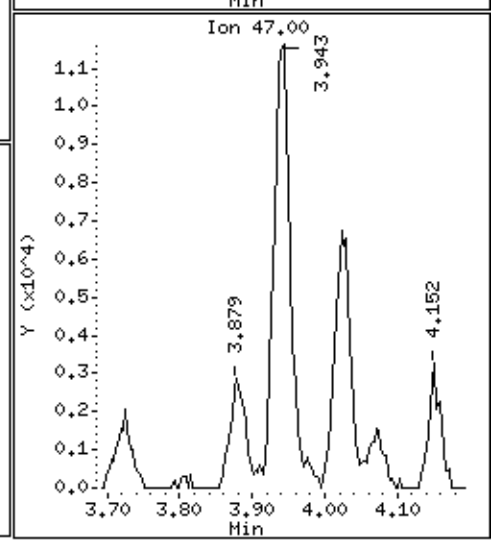












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

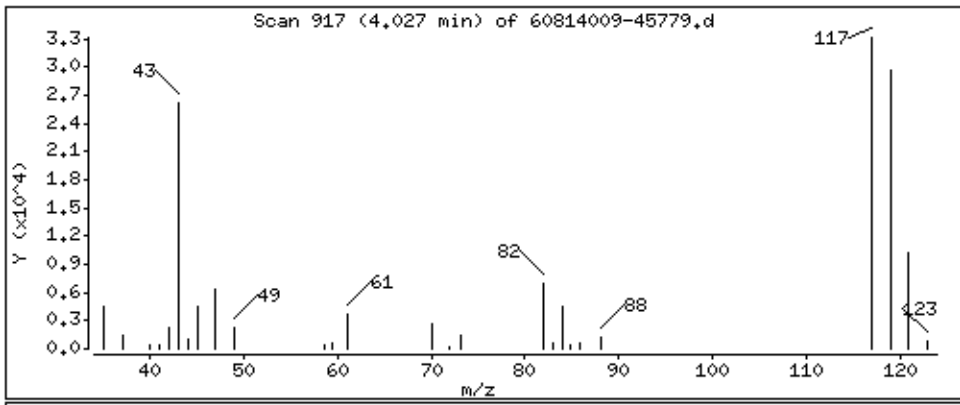
Operator: JEW

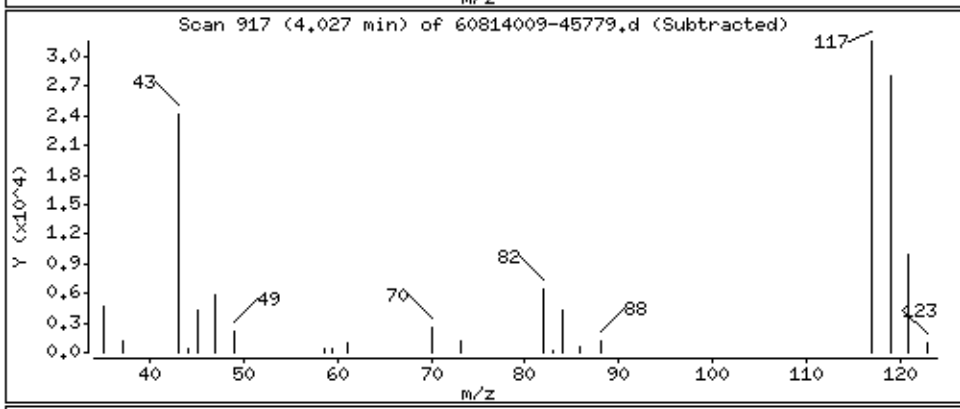
Column phase: RTX-VMS

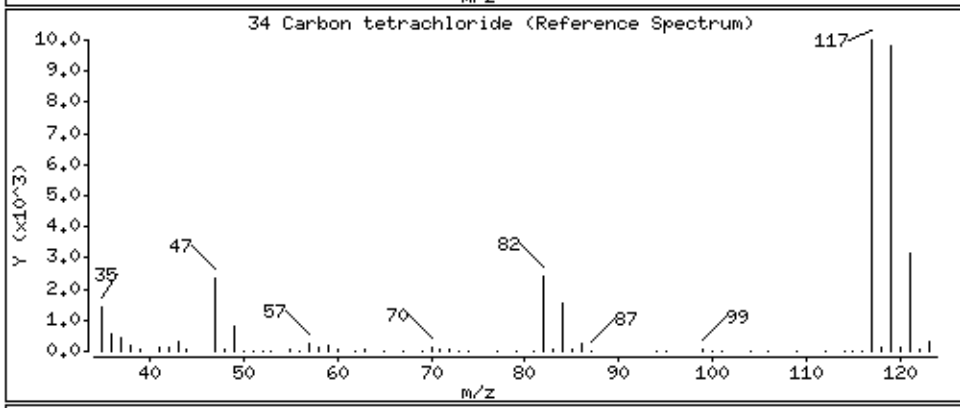
Column diameter: 0.18

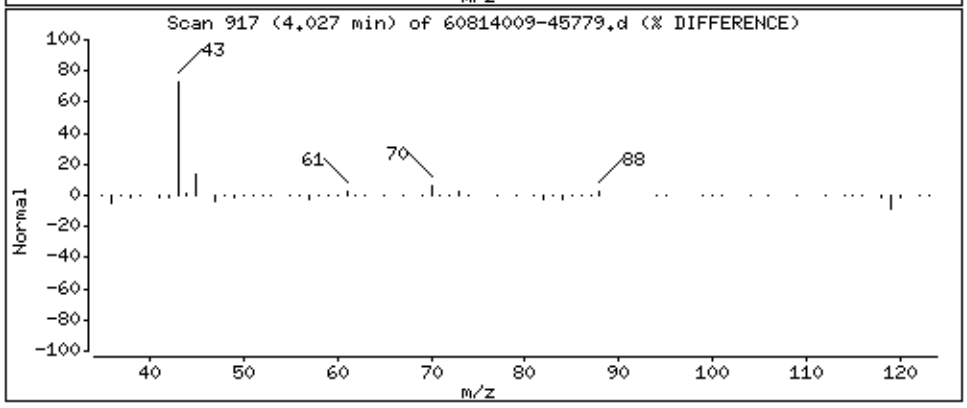
34 Carbon tetrachloride

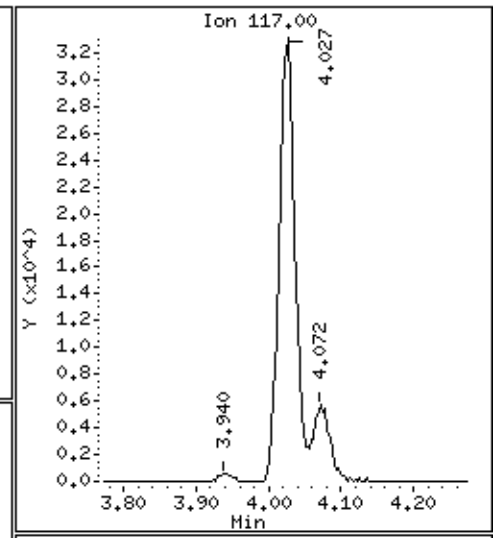
Concentration: 18.8 ug/L

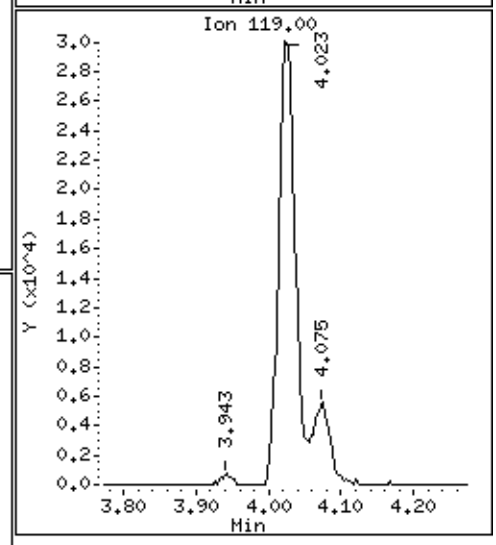












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

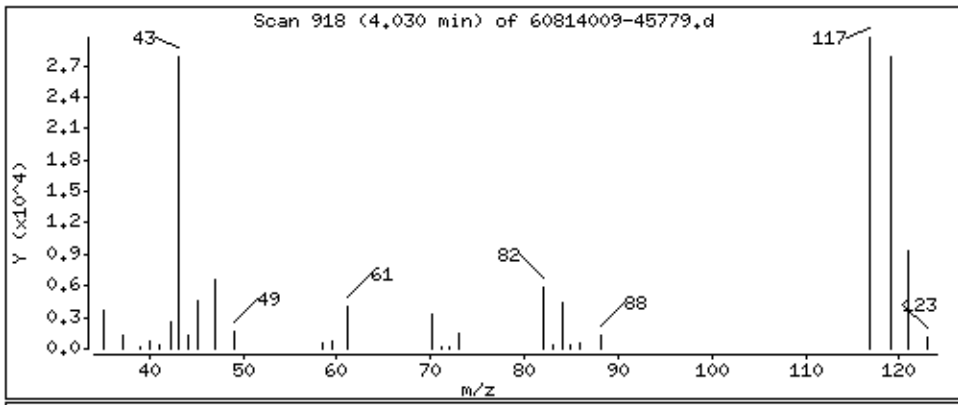
Operator: JEW

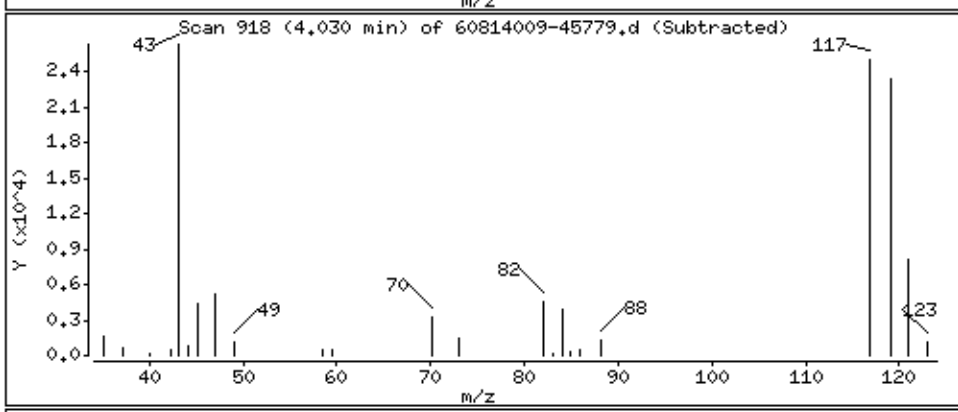
Column phase: RTX-VMS

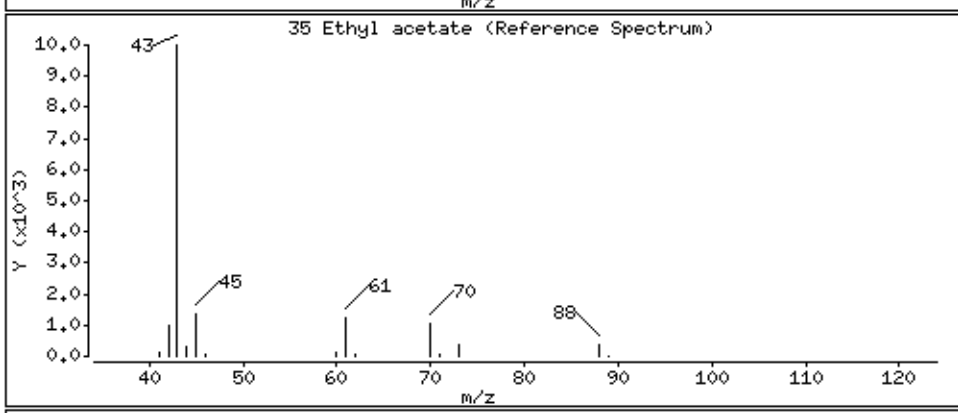
Column diameter: 0.18

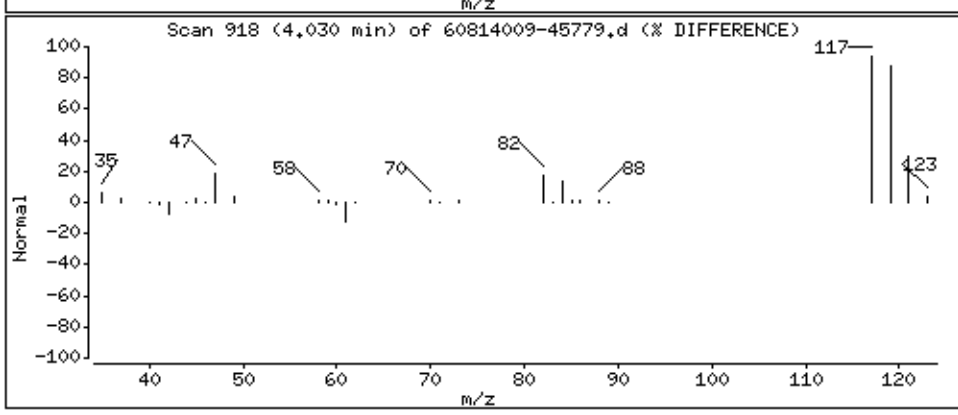
35 Ethyl acetate

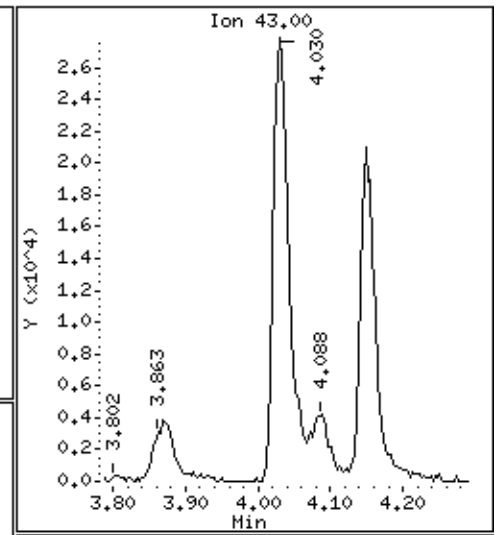
Concentration: 14.8 ug/L

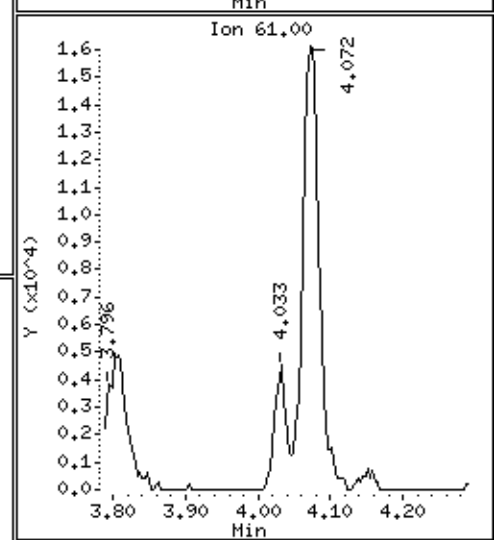


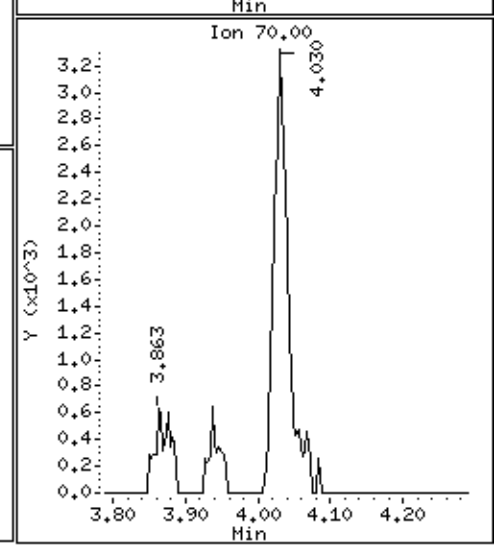












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

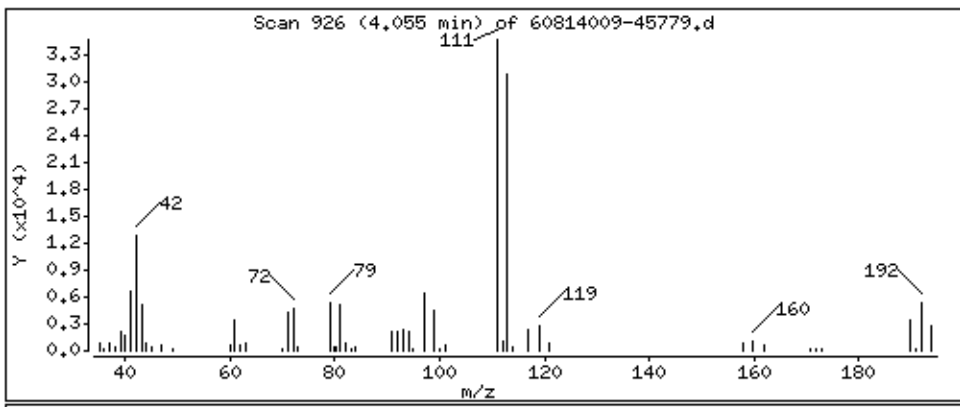
Operator: JEW

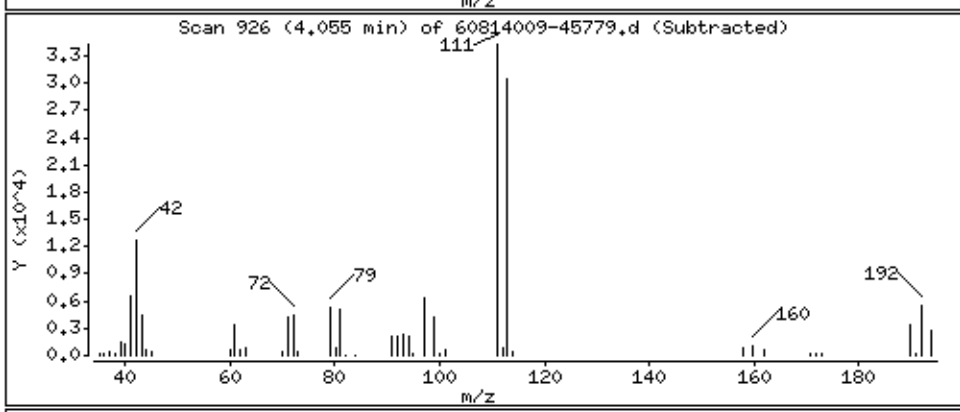
Column phase: RTX-VMS

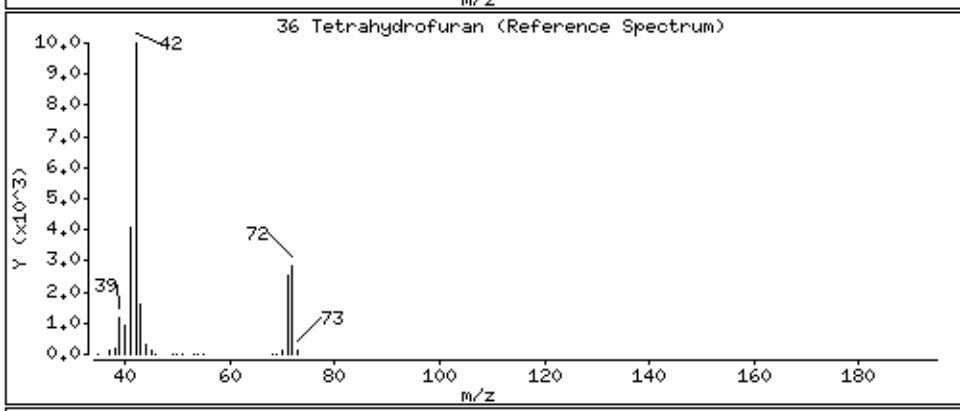
Column diameter: 0.18

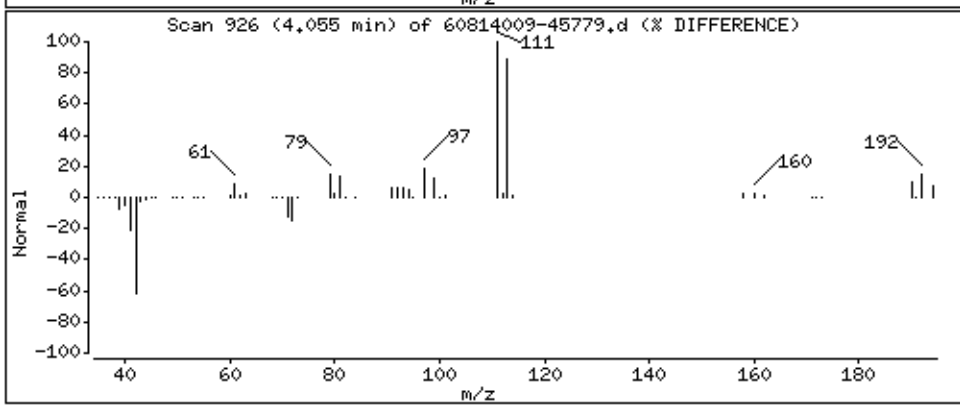
36 Tetrahydrofuran

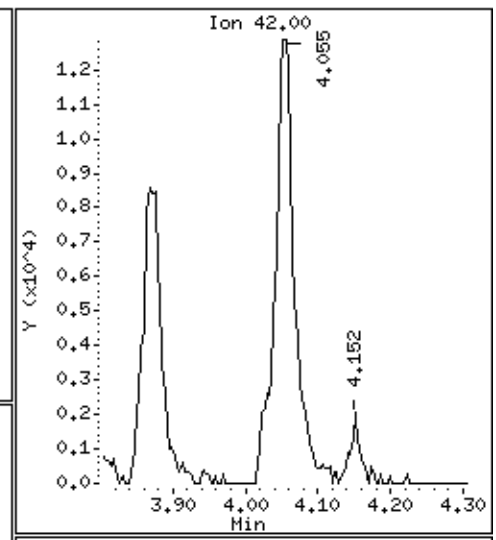
Concentration: 18.6 ug/L

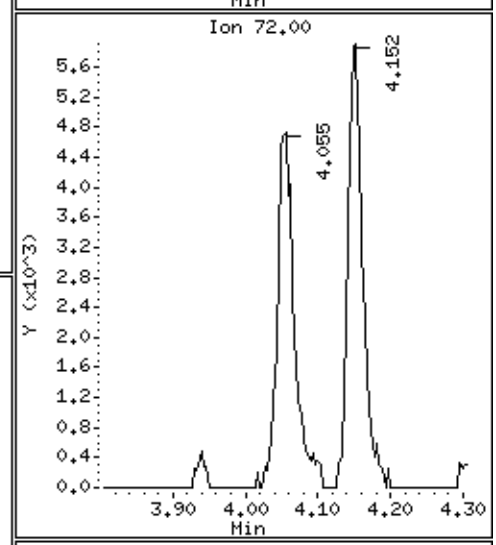


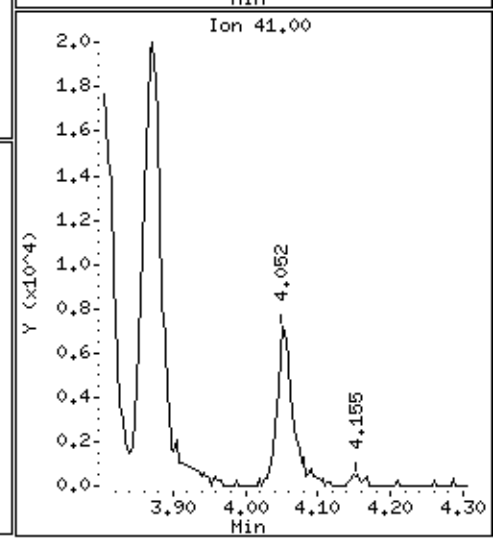












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

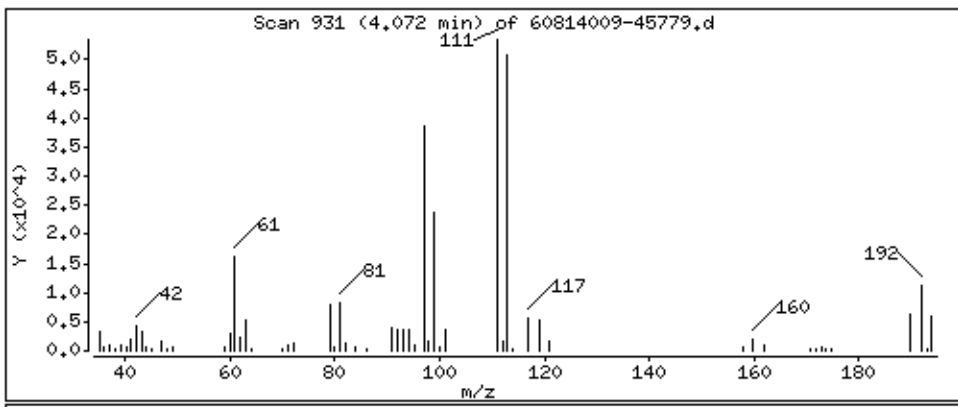
Operator: JEW

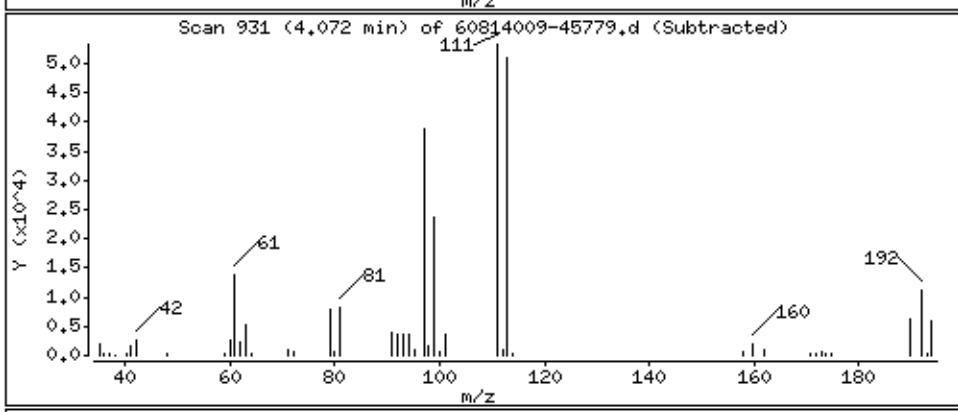
Column phase: RTX-VMS

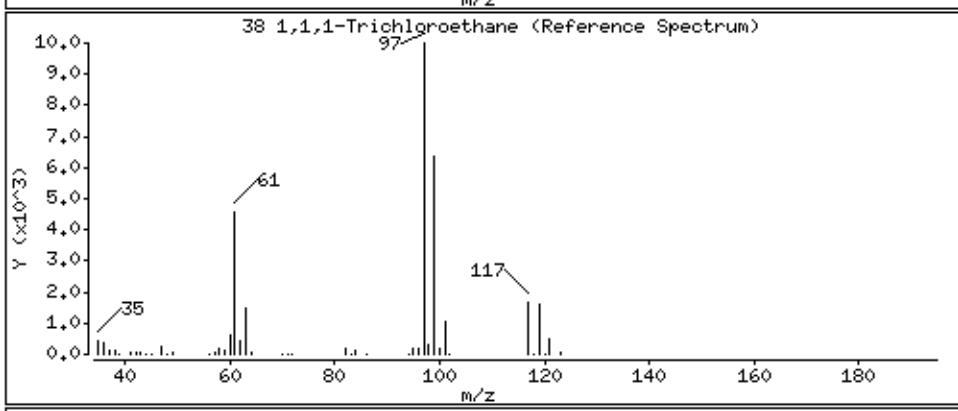
Column diameter: 0.18

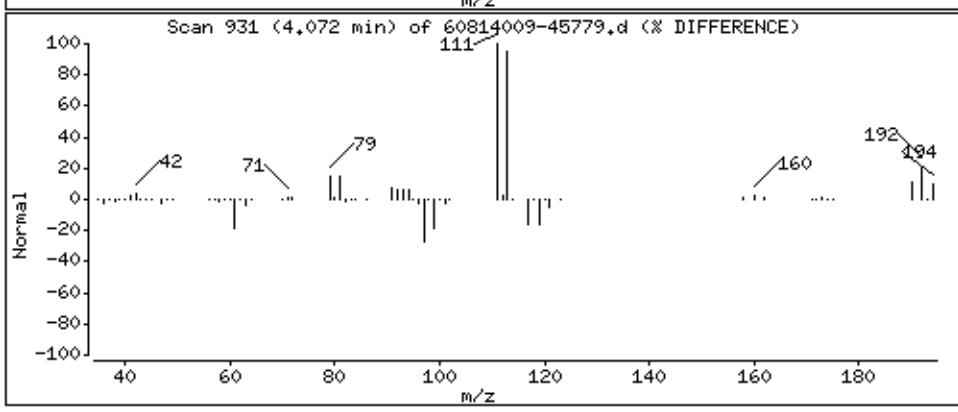
38 1,1,1-Trichloroethane

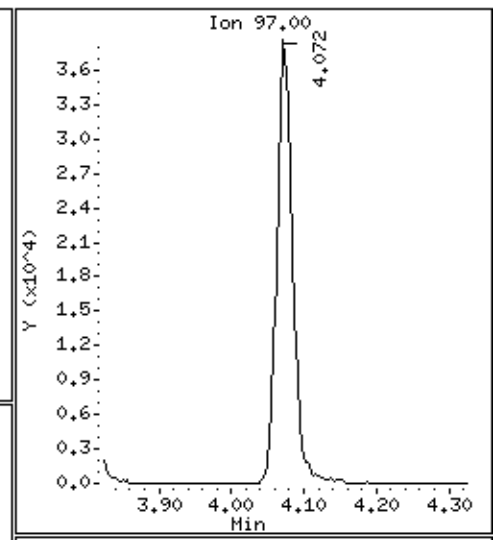
Concentration: 17.4 ug/L

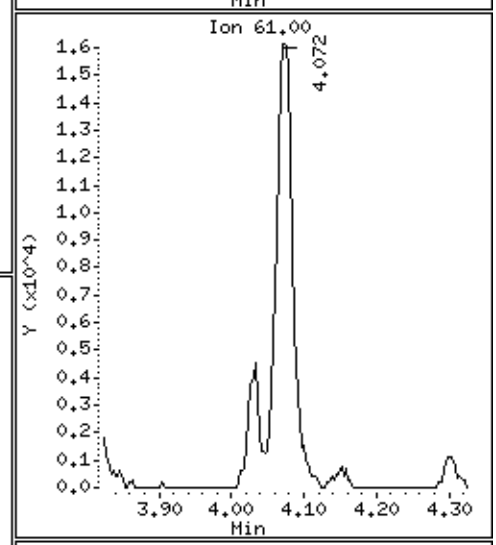


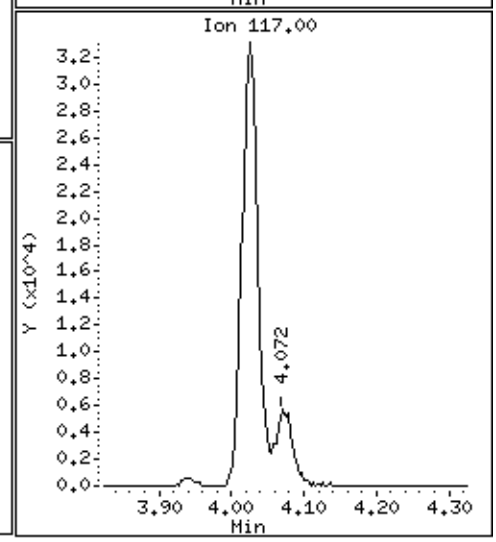












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

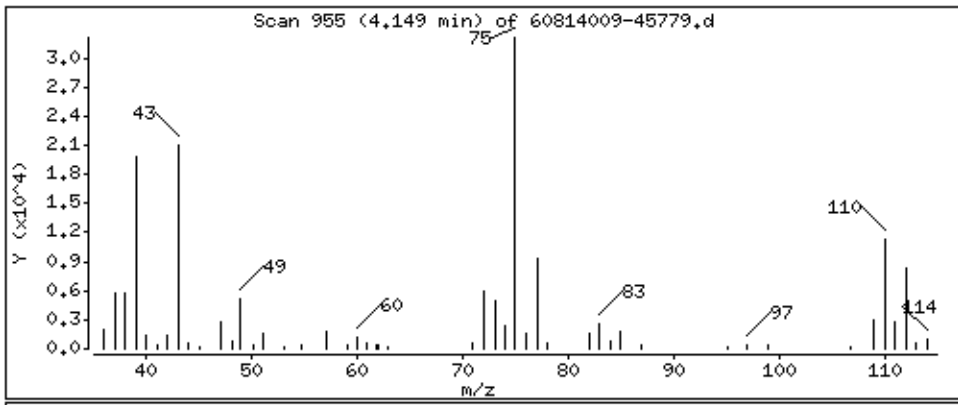
Operator: JEW

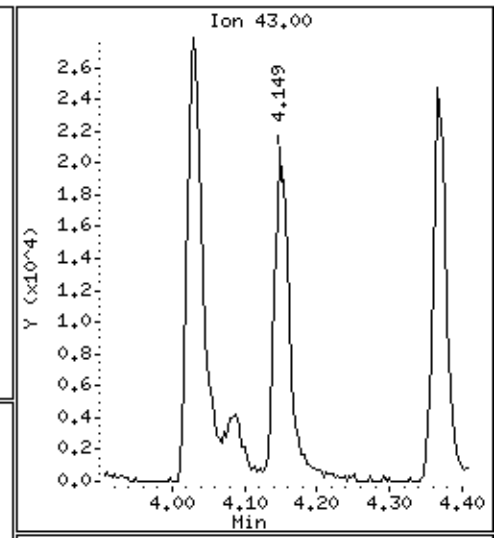
Column phase: RTX-VMS

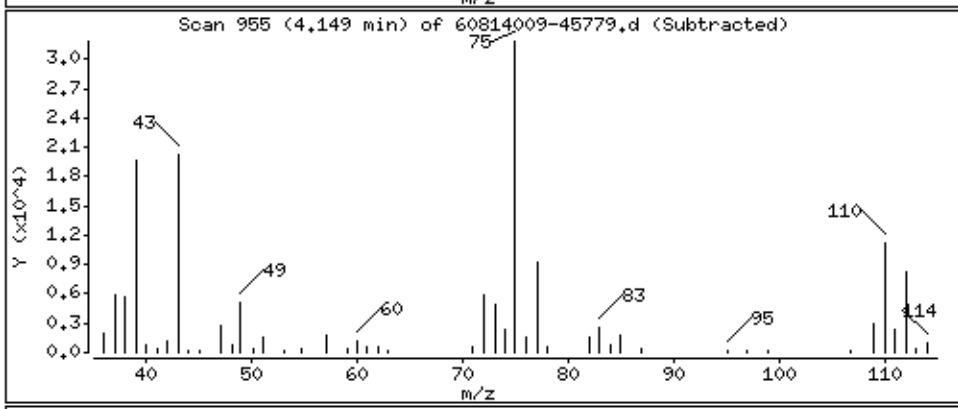
Column diameter: 0.18

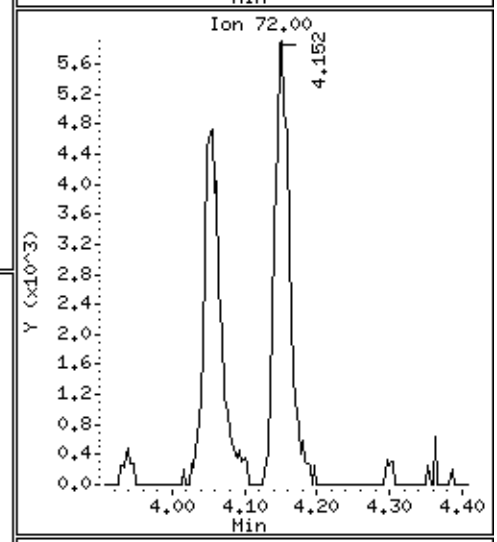
39 2-Butanone (MEK)

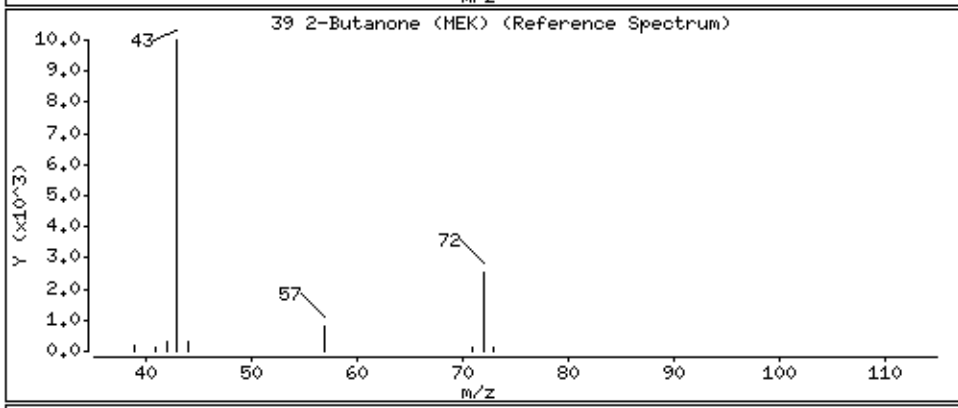
Concentration: 17.4 ug/L

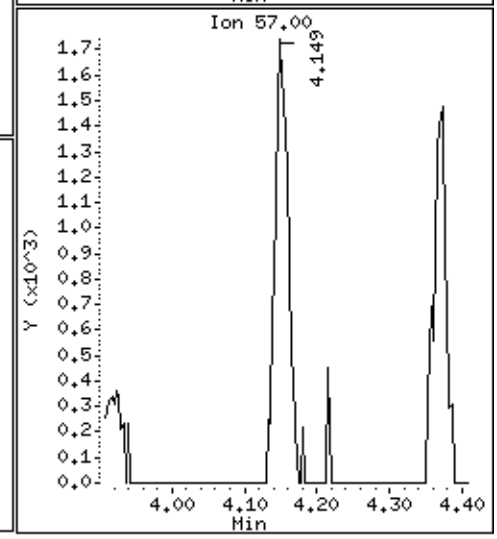


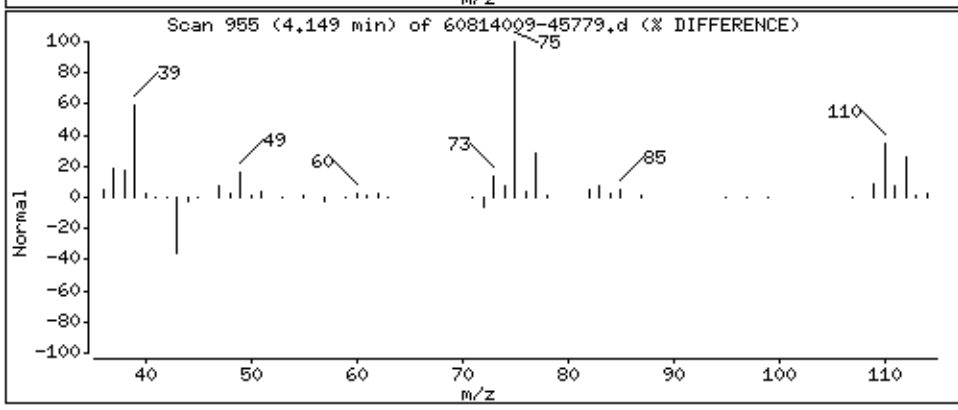












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

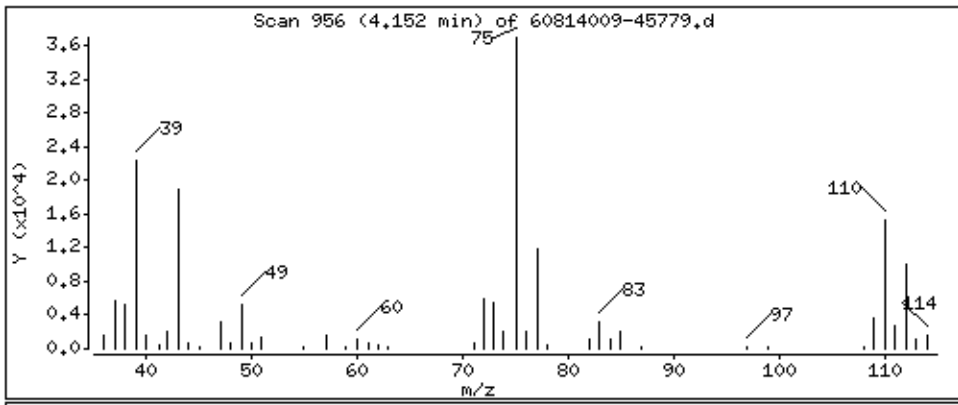
Operator: JEW

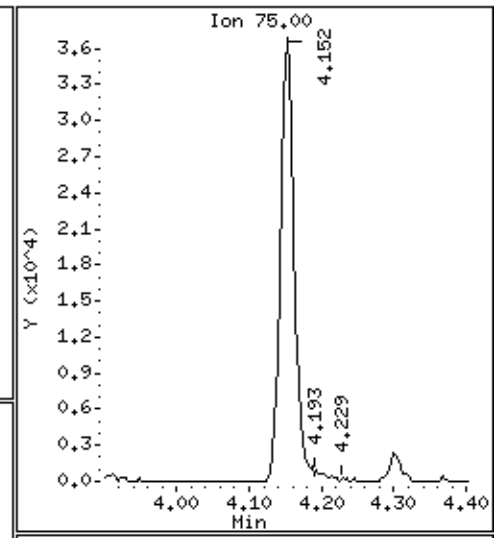
Column phase: RTX-VMS

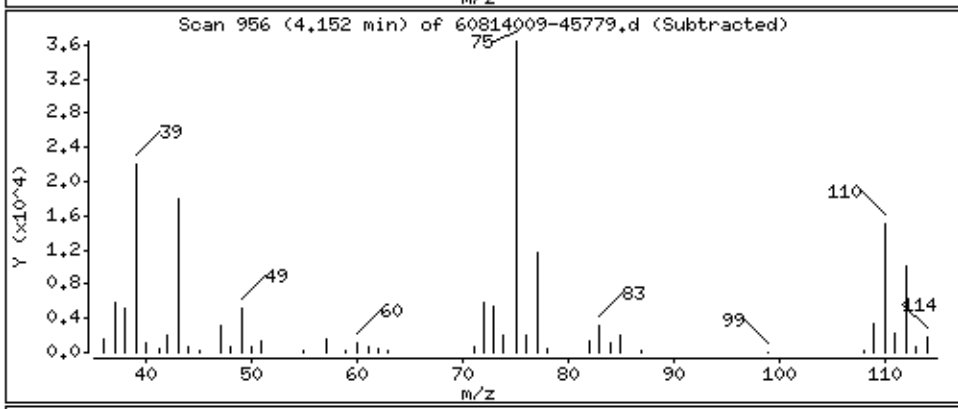
Column diameter: 0.18

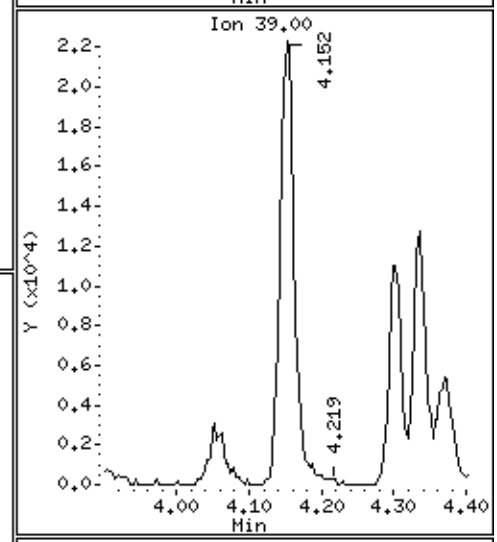
40 1,1-Dichloropropene

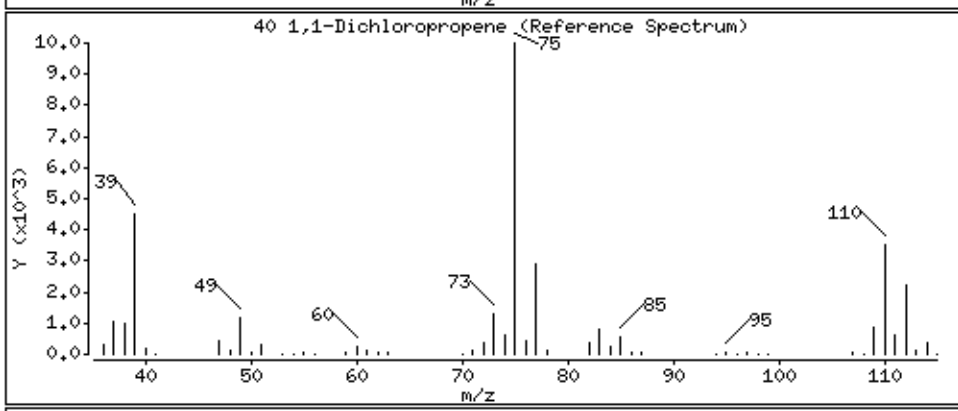
Concentration: 17.4 ug/L

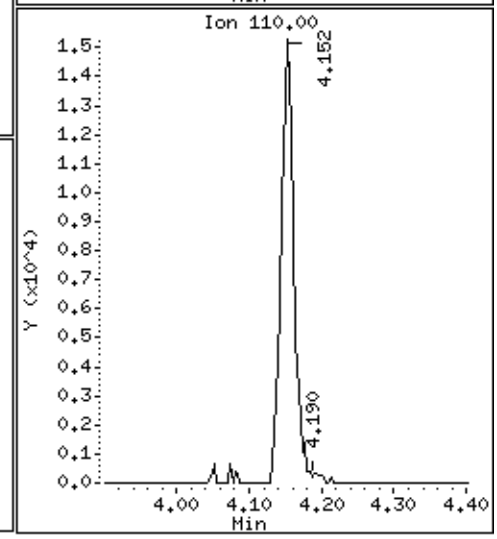


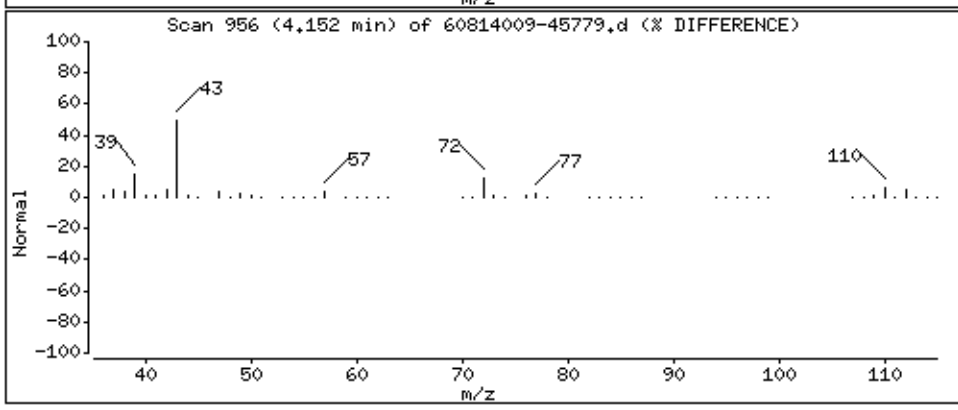












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

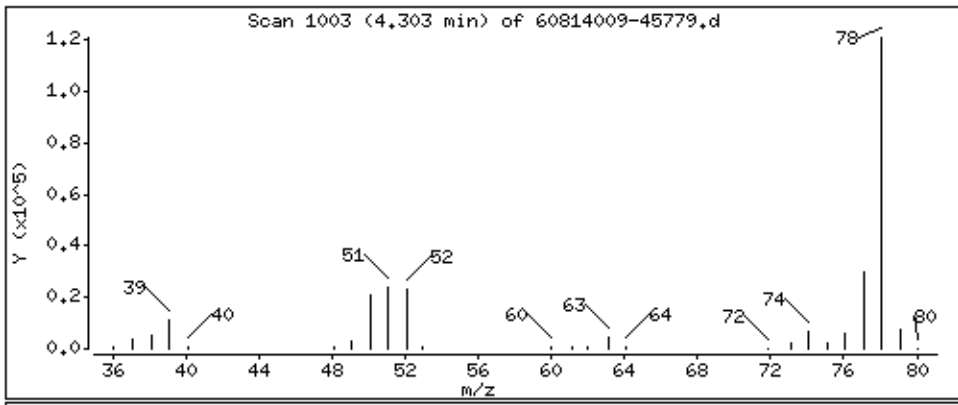
Operator: JEW

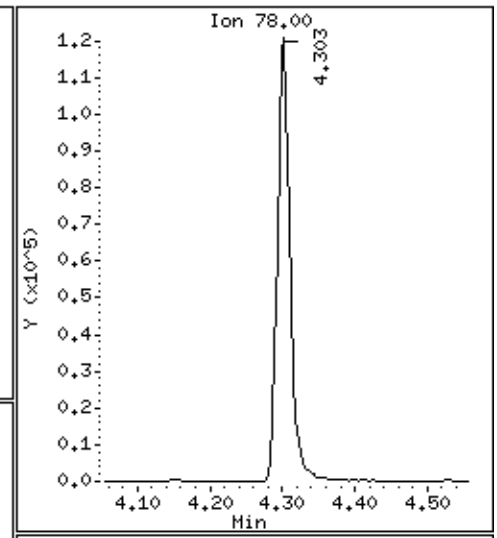
Column phase: RTX-VMS

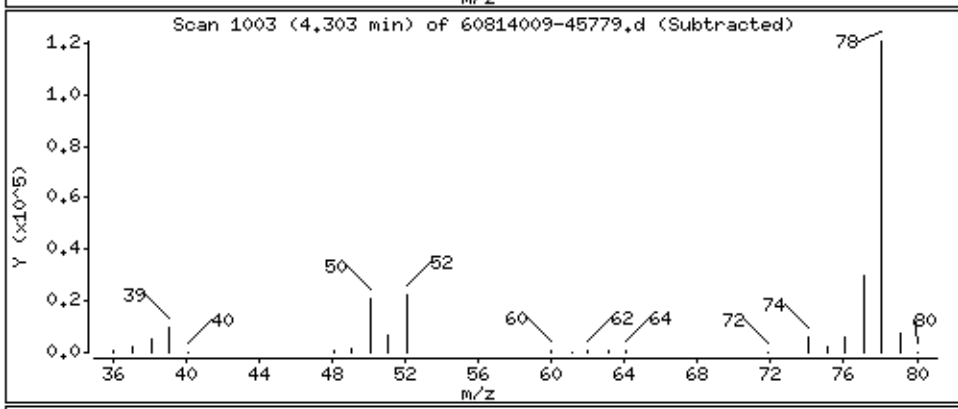
Column diameter: 0.18

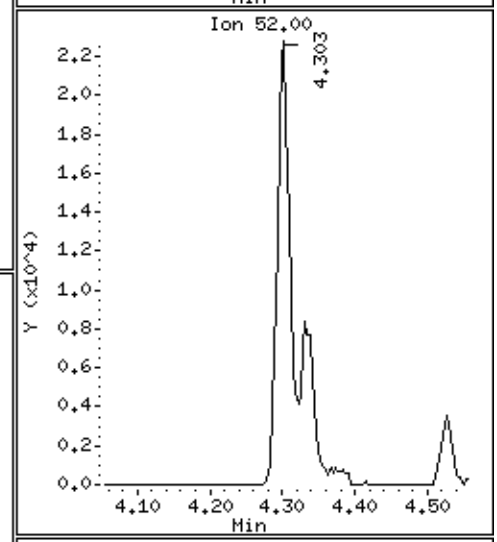
41 Benzene

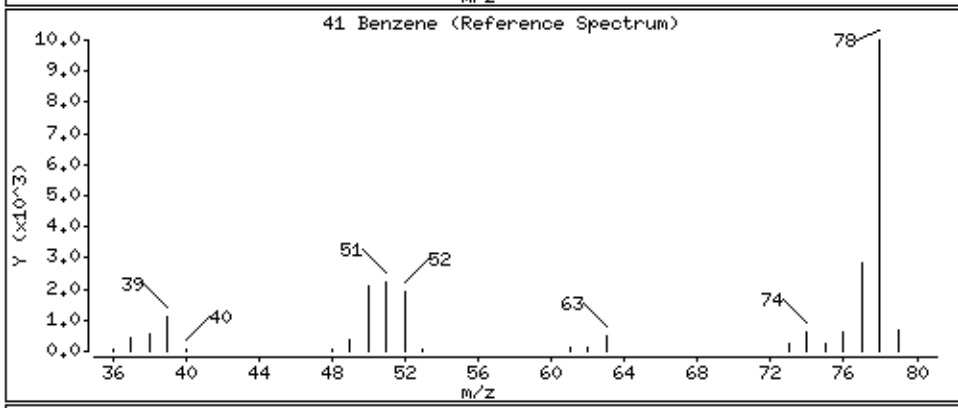
Concentration: 17.3 ug/L

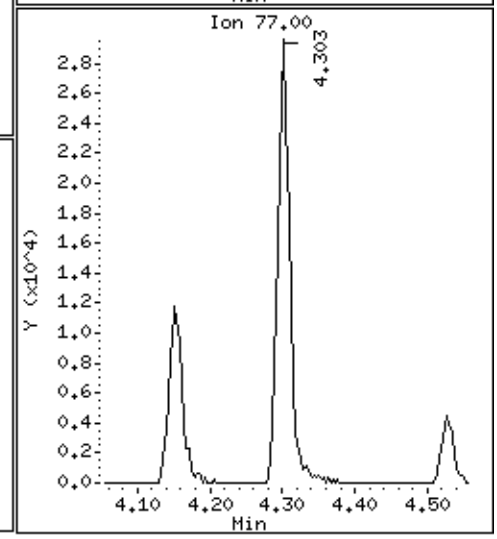


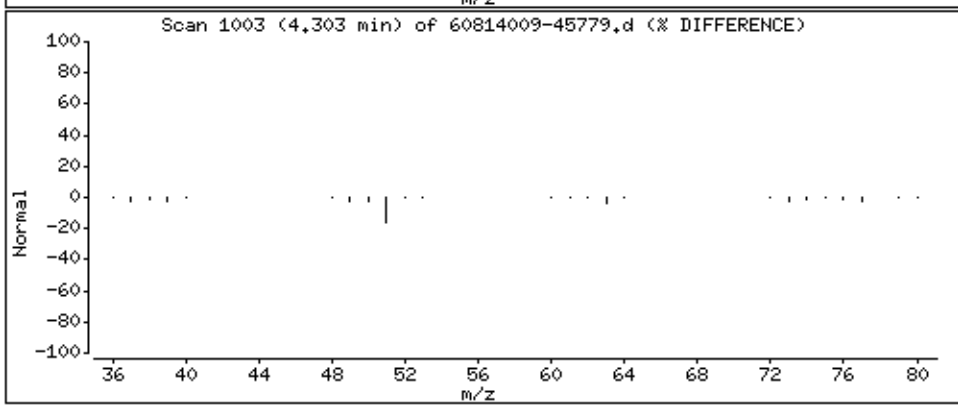












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

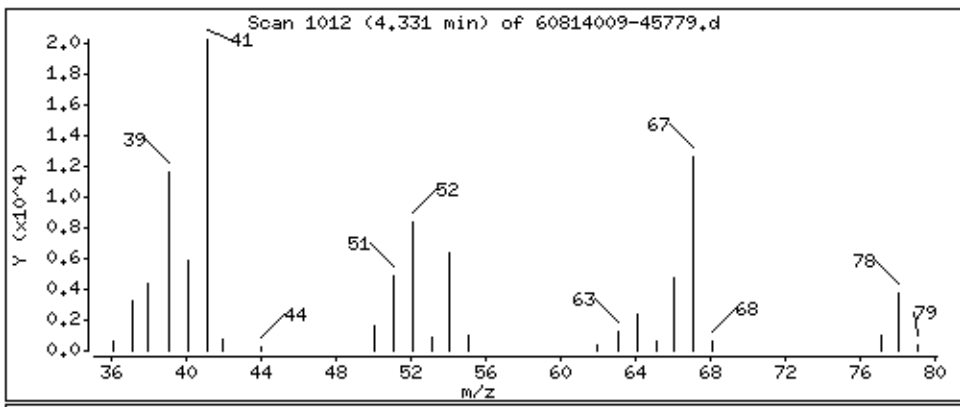
Operator: JEW

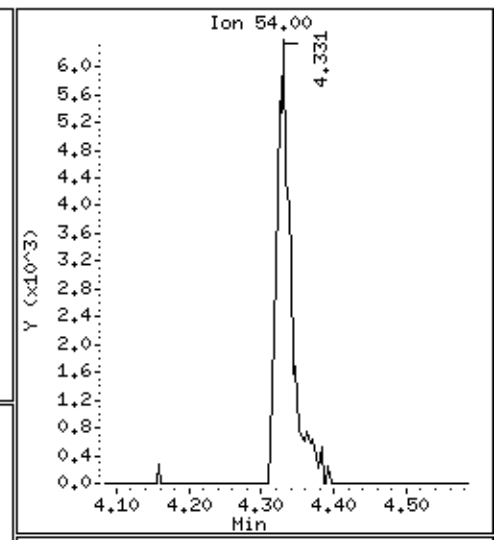
Column phase: RTX-VMS

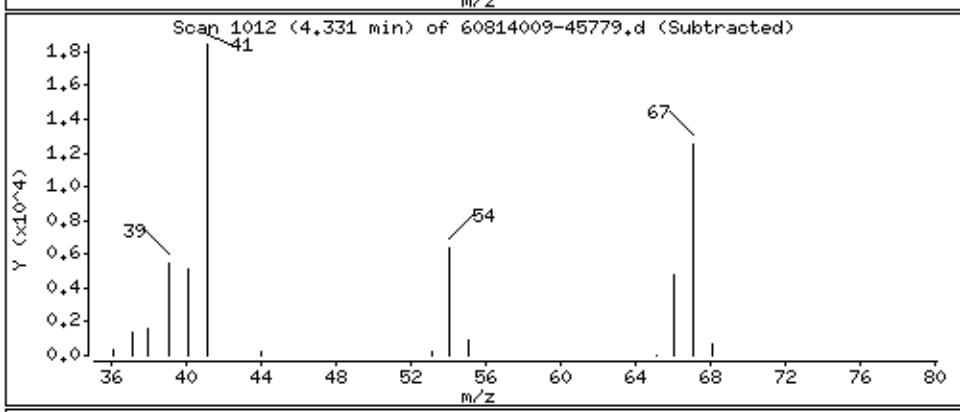
Column diameter: 0.18

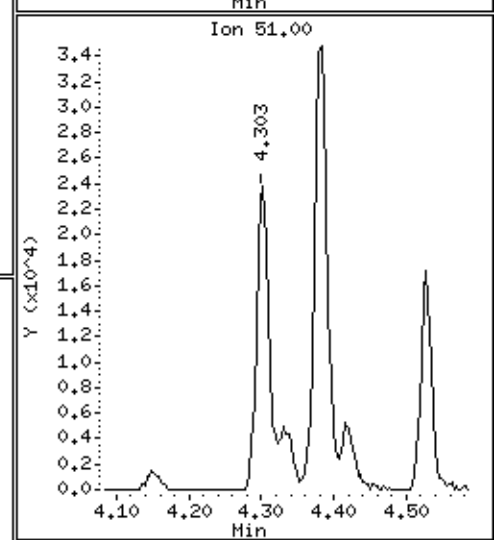
42 Propionitrile

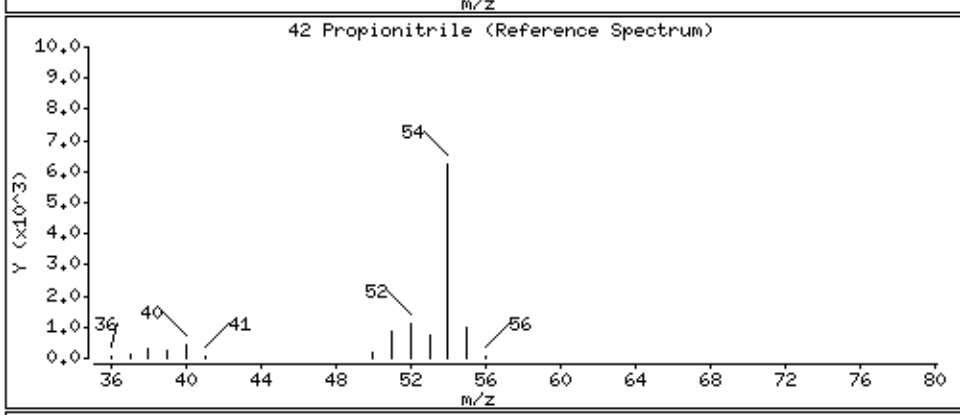
Concentration: 17.9 ug/L

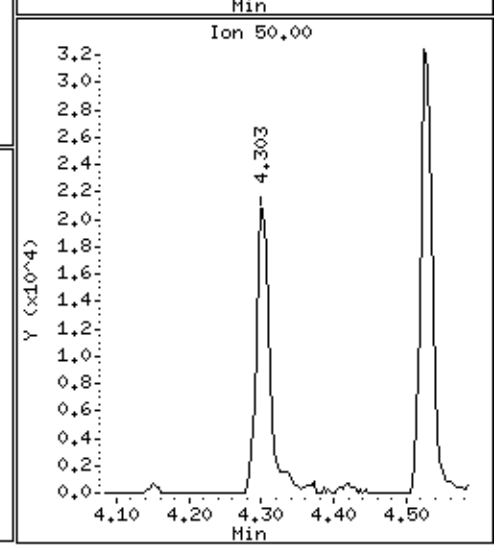


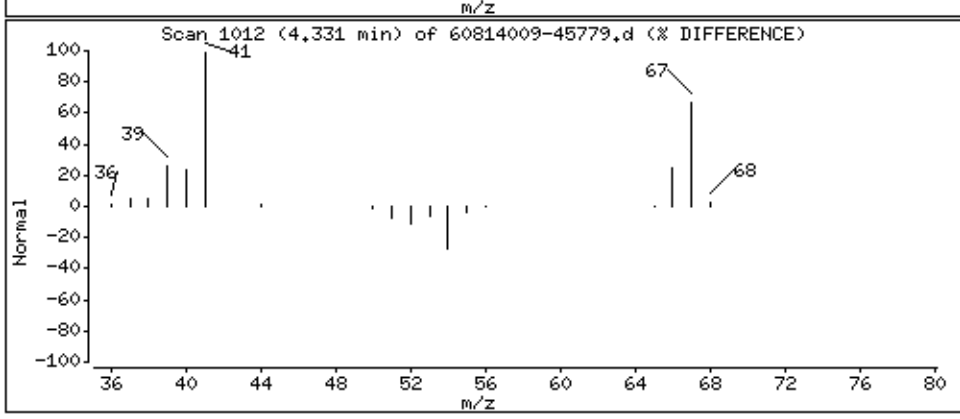












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

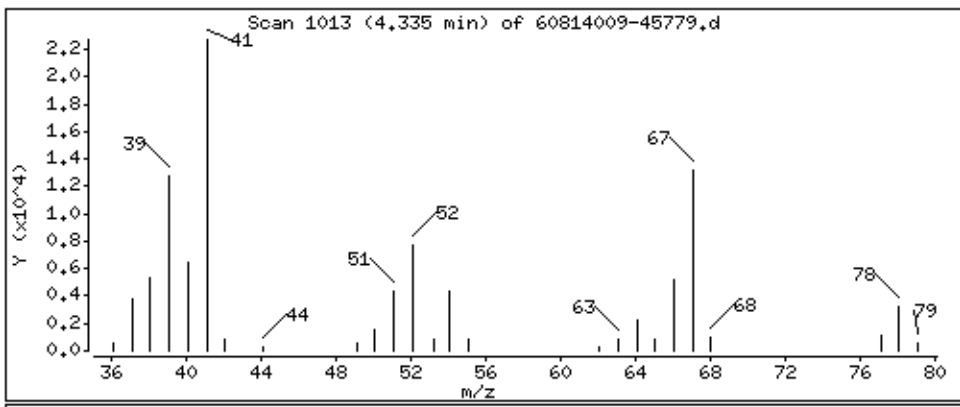
Operator: JEW

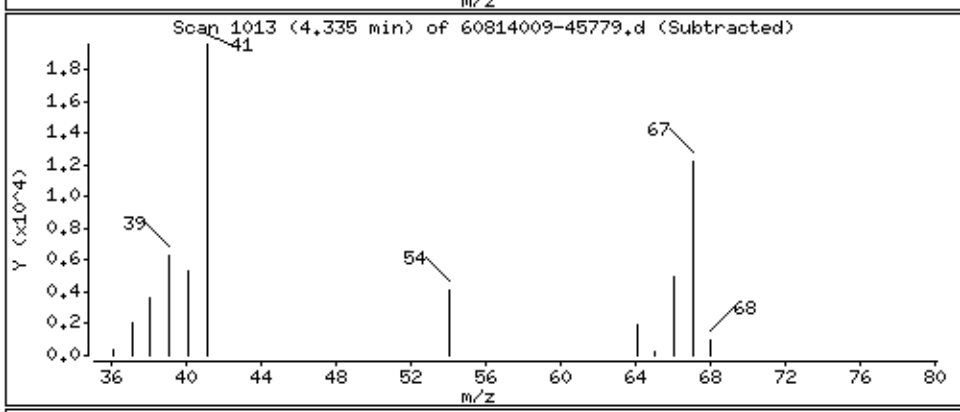
Column phase: RTX-VMS

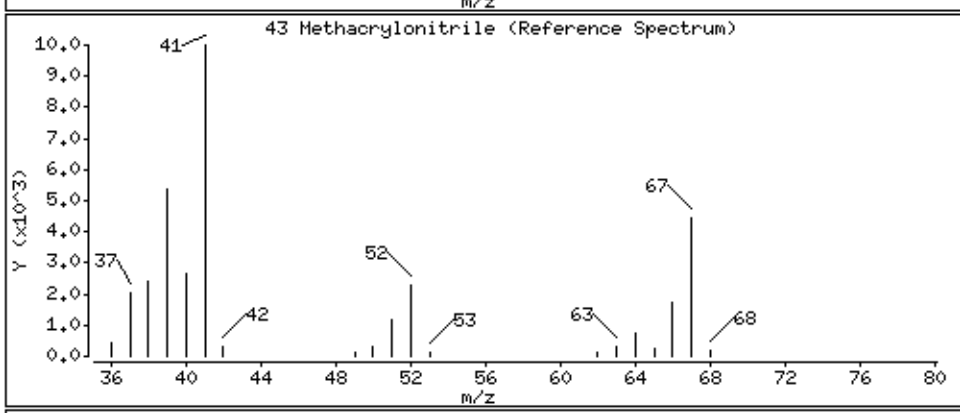
Column diameter: 0.18

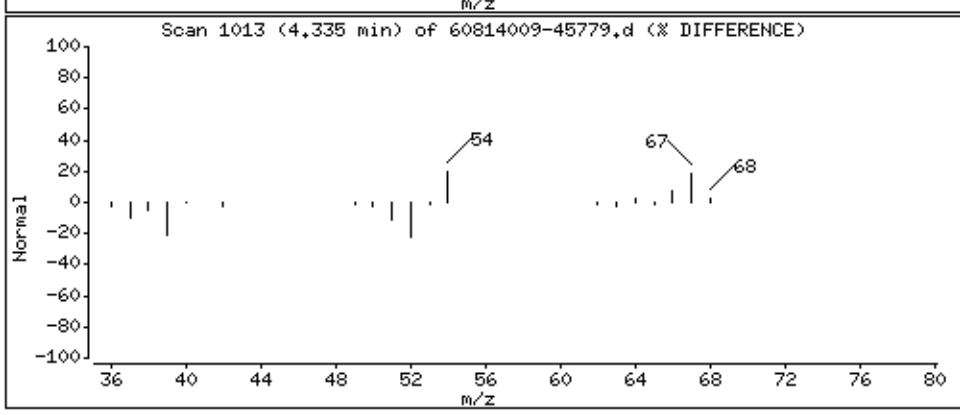
43 Methacrylonitrile

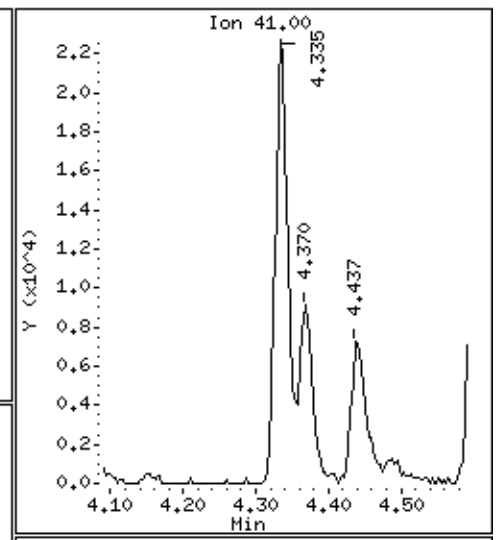
Concentration: 17.8 ug/L

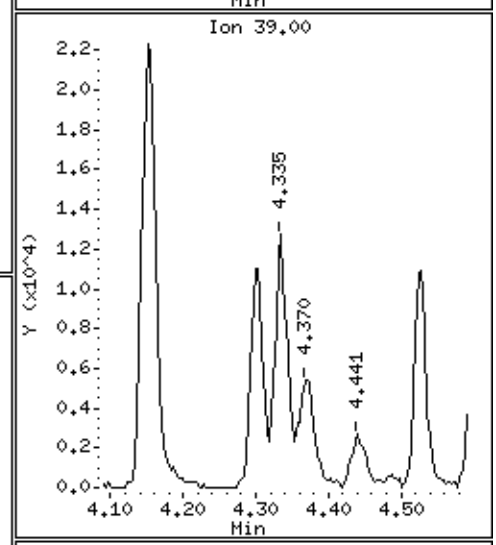


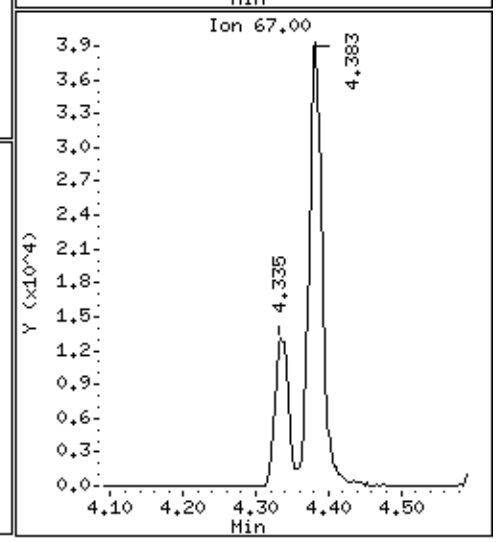












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

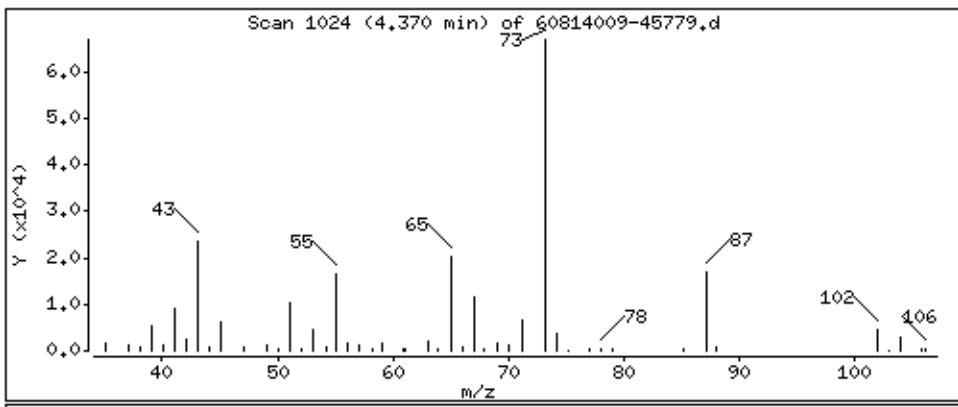
Operator: JEW

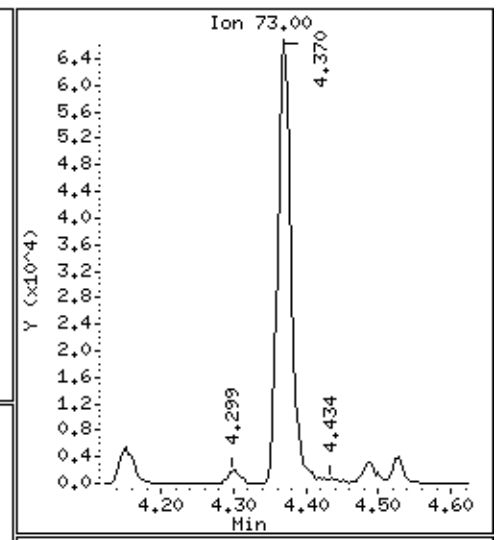
Column phase: RTX-VMS

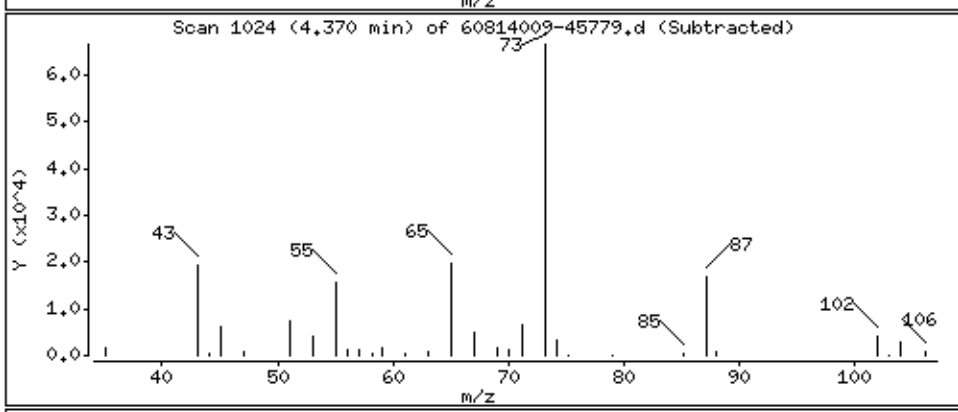
Column diameter: 0.18

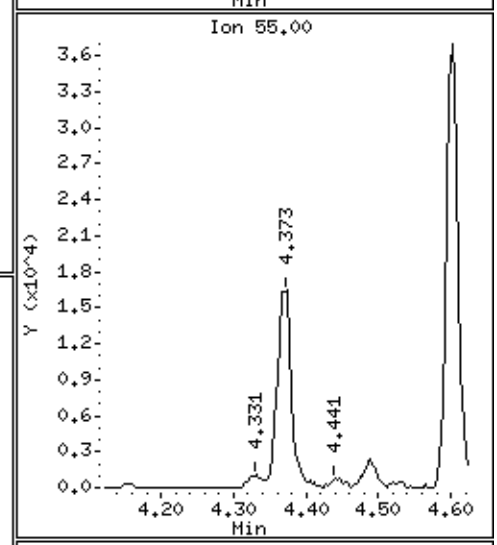
44 tert-Amylmethyl ether

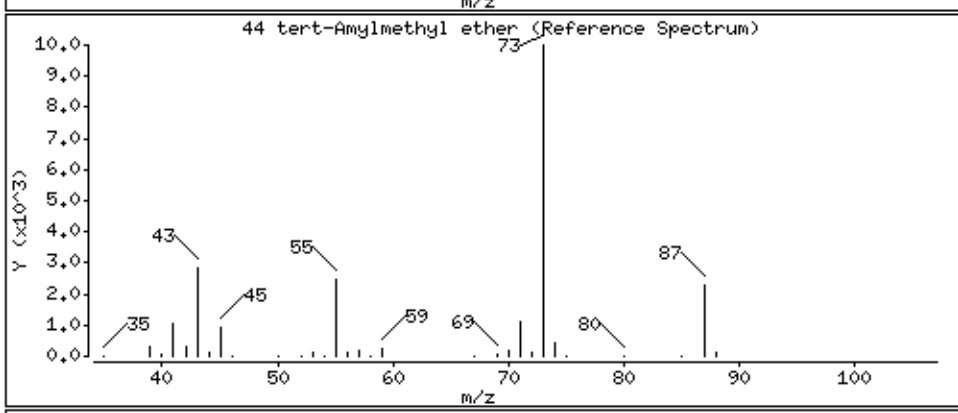
Concentration: 15.0 ug/L

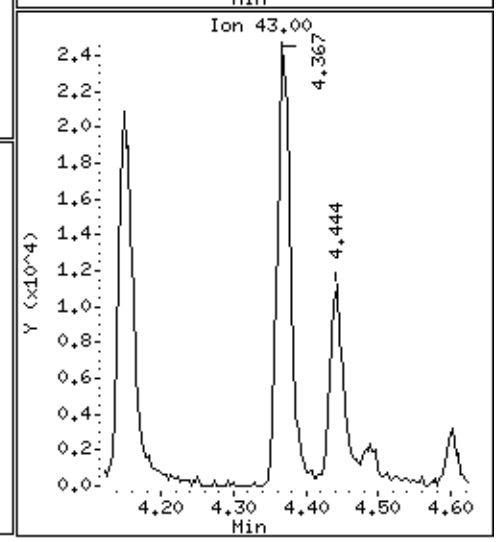


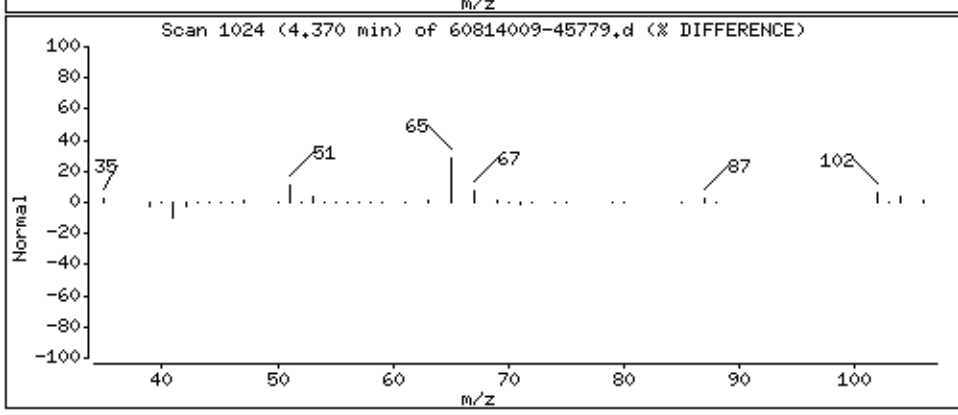












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

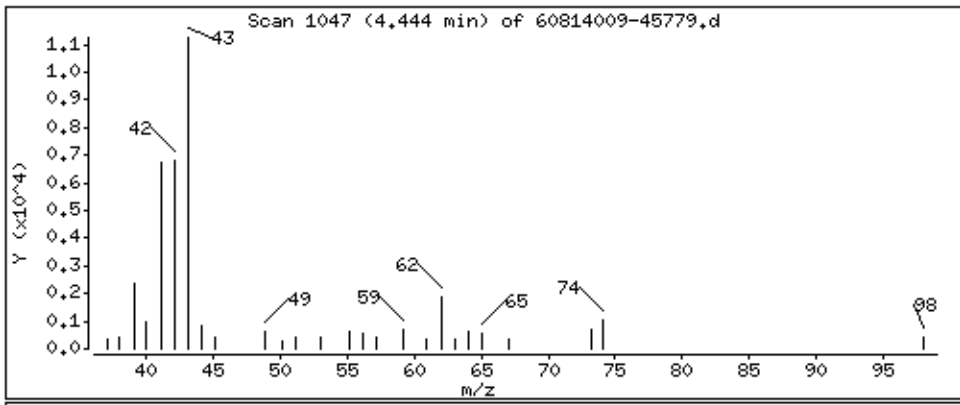
Operator: JEW

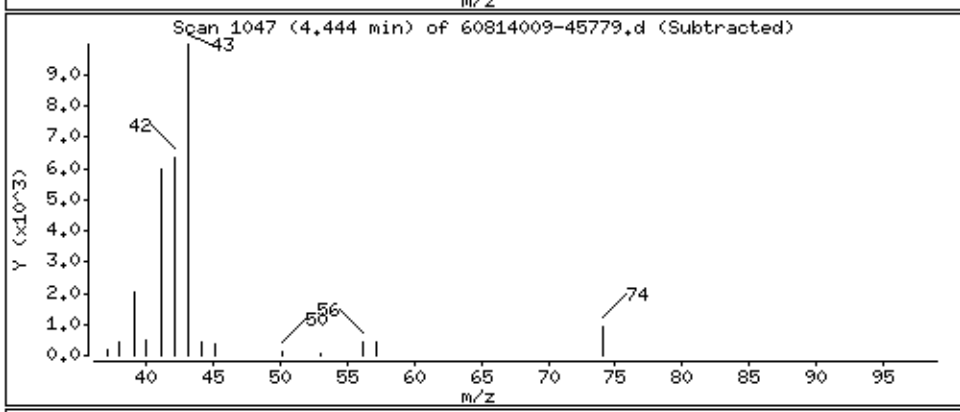
Column phase: RTX-VMS

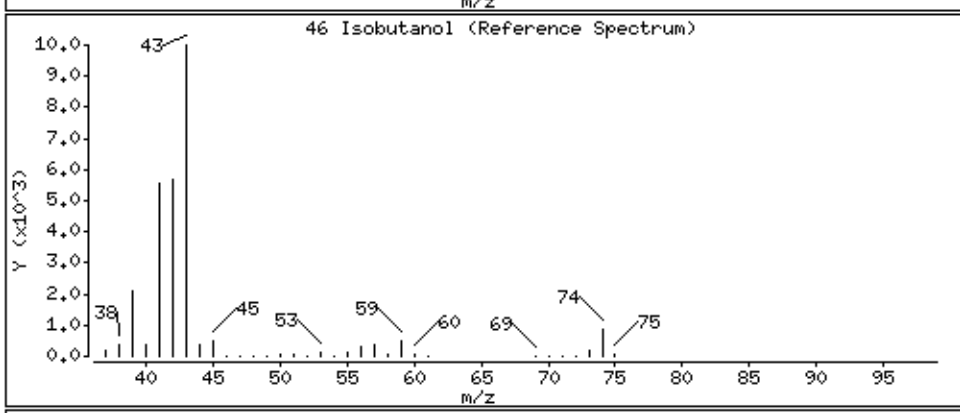
Column diameter: 0.18

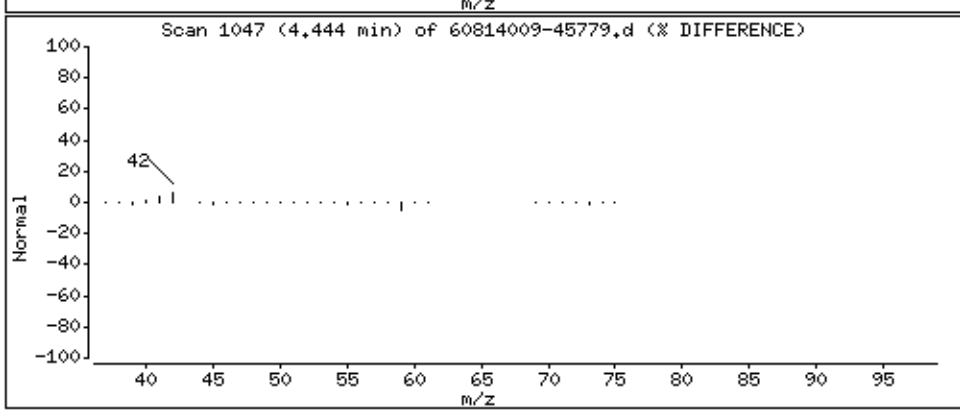
46 Isobutanol

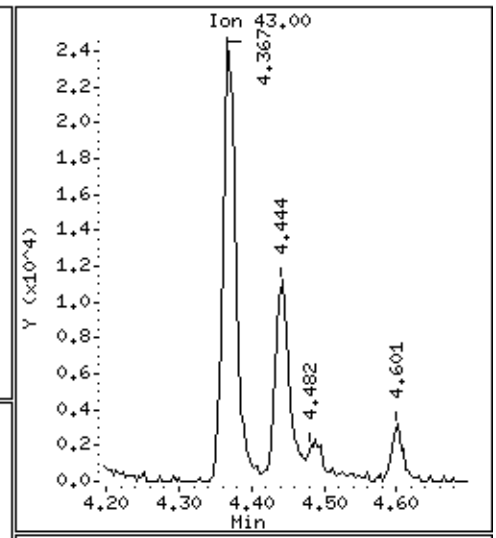
Concentration: 91.9 ug/L

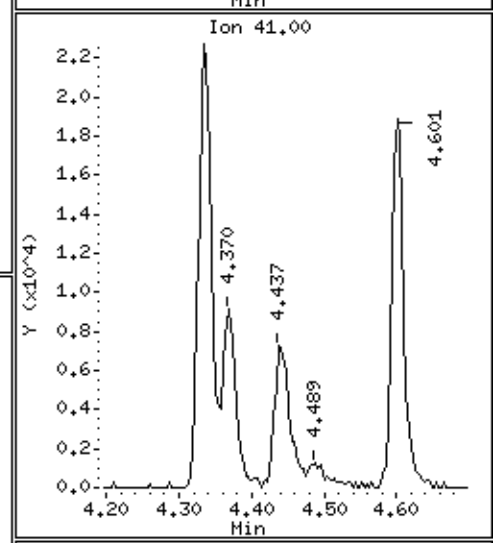


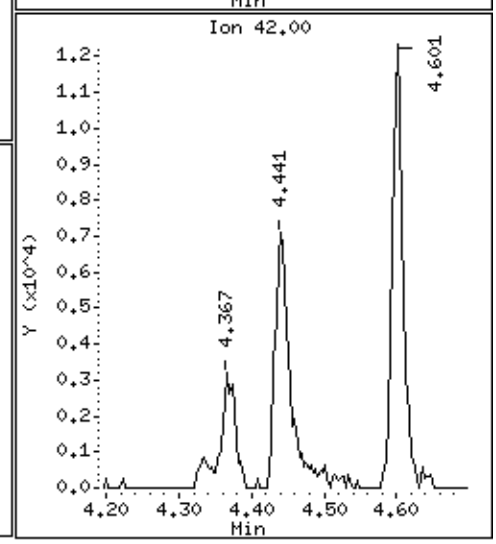












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

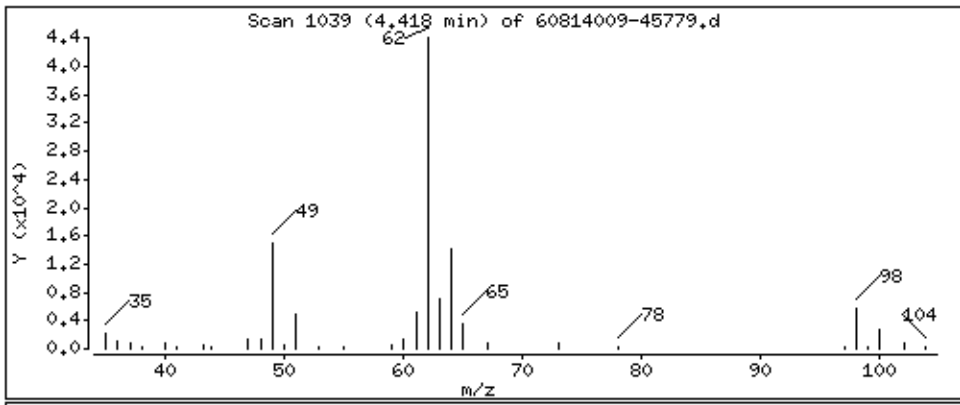
Operator: JEW

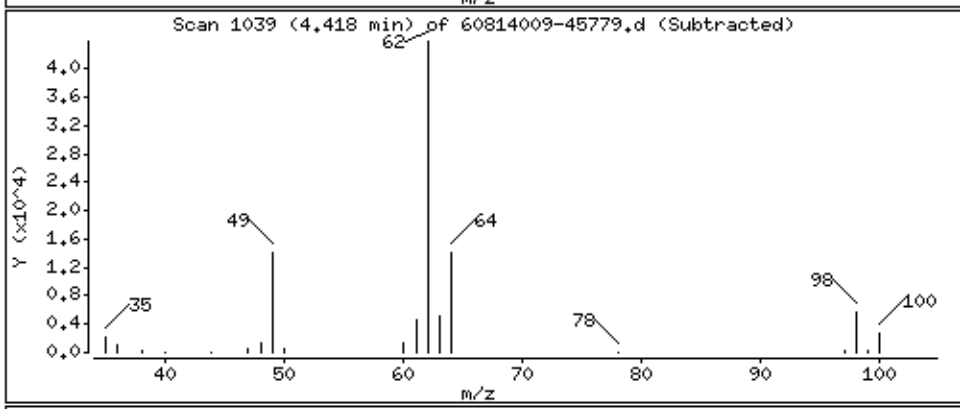
Column phase: RTX-VMS

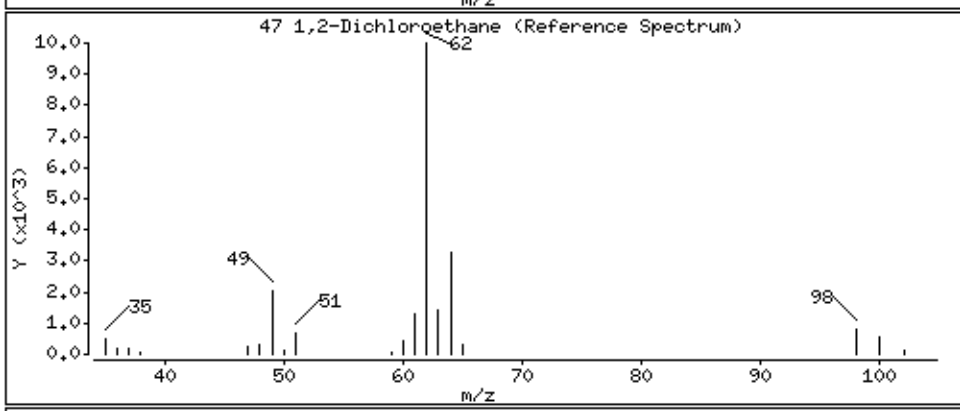
Column diameter: 0.18

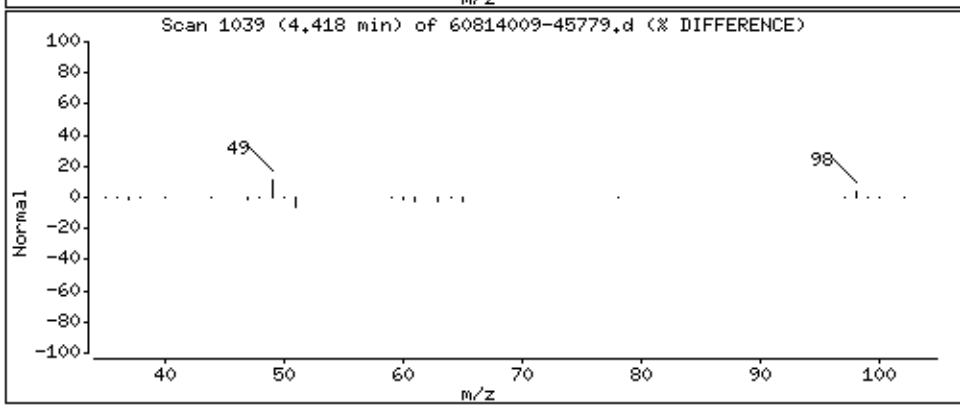
47 1,2-Dichloroethane

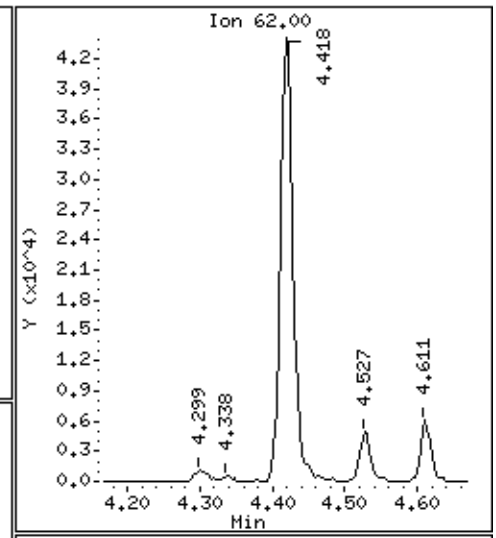
Concentration: 17.5 ug/L

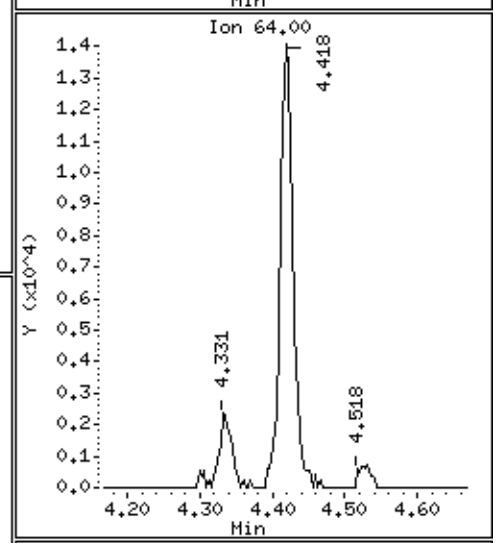


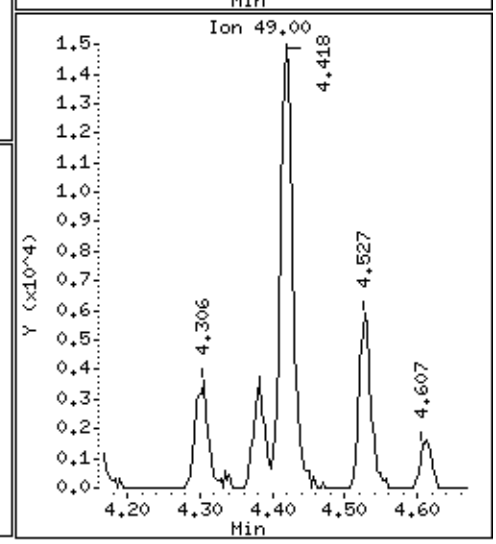












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

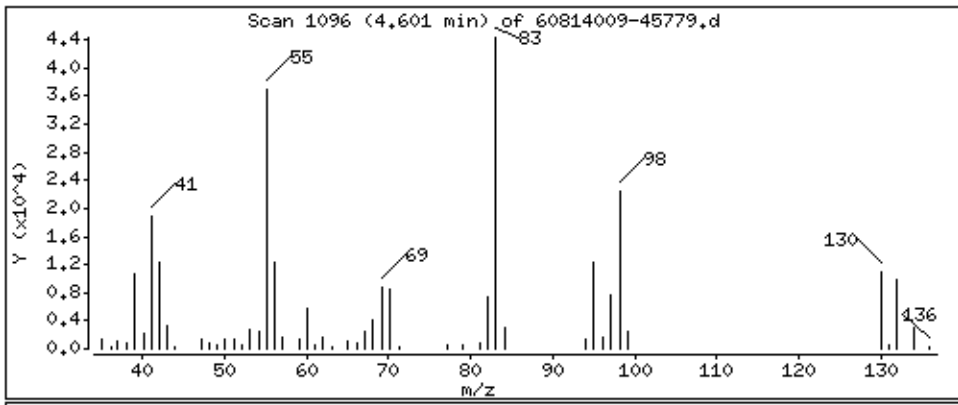
Operator: JEW

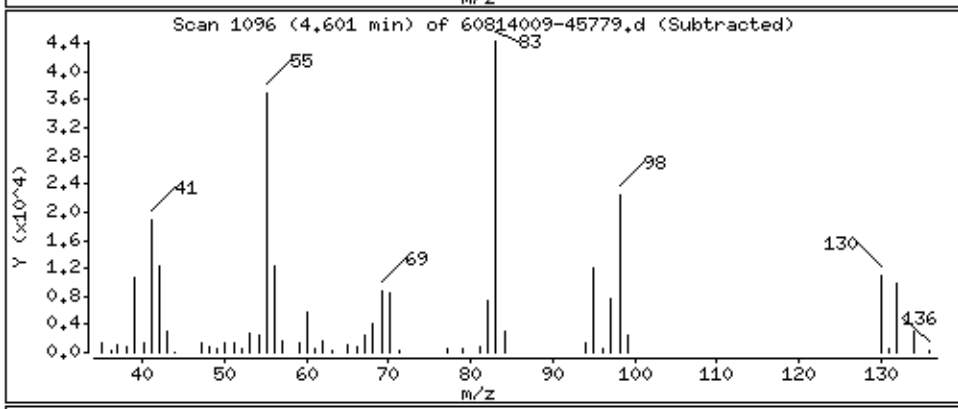
Column phase: RTX-VMS

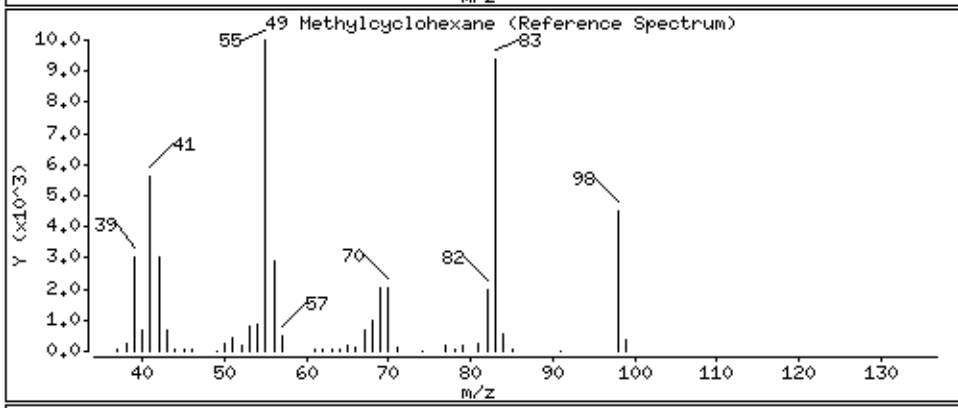
Column diameter: 0.18

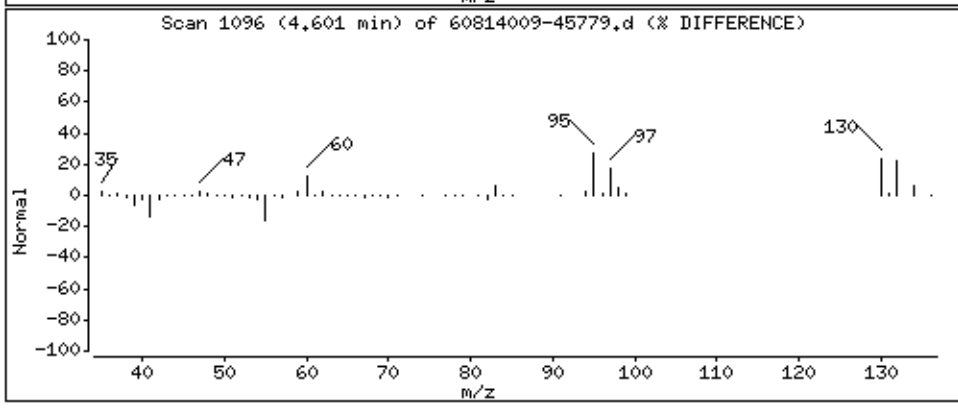
49 Methylcyclohexane

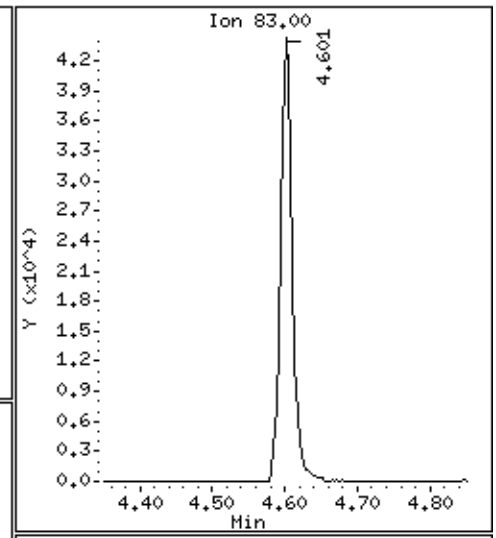
Concentration: 16.0 ug/L

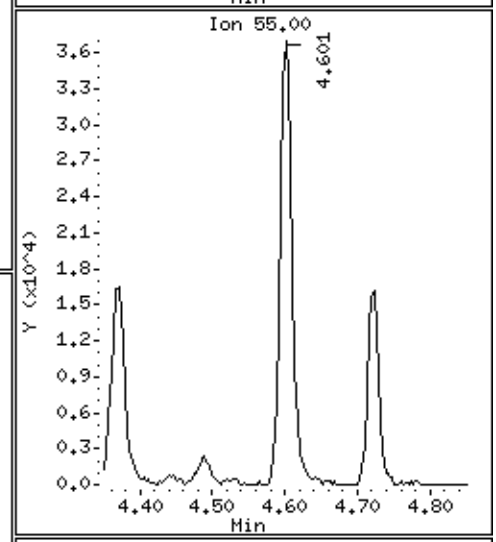


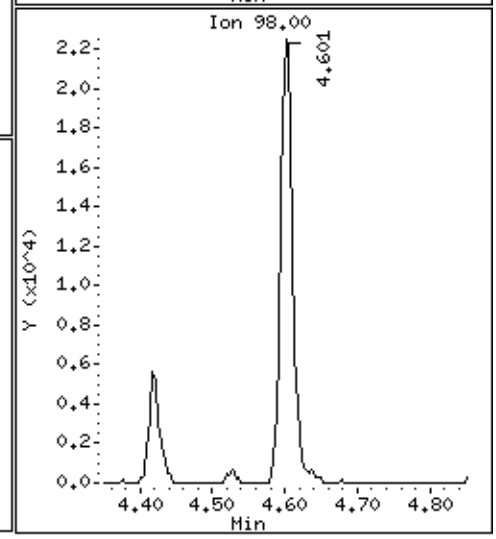












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

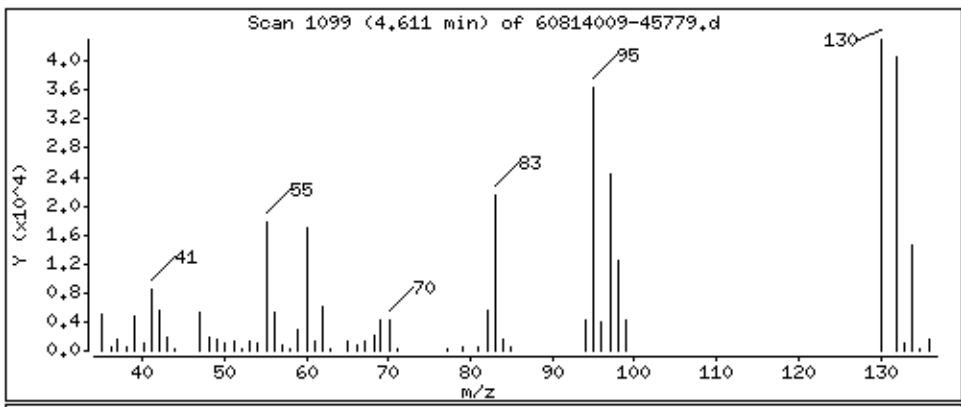
Operator: JEW

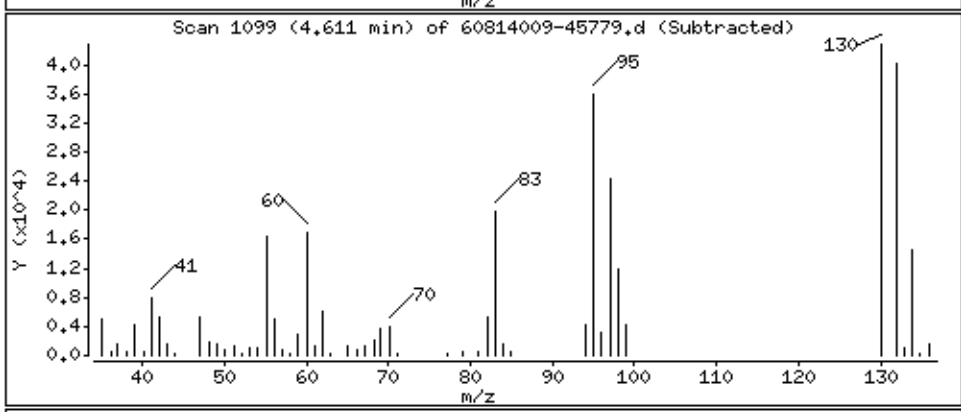
Column phase: RTX-VMS

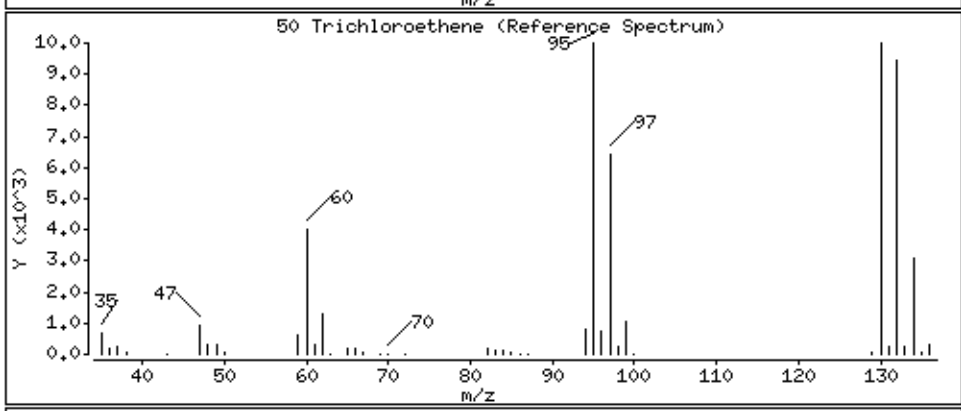
Column diameter: 0.18

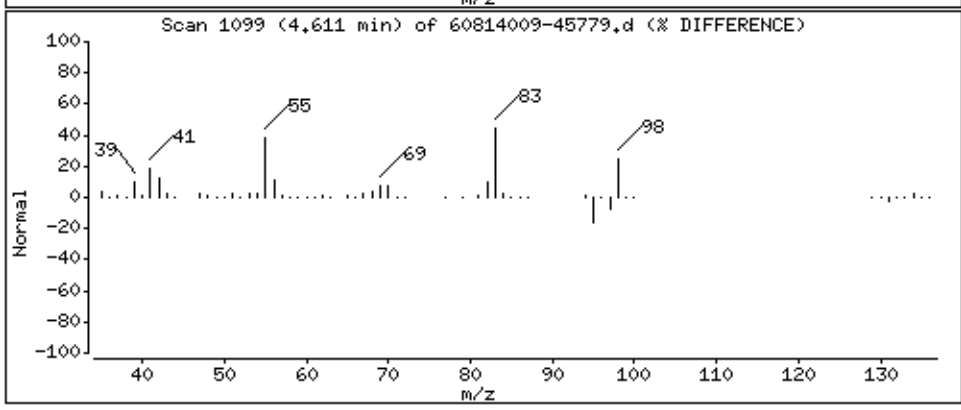
50 Trichloroethene

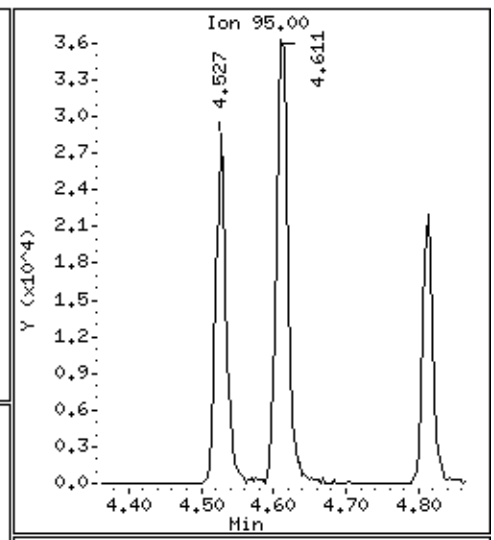
Concentration: 16.9 ug/L

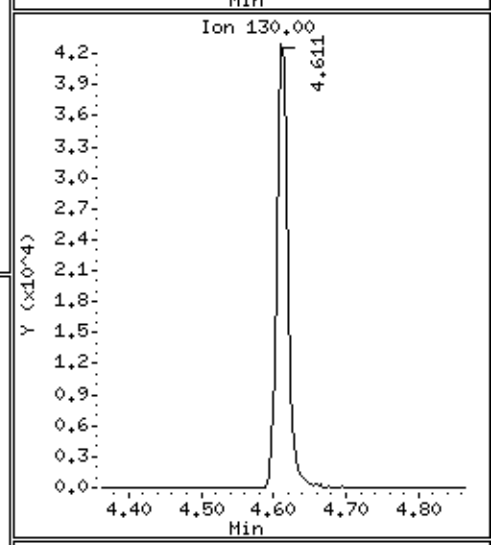


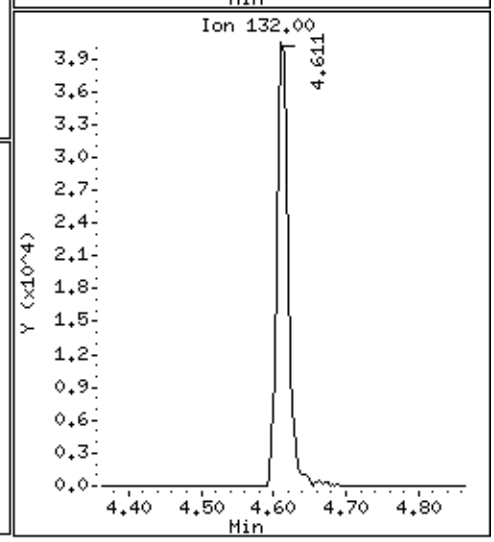












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

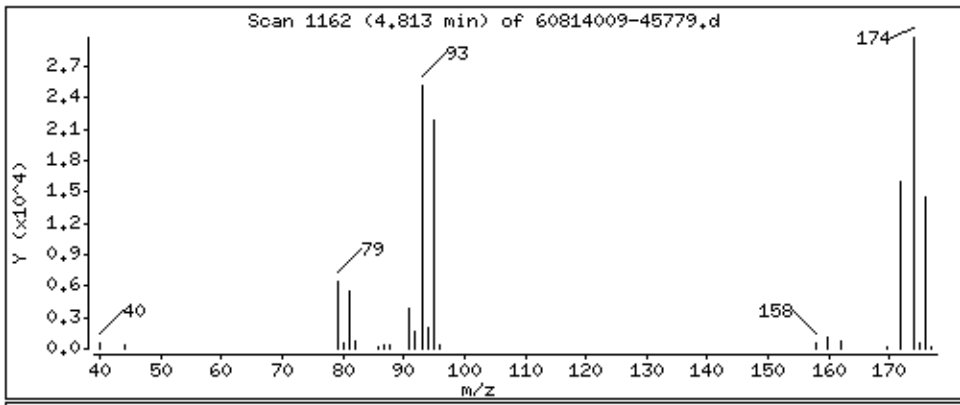
Operator: JEW

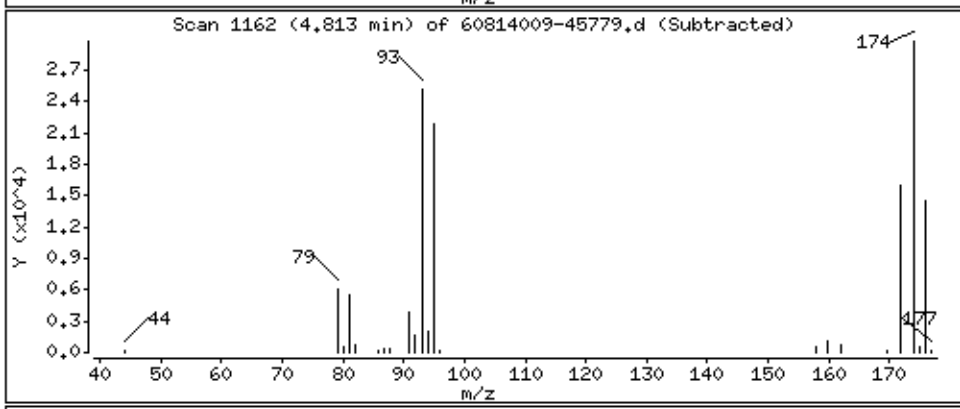
Column phase: RTX-VMS

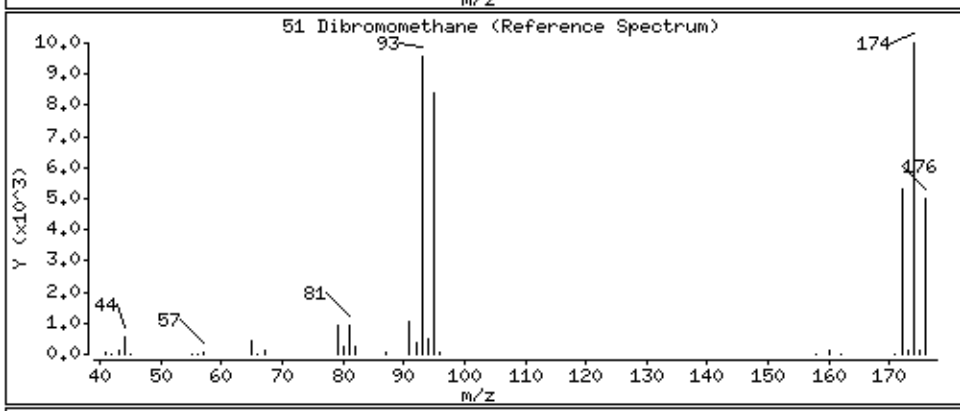
Column diameter: 0.18

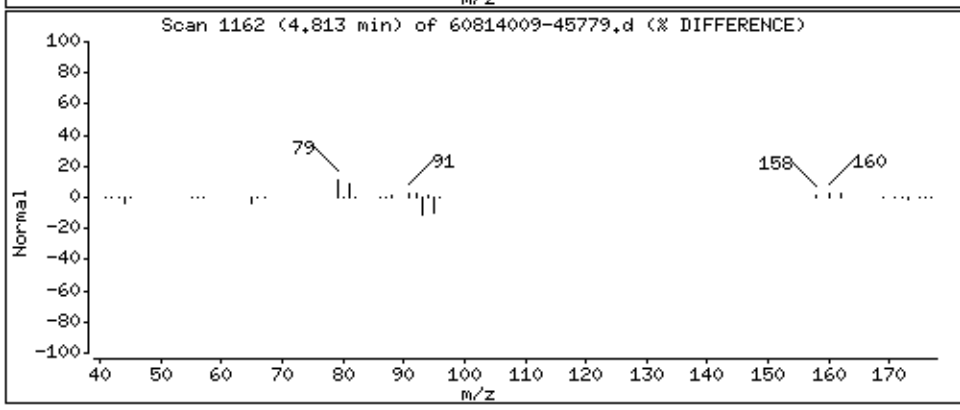
51 Dibromomethane

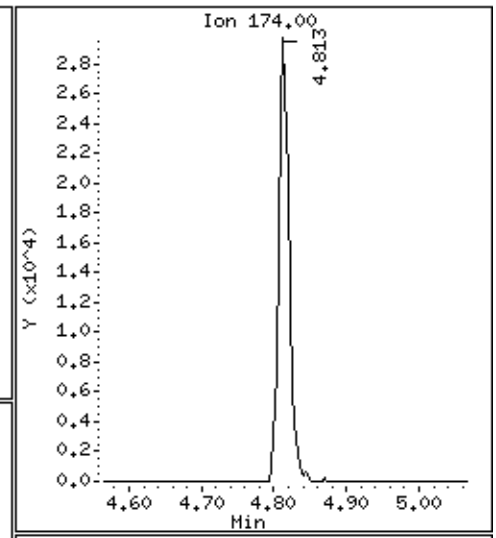
Concentration: 18.3 ug/L

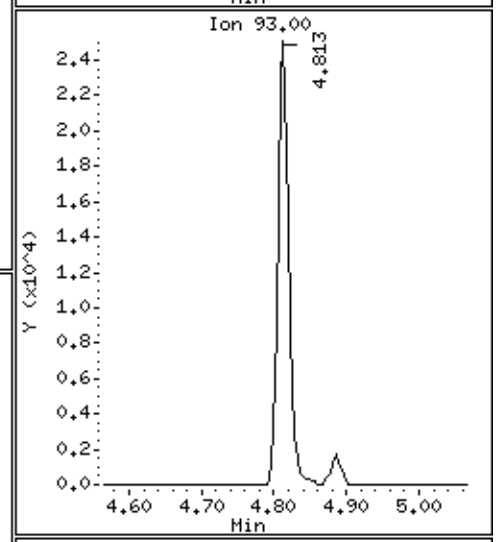


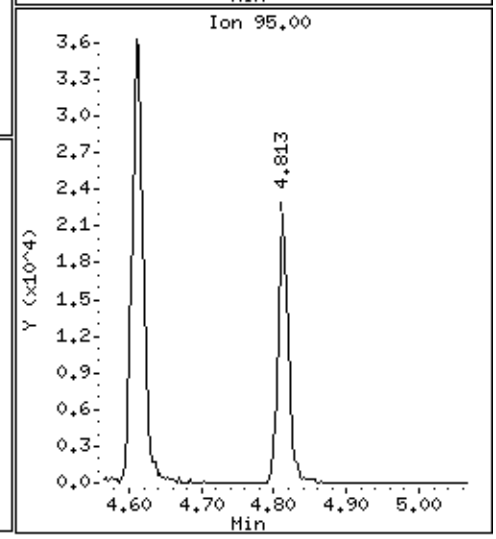












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

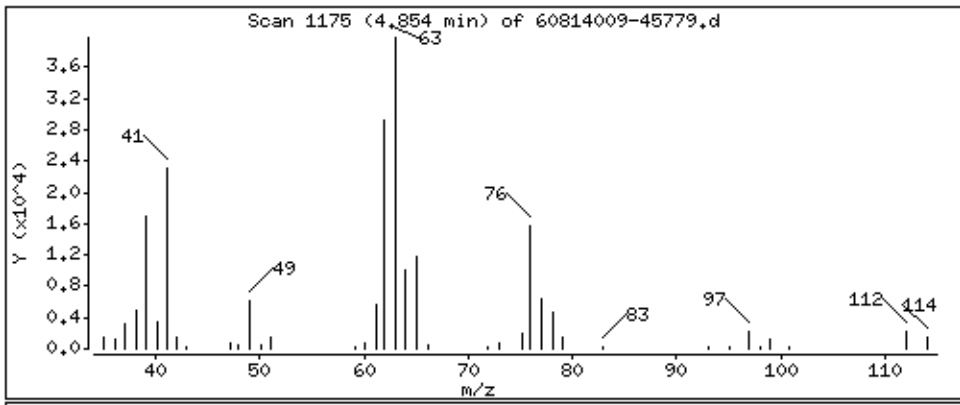
Operator: JEW

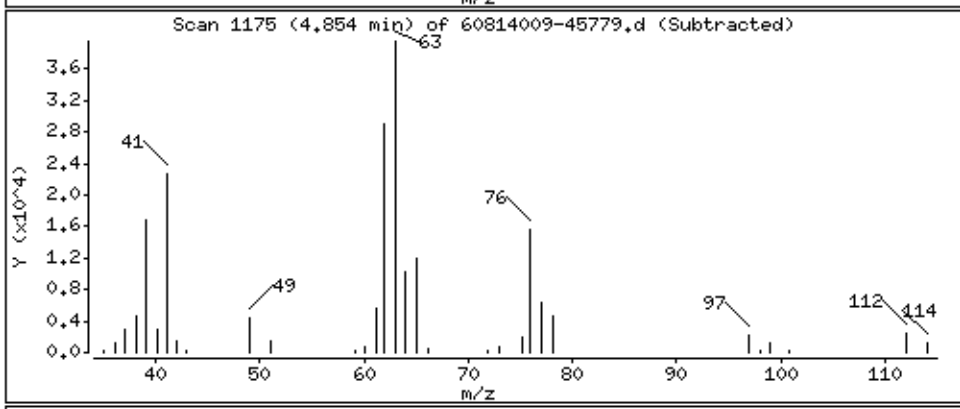
Column phase: RTX-VMS

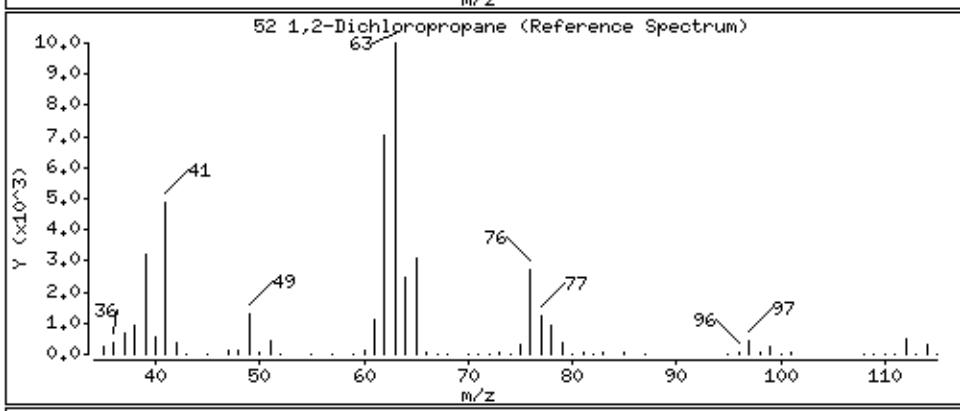
Column diameter: 0.18

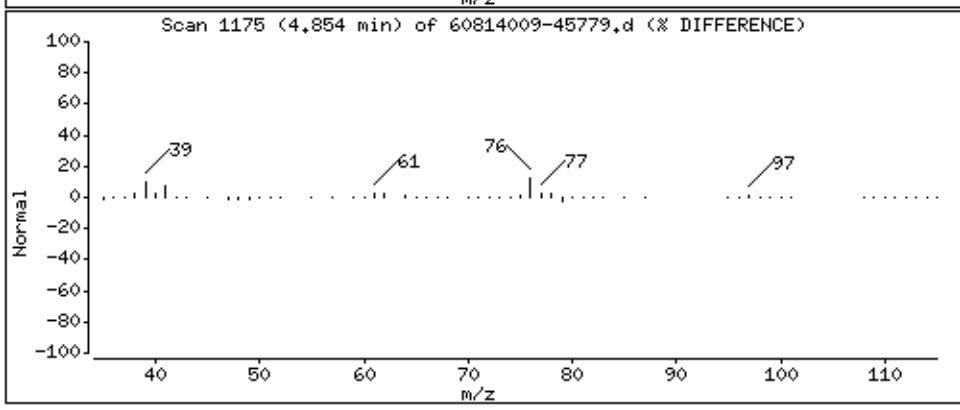
52 1,2-Dichloropropane

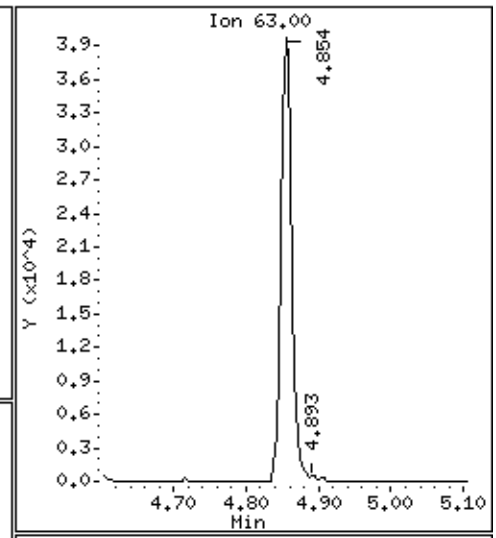
Concentration: 17.7 ug/L

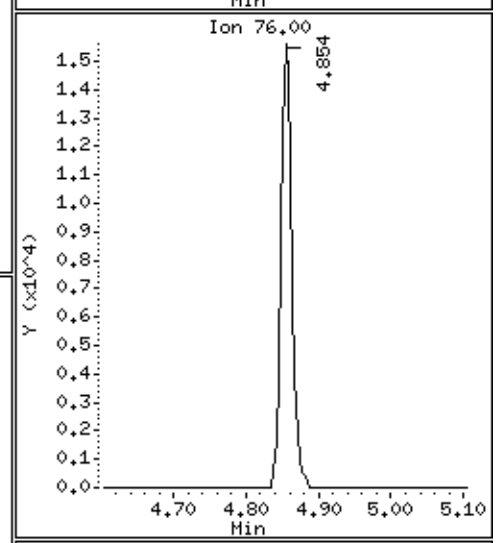


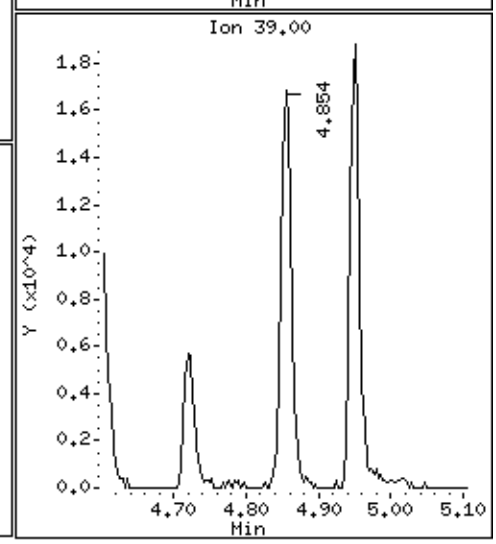












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

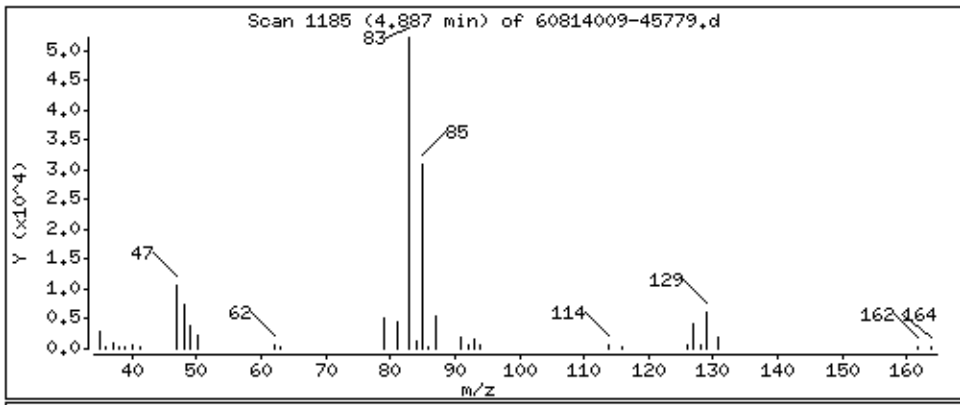
Operator: JEW

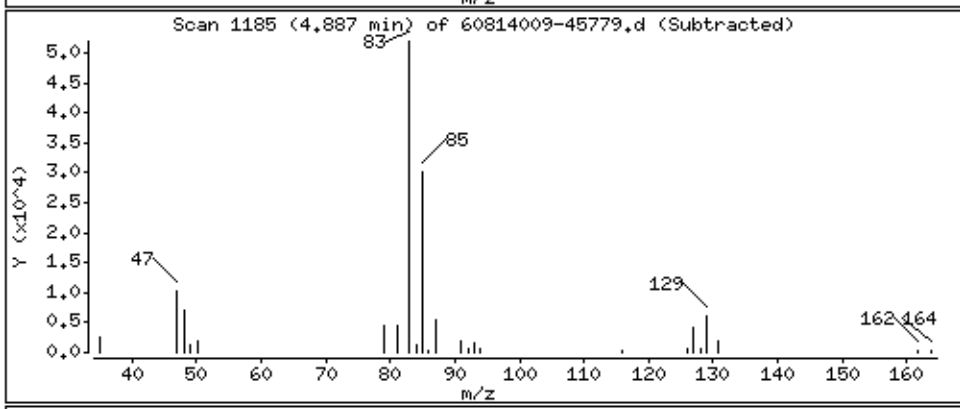
Column phase: RTX-VMS

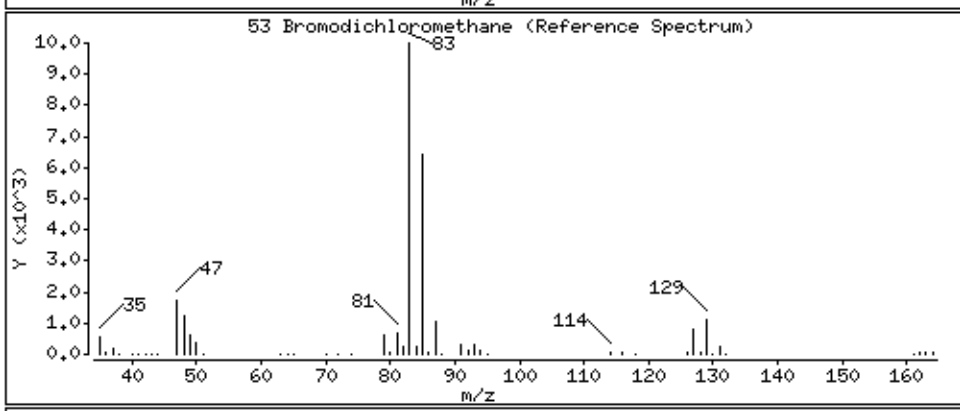
Column diameter: 0.18

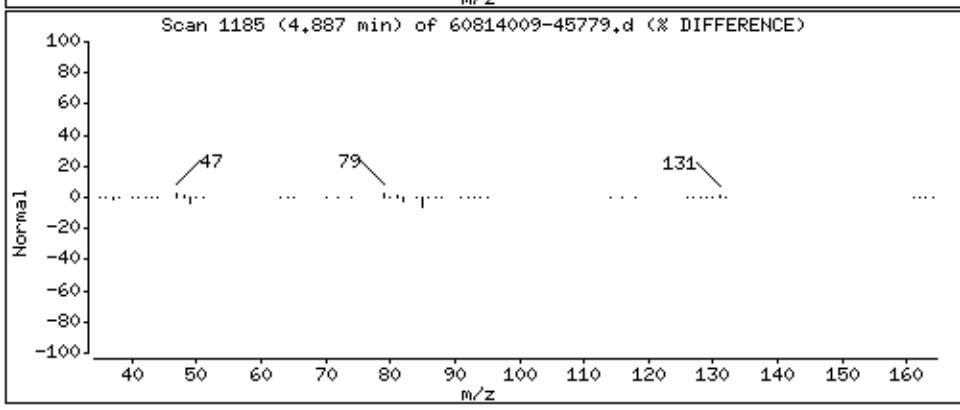
53 Bromodichloromethane

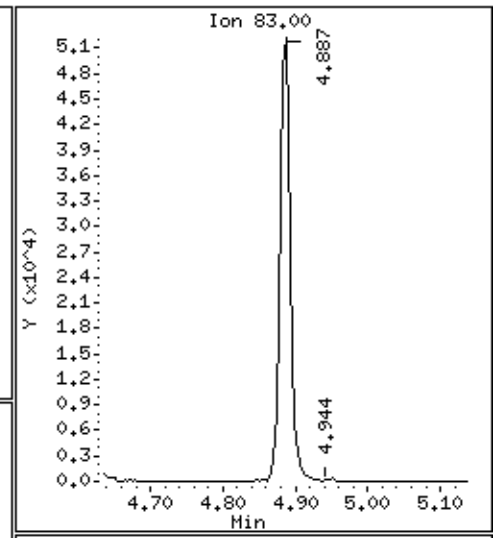
Concentration: 19.0 ug/L

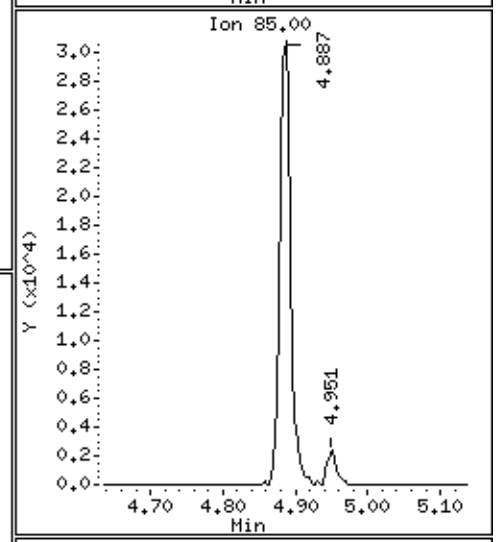


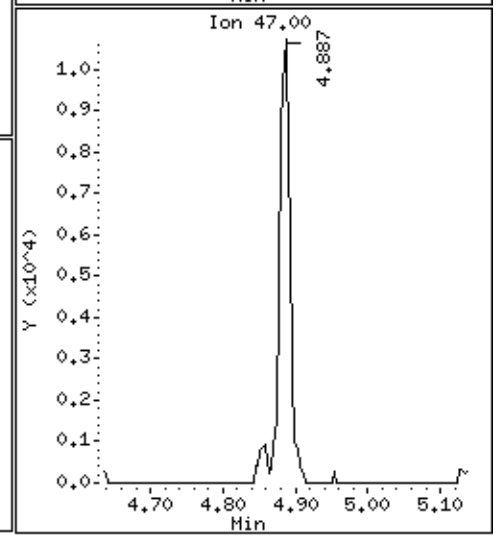












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

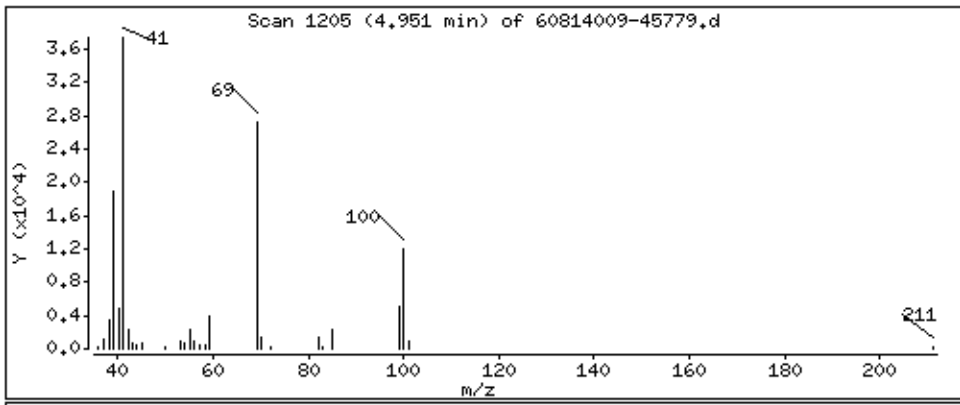
Operator: JEW

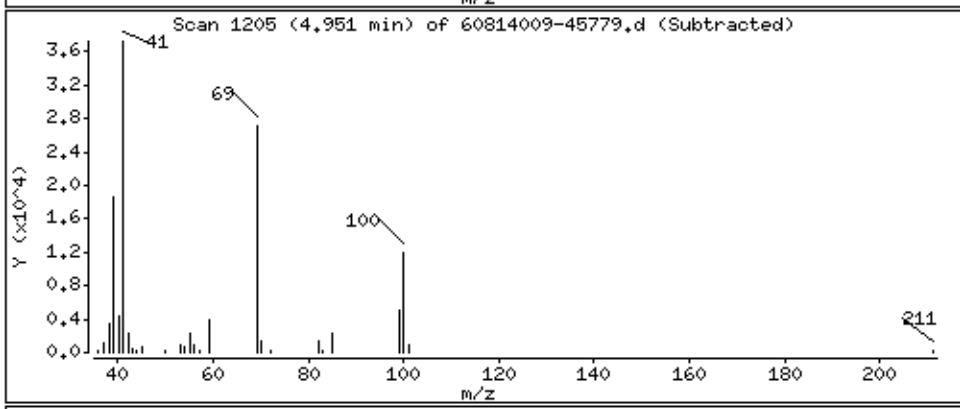
Column phase: RTX-VMS

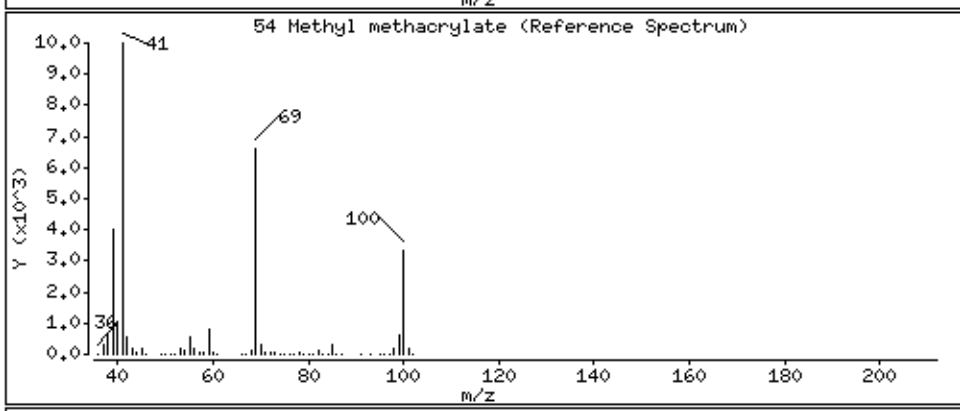
Column diameter: 0.18

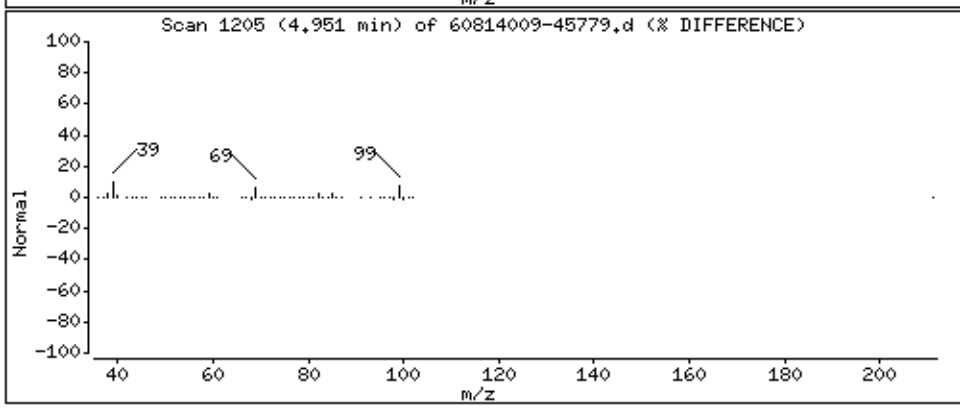
54 Methyl methacrylate

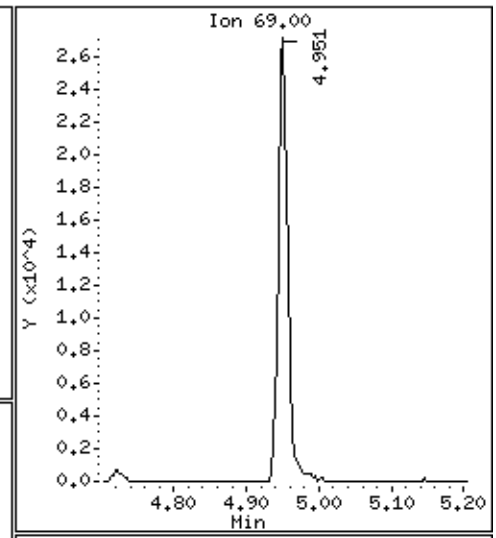
Concentration: 16.0 ug/L

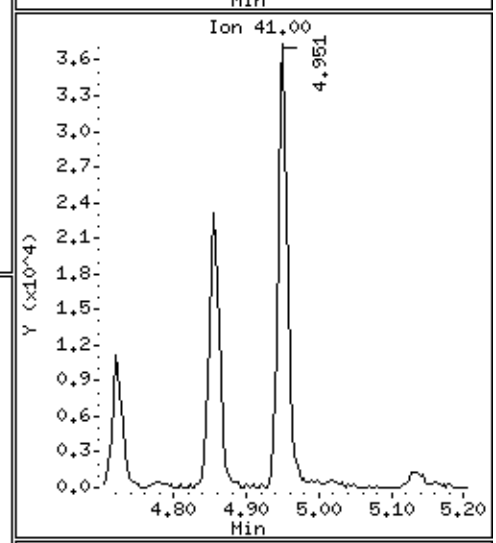


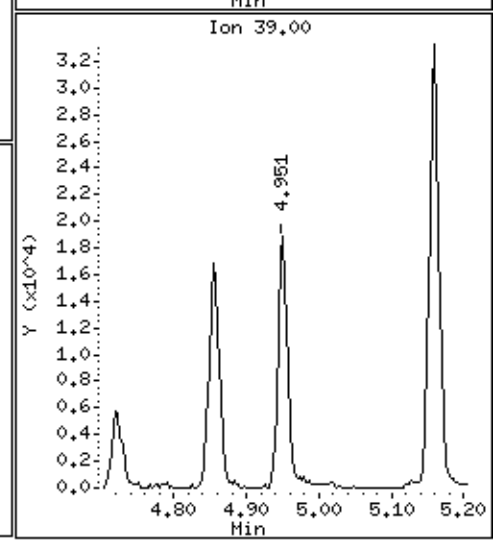












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

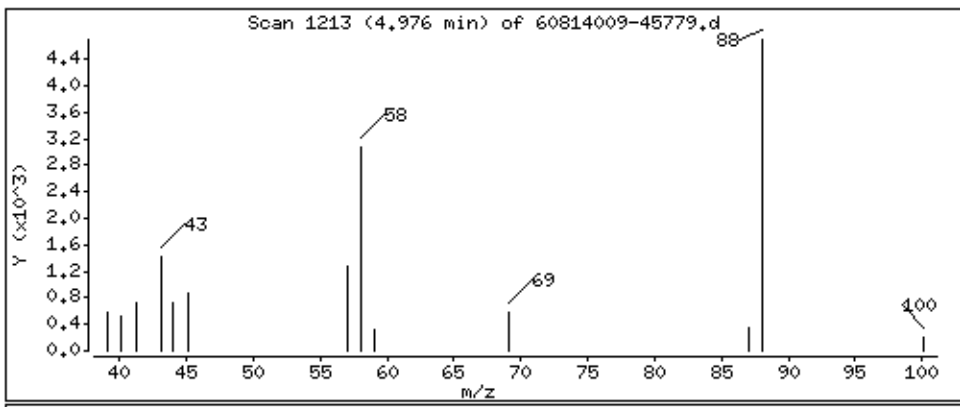
Operator: JEW

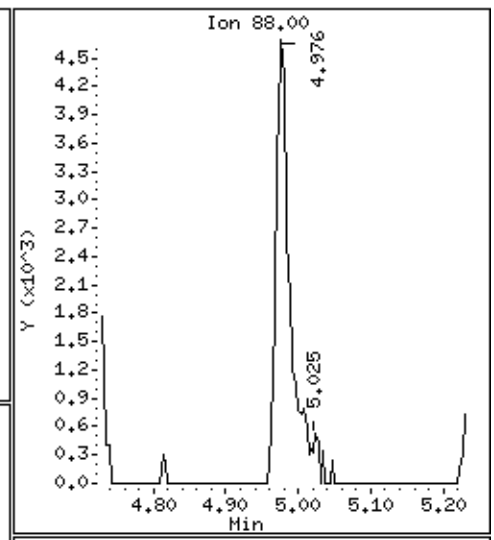
Column phase: RTX-VMS

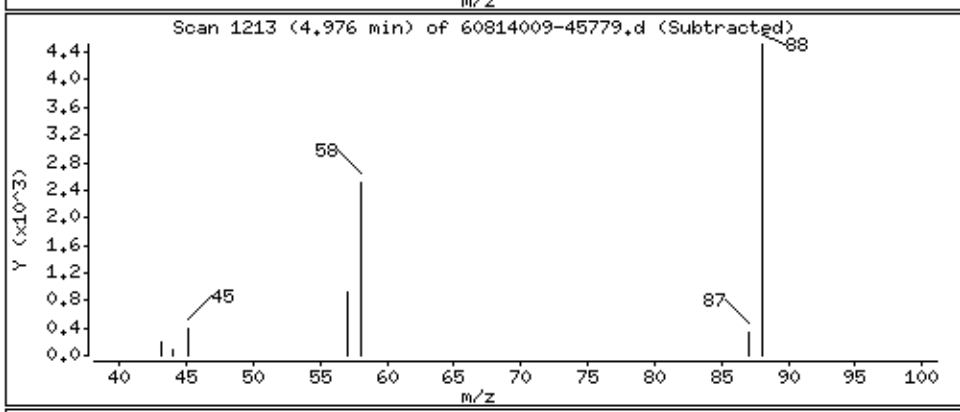
Column diameter: 0.18

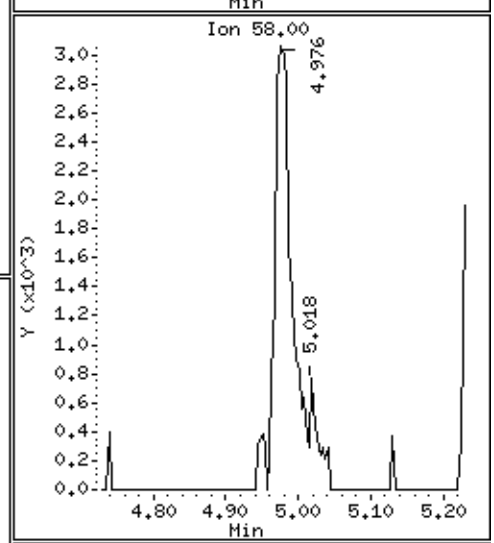
55 1,4-Dioxane (p-Dioxane)

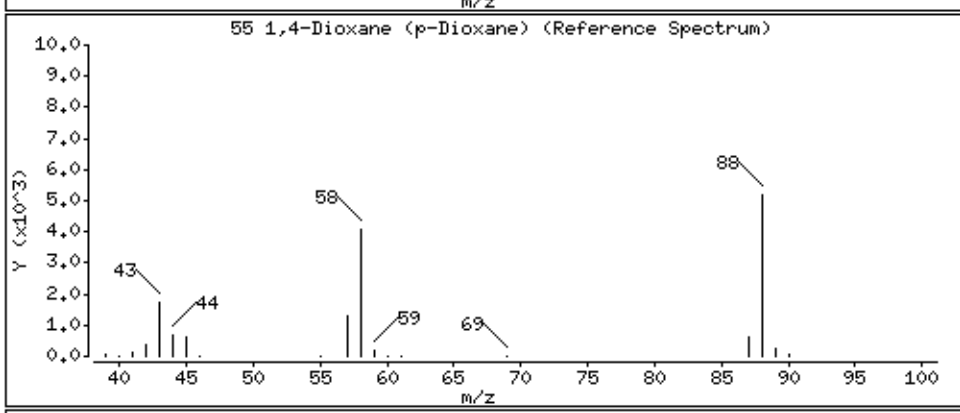
Concentration: 168 ug/L

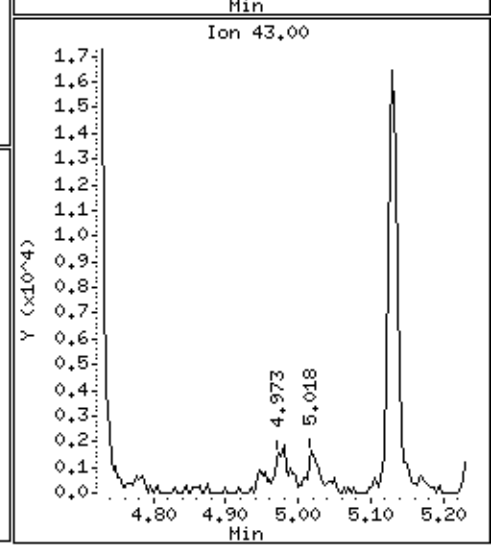


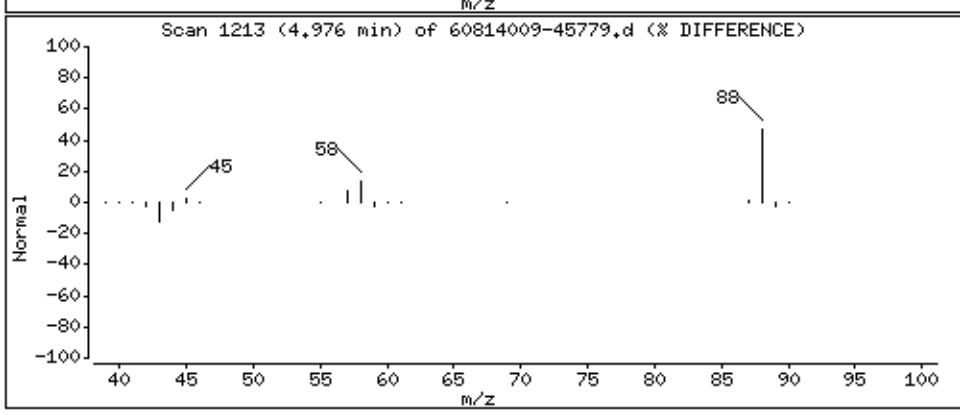












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

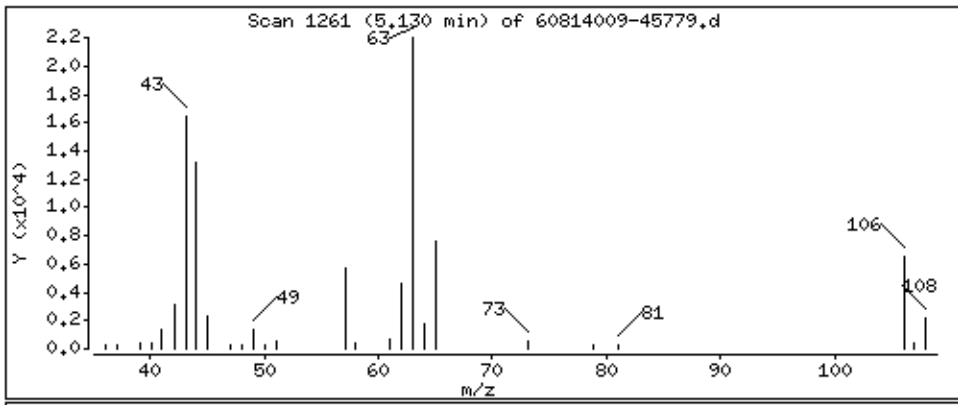
Operator: JEW

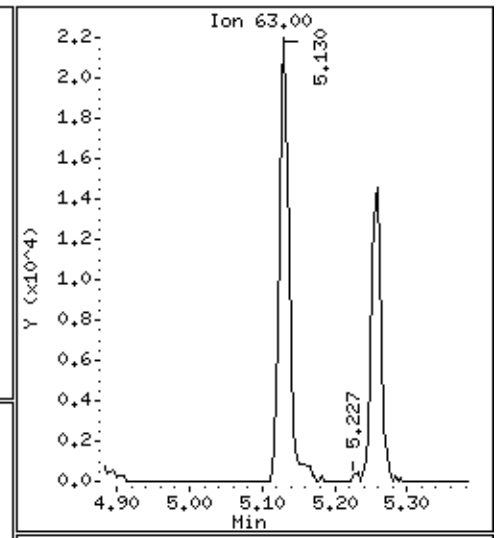
Column phase: RTX-VMS

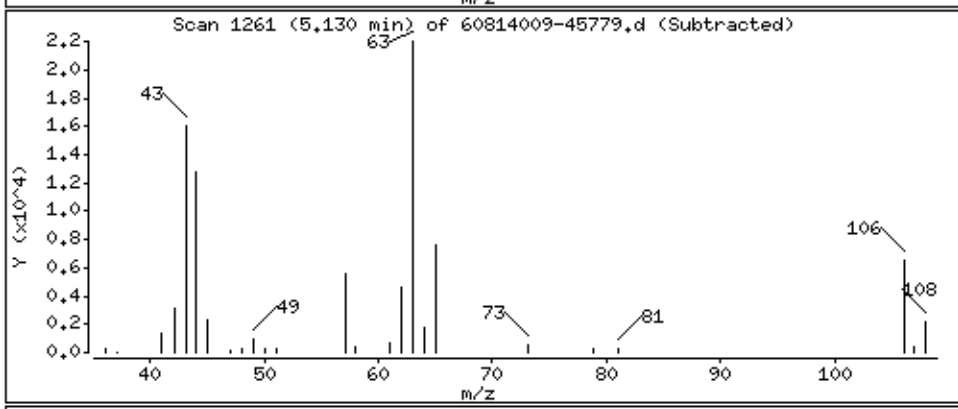
Column diameter: 0.18

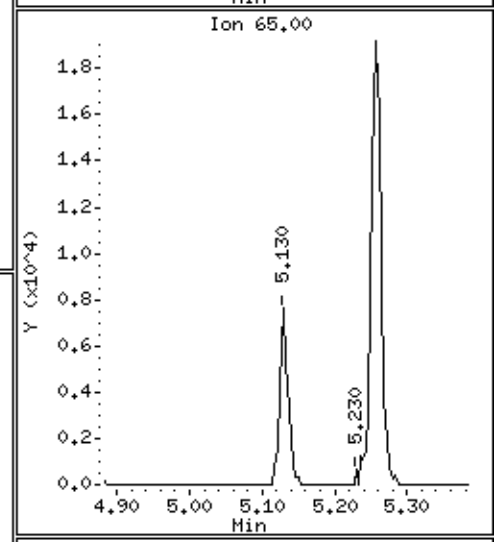
56 2-Chloroethylvinyl ether

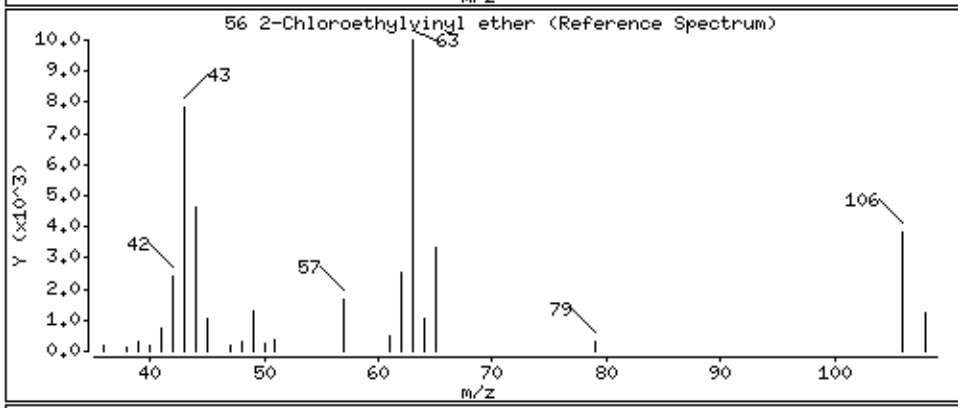
Concentration: 38.4 ug/L

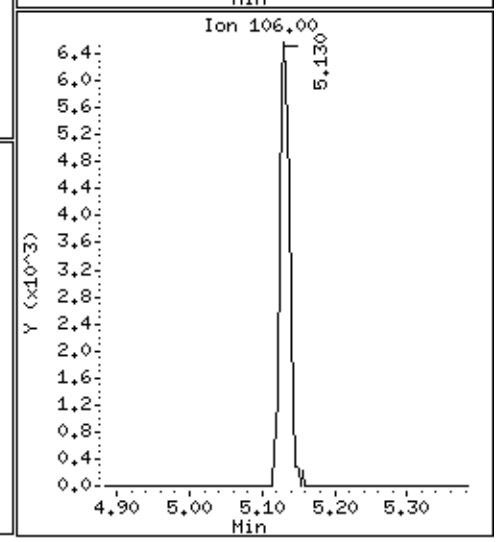


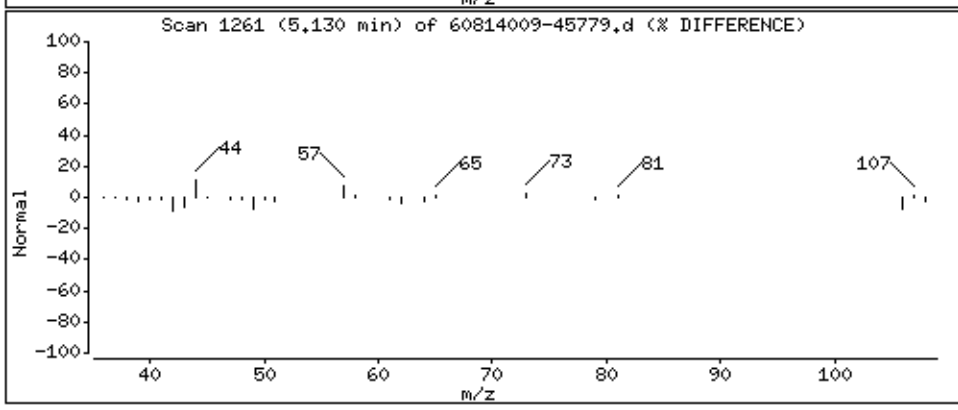












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

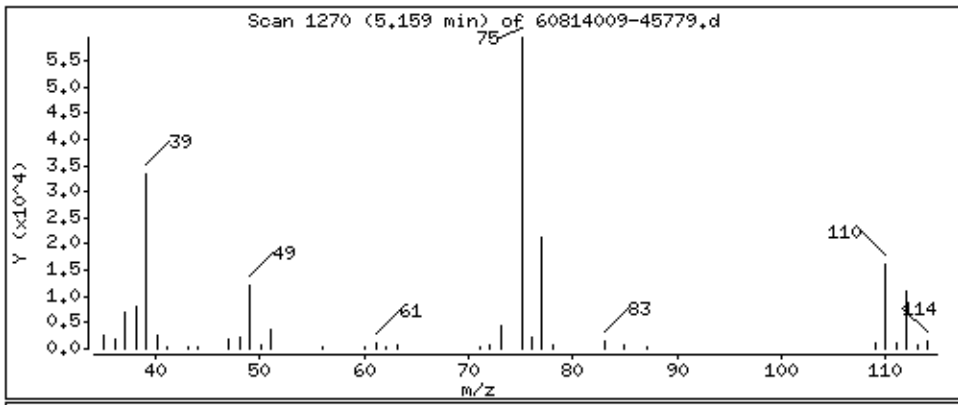
Operator: JEW

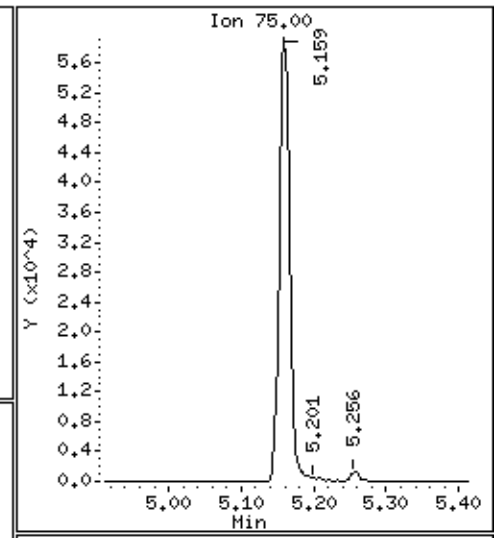
Column phase: RTX-VMS

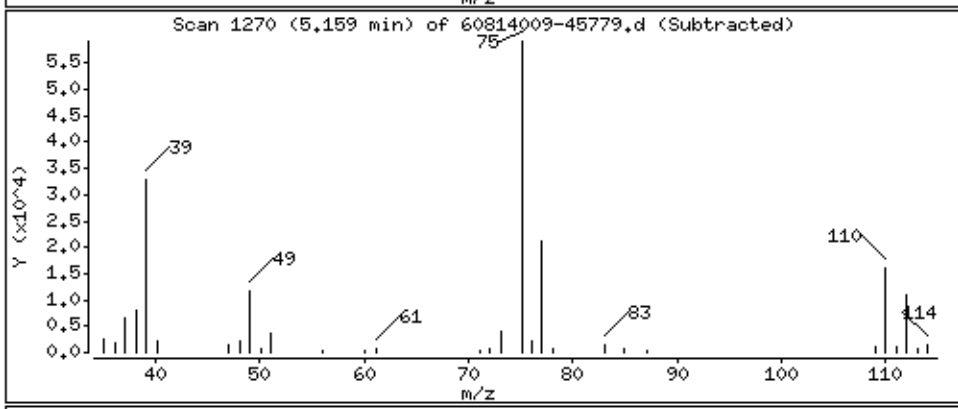
Column diameter: 0.18

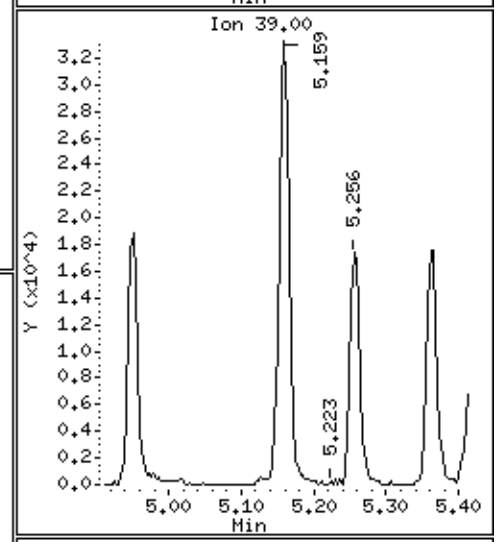
57 cis-1,3-Dichloropropene

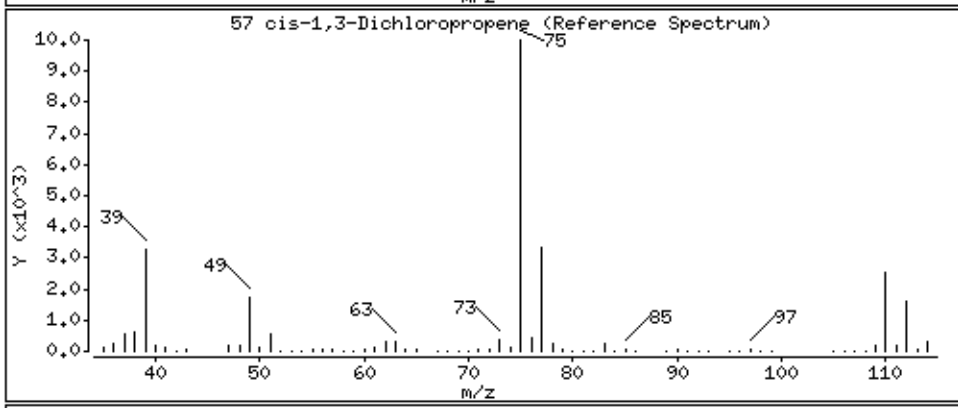
Concentration: 17.3 ug/L

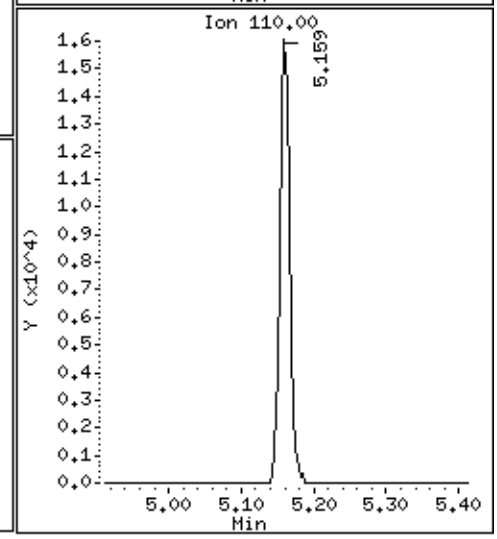


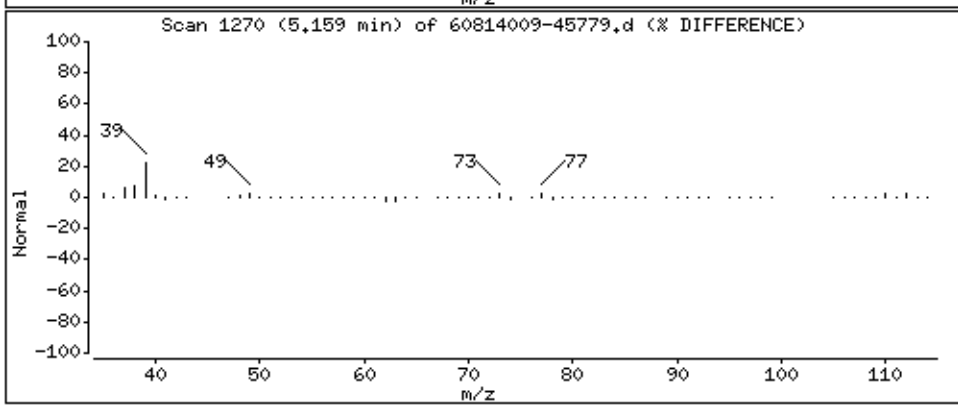












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

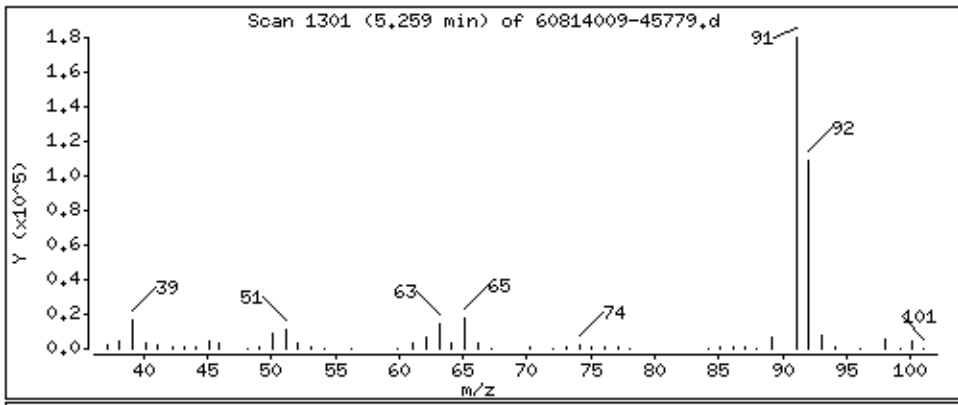
Operator: JEW

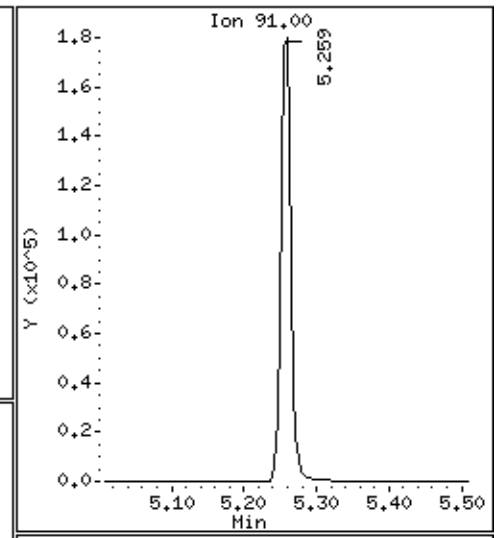
Column phase: RTX-VMS

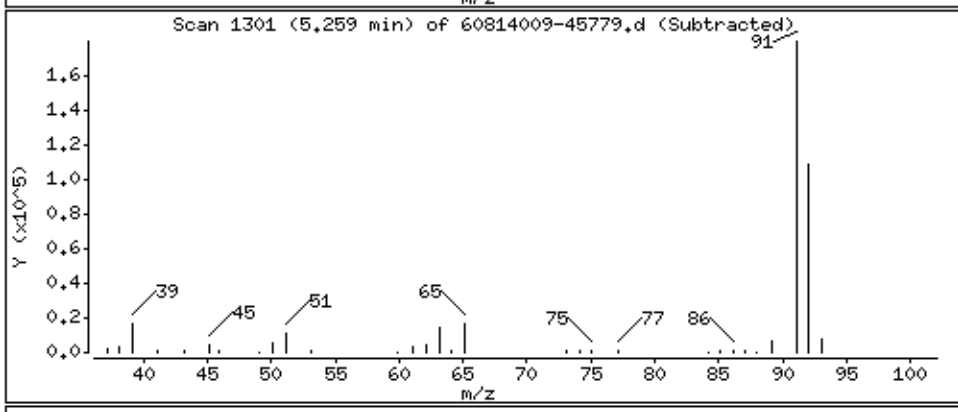
Column diameter: 0.18

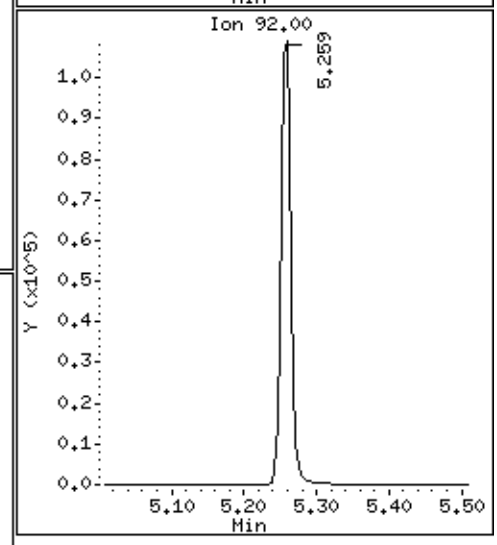
59 Toluene

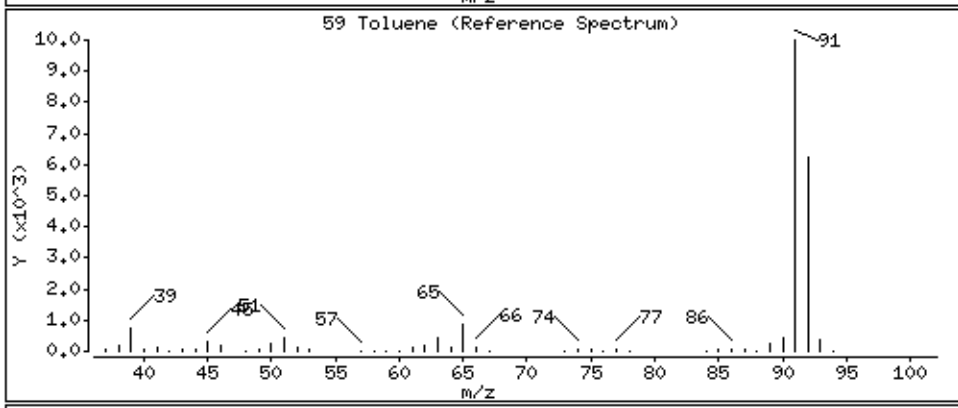
Concentration: 17.0 ug/L

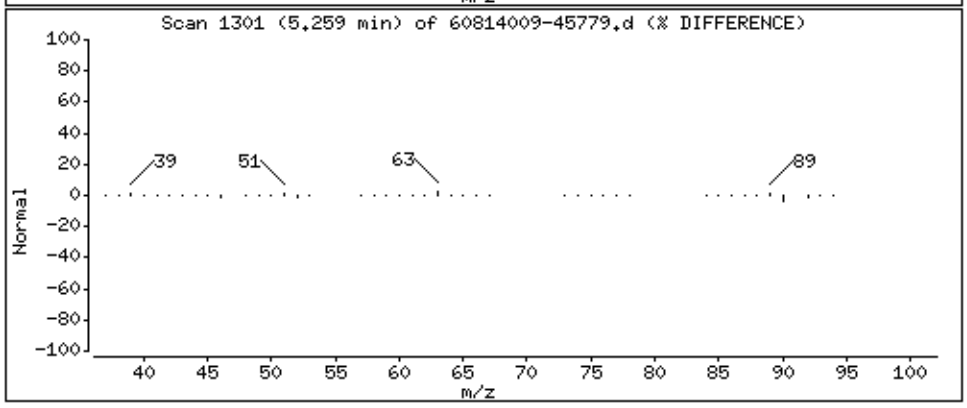












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

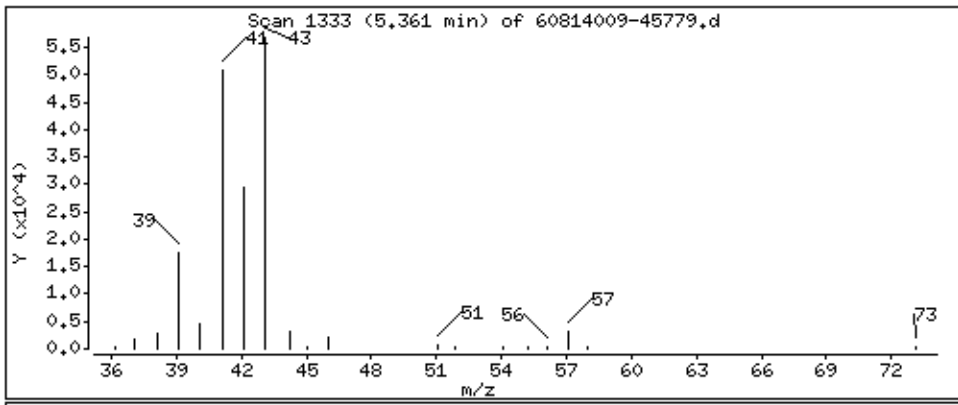
Operator: JEW

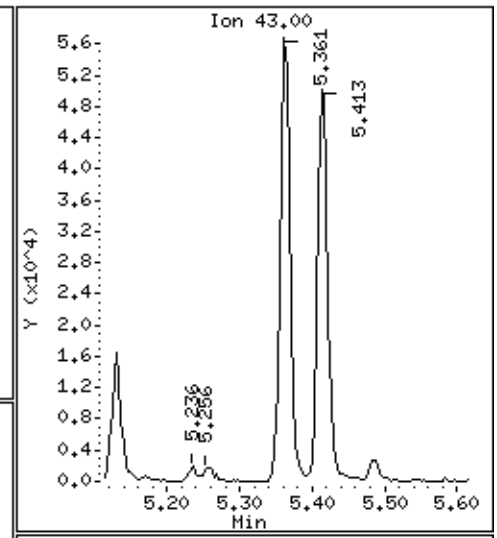
Column phase: RTX-VMS

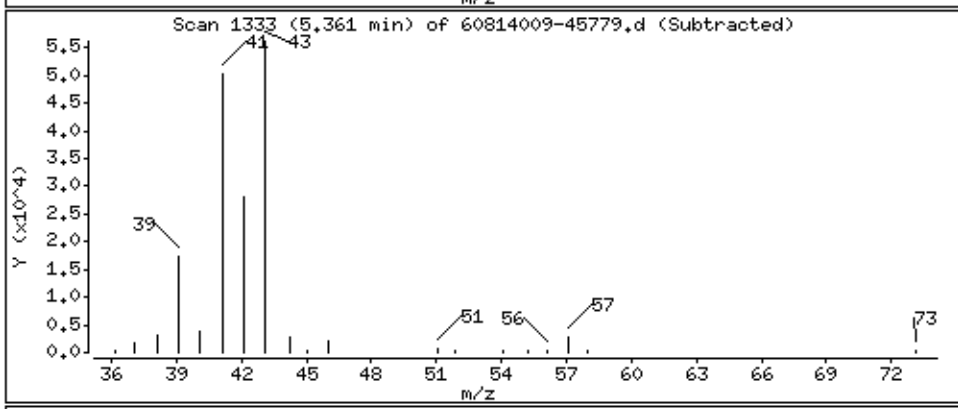
Column diameter: 0.18

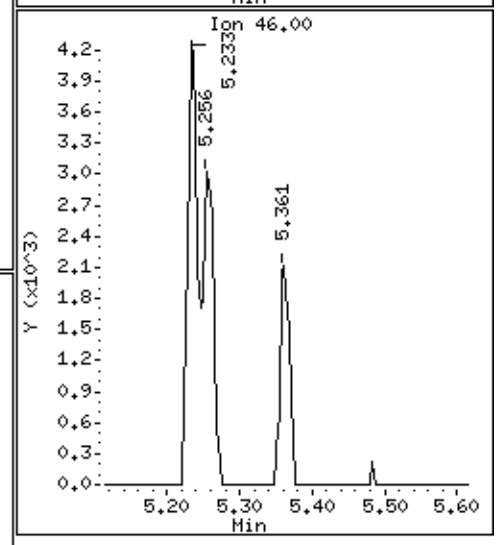
60 2-Nitropropane

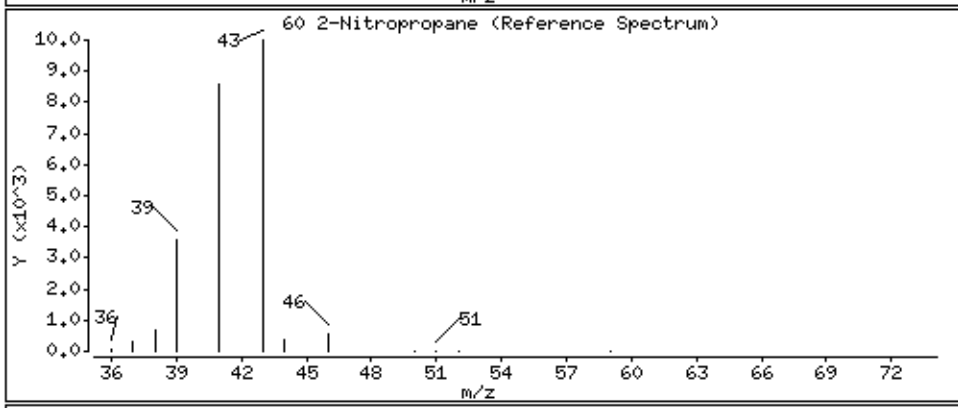
Concentration: 87.3 ug/L

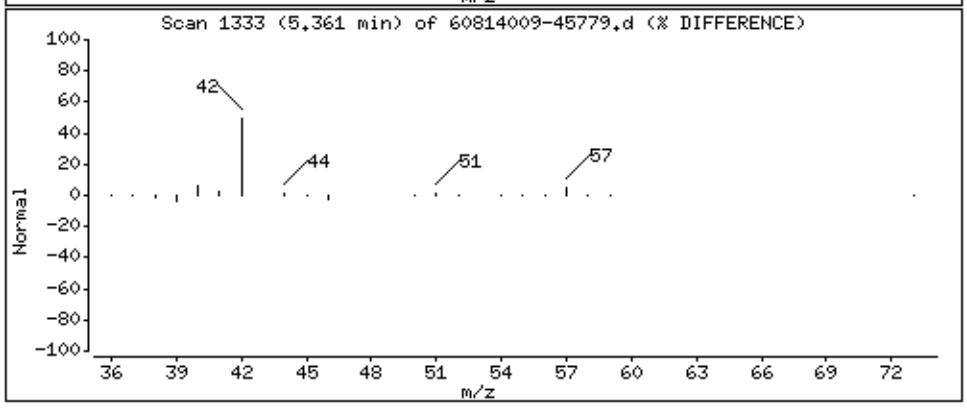












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

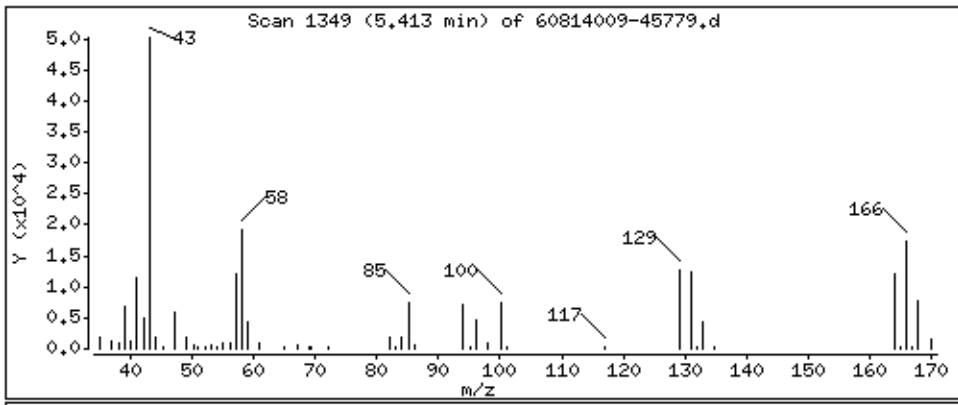
Operator: JEW

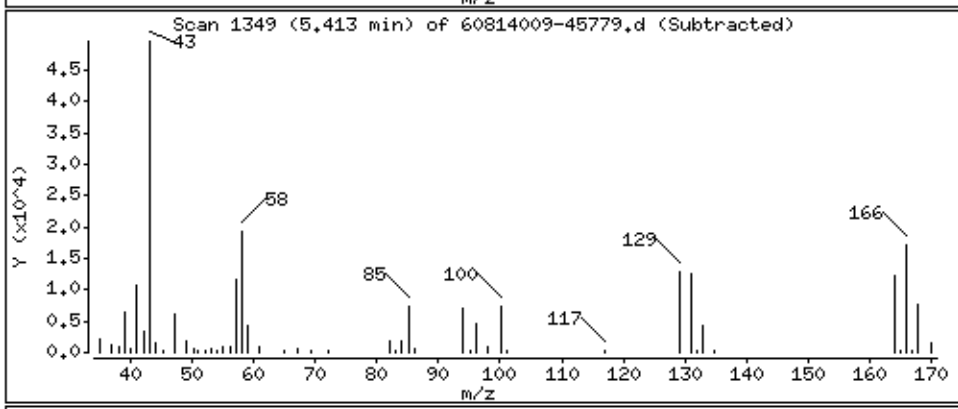
Column phase: RTX-VMS

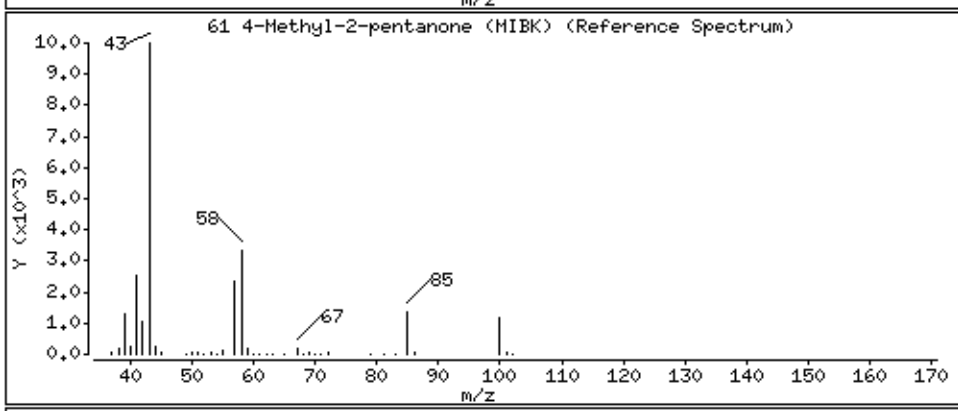
Column diameter: 0.18

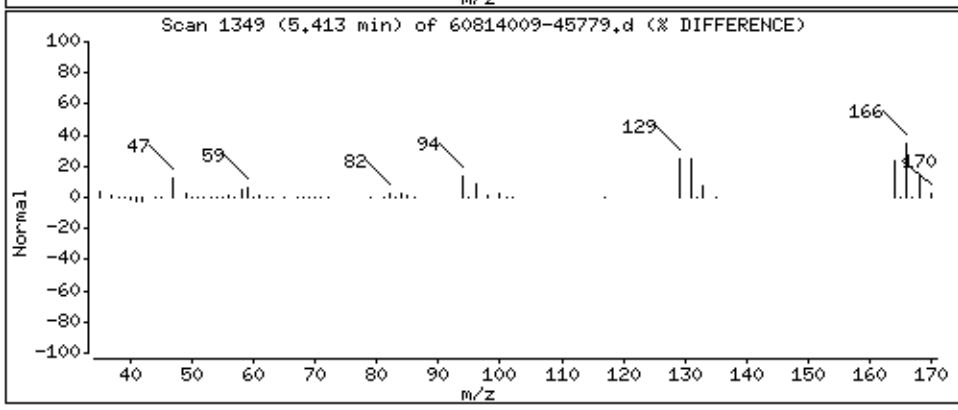
61 4-Methyl-2-pentanone (MIBK)

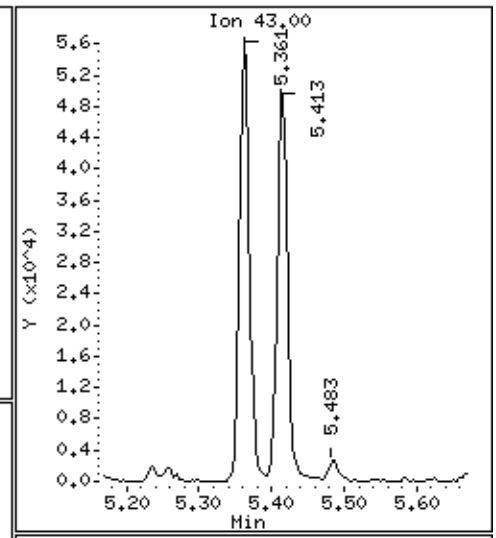
Concentration: 17.5 ug/L

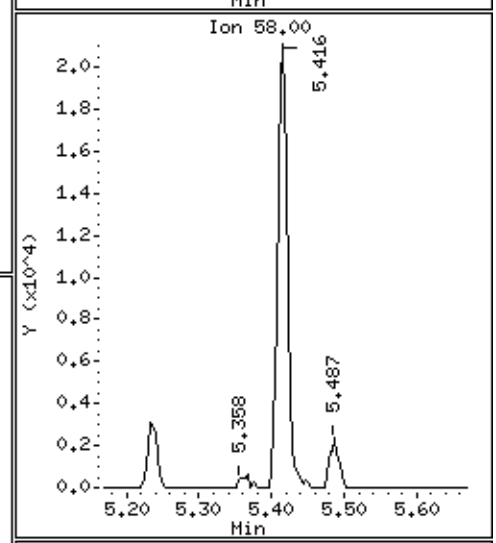


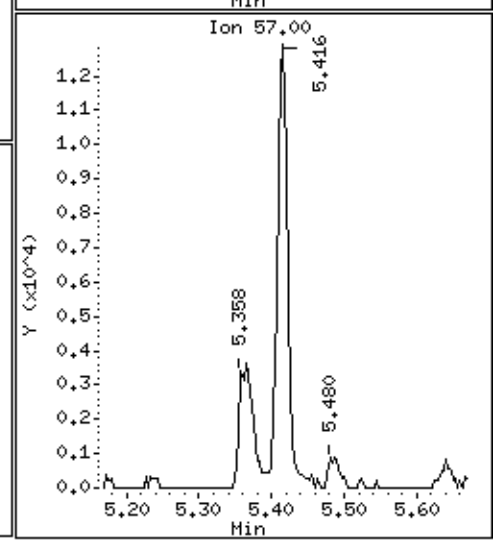












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

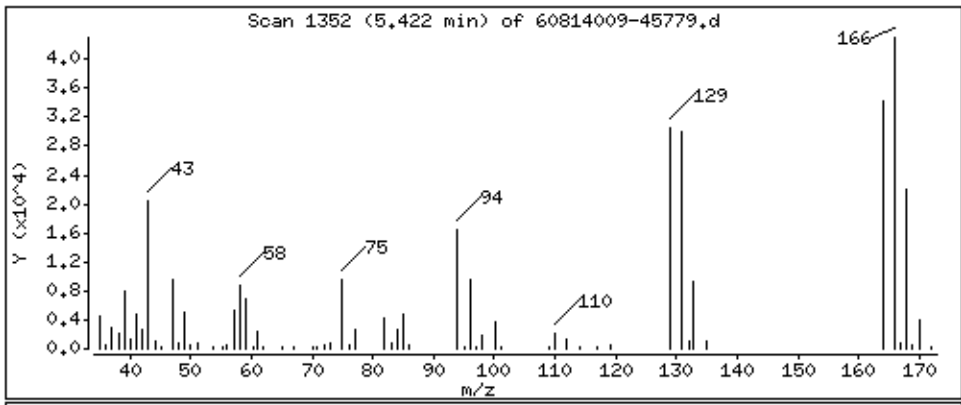
Operator: JEW

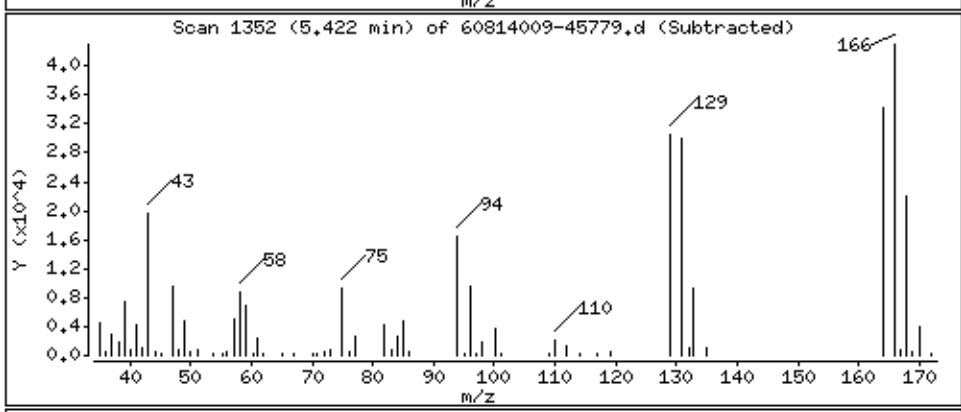
Column phase: RTX-VMS

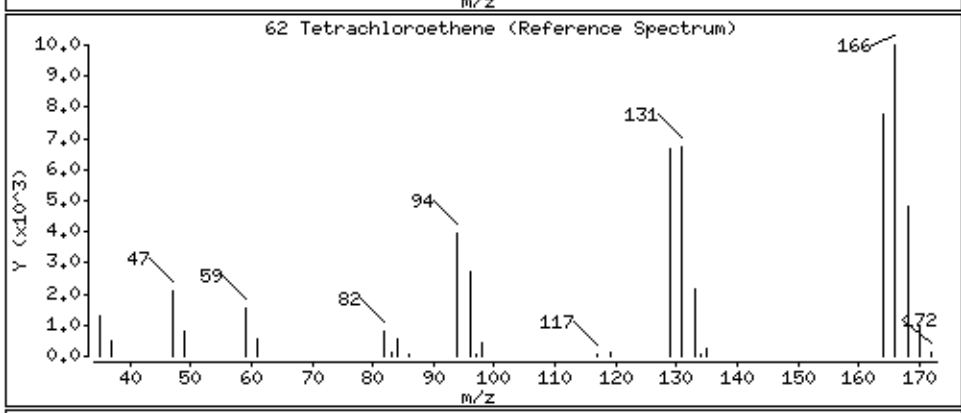
Column diameter: 0.18

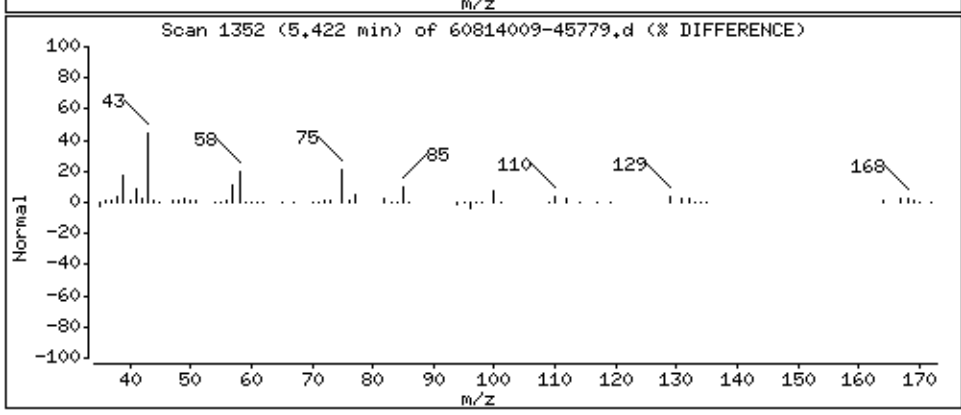
62 Tetrachloroethene

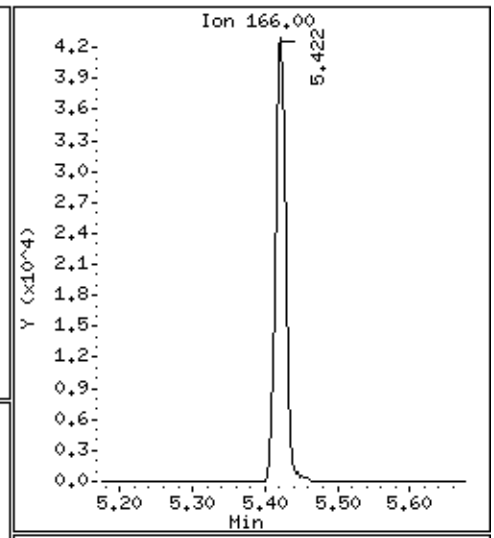
Concentration: 16.2 ug/L

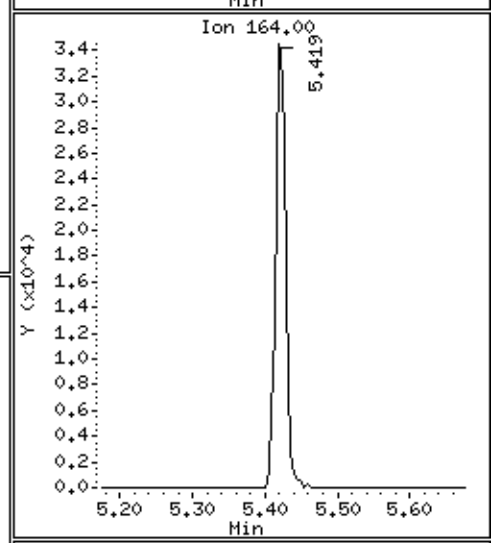


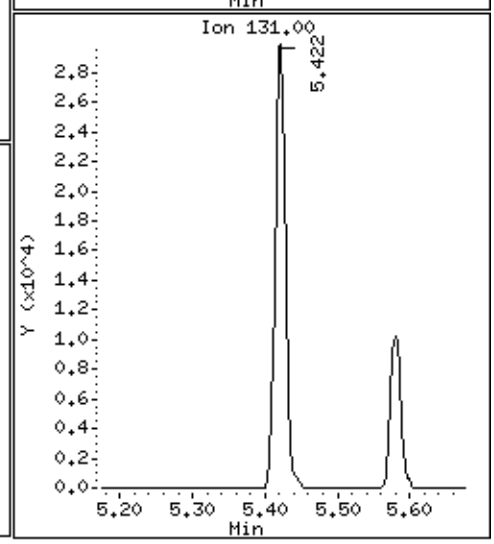












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

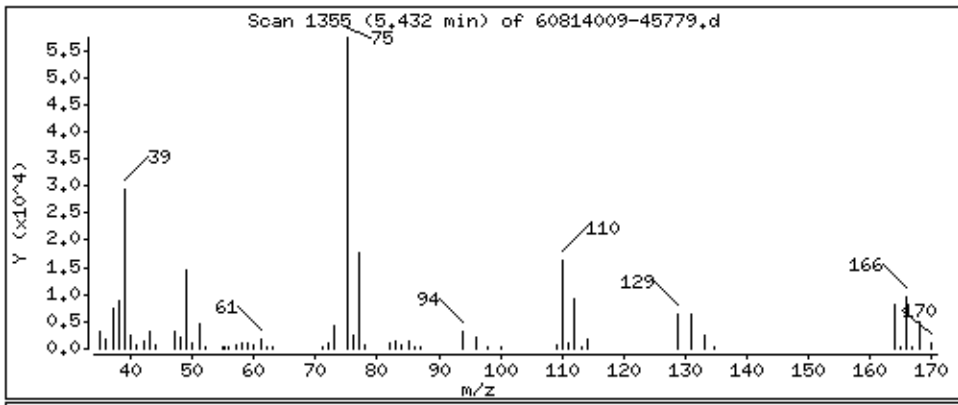
Operator: JEW

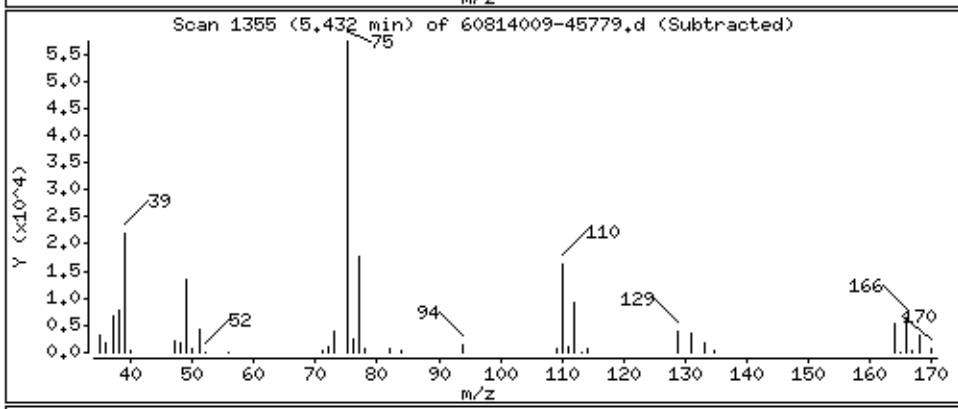
Column phase: RTX-VMS

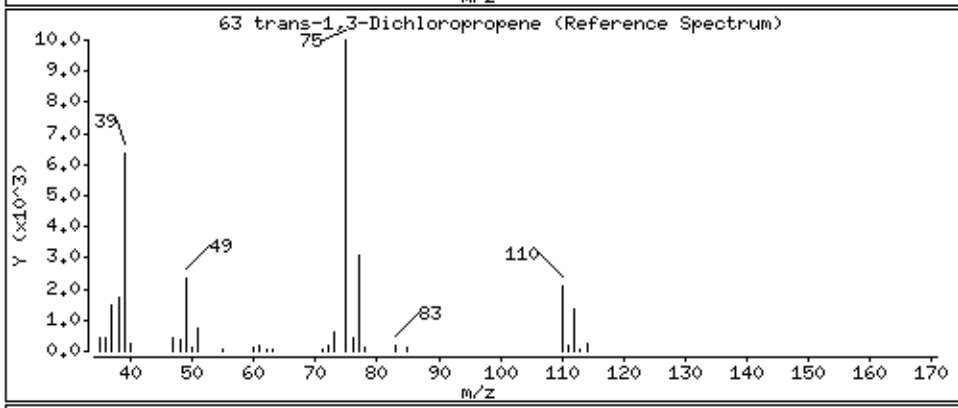
Column diameter: 0.18

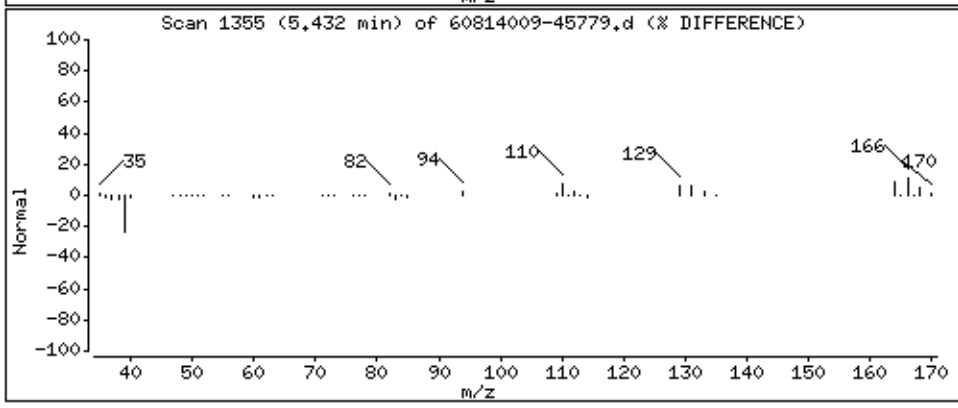
63 trans-1,3-Dichloropropene

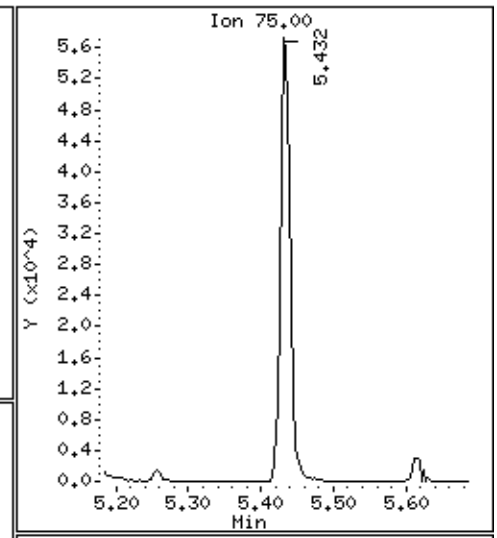
Concentration: 15.5 ug/L

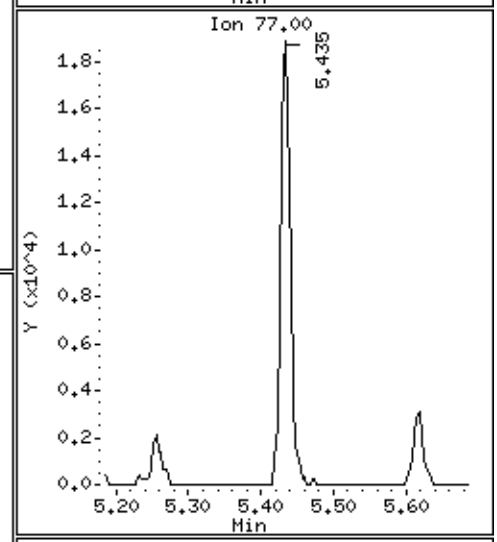


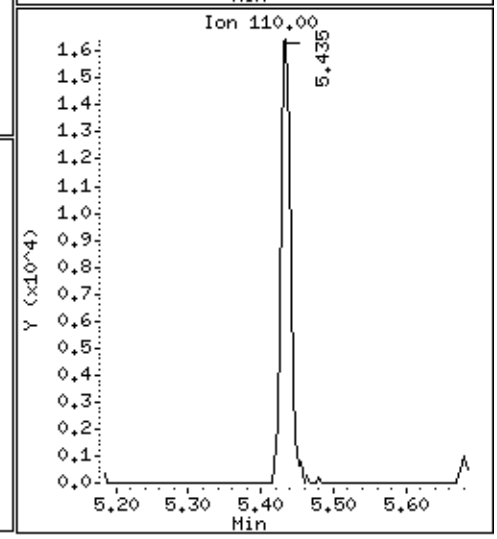












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

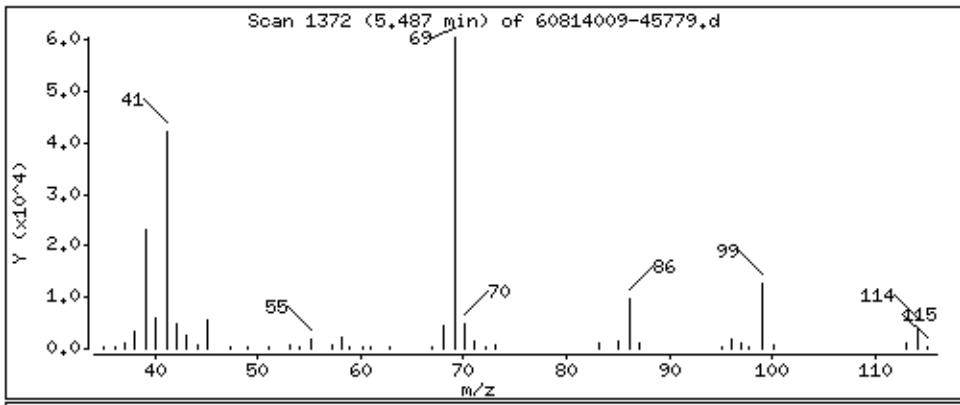
Operator: JEW

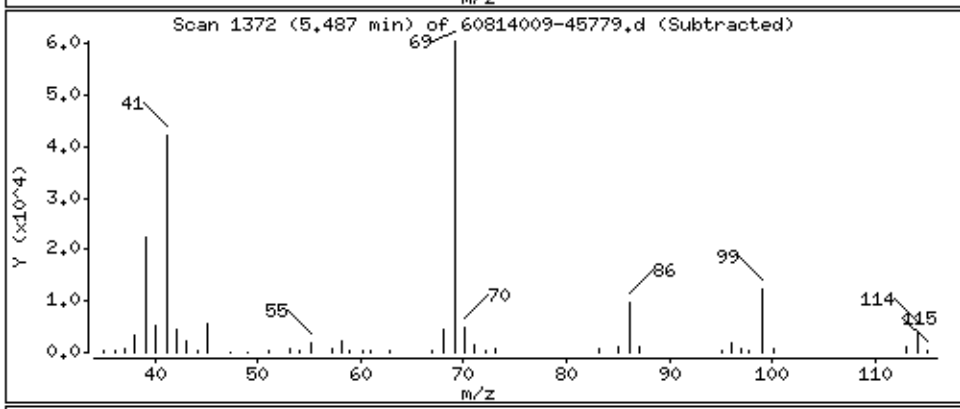
Column phase: RTX-VMS

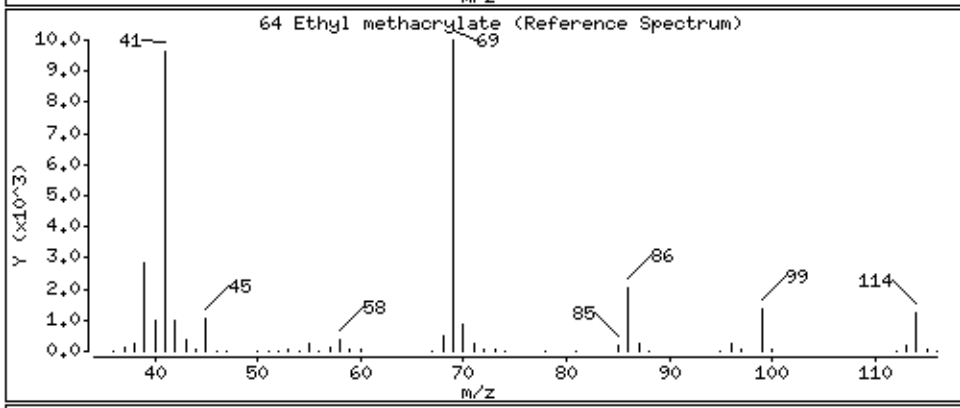
Column diameter: 0.18

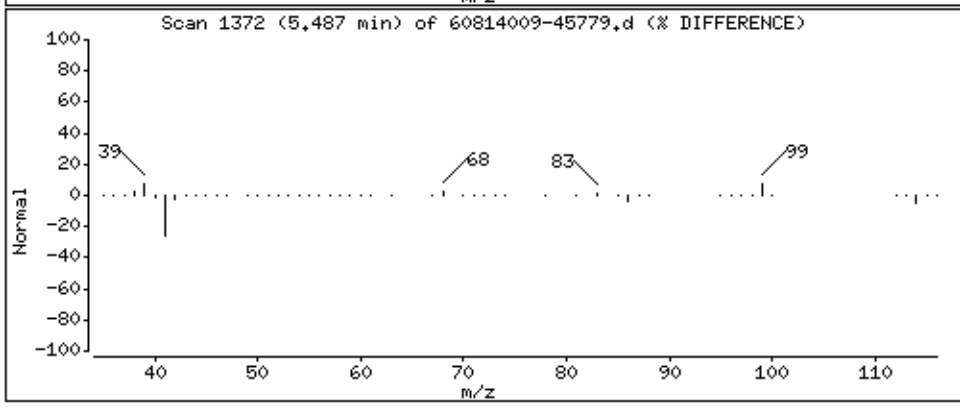
64 Ethyl methacrylate

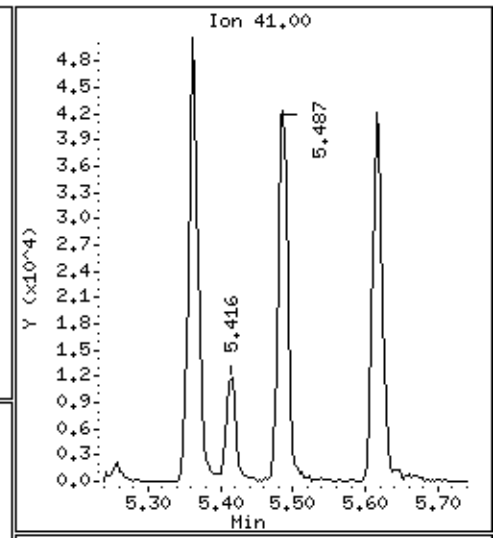
Concentration: 16.6 ug/L

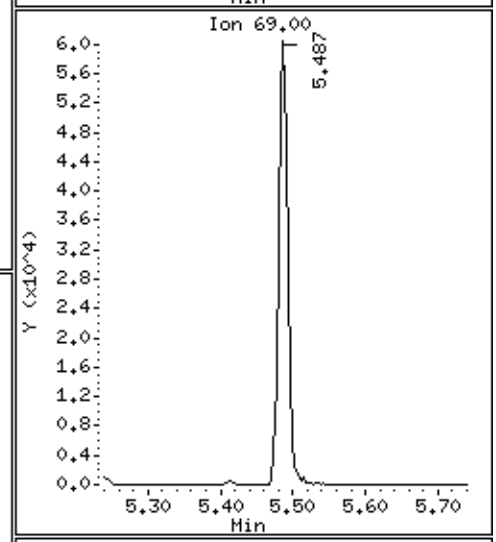


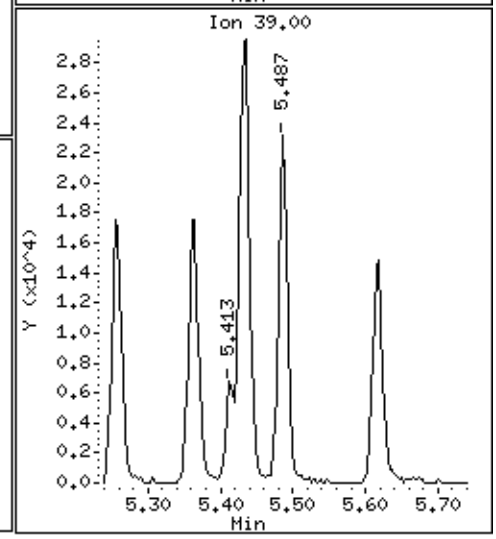












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

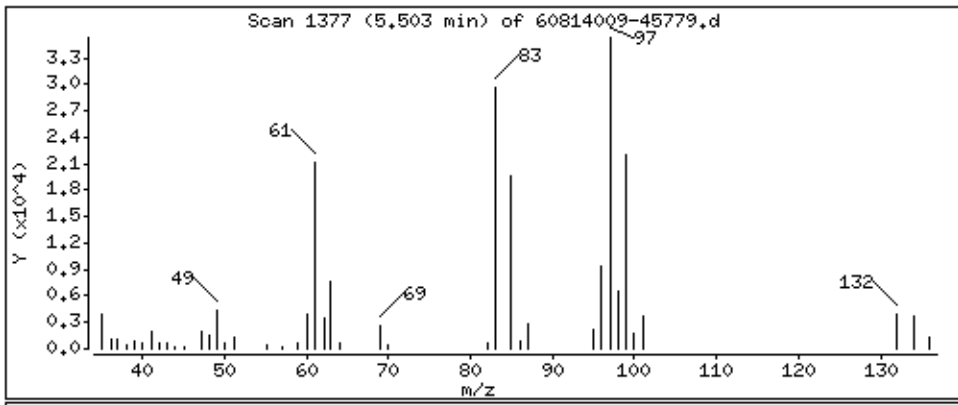
Operator: JEW

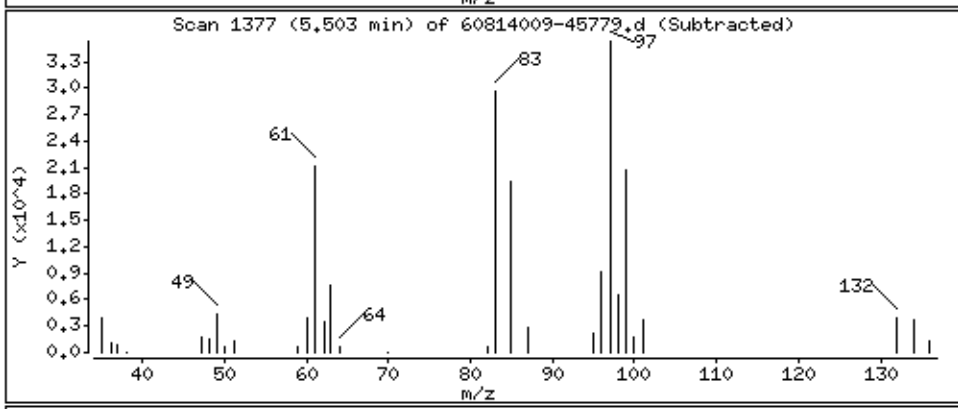
Column phase: RTX-VMS

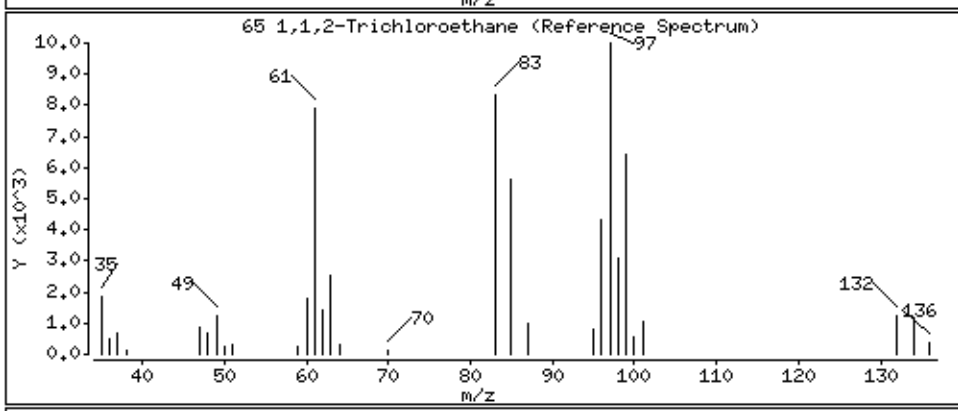
Column diameter: 0.18

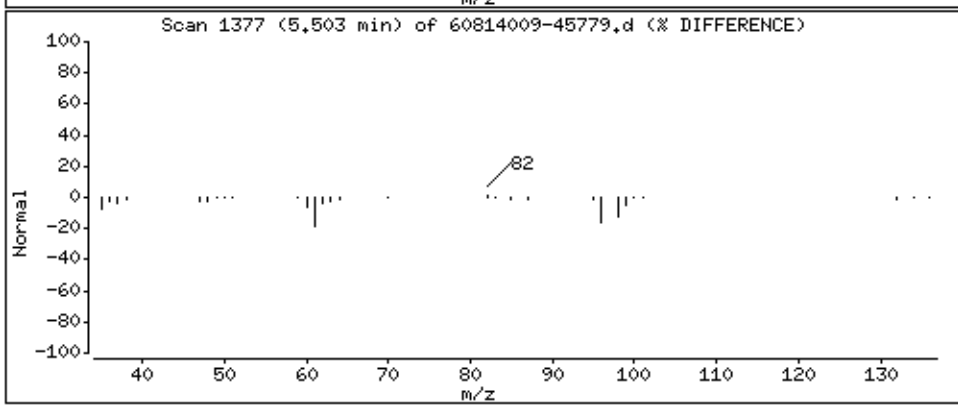
65 1,1,2-Trichloroethane

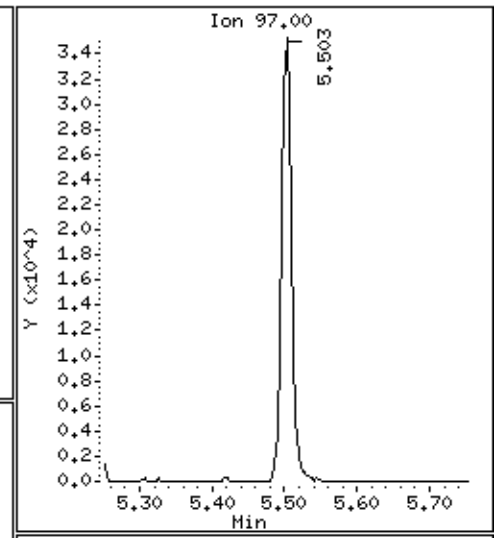
Concentration: 16.2 ug/L

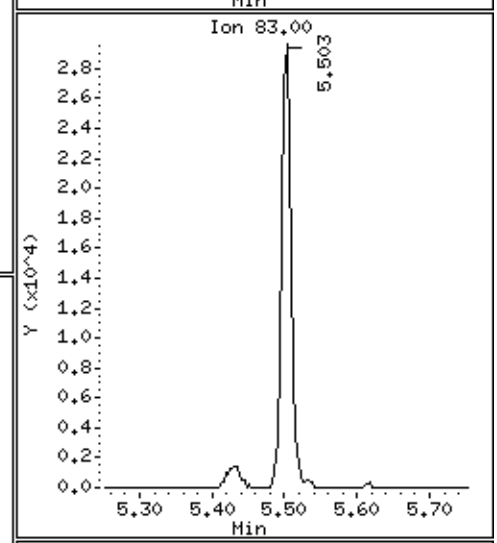


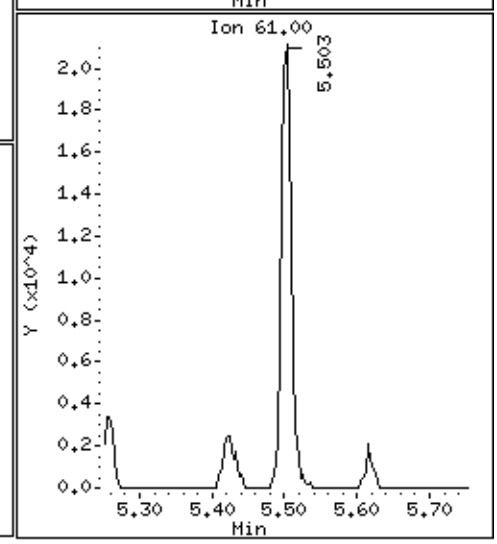












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

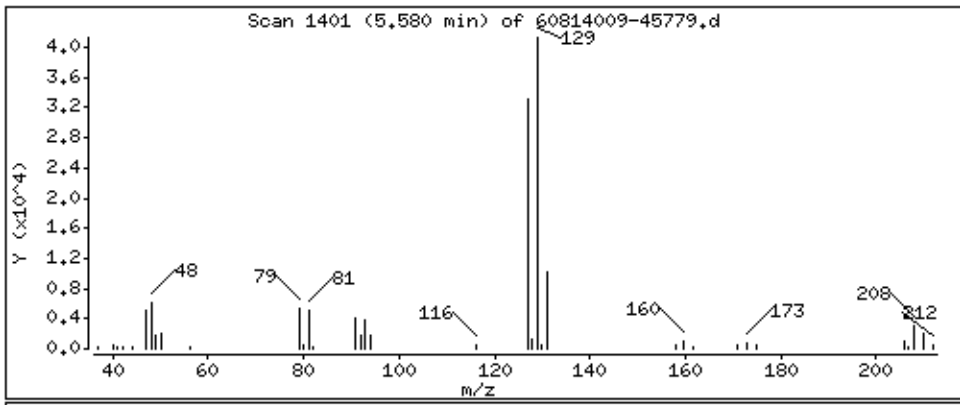
Operator: JEW

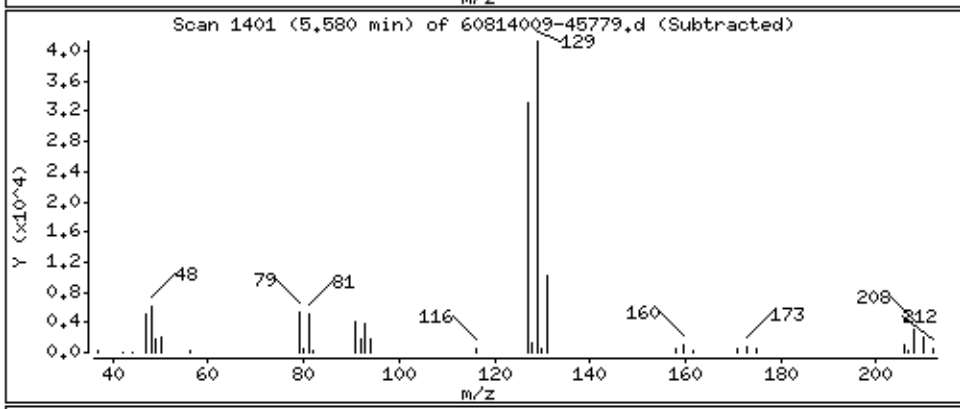
Column phase: RTX-VMS

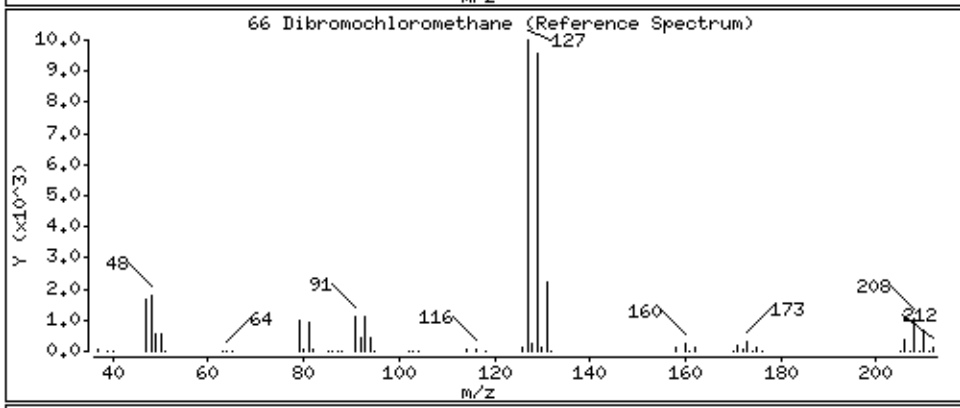
Column diameter: 0.18

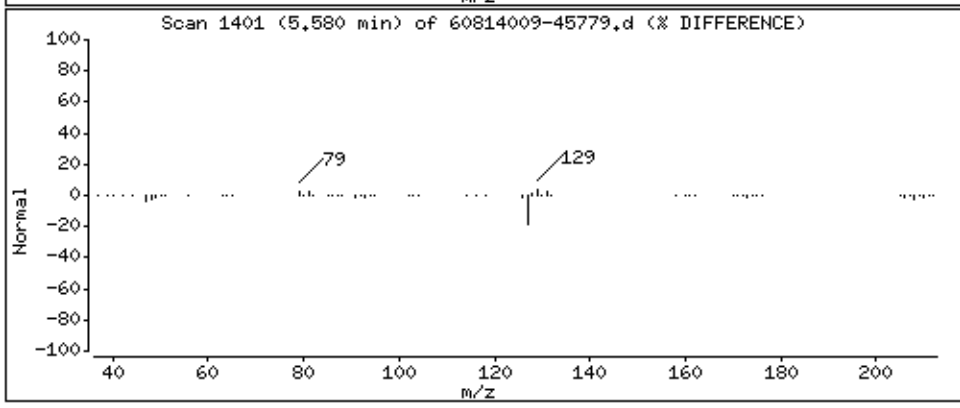
66 Dibromochloromethane

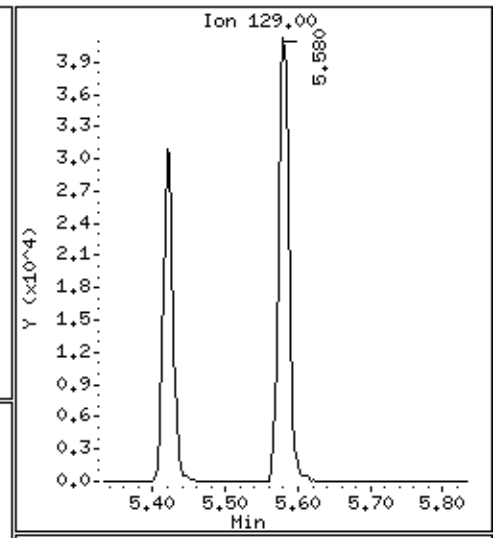
Concentration: 16.3 ug/L

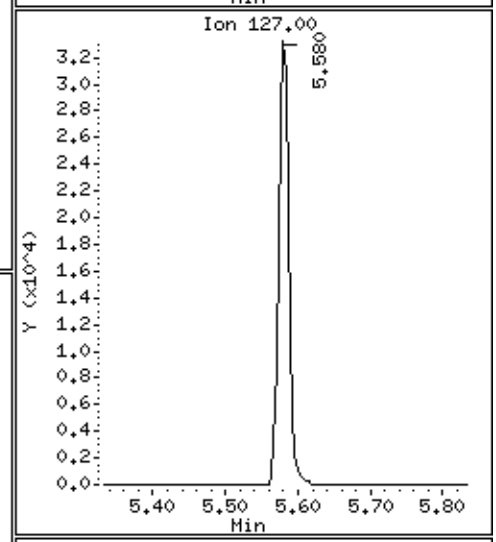


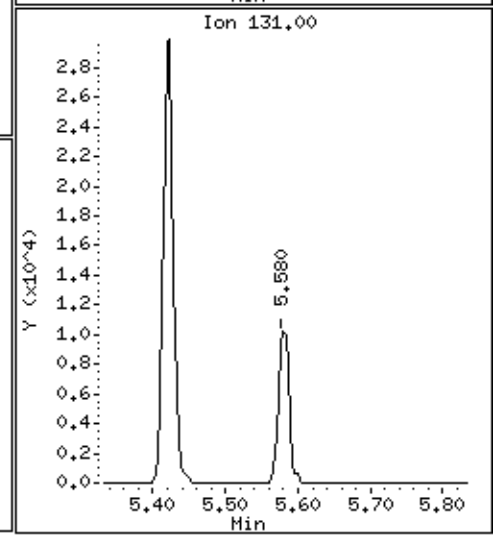












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

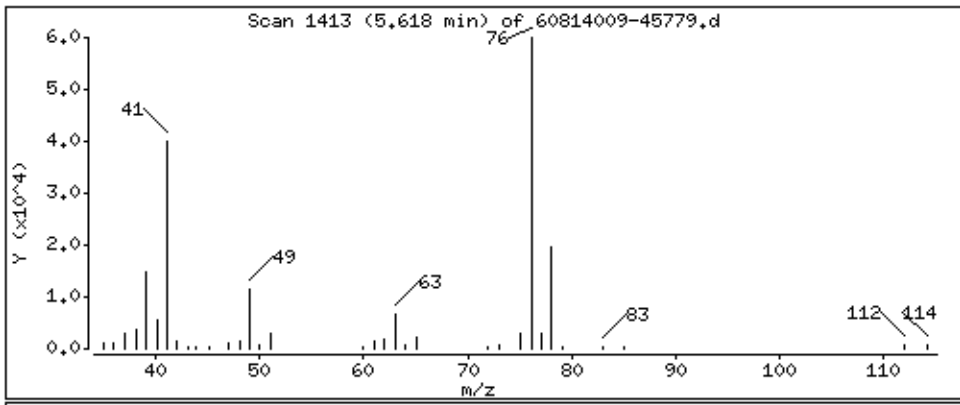
Operator: JEW

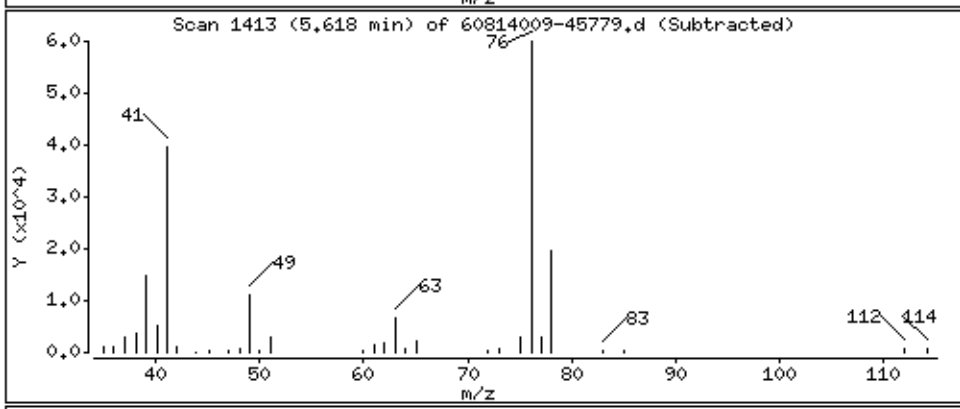
Column phase: RTX-VMS

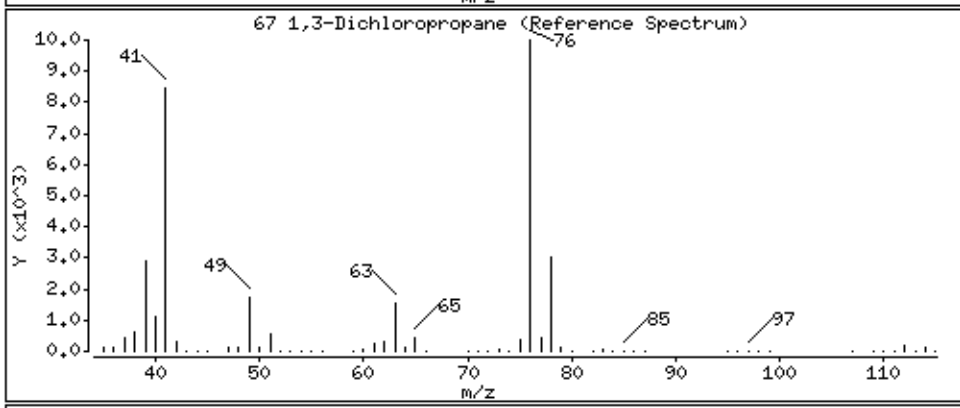
Column diameter: 0.18

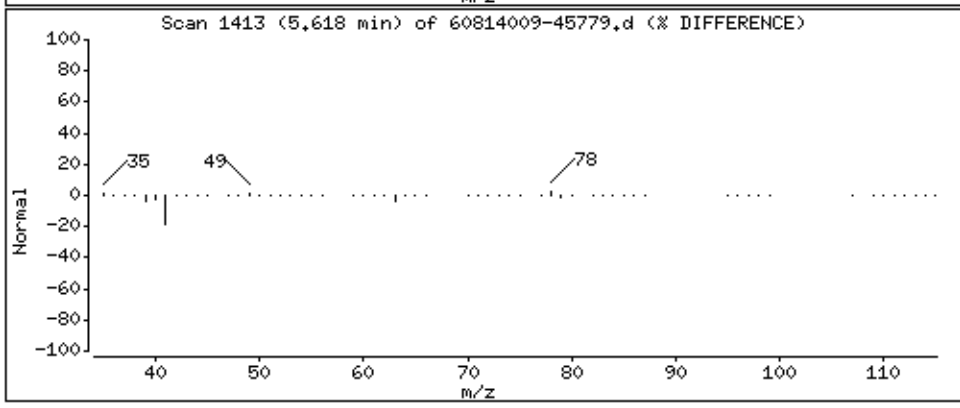
67 1,3-Dichloropropane

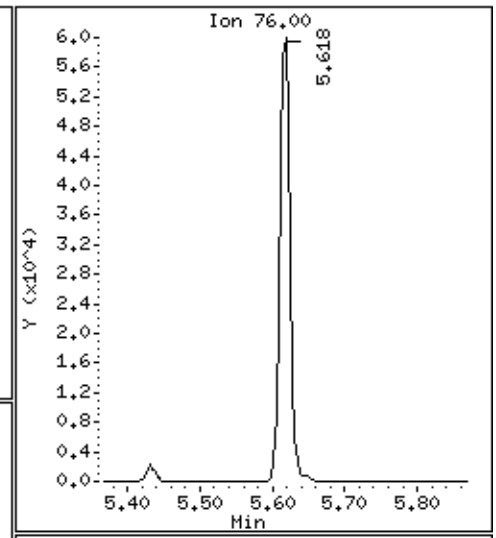
Concentration: 16.1 ug/L

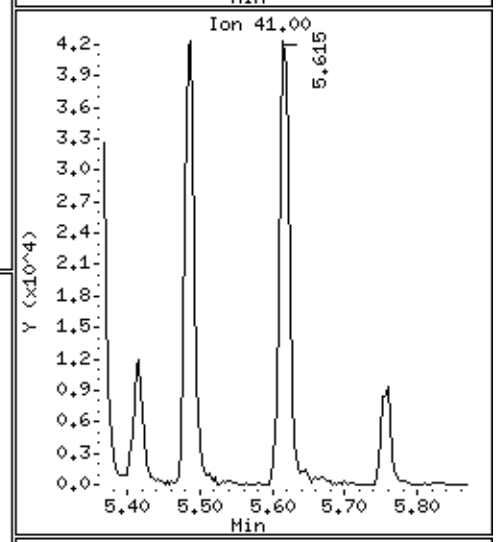


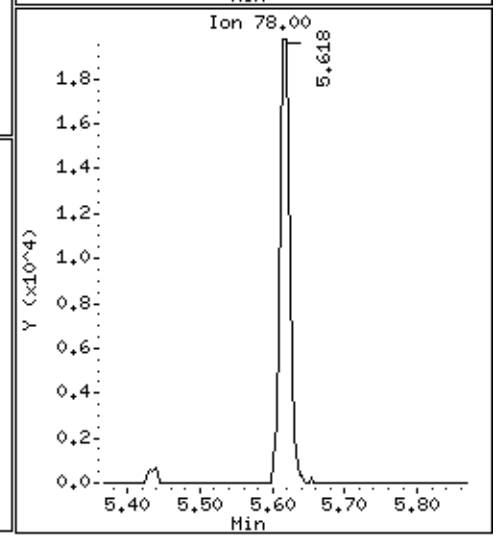












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

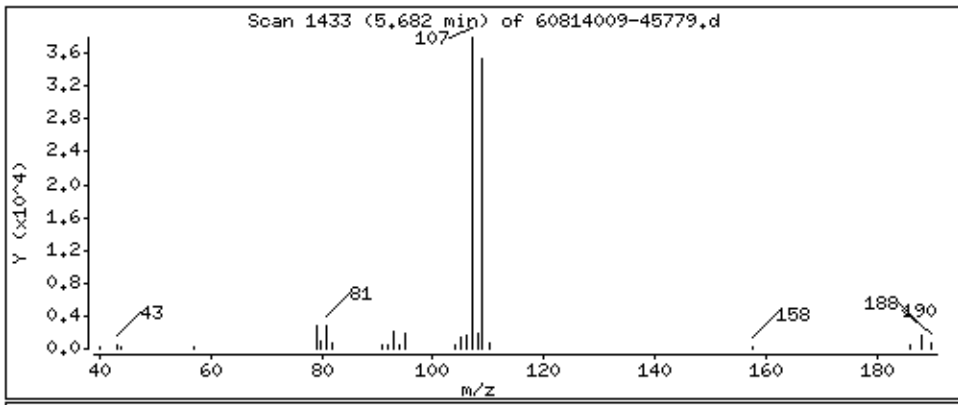
Operator: JEW

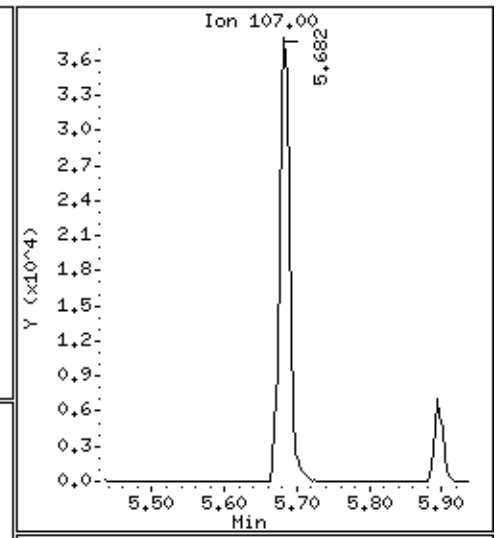
Column phase: RTX-VMS

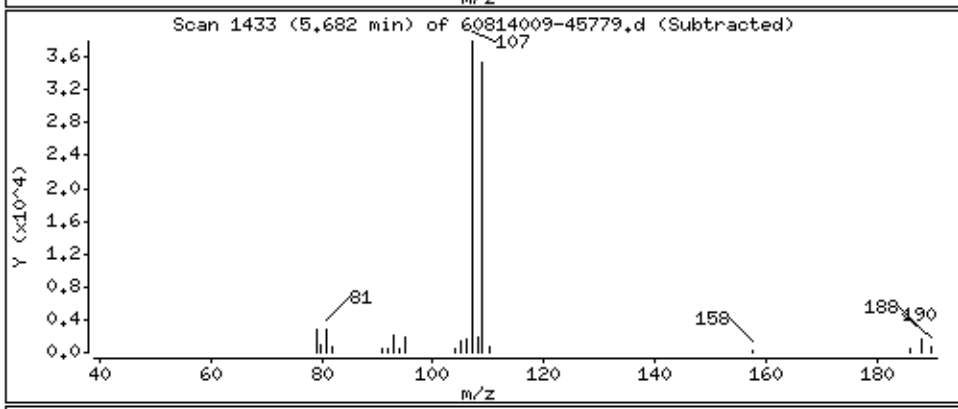
Column diameter: 0.18

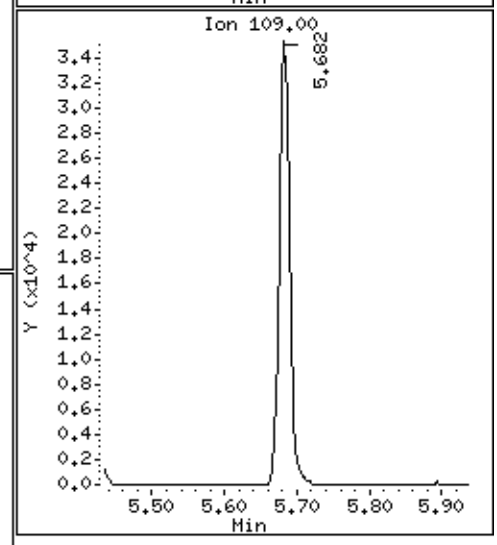
68 1,2-Dibromoethane (EDB)

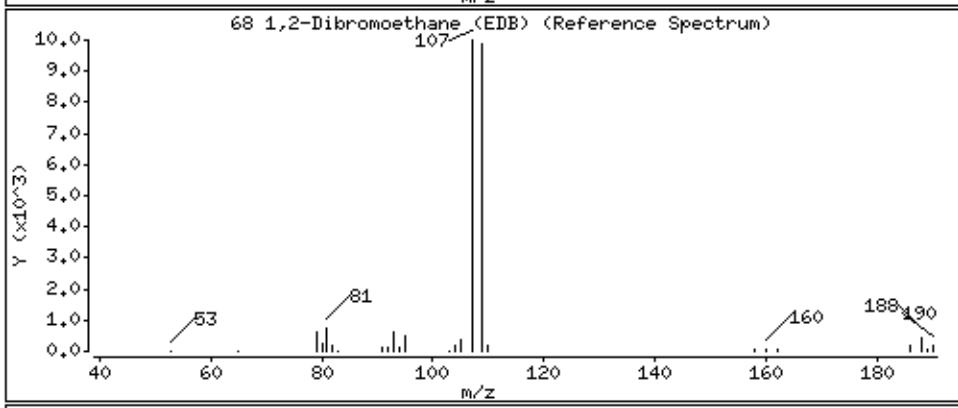
Concentration: 16.8 ug/L

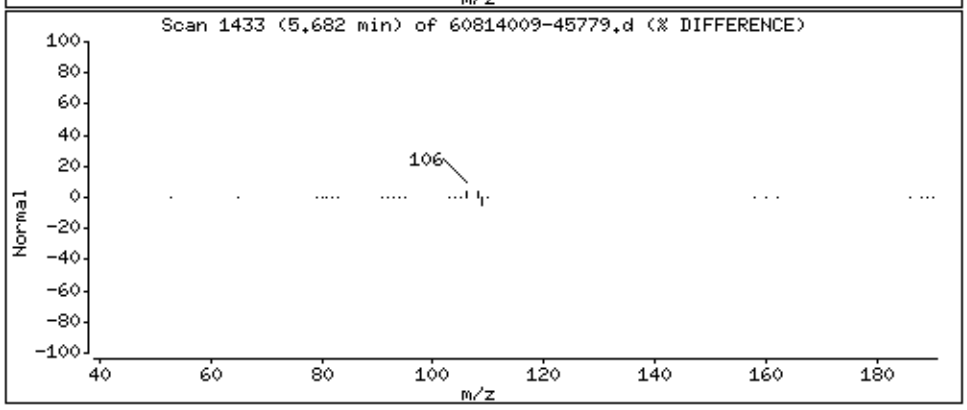












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

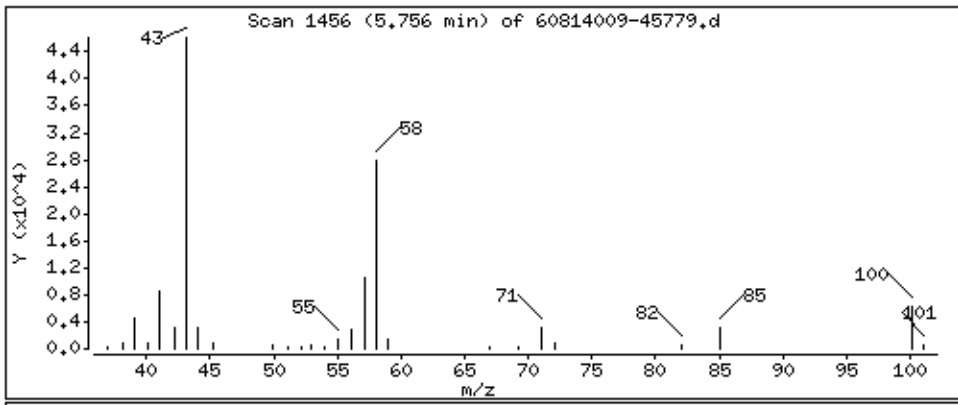
Operator: JEW

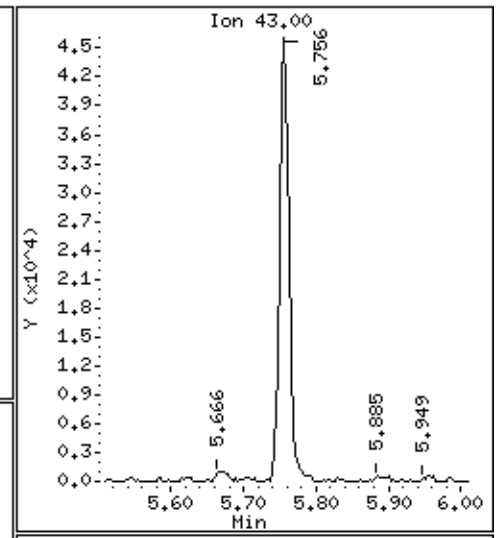
Column phase: RTX-VMS

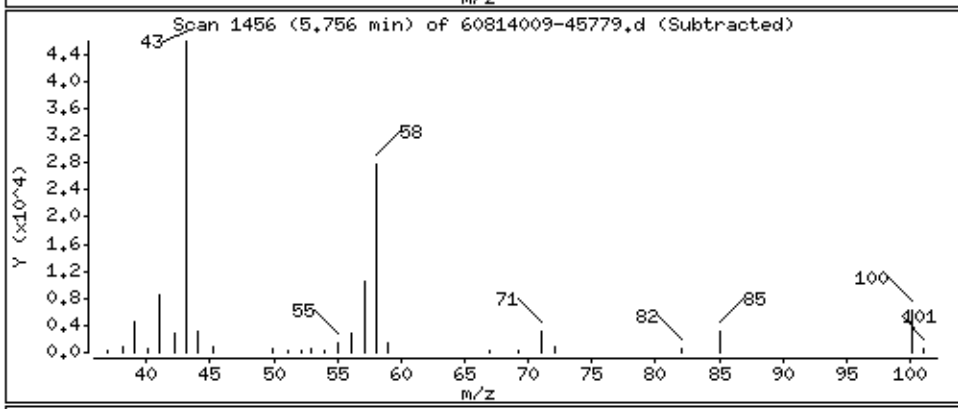
Column diameter: 0.18

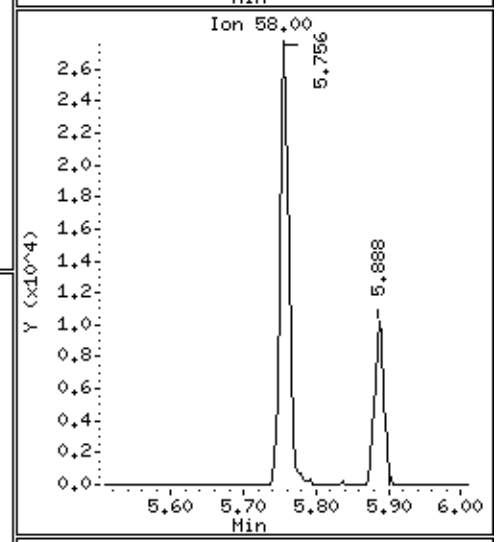
69 2-Hexanone

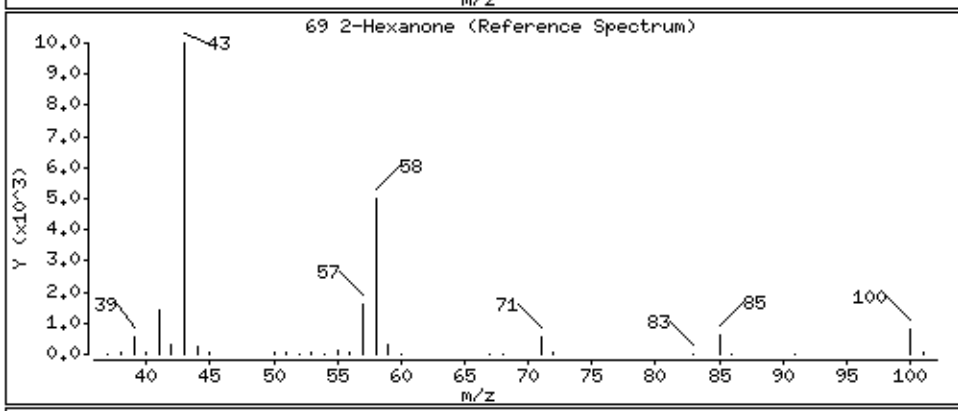
Concentration: 17.5 ug/L

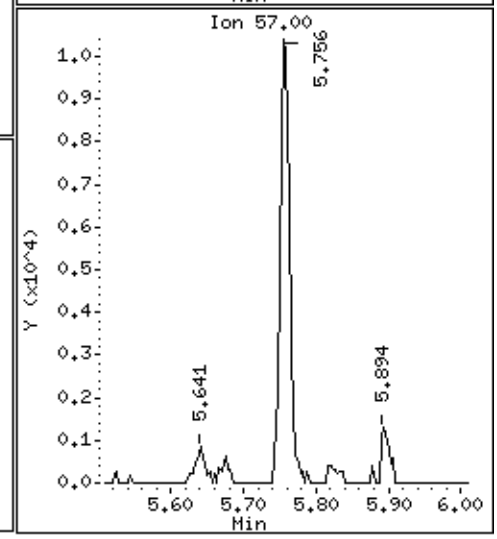


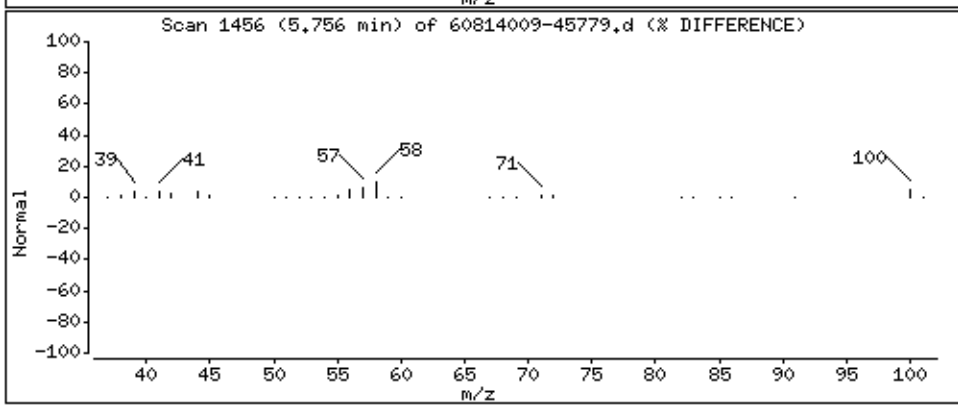












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

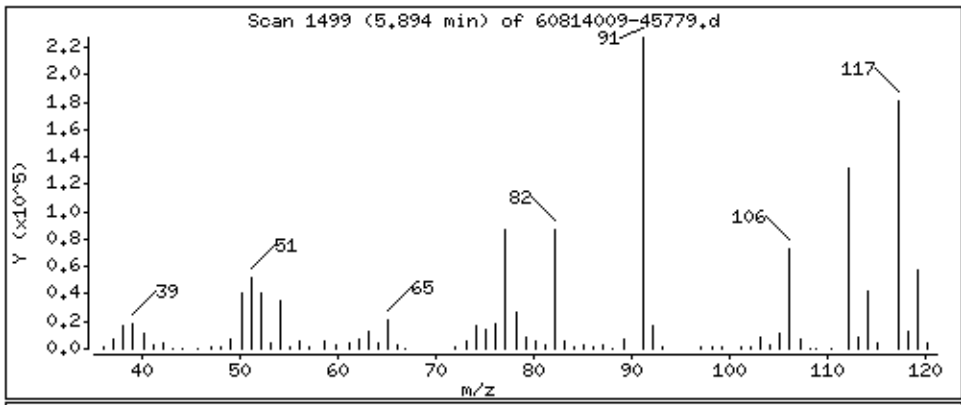
Operator: JEW

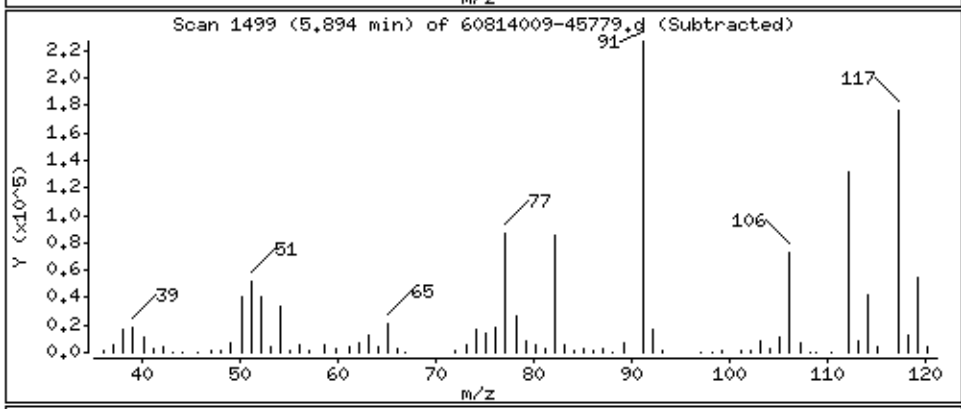
Column phase: RTX-VMS

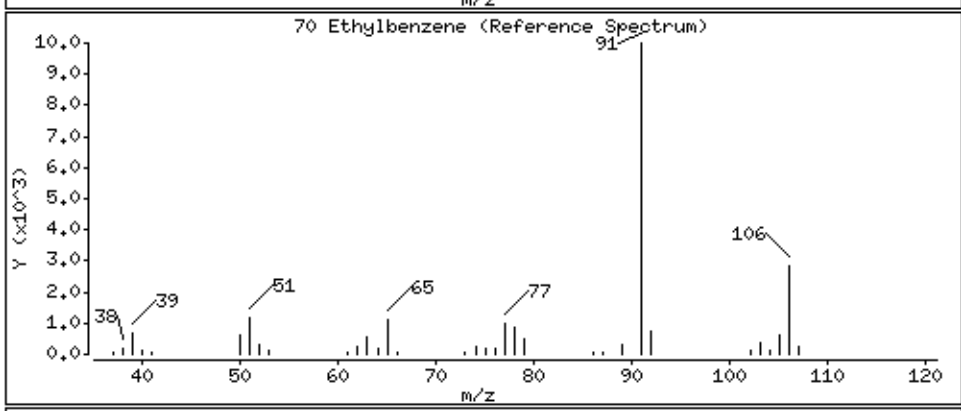
Column diameter: 0.18

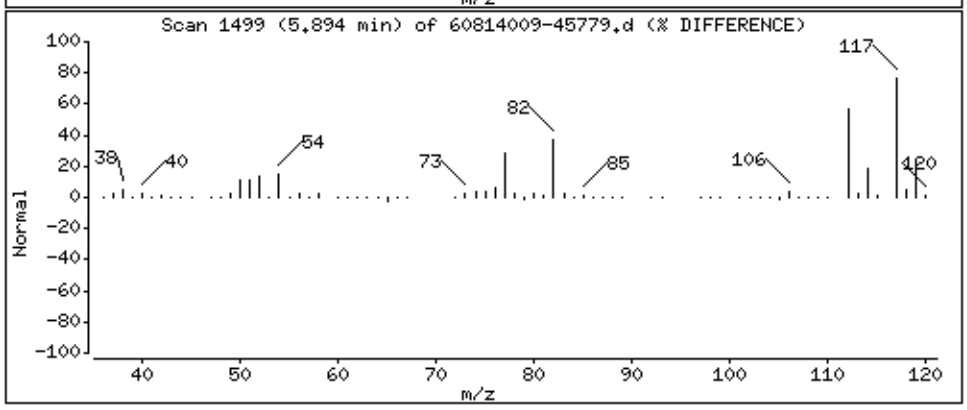
70 Ethylbenzene

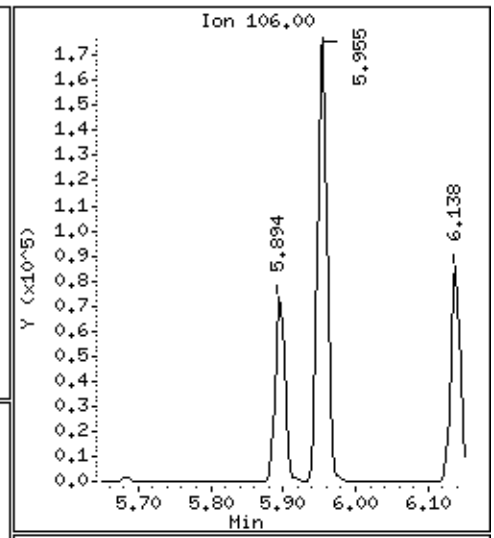
Concentration: 17.9 ug/L

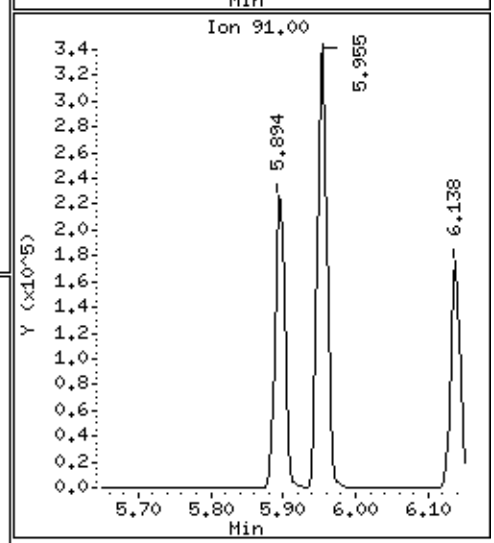












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

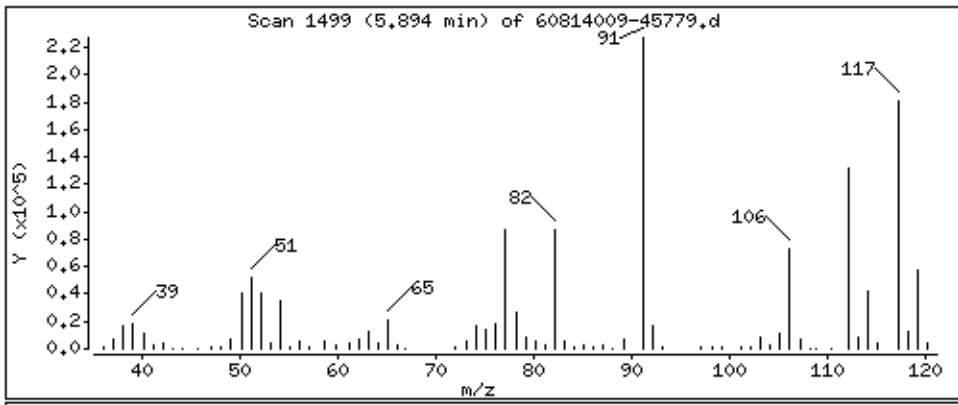
Operator: JEW

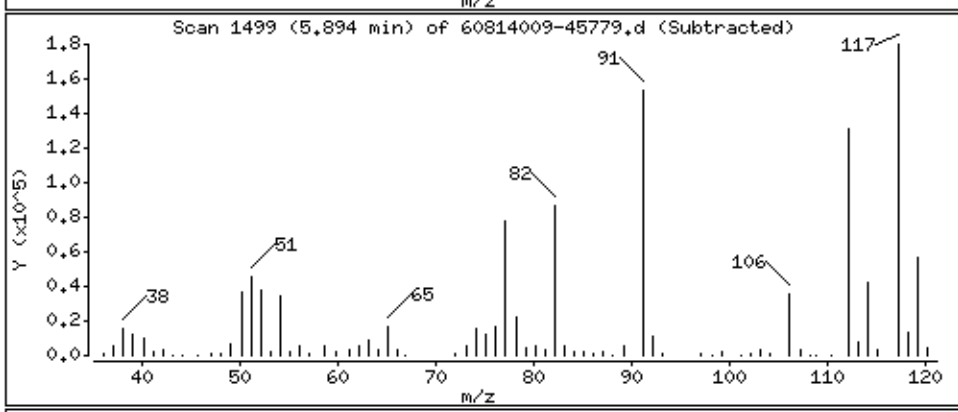
Column phase: RTX-VMS

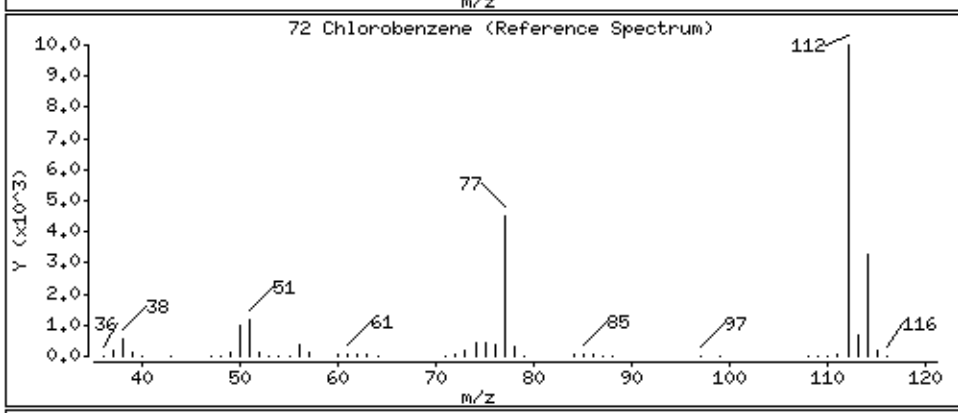
Column diameter: 0.18

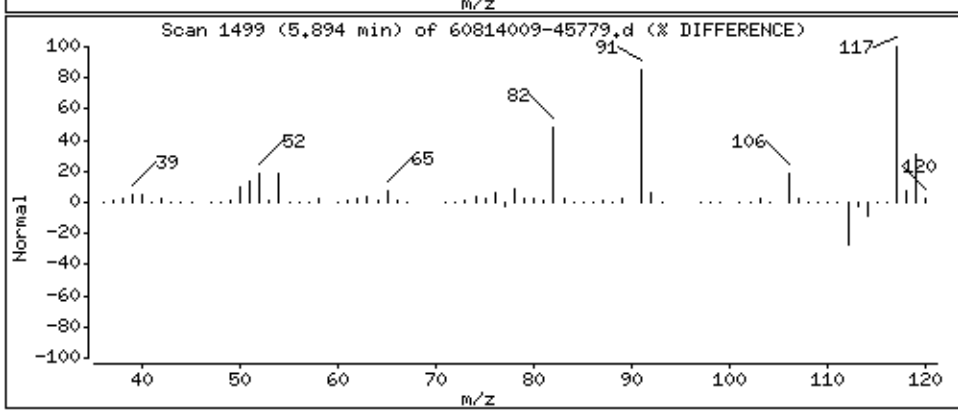
72 Chlorobenzene

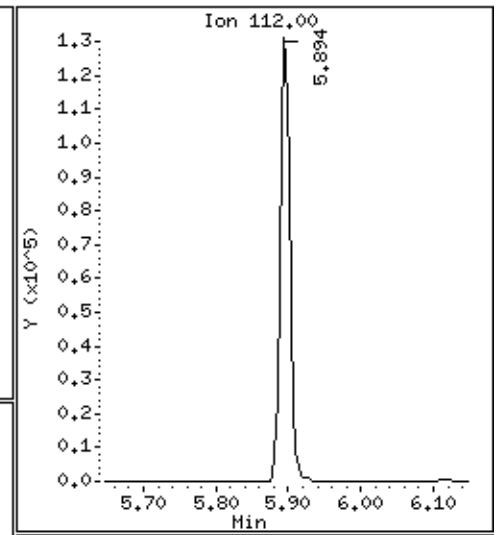
Concentration: 17.4 ug/L

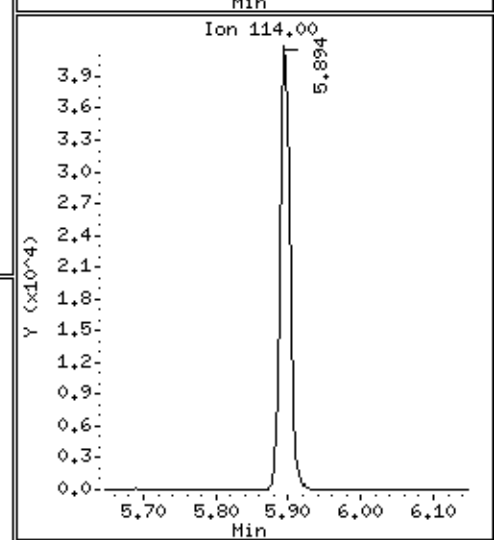


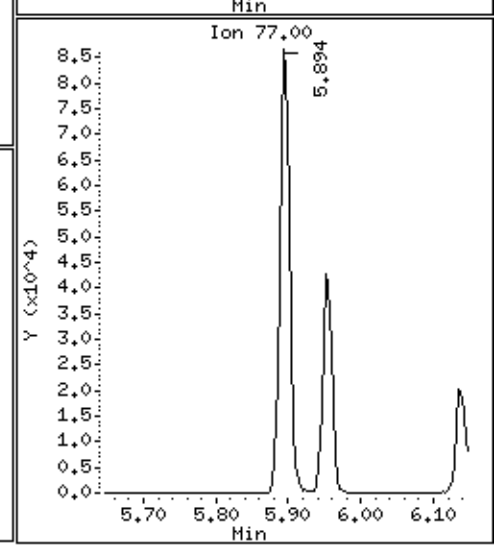












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

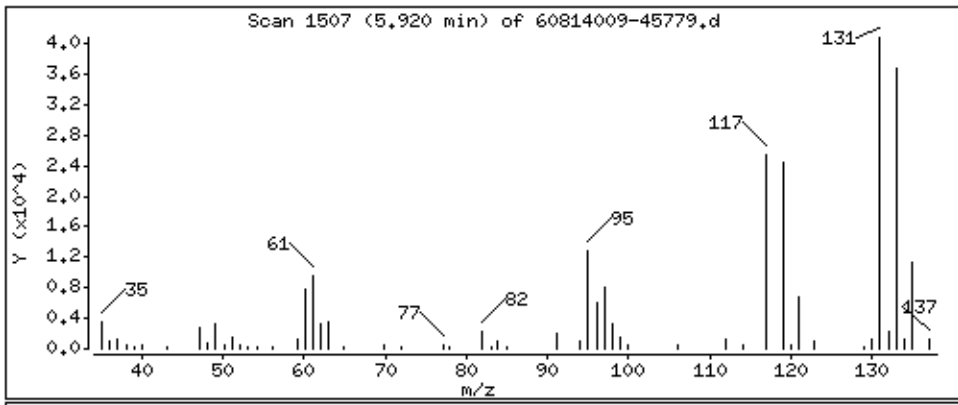
Operator: JEW

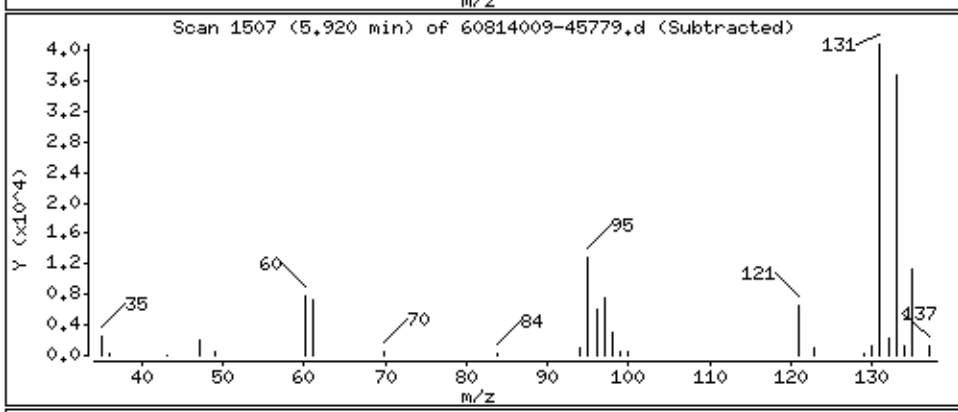
Column phase: RTX-VMS

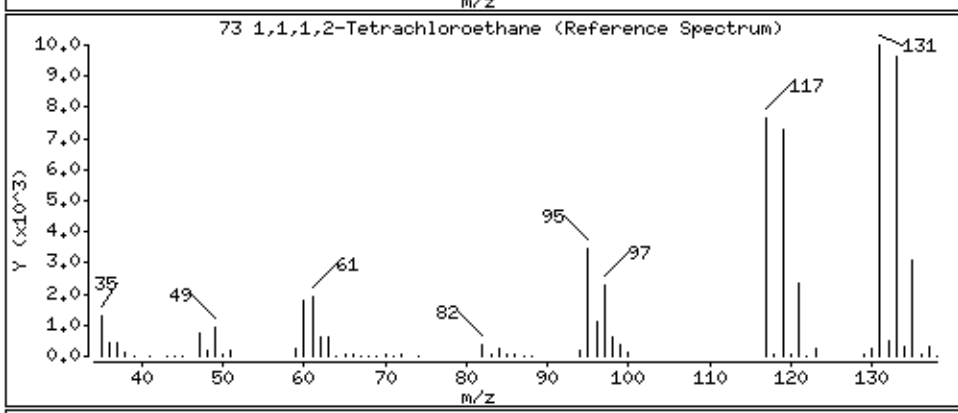
Column diameter: 0.18

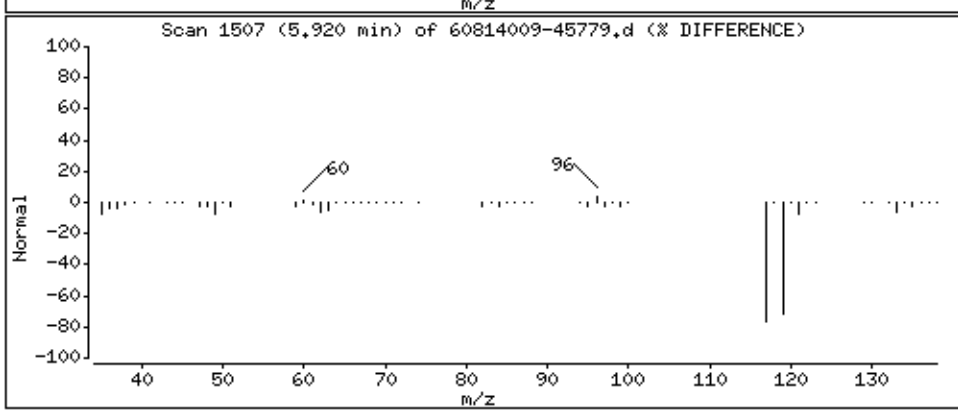
73 1,1,1,2-Tetrachloroethane

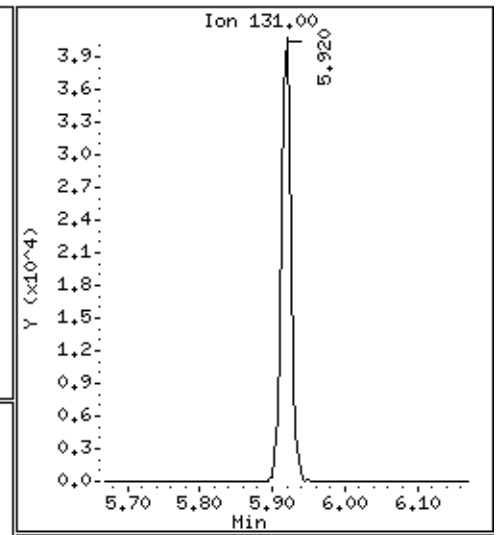
Concentration: 16.5 ug/L

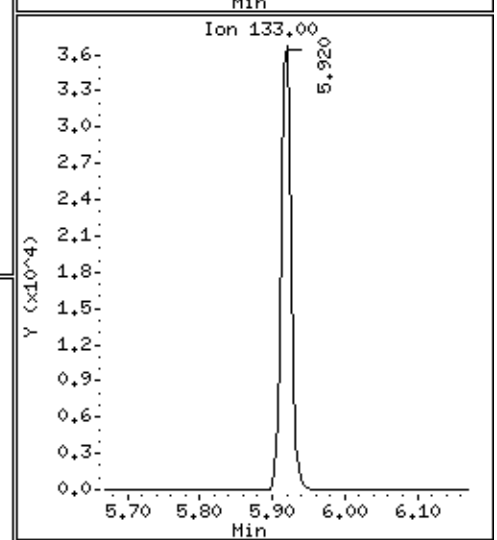


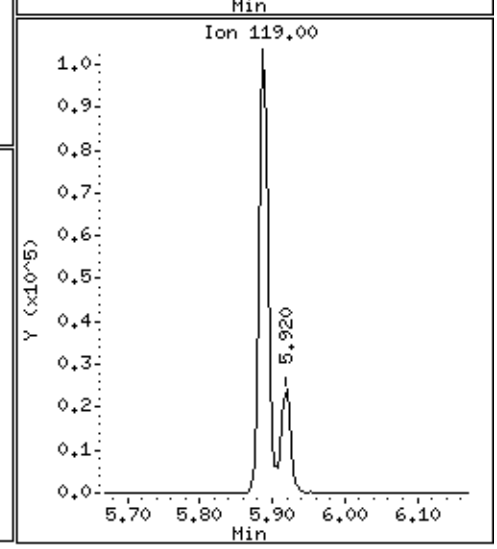












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

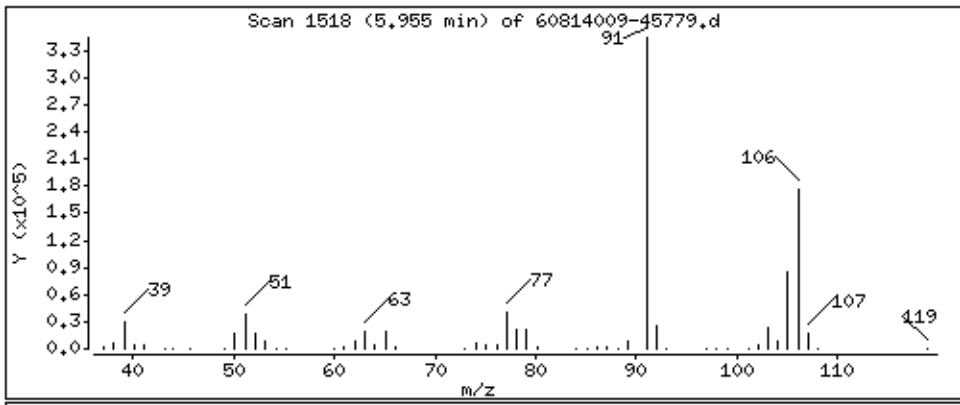
Operator: JEW

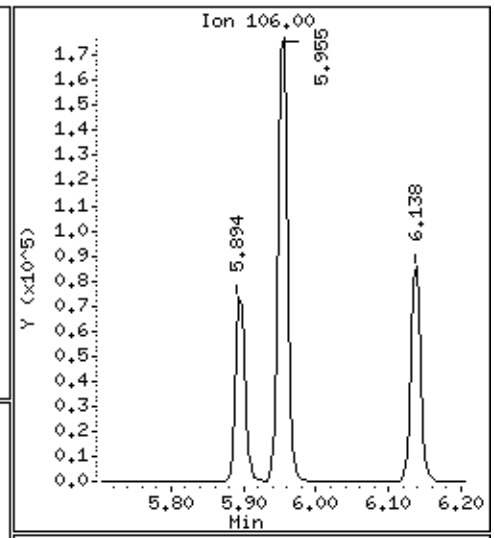
Column phase: RTX-VMS

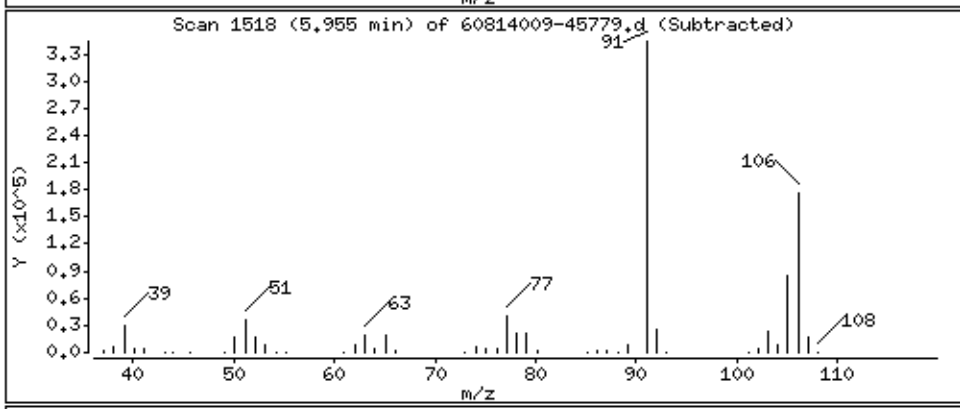
Column diameter: 0.18

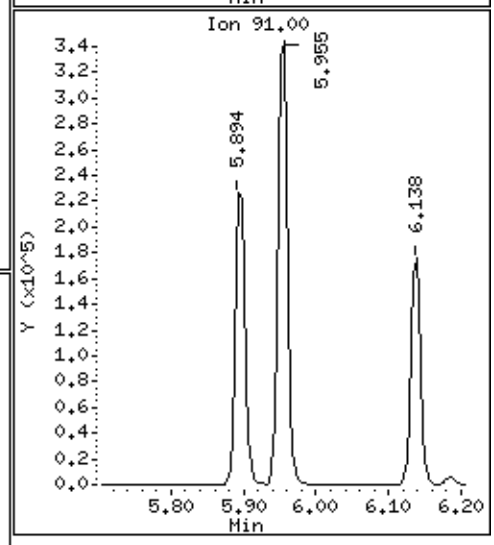
74 m&p-Xylene

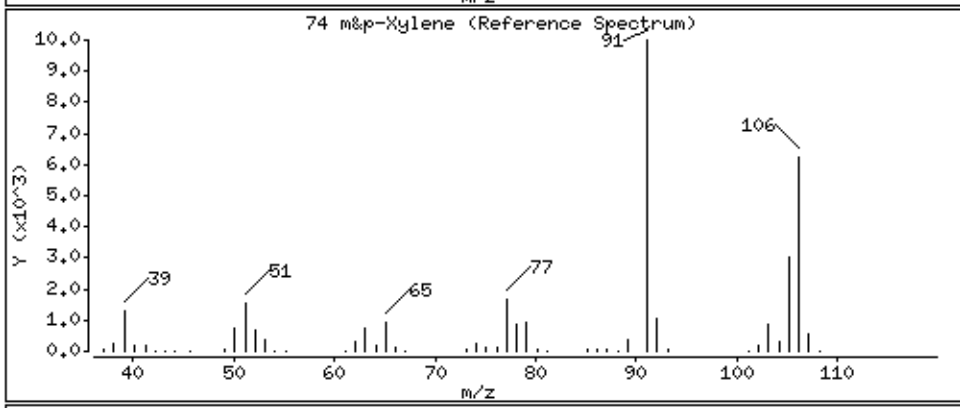
Concentration: 34.5 ug/L

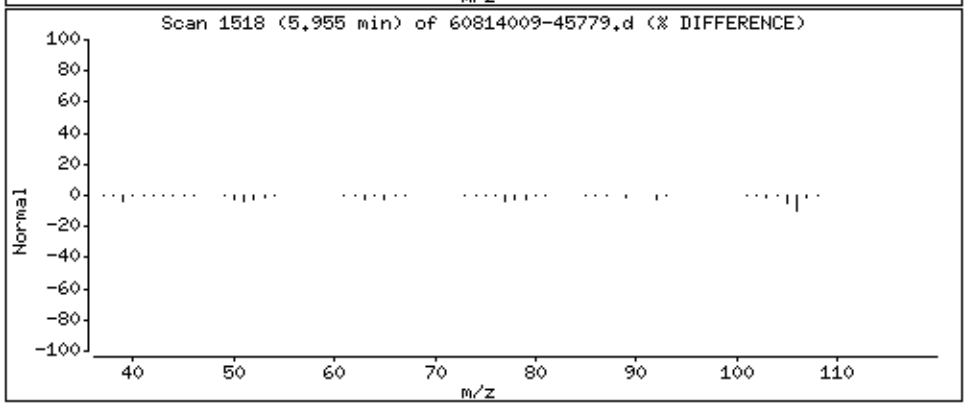












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

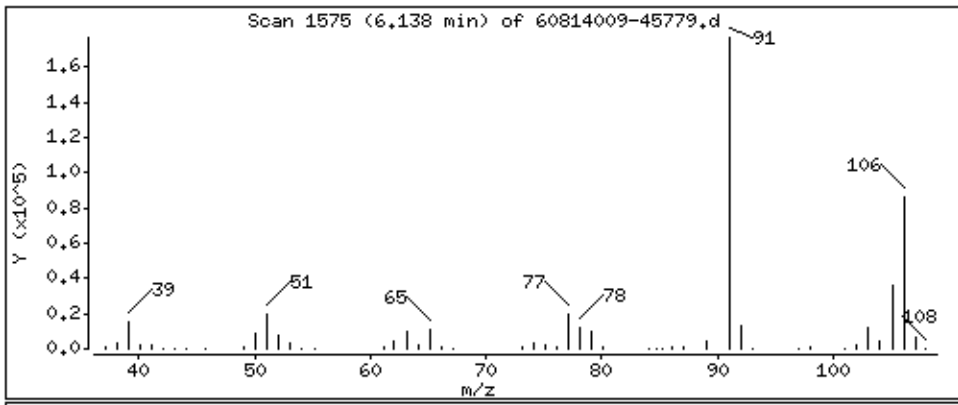
Operator: JEW

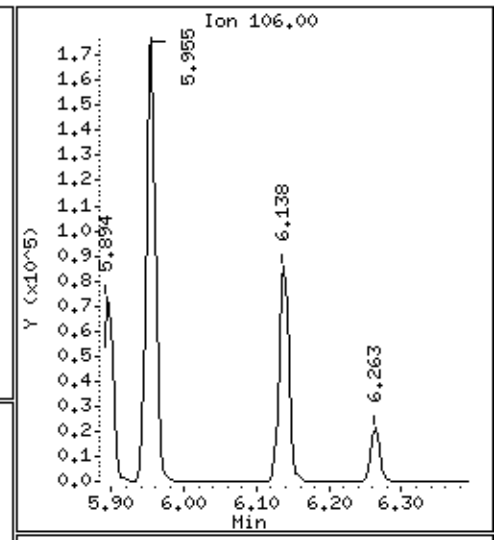
Column phase: RTX-VMS

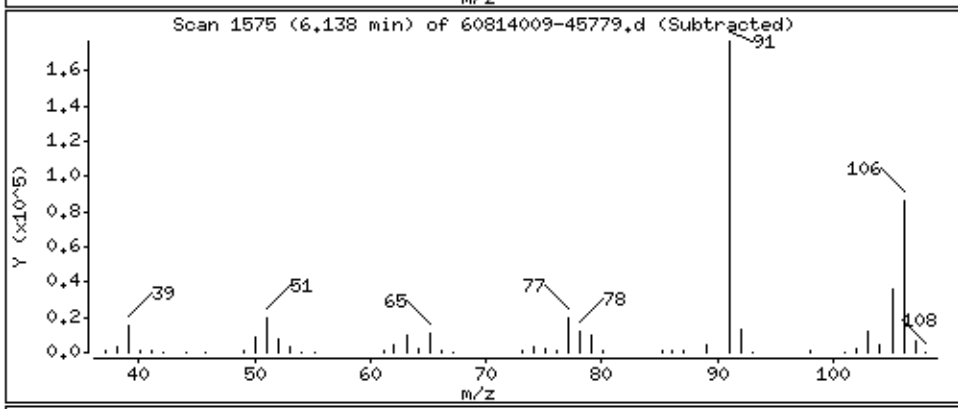
Column diameter: 0.18

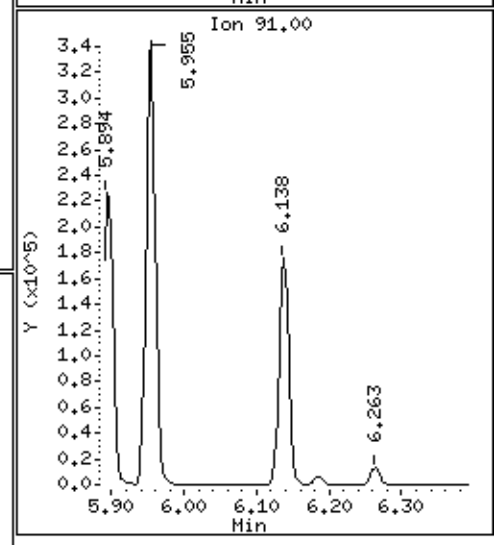
75 o-Xylene

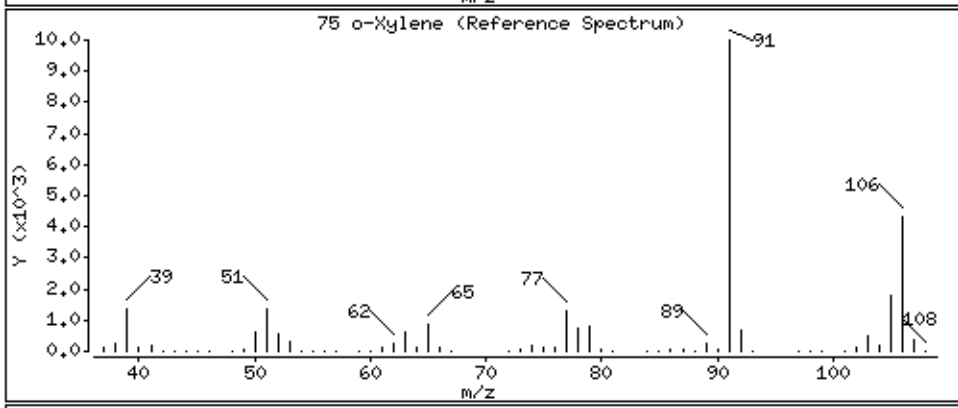
Concentration: 17.6 ug/L

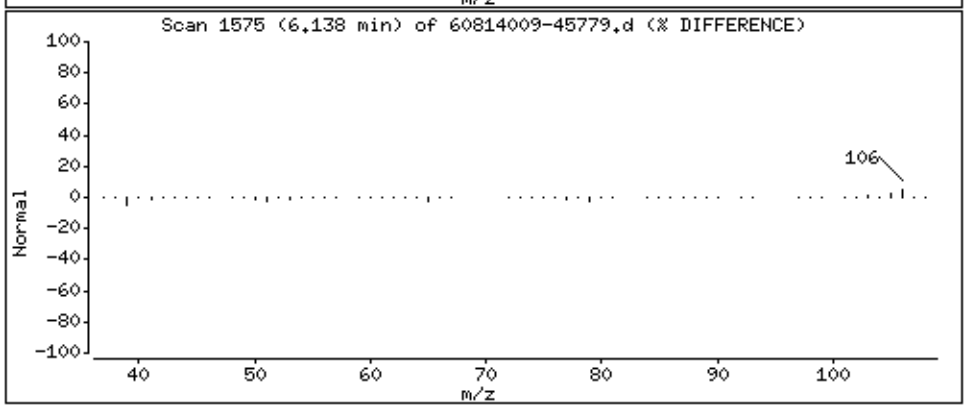












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

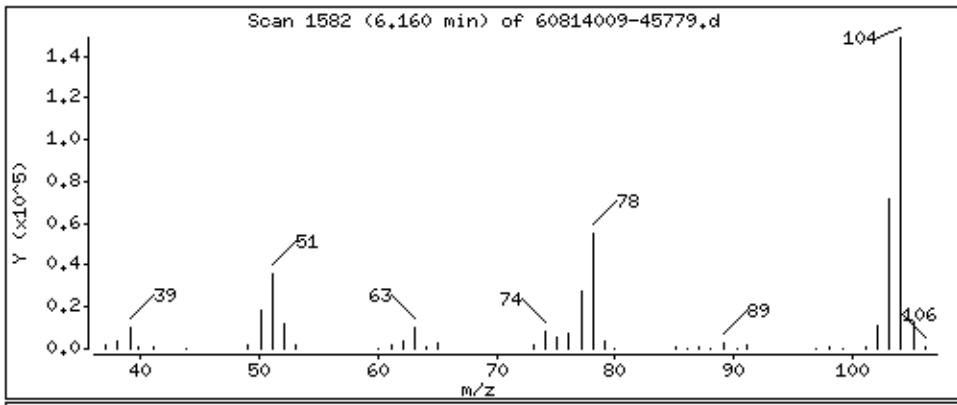
Operator: JEW

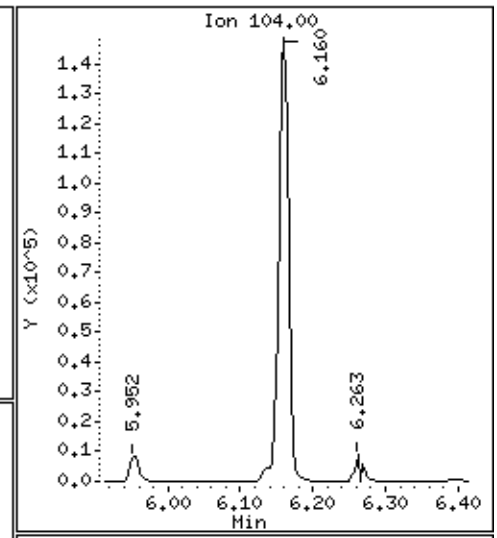
Column phase: RTX-VMS

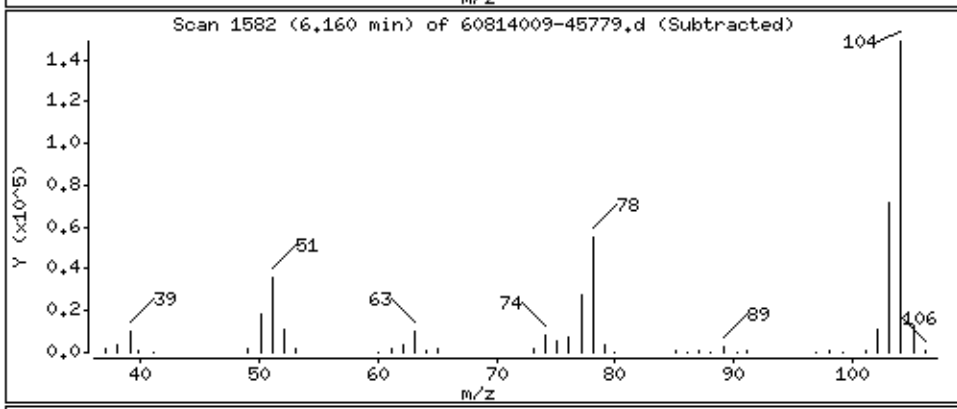
Column diameter: 0.18

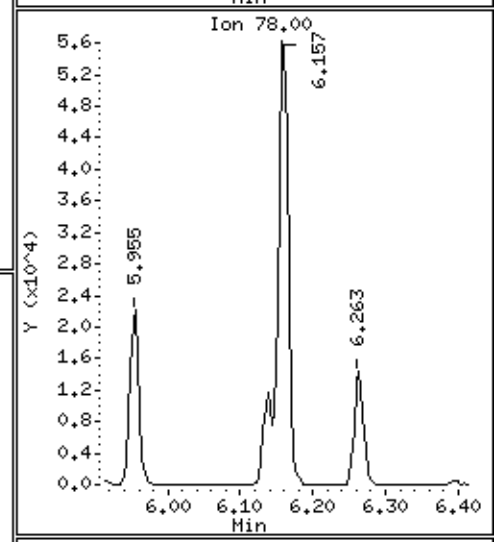
76 Styrene

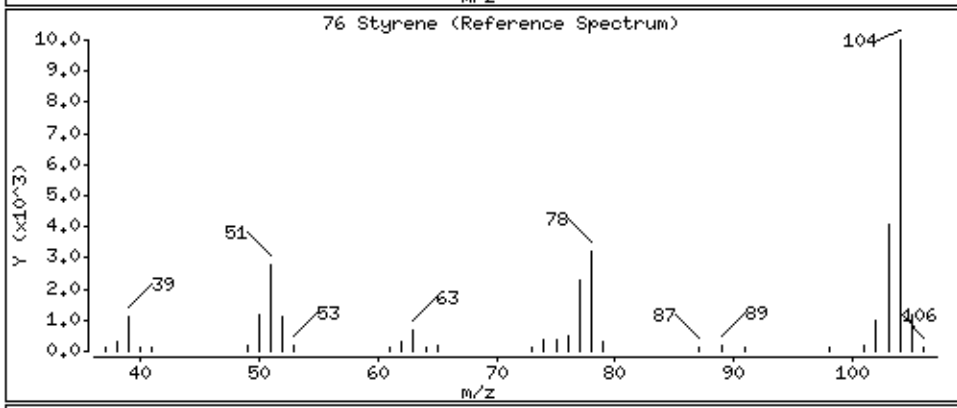
Concentration: 17.4 ug/L

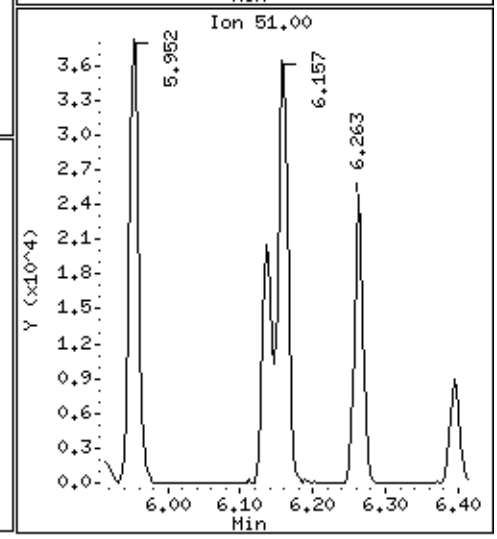


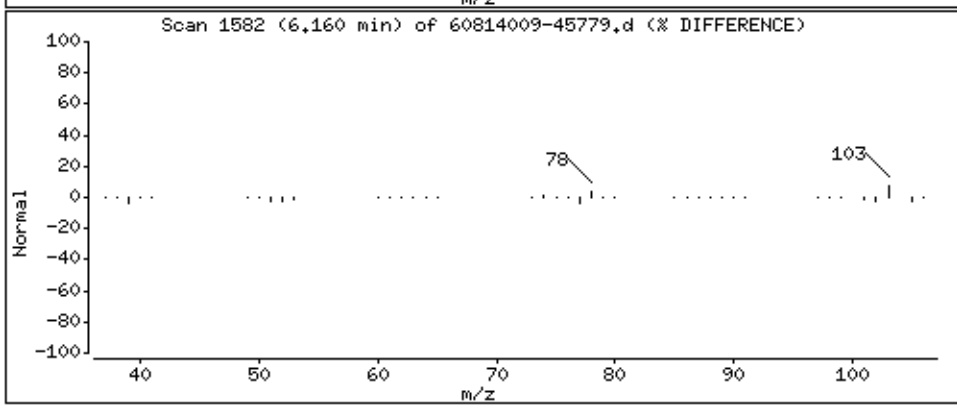












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

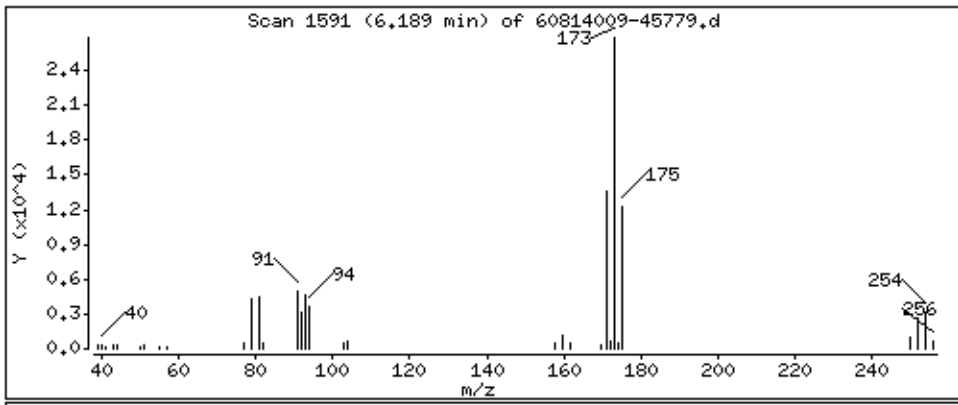
Operator: JEW

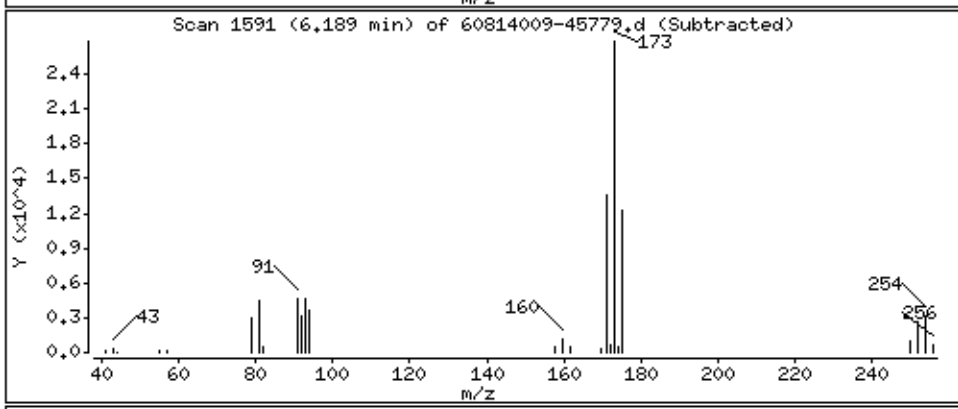
Column phase: RTX-VMS

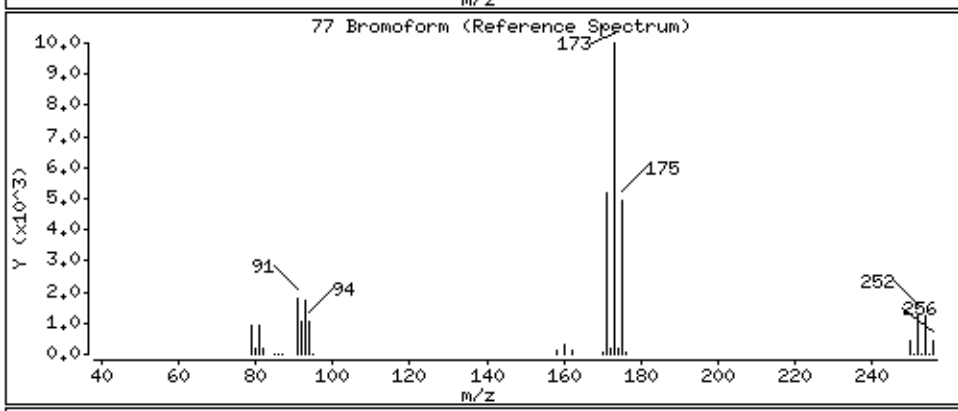
Column diameter: 0.18

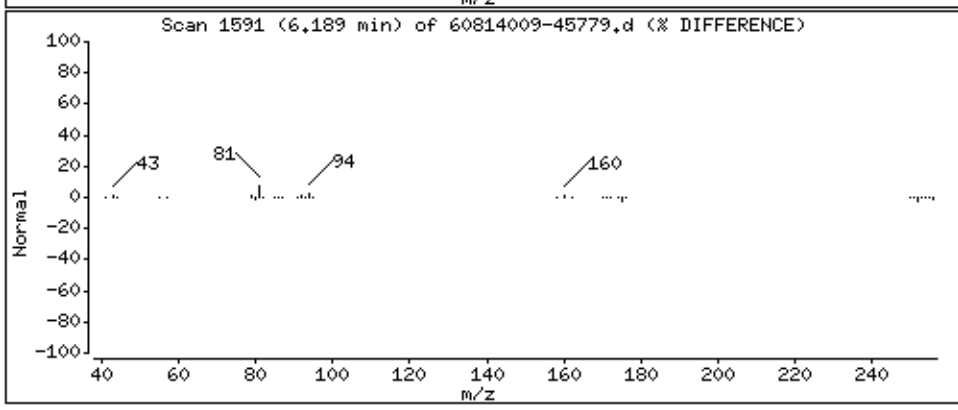
77 Bromoform

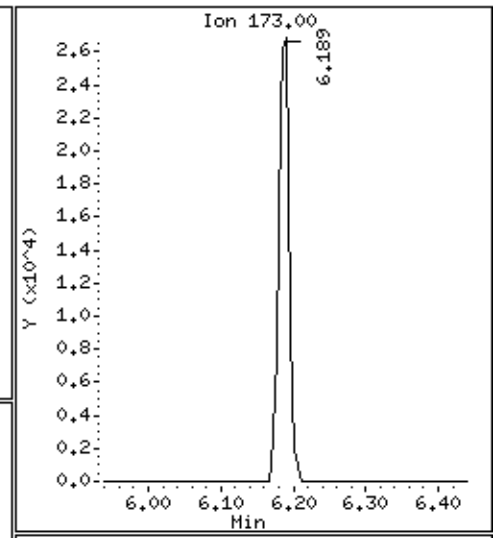
Concentration: 16.7 ug/L

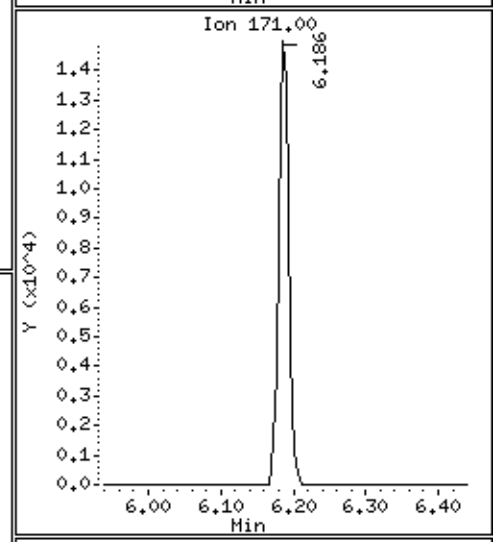


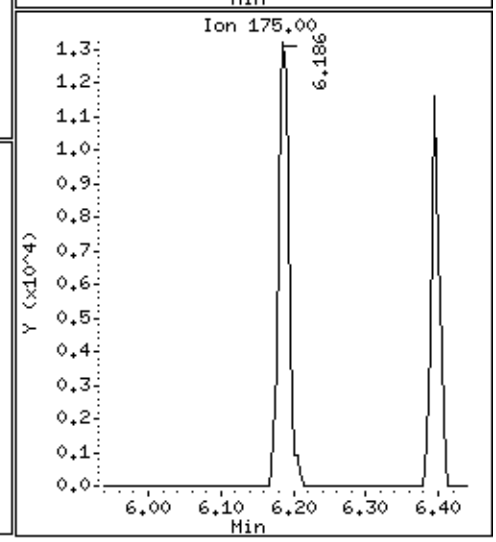












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

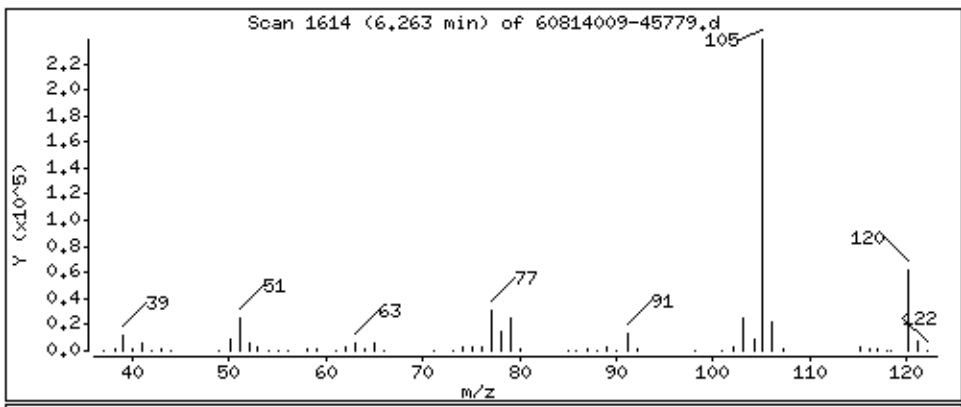
Operator: JEW

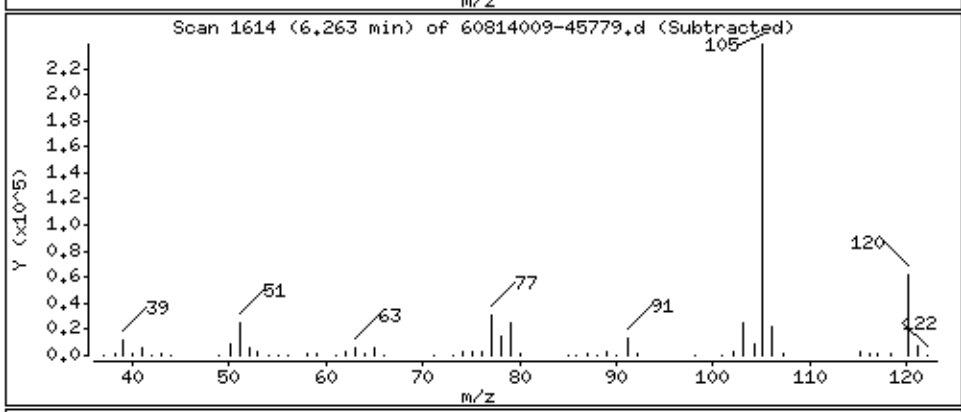
Column phase: RTX-VMS

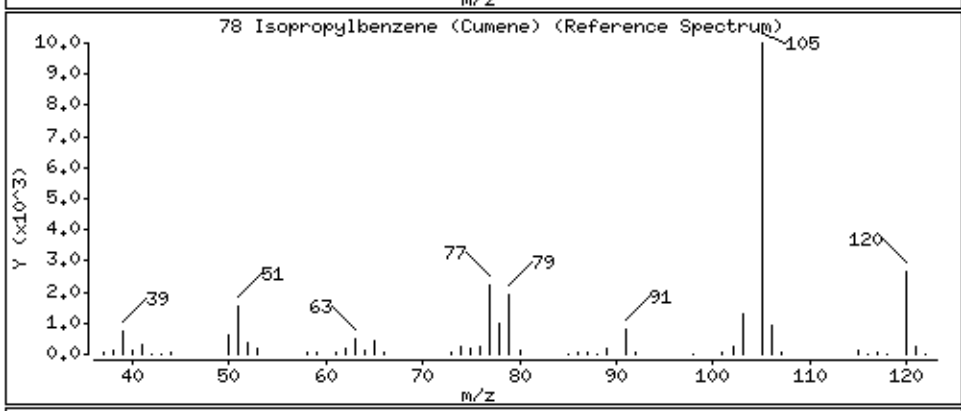
Column diameter: 0.18

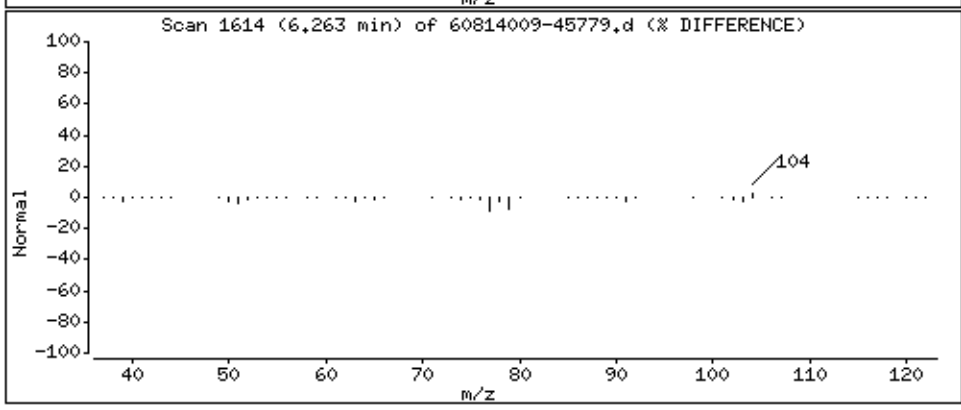
78 Isopropylbenzene (Cumene)

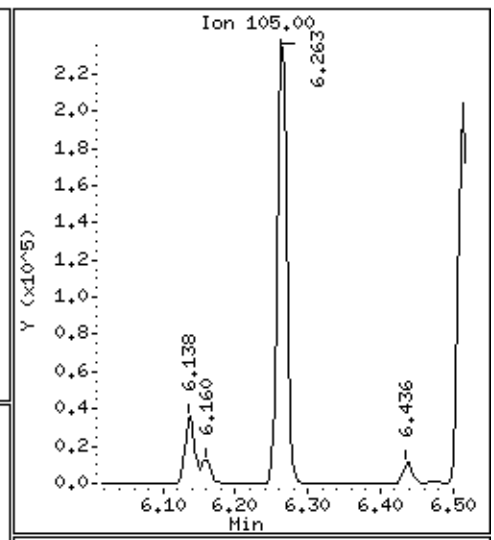
Concentration: 18.0 ug/L

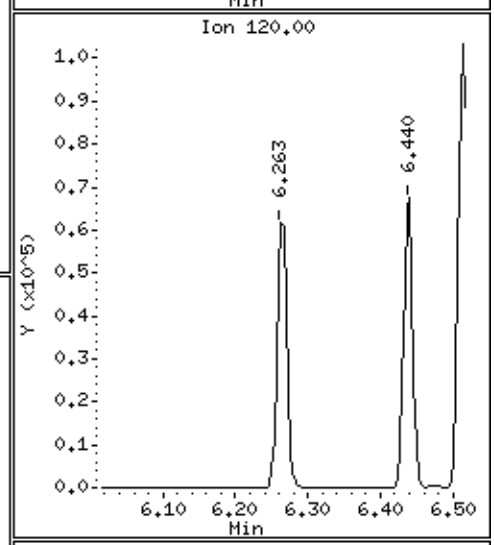


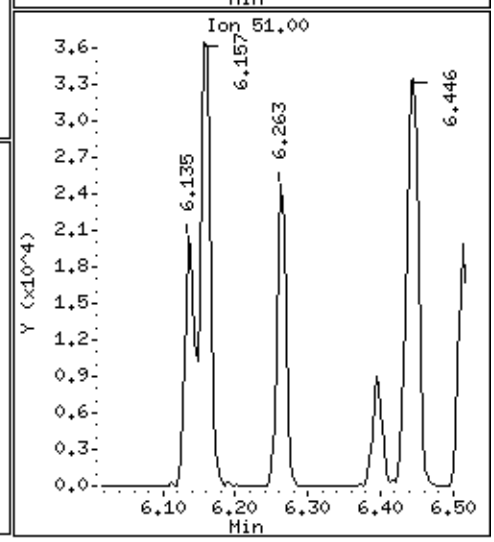












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

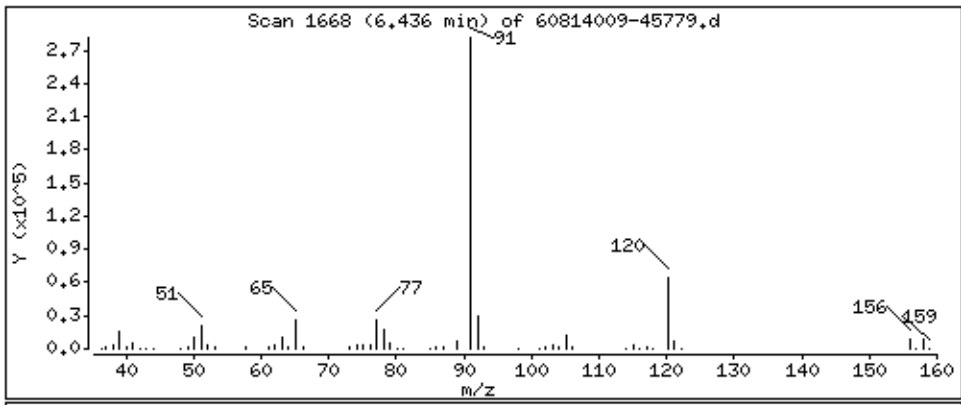
Operator: JEW

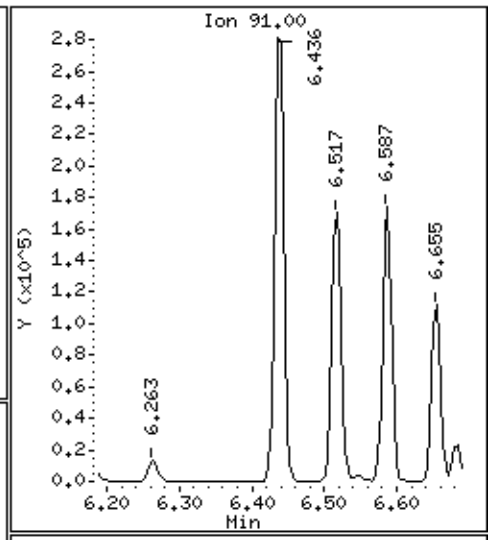
Column phase: RTX-VMS

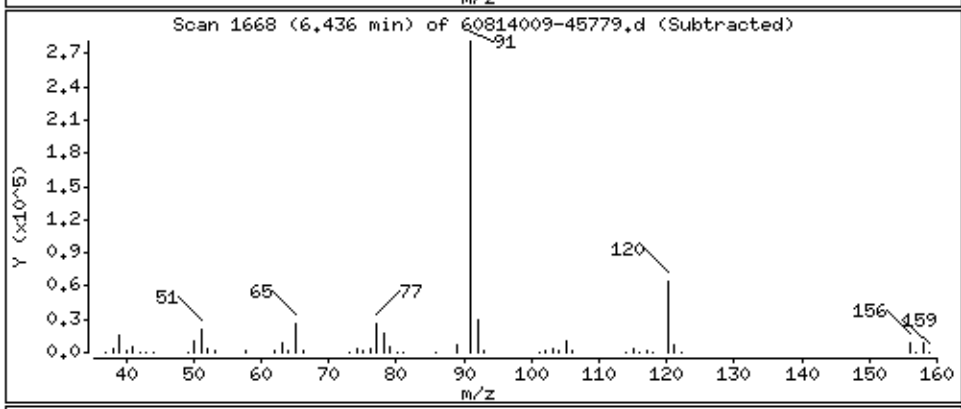
Column diameter: 0.18

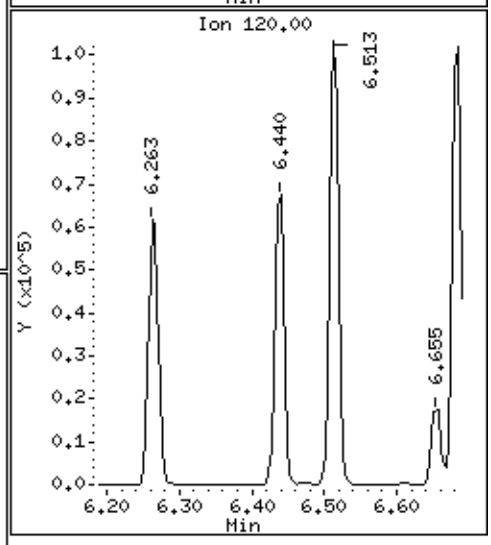
80 n-Propylbenzene

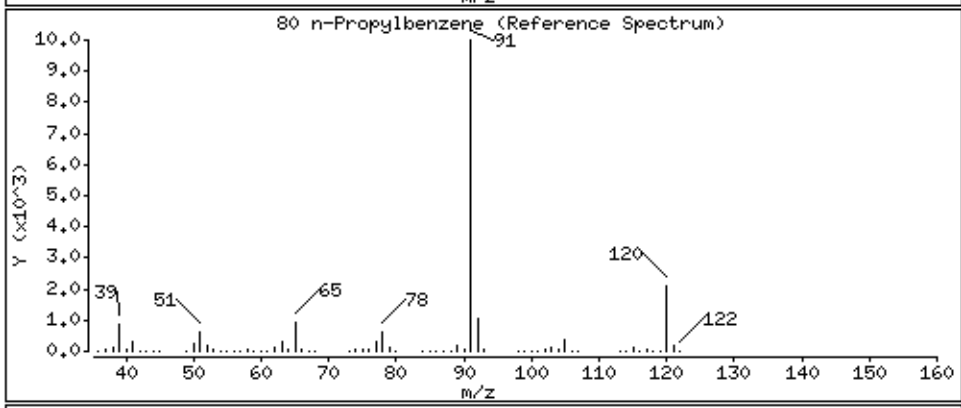
Concentration: 17.9 ug/L

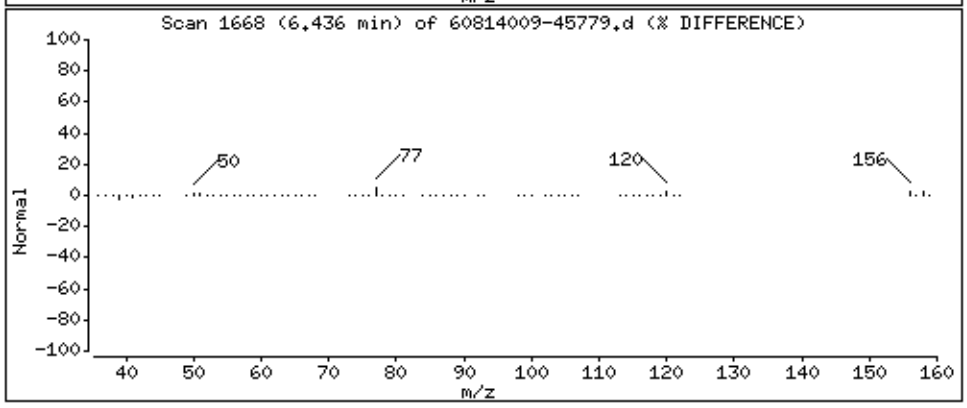












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

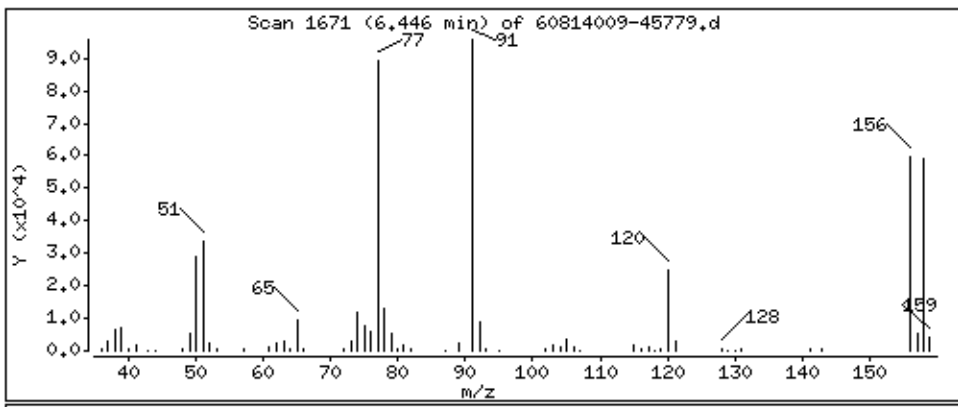
Operator: JEW

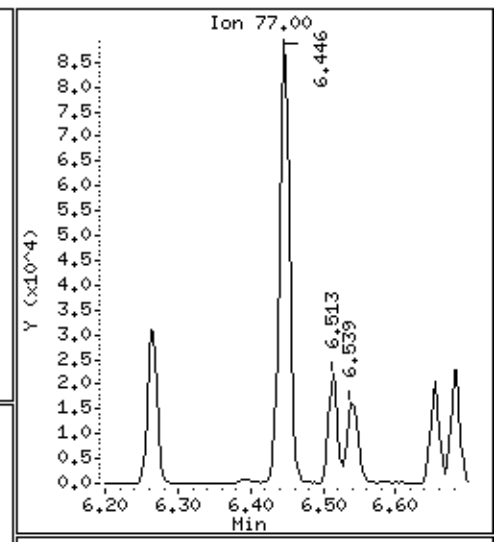
Column phase: RTX-VMS

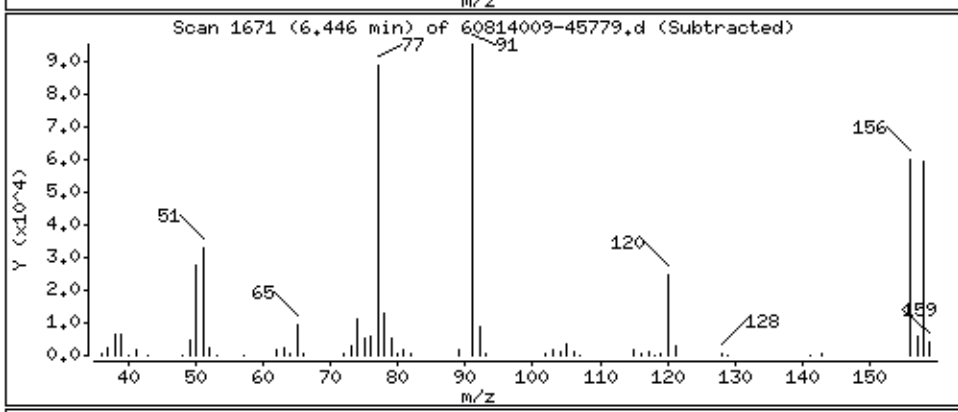
Column diameter: 0.18

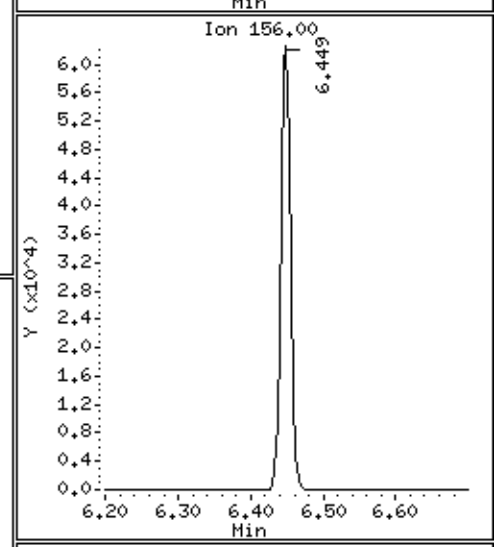
81 Bromobenzene

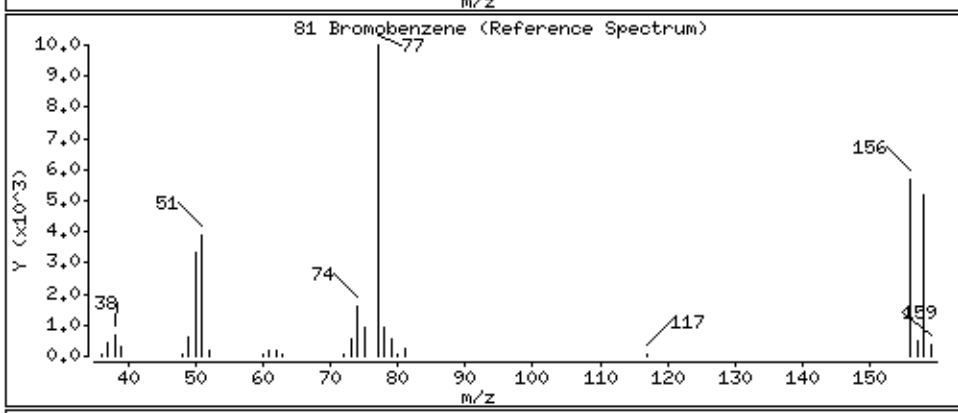
Concentration: 17.5 ug/L

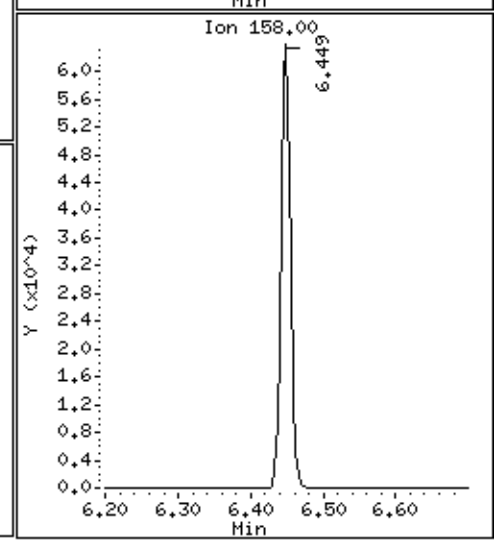


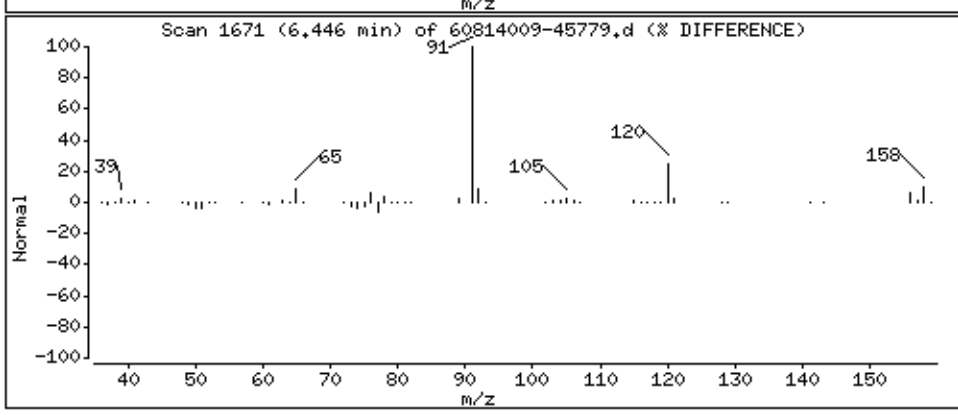












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

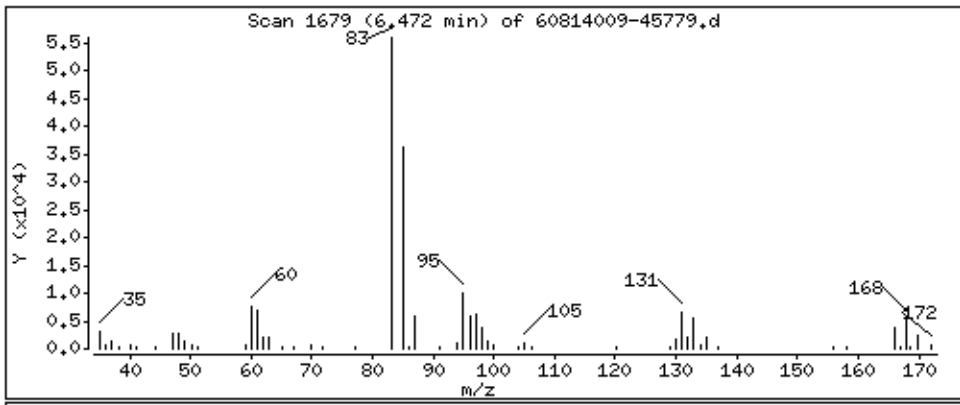
Operator: JEW

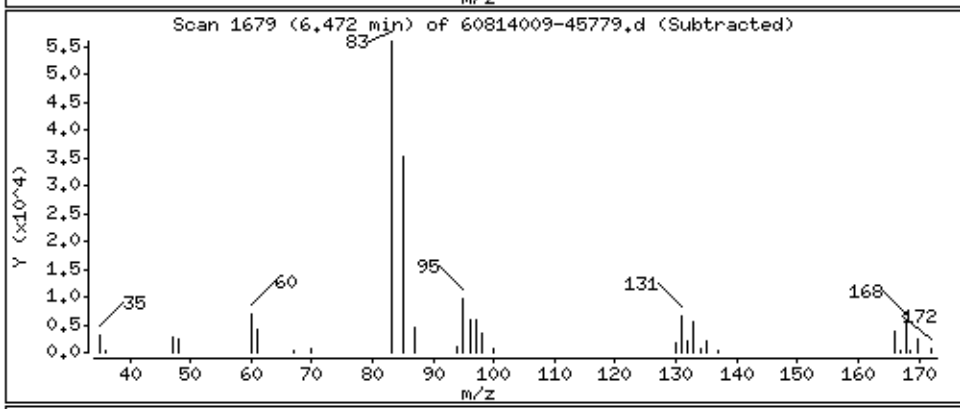
Column phase: RTX-VMS

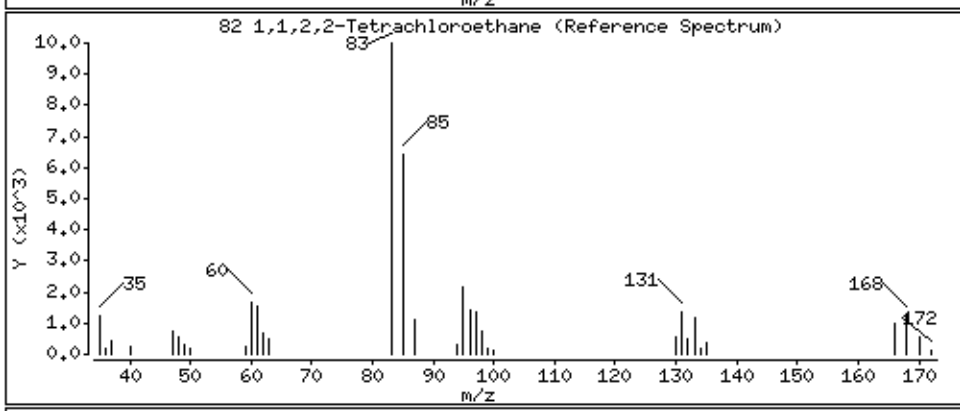
Column diameter: 0.18

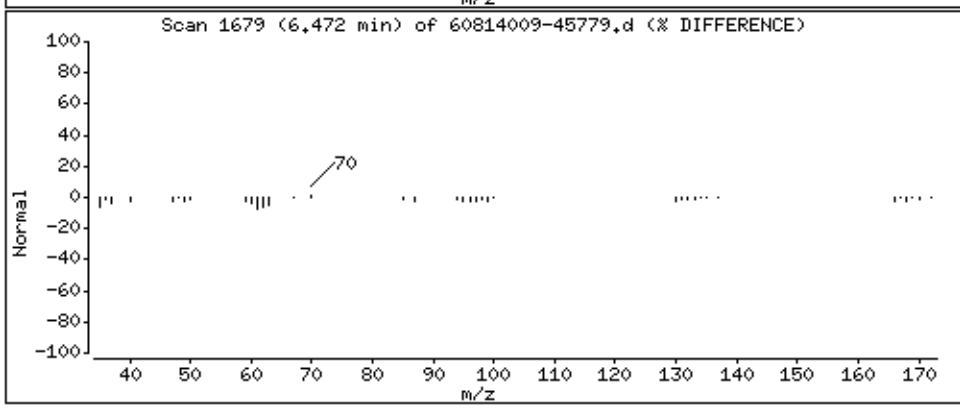
82 1,1,2,2-Tetrachloroethane

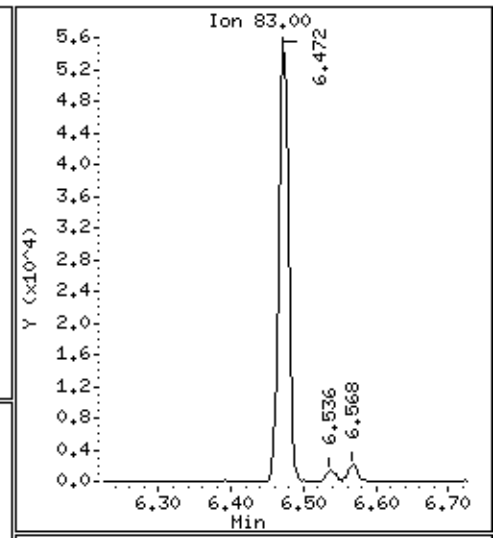
Concentration: 16.9 ug/L

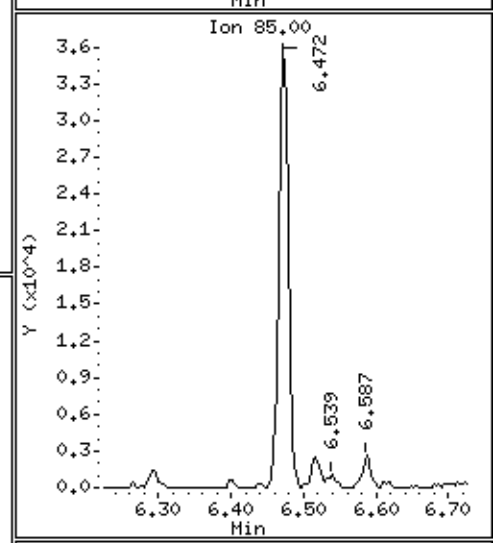


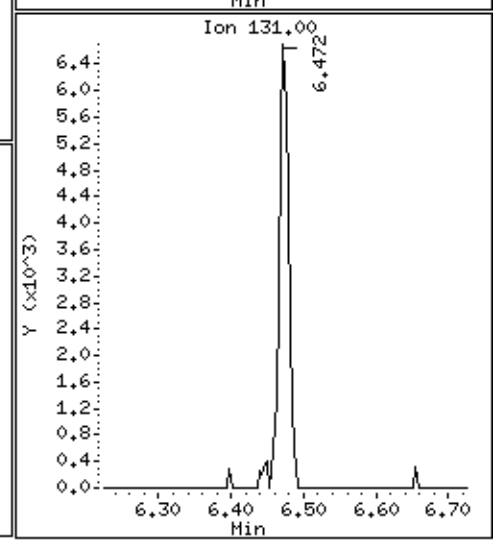












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

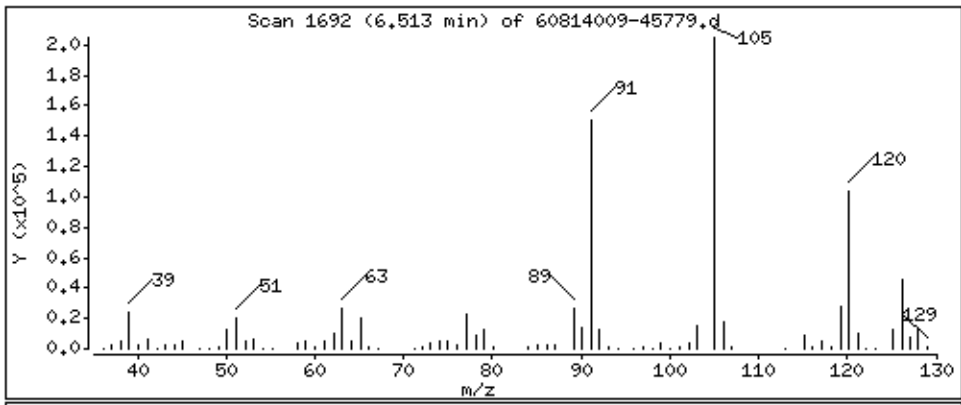
Operator: JEW

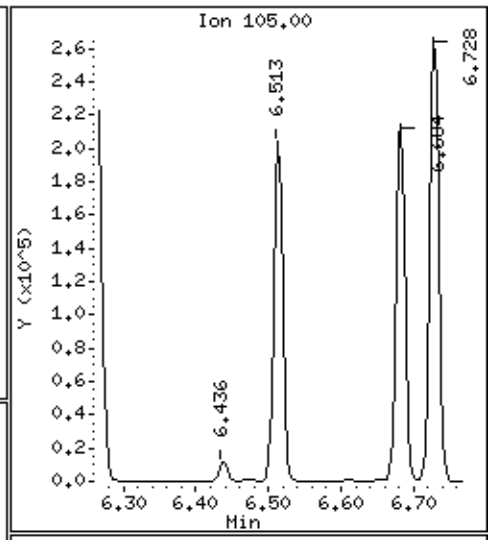
Column phase: RTX-VMS

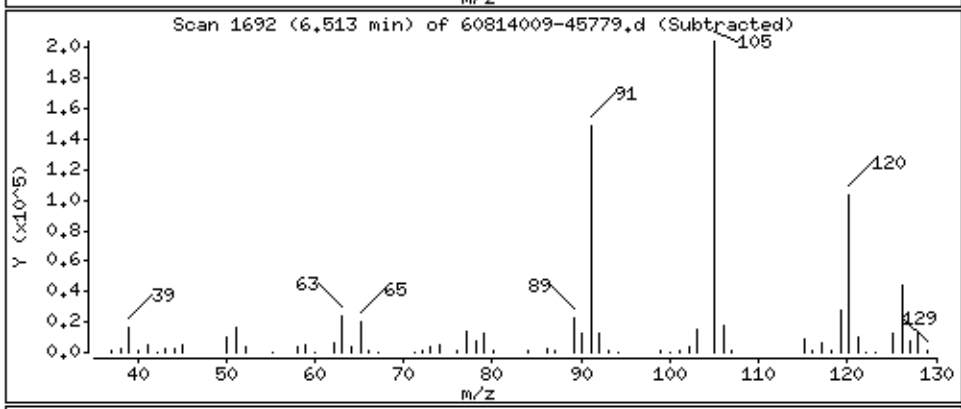
Column diameter: 0.18

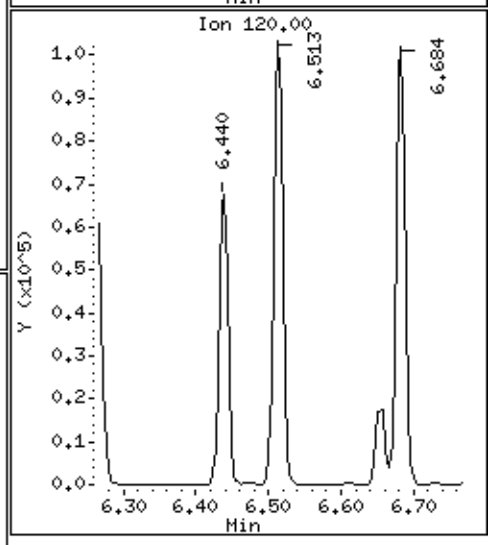
83 1,3,5-Trimethylbenzene

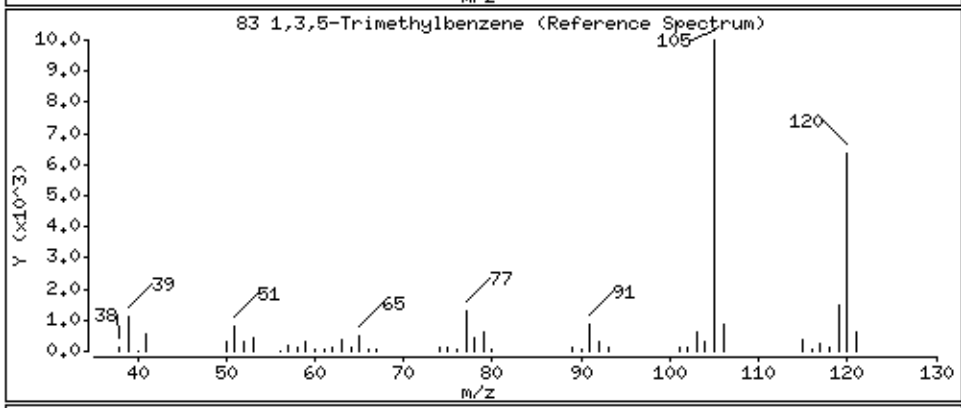
Concentration: 17.3 ug/L

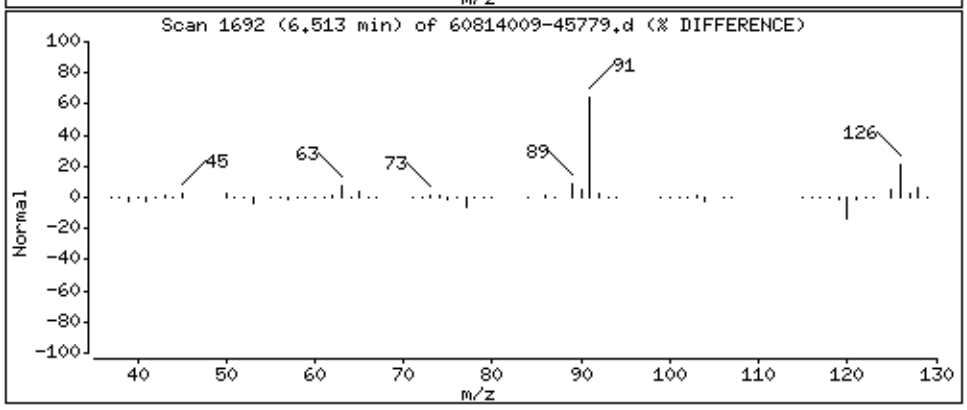












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

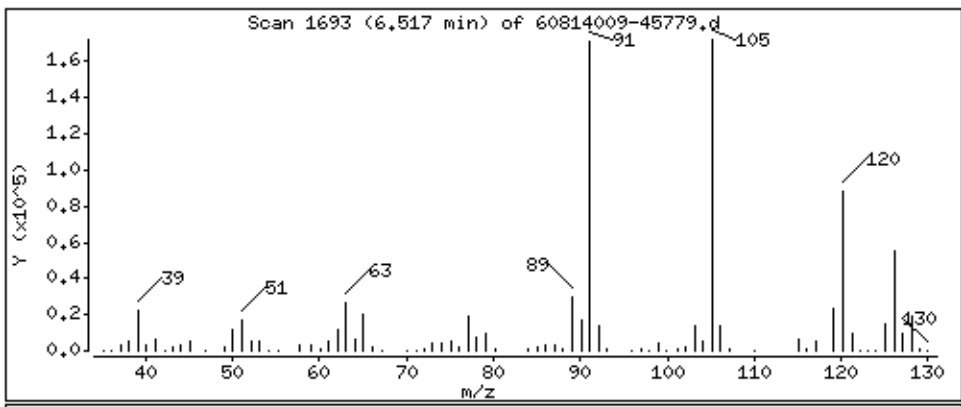
Operator: JEW

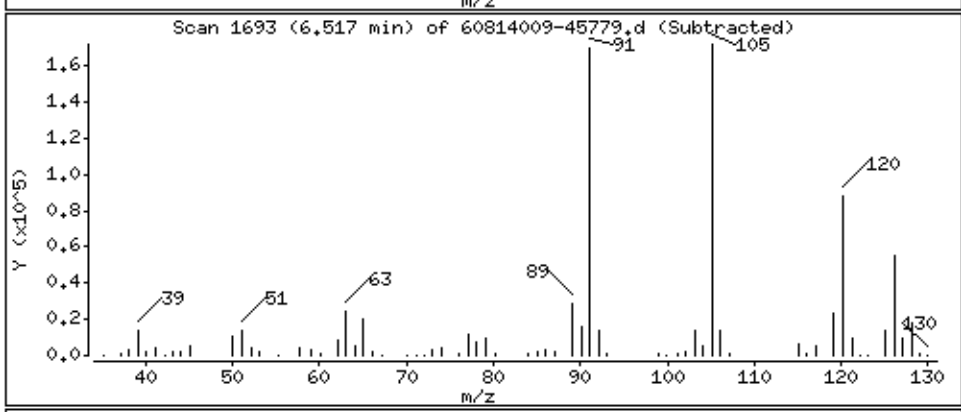
Column phase: RTX-VMS

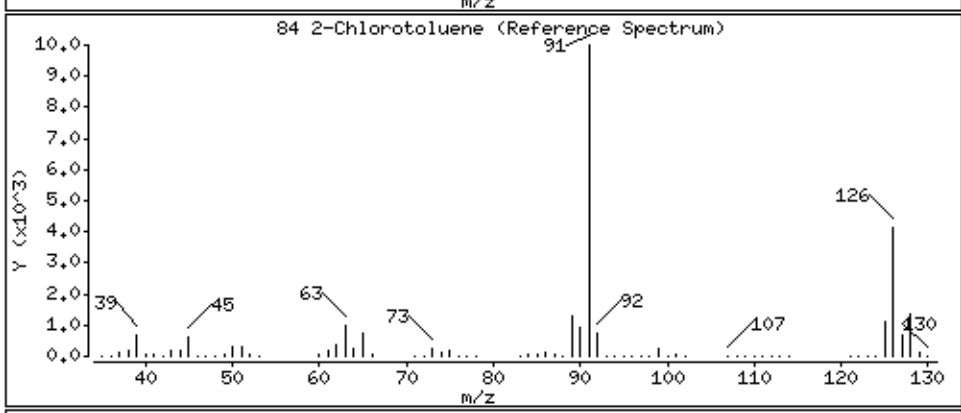
Column diameter: 0.18

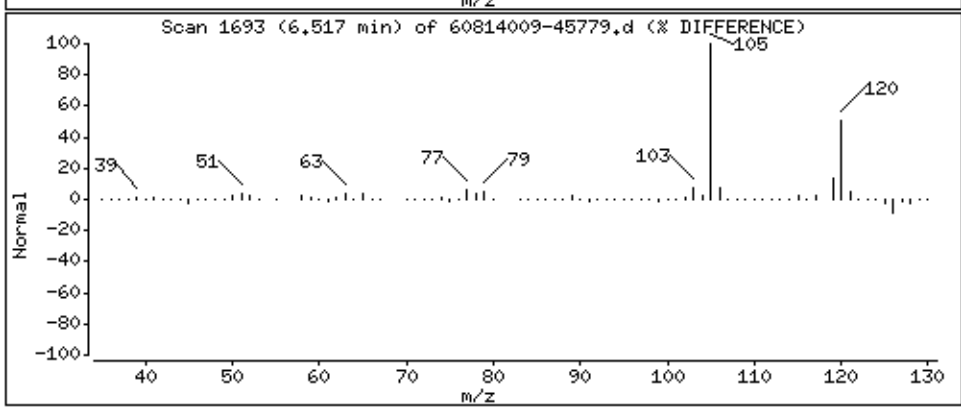
84 2-Chlorotoluene

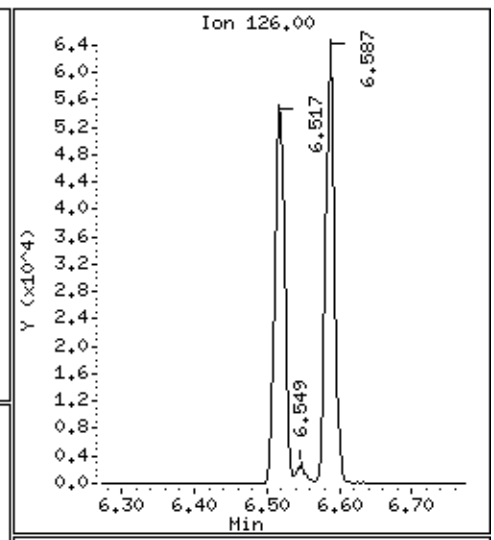
Concentration: 17.3 ug/L

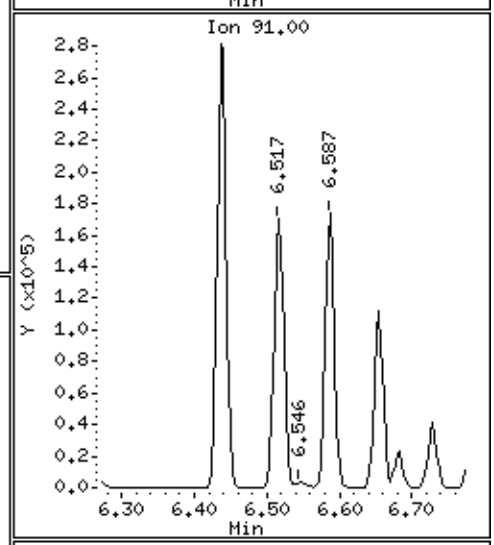


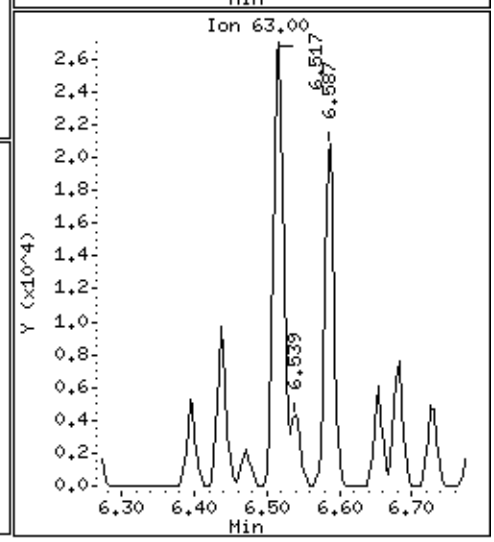












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

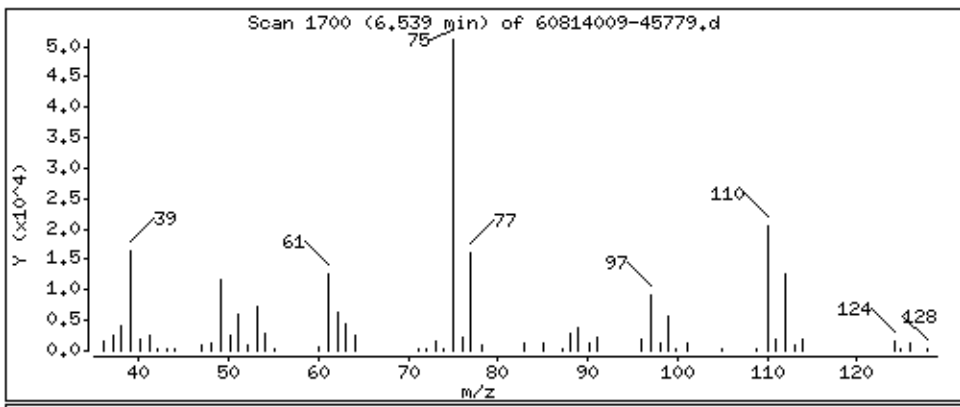
Operator: JEW

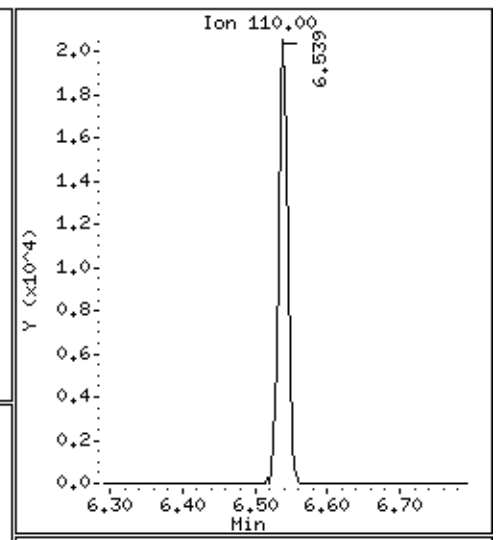
Column phase: RTX-VMS

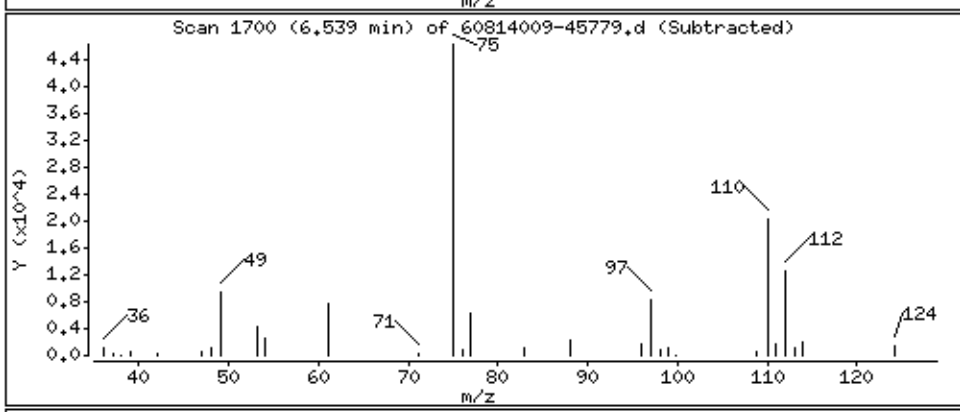
Column diameter: 0.18

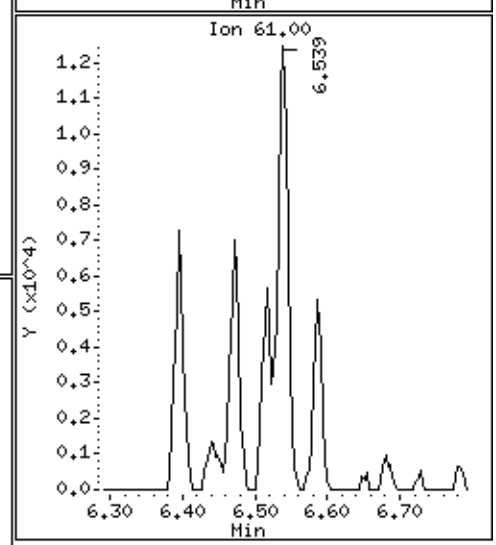
85 1,2,3-Trichloropropane

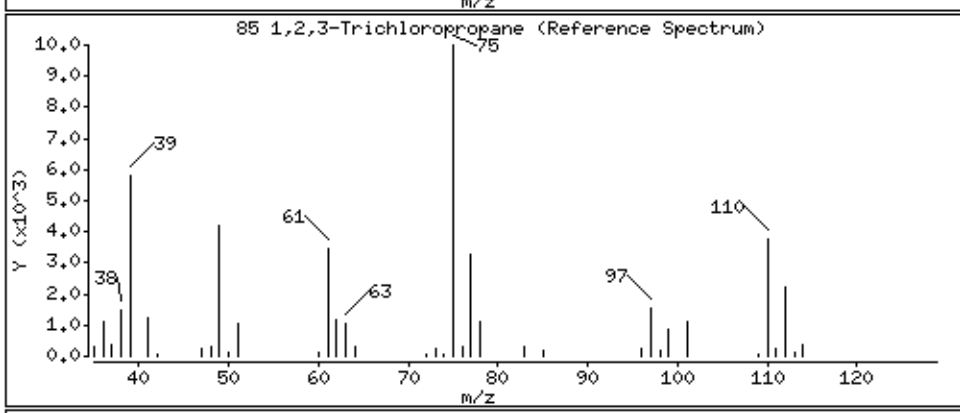
Concentration: 17.3 ug/L

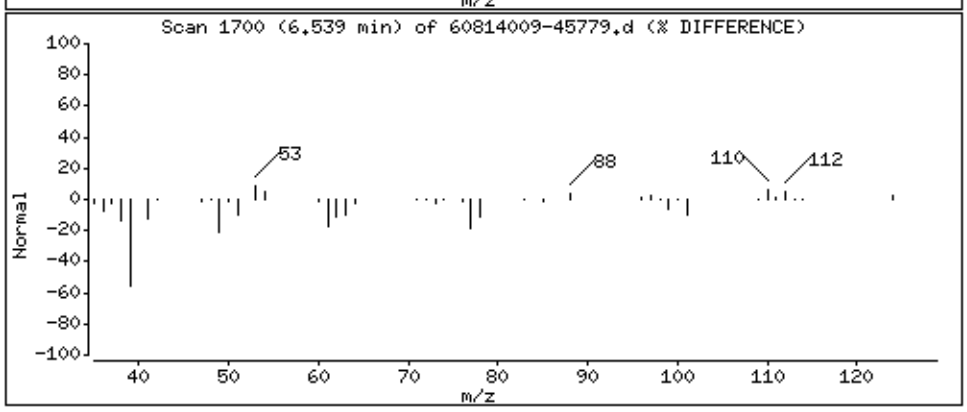












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

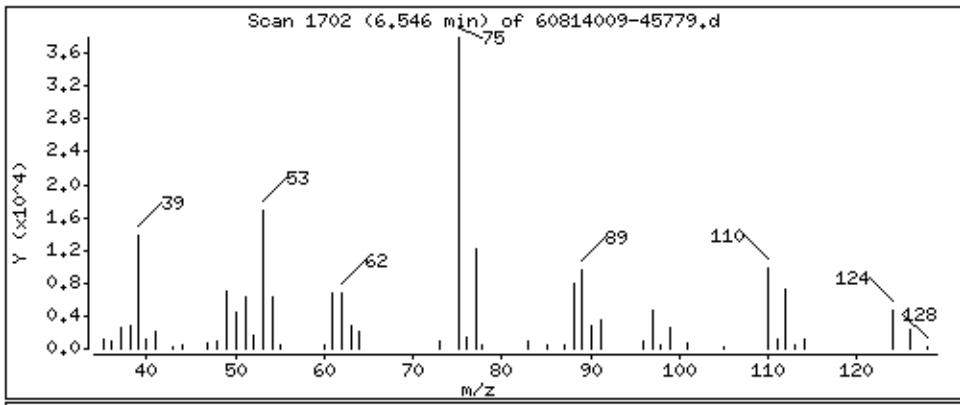
Operator: JEW

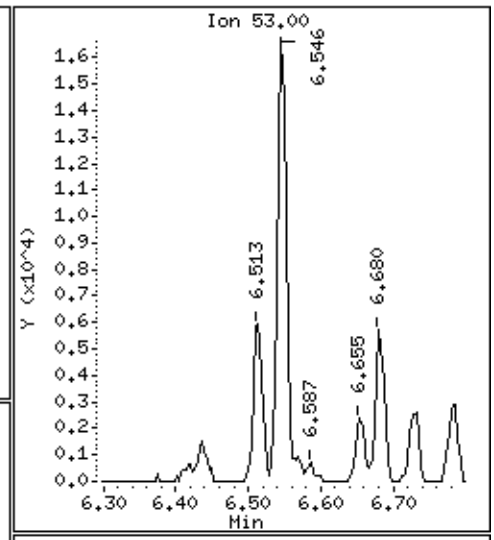
Column phase: RTX-VMS

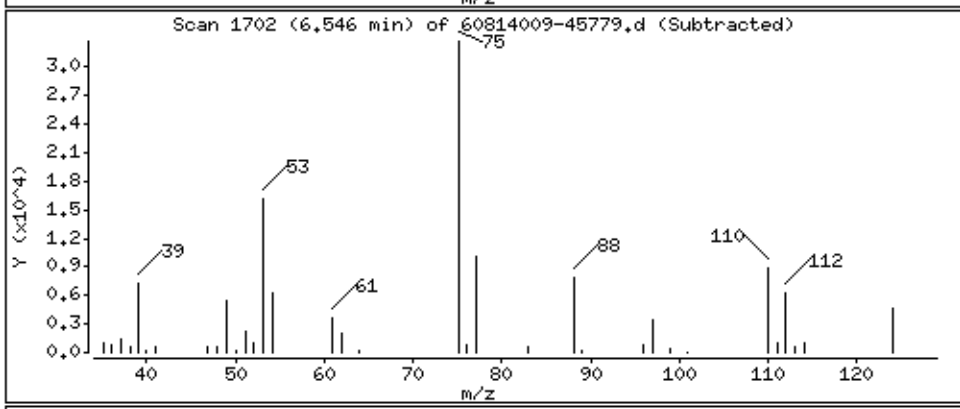
Column diameter: 0.18

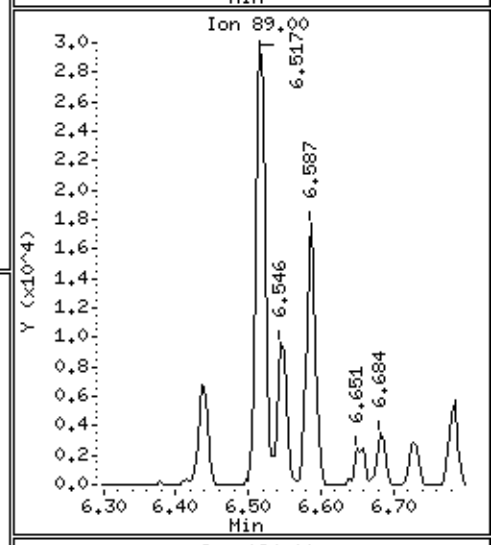
86 trans-1,4-Dichloro-2-butene

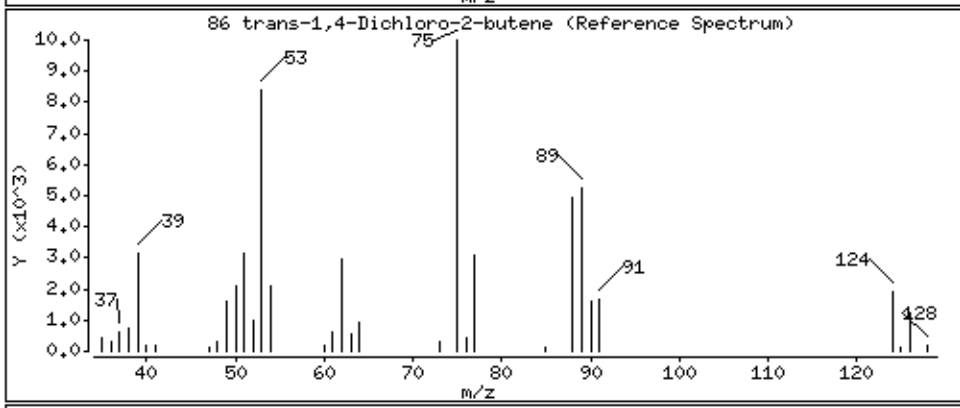
Concentration: 15.0 ug/L

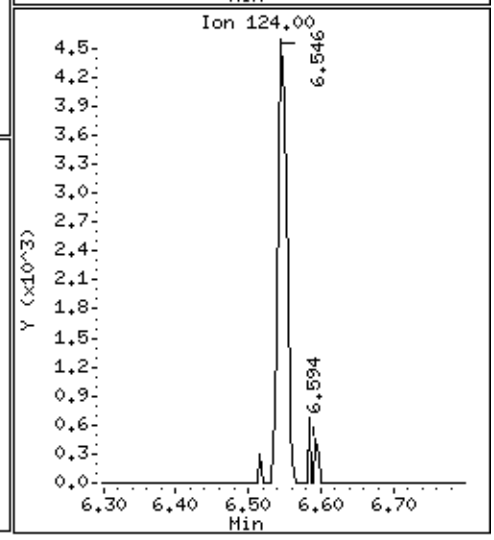


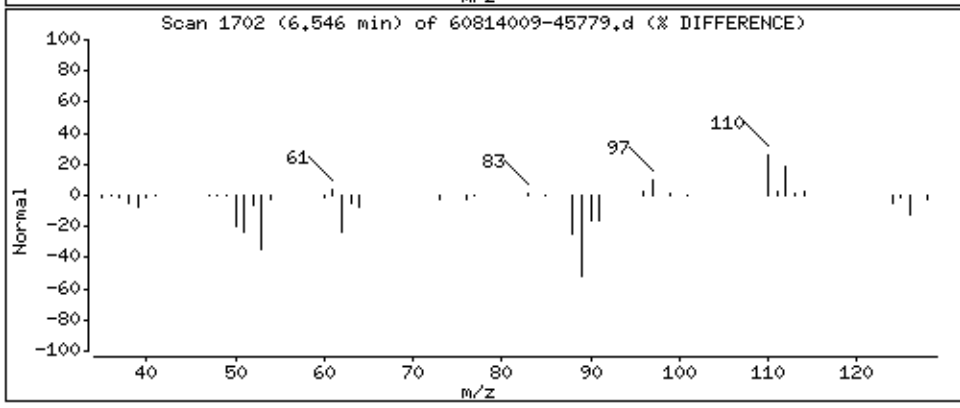












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

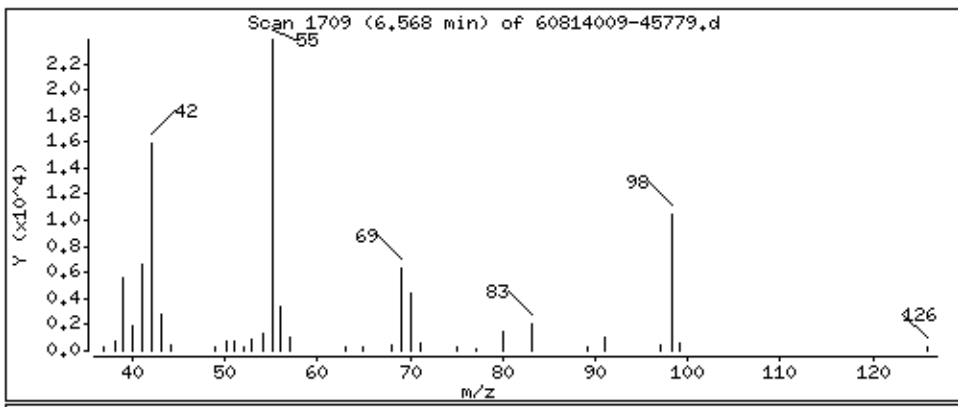
Operator: JEW

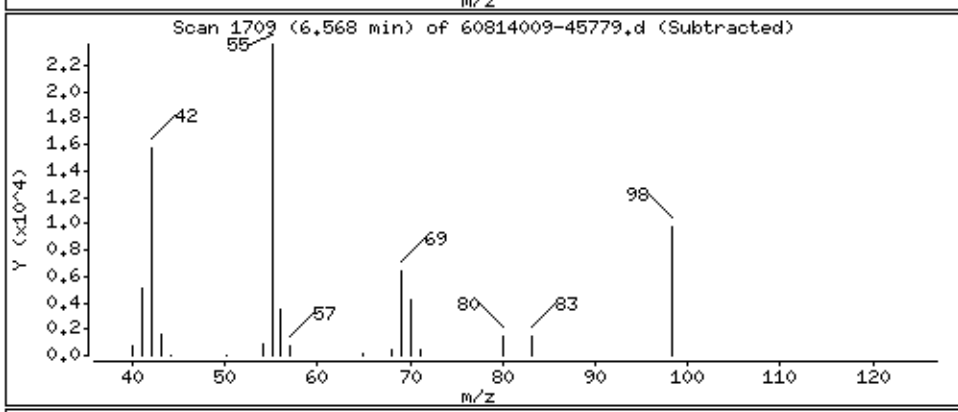
Column phase: RTX-VMS

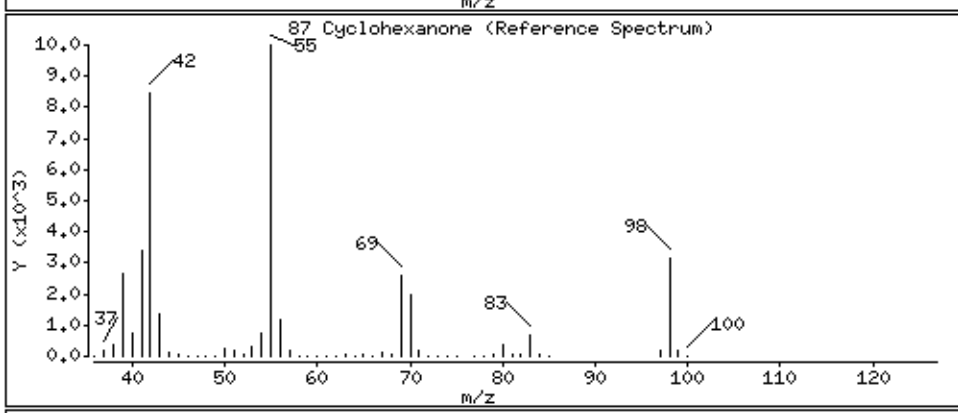
Column diameter: 0.18

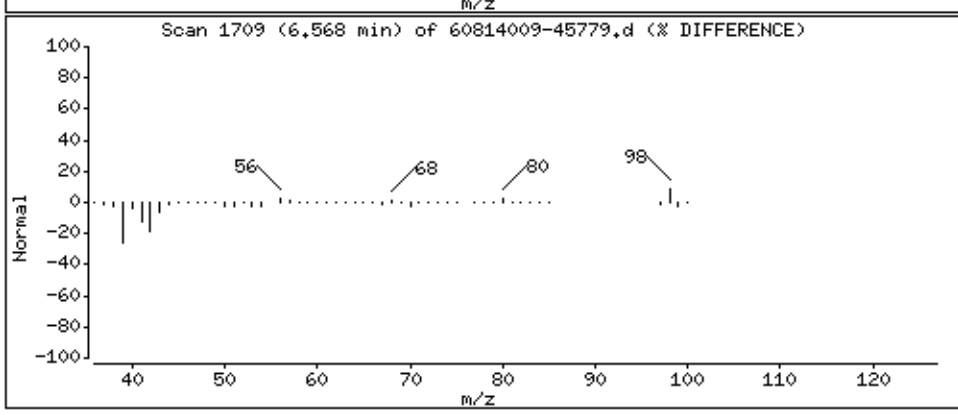
87 Cyclohexanone

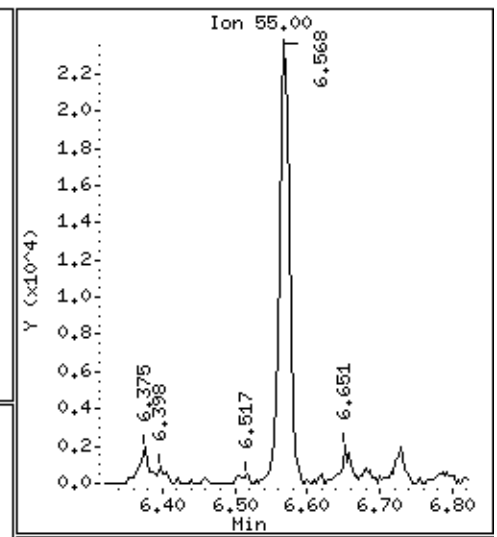
Concentration: 85.0 ug/L

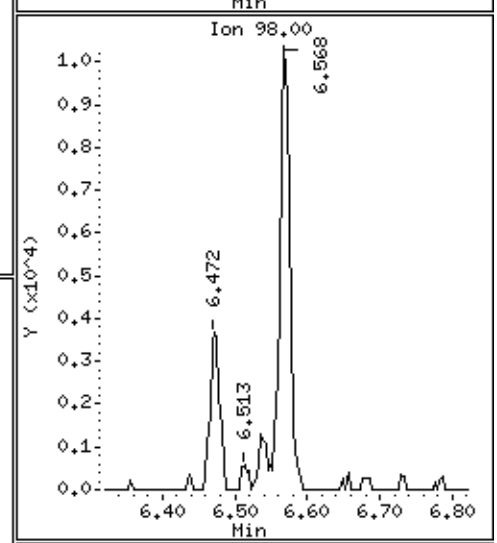


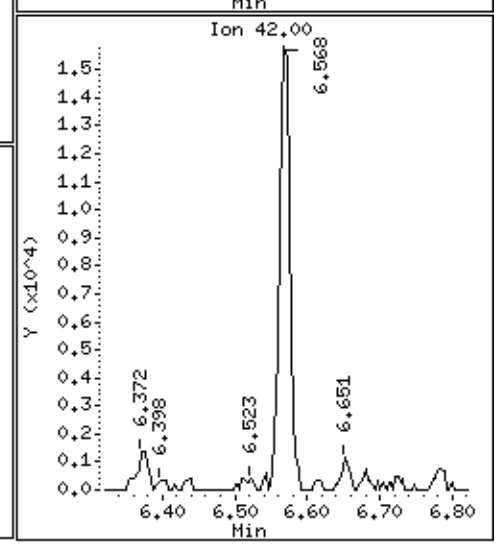












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

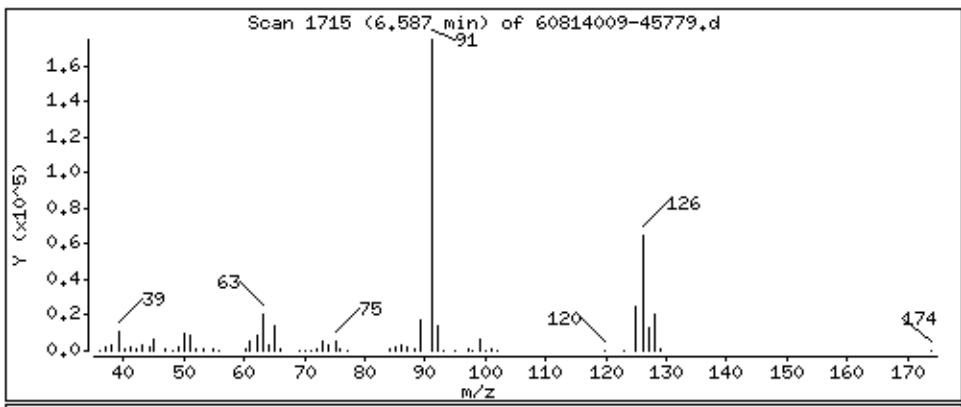
Operator: JEW

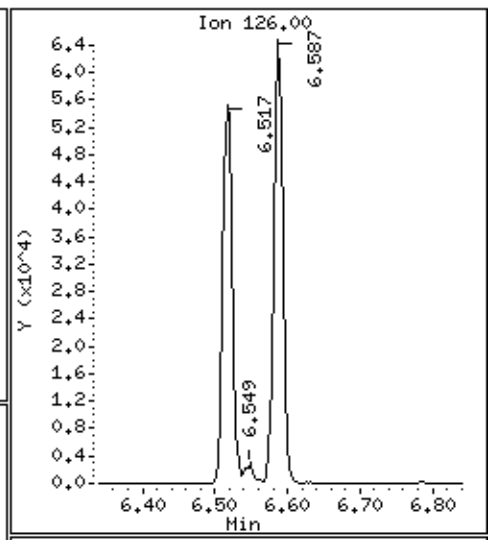
Column phase: RTX-VMS

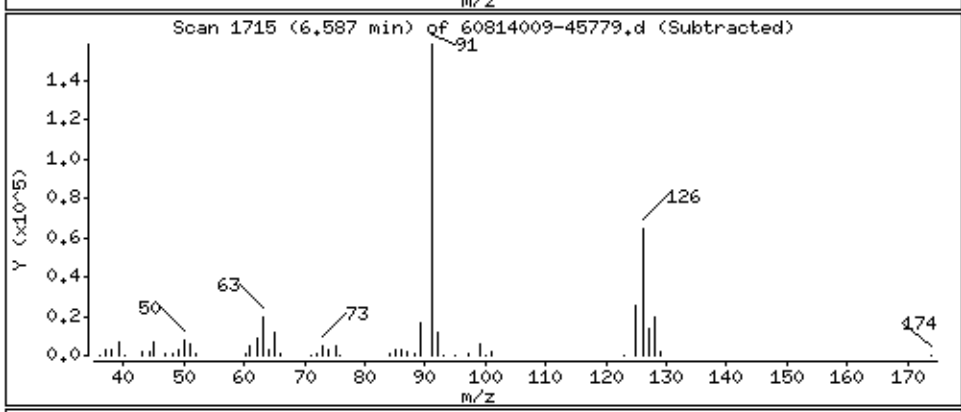
Column diameter: 0.18

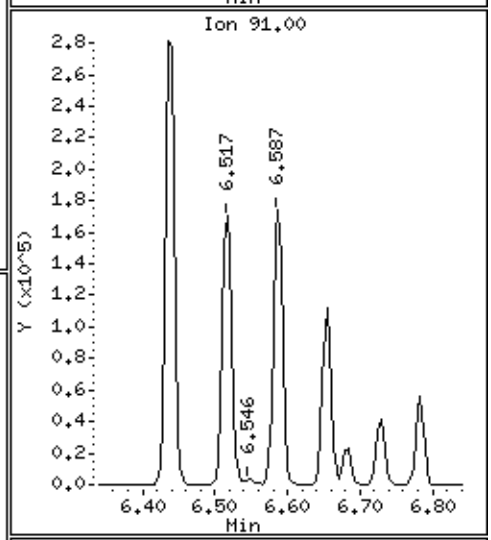
88 4-Chlorotoluene

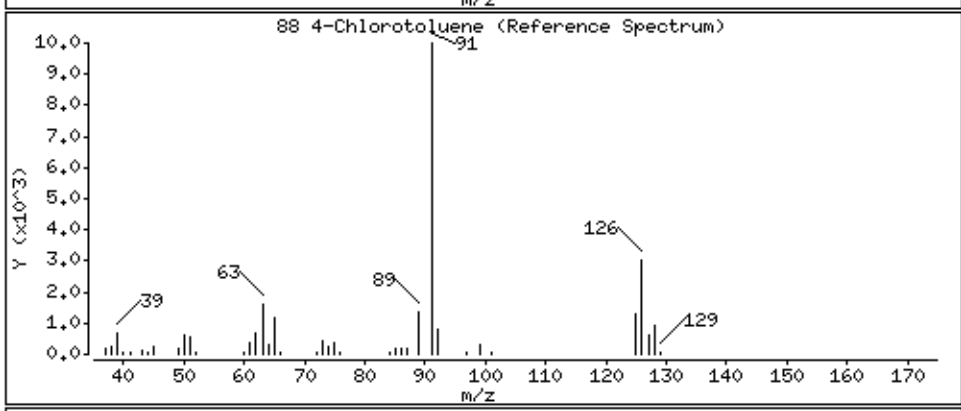
Concentration: 17.2 ug/L

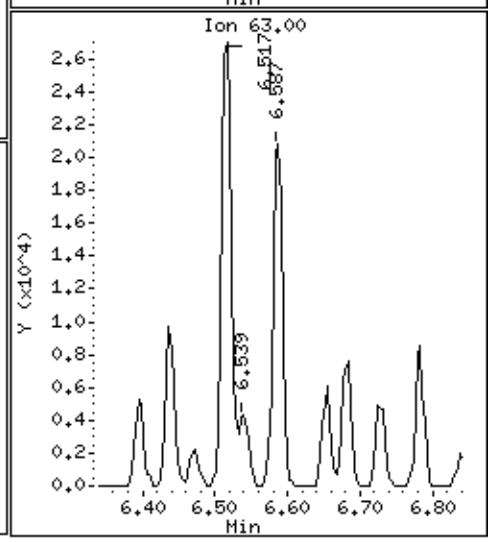


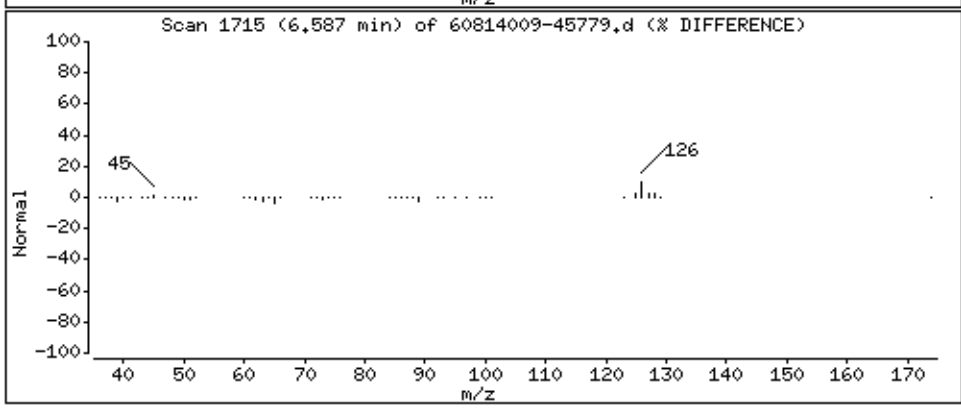












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

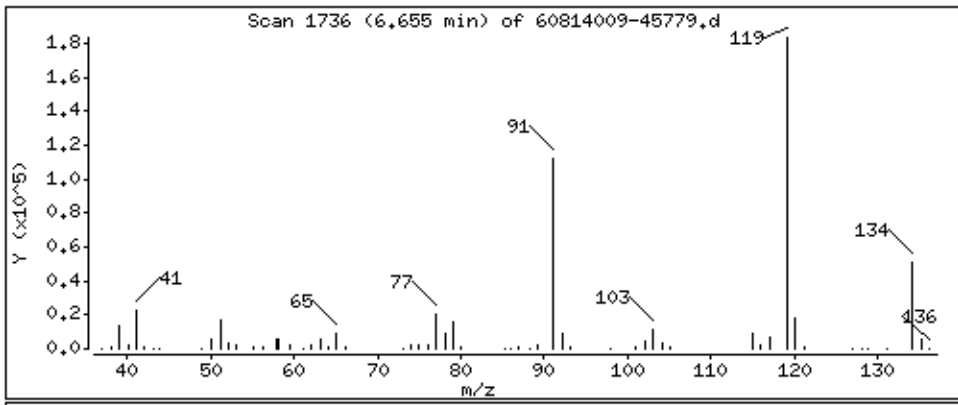
Operator: JEW

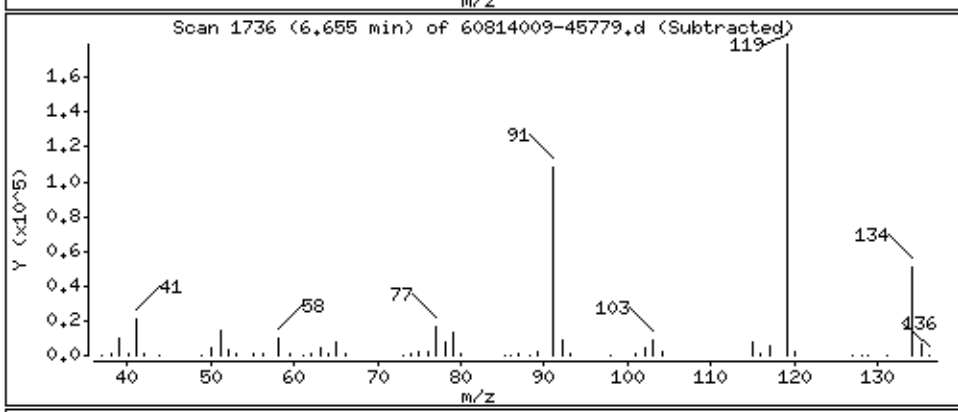
Column phase: RTX-VMS

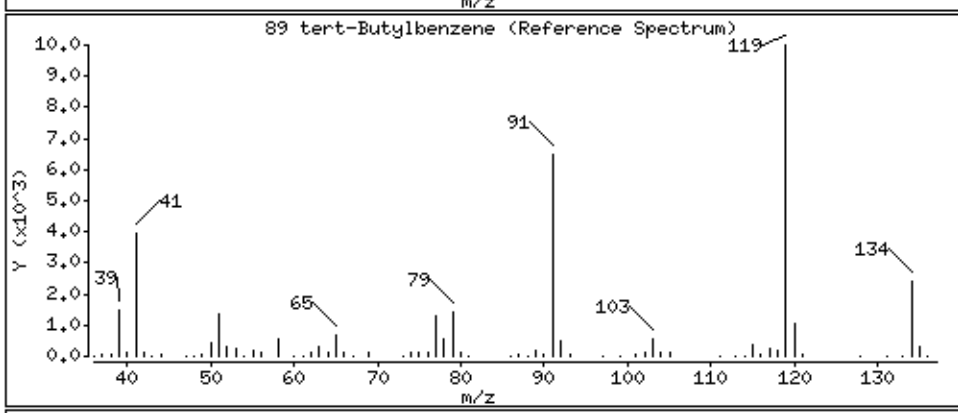
Column diameter: 0.18

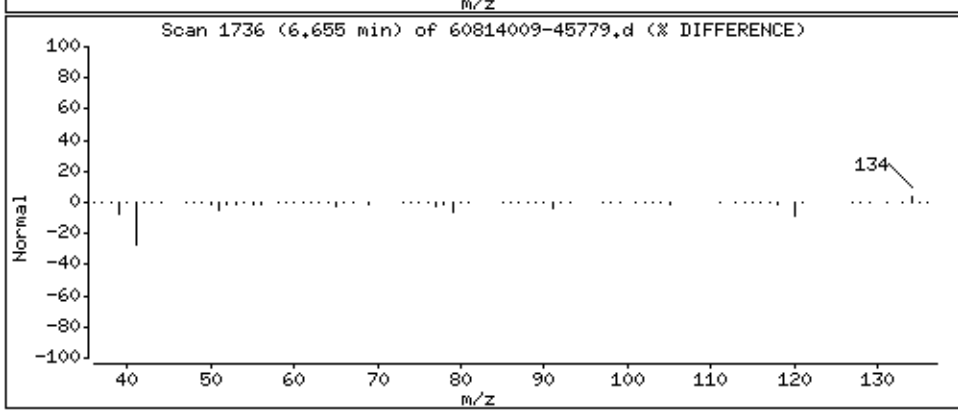
89 tert-Butylbenzene

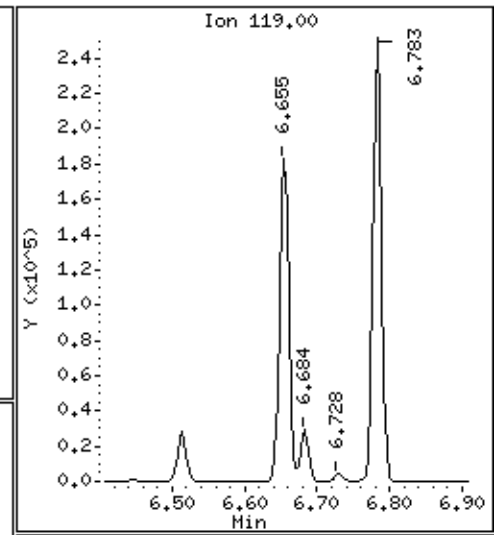
Concentration: 18.0 ug/L

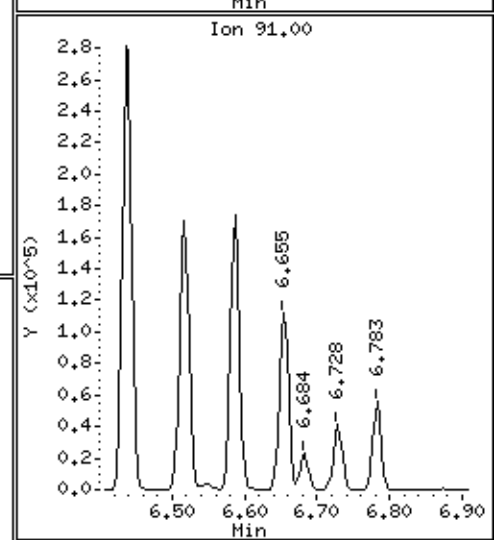


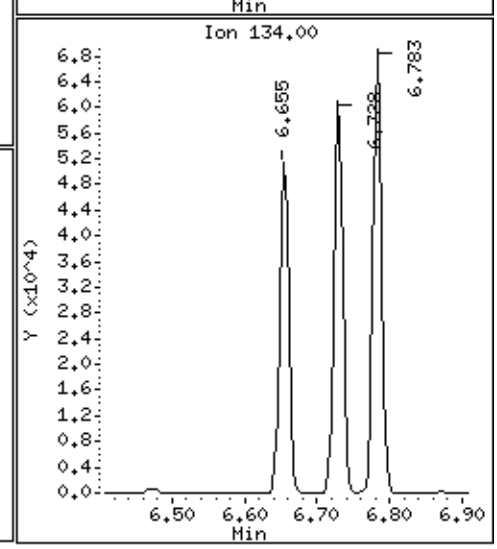












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814009-45779.d

Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

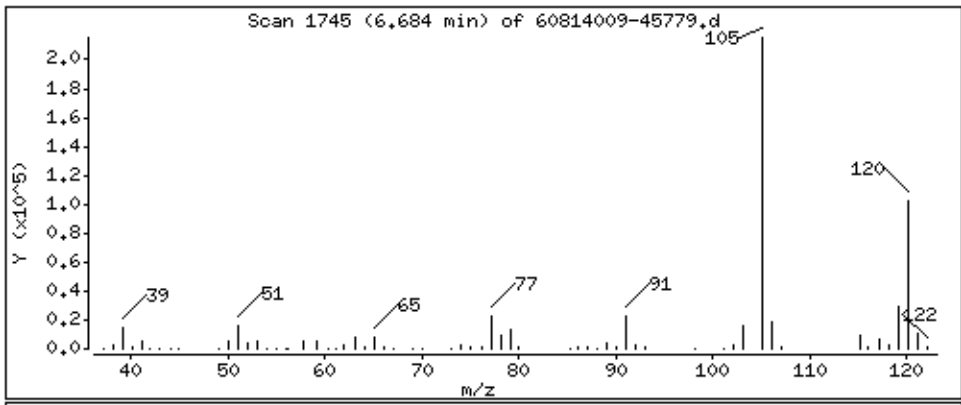
Operator: JEW

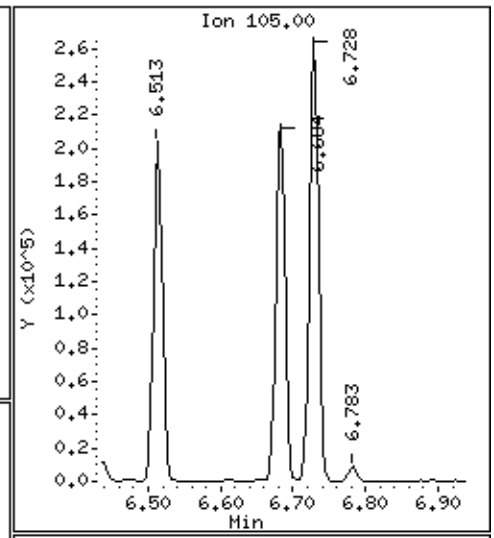
Column phase: RTX-VMS

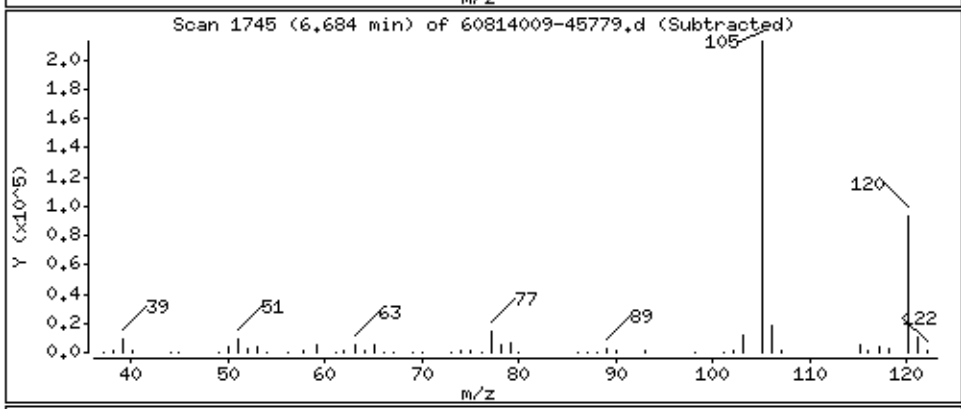
Column diameter: 0.18

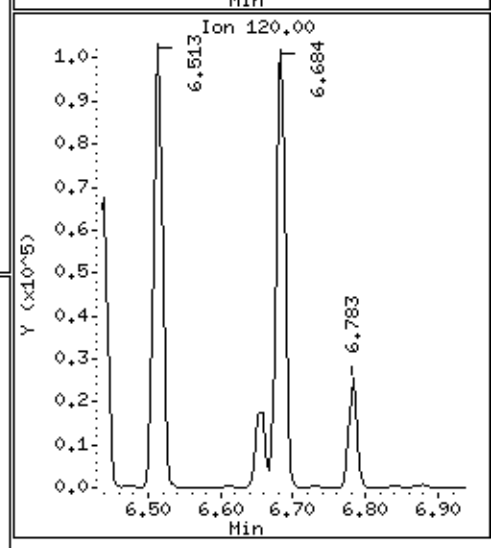
90 1,2,4-Trimethylbenzene

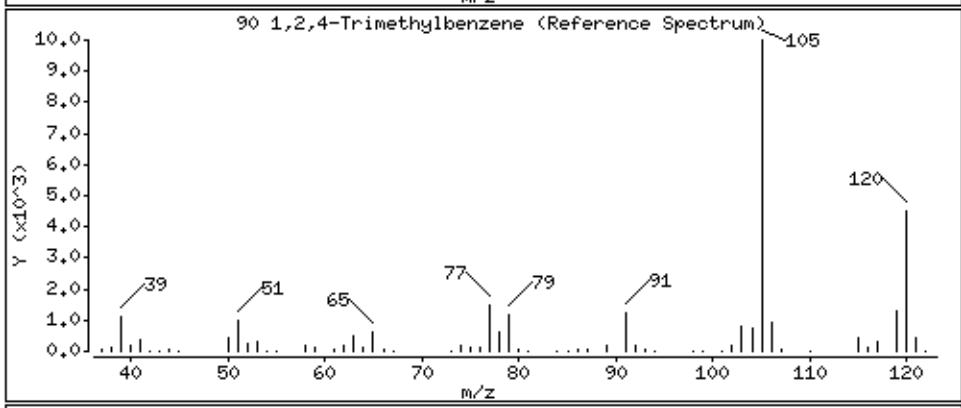
Concentration: 17.8 ug/L

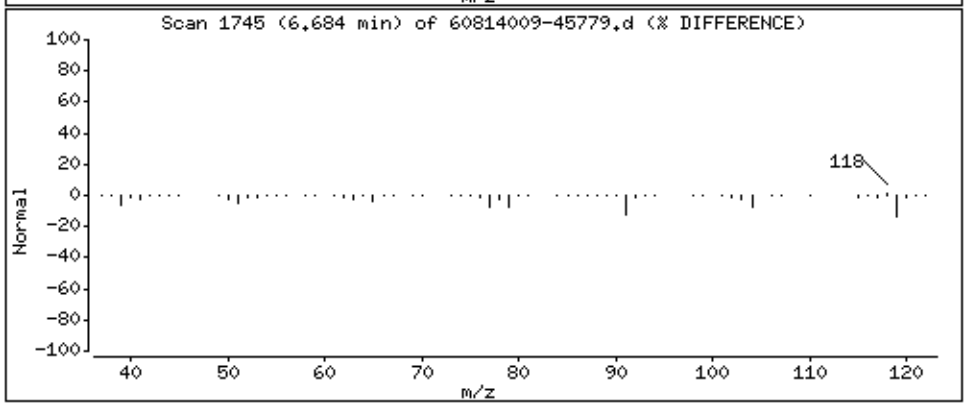












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

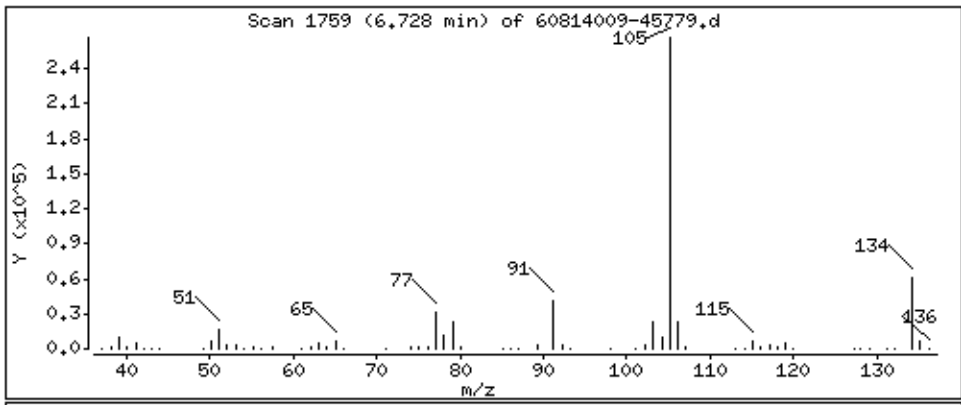
Operator: JEW

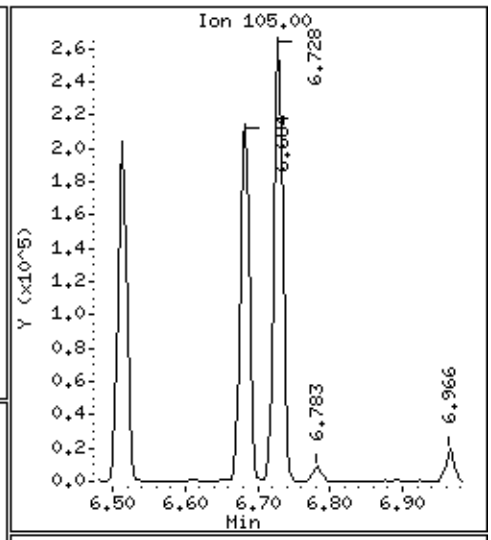
Column phase: RTX-VMS

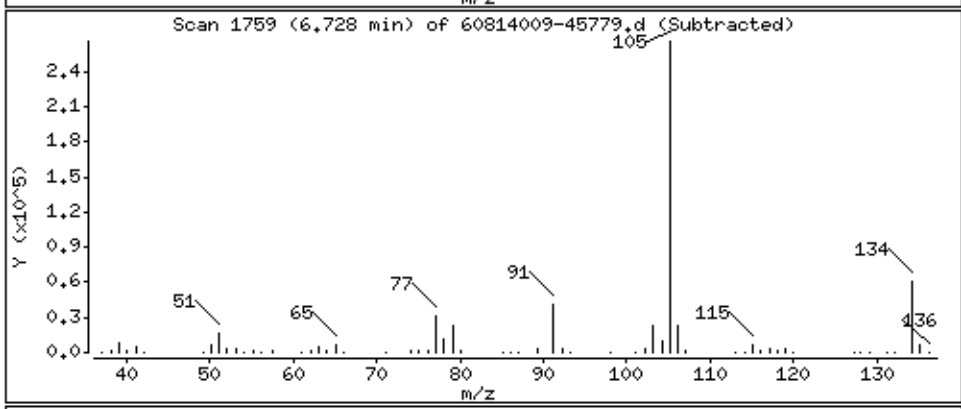
Column diameter: 0.18

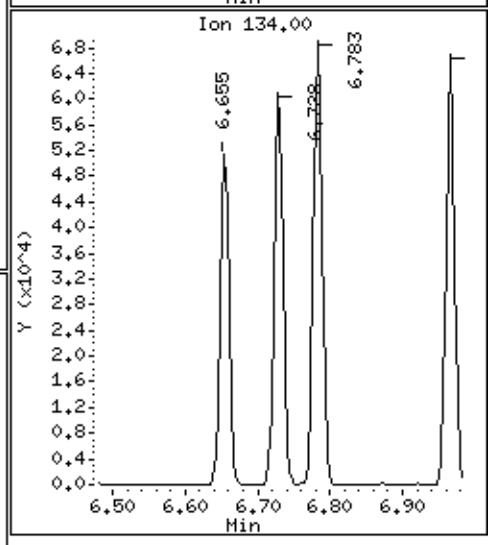
91 sec-Butylbenzene

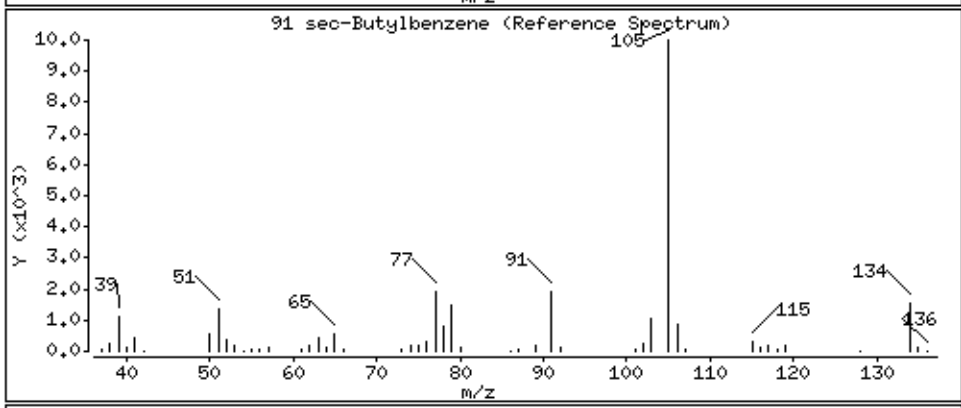
Concentration: 18.1 ug/L

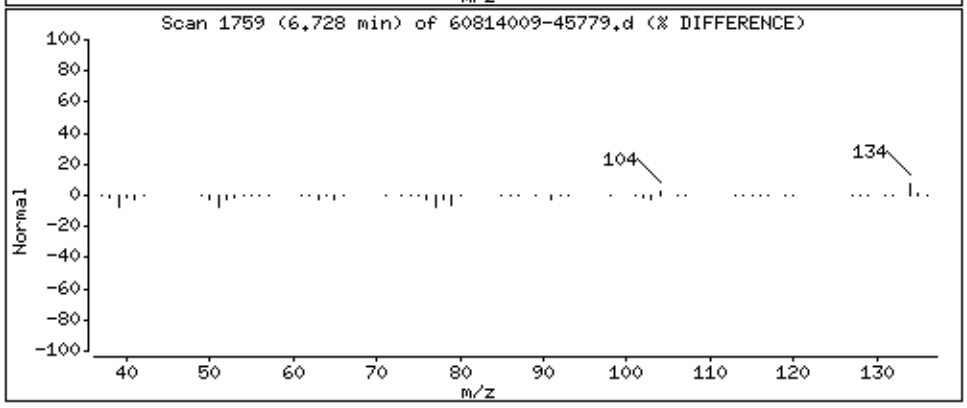












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

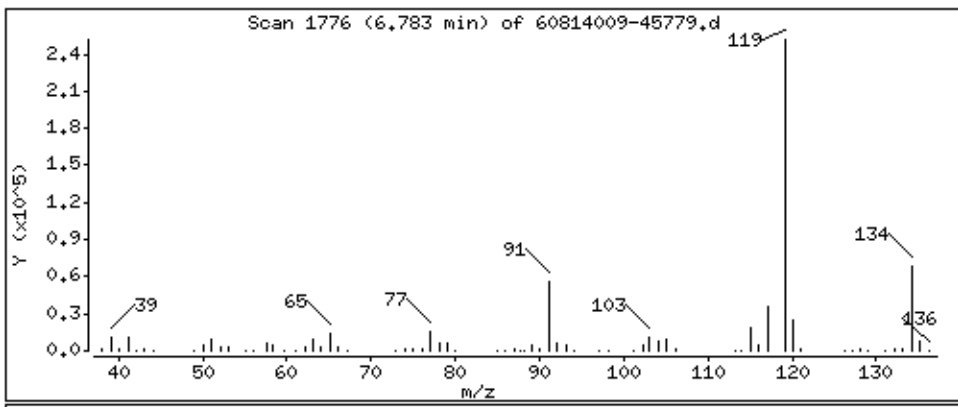
Operator: JEW

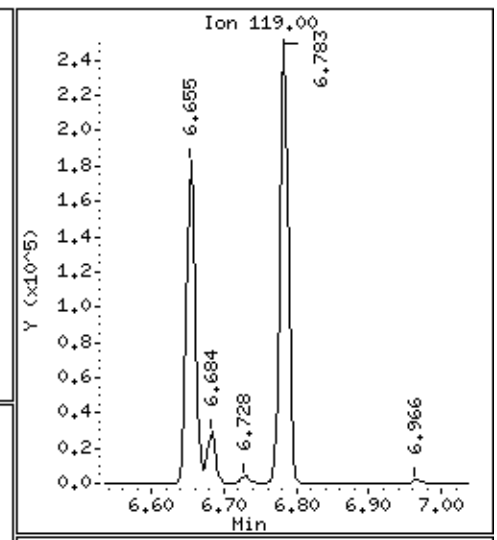
Column phase: RTX-VMS

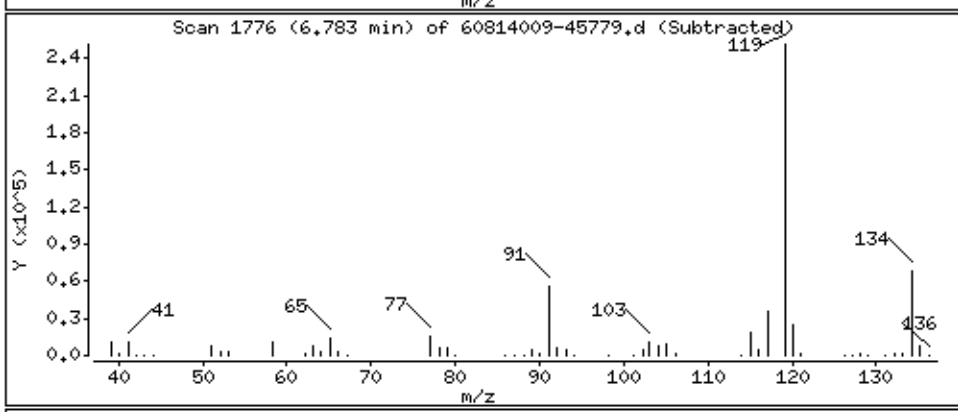
Column diameter: 0.18

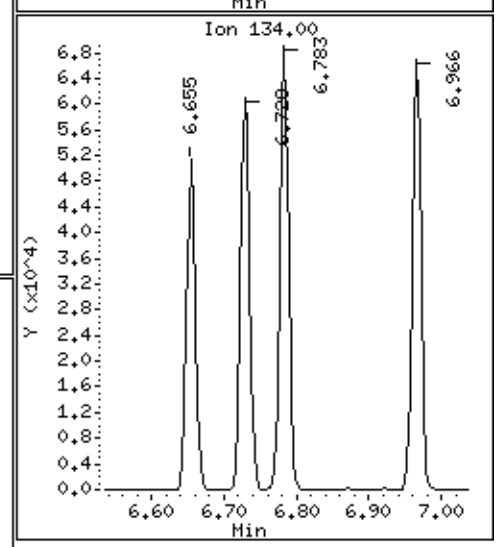
92 p-Isopropyltoluene

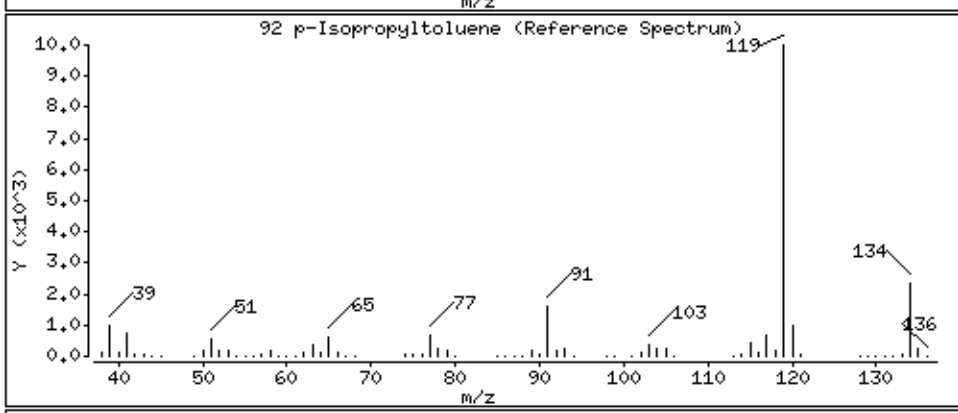
Concentration: 18.1 ug/L

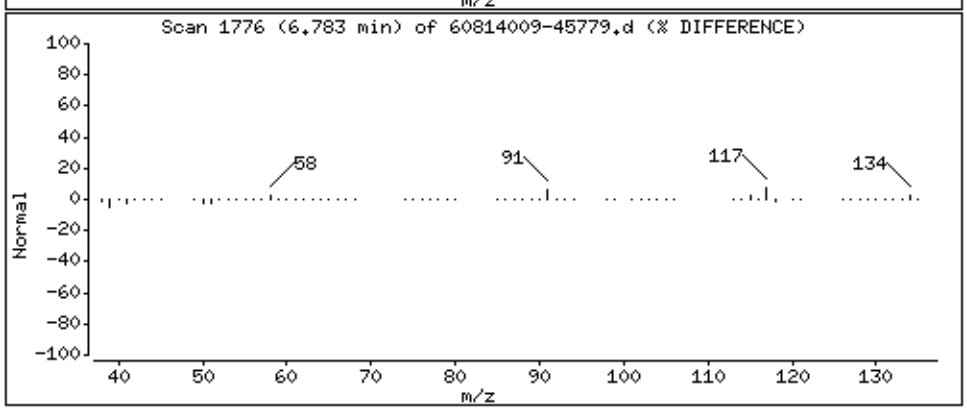












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

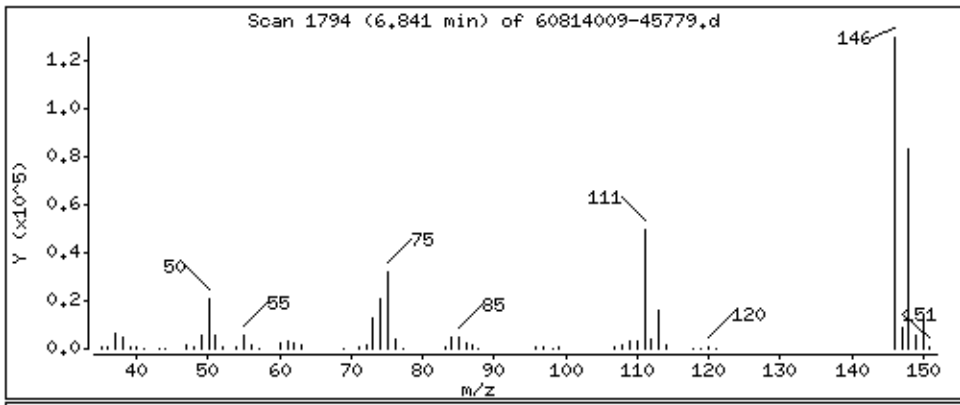
Operator: JEW

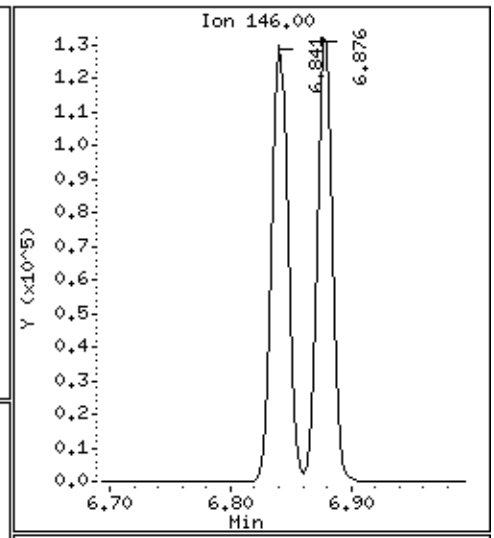
Column phase: RTX-VMS

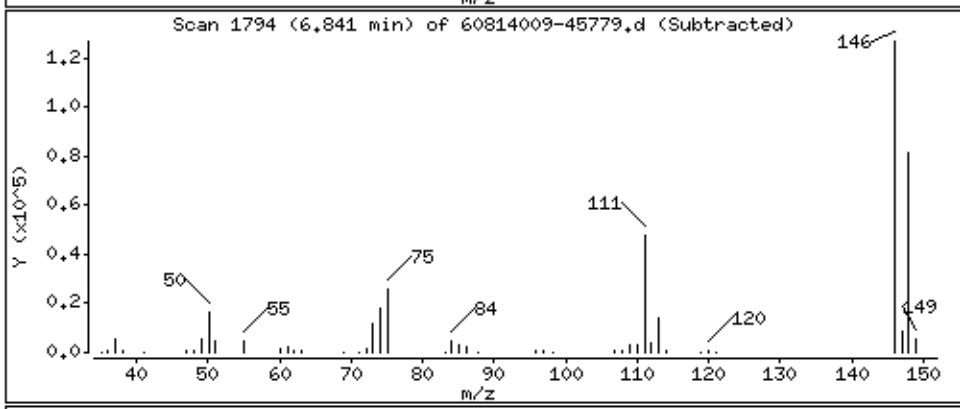
Column diameter: 0.18

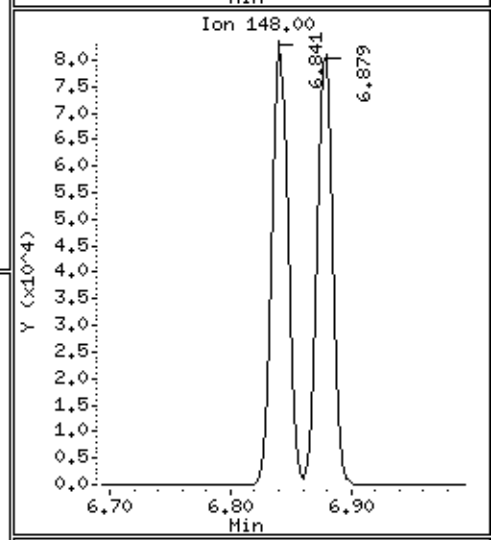
93 1,3-Dichlorobenzene

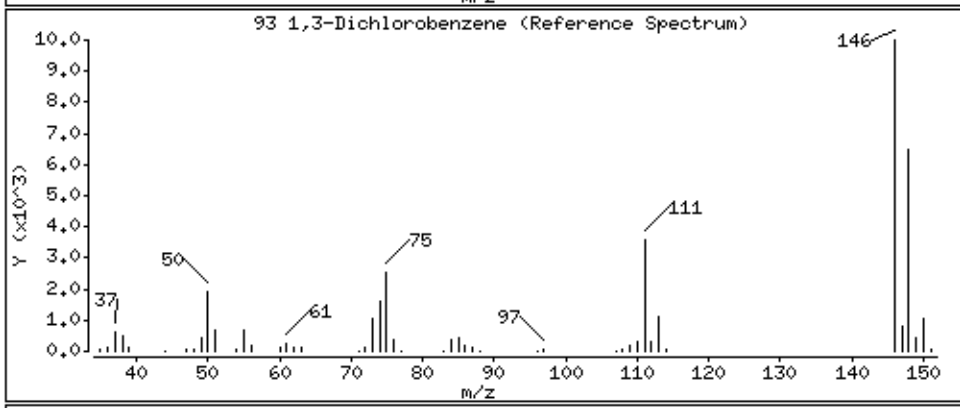
Concentration: 17.4 ug/L

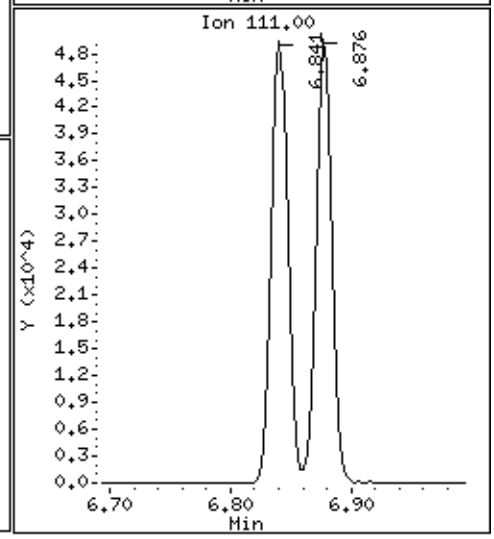


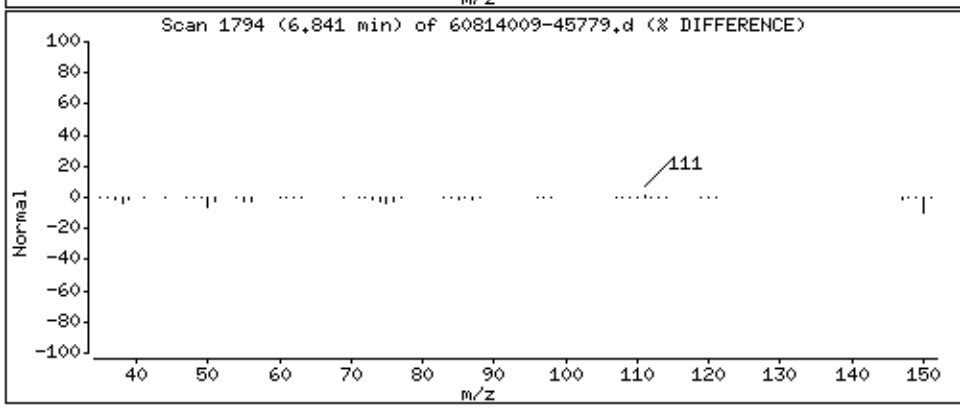












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

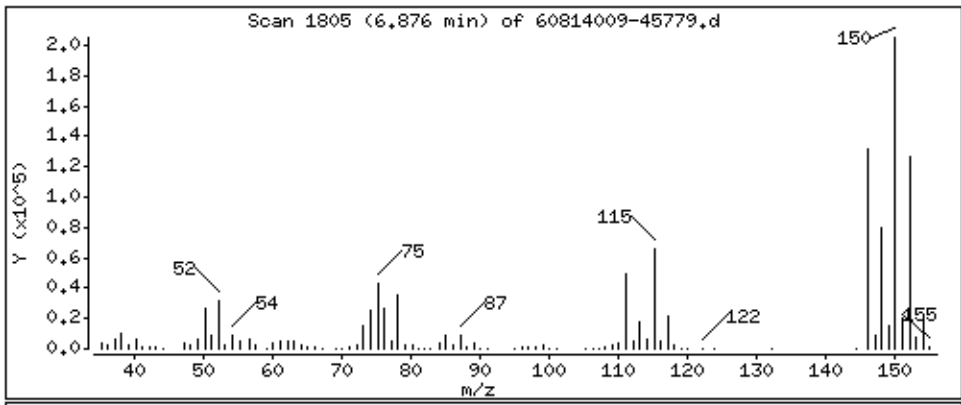
Operator: JEW

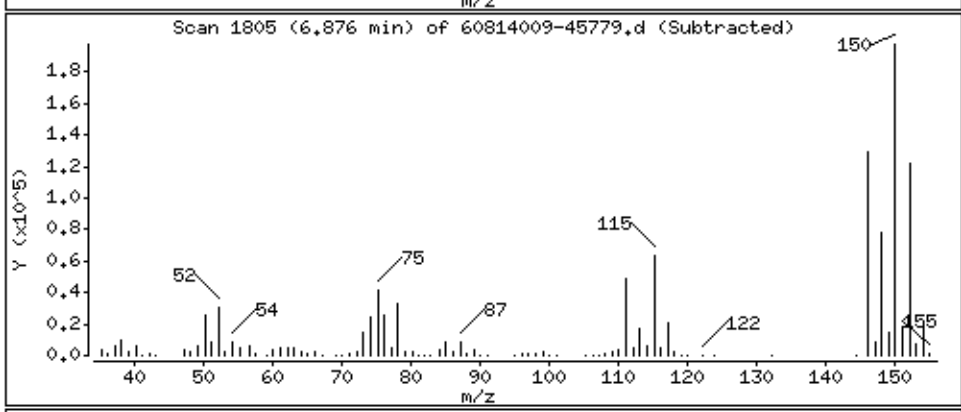
Column phase: RTX-VMS

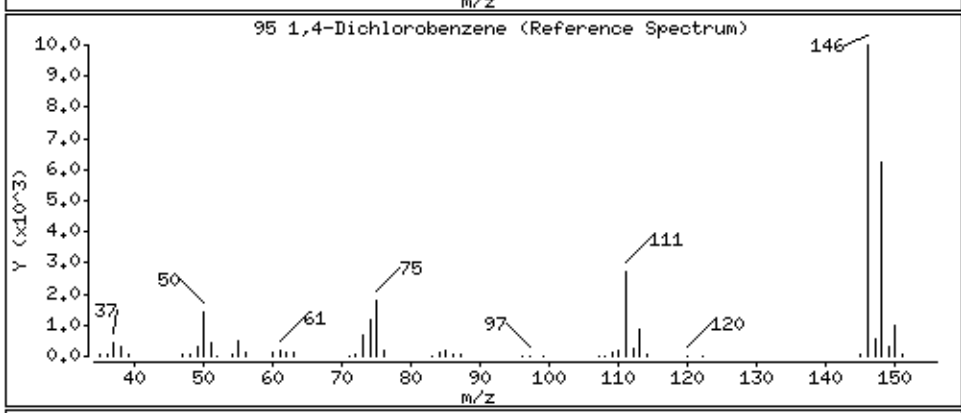
Column diameter: 0.18

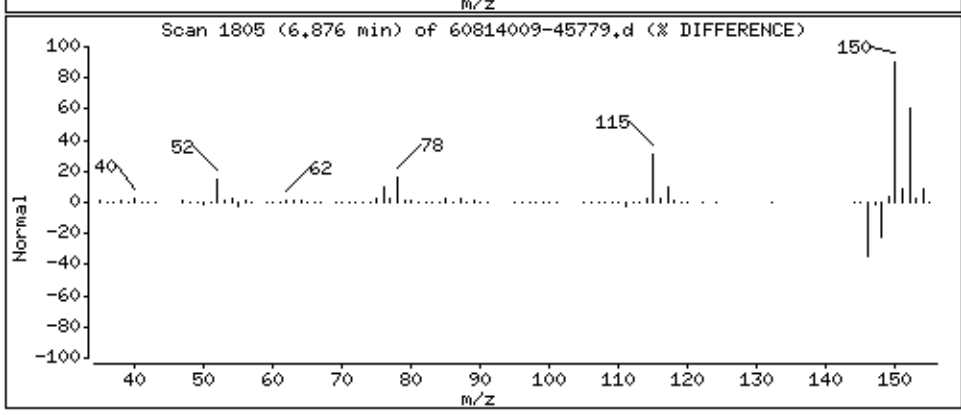
95 1,4-Dichlorobenzene

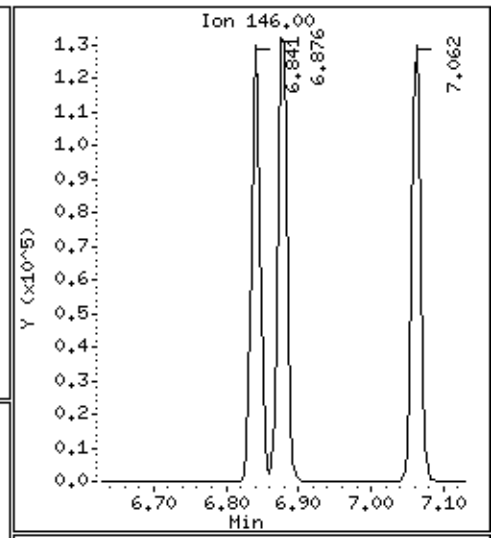
Concentration: 17.4 ug/L

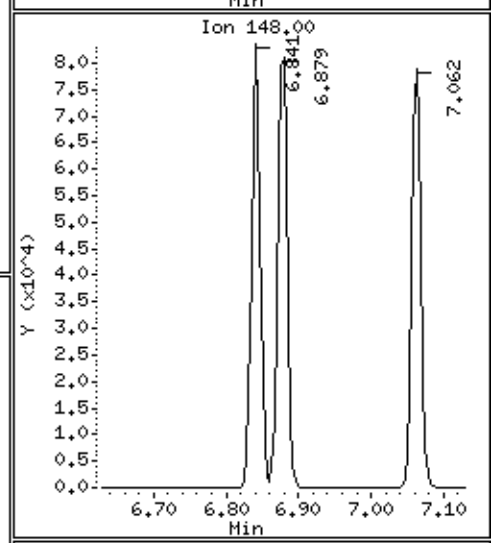


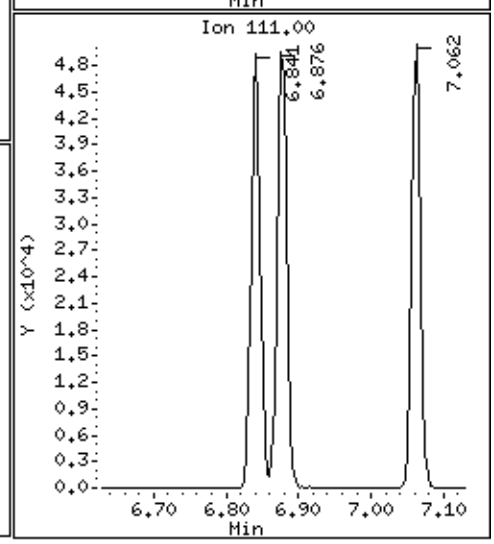












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

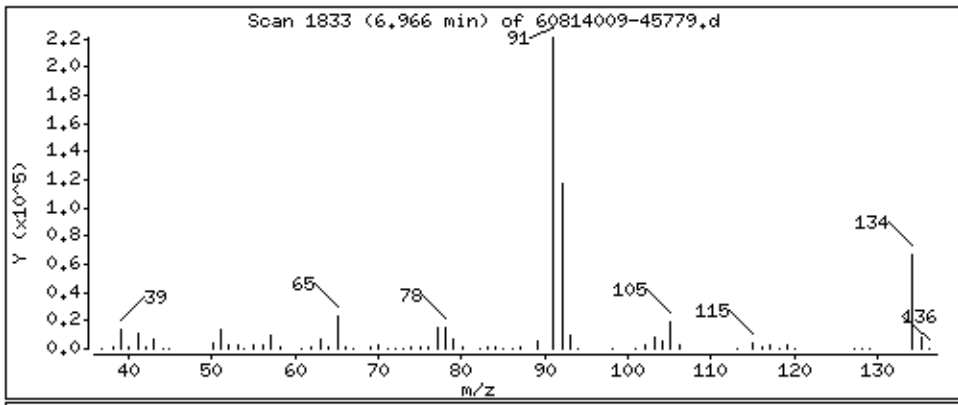
Operator: JEW

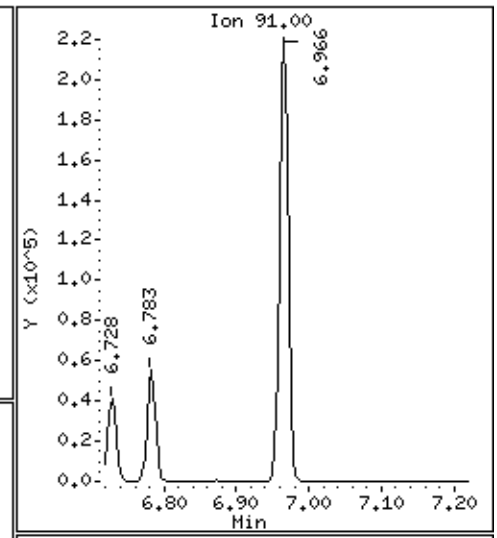
Column phase: RTX-VMS

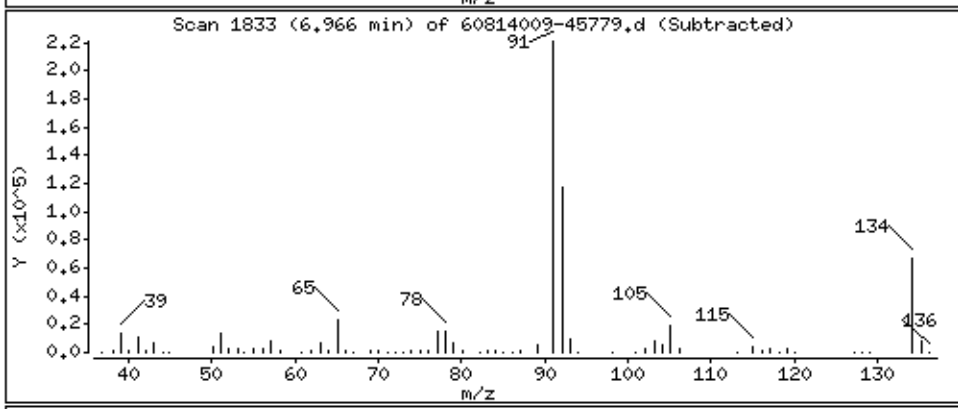
Column diameter: 0.18

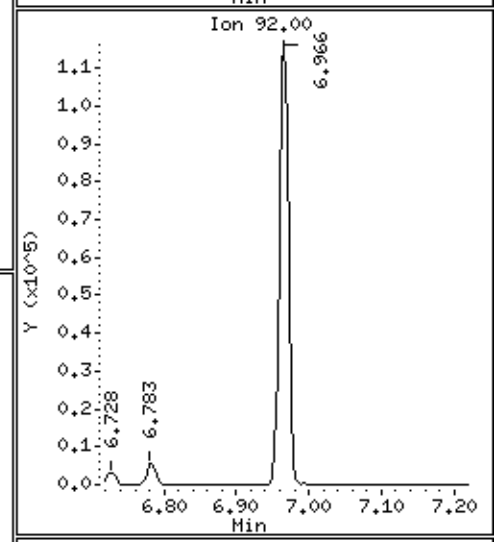
96 n-Butylbenzene

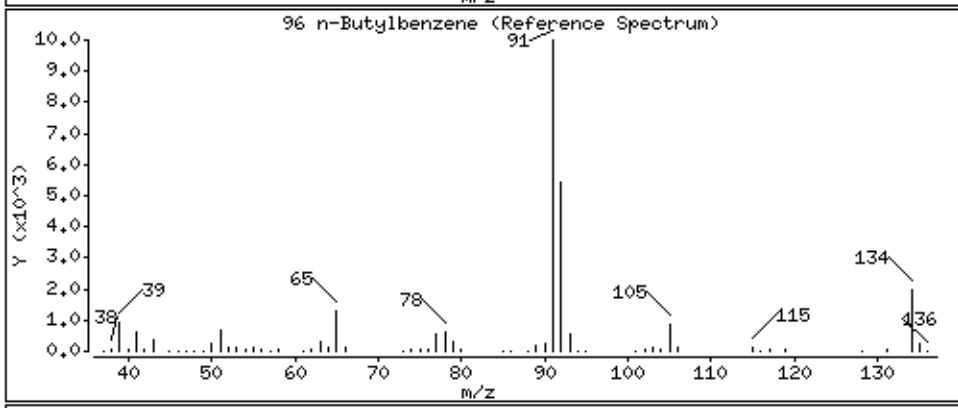
Concentration: 17.8 ug/L

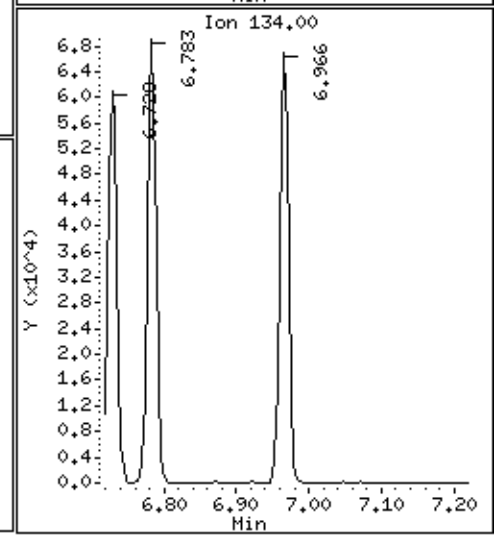


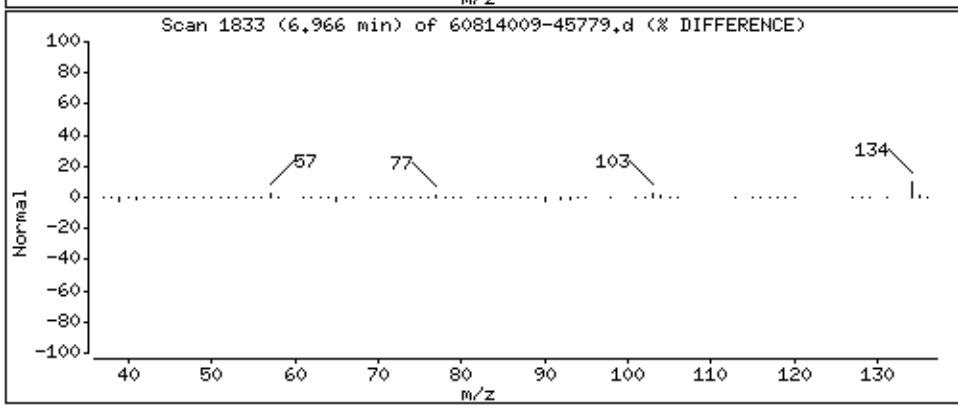












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

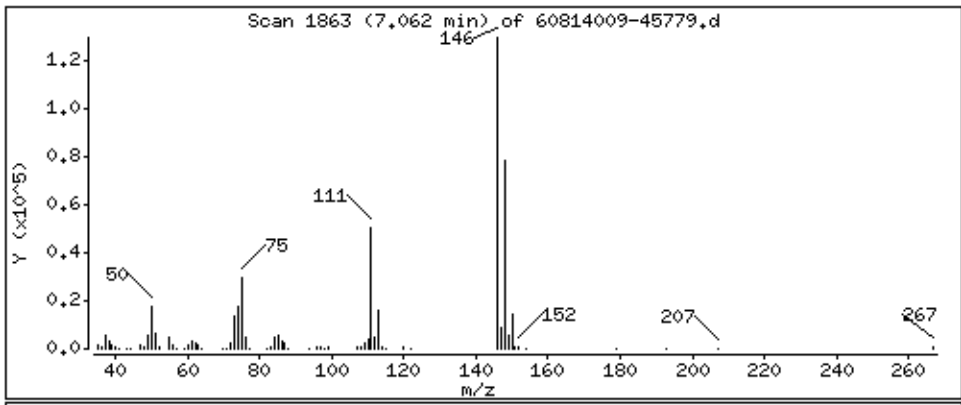
Operator: JEW

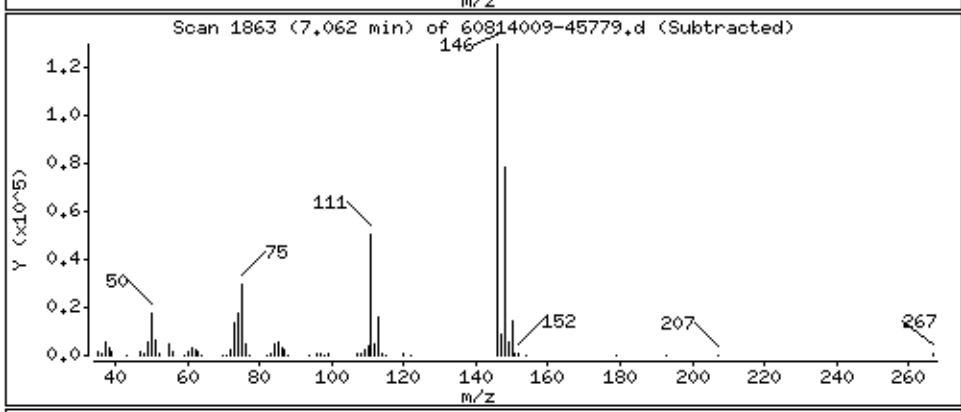
Column phase: RTX-VMS

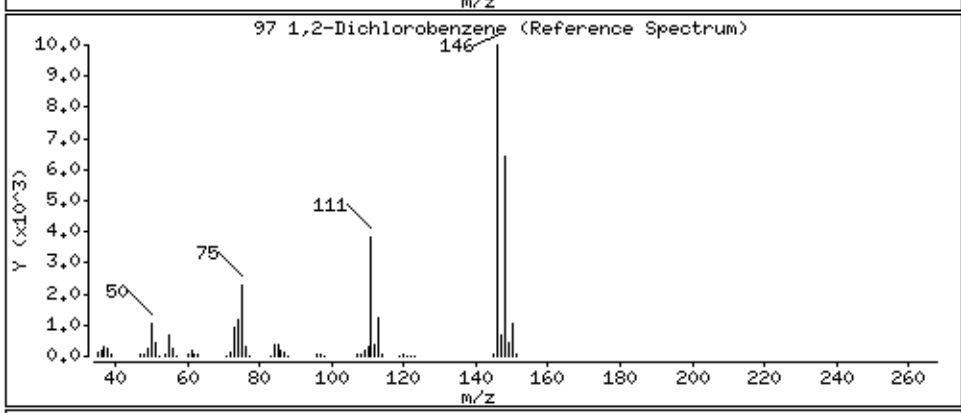
Column diameter: 0.18

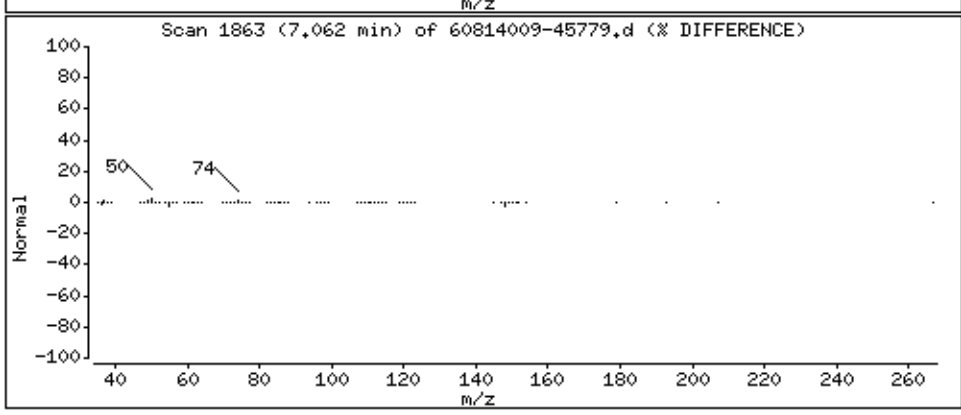
97 1,2-Dichlorobenzene

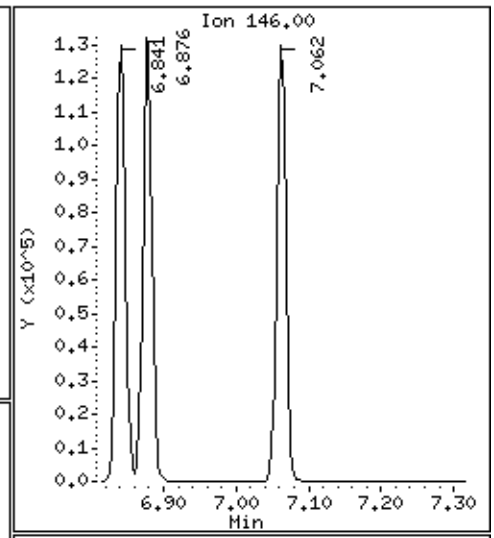
Concentration: 17.8 ug/L

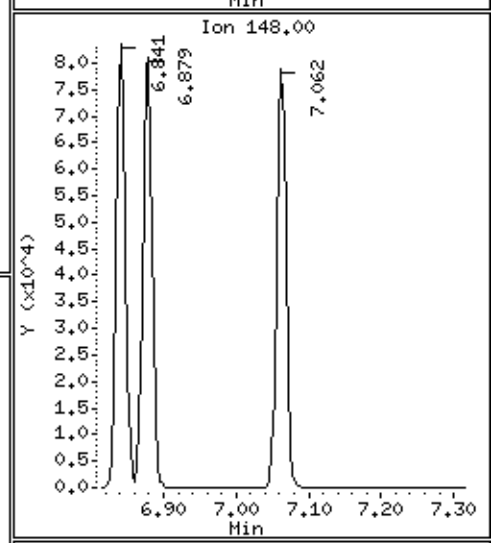


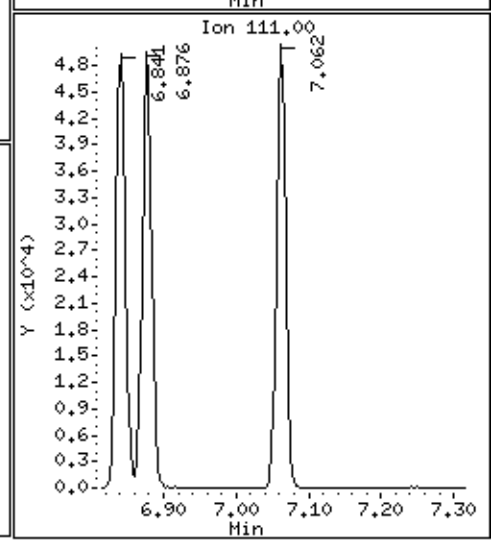












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

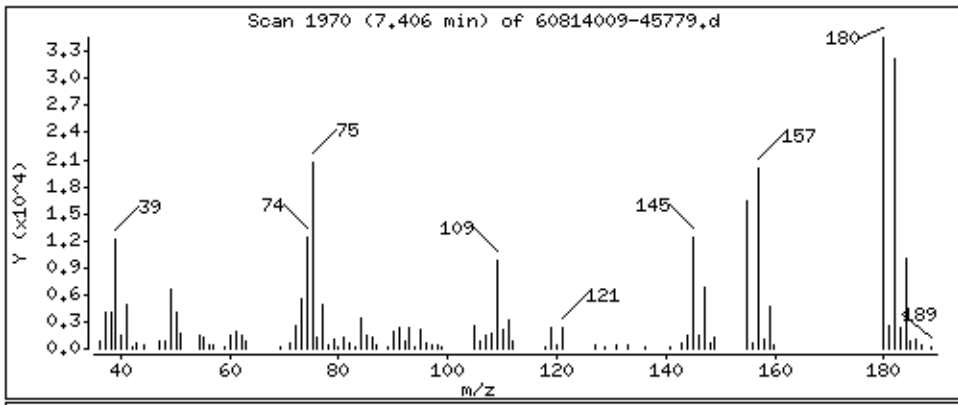
Operator: JEW

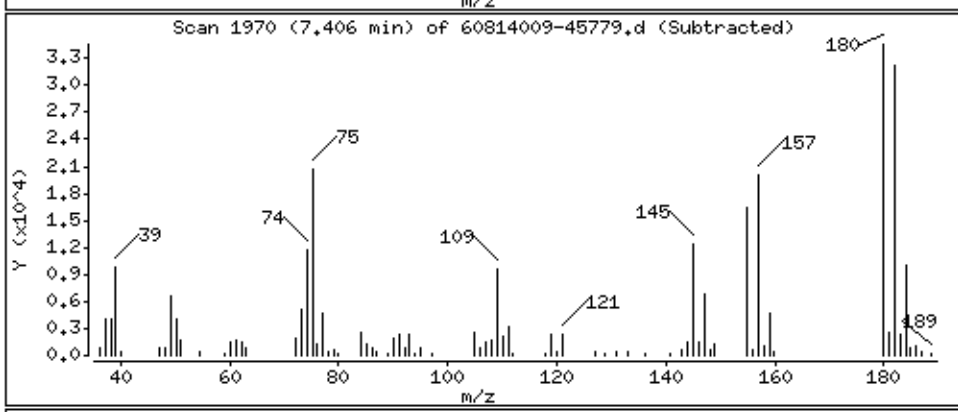
Column phase: RTX-VMS

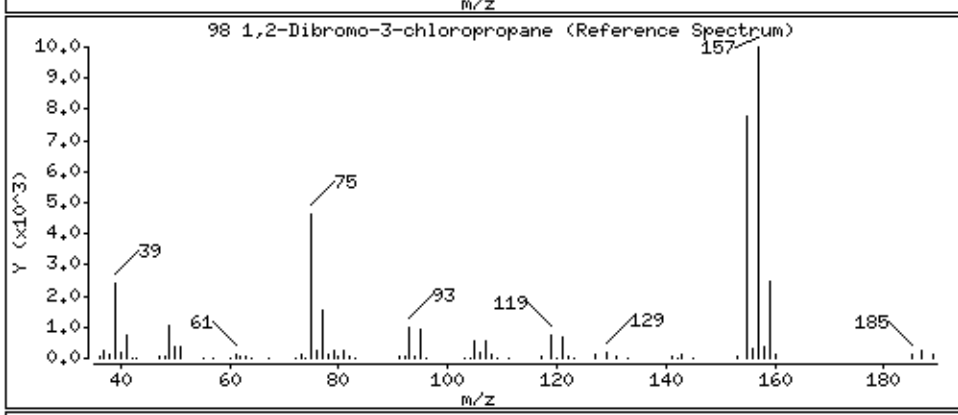
Column diameter: 0.18

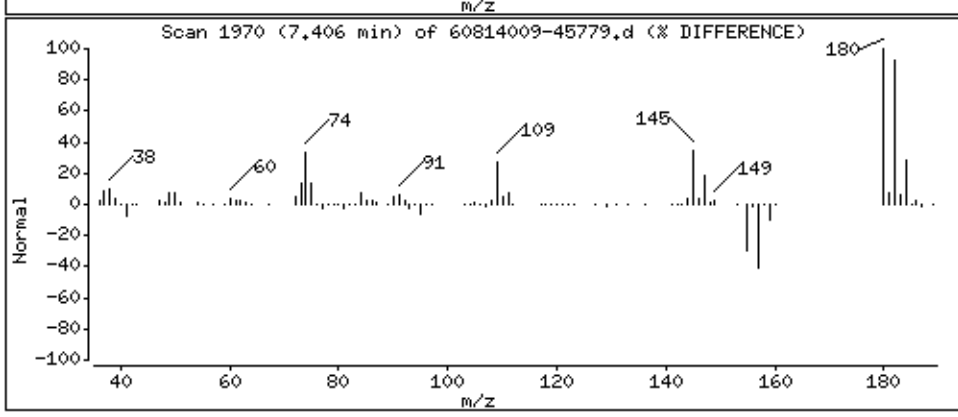
98 1,2-Dibromo-3-chloropropane

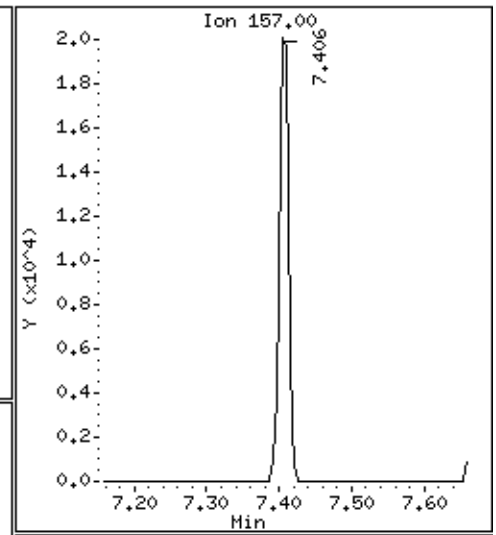
Concentration: 18.8 ug/L

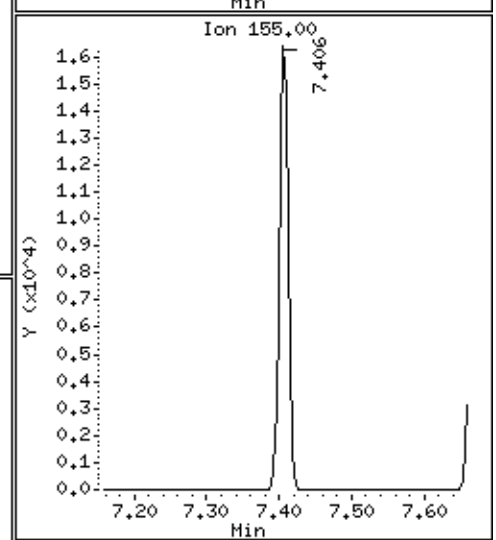


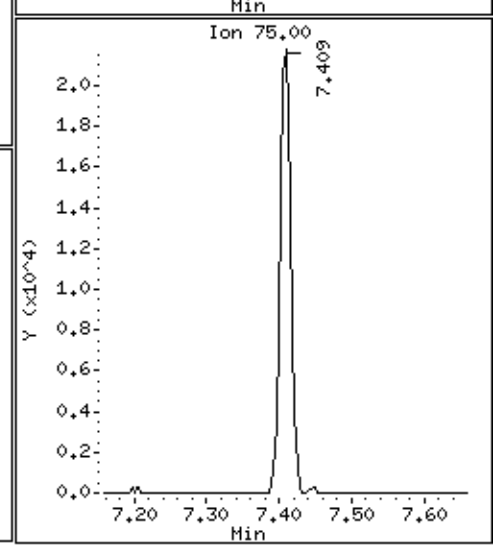












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

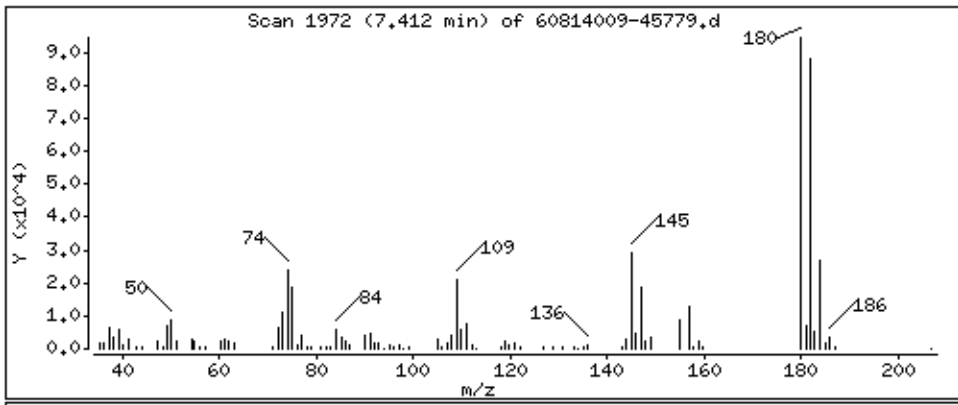
Operator: JEW

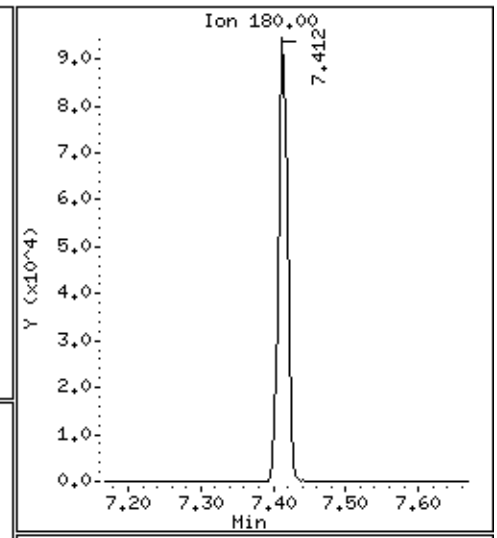
Column phase: RTX-VMS

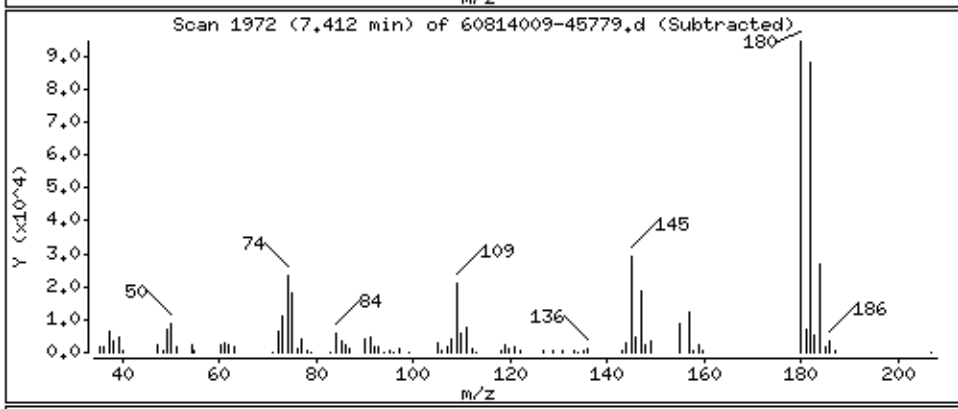
Column diameter: 0.18

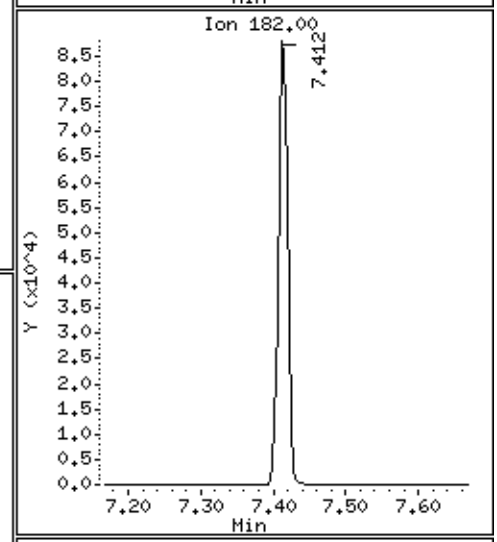
99 1,3,5-Trichlorobenzene

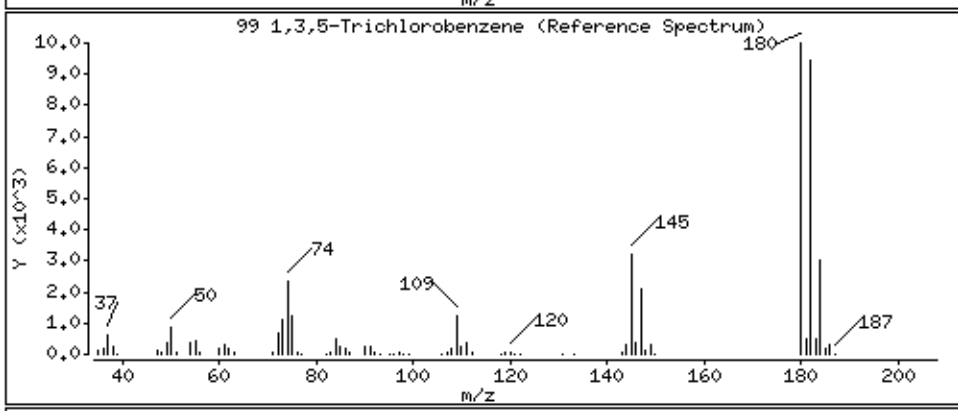
Concentration: 17.7 ug/L

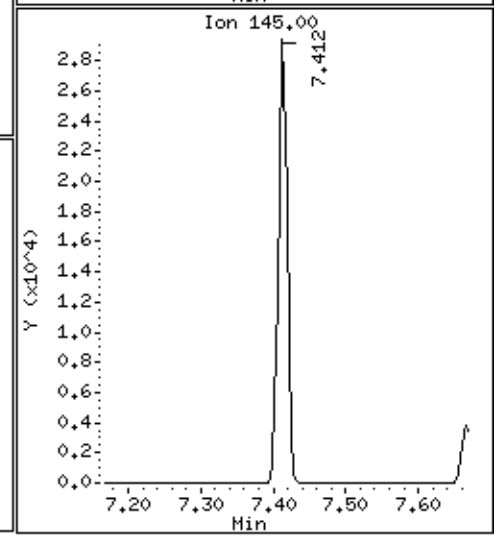


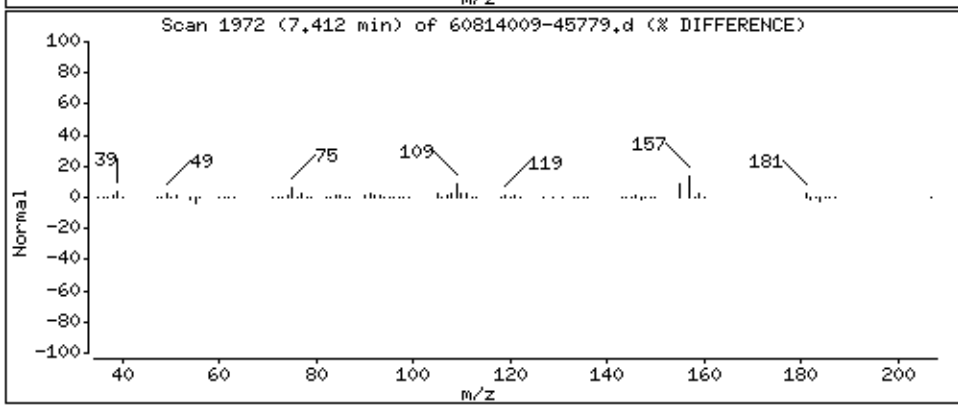












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

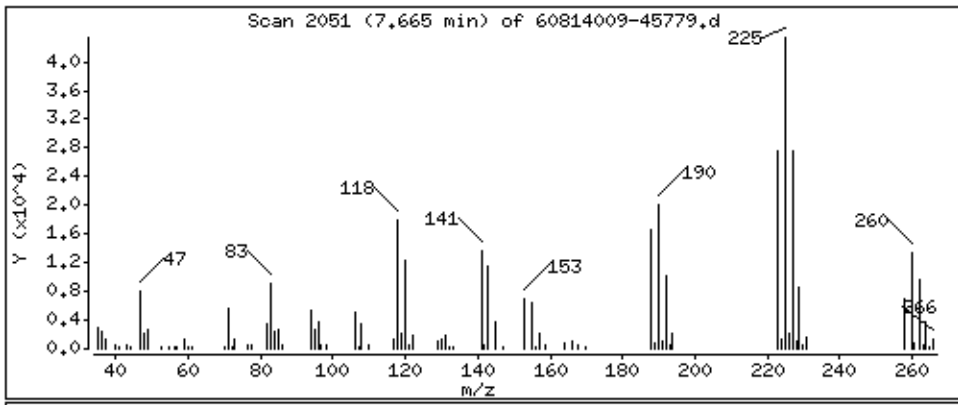
Operator: JEW

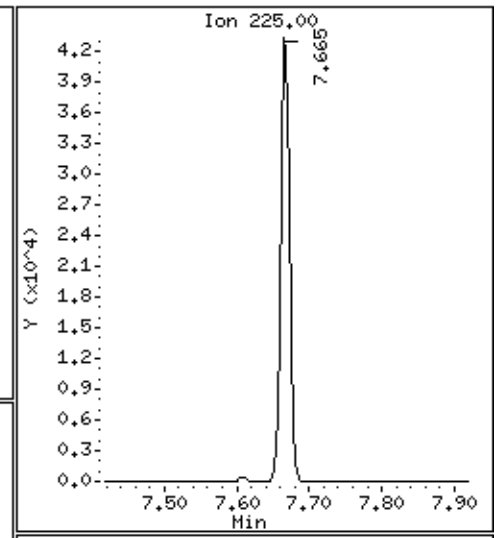
Column phase: RTX-VMS

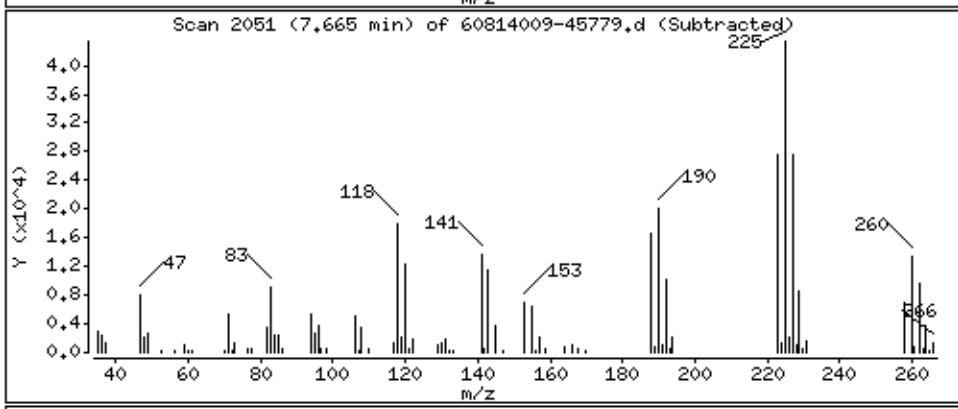
Column diameter: 0.18

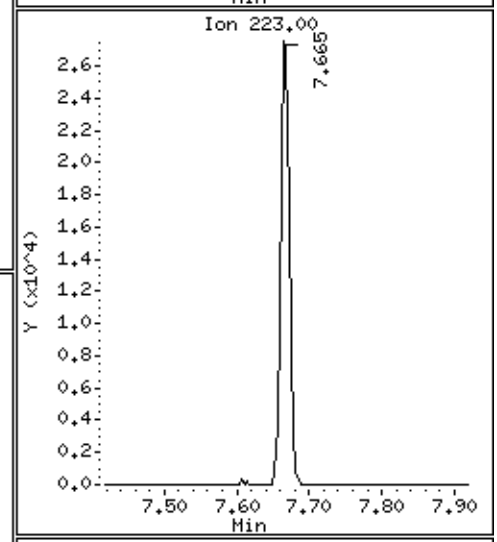
100 Hexachloro-1,3-butadiene

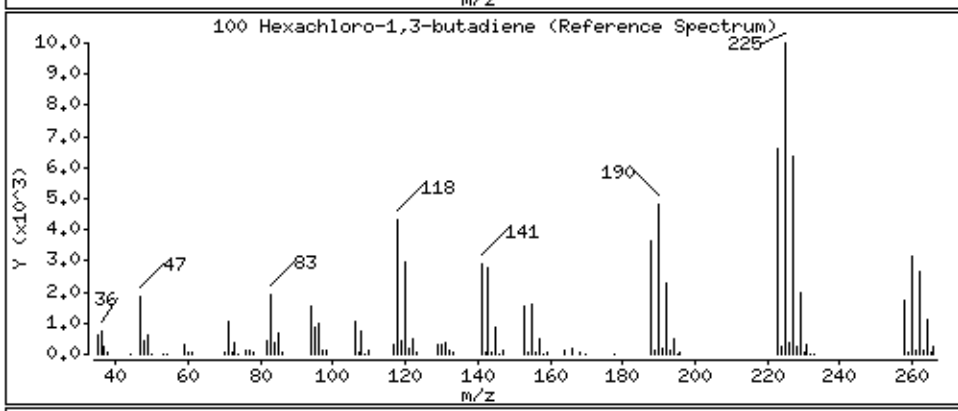
Concentration: 14.3 ug/L

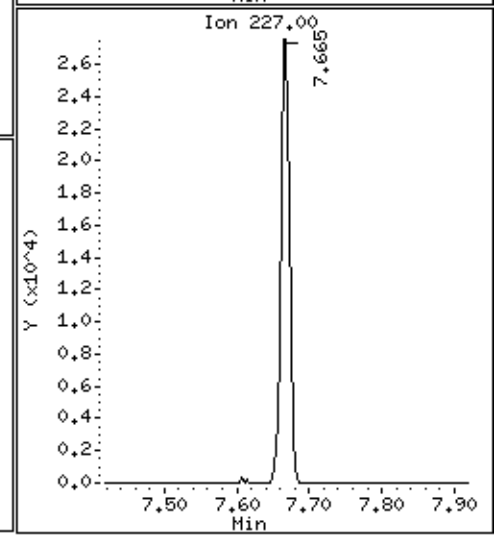


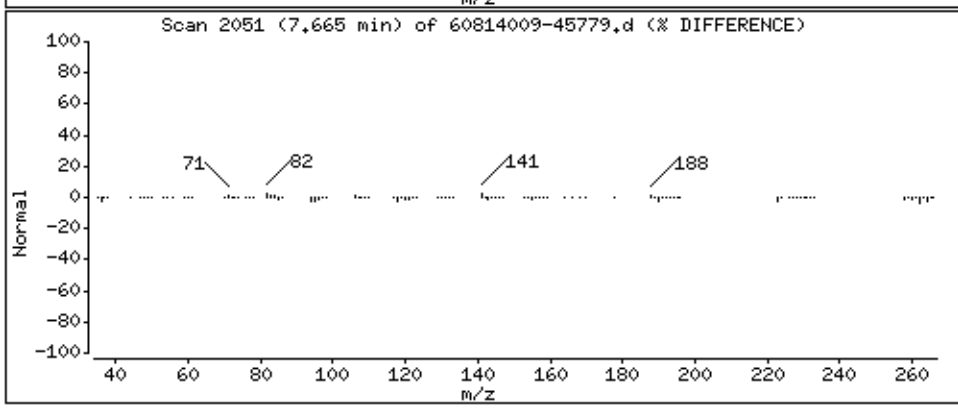












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

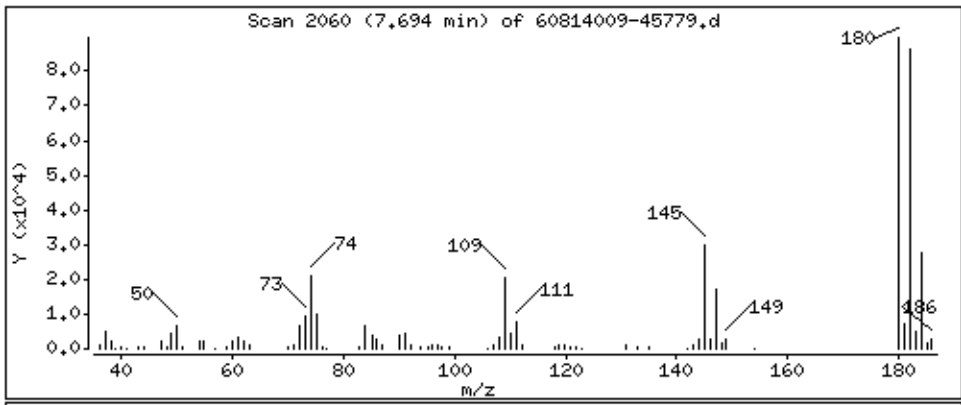
Operator: JEW

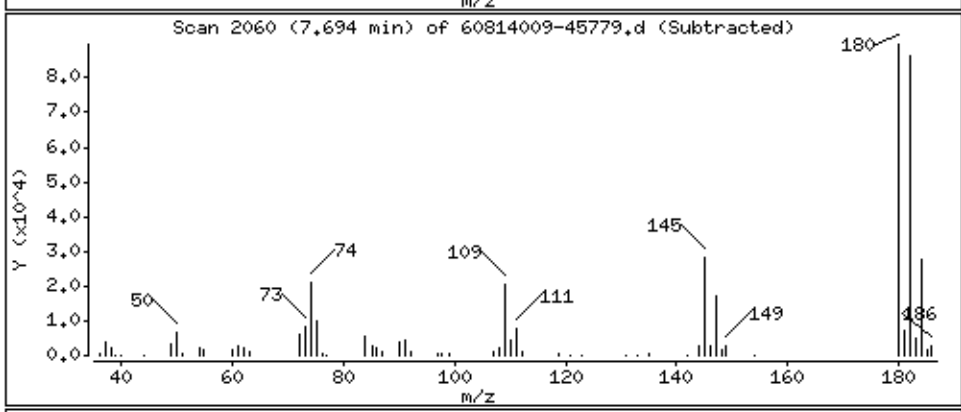
Column phase: RTX-VMS

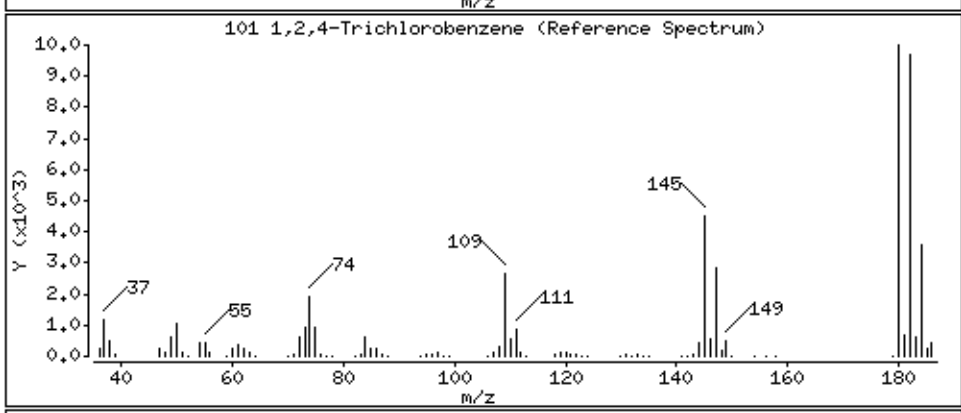
Column diameter: 0.18

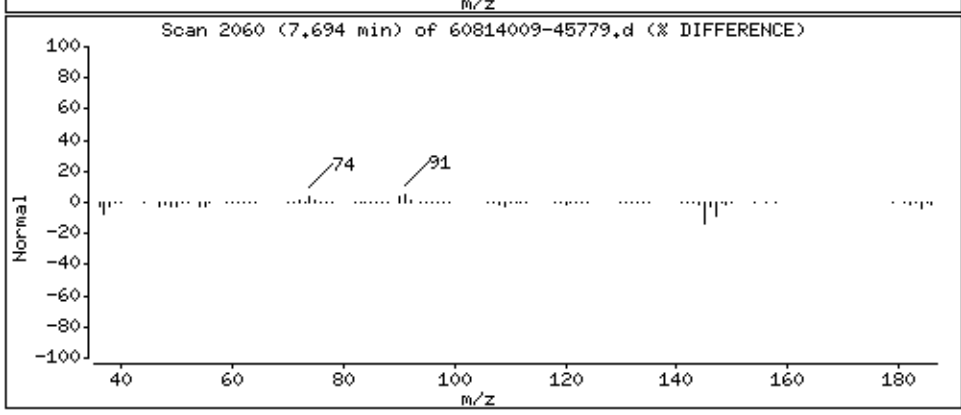
101 1,2,4-Trichlorobenzene

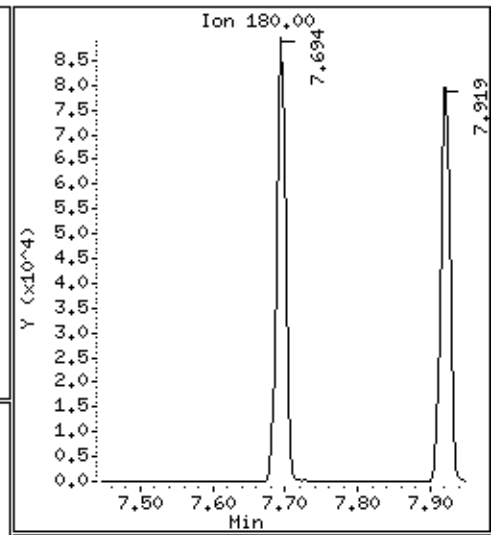
Concentration: 17.6 ug/L

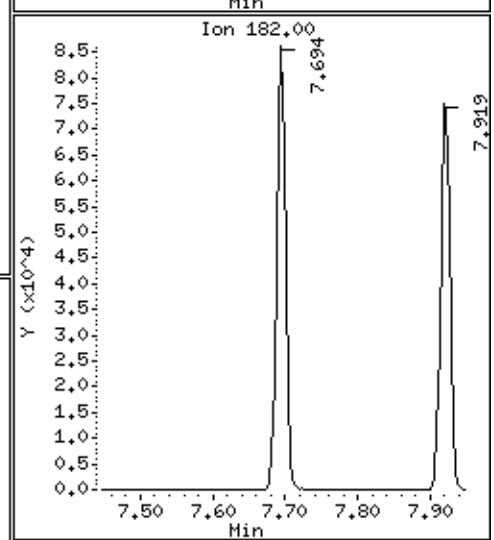


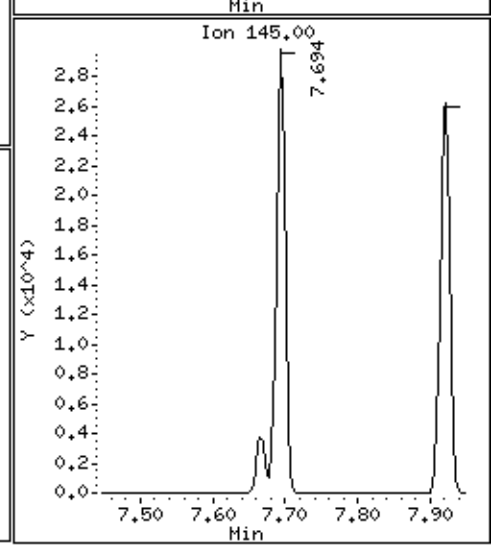












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

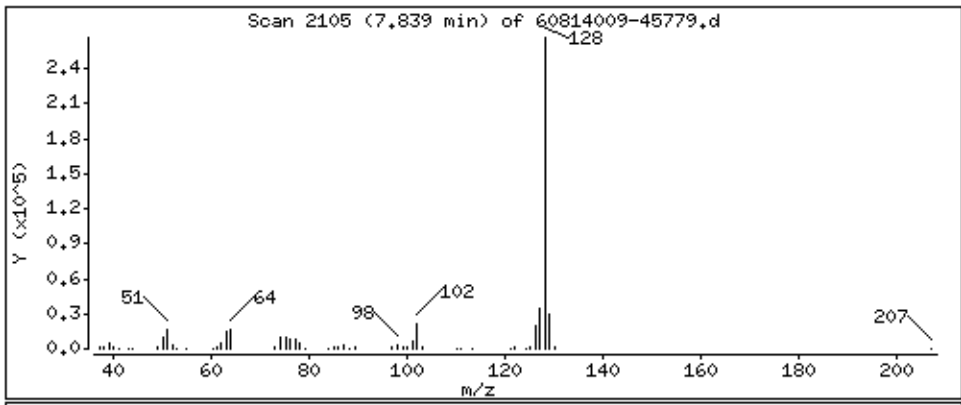
Operator: JEW

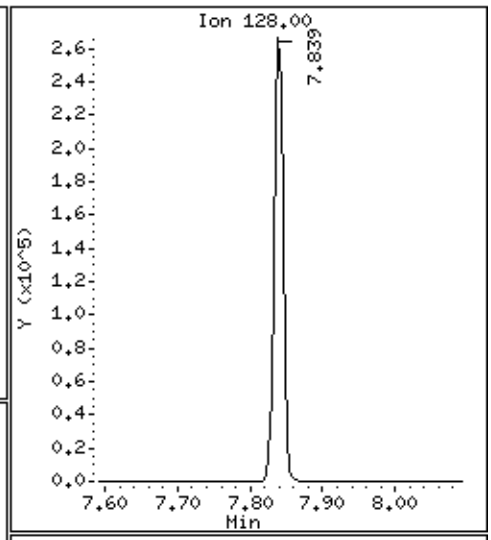
Column phase: RTX-VMS

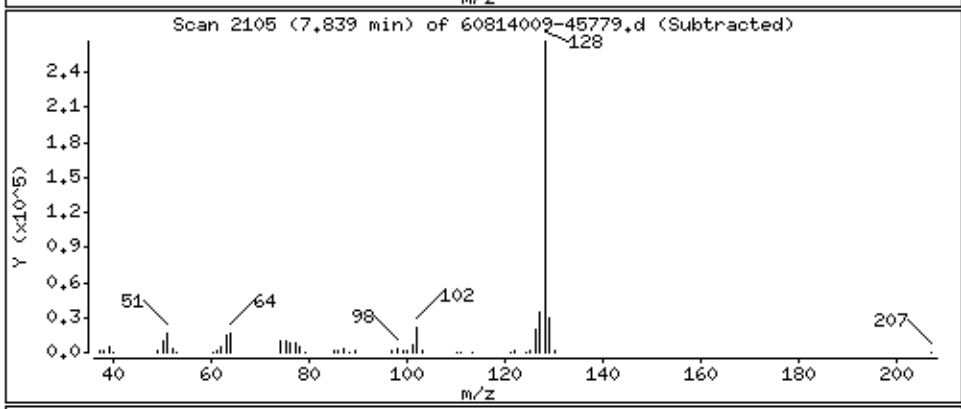
Column diameter: 0.18

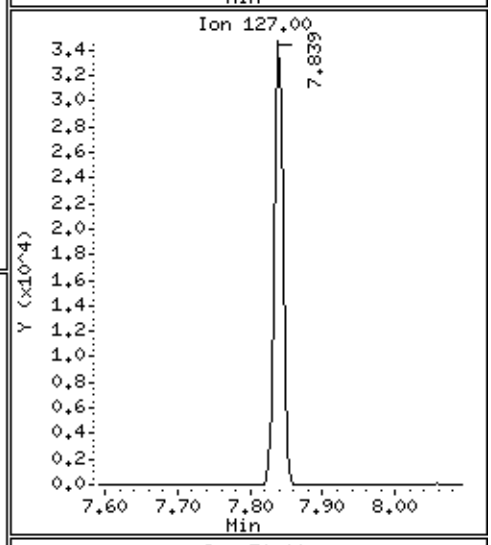
102 Naphthalene

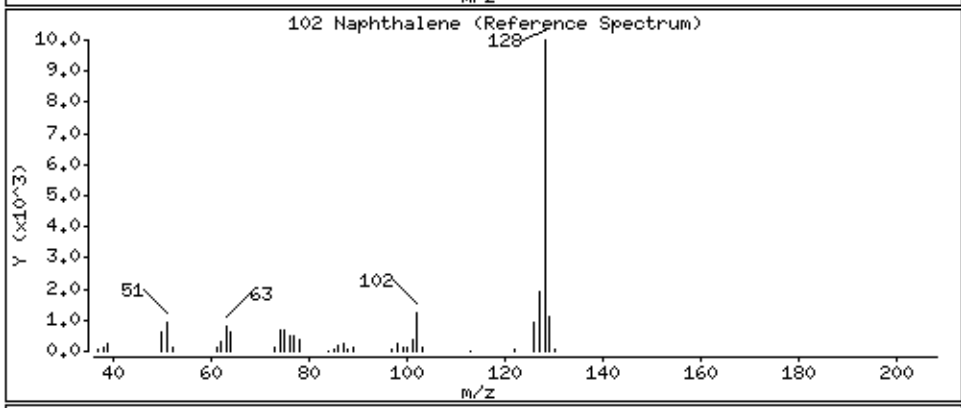
Concentration: 19.1 ug/L

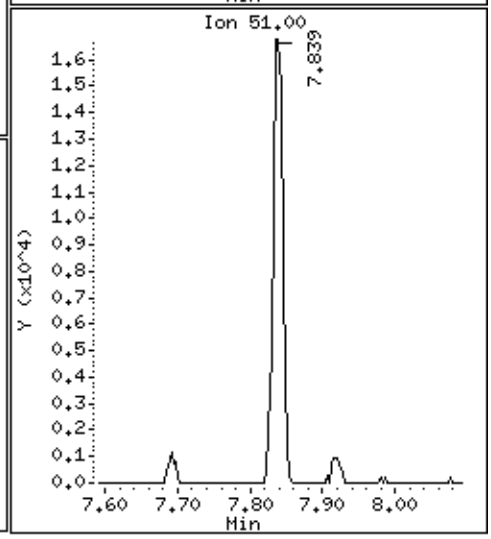


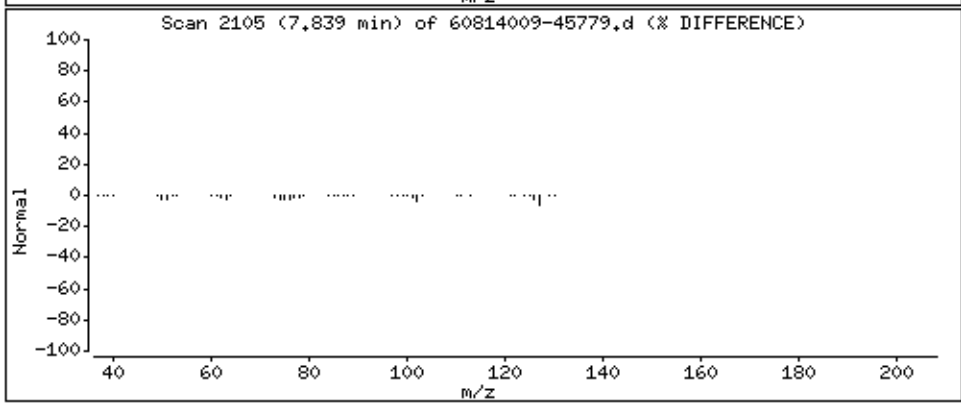












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

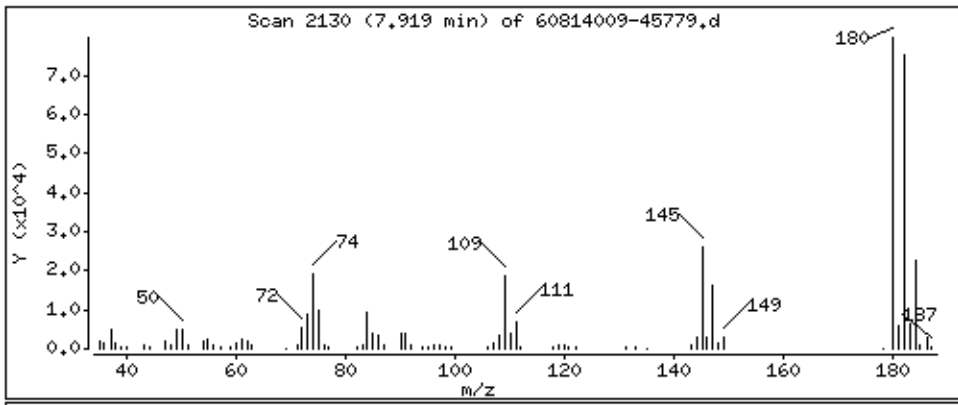
Operator: JEW

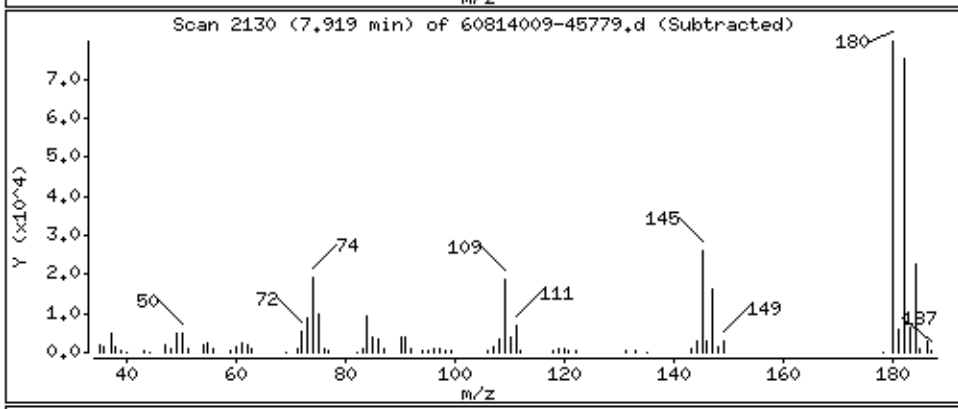
Column phase: RTX-VMS

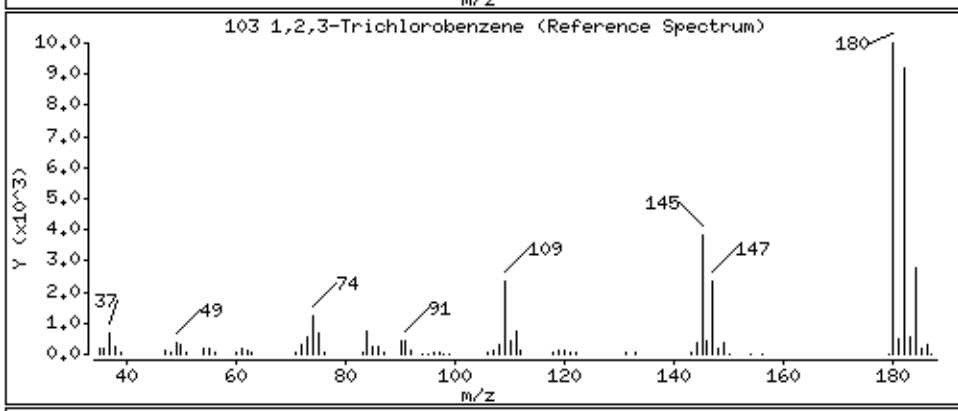
Column diameter: 0.18

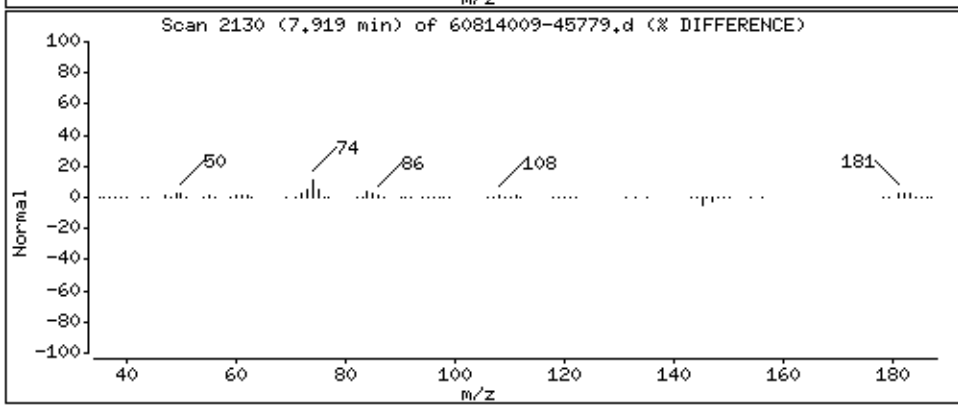
103 1,2,3-Trichlorobenzene

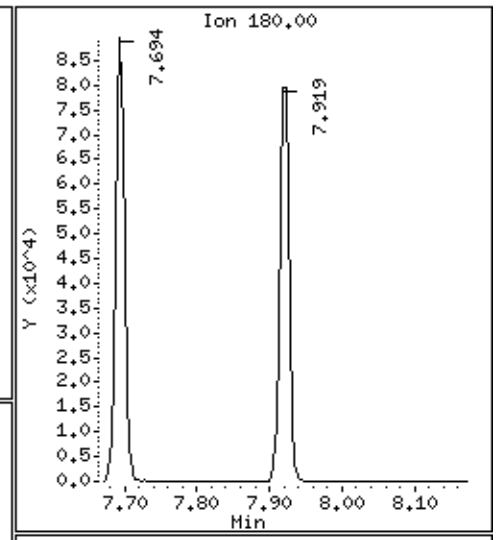
Concentration: 19.0 ug/L

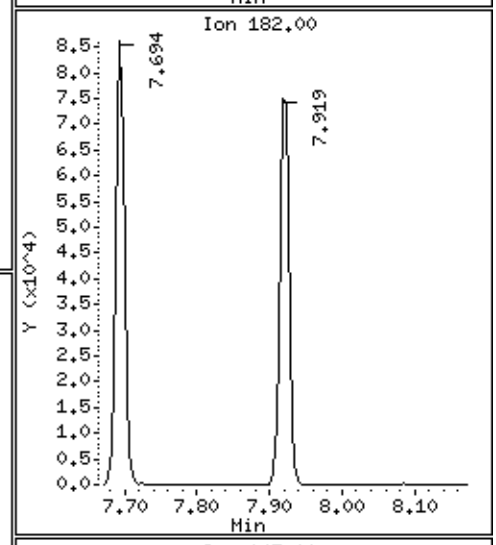


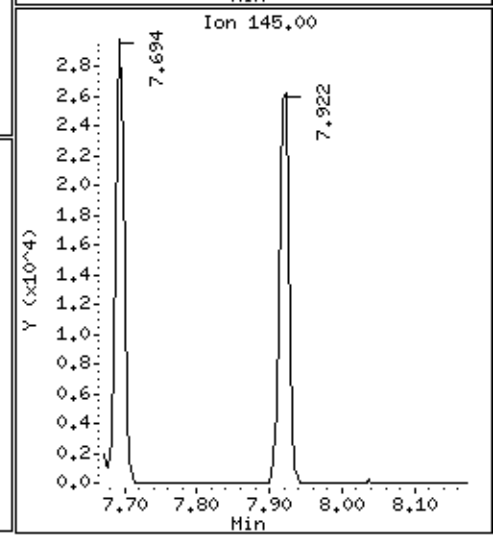












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Date : 14-AUG-2019 10:22

Client ID: MBLCS

Instrument: 30mv6a.i

Sample Info: 1731940,96668:5,,

Purge Volume: 5.0

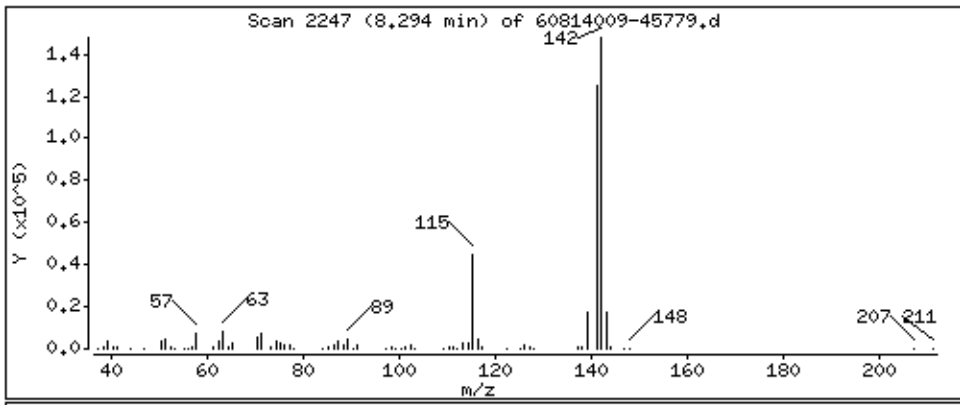
Operator: JEW

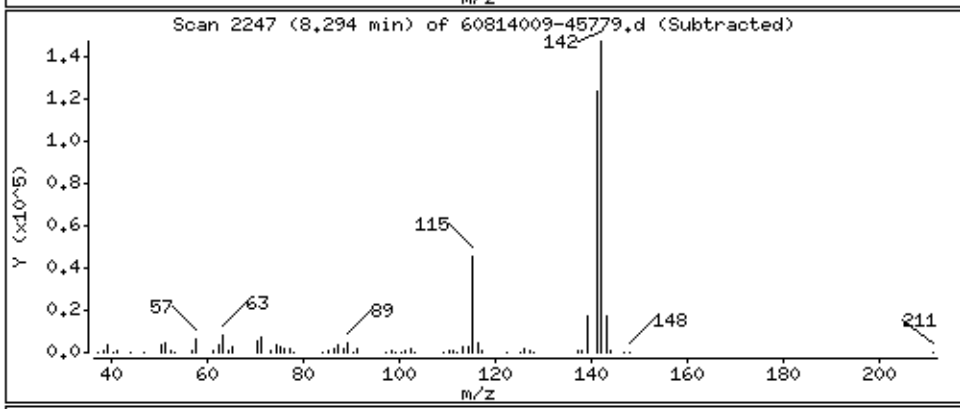
Column phase: RTX-VMS

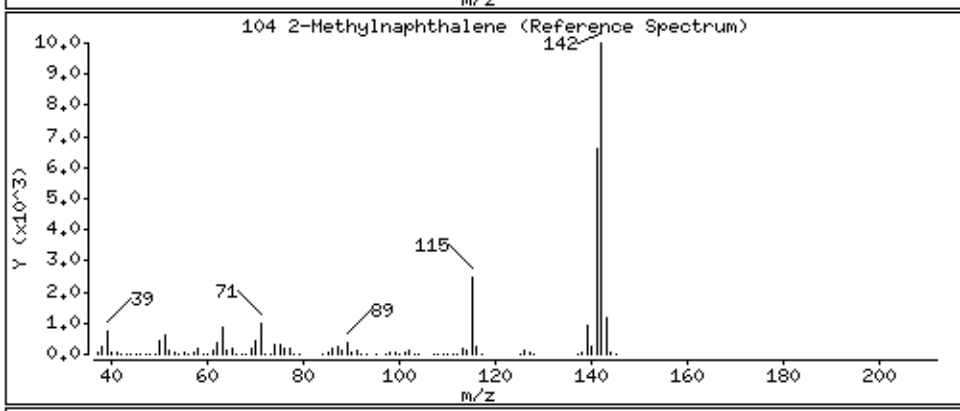
Column diameter: 0.18

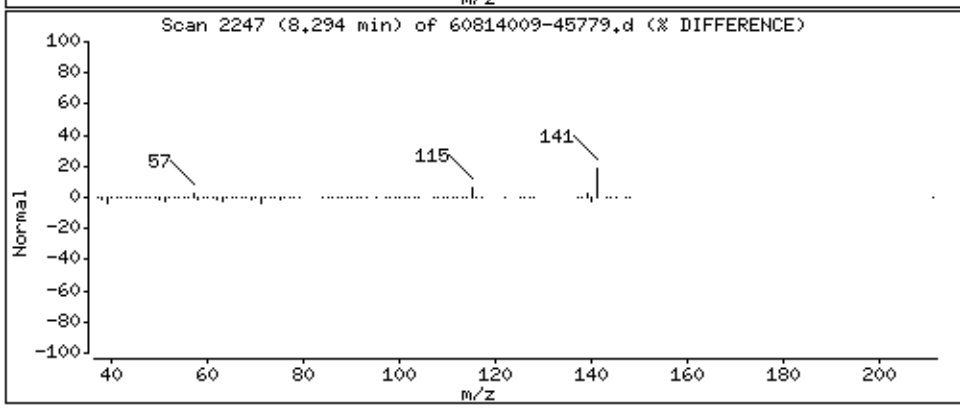
104 2-Methylnaphthalene

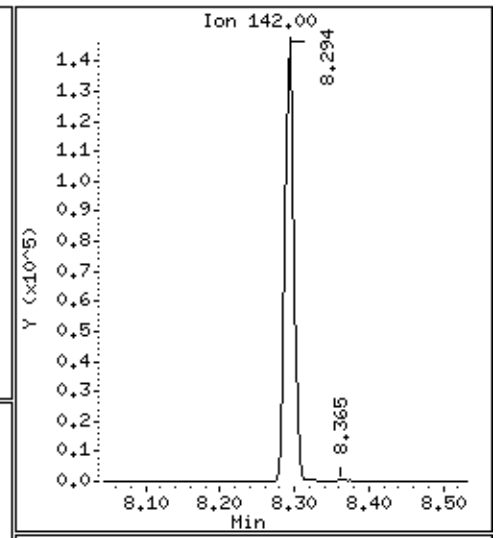
Concentration: 21.3 ug/L

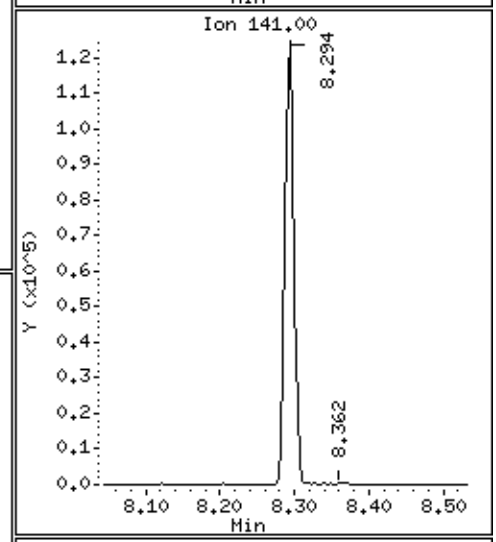


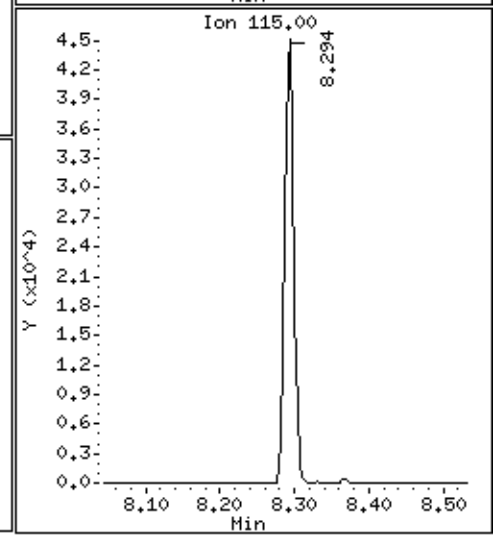












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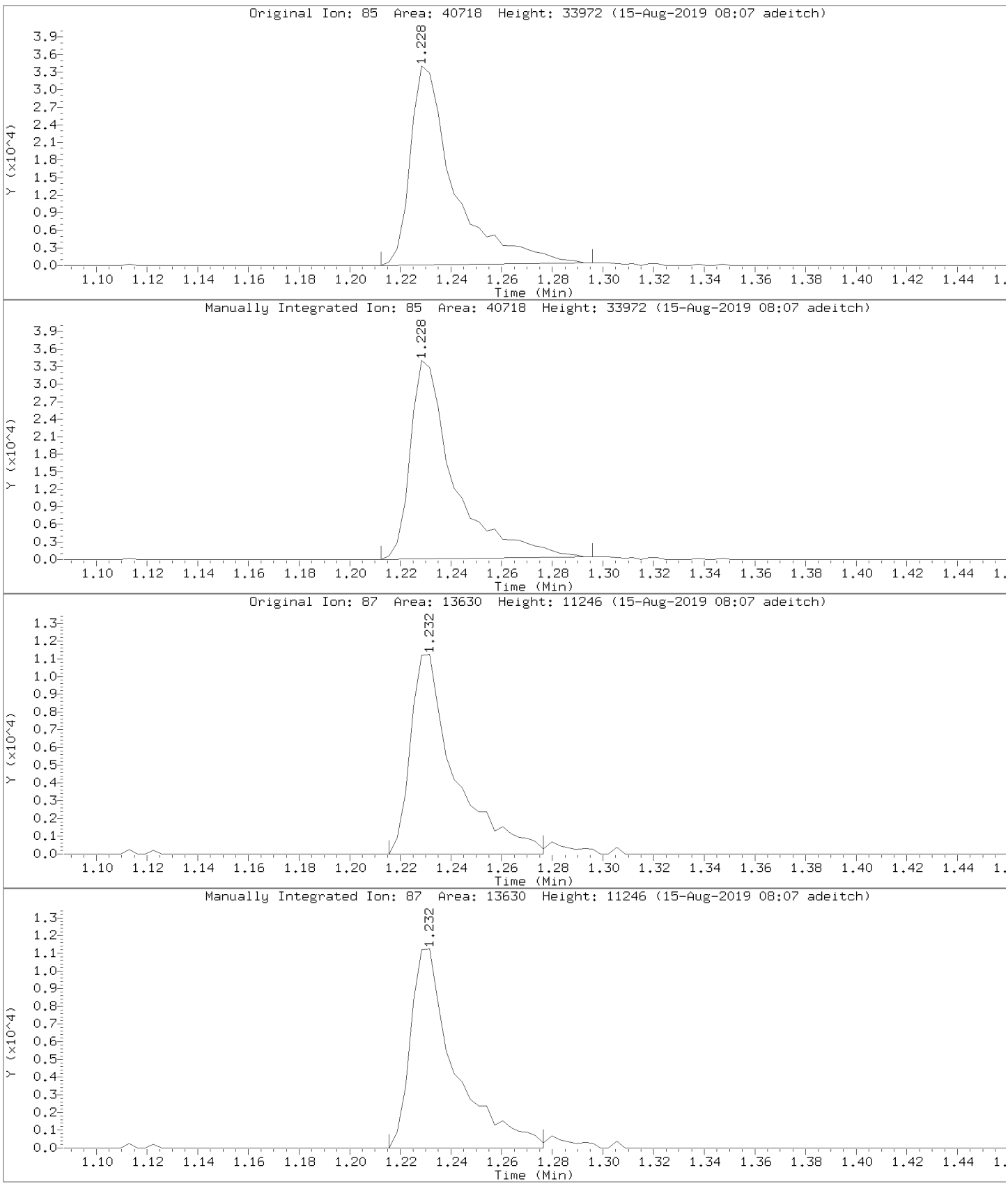
Injection Date: 14-AUG-2019 10:22
Instrument: 30mv6a.i
Lab Sample ID: 1731940

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-01-4



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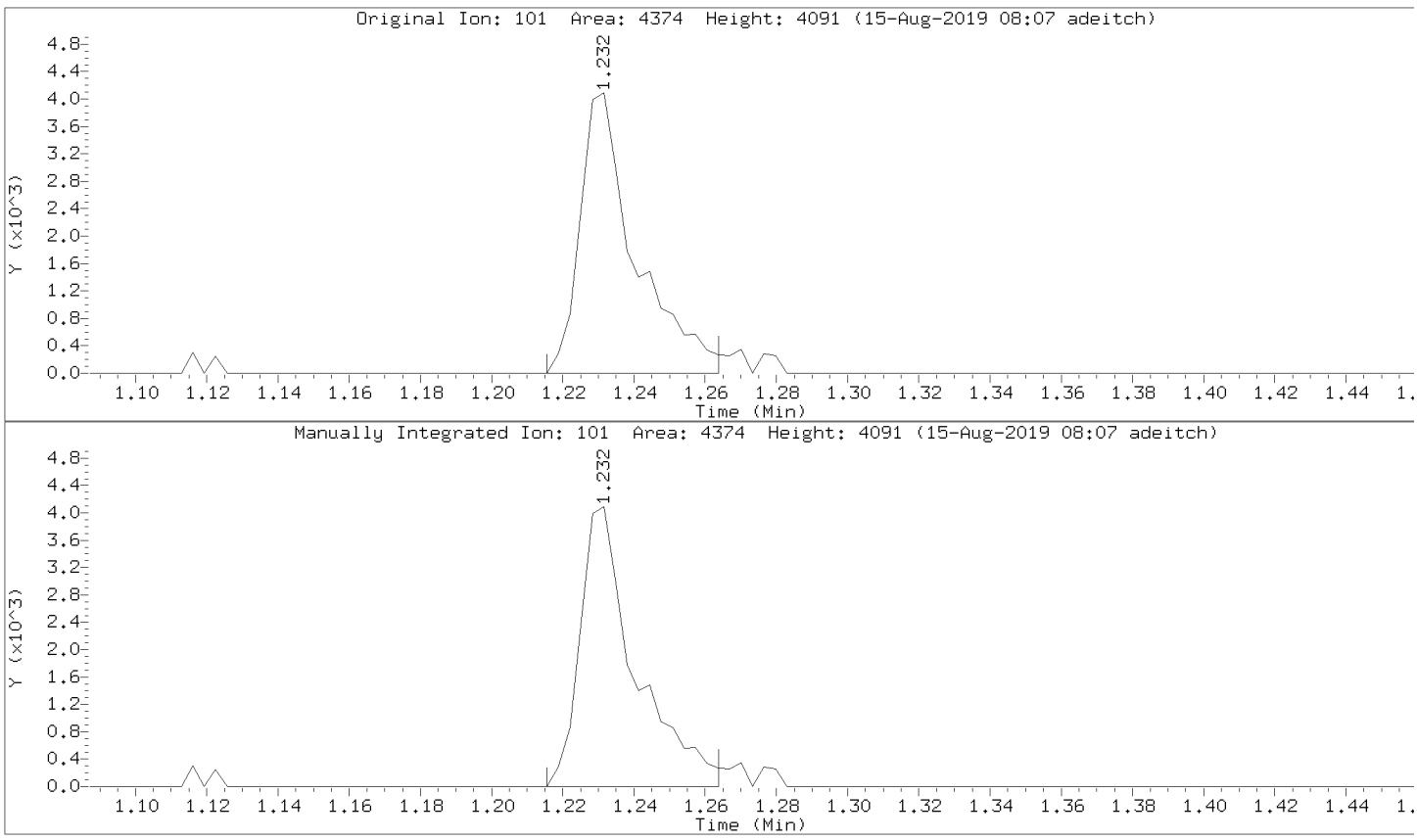
Injection Date: 14-AUG-2019 10:22
Instrument: 30mv6a.i
Lab Sample ID: 1731940



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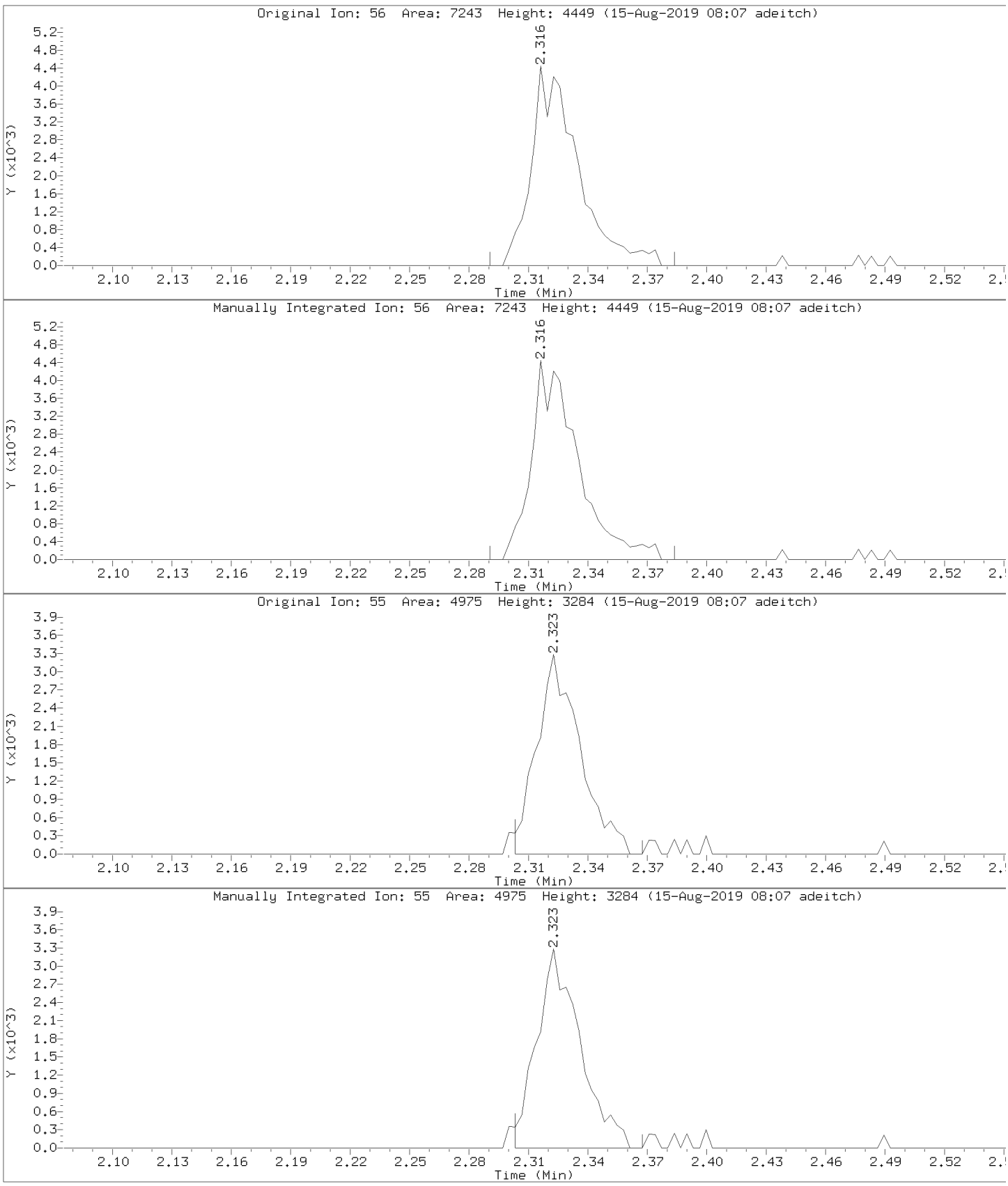
Injection Date: 14-AUG-2019 10:22
Instrument: 30mv6a.i
Lab Sample ID: 1731940

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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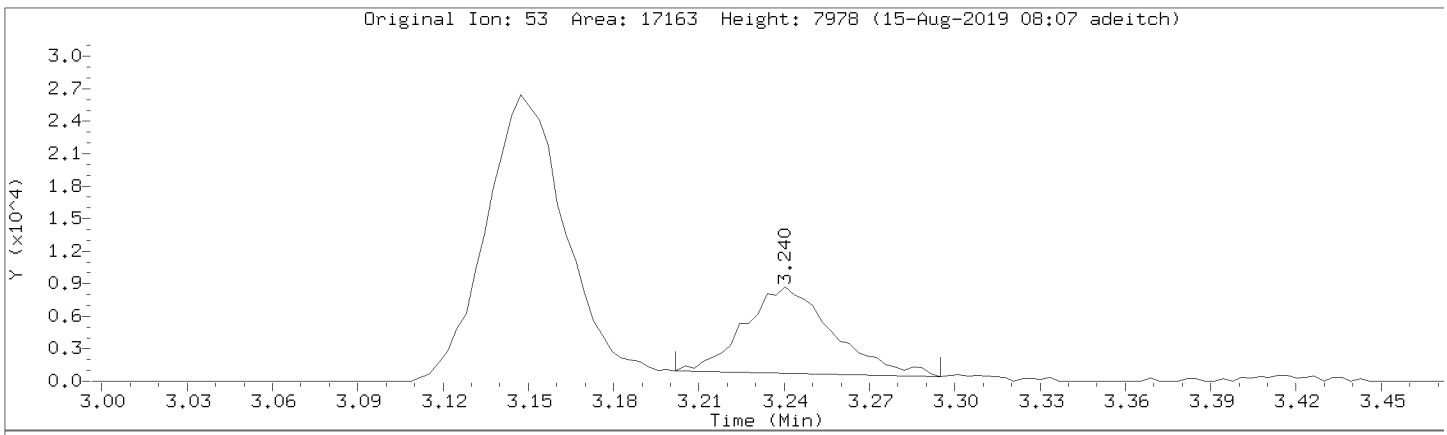
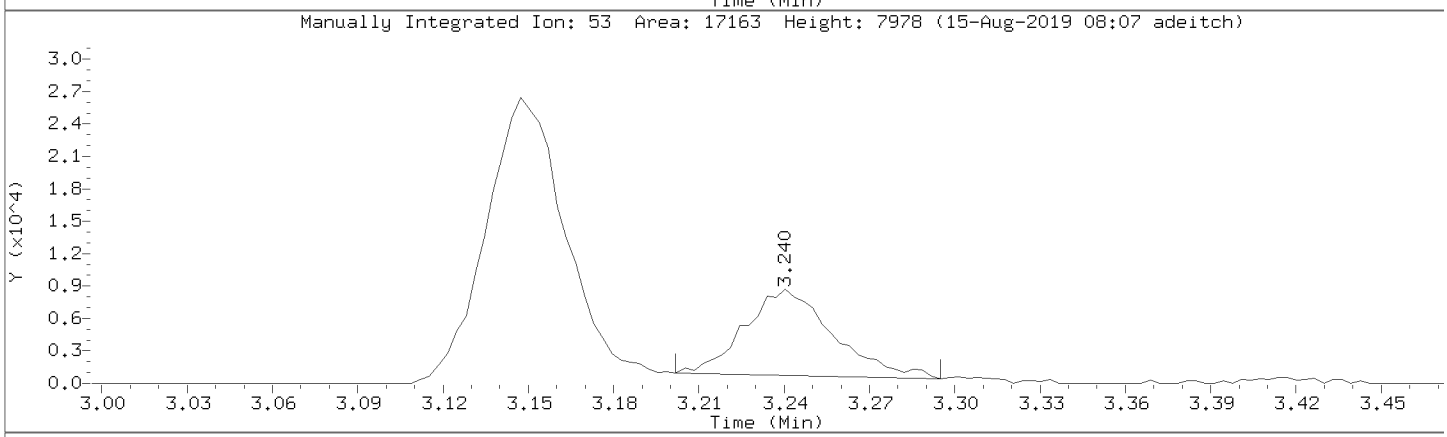
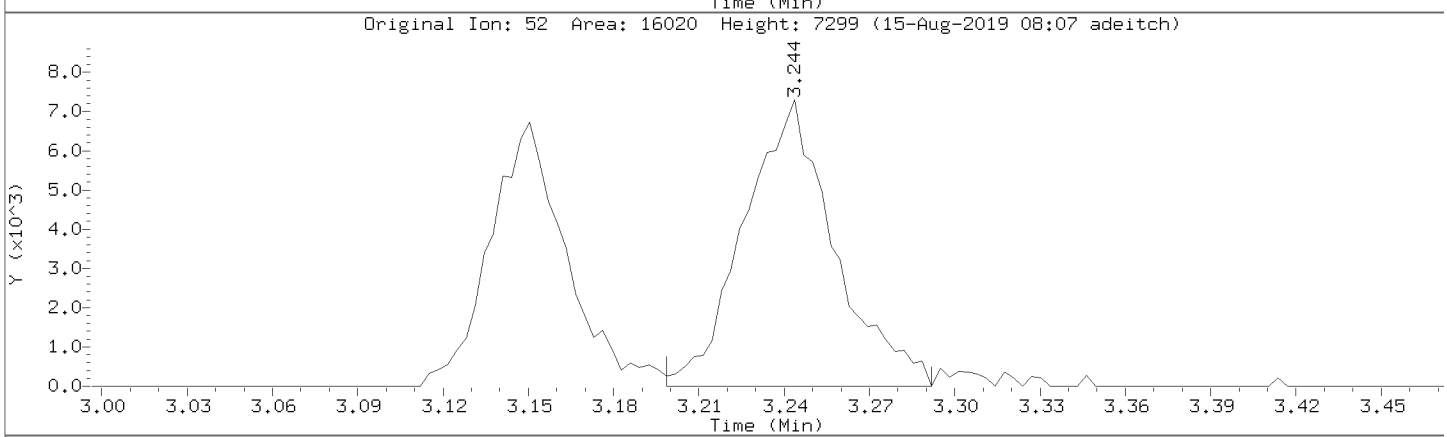
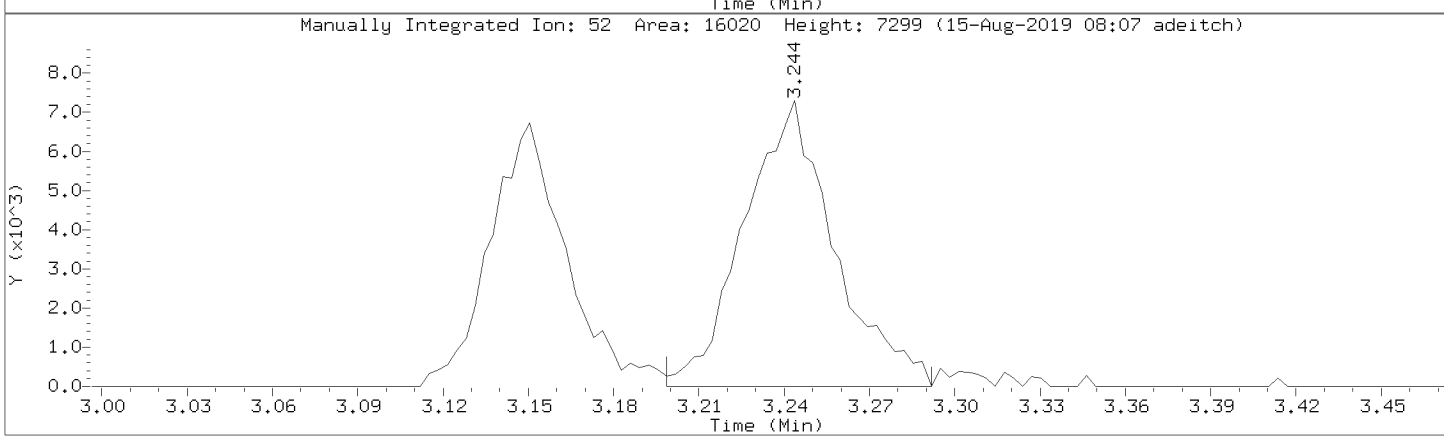
Instrument: 30mv6a.i
Lab Sample ID: 1731940

Compound: Acrylonitrile Review Code: LT
CAS Number: 107-13-1









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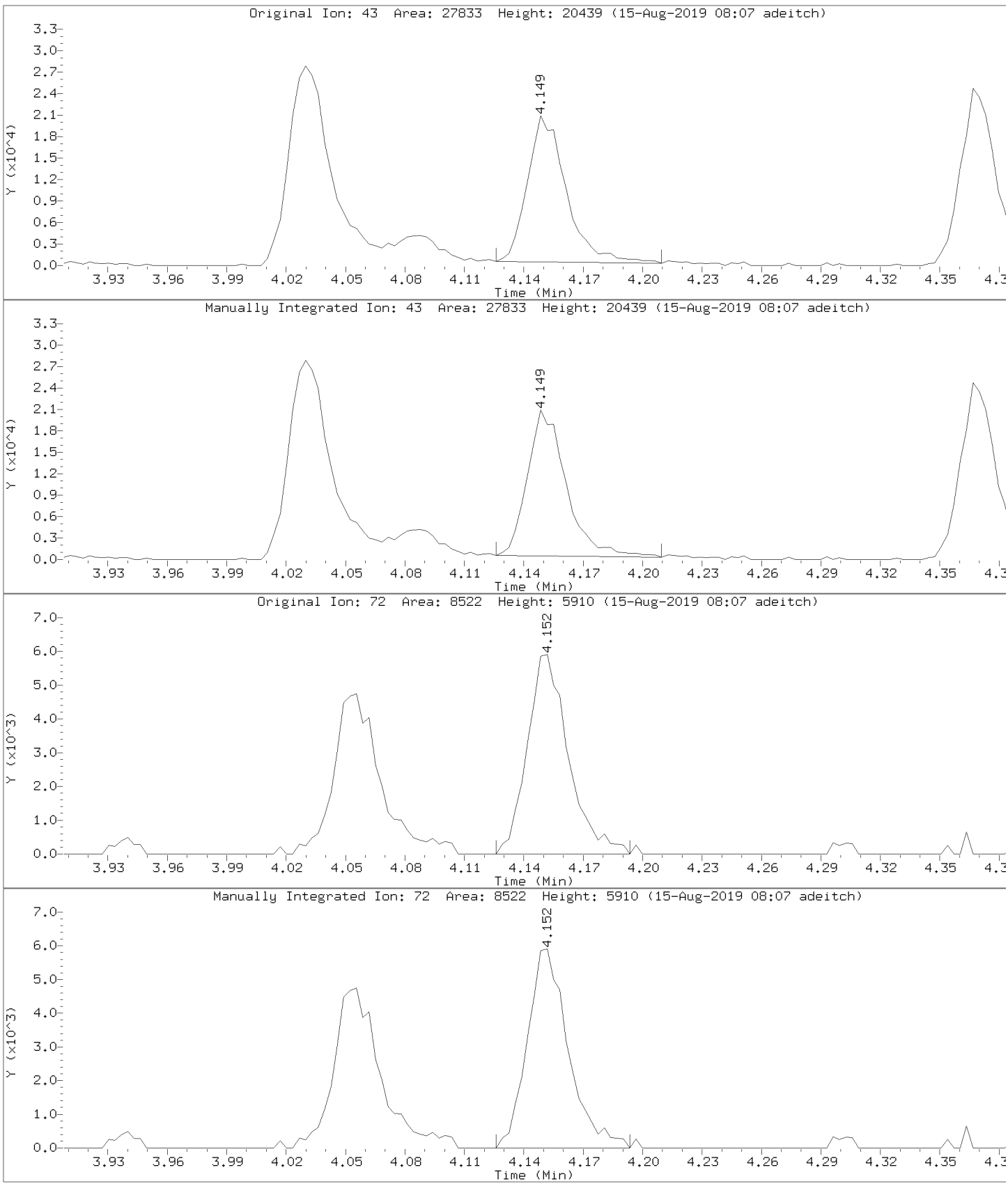
Injection Date: 14-AUG-2019 10:22
Instrument: 30mv6a.i
Lab Sample ID: 1731940

Compound: 2-Butanone (MEK) Review Code: LT
CAS Number: 78-93-3



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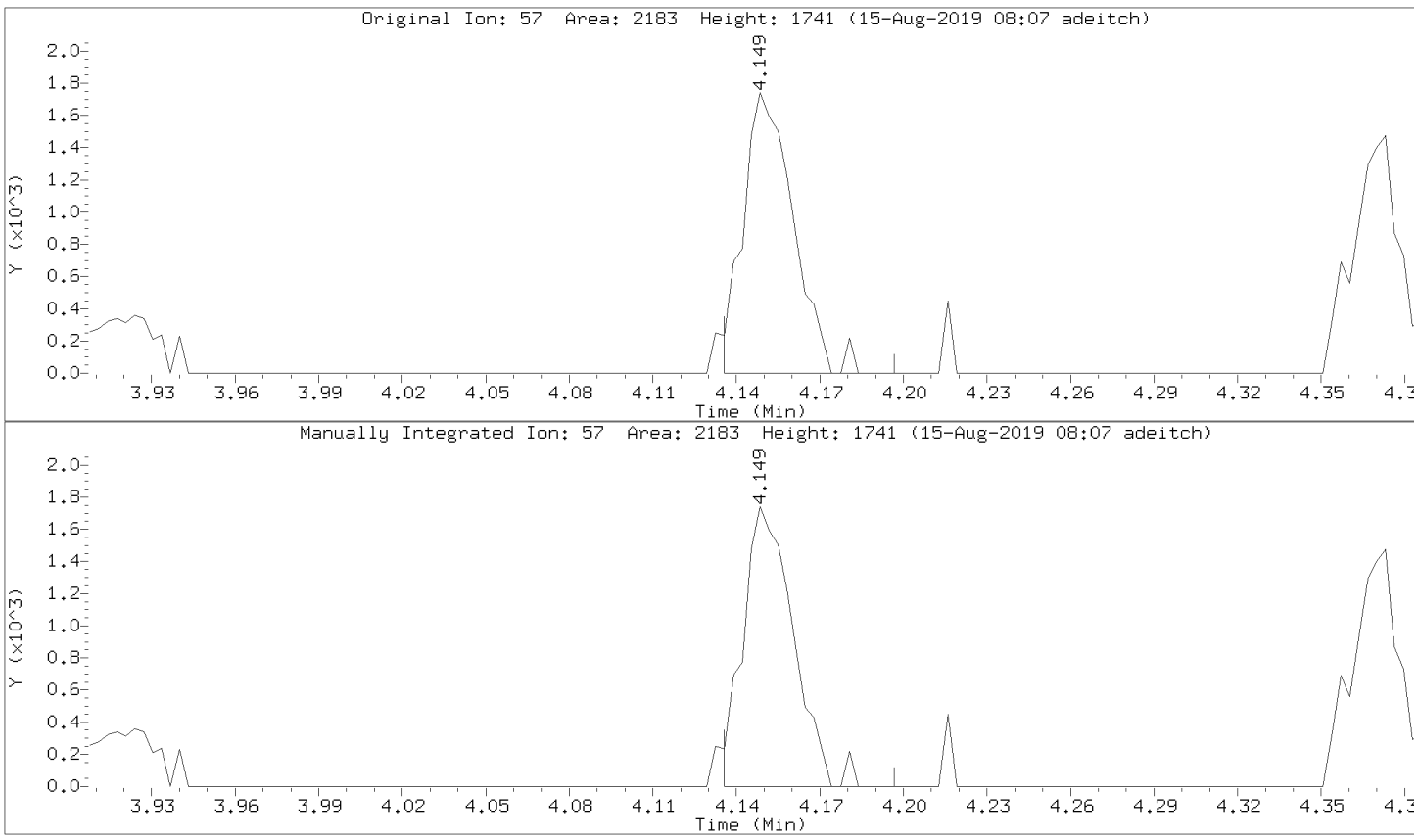
Injection Date: 14-AUG-2019 10:22
Instrument: 30mv6a.i
Lab Sample ID: 1731940



SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 19:00 Lab Sample ID: 1731938

Date Analyzed: 08/14/2019 19:00 Lab File ID: 6190814.B\1.B\60814049.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	147	
78-93-3	2-Butanone (MEK)	157	
56-23-5	Carbon tetrachloride	148	
108-90-7	Chlorobenzene	176	
67-66-3	Chloroform	161	
107-06-2	1,2-Dichloroethane	157	
75-35-4	1,1-Dichloroethene	91.7	
127-18-4	Tetrachloroethene	173	
79-01-6	Trichloroethene	167	
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Lab Smp Id: 1731938 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 14-AUG-2019 19:00
Operator : ARG Inst ID: 30mv6a.i
Smp Info : 1731938x10
Misc Info : 45779
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclpplus.sub
Target Version: RC10A
Processing Host: 30MSV2WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.395	1.395	(0.308)	8488		(aQR)	
	9 1,1-Dichloroethene	61	2.075	2.079	(0.458)	29604	9.17162	91.7(R)	
	17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	38515	12.1137	121(R)	
	20 Methyl-tert-butyl ether	73	2.711	2.714	(0.599)	96537	15.3885	154(QR)	
	29 cis-1,2-Dichloroethene	61	3.718	3.725	(0.821)	51172	13.6884	137(R)	
	33 Chloroform	83	3.940	3.943	(0.870)	62298	16.1032	161(R)	
	34 Carbon Tetrachloride	117	4.026	4.022	(0.889)	39526	14.8445	148(R)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	87032	29.8214	29.8	
	39 2-Butanone (MEK)	43	4.151	4.158	(0.917)	25168	15.7111	157(R)	
	41 Benzene	78	4.299	4.306	(0.950)	129249	14.7379	147(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	82233	29.4737	29.5	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	48357	15.7391	157(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	322479	30.0000		
	50 Trichloroethene	95	4.610	4.614	(0.783)	37158	16.6817	167(R)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	299809	29.1292	29.1	
	59 Toluene	91	5.255	5.259	(0.893)	157989	16.9636	170(R)	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	40826	17.2768	173(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	261083	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	116191	17.6062	176(R)	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	60434	17.3655	174(R)	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	74	m&p-Xylene	106	5.952	5.955	(1.011)	148127	34.2966	343(R)	
	75	o-Xylene	106	6.138	6.141	(1.043)	71778	16.9391	169(R)	
	78	Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	196609	17.9799	180	
$	79	4-Bromofluorobenzene (S)	174	6.394	6.401	(0.931)	110081	29.3169	29.3	
	83	1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	163402	17.6974	177(R)	
	90	1,2,4-Trimethylbenzene	105	6.680	6.687	(0.972)	171094	17.6406	176(R)	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	154300	30.0000		
	102	Naphthalene	128	7.838	7.842	(1.141)	172423	15.4523	154(R)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814049.d
Lab Smp Id: 1731938
Analysis Type: VOA
Quant Type: ISTD
Operator: ARG
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: AOC 32 DITCH &
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	322479	-11.72
71 Chlorobenzene-d5	277666	138833	555332	261083	-5.97
94 1,4-Dichlorobenze	164337	82169	328674	154300	-6.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1731938 Client Smp ID: AOC 32 DITCH & AOC
Level: LOW Operator: ARG
Data Type: MS DATA SampleType: MS
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclpplus.sub
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	0.000	0.00*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	91.7	458.58*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichloro	20.0	121	605.68*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	154	769.42*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroet	20.0	137	684.42*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	161	805.16*	70-130
34 Carbon Tetrachlori	20.0	148	742.23*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	157	785.56*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	147	736.90*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

	SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44	tert-Amylmethyl e	20.0	0.000	*	50-150
46	Isobutanol	20.0	0.000	*	70-130
47	1,2-Dichloroethane	20.0	157	786.96*	70-130
49	Methylcyclohexane	20.0	0.000	*	70-130
50	Trichloroethene	20.0	167	834.08*	70-130
51	Dibromomethane	20.0	0.000	*	70-130
52	1,2-Dichloropropa	20.0	0.000	*	70-130
53	Bromodichlorometh	20.0	0.000	*	70-130
54	Methyl methacryla	20.0	0.000	*	70-130
55	1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56	2-Chloroethylviny	20.0	0.000	*	50-150
57	cis-1,3-Dichlorop	20.0	0.000	*	70-130
59	Toluene	20.0	170	848.18*	70-130
60	2-Nitropropane	50.0	0.000	*	70-130
61	4-Methyl-2-pentan	20.0	0.000	*	50-150
62	Tetrachloroethene	20.0	173	863.84*	70-130
63	trans-1,3-Dichlor	20.0	0.000	*	70-130
64	Ethyl methacrylate	20.0	0.000	*	70-130
65	1,1,2-Trichloroet	20.0	0.000	*	70-130
66	Dibromochlorometh	20.0	0.000	*	70-130
67	1,3-Dichloropropa	20.0	0.000	*	70-130
69	2-Hexanone	20.0	0.000	*	70-130
70	Ethylbenzene	20.0	174	868.27*	70-130
72	Chlorobenzene	20.0	176	880.31*	70-130
73	1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74	m&p-Xylene	40.0	343	857.42*	50-150
75	o-Xylene	20.0	169	846.96*	70-130
76	Styrene	20.0	0.000	*	70-130
77	Bromoform	20.0	0.000	*	70-130
80	n-Propylbenzene	20.0	0.000	*	70-130
81	Bromobenzene	20.0	0.000	*	70-130
82	1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83	1,3,5-Trimethylben	20.0	177	884.87*	70-130
84	2-Chlorotoluene	20.0	0.000	*	70-130
85	1,2,3-Trichloropr	20.0	0.000	*	70-130
86	trans-1,4-Dichlor	20.0	0.000	*	50-150
87	Cyclohexanone	50.0	0.000	*	70-130
88	4-Chlorotoluene	20.0	0.000	*	70-130
90	1,2,4-Trimethylben	20.0	176	882.03*	70-130
92	p-Isopropyltoluene	20.0	0.000	*	50-150
93	1,3-Dichlorobenze	20.0	0.000	*	70-130
95	1,4-Dichlorobenze	20.0	0.000	*	70-130
97	1,2-Dichlorobenze	20.0	0.000	*	70-130
98	1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100	Hexachloro-1,3-bu	20.0	0.000	*	50-150
101	1,2,4-Trichlorobe	20.0	0.000	*	70-130
102	Naphthalene	20.0	154	772.61*	70-130
103	1,2,3-Trichlorobe	20.0	0.000	*	70-130

	SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37	Dibromofluorometha	30.0	29.8	99.40	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	29.5	98.25	0-138
$ 58 Toluene-d8 (S)	30.0	29.1	97.10	0-124
$ 79 4-Bromofluorobenze	30.0	29.3	97.72	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

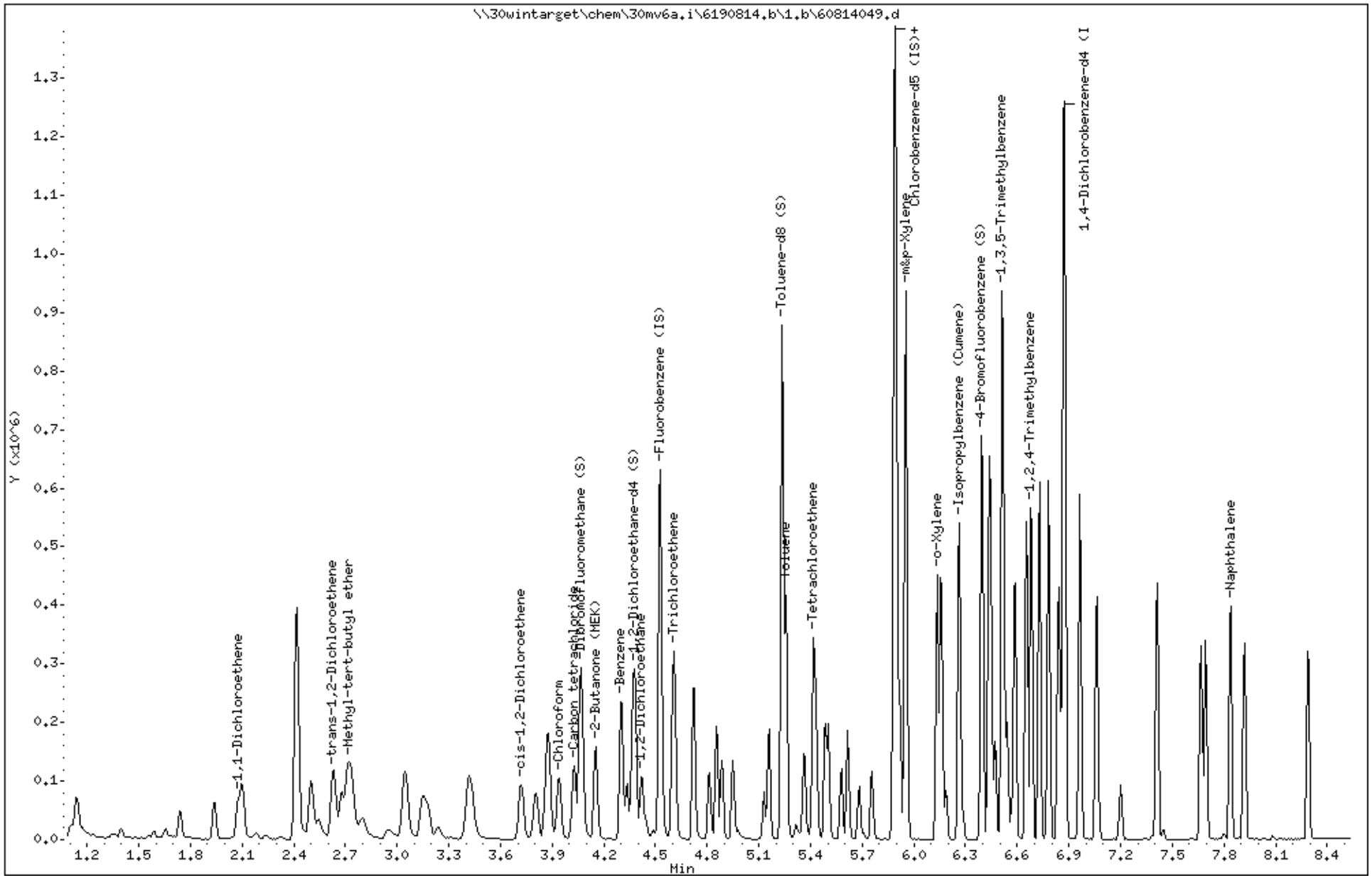
Client Name:
Lab Smp Id: 1731938
Sample Location:
Sample Date: 08-AUG-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779

Client SDG: 1.b
Client Smp ID: AOC 32 DITCH & AOC
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: ARG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	0.000	J
75-35-4	1,1-Dichloroethene	91.7	
156-60-5	trans-1,2-Dichloroethene	121	
1634-04-4	Methyl-tert-butyl ether	154	
156-59-2	cis-1,2-Dichloroethene	137	
67-66-3	Chloroform	161	
56-23-5	Carbon Tetrachloride	148	
78-93-3	2-Butanone (MEK)	157	
71-43-2	Benzene	147	
107-06-2	1,2-Dichloroethane	157	
79-01-6	Trichloroethene	167	
108-88-3	Toluene	170	
127-18-4	Tetrachloroethene	173	
108-90-7	Chlorobenzene	176	
100-41-4	Ethylbenzene	174	
7816-60-0	m&p-Xylene	343	
95-47-6	o-Xylene	169	
98-82-8	Isopropylbenzene (Cumene)	180	
108-67-8	1,3,5-Trimethylbenzene	177	
95-63-6	1,2,4-Trimethylbenzene	176	
91-20-3	Naphthalene	154	
1868-53-7	Dibromofluoromethane (S)	29.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.5	
2037-26-5	Toluene-d8 (S)	29.1	
460-00-4	4-Bromofluorobenzene (S)	29.3	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d
Date : 14-AUG-2019 19:00
Client ID: AOC 32 DITCH & AOC
Sample Info: 1731938x10

Instrument: 30mv6a.i
Operator: ARG
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

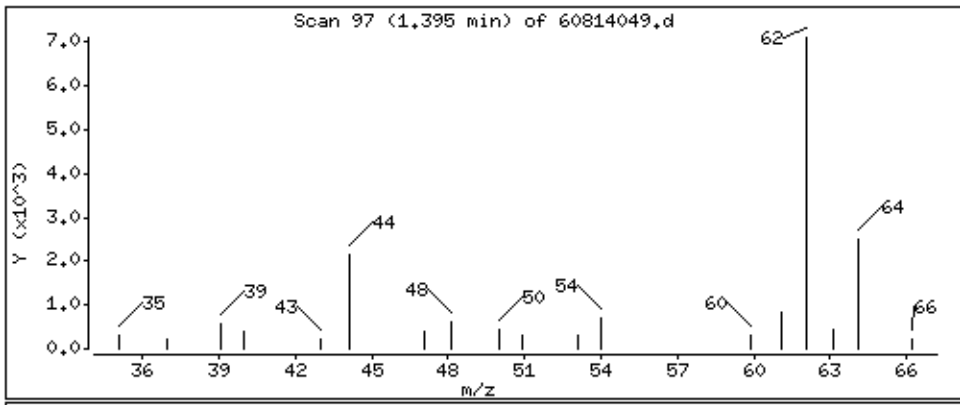
Sample Info: 1731938x10

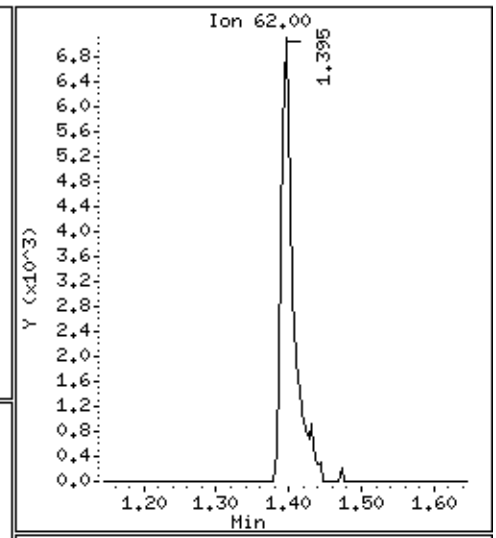
Operator: ARG

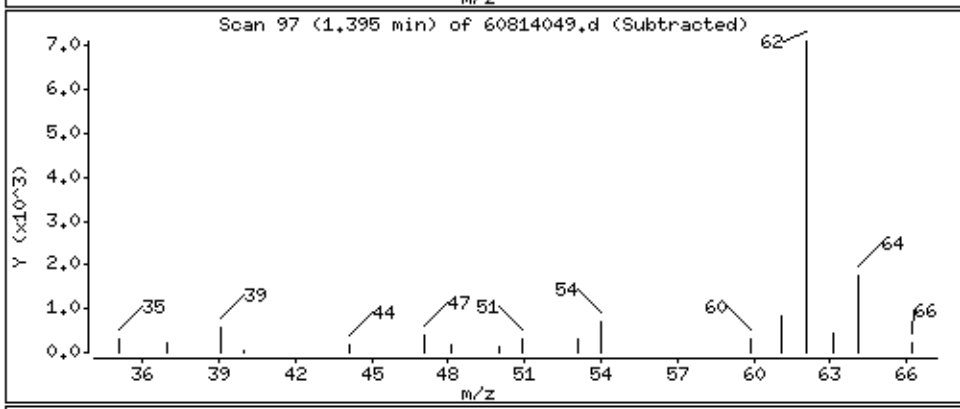
Column phase: RTX-VMS

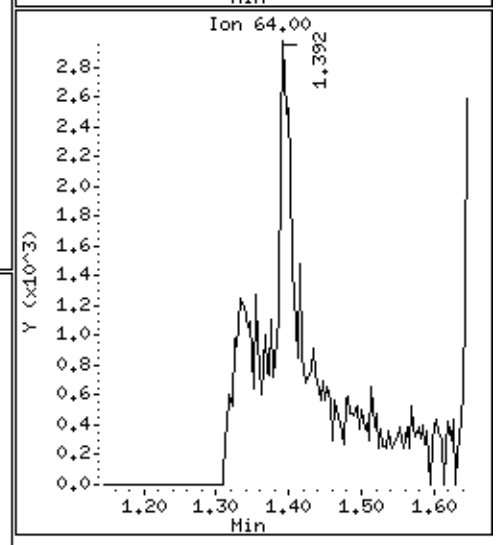
Column diameter: 0.18

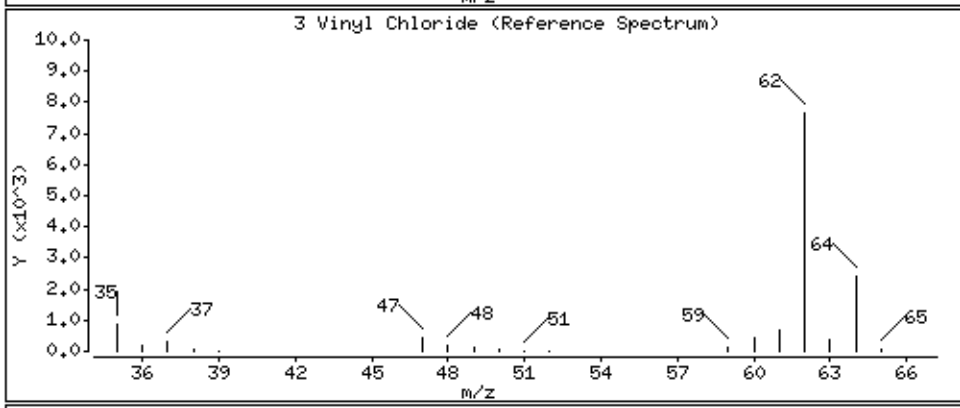
3 Vinyl Chloride

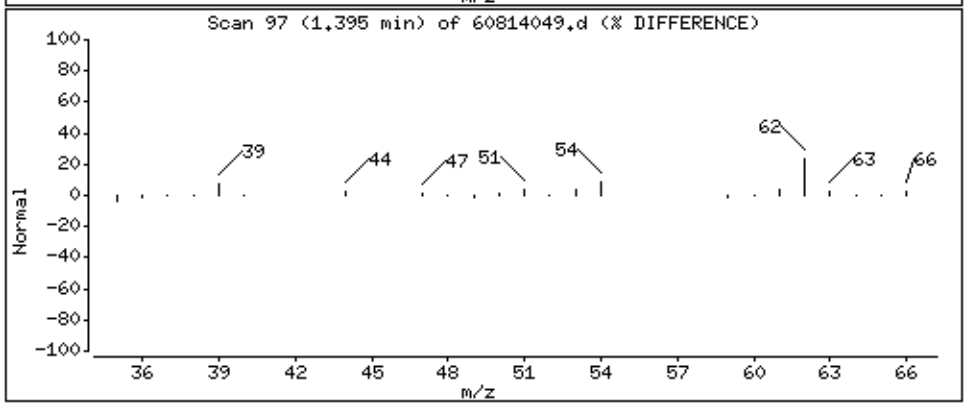












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

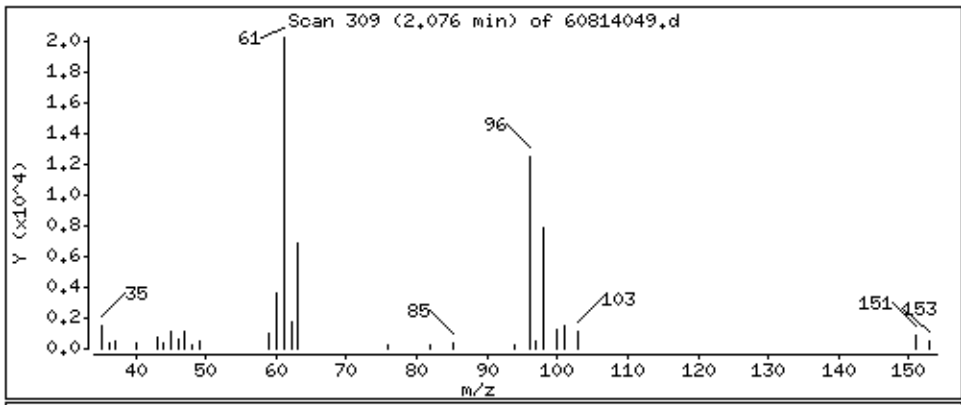
Operator: ARG

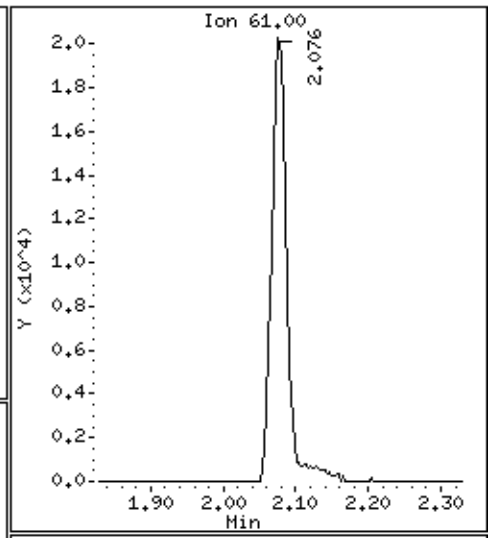
Column phase: RTX-VMS

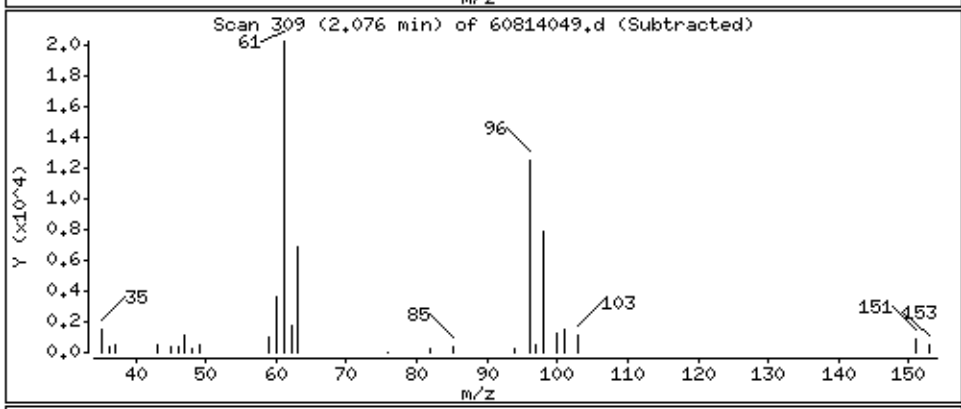
Column diameter: 0.18

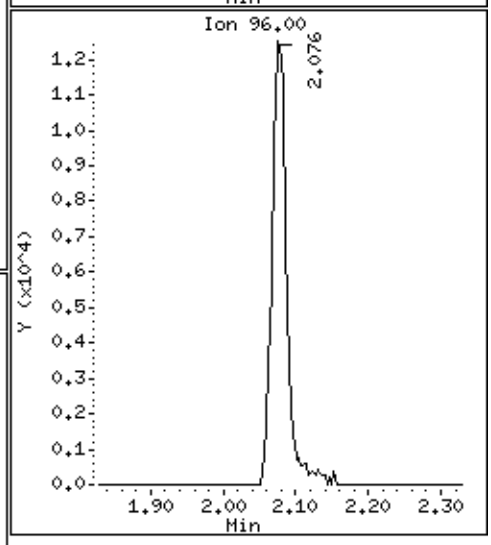
9 1,1-Dichloroethene

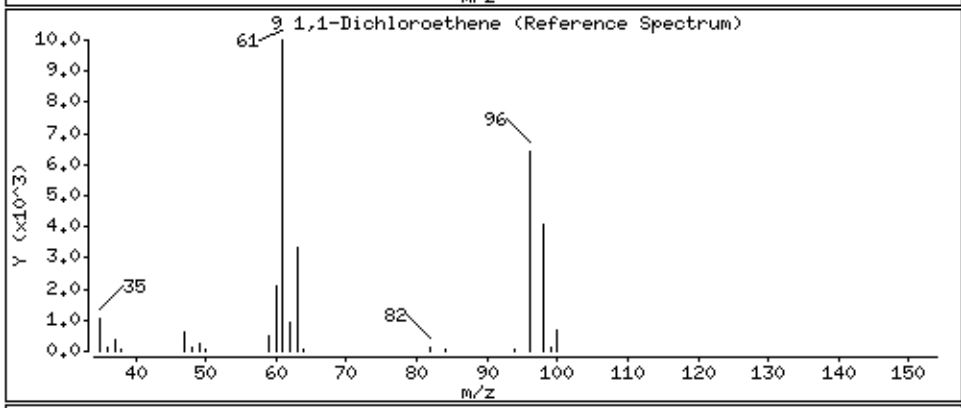
Concentration: 91.7 ug/kg

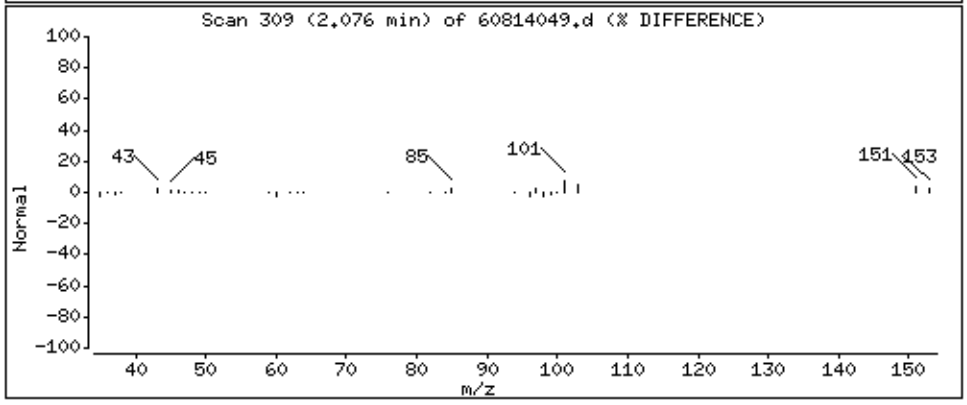












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

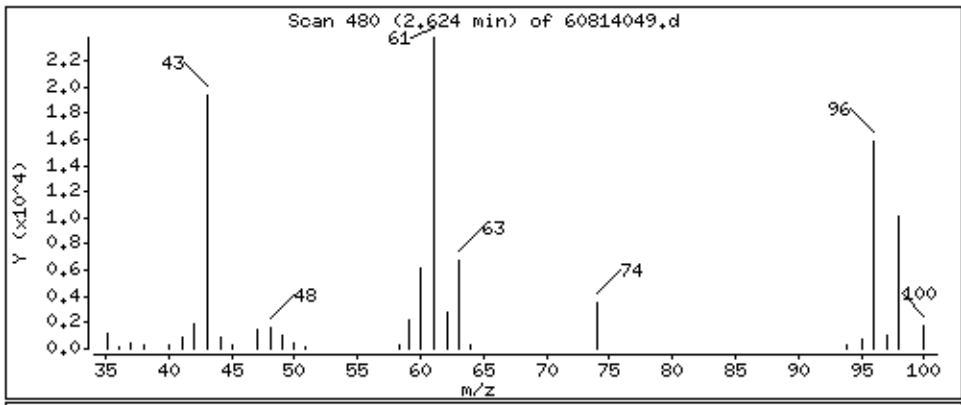
Operator: ARG

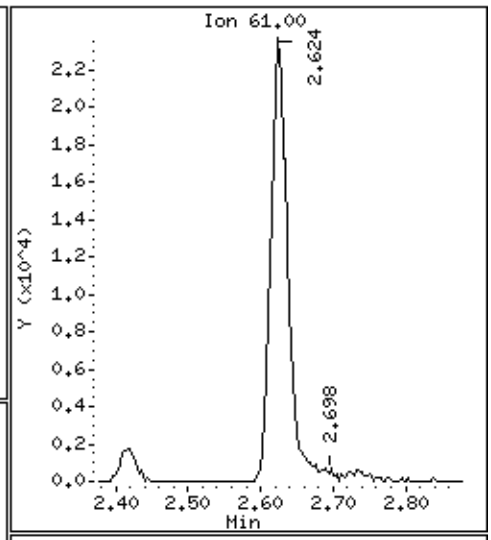
Column phase: RTX-VMS

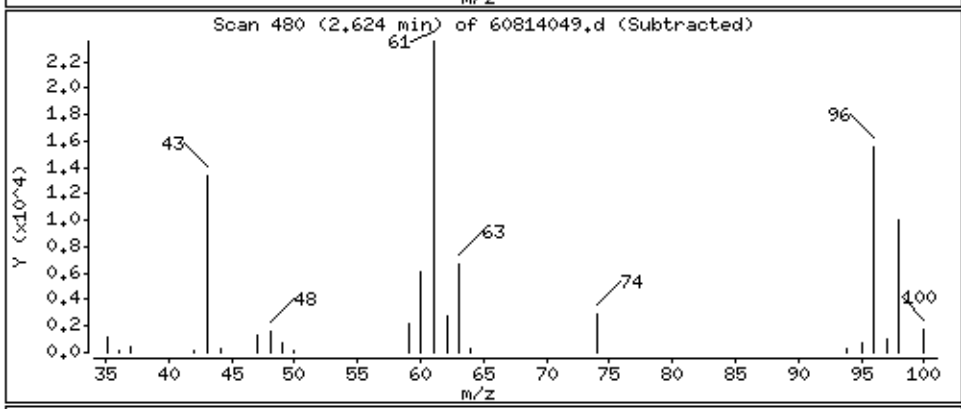
Column diameter: 0.18

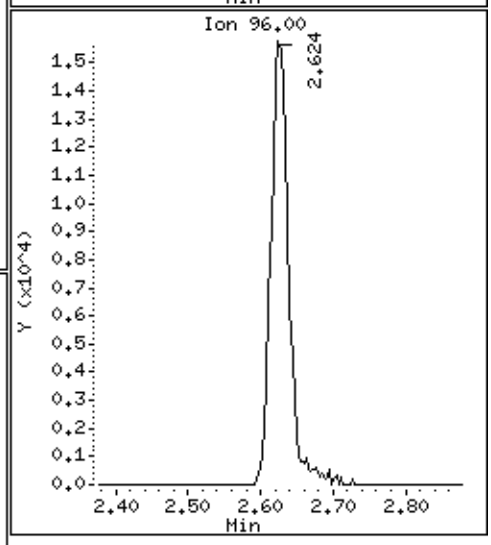
17 trans-1,2-Dichloroethene

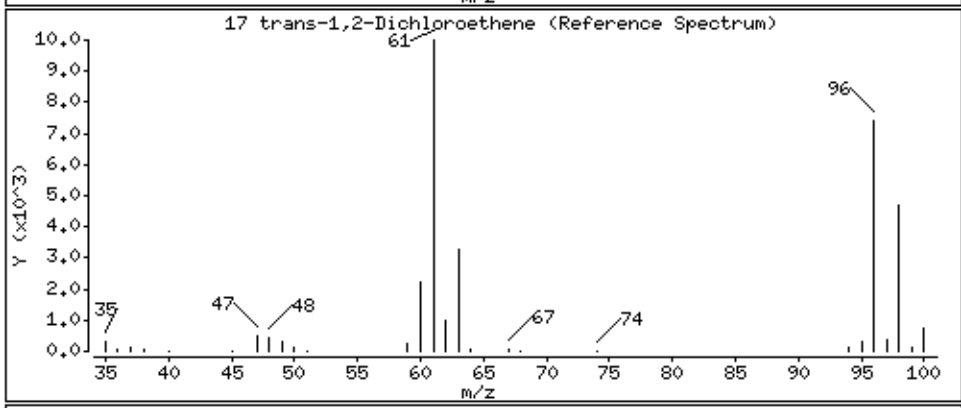
Concentration: 121 ug/kg

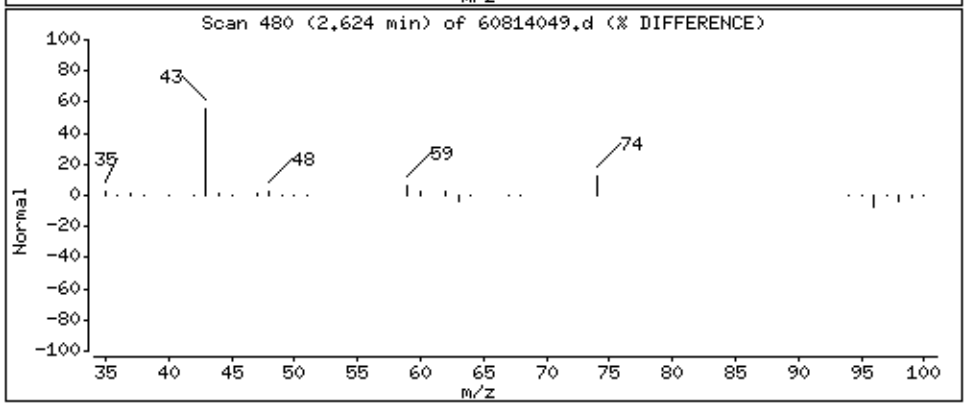












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

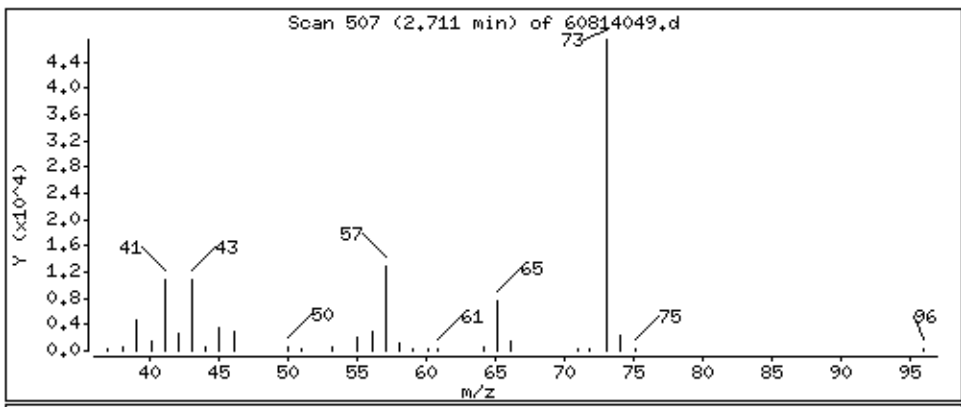
Operator: ARG

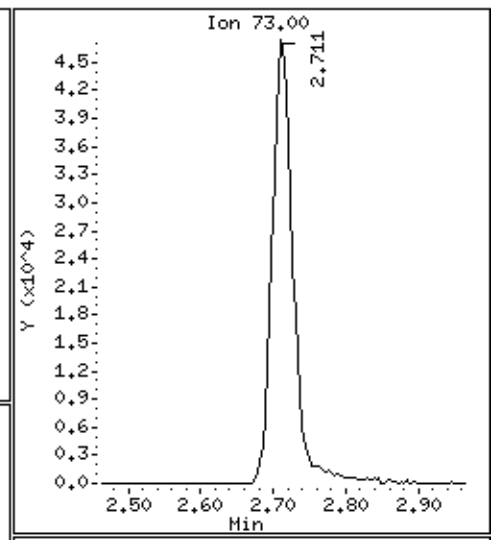
Column phase: RTX-VMS

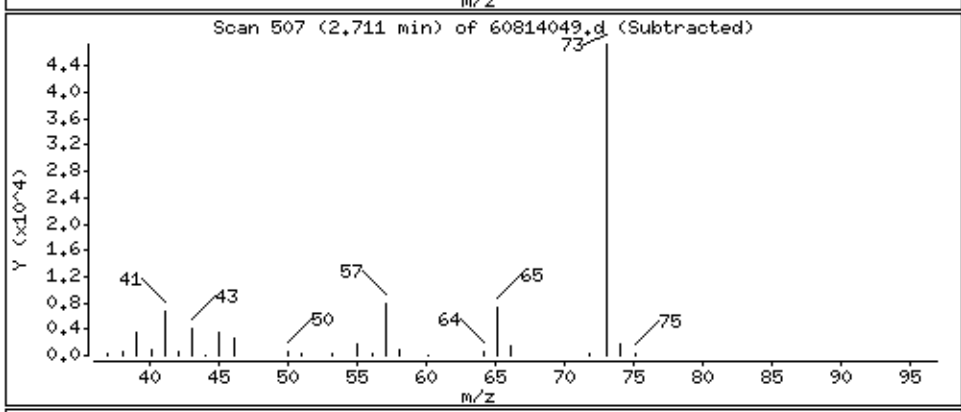
Column diameter: 0.18

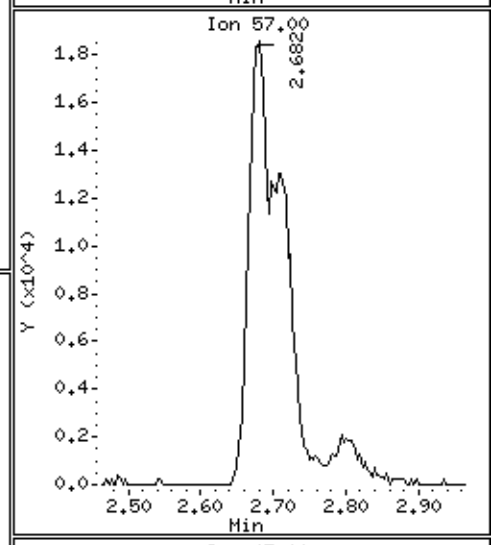
20 Methyl-tert-butyl ether

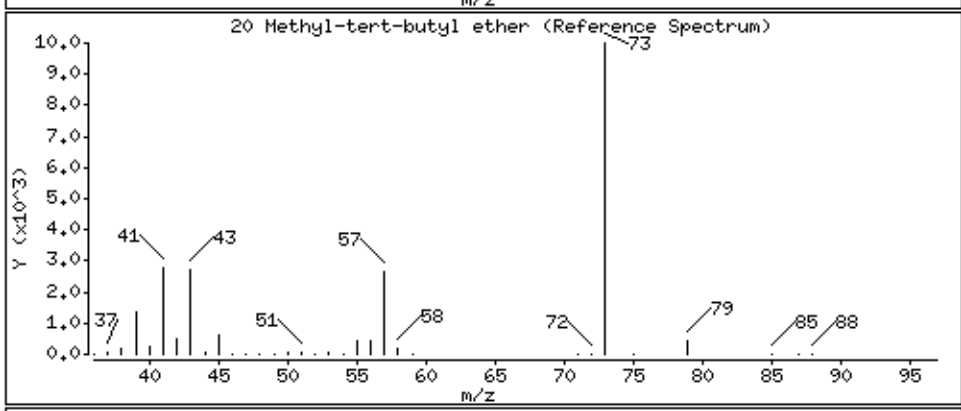
Concentration: 154 ug/kg

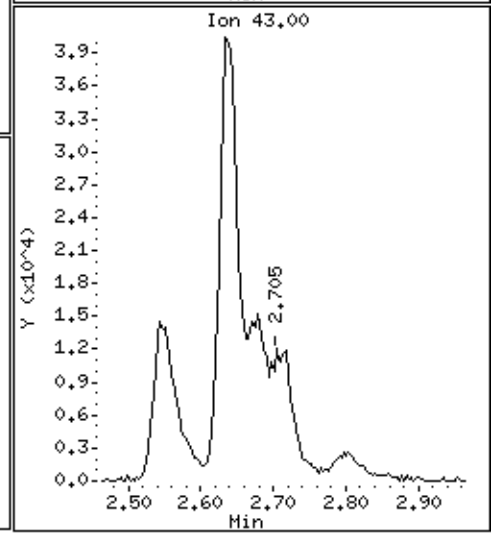


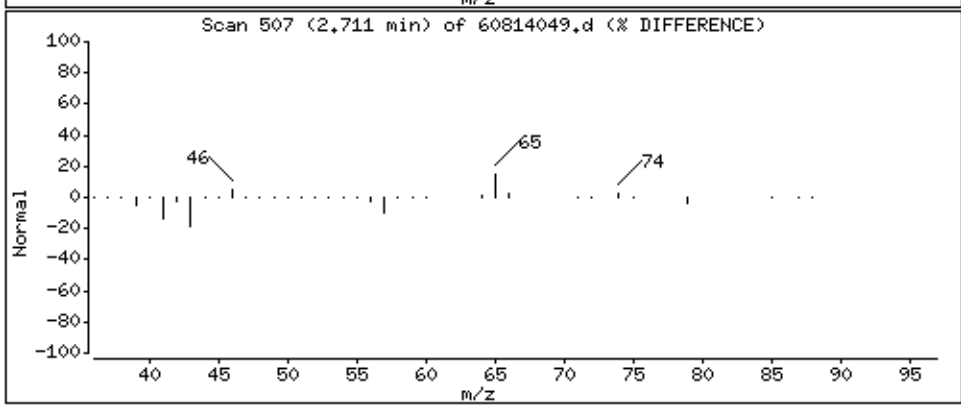












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Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

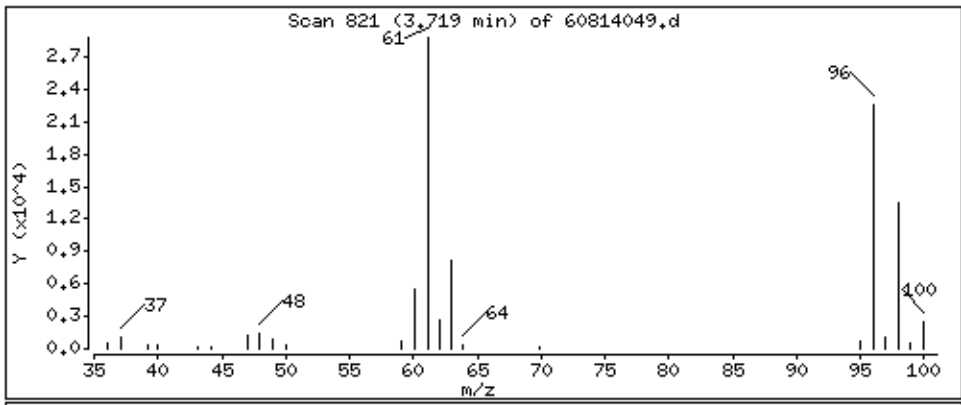
Operator: ARG

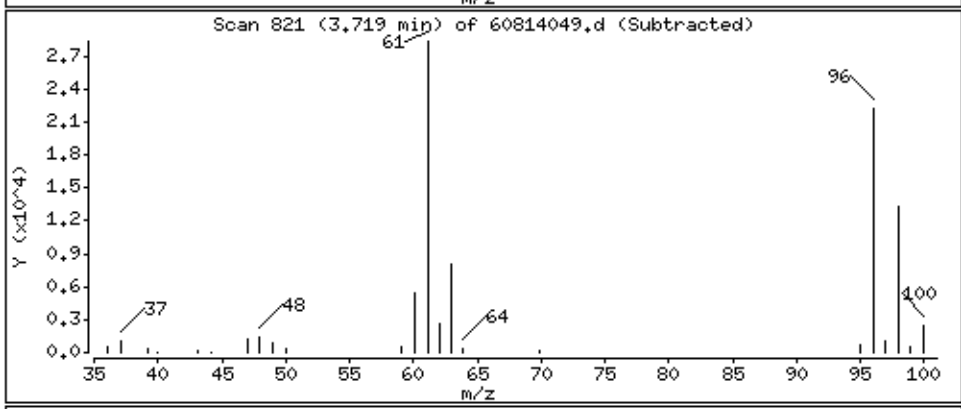
Column phase: RTX-VMS

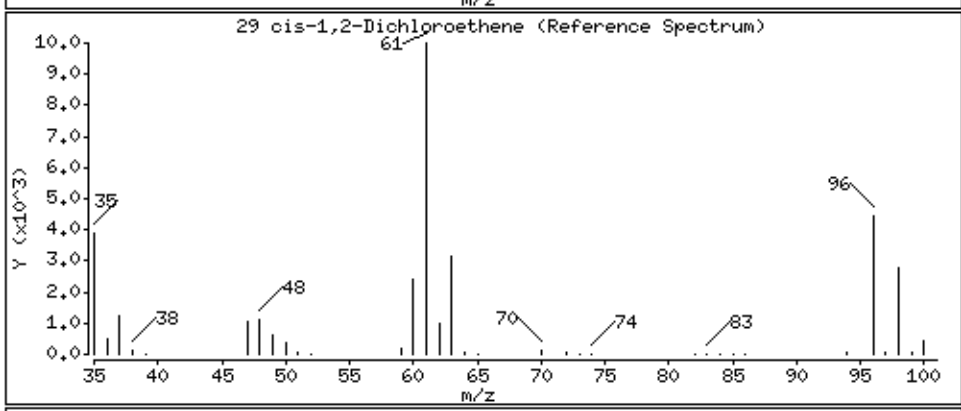
Column diameter: 0.18

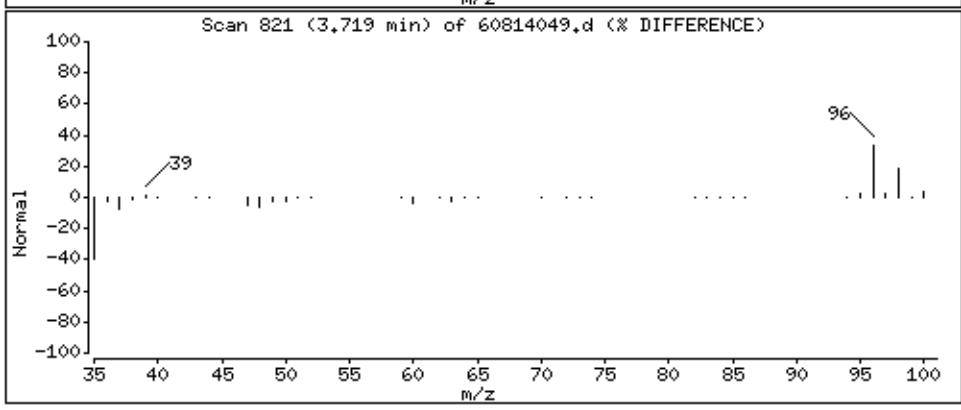
29 cis-1,2-Dichloroethene

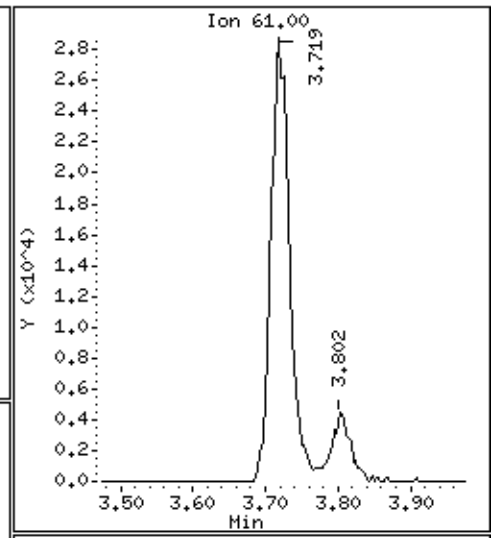
Concentration: 137 ug/kg

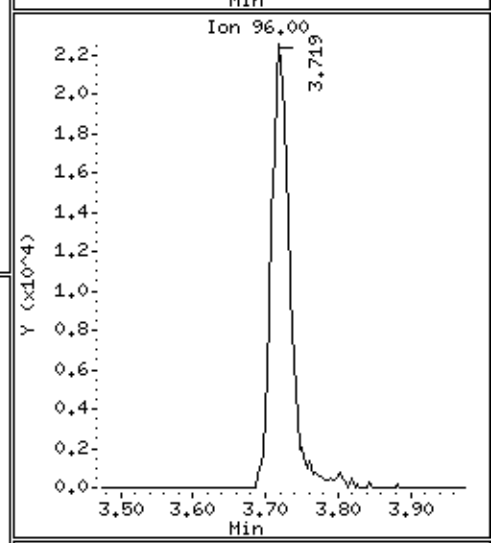


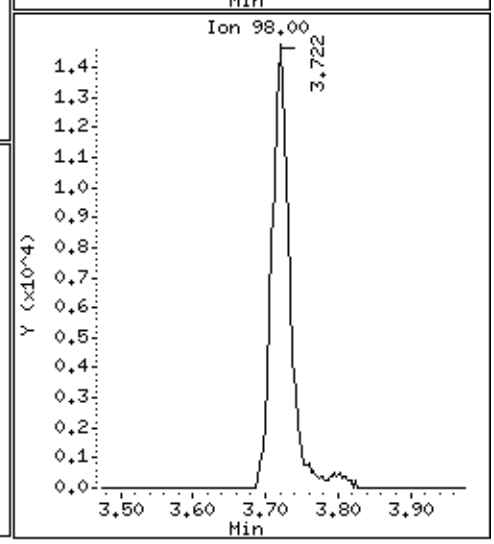












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

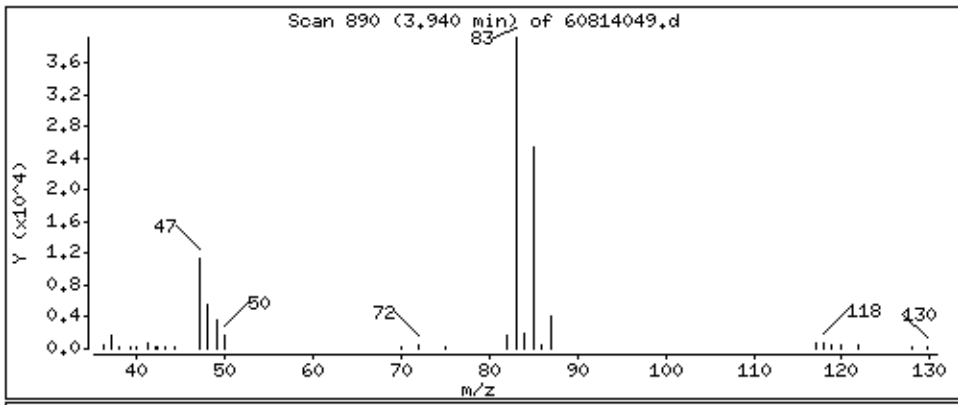
Operator: ARG

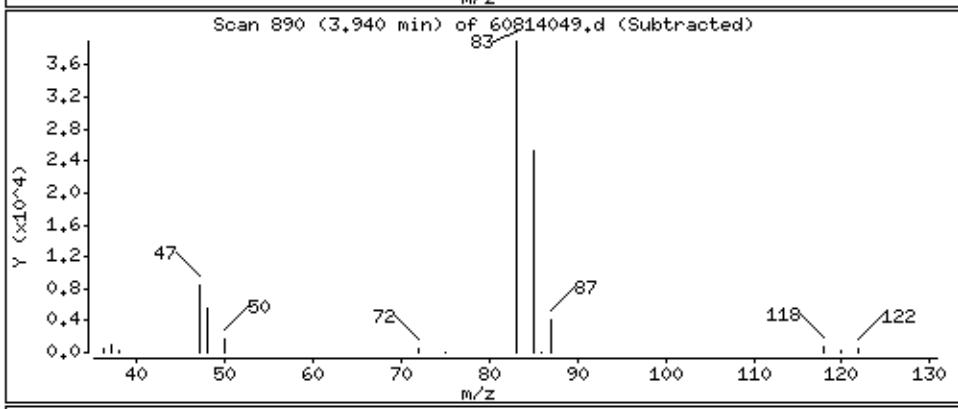
Column phase: RTX-VMS

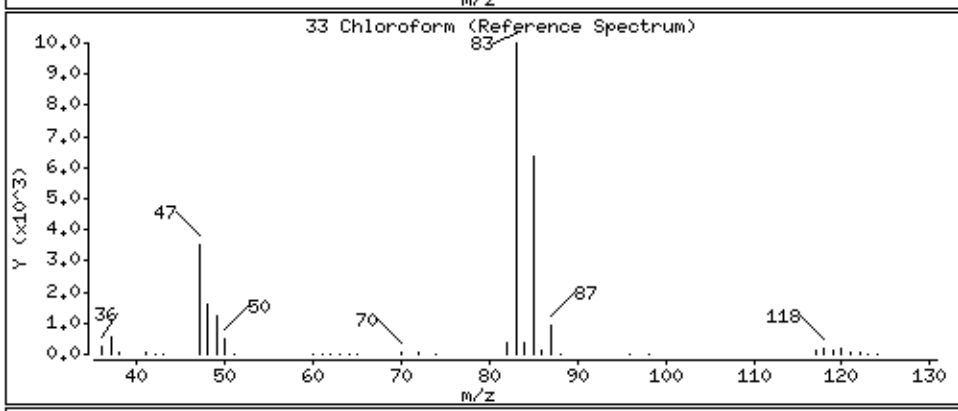
Column diameter: 0.18

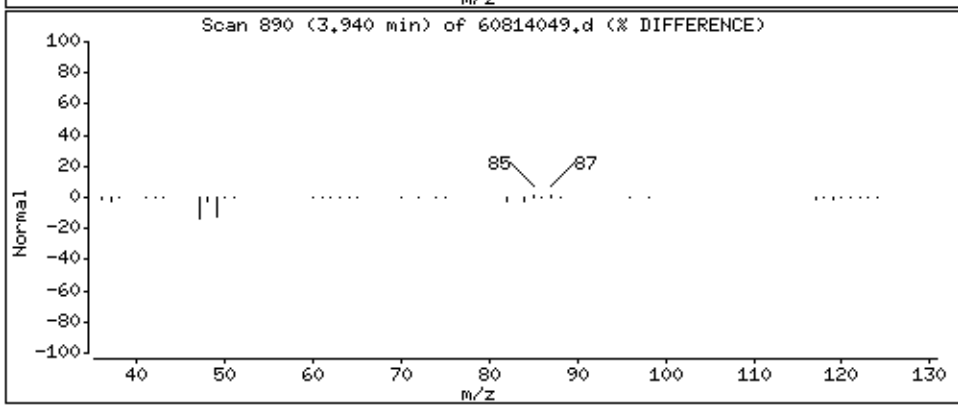
33 Chloroform

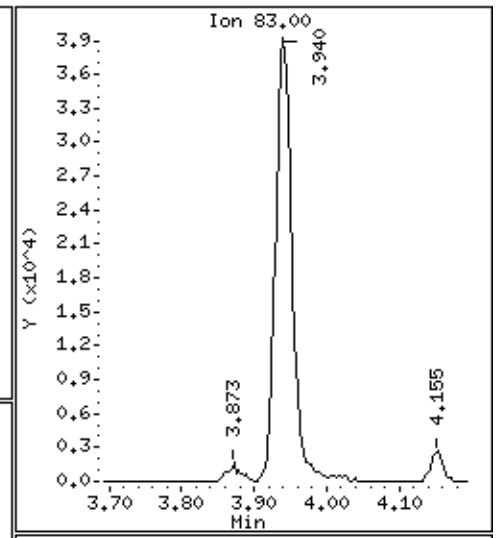
Concentration: 161 ug/kg

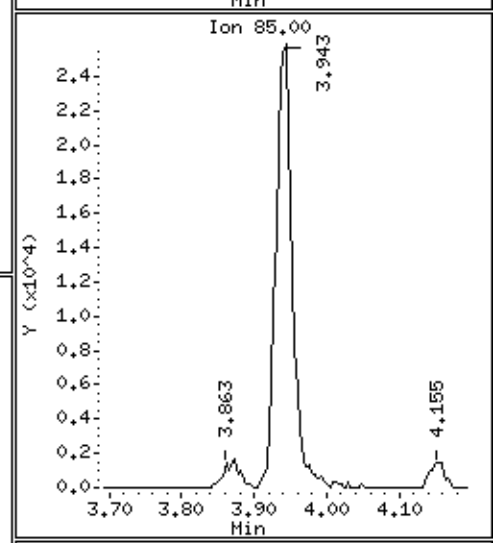


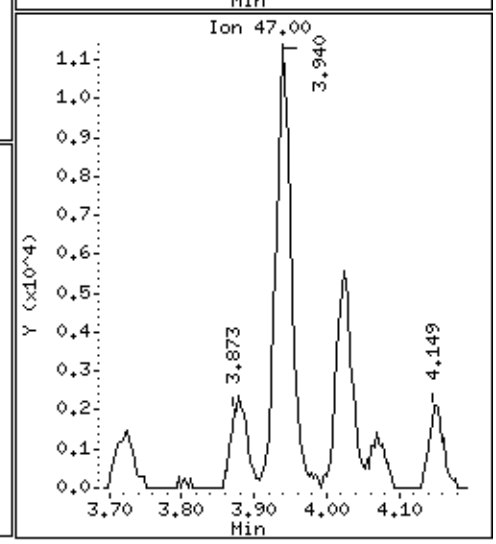












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

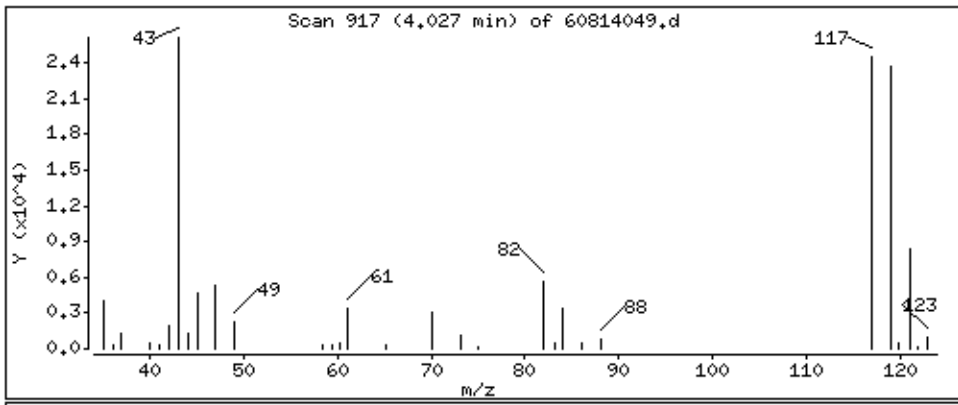
Operator: ARG

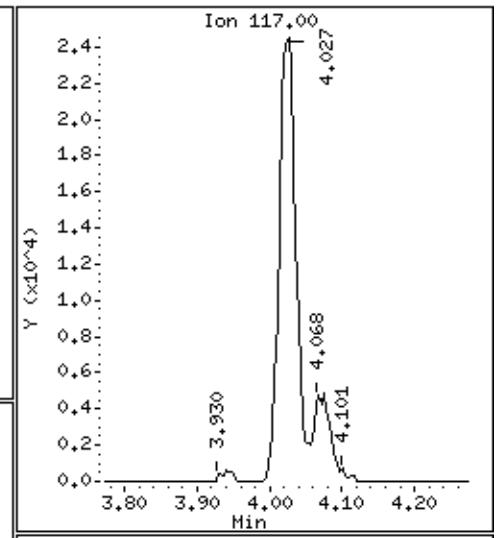
Column phase: RTX-VMS

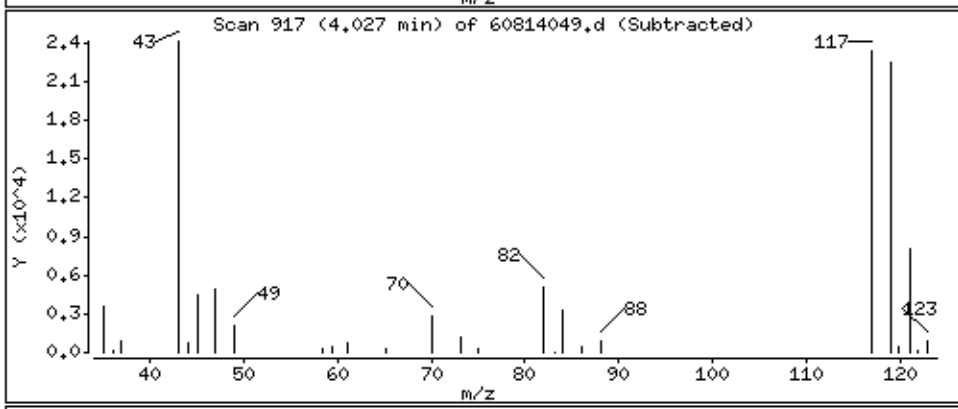
Column diameter: 0.18

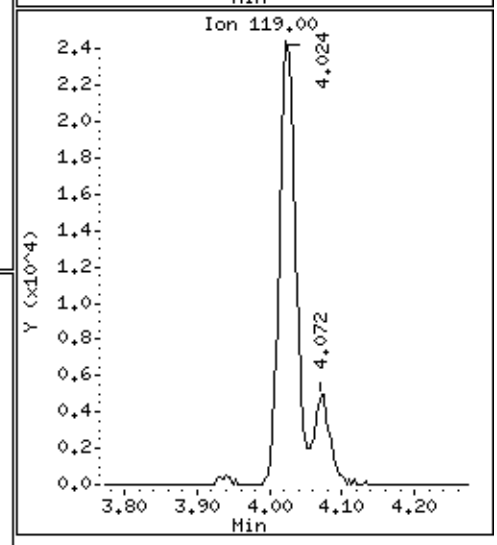
34 Carbon Tetrachloride

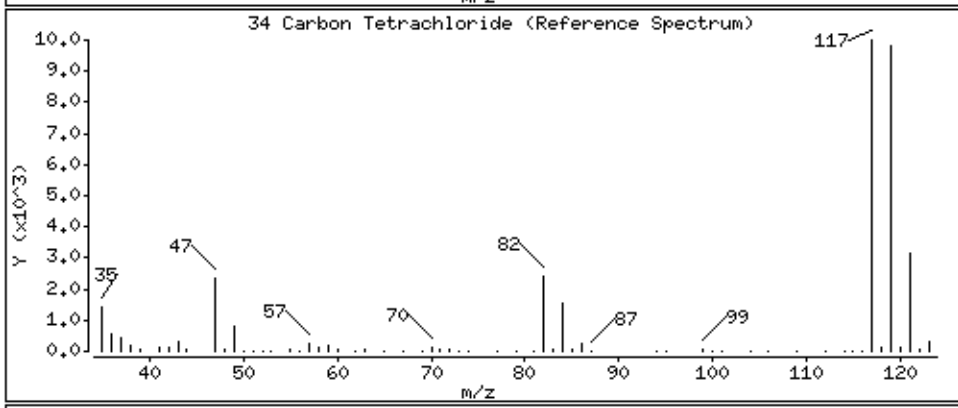
Concentration: 148 ug/kg

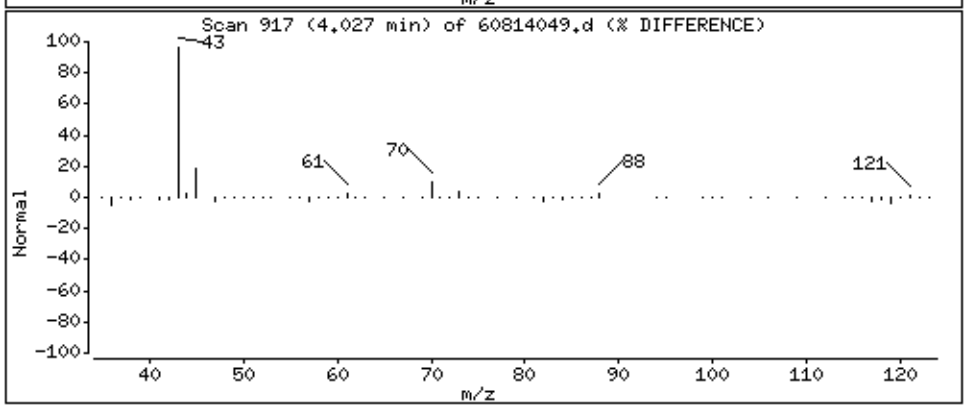












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Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

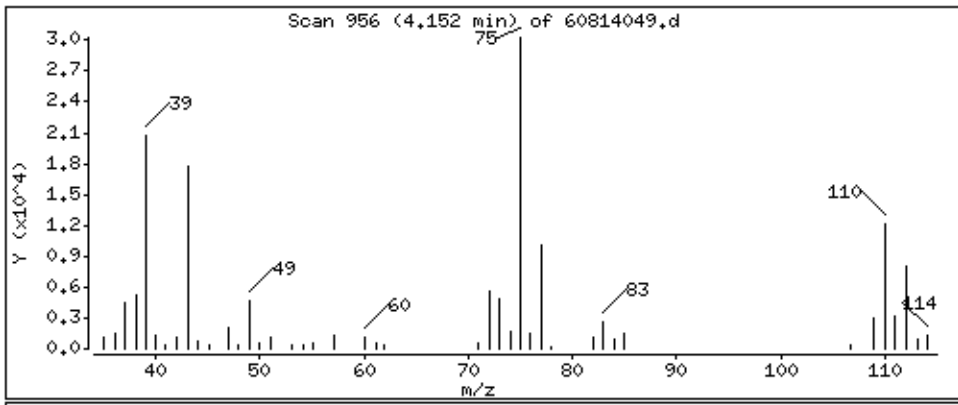
Operator: ARG

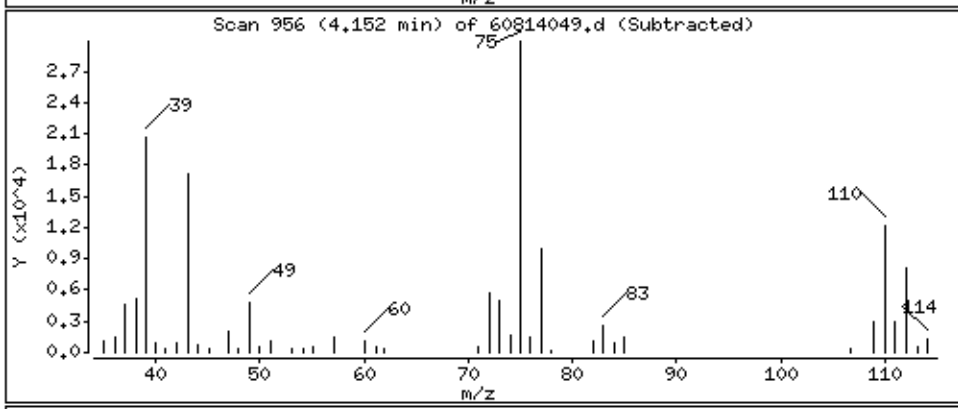
Column phase: RTX-VMS

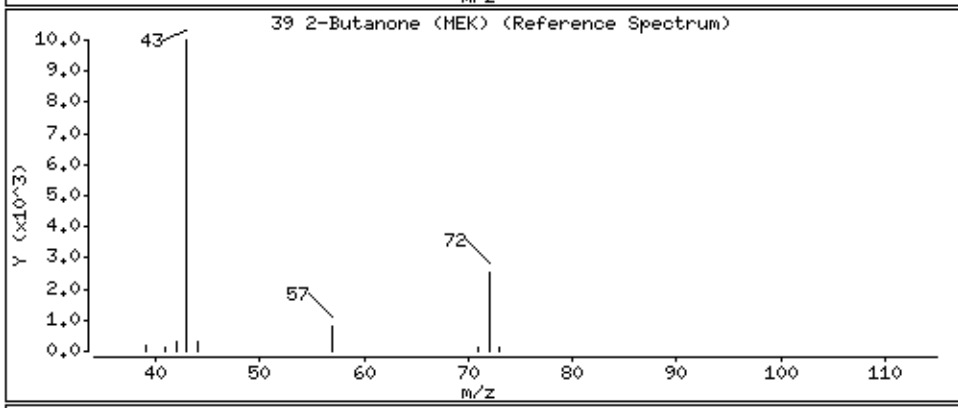
Column diameter: 0.18

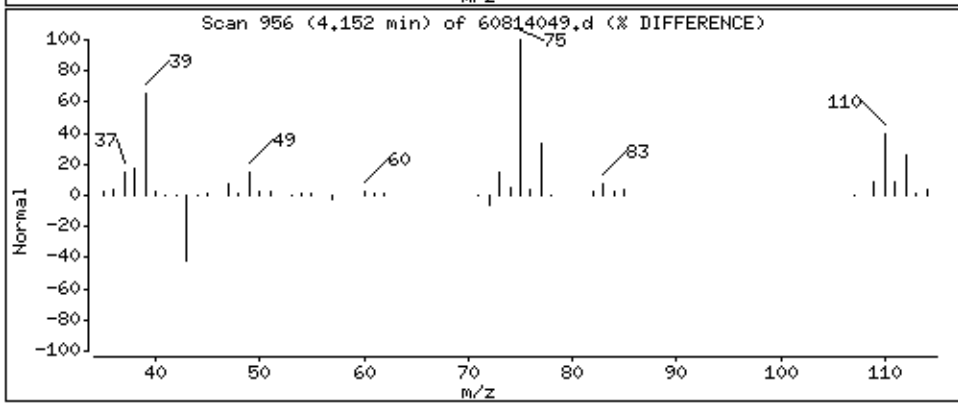
39 2-Butanone (MEK)

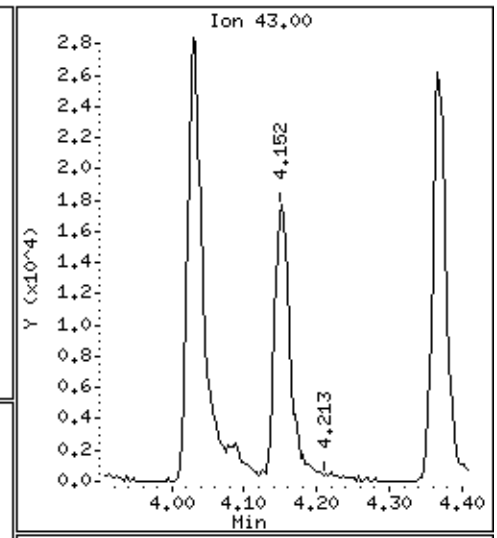
Concentration: 157 ug/kg

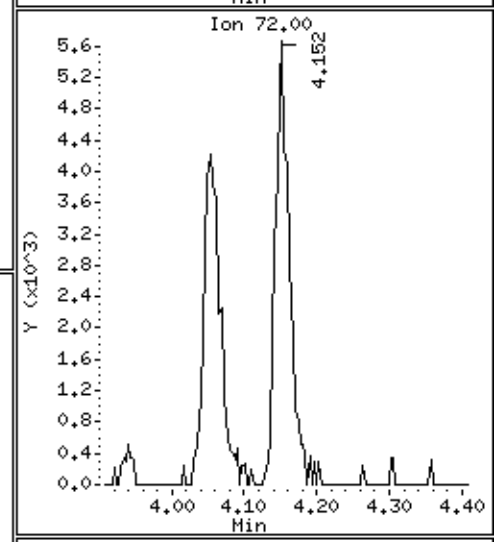


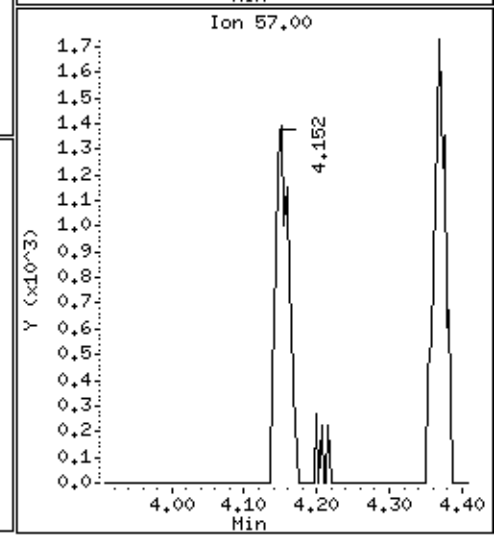












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Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

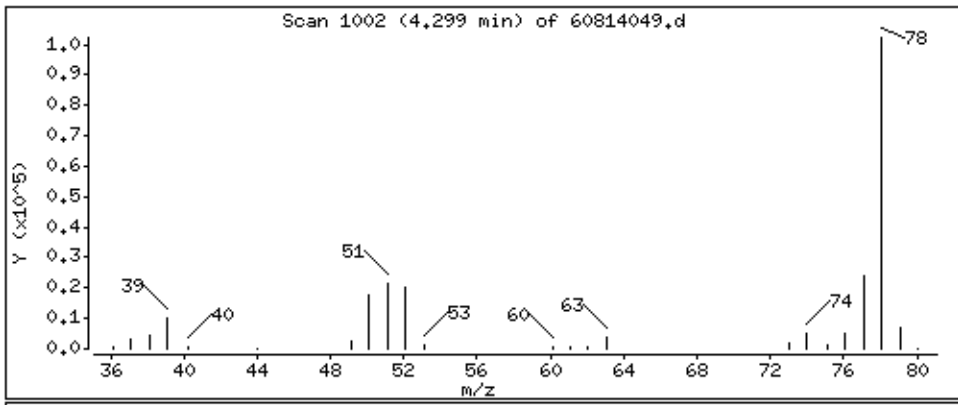
Operator: ARG

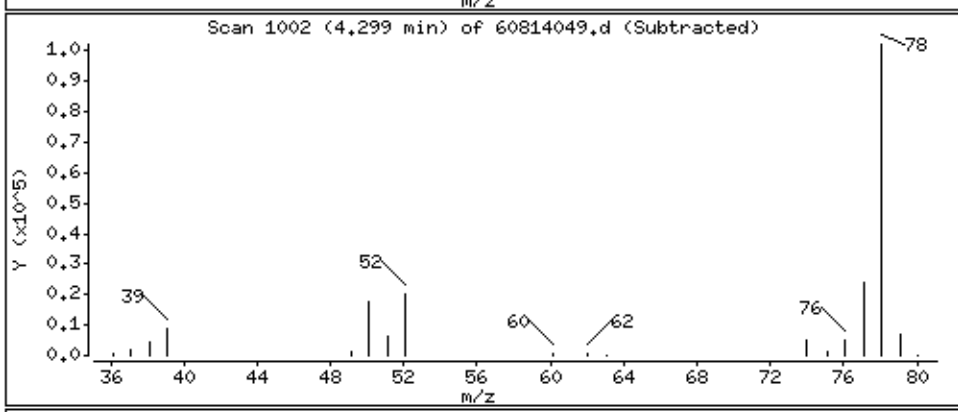
Column phase: RTX-VMS

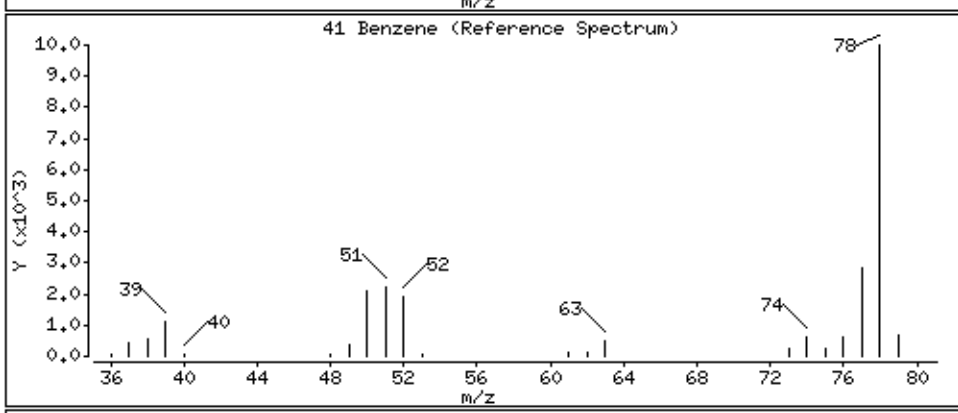
Column diameter: 0.18

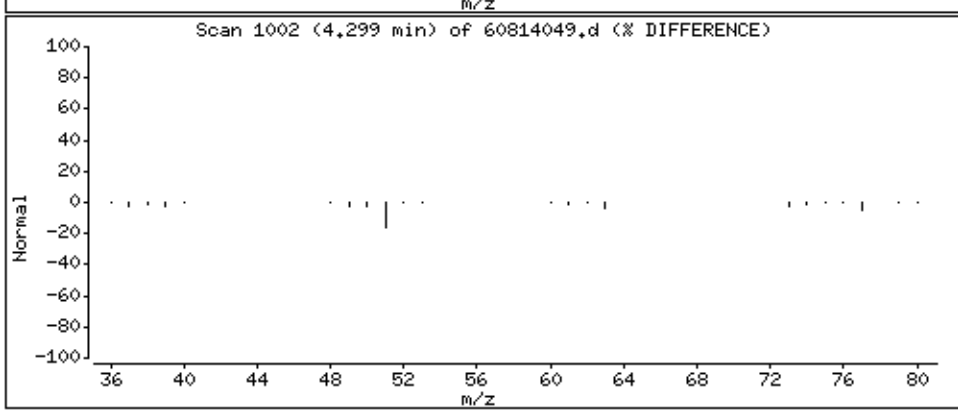
41 Benzene

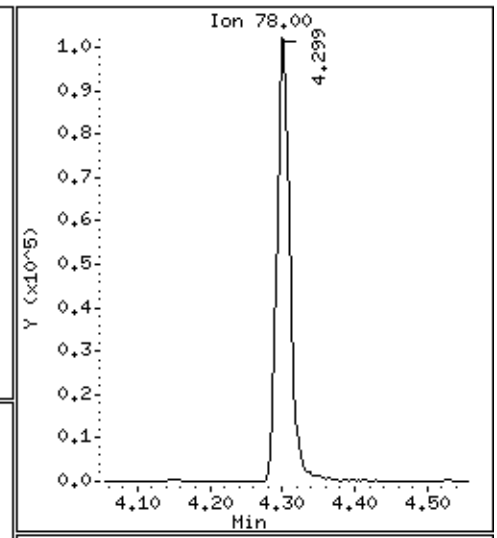
Concentration: 147 ug/kg

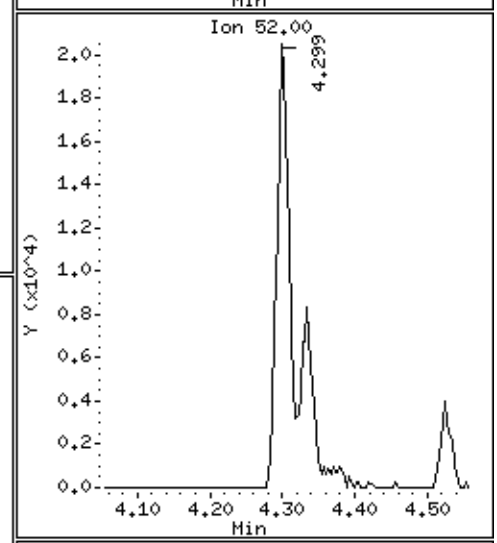


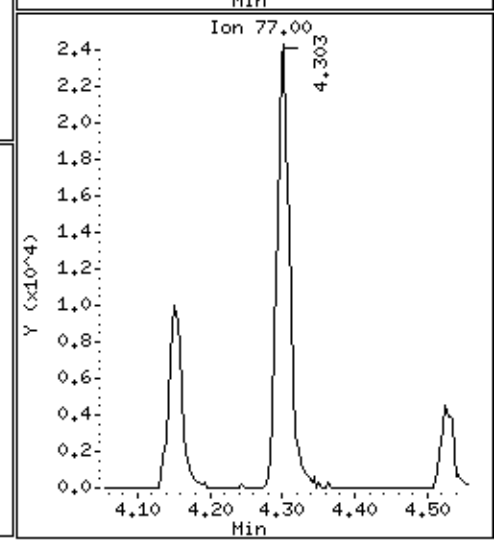












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Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

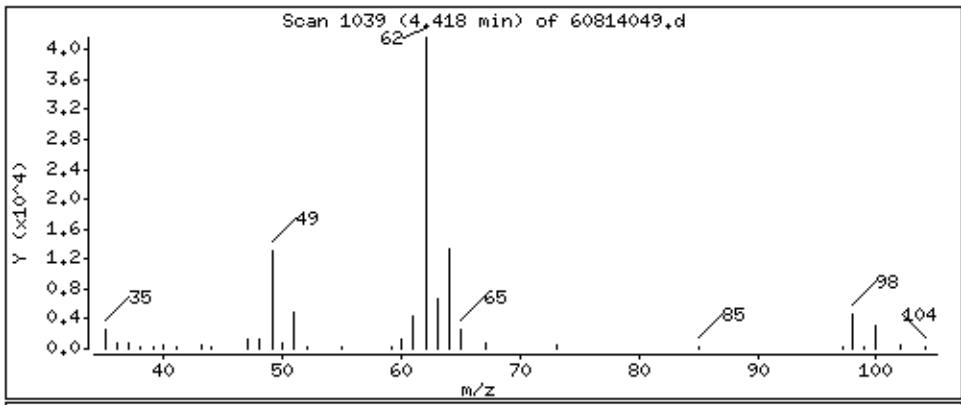
Operator: ARG

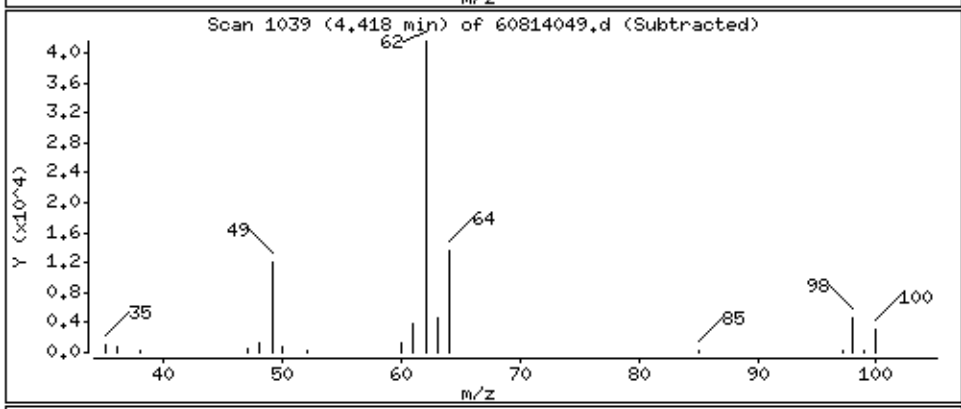
Column phase: RTX-VMS

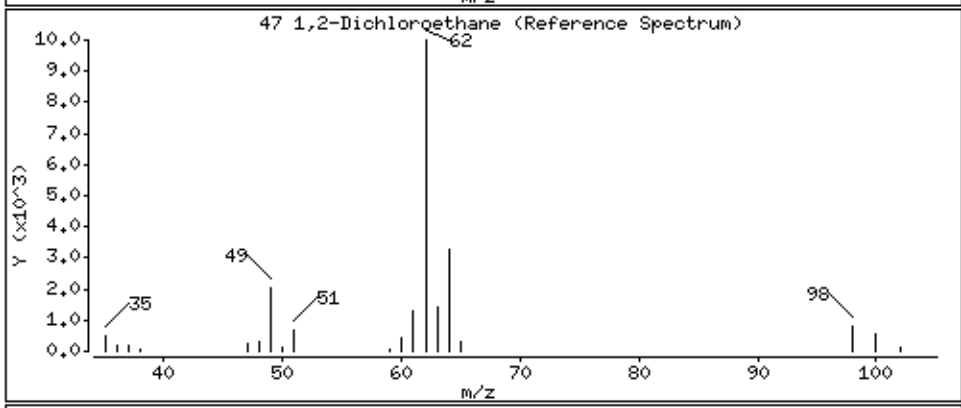
Column diameter: 0.18

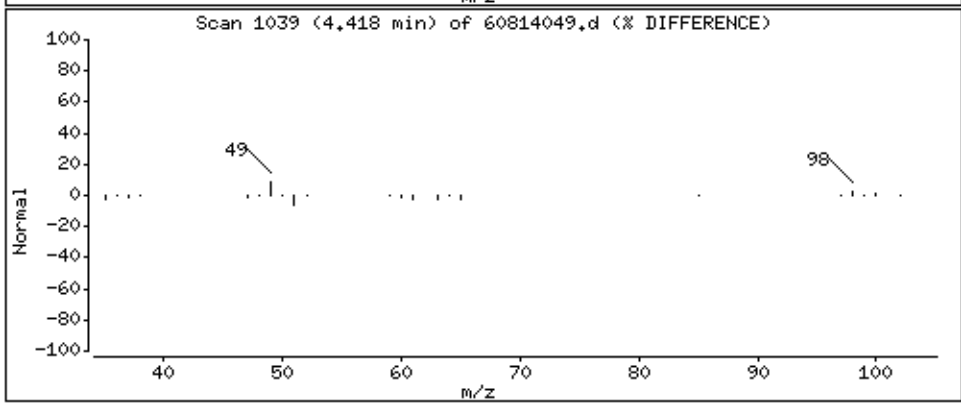
47 1,2-Dichloroethane

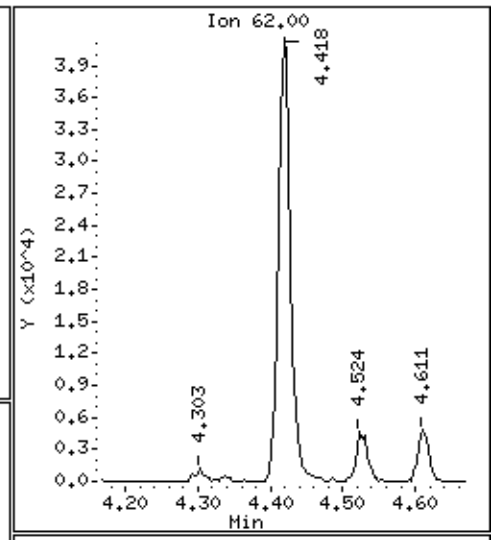
Concentration: 157 ug/kg

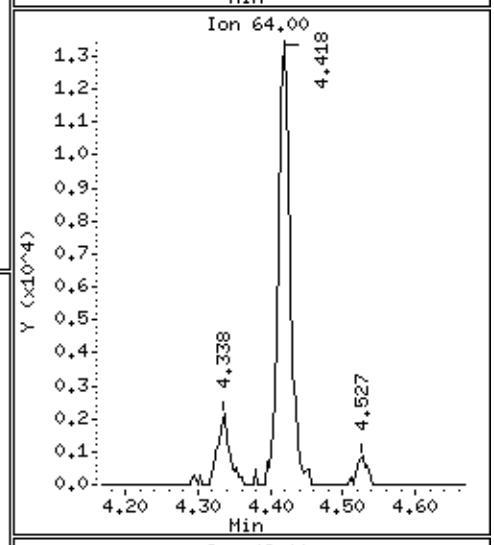


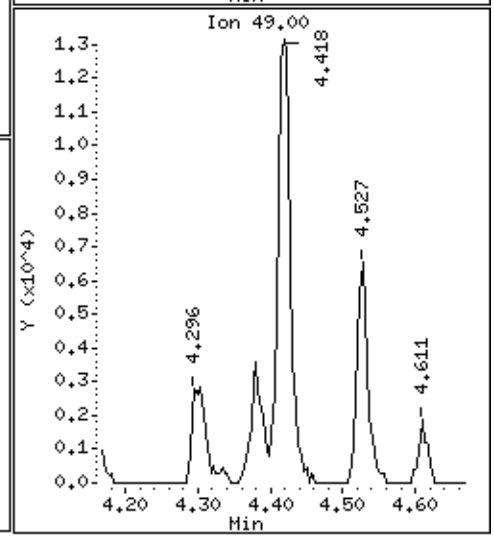












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

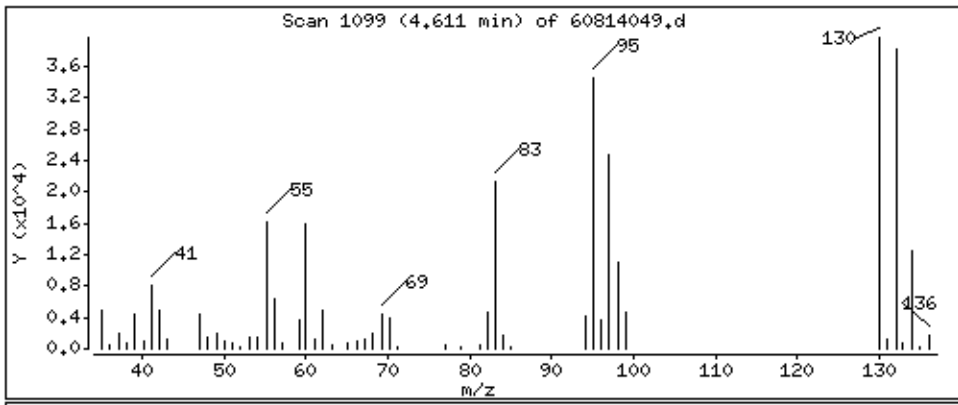
Operator: ARG

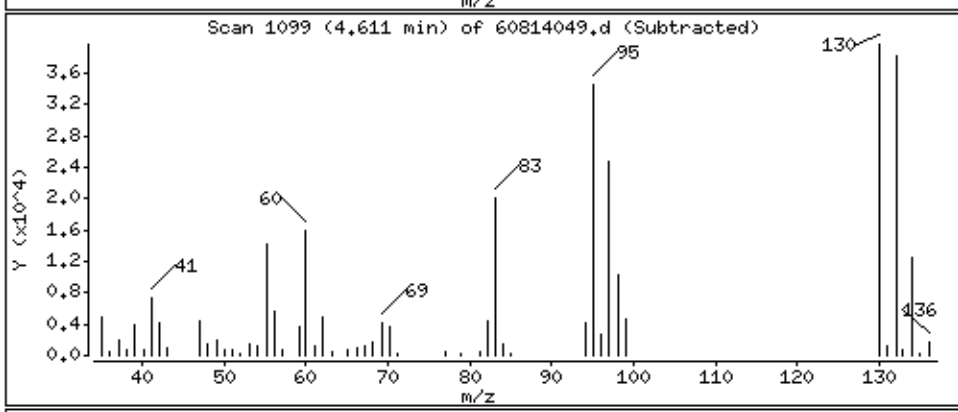
Column phase: RTX-VMS

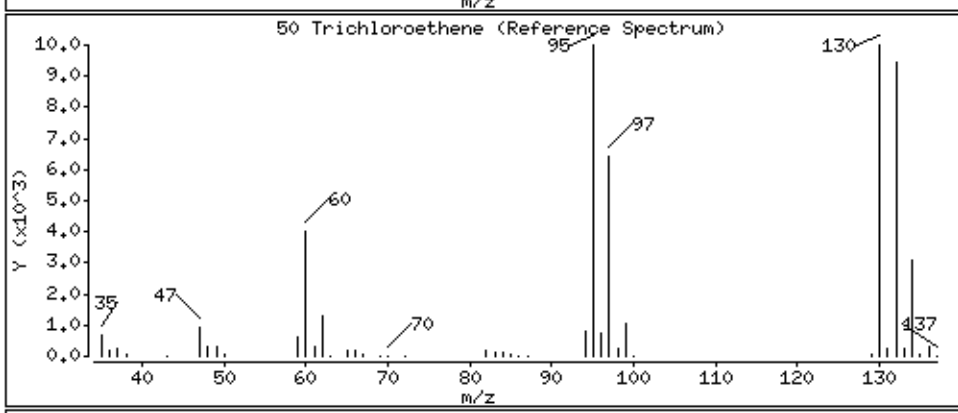
Column diameter: 0.18

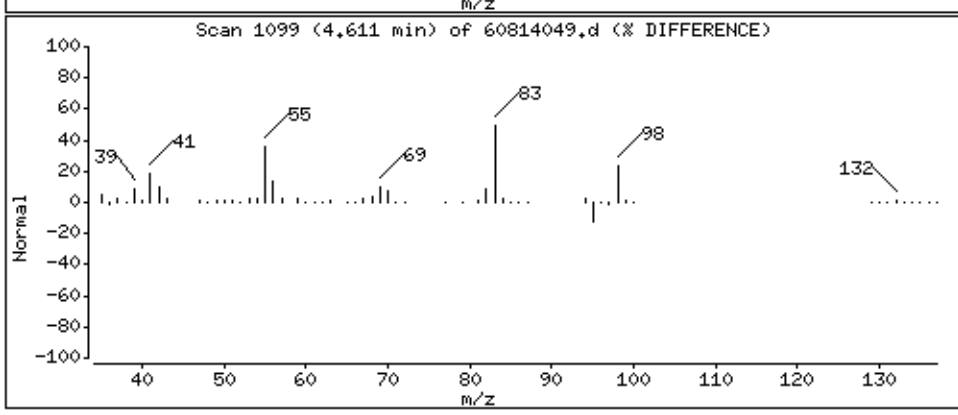
50 Trichloroethene

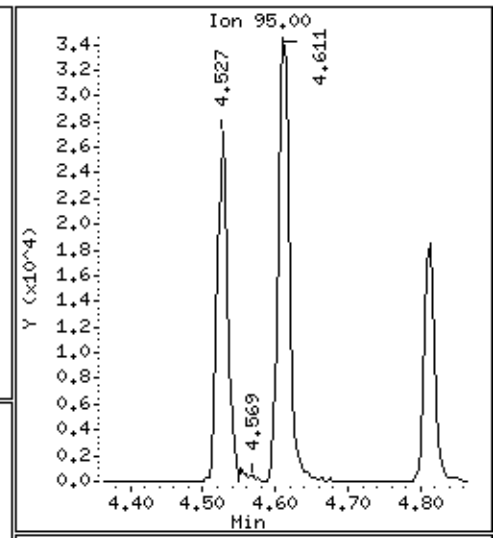
Concentration: 167 ug/kg

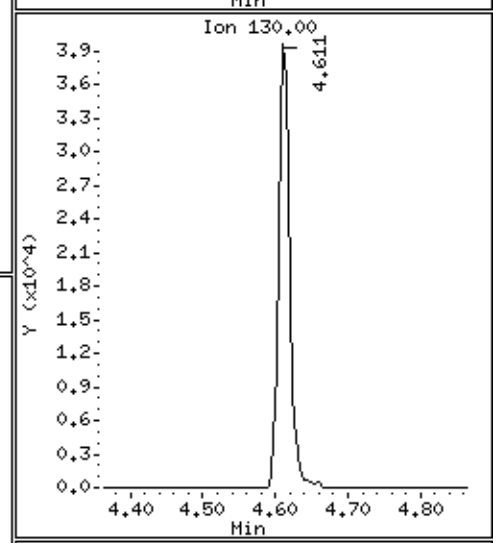


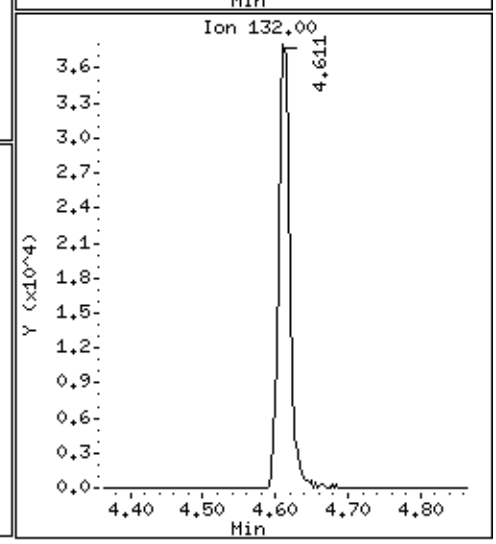












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

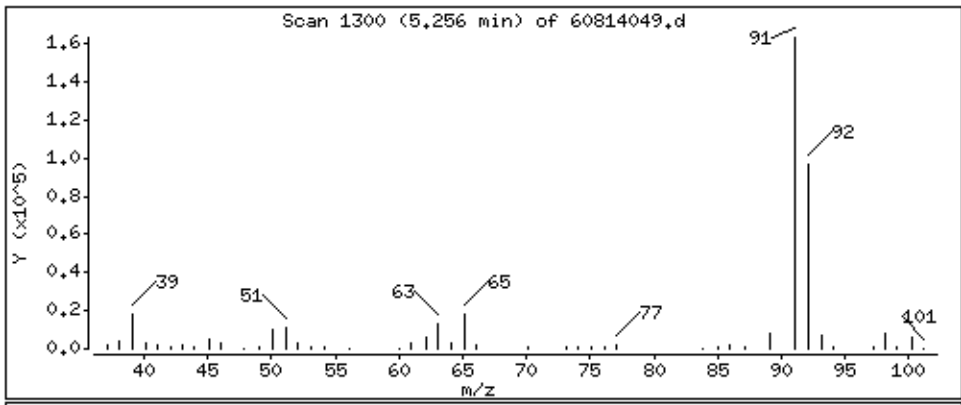
Operator: ARG

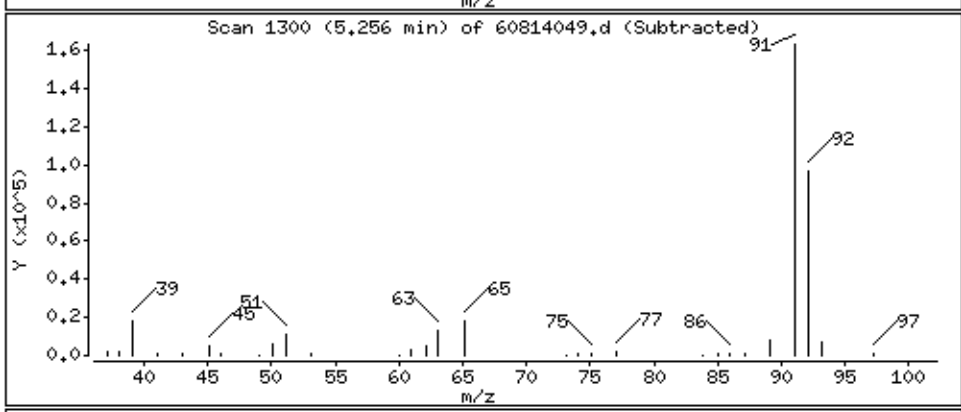
Column phase: RTX-VMS

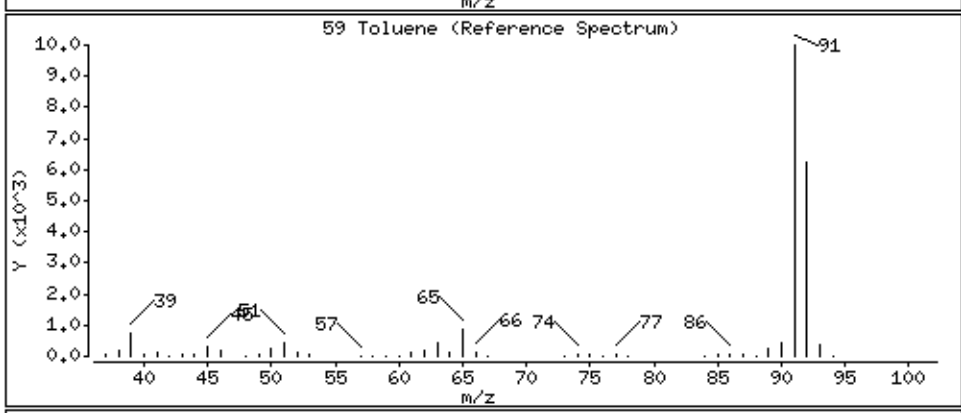
Column diameter: 0.18

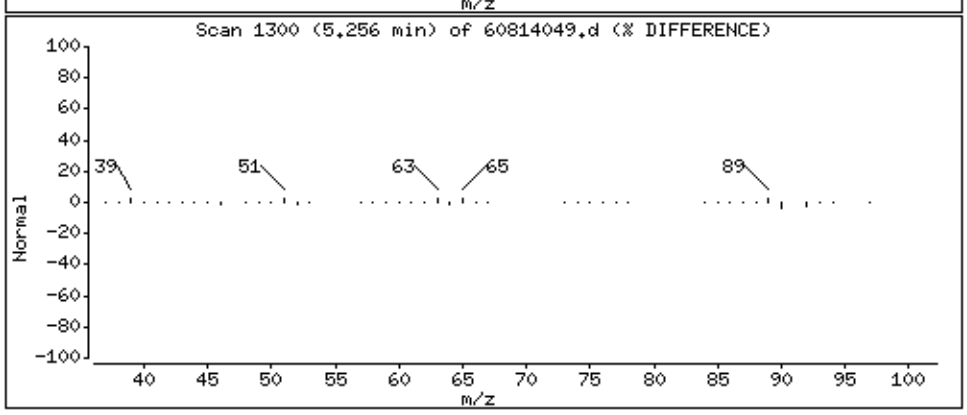
59 Toluene

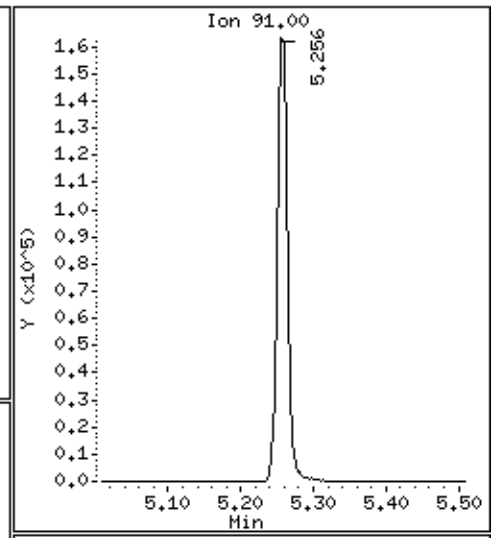
Concentration: 170 ug/kg

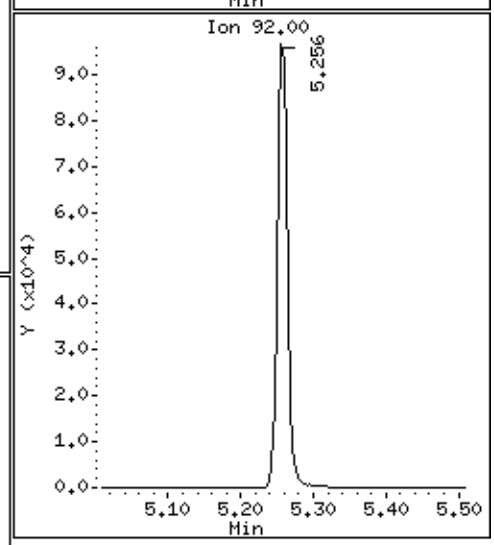












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

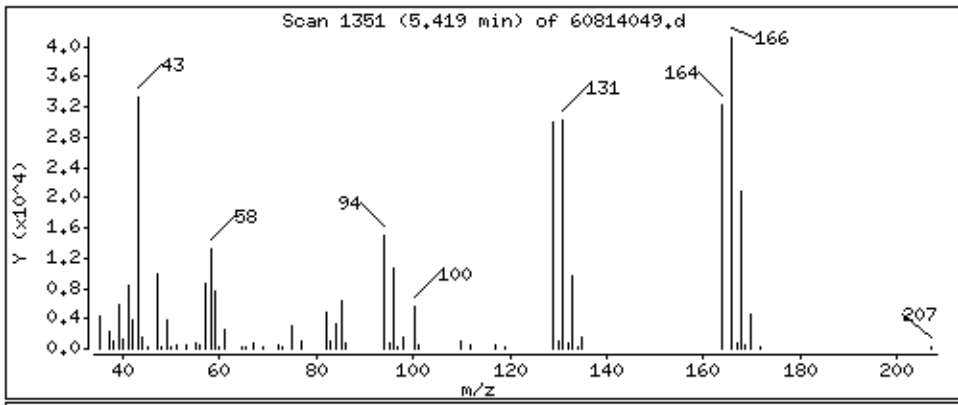
Operator: ARG

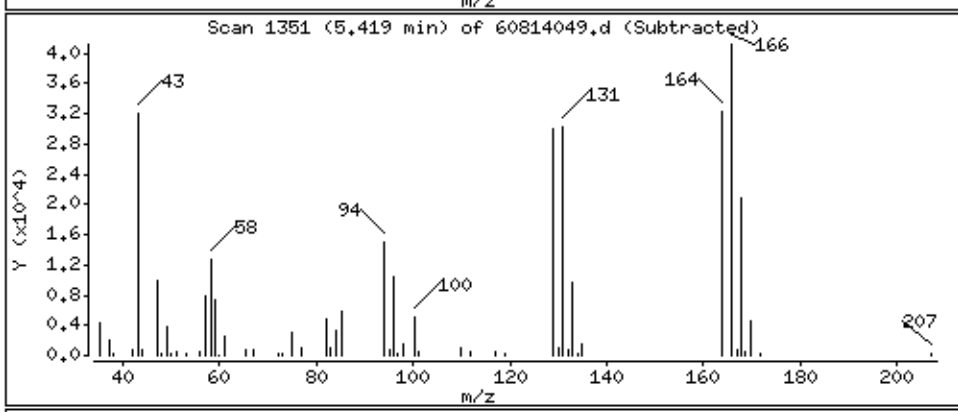
Column phase: RTX-VMS

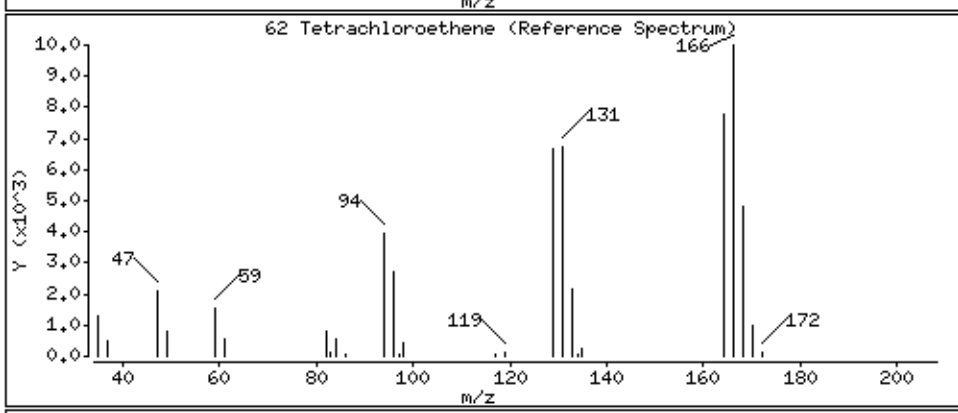
Column diameter: 0.18

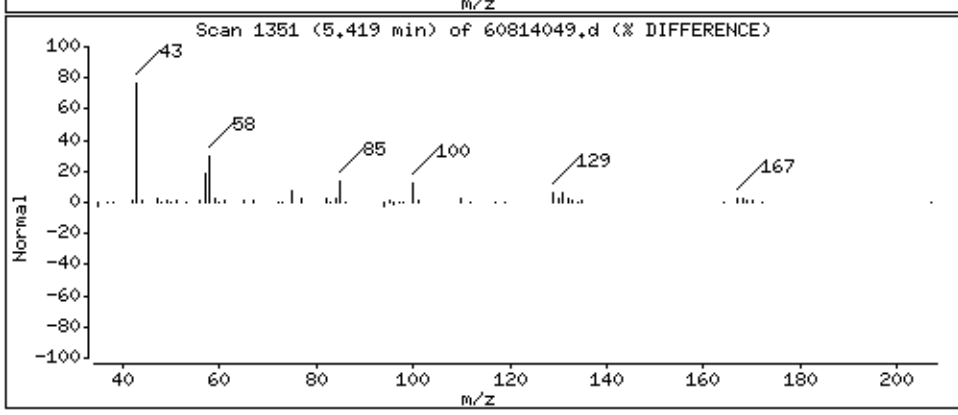
62 Tetrachloroethene

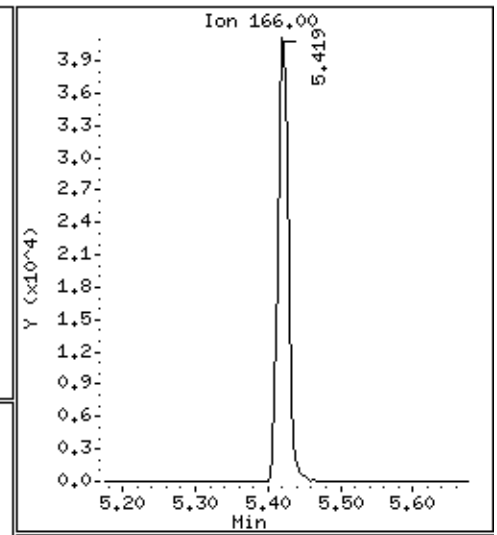
Concentration: 173 ug/kg

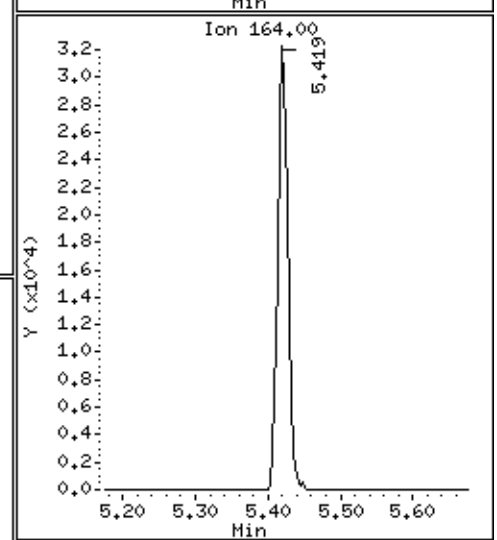


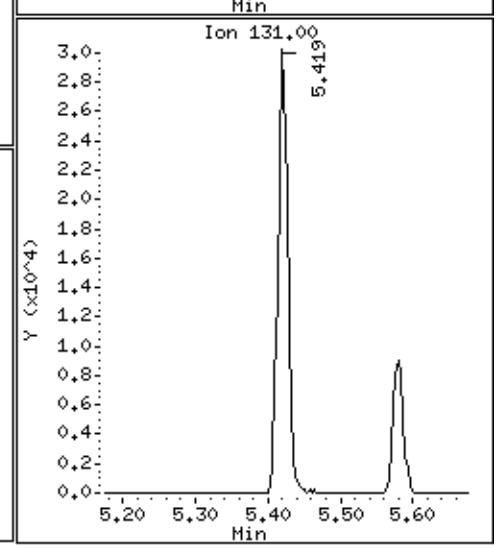












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

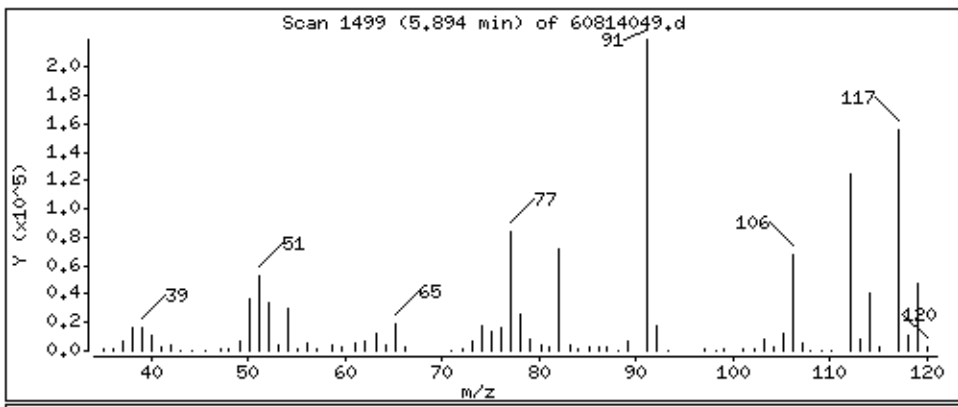
Operator: ARG

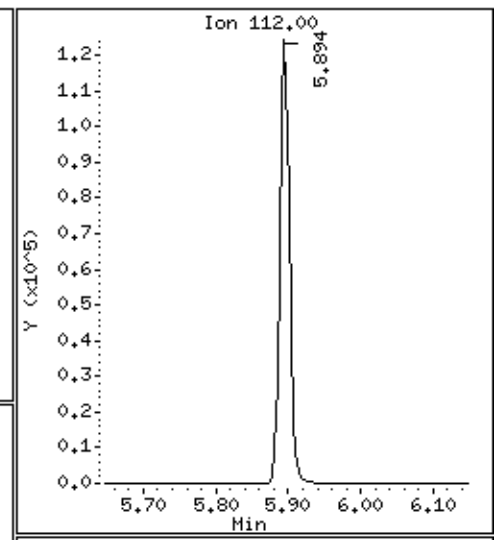
Column phase: RTX-VMS

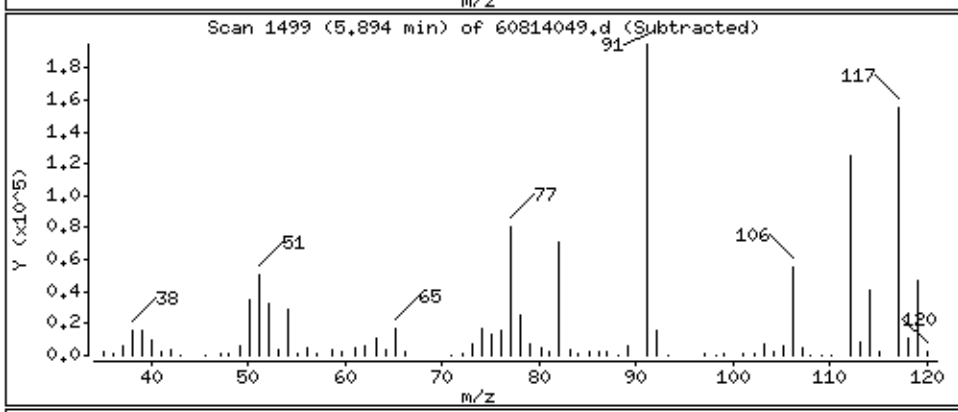
Column diameter: 0.18

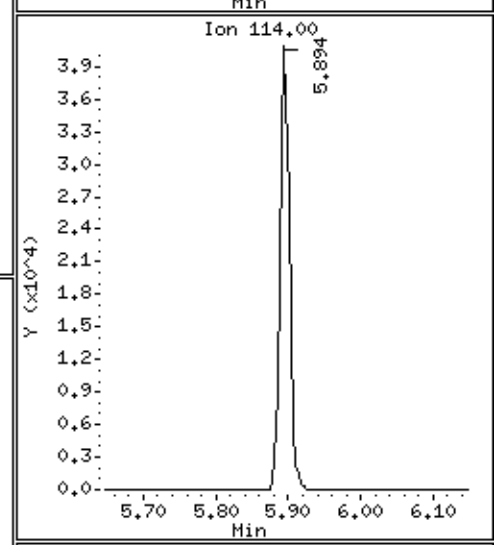
72 Chlorobenzene

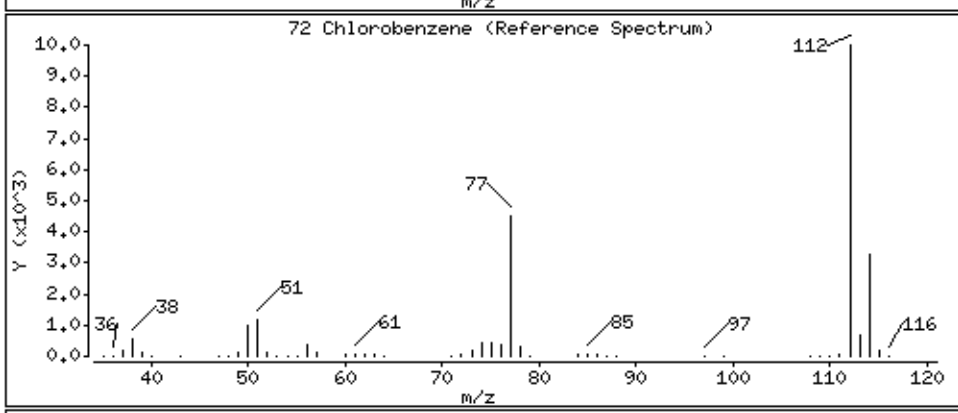
Concentration: 176 ug/kg

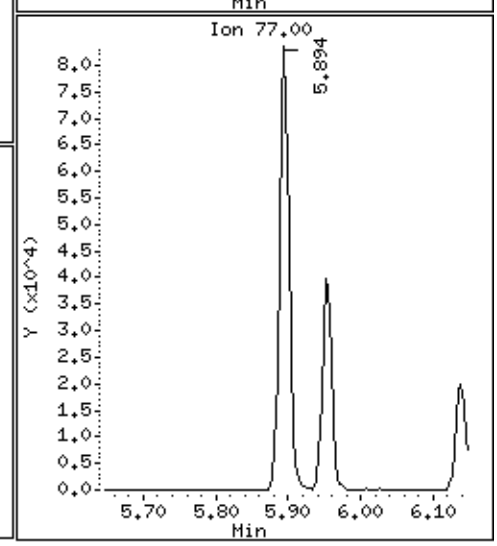


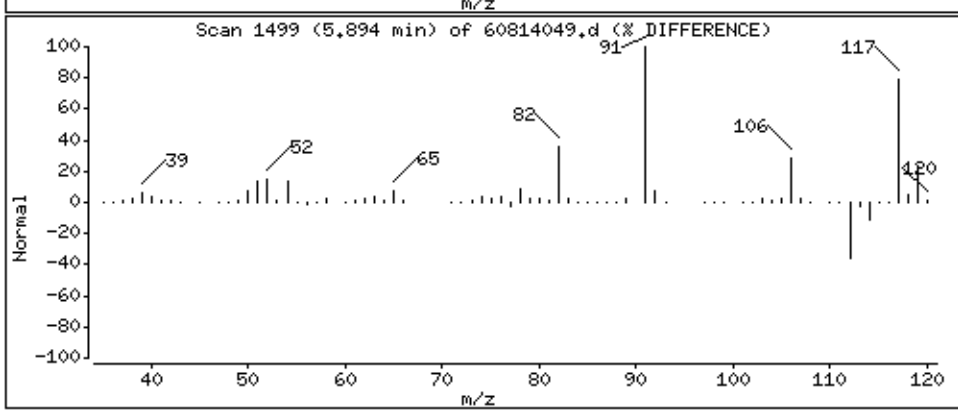












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

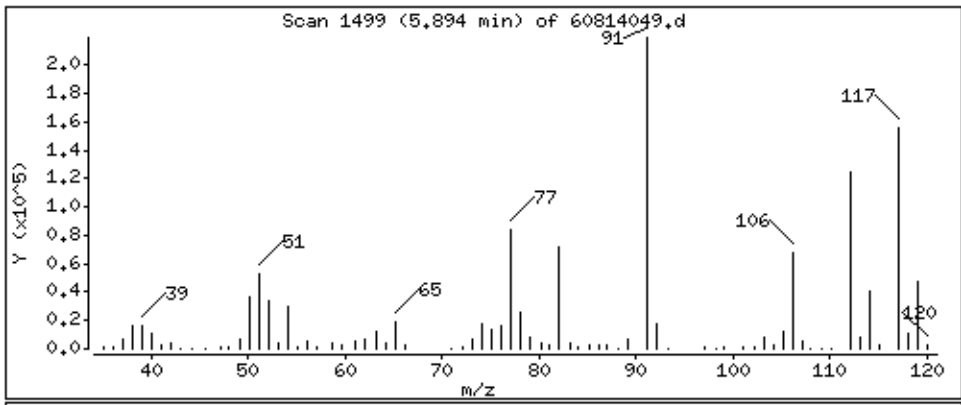
Operator: ARG

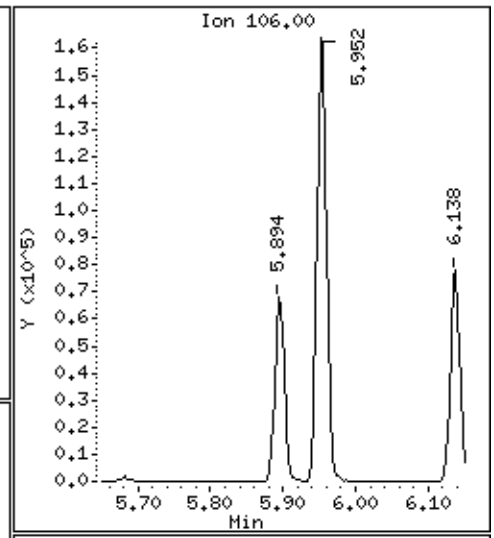
Column phase: RTX-VMS

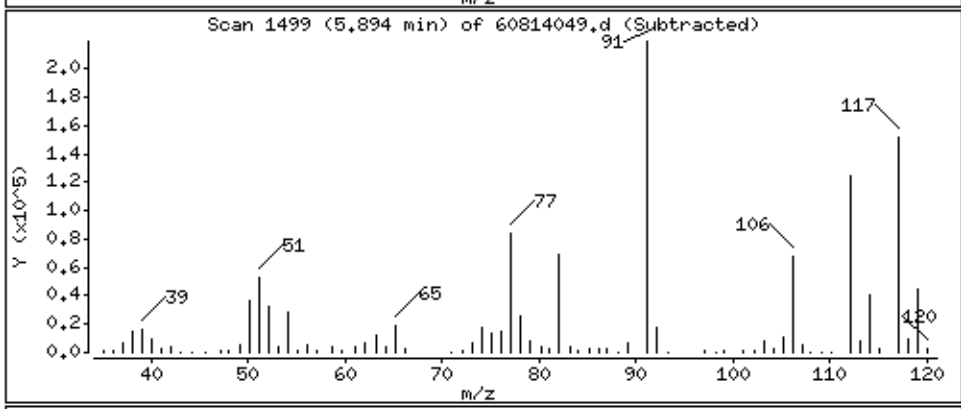
Column diameter: 0.18

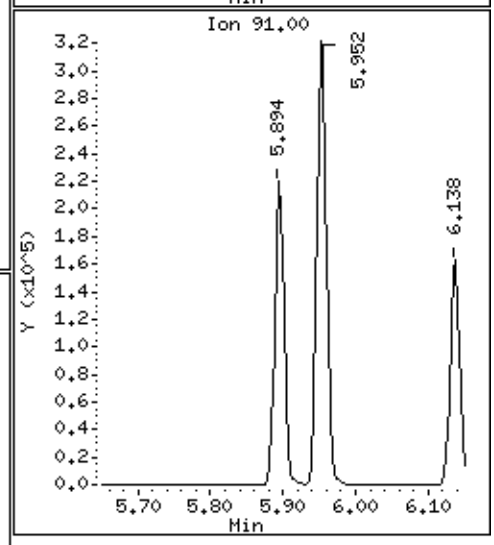
70 Ethylbenzene

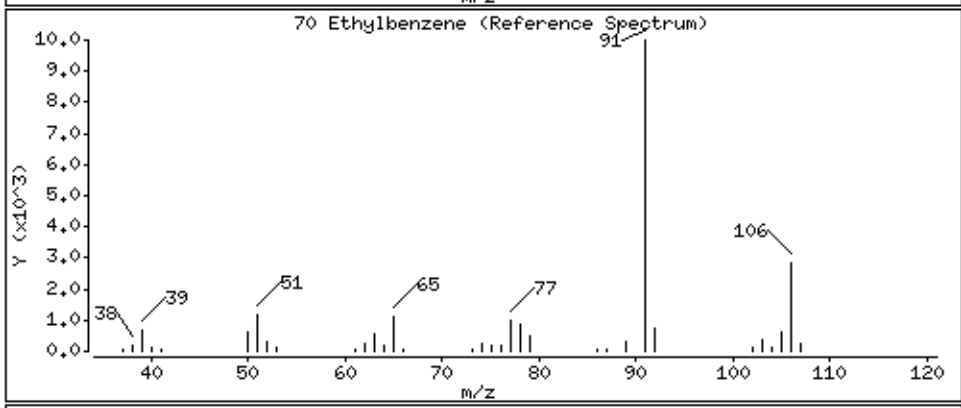
Concentration: 174 ug/kg

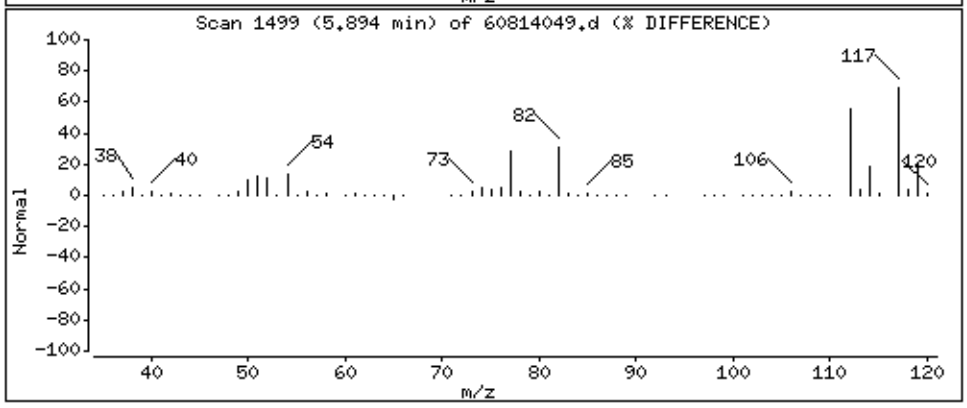












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

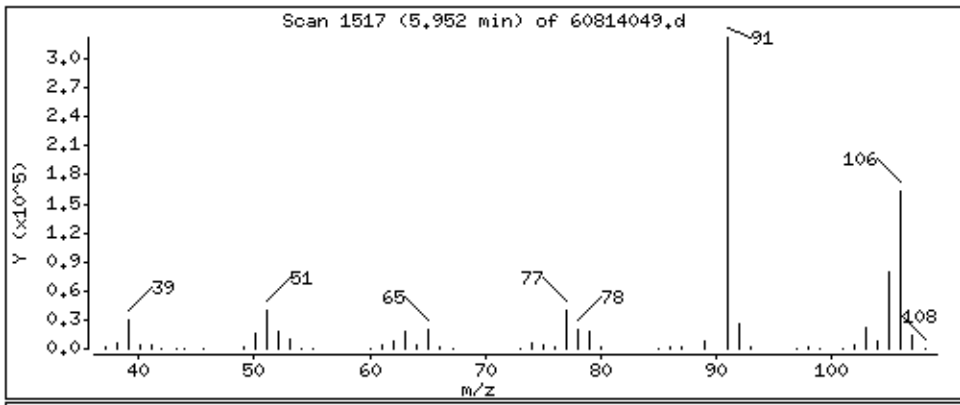
Operator: ARG

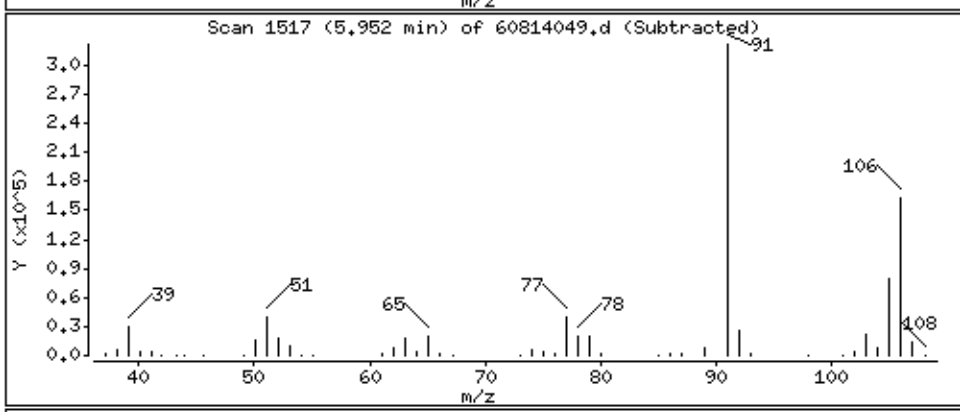
Column phase: RTX-VMS

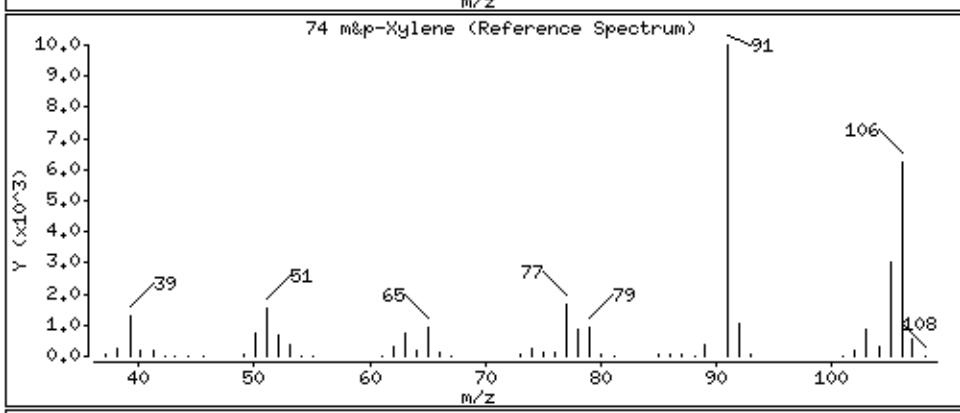
Column diameter: 0.18

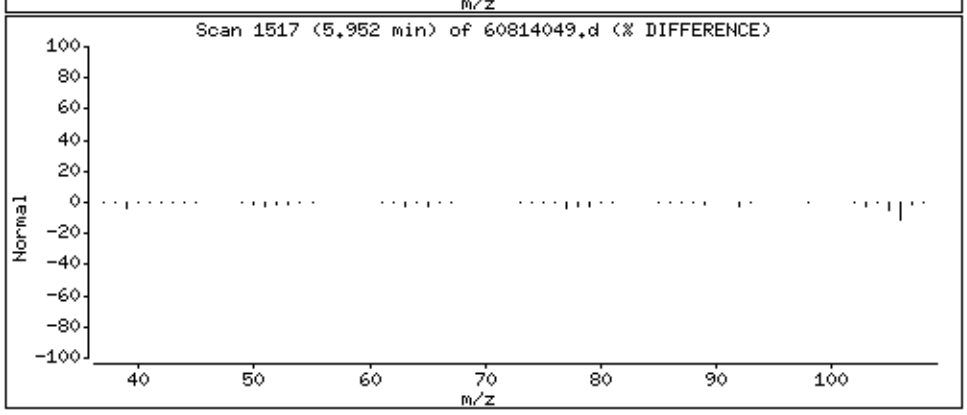
74 m&p-Xylene

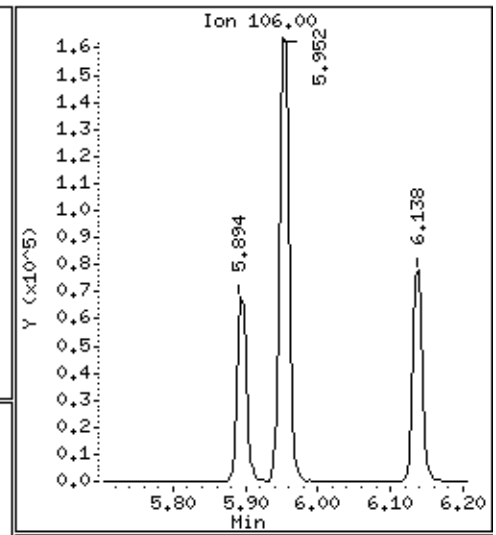
Concentration: 343 ug/kg

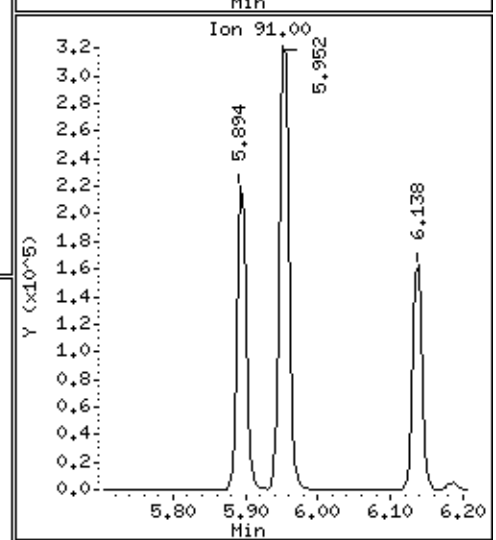












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

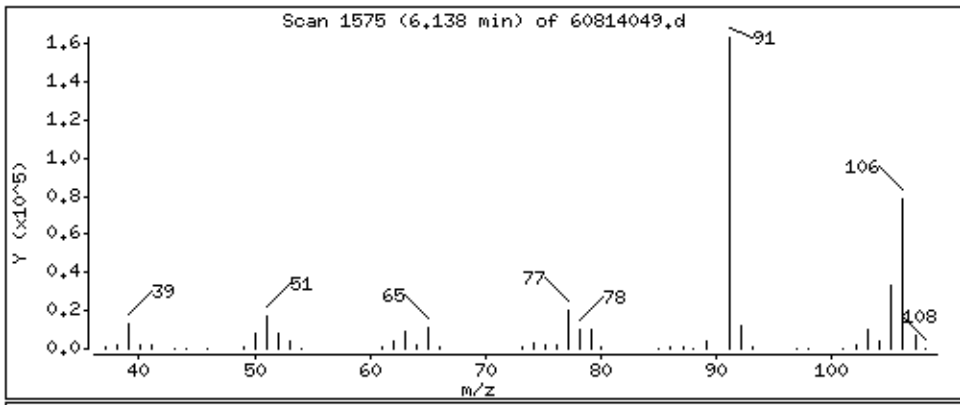
Operator: ARG

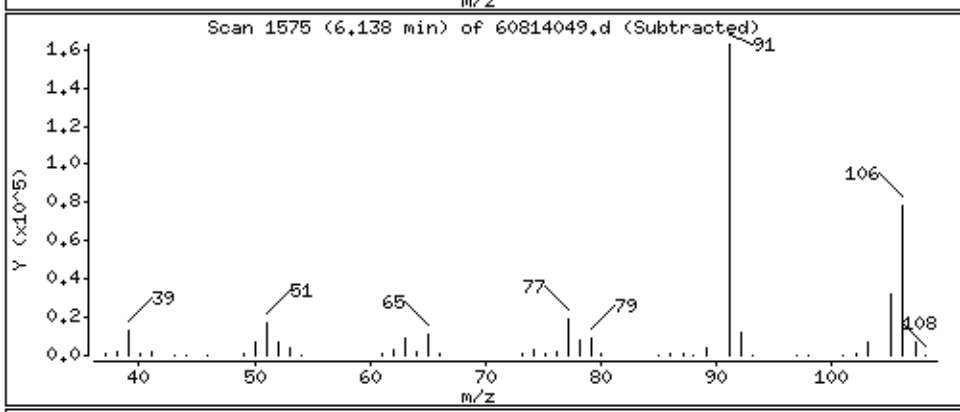
Column phase: RTX-VMS

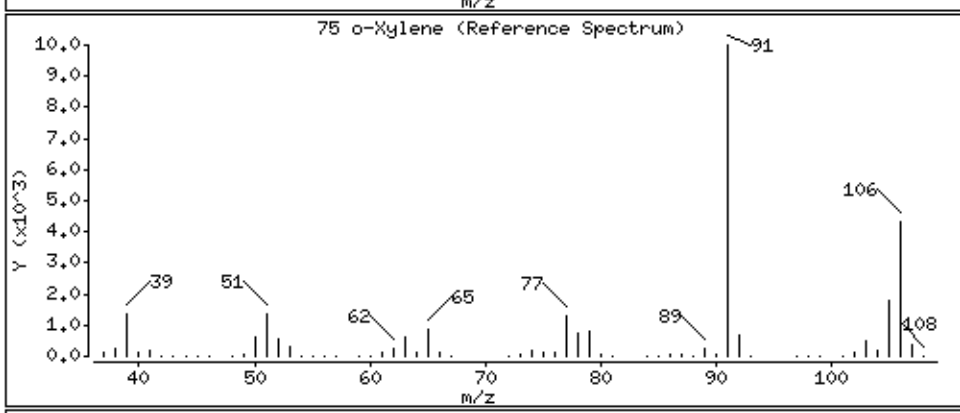
Column diameter: 0.18

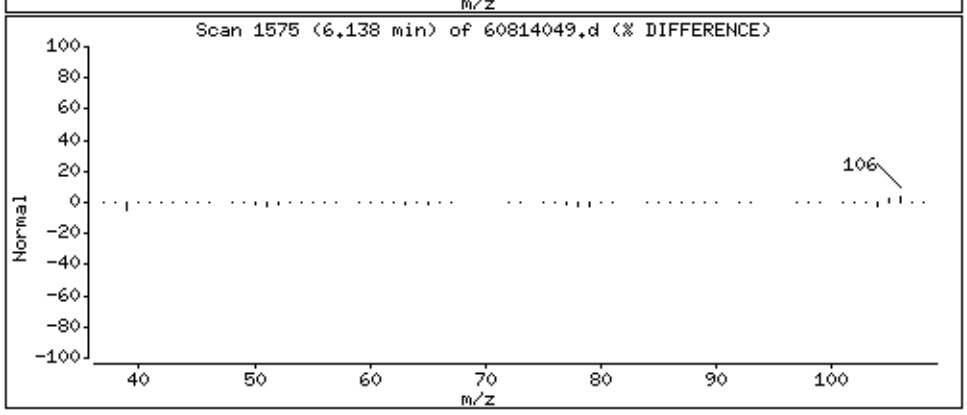
75 o-Xylene

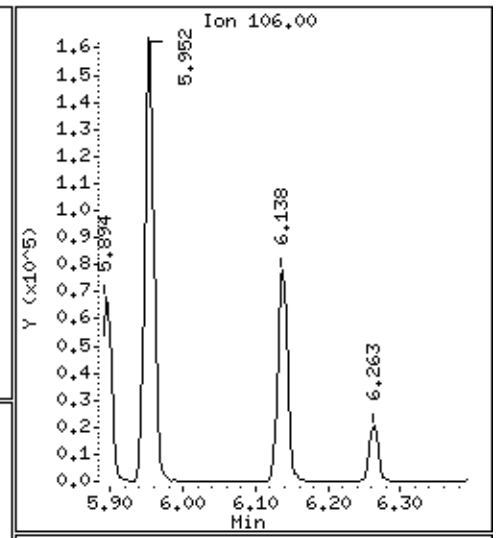
Concentration: 169 ug/kg

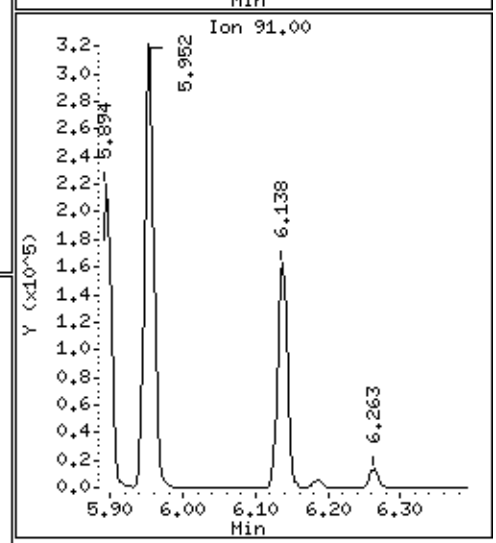












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

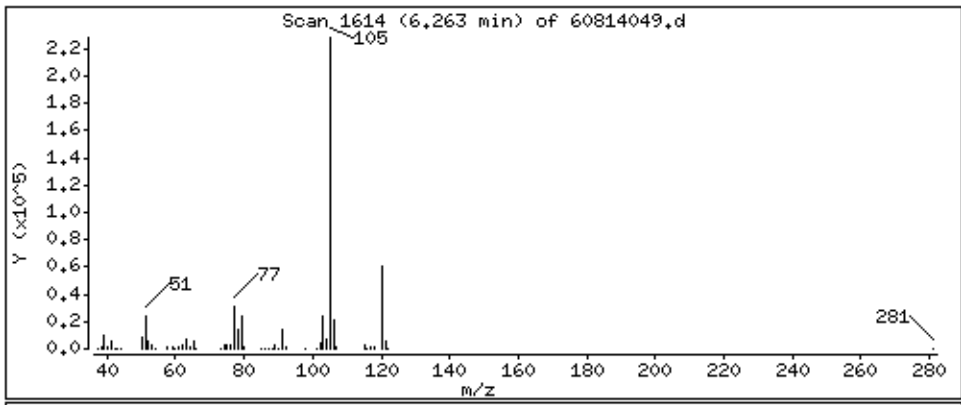
Operator: ARG

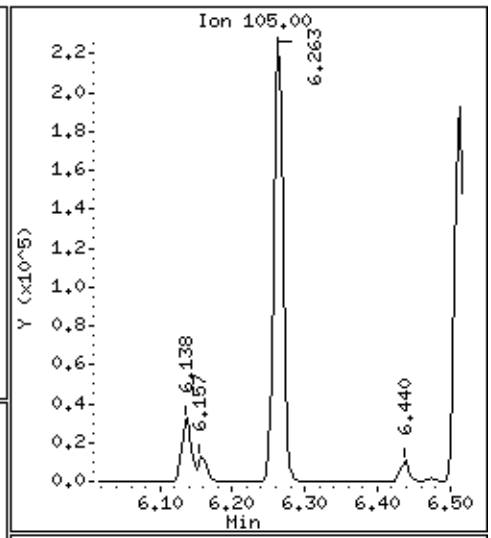
Column phase: RTX-VMS

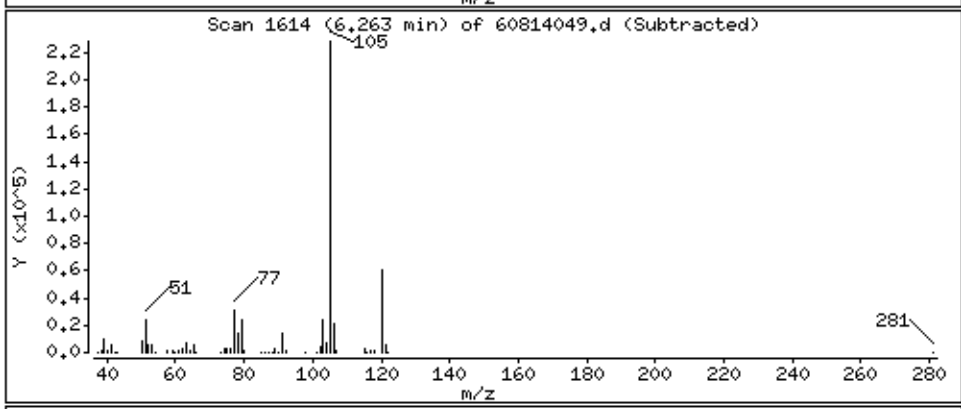
Column diameter: 0.18

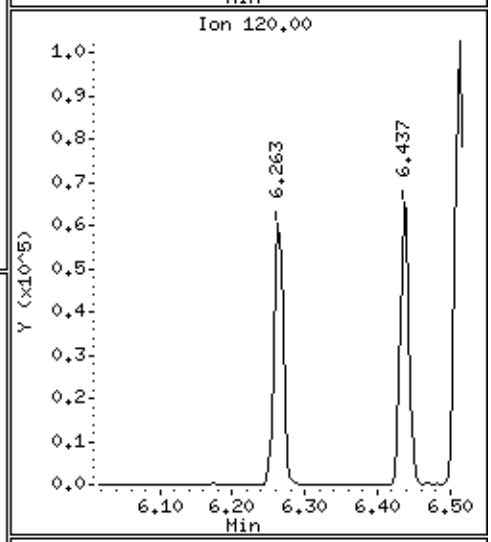
78 Isopropylbenzene (Cumene)

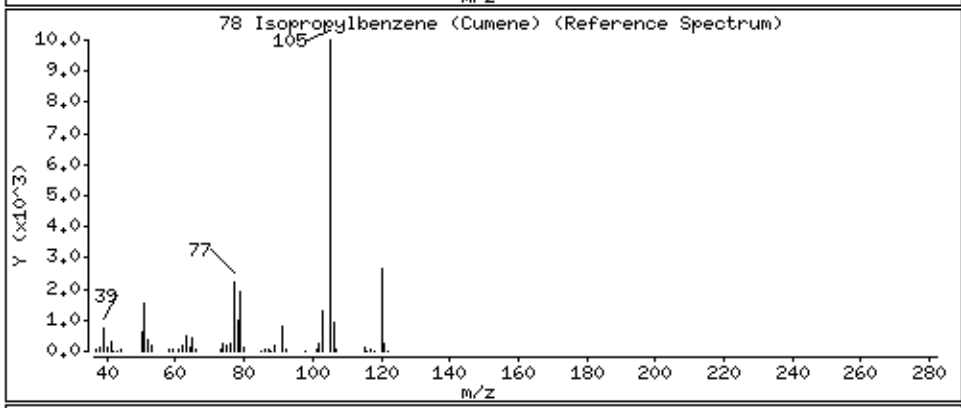
Concentration: 180 ug/kg

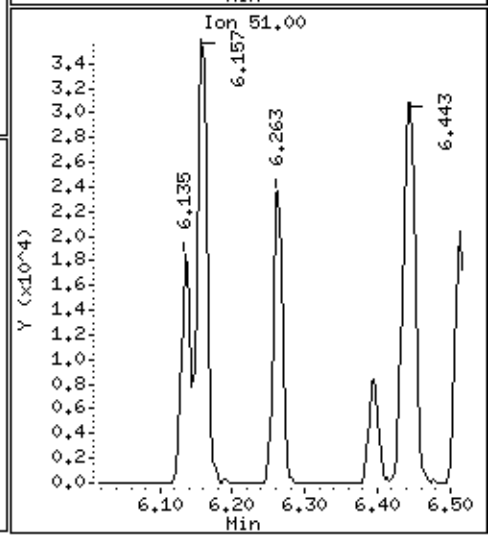


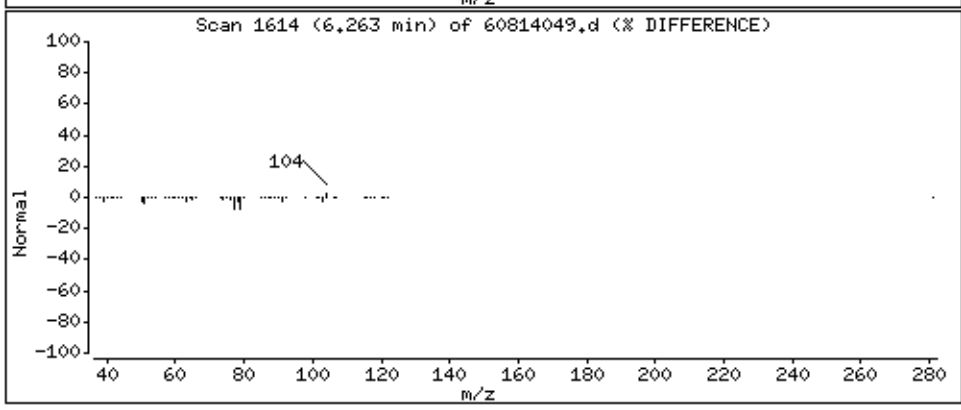












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

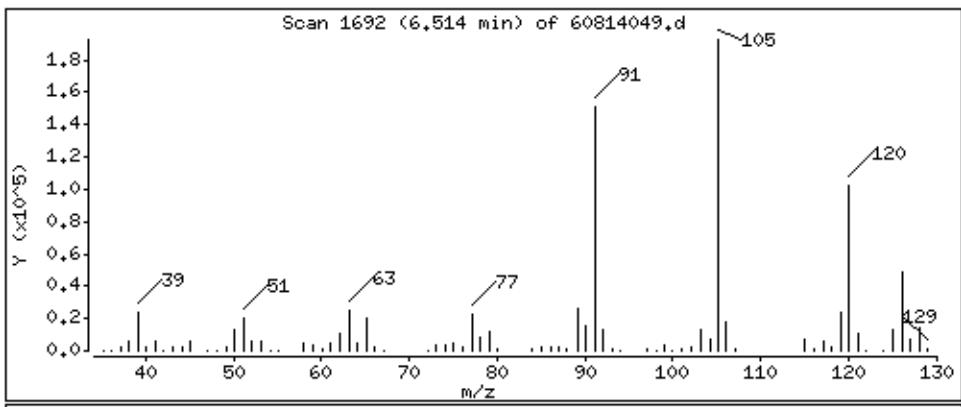
Operator: ARG

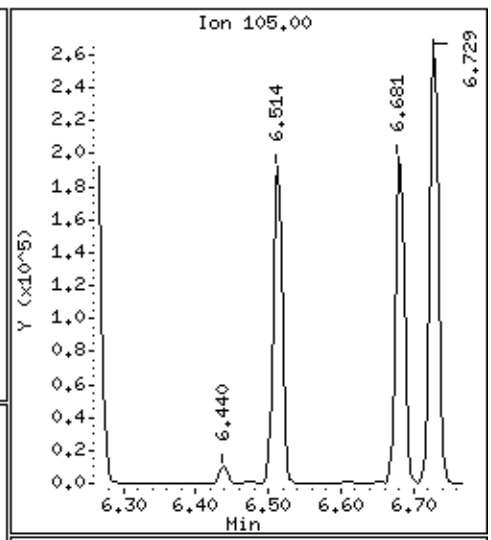
Column phase: RTX-VMS

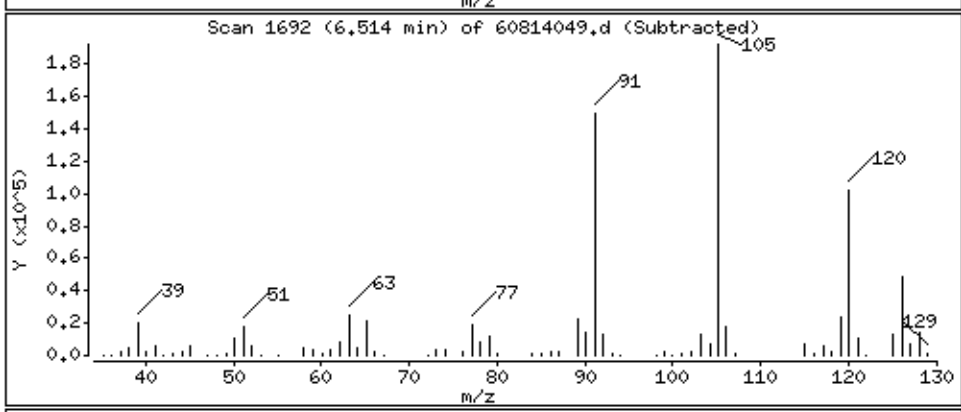
Column diameter: 0.18

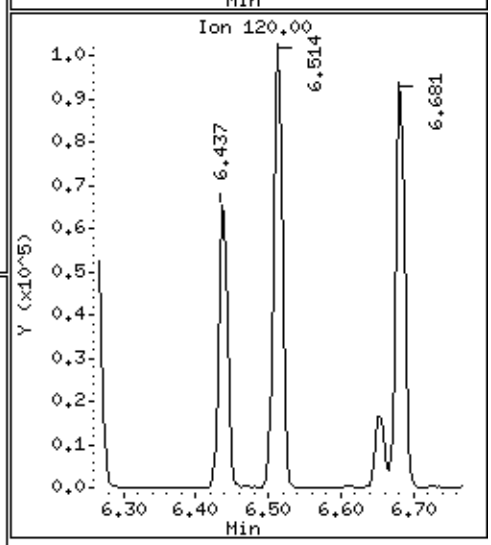
83 1,3,5-Trimethylbenzene

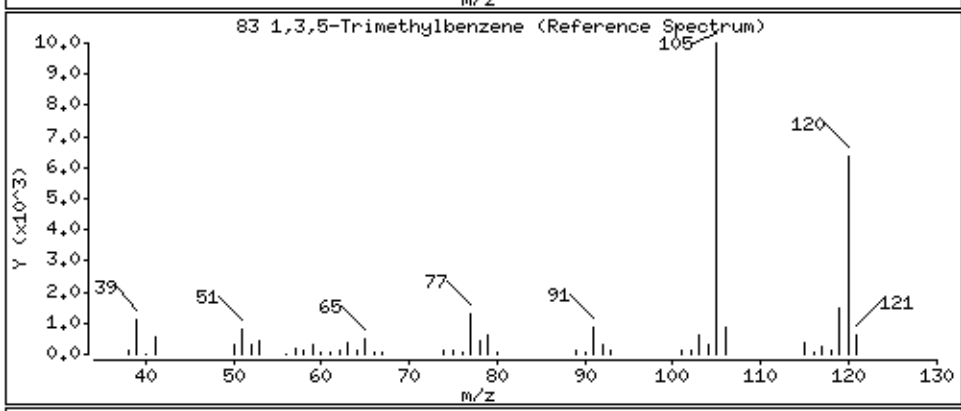
Concentration: 177 ug/kg

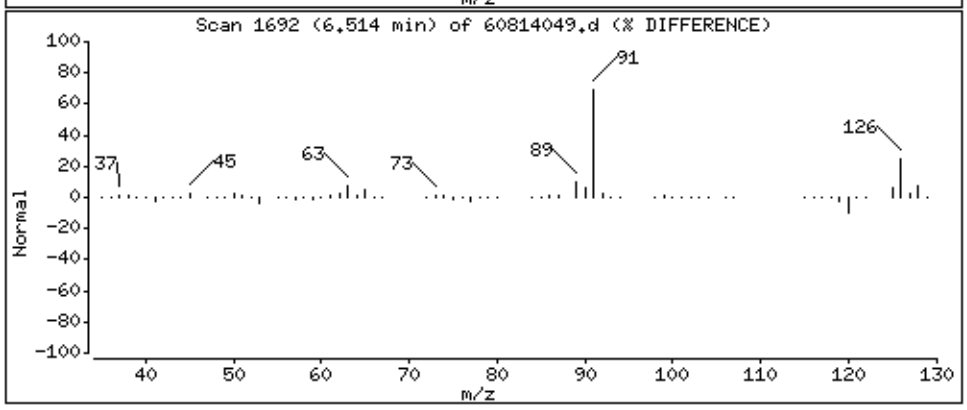












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

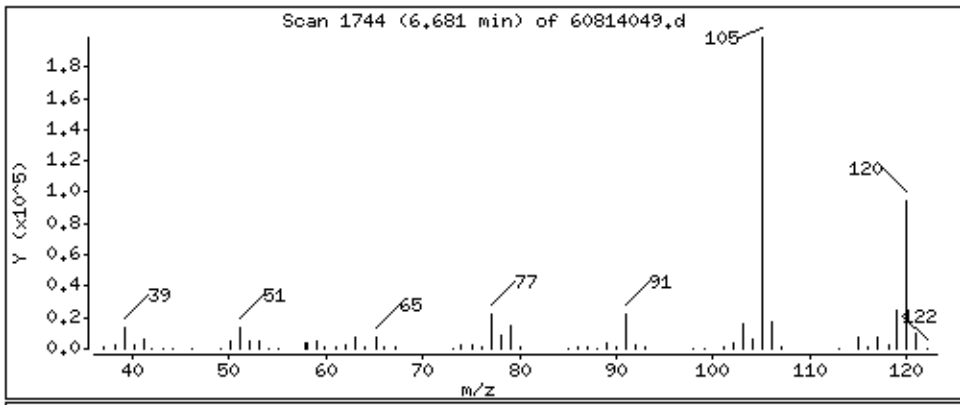
Operator: ARG

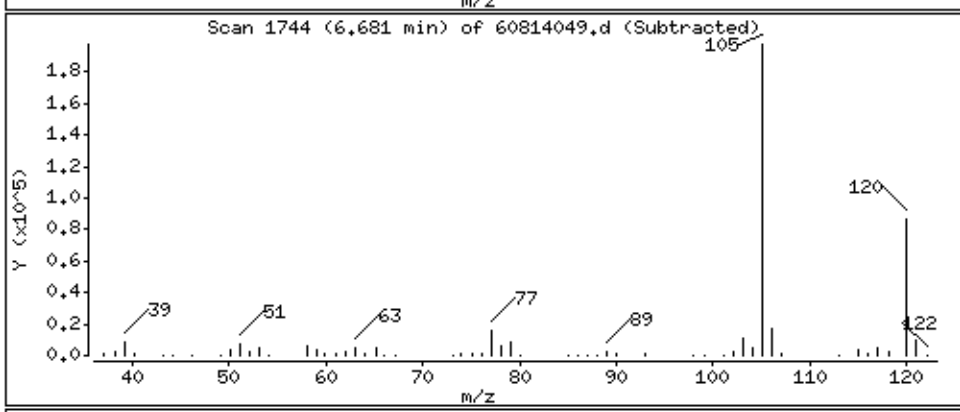
Column phase: RTX-VMS

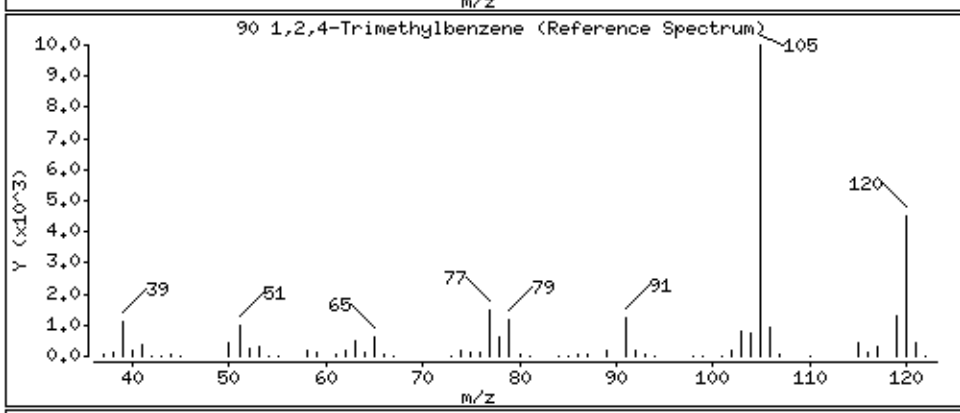
Column diameter: 0.18

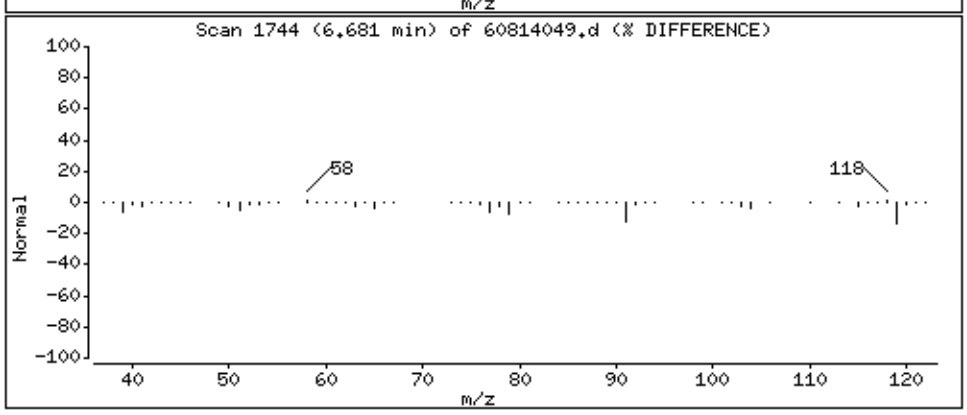
90 1,2,4-Trimethylbenzene

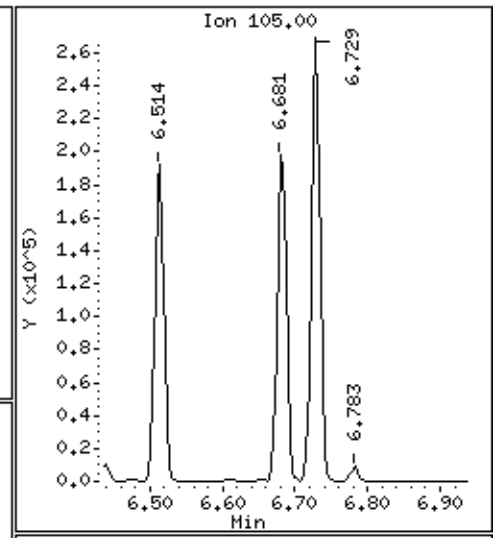
Concentration: 176 ug/kg

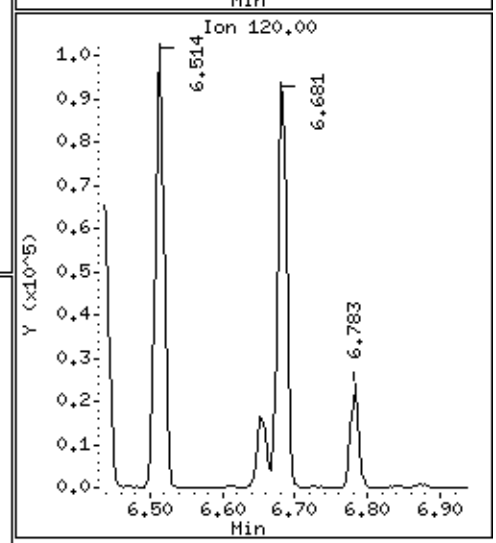












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814049.d

Date : 14-AUG-2019 19:00

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731938x10

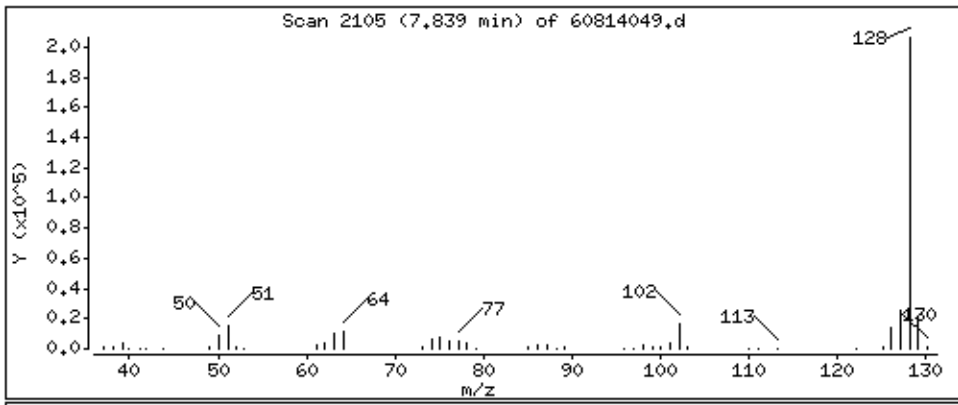
Operator: ARG

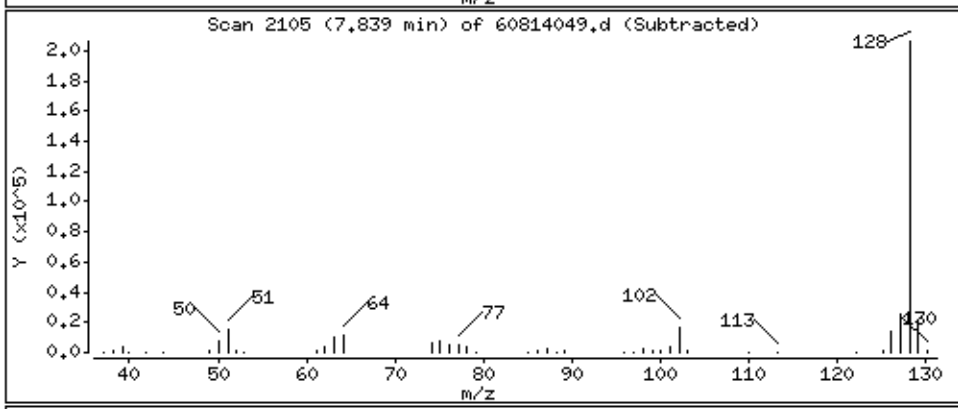
Column phase: RTX-VMS

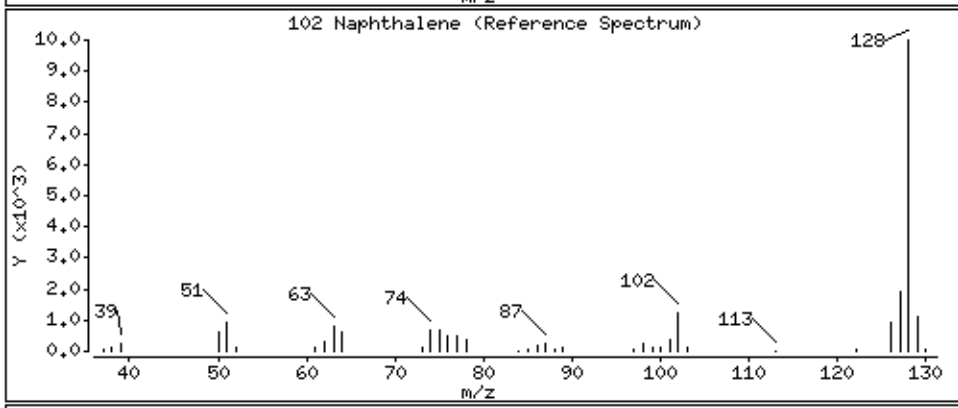
Column diameter: 0.18

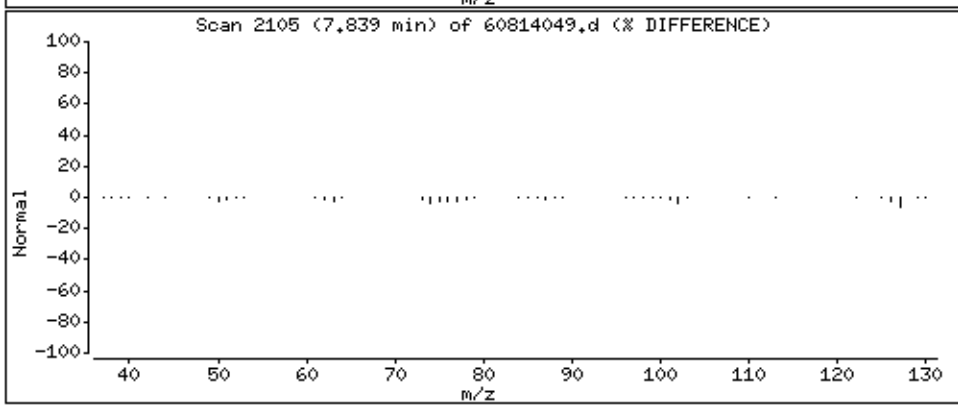
102 Naphthalene

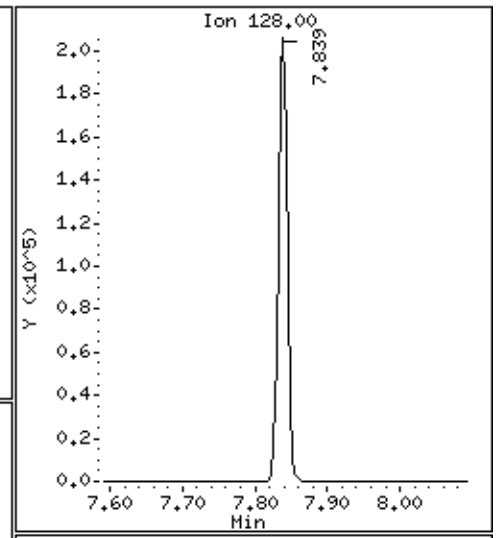
Concentration: 154 ug/kg

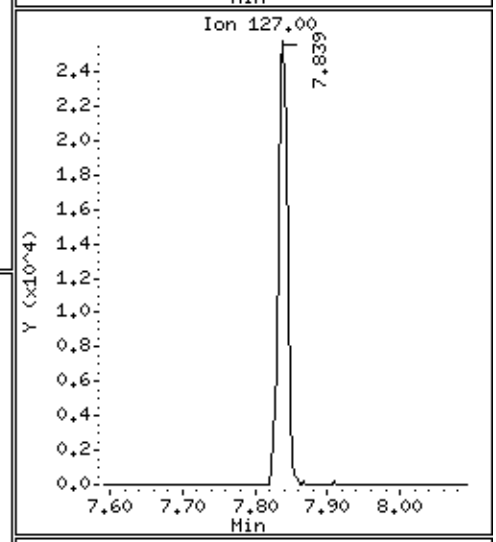


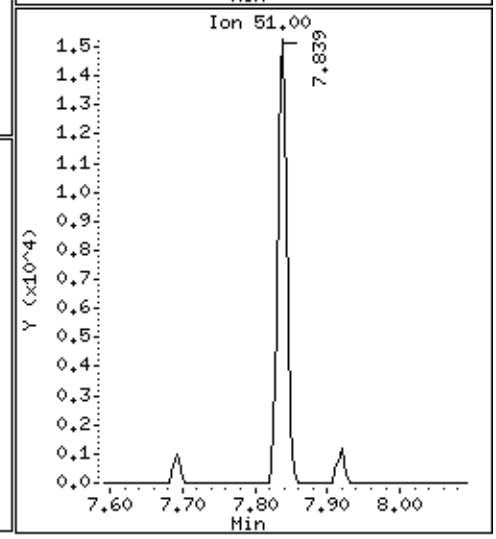












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814049.d
Injection Date: 14-AUG-2019 19:00
Instrument: 30mv6a.i
Lab Sample ID: 1731938
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 19:26 Lab Sample ID: 1731939

Date Analyzed: 08/14/2019 19:26 Lab File ID: 6190814.B\1.B\60814051.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV6A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
71-43-2	Benzene	100	
78-93-3	2-Butanone (MEK)	123	
56-23-5	Carbon tetrachloride	113	
108-90-7	Chlorobenzene	137	
67-66-3	Chloroform	125	
107-06-2	1,2-Dichloroethane	118	
75-35-4	1,1-Dichloroethene	73.7	
127-18-4	Tetrachloroethene	130	
79-01-6	Trichloroethene	122	
75-01-4	Vinyl chloride	ND	U

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

SW846-8260

Data file : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Lab Smp Id: 1731939 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 14-AUG-2019 19:26
Operator : ARG Inst ID: 30mv6a.i
Smp Info : 1731939x10
Misc Info : 45779
Comment :
Method : \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Meth Date : 15-Aug-2019 07:55 adeitch Quant Type: ISTD
Cal Date : 13-AUG-2019 14:23 Cal File: 60813013.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tclpplus.sub
Target Version: RC10A
Processing Host: 30MSV2WS10B6

Concentration Formula: Amt * DF * Uf/(Ws*(100-M)/100) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Ws	5.000	Weight of sample extracted (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	3 Vinyl Chloride	62	1.395	1.395	(0.308)	6385		(aQR)	
	9 1,1-Dichloroethene	61	2.078	2.079	(0.459)	23110	7.37291	73.7(R)	
	17 trans-1,2-Dichloroethene	61	2.624	2.627	(0.580)	29245	9.47198	94.7(RM)	LT
	20 Methyl-tert-butyl ether	73	2.710	2.714	(0.599)	69355	11.3847	114(QR)	
	29 cis-1,2-Dichloroethene	61	3.721	3.725	(0.822)	39649	9.76204	97.6(R)	
	33 Chloroform	83	3.939	3.943	(0.870)	46996	12.5096	125(R)	
	34 Carbon Tetrachloride	117	4.020	4.022	(0.888)	29114	11.2598	112(R)	
$	37 Dibromofluoromethane (S)	111	4.065	4.067	(0.898)	85788	30.2705	30.3	
	39 2-Butanone (MEK)	43	4.151	4.158	(0.917)	19115	12.2879	123(QR)	
	41 Benzene	78	4.299	4.306	(0.950)	92218	10.0202	100(R)	
$	45 1,2-Dichloroethane-d4 (S)	65	4.382	4.383	(0.968)	85186	31.4413	31.4	
	47 1,2-Dichloroethane	62	4.418	4.418	(0.976)	35267	11.8204	118(R)	
*	48 Fluorobenzene (IS)	96	4.527	4.530	(1.000)	313154	30.0000		
	50 Trichloroethene	95	4.610	4.614	(0.783)	27082	12.2367	122(R)	
$	58 Toluene-d8 (S)	98	5.236	5.236	(0.889)	299156	29.2535	29.2	
	59 Toluene	91	5.255	5.259	(0.893)	120094	12.9781	130(R)	
	62 Tetrachloroethene	166	5.419	5.426	(0.920)	30553	13.0130	130(R)	
*	71 Chlorobenzene-d5 (IS)	117	5.887	5.891	(1.000)	259407	30.0000		
	72 Chlorobenzene	112	5.894	5.897	(1.001)	89804	13.6958	137(R)	
	70 Ethylbenzene	106	5.894	5.901	(1.001)	45386	13.1257	131(R)	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	74 m&p-Xylene	106	5.951	5.955	(1.011)	110766	25.8119	258(R)	
	75 o-Xylene	106	6.138	6.141	(1.043)	54613	12.9716	130(R)	
	78 Isopropylbenzene (Cumene)	105	6.263	6.266	(0.912)	146948	13.7896	138	
$	79 4-Bromofluorobenzene (S)	174	6.397	6.401	(0.931)	110435	30.1799	30.2	
	83 1,3,5-Trimethylbenzene	105	6.513	6.517	(0.948)	121670	13.5220	135(R)	
	90 1,2,4-Trimethylbenzene	105	6.680	6.687	(0.972)	128411	13.5858	136(R)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.869	6.873	(1.000)	150370	30.0000		
	102 Naphthalene	128	7.838	7.842	(1.141)	131364	12.0803	121(R)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 30mv6a.i
Lab File ID: 60814051.d
Lab Smp Id: 1731939
Analysis Type: VOA
Quant Type: ISTD
Operator: ARG
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

Calibration Date: 14-AUG-2019
Calibration Time: 09:30
Client Smp ID: AOC 32 DITCH &
Level: LOW
Sample Type: SOIL

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 4

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	365292	182646	730584	313154	-14.27
71 Chlorobenzene-d5	277666	138833	555332	259407	-6.58
94 1,4-Dichlorobenze	164337	82169	328674	150370	-8.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
48 Fluorobenzene (IS	4.53	4.03	5.03	4.53	-0.00
71 Chlorobenzene-d5	5.89	5.39	6.39	5.89	-0.00
94 1,4-Dichlorobenze	6.87	6.37	7.37	6.87	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

RECOVERY REPORT

Client Name: Client SDG: 1.b
Sample Matrix: Solid Fraction: VOA
Lab Smp Id: 1731939 Client Smp ID: AOC 32 DITCH & AOC
Level: LOW Operator: ARG
Data Type: MS DATA SampleType: MSD
SpikeList File: lcs.spk Quant Type: ISTD
Sublist File: tclpplus.sub
Method File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\msv6081319a.m
Misc Info: 45779

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
1 Dichlorodifluorom	20.0	0.000	*	70-130
2 Chloromethane	20.0	0.000	*	70-130
3 Vinyl Chloride	20.0	0.000	0.00*	70-130
4 Bromomethane	20.0	0.000	*	70-130
5 Chloroethane	20.0	0.000	*	70-130
6 Trichlorofluorome	20.0	0.000	*	70-130
8 Ethanol	200	0.000	*	10-175
9 1,1-Dichloroethene	20.0	73.7	368.65*	70-130
10 1,1,2-Trichlorotr	20.0	0.000	*	50-150
11 Carbon disulfide	20.0	0.000	*	70-130
12 Iodomethane	50.0	0.000	*	70-130
13 Acrolein	20.0	0.000	*	70-130
14 Allyl chloride	50.0	0.000	*	70-130
15 Methylene Chloride	20.0	0.000	*	70-130
16 Acetone	20.0	0.000	*	70-130
17 trans-1,2-Dichloro	20.0	94.7	473.60*	70-130
18 Methyl acetate	20.0	0.000	*	70-130
19 n-Hexane	20.0	0.000	*	50-150
20 Methyl-tert-butyl	20.0	114	569.24*	50-150
22 Acetonitrile	50.0	0.000	*	70-130
23 Diisopropyl ether	20.0	0.000	*	70-130
24 Chloroprene	20.0	0.000	*	70-130
25 1,1-Dichloroethane	20.0	0.000	*	70-130
26 Acrylonitrile	20.0	0.000	*	70-130
27 Ethyl-tert-butyl	20.0	0.000	*	50-150
28 Vinyl acetate	20.0	0.000	*	70-130
29 cis-1,2-Dichloroet	20.0	97.6	488.10*	70-130
30 2,2-Dichloropropa	20.0	0.000	*	70-130
31 Cyclohexane	20.0	0.000	*	70-130
32 Bromochloromethane	20.0	0.000	*	70-130
33 Chloroform	20.0	125	625.48*	70-130
34 Carbon Tetrachlori	20.0	112	562.99*	70-130
35 Ethyl acetate	20.0	0.000	*	70-130
36 Tetrahydrofuran	20.0	0.000	*	70-130
38 1,1,1-Trichloroet	20.0	0.000	*	70-130
39 2-Butanone (MEK)	20.0	123	614.39*	50-150
40 1,1-Dichloroprope	20.0	0.000	*	70-130
41 Benzene	20.0	100	501.01*	70-130
42 Propionitrile	20.0	0.000	*	70-130
43 Methacrylonitrile	20.0	0.000	*	70-130

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

SPIKE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
44 tert-Amylmethyl e	20.0	0.000	*	50-150
46 Isobutanol	20.0	0.000	*	70-130
47 1,2-Dichloroethane	20.0	118	591.02*	70-130
49 Methylcyclohexane	20.0	0.000	*	70-130
50 Trichloroethene	20.0	122	611.84*	70-130
51 Dibromomethane	20.0	0.000	*	70-130
52 1,2-Dichloropropa	20.0	0.000	*	70-130
53 Bromodichlorometh	20.0	0.000	*	70-130
54 Methyl methacryla	20.0	0.000	*	70-130
55 1,4-Dioxane (p-Di	20.0	0.000	*	50-150
56 2-Chloroethylviny	20.0	0.000	*	50-150
57 cis-1,3-Dichlorop	20.0	0.000	*	70-130
59 Toluene	20.0	130	648.90*	70-130
60 2-Nitropropane	50.0	0.000	*	70-130
61 4-Methyl-2-pentan	20.0	0.000	*	50-150
62 Tetrachloroethene	20.0	130	650.65*	70-130
63 trans-1,3-Dichlor	20.0	0.000	*	70-130
64 Ethyl methacrylate	20.0	0.000	*	70-130
65 1,1,2-Trichloroet	20.0	0.000	*	70-130
66 Dibromochlorometh	20.0	0.000	*	70-130
67 1,3-Dichloropropa	20.0	0.000	*	70-130
69 2-Hexanone	20.0	0.000	*	70-130
70 Ethylbenzene	20.0	131	656.29*	70-130
72 Chlorobenzene	20.0	137	684.79*	70-130
73 1,1,1,2-Tetrachlo	20.0	0.000	*	70-130
74 m&p-Xylene	40.0	258	645.30*	50-150
75 o-Xylene	20.0	130	648.58*	70-130
76 Styrene	20.0	0.000	*	70-130
77 Bromoform	20.0	0.000	*	70-130
80 n-Propylbenzene	20.0	0.000	*	70-130
81 Bromobenzene	20.0	0.000	*	70-130
82 1,1,2,2-Tetrachlo	20.0	0.000	*	70-130
83 1,3,5-Trimethylben	20.0	135	676.10*	70-130
84 2-Chlorotoluene	20.0	0.000	*	70-130
85 1,2,3-Trichloropr	20.0	0.000	*	70-130
86 trans-1,4-Dichlor	20.0	0.000	*	50-150
87 Cyclohexanone	50.0	0.000	*	70-130
88 4-Chlorotoluene	20.0	0.000	*	70-130
90 1,2,4-Trimethylben	20.0	136	679.29*	70-130
92 p-Isopropyltoluene	20.0	0.000	*	50-150
93 1,3-Dichlorobenze	20.0	0.000	*	70-130
95 1,4-Dichlorobenze	20.0	0.000	*	70-130
97 1,2-Dichlorobenze	20.0	0.000	*	70-130
98 1,2-Dibromo-3-chl	20.0	0.000	*	70-130
100 Hexachloro-1,3-bu	20.0	0.000	*	50-150
101 1,2,4-Trichlorobe	20.0	0.000	*	70-130
102 Naphthalene	20.0	121	604.02*	70-130
103 1,2,3-Trichlorobe	20.0	0.000	*	70-130

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	30.0	30.3	100.90	0-130

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
$ 45 1,2-Dichloroethane	30.0	31.4	104.80	0-138
$ 58 Toluene-d8 (S)	30.0	29.2	97.51	0-124
$ 79 4-Bromofluorobenze	30.0	30.2	100.60	0-124

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Report Date: 15-Aug-2019 08:08

Pace Analytical Services, Inc.

TARGET COMPOUNDS

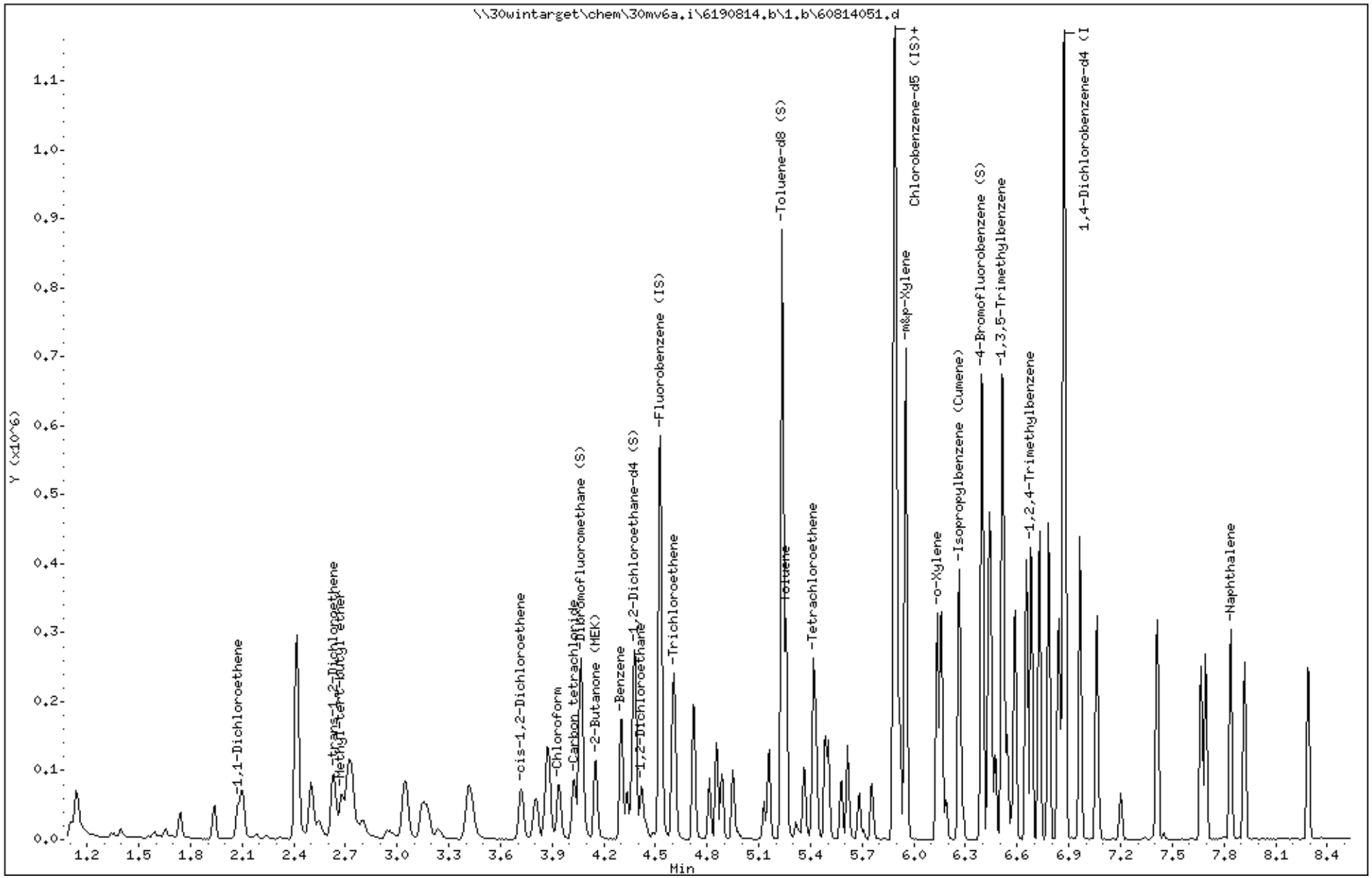
Client Name:
Lab Smp Id: 1731939
Sample Location:
Sample Date: 08-AUG-2019
Sample Matrix: SOIL
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 45779

Client SDG: 1.b
Client Smp ID: AOC 32 DITCH & AOC
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ISTD
Level: LOW
Operator: ARG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/kg	Q
75-01-4	Vinyl Chloride	0.000	J
75-35-4	1,1-Dichloroethene	73.7	
156-60-5	trans-1,2-Dichloroethene	94.7	
1634-04-4	Methyl-tert-butyl ether	114	
156-59-2	cis-1,2-Dichloroethene	97.6	
67-66-3	Chloroform	125	
56-23-5	Carbon Tetrachloride	112	
78-93-3	2-Butanone (MEK)	123	
71-43-2	Benzene	100	
107-06-2	1,2-Dichloroethane	118	
79-01-6	Trichloroethene	122	
108-88-3	Toluene	130	
127-18-4	Tetrachloroethene	130	
108-90-7	Chlorobenzene	137	
100-41-4	Ethylbenzene	131	
7816-60-0	m&p-Xylene	258	
95-47-6	o-Xylene	130	
98-82-8	Isopropylbenzene (Cumene)	138	
108-67-8	1,3,5-Trimethylbenzene	135	
95-63-6	1,2,4-Trimethylbenzene	136	
91-20-3	Naphthalene	121	
1868-53-7	Dibromofluoromethane (S)	30.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.4	
2037-26-5	Toluene-d8 (S)	29.2	
460-00-4	4-Bromofluorobenzene (S)	30.2	

Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d
Date : 14-AUG-2019 19:26
Client ID: AOC 32 DITCH & AOC
Sample Info: 1731939x10

Instrument: 30mv6a.i
Operator: ARG
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

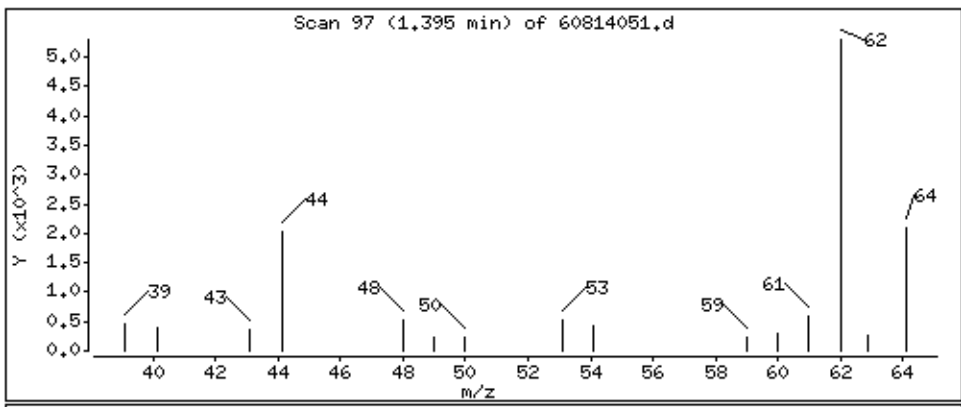
Sample Info: 1731939x10

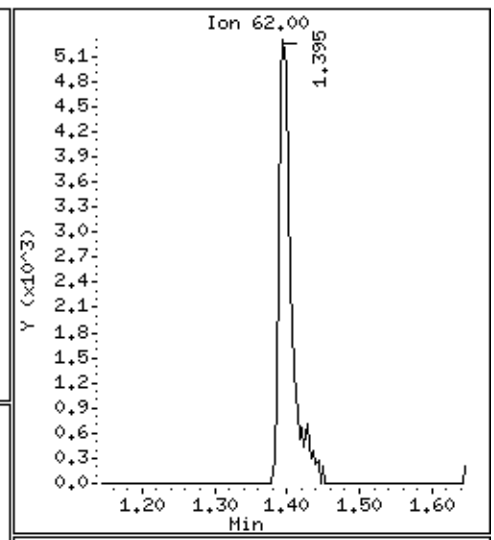
Operator: ARG

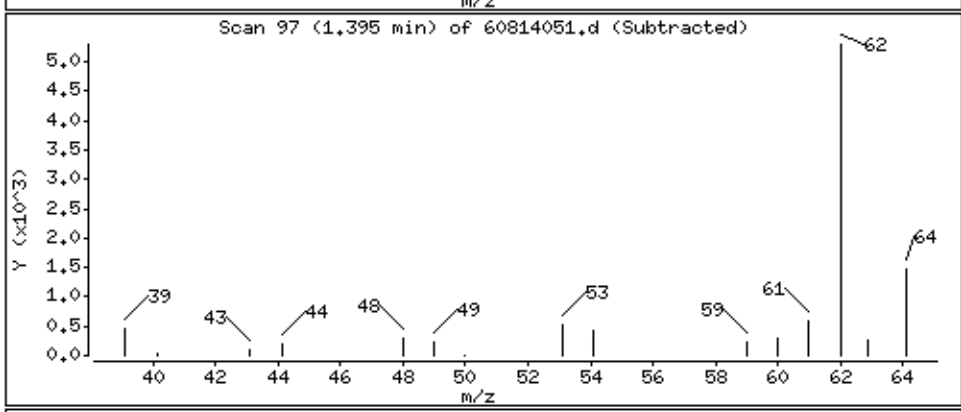
Column phase: RTX-VMS

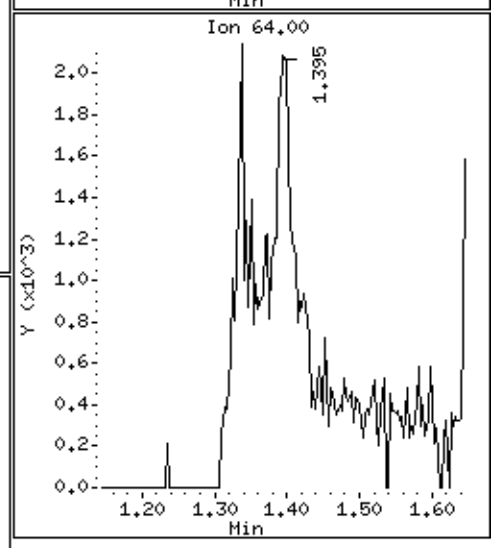
Column diameter: 0.18

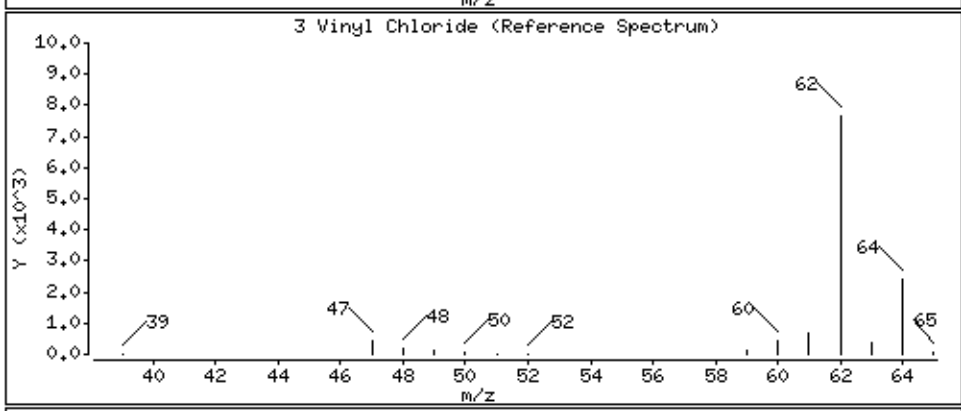
3 Vinyl Chloride

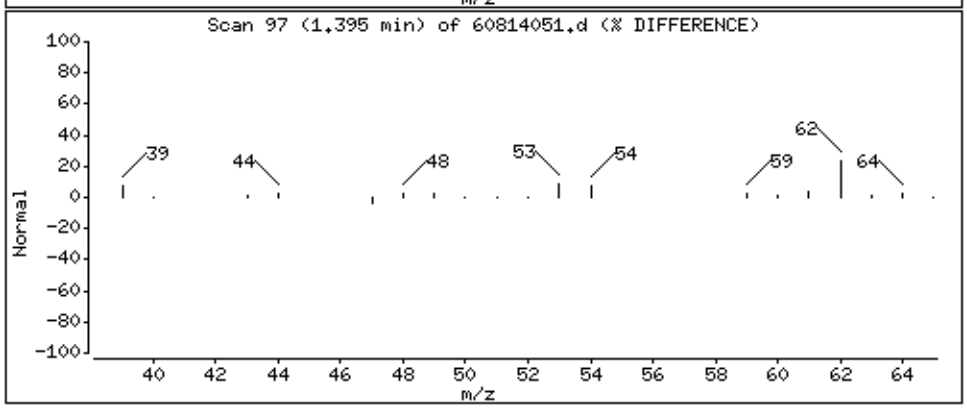












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

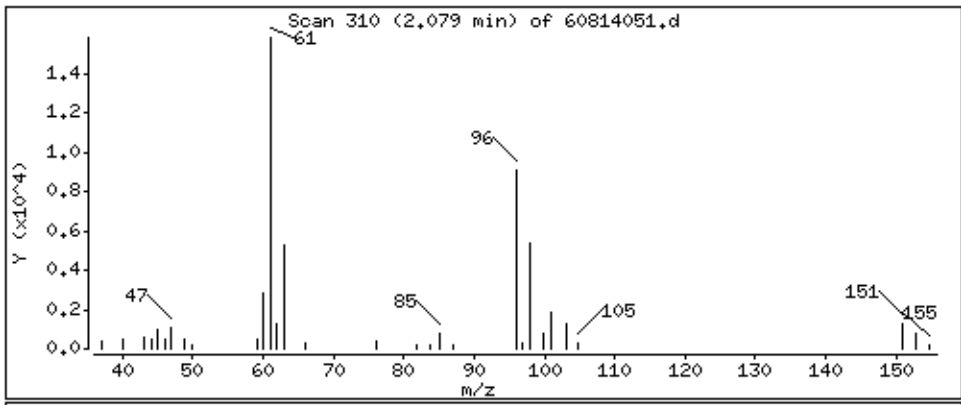
Operator: ARG

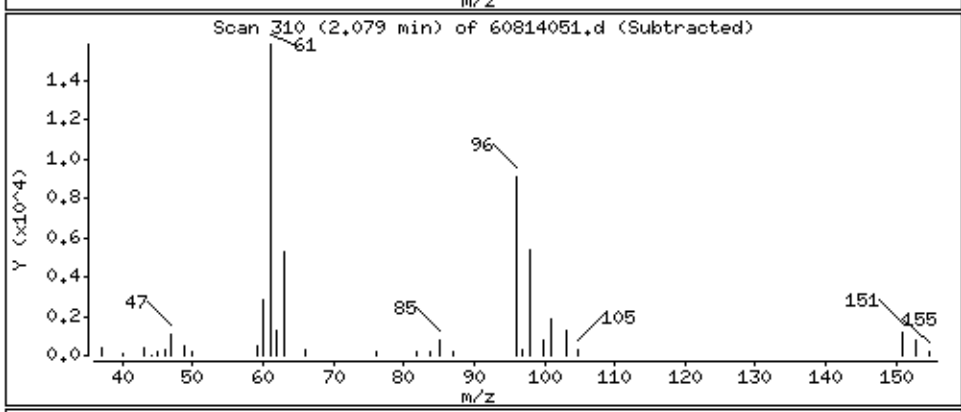
Column phase: RTX-VMS

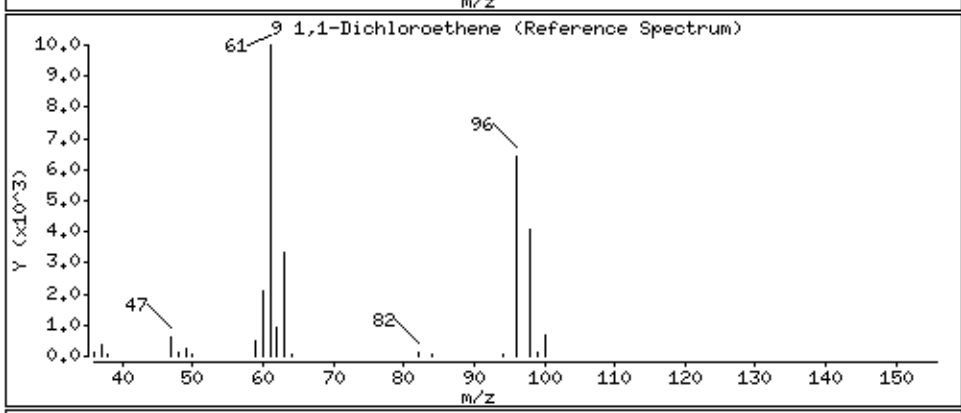
Column diameter: 0.18

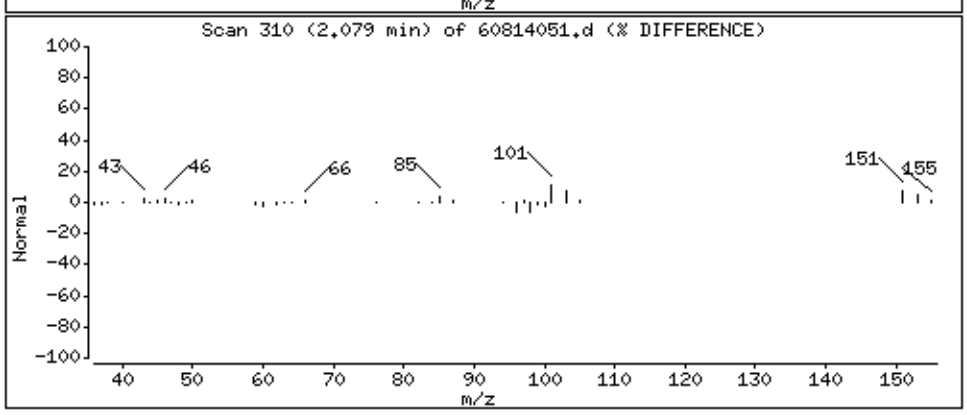
9 1,1-Dichloroethene

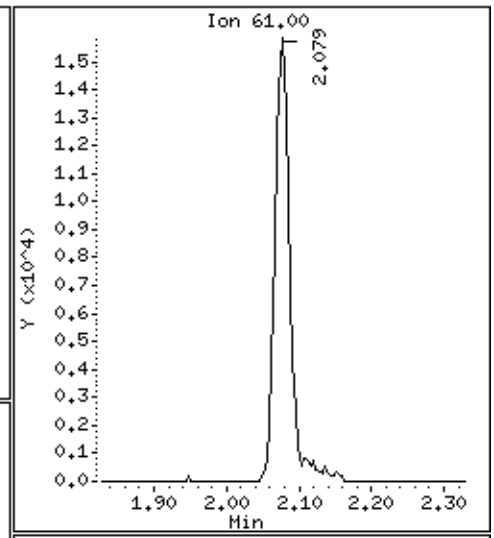
Concentration: 73.7 ug/kg

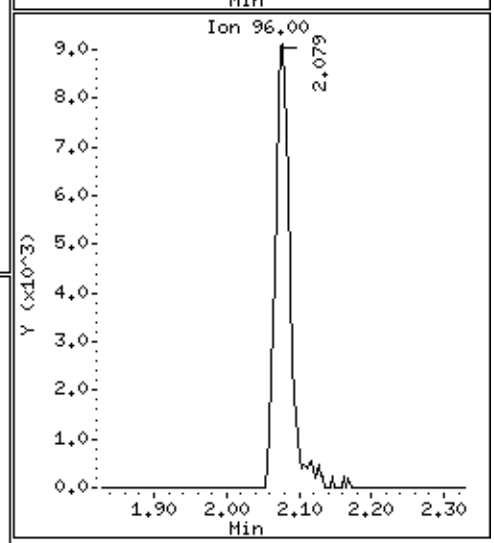












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

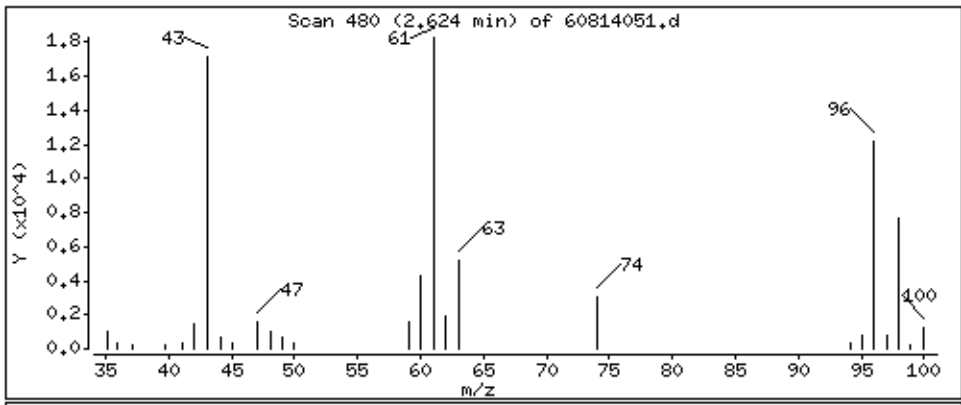
Operator: ARG

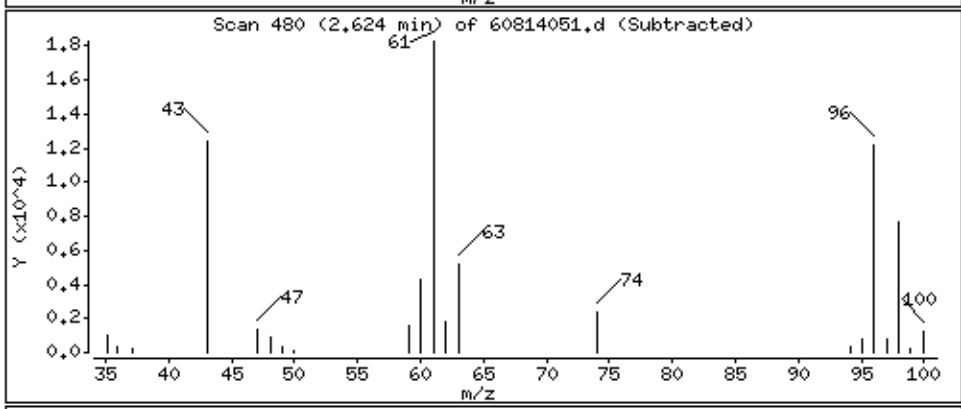
Column phase: RTX-VMS

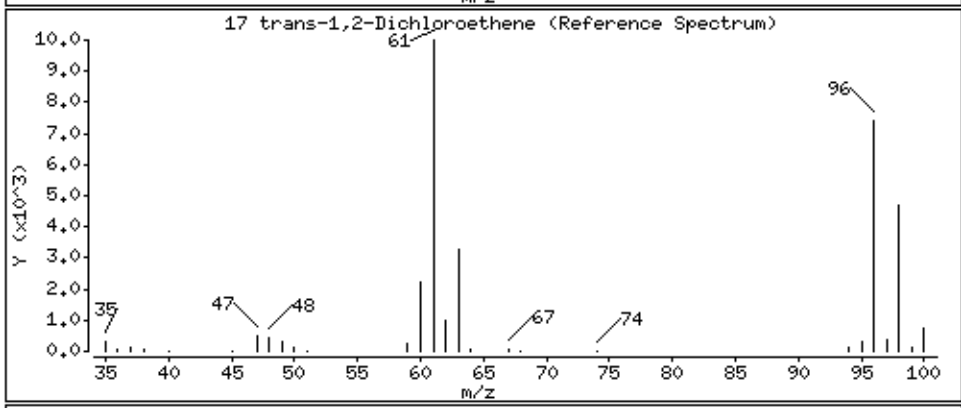
Column diameter: 0.18

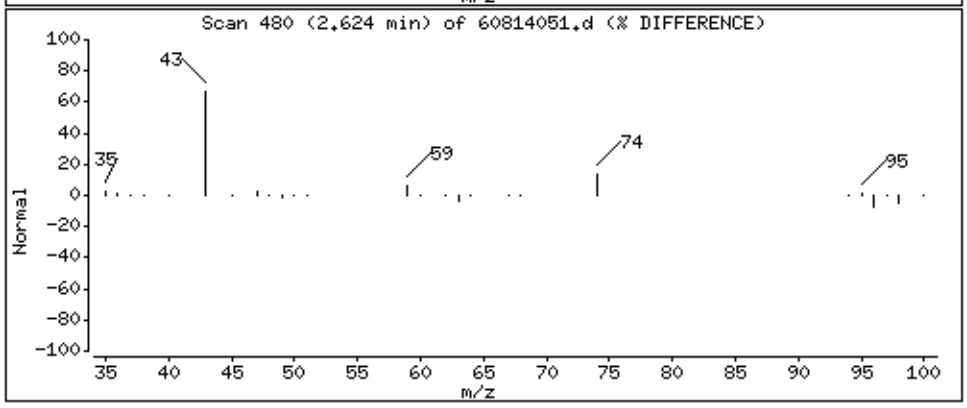
17 trans-1,2-Dichloroethene

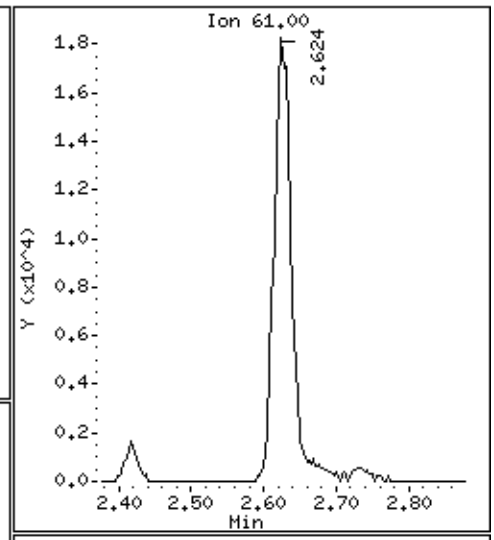
Concentration: 94.7 ug/kg

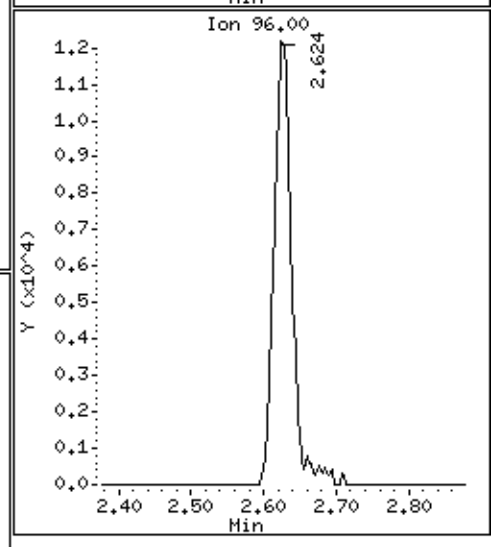












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

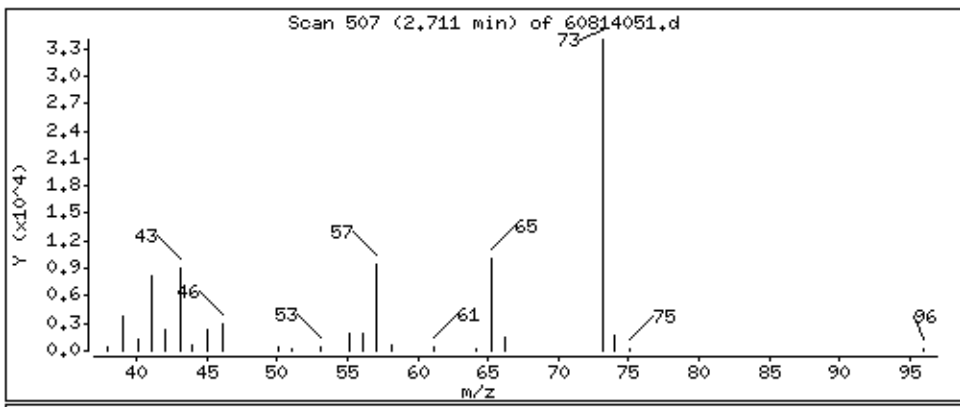
Operator: ARG

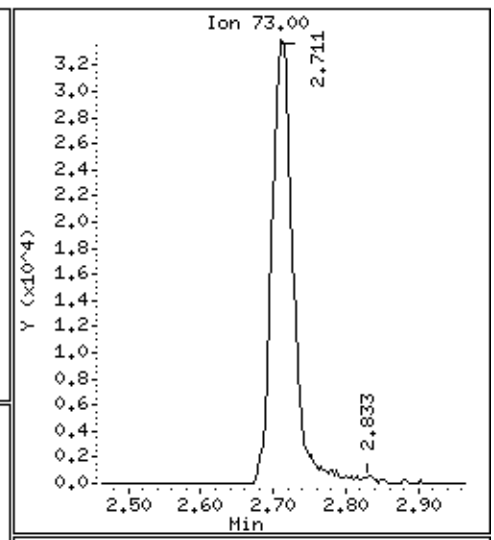
Column phase: RTX-VMS

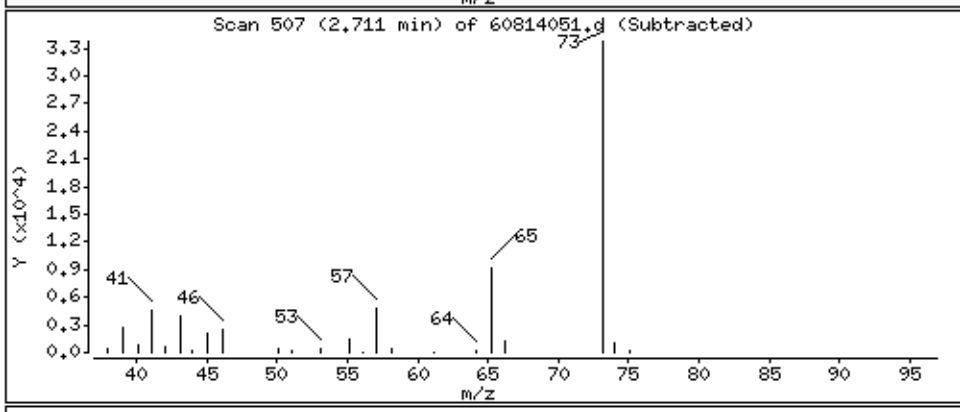
Column diameter: 0.18

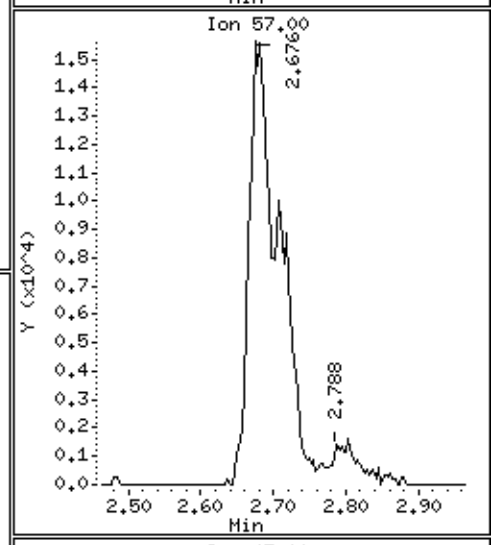
20 Methyl-tert-butyl ether

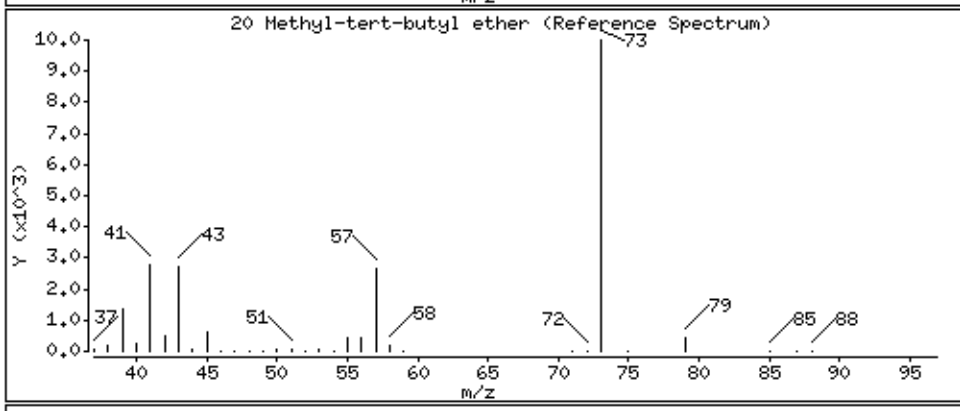
Concentration: 114 ug/kg

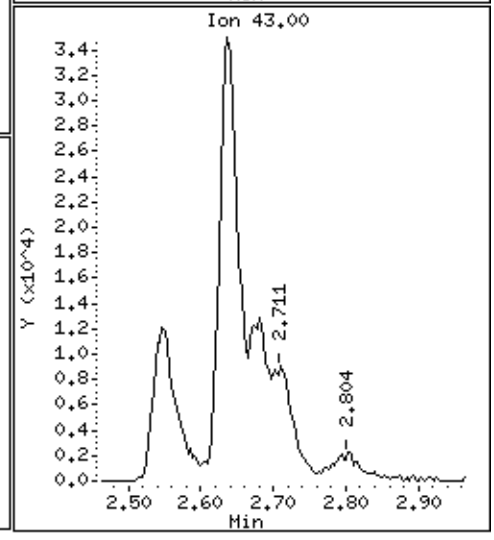


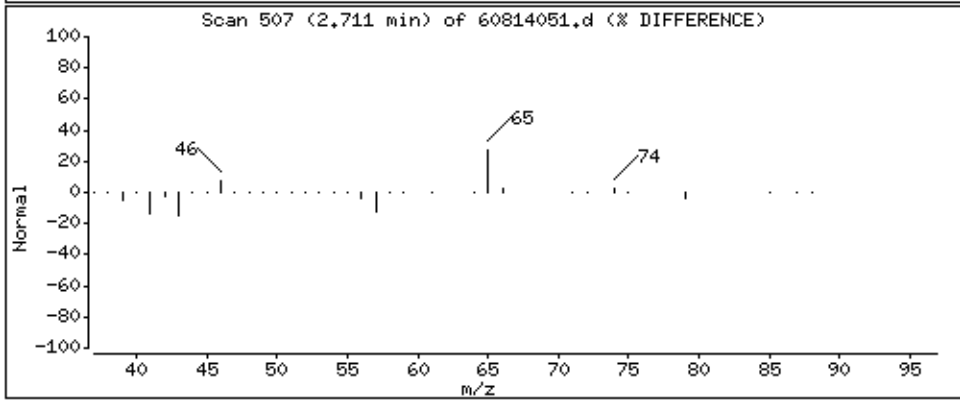












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

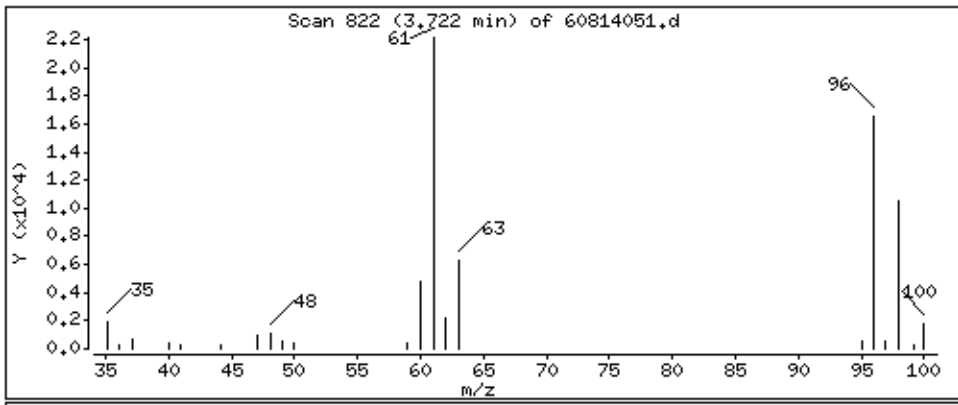
Operator: ARG

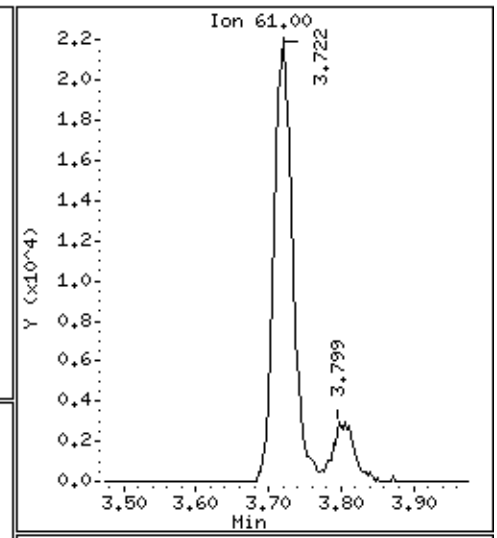
Column phase: RTX-VMS

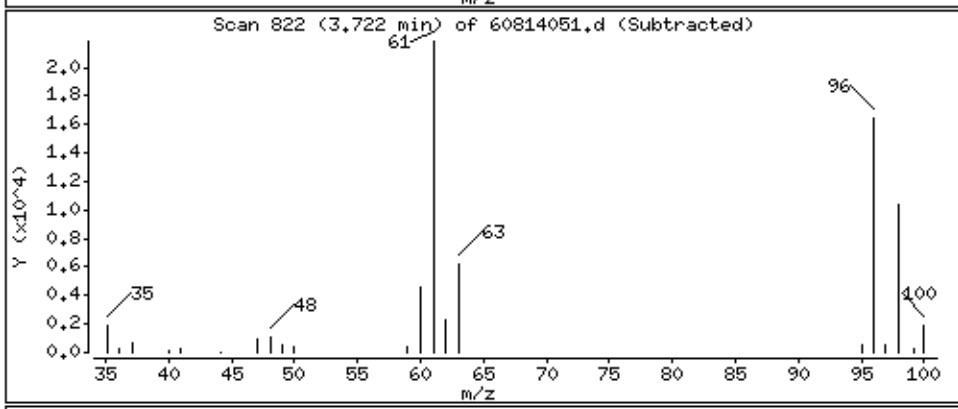
Column diameter: 0.18

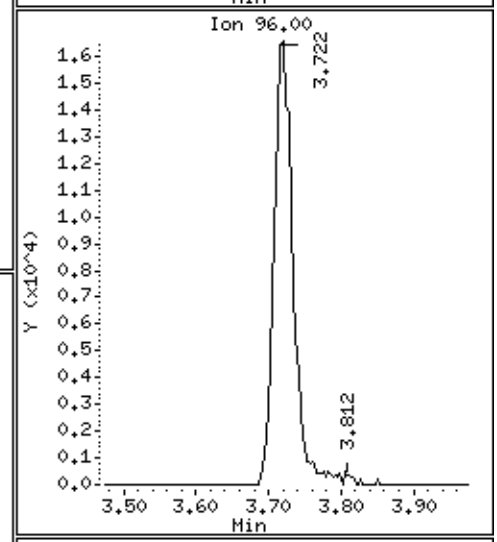
29 cis-1,2-Dichloroethene

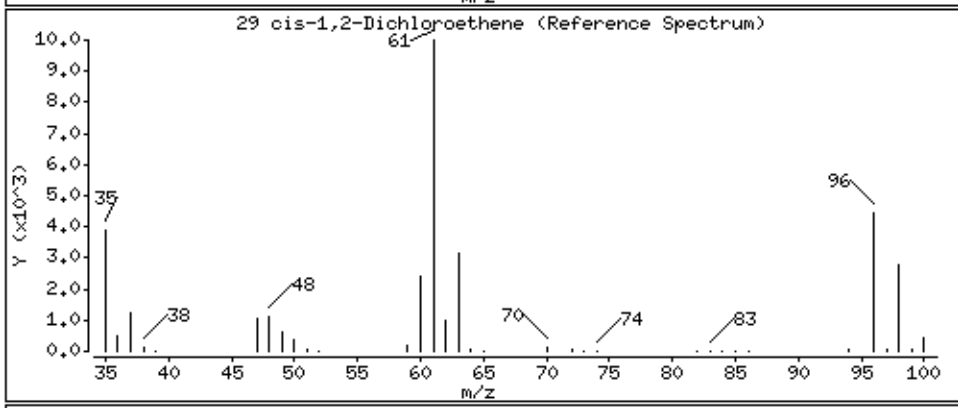
Concentration: 97.6 ug/kg

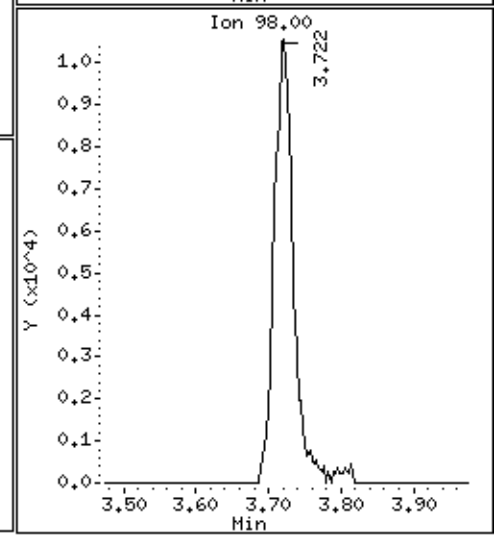


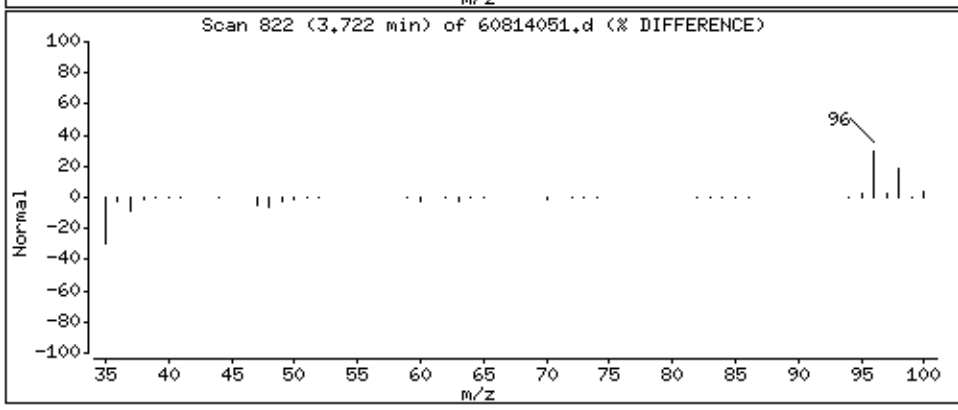












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

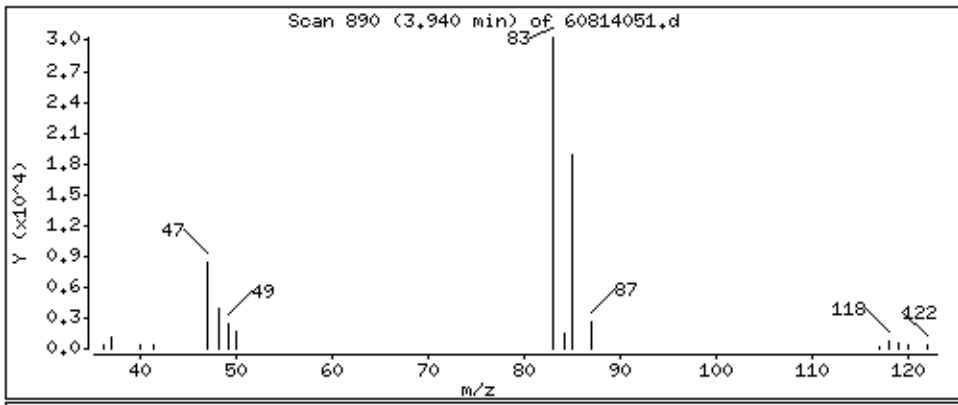
Operator: ARG

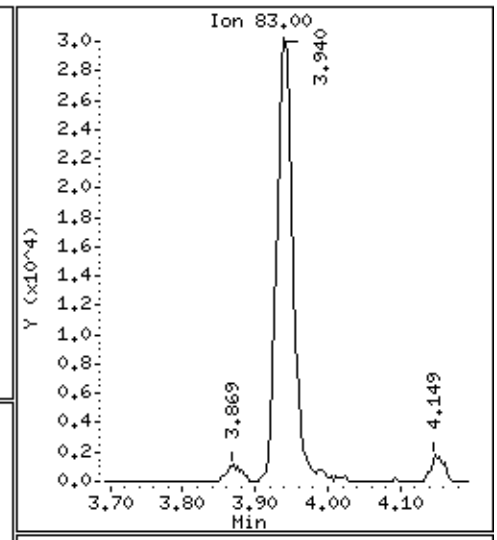
Column phase: RTX-VMS

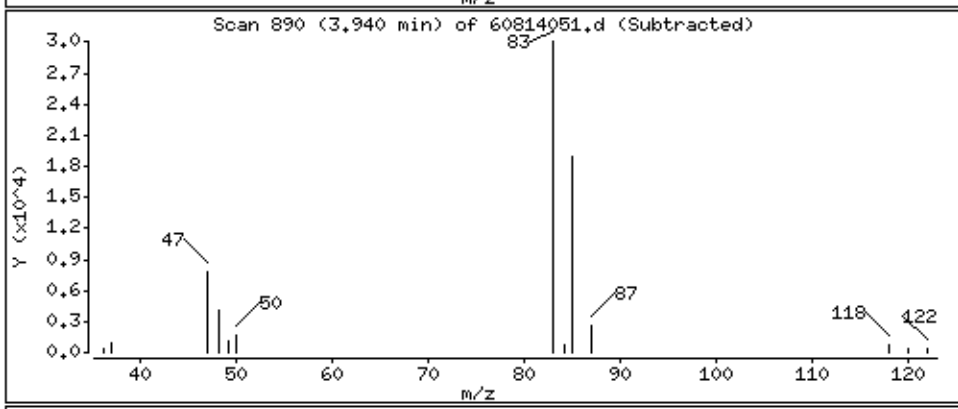
Column diameter: 0.18

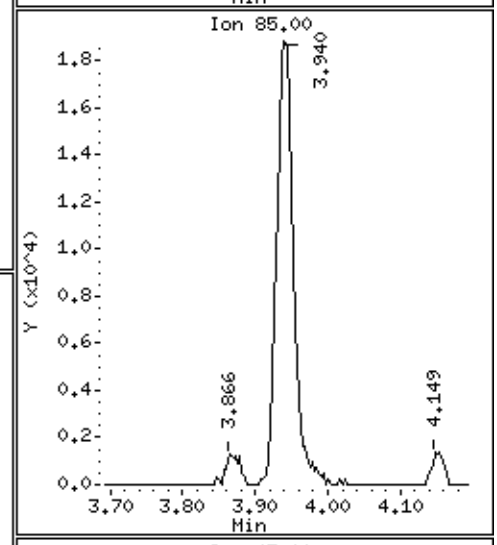
33 Chloroform

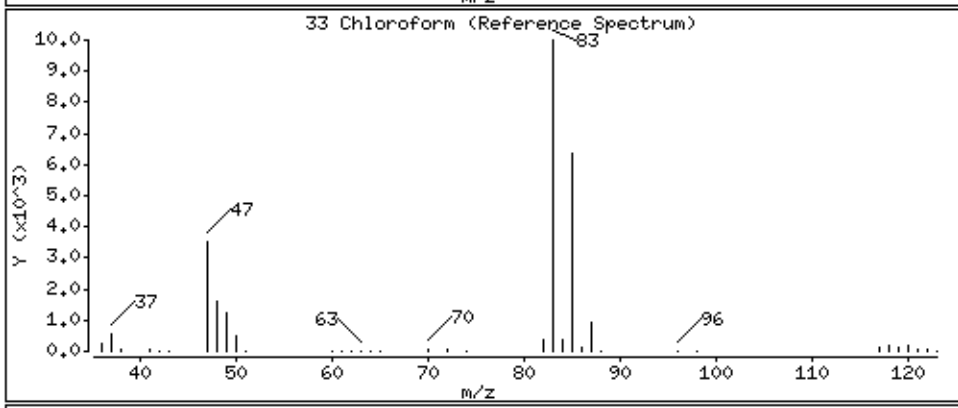
Concentration: 125 ug/kg

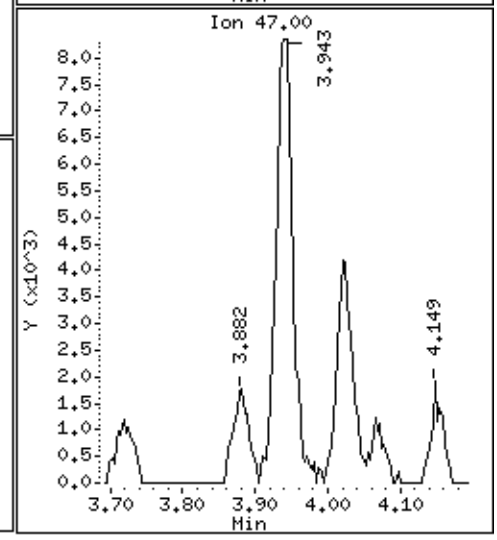


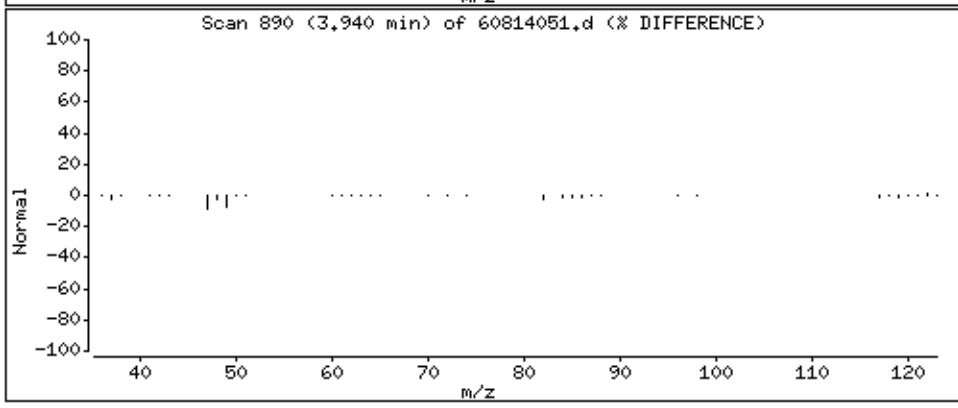












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

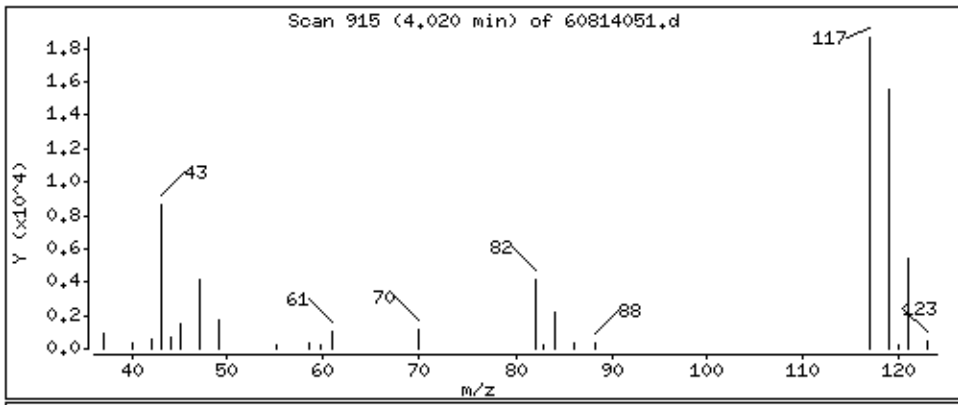
Operator: ARG

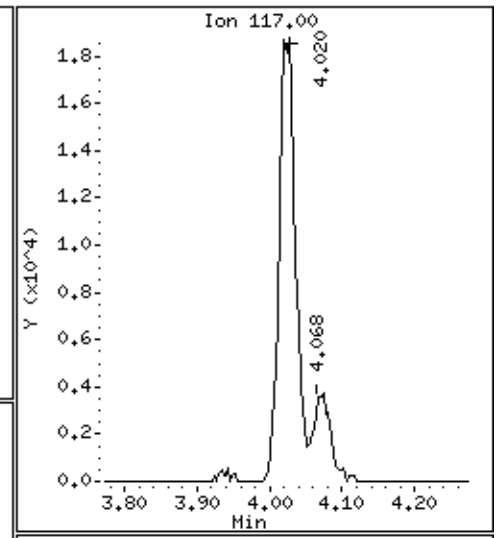
Column phase: RTX-VMS

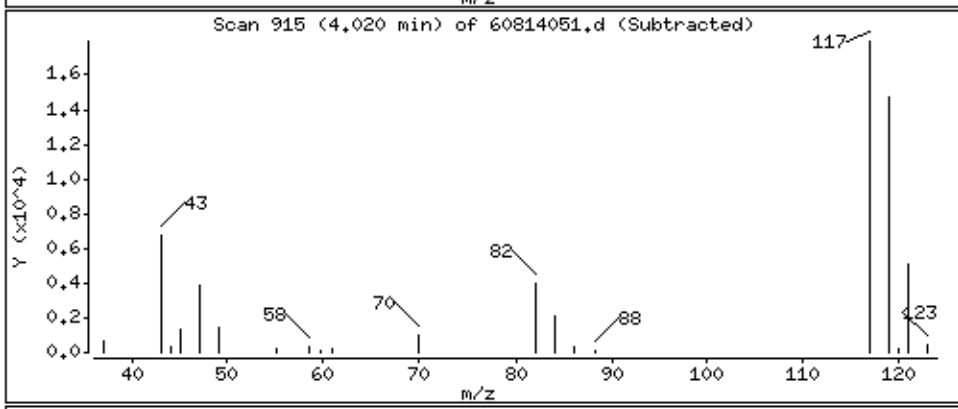
Column diameter: 0.18

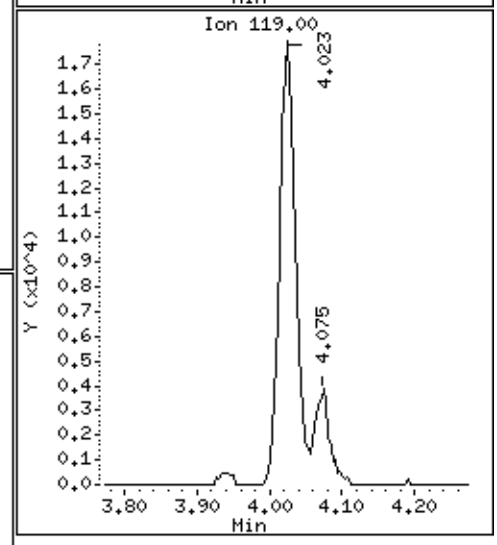
34 Carbon Tetrachloride

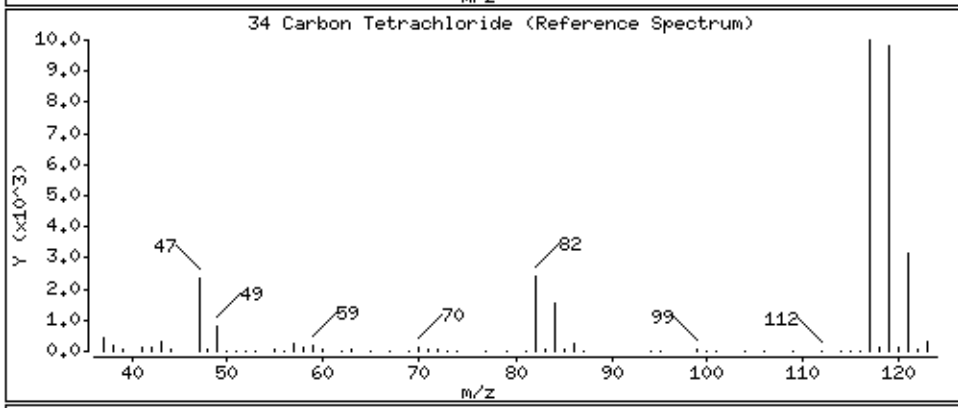
Concentration: 112 ug/kg

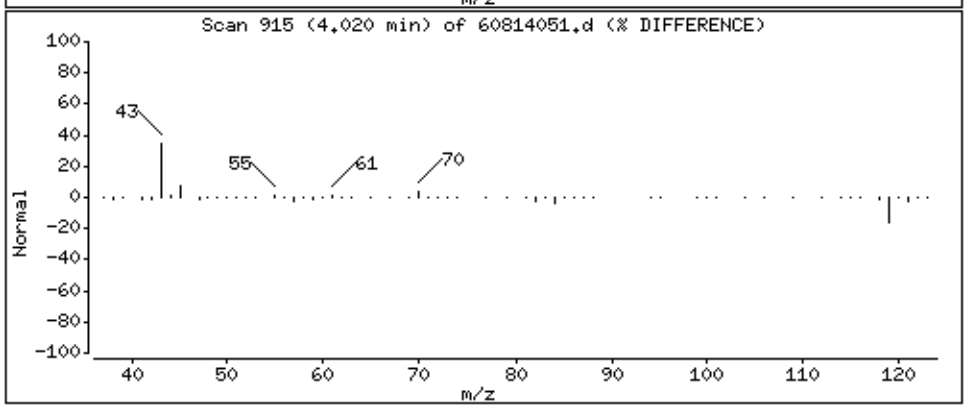












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

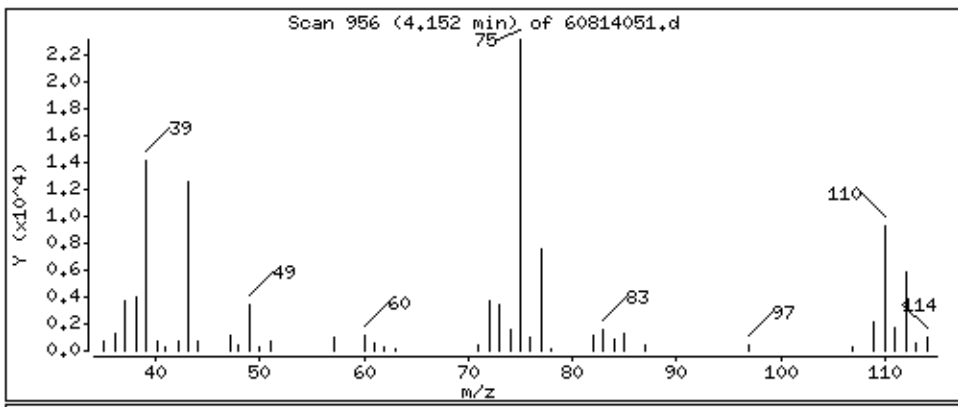
Operator: ARG

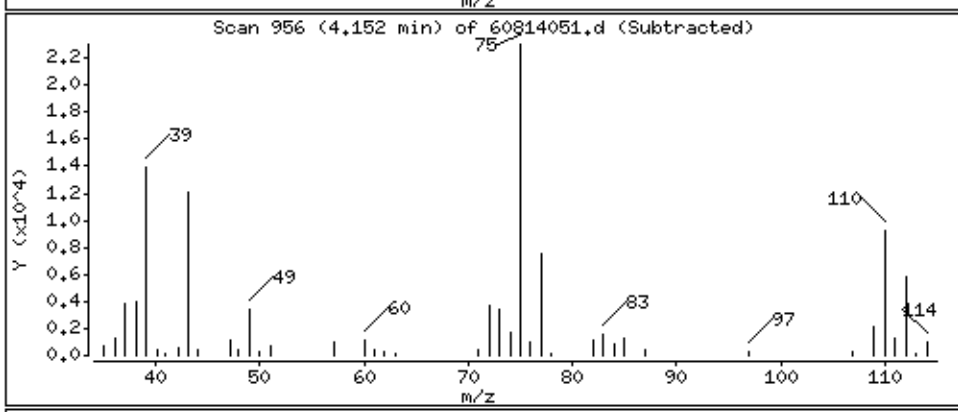
Column phase: RTX-VMS

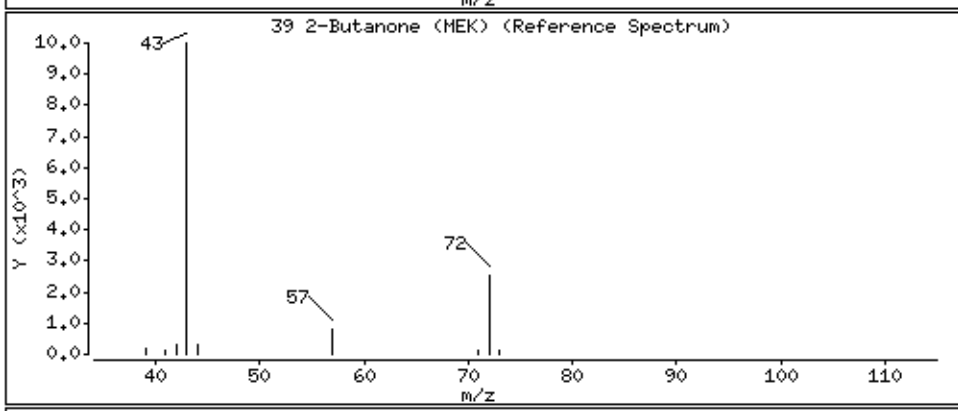
Column diameter: 0.18

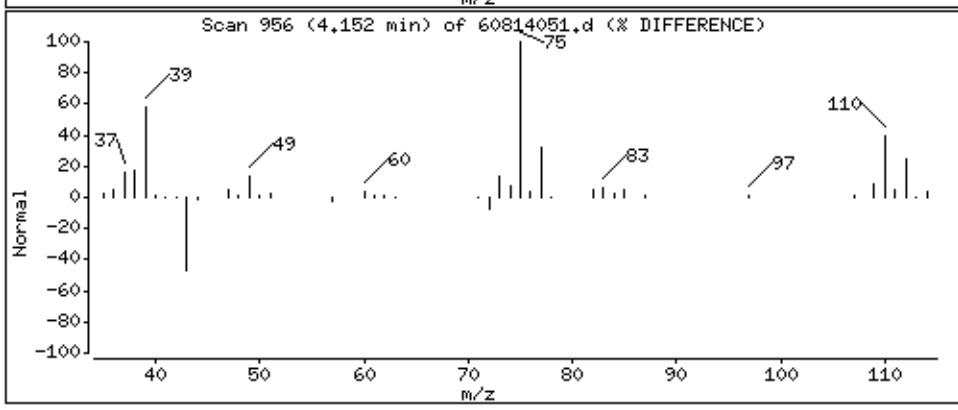
39 2-Butanone (MEK)

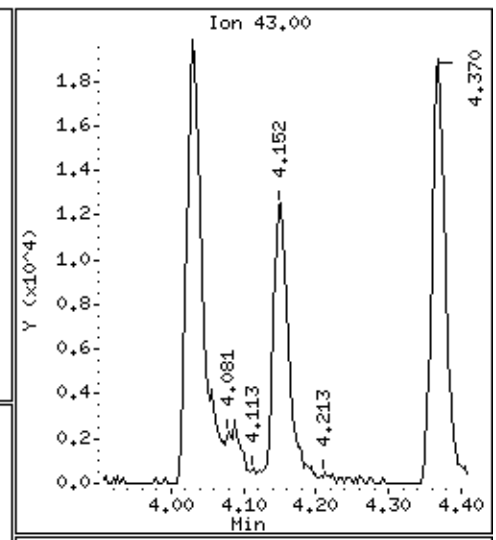
Concentration: 123 ug/kg

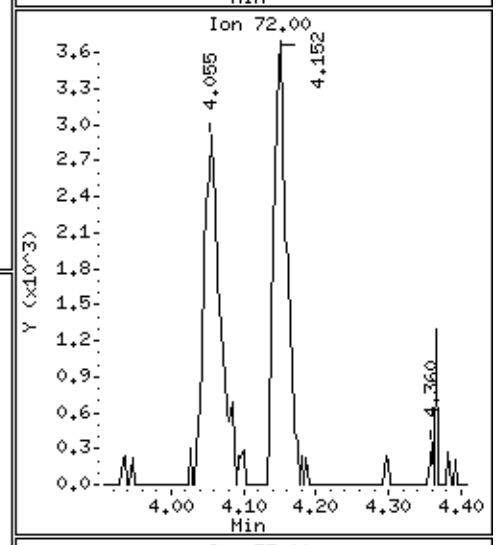


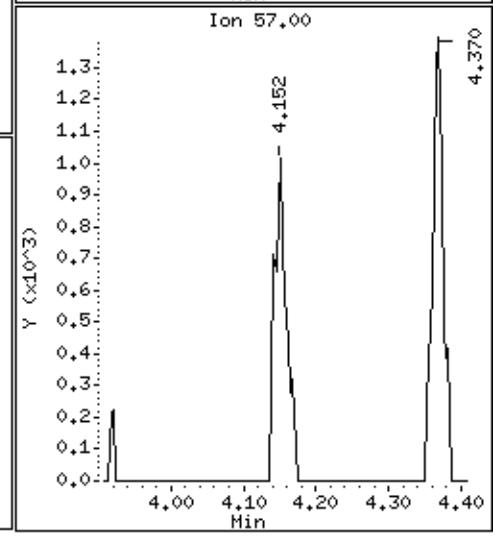












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

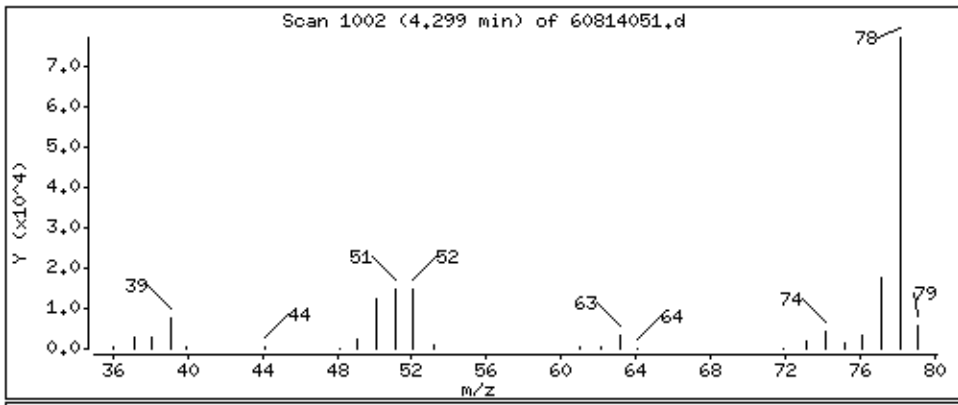
Operator: ARG

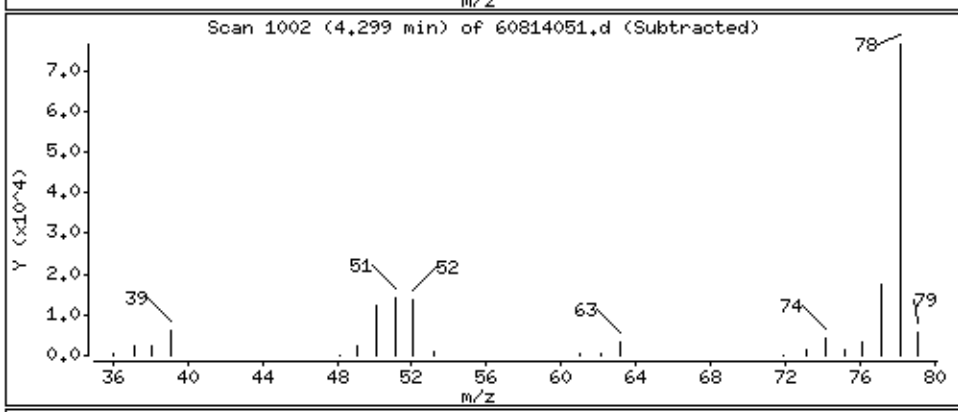
Column phase: RTX-VMS

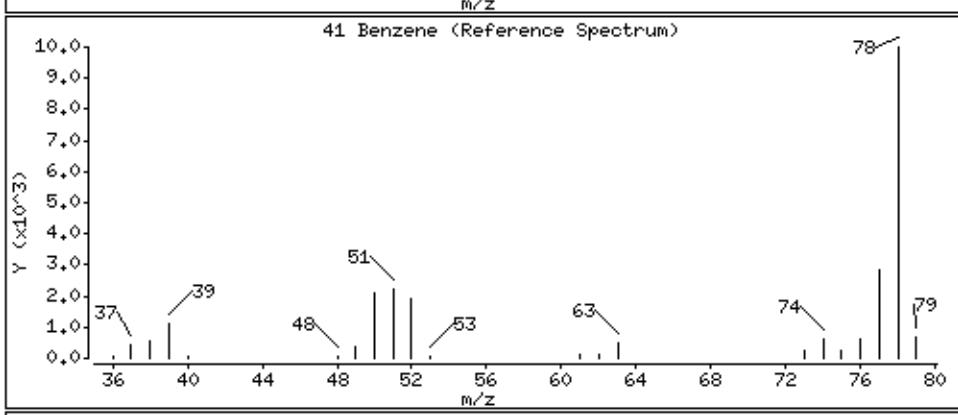
Column diameter: 0.18

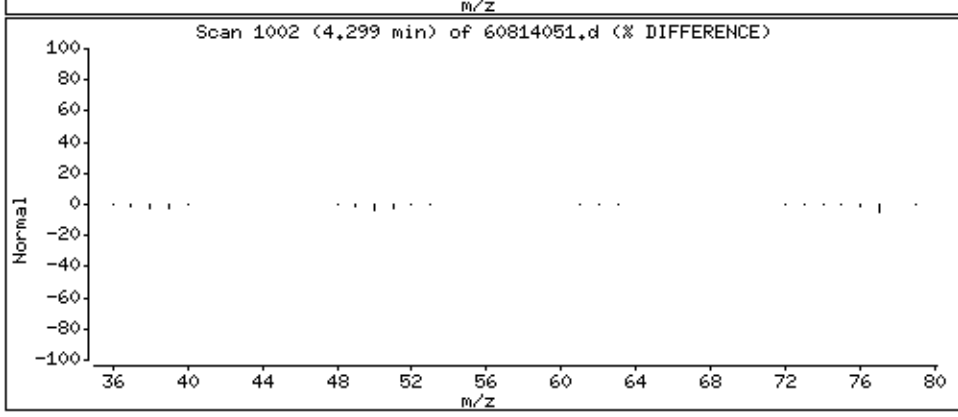
41 Benzene

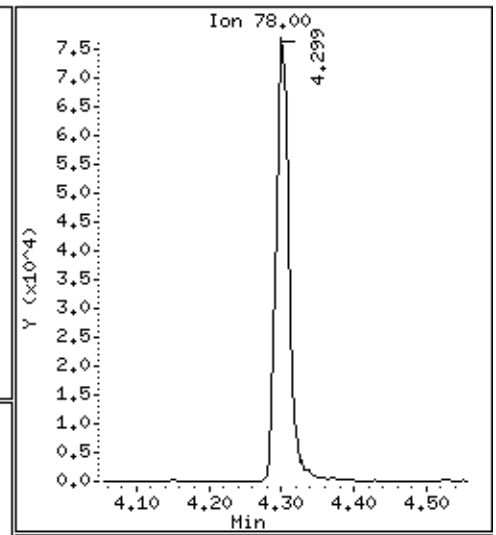
Concentration: 100 ug/kg

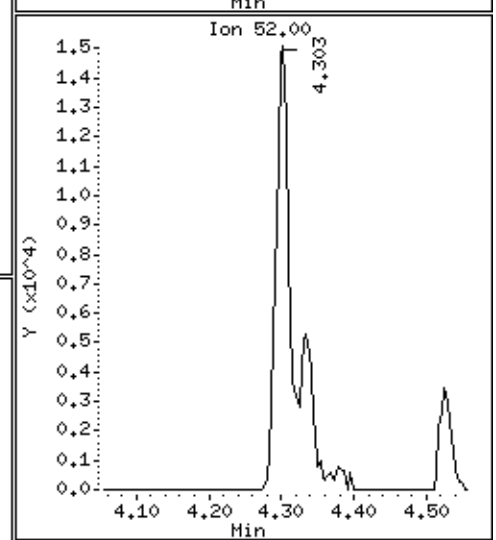


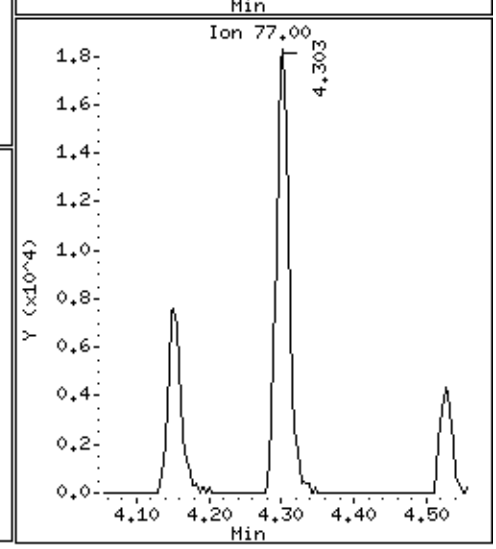












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

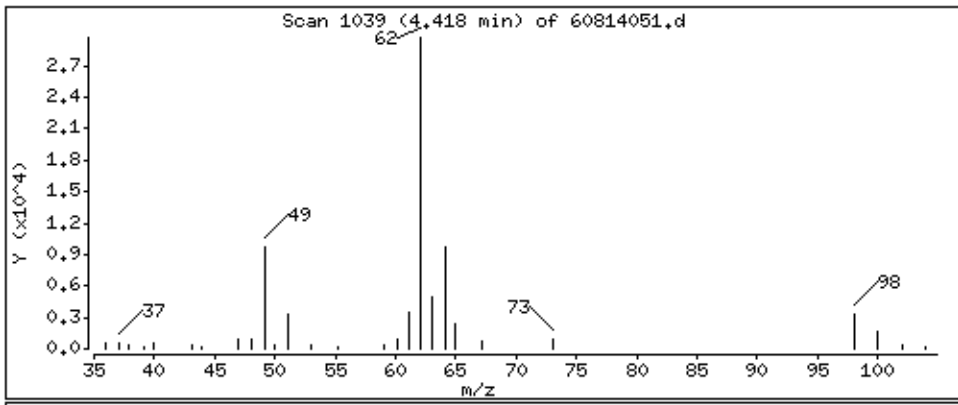
Operator: ARG

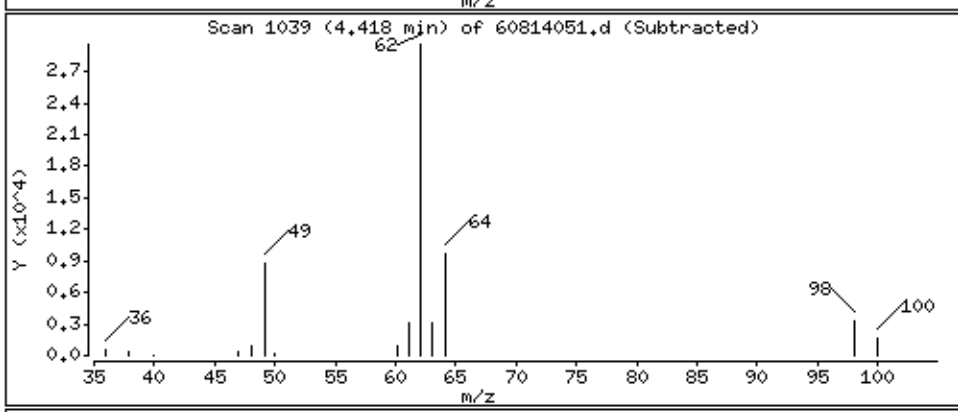
Column phase: RTX-VMS

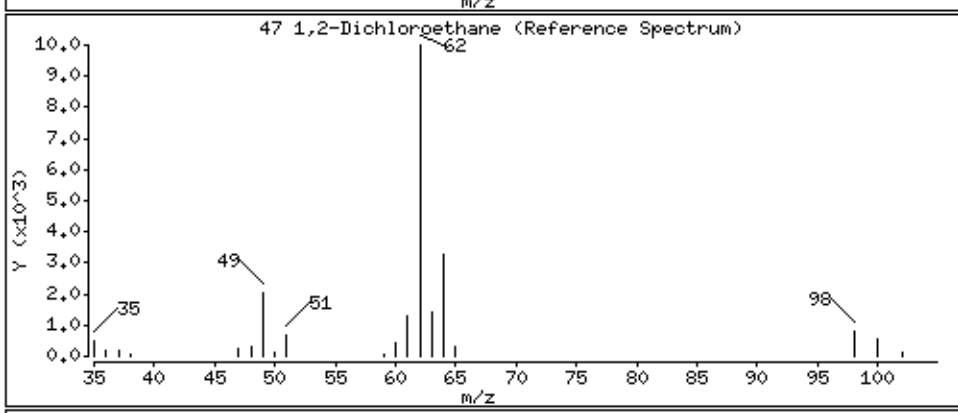
Column diameter: 0.18

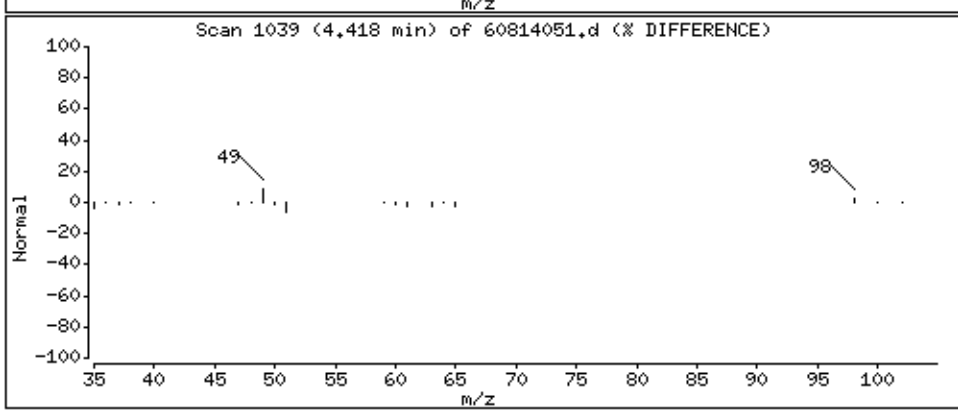
47 1,2-Dichloroethane

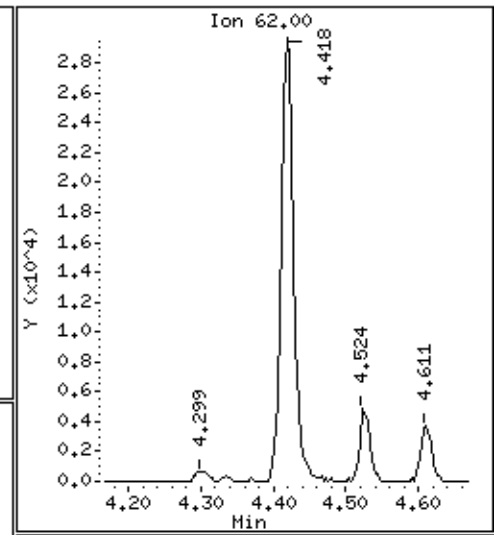
Concentration: 118 ug/kg

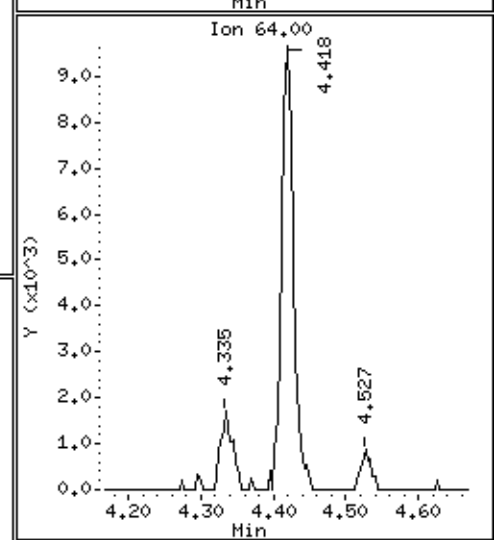


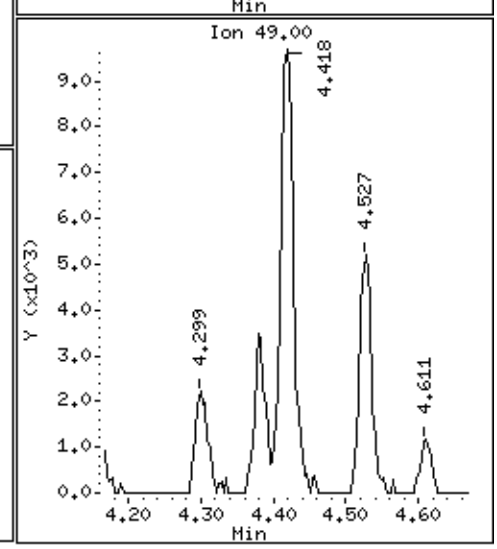












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

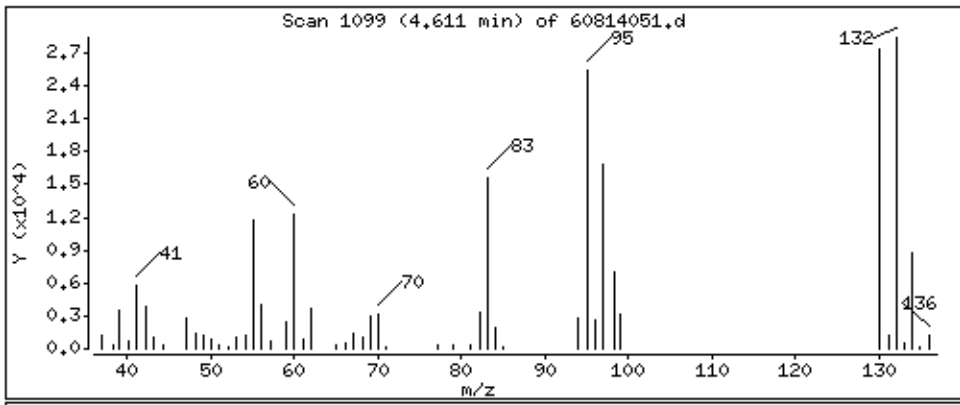
Operator: ARG

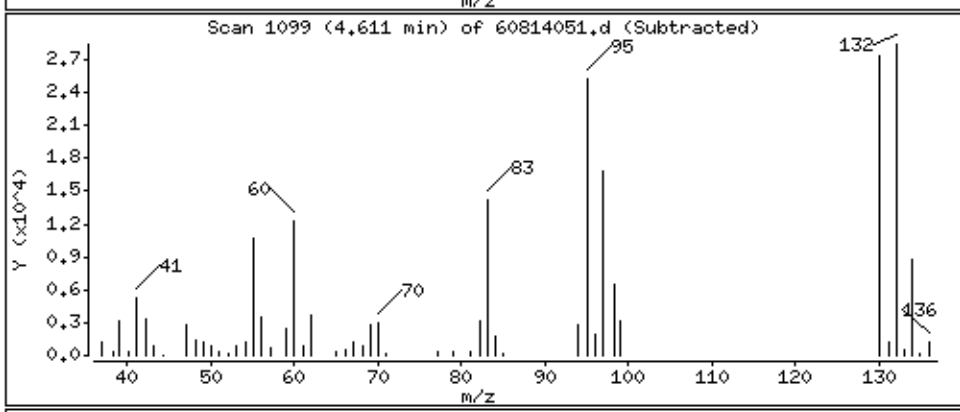
Column phase: RTX-VMS

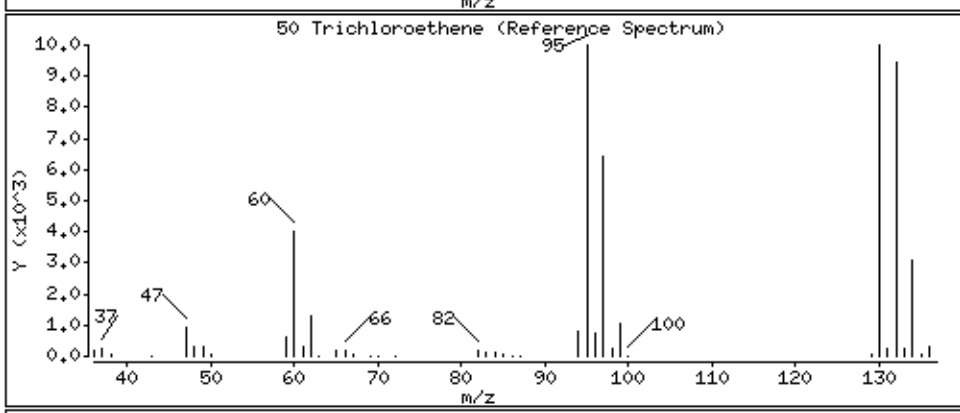
Column diameter: 0.18

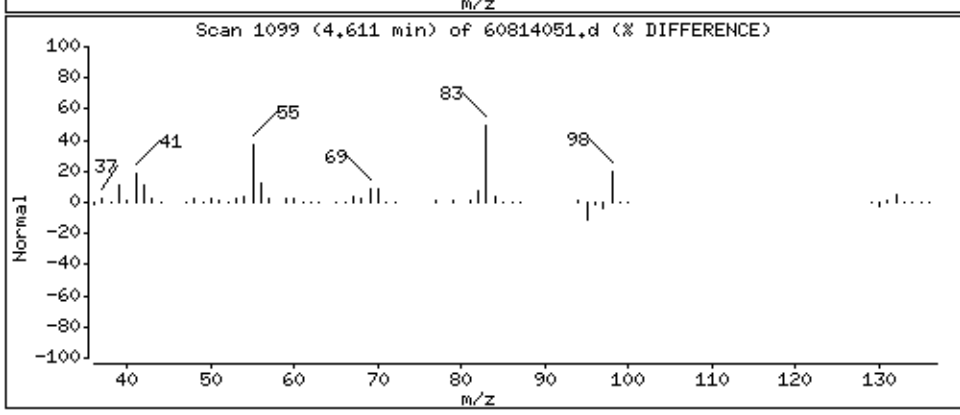
50 Trichloroethene

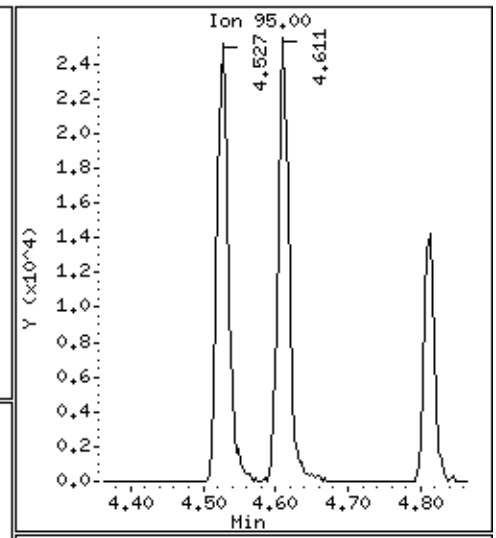
Concentration: 122 ug/kg

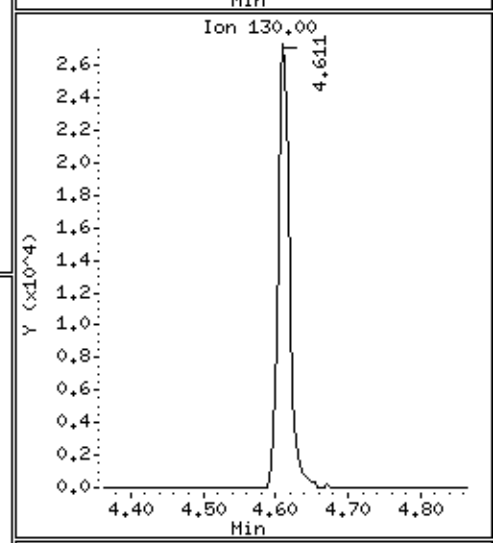


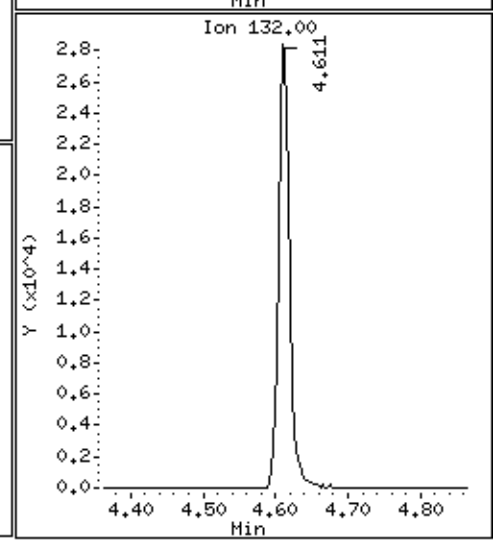












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

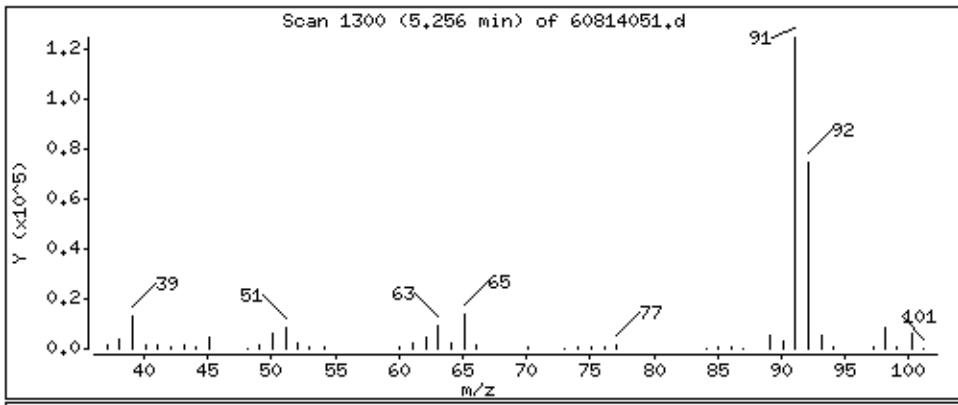
Operator: ARG

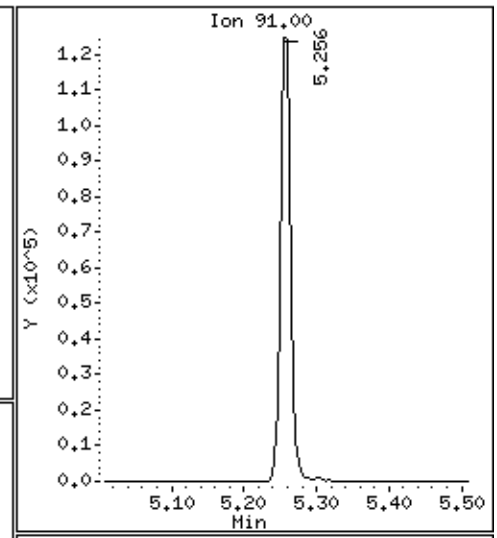
Column phase: RTX-VMS

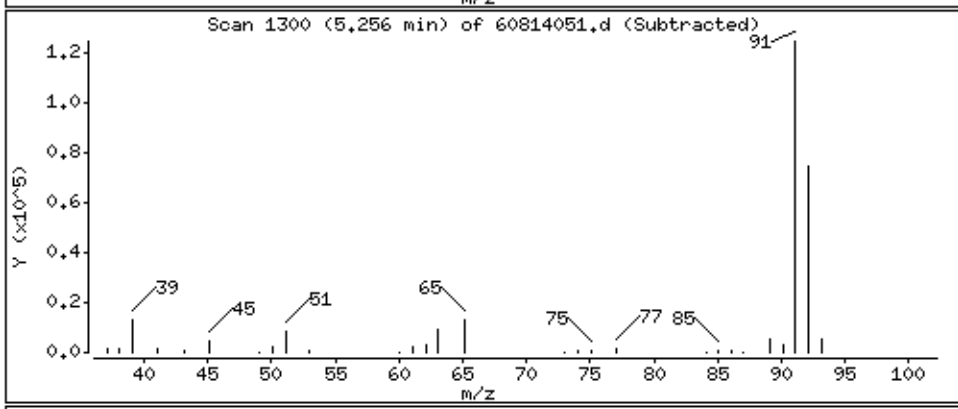
Column diameter: 0.18

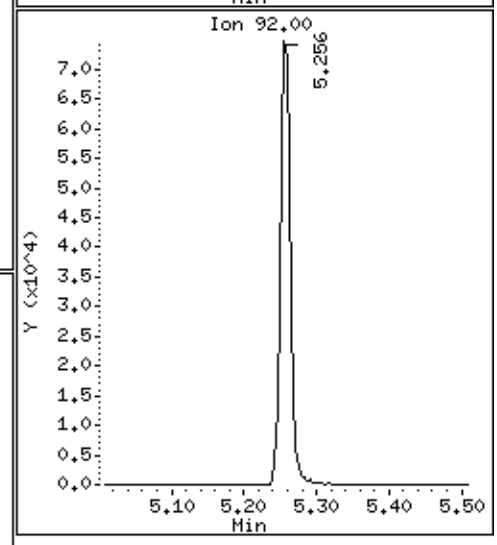
59 Toluene

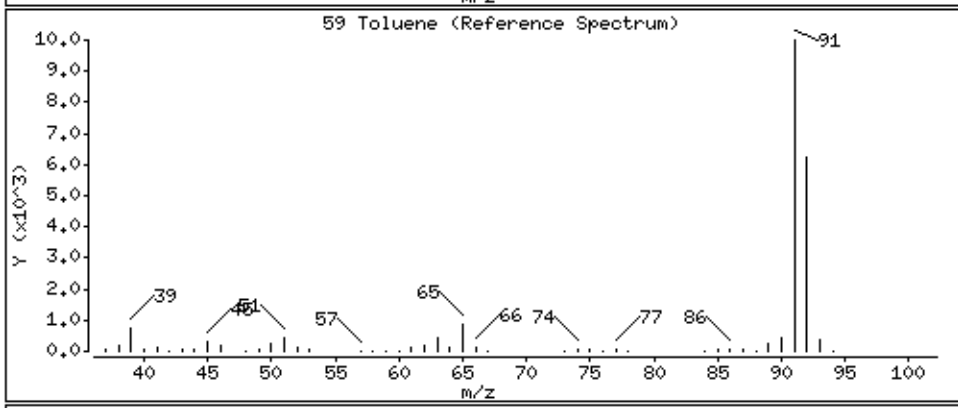
Concentration: 130 ug/kg

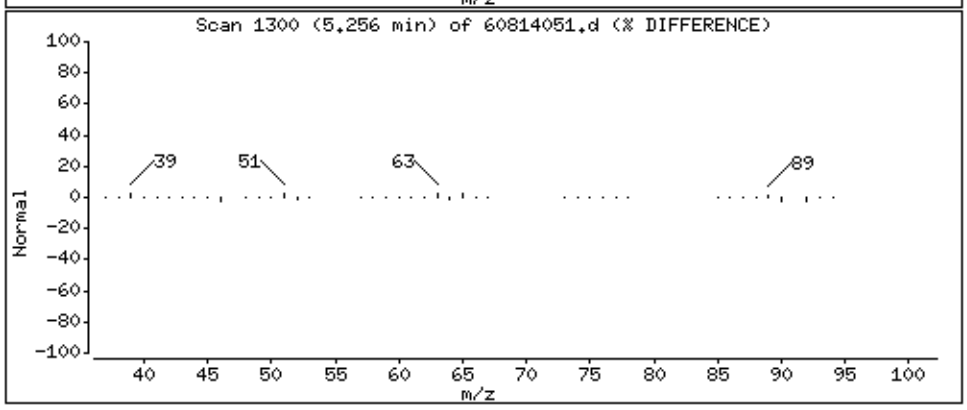












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

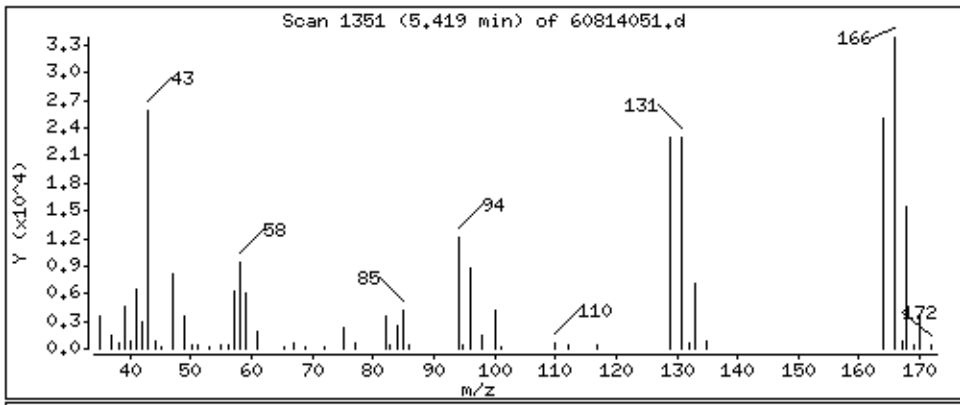
Operator: ARG

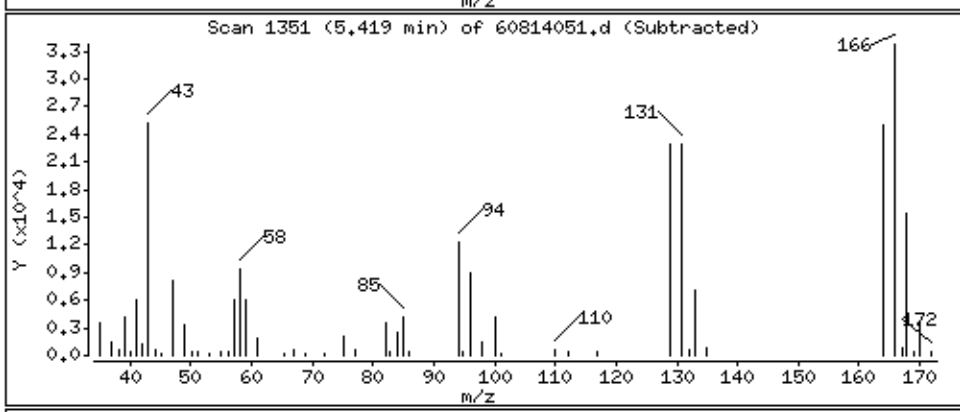
Column phase: RTX-VMS

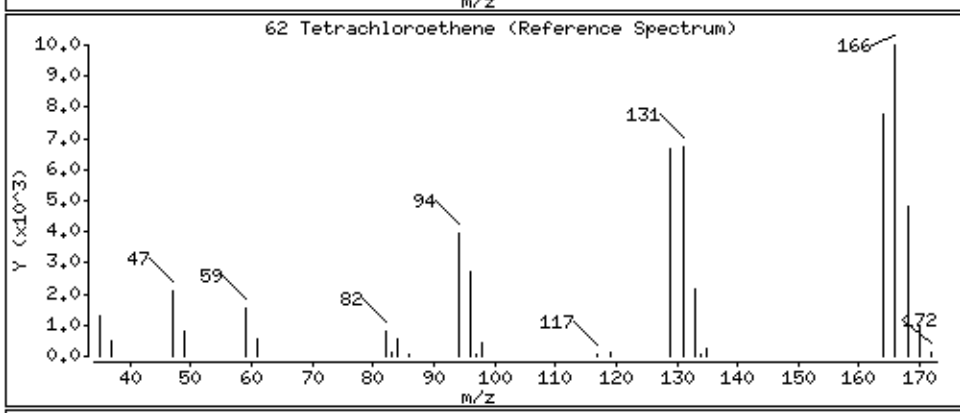
Column diameter: 0.18

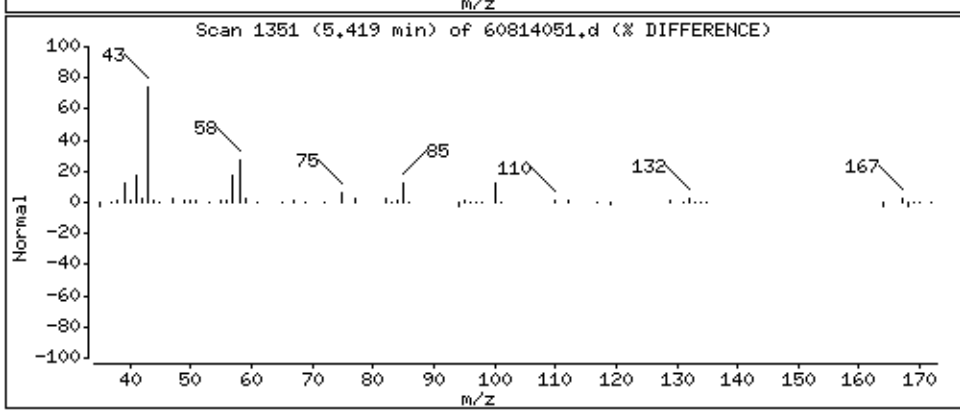
62 Tetrachloroethene

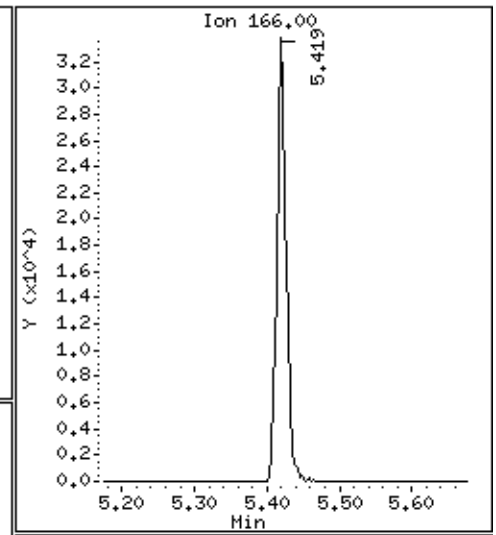
Concentration: 130 ug/kg

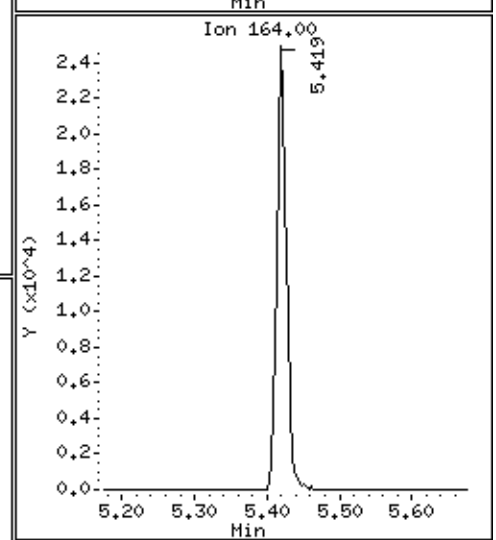


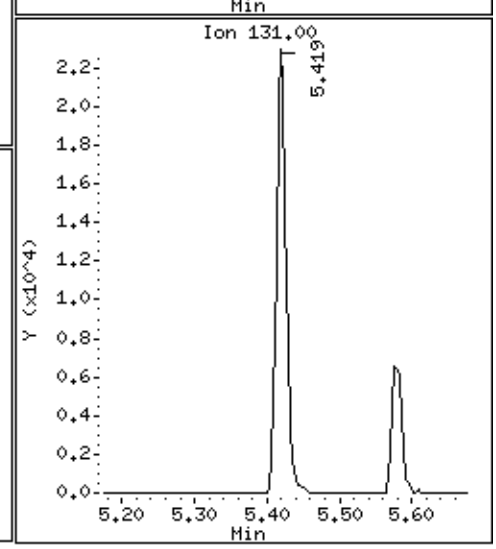












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

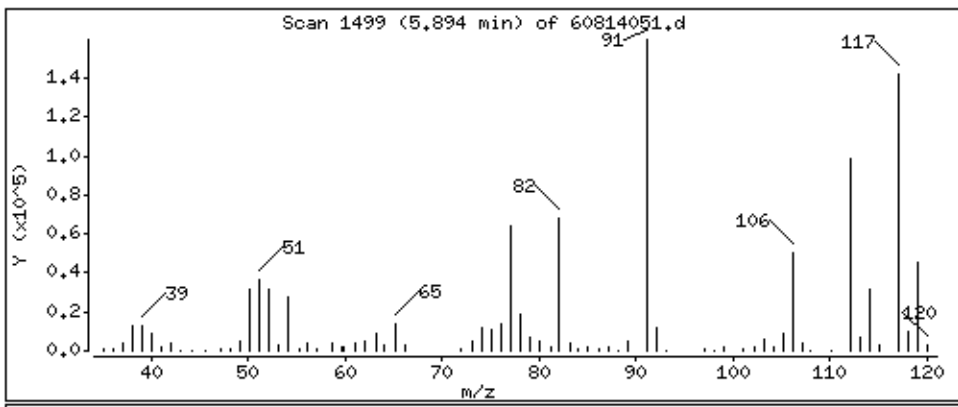
Operator: ARG

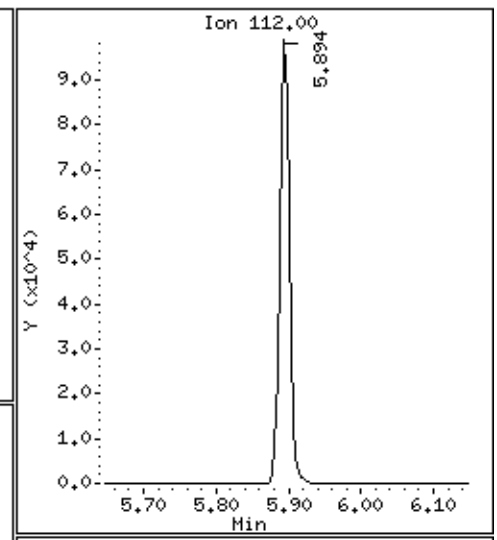
Column phase: RTX-VMS

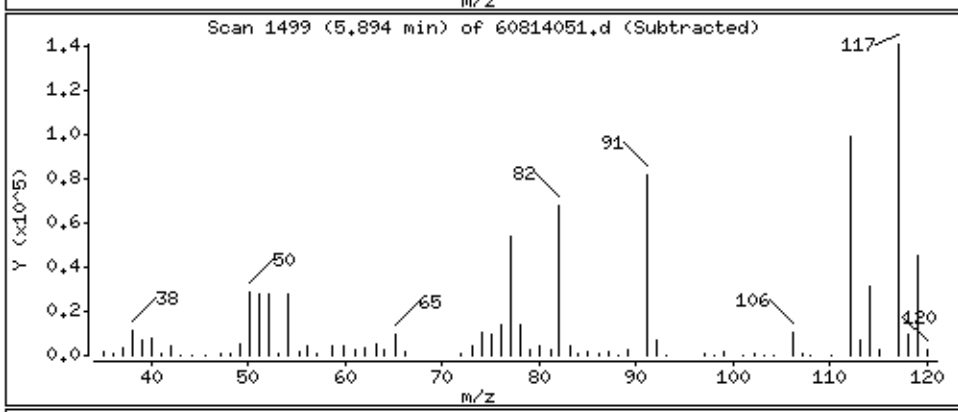
Column diameter: 0.18

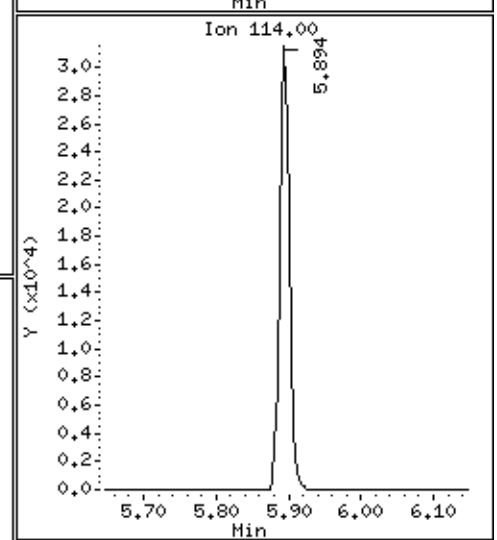
72 Chlorobenzene

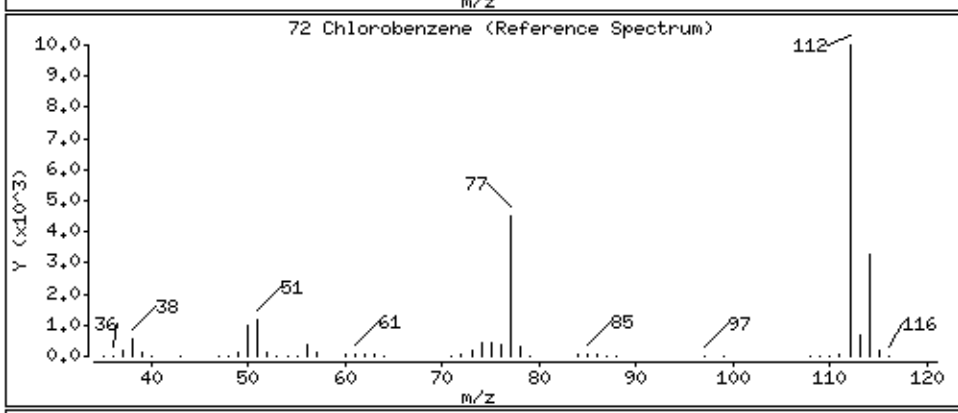
Concentration: 137 ug/kg

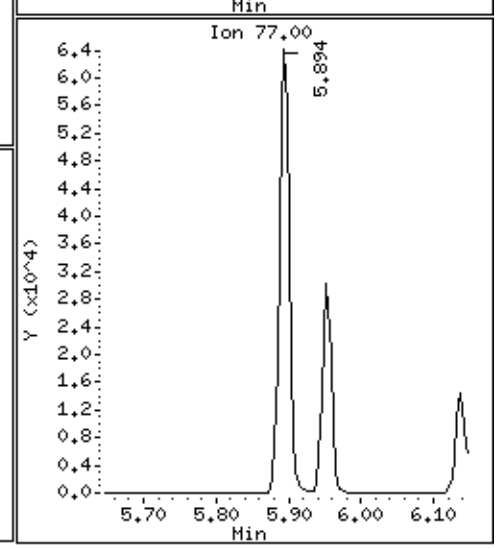


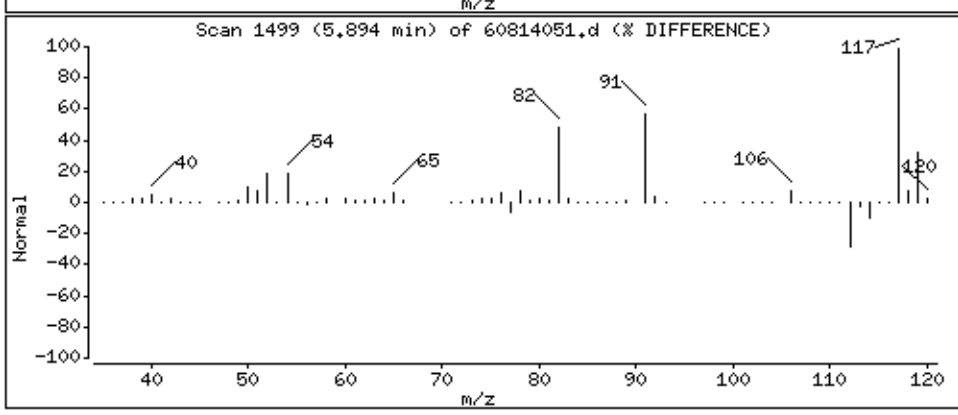












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

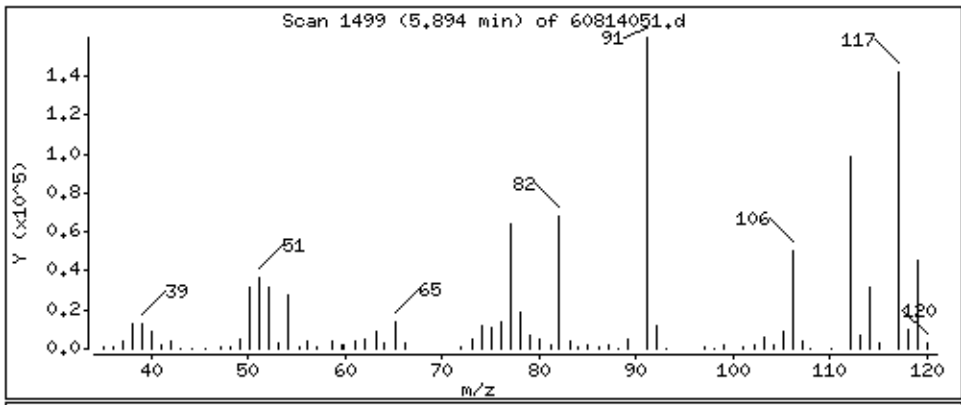
Operator: ARG

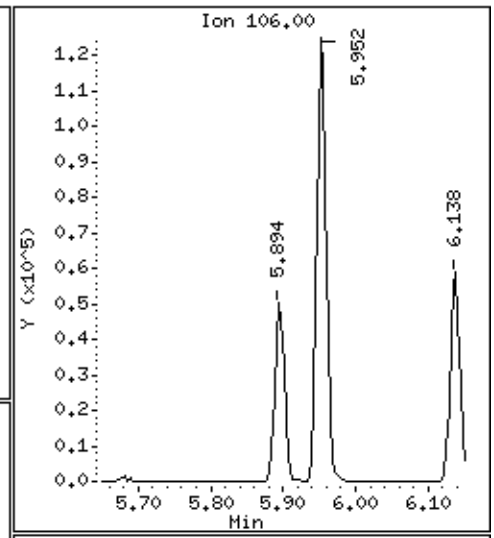
Column phase: RTX-VMS

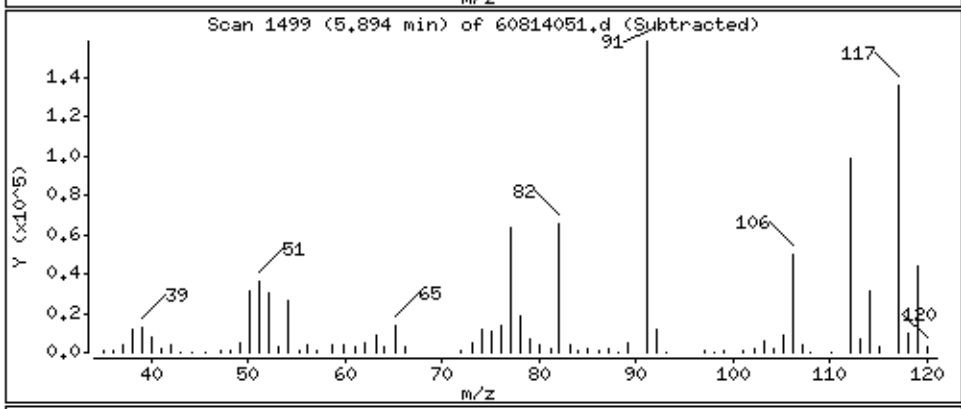
Column diameter: 0.18

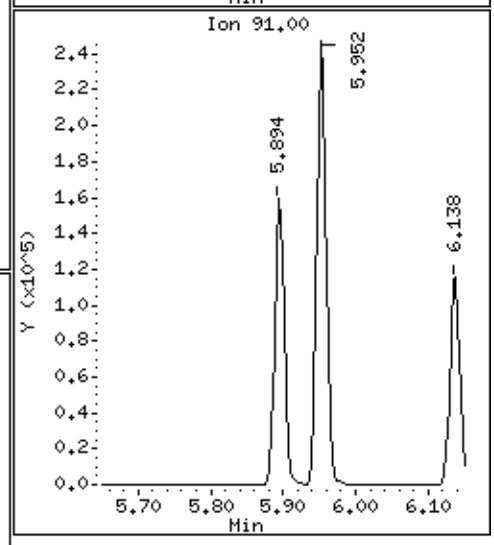
70 Ethylbenzene

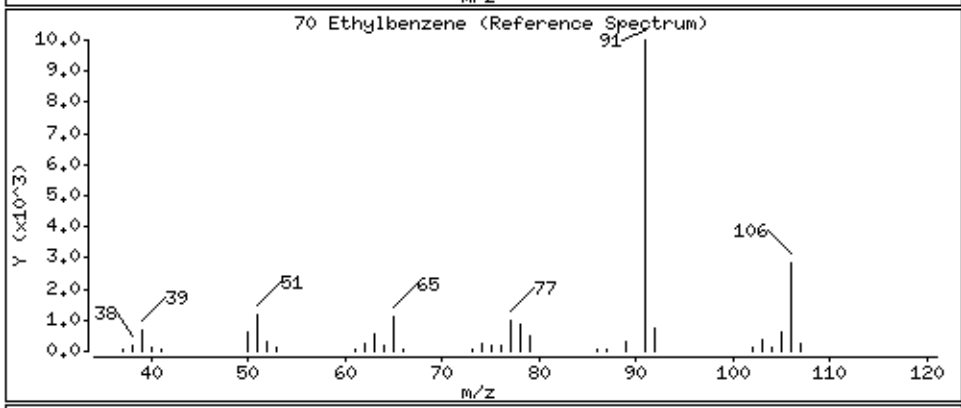
Concentration: 131 ug/kg

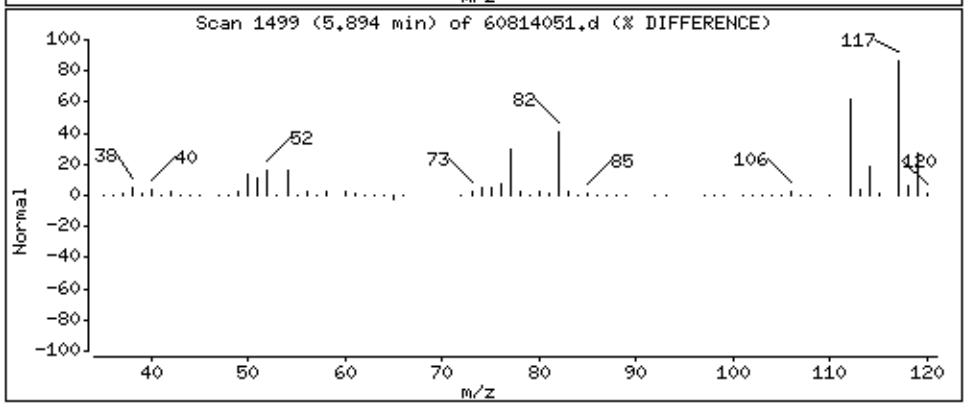












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

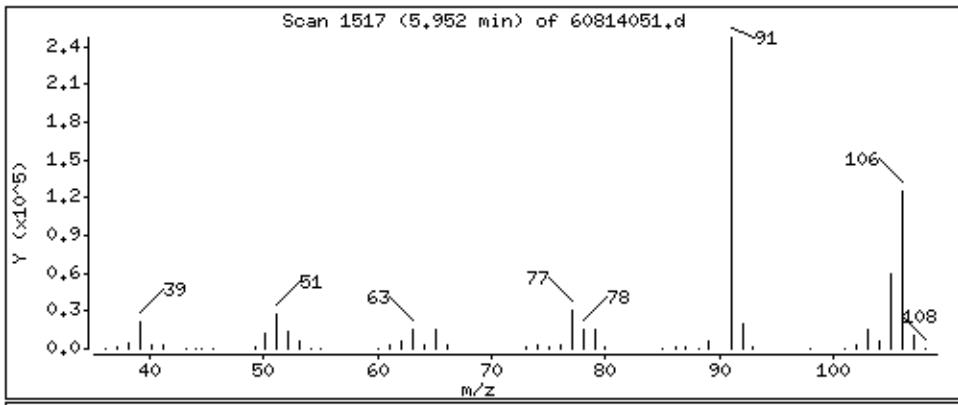
Operator: ARG

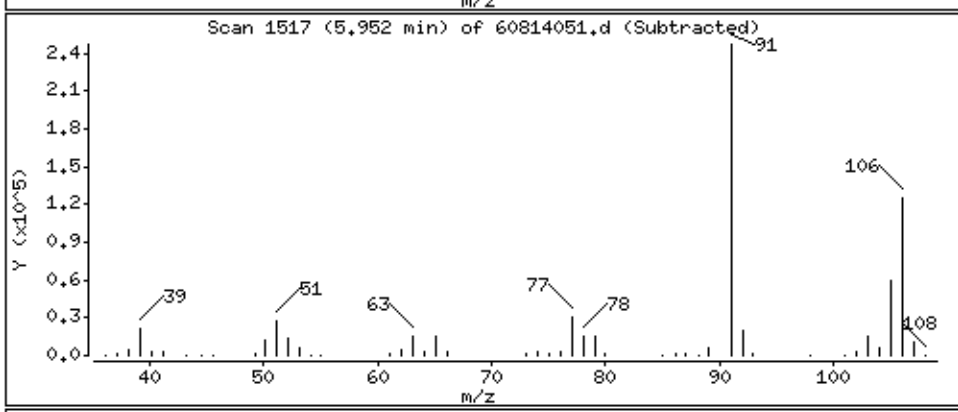
Column phase: RTX-VMS

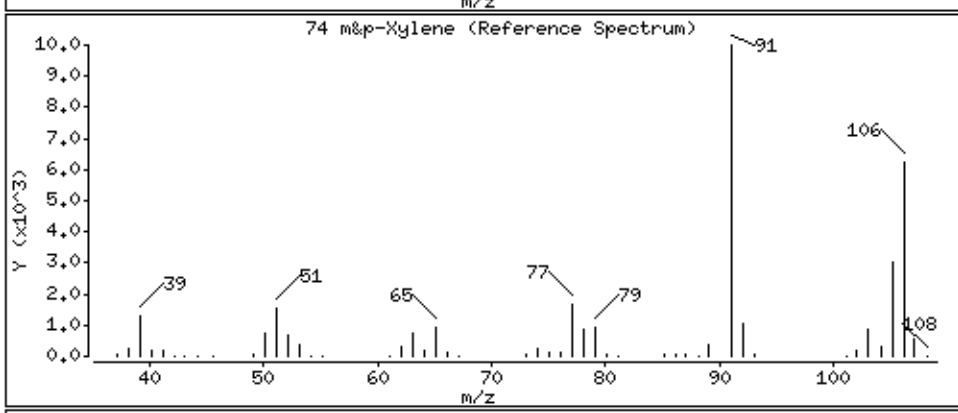
Column diameter: 0.18

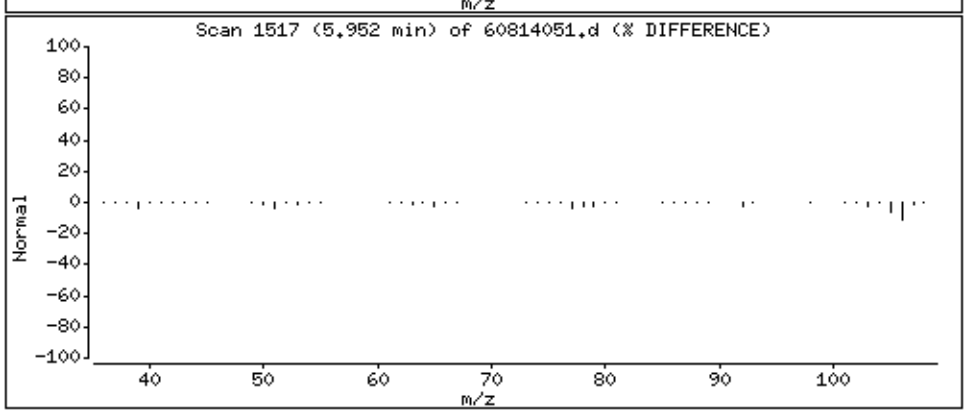
74 m&p-Xylene

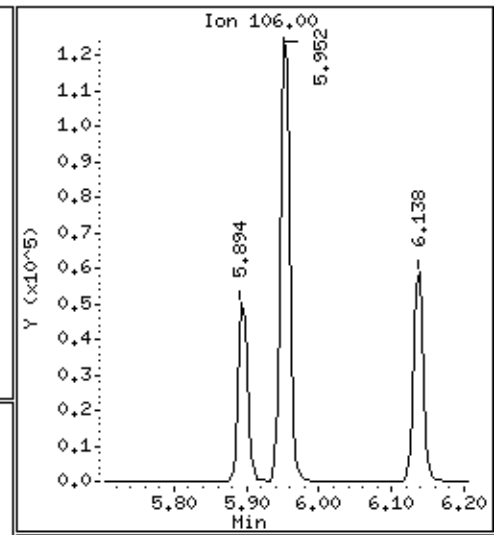
Concentration: 258 ug/kg

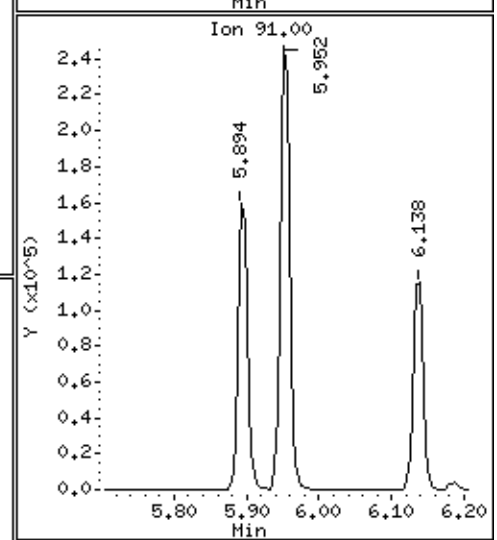












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

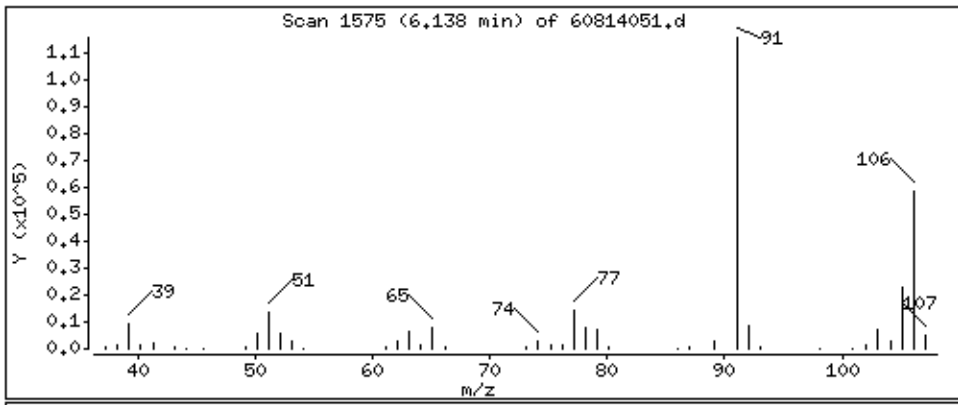
Operator: ARG

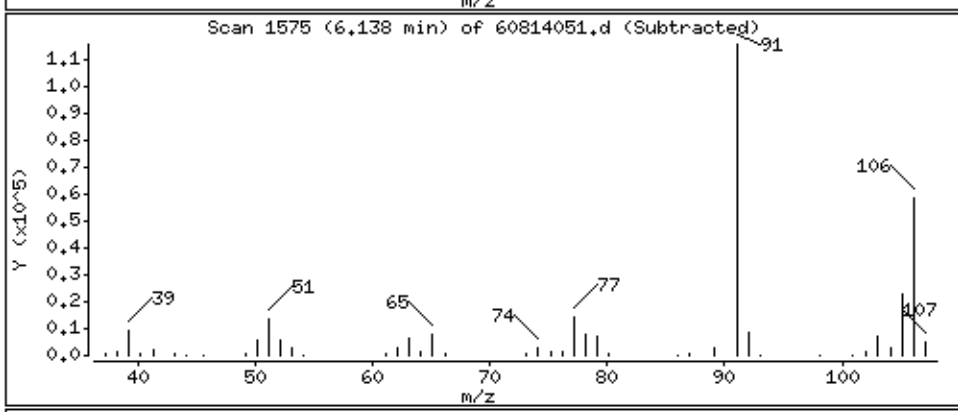
Column phase: RTX-VMS

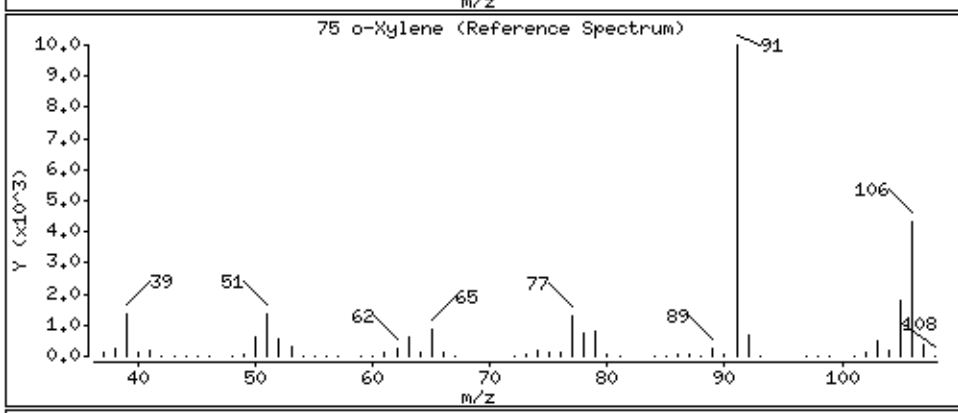
Column diameter: 0.18

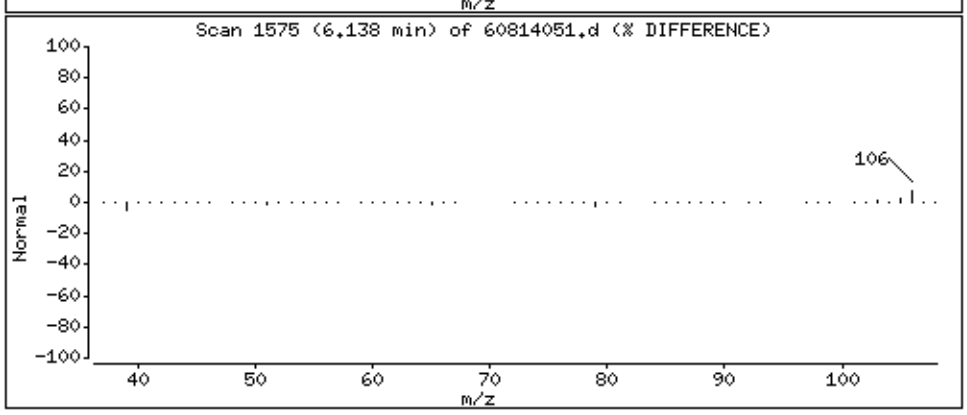
75 o-Xylene

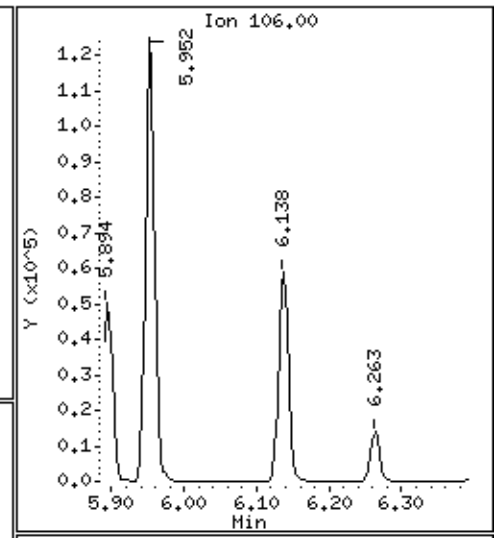
Concentration: 130 ug/kg

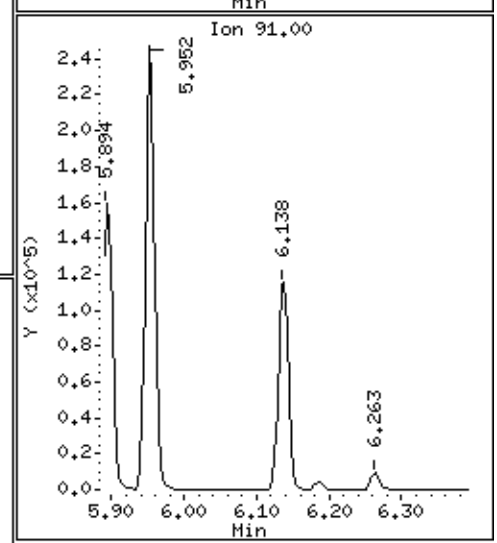












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

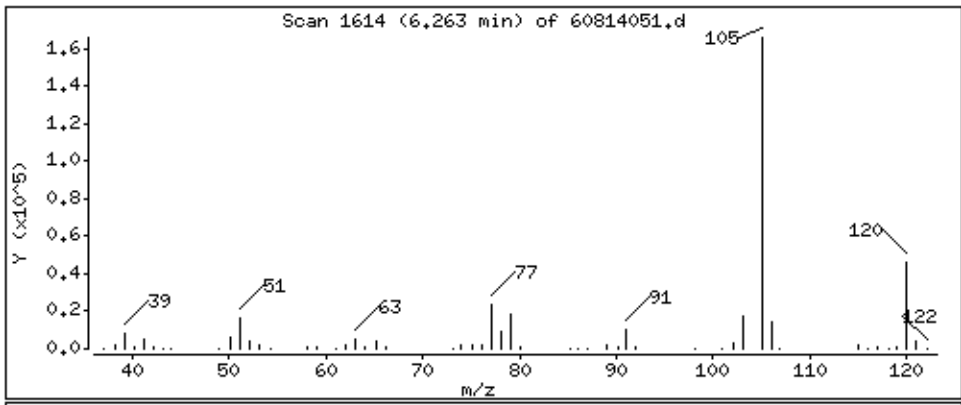
Operator: ARG

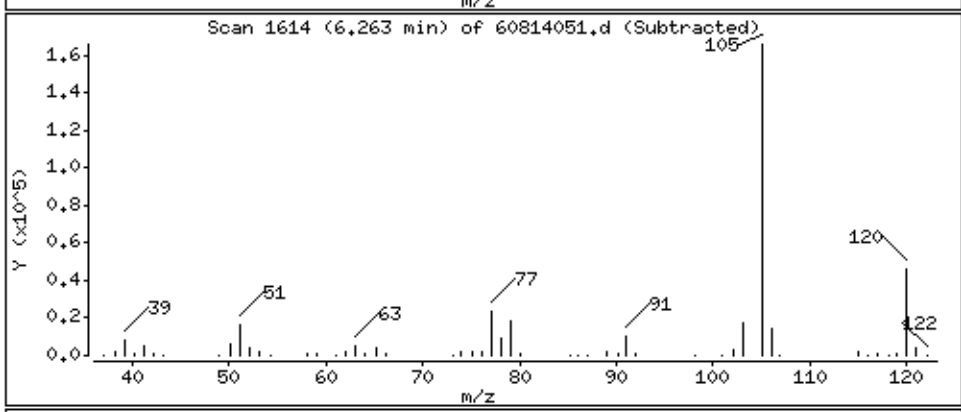
Column phase: RTX-VMS

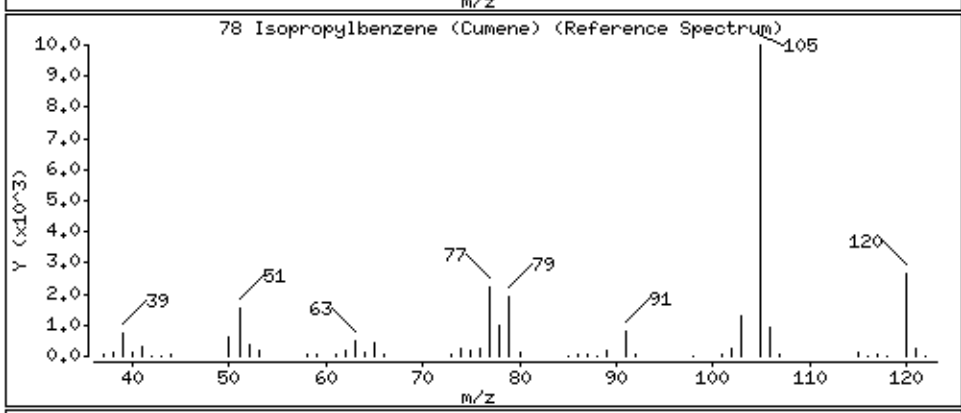
Column diameter: 0.18

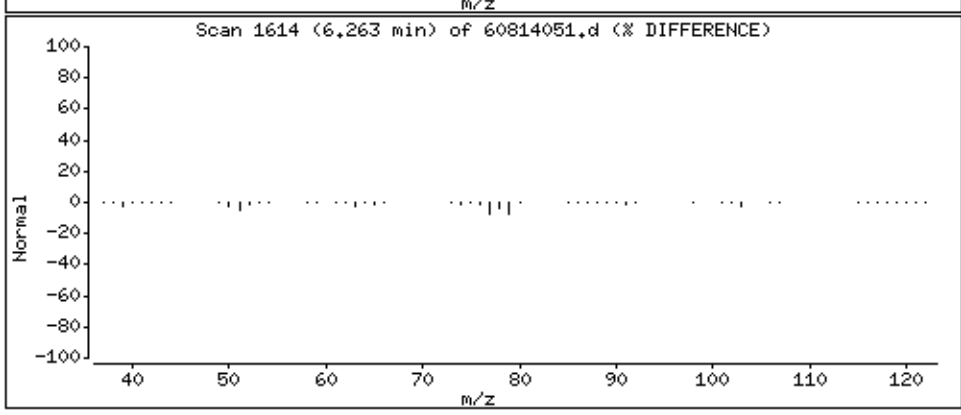
78 Isopropylbenzene (Cumene)

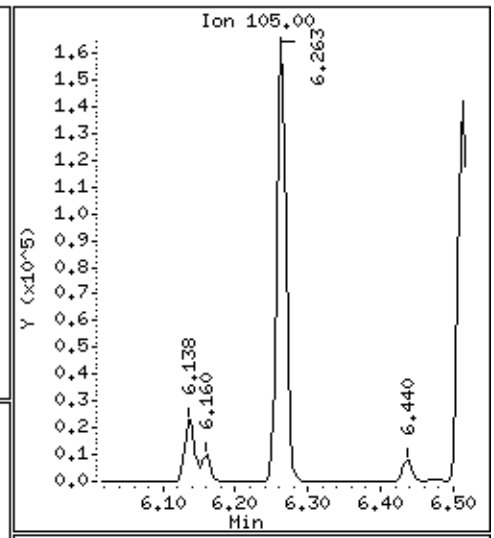
Concentration: 138 ug/kg

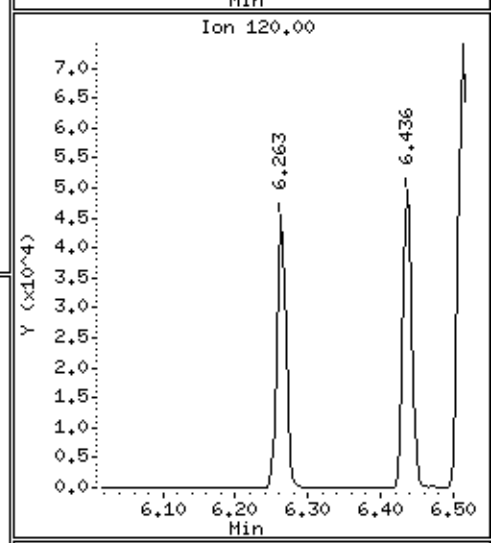


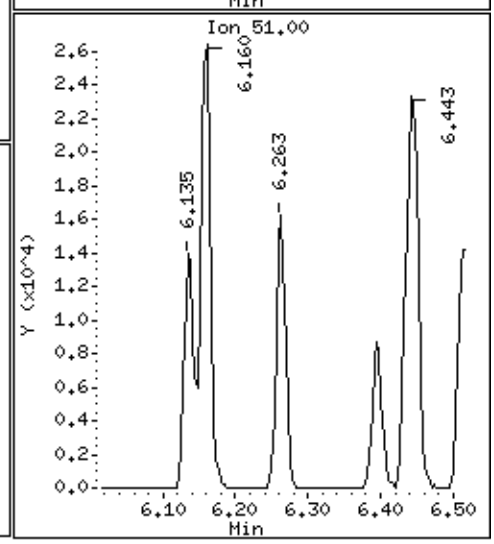












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Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

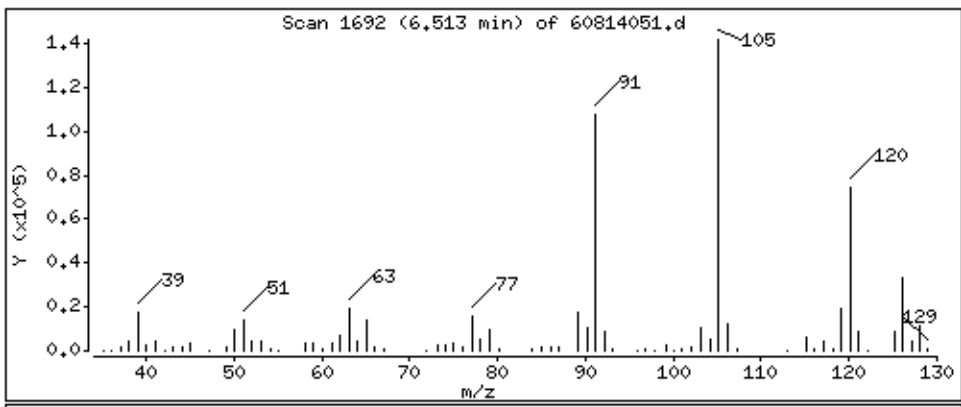
Operator: ARG

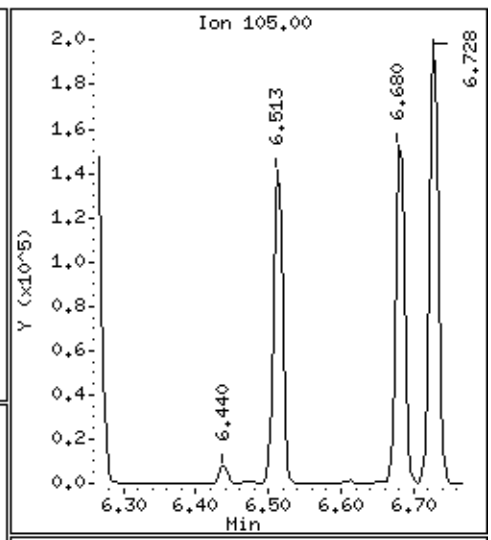
Column phase: RTX-VMS

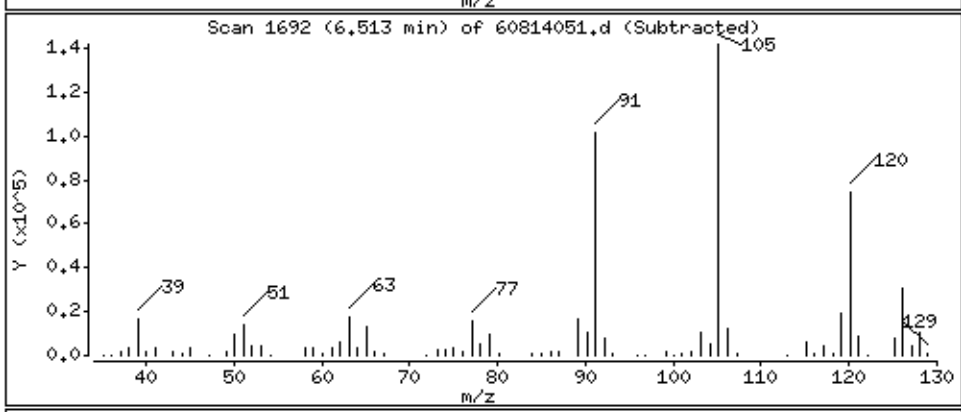
Column diameter: 0.18

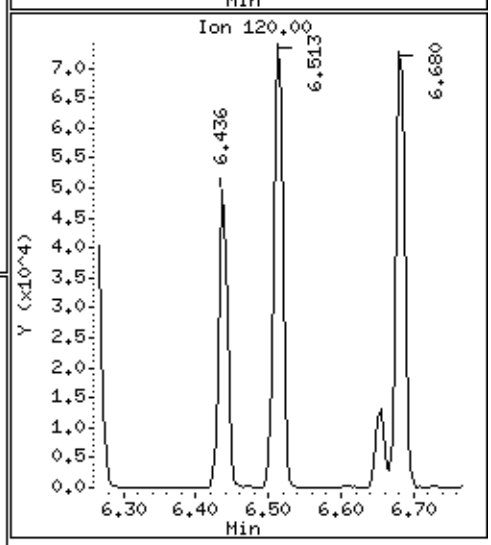
83 1,3,5-Trimethylbenzene

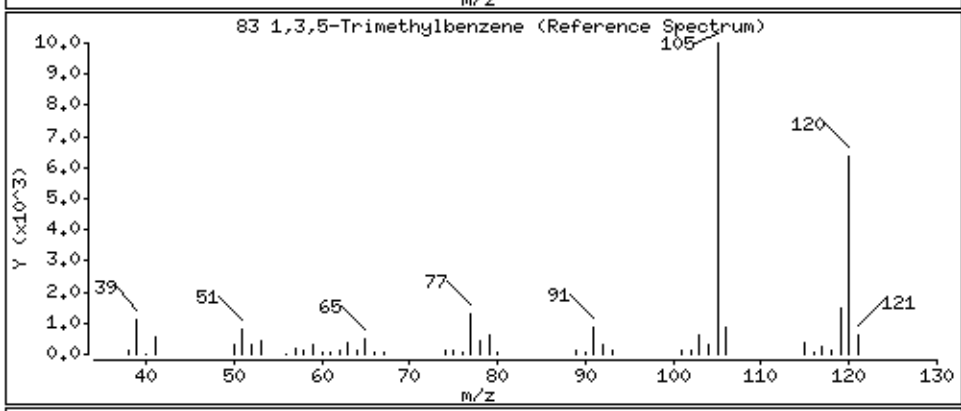
Concentration: 135 ug/kg

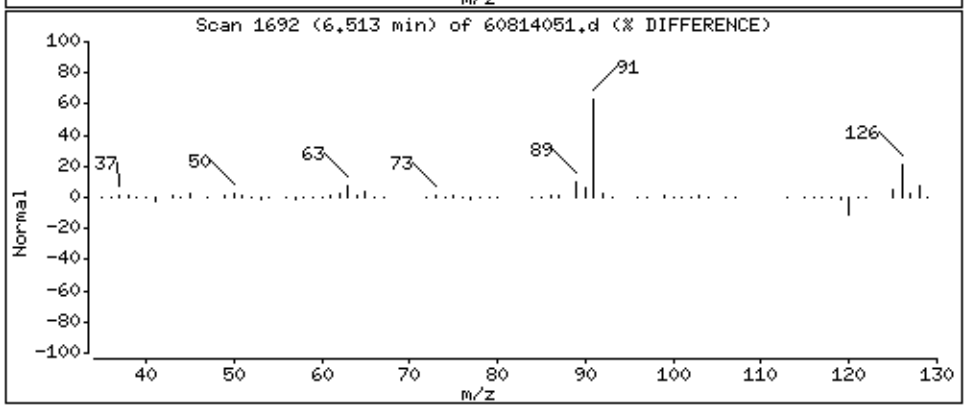












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

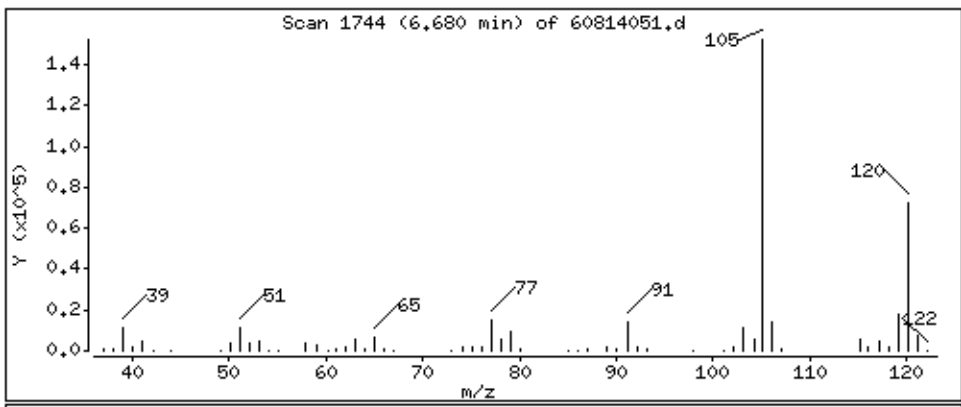
Operator: ARG

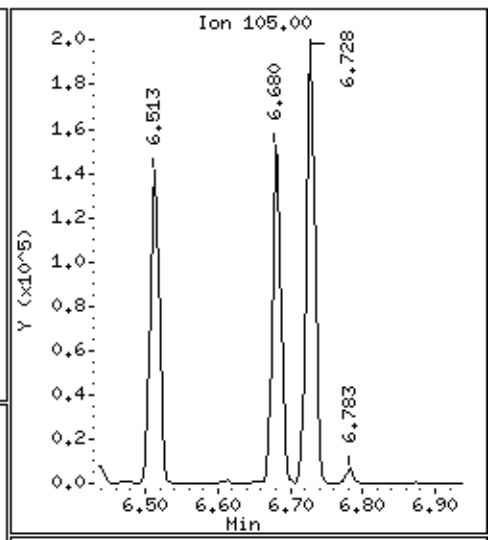
Column phase: RTX-VMS

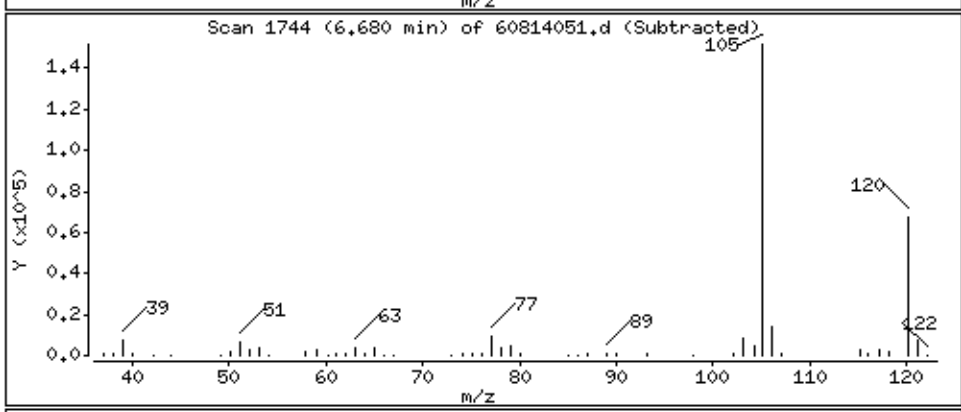
Column diameter: 0.18

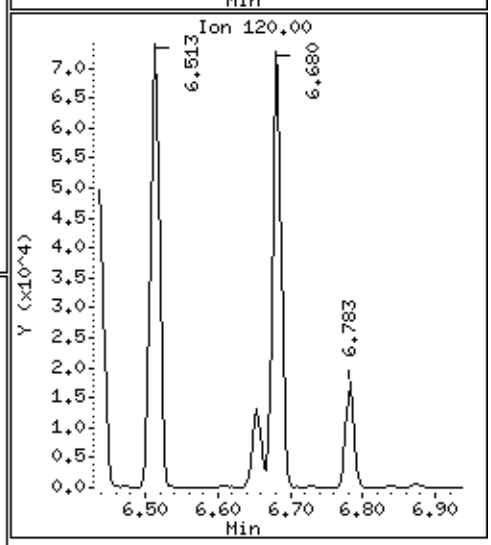
90 1,2,4-Trimethylbenzene

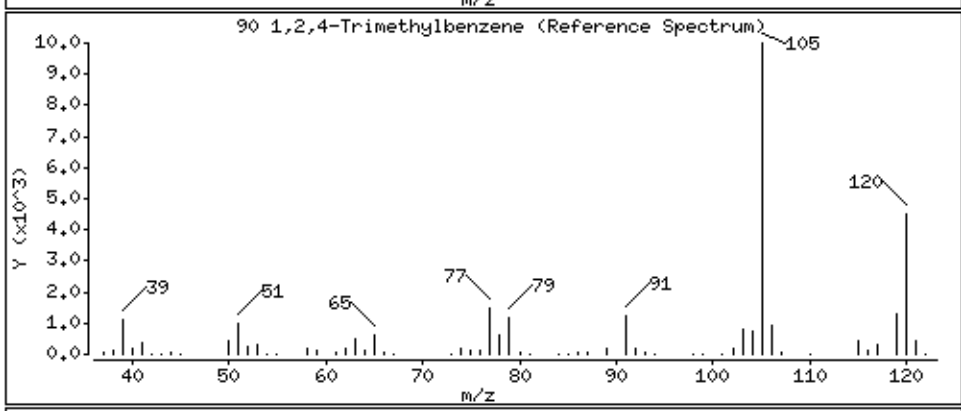
Concentration: 136 ug/kg

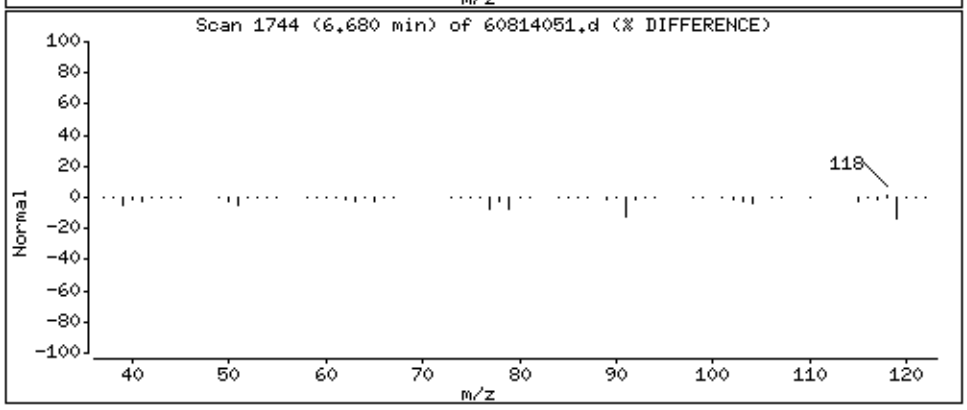












Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b\60814051.d

Date : 14-AUG-2019 19:26

Client ID: AOC 32 DITCH & AOC

Instrument: 30mv6a.i

Sample Info: 1731939x10

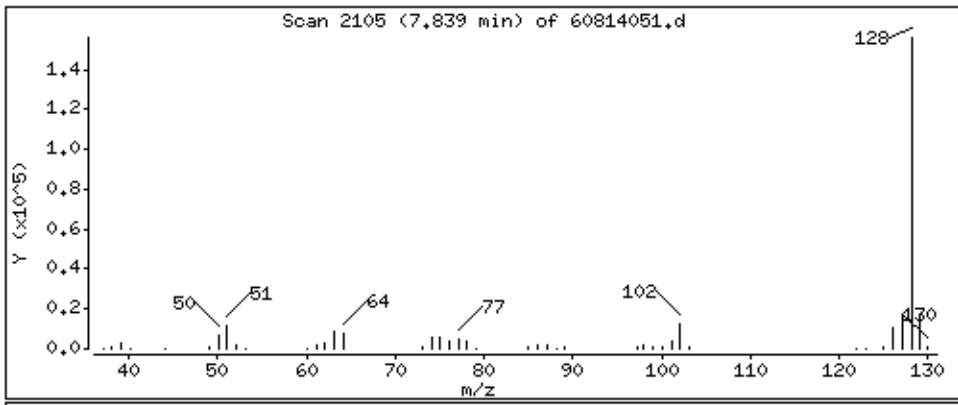
Operator: ARG

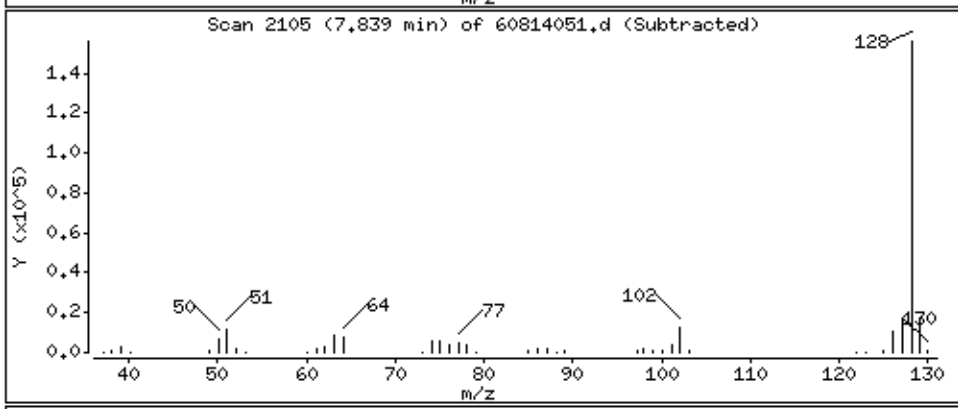
Column phase: RTX-VMS

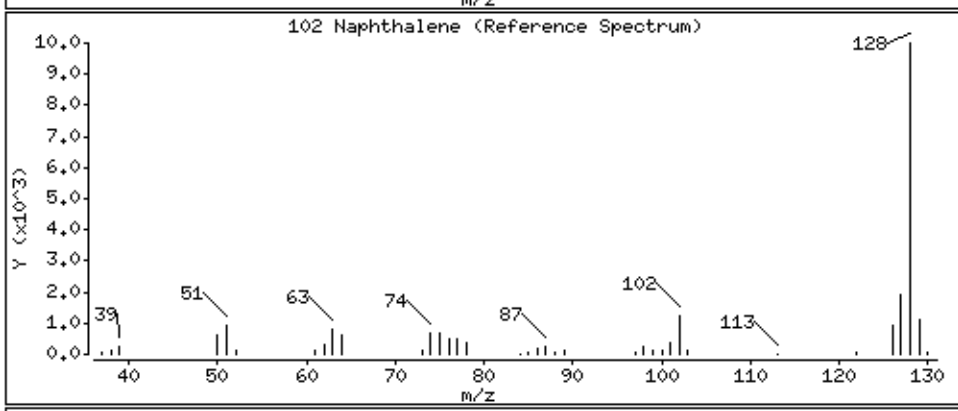
Column diameter: 0.18

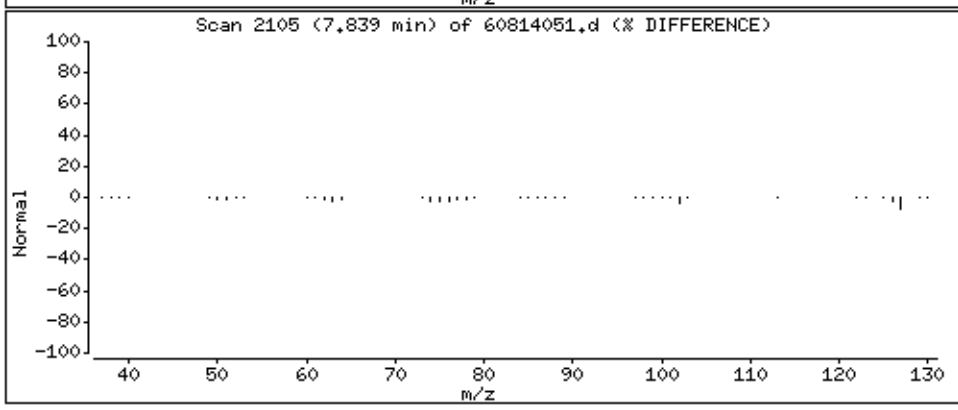
102 Naphthalene

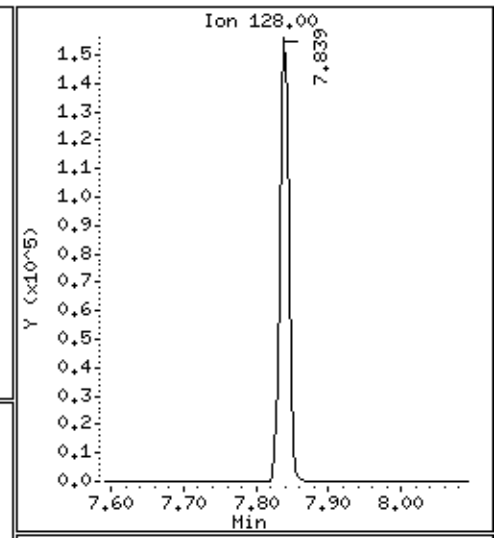
Concentration: 121 ug/kg

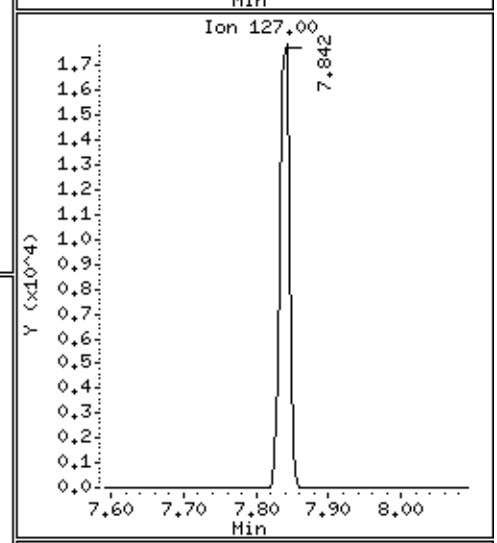


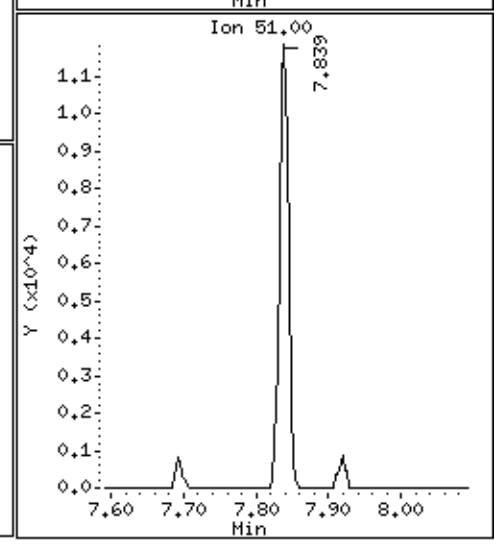






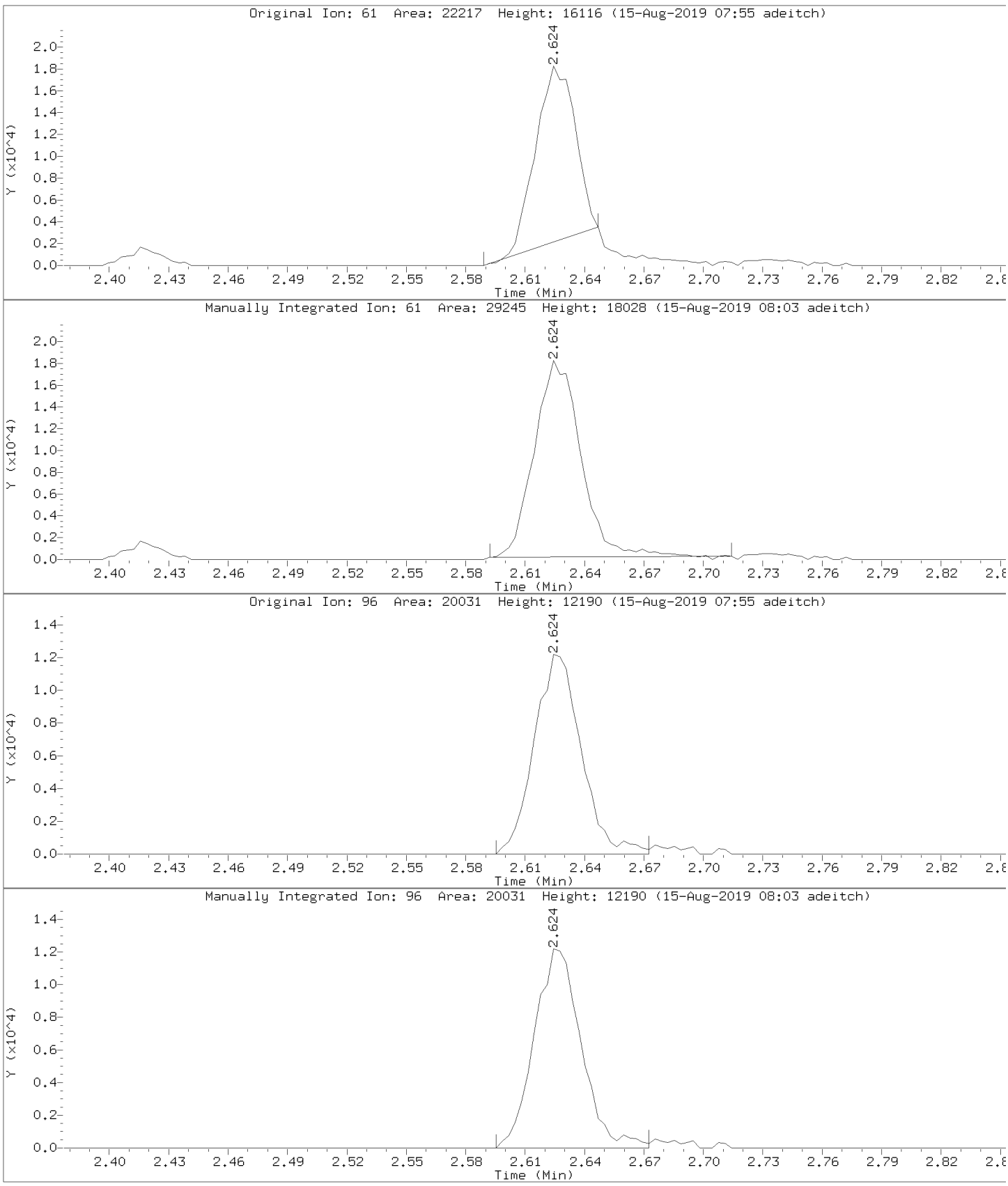






Data File: \\30wintarget\chem\30mv6a.i\6190814.b\1.b/60814051.d
Injection Date: 14-AUG-2019 19:26
Instrument: 30mv6a.i
Lab Sample ID: 1731939

Compound: trans-1,2-Dichloroethene Review Code: LT
CAS Number: 156-60-5



Prep Log Report

Batch Information: ZHE 8793/356242

Template Version: F-PA-O-010-Rev.02 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/12/2019 13:59:23:193	Tedlar Bag	94372
Tumbler Start Temp. (C)	20.2	Tumbler End Temp. (C)	23.1	Tumbler Rotational Rate (rev/min)	30	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Batch Notes	
Reviewed By		Reviewed By Date					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	TCLP Matrix	Actual sample Weight (g) used	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time
ZHETCLP	LB	**1730356**	Y		2	30TBL3		0	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30317570001**	Y		3	30TBL3	Water	9.4	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318386001**	Y		4	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318231001**	Y		5	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318054003**	Y		6	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318063001**	Y		7	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318064001**	Y		9	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318908001**	Y		11	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318799001**	Y		12	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30
ZHETCLP	PS	**30318452001**	Y		15	30TBL3	Other	10	92410 ()	TCLP 1	96363 ()	72915 ()	08/12/2019 15:15:02	08/13/2019 08:00:30

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	LB	**1730356**	Y	10	10		08/13/2019 08:30:52:920							
ZHETCLP	PS	**30317570001**	Y	10	10		08/13/2019 08:33:52:920					70.4	10.6	71.6

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Pressure Check (50 psi)	Init Pressure (psi)	Final Pressure (psi)	Final pH	Time Filtered	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)
ZHETCLP	PS	**30318386001**	Y	10	10		08/13/2019 08:36:52:920							
ZHETCLP	PS	**30318231001**	Y	10	10		08/13/2019 08:39:11:639							
ZHETCLP	PS	**30318054003**	Y	10	10		08/13/2019 08:42:33:710							
ZHETCLP	PS	**30318063001**	Y	10	10		08/13/2019 08:45:43:894							
ZHETCLP	PS	**30318064001**	Y	10	10		08/13/2019 08:48:51:846							
ZHETCLP	PS	**30318908001**	Y	10	10		08/13/2019 08:48:00:430							
ZHETCLP	PS	**30318799001**	Y	10	10		08/13/2019 08:51:08:998							
ZHETCLP	PS	**30318452001**	Y	10	10		08/13/2019 08:54:17:438							

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	LB	**1730356**				400	
ZHETCLP	PS	**30317570001**	61.0	9.4	13.35	188.00	water
ZHETCLP	PS	**30318386001**				200	dirt/rock
ZHETCLP	PS	**30318231001**				200	mulch
ZHETCLP	PS	**30318054003**				200	sludge
ZHETCLP	PS	**30318063001**				200	trash
ZHETCLP	PS	**30318064001**				200	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
ZHETCLP	PS	**30318908001**				200	clay/rock
ZHETCLP	PS	**30318799001**				200	clay/rock
ZHETCLP	PS	**30318452001**				200	sludge

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [S]:
ISTD lot: 93190:10
Tune std: 1

Method: SW846-8260

Surr. lot:
Cal. std: see curve

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60813001.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/13/19	08:41	JEW	
1/60813003.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/13/19	09:07	JEW	
1/60813005.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/13/19	09:33	JEW	
1/60813007.d	blk	S/	SAMPLE	1	< 2	msv6072219a	8/13/19	09:59	JEW	
1/60813009.d	blk	S/	BFB	1	7	bfb390	8/13/19	10:24	JEW	
1/60813011.d	TUNE, 93190:10	S/45773	BFB	1	7	bfb390	8/13/19	13:01	JEW	
1/60813013.d	CAL1, 96575:1	S/45773	CALIB_1	1	< 2	msv6081319a	8/13/19	14:23	JEW	
1/60813015.d	CAL2, 96576:1	S/45773	CALIB_2	1	< 2	msv6081319a	8/13/19	14:49	JEW	
1/60813017.d	CAL3, 96577:1	S/45773	CALIB_3	1	< 2	msv6081319a	8/13/19	15:15	JEW	
1/60813019.d	CAL4, 96578:1	S/45773	CALIB_4	1	< 2	msv6081319a	8/13/19	15:41	JEW	
1/60813021.d	CAL5, 96579:1	S/45773	CALIB_5	1	< 2	msv6081319a	8/13/19	16:07	JEW	
1/60813023.d	CAL6, 96580:1	S/45773	CALIB_6	1	< 2	msv6081319a	8/13/19	16:32	JEW	
1/60813025.d	CAL7, 96581:1	S/45773	CALIB_7	1	< 2	msv6081319a	8/13/19	16:58	JEW	
1/60813027.d	CAL8, 96582:1	S/45773	CALIB_8	1	< 2	msv6081319a	8/13/19	17:24	JEW	
1/60813029.d	blk	S/	SAMPLE	1	< 2	msv6081319a	8/13/19	17:50	JEW	
1/60813031.d	ICV, 96583:1	S/45773	CCALIB_4	1	< 2	msv6081319a	8/13/19	18:16	JEW	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
✓ No maintenance performed today

Additional Comments:

Run Order Verified: JEW

File Path 1: \\30wintarget\chem\30mv6a.i\6190813.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:42 08/14/2019

Reviewed By/Date: MS 8-14-19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv6a.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846-8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 93190:10 — Surr. lot:
Tune std: ↓ — Cal. std: 96666

Instrument name..... 30MV6A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/60814001.d	blk	S/	SAMPLE	1	< 2	msv6081319a	8/14/19	08:39	JEW	
1/60814003.d	TUNE, 93190:10	S/45773	BFB	1	7	bfb390	8/14/19	09:04	JEW	
1/60814005-bfb.d	TUNE, 93190:10	S/45773	BFB	1	7	bfb390	8/14/19	09:30	JEW	
1/60814005.d	CCV, 96666:1	S/45773	CCALIB_5	1	< 2	msv6081319a	8/14/19	09:30	JEW	
1/60814007.d	LLCHECK,96667:1,	S/	SAMPLE	1	< 2	msv6081319a	8/14/19	09:56	JEW	nor need: all < 20%
1/60814009-45778.d	1731930,96668:5,	L/45778	LCS	1	< 2	msv6081319a	8/14/19	10:22	JEW	
1/60814009-45779.d	1731940,96668:5,	L/45779	LCS	1	< 2	msv6081319a	8/14/19	10:22	JEW	
1/60814009-45786.d	1732025,96668:5,	S/45786	LCS	1	< 2	msv6081319a	8/14/19	10:22	JEW	
1/60814011.d	MBLKX50	S/	SAMPLE	1	< 2	msv6081319a	8/14/19	10:48	JEW	
1/60814013-45786.d	1732024	S/45786	BLANK	1	< 2	msv6081319a	8/14/19	11:15	JEW	
1/60814015.d	30317707001	S/45786	SAMPLE	1	< 2	msv6081319a	8/14/19	11:41	JEW	
1/60814017.d	30317707002	S/45786	SAMPLE	1	< 2	msv6081319a	8/14/19	12:06	JEW	
1/60814019.d	30318222001	S/45786	SAMPLE	1	< 2	msv6081319a	8/14/19	12:32	JEW	
1/60814021.d	30318222003	S/45786	SAMPLE	1	< 2	msv6081319a	8/14/19	12:58	JEW	
1/60814023-45778.d	1730356x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	13:24	ARG	
1/60814023-45779.d	1730356x10	S/45779	SAMPLE	10	< 2	msv6081319a	8/14/19	13:24	ARG	
1/60814025.d	30318386001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	13:50	ARG	
1/60814027.d	30318054003x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	14:16	ARG	
1/60814029.d	30318231001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	14:41	ARG	
1/60814031.d	30318063001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	15:07	ARG	
1/60814033.d	30318064001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	15:33	ARG	
1/60814035.d	30318452001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	15:59	ARG	
1/60814037.d	1731932x10	S/45778	MS	10	< 2	msv6081319a	8/14/19	16:25	ARG	
1/60814039.d	1731933x10	S/45778	MSD	10	< 2	msv6081319a	8/14/19	16:51	ARG	
1/60814041.d	30318908001x10	S/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	17:17	ARG	
1/60814043.d	30317570001x10	L/45778	SAMPLE	10	< 2	msv6081319a	8/14/19	17:42	ARG	
1/60814045.d	1731931x10	L/45778	MS	10	< 2	msv6081319a	8/14/19	18:08	ARG	
1/60814047.d	30318799001x10	S/45779	SAMPLE	10	< 2	msv6081319a	8/14/19	18:34	ARG	
1/60814049.d	1731938x10	S/45779	MS	10	< 2	msv6081319a	8/14/19	19:00	ARG	
1/60814051.d	1731939x10	S/45779	MSD	10	< 2	msv6081319a	8/14/19	19:26	ARG	

Check Maintenance Items Performed:

___ Changed septum — ___ Clipped column — ___ Changed column (lot #_____)
___ Cleaned liner — ___ Changed trap (lot #_____) — ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal — ___ Cleaned MS source — X No maintenance performed today

Additional Comments:

Run Order Verified: ARGD

File Path 1: \\30wintarget\chem\30mv6a.i\6190814.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:08 08/15/2019

Reviewed By/Date: JEW 8/15/19 Page: 1 of 1

MSSV FULL SCAN - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MSS4

LAB SAMPLE ID	SAMPLE NAME	24B6	2FBP	2FPH	NIT5	PHD6	TD14
1729490	1729490LB	80	75	111	77	77	52
1730388	1730388LCS	85	77	133*	82	80	63
30318799001	AOC 32 DITCH & AOC 35G	64	77	72	80	80	83

	QC LIMITS
(24B6) = 2,4,6-Tribromophenol (S)	(55-108)
(2FBP) = 2-Fluorobiphenyl (S)	(56-90)
(2FPH) = 2-Fluorophenol (S)	(61-116)
(NIT5) = Nitrobenzene-d5 (S)	(61-105)
(PHD6) = Phenol-d6 (S)	(64-101)
(TD14) = Terphenyl-d14 (S)	(32-90)

* Values outside of QC Limits

MSSV FULL SCAN - FORM III SVOA-1
WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1730388LCS
Date Extracted: 08/12/2019
Date Analyzed (1): 08/12/2019
Instrument: 30MSS4
LCS Lot No: 90624
Lab File ID: MSS4081219.B\M4081204.D
SDG No.: 30318799

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	293J	59	38-85
2,4-Dinitrotoluene	500	386	77	51-102
Hexachloro-1,3-butadiene	500	313	63	27-97
Hexachlorobenzene	500	279	56	36-66
Hexachloroethane	500	293	59	37-89
2-Methylphenol(o-Cresol)	500	404J	81	60-106
3&4-Methylphenol(m&p Cresol)	1000	830J	83	64-106
Nitrobenzene	500	384	77	64-108
Pentachlorophenol	500	409J	82	47-107
Pyridine	500	162J	32	20-54
2,4,5-Trichlorophenol	500	439J	88	60-110
2,4,6-Trichlorophenol	500	418	84	62-110

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1730389MS

Date Extracted: 08/12/2019

Date Analyzed (1): 08/12/2019

Instrument: 30MSS4

Lab File ID: MSS4081219.B\M4081206.D

Parent Sample ID: 30318388001

SDG No.: 30318799

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,4-Dichlorobenzene	500	ND	295J	59	51-85
2,4,5-Trichlorophenol	500	ND	417J	83	65-108
2,4,6-Trichlorophenol	500	ND	467	93	61-110
2,4-Dinitrotoluene	500	ND	363	73	52-106
2-Methylphenol(o-Cresol)	500	ND	415J	83	65-105
3&4-Methylphenol(m&p Cresol)	1000	ND	847J	85	69-106
Hexachloro-1,3-butadiene	500	ND	318	64	44-90
Hexachlorobenzene	500	ND	311	62	36-68
Hexachloroethane	500	ND	301	60	48-94
Nitrobenzene	500	ND	390	78	66-106
Pentachlorophenol	500	ND	378J	76	49-120
Pyridine	500	ND	185J	37	10-72

Spike Recovery: 0 out of 12 outside limits.

MSSV FULL SCAN - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS4 Matrix Spike Duplicate - Sample No: 1730390MSD

Lab File ID (2): MSS4081219.B\M4081207.D Date Analyzed (2): 08/12/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,4-Dichlorobenzene	500	310J	62		0-20	51-85
2,4,5-Trichlorophenol	500	443J	89		0-20	65-108
2,4,6-Trichlorophenol	500	424	85	10	0-20	61-110
2,4-Dinitrotoluene	500	369	74	2	0-20	52-106
2-Methylphenol(o-Cresol)	500	424J	85		0-20	65-105
3&4-Methylphenol(m&p Cresol)	1000	864J	86		0-20	69-106
Hexachloro-1,3-butadiene	500	321	64	1	0-20	44-90
Hexachlorobenzene	500	301	60	3	0-20	36-68
Hexachloroethane	500	308	62	2	0-20	48-94
Nitrobenzene	500	398	80	2	0-20	66-106
Pentachlorophenol	500	404J	81		0-20	49-120
Pyridine	500	202J	40		0-20	10-72

RPD: 0 out of 6 outside limits.

Spike Recovery: 0 out of 12 outside limits.

SAMPLE NO.

1729490LB

MSSV FULL SCAN - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MSS4 Matrix: Water Lab Sample ID: 1729490

Lab File ID: MSS4081219.B\M4081203.D Date Analyzed: 08/12/2019 Time: 18:04

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1730388LCS	1730388	MSS4081219.B\M4081204.D	08/12/2019 18:26
AOC 32 DITCH & AOC 35G	30318799001	MSS4081219.B\M4081213.D	08/12/2019 21:41

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: MSS4080519.B\M40805T1.D DFTPP Injection Date: 08/05/2019
Instrument ID: 30MSS4 DFTPP Injection Time: 12:14

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	38.94	
68	Less than 2.00% of mass 69	0.15	(0.39)[1]
69	Mass 69 relative abundance	38.34	
70	Less than 2.00% of mass 69	0.27	(0.69)[1]
127	40.00 - 60.00% of mass 198	50.63	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.72	
275	10.00 - 30.00% of mass 198	28.12	
365	Greater than 1.00% of mass 198	4.11	
441	Present, but less than mass 443	19.81	
442	Greater than 40.00% of mass 198	123.05	
443	17.00 - 23.00% of mass 442	24.32	(19.76)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11418773CAL7	11418773CAL7	MSS4080519.B\M40805Y1.D	08/05/2019	12:29
11418780CAL6	11418780CAL6	MSS4080519.B\M40805Y2.D	08/05/2019	12:51
11418775CAL5	11418775CAL5	MSS4080519.B\M40805Y3.D	08/05/2019	13:13
11418774CAL4	11418774CAL4	MSS4080519.B\M40805Y4.D	08/05/2019	13:35
11418776CAL3	11418776CAL3	MSS4080519.B\M40805Y5.D	08/05/2019	13:56
11418779CAL2	11418779CAL2	MSS4080519.B\M40805Y6.D	08/05/2019	14:19
11418777CAL1	11418777CAL1	MSS4080519.B\M40805Y7.D	08/05/2019	14:40
11418778ICV	11418778ICV	MSS4080519.B\M40805Y8.D	08/05/2019	15:02

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: MSS4081219.B\M40812T2.D DFTPP Injection Date: 08/12/2019
Instrument ID: 30MSS4 DFTPP Injection Time: 16:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	33.32	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	34.66	
70	Less than 2.00% of mass 69	0.13	(0.39)[1]
127	40.00 - 60.00% of mass 198	48.64	
197	Less than 1.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.72	
275	10.00 - 30.00% of mass 198	28.83	
365	Greater than 1.00% of mass 198	4.48	
441	Present, but less than mass 443	23.76	
442	Greater than 40.00% of mass 198	144.61	
443	17.00 - 23.00% of mass 442	26.76	(18.50)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11388800CCV	11388800CCV	MSS4081219.B\M40812S2.D	08/12/2019	16:56
1729490LB	1729490LB	MSS4081219.B\M4081203.D	08/12/2019	18:04
1730388LCS	1730388LCS	MSS4081219.B\M4081204.D	08/12/2019	18:26
AOC 32 DITCH & AOC 35G	30318799001	MSS4081219.B\M4081213.D	08/12/2019	21:41

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11388800CCV Date Analyzed: 08/12/2019

Instrument ID: 30MSS4 GC Column: Col 1 Time Analyzed: 16:56

Lab File ID: MSS4081219.B\M40812S2.D

		AREA ANT	RT	AREA CRY	RT	AREA DCB	RT	AREA NPT	RT
12 HOUR STD		175111	6.16	284700	10.327	81901	3.737	323294	4.727
UPPER LIMIT		350222	6.66	569400	10.827	163802	4.237	646588	5.227
LOWER LIMIT		87555.5	5.66	142350	9.827	40950.5	3.237	161647	4.227
LAB SAMPLE ID	SAMPLE NO.								
1729490	1729490LB	155878	6.16	237218	10.321	81046	3.737	306716	4.727
1730388	1730388LCS	152572	6.16	245252	10.321	76998	3.737	293648	4.726
30318799001	AOC 32 DITCH & AOC 35G	158066	6.16	247085	10.321	87930	3.737	321168	4.727

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
NPT = Naphthalene-d8 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT
* Values outside of QC Limits

MSSV FULL SCAN - FORM VIII SVOA-1
MSSV FULL SCAN INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11388800CCV Date Analyzed: 08/12/2019

Instrument ID: 30MSS4 GC Column: Col 1 Time Analyzed: 16:56

Lab File ID: MSS4081219.B\M40812S2.D

		AREA PHN	RT	AREA PYL	RT
12 HOUR STD		389846	7.545	294932	11.669
UPPER LIMIT		779692	8.045	589864	12.169
LOWER LIMIT		194923	7.045	147466	11.169
LAB SAMPLE ID	SAMPLE NO.				
1729490	1729490LB	264735	7.54	256133	11.669
1730388	1730388LCS	266813	7.545	251842	11.669
30318799001	AOC 32 DITCH & AOC 35G	333083	7.54	203256	11.664

PHN = Phenanthrene-d10 (IS)
PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 32 DITCH & AOC 35G

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/09/2019 09:30
Matrix: Solid SDG No.: 30318799
Date Extracted: 08/12/2019 13:34
Lab Sample ID: 30318799001
Date Analyzed: 08/12/2019 21:41
Lab File ID: MSS4081219.B\M4081213.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS4 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4081219.b\m4081213.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 12-AUG-2019 21:41 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : 30318799001,
Misc Info : 14955,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4081219.b\8270080519.m
Meth Date : 13-Aug-2019 10:26 sgvozden Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula:
Amt * DF * Uf * Vt/(Vi * Ws * ((100 - M)/100)) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	100.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.843	2.843	(0.761)	136704	5.41763	542	
$	4 Phenol-d6 (S)	99	3.485	3.491	(0.933)	199783	6.03406	603	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.737	3.737	(1.000)	87930	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.175	4.175	(0.883)	51282	3.98046	398	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.726	4.726	(1.000)	321168	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.603	5.603	(0.910)	202628	3.86955	387	
*	50 Acenaphthene-d10 (IS)	164	6.159	6.159	(1.000)	158066	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						

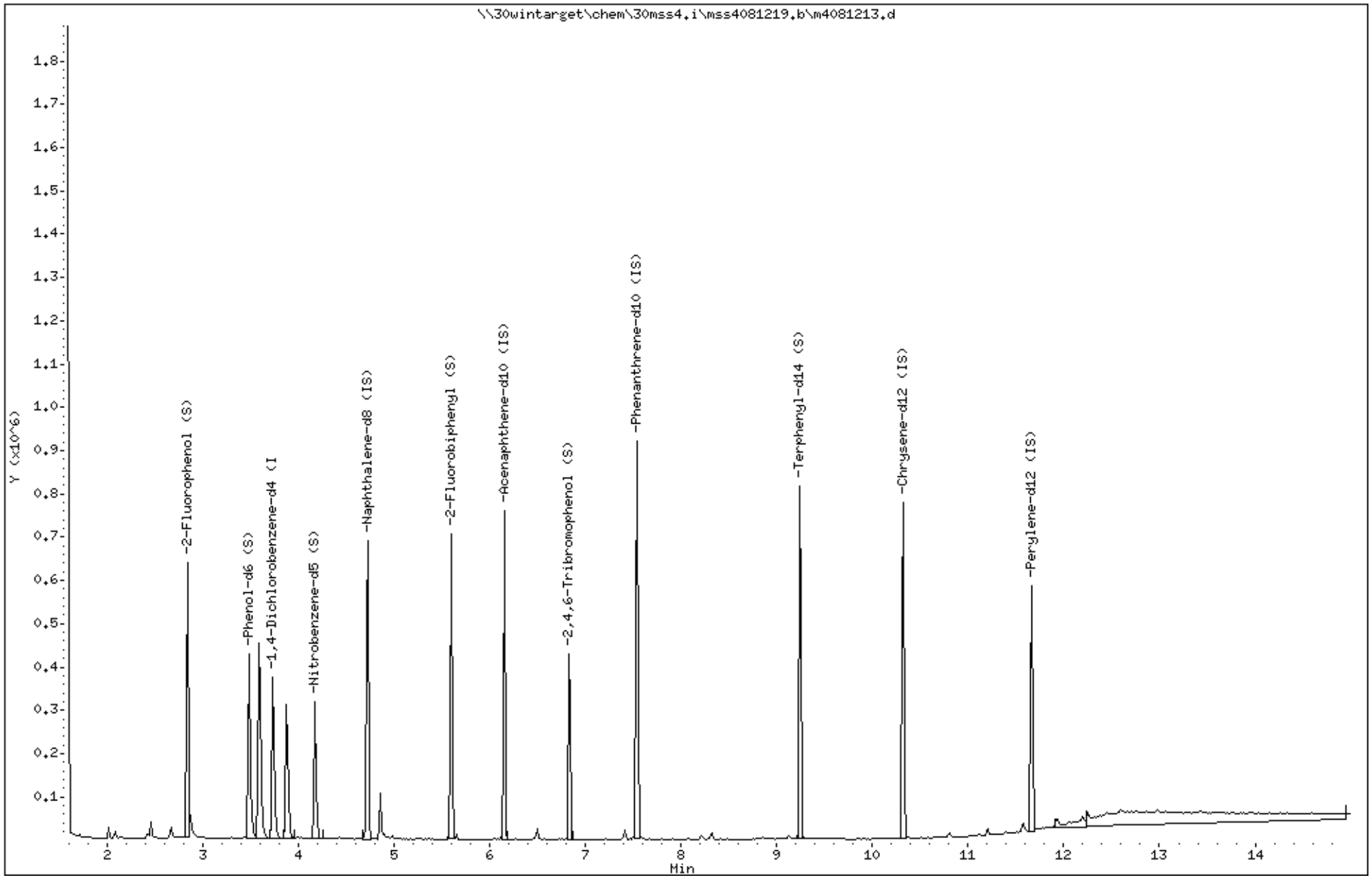
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
$ 65 2,4,6-Tribromophenol (S)	330	6.833	6.839	(0.906)	51282	4.81052	481	
67 Hexachlorobenzene	284	Compound Not Detected.						
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	7.539	7.545	(1.000)	333083	4.00000		
$ 77 Terphenyl-d14 (S)	244	9.246	9.251	(0.896)	238451	4.13159	413	
* 82 Chrysene-d12 (IS)	240	10.321	10.326	(1.000)	247085	4.00000		
* 88 Perylene-d12 (IS)	264	11.663	11.669	(1.000)	203256	4.00000		

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081213.d
Date : 12-AUG-2019 21:41
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss4.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4081219.b/m4081213.d
Injection Date: 12-AUG-2019 21:41
Instrument: 30mss4.i
Lab Sample ID: 30318799001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSSV FULL SCAN - FORM VI SVOA-1

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS4 GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/05/2019 08/05/2019 Calibration Time(s): 12:29 14:40

LAB FILE ID

CAL1 = MSS4080519.B\M40805Y7.D CAL2 = MSS4080519.B\M40805Y6.D CAL3 = MSS4080519.B\M40805Y5.D

CAL4 = MSS4080519.B\M40805Y4.D CAL5 = MSS4080519.B\M40805Y3.D CAL6 = MSS4080519.B\M40805Y2.D

CAL7 = MSS4080519.B\M40805Y1.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
1,4-Dichlorobenzene	Averaged	1.74172	1.65816	1.62863	1.55106	1.55299	1.55461
2,4-Dinitrotoluene	Averaged	0.37539	0.38161	0.38215	0.38373	0.35165	0.36088
Hexachloro-1,3-butadiene	Averaged	0.17841	0.17089	0.16719	0.16350	0.15854	0.16194
Hexachlorobenzene	Averaged	0.25308	0.24491	0.23469	0.23451	0.23121	0.23981
Hexachloroethane	Averaged	0.57793	0.56351	0.56407	0.56849	0.55106	0.57269
2-Methylphenol(o-Cresol)	Averaged	1.23571	1.18985	1.18770	1.21523	1.18368	1.22883
3&4-Methylphenol(m&p Cresol)	Averaged	1.30642	1.21130	1.21036	1.24381	1.21005	1.24962
Nitrobenzene	Averaged	0.35007	0.33638	0.32901	0.33217	0.31535	0.32082
Pentachlorophenol	Averaged	0.10793	0.11889	0.12289	0.13855	0.13391	0.14046
Pyridine	Averaged	1.22996	1.14493	1.12547	1.15150	1.10465	1.11802
2,4,5-Trichlorophenol	Averaged	0.36287	0.36702	0.35361	0.34686	0.32863	0.33959
2,4,6-Trichlorophenol	Averaged	0.37700	0.36050	0.36187	0.36580	0.34729	0.35680
2-Fluorobiphenyl (S)	Averaged	1.42678	1.39669	1.34373	1.30631	1.25116	1.29154
2-Fluorophenol (S)	Averaged	1.17673	1.12576	1.11682	1.17766	1.10364	1.16403
Nitrobenzene-d5 (S)	Averaged	0.16494	0.16129	0.15874	0.16204	0.15465	0.16037
Phenol-d6 (S)	Averaged	1.54224	1.50400	1.50132	1.49823	1.46303	1.52221
Terphenyl-d14 (S)	Averaged	0.97708	0.95589	0.91501	0.97091	0.95346	0.89820
2,4,6-Tribromophenol (S)	Averaged	0.12190	0.12498	0.12310	0.12989	0.12882	0.13680

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV FULL SCAN - FORM VI SVOA-2

MSSV FULL SCAN INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS4 GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/05/2019 08/05/2019 Calibration Time(s): 12:29 14:40

LAB FILE ID

CAL1 = MSS4080519.B\M40805Y7.D CAL2 = MSS4080519.B\M40805Y6.D CAL3 = MSS4080519.B\M40805Y5.D

CAL4 = MSS4080519.B\M40805Y4.D CAL5 = MSS4080519.B\M40805Y3.D CAL6 = MSS4080519.B\M40805Y2.D

CAL7 = MSS4080519.B\M40805Y1.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
1,4-Dichlorobenzene	Averaged	1.51971	4.93097			1.60098	
2,4-Dinitrotoluene	Averaged	0.36290	3.40858			0.37119	
Hexachloro-1,3-butadiene	Averaged	0.15772	4.44235			0.16546	
Hexachlorobenzene	Averaged	0.22627	3.78063			0.23778	
Hexachloroethane	Averaged	0.57030	1.50971			0.56687	
2-Methylphenol(o-Cresol)	Averaged	1.21498	1.73499			1.20800	
3&4-Methylphenol(m&p Cresol)	Averaged	1.23404	2.78344			1.23794	
Nitrobenzene	Averaged	0.32517	3.43720			0.32985	
Pentachlorophenol	Averaged	0.14125	9.89911			0.12913	
Pyridine	Averaged	1.13639	3.57964			1.14442	
2,4,5-Trichlorophenol	Averaged	0.33260	4.23061			0.34731	
2,4,6-Trichlorophenol	Averaged	0.35404	2.61216			0.36047	
2-Fluorobiphenyl (S)	Averaged	1.25976	5.06483			1.32514	
2-Fluorophenol (S)	Averaged	1.17049	2.73235			1.14788	
Nitrobenzene-d5 (S)	Averaged	0.16117	1.97931			0.16046	
Phenol-d6 (S)	Averaged	1.51211	1.61404			1.50616	
Terphenyl-d14 (S)	Averaged	0.86969	4.33721			0.93432	
2,4,6-Tribromophenol (S)	Averaged	0.13066	4.02107			0.12802	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y1.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 05-AUG-2019 12:29 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal7, 94269:1
Misc Info : 14922,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4080519.b\8270080519.m
Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 12:29 Cal File: m40805y1.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.289	2.279	(0.561)	359008	20.0000	19.3	
	2 Pyridine	79	2.295	2.289	(0.562)	563918	20.0000	19.7	
$	3 2-Fluorophenol (S)	112	3.177	3.172	(0.779)	580837	20.0000	19.9	
$	4 Phenol-d6 (S)	99	3.814	3.803	(0.934)	750363	20.0000	20.2(A)	
	5 Benzaldehyde	77	3.771	3.760	(0.924)	524404	20.0000	20.3(A)	
	6 Phenol	94	3.824	3.814	(0.937)	763359	20.0000	20.0	
	7 Aniline	66	3.867	3.856	(0.948)	377018	20.0000	20.4(A)	
	8 bis(2-Chloroethyl)ether	63	3.894	3.883	(0.954)	502044	20.0000	22.1(A)	
	9 2-Chlorophenol	128	3.947	3.942	(0.967)	641317	20.0000	19.4	
	10 1,3-Dichlorobenzene	146	4.060	4.054	(0.995)	716373	20.0000	20.2(A)	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.081	4.076	(1.000)	99247	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.003)	754133	20.0000	19.6	
	13 Benzyl Alcohol	79	4.188	4.183	(1.026)	540636	20.0000	20.2(A)	
	14 1,2-Dichlorobenzene	146	4.242	4.236	(1.039)	683947	20.0000	19.7	
	15 2-Methylphenol(o-Cresol)	108	4.274	4.263	(1.047)	602916	20.0000	20.0	
	16 bis(2-Chloroisopropyl)ether	45	4.306	4.295	(1.055)	929526	20.0000	19.2	
	17 3&4-Methylphenol(m&p Cresol)	108	4.386	4.370	(1.075)	612375	20.0000	19.8	
	18 N-Nitroso-di-n-propylamine	70	4.423	4.402	(1.084)	452949	20.0000	20.0(A)	
	19 Acetophenone	105	4.407	4.397	(1.080)	832007	20.0000	19.6	
	20 Hexachloroethane	117	4.477	4.477	(1.097)	283003	20.0000	20.1(A)	
$	21 Nitrobenzene-d5 (S)	128	4.530	4.520	(0.892)	323530	20.0000	19.9	
	22 Nitrobenzene	77	4.541	4.530	(0.894)	652753	20.0000	19.6	
	23 Isophorone	82	4.723	4.707	(0.929)	1213991	20.0000	20.1(A)	
	24 2,4-Dimethylphenol	107	4.798	4.787	(0.944)	653193	20.0000	19.4	
	25 2-Nitrophenol	139	4.793	4.782	(0.943)	340065	20.0000	19.1	
	26 Benzoic acid	105	4.900	4.830	(0.964)	441980	20.0000	21.0(AM)	LT
	27 bis(2-Chloroethoxy)methane	93	4.873	4.867	(0.959)	708578	20.0000	20.0	
	28 2,4-Dichlorophenol	162	4.969	4.964	(0.978)	520709	20.0000	19.4	
	29 1,2,4-Trichlorobenzene	180	5.044	5.038	(0.993)	568415	20.0000	19.2	
*	30 Naphthalene-d8 (IS)	136	5.081	5.076	(1.000)	401487	4.00000		
	31 Naphthalene	128	5.103	5.092	(1.004)	1984320	20.0000	19.7	
	32 4-Chloroaniline	65	5.140	5.135	(1.012)	222382	20.0000	19.1	
	33 Hexachloro-1,3-butadiene	225	5.236	5.231	(1.031)	316611	20.0000	19.3	
	34 Caprolactam	55	5.434	5.375	(1.069)	251991	20.0000	16.6(MH)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.525	5.509	(1.087)	571913	20.0000	19.6	
	36 2-Methylnaphthalene	142	5.659	5.654	(1.114)	1310135	20.0000	19.6	
	37 1-Methylnaphthalene	142	5.750	5.744	(1.132)	1211527	20.0000	19.3	
	38 Hexachlorocyclopentadiene	237	5.841	5.835	(0.894)	395758	20.0000	19.5(M)	LT
	39 1,2,4,5-Tetrachlorobenzene	216	5.830	5.825	(0.892)	546317	20.0000	19.0	
	40 2,4,6-Trichlorophenol	196	5.905	5.894	(0.903)	388748	20.0000	19.4	
	41 2,4,5-Trichlorophenol	196	5.937	5.926	(0.908)	365200	20.0000	19.2	
$	42 2-Fluorobiphenyl (S)	172	5.964	5.958	(0.912)	1383243	20.0000	19.3	
	43 Biphenyl (Diphenyl)	154	6.044	6.033	(0.925)	1550746	20.0000	19.2(M)	LT
	44 2-Chloronaphthalene	164	6.060	6.055	(0.927)	363798	20.0000	19.0(M)	LT
	45 2-Nitroaniline	138	6.156	6.146	(0.942)	408539	20.0000	19.5	
	46 Dimethylphthalate	163	6.322	6.306	(0.967)	1309088	20.0000	19.3	
	47 2,6-Dinitrotoluene	165	6.381	6.370	(0.976)	298061	20.0000	18.8	
	48 Acenaphthylene	152	6.413	6.402	(0.981)	1939134	20.0000	19.3	
	49 3-Nitroaniline	65	6.504	6.483	(0.995)	362147	20.0000	17.9	
*	50 Acenaphthene-d10 (IS)	164	6.536	6.531	(1.000)	219605	4.00000		
	51 2,4-Dinitrophenol	184	6.584	6.573	(1.007)	193889	20.0000	20.2(A)	
	52 Acenaphthene	153	6.568	6.557	(1.005)	1227579	20.0000	19.2	
	53 4-Nitrophenol	109	6.622	6.600	(1.013)	183126	20.0000	19.8	
	54 2,4-Dinitrotoluene	165	6.718	6.702	(1.028)	398478	20.0000	18.9	
	55 Dibenzofuran	168	6.702	6.691	(1.025)	1650222	20.0000	19.1	
	56 2,3,4,6-Tetrachlorophenol	232	6.846	6.836	(1.047)	311037	20.0000	18.4	
	57 Diethylphthalate	149	6.943	6.927	(1.062)	1356890	20.0000	19.2	
	58 4-Chlorophenylphenyl ether	204	7.018	7.007	(1.074)	637588	20.0000	18.9	
	59 Fluorene	166	7.039	7.028	(1.077)	1340449	20.0000	19.1	
	60 4-Nitroaniline	108	7.087	7.055	(1.084)	205279	20.0000	19.3(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.130	7.108	(0.889)	238285	20.0000	20.1(A)	
	62 N-Nitrosodiphenylamine	169	7.151	7.130	(0.892)	1135584	20.0000	19.7	
	63 Azobenzene	77	7.183	7.173	(0.896)	1246844	20.0000	19.9	
	64 1,2-Diphenylhydrazine	77	7.183	7.173	(0.896)	1246844	20.0000	19.9	
$	65 2,4,6-Tribromophenol (S)	330	7.306	7.296	(0.911)	241867	20.0000	20.1(A)	
	66 4-Bromophenylphenyl ether	248	7.526	7.520	(0.939)	377469	20.0000	19.7	
	67 Hexachlorobenzene	284	7.702	7.691	(0.961)	418860	20.0000	19.3	
	68 Atrazine	200	7.729	7.707	(0.964)	364020	20.0000	19.2	
	69 Pentachlorophenol	266	7.879	7.868	(0.983)	261478	20.0000	20.4(A)	
*	70 Phenanthrene-d10 (IS)	188	8.018	8.012	(1.000)	370231	4.00000		
	71 Phenanthrene	178	8.045	8.034	(1.003)	1894151	20.0000	19.2	
	72 Anthracene	178	8.093	8.082	(1.009)	1895587	20.0000	19.4	
	73 Carbazole	167	8.258	8.242	(1.030)	1575495	20.0000	18.1	
	74 Di-n-butylphthalate	149	8.660	8.649	(1.080)	2149218	20.0000	19.2	
	75 Fluoranthene	202	9.312	9.296	(1.161)	1790909	20.0000	17.9	
	76 Pyrene	202	9.547	9.537	(0.884)	1857673	20.0000	17.9	
$	77 Terphenyl-d14 (S)	244	9.703	9.692	(0.898)	1391986	20.0000	17.9	
	78 Butylbenzylphthalate	149	10.227	10.216	(0.947)	847208	20.0000	18.3	
	79 3,3'-Dichlorobenzidine	252	10.762	10.745	(0.997)	660167	20.0000	19.6	
	80 bis(2-Ethylhexyl)phthalate	149	10.826	10.815	(1.002)	1170641	20.0000	18.4	
	81 Benzo(a)anthracene	228	10.783	10.772	(0.999)	1676326	20.0000	18.8	
*	82 Chrysene-d12 (IS)	240	10.799	10.788	(1.000)	320111	4.00000		
	83 Chrysene	228	10.831	10.815	(1.003)	1511521	20.0000	18.3	
	84 Di-n-octylphthalate	149	11.403	11.393	(0.939)	2157225	20.0000	19.2	
	85 Benzo(b)fluoranthene	252	11.821	11.804	(0.973)	1853833	20.0000	19.1	
	86 Benzo(k)fluoranthene	252	11.847	11.826	(0.975)	1884267	20.0000	18.3	
	87 Benzo(a)pyrene	252	12.109	12.088	(0.997)	1707195	20.0000	19.4	
*	88 Perylene-d12 (IS)	264	12.147	12.136	(1.000)	346702	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.131	13.104	(1.081)	1783975	20.0000	18.3	
90 Dibenz(a,h)anthracene	278	13.131	13.104	(1.081)	1513895	20.0000	18.8	
91 Benzo(g,h,i)perylene	276	13.404	13.372	(1.103)	1493073	20.0000	18.2	

QC Flag Legend

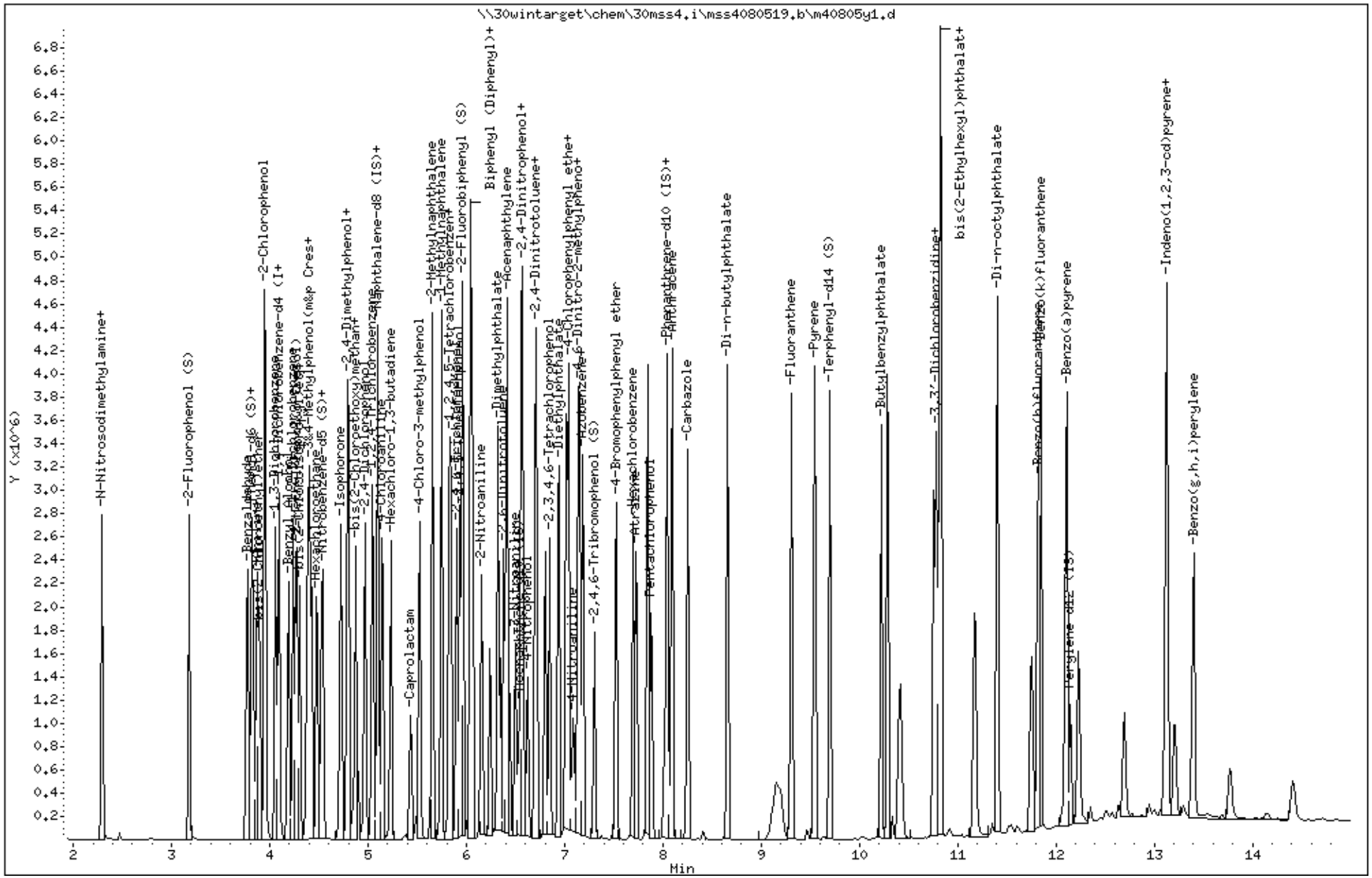
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y1.d
Date : 05-AUG-2019 12:29
Client ID: CAL7
Sample Info: CAL7, 94269:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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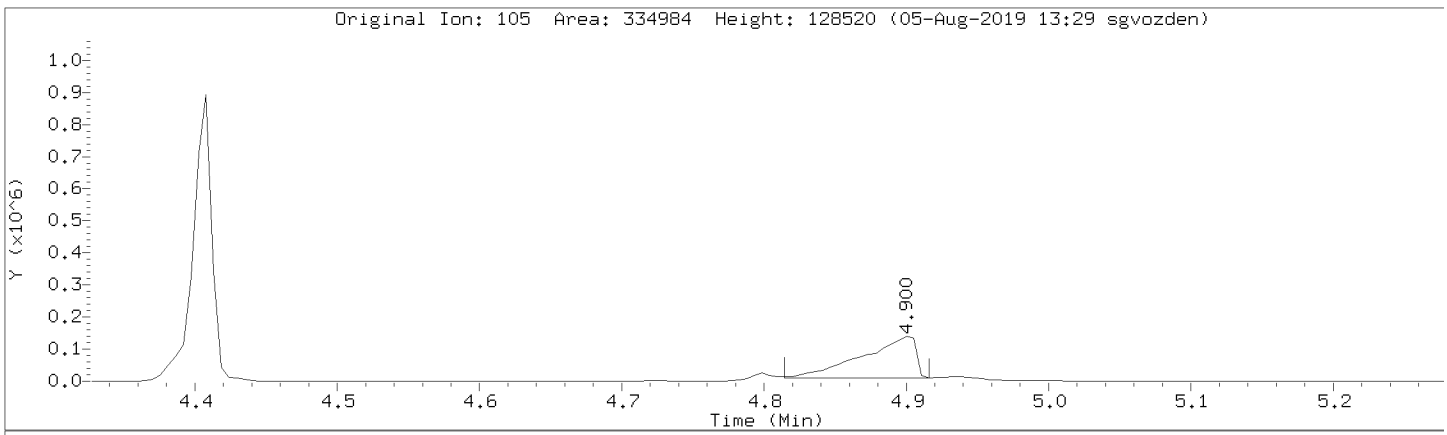
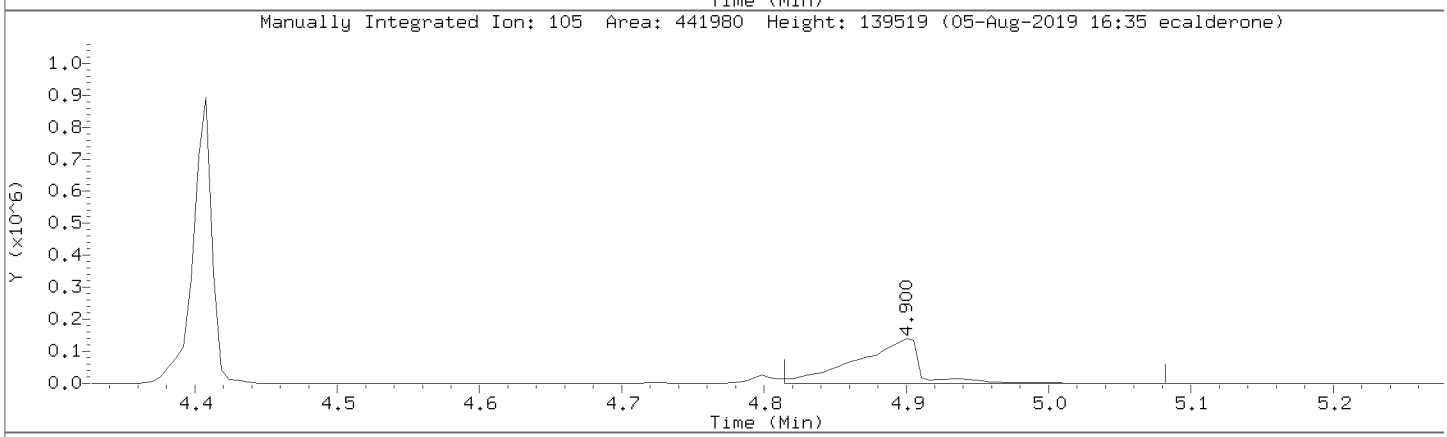
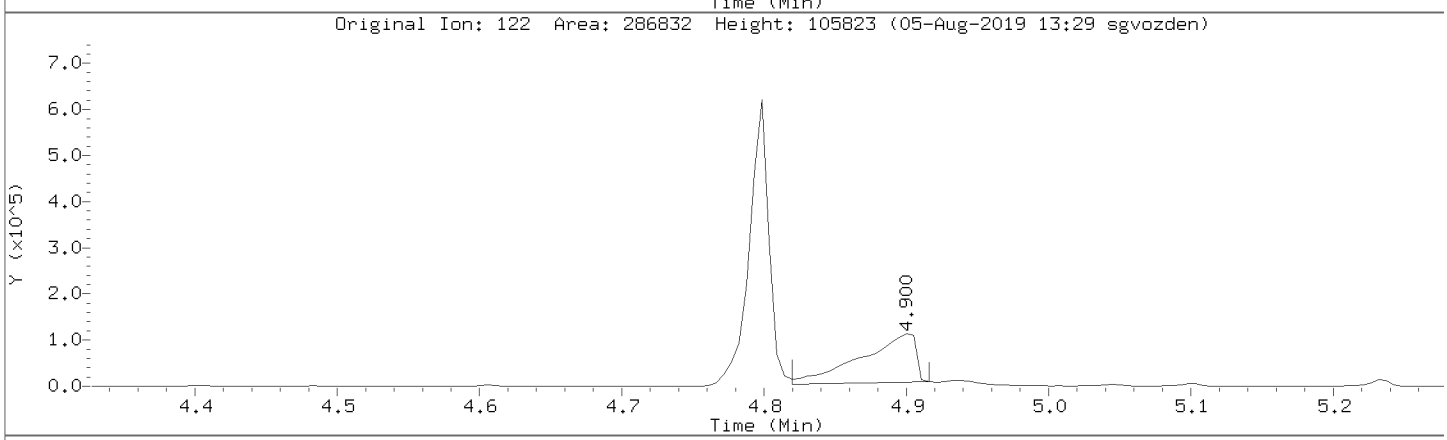
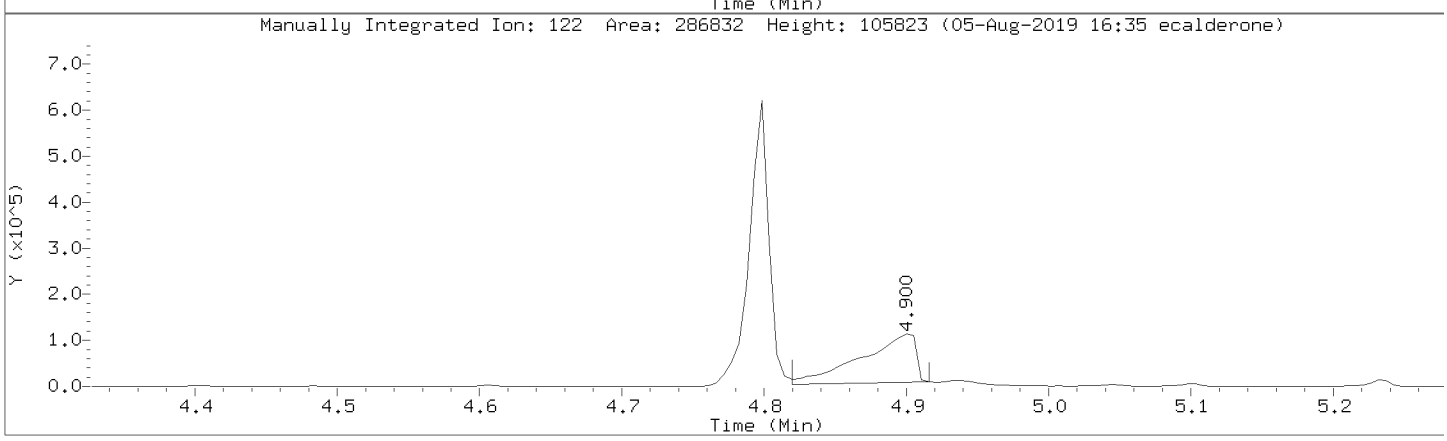
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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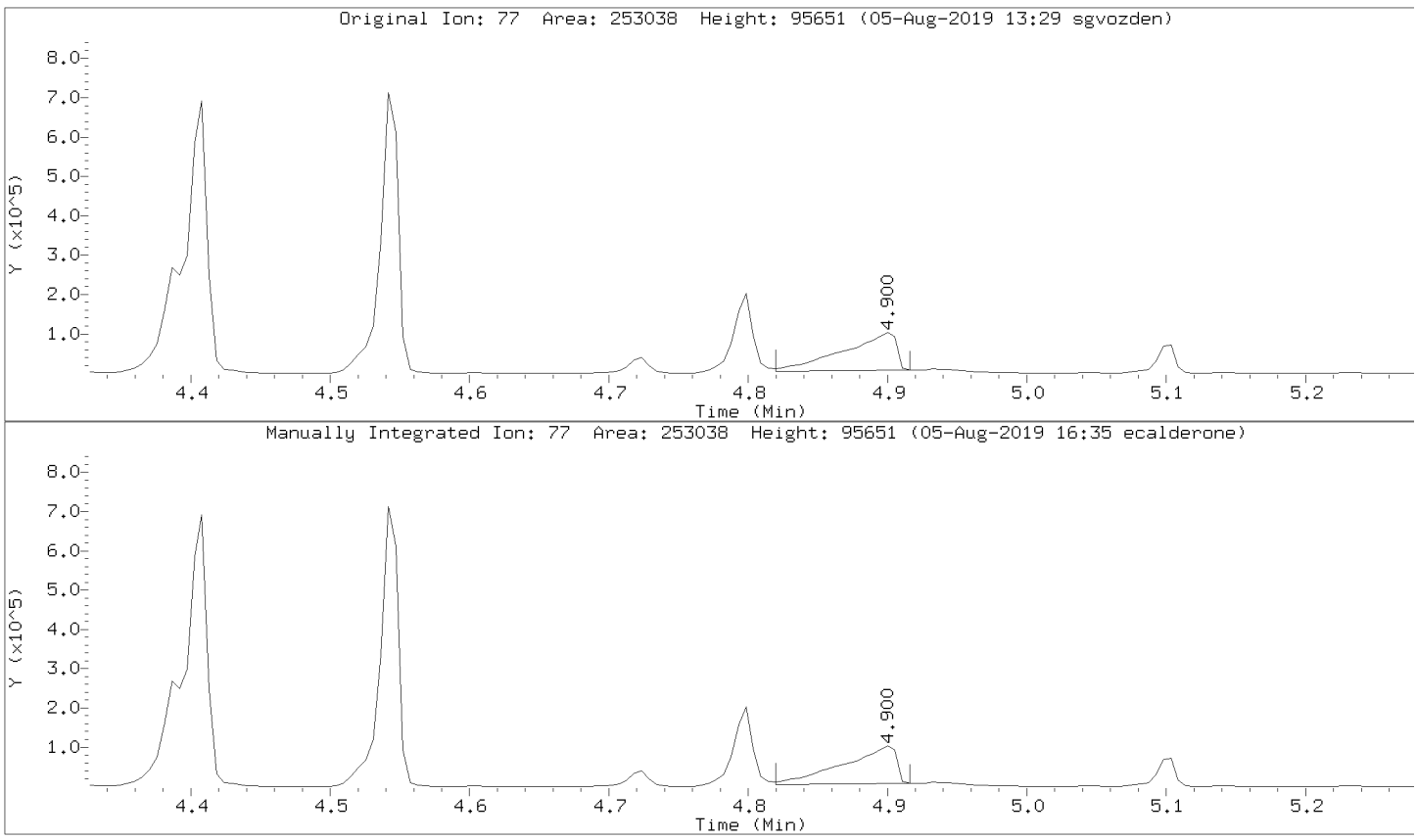
Lab Sample ID: CAL7



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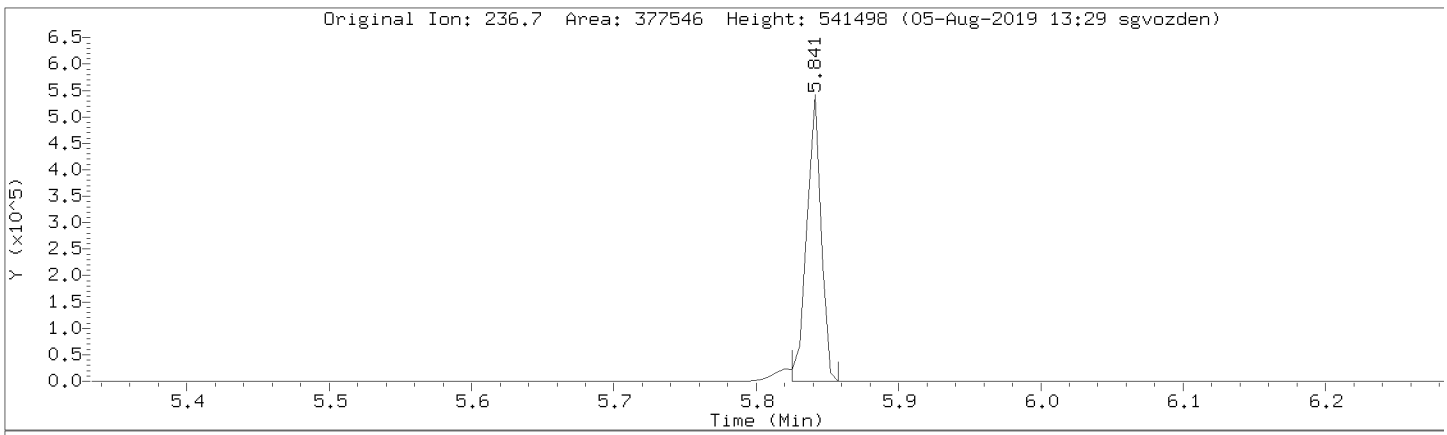
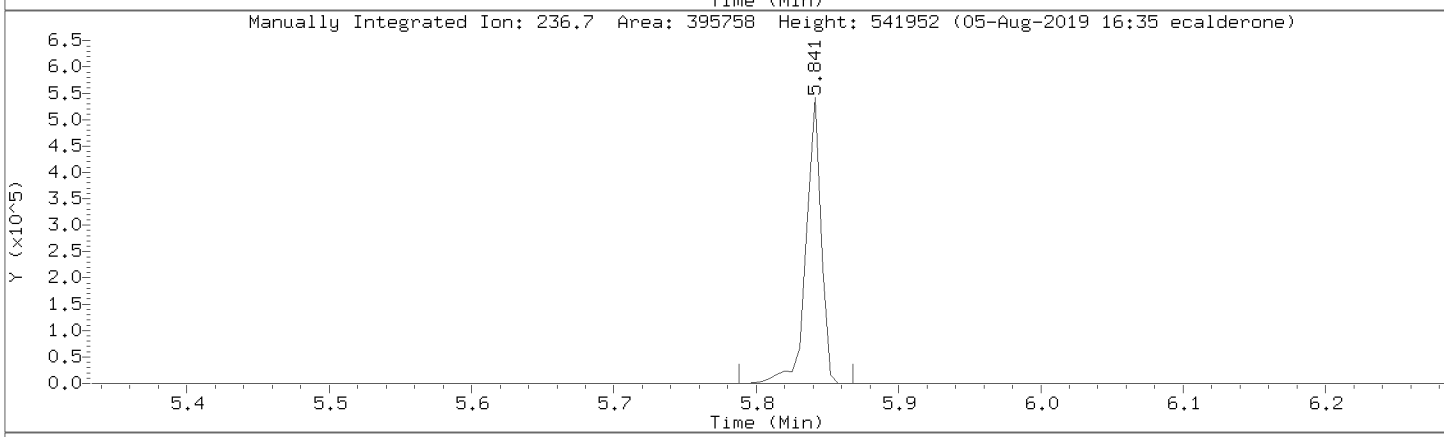
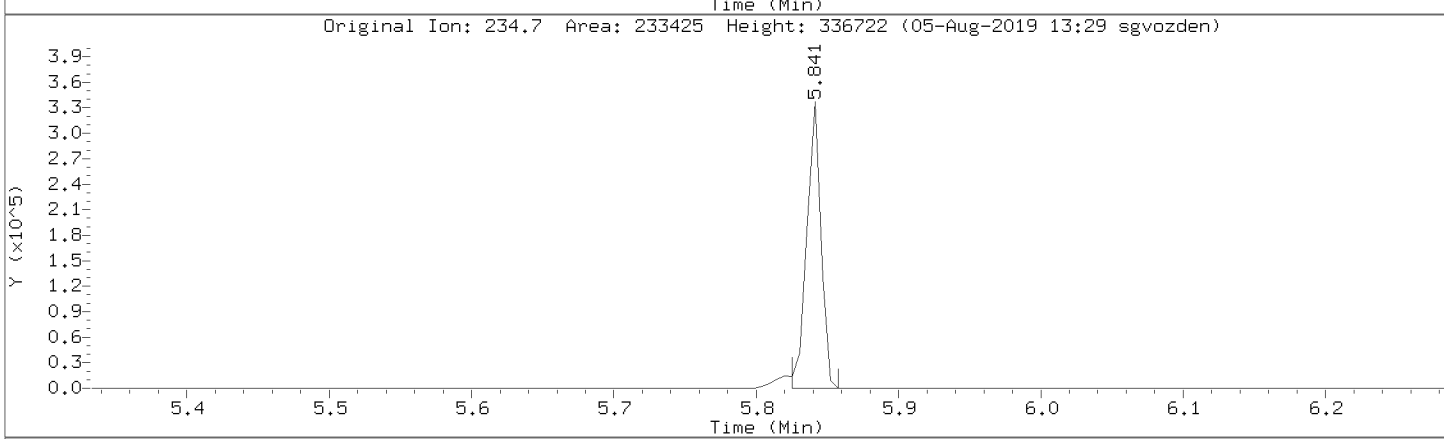
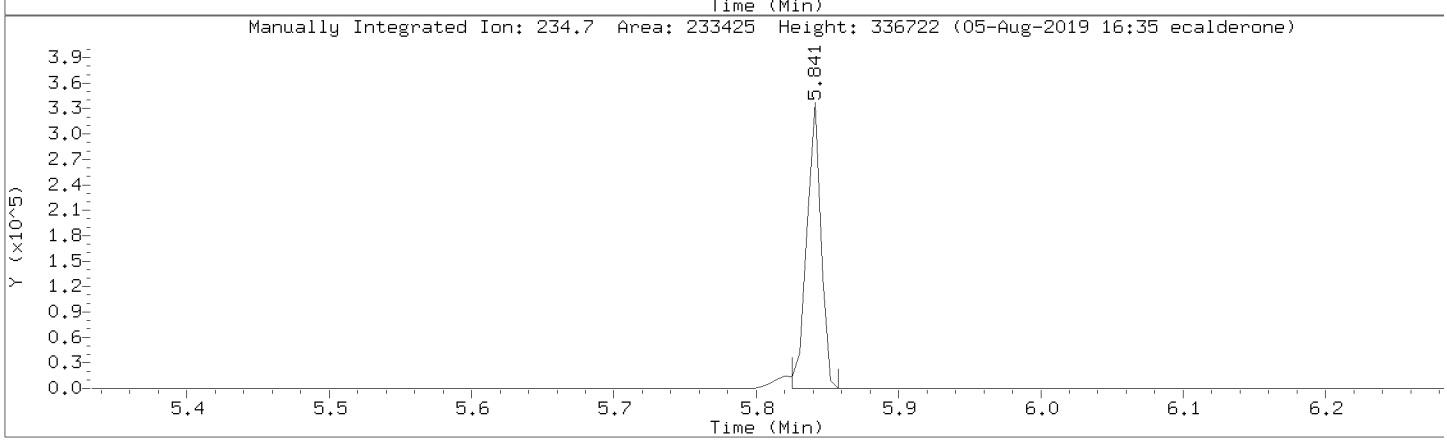
Injection Date: 05-AUG-2019 12:29
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4









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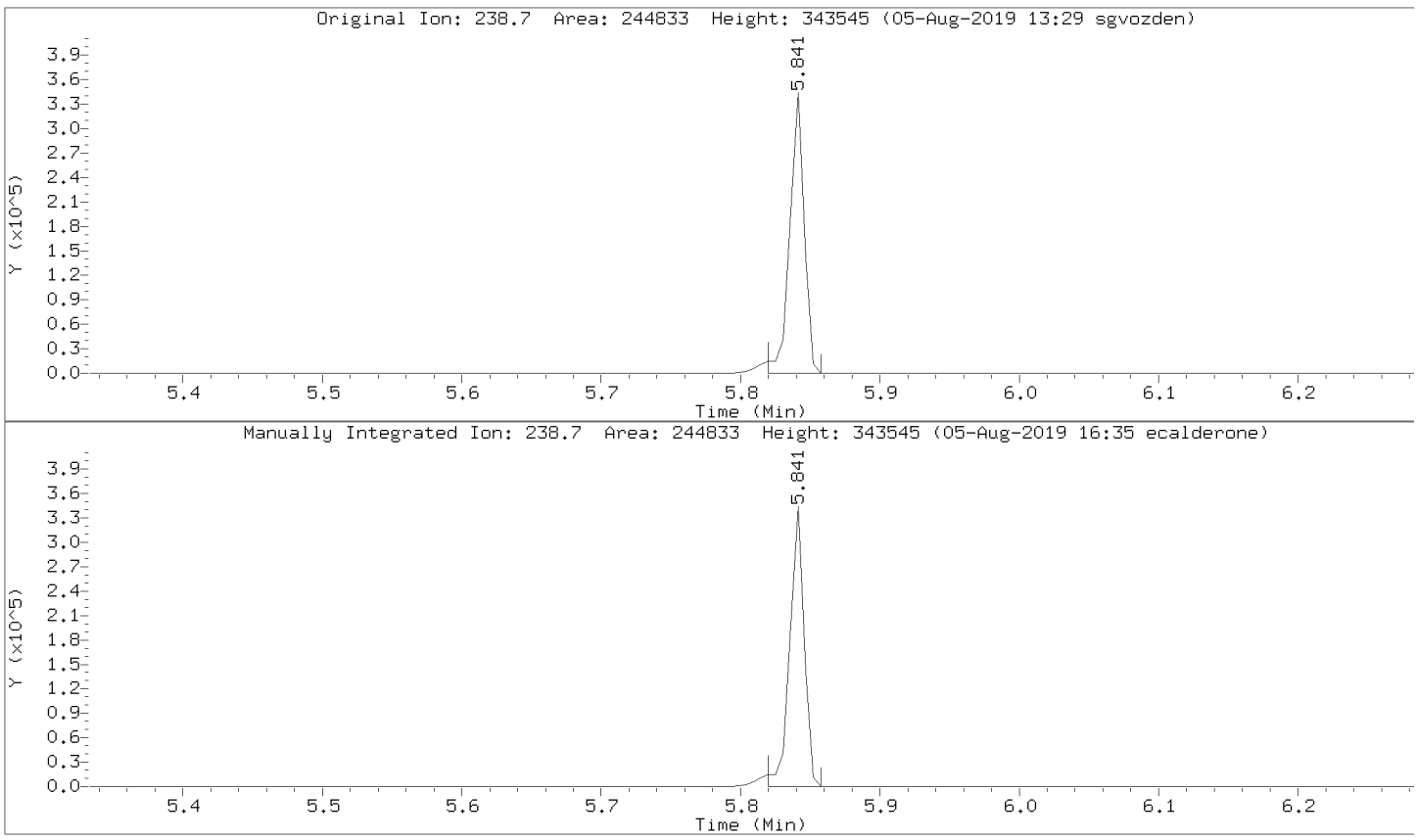
Lab Sample ID: CAL7



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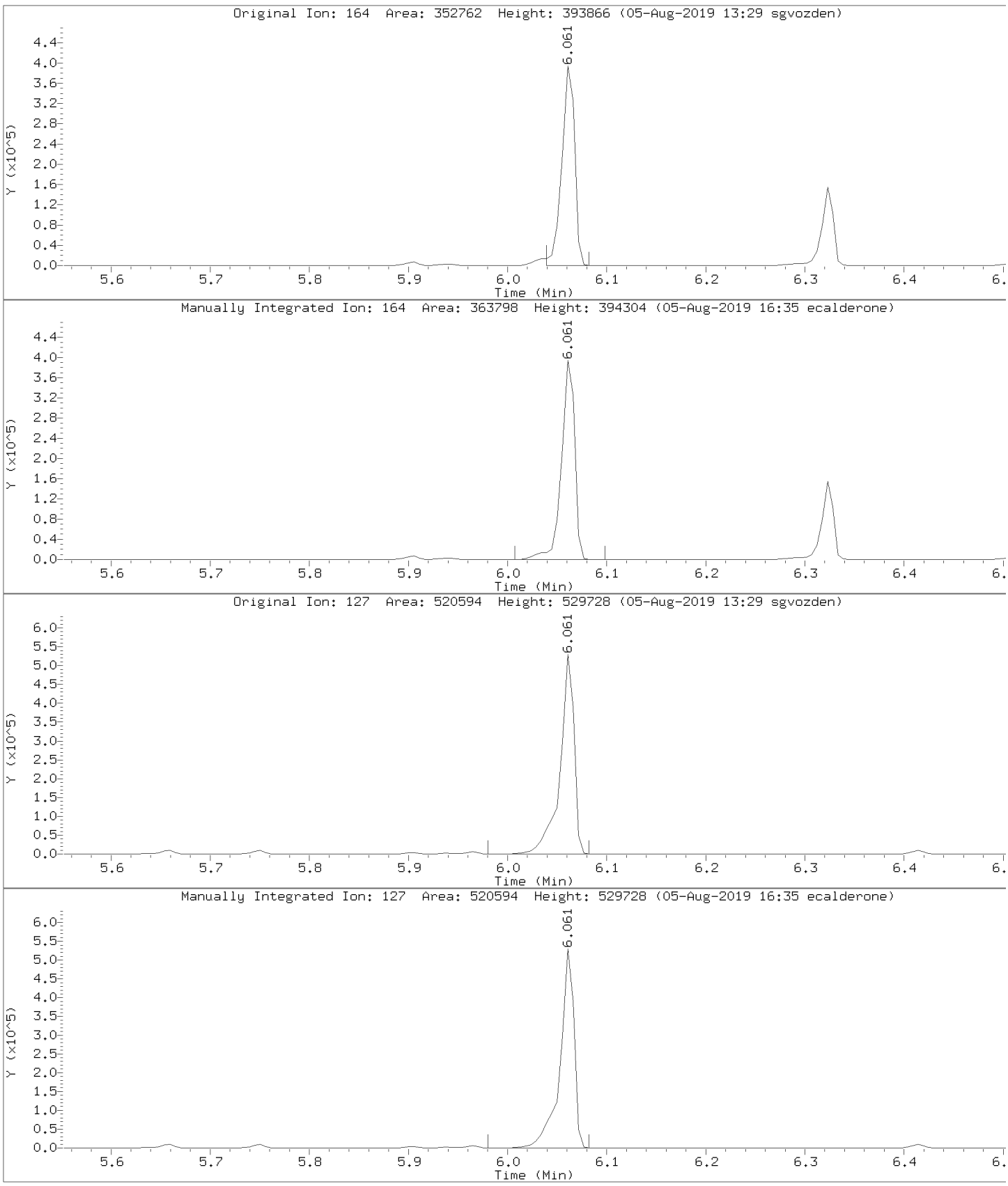
Injection Date: 05-AUG-2019 12:29
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: 2-Chloronaphthalene Review Code: LT
CAS Number: 91-58-7



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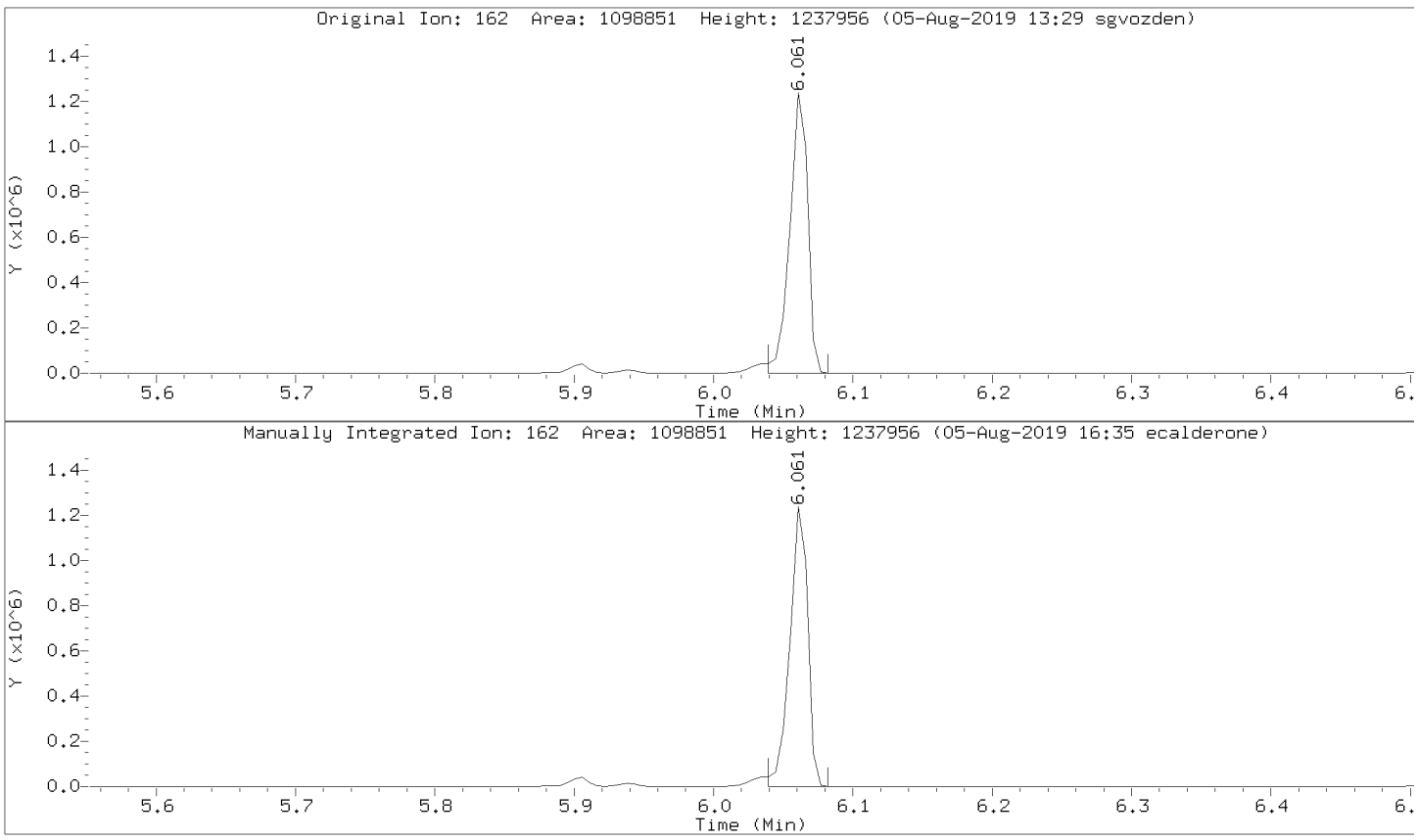
Lab Sample ID: CAL7



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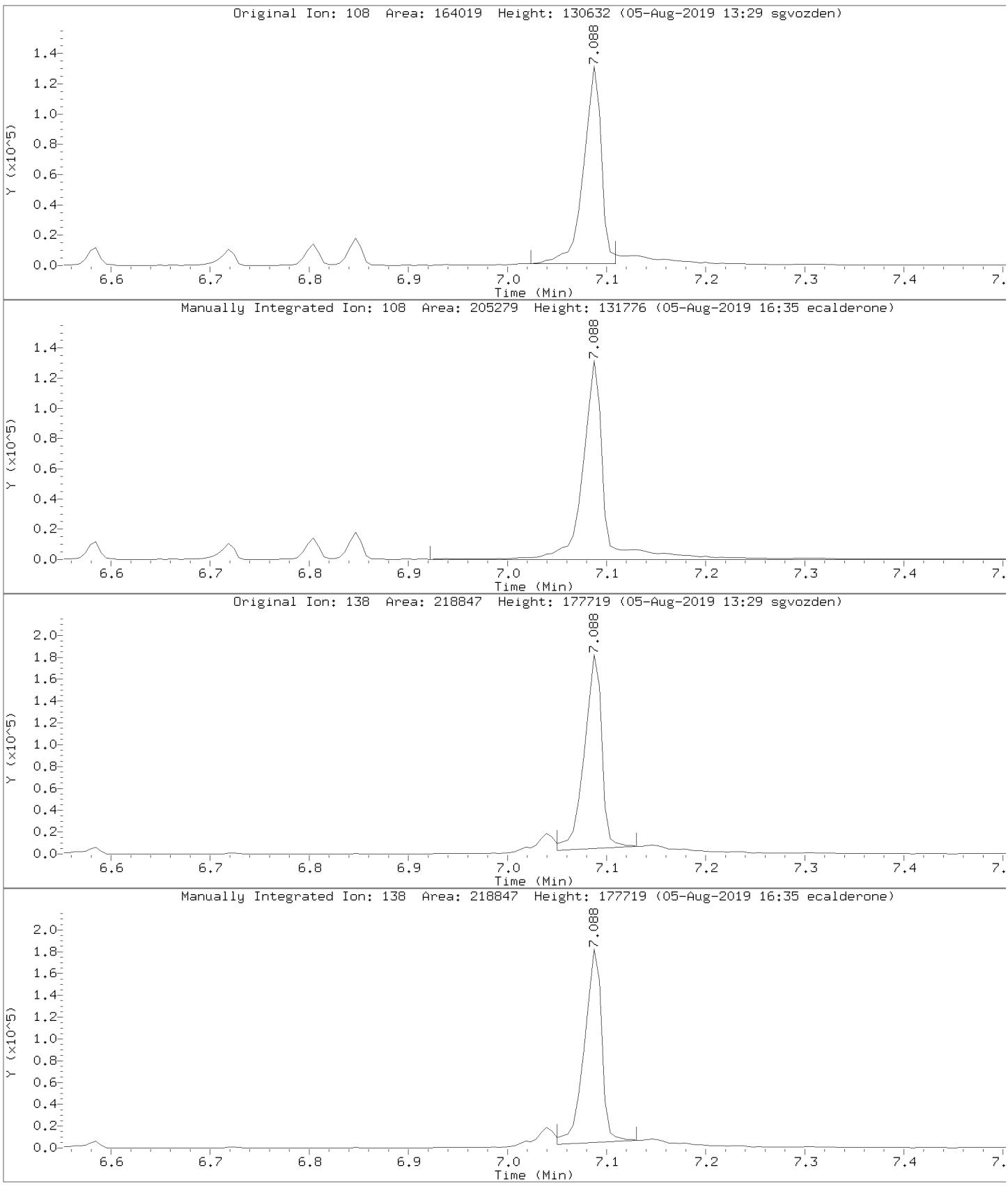
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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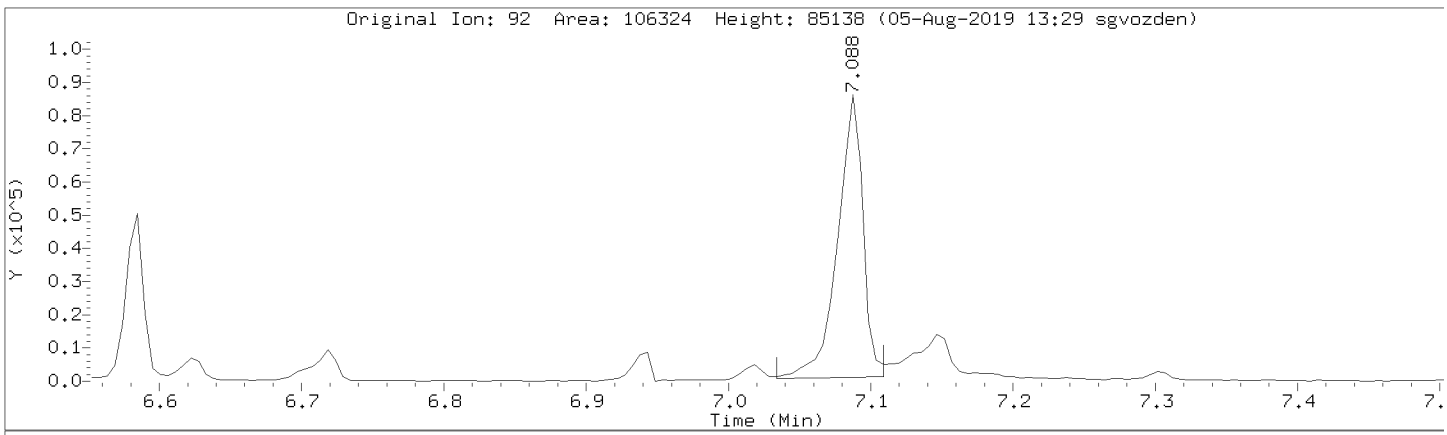
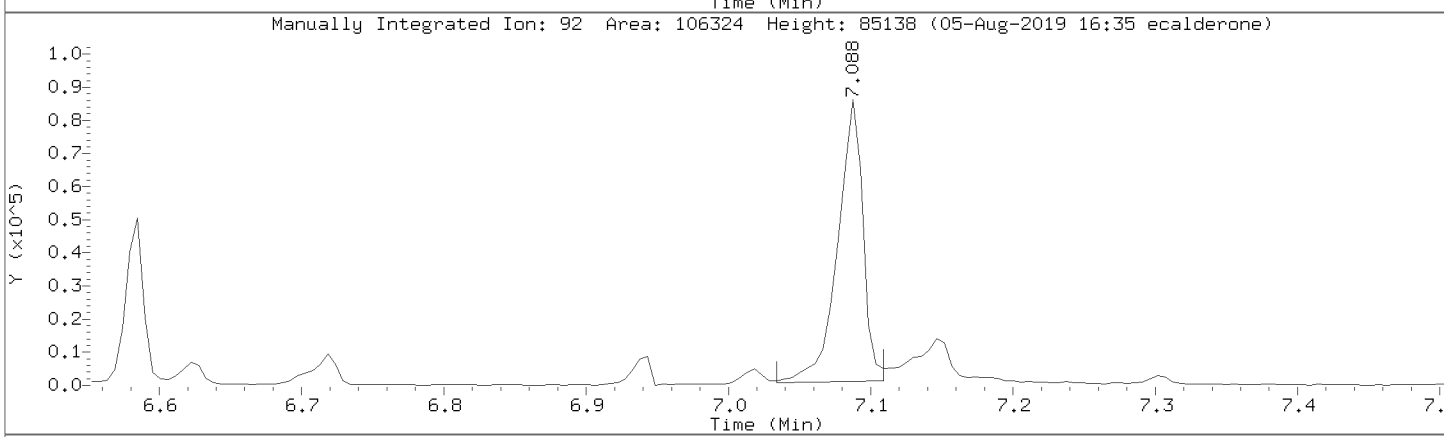
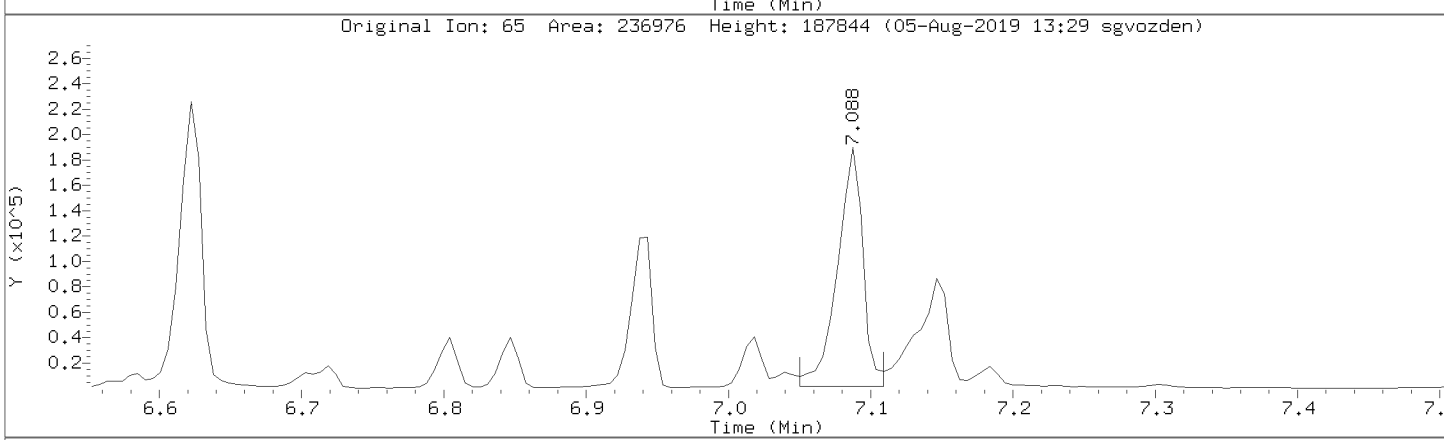
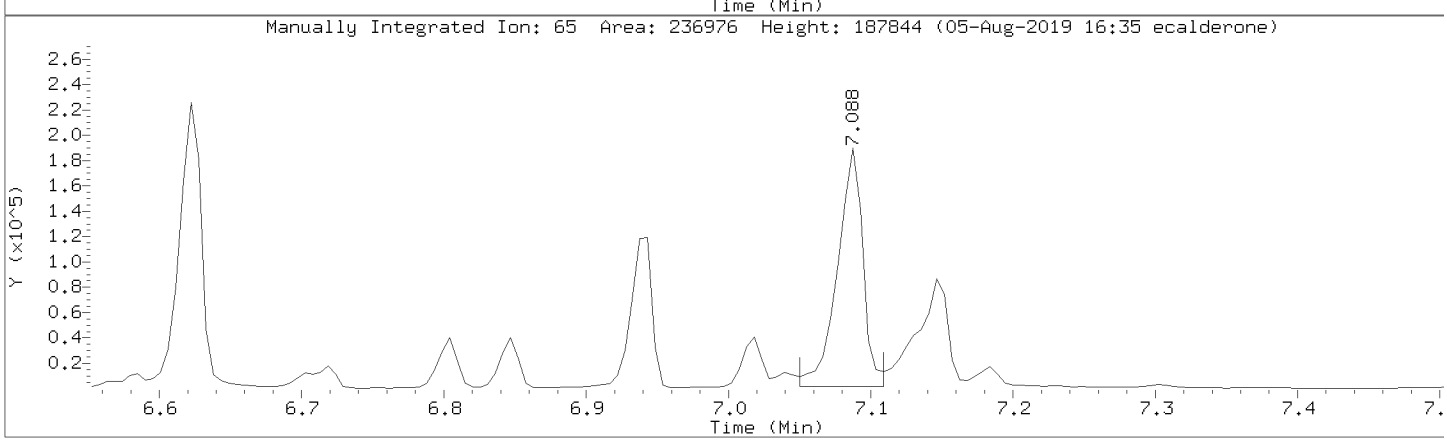
Lab Sample ID: CAL7









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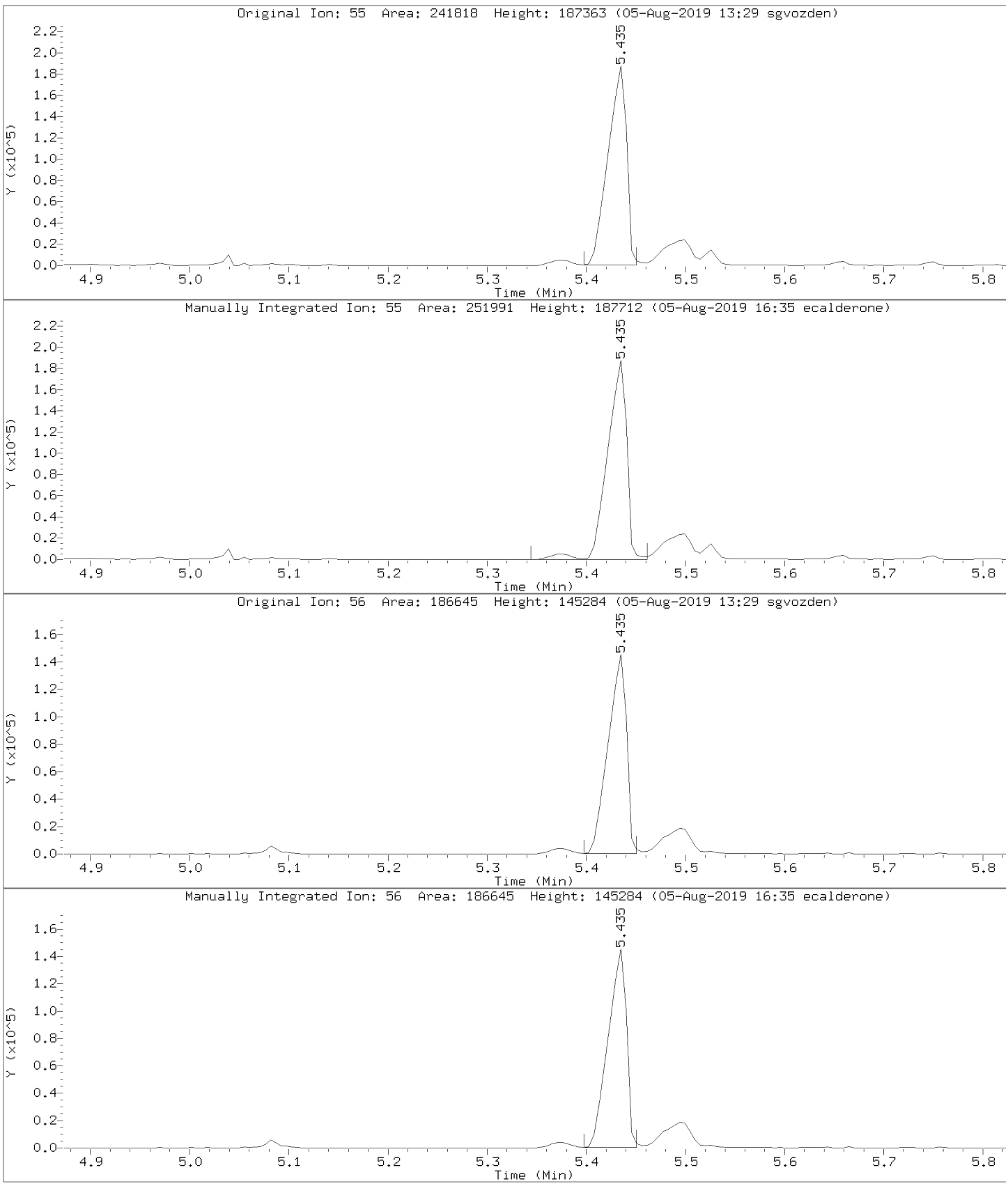
Injection Date: 05-AUG-2019 12:29
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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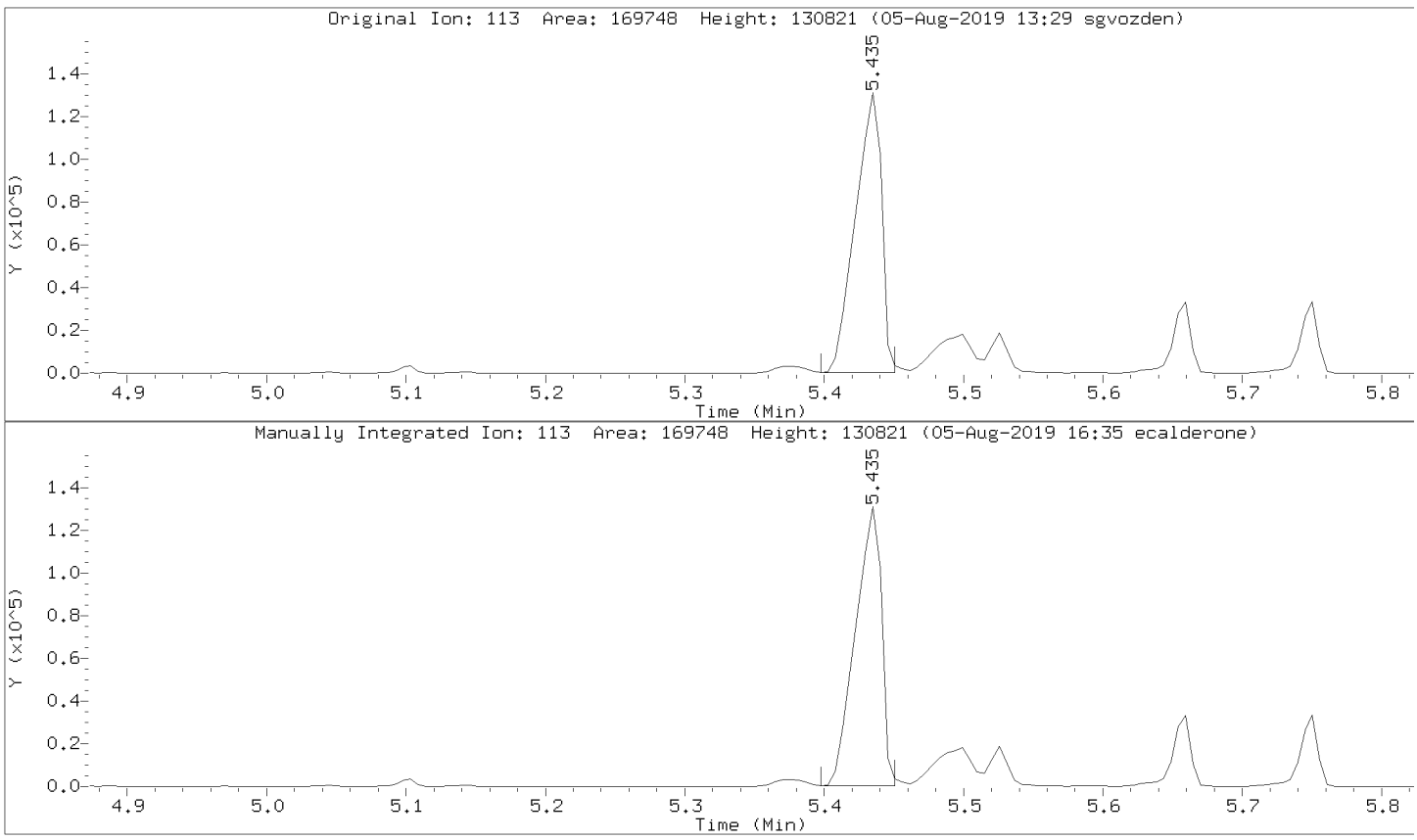
Lab Sample ID: CAL7



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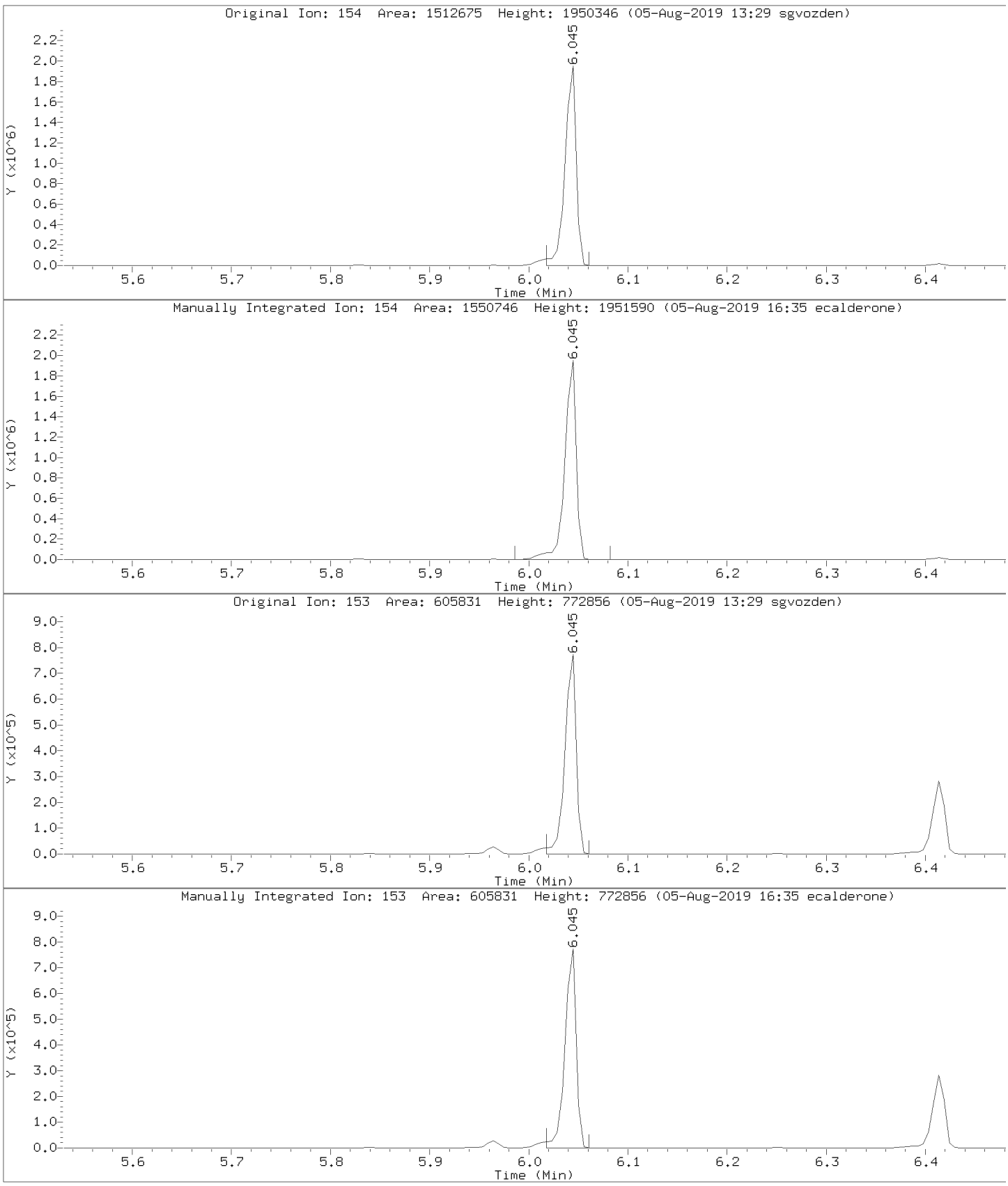
Instrument: 30mss4.i
Lab Sample ID: CAL7

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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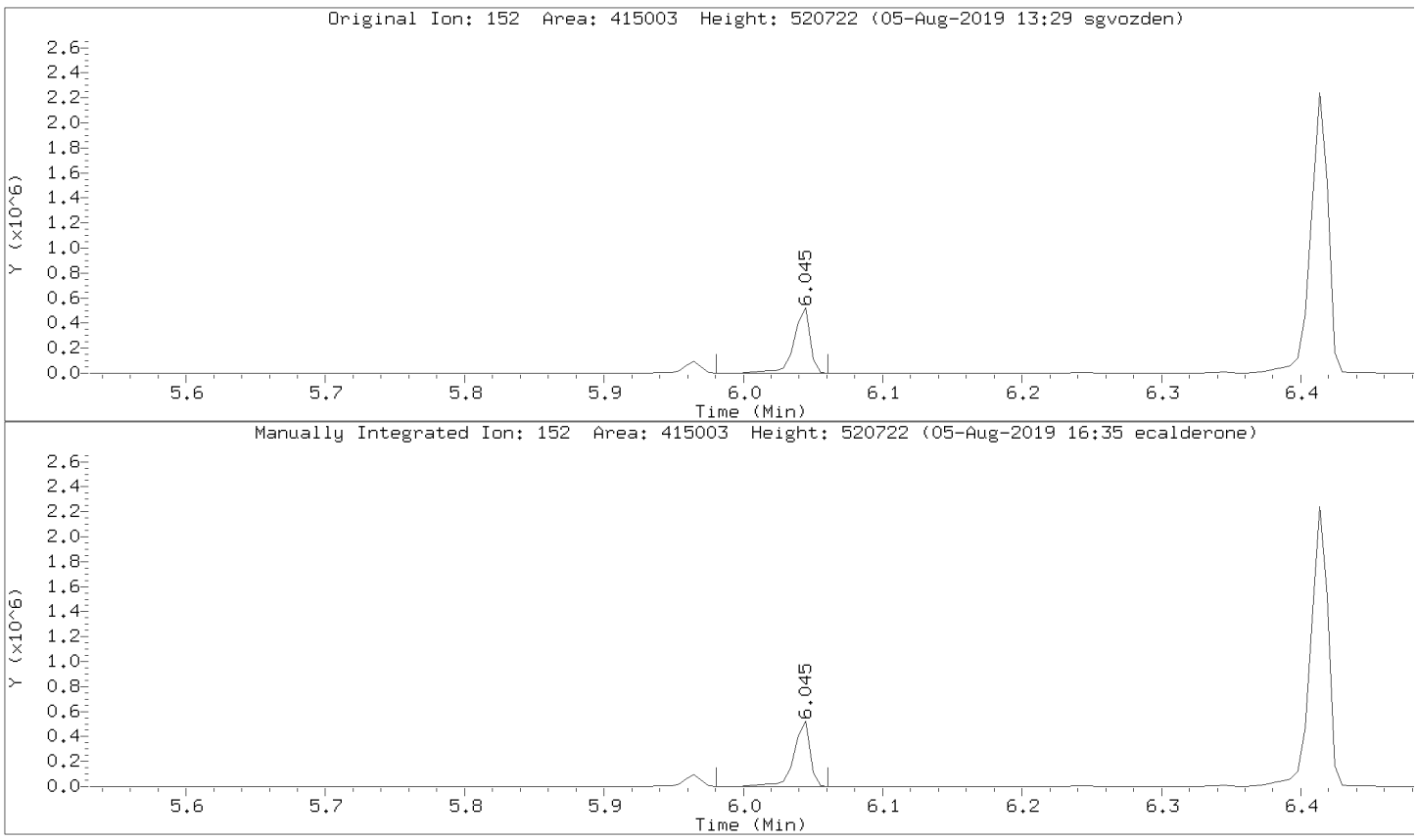

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y2.d
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Inj Date : 05-AUG-2019 12:51 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : cal6, 94270:1
Misc Info : 14922,
Comment :
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Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 12:51 Cal File: m40805y2.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.289	2.279	(0.561)	279594	16.0000	15.2	
	2 Pyridine	79	2.295	2.289	(0.562)	445088	16.0000	15.6	
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.777)	463406	16.0000	15.9	
$	4 Phenol-d6 (S)	99	3.814	3.803	(0.934)	605998	16.0000	16.2	
	5 Benzaldehyde	77	3.766	3.760	(0.923)	418572	16.0000	16.0	
	6 Phenol	94	3.819	3.814	(0.936)	613428	16.0000	16.0	
	7 Aniline	66	3.862	3.856	(0.946)	304427	16.0000	16.3	
	8 bis(2-Chloroethyl)ether	63	3.894	3.883	(0.954)	362741	16.0000	15.1	
	9 2-Chlorophenol	128	3.948	3.942	(0.967)	526231	16.0000	16.1	
	10 1,3-Dichlorobenzene	146	4.055	4.054	(0.993)	570603	16.0000	15.9	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.081	4.076	(1.000)	99526	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.003)	618895	16.0000	16.2(M)	LT
	13 Benzyl Alcohol	79	4.188	4.183	(1.026)	438242	16.0000	16.2	
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.038)	559043	16.0000	16.2	
	15 2-Methylphenol(o-Cresol)	108	4.268	4.263	(1.046)	489201	16.0000	16.2	
	16 bis(2-Chloroisopropyl)ether	45	4.301	4.295	(1.054)	757619	16.0000	15.9	
	17 3&4-Methylphenol(m&p Cresol)	108	4.386	4.370	(1.075)	497480	16.0000	16.1	
	18 N-Nitroso-di-n-propylamine	70	4.418	4.402	(1.083)	367168	16.0000	16.2	
	19 Acetophenone	105	4.402	4.397	(1.079)	681599	16.0000	16.2	
	20 Hexachloroethane	117	4.477	4.477	(1.097)	227990	16.0000	16.1	
$	21 Nitrobenzene-d5 (S)	128	4.525	4.520	(0.891)	262594	16.0000	15.9	
	22 Nitrobenzene	77	4.541	4.530	(0.894)	525312	16.0000	15.6	
	23 Isophorone	82	4.718	4.707	(0.928)	980442	16.0000	15.9	
	24 2,4-Dimethylphenol	107	4.793	4.787	(0.943)	531953	16.0000	15.8	
	25 2-Nitrophenol	139	4.787	4.782	(0.942)	279903	16.0000	15.8	
	26 Benzoic acid	105	4.889	4.830	(0.962)	355113	16.0000	16.2(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.873	4.867	(0.959)	573586	16.0000	15.9	
	28 2,4-Dichlorophenol	162	4.969	4.964	(0.978)	430004	16.0000	16.0	
	29 1,2,4-Trichlorobenzene	180	5.044	5.038	(0.993)	470798	16.0000	15.9	
*	30 Naphthalene-d8 (IS)	136	5.081	5.076	(1.000)	409348	4.00000		
	31 Naphthalene	128	5.098	5.092	(1.003)	1627668	16.0000	16.0	
	32 4-Chloroaniline	65	5.140	5.135	(1.012)	178835	16.0000	15.4	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.029)	265166	16.0000	16.1	
	34 Caprolactam	55	5.424	5.375	(1.067)	202235	16.0000	14.3(M)	LT

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.525	5.509	(1.087)	462887	16.0000	15.7	
	36 2-Methylnaphthalene	142	5.654	5.654	(1.113)	1082304	16.0000	16.0	
	37 1-Methylnaphthalene	142	5.745	5.744	(1.131)	999410	16.0000	15.9	
	38 Hexachlorocyclopentadiene	237	5.841	5.835	(0.894)	325061	16.0000	16.1(M)	LT
	39 1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.891)	453211	16.0000	16.0	
	40 2,4,6-Trichlorophenol	196	5.900	5.894	(0.903)	316050	16.0000	15.9	
	41 2,4,5-Trichlorophenol	196	5.937	5.926	(0.908)	300809	16.0000	16.0	
$	42 2-Fluorobiphenyl (S)	172	5.964	5.958	(0.912)	1144033	16.0000	16.1	
	43 Biphenyl (Diphenyl)	154	6.039	6.033	(0.924)	1279971	16.0000	16.0	
	44 2-Chloronaphthalene	164	6.060	6.055	(0.927)	302720	16.0000	16.1	
	45 2-Nitroaniline	138	6.157	6.146	(0.942)	331076	16.0000	15.9	
	46 Dimethylphthalate	163	6.322	6.306	(0.967)	1068799	16.0000	15.9	
	47 2,6-Dinitrotoluene	165	6.381	6.370	(0.976)	249028	16.0000	16.1	
	48 Acenaphthylene	152	6.413	6.402	(0.981)	1587771	16.0000	16.0	
	49 3-Nitroaniline	65	6.499	6.483	(0.994)	285922	16.0000	14.8	
*	50 Acenaphthene-d10 (IS)	164	6.536	6.531	(1.000)	221447	4.00000		
	51 2,4-Dinitrophenol	184	6.579	6.573	(1.007)	143907	16.0000	14.8	
	52 Acenaphthene	153	6.563	6.557	(1.004)	1010631	16.0000	16.0	
	53 4-Nitrophenol	109	6.617	6.600	(1.012)	141300	16.0000	15.2	
	54 2,4-Dinitrotoluene	165	6.718	6.702	(1.028)	319662	16.0000	15.5	
	55 Dibenzofuran	168	6.697	6.691	(1.025)	1344372	16.0000	15.8	
	56 2,3,4,6-Tetrachlorophenol	232	6.847	6.836	(1.047)	257219	16.0000	15.7	
	57 Diethylphthalate	149	6.937	6.927	(1.061)	1102311	16.0000	15.8	
	58 4-Chlorophenylphenyl ether	204	7.018	7.007	(1.074)	521446	16.0000	15.8	
	59 Fluorene	166	7.039	7.028	(1.077)	1094524	16.0000	15.8	
	60 4-Nitroaniline	108	7.077	7.055	(1.083)	156735	16.0000	14.9(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.125	7.108	(0.889)	183774	16.0000	15.8	
	62 N-Nitrosodiphenylamine	169	7.146	7.130	(0.891)	922922	16.0000	16.5	
	63 Azobenzene	77	7.184	7.173	(0.896)	1008621	16.0000	16.5	
	64 1,2-Diphenylhydrazine	77	7.184	7.173	(0.896)	1008621	16.0000	16.5	
$	65 2,4,6-Tribromophenol (S)	330	7.301	7.296	(0.911)	198560	16.0000	16.8	
	66 4-Bromophenylphenyl ether	248	7.526	7.520	(0.939)	309704	16.0000	16.6	
	67 Hexachlorobenzene	284	7.697	7.691	(0.960)	348087	16.0000	16.6	
	68 Atrazine	200	7.724	7.707	(0.963)	293605	16.0000	16.1	
	69 Pentachlorophenol	266	7.879	7.868	(0.983)	203880	16.0000	16.1(A)	
*	70 Phenanthrene-d10 (IS)	188	8.018	8.012	(1.000)	362876	4.00000		
	71 Phenanthrene	178	8.045	8.034	(1.003)	1521756	16.0000	16.1	
	72 Anthracene	178	8.093	8.082	(1.009)	1499758	16.0000	15.9	
	73 Carbazole	167	8.253	8.242	(1.029)	1268314	16.0000	15.6	
	74 Di-n-butylphthalate	149	8.654	8.649	(1.079)	1744855	16.0000	16.2	
	75 Fluoranthene	202	9.307	9.296	(1.161)	1474444	16.0000	15.8	
	76 Pyrene	202	9.542	9.537	(0.884)	1504039	16.0000	15.7	
$	77 Terphenyl-d14 (S)	244	9.697	9.692	(0.898)	1122000	16.0000	15.6	
	78 Butylbenzylphthalate	149	10.227	10.216	(0.947)	678477	16.0000	15.7	
	79 3,3'-Dichlorobenzidine	252	10.756	10.745	(0.997)	534572	16.0000	16.4	
	80 bis(2-Ethylhexyl)phthalate	149	10.821	10.815	(1.002)	962166	16.0000	16.1	
	81 Benzo(a)anthracene	228	10.778	10.772	(0.999)	1351763	16.0000	16.0	
*	82 Chrysene-d12 (IS)	240	10.794	10.788	(1.000)	312291	4.00000		
	83 Chrysene	228	10.826	10.815	(1.003)	1206944	16.0000	15.6	
	84 Di-n-octylphthalate	149	11.404	11.393	(0.939)	1723917	16.0000	15.7	
	85 Benzo(b)fluoranthene	252	11.815	11.804	(0.973)	1460471	16.0000	15.5	
	86 Benzo(k)fluoranthene	252	11.842	11.826	(0.975)	1609201	16.0000	16.4	
	87 Benzo(a)pyrene	252	12.104	12.088	(0.996)	1367736	16.0000	15.8	
*	88 Perylene-d12 (IS)	264	12.147	12.136	(1.000)	345107	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.126	13.104	(1.081)	1443838	16.0000	15.6	
90 Dibenz(a,h)anthracene	278	13.126	13.104	(1.081)	1212851	16.0000	15.6	
91 Benzo(g,h,i)perylene	276	13.399	13.372	(1.103)	1197092	16.0000	15.4	

QC Flag Legend

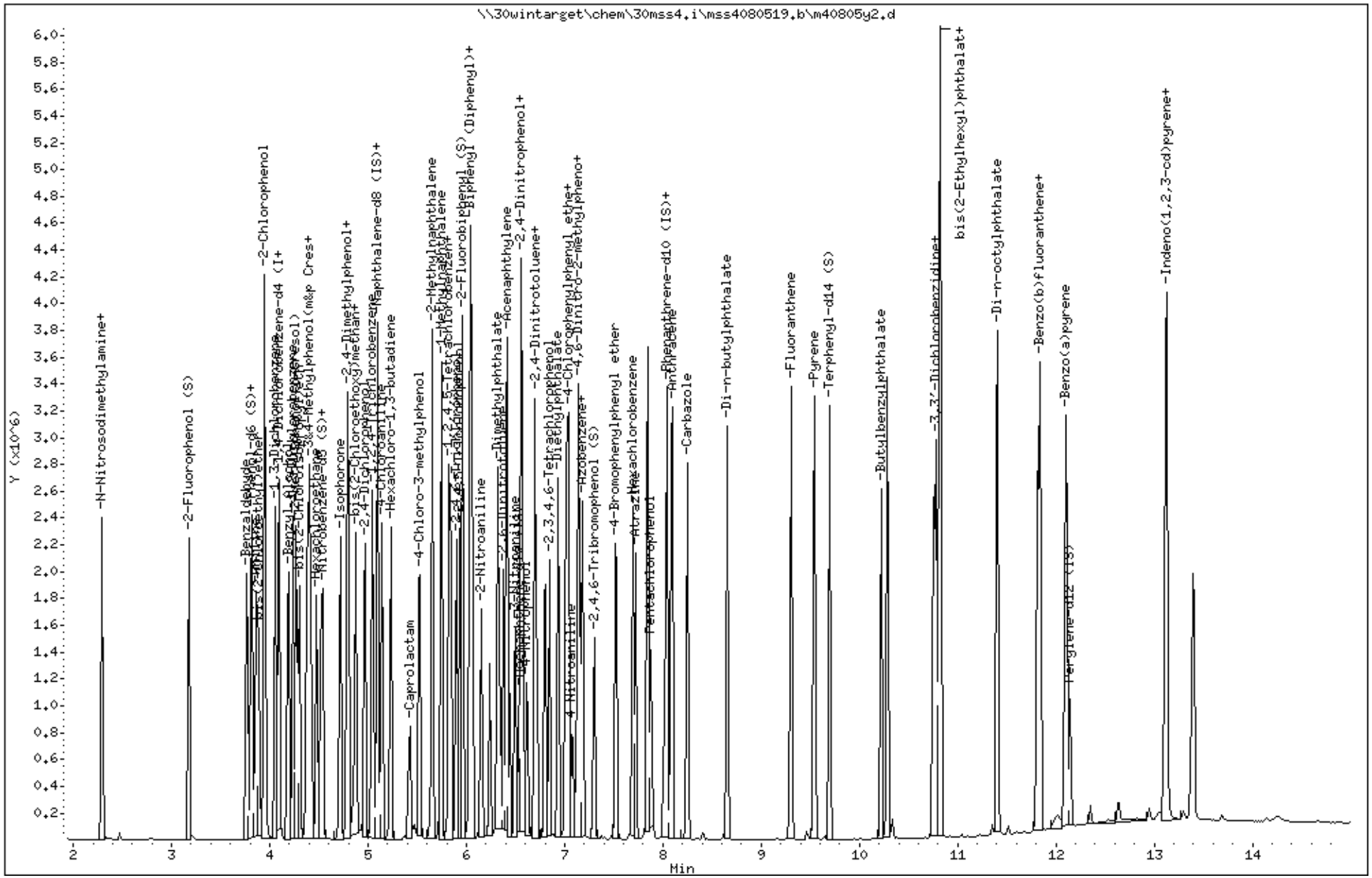
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

    :
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y2.d
Date : 05-AUG-2019 12:51
Client ID: CAL6
Sample Info: CAL6, 94270:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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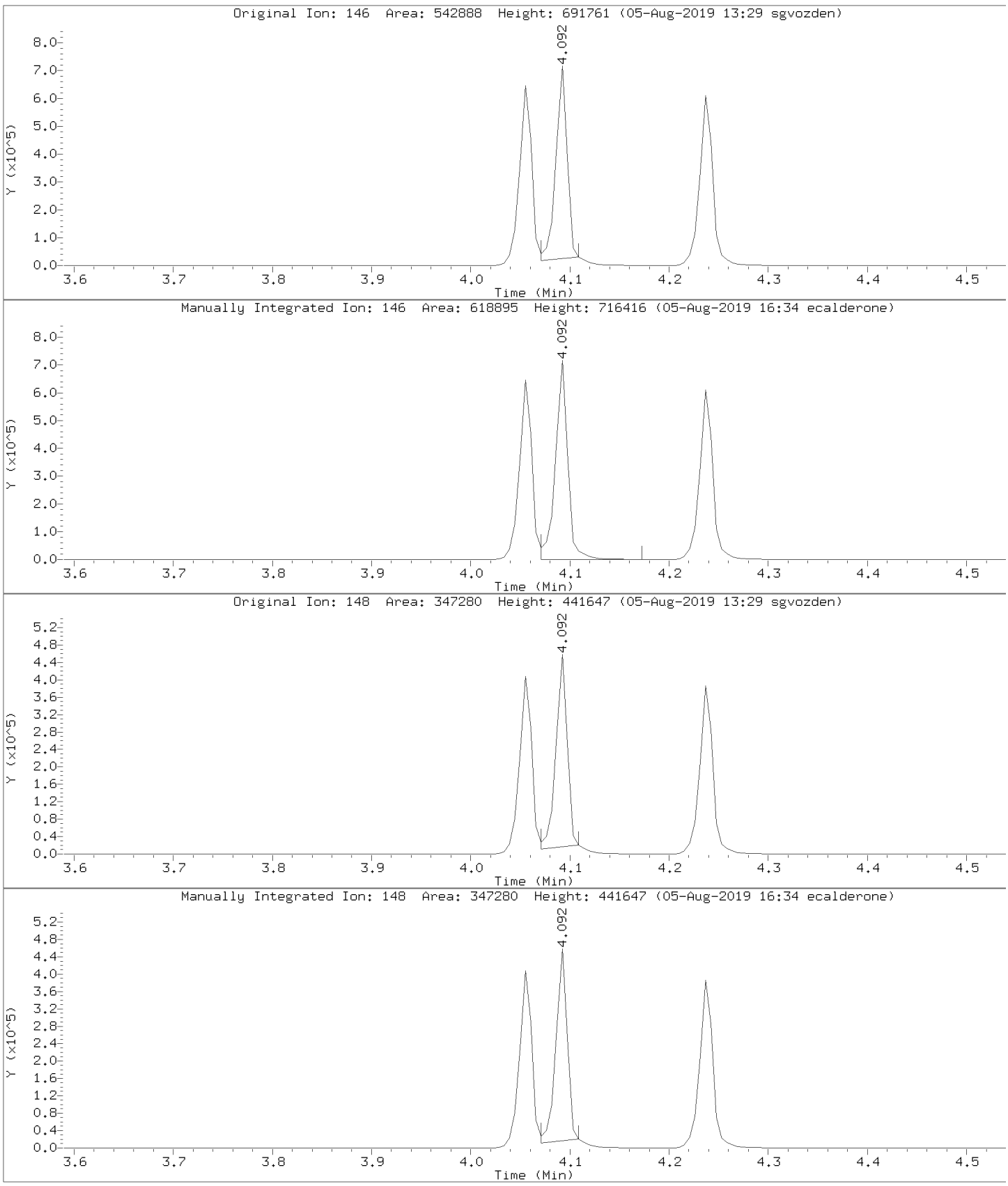
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: 1,4-Dichlorobenzene Review Code: LT
CAS Number: 106-46-7



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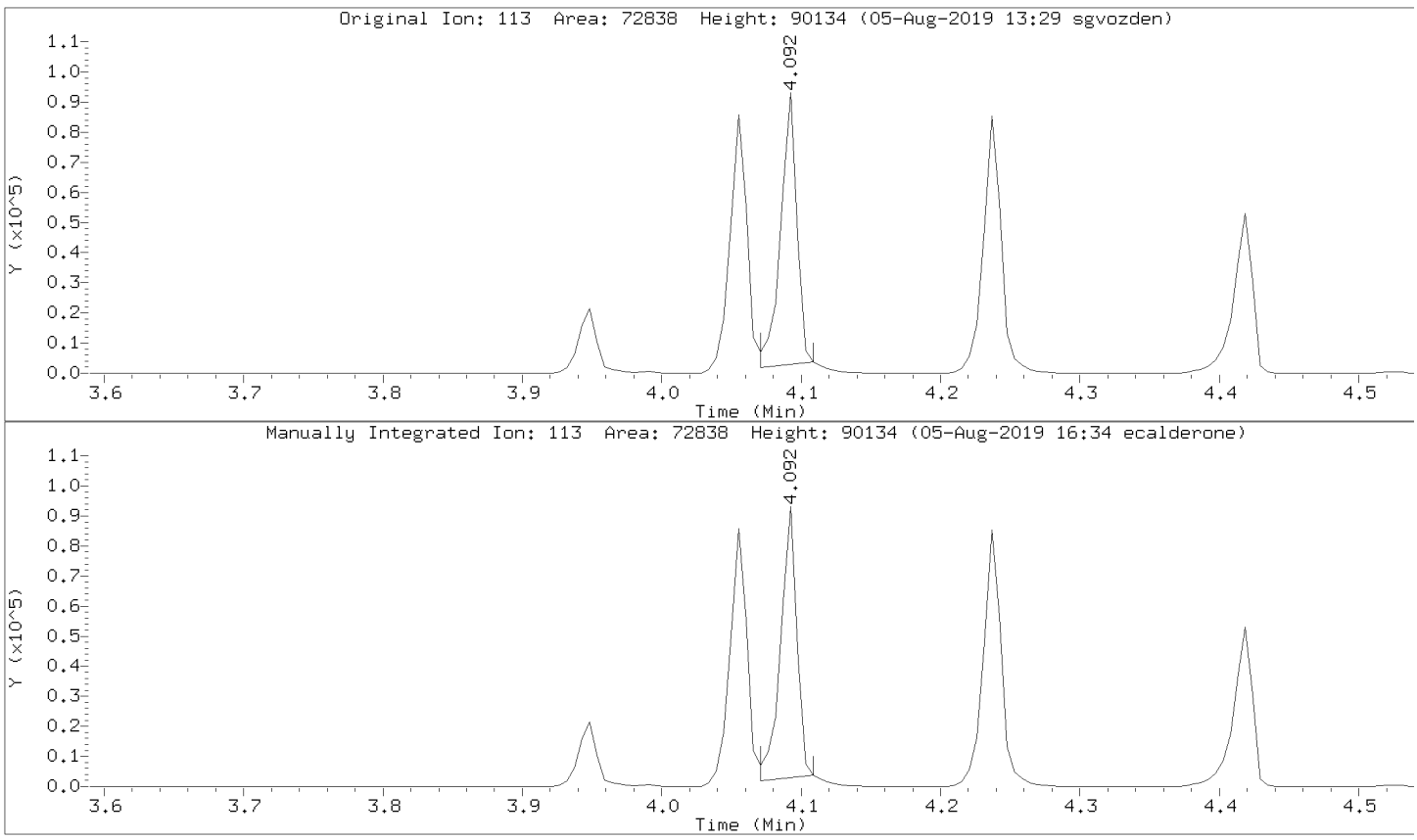
Lab Sample ID: CAL6



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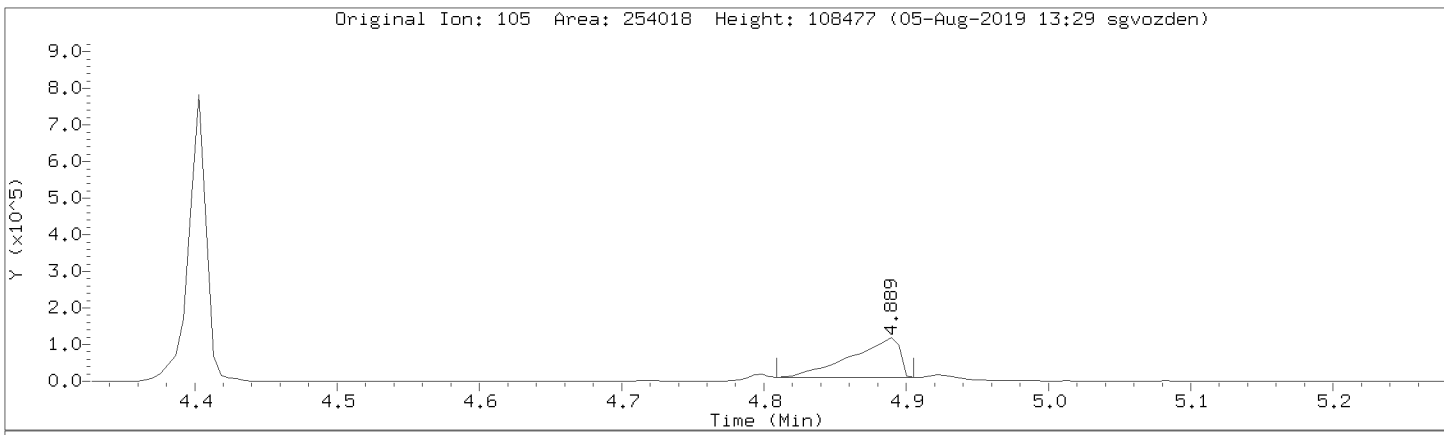
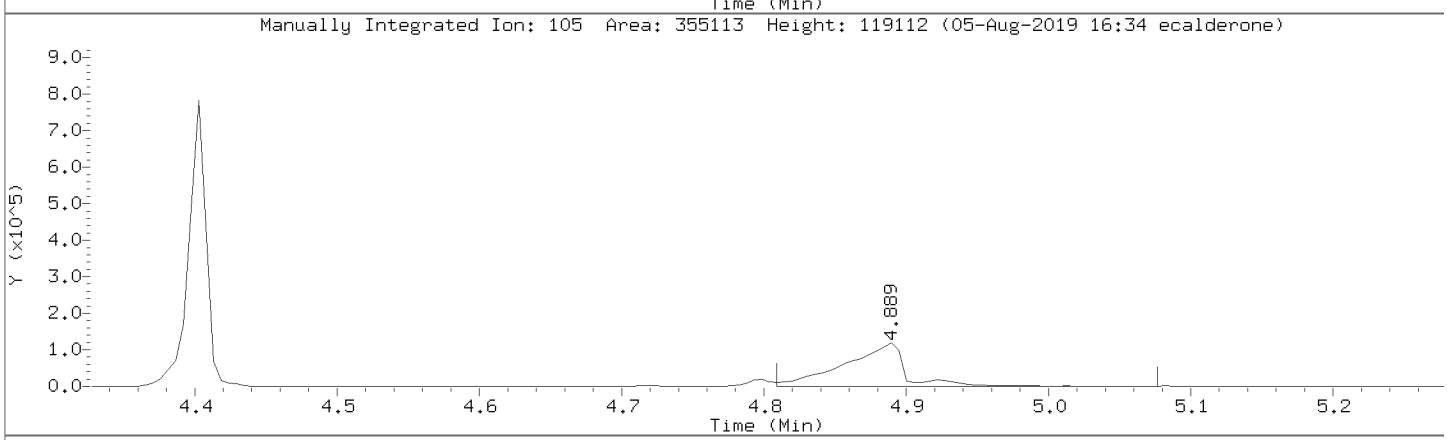
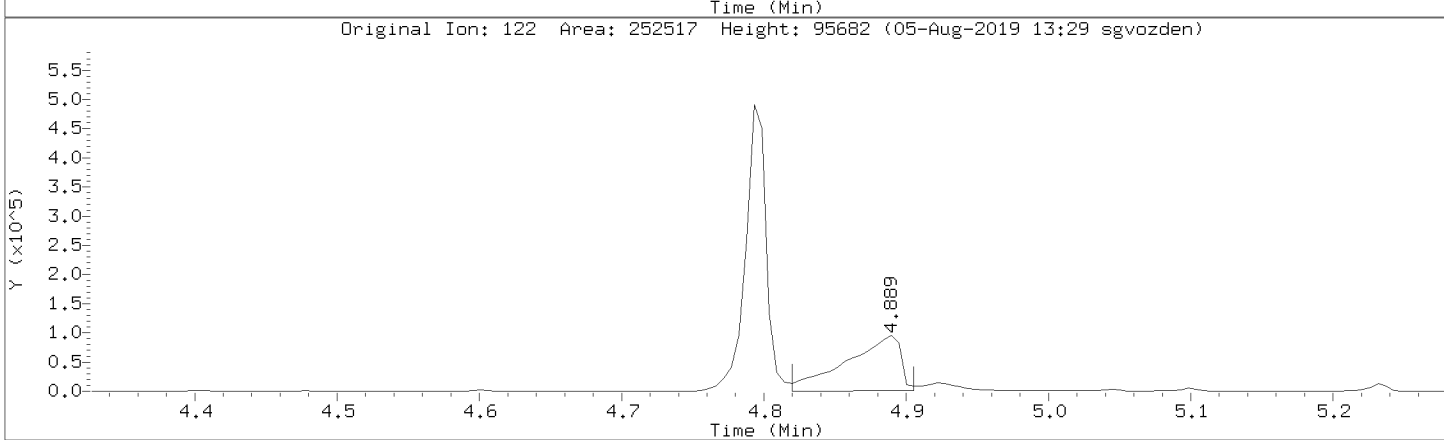
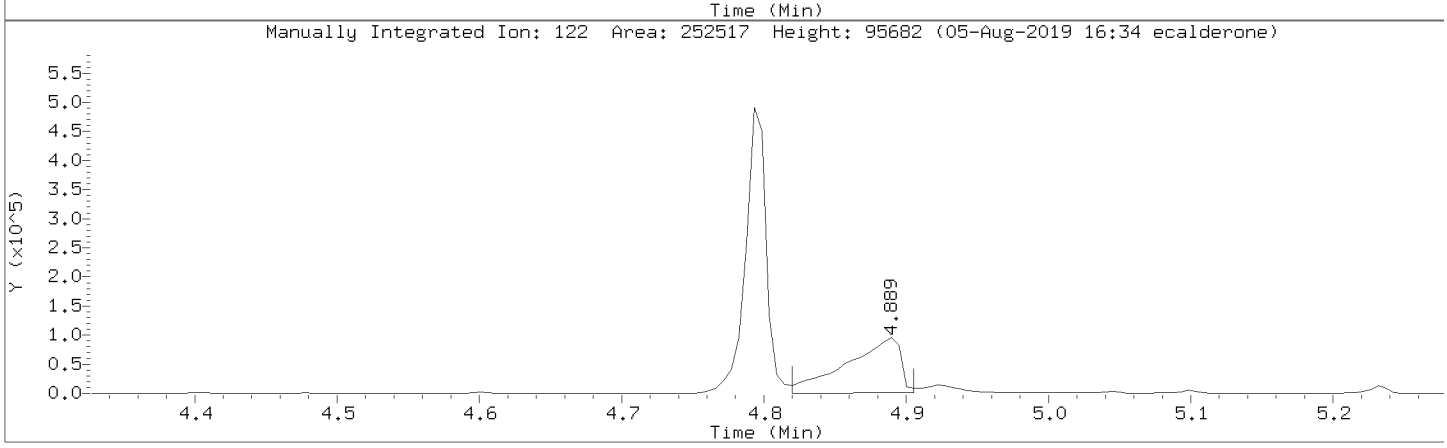
Injection Date: 05-AUG-2019 12:51
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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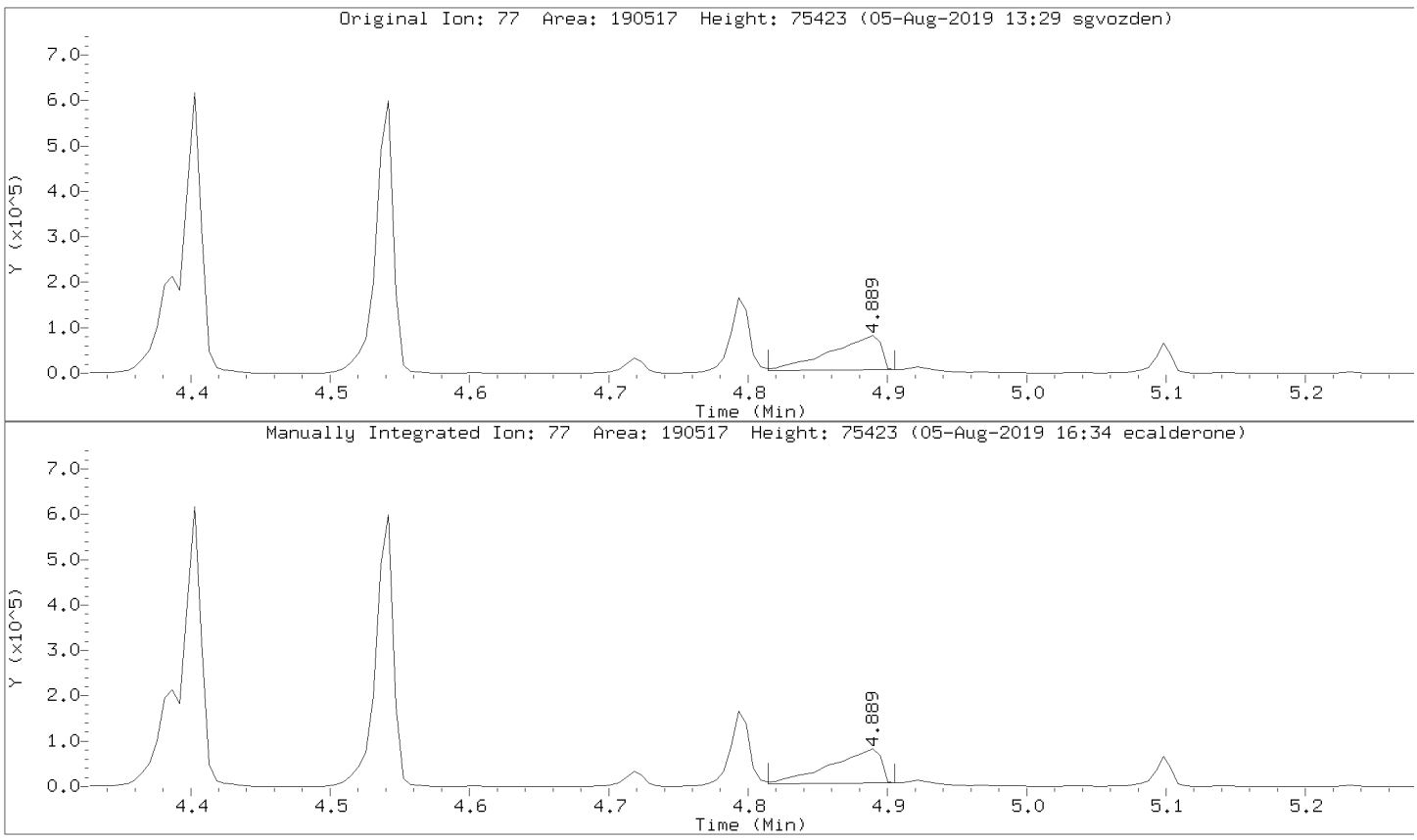

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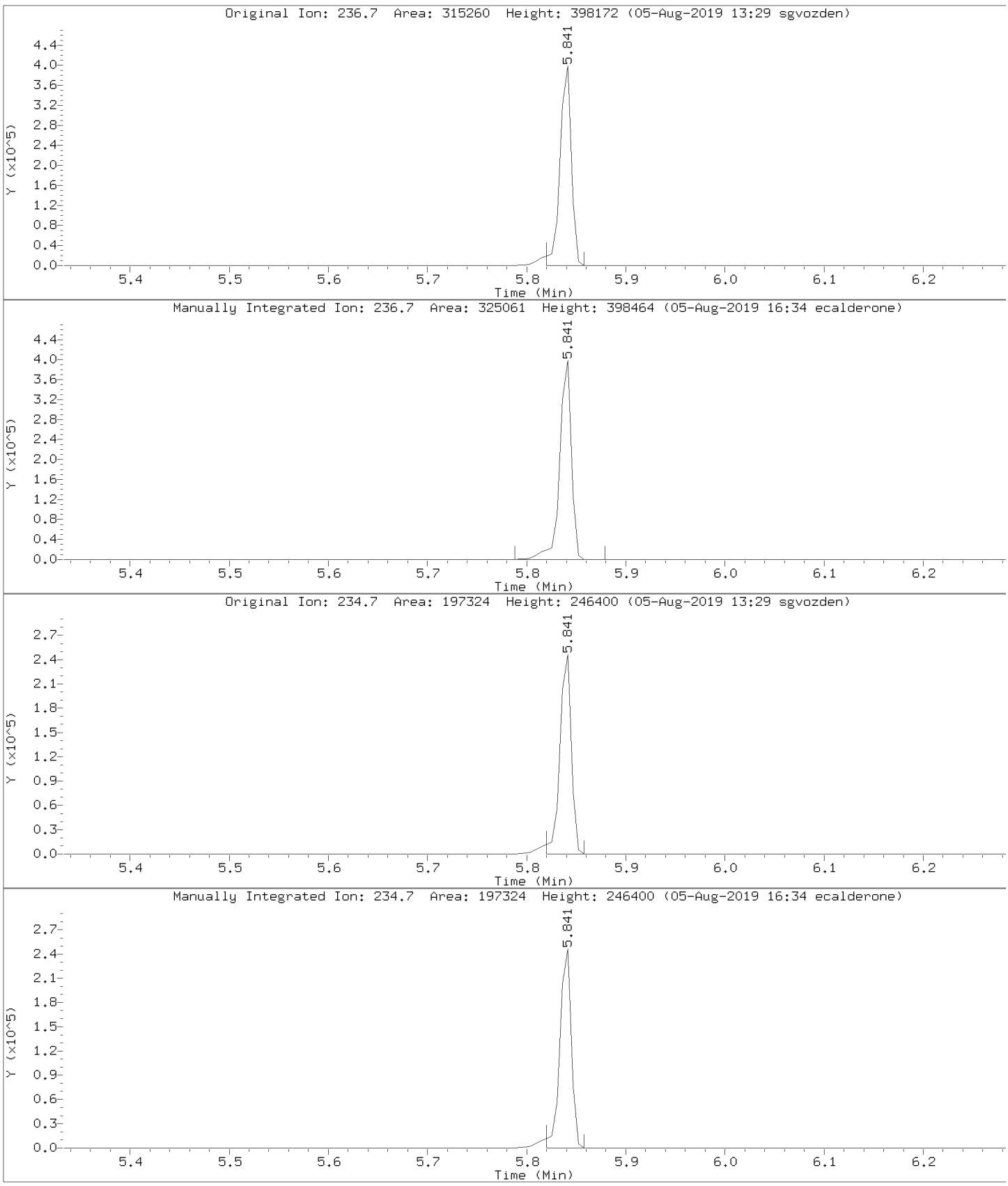
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4



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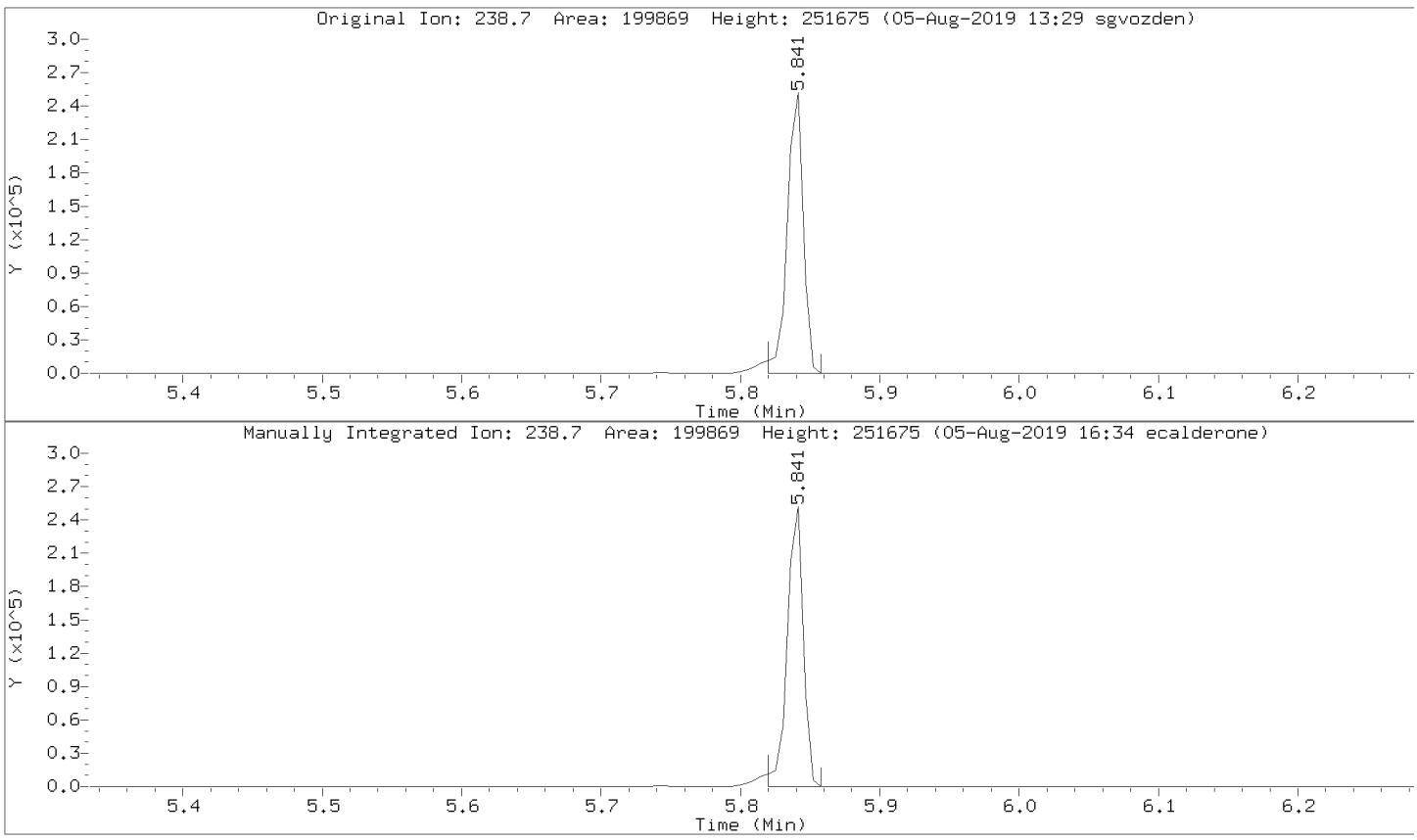
Lab Sample ID: CAL6



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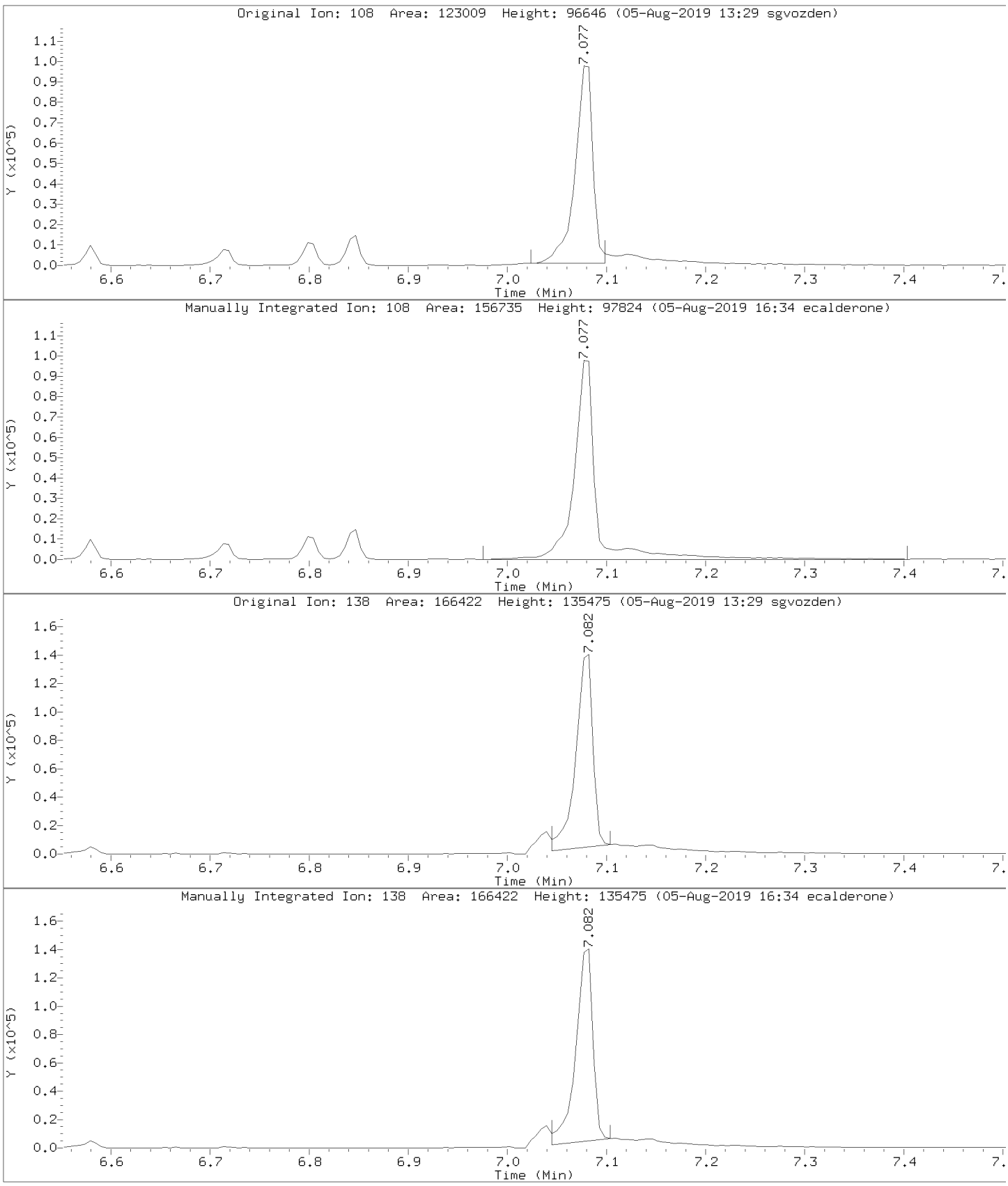
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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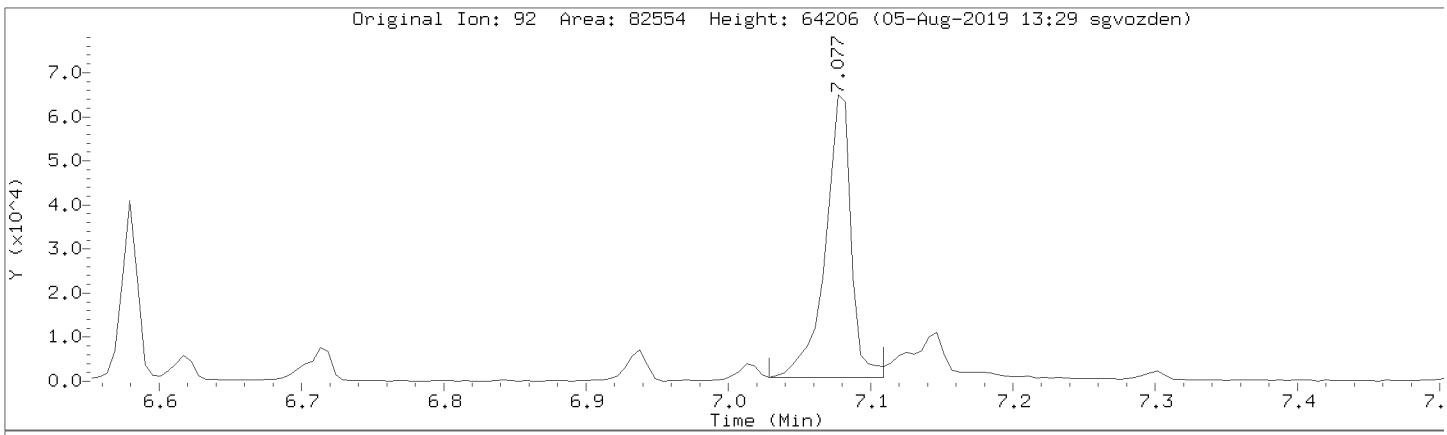

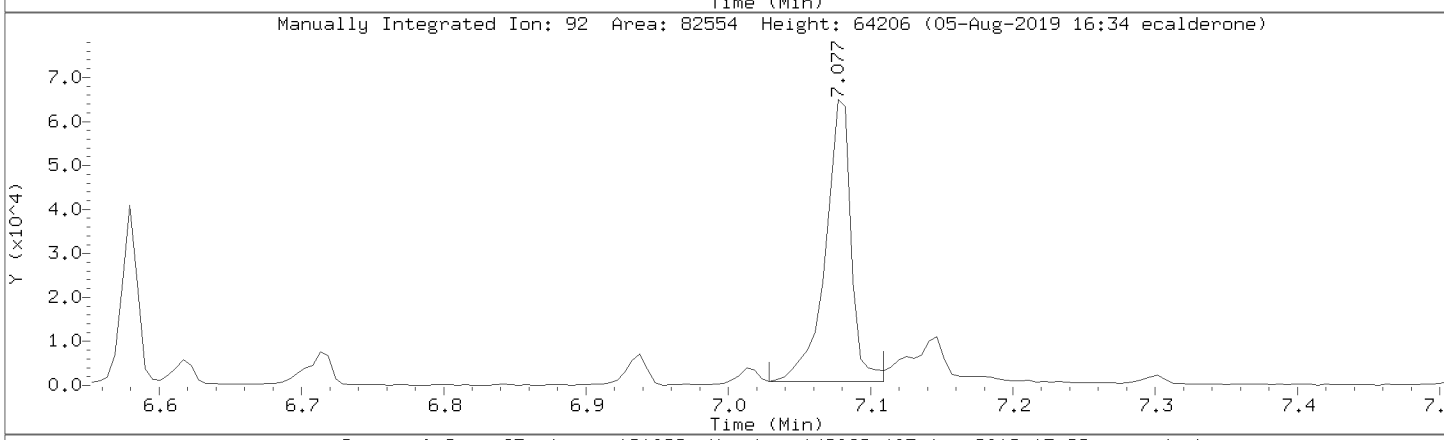

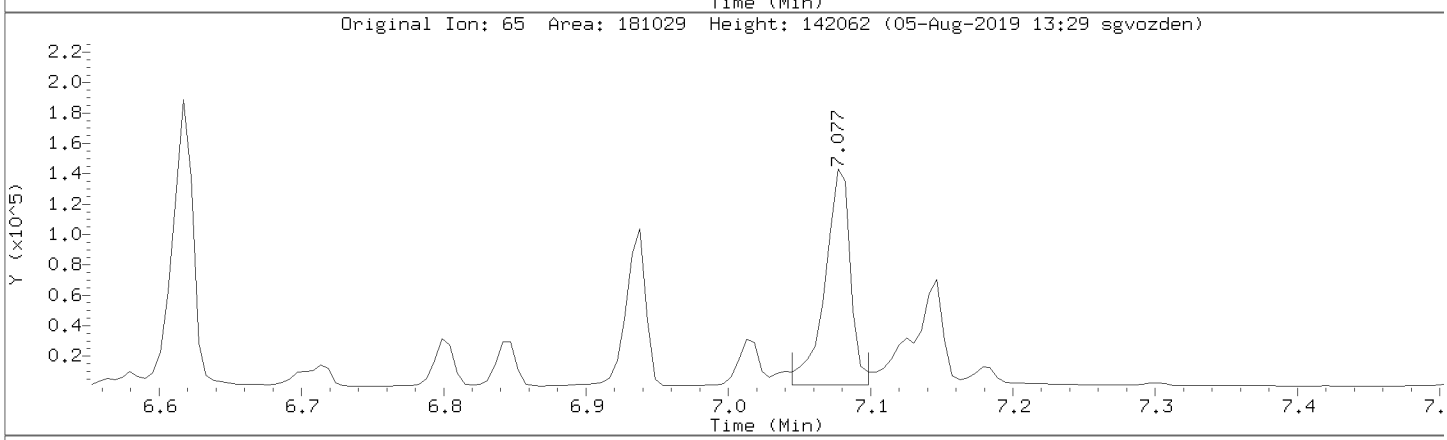

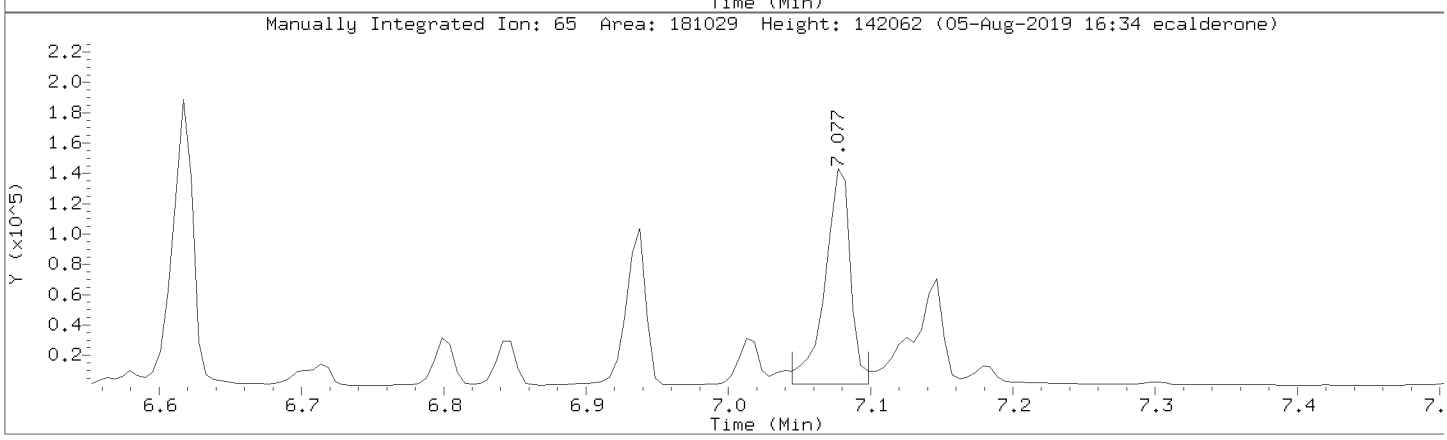

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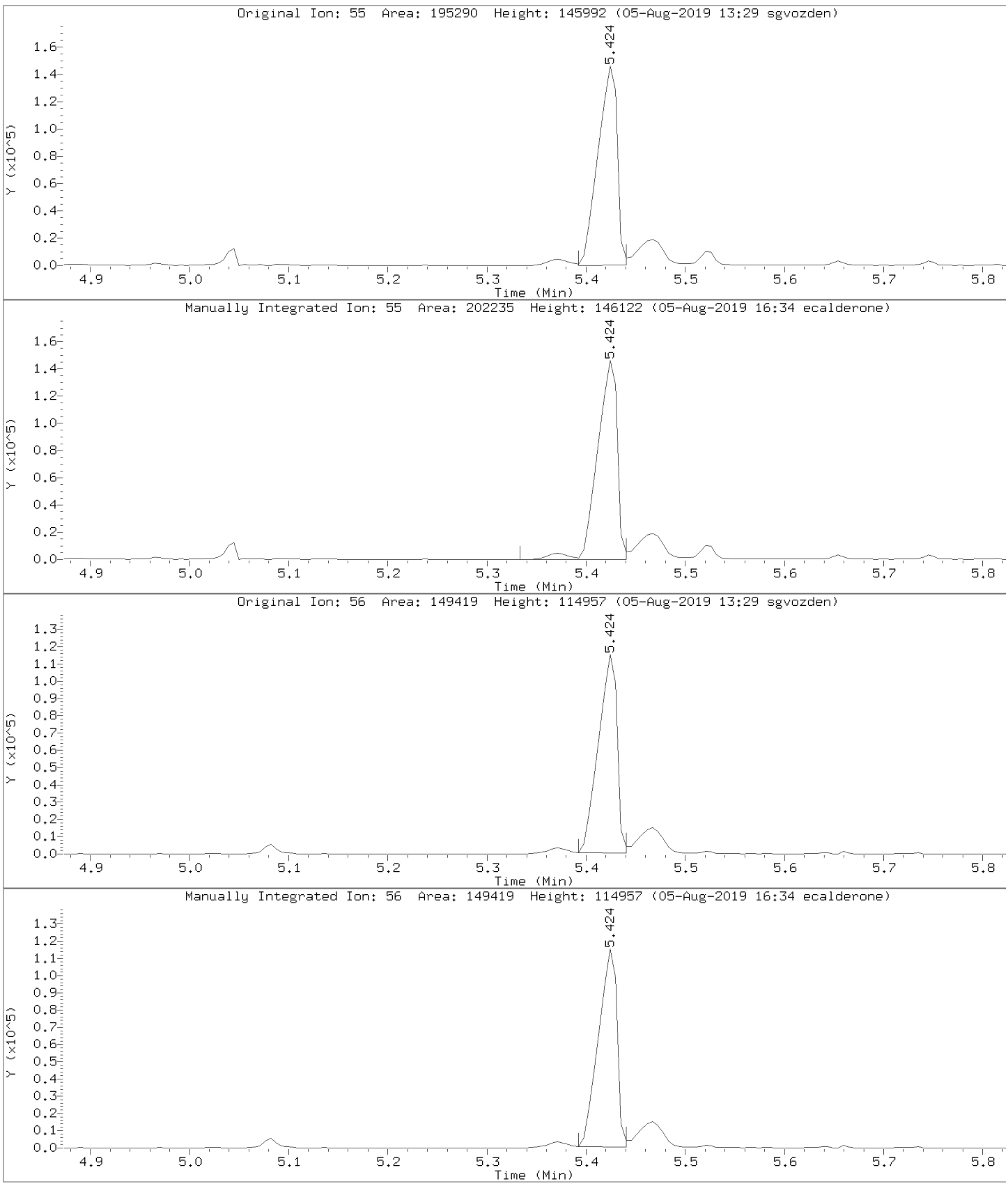
Instrument: 30mss4.i
Lab Sample ID: CAL6

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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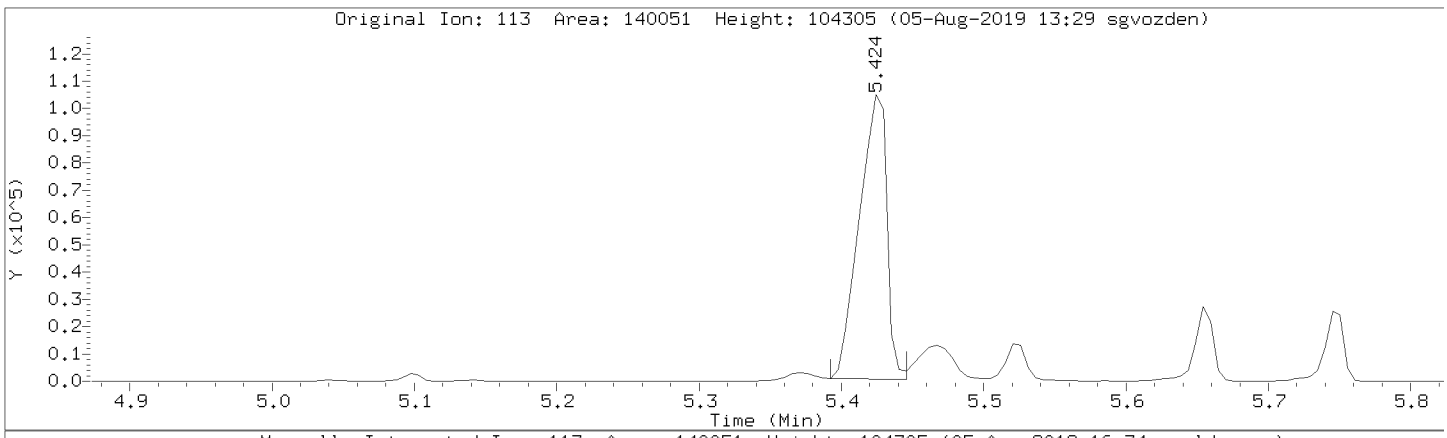

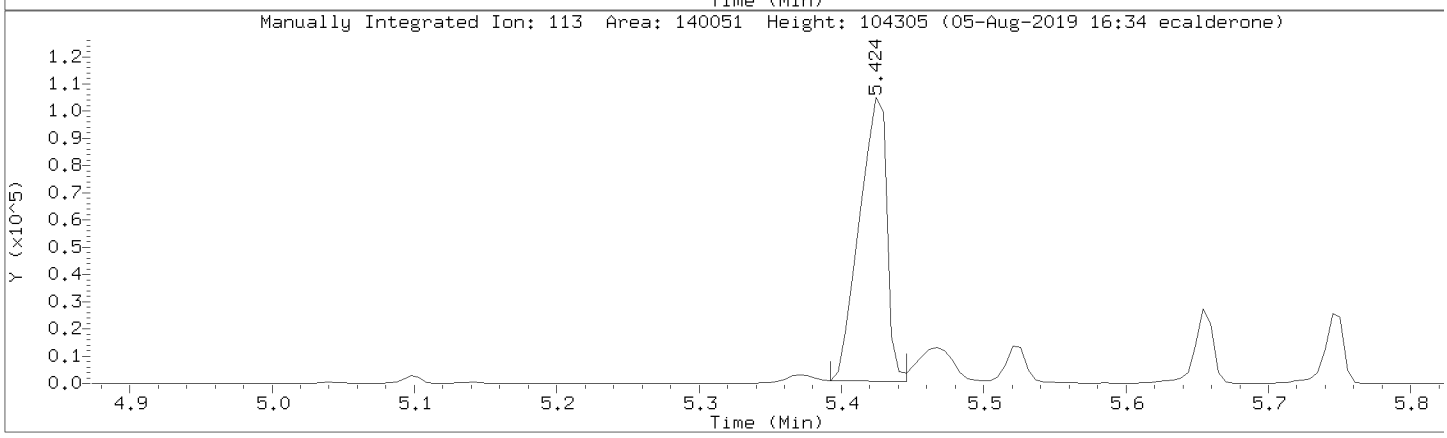

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y3.d
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Inj Date : 05-AUG-2019 13:13 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : cal5, 94271:1
Misc Info : 14922,
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Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 13:13 Cal File: m40805y3.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.284	2.279	(0.560)	201656	12.0000	11.4	
	2 Pyridine	79	2.289	2.289	(0.562)	323200	12.0000	11.7	
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.778)	322905	12.0000	11.3	
$	4 Phenol-d6 (S)	99	3.808	3.803	(0.934)	428055	12.0000	11.6	
	5 Benzaldehyde	77	3.766	3.760	(0.924)	299100	12.0000	11.7	
	6 Phenol	94	3.819	3.814	(0.937)	435407	12.0000	11.6	
	7 Aniline	66	3.862	3.856	(0.948)	211213	12.0000	11.5	
	8 bis(2-Chloroethyl)ether	63	3.889	3.883	(0.954)	263580	12.0000	11.4	
	9 2-Chlorophenol	128	3.942	3.942	(0.967)	377295	12.0000	11.8	
	10 1,3-Dichlorobenzene	146	4.054	4.054	(0.995)	397785	12.0000	11.4	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	97527	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.004)	454375	12.0000	12.1	
	13 Benzyl Alcohol	79	4.183	4.183	(1.026)	304721	12.0000	11.5	
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.039)	400248	12.0000	11.8	
	15 2-Methylphenol(o-Cresol)	108	4.268	4.263	(1.047)	346323	12.0000	11.6	
	16 bis(2-Chloroisopropyl)ether	45	4.300	4.295	(1.055)	541517	12.0000	11.6	
	17 3&4-Methylphenol(m&p Cresol)	108	4.381	4.370	(1.075)	354038	12.0000	11.7	
	18 N-Nitroso-di-n-propylamine	70	4.413	4.402	(1.083)	260220	12.0000	11.7	
	19 Acetophenone	105	4.397	4.397	(1.079)	481580	12.0000	11.6	
	20 Hexachloroethane	117	4.477	4.477	(1.098)	161231	12.0000	11.6	
$	21 Nitrobenzene-d5 (S)	128	4.520	4.520	(0.889)	183609	12.0000	11.5	
	22 Nitrobenzene	77	4.536	4.530	(0.893)	374398	12.0000	11.6	
	23 Isophorone	82	4.712	4.707	(0.927)	692601	12.0000	11.6	
	24 2,4-Dimethylphenol	107	4.792	4.787	(0.943)	375809	12.0000	11.6	
	25 2-Nitrophenol	139	4.787	4.782	(0.942)	199746	12.0000	11.7	
	26 Benzoic acid	105	4.878	4.830	(0.960)	244268	12.0000	11.4(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.873	4.867	(0.959)	406573	12.0000	11.7	
	28 2,4-Dichlorophenol	162	4.964	4.964	(0.977)	301810	12.0000	11.6	
	29 1,2,4-Trichlorobenzene	180	5.044	5.038	(0.993)	333606	12.0000	11.7	
*	30 Naphthalene-d8 (IS)	136	5.081	5.076	(1.000)	395753	4.00000		
	31 Naphthalene	128	5.097	5.092	(1.003)	1150676	12.0000	11.7	
	32 4-Chloroaniline	65	5.135	5.135	(1.011)	128162	12.0000	11.6	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.029)	188226	12.0000	11.8	
	34 Caprolactam	55	5.413	5.375	(1.065)	149055	12.0000	11.3(M)	LT

			QUANT SIG					AMOUNTS CAL-AMT	ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.520	5.509	(1.086)	326896	12.0000	11.6	
	36	2-Methylnaphthalene	142	5.654	5.654	(1.113)	757200	12.0000	11.6	
	37	1-Methylnaphthalene	142	5.745	5.744	(1.131)	705121	12.0000	11.6	
	38	Hexachlorocyclopentadiene	237	5.835	5.835	(0.893)	227754	12.0000	11.6(M)	LT
	39	1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.891)	324392	12.0000	11.8	
	40	2,4,6-Trichlorophenol	196	5.900	5.894	(0.903)	224571	12.0000	11.6	
	41	2,4,5-Trichlorophenol	196	5.932	5.926	(0.908)	212504	12.0000	11.6	
$	42	2-Fluorobiphenyl (S)	172	5.958	5.958	(0.912)	809051	12.0000	11.7	
	43	Biphenyl (Diphenyl)	154	6.039	6.033	(0.924)	905118	12.0000	11.6	
	44	2-Chloronaphthalene	164	6.060	6.055	(0.927)	215124	12.0000	11.7	
	45	2-Nitroaniline	138	6.151	6.146	(0.941)	232230	12.0000	11.5	
	46	Dimethylphthalate	163	6.317	6.306	(0.966)	761223	12.0000	11.7	
	47	2,6-Dinitrotoluene	165	6.376	6.370	(0.975)	175159	12.0000	11.6	
	48	Acenaphthylene	152	6.408	6.402	(0.980)	1128707	12.0000	11.7	
	49	3-Nitroaniline	65	6.493	6.483	(0.993)	210498	12.0000	11.5	
*	50	Acenaphthene-d10 (IS)	164	6.536	6.531	(1.000)	215547	4.00000		
	51	2,4-Dinitrophenol	184	6.579	6.573	(1.007)	103399	12.0000	11.2	
	52	Acenaphthene	153	6.563	6.557	(1.004)	728731	12.0000	11.8	
	53	4-Nitrophenol	109	6.611	6.600	(1.011)	97424	12.0000	11.0	
	54	2,4-Dinitrotoluene	165	6.713	6.702	(1.027)	227389	12.0000	11.4	
	55	Dibenzofuran	168	6.697	6.691	(1.025)	965625	12.0000	11.7	
	56	2,3,4,6-Tetrachlorophenol	232	6.841	6.836	(1.047)	180015	12.0000	11.4	
	57	Diethylphthalate	149	6.932	6.927	(1.061)	790063	12.0000	11.7	
	58	4-Chlorophenylphenyl ether	204	7.012	7.007	(1.073)	376783	12.0000	11.8	
	59	Fluorene	166	7.034	7.028	(1.076)	784029	12.0000	11.7	
	60	4-Nitroaniline	108	7.071	7.055	(1.082)	112384	12.0000	11.2(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	7.119	7.108	(0.889)	129813	12.0000	11.3	
	62	N-Nitrosodiphenylamine	169	7.141	7.130	(0.891)	666031	12.0000	11.9	
	63	Azobenzene	77	7.178	7.173	(0.896)	719257	12.0000	11.7	
	64	1,2-Diphenylhydrazine	77	7.178	7.173	(0.896)	719257	12.0000	11.7	
$	65	2,4,6-Tribromophenol (S)	330	7.301	7.296	(0.911)	138968	12.0000	11.7	
	66	4-Bromophenylphenyl ether	248	7.520	7.520	(0.939)	223955	12.0000	12.0	
	67	Hexachlorobenzene	284	7.697	7.691	(0.961)	249413	12.0000	11.9	
	68	Atrazine	200	7.718	7.707	(0.963)	209187	12.0000	11.6	
	69	Pentachlorophenol	266	7.873	7.868	(0.983)	144459	12.0000	11.5	
*	70	Phenanthrene-d10 (IS)	188	8.012	8.012	(1.000)	359579	4.00000		
	71	Phenanthrene	178	8.039	8.034	(1.003)	1101517	12.0000	11.7	
	72	Anthracene	178	8.087	8.082	(1.009)	1084775	12.0000	11.6	
	73	Carbazole	167	8.253	8.242	(1.030)	926179	12.0000	11.6	
	74	Di-n-butylphthalate	149	8.654	8.649	(1.080)	1247720	12.0000	11.7	
	75	Fluoranthene	202	9.301	9.296	(1.161)	1054141	12.0000	11.5	
	76	Pyrene	202	9.542	9.537	(0.884)	1062530	12.0000	12.5	
$	77	Terphenyl-d14 (S)	244	9.697	9.692	(0.898)	796357	12.0000	12.5	
	78	Butylbenzylphthalate	149	10.221	10.216	(0.947)	455499	12.0000	11.9	
	79	3,3'-Dichlorobenzidine	252	10.751	10.745	(0.996)	346244	12.0000	11.8	
	80	bis(2-Ethylhexyl)phthalate	149	10.820	10.815	(1.002)	658205	12.0000	12.3	
	81	Benzo(a)anthracene	228	10.778	10.772	(0.999)	890995	12.0000	11.8	
*	82	Chrysene-d12 (IS)	240	10.794	10.788	(1.000)	278409	4.00000		
	83	Chrysene	228	10.820	10.815	(1.002)	802517	12.0000	11.7	
	84	Di-n-octylphthalate	149	11.398	11.393	(0.939)	1105768	12.0000	9.89	
	85	Benzo(b)fluoranthene	252	11.815	11.804	(0.973)	1208351	12.0000	12.6	
	86	Benzo(k)fluoranthene	252	11.837	11.826	(0.975)	1046145	12.0000	10.3	
	87	Benzo(a)pyrene	252	12.099	12.088	(0.996)	1038709	12.0000	11.8	
*	88	Perylene-d12 (IS)	264	12.141	12.136	(1.000)	354371	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.120	13.104	(1.081)	1191081	12.0000	12.6	
90 Dibenz(a,h)anthracene	278	13.120	13.104	(1.081)	1012492	12.0000	12.8	
91 Benzo(g,h,i)perylene	276	13.393	13.372	(1.103)	992490	12.0000	12.6	

QC Flag Legend

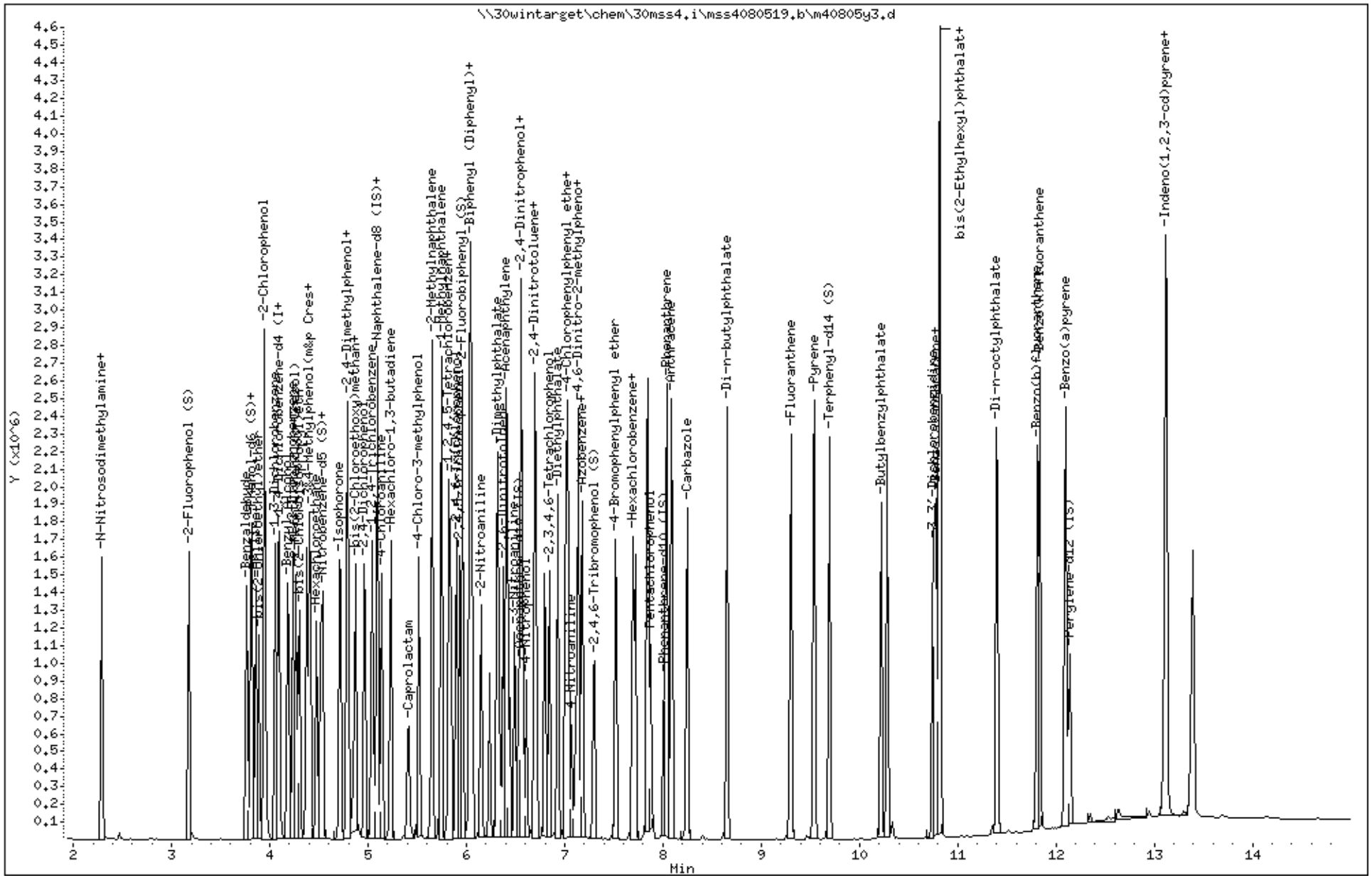
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y3.d
Date : 05-AUG-2019 13:13
Client ID: CAL5
Sample Info: CAL5, 94271:1

Instrument: 30mss4.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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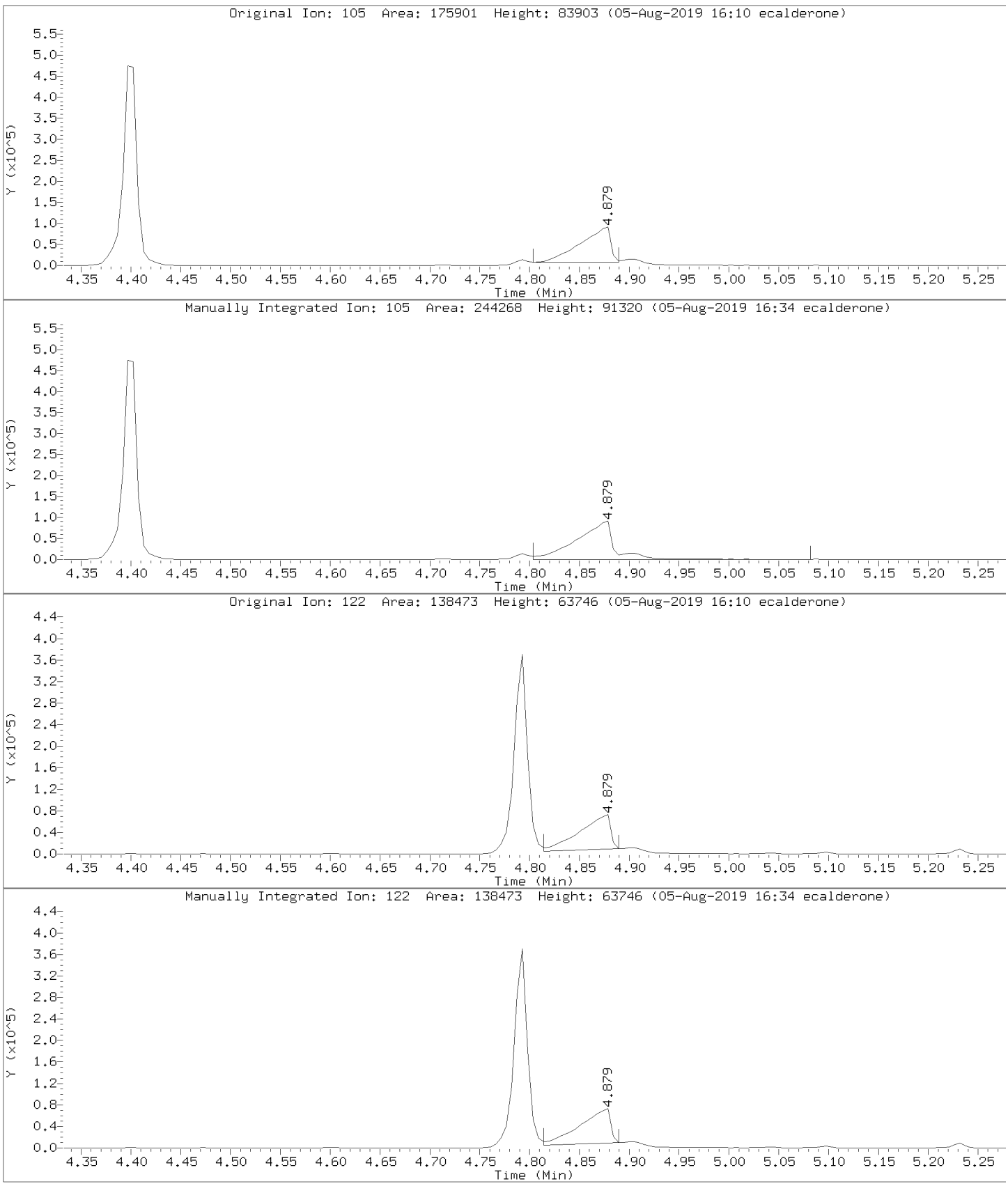
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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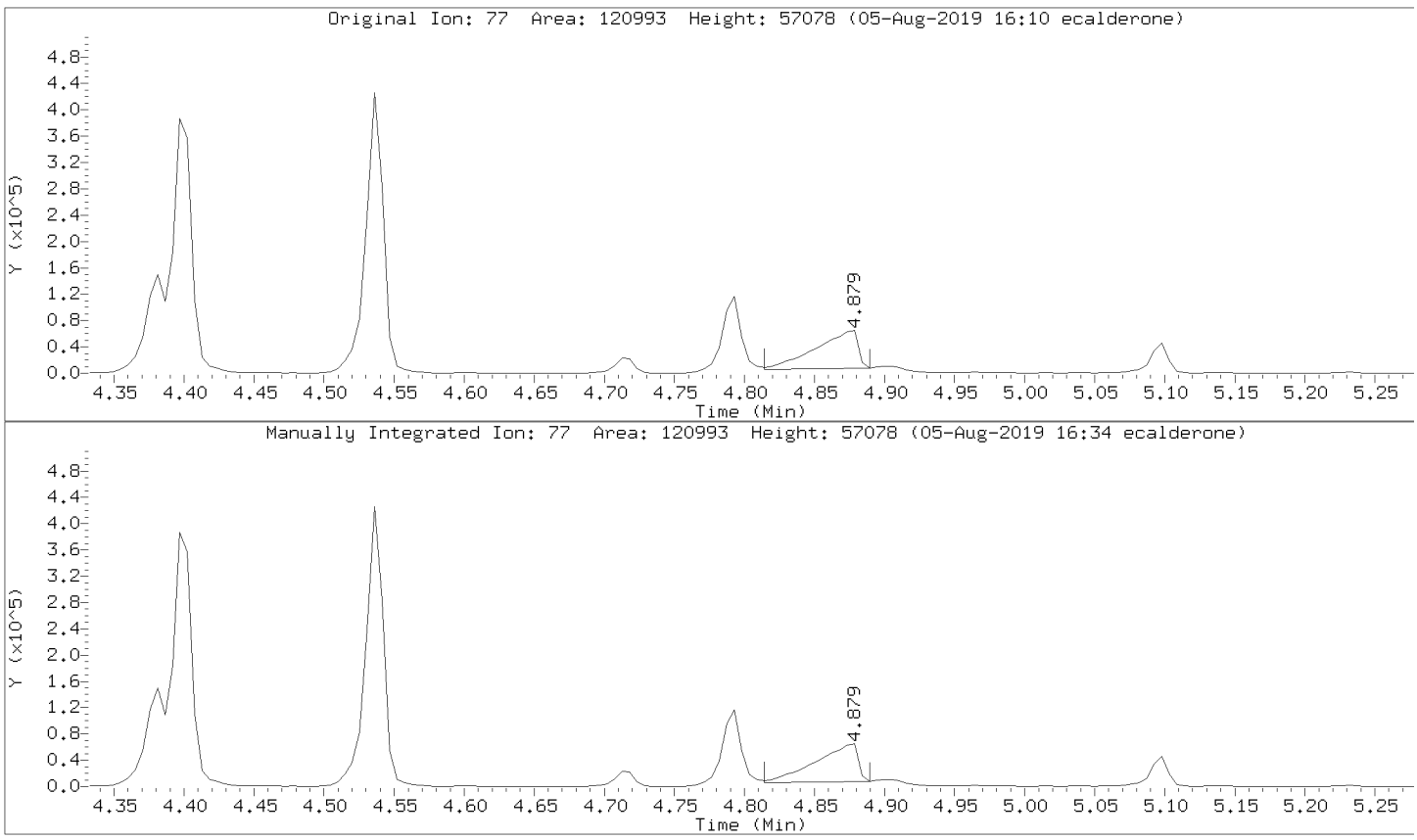

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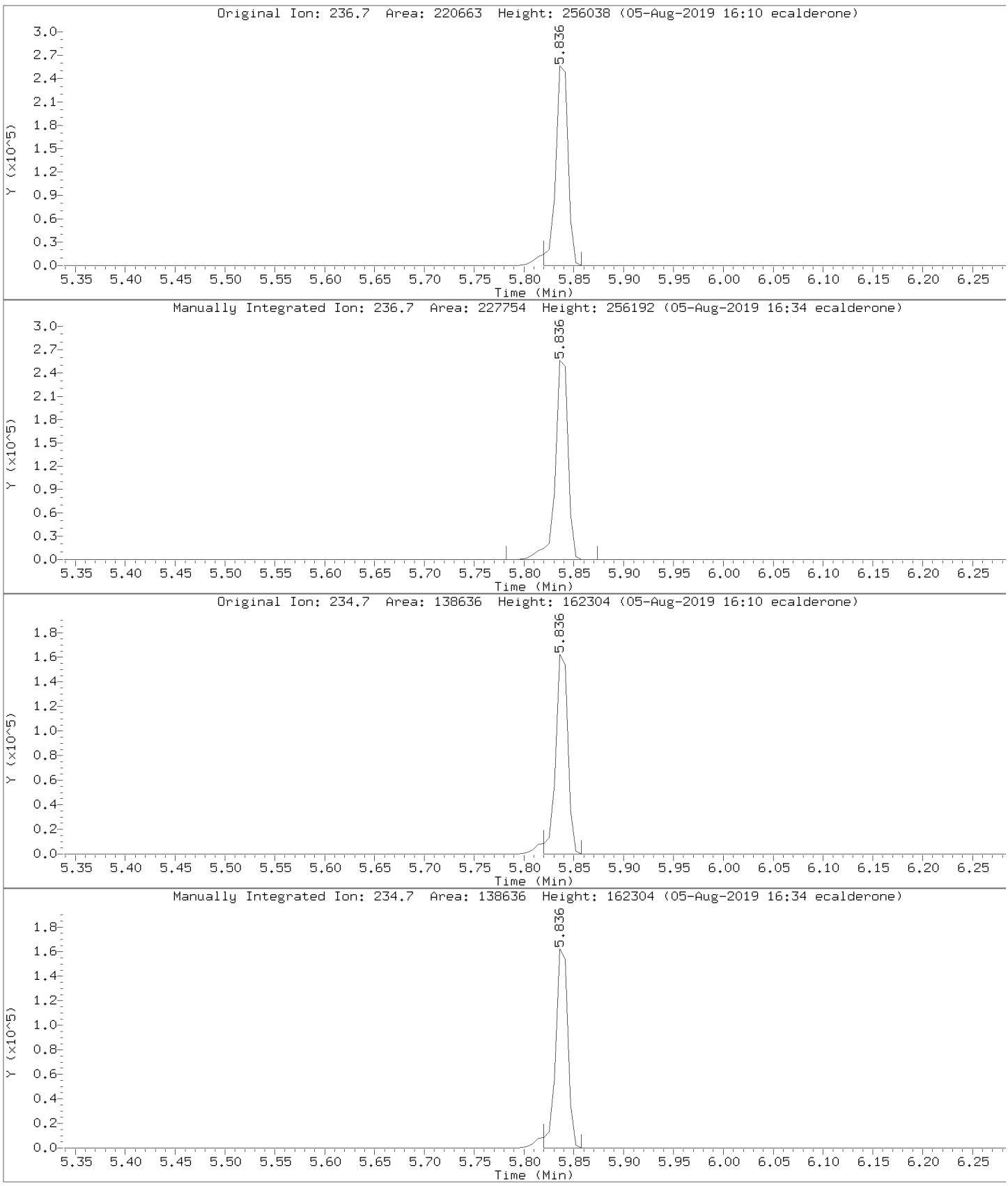
Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4



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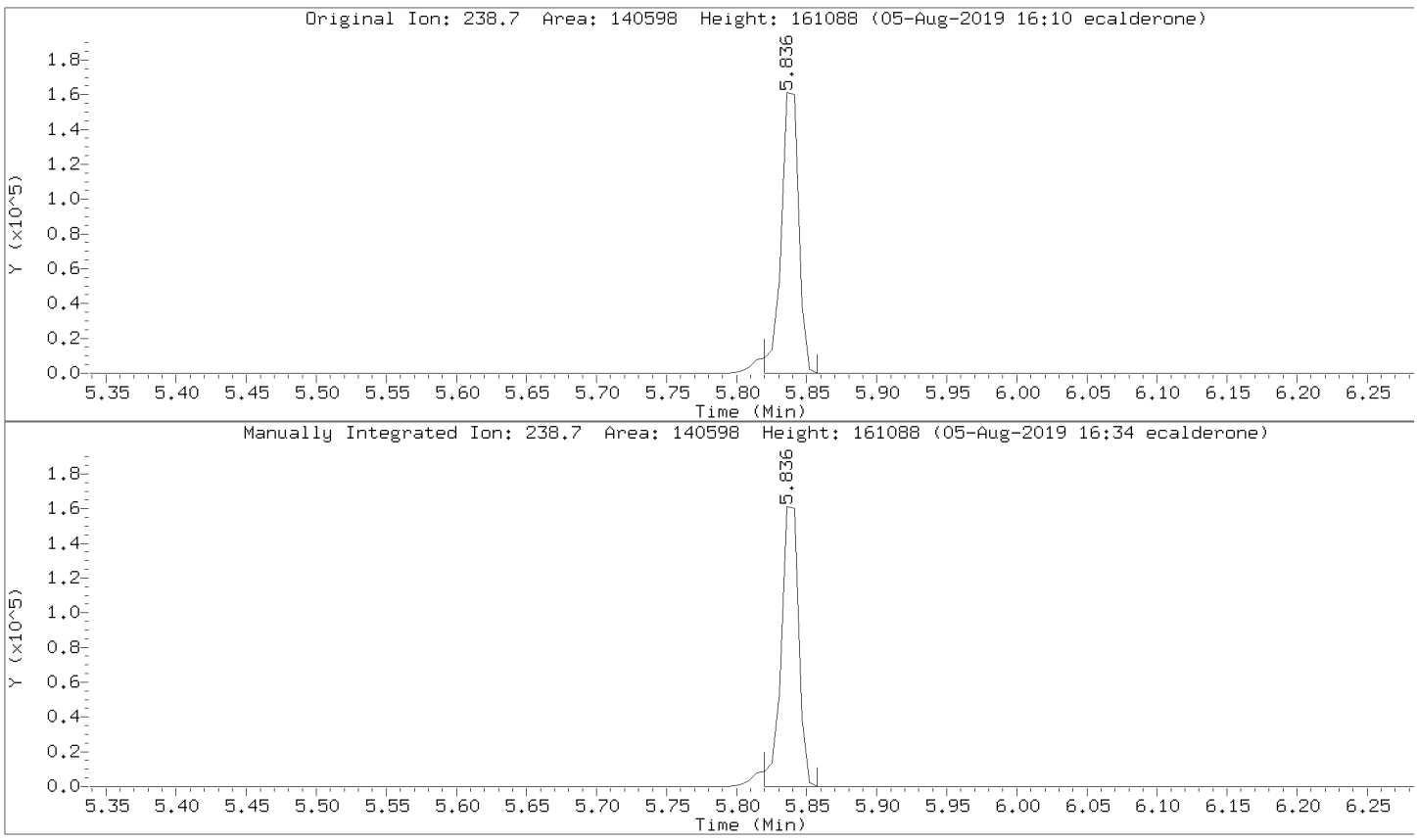

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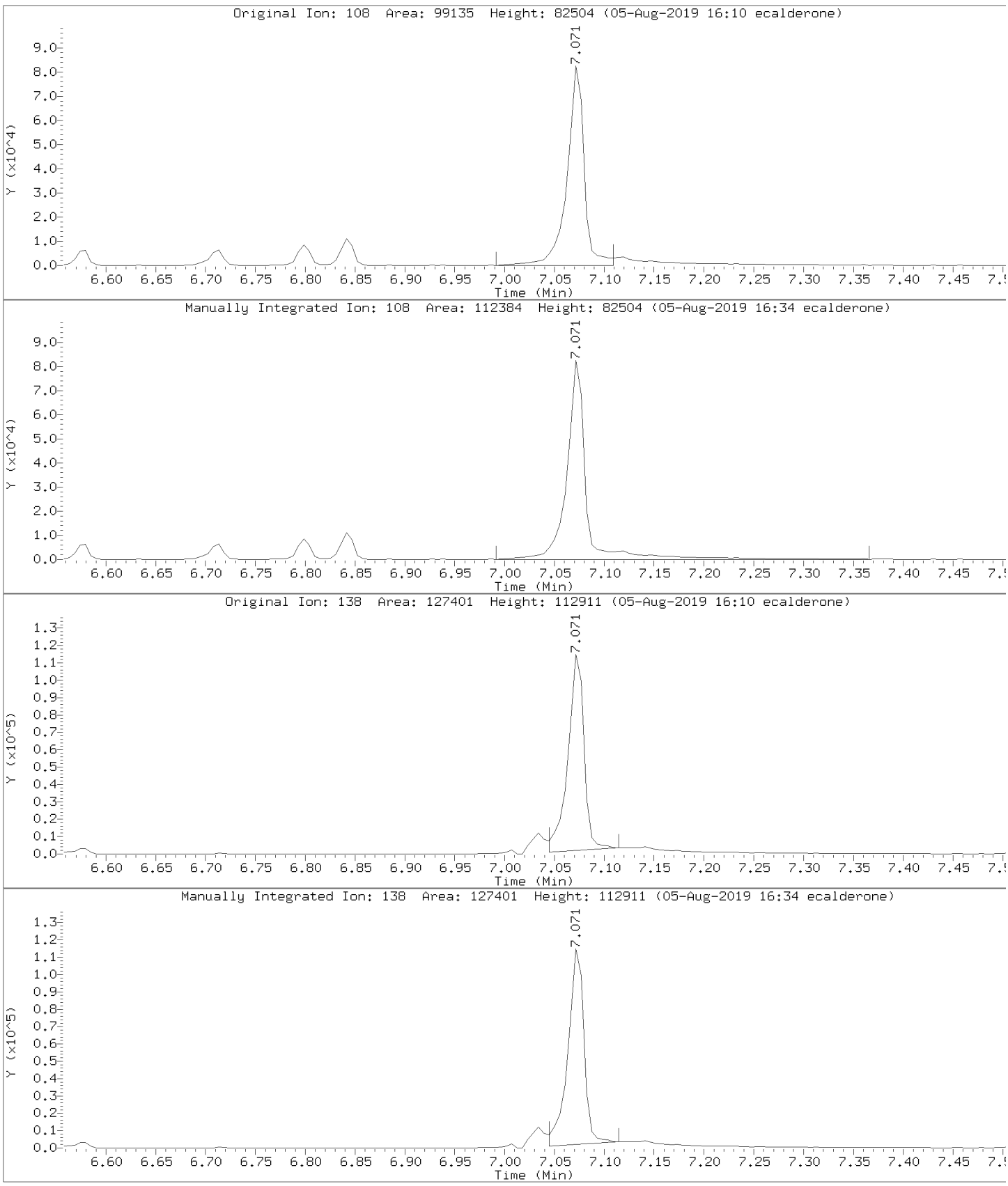
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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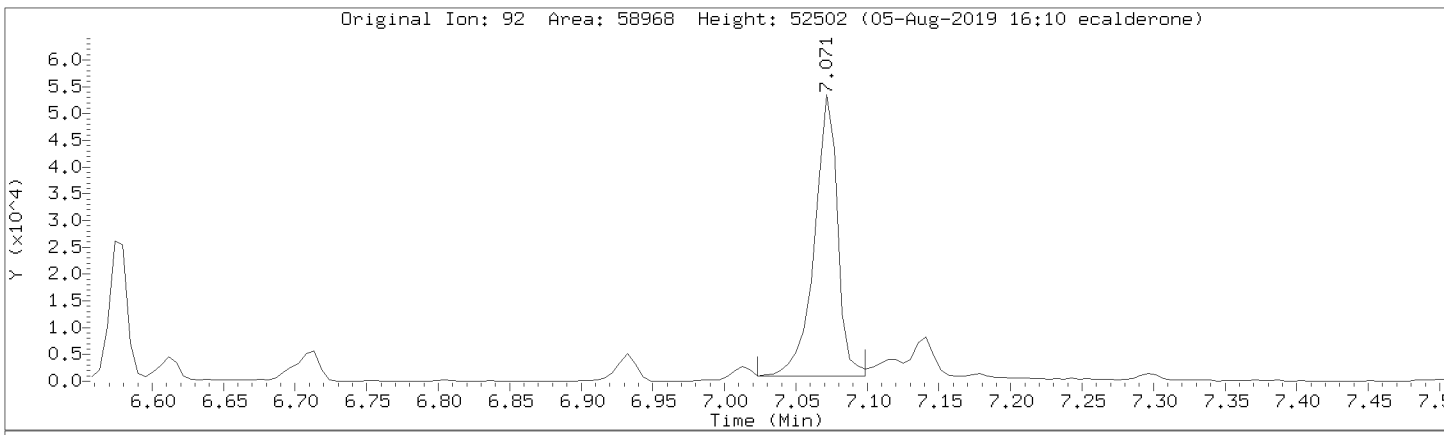

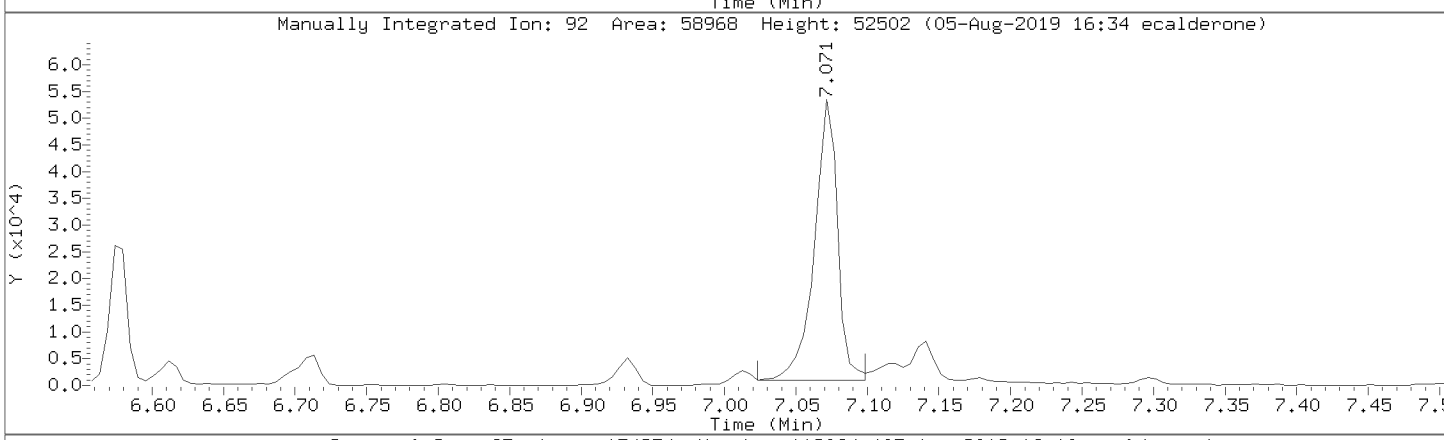

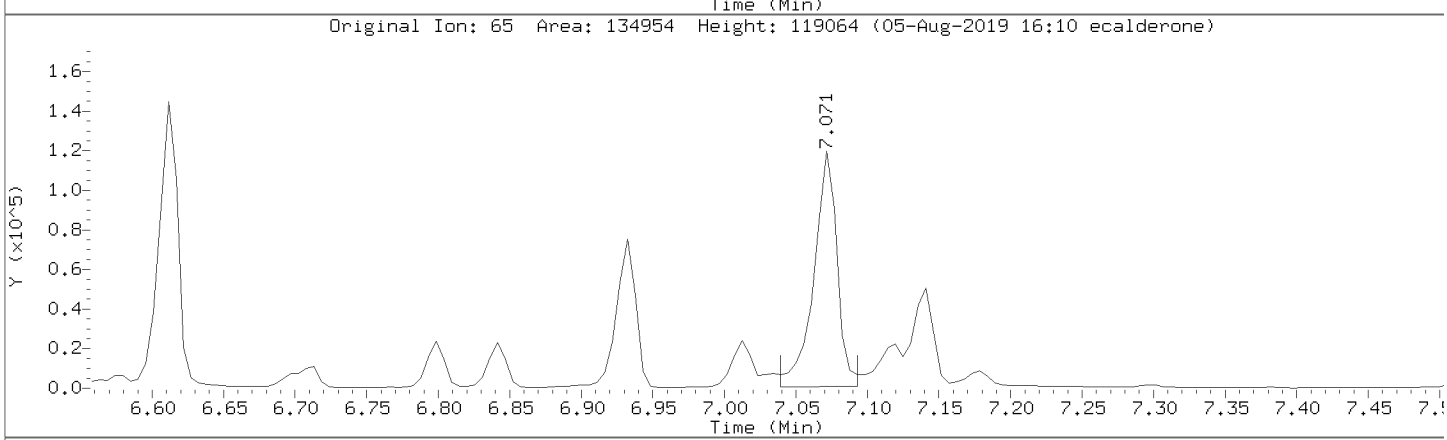

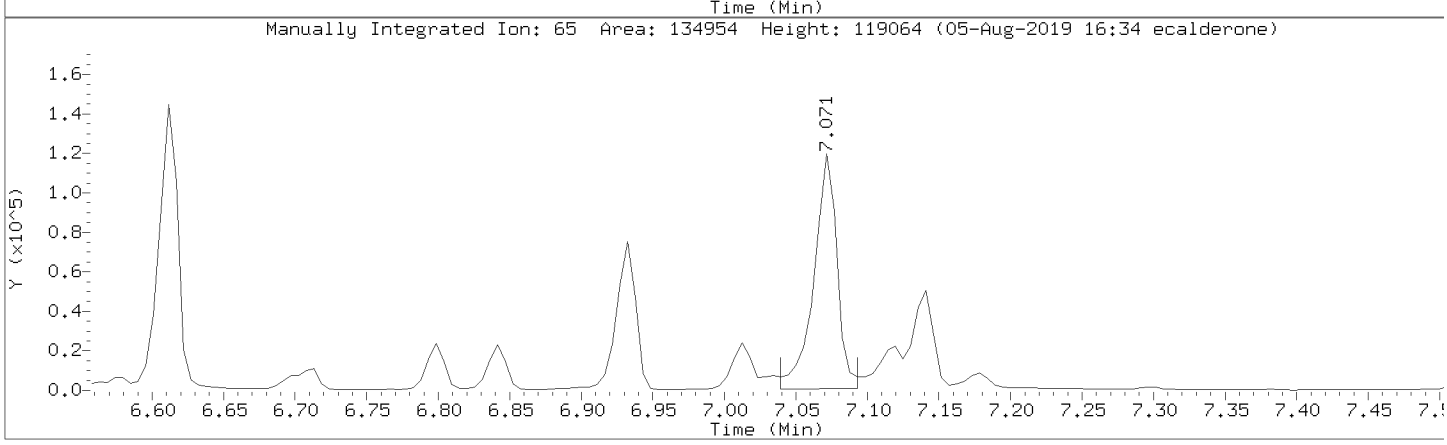

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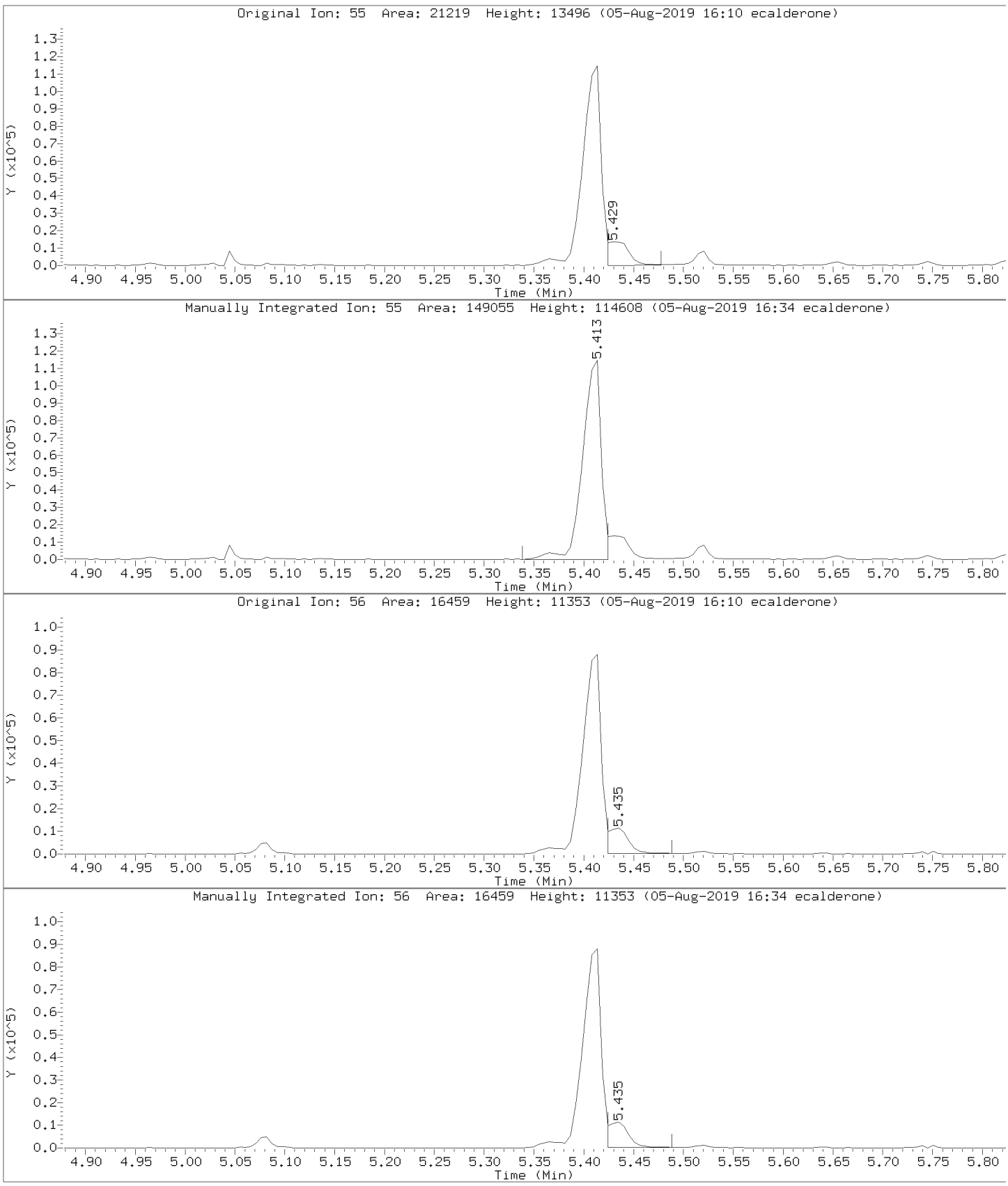
Instrument: 30mss4.i
Lab Sample ID: CAL5

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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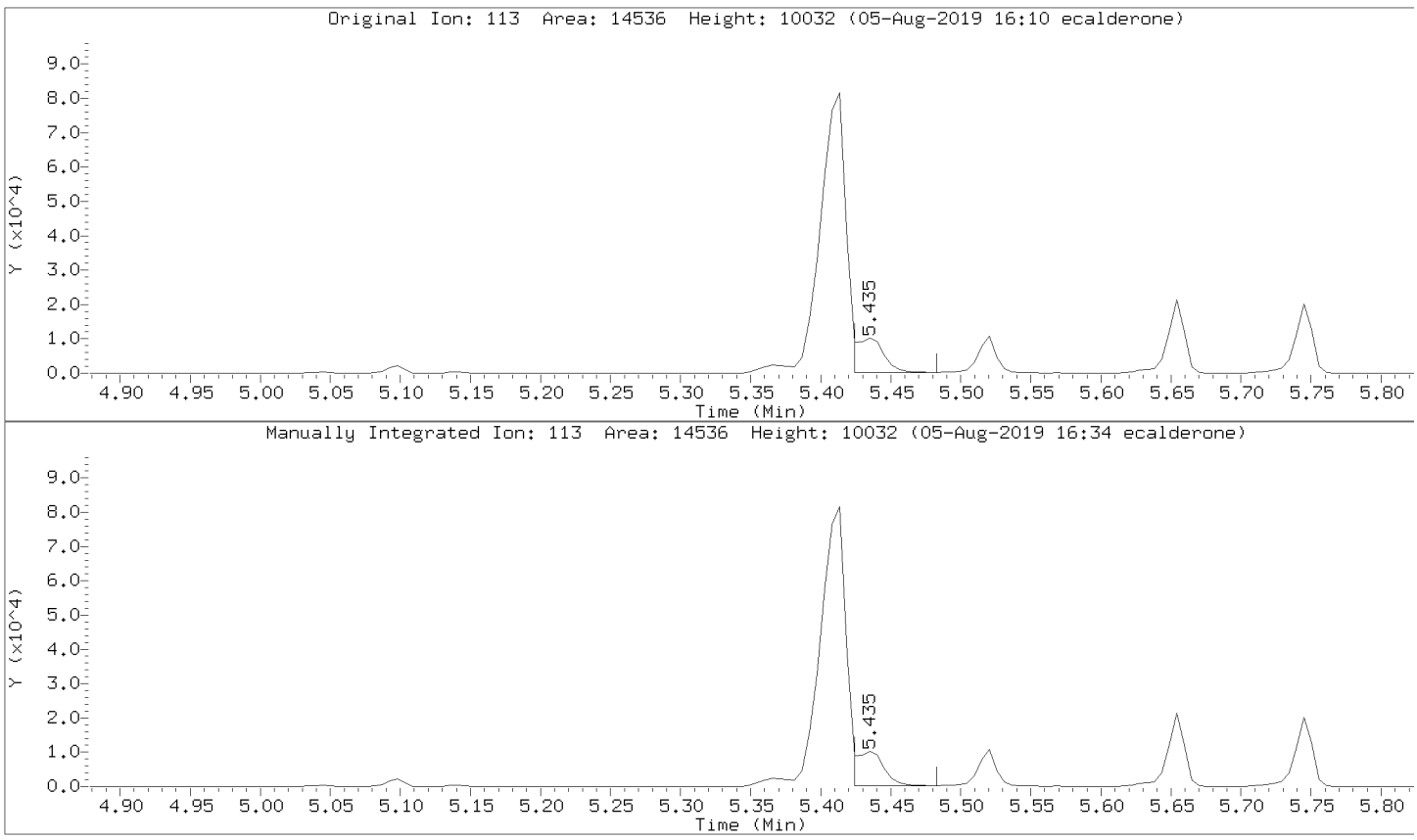

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y4.d
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Inj Date : 05-AUG-2019 13:35 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : cal4, 94272:1
Misc Info : 14922,
Comment :
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Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 13:35 Cal File: m40805y4.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)		REVIEW C
	1 N-Nitrosodimethylamine	74	2.284	2.279	(0.560)	152258	8.00000			
	2 Pyridine	79	2.289	2.289	(0.562)	233798	8.00000			
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.778)	239109	8.00000			
$	4 Phenol-d6 (S)	99	3.808	3.803	(0.934)	304197	8.00000			
	5 Benzaldehyde	77	3.760	3.760	(0.923)	211423	8.00000			
	6 Phenol	94	3.814	3.814	(0.936)	312474	8.00000			
	7 Aniline	66	3.856	3.856	(0.946)	150914	8.00000			
	8 bis(2-Chloroethyl)ether	63	3.889	3.883	(0.954)	185637	8.00000			
	9 2-Chlorophenol	128	3.942	3.942	(0.967)	271117	8.00000			
	10 1,3-Dichlorobenzene	146	4.054	4.054	(0.995)	290762	8.00000			
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	101519	4.00000			
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.004)	314925	8.00000		(M)	LT
	13 Benzyl Alcohol	79	4.183	4.183	(1.026)	219117	8.00000			
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.039)	283732	8.00000			
	15 2-Methylphenol(o-Cresol)	108	4.263	4.263	(1.046)	246738	8.00000			
	16 bis(2-Chloroisopropyl)ether	45	4.300	4.295	(1.055)	396400	8.00000			
	17 3&4-Methylphenol(m&p Cresol)	108	4.375	4.370	(1.073)	252540	8.00000			
	18 N-Nitroso-di-n-propylamine	70	4.407	4.402	(1.081)	184913	8.00000			
	19 Acetophenone	105	4.397	4.397	(1.079)	346758	8.00000			
	20 Hexachloroethane	117	4.477	4.477	(1.098)	115426	8.00000			
$	21 Nitrobenzene-d5 (S)	128	4.520	4.520	(0.889)	130787	8.00000			
	22 Nitrobenzene	77	4.536	4.530	(0.893)	268106	8.00000			
	23 Isophorone	82	4.712	4.707	(0.927)	484790	8.00000			
	24 2,4-Dimethylphenol	107	4.792	4.787	(0.943)	270066	8.00000			
	25 2-Nitrophenol	139	4.787	4.782	(0.942)	143461	8.00000			
	26 Benzoic acid	105	4.867	4.830	(0.958)	168981	8.00000		(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.867	4.867	(0.958)	285030	8.00000			
	28 2,4-Dichlorophenol	162	4.964	4.964	(0.977)	215324	8.00000			
	29 1,2,4-Trichlorobenzene	180	5.044	5.038	(0.993)	237554	8.00000			
*	30 Naphthalene-d8 (IS)	136	5.081	5.076	(1.000)	403565	4.00000			
	31 Naphthalene	128	5.097	5.092	(1.003)	809970	8.00000			
	32 4-Chloroaniline	65	5.135	5.135	(1.011)	93809	8.00000			
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.029)	131967	8.00000			
	34 Caprolactam	55	5.402	5.375	(1.063)	122032	8.00000		(M)	LT

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.515	5.509	(1.085)	234258	8.00000		
	36 2-Methylnaphthalene	142	5.654	5.654	(1.113)	538594	8.00000		
	37 1-Methylnaphthalene	142	5.745	5.744	(1.131)	504745	8.00000		
	38 Hexachlorocyclopentadiene	237	5.835	5.835	(0.894)	163630	8.00000		
	39 1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.892)	232614	8.00000		
	40 2,4,6-Trichlorophenol	196	5.900	5.894	(0.903)	162048	8.00000		
	41 2,4,5-Trichlorophenol	196	5.932	5.926	(0.908)	153660	8.00000		
$	42 2-Fluorobiphenyl (S)	172	5.958	5.958	(0.912)	578697	8.00000		
	43 Biphenyl (Diphenyl)	154	6.039	6.033	(0.925)	650631	8.00000	(M)	LT
	44 2-Chloronaphthalene	164	6.055	6.055	(0.927)	154722	8.00000		
	45 2-Nitroaniline	138	6.151	6.146	(0.942)	168651	8.00000		
	46 Dimethylphthalate	163	6.311	6.306	(0.966)	546501	8.00000	(M)	LT
	47 2,6-Dinitrotoluene	165	6.376	6.370	(0.976)	127676	8.00000		
	48 Acenaphthylene	152	6.408	6.402	(0.981)	808738	8.00000		
	49 3-Nitroaniline	65	6.493	6.483	(0.994)	163372	8.00000		
*	50 Acenaphthene-d10 (IS)	164	6.531	6.531	(1.000)	221501	4.00000		
	51 2,4-Dinitrophenol	184	6.574	6.573	(1.007)	77524	8.00000		
	52 Acenaphthene	153	6.563	6.557	(1.005)	515927	8.00000		
	53 4-Nitrophenol	109	6.611	6.600	(1.012)	74449	8.00000		
	54 2,4-Dinitrotoluene	165	6.707	6.702	(1.027)	169992	8.00000		
	55 Dibenzofuran	168	6.697	6.691	(1.025)	697250	8.00000		
	56 2,3,4,6-Tetrachlorophenol	232	6.841	6.836	(1.047)	136406	8.00000		
	57 Diethylphthalate	149	6.932	6.927	(1.061)	570652	8.00000		
	58 4-Chlorophenylphenyl ether	204	7.012	7.007	(1.074)	272003	8.00000		
	59 Fluorene	166	7.034	7.028	(1.077)	566998	8.00000		
	60 4-Nitroaniline	108	7.071	7.055	(1.083)	85701	8.00000	(M)	LT
	61 4,6-Dinitro-2-methylphenol	198	7.114	7.108	(0.888)	100567	8.00000		
	62 N-Nitrosodiphenylamine	169	7.141	7.130	(0.891)	488369	8.00000		
	63 Azobenzene	77	7.178	7.173	(0.896)	532291	8.00000		
	64 1,2-Diphenylhydrazine	77	7.178	7.173	(0.896)	532291	8.00000		
$	65 2,4,6-Tribromophenol (S)	330	7.301	7.296	(0.911)	102071	8.00000		
	66 4-Bromophenylphenyl ether	248	7.520	7.520	(0.939)	162582	8.00000		
	67 Hexachlorobenzene	284	7.697	7.691	(0.961)	184290	8.00000		
	68 Atrazine	200	7.718	7.707	(0.963)	160935	8.00000		
	69 Pentachlorophenol	266	7.873	7.868	(0.983)	108880	8.00000		
*	70 Phenanthrene-d10 (IS)	188	8.012	8.012	(1.000)	392921	4.00000		
	71 Phenanthrene	178	8.039	8.034	(1.003)	837233	8.00000		
	72 Anthracene	178	8.087	8.082	(1.009)	829128	8.00000		
	73 Carbazole	167	8.248	8.242	(1.029)	737701	8.00000		
	74 Di-n-butylphthalate	149	8.654	8.649	(1.080)	948815	8.00000		
	75 Fluoranthene	202	9.301	9.296	(1.161)	850857	8.00000		
	76 Pyrene	202	9.542	9.537	(0.884)	882297	8.00000		
$	77 Terphenyl-d14 (S)	244	9.697	9.692	(0.898)	662399	8.00000		
	78 Butylbenzylphthalate	149	10.221	10.216	(0.947)	393632	8.00000		
	79 3,3'-Dichlorobenzidine	252	10.751	10.745	(0.996)	287471	8.00000		
	80 bis(2-Ethylhexyl)phthalate	149	10.820	10.815	(1.002)	543543	8.00000		
	81 Benzo(a)anthracene	228	10.772	10.772	(0.998)	758448	8.00000		
*	82 Chrysene-d12 (IS)	240	10.794	10.788	(1.000)	341124	4.00000		
	83 Chrysene	228	10.820	10.815	(1.002)	705082	8.00000		
	84 Di-n-octylphthalate	149	11.398	11.393	(0.939)	915224	8.00000		
	85 Benzo(b)fluoranthene	252	11.810	11.804	(0.973)	792005	8.00000		
	86 Benzo(k)fluoranthene	252	11.831	11.826	(0.974)	840785	8.00000		
	87 Benzo(a)pyrene	252	12.099	12.088	(0.996)	719808	8.00000		
*	88 Perylene-d12 (IS)	264	12.141	12.136	(1.000)	353935	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.115	13.104	(1.080)	795124	8.00000		
90 Dibenz(a,h)anthracene	278	13.115	13.104	(1.080)	657079	8.00000		
91 Benzo(g,h,i)perylene	276	13.388	13.372	(1.103)	669169	8.00000		

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y4.d
Date : 05-AUG-2019 13:35
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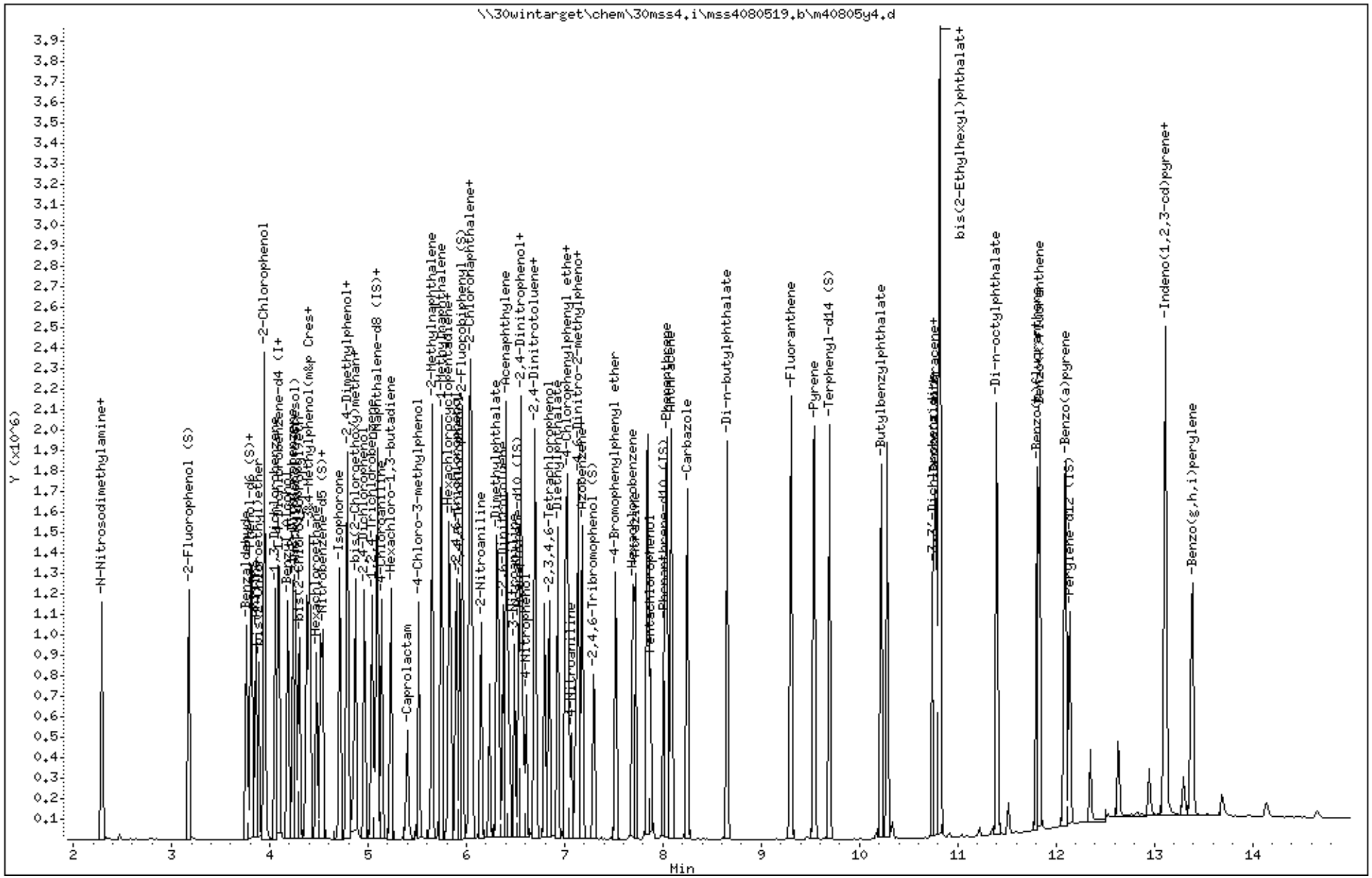
Sample Info: CAL4, 94272:1

Instrument: 30mss4.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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Instrument: 30mss4.i
Lab Sample ID: CAL4

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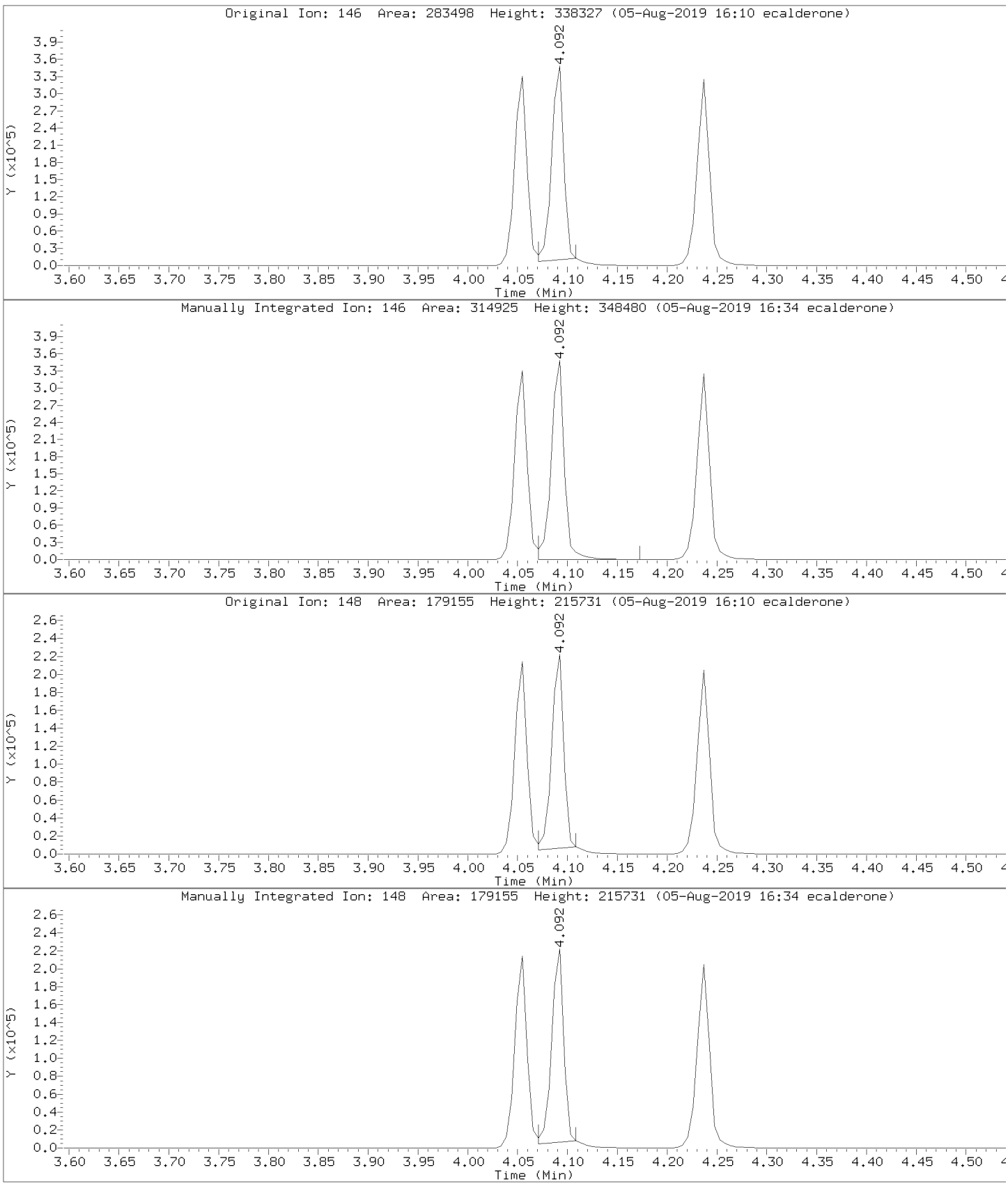
CAS Number: 106-46-7



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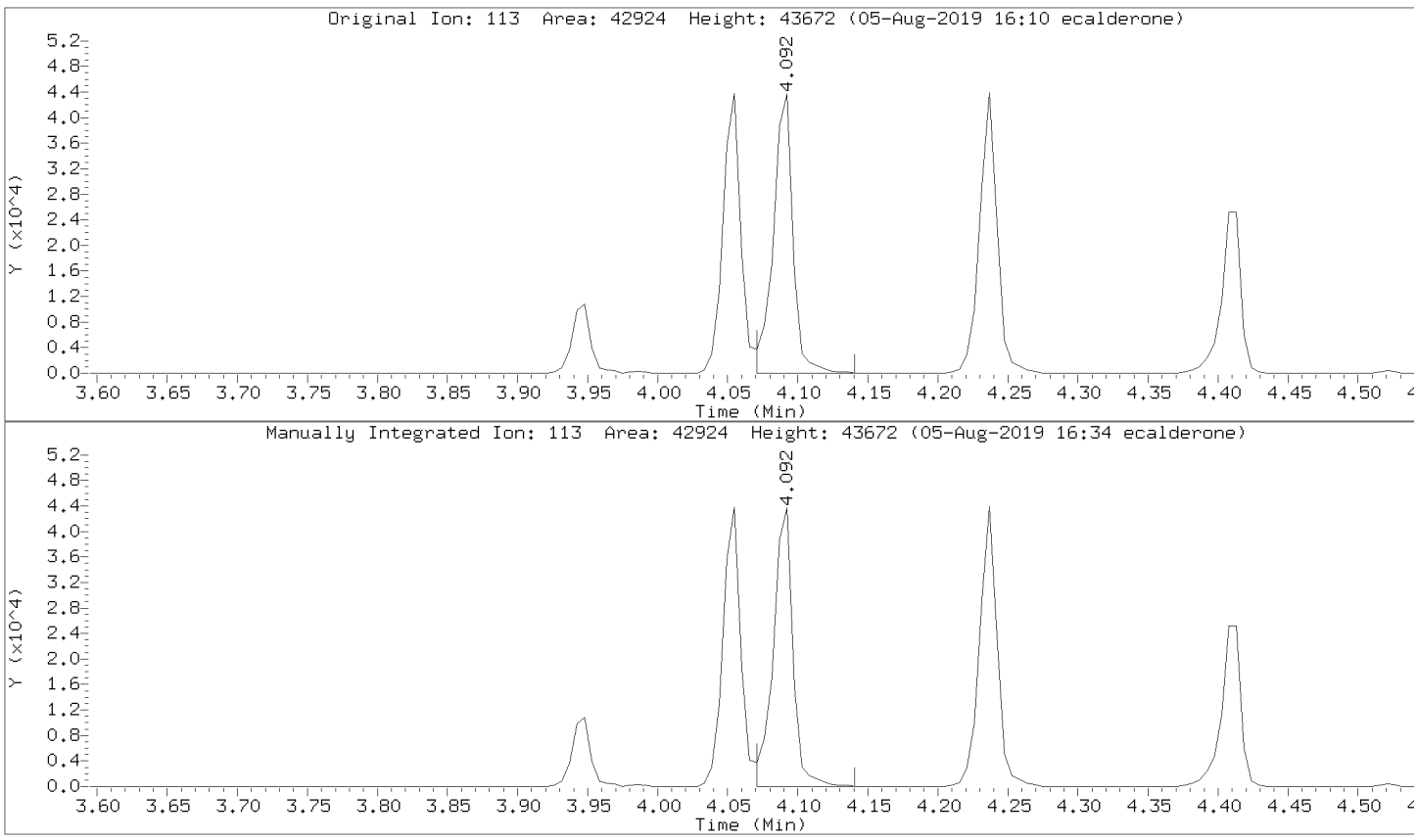

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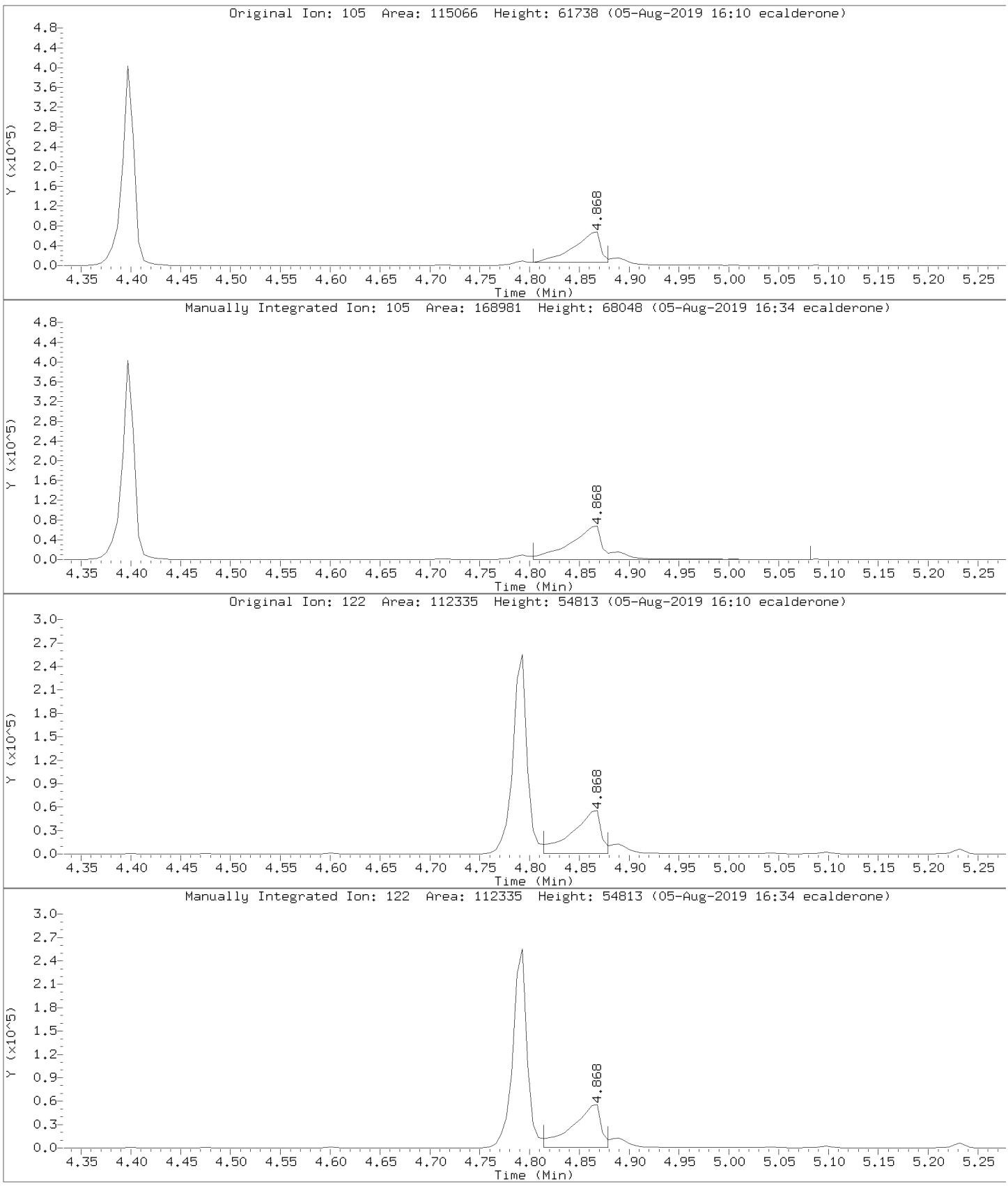
Injection Date: 05-AUG-2019 13:35
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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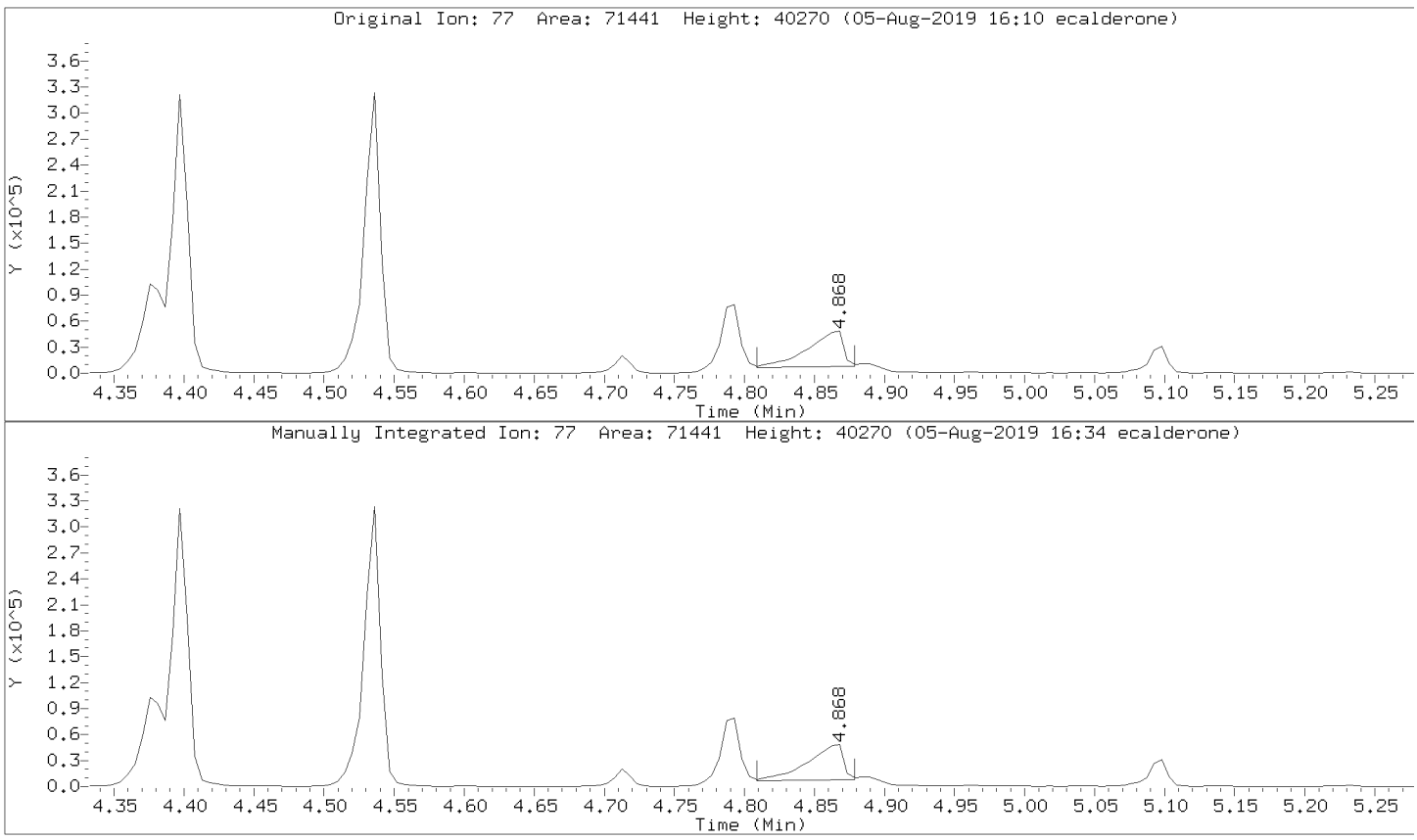
Injection Date: 05-AUG-2019 13:35
Instrument: 30mss4.i
Lab Sample ID: CAL4



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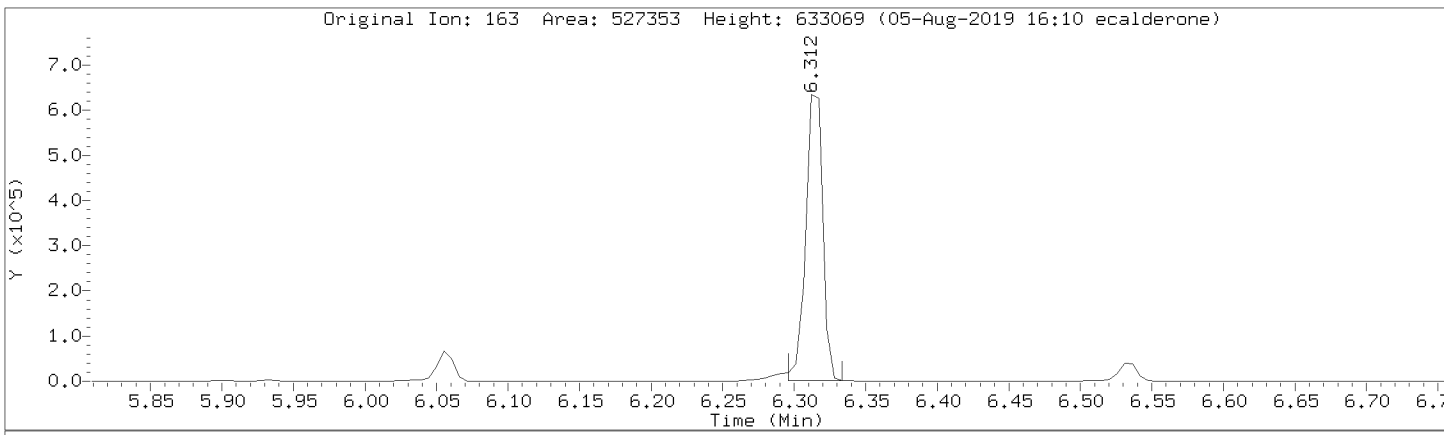
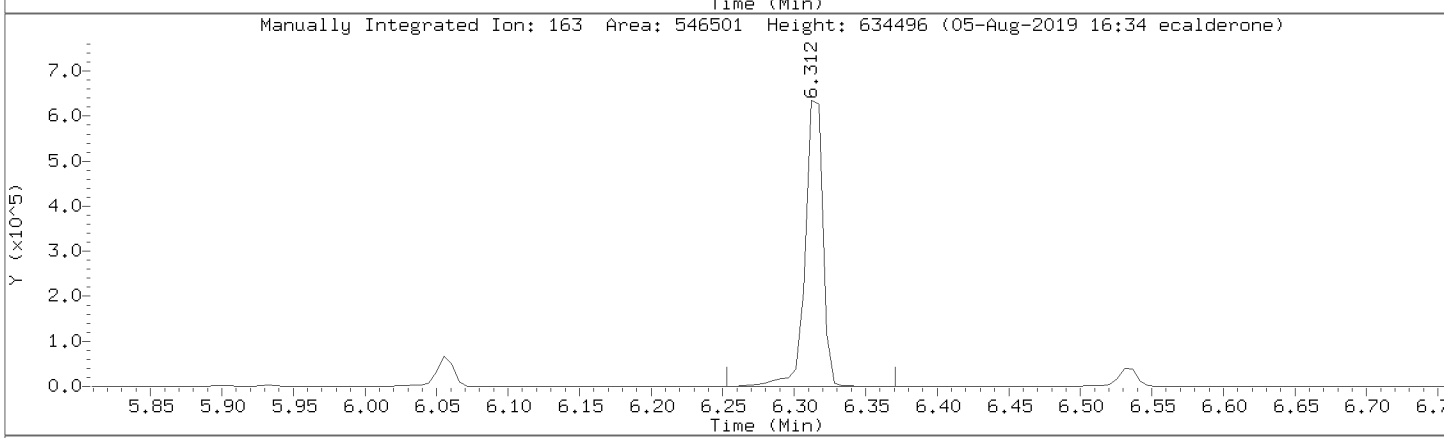
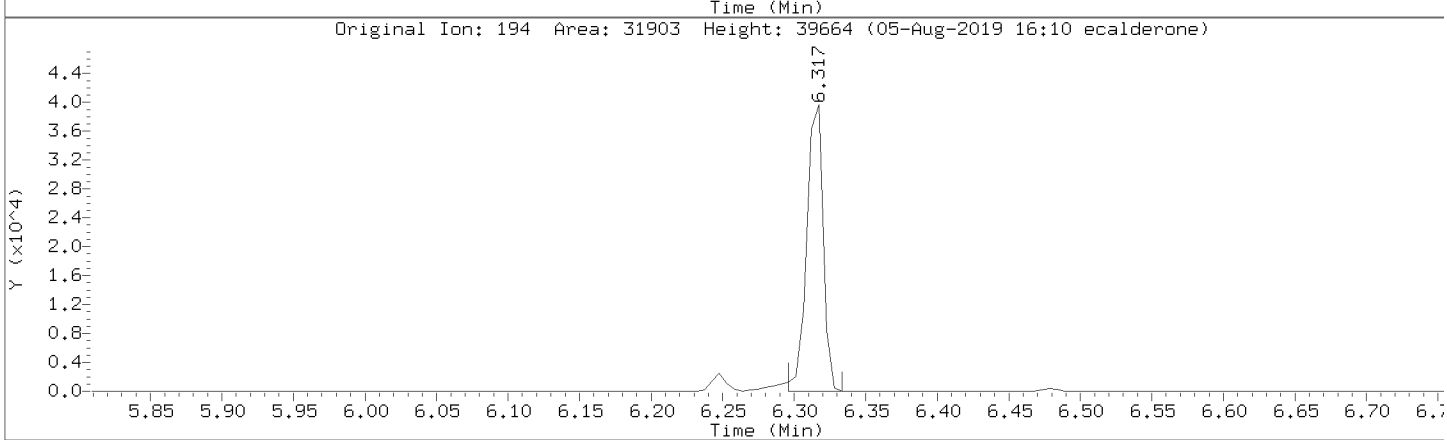
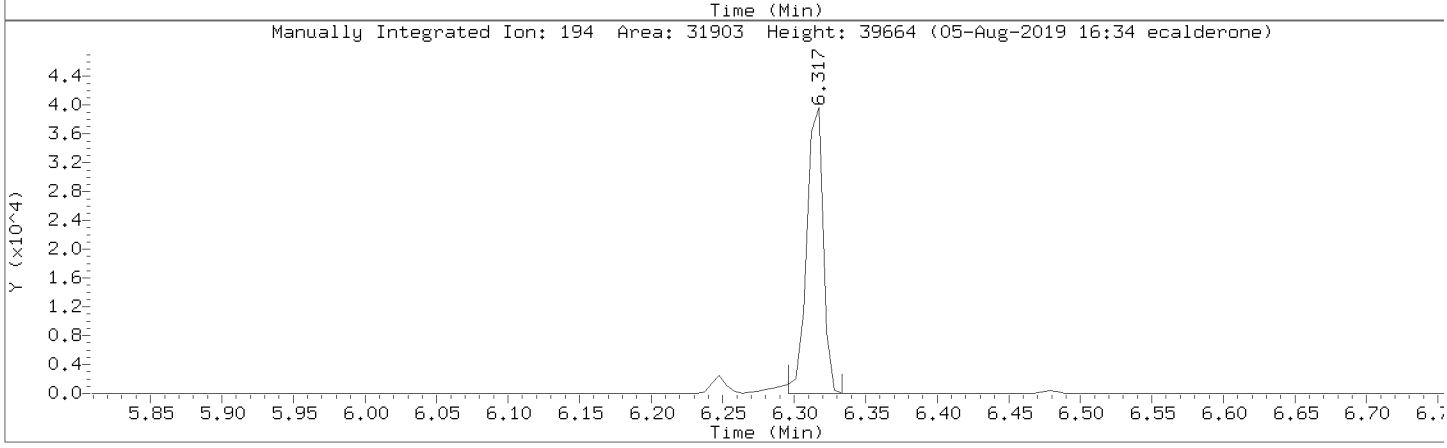
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Dimethylphthalate Review Code: LT
CAS Number: 131-11-3









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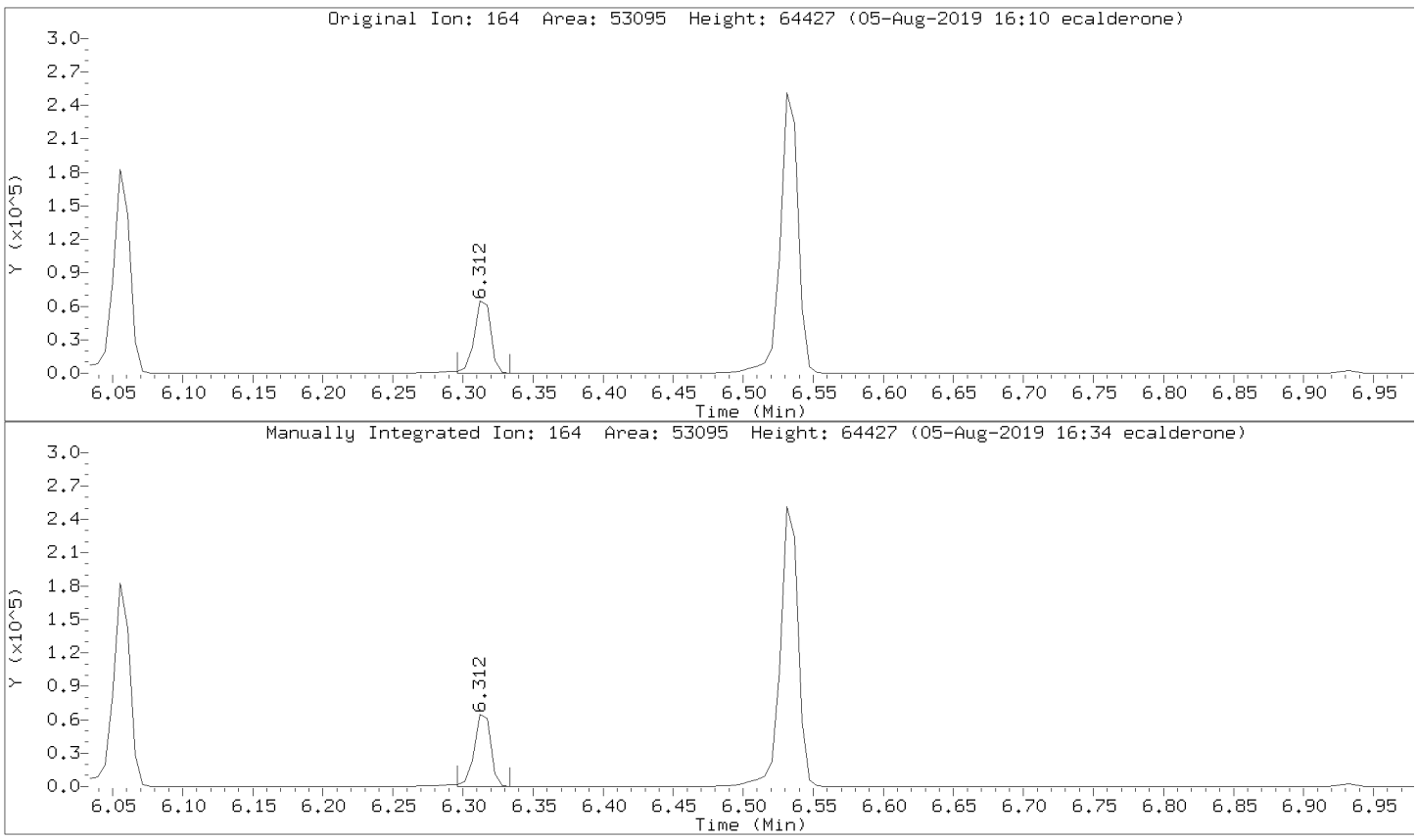
Instrument: 30mss4.i
Lab Sample ID: CAL4



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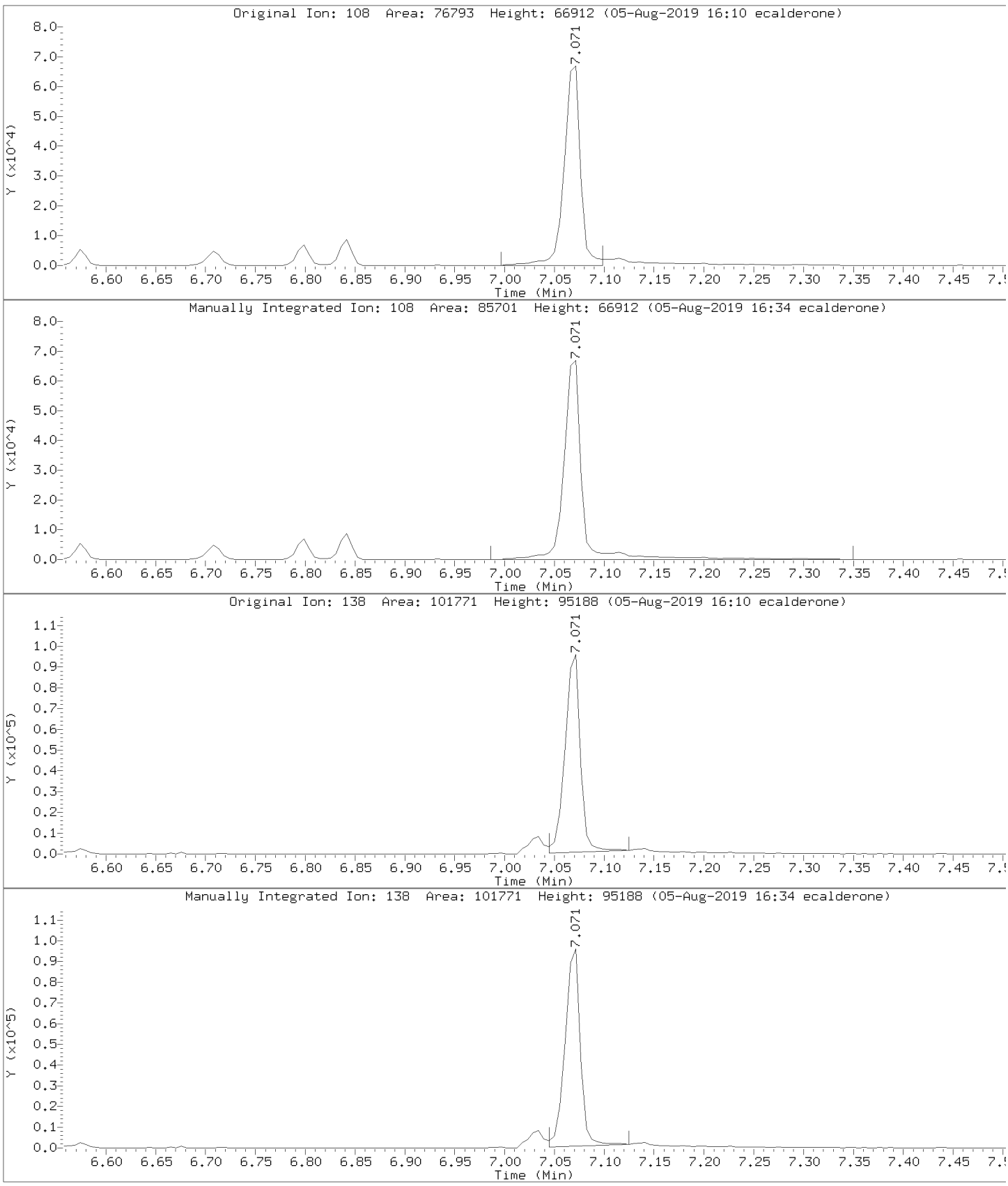
Injection Date: 05-AUG-2019 13:35
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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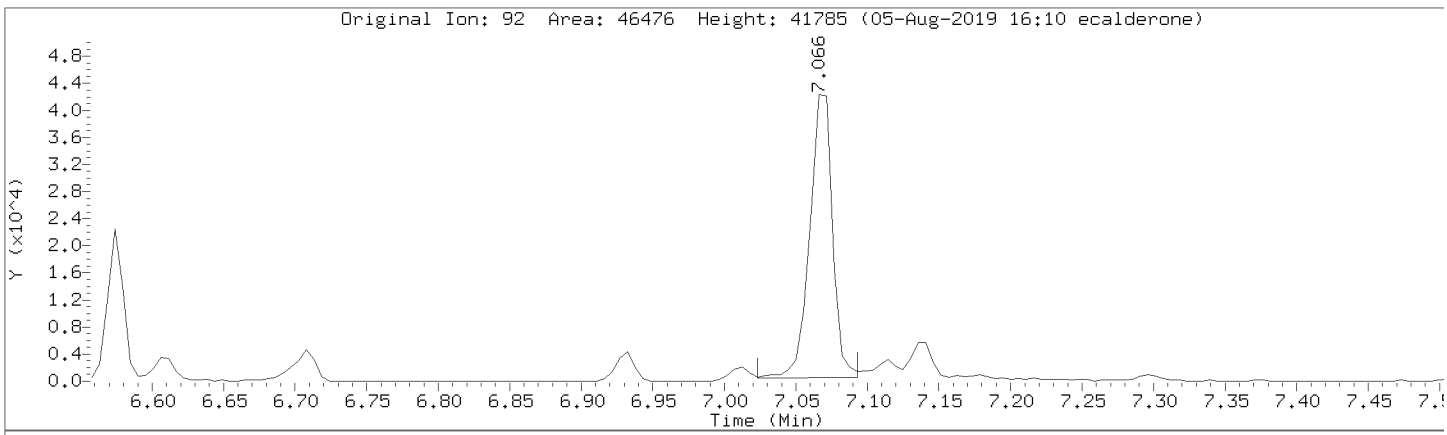
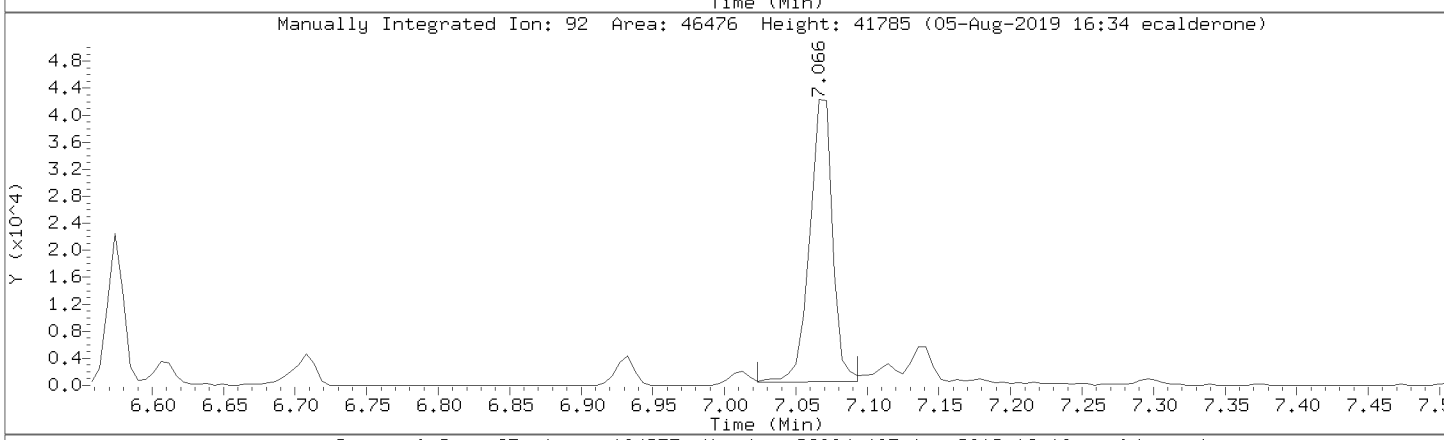
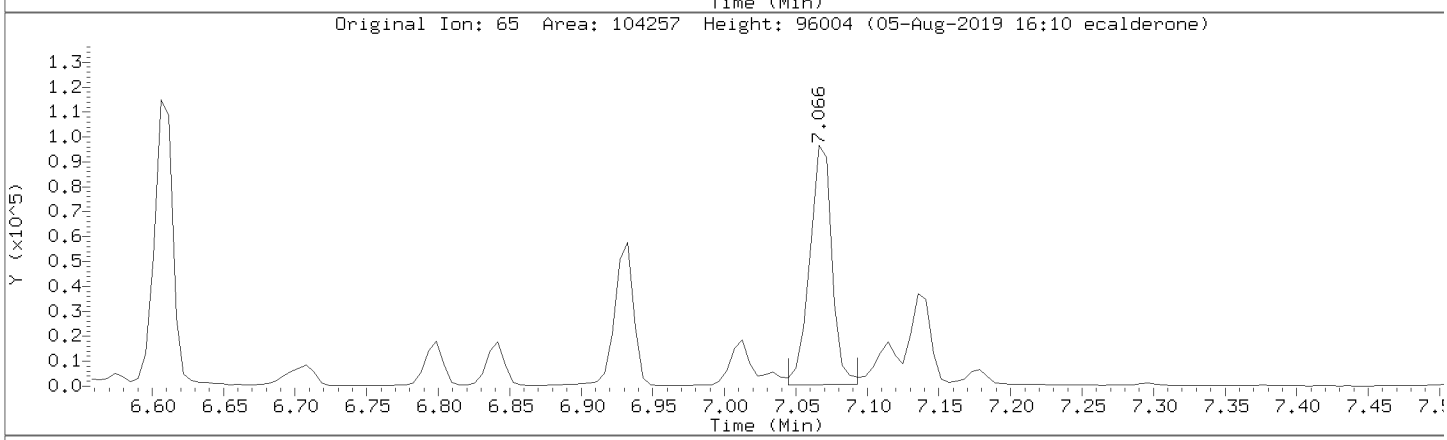
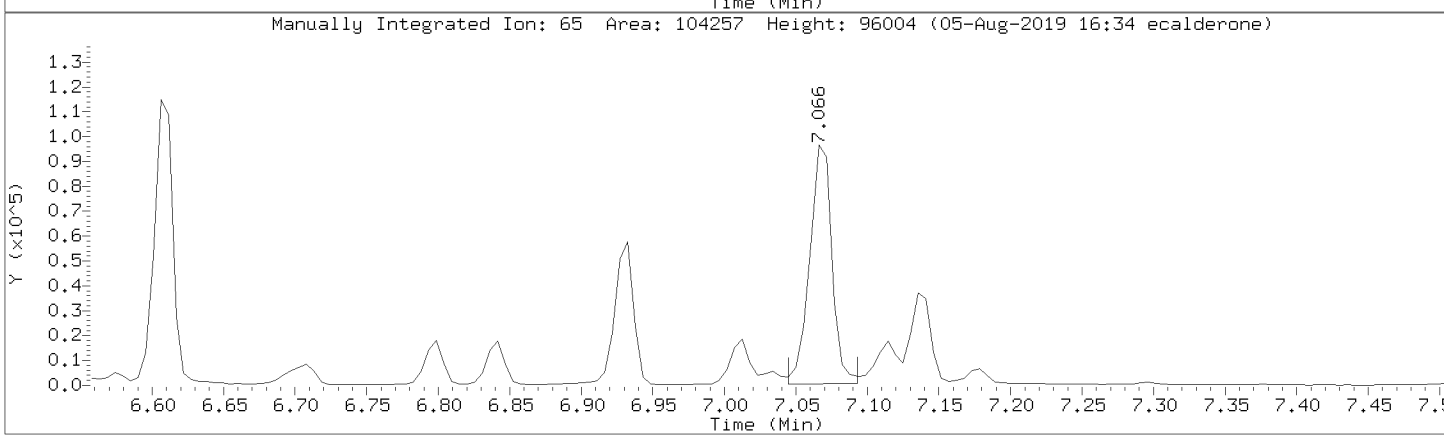
Lab Sample ID: CAL4









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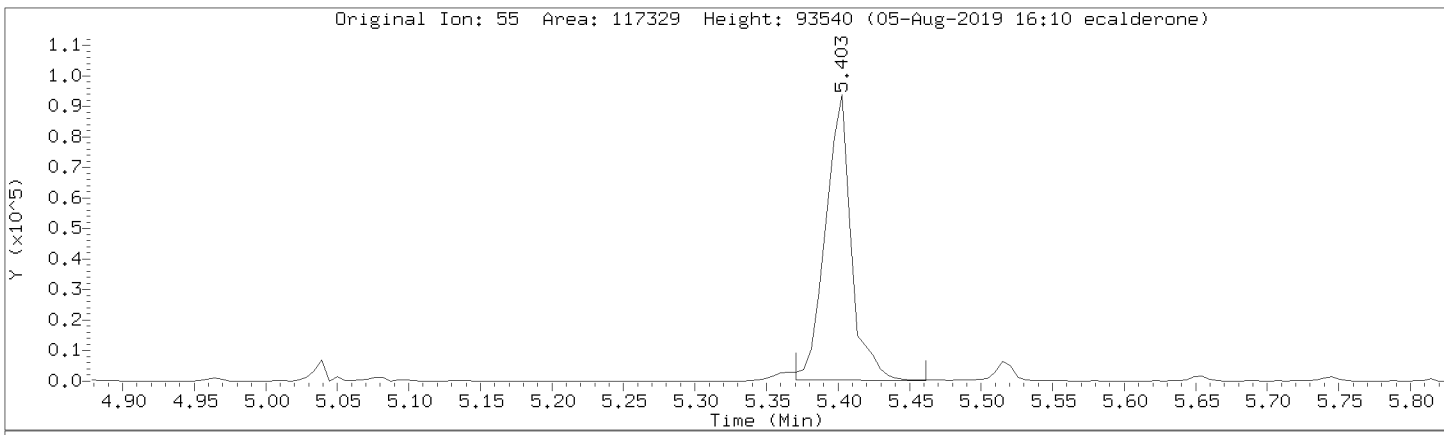
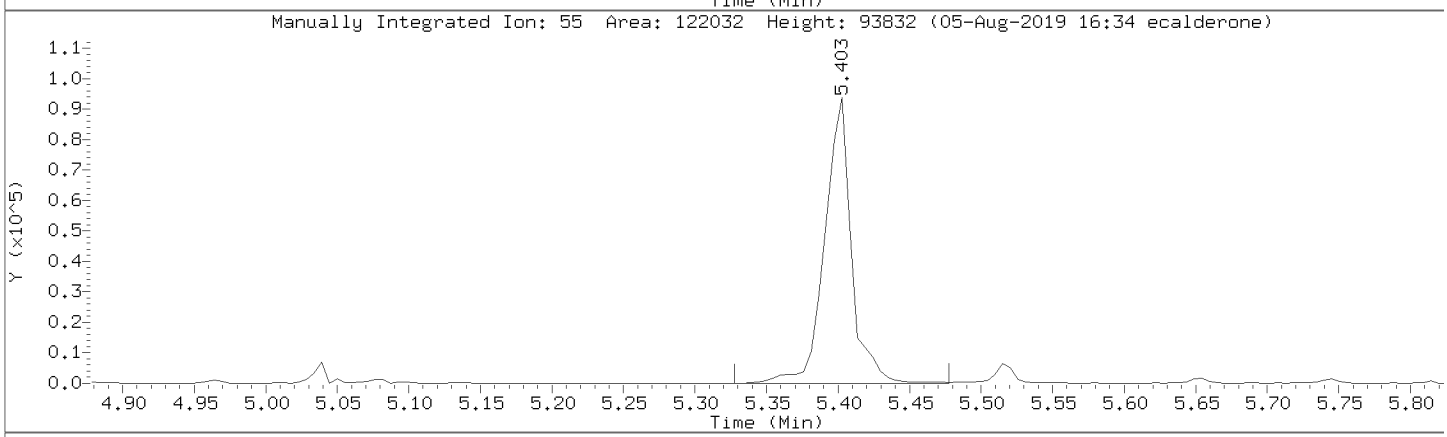
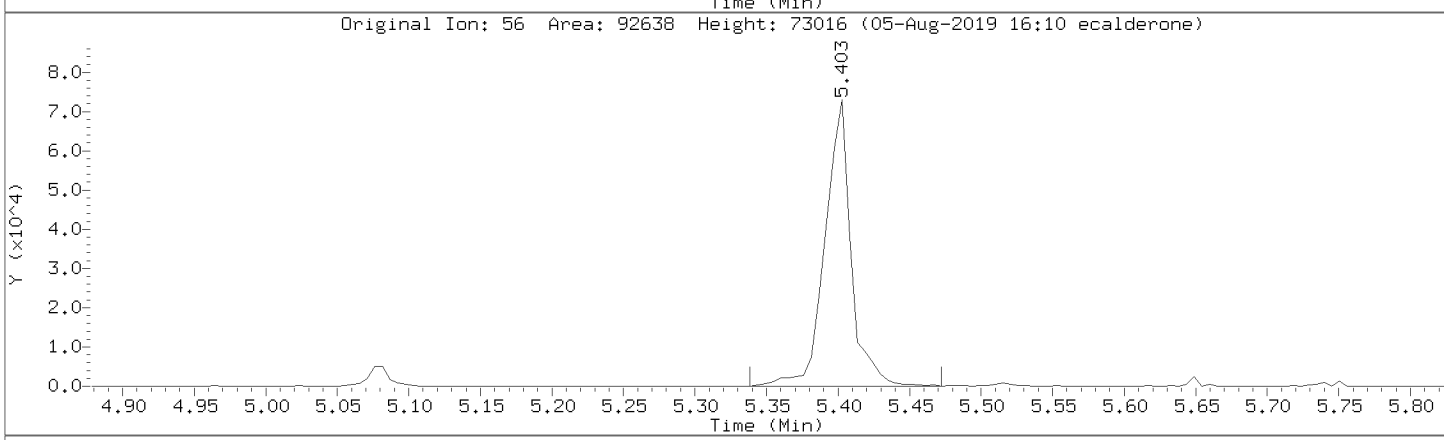
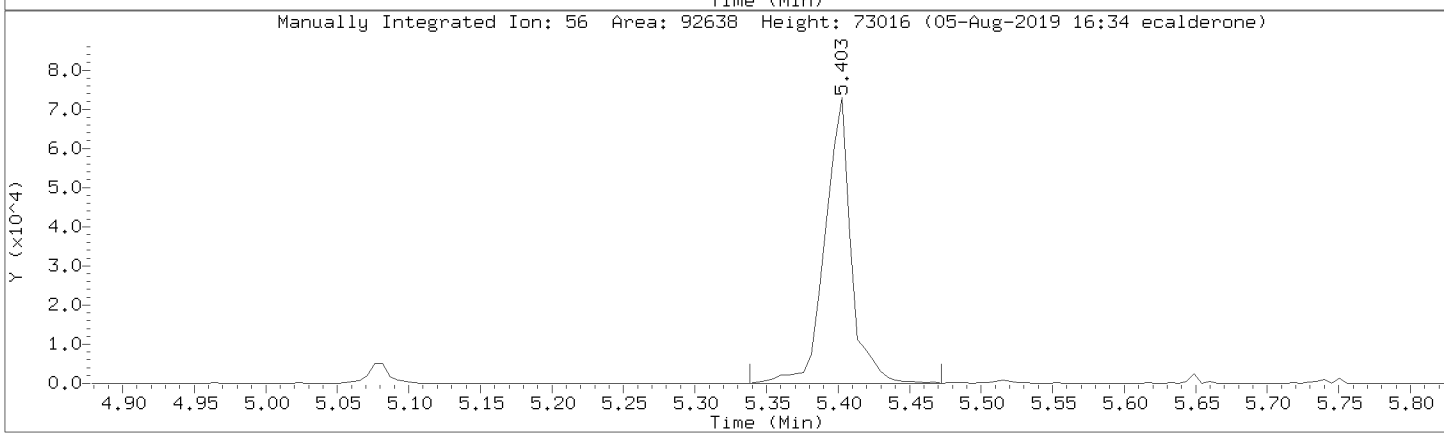
Injection Date: 05-AUG-2019 13:35
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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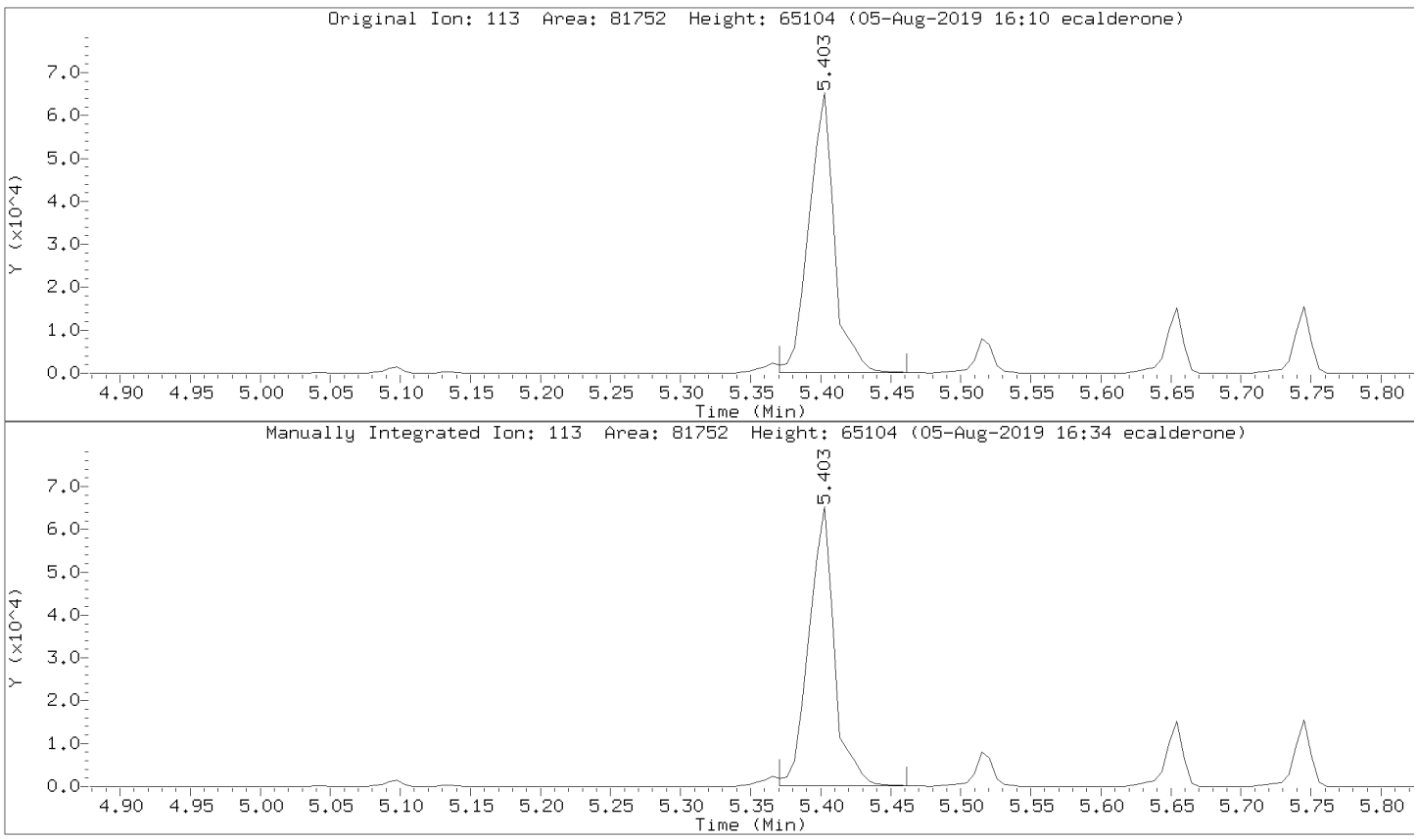
Injection Date: 05-AUG-2019 13:35
Instrument: 30mss4.i
Lab Sample ID: CAL4



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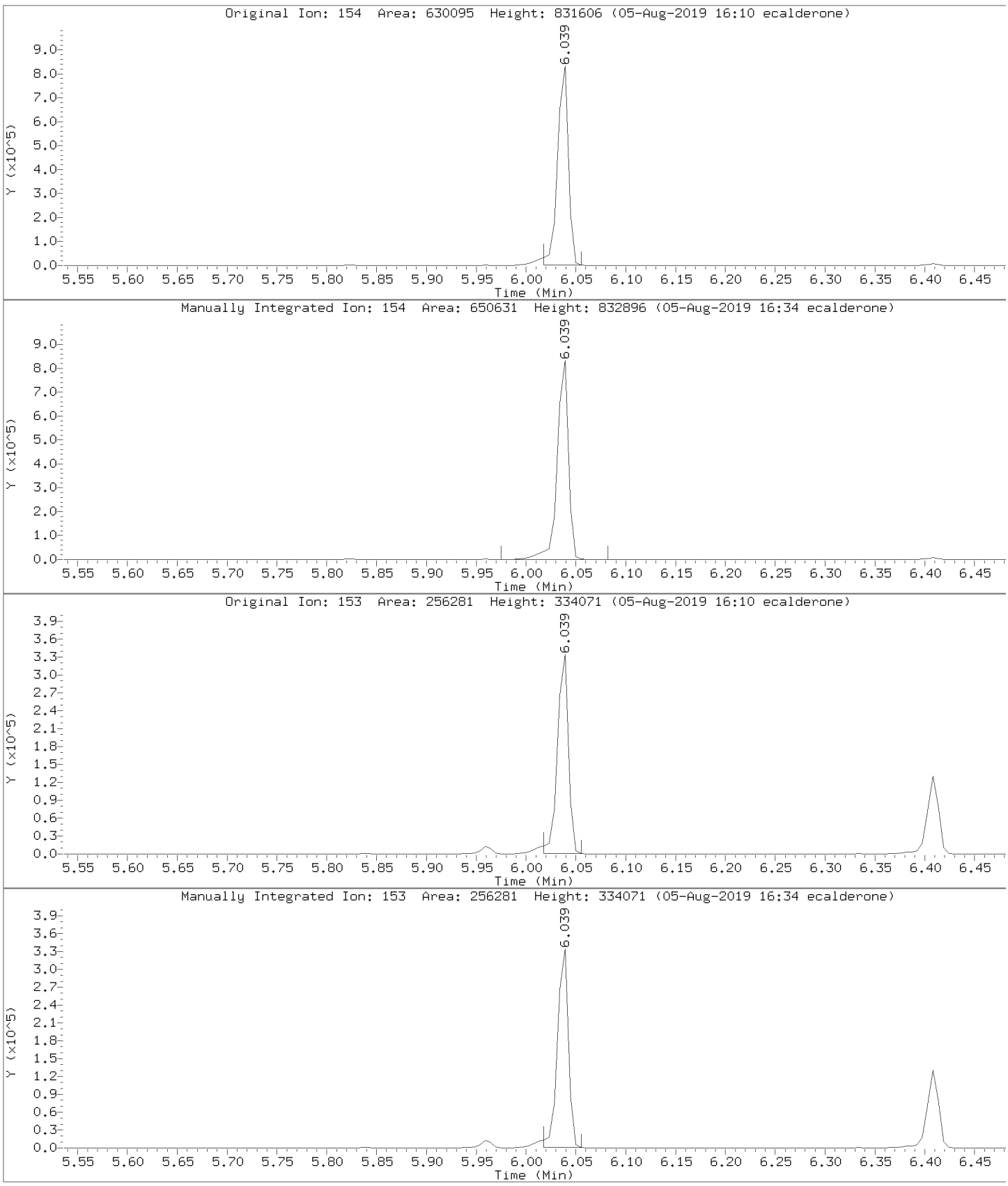
Instrument: 30mss4.i
Lab Sample ID: CAL4

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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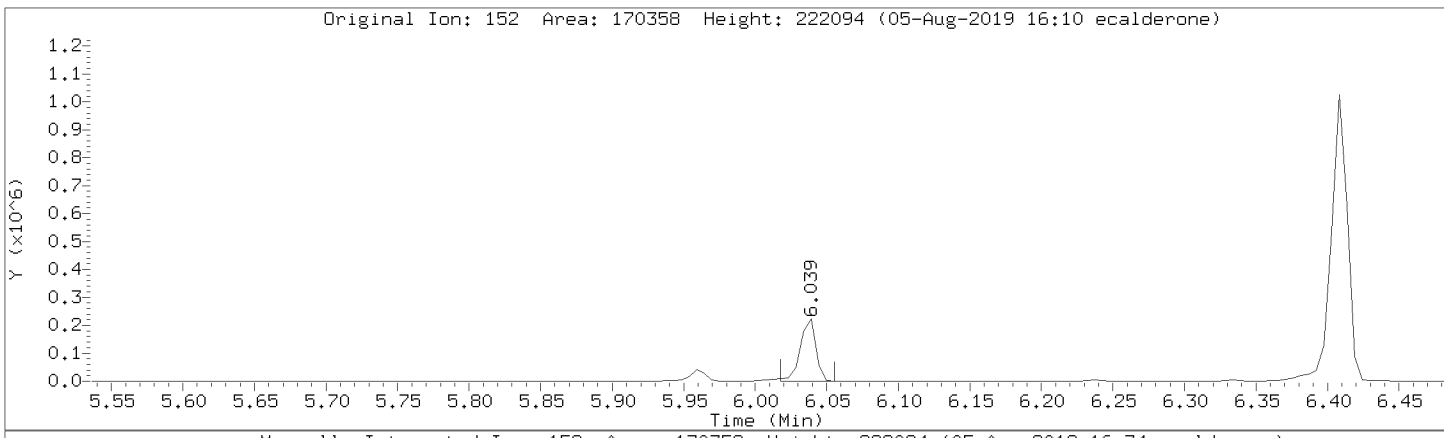
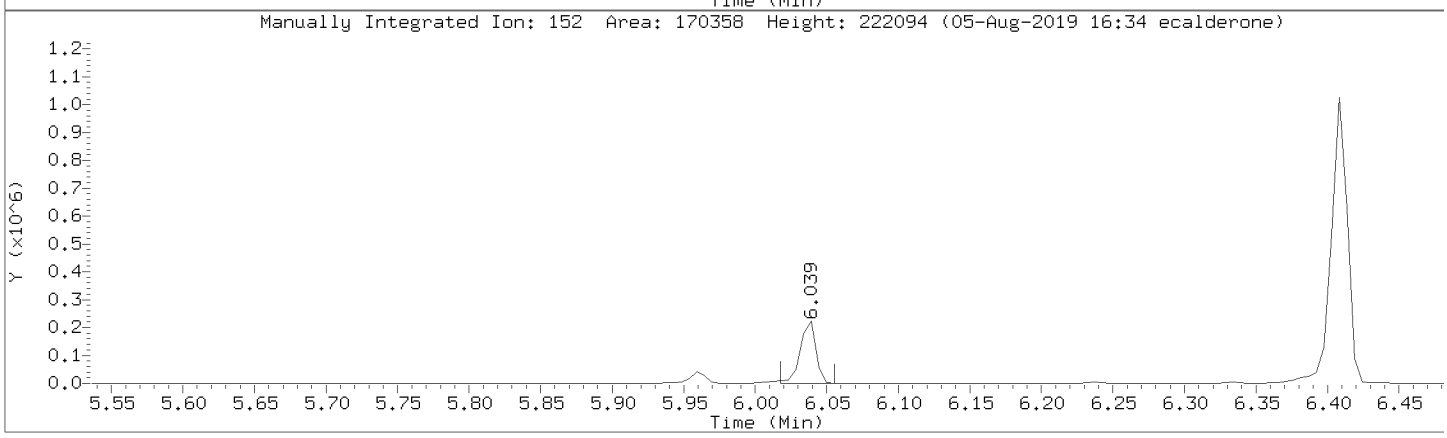
Lab Sample ID: CAL4





Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y5.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 05-AUG-2019 13:56 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : cal3, 94273:1
Misc Info : 14922,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4080519.b\8270080519.m
Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 13:56 Cal File: m40805y5.d
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.284	2.279	(0.560)	73664	4.00000	4.13	
	2 Pyridine	79	2.295	2.289	(0.563)	112153	4.00000	3.99	
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.778)	111291	4.00000	3.87	
$	4 Phenol-d6 (S)	99	3.803	3.803	(0.933)	149607	4.00000	4.01	
	5 Benzaldehyde	77	3.760	3.760	(0.923)	102979	4.00000	3.96	
	6 Phenol	94	3.814	3.814	(0.936)	150958	4.00000	3.97	
	7 Aniline	66	3.857	3.856	(0.946)	73721	4.00000	3.96	
	8 bis(2-Chloroethyl)ether	63	3.889	3.883	(0.954)	91838	4.00000	3.94	
	9 2-Chlorophenol	128	3.942	3.942	(0.967)	133173	4.00000	4.08	
	10 1,3-Dichlorobenzene	146	4.055	4.054	(0.995)	138278	4.00000	3.92	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	99650	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.004)	162293	4.00000	4.22	
	13 Benzyl Alcohol	79	4.183	4.183	(1.026)	104267	4.00000	3.88	
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.039)	139970	4.00000	4.05	
	15 2-Methylphenol(o-Cresol)	108	4.263	4.263	(1.046)	118354	4.00000	3.92	
	16 bis(2-Chloroisopropyl)ether	45	4.301	4.295	(1.055)	199894	4.00000	4.23	
	17 3&4-Methylphenol(m&p Cresol)	108	4.375	4.370	(1.073)	120612	4.00000	3.92	
	18 N-Nitroso-di-n-propylamine	70	4.408	4.402	(1.081)	90173	4.00000	3.98	
	19 Acetophenone	105	4.397	4.397	(1.079)	168291	4.00000	4.01	
	20 Hexachloroethane	117	4.477	4.477	(1.098)	56210	4.00000	3.99	
$	21 Nitrobenzene-d5 (S)	128	4.520	4.520	(0.890)	62769	4.00000	3.98	
	22 Nitrobenzene	77	4.531	4.530	(0.893)	130101	4.00000	4.07	
	23 Isophorone	82	4.712	4.707	(0.928)	240013	4.00000	4.07	
	24 2,4-Dimethylphenol	107	4.787	4.787	(0.943)	130460	4.00000	4.06	
	25 2-Nitrophenol	139	4.782	4.782	(0.942)	67741	4.00000	3.99	
	26 Benzoic acid	105	4.846	4.830	(0.955)	73781	4.00000	3.50(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.868	4.867	(0.959)	144654	4.00000	4.18	
	28 2,4-Dichlorophenol	162	4.964	4.964	(0.978)	103316	4.00000	4.01	
	29 1,2,4-Trichlorobenzene	180	5.039	5.038	(0.993)	117599	4.00000	4.15	
*	30 Naphthalene-d8 (IS)	136	5.076	5.076	(1.000)	395429	4.00000		
	31 Naphthalene	128	5.098	5.092	(1.004)	396604	4.00000	4.06	
	32 4-Chloroaniline	65	5.135	5.135	(1.012)	44073	4.00000	4.01	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.031)	66110	4.00000	4.17	
	34 Caprolactam	55	5.386	5.375	(1.061)	57651	4.00000	4.44(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.515	5.509	(1.086)	111028	4.00000	3.96	
	36	2-Methylnaphthalene	142	5.654	5.654	(1.114)	263163	4.00000	4.07	
	37	1-Methylnaphthalene	142	5.745	5.744	(1.132)	245497	4.00000	4.08	
	38	Hexachlorocyclopentadiene	237	5.836	5.835	(0.894)	75199	4.00000	3.97	
	39	1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.892)	114014	4.00000	4.28	
	40	2,4,6-Trichlorophenol	196	5.894	5.894	(0.903)	75692	4.00000	4.07(M)	LT
	41	2,4,5-Trichlorophenol	196	5.932	5.926	(0.908)	73964	4.00000	4.20	
$	42	2-Fluorobiphenyl (S)	172	5.959	5.958	(0.912)	281064	4.00000	4.21	
	43	Biphenyl (Diphenyl)	154	6.034	6.033	(0.924)	313704	4.00000	4.19(M)	LT
	44	2-Chloronaphthalene	164	6.055	6.055	(0.927)	76015	4.00000	4.29	
	45	2-Nitroaniline	138	6.146	6.146	(0.941)	75956	4.00000	3.91	
	46	Dimethylphthalate	163	6.312	6.306	(0.966)	255691	4.00000	4.07	
	47	2,6-Dinitrotoluene	165	6.370	6.370	(0.975)	60053	4.00000	4.13	
	48	Acenaphthylene	152	6.408	6.402	(0.981)	376844	4.00000	4.04	
	49	3-Nitroaniline	65	6.488	6.483	(0.993)	79380	4.00000	4.51	
*	50	Acenaphthene-d10 (IS)	164	6.531	6.531	(1.000)	209167	4.00000		
	51	2,4-Dinitrophenol	184	6.574	6.573	(1.007)	33468	4.00000	3.80	
	52	Acenaphthene	153	6.558	6.557	(1.004)	250667	4.00000	4.21	
	53	4-Nitrophenol	109	6.606	6.600	(1.011)	35585	4.00000	4.22	
	54	2,4-Dinitrotoluene	165	6.702	6.702	(1.026)	79933	4.00000	4.19	
	55	Dibenzofuran	168	6.691	6.691	(1.025)	336929	4.00000	4.23	
	56	2,3,4,6-Tetrachlorophenol	232	6.841	6.836	(1.047)	61793	4.00000	4.07	
	57	Diethylphthalate	149	6.927	6.927	(1.061)	266989	4.00000	4.09	
	58	4-Chlorophenylphenyl ether	204	7.012	7.007	(1.074)	131717	4.00000	4.26	
	59	Fluorene	166	7.028	7.028	(1.076)	269081	4.00000	4.16	
	60	4-Nitroaniline	108	7.060	7.055	(1.081)	36941	4.00000	3.86	
	61	4,6-Dinitro-2-methylphenol	198	7.109	7.108	(0.887)	44523	4.00000	3.74	
	62	N-Nitrosodiphenylamine	169	7.135	7.130	(0.891)	234762	4.00000	4.00	
	63	Azobenzene	77	7.173	7.173	(0.895)	253772	4.00000	3.96	
	64	1,2-Diphenylhydrazine	77	7.173	7.173	(0.895)	253772	4.00000	3.96	
$	65	2,4,6-Tribromophenol (S)	330	7.296	7.296	(0.911)	46496	4.00000	3.74	
	66	4-Bromophenylphenyl ether	248	7.520	7.520	(0.939)	77530	4.00000	3.95	
	67	Hexachlorobenzene	284	7.692	7.691	(0.960)	88642	4.00000	4.03	
	68	Atrazine	200	7.713	7.707	(0.963)	73069	4.00000	3.88	
	69	Pentachlorophenol	266	7.868	7.868	(0.982)	46414	4.00000	3.55	
*	70	Phenanthrene-d10 (IS)	188	8.013	8.012	(1.000)	377701	4.00000		
	71	Phenanthrene	178	8.034	8.034	(1.003)	399305	4.00000	4.07	
	72	Anthracene	178	8.082	8.082	(1.009)	393929	4.00000	4.05	
	73	Carbazole	167	8.243	8.242	(1.029)	356739	4.00000	4.29	
	74	Di-n-butylphthalate	149	8.649	8.649	(1.079)	435108	4.00000	3.90	
	75	Fluoranthene	202	9.302	9.296	(1.161)	411198	4.00000	4.31	
	76	Pyrene	202	9.537	9.537	(0.884)	426867	4.00000	3.93	
$	77	Terphenyl-d14 (S)	244	9.692	9.692	(0.898)	322617	4.00000	3.96	
	78	Butylbenzylphthalate	149	10.221	10.216	(0.947)	184962	4.00000	3.82	
	79	3,3'-Dichlorobenzidine	252	10.746	10.745	(0.996)	142185	4.00000	3.85	
	80	bis(2-Ethylhexyl)phthalate	149	10.815	10.815	(1.002)	262915	4.00000	3.86	
	81	Benzo(a)anthracene	228	10.772	10.772	(0.999)	382254	4.00000	4.03	
*	82	Chrysene-d12 (IS)	240	10.788	10.788	(1.000)	352583	4.00000		
	83	Chrysene	228	10.815	10.815	(1.002)	364746	4.00000	4.24	
	84	Di-n-octylphthalate	149	11.398	11.393	(0.939)	430350	4.00000	3.99	
	85	Benzo(b)fluoranthene	252	11.805	11.804	(0.972)	390280	4.00000	3.99	
	86	Benzo(k)fluoranthene	252	11.826	11.826	(0.974)	444838	4.00000	4.50	
	87	Benzo(a)pyrene	252	12.094	12.088	(0.996)	360825	4.00000	4.07	
*	88	Perylene-d12 (IS)	264	12.142	12.136	(1.000)	357243	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.104	13.104	(1.079)	402473	4.00000	4.17	
90 Dibenz(a,h)anthracene	278	13.104	13.104	(1.079)	344883	4.00000	4.25	
91 Benzo(g,h,i)perylene	276	13.377	13.372	(1.102)	347748	4.00000	4.32	

QC Flag Legend

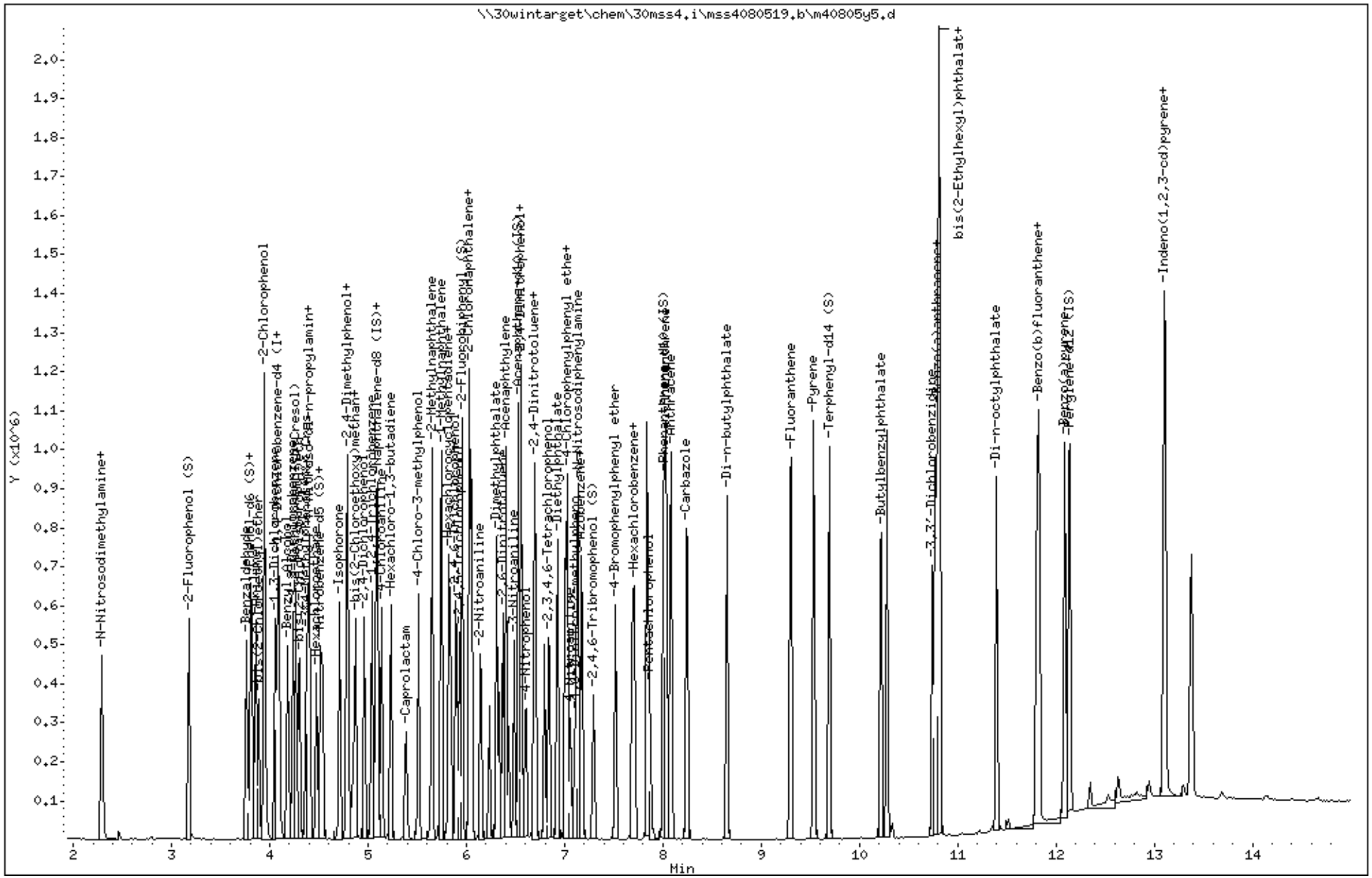
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

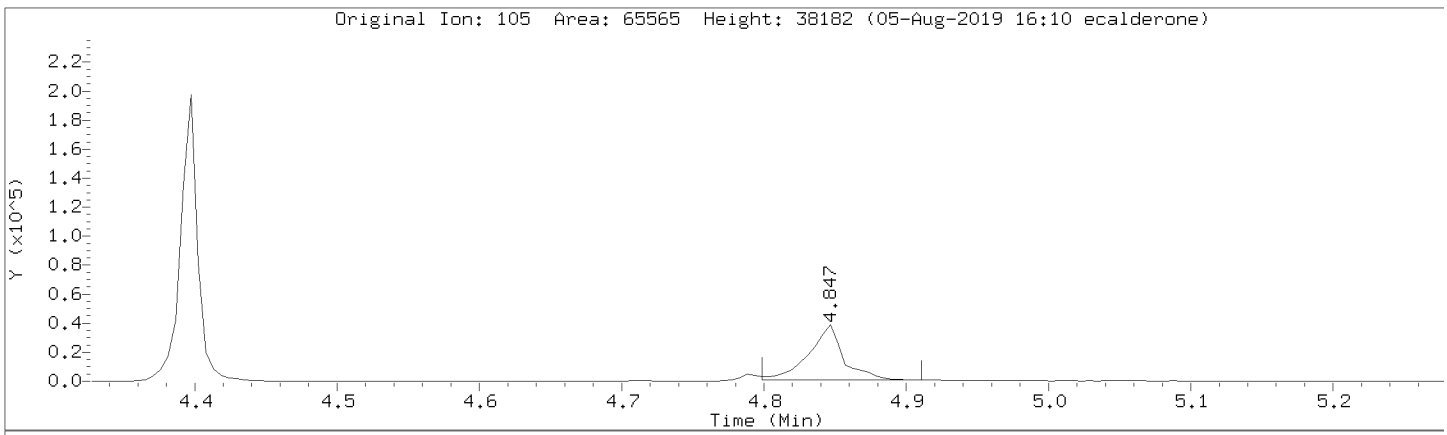
Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y5.d
Date : 05-AUG-2019 13:56
Client ID: CAL3
Sample Info: CAL3, 94273:1

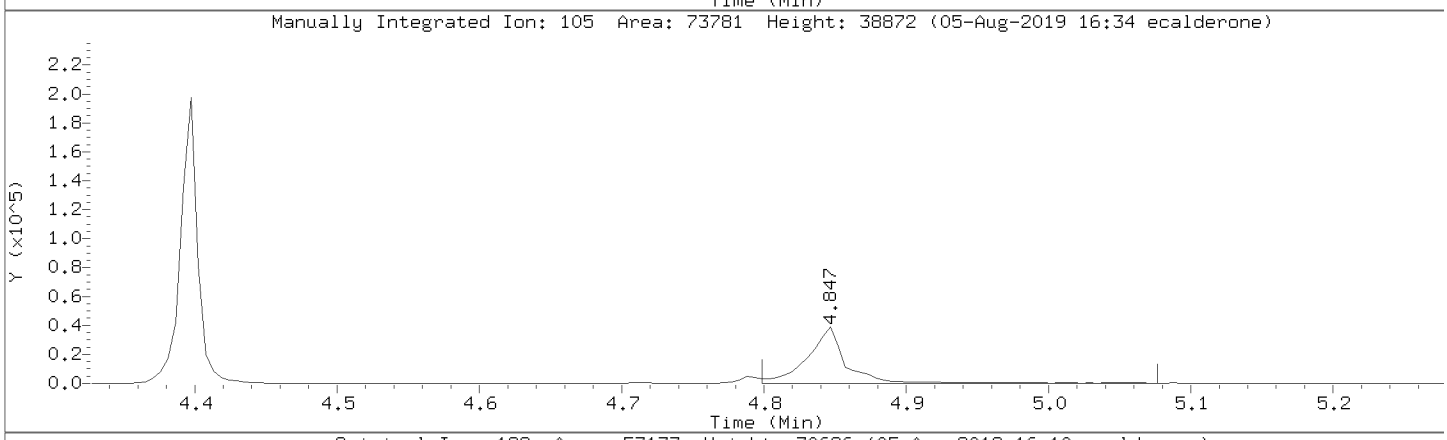
Instrument: 30mss4.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18

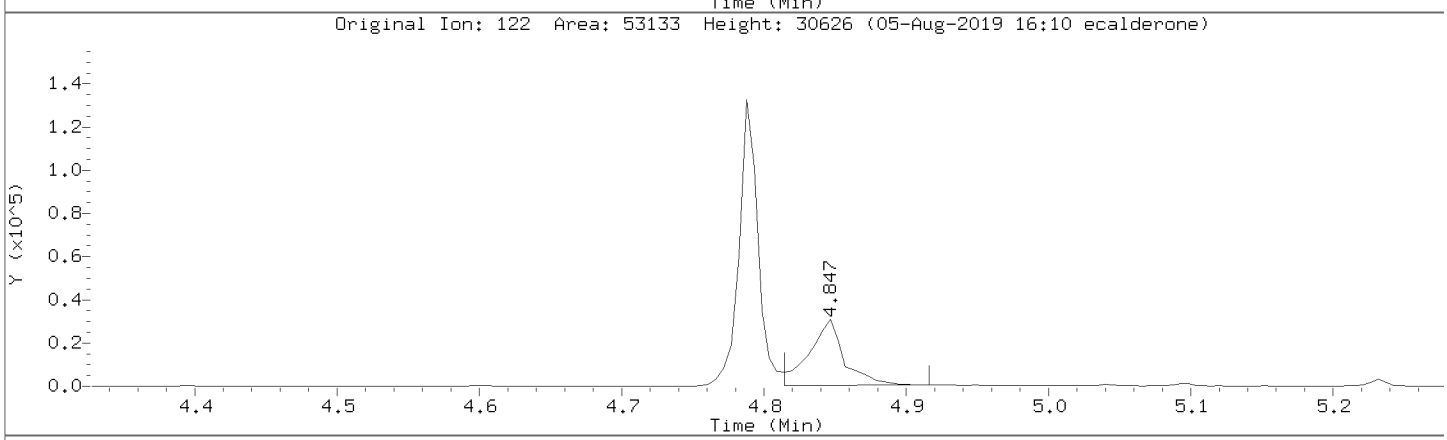


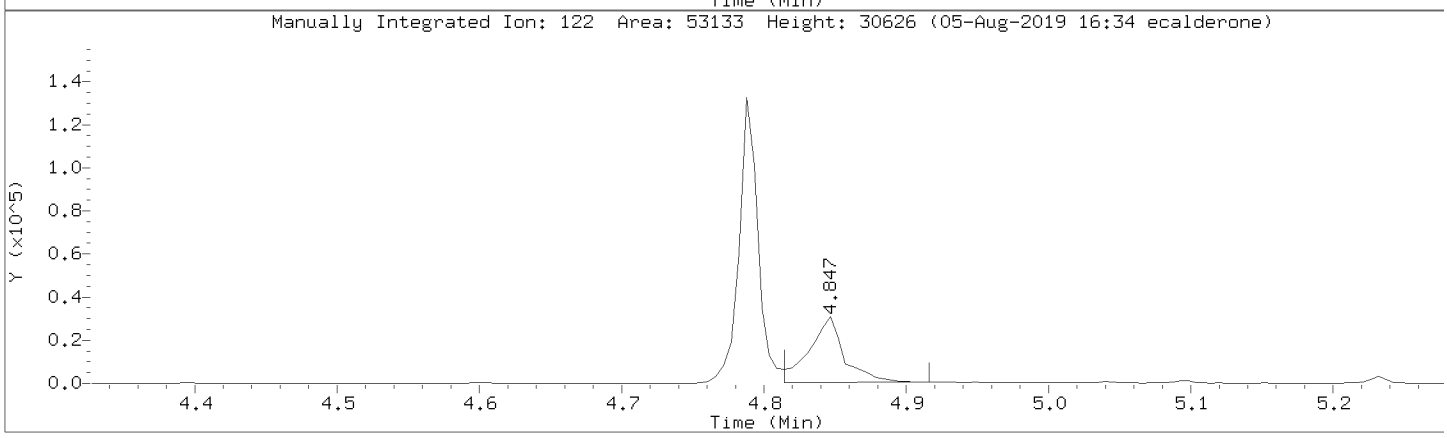
Data File: \\30wintarget\chem\30mss4.i\mss4080519.b/m40805y5.d
Injection Date: 05-AUG-2019 13:56
Instrument: 30mss4.i
Lab Sample ID: CAL3

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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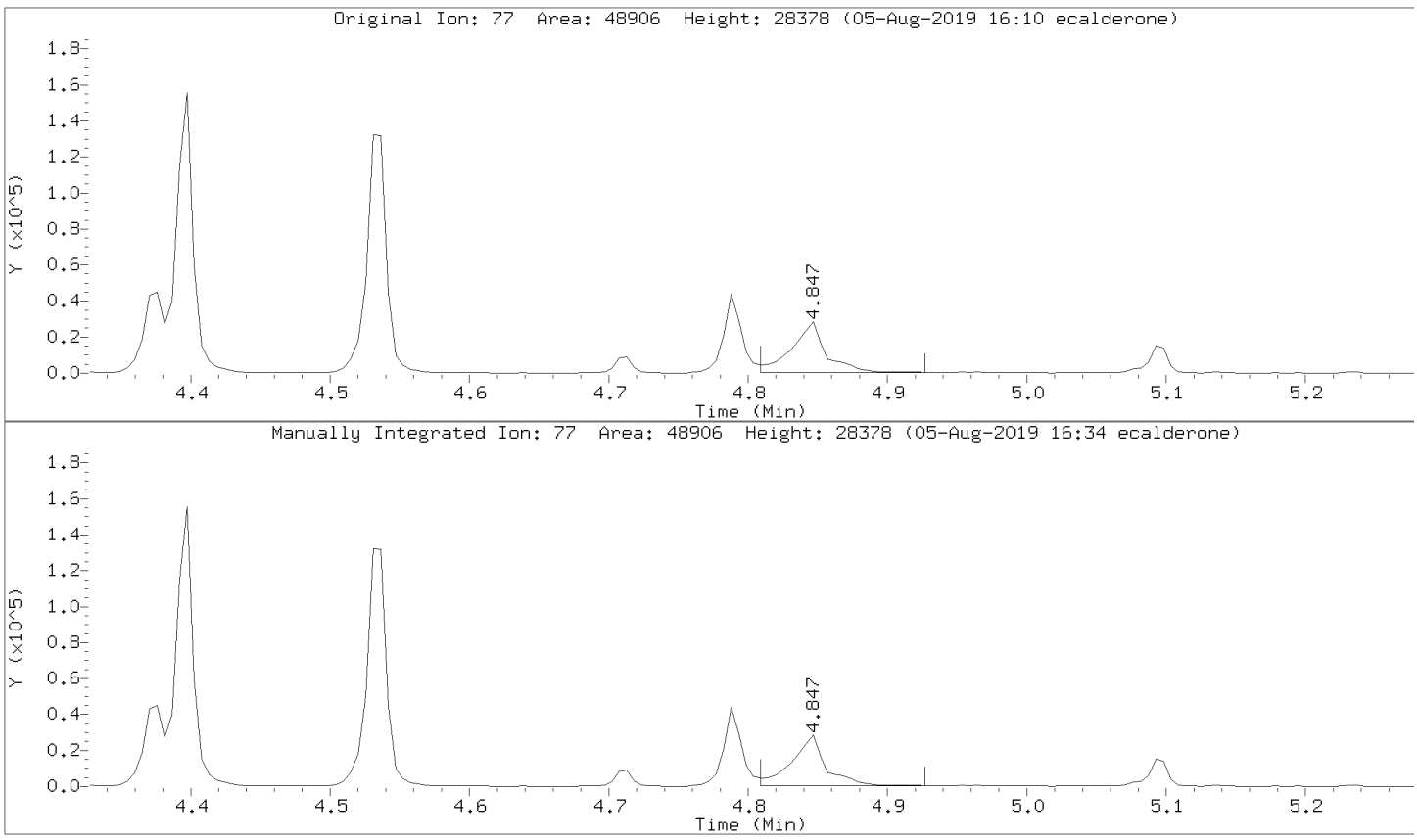
Injection Date: 05-AUG-2019 13:56
Instrument: 30mss4.i
Lab Sample ID: CAL3



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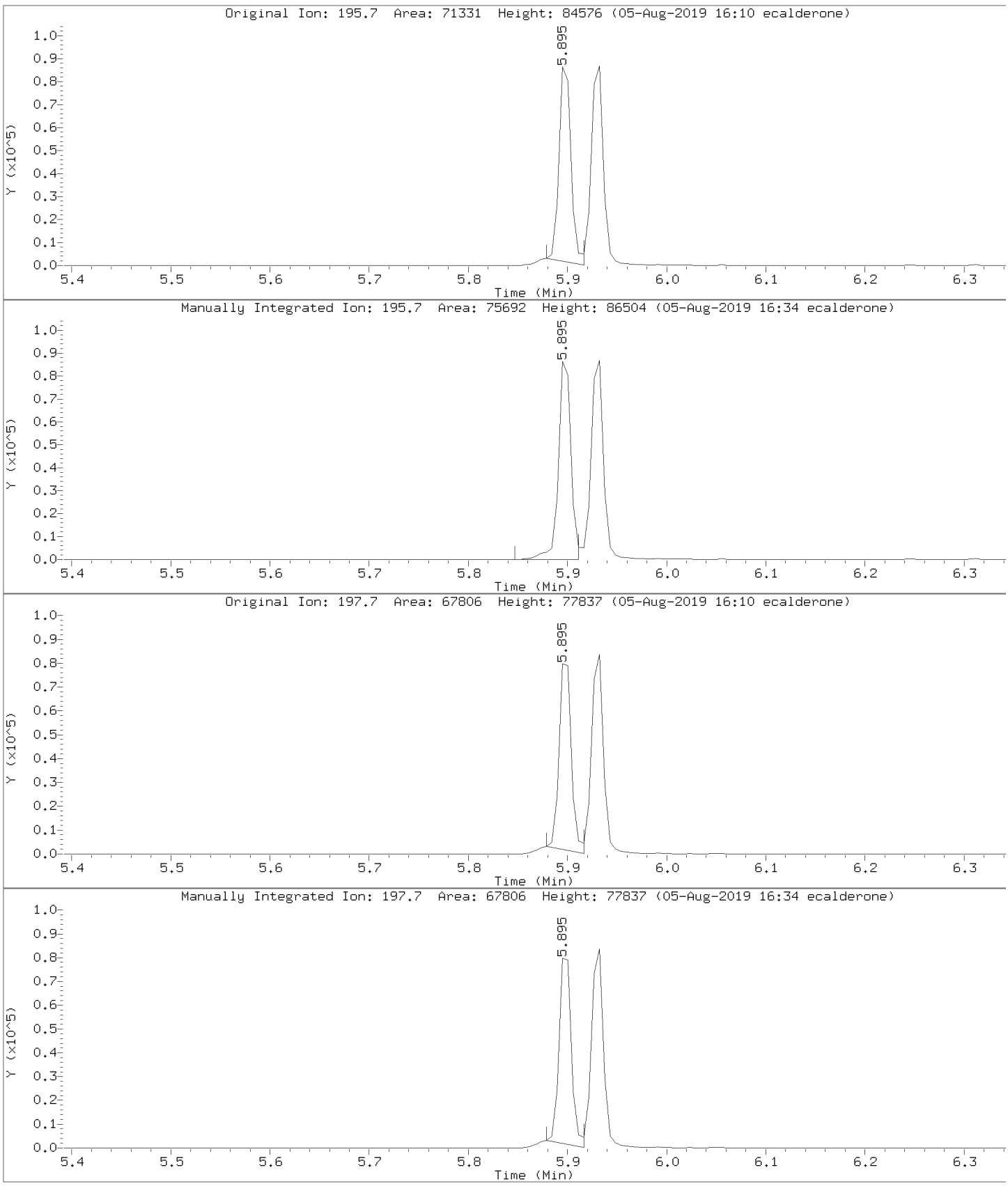
Injection Date: 05-AUG-2019 13:56
Instrument: 30mss4.i
Lab Sample ID: CAL3

Compound: 2,4,6-Trichlorophenol Review Code: LT
CAS Number: 88-06-2



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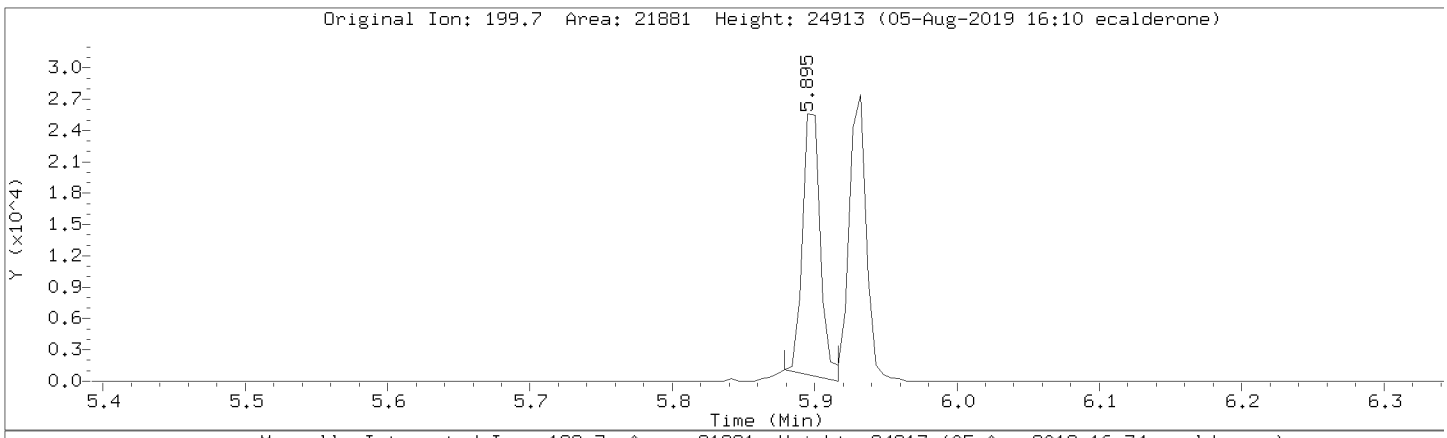
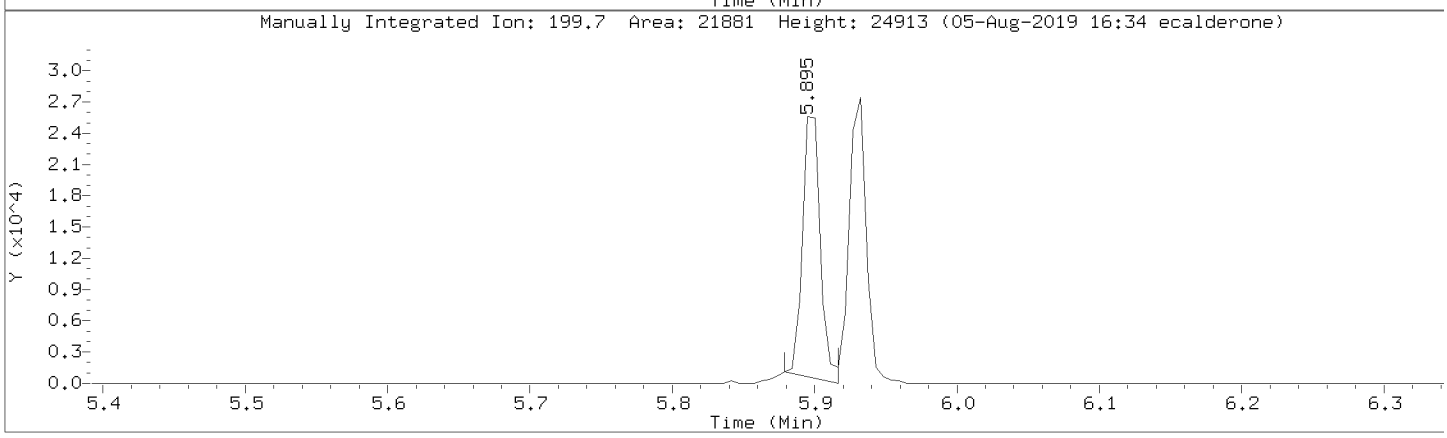
Lab Sample ID: CAL3





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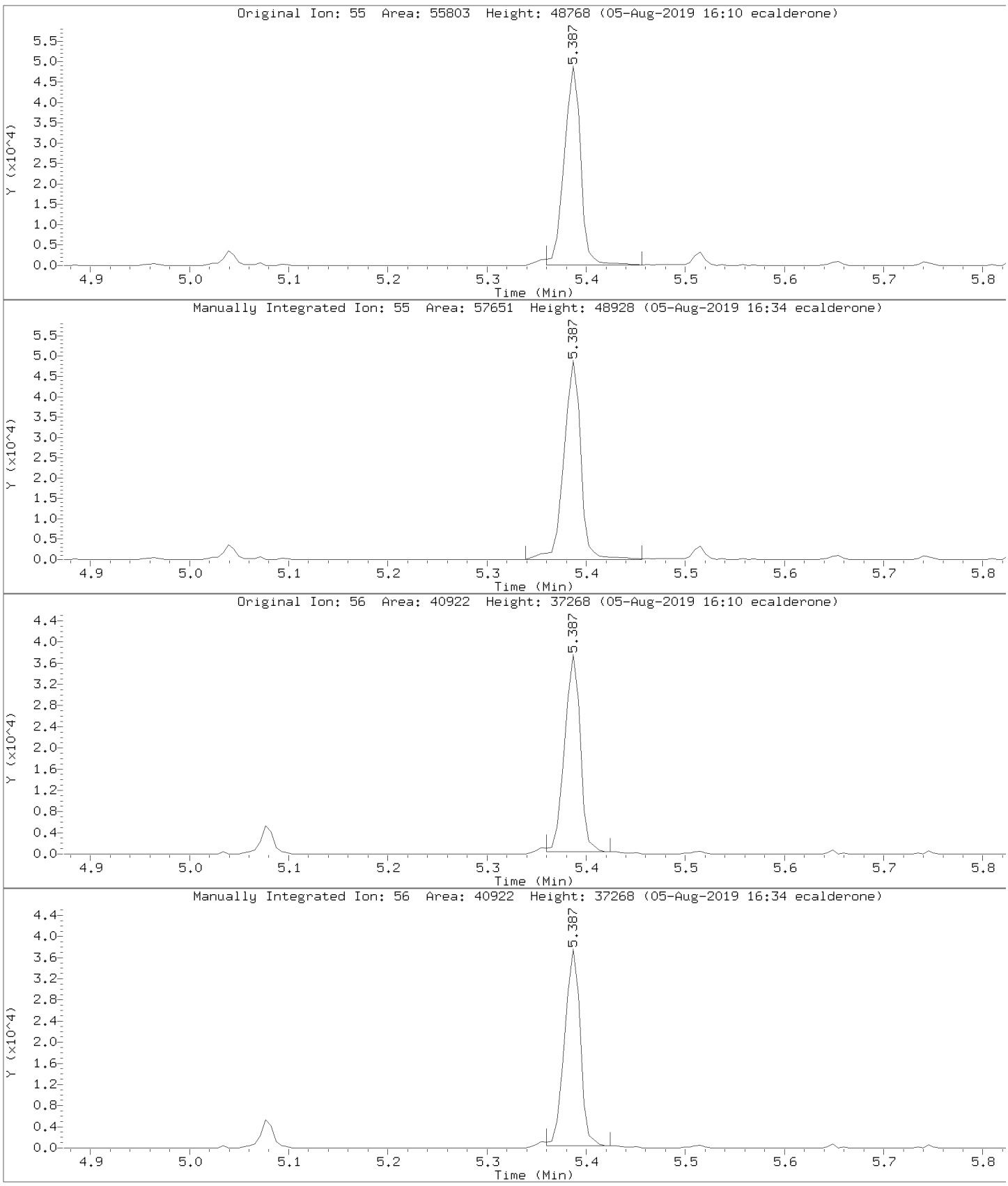
Instrument: 30mss4.i
Lab Sample ID: CAL3

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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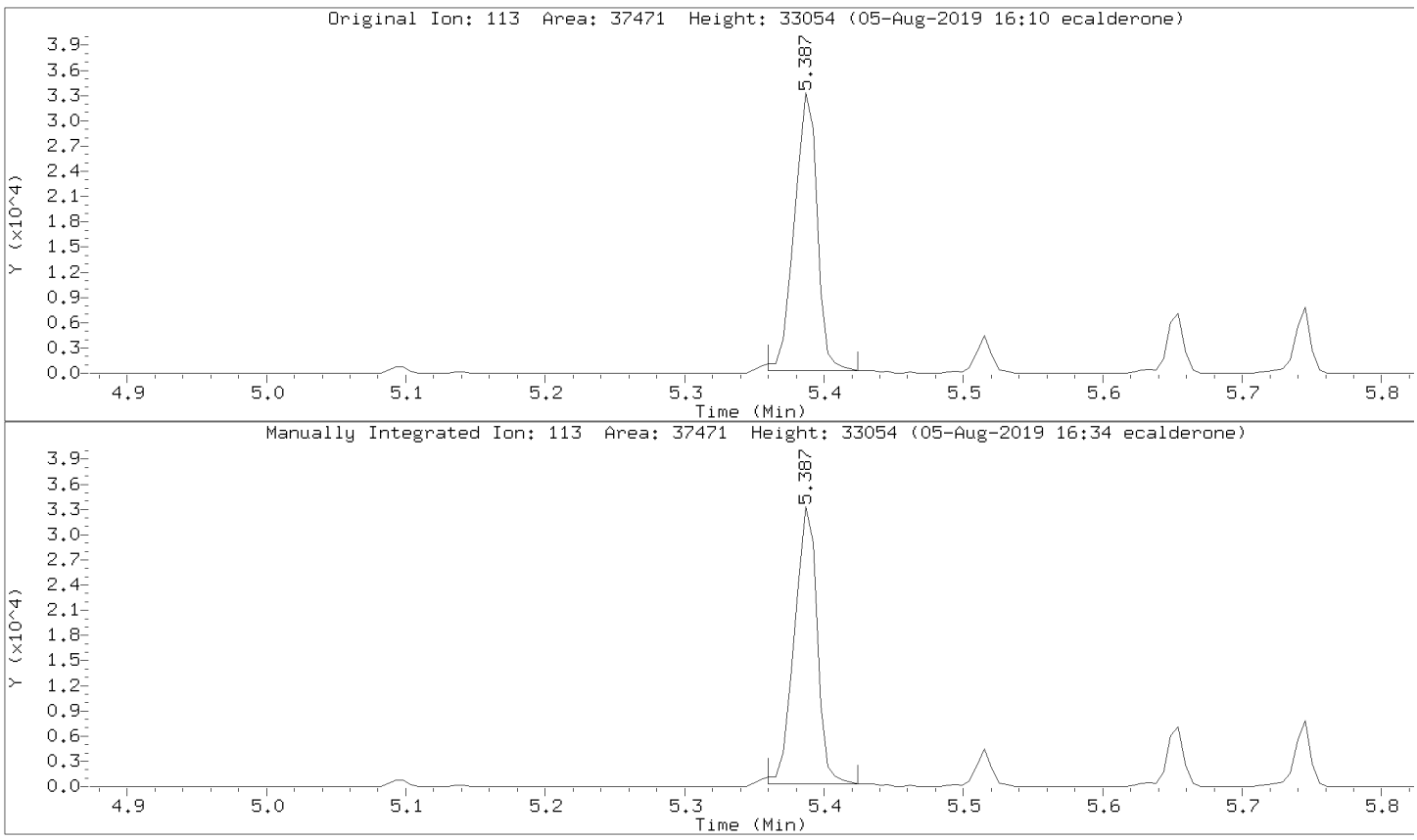

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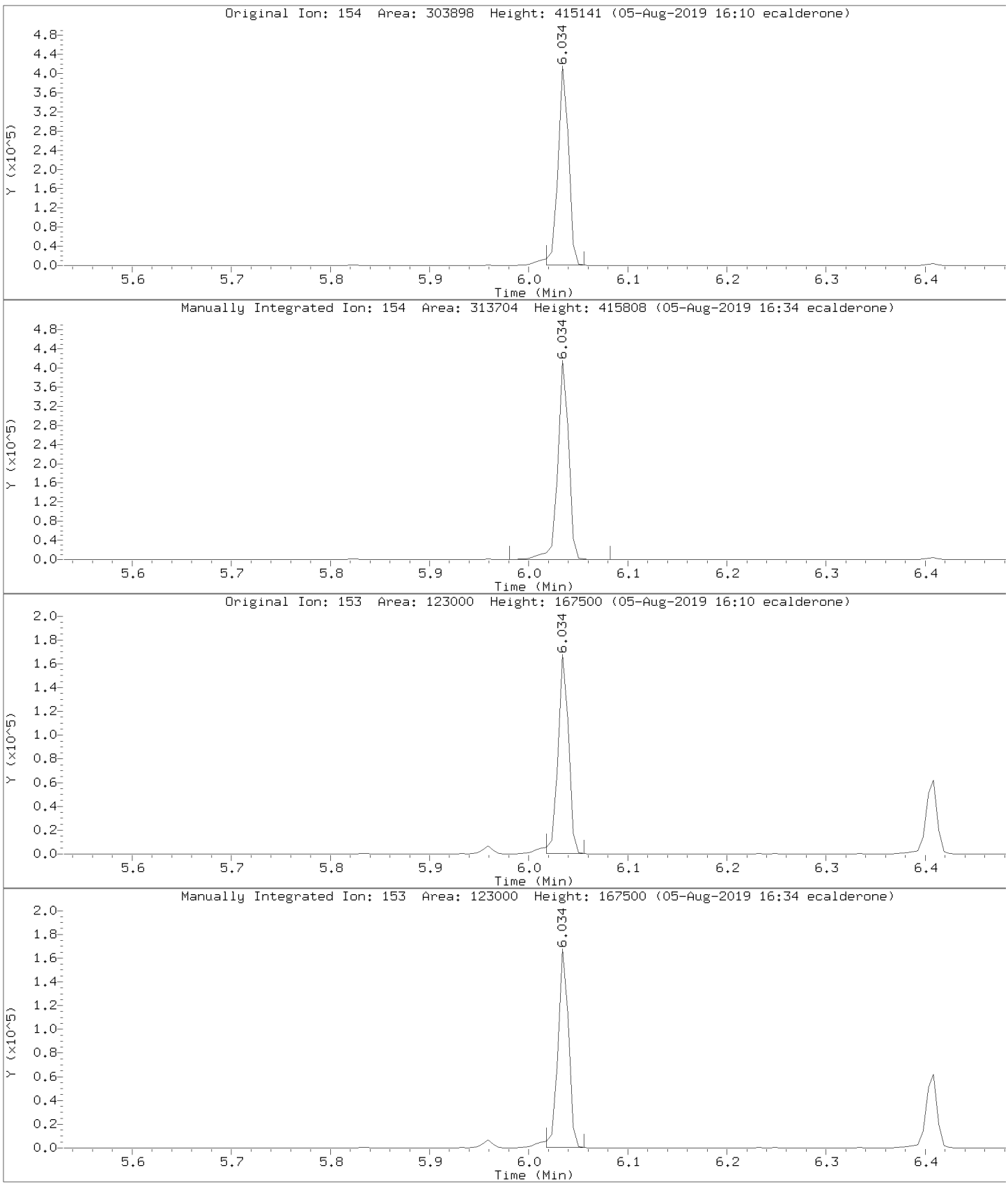
Lab Sample ID: CAL3

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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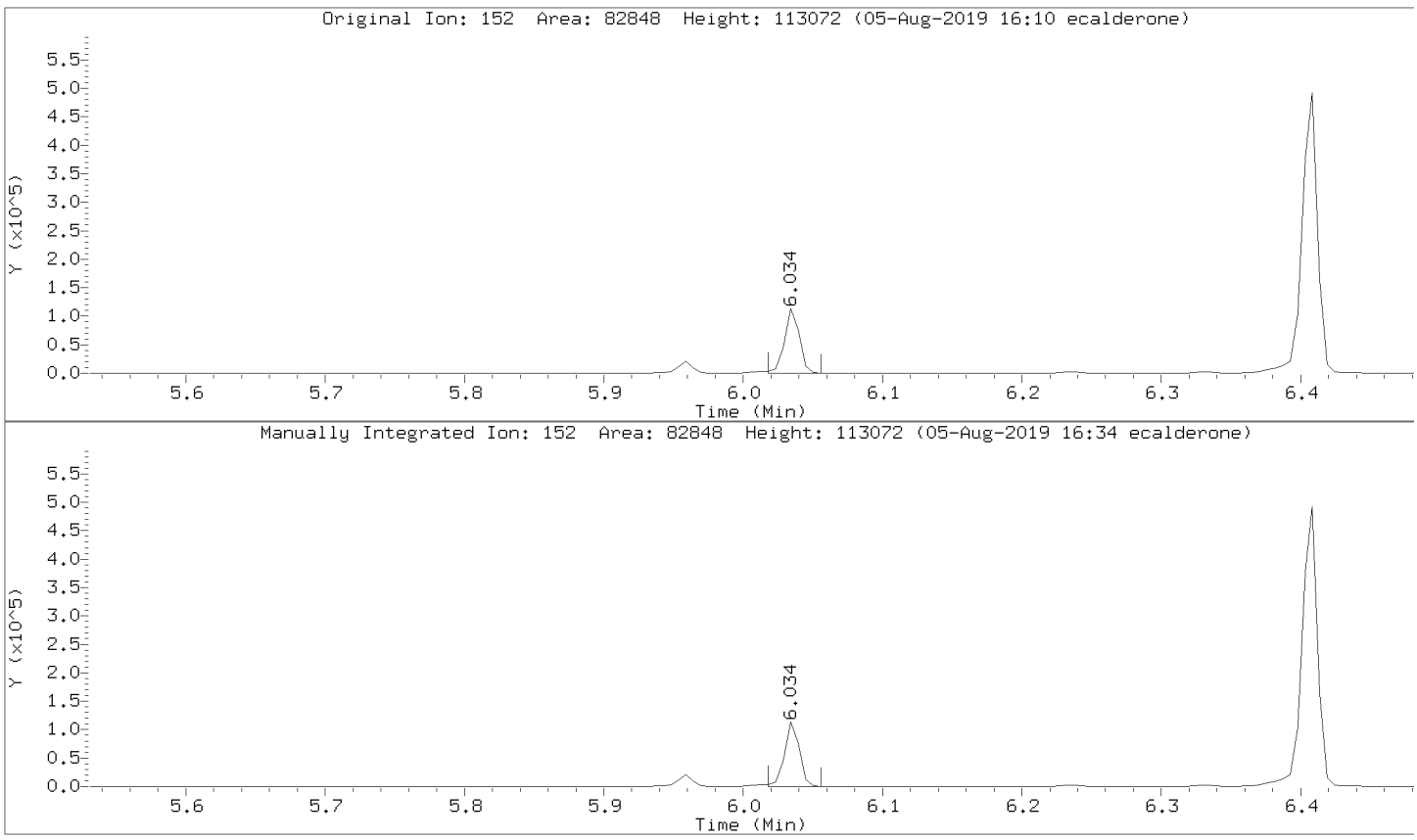

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y6.d
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Inj Date : 05-AUG-2019 14:19 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : cal2, 94274:1
Misc Info : 14922,
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Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 14:19 Cal File: m40805y6.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.279	2.279	(0.559)	36489	2.00000	2.05	
	2 Pyridine	79	2.289	2.289	(0.562)	56614	2.00000	2.03	
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.778)	55666	2.00000	1.96	
$	4 Phenol-d6 (S)	99	3.803	3.803	(0.933)	74369	2.00000	2.01	
	5 Benzaldehyde	77	3.760	3.760	(0.923)	52150	2.00000	2.03	
	6 Phenol	94	3.814	3.814	(0.936)	77033	2.00000	2.04	
	7 Aniline	66	3.856	3.856	(0.946)	37192	2.00000	2.02	
	8 bis(2-Chloroethyl)ether	63	3.883	3.883	(0.953)	47159	2.00000	2.05	
	9 2-Chlorophenol	128	3.942	3.942	(0.967)	67584	2.00000	2.08	
	10 1,3-Dichlorobenzene	146	4.054	4.054	(0.995)	69538	2.00000	1.99	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	98895	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.004)	81992	2.00000	2.12	
	13 Benzyl Alcohol	79	4.183	4.183	(1.026)	51354	2.00000	1.94	
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.039)	70475	2.00000	2.05	
	15 2-Methylphenol(o-Cresol)	108	4.263	4.263	(1.046)	58835	2.00000	1.97	
	16 bis(2-Chloroisopropyl)ether	45	4.295	4.295	(1.054)	101866	2.00000	2.15	
	17 3&4-Methylphenol(m&p Cresol)	108	4.370	4.370	(1.072)	59896	2.00000	1.97	
	18 N-Nitroso-di-n-propylamine	70	4.402	4.402	(1.080)	46346	2.00000	2.06	
	19 Acetophenone	105	4.397	4.397	(1.079)	86166	2.00000	2.07	
	20 Hexachloroethane	117	4.477	4.477	(1.098)	27864	2.00000	1.99	
$	21 Nitrobenzene-d5 (S)	128	4.520	4.520	(0.890)	31205	2.00000	2.02	
	22 Nitrobenzene	77	4.530	4.530	(0.893)	65079	2.00000	2.07	
	23 Isophorone	82	4.707	4.707	(0.927)	118786	2.00000	2.05	
	24 2,4-Dimethylphenol	107	4.787	4.787	(0.943)	67251	2.00000	2.13	
	25 2-Nitrophenol	139	4.782	4.782	(0.942)	33621	2.00000	2.03	
	26 Benzoic acid	105	4.830	4.830	(0.952)	28475	2.00000	1.42(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.867	4.867	(0.959)	72630	2.00000	2.13	
	28 2,4-Dichlorophenol	162	4.964	4.964	(0.978)	50837	2.00000	2.01	
	29 1,2,4-Trichlorobenzene	180	5.038	5.038	(0.993)	59409	2.00000	2.13	
*	30 Naphthalene-d8 (IS)	136	5.076	5.076	(1.000)	386934	4.00000		
	31 Naphthalene	128	5.092	5.092	(1.003)	202266	2.00000	2.11	
	32 4-Chloroaniline	65	5.135	5.135	(1.012)	21787	2.00000	2.03	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.031)	33062	2.00000	2.11	
	34 Caprolactam	55	5.375	5.375	(1.059)	26516	2.00000	2.04	

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
	35 4-Chloro-3-methylphenol	107	5.509	5.509	(1.085)	52486	2.00000	1.92	
	36 2-Methylnaphthalene	142	5.654	5.654	(1.114)	133816	2.00000	2.11	
	37 1-Methylnaphthalene	142	5.744	5.744	(1.132)	125621	2.00000	2.13	
	38 Hexachlorocyclopentadiene	237	5.835	5.835	(0.894)	35357	2.00000	1.91(M)	LT
	39 1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.892)	58451	2.00000	2.22(M)	LT
	40 2,4,6-Trichlorophenol	196	5.894	5.894	(0.903)	36808	2.00000	2.02(M)	LT
	41 2,4,5-Trichlorophenol	196	5.926	5.926	(0.907)	37473	2.00000	2.16	
$	42 2-Fluorobiphenyl (S)	172	5.958	5.958	(0.912)	142604	2.00000	2.16(M)	LT
	43 Biphenyl (Diphenyl)	154	6.033	6.033	(0.924)	160439	2.00000	2.17(M)	LT
	44 2-Chloronaphthalene	164	6.055	6.055	(0.927)	36810	2.00000	2.10	
	45 2-Nitroaniline	138	6.146	6.146	(0.941)	36583	2.00000	1.94	
	46 Dimethylphthalate	163	6.306	6.306	(0.966)	129899	2.00000	2.11	
	47 2,6-Dinitrotoluene	165	6.370	6.370	(0.975)	30047	2.00000	2.10	
	48 Acenaphthylene	152	6.402	6.402	(0.980)	188051	2.00000	2.06	
	49 3-Nitroaniline	65	6.483	6.483	(0.993)	39645	2.00000	2.25	
*	50 Acenaphthene-d10 (IS)	164	6.531	6.531	(1.000)	204203	4.00000		
	51 2,4-Dinitrophenol	184	6.573	6.573	(1.007)	14347	2.00000	1.68	
	52 Acenaphthene	153	6.557	6.557	(1.004)	126455	2.00000	2.15	
	53 4-Nitrophenol	109	6.600	6.600	(1.011)	17001	2.00000	2.04	
	54 2,4-Dinitrotoluene	165	6.702	6.702	(1.026)	38963	2.00000	2.07	
	55 Dibenzofuran	168	6.691	6.691	(1.025)	166605	2.00000	2.12	
	56 2,3,4,6-Tetrachlorophenol	232	6.836	6.836	(1.047)	31708	2.00000	2.13	
	57 Diethylphthalate	149	6.927	6.927	(1.061)	132803	2.00000	2.08	
	58 4-Chlorophenylphenyl ether	204	7.007	7.007	(1.073)	66789	2.00000	2.18	
	59 Fluorene	166	7.028	7.028	(1.076)	139368	2.00000	2.19	
	60 4-Nitroaniline	108	7.055	7.055	(1.080)	23122	2.00000	2.49	
	61 4,6-Dinitro-2-methylphenol	198	7.108	7.108	(0.887)	20261	2.00000	1.79	
	62 N-Nitrosodiphenylamine	169	7.130	7.130	(0.890)	115368	2.00000	2.04	
	63 Azobenzene	77	7.173	7.173	(0.895)	127379	2.00000	2.07	
	64 1,2-Diphenylhydrazine	77	7.173	7.173	(0.895)	127379	2.00000	2.07	
$	65 2,4,6-Tribromophenol (S)	330	7.296	7.296	(0.911)	22752	2.00000	1.92	
	66 4-Bromophenylphenyl ether	248	7.520	7.520	(0.939)	38699	2.00000	2.05	
	67 Hexachlorobenzene	284	7.691	7.691	(0.960)	44585	2.00000	2.10	
	68 Atrazine	200	7.707	7.707	(0.962)	35261	2.00000	1.95	
	69 Pentachlorophenol	266	7.868	7.868	(0.982)	21644	2.00000	1.76	
*	70 Phenanthrene-d10 (IS)	188	8.012	8.012	(1.000)	364096	4.00000		
	71 Phenanthrene	178	8.034	8.034	(1.003)	195170	2.00000	2.06	
	72 Anthracene	178	8.082	8.082	(1.009)	198567	2.00000	2.11	
	73 Carbazole	167	8.242	8.242	(1.029)	176840	2.00000	2.17	
	74 Di-n-butylphthalate	149	8.649	8.649	(1.079)	209628	2.00000	1.96	
	75 Fluoranthene	202	9.296	9.296	(1.160)	205258	2.00000	2.20	
	76 Pyrene	202	9.537	9.537	(0.884)	213922	2.00000	2.02	
$	77 Terphenyl-d14 (S)	244	9.692	9.692	(0.898)	164767	2.00000	2.07	
	78 Butylbenzylphthalate	149	10.216	10.216	(0.947)	86061	2.00000	1.84	
	79 3,3'-Dichlorobenzidine	252	10.745	10.745	(0.996)	70119	2.00000	1.96	
	80 bis(2-Ethylhexyl)phthalate	149	10.815	10.815	(1.002)	128151	2.00000	1.94	
	81 Benzo(a)anthracene	228	10.772	10.772	(0.999)	189063	2.00000	2.03	
*	82 Chrysene-d12 (IS)	240	10.788	10.788	(1.000)	344742	4.00000		
	83 Chrysene	228	10.815	10.815	(1.002)	190783	2.00000	2.24	
	84 Di-n-octylphthalate	149	11.393	11.393	(0.939)	199734	2.00000	1.83	
	85 Benzo(b)fluoranthene	252	11.804	11.804	(0.973)	205570	2.00000	2.07	
	86 Benzo(k)fluoranthene	252	11.826	11.826	(0.974)	221305	2.00000	2.16	
	87 Benzo(a)pyrene	252	12.088	12.088	(0.996)	183476	2.00000	2.04	
*	88 Perylene-d12 (IS)	264	12.136	12.136	(1.000)	361997	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.104	13.104	(1.080)	212759	2.00000	2.16	
90 Dibenz(a,h)anthracene	278	13.104	13.104	(1.080)	175557	2.00000	2.11	
91 Benzo(g,h,i)perylene	276	13.372	13.372	(1.102)	179355	2.00000	2.16	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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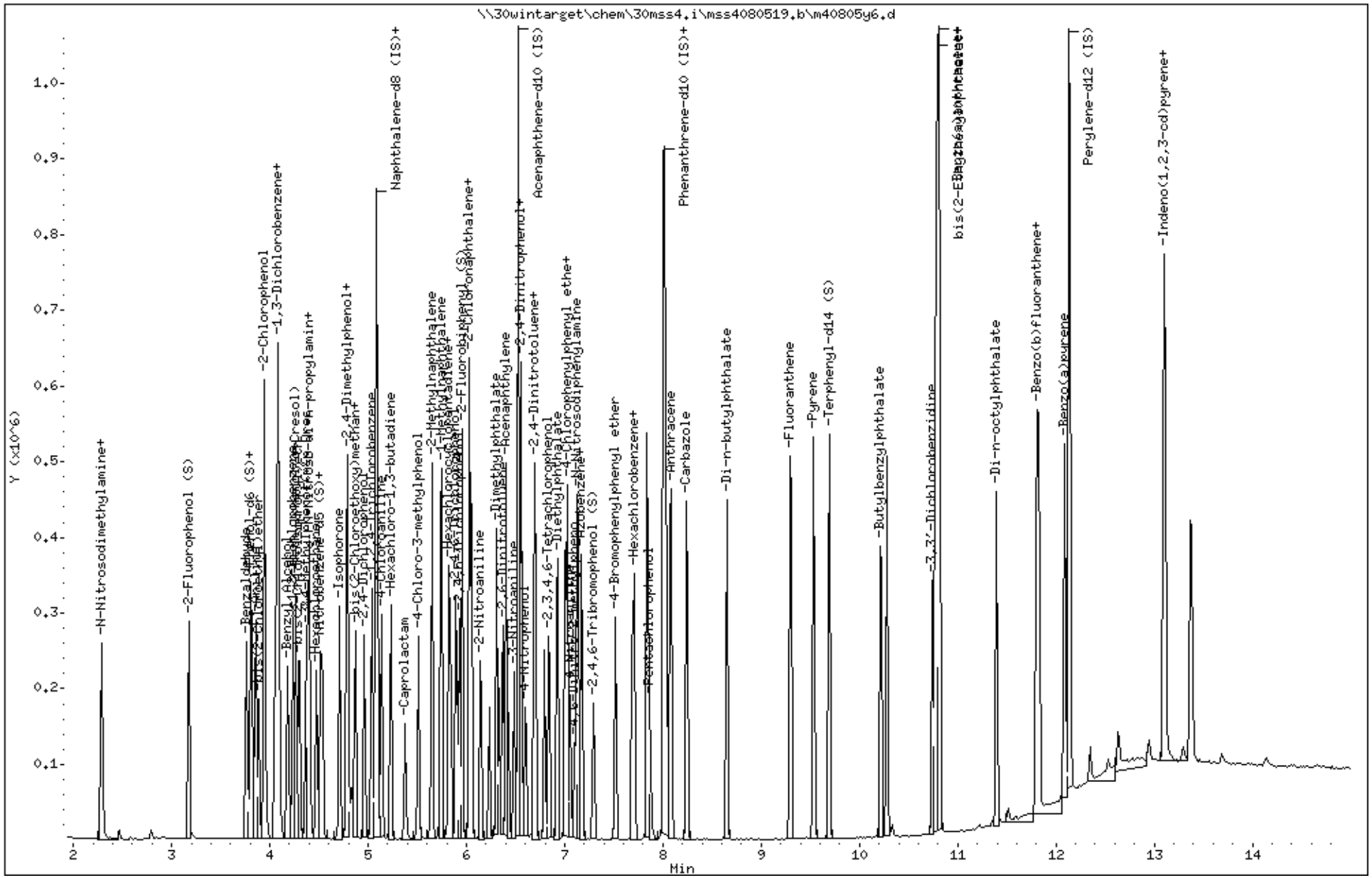
Client ID: CAL2
Sample Info: CAL2, 94274:1

Instrument: 30mss4.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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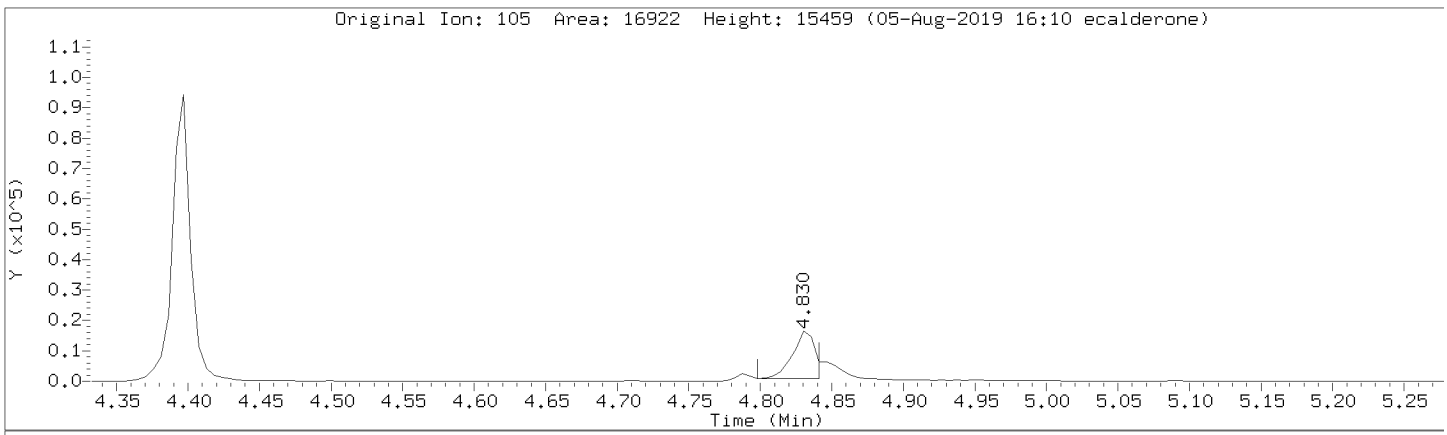
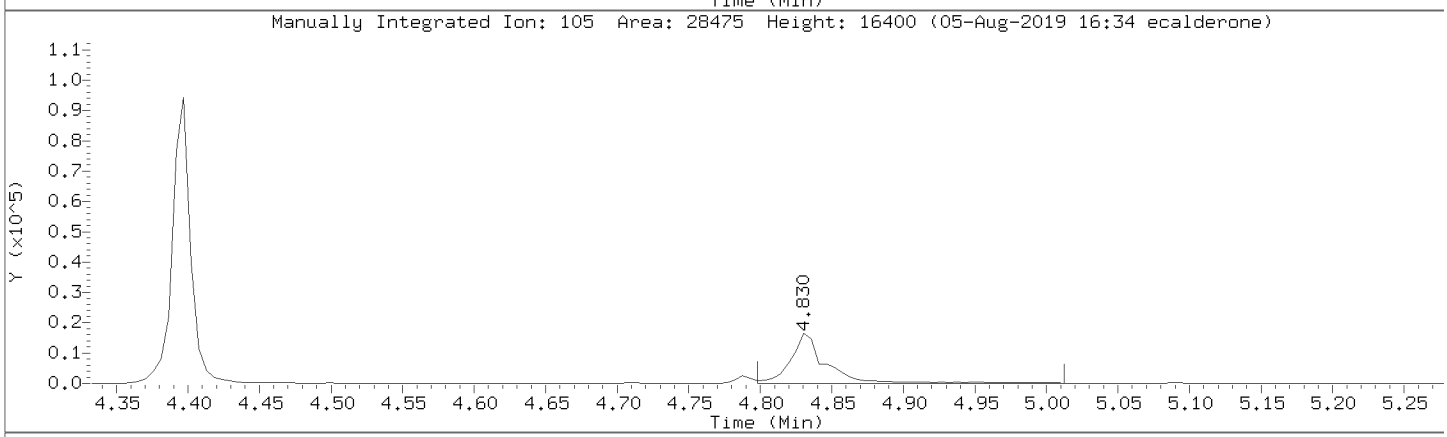
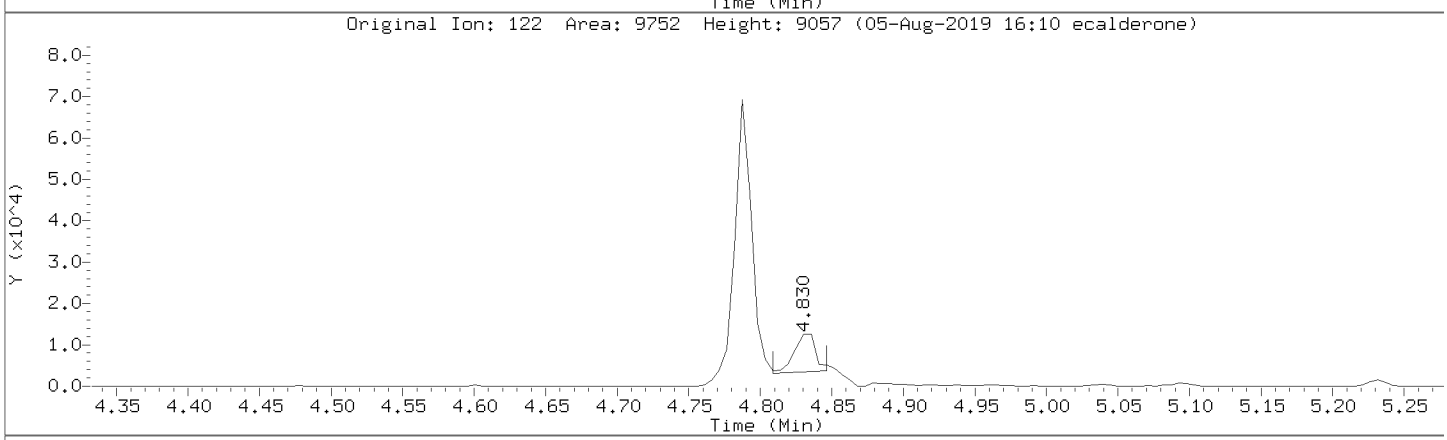
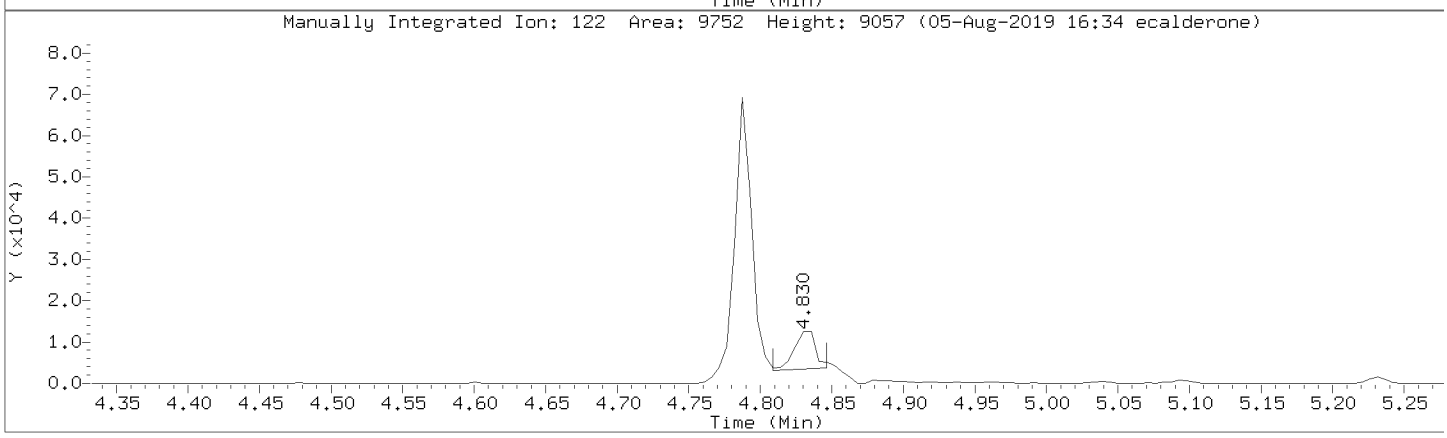
Injection Date: 05-AUG-2019 14:19
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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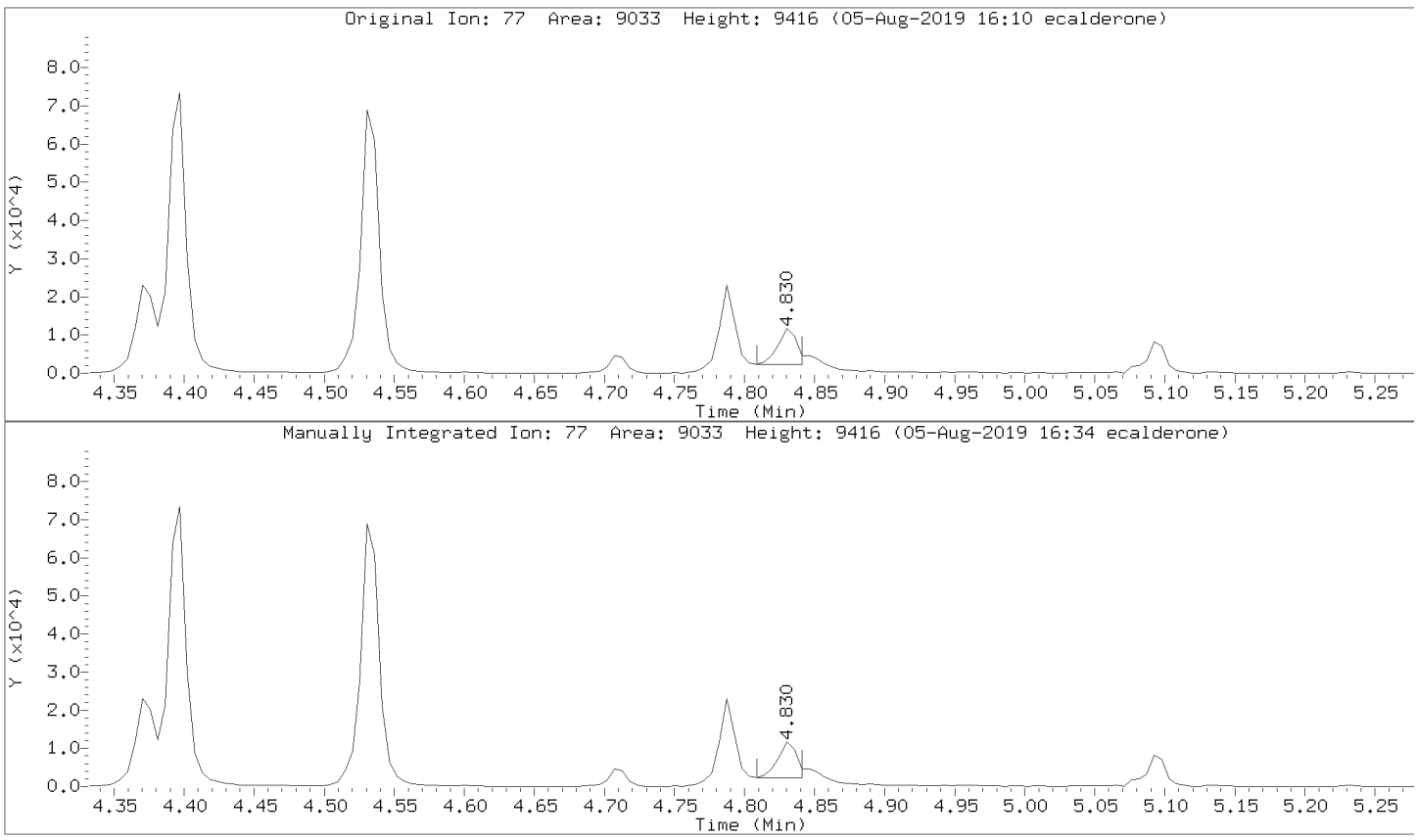
Instrument: 30mss4.i
Lab Sample ID: CAL2



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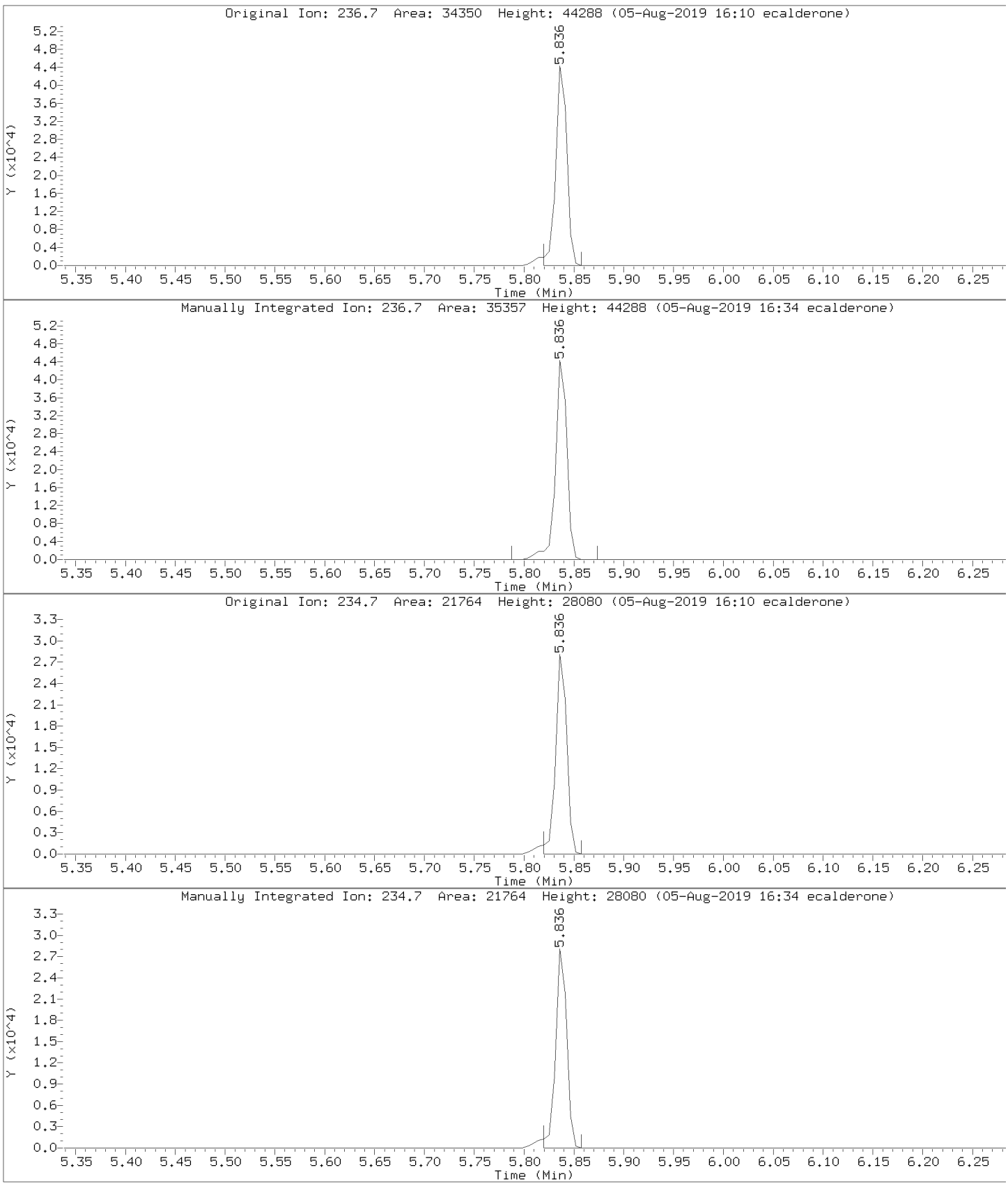
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: Hexachlorocyclopentadiene Review Code: LT
CAS Number: 77-47-4



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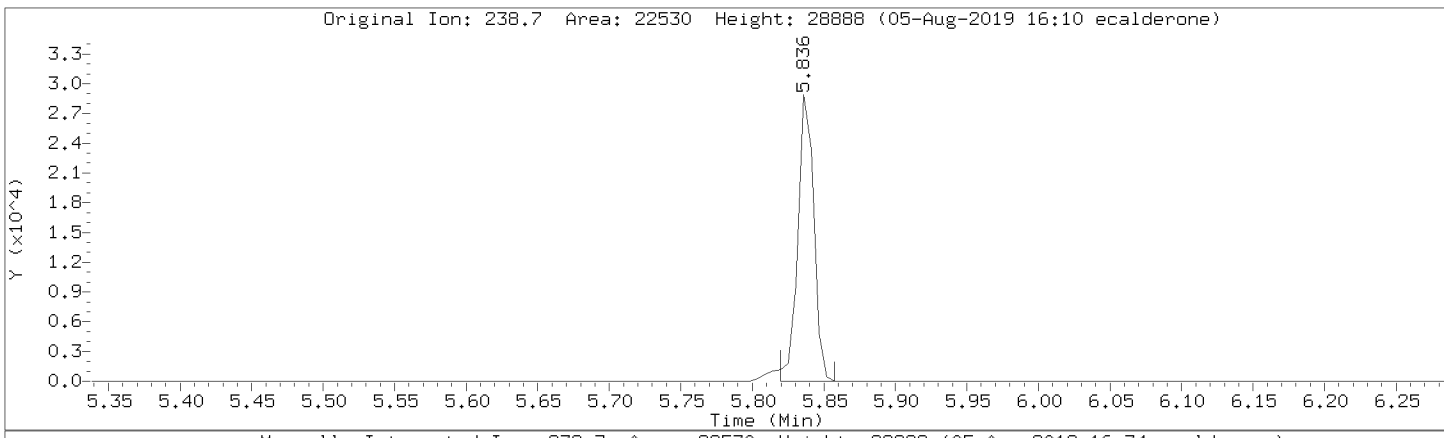

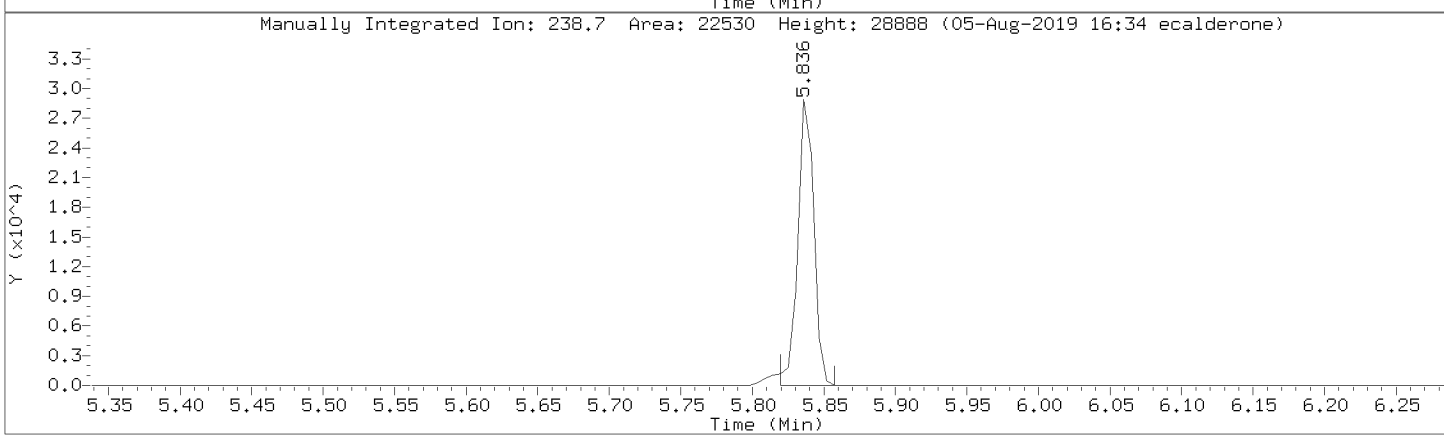

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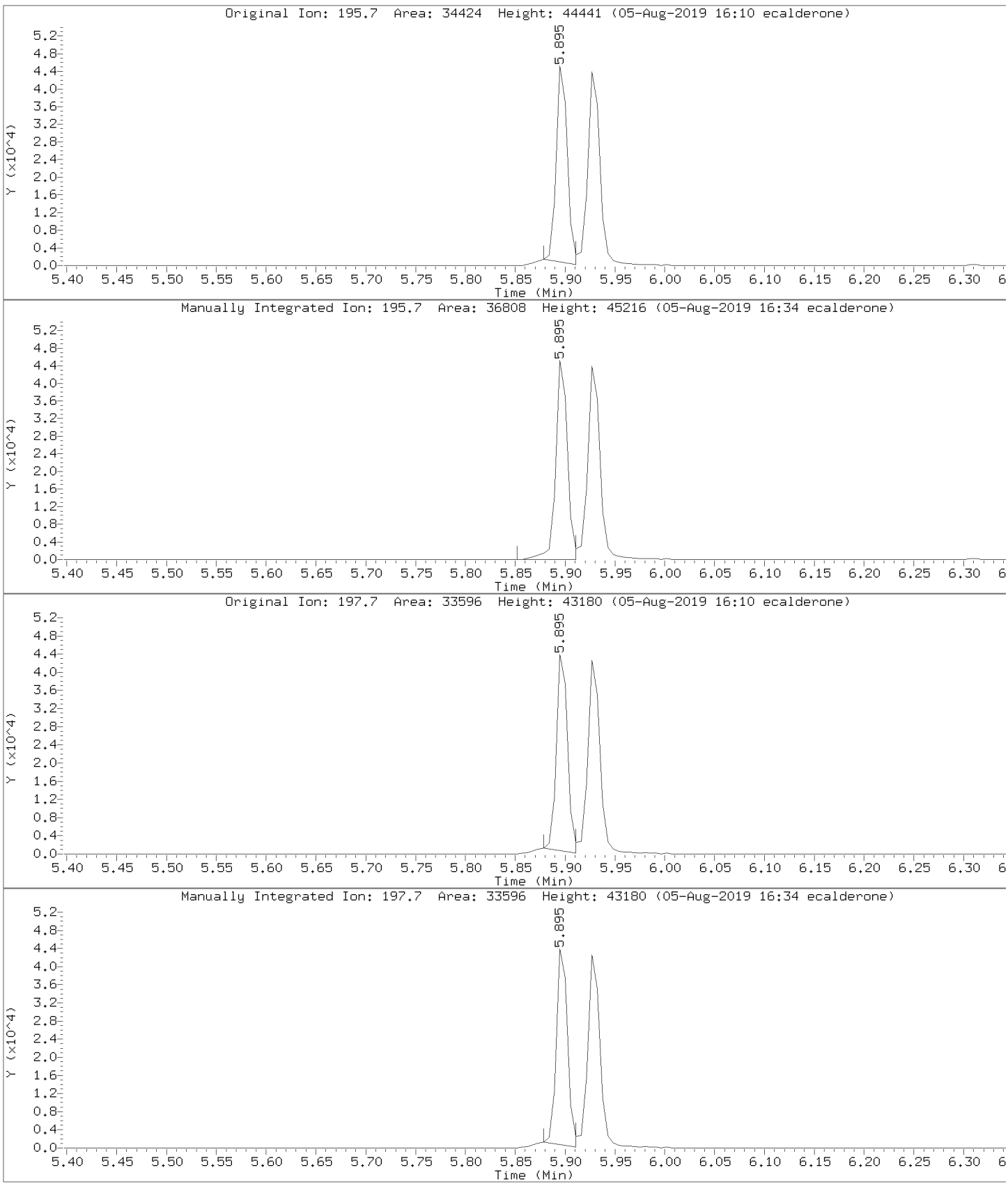
Injection Date: 05-AUG-2019 14:19
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: 2,4,6-Trichlorophenol Review Code: LT
CAS Number: 88-06-2



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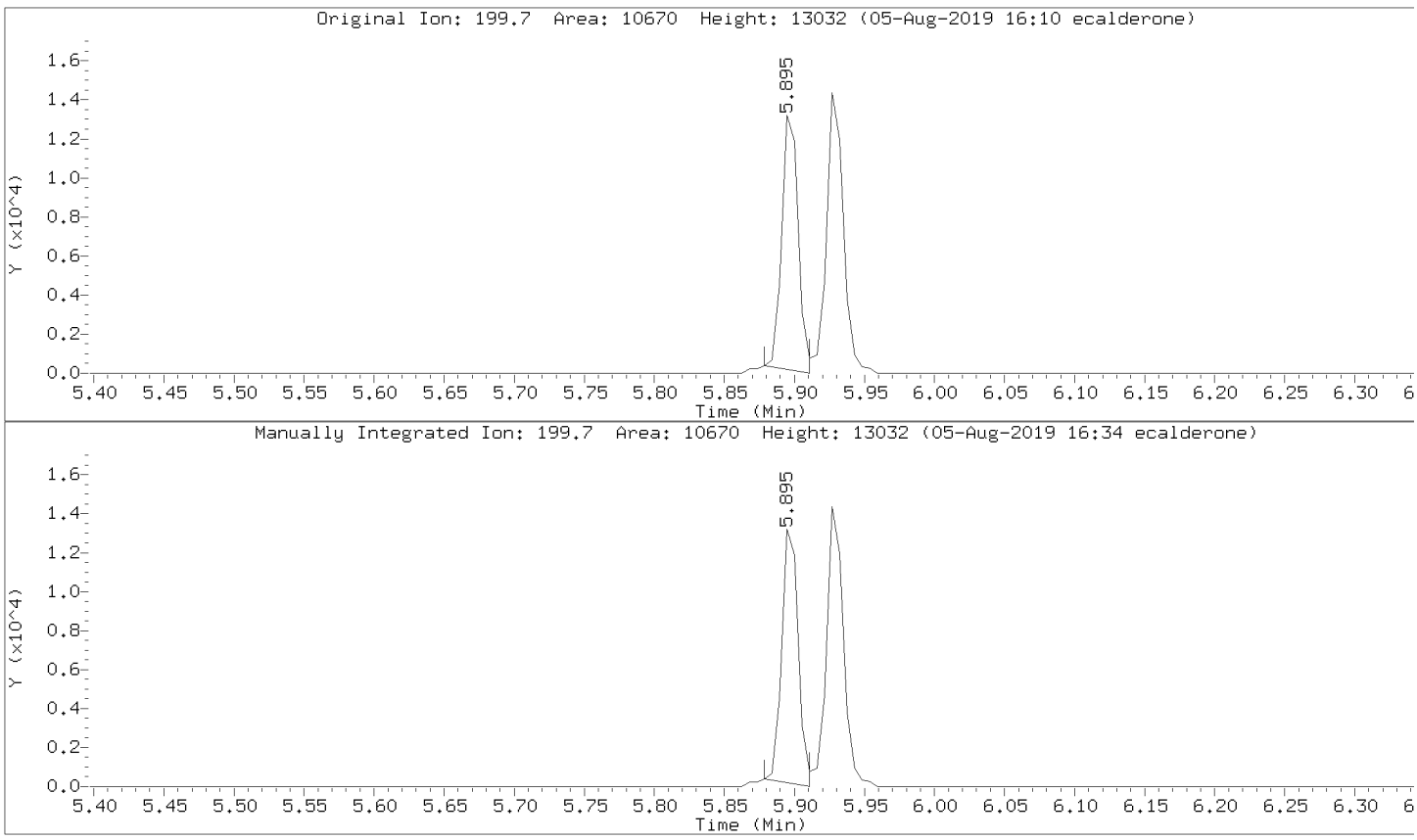
Injection Date: 05-AUG-2019 14:19
Instrument: 30mss4.i
Lab Sample ID: CAL2



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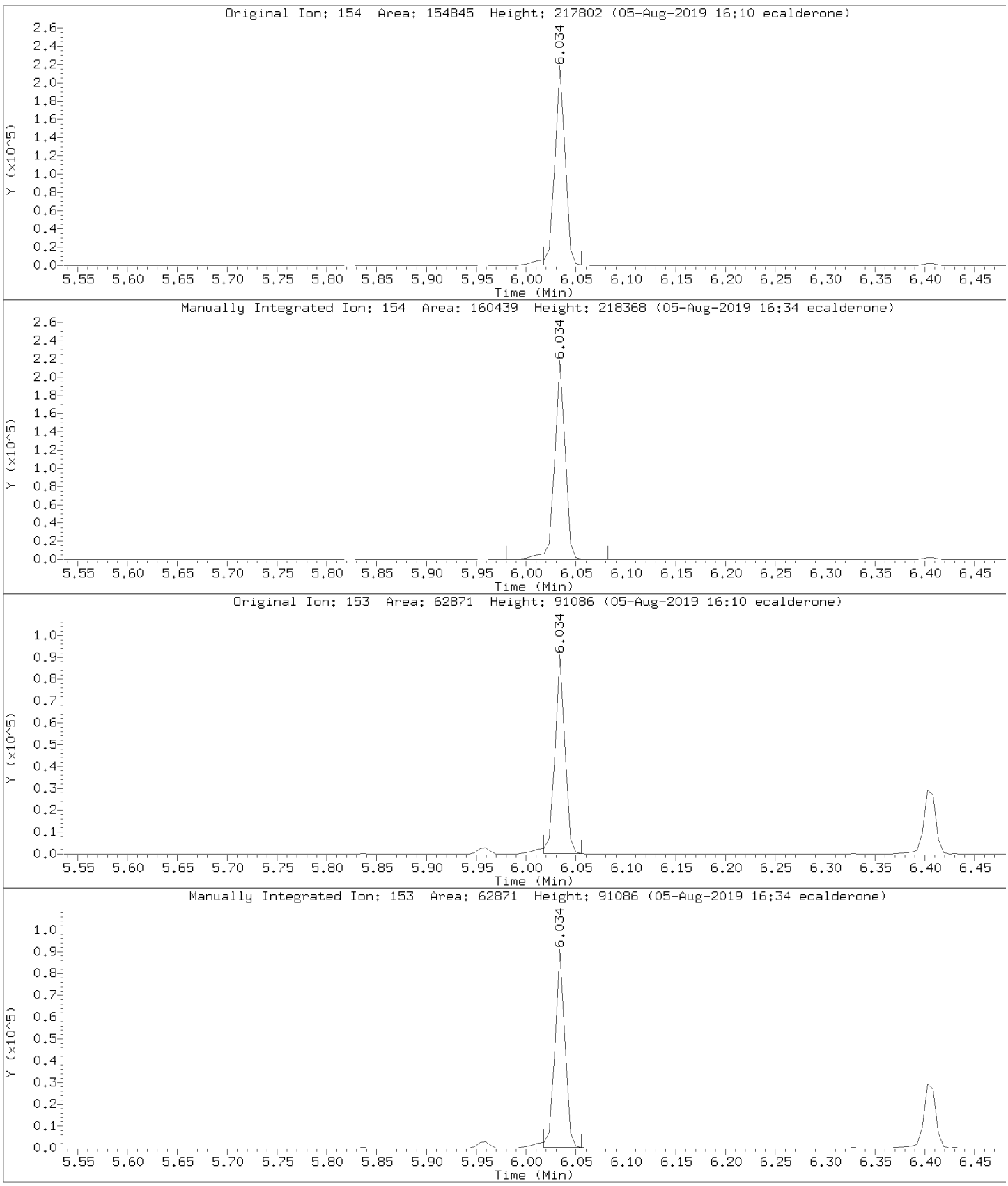
Injection Date: 05-AUG-2019 14:19
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: Biphenyl (Diphenyl) Review Code: LT
CAS Number: 92-52-4



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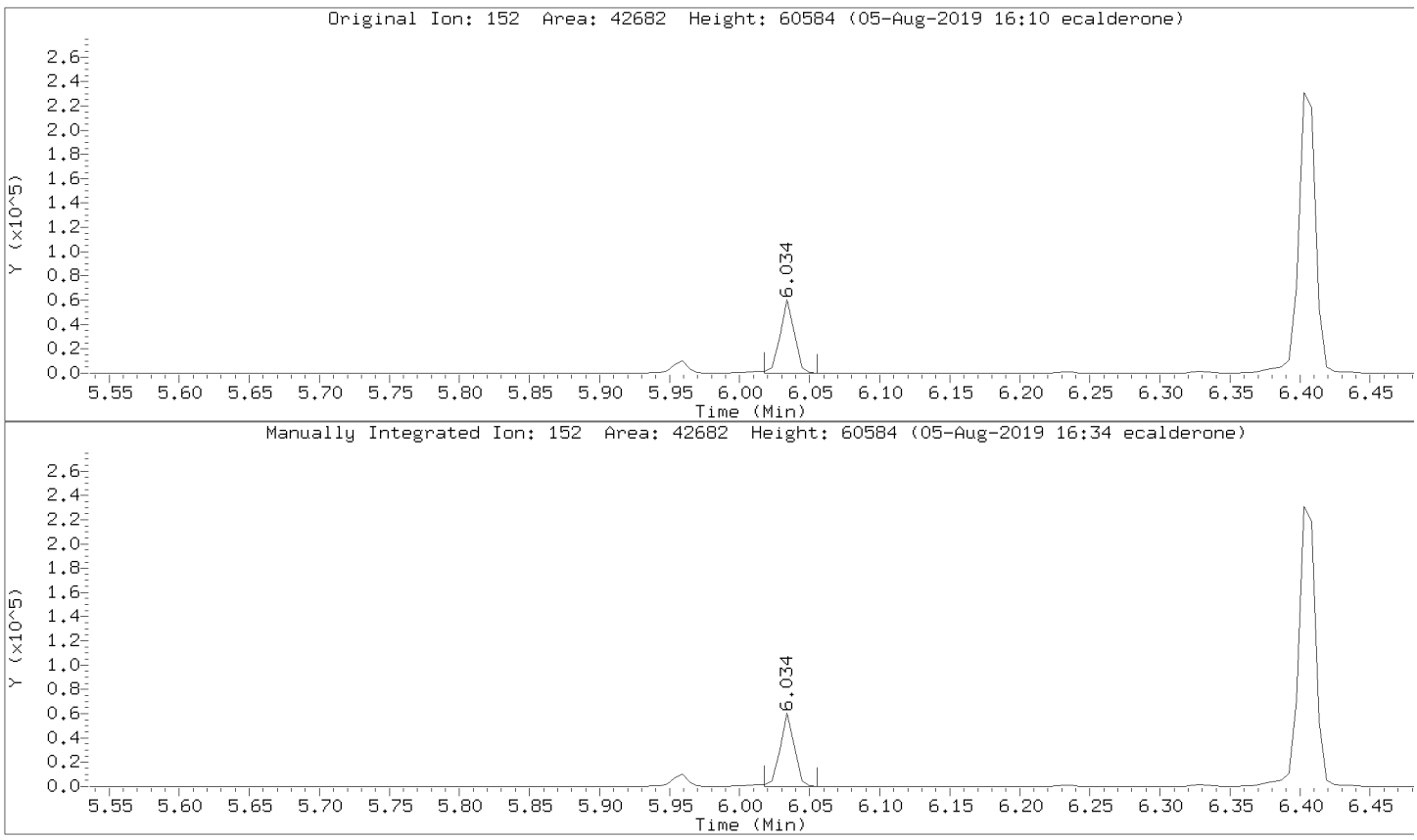
Lab Sample ID: CAL2



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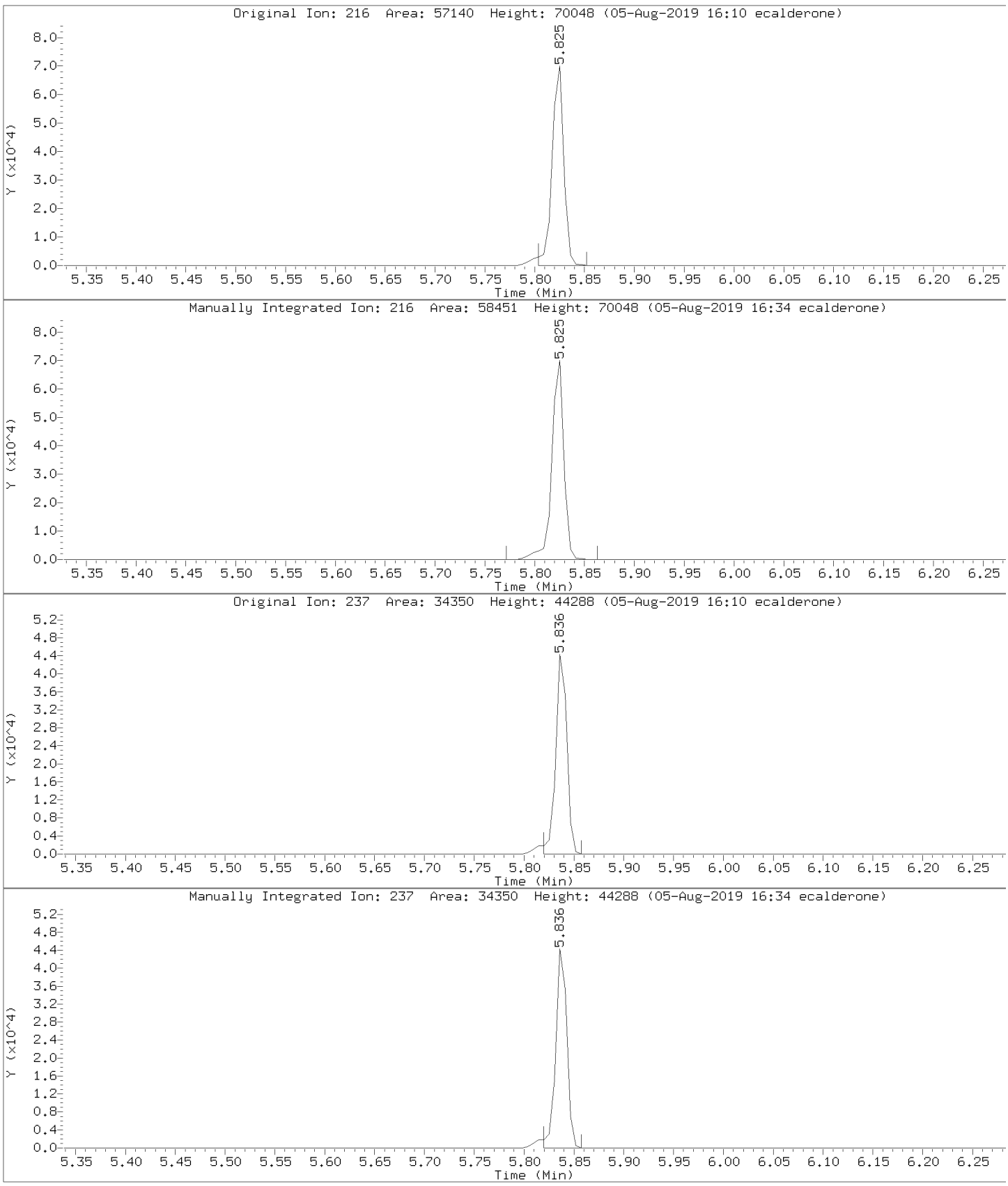
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: 1,2,4,5-Tetrachlorobenzene Review Code: LT
CAS Number: 95-94-3



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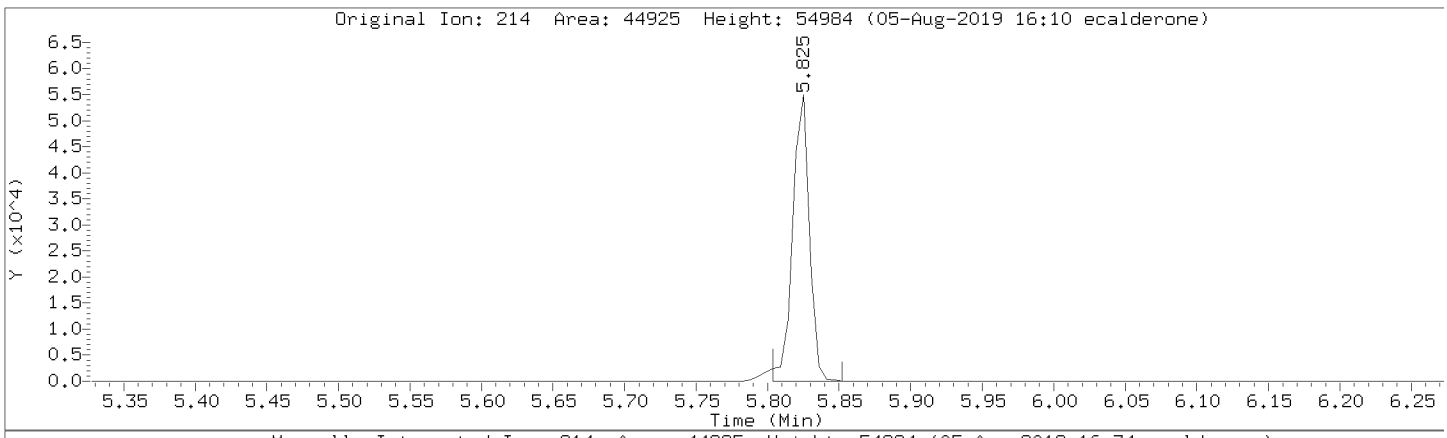
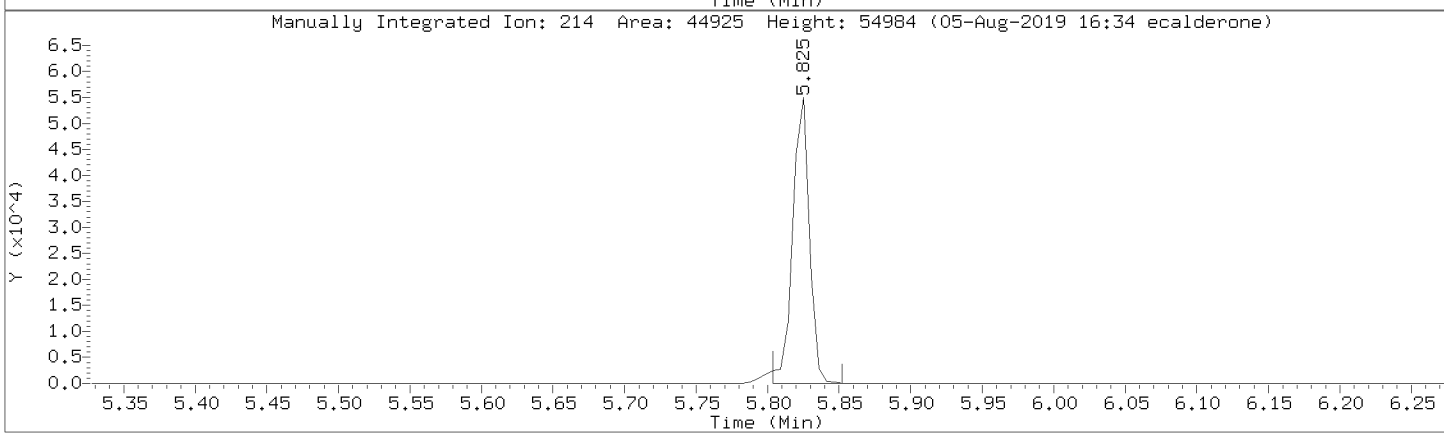
Lab Sample ID: CAL2





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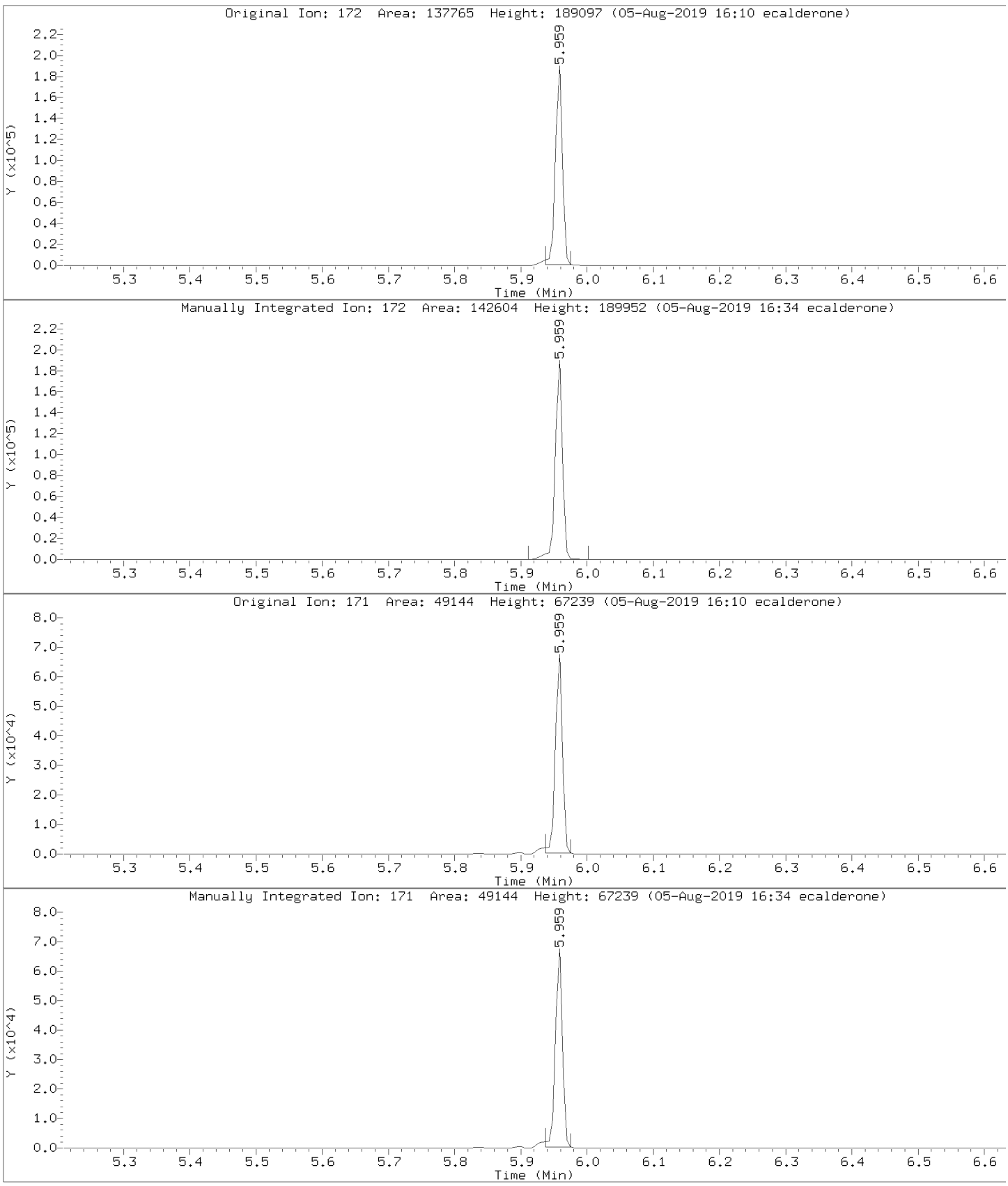
Instrument: 30mss4.i
Lab Sample ID: CAL2

Compound: 2-Fluorobiphenyl (S) Review Code: LT
CAS Number: 321-60-8



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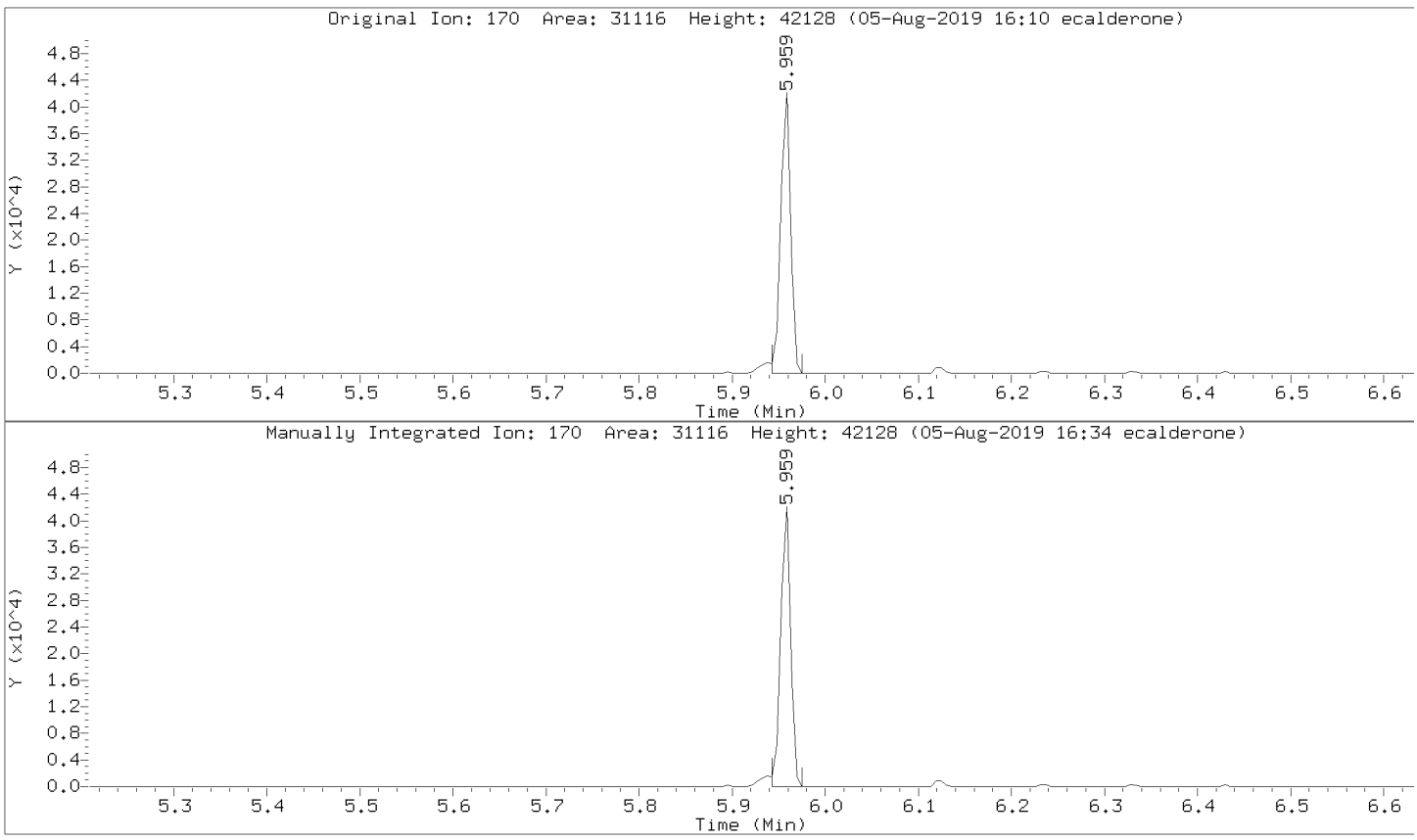
Lab Sample ID: CAL2



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y7.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 05-AUG-2019 14:40 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : cal1, 94275:1
Misc Info : 14922,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4080519.b\8270080519.m
Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.279	2.279	(0.559)	19287	1.00000	1.06	
	2 Pyridine	79	2.295	2.289	(0.563)	30804	1.00000	1.09	
$	3 2-Fluorophenol (S)	112	3.166	3.172	(0.777)	29471	1.00000	1.03	
$	4 Phenol-d6 (S)	99	3.798	3.803	(0.932)	38625	1.00000	1.03	
	5 Benzaldehyde	77	3.760	3.760	(0.923)	27213	1.00000	1.04	
	6 Phenol	94	3.808	3.814	(0.934)	40295	1.00000	1.05	
	7 Aniline	66	3.851	3.856	(0.945)	19169	1.00000	1.02	
	8 bis(2-Chloroethyl)ether	63	3.883	3.883	(0.953)	24739	1.00000	1.06	
	9 2-Chlorophenol	128	3.937	3.942	(0.966)	33613	1.00000	1.01	
	10 1,3-Dichlorobenzene	146	4.049	4.054	(0.993)	37088	1.00000	1.05	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	100179	4.00000		
	12 1,4-Dichlorobenzene	146	4.086	4.092	(1.003)	43621	1.00000	1.10	
	13 Benzyl Alcohol	79	4.177	4.183	(1.025)	25248	1.00000	0.946	
	14 1,2-Dichlorobenzene	146	4.231	4.236	(1.038)	38189	1.00000	1.09	
	15 2-Methylphenol(o-Cresol)	108	4.263	4.263	(1.046)	30948	1.00000	1.03	
	16 bis(2-Chloroisopropyl)ether	45	4.295	4.295	(1.054)	53944	1.00000	1.11	
	17 3&4-Methylphenol(m&p Cresol)	108	4.370	4.370	(1.072)	32719	1.00000	1.06	
	18 N-Nitroso-di-n-propylamine	70	4.402	4.402	(1.080)	23428	1.00000	1.02	
	19 Acetophenone	105	4.391	4.397	(1.077)	45260	1.00000	1.06	
	20 Hexachloroethane	117	4.472	4.477	(1.097)	14474	1.00000	1.02	
$	21 Nitrobenzene-d5 (S)	128	4.514	4.520	(0.889)	16182	1.00000	1.03	
	22 Nitrobenzene	77	4.530	4.530	(0.893)	34344	1.00000	1.07	
	23 Isophorone	82	4.707	4.707	(0.927)	60119	1.00000	1.02	
	24 2,4-Dimethylphenol	107	4.787	4.787	(0.943)	34346	1.00000	1.06	
	25 2-Nitrophenol	139	4.782	4.782	(0.942)	16848	1.00000	0.999	
	26 Benzoic acid	105	4.825	4.830	(0.950)	11175	1.00000	0.576(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.867	4.867	(0.959)	38604	1.00000	1.10	
	28 2,4-Dichlorophenol	162	4.958	4.964	(0.977)	25962	1.00000	1.01	
	29 1,2,4-Trichlorobenzene	180	5.039	5.038	(0.993)	31785	1.00000	1.11	
*	30 Naphthalene-d8 (IS)	136	5.076	5.076	(1.000)	392428	4.00000		
	31 Naphthalene	128	5.092	5.092	(1.003)	107062	1.00000	1.09	
	32 4-Chloroaniline	65	5.135	5.135	(1.012)	11561	1.00000	1.06	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.031)	17503	1.00000	1.09	
	34 Caprolactam	55	5.370	5.375	(1.058)	13788	1.00000	1.04(M)	LT

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	35	4-Chloro-3-methylphenol	107	5.509	5.509	(1.085)	27880	1.00000	1.01	
	36	2-Methylnaphthalene	142	5.648	5.654	(1.113)	70236	1.00000	1.08	
	37	1-Methylnaphthalene	142	5.745	5.744	(1.132)	64958	1.00000	1.07	
	38	Hexachlorocyclopentadiene	237	5.835	5.835	(0.894)	17770	1.00000	0.933	
	39	1,2,4,5-Tetrachlorobenzene	216	5.819	5.825	(0.891)	31491	1.00000	1.13	
	40	2,4,6-Trichlorophenol	196	5.894	5.894	(0.903)	19986	1.00000	1.05	
	41	2,4,5-Trichlorophenol	196	5.926	5.926	(0.907)	19237	1.00000	1.05	
$	42	2-Fluorobiphenyl (S)	172	5.958	5.958	(0.912)	75639	1.00000	1.09	
	43	Biphenyl (Diphenyl)	154	6.033	6.033	(0.924)	85183	1.00000	1.10	
	44	2-Chloronaphthalene	164	6.049	6.055	(0.926)	20680	1.00000	1.12	
	45	2-Nitroaniline	138	6.146	6.146	(0.941)	18796	1.00000	0.964	
	46	Dimethylphthalate	163	6.306	6.306	(0.966)	70473	1.00000	1.09	
	47	2,6-Dinitrotoluene	165	6.370	6.370	(0.975)	16293	1.00000	1.09	
	48	Acenaphthylene	152	6.402	6.402	(0.980)	101338	1.00000	1.06	
	49	3-Nitroaniline	65	6.483	6.483	(0.993)	19469	1.00000	1.04	
*	50	Acenaphthene-d10 (IS)	164	6.531	6.531	(1.000)	212055	4.00000		
	51	2,4-Dinitrophenol	184	6.574	6.573	(1.007)	6063	1.00000	0.704	
	52	Acenaphthene	153	6.558	6.557	(1.004)	67577	1.00000	1.09	
	53	4-Nitrophenol	109	6.600	6.600	(1.011)	8511	1.00000	0.981	
	54	2,4-Dinitrotoluene	165	6.702	6.702	(1.026)	19901	1.00000	1.01	
	55	Dibenzofuran	168	6.691	6.691	(1.025)	91663	1.00000	1.11	
	56	2,3,4,6-Tetrachlorophenol	232	6.836	6.836	(1.047)	16034	1.00000	1.03	
	57	Diethylphthalate	149	6.921	6.927	(1.060)	70207	1.00000	1.05	
	58	4-Chlorophenylphenyl ether	204	7.007	7.007	(1.073)	34854	1.00000	1.08	
	59	Fluorene	166	7.023	7.028	(1.075)	71378	1.00000	1.06	
	60	4-Nitroaniline	108	7.055	7.055	(1.080)	11961	1.00000	1.19	
	61	4,6-Dinitro-2-methylphenol	198	7.103	7.108	(0.887)	9147	1.00000	0.802	
	62	N-Nitrosodiphenylamine	169	7.130	7.130	(0.890)	63132	1.00000	1.08	
	63	Azobenzene	77	7.173	7.173	(0.896)	64544	1.00000	1.02	
	64	1,2-Diphenylhydrazine	77	7.173	7.173	(0.896)	64544	1.00000	1.02	
$	65	2,4,6-Tribromophenol (S)	330	7.296	7.296	(0.911)	11377	1.00000	0.945	
	66	4-Bromophenylphenyl ether	248	7.515	7.520	(0.939)	20277	1.00000	1.04	
	67	Hexachlorobenzene	284	7.691	7.691	(0.961)	23620	1.00000	1.08	
	68	Atrazine	200	7.707	7.707	(0.963)	17573	1.00000	0.954	
	69	Pentachlorophenol	266	7.868	7.868	(0.983)	10073	1.00000	0.814(M)	LT
*	70	Phenanthrene-d10 (IS)	188	8.007	8.012	(1.000)	373323	4.00000		
	71	Phenanthrene	178	8.034	8.034	(1.003)	111737	1.00000	1.14	
	72	Anthracene	178	8.077	8.082	(1.009)	103607	1.00000	1.06	
	73	Carbazole	167	8.242	8.242	(1.029)	93706	1.00000	1.11	
	74	Di-n-butylphthalate	149	8.649	8.649	(1.080)	104539	1.00000	0.956	
	75	Fluoranthene	202	9.296	9.296	(1.161)	106045	1.00000	1.09	
	76	Pyrene	202	9.537	9.537	(0.884)	112977	1.00000	1.02	
$	77	Terphenyl-d14 (S)	244	9.692	9.692	(0.898)	87671	1.00000	1.05	
	78	Butylbenzylphthalate	149	10.216	10.216	(0.947)	41700	1.00000	0.866	
	79	3,3'-Dichlorobenzidine	252	10.740	10.745	(0.996)	32579	1.00000	0.876	
	80	bis(2-Ethylhexyl)phthalate	149	10.815	10.815	(1.002)	61855	1.00000	0.904	
	81	Benzo(a)anthracene	228	10.767	10.772	(0.998)	100712	1.00000	1.04	
*	82	Chrysene-d12 (IS)	240	10.788	10.788	(1.000)	358911	4.00000		
	83	Chrysene	228	10.810	10.815	(1.002)	107134	1.00000	1.18	
	84	Di-n-octylphthalate	149	11.393	11.393	(0.939)	92625	1.00000	0.807	
	85	Benzo(b)fluoranthene	252	11.805	11.804	(0.973)	103240	1.00000	0.971	
	86	Benzo(k)fluoranthene	252	11.821	11.826	(0.974)	134727	1.00000	1.21	
	87	Benzo(a)pyrene	252	12.088	12.088	(0.996)	98993	1.00000	1.03	
*	88	Perylene-d12 (IS)	264	12.136	12.136	(1.000)	386130	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.099	13.104	(1.079)	113965	1.00000	1.07	
90 Dibenz(a,h)anthracene	278	13.099	13.104	(1.079)	94249	1.00000	1.05	
91 Benzo(g,h,i)perylene	276	13.372	13.372	(1.102)	96941	1.00000	1.08	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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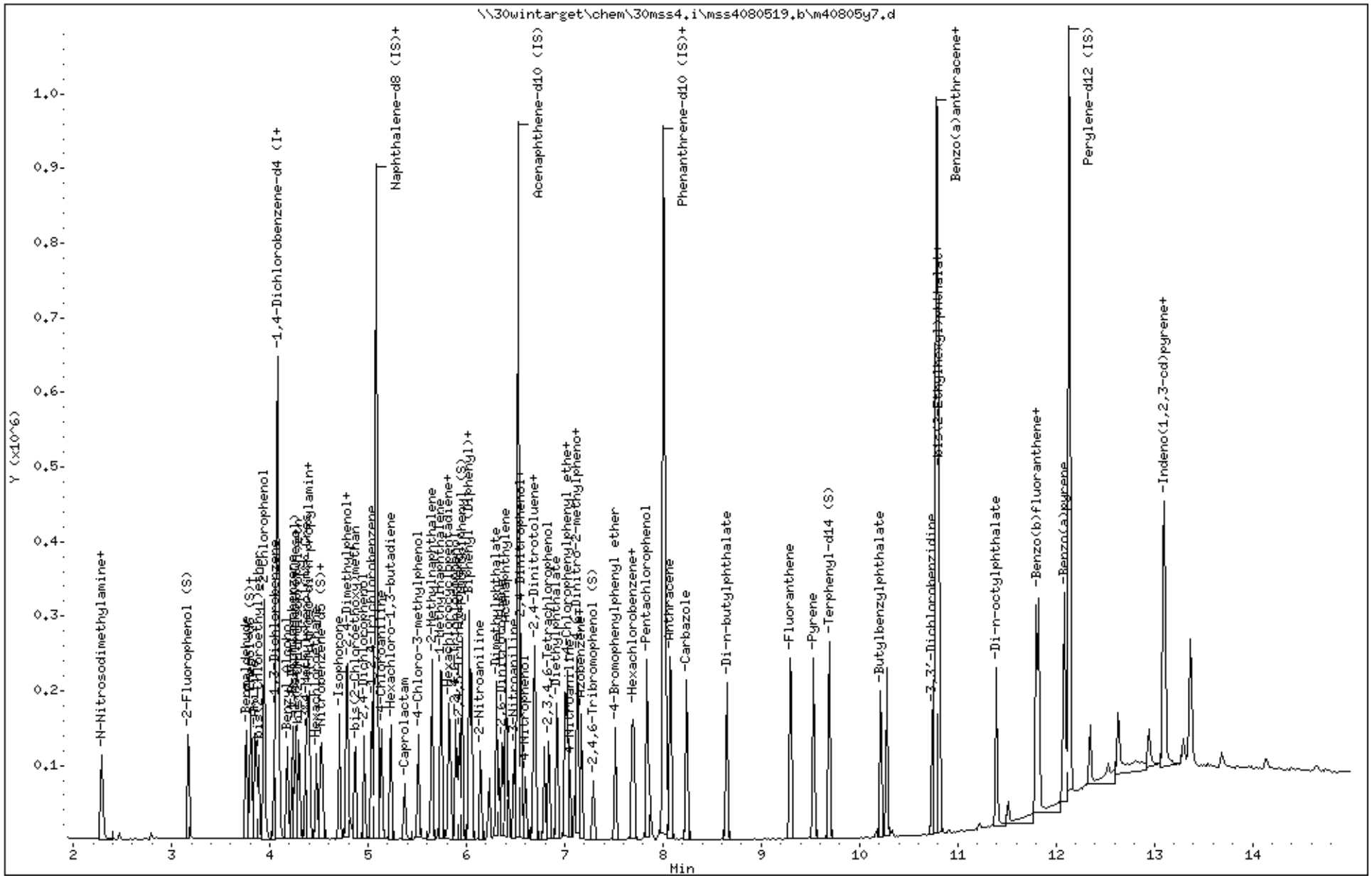
Sample Info: CAL1, 94275:1

Instrument: 30mss4.i
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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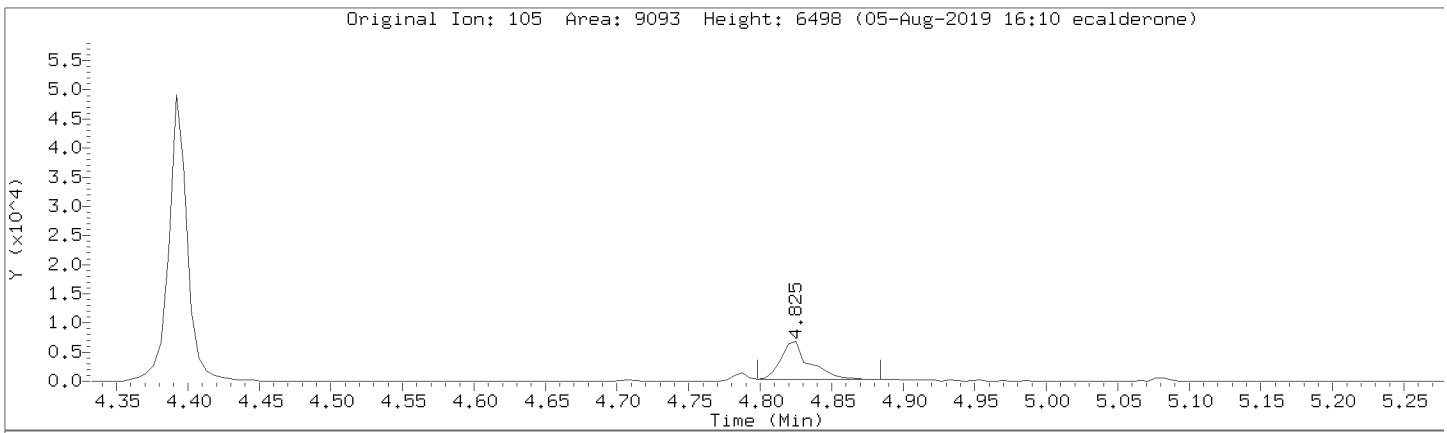
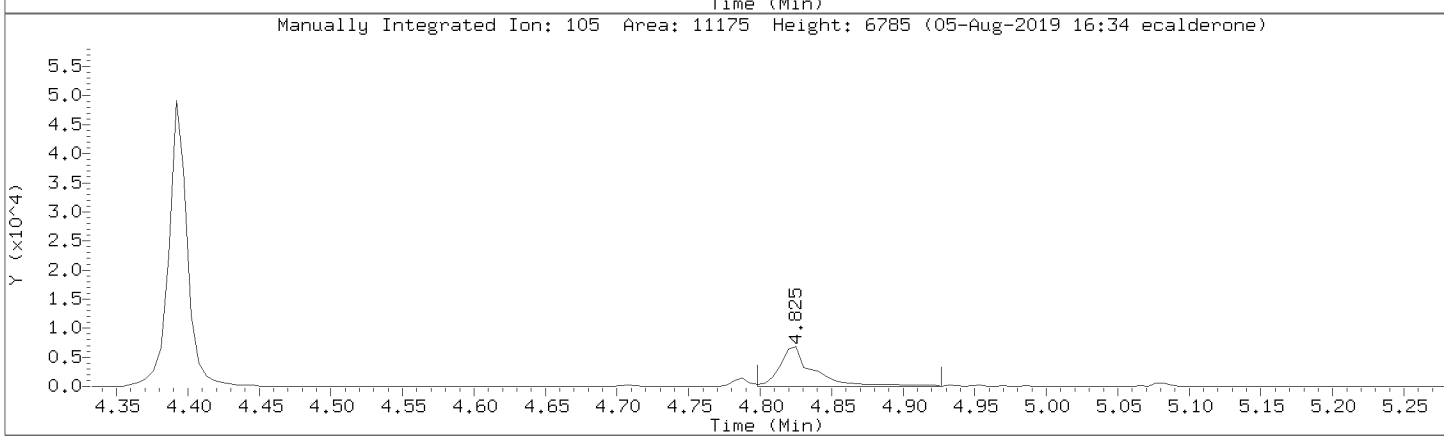
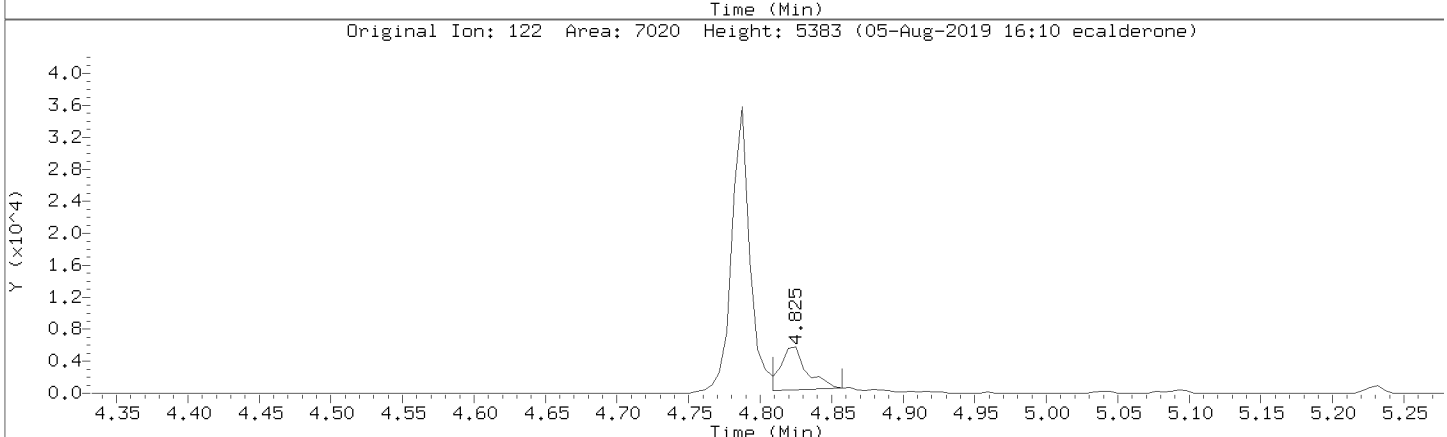
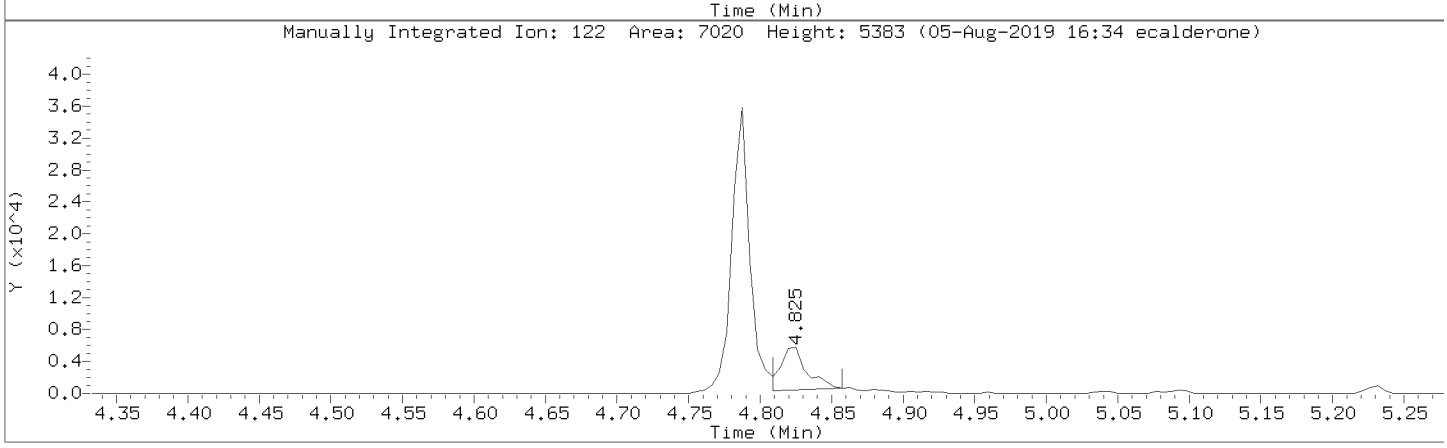
Injection Date: 05-AUG-2019 14:40
Instrument: 30mss4.i
Lab Sample ID: CAL1

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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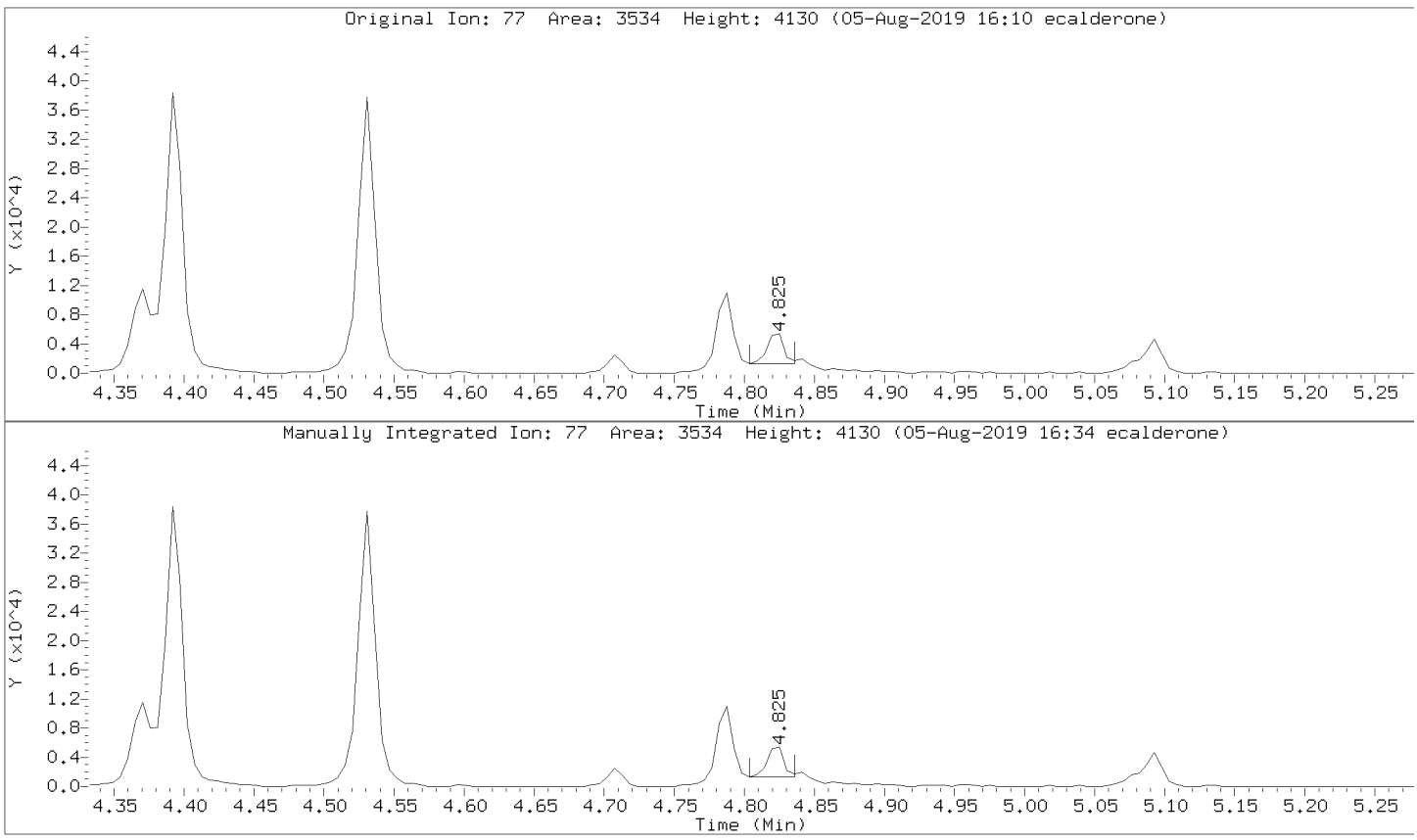
Instrument: 30mss4.i
Lab Sample ID: CAL1



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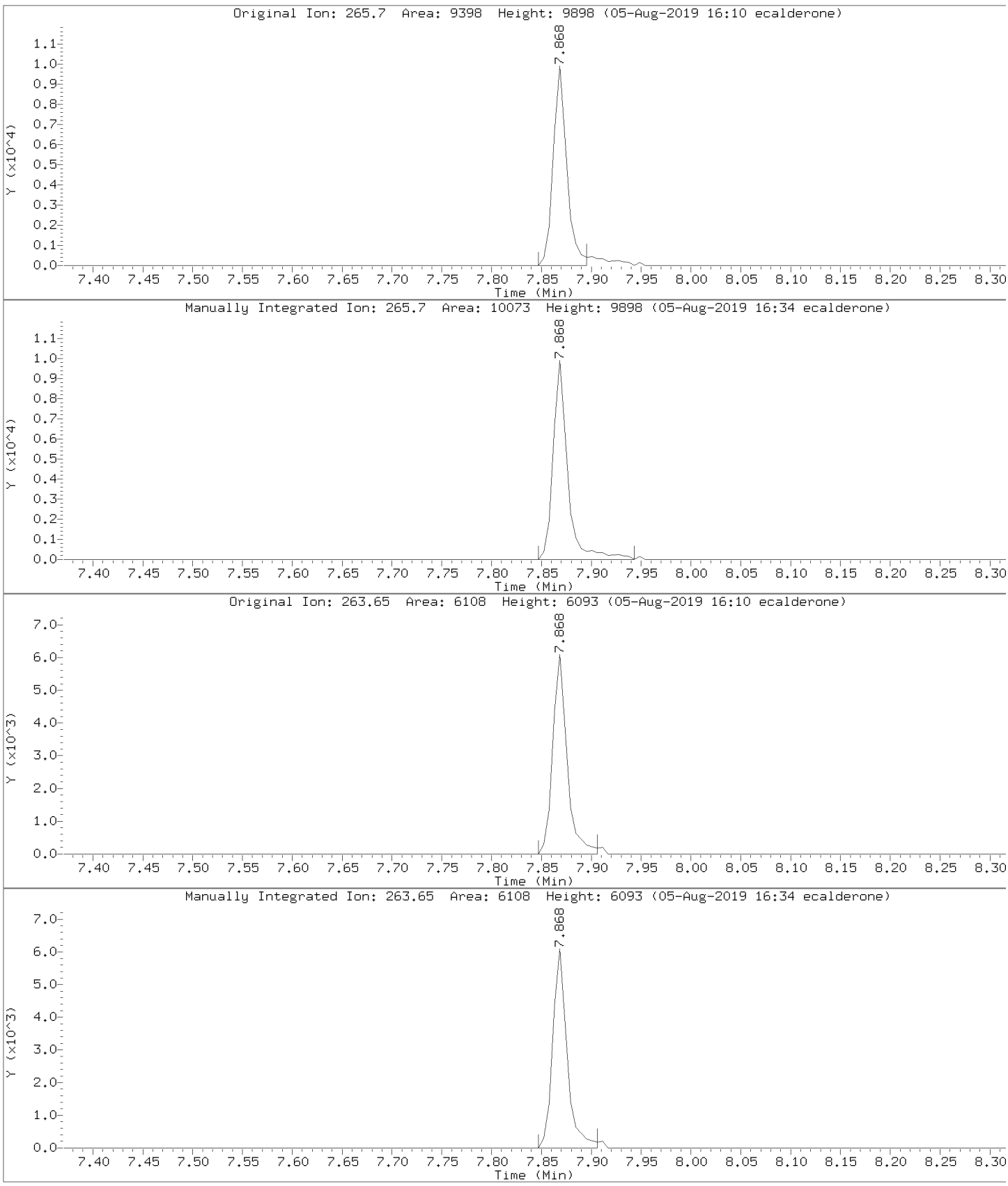
Instrument: 30mss4.i
Lab Sample ID: CAL1

Compound: Pentachlorophenol Review Code: LT
CAS Number: 87-86-5



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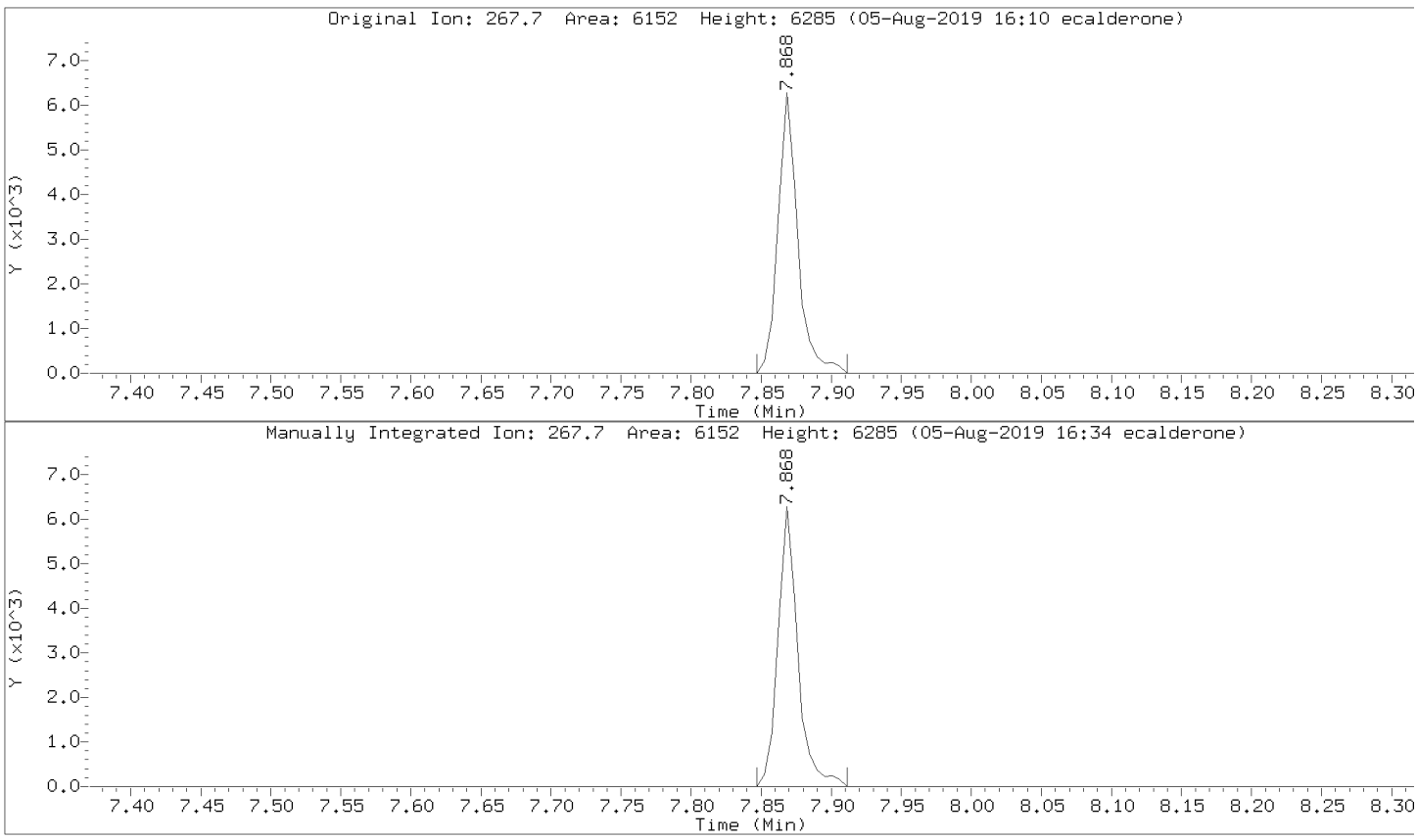
Instrument: 30mss4.i
Lab Sample ID: CAL1



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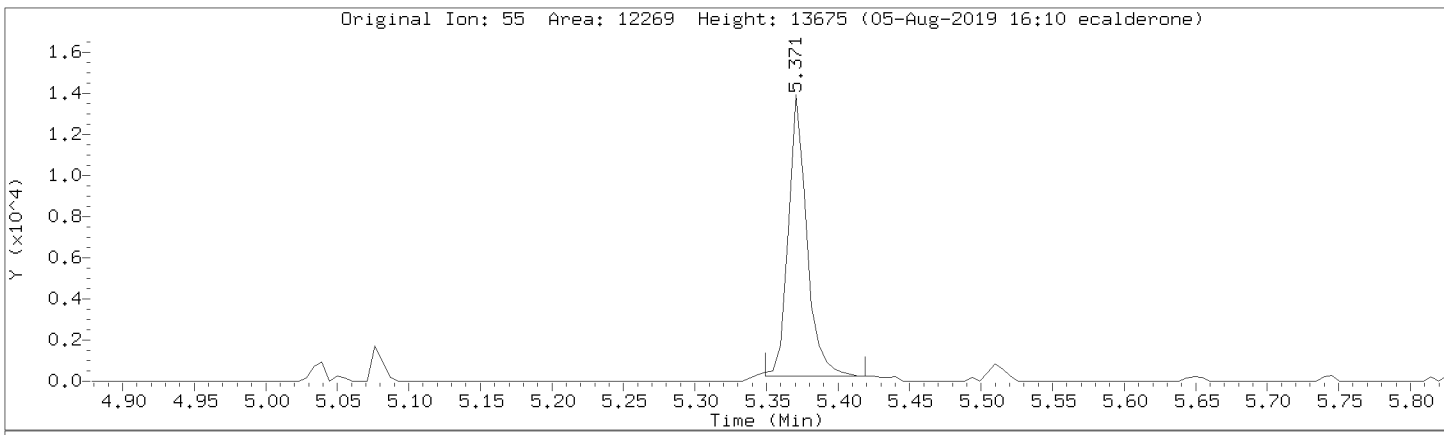
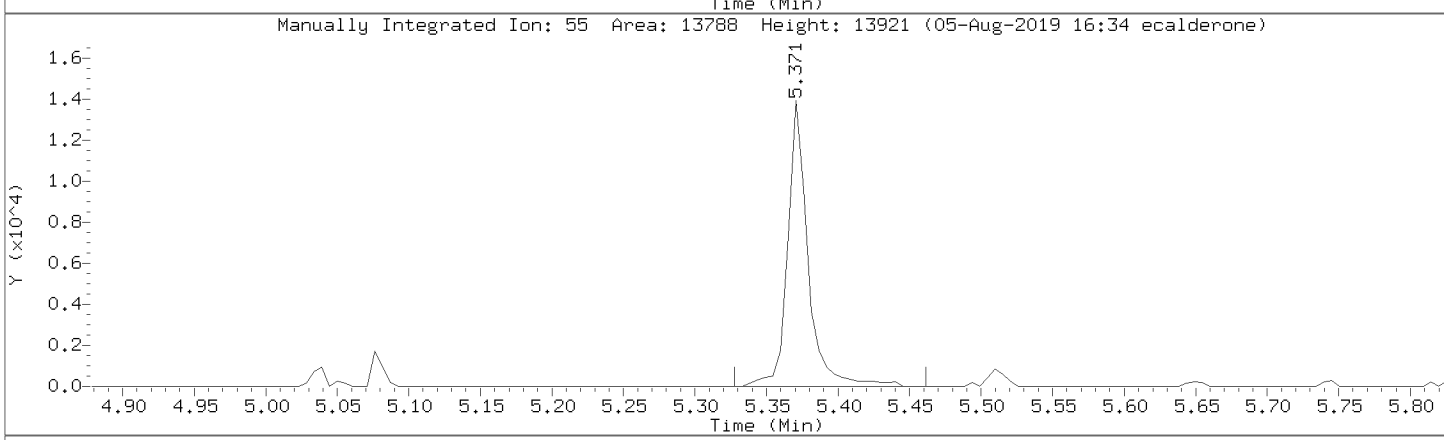
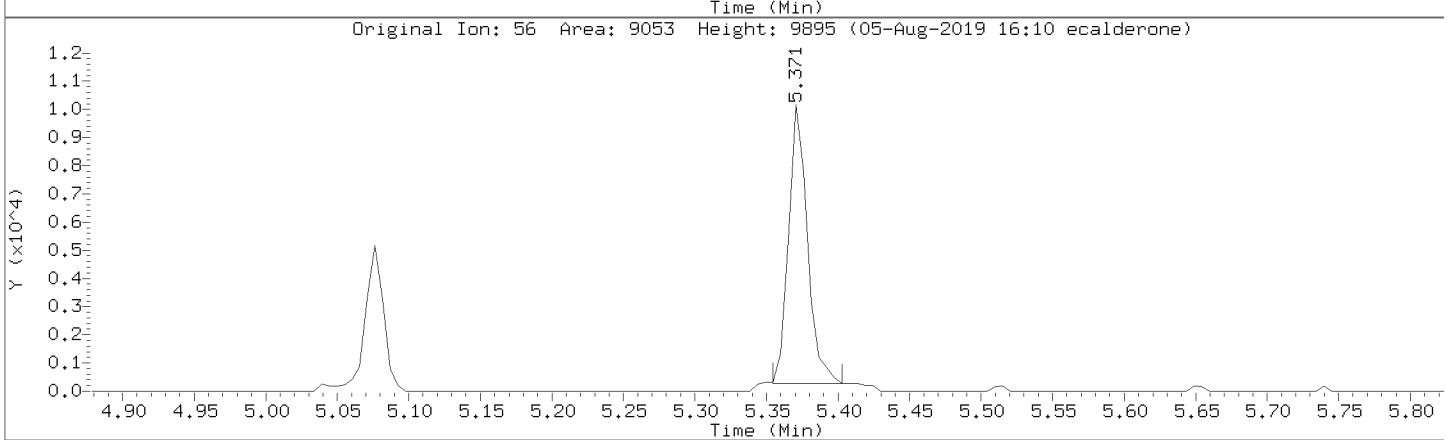
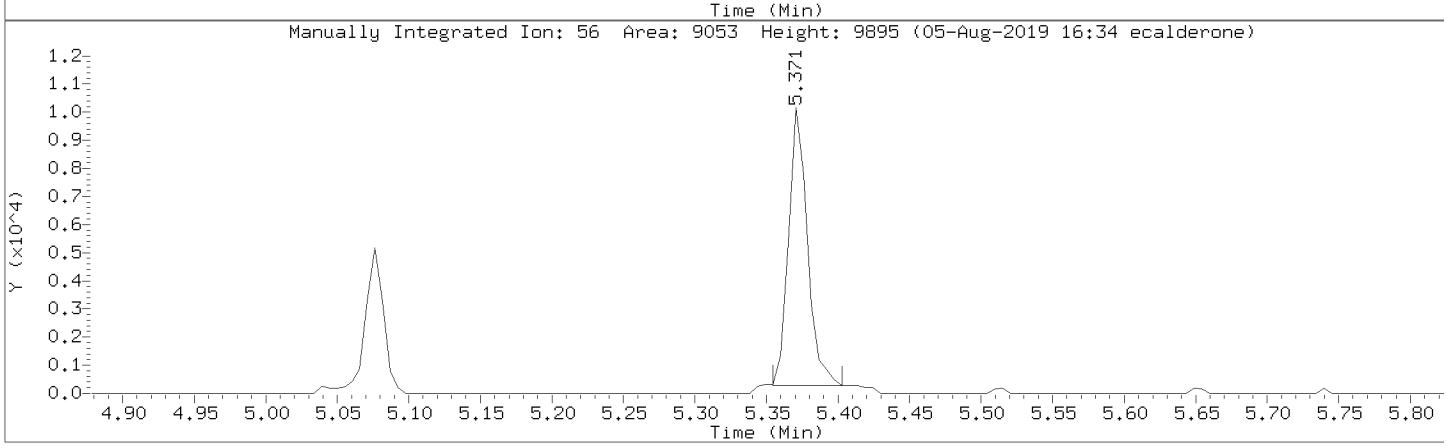
Injection Date: 05-AUG-2019 14:40
Instrument: 30mss4.i
Lab Sample ID: CAL1

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2









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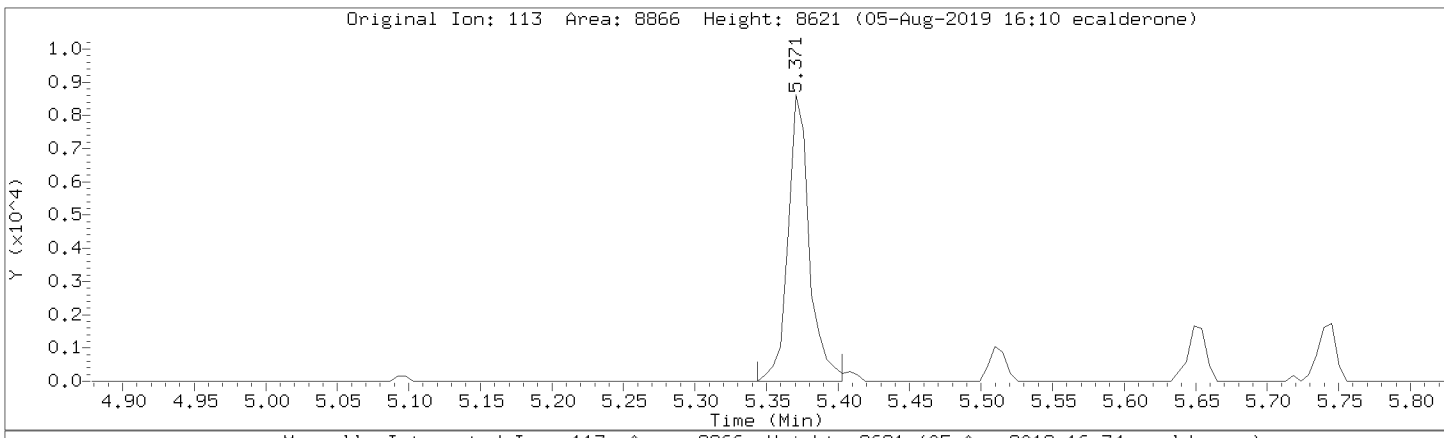
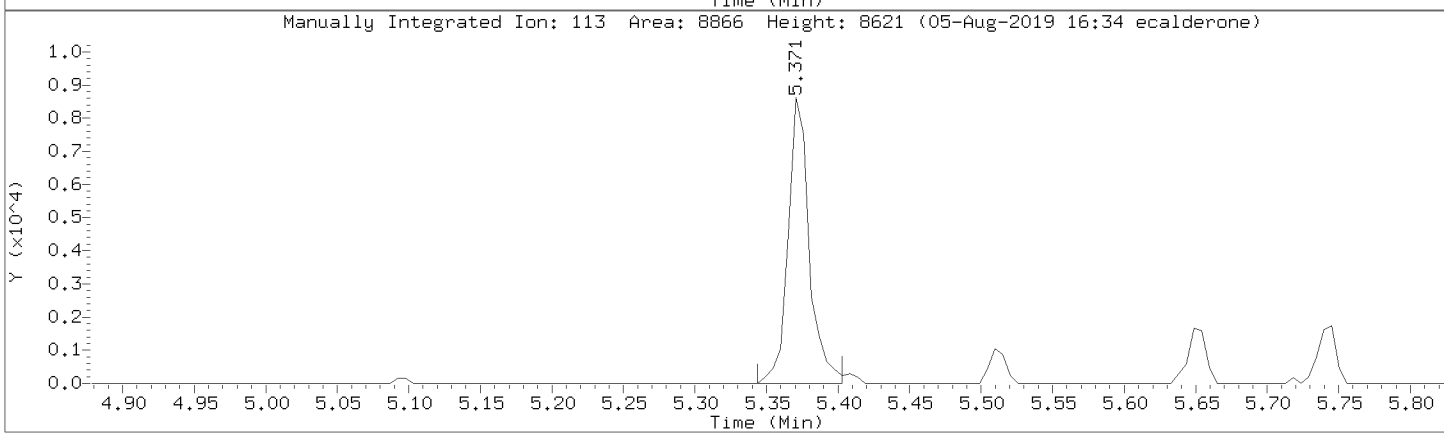
Injection Date: 05-AUG-2019 14:40
Instrument: 30mss4.i
Lab Sample ID: CAL1





SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN INITIAL CALIBRATION DATA

11418778ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/05/2019 Time: 15:02

Instrument ID: 30MSS4 GC Column: Col 1 Init. Calib. Date(s): 08/05/2019 08/05/2019

Lab File ID: MSS4080519.B\M40805Y8.D Init. Calib. Time(s): 12:29 14:40

SDG No.: 30318799

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.60098	1.54167	0.0500	-3.7046	20.0000
2,4-Dinitrotoluene	Averaged	0.37119	0.39227	0.0500	5.6809	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16546	0.16931	0.0500	2.3323	20.0000
Hexachlorobenzene	Averaged	0.23778	0.24460	0.0500	2.8659	20.0000
Hexachloroethane	Averaged	0.56687	0.56552	0.0500	-0.2371	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.20800	1.22098	0.0500	1.0748	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.23794	2.57679	0.0500	4.0755	20.0000
Nitrobenzene	Averaged	0.32985	0.33241	0.0500	0.7755	20.0000
Pentachlorophenol	Averaged	0.12913	0.15236	0.0500	17.9956	20.0000
Pyridine	Averaged	1.14442	1.29990	0.0500	13.5858	20.0000
2,4,5-Trichlorophenol	Averaged	0.34731	0.38273	0.0500	10.1985	20.0000
2,4,6-Trichlorophenol	Averaged	0.36047	0.37062	0.0500	2.8161	20.0000
2-Fluorobiphenyl (S)	Averaged	1.32514	1.35050	0.0500	1.9138	20.0000
2-Fluorophenol (S)	Averaged	1.14788	1.16422	0.0500	1.4240	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16046	0.16317	0.0500	1.6894	20.0000
Phenol-d6 (S)	Averaged	1.50616	1.50455	0.0500	-0.1068	20.0000
Terphenyl-d14 (S)	Averaged	0.93432	0.89223	0.0500	-4.5046	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.12802	0.13065	0.0500	2.0566	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

11388800CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/12/2019 Time: 16:56

Instrument ID: 30MSS4 GC Column: Col 1 Init. Calib. Date(s): 08/05/2019 08/05/2019

Lab File ID: MSS4081219.B\M40812S2.D Init. Calib. Time(s): 12:29 14:40

SDG No.: 30318799

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,4-Dichlorobenzene	Averaged	1.60098	1.56426	0.0500	-2.2938	20.0000
2,4-Dinitrotoluene	Averaged	0.37119	0.39037	0.0500	5.1671	20.0000
Hexachloro-1,3-butadiene	Averaged	0.16546	0.16334	0.0500	-1.2764	20.0000
Hexachlorobenzene	Averaged	0.23778	0.23880	0.0500	0.4261	20.0000
Hexachloroethane	Averaged	0.56687	0.55020	0.0500	-2.9397	20.0000
2-Methylphenol(o-Cresol)	Averaged	1.20800	1.16445	0.0500	-3.6045	20.0000
3&4-Methylphenol(m&p Cresol)	Averaged	1.23794	1.18467	0.0500	-4.3036	20.0000
Nitrobenzene	Averaged	0.32985	0.30583	0.0500	-7.2839	20.0000
Pentachlorophenol	Averaged	0.12913	0.13922	0.0500	7.8161	20.0000
Pyridine	Averaged	1.14442	1.07053	0.0500	-6.4563	20.0000
2,4,5-Trichlorophenol	Averaged	0.34731	0.35826	0.0500	3.1512	20.0000
2,4,6-Trichlorophenol	Averaged	0.36047	0.34797	0.0500	-3.4695	20.0000
2-Fluorobiphenyl (S)	Averaged	1.32514	1.31899	0.0500	-0.4642	20.0000
2-Fluorophenol (S)	Averaged	1.14788	1.17367	0.0500	2.2468	20.0000
Nitrobenzene-d5 (S)	Averaged	0.16046	0.16133	0.0500	0.5448	20.0000
Phenol-d6 (S)	Averaged	1.50616	1.47850	0.0500	-1.8368	20.0000
Terphenyl-d14 (S)	Averaged	0.93432	0.98678	0.0500	5.6144	20.0000
2,4,6-Tribromophenol (S)	Averaged	0.12802	0.13401	0.0500	4.6807	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4080519.b\m40805y8.d
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Inj Date : 05-AUG-2019 15:02 MS Autotune Date: 24-JUL-2019 14:5
Operator : EAC Inst ID: 30mss4.i
Smp Info : icv, 95128:1
Misc Info : 14922,
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Meth Date : 05-Aug-2019 16:48 30mss4.i Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	2.284	2.279	(0.560)	147210	8.00000	8.21	
	2 Pyridine	79	2.289	2.289	(0.562)	255432	8.00000	9.09	
$	3 2-Fluorophenol (S)	112	3.172	3.172	(0.778)	228772	8.00000	8.11	
$	4 Phenol-d6 (S)	99	3.808	3.803	(0.934)	295648	8.00000	7.99	
	5 Benzaldehyde	77	3.760	3.760	(0.923)	82580	8.00000	3.20	
	6 Phenol	94	3.814	3.814	(0.936)	303463	8.00000	8.02	
	7 Aniline	66	3.856	3.856	(0.946)	147719	8.00000	8.02	
	8 bis(2-Chloroethyl)ether	63	3.889	3.883	(0.954)	184719	8.00000	7.97	
	9 2-Chlorophenol	128	3.942	3.942	(0.967)	275705	8.00000	8.46	
	10 1,3-Dichlorobenzene	146	4.054	4.054	(0.995)	270345	8.00000	7.75	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	4.076	4.076	(1.000)	98251	4.00000		
	12 1,4-Dichlorobenzene	146	4.092	4.092	(1.004)	302942	8.00000	7.70	
	13 Benzyl Alcohol	79	4.183	4.183	(1.026)	213292	8.00000	8.21	
	14 1,2-Dichlorobenzene	146	4.236	4.236	(1.039)	266168	8.00000	7.66	
	15 2-Methylphenol(o-Cresol)	108	4.263	4.263	(1.046)	239925	8.00000	8.08	
	16 bis(2-Chloroisopropyl)ether	45	4.300	4.295	(1.055)	388711	8.00000	8.03	
	17 3&4-Methylphenol(m&p Cresol)	108	4.381	4.370	(1.075)	506345	16.0000	16.6	
	18 N-Nitroso-di-n-propylamine	70	4.413	4.402	(1.083)	184434	8.00000	8.20	
	19 Acetophenone	105	4.397	4.397	(1.079)	350688	8.00000	8.34	
	20 Hexachloroethane	117	4.477	4.477	(1.098)	111126	8.00000	7.98	
$	21 Nitrobenzene-d5 (S)	128	4.520	4.520	(0.889)	128331	8.00000	8.14	
	22 Nitrobenzene	77	4.536	4.530	(0.893)	261440	8.00000	8.06	
	23 Isophorone	82	4.712	4.707	(0.927)	490109	8.00000	8.27	
	24 2,4-Dimethylphenol	107	4.792	4.787	(0.943)	270238	8.00000	8.26	
	25 2-Nitrophenol	139	4.787	4.782	(0.942)	140757	8.00000	8.33	
	26 Benzoic acid	105	4.867	4.830	(0.958)	169188	8.00000	8.71(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.867	4.867	(0.958)	279715	8.00000	7.86	
	28 2,4-Dichlorophenol	162	4.964	4.964	(0.977)	209215	8.00000	8.13	
	29 1,2,4-Trichlorobenzene	180	5.044	5.038	(0.993)	231900	8.00000	7.96	
*	30 Naphthalene-d8 (IS)	136	5.081	5.076	(1.000)	393248	4.00000		
	31 Naphthalene	128	5.097	5.092	(1.003)	811279	8.00000	8.14	
	32 4-Chloroaniline	65	5.135	5.135	(1.011)	91175	8.00000	8.26	
	33 Hexachloro-1,3-butadiene	225	5.231	5.231	(1.029)	133165	8.00000	8.19	
	34 Caprolactam	55	5.402	5.375	(1.063)	118383	8.00000	8.88	

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
Compounds									
35	4-Chloro-3-methylphenol	107	5.515	5.509	(1.085)	226103	8.00000	8.17	
36	2-Methylnaphthalene	142	5.654	5.654	(1.113)	539647	8.00000	8.19	
37	1-Methylnaphthalene	142	5.744	5.744	(1.131)	502531	8.00000	8.20	
38	Hexachlorocyclopentadiene	237	5.835	5.835	(0.894)	151055	8.00000	8.10	
39	1,2,4,5-Tetrachlorobenzene	216	5.825	5.825	(0.892)	233287	8.00000	8.31	
40	2,4,6-Trichlorophenol	196	5.900	5.894	(0.903)	155400	8.00000	8.22(M)	LT
41	2,4,5-Trichlorophenol	196	5.932	5.926	(0.908)	160477	8.00000	8.82	
$ 42	2-Fluorobiphenyl (S)	172	5.958	5.958	(0.912)	566256	8.00000	8.15	
43	Biphenyl (Diphenyl)	154	6.039	6.033	(0.925)	629769	8.00000	8.08	
44	2-Chloronaphthalene	164	6.055	6.055	(0.927)	150968	8.00000	8.17	
45	2-Nitroaniline	138	6.151	6.146	(0.942)	160000	8.00000	8.34	
46	Dimethylphthalate	163	6.311	6.306	(0.966)	529391	8.00000	8.19	
47	2,6-Dinitrotoluene	165	6.376	6.370	(0.976)	124583	8.00000	8.32	
48	Acenaphthylene	152	6.408	6.402	(0.981)	780707	8.00000	8.22	
49	3-Nitroaniline	65	6.488	6.483	(0.993)	154096	8.00000	8.29	
* 50	Acenaphthene-d10 (IS)	164	6.531	6.531	(1.000)	209647	4.00000		
51	2,4-Dinitrophenol	184	6.574	6.573	(1.007)	79694	8.00000	9.36	
52	Acenaphthene	153	6.557	6.557	(1.004)	508969	8.00000	8.23	
53	4-Nitrophenol	109	6.606	6.600	(1.011)	76047	8.00000	8.89	
54	2,4-Dinitrotoluene	165	6.707	6.702	(1.027)	164478	8.00000	8.45	
55	Dibenzofuran	168	6.697	6.691	(1.025)	680416	8.00000	8.22	
56	2,3,4,6-Tetrachlorophenol	232	6.841	6.836	(1.047)	130953	8.00000	8.46	
57	Diethylphthalate	149	6.932	6.927	(1.061)	567174	8.00000	8.52	
58	4-Chlorophenylphenyl ether	204	7.012	7.007	(1.074)	263969	8.00000	8.18	
59	Fluorene	166	7.028	7.028	(1.076)	554346	8.00000	8.28	
60	4-Nitroaniline	108	7.066	7.055	(1.082)	84836	8.00000	8.33(M)	LT
61	4,6-Dinitro-2-methylphenol	198	7.114	7.108	(0.888)	97732	8.00000	8.65	
62	N-Nitrosodiphenylamine	169	7.135	7.130	(0.891)	476718	8.00000	7.93	
63	Azobenzene	77	7.178	7.173	(0.896)	536455	8.00000	8.26	
64	1,2-Diphenylhydrazine	77	7.178	7.173	(0.896)	536455	8.00000	8.26	
$ 65	2,4,6-Tribromophenol (S)	330	7.296	7.296	(0.911)	99469	8.00000	8.16	
66	4-Bromophenylphenyl ether	248	7.520	7.520	(0.939)	159948	8.00000	8.02	
67	Hexachlorobenzene	284	7.691	7.691	(0.960)	186216	8.00000	8.23	
68	Atrazine	200	7.718	7.707	(0.963)	152930	8.00000	8.19	
69	Pentachlorophenol	266	7.873	7.868	(0.983)	115997	8.00000	9.44	
* 70	Phenanthrene-d10 (IS)	188	8.012	8.012	(1.000)	380659	4.00000		
71	Phenanthrene	178	8.039	8.034	(1.003)	823820	8.00000	8.10	
72	Anthracene	178	8.087	8.082	(1.009)	830277	8.00000	8.30	
73	Carbazole	167	8.248	8.242	(1.029)	686284	8.00000	7.84	
74	Di-n-butylphthalate	149	8.654	8.649	(1.080)	956429	8.00000	8.63	
75	Fluoranthene	202	9.301	9.296	(1.161)	865989	8.00000	8.61	
76	Pyrene	202	9.542	9.537	(0.884)	887595	8.00000	8.27	
$ 77	Terphenyl-d14 (S)	244	9.697	9.692	(0.898)	620665	8.00000	7.64	
78	Butylbenzylphthalate	149	10.221	10.216	(0.947)	405636	8.00000	8.86	
79	3,3'-Dichlorobenzidine	252	10.745	10.745	(0.996)	257956	8.00000	7.29	
80	bis(2-Ethylhexyl)phthalate	149	10.815	10.815	(1.002)	562961	8.00000	8.61	
81	Benzo(a)anthracene	228	10.772	10.772	(0.998)	782941	8.00000	8.28	
* 82	Chrysene-d12 (IS)	240	10.794	10.788	(1.000)	347816	4.00000		
83	Chrysene	228	10.815	10.815	(1.002)	726389	8.00000	8.08	
84	Di-n-octylphthalate	149	11.398	11.393	(0.939)	927753	8.00000	9.13	
85	Benzo(b)fluoranthene	252	11.810	11.804	(0.973)	826277	8.00000	8.57	
86	Benzo(k)fluoranthene	252	11.831	11.826	(0.974)	839538	8.00000	8.07	
87	Benzo(a)pyrene	252	12.093	12.088	(0.996)	693850	8.00000	7.87	
* 88	Perylene-d12 (IS)	264	12.141	12.136	(1.000)	351508	4.00000		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
89 Indeno(1,2,3-cd)pyrene	276	13.115	13.104	(1.080)	877956	8.00000	8.96	
90 Dibenz(a,h)anthracene	278	13.110	13.104	(1.080)	736058	8.00000	8.96	
91 Benzo(g,h,i)perylene	276	13.388	13.372	(1.103)	756537	8.00000	9.16	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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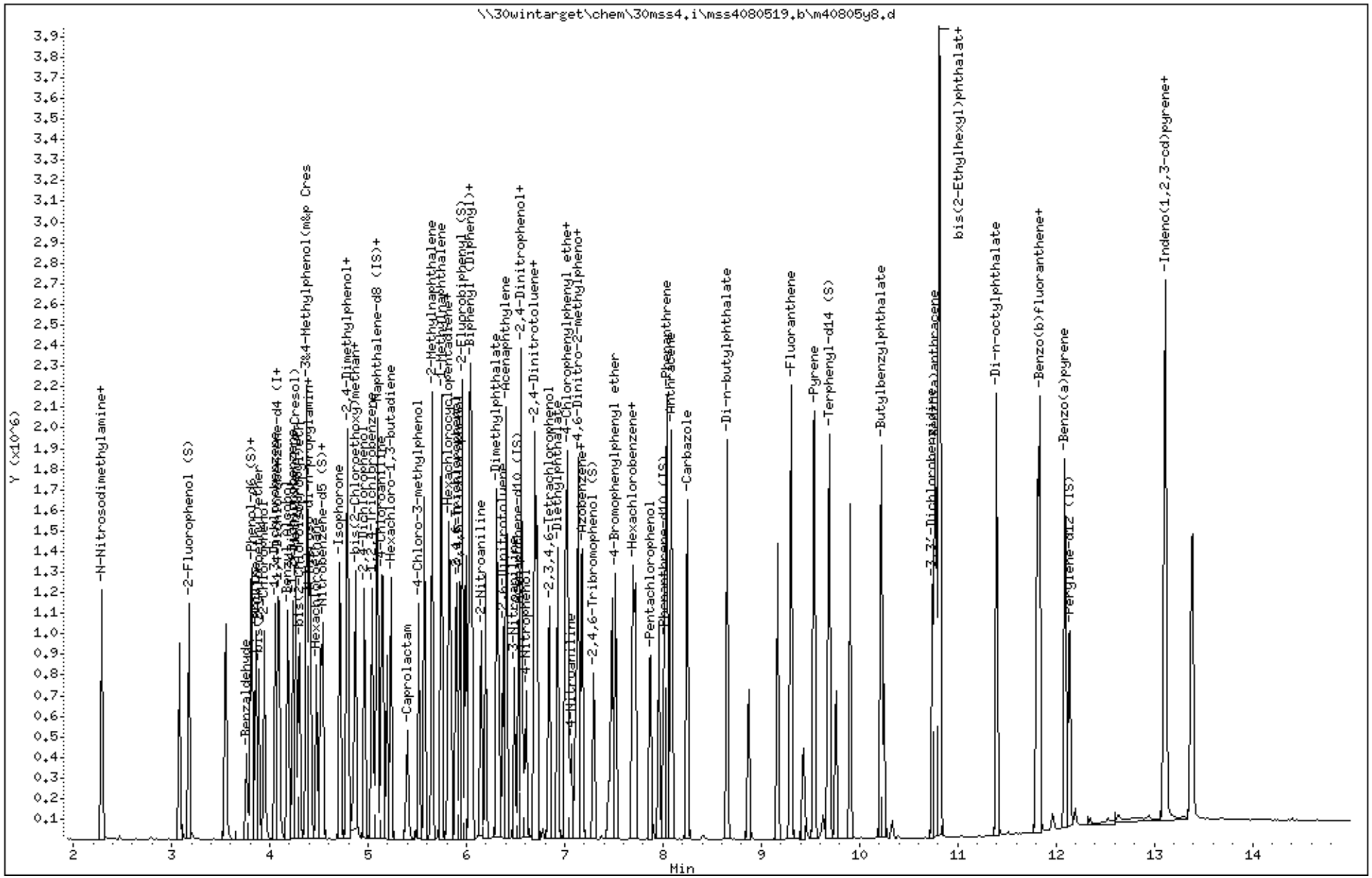
Operator: EAC
Column phase: RTX-5MS
Column diameter: 0.18



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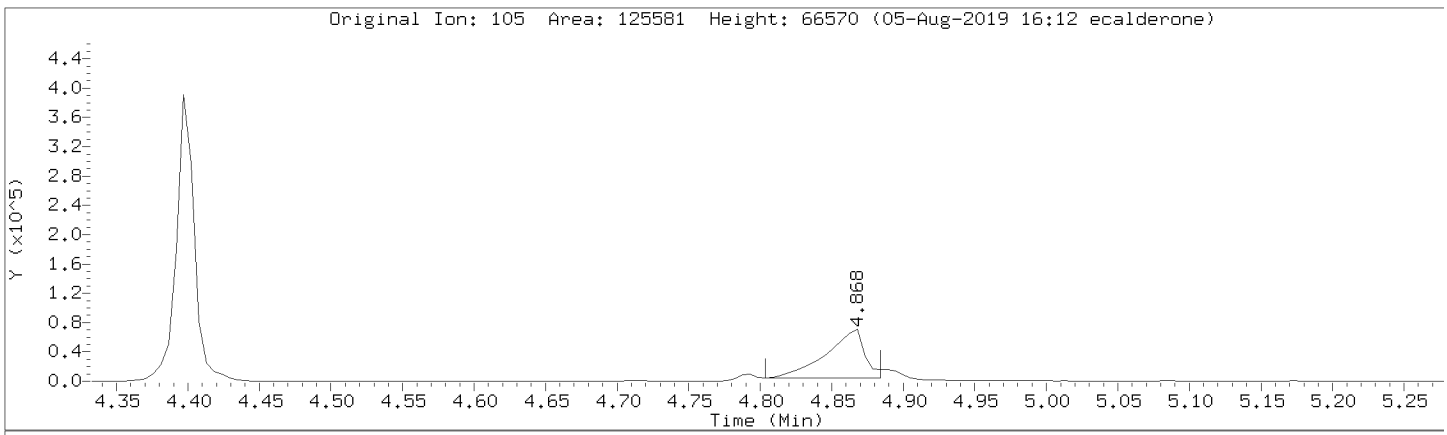
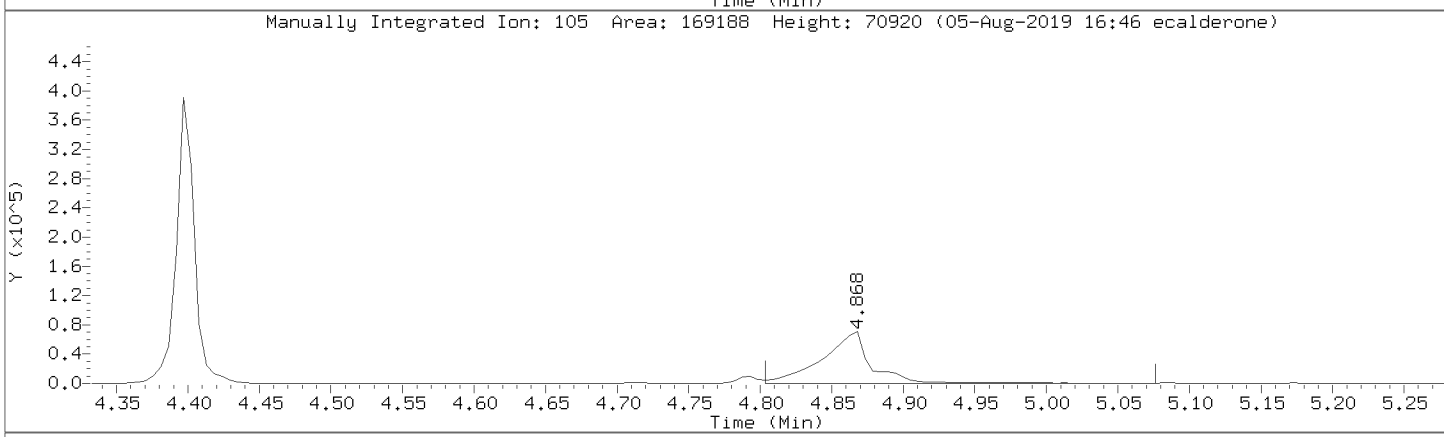
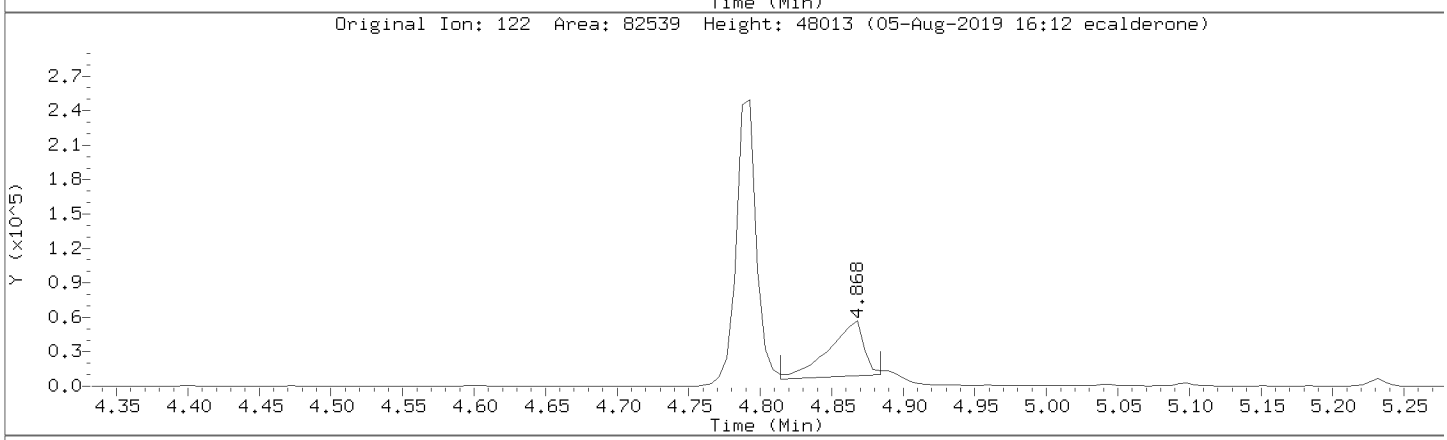
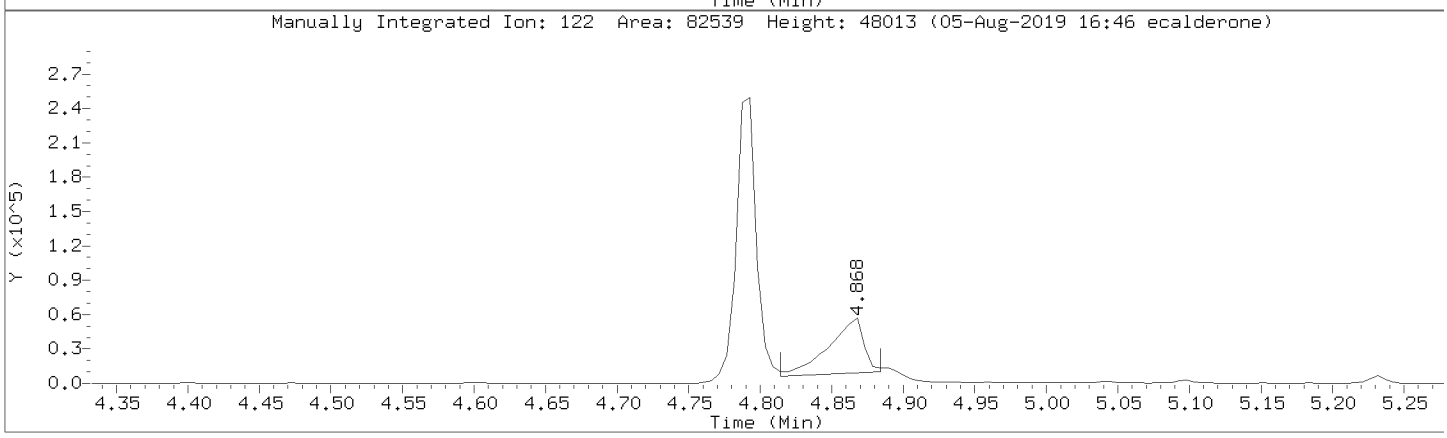
Lab Sample ID: ICV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0









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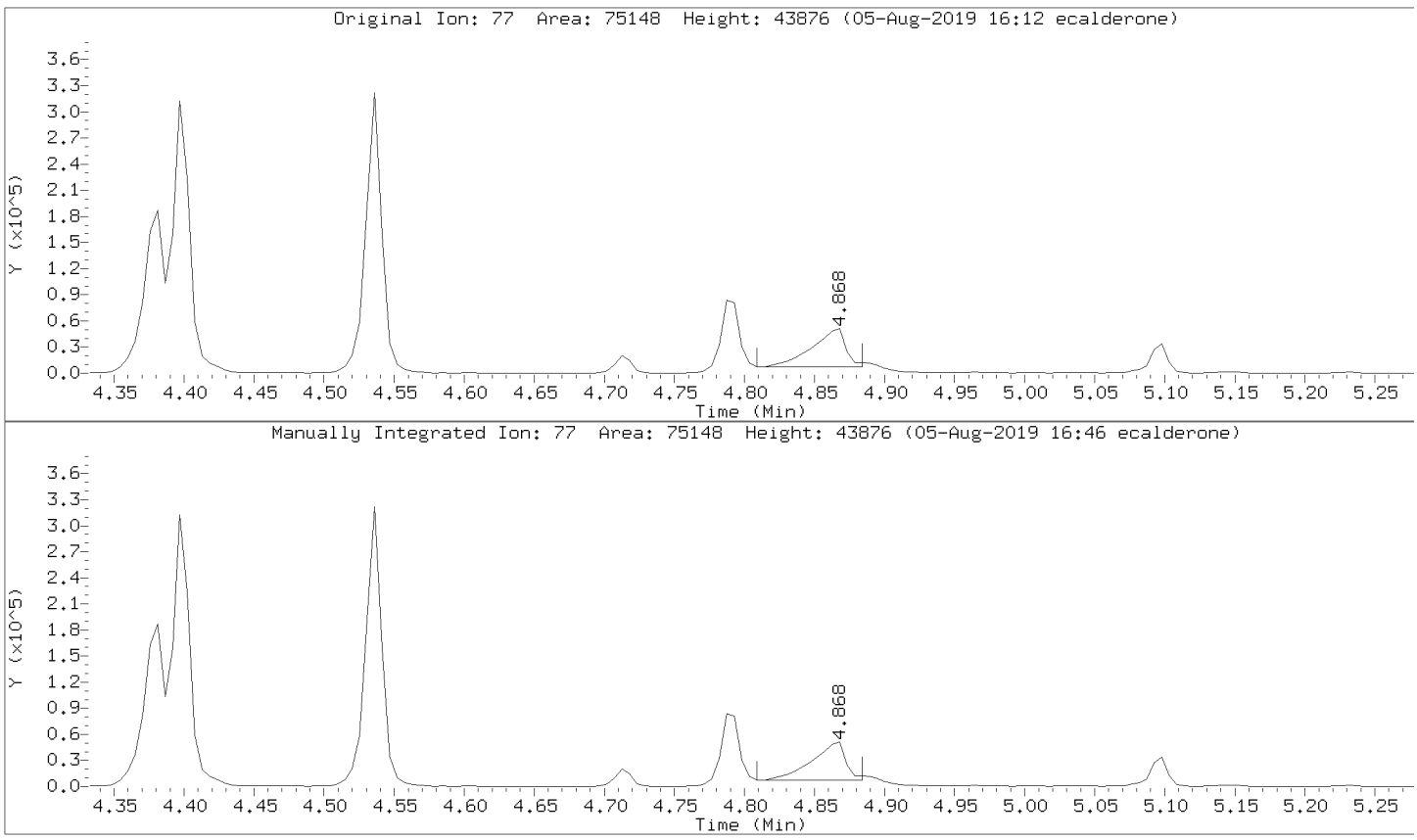
Lab Sample ID: ICV



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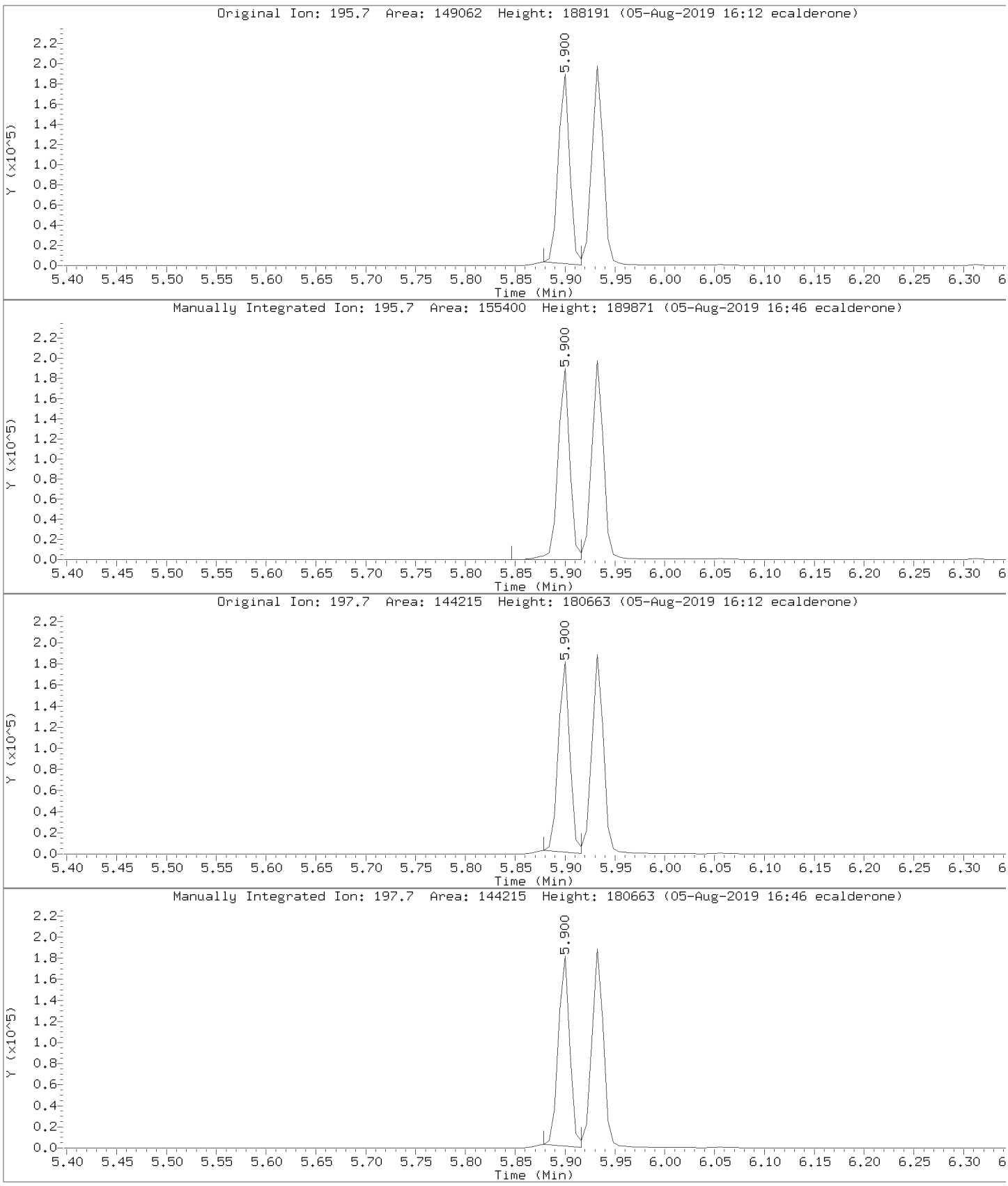
Instrument: 30mss4.i
Lab Sample ID: ICV

Compound: 2,4,6-Trichlorophenol Review Code: LT
CAS Number: 88-06-2



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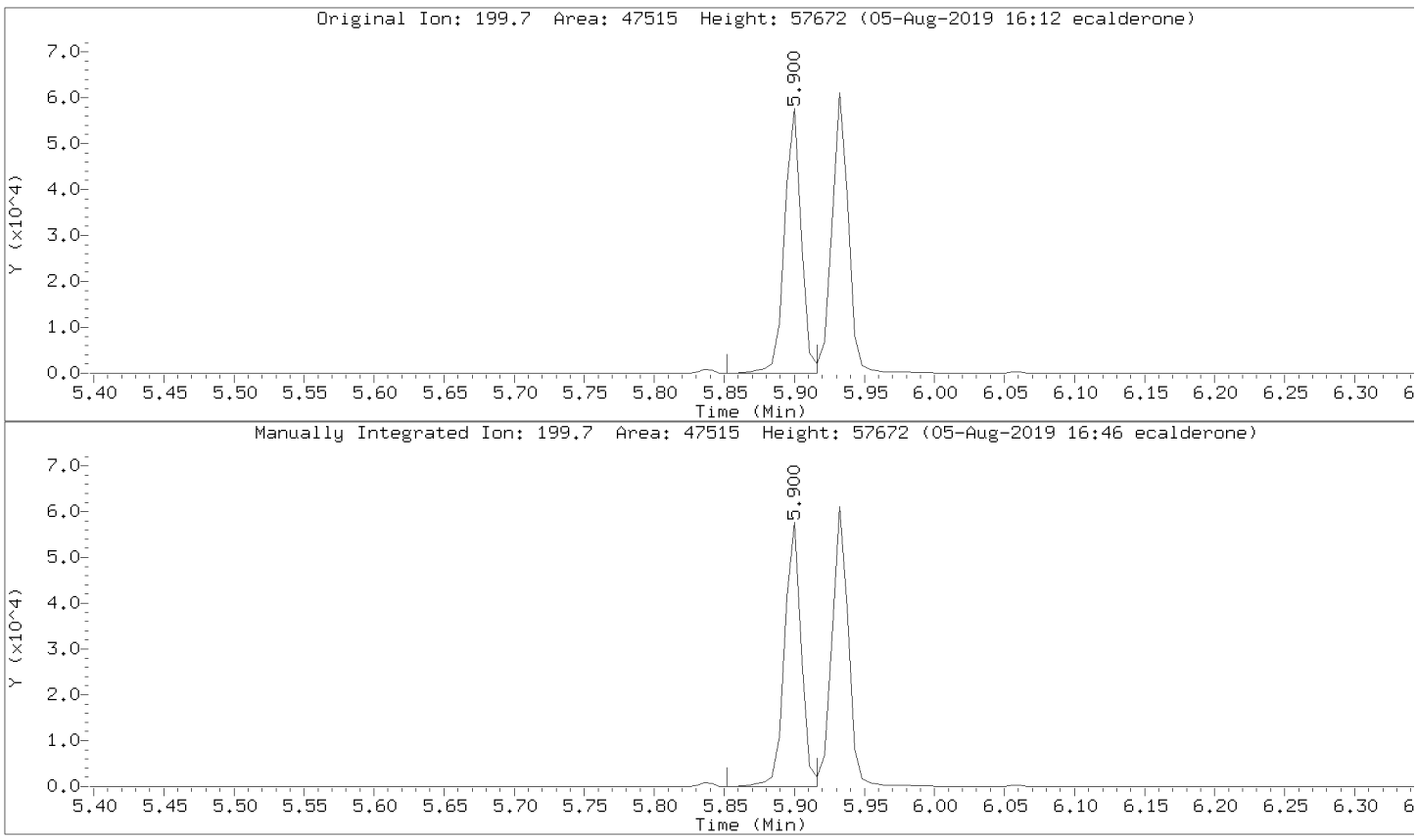
Instrument: 30mss4.i
Lab Sample ID: ICV



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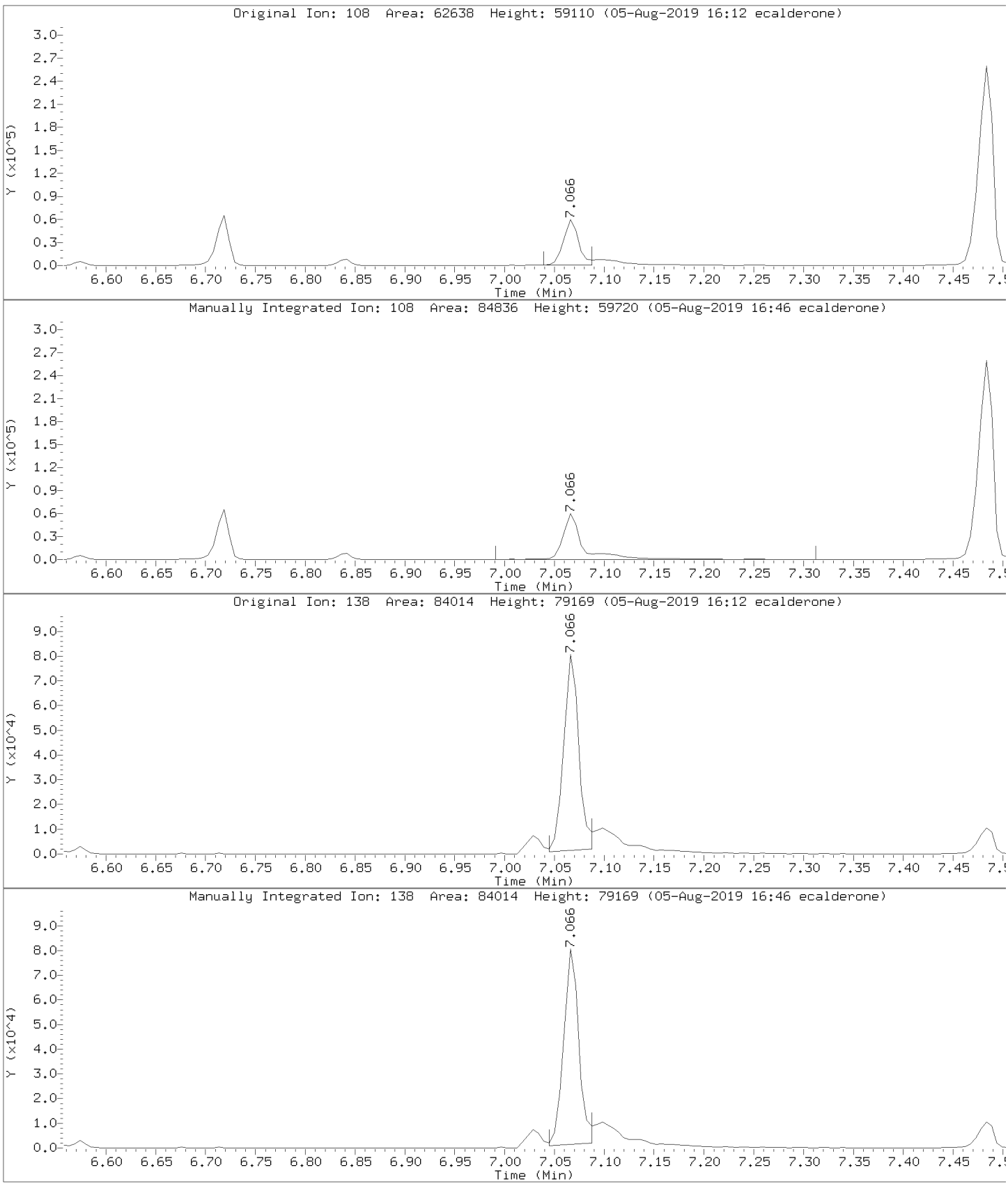
Injection Date: 05-AUG-2019 15:02
Instrument: 30mss4.i
Lab Sample ID: ICV

Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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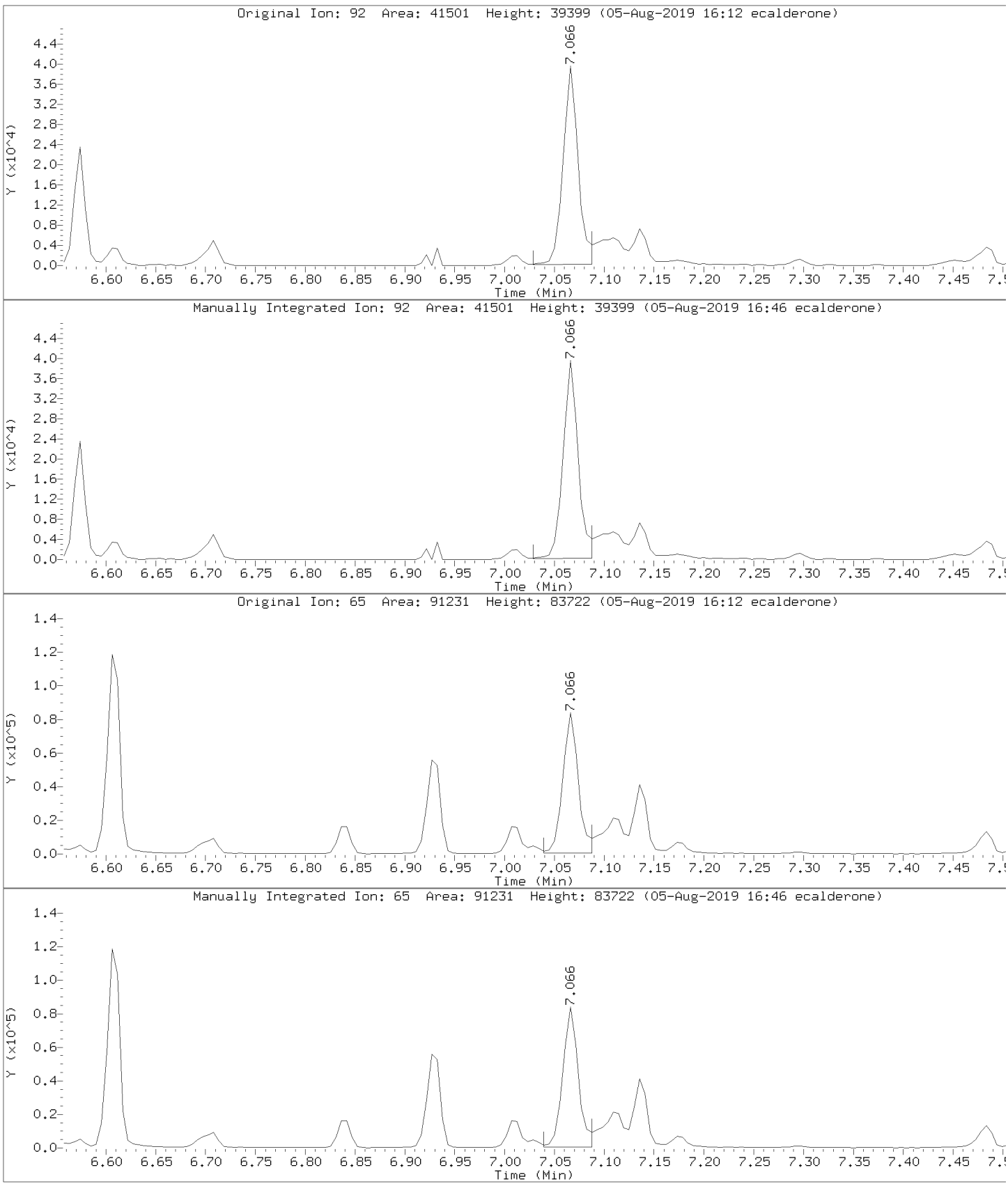

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4081219.b\m40812s2.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-AUG-2019 16:56 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : ccv, 94272:1
Misc Info : 14922,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4081219.b\8270080519.m
Meth Date : 13-Aug-2019 10:26 sgvozden Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	1 N-Nitrosodimethylamine	74	1.897	1.897	(0.508)	111487	8.00000	7.46	
	2 Pyridine	79	1.891	1.891	(0.506)	175355	8.00000	7.48	
$	3 2-Fluorophenol (S)	112	2.843	2.843	(0.761)	192249	8.00000	8.18	
$	4 Phenol-d6 (S)	99	3.491	3.491	(0.934)	242181	8.00000	7.85	
	5 Benzaldehyde	77	3.426	3.426	(0.917)	159424	8.00000	7.42	
	6 Phenol	94	3.501	3.501	(0.937)	248235	8.00000	7.87	
	7 Aniline	66	3.523	3.523	(0.943)	110756	8.00000	7.22(M)	BA
	8 bis(2-Chloroethyl)ether	63	3.560	3.560	(0.953)	130373	8.00000	6.75	
	9 2-Chlorophenol	128	3.603	3.603	(0.964)	223535	8.00000	8.23	
	10 1,3-Dichlorobenzene	146	3.710	3.710	(0.993)	235790	8.00000	8.11	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.737	3.737	(1.000)	81901	4.00000		
	12 1,4-Dichlorobenzene	146	3.747	3.747	(1.003)	256229	8.00000	7.82	
	13 Benzyl Alcohol	79	3.849	3.849	(1.030)	165503	8.00000	7.64	
	14 1,2-Dichlorobenzene	146	3.892	3.892	(1.042)	228907	8.00000	7.90	
	15 2-Methylphenol(o-Cresol)	108	3.940	3.940	(1.054)	190740	8.00000	7.71	
	16 bis(2-Chloroisopropyl)ether	45	3.967	3.967	(1.062)	250394	8.00000	6.20	
	17 3&4-Methylphenol(m&p Cresol)	108	4.052	4.052	(1.084)	194051	8.00000	7.66	
	18 N-Nitroso-di-n-propylamine	70	4.079	4.079	(1.092)	134727	8.00000	7.18	
	19 Acetophenone	105	4.057	4.057	(1.086)	256327	8.00000	7.31	
	20 Hexachloroethane	117	4.127	4.127	(1.104)	90124	8.00000	7.76	
$	21 Nitrobenzene-d5 (S)	128	4.175	4.175	(0.883)	104315	8.00000	8.04	
	22 Nitrobenzene	77	4.191	4.191	(0.887)	197744	8.00000	7.42	
	23 Isophorone	82	4.368	4.368	(0.924)	350879	8.00000	7.20	
	24 2,4-Dimethylphenol	107	4.459	4.459	(0.943)	207613	8.00000	7.72	
	25 2-Nitrophenol	139	4.437	4.437	(0.939)	111235	8.00000	8.01	
	26 Benzoic acid	105	4.544	4.544	(0.962)	130690	8.00000	8.18(M)	LT
	27 bis(2-Chloroethoxy)methane	93	4.533	4.533	(0.959)	217218	8.00000	7.42	
	28 2,4-Dichlorophenol	162	4.619	4.619	(0.977)	173605	8.00000	8.21	
	29 1,2,4-Trichlorobenzene	180	4.694	4.694	(0.993)	187759	8.00000	7.84	
*	30 Naphthalene-d8 (IS)	136	4.726	4.726	(1.000)	323294	4.00000		
	31 Naphthalene	128	4.742	4.742	(1.003)	648690	8.00000	7.92	
	32 4-Chloroaniline	65	4.790	4.790	(1.014)	65819	8.00000	7.25	
	33 Hexachloro-1,3-butadiene	225	4.886	4.886	(1.034)	105616	8.00000	7.90	

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	34	Caprolactam	55	5.052	5.052	(1.069)	79891	8.00000	7.29(M)	LT
	35	4-Chloro-3-methylphenol	107	5.181	5.181	(1.096)	168475	8.00000	7.41	
	36	2-Methylnaphthalene	142	5.293	5.293	(1.120)	428720	8.00000	7.91	
	37	1-Methylnaphthalene	142	5.384	5.384	(1.139)	399538	8.00000	7.93	
	38	Hexachlorocyclopentadiene	237	5.480	5.480	(0.890)	126428	8.00000	8.12	
	39	1,2,4,5-Tetrachlorobenzene	216	5.464	5.464	(0.887)	186409	8.00000	7.95	
	40	2,4,6-Trichlorophenol	196	5.539	5.539	(0.899)	121865	8.00000	7.72	
	41	2,4,5-Trichlorophenol	196	5.576	5.576	(0.905)	125469	8.00000	8.25	
$	42	2-Fluorobiphenyl (S)	172	5.603	5.603	(0.910)	461938	8.00000	7.96	
	43	Biphenyl (Diphenyl)	154	5.678	5.678	(0.922)	515951	8.00000	7.93	
	44	2-Chloronaphthalene	164	5.689	5.689	(0.924)	123369	8.00000	7.99	
	45	2-Nitroaniline	138	5.790	5.790	(0.940)	130869	8.00000	8.17	
	46	Dimethylphthalate	163	5.962	5.962	(0.968)	427059	8.00000	7.91	
	47	2,6-Dinitrotoluene	165	6.020	6.020	(0.977)	104105	8.00000	8.32	
	48	Acenaphthylene	152	6.036	6.036	(0.980)	645409	8.00000	8.14	
	49	3-Nitroaniline	65	6.133	6.133	(0.996)	119318	8.00000	7.69	
*	50	Acenaphthene-d10 (IS)	164	6.159	6.159	(1.000)	175111	4.00000		
	51	2,4-Dinitrophenol	184	6.213	6.213	(1.009)	62629	8.00000	8.81	
	52	Acenaphthene	153	6.186	6.186	(1.004)	412309	8.00000	7.98	
	53	4-Nitrophenol	109	6.261	6.261	(1.016)	57546	8.00000	8.06	
	54	2,4-Dinitrotoluene	165	6.341	6.341	(1.030)	136715	8.00000	8.41	
	55	Dibenzofuran	168	6.315	6.315	(1.025)	557430	8.00000	8.06	
	56	2,3,4,6-Tetrachlorophenol	232	6.448	6.448	(1.047)	109491	8.00000	8.46	
	57	Diethylphthalate	149	6.539	6.539	(1.062)	446659	8.00000	8.03	
	58	4-Chlorophenylphenyl ether	204	6.598	6.598	(1.071)	214411	8.00000	7.96	
	59	Fluorene	166	6.603	6.603	(1.072)	447753	8.00000	8.00	
	60	4-Nitroaniline	108	6.646	6.646	(1.079)	65847	8.00000	7.74(M)	LT
	61	4,6-Dinitro-2-methylphenol	198	6.684	6.684	(0.886)	84842	8.00000	7.33	
	62	N-Nitrosodiphenylamine	169	6.705	6.705	(0.889)	386199	8.00000	6.28	
	63	Azobenzene	77	6.737	6.737	(0.893)	407839	8.00000	6.13	
	64	1,2-Diphenylhydrazine	77	6.737	6.737	(0.893)	407839	8.00000	6.13	
$	65	2,4,6-Tribromophenol (S)	330	6.839	6.839	(0.906)	104489	8.00000	8.37	
	66	4-Bromophenylphenyl ether	248	7.069	7.069	(0.937)	167655	8.00000	8.21	
	67	Hexachlorobenzene	284	7.229	7.229	(0.958)	186187	8.00000	8.03	
	68	Atrazine	200	7.277	7.277	(0.965)	159675	8.00000	8.35	
	69	Pentachlorophenol	266	7.411	7.411	(0.982)	108548	8.00000	8.62	
*	70	Phenanthrene-d10 (IS)	188	7.545	7.545	(1.000)	389846	4.00000		
	71	Phenanthrene	178	7.572	7.572	(1.004)	820613	8.00000	7.87	
	72	Anthracene	178	7.620	7.620	(1.010)	841230	8.00000	8.21	
	73	Carbazole	167	7.791	7.791	(1.033)	724938	8.00000	8.08	
	74	Di-n-butylphthalate	149	8.224	8.224	(1.090)	1039954	8.00000	9.16	
	75	Fluoranthene	202	8.839	8.839	(1.172)	705193	8.00000	6.85	
	76	Pyrene	202	9.069	9.069	(0.878)	725687	8.00000	8.26	
$	77	Terphenyl-d14 (S)	244	9.251	9.251	(0.896)	561870	8.00000	8.45	
	78	Butylbenzylphthalate	149	9.791	9.791	(0.948)	317882	8.00000	8.49	
	79	3,3'-Dichlorobenzidine	252	10.299	10.299	(0.997)	238870	8.00000	8.24	
	80	bis(2-Ethylhexyl)phthalate	149	10.401	10.401	(1.007)	438572	8.00000	8.19	
	81	Benzo(a)anthracene	228	10.310	10.310	(0.998)	623880	8.00000	8.06	
*	82	Chrysene-d12 (IS)	240	10.326	10.326	(1.000)	284700	4.00000		
	83	Chrysene	228	10.353	10.353	(1.003)	602269	8.00000	8.18	
	84	Di-n-octylphthalate	149	10.984	10.984	(0.941)	747844	8.00000	8.77	
	85	Benzo(b)fluoranthene	252	11.342	11.342	(0.972)	662331	8.00000	8.19	
	86	Benzo(k)fluoranthene	252	11.364	11.364	(0.974)	664482	8.00000	7.61	
	87	Benzo(a)pyrene	252	11.626	11.626	(0.996)	594690	8.00000	8.04	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
* 88 Perylene-d12 (IS)	264	11.669	11.669	(1.000)	294932	4.00000		
89 Indeno(1,2,3-cd)pyrene	276	12.530	12.530	(1.074)	707116	8.00000	8.60	
90 Dibenz(a,h)anthracene	278	12.535	12.535	(1.074)	587233	8.00000	8.52	
91 Benzo(g,h,i)perylene	276	12.749	12.749	(1.093)	619254	8.00000	8.94	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

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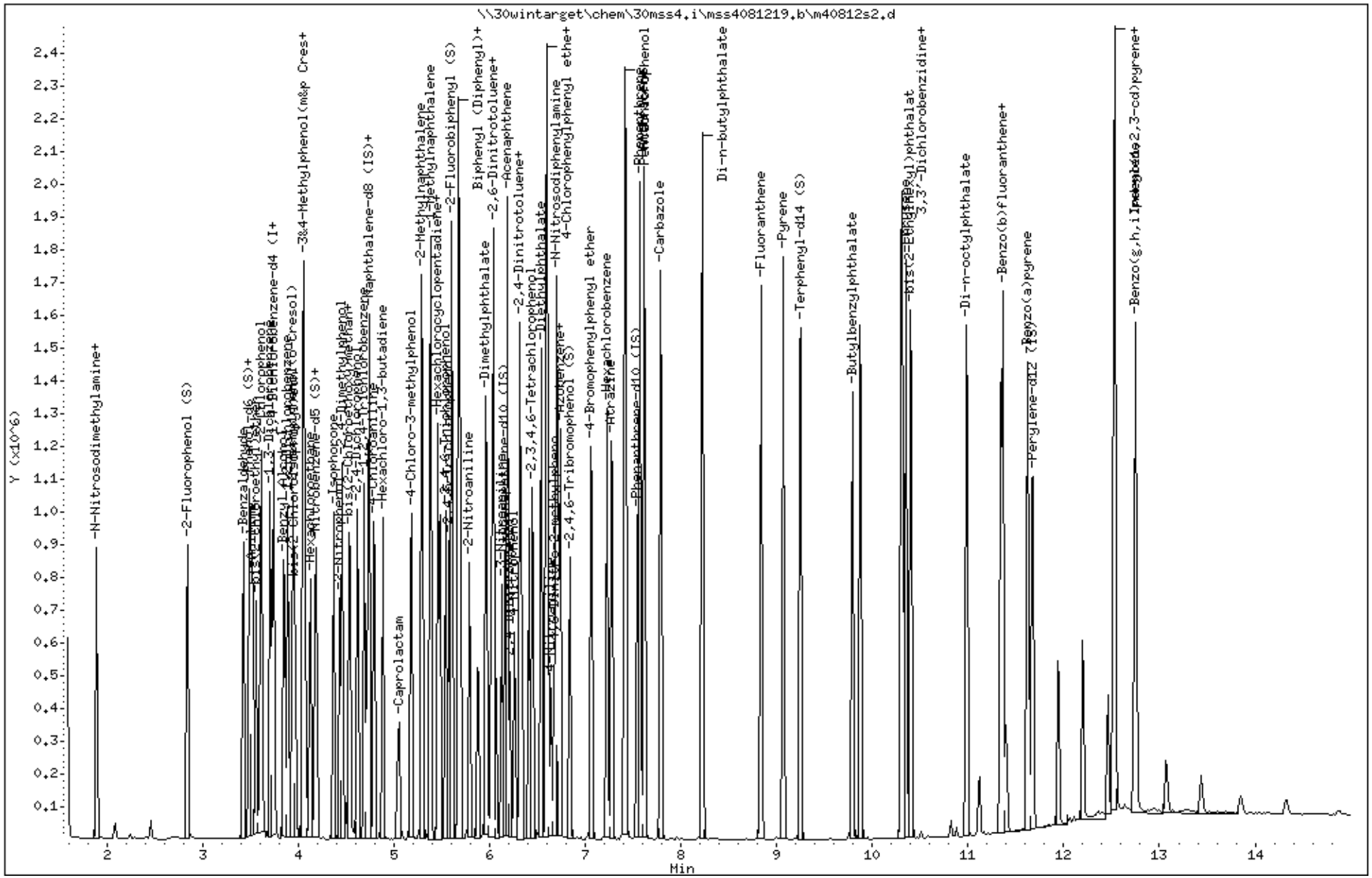
Client ID: CCV
Sample Info: CCV, 94272:1

Instrument: 30mss4.i
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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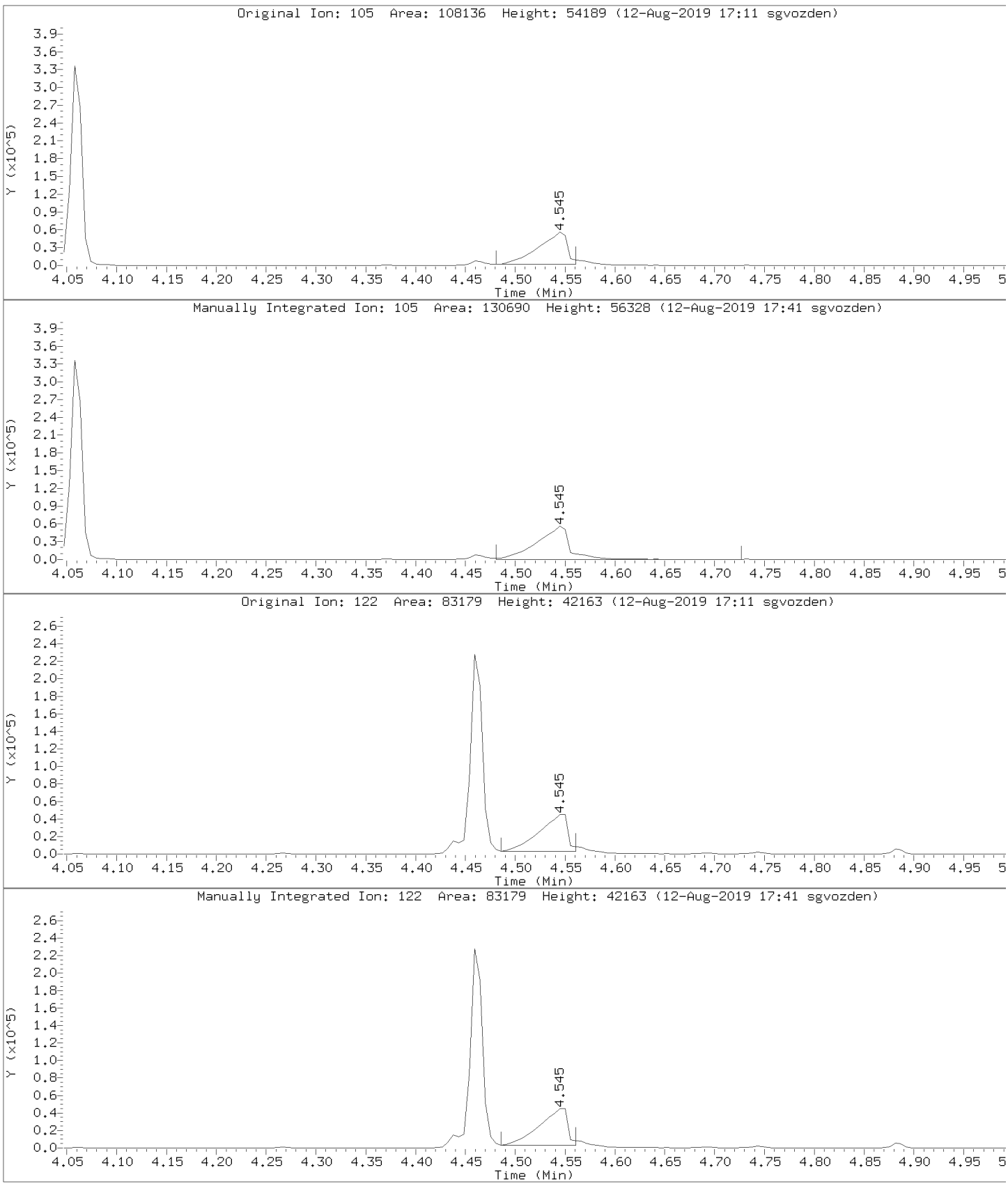
Instrument: 30mss4.i
Lab Sample ID: CCV

Compound: Benzoic acid Review Code: LT
CAS Number: 65-85-0



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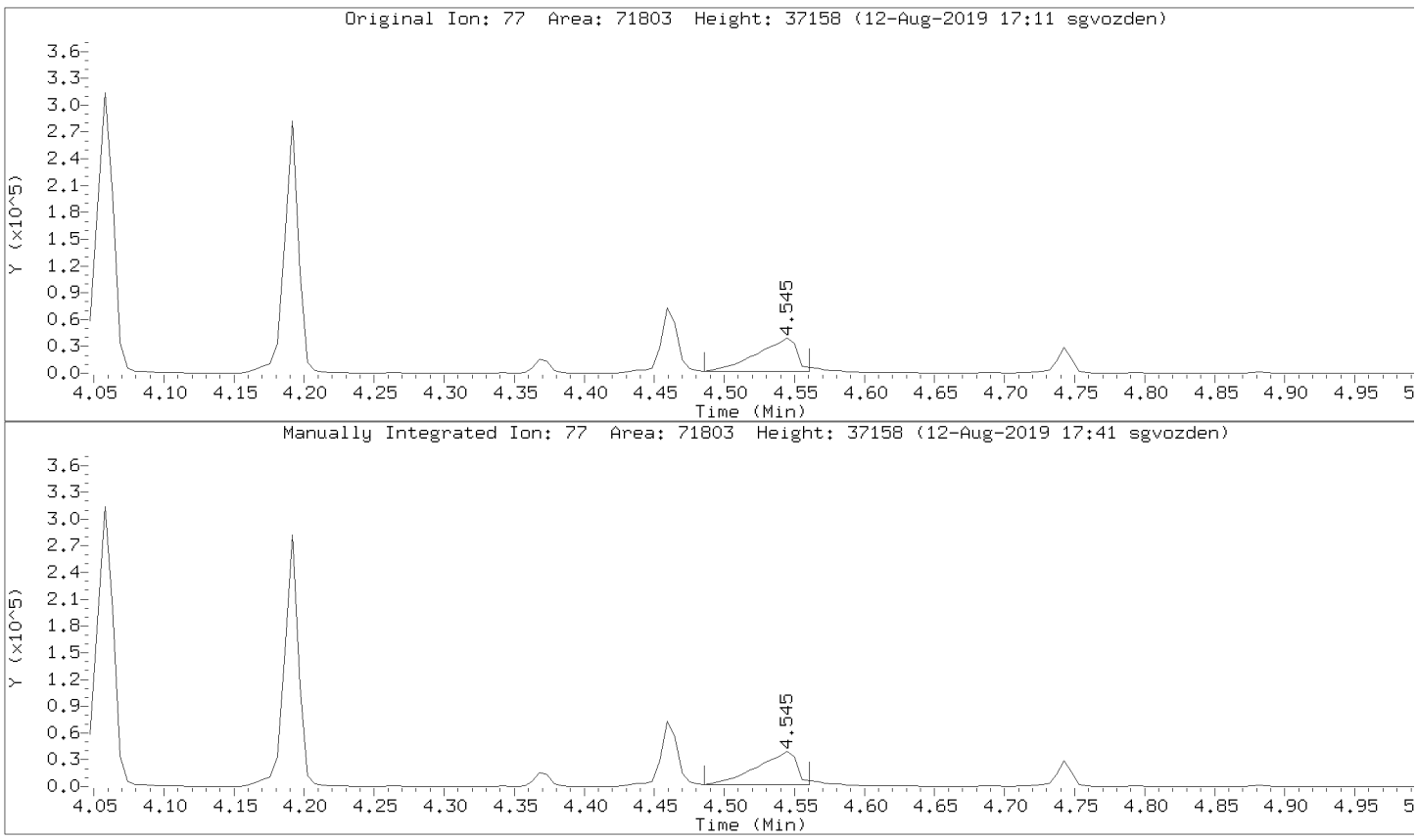

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Instrument: 30mss4.i
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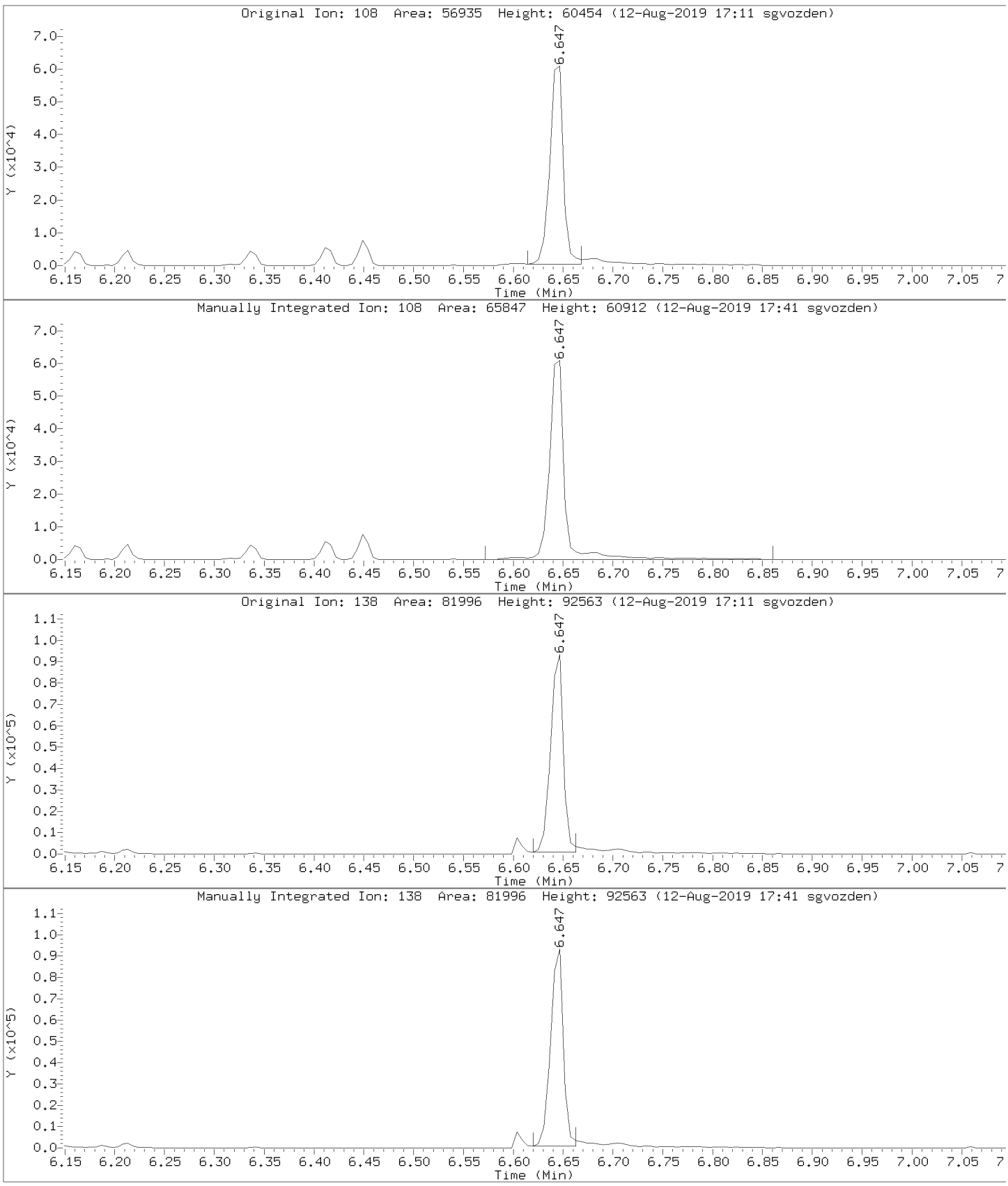
Compound: 4-Nitroaniline Review Code: LT
CAS Number: 100-01-6



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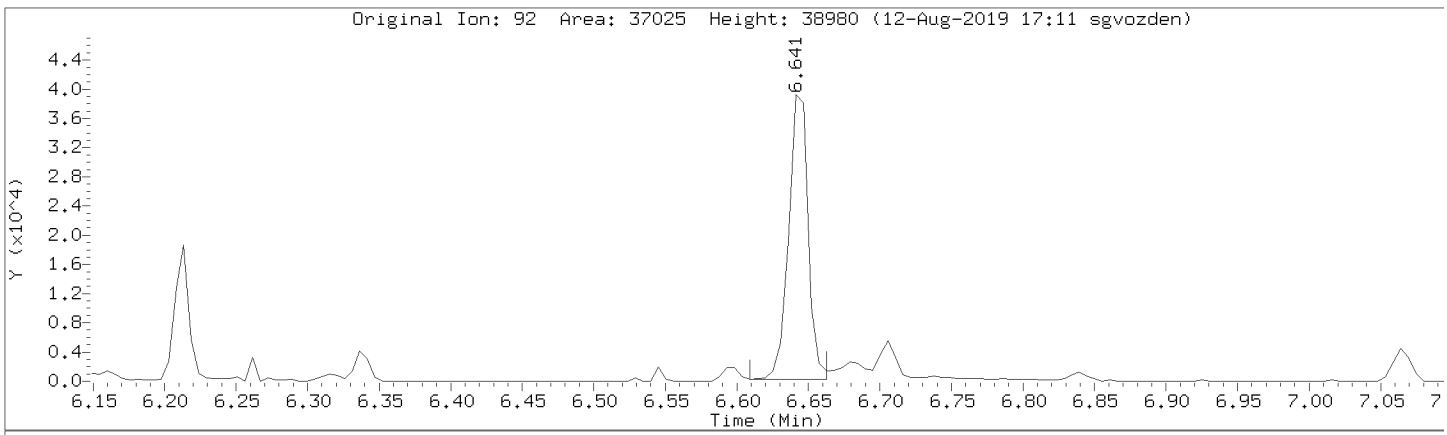
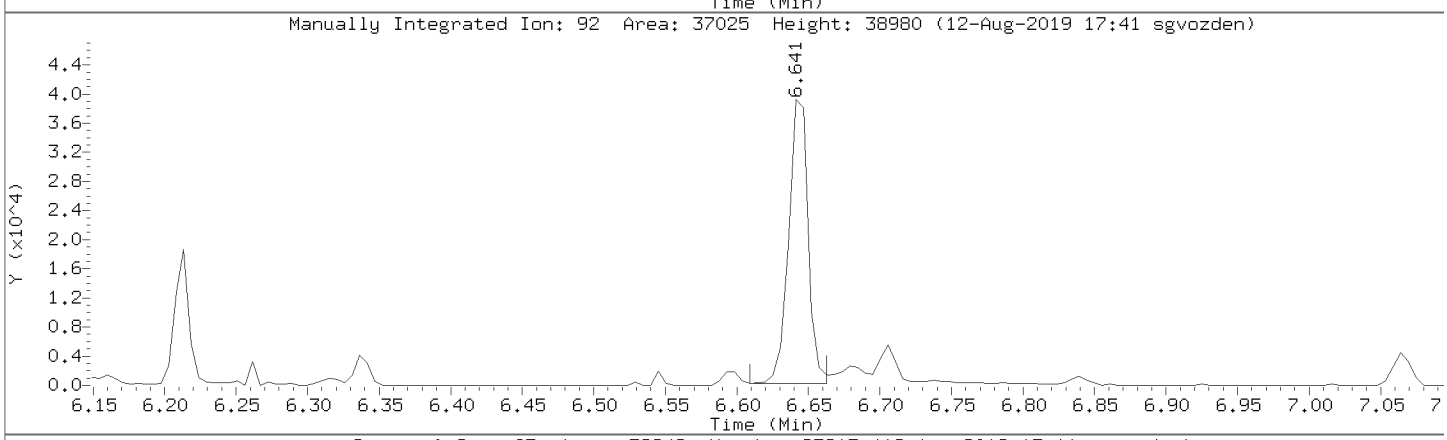
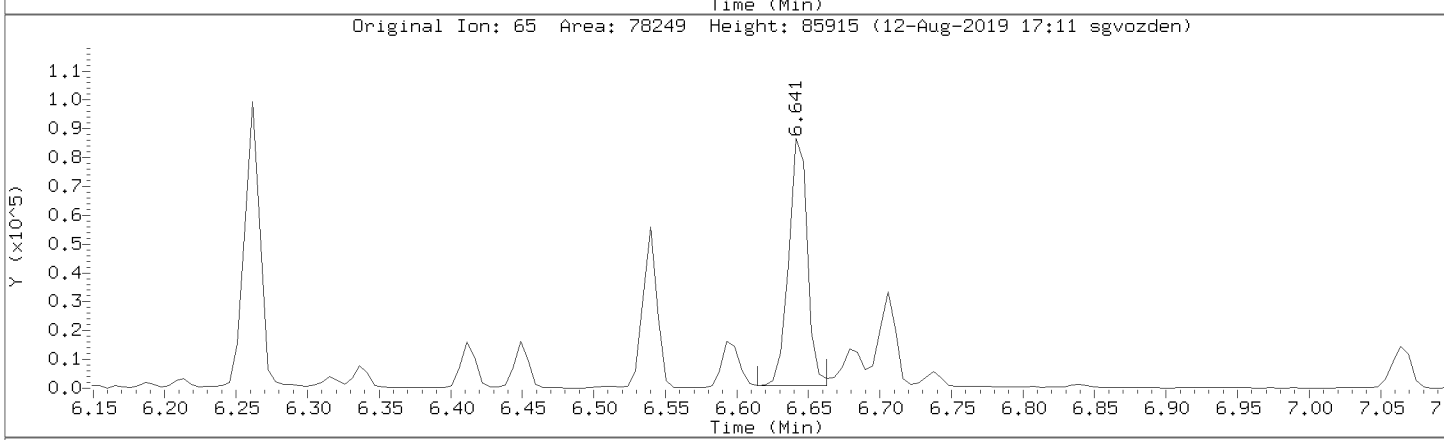
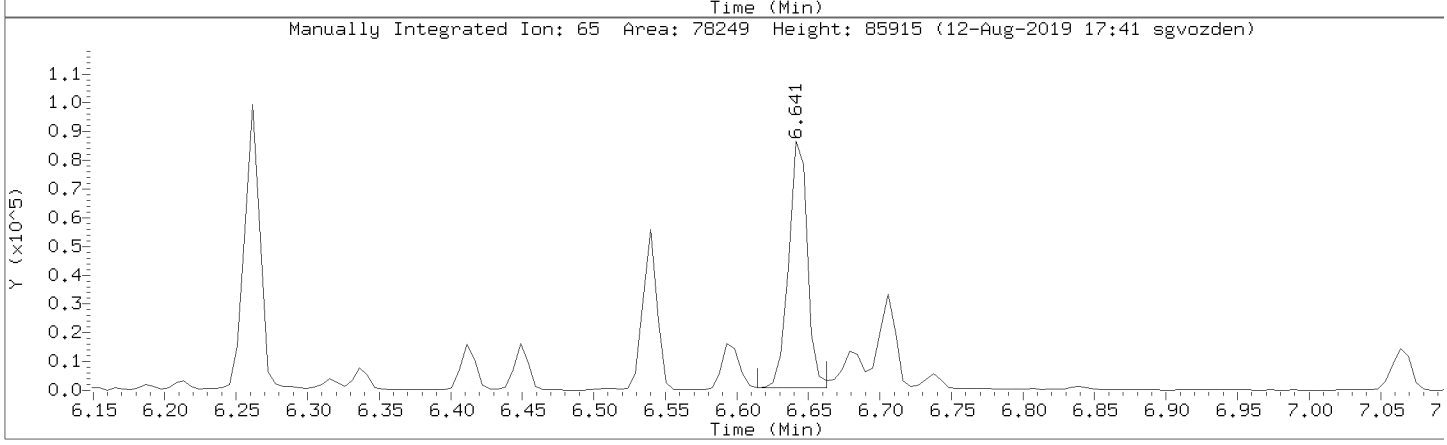
Lab Sample ID: CCV









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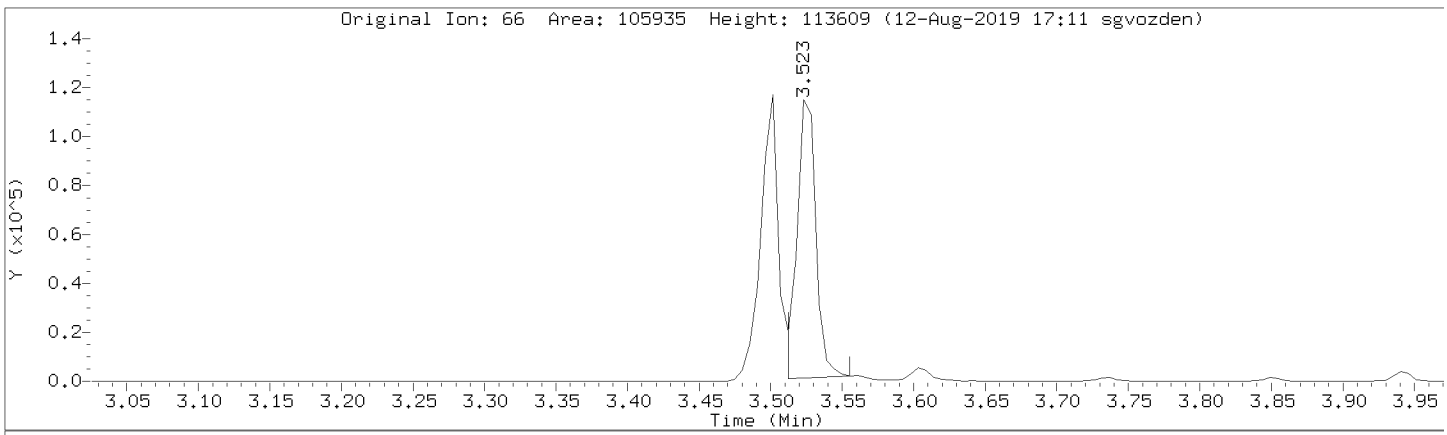
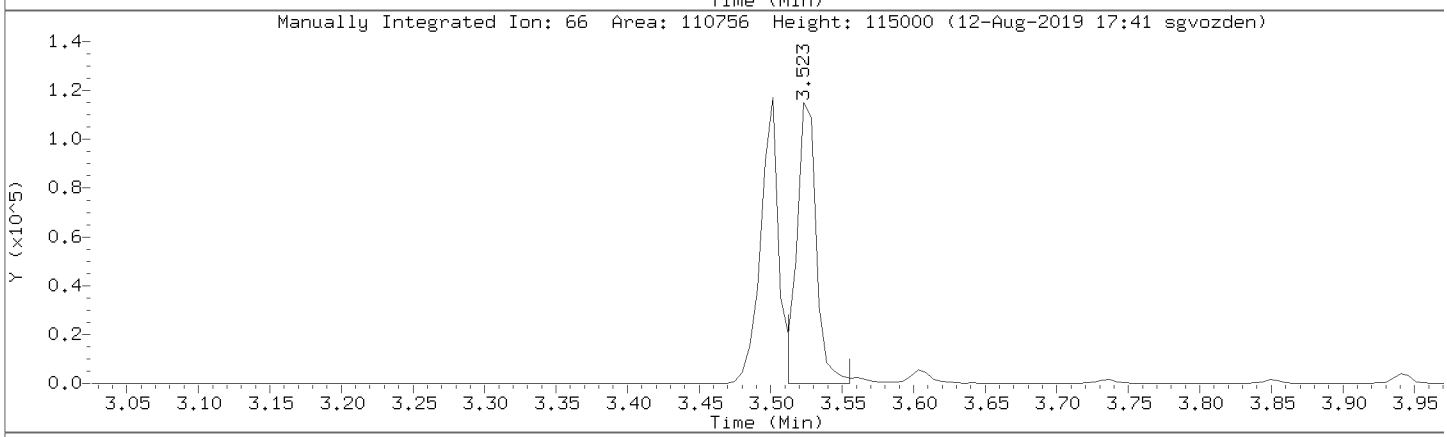
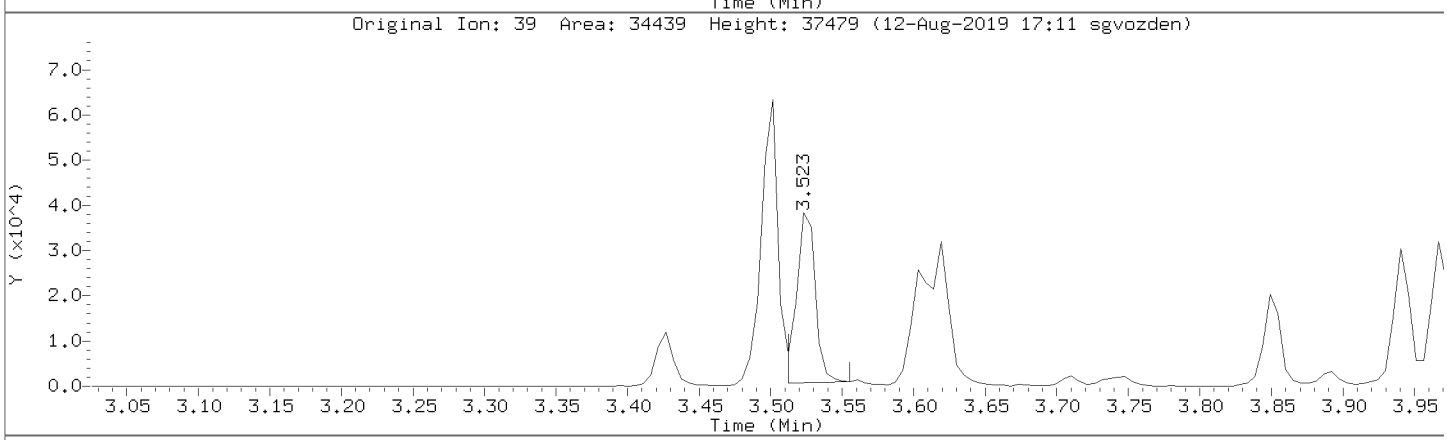
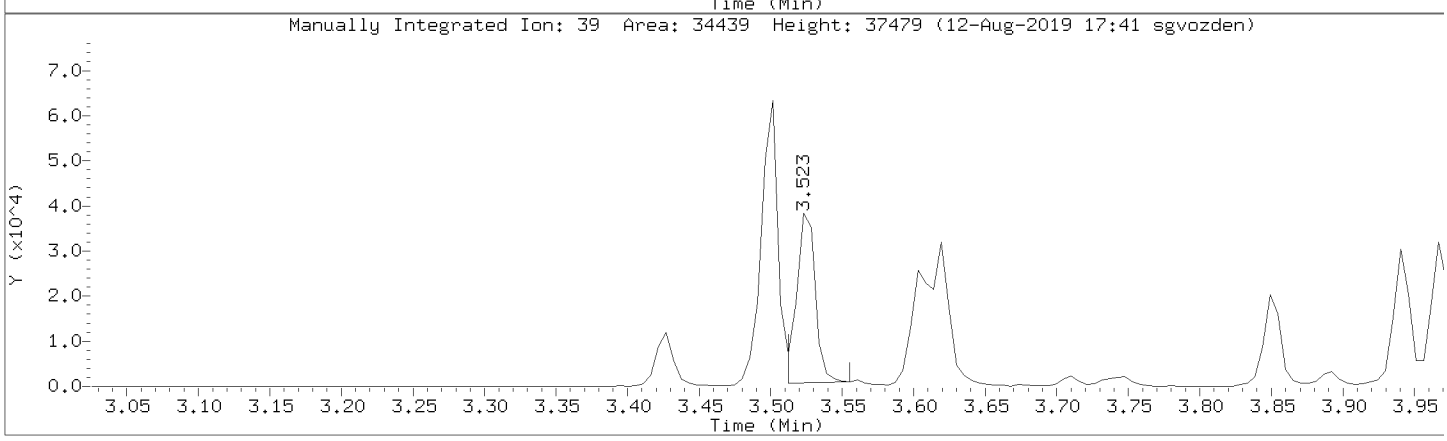
Instrument: 30mss4.i
Lab Sample ID: CCV

Compound: Aniline Review Code: BA
CAS Number: 62-53-3









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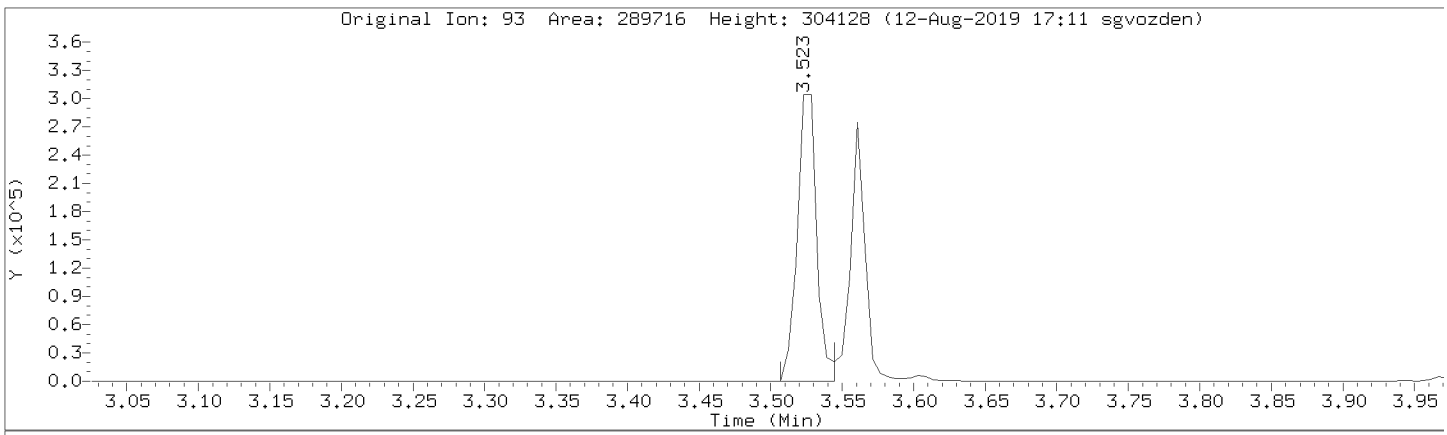
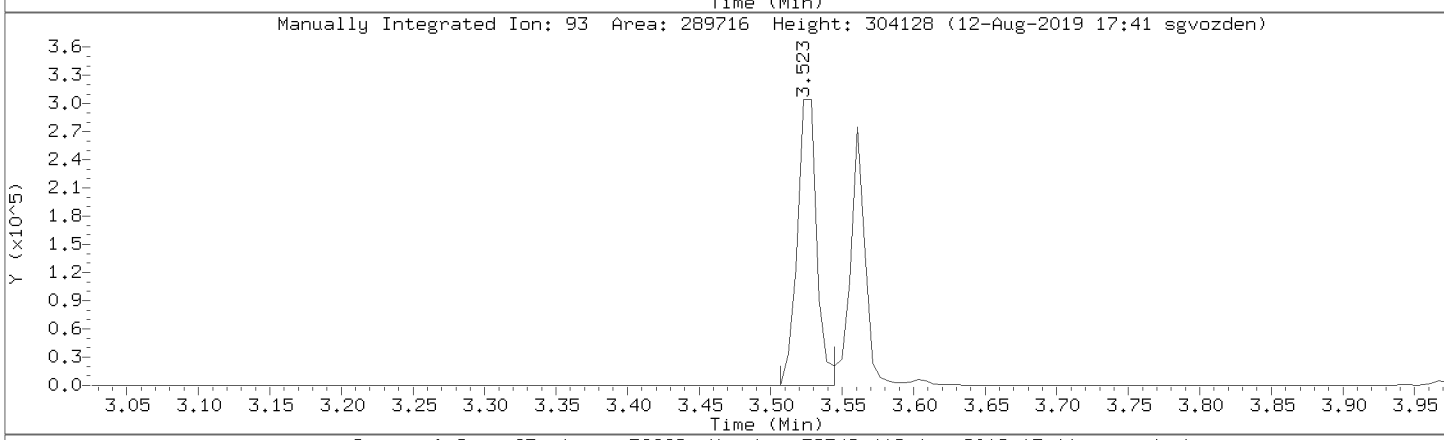
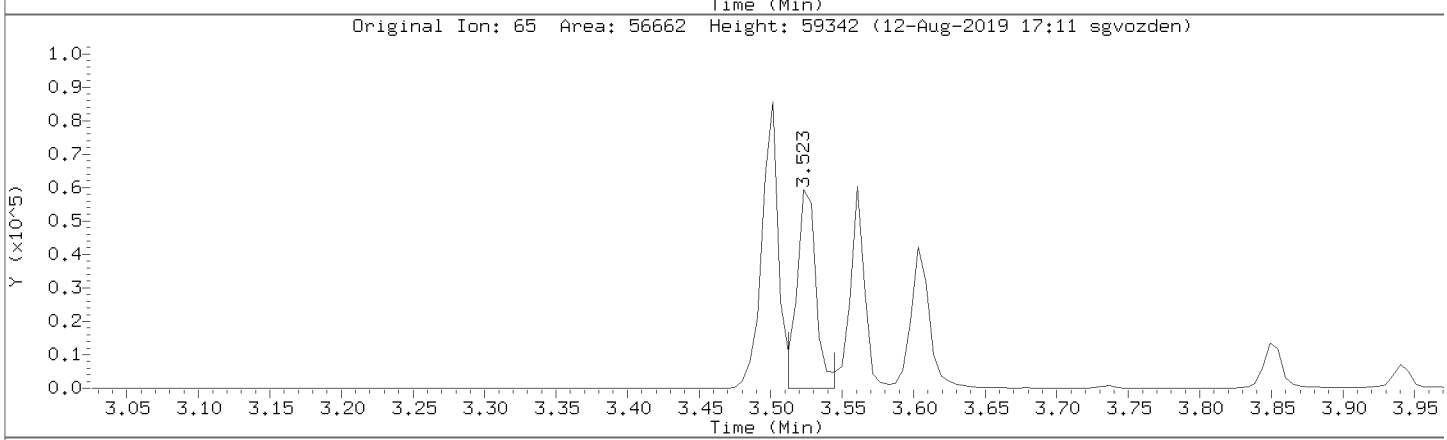
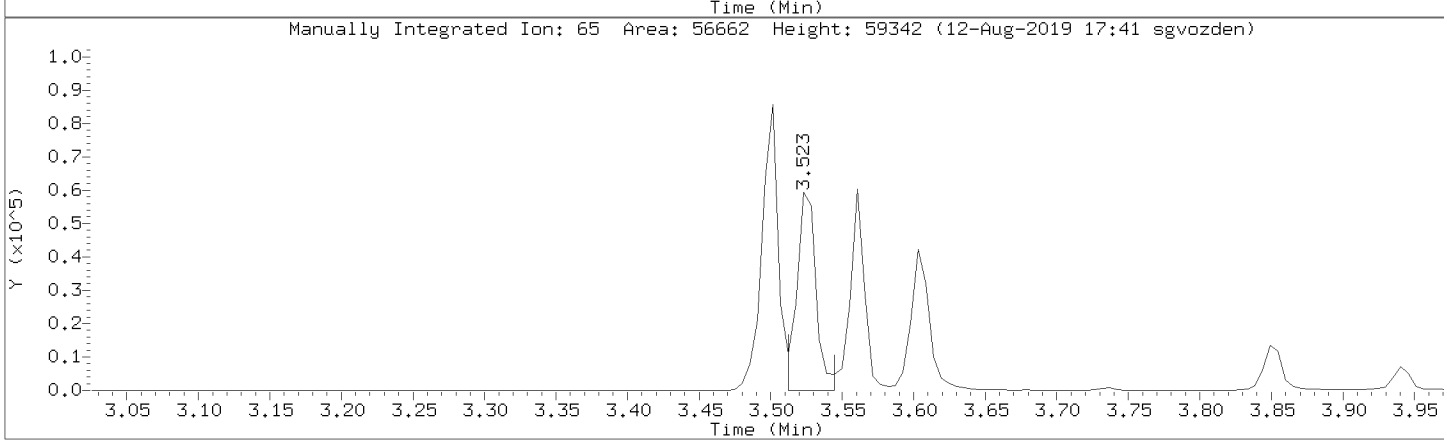
Instrument: 30mss4.i
Lab Sample ID: CCV









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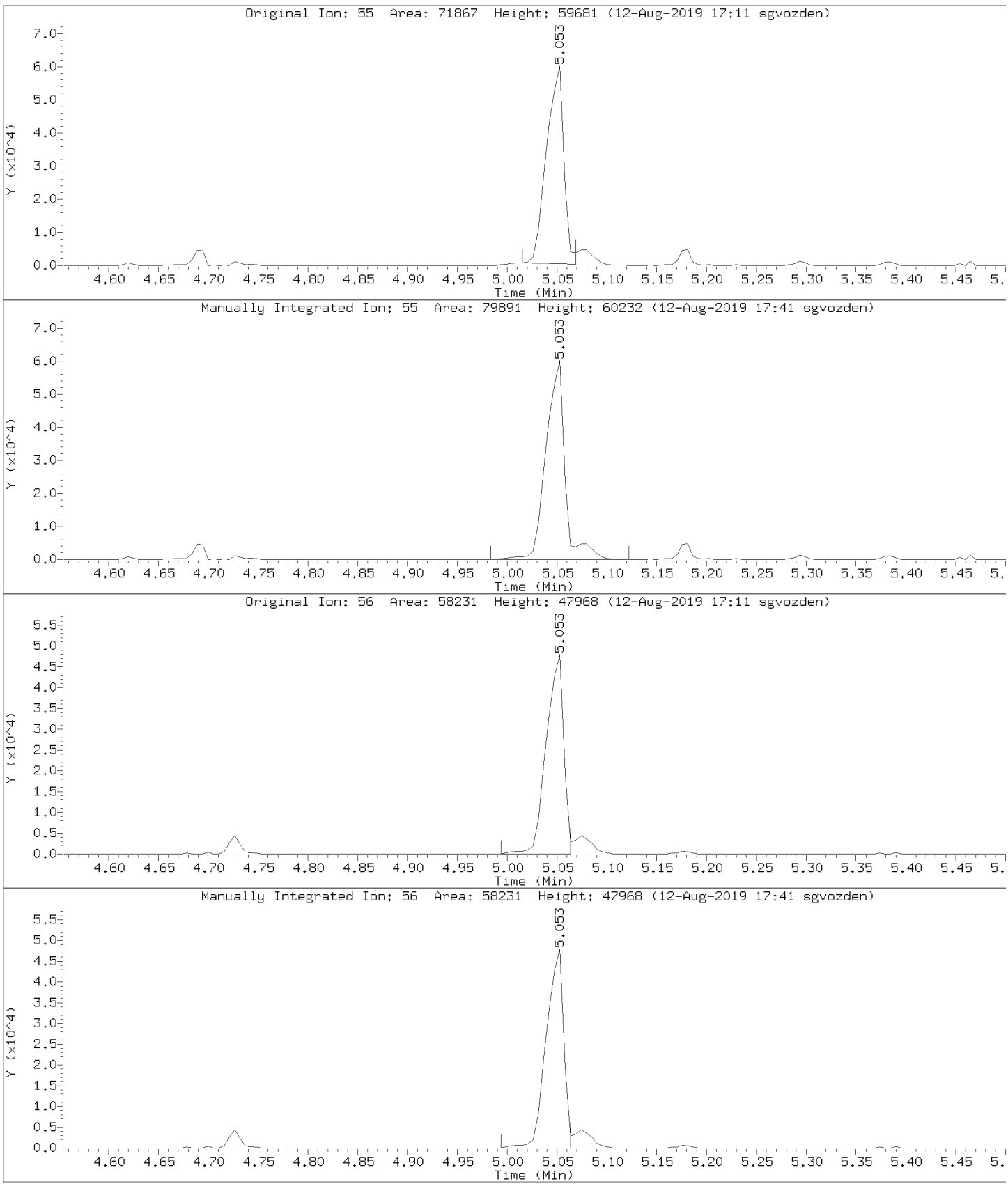
Instrument: 30mss4.i
Lab Sample ID: CCV

Compound: Caprolactam Review Code: LT
CAS Number: 105-60-2



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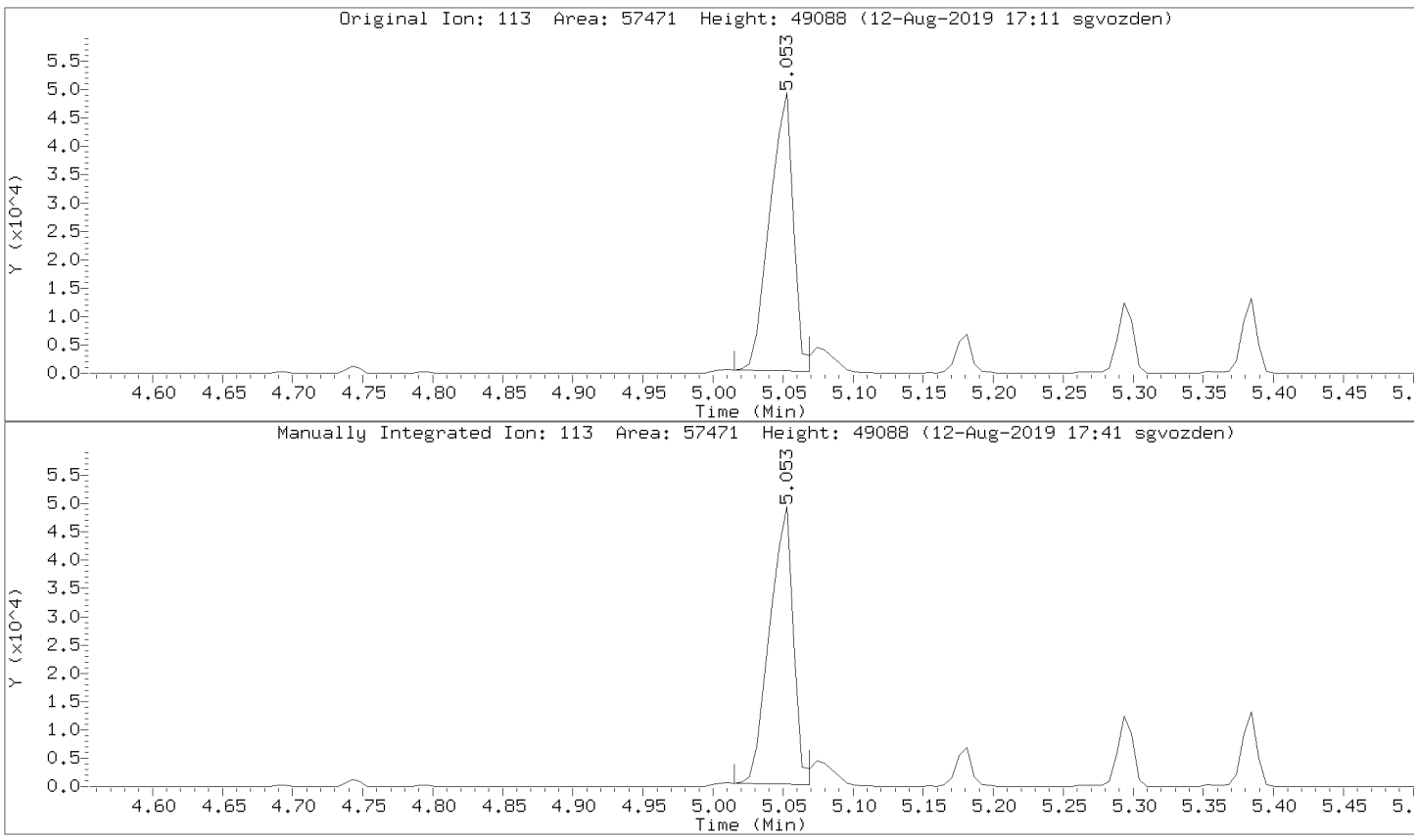
Lab Sample ID: CCV



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Date : 05-AUG-2019 12:14

Client ID: TUNE

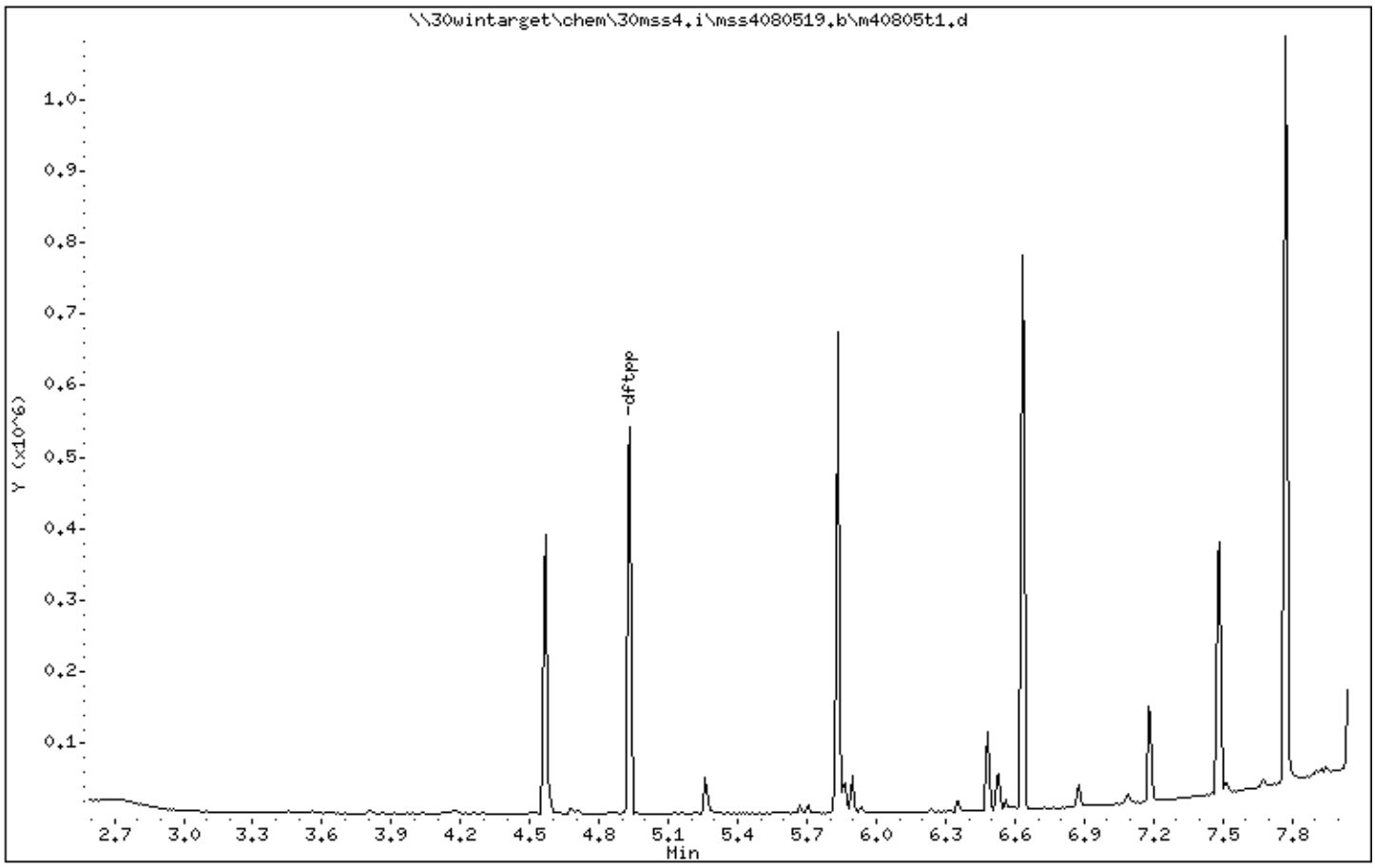
Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4080519.b\m40805t1.d

Date : 05-AUG-2019 12:14

Client ID: TUNE

Instrument: 30mss4.i

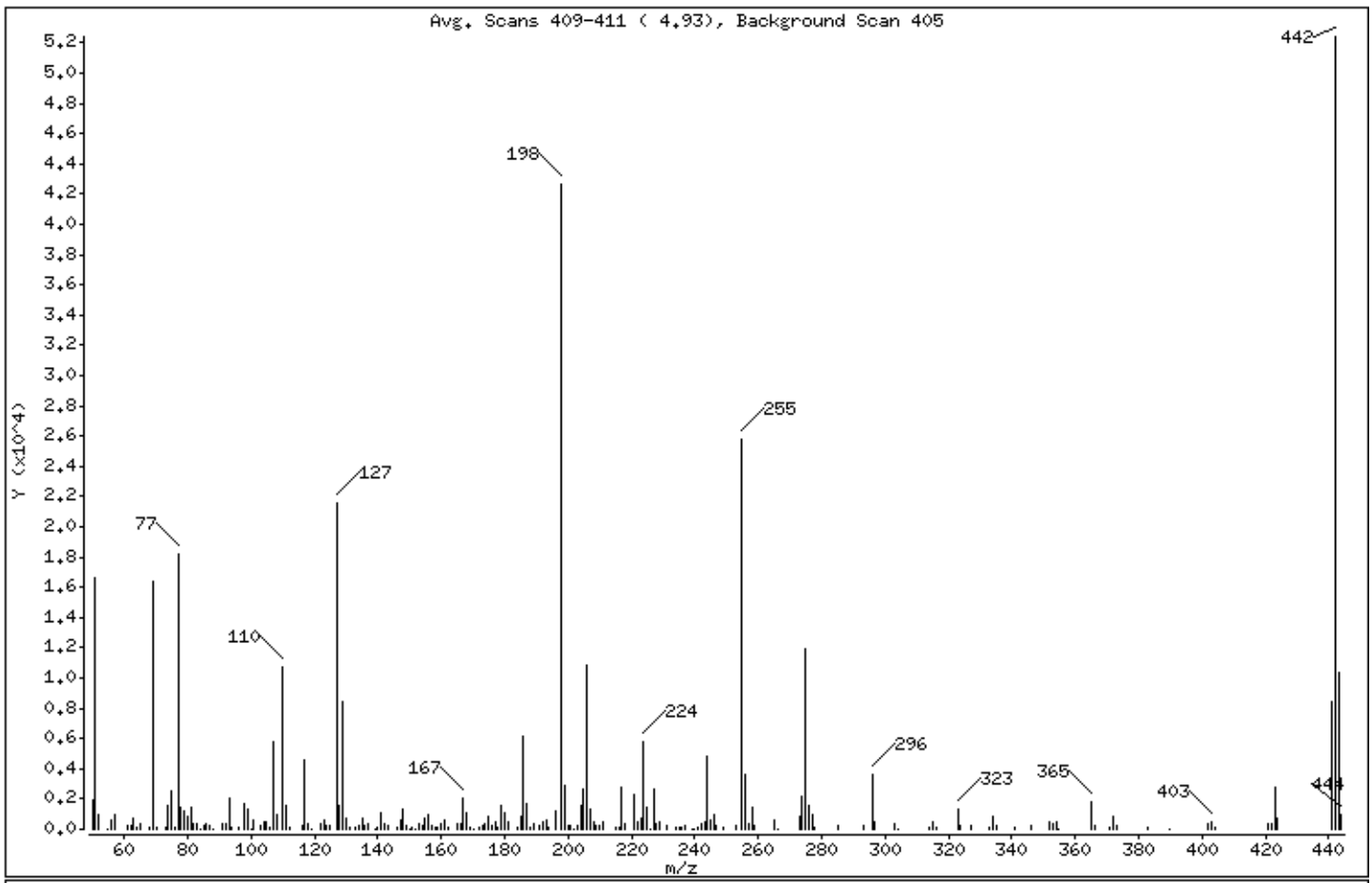
Sample Info: TUNE, 79378:1

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.94
68	Less than 2.00% of mass 69	0.15 (0.39)
69	Mass 69 relative abundance	38.34
70	Less than 2.00% of mass 69	0.27 (0.69)
127	40.00 - 60.00% of mass 198	50.63
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	28.12
365	Greater than 1.00% of mass 198	4.11
441	Present, but less than mass 443	19.81
442	Greater than 40.00% of mass 198	123.05
443	17.00 - 23.00% of mass 442	24.32 (19.76)

Date : 05-AUG-2019 12:14

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40805t1.d
Spectrum: Avg. Scans 409-411 (4.93), Background Scan 405
Location of Maximum: 442.00
Number of points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	1987	123.00	660	186.00	6182	256.00	3606
51.00	16584	124.00	270	187.00	1700	257.00	314
52.00	945	125.00	245	188.00	172	258.00	1458
55.00	59	127.00	21560	189.00	367	259.00	188
56.00	579	128.00	1625	191.00	247	265.00	583
57.00	987	129.00	8426	192.00	492	266.00	52
61.00	215	130.00	705	193.00	625	273.00	836
62.00	238	131.00	119	194.00	114	274.00	2178
63.00	706	133.00	112	196.00	1219	275.00	11974
64.00	114	134.00	268	198.00	42584	276.00	1536
65.00	327	135.00	668	199.00	2861	277.00	938
68.00	64	136.00	282	200.00	202	278.00	177
69.00	16327	137.00	308	201.00	273	285.00	183
70.00	113	139.00	55	202.00	51	293.00	210
73.00	127	140.00	139	203.00	283	296.00	3609
74.00	1578	141.00	1076	204.00	1561	297.00	422
75.00	2545	142.00	334	205.00	2652	303.00	420
76.00	87	143.00	253	206.00	10837	304.00	52
77.00	18176	146.00	170	207.00	1362	314.00	153
78.00	1409	147.00	646	208.00	518	315.00	452
79.00	1155	148.00	1265	209.00	196	316.00	176
80.00	898	149.00	270	210.00	260	323.00	1265
81.00	1457	150.00	51	211.00	438	324.00	231
82.00	327	151.00	162	215.00	63	327.00	294
83.00	365	152.00	56	216.00	141	333.00	82
84.00	22	153.00	373	217.00	2811	334.00	885
85.00	267	154.00	227	218.00	404	335.00	198
86.00	360	155.00	683	221.00	2244	341.00	134
87.00	186	156.00	1012	222.00	460	346.00	249
88.00	57	157.00	222	223.00	746	352.00	474
91.00	350	158.00	156	224.00	5830	353.00	363
92.00	356	159.00	140	225.00	1469	354.00	462
93.00	1992	160.00	321	226.00	60	355.00	60
94.00	78	161.00	554	227.00	2704	365.00	1752
96.00	122	162.00	62	228.00	359	366.00	244

Date : 05-AUG-2019 12:14

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 79378:1

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40805t1.d
Spectrum: Avg. Scans 409-411 (4.93), Background Scan 405
Location of Maximum: 442.00
Number of points: 210

m/z	Y	m/z	Y	m/z	Y	m/z	Y
98.00	1718	165.00	364	229.00	510	371.00	67
99.00	1383	166.00	351	231.00	191	372.00	787
100.00	58	167.00	2037	234.00	146	373.00	221
101.00	659	168.00	1125	235.00	174	383.00	162
103.00	276	169.00	159	236.00	110	390.00	57
104.00	434	170.00	54	237.00	251	402.00	354
105.00	516	172.00	179	239.00	53	403.00	467
106.00	100	173.00	182	240.00	54	404.00	130
107.00	5723	174.00	362	241.00	148	421.00	359
108.00	964	175.00	787	242.00	307	422.00	316
110.00	10689	176.00	223	243.00	472	423.00	2814
111.00	1604	177.00	493	244.00	4780	424.00	691
112.00	141	178.00	78	245.00	585	441.00	8434
116.00	234	179.00	1529	246.00	939	442.00	52400
117.00	4597	180.00	1110	247.00	221	443.00	10356
118.00	413	181.00	532	249.00	151	444.00	948
119.00	55	184.00	131	253.00	230		
122.00	307	185.00	802	255.00	25816		

Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m40812t2.d

Date : 12-AUG-2019 16:17

Client ID: TUNE

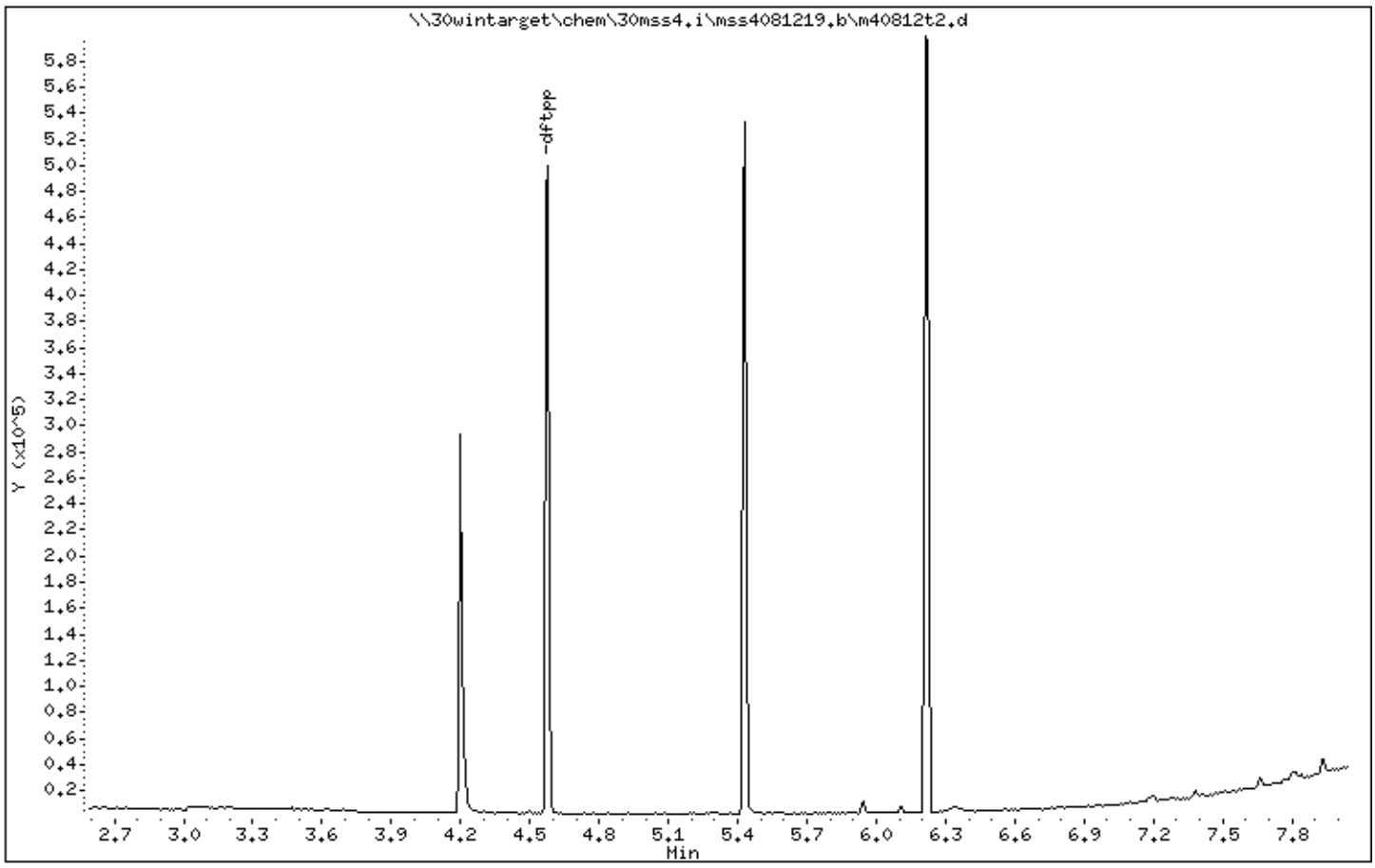
Instrument: 30mss4.i

Sample Info: TUNE, 96103:1

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m40812t2.d

Date : 12-AUG-2019 16:17

Client ID: TUNE

Instrument: 30mss4.i

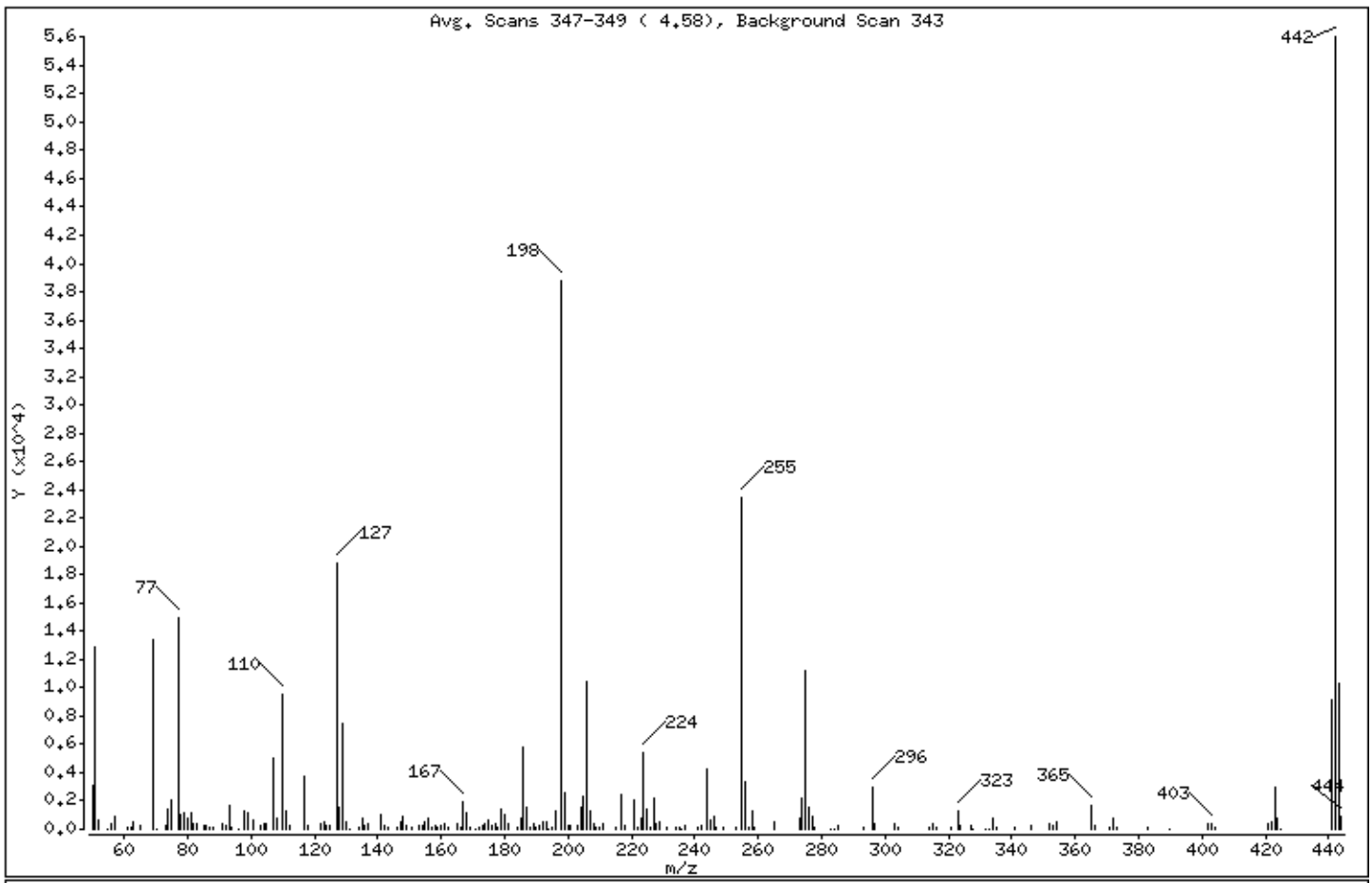
Sample Info: TUNE, 96103:1

Operator: SJG

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	33.32
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	34.66
70	Less than 2.00% of mass 69	0.13 (0.39)
127	40.00 - 60.00% of mass 198	48.64
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	28.83
365	Greater than 1.00% of mass 198	4.48
441	Present, but less than mass 443	23.76
442	Greater than 40.00% of mass 198	144.61
443	17.00 - 23.00% of mass 442	26.76 (18.50)

Date : 12-AUG-2019 16:17

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 96103:1

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40812t2.d
Spectrum: Avg. Scans 347-349 (4.58), Background Scan 343
Location of Maximum: 442.00
Number of points: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	3048	129.00	7505	193.00	471	275.00	11174
51.00	12913	130.00	515	194.00	59	276.00	1564
52.00	650	131.00	59	195.00	74	277.00	931
55.00	58	134.00	189	196.00	1249	278.00	183
56.00	424	135.00	738	198.00	38752	283.00	58
57.00	938	136.00	235	199.00	2606	284.00	60
61.00	161	137.00	365	200.00	214	285.00	202
62.00	161	141.00	1006	201.00	241	293.00	176
63.00	496	142.00	295	203.00	247	296.00	3023
65.00	260	143.00	182	204.00	1509	297.00	421
69.00	13431	146.00	179	205.00	2279	303.00	424
70.00	52	147.00	559	206.00	10387	304.00	65
73.00	267	148.00	951	207.00	1342	314.00	140
74.00	1435	149.00	219	208.00	396	315.00	350
75.00	2067	151.00	144	209.00	154	316.00	149
77.00	14944	153.00	250	210.00	179	321.00	65
78.00	1040	154.00	249	211.00	348	323.00	1266
79.00	1113	155.00	547	215.00	107	324.00	209
80.00	754	156.00	831	217.00	2491	327.00	269
81.00	1170	157.00	161	218.00	303	328.00	59
82.00	329	158.00	260	221.00	2091	332.00	51
83.00	342	159.00	131	222.00	130	333.00	57
85.00	235	160.00	275	223.00	731	334.00	780
86.00	223	161.00	414	224.00	5446	335.00	136
87.00	150	162.00	132	225.00	1436	341.00	159
88.00	120	165.00	327	226.00	67	346.00	200
91.00	388	166.00	141	227.00	2149	352.00	379
92.00	321	167.00	1894	228.00	361	353.00	281
93.00	1687	168.00	1098	229.00	564	354.00	465
94.00	72	169.00	182	231.00	170	365.00	1736
96.00	62	171.00	63	234.00	129	366.00	232
98.00	1255	172.00	125	235.00	71	371.00	120
99.00	1112	173.00	237	236.00	64	372.00	760
101.00	633	174.00	442	237.00	207	373.00	122
103.00	198	175.00	704	241.00	92	383.00	144

Date : 12-AUG-2019 16:17

Client ID: TUNE Instrument: 30mss4.i

Sample Info: TUNE, 96103:1

Operator: SJG

Column phase: RXI-5MS Column diameter: 0.18

Data File: m40812t2.d
Spectrum: Avg. Scans 347-349 (4.58), Background Scan 343
Location of Maximum: 442.00
Number of points: 198

m/z	Y	m/z	Y	m/z	Y	m/z	Y
104.00	401	176.00	210	242.00	284	390.00	63
105.00	379	177.00	338	244.00	4314	402.00	374
107.00	5019	178.00	130	245.00	642	403.00	444
108.00	729	179.00	1400	246.00	871	404.00	108
110.00	9552	180.00	1047	247.00	172	421.00	436
111.00	1335	181.00	450	249.00	154	422.00	468
112.00	231	184.00	115	253.00	128	423.00	2915
117.00	3678	185.00	709	255.00	23472	424.00	765
118.00	312	186.00	5741	256.00	3404	425.00	58
122.00	327	187.00	1580	257.00	159	441.00	9207
123.00	504	188.00	171	258.00	1240	442.00	56040
124.00	246	189.00	329	259.00	162	443.00	10369
125.00	252	190.00	72	265.00	532	444.00	921
127.00	18848	191.00	199	273.00	785		
128.00	1584	192.00	540	274.00	2177		

SAMPLE NO.

LB

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/09/2019 14:41
Matrix: Water SDG No.: 30318799
Date Extracted: 08/12/2019 13:34
Lab Sample ID: 1729490
Date Analyzed: 08/12/2019 18:04
Lab File ID: MSS4081219.B\M4081203.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS4 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	ND	U
121-14-2	2,4-Dinitrotoluene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
118-74-1	Hexachlorobenzene	ND	U
67-72-1	Hexachloroethane	ND	U
95-48-7	2-Methylphenol(o-Cresol)	ND	U
	3&4-Methylphenol(m&p Cresol)	ND	U
98-95-3	Nitrobenzene	ND	U
87-86-5	Pentachlorophenol	ND	U
110-86-1	Pyridine	ND	U
95-95-4	2,4,5-Trichlorophenol	ND	U
88-06-2	2,4,6-Trichlorophenol	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4081219.b\m4081203.d
Lab Smp Id: 1729490 Client Smp ID: LB for HBN 356078 [
Inj Date : 12-AUG-2019 18:04 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : 1729490,
Misc Info : 14955,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4081219.b\8270080519.m
Meth Date : 13-Aug-2019 10:26 sgvozden Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	2 Pyridine	79	Compound Not Detected.						
$	3 2-Fluorophenol (S)	112	2.843	2.843	(0.761)	194304	8.35440	835(R)	
$	4 Phenol-d6 (S)	99	3.485	3.491	(0.933)	175531	5.75188	575	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.737	3.737	(1.000)	81046	4.00000		
	12 1,4-Dichlorobenzene	146	Compound Not Detected.						
	15 2-Methylphenol(o-Cresol)	108	Compound Not Detected.						
	17 3&4-Methylphenol(m&p Cresol)	108	Compound Not Detected.						
	20 Hexachloroethane	117	Compound Not Detected.						
$	21 Nitrobenzene-d5 (S)	128	4.175	4.175	(0.883)	47622	3.87054	387	
	22 Nitrobenzene	77	Compound Not Detected.						
*	30 Naphthalene-d8 (IS)	136	4.726	4.726	(1.000)	306716	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	40 2,4,6-Trichlorophenol	196	Compound Not Detected.						
	41 2,4,5-Trichlorophenol	196	Compound Not Detected.						
$	42 2-Fluorobiphenyl (S)	172	5.603	5.603	(0.910)	193540	3.74787	375	
*	50 Acenaphthene-d10 (IS)	164	6.160	6.159	(1.000)	155878	4.00000		
	54 2,4-Dinitrotoluene	165	Compound Not Detected.						
$	65 2,4,6-Tribromophenol (S)	330	6.833	6.839	(0.906)	50709	5.98485	598	
	67 Hexachlorobenzene	284	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	Compound Not Detected.						
* 70 Phenanthrene-d10 (IS)	188	7.539	7.545	(1.000)	264735	4.00000		
$ 77 Terphenyl-d14 (S)	244	9.246	9.251	(0.896)	144672	2.61097	261	
* 82 Chrysene-d12 (IS)	240	10.321	10.326	(1.000)	237218	4.00000		
* 88 Perylene-d12 (IS)	264	11.669	11.669	(1.000)	256133	4.00000		

QC Flag Legend

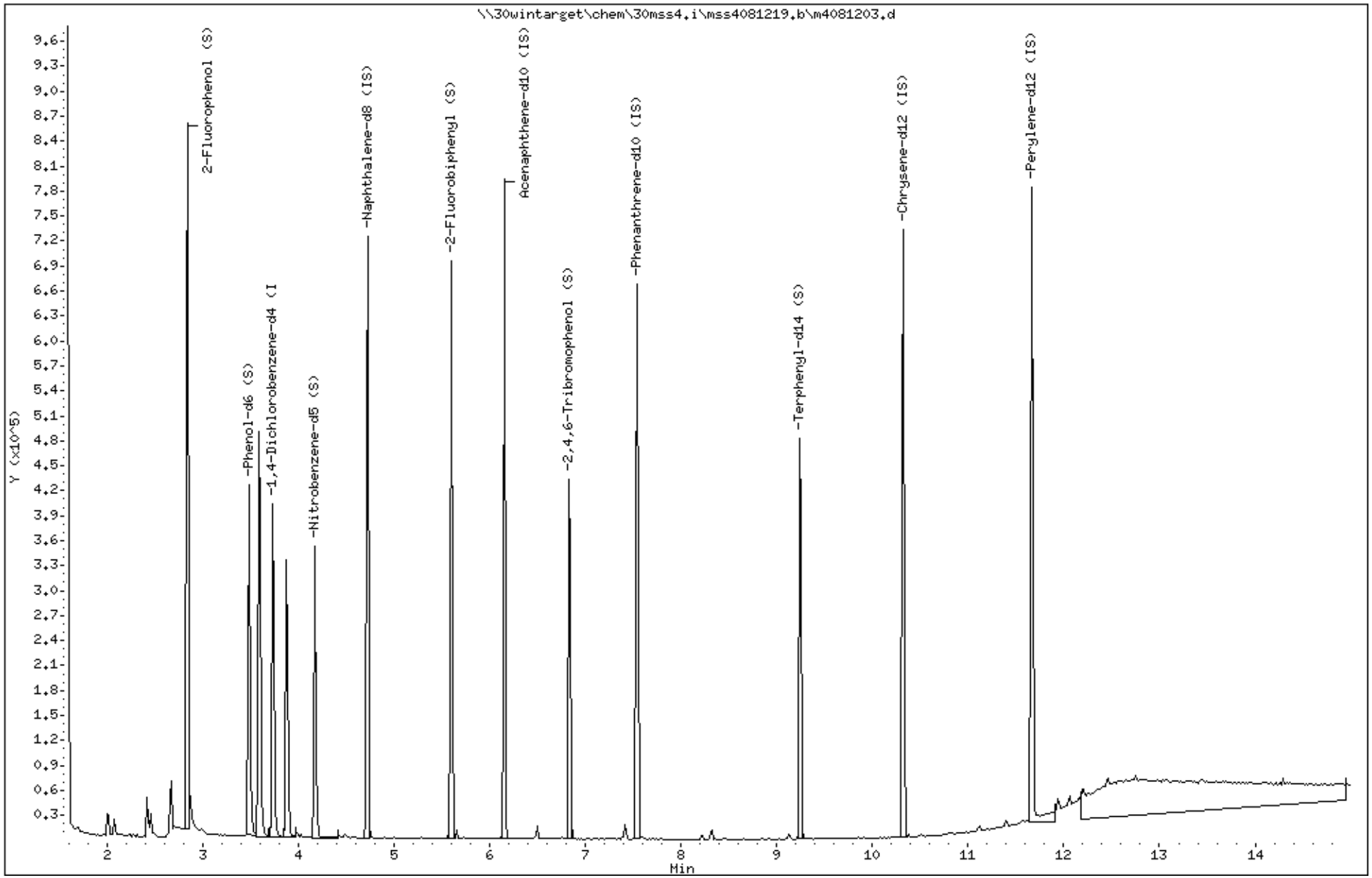
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081203.d
Date : 12-AUG-2019 18:04
Client ID: LB for HBN 356078 [
Sample Info: 1729490,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss4.i
Operator: SJG
Column diameter: 0.18



Data File: \\30wintarget\chem\30mss4.i\mss4081219.b/m4081203.d
Injection Date: 12-AUG-2019 18:04
Instrument: 30mss4.i
Lab Sample ID: 1729490
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSSV FULL SCAN - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

LCS

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received:
Matrix: Water SDG No.: 30318799
Date Extracted: 08/12/2019 13:34
Lab Sample ID: 1730388
Date Analyzed: 08/12/2019 18:26
Lab File ID: MSS4081219.B\M4081204.D
Initial wt/vol: 100 mL Final wt/vol: 10 mL Dilution: 1
Instrument: 30MSS4 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
106-46-7	1,4-Dichlorobenzene	293	J
121-14-2	2,4-Dinitrotoluene	386	
87-68-3	Hexachloro-1,3-butadiene	313	
118-74-1	Hexachlorobenzene	279	
67-72-1	Hexachloroethane	293	
95-48-7	2-Methylphenol(o-Cresol)	404	J
	3&4-Methylphenol(m&p Cresol)	830	J
98-95-3	Nitrobenzene	384	
87-86-5	Pentachlorophenol	409	J
110-86-1	Pyridine	162	J
95-95-4	2,4,5-Trichlorophenol	439	J
88-06-2	2,4,6-Trichlorophenol	418	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d
Lab Smp Id: 1730388 Client Smp ID: MBLCS
Inj Date : 12-AUG-2019 18:26 MS Autotune Date: 24-JUL-2019 14:5
Operator : SJG Inst ID: 30mss4.i
Smp Info : 1730388,
Misc Info : 14955,
Comment :
Method : \\30wintarget\chem\30mss4.i\mss4081219.b\8270080519.m
Meth Date : 13-Aug-2019 10:26 sgvozden Quant Type: ISTD
Cal Date : 05-AUG-2019 14:40 Cal File: m40805y7.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: RC10A
Processing Host: 30SGVOZDEN10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)	REVIEW C
	2 Pyridine	79	1.891	1.891	(0.506)	35777	1.62405	162	
$	3 2-Fluorophenol (S)	112	2.843	2.843	(0.761)	219932	9.95346	995(R)	
$	4 Phenol-d6 (S)	99	3.490	3.491	(0.934)	174142	6.00637	601	
*	11 1,4-Dichlorobenzene-d4 (IS)	152	3.736	3.737	(1.000)	76998	4.00000		
	12 1,4-Dichlorobenzene	146	3.747	3.747	(1.003)	90267	2.92902	293	
	15 2-Methylphenol(o-Cresol)	108	3.940	3.940	(1.054)	94020	4.04329	404	
	17 3&4-Methylphenol(m&p Cresol)	108	4.052	4.052	(1.084)	197711	8.29680	830	
	20 Hexachloroethane	117	4.127	4.127	(1.104)	31995	2.93213	293	
$	21 Nitrobenzene-d5 (S)	128	4.175	4.175	(0.883)	48561	4.12251	412	
	22 Nitrobenzene	77	4.191	4.191	(0.887)	93016	3.84123	384	
*	30 Naphthalene-d8 (IS)	136	4.726	4.726	(1.000)	293648	4.00000		
	31 Naphthalene	128	Compound Not Detected.						
	33 Hexachloro-1,3-butadiene	225	4.886	4.886	(1.034)	38055	3.13302	313	
	40 2,4,6-Trichlorophenol	196	5.539	5.539	(0.899)	57482	4.18067	418	
	41 2,4,5-Trichlorophenol	196	5.571	5.576	(0.904)	58212	4.39419	439	
$	42 2-Fluorobiphenyl (S)	172	5.603	5.603	(0.910)	193394	3.82619	383	
*	50 Acenaphthene-d10 (IS)	164	6.159	6.159	(1.000)	152572	4.00000		
	54 2,4-Dinitrotoluene	165	6.336	6.341	(1.029)	54709	3.86412	386	
$	65 2,4,6-Tribromophenol (S)	330	6.833	6.839	(0.906)	54641	6.39869	640	
	67 Hexachlorobenzene	284	7.224	7.229	(0.957)	44292	2.79254	279	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
69 Pentachlorophenol	266	7.406	7.411	(0.982)	35240	4.09142	409	
* 70 Phenanthrene-d10 (IS)	188	7.545	7.545	(1.000)	266813	4.00000		
$ 77 Terphenyl-d14 (S)	244	9.246	9.251	(0.896)	180459	3.15015	315	
* 82 Chrysene-d12 (IS)	240	10.321	10.326	(1.000)	245252	4.00000		
* 88 Perylene-d12 (IS)	264	11.668	11.669	(1.000)	251842	4.00000		

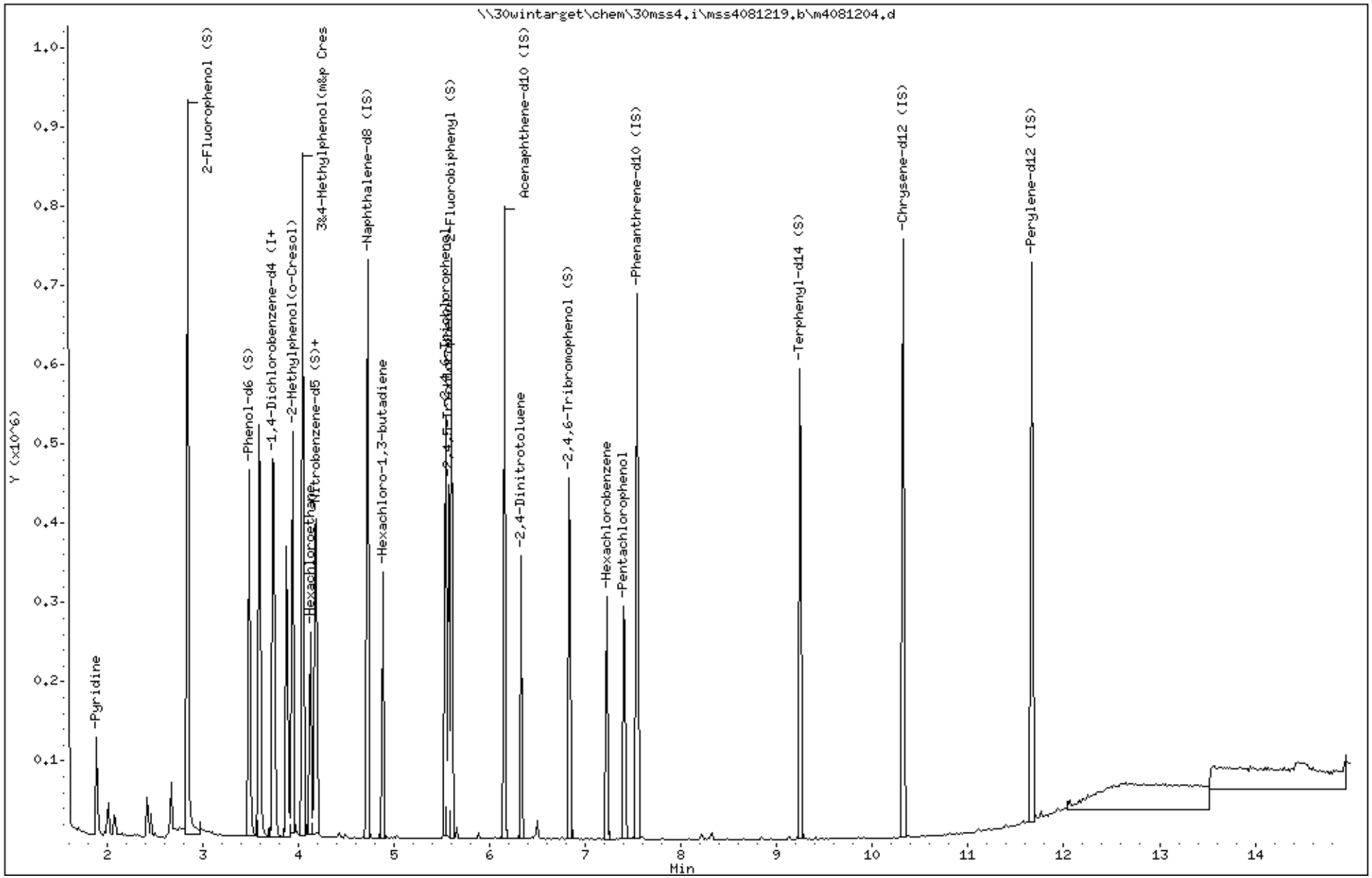
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d
Date : 12-AUG-2019 18:26
Client ID: MBLCS
Instrument: 30mss4.i
Sample Info: 1730388,
Volume Injected (uL): 1.0
Operator: SJG
Column phase: RTX-5MS
Column diameter: 0.18



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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

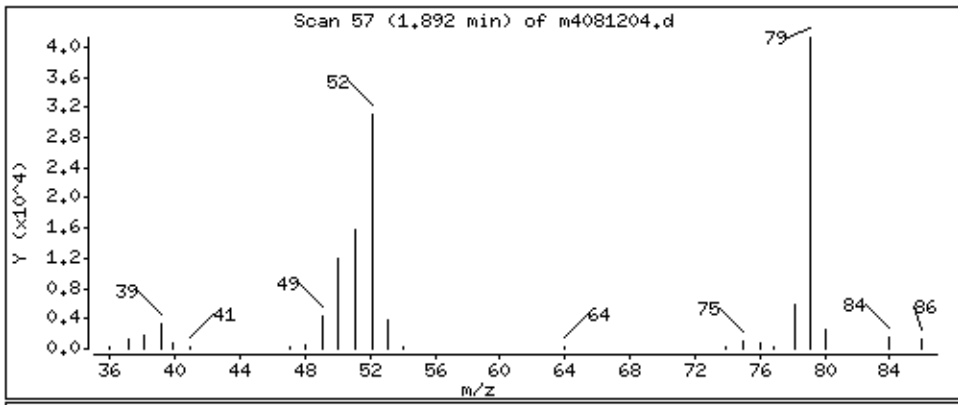
Operator: SJG

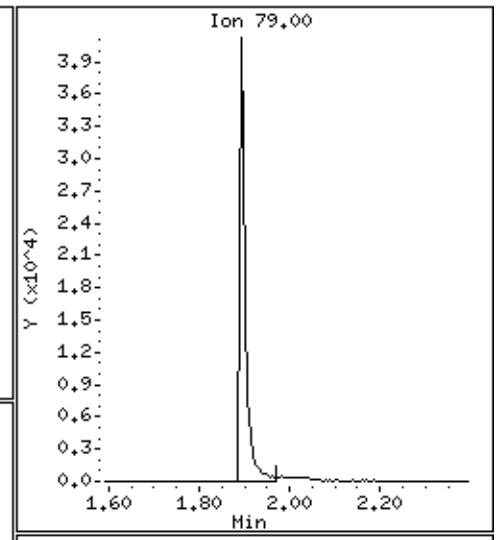
Column phase: RTX-5MS

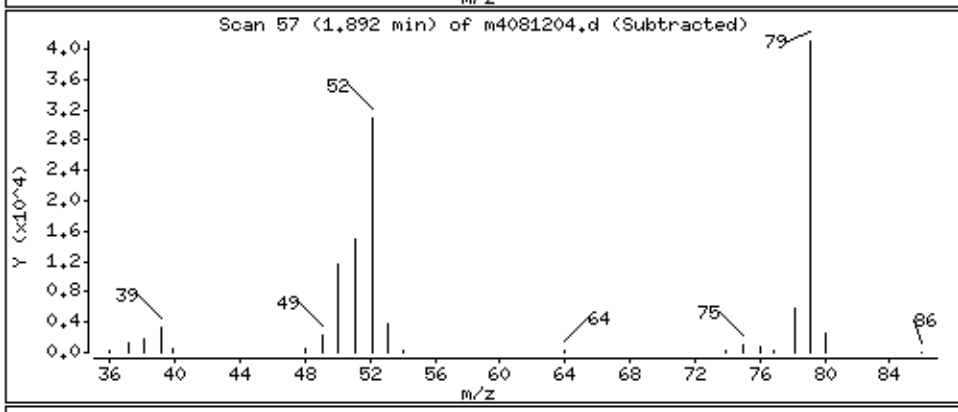
Column diameter: 0.18

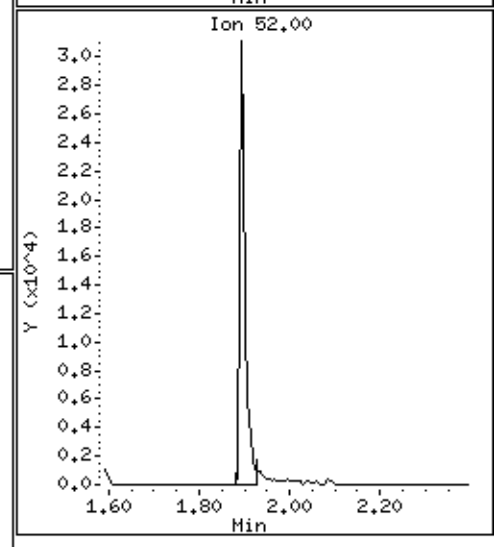
2 Pyridine

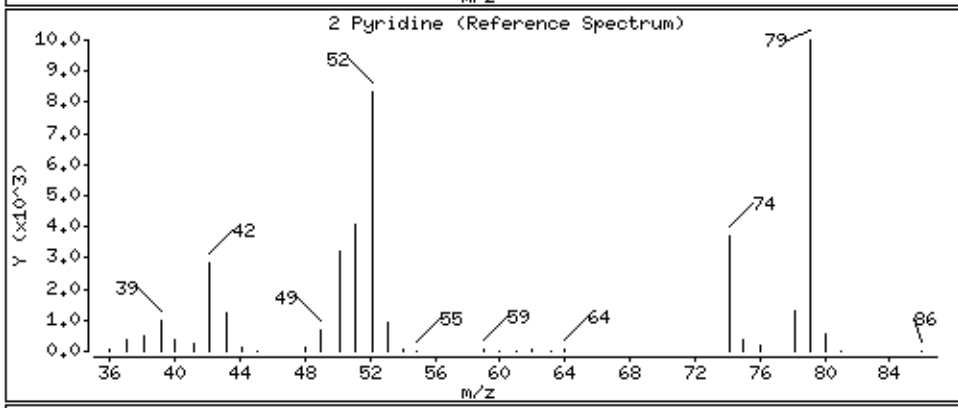
Concentration: 162 ug/L

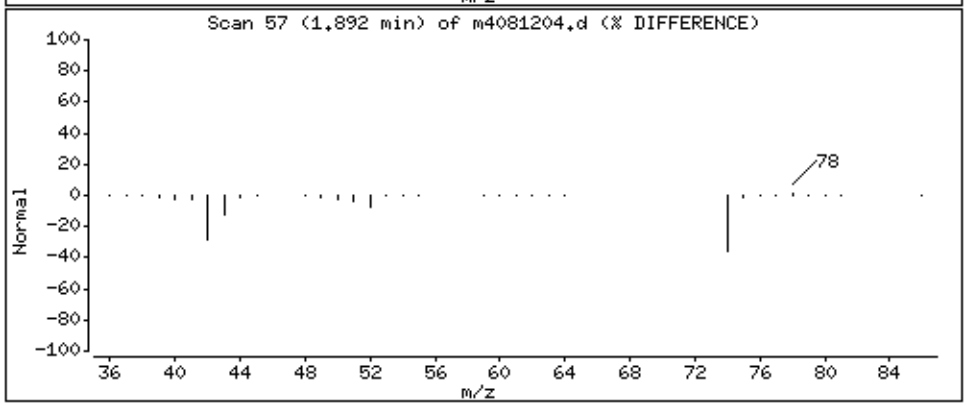












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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

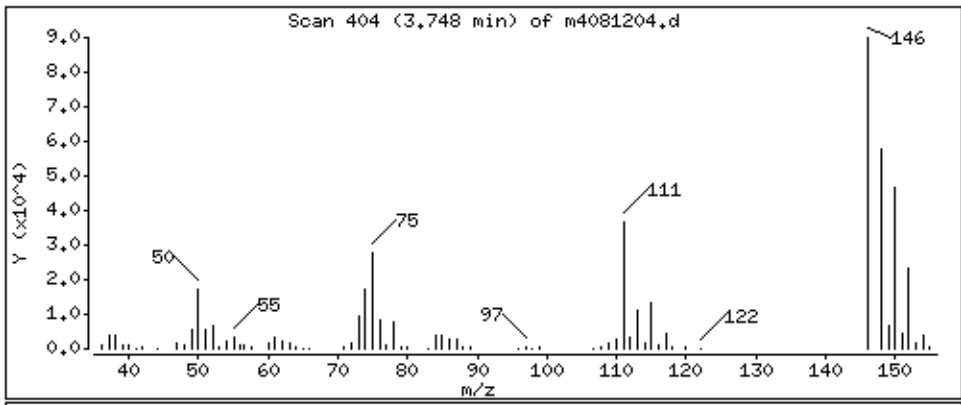
Operator: SJG

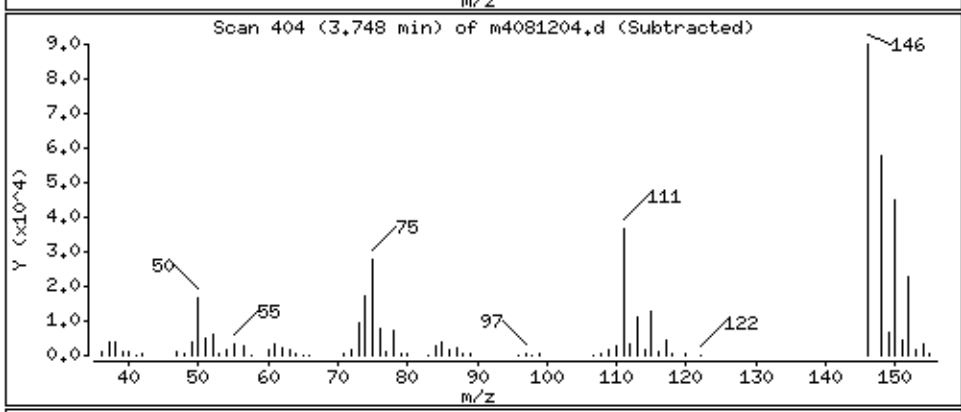
Column phase: RTX-5MS

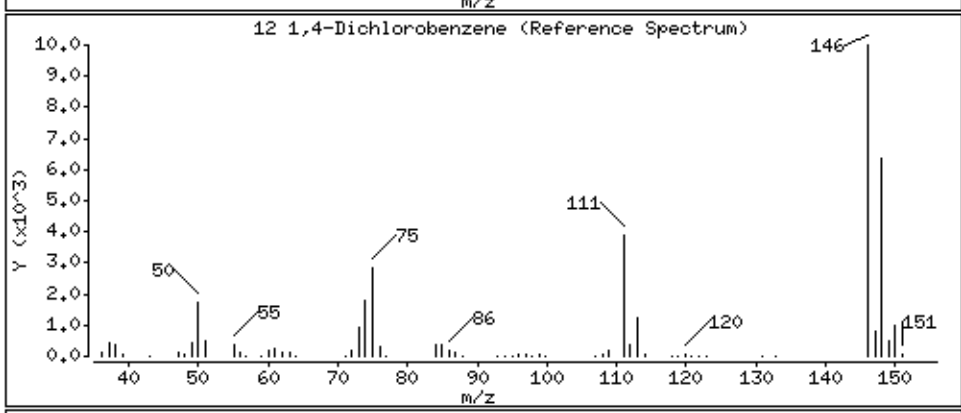
Column diameter: 0.18

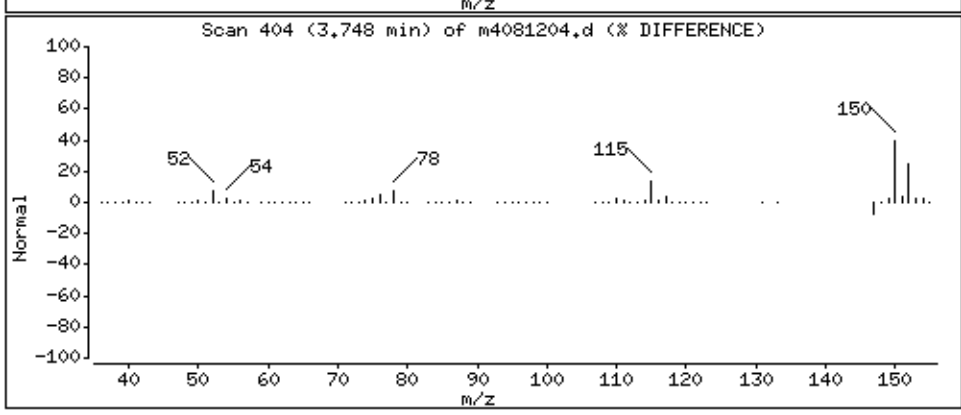
12 1,4-Dichlorobenzene

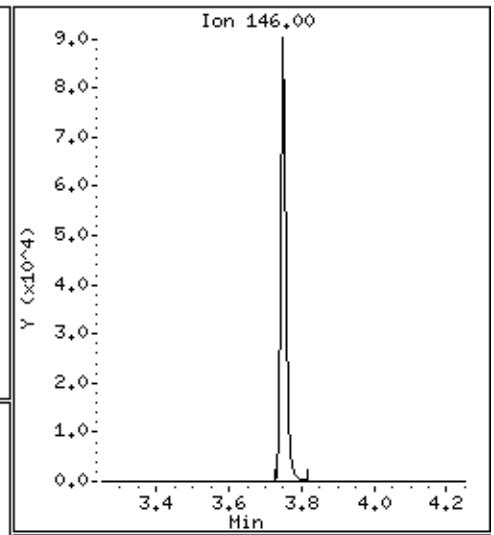
Concentration: 293 ug/L

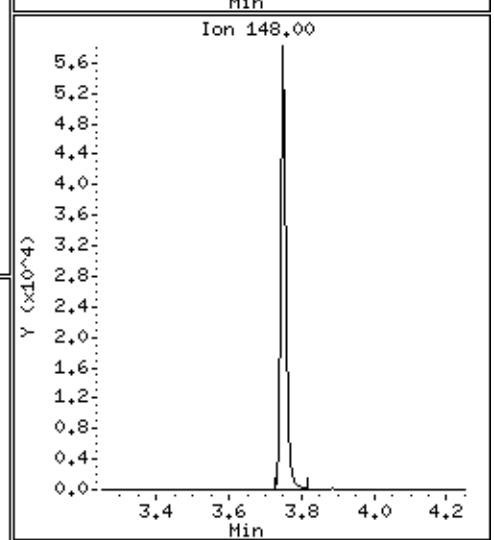


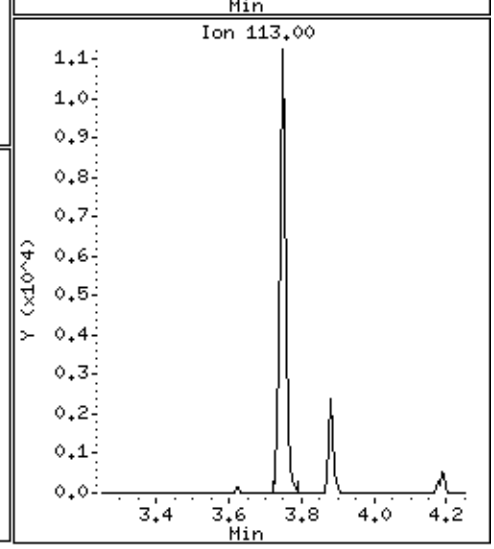












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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

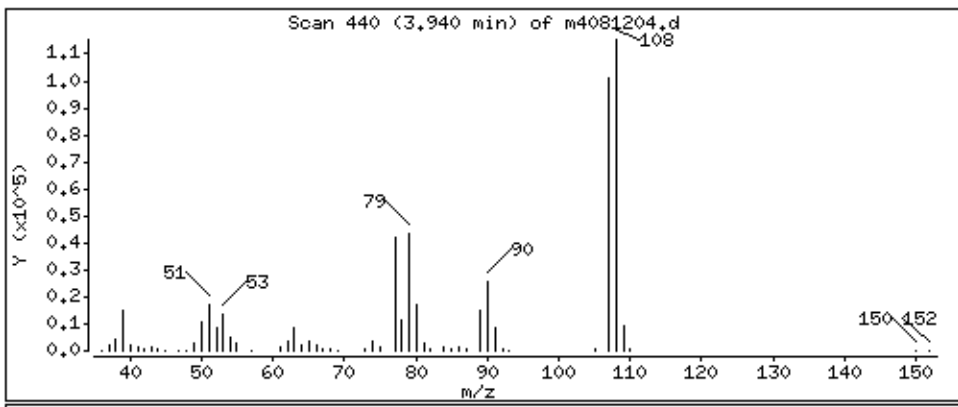
Operator: SJG

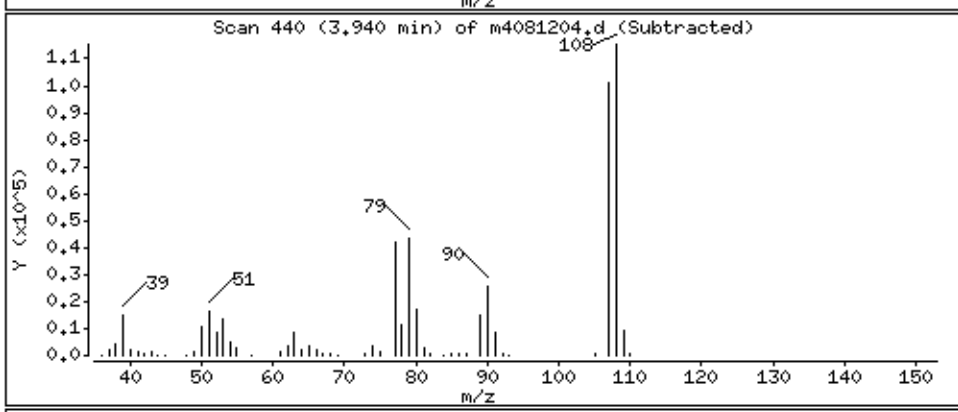
Column phase: RTX-5MS

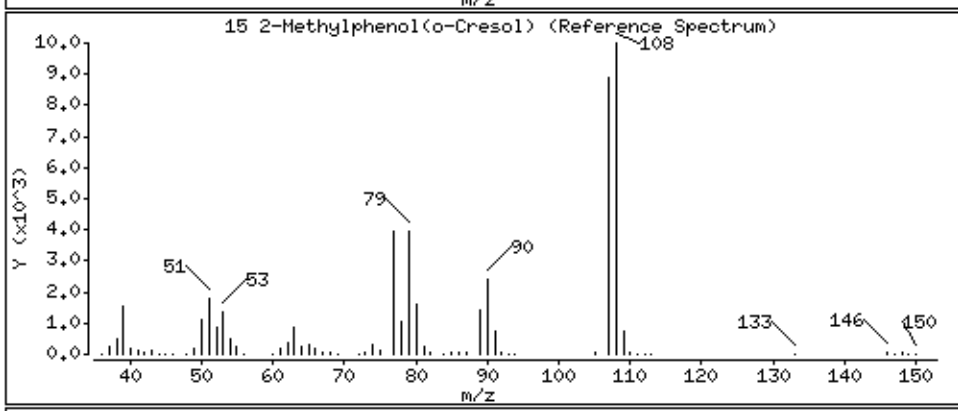
Column diameter: 0.18

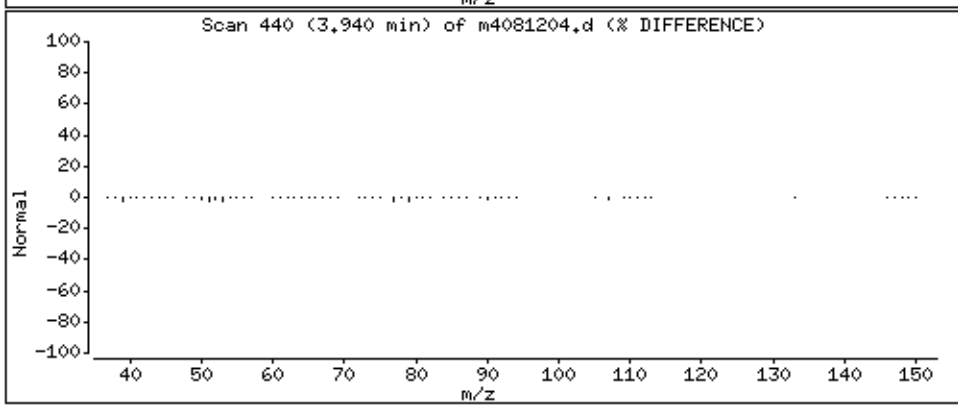
15 2-Methylphenol(o-Cresol)

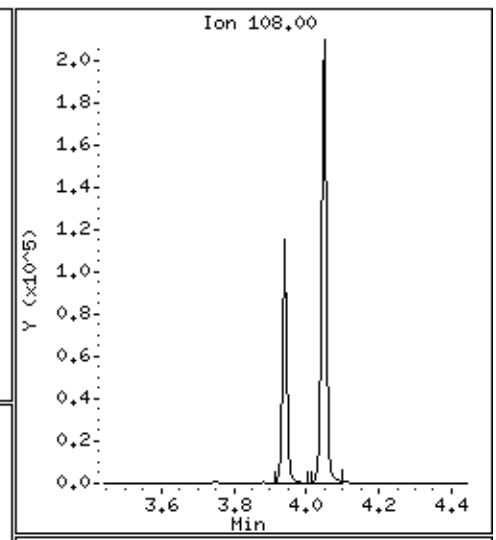
Concentration: 404 ug/L

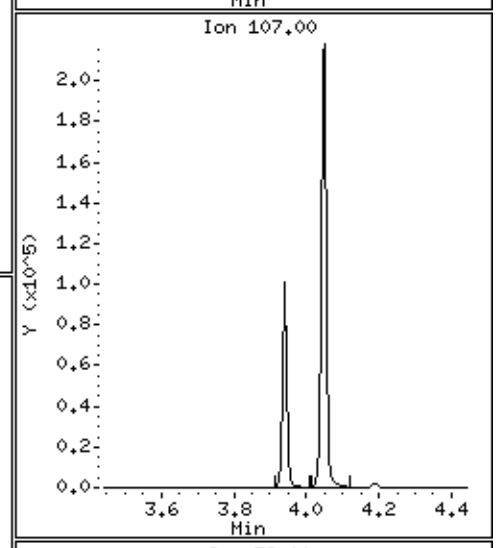


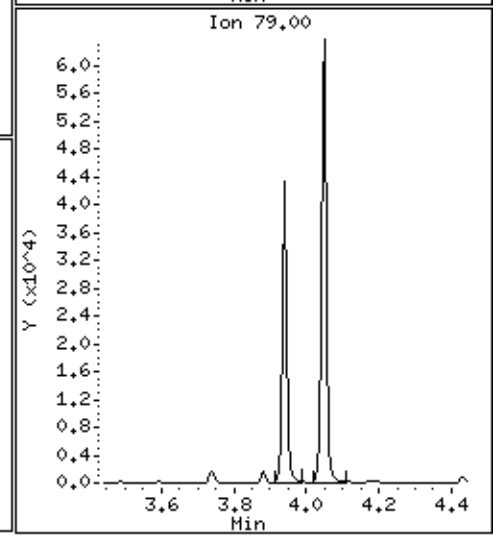












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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

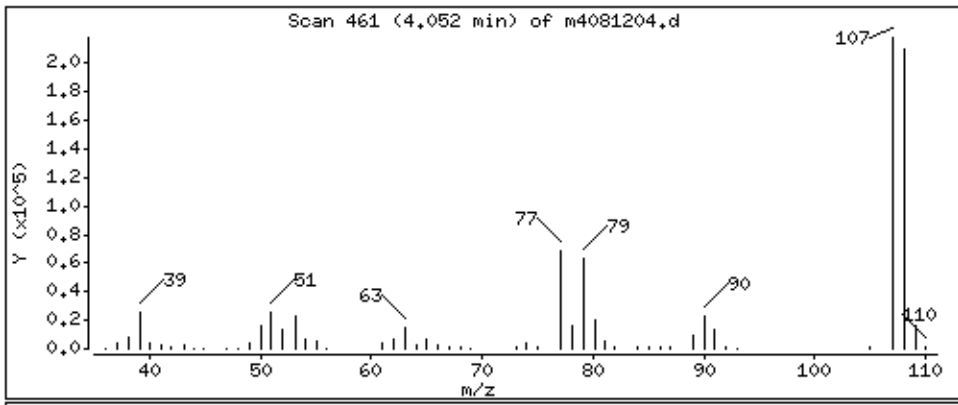
Operator: SJG

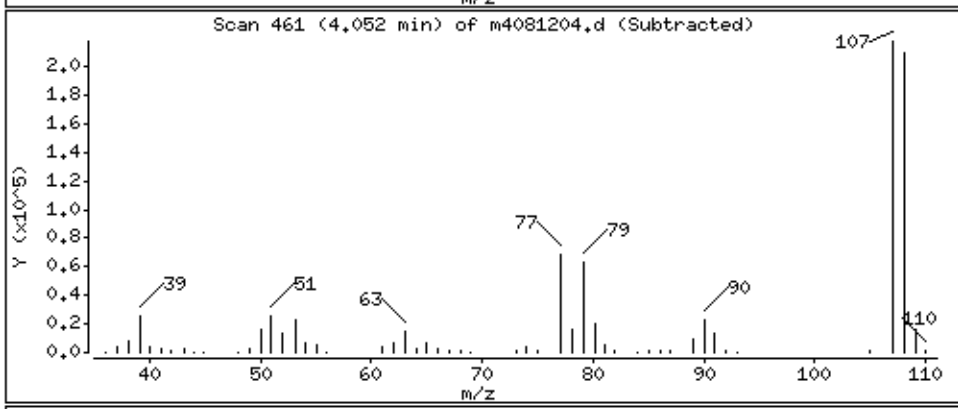
Column phase: RTX-5MS

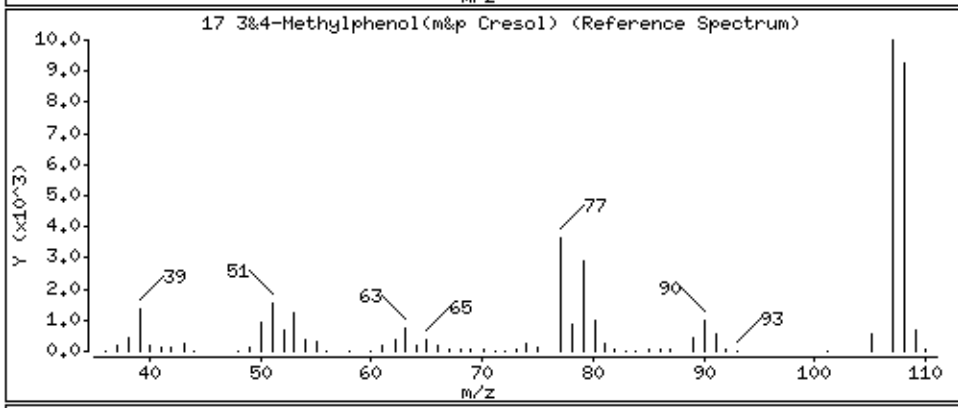
Column diameter: 0.18

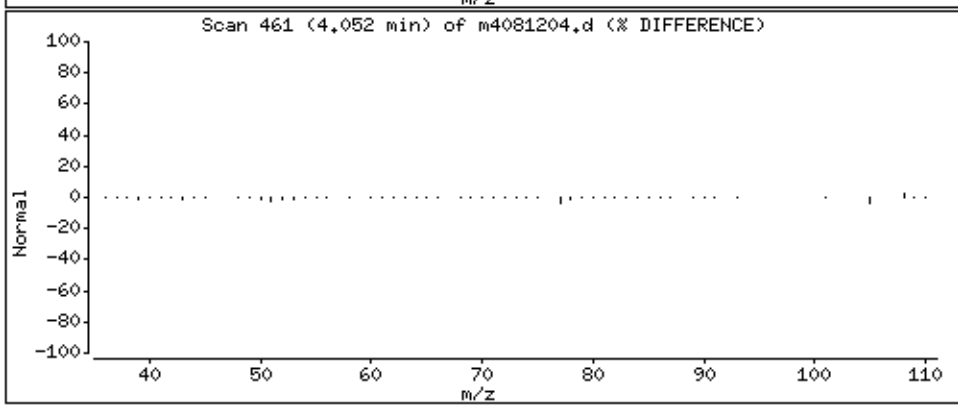
17 3&4-Methylphenol(m&p Cresol)

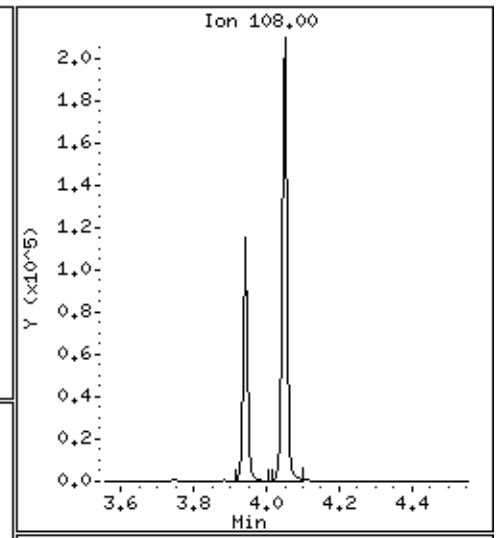
Concentration: 830 ug/L

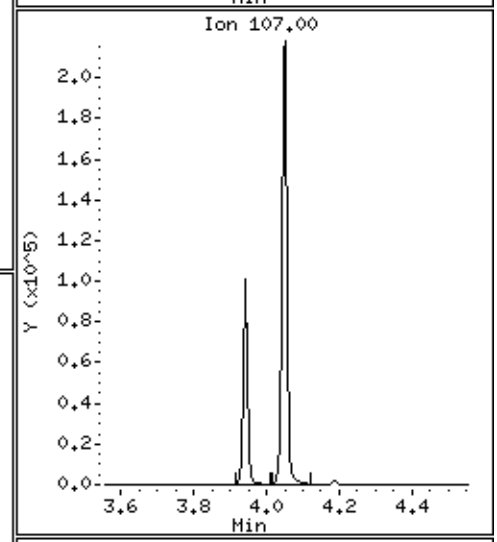


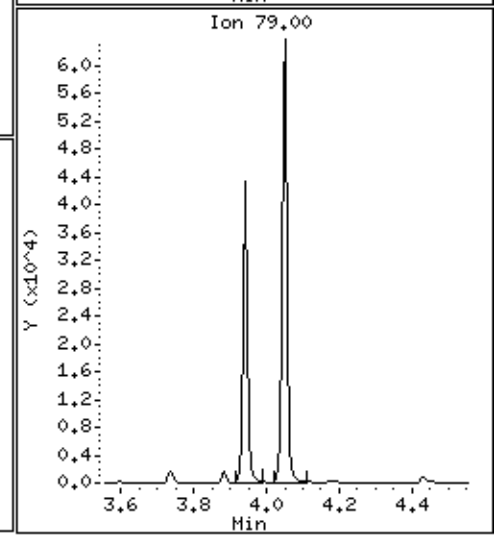












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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

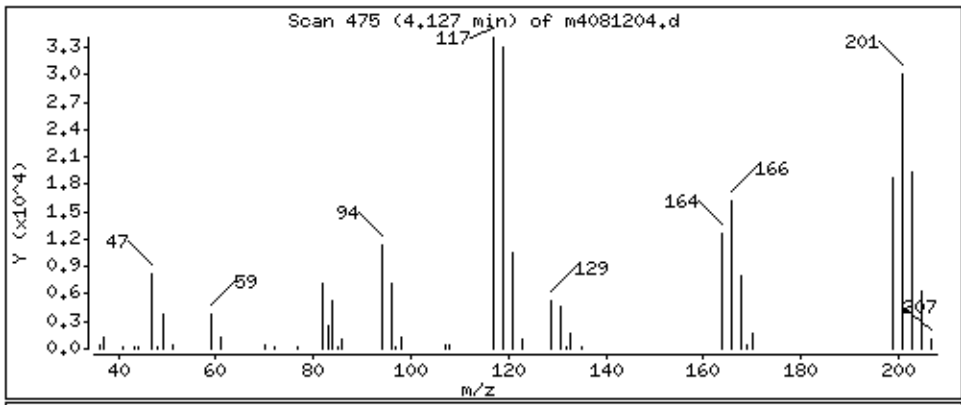
Operator: SJG

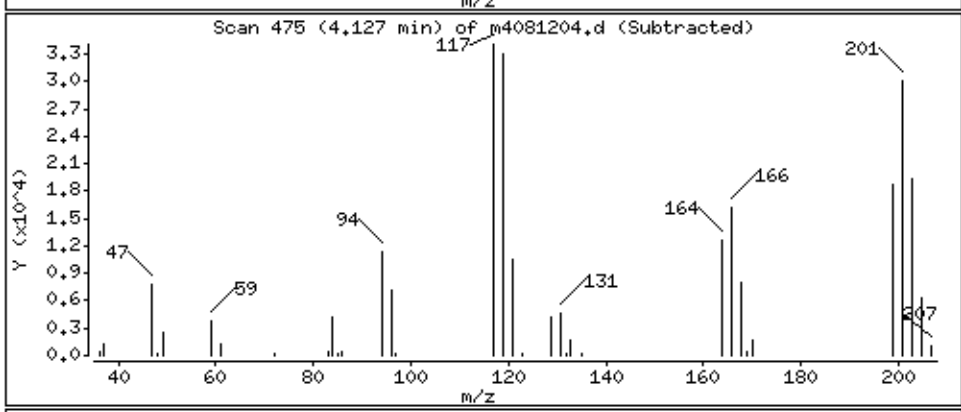
Column phase: RTX-5MS

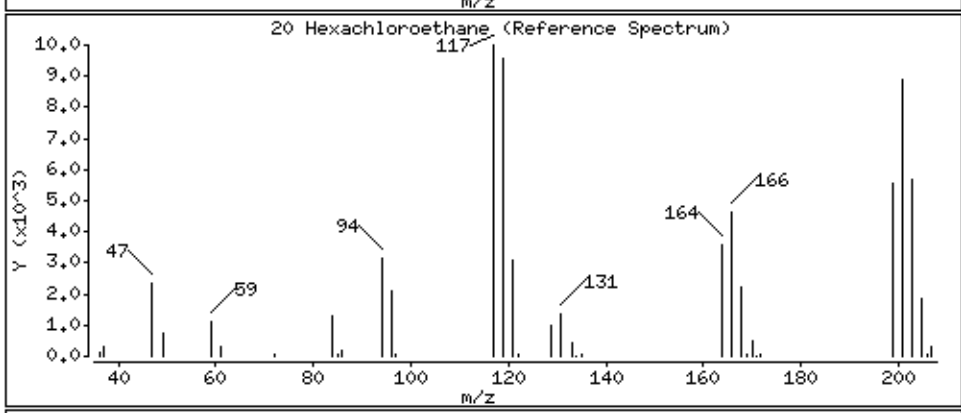
Column diameter: 0.18

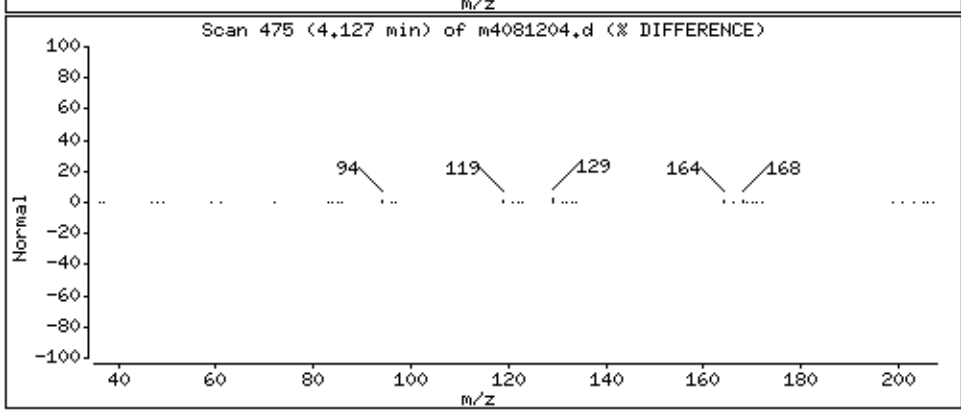
20 Hexachloroethane

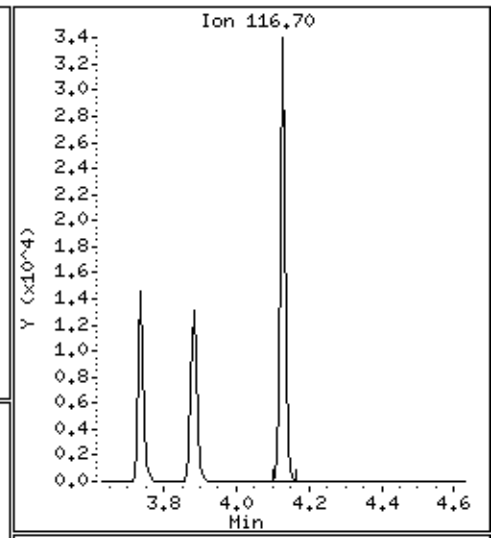
Concentration: 293 ug/L

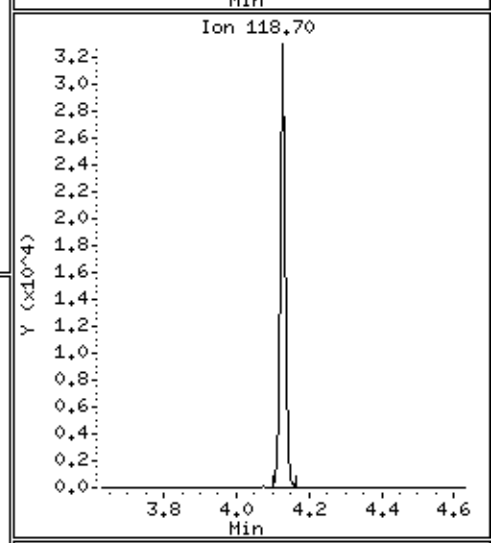


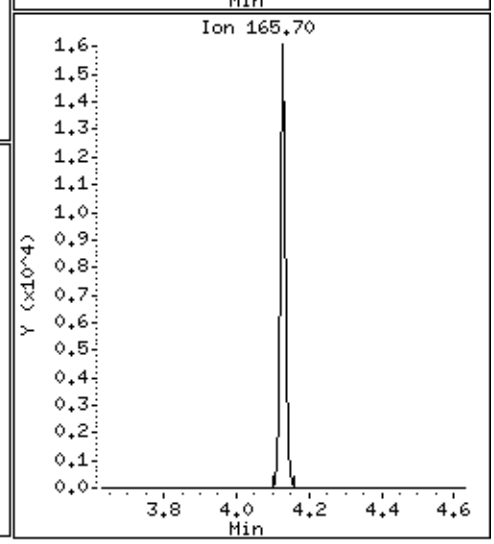












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

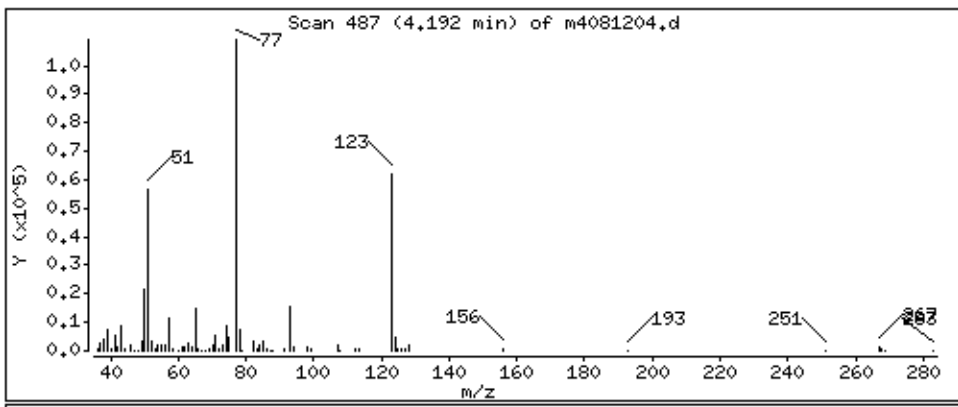
Operator: SJG

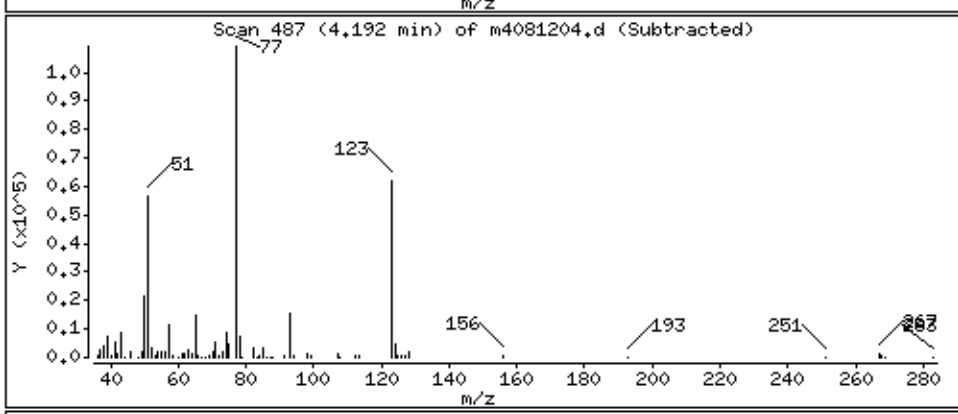
Column phase: RTX-5MS

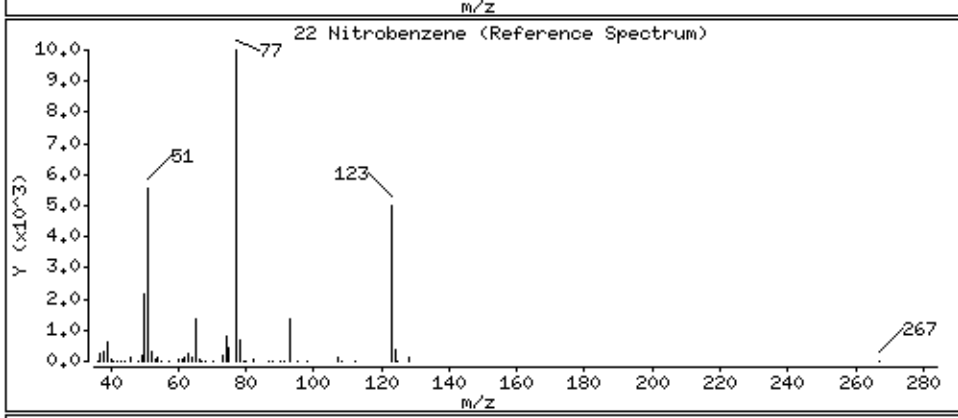
Column diameter: 0.18

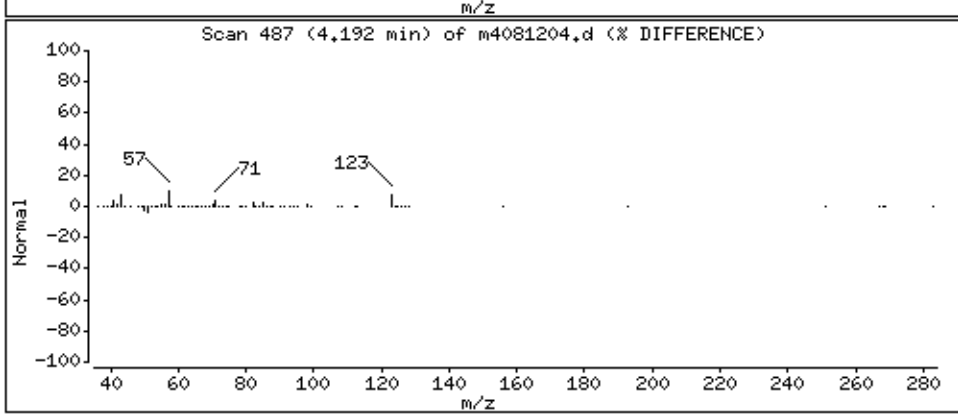
22 Nitrobenzene

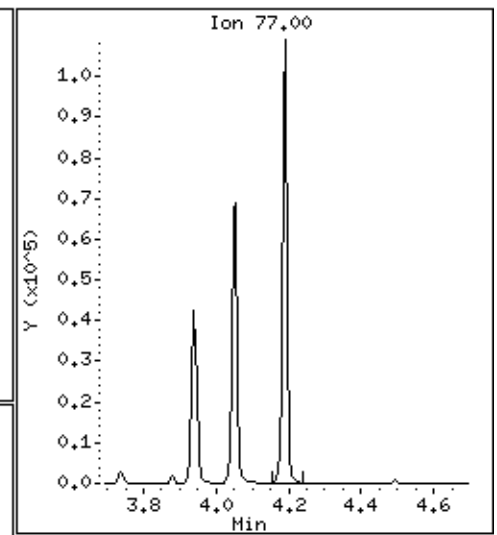
Concentration: 384 ug/L

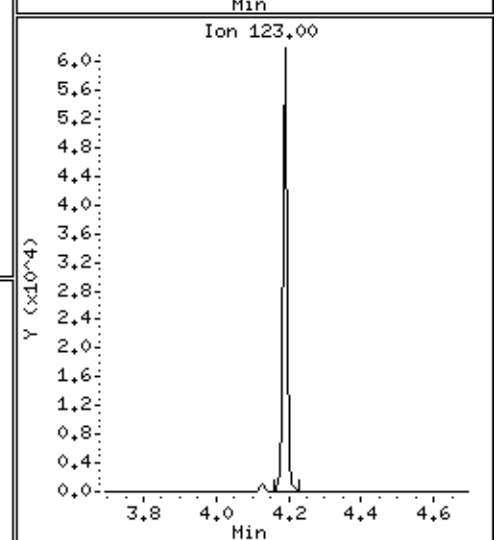


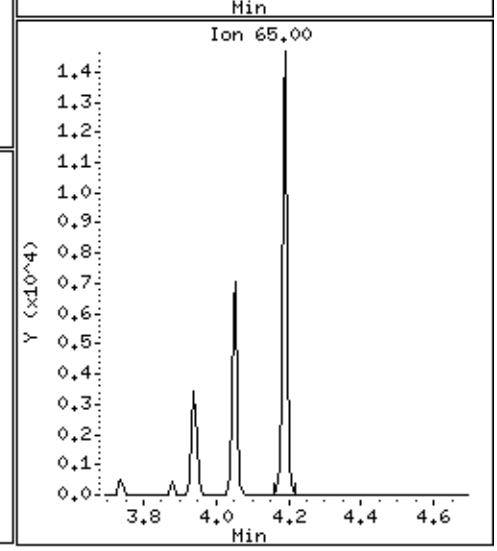












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Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

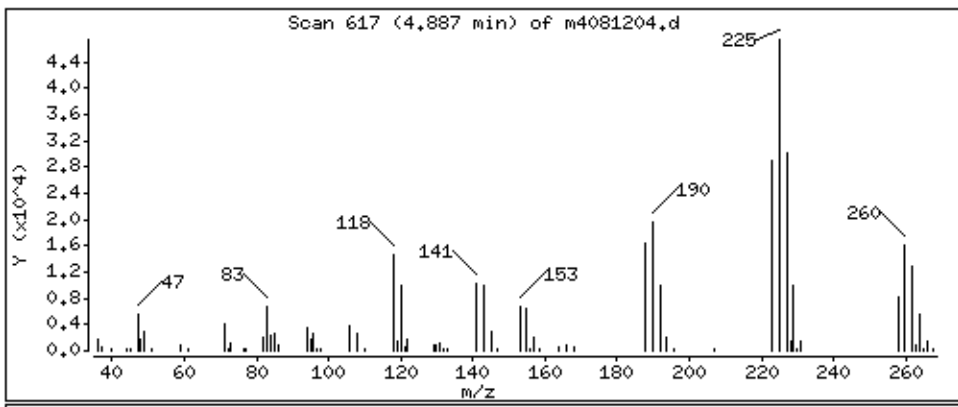
Operator: SJG

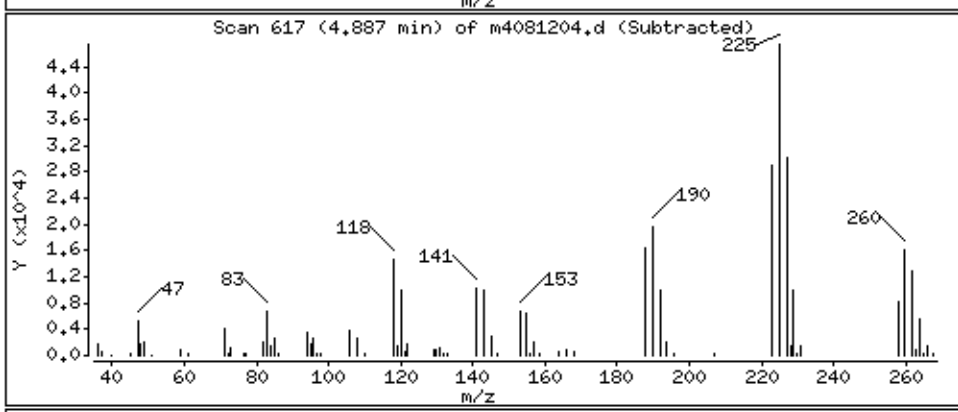
Column phase: RTX-5MS

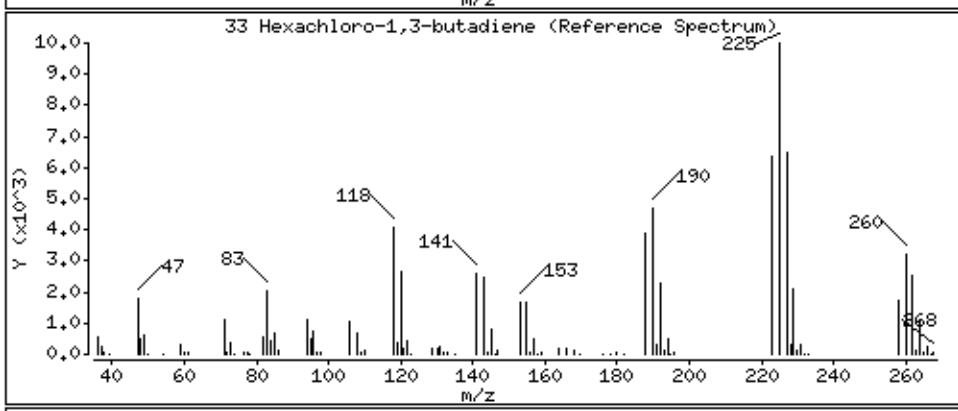
Column diameter: 0.18

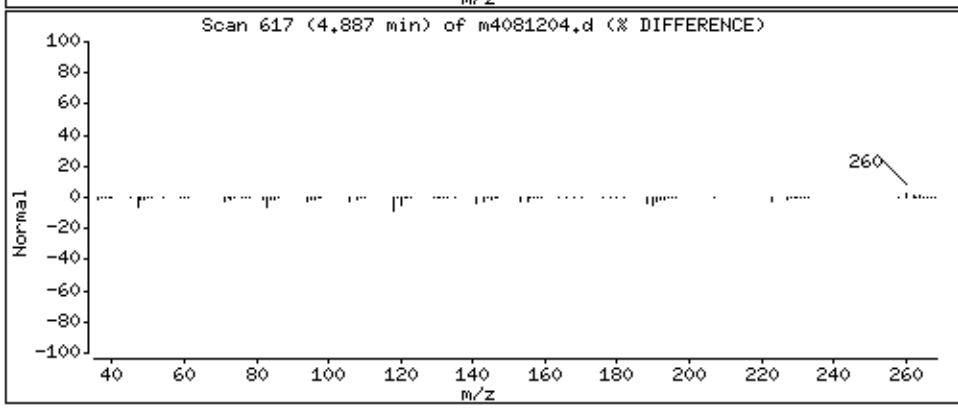
33 Hexachloro-1,3-butadiene

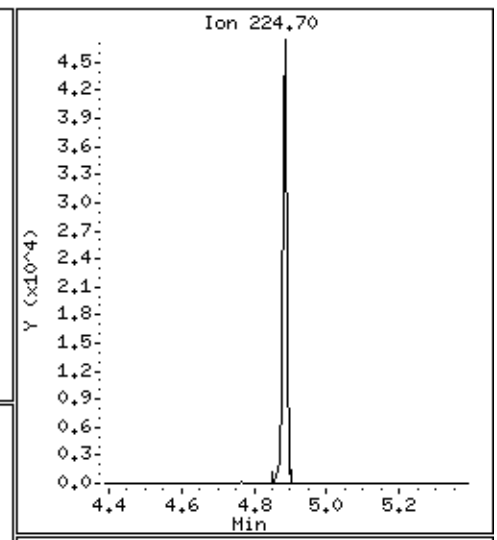
Concentration: 313 ug/L

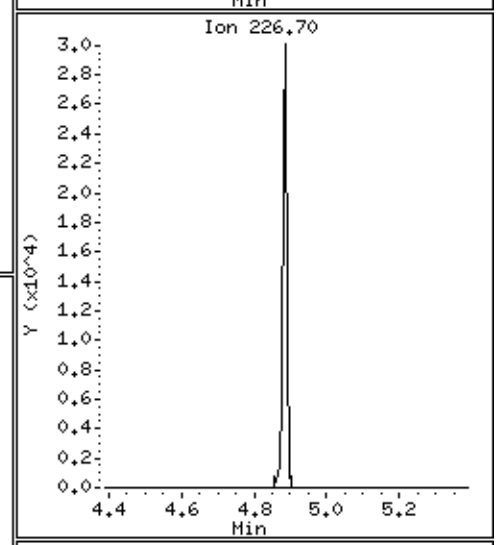


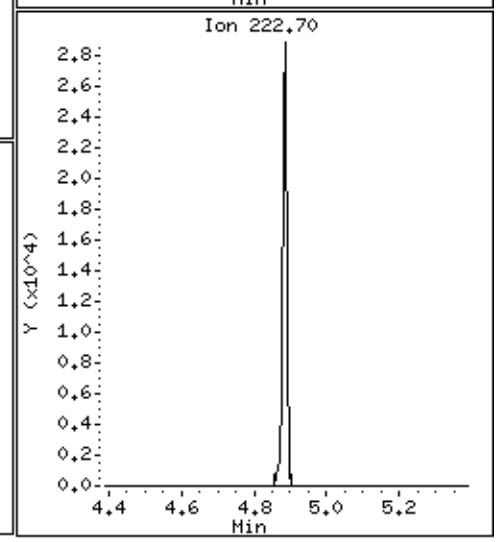












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

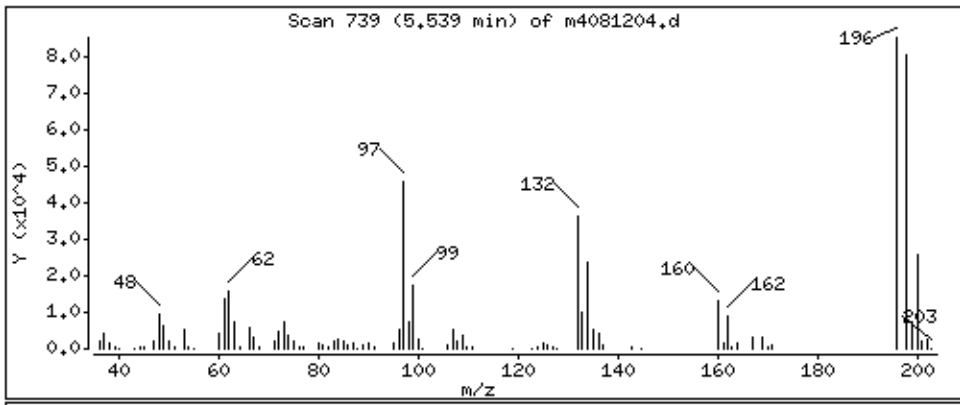
Operator: SJG

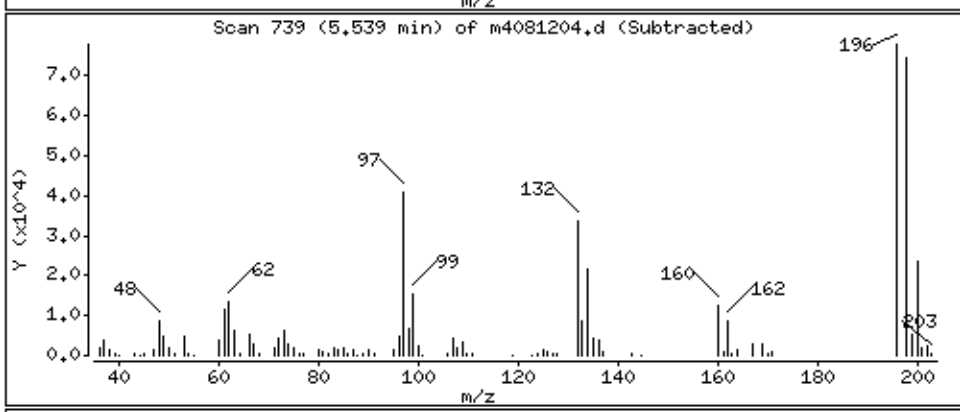
Column phase: RTX-5MS

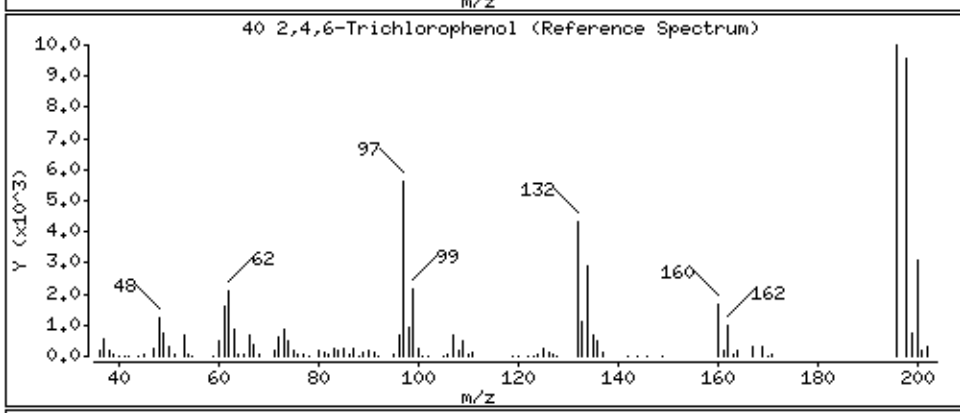
Column diameter: 0.18

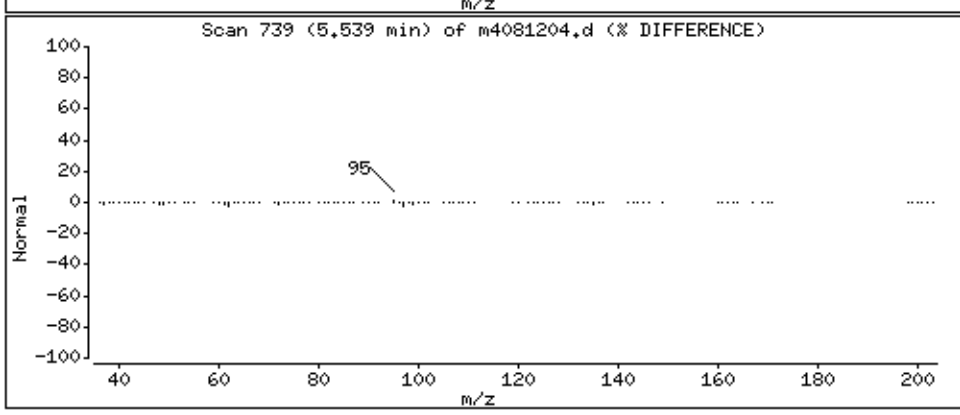
40 2,4,6-Trichlorophenol

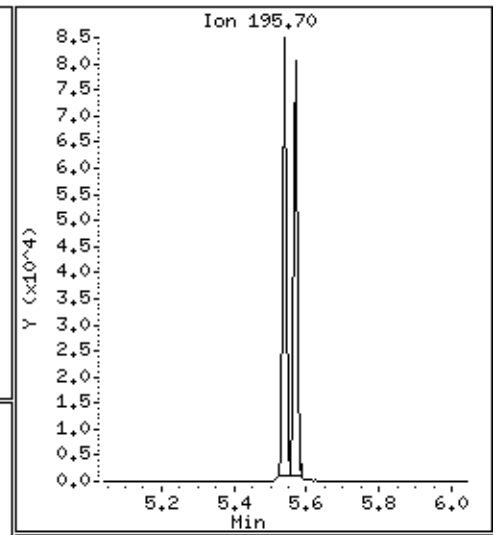
Concentration: 418 ug/L

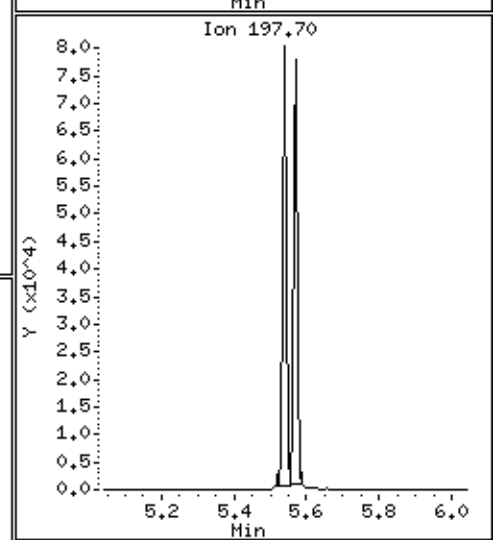


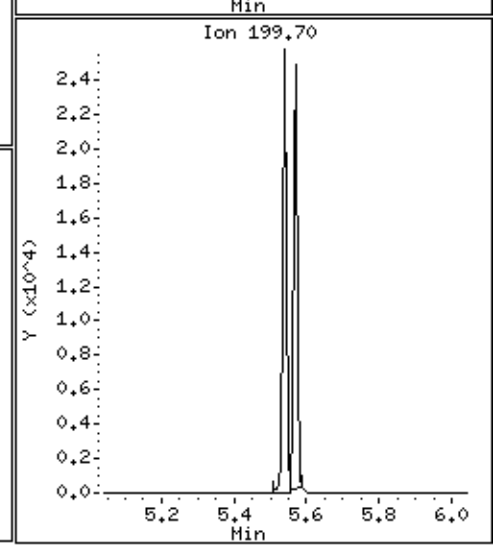












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

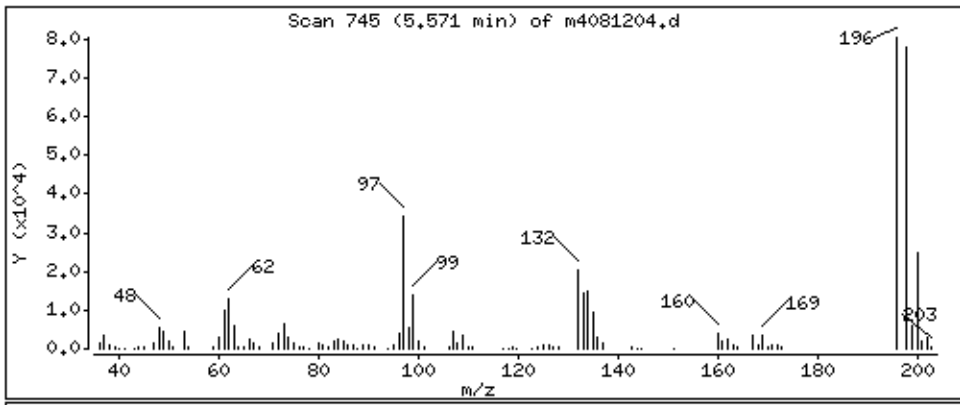
Operator: SJG

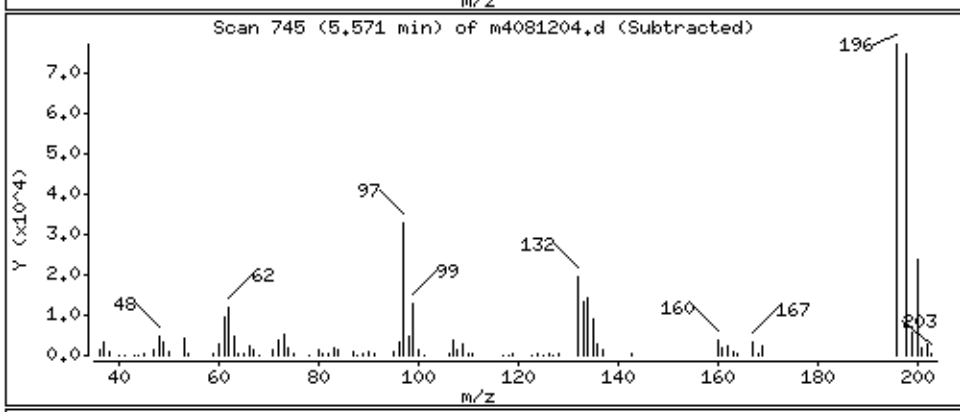
Column phase: RTX-5MS

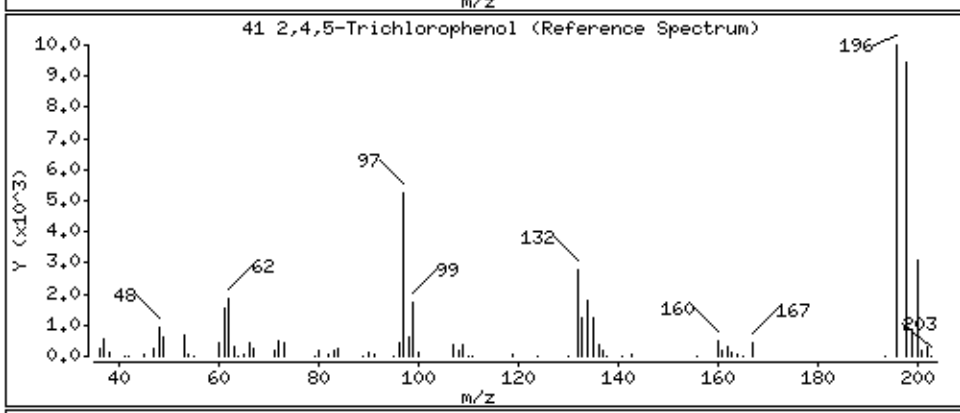
Column diameter: 0.18

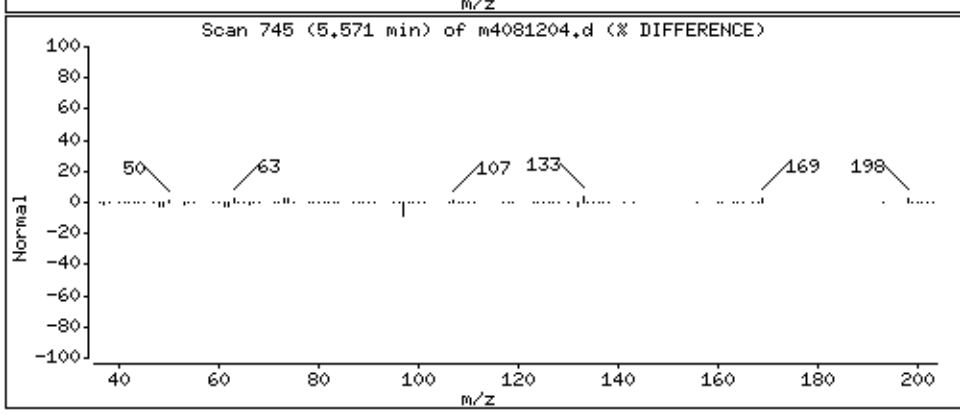
41 2,4,5-Trichlorophenol

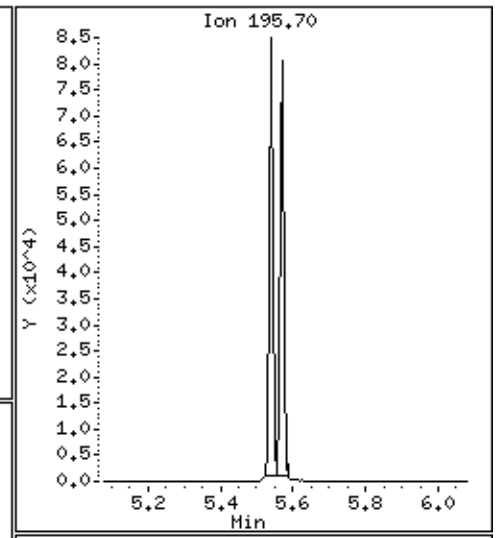
Concentration: 439 ug/L

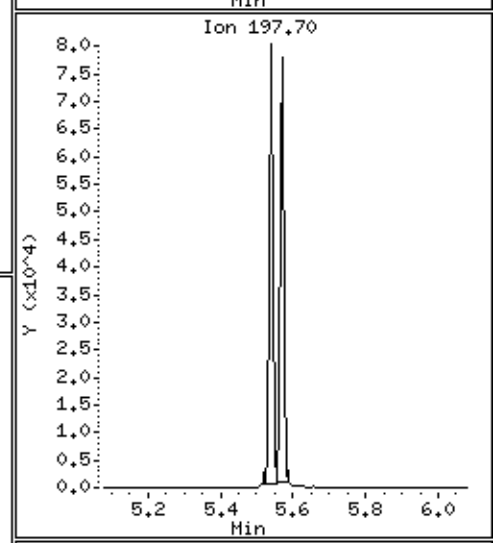


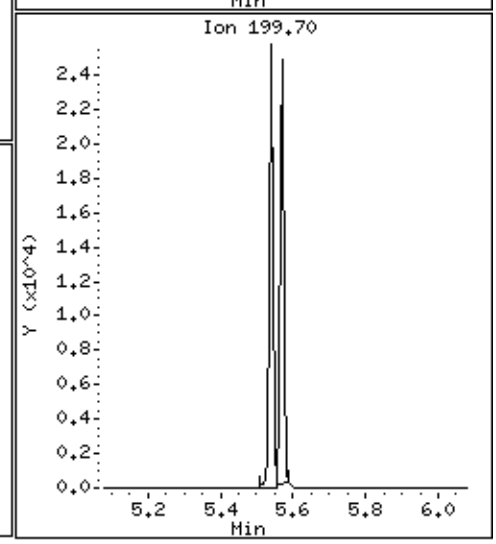












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

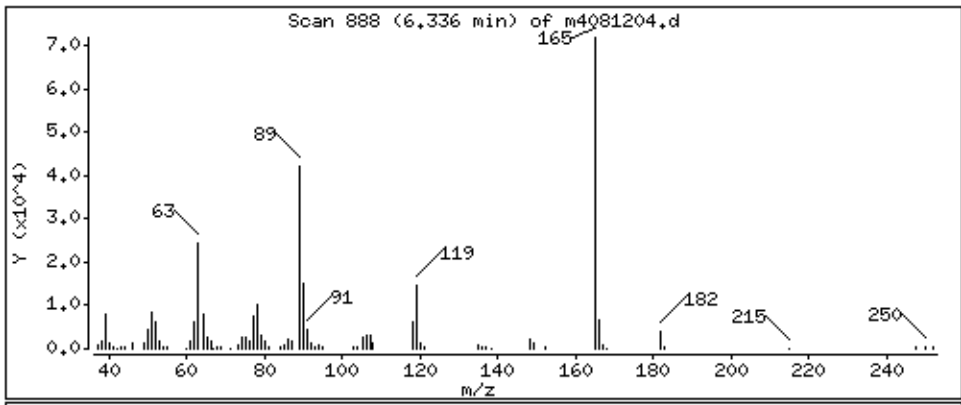
Operator: SJG

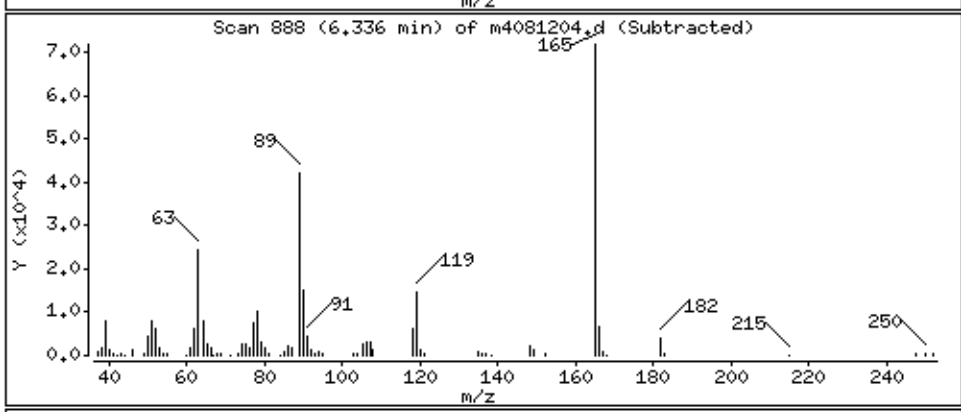
Column phase: RTX-5MS

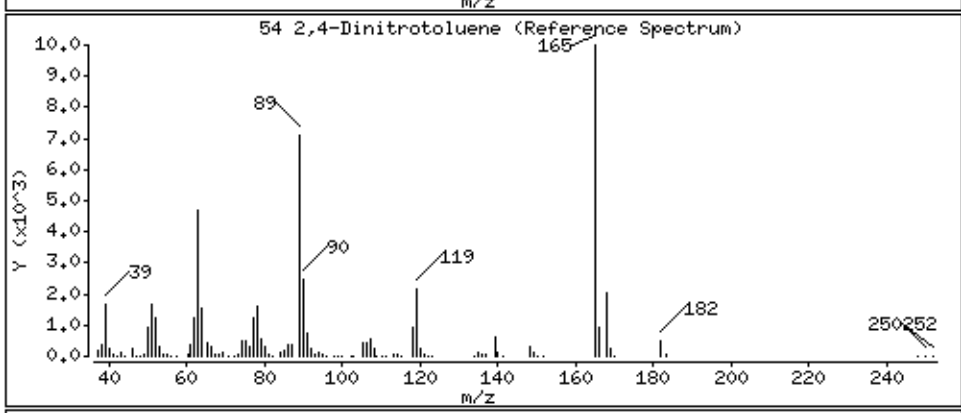
Column diameter: 0.18

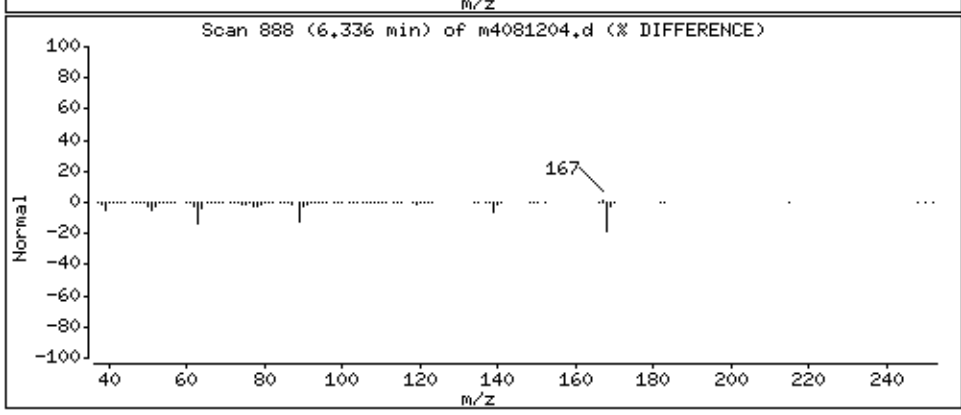
54 2,4-Dinitrotoluene

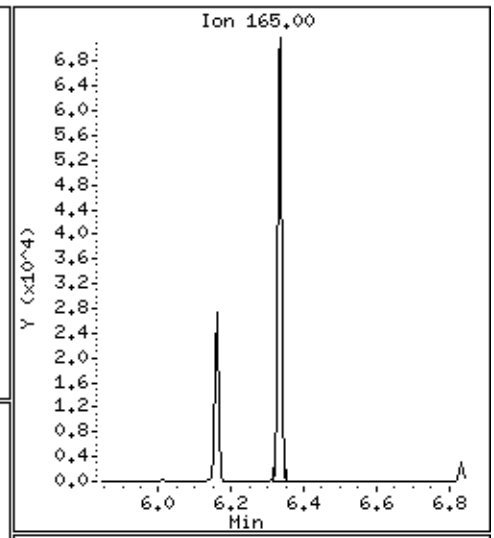
Concentration: 386 ug/L

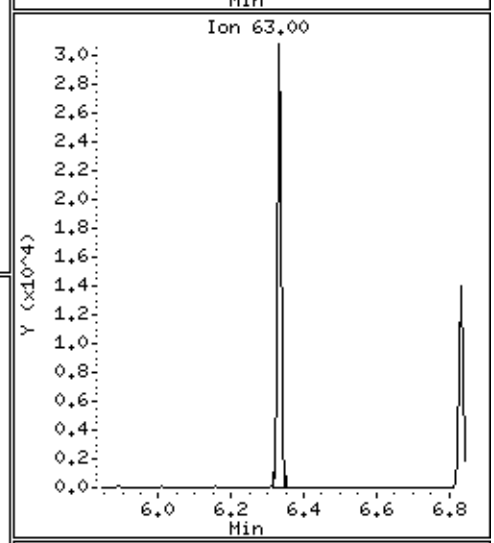


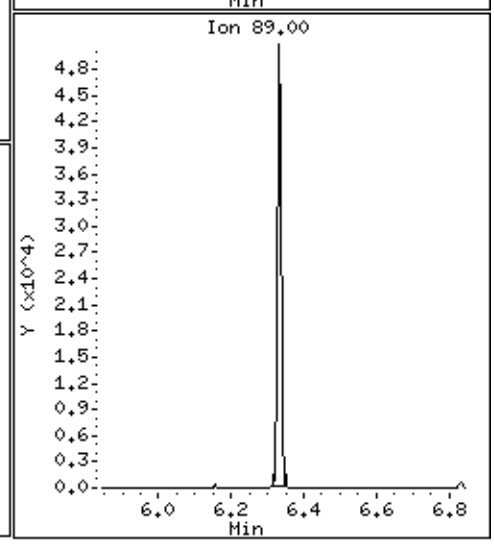












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

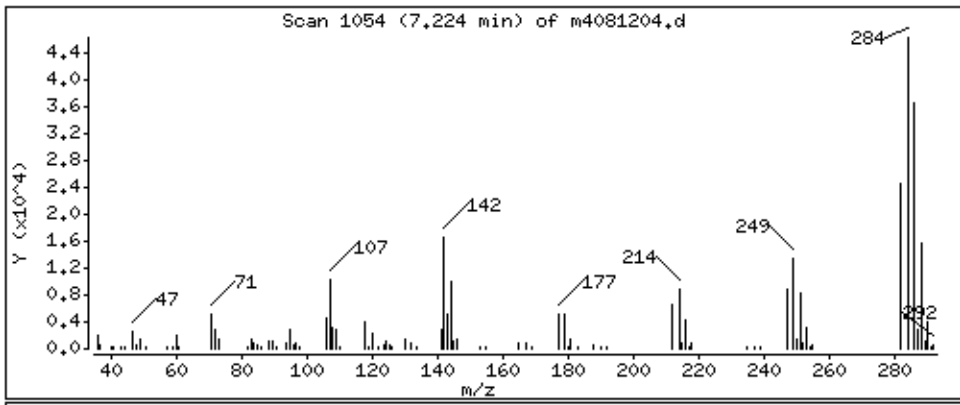
Operator: SJG

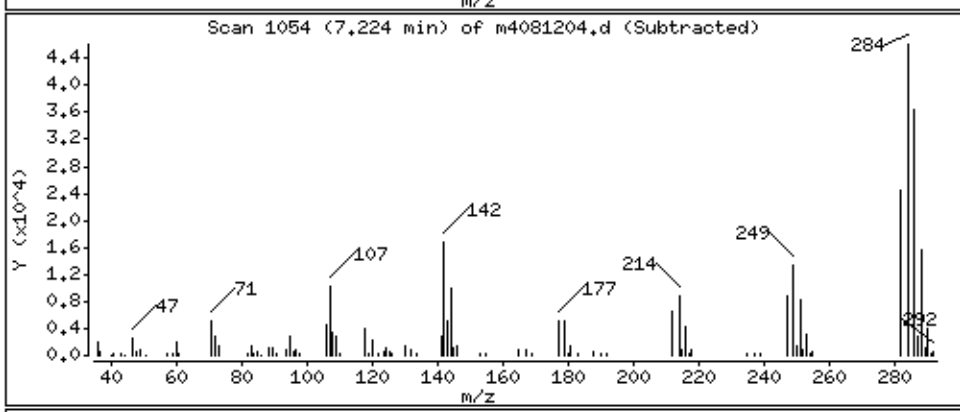
Column phase: RTX-5MS

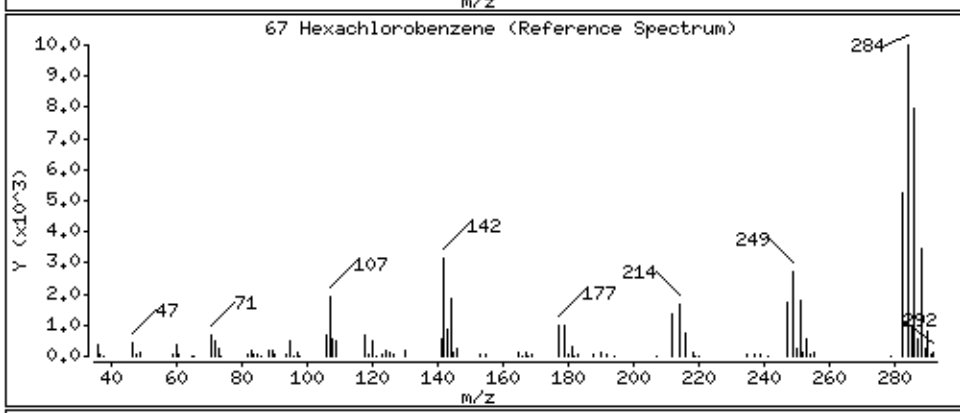
Column diameter: 0.18

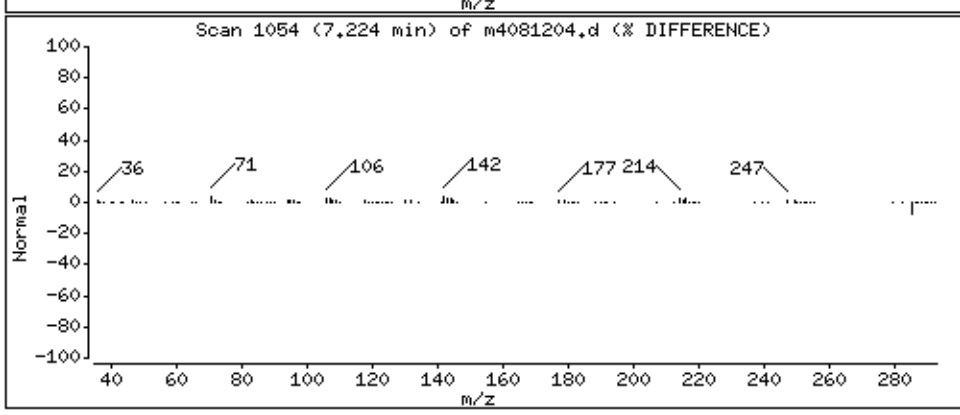
67 Hexachlorobenzene

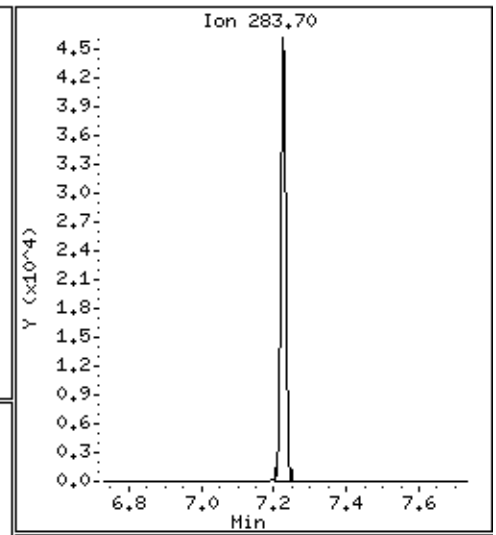
Concentration: 279 ug/L

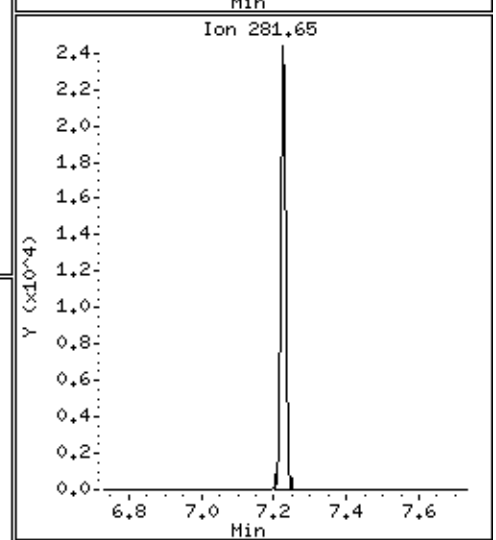


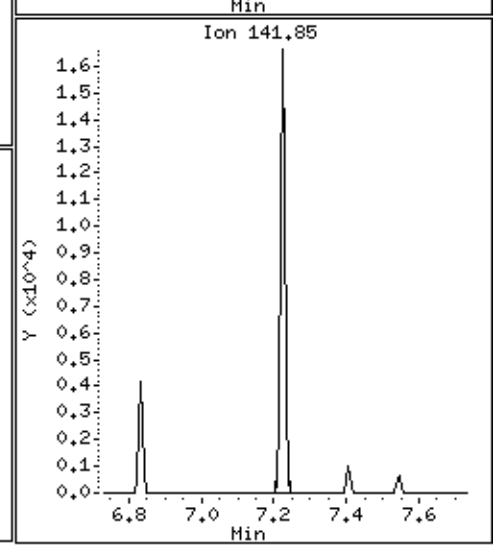












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b\m4081204.d

Date : 12-AUG-2019 18:26

Client ID: MBLCS

Instrument: 30mss4.i

Sample Info: 1730388,

Volume Injected (uL): 1.0

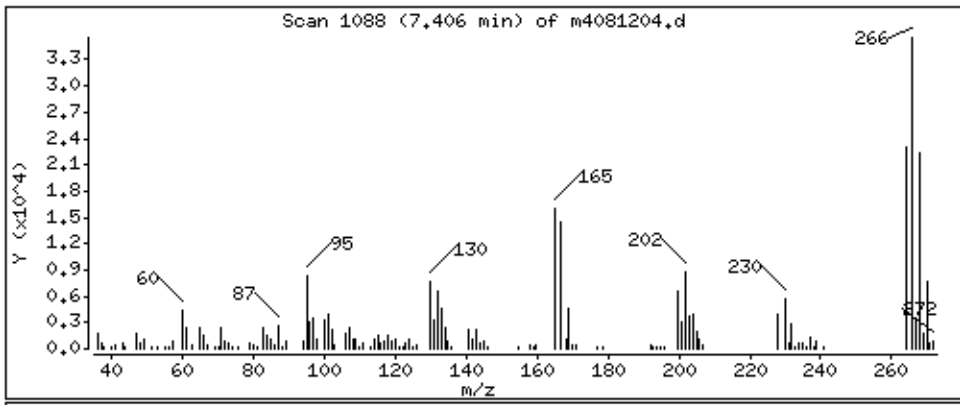
Operator: SJG

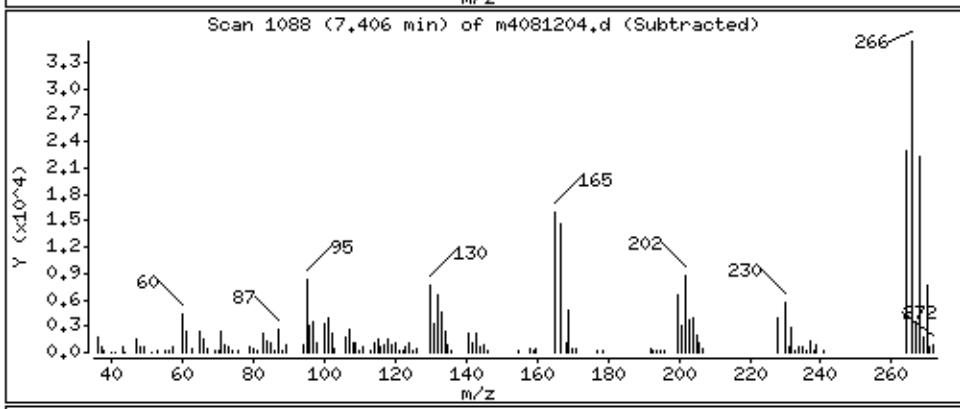
Column phase: RTX-5MS

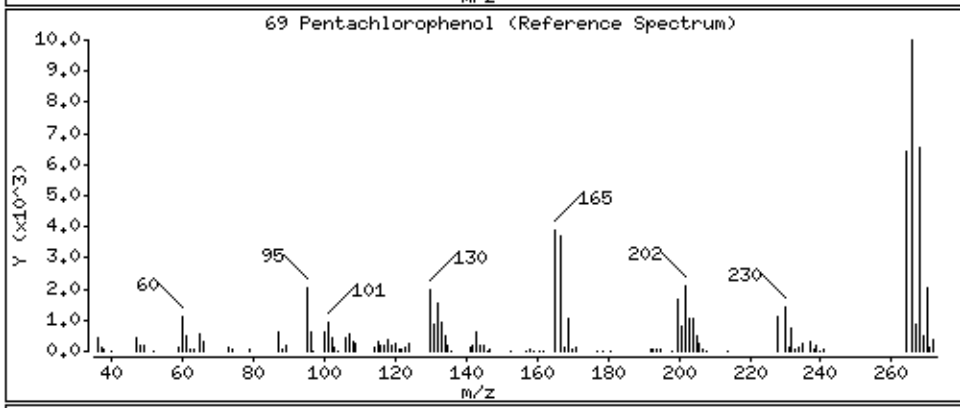
Column diameter: 0.18

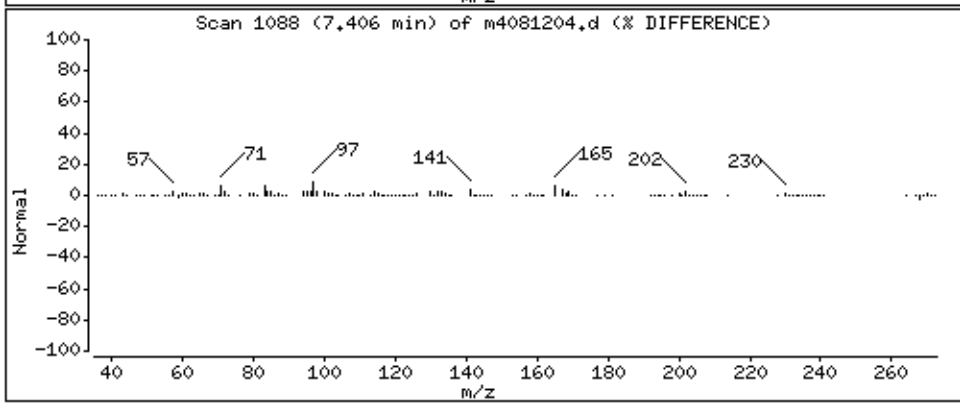
69 Pentachlorophenol

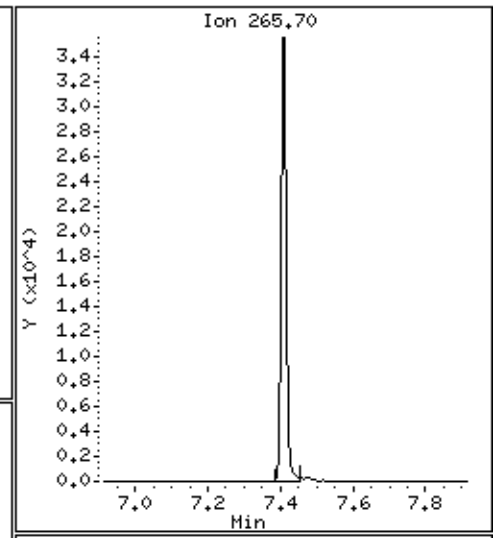
Concentration: 409 ug/L

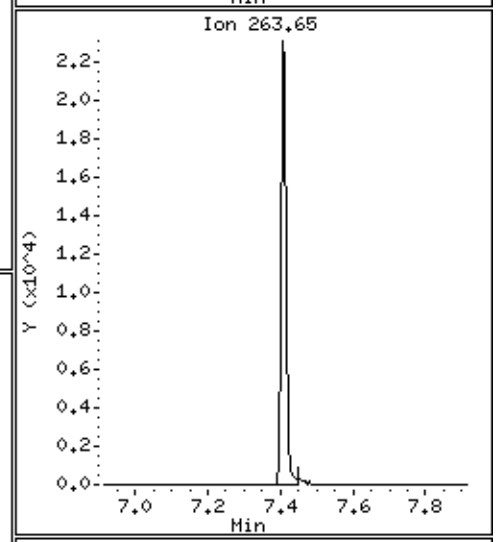


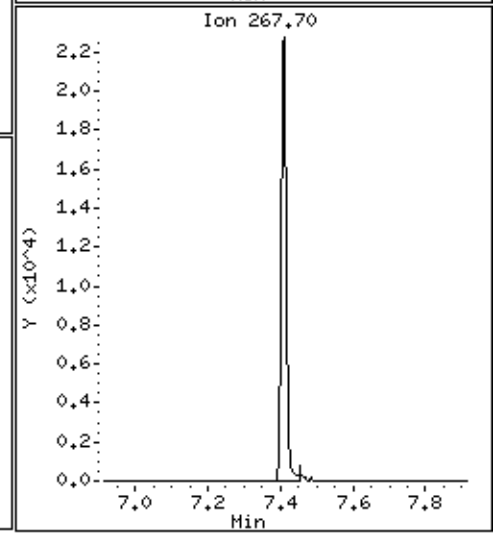












Data File: \\30wintarget\chem\30mss4.i\mss4081219.b/m4081204.d
Injection Date: 12-AUG-2019 18:26
Instrument: 30mss4.i
Lab Sample ID: 1730388
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: TCLP 8789/356078; 8790/356079

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/11/2019 10:00:16:351	Tumbler Start Temp. (C)	20.5
Tumbler End Temp. (C)	22.8	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 94232	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1729490**	N		N	30TBL5	HP001				4.88		0	0
TCLP	PS	**30318388001**	N		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100
TCLP	PS	**30318428001**	N		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
TCLP	PS	**30318231001**	N		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
TCLP	PS	**30318712001**	N		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
TCLP	PS	**30318575003**	N		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
TCLP	PS	**30318799001**	N		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100
TCLP	PS	**30315970001**	N		U	30TBL5	HP001	Other	Y	Y	8.07	1.83	5	100
1311MET_L	LB	**1729491**	Y		N	30TBL5	HP001				4.88		0	0
1311MET_L	LB	**1729492**	Y		1	30TBL5	HP001				4.88		5	100
1311MET_L	PS	**30315970002**	Y		2	30TBL5	HP001	Other	Y	Y	7.91	1.95	5	100
1311MET_L	PS	**30317384001**	Y		3	30TBL5	HP001	Other	Y	Y	6.54	1.78	5	100
1311MET_L	PS	**30317384002**	Y		4	30TBL5	HP001	Other	Y	Y	6.19	1.77	5	100
1311MET_L	PS	**30317384003**	Y		5	30TBL5	HP001	Other	Y	Y	7.05	1.75	5	100
1311MET_L	PS	**30317384004**	Y		6	30TBL5	HP001	Other	Y	Y	7.66	1.74	5	100
1311MET_L	PS	**30317384005**	Y		7	30TBL5	HP001	Other	Y	Y	7.44	1.76	5	100
1311MET_L	PS	**30317486001**	Y		8	30TBL5	HP001	Other	Y	Y	7.13	1.73	5	100
1311MET_L	PS	**30317747003**	Y		9	30TBL5	HP001	Other	Y	Y	8.52	1.78	5	100
1311MET_L	PS	**30317660001**	Y		10	30TBL5	HP001	Other	Y	Y	7.47	1.72	5	100
1311MET_L	PS	**30318430001**	Y		11	30TBL5	HP001	Other	Y	Y	9.46	1.73	5	100
1311MET_L	PS	**30318388001**	Y		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30318428001**	Y		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
1311MET_L	PS	**30318231001**	Y		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
1311MET_L	PS	**30318712001**	Y		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
1311MET_L	PS	**30318575003**	Y		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
1311MET_L	PS	**30318799001**	Y		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1729490**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071				
TCLP	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798				
TCLP	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367				
TCLP	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063				
TCLP	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797				
TCLP	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414				
TCLP	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981				
TCLP	PS	**30315970001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.86	08/12/2019 11:45:59:124				
1311MET_L	LB	**1729491**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1729492**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.68	08/12/2019 09:39:51:525	Y			
1311MET_L	PS	**30315970002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.86	08/12/2019 12:18:51:065	Y			
1311MET_L	PS	**30317384001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 09:39:53:326	Y			
1311MET_L	PS	**30317384002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.64	08/12/2019 09:39:53:996	Y			
1311MET_L	PS	**30317384003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.65	08/12/2019 09:39:54:668	Y			
1311MET_L	PS	**30317384004**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:18:841	Y			
1311MET_L	PS	**30317384005**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.14	08/12/2019 09:54:19:554	Y			
1311MET_L	PS	**30317486001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.70	08/12/2019 09:54:20:282	Y			
1311MET_L	PS	**30317747003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.02	08/12/2019 09:54:20:986	Y			
1311MET_L	PS	**30317660001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:21:634	Y			
1311MET_L	PS	**30318430001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.82	08/12/2019 09:54:22:257	Y			
1311MET_L	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798	Y			
1311MET_L	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367	Y			
1311MET_L	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063	Y			
1311MET_L	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414	Y			
1311MET_L	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1729490**								2000	
TCLP	PS	**30318388001**								2000	rock
TCLP	PS	**30318428001**								2000	mud/rock
TCLP	PS	**30318231001**								2000	mulch
TCLP	PS	**30318712001**								2000	sludge
TCLP	PS	**30318575003**								2000	1*
TCLP	PS	**30318799001**								2000	mulch/rock
TCLP	PS	**30315970001**								2000	soil
1311MET_L	LB	**1729491**								2000	
1311MET_L	LB	**1729492**								2000	
1311MET_L	PS	**30315970002**								2000	soil
1311MET_L	PS	**30317384001**								2000	mud/rock
1311MET_L	PS	**30317384002**								2000	mud/rock
1311MET_L	PS	**30317384003**								2000	mud/rock
1311MET_L	PS	**30317384004**								2000	dirt/rock
1311MET_L	PS	**30317384005**								2000	dirt/rock
1311MET_L	PS	**30317486001**								2000	brick
1311MET_L	PS	**30317747003**								2000	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30317660001**								2000	sludge
1311MET_L	PS	**30318430001**								2000	mud/rock
1311MET_L	PS	**30318388001**								2000	rock
1311MET_L	PS	**30318428001**								2000	mud/rock
1311MET_L	PS	**30318231001**								2000	mulch
1311MET_L	PS	**30318712001**								2000	sludge
1311MET_L	PS	**30318575003**								2000	1*
1311MET_L	PS	**30318799001**								2000	mulch/rock

Sample Notes:

1*: rock/concrete

Prep Log Report

Batch Information: OEXT 38912 BNA TCLP SPE

Template Version: F-PA-O-007-Rev.00 (5May2016)

Prep Method	EPA 3535A	Analysis Method	EPA 8270D	Extracted By	ZEM	Extracted Date/Time	08/12/2019 13:34:44:839
Extraction End Date/Time	08/12/2019 15:14:03:605	Acceptance Range:	pH: 4-5	Witnessed By		Concentrated By	ZEM
Concentrated By Date	08/12/2019 14:34:28:158	Conc. Method	SPE	Methylene Chloride	95302	Methanol	93633
1:1 H2SO4	85991	10N Sodium Hydroxide	None Added	SPE Cartridge	95740	Sodium Sulfate	95647
Gravity Filters	89368	Syringe ID 1	SYR033	Reviewed By	JPD	Reviewed By Date	08/19/2019 08:13
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	Initial Volume (mL)	pH Adjusted	Final Volume (mL)	Sample Notes	8270SS-SS (mL)	8270T-SPK (mL)
8270DSPE_P	LB	**1729490**		100	No	10		92714 (1)	
8270DSPE_P	LCS	**1730388**		100	No	10		92714 (1)	90624 (.5)
8270DSPE_P	PS	**30318388001**		100	Yes	10	1*	92714 (1)	
8270DSPE_P	MS	**1730389**		100	Yes	10	1*	92714 (1)	90624 (.5)
8270DSPE_P	MSD	**1730390**		100	Yes	10	1*	92714 (1)	90624 (.5)
8270DSPE_P	PS	**30315970001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30318712001**		100	No	10		92714 (1)	
8270DSPE_P	PS	**30317570001**		100	Yes	10	1*	92714 (1)	
8270DSPE_P	PS	**30318231001**		100	Yes	10	1*	92714 (1)	
8270DSPE_P	PS	**30318575003**		100	Yes	10	1*	92714 (1)	
8270DSPE_P	PS	**30318799001**		100	Yes	10	1*	92714 (1)	

Sample Notes:

1*: Added H2SO4

Standard Notes:

90624: OEXT TCLP BNA spike 100 ppm in

92714: OEXT 8270 BNA surrogate 50/75

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss4.i
Column RTX-5MS 20m X 0.18mm Helium Method: 8270D/625/TCLP
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 94046:10 Surr. lot: See extraction sheets
Tune std: 79378 Cal. std: 94272

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m40805t1.d	TUNE, 79378:1	N/14922	DFTPP	1	625tune	8/05/19	12:14	SJG	
1/m40805y1.d	CAL7, 94269:1	N/14922	CALIB_7	1	8270080519	8/05/19	12:29	SJG	
1/m40805y2.d	CAL6, 94270:1	N/14922	CALIB_6	1	8270080519	8/05/19	12:51	SJG	
1/m40805y3.d	CAL5, 94271:1	N/14922	CALIB_5	1	8270080519	8/05/19	13:13	EAC	
1/m40805y4.d	CAL4, 94272:1	N/14922	CALIB_4	1	8270080519	8/05/19	13:35	EAC	
1/m40805y5.d	CAL3, 94273:1	N/14922	CALIB_3	1	8270080519	8/05/19	13:56	EAC	
1/m40805y6.d	CAL2, 94274:1	N/14922	CALIB_2	1	8270080519	8/05/19	14:19	EAC	
1/m40805y7.d	CAL1, 94275:1	N/14922	CALIB_1	1	8270080519	8/05/19	14:40	EAC	
1/m40805y8.d	ICV, 95128:1	N/14922	CCALIB_8	1	8270080519	8/05/19	15:02	EAC	
1/m4080501.d	1724042,	L/14927	BLANK	1	8270080519	8/05/19	17:21	EAC	
1/m4080502.d	1725127,	L/14927	LCS	1	8270080519	8/05/19	17:42	EAC	
1/m4080503.d	30317131001,	S/14927	SAMPLE	1	8270080519	8/05/19	18:04	EAC	
1/m4080504.d	1725128,	S/14927	MS	1	8270080519	8/05/19	18:26	EAC	
1/m4080505.d	1725129,	S/14927	MSD	1	8270080519	8/05/19	18:48	EAC	
1/m4080506.d	30317338001,	L/14927	SAMPLE	1	8270080519	8/05/19	19:09	EAC	Cl2p1Zl
1/m4080507.d	30317100001,	S/14927	SAMPLE	1	8270080519	8/05/19	19:31	EAC	p1Zl
1/m4080508.d	30317104001,	S/14927	SAMPLE	1	8270080519	8/05/19	19:53	EAC	p1Zl
1/m4080509.d	30317126001,	S/14927	SAMPLE	1	8270080519	8/05/19	20:15	EAC	
1/m4080510.d	30317127001,	S/14927	SAMPLE	1	8270080519	8/05/19	20:36	EAC	
1/m4080511.d	30317127003,	S/14927	SAMPLE	1	8270080519	8/05/19	20:58	EAC	
1/m4080512.d	30315262001,	S/14918	SAMPLE	1	8270080519	8/05/19	21:20	EAC	Cl2p1Zl
1/m4080513.d	1724055/53,,1492	N/	BLANK	1	8270080519	8/05/19	21:41	EAC	14925/14924
1/m4080514.d	1724056/54,,1492	N/	LCS	1	8270080519	8/05/19	22:03	EAC	14925/14924
1/m4080515.d	30317177001X10,	L/14925	SAMPLE	10	8270080519	8/05/19	22:25	EAC	
1/m4080516.d	RINSE	N/	SAMPLE	1	8270080519	8/05/19	22:46	EAC	
1/m4080517.d	RINSE	N/	SAMPLE	1	8270080519	8/05/19	23:08	EAC	
1/m4080518.d	RINSE	N/	SAMPLE	1	8270080519	8/05/19	23:29	EAC	
1/m4080519.d	RINSE	N/	SAMPLE	1	8270080519	8/05/19	23:51	EAC	
1/m4080520.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	00:12	EAC	
1/m4080521.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	00:34	EAC	
1/m4080522.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	00:56	EAC	
1/m4080523.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	01:17	EAC	
1/m4080524.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	01:39	EAC	

Check Maintenance Items Performed:

- ✓ Changed septum
- ✓ Cleaned liner
- ✓ Replaced/Cleaned gold seal
- ✓ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: EAC 8/6/19

File Path 1: \\30wintarget\chem\30mss4.i\mss4080519.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:09 08/06/2019

Reviewed By/Date: SJC 8/6/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss4.i

Column RTX-5MS 20m X 0.18mm Helium Method:

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 94046:10 Surr. lot:

Tune std: _____ Cal. std: _____

see page 1

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m4080525.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	02:00	EAC	
1/m4080526.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	02:22	EAC	
1/m4080527.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	02:43	EAC	
1/m4080528.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	03:05	EAC	
1/m4080529.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	03:27	EAC	
1/m4080530.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	03:48	EAC	
1/m4080531.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	04:10	EAC	
1/m4080532.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	04:31	EAC	
1/m4080533.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	04:53	EAC	
1/m4080534.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	05:14	EAC	
1/m4080535.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	05:36	EAC	
1/m4080536.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	05:58	EAC	
1/m4080537.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	06:19	EAC	
1/m4080538.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	06:41	EAC	
1/m4080539.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	07:02	EAC	
1/m4080540.d	RINSE	N/	SAMPLE	1	8270080519	8/06/19	07:24	EAC	
1/m4080541.d	30317177001,	L/14925	SAMPLE	1	8270080519	8/06/19	09:26	EAC	625

EAC 8/6/19

File Path 1: \\30wintarget\chem\30mss4.i\mss4080519.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:09 08/06/2019

Reviewed By/Date: SJG 8-6-19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss4.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 95845
Tune std: 96103

Method: ~~EPA-625~~ 8270D SJG 8-13-19
Surr. lot: See Extraction Sheets
Cal. std: 94272

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m40812t1.d	TUNE, 96103:1	N/14922	DFTPP	1	625tune	8/12/19	16:00	SJG	
1/m40812t2.d	TUNE, 96103:1	N/14922	DFTPP	1	625tune	8/12/19	16:17	SJG	
1/m40812s1.d	CCV, 94272:1	N/14922	CCALIB_4	1	8270080519	8/12/19	16:34	SJG	
1/m40812s2.d	CCV, 94272:1	N/14922	CCALIB_4	1	8270080519	8/12/19	16:56	SJG	
1/m4081201.d	1729559,	L/14948	BLANK	1	8270080519	8/12/19	17:20	SJG	
1/m4081202.d	1729555,	L/14948	LCS	1	8270080519	8/12/19	17:42	SJG	
1/m4081203.d	1729490,	L/14955	BLANK	1	8270080519	8/12/19	18:04	SJG	
1/m4081204.d	1730388,	L/14955	LCS	1	8270080519	8/12/19	18:26	SJG	
1/m4081205.d	30318388001,	S/14955	SAMPLE	1	8270080519	8/12/19	18:47	SJG	
1/m4081206.d	1730389,	S/14955	MS	1	8270080519	8/12/19	19:09	SJG	
1/m4081207.d	1730390, SJG 8-13-19	S/14955	MSD	1	8270080519	8/12/19	19:31	SJG	
1/m4081208.d	30318172001,	N/14955	SAMPLE	1	8270080519	8/12/19	19:53	SJG	
1/m4081209.d	30315970001,	S/14955	SAMPLE	1	8270080519	8/12/19	20:14	SJG	
1/m4081210.d	30317570001,	L/14955	SAMPLE	1	8270080519	8/12/19	20:36	SJG	
1/m4081211.d	30318231001,	S/14955	SAMPLE	1	8270080519	8/12/19	20:58	SJG	
1/m4081212.d	30318575003,	S/14955	SAMPLE	1	8270080519	8/12/19	21:19	SJG	
1/m4081213.d	30318799001,	S/14955	SAMPLE	1	8270080519	8/12/19	21:41	SJG	
1/m4081214.d	30317044001,	S/14948	SAMPLE	1	8270080519	8/12/19	22:02	SJG	
1/m4081215.d	1729557,	S/14948	MS	1	8270080519	8/12/19	22:24	SJG	
1/m4081216.d	1729558,	S/14948	MSD	1	8270080519	8/12/19	22:46	SJG	
1/m4081217.d	30316656001,	S/14948	SAMPLE	1	8270080519	8/12/19	23:07	SJG	
1/m4081218.d	30317875001,	L/14946	SAMPLE	1	8270080519	8/12/19	23:29	SJG	
1/m4081219.d	30317875002,	S/14946	SAMPLE	1	8270080519	8/12/19	23:50	SJG	
1/m4081220.d	30317705003X5,	S/14943	SAMPLE	5	8270080519	8/13/19	00:12	SJG	
1/m4081221.d	30318386001,	S/14948	SAMPLE	1	8270080519	8/13/19	00:33	SJG	
1/m4081222.d	30318054001,	S/14948	SAMPLE	1	8270080519	8/13/19	00:55	SJG	PI2 ↓ NDI
1/m4081223.d	30317103001,	S/14946	SAMPLE	1	8270080519	8/13/19	01:16	SJG	
1/m4081224.d	30317749001,	S/14946	SAMPLE	1	8270080519	8/13/19	01:37	SJG	
1/m4081225.d	30318455001,	S/14946	SAMPLE	1	8270080519	8/13/19	01:59	SJG	
1/m4081226.d	30318063001,	S/14946	SAMPLE	1	8270080519	8/13/19	02:21	SJG	
1/m4081227.d	30316720001X10,	L/14948	SAMPLE	10	8270080519	8/13/19	02:43	SJG	
1/m4081228.d	30317169001X100,	L/14935	SAMPLE	100	8270080519	8/13/19	03:04	SJG	C25
1/m4081229.d	1725251X100,	L/14935	MS	100	8270080519	8/13/19	03:26	SJG	

Check Maintenance Items Performed:

- X Changed septum
- X Cleaned liner
- X Replaced/Cleaned gold seal
- X Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: SJG 8-13-19

File Path 1: \\30wintarget\chem\30mss4.i\mss4081219.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:58 08/13/2019

Reviewed By/Date: 8/13/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss4.i

Column RXI-5MS 20m X 0.18mm He Method: EPA 625

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: 95845:10 Surr. lot:

Tune std: _____ Cal. std: _____

See Page 1

Instrument name..... 30MSS4

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m4081230.d	1725252X100,	L/14935	MSD	100	8270080519	8/13/19	03:47	SJG	625 P12d NOI
1/m4081231.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	04:09	SJG	
1/m4081232.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	04:31	SJG	
1/m4081233.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	04:53	SJG	
1/m4081234.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	05:14	SJG	
1/m4081235.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	05:36	SJG	
1/m4081236.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	05:57	SJG	
1/m4081237.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	06:19	SJG	
1/m4081238.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	06:41	SJG	
1/m4081239.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	07:02	SJG	
1/m4081240.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	07:24	SJG	
1/m4081241.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	07:46	SJG	
1/m4081242.d	RINSE	N/	SAMPLE	1	8270080519	8/13/19	08:07	SJG	

SJG 8-13-19

File Path 1: \\30wintarget\chem\30mss4.i\mss4081219.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:58 08/13/2019

Reviewed By/Date: 8/13/19

MSSV SIM - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MSS3

LAB SAMPLE ID	SAMPLE NAME	2FBP	TD14
1729425	1729425BLANK	94	92
1729426	1729426LCS	94	91
30318799001	AOC 32 DITCH & AOC 35G	98*	101

	QC LIMITS
(2FBP) = 2-Fluorobiphenyl (S)	(43-97)
(TD14) = Terphenyl-d14 (S)	(56-106)

* Values outside of QC Limits

MSSV SIM - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1729426LCS
Date Extracted: 08/12/2019
Date Analyzed (1): 08/12/2019
Instrument: 30MSS3
LCS Lot No: 85224
Lab File ID: MSS3081219.B\M308121904.D
SDG No.: 30318799

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acenaphthylene	129	124	96	42-109
Anthracene	129	114	89	54-110
Benzo(a)anthracene	129	136	105	59-119
Benzo(a)pyrene	129	115	89	55-125
Benzo(b)fluoranthene	129	119	92	54-131
Benzo(g,h,i)perylene	129	125	97	54-122
Benzo(k)fluoranthene	129	121	94	57-123
Chrysene	129	114	88	62-111
Dibenz(a,h)anthracene	129	126	98	60-124
Fluoranthene	129	123	96	60-116
Fluorene	129	115	89	49-110
Indeno(1,2,3-cd)pyrene	129	128	100	59-122
Naphthalene	129	103	80	42-97
Phenanthrene	129	113	87	52-107
Pyrene	129	123	95	60-117

Spike Recovery: 0 out of 15 outside limits.

MSSV SIM - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1729427MS

Date Extracted: 08/12/2019

Date Analyzed (1): 08/12/2019

Instrument: 30MSS3

Lab File ID: MSS3081219.B\M308121919.D

Parent Sample ID: 30318504001

SDG No.: 30318799

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Acenaphthylene	142	0.028	184	110	26-144
Anthracene	142	0.014	135	86	10-166
Benzo(a)anthracene	142	0.032	155	87	10-175
Benzo(a)pyrene	142	0.021	114	66	10-175
Benzo(b)fluoranthene	142	0.090	151	43	10-175
Benzo(g,h,i)perylene	142	0.032	98.1	47	10-171
Benzo(k)fluoranthene	142	0.079	118	27	10-160
Chrysene	142	0.061	143	58	10-175
Dibenz(a,h)anthracene	142	0.0095	101	65	10-149
Fluoranthene	142	0.055	169	80	10-175
Fluorene	142	ND	133	91	31-136
Indeno(1,2,3-cd)pyrene	142	0.024	105	57	10-151
Naphthalene	142	0.045	175	92	10-149
Phenanthrene	142	0.051	166	81	10-175
Pyrene	142	0.052	164	79	10-175

Spike Recovery: 0 out of 15 outside limits.

MSSV SIM - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MSS3 Matrix Spike Duplicate - Sample No: 1729428MSD

Lab File ID (2): MSS3081219.B\M308121920.D Date Analyzed (2): 08/12/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Acenaphthylene	144	172	100	7	0-20	26-144
Anthracene	144	146	92	8	0-20	10-166
Benzo(a)anthracene	144	177	100	13	0-20	10-175
Benzo(a)pyrene	144	135	79	16	0-20	10-175
Benzo(b)fluoranthene	144	175	60	15	0-20	10-175
Benzo(g,h,i)perylene	144	110	54	11	0-20	10-171
Benzo(k)fluoranthene	144	140	42	17	0-20	10-160
Chrysene	144	169	75	17	0-20	10-175
Dibenz(a,h)anthracene	144	108	69	6	0-20	10-149
Fluoranthene	144	196	98	15	0-20	10-175
Fluorene	144	141	94	5	0-20	31-136
Indeno(1,2,3-cd)pyrene	144	114	63	8	0-20	10-151
Naphthalene	144	159	79	10	0-20	10-149
Phenanthrene	144	190	97	14	0-20	10-175
Pyrene	144	189	96	14	0-20	10-175

RPD: 0 out of 15 outside limits.

Spike Recovery: 0 out of 15 outside limits.

SAMPLE NO.

1729425BLANK

MSSV SIM - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30MSS3 Matrix: Solid Lab Sample ID: 1729425

Lab File ID: MSS3081219.B\M308121903.D Date Analyzed: 08/12/2019 Time: 14:01

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1729426LCS	1729426	MSS3081219.B\M308121904.	08/12/2019 14:21
AOC 32 DITCH & AOC 35G	30318799001	MSS3081219.B\M308121933.	08/12/2019 23:37
AOC 32 DITCH & AOC 35G	30318799001	MSS3081319.B\M308131910.	08/13/2019 16:53

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: MSS3080719.B\M3080719T1.D DFTPP Injection Date 08/07/2019
Instrument ID: 30MSS3 DFTPP Injection Time 10:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	47.69	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	46.22	
70	Less than 2.00% of mass 69	0.00	(0.00)[1]
127	10.00 - 80.00% of mass 198	55.13	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.67	
275	10.00 - 60.00% of mass 198	29.55	
365	Greater than 1.00% of mass 198	4.98	
441	Present, but less than mass 443	17.01	
442	Greater than 50.00% of mass 198	120.50	
443	15.00 - 24.00% of mass 442	23.49	(19.50)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11363702CAL1	11363702CAL1	MSS3080719.B\M3080719Y1.D	08/07/2019	10:53
11363693CAL2	11363693CAL2	MSS3080719.B\M3080719Y2.D	08/07/2019	11:12
11363694CAL3	11363694CAL3	MSS3080719.B\M3080719Y3.D	08/07/2019	11:31
11363703CAL4	11363703CAL4	MSS3080719.B\M3080719Y4.D	08/07/2019	11:50
11363691CAL5	11363691CAL5	MSS3080719.B\M3080719Y5.D	08/07/2019	12:09
11363701CAL6	11363701CAL6	MSS3080719.B\M3080719Y6.D	08/07/2019	12:29
11363705ICV	11363705ICV	MSS3080719.B\M3080719Y7.D	08/07/2019	12:48

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: MSS3081219.B\M3081219T1.D DFTPP Injection Date: 08/12/2019
Instrument ID: 30MSS3 DFTPP Injection Time: 12:49

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	54.00	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	51.28	
70	Less than 2.00% of mass 69	0.00	(0.00)[1]
127	10.00 - 80.00% of mass 198	59.59	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.56	
275	10.00 - 60.00% of mass 198	30.09	
365	Greater than 1.00% of mass 198	5.46	
441	Present, but less than mass 443	17.63	
442	Greater than 50.00% of mass 198	117.34	
443	15.00 - 24.00% of mass 442	22.83	(19.45)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11384485CCV	11384485CCV	MSS3081219.B\M3081219S1.D	08/12/2019	13:02
1729425BLANK	1729425BLANK	MSS3081219.B\M308121903.D	08/12/2019	14:01
1729426LCS	1729426LCS	MSS3081219.B\M308121904.D	08/12/2019	14:21
AOC 32 DITCH & AOC 35G	30318799001	MSS3081219.B\M308121933.D	08/12/2019	23:37

MSSV SIM - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil
Lab File ID: MSS3081319.B\M3081319T1.D DFTPP Injection Date: 08/13/2019
Instrument ID: 30MSS3 DFTPP Injection Time: 13:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10.00 - 80.00% of mass 198	51.45	
68	Less than 2.00% of mass 69	0.00	(0.00)[1]
69	Mass 69 relative abundance	50.80	
70	Less than 2.00% of mass 69	0.00	(0.00)[1]
127	10.00 - 80.00% of mass 198	58.32	
197	Less than 2.00% of mass 198	0.00	
198	Base Peak, 100.00% relative	100.00	
199	5.00 - 9.00% of mass 198	6.52	
275	10.00 - 60.00% of mass 198	31.91	
365	Greater than 1.00% of mass 198	5.61	
441	Present, but less than mass 443	19.73	
442	Greater than 50.00% of mass 198	134.75	
443	15.00 - 24.00% of mass 442	26.03	(19.32)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11392028CCV	11392028CCV	MSS3081319.B\M3081319S1.D	08/13/2019	13:40
AOC 32 DITCH & AOC 35G	30318799001	MSS3081319.B\M308131910.D	08/13/2019	16:53

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11384485CCV Date Analyzed: 08/12/2019

Instrument ID: 30MSS3 GC Column: Col 1 Time Analyzed: 13:02

Lab File ID: MSS3081219.B\M3081219S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		55153	4.416	82860	7.872	110209	3.191	83929	5.487
UPPER LIMIT		110306	4.916	165720	8.372	220418	3.691	167858	5.987
LOWER LIMIT		27576.5	3.916	41430	7.372	55104.5	2.691	41964.5	4.987
LAB SAMPLE ID	SAMPLE NO.								
1729425	1729425BLANK	55793	4.414	85221	7.871	114561	3.191	86232	5.485
1729426	1729426LCS	56610	4.416	87496	7.872	116759	3.191	87996	5.485
30318799001	AOC 32 DITCH & AOC 35G	66777	4.421	113030	7.903	127480	3.194	118856	5.499

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11384485CCV Date Analyzed: 08/12/2019

Instrument ID: 30MSS3 GC Column: Col 1 Time Analyzed: 13:02

Lab File ID: MSS3081219.B\M3081219S1.D

		AREA PYL	RT
12 HOUR STD		93451	9.227
UPPER LIMIT		186902	9.727
LOWER LIMIT		46725.5	8.727
LAB SAMPLE ID	SAMPLE NO.		
1729425	1729425BLANK	94546	9.225
1729426	1729426LCS	95527	9.227
30318799001	AOC 32 DITCH & AOC 35G	31388*	9.26

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11392028CCV Date Analyzed: 08/13/2019

Instrument ID: 30MSS3 GC Column: Col 1 Time Analyzed: 13:40

Lab File ID: MSS3081319.B\M3081319S1.D

		AREA ANT	RT	AREA CRY	RT	AREA NPT	RT	AREA PHN	RT
12 HOUR STD		34472	4.365	55060	7.801	69577	3.144	56128	5.427
UPPER LIMIT		68944	4.865	110120	8.301	139154	3.644	112256	5.927
LOWER LIMIT		17236	3.865	27530	7.301	34788.5	2.644	28064	4.927
LAB SAMPLE ID	SAMPLE NO.								
30318799001	AOC 32 DITCH & AOC 35G	36782	4.363	55010	7.801	74373	3.141	60936	5.427

ANT = Acenaphthene-d10 (IS)
CRY = Chrysene-d12 (IS)
NPT = Naphthalene-d8 (IS)
PHN = Phenanthrene-d10 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSSV SIM - FORM VIII SVOA-1
MSSV SIM INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil IRM/31401

Sample ID : 11392028CCV Date Analyzed: 08/13/2019

Instrument ID: 30MSS3 GC Column: Col 1 Time Analyzed: 13:40

Lab File ID: MSS3081319.B\M3081319S1.D

		AREA PYL	RT
12 HOUR STD		59313	9.151
UPPER LIMIT		118626	9.651
LOWER LIMIT		29656.5	8.651
LAB SAMPLE ID	SAMPLE NO.		
30318799001	AOC 32 DITCH & AOC 35G	57400	9.151

PYL = Perylene-d12 (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

AOC 32 DITCH & AOC 35G

MSSV SIM - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/12/2019 08:36 Lab Sample ID: 30318799001

Date Analyzed: 08/12/2019 23:37 Lab File ID: MSS3081219.B\M308121933.D

Initial wt/vol: 15.44 g Final wt/vol: 1 mL Dilution: 10 Instrument: 30MSS3 Percent Moisture: 20.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	361	
120-12-7	Anthracene	2920	
56-55-3	Benzo(a)anthracene	9750	
50-32-8	Benzo(a)pyrene	9520	
191-24-2	Benzo(g,h,i)perylene	869	
218-01-9	Chrysene	8000	
53-70-3	Dibenz(a,h)anthracene	406	
86-73-7	Fluorene	1570	
193-39-5	Indeno(1,2,3-cd)pyrene	1180	
91-20-3	Naphthalene	1370	
85-01-8	Phenanthrene	15300	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 12-AUG-2019 23:37 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : 30318799001x10,
Misc Info : 14954,
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3081219.b\m3080719pahcd.m
Meth Date : 12-Aug-2019 13:19 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 35
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.440	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.194	3.191	(1.000)	127480	4.00000		
	8 Naphthalene	128	3.208	3.205	(1.004)	52907	1.69645	1100	
	9 2-Methylnaphthalene	142	3.697	3.694	(1.158)	15641	0.88303	572	
	10 1-Methylnaphthalene	142	3.768	3.763	(1.180)	11021	0.52311	339	
$	6 2-Fluorobiphenyl (S)	172	3.951	3.948	(0.894)	9894	0.49052	31.8(R)	
	11 Acenaphthylene	152	4.325	4.320	(0.978)	11737	0.44594	289(Q)	
*	2 Acenaphthene-d10 (IS)	164	4.421	4.415	(1.000)	66777	4.00000		
	12 Acenaphthene	153	4.442	4.438	(1.005)	32333	1.69635	1100	
	13 Fluorene	166	4.802	4.794	(1.086)	36660	1.94250	1260	
*	3 Phenanthrene-d10 (IS)	188	5.499	5.487	(1.000)	118856	4.00000		
	14 Phenanthrene	178	5.522	5.505	(1.004)	590132	18.9168	12200	
	15 Anthracene	178	5.557	5.545	(1.011)	109962	3.60136	2330(Q)	
	16 Fluoranthene	202	6.536	6.505	(1.189)	924912	29.9385	19400(A)	
	17 Pyrene	202	6.745	6.715	(1.227)	749643	23.5311	15200(A)	
$	7 Terphenyl-d14 (S)	244	6.868	6.849	(1.249)	12595	0.50349	32.6(R)	
	18 Benzo(a)anthracene	228	7.894	7.862	(0.999)	329965	12.0468	7800(Q)	
*	4 Chrysene-d12 (IS)	240	7.902	7.872	(1.000)	113030	4.00000		
	19 Chrysene	228	7.930	7.898	(1.003)	306584	9.88448	6400(M)	LT

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.922	8.880	(0.964)	254835	30.0530	19500(A)	
21 Benzo(k)fluoranthene	252	8.922	8.906	(0.964)	254835	29.0406	18800(A)	
22 Benzo(a)pyrene	252	9.213	9.176	(0.995)	89335	11.7591	7620	
* 5 Perylene-d12 (IS)	264	9.259	9.227	(1.000)	31388	4.00000		
23 Dibenz(a,h)anthracene	278	10.139	10.108	(1.095)	3729	0.50182	325(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.139	10.106	(1.095)	12604	1.46348	948	
25 Benzo[g,h,i]perylene	276	10.371	10.329	(1.120)	7584	1.07330	695	

QC Flag Legend

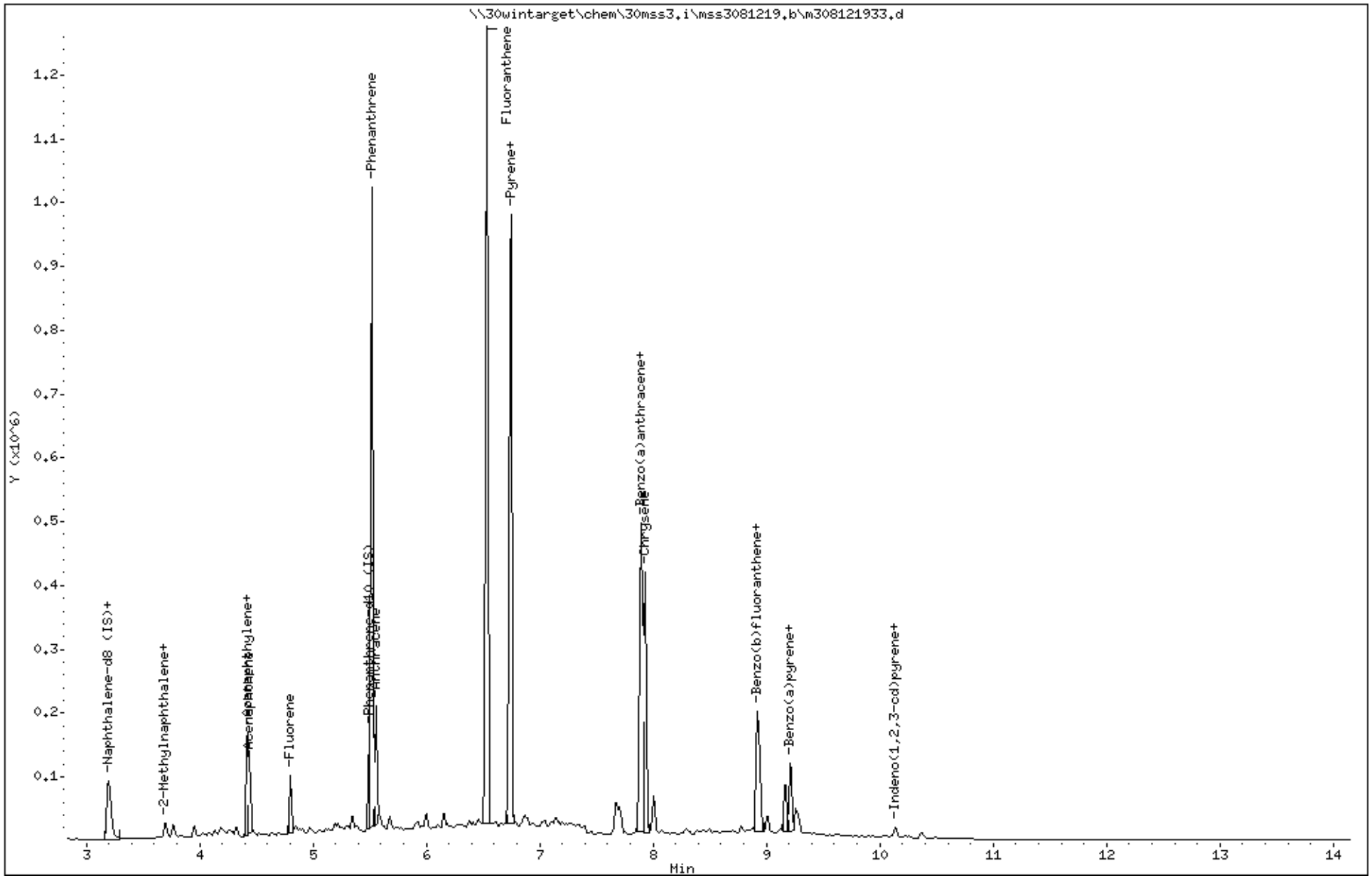
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d
Date : 12-AUG-2019 23:37
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001X10,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss3.i
Operator: AJC
Column diameter: 0.25



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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

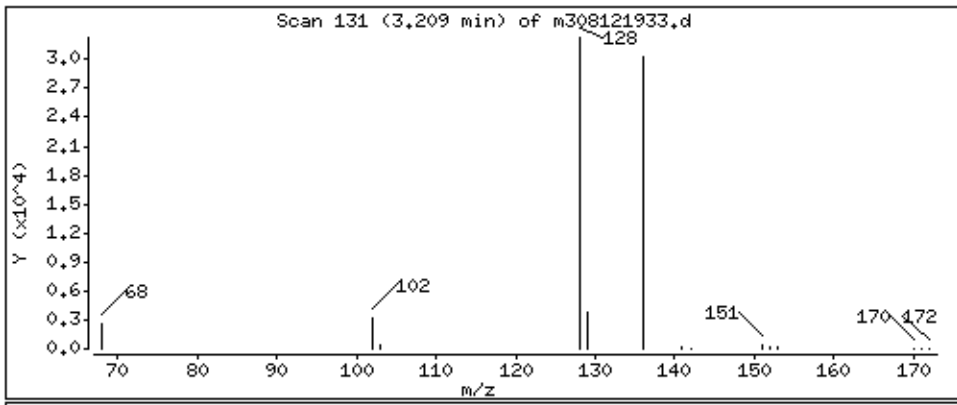
Operator: AJC

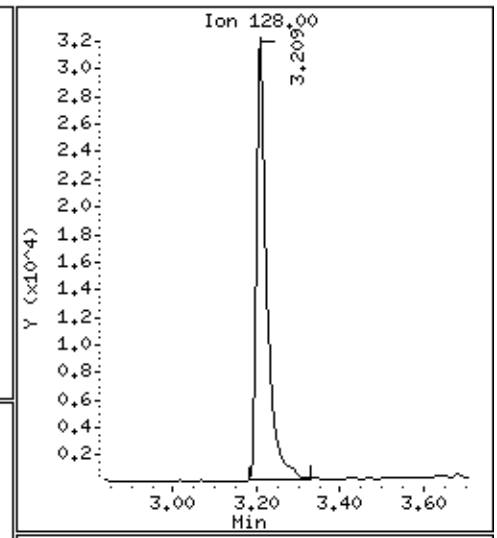
Column phase: RTX-5MS

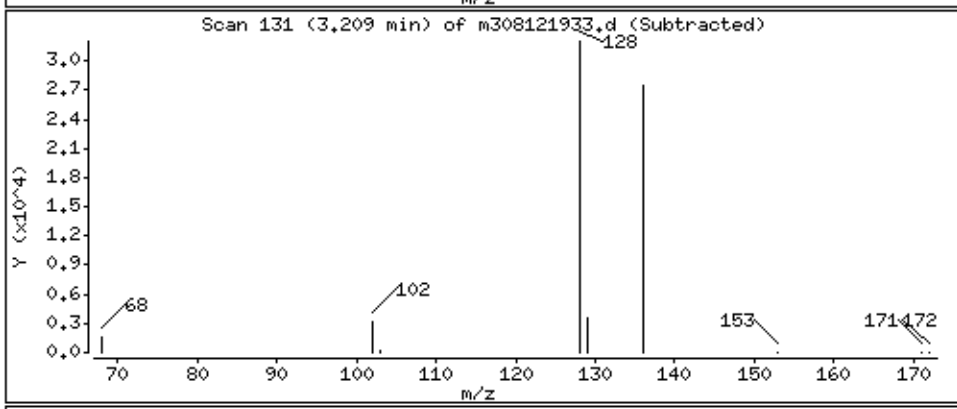
Column diameter: 0.25

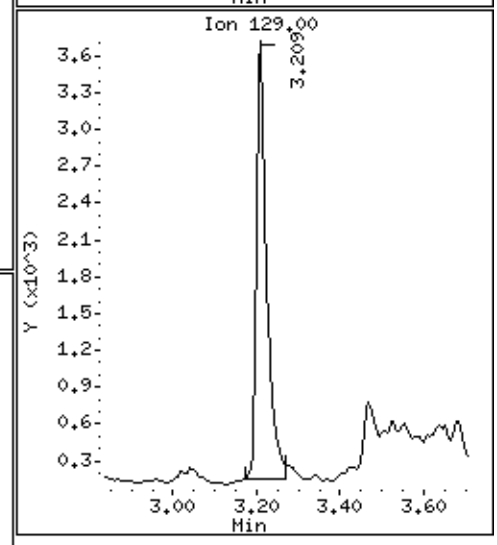
8 Naphthalene

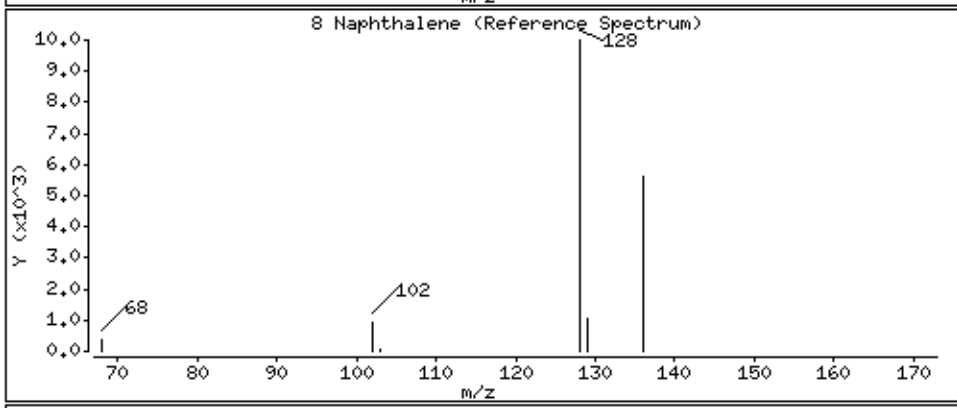
Concentration: 1100 ug/Kg

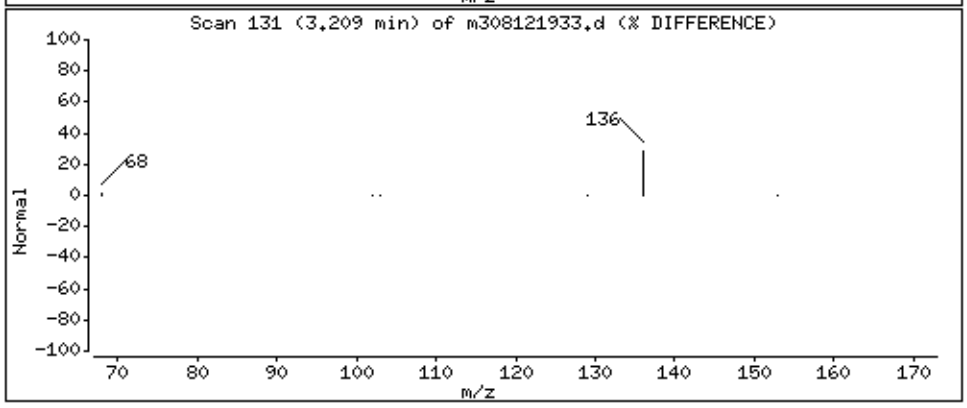












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

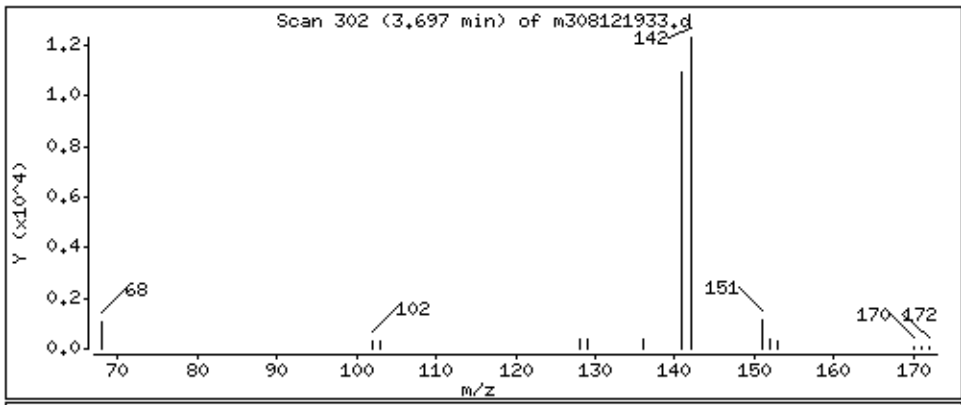
Operator: AJC

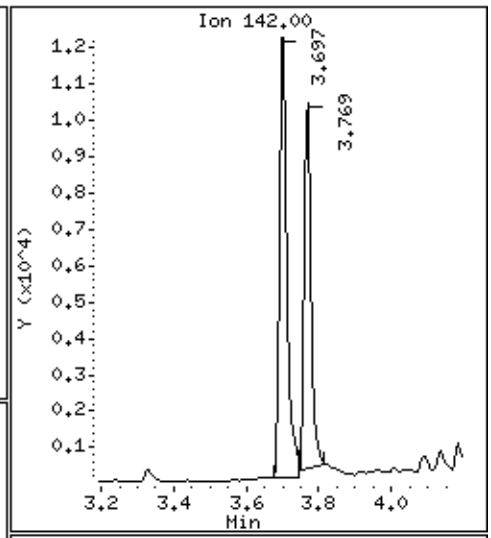
Column phase: RTX-5MS

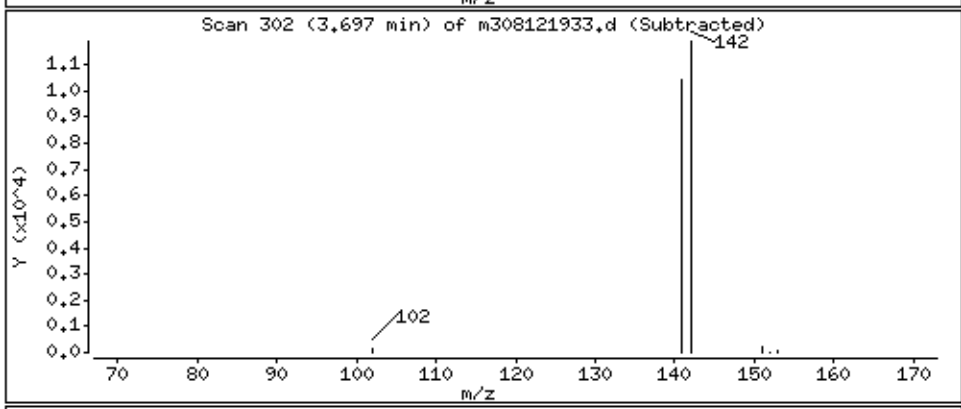
Column diameter: 0.25

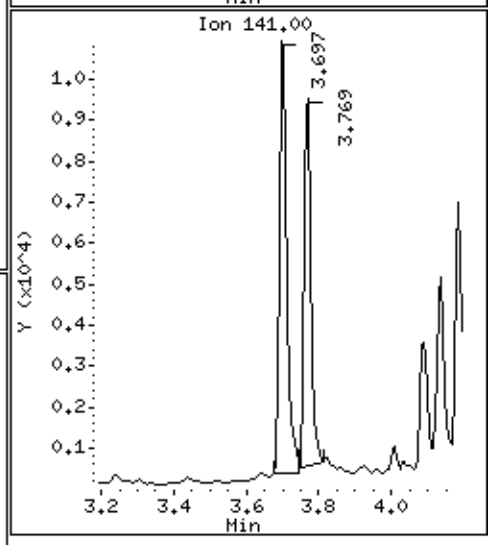
9 2-Methylnaphthalene

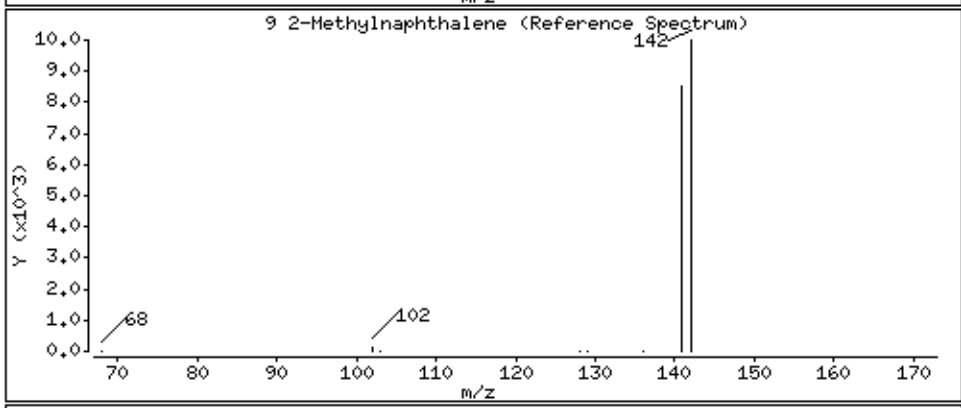
Concentration: 572 ug/Kg

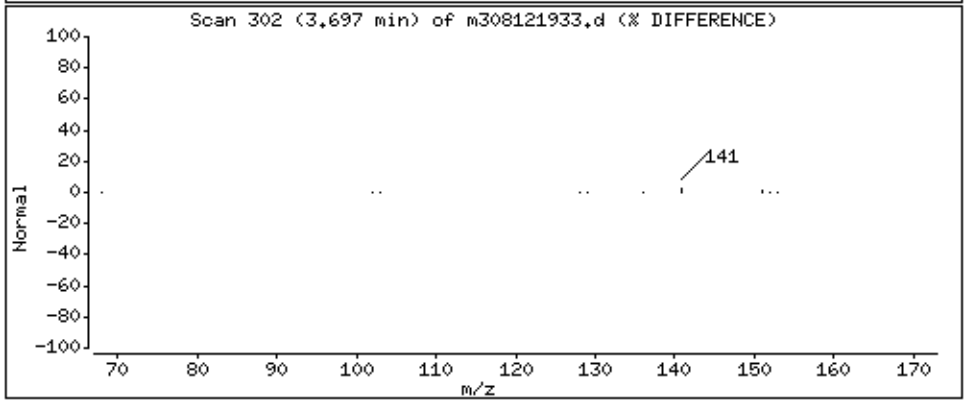












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

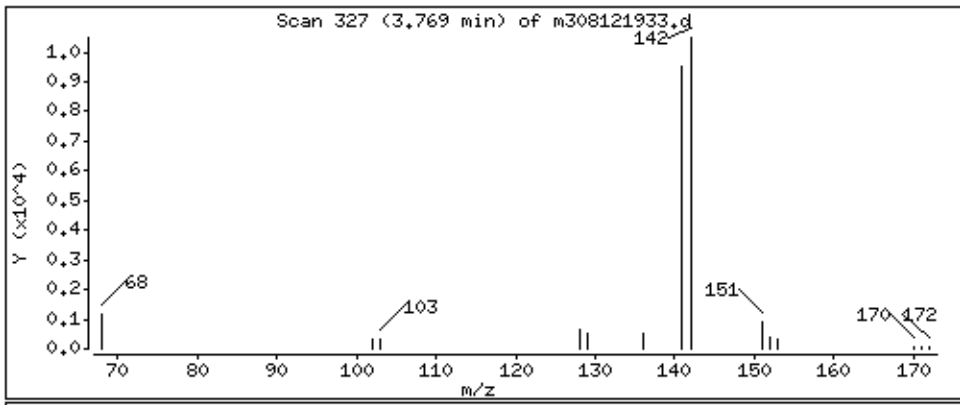
Operator: AJC

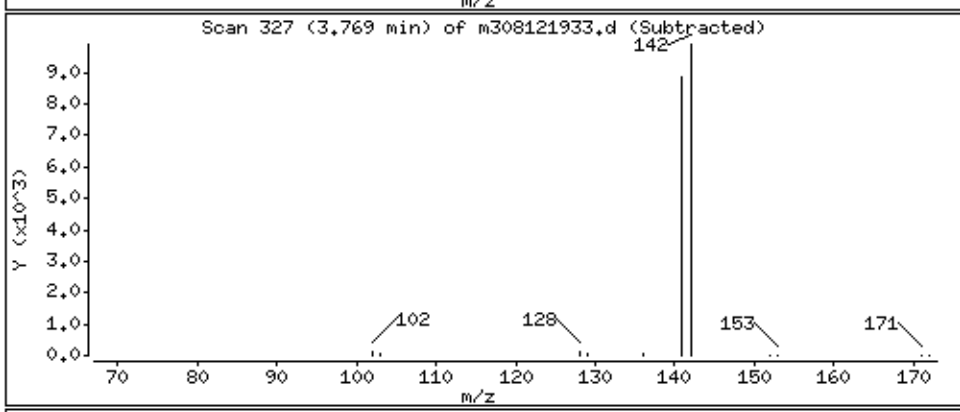
Column phase: RTX-5MS

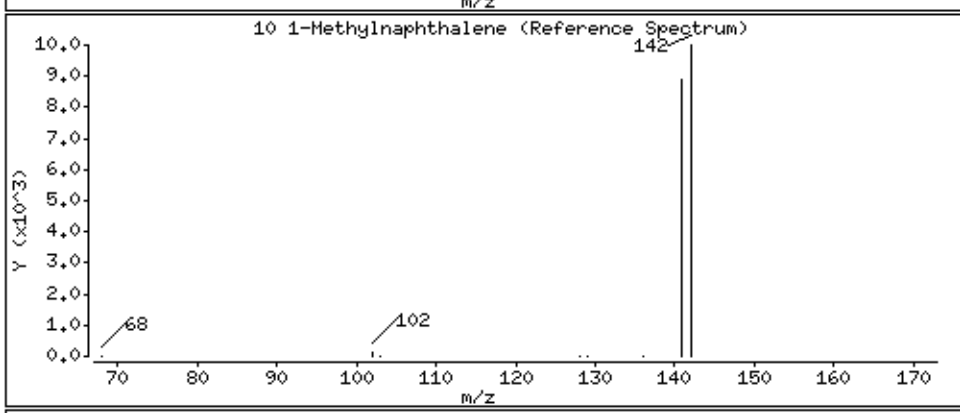
Column diameter: 0.25

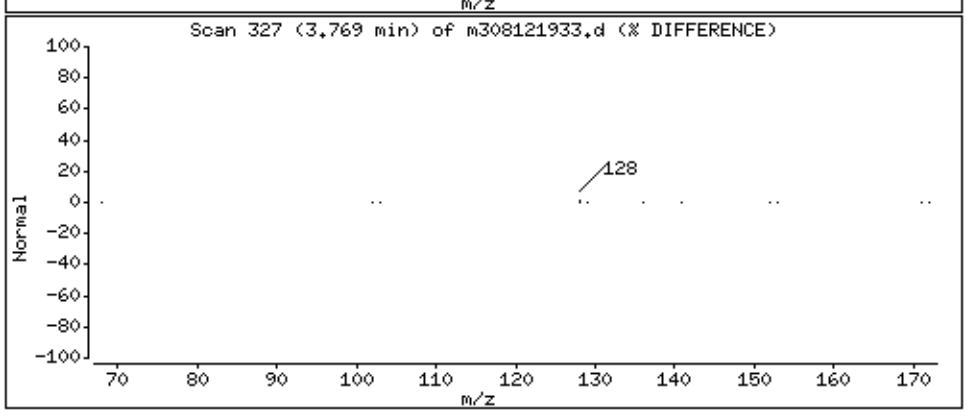
10 1-Methylnaphthalene

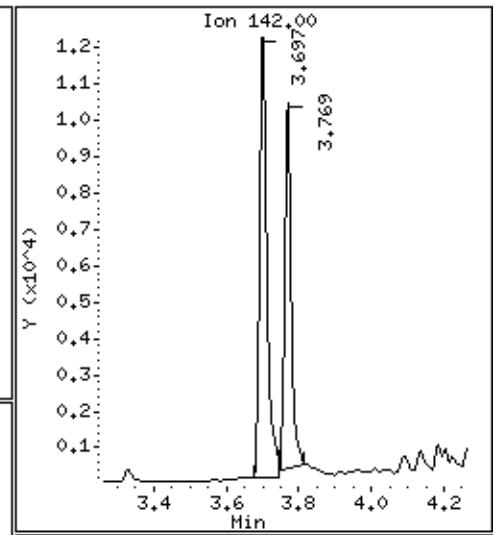
Concentration: 339 ug/Kg

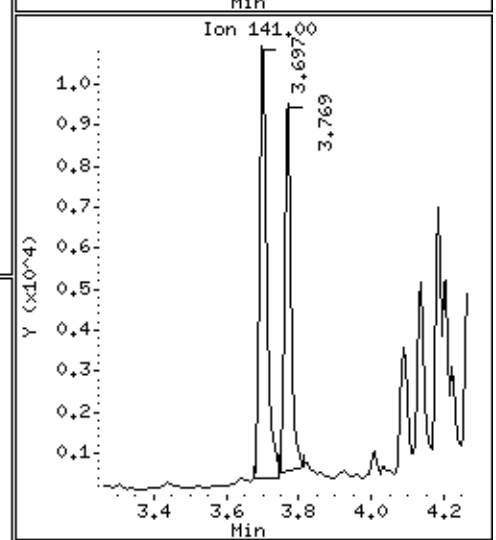












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

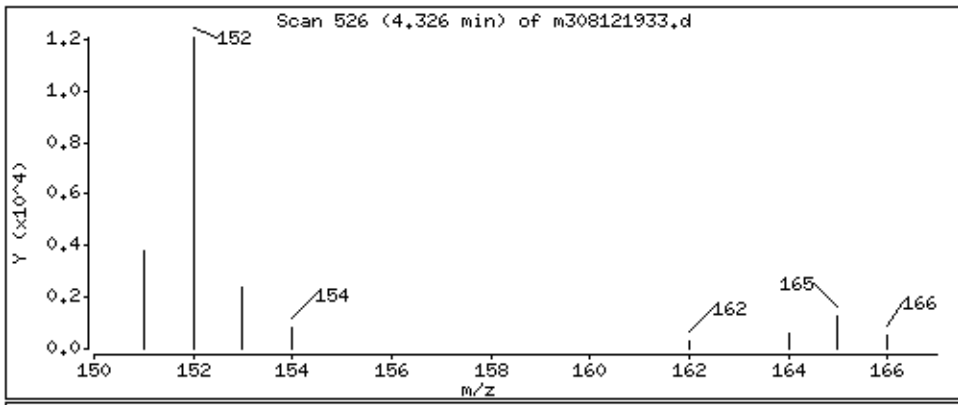
Operator: AJC

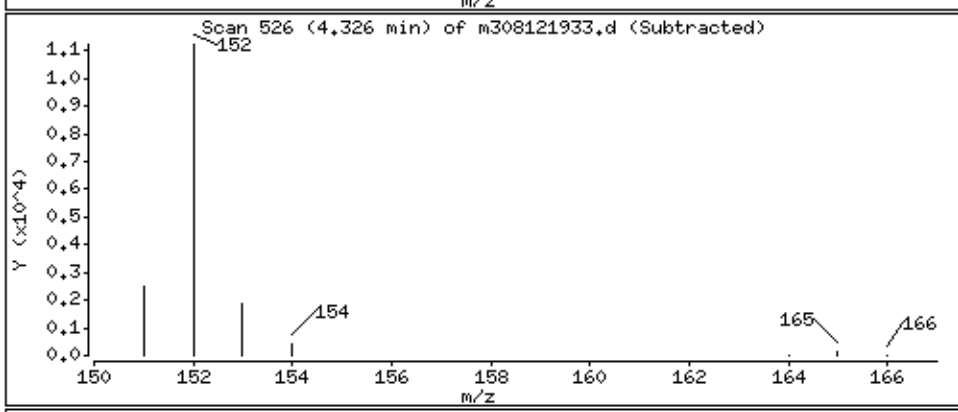
Column phase: RTX-5MS

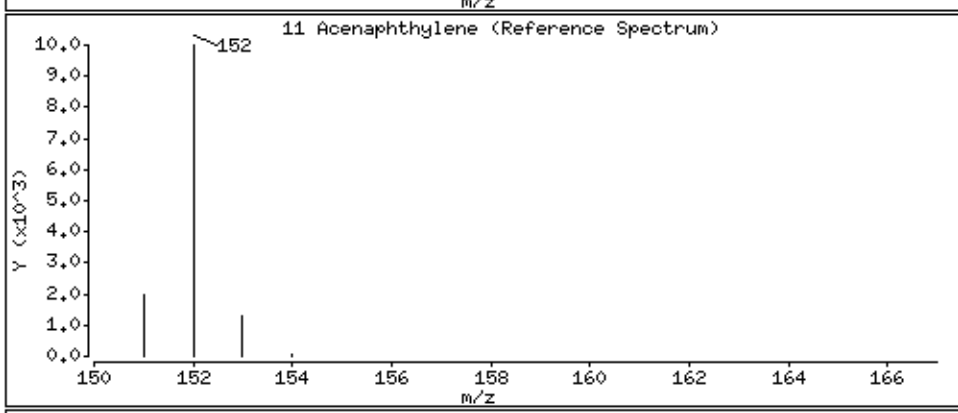
Column diameter: 0.25

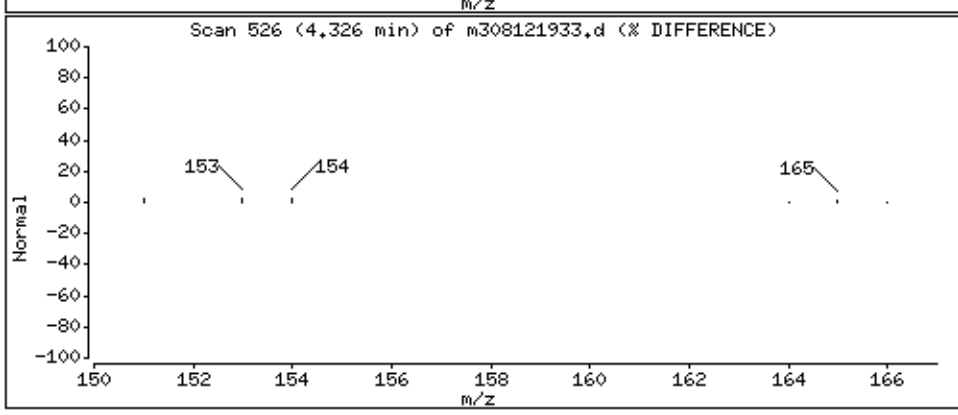
11 Acenaphthylene

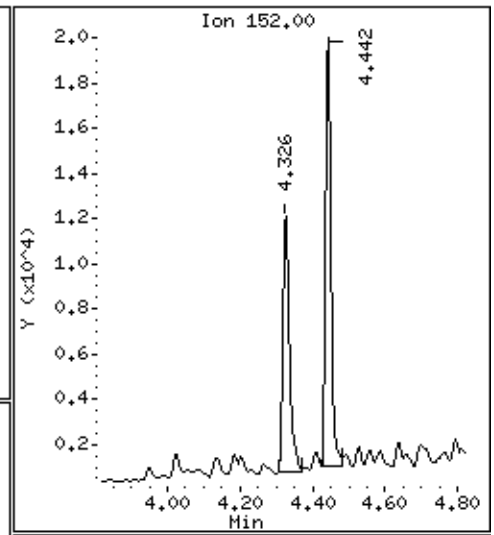
Concentration: 289 ug/Kg

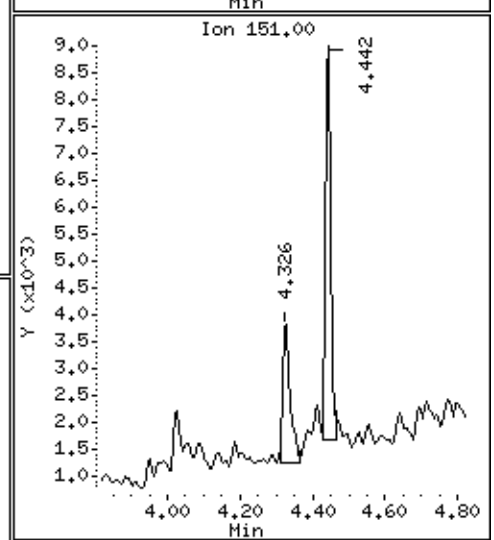


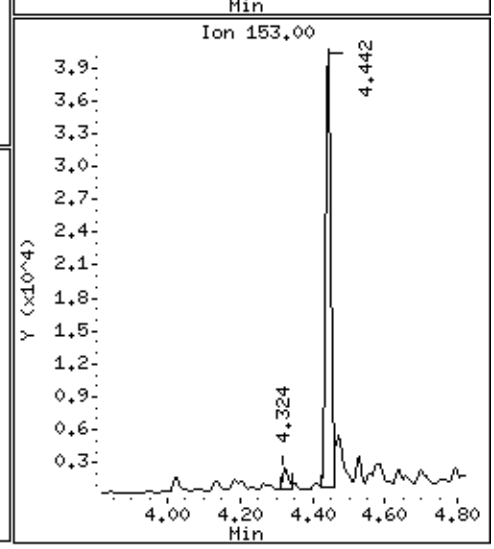












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

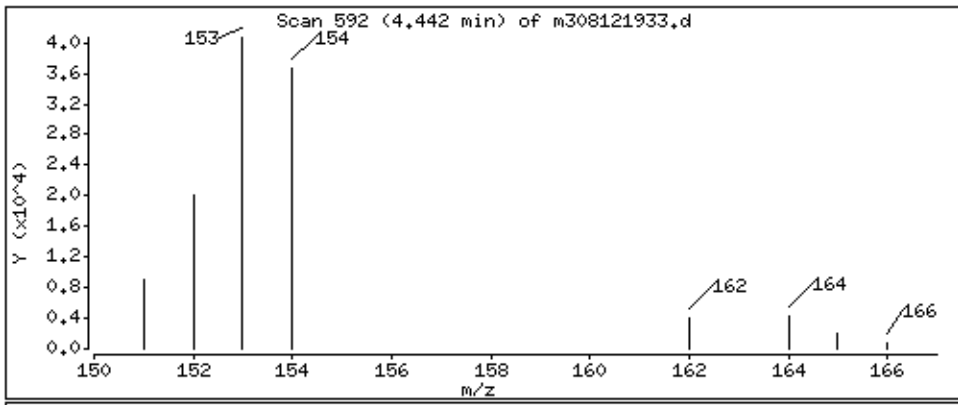
Operator: AJC

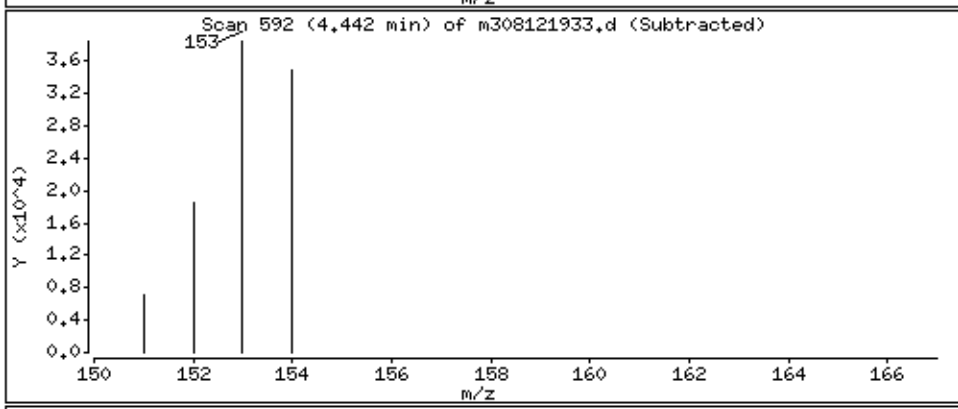
Column phase: RTX-5MS

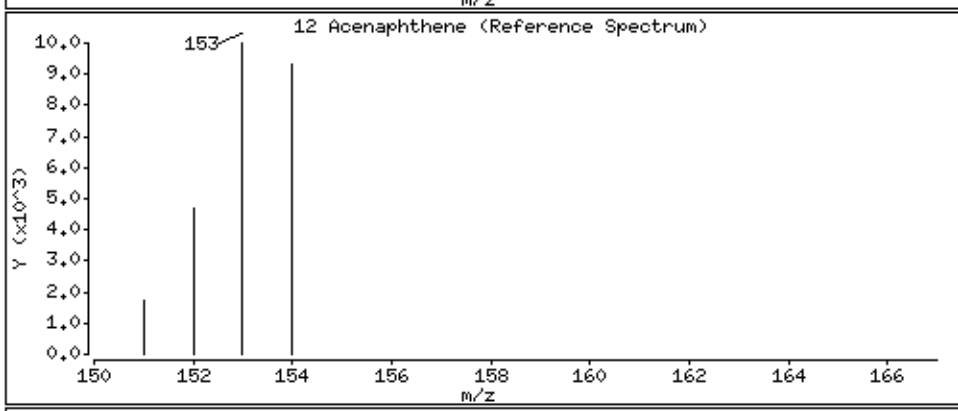
Column diameter: 0.25

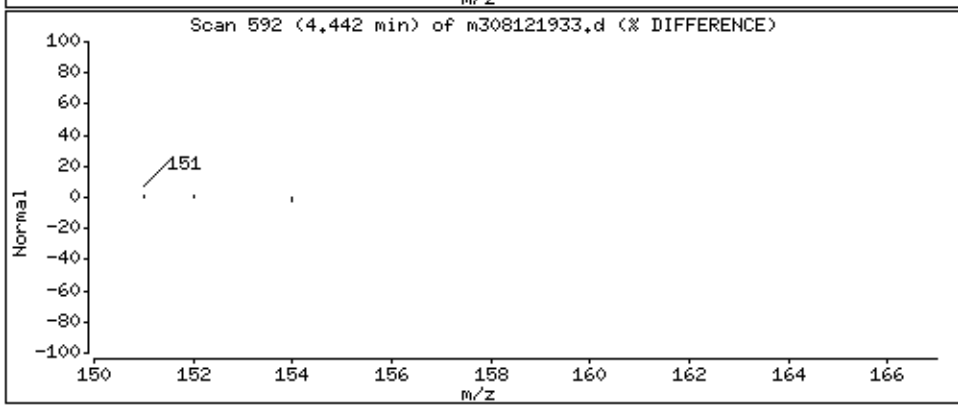
12 Acenaphthene

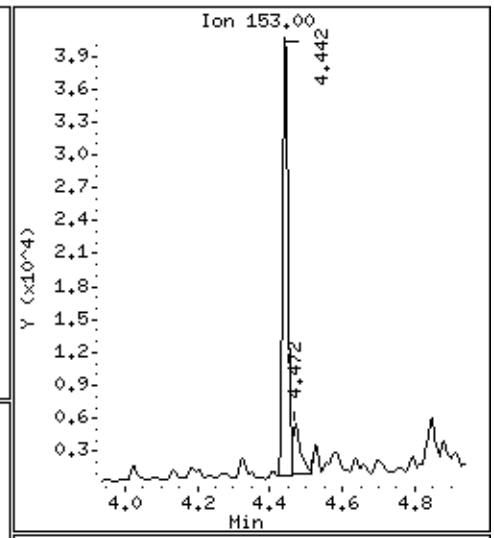
Concentration: 1100 ug/Kg

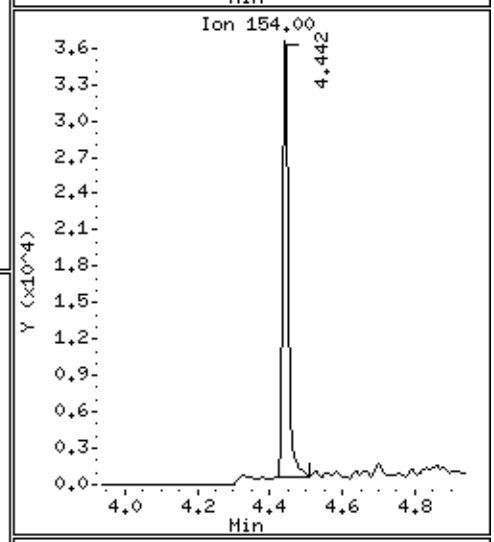


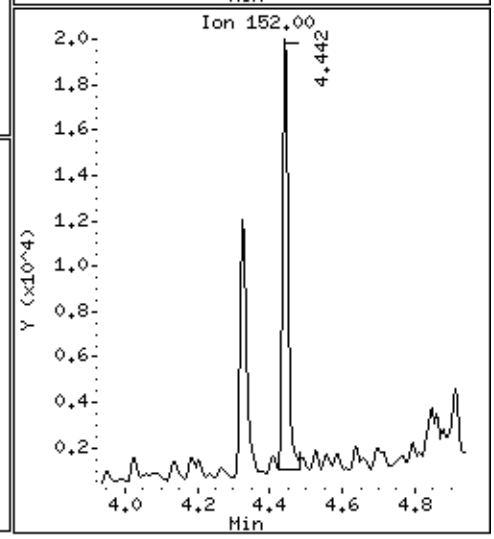












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

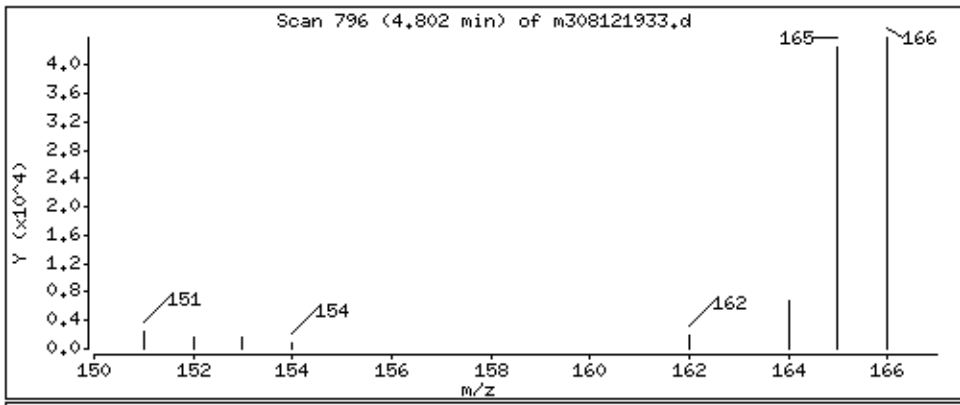
Operator: AJC

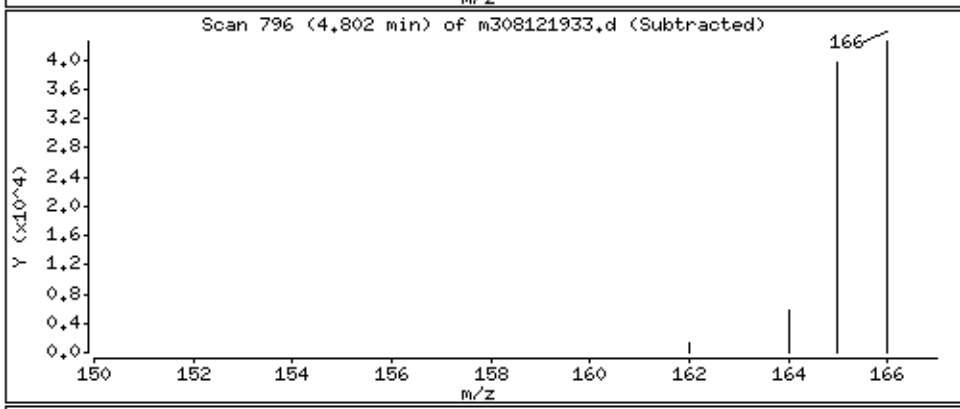
Column phase: RTX-5MS

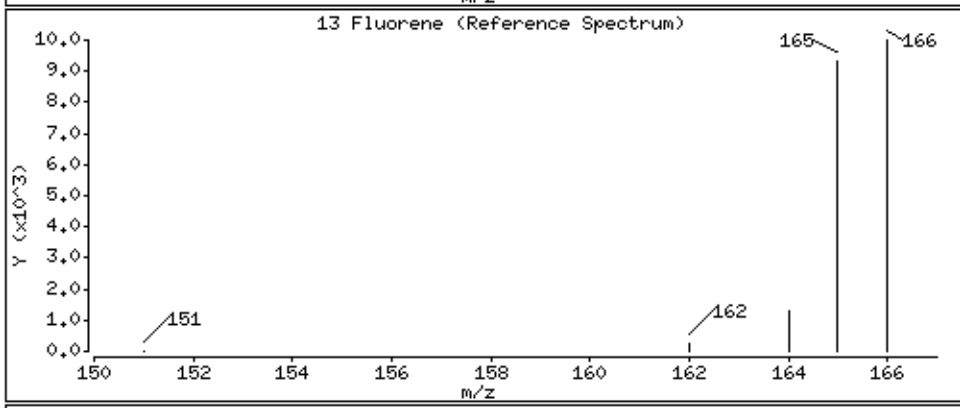
Column diameter: 0.25

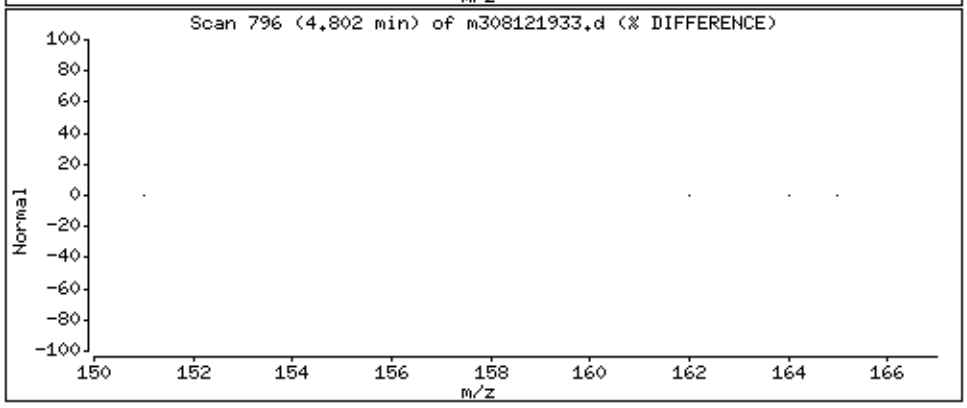
13 Fluorene

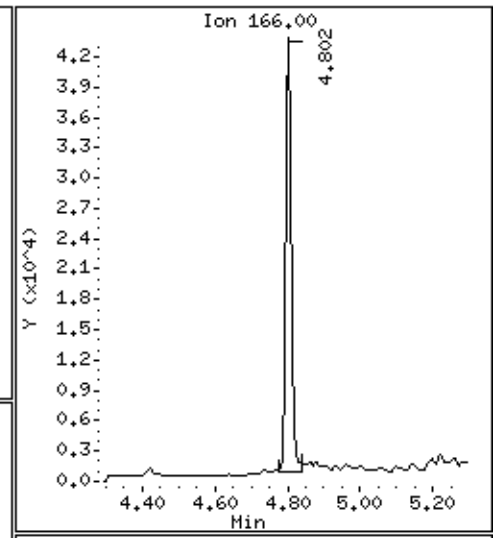
Concentration: 1260 ug/Kg

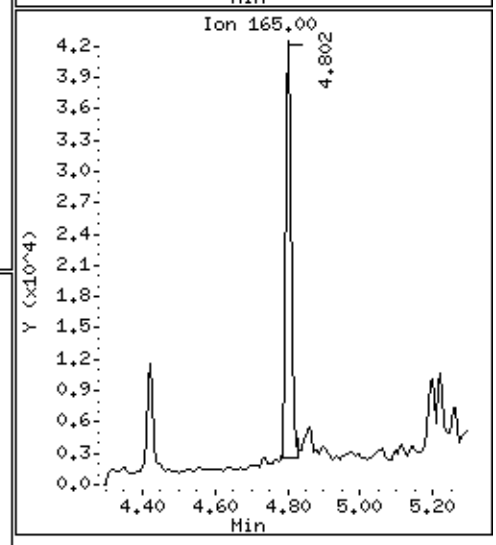












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d

Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

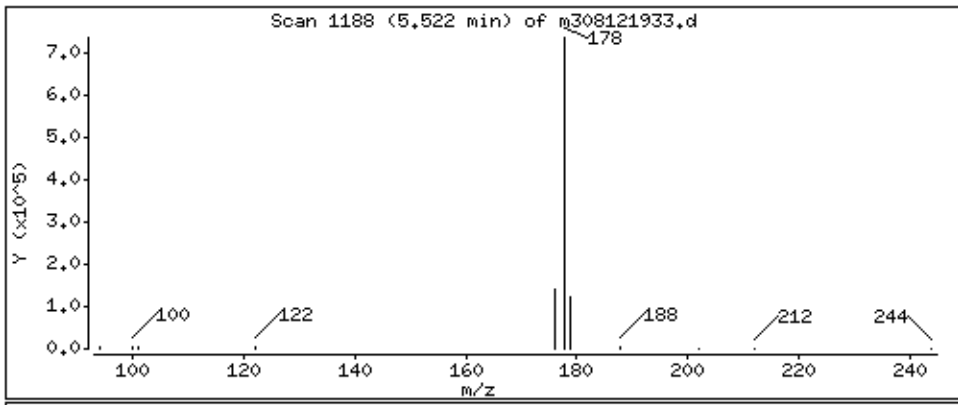
Operator: AJC

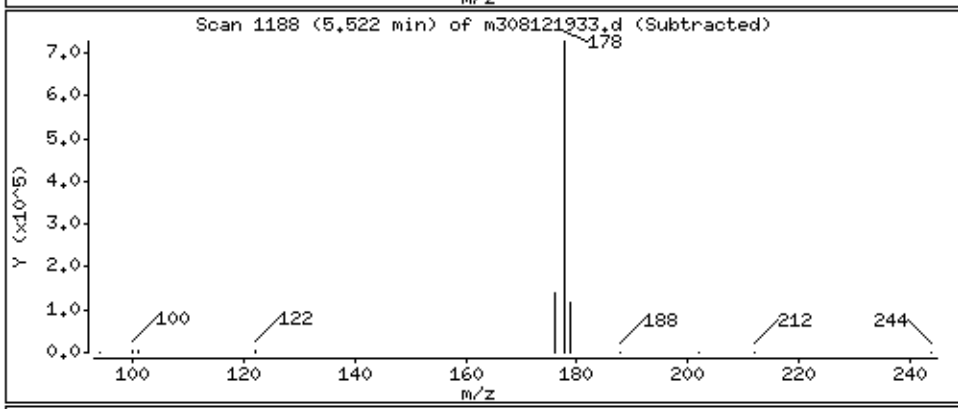
Column phase: RTX-5MS

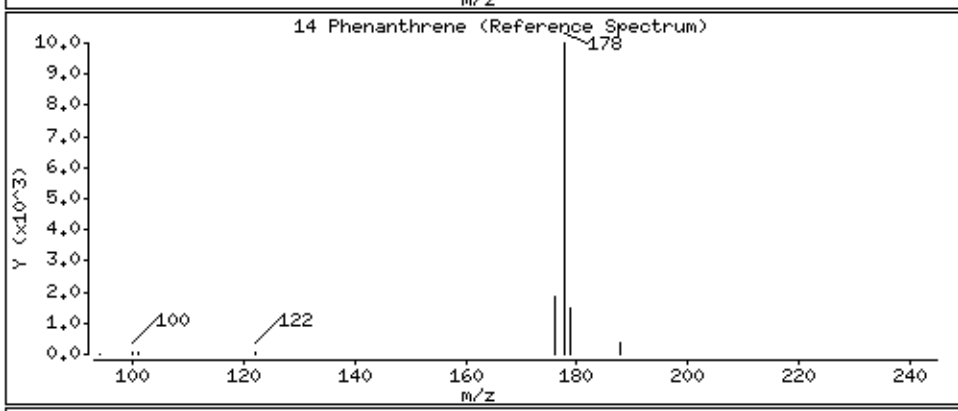
Column diameter: 0.25

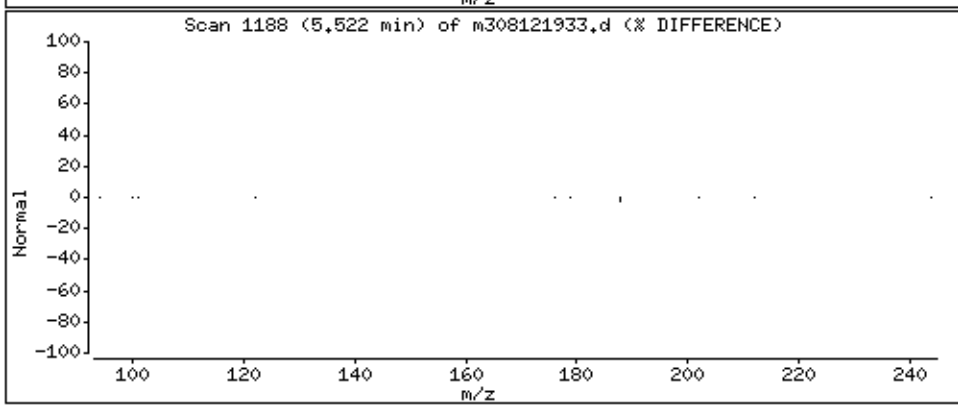
14 Phenanthrene

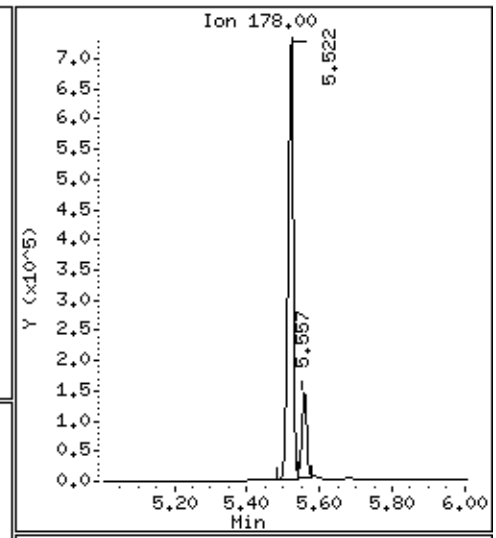
Concentration: 12200 ug/Kg

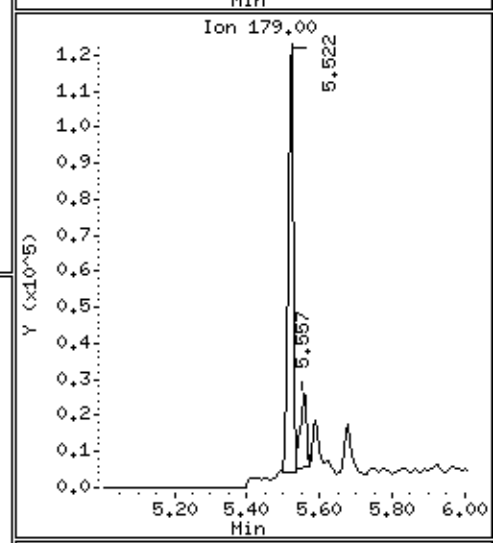


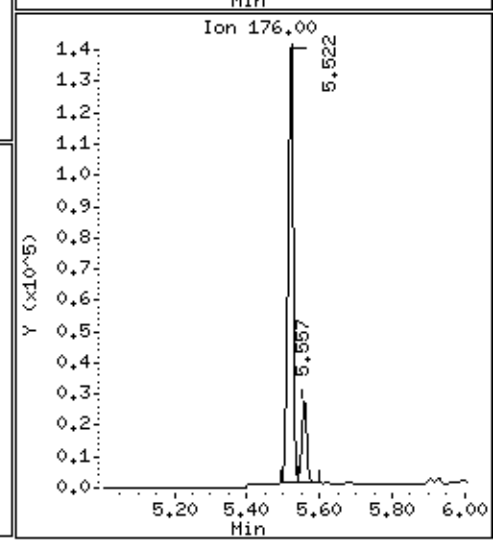












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d

Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

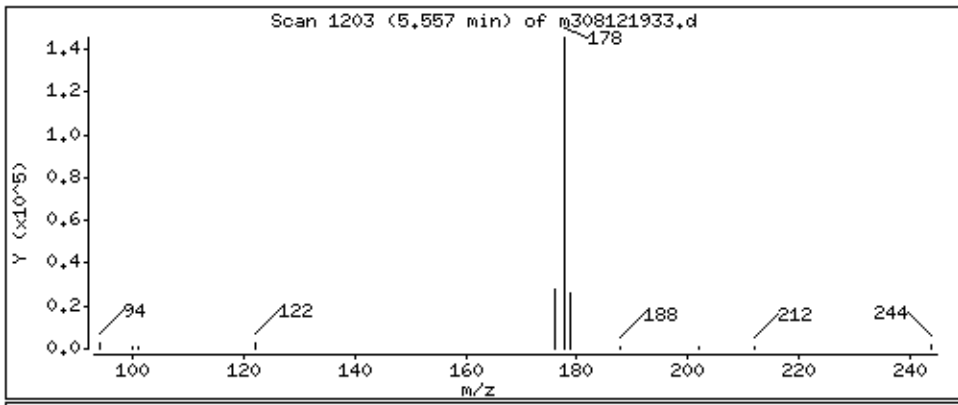
Operator: AJC

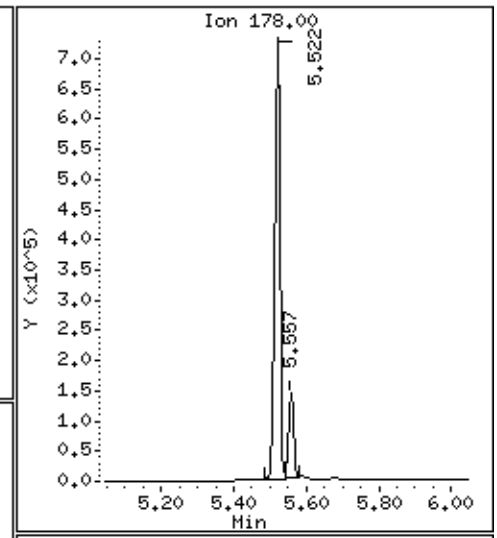
Column phase: RTX-5MS

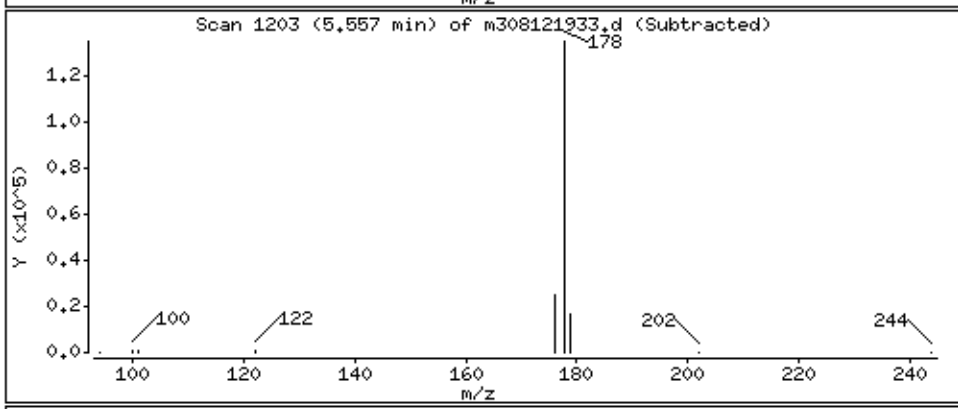
Column diameter: 0.25

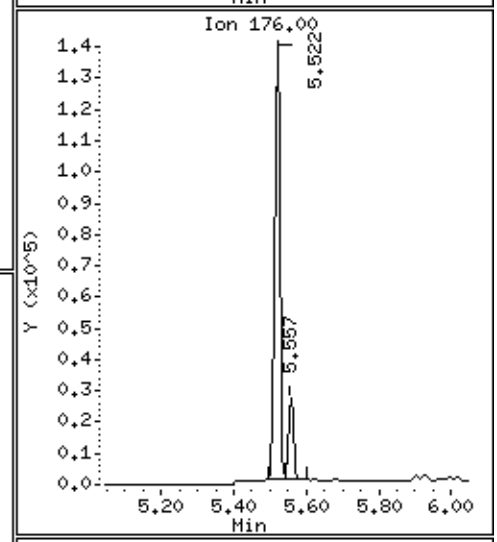
15 Anthracene

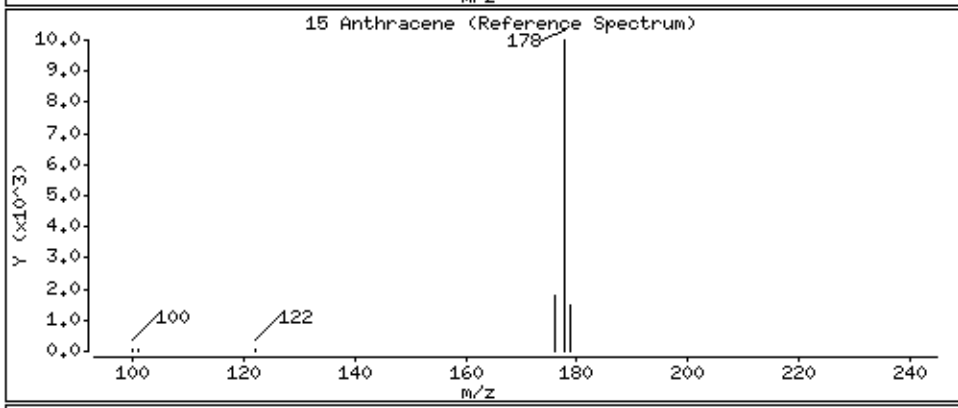
Concentration: 2330 ug/Kg

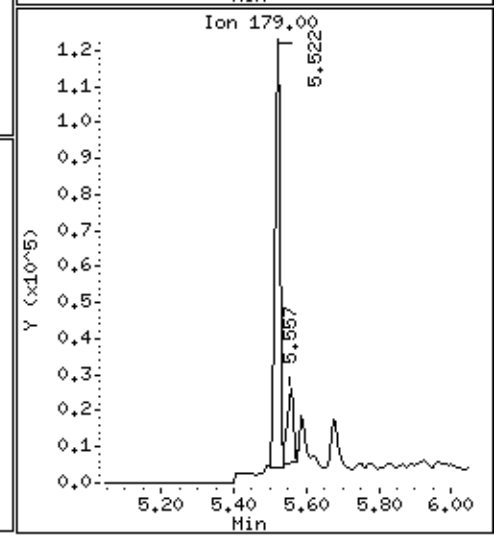


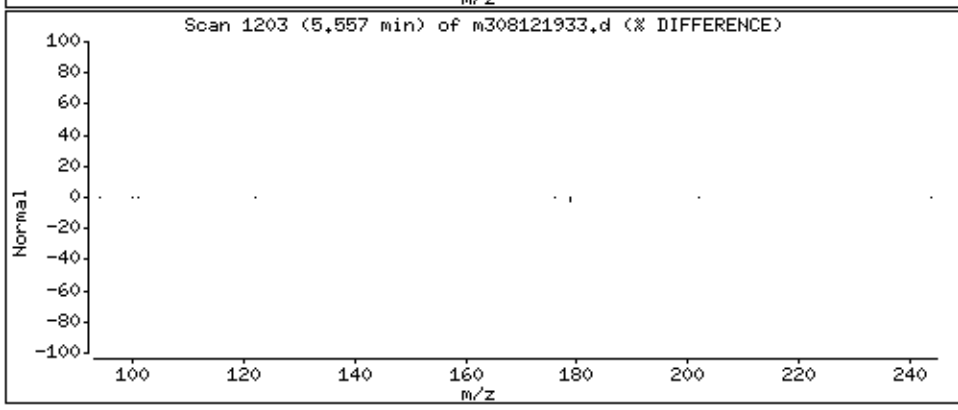












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

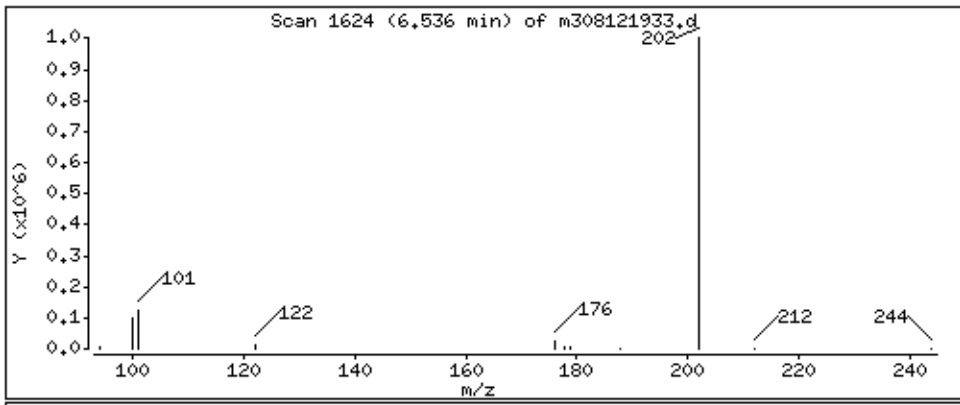
Operator: AJC

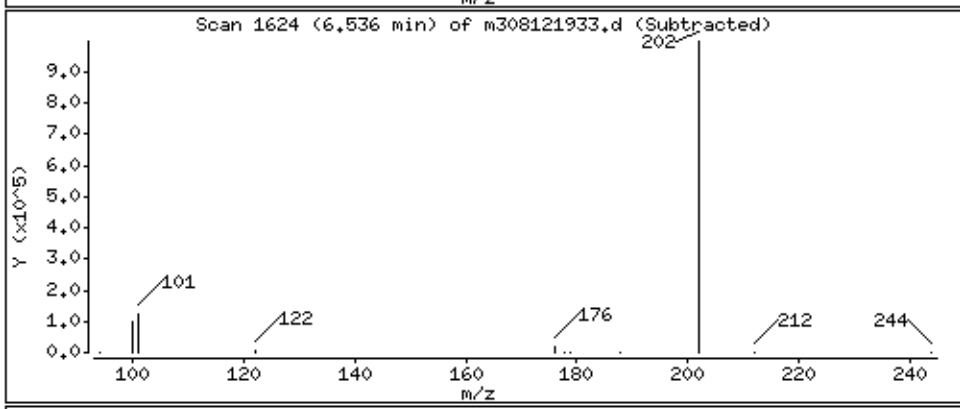
Column phase: RTX-5MS

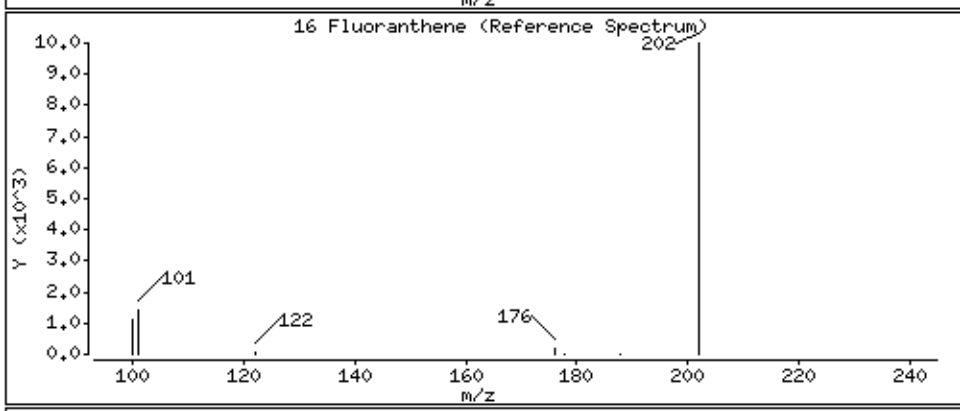
Column diameter: 0.25

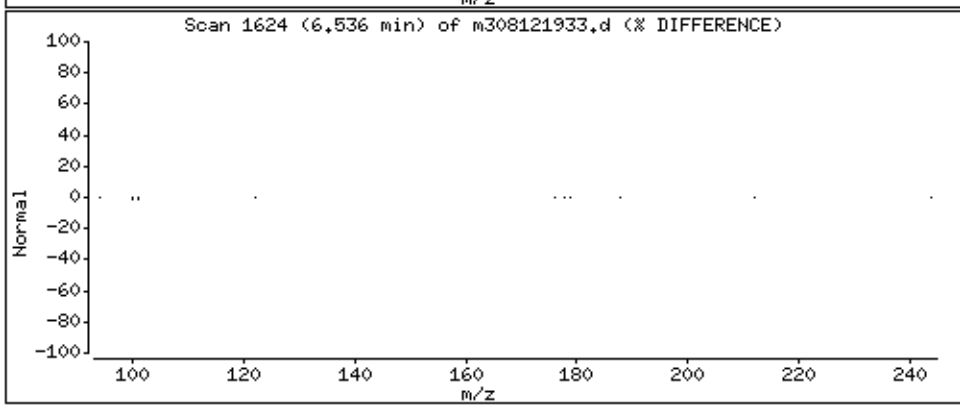
16 Fluoranthene

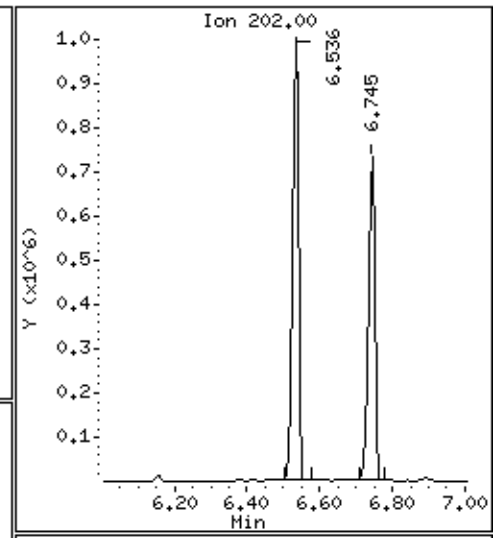
Concentration: 19400 ug/Kg

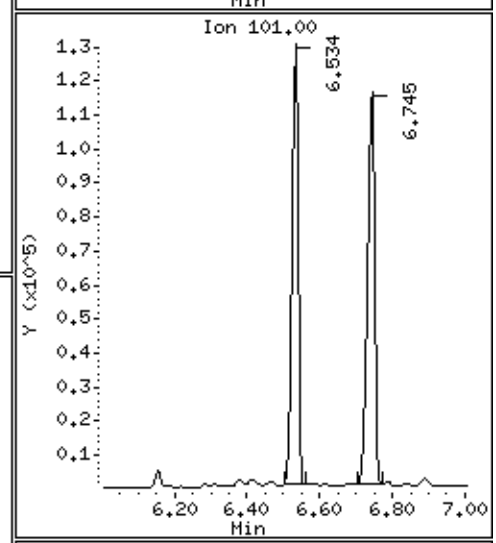


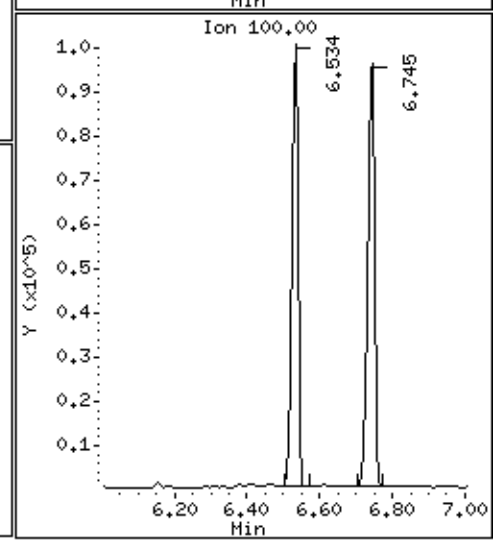












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

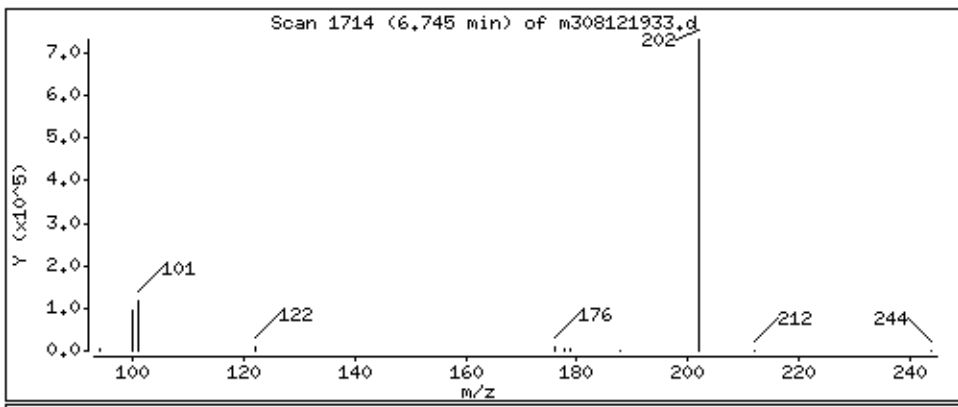
Operator: AJC

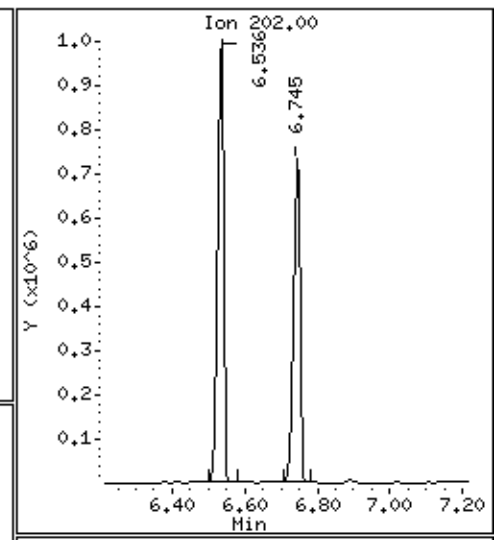
Column phase: RTX-5MS

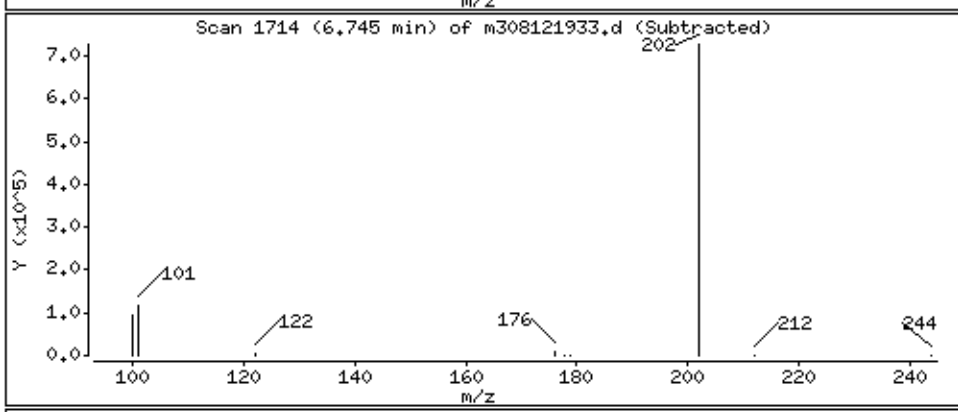
Column diameter: 0.25

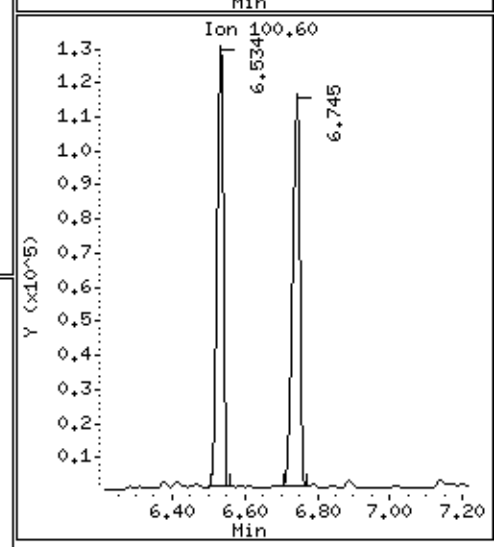
17 Pyrene

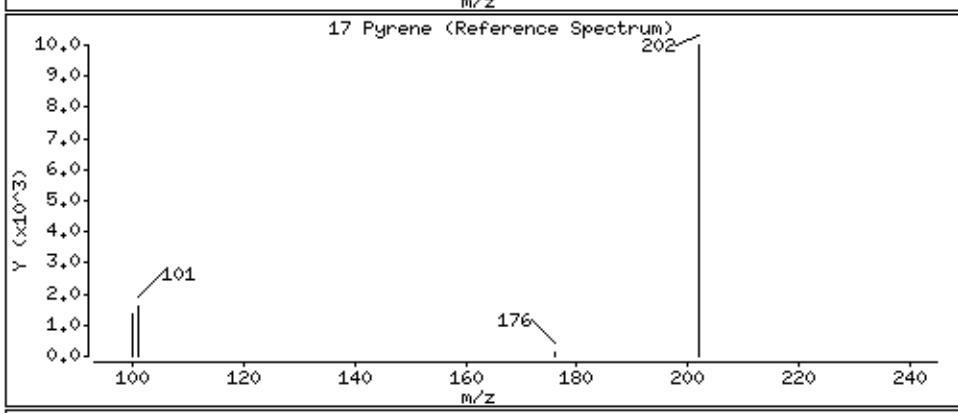
Concentration: 15200 ug/Kg

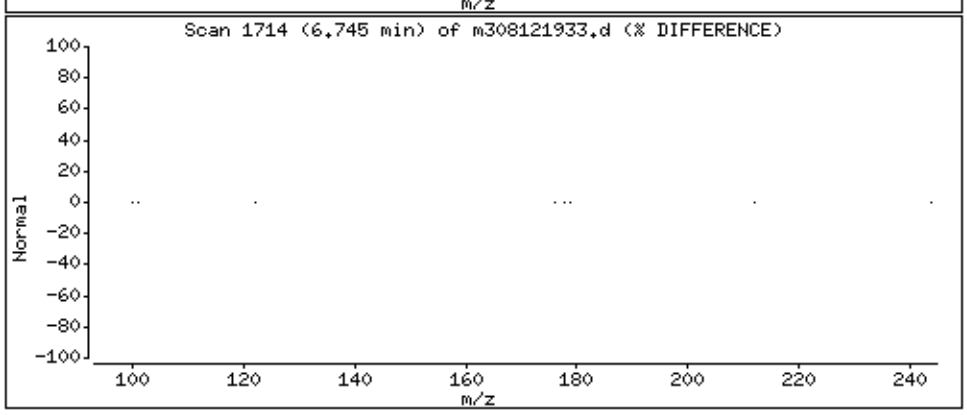












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

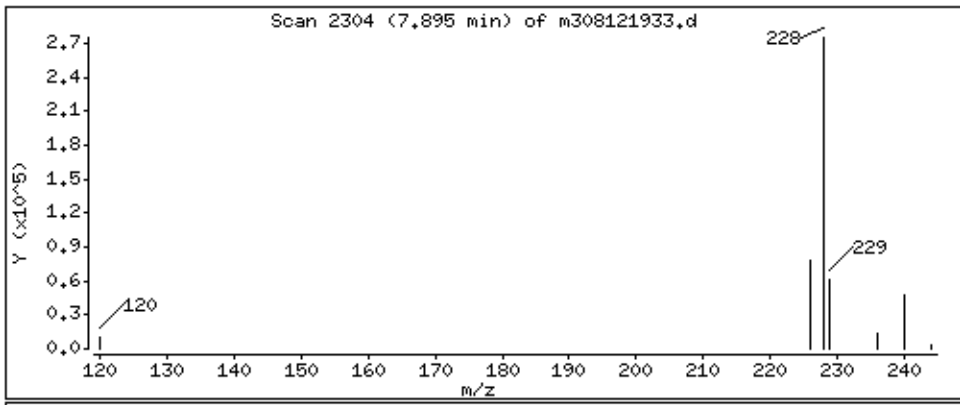
Operator: AJC

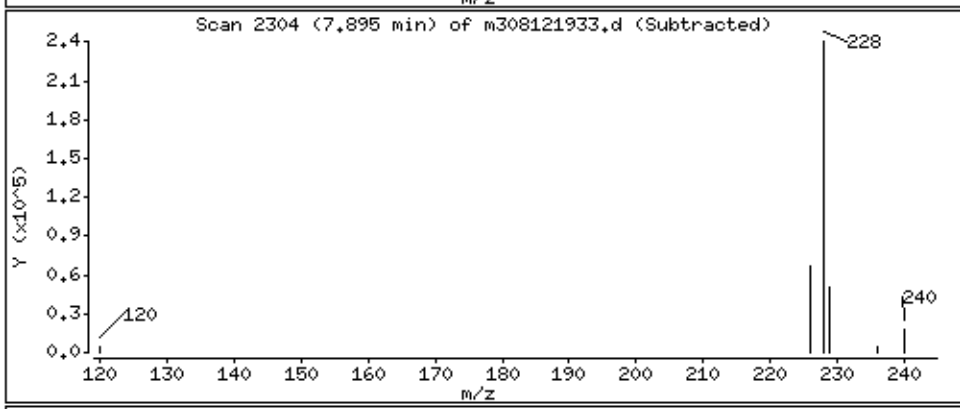
Column phase: RTX-5MS

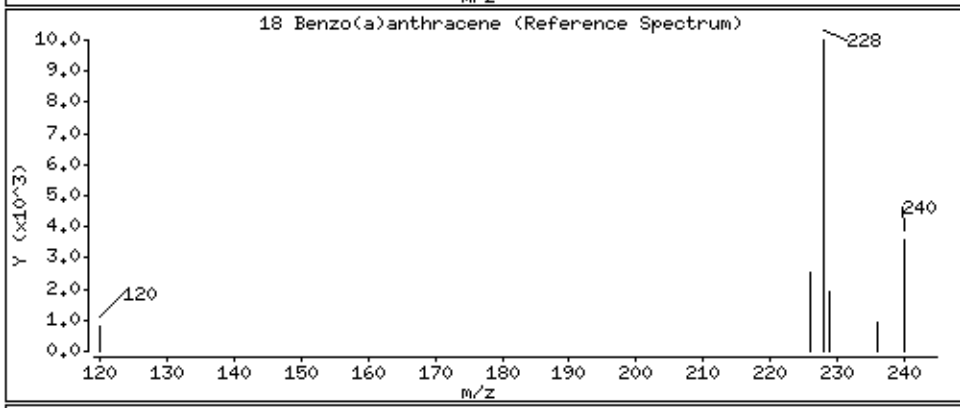
Column diameter: 0.25

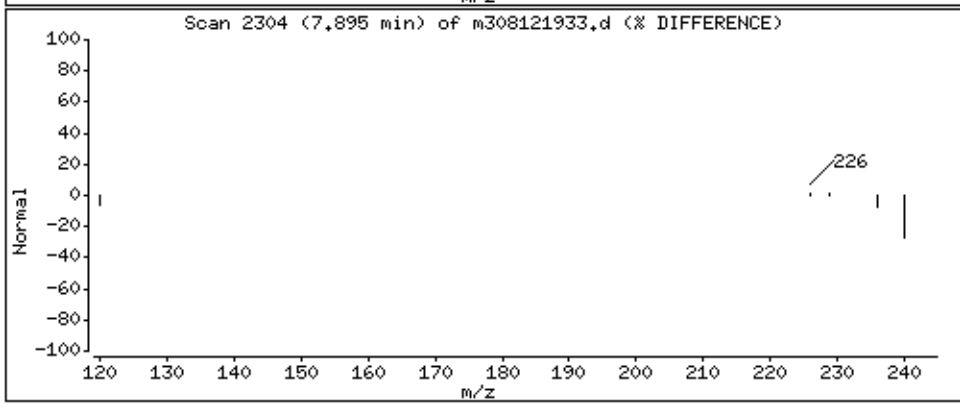
18 Benzo(a)anthracene

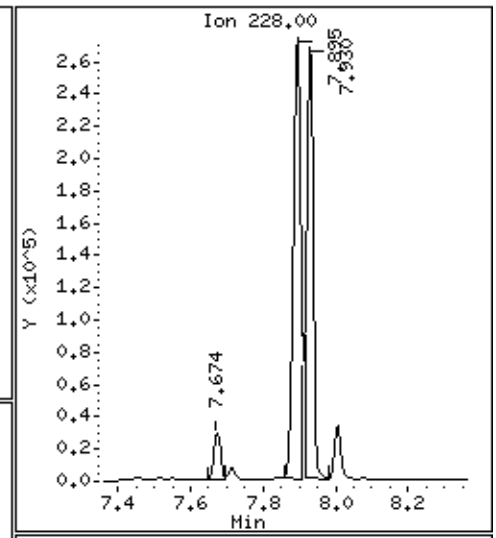
Concentration: 7800 ug/Kg

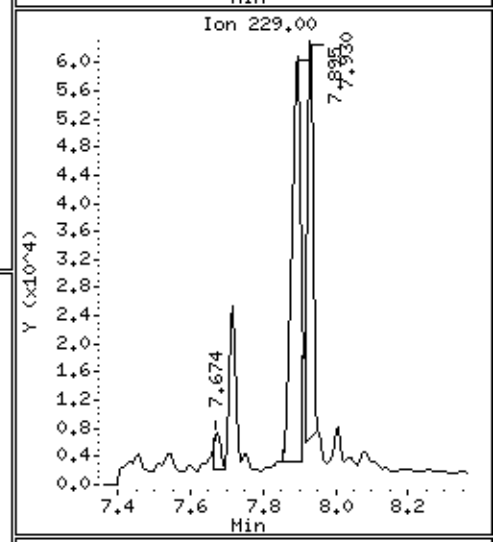


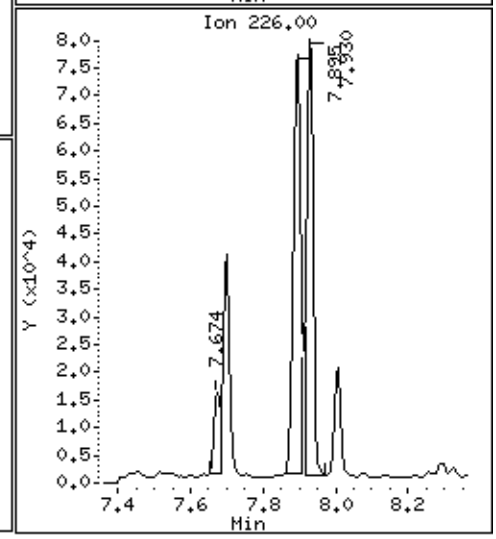












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

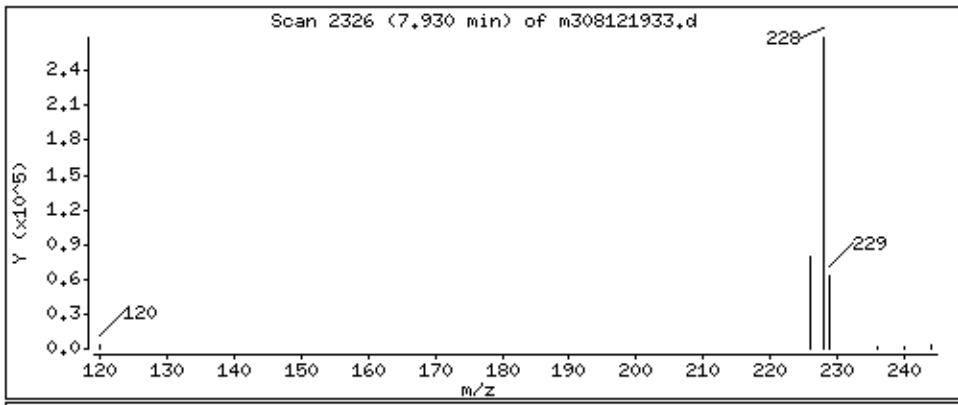
Operator: AJC

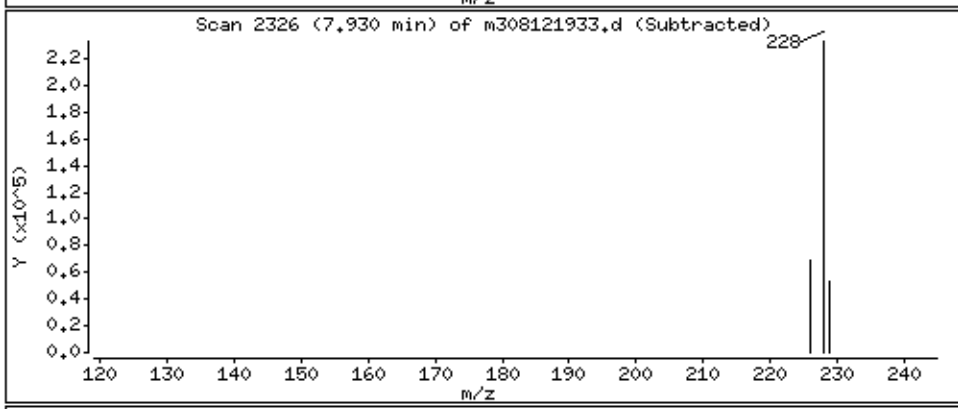
Column phase: RTX-5MS

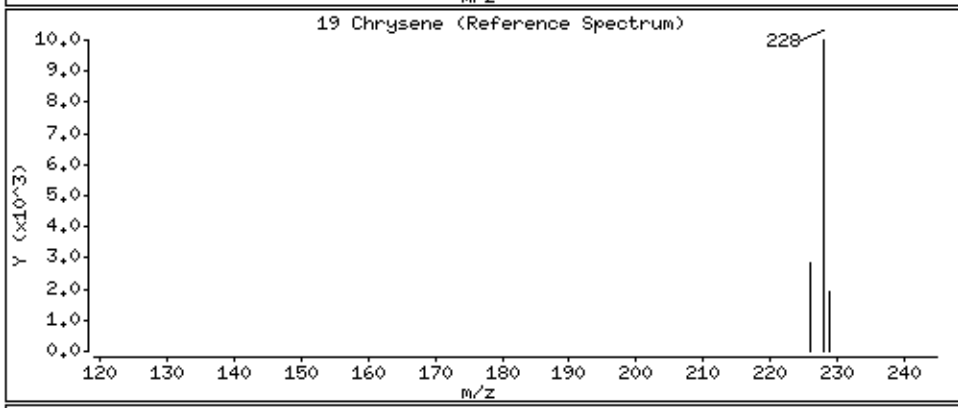
Column diameter: 0.25

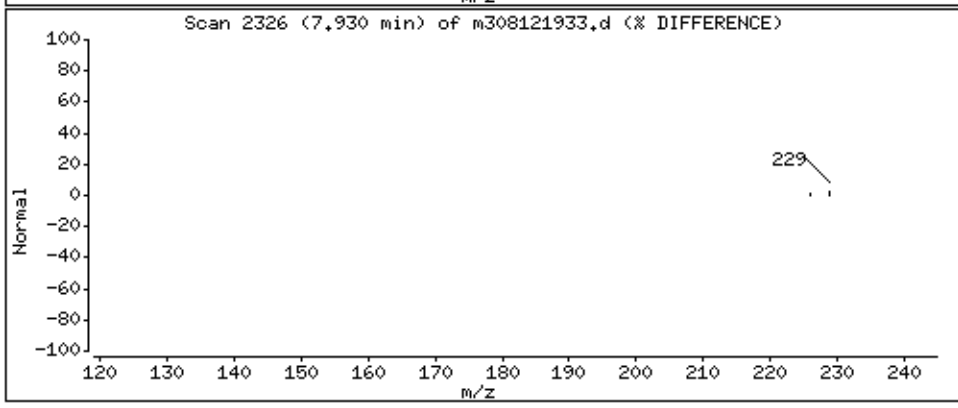
19 Chrysene

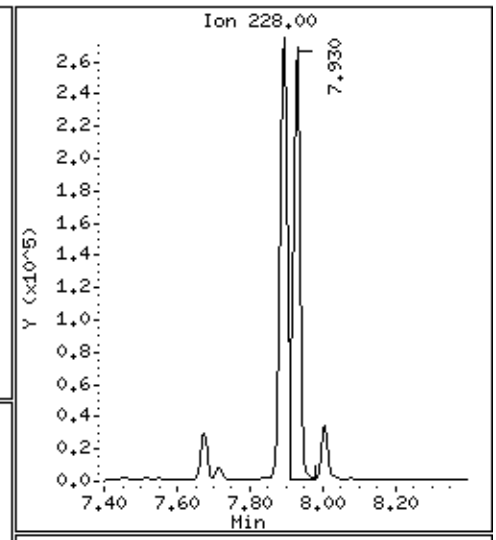
Concentration: 6400 ug/Kg

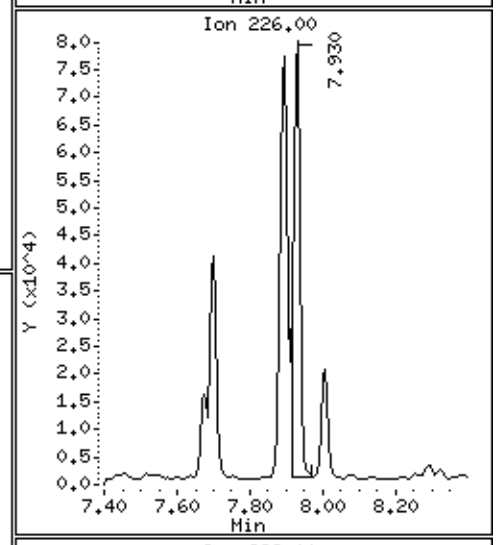


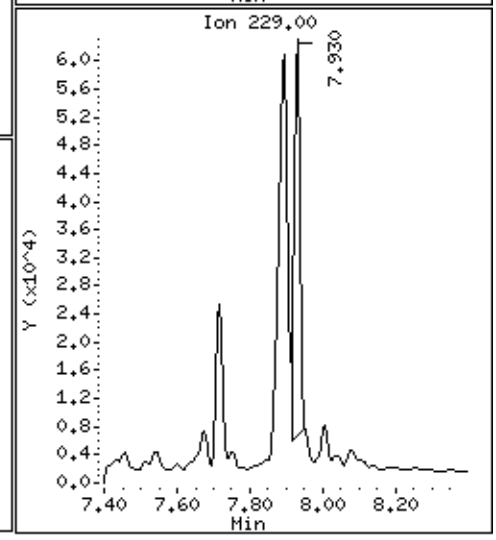












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

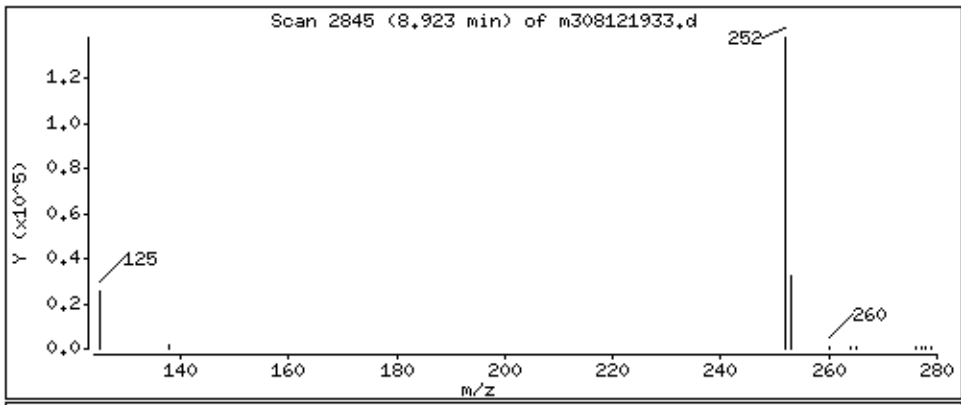
Operator: AJC

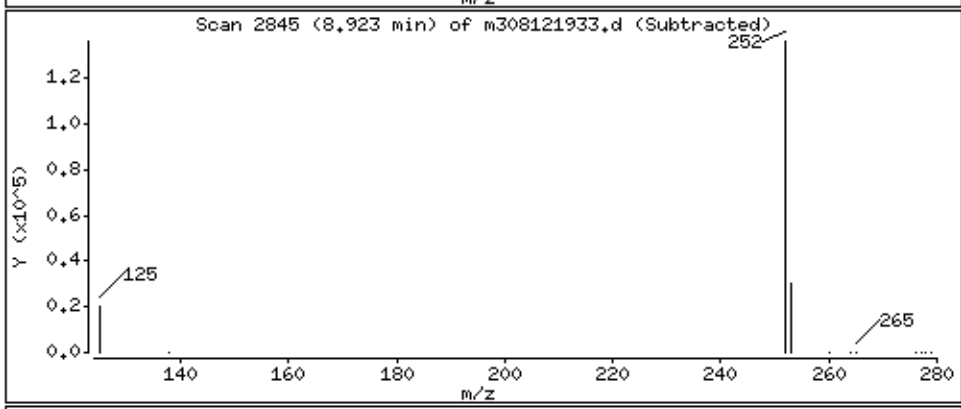
Column phase: RTX-5MS

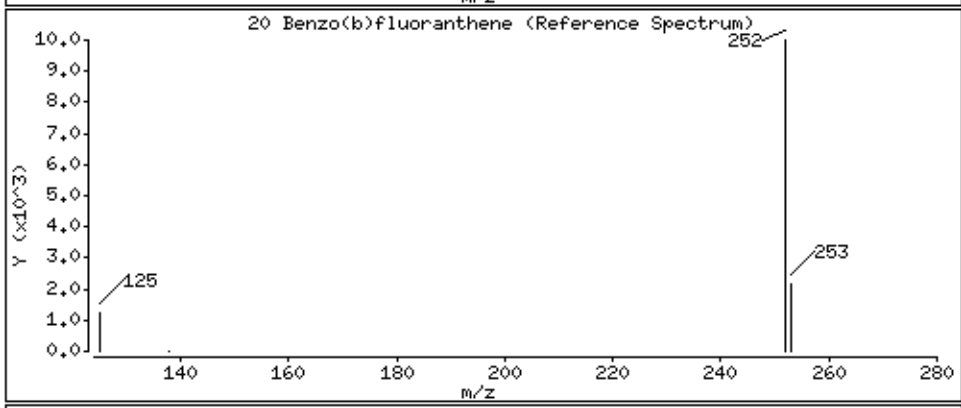
Column diameter: 0.25

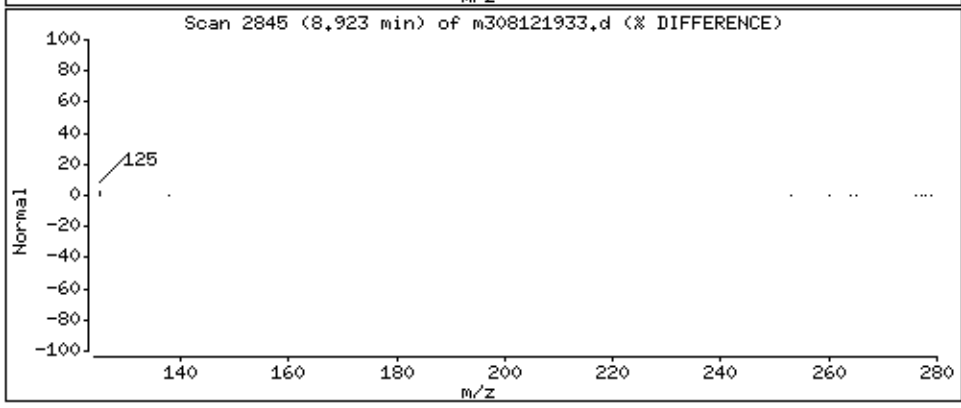
20 Benzo(b)fluoranthene

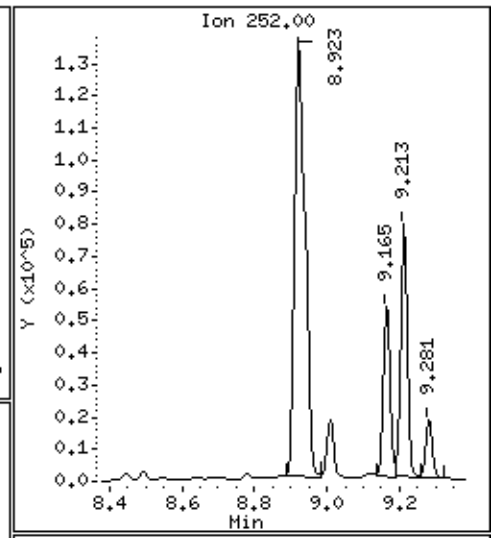
Concentration: 19500 ug/Kg

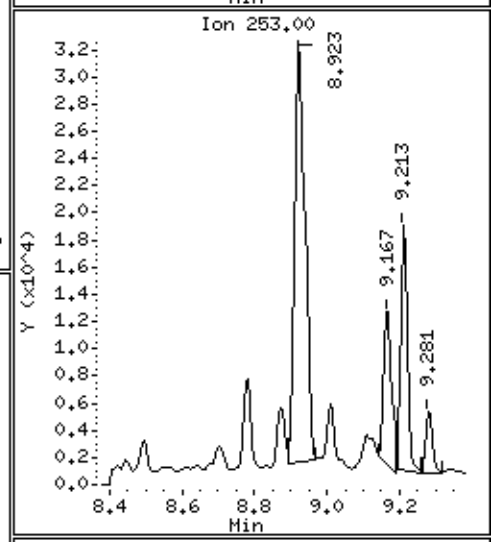


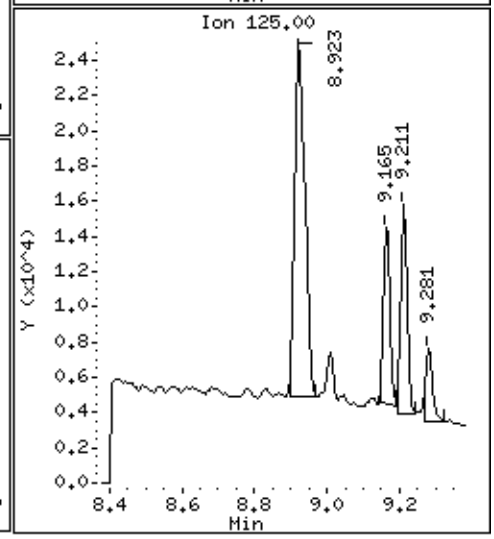












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

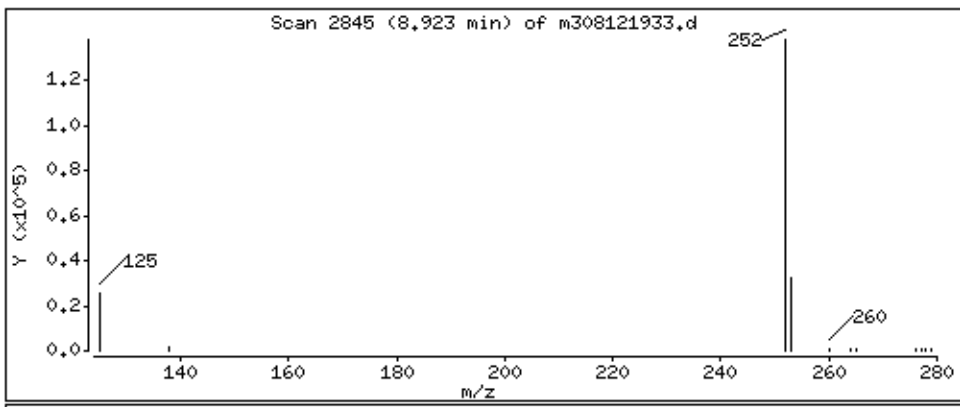
Operator: AJC

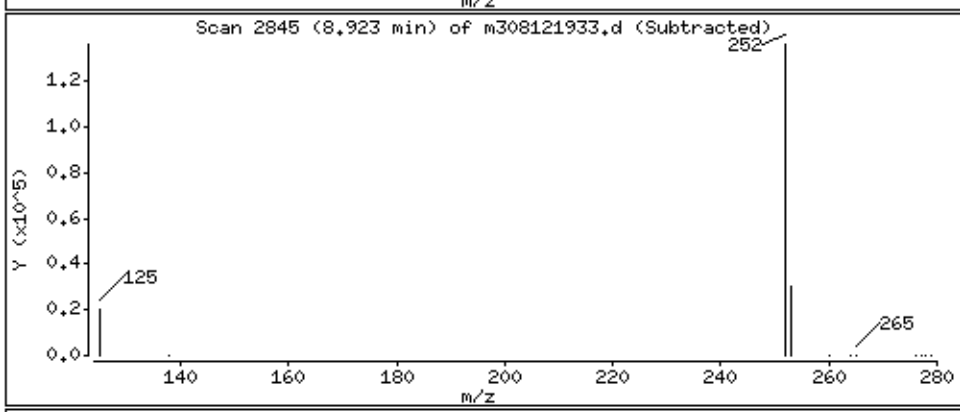
Column phase: RTX-5MS

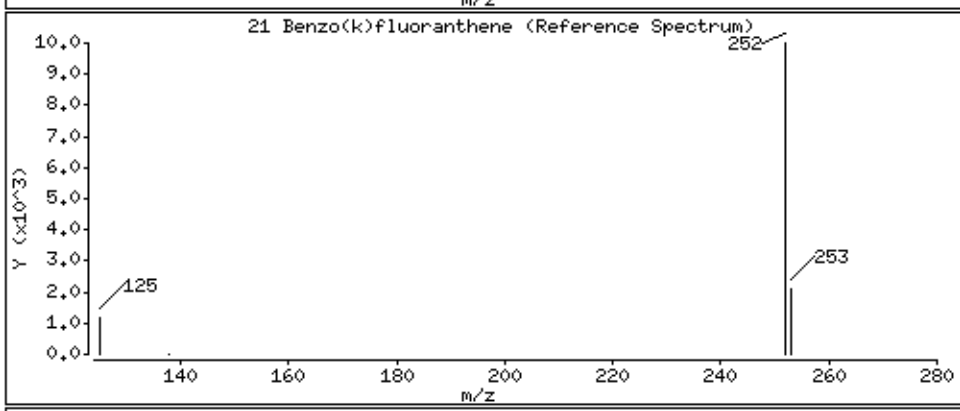
Column diameter: 0.25

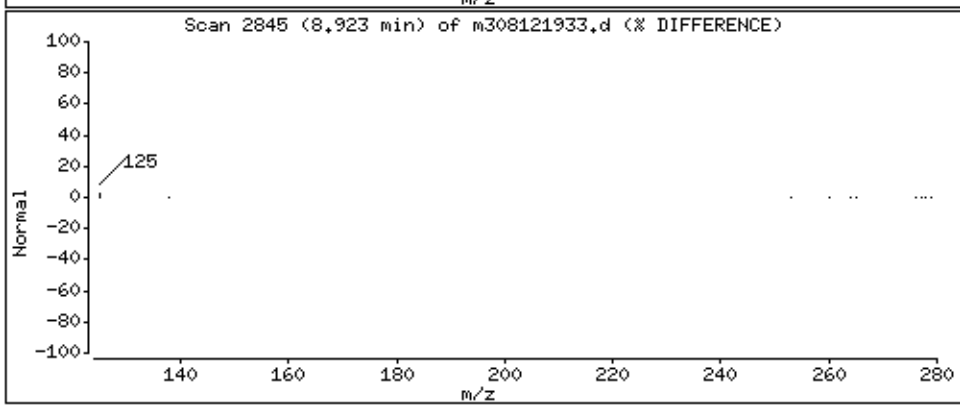
21 Benzo(k)fluoranthene

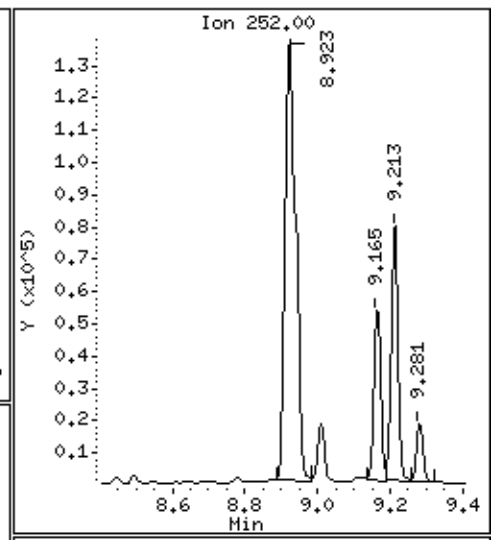
Concentration: 18800 ug/Kg

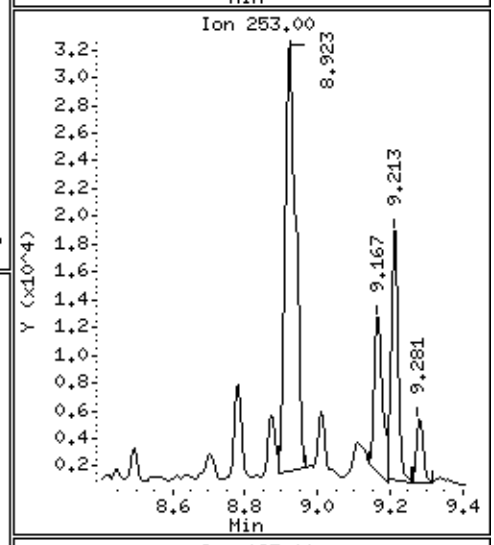


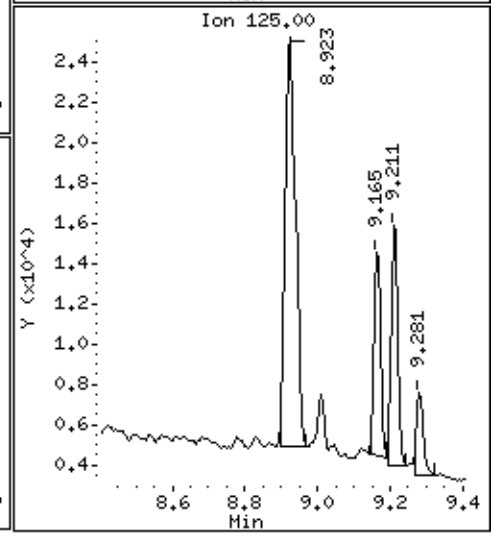












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Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

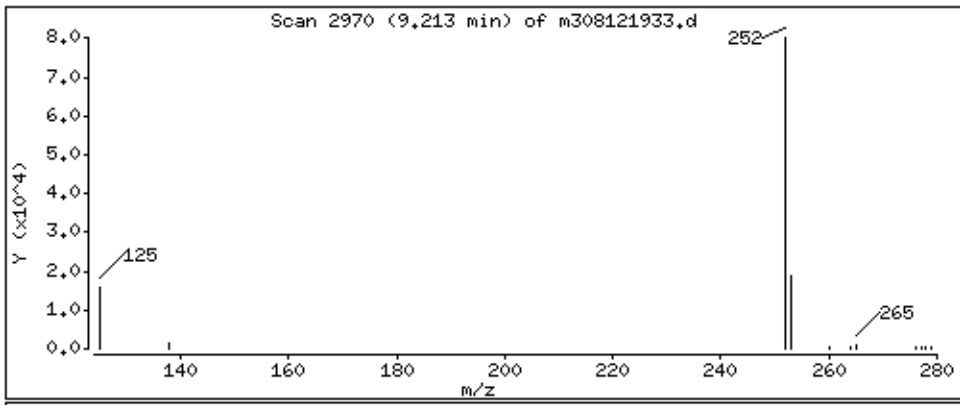
Operator: AJC

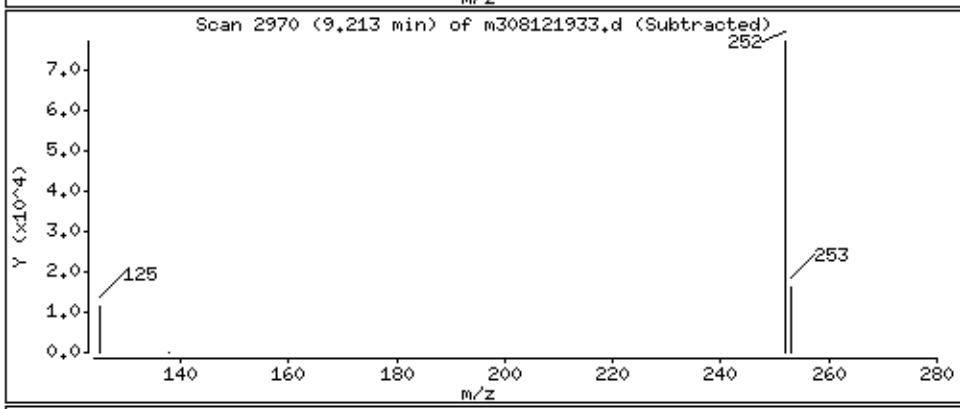
Column phase: RTX-5MS

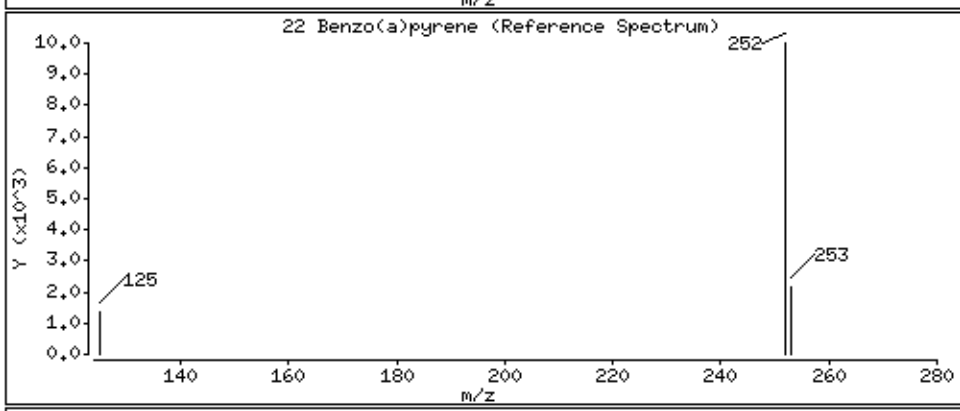
Column diameter: 0.25

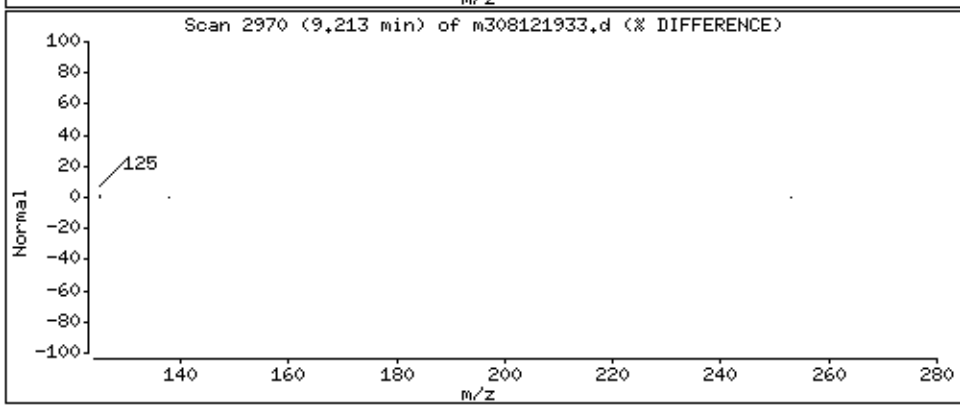
22 Benzo(a)pyrene

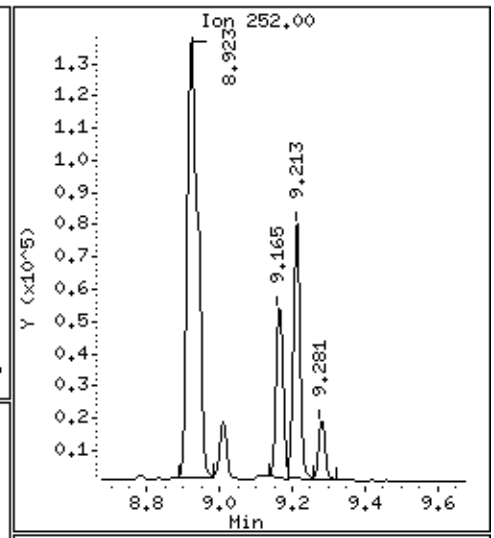
Concentration: 7620 ug/Kg

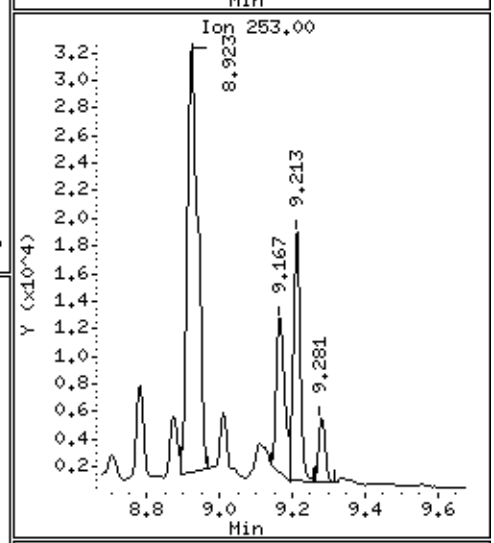


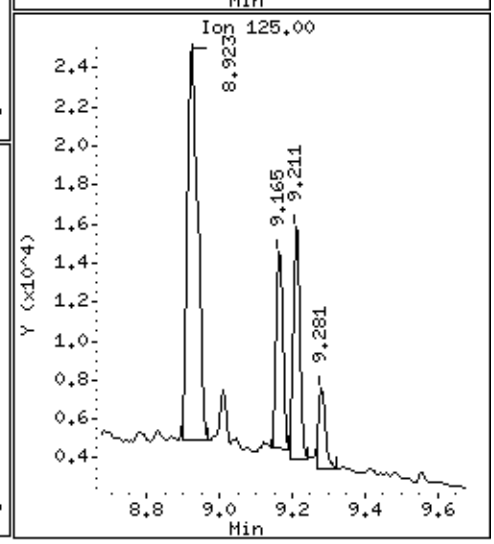












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d

Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

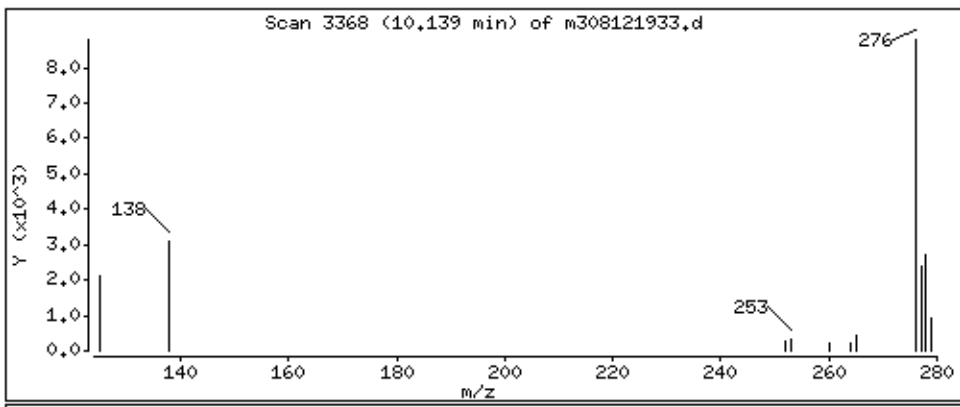
Operator: AJC

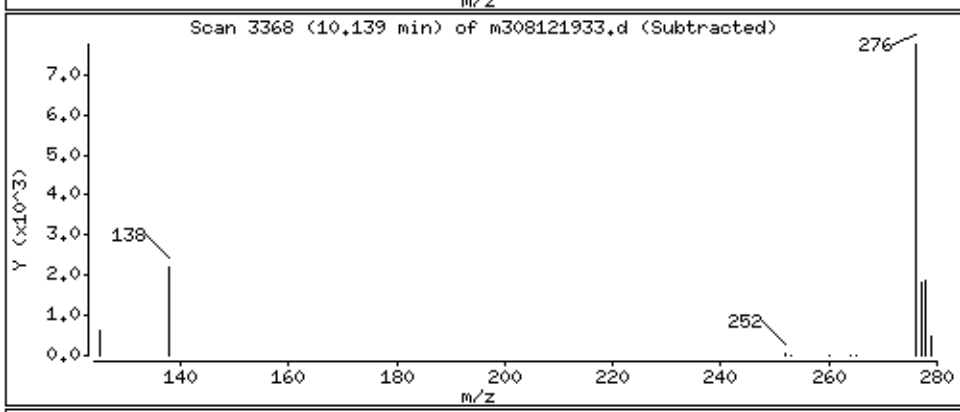
Column phase: RTX-5MS

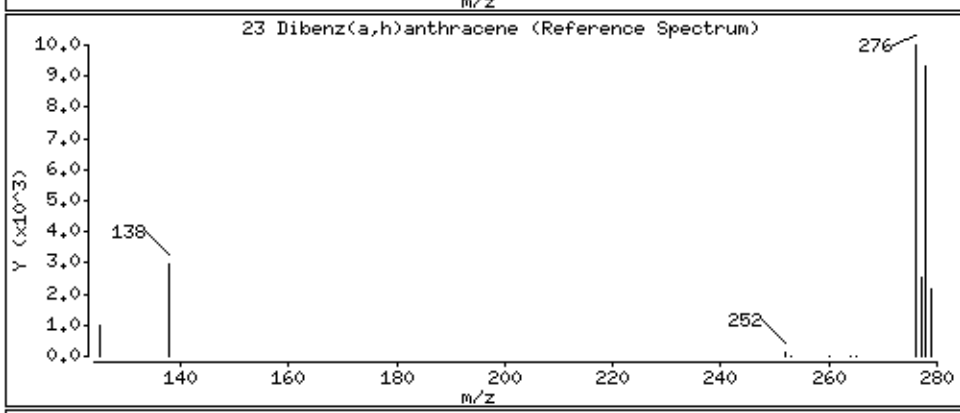
Column diameter: 0.25

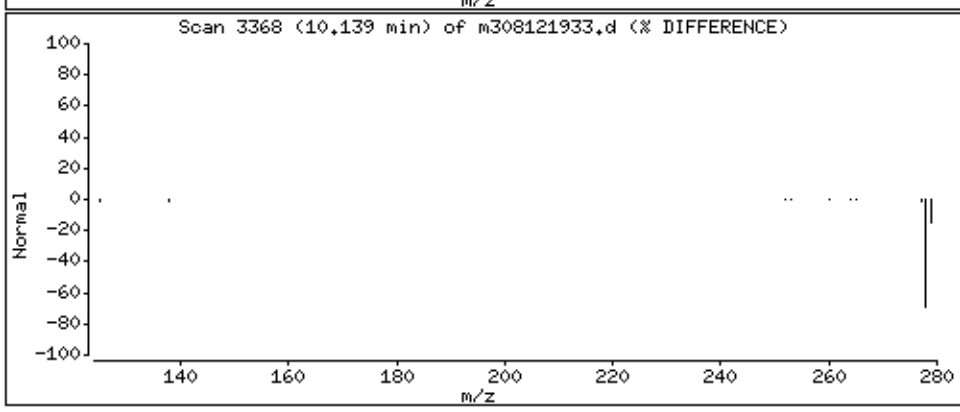
23 Dibenz(a,h)anthracene

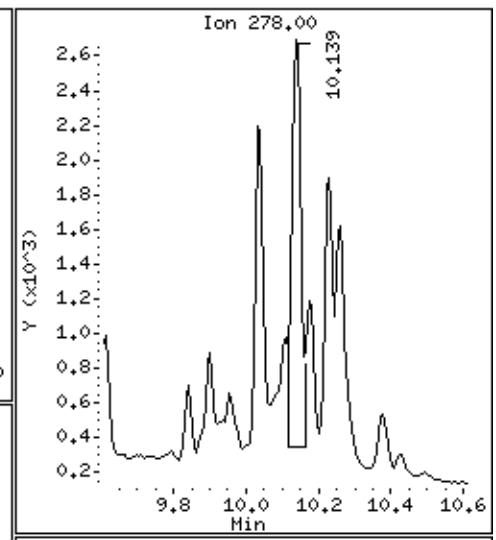
Concentration: 325 ug/Kg

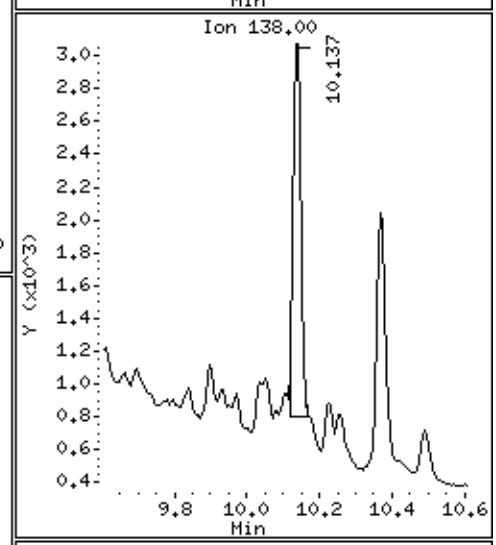


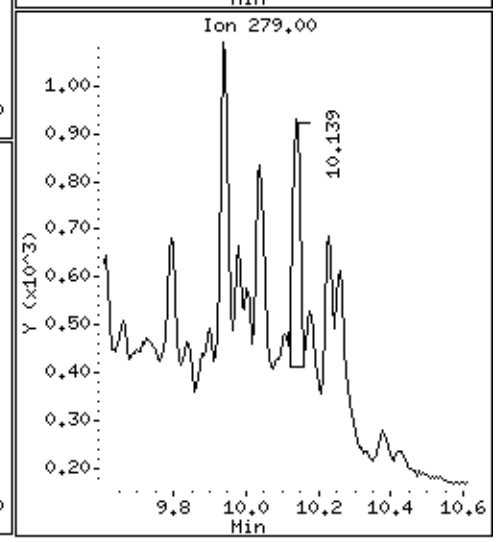












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d

Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

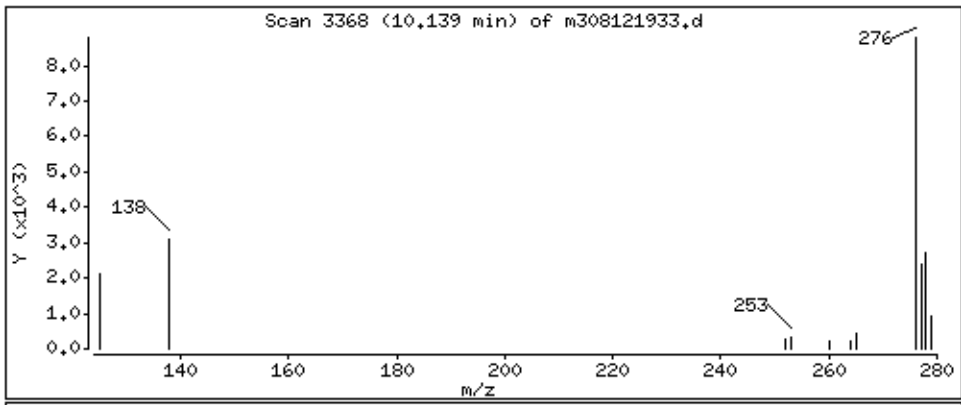
Operator: AJC

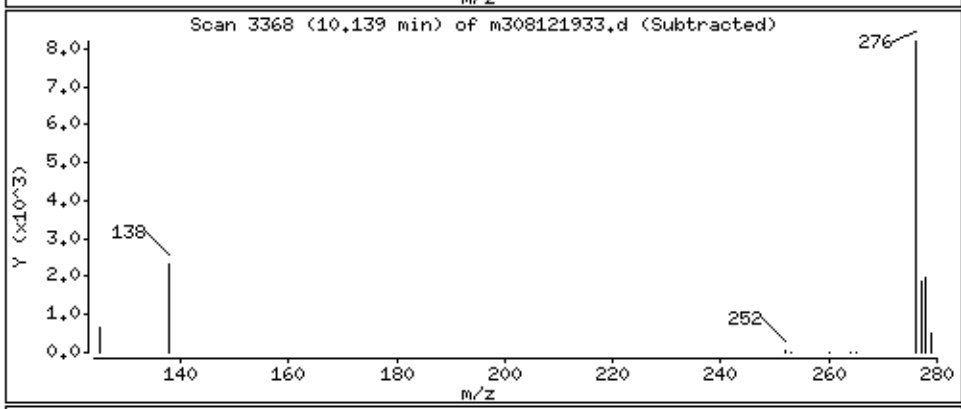
Column phase: RTX-5MS

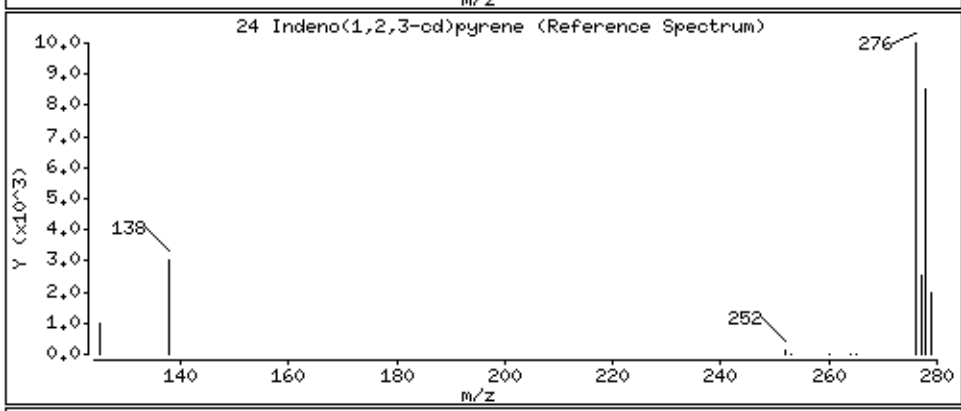
Column diameter: 0.25

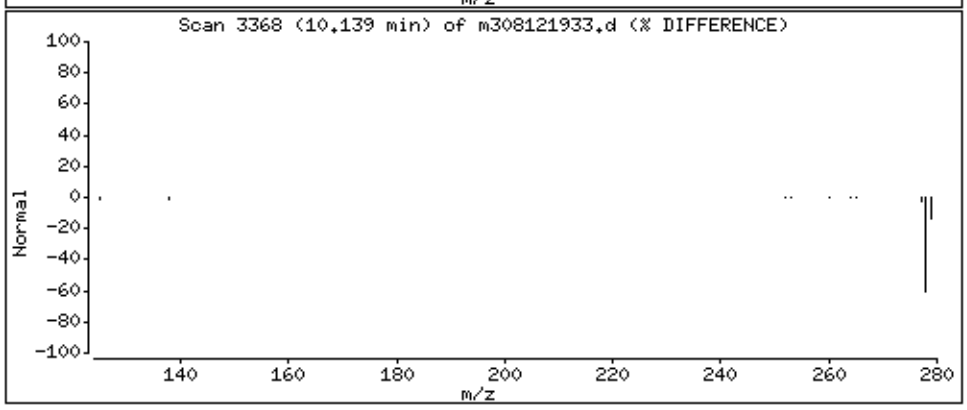
24 Indeno(1,2,3-cd)pyrene

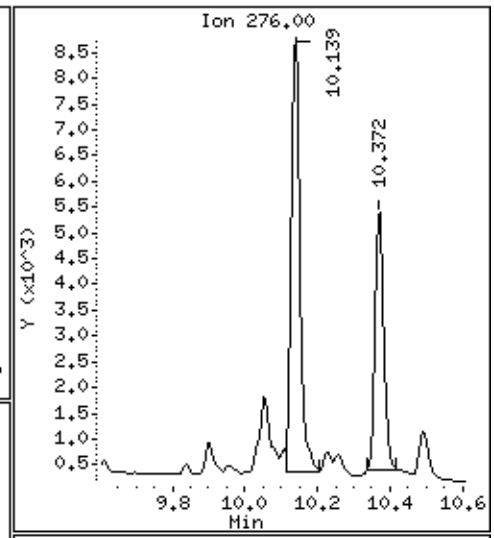
Concentration: 948 ug/Kg

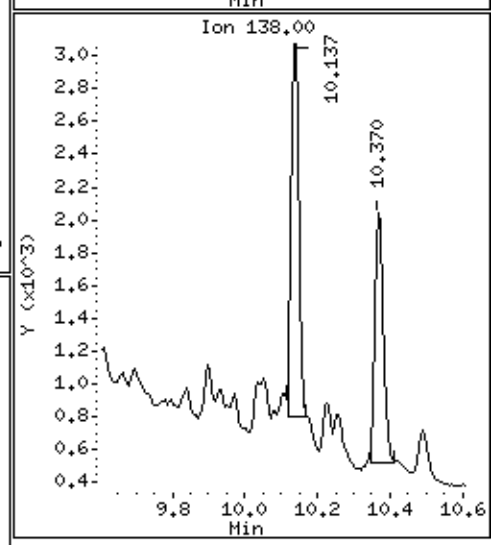












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121933.d

Date : 12-AUG-2019 23:37

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X10,

Volume Injected (uL): 1.0

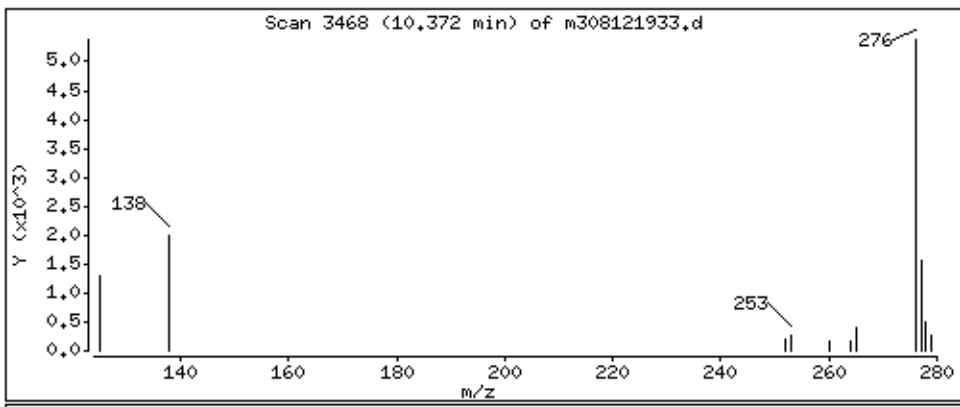
Operator: AJC

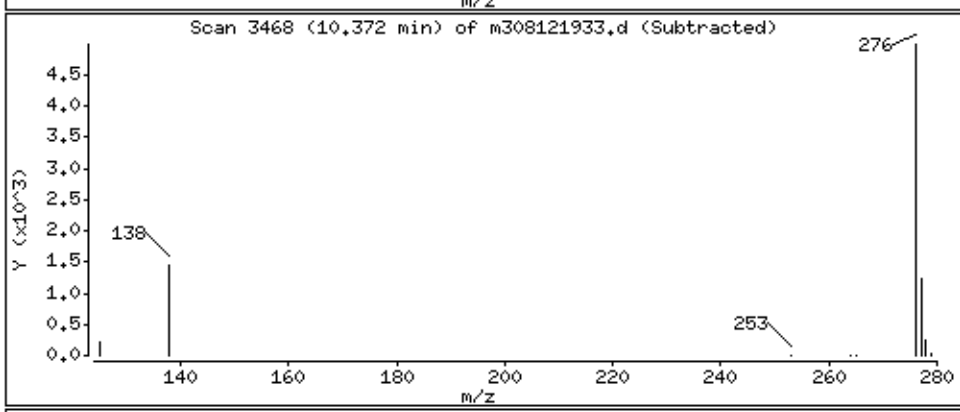
Column phase: RTX-5MS

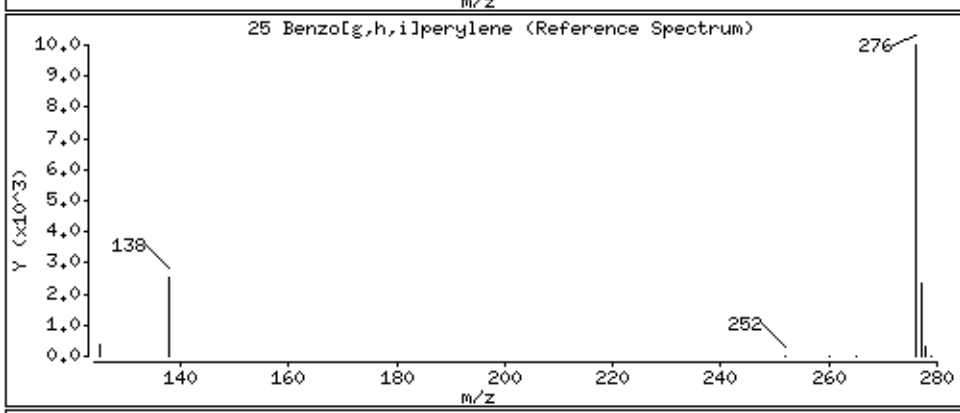
Column diameter: 0.25

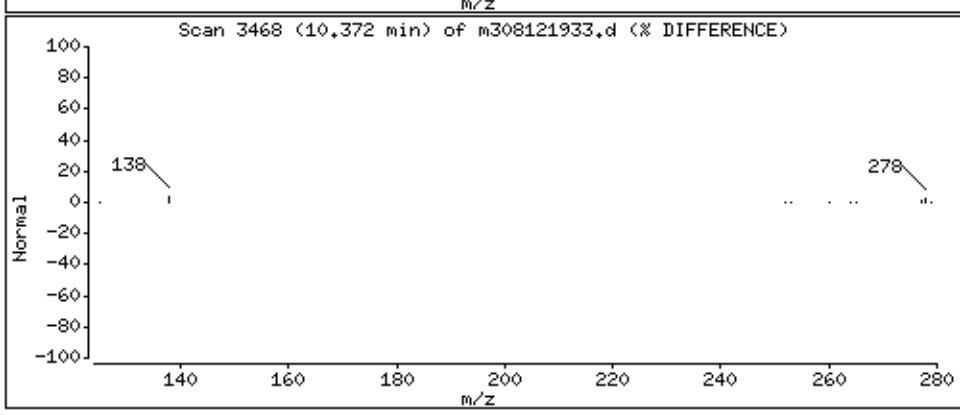
25 Benzo[g,h,i]perylene

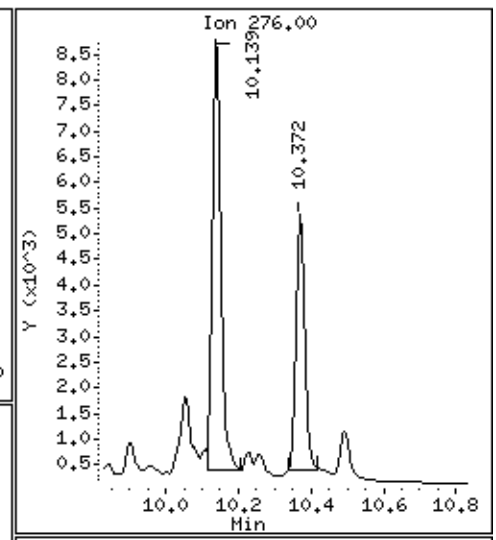
Concentration: 695 ug/Kg

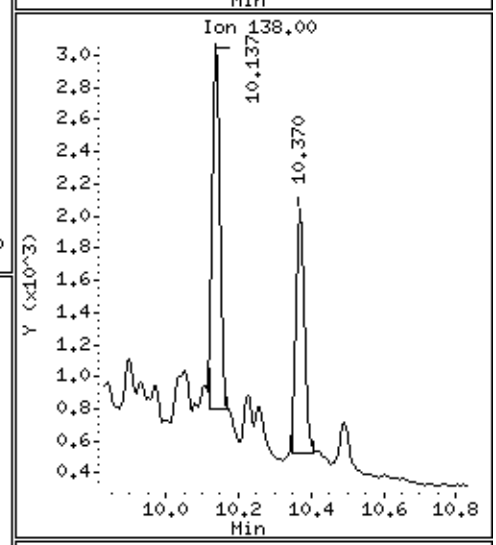


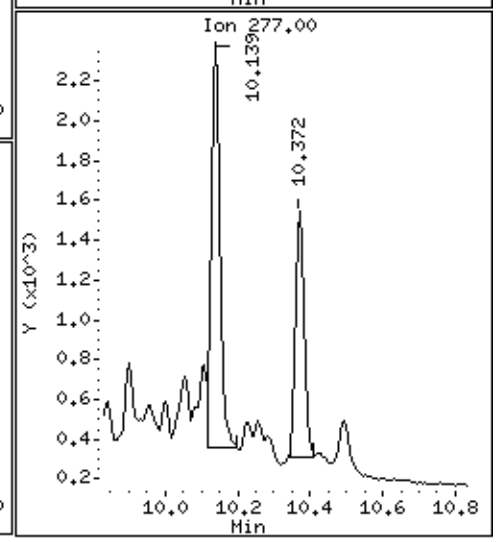












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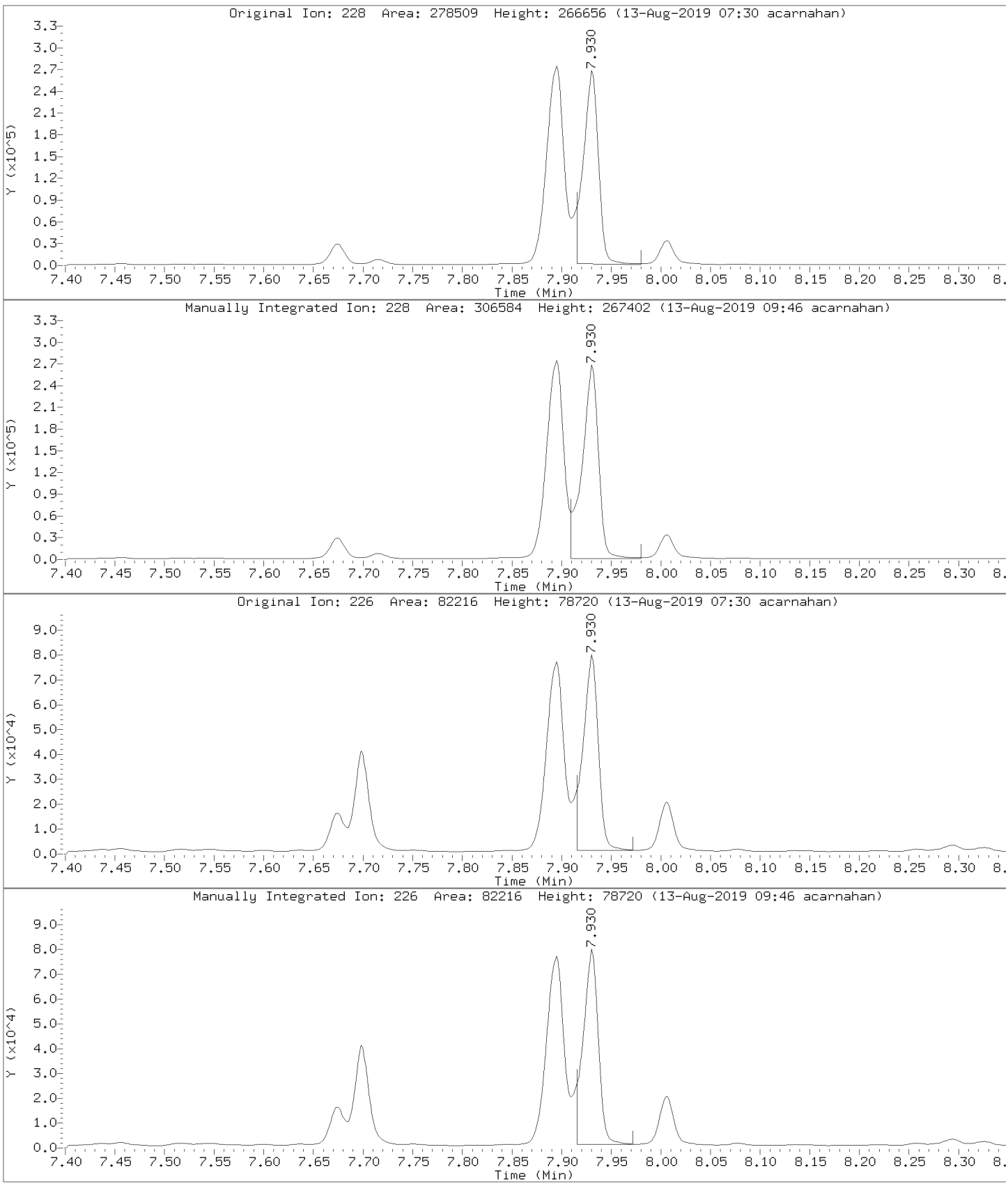
Injection Date: 12-AUG-2019 23:37
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Chrysene Review Code: LT
CAS Number: 218-01-9



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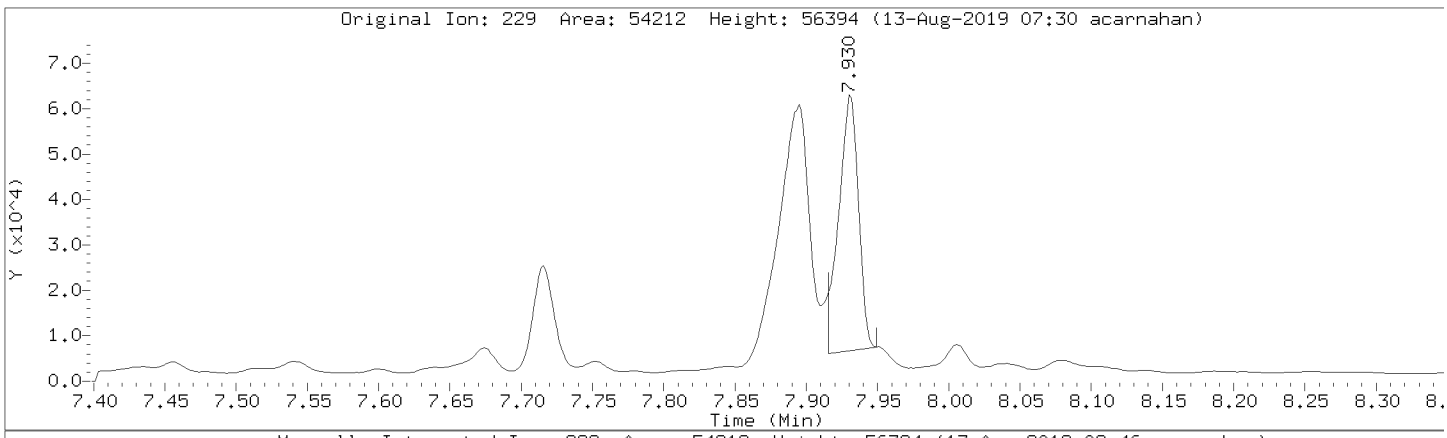
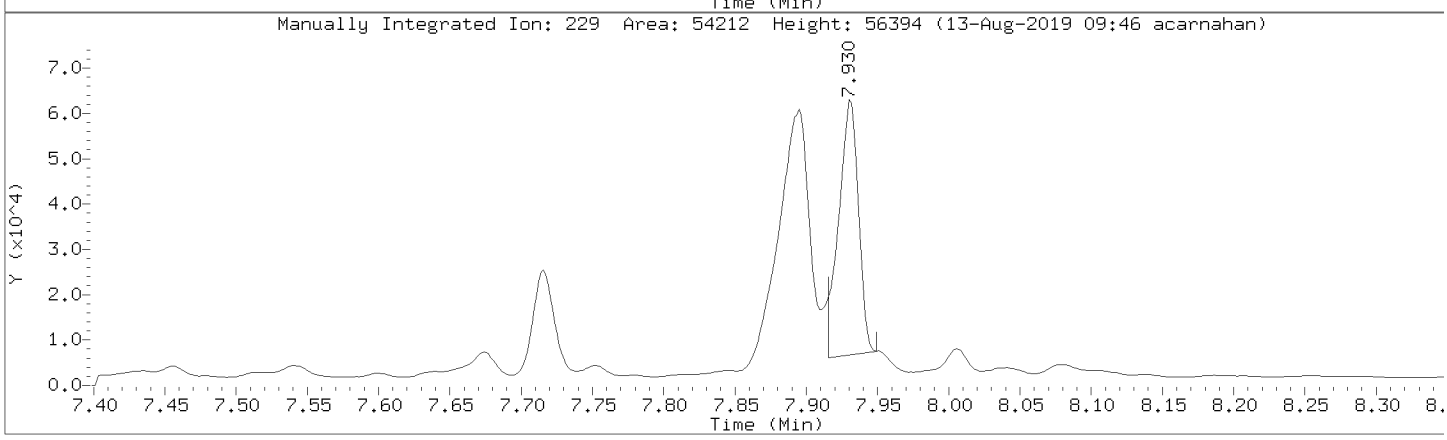
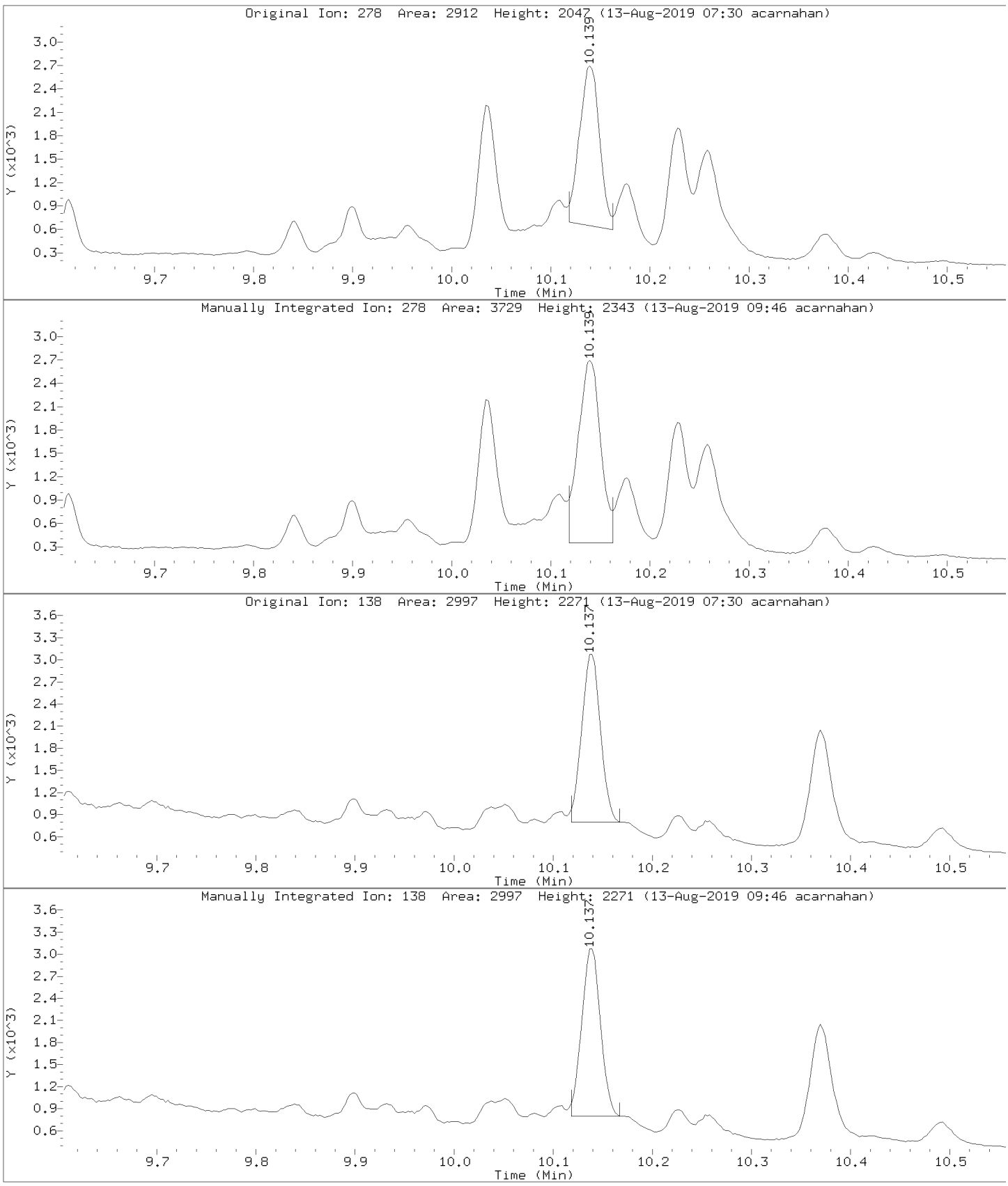
Injection Date: 12-AUG-2019 23:37
Instrument: 30mss3.i
Lab Sample ID: 30318799001





Data File: \\30wintarget\chem\30mss3.i\mss3081219.b/m308121933.d
Injection Date: 12-AUG-2019 23:37
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3



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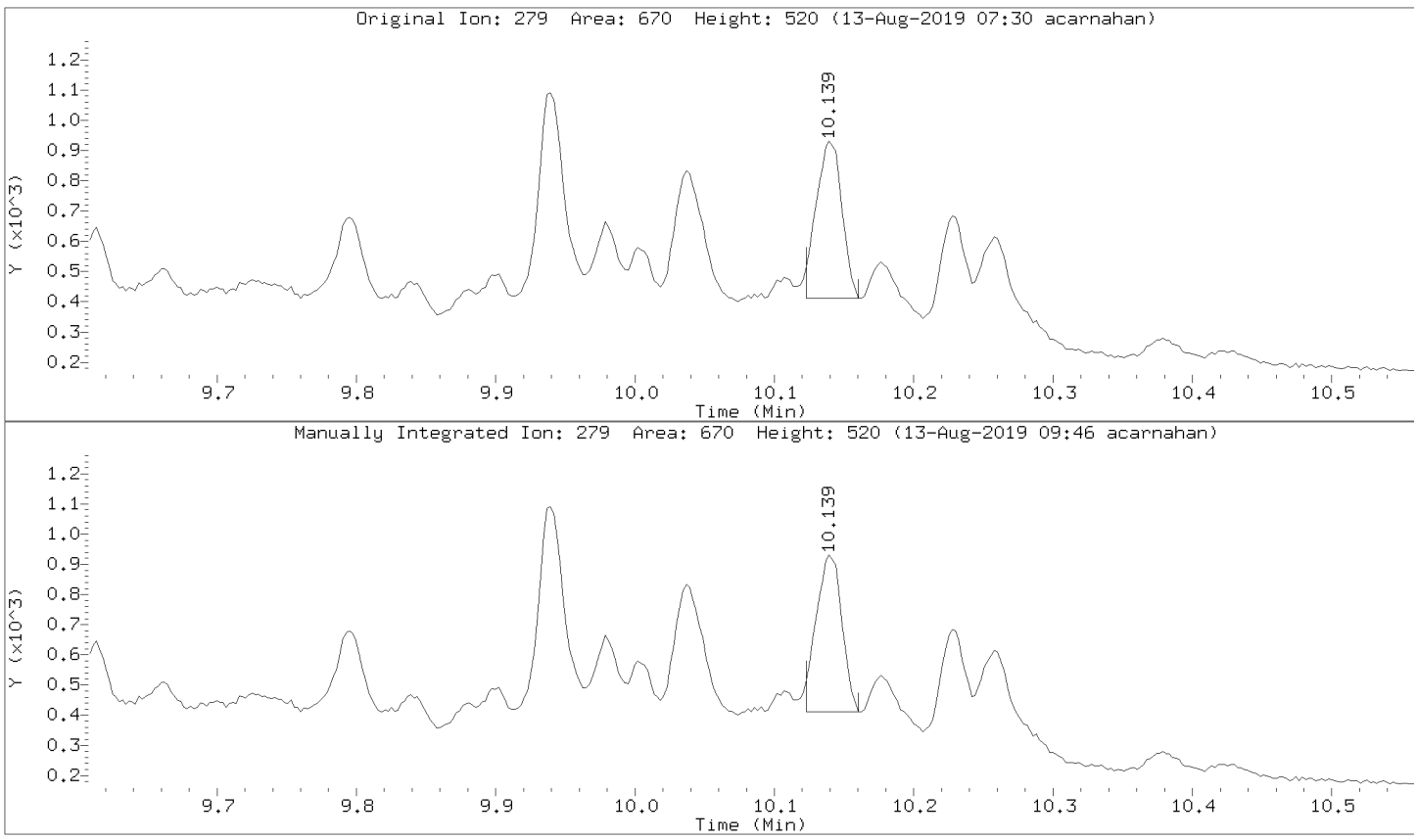
Injection Date: 12-AUG-2019 23:37
Instrument: 30mss3.i
Lab Sample ID: 30318799001



SAMPLE NO.

AOC 32 DITCH & AOC 35G

MSSV SIM - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 Matrix: Solid SDG No.: 30318799

Date Extracted: 08/12/2019 08:36 Lab Sample ID: 30318799001

Date Analyzed: 08/13/2019 16:53 Lab File ID: MSS3081319.B\M308131910.D

Initial wt/vol: 15.44 g Final wt/vol: 1 mL Dilution: 100 Instrument: 30MSS3 Percent Moisture: 20.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
205-99-2	Benzo(b)fluoranthene	20000	
207-08-9	Benzo(k)fluoranthene	17700	
206-44-0	Fluoranthene	27000	
129-00-0	Pyrene	21600	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081319.b\m308131910.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 13-AUG-2019 16:53 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : 30318799001x100,
Misc Info : 14954,
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3081319.b\m3080719pahcd.m
Meth Date : 13-Aug-2019 13:57 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 12
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	100.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.440	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
27	Quinoline	100	Compound Not Detected.						
* 1	Naphthalene-d8 (IS)	136	3.141	3.144	(1.000)	74373	4.00000		
8	Naphthalene	128	3.155	3.161	(1.005)	3972	0.21831	1410	
9	2-Methylnaphthalene	142	3.647	3.647	(1.161)	1049	0.10151	657	
10	1-Methylnaphthalene	142	3.713	3.716	(1.182)	1022	0.08315	538(M)	BA
$ 6	2-Fluorobiphenyl (S)	172	3.898	3.901	(0.894)	672	0.06048	3.92(R)	
11	Acenaphthylene	152	4.270	4.270	(0.979)	542	0.03739	242(QM)	WP
* 2	Acenaphthene-d10 (IS)	164	4.363	4.365	(1.000)	36782	4.00000		
12	Acenaphthene	153	4.384	4.386	(1.005)	2273	0.21650	1400	
13	Fluorene	166	4.740	4.742	(1.087)	2381	0.22904	1480	
* 3	Phenanthrene-d10 (IS)	188	5.427	5.427	(1.000)	60936	4.00000		
14	Phenanthrene	178	5.443	5.446	(1.003)	35344	2.20985	14300	
15	Anthracene	178	5.485	5.487	(1.011)	8162	0.52140	3380	
16	Fluoranthene	202	6.441	6.441	(1.187)	52819	3.33478	21600	
17	Pyrene	202	6.645	6.648	(1.224)	43536	2.66553	17300	
$ 7	Terphenyl-d14 (S)	244	6.782	6.785	(1.250)	812	0.06331	4.10(QR)	
18	Benzo(a)anthracene	228	7.791	7.789	(0.999)	21847	1.63889	10600(Q)	
* 4	Chrysene-d12 (IS)	240	7.800	7.800	(1.000)	55010	4.00000		
19	Chrysene	228	7.824	7.824	(1.003)	20548	1.36121	8820(M)	LT

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.811	8.806	(0.963)	35120	2.47445	16000	
21 Benzo(k)fluoranthene	252	8.811	8.832	(0.963)	35120	2.18853	14200	
22 Benzo(a)pyrene	252	9.102	9.102	(0.995)	18578	1.37702	8920(M)	BA
* 5 Perylene-d12 (IS)	264	9.150	9.151	(1.000)	57400	4.00000		
23 Dibenz(a,h)anthracene	278	10.023	10.028	(1.095)	3081	0.22673	1470(QM)	BA
24 Indeno(1,2,3-cd)pyrene	276	10.023	10.023	(1.095)	10888	0.69132	4480(Q)	
25 Benzo[g,h,i]perylene	276	10.244	10.244	(1.119)	9914	0.76722	4970	

QC Flag Legend

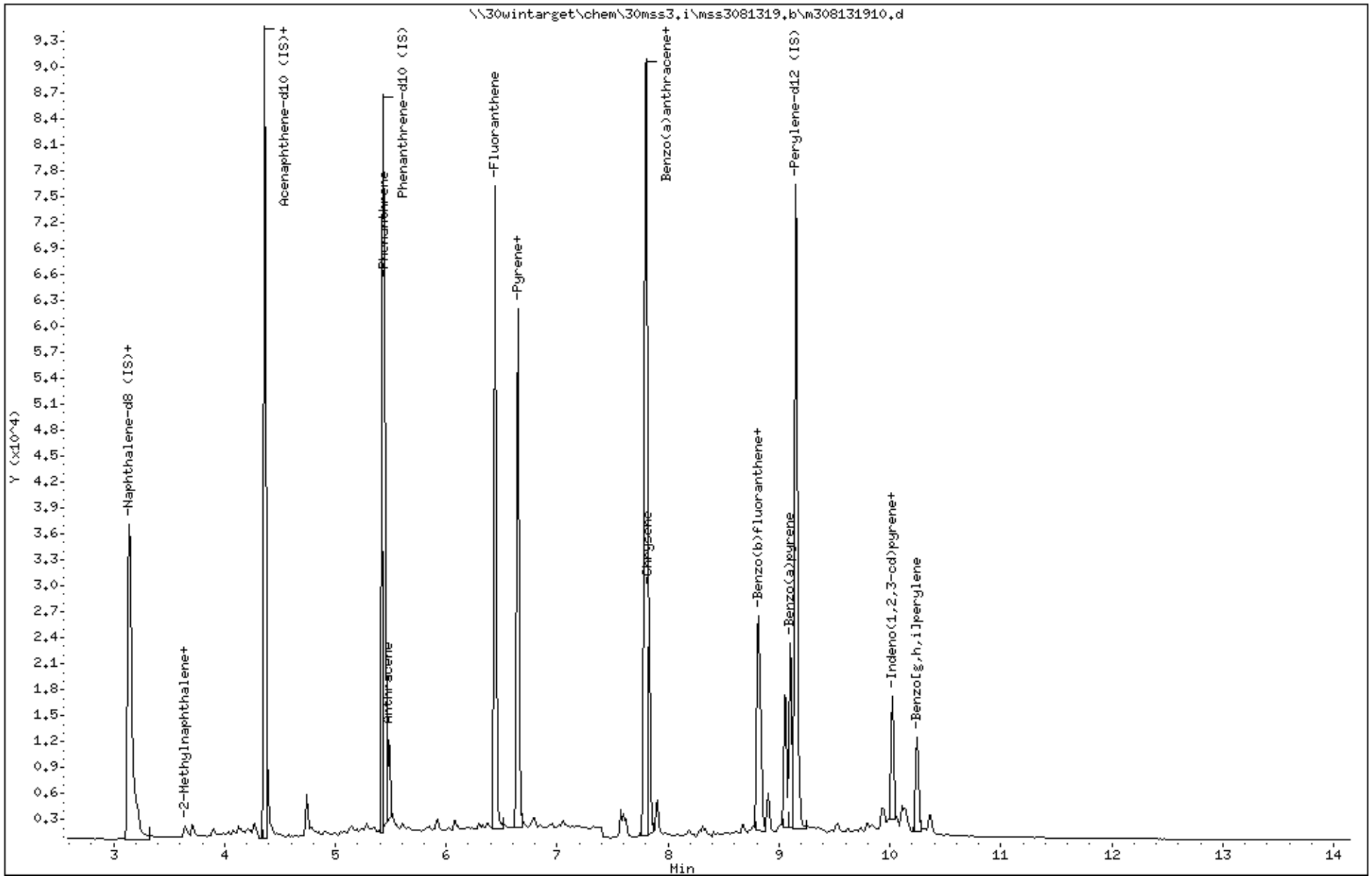
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m308131910.d
Date : 13-AUG-2019 16:53
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001X100,
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss3.i
Operator: AJC
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m308131910.d

Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

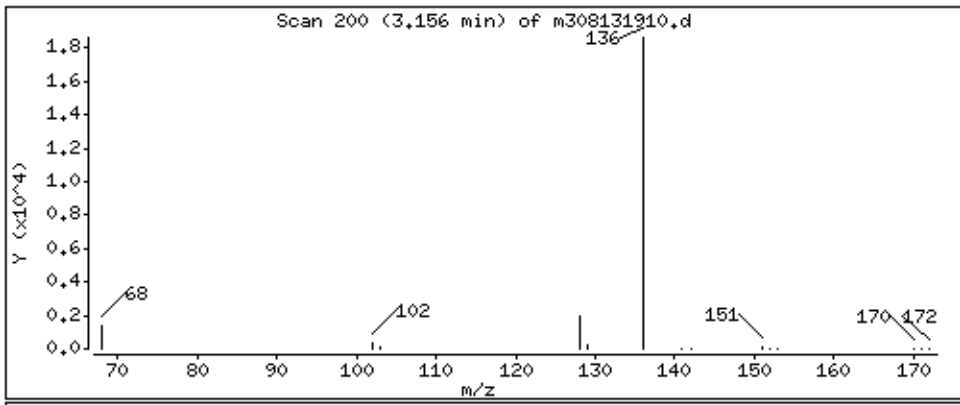
Operator: AJC

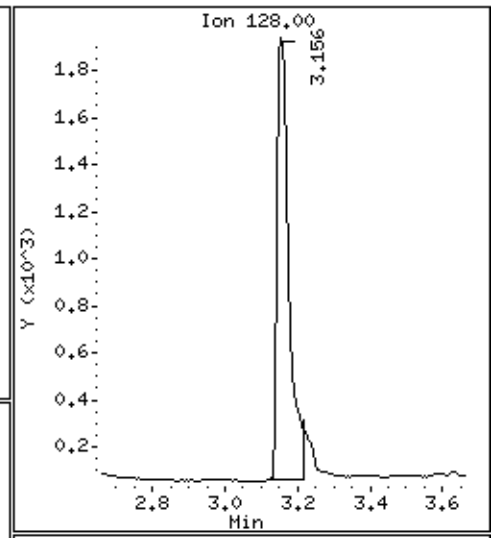
Column phase: RTX-5MS

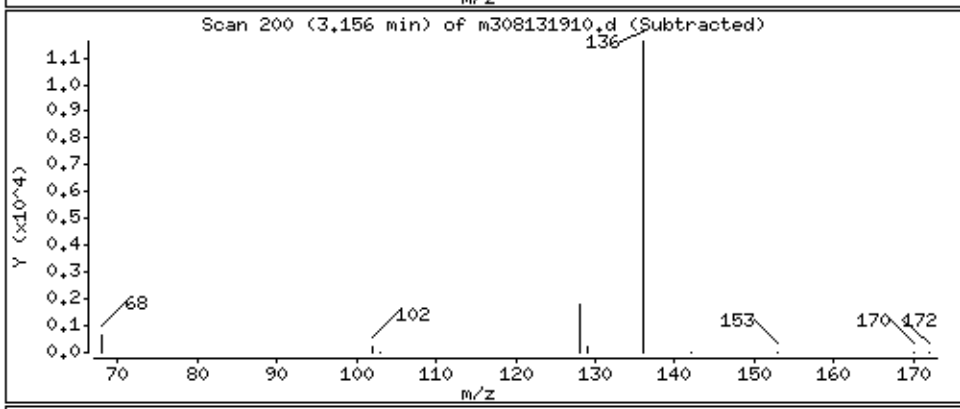
Column diameter: 0.25

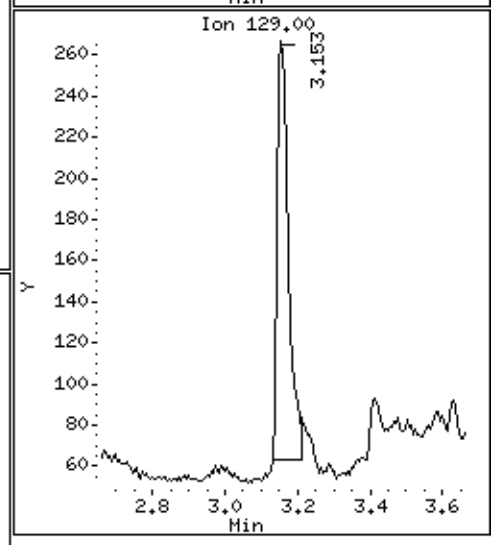
8 Naphthalene

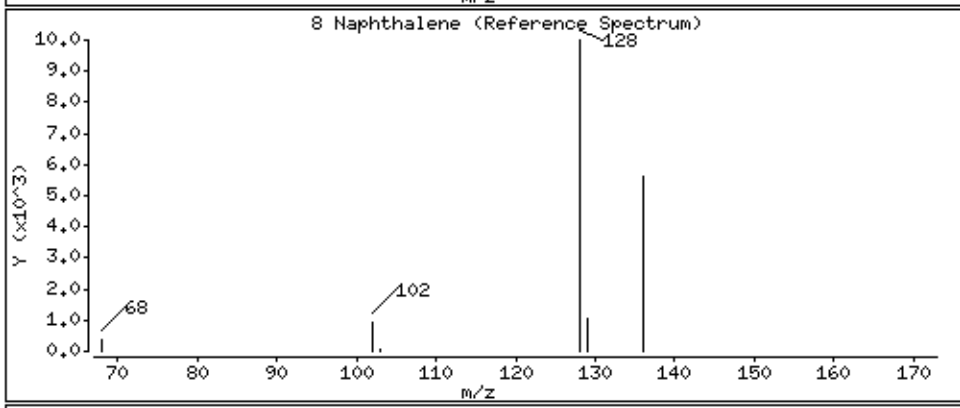
Concentration: 1410 ug/Kg

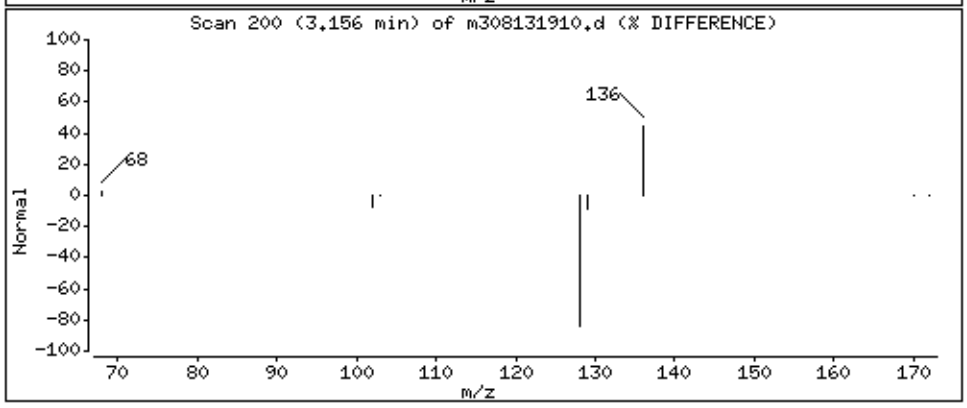












Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m308131910.d

Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

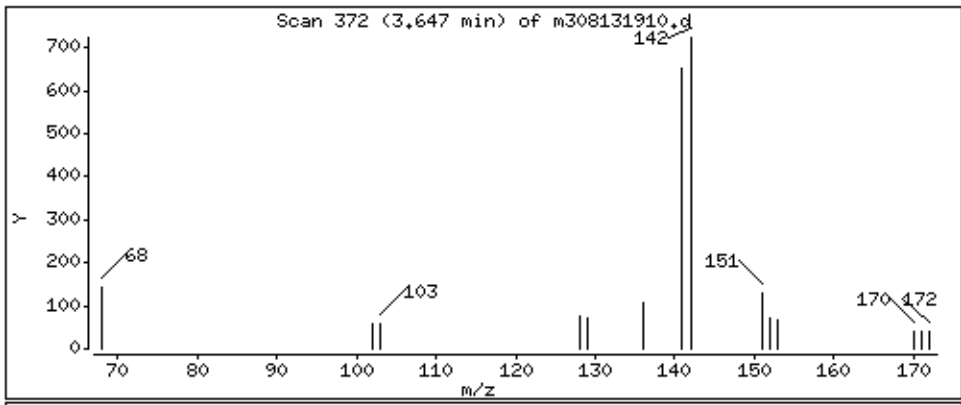
Operator: AJC

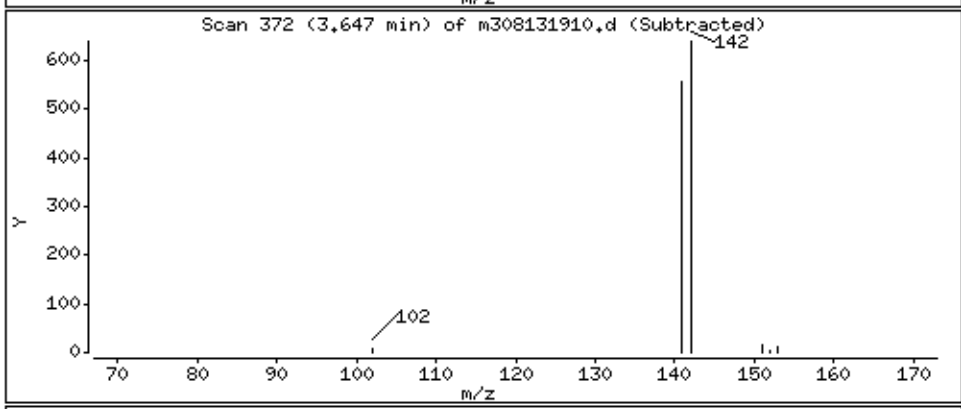
Column phase: RTX-5MS

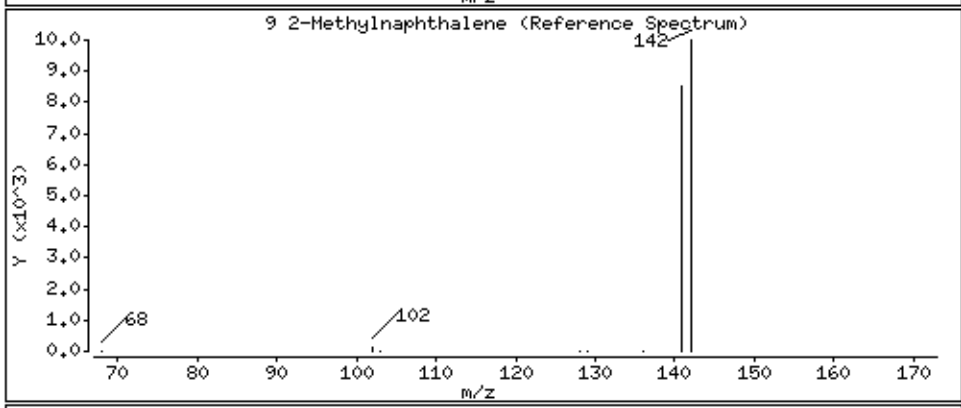
Column diameter: 0.25

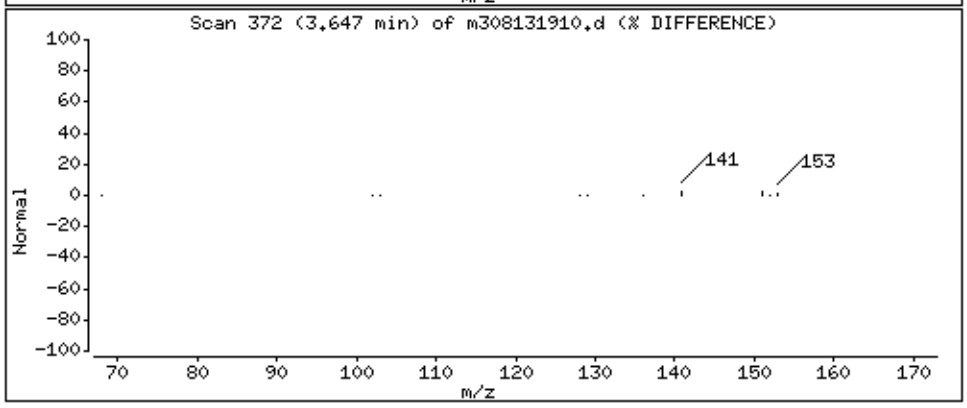
9 2-Methylnaphthalene

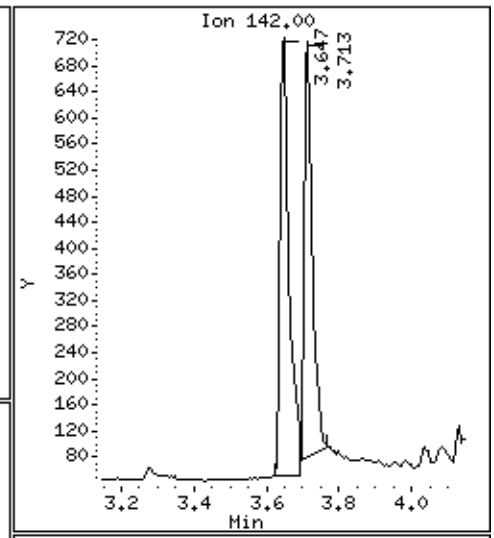
Concentration: 657 ug/Kg

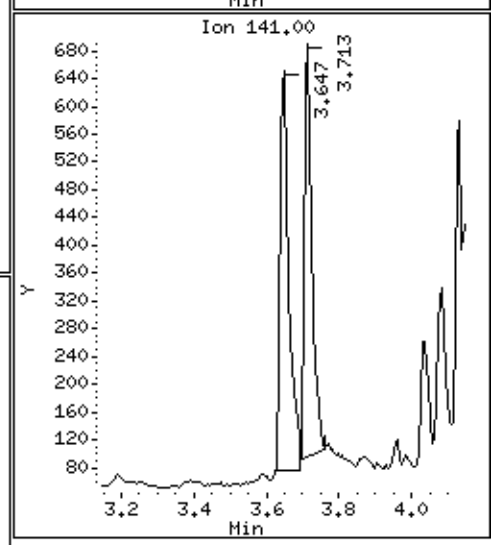












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

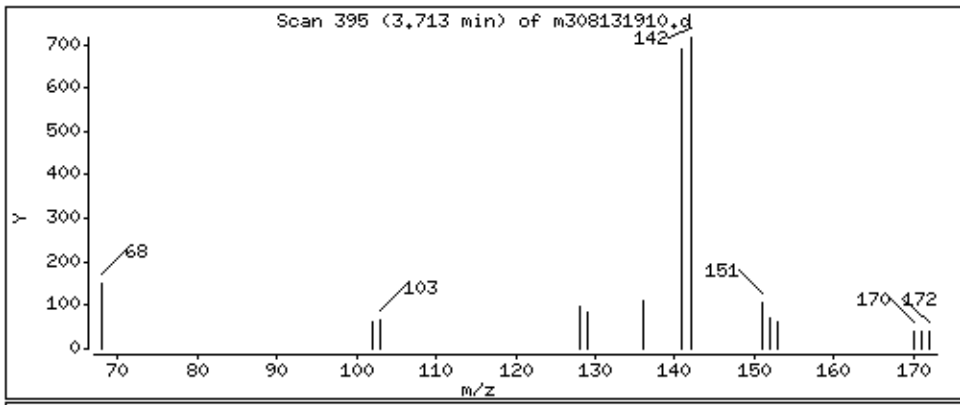
Operator: AJC

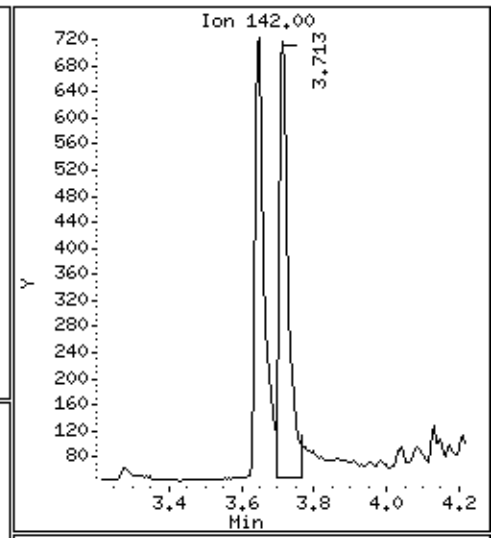
Column phase: RTX-5MS

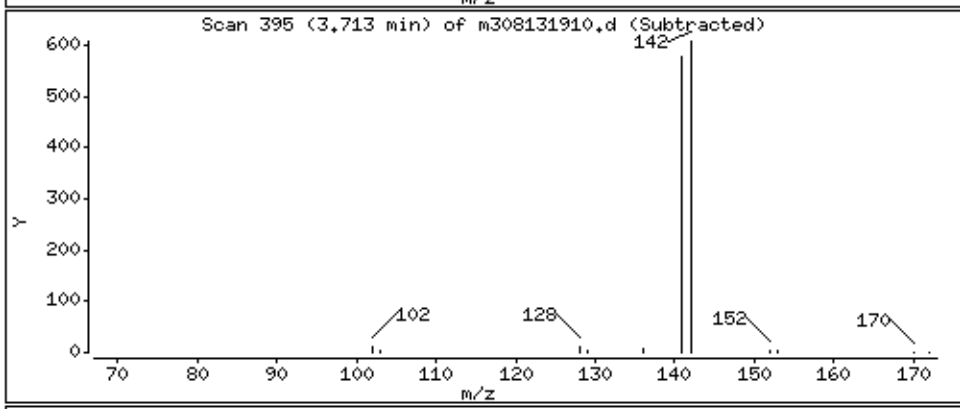
Column diameter: 0.25

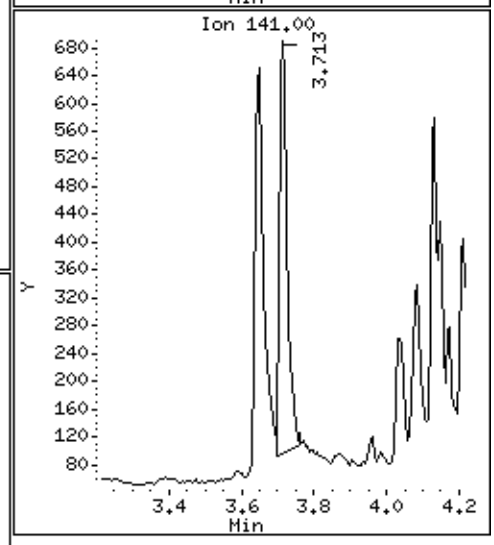
10 1-Methylnaphthalene

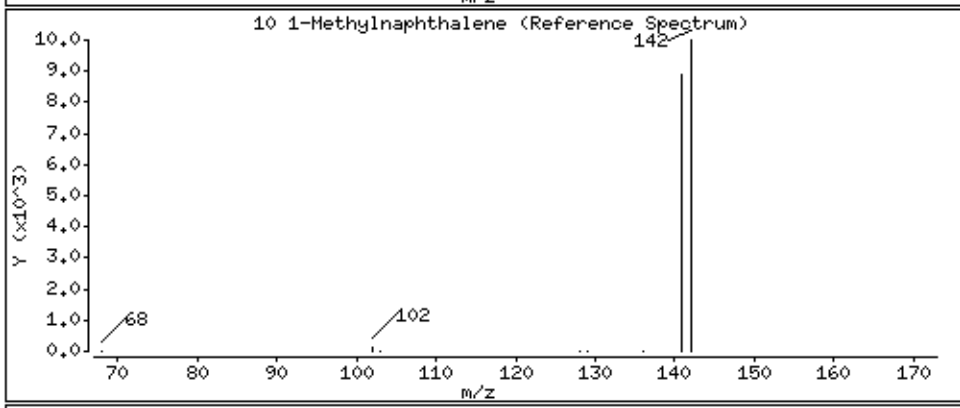
Concentration: 538 ug/Kg

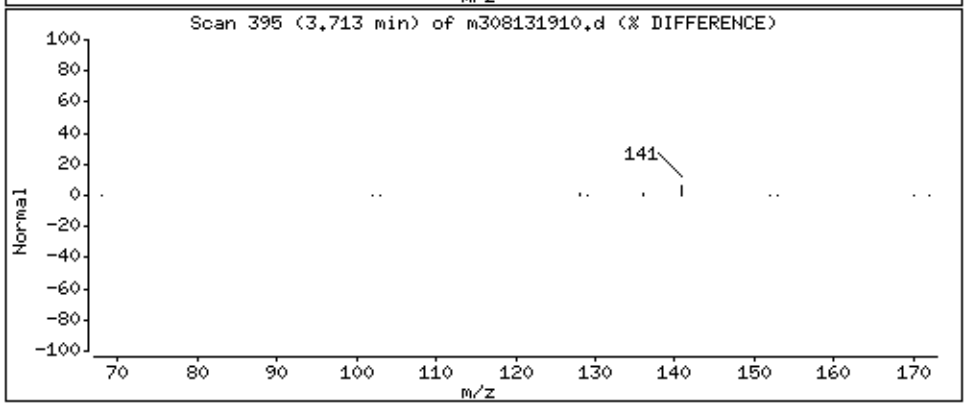












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

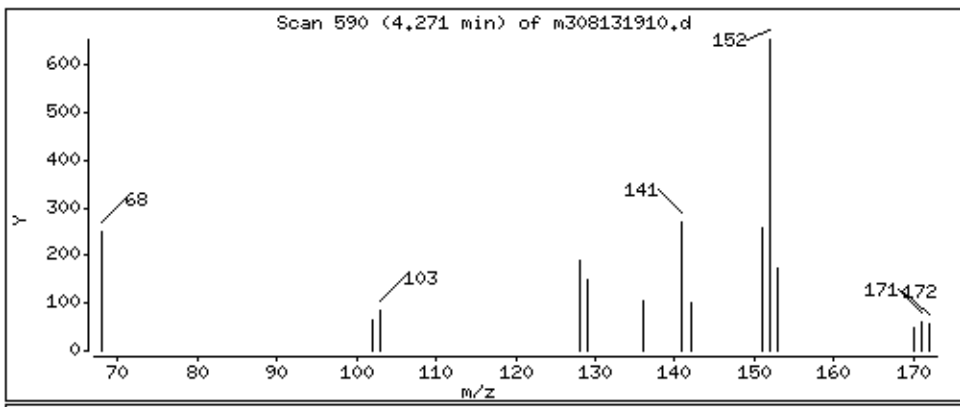
Operator: AJC

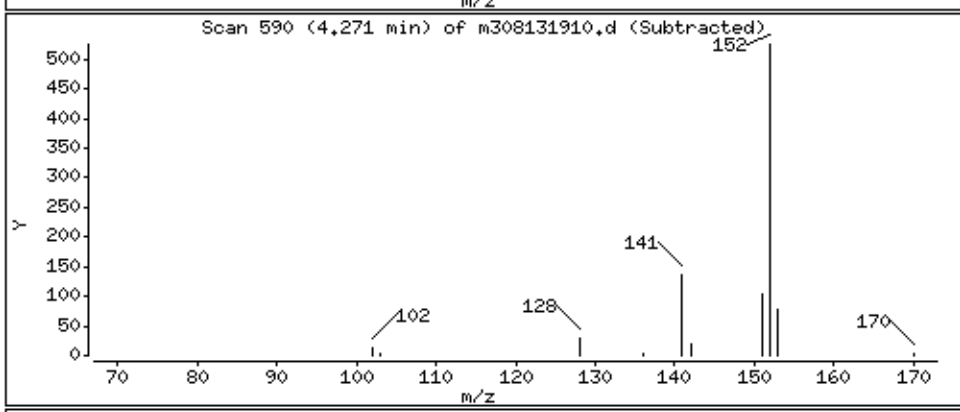
Column phase: RTX-5MS

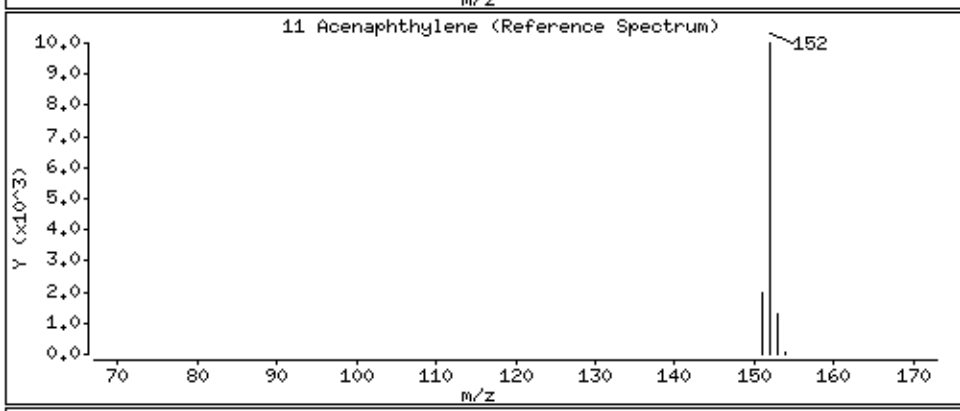
Column diameter: 0.25

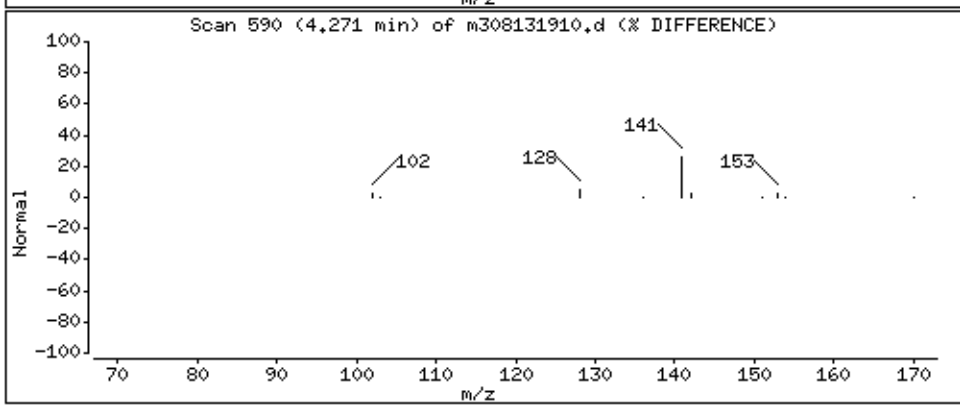
11 Acenaphthylene

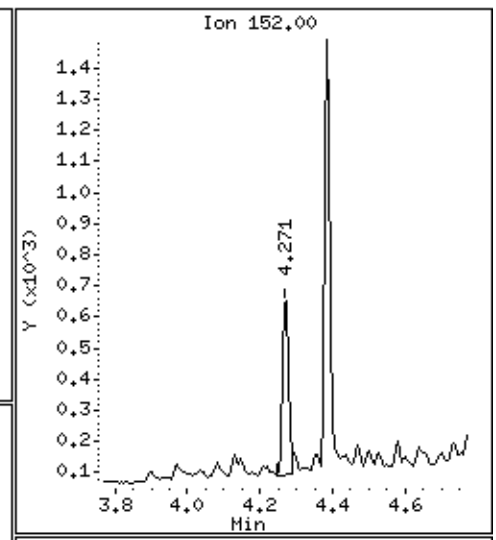
Concentration: 242 ug/Kg

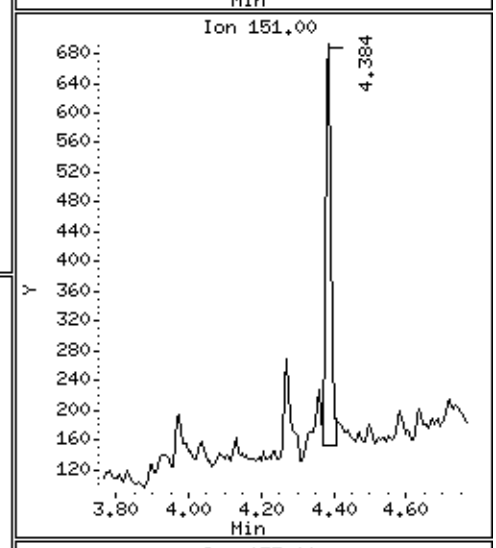


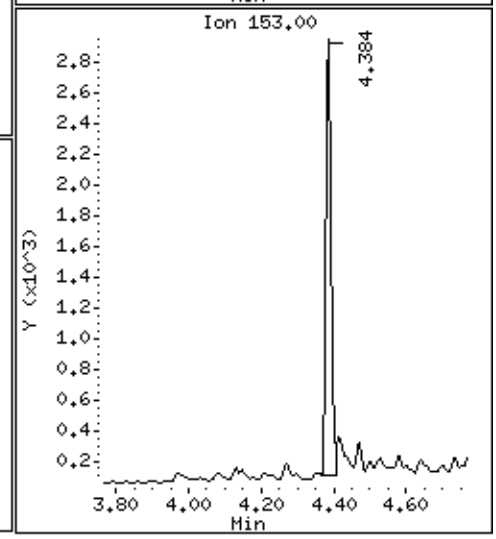












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

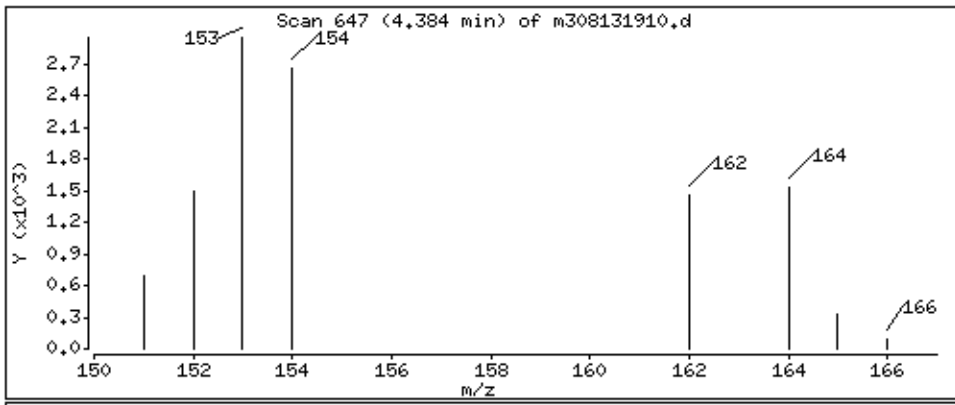
Operator: AJC

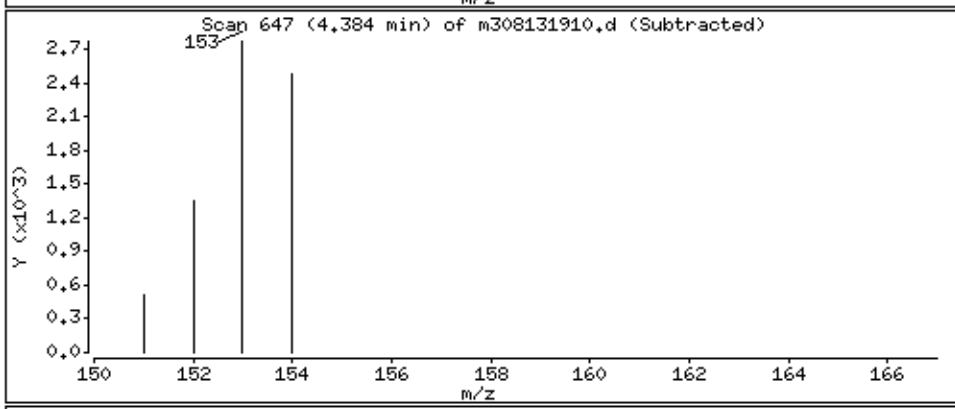
Column phase: RTX-5MS

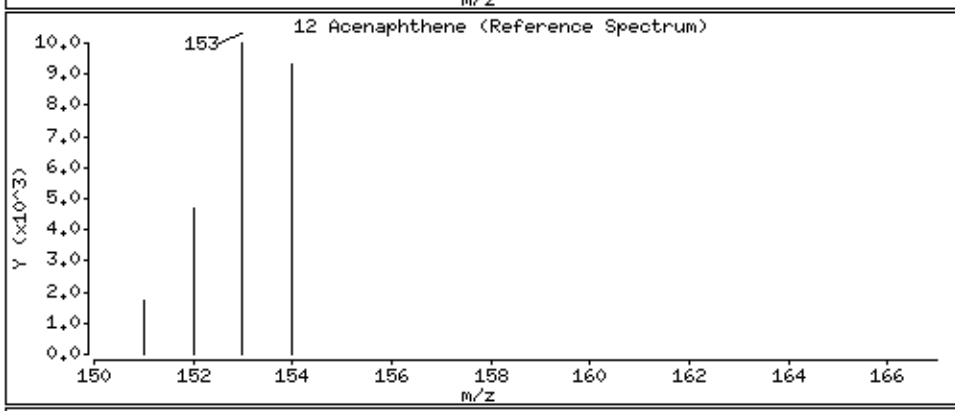
Column diameter: 0.25

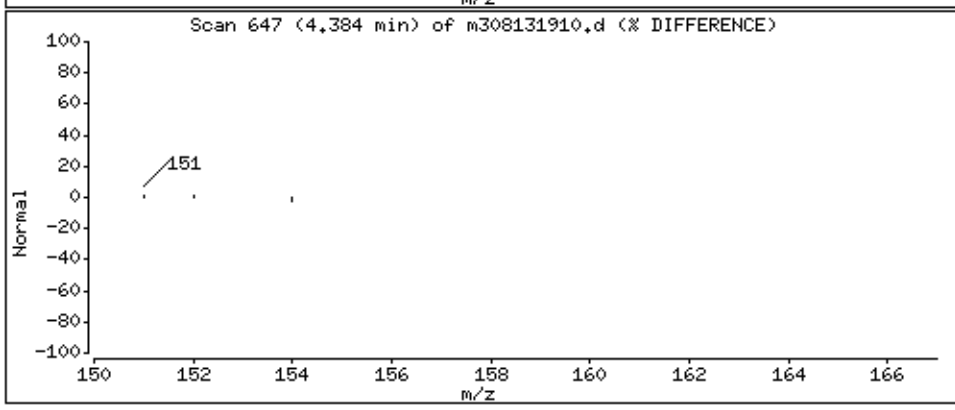
12 Acenaphthene

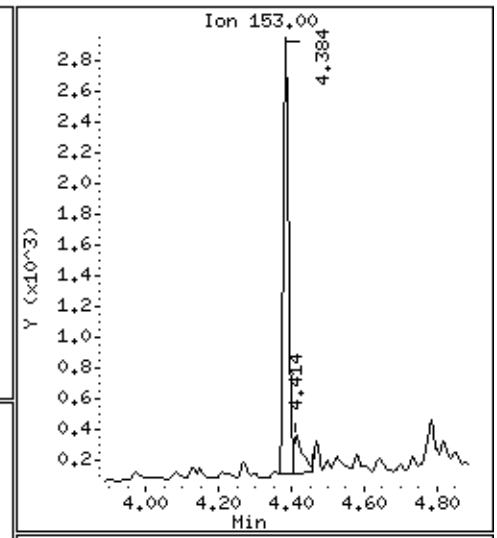
Concentration: 1400 ug/Kg

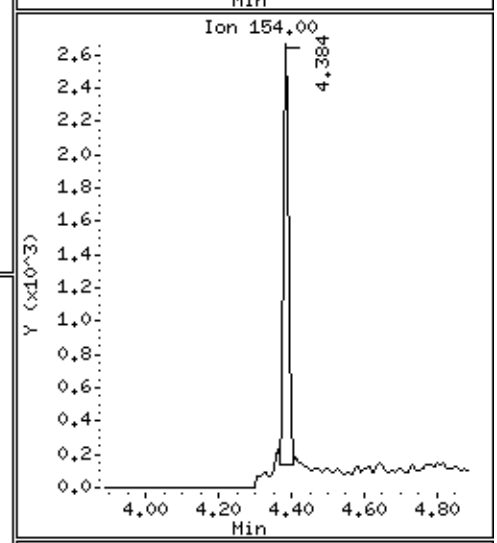


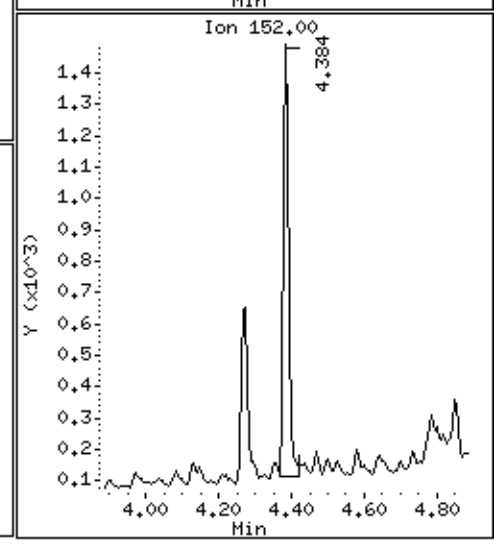












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

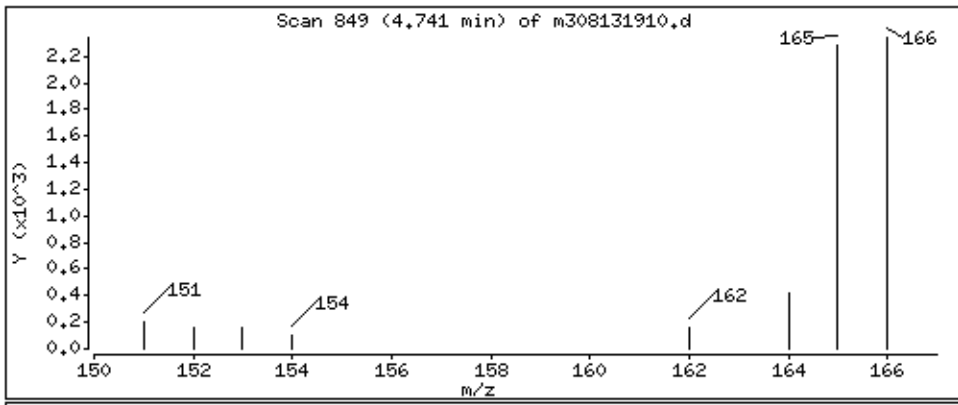
Operator: AJC

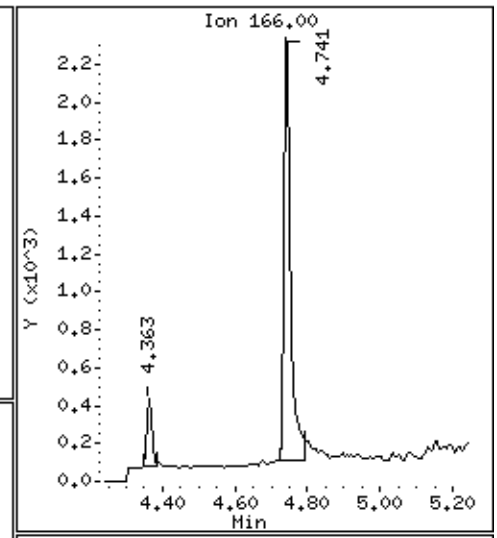
Column phase: RTX-5MS

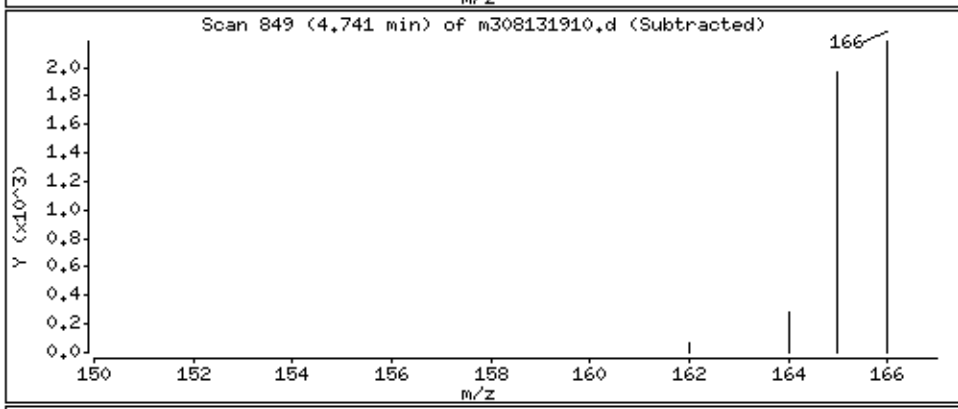
Column diameter: 0.25

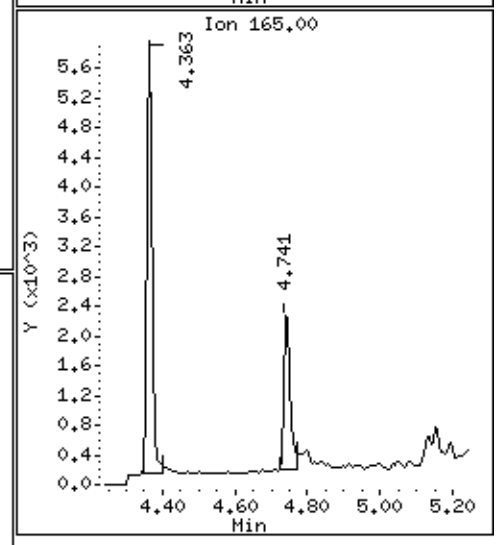
13 Fluorene

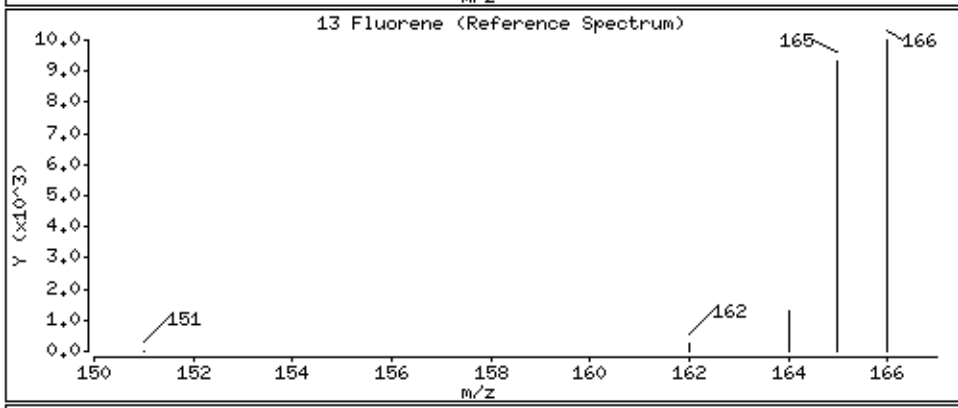
Concentration: 1480 ug/Kg

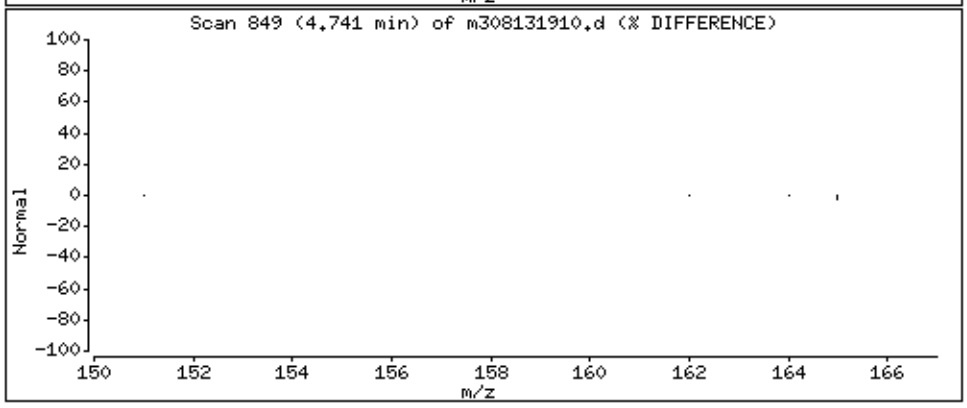












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

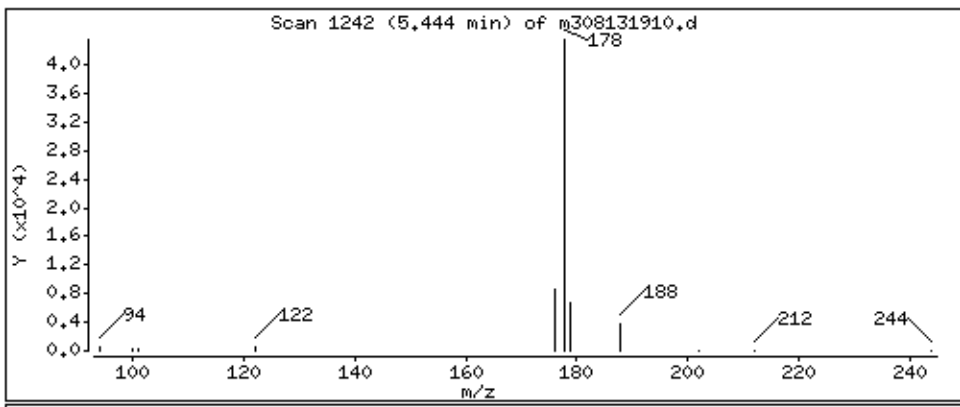
Operator: AJC

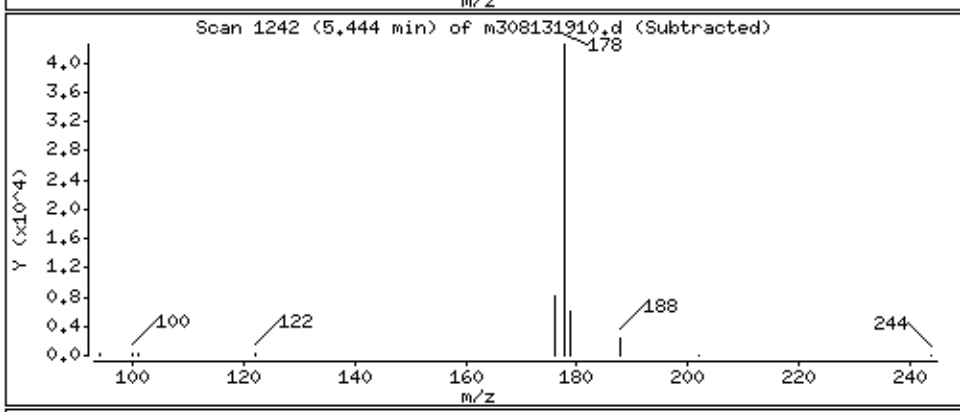
Column phase: RTX-5MS

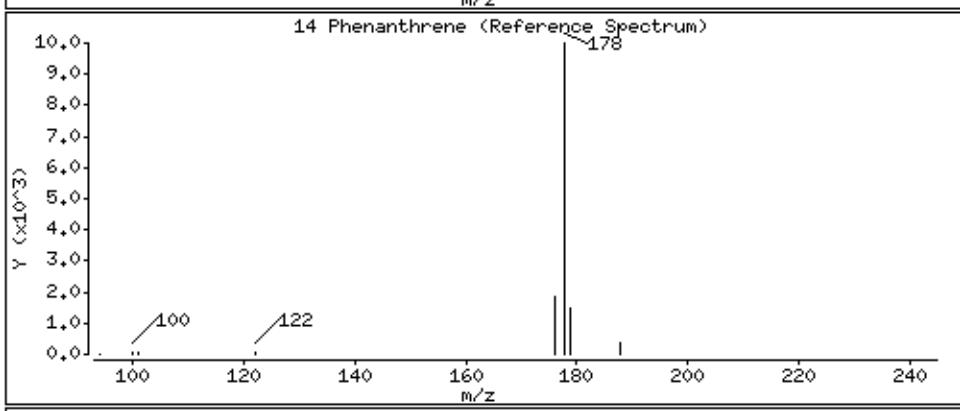
Column diameter: 0.25

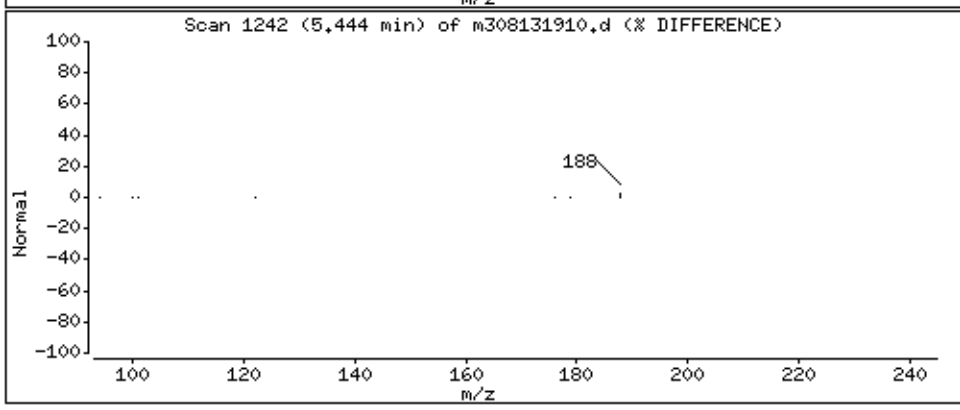
14 Phenanthrene

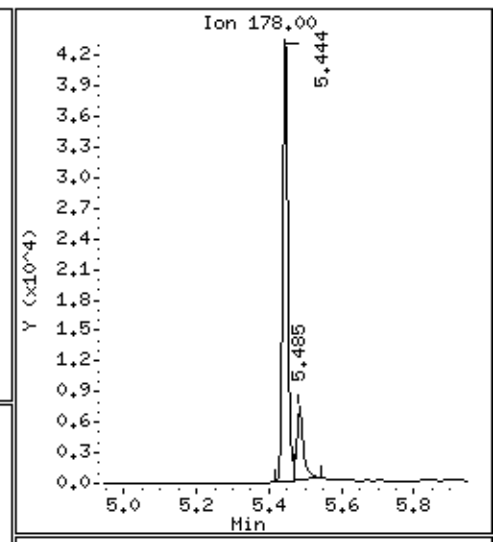
Concentration: 14300 ug/Kg

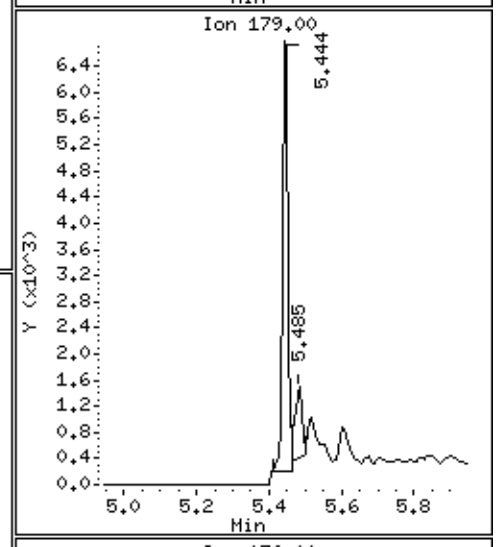


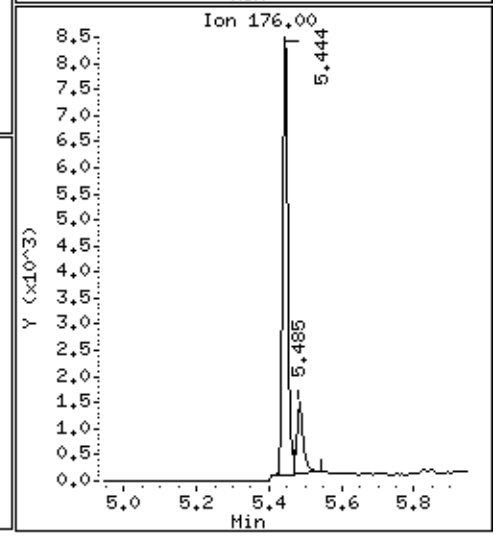












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

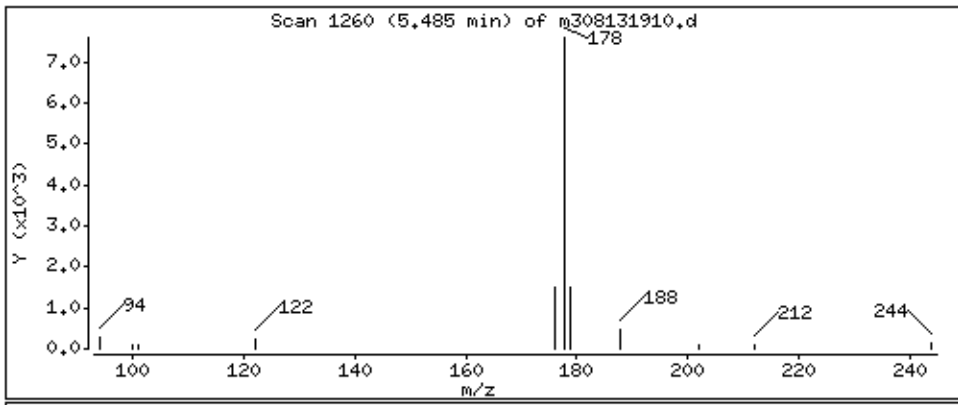
Operator: AJC

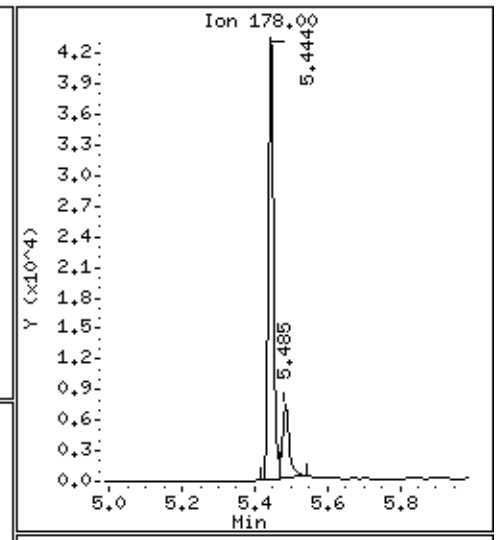
Column phase: RTX-5MS

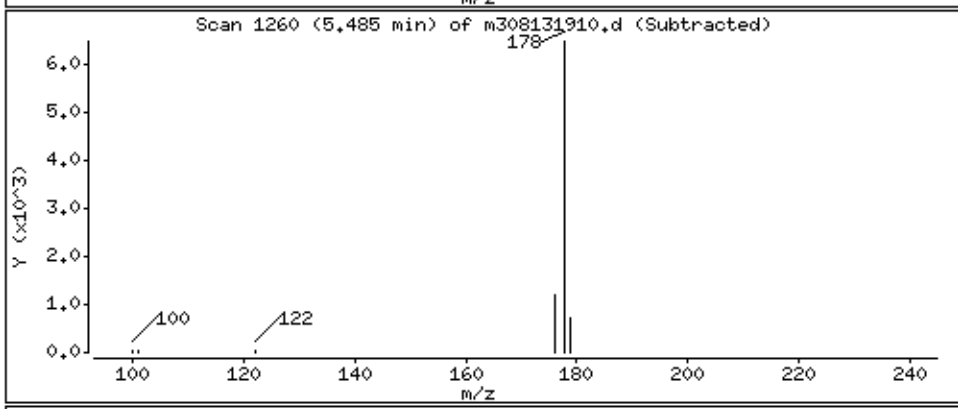
Column diameter: 0.25

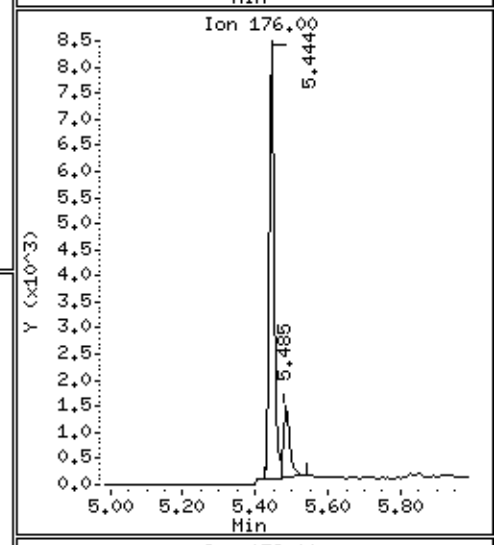
15 Anthracene

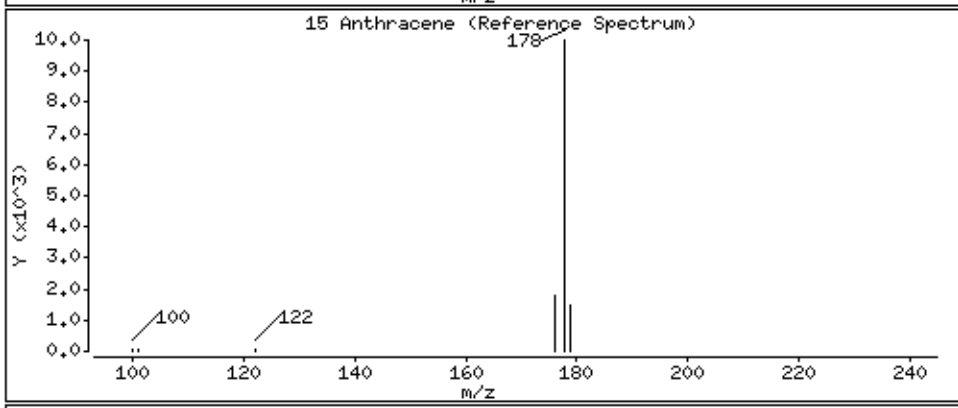
Concentration: 3380 ug/Kg

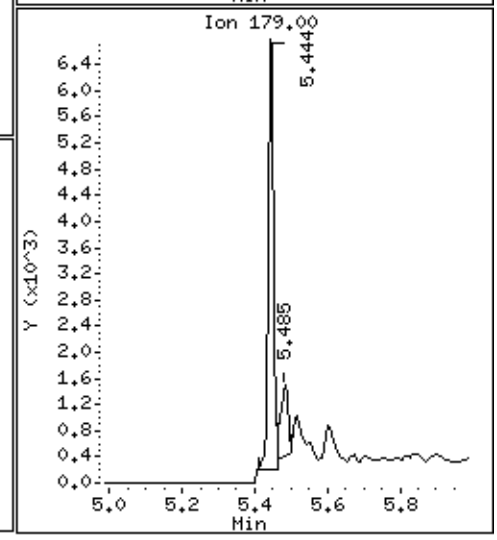


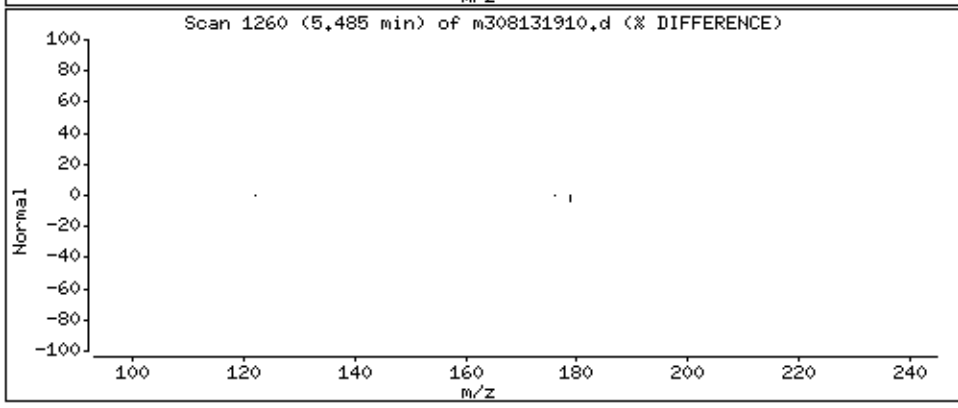












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

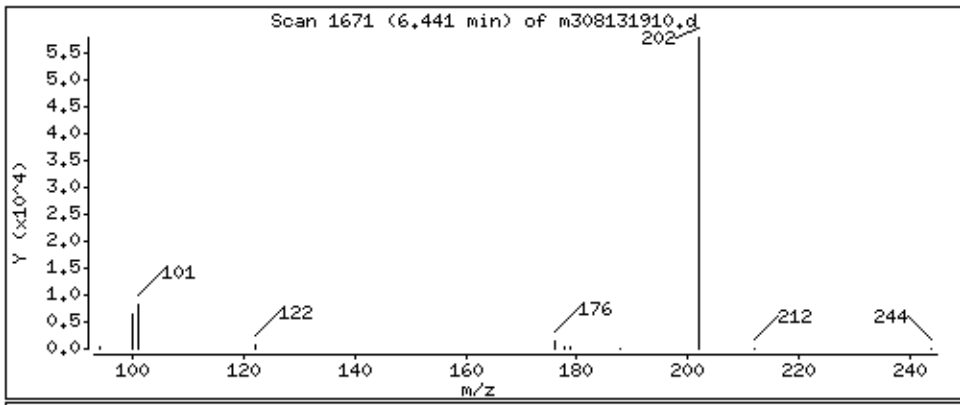
Operator: AJC

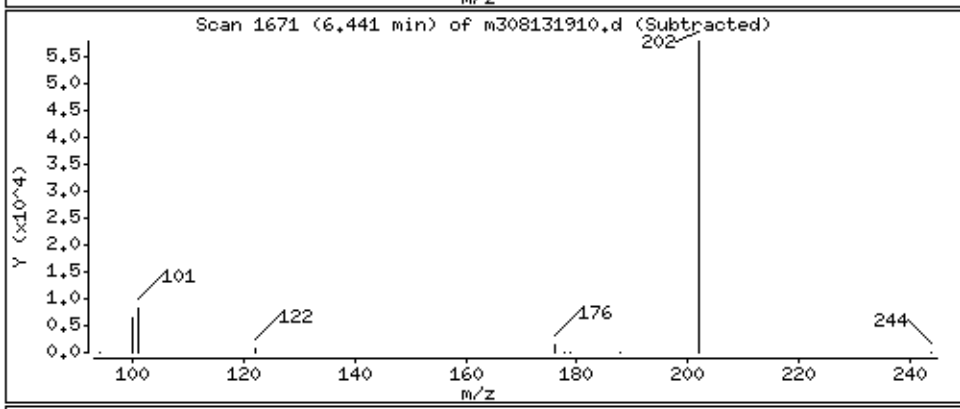
Column phase: RTX-5MS

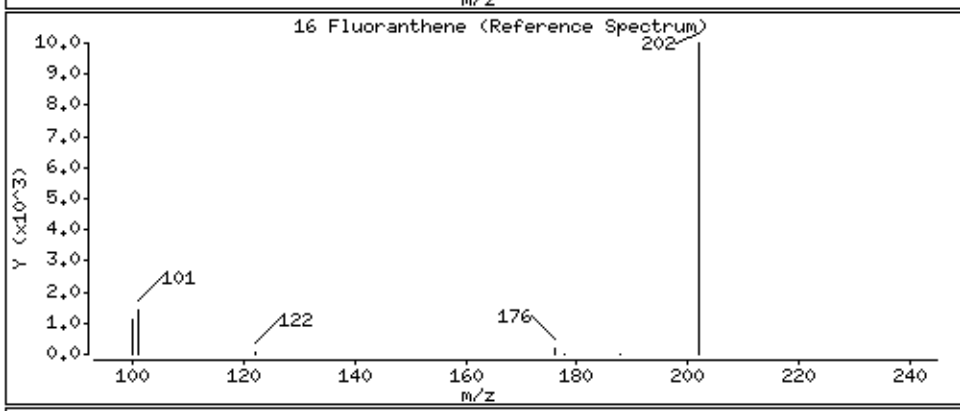
Column diameter: 0.25

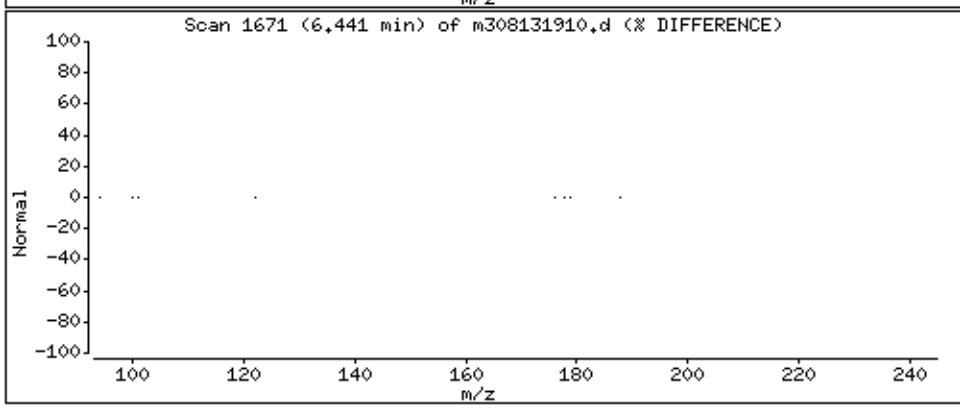
16 Fluoranthene

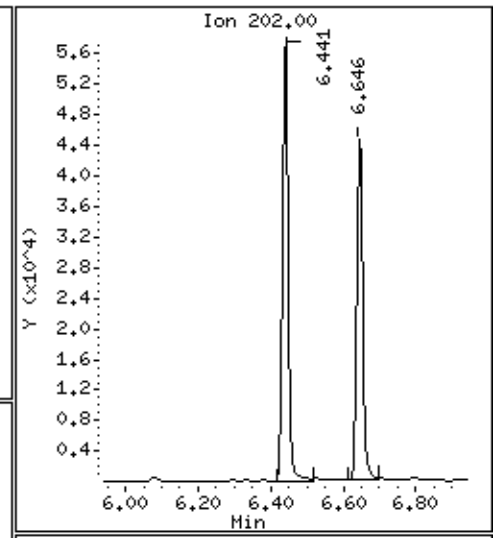
Concentration: 21600 ug/Kg

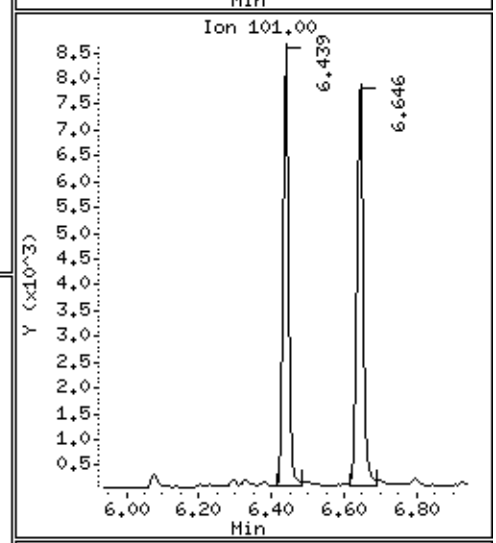


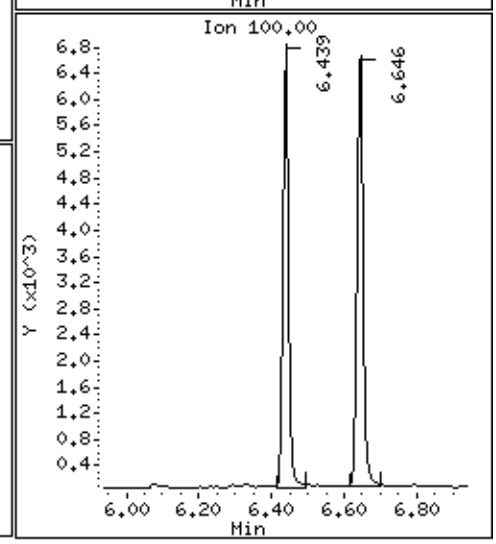












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

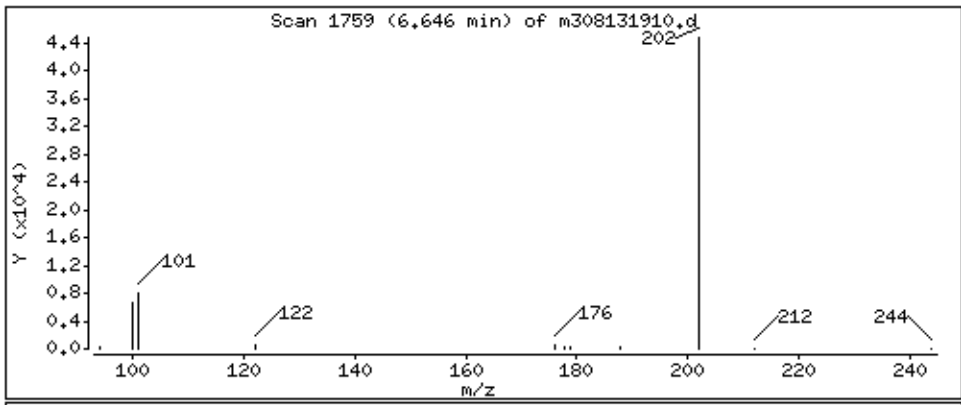
Operator: AJC

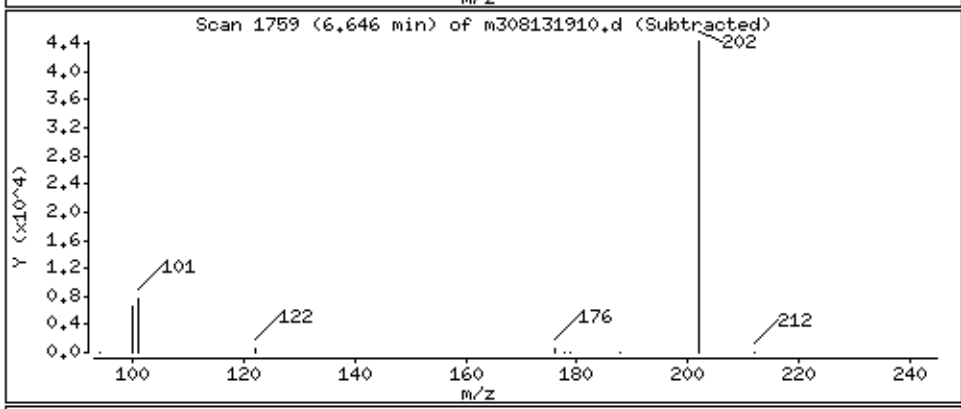
Column phase: RTX-5MS

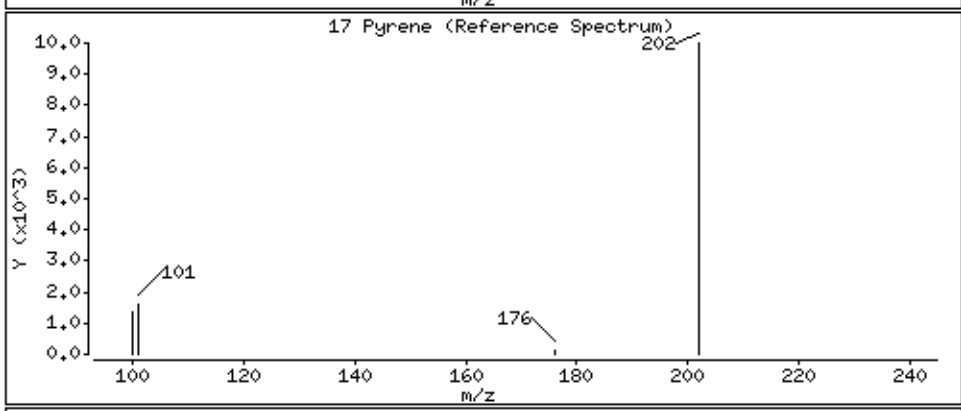
Column diameter: 0.25

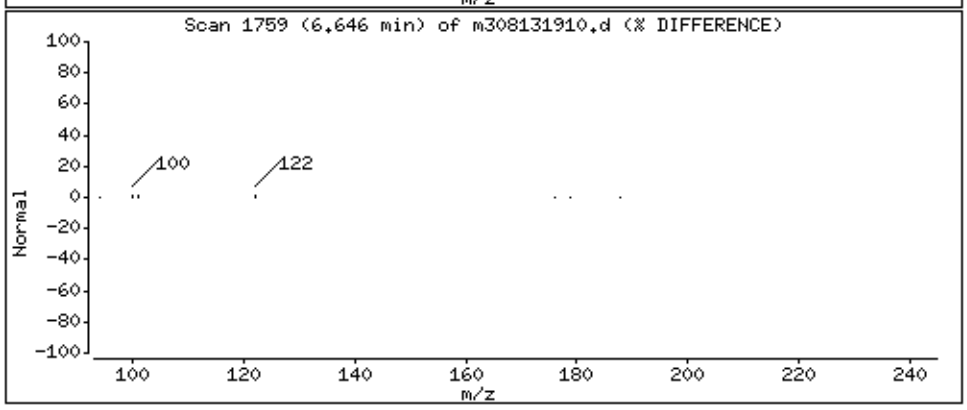
17 Pyrene

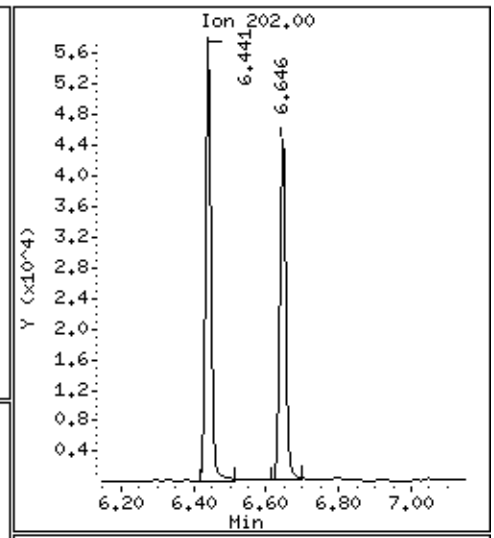
Concentration: 17300 ug/Kg

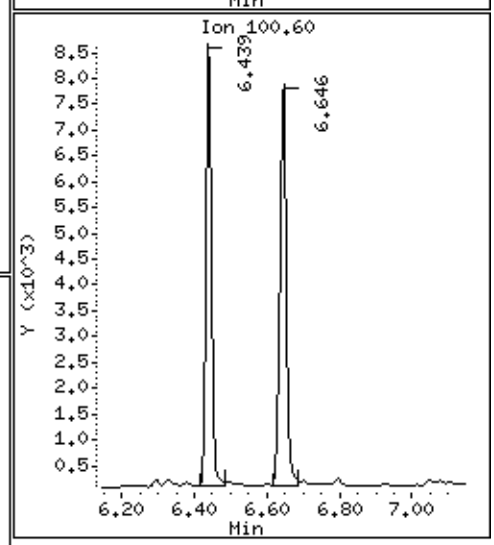












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

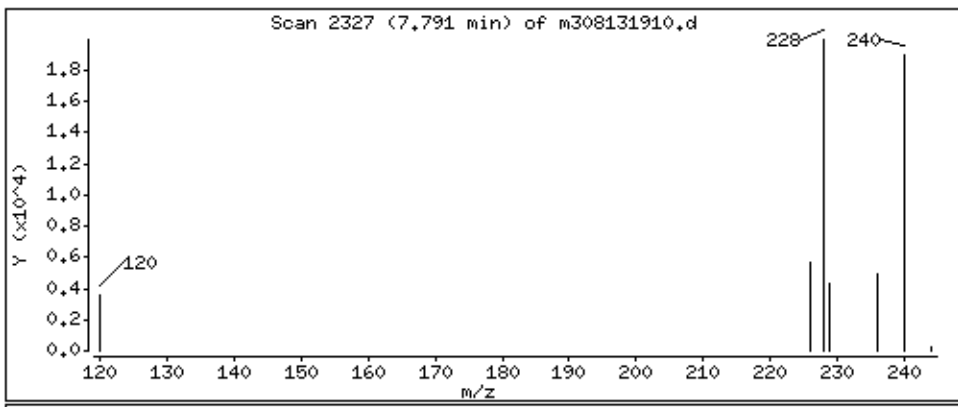
Operator: AJC

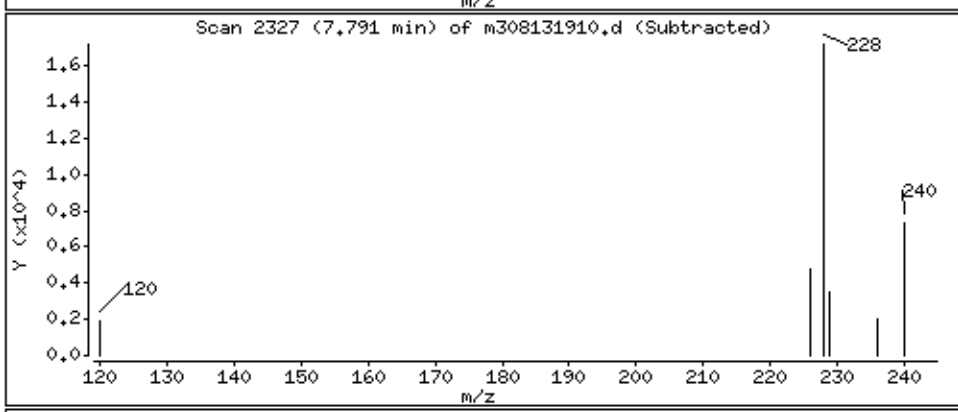
Column phase: RTX-5MS

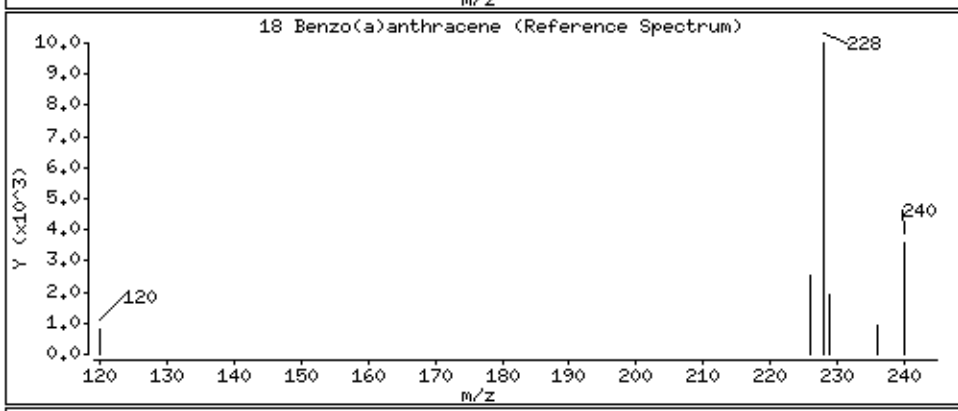
Column diameter: 0.25

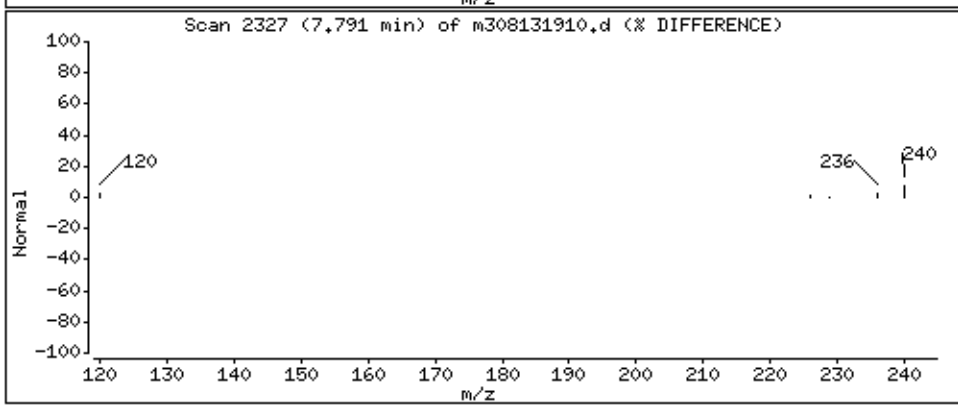
18 Benzo(a)anthracene

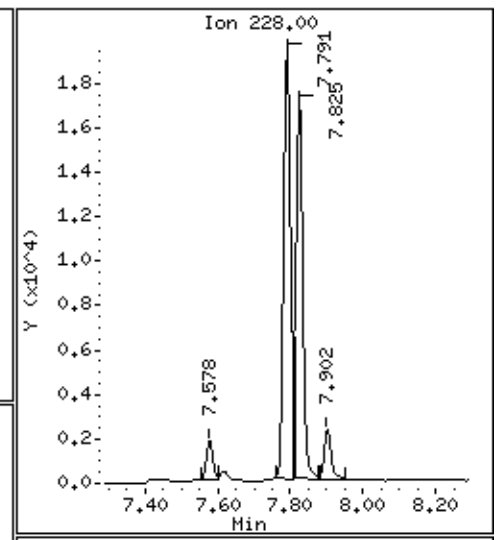
Concentration: 10600 ug/Kg

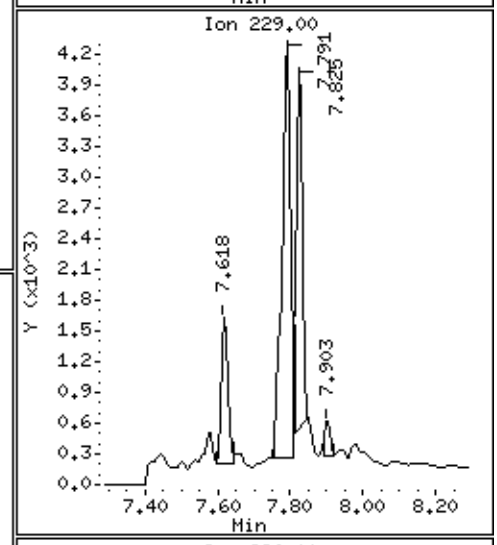


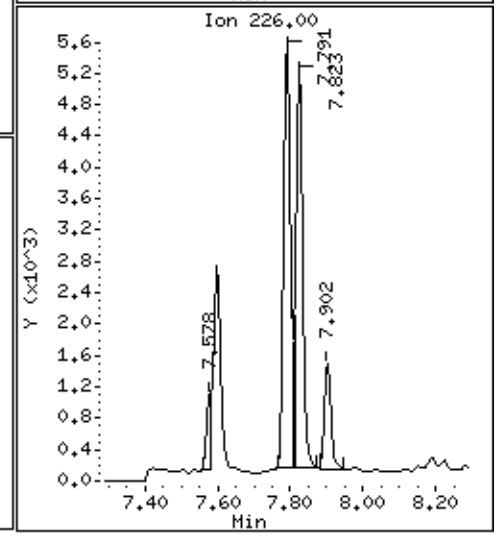












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

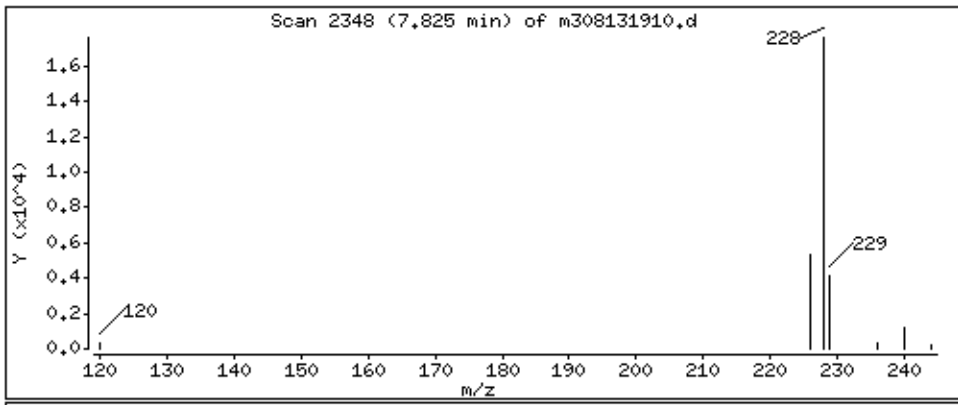
Operator: AJC

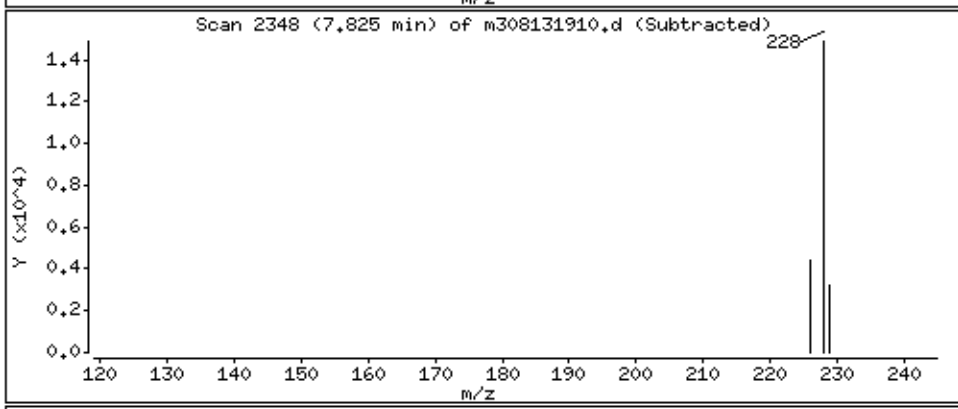
Column phase: RTX-5MS

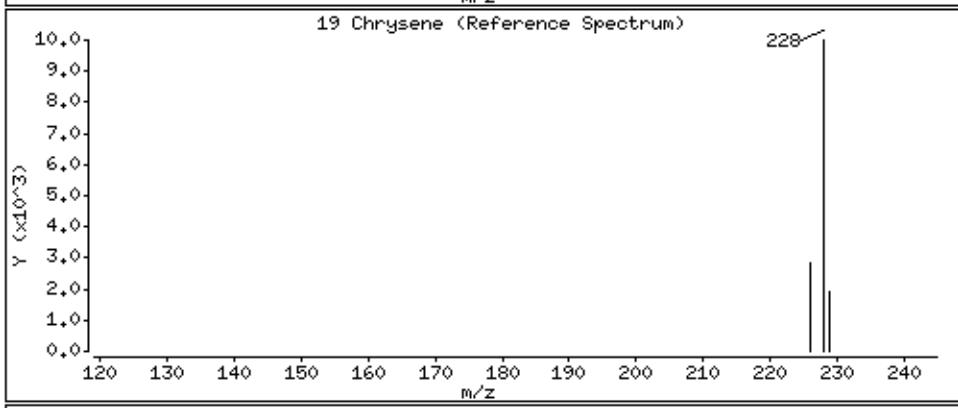
Column diameter: 0.25

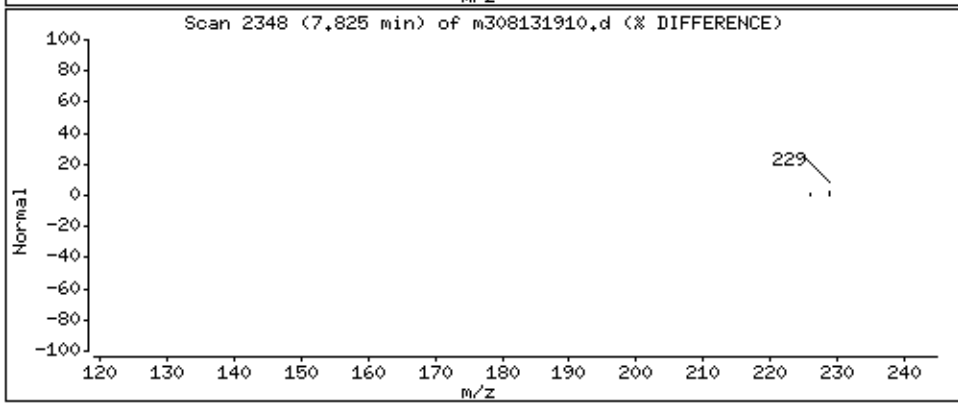
19 Chrysene

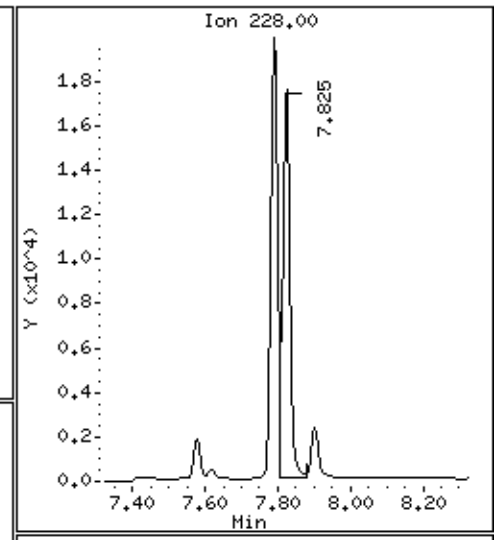
Concentration: 8820 ug/Kg

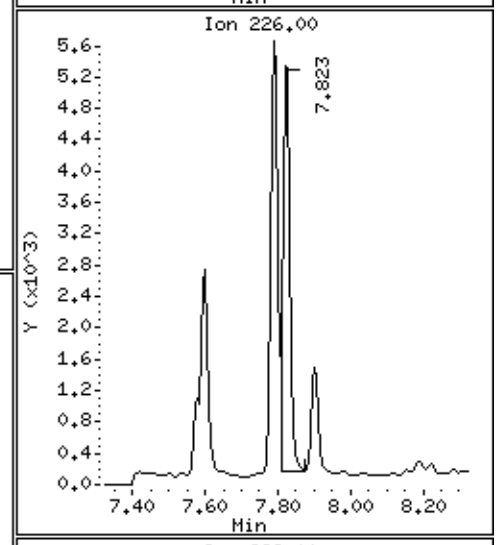


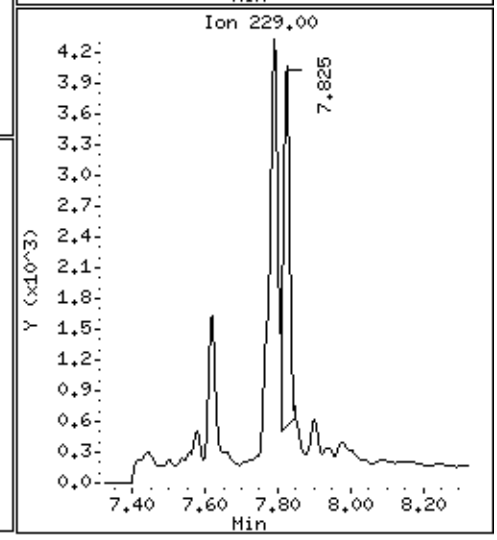












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

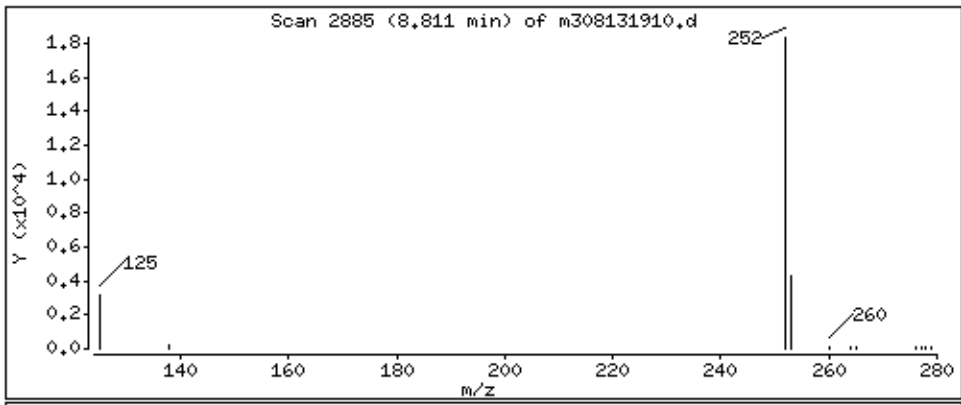
Operator: AJC

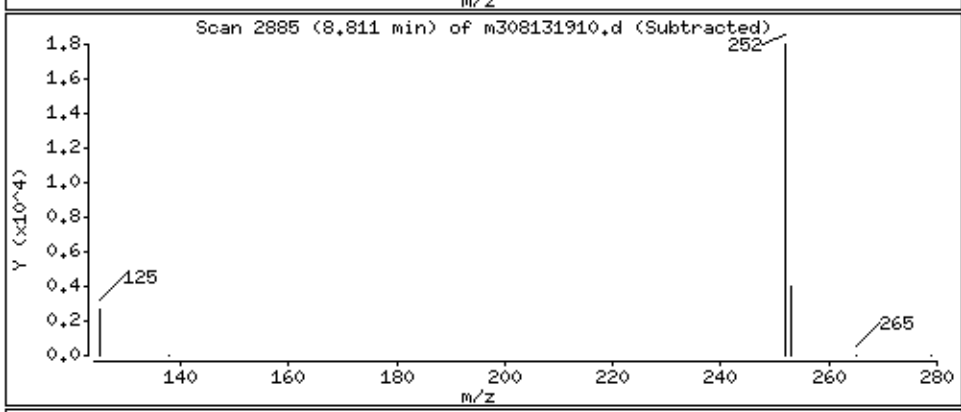
Column phase: RTX-5MS

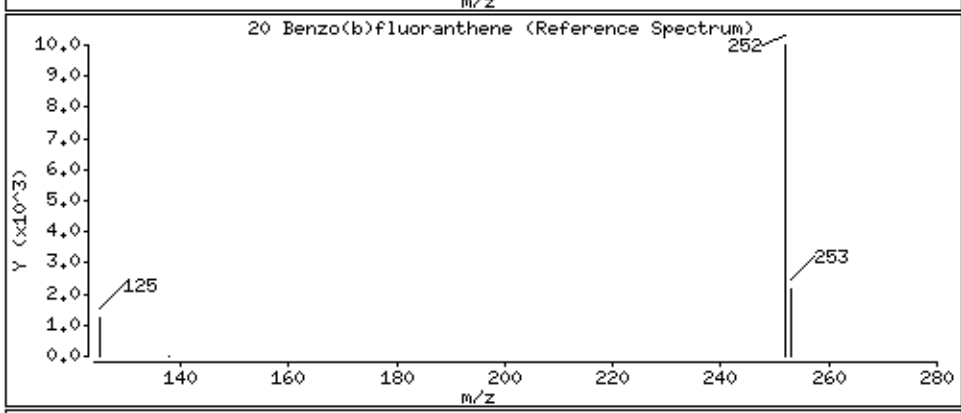
Column diameter: 0.25

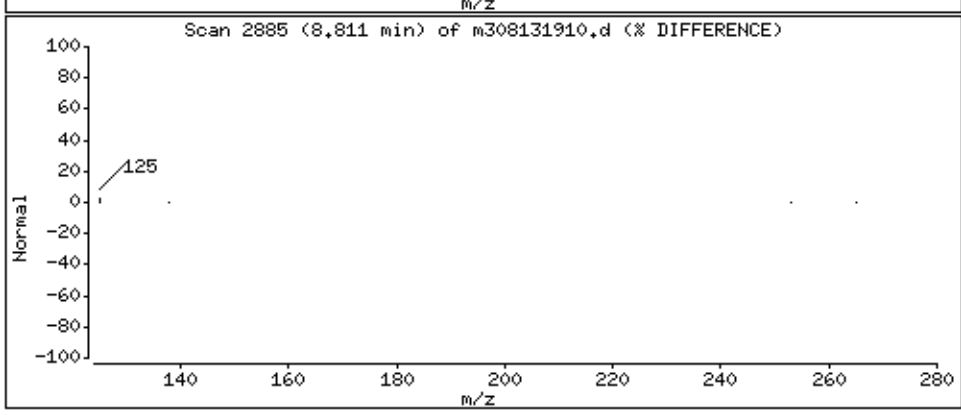
20 Benzo(b)fluoranthene

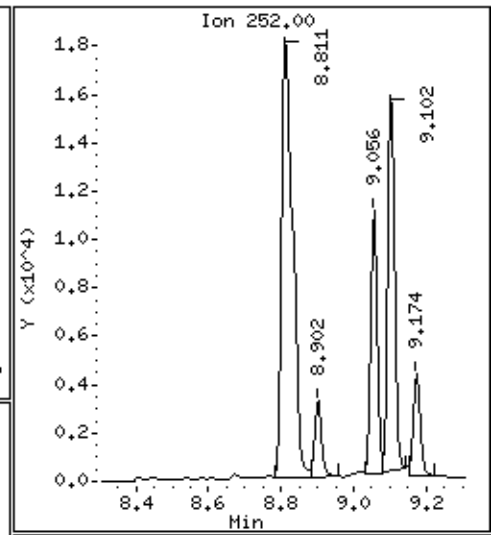
Concentration: 16000 ug/Kg

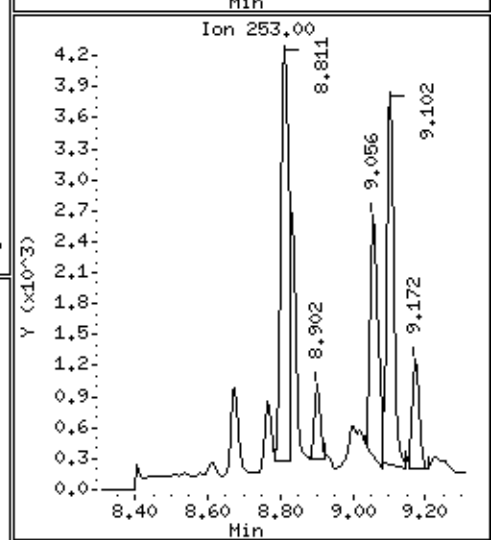


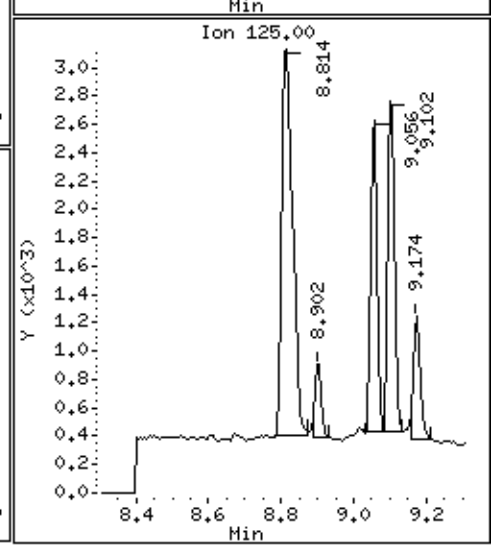












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

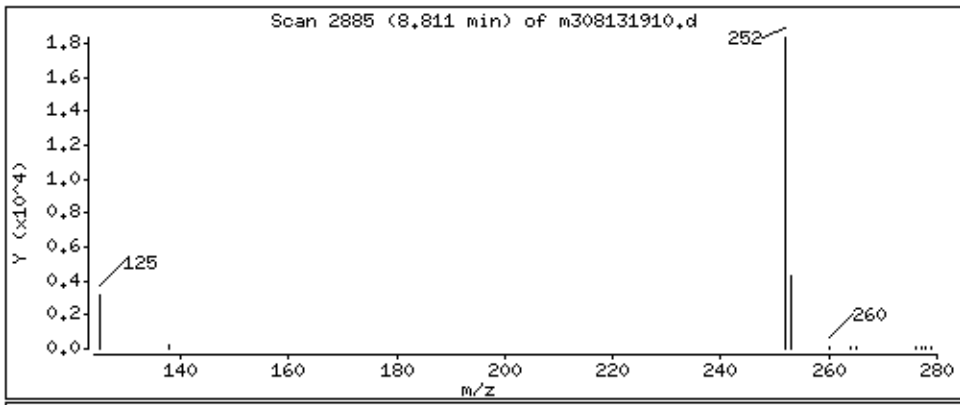
Operator: AJC

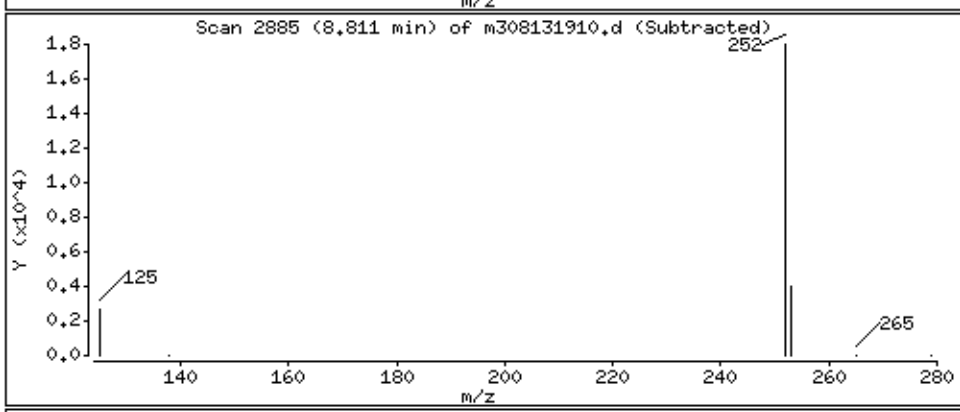
Column phase: RTX-5MS

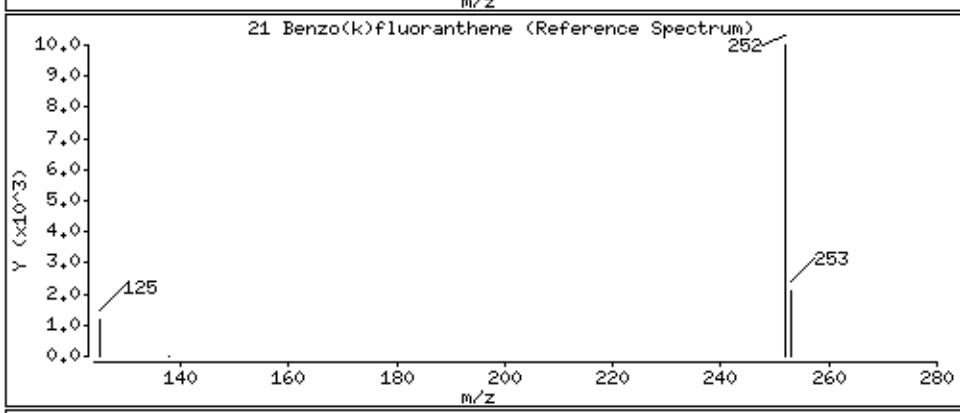
Column diameter: 0.25

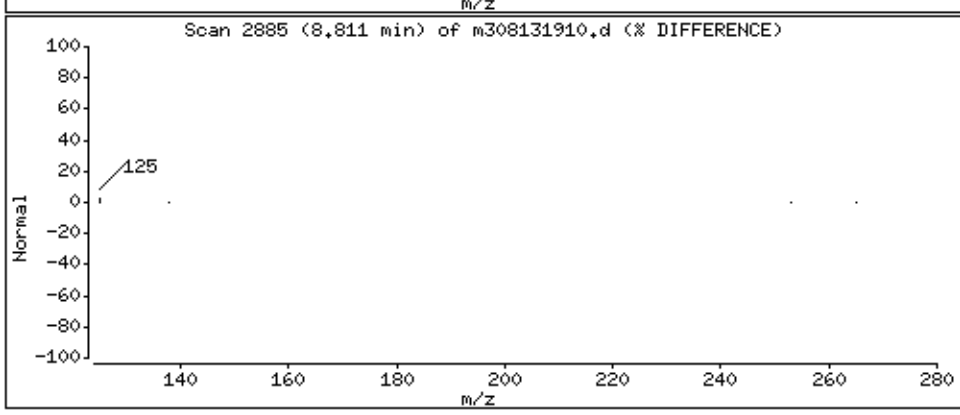
21 Benzo(k)fluoranthene

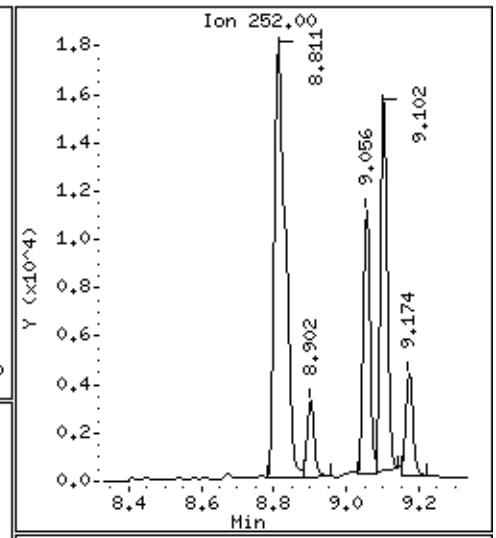
Concentration: 14200 ug/Kg

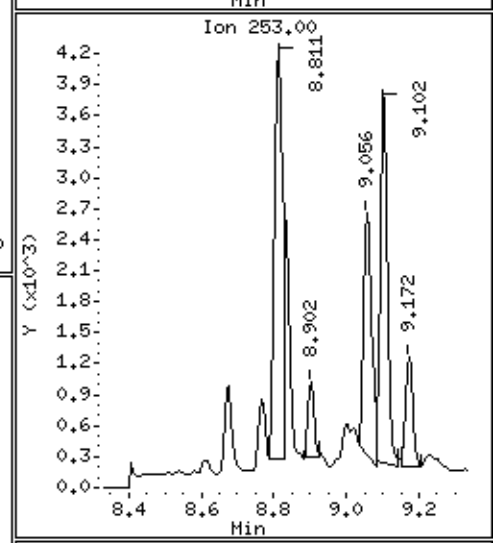


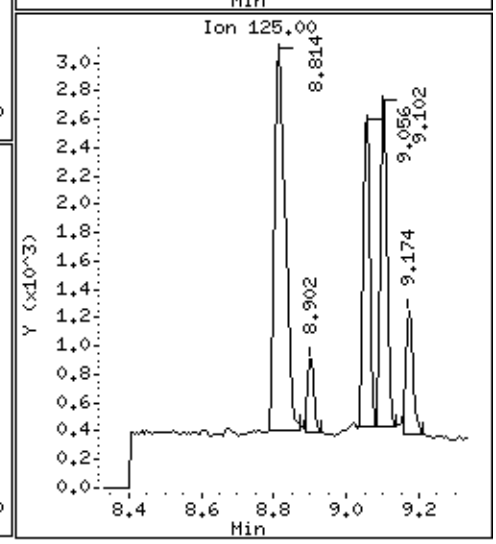












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

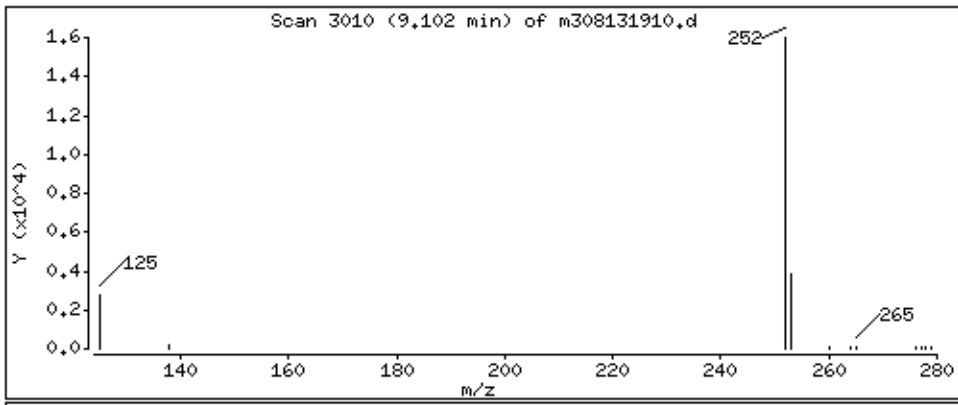
Operator: AJC

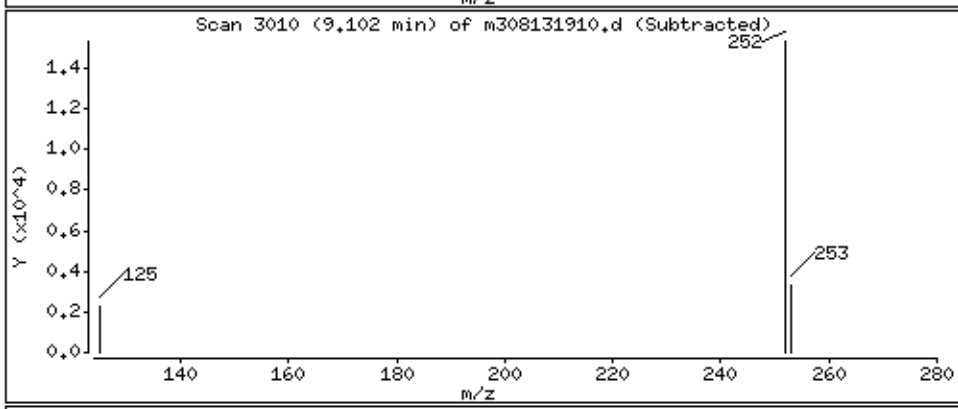
Column phase: RTX-5MS

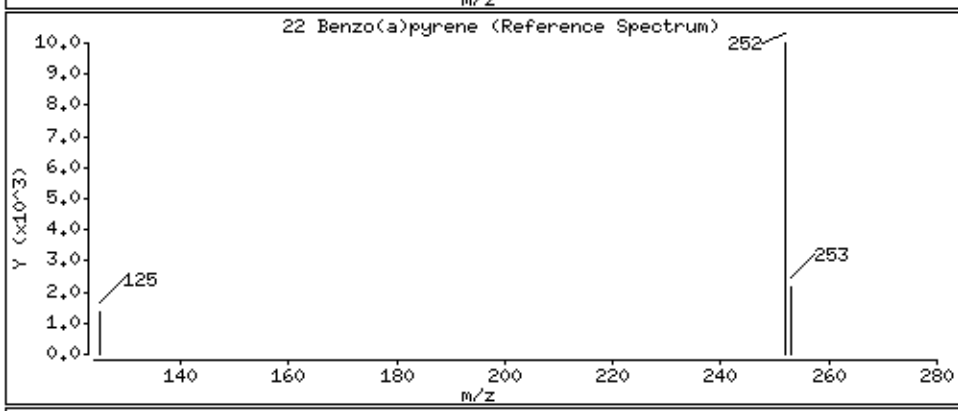
Column diameter: 0.25

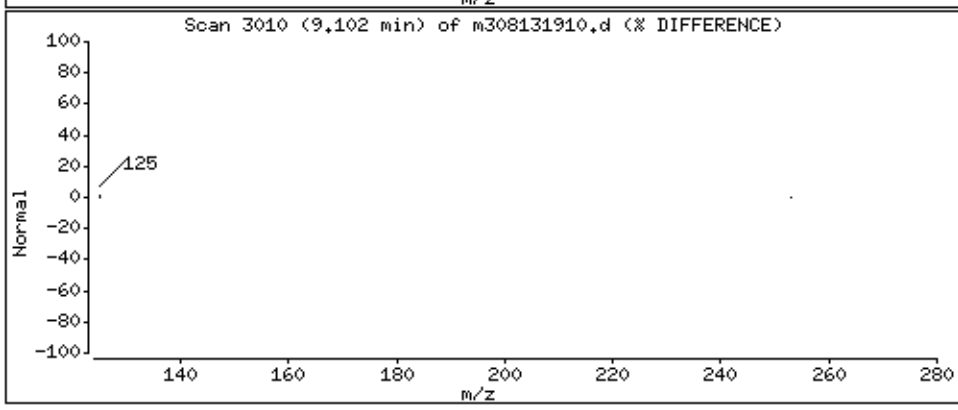
22 Benzo(a)pyrene

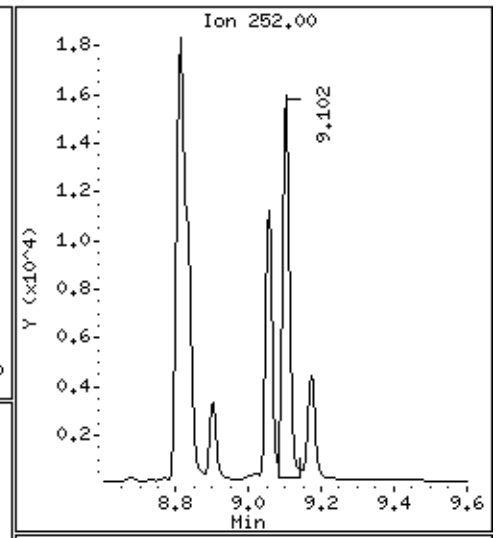
Concentration: 8920 ug/Kg

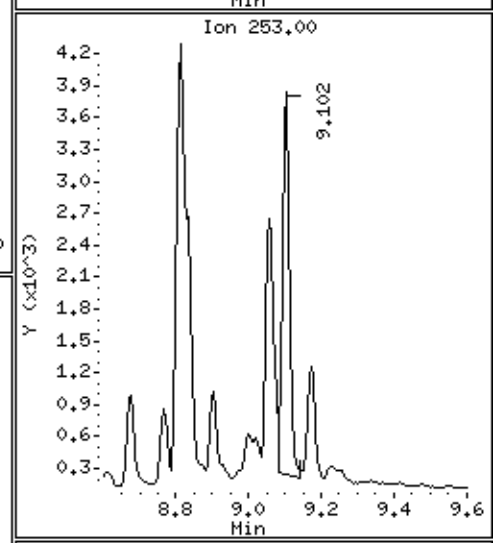


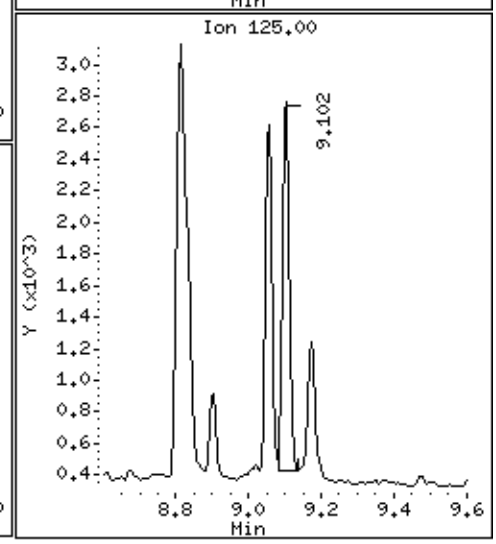












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

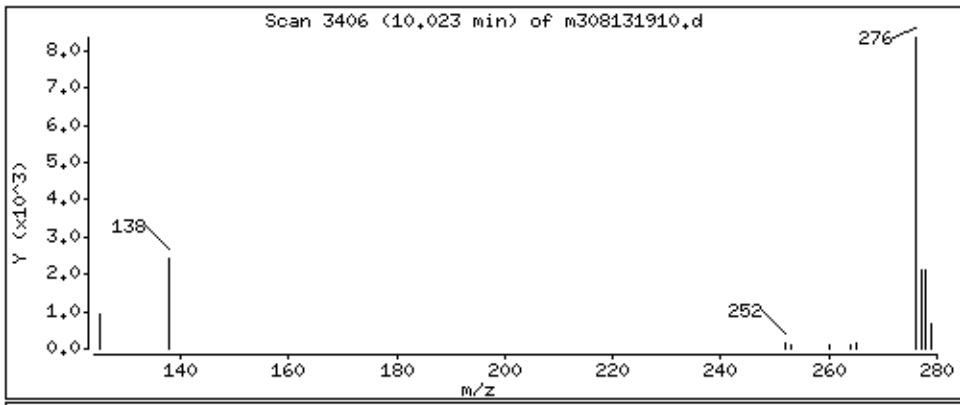
Operator: AJC

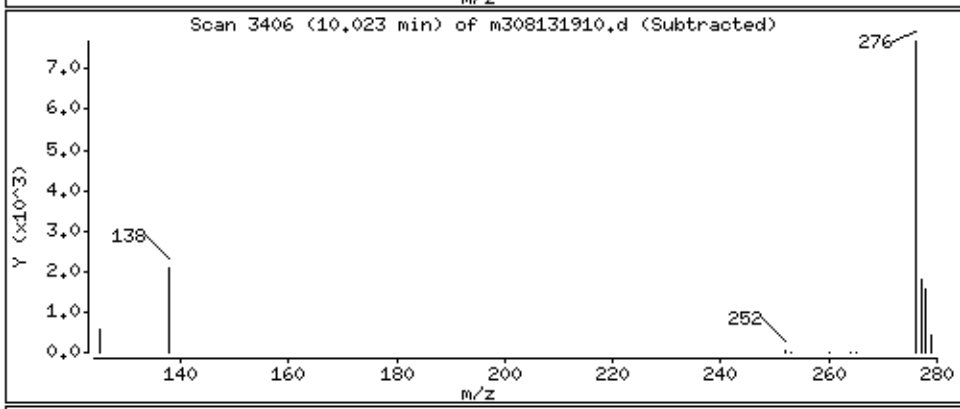
Column phase: RTX-5MS

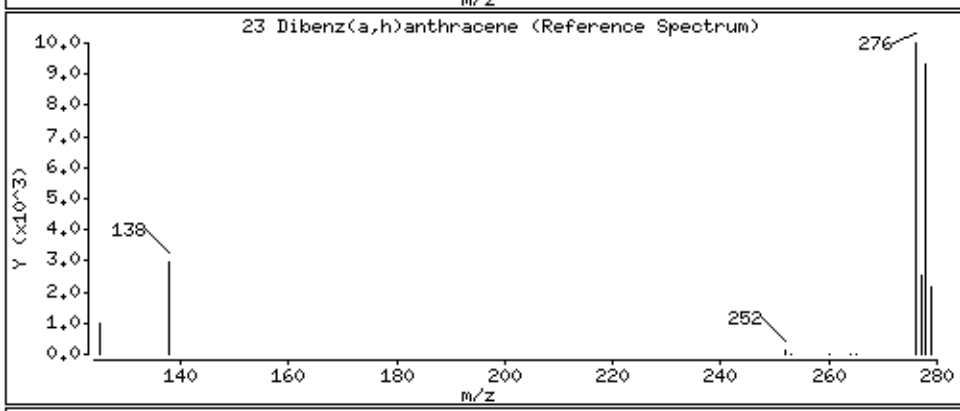
Column diameter: 0.25

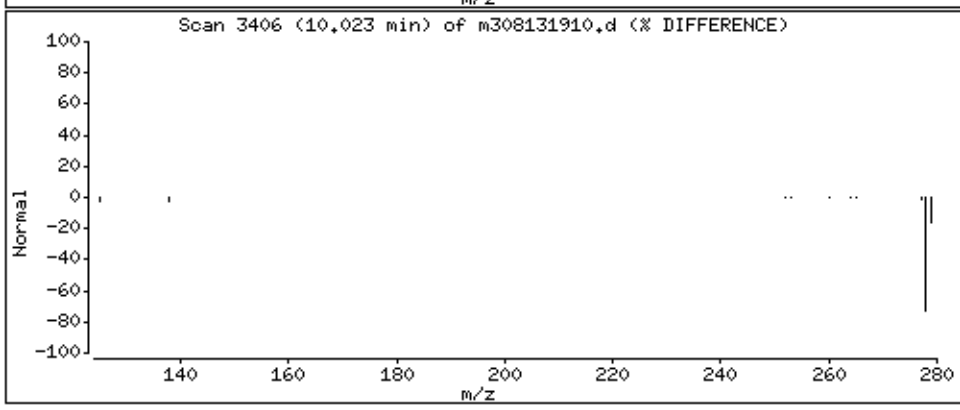
23 Dibenz(a,h)anthracene

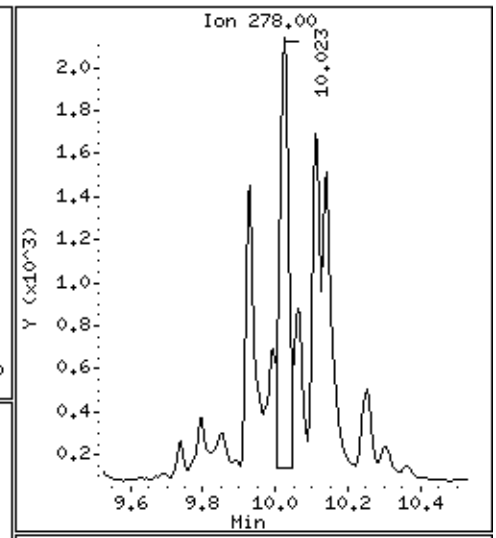
Concentration: 1470 ug/Kg

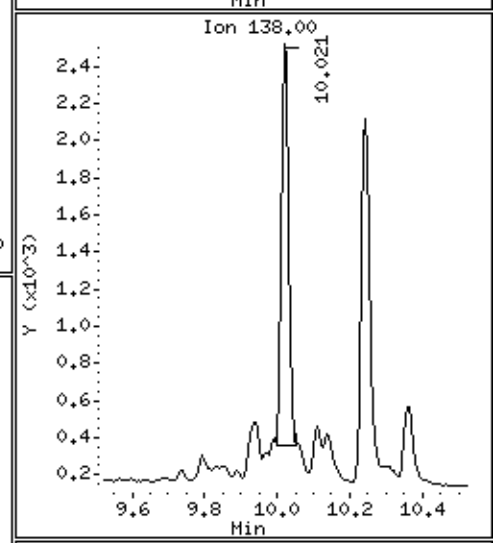


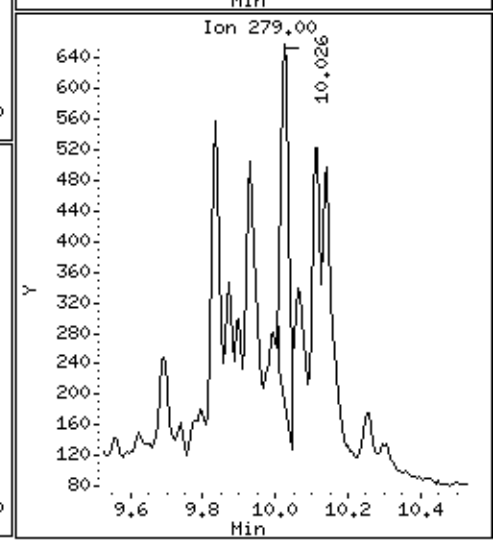












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

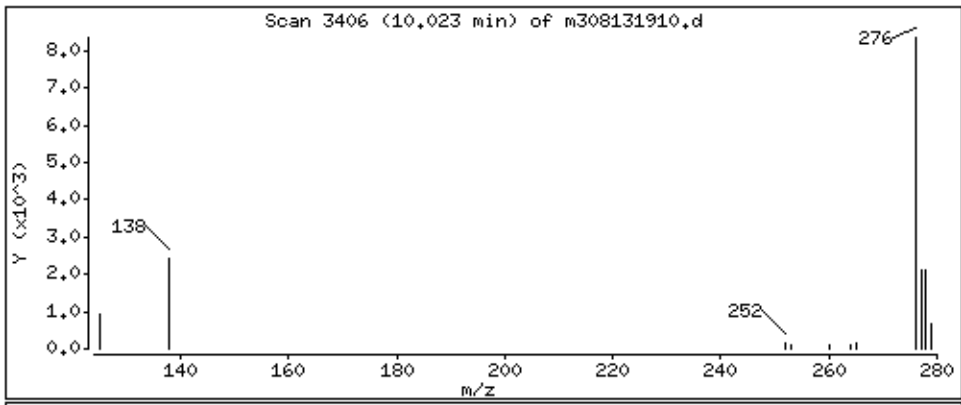
Operator: AJC

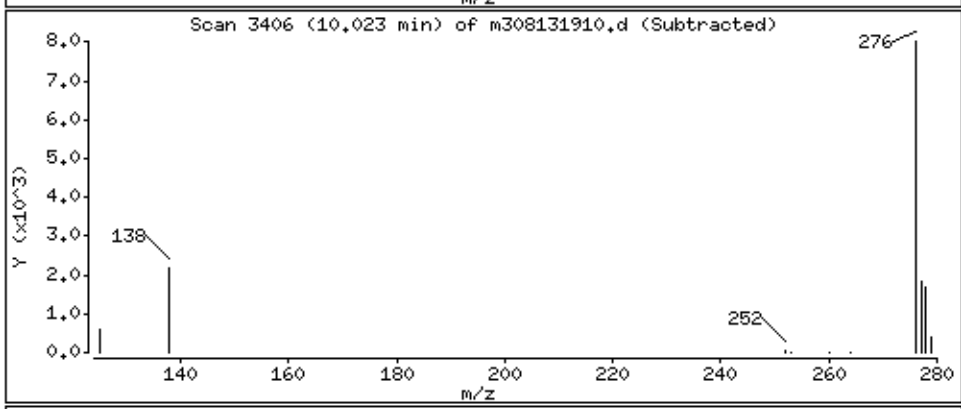
Column phase: RTX-5MS

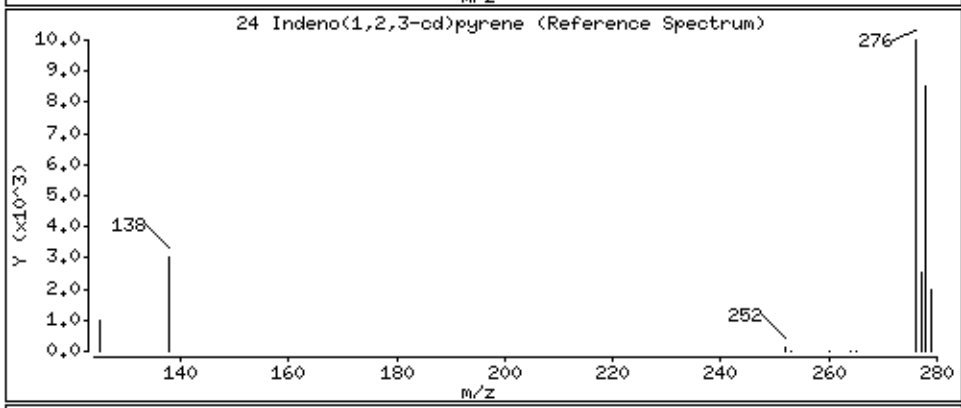
Column diameter: 0.25

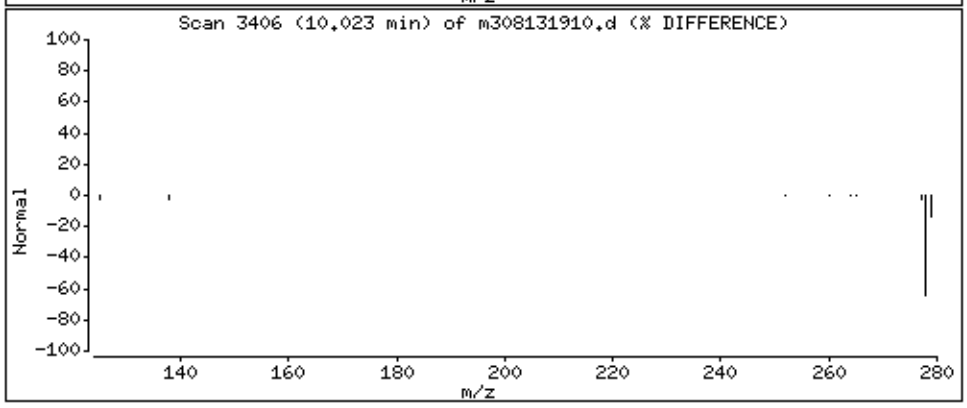
24 Indeno(1,2,3-cd)pyrene

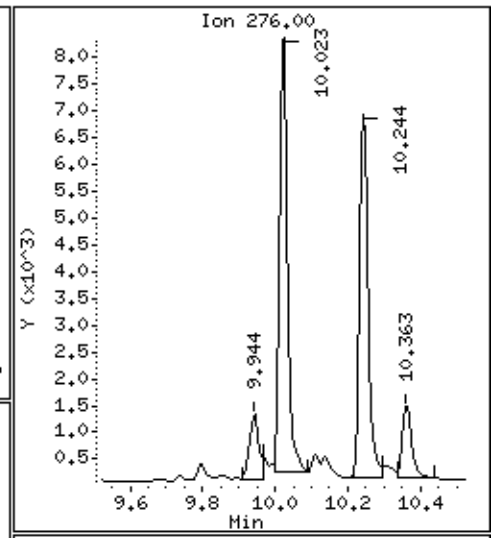
Concentration: 4480 ug/Kg

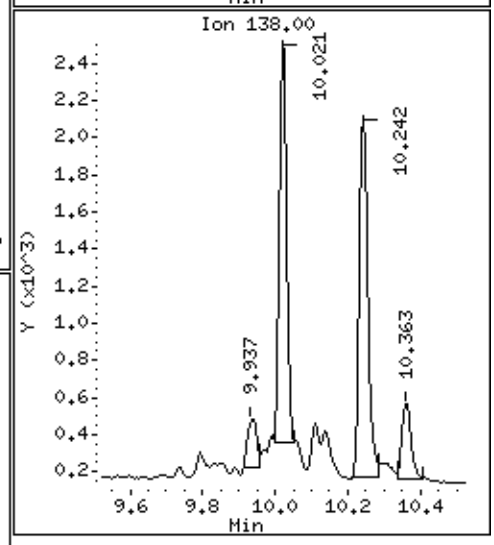












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Date : 13-AUG-2019 16:53

Client ID: AOC 32 DITCH & AOC

Instrument: 30mss3.i

Sample Info: 30318799001X100,

Volume Injected (uL): 1.0

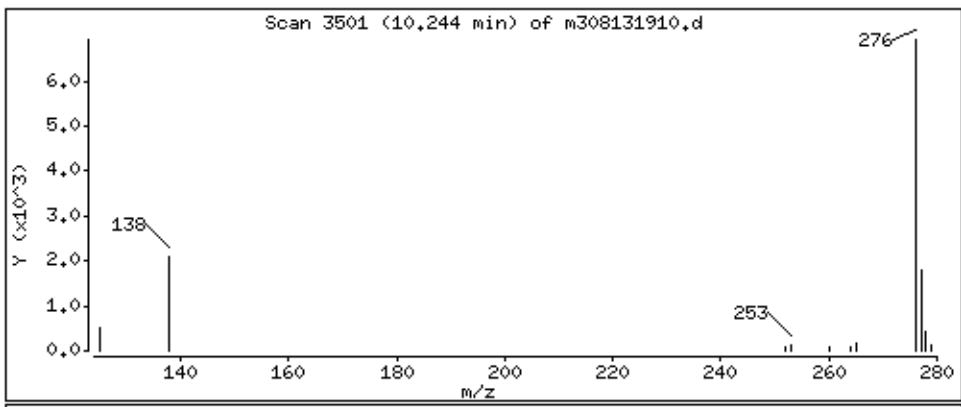
Operator: AJC

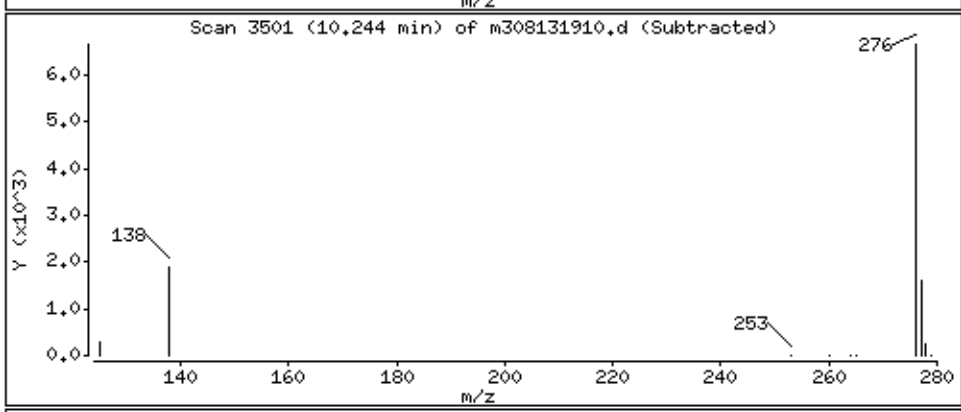
Column phase: RTX-5MS

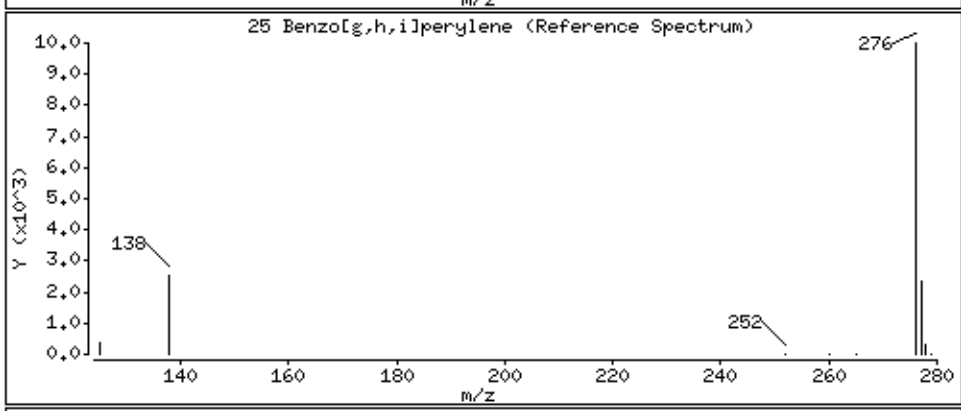
Column diameter: 0.25

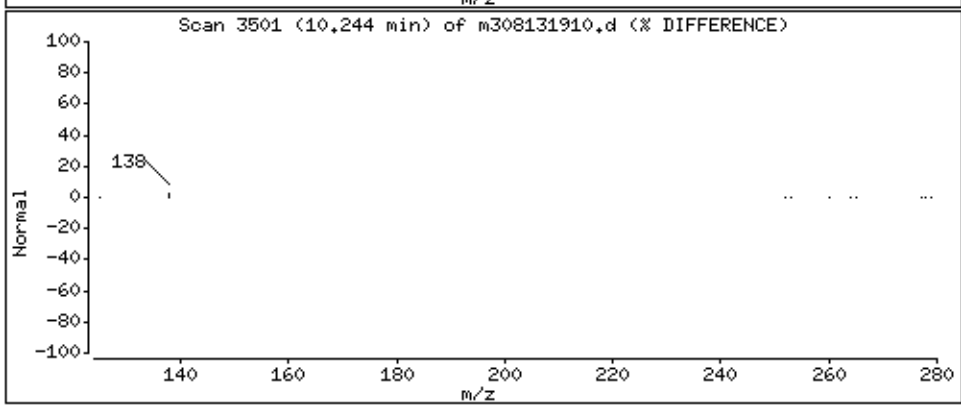
25 Benzo[g,h,i]perylene

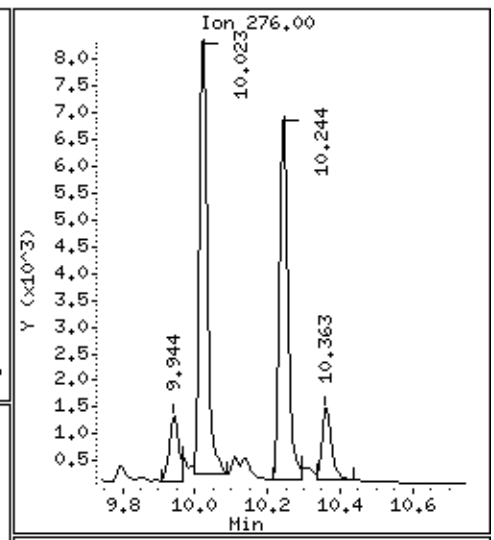
Concentration: 4970 ug/Kg

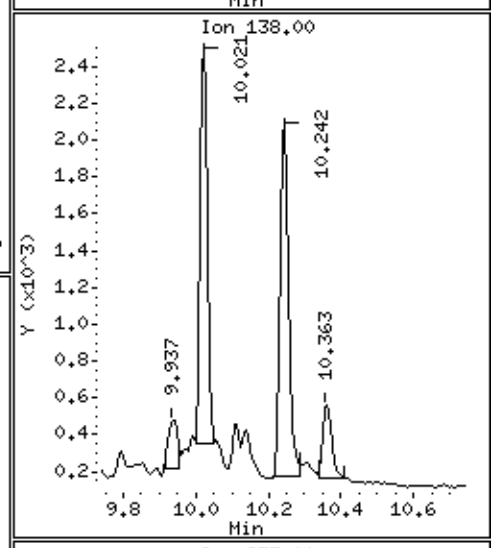


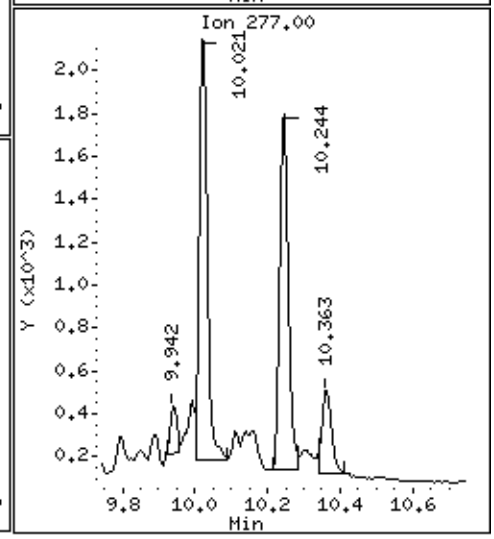












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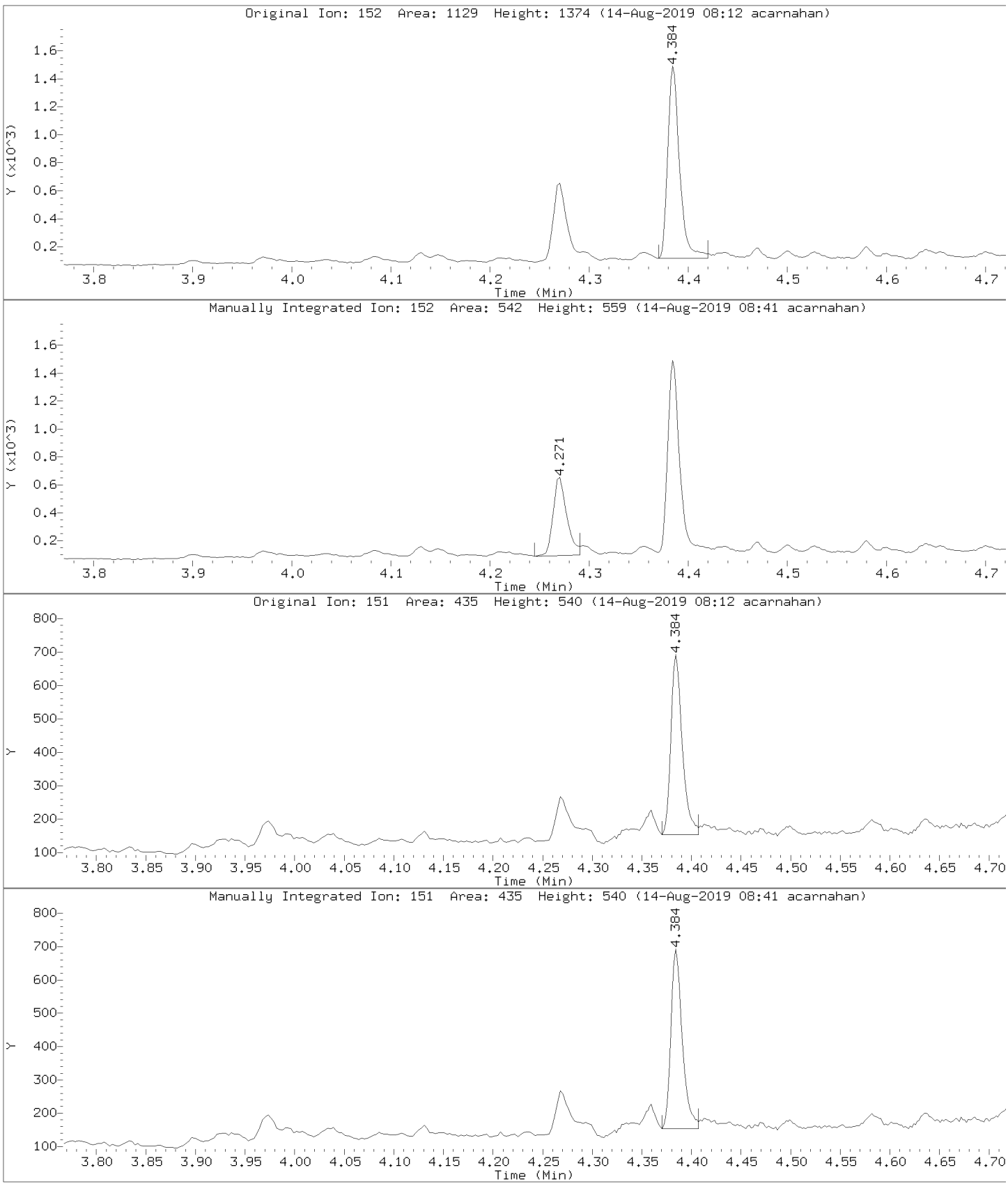
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Acenaphthylene Review Code: WP
CAS Number: 208-96-8



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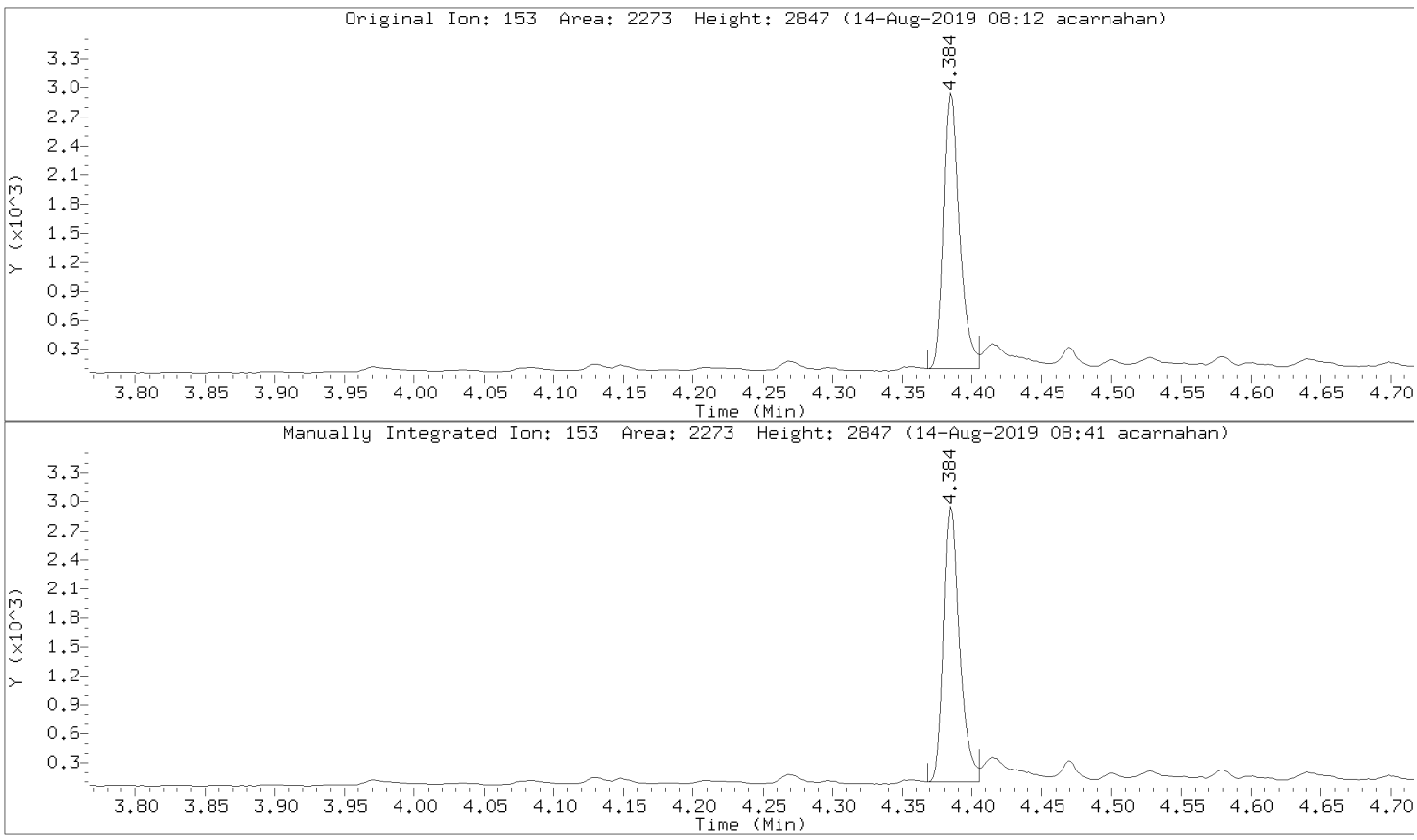
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001



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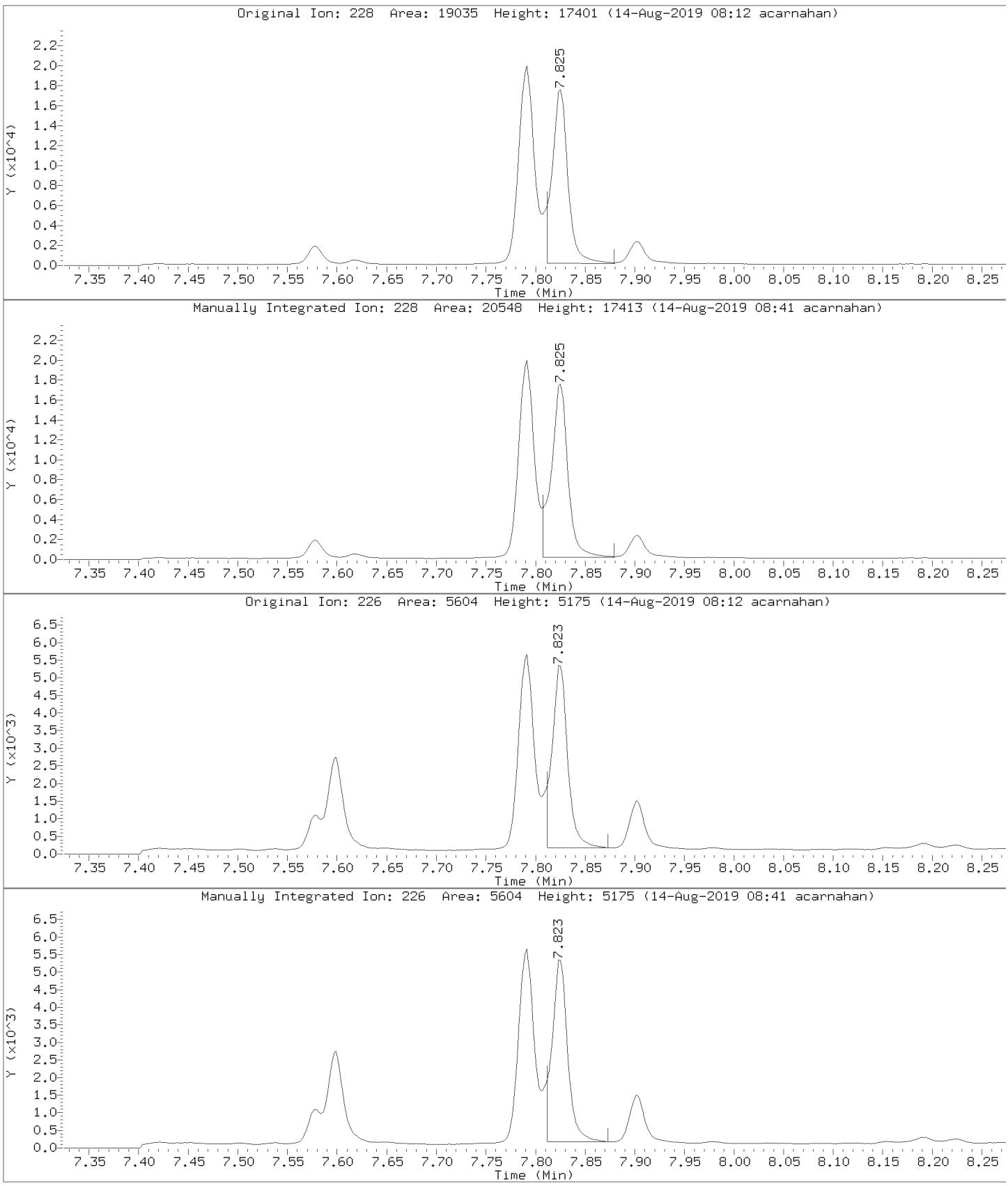
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Chrysene Review Code: LT
CAS Number: 218-01-9



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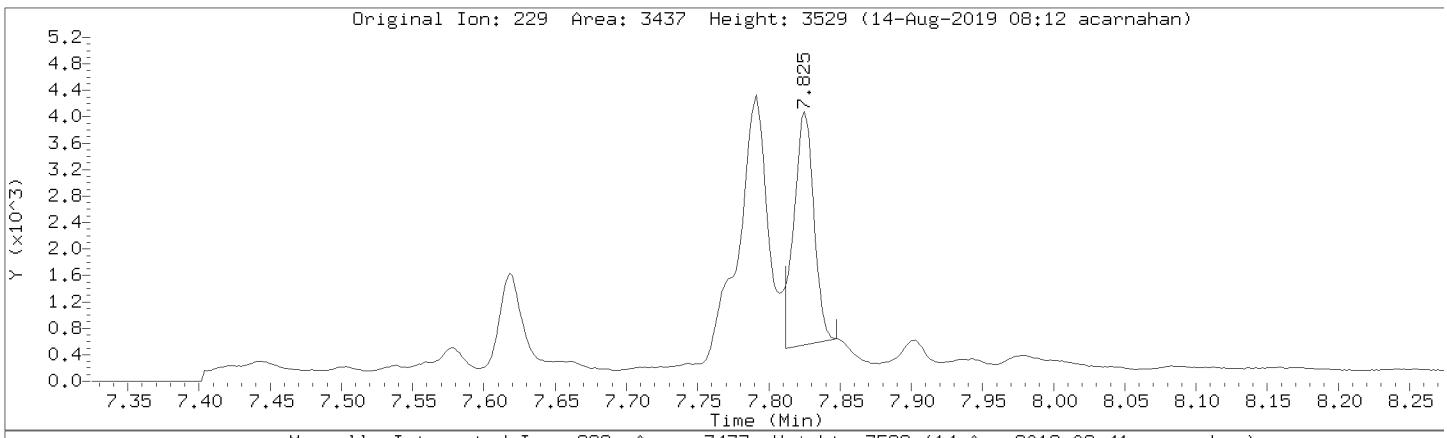
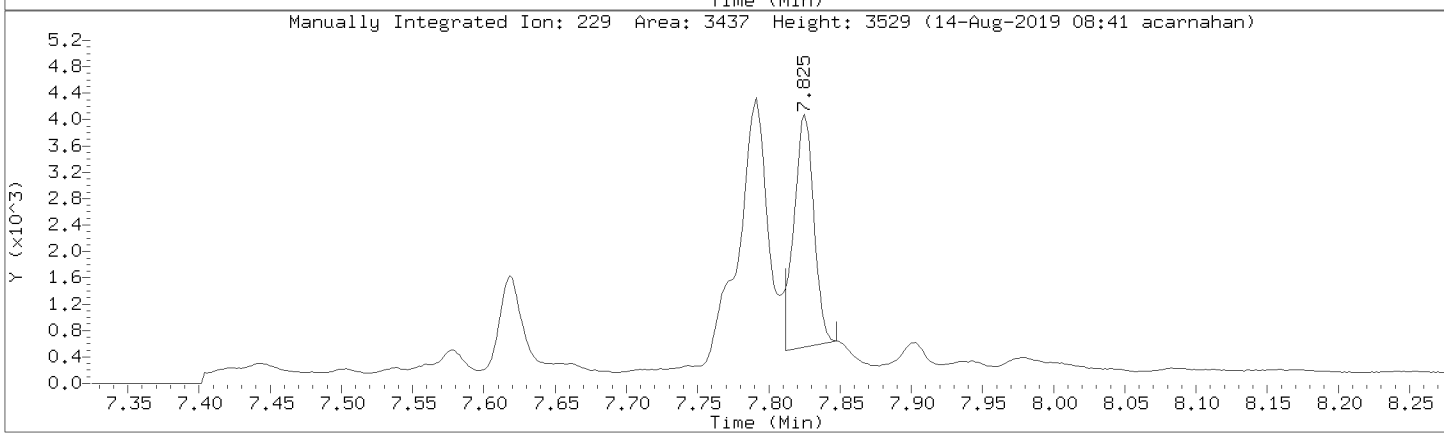
Lab Sample ID: 30318799001





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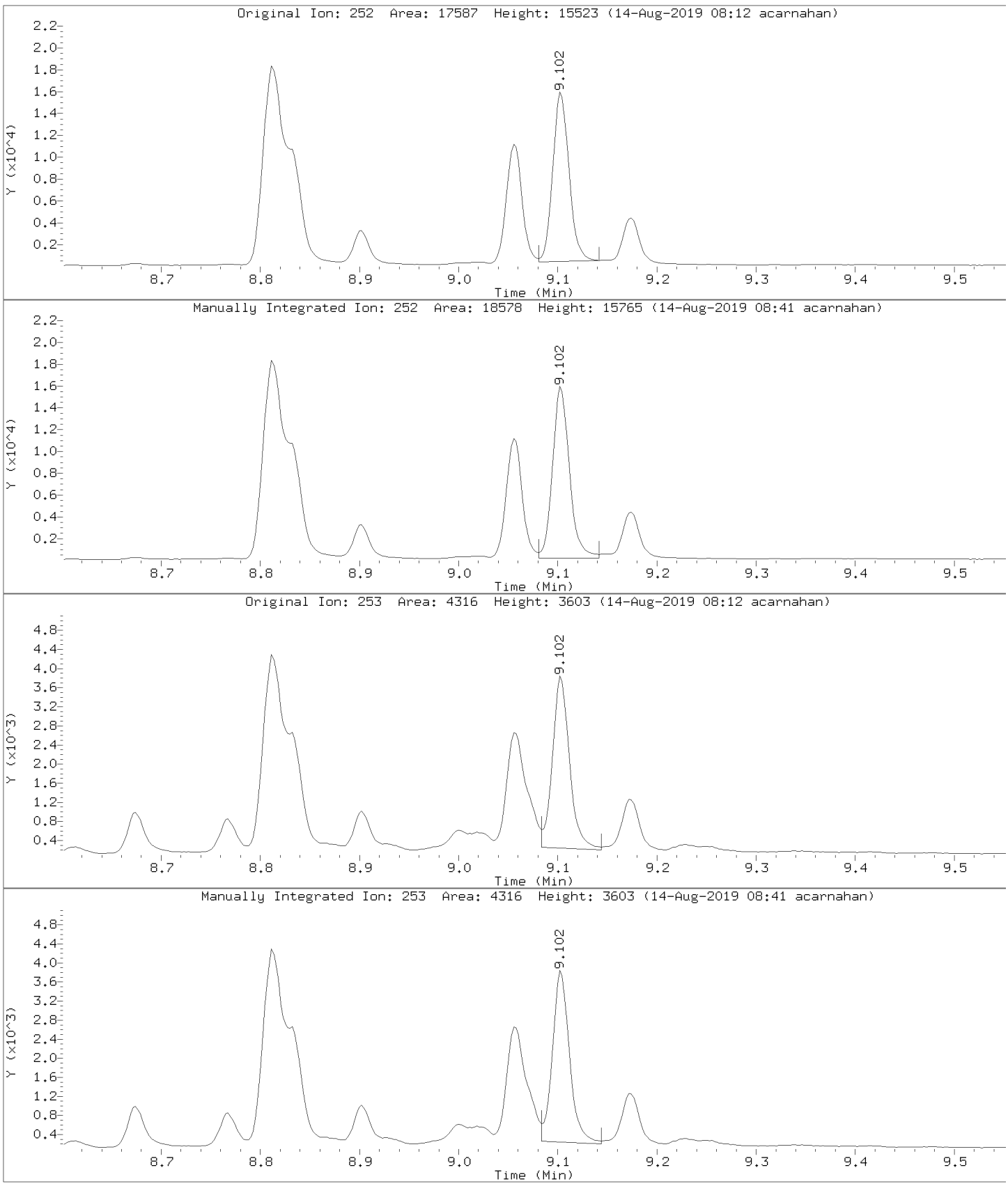
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Benzo(a)pyrene Review Code: BA
CAS Number: 50-32-8



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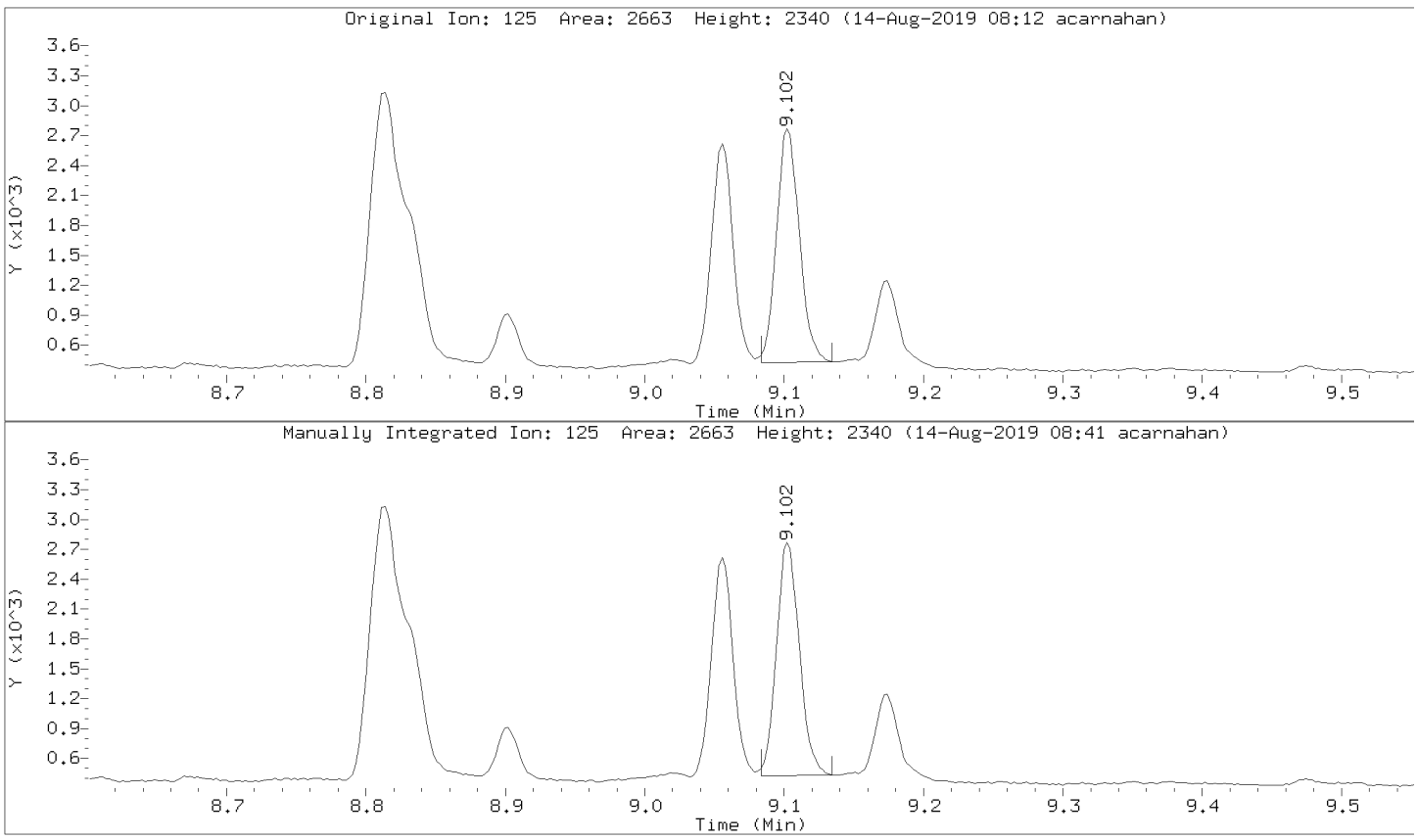
Lab Sample ID: 30318799001



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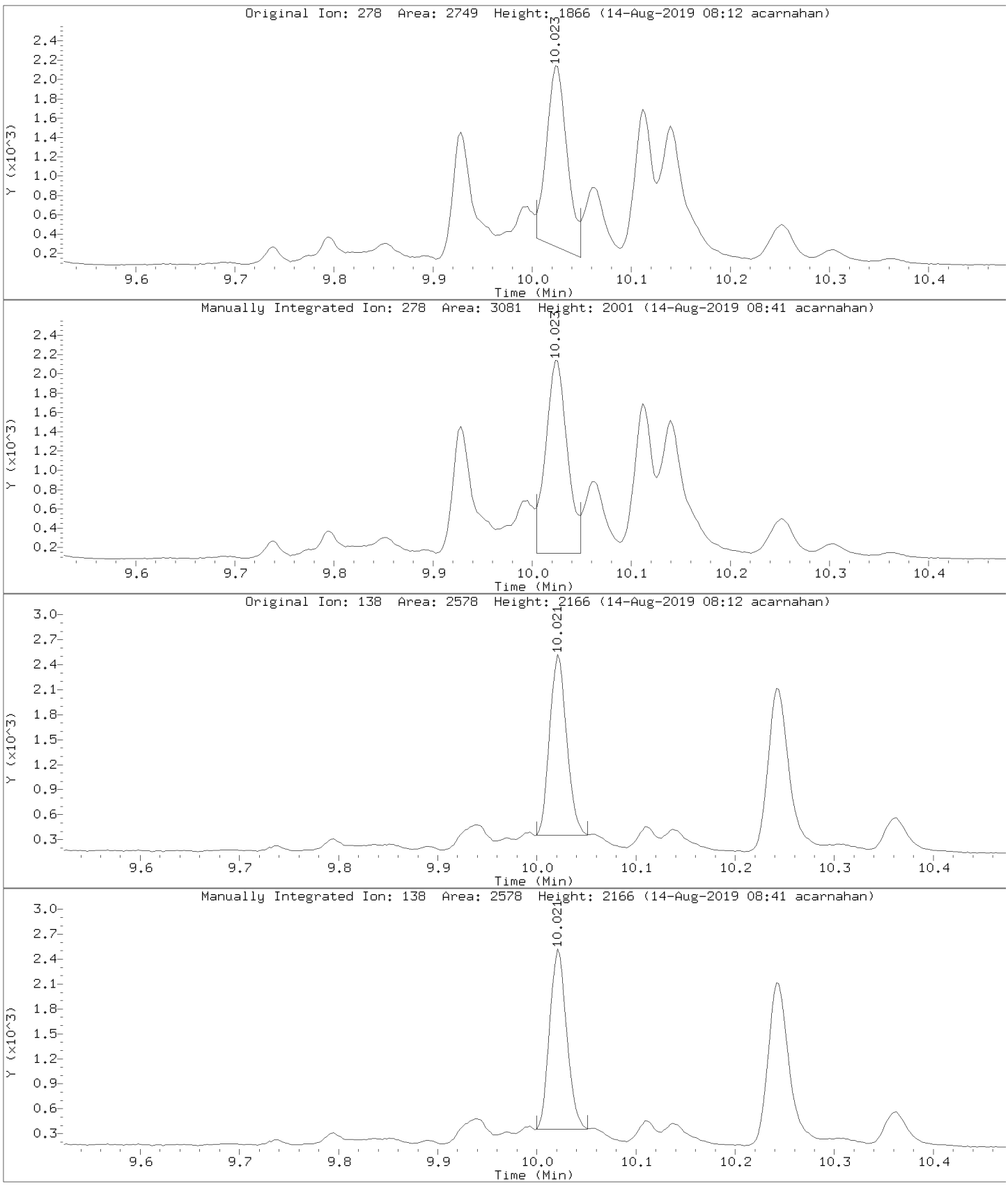
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: Dibenz(a,h)anthracene Review Code: BA
CAS Number: 53-70-3



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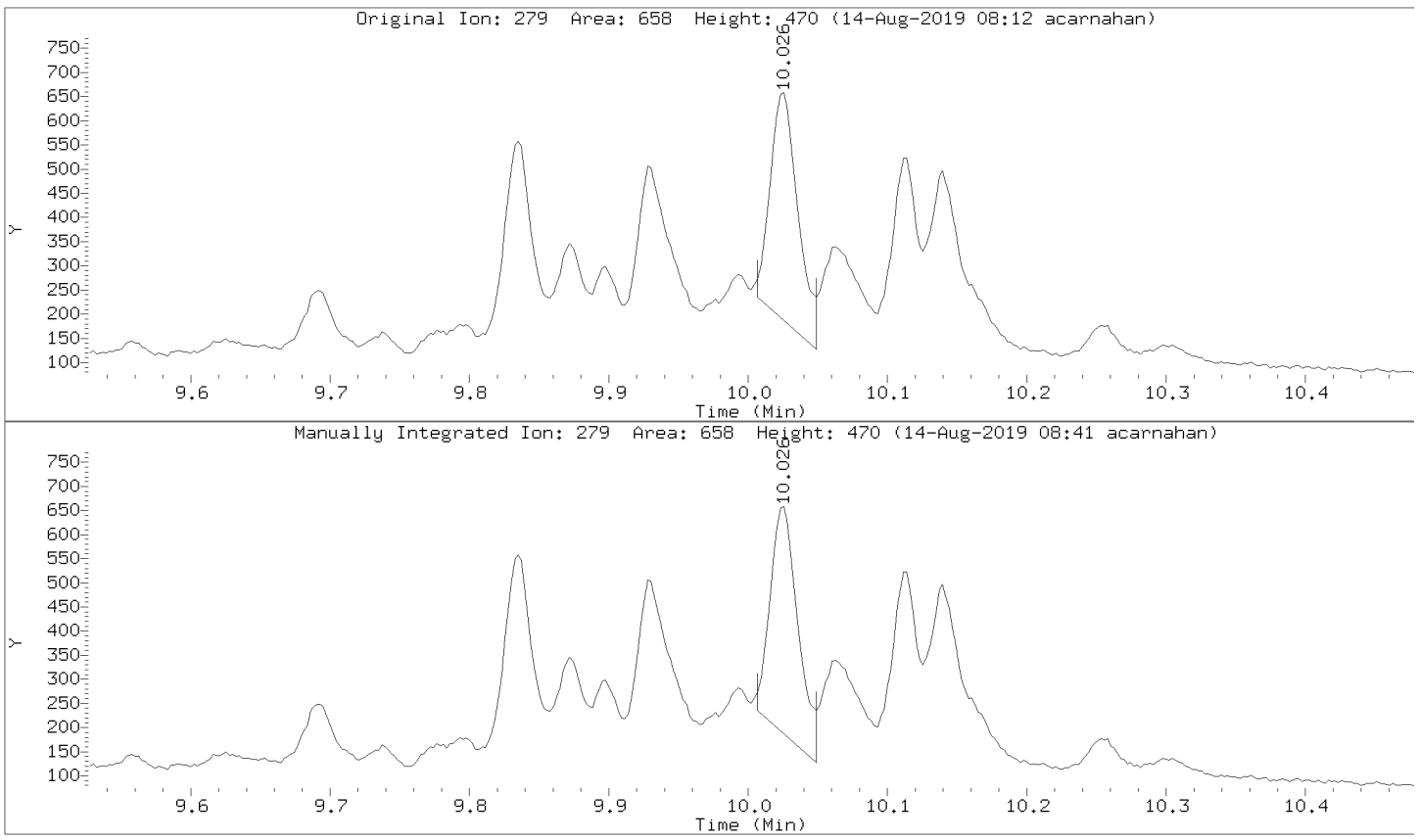
Lab Sample ID: 30318799001



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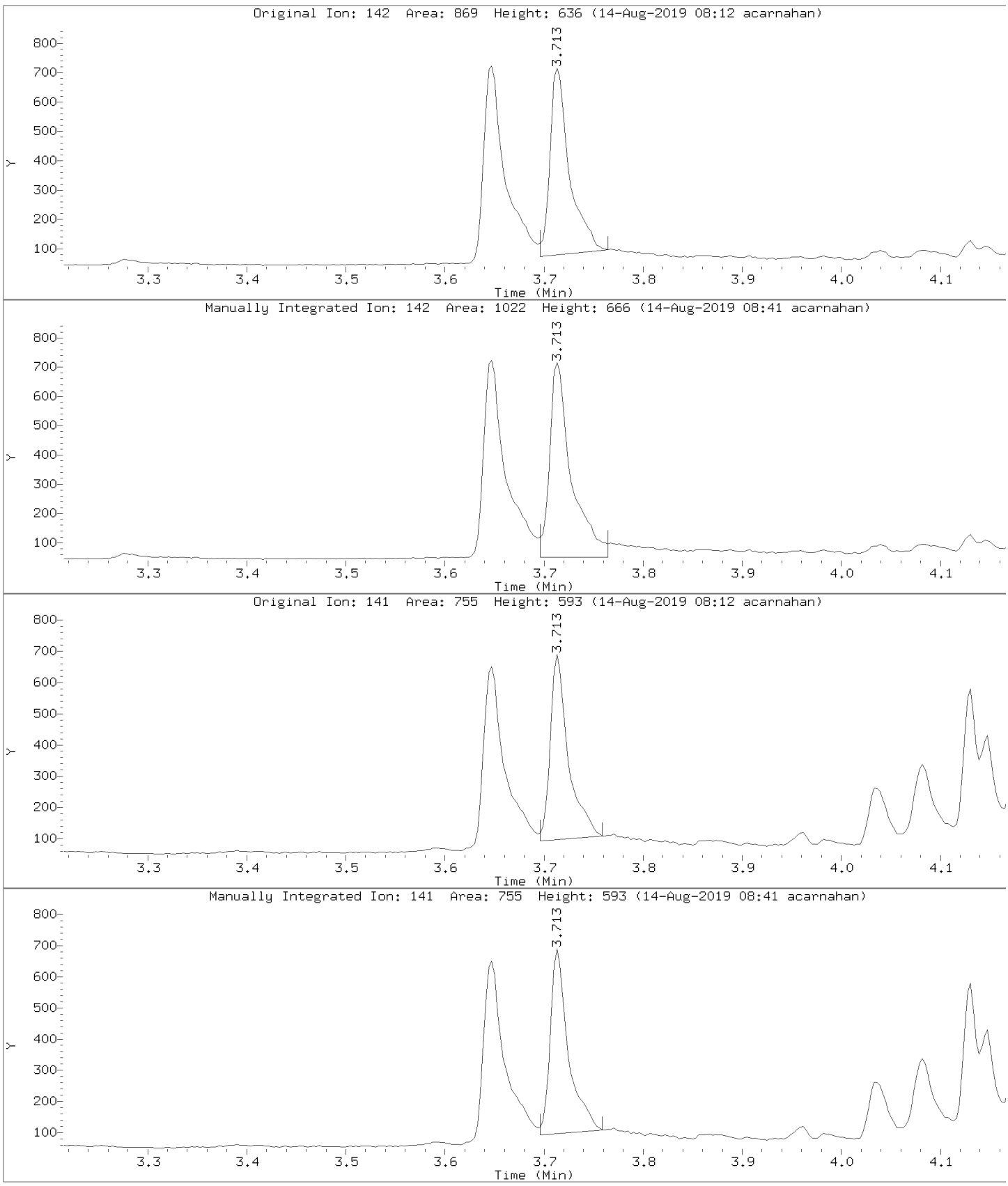
Injection Date: 13-AUG-2019 16:53
Instrument: 30mss3.i
Lab Sample ID: 30318799001

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



MSSV SIM - FORM VI SVOA-1

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS3 GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/07/2019 08/07/2019 Calibration Time(s): 10:53 12:29

LAB FILE ID

CAL1 = MSS3080719.B\M3080719Y1.D CAL2 = MSS3080719.B\M3080719Y2.D CAL3 = MSS3080719.B\M3080719Y3.D

CAL4 = MSS3080719.B\M3080719Y4.D CAL5 = MSS3080719.B\M3080719Y5.D CAL6 = MSS3080719.B\M3080719Y6.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acenaphthylene	Averaged	1.42235	1.40317	1.43178	1.64274	1.78320	1.77628
Anthracene	Averaged	0.97739	0.94012	0.97307	1.05817	1.13036	1.08635
Benzo(a)anthracene	Averaged	0.97815	0.90486	0.88606	0.96748	1.05774	1.02155
Benzo(a)pyrene	Quadratic	0.64042	0.62307	0.69915	0.83917	0.97357	0.99010
Benzo(b)fluoranthene	Quadratic	0.67533	0.65855	0.69573	0.85885	1.02672	1.04691
Benzo(g,h,i)perylene	Averaged	0.82999	0.83188	0.84912	0.91848	1.00495	0.96846
Benzo(k)fluoranthene	Averaged	1.09802	1.04374	1.09398	1.14171	1.18418	1.14803
Chrysene	Averaged	1.18169	1.11258	1.08331	1.08229	1.09715	1.02886
Dibenz(a,h)anthracene	Averaged	0.81986	0.86010	0.86843	0.95476	1.07034	1.10838
Fluoranthene	Averaged	0.93575	0.94289	0.96053	1.08591	1.16906	1.14408
Fluorene	Averaged	1.02884	1.05494	1.06340	1.16904	1.23365	1.23304
Indeno(1,2,3-cd)pyrene	Averaged	0.96889	0.98512	1.01493	1.12406	1.24281	1.24938
Naphthalene	Averaged	1.02474	1.00072	0.95810	0.96002	1.00344	0.92436
Phenanthrene	Averaged	1.07232	1.02429	0.99204	1.04920	1.09714	1.06428
Pyrene	Averaged	0.96839	0.96887	0.99794	1.13219	1.20305	1.16238
2-Fluorobiphenyl (S)	Averaged	1.07148	1.11440	1.18416	1.26923	1.33448	1.27568
Terphenyl-d14 (S)	Averaged	0.76278	0.74458	0.78622	0.87782	0.94126	0.93853

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSSV SIM - FORM VI SVOA-2

MSSV SIM INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MSS3 GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 08/07/2019 08/07/2019 Calibration Time(s): 10:53 12:29

LAB FILE ID

CAL1 = MSS3080719.B\M3080719Y1.D CAL2 = MSS3080719.B\M3080719Y2.D CAL3 = MSS3080719.B\M3080719Y3.D

CAL4 = MSS3080719.B\M3080719Y4.D CAL5 = MSS3080719.B\M3080719Y5.D CAL6 = MSS3080719.B\M3080719Y6.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acenaphthylene	Averaged	11.40921			1.57659	
Anthracene	Averaged	7.29457			1.02758	
Benzo(a)anthracene	Averaged	6.79900			0.96931	
Benzo(a)pyrene	Quadratic		0.99982	0.00000000	0.93646	0.01078
Benzo(b)fluoranthene	Quadratic		0.99975	0.00000000	0.98085	0.01328
Benzo(g,h,i)perylene	Averaged	8.33569			0.90048	
Benzo(k)fluoranthene	Averaged	4.44124			1.11828	
Chrysene	Averaged	4.54784			1.09765	
Dibenz(a,h)anthracene	Averaged	12.60179		0.00000000	0.94698	
Fluoranthene	Averaged	10.19808			1.03970	
Fluorene	Averaged	8.22089			1.13049	
Indeno(1,2,3-cd)pyrene	Averaged	11.58809			1.09753	
Naphthalene	Averaged	3.80788			0.97856	
Phenanthrene	Averaged	3.55001			1.04988	
Pyrene	Averaged	9.85525			1.07214	
2-Fluorobiphenyl (S)	Averaged	8.46417		0.00000000	1.20824	
Terphenyl-d14 (S)	Averaged	10.53520			0.84186	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y1.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 07-AUG-2019 10:53 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal1, 94318:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 10:53 Cal File: m3080719y1.d
Als bottle: 94 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	125456	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	3214	0.10000	0.104	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	1545	0.10000	0.0946	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	2101	0.10000	0.103(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.106	4.103	(0.897)	1759	0.10000	0.0924	
	11 Acenaphthylene	152	4.482	4.481	(0.979)	2335	0.10000	0.0964	
*	2 Acenaphthene-d10 (IS)	164	4.578	4.576	(1.000)	65666	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	1921	0.10000	0.103	
	13 Fluorene	166	4.967	4.964	(1.085)	1689	0.10000	0.0953	
*	3 Phenanthrene-d10 (IS)	188	5.680	5.678	(1.000)	106610	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	2858	0.10000	0.104	
	15 Anthracene	178	5.743	5.738	(1.011)	2605	0.10000	0.101(M)	BA
	16 Fluoranthene	202	6.726	6.724	(1.184)	2494	0.10000	0.0954	
	17 Pyrene	202	6.940	6.938	(1.222)	2581	0.10000	0.0952	
$	7 Terphenyl-d14 (S)	244	7.073	7.068	(1.245)	2033	0.10000	0.0962(QM)	NI
	18 Benzo(a)anthracene	228	8.104	8.101	(0.999)	2547	0.10000	0.105	
*	4 Chrysene-d12 (IS)	240	8.112	8.111	(1.000)	104156	4.00000		
	19 Chrysene	228	8.138	8.136	(1.003)	3077	0.10000	0.107(M)	BA

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.136	9.132	(0.964)	1799	0.10000	0.0935	
21 Benzo(k)fluoranthene	252	9.159	9.157	(0.966)	2925	0.10000	0.103(QM)	BA
22 Benzo(a)pyrene	252	9.434	9.429	(0.995)	1706	0.10000	0.0909	
* 5 Perylene-d12 (IS)	264	9.480	9.478	(1.000)	106555	4.00000		
23 Dibenz(a,h)anthracene	278	10.409	10.404	(1.098)	2184	0.10000	0.0936	
24 Indeno(1,2,3-cd)pyrene	276	10.404	10.402	(1.097)	2581	0.10000	0.0947	
25 Benzo[g,h,i]perylene	276	10.657	10.655	(1.124)	2211	0.10000	0.0968	

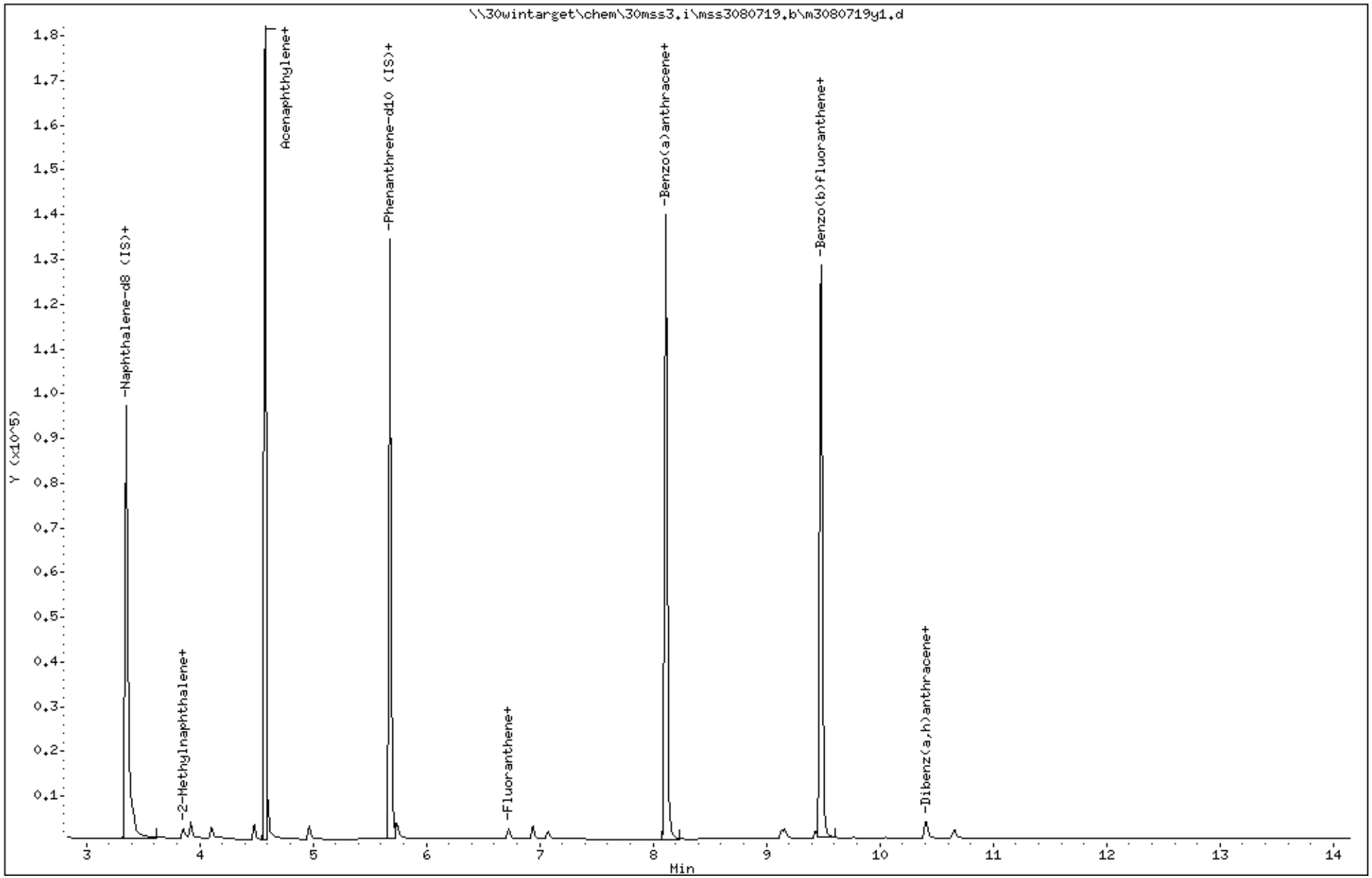
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y1.d
Date : 07-AUG-2019 10:53
Client ID: CAL1
Instrument: 30mss3.i
Sample Info: CAL1, 94318:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
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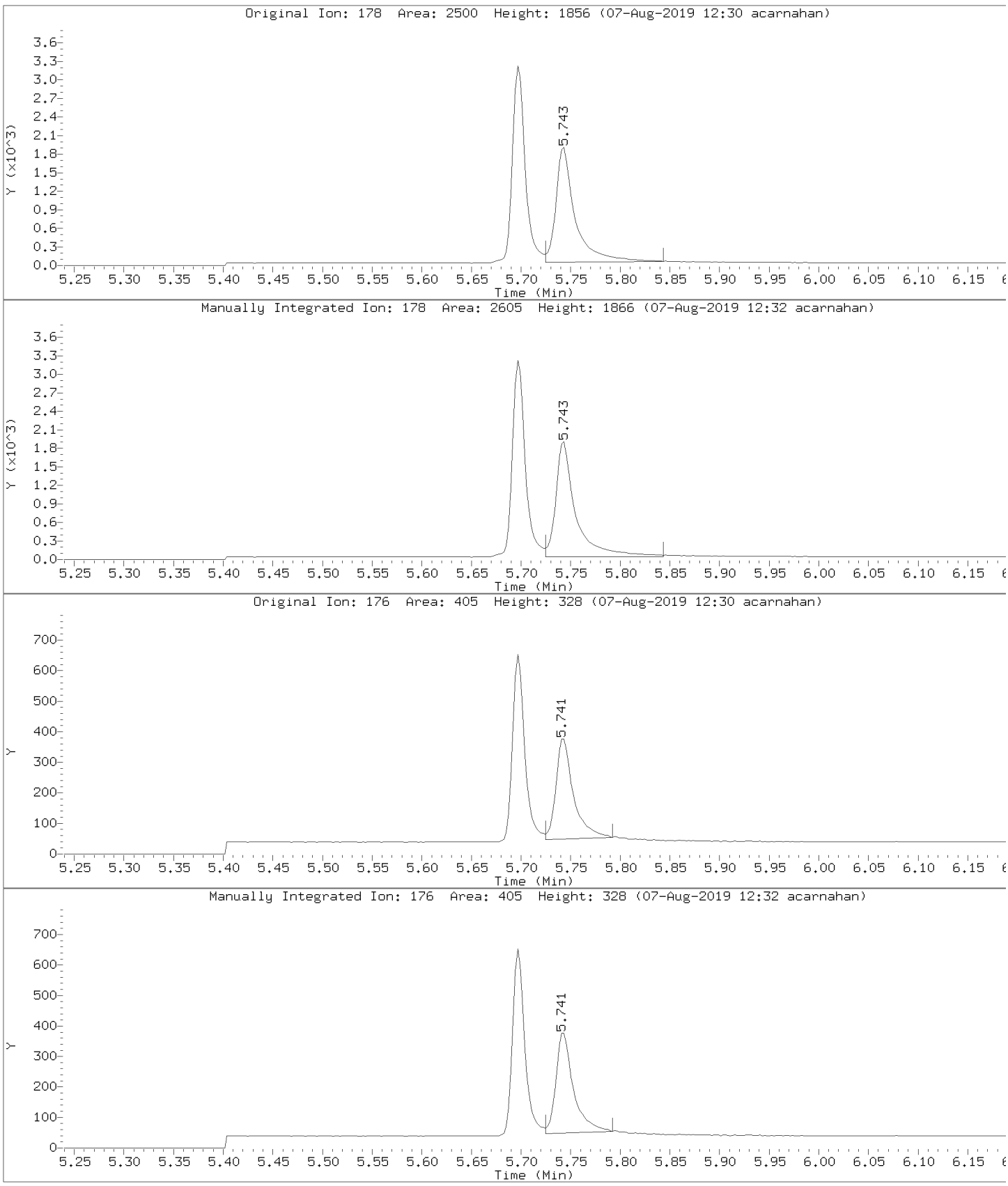
Instrument: 30mss3.i
Lab Sample ID: CAL1

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
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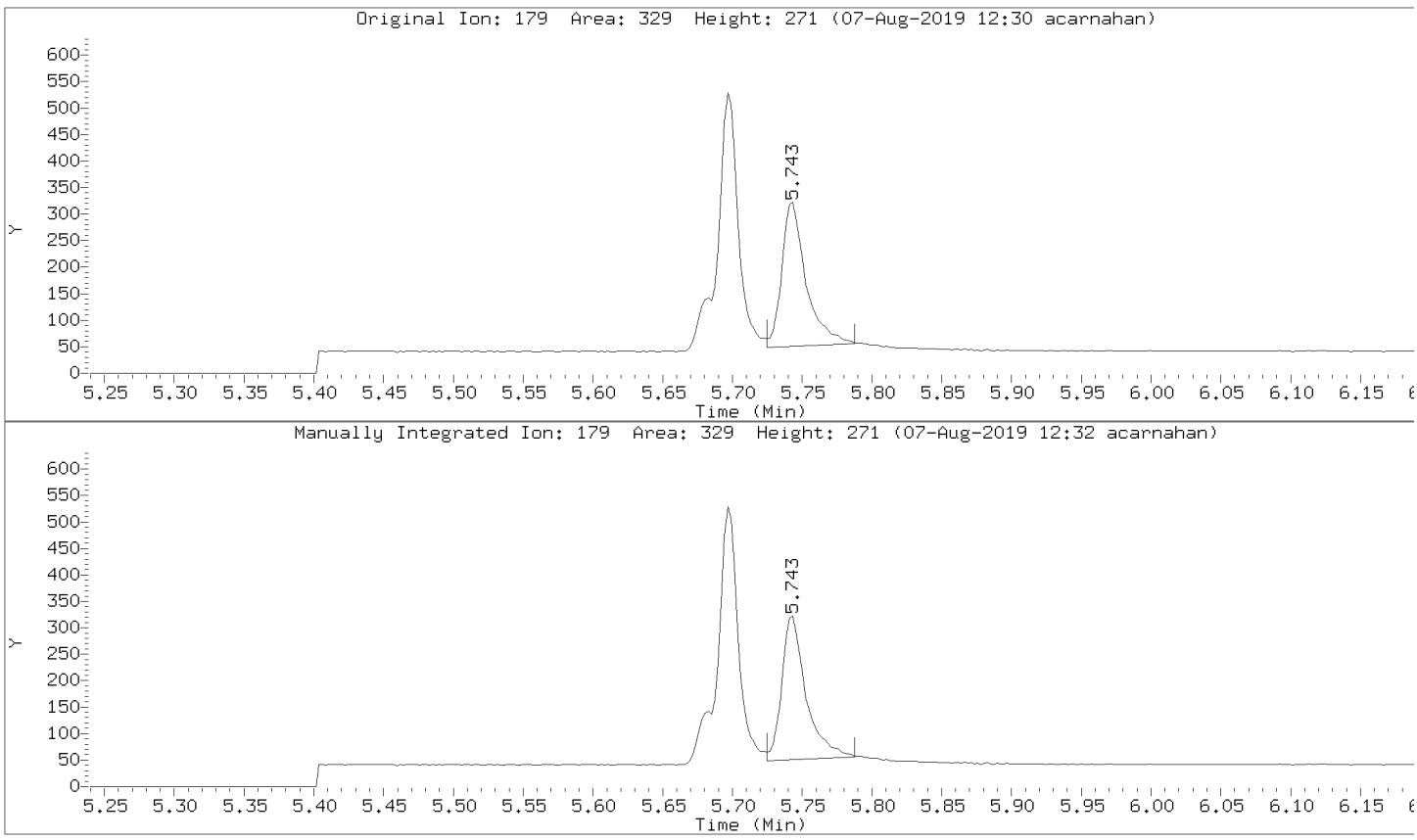
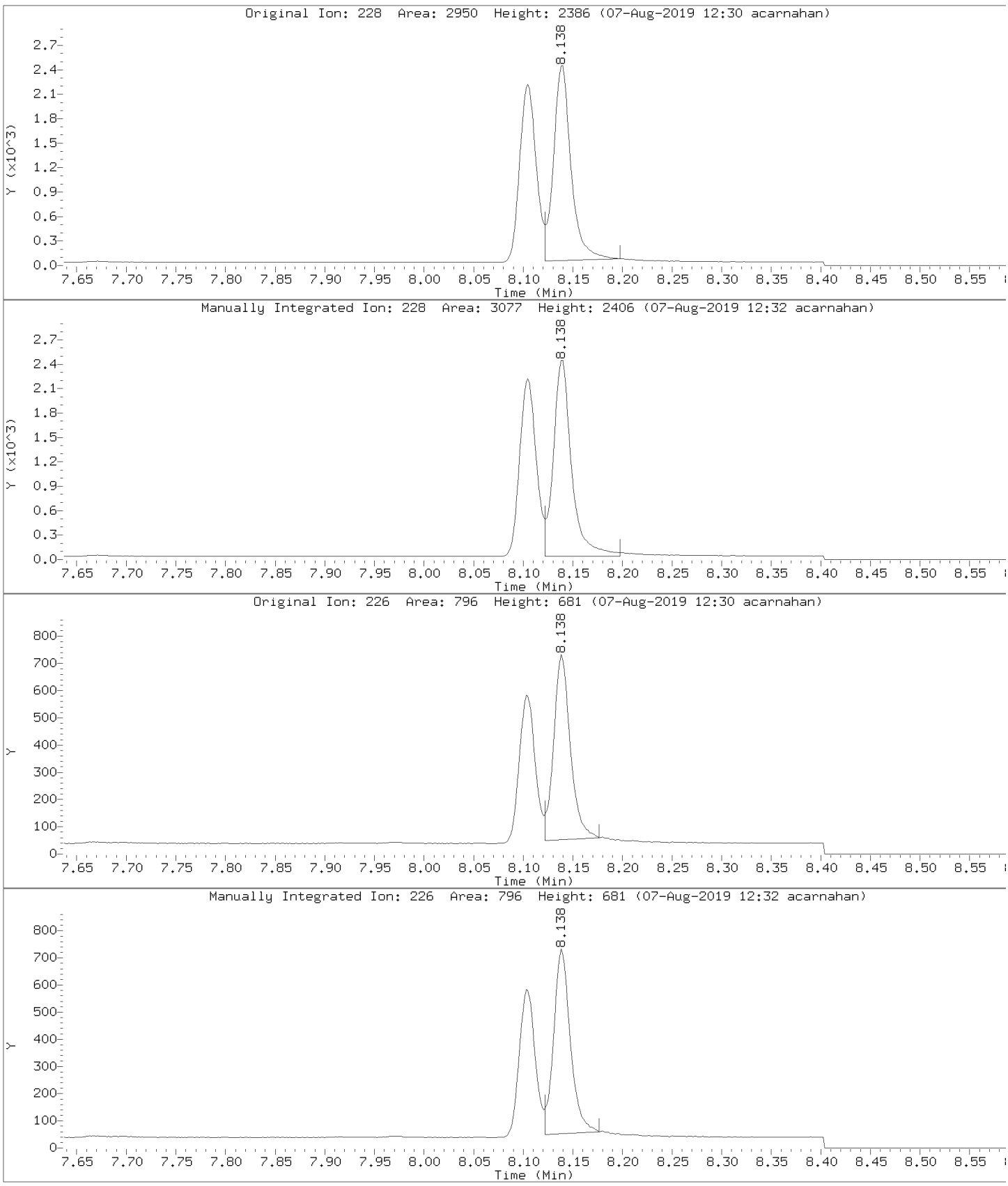
Lab Sample ID: CAL1

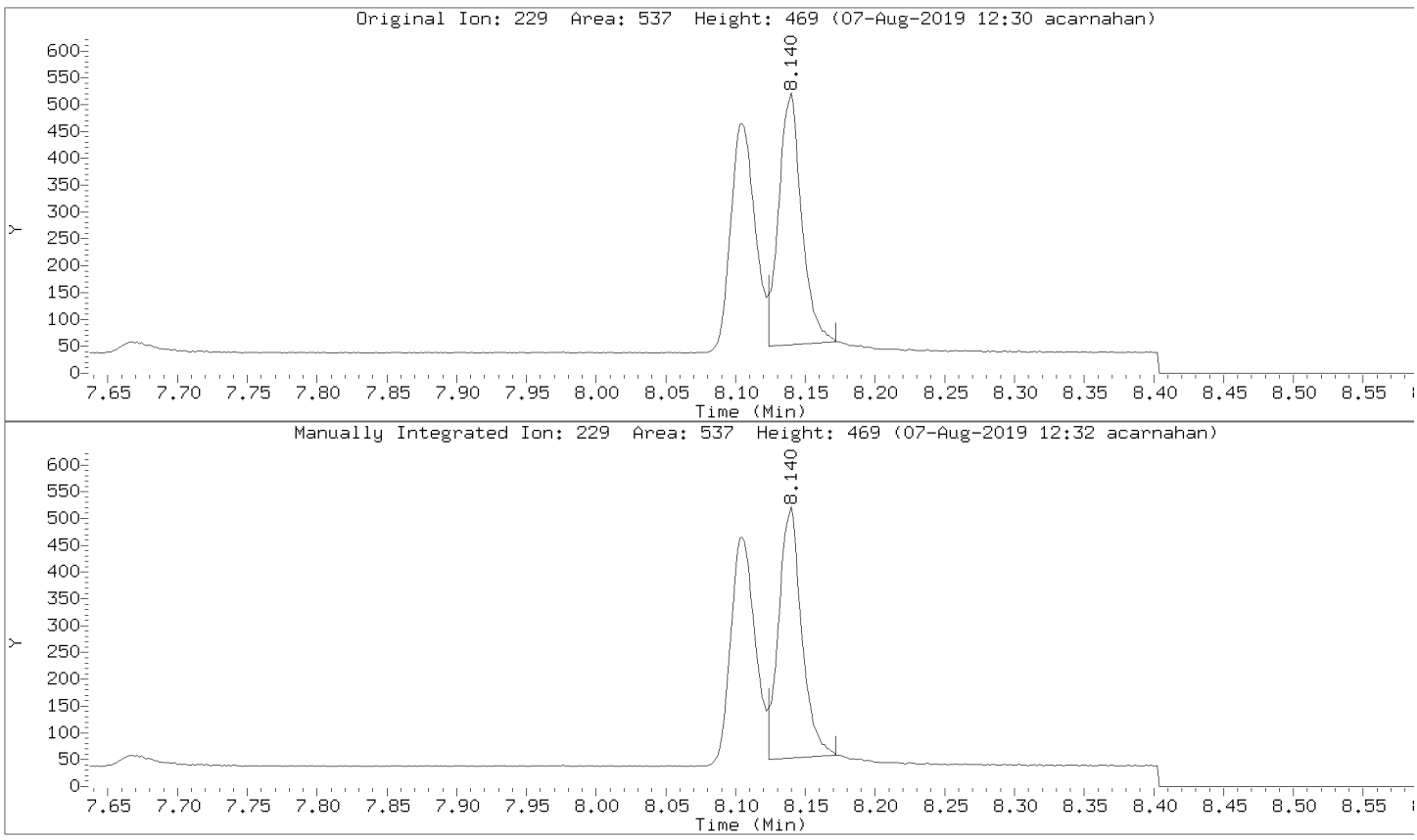


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

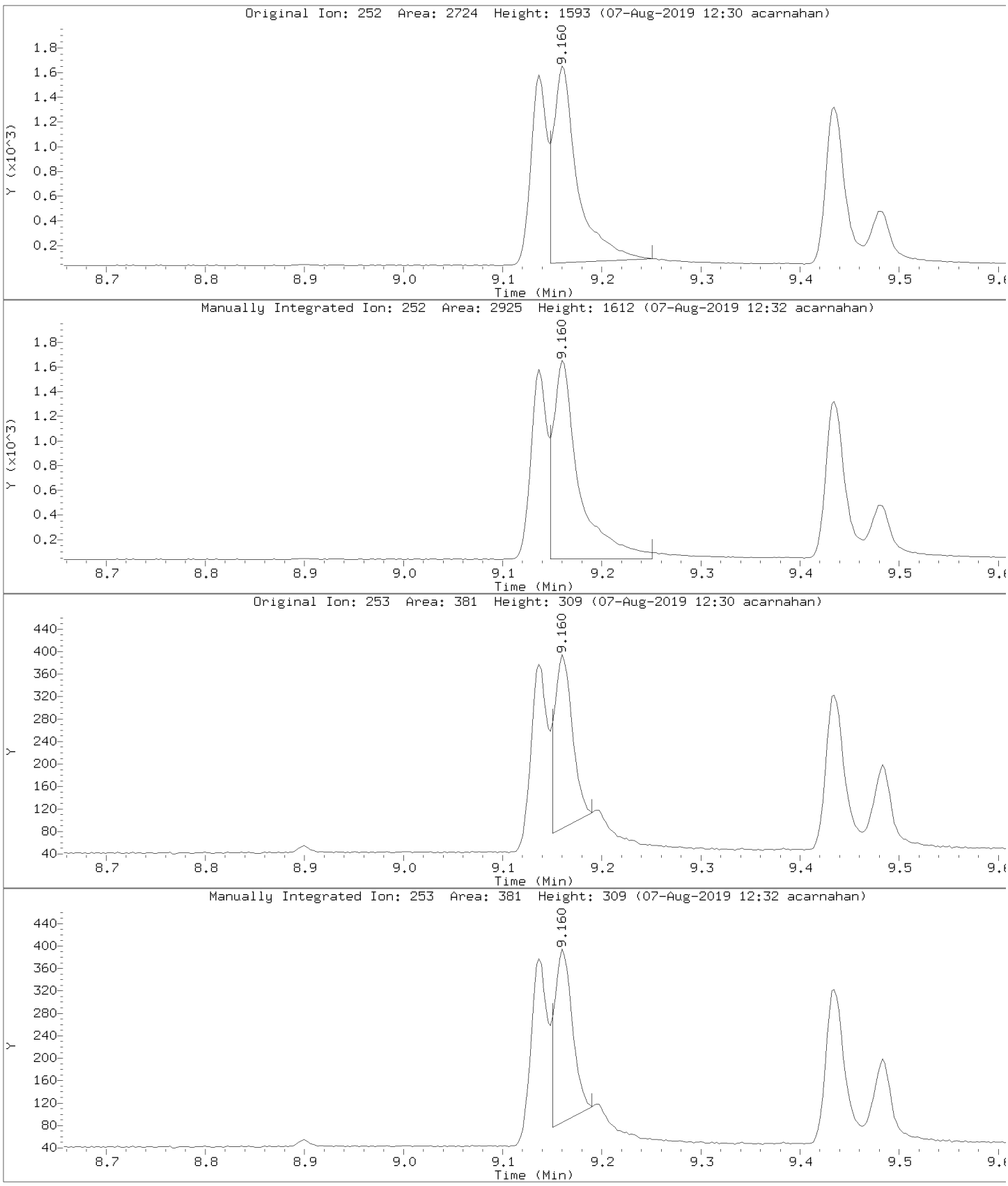


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1

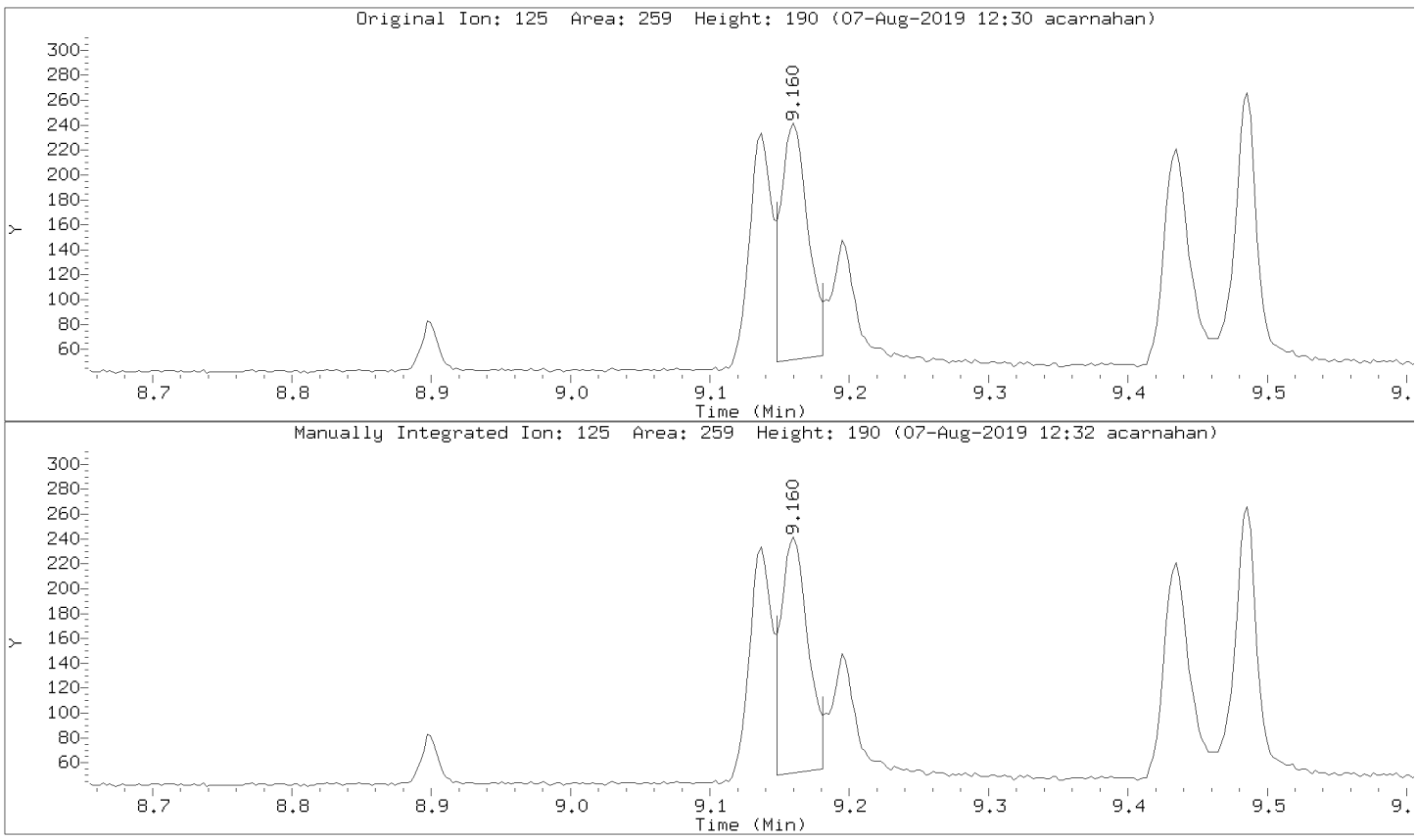


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1



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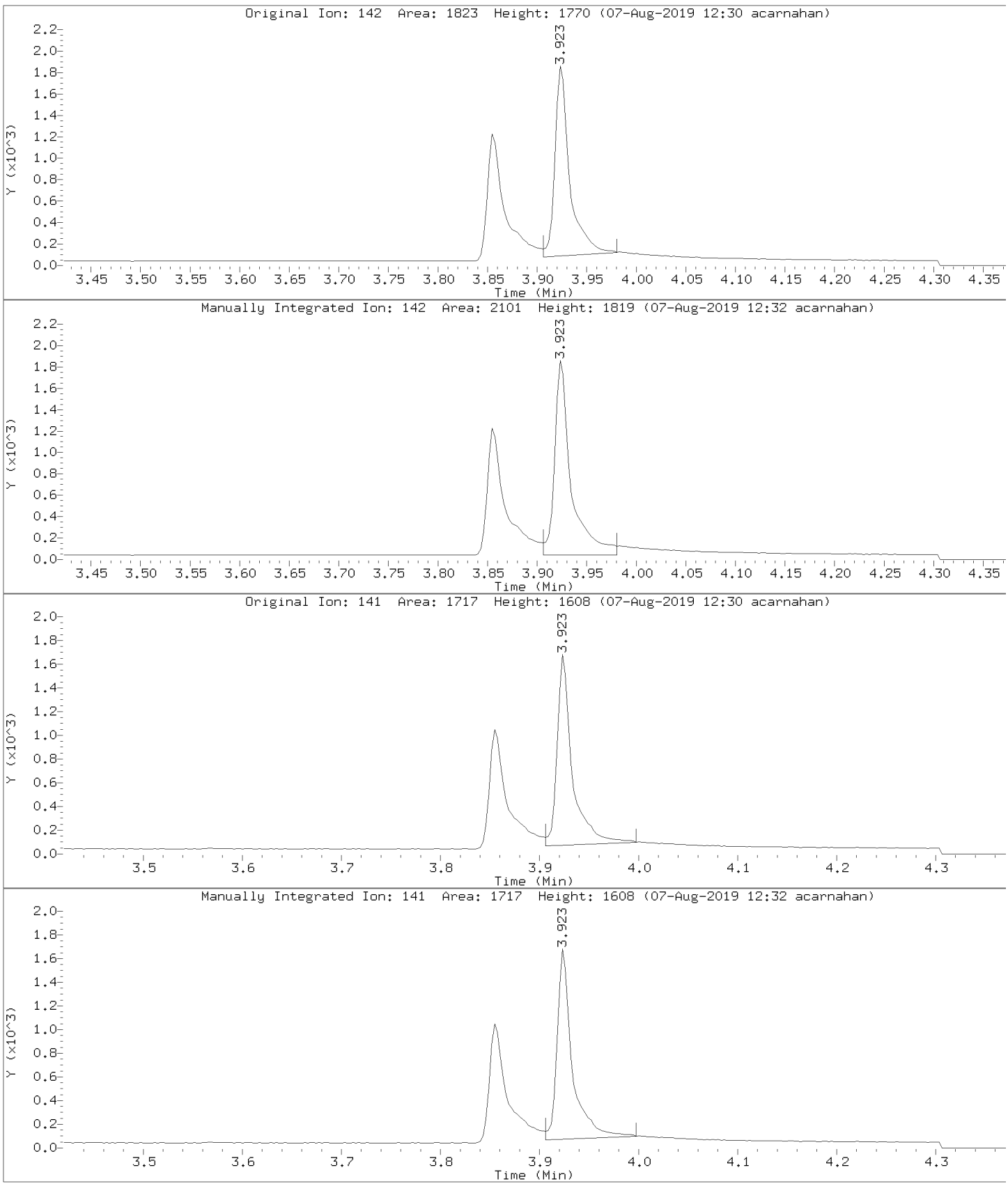
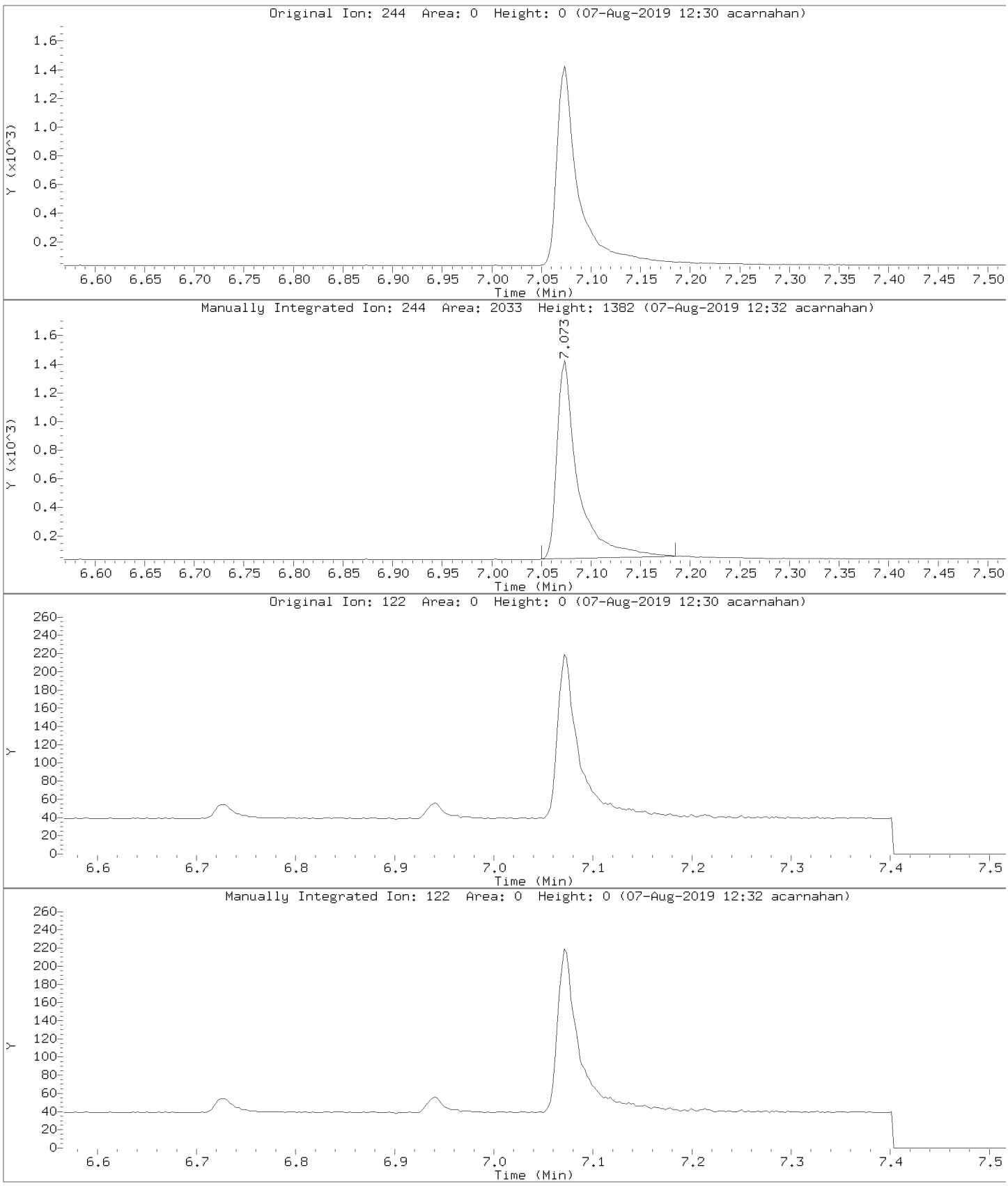
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y1.d
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1

Compound: Terphenyl-d14 (S) Review Code: NI
CAS Number: 1718-51-0



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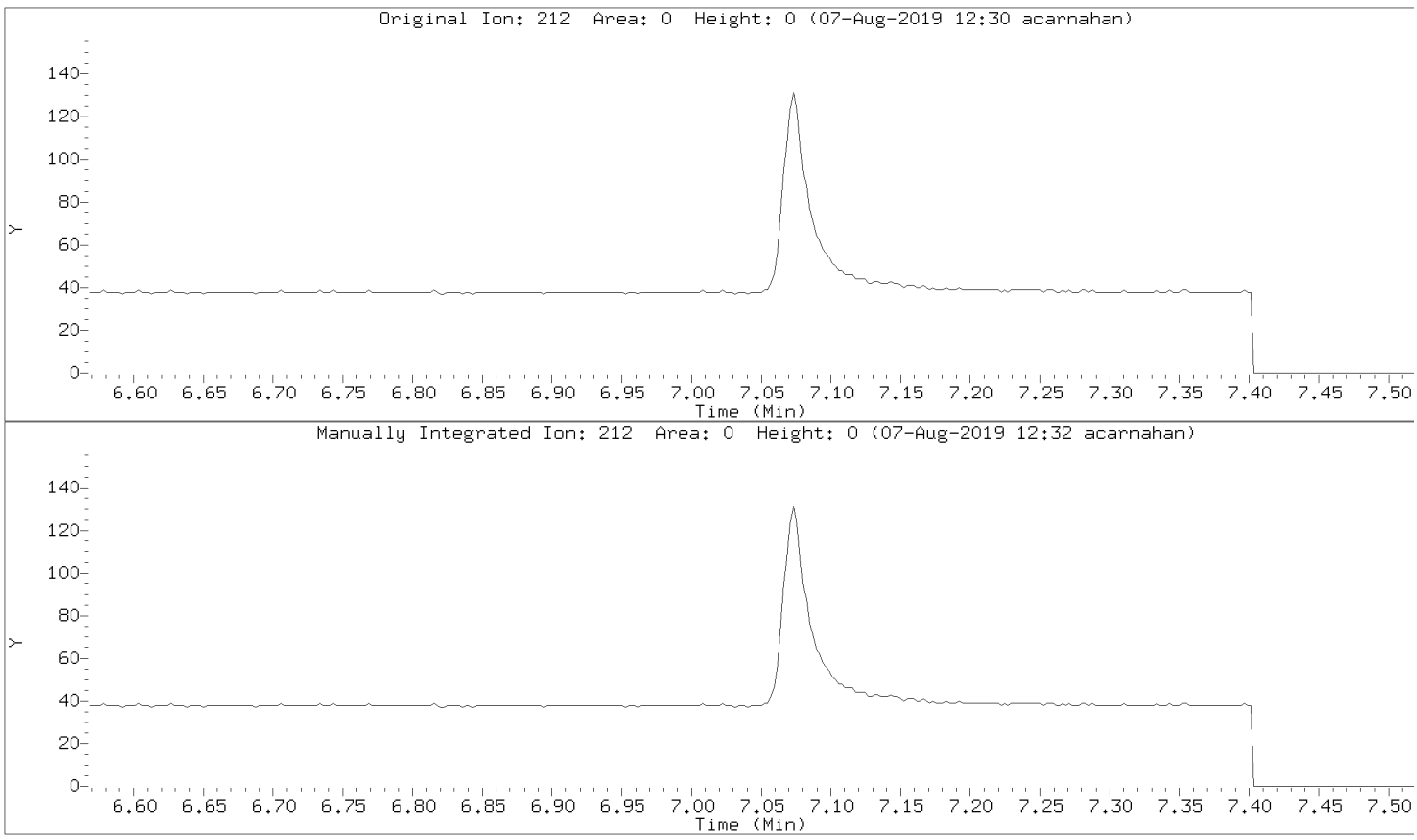
Injection Date: 07-AUG-2019 10:53
Instrument: 30mss3.i
Lab Sample ID: CAL1



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y2.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 07-AUG-2019 11:12 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal2, 94319:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 11:12 Cal File: m3080719y2.d
Als bottle: 95 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	132585	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	6634	0.20000	0.203	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	3293	0.20000	0.191	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	4594	0.20000	0.209(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.103	4.103	(0.897)	3917	0.20000	0.192	
	11 Acenaphthylene	152	4.480	4.481	(0.979)	4932	0.20000	0.190	
*	2 Acenaphthene-d10 (IS)	164	4.576	4.576	(1.000)	70298	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	3943	0.20000	0.198	
	13 Fluorene	166	4.966	4.964	(1.085)	3708	0.20000	0.196	
*	3 Phenanthrene-d10 (IS)	188	5.678	5.678	(1.000)	115475	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	5914	0.20000	0.198	
	15 Anthracene	178	5.740	5.738	(1.011)	5428	0.20000	0.192(M)	BA
	16 Fluoranthene	202	6.726	6.724	(1.185)	5444	0.20000	0.192	
	17 Pyrene	202	6.940	6.938	(1.222)	5594	0.20000	0.190	
$	7 Terphenyl-d14 (S)	244	7.070	7.068	(1.245)	4299	0.20000	0.188	
	18 Benzo(a)anthracene	228	8.104	8.101	(0.999)	5149	0.20000	0.194	
*	4 Chrysene-d12 (IS)	240	8.112	8.111	(1.000)	113808	4.00000		
	19 Chrysene	228	8.138	8.136	(1.003)	6331	0.20000	0.201(M)	BA

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.134	9.132	(0.963)	3898	0.20000	0.182	
21 Benzo(k)fluoranthene	252	9.157	9.157	(0.966)	6178	0.20000	0.194(M)	BA
22 Benzo(a)pyrene	252	9.432	9.429	(0.995)	3688	0.20000	0.177	
* 5 Perylene-d12 (IS)	264	9.480	9.478	(1.000)	118382	4.00000		
23 Dibenz(a,h)anthracene	278	10.406	10.404	(1.098)	5091	0.20000	0.196	
24 Indeno(1,2,3-cd)pyrene	276	10.401	10.402	(1.097)	5831	0.20000	0.192	
25 Benzo[g,h,i]perylene	276	10.655	10.655	(1.124)	4924	0.20000	0.194	

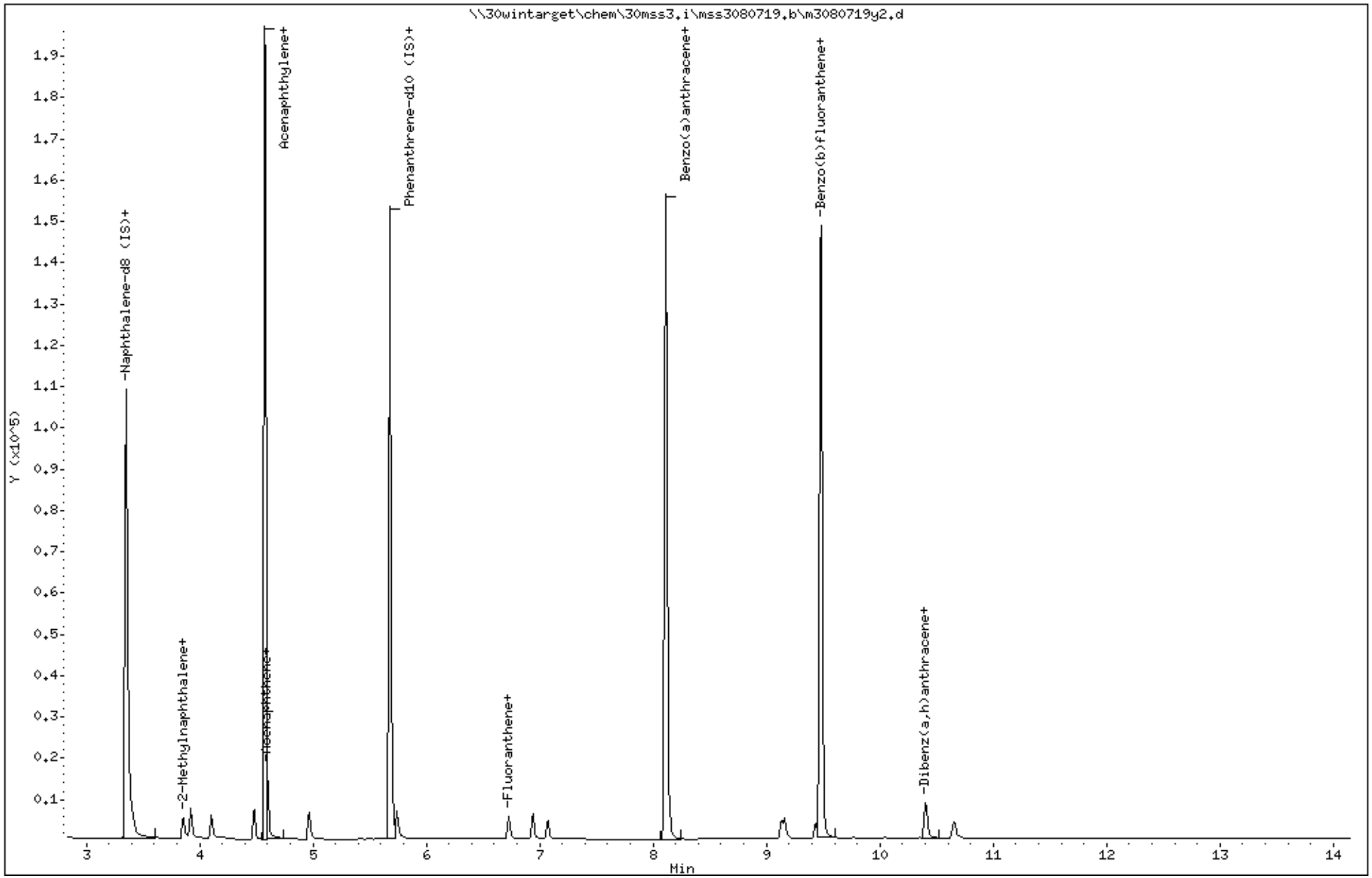
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

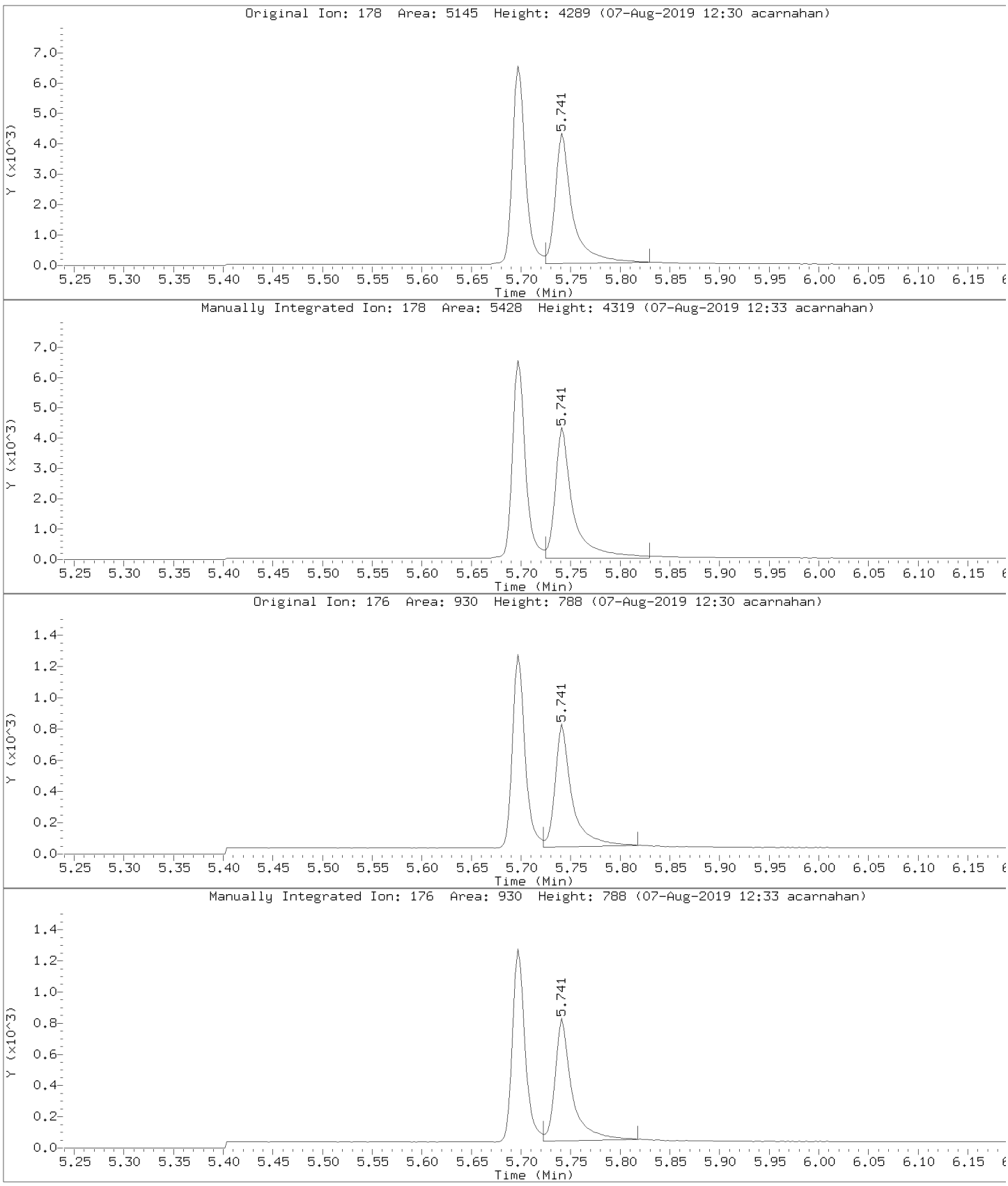
:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y2.d
Date : 07-AUG-2019 11:12
Client ID: CAL2
Instrument: 30mss3.i
Sample Info: CAL2, 94319:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

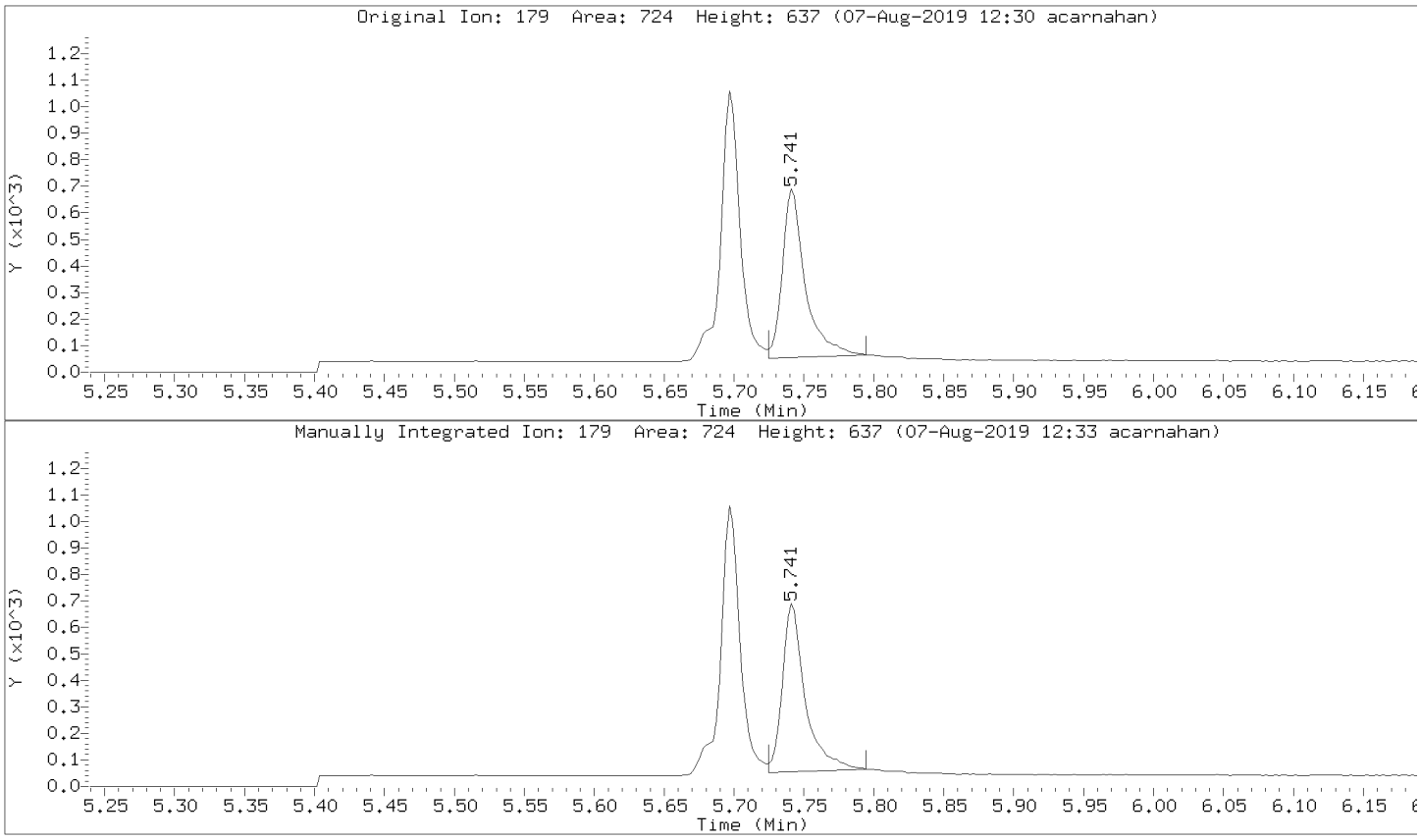


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y2.d
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7

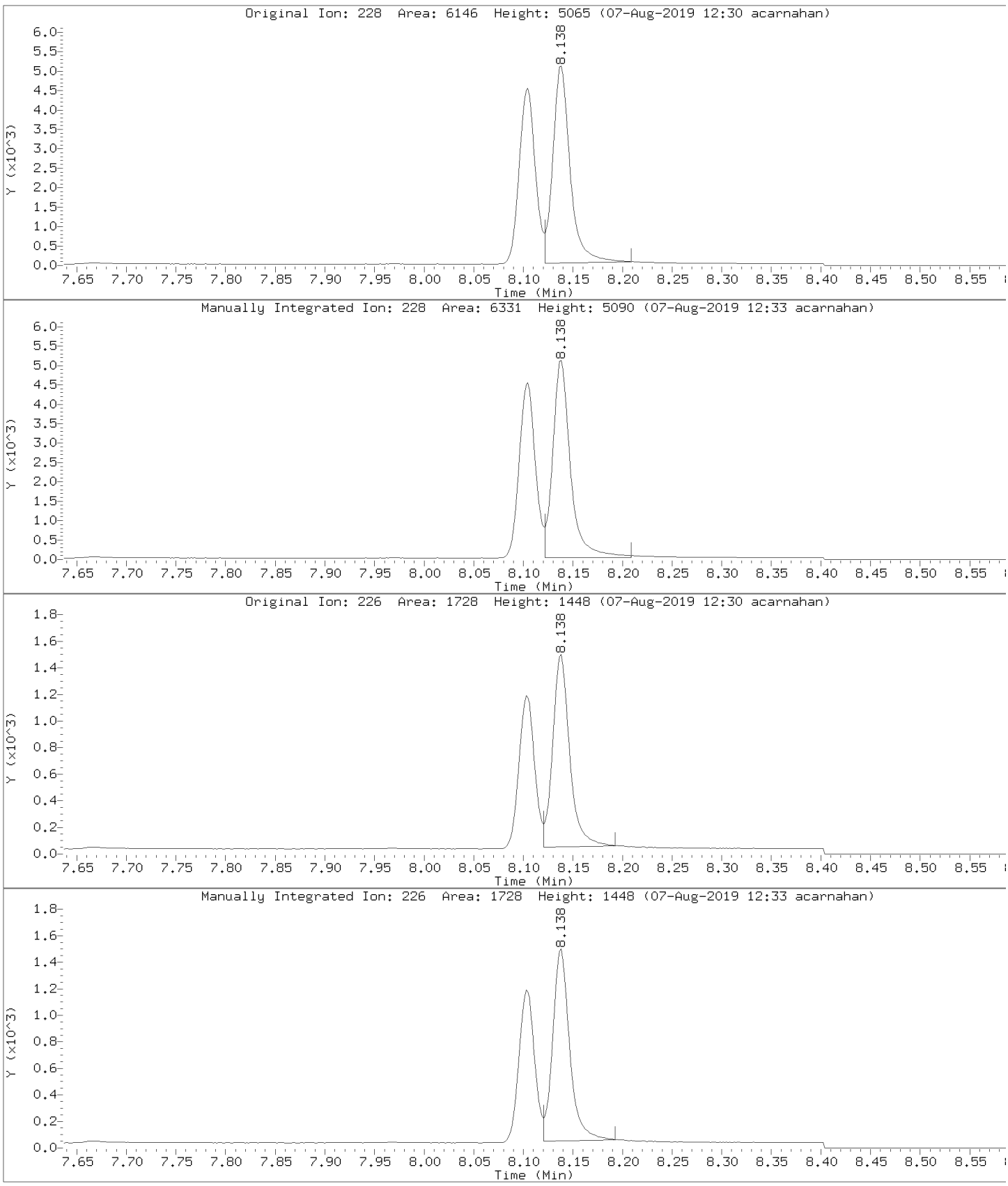


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y2.d
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2

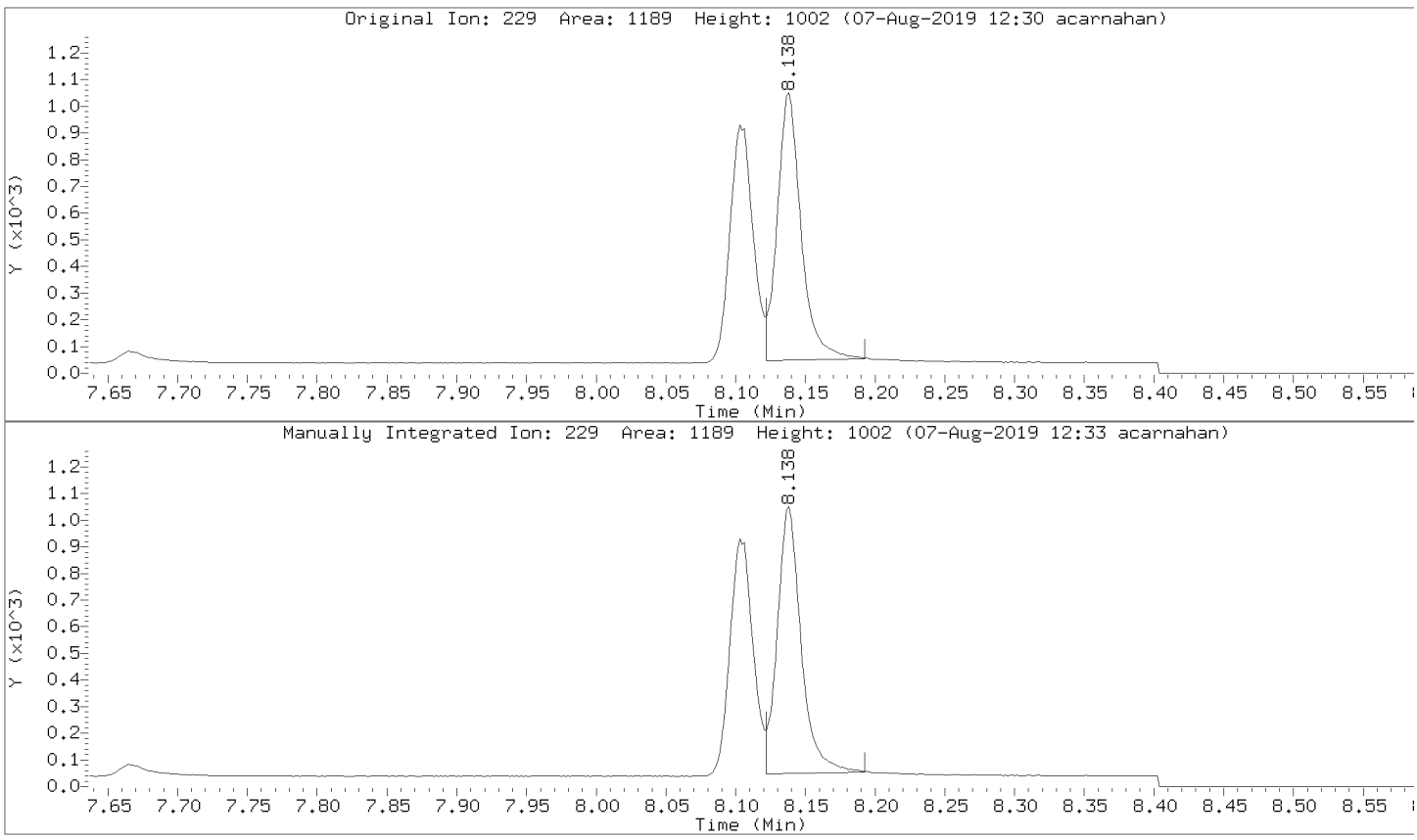


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y2.d
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y2.d
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2



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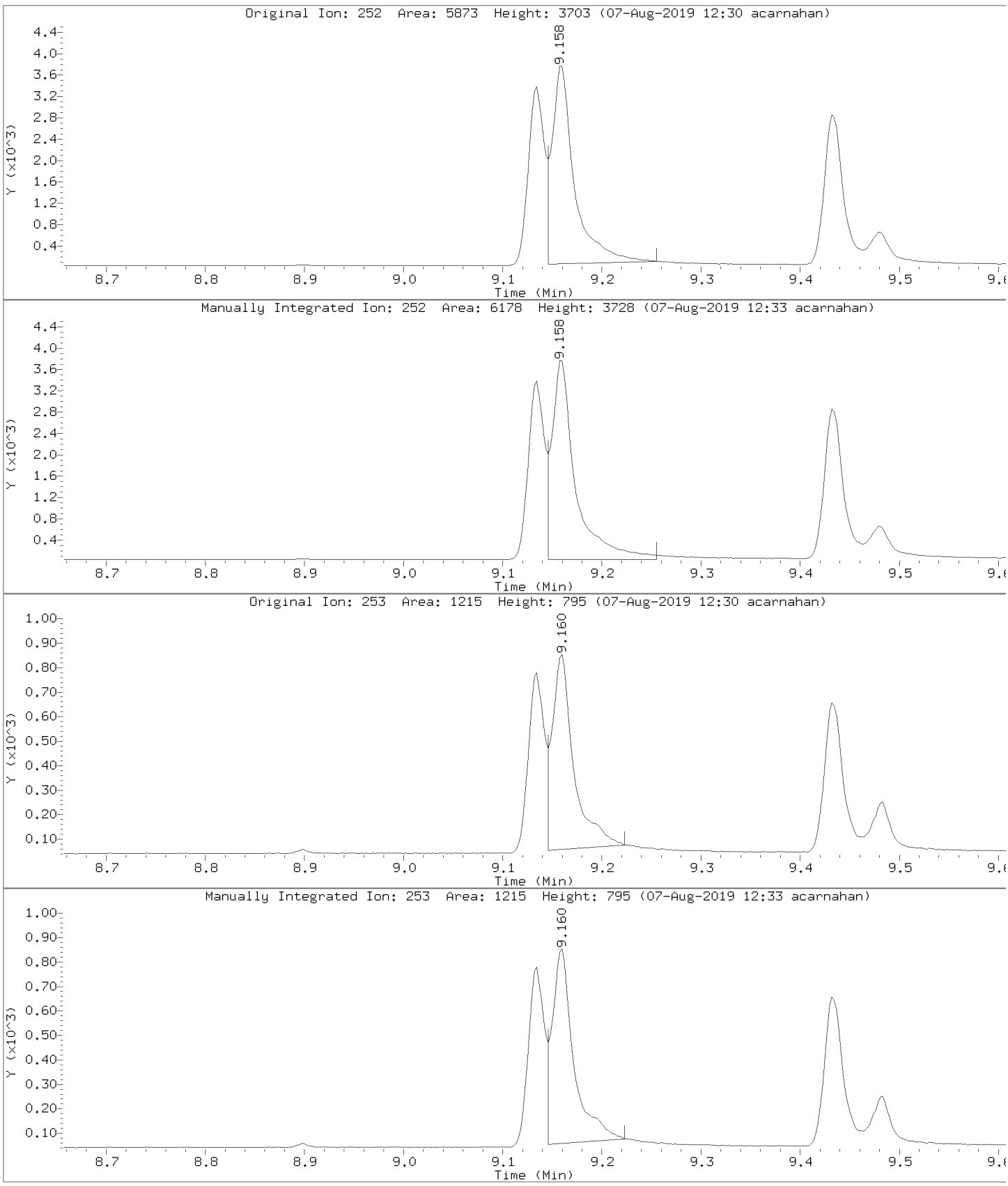
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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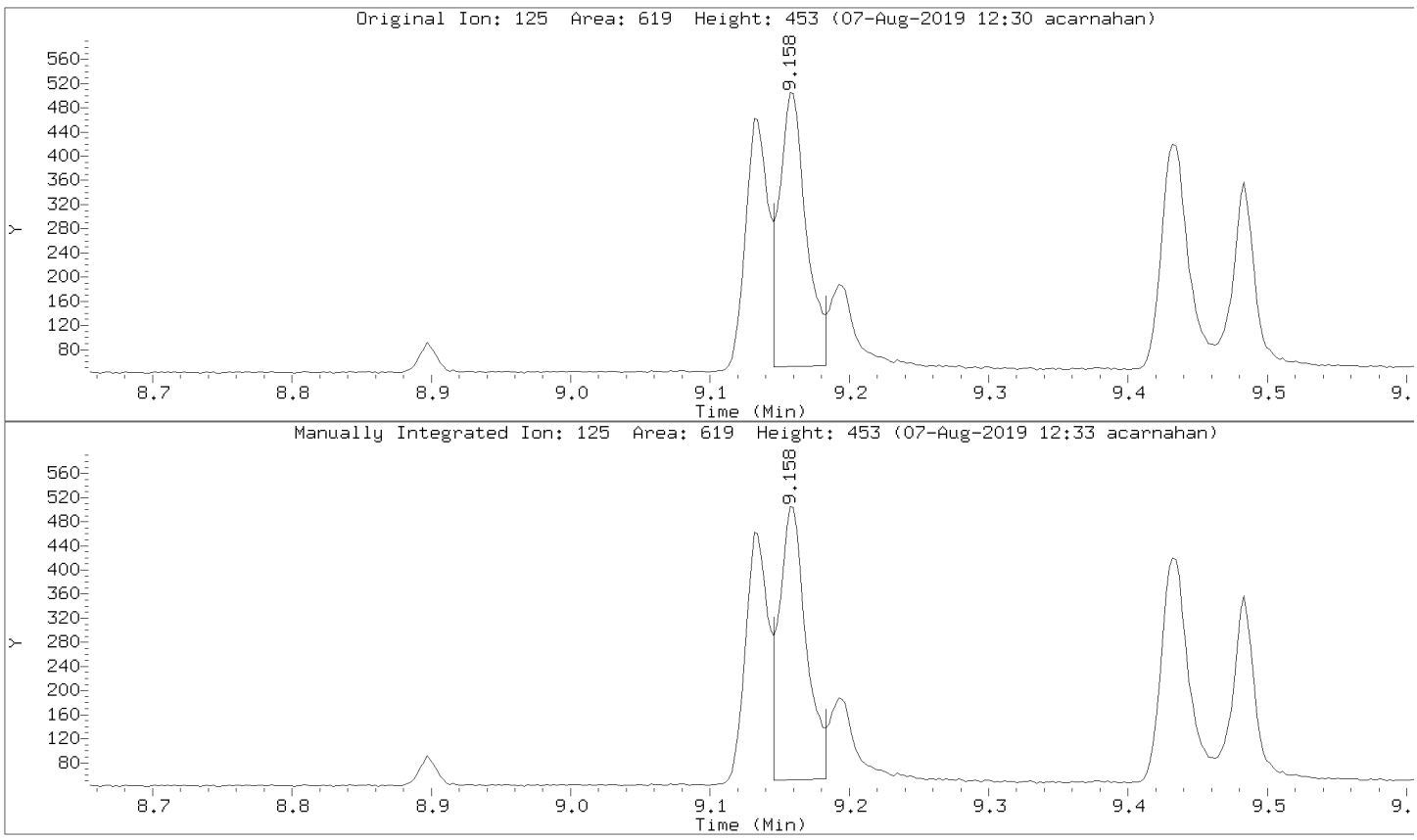
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2



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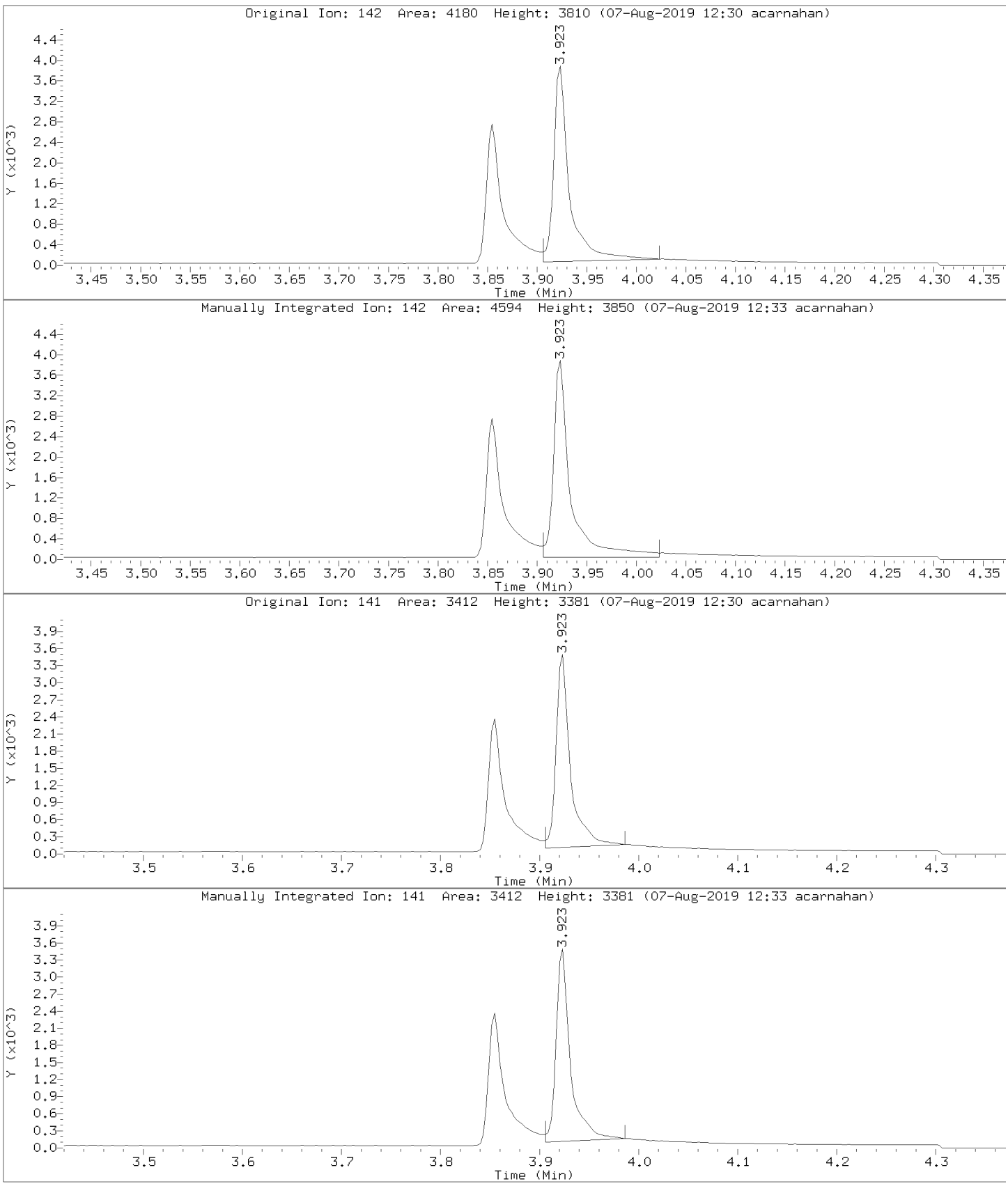
Injection Date: 07-AUG-2019 11:12
Instrument: 30mss3.i
Lab Sample ID: CAL2

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y3.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 07-AUG-2019 11:31 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal3, 94320:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 11:31 Cal File: m3080719y3.d
Als bottle: 96 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	125790	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	15065	0.50000	0.486	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	8148	0.50000	0.497	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	10668	0.50000	0.505(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.103	4.103	(0.897)	9679	0.50000	0.510	
	11 Acenaphthylene	152	4.480	4.481	(0.979)	11703	0.50000	0.485	
*	2 Acenaphthene-d10 (IS)	164	4.576	4.576	(1.000)	65390	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	8987	0.50000	0.486	
	13 Fluorene	166	4.966	4.964	(1.085)	8692	0.50000	0.493	
*	3 Phenanthrene-d10 (IS)	188	5.677	5.678	(1.000)	108407	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	13443	0.50000	0.479	
	15 Anthracene	178	5.740	5.738	(1.011)	13186	0.50000	0.493(M)	BA
	16 Fluoranthene	202	6.726	6.724	(1.185)	13016	0.50000	0.489	
	17 Pyrene	202	6.938	6.938	(1.222)	13523	0.50000	0.491	
$	7 Terphenyl-d14 (S)	244	7.070	7.068	(1.245)	10654	0.50000	0.496	
	18 Benzo(a)anthracene	228	8.102	8.101	(0.999)	11787	0.50000	0.474	
*	4 Chrysene-d12 (IS)	240	8.112	8.111	(1.000)	106422	4.00000		
	19 Chrysene	228	8.136	8.136	(1.003)	14411	0.50000	0.486(M)	BA

						AMOUNTS		
	QUANT SIG					CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	(ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.131	9.132	(0.963)	9584	0.50000	0.482	
21 Benzo(k)fluoranthene	252	9.157	9.157	(0.966)	15070	0.50000	0.500(M)	LT
22 Benzo(a)pyrene	252	9.431	9.429	(0.995)	9631	0.50000	0.496	
* 5 Perylene-d12 (IS)	264	9.480	9.478	(1.000)	110203	4.00000		
23 Dibenz(a,h)anthracene	278	10.406	10.404	(1.098)	11963	0.50000	0.496	
24 Indeno(1,2,3-cd)pyrene	276	10.401	10.402	(1.097)	13981	0.50000	0.496	
25 Benzo[g,h,i]perylene	276	10.653	10.655	(1.124)	11697	0.50000	0.495	

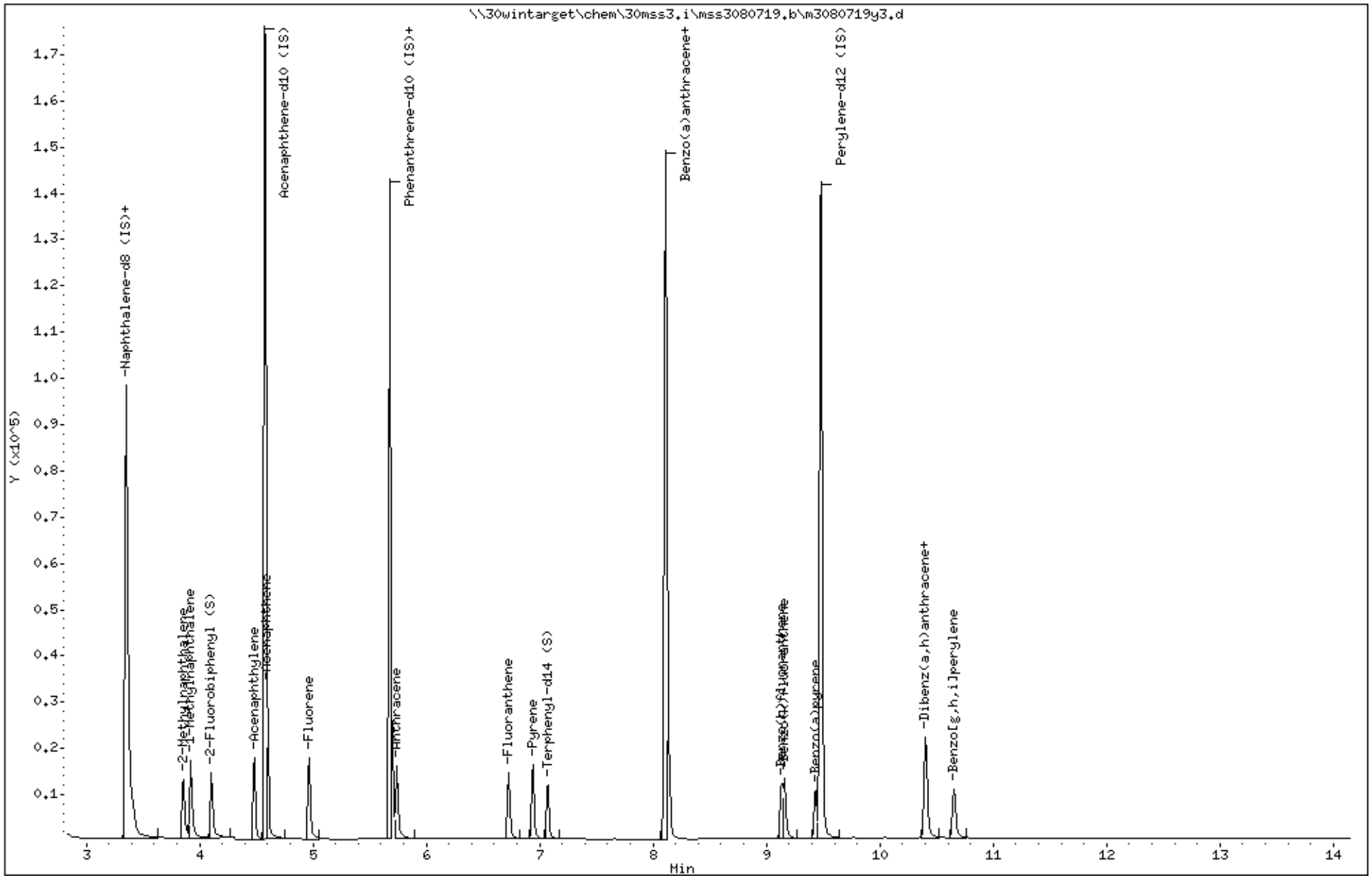
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

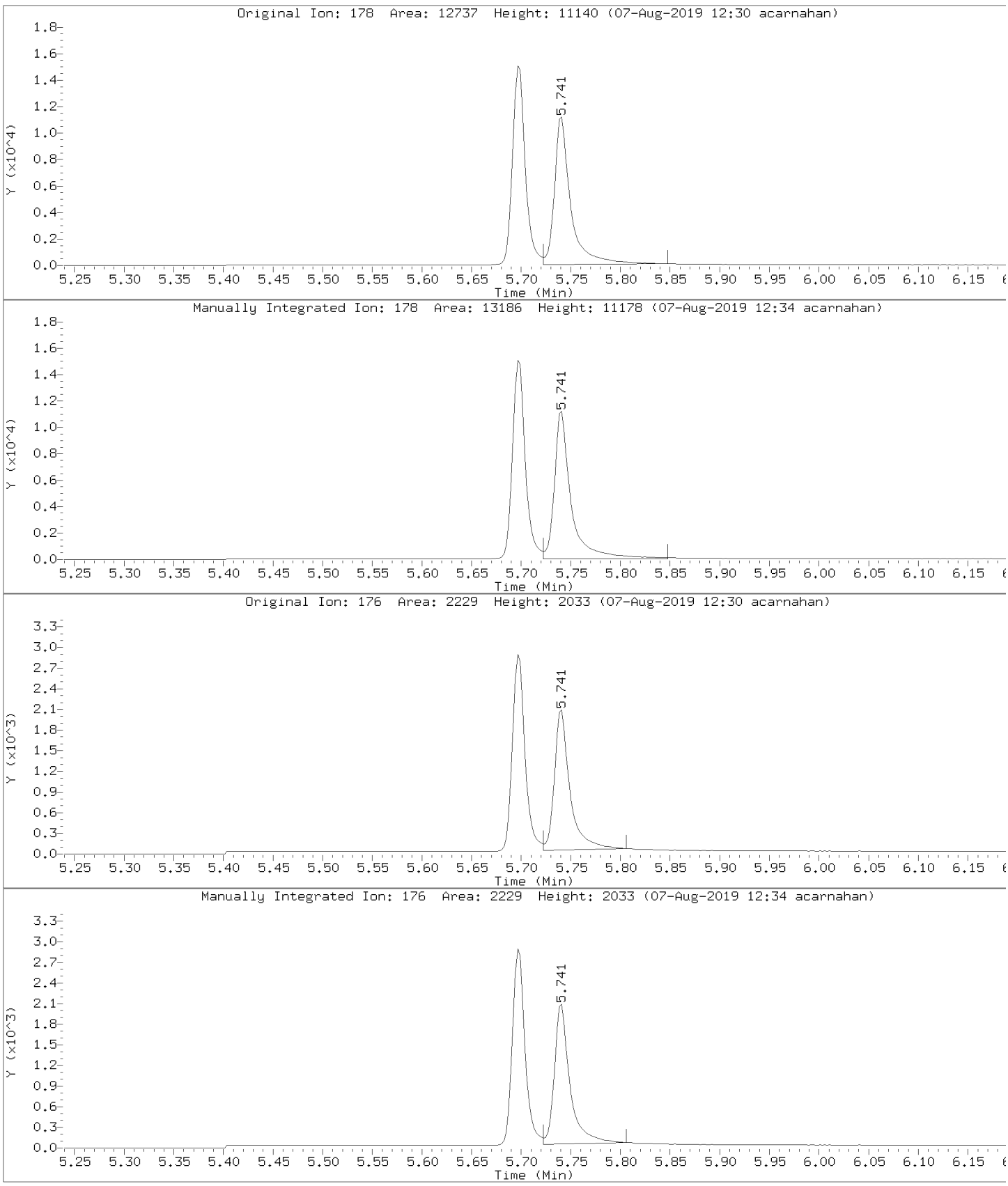
:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y3.d
Date : 07-AUG-2019 11:31
Client ID: CAL3
Instrument: 30mss3.i
Sample Info: CAL3, 94320:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

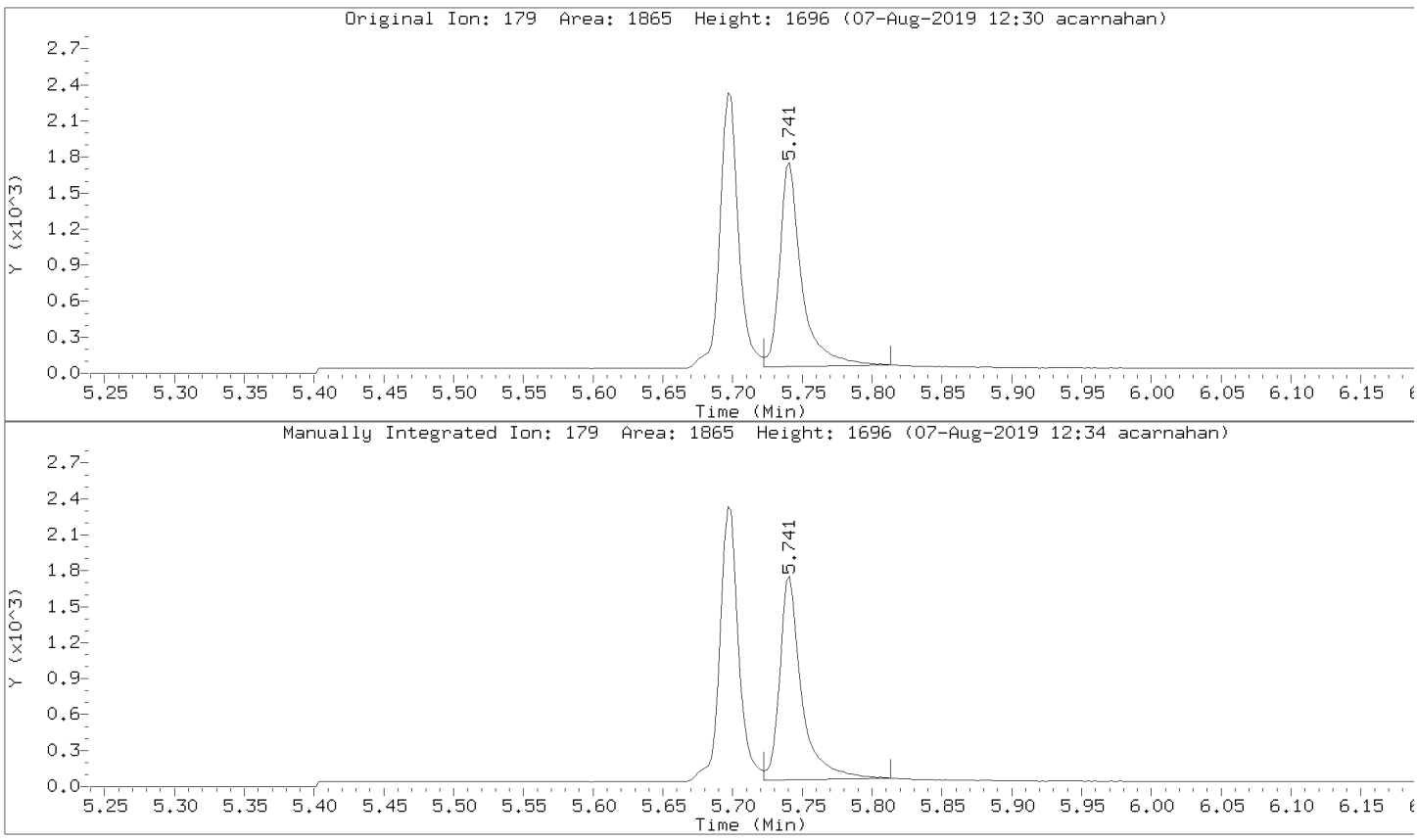


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7

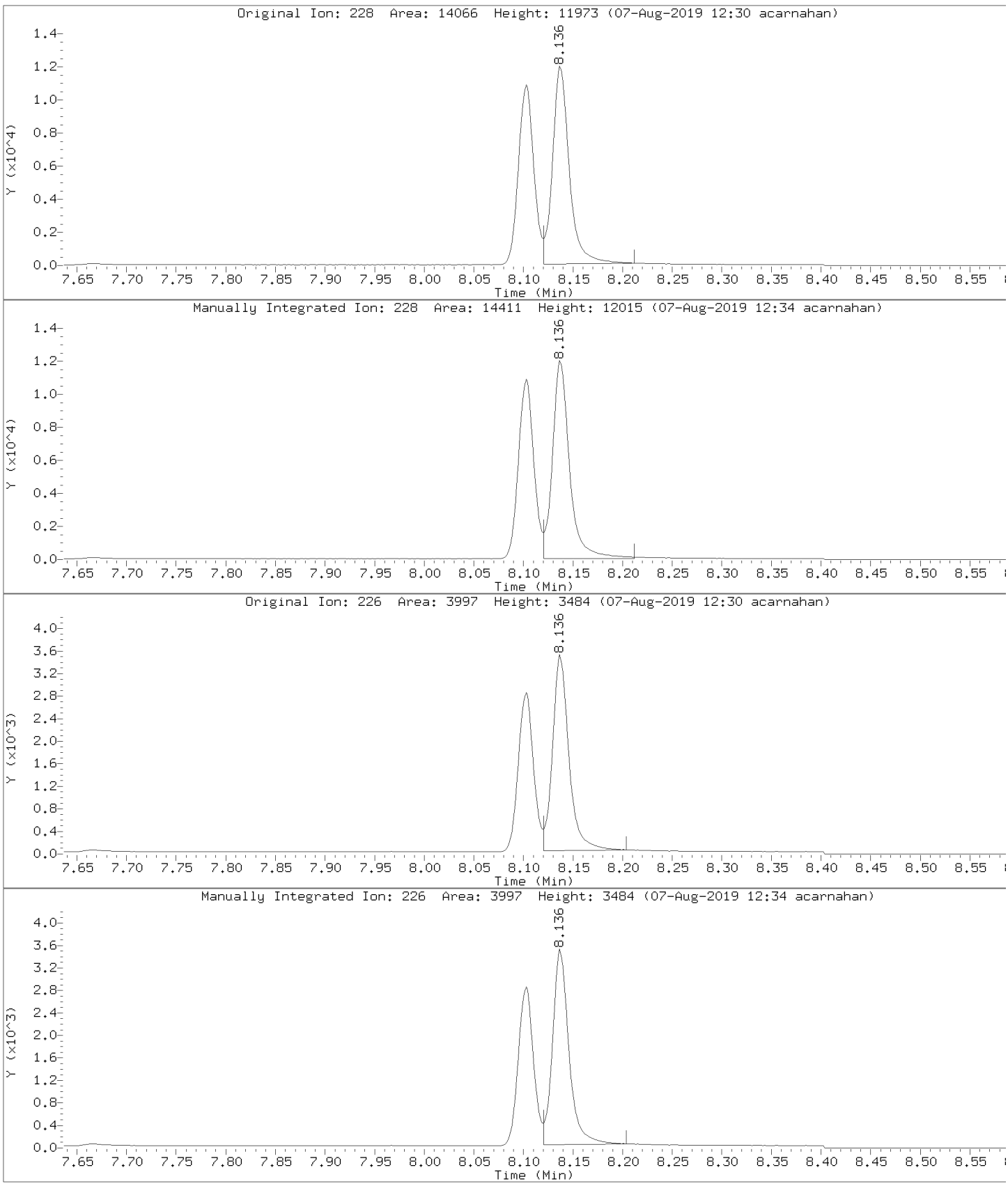


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

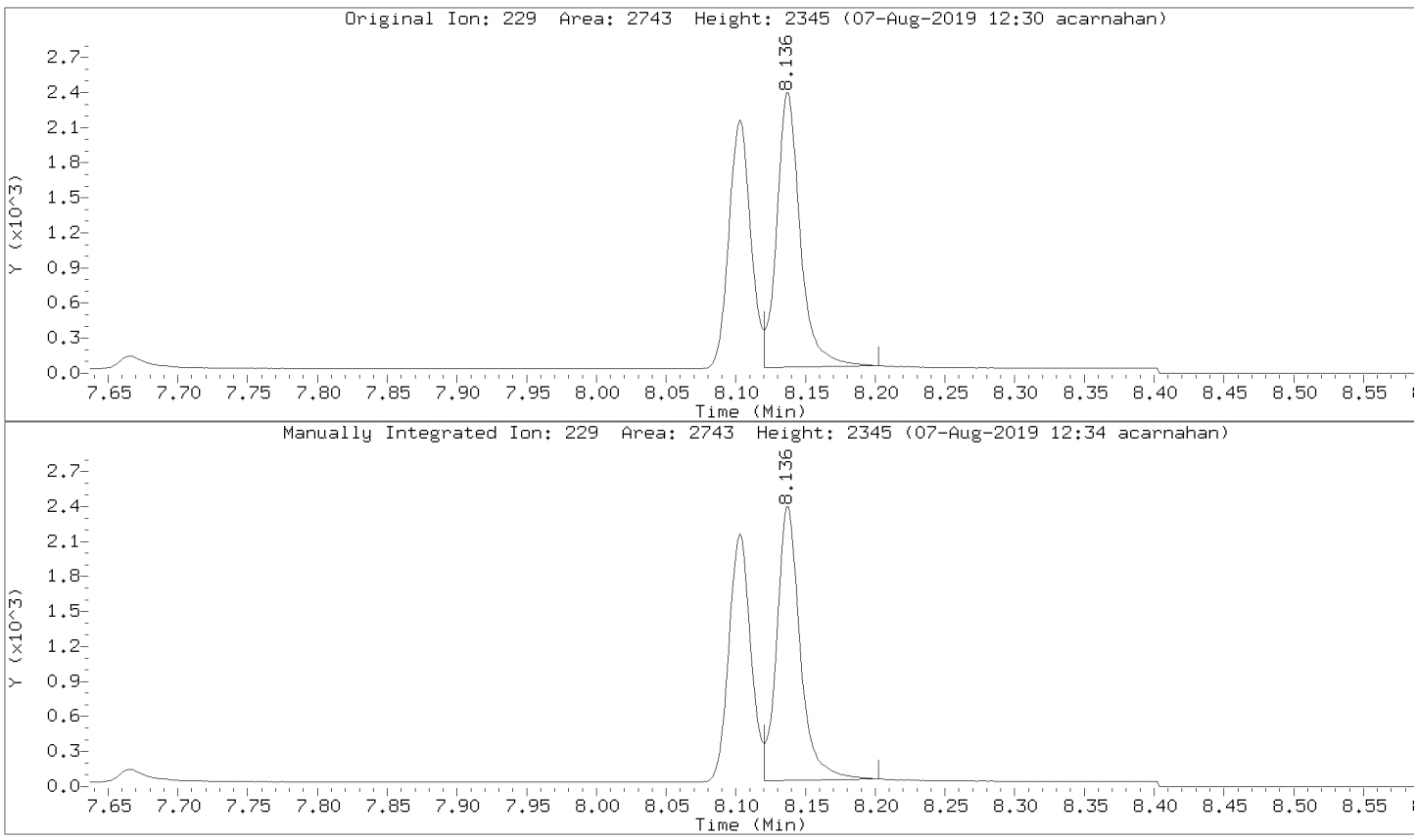


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9

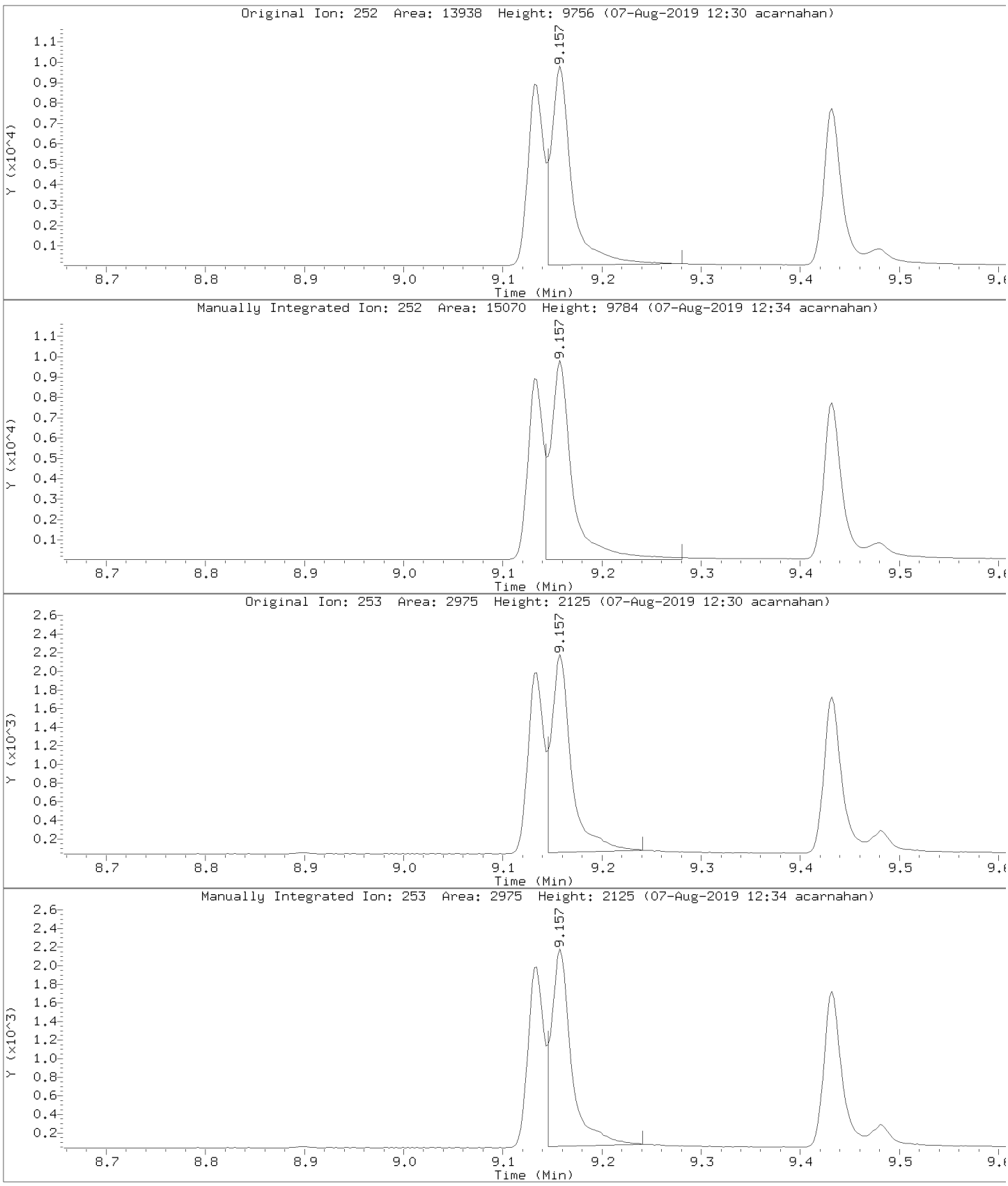


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

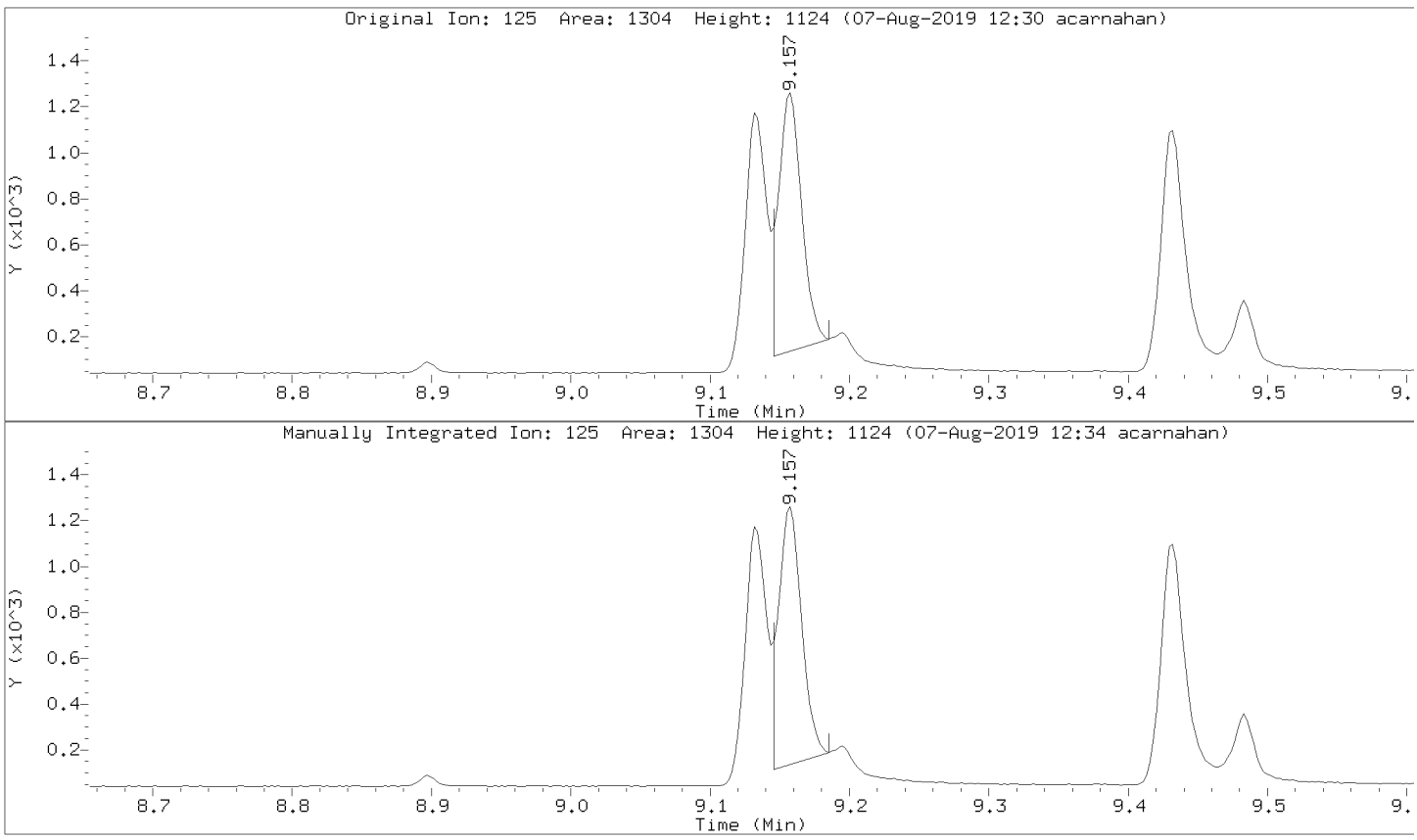


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

Compound: Benzo(k)fluoranthene Review Code: LT
CAS Number: 207-08-9



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y3.d
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3



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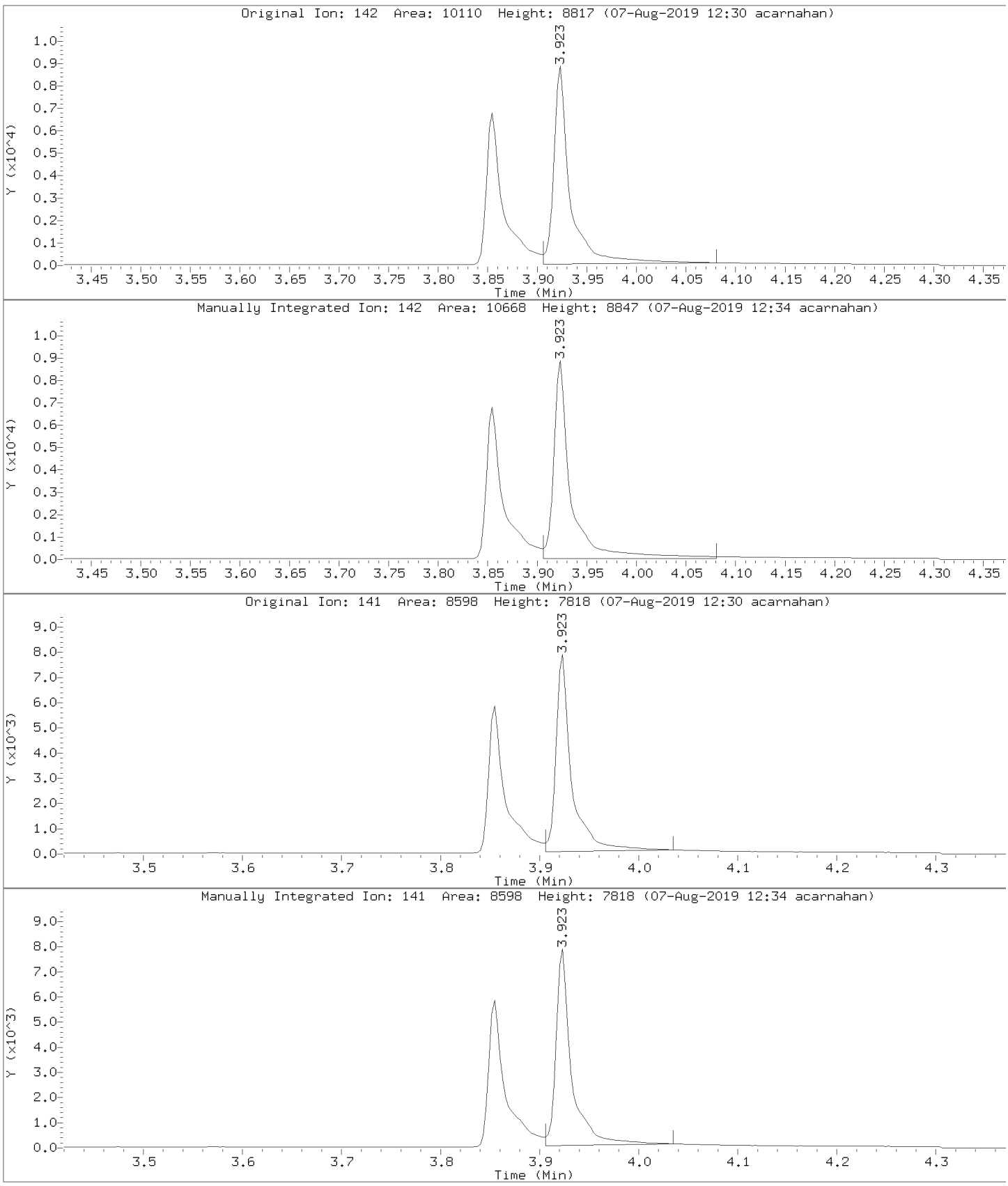
Injection Date: 07-AUG-2019 11:31
Instrument: 30mss3.i
Lab Sample ID: CAL3

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y4.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 07-AUG-2019 11:50 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal4, 94321:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 11:50 Cal File: m3080719y4.d
Als bottle: 97 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	123360	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	59214	2.00000	1.96	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	35514	2.00000	2.07	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	39822	2.00000	1.95(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.103	4.103	(0.897)	39826	2.00000	2.10	
	11 Acenaphthylene	152	4.480	4.481	(0.979)	51546	2.00000	2.08	
*	2 Acenaphthene-d10 (IS)	164	4.576	4.576	(1.000)	62756	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	35653	2.00000	1.99	
	13 Fluorene	166	4.964	4.964	(1.085)	36682	2.00000	2.07	
*	3 Phenanthrene-d10 (IS)	188	5.678	5.678	(1.000)	103896	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	54504	2.00000	2.00	
	15 Anthracene	178	5.738	5.738	(1.011)	54970	2.00000	2.06(M)	BA
	16 Fluoranthene	202	6.724	6.724	(1.184)	56411	2.00000	2.09	
	17 Pyrene	202	6.938	6.938	(1.222)	58815	2.00000	2.11	
$	7 Terphenyl-d14 (S)	244	7.068	7.068	(1.245)	45601	2.00000	2.08	
	18 Benzo(a)anthracene	228	8.102	8.101	(0.999)	52508	2.00000	2.00	
*	4 Chrysene-d12 (IS)	240	8.112	8.111	(1.000)	108546	4.00000		
	19 Chrysene	228	8.136	8.136	(1.003)	58739	2.00000	1.97(M)	BA

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.131	9.132	(0.963)	49239	2.00000	2.08	
21 Benzo(k)fluoranthene	252	9.157	9.157	(0.966)	65456	2.00000	2.04(M)	BA
22 Benzo(a)pyrene	252	9.429	9.429	(0.995)	48111	2.00000	2.10(M)	GT
* 5 Perylene-d12 (IS)	264	9.480	9.478	(1.000)	114663	4.00000		
23 Dibenz(a,h)anthracene	278	10.404	10.404	(1.097)	54738	2.00000	2.02	
24 Indeno(1,2,3-cd)pyrene	276	10.401	10.402	(1.097)	64444	2.00000	2.05	
25 Benzo[g,h,i]perylene	276	10.655	10.655	(1.124)	52658	2.00000	2.04	

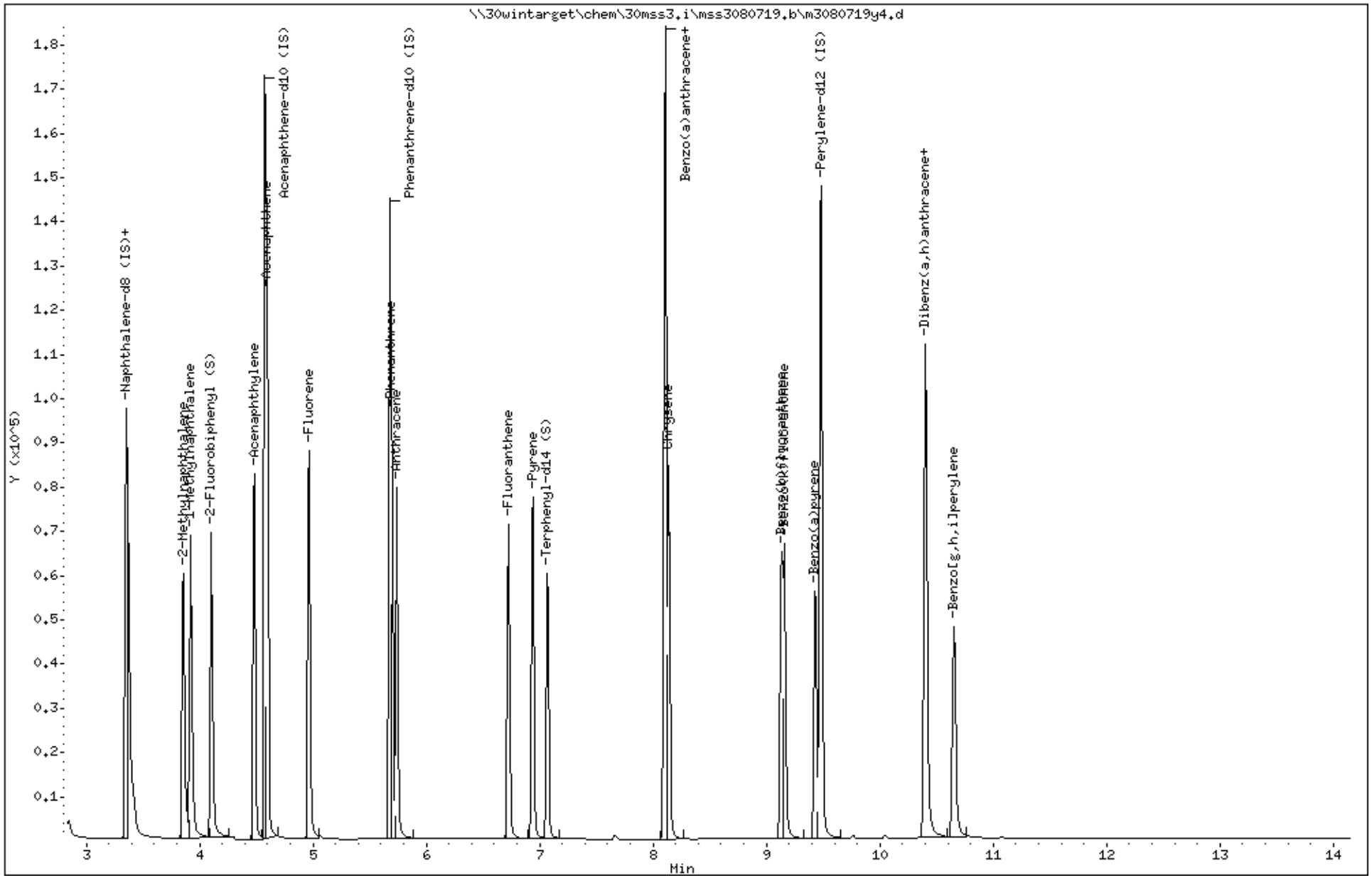
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

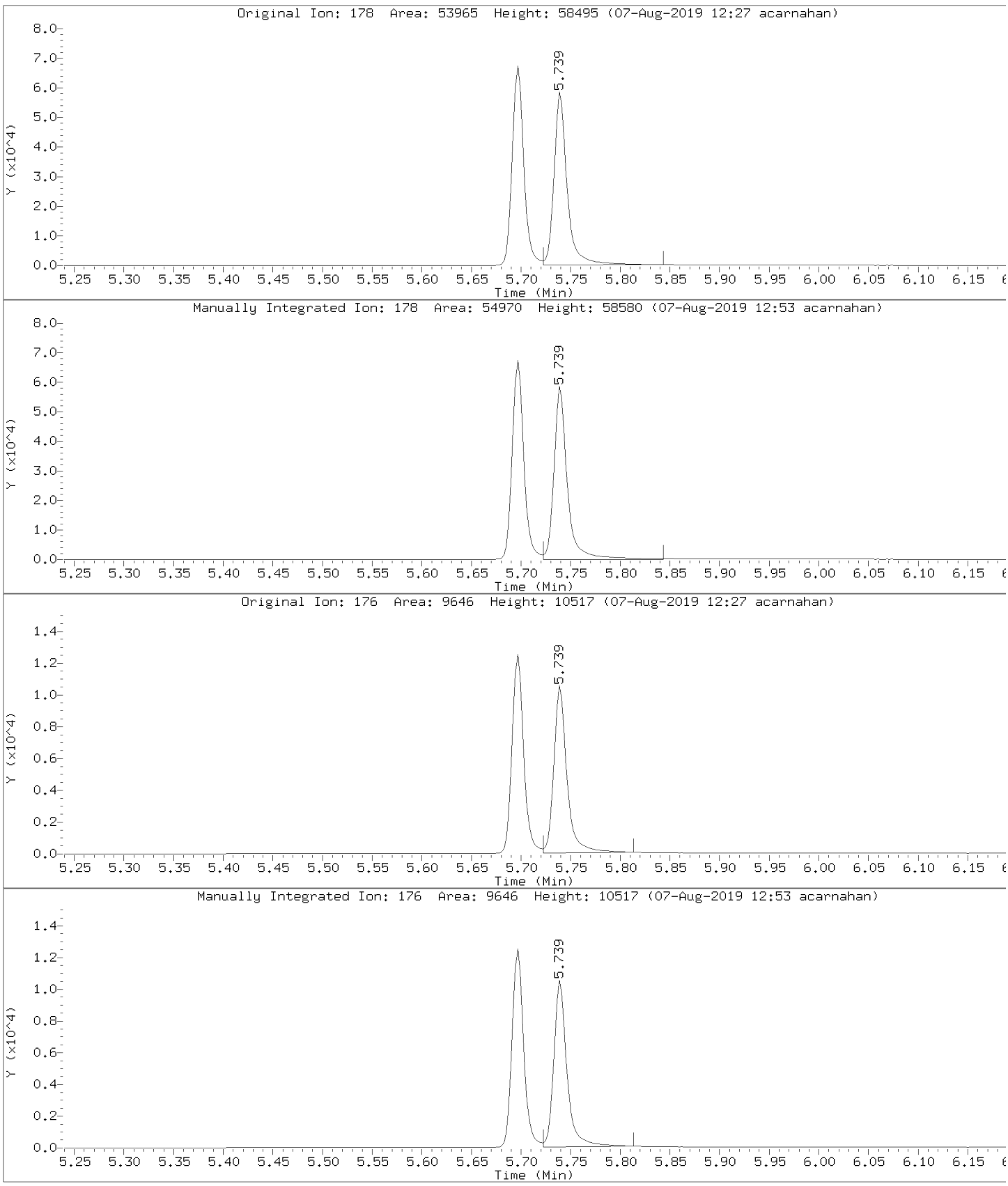
:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y4.d
Date : 07-AUG-2019 11:50
Client ID: CAL4
Instrument: 30mss3.i
Sample Info: CAL4, 94321:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

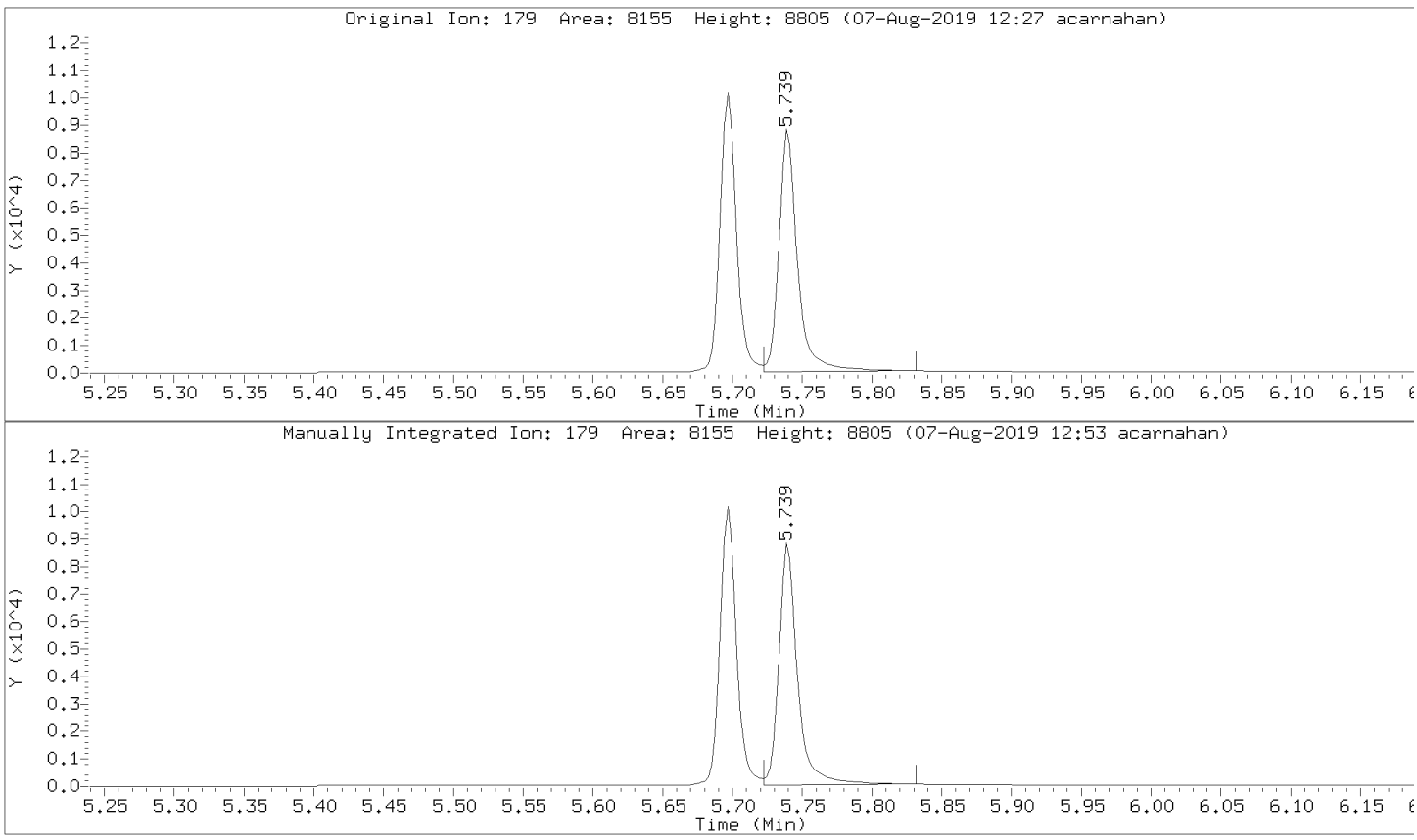


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4



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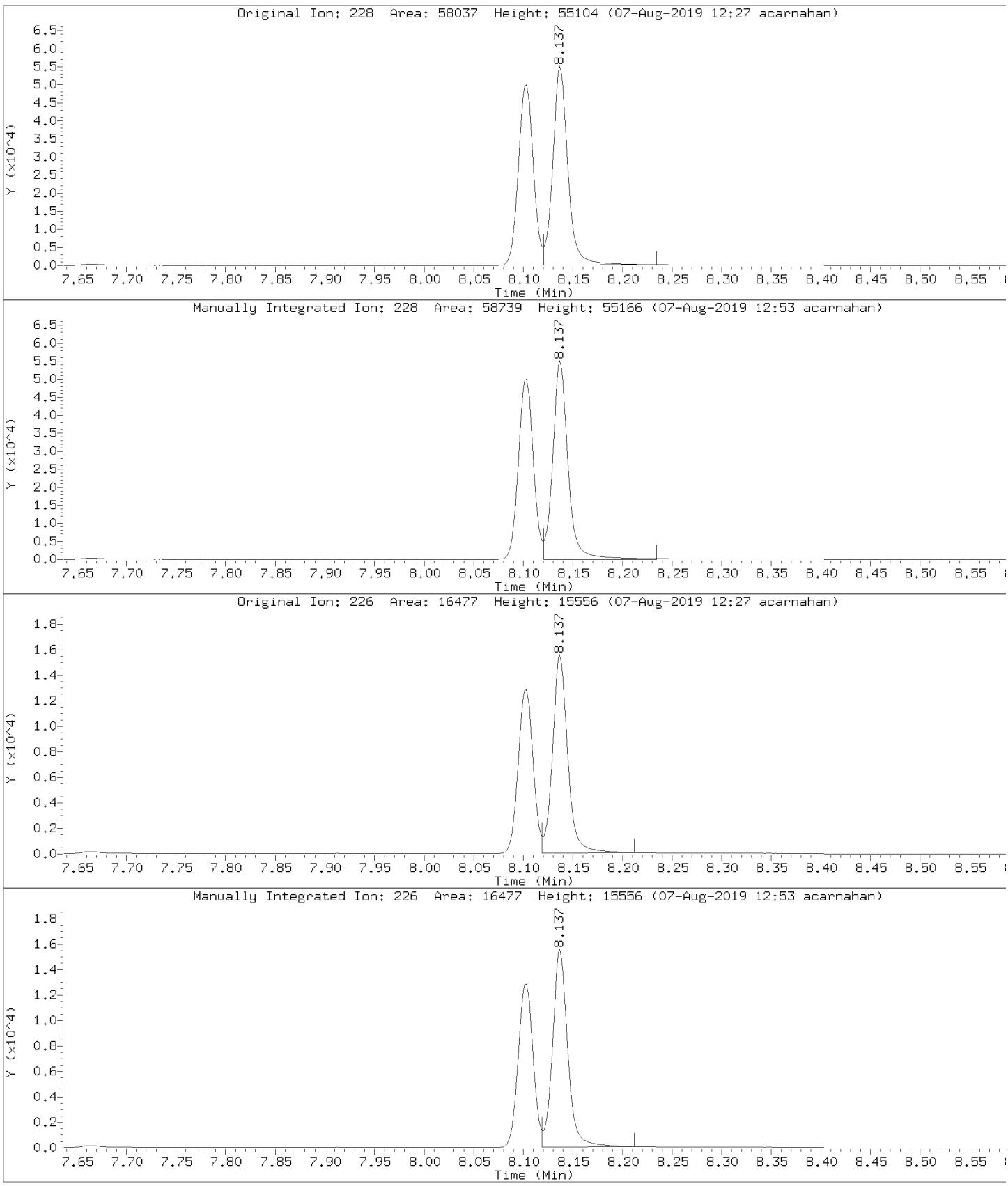
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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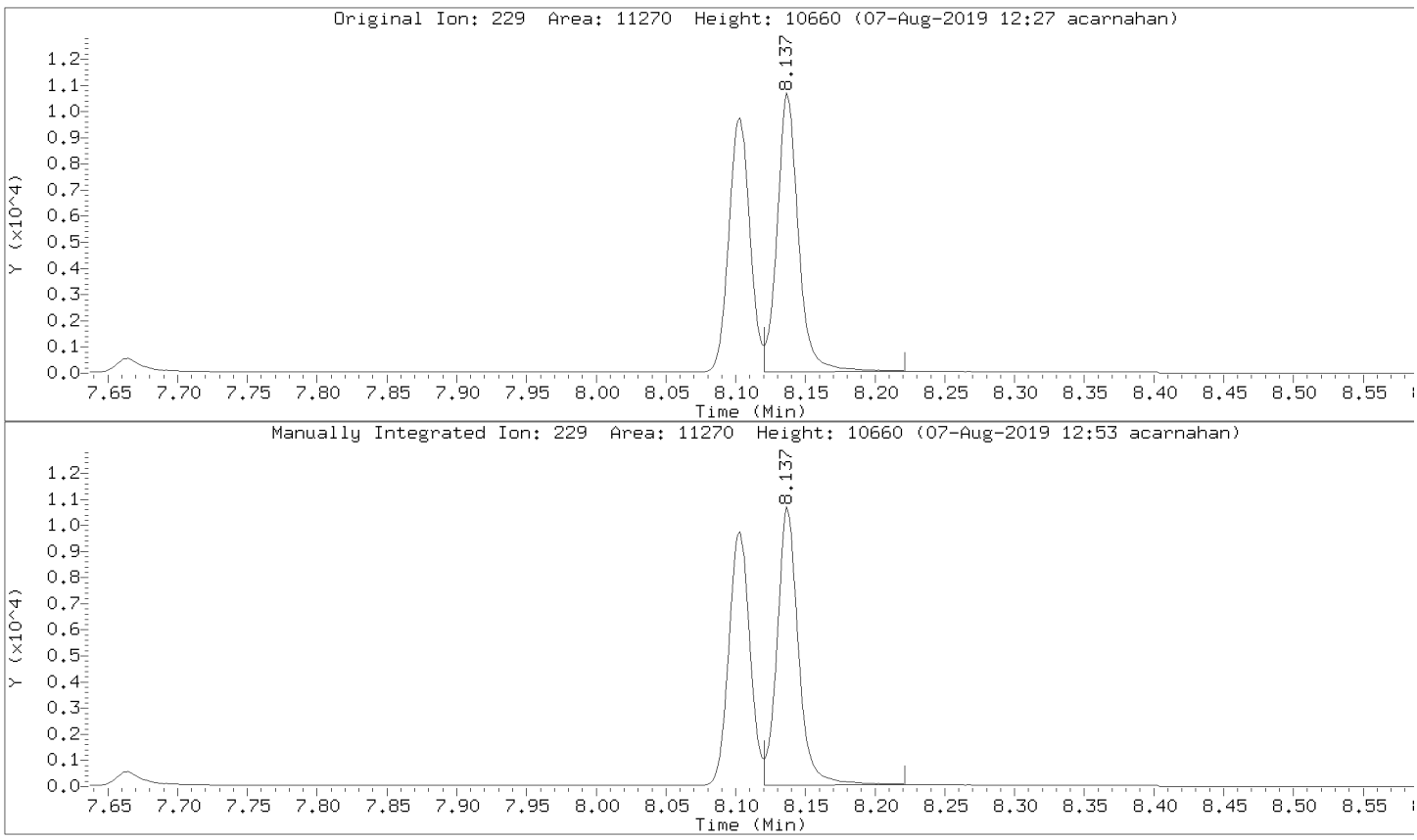
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4



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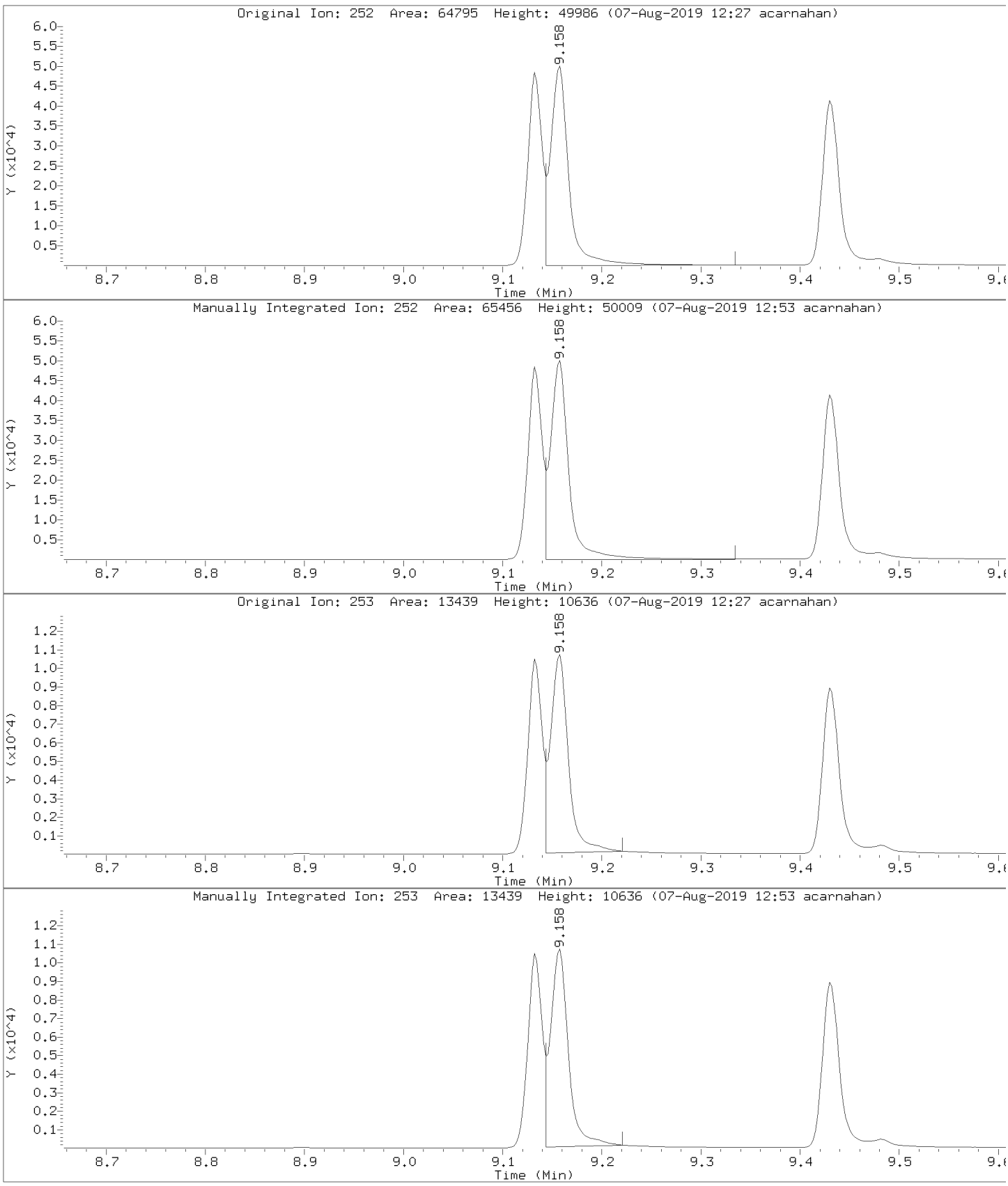
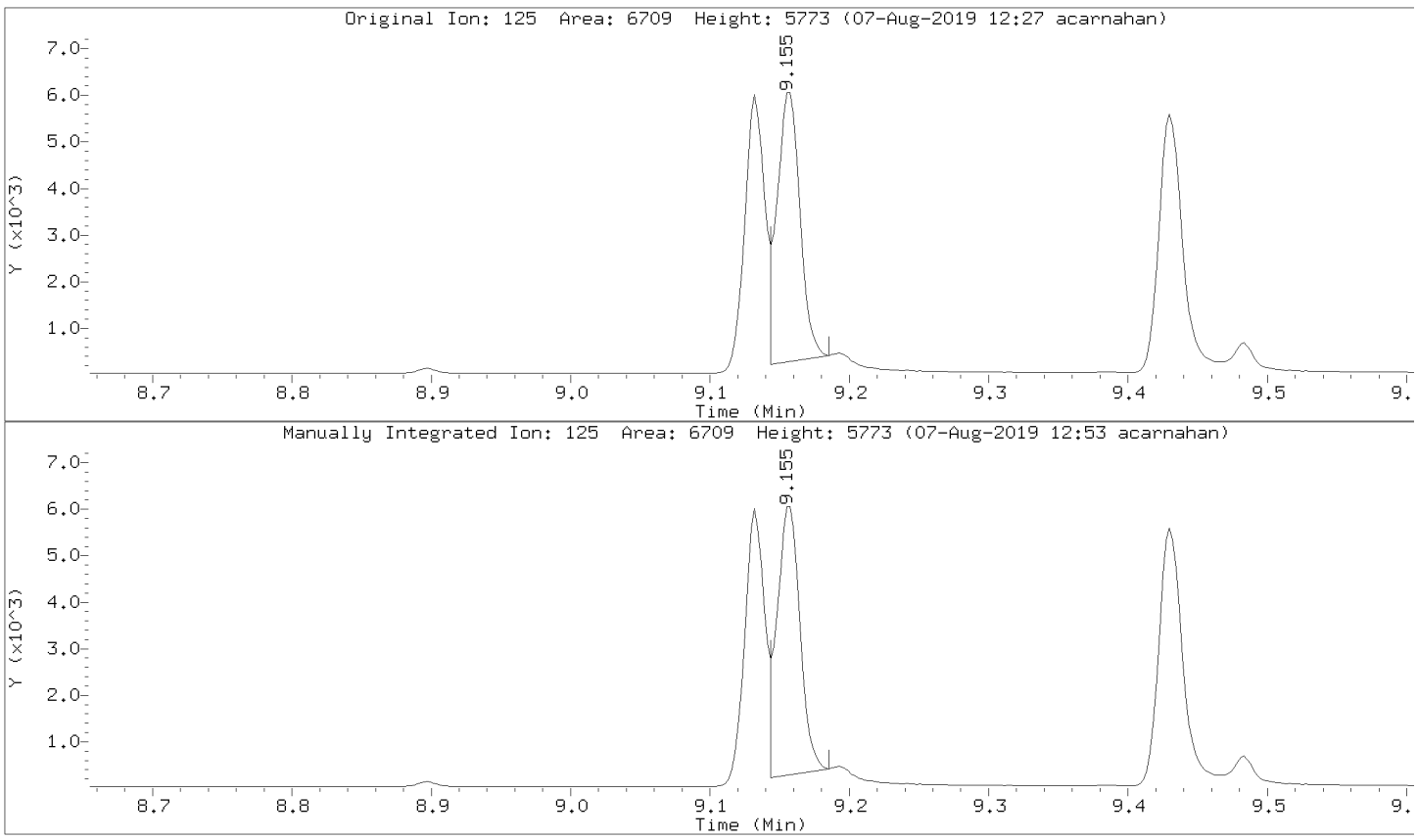
Instrument: 30mss3.i
Lab Sample ID: CAL4

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

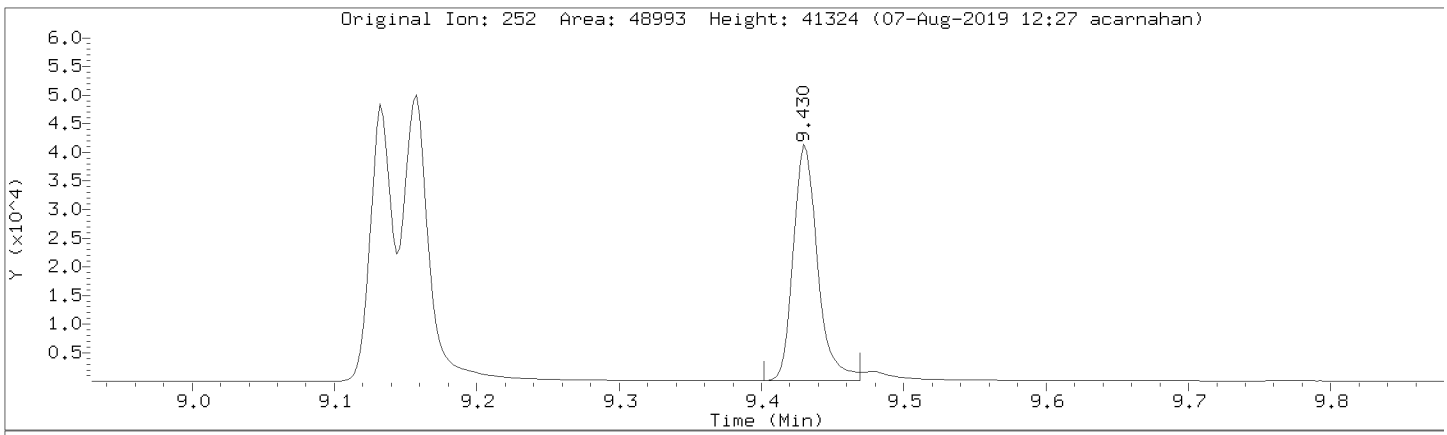


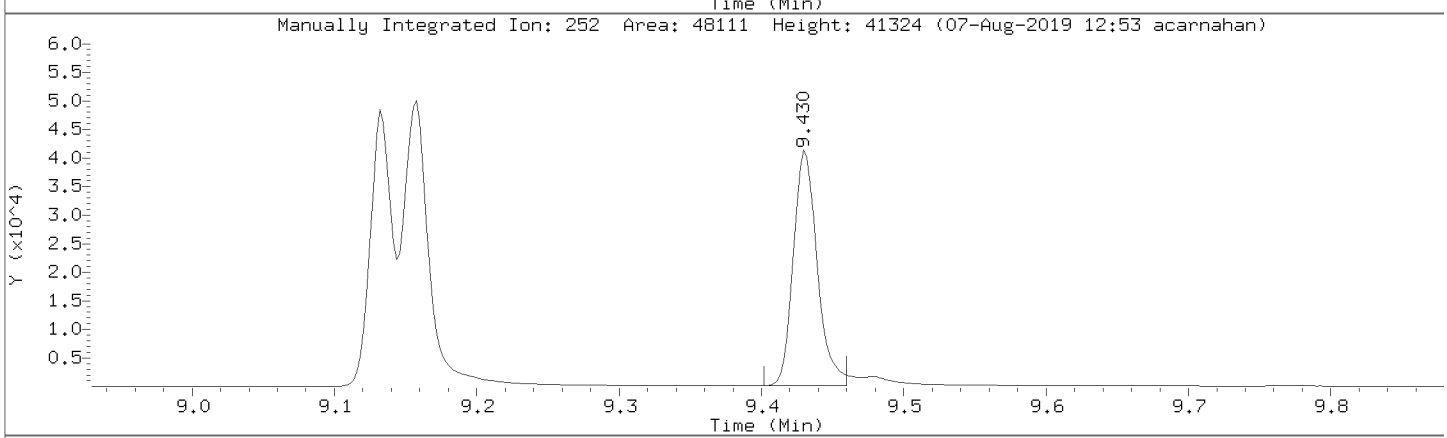
Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4

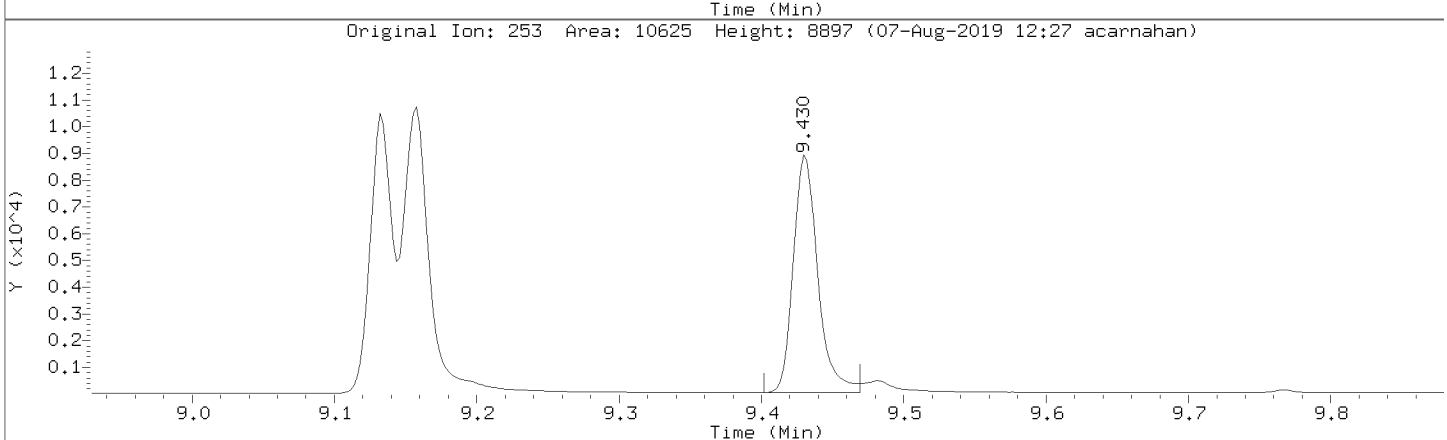


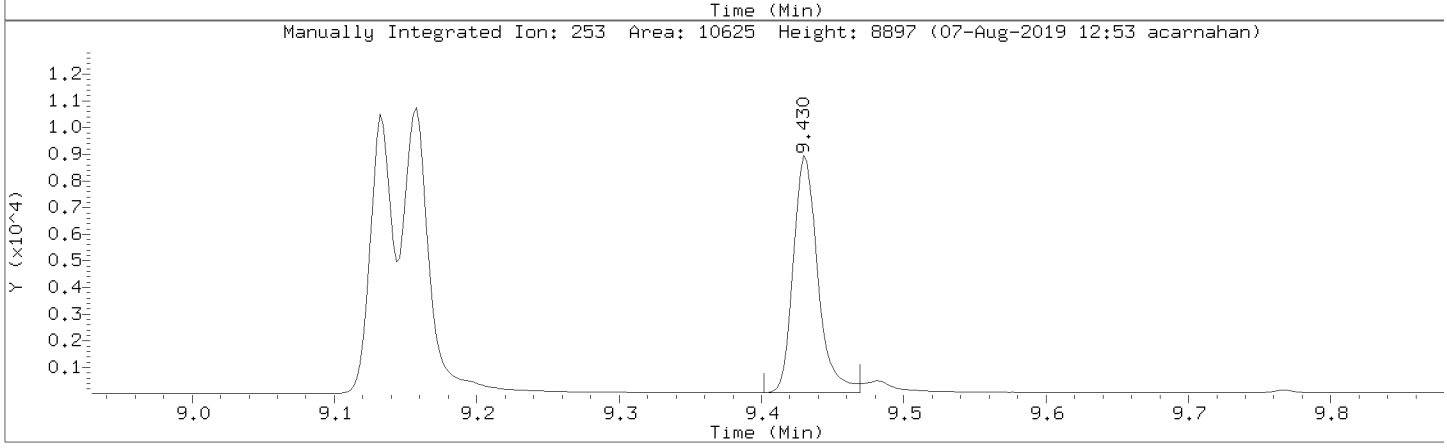
Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

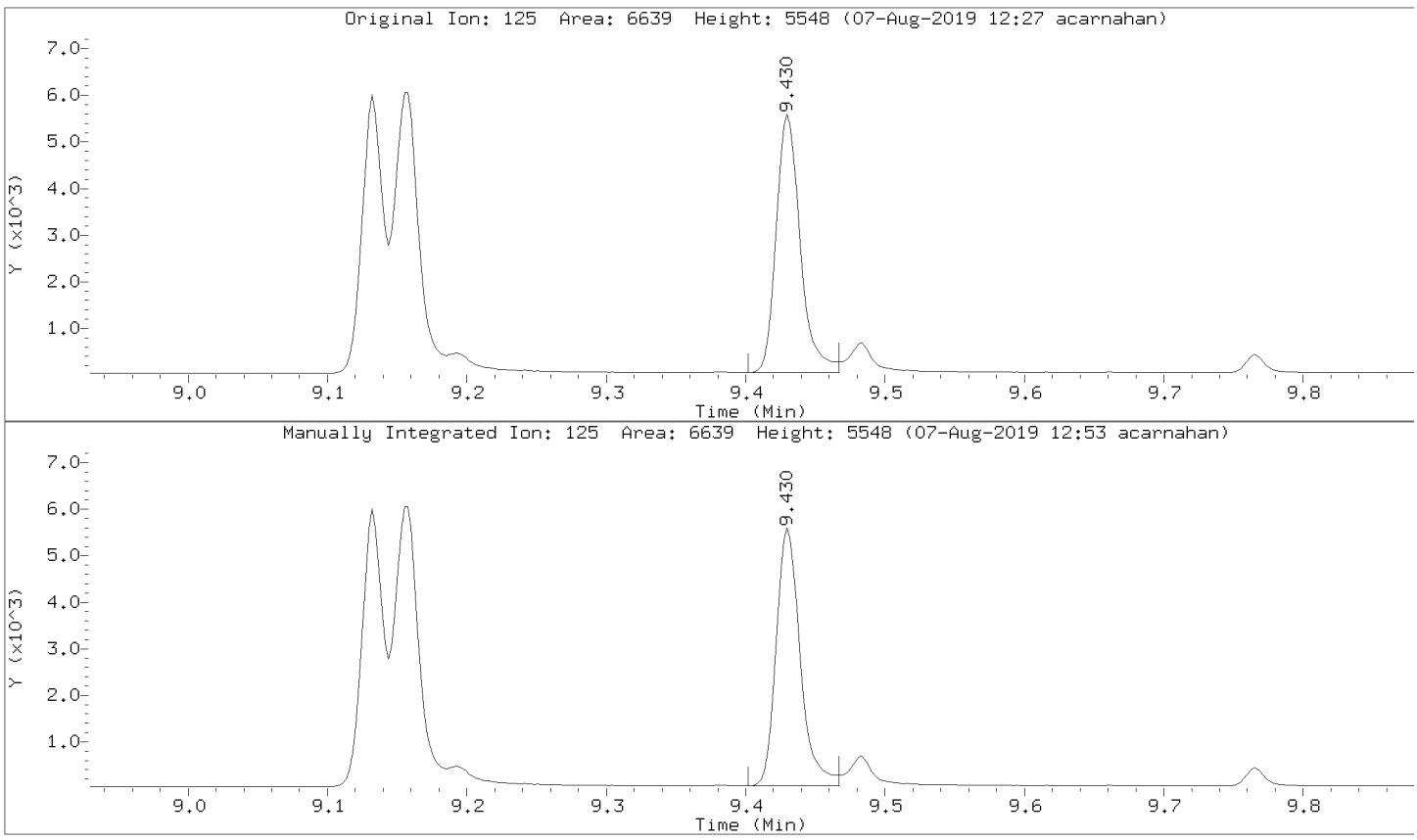






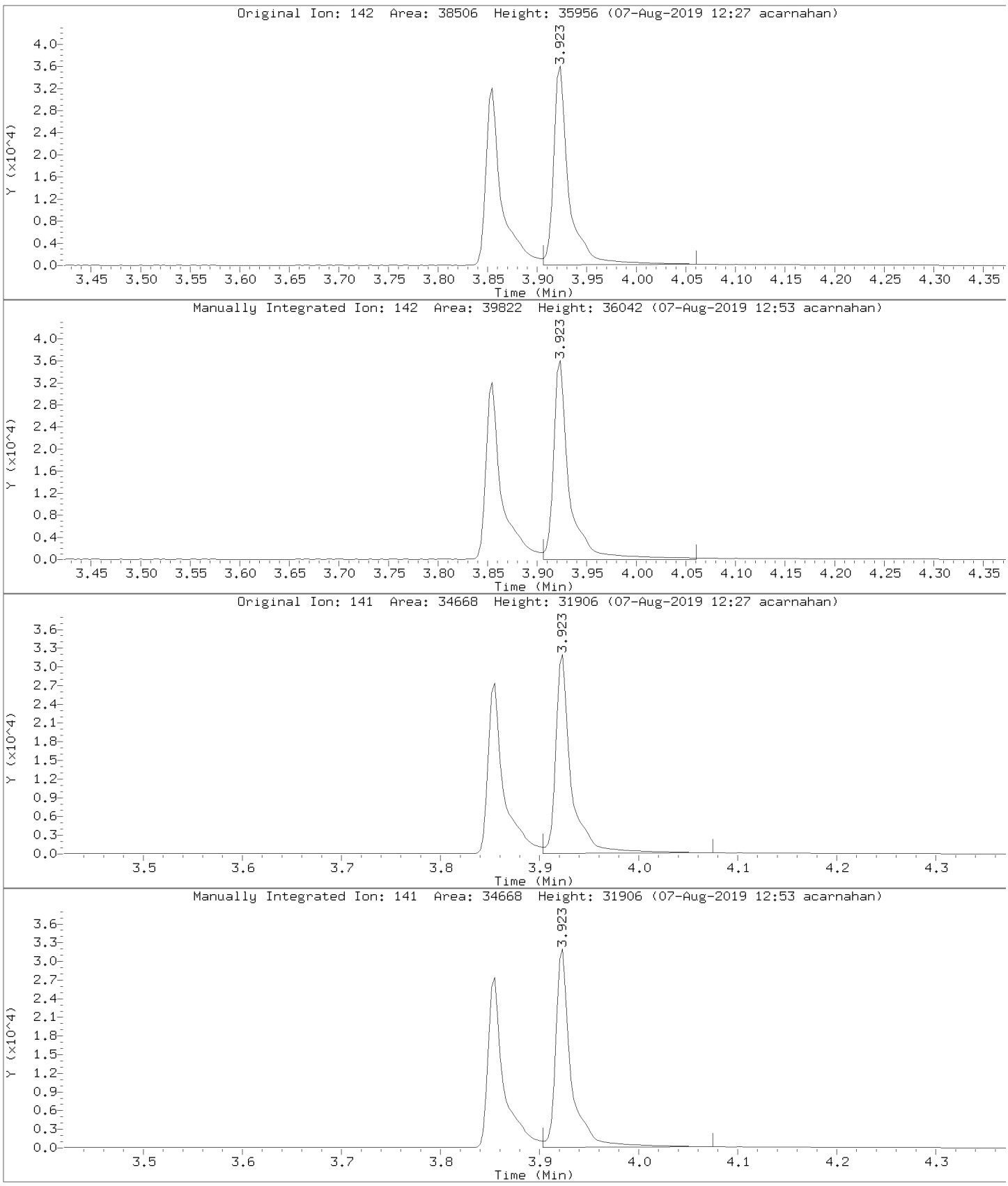


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y4.d
Injection Date: 07-AUG-2019 11:50
Instrument: 30mss3.i
Lab Sample ID: CAL4

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y5.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 07-AUG-2019 12:09 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal5, 94322:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 12:09 Cal File: m3080719y5.d
Als bottle: 98 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	135376	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	169802	5.00000	5.13	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	107866	5.00000	5.73	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	112986	5.00000	5.05(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.103	4.103	(0.897)	118470	5.00000	5.52	
	11 Acenaphthylene	152	4.481	4.481	(0.979)	158306	5.00000	5.66	
*	2 Acenaphthene-d10 (IS)	164	4.576	4.576	(1.000)	71021	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	104859	5.00000	5.17	
	13 Fluorene	166	4.964	4.964	(1.085)	109519	5.00000	5.46	
*	3 Phenanthrene-d10 (IS)	188	5.678	5.678	(1.000)	117220	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	160759	5.00000	5.22	
	15 Anthracene	178	5.738	5.738	(1.011)	165626	5.00000	5.50(M)	BA
	16 Fluoranthene	202	6.726	6.724	(1.185)	171296	5.00000	5.62	
	17 Pyrene	202	6.940	6.938	(1.222)	176277	5.00000	5.61	
$	7 Terphenyl-d14 (S)	244	7.068	7.068	(1.245)	137918	5.00000	5.59	
	18 Benzo(a)anthracene	228	8.103	8.101	(0.999)	164913	5.00000	5.46	
*	4 Chrysene-d12 (IS)	240	8.114	8.111	(1.000)	124728	4.00000		
	19 Chrysene	228	8.139	8.136	(1.003)	171057	5.00000	5.00(M)	BA

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.136	9.132	(0.964)	165436	5.00000	6.21	
21 Benzo(k)fluoranthene	252	9.159	9.157	(0.966)	190808	5.00000	5.29(M)	BA
22 Benzo(a)pyrene	252	9.434	9.429	(0.995)	156873	5.00000	6.11(M)	GT
* 5 Perylene-d12 (IS)	264	9.480	9.478	(1.000)	128905	4.00000		
23 Dibenz(a,h)anthracene	278	10.411	10.404	(1.098)	172465	5.00000	5.65	
24 Indeno(1,2,3-cd)pyrene	276	10.406	10.402	(1.098)	200255	5.00000	5.66	
25 Benzo[g,h,i]perylene	276	10.660	10.655	(1.124)	161929	5.00000	5.58	

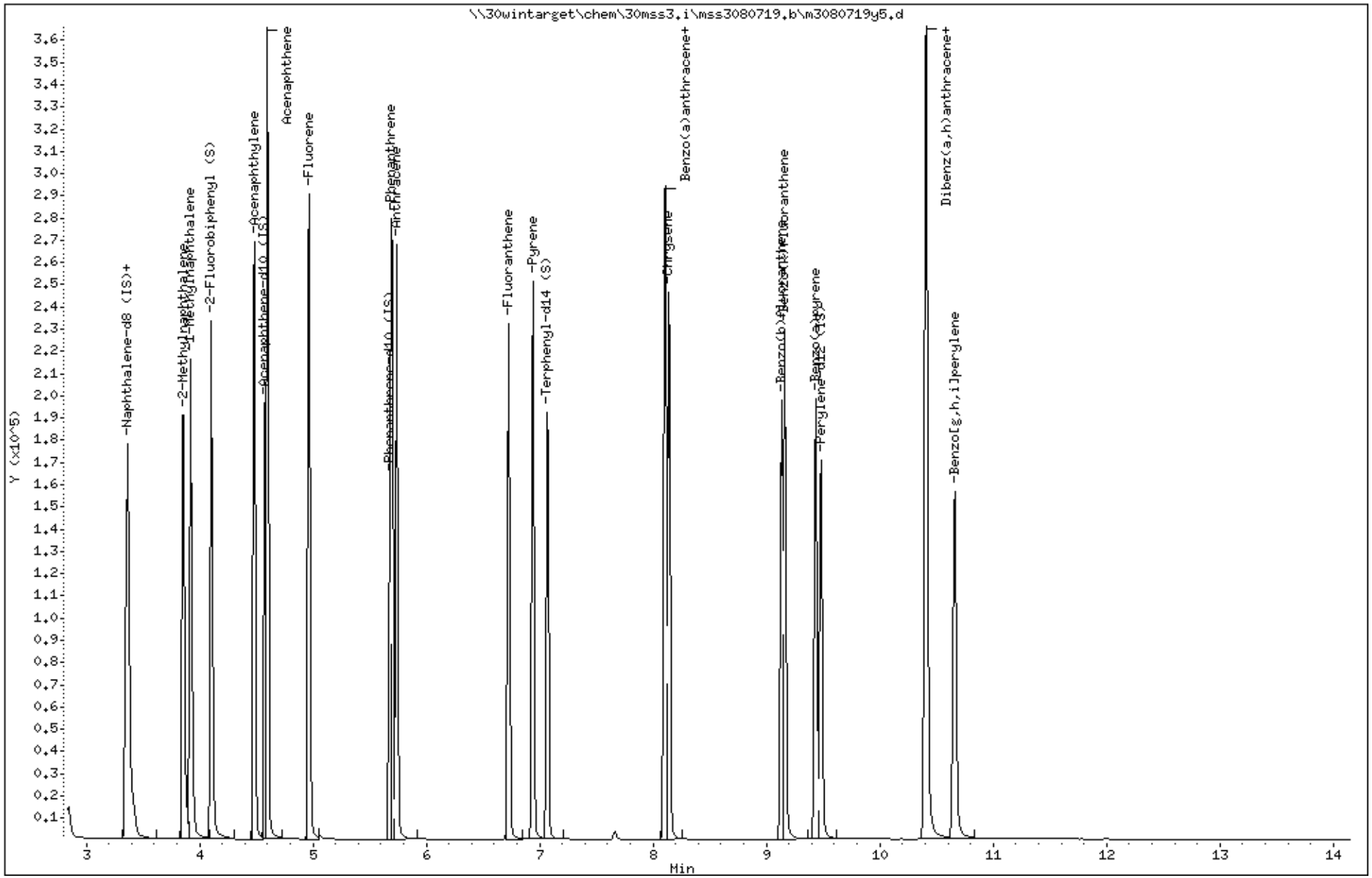
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

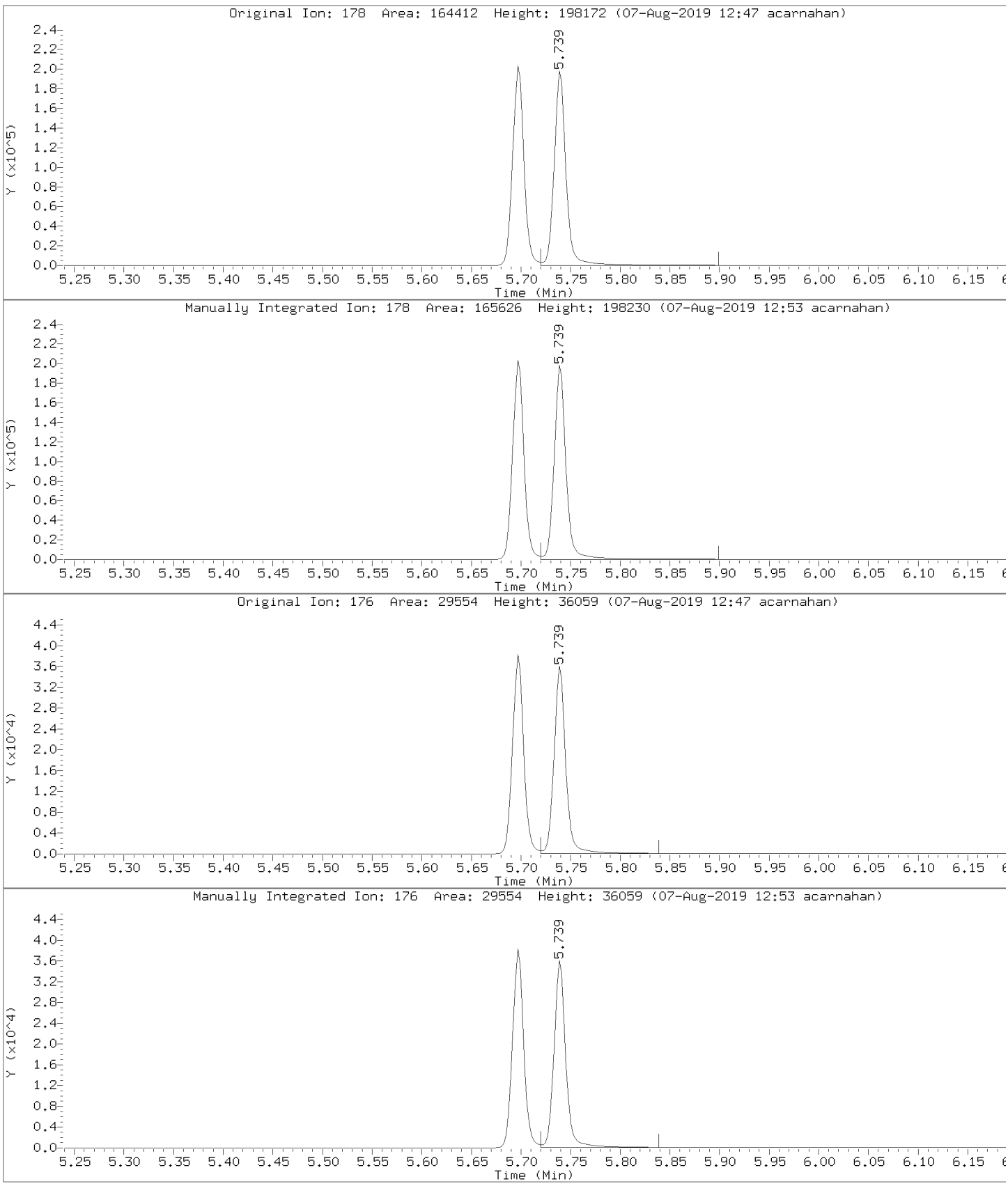
:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y5.d
Date : 07-AUG-2019 12:09
Client ID: CAL5
Instrument: 30mss3.i
Sample Info: CAL5, 94322:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25

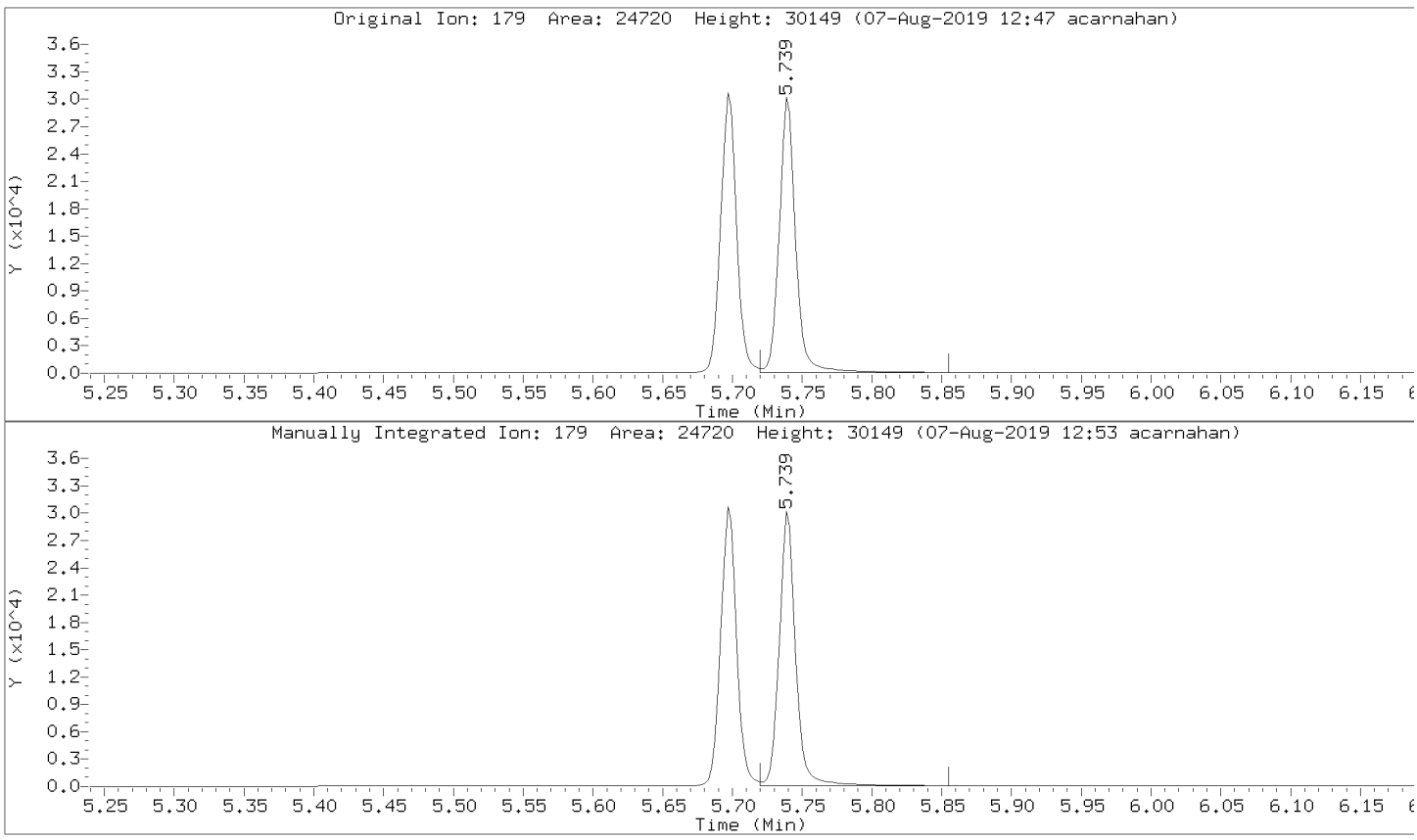


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7

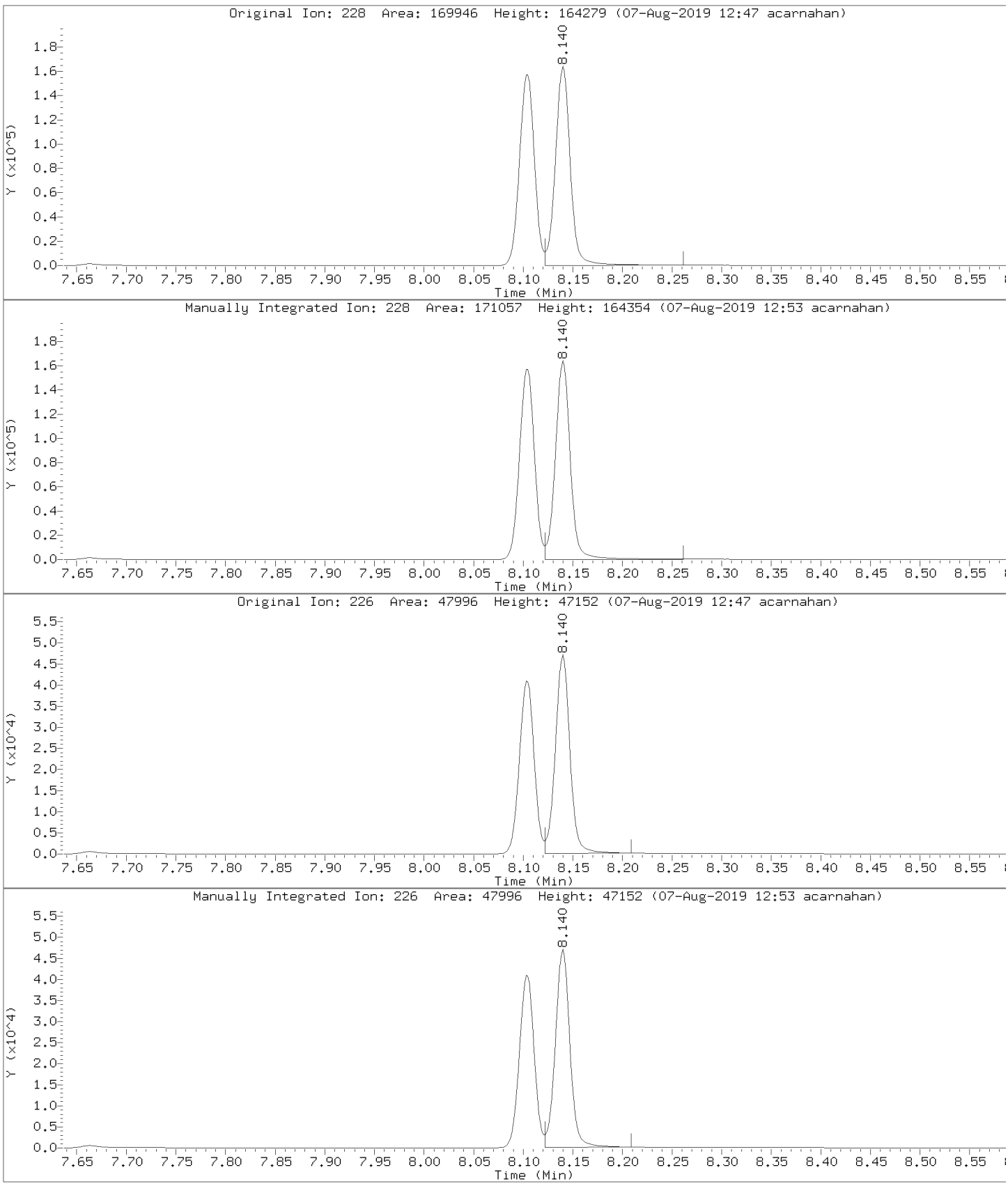


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

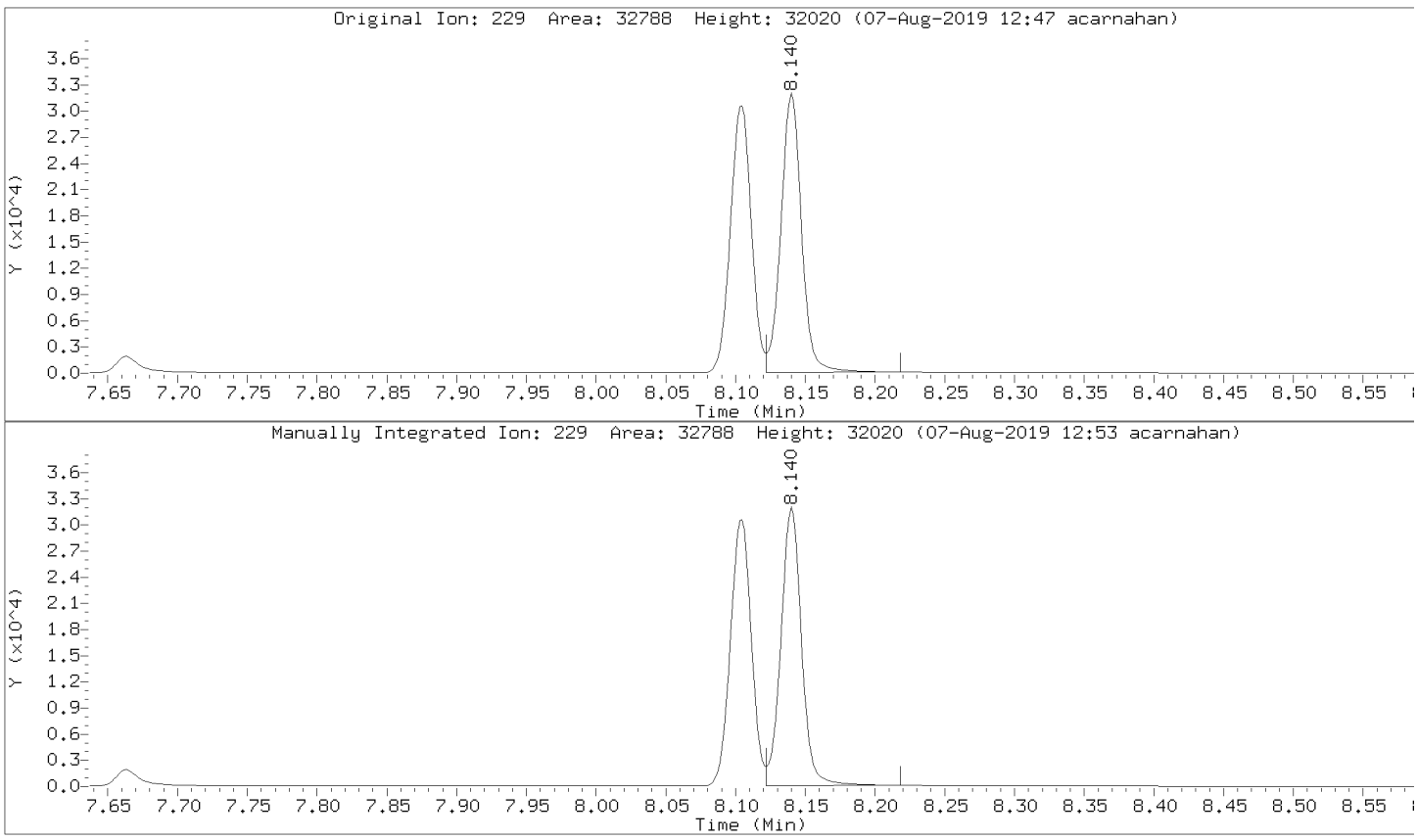


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5



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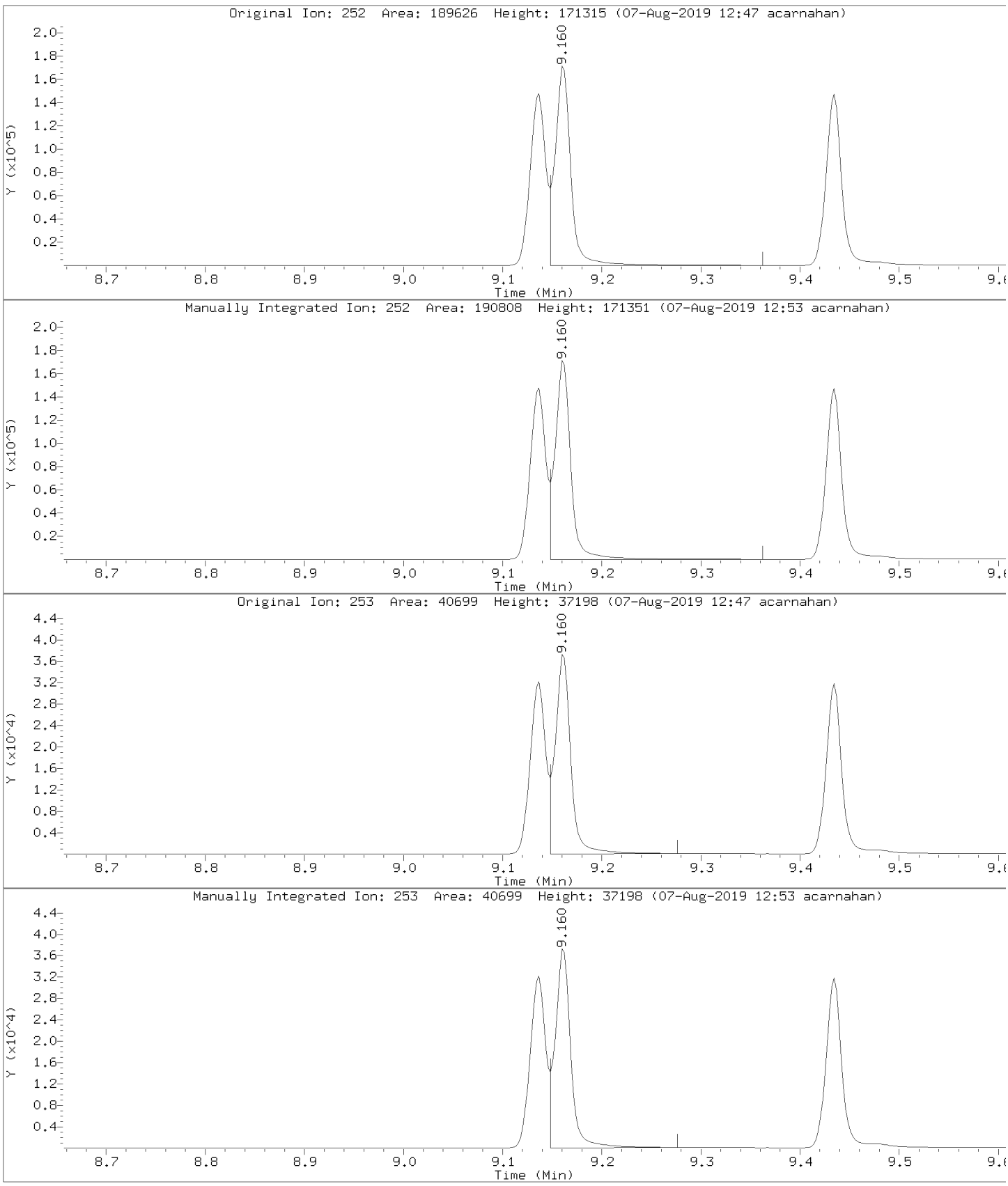
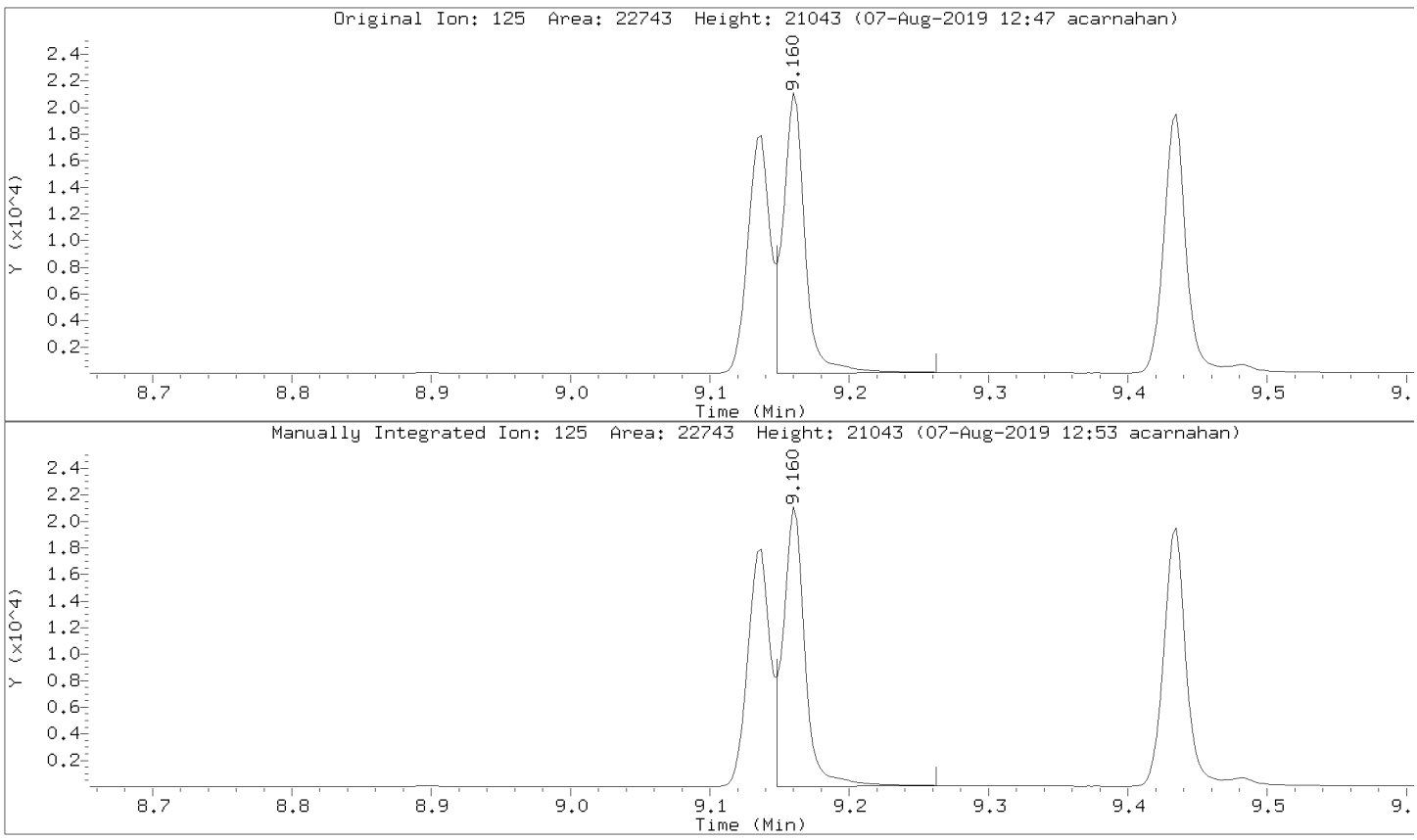
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

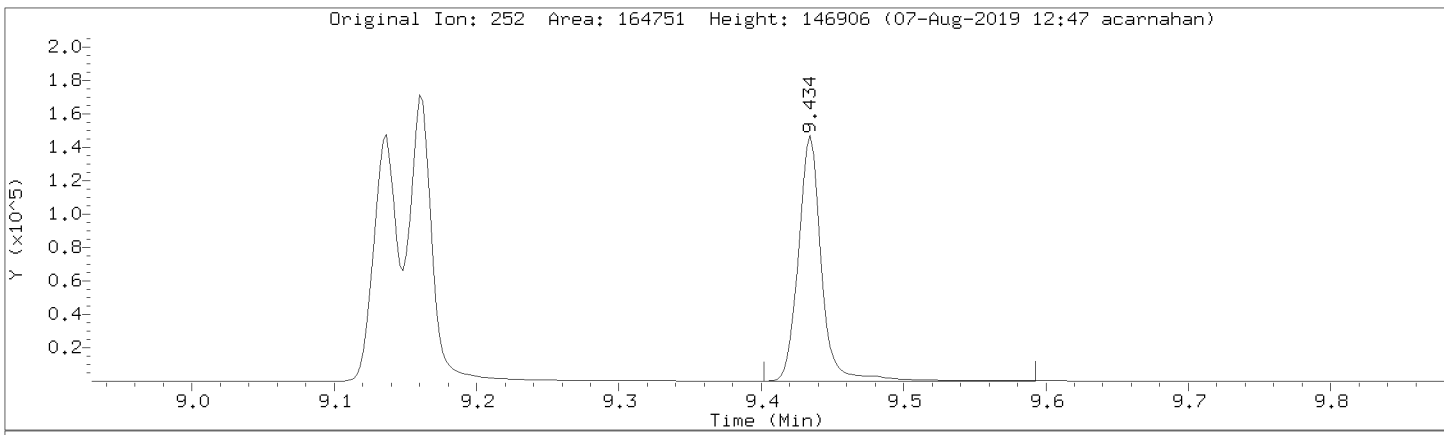


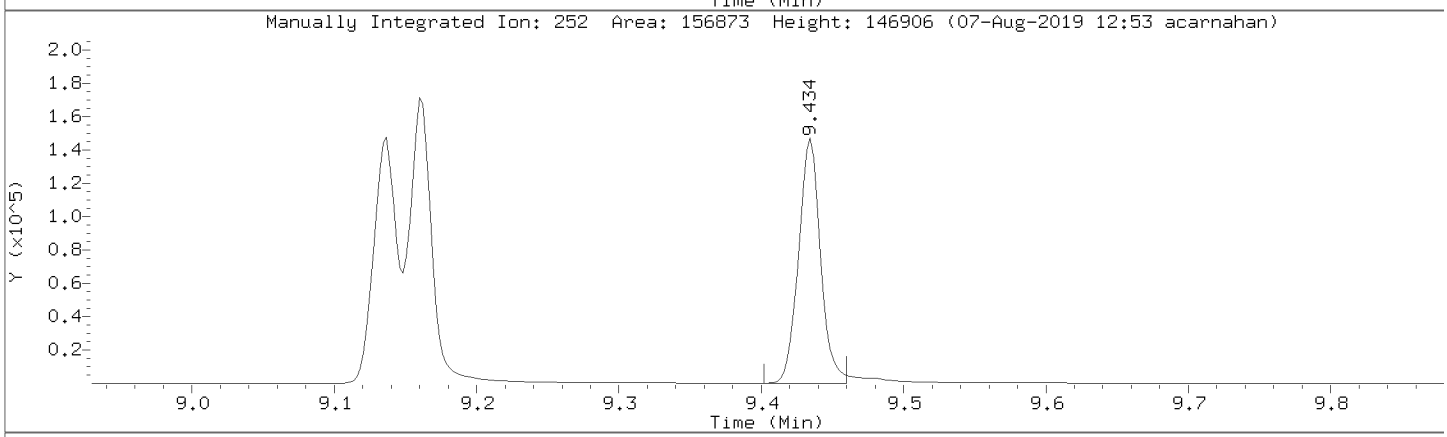
Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

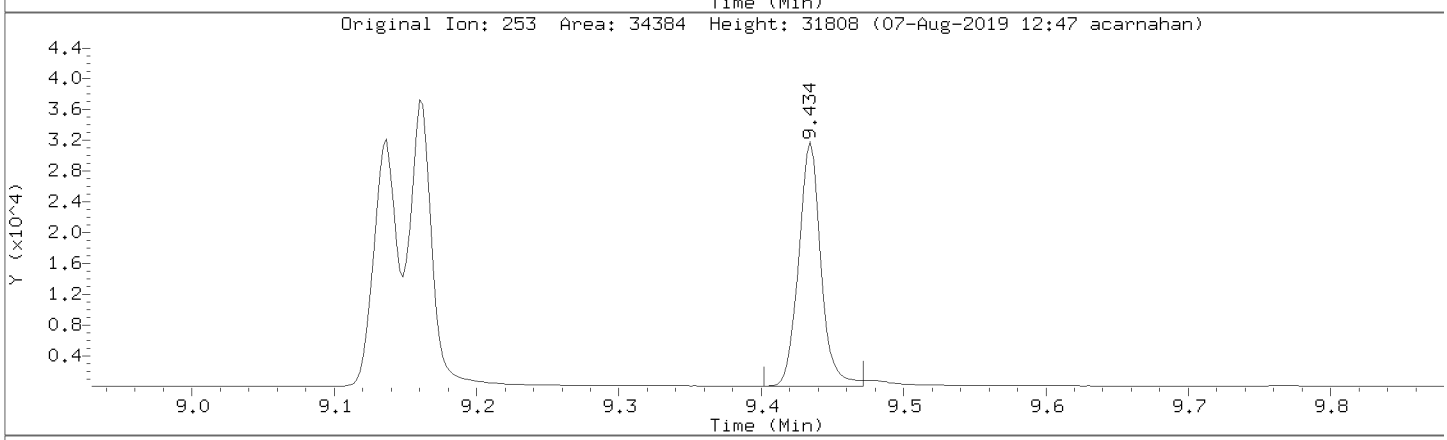


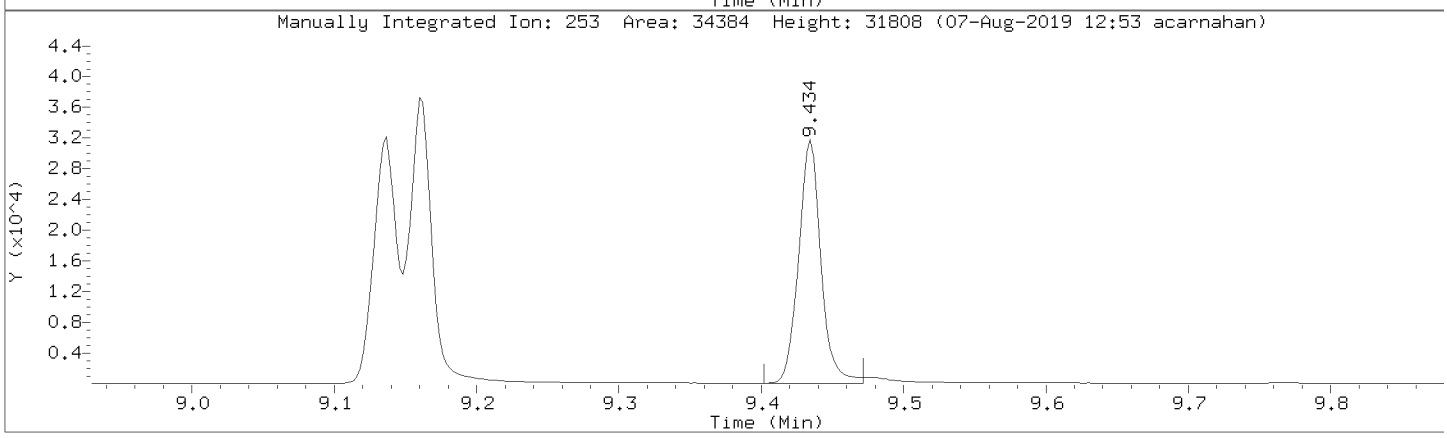
Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

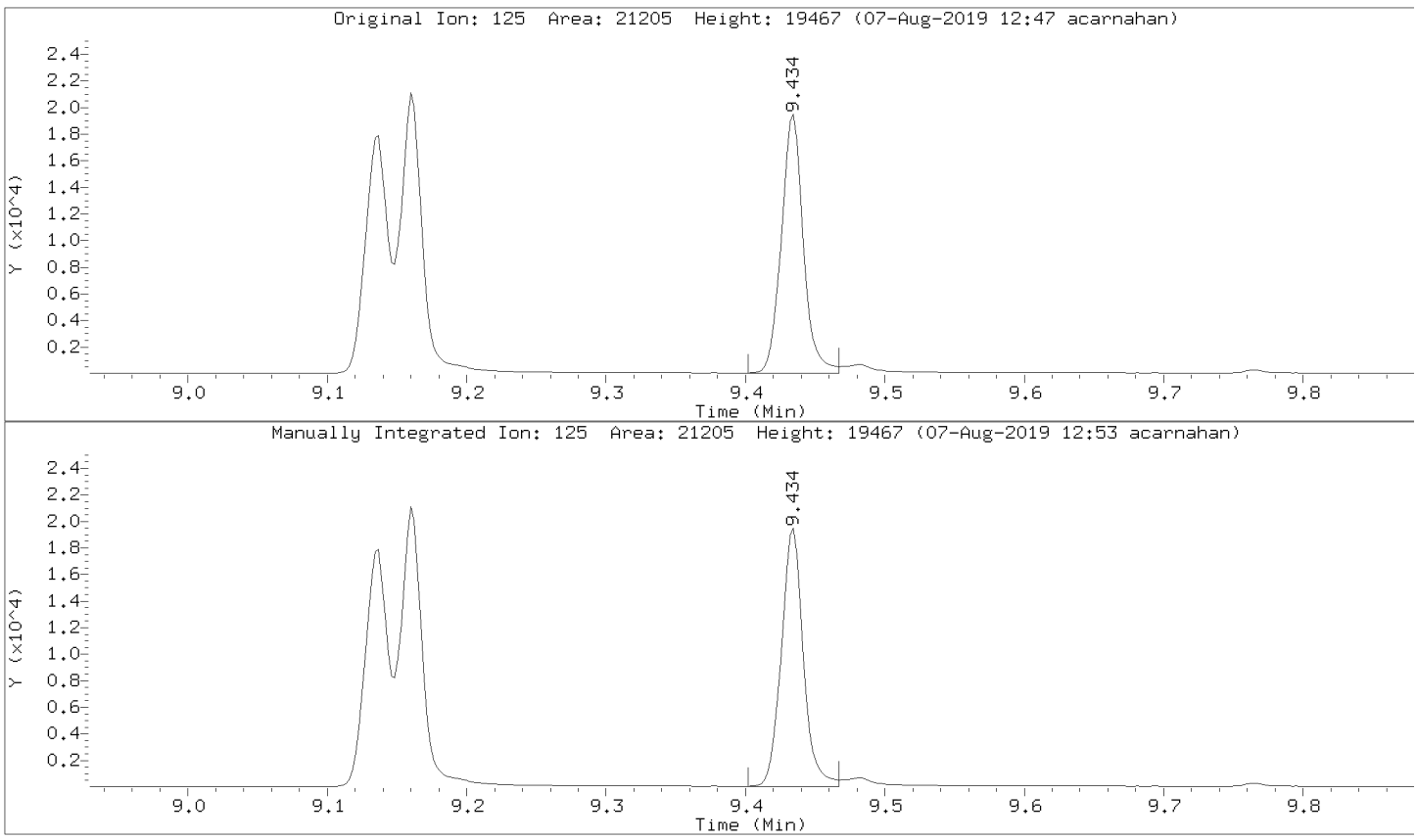








Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y5.d
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5



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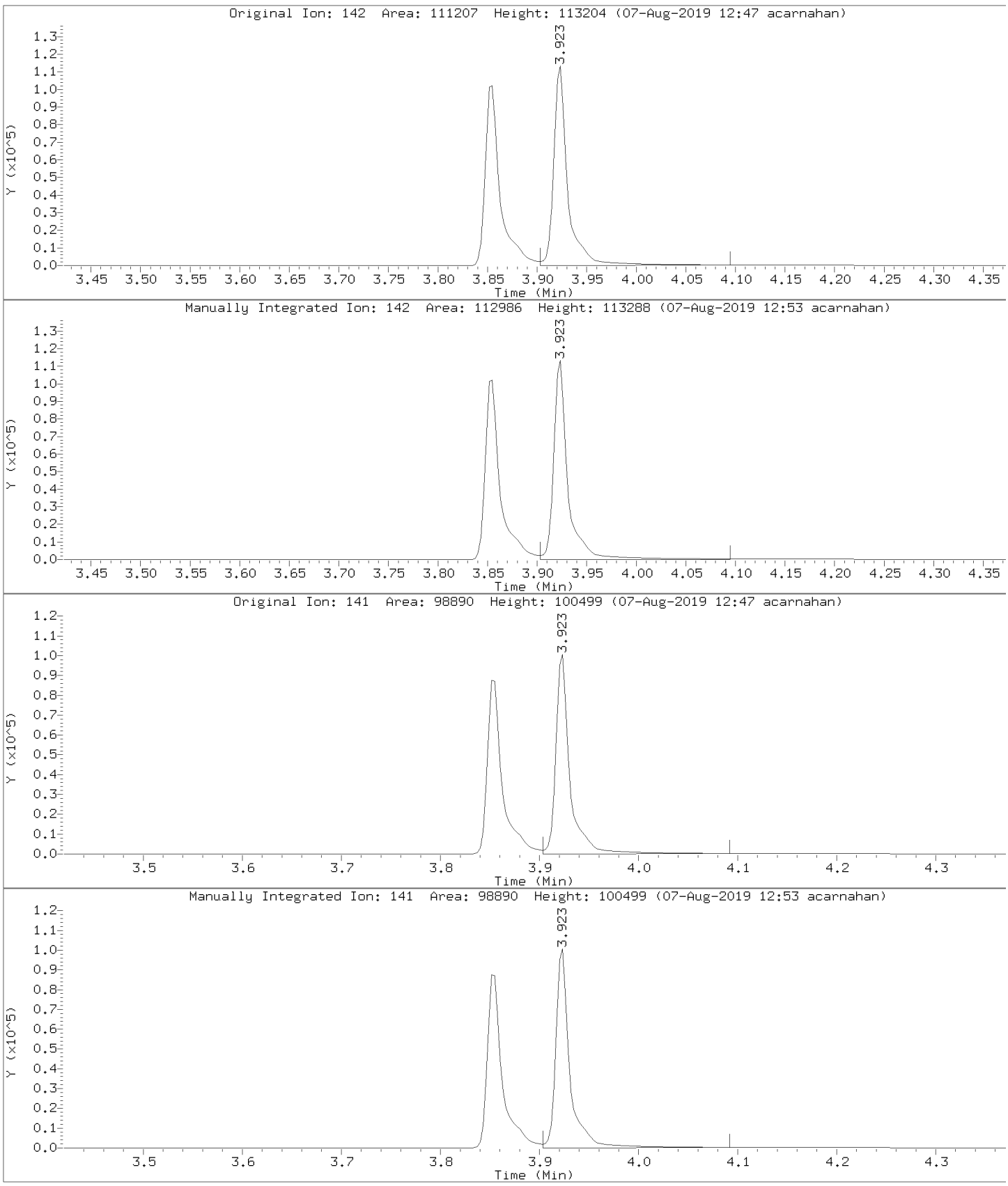
Injection Date: 07-AUG-2019 12:09
Instrument: 30mss3.i
Lab Sample ID: CAL5

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y6.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 07-AUG-2019 12:29 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : cal6, 94323:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 99 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	125552	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	580276	20.0000	18.9	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	385427	20.0000	22.1(A)	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	384057	20.0000	18.5(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.106	4.103	(0.897)	409965	20.0000	21.1(A)	
	11 Acenaphthylene	152	4.482	4.481	(0.979)	570844	20.0000	22.5(A)	
*	2 Acenaphthene-d10 (IS)	164	4.577	4.576	(1.000)	64274	4.00000		
	12 Acenaphthene	153	4.600	4.599	(1.005)	366855	20.0000	20.0	
	13 Fluorene	166	4.967	4.964	(1.085)	396262	20.0000	21.8(A)	
*	3 Phenanthrene-d10 (IS)	188	5.678	5.678	(1.000)	107742	4.00000		
	14 Phenanthrene	178	5.701	5.696	(1.004)	573338	20.0000	20.3(A)	
	15 Anthracene	178	5.743	5.738	(1.011)	585228	20.0000	21.1(AM)	BA
	16 Fluoranthene	202	6.731	6.724	(1.186)	616329	20.0000	22.0(A)	
	17 Pyrene	202	6.945	6.938	(1.223)	626188	20.0000	21.7(A)	
$	7 Terphenyl-d14 (S)	244	7.073	7.068	(1.246)	505595	20.0000	22.3(A)	
	18 Benzo(a)anthracene	228	8.109	8.101	(0.999)	590143	20.0000	21.1(A)	
*	4 Chrysene-d12 (IS)	240	8.120	8.111	(1.000)	115539	4.00000		
	19 Chrysene	228	8.149	8.136	(1.004)	594366	20.0000	18.7(M)	BA

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	9.143	9.132	(0.964)	604226	20.0000	25.3(A)	
21 Benzo(k)fluoranthene	252	9.171	9.157	(0.967)	662583	20.0000	20.5(AM)	BA
22 Benzo(a)pyrene	252	9.443	9.429	(0.996)	571434	20.0000	24.9(AM)	GT
* 5 Perylene-d12 (IS)	264	9.485	9.478	(1.000)	115430	4.00000		
23 Dibenz(a,h)anthracene	278	10.425	10.404	(1.099)	639701	20.0000	23.4(A)	
24 Indeno(1,2,3-cd)pyrene	276	10.425	10.402	(1.099)	721082	20.0000	22.8(A)	
25 Benzo[g,h,i]perylene	276	10.681	10.655	(1.126)	558948	20.0000	21.5(A)	

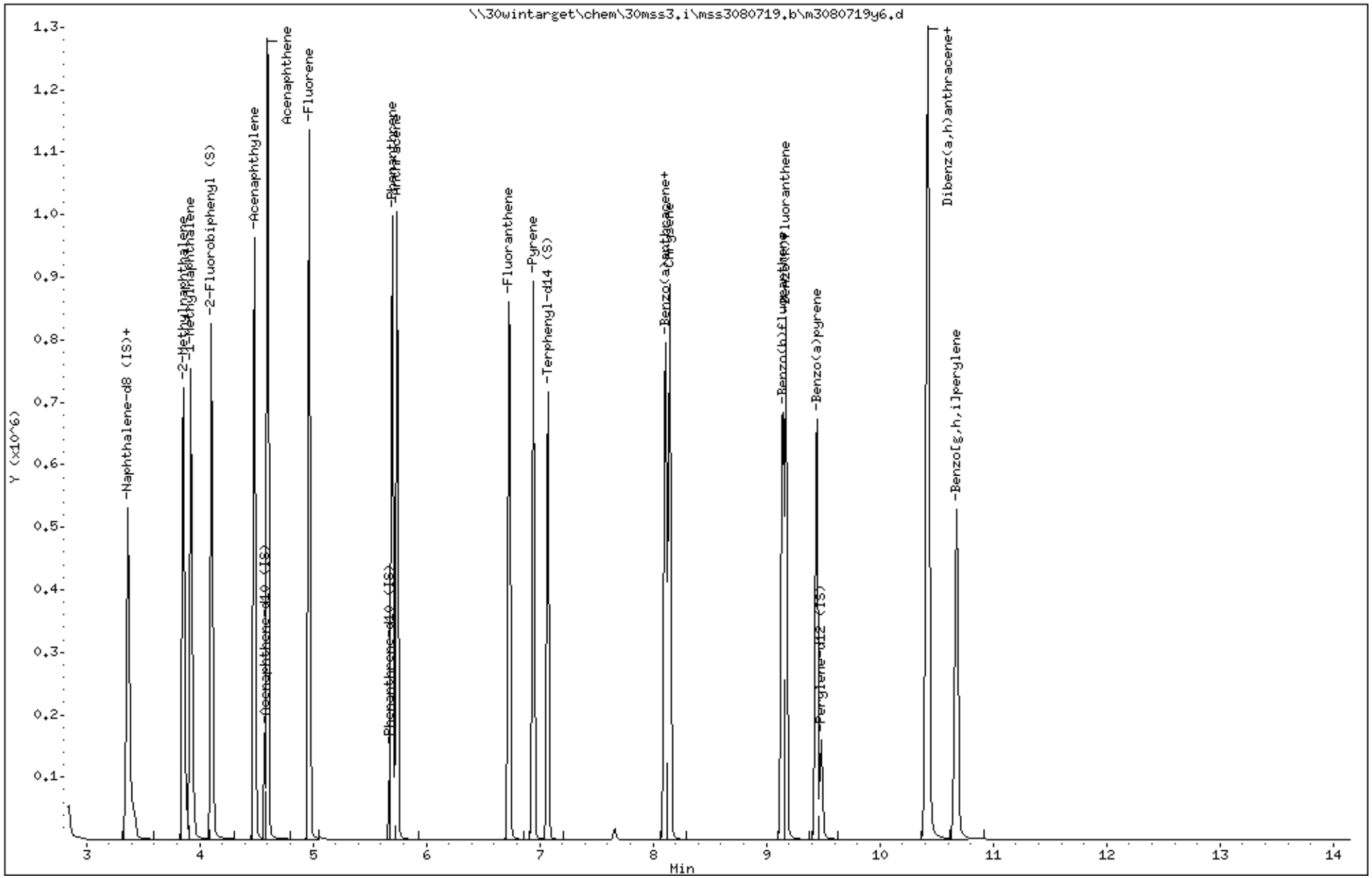
QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y6.d
Date : 07-AUG-2019 12:29
Client ID: CAL6
Instrument: 30mss3.i
Sample Info: CAL6, 94323:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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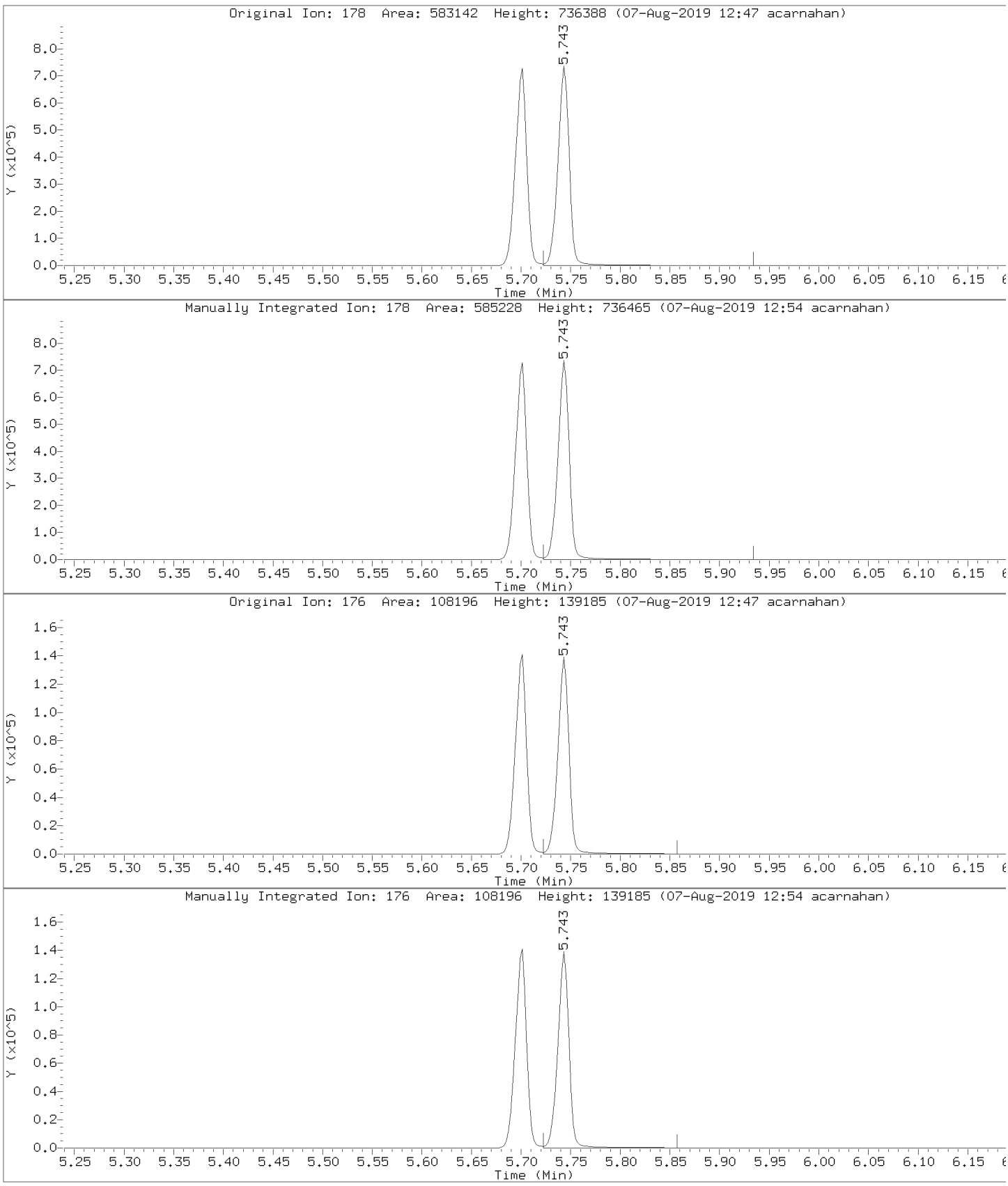
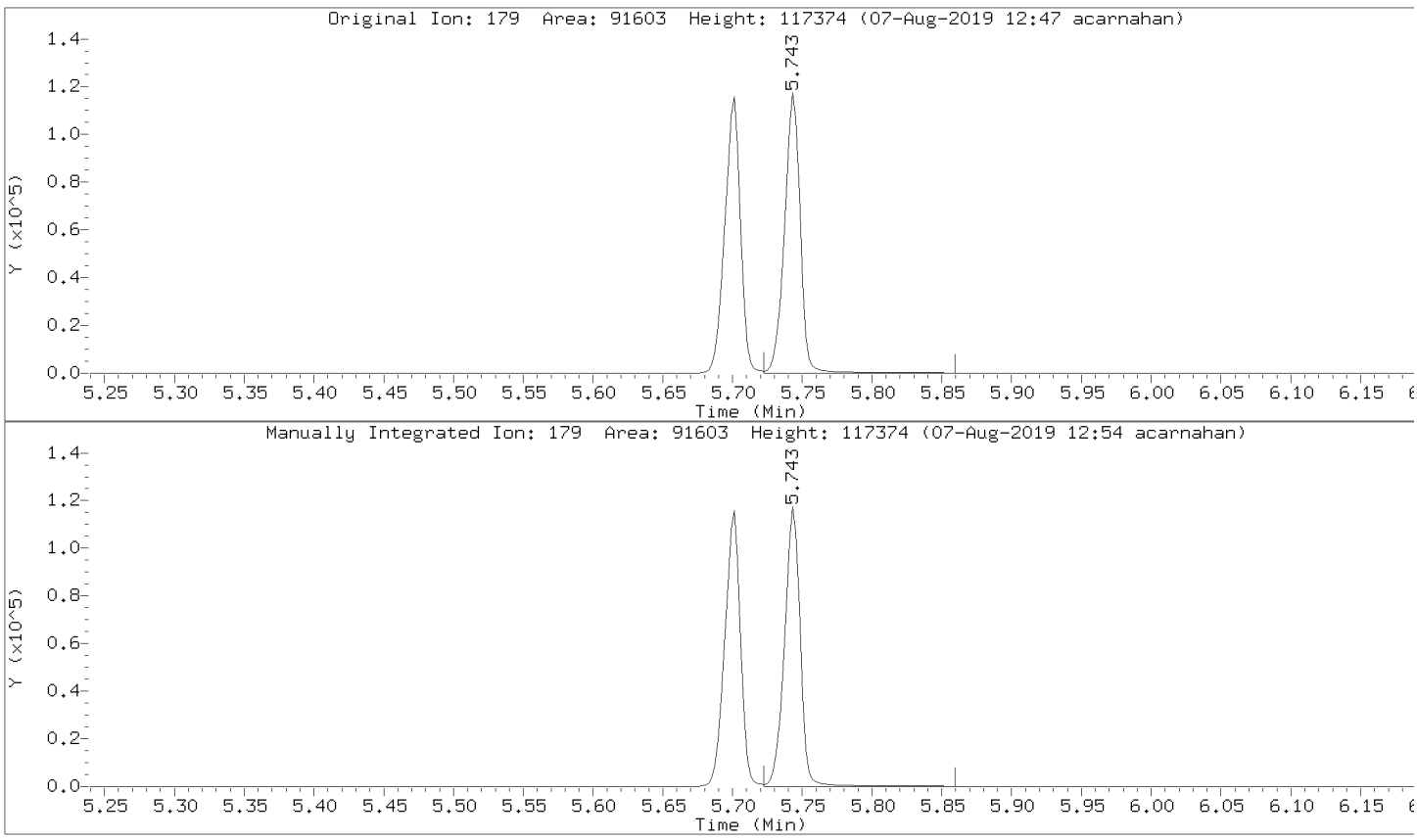
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y6.d
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6



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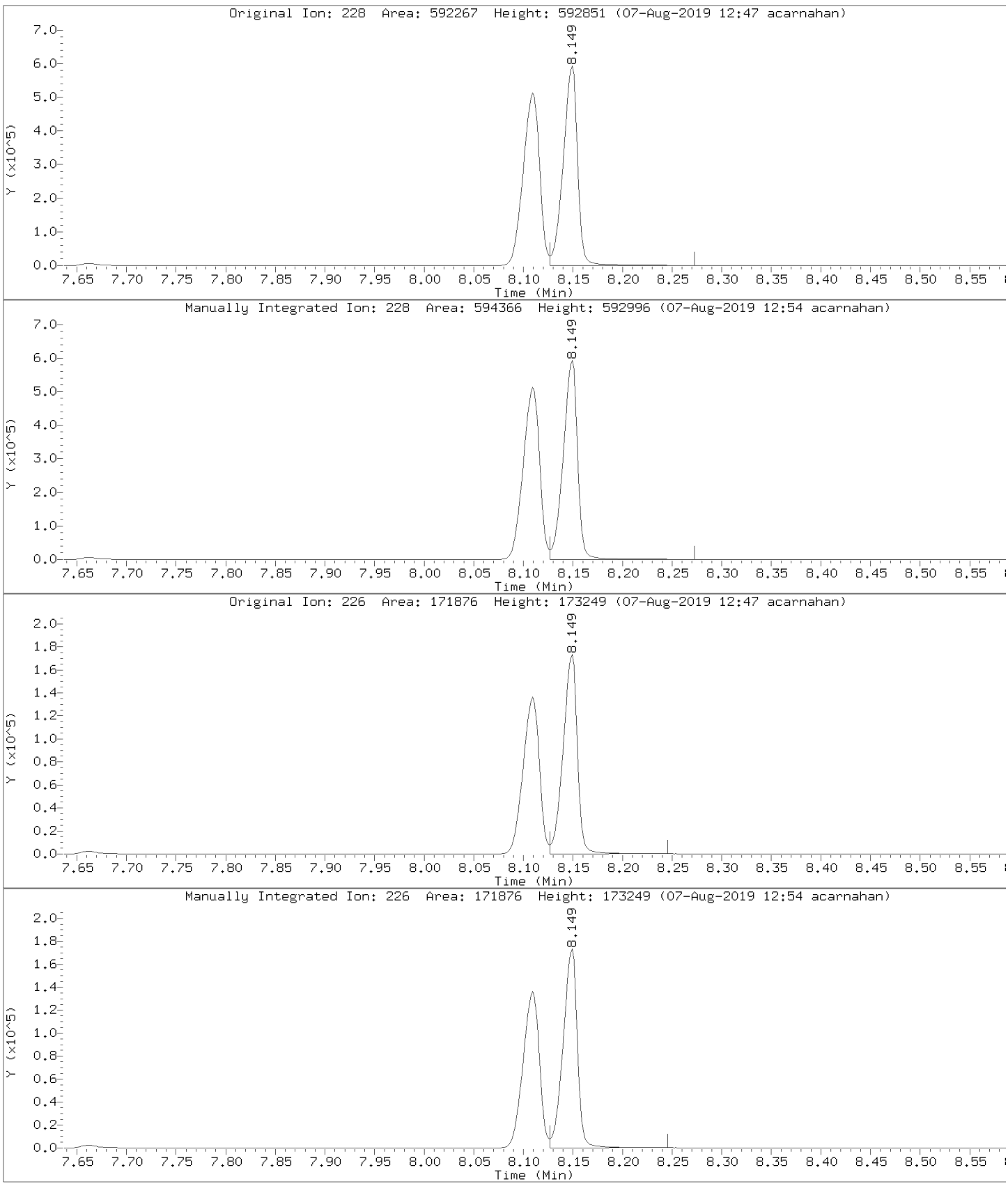
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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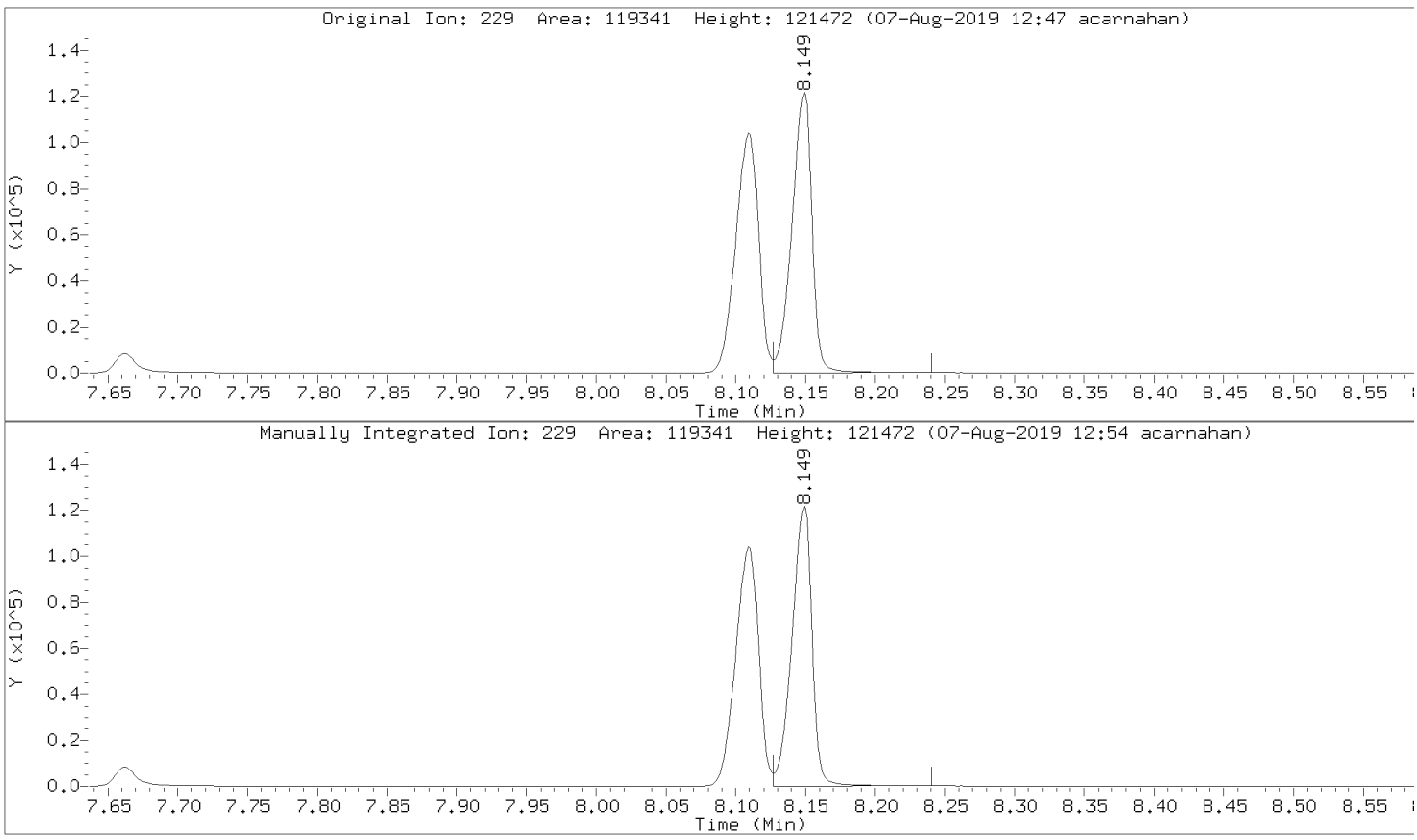
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6



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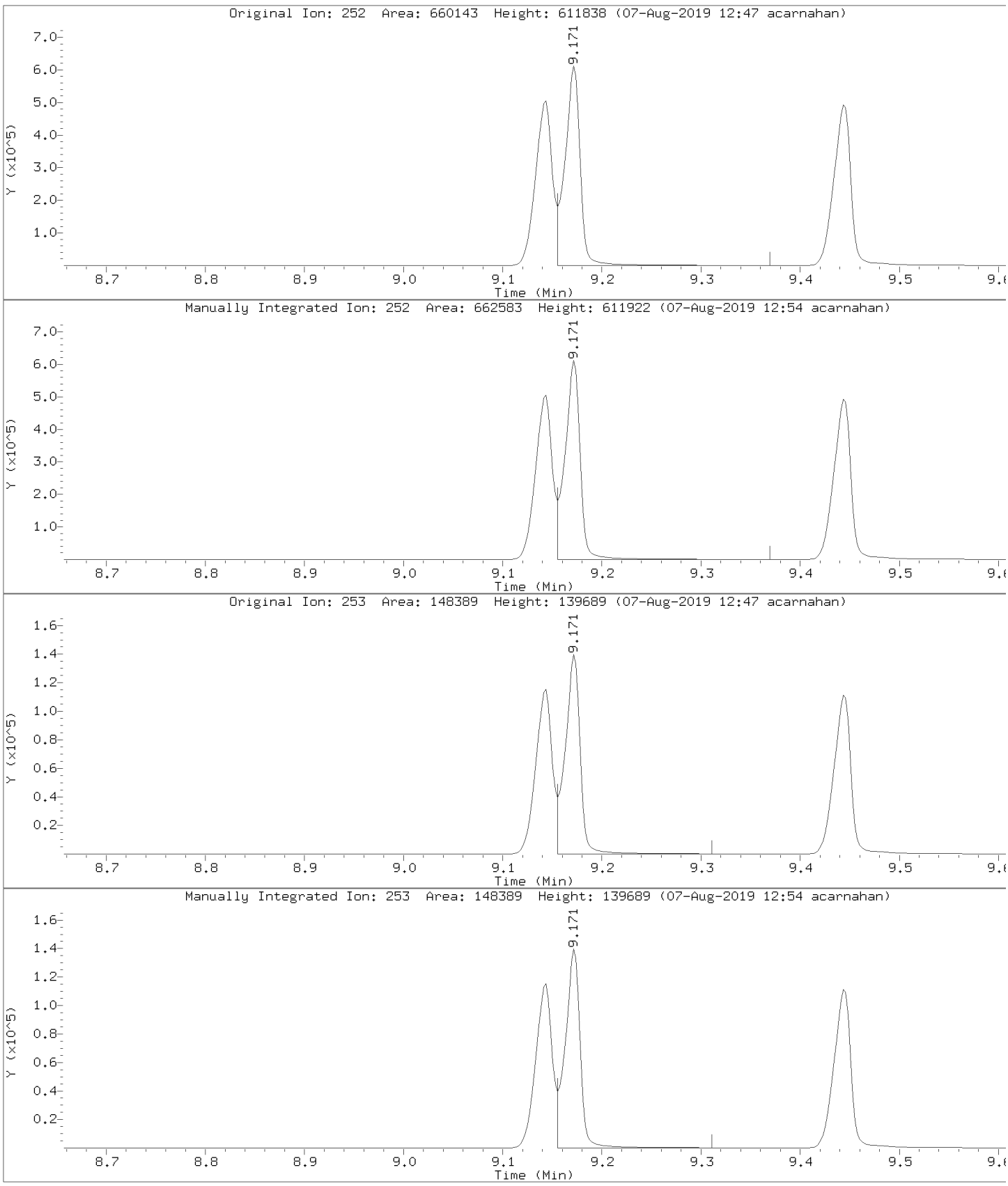
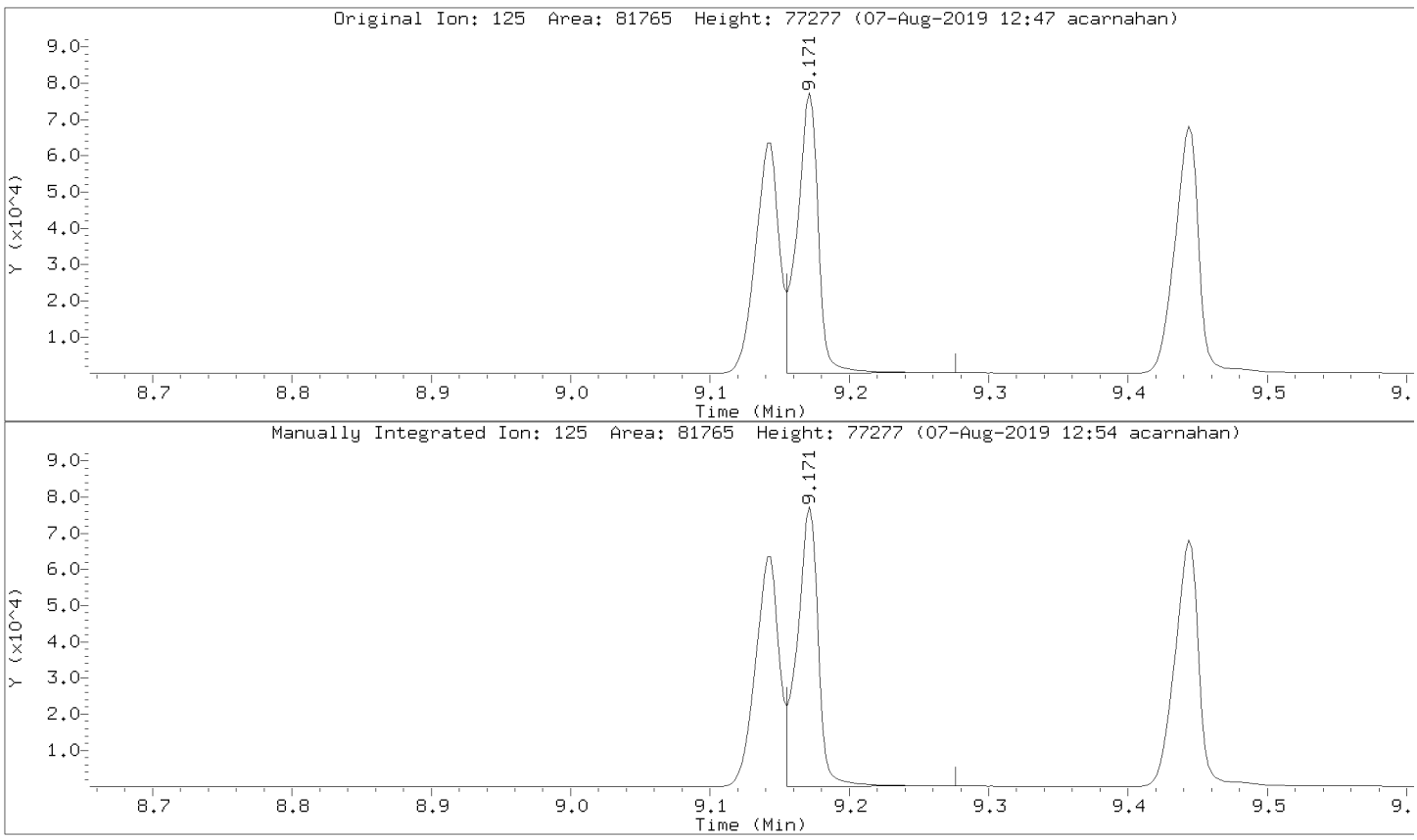
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9

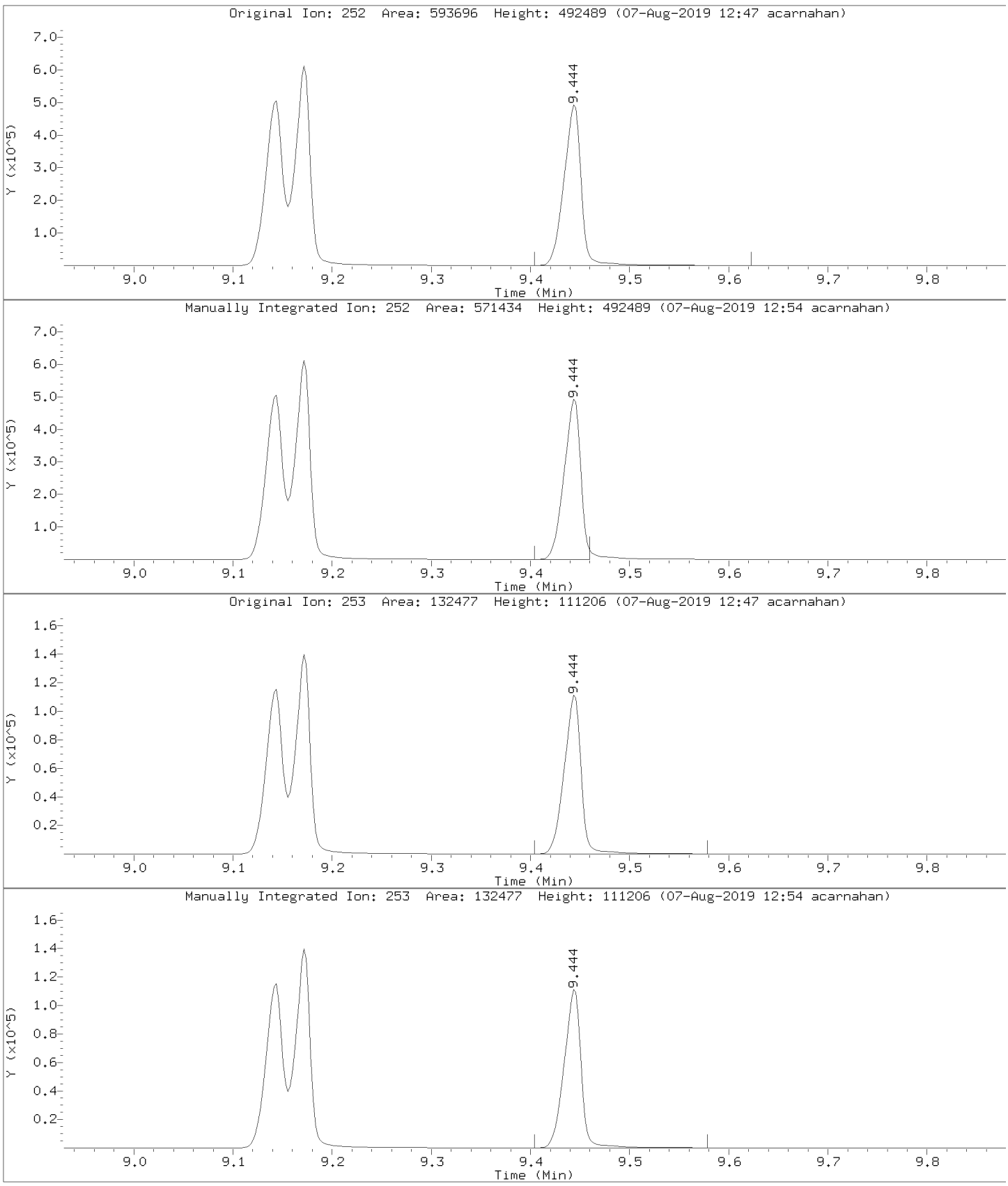


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y6.d
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

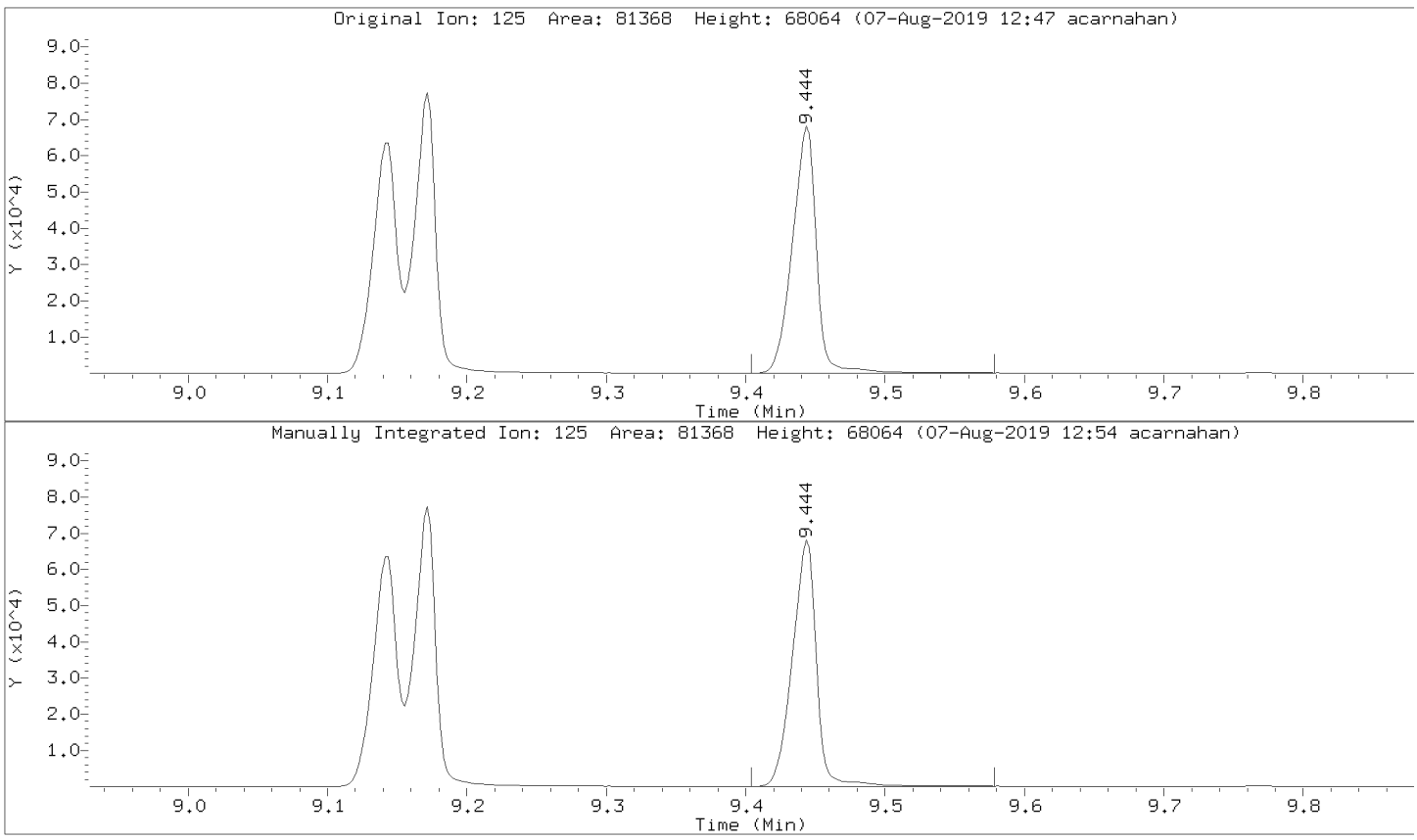


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y6.d
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

Compound: Benzo(a)pyrene Review Code: GT
CAS Number: 50-32-8

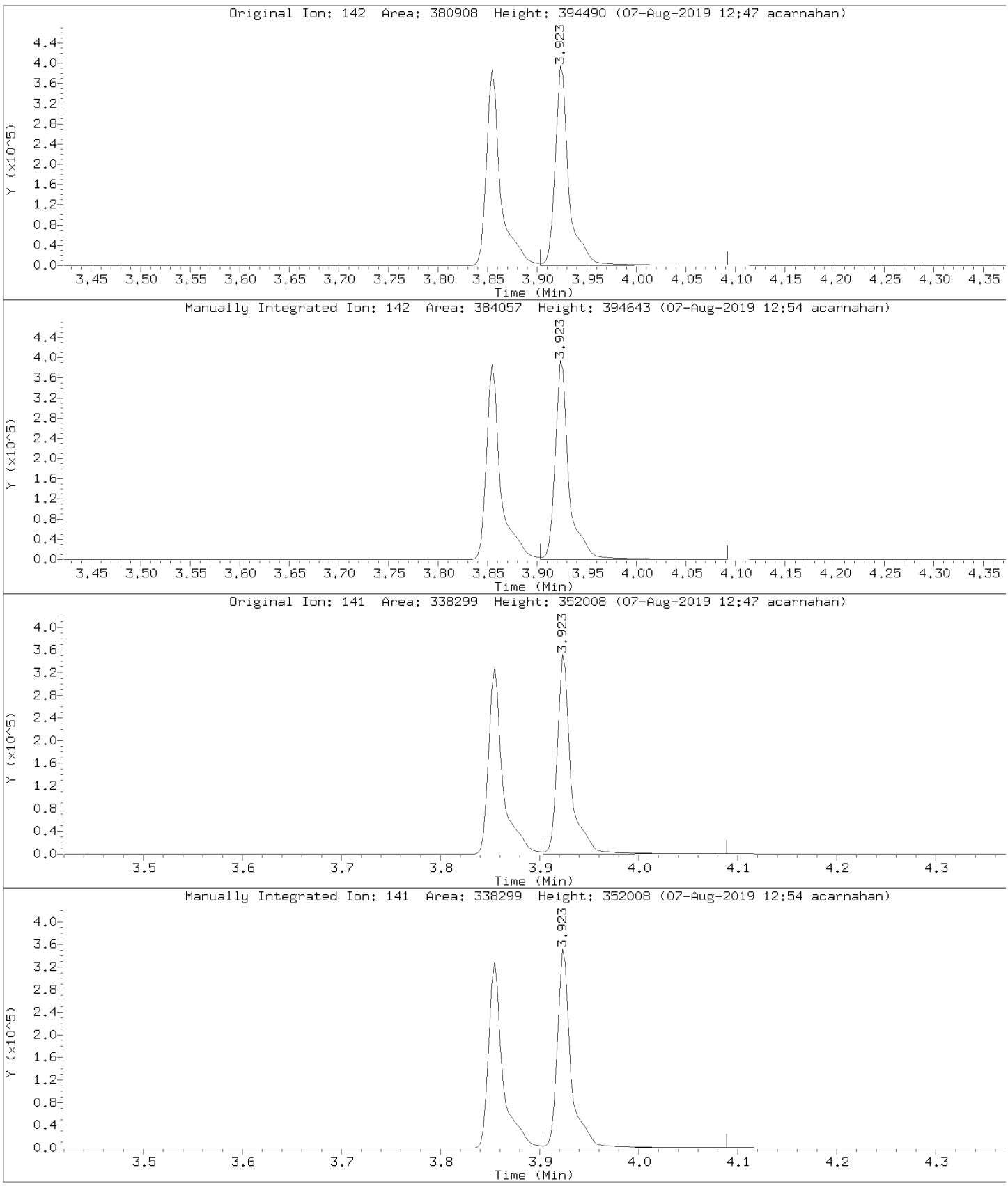


Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y6.d
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y6.d
Injection Date: 07-AUG-2019 12:29
Instrument: 30mss3.i
Lab Sample ID: CAL6

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM INITIAL CALIBRATION DATA

11363705ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/07/2019 Time: 12:48

Instrument ID: 30MSS3 GC Column: Col 1 Init. Calib. Date(s): 08/07/2019 08/07/2019

Lab File ID: MSS3080719.B\M3080719Y7.D Init. Calib. Time(s): 10:53 12:29

SDG No.: 30318799

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.57659	1.92969	0.0500	22.3964	30.0000
Anthracene	Averaged	1.02758	1.19377	0.0500	16.1729	30.0000
Benzo(a)anthracene	Averaged	0.96931	1.09326	0.0500	12.7882	30.0000
Benzo(a)pyrene	Quadratic	2	1.999626	0.0500	-0.0187	30.0000
Benzo(b)fluoranthene	Quadratic	2	1.974144	0.0500	-1.2928	30.0000
Benzo(g,h,i)perylene	Averaged	0.90048	0.96956	0.0500	7.6716	30.0000
Benzo(k)fluoranthene	Averaged	1.11828	1.28780	0.0500	15.1594	30.0000
Chrysene	Averaged	1.09765	1.20522	0.0500	9.8006	30.0000
Dibenz(a,h)anthracene	Averaged	0.94698	1.05036	0.0500	10.9173	30.0000
Fluoranthene	Averaged	1.03970	1.18517	0.0500	13.9911	30.0000
Fluorene	Averaged	1.13049	1.34201	0.0500	18.7108	30.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.09753	1.25777	0.0500	14.5999	30.0000
Naphthalene	Averaged	0.97856	1.07536	0.0500	9.8919	30.0000
Phenanthrene	Averaged	1.04988	1.13699	0.0500	8.2968	30.0000
Pyrene	Averaged	1.07214	1.23036	0.0500	14.7575	30.0000
2-Fluorobiphenyl (S)	Averaged	1.20824	1.42293	0.0500	17.7694	30.0000
Terphenyl-d14 (S)	Averaged	0.84186	0.97901	0.0500	16.2908	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

11384485CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/12/2019 Time: 13:02

Instrument ID: 30MSS3 GC Column: Col 1 Init. Calib. Date(s): 08/07/2019 08/07/2019

Lab File ID: MSS3081219.B\M3081219S1.D Init. Calib. Time(s): 10:53 12:29

SDG No.: 30318799

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.57659	1.68926	0.9000	7.1469	20.0000
Anthracene	Averaged	1.02758	1.01607	0.7000	-1.1196	20.0000
Benzo(a)anthracene	Averaged	0.96931	0.98610	0.8000	1.7323	20.0000
Benzo(a)pyrene	Quadratic	2	1.875444	0.7000	-6.2278	20.0000
Benzo(b)fluoranthene	Quadratic	2	1.890822	0.7000	-5.4589	20.0000
Benzo(g,h,i)perylene	Averaged	0.90048	0.88547	0.5000	-1.6673	20.0000
Benzo(k)fluoranthene	Averaged	1.11828	1.01816	0.7000	-8.9528	20.0000
Chrysene	Averaged	1.09765	1.04801	0.7000	-4.5221	20.0000
Dibenz(a,h)anthracene	Averaged	0.94698	0.88335	0.4000	-6.7190	20.0000
Fluoranthene	Averaged	1.03970	1.05229	0.6000	1.2111	20.0000
Fluorene	Averaged	1.13049	1.10261	0.9000	-2.4662	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.09753	1.06458	0.5000	-3.0023	20.0000
Naphthalene	Averaged	0.97856	0.96286	0.7000	-1.6046	20.0000
Phenanthrene	Averaged	1.04988	1.02139	0.7000	-2.7139	20.0000
Pyrene	Averaged	1.07214	1.08699	0.6000	1.3853	20.0000
2-Fluorobiphenyl (S)	Averaged	1.20824	1.24312	0.7000	2.8873	20.0000
Terphenyl-d14 (S)	Averaged	0.84186	0.82086	0.7000	-2.4950	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSSV SIM - FORM VII SVOA-1
MSSV SIM CONTINUING CALIBRATION DATA

11392028CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/13/2019 Time: 13:40

Instrument ID: 30MSS3 GC Column: Col 1 Init. Calib. Date(s): 08/07/2019 08/07/2019

Lab File ID: MSS3081319.B\M3081319S1.D Init. Calib. Time(s): 10:53 12:29

SDG No.: 30318799

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthylene	Averaged	1.57659	1.35774	0.9000	-13.8811	20.0000
Anthracene	Averaged	1.02758	1.05284	0.7000	2.4587	20.0000
Benzo(a)anthracene	Averaged	0.96931	0.98638	0.8000	1.7613	20.0000
Benzo(a)pyrene	Quadratic	2	1.932138	0.7000	-3.3931	20.0000
Benzo(b)fluoranthene	Quadratic	2	1.93056	0.7000	-3.4720	20.0000
Benzo(g,h,i)perylene	Averaged	0.90048	0.92887	0.5000	3.1523	20.0000
Benzo(k)fluoranthene	Averaged	1.11828	1.04456	0.7000	-6.5920	20.0000
Chrysene	Averaged	1.09765	1.06487	0.7000	-2.9855	20.0000
Dibenz(a,h)anthracene	Averaged	0.94698	0.95675	0.4000	1.0324	20.0000
Fluoranthene	Averaged	1.03970	1.07743	0.6000	3.6287	20.0000
Fluorene	Averaged	1.13049	1.15166	0.9000	1.8730	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.09753	1.13425	0.5000	3.3460	20.0000
Naphthalene	Averaged	0.97856	0.98012	0.7000	0.1593	20.0000
Phenanthrene	Averaged	1.04988	1.00392	0.7000	-4.3776	20.0000
Pyrene	Averaged	1.07214	1.10116	0.6000	2.7071	20.0000
2-Fluorobiphenyl (S)	Averaged	1.20824	1.24722	0.7000	3.2259	20.0000
Terphenyl-d14 (S)	Averaged	0.84186	0.83737	0.7000	-0.5337	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y7.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 07-AUG-2019 12:48 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : icv, 95522:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719pahcd.m
Meth Date : 08-Aug-2019 09:19 30mss3.i Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.354	3.354	(1.000)	115297	4.00000		
	8 Naphthalene	128	3.368	3.368	(1.004)	61993	2.00000	2.20	
	9 2-Methylnaphthalene	142	3.854	3.854	(1.149)	35895	2.00000	2.24	
	10 1-Methylnaphthalene	142	3.923	3.923	(1.170)	40506	2.00000	2.12(M)	BA
$	6 2-Fluorobiphenyl (S)	172	4.103	4.103	(0.897)	41830	2.00000	2.36	
	11 Acenaphthylene	152	4.481	4.481	(0.979)	56727	2.00000	2.45	
*	2 Acenaphthene-d10 (IS)	164	4.576	4.576	(1.000)	58794	4.00000		
	12 Acenaphthene	153	4.599	4.599	(1.005)	37761	2.00000	2.25	
	13 Fluorene	166	4.964	4.964	(1.085)	39451	2.00000	2.37	
*	3 Phenanthrene-d10 (IS)	188	5.678	5.678	(1.000)	100244	4.00000		
	14 Phenanthrene	178	5.696	5.696	(1.003)	56988	2.00000	2.16	
	15 Anthracene	178	5.738	5.738	(1.011)	59834	2.00000	2.32(M)	BA
	16 Fluoranthene	202	6.724	6.724	(1.184)	59403	2.00000	2.28	
	17 Pyrene	202	6.938	6.938	(1.222)	61668	2.00000	2.30	
$	7 Terphenyl-d14 (S)	244	7.068	7.068	(1.245)	49070	2.00000	2.32	
	18 Benzo(a)anthracene	228	8.101	8.101	(0.999)	56373	2.00000	2.26	
*	4 Chrysene-d12 (IS)	240	8.111	8.111	(1.000)	103128	4.00000		
	19 Chrysene	228	8.136	8.136	(1.003)	62146	2.00000	2.20(M)	BA
	20 Benzo(b)fluoranthene	252	9.132	9.132	(0.963)	51893	2.00000	1.97	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
21 Benzo(k)fluoranthene	252	9.157	9.157	(0.966)	68567	2.00000	2.30(M)	BA
22 Benzo(a)pyrene	252	9.429	9.429	(0.995)	50138	2.00000	2.00	
* 5 Perylene-d12 (IS)	264	9.478	9.478	(1.000)	106487	4.00000		
23 Dibenz(a,h)anthracene	278	10.404	10.404	(1.098)	55925	2.00000	2.22	
24 Indeno(1,2,3-cd)pyrene	276	10.402	10.402	(1.097)	66968	2.00000	2.29	
25 Benzo[g,h,i]perylene	276	10.655	10.655	(1.124)	51623	2.00000	2.15	

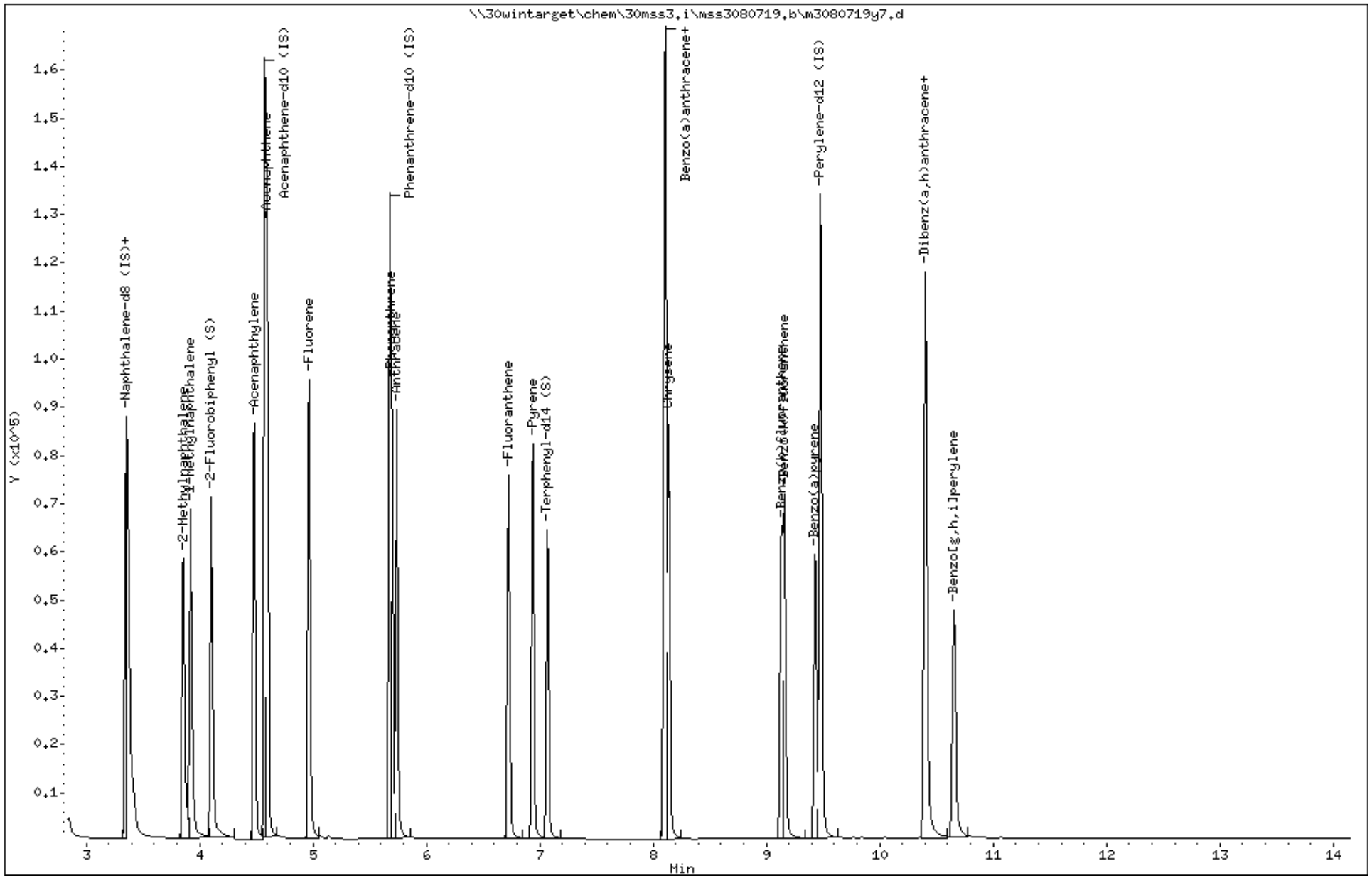
QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719y7.d
Date : 07-AUG-2019 12:48
Client ID: ICV
Instrument: 30mss3.i
Sample Info: ICV, 95522:1
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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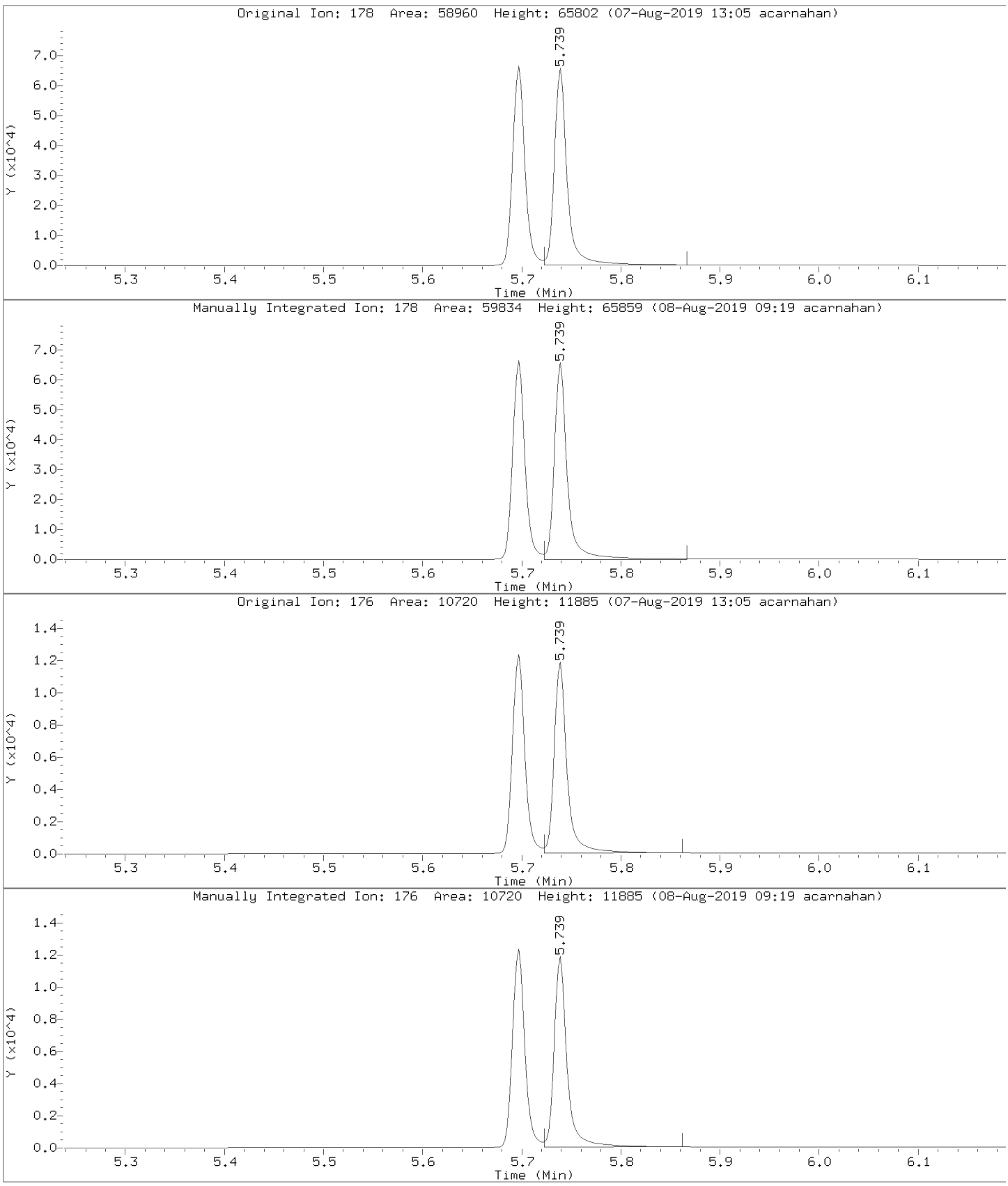
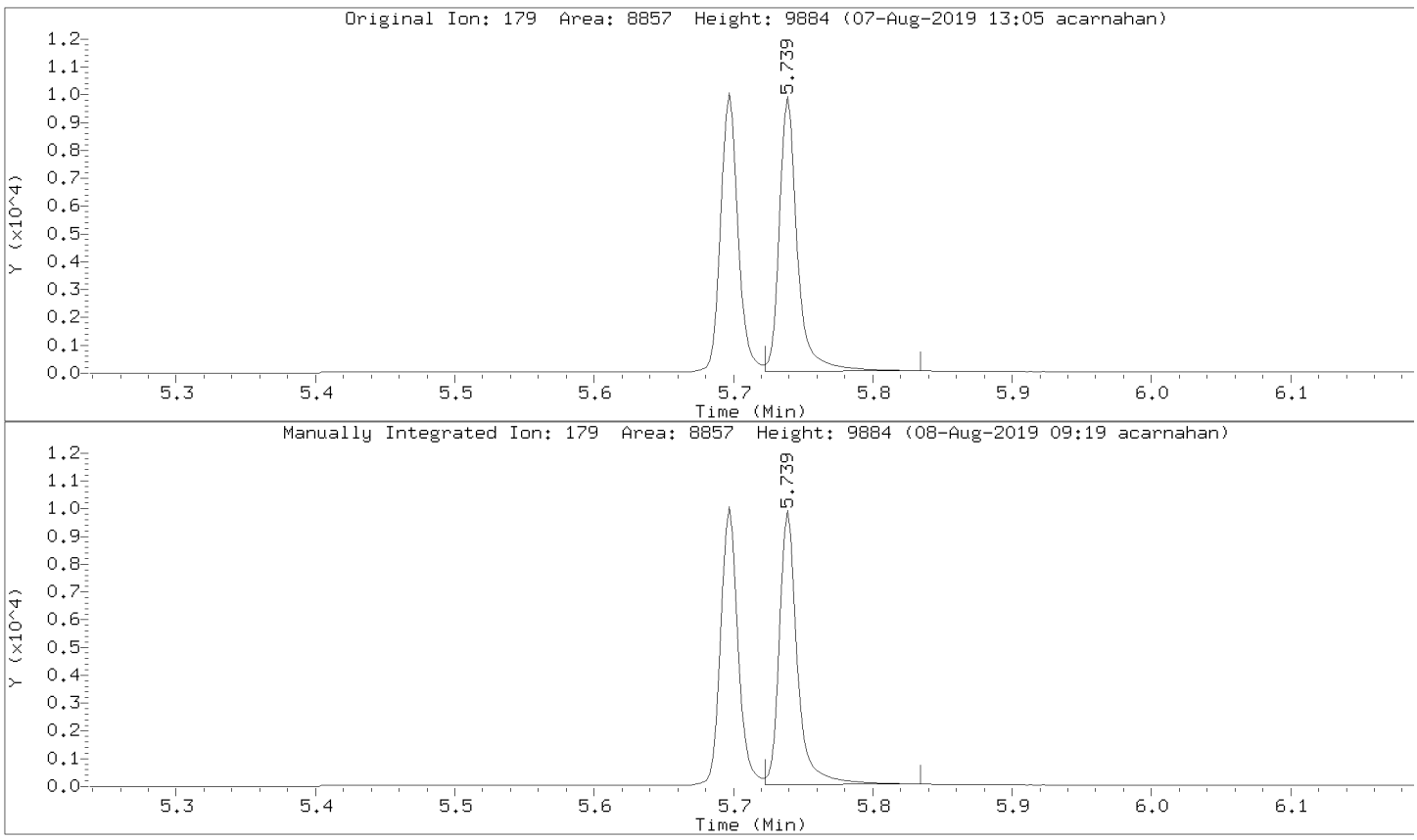
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV

Compound: Anthracene Review Code: BA
CAS Number: 120-12-7



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y7.d
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV



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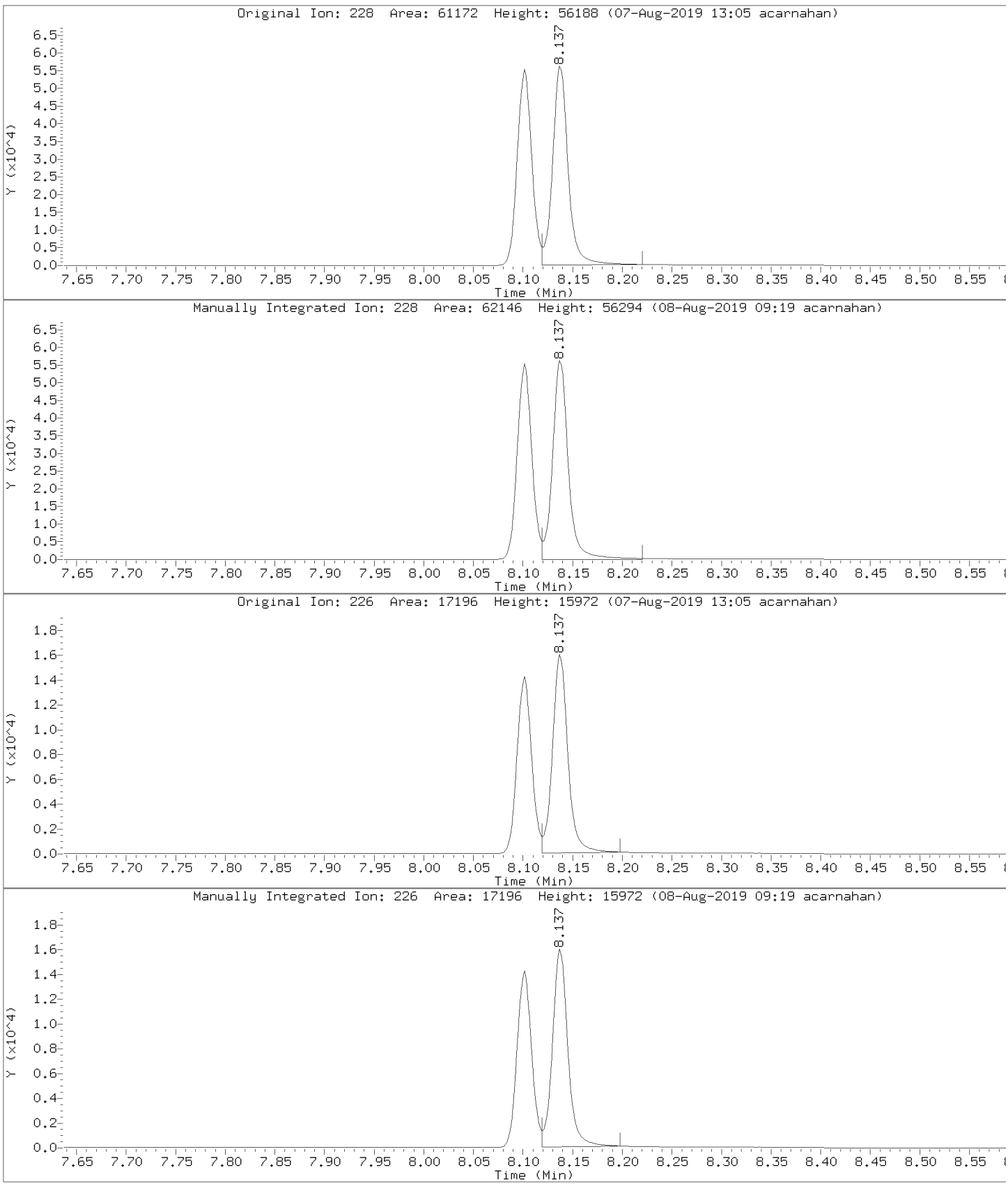
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV

Compound: Chrysene Review Code: BA
CAS Number: 218-01-9



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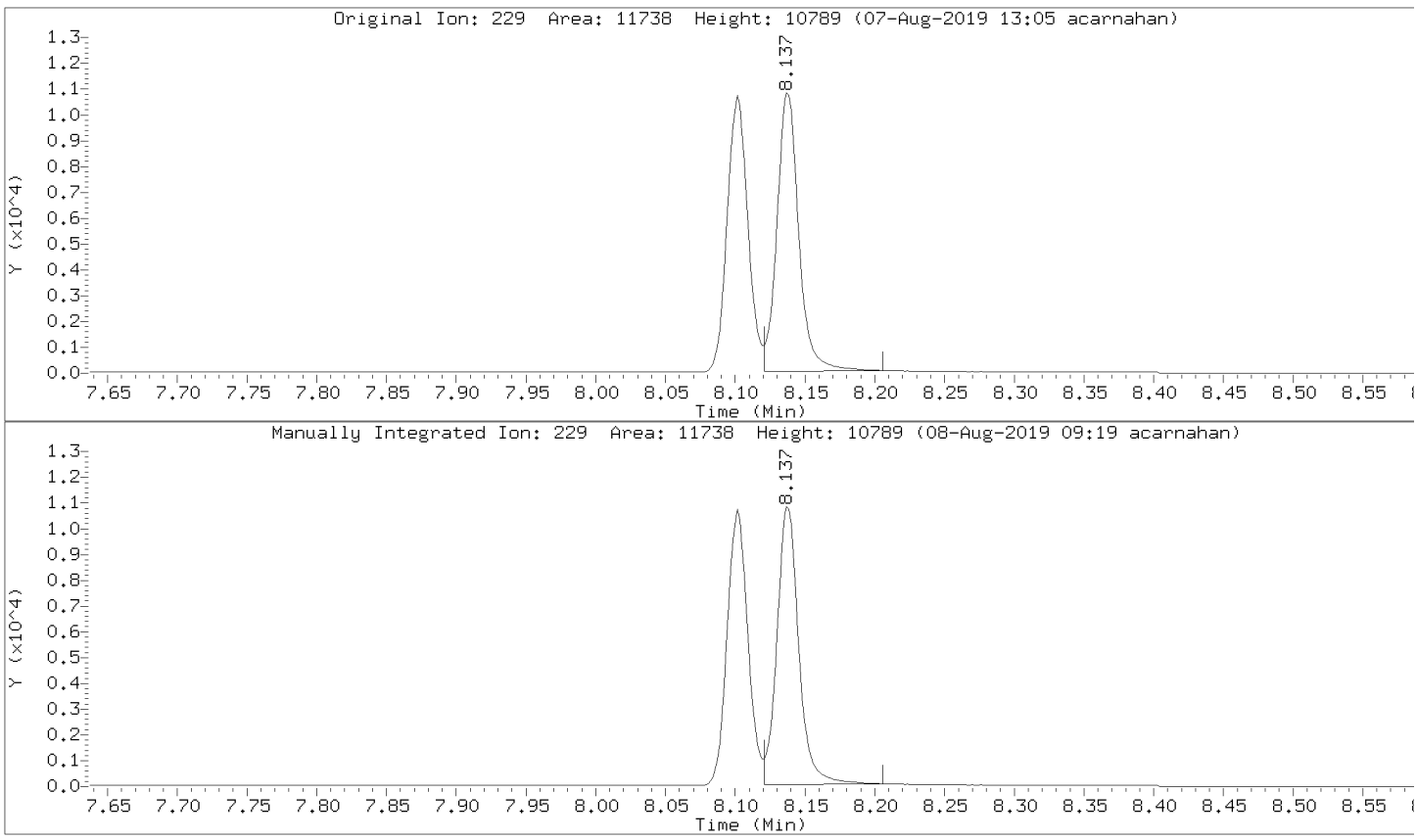
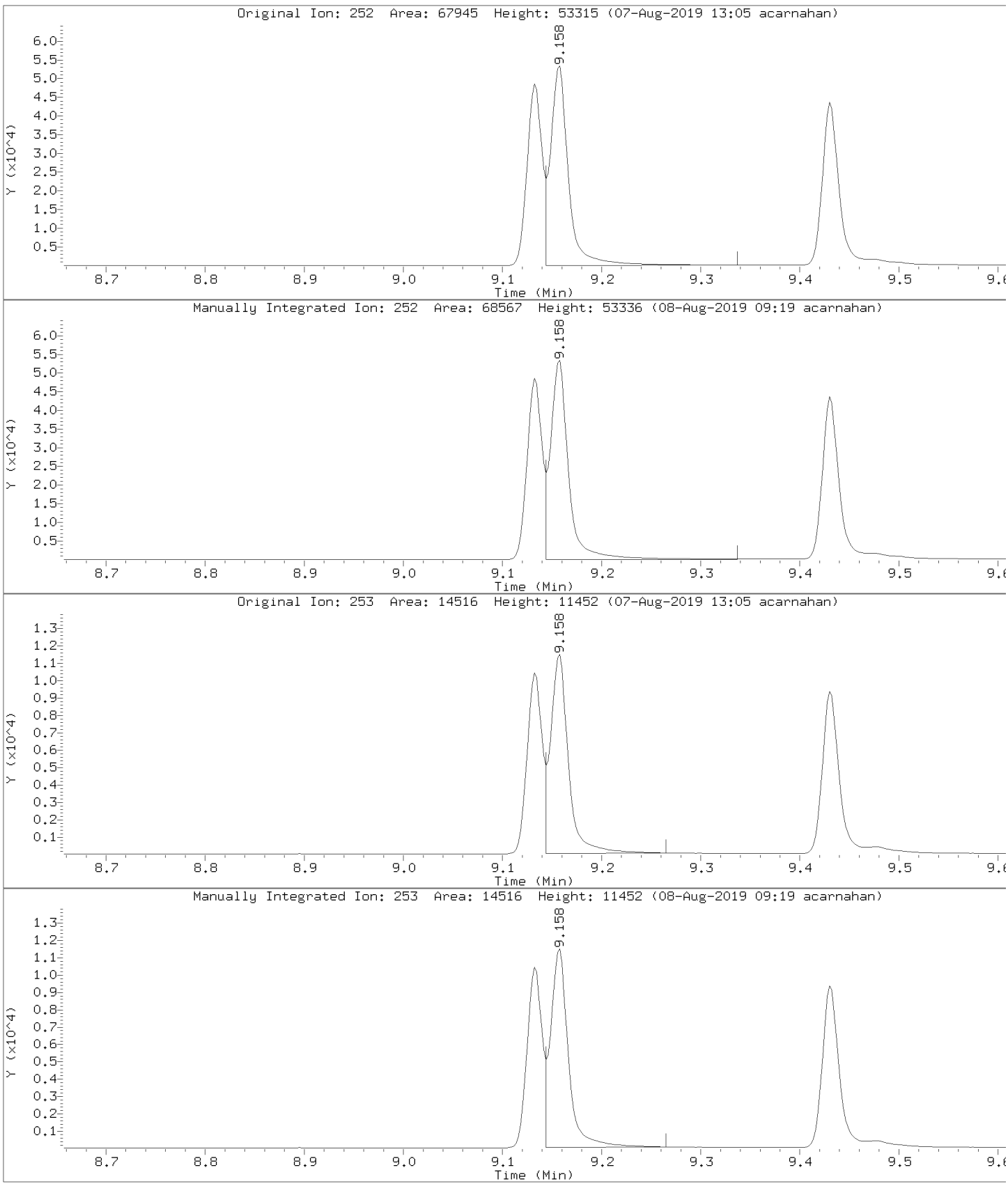
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y7.d
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV

Compound: Benzo(k)fluoranthene Review Code: BA
CAS Number: 207-08-9



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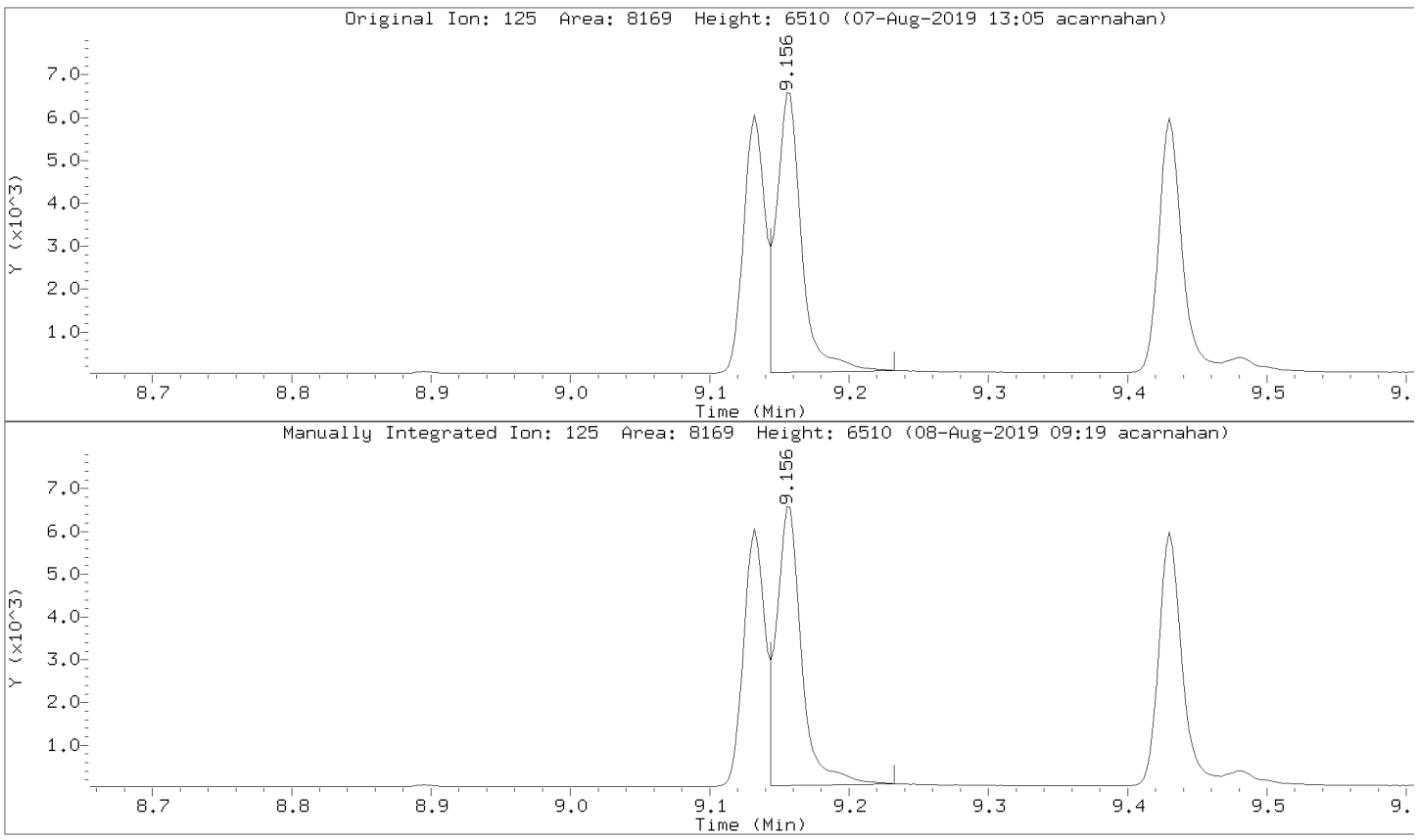
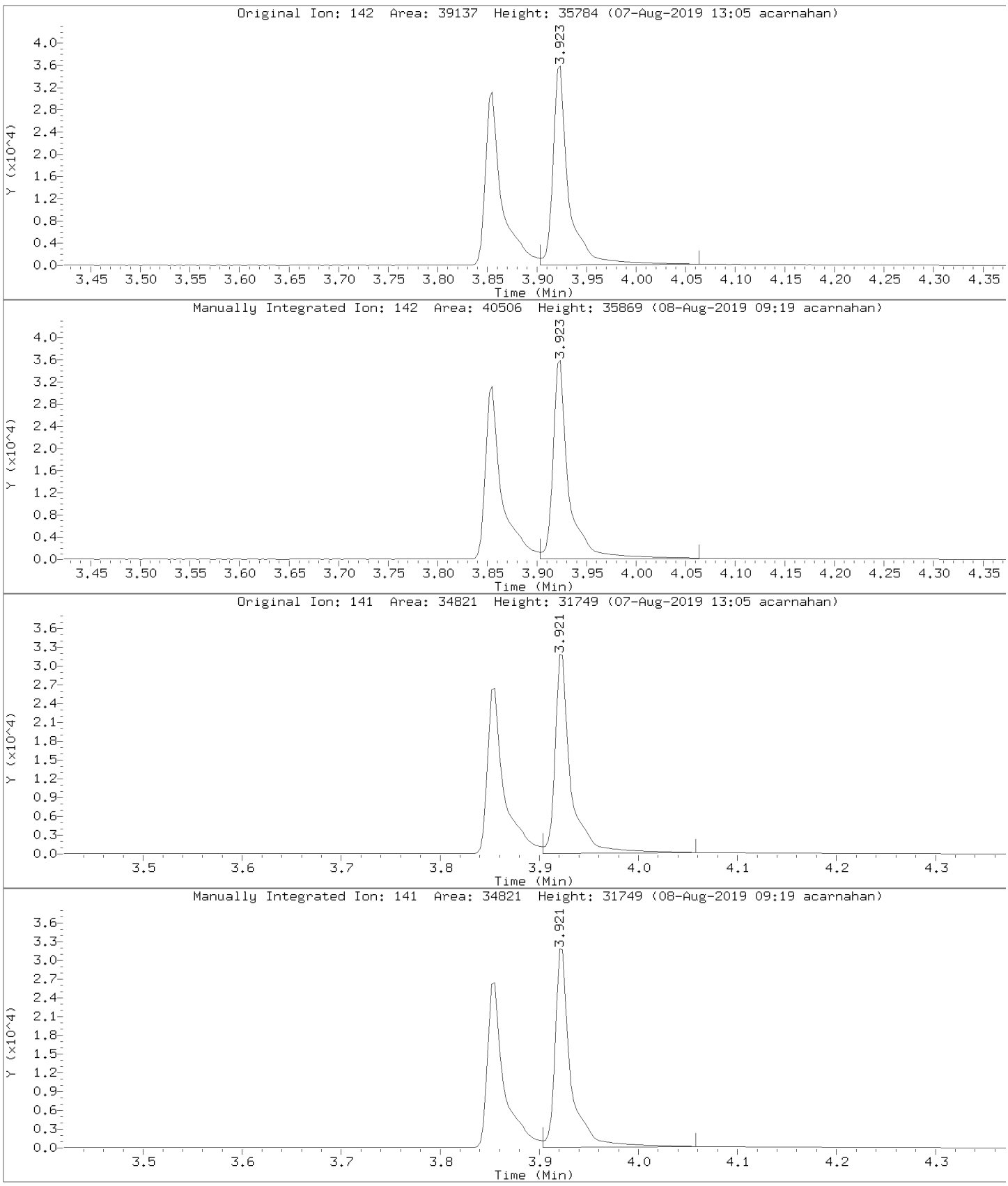
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b/m3080719y7.d
Injection Date: 07-AUG-2019 12:48
Instrument: 30mss3.i
Lab Sample ID: ICV

Compound: 1-Methylnaphthalene Review Code: BA
CAS Number: 90-12-0



Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081219.b\m3081219s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 12-AUG-2019 13:02 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : ccv, 94321:1
Misc Info : 14936
Comment   :
Method   : \\30wintarget\chem\30mss3.i\mss3081219.b\m3080719pahcd.m
Meth Date : 12-Aug-2019 13:19 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.191	3.191	(1.000)	110209	4.00000		
	8 Naphthalene	128	3.205	3.205	(1.004)	53058	2.00000	1.97	
	9 2-Methylnaphthalene	142	3.694	3.694	(1.158)	31589	2.00000	2.06	
	10 1-Methylnaphthalene	142	3.763	3.763	(1.179)	32987	2.00000	1.81	
$	6 2-Fluorobiphenyl (S)	172	3.948	3.948	(0.894)	34281	2.00000	2.06	
	11 Acenaphthylene	152	4.320	4.320	(0.978)	46584	2.00000	2.14	
*	2 Acenaphthene-d10 (IS)	164	4.415	4.415	(1.000)	55153	4.00000		
	12 Acenaphthene	153	4.438	4.438	(1.005)	30887	2.00000	1.96	
	13 Fluorene	166	4.794	4.794	(1.086)	30406	2.00000	1.95	
*	3 Phenanthrene-d10 (IS)	188	5.487	5.487	(1.000)	83929	4.00000		
	14 Phenanthrene	178	5.505	5.505	(1.003)	42862	2.00000	1.94	
	15 Anthracene	178	5.545	5.545	(1.011)	42639	2.00000	1.98	
	16 Fluoranthene	202	6.505	6.505	(1.186)	44159	2.00000	2.02	
	17 Pyrene	202	6.715	6.715	(1.224)	45615	2.00000	2.03	
$	7 Terphenyl-d14 (S)	244	6.849	6.849	(1.248)	34447	2.00000	1.95	
	18 Benzo(a)anthracene	228	7.862	7.862	(0.999)	40854	2.00000	2.03	
*	4 Chrysene-d12 (IS)	240	7.872	7.872	(1.000)	82860	4.00000		
	19 Chrysene	228	7.898	7.898	(1.003)	43419	2.00000	1.91	

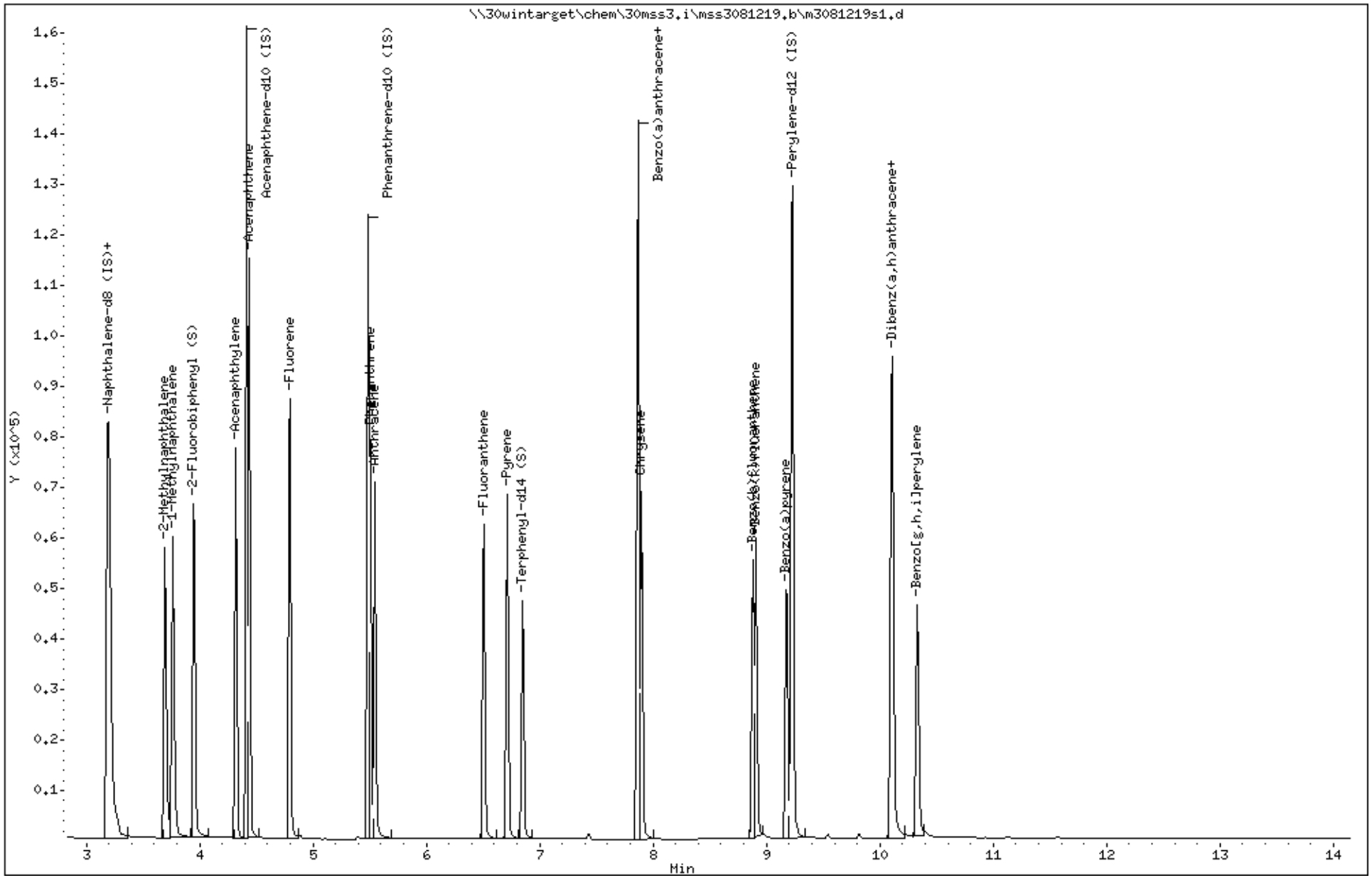
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	8.880	8.880	(0.962)	43606	2.00000	1.89	
21 Benzo(k)fluoranthene	252	8.906	8.906	(0.965)	47574	2.00000	1.82	
22 Benzo(a)pyrene	252	9.176	9.176	(0.994)	41253	2.00000	1.88	
* 5 Perylene-d12 (IS)	264	9.227	9.227	(1.000)	93451	4.00000		
23 Dibenz(a,h)anthracene	278	10.108	10.108	(1.096)	41275	2.00000	1.86	
24 Indeno(1,2,3-cd)pyrene	276	10.106	10.106	(1.095)	49743	2.00000	1.94	
25 Benzo[g,h,i]perylene	276	10.329	10.329	(1.119)	41374	2.00000	1.97	

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m3081219s1.d
Date : 12-AUG-2019 13:02
Client ID: CCV
Sample Info: CCV, 94321:1
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss3.i
Operator: AJC
Column diameter: 0.25



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Injection Date: 12-AUG-2019 13:02
Instrument: 30mss3.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081319.b\m3081319s1.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 13-AUG-2019 13:40 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : ccv, 94321:1
Misc Info : 14936
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3081319.b\m3080719pahcd.m
Meth Date : 13-Aug-2019 13:57 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.144	3.144	(1.000)	69577	4.00000		
	8 Naphthalene	128	3.161	3.161	(1.005)	34097	2.00000	2.00	
	9 2-Methylnaphthalene	142	3.647	3.647	(1.160)	19986	2.00000	2.07	
	10 1-Methylnaphthalene	142	3.716	3.716	(1.182)	21924	2.00000	1.91	
$	6 2-Fluorobiphenyl (S)	172	3.901	3.901	(0.894)	21497	2.00000	2.06	
	11 Acenaphthylene	152	4.270	4.270	(0.978)	23402	2.00000	1.72	
*	2 Acenaphthene-d10 (IS)	164	4.365	4.365	(1.000)	34472	4.00000		
	12 Acenaphthene	153	4.386	4.386	(1.005)	19328	2.00000	1.96	
	13 Fluorene	166	4.742	4.742	(1.086)	19850	2.00000	2.04	
*	3 Phenanthrene-d10 (IS)	188	5.427	5.427	(1.000)	56128	4.00000		
	14 Phenanthrene	178	5.446	5.446	(1.003)	28174	2.00000	1.91	
	15 Anthracene	178	5.487	5.487	(1.011)	29547	2.00000	2.05	
	16 Fluoranthene	202	6.441	6.441	(1.187)	30237	2.00000	2.07	
	17 Pyrene	202	6.648	6.648	(1.225)	30903	2.00000	2.05	
$	7 Terphenyl-d14 (S)	244	6.785	6.785	(1.250)	23500	2.00000	1.99	
	18 Benzo(a)anthracene	228	7.789	7.789	(0.999)	27155	2.00000	2.04	
*	4 Chrysene-d12 (IS)	240	7.800	7.800	(1.000)	55060	4.00000		
	19 Chrysene	228	7.824	7.824	(1.003)	29316	2.00000	1.94	

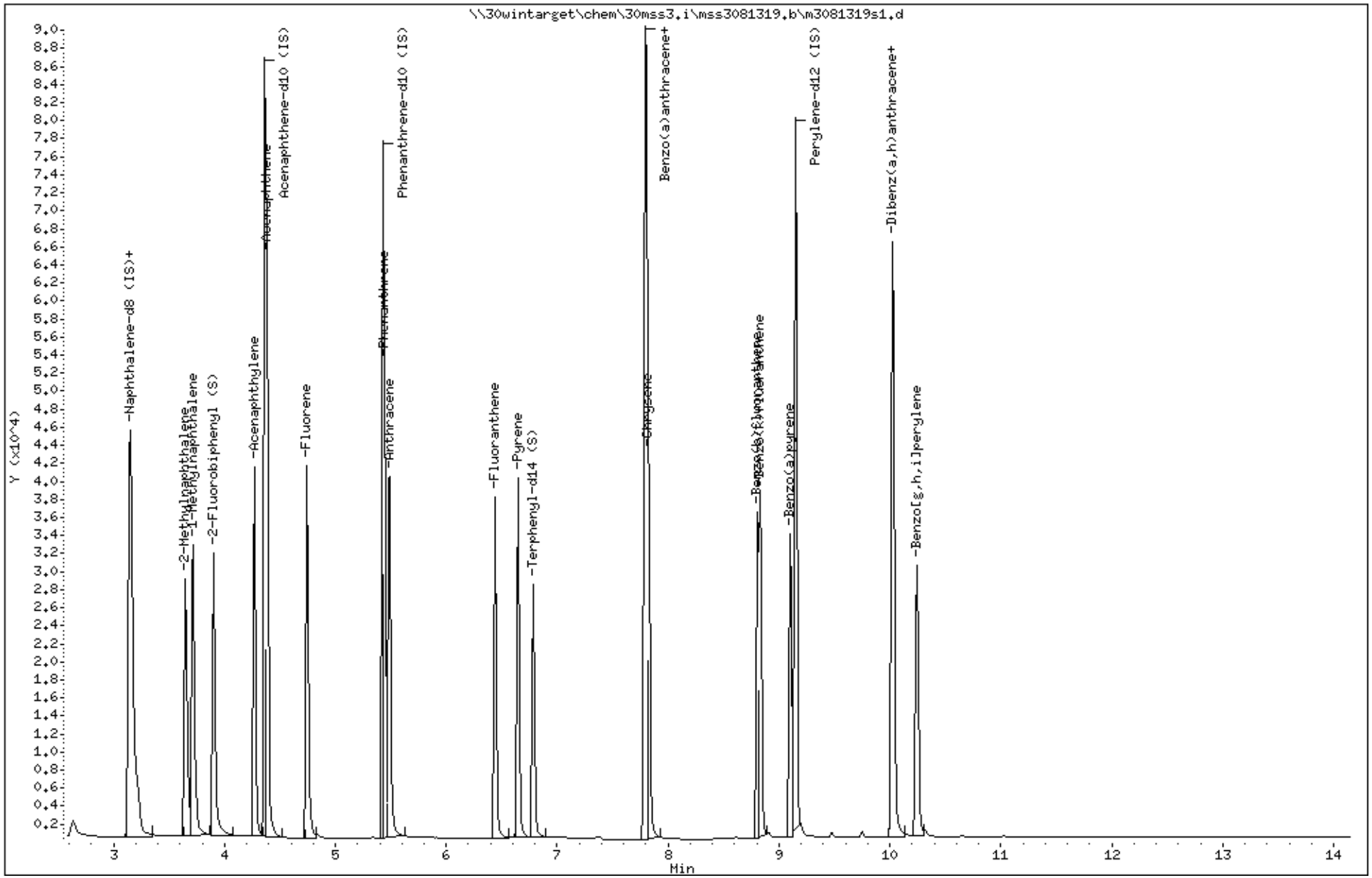
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	REVIEW C
20 Benzo(b)fluoranthene	252	8.806	8.806	(0.962)	28262	2.00000	1.93	
21 Benzo(k)fluoranthene	252	8.832	8.832	(0.965)	30978	2.00000	1.87	
22 Benzo(a)pyrene	252	9.102	9.102	(0.995)	26979	2.00000	1.93	
* 5 Perylene-d12 (IS)	264	9.151	9.151	(1.000)	59313	4.00000		
23 Dibenz(a,h)anthracene	278	10.028	10.028	(1.096)	28374	2.00000	2.02	
24 Indeno(1,2,3-cd)pyrene	276	10.023	10.023	(1.095)	33638	2.00000	2.07	
25 Benzo[g,h,i]perylene	276	10.244	10.244	(1.119)	27547	2.00000	2.06	

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m3081319s1.d
Date : 13-AUG-2019 13:40
Client ID: CCV
Sample Info: CCV, 94321:1
Volume Injected (uL): 1.0
Column phase: RTX-5MS

Instrument: 30mss3.i
Operator: AJC
Column diameter: 0.25



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Injection Date: 13-AUG-2019 13:40
Instrument: 30mss3.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719t1.d

Date : 07-AUG-2019 10:20

Client ID: TUNE

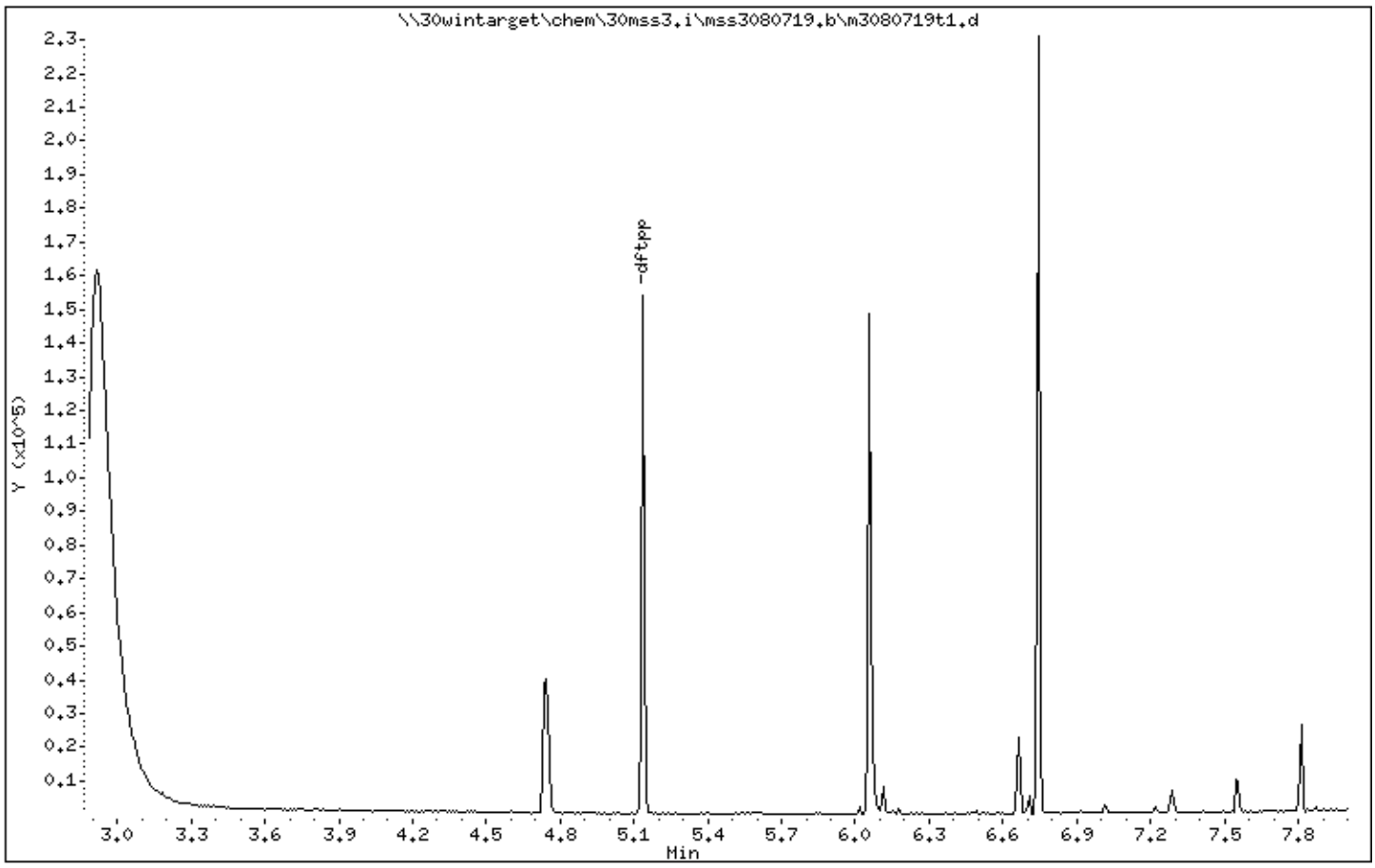
Instrument: 30mss3.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss3.i\mss3080719.b\m3080719t1.d

Date : 07-AUG-2019 10:20

Client ID: TUNE

Instrument: 30mss3.i

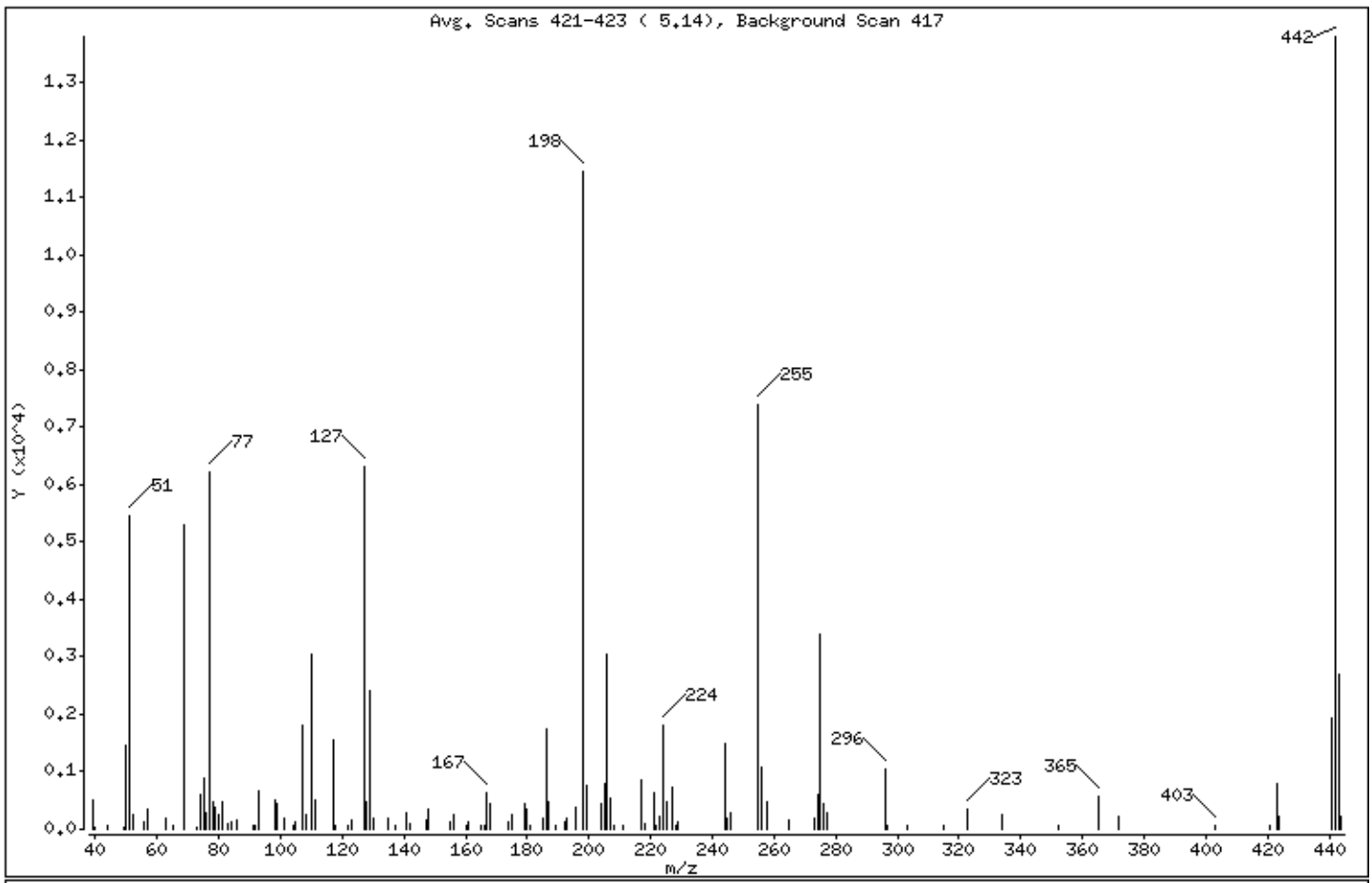
Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	47.69
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.22
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	55.13
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.67
275	10.00 - 60.00% of mass 198	29.55
365	Greater than 1.00% of mass 198	4.98
441	Present, but less than mass 443	17.01
442	Greater than 50.00% of mass 198	120.50
443	15.00 - 24.00% of mass 442	23.49 (19.50)

Date : 07-AUG-2019 10:20

Client ID: TUNE Instrument: 30mss3.i

Sample Info: TUNE, 79378:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m3080719t1.d
Spectrum: Avg. Scans 421-423 (5.14), Background Scan 417
Location of Maximum: 442.00
Number of points: 117

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	499	104.00	68	179.00	446	246.00	291
40.00	34	105.00	137	180.00	348	255.00	7387
44.00	51	107.00	1816	181.00	72	256.00	1078
49.00	21	108.00	254	185.00	192	258.00	462
50.00	1445	110.00	3038	186.00	1736	265.00	146
51.00	5460	111.00	500	187.00	476	273.00	182
52.00	238	117.00	1556	189.00	50	274.00	594
56.00	127	118.00	62	192.00	127	275.00	3384
57.00	347	122.00	55	193.00	175	276.00	439
63.00	190	123.00	158	196.00	365	277.00	294
65.00	51	127.00	6312	198.00	11450	296.00	1056
69.00	5292	128.00	484	199.00	764	297.00	77
73.00	24	129.00	2402	204.00	450	303.00	62
74.00	589	130.00	186	205.00	782	315.00	63
75.00	891	135.00	192	206.00	3033	323.00	362
76.00	276	137.00	63	207.00	550	334.00	242
77.00	6227	141.00	274	208.00	51	352.00	58
78.00	479	142.00	104	211.00	61	365.00	570
79.00	373	147.00	158	217.00	845	372.00	237
80.00	257	148.00	350	218.00	101	403.00	57
81.00	471	155.00	132	221.00	650	421.00	59
83.00	106	156.00	240	222.00	55	423.00	804
84.00	118	160.00	50	223.00	207	424.00	212
86.00	152	161.00	134	224.00	1821	441.00	1948
91.00	54	165.00	62	225.00	462	442.00	13797
92.00	50	166.00	50	227.00	735	443.00	2690
93.00	674	167.00	647	228.00	53	444.00	226
98.00	501	168.00	444	229.00	118		
99.00	456	174.00	118	244.00	1482		
101.00	188	175.00	245	245.00	200		

Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m3081219t1.d

Page 1

Date : 12-AUG-2019 12:49

Client ID: TUNE

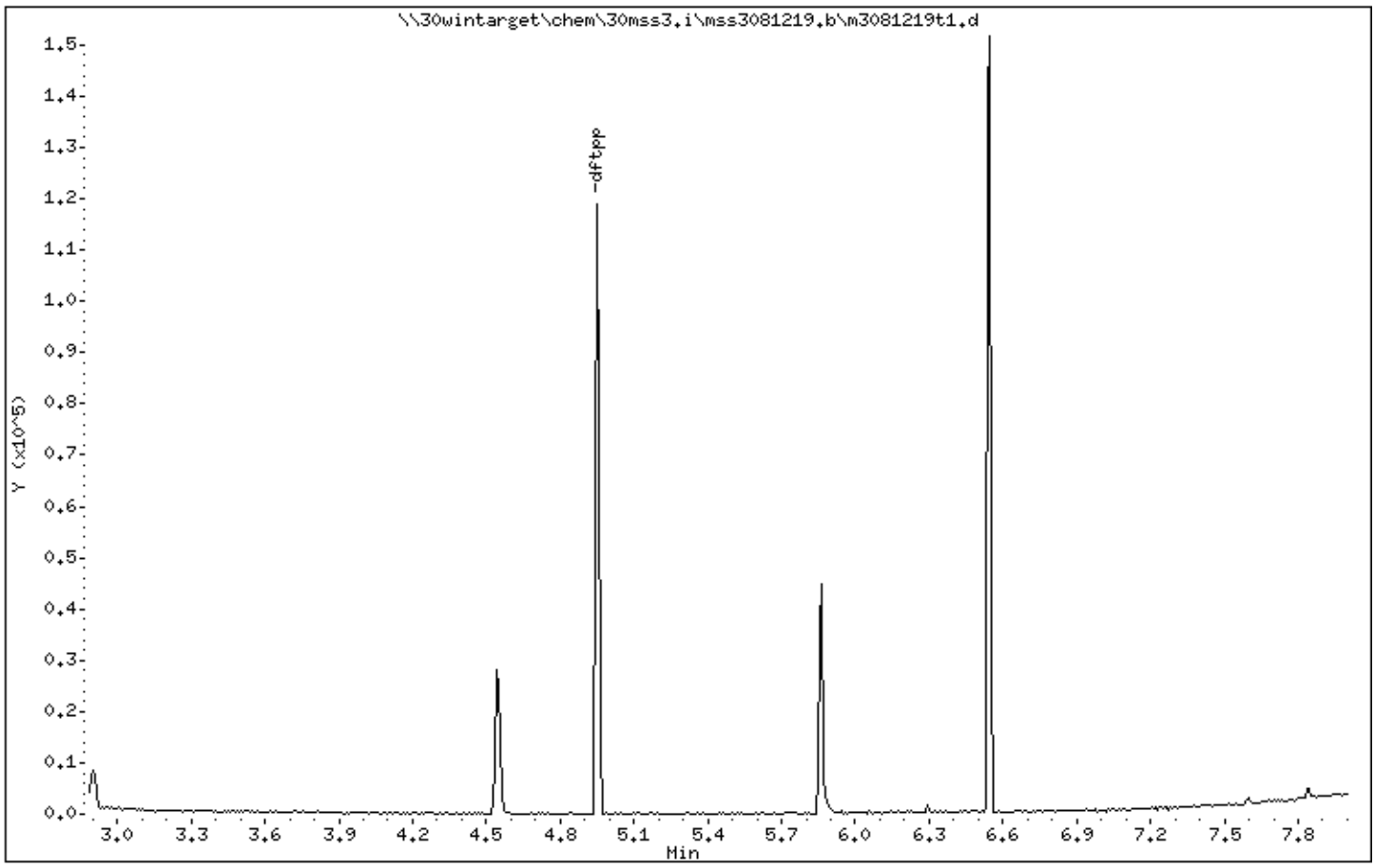
Instrument: 30mss3.i

Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m3081219t1.d

Date : 12-AUG-2019 12:49

Client ID: TUNE

Instrument: 30mss3.i

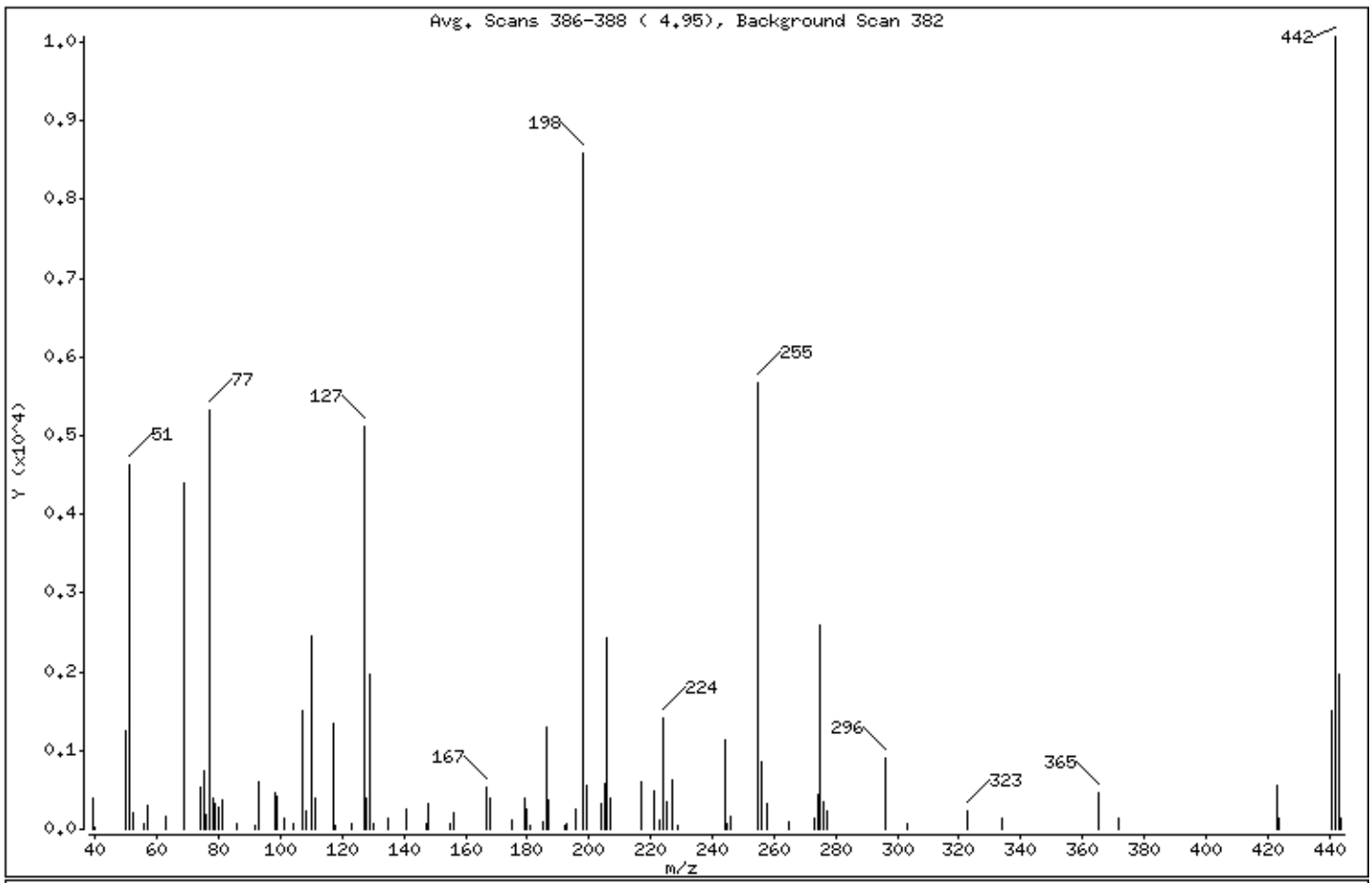
Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	54.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	51.28
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	59.59
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.56
275	10.00 - 60.00% of mass 198	30.09
365	Greater than 1.00% of mass 198	5.46
441	Present, but less than mass 443	17.63
442	Greater than 50.00% of mass 198	117.34
443	15.00 - 24.00% of mass 442	22.83 (19.45)

Date : 12-AUG-2019 12:49

Client ID: TUNE Instrument: 30mss3.i

Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m3081219t1.d
Spectrum: Avg. Scans 386-388 (4.95), Background Scan 382
Location of Maximum: 442.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	404	104.00	58	181.00	50	255.00	5671
40.00	33	107.00	1504	185.00	93	256.00	846
50.00	1261	108.00	234	186.00	1286	258.00	320
51.00	4634	110.00	2455	187.00	379	265.00	83
52.00	216	111.00	400	192.00	52	273.00	132
56.00	67	117.00	1346	193.00	64	274.00	443
57.00	302	118.00	50	196.00	257	275.00	2582
63.00	163	123.00	72	198.00	8582	276.00	350
69.00	4401	127.00	5114	199.00	563	277.00	243
74.00	521	128.00	400	204.00	327	296.00	896
75.00	733	129.00	1957	205.00	585	303.00	59
76.00	185	130.00	72	206.00	2427	323.00	230
77.00	5321	135.00	135	207.00	388	334.00	145
78.00	395	141.00	249	217.00	609	365.00	469
79.00	327	147.00	78	221.00	489	372.00	139
80.00	267	148.00	329	223.00	123	423.00	548
81.00	374	155.00	65	224.00	1423	424.00	138
86.00	67	156.00	207	225.00	354	441.00	1513
92.00	51	167.00	527	227.00	623	442.00	10070
93.00	593	168.00	391	229.00	57	443.00	1959
98.00	474	175.00	127	244.00	1132	444.00	145
99.00	411	179.00	392	245.00	66		
101.00	150	180.00	251	246.00	173		

Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m3081319t1.d

Date : 13-AUG-2019 13:27

Client ID: TUNE

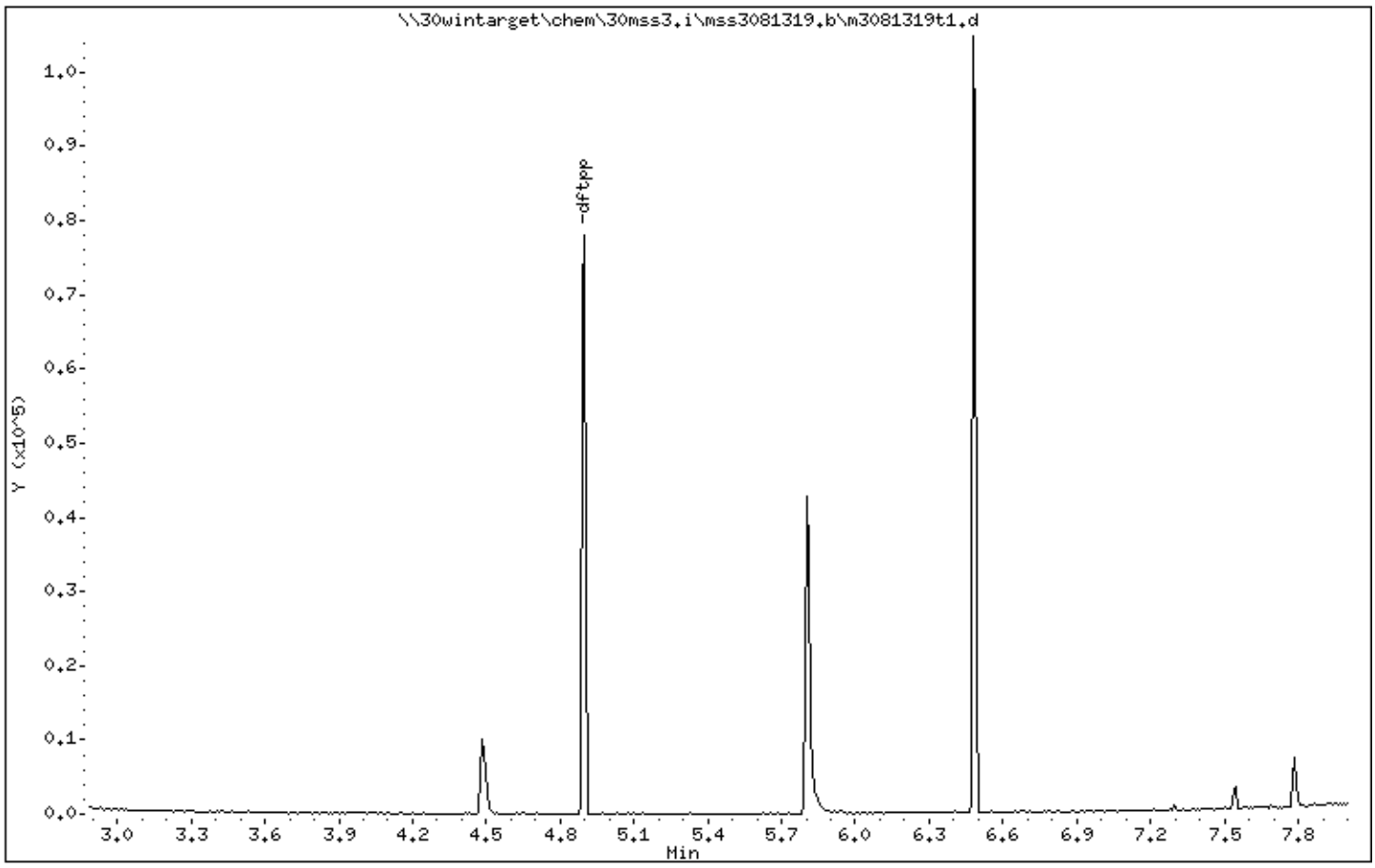
Instrument: 30mss3.i

Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mss3.i\mss3081319.b\m3081319t1.d

Date : 13-AUG-2019 13:27

Client ID: TUNE

Instrument: 30mss3.i

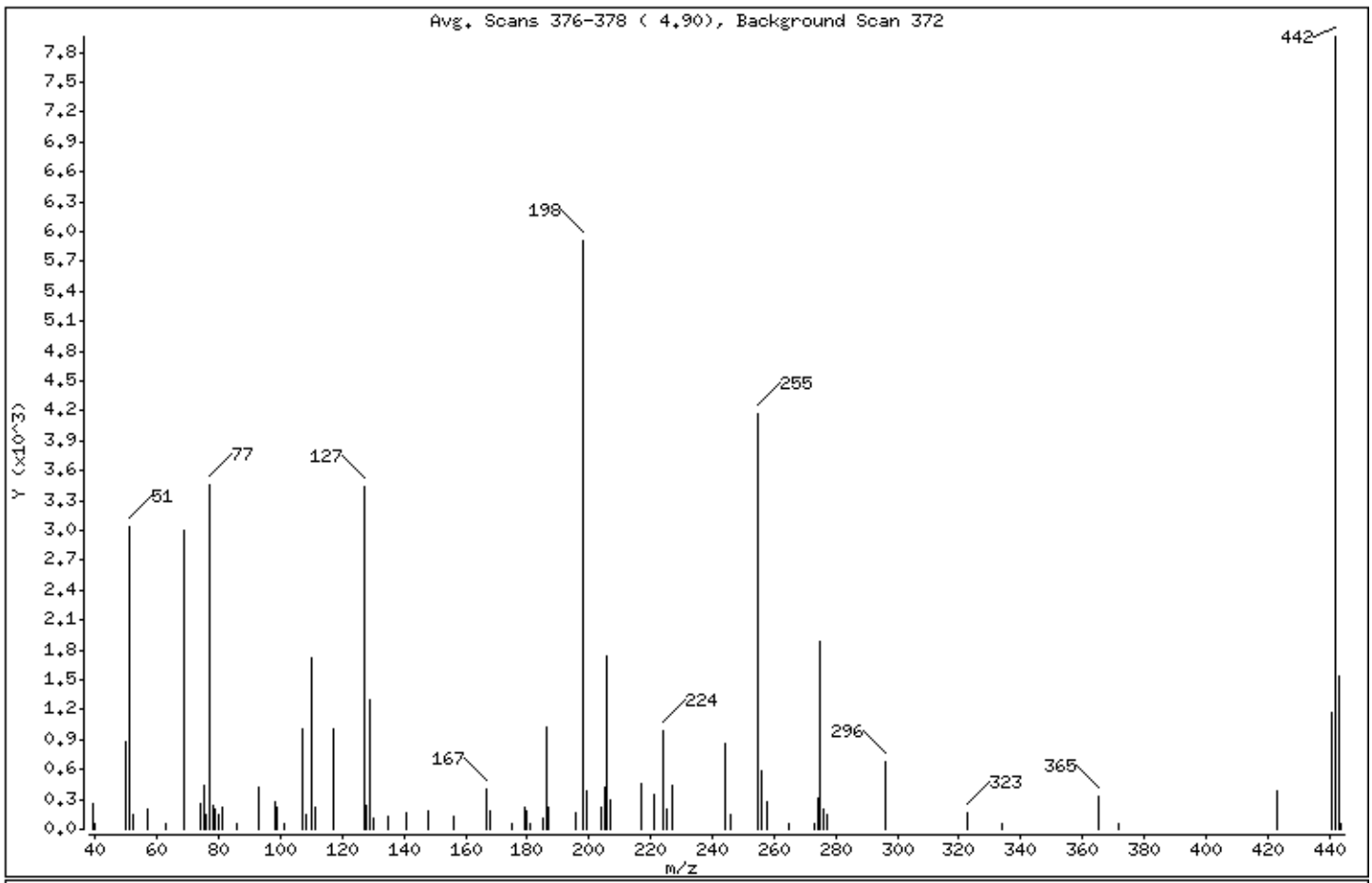
Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS

Column diameter: 0.18

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	51.45
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.80
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	58.32
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.52
275	10.00 - 60.00% of mass 198	31.91
365	Greater than 1.00% of mass 198	5.61
441	Present, but less than mass 443	19.73
442	Greater than 50.00% of mass 198	134.75
443	15.00 - 24.00% of mass 442	26.03 (19.32)

Date : 13-AUG-2019 13:27

Client ID: TUNE Instrument: 30mss3.i

Sample Info: TUNE, 96103:1

Operator: AJC

Column phase: RXI-5MS Column diameter: 0.18

Data File: m3081319t1.d
Spectrum: Avg. Scans 376-378 (4.90), Background Scan 372
Location of Maximum: 442.00
Number of points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	262	101.00	58	185.00	105	265.00	56
40.00	53	107.00	1005	186.00	1022	273.00	57
50.00	873	108.00	140	187.00	222	274.00	319
51.00	3038	110.00	1713	196.00	169	275.00	1884
52.00	146	111.00	224	198.00	5905	276.00	208
57.00	194	117.00	1000	199.00	385	277.00	151
63.00	56	127.00	3444	204.00	220	296.00	671
69.00	3000	128.00	238	205.00	419	323.00	159
74.00	265	129.00	1306	206.00	1746	334.00	57
75.00	448	130.00	102	207.00	288	365.00	331
76.00	140	135.00	127	217.00	464	372.00	58
77.00	3458	141.00	167	221.00	354	423.00	393
78.00	240	148.00	187	224.00	990	441.00	1165
79.00	209	156.00	121	225.00	207	442.00	7957
80.00	155	167.00	396	227.00	438	443.00	1537
81.00	223	168.00	184	244.00	858	444.00	57
86.00	52	175.00	64	246.00	144		
93.00	416	179.00	224	255.00	4179		
98.00	266	180.00	177	256.00	584		
99.00	214	181.00	51	258.00	274		

SAMPLE NO.

BLANK

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received:
Matrix: Solid
SDG No.: 30318799
Date Extracted: 08/12/2019 08:36
Lab Sample ID: 1729425
Date Analyzed: 08/12/2019 14:01
Lab File ID: MSS3081219.B\M308121903.D
Initial wt/vol: 15.37 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	ND	U
120-12-7	Anthracene	ND	U
56-55-3	Benzo(a)anthracene	ND	U
50-32-8	Benzo(a)pyrene	ND	U
205-99-2	Benzo(b)fluoranthene	ND	U
191-24-2	Benzo(g,h,i)perylene	ND	U
207-08-9	Benzo(k)fluoranthene	ND	U
218-01-9	Chrysene	ND	U
53-70-3	Dibenz(a,h)anthracene	ND	U
206-44-0	Fluoranthene	ND	U
86-73-7	Fluorene	ND	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	U
91-20-3	Naphthalene	ND	U
85-01-8	Phenanthrene	ND	U
129-00-0	Pyrene	ND	U

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d
Lab Smp Id: 1729425 Client Smp ID: MB
Inj Date : 12-AUG-2019 14:01 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : 1729425,
Misc Info : 14954,
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3081219.b\m3080719pahcd.m
Meth Date : 12-Aug-2019 13:19 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.370	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.191	3.191	(1.000)	114561	4.00000		
	8 Naphthalene	128	3.205	3.205	(1.004)	113	0.00403	0.262(QM)	NI
	9 2-Methylnaphthalene	142	3.697	3.694	(1.159)	22	0.00138	0.0899	
	10 1-Methylnaphthalene	142	3.763	3.763	(1.179)	13	7e-004	0.0447(Q)	
$	6 2-Fluorobiphenyl (S)	172	3.948	3.948	(0.895)	78868	4.67981	304	
	11 Acenaphthylene	152	Compound Not Detected.						(D)
*	2 Acenaphthene-d10 (IS)	164	4.413	4.415	(1.000)	55793	4.00000		
	12 Acenaphthene	153	Compound Not Detected.						
	13 Fluorene	166	Compound Not Detected.						(D)
*	3 Phenanthrene-d10 (IS)	188	5.485	5.487	(1.000)	86232	4.00000		
	14 Phenanthrene	178	Compound Not Detected.						(D)
	15 Anthracene	178	Compound Not Detected.						(D)
	16 Fluoranthene	202	Compound Not Detected.						(D)
	17 Pyrene	202	6.715	6.715	(1.224)	20	9e-004	0.0563(Q)	
$	7 Terphenyl-d14 (S)	244	6.849	6.849	(1.249)	83867	4.62105	301	
	18 Benzo(a)anthracene	228	Compound Not Detected.						
*	4 Chrysene-d12 (IS)	240	7.870	7.872	(1.000)	85221	4.00000		
	19 Chrysene	228	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	Compound Not Detected.						(D)
21 Benzo(k)fluoranthene	252	Compound Not Detected.						(D)
22 Benzo(a)pyrene	252	Compound Not Detected.						(D)
* 5 Perylene-d12 (IS)	264	9.224	9.227	(1.000)	94546	4.00000		
23 Dibenz(a,h)anthracene	278	Compound Not Detected.						
24 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
25 Benzo[g,h,i]perylene	276	Compound Not Detected.						

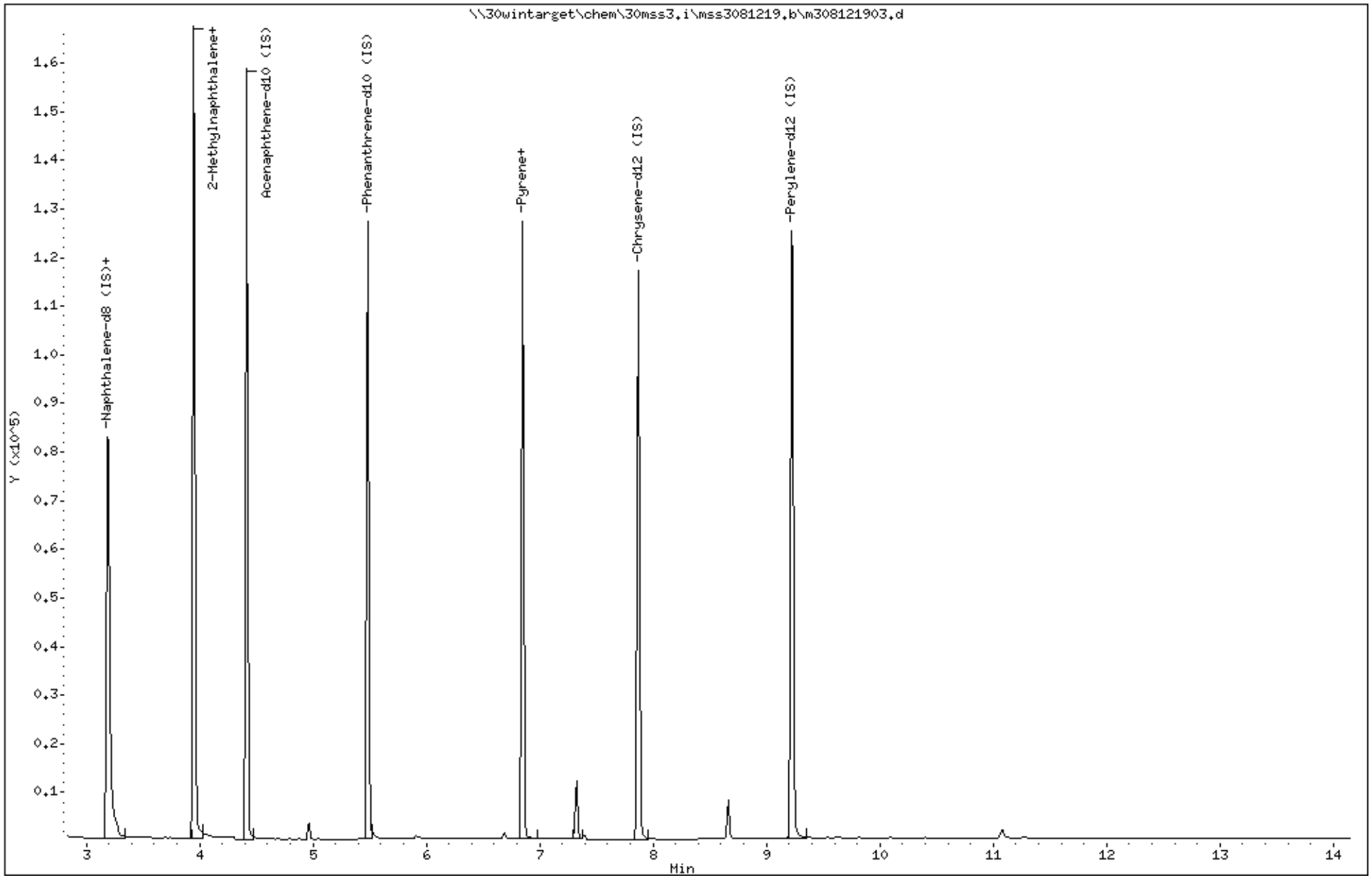
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d
Date : 12-AUG-2019 14:01
Client ID: MB
Instrument: 30mss3.i
Sample Info: 1729425,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d

Date : 12-AUG-2019 14:01

Client ID: MB

Instrument: 30mss3.i

Sample Info: 1729425,

Volume Injected (uL): 1.0

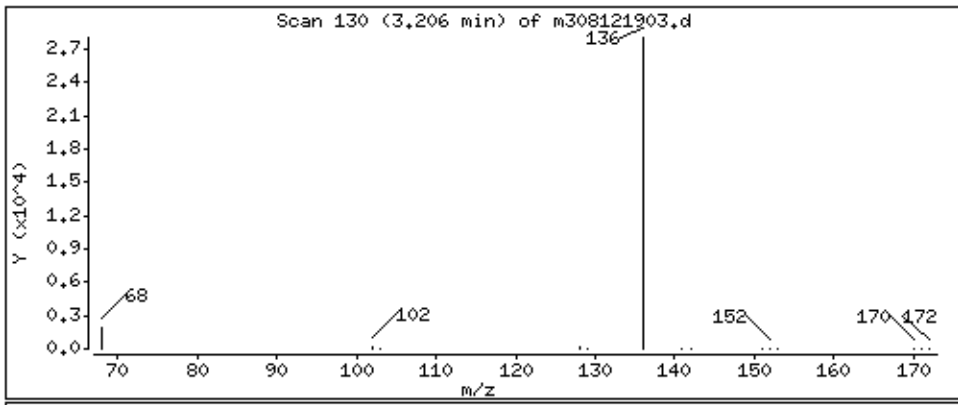
Operator: AJC

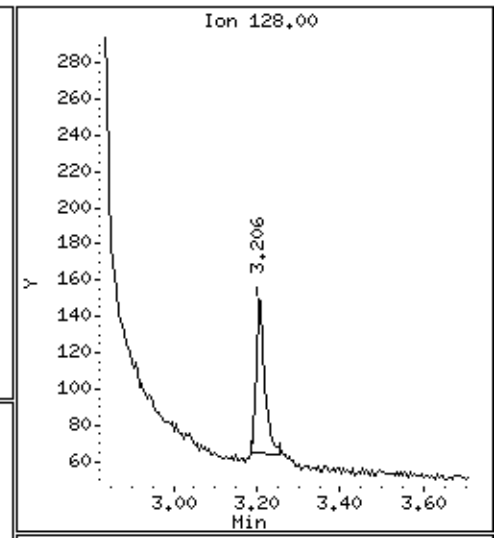
Column phase: RTX-5MS

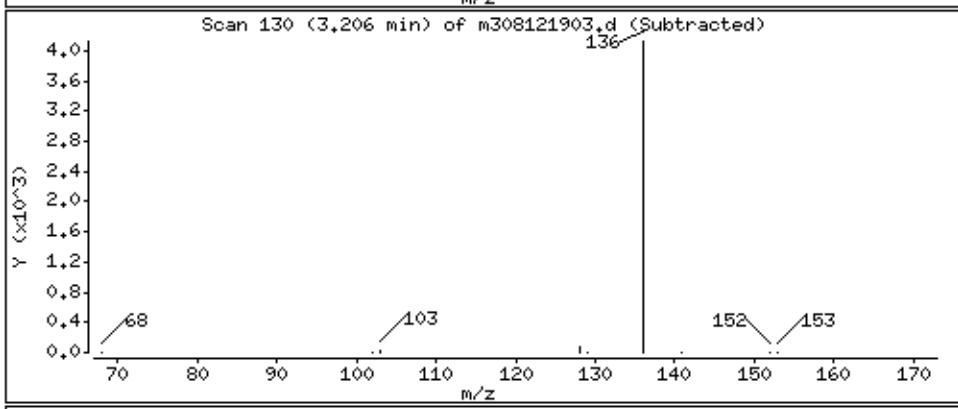
Column diameter: 0.25

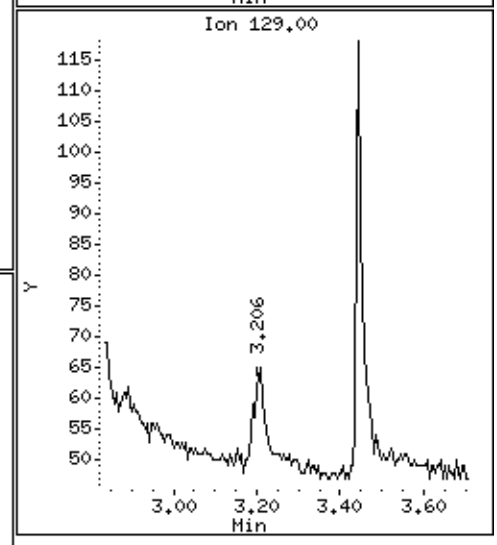
8 Naphthalene

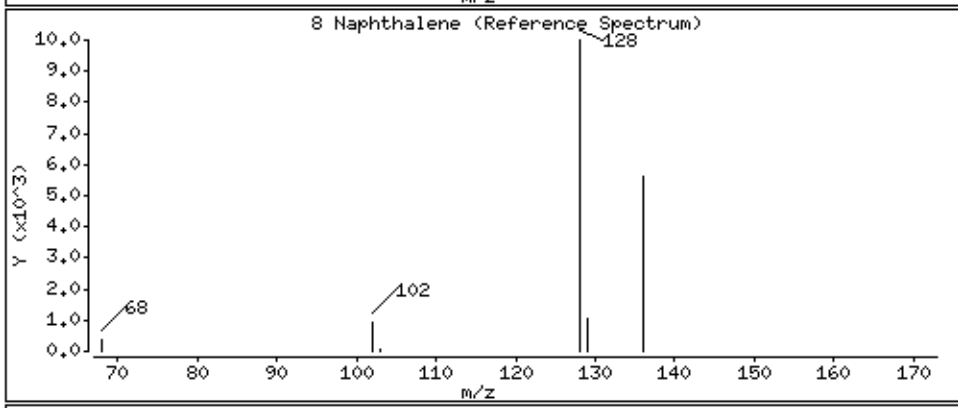
Concentration: 0.262 ug/Kg

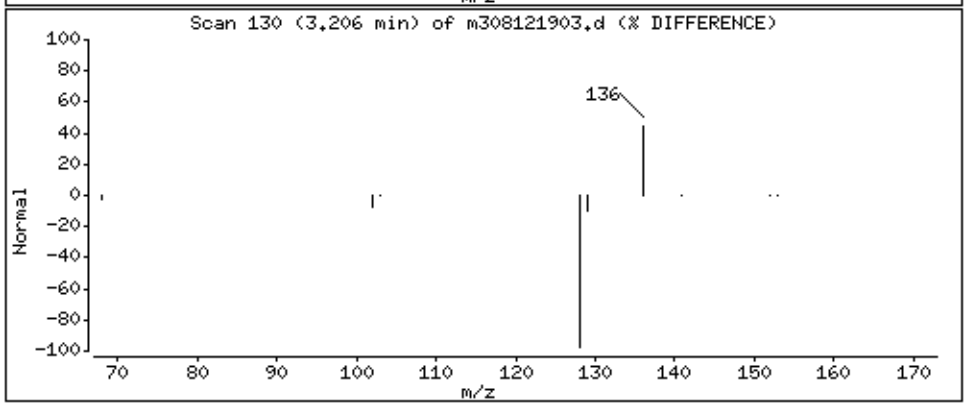












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d

Date : 12-AUG-2019 14:01

Client ID: MB

Instrument: 30mss3.i

Sample Info: 1729425,

Volume Injected (uL): 1.0

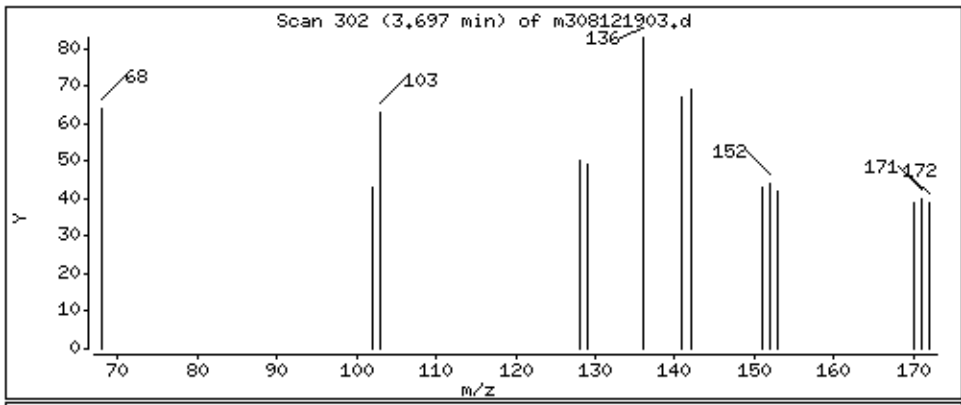
Operator: AJC

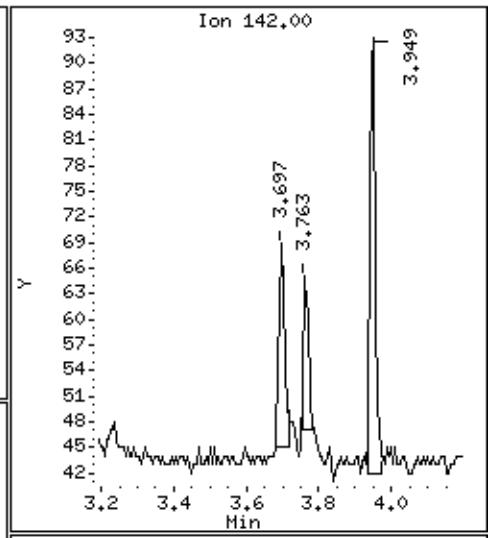
Column phase: RTX-5MS

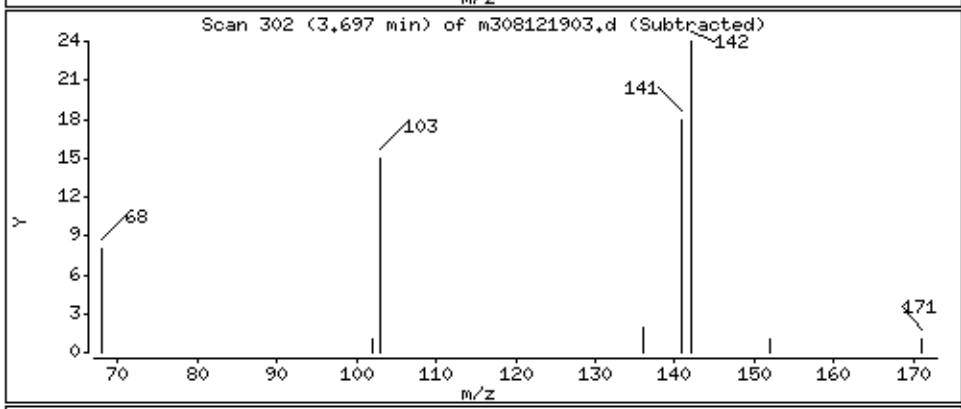
Column diameter: 0.25

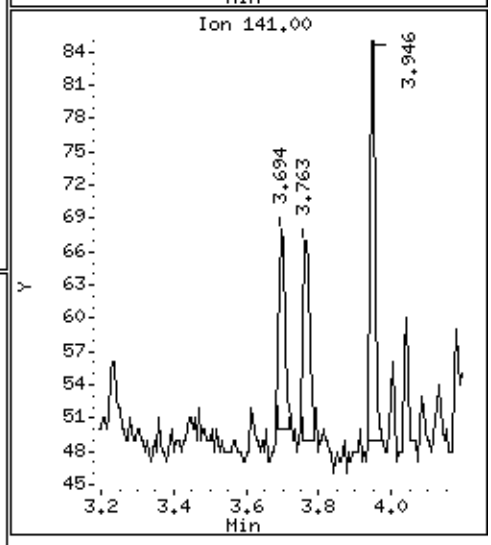
9 2-Methylnaphthalene

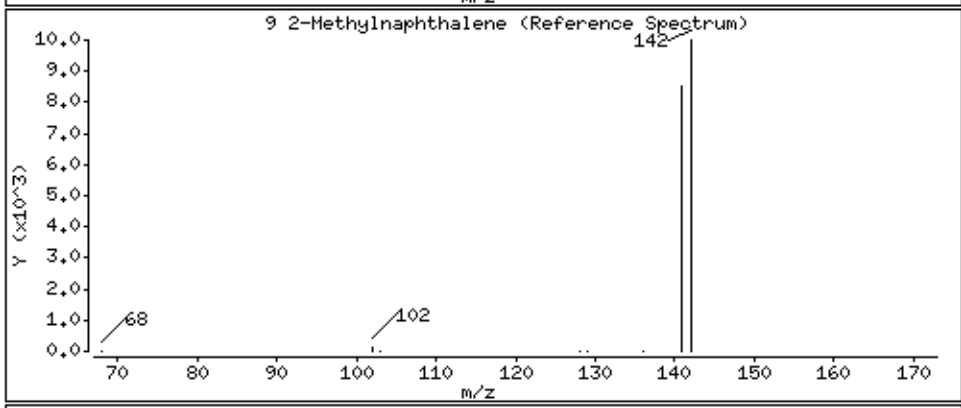
Concentration: 0.0899 ug/Kg

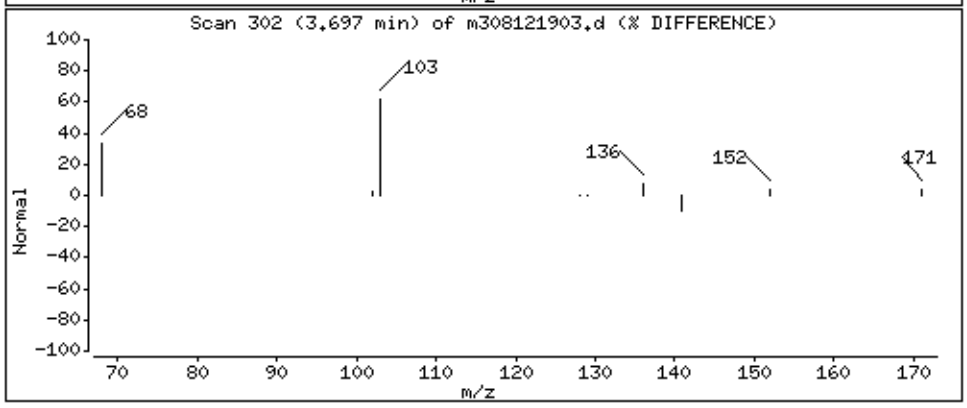












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d

Date : 12-AUG-2019 14:01

Client ID: MB

Instrument: 30mss3.i

Sample Info: 1729425,

Volume Injected (uL): 1.0

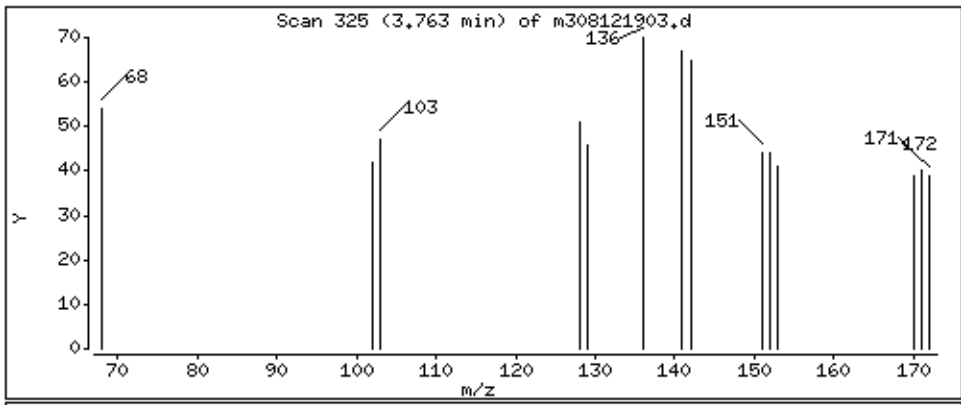
Operator: AJC

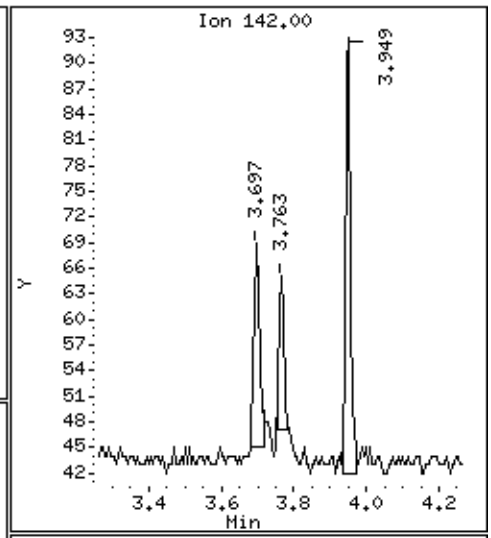
Column phase: RTX-5MS

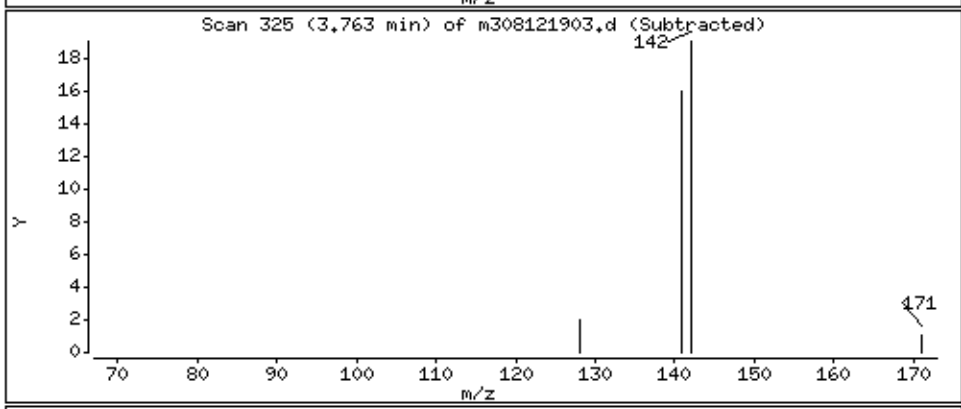
Column diameter: 0.25

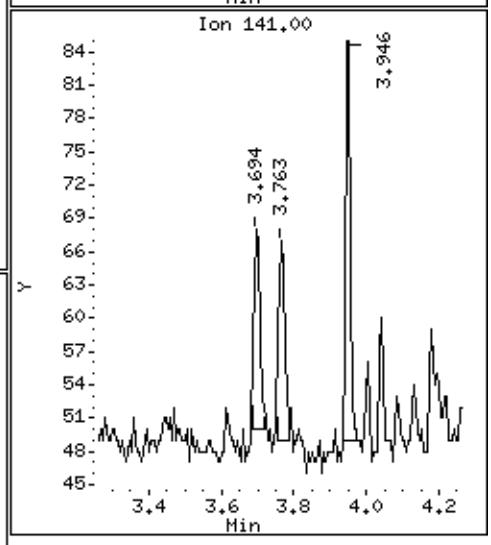
10 1-Methylnaphthalene

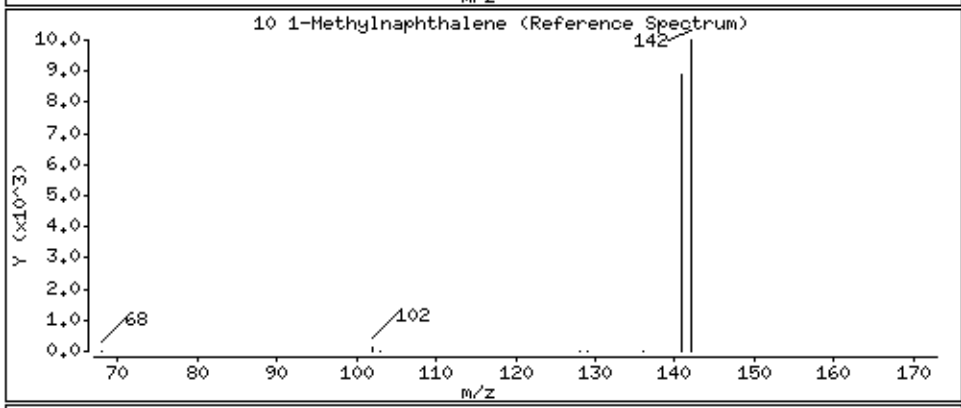
Concentration: 0.0447 ug/Kg

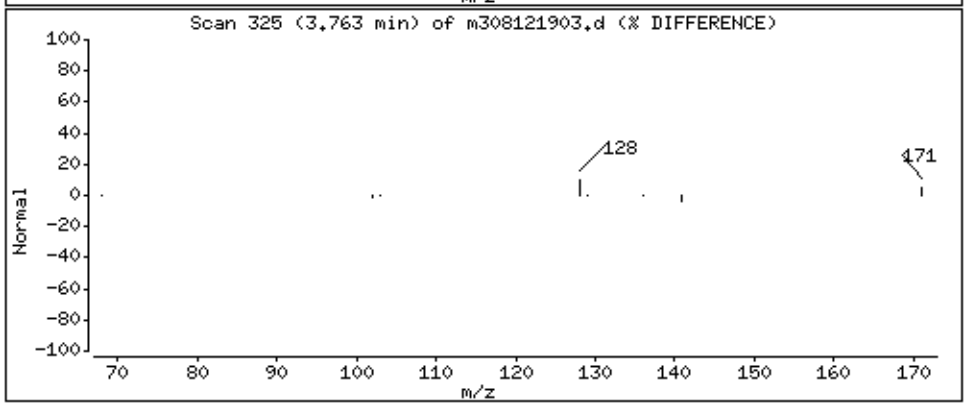












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121903.d

Date : 12-AUG-2019 14:01

Client ID: MB

Instrument: 30mss3.i

Sample Info: 1729425,

Volume Injected (uL): 1.0

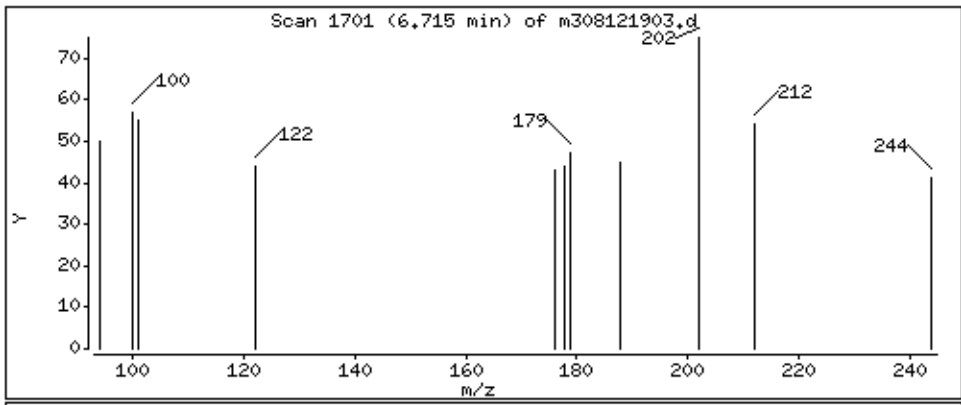
Operator: AJC

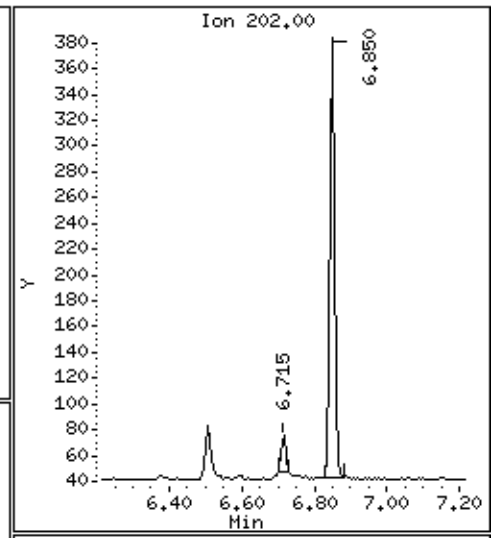
Column phase: RTX-5MS

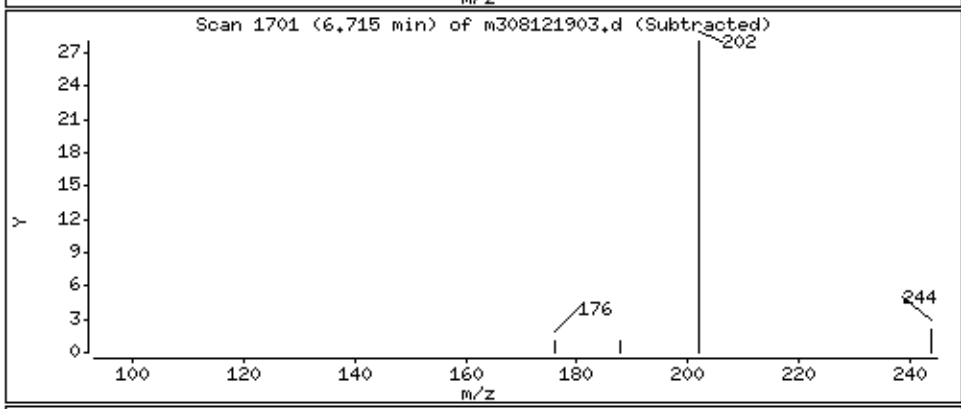
Column diameter: 0.25

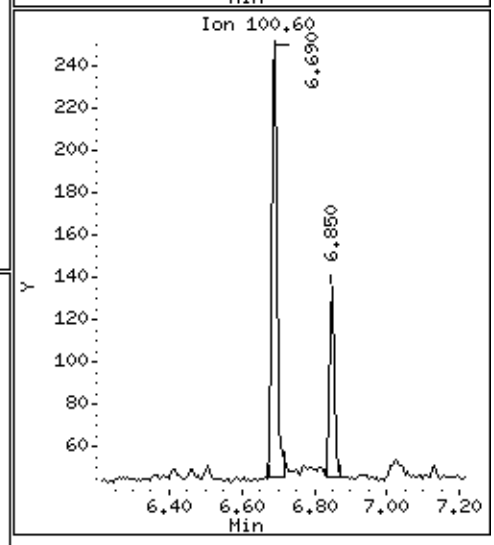
17 Pyrene

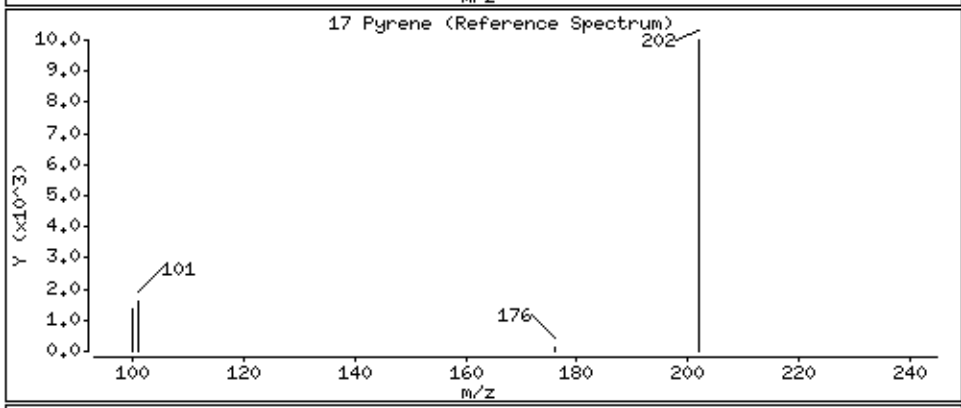
Concentration: 0.0563 ug/Kg

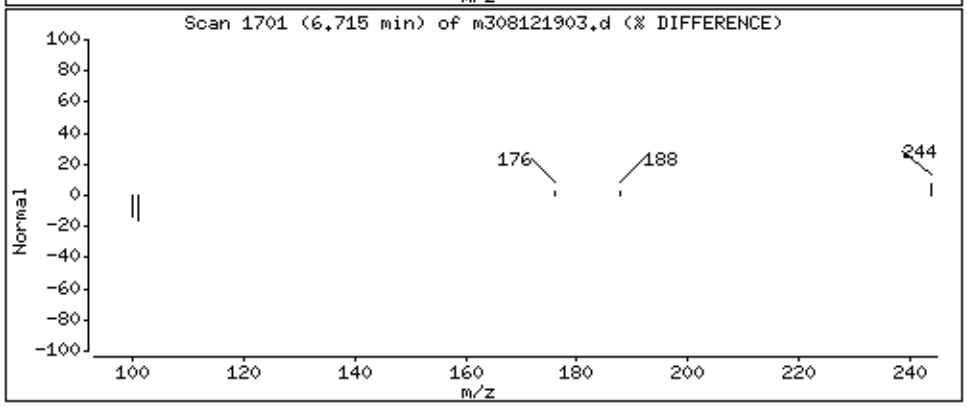












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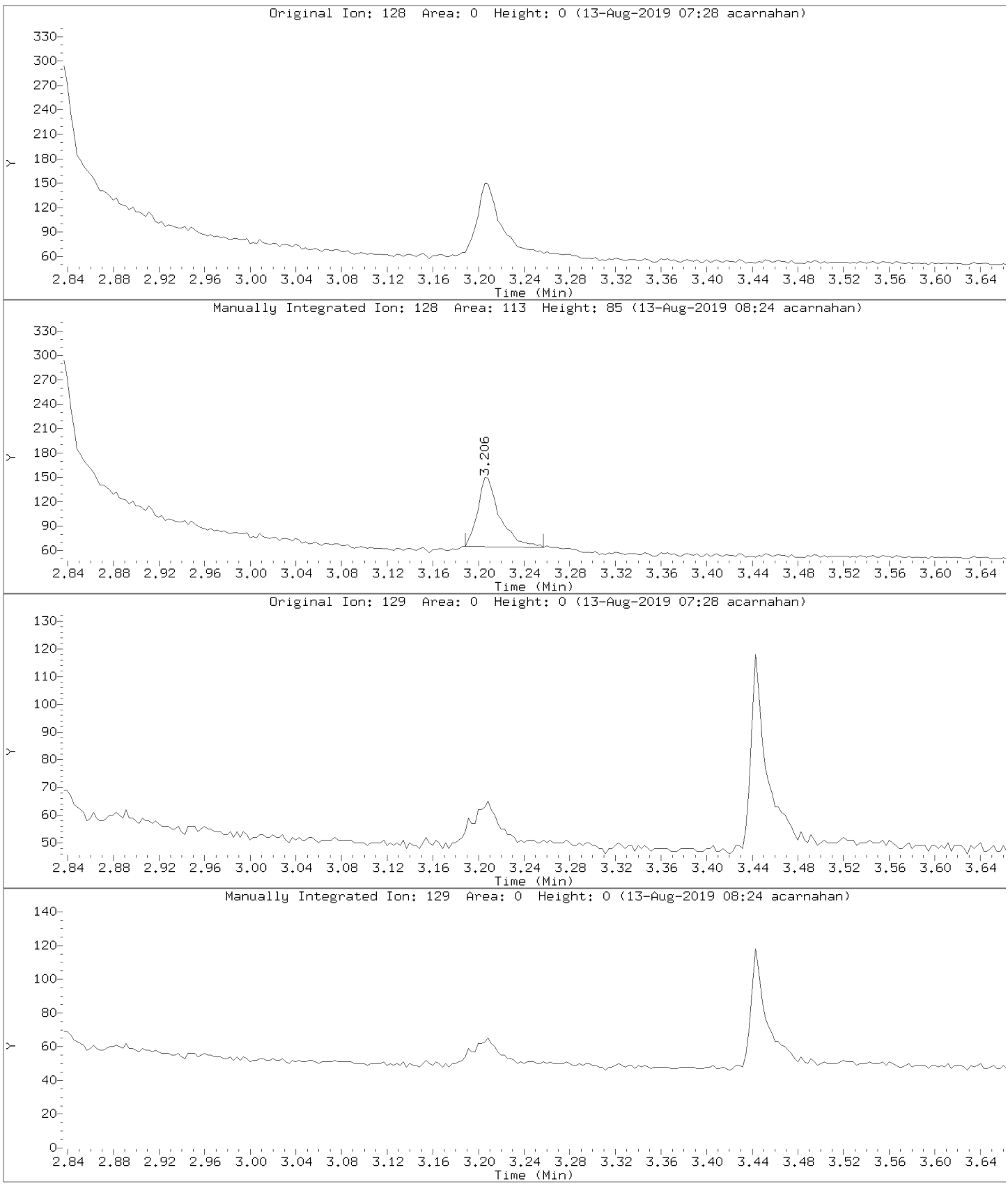
Injection Date: 12-AUG-2019 14:01
Instrument: 30mss3.i
Lab Sample ID: 1729425

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3



SAMPLE NO.

LCS

MSSV SIM - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received:
Matrix: Solid
SDG No.: 30318799
Date Extracted: 08/12/2019 08:36
Lab Sample ID: 1729426
Date Analyzed: 08/12/2019 14:21
Lab File ID: MSS3081219.B\M308121904.D
Initial wt/vol: 15.5 g
Final wt/vol: 1 mL
Dilution: 1
Instrument: 30MSS3
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
208-96-8	Acenaphthylene	124	
120-12-7	Anthracene	114	
56-55-3	Benzo(a)anthracene	136	
50-32-8	Benzo(a)pyrene	115	
205-99-2	Benzo(b)fluoranthene	119	
191-24-2	Benzo(g,h,i)perylene	125	
207-08-9	Benzo(k)fluoranthene	121	
218-01-9	Chrysene	114	
53-70-3	Dibenz(a,h)anthracene	126	
206-44-0	Fluoranthene	123	
86-73-7	Fluorene	115	
193-39-5	Indeno(1,2,3-cd)pyrene	128	
91-20-3	Naphthalene	103	
85-01-8	Phenanthrene	113	
129-00-0	Pyrene	123	

Pace Analytical Services, Inc.

Data file : \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d
Lab Smp Id: 1729426 Client Smp ID: MBLCS
Inj Date : 12-AUG-2019 14:21 MS Autotune Date: 10-JUN-2019 12:0
Operator : AJC Inst ID: 30mss3.i
Smp Info : 1729426,
Misc Info : 14954,
Comment :
Method : \\30wintarget\chem\30mss3.i\mss3081219.b\m3080719pahcd.m
Meth Date : 12-Aug-2019 13:19 acarnahan Quant Type: ISTD
Cal Date : 07-AUG-2019 12:29 Cal File: m3080719y6.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MMAKOWIECKI10

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * ((100-M)/100)) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.500	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

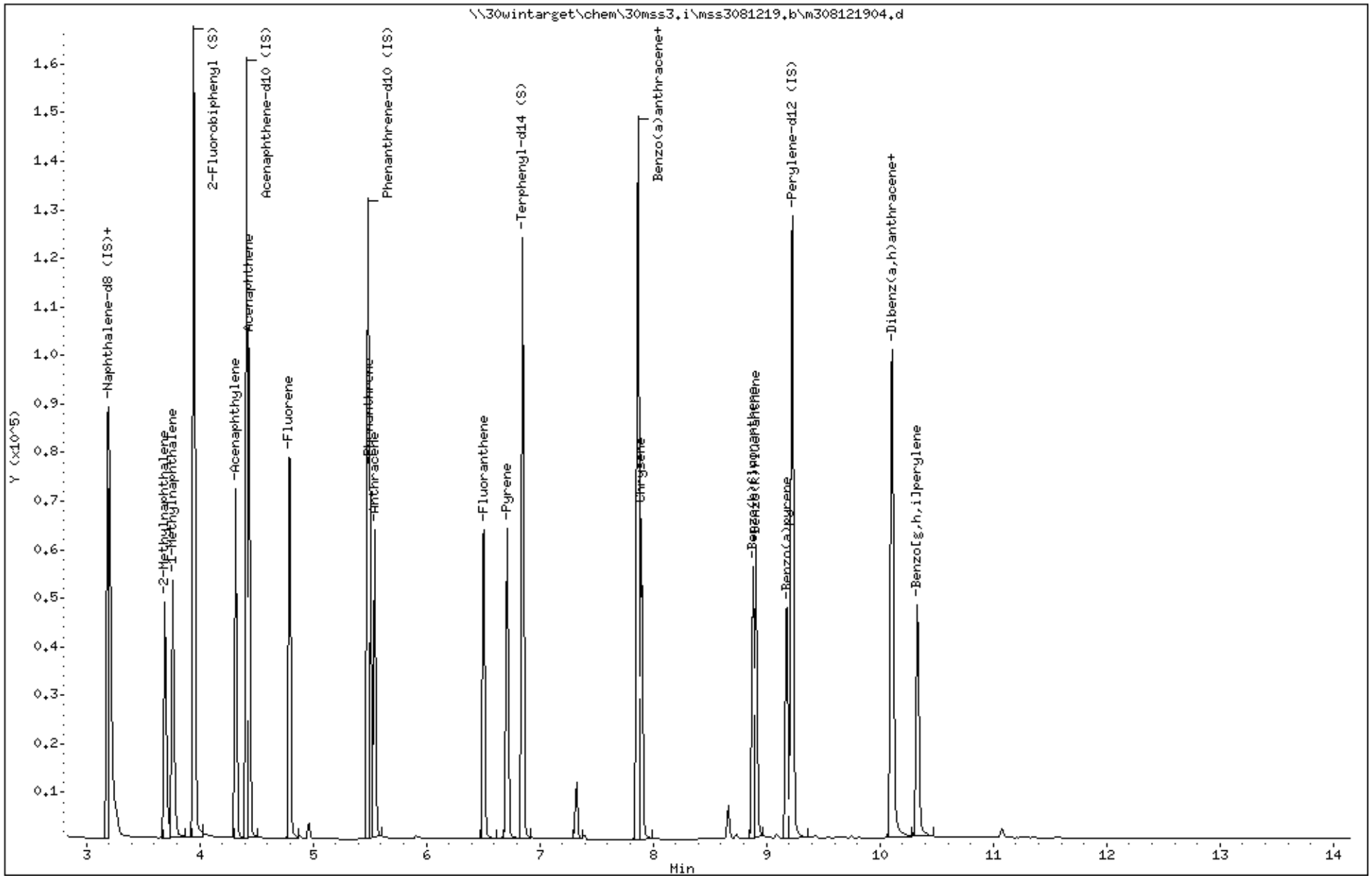
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)	REVIEW C
	27 Quinoline	100	Compound Not Detected.						
*	1 Naphthalene-d8 (IS)	136	3.191	3.191	(1.000)	116759	4.00000		
	8 Naphthalene	128	3.208	3.205	(1.005)	45824	1.60426	104	
	9 2-Methylnaphthalene	142	3.694	3.694	(1.158)	26779	1.65065	106	
	10 1-Methylnaphthalene	142	3.763	3.763	(1.179)	27698	1.43539	92.6	
$	6 2-Fluorobiphenyl (S)	172	3.948	3.948	(0.894)	80351	4.69900	303	
	11 Acenaphthylene	152	4.318	4.320	(0.978)	42793	1.91788	124	
*	2 Acenaphthene-d10 (IS)	164	4.415	4.415	(1.000)	56610	4.00000		
	12 Acenaphthene	153	4.436	4.438	(1.005)	27462	1.69955	110	
	13 Fluorene	166	4.794	4.794	(1.086)	28460	1.77884	115	
*	3 Phenanthrene-d10 (IS)	188	5.485	5.487	(1.000)	87996	4.00000		
	14 Phenanthrene	178	5.503	5.505	(1.003)	40371	1.74794	113	
	15 Anthracene	178	5.543	5.545	(1.011)	40020	1.77035	114	
	16 Fluoranthene	202	6.505	6.505	(1.186)	43708	1.91095	123	
	17 Pyrene	202	6.712	6.715	(1.224)	44967	1.90652	123	
$	7 Terphenyl-d14 (S)	244	6.849	6.849	(1.249)	84174	4.54499	293	
	18 Benzo(a)anthracene	228	7.862	7.862	(0.999)	44590	2.10304	136	
*	4 Chrysene-d12 (IS)	240	7.872	7.872	(1.000)	87496	4.00000		
	19 Chrysene	228	7.896	7.898	(1.003)	42267	1.76040	114	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)	REVIEW C
20 Benzo(b)fluoranthene	252	8.882	8.880	(0.963)	43515	1.84615	119	
21 Benzo(k)fluoranthene	252	8.906	8.906	(0.965)	50149	1.87779	121	
22 Benzo(a)pyrene	252	9.178	9.176	(0.995)	40115	1.78454	115	
* 5 Perylene-d12 (IS)	264	9.227	9.227	(1.000)	95527	4.00000		
23 Dibenz(a,h)anthracene	278	10.108	10.108	(1.096)	44169	1.95304	126	
24 Indeno(1,2,3-cd)pyrene	276	10.104	10.106	(1.095)	52188	1.99108	128	
25 Benzo[g,h,i]perylene	276	10.332	10.329	(1.120)	41830	1.94512	125	

Review Codes Legend

:

Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d
Date : 12-AUG-2019 14:21
Client ID: MBLCS
Instrument: 30mss3.i
Sample Info: 1729426,
Volume Injected (uL): 1.0
Operator: AJC
Column phase: RTX-5MS
Column diameter: 0.25



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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

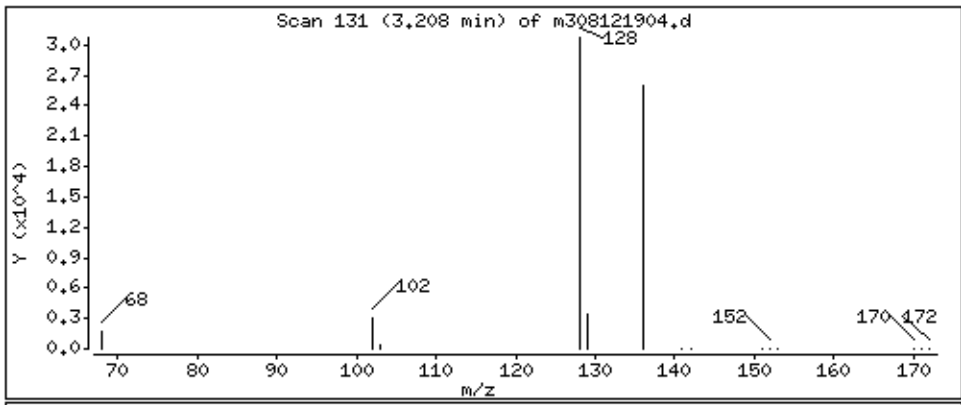
Operator: AJC

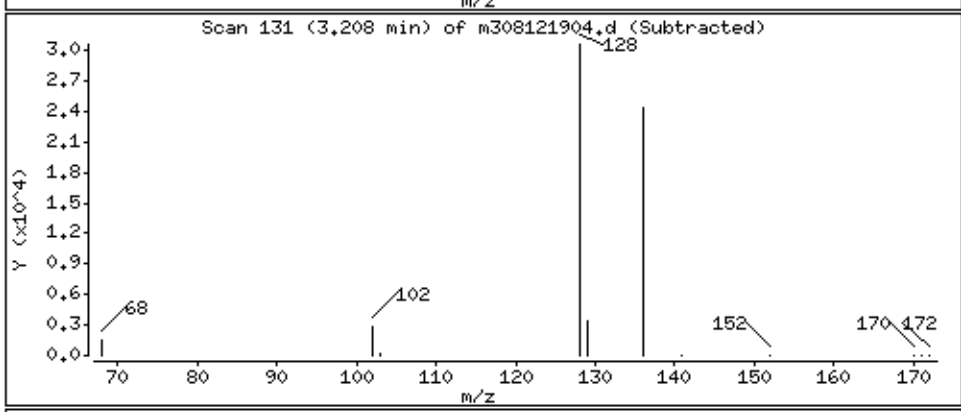
Column phase: RTX-5MS

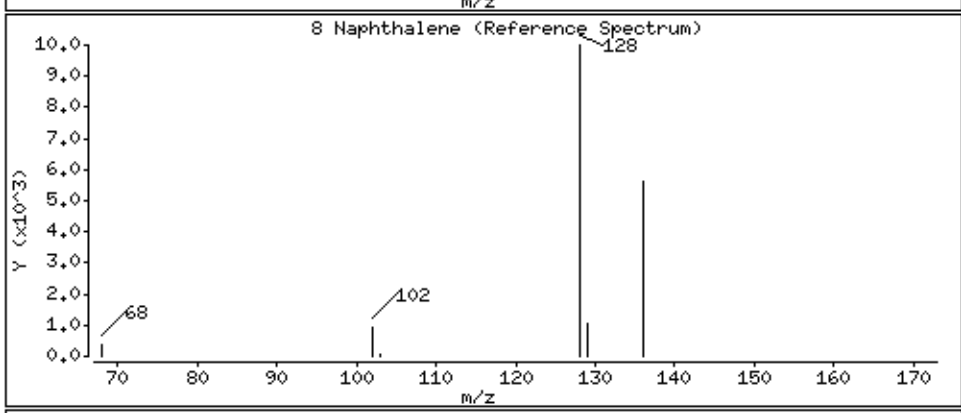
Column diameter: 0.25

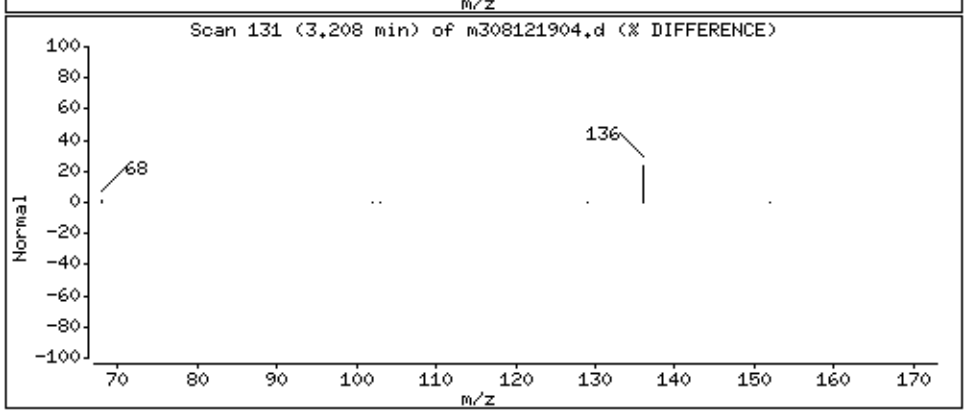
8 Naphthalene

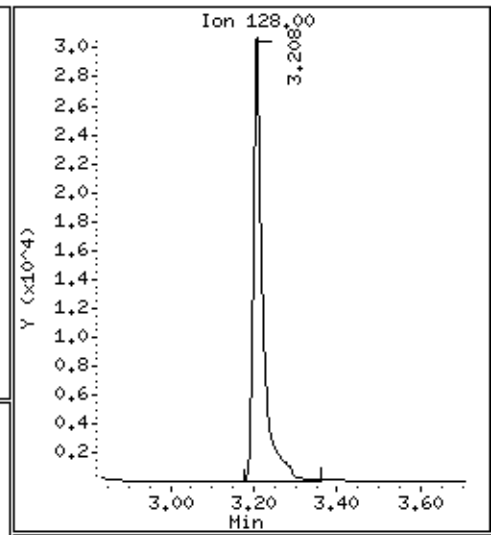
Concentration: 104 ug/Kg

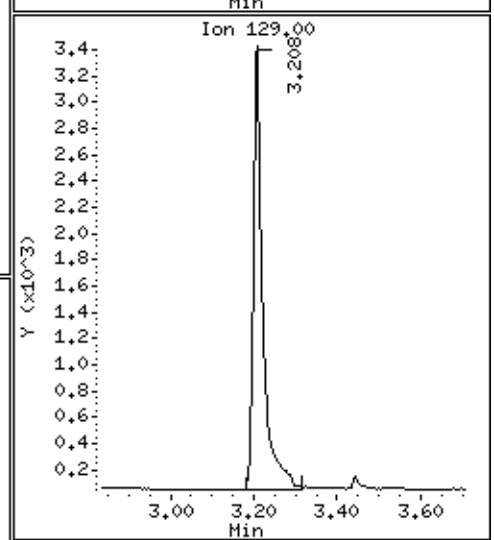












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

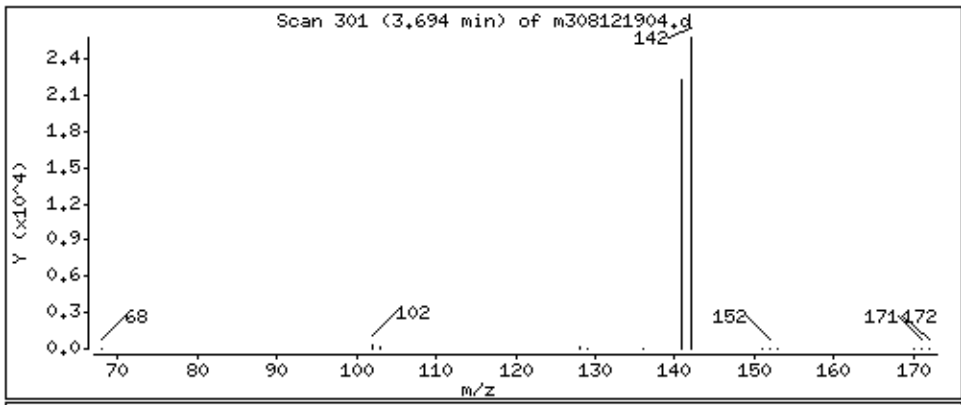
Operator: AJC

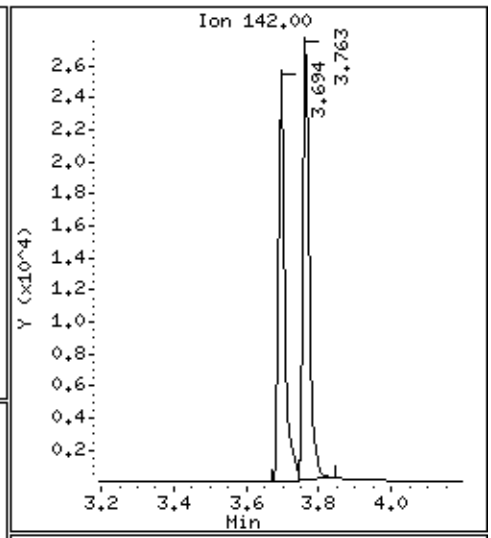
Column phase: RTX-5MS

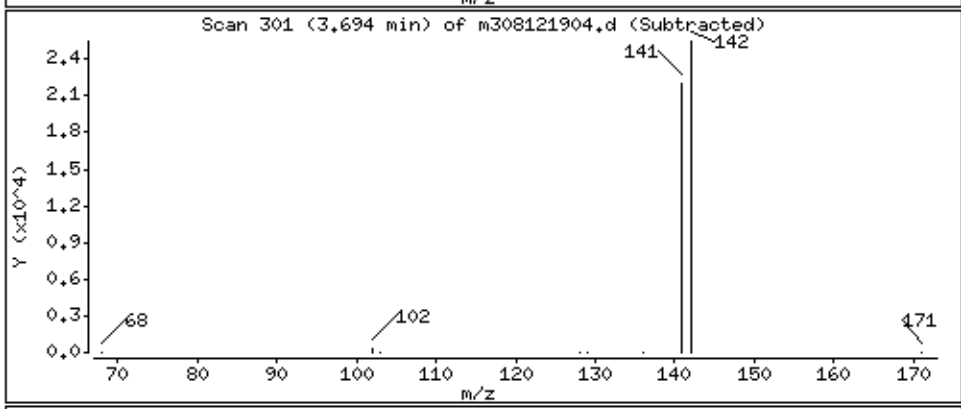
Column diameter: 0.25

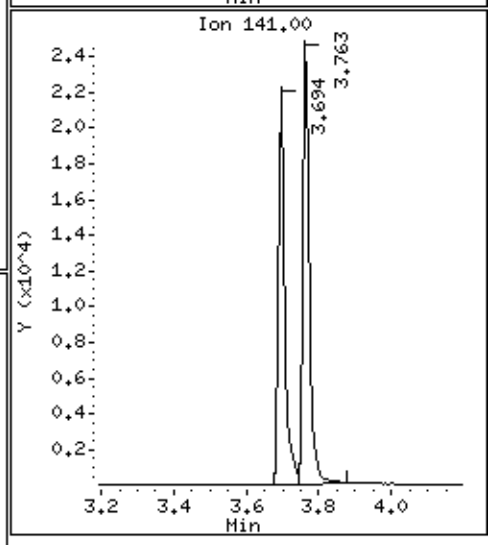
9 2-Methylnaphthalene

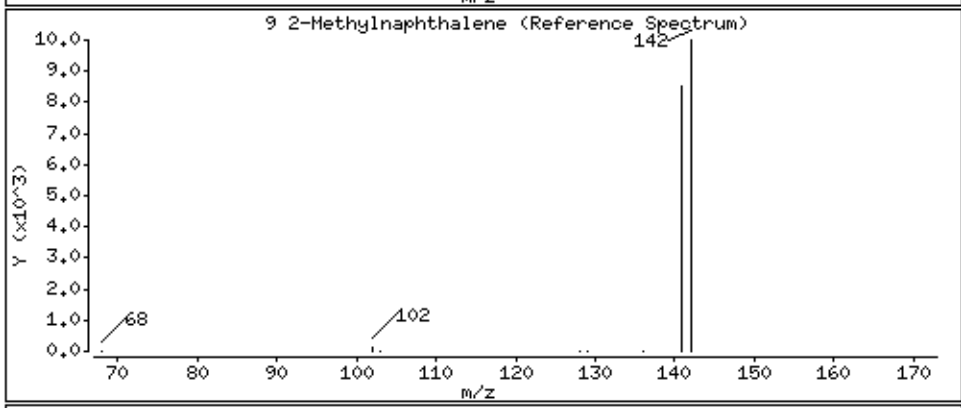
Concentration: 106 ug/Kg

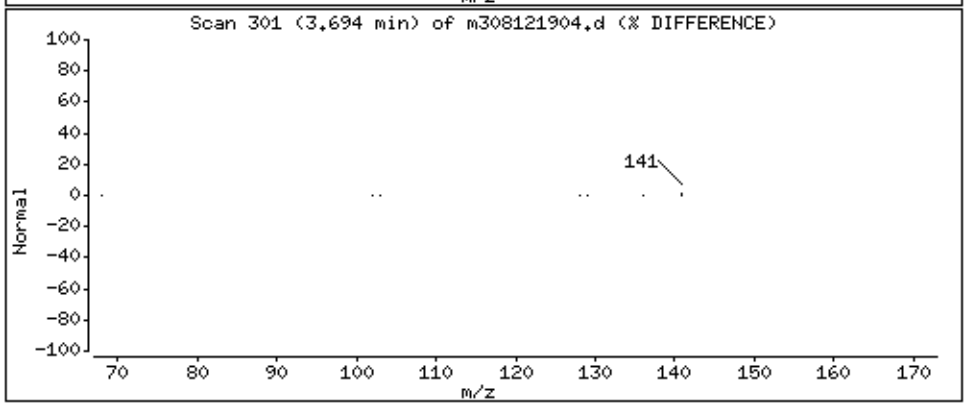












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

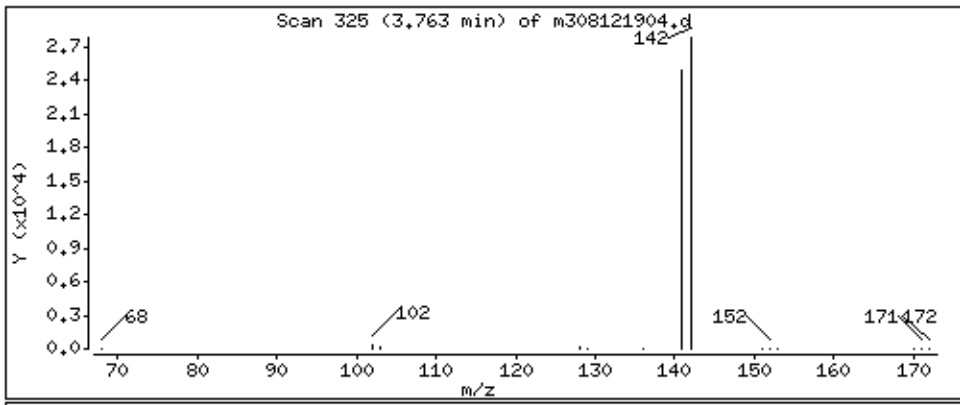
Operator: AJC

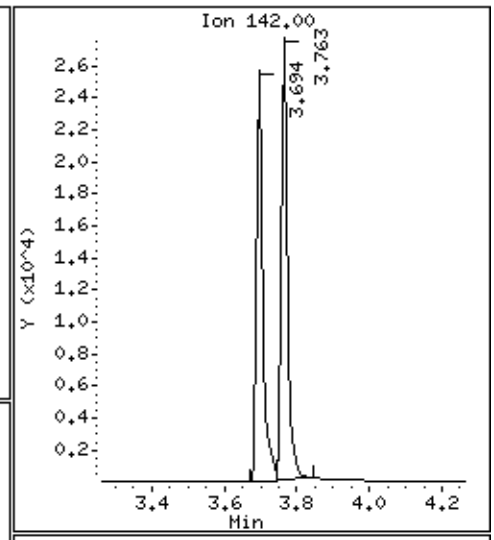
Column phase: RTX-5MS

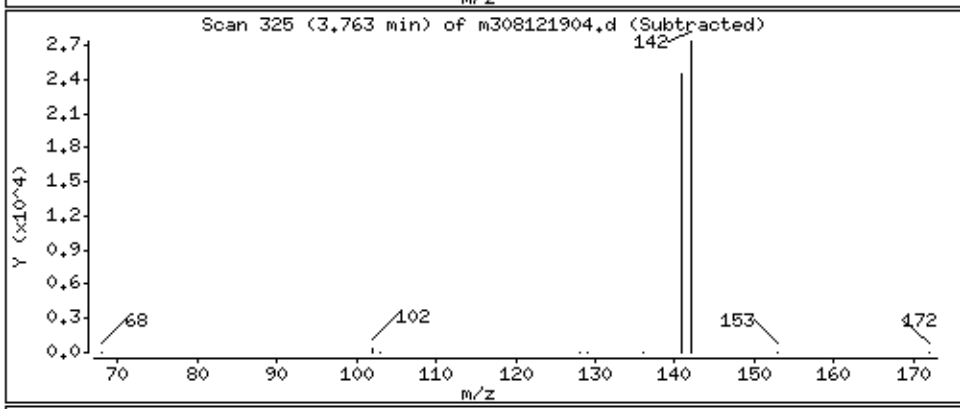
Column diameter: 0.25

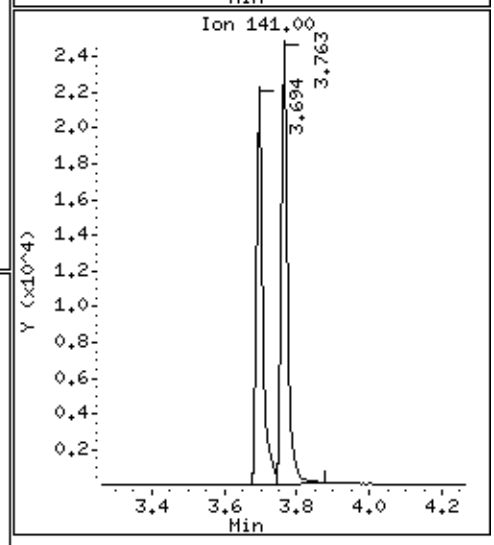
10 1-Methylnaphthalene

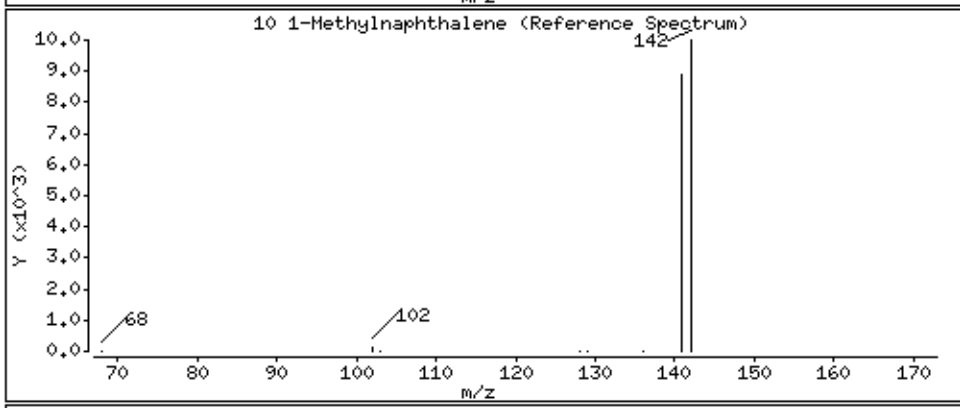
Concentration: 92.6 ug/Kg

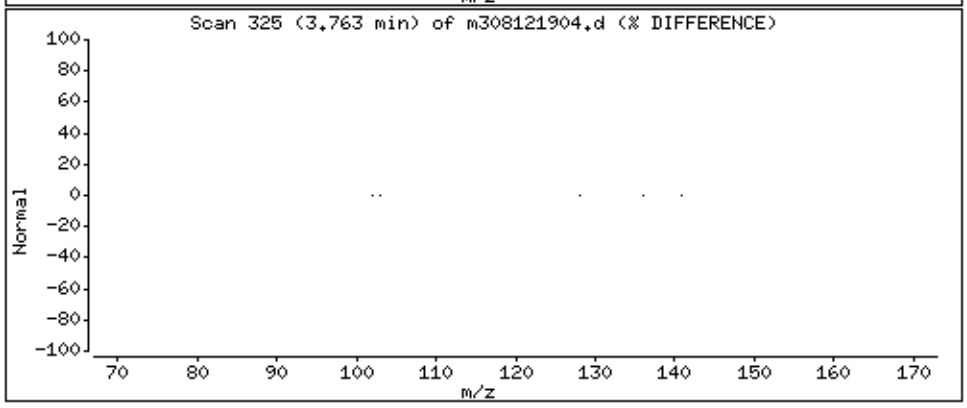












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

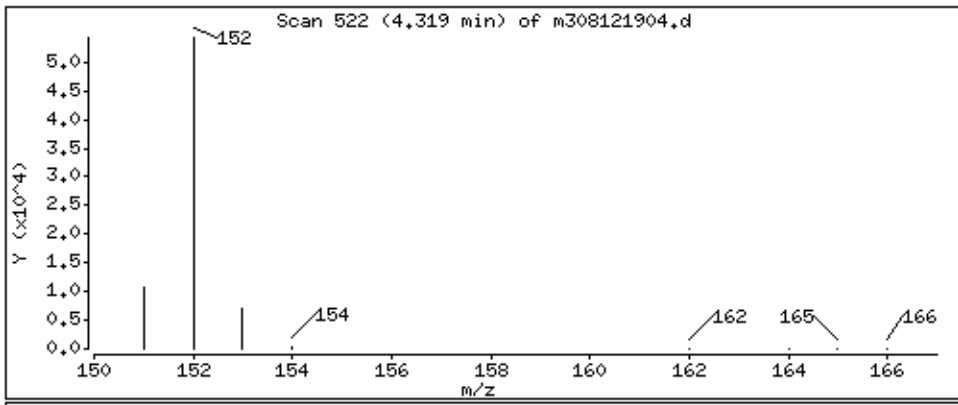
Operator: AJC

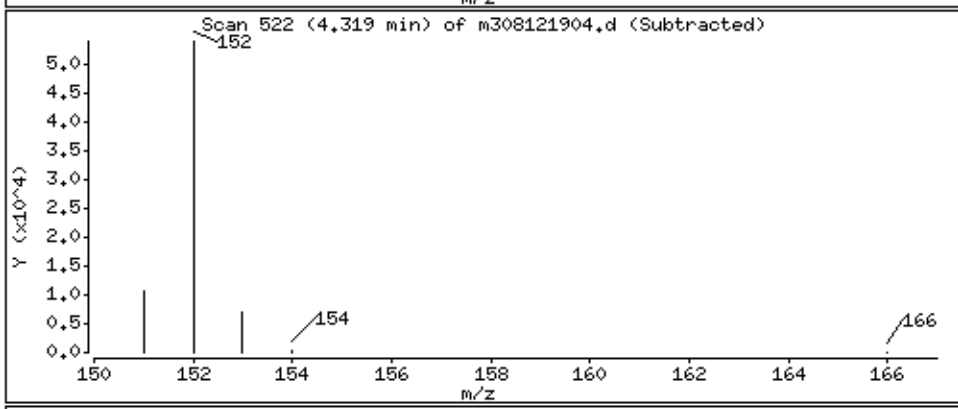
Column phase: RTX-5MS

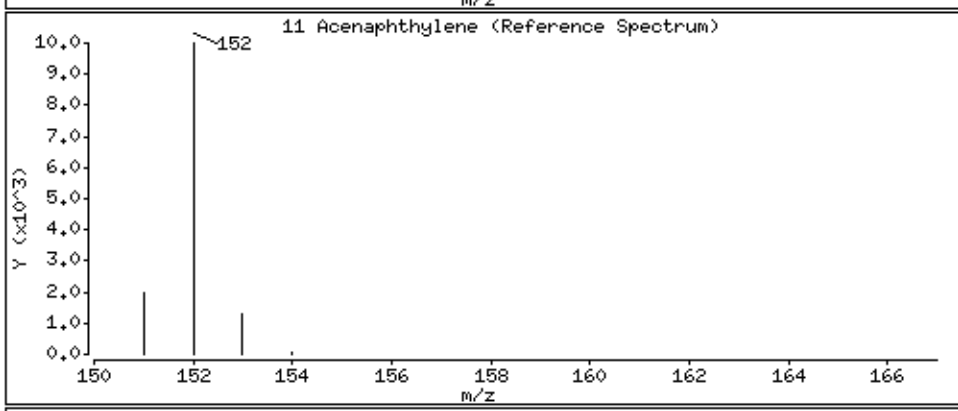
Column diameter: 0.25

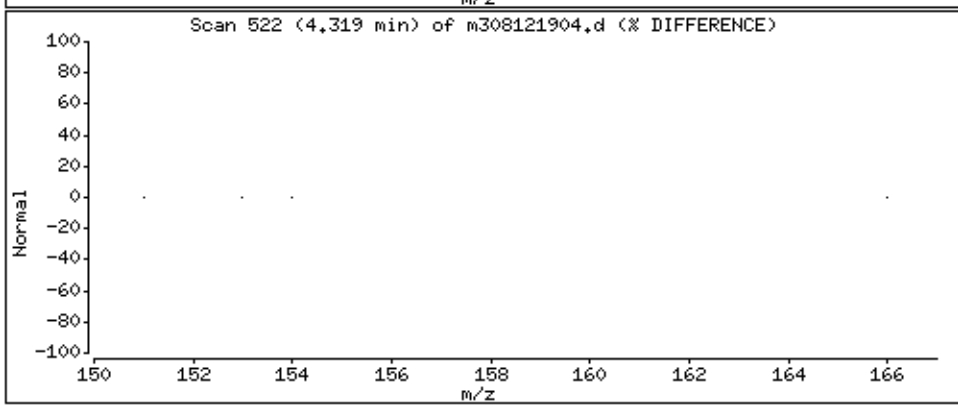
11 Acenaphthylene

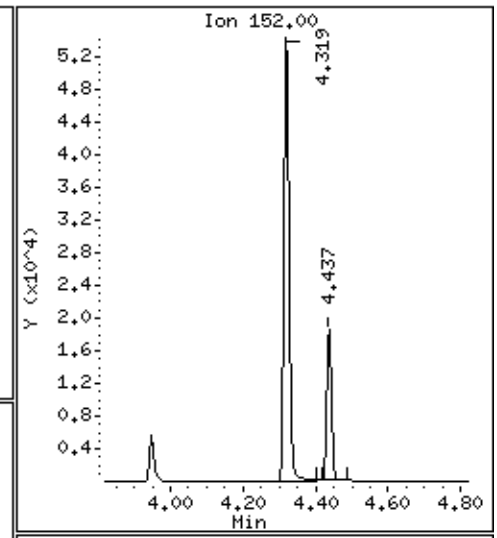
Concentration: 124 ug/Kg

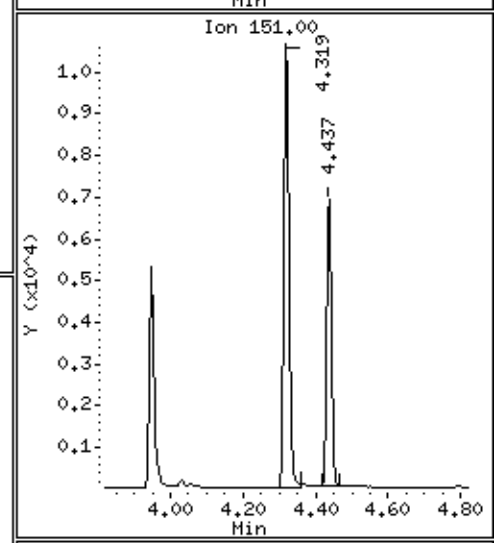


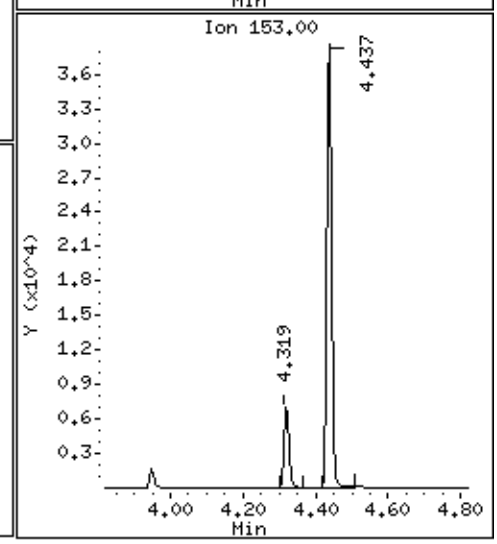












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

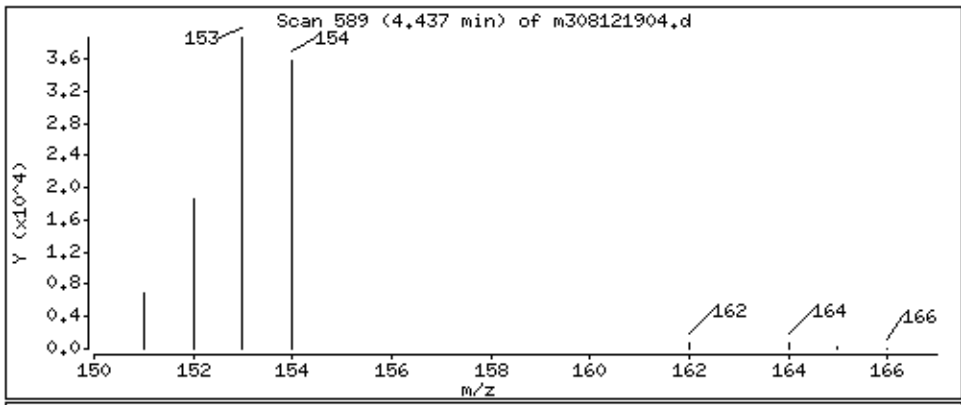
Operator: AJC

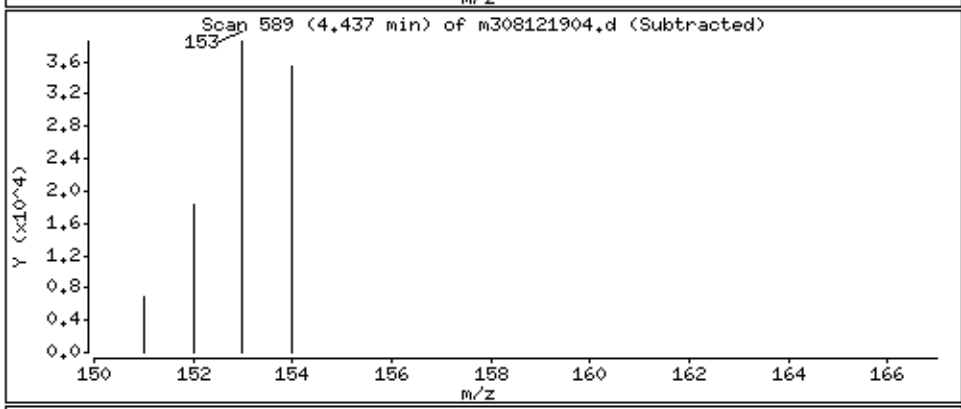
Column phase: RTX-5MS

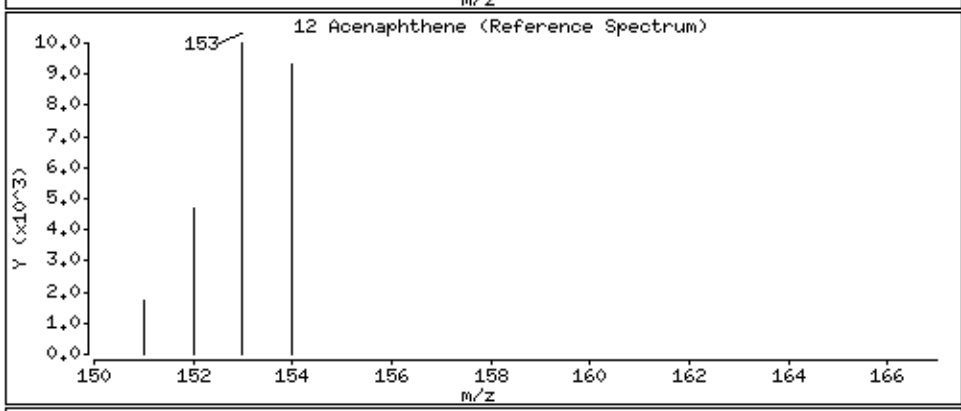
Column diameter: 0.25

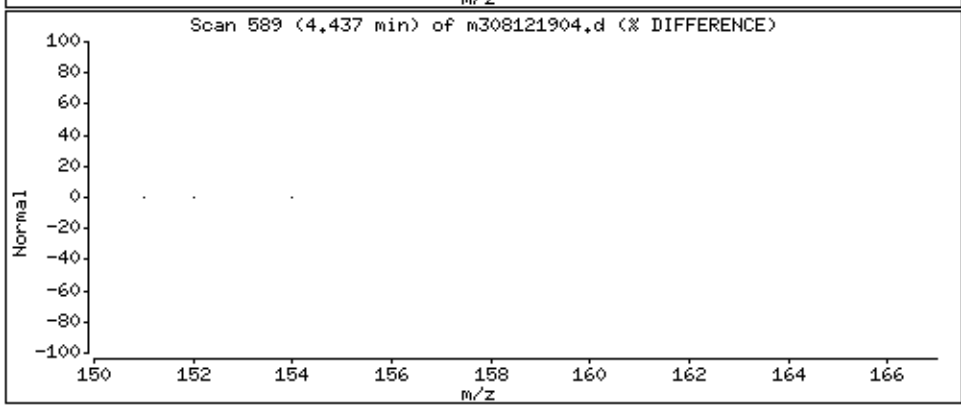
12 Acenaphthene

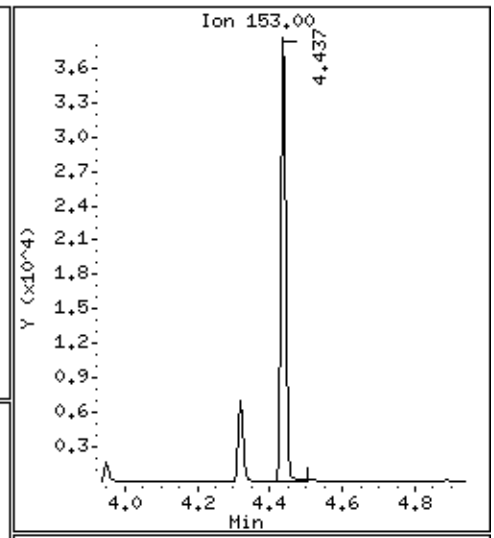
Concentration: 110 ug/Kg

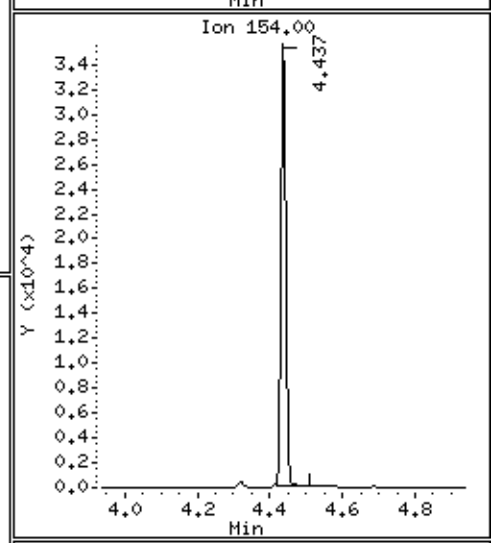


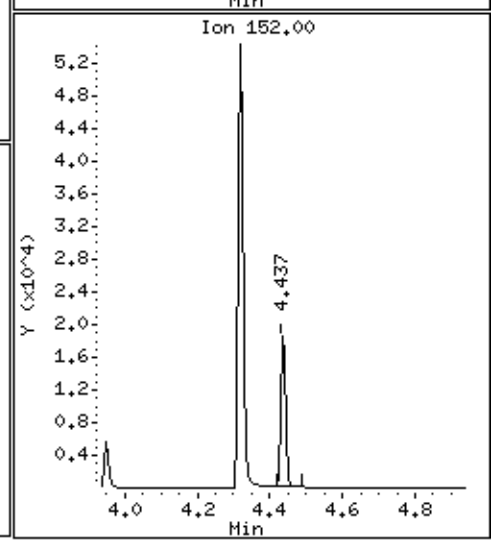












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

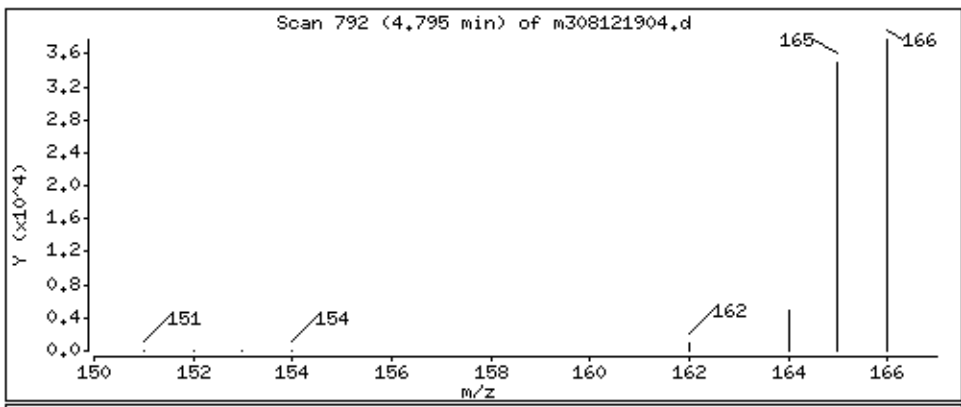
Operator: AJC

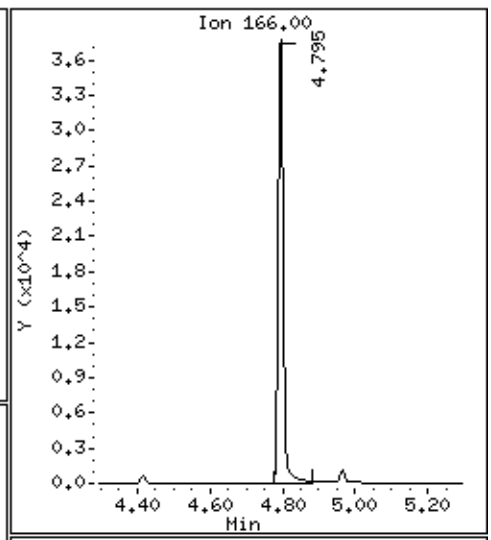
Column phase: RTX-5MS

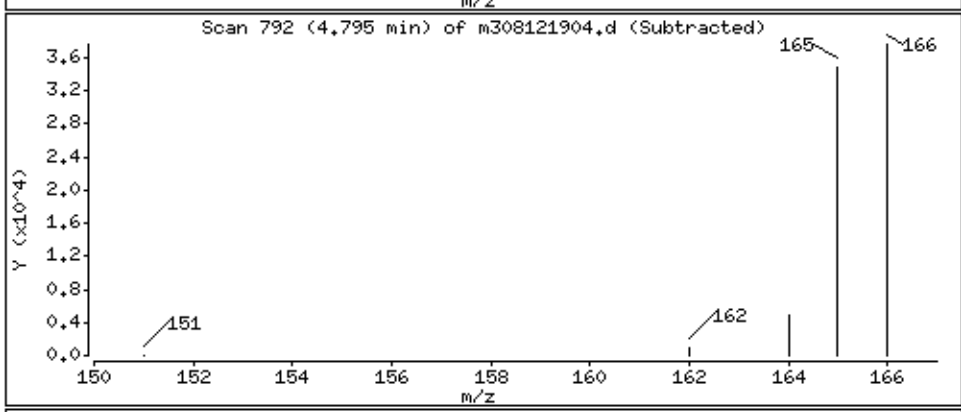
Column diameter: 0.25

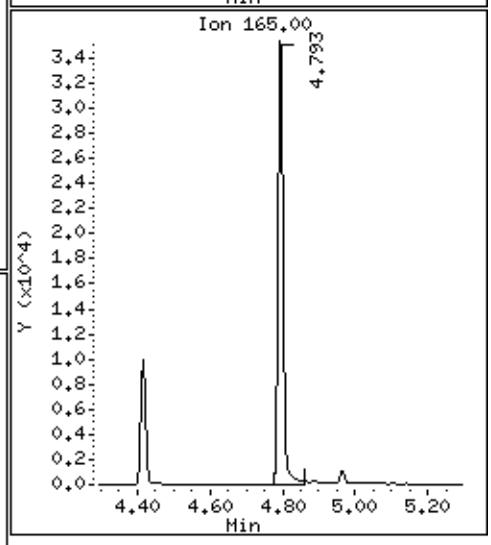
13 Fluorene

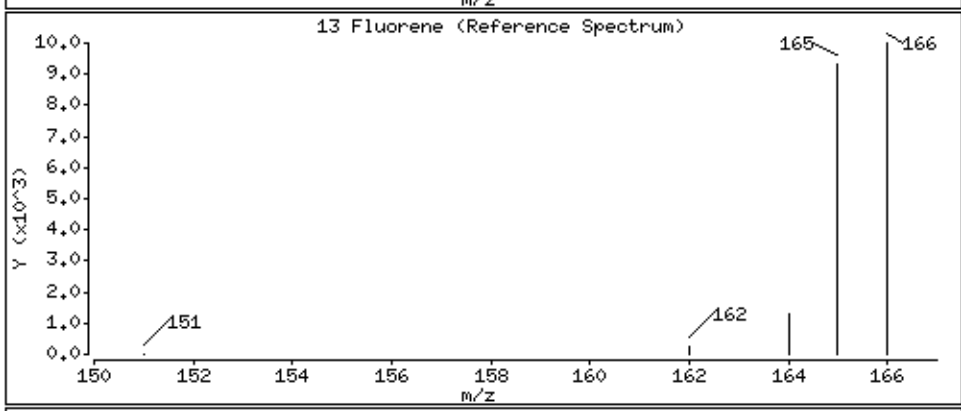
Concentration: 115 ug/Kg

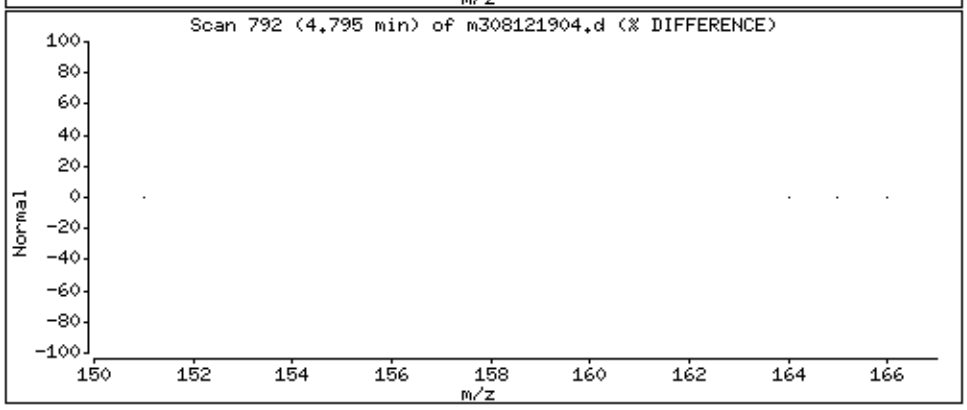












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

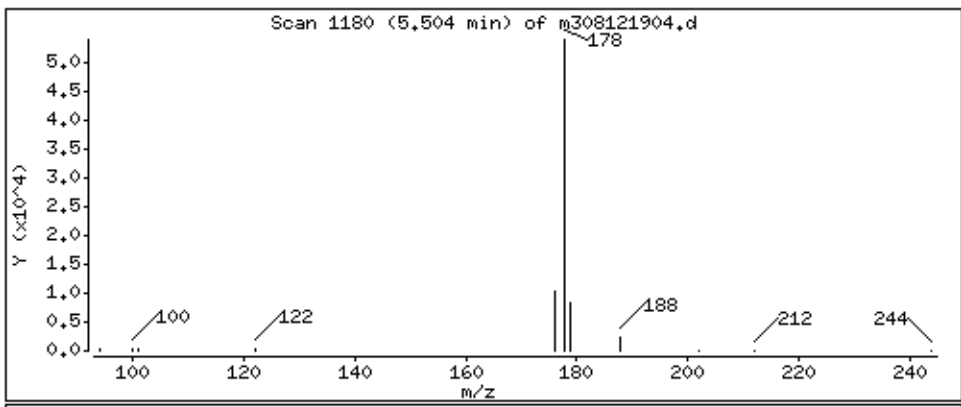
Operator: AJC

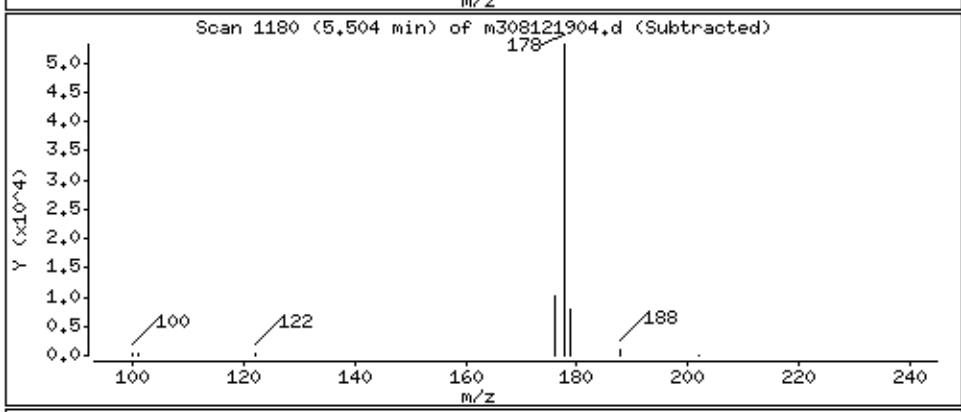
Column phase: RTX-5MS

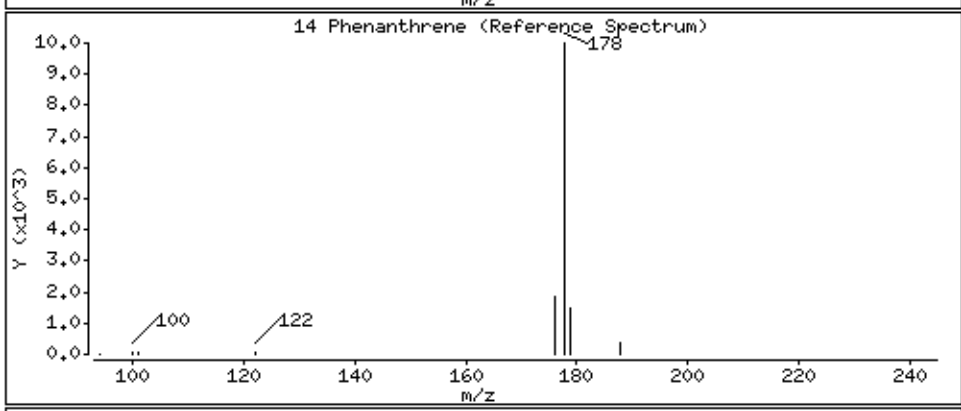
Column diameter: 0.25

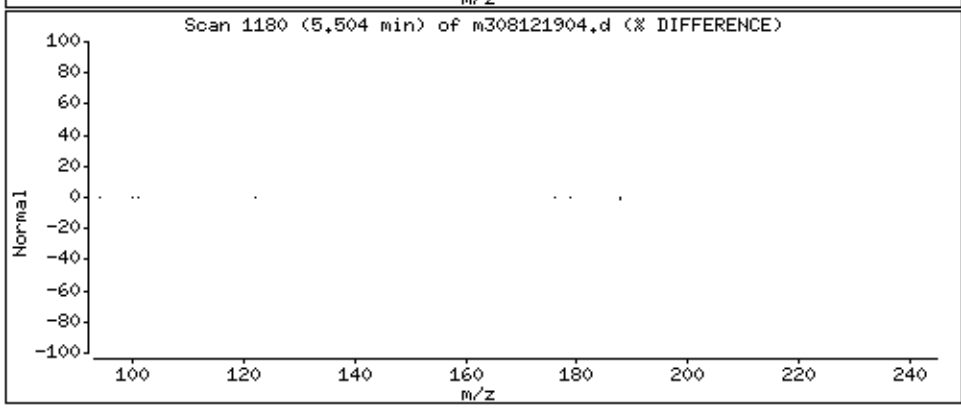
14 Phenanthrene

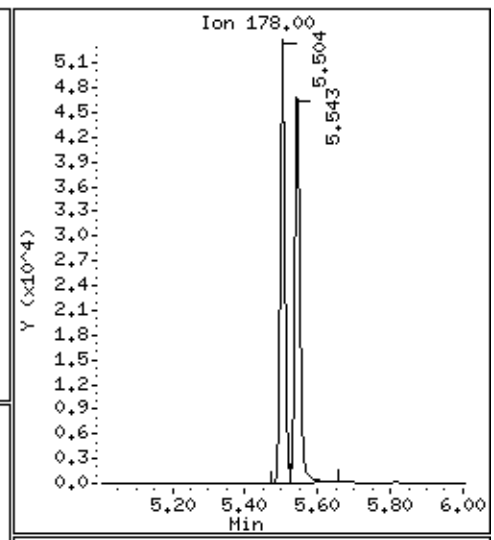
Concentration: 113 ug/Kg

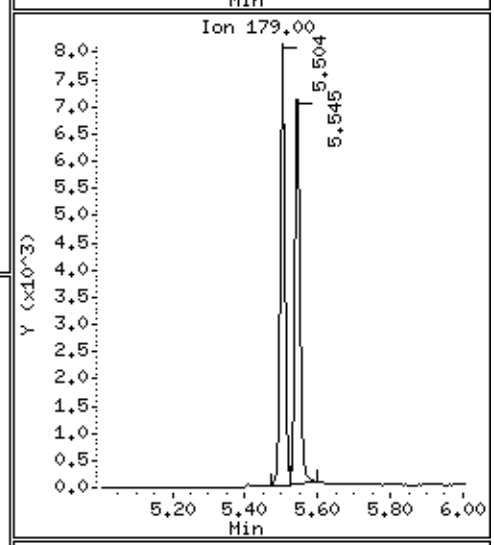


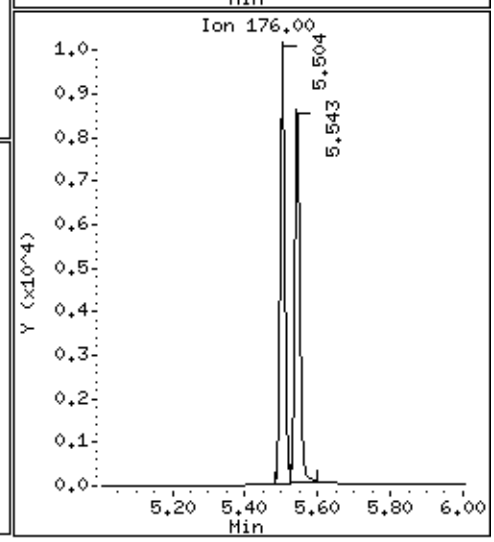












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

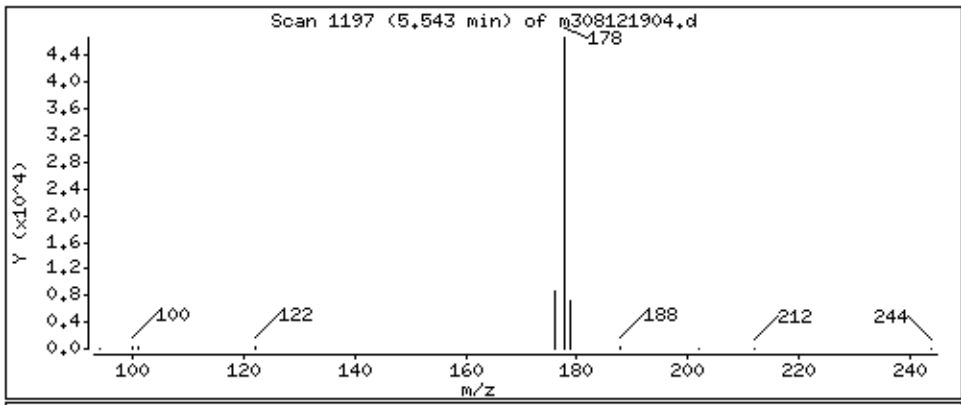
Operator: AJC

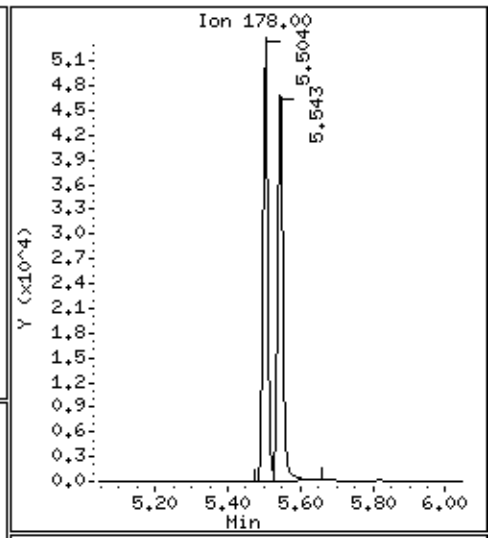
Column phase: RTX-5MS

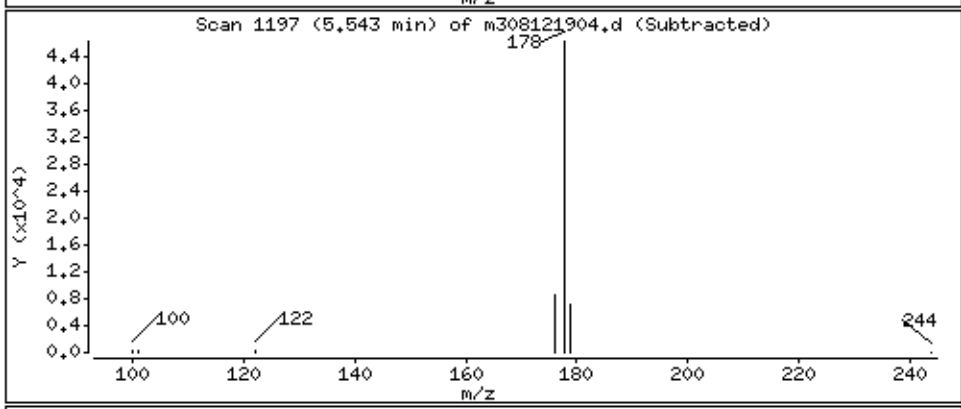
Column diameter: 0.25

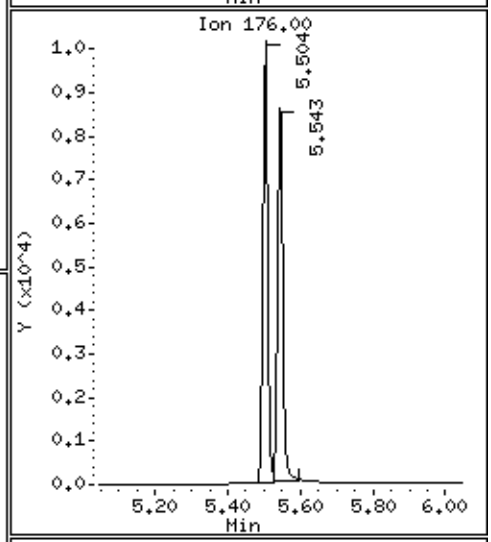
15 Anthracene

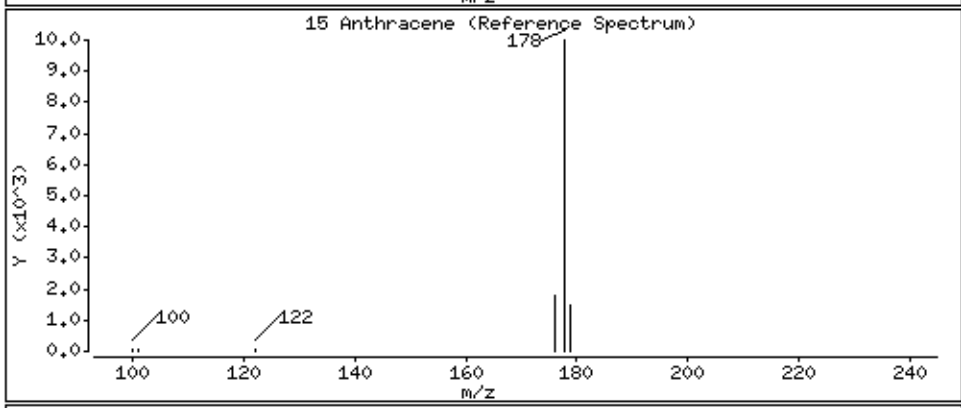
Concentration: 114 ug/Kg

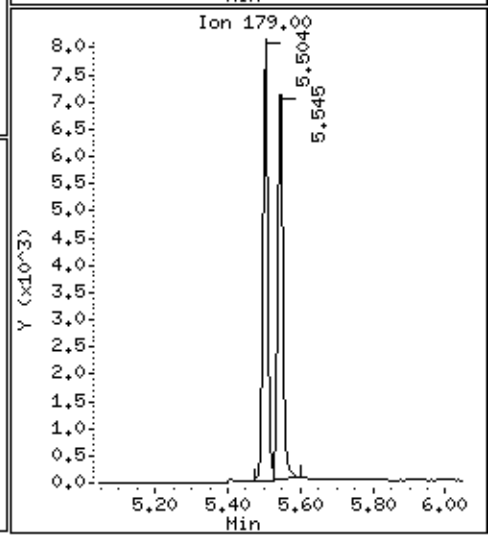


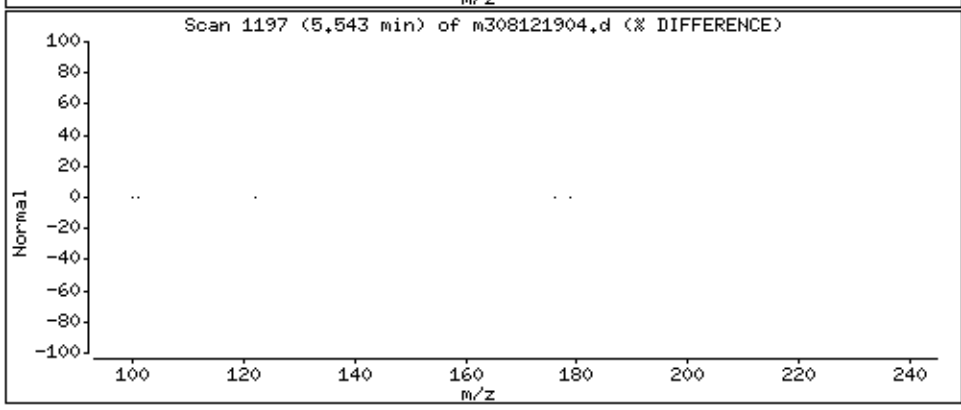












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

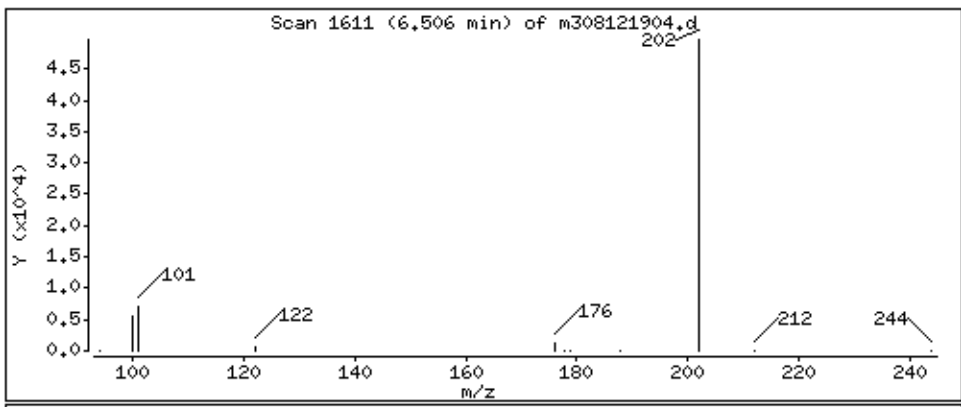
Operator: AJC

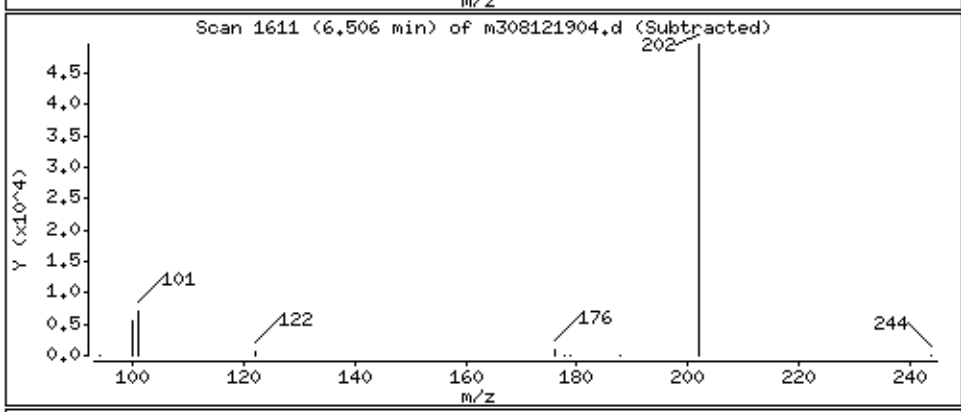
Column phase: RTX-5MS

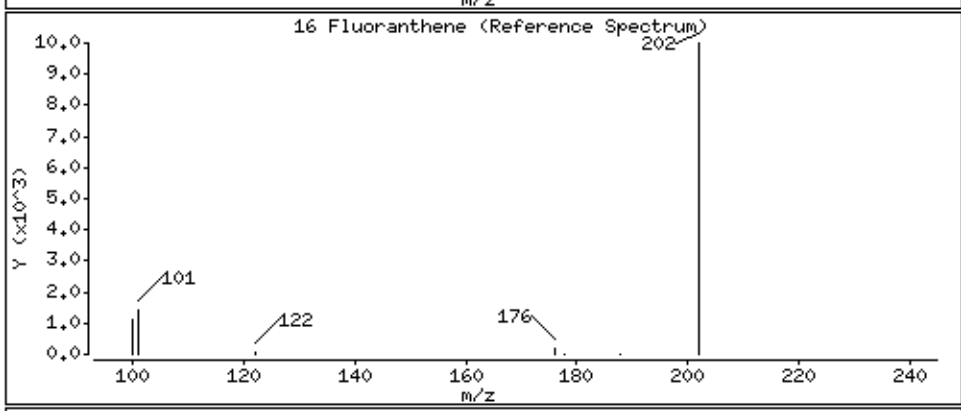
Column diameter: 0.25

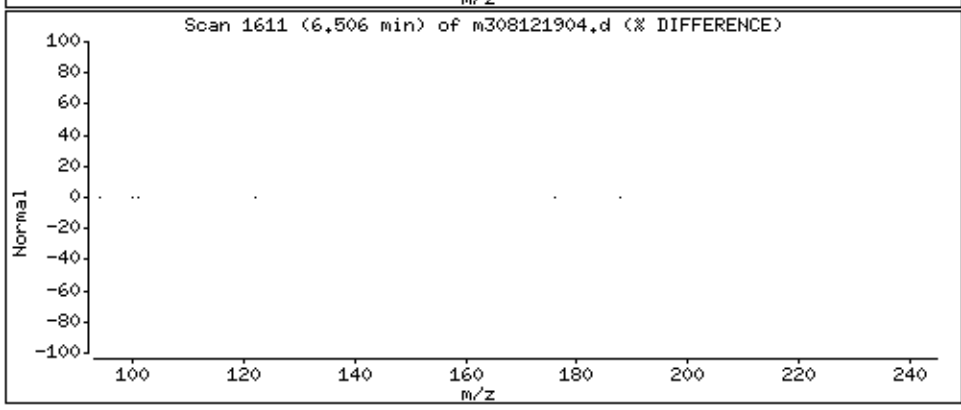
16 Fluoranthene

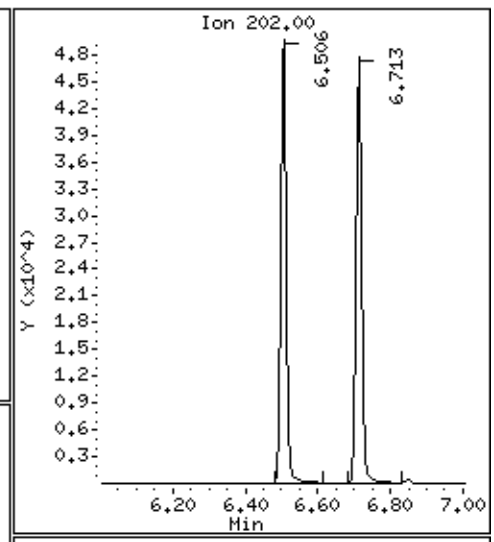
Concentration: 123 ug/Kg

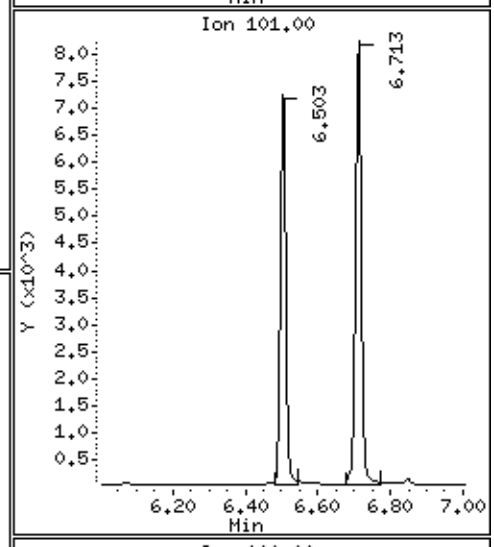


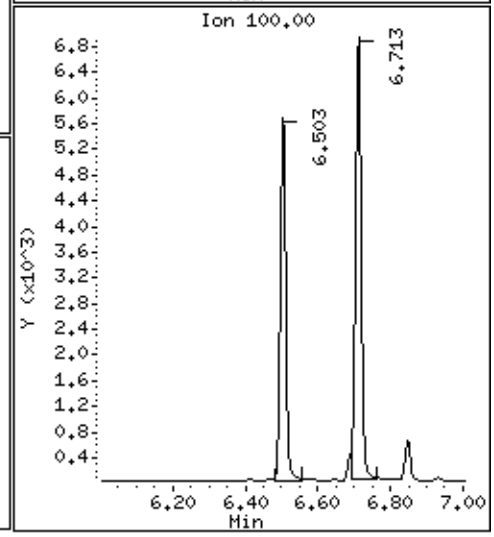












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

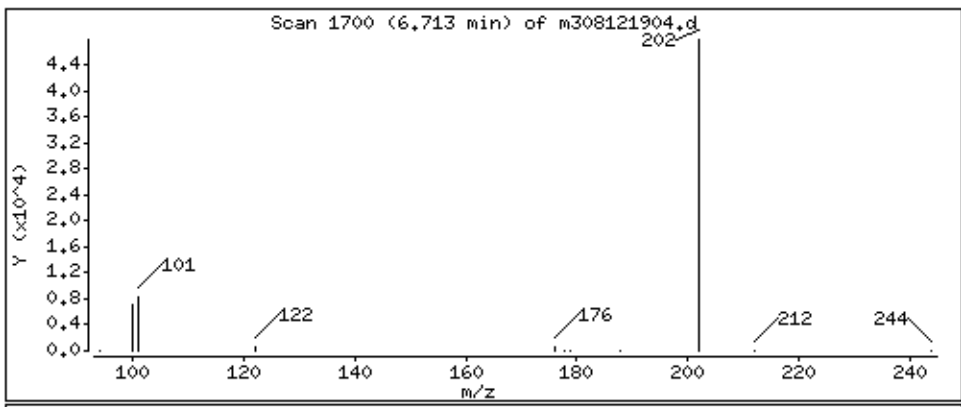
Operator: AJC

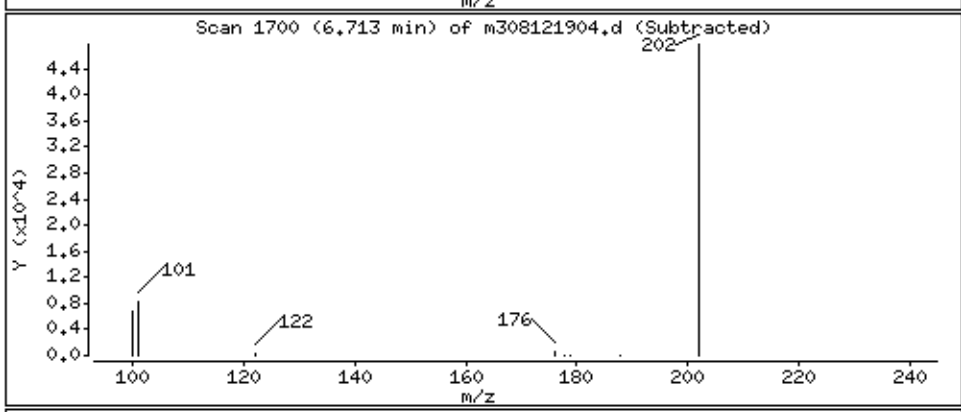
Column phase: RTX-5MS

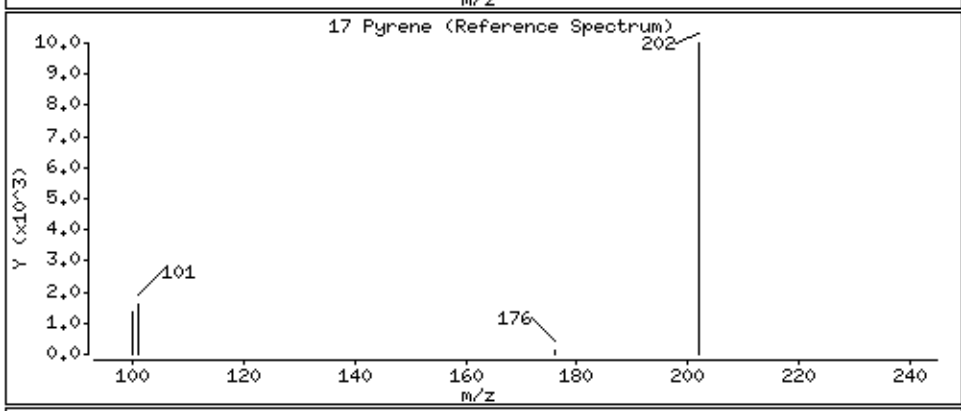
Column diameter: 0.25

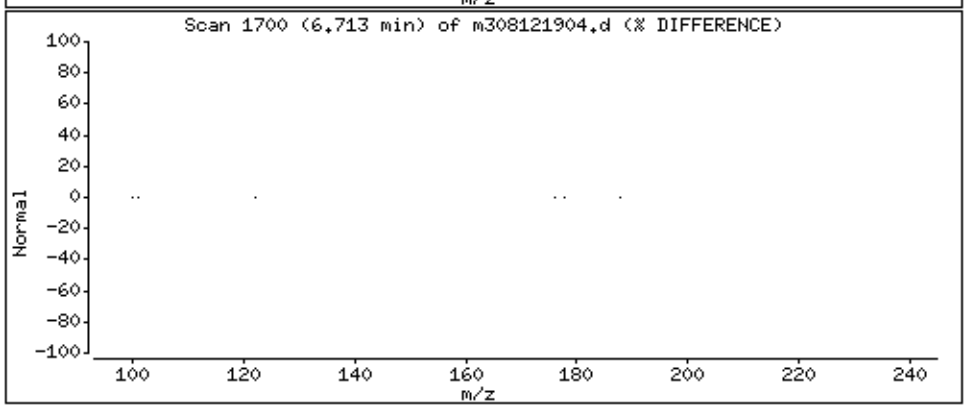
17 Pyrene

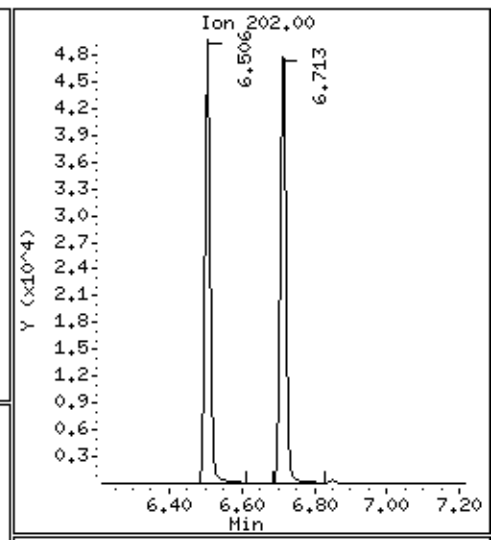
Concentration: 123 ug/Kg

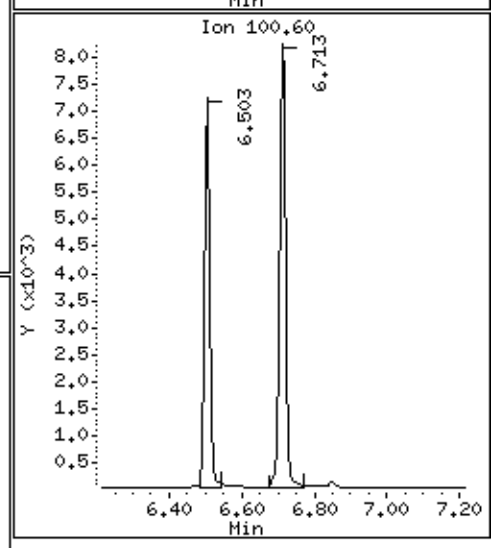












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

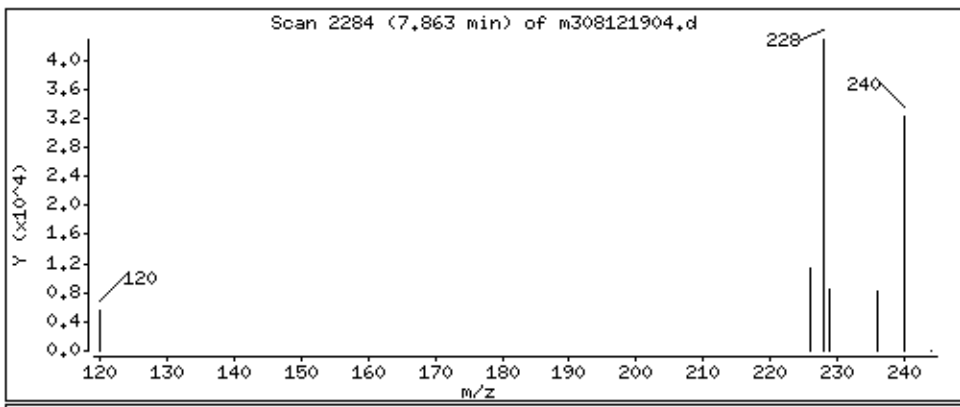
Operator: AJC

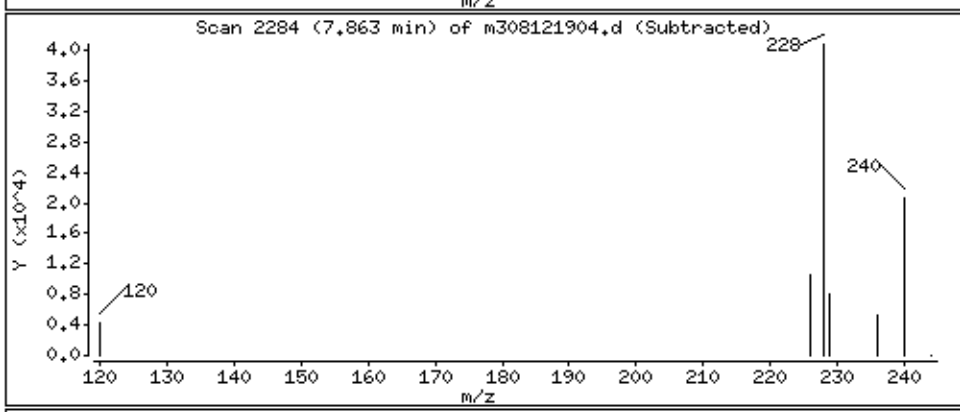
Column phase: RTX-5MS

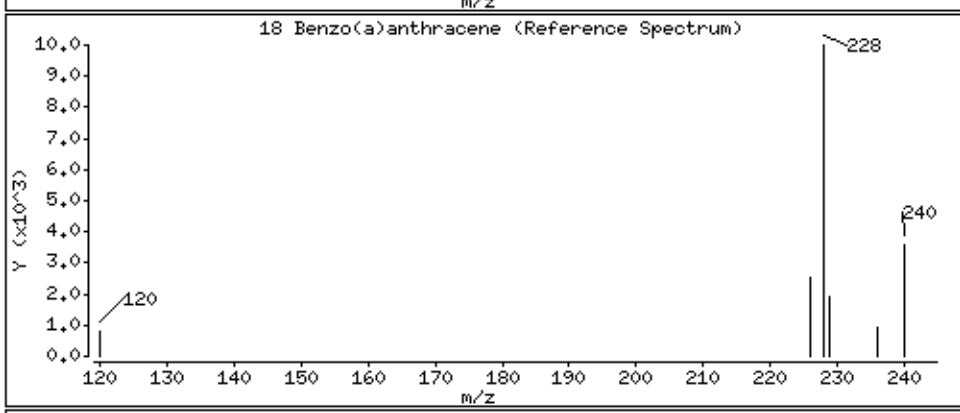
Column diameter: 0.25

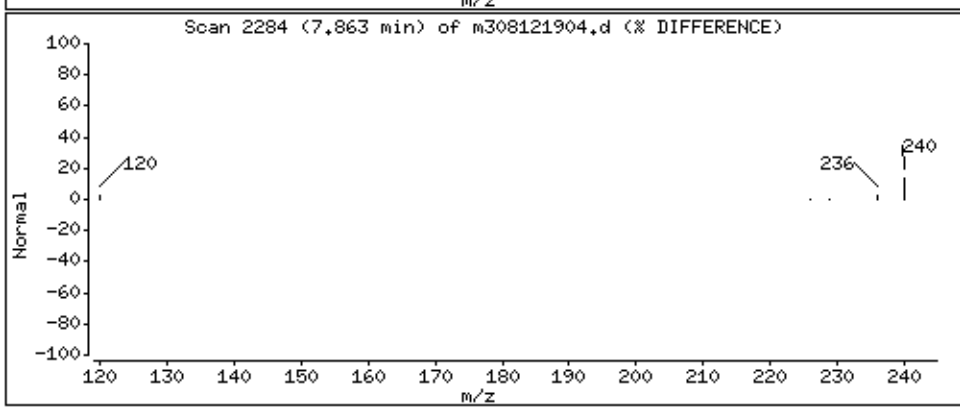
18 Benzo(a)anthracene

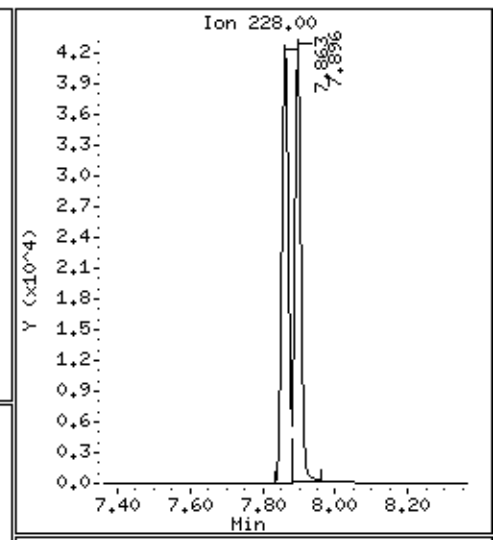
Concentration: 136 ug/Kg

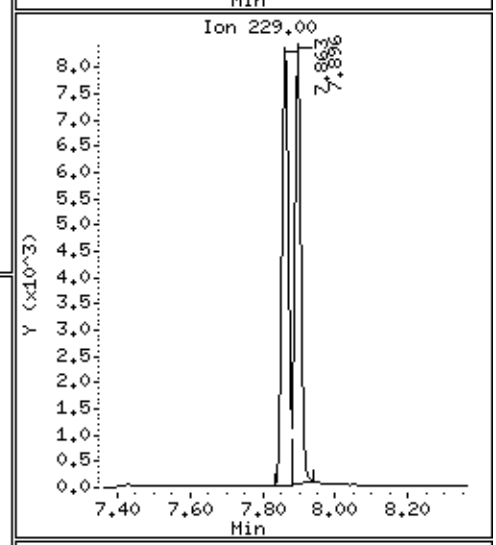


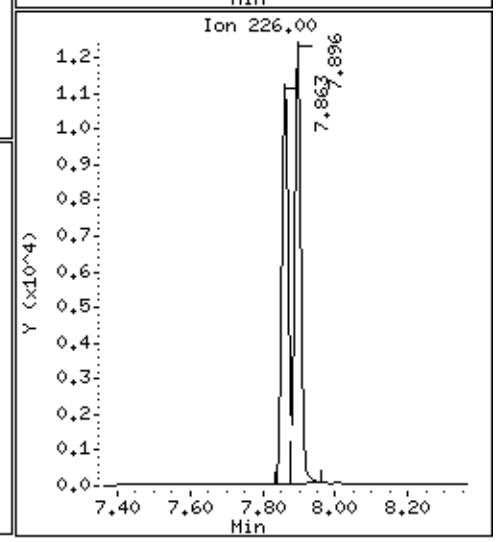












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Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

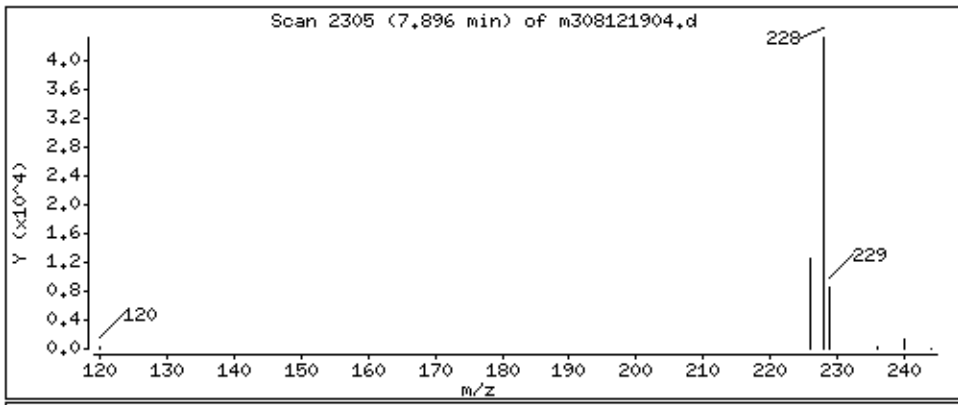
Operator: AJC

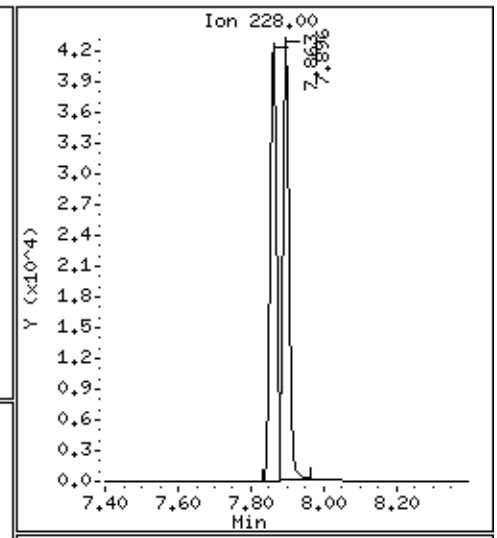
Column phase: RTX-5MS

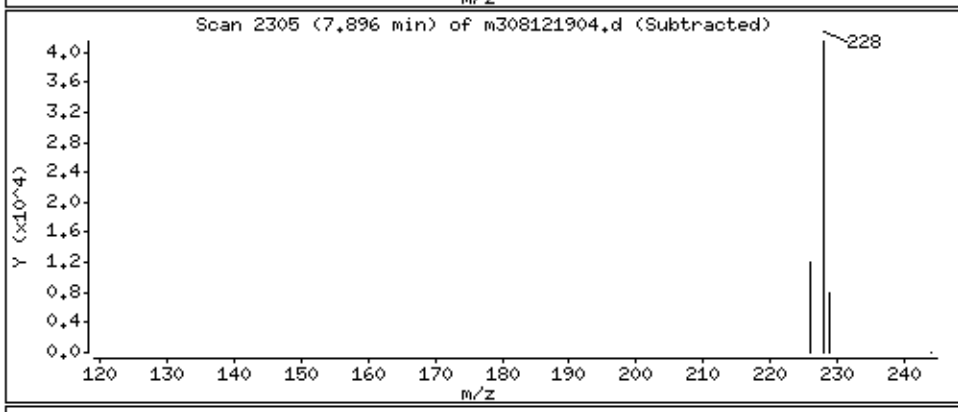
Column diameter: 0.25

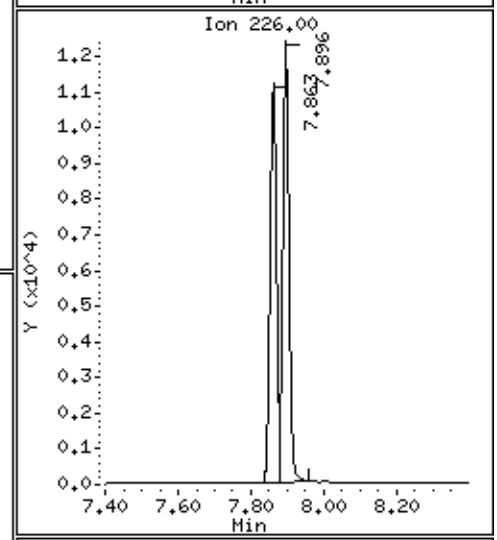
19 Chrysene

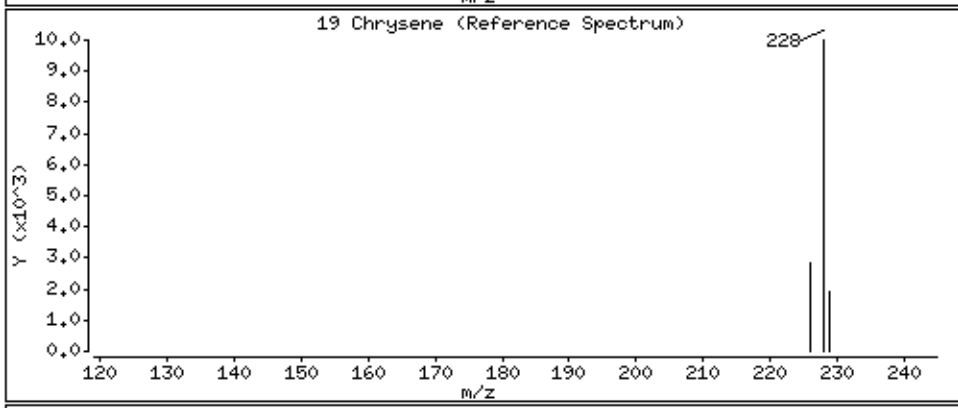
Concentration: 114 ug/Kg

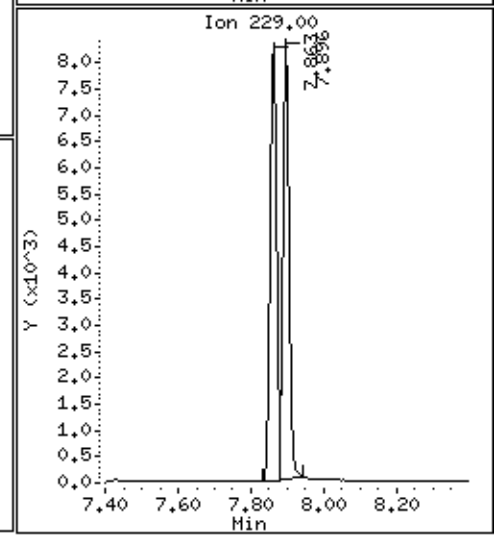


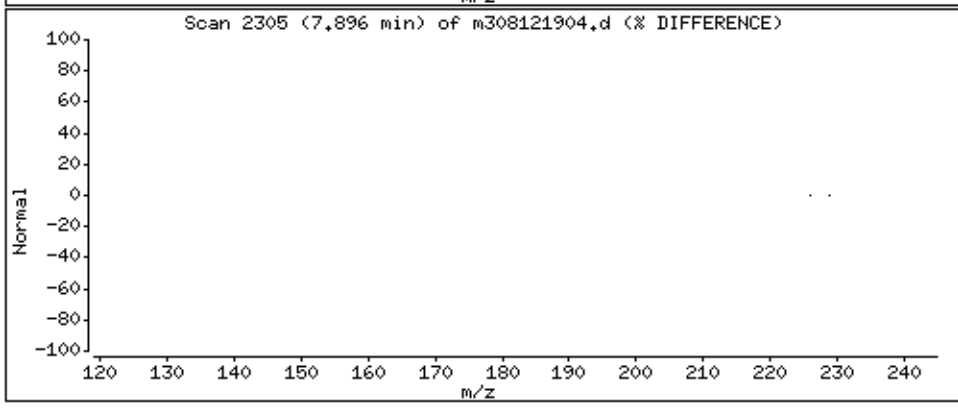












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

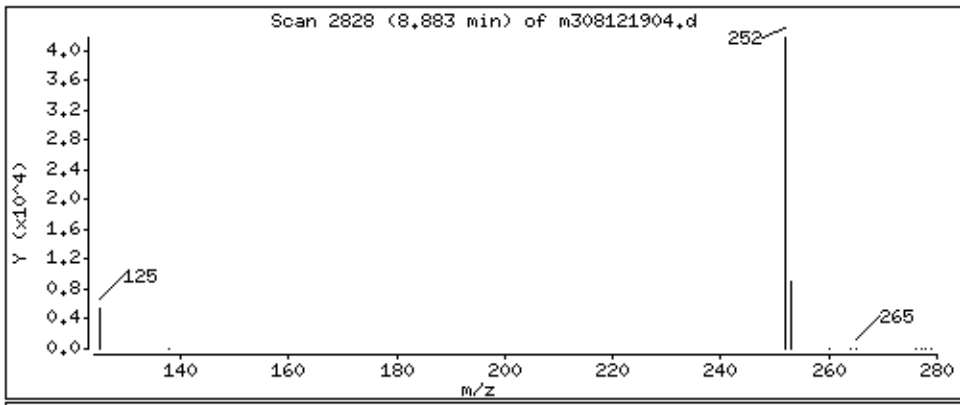
Operator: AJC

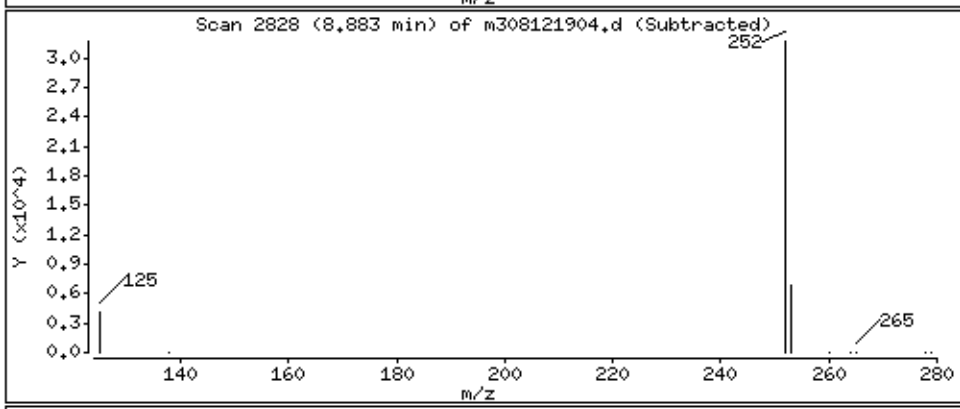
Column phase: RTX-5MS

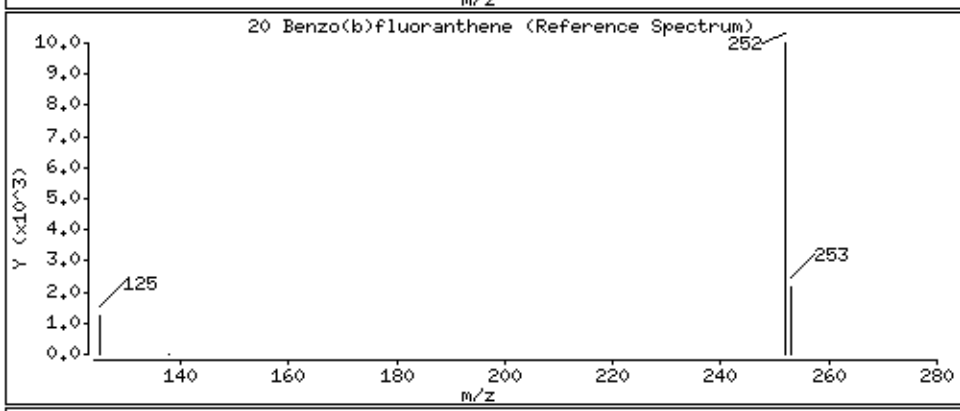
Column diameter: 0.25

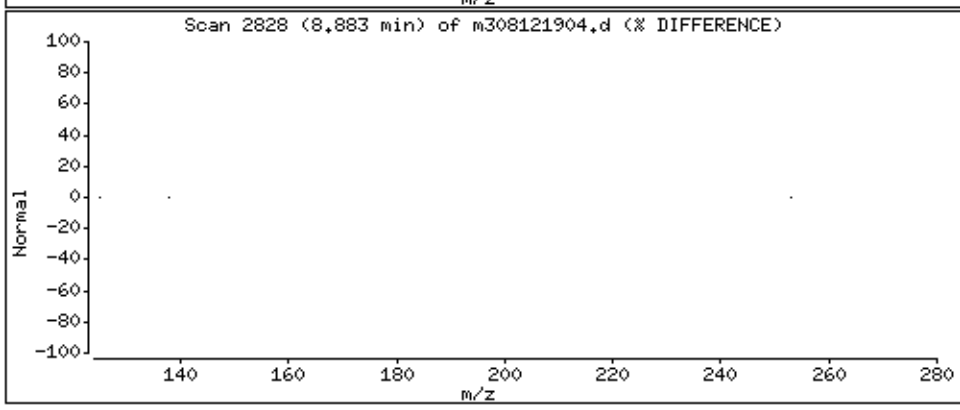
20 Benzo(b)fluoranthene

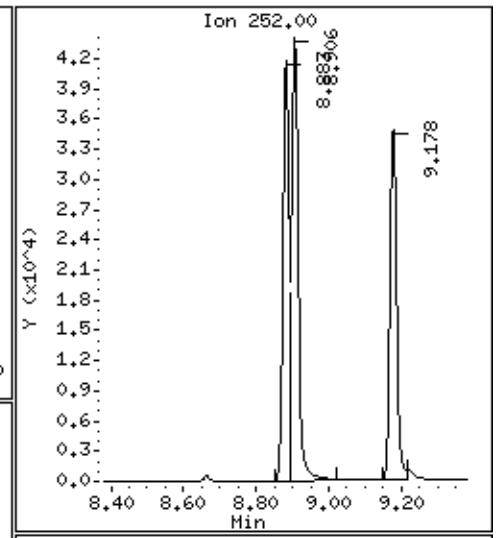
Concentration: 119 ug/Kg

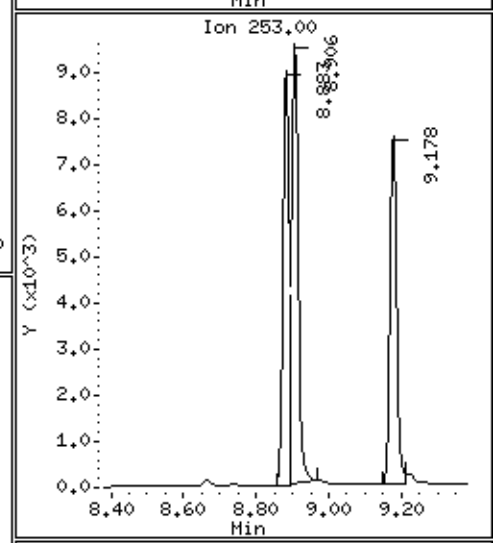


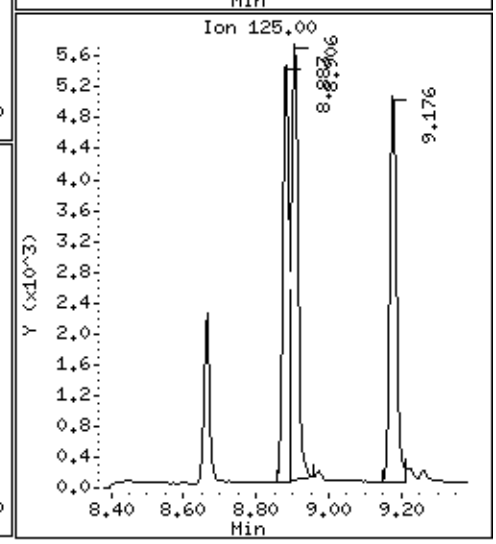












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

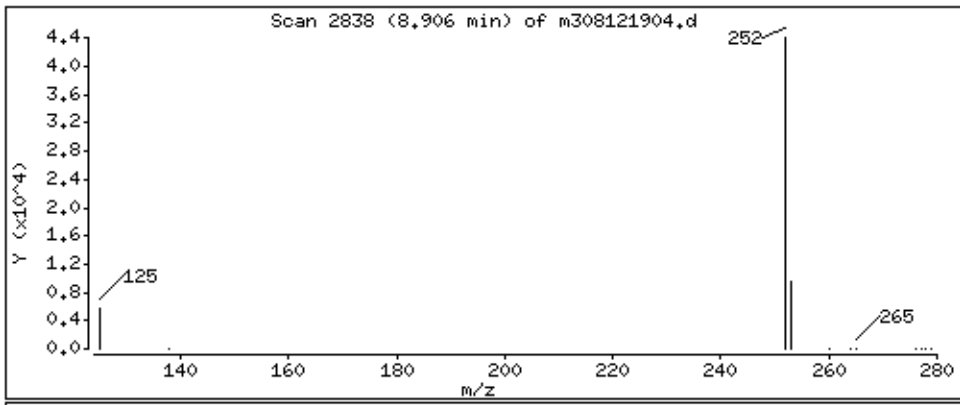
Operator: AJC

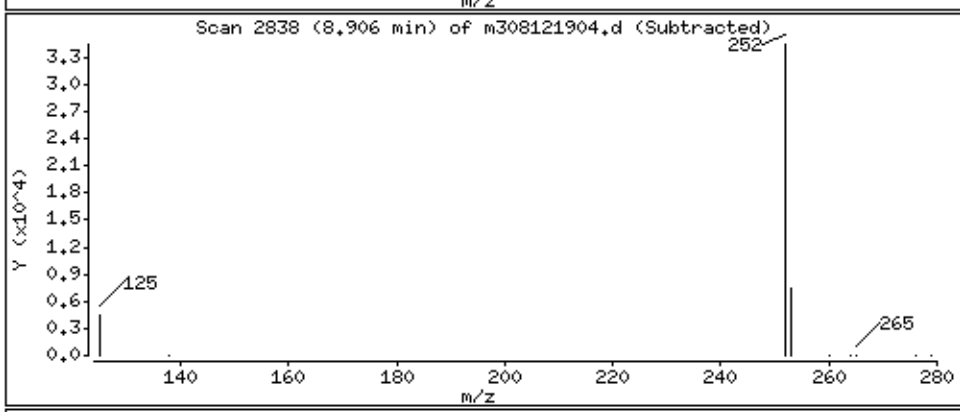
Column phase: RTX-5MS

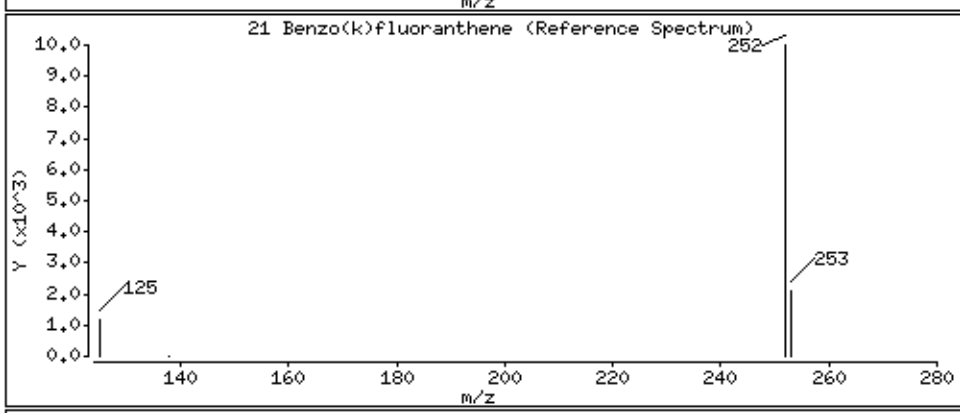
Column diameter: 0.25

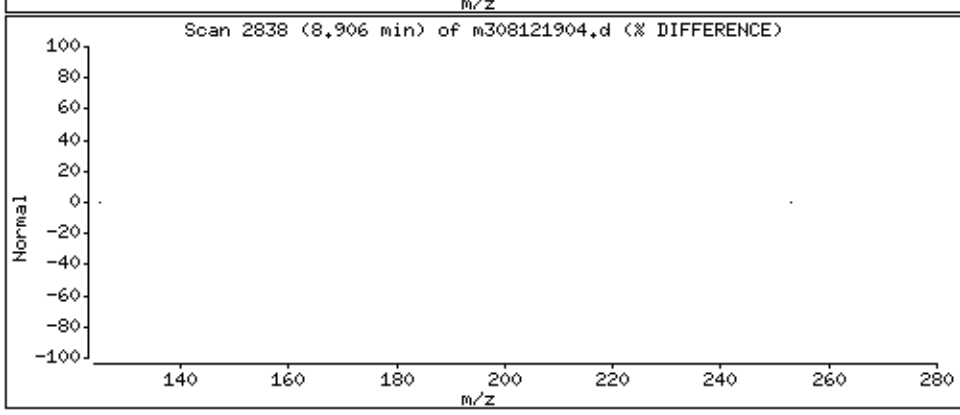
21 Benzo(k)fluoranthene

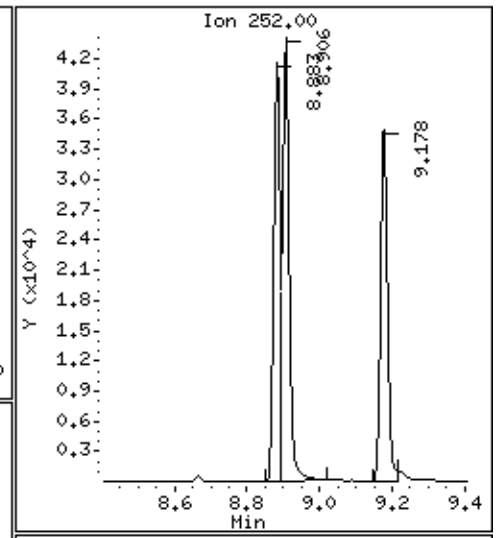
Concentration: 121 ug/Kg

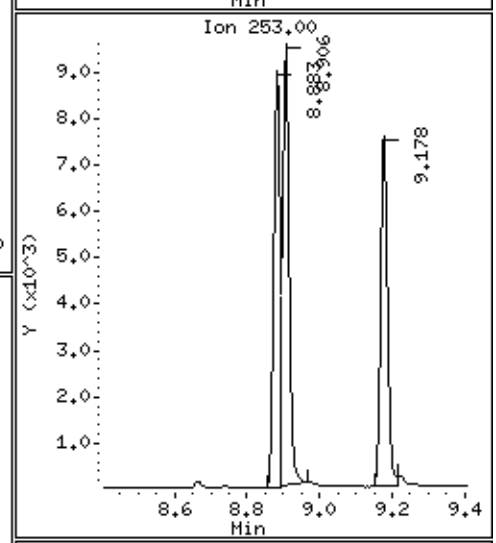


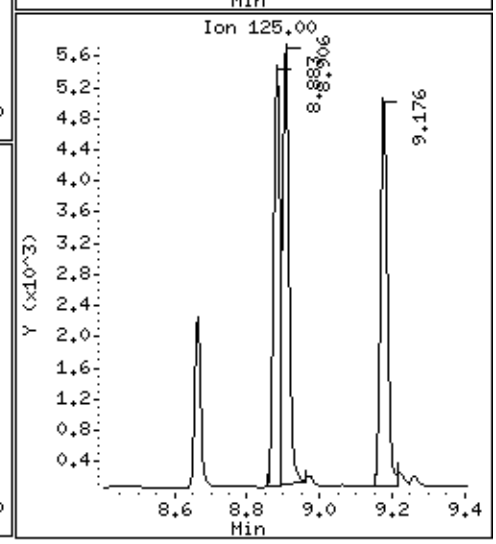












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

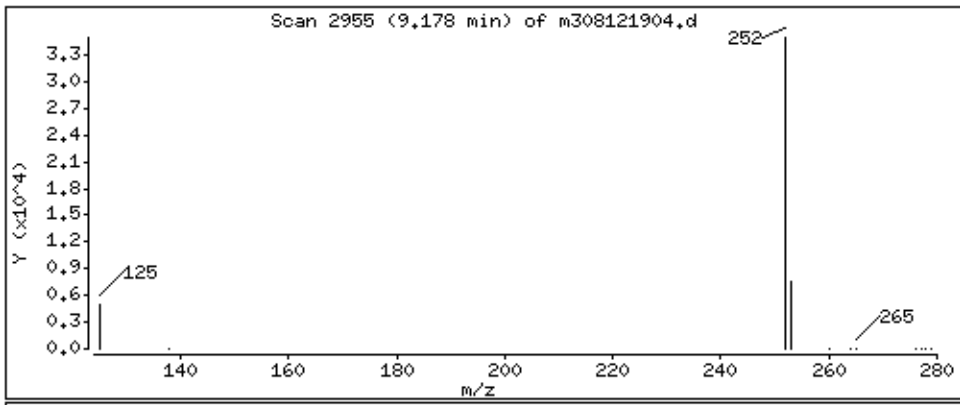
Operator: AJC

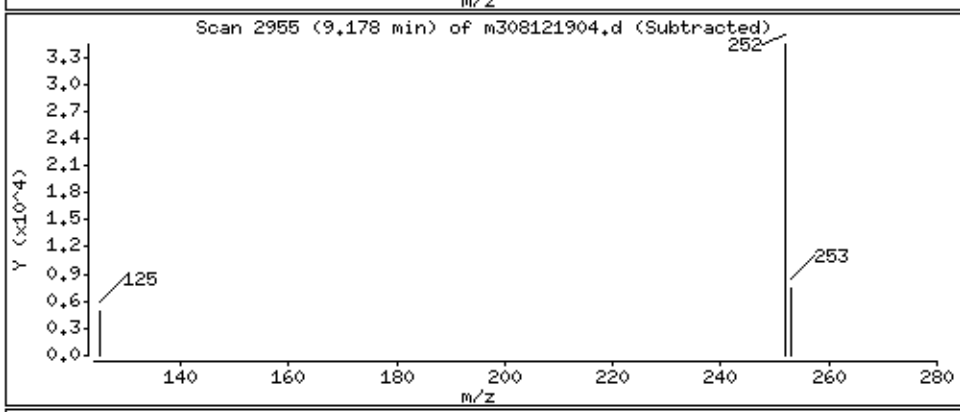
Column phase: RTX-5MS

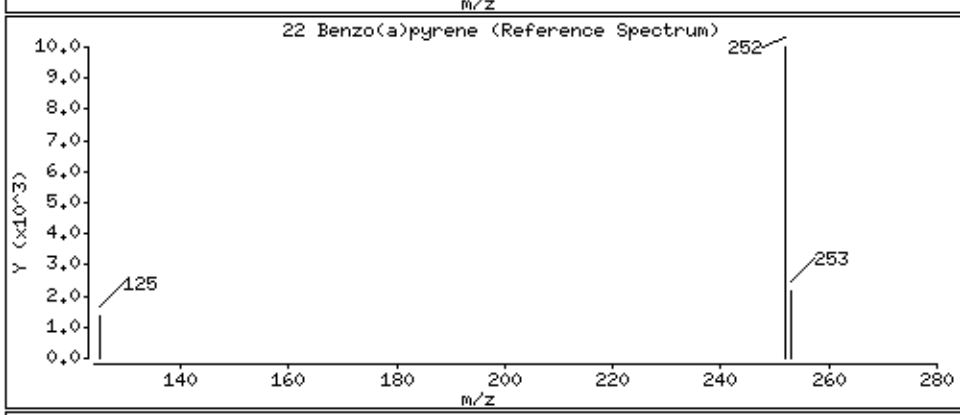
Column diameter: 0.25

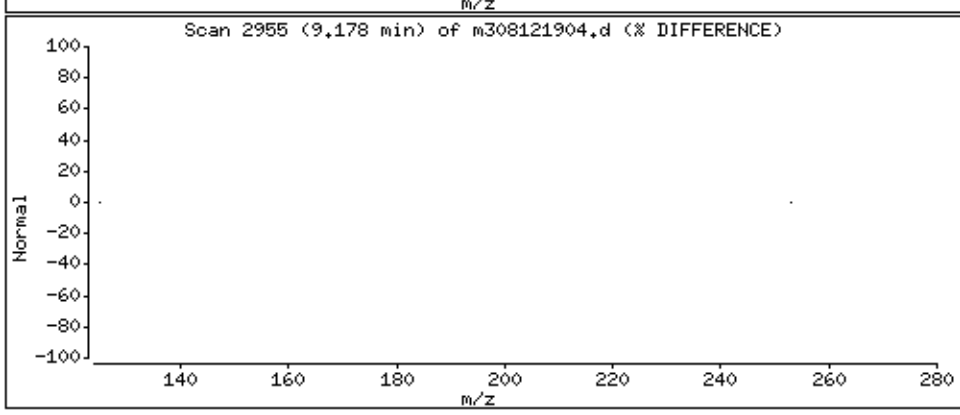
22 Benzo(a)pyrene

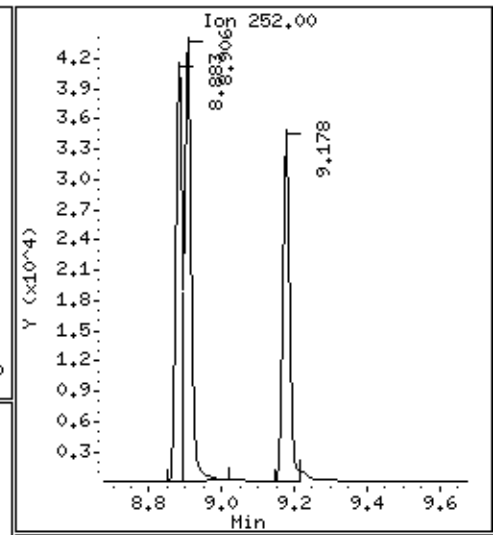
Concentration: 115 ug/Kg

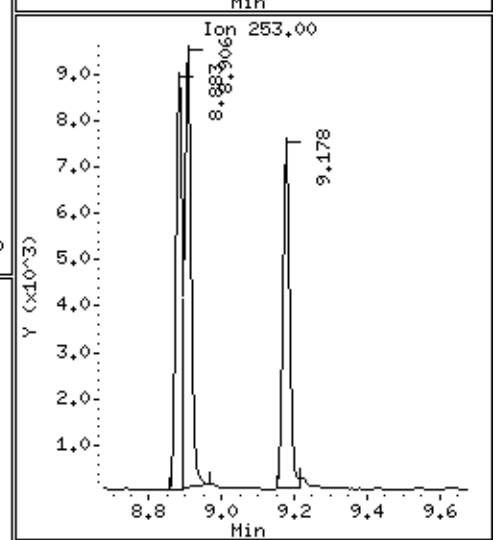


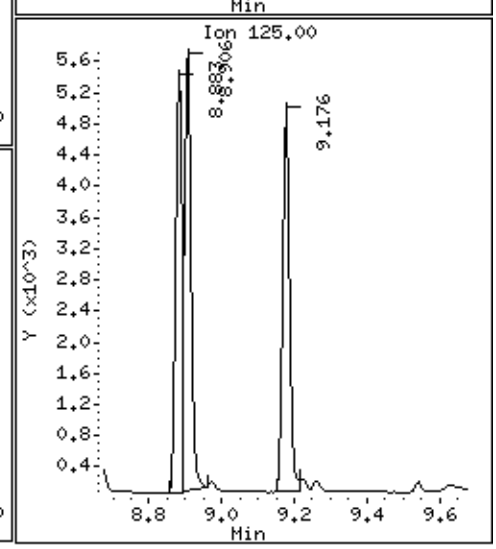












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

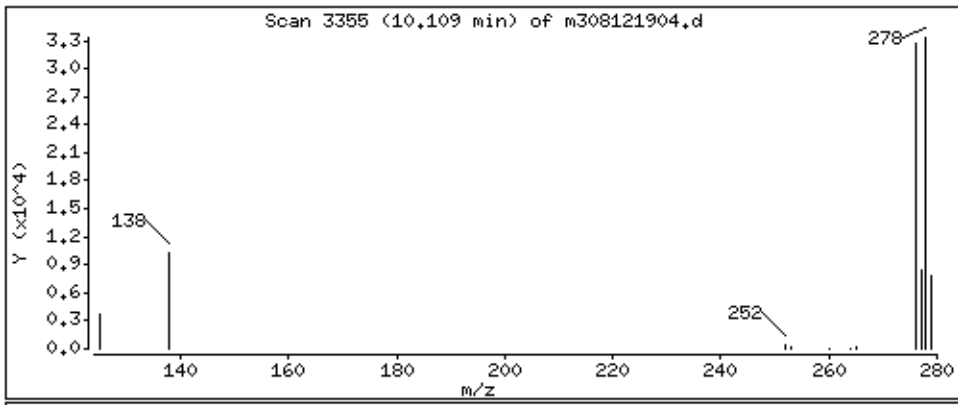
Operator: AJC

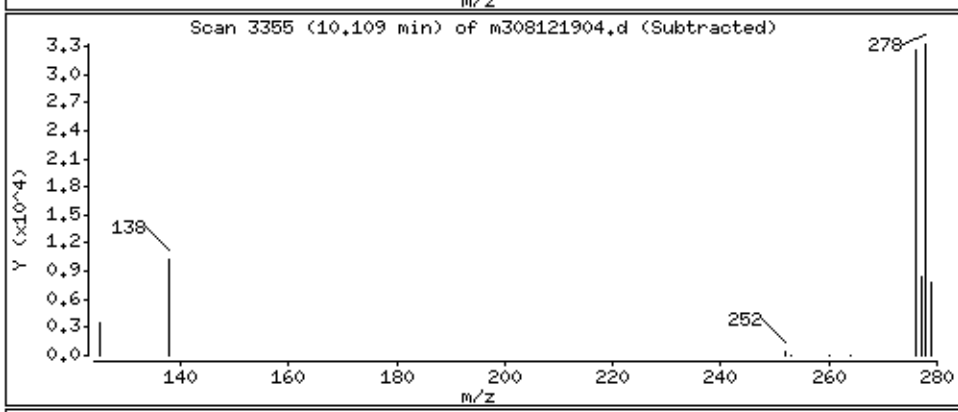
Column phase: RTX-5MS

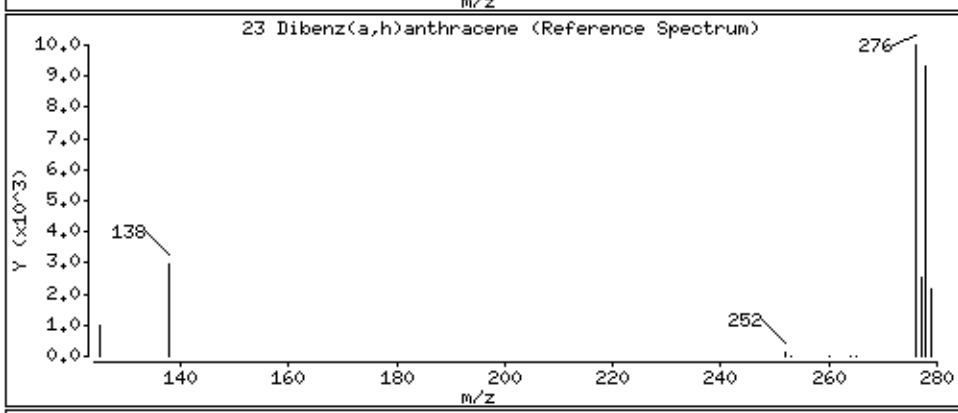
Column diameter: 0.25

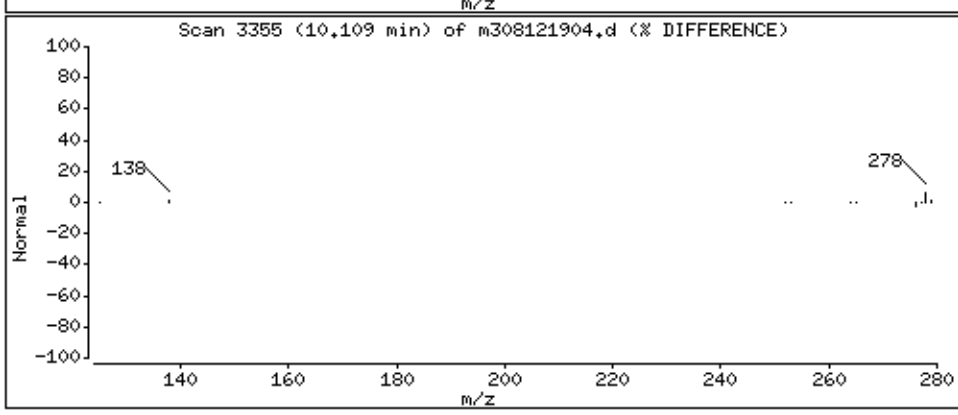
23 Dibenz(a,h)anthracene

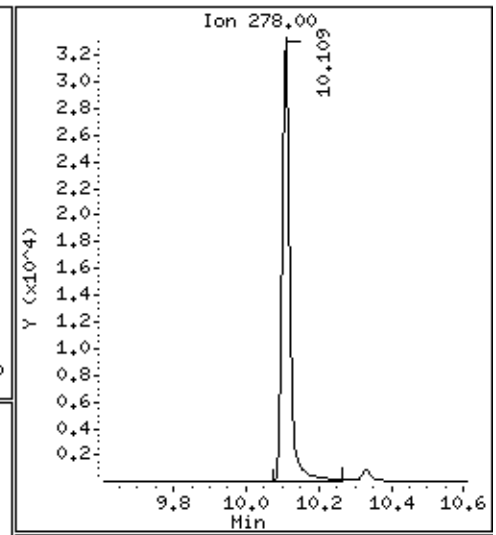
Concentration: 126 ug/Kg

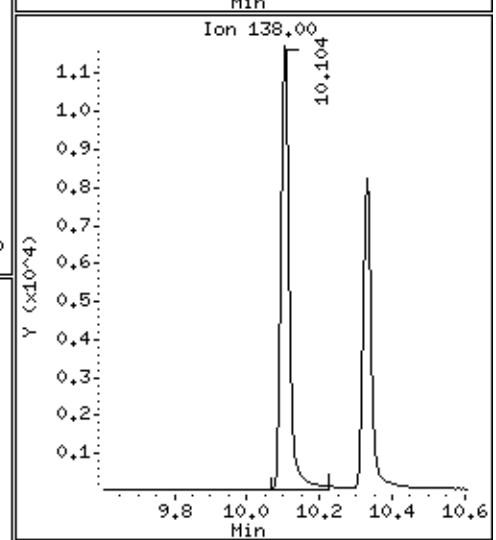


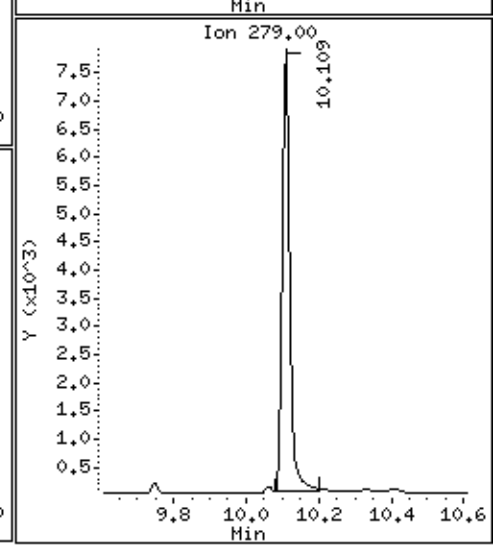












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

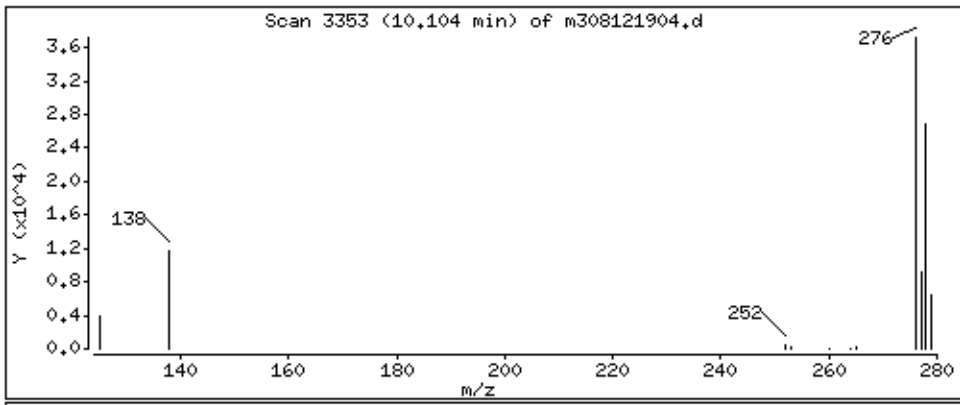
Operator: AJC

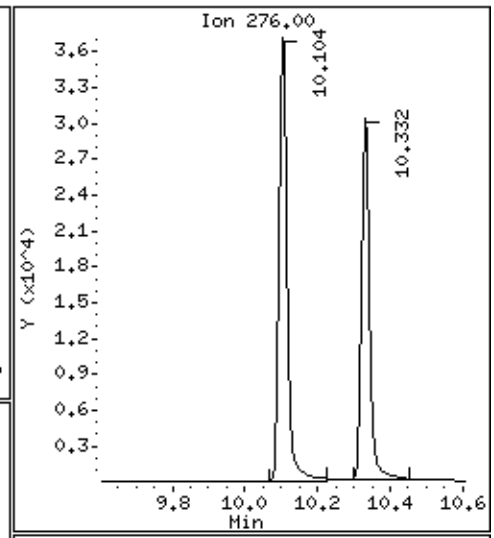
Column phase: RTX-5MS

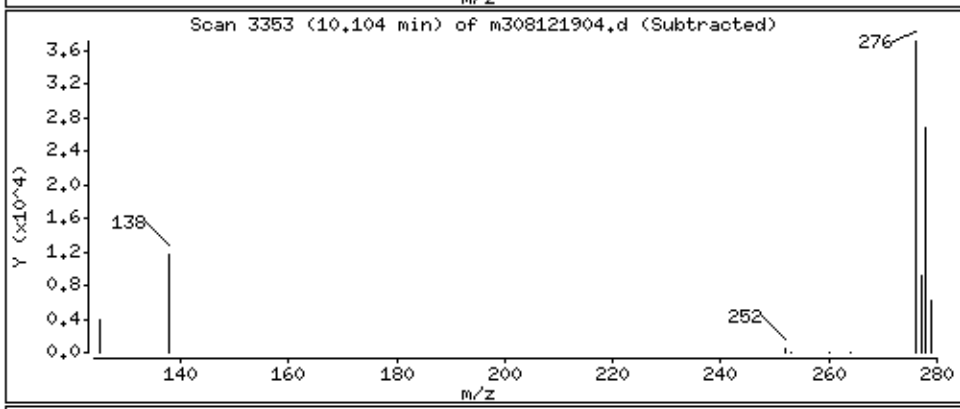
Column diameter: 0.25

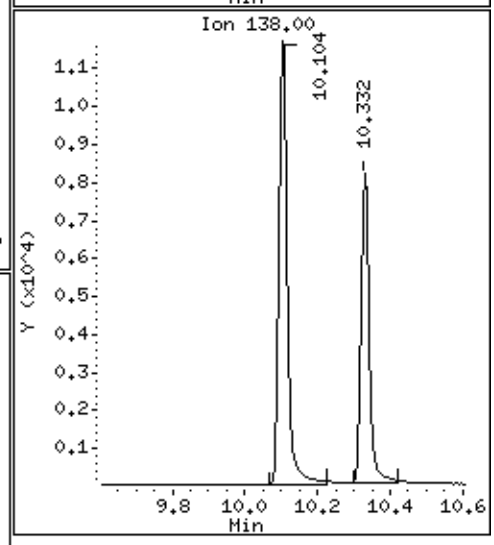
24 Indeno(1,2,3-cd)pyrene

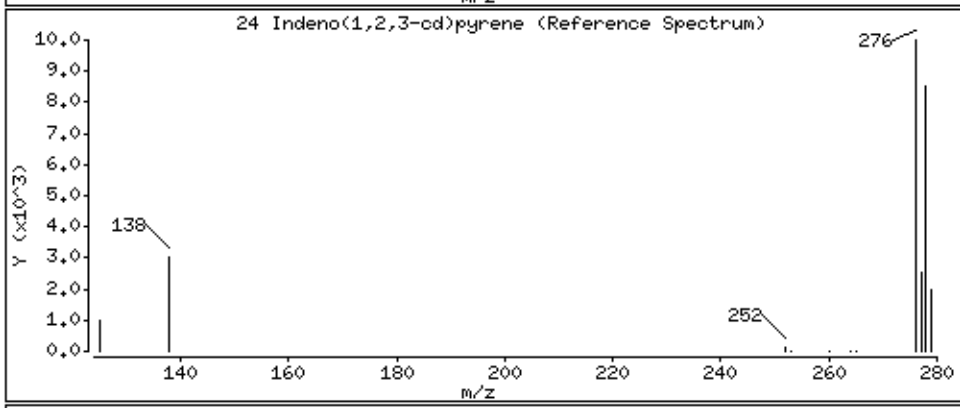
Concentration: 128 ug/Kg

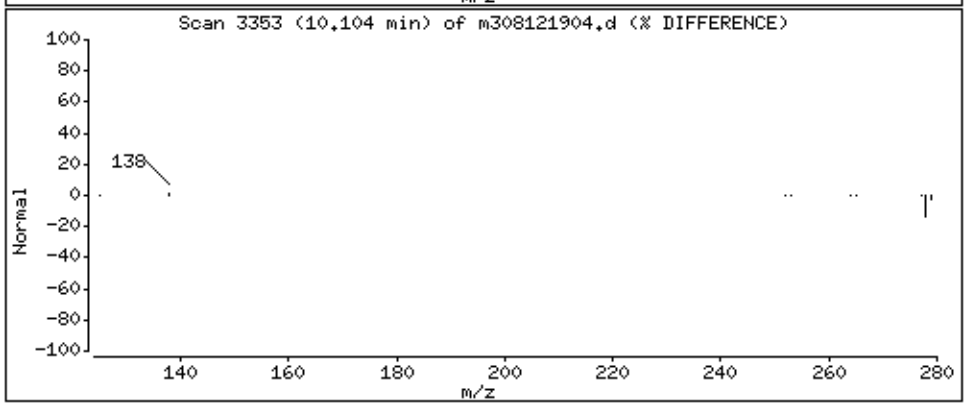












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b\m308121904.d

Date : 12-AUG-2019 14:21

Client ID: MBLCS

Instrument: 30mss3.i

Sample Info: 1729426,

Volume Injected (uL): 1.0

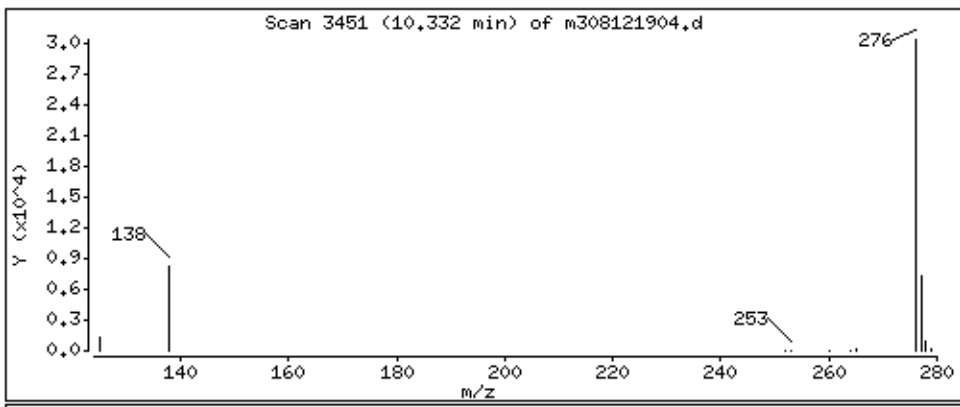
Operator: AJC

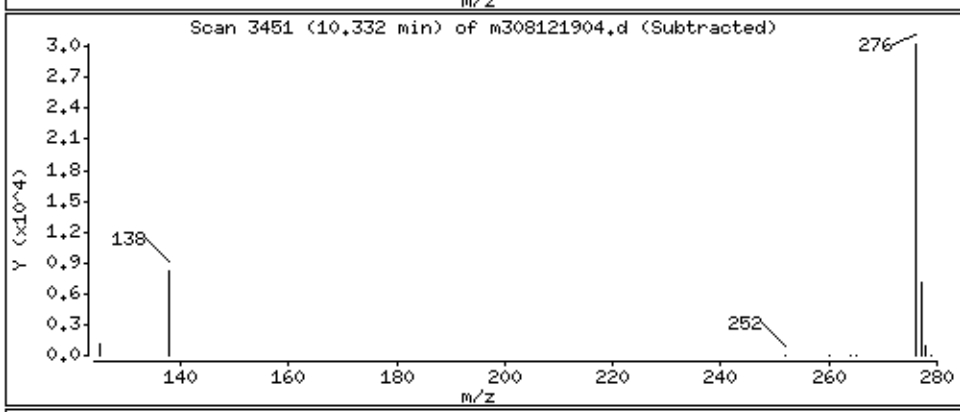
Column phase: RTX-5MS

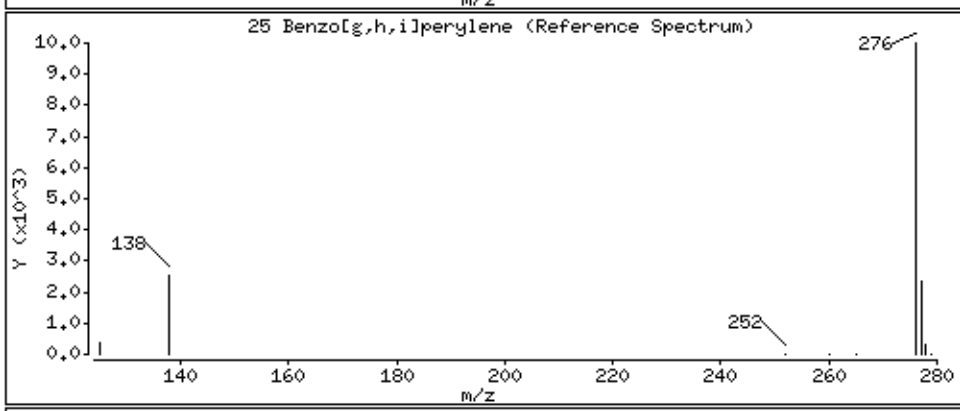
Column diameter: 0.25

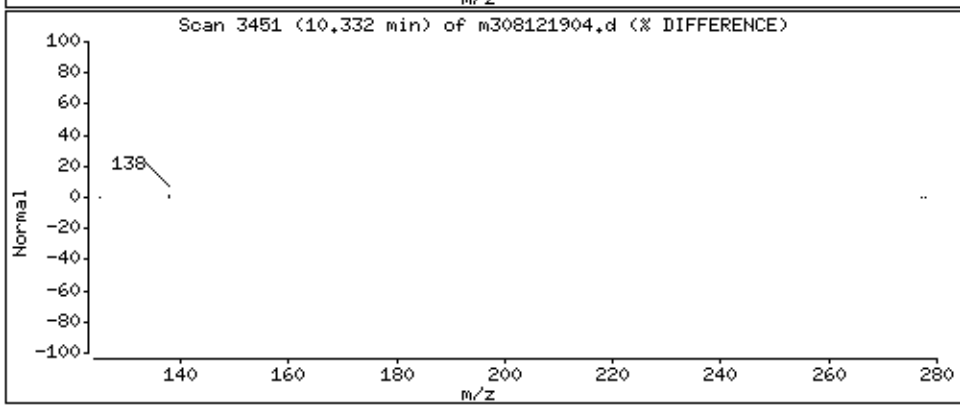
25 Benzo[g,h,i]perylene

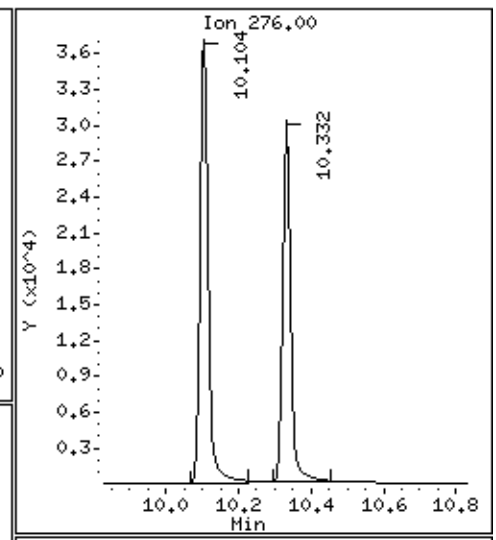
Concentration: 125 ug/Kg

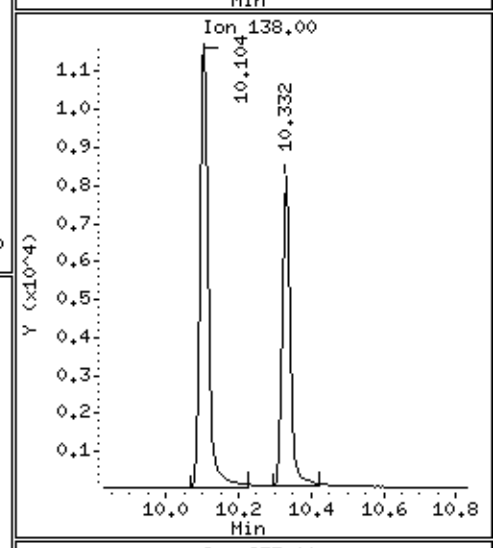


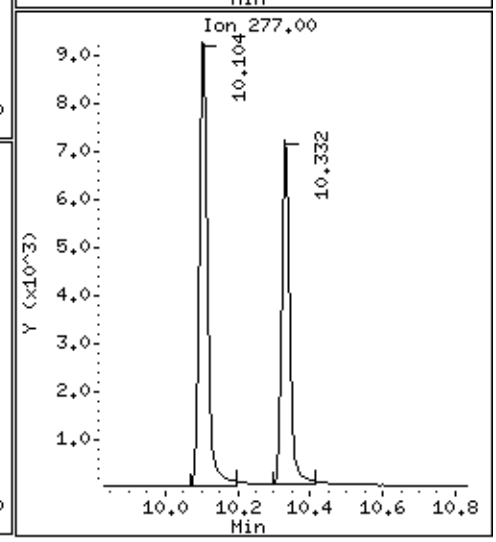












Data File: \\30wintarget\chem\30mss3.i\mss3081219.b/m308121904.d
Injection Date: 12-AUG-2019 14:21
Instrument: 30mss3.i
Lab Sample ID: 1729426
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Prep Log Report

Batch Information: OEXT 38897/356065 PAH-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8270D by SIM
Instrument	30BA13	Extracted By	JPD	Extracted Date/Time	08/12/2019 08:36:24:551	Extraction End Date/Time	08/12/2019 12:34:42:146
Witnessed By		Spiked By	JPD	Spiked By Date/Time	08/12/2019 09:20:57:840	Concentrated By	JPD
Concentrated By Date	08/12/2019 11:25:31:463	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Syringe ID 1	SYR033
Syringe ID 2	NA	Methylene Chloride	95302	1:1 MeCl/Acetone	95900	Ottawa Sand	87302
Hydromatrix	84270	Sodium Sulfate	95647	Gravity Filters	95299	Reviewed By	BBR
Reviewed By Date	08/16/2019 21:57	Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	SIM-SPK (mL)	SIM-SS (mL)
8270DSJ_P	BLANK	**1729425**		TVAP006	15.37	1			92507 (.5)
8270DSJ_P	LCS	**1729426**		TVAP006	15.5	1		85224 (1)	92507 (.5)
8270DSJ_P	PS	**30318504001**		TVAP006	15.34	1			92507 (.5)
8270DSJ_P	MS	**1729427**		TVAP006	15.47	1		85224 (1)	92507 (.5)
8270DSJ_P	MSD	**1729428**		TVAP006	15.27	1		85224 (1)	92507 (.5)
8270DSJ_P	PS	**30318504002**		TVAP006	15.13	1			92507 (.5)
8270DSJ_P	PS	**30318504003**		TVAP005	15.35	1			92507 (.5)
8270DSJ_P	PS	**30318504004**		TVAP005	15.06	1			92507 (.5)
8270DSJ_P	PS	**30318504005**		TVAP005	15.21	1			92507 (.5)
8270DSJ_P	PS	**30318504006**		TVAP005	15.44	1			92507 (.5)
8270DSJ_P	PS	**30318504007**		TVAP005	15.27	1			92507 (.5)
8270DSJ_P	PS	**30318504008**		TVAP005	15.08	1			92507 (.5)
8270DSJ_P	PS	**30318504009**		TVAP003	15.31	1			92507 (.5)
8270DSJ_P	PS	**30318799001**		TVAP003	15.44	1			92507 (.5)

Standard Notes:

85224: OEXT PAH SIM spike 2 ppm

92507: BNA LL Surrogate 10/15ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss3.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [S]: 8-8-19 95845
ISTD lot: ~~6769.10~~ 8-8-19 95845
Tune std: 79378

Method: 8270D SIM Dcm 80877
Surr. lot:
Cal. std: 94318-94323, 95522

Instrument name..... 30MSS3

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
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1/m3080719s1.d	CCV, 94321:1	S/14917		1	m3080219pahcd	8/07/19	10:33	AJC	
1/m3080719y1.d	CAL1, 94318:1	S/14936	CALIB_1	1	m3080719pahcd	8/07/19	10:53	AJC	
1/m3080719y1ll.d	CAL1, 94318:1	S/14936	CCALIB_1	1	m3080719pahcd	8/07/19	10:53	AJC	
1/m3080719y2.d	CAL2, 94319:1	S/14936	CALIB_2	1	m3080719pahcd	8/07/19	11:12	AJC	
1/m3080719y3.d	CAL3, 94320:1	S/14936	CALIB_3	1	m3080719pahcd	8/07/19	11:31	AJC	
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1/m3080719y6.d	CAL6, 94323:1	S/14936	CALIB_6	1	m3080719pahcd	8/07/19	12:29	AJC	
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1/m308071901.d	1725225,	S/14932	BLANK	1	m3080719pahcd	8/07/19	13:12	AJC	
1/m308071902.d	1725229,	S/14932	LCS	1	m3080719pahcd	8/07/19	13:31	AJC	
1/m308071903.d	30317065019,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	13:50	AJC	
1/m308071904.d	30317388001,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	14:09	AJC	
1/m308071905.d	1725230,	S/14932	MS	1	m3080719pahcd	8/07/19	14:29	AJC	
1/m308071906.d	1725231,	S/14932	MSD	1	m3080719pahcd	8/07/19	14:48	AJC	
1/m308071907.d	30317388003,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	15:07	AJC	
1/m308071908.d	1726168,	S/14937	BLANK	1	m3080719pahcd	8/07/19	15:26	AJC	
1/m308071909.d	1726169,	S/14937	LCS	1	m3080719pahcd	8/07/19	15:46	AJC	
1/m308071910.d	30317335005,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	16:05	AJC	B+K
1/m308071911.d	30317335005X10,	S/14937	SAMPLE	10	m3080719pahcd	8/07/19	16:24	AJC	B+K not used
1/m308071912.d	1726170,	S/14937	MS	1	m3080719pahcd	8/07/19	16:44	AJC	B+K
1/m308071913.d	1726170X10,	S/14937	MS	10	m3080719pahcd	8/07/19	17:03	AJC	not used
1/m308071914.d	1726171,	S/14937	MSD	1	m3080719pahcd	8/07/19	17:22	AJC	
1/m308071915.d	1726171X10,	S/14937	MSD	10	m3080719pahcd	8/07/19	17:42	AJC	not used
1/m308071916.d	30317704001,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	18:01	AJC	B+K
1/m308071917.d	30317704002,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	18:20	AJC	not used
1/m308071918.d	30317704002X10,	S/14937	SAMPLE	10	m3080719pahcd	8/07/19	18:39	AJC	B+K
1/m308071919.d	30317704003,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	18:59	AJC	
1/m308071920.d	30317704004,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	19:18	AJC	B+K
1/m308071921.d	30317704005,	S/14937	SAMPLE	1	m3080719pahcd	8/07/19	19:37	AJC	B+K
1/m308071922.d	30317704005X10,	S/14937	SAMPLE	10	m3080719pahcd	8/07/19	19:56	AJC	B+K not used
1/m308071923.d	30317388004,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	20:15	AJC	
1/m308071924.d	30317388005,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	20:35	AJC	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: AJC 8-8-19

File Path 1: \\30wintarget\chem\30mss3.i\mss3080719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:27 08/08/2019

Reviewed By/Date: SJC 8-8-19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss3.i
Column RTX-5MS 0m X 0.25mm
Misc. Prep Info [S] AA 8-8-19
ISTD lot: ~~6769710~~ 95845
Tune std: 79378

Method: 8270D 5m Dcm 80877
Surr. lot:
Cal. std: 94318-94323, 95522

Instrument name..... 30MSS3

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m308071925.d	30317388006,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	20:54	AJC	
1/m308071926.d	30317388008,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	21:13	AJC	
1/m308071927.d	30317388009,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	21:32	AJC	
1/m308071928.d	30317388010,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	21:51	AJC	
1/m308071929.d	30317388011,	S/14932	SAMPLE	1	m3080719pahcd	8/07/19	22:10	AJC	

AA 8-8-19

File Path 1: \\30wintarget\chem\30mss3.i\mss3080719.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:27 08/08/2019

Reviewed By/Date: SJG 8-8-19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss3.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: 95845
Tune std: 96103

Method: 8270Dsim
Dcm 80877
Surr. lot:
Cal. std: 94321

Instrument name..... 30MSS3

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m3081219r1.d	RT TEST	S/	CCALIB_4	1	m3080719pahcd	8/12/19	12:28	AJC	
1/m3081219t1.d	TUNE, 96103:1	N/14936	DFTPP	1	8270dsw846tun	8/12/19	12:49	AJC	
1/m3081219s1.d	CCV, 94321:1	S/14936	CCALIB_4	1	m3080719pahcd	8/12/19	13:02	AJC	
1/m308121901.d	1729508,	L/14949	BLANK	1	m3080719pahcd	8/12/19	13:23	AJC	
1/m308121902.d	1729509,	L/14949	LCS	1	m3080719pahcd	8/12/19	13:42	AJC	
1/m308121903.d	1729425,	S/14954	BLANK	1	m3080719pahcd	8/12/19	14:01	AJC	
1/m308121904.d	1729426,	S/14954	LCS	1	m3080719pahcd	8/12/19	14:21	AJC	
1/m308121905.d	30313810016,	L/14950	SAMPLE	1	m3080719pahcd	8/12/19	14:40	AJC	
1/m308121906.d	30313810017,	L/14950	SAMPLE	1	m3080719pahcd	8/12/19	14:59	AJC	
1/m308121907.d	30313810018,	L/14950	SAMPLE	1	m3080719pahcd	8/12/19	15:18	AJC	
1/m308121908.d	30313810019,	L/14950	SAMPLE	1	m3080719pahcd	8/12/19	15:38	AJC	
1/m308121909.d	30313810020,	L/14950	SAMPLE	1	m3080719pahcd	8/12/19	15:57	AJC	
1/m308121910.d	30318553001,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	16:16	AJC	BtK
1/m308121911.d	30318553002,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	16:35	AJC	need dilution
1/m308121912.d	30318553003,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	16:55	AJC	BtK
1/m308121913.d	30318553004,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	17:14	AJC	
1/m308121914.d	30318553005,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	17:33	AJC	
1/m308121915.d	30318553006,	L/14949	SAMPLE	1	m3080719pahcd	8/12/19	17:53	AJC	BtK
1/m308121916.d	30318161001X10,	L/14944	SAMPLE	10	m3080719pahcd	8/12/19	18:12	AJC	not used
1/m308121917.d	30318161001X100,	L/14944	SAMPLE	100	m3080719pahcd	8/12/19	18:31	AJC	BK need dilution
1/m308121918.d	30318504001,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	18:50	AJC	BtK
1/m308121919.d	1729427,	S/14954	MS	1	m3080719pahcd	8/12/19	19:10	AJC	
1/m308121920.d	1729428,	S/14954	MSD	1	m3080719pahcd	8/12/19	19:29	AJC	
1/m308121921.d	30318504002,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	19:48	AJC	BtK
1/m308121922.d	30318504003,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	20:07	AJC	not used
1/m308121923.d	30318504003X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	20:26	AJC	BtK need dilution
1/m308121924.d	30318504004,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	20:45	AJC	not used
1/m308121925.d	30318504004X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	21:04	AJC	
1/m308121926.d	30318504005,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	21:24	AJC	BtK
1/m308121927.d	30318504005X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	21:43	AJC	not used
1/m308121928.d	30318504006,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	22:02	AJC	not used
1/m308121929.d	30318504006X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	22:21	AJC	BtK need dilution Isout SV
1/m308121930.d	30318504007X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	22:40	AJC	need dilution Isout SV

Check Maintenance Items Performed:

- X Changed septum
- X Cleaned liner
- X Replaced/Cleaned gold seal
- X Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: 8-13-19

File Path 1: \\30wintarget\chem\30mss3.i\mss3081219.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:31 08/13/2019

SJC 8-14-19
Reviewed By/Date: _____ Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mss3.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]:
Misc. Prep Info [S]: 8-13-19 95845
ISTD lot: ~~6769:10~~ MR
Tune std: 96103

Method: 8270Dsim Dem 80877
Surr. lot:
Cal. std: 94321

Instrument name..... 30MSS3

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m308121931.d	30318504008X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	22:59	AJC	B+N Isovt SL
1/m308121932.d	30318504009X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	23:18	AJC	B+N need dilution Isovt SL
1/m308121933.d	30318799001X10,	S/14954	SAMPLE	10	m3080719pahcd	8/12/19	23:37	AJC	B+N need dilution Isovt SL
1/m308121934.d	30318799001,	S/14954	SAMPLE	1	m3080719pahcd	8/12/19	23:57	AJC	not used
1/m308121935.d	30318504009,	S/14954	SAMPLE	1	m3080719pahcd	8/13/19	00:16	AJC	
1/m308121936.d	30318504008,	S/14954	SAMPLE	1	m3080719pahcd	8/13/19	00:35	AJC	
1/m308121937.d	30318504007,	S/14954	SAMPLE	1	m3080719pahcd	8/13/19	00:54	AJC	out of tune not used

8-13-19

File Path 1: \\30wintarget\chem\30mss3.i\mss3081219.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 07:31 08/13/2019

Reviewed By/Date: SJG 8-14-19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mss3.i
Column RXI-5MS 20m X 0.18mm He
Misc. Prep Info [L]: 8-14-19
Misc. Prep Info [S]: 95845
ISTD lot: ~~96107~~ 96103
Tune std: 96103

Method: 8270 Dsw Dcm 80877
Surr. lot:
Cal. std: 94321

Instrument name..... 30MSS3

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/m3081319r1.d	RT TEST	S/	CCALIB_4	1	m3080719pahcd	8/13/19	13:06	AJC	
1/m3081319t1.d	TUNE, 96103:1	N/14936	DFTPP	1	8270dsw846tun	8/13/19	13:27	AJC	
1/m3081319s1.d	CCV, 94321:1	S/14936	CCALIB_4	1	m3080719pahcd	8/13/19	13:40	AJC	
1/m308131901.d	1730745,	S/14957	BLANK	1	m3080719pahcd	8/13/19	14:01	AJC	
1/m308131902.d	1730746,	S/14957	LCS	1	m3080719pahcd	8/13/19	14:20	AJC	
1/m308131903.d	30318553002X10,	L/14949	SAMPLE	10	m3080719pahcd	8/13/19	14:39	AJC	
1/m308131904.d	30318161001X1000	L/14944	SAMPLE	1000	m3080719pahcd	8/13/19	14:58	AJC	B+K
1/m308131905.d	30318504003X100,	S/14954	SAMPLE	100	m3080719pahcd	8/13/19	15:18	AJC	B+K
1/m308131906.d	30318504006X100,	S/14954	SAMPLE	100	m3080719pahcd	8/13/19	15:37	AJC	B+K
1/m308131907.d	30318504007X100,	S/14954	SAMPLE	100	m3080719pahcd	8/13/19	15:56	AJC	
1/m308131908.d	30318504007X1000	S/14954	SAMPLE	1000	m3080719pahcd	8/13/19	16:15	AJC	B+K
1/m308131909.d	30318504009X100,	S/14954	SAMPLE	100	m3080719pahcd	8/13/19	16:34	AJC	
1/m308131910.d	30318799001X100,	S/14954	SAMPLE	100	m3080719pahcd	8/13/19	16:53	AJC	B+K
1/m308131911.d	30319018001,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	17:13	AJC	B+K
1/m308131912.d	30319018001X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	17:32	AJC	not used
1/m308131913.d	1730747,	S/14957	MS	1	m3080719pahcd	8/13/19	17:51	AJC	
1/m308131914.d	1730747X10,	S/14957	MS	10	m3080719pahcd	8/13/19	18:10	AJC	not used
1/m308131915.d	1730748,	S/14957	MSD	1	m3080719pahcd	8/13/19	18:29	AJC	
1/m308131916.d	1730748X10,	S/14957	MSD	10	m3080719pahcd	8/13/19	18:48	AJC	not used
1/m308131917.d	30319018002,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	19:08	AJC	
1/m308131918.d	30319018002X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	19:27	AJC	not used
1/m308131919.d	30319016001,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	19:46	AJC	B+K
1/m308131920.d	30319016001X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	20:05	AJC	not used
1/m308131921.d	30319016002,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	20:24	AJC	B+K
1/m308131922.d	30319016002X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	20:43	AJC	not used
1/m308131923.d	30319019001,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	21:03	AJC	B+K
1/m308131924.d	30319019001X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	21:22	AJC	not used
1/m308131925.d	30319019002,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	21:41	AJC	B+K 7 out 5
1/m308131926.d	30319019002X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	22:00	AJC	not used
1/m308131927.d	30319019003,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	22:19	AJC	B+K 1 out 5
1/m308131928.d	30319019003X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	22:38	AJC	not used
1/m308131929.d	30319019004,	S/14957	SAMPLE	1	m3080719pahcd	8/13/19	22:57	AJC	B+K 1 out 5
1/m308131930.d	30319019004X10,	S/14957	SAMPLE	10	m3080719pahcd	8/13/19	23:16	AJC	not used

Check Maintenance Items Performed:

- X Changed septum
- X Cleaned liner
- X Replaced/Cleaned gold seal
- X Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- ___ Other minor parts replaced _____
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: AJC 8-14-19

File Path 1: \\30wintarget\chem\30mss3.i\mss3081319.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:14 08/14/2019

Reviewed By/Date: AJC 8-14-19 Page: 1 of 1

PESTICIDES - FORM II SVOA-1
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30GCSC

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1727835	1727835LB	89	68
1729490	1729490LB	87	66
1730795	1730795LCS	96	70
30318799001	AOC 32 DITCH & AOC 35G	90	70

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(24-108)
(TCMX) = Tetrachloro-m-xylene (S)	(44-93)

* Values outside of QC Limits

PESTICIDES - FORM III SVOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1730795LCS
Date Extracted: 08/13/2019
Date Analyzed (1): 08/14/2019
Instrument: 30GCSC
LCS Lot No: 95899
Lab File ID: 081419-2.B\2019-08-14-036.D
SDG No.: 30318799

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
gamma-BHC (Lindane)	0.80	0.64	80	58-99
Endrin	1.6	1.3	81	60-103
Heptachlor	0.80	0.55	69	51-104
Heptachlor epoxide	0.80	0.65	81	59-98
Methoxychlor	8.0	5.9	73	58-108

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh

Matrix Spike - Sample No: 1730796MS

Date Extracted: 08/13/2019

Date Analyzed (1): 08/14/2019

Instrument: 30GCSC

Lab File ID: 081419-2.B\2019-08-14-039.D

Parent Sample ID: 30318386001

SDG No.: 30318799

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
Endrin	2.0	0.20 U	1.6	80	33-142
Heptachlor	1.0	0.10 U	0.75	75	10-138
Heptachlor epoxide	1.0	0.10 U	0.81	81	39-115
Methoxychlor	10.0	1.0 U	7.3	73	10-158
gamma-BHC (Lindane)	1.0	0.10 U	0.85	84	10-146

Spike Recovery: 0 out of 5 outside limits.

PESTICIDES - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSC Matrix Spike Duplicate - Sample No: 1730797MSD

Lab File ID (2): 081419-2.B\2019-08-14-040.D Date Analyzed (2): 08/14/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Endrin	2.0	1.6	81	1	0-25	33-142
Heptachlor	1.0	0.75	75	0	0-25	10-138
Heptachlor epoxide	1.0	0.81	81	0	0-25	39-115
Methoxychlor	10.0	7.7	77	5	0-25	10-158
gamma-BHC (Lindane)	1.0	0.85	84	0	0-25	10-146

RPD: 0 out of 5 outside limits.

Spike Recovery: 0 out of 5 outside limits.

SAMPLE NO.

1727835LB

PESTICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30GCSC Matrix: Water Lab Sample ID: 1727835

Lab File ID (1): 081419-1.B\2019-08-14-035.D Date Analyzed (1): 08/14/2019 Time (1): 18:55

Lab File ID (2): 081419-2.B\2019-08-14-035.D Date Analyzed (2): 08/14/2019 Time (2): 18:55

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1730795LCS	1730795	081419-1.B\2019-08-14-036.D	08/14/2019 19:04
1730795LCS	1730795	081419-2.B\2019-08-14-036.D	08/14/2019 19:04
AOC 32 DITCH & AOC 35G	30318799001	081419-1.B\2019-08-14-044.D	08/14/2019 20:22

SAMPLE NO.

1729490LB

PESTICIDES - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30GCSC Matrix: Water Lab Sample ID: 1729490

Lab File ID (1): 081419-1.B\2019-08-14-037.D Date Analyzed (1): 08/14/2019 Time (1):19:14

Lab File ID (2): 081419-2.B\2019-08-14-037.D Date Analyzed (2): 08/14/2019 Time (2):19:14

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1730795LCS	1730795	081419-1.B\2019-08-14-036.D	08/14/2019 19:04
1730795LCS	1730795	081419-2.B\2019-08-14-036.D	08/14/2019 19:04
AOC 32 DITCH & AOC 35G	30318799001	081419-1.B\2019-08-14-044.D	08/14/2019 20:22

SAMPLE NO.

AOC 32 DITCH & AOC 35G

PESTICIDES - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh | Contract: Former EPT Site-Soil IRM/31401

Date Received: 08/09/2019 09:30 | Matrix: Solid | SDG No.: 30318799

Date Extracted: 08/13/2019 09:14 | Lab Sample ID: 30318799001

Date Analyzed: 08/14/2019 20:22 | Lab File ID: 081419-1.B\2019-08-14-044.D

Initial wt/vol: 250 mL | Final wt/vol: 5 mL | Dilution: 1 | Instrument: 30GCSC | Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-044.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 14-AUG-2019 20:22
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30318799001,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	4914	4643	0.945	23.6127		
0.926	1100	1316	1.196	6.6907		
0.940	588	740	1.258	3.7622		
0.965	1223	910	0.744	4.6265		
0.994	112	143	1.281	0.7270		
1.009	167	157	0.939	0.7982		
1.033	126	112	0.890	0.5694		
1.050	6	47	7.413	0.2389		
1.054	11	50	4.739	0.2542		
1.062	39	53	1.361	0.2694		
1.080	239	301	1.262	1.5303		
1.106	54	46	0.848	0.2338		
1.174	89	88	0.991	0.4474		
1.218	19	28	1.480	0.1423		
1.236	17	29	1.676	0.1474		
1.335	48	67	1.406	0.3406		
1.369	23	30	1.313	0.1525		
1.407	3	6	2.067	0.0305		
1.448	14	19	1.319	0.0965		
1.477	17	26	1.508	0.1321		
1.534	27	33	1.235	0.1677		
1.552	4	18	4.296	0.0915		
1.559	9	21	2.349	0.1067		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.564	4	20	4.963	0.1016		
1.573	19	26	1.390	0.1321		
1.581	3	14	4.560	0.0711		
1.585	2	10	4.098	0.0508		
1.592	3	8	2.817	0.0406		
1.694	5	12	2.308	0.0610		
1.699	4	12	3.061	0.0610		
1.736	6	11	1.846	0.0559		
1.744	3	7	2.652	0.0355		
1.819	2	6	2.609	0.0305		
1.851	3	13	4.127	0.0660		
1.855	3	13	4.194	0.0660		
1.882	3549	4587	1.292	23.3209	$ 1 Tetrachloro-m-xylene (S)	
1.927	3	11	3.470	0.0559		
1.934	5	11	2.381	0.0559		
2.018	35	40	1.141	0.2033		
2.044	11	20	1.768	0.1016		
2.075	23	27	1.175	0.1372		
2.095	40	67	1.655	0.3406		
2.188	8	16	1.956	0.0813		
2.209	3	14	4.444	0.0711		
2.212	4	18	5.114	0.0915		
2.218	13	21	1.615	0.1067		
2.230	4	9	2.041	0.0457		
2.241	3	11	3.395	0.0559		
2.295	5	11	2.402	0.0559		
2.406	7	13	1.958	0.0660		
2.509	37	40	1.075	0.2033		
2.562	32	39	1.208	0.1982		
2.602	23	33	1.458	0.1677		
2.609	4	27	6.490	0.1372		
2.622	136	162	1.193	0.8236		
2.738	39	44	1.135	0.2237		
2.783	26	32	1.253	0.1626		
2.851	46	54	1.170	0.2745		
2.894	112	75	0.671	0.3813		
3.119	29	36	1.235	0.1830		
3.179	9	14	1.622	0.0711		
3.259	9	17	1.954	0.0864		
3.274	18	16	0.886	0.0813	8 Heptachlor epoxide	BA
3.353	9	15	1.701	0.0762		
3.448	13	21	1.638	0.1067		
3.474	11	28	2.448	0.1423		
3.478	16	30	1.916	0.1525		
3.504	25	35	1.396	0.1779		
3.512	13	37	2.747	0.1881		
3.518	14	40	2.768	0.2033		
3.526	29	44	1.527	0.2237		
3.566	48	54	1.119	0.2745		
3.843	2	6	2.564	0.0305		
4.102	18	28	1.550	0.1423		
4.153	4	14	3.581	0.0711		
4.156	2	18	7.792	0.0915		
4.158	7	21	2.865	0.1067		
4.181	2	8	3.404	0.0406		
4.187	6	12	2.116	0.0610		
4.303	5	14	2.685	0.0711		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.370	2	7	3.139	0.0355		
4.611	2	8	3.509	0.0406		
4.626	3	5	1.916	0.0254		
4.639	2	6	2.899	0.0305	20 Methoxychlor	
4.726	2	9	4.225	0.0457		
4.730	2	10	4.464	0.0508		
5.006	5	13	2.889	0.0660		
5.053	2	4	1.786	0.0203		
5.085	2	7	3.167	0.0355		
5.093	3	9	3.346	0.0457		
5.097	4	13	3.155	0.0660		
5.104	3	12	4.124	0.0610		
5.110	3	14	4.130	0.0711		
5.113	3	13	4.075	0.0660		
5.119	4	14	3.248	0.0711		
5.126	4	13	3.333	0.0660		
5.133	2	10	4.739	0.0508		
5.144	5	12	2.202	0.0610		
5.155	3	8	2.712	0.0406		
5.165	2	9	3.814	0.0457		
5.174	2	8	3.828	0.0406		
5.181	3	8	3.089	0.0406		
5.189	2	9	4.478	0.0457		
5.196	3	9	3.191	0.0457		
5.210	4	9	2.550	0.0457		
5.221	3	9	3.435	0.0457		
5.236	3	9	3.191	0.0457		
5.350	3	11	3.526	0.0559		
5.354	3	10	3.774	0.0508		
5.365	3	10	3.731	0.0508		
5.432	2	9	3.719	0.0457		
5.532	2	7	2.979	0.0355		
5.540	3	8	2.703	0.0406		
5.549	4	8	2.083	0.0406		
5.562	3	8	3.042	0.0406		
5.573	3	8	2.477	0.0406		
5.637	4486	4248	0.947	21.5974	$ 24 Decachlorobiphenyl (S)	
5.681	7	13	1.991	0.0660		
5.689	3	9	3.475	0.0457		
6.090	3	10	3.049	0.0508		
6.100	2	8	3.738	0.0406		
6.104	3	9	3.502	0.0457		
6.114	2	9	4.000	0.0457		
6.119	2	10	4.854	0.0508		
6.125	3	10	3.817	0.0508		
6.130	4	11	2.957	0.0559		
6.137	2	9	4.186	0.0457		
6.156	2	8	3.306	0.0406		
6.159	2	10	4.831	0.0508		
6.167	2	7	3.398	0.0355		
6.228	2	6	2.632	0.0305		
6.235	2	9	3.750	0.0457		
6.561	2	6	2.830	0.0305		
6.617	2	7	3.182	0.0355		
6.811	3	9	3.358	0.0457		
	18003	19669		100.000		

Total unknown % height = 55.0

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Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-044.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 14-AUG-2019 20:22
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 30318799001,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.881	1.881	0.000	3549	0.07019	1.40			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
Compound Not Detected.								
5 Heptachlor					CAS #: 319-86-8			
Compound Not Detected.								
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.273	3.275	-0.002	18	3e-004	0.00633		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
14 Endrin					CAS #: 72-20-8			
Compound Not Detected.								
20 Methoxychlor					CAS #: 72-43-5			
4.639	4.661	-0.022	2	8e-005	0.00163			
22 Chlordane (Technical)					CAS #:			
Operator disabled compound identification.								BA
23 Toxaphene					CAS #: 8001-35-2			
Operator disabled compound identification.								
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.636	5.641	-0.005	4485	0.09025	1.80			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: WSP Environment & E
Lab Smp Id: 30318799001
Sample Location:
Sample Date: 08-AUG-2019
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 30318799
Client Smp ID: AOC 32 DITCH & AOC
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
319-86-8	Heptachlor	0.0100	U
1024-57-3	Heptachlor epoxide	0.00633	
72-20-8	Endrin	0.0200	U
72-43-5	Methoxychlor	0.00163	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.40	
----------	Decachlorobiphenyl (S)	1.80	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-044.d

Date : 14-AUG-2019 20:22

Client ID: AOC 32 DITCH & AOC

Instrument: 30gcsc.i

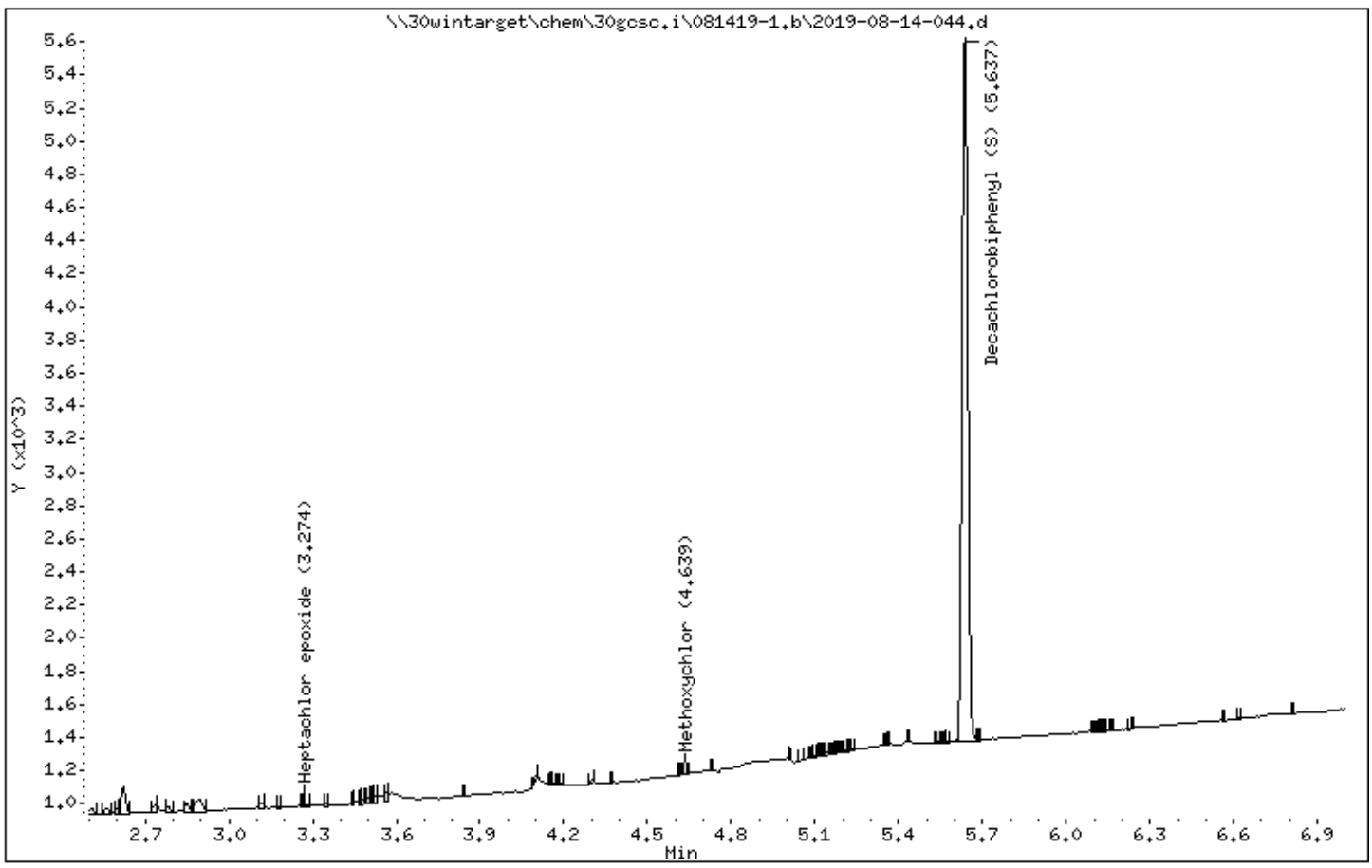
Sample Info: 30318799001,

Volume Injected (uL): 1.0

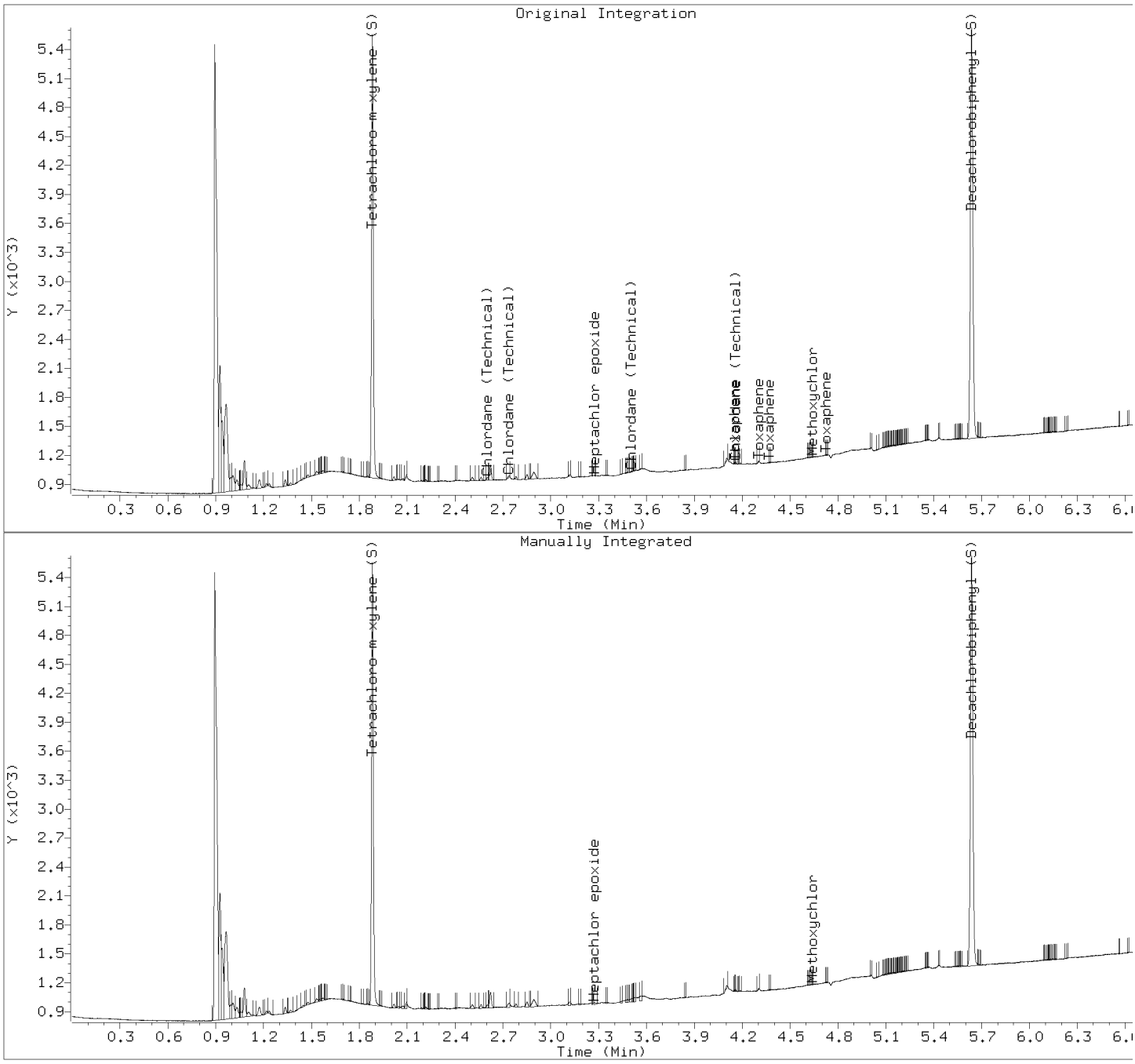
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-044.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 20:22 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 30318799001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	0	0
Heptachlor epoxide	2	18
Endrin	0	0
Methoxychlor	2	2
Toxaphene	0	0
Toxaphene	3	0
Toxaphene	5	0
Toxaphene	2	0
Toxaphene	2	0
Chlordane (Technical)	18	0
Chlordane (Technical)	13	0
Chlordane (Technical)	0	0
Chlordane (Technical)	3	0

Chlordane (Technical)	7	0
Tetrachloro-m-xylene (S)	3549	3549
Decachlorobiphenyl (S)	4485	4485

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	63000.0000	60142.8571	67300.0000	62750.0000	60940.0000	62510.0000
Endrin		Averaged	50400.0000	47928.5714	54500.0000	48150.0000	49440.0000	49650.0000
Heptachlor		Averaged	68800.0000	63714.2857	71000.0000	64350.0000	62180.0000	62190.0000
Heptachlor epoxide		Averaged	58600.0000	56285.7142	62000.0000	56350.0000	54080.0000	54060.0000
Methoxychlor		Averaged	24940.0000	23842.8571	27080.0000	23895.0000	23468.0000	23603.0000
Decachlorobiphenyl		Averaged	55300.0000	49285.7142	54450.0000	49175.0000	45310.0000	44660.0000
Tetrachloro-m-xylene		Averaged	51900.0000	50214.2857	54700.0000	50700.0000	47640.0000	48225.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	3.95			62773.80	
Endrin		Averaged	4.77			50011.42	
Heptachlor		Averaged	5.62		0.00	65372.38	
Heptachlor epoxide		Averaged	5.30		0.00	56895.95	
Methoxychlor		Averaged	5.63			24471.47	
Decachlorobiphenyl		Averaged	8.95			49696.78	
Tetrachloro-m-xylene		Averaged	5.08			50563.21	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		Averaged	22200.0000	21428.5714	24000.0000	21950.0000	21120.0000	21610.0000
Endrin		Averaged	16800.0000	15428.5714	17300.0000	14975.0000	15140.0000	15120.0000
Heptachlor		Averaged	22200.0000	21285.7142	23700.0000	21050.0000	20360.0000	20290.0000
Heptachlor epoxide		Averaged	21600.0000	20142.8571	21600.0000	19400.0000	18380.0000	18190.0000
Methoxychlor		Averaged	7380.00000	7185.71429	8160.00000	7240.00000	7166.00000	7162.00000
Decachlorobiphenyl		Averaged	17100.0000	16285.7142	17800.0000	15950.0000	14530.0000	14085.0000
Tetrachloro-m-xylene		Averaged	19100.0000	18285.7142	20200.0000	18600.0000	17190.0000	17410.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
gamma-BHC		Averaged	4.65			22051.42	
Endrin		Averaged	6.31			15793.92	
Heptachlor		Averaged	6.01			21480.95	
Heptachlor epoxide		Averaged	7.56			19885.47	
Methoxychlor		Averaged	5.27			7382.28	
Decachlorobiphenyl		Averaged	9.01			15958.45	
Tetrachloro-m-xylene		Averaged	6.03			18464.28	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.472	2.472	2.473	2.473	2.472	2.474
Endrin		3.956	3.957	3.957	3.956	3.956	3.958
Heptachlor		2.71	2.711	2.711	2.711	2.711	2.712
Heptachlor epoxide		3.279	3.28	3.28	3.279	3.279	3.28
Methoxychlor		4.663	4.663	4.662	4.663	4.663	4.664
Decachlorobiphenyl		5.645	5.646	5.645	5.644	5.645	5.647
Tetrachloro-m-xylene		1.884	1.884	1.884	1.884	1.884	1.885

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-1.B\2019-06-27-010.D CAL2 = 062719-1.B\2019-06-27-011.D CAL3 = 062719-1.B\2019-06-27-012.D

CAL4 = 062719-1.B\2019-06-27-013.D CAL5 = 062719-1.B\2019-06-27-014.D CAL6 = 062719-1.B\2019-06-27-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.472	2.442	2.502
Endrin		3.957	3.927	3.987
Heptachlor		2.711	2.681	2.741
Heptachlor epoxide		3.279	3.249	3.309
Methoxychlor		4.662	4.632	4.692
Decachlorobiphenyl		5.646	5.616	5.676
Tetrachloro-m-xylene		1.884	1.854	1.914

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
gamma-BHC		2.839	2.839	2.84	2.84	2.839	2.84
Endrin		4.389	4.389	4.389	4.389	4.388	4.389
Heptachlor		3.249	3.249	3.249	3.249	3.249	3.249
Heptachlor epoxide		3.77	3.77	3.77	3.77	3.77	3.771
Methoxychlor		4.947	4.946	4.947	4.947	4.946	4.947
Decachlorobiphenyl		6.336	6.336	6.335	6.334	6.335	6.335
Tetrachloro-m-xylene		2.359	2.359	2.359	2.359	2.358	2.359

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 06/27/2019 Calibration Time(s): 15:14 16:02

LAB FILE ID

CAL1 = 062719-2.B\2019-06-27-010.D CAL2 = 062719-2.B\2019-06-27-011.D CAL3 = 062719-2.B\2019-06-27-012.D

CAL4 = 062719-2.B\2019-06-27-013.D CAL5 = 062719-2.B\2019-06-27-014.D CAL6 = 062719-2.B\2019-06-27-015.D

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
gamma-BHC		2.84	2.81	2.87
Endrin		4.389	4.359	4.419
Heptachlor		3.249	3.219	3.279
Heptachlor epoxide		3.77	3.74	3.8
Methoxychlor		4.947	4.917	4.977
Decachlorobiphenyl		6.334	6.304	6.364
Tetrachloro-m-xylene		2.359	2.329	2.389

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 Calibration Time(s): 14:54

LAB FILE ID

CAL2S = 062719-1.B\2019-06-27-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.057	4.027	4.087	1890.00000
		2	4.153	4.122	4.182	1640.00000
		3	4.286	4.256	4.316	850.00000
		4	4.394	4.363	4.423	640.00000
		5	4.71	4.68	4.74	1290.00000
Decachlorobiphenyl (S)	.014		5.645	5.616	5.676	49285.7142
Tetrachloro-m-xylene	.014		1.884	1.854	1.914	50214.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 06/27/2019 Calibration Time(s): 15:04

LAB FILE ID

CAL2S = 062719-1.B\2019-06-27-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	2.593	2.562	2.622	2060.00000
		2	2.711	2.681	2.741	2980.00000
		3	3.006	2.976	3.036	2100.00000
		4	3.5	3.47	3.53	4760.00000
		5	4.159	4.129	4.189	1720.00000
Decachlorobiphenyl (S)	.014		5.645	5.616	5.676	49285.7142
Tetrachloro-m-xylene	.014		1.884	1.854	1.914	50214.2857

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-1

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 Calibration Time(s): 14:54

LAB FILE ID

CAL2S = 062719-2.B\2019-06-27-008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Toxaphene	.1	1	4.408	4.378	4.438	580.00000
		2	4.566	4.536	4.596	330.00000
		3	4.609	4.579	4.639	270.00000
		4	4.768	4.738	4.798	580.00000
		5	5.143	5.113	5.173	280.00000
Decachlorobiphenyl (S)	.014		6.335	6.304	6.364	16285.7142
Tetrachloro-m-xylene	.014		2.359	2.329	2.389	18285.7142

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PESTICIDES - FORM VI PEST-2

PESTICIDES INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSC GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 06/27/2019 Calibration Time(s): 15:04

LAB FILE ID

CAL2S = 062719-2.B\2019-06-27-009.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Chlordane, Technical	.1	1	3.106	3.076	3.136	900.00000
		2	3.249	3.219	3.279	1010.00000
		3	3.475	3.445	3.505	670.00000
		4	4.019	3.989	4.049	1800.00000
		5	4.019	3.989	4.049	1800.00000
Decachlorobiphenyl (S)	.014		6.336	6.304	6.364	16285.7142
Tetrachloro-m-xylene	.014		2.359	2.329	2.389	18285.7142

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	735	1076	1.463	12.8361		
0.925	4	20	4.831	0.2384		
0.942	606	870	1.437	10.3731		
0.962	620	824	1.330	9.8247		
1.178	3	5	1.930	0.0596		
1.222	2	4	1.619	0.0476		
1.254	7	3	0.424	0.0357		
1.290	3	14	4.590	0.1669		
1.292	2	14	7.000	0.1669		
1.296	3	17	5.667	0.2026		
1.299	3	19	7.063	0.2265		
1.304	8	24	2.959	0.2861		
1.309	6	24	3.902	0.2861		
1.312	4	26	6.533	0.3100		
1.327	25	32	1.277	0.3815		
1.337	37	46	1.255	0.5484		
1.344	9	40	4.410	0.4769		
1.349	9	38	4.343	0.4530		
1.354	9	38	4.082	0.4530		
1.356	8	39	4.756	0.4650		
1.361	8	38	4.762	0.4530		
1.366	11	40	3.742	0.4769		
1.371	16	42	2.710	0.5007		
1.378	20	37	1.860	0.4411		
1.385	8	33	4.371	0.3934		
1.391	9	29	3.349	0.3457		
1.394	5	29	5.894	0.3457		
1.398	8	27	3.431	0.3219		
1.402	6	26	4.333	0.3100		
1.406	8	25	3.324	0.2980		
1.413	2	17	7.143	0.2026		
1.419	6	11	1.954	0.1311		
1.436	4	9	2.244	0.1073		
1.449	3	10	3.922	0.1192		
1.454	3	10	2.882	0.1192		
1.461	5	11	2.157	0.1311		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.482	24	36	1.515	0.4292		
1.602	2	6	2.885	0.0715		
1.885	522	774	1.484	9.2285	$ 1 Tetrachloro-m-xylene (S)	
2.099	6	12	2.083	0.1430		
2.627	67	88	1.314	1.0492		
2.883	3	6	1.780	0.0715		
2.907	5	10	2.066	0.1192		
2.938	2	10	4.329	0.1192		
2.941	3	9	3.309	0.1073		
3.128	12	18	1.559	0.2146		
3.207	2	6	2.609	0.0715		
3.268	3	6	1.869	0.0715		
3.295	8	14	1.663	0.1669		
3.327	3	6	1.818	0.0715		
3.414	3	9	2.616	0.1073		
3.460	12	31	2.585	0.3696		
3.463	21	33	1.555	0.3934		
3.536	6	11	1.923	0.1311		
3.552	7	10	1.391	0.1192		
3.619	16	26	1.658	0.3100		
3.665	9	30	3.282	0.3576		
3.668	16	31	1.928	0.3696		
3.685	35	43	1.236	0.5126		
3.702	49	45	0.914	0.5365		
3.731	46	55	1.190	0.6557		
3.740	28	55	1.974	0.6557		
3.773	10	16	1.550	0.1907		
3.799	10	22	2.128	0.2623		
3.827	67	69	1.036	0.8227		
3.848	24	50	2.063	0.5961		
3.850	22	49	2.200	0.5842		
3.866	49	49	1.000	0.5842		
3.898	23	31	1.357	0.3696		
3.944	52	66	1.262	0.7869		
3.976	30	38	1.252	0.4530		
4.018	47	58	1.229	0.6915		
4.058	189	121	0.640	1.4427	23 Toxaphene	RT
4.078	24	59	2.432	0.7034		
4.097	168	140	0.834	1.6692		
4.114	52	82	1.564	0.9777		
4.153	164	134	0.817	1.5977	23 Toxaphene	RT
4.187	59	63	1.064	0.7511		
4.220	61	50	0.817	0.5961		
4.247	21	35	1.676	0.4173		
4.287	85	82	0.963	0.9777	23 Toxaphene	RT
4.349	89	93	1.047	1.1088		
4.369	32	52	1.630	0.6200		
4.394	65	71	1.095	0.8465	23 Toxaphene	RT
4.420	24	36	1.492	0.4292		
4.433	18	35	1.902	0.4173		
4.456	55	74	1.343	0.8823		
4.510	9	24	2.697	0.2861		
4.513	11	28	2.463	0.3338		
4.539	23	39	1.724	0.4650		
4.570	31	34	1.085	0.4053		
4.589	57	64	1.118	0.7630		
4.611	49	68	1.389	0.8107		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.616	33	66	1.998	0.7869		
4.624	23	57	2.475	0.6796		
4.665	34	45	1.329	0.5365		
4.711	129	135	1.045	1.6096	23 Toxaphene	RT
4.732	32	41	1.293	0.4888		
4.743	21	37	1.798	0.4411		
4.849	18	29	1.597	0.3457		
4.891	23	36	1.594	0.4292		
4.896	20	40	1.996	0.4769		
4.944	11	35	3.208	0.4173		
4.948	19	40	2.077	0.4769		
4.974	7	19	2.901	0.2265		
4.991	7	20	2.732	0.2384		
4.998	7	21	2.958	0.2503		
5.008	10	20	1.936	0.2384		
5.049	4	11	3.107	0.1311		
5.134	8	18	2.242	0.2146		
5.148	6	18	2.980	0.2146		
5.164	6	18	2.903	0.2146		
5.195	9	18	2.029	0.2146		
5.208	7	18	2.514	0.2146		
5.223	7	13	1.847	0.1550		
5.244	5	11	2.407	0.1311		
5.251	3	9	3.396	0.1073		
5.260	3	9	3.297	0.1073		
5.304	4	12	3.038	0.1430		
5.332	4	13	3.421	0.1550		
5.338	4	16	4.000	0.1907		
5.346	3	11	3.860	0.1311		
5.364	3	10	3.984	0.1192		
5.400	2	11	4.603	0.1311		
5.424	3	8	2.508	0.0953		
5.429	3	14	4.590	0.1669		
5.433	3	16	5.714	0.1907		
5.436	5	22	4.255	0.2623		
5.442	5	20	4.435	0.2384		
5.445	8	20	2.597	0.2384		
5.456	3	10	3.817	0.1192		
5.487	2	6	2.655	0.0715		
5.552	3	7	2.745	0.0834		
5.645	517	504	0.974	6.0093	$ 24 Decachlorobiphenyl (S)	
5.674	3	9	2.990	0.1073		
5.702	3	8	3.042	0.0953		
5.852	2	8	3.571	0.0953		
6.089	2	7	3.431	0.0834		
6.176	2	7	3.182	0.0834		
6.183	2	8	3.604	0.0953		
6.240	3	8	3.175	0.0953		
6.282	2	7	3.271	0.0834		
6.288	2	12	5.310	0.1430		
6.344	2	7	3.428	0.0834		
6.483	2	8	3.865	0.0953		
6.518	2	9	4.206	0.1073		
6.614	2	7	3.398	0.0834		
6.952	3	10	3.597	0.1192		
6.979	2	9	4.186	0.1073		
	5812	8387		100.000		

Total unknown % height = 78.3

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Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE	
23 Toxaphene					CAS #: 8001-35-2				
4.057	4.057	0.000	189	0.10000	0.100	80.00- 120.00	100.00(M)	RT	
4.153	4.152	0.001	164	0.10000	0.100	66.77- 106.77	86.81	RT	
4.286	4.286	0.000	85	0.10000	0.100	24.97- 64.97	45.05	RT	
4.394	4.393	0.001	64	0.10000	0.100	13.86- 53.86	34.30	RT	
4.710	4.710	0.000	129	0.10000	0.100	48.25- 88.25	68.32	RT	
Average of Peak Amounts =					0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:				
1.884	1.884	0.000	521	0.01400	0.0108				
$ 24 Decachlorobiphenyl (S)					CAS #:				
5.645	5.646	-0.001	517	0.01400	0.0108				

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,TOX

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
8001-35-2	Toxaphene		
	Peak found at 4.058	0.100	
	Peak found at 4.153	0.100	
	Peak found at 4.287	0.100	
	Peak found at 4.394	0.100	
	Peak found at 4.711	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0108	
	Decachlorobiphenyl (S)	0.0108	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-008.d

Date : 27-JUN-2019 14:54

Client ID: CAL2S

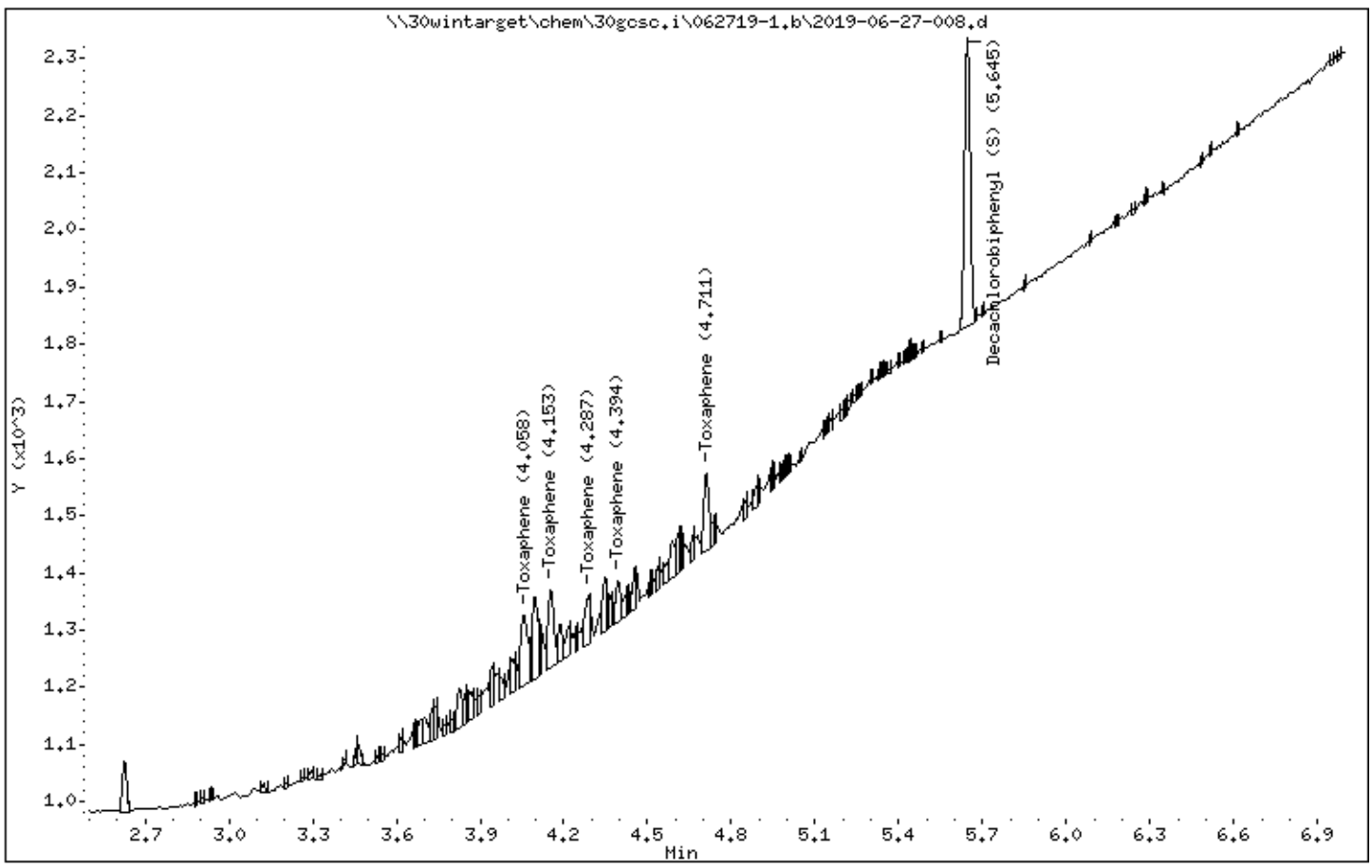
Instrument: 30gcsc.i

Sample Info: CAL2S, 90773:10

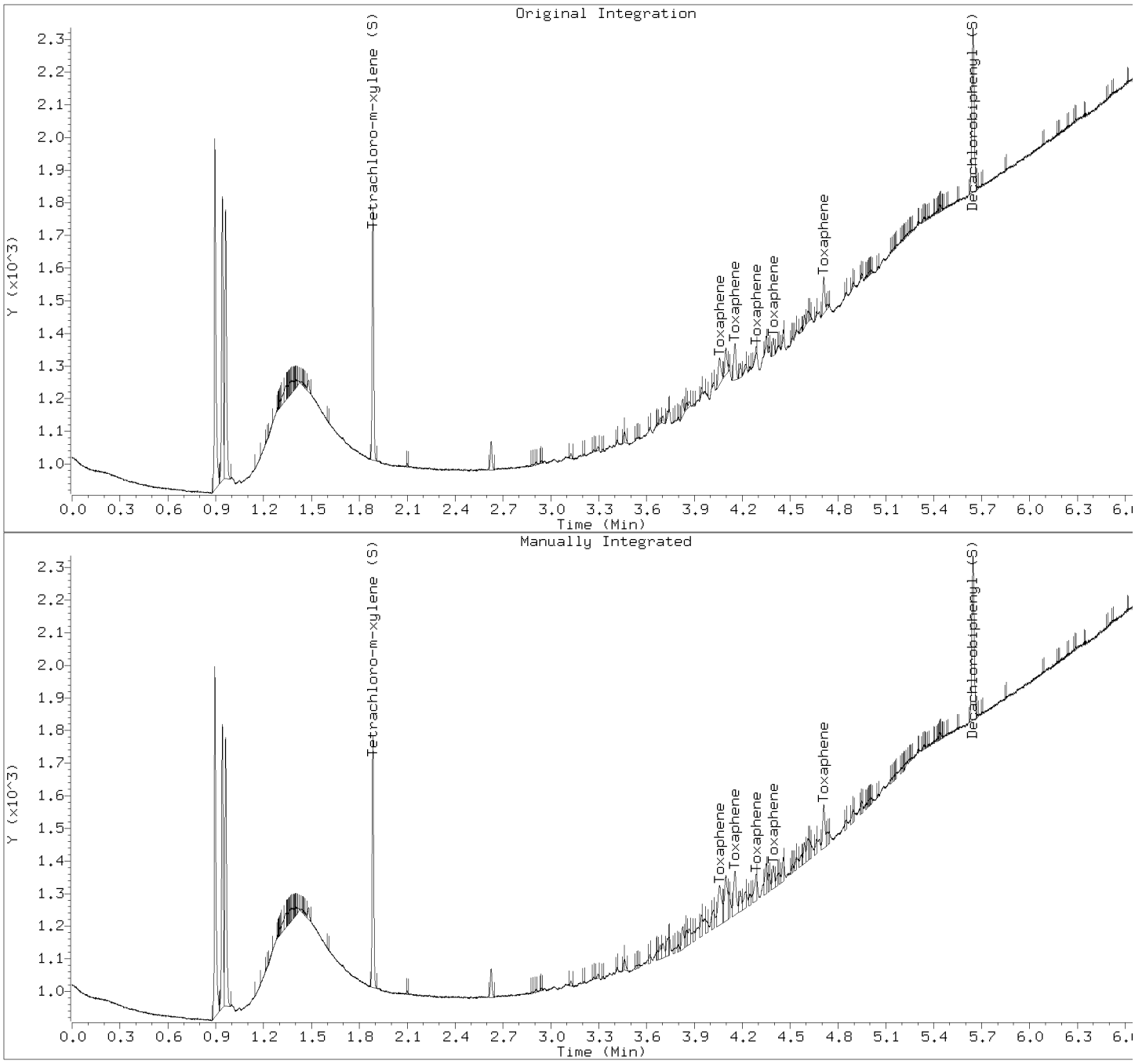
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 27-JUN-2019 14:54 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	93	189
Toxaphene	109	164
Toxaphene	15	85
Toxaphene	38	64
Toxaphene	90	129
Tetrachloro-m-xylene (S)	521	521
Decachlorobiphenyl (S)	517	517

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.062	1	1	1.000	0.0396		
0.209	1	2	1.980	0.0793		
0.481	1	2	1.653	0.0793		
0.730	1	2	1.527	0.0793		
0.866	3	8	3.187	0.3173		
0.873	5	18	3.696	0.7140		
0.878	288	853	2.957	33.8378		
0.909	1	3	2.400	0.1190		
0.948	2	3	1.948	0.1190		
0.981	186	251	1.347	9.9563		
1.010	169	266	1.571	10.5513		
1.282	1	2	1.536	0.0793		
1.306	1	2	1.852	0.0793		
1.357	1	3	2.885	0.1190		
1.366	1	3	2.941	0.1190		
1.399	1	3	2.970	0.1190		
1.419	2	3	1.724	0.1190		
1.910	1	4	3.226	0.1586		
2.359	193	258	1.335	10.2340	$ 1 Tetrachloro-m-xylene (S)	
3.089	3	6	2.207	0.2380		
3.465	2	5	2.008	0.1983		
3.705	6	9	1.415	0.3570		
3.767	4	4	0.995	0.1586		
3.880	5	7	1.331	0.2776		
3.918	9	13	1.404	0.5156		
4.007	3	7	2.167	0.2776		
4.009	2	8	4.545	0.3173		
4.115	8	13	1.544	0.5156		
4.178	12	18	1.462	0.7140		
4.200	14	22	1.618	0.8726		
4.248	9	13	1.526	0.5156		
4.283	12	12	1.038	0.4760		
4.331	44	33	0.750	1.3090		
4.368	32	30	0.943	1.1900		
4.384	16	31	1.973	1.2296		
4.388	16	33	2.110	1.3090		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.408	58	40	0.686	1.5866	23 Toxaphene	RT
4.483	11	15	1.427	0.5950		
4.500	15	20	1.298	0.7933		
4.528	20	27	1.328	1.0710		
4.567	34	34	1.011	1.3486	23 Toxaphene	RT
4.609	28	38	1.362	1.5073	23 Toxaphene	RT
4.718	23	25	1.085	0.9916		
4.768	59	42	0.716	1.6660	23 Toxaphene	RT
4.782	4	15	3.448	0.5950		
4.824	18	29	1.618	1.1503		
4.826	8	29	3.432	1.1503		
4.858	8	15	1.882	0.5950		
4.862	4	14	3.889	0.5553		
4.901	16	17	1.081	0.6743		
5.006	7	11	1.652	0.4363		
5.023	8	16	1.925	0.6346		
5.055	15	24	1.587	0.9520		
5.098	8	18	2.123	0.7140		
5.104	6	17	2.760	0.6743		
5.143	29	37	1.295	1.4676	23 Toxaphene	RT
5.224	4	8	1.869	0.3173		
5.546	11	28	2.550	1.1106		
5.552	13	28	2.212	1.1106		
6.032	1	2	1.653	0.0793		
6.335	11	18	1.595	0.7140	$ 24 Decachlorobiphenyl (S)	
6.517	1	3	2.939	0.1190		
	1478	2521		100.000		

Total unknown % height = 81.5

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 14:54
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90773:10
Misc Info : 15737,TOX
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOX.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
23 Toxaphene					CAS #: 8001-35-2			
4.408	4.408	0.000	58	0.10000	0.100	0.00- 20.00	100.00(M)	RT
4.566	4.566	0.000	33	0.10000	0.100	0.00- 20.00	57.72	RT
4.609	4.609	0.000	27	0.10000	0.100	0.00- 20.00	47.87	RT
4.768	4.768	0.000	58	0.10000	0.100	0.00- 20.00	100.72	RT
5.143	5.143	0.000	28	0.10000	0.100	0.00- 20.00	49.04	RT
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	193	0.01400	0.0109			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.334	0.001	11	0.01400	0.000822			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,TOX

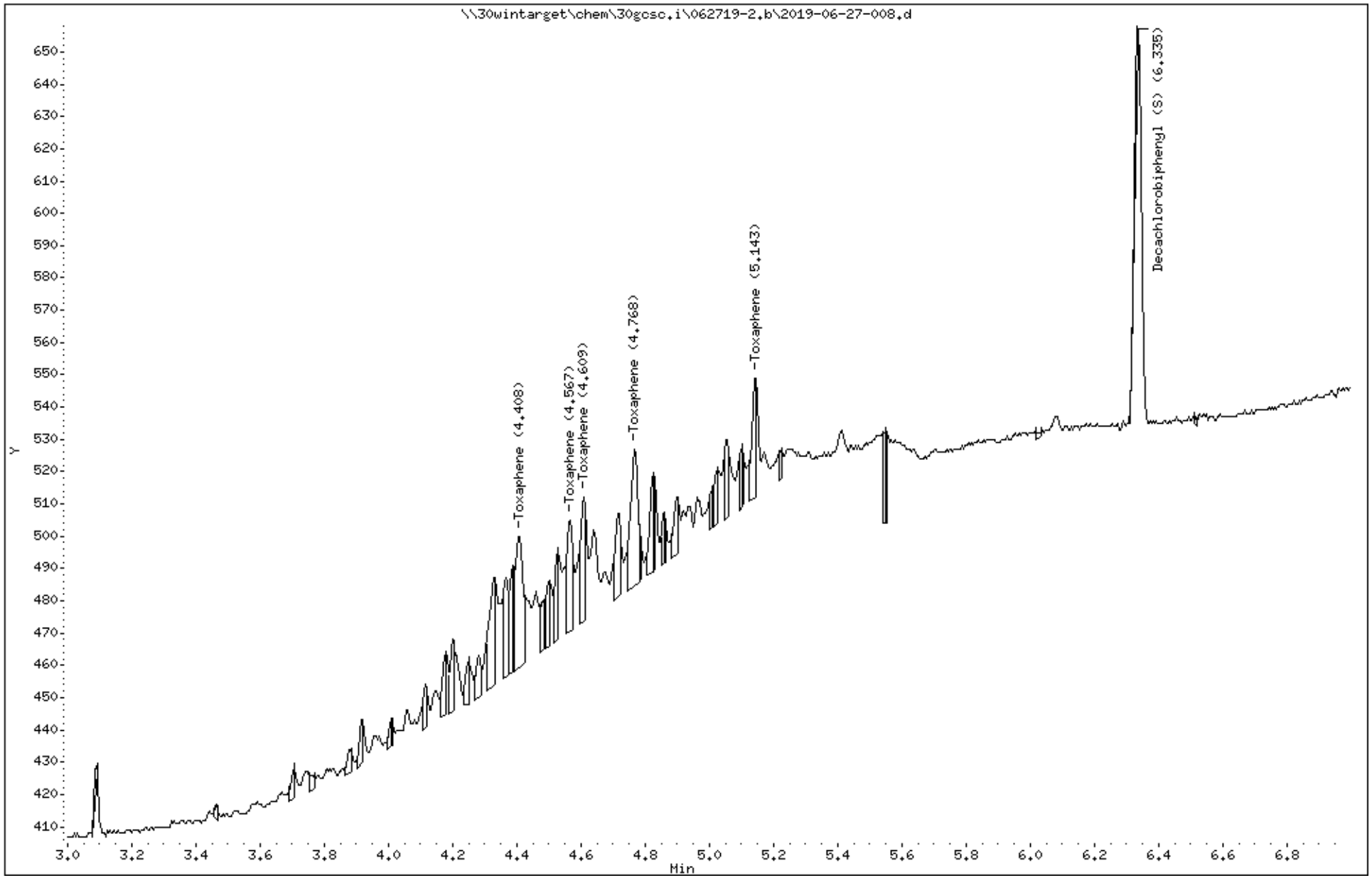
Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
8001-35-2	Toxaphene		
	Peak found at 4.408	0.100	
	Peak found at 4.567	0.100	
	Peak found at 4.609	0.100	
	Peak found at 4.768	0.100	
	Peak found at 5.143	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0109	
	Decachlorobiphenyl (S)	0.000822	

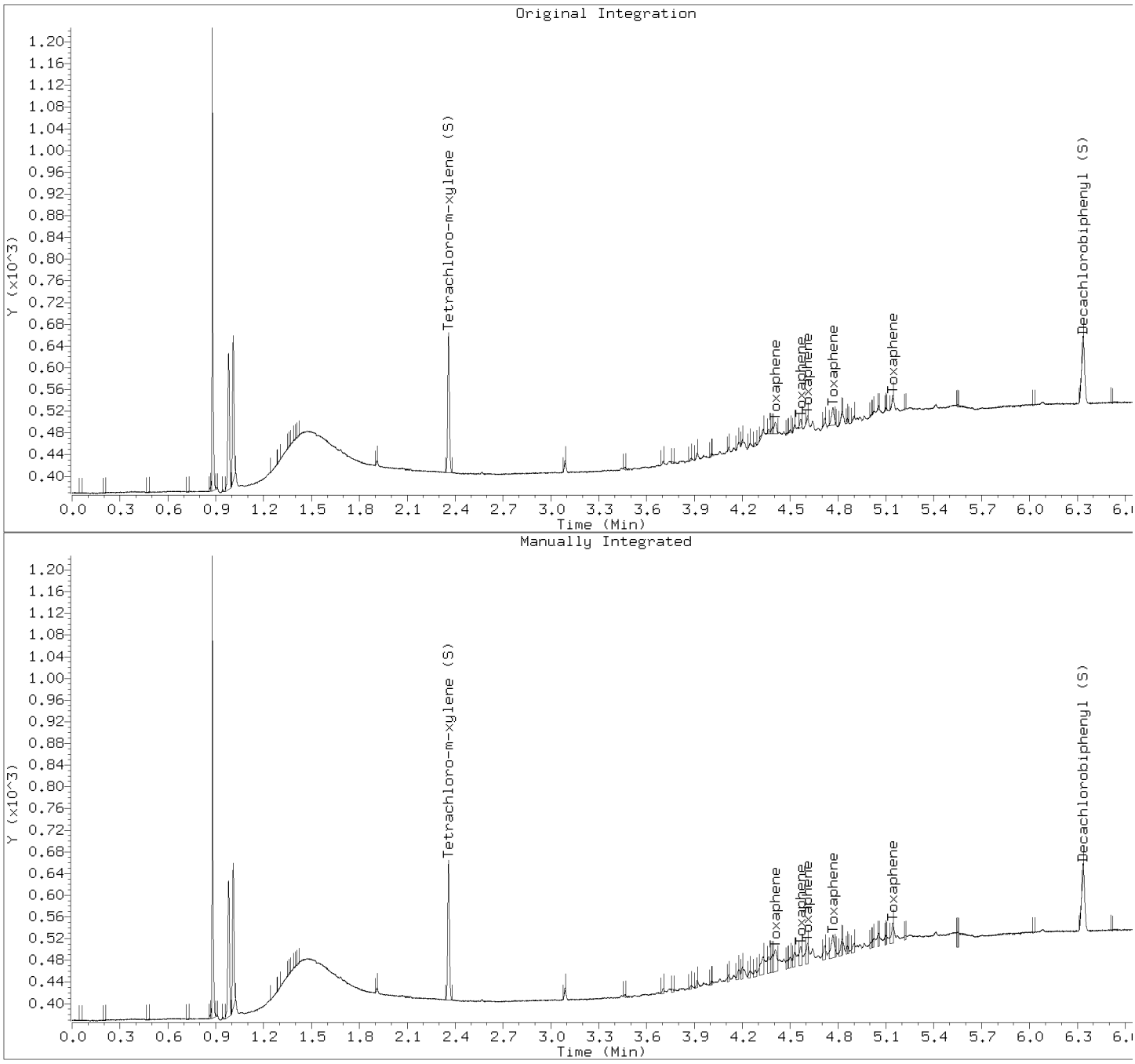
Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-008.d
Date : 27-JUN-2019 14:54
Client ID: CAL2S
Sample Info: CAL2S, 90773:10

Instrument: 30gcsc.i

Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-008.d (ManInt: TOX.sub Orig: TOX.sub)
Injection Date: 27-JUN-2019 14:54 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Toxaphene	23	58
Toxaphene	10	33
Toxaphene	3	27
Toxaphene	37	58
Toxaphene	2	28
Tetrachloro-m-xylene (S)	193	193
Decachlorobiphenyl (S)	11	11

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	891	1290	1.448	12.9105		
0.942	753	977	1.297	9.7739		
0.963	779	926	1.188	9.2637		
0.996	7	30	4.418	0.3001		
1.001	17	31	1.838	0.3101		
1.016	31	38	1.231	0.3801		
1.044	3	8	3.065	0.0800		
1.178	2	5	2.038	0.0500		
1.240	9	19	2.008	0.1900		
1.275	2	11	5.288	0.1100		
1.289	10	18	1.798	0.1800		
1.316	37	27	0.739	0.2701		
1.331	23	35	1.493	0.3501		
1.334	9	41	4.515	0.4101		
1.339	14	39	2.743	0.3901		
1.343	7	35	4.788	0.3501		
1.349	15	35	2.352	0.3501		
1.355	5	32	6.015	0.3201		
1.359	7	31	4.354	0.3101		
1.367	14	32	2.225	0.3201		
1.373	12	34	2.810	0.3401		
1.377	12	31	2.541	0.3101		
1.385	6	23	3.746	0.2300		
1.388	5	22	4.731	0.2200		
1.393	6	18	2.871	0.1800		
1.400	3	16	4.706	0.1600		
1.406	3	12	4.027	0.1200		
1.440	3	8	2.454	0.0800		
1.448	4	8	1.887	0.0800		
1.458	8	12	1.478	0.1200		
1.472	2	15	6.383	0.1500		
1.482	30	39	1.288	0.3901		
1.498	4	11	2.965	0.1100		
1.505	4	11	2.857	0.1100		
1.512	2	9	3.982	0.0900		
1.520	3	8	2.484	0.0800		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.699	5	10	2.188	0.1000		
1.885	467	682	1.459	6.8227	$ 1 Tetrachloro-m-xylene (S)	
1.920	63	91	1.452	0.9103		
2.099	3	9	3.191	0.0900		
2.102	3	9	3.477	0.0900		
2.150	23	33	1.414	0.3301		
2.191	4	9	2.143	0.0900		
2.415	19	27	1.387	0.2701		
2.498	5	13	2.735	0.1300		
2.555	10	14	1.351	0.1400		
2.564	2	8	3.604	0.0800		
2.593	206	275	1.332	2.7511	22 Chlordane (Technical)	RT
2.624	62	71	1.140	0.7102		
2.712	298	384	1.288	3.8415	22 Chlordane (Technical)	RT
2.770	23	33	1.463	0.3301		
2.789	5	15	3.074	0.1500		
2.792	5	16	3.486	0.1600		
2.925	20	27	1.320	0.2701		
2.947	4	16	4.188	0.1600		
2.949	9	18	2.107	0.1800		
3.006	211	188	0.892	1.8807	22 Chlordane (Technical)	RT
3.048	7	13	1.912	0.1300		
3.085	47	56	1.179	0.5602		
3.103	2	10	4.651	0.1000		
3.106	3	11	4.000	0.1100		
3.128	2	5	2.058	0.0500		
3.149	13	20	1.571	0.2000		
3.236	28	37	1.312	0.3701		
3.293	110	134	1.219	1.3405		
3.311	9	25	2.867	0.2501		
3.330	95	127	1.331	1.2705		
3.373	45	61	1.346	0.6102		
3.436	624	720	1.154	7.2028		
3.447	265	485	1.833	4.8519		
3.467	153	186	1.215	1.8607		
3.500	476	621	1.304	6.2124	22 Chlordane (Technical)	RT
3.529	20	25	1.228	0.2501		
3.603	4	9	2.368	0.0900		
3.644	2	6	2.410	0.0600		
3.683	26	38	1.443	0.3801		
3.729	53	73	1.371	0.7302		
3.778	24	28	1.171	0.2801		
3.878	5	12	2.272	0.1200		
3.911	8	12	1.485	0.1200		
3.932	16	21	1.277	0.2100		
3.941	4	12	3.061	0.1200		
3.978	95	115	1.205	1.1504		
4.001	11	18	1.684	0.1800		
4.035	3	13	4.561	0.1300		
4.037	3	13	4.610	0.1300		
4.052	3	11	4.348	0.1100		
4.059	3	8	2.614	0.0800		
4.085	9	17	1.887	0.1700		
4.090	4	18	4.082	0.1800		
4.104	18	30	1.649	0.3001		
4.107	5	29	6.402	0.2901		
4.110	13	32	2.443	0.3201		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.117	7	29	3.978	0.2901		
4.122	4	18	4.724	0.1800		
4.126	3	13	4.290	0.1300		
4.138	4	16	3.747	0.1600		
4.159	173	200	1.157	2.0008	22 Chlordane (Technical)	RT
4.303	2	6	2.419	0.0600		
4.386	10	30	3.135	0.3001		
4.390	13	30	2.360	0.3001		
4.418	5	9	1.708	0.0900		
4.879	2	6	2.479	0.0600		
4.986	3	7	2.652	0.0700		
5.014	4	6	1.531	0.0600		
5.161	3	6	2.308	0.0600		
5.203	2	4	1.896	0.0400		
5.235	2	8	3.239	0.0800		
5.262	2	7	2.954	0.0700		
5.355	3	8	2.847	0.0800		
5.360	2	10	4.329	0.1000		
5.370	2	8	3.846	0.0800		
5.438	16	21	1.296	0.2100		
5.447	4	16	3.980	0.1600		
5.457	3	9	3.543	0.0900		
5.463	2	10	4.098	0.1000		
5.473	3	12	4.138	0.1200		
5.527	2	6	2.469	0.0600		
5.533	2	8	3.960	0.0800		
5.646	474	459	0.969	4.5918	$ 24 Decachlorobiphenyl (S)	
5.945	2	7	2.905	0.0700		
6.091	2	11	5.140	0.1100		
6.180	2	8	3.524	0.0800		
6.200	2	6	2.740	0.0600		
6.221	3	11	3.780	0.1100		
6.229	2	10	5.000	0.1000		
6.400	2	7	3.153	0.0700		
6.560	2	8	3.571	0.0800		
6.654	2	13	5.372	0.1300		
6.776	2	9	3.947	0.0900		
6.806	2	8	3.636	0.0800		
	7182	9996		100.000		

Total unknown % height = 71.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
2.593	2.592	0.001	206	0.10000	0.100	80.00- 120.00	100.00(M)	RT
2.711	2.711	0.000	298	0.10000	0.100	124.66- 164.66	144.38	RT
3.006	3.006	0.000	210	0.10000	0.100	81.94- 121.94	102.12	RT
3.500	3.500	0.000	476	0.10000	0.100	211.07- 251.07	230.63	RT
4.159	4.159	0.000	172	0.10000	0.100	63.50- 103.50	83.74	RT
Average of Peak Amounts =				0.10000				
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	467	0.01400	0.00978			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.645	5.646	-0.001	473	0.01400	0.0100			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,CHLOR

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
	Chlordane (Technical)		
	Peak found at 2.593	0.100	
	Peak found at 2.712	0.100	
	Peak found at 3.006	0.100	
	Peak found at 3.500	0.100	
	Peak found at 4.159	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.00978	
	Decachlorobiphenyl (S)	0.0100	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-009.d

Date : 27-JUN-2019 15:04

Client ID: CAL2S

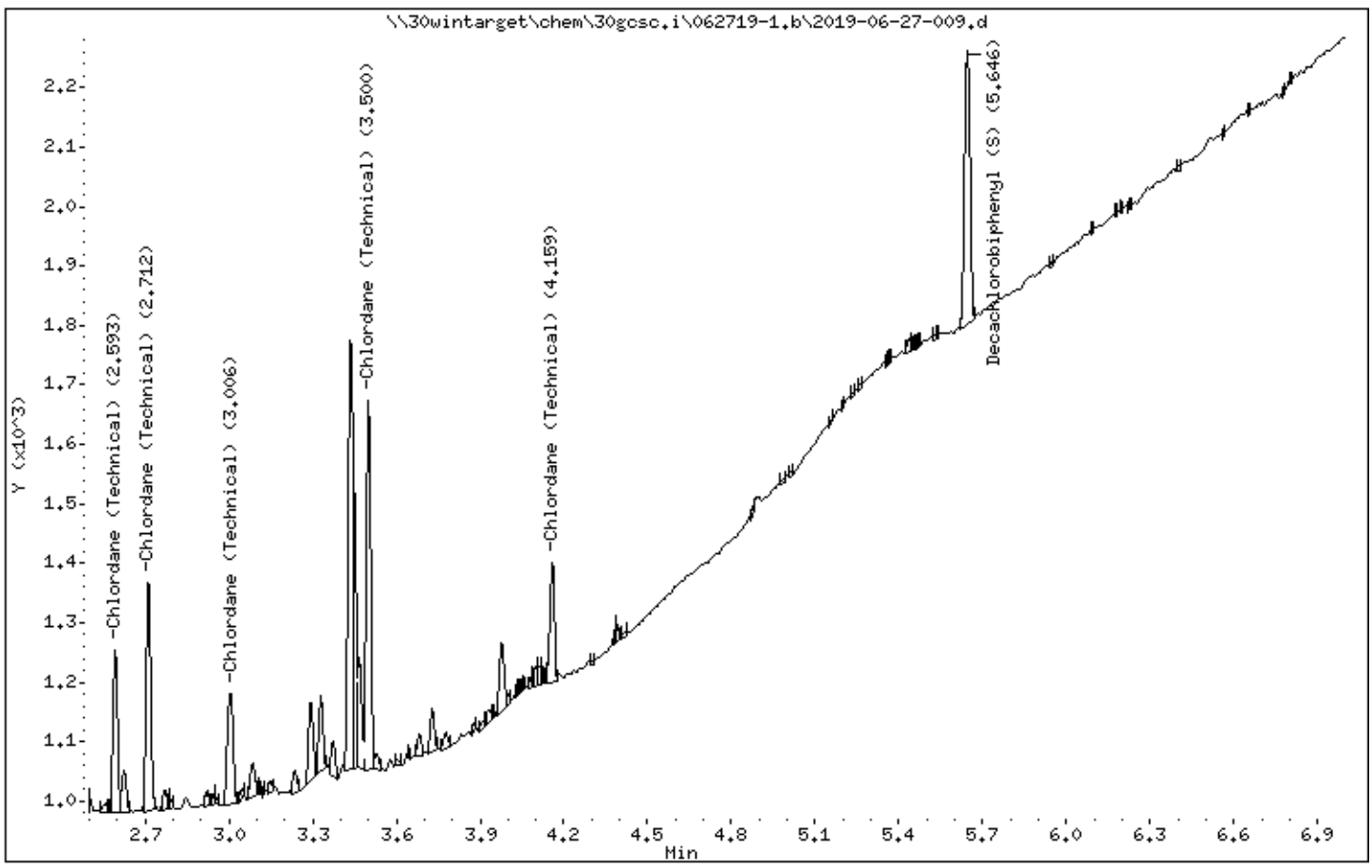
Instrument: 30gcsc.i

Sample Info: CAL2S, 90771:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



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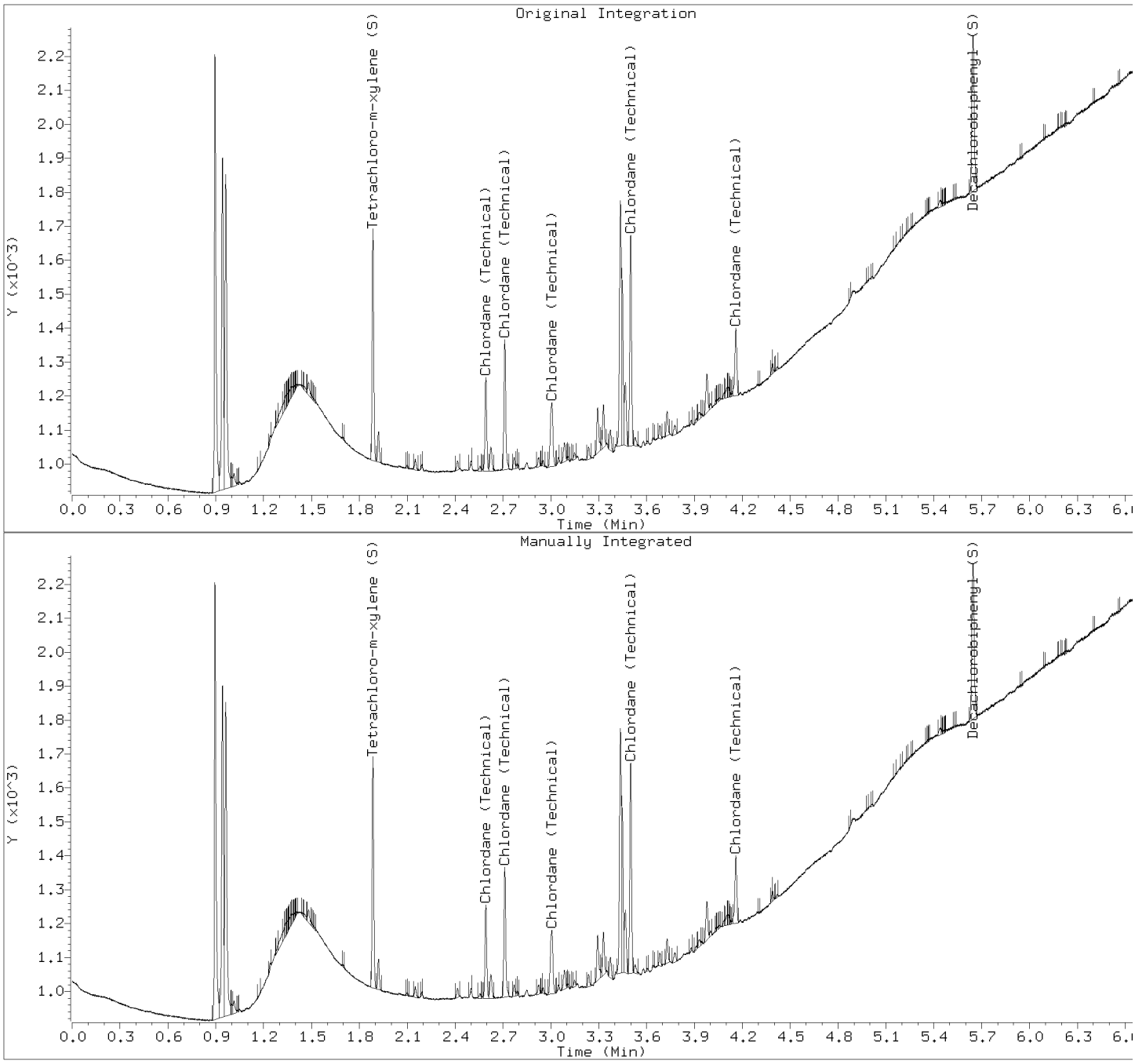
Injection Date: 27-JUN-2019 15:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	206	206
Chlordane (Technical)	298	298
Chlordane (Technical)	210	210
Chlordane (Technical)	476	476
Chlordane (Technical)	172	172
Tetrachloro-m-xylene (S)	467	467
Decachlorobiphenyl (S)	473	473

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.866	3	7	2.422	0.2299		
0.879	343	978	2.847	32.1300		
0.950	3	3	1.020	0.0985		
0.981	224	288	1.286	9.4612		
1.010	190	285	1.504	9.3626		
1.073	2	4	2.020	0.1314		
1.166	1	3	2.542	0.0985		
1.375	2	3	1.293	0.0985		
1.505	1	4	2.703	0.1314		
1.913	2	4	2.007	0.1314		
2.359	181	241	1.329	7.9172	$ 1 Tetrachloro-m-xylene (S)	
2.644	3	5	1.645	0.1642		
3.107	91	100	1.105	3.2851	22 Chlordane (Technical)	RT
3.249	101	124	1.225	4.0735	22 Chlordane (Technical)	RT
3.285	2	4	2.649	0.1314		
3.432	1	5	4.348	0.1642		
3.475	67	86	1.276	2.8252	22 Chlordane (Technical)	RT
3.526	2	4	2.632	0.1314		
3.655	7	12	1.683	0.3942		
3.660	1	10	7.042	0.3285		
3.669	4	6	1.538	0.1971		
3.789	4	12	2.885	0.3942		
3.834	8	10	1.247	0.3285		
3.877	1	3	2.941	0.0985		
3.936	15	19	1.252	0.6241		
3.983	246	255	1.035	8.3771		
4.020	181	214	1.185	7.0302	22 Chlordane (Technical)	RT
4.045	122	144	1.182	4.7306		
4.195	3	7	2.250	0.2299		
4.353	1	4	3.221	0.1314		
4.481	3	9	2.581	0.2956		
4.522	3	4	1.569	0.1314		
4.583	2	4	2.162	0.1314		
4.616	47	57	1.223	1.8725		
4.740	1	2	1.652	0.0657		
4.860	1	4	3.279	0.1314		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.547	1	4	3.419	0.1314		
6.336	153	114	0.744	3.7450	$ 24 Decachlorobiphenyl (S)	
6.804	1	2	1.739	0.0657		
	2026	3044		100.000		

Total unknown % height = 71.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Lab Smp Id: CAL2S Client Smp ID: CAL2S
Inj Date : 27-JUN-2019 15:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2s, 90771:10
Misc Info : 15737,CHLOR
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLOR.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
22 Chlordane (Technical)					CAS #:			
3.106	3.106	0.000	90	0.10000	0.100	0.00- 20.00	100.00(M)	RT
3.249	3.249	0.000	101	0.10000	0.100	0.00- 20.00	111.85	RT
3.475	3.475	0.000	67	0.10000	0.100	0.00- 20.00	74.43	RT
4.019	4.019	0.000	180	0.10000	0.100	0.00- 20.00	199.40	RT
4.019	4.019	0.000	180	0.10000	0.100	0.00- 20.00	198.83	RT
Average of Peak Amounts =					0.10000			
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	181	0.01400	0.0103			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.336	6.334	0.002	153	0.01400	0.0102			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.
:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

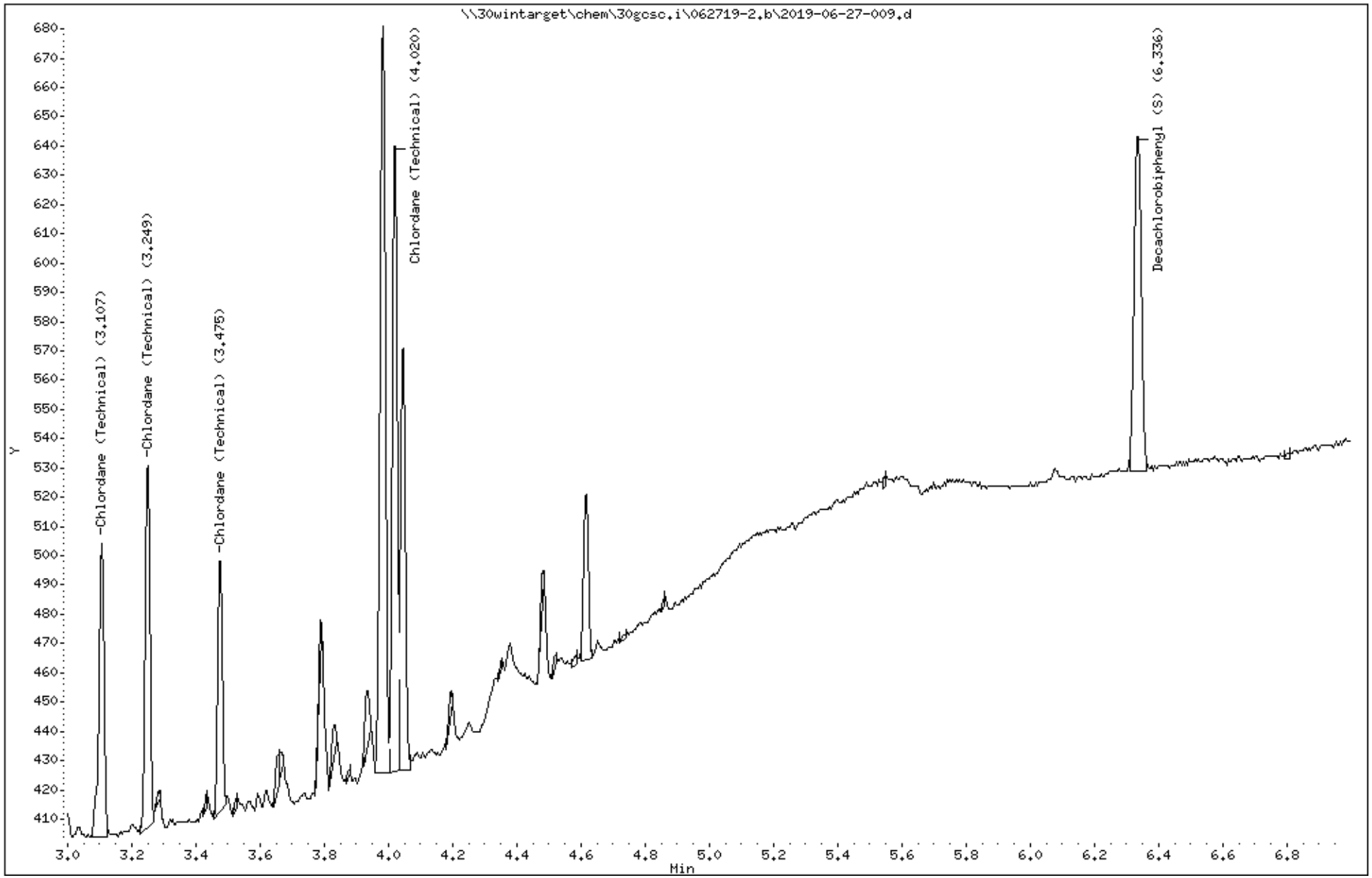
Client Name:
Lab Smp Id: CAL2S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,CHLOR

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2S
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

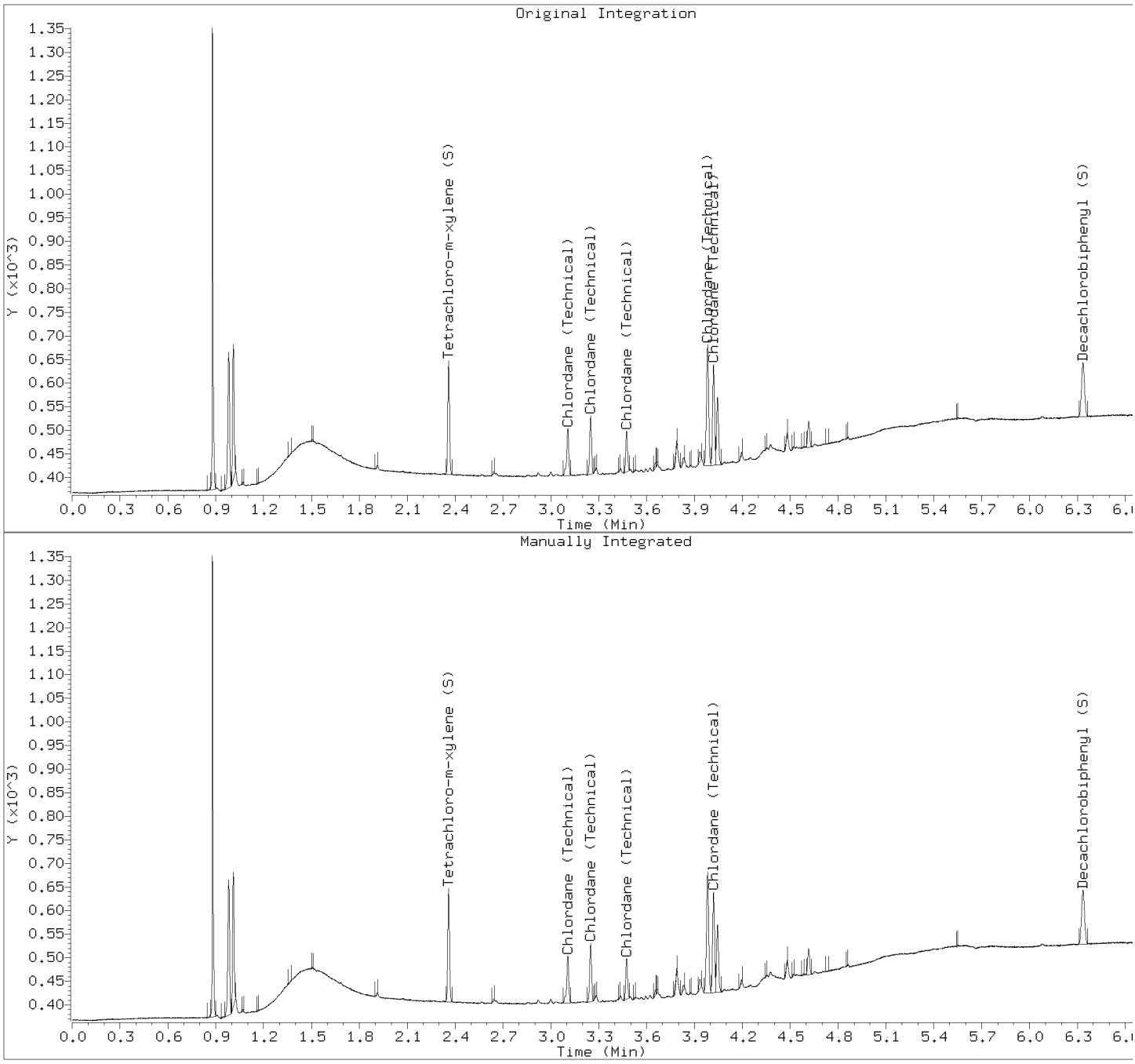
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
	Chlordane (Technical)		
	Peak found at 3.107	0.100	
	Peak found at 3.249	0.100	
	Peak found at 3.475	0.100	
	Peak found at 4.020	0.100	
	Peak found at 4.020	0.100	
	Average of Peak Amounts =	0.100	
	Tetrachloro-m-xylene (S)	0.0103	
	Decachlorobiphenyl (S)	0.0102	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-009.d
Date : 27-JUN-2019 15:04
Client ID: CAL2S
Sample Info: CAL2S, 90771:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-009.d (ManInt: CHLOR.sub Orig: CHLOR.sub)
Injection Date: 27-JUN-2019 15:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
Chlordane (Technical)	90	90
Chlordane (Technical)	101	101
Chlordane (Technical)	67	67
Chlordane (Technical)	246	180
Chlordane (Technical)	180	180
Tetrachloro-m-xylene (S)	181	181
Decachlorobiphenyl (S)	153	153

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.298	2	6	2.715	0.0311			
0.879	4	19	4.535	0.0985			
0.887	33	99	3.007	0.5133			
0.911	194	163	0.842	0.8452			
0.942	315	370	1.174	1.9185			
0.962	338	382	1.132	1.9808			
1.001	11	22	1.982	0.1140			
1.005	6	20	3.339	0.1037			
1.013	13	21	1.679	0.1088			
1.304	5	9	1.987	0.0466			
1.311	5	13	2.686	0.0674			
1.317	3	13	3.939	0.0674			
1.323	6	18	2.862	0.0933			
1.332	9	21	2.346	0.1088			
1.340	11	24	2.208	0.1244			
1.343	4	25	6.112	0.1296			
1.349	8	24	2.978	0.1244			
1.357	12	27	2.265	0.1400			
1.362	9	27	3.086	0.1400			
1.371	9	25	2.697	0.1296			
1.373	6	27	4.419	0.1400			
1.376	5	24	4.486	0.1244			
1.382	8	24	3.077	0.1244			
1.386	5	21	4.506	0.1088			
1.393	4	16	3.738	0.0829			
1.400	5	14	2.574	0.0725			
1.402	3	13	3.927	0.0674			
1.408	4	11	2.997	0.0570			
1.885	520	756	1.455	3.9201	$	1 Tetrachloro-m-xylene (S)	
2.100	2	7	3.415	0.0362			
2.238	337	488	1.446	2.5304		2 alpha-BHC	
2.311	2	5	2.415	0.0259			
2.473	315	443	1.406	2.2971		3 gamma-BHC (Lindane)	
2.617	152	207	1.361	1.0733		4 beta-BHC	
2.686	2	6	2.500	0.0311			
2.711	344	448	1.301	2.3230		5 Heptachlor	
2.812	303	410	1.352	2.1260		6 delta-BHC	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.881	2	7	3.125	0.0362		
2.885	2	6	2.941	0.0311		
2.923	289	382	1.322	1.9808	7 Aldrin	
3.058	4	8	2.015	0.0414		
3.280	294	376	1.280	1.9497	8 Heptachlor epoxide	
3.325	8	13	1.616	0.0674		
3.414	3	13	4.319	0.0674		
3.416	3	14	4.106	0.0725		
3.421	3	17	6.391	0.0881		
3.436	286	363	1.267	1.8822	9 gamma-Chlordane	
3.500	294	359	1.220	1.8615	10 alpha-Chlordane	
3.545	272	348	1.279	1.8045	11 Endosulfan I	
3.621	531	660	1.243	3.4223	12 4,4'-DDE	
3.661	8	15	1.834	0.0777		
3.738	586	727	1.241	3.7697	13 Dieldrin	
3.835	5	8	1.724	0.0414		
3.870	2	9	4.072	0.0466		
3.875	2	14	5.761	0.0725		
3.877	8	17	2.076	0.0881		
3.957	504	623	1.236	3.2304	14 Endrin	
4.016	433	525	1.214	2.7223	15 4,4'-DDD	
4.137	500	601	1.202	3.1164	16 Endosulfan II	
4.207	470	575	1.223	2.9815	17 4,4'-DDT	
4.290	430	507	1.180	2.6289	18 Endrin aldehyde	
4.428	491	606	1.235	3.1423	19 Endosulfan sulfate	
4.608	2	7	3.070	0.0362		
4.632	2	8	3.865	0.0414		
4.663	1247	1441	1.155	7.4844	20 Methoxychlor	
4.693	4	17	3.935	0.0881		
4.698	2	12	5.455	0.0622		
4.718	5	8	1.688	0.0414		
4.729	2	6	2.564	0.0311		
4.733	3	9	3.147	0.0466		
4.749	3	9	3.214	0.0466		
4.834	2	15	6.098	0.0777		
4.851	444	528	1.190	2.7378	21 Endrin ketone	
4.875	3	12	4.332	0.0622		
4.880	3	11	3.943	0.0570		
4.890	6	14	2.491	0.0725		
4.897	4	14	3.955	0.0725		
4.901	4	14	3.627	0.0725		
4.905	3	15	4.451	0.0777		
4.911	3	13	4.140	0.0674		
4.914	5	13	2.737	0.0674		
4.924	4	15	3.348	0.0777		
4.930	3	14	4.000	0.0725		
4.938	2	12	6.000	0.0622		
4.944	3	12	4.332	0.0622		
4.948	3	13	4.610	0.0674		
4.956	3	14	4.575	0.0725		
4.962	7	16	2.370	0.0829		
4.967	3	15	5.415	0.0777		
4.969	2	16	7.048	0.0829		
4.975	4	19	4.328	0.0985		
4.980	7	20	2.954	0.1037		
4.983	3	21	7.692	0.1088		
4.987	7	20	2.837	0.1037		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.994	6	21	3.584	0.1088		
4.997	5	20	4.202	0.1037		
5.003	5	22	4.762	0.1140		
5.006	5	25	5.208	0.1296		
5.009	3	26	7.831	0.1348		
5.012	7	26	3.863	0.1348		
5.018	6	24	4.068	0.1244		
5.021	5	24	4.396	0.1244		
5.026	5	19	4.113	0.0985		
5.032	5	18	3.502	0.0933		
5.036	3	16	4.819	0.0829		
5.041	3	13	4.319	0.0674		
5.045	5	15	2.953	0.0777		
5.051	7	19	2.568	0.0985		
5.056	3	19	6.507	0.0985		
5.062	6	21	3.393	0.1088		
5.066	7	22	2.937	0.1140		
5.073	9	24	2.817	0.1244		
5.081	9	27	3.007	0.1400		
5.084	8	29	3.690	0.1503		
5.091	7	28	4.160	0.1451		
5.094	7	30	4.580	0.1555		
5.100	8	28	3.723	0.1451		
5.105	19	32	1.717	0.1659		
5.114	17	33	1.998	0.1711		
5.126	14	37	2.652	0.1918		
5.129	5	38	7.708	0.1970		
5.137	23	43	1.873	0.2229		
5.142	16	42	2.625	0.2177		
5.149	14	46	3.212	0.2385		
5.156	17	44	2.575	0.2281		
5.167	26	48	1.826	0.2488		
5.172	15	48	3.245	0.2488		
5.175	6	49	8.877	0.2540		
5.178	15	49	3.304	0.2540		
5.183	18	50	2.749	0.2592		
5.189	9	51	5.782	0.2644		
5.192	8	51	6.505	0.2644		
5.195	15	50	3.234	0.2592		
5.203	17	54	3.243	0.2800		
5.205	17	54	3.105	0.2800		
5.213	17	54	3.096	0.2800		
5.219	16	55	3.537	0.2851		
5.227	28	56	1.991	0.2903		
5.231	7	55	7.422	0.2851		
5.237	24	57	2.417	0.2955		
5.240	7	55	7.422	0.2851		
5.245	23	56	2.417	0.2903		
5.250	7	55	7.473	0.2851		
5.253	21	57	2.671	0.2955		
5.260	22	57	2.583	0.2955		
5.266	10	56	5.889	0.2903		
5.272	17	53	3.185	0.2748		
5.278	18	54	2.992	0.2800		
5.282	14	56	3.952	0.2903		
5.285	13	57	4.305	0.2955		
5.288	6	55	8.540	0.2851		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.293	13	56	4.275	0.2903		
5.294	9	58	6.502	0.3007		
5.297	12	58	4.758	0.3007		
5.301	10	57	5.740	0.2955		
5.306	20	56	2.844	0.2903		
5.310	9	57	6.455	0.2955		
5.314	16	58	3.708	0.3007		
5.318	17	59	3.533	0.3059		
5.324	16	56	3.419	0.2903		
5.330	19	59	3.046	0.3059		
5.335	20	60	3.041	0.3111		
5.340	28	61	2.211	0.3163		
5.347	14	60	4.415	0.3111		
5.350	5	55	10.185	0.2851		
5.353	13	56	4.220	0.2903		
5.357	17	57	3.428	0.2955		
5.362	13	58	4.306	0.3007		
5.365	7	56	8.421	0.2903		
5.375	35	57	1.643	0.2955		
5.381	29	57	1.983	0.2955		
5.387	11	56	5.128	0.2903		
5.392	20	57	2.882	0.2955		
5.402	31	60	1.949	0.3111		
5.404	16	62	3.815	0.3214		
5.410	13	59	4.387	0.3059		
5.416	33	57	1.703	0.2955		
5.429	29	60	2.102	0.3111		
5.438	32	67	2.113	0.3474		
5.441	25	65	2.621	0.3370		
5.447	7	56	8.537	0.2903		
5.450	25	57	2.269	0.2955		
5.457	7	47	6.528	0.2437		
5.463	22	47	2.095	0.2437		
5.469	17	45	2.699	0.2333		
5.477	11	44	4.026	0.2281		
5.479	5	43	8.740	0.2229		
5.481	10	44	4.476	0.2281		
5.487	15	44	3.010	0.2281		
5.491	5	41	7.565	0.2126		
5.497	15	41	2.750	0.2126		
5.504	17	42	2.455	0.2177		
5.507	9	39	4.305	0.2022		
5.512	7	40	5.857	0.2074		
5.515	7	38	5.213	0.1970		
5.518	11	40	3.795	0.2074		
5.525	13	37	2.757	0.1918		
5.530	6	35	5.814	0.1814		
5.532	8	36	4.506	0.1866		
5.536	12	36	2.958	0.1866		
5.542	4	32	7.767	0.1659		
5.545	9	34	3.790	0.1763		
5.550	8	33	4.280	0.1711		
5.554	12	34	2.801	0.1763		
5.561	5	28	5.821	0.1451		
5.566	7	28	3.977	0.1451		
5.568	5	33	7.082	0.1711		
5.572	6	28	4.674	0.1451		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.575	5	29	6.170	0.1503		
5.580	12	26	2.163	0.1348		
5.586	9	23	2.614	0.1192		
5.594	3	19	5.460	0.0985		
5.597	4	22	5.598	0.1140		
5.602	10	25	2.444	0.1296		
5.612	5	18	3.346	0.0933		
5.616	5	19	4.025	0.0985		
5.620	3	19	6.507	0.0985		
5.646	553	509	0.920	2.6393	$ 24 Decachlorobiphenyl (S)	
5.674	3	14	4.348	0.0725		
5.682	2	10	4.149	0.0518		
5.712	3	8	2.759	0.0414		
5.751	2	8	3.670	0.0414		
5.875	2	9	4.478	0.0466		
6.075	3	11	3.406	0.0570		
6.115	2	9	3.734	0.0466		
6.205	2	8	3.478	0.0414		
6.224	2	6	2.679	0.0311		
6.406	2	11	5.500	0.0570		
6.418	3	10	3.185	0.0518		
6.425	2	9	4.500	0.0466		
6.532	4	12	2.679	0.0622		
6.830	2	8	3.571	0.0414		
6.984	3	10	3.937	0.0518		
	12361	19285		100.000		

Total unknown % height = 38.4

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	519	0.01000	0.0109			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	337	0.00500	0.00495			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.472	2.472	0.000	315	0.00500	0.00502			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	152	0.00500	0.00513			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	303	0.00500	0.00497			
5 Heptachlor						CAS #: 319-86-8		
2.710	2.711	-0.001	344	0.00500	0.00526			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	289	0.00500	0.00503			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.279	3.279	0.000	293	0.00500	0.00515			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	286	0.00500	0.00504			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	294	0.00500	0.00527			
11 Endosulfan I						CAS #: 959-98-8		
3.544	3.544	0.000	272	0.00500	0.00512			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	530	0.01000	0.00997			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	585	0.01000	0.0102			
14 Endrin						CAS #: 72-20-8		
3.956	3.957	-0.001	504	0.01000	0.0101			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	432	0.01000	0.00973			
16 Endosulfan II						CAS #: 33213-65-9		
4.136	4.137	-0.001	499	0.01000	0.0102			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	470	0.01000	0.0100			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	429	0.01000	0.0102			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	490	0.01000	0.0102			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.662	0.001	1247	0.05000	0.0510			
21 Endrin ketone						CAS #: 53494-70-5		
4.850	4.850	0.000	443	0.01000	0.0104			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.646	-0.001	553	0.01000	0.0117			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00495	
58-89-9	gamma-BHC (Lindane)	0.00502	
319-85-7	beta-BHC	0.00513	
76-44-8	delta-BHC	0.00497	
319-86-8	Heptachlor	0.00526	
309-00-2	Aldrin	0.00503	
1024-57-3	Heptachlor epoxide	0.00515	
5103-74-2	gamma-Chlordane	0.00504	
5103-71-9	alpha-Chlordane	0.00527	
959-98-8	Endosulfan I	0.00512	
72-55-9	4,4'-DDE	0.00997	
60-57-1	Dieldrin	0.0102	
72-20-8	Endrin	0.0101	
72-54-8	4,4'-DDD	0.00973	
33213-65-9	Endosulfan II	0.0102	
50-29-3	4,4'-DDT	0.0100	
7421-36-3	Endrin aldehyde	0.0102	
1031-07-8	Endosulfan sulfate	0.0102	
72-43-5	Methoxychlor	0.0510	
53494-70-5	Endrin ketone	0.0104	
----------	Tetrachloro-m-xylene (S)	0.0109	
----------	Decachlorobiphenyl (S)	0.0117	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-010.d

Date : 27-JUN-2019 15:14

Client ID: CAL1

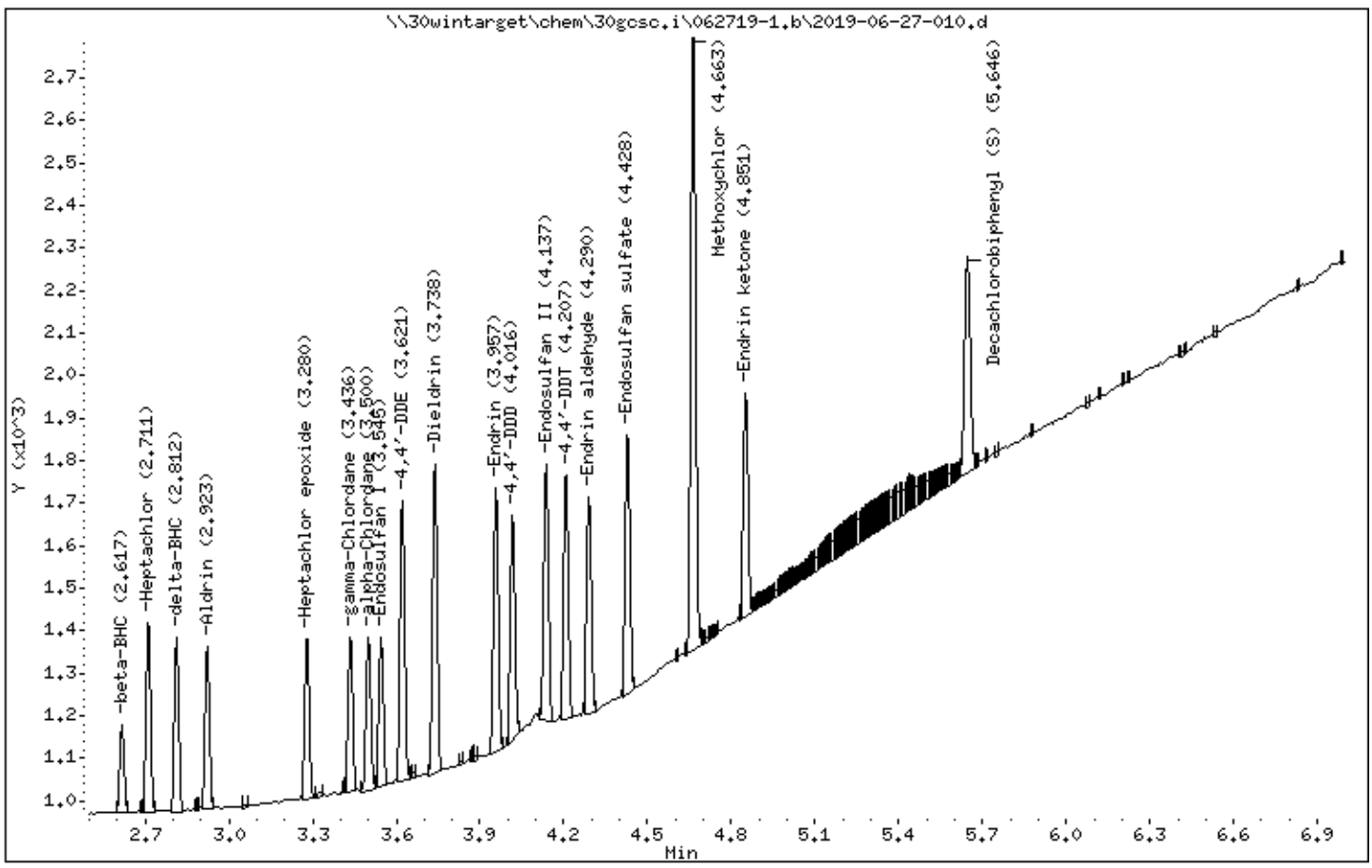
Instrument: 30gcsc.i

Sample Info: CAL1, 92175:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	337	337
beta-BHC	152	152
delta-BHC	303	303
gamma-BHC (Lindane)	315	315
Heptachlor	344	344
Aldrin	289	289
Heptachlor epoxide	293	293
Endosulfan I	272	272
Dieldrin	585	585
4,4'-DDE	530	530
Endrin	504	504
Endosulfan II	499	499
4,4'-DDD	432	432
Endosulfan sulfate	490	490
4,4'-DDT	470	470
Methoxychlor	1247	1247
Endrin ketone	443	443
Endrin aldehyde	429	429
alpha-Chlordane	294	294
gamma-Chlordane	286	286
Tetrachloro-m-xylene (S)	519	519
Decachlorobiphenyl (S)	553	553

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.872	2	10	4.274	0.2394			
0.878	14	65	4.796	1.5565			
0.902	18	24	1.315	0.5747			
0.913	29	27	0.937	0.6465			
0.951	3	5	1.628	0.1197			
0.980	55	77	1.391	1.8438			
1.010	57	92	1.616	2.2030			
1.335	1	3	2.703	0.0718			
1.371	5	4	0.875	0.0957			
1.381	2	6	2.715	0.1436			
1.388	2	4	2.597	0.0957			
1.414	1	3	2.290	0.0718			
1.446	1	3	2.586	0.0718			
1.475	1	3	2.459	0.0718			
2.359	191	257	1.344	6.1542	$	1 Tetrachloro-m-xylene (S)	
2.572	4	4	1.117	0.0957			
2.623	122	162	1.328	3.8793		2 alpha-BHC	
2.840	112	146	1.305	3.4961		3 gamma-BHC (Lindane)	
3.002	60	76	1.266	1.8199		4 beta-BHC	
3.187	114	145	1.276	3.4722		5 delta-BHC	
3.250	112	139	1.243	3.3285		6 Heptachlor	
3.339	1	3	2.885	0.0718			
3.478	104	128	1.233	3.0651		7 Aldrin	
3.562	1	2	1.961	0.0478			
3.771	108	125	1.157	2.9932		8 Heptachlor epoxide	
3.919	3	4	1.333	0.0957			
3.960	2	4	2.273	0.0957			
3.985	100	119	1.189	2.8496		9 gamma-Chlordane	
4.020	97	120	1.233	2.8735		10 alpha-Chlordane	
4.053	95	114	1.206	2.7298		11 Endosulfan I	
4.098	177	219	1.236	5.2442		12 4,4'-DDE	
4.183	2	5	2.155	0.1197			
4.227	196	234	1.196	5.6034		13 Dieldrin	
4.260	1	2	1.852	0.0478			
4.323	1	4	3.846	0.0957			
4.332	2	5	2.793	0.1197			
4.339	2	5	2.500	0.1197			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.390	168	193	1.146	4.6216		14 Endrin	
4.452	152	189	1.247	4.5258		15 4,4'-DDD	
4.562	176	206	1.169	4.9329		16 Endosulfan II	
4.636	151	176	1.164	4.2145		17 Endrin aldehyde	
4.662	104	129	1.239	3.0890		18 4,4'-DDT	
4.826	168	198	1.182	4.7413		19 Endosulfan sulfate	
4.924	1	4	2.759	0.0957			
4.948	369	428	1.159	10.2518		20 Methoxychlor	
5.126	149	164	1.100	3.9272		21 Endrin ketone	
5.554	2	4	1.681	0.0957			
6.023	1	3	2.128	0.0718			
6.085	1	4	3.101	0.0957			
6.337	172	127	0.740	3.0411	$	24 Decachlorobiphenyl (S)	
6.838	1	3	3.000	0.0718			
	3414	4176		100.000			

Total unknown % height = 9.14

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 27-JUN-2019 15:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal1, 92175:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:14 Cal File: 2019-06-27-010.d
Als bottle: 10 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	191	0.01000	0.0109			
2 alpha-BHC						CAS #: 319-84-6		
2.622	2.623	-0.001	121	0.00500	0.00502			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.839	2.840	-0.001	111	0.00500	0.00503			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	60	0.00500	0.00544			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	113	0.00500	0.00510			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	111	0.00500	0.00517			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	103	0.00500	0.00520			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	108	0.00500	0.00543			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.984	3.983	0.001	100	0.00500	0.00518			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.019	4.020	-0.001	97	0.00500	0.00512			
11 Endosulfan I						CAS #: 959-98-8		
4.053	4.053	0.000	94	0.00500	0.00514			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	177	0.01000	0.00990			
13 Dieldrin						CAS #: 60-57-1		
4.226	4.227	-0.001	195	0.01000	0.0102			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	168	0.01000	0.0106			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	151	0.01000	0.00995			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	176	0.01000	0.0105			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	151	0.01000	0.0104			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	104	0.01000	0.00866			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	167	0.01000	0.0103			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	369	0.05000	0.0500			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	149	0.01000	0.0102			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	171	0.01000	0.0114			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

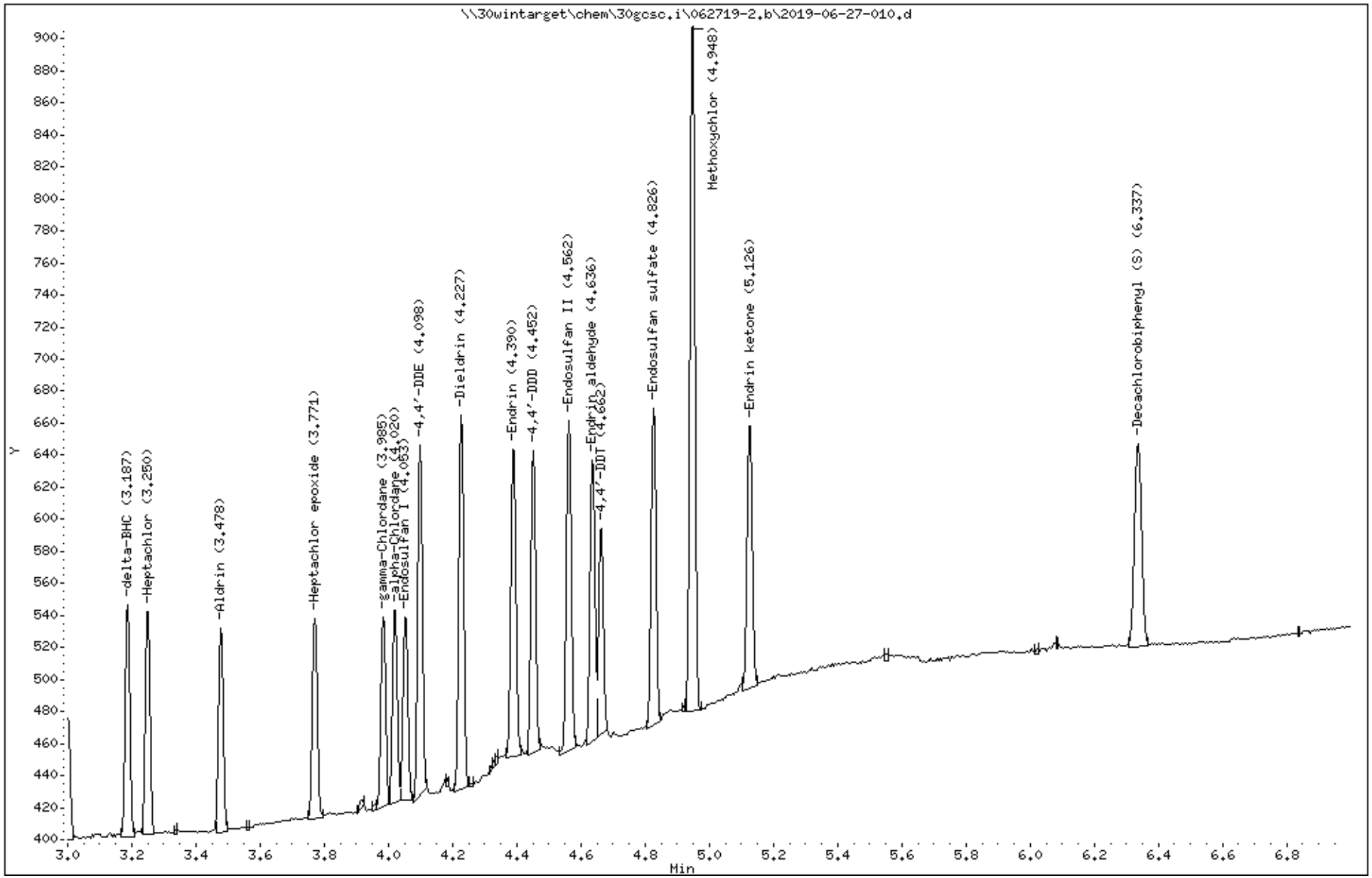
Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00502	
58-89-9	gamma-BHC (Lindane)	0.00503	
319-85-7	beta-BHC	0.00544	
319-86-8	delta-BHC	0.00510	
76-44-8	Heptachlor	0.00517	
309-00-2	Aldrin	0.00520	
1024-57-3	Heptachlor epoxide	0.00543	
5103-74-2	gamma-Chlordane	0.00518	
5103-71-9	alpha-Chlordane	0.00512	
959-98-8	Endosulfan I	0.00514	
72-55-9	4,4'-DDE	0.00990	
60-57-1	Dieldrin	0.0102	
72-20-8	Endrin	0.0106	
72-54-8	4,4'-DDD	0.00995	
33213-65-9	Endosulfan II	0.0105	
7421-36-3	Endrin aldehyde	0.0104	
50-29-3	4,4'-DDT	0.00866	
1031-07-8	Endosulfan sulfate	0.0103	
72-43-5	Methoxychlor	0.0500	
53494-70-5	Endrin ketone	0.0102	
	Tetrachloro-m-xylene (S)	0.0109	
	Decachlorobiphenyl (S)	0.0114	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-010.d
Date : 27-JUN-2019 15:14
Client ID: CAL1
Sample Info: CAL1, 92175:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-010.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL1

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	121	121
beta-BHC	60	60
delta-BHC	113	113
gamma-BHC (Lindane)	111	111
Heptachlor	111	111
Aldrin	103	103
Heptachlor epoxide	108	108
Endosulfan I	94	94
Dieldrin	195	195
4,4'-DDE	177	177
Endrin	168	168
Endosulfan II	176	176
4,4'-DDD	151	151
Endosulfan sulfate	167	167
4,4'-DDT	104	104
Methoxychlor	369	369
Endrin ketone	149	149
Endrin aldehyde	151	151
alpha-Chlordane	97	97
gamma-Chlordane	100	100
Tetrachloro-m-xylene (S)	191	191
Decachlorobiphenyl (S)	171	171

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	28	84	3.039	0.4589		
0.911	179	155	0.864	0.8468		
0.928	13	75	5.610	0.4097		
0.942	288	359	1.248	1.9614		
0.963	293	363	1.239	1.9832		
0.987	2	11	4.911	0.0600		
1.001	2	7	2.893	0.0382		
1.014	3	7	2.341	0.0382		
1.245	3	4	1.562	0.0218		
1.261	2	3	1.316	0.0163		
1.280	3	8	2.589	0.0437		
1.284	2	8	3.361	0.0437		
1.311	20	19	0.950	0.1038		
1.314	3	20	5.848	0.1092		
1.317	4	22	5.542	0.1201		
1.320	3	22	6.647	0.1201		
1.330	14	26	1.854	0.1420		
1.333	5	29	5.451	0.1584		
1.335	5	31	6.710	0.1693		
1.338	4	30	7.792	0.1639		
1.345	12	30	2.467	0.1639		
1.364	34	35	1.016	0.1912		
1.369	13	40	3.135	0.2185		
1.371	6	42	6.522	0.2294		
1.375	8	40	4.779	0.2185		
1.380	10	35	3.441	0.1912		
1.383	5	33	7.205	0.1802		
1.388	11	33	3.113	0.1802		
1.390	5	33	6.458	0.1802		
1.395	17	32	1.885	0.1748		
1.407	15	31	2.136	0.1693		
1.412	5	25	5.061	0.1365		
1.414	6	27	4.225	0.1475		
1.418	5	23	4.812	0.1256		
1.423	5	20	3.759	0.1092		
1.430	7	16	2.189	0.0874		
1.527	2	7	2.905	0.0382		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.885	703	1015	1.443	5.5455	$ 1 Tetrachloro-m-xylene (S)	
2.238	451	663	1.471	3.6223	2 alpha-BHC	
2.473	422	589	1.396	3.2180	3 gamma-BHC (Lindane)	
2.617	207	280	1.352	1.5298	4 beta-BHC	
2.712	447	599	1.341	3.2726	5 Heptachlor	
2.786	3	5	1.742	0.0273		
2.813	414	543	1.312	2.9667	6 delta-BHC	
2.879	4	7	1.983	0.0382		
2.900	3	8	3.113	0.0437		
2.923	391	518	1.326	2.8301	7 Aldrin	
3.280	395	507	1.285	2.7700	8 Heptachlor epoxide	
3.321	6	9	1.630	0.0491		
3.330	3	9	3.237	0.0491		
3.436	387	495	1.280	2.7044	9 gamma-Chlordane	
3.500	386	493	1.278	2.6935	10 alpha-Chlordane	
3.545	362	453	1.250	2.4750	11 Endosulfan I	
3.622	712	894	1.255	4.8844	12 4,4'-DDE	
3.739	775	961	1.240	5.2505	13 Dieldrin	
3.763	5	11	2.245	0.0600		
3.837	5	8	1.471	0.0437		
3.877	4	10	2.793	0.0546		
3.957	671	833	1.241	4.5511	14 Endrin	
4.017	593	702	1.183	3.8354	15 4,4'-DDD	
4.061	2	6	2.703	0.0327		
4.101	14	27	1.937	0.1475		
4.104	13	27	2.027	0.1475		
4.115	3	14	4.281	0.0764		
4.138	683	825	1.208	4.5074	16 Endosulfan II	
4.208	625	771	1.233	4.2124	17 4,4'-DDT	
4.291	580	707	1.219	3.8627	18 Endrin aldehyde	
4.429	659	816	1.239	4.4582	19 Endosulfan sulfate	
4.664	1670	1956	1.171	10.6925	20 Methoxychlor	
4.696	2	10	4.016	0.0546		
4.723	2	6	2.469	0.0327		
4.852	585	692	1.183	3.7808	21 Endrin ketone	
5.012	2	10	4.016	0.0546		
5.017	2	9	3.830	0.0491		
5.176	2	10	4.464	0.0546		
5.243	2	9	3.629	0.0491		
5.247	3	11	3.207	0.0600		
5.257	4	10	2.801	0.0546		
5.264	3	10	3.115	0.0546		
5.270	3	10	3.106	0.0546		
5.279	2	10	4.808	0.0546		
5.289	2	11	4.741	0.0600		
5.302	2	9	4.348	0.0491		
5.307	3	7	2.065	0.0382		
5.333	4	13	3.186	0.0710		
5.338	3	14	5.091	0.0764		
5.437	2	11	5.140	0.0600		
5.440	4	14	3.944	0.0764		
5.647	690	647	0.937	3.5349	$ 24 Decachlorobiphenyl (S)	
5.705	2	7	3.465	0.0382		
5.776	2	8	3.620	0.0437		
5.839	2	7	3.431	0.0382		
6.011	2	10	4.950	0.0546		
6.090	2	7	3.431	0.0382		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.143	3	8	2.454	0.0437		
6.154	3	10	2.865	0.0546		
6.161	2	9	4.286	0.0491		
6.231	2	8	3.556	0.0437		
6.507	2	7	3.125	0.0382		
6.615	3	11	4.183	0.0600		
6.636	3	14	4.930	0.0764		
6.646	3	11	3.303	0.0600		
6.657	3	10	3.690	0.0546		
6.668	2	6	2.985	0.0327		
6.716	2	8	3.653	0.0437		
6.834	2	8	3.252	0.0437		
6.861	2	7	3.333	0.0382		
6.901	2	12	5.505	0.0655		
6.949	3	13	4.180	0.0710		
6.955	2	11	4.955	0.0600		
6.959	2	10	4.831	0.0546		
6.968	4	13	3.030	0.0710		
6.976	3	10	3.311	0.0546		
6.985	3	9	2.941	0.0491		
	14031	18303		100.000		

Total unknown % height = 12.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
1.884	1.884	0.000	703	0.01400	0.0147			
2 alpha-BHC							CAS #: 319-84-6	
2.237	2.238	-0.001	450	0.00700	0.00661			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.472	2.472	0.000	421	0.00700	0.00671			
4 beta-BHC							CAS #: 319-85-7	
2.616	2.617	-0.001	207	0.00700	0.00699			
6 delta-BHC							CAS #: 76-44-8	
2.812	2.812	0.000	413	0.00700	0.00678			
5 Heptachlor							CAS #: 319-86-8	
2.711	2.711	0.000	446	0.00700	0.00682			
7 Aldrin							CAS #: 309-00-2	
2.922	2.922	0.000	390	0.00700	0.00679			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.280	3.279	0.001	394	0.00700	0.00692			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.435	3.436	-0.001	386	0.00700	0.00680			
10 alpha-Chlordane							CAS #: 5103-71-9	
3.500	3.499	0.001	385	0.00700	0.00690			
11 Endosulfan I							CAS #: 959-98-8	
3.545	3.544	0.001	362	0.00700	0.00682			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	712	0.01400	0.0134			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	775	0.01400	0.0135			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	671	0.01400	0.0134			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	593	0.01400	0.0134			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	682	0.01400	0.0139			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	625	0.01400	0.0133			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.290	4.289	0.001	580	0.01400	0.0138			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	658	0.01400	0.0136			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.662	0.001	1669	0.07000	0.0682			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	585	0.01400	0.0137			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.646	0.000	690	0.01400	0.0146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.00661	
58-89-9	gamma-BHC (Lindane)	0.00671	
319-85-7	beta-BHC	0.00699	
76-44-8	delta-BHC	0.00678	
319-86-8	Heptachlor	0.00682	
309-00-2	Aldrin	0.00679	
1024-57-3	Heptachlor epoxide	0.00692	
5103-74-2	gamma-Chlordane	0.00680	
5103-71-9	alpha-Chlordane	0.00690	
959-98-8	Endosulfan I	0.00682	
72-55-9	4,4'-DDE	0.0134	
60-57-1	Dieldrin	0.0135	
72-20-8	Endrin	0.0134	
72-54-8	4,4'-DDD	0.0134	
33213-65-9	Endosulfan II	0.0139	
50-29-3	4,4'-DDT	0.0133	
7421-36-3	Endrin aldehyde	0.0138	
1031-07-8	Endosulfan sulfate	0.0136	
72-43-5	Methoxychlor	0.0682	
53494-70-5	Endrin ketone	0.0137	
----------	Tetrachloro-m-xylene (S)	0.0147	
----------	Decachlorobiphenyl (S)	0.0146	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-011.d

Date : 27-JUN-2019 15:24

Client ID: CAL2

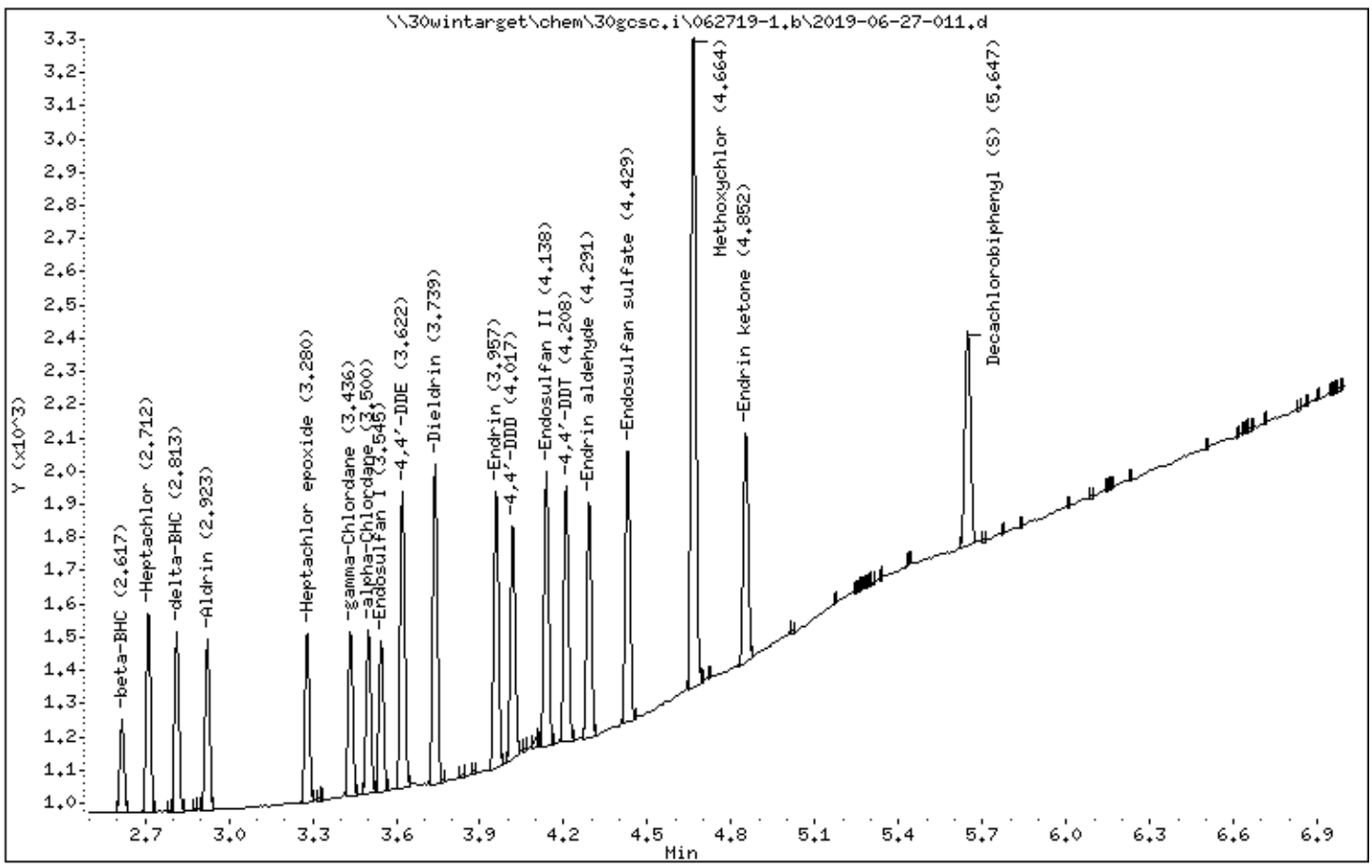
Instrument: 30gcsc.i

Sample Info: CAL2, 92176:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	450	450
beta-BHC	207	207
delta-BHC	413	413
gamma-BHC (Lindane)	421	421
Heptachlor	446	446
Aldrin	390	390
Heptachlor epoxide	394	394
Endosulfan I	362	362
Dieldrin	775	775
4,4'-DDE	712	712
Endrin	671	671
Endosulfan II	682	682
4,4'-DDD	593	593
Endosulfan sulfate	658	658
4,4'-DDT	625	625
Methoxychlor	1669	1669
Endrin ketone	585	585
Endrin aldehyde	580	580
alpha-Chlordane	385	385
gamma-Chlordane	386	386
Tetrachloro-m-xylene (S)	703	703
Decachlorobiphenyl (S)	690	690

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.867	3	8	2.847	0.1462			
0.872	5	14	3.063	0.2559			
0.878	17	77	4.449	1.4079			
0.912	12	7	0.588	0.1279			
0.950	4	7	1.989	0.1279			
0.957	1	6	5.172	0.1097			
0.981	63	78	1.247	1.4262			
1.010	65	95	1.463	1.7370			
1.181	2	3	2.000	0.0548			
1.459	1	2	1.639	0.0365			
2.359	256	343	1.339	6.2717	$	1 Tetrachloro-m-xylene (S)	
2.623	164	219	1.338	4.0043		2 alpha-BHC	
2.840	151	197	1.305	3.6021		3 gamma-BHC (Lindane)	
2.923	1	3	2.521	0.0548			
3.001	80	101	1.269	1.8467		4 beta-BHC	
3.051	1	1	1.000	0.0182			
3.187	153	196	1.285	3.5838		5 delta-BHC	
3.250	150	183	1.224	3.3461		6 Heptachlor	
3.478	138	166	1.206	3.0352		7 Aldrin	
3.771	142	167	1.178	3.0535		8 Heptachlor epoxide	
3.919	2	3	1.948	0.0548			
3.984	134	161	1.201	2.9438		9 gamma-Chlordane	
4.020	133	162	1.218	2.9621		10 alpha-Chlordane	
4.053	129	154	1.197	2.8158		11 Endosulfan I	
4.099	247	303	1.229	5.5403		12 4,4'-DDE	
4.166	1	4	3.419	0.0731			
4.171	2	6	2.804	0.1097			
4.184	3	5	1.603	0.0914			
4.227	263	316	1.201	5.7780		13 Dieldrin	
4.331	2	4	2.424	0.0731			
4.390	217	253	1.167	4.6260		14 Endrin	
4.452	207	251	1.211	4.5895		15 4,4'-DDD	
4.475	1	5	4.762	0.0914			
4.481	1	4	2.899	0.0731			
4.494	1	4	4.000	0.0731			
4.563	234	271	1.157	4.9552		16 Endosulfan II	
4.636	204	236	1.155	4.3152		17 Endrin aldehyde	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.662	154	185	1.204	3.3827		18 4,4'-DDT	
4.749	1	3	2.609	0.0548			
4.827	224	264	1.178	4.8272		19 Endosulfan sulfate	
4.862	1	3	2.913	0.0548			
4.947	503	588	1.168	10.7538		20 Methoxychlor	
5.055	2	4	2.453	0.0731			
5.108	5	7	1.502	0.1279			
5.126	198	225	1.136	4.1140		21 Endrin ketone	
5.552	1	3	2.609	0.0548			
6.337	229	172	0.752	3.1449	$	24 Decachlorobiphenyl (S)	
	4504	5469		100.000			

Total unknown % height = 6.51

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 27-JUN-2019 15:24
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal2, 92176:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:24 Cal File: 2019-06-27-011.d
Als bottle: 11 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	256	0.01400	0.0146			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	163	0.00700	0.00676			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.839	2.840	-0.001	150	0.00700	0.00680			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	79	0.00700	0.00716			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	152	0.00700	0.00686			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	149	0.00700	0.00694			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	137	0.00700	0.00692			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	141	0.00700	0.00709			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.984	3.983	0.001	134	0.00700	0.00694			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.019	4.020	-0.001	133	0.00700	0.00702			
11 Endosulfan I						CAS #: 959-98-8		
4.052	4.053	-0.001	128	0.00700	0.00700			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	246	0.01400	0.0138			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	263	0.01400	0.0137			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	216	0.01400	0.0137			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	207	0.01400	0.0136			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	234	0.01400	0.0139			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.636	4.635	0.001	204	0.01400	0.0140			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	153	0.01400	0.0127			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	224	0.01400	0.0138			
20 Methoxychlor						CAS #: 72-43-5		
4.946	4.947	-0.001	503	0.07000	0.0681			
21 Endrin ketone						CAS #: 53494-70-5		
5.125	5.125	0.000	198	0.01400	0.0136			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	228	0.01400	0.0151			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

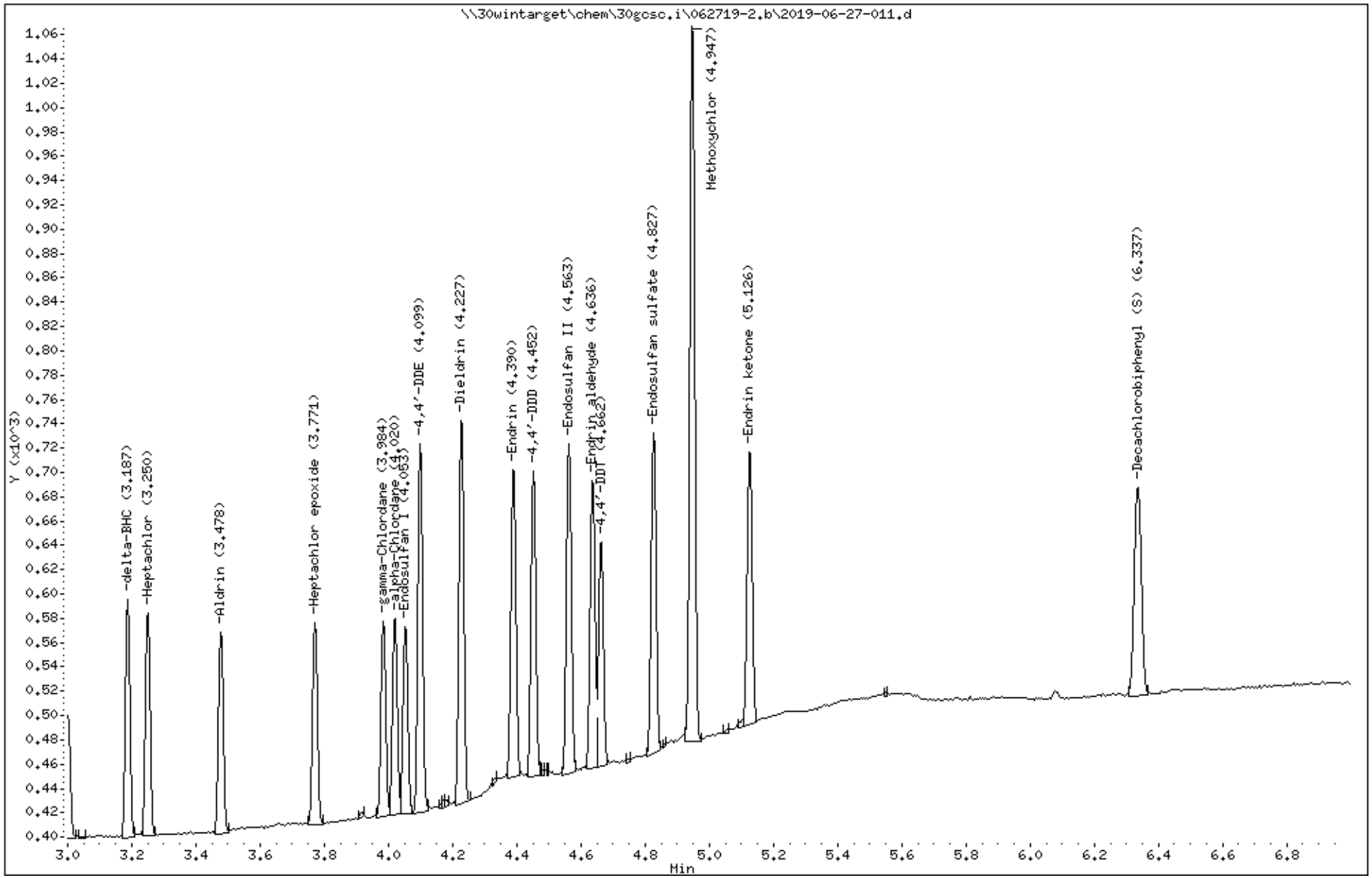
Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.00676	
58-89-9	gamma-BHC (Lindane)	0.00680	
319-85-7	beta-BHC	0.00716	
319-86-8	delta-BHC	0.00686	
76-44-8	Heptachlor	0.00694	
309-00-2	Aldrin	0.00692	
1024-57-3	Heptachlor epoxide	0.00709	
5103-74-2	gamma-Chlordane	0.00694	
5103-71-9	alpha-Chlordane	0.00702	
959-98-8	Endosulfan I	0.00700	
72-55-9	4,4'-DDE	0.0138	
60-57-1	Dieldrin	0.0137	
72-20-8	Endrin	0.0137	
72-54-8	4,4'-DDD	0.0136	
33213-65-9	Endosulfan II	0.0139	
7421-36-3	Endrin aldehyde	0.0140	
50-29-3	4,4'-DDT	0.0127	
1031-07-8	Endosulfan sulfate	0.0138	
72-43-5	Methoxychlor	0.0681	
53494-70-5	Endrin ketone	0.0136	
----------	Tetrachloro-m-xylene (S)	0.0146	
----------	Decachlorobiphenyl (S)	0.0151	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-011.d
Date : 27-JUN-2019 15:24
Client ID: CAL2
Sample Info: CAL2, 92176:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-011.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:24 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL2

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	163	163
beta-BHC	79	79
delta-BHC	152	152
gamma-BHC (Lindane)	150	150
Heptachlor	149	149
Aldrin	137	137
Heptachlor epoxide	141	141
Endosulfan I	128	128
Dieldrin	263	263
4,4'-DDE	246	246
Endrin	216	216
Endosulfan II	234	234
4,4'-DDD	207	207
Endosulfan sulfate	224	224
4,4'-DDT	153	153
Methoxychlor	503	503
Endrin ketone	198	198
Endrin aldehyde	204	204
alpha-Chlordane	133	133
gamma-Chlordane	134	134
Tetrachloro-m-xylene (S)	256	256
Decachlorobiphenyl (S)	228	228

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	25	73	2.975	0.2483		
0.909	206	178	0.865	0.6055		
0.942	379	432	1.139	1.4696		
0.962	426	458	1.074	1.5580		
0.999	33	52	1.596	0.1769		
1.014	98	84	0.854	0.2857		
1.036	10	25	2.538	0.0850		
1.044	10	26	2.608	0.0884		
1.051	3	21	6.122	0.0714		
1.055	8	19	2.267	0.0646		
1.063	5	14	2.881	0.0476		
1.070	3	13	4.887	0.0442		
1.078	2	9	3.913	0.0306		
1.086	3	9	2.903	0.0306		
1.091	3	8	3.113	0.0272		
1.283	5	11	2.099	0.0374		
1.295	9	16	1.697	0.0544		
1.300	5	20	4.320	0.0680		
1.303	2	19	8.756	0.0646		
1.311	12	24	2.057	0.0816		
1.314	4	27	6.905	0.0918		
1.319	7	30	4.237	0.1020		
1.323	9	31	3.433	0.1054		
1.326	4	31	8.447	0.1054		
1.330	8	34	4.009	0.1156		
1.338	16	36	2.207	0.1224		
1.368	71	50	0.708	0.1700		
1.374	25	52	2.055	0.1769		
1.379	21	48	2.303	0.1632		
1.395	33	46	1.388	0.1564		
1.402	15	43	2.880	0.1462		
1.405	9	42	4.805	0.1428		
1.408	8	41	4.846	0.1394		
1.419	20	38	1.857	0.1292		
1.423	11	37	3.491	0.1258		
1.428	12	35	3.038	0.1190		
1.432	5	31	6.526	0.1054		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.435	9	30	3.337	0.1020		
1.440	5	29	6.157	0.0986		
1.443	3	25	7.440	0.0850		
1.445	6	26	4.044	0.0884		
1.451	9	22	2.552	0.0748		
1.460	5	14	2.677	0.0476		
1.465	2	9	3.673	0.0306		
1.884	1094	1585	1.448	5.3920	$ 1 Tetrachloro-m-xylene (S)	
2.098	11	18	1.656	0.0612		
2.105	2	10	4.566	0.0340		
2.139	3	6	1.899	0.0204		
2.238	722	1027	1.422	3.4937	2 alpha-BHC	
2.473	673	941	1.398	3.2012	3 gamma-BHC (Lindane)	
2.617	323	429	1.330	1.4594	4 beta-BHC	
2.661	2	5	2.304	0.0170		
2.711	710	943	1.328	3.2080	5 Heptachlor	
2.812	648	862	1.331	2.9324	6 delta-BHC	
2.899	4	8	1.932	0.0272		
2.922	620	821	1.325	2.7929	7 Aldrin	
3.200	3	10	2.915	0.0340		
3.280	621	798	1.286	2.7147	8 Heptachlor epoxide	
3.352	2	7	3.043	0.0238		
3.362	2	5	2.336	0.0170		
3.435	624	790	1.265	2.6875	9 gamma-Chlordane	
3.500	607	759	1.251	2.5820	10 alpha-Chlordane	
3.545	578	723	1.251	2.4596	11 Endosulfan I	
3.622	1144	1422	1.243	4.8375	12 4,4'-DDE	
3.738	1220	1532	1.255	5.2117	13 Dieldrin	
3.762	3	10	3.030	0.0340		
3.957	1091	1333	1.222	4.5347	14 Endrin	
4.016	953	1136	1.193	3.8646	15 4,4'-DDD	
4.097	4	11	3.107	0.0374		
4.104	6	13	2.138	0.0442		
4.137	1058	1312	1.240	4.4633	16 Endosulfan II	
4.207	1005	1276	1.270	4.3408	17 4,4'-DDT	
4.289	919	1105	1.202	3.7591	18 Endrin aldehyde	
4.428	1058	1293	1.223	4.3987	19 Endosulfan sulfate	
4.591	2	9	4.286	0.0306		
4.595	2	9	4.128	0.0306		
4.598	3	13	4.467	0.0442		
4.604	2	10	4.854	0.0340		
4.609	4	13	3.439	0.0442		
4.627	3	10	2.890	0.0340		
4.638	2	10	4.464	0.0340		
4.663	2709	3139	1.159	10.6852	20 Methoxychlor	
4.697	4	14	3.146	0.0476		
4.713	3	8	2.920	0.0272		
4.721	4	11	2.632	0.0374		
4.782	2	8	3.279	0.0272		
4.851	908	1098	1.209	3.7353	21 Endrin ketone	
4.881	2	7	3.465	0.0238		
4.891	3	11	4.015	0.0374		
4.898	2	8	3.756	0.0272		
5.012	4	15	3.529	0.0510		
5.015	3	15	5.682	0.0510		
5.020	2	10	4.255	0.0340		
5.088	4	10	2.347	0.0340		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.094	2	10	4.587	0.0340		
5.106	3	12	3.871	0.0408		
5.124	7	16	2.343	0.0544		
5.129	3	15	5.435	0.0510		
5.133	4	18	4.196	0.0612		
5.137	3	15	5.338	0.0510		
5.141	3	14	4.035	0.0476		
5.147	7	17	2.568	0.0578		
5.154	4	19	4.556	0.0646		
5.157	4	18	4.009	0.0612		
5.163	3	18	5.980	0.0612		
5.165	6	17	2.686	0.0578		
5.175	5	18	3.930	0.0612		
5.180	4	18	4.813	0.0612		
5.184	4	18	5.070	0.0612		
5.189	5	17	3.520	0.0578		
5.193	3	17	6.115	0.0578		
5.195	2	16	6.897	0.0544		
5.198	4	15	3.432	0.0510		
5.204	3	17	5.705	0.0578		
5.206	2	18	8.867	0.0612		
5.209	2	16	6.478	0.0544		
5.215	2	14	6.140	0.0476		
5.223	6	15	2.389	0.0510		
5.226	3	15	5.792	0.0510		
5.230	5	16	2.974	0.0544		
5.235	2	16	7.729	0.0544		
5.238	3	15	5.837	0.0510		
5.241	2	14	6.335	0.0476		
5.247	4	12	3.261	0.0408		
5.252	3	11	3.188	0.0374		
5.259	4	12	2.679	0.0408		
5.266	2	11	5.164	0.0374		
5.277	3	9	3.557	0.0306		
5.284	3	11	4.382	0.0374		
5.289	3	10	3.175	0.0340		
5.298	3	11	3.679	0.0374		
5.332	3	8	3.125	0.0272		
5.377	2	8	3.721	0.0272		
5.405	3	11	3.806	0.0374		
5.419	2	8	3.404	0.0272		
5.428	4	18	5.085	0.0612		
5.437	14	34	2.396	0.1156		
5.441	17	36	2.139	0.1224		
5.450	3	14	4.389	0.0476		
5.459	3	6	2.247	0.0204		
5.467	2	8	3.604	0.0272		
5.646	1090	1057	0.970	3.5958	$ 24 Decachlorobiphenyl (S)	
5.675	3	12	3.960	0.0408		
5.686	2	7	3.097	0.0238		
5.821	3	8	2.685	0.0272		
5.834	3	10	3.571	0.0340		
5.873	4	11	3.125	0.0374		
5.912	2	7	3.448	0.0238		
5.932	2	10	4.739	0.0340		
6.038	2	6	2.913	0.0204		
6.104	3	8	3.162	0.0272		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.176	2	4	1.869	0.0136		
6.217	2	8	3.687	0.0272		
6.286	2	10	4.032	0.0340		
6.304	3	10	3.436	0.0340		
6.315	2	11	5.069	0.0374		
6.460	3	8	3.150	0.0272		
6.520	2	10	4.673	0.0340		
6.530	3	10	3.356	0.0340		
6.593	2	7	3.153	0.0238		
6.618	4	12	3.243	0.0408		
6.623	2	14	6.512	0.0476		
6.627	4	14	3.655	0.0476		
6.634	2	12	5.742	0.0408		
6.639	4	15	4.011	0.0510		
6.643	5	13	2.434	0.0442		
6.657	6	13	2.200	0.0442		
6.663	4	16	3.571	0.0544		
6.668	2	9	3.704	0.0306		
6.673	2	10	4.274	0.0340		
6.693	2	8	3.883	0.0272		
6.705	2	13	5.652	0.0442		
6.708	2	16	7.306	0.0544		
6.712	3	12	4.580	0.0408		
6.718	3	14	5.469	0.0476		
6.726	6	15	2.385	0.0510		
6.730	3	15	5.597	0.0510		
6.734	3	19	6.835	0.0646		
6.740	5	16	3.433	0.0544		
6.744	3	18	6.429	0.0612		
6.749	6	22	3.654	0.0748		
6.759	4	16	4.199	0.0544		
6.761	2	18	8.654	0.0612		
6.765	5	16	3.194	0.0544		
6.770	3	15	5.415	0.0510		
6.775	8	18	2.329	0.0612		
6.783	4	16	4.255	0.0544		
6.790	5	15	2.793	0.0510		
6.800	5	15	3.268	0.0510		
6.813	3	15	5.282	0.0510		
6.821	3	12	4.380	0.0408		
6.831	4	14	3.365	0.0476		
6.833	3	13	3.746	0.0442		
6.846	3	12	3.750	0.0408		
6.849	4	11	3.047	0.0374		
6.859	2	10	4.310	0.0340		
6.868	3	13	4.437	0.0442		
6.889	3	10	3.509	0.0340		
6.927	2	8	3.333	0.0272		
	22403	29395		100.000		

Total unknown % height = 13.6

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	1094	0.02000	0.0216			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	722	0.01000	0.0106			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.473	2.472	0.001	673	0.01000	0.0107			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	322	0.01000	0.0109			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	647	0.01000	0.0106			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	710	0.01000	0.0109			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	619	0.01000	0.0108			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	620	0.01000	0.0109			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	624	0.01000	0.0110			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	606	0.01000	0.0109			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	578	0.01000	0.0109			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.621	3.621	0.000	1143	0.02000	0.0215			
13 Dieldrin						CAS #: 60-57-1		
3.738	3.738	0.000	1220	0.02000	0.0213			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	1090	0.02000	0.0218			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	952	0.02000	0.0214			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	1058	0.02000	0.0215			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	1005	0.02000	0.0214			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	919	0.02000	0.0219			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	1057	0.02000	0.0219			
20 Methoxychlor						CAS #: 72-43-5		
4.662	4.662	0.000	2708	0.10000	0.111			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	908	0.02000	0.0213			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.646	-0.001	1089	0.02000	0.0219			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0106	
58-89-9	gamma-BHC (Lindane)	0.0107	
319-85-7	beta-BHC	0.0109	
76-44-8	delta-BHC	0.0106	
319-86-8	Heptachlor	0.0109	
309-00-2	Aldrin	0.0108	
1024-57-3	Heptachlor epoxide	0.0109	
5103-74-2	gamma-Chlordane	0.0110	
5103-71-9	alpha-Chlordane	0.0109	
959-98-8	Endosulfan I	0.0109	
72-55-9	4,4'-DDE	0.0215	
60-57-1	Dieldrin	0.0213	
72-20-8	Endrin	0.0218	
72-54-8	4,4'-DDD	0.0214	
33213-65-9	Endosulfan II	0.0215	
50-29-3	4,4'-DDT	0.0214	
7421-36-3	Endrin aldehyde	0.0219	
1031-07-8	Endosulfan sulfate	0.0219	
72-43-5	Methoxychlor	0.111	
53494-70-5	Endrin ketone	0.0213	
	Tetrachloro-m-xylene (S)	0.0216	
	Decachlorobiphenyl (S)	0.0219	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-012.d

Date : 27-JUN-2019 15:33

Client ID: CAL3

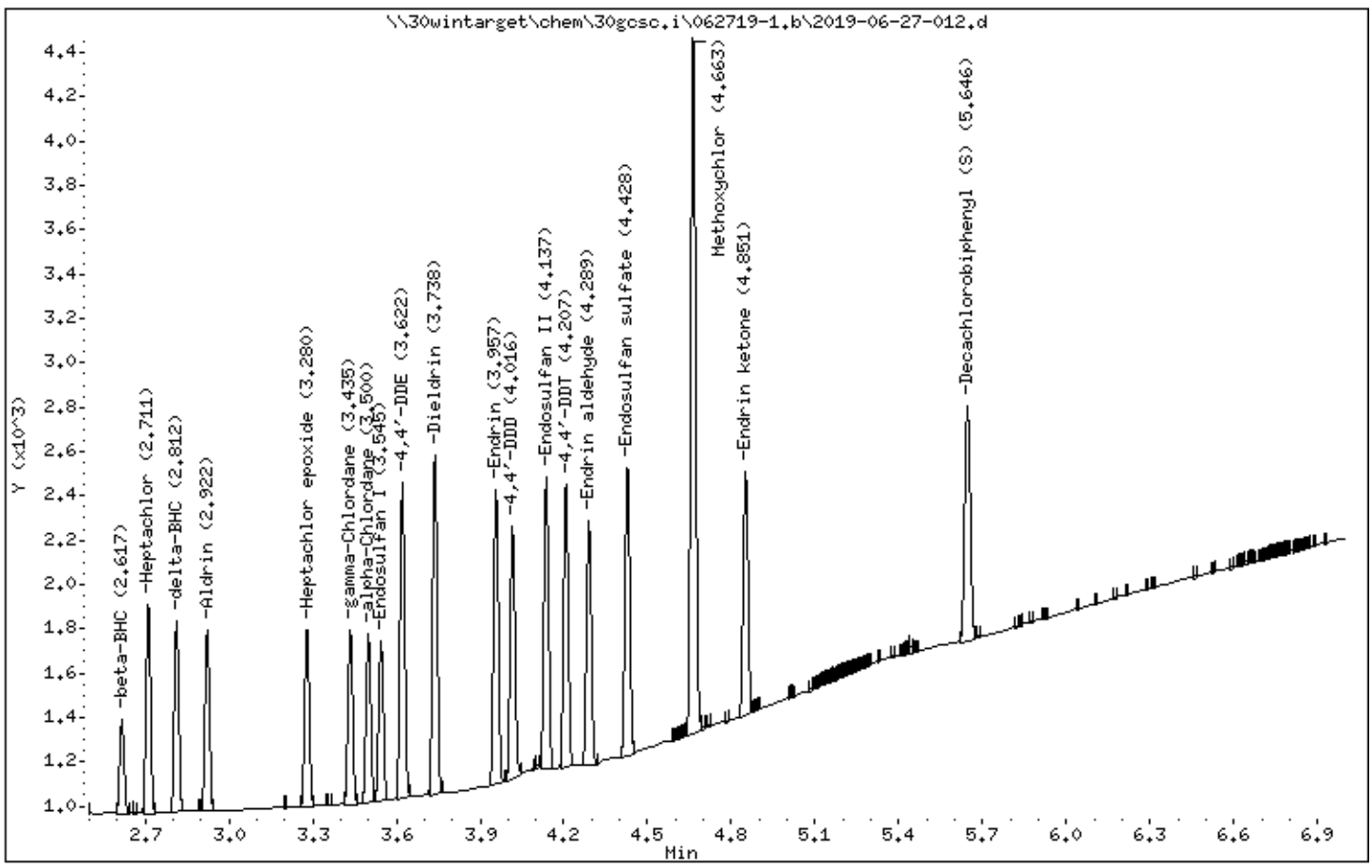
Instrument: 30gcsc.i

Sample Info: CAL3, 92177:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	722	722
beta-BHC	322	322
delta-BHC	647	647
gamma-BHC (Lindane)	673	673
Heptachlor	710	710
Aldrin	619	619
Heptachlor epoxide	620	620
Endosulfan I	578	578
Dieldrin	1220	1220
4,4'-DDE	1143	1143
Endrin	1090	1090
Endosulfan II	1058	1058
4,4'-DDD	952	952
Endosulfan sulfate	1057	1057
4,4'-DDT	1005	1005
Methoxychlor	2708	2708
Endrin ketone	908	908
Endrin aldehyde	919	919
alpha-Chlordane	606	606
gamma-Chlordane	624	624
Tetrachloro-m-xylene (S)	1094	1094
Decachlorobiphenyl (S)	1089	1089

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.866	1	3	2.344	0.0351			
0.878	20	94	4.624	1.1016			
0.910	10	8	0.832	0.0937			
0.950	4	7	1.720	0.0820			
0.981	76	94	1.240	1.1016			
1.010	71	109	1.537	1.2773			
1.024	1	7	5.303	0.0820			
1.058	1	3	2.752	0.0351			
1.071	4	8	1.822	0.0937			
1.338	3	3	1.128	0.0351			
1.371	2	2	1.005	0.0234			
1.434	1	3	2.913	0.0351			
1.451	1	3	2.885	0.0351			
2.359	405	545	1.346	6.3869	$	1 Tetrachloro-m-xylene (S)	
2.571	2	4	1.934	0.0468			
2.623	257	348	1.354	4.0782		2 alpha-BHC	
2.840	240	318	1.324	3.7267		3 gamma-BHC (Lindane)	
2.924	1	2	1.342	0.0234			
3.001	123	155	1.261	1.8164		4 beta-BHC	
3.187	238	310	1.305	3.6329		5 delta-BHC	
3.249	238	292	1.229	3.4220		6 Heptachlor	
3.477	212	263	1.241	3.0821		7 Aldrin	
3.770	217	260	1.200	3.0469		8 Heptachlor epoxide	
3.983	213	254	1.191	2.9766		9 gamma-Chlordane	
4.019	210	247	1.176	2.8946		10 alpha-Chlordane	
4.052	202	239	1.184	2.8008		11 Endosulfan I	
4.099	387	481	1.243	5.6369		12 4,4'-DDE	
4.171	3	4	1.504	0.0468			
4.227	418	504	1.206	5.9064		13 Dieldrin	
4.389	347	410	1.182	4.8048		14 Endrin	
4.451	332	406	1.224	4.7579		15 4,4'-DDD	
4.486	2	4	1.818	0.0468			
4.562	369	435	1.179	5.0978		16 Endosulfan II	
4.635	322	375	1.165	4.3947		17 Endrin aldehyde	
4.662	258	313	1.212	3.6681		18 4,4'-DDT	
4.826	355	420	1.183	4.9220		19 Endosulfan sulfate	
4.947	816	969	1.187	11.3582		20 Methoxychlor	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.062	1	3	2.500	0.0351		
5.100	4	7	1.716	0.0820		
5.126	319	346	1.085	4.0548	21 Endrin ketone	
5.465	1	3	2.222	0.0351		
5.522	1	3	2.326	0.0351		
6.336	357	269	0.754	3.1524	$ 24 Decachlorobiphenyl (S)	
	7045	8533		100.000		

Total unknown % height = 4.38

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 27-JUN-2019 15:33
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal3, 92177:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:33 Cal File: 2019-06-27-012.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	404	0.02000	0.0219			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	257	0.01000	0.0107			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.840	2.840	0.000	240	0.01000	0.0109			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	122	0.01000	0.0111			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	237	0.01000	0.0107			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	237	0.01000	0.0110			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	211	0.01000	0.0107			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	216	0.01000	0.0109			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.983	3.983	0.000	213	0.01000	0.0110			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.018	4.020	-0.002	210	0.01000	0.0111			
11 Endosulfan I						CAS #: 959-98-8		
4.052	4.053	-0.001	201	0.01000	0.0110			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	386	0.02000	0.0216			
13 Dieldrin						CAS #: 60-57-1		
4.226	4.227	-0.001	417	0.02000	0.0217			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	346	0.02000	0.0219			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	331	0.02000	0.0218			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	369	0.02000	0.0219			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	321	0.02000	0.0221			
18 4,4'-DDT						CAS #: 50-29-3		
4.662	4.662	0.000	258	0.02000	0.0215			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	355	0.02000	0.0220			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	816	0.10000	0.110			
21 Endrin ketone						CAS #: 53494-70-5		
5.125	5.125	0.000	318	0.02000	0.0218			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.335	6.334	0.001	356	0.02000	0.0223			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

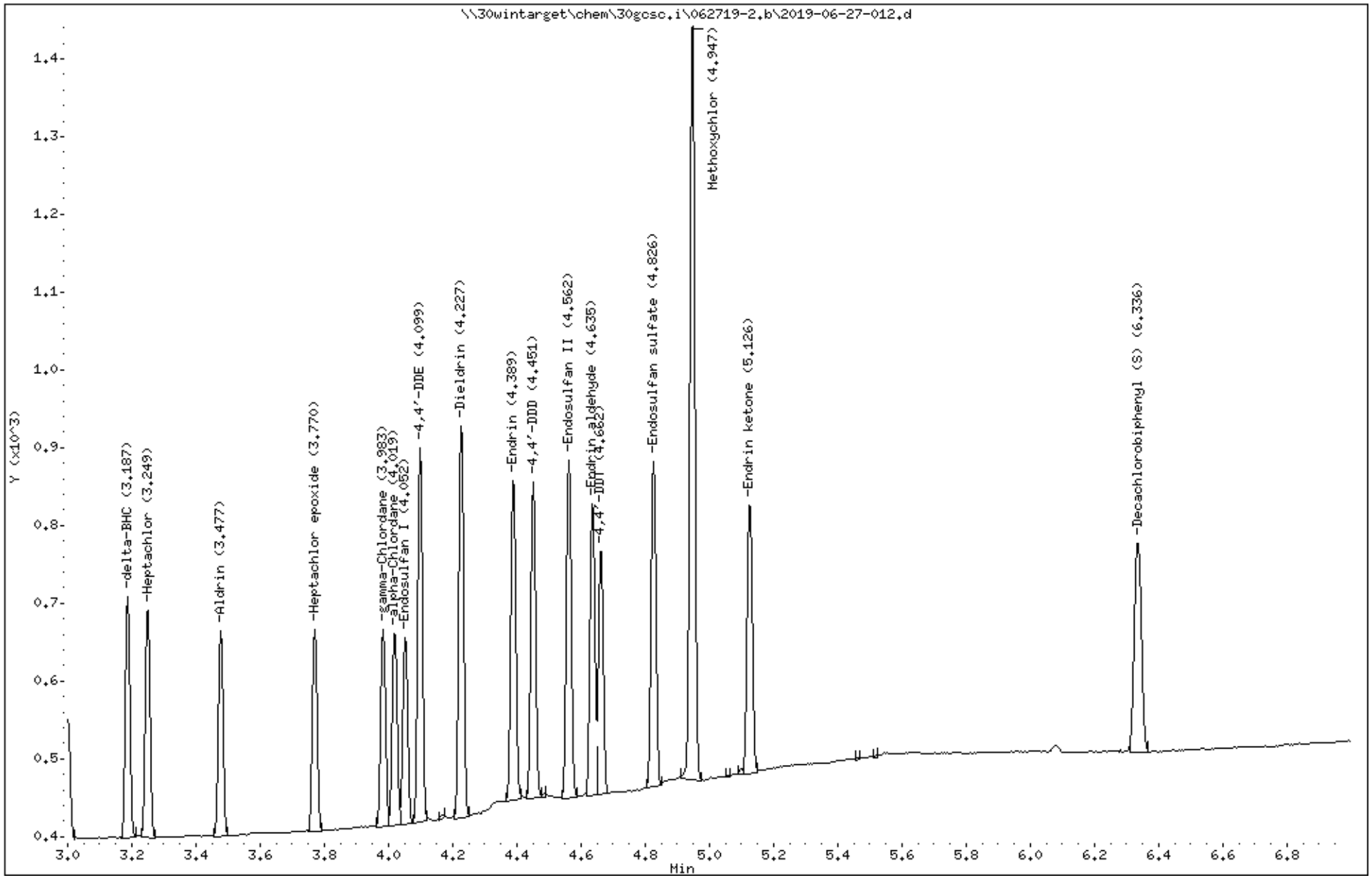
Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0107	
58-89-9	gamma-BHC (Lindane)	0.0109	
319-85-7	beta-BHC	0.0111	
319-86-8	delta-BHC	0.0107	
76-44-8	Heptachlor	0.0110	
309-00-2	Aldrin	0.0107	
1024-57-3	Heptachlor epoxide	0.0109	
5103-74-2	gamma-Chlordane	0.0110	
5103-71-9	alpha-Chlordane	0.0111	
959-98-8	Endosulfan I	0.0110	
72-55-9	4,4'-DDE	0.0216	
60-57-1	Dieldrin	0.0217	
72-20-8	Endrin	0.0219	
72-54-8	4,4'-DDD	0.0218	
33213-65-9	Endosulfan II	0.0219	
7421-36-3	Endrin aldehyde	0.0221	
50-29-3	4,4'-DDT	0.0215	
1031-07-8	Endosulfan sulfate	0.0220	
72-43-5	Methoxychlor	0.110	
53494-70-5	Endrin ketone	0.0218	
----------	Tetrachloro-m-xylene (S)	0.0219	
----------	Decachlorobiphenyl (S)	0.0223	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-012.d
Date : 27-JUN-2019 15:33
Client ID: CAL3
Sample Info: CAL3, 92177:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-012.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:33 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL3

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	257	257
beta-BHC	122	122
delta-BHC	237	237
gamma-BHC (Lindane)	240	240
Heptachlor	237	237
Aldrin	211	211
Heptachlor epoxide	216	216
Endosulfan I	201	201
Dieldrin	417	417
4,4'-DDE	386	386
Endrin	346	346
Endosulfan II	369	369
4,4'-DDD	331	331
Endosulfan sulfate	355	355
4,4'-DDT	258	258
Methoxychlor	816	816
Endrin ketone	318	318
Endrin aldehyde	321	321
alpha-Chlordane	210	210
gamma-Chlordane	213	213
Tetrachloro-m-xylene (S)	404	404
Decachlorobiphenyl (S)	356	356

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.625	2	8	3.846	0.0159			
0.887	14	53	3.796	0.1059			
0.910	223	189	0.847	0.3778			
0.941	341	398	1.168	0.7957			
0.962	336	391	1.164	0.7817			
0.995	2	11	4.583	0.0219			
1.003	8	15	1.956	0.0299			
1.011	3	12	3.550	0.0239			
1.130	2	6	2.899	0.0119			
1.244	2	4	1.876	0.0079			
1.300	4	2	0.556	0.0039			
1.371	6	19	3.193	0.0379			
1.375	3	14	4.294	0.0279			
1.407	2	7	3.070	0.0139			
1.511	3	6	2.216	0.0119			
1.641	2	4	1.702	0.0079			
1.791	3	9	3.192	0.0179			
1.885	2028	2902	1.431	5.8019	$	1 Tetrachloro-m-xylene (S)	RT
1.918	3	8	2.952	0.0159			
2.100	23	34	1.494	0.0679			
2.161	2	7	2.917	0.0139			
2.238	1366	1931	1.414	3.8606		2 alpha-BHC	RT
2.416	3	10	3.322	0.0199			
2.473	1256	1742	1.387	3.4827		3 gamma-BHC (Lindane)	RT
2.617	624	777	1.245	1.5534		4 beta-BHC	RT
2.643	3	9	3.214	0.0179			
2.656	5	9	1.804	0.0179			
2.712	1287	1697	1.318	3.3927		5 Heptachlor	RT
2.813	1212	1625	1.341	3.2488		6 delta-BHC	RT
2.899	7	12	1.664	0.0239			
2.923	1141	1494	1.310	2.9869		7 Aldrin	RT
3.004	2	5	2.183	0.0099			
3.198	2	10	4.926	0.0199			
3.201	6	14	2.443	0.0279			
3.208	2	12	5.607	0.0239			
3.280	1128	1448	1.284	2.8949		8 Heptachlor epoxide	RT
3.435	1129	1416	1.254	2.8309		9 gamma-Chlordane	RT

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.499	1102	1390	1.262	2.7789	10 alpha-Chlordane	RT
3.545	1058	1302	1.230	2.6030	11 Endosulfan I	RT
3.621	2103	2655	1.262	5.3080	12 4,4'-DDE	RT
3.738	2231	2844	1.275	5.6859	13 Dieldrin	RT
3.761	4	15	4.180	0.0299		
3.894	4	8	2.089	0.0159		
3.956	1926	2402	1.247	4.8022	14 Endrin	RT
4.016	1794	2178	1.214	4.3544	15 4,4'-DDD	RT
4.051	7	21	3.226	0.0419		
4.057	6	20	3.384	0.0399		
4.067	13	19	1.473	0.0379		
4.079	8	18	2.362	0.0359		
4.085	3	17	5.862	0.0339		
4.087	3	18	6.569	0.0359		
4.089	3	20	7.874	0.0399		
4.103	50	43	0.855	0.0859		
4.136	1958	2381	1.216	4.7602	16 Endosulfan II	RT
4.173	3	11	4.183	0.0219		
4.177	3	14	5.166	0.0279		
4.183	5	17	3.226	0.0339		
4.187	4	16	4.336	0.0319		
4.207	1838	2233	1.215	4.4643	17 4,4'-DDT	RT
4.243	4	9	2.350	0.0179		
4.251	2	8	3.478	0.0159		
4.289	1661	1987	1.196	3.9725	18 Endrin aldehyde	RT
4.374	4	12	3.270	0.0239		
4.380	3	10	3.731	0.0199		
4.428	1908	2319	1.216	4.6363	19 Endosulfan sulfate	RT
4.565	3	12	4.598	0.0239		
4.568	4	15	3.896	0.0299		
4.573	3	12	3.896	0.0239		
4.663	4779	5796	1.213	11.6039	20 Methoxychlor	RT
4.704	3	10	3.831	0.0199		
4.711	3	10	3.584	0.0199		
4.716	2	12	5.286	0.0239		
4.718	4	13	3.485	0.0259		
4.851	1696	2002	1.181	4.0025	21 Endrin ketone	RT
5.015	19	25	1.335	0.0499		
5.099	2	9	4.054	0.0179		
5.113	3	8	2.540	0.0159		
5.121	4	11	2.872	0.0219		
5.126	2	11	4.490	0.0219		
5.134	3	9	2.894	0.0179		
5.146	3	9	2.913	0.0179		
5.148	3	10	3.650	0.0199		
5.162	3	10	3.247	0.0199		
5.169	2	8	3.828	0.0159		
5.240	2	9	4.018	0.0179		
5.244	2	11	5.314	0.0219		
5.250	4	10	2.475	0.0199		
5.255	2	13	6.280	0.0259		
5.259	2	15	6.383	0.0299		
5.265	6	15	2.542	0.0299		
5.276	4	17	4.239	0.0339		
5.283	7	17	2.270	0.0339		
5.290	2	16	7.273	0.0319		
5.293	5	19	3.878	0.0379		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.298	2	15	7.426	0.0299		
5.299	3	19	5.429	0.0379		
5.304	5	18	3.896	0.0359		
5.309	3	17	5.556	0.0339		
5.312	4	18	4.255	0.0359		
5.318	5	18	3.888	0.0359		
5.325	5	21	4.142	0.0419		
5.332	13	35	2.726	0.0699		
5.335	11	33	3.041	0.0659		
5.341	5	28	6.114	0.0559		
5.344	5	24	4.858	0.0479		
5.347	5	20	3.831	0.0399		
5.354	7	19	2.665	0.0379		
5.361	3	19	6.507	0.0379		
5.363	3	19	6.909	0.0379		
5.366	3	21	6.000	0.0419		
5.370	4	21	5.237	0.0419		
5.373	4	20	5.495	0.0399		
5.380	9	20	2.250	0.0399		
5.386	4	21	4.677	0.0419		
5.390	8	21	2.488	0.0419		
5.395	2	19	8.676	0.0379		
5.399	5	23	4.331	0.0459		
5.402	3	21	7.895	0.0419		
5.407	6	22	3.748	0.0439		
5.410	6	25	4.032	0.0499		
5.416	7	22	3.328	0.0439		
5.439	96	80	0.830	0.1599		
5.451	6	33	5.297	0.0659		
5.456	7	30	4.587	0.0599		
5.461	4	23	5.913	0.0459		
5.463	4	26	7.283	0.0519		
5.466	4	22	5.046	0.0439		
5.471	6	25	4.296	0.0499		
5.474	4	24	5.556	0.0479		
5.477	4	27	7.181	0.0539		
5.483	9	24	2.583	0.0479		
5.488	6	23	3.879	0.0459		
5.492	3	22	6.940	0.0439		
5.496	6	22	3.537	0.0439		
5.502	6	21	3.437	0.0419		
5.506	4	22	4.944	0.0439		
5.513	7	19	2.798	0.0379		
5.519	9	21	2.397	0.0419		
5.525	6	20	3.215	0.0399		
5.533	5	18	3.774	0.0359		
5.538	7	18	2.757	0.0359		
5.544	5	14	2.811	0.0279		
5.554	5	16	3.390	0.0319		
5.558	5	17	3.148	0.0339		
5.562	4	16	4.255	0.0319		
5.568	4	14	3.310	0.0279		
5.574	5	17	3.353	0.0339		
5.581	5	16	3.107	0.0319		
5.586	5	16	3.156	0.0319		
5.594	2	11	4.583	0.0219		
5.599	5	12	2.614	0.0239		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.609	2	13	5.856	0.0259		
5.612	3	13	4.025	0.0259		
5.622	4	12	3.270	0.0239		
5.645	1968	1895	0.963	3.7886	$ 24 Decachlorobiphenyl (S)	RT
5.682	4	13	3.485	0.0259		
5.694	2	8	3.883	0.0159		
5.728	3	8	2.649	0.0159		
5.746	2	8	3.636	0.0159		
5.751	2	7	3.483	0.0139		
5.760	2	10	4.310	0.0199		
5.912	2	11	5.093	0.0219		
5.932	2	11	4.661	0.0219		
5.943	2	9	3.930	0.0179		
5.952	2	12	5.825	0.0239		
6.042	3	9	2.695	0.0179		
6.092	3	9	3.321	0.0179		
6.099	2	9	4.286	0.0179		
6.111	2	12	5.769	0.0239		
6.117	4	10	2.247	0.0199		
6.127	3	11	3.152	0.0219		
6.139	2	8	3.556	0.0159		
6.202	2	8	3.636	0.0159		
6.398	2	8	3.774	0.0159		
6.749	2	11	5.140	0.0219		
6.829	3	12	4.580	0.0239		
6.839	5	12	2.348	0.0239		
6.847	3	11	3.833	0.0219		
6.857	3	12	4.181	0.0239		
6.878	3	9	3.529	0.0179		
6.891	3	12	4.762	0.0239		
6.902	3	16	5.461	0.0319		
6.908	2	14	5.932	0.0279		
6.915	4	16	3.730	0.0319		
6.919	3	14	4.636	0.0279		
6.923	3	14	4.590	0.0279		
6.928	3	12	4.428	0.0239		
6.934	3	14	4.321	0.0279		
6.937	3	13	3.725	0.0259		
6.950	3	11	3.152	0.0219		
6.965	2	11	5.000	0.0219		
6.972	3	11	4.231	0.0219		
	38936	50018		100.000		

Total unknown % height = 7.19

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	2028	0.04000	0.0401		(M)	RT
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	1365	0.02000	0.0200		(M)	RT
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.473	2.472	0.001	1255	0.02000	0.0200		(M)	RT
4 beta-BHC						CAS #: 319-85-7		
2.617	2.617	0.000	623	0.02000	0.0210		(M)	RT
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	1211	0.02000	0.0199		(M)	RT
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	1287	0.02000	0.0197		(M)	RT
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	1140	0.02000	0.0198		(M)	RT
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.279	3.279	0.000	1127	0.02000	0.0198		(M)	RT
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	1128	0.02000	0.0199		(M)	RT
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	1101	0.02000	0.0197		(M)	RT
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	1058	0.02000	0.0199		(M)	RT

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.621	3.621	0.000	2103	0.04000	0.0396		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
3.738	3.738	0.000	2230	0.04000	0.0390		(M)	RT
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	1926	0.04000	0.0385		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.015	4.016	-0.001	1793	0.04000	0.0404		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.136	4.137	-0.001	1958	0.04000	0.0399		(M)	RT
17 4,4'-DDT					CAS #: 50-29-3			
4.207	4.208	-0.001	1837	0.04000	0.0391		(M)	RT
18 Endrin aldehyde					CAS #: 7421-36-3			
4.289	4.289	0.000	1661	0.04000	0.0396		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.427	4.428	-0.001	1907	0.04000	0.0395		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.662	0.001	4779	0.20000	0.195		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
4.850	4.850	0.000	1695	0.04000	0.0397		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.646	-0.002	1967	0.04000	0.0396		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0200	
58-89-9	gamma-BHC (Lindane)	0.0200	
319-85-7	beta-BHC	0.0210	
76-44-8	delta-BHC	0.0199	
319-86-8	Heptachlor	0.0197	
309-00-2	Aldrin	0.0198	
1024-57-3	Heptachlor epoxide	0.0198	
5103-74-2	gamma-Chlordane	0.0199	
5103-71-9	alpha-Chlordane	0.0197	
959-98-8	Endosulfan I	0.0199	
72-55-9	4,4'-DDE	0.0396	
60-57-1	Dieldrin	0.0390	
72-20-8	Endrin	0.0385	
72-54-8	4,4'-DDD	0.0404	
33213-65-9	Endosulfan II	0.0399	
50-29-3	4,4'-DDT	0.0391	
7421-36-3	Endrin aldehyde	0.0396	
1031-07-8	Endosulfan sulfate	0.0395	
72-43-5	Methoxychlor	0.195	
53494-70-5	Endrin ketone	0.0397	
----------	Tetrachloro-m-xylene (S)	0.0401	
----------	Decachlorobiphenyl (S)	0.0396	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-013.d

Date : 27-JUN-2019 15:43

Client ID: CAL4

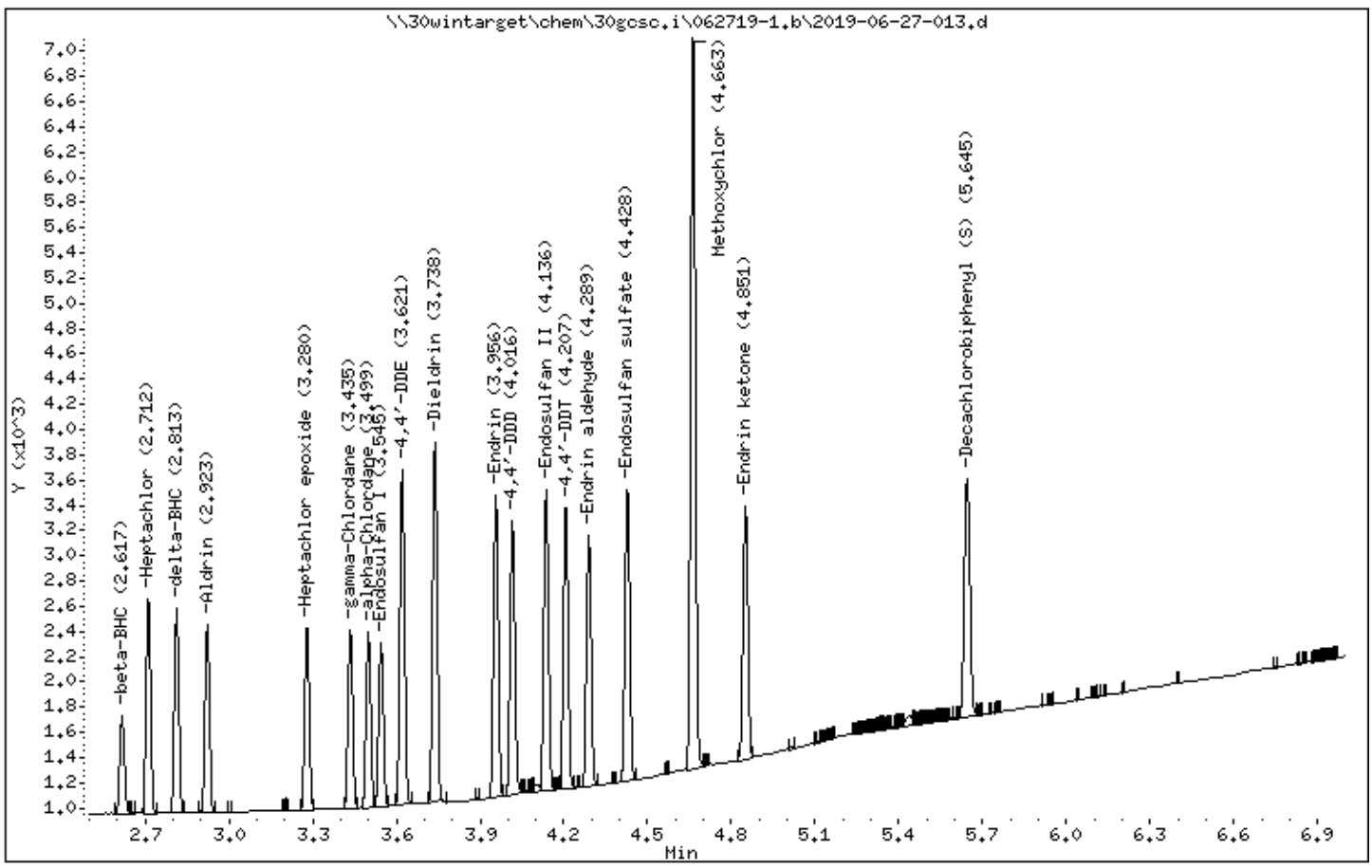
Instrument: 30gcsc.i

Sample Info: CAL4, 92178:1

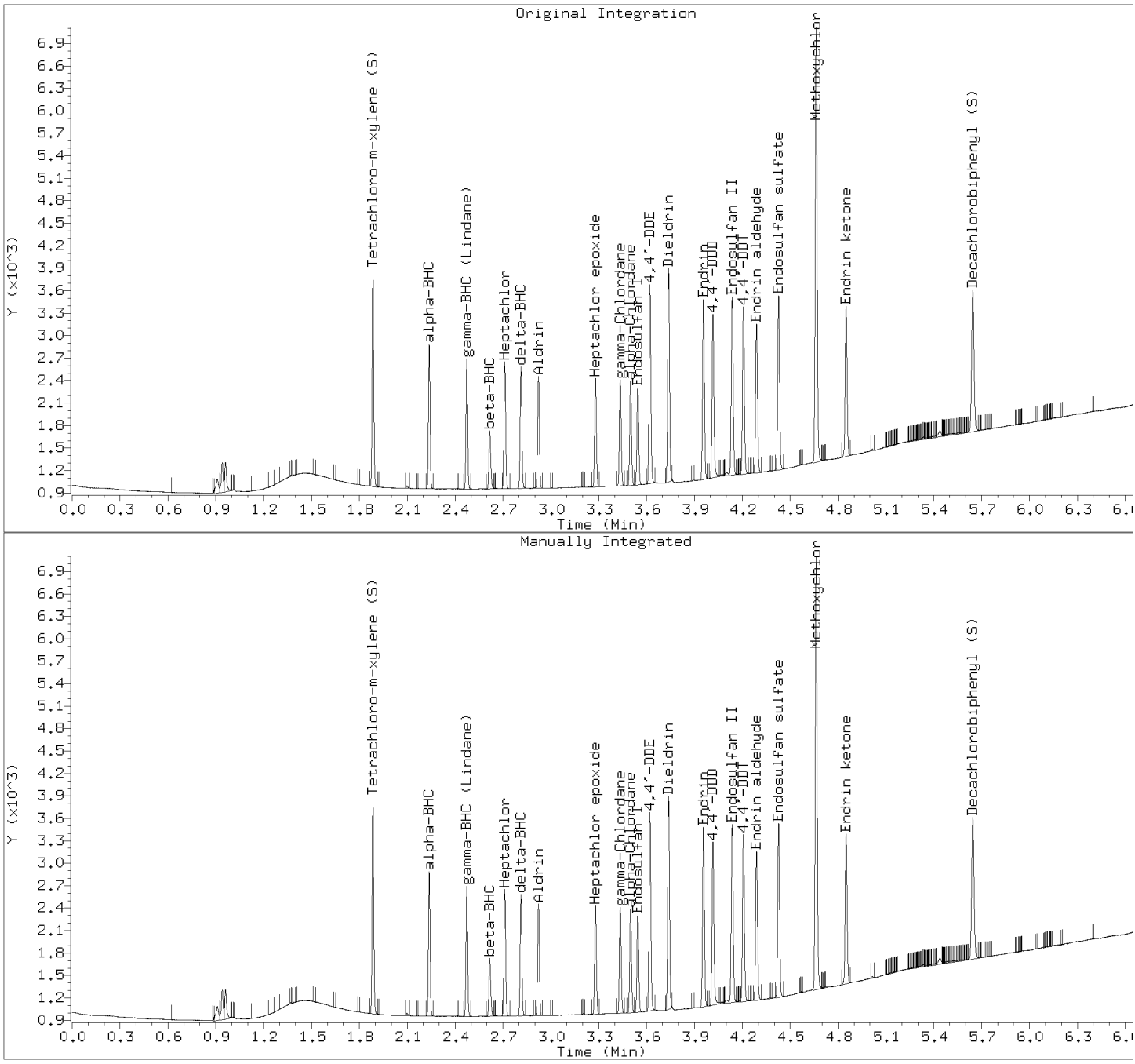
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:43 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1365	1365
beta-BHC	623	623
delta-BHC	1211	1211
gamma-BHC (Lindane)	1255	1255
Heptachlor	1287	1287
Aldrin	1140	1140
Heptachlor epoxide	1127	1127
Endosulfan I	1058	1058
Dieldrin	2230	2230
4,4'-DDE	2103	2103
Endrin	1926	1926
Endosulfan II	1958	1958
4,4'-DDD	1793	1793
Endosulfan sulfate	1907	1907

4,4'-DDT	1837	1837
Methoxychlor	4779	4779
Endrin ketone	1695	1695
Endrin aldehyde	1661	1661
alpha-Chlordane	1101	1101
gamma-Chlordane	1128	1128
Tetrachloro-m-xylene (S)	2028	2028
Decachlorobiphenyl (S)	1967	1967

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT			COMPOUNDS	REVIEW CODE
0.419	1	1	0.775	0.0066				
0.866	1	3	2.492	0.0198				
0.878	29	115	3.990	0.7597				
0.907	4	7	1.720	0.0462				
0.951	5	8	1.709	0.0528				
0.981	70	90	1.284	0.5945				
1.009	66	99	1.510	0.6540				
1.056	1	2	1.695	0.0132				
1.210	1	2	1.980	0.0132				
1.305	1	2	1.734	0.0132				
1.399	1	2	1.538	0.0132				
1.443	2	3	1.613	0.0198				
1.459	2	3	1.442	0.0198				
1.488	1	3	2.239	0.0198				
1.553	2	3	1.579	0.0198				
1.793	1	3	3.000	0.0198				
2.128	2	4	2.548	0.0264				
2.359	745	988	1.327	6.5270	$	1	Tetrachloro-m-xylene (S)	RT
2.569	1	5	4.781	0.0330				
2.623	483	648	1.341	4.2809		2	alpha-BHC	RT
2.840	439	576	1.312	3.8052		3	gamma-BHC (Lindane)	RT
3.001	218	278	1.273	1.8365		4	beta-BHC	RT
3.091	3	5	1.868	0.0330				
3.187	439	568	1.294	3.7523		5	delta-BHC	RT
3.250	421	531	1.260	3.5079		6	Heptachlor	RT
3.321	1	4	3.810	0.0264				
3.478	391	475	1.214	3.1380		7	Aldrin	RT
3.710	3	6	1.824	0.0396				
3.771	388	468	1.205	3.0917		8	Heptachlor epoxide	RT
3.984	384	450	1.171	2.9728		9	gamma-Chlordane	RT
4.020	378	453	1.199	2.9926		10	alpha-Chlordane	RT
4.053	363	436	1.201	2.8803		11	Endosulfan I	RT
4.099	711	873	1.229	5.7673		12	4,4'-DDE	RT
4.170	2	4	1.980	0.0264				
4.227	756	914	1.209	6.0381		13	Dieldrin	RT
4.389	599	705	1.176	4.6574		14	Endrin	RT
4.417	2	5	2.525	0.0330				

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.451	599	727	1.213	4.8028		15 4,4'-DDD	RT
4.562	659	775	1.176	5.1199		16 Endosulfan II	RT
4.635	574	674	1.174	4.4526		17 Endrin aldehyde	RT
4.662	479	583	1.218	3.8514		18 4,4'-DDT	RT
4.826	641	755	1.177	4.9877		19 Endosulfan sulfate	RT
4.863	4	7	1.989	0.0462			
4.916	2	7	4.118	0.0462			
4.947	1448	1683	1.162	11.1205		20 Methoxychlor	RT
5.103	10	17	1.765	0.1123			
5.125	585	662	1.131	4.3733		21 Endrin ketone	RT
5.776	2	4	1.786	0.0264			
6.001	1	3	2.419	0.0198			
6.071	2	6	3.526	0.0396			
6.081	7	12	1.813	0.0792			
6.085	2	10	4.237	0.0660			
6.334	639	470	0.736	3.1049	$	24 Decachlorobiphenyl (S)	RT
	12573	15137		100.000			

Total unknown % height = 2.94

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 27-JUN-2019 15:43
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal4, 92178:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	744	0.04000	0.0403		(M)	RT
2 alpha-BHC					CAS #: 319-84-6			
2.623	2.623	0.000	483	0.02000	0.0200		(M)	RT
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.840	2.840	0.000	439	0.02000	0.0199		(M)	RT
4 beta-BHC					CAS #: 319-85-7			
3.001	3.001	0.000	218	0.02000	0.0198		(M)	RT
5 delta-BHC					CAS #: 319-86-8			
3.187	3.187	0.000	438	0.02000	0.0198		(M)	RT
6 Heptachlor					CAS #: 76-44-8			
3.249	3.249	0.000	421	0.02000	0.0196		(M)	RT
7 Aldrin					CAS #: 309-00-2			
3.477	3.477	0.000	391	0.02000	0.0198		(M)	RT
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.770	3.770	0.000	388	0.02000	0.0195		(M)	RT
9 gamma-Chlordane					CAS #: 5103-74-2			
3.983	3.983	0.000	384	0.02000	0.0199		(M)	RT
10 alpha-Chlordane					CAS #: 5103-71-9			
4.020	4.020	0.000	377	0.02000	0.0199		(M)	RT
11 Endosulfan I					CAS #: 959-98-8			
4.053	4.053	0.000	363	0.02000	0.0199		(M)	RT

RT	EXP RT	DLT RT	AMOUNTS RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.098	4.098	0.000	710	0.04000	0.0397		(M)	RT
13 Dieldrin					CAS #: 60-57-1			
4.227	4.227	0.000	756	0.04000	0.0394		(M)	RT
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	599	0.04000	0.0379		(M)	RT
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	599	0.04000	0.0395		(M)	RT
16 Endosulfan II					CAS #: 33213-65-9			
4.562	4.562	0.000	659	0.04000	0.0392		(M)	RT
17 Endrin aldehyde					CAS #: 7421-36-3			
4.635	4.635	0.000	574	0.04000	0.0395		(M)	RT
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	478	0.04000	0.0398		(M)	RT
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.826	4.826	0.000	641	0.04000	0.0396		(M)	RT
20 Methoxychlor					CAS #: 72-43-5			
4.947	4.947	0.000	1448	0.20000	0.196		(M)	RT
21 Endrin ketone					CAS #: 53494-70-5			
5.125	5.125	0.000	585	0.04000	0.0401		(M)	RT
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.334	6.334	0.000	638	0.04000	0.0400		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

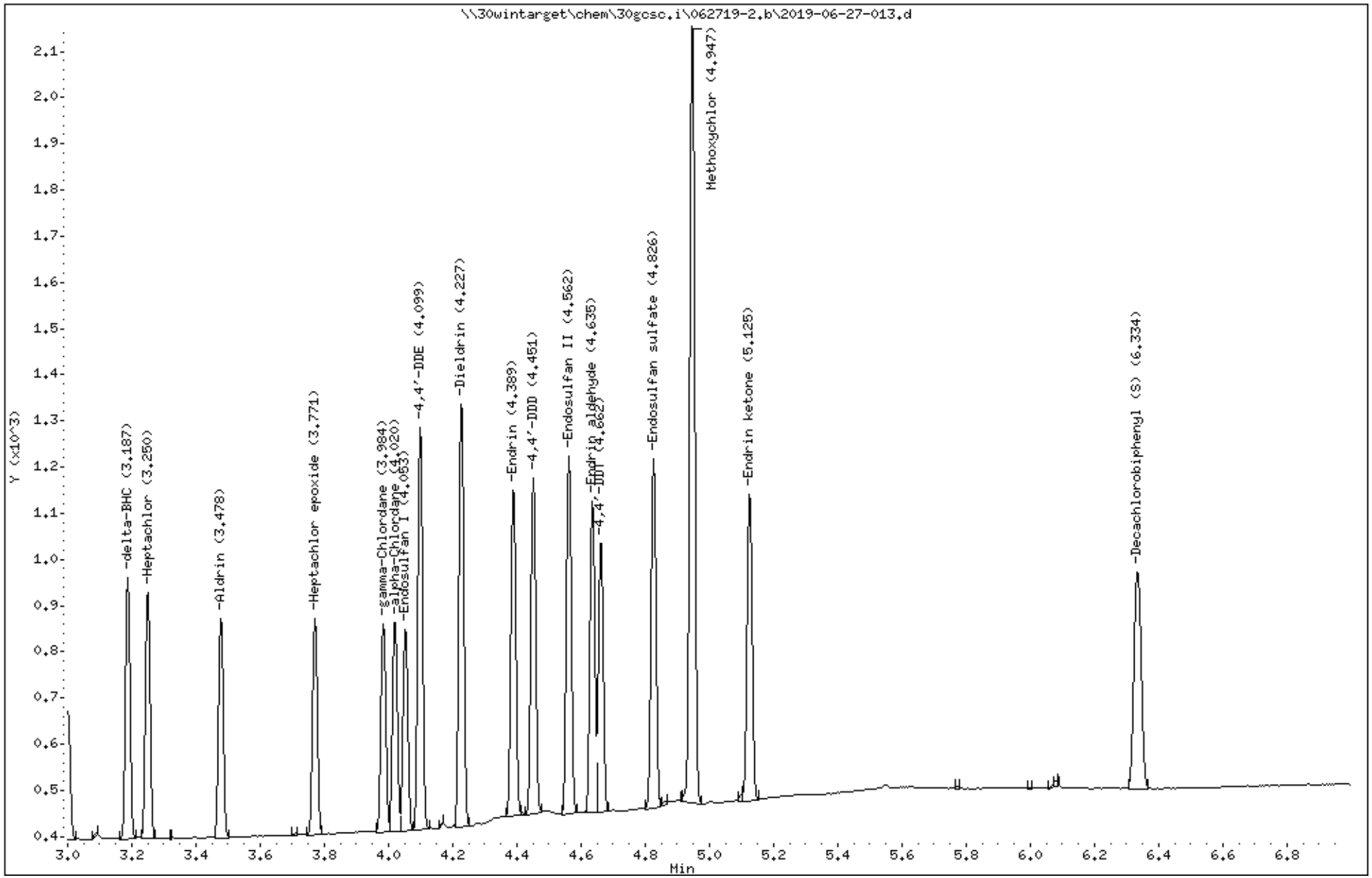
Client SDG: 30GCSC-062719-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0200	
58-89-9	gamma-BHC (Lindane)	0.0199	
319-85-7	beta-BHC	0.0198	
319-86-8	delta-BHC	0.0198	
76-44-8	Heptachlor	0.0196	
309-00-2	Aldrin	0.0198	
1024-57-3	Heptachlor epoxide	0.0195	
5103-74-2	gamma-Chlordane	0.0199	
5103-71-9	alpha-Chlordane	0.0199	
959-98-8	Endosulfan I	0.0199	
72-55-9	4,4'-DDE	0.0397	
60-57-1	Dieldrin	0.0394	
72-20-8	Endrin	0.0379	
72-54-8	4,4'-DDD	0.0395	
33213-65-9	Endosulfan II	0.0392	
7421-36-3	Endrin aldehyde	0.0395	
50-29-3	4,4'-DDT	0.0398	
1031-07-8	Endosulfan sulfate	0.0396	
72-43-5	Methoxychlor	0.196	
53494-70-5	Endrin ketone	0.0401	
----------	Tetrachloro-m-xylene (S)	0.0403	
----------	Decachlorobiphenyl (S)	0.0400	

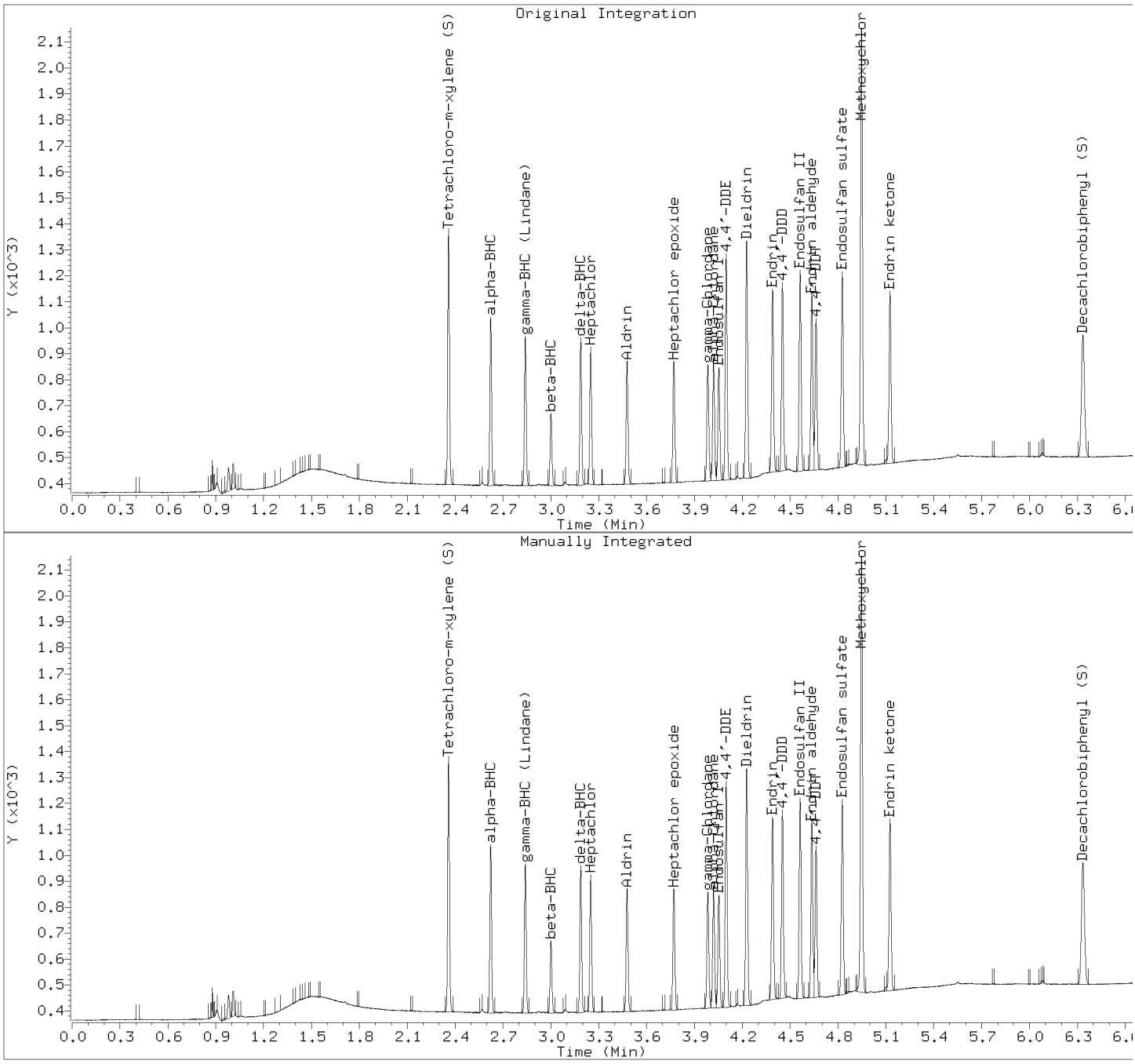
Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-013.d
Date : 27-JUN-2019 15:43
Client ID: CAL4
Sample Info: CAL4, 92178:1

Instrument: 30gcsc.i

Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-013.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:43 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL4



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	483	483
beta-BHC	218	218
delta-BHC	438	438
gamma-BHC (Lindane)	439	439
Heptachlor	421	421
Aldrin	391	391
Heptachlor epoxide	388	388
Endosulfan I	363	363
Dieldrin	756	756
4,4'-DDE	710	710
Endrin	599	599
Endosulfan II	659	659
4,4'-DDD	599	599
Endosulfan sulfate	641	641

4,4'-DDT	478	478
Methoxychlor	1448	1448
Endrin ketone	585	585
Endrin aldehyde	574	574
alpha-Chlordane	377	377
gamma-Chlordane	384	384
Tetrachloro-m-xylene (S)	744	744
Decachlorobiphenyl (S)	638	638

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.888	11	50	4.669	0.0427			
0.896	121	211	1.738	0.1802			
0.910	292	317	1.086	0.2708			
0.941	522	599	1.148	0.5118			
0.962	475	566	1.192	0.4836			
1.004	8	17	2.029	0.0145			
1.041	4	11	2.558	0.0093			
1.093	7	9	1.245	0.0076			
1.129	5	10	2.000	0.0085			
1.341	4	2	0.471	0.0017			
1.372	11	21	1.970	0.0179			
1.399	2	9	3.830	0.0076			
1.404	3	12	3.934	0.0102			
1.407	4	16	4.533	0.0136			
1.416	8	20	2.608	0.0170			
1.422	12	26	2.116	0.0222			
1.433	13	23	1.769	0.0196			
1.441	7	24	3.692	0.0205			
1.443	3	24	8.541	0.0205			
1.448	7	31	4.539	0.0264			
1.451	23	37	1.609	0.0316			
1.461	11	26	2.295	0.0222			
1.472	11	24	2.273	0.0205			
1.479	9	26	2.905	0.0222			
1.486	8	22	2.628	0.0187			
1.492	5	18	3.279	0.0153			
1.498	2	15	6.250	0.0128			
1.501	2	15	6.410	0.0128			
1.506	5	13	2.519	0.0111			
1.790	7	13	1.851	0.0111			
1.885	4764	6826	1.433	5.8327	$	1 Tetrachloro-m-xylene (S)	
2.099	58	80	1.384	0.0683			
2.219	4	15	3.363	0.0128			
2.238	3344	4715	1.410	4.0289		2 alpha-BHC	
2.412	3	14	4.965	0.0119			
2.414	11	20	1.776	0.0170			
2.473	3047	4168	1.368	3.5615		3 gamma-BHC (Lindane)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.558	2	6	2.857	0.0051		
2.617	1353	1797	1.328	1.5355	4 beta-BHC	
2.711	3110	4156	1.336	3.5512	5 Heptachlor	
2.813	2985	3994	1.338	3.4128	6 delta-BHC	
2.897	16	24	1.548	0.0205		
2.923	2781	3618	1.301	3.0915	7 Aldrin	
3.003	12	16	1.346	0.0136		
3.116	3	6	2.335	0.0051		
3.157	4	8	1.980	0.0068		
3.201	7	16	2.253	0.0136		
3.280	2705	3401	1.257	2.9061	8 Heptachlor epoxide	
3.435	2728	3460	1.268	2.9565	9 gamma-Chlordane	
3.500	2638	3321	1.259	2.8377	10 alpha-Chlordane	
3.545	2546	3141	1.234	2.6839	11 Endosulfan I	
3.621	5220	6511	1.247	5.5636	12 4,4'-DDE	
3.665	2	10	4.348	0.0085		
3.738	5606	6979	1.245	5.9635	13 Dieldrin	
3.834	2	8	3.941	0.0068		
3.837	3	8	2.469	0.0068		
3.896	10	15	1.476	0.0128		
3.957	4945	6157	1.245	5.2611	14 Endrin	
4.016	4372	5214	1.193	4.4553	15 4,4'-DDD	
4.054	4	13	3.652	0.0111		
4.099	4	15	3.896	0.0128		
4.101	8	20	2.360	0.0170		
4.137	4697	5800	1.235	4.9560	16 Endosulfan II	
4.186	16	28	1.799	0.0239		
4.207	4671	5901	1.263	5.0423	17 4,4'-DDT	
4.290	3995	4930	1.234	4.2126	18 Endrin aldehyde	
4.376	15	24	1.609	0.0205		
4.428	4656	5628	1.209	4.8091	19 Endosulfan sulfate	
4.543	2	7	2.979	0.0059		
4.549	3	7	2.295	0.0059		
4.571	22	29	1.347	0.0247		
4.633	2	7	3.398	0.0059		
4.663	11735	13839	1.179	11.8338	20 Methoxychlor	
4.716	2	8	3.404	0.0068		
4.851	4087	4916	1.203	4.2007	21 Endrin ketone	
5.015	46	58	1.248	0.0495		
5.116	3	9	3.273	0.0076		
5.125	2	11	4.681	0.0093		
5.135	6	14	2.295	0.0119		
5.144	3	12	4.633	0.0102		
5.156	10	17	1.735	0.0145		
5.158	2	16	7.805	0.0136		
5.161	3	17	6.367	0.0145		
5.166	6	18	3.030	0.0153		
5.172	4	20	4.902	0.0170		
5.176	4	19	4.715	0.0162		
5.180	4	17	4.315	0.0145		
5.186	12	22	1.913	0.0187		
5.193	3	21	6.908	0.0179		
5.196	4	22	5.023	0.0187		
5.200	10	24	2.297	0.0205		
5.209	6	20	3.448	0.0170		
5.213	3	21	7.807	0.0179		
5.216	5	22	4.331	0.0187		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.221	8	23	2.864	0.0196		
5.228	6	21	3.697	0.0179		
5.232	5	23	4.220	0.0196		
5.237	9	20	2.273	0.0170		
5.244	5	22	4.681	0.0187		
5.248	2	21	9.545	0.0179		
5.251	9	23	2.602	0.0196		
5.259	4	21	5.072	0.0179		
5.262	4	23	5.913	0.0196		
5.266	6	22	3.487	0.0187		
5.271	5	21	4.234	0.0179		
5.276	5	21	4.234	0.0179		
5.284	9	22	2.552	0.0187		
5.288	4	21	4.784	0.0179		
5.292	6	22	3.509	0.0187		
5.296	4	25	6.631	0.0213		
5.298	5	23	4.299	0.0196		
5.308	10	26	2.697	0.0222		
5.312	12	25	2.153	0.0213		
5.320	4	22	4.922	0.0187		
5.325	9	31	3.452	0.0264		
5.328	4	34	9.140	0.0290		
5.335	20	46	2.276	0.0393		
5.338	20	40	2.024	0.0341		
5.350	5	24	4.412	0.0205		
5.354	7	22	3.064	0.0187		
5.362	6	20	3.150	0.0170		
5.367	3	21	7.216	0.0179		
5.370	4	20	5.291	0.0170		
5.372	5	22	4.391	0.0187		
5.377	3	20	5.764	0.0170		
5.382	7	22	2.949	0.0187		
5.387	4	19	4.419	0.0162		
5.393	4	17	4.156	0.0145		
5.397	4	18	4.500	0.0153		
5.399	4	21	5.048	0.0179		
5.405	4	17	4.416	0.0145		
5.409	4	19	4.822	0.0162		
5.416	7	18	2.695	0.0153		
5.421	5	21	4.217	0.0179		
5.424	4	27	6.136	0.0230		
5.441	157	147	0.939	0.1256		
5.465	3	14	4.682	0.0119		
5.474	4	10	2.639	0.0085		
5.478	3	10	3.205	0.0085		
5.497	3	11	4.183	0.0093		
5.646	4532	4334	0.956	3.7033	$ 24 Decachlorobiphenyl (S)	
6.107	2	10	4.386	0.0085		
6.111	3	9	3.321	0.0076		
6.223	2	7	3.302	0.0059		
6.330	3	6	2.264	0.0051		
6.338	2	7	3.196	0.0059		
6.615	3	6	2.344	0.0051		
6.684	2	8	3.774	0.0068		
6.772	2	9	4.500	0.0076		
6.902	2	11	5.307	0.0093		
6.907	2	11	4.867	0.0093		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.923	3	9	3.000	0.0076		
	92922	117028		100.000		

Total unknown % height = 3.60

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.884	1.884	0.000	4764	0.10000	0.0942			
2 alpha-BHC						CAS #: 319-84-6		
2.237	2.238	-0.001	3343	0.05000	0.0491			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.472	2.472	0.000	3047	0.05000	0.0485			
4 beta-BHC						CAS #: 319-85-7		
2.616	2.617	-0.001	1352	0.05000	0.0457			
6 delta-BHC						CAS #: 76-44-8		
2.812	2.812	0.000	2985	0.05000	0.0490			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	3109	0.05000	0.0476			
7 Aldrin						CAS #: 309-00-2		
2.922	2.922	0.000	2780	0.05000	0.0484			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.279	3.279	0.000	2704	0.05000	0.0475			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.434	3.436	-0.002	2727	0.05000	0.0481			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.499	3.499	0.000	2637	0.05000	0.0473			
11 Endosulfan I						CAS #: 959-98-8		
3.544	3.544	0.000	2545	0.05000	0.0479			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.620	3.621	-0.001	5219	0.10000	0.0982			
13 Dieldrin						CAS #: 60-57-1		
3.737	3.738	-0.001	5605	0.10000	0.0979			
14 Endrin						CAS #: 72-20-8		
3.956	3.957	-0.001	4944	0.10000	0.0988			
15 4,4'-DDD						CAS #: 72-54-8		
4.015	4.016	-0.001	4371	0.10000	0.0984			
16 Endosulfan II						CAS #: 33213-65-9		
4.136	4.137	-0.001	4696	0.10000	0.0956			
17 4,4'-DDT						CAS #: 50-29-3		
4.207	4.208	-0.001	4671	0.10000	0.0994			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.289	4.289	0.000	3995	0.10000	0.0953			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.427	4.428	-0.001	4656	0.10000	0.0965			
20 Methoxychlor						CAS #: 72-43-5		
4.663	4.662	0.001	11734	0.50000	0.479			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	4087	0.10000	0.0958			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.645	5.646	-0.001	4531	0.10000	0.0912			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0491	
58-89-9	gamma-BHC (Lindane)	0.0485	
319-85-7	beta-BHC	0.0457	
76-44-8	delta-BHC	0.0490	
319-86-8	Heptachlor	0.0476	
309-00-2	Aldrin	0.0484	
1024-57-3	Heptachlor epoxide	0.0475	
5103-74-2	gamma-Chlordane	0.0481	
5103-71-9	alpha-Chlordane	0.0473	
959-98-8	Endosulfan I	0.0479	
72-55-9	4,4'-DDE	0.0982	
60-57-1	Dieldrin	0.0979	
72-20-8	Endrin	0.0988	
72-54-8	4,4'-DDD	0.0984	
33213-65-9	Endosulfan II	0.0956	
50-29-3	4,4'-DDT	0.0994	
7421-36-3	Endrin aldehyde	0.0953	
1031-07-8	Endosulfan sulfate	0.0965	
72-43-5	Methoxychlor	0.479	
53494-70-5	Endrin ketone	0.0958	
	Tetrachloro-m-xylene (S)	0.0942	
	Decachlorobiphenyl (S)	0.0912	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-014.d

Date : 27-JUN-2019 15:53

Client ID: CAL5

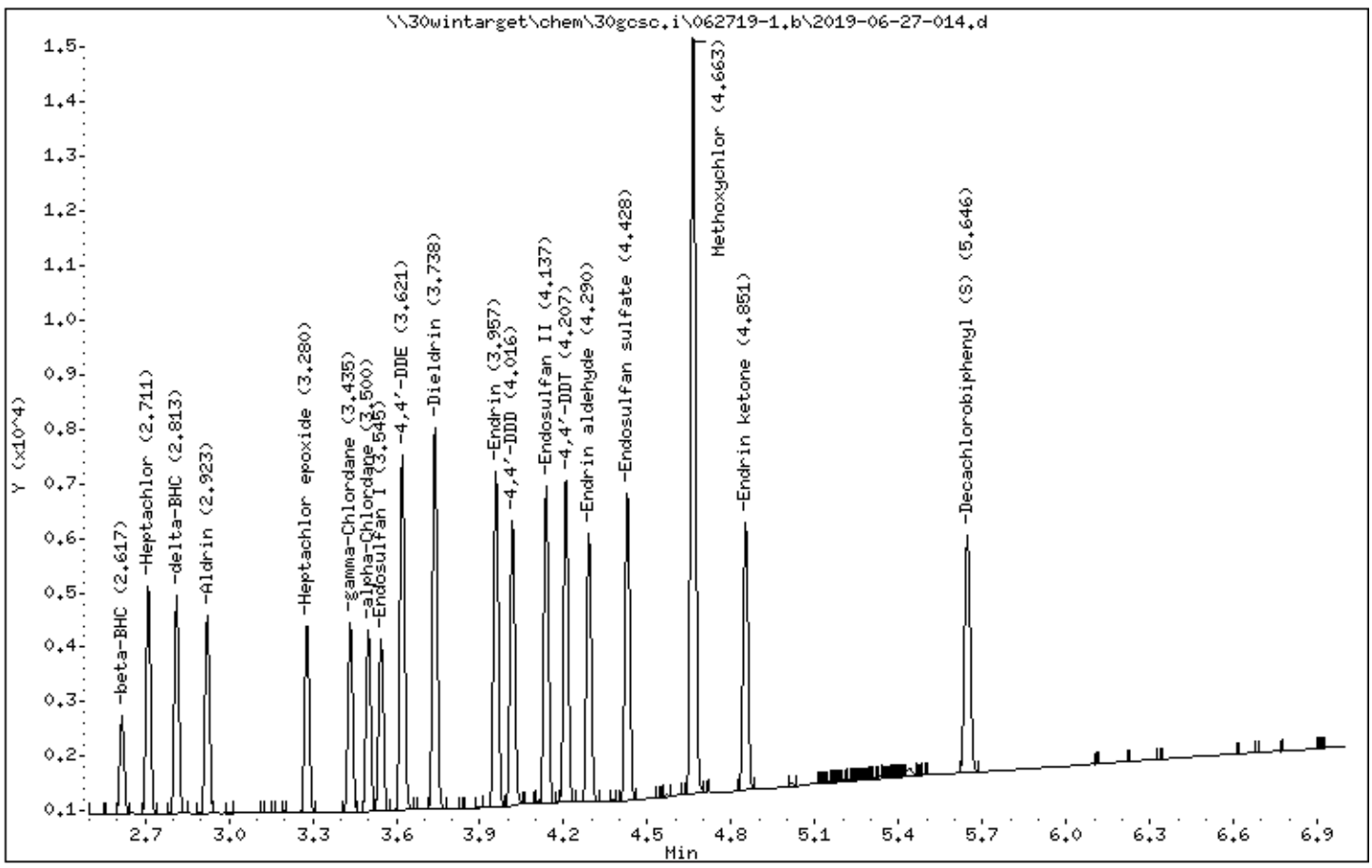
Instrument: 30gcsc.i

Sample Info: CAL5, 92179:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:53 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	3343	3343
beta-BHC	1352	1352
delta-BHC	2985	2985
gamma-BHC (Lindane)	3047	3047
Heptachlor	3109	3109
Aldrin	2780	2780
Heptachlor epoxide	2704	2704
Endosulfan I	2545	2545
Dieldrin	5605	5605
4,4'-DDE	5219	5219
Endrin	4944	4944
Endosulfan II	4696	4696
4,4'-DDD	4371	4371
Endosulfan sulfate	4656	4656
4,4'-DDT	4671	4671
Methoxychlor	11734	11734
Endrin ketone	4087	4087
Endrin aldehyde	3995	3995
alpha-Chlordane	2637	2637
gamma-Chlordane	2727	2727
Tetrachloro-m-xylene (S)	4764	4764
Decachlorobiphenyl (S)	4531	4531

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.170	1	2	1.852	0.0055			
0.592	1	2	1.342	0.0055			
0.864	1	4	3.810	0.0110			
0.879	82	215	2.625	0.5951			
0.907	78	74	0.949	0.2048			
0.952	2	5	2.661	0.0138			
0.981	105	145	1.388	0.4013			
1.010	97	146	1.512	0.4041			
1.431	2	4	1.818	0.0110			
1.438	1	4	3.053	0.0110			
1.710	2	6	2.913	0.0166			
1.797	4	6	1.681	0.0166			
2.130	3	4	1.404	0.0110			
2.359	1719	2298	1.337	6.3612	$	1 Tetrachloro-m-xylene (S)	
2.569	4	9	2.495	0.0249			
2.623	1163	1550	1.333	4.2906		2 alpha-BHC	
2.649	1	3	2.857	0.0083			
2.840	1057	1376	1.302	3.8089		3 gamma-BHC (Lindane)	
3.001	498	634	1.273	1.7550		4 beta-BHC	
3.098	2	3	1.376	0.0083			
3.187	1065	1349	1.267	3.7342		5 delta-BHC	
3.223	12	14	1.131	0.0387			
3.250	1018	1258	1.235	3.4823		6 Heptachlor	
3.478	942	1140	1.210	3.1557		7 Aldrin	
3.710	2	4	1.902	0.0110			
3.742	1	4	3.361	0.0110			
3.771	920	1123	1.221	3.1086		8 Heptachlor epoxide	
3.872	1	2	1.980	0.0055			
3.902	1	3	2.778	0.0083			
3.984	905	1077	1.190	2.9813		9 gamma-Chlordane	
4.020	891	1057	1.187	2.9259		10 alpha-Chlordane	
4.052	860	1014	1.178	2.8069		11 Endosulfan I	
4.099	1733	2118	1.222	5.8629		12 4,4'-DDE	
4.169	22	27	1.253	0.0747			
4.228	1843	2180	1.183	6.0346		13 Dieldrin	
4.275	3	5	1.998	0.0138			
4.308	1	5	4.587	0.0138			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.336	6	6	1.002	0.0166			
4.347	1	4	3.810	0.0110			
4.389	1514	1756	1.160	4.8608		14 Endrin	
4.451	1476	1793	1.215	4.9633		15 4,4'-DDD	
4.487	6	14	2.365	0.0387			
4.495	10	20	1.963	0.0553			
4.500	3	14	4.154	0.0387			
4.562	1586	1859	1.172	5.1460		16 Endosulfan II	
4.635	1366	1593	1.166	4.4096		17 Endrin aldehyde	
4.662	1275	1518	1.191	4.2020		18 4,4'-DDT	
4.700	2	7	3.365	0.0193			
4.706	3	7	2.652	0.0193			
4.826	1532	1763	1.151	4.8802		19 Endosulfan sulfate	
4.867	2	5	2.315	0.0138			
4.910	11	18	1.617	0.0498			
4.914	6	23	3.802	0.0636			
4.947	3584	4165	1.162	11.5323		20 Methoxychlor	
5.004	3	8	2.721	0.0221			
5.126	1398	1549	1.108	4.2878		21 Endrin ketone	
5.549	4	9	2.564	0.0249			
5.552	2	8	5.063	0.0221			
5.611	1	3	2.679	0.0083			
5.768	1	4	3.279	0.0110			
6.082	45	38	0.842	0.1051			
6.335	1454	1068	0.735	2.9564	$	24 Decachlorobiphenyl (S)	
6.526	1	3	2.542	0.0083			
	30335	36125		100.000			

Total unknown % height = 2.45

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 27-JUN-2019 15:53
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal5, 92179:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:53 Cal File: 2019-06-27-014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.358	2.359	-0.001	1719	0.10000	0.0931			
2 alpha-BHC							CAS #: 319-84-6	
2.623	2.623	0.000	1163	0.05000	0.0482			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.839	2.840	-0.001	1056	0.05000	0.0479			
4 beta-BHC							CAS #: 319-85-7	
3.000	3.001	-0.001	498	0.05000	0.0452			
5 delta-BHC							CAS #: 319-86-8	
3.186	3.187	-0.001	1064	0.05000	0.0480			
6 Heptachlor							CAS #: 76-44-8	
3.249	3.249	0.000	1018	0.05000	0.0474			
7 Aldrin							CAS #: 309-00-2	
3.477	3.477	0.000	941	0.05000	0.0476			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.770	3.770	0.000	919	0.05000	0.0462			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.983	3.983	0.000	905	0.05000	0.0469			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.019	4.020	-0.001	890	0.05000	0.0470			
11 Endosulfan I							CAS #: 959-98-8	
4.052	4.053	-0.001	860	0.05000	0.0470			

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.098	4.098	0.000	1732	0.10000	0.0969			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	1843	0.10000	0.0961			
14 Endrin						CAS #: 72-20-8		
4.388	4.389	-0.001	1514	0.10000	0.0958			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	1475	0.10000	0.0972			
16 Endosulfan II						CAS #: 33213-65-9		
4.561	4.562	-0.001	1586	0.10000	0.0943			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.635	4.635	0.000	1366	0.10000	0.0940			
18 4,4'-DDT						CAS #: 50-29-3		
4.661	4.662	-0.001	1274	0.10000	0.106			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.825	4.826	-0.001	1531	0.10000	0.0947			
20 Methoxychlor						CAS #: 72-43-5		
4.946	4.947	-0.001	3583	0.50000	0.485			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	1398	0.10000	0.0958			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.335	6.334	0.001	1453	0.10000	0.0910			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

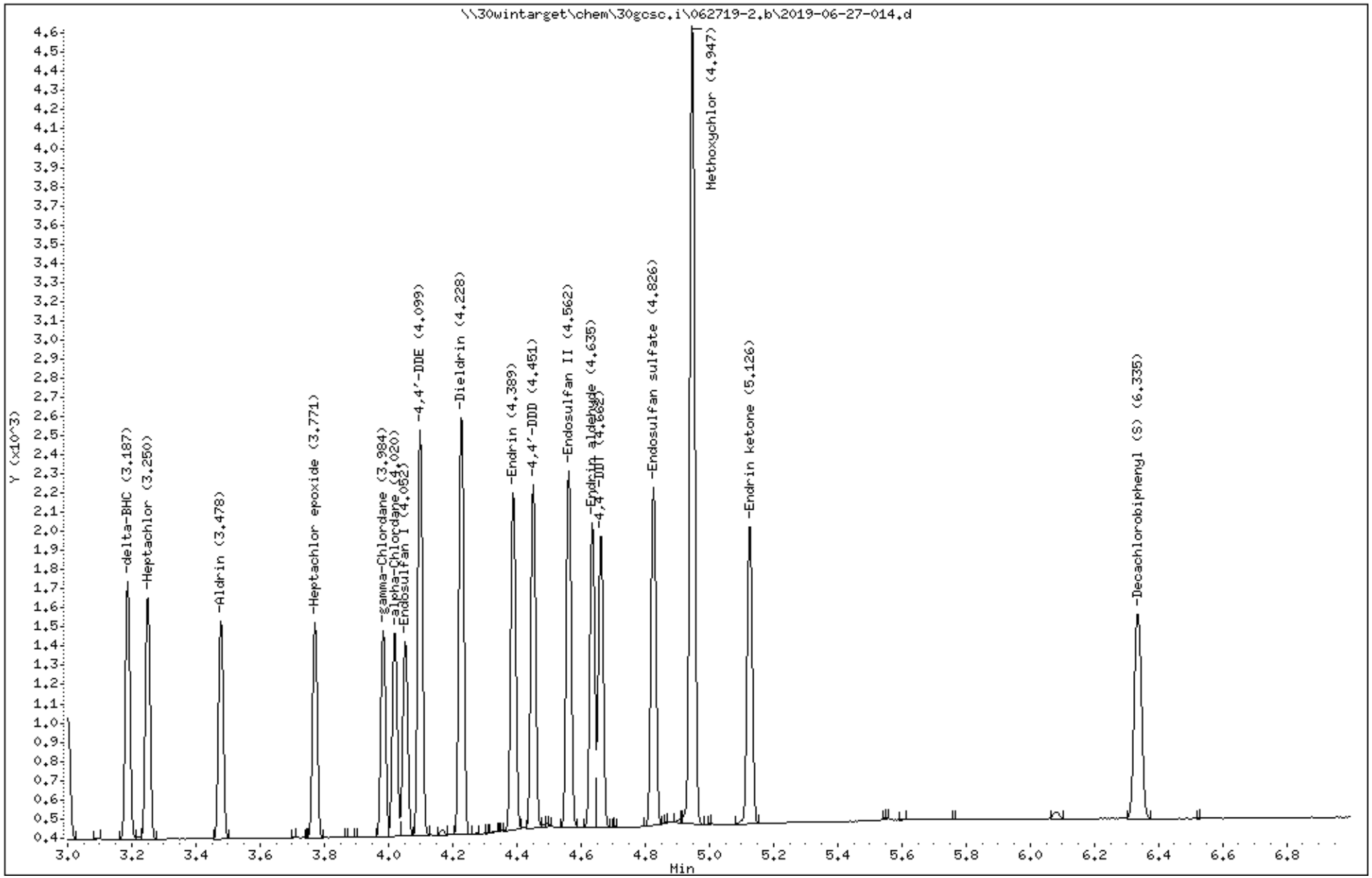
Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0482	
58-89-9	gamma-BHC (Lindane)	0.0479	
319-85-7	beta-BHC	0.0452	
319-86-8	delta-BHC	0.0480	
76-44-8	Heptachlor	0.0474	
309-00-2	Aldrin	0.0476	
1024-57-3	Heptachlor epoxide	0.0462	
5103-74-2	gamma-Chlordane	0.0469	
5103-71-9	alpha-Chlordane	0.0470	
959-98-8	Endosulfan I	0.0470	
72-55-9	4,4'-DDE	0.0969	
60-57-1	Dieldrin	0.0961	
72-20-8	Endrin	0.0958	
72-54-8	4,4'-DDD	0.0972	
33213-65-9	Endosulfan II	0.0943	
7421-36-3	Endrin aldehyde	0.0940	
50-29-3	4,4'-DDT	0.106	
1031-07-8	Endosulfan sulfate	0.0947	
72-43-5	Methoxychlor	0.485	
53494-70-5	Endrin ketone	0.0958	
	Tetrachloro-m-xylene (S)	0.0931	
	Decachlorobiphenyl (S)	0.0910	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-014.d
Date : 27-JUN-2019 15:53
Client ID: CAL5
Sample Info: CAL5, 92179:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-014.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 15:53 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL5

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1163	1163
beta-BHC	498	498
delta-BHC	1064	1064
gamma-BHC (Lindane)	1056	1056
Heptachlor	1018	1018
Aldrin	941	941
Heptachlor epoxide	919	919
Endosulfan I	860	860
Dieldrin	1843	1843
4,4'-DDE	1732	1732
Endrin	1514	1514
Endosulfan II	1586	1586
4,4'-DDD	1475	1475
Endosulfan sulfate	1531	1531
4,4'-DDT	1274	1274
Methoxychlor	3583	3583
Endrin ketone	1398	1398
Endrin aldehyde	1366	1366
alpha-Chlordane	890	890
gamma-Chlordane	905	905
Tetrachloro-m-xylene (S)	1719	1719
Decachlorobiphenyl (S)	1453	1453

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.896	302	454	1.505	0.1941		
0.911	543	566	1.042	0.2420		
0.941	868	901	1.038	0.3853		
0.962	774	784	1.013	0.3352		
1.005	140	110	0.788	0.0470		
1.037	10	25	2.591	0.0106		
1.039	9	28	2.982	0.0119		
1.045	8	25	3.012	0.0106		
1.131	6	11	1.705	0.0047		
1.216	3	4	1.390	0.0017		
1.312	2	7	3.084	0.0029		
1.316	4	10	2.519	0.0042		
1.331	11	27	2.387	0.0115		
1.333	3	27	8.824	0.0115		
1.338	17	32	1.847	0.0136		
1.346	7	26	3.641	0.0111		
1.355	13	30	2.285	0.0128		
1.360	6	35	5.963	0.0149		
1.372	103	112	1.088	0.0478		
1.386	11	46	4.267	0.0196		
1.391	15	46	3.028	0.0196		
1.395	11	45	4.253	0.0192		
1.402	17	49	2.924	0.0209		
1.408	19	48	2.512	0.0205		
1.413	12	49	4.250	0.0209		
1.416	9	52	5.759	0.0222		
1.419	14	54	3.927	0.0230		
1.423	21	55	2.633	0.0235		
1.428	13	51	4.028	0.0218		
1.434	12	50	4.325	0.0213		
1.437	11	51	4.802	0.0218		
1.452	73	70	0.961	0.0299		
1.461	5	47	10.240	0.0200		
1.463	16	48	2.930	0.0205		
1.483	97	83	0.857	0.0354		
1.501	8	25	2.952	0.0106		
1.506	3	21	6.562	0.0089		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
1.509	7	22	3.022	0.0094			
1.514	4	16	3.874	0.0068			
1.522	2	8	3.404	0.0034			
1.648	3	9	3.203	0.0038			
1.652	3	10	3.241	0.0042			
1.791	17	28	1.682	0.0119			
1.885	9646	13651	1.415	5.8379	$	1 Tetrachloro-m-xylene (S)	
1.935	3	7	2.473	0.0029			
2.100	115	159	1.387	0.0679			
2.238	6929	9800	1.414	4.1910		2 alpha-BHC	
2.416	26	34	1.284	0.0145			
2.474	6251	8579	1.372	3.6688		3 gamma-BHC (Lindane)	
2.554	3	10	3.135	0.0042			
2.557	3	13	5.118	0.0055			
2.561	8	14	1.804	0.0059			
2.617	2729	3576	1.310	1.5292		4 beta-BHC	
2.654	4	9	2.426	0.0038			
2.712	6220	8124	1.306	3.4742		5 Heptachlor	
2.793	11	19	1.707	0.0081			
2.813	6118	8044	1.315	3.4400		6 delta-BHC	
2.899	25	41	1.650	0.0175			
2.923	5655	7259	1.284	3.1043		7 Aldrin	
2.953	2	5	2.336	0.0021			
3.004	22	28	1.246	0.0119			
3.157	4	10	2.635	0.0042			
3.203	48	62	1.305	0.0265			
3.280	5406	6853	1.268	2.9307		8 Heptachlor epoxide	
3.347	2	5	2.212	0.0021			
3.436	5465	6853	1.254	2.9307		9 gamma-Chlordane	
3.501	5245	6480	1.235	2.7711		10 alpha-Chlordane	
3.546	5095	6387	1.254	2.7314		11 Endosulfan I	
3.622	10623	13420	1.263	5.7391		12 4,4'-DDE	
3.685	3	10	3.521	0.0042			
3.739	11352	14021	1.235	5.9961		13 Dieldrin	
3.802	3	7	2.509	0.0029			
3.838	5	12	2.273	0.0051			
3.897	27	36	1.351	0.0153			
3.958	9931	12132	1.222	5.1882		14 Endrin	
4.017	8951	10888	1.216	4.6562		15 4,4'-DDD	
4.053	28	53	1.864	0.0226			
4.063	8	22	2.828	0.0094			
4.087	7	12	1.821	0.0051			
4.103	15	22	1.495	0.0094			
4.138	9431	11582	1.228	4.9530		16 Endosulfan II	
4.186	32	51	1.573	0.0218			
4.209	9477	11801	1.245	5.0467		17 4,4'-DDT	
4.257	3	8	2.778	0.0034			
4.291	7942	9471	1.193	4.0503		18 Endrin aldehyde	
4.376	39	51	1.305	0.0218			
4.429	9304	11230	1.207	4.8025		19 Endosulfan sulfate	
4.571	13	27	2.024	0.0115			
4.603	4	14	3.365	0.0059			
4.610	13	23	1.738	0.0098			
4.620	7	19	2.919	0.0081			
4.624	4	20	5.602	0.0085			
4.631	7	23	3.067	0.0098			
4.665	23603	28985	1.228	12.4036		20 Methoxychlor	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.720	68	70	1.031	0.0299		
4.852	8247	9851	1.195	4.2128	21 Endrin ketone	
5.016	64	90	1.400	0.0384		
5.059	2	5	2.155	0.0021		
5.199	3	7	2.303	0.0029		
5.219	3	7	2.789	0.0029		
5.335	20	41	2.002	0.0175		
5.338	17	39	2.254	0.0166		
5.408	2	8	3.774	0.0034		
5.413	2	8	3.239	0.0034		
5.440	288	284	0.987	0.1214		
5.465	2	12	5.714	0.0051		
5.468	3	12	4.380	0.0051		
5.474	3	12	4.669	0.0051		
5.478	2	12	4.878	0.0051		
5.492	2	14	5.645	0.0059		
5.499	8	19	2.366	0.0081		
5.505	6	18	2.791	0.0076		
5.517	3	10	3.378	0.0042		
5.525	3	10	3.448	0.0042		
5.551	3	9	3.030	0.0038		
5.647	8933	8631	0.966	3.6910	$ 24 Decachlorobiphenyl (S)	
5.687	4	11	2.657	0.0047		
5.923	2	6	2.542	0.0025		
5.977	3	11	4.231	0.0047		
6.016	2	7	3.271	0.0029		
6.052	3	8	3.162	0.0034		
6.109	6	18	2.990	0.0076		
6.111	2	19	8.297	0.0081		
6.115	4	20	5.348	0.0085		
6.118	6	19	3.021	0.0081		
6.143	2	7	3.333	0.0029		
6.228	2	8	3.376	0.0034		
6.234	2	11	4.803	0.0047		
6.243	4	11	2.594	0.0047		
6.252	3	12	4.706	0.0051		
6.255	2	13	5.991	0.0055		
6.259	3	14	5.072	0.0059		
6.279	5	14	2.998	0.0059		
6.287	3	13	4.745	0.0055		
6.290	3	14	4.473	0.0059		
6.294	4	15	3.513	0.0064		
6.301	3	13	4.483	0.0055		
6.308	3	13	3.812	0.0055		
6.313	3	12	3.509	0.0051		
6.325	6	13	2.338	0.0055		
6.338	3	12	3.834	0.0051		
6.350	3	14	4.620	0.0059		
6.354	3	14	4.545	0.0059		
6.357	2	14	6.965	0.0059		
6.364	3	15	5.357	0.0064		
6.367	6	17	2.724	0.0072		
6.380	5	16	3.239	0.0068		
6.385	3	12	4.196	0.0051		
6.393	2	12	5.286	0.0051		
6.404	3	10	3.378	0.0042		
6.409	4	12	2.941	0.0051		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.422	3	11	3.437	0.0047		
6.435	2	10	4.545	0.0042		
6.456	3	9	2.744	0.0038		
6.462	2	10	4.348	0.0042		
6.566	2	6	3.000	0.0025		
6.781	2	10	4.717	0.0042		
	186917	233834		100.000		

Total unknown % height = 2.65

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.885	1.884	0.001	9645	0.20000	0.191			
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	6928	0.10000	0.102			(A)
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.474	2.472	0.002	6251	0.10000	0.0996			
4 beta-BHC						CAS #: 319-85-7		
2.617	2.617	0.000	2729	0.10000	0.0922			
6 delta-BHC						CAS #: 76-44-8		
2.813	2.812	0.001	6118	0.10000	0.100			(A)
5 Heptachlor						CAS #: 319-86-8		
2.712	2.711	0.001	6219	0.10000	0.0951			
7 Aldrin						CAS #: 309-00-2		
2.923	2.922	0.001	5655	0.10000	0.0985			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	5406	0.10000	0.0950			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.436	3.436	0.000	5464	0.10000	0.0963			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.499	0.001	5245	0.10000	0.0940			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	5095	0.10000	0.0959			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.622	3.621	0.001	10623	0.20000	0.200			
13 Dieldrin					CAS #: 60-57-1			
3.739	3.738	0.001	11351	0.20000	0.198			
14 Endrin					CAS #: 72-20-8			
3.958	3.957	0.001	9930	0.20000	0.198			
15 4,4'-DDD					CAS #: 72-54-8			
4.016	4.016	0.000	8951	0.20000	0.202		(A)	
16 Endosulfan II					CAS #: 33213-65-9			
4.137	4.137	0.000	9430	0.20000	0.192			
17 4,4'-DDT					CAS #: 50-29-3			
4.208	4.208	0.000	9477	0.20000	0.202		(A)	
18 Endrin aldehyde					CAS #: 7421-36-3			
4.290	4.289	0.001	7941	0.20000	0.189			
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.429	4.428	0.001	9304	0.20000	0.193			
20 Methoxychlor					CAS #: 72-43-5			
4.664	4.662	0.002	23603	1.00000	0.964			
21 Endrin ketone					CAS #: 53494-70-5			
4.852	4.850	0.002	8246	0.20000	0.193			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.647	5.646	0.001	8932	0.20000	0.180			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.102	E
58-89-9	gamma-BHC (Lindane)	0.0996	
319-85-7	beta-BHC	0.0922	
76-44-8	delta-BHC	0.100	E
319-86-8	Heptachlor	0.0951	
309-00-2	Aldrin	0.0985	
1024-57-3	Heptachlor epoxide	0.0950	
5103-74-2	gamma-Chlordane	0.0963	
5103-71-9	alpha-Chlordane	0.0940	
959-98-8	Endosulfan I	0.0959	
72-55-9	4,4'-DDE	0.200	
60-57-1	Dieldrin	0.198	
72-20-8	Endrin	0.198	
72-54-8	4,4'-DDD	0.202	E
33213-65-9	Endosulfan II	0.192	
50-29-3	4,4'-DDT	0.202	E
7421-36-3	Endrin aldehyde	0.189	
1031-07-8	Endosulfan sulfate	0.193	
72-43-5	Methoxychlor	0.964	
53494-70-5	Endrin ketone	0.193	
	Tetrachloro-m-xylene (S)	0.191	
	Decachlorobiphenyl (S)	0.180	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-015.d

Date : 27-JUN-2019 16:02

Client ID: CAL6

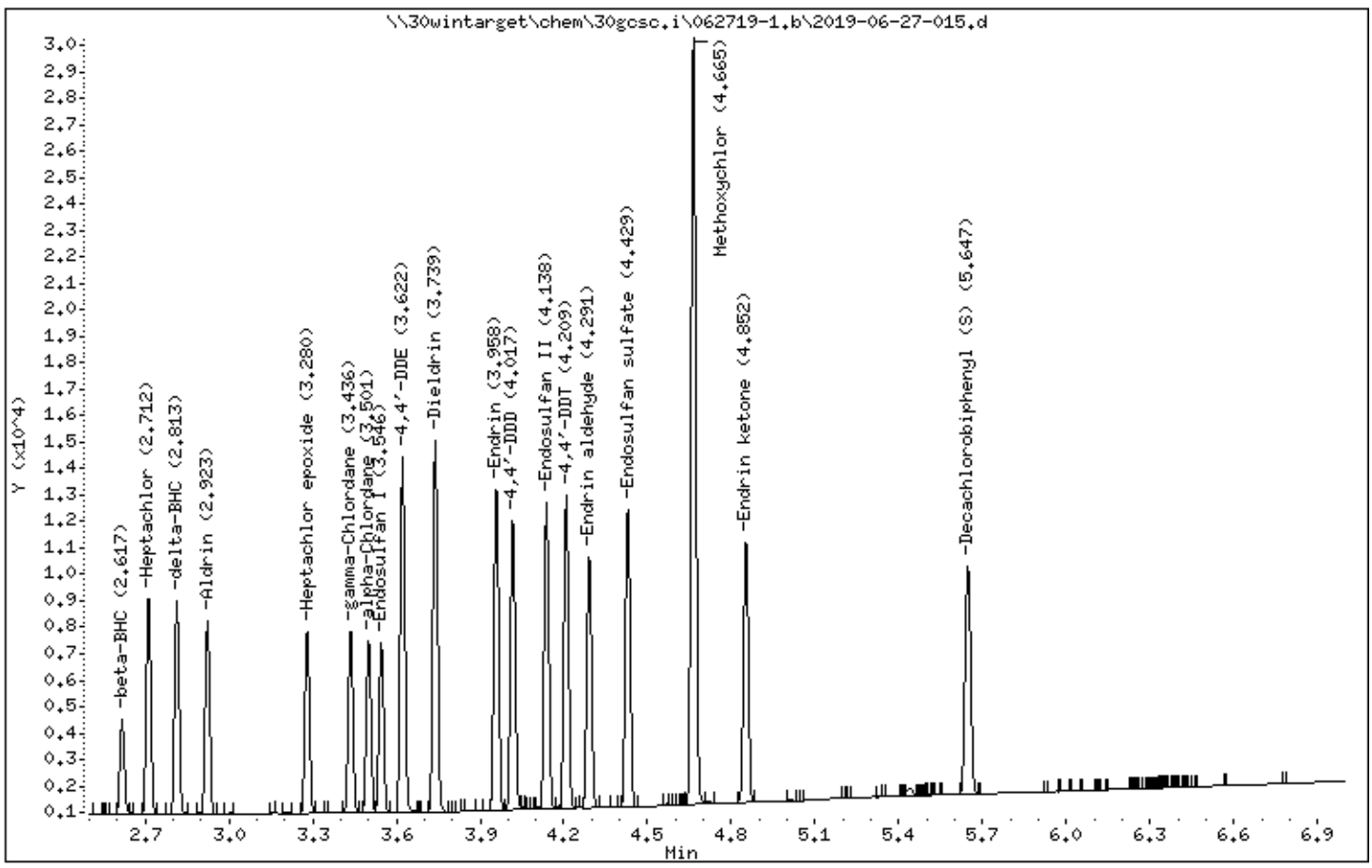
Instrument: 30gcsc.i

Sample Info: CAL6, 92180:1

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:02 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	6928	6928
beta-BHC	2729	2729
delta-BHC	6118	6118
gamma-BHC (Lindane)	6251	6251
Heptachlor	6219	6219
Aldrin	5655	5655
Heptachlor epoxide	5406	5406
Endosulfan I	5095	5095
Dieldrin	11351	11351
4,4'-DDE	10623	10623
Endrin	9930	9930
Endosulfan II	9430	9430
4,4'-DDD	8951	8951
Endosulfan sulfate	9304	9304
4,4'-DDT	9477	9477
Methoxychlor	23603	23603
Endrin ketone	8246	8246
Endrin aldehyde	7941	7941
alpha-Chlordane	5245	5245
gamma-Chlordane	5464	5464
Tetrachloro-m-xylene (S)	9645	9645
Decachlorobiphenyl (S)	8932	8932

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.227	1	2	1.439	0.0027			
0.865	1	4	2.740	0.0055			
0.879	155	335	2.165	0.4637			
0.906	144	138	0.957	0.1910			
0.954	25	30	1.193	0.0415			
0.982	169	216	1.280	0.2990			
1.010	178	214	1.204	0.2962			
1.055	13	17	1.292	0.0235			
1.105	1	4	3.030	0.0055			
1.315	1	3	2.727	0.0041			
1.338	1	3	2.290	0.0041			
1.369	1	3	2.322	0.0041			
1.429	2	5	2.315	0.0069			
1.559	3	7	2.121	0.0096			
1.602	1	3	2.885	0.0041			
1.710	3	9	2.928	0.0124			
1.795	2	4	1.818	0.0055			
1.912	14	20	1.474	0.0276			
2.129	3	5	1.736	0.0069			
2.359	3483	4645	1.334	6.4302	$	1 Tetrachloro-m-xylene (S)	
2.570	43	58	1.349	0.0802			
2.623	2402	3260	1.357	4.5129		2 alpha-BHC	
2.716	2	6	2.760	0.0083			
2.840	2161	2846	1.317	3.9398		3 gamma-BHC (Lindane)	
2.922	2	5	2.212	0.0069			
3.001	980	1247	1.272	1.7262		4 beta-BHC	
3.093	5	7	1.493	0.0096			
3.187	2181	2807	1.287	3.8858		5 delta-BHC	
3.223	19	24	1.267	0.0332			
3.250	2029	2491	1.227	3.4483		6 Heptachlor	
3.323	2	4	1.923	0.0055			
3.398	2	4	2.020	0.0055			
3.449	1	2	1.980	0.0027			
3.478	1908	2323	1.218	3.2158		7 Aldrin	
3.579	5	8	1.649	0.0110			
3.710	12	17	1.396	0.0235			
3.743	3	6	1.840	0.0083			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.747	1	5	4.098	0.0069			
3.771	1819	2172	1.194	3.0067		8 Heptachlor epoxide	
3.984	1807	2170	1.201	3.0040		9 gamma-Chlordane	
4.020	1760	2092	1.188	2.8960		10 alpha-Chlordane	
4.053	1713	1988	1.161	2.7520		11 Endosulfan I	
4.099	3521	4346	1.234	6.0163		12 4,4'-DDE	
4.170	38	48	1.258	0.0664			
4.228	3722	4411	1.185	6.1062		13 Dieldrin	
4.277	2	3	1.508	0.0041			
4.304	1	6	5.769	0.0083			
4.312	3	7	2.071	0.0096			
4.332	1	4	3.008	0.0055			
4.389	3025	3551	1.174	4.9157		14 Endrin	
4.420	2	9	5.455	0.0124			
4.452	2981	3688	1.237	5.1054		15 4,4'-DDD	
4.495	2	6	3.077	0.0083			
4.563	3172	3688	1.163	5.1054		16 Endosulfan II	
4.602	2	6	3.529	0.0083			
4.608	2	7	3.211	0.0096			
4.636	2698	3115	1.154	4.3121		17 Endrin aldehyde	
4.662	2631	3165	1.203	4.3814		18 4,4'-DDT	
4.703	3	6	2.174	0.0083			
4.756	1	3	2.540	0.0041			
4.826	3039	3550	1.168	4.9143		19 Endosulfan sulfate	
4.863	11	14	1.331	0.0193			
4.871	1	5	4.587	0.0069			
4.947	7162	8072	1.127	11.1776		20 Methoxychlor	
5.006	13	17	1.304	0.0235			
5.032	1	3	2.308	0.0041			
5.126	2804	3167	1.129	4.3841		21 Endrin ketone	
5.298	1	3	2.586	0.0041			
5.317	2	3	1.449	0.0041			
5.553	9	12	1.285	0.0166			
5.676	3	7	2.574	0.0096			
5.685	2	5	2.404	0.0069			
5.691	2	5	2.994	0.0069			
5.775	4	6	1.453	0.0083			
6.083	89	72	0.811	0.0996			
6.176	1	3	2.564	0.0041			
6.335	2818	2015	0.715	2.7894	$	24 Decachlorobiphenyl (S)	
	60832	72237		100.000			

Total unknown % height = 1.97

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 27-JUN-2019 16:02
Operator : TAW Inst ID: 30gcsc.i
Smp Info : cal6, 92180:1
Misc Info : 15737,INDA
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)							CAS #:	
2.359	2.359	0.000	3482	0.20000	0.188			
2 alpha-BHC							CAS #: 319-84-6	
2.623	2.623	0.000	2402	0.10000	0.0996			
3 gamma-BHC (Lindane)							CAS #: 58-89-9	
2.840	2.840	0.000	2161	0.10000	0.0980			
4 beta-BHC							CAS #: 319-85-7	
3.001	3.001	0.000	980	0.10000	0.0889			
5 delta-BHC							CAS #: 319-86-8	
3.187	3.187	0.000	2180	0.10000	0.0984			
6 Heptachlor							CAS #: 76-44-8	
3.249	3.249	0.000	2029	0.10000	0.0944			
7 Aldrin							CAS #: 309-00-2	
3.478	3.477	0.001	1907	0.10000	0.0964			
8 Heptachlor epoxide							CAS #: 1024-57-3	
3.771	3.770	0.001	1819	0.10000	0.0915			
9 gamma-Chlordane							CAS #: 5103-74-2	
3.984	3.983	0.001	1807	0.10000	0.0936			
10 alpha-Chlordane							CAS #: 5103-71-9	
4.020	4.020	0.000	1760	0.10000	0.0929			
11 Endosulfan I							CAS #: 959-98-8	
4.053	4.053	0.000	1712	0.10000	0.0937			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
4.099	4.098	0.001	3521	0.20000	0.197			
13 Dieldrin					CAS #: 60-57-1			
4.227	4.227	0.000	3722	0.20000	0.194			
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	3024	0.20000	0.191			
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	2981	0.20000	0.196			
16 Endosulfan II					CAS #: 33213-65-9			
4.562	4.562	0.000	3171	0.20000	0.188			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.636	4.635	0.001	2698	0.20000	0.186			
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	2631	0.20000	0.219			(A)
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.826	4.826	0.000	3039	0.20000	0.188			
20 Methoxychlor					CAS #: 72-43-5			
4.947	4.947	0.000	7162	1.00000	0.970			
21 Endrin ketone					CAS #: 53494-70-5			
5.126	5.125	0.001	2804	0.20000	0.192			
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.335	6.334	0.001	2817	0.20000	0.176			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

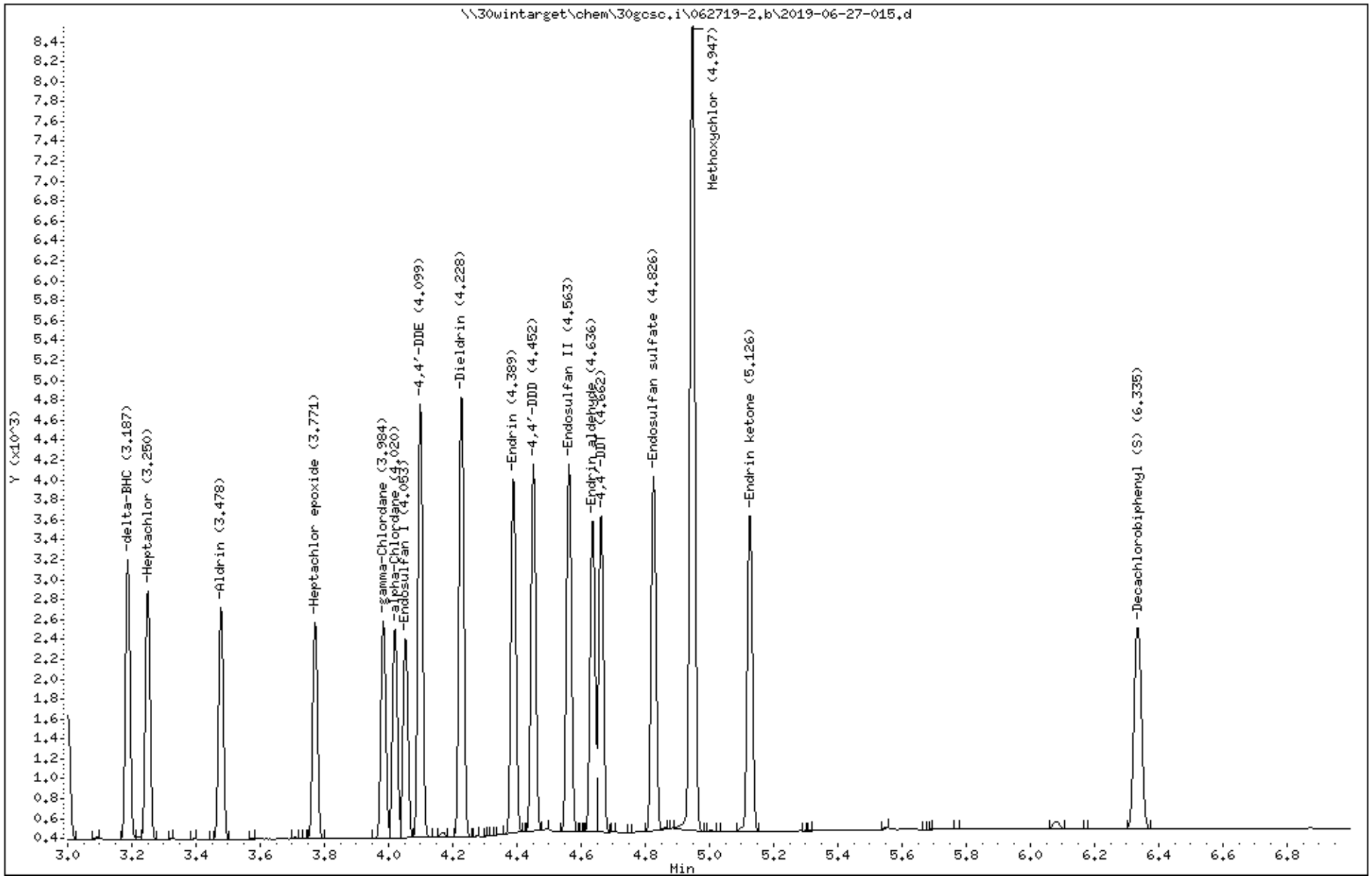
Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,INDA

Client SDG: 30GCSC-062719-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0996	
58-89-9	gamma-BHC (Lindane)	0.0980	
319-85-7	beta-BHC	0.0889	
319-86-8	delta-BHC	0.0984	
76-44-8	Heptachlor	0.0944	
309-00-2	Aldrin	0.0964	
1024-57-3	Heptachlor epoxide	0.0915	
5103-74-2	gamma-Chlordane	0.0936	
5103-71-9	alpha-Chlordane	0.0929	
959-98-8	Endosulfan I	0.0937	
72-55-9	4,4'-DDE	0.197	
60-57-1	Dieldrin	0.194	
72-20-8	Endrin	0.191	
72-54-8	4,4'-DDD	0.196	
33213-65-9	Endosulfan II	0.188	
7421-36-3	Endrin aldehyde	0.186	
50-29-3	4,4'-DDT	0.219	E
1031-07-8	Endosulfan sulfate	0.188	
72-43-5	Methoxychlor	0.970	
53494-70-5	Endrin ketone	0.192	
----------	Tetrachloro-m-xylene (S)	0.188	
----------	Decachlorobiphenyl (S)	0.176	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-015.d
Date : 27-JUN-2019 16:02
Client ID: CAL6
Sample Info: CAL6, 92180:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-015.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:02 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CAL6

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	2402	2402
beta-BHC	980	980
delta-BHC	2180	2180
gamma-BHC (Lindane)	2161	2161
Heptachlor	2029	2029
Aldrin	1907	1907
Heptachlor epoxide	1819	1819
Endosulfan I	1712	1712
Dieldrin	3722	3722
4,4'-DDE	3521	3521
Endrin	3024	3024
Endosulfan II	3171	3171
4,4'-DDD	2981	2981
Endosulfan sulfate	3039	3039
4,4'-DDT	2631	2631
Methoxychlor	7162	7162
Endrin ketone	2804	2804
Endrin aldehyde	2698	2698
alpha-Chlordane	1760	1760
gamma-Chlordane	1807	1807
Tetrachloro-m-xylene (S)	3482	3482
Decachlorobiphenyl (S)	2817	2817

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11160516PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/27/2019 Time: 14:45
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 062719-1.B\2019-06-27-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	0.74	Endrin %Breakdown:	2.51

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11160533PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 06/27/2019 Time: 14:45
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 062719-2.B\2019-06-27-007.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	1.29	Endrin %Breakdown:	3.53

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11402422PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 08/14/2019 Time: 18:35
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 081419-1.B\2019-08-14-033.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	3.27	Endrin %Breakdown:	8.01

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11402407PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 08/14/2019 Time: 18:35
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 081419-2.B\2019-08-14-033.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	4.98	Endrin %Breakdown:	8.70

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11402415PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 08/14/2019 Time: 20:32
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 081419-1.B\2019-08-14-045.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	4.85	Endrin %Breakdown:	13.13

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDE CALIBRATION VERIFICATION SUMMARY

11402414PEM

Lab Name: Pace Analytical - Pittsburgh
Analysis Date: 08/14/2019 Time: 20:32
Contract: Former EPT Site-Soil IRM/31401
SDG: 30318799
Instrument ID: 30GCSC GC Column: Col 2
Init. Calib. Date(s): 06/27/2019 06/27/2019
Lab File ID: 081419-2.B\2019-08-14-045.D
Init. Calib. Time(s): 14:54 16:02

4,4'-DDT %	7.36	Endrin %Breakdown:	12.46

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11174181ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/27/2019 Time: 16:12

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 062719-1.B\2019-06-27-016.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.473	2.442	2.502	62773.8095	59100.0000	-5.8525
Endrin		Averaged	3.957	3.927	3.987	50011.4285	47250.0000	-5.5216
Heptachlor		Averaged	2.711	2.681	2.741	65372.3809	62300.0000	-4.6998
Heptachlor epoxide		Averaged	3.28	3.249	3.309	56895.9523	54300.0000	-4.5626
Methoxychlor		Averaged	4.664	4.632	4.692	24471.4761	23505.0000	-3.9494
Decachlorobiphenyl		Averaged	5.646	5.616	5.676	49696.7857	49125.0000	-1.1505
Tetrachloro-m-xylene		Averaged	1.885	1.854	1.914	50563.2142	48225.0000	-4.6243

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11174182ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 06/27/2019 Time: 16:12

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 062719-2.B\2019-06-27-016.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.84	2.81	2.87	22051.4285	20600.0000	-6.5820
Endrin		Averaged	4.389	4.359	4.419	15793.9285	14750.0000	-6.6097
Heptachlor		Averaged	3.249	3.219	3.279	21480.9523	20450.0000	-4.7994
Heptachlor epoxide		Averaged	3.77	3.74	3.8	19885.4761	18600.0000	-6.4644
Methoxychlor		Averaged	4.947	4.917	4.977	7382.28571	7170.00000	-2.8756
Decachlorobiphenyl		Averaged	6.336	6.304	6.364	15958.4523	15950.0000	-0.0530
Tetrachloro-m-xylene		Averaged	2.359	2.329	2.389	18464.2857	17525.0000	-5.0870

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11402411CCV

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/14/2019 Time: 18:45

Instrument ID: 30GCSC GC Column: Col 1
Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 081419-1.B\2019-08-14-034.D
Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.469	2.438	2.498	62773.8095	72450.0000	15.4144
Endrin		Averaged	3.951	3.922	3.982	50011.4285	54150.0000	8.2753
Heptachlor		Averaged	2.706	2.676	2.736	65372.3809	73300.0000	12.1269
Heptachlor epoxide		Averaged	3.275	3.245	3.305	56895.9523	66250.0000	16.4406
Methoxychlor		Averaged	4.66	4.631	4.691	24471.4761	25430.0000	3.9169
Decachlorobiphenyl		Averaged	5.638	5.611	5.671	49696.7857	63125.0000	27.0203
Tetrachloro-m-xylene		Averaged	1.881	1.851	1.911	50563.2142	58050.0000	14.8068

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11402406CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/14/2019 Time: 18:45

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 081419-2.B\2019-08-14-034.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.834	2.804	2.864	22051.4285	24300.0000	10.1969
Endrin		Averaged	4.382	4.353	4.413	15793.9285	16175.0000	2.4128
Heptachlor		Averaged	3.243	3.213	3.273	21480.9523	22300.0000	3.8129
Heptachlor epoxide		Averaged	3.764	3.734	3.794	19885.4761	21700.0000	9.1249
Methoxychlor		Averaged	4.939	4.911	4.971	7382.28571	6690.00000	-9.3777
Decachlorobiphenyl		Averaged	6.323	6.295	6.355	15958.4523	19750.0000	23.7589
Tetrachloro-m-xylene		Averaged	2.354	2.324	2.384	18464.2857	20500.0000	11.0251

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11402410CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/14/2019 Time: 20:41

Instrument ID: 30GCSC GC Column: Col 1 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 081419-1.B\2019-08-14-046.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.469	2.438	2.498	62773.8095	75650.0000	20.5120
Endrin		Averaged	3.952	3.922	3.982	50011.4285	49200.0000	-1.6225
Heptachlor		Averaged	2.707	2.676	2.736	65372.3809	73700.0000	12.7387
Heptachlor epoxide		Averaged	3.275	3.245	3.305	56895.9523	68050.0000	19.6043
Methoxychlor		Averaged	4.66	4.631	4.691	24471.4761	23235.0000	-5.0527
Decachlorobiphenyl		Averaged	5.637	5.611	5.671	49696.7857	63075.0000	26.9197
Tetrachloro-m-xylene		Averaged	1.882	1.851	1.911	50563.2142	61575.0000	21.7783

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

PESTICIDES - FORM VII PEST-1
PESTICIDES CALIBRATION VERIFICATION SUMMARY

11402408CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 08/14/2019 Time: 20:41

Instrument ID: 30GCSC GC Column: Col 2 Init. Calib. Date(s): 06/27/2019 06/27/2019

Lab File ID: 081419-2.B\2019-08-14-046.D Init. Calib. Time(s): 14:54 16:02

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
gamma-BHC (Lindane)		Averaged	2.835	2.804	2.864	22051.4285	24950.0000	13.1446
Endrin		Averaged	4.382	4.353	4.413	15793.9285	14275.0000	-9.6172
Heptachlor		Averaged	3.244	3.213	3.273	21480.9523	22100.0000	2.8818
Heptachlor epoxide		Averaged	3.765	3.734	3.794	19885.4761	22000.0000	10.6335
Methoxychlor		Averaged	4.94	4.911	4.971	7382.28571	6150.00000	-16.6925
Decachlorobiphenyl		Averaged	6.324	6.295	6.355	15958.4523	19650.0000	23.1322
Tetrachloro-m-xylene		Averaged	2.355	2.324	2.384	18464.2857	21075.0000	14.1393

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	33	124	3.711	0.4160		
0.894	21	50	2.369	0.1677		
0.912	36	44	1.209	0.1476		
0.923	9	36	4.128	0.1207		
0.941	626	837	1.337	2.8080		
0.962	634	784	1.236	2.6302		
1.003	44	39	0.893	0.1308		
1.011	25	35	1.407	0.1174		
1.196	5	4	0.887	0.0134		
1.222	2	6	2.679	0.0201		
1.261	5	3	0.627	0.0100		
1.281	9	12	1.282	0.0402		
1.285	3	16	6.250	0.0536		
1.294	9	21	2.323	0.0704		
1.297	2	22	9.016	0.0738		
1.299	4	23	5.502	0.0771		
1.305	8	25	3.189	0.0838		
1.311	7	24	3.347	0.0805		
1.316	7	26	3.824	0.0872		
1.320	6	26	4.444	0.0872		
1.330	17	30	1.742	0.1006		
1.337	15	32	2.128	0.1073		
1.342	10	29	2.959	0.0972		
1.350	6	19	3.120	0.0637		
1.359	3	15	4.870	0.0503		
1.361	2	16	7.207	0.0536		
1.373	8	14	1.651	0.0469		
1.398	4	9	2.486	0.0301		
1.407	3	9	2.703	0.0301		
1.412	3	10	2.865	0.0335		
1.422	4	11	2.444	0.0369		
1.431	3	9	3.237	0.0301		
1.438	2	7	3.057	0.0234		
1.479	3	10	3.106	0.0335		
1.580	2	5	2.183	0.0167		
1.884	1176	1723	1.465	5.7805	$ 1 Tetrachloro-m-xylene (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.098	13	22	1.679	0.0738		
2.238	799	1150	1.439	3.8581	2 alpha-BHC	
2.473	758	1058	1.396	3.5495	3 gamma-BHC (Lindane)	
2.617	423	494	1.167	1.6573	4 beta-BHC	
2.904	5	10	2.045	0.0335		
2.907	4	12	3.371	0.0402		
3.324	2	6	2.830	0.0201		
3.349	4	8	2.046	0.0268		
3.357	2	7	3.241	0.0234		
3.622	18	23	1.249	0.0771	12 4,4'-DDE	BA
3.957	3113	3788	1.217	12.7084	14 Endrin	
4.014	27	40	1.508	0.1341	15 4,4'-DDD	BA
4.079	2	9	3.982	0.0301		
4.082	3	13	4.114	0.0436		
4.086	5	16	3.548	0.0536		
4.101	19	23	1.203	0.0771		
4.110	5	16	3.213	0.0536		
4.117	2	12	5.128	0.0402		
4.207	5876	7300	1.242	24.4908	17 4,4'-DDT	
4.291	24	30	1.266	0.1006	18 Endrin aldehyde	BA
4.325	4	9	2.432	0.0301		
4.551	2	4	1.786	0.0134		
4.616	2	7	3.500	0.0234		
4.663	7275	8801	1.210	29.5359	20 Methoxychlor	
4.716	5	12	2.252	0.0402		
4.832	4	17	3.981	0.0570		
4.838	7	21	3.153	0.0704		
4.851	58	71	1.226	0.2381	21 Endrin ketone	BA
4.898	4	9	2.267	0.0301		
4.901	2	9	4.369	0.0301		
4.950	3	9	2.913	0.0301		
4.955	3	10	3.509	0.0335		
4.958	4	12	3.077	0.0402		
4.967	3	12	4.545	0.0402		
4.971	3	15	4.918	0.0503		
4.975	3	14	4.230	0.0469		
4.983	6	14	2.393	0.0469		
4.986	5	16	3.265	0.0536		
4.992	2	16	7.306	0.0536		
4.995	4	18	4.511	0.0603		
4.998	5	17	3.491	0.0570		
5.007	3	12	4.511	0.0402		
5.040	2	7	3.111	0.0234		
5.049	3	10	3.650	0.0335		
5.056	3	12	4.511	0.0402		
5.059	3	12	4.167	0.0402		
5.066	4	10	2.793	0.0335		
5.081	3	13	4.362	0.0436		
5.086	4	15	4.155	0.0503		
5.090	3	15	4.886	0.0503		
5.093	3	16	6.154	0.0536		
5.097	3	18	5.143	0.0603		
5.101	7	20	2.789	0.0670		
5.112	7	18	2.550	0.0603		
5.115	3	18	5.678	0.0603		
5.118	6	20	3.604	0.0670		
5.126	5	18	3.502	0.0603		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.129	4	22	5.556	0.0738		
5.133	4	21	5.371	0.0704		
5.136	2	20	9.050	0.0670		
5.138	4	21	5.426	0.0704		
5.143	4	18	4.545	0.0603		
5.152	10	21	2.160	0.0704		
5.163	12	22	1.781	0.0738		
5.173	9	21	2.268	0.0704		
5.176	6	23	3.716	0.0771		
5.184	7	23	3.329	0.0771		
5.188	6	23	3.802	0.0771		
5.192	4	23	5.808	0.0771		
5.198	8	24	2.906	0.0805		
5.205	8	24	3.046	0.0805		
5.208	4	21	5.949	0.0704		
5.210	3	23	9.020	0.0771		
5.212	3	24	7.869	0.0805		
5.217	7	23	3.506	0.0771		
5.221	6	22	3.748	0.0738		
5.232	11	20	1.838	0.0670		
5.236	5	20	4.367	0.0670		
5.241	5	22	4.555	0.0738		
5.244	3	21	6.000	0.0704		
5.247	3	22	8.365	0.0738		
5.252	10	21	2.119	0.0704		
5.258	3	19	6.934	0.0637		
5.263	7	19	2.665	0.0637		
5.268	3	17	5.537	0.0570		
5.272	2	15	6.608	0.0503		
5.275	5	14	3.070	0.0469		
5.284	3	15	5.660	0.0503		
5.288	3	14	4.348	0.0469		
5.291	2	14	5.983	0.0469		
5.297	3	12	3.582	0.0402		
5.301	4	12	2.697	0.0402		
5.311	3	7	2.662	0.0234		
5.330	2	7	3.333	0.0234		
5.349	3	9	2.875	0.0301		
5.435	3	11	3.235	0.0369		
5.441	2	10	4.386	0.0335		
5.645	1236	1210	0.979	4.0594	$ 24 Decachlorobiphenyl (S)	
5.700	2	7	3.333	0.0234		
5.794	2	7	3.030	0.0234		
5.819	2	11	5.069	0.0369		
5.854	3	6	2.326	0.0201		
5.866	3	10	3.636	0.0335		
5.885	2	11	4.418	0.0369		
5.905	3	12	4.598	0.0402		
5.912	3	11	3.667	0.0369		
5.924	3	10	3.546	0.0335		
6.030	2	8	3.347	0.0268		
6.039	2	9	4.054	0.0301		
6.061	2	7	3.465	0.0234		
6.191	2	9	4.128	0.0301		
6.223	2	11	4.661	0.0369		
6.316	2	9	4.412	0.0301		
6.374	2	8	3.478	0.0268		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.424	5	12	2.620	0.0402		
6.472	2	7	3.070	0.0234		
6.553	2	8	3.292	0.0268		
6.571	2	7	3.196	0.0234		
6.726	4	13	3.202	0.0436		
6.736	3	11	3.679	0.0369		
6.740	4	15	3.836	0.0503		
6.749	3	16	4.893	0.0536		
6.757	3	11	3.207	0.0369		
6.761	3	9	2.679	0.0301		
6.767	3	12	3.670	0.0402		
6.773	3	12	3.704	0.0402		
6.780	3	10	3.333	0.0335		
6.786	2	12	5.381	0.0402		
6.802	2	12	5.742	0.0402		
6.810	3	12	4.412	0.0402		
6.819	3	14	5.036	0.0469		
6.839	3	9	3.333	0.0301		
6.852	2	11	5.069	0.0369		
6.856	3	9	3.422	0.0301		
	22856	29807		100.000		

Total unknown % height = 13.8

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 7 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.884	1.884	0.000	1175	0.02324	0.0232		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.237	2.238	-0.001	799	0.01174	0.0117			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.472	2.472	0.000	757	0.01206	0.0120		(R)	
4 beta-BHC					CAS #: 319-85-7			
2.616	2.617	-0.001	423	0.01429	0.0143		(R)	
12 4,4'-DDE					CAS #: 72-55-9			
3.621	3.621	0.000	18	3e-004	0.000339		(M)	BA
14 Endrin					CAS #: 72-20-8			
3.956	3.957	-0.001	3112	0.06223	0.0622		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.013	4.016	-0.003	26	6e-004	0.000585		(M)	BA
17 4,4'-DDT					CAS #: 50-29-3			
4.206	4.208	-0.002	5875	0.12504	0.125		(R)	
18 Endrin aldehyde					CAS #: 7421-36-3			
4.291	4.289	0.002	23	5e-004	0.000549		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.662	4.662	0.000	7275	0.29728	0.297			
21 Endrin ketone					CAS #: 53494-70-5			
4.849	4.850	-0.001	57	0.00134	0.00134		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.644	5.646	-0.002	1236	0.02487	0.0249			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-062719-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0117	
58-89-9	gamma-BHC (Lindane)	0.0120	
319-85-7	beta-BHC	0.0143	
72-55-9	4,4'-DDE	0.000339	
72-20-8	Endrin	0.0622	
72-54-8	4,4'-DDD	0.000585	
50-29-3	4,4'-DDT	0.125	
7421-36-3	Endrin aldehyde	0.000549	
72-43-5	Methoxychlor	0.297	
53494-70-5	Endrin ketone	0.00134	
----------	Tetrachloro-m-xylene (S)	0.0232	
----------	Decachlorobiphenyl (S)	0.0249	

Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-007.d

Date : 27-JUN-2019 14:45

Client ID: PEM

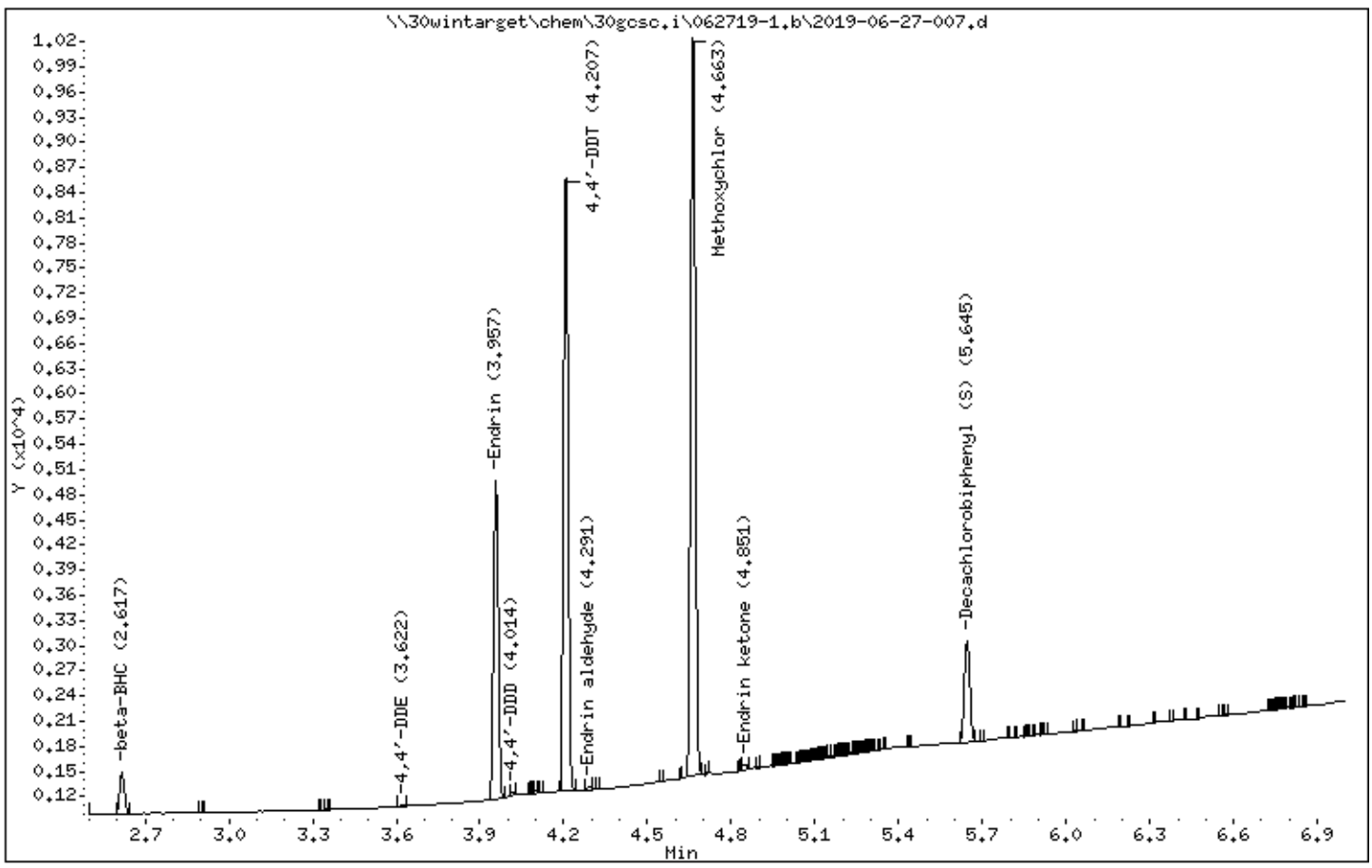
Instrument: 30gcsc.i

Sample Info: PEM, 89577:10

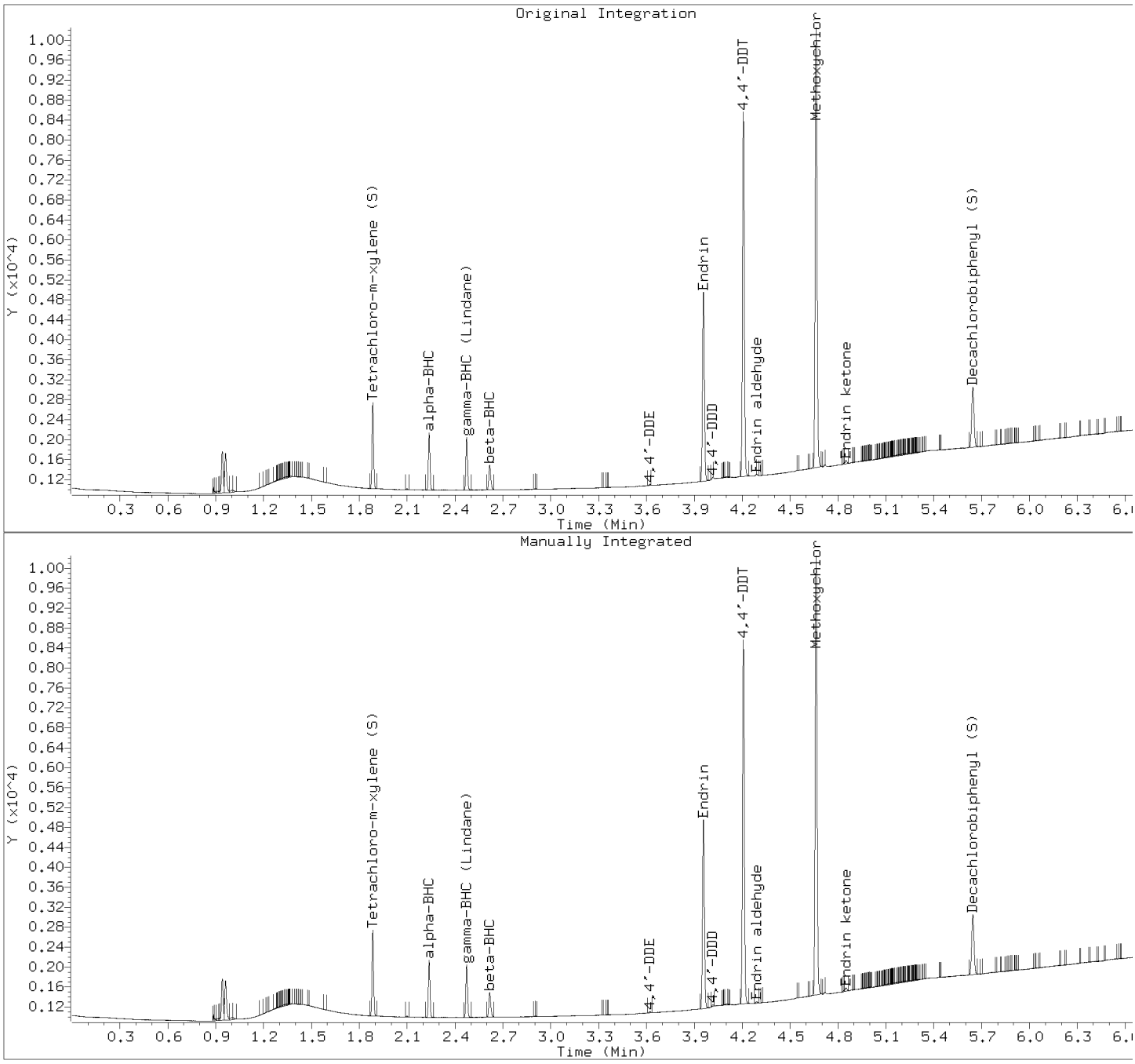
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 27-JUN-2019 14:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	6	26
Methoxychlor	7275	7275
gamma-BHC (Lindane)	757	757
beta-BHC	423	423
4,4'-DDE	12	18
Endrin	3112	3112
Endrin aldehyde	2	23
4,4'-DDT	5875	5875
Endrin ketone	51	57
alpha-BHC	799	799
Tetrachloro-m-xylene (S)	1175	1175
Decachlorobiphenyl (S)	1236	1236

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.163	1	2	1.460	0.0234			
0.407	1	1	0.962	0.0117			
0.836	1	6	4.412	0.0704			
0.840	1	7	5.600	0.0822			
0.844	1	8	6.504	0.0939			
0.848	2	9	3.982	0.1057			
0.854	2	10	4.505	0.1174			
0.873	24	46	1.907	0.5402			
0.878	44	142	3.242	1.6678			
0.914	13	11	0.859	0.1291			
0.921	1	7	6.542	0.0822			
0.980	182	236	1.295	2.7719			
1.009	179	255	1.423	2.9950			
1.026	13	26	1.933	0.3053			
1.298	1	3	2.941	0.0352			
1.340	7	7	1.026	0.0822			
1.353	5	10	1.976	0.1174			
1.356	2	10	5.780	0.1174			
1.372	9	11	1.242	0.1291			
1.385	8	10	1.203	0.1174			
1.396	6	11	1.780	0.1291			
1.405	7	11	1.667	0.1291			
1.419	6	10	1.650	0.1174			
1.426	5	9	1.833	0.1057			
1.434	3	8	2.540	0.0939			
1.439	1	7	6.364	0.0822			
1.448	2	5	3.247	0.0587			
1.910	2	5	3.246	0.0587			
2.359	432	573	1.326	6.7300	$	1 Tetrachloro-m-xylene (S)	
2.570	1	4	3.200	0.0469			
2.623	281	377	1.342	4.4280		2 alpha-BHC	
2.840	265	342	1.291	4.0169		3 gamma-BHC (Lindane)	
3.001	133	170	1.283	1.9967		4 beta-BHC	
3.091	18	23	1.311	0.2701			
4.098	8	8	1.030	0.0939		12 4,4'-DDE	BA
4.326	1	4	2.834	0.0469			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.390	956	1096	1.146	12.8729		14 Endrin	
4.452	15	17	1.155	0.1996		15 4,4'-DDD	BA
4.618	1	5	3.425	0.0587			
4.636	14	22	1.619	0.2583		17 Endrin aldehyde	
4.640	4	22	5.069	0.2583			
4.663	1608	1952	1.214	22.9269		18 4,4'-DDT	
4.761	1	3	2.775	0.0352			
4.863	4	7	1.934	0.0822			
4.947	2215	2635	1.190	30.9517		20 Methoxychlor	
5.003	3	9	3.237	0.1057			
5.007	3	10	3.546	0.1174			
5.104	10	12	1.195	0.1409			
5.125	23	24	1.067	0.2818		21 Endrin ketone	BA
5.290	1	4	3.604	0.0469			
5.865	2	3	1.974	0.0352			
6.305	1	4	3.125	0.0469			
6.334	413	305	0.739	3.5823	$	24 Decachlorobiphenyl (S)	
	6941	8514		100.000			

Total unknown % height = 11.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 27-JUN-2019 14:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 89577:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.359	2.359	0.000	432	0.02340	0.0234		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.622	2.623	-0.001	280	0.01162	0.0116			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.839	2.840	-0.001	264	0.01197	0.0120			
4 beta-BHC					CAS #: 319-85-7			
3.000	3.001	-0.001	132	0.01197	0.0120			
12 4,4'-DDE					CAS #: 72-55-9			
4.097	4.098	-0.001	7	4e-004	0.000392		(M)	BA
14 Endrin					CAS #: 72-20-8			
4.389	4.389	0.000	956	0.06053	0.0605		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.451	4.451	0.000	14	9e-004	0.000922		(M)	BA
17 Endrin aldehyde					CAS #: 7421-36-3			
4.635	4.635	0.000	13	9e-004	0.000894			
18 4,4'-DDT					CAS #: 50-29-3			
4.662	4.662	0.000	1607	0.13378	0.134		(R)	
20 Methoxychlor					CAS #: 72-43-5			
4.946	4.947	-0.001	2214	0.29991	0.300			
21 Endrin ketone					CAS #: 53494-70-5			
5.124	5.125	-0.001	22	0.00151	0.00151		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.334	6.334	0.000	412	0.02582	0.0258			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

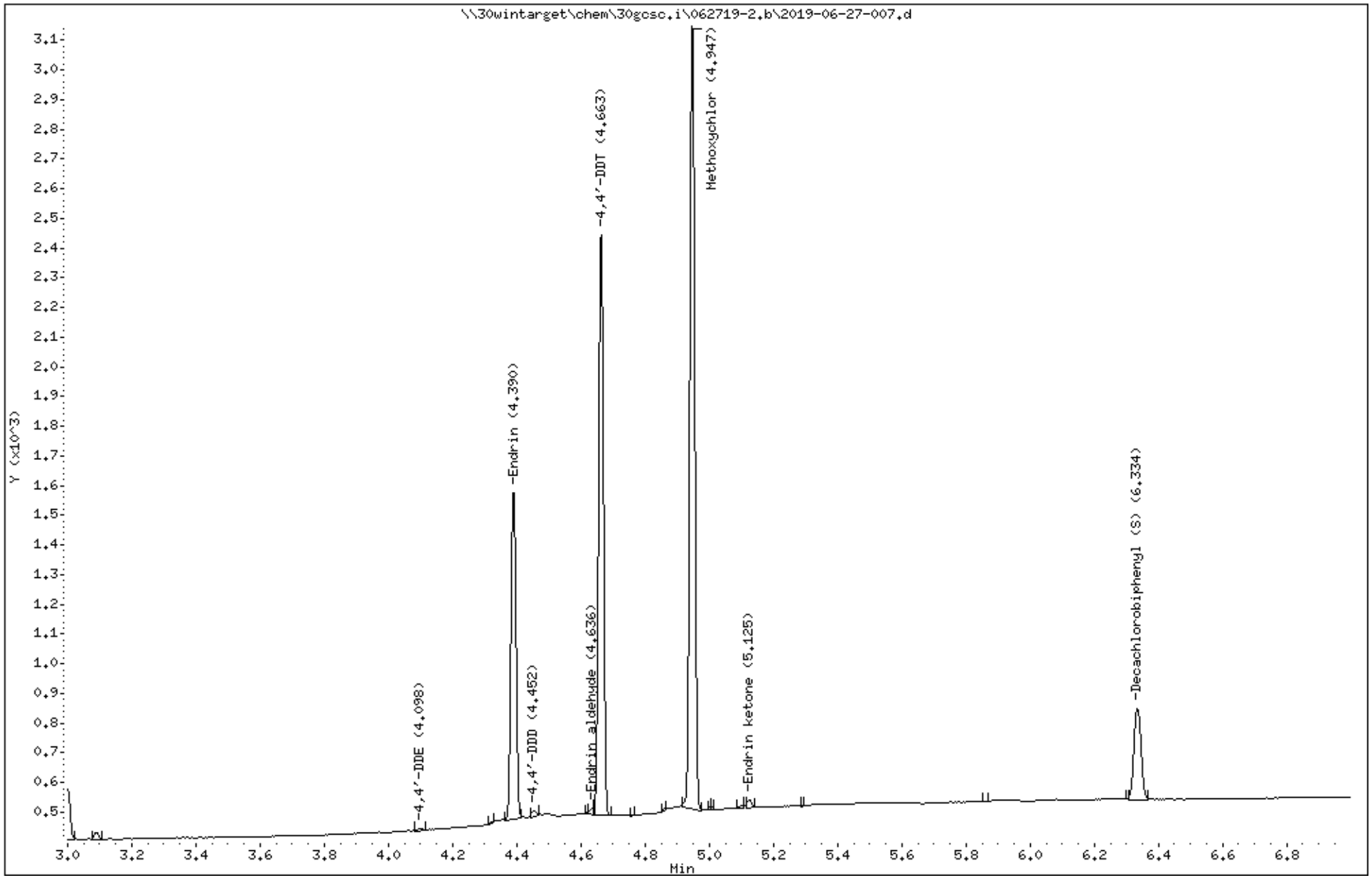
Client SDG: 30GCSC-062719-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0116	
58-89-9	gamma-BHC (Lindane)	0.0120	
319-85-7	beta-BHC	0.0120	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0605	
72-54-8	4,4'-DDD	0.000922	
7421-36-3	Endrin aldehyde	0.000894	
50-29-3	4,4'-DDT	0.134	
72-43-5	Methoxychlor	0.300	
53494-70-5	Endrin ketone	0.00151	
----------	Tetrachloro-m-xylene (S)	0.0234	
----------	Decachlorobiphenyl (S)	0.0258	

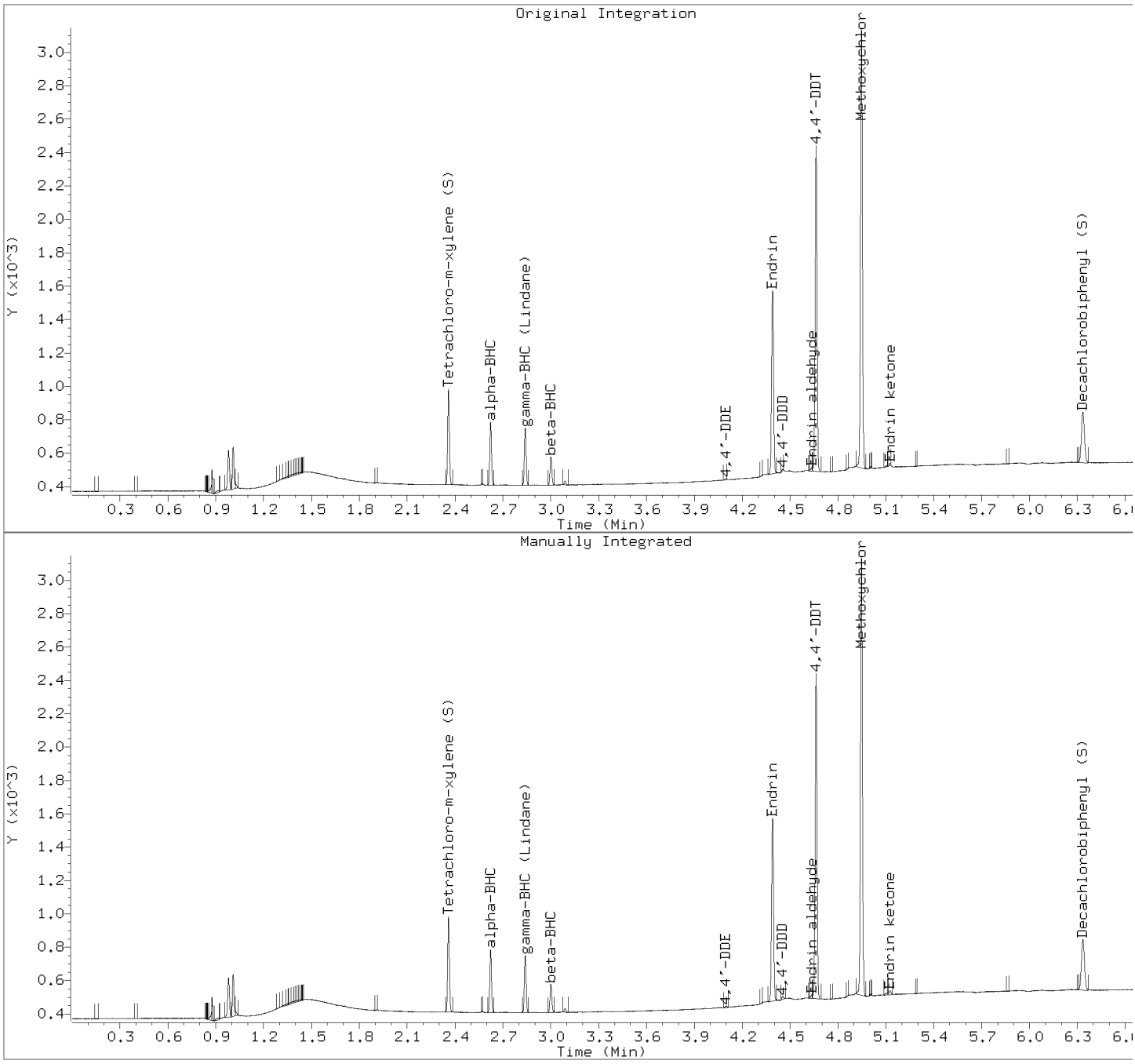
Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-007.d
Date : 27-JUN-2019 14:45
Client ID: PEM
Sample Info: PEM, 89577:10

Instrument: 30gcsc.i

Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-007.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 27-JUN-2019 14:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	280	280
beta-BHC	132	132
gamma-BHC (Lindane)	264	264
4,4'-DDE	1	7
Endrin	956	956
4,4'-DDD	5	14
4,4'-DDT	1607	1607
Methoxychlor	2214	2214
Endrin ketone	4	22
Endrin aldehyde	13	13
Tetrachloro-m-xylene (S)	432	432
Decachlorobiphenyl (S)	412	412

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.887	31	101	3.306	0.2056		
0.894	5	19	3.838	0.0386		
0.913	39	54	1.397	0.1099		
0.924	11	33	2.984	0.0672		
0.942	596	768	1.288	1.5639		
0.962	615	733	1.192	1.4927		
1.015	18	26	1.476	0.0529		
1.306	2	2	0.893	0.0040		
1.335	8	16	2.094	0.0325		
1.339	4	16	3.747	0.0325		
1.346	3	15	4.658	0.0305		
1.349	2	15	6.303	0.0305		
1.353	4	16	4.520	0.0325		
1.372	42	38	0.915	0.0773		
1.382	4	28	6.573	0.0570		
1.384	5	30	6.036	0.0610		
1.388	8	27	3.600	0.0549		
1.393	4	26	7.046	0.0529		
1.395	7	31	4.566	0.0631		
1.400	6	31	4.777	0.0631		
1.404	12	33	2.663	0.0672		
1.409	7	35	4.902	0.0712		
1.412	4	32	8.377	0.0651		
1.418	12	35	2.874	0.0712		
1.421	6	36	5.742	0.0733		
1.425	10	36	3.462	0.0733		
1.428	6	37	5.958	0.0753		
1.431	6	36	6.429	0.0733		
1.436	10	36	3.472	0.0733		
1.441	11	36	3.200	0.0733		
1.448	15	38	2.555	0.0773		
1.452	18	40	2.201	0.0814		
1.459	9	32	3.661	0.0651		
1.464	7	32	4.604	0.0651		
1.470	8	27	3.405	0.0549		
1.475	7	30	4.431	0.0610		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.477	4	32	8.815	0.0651		
1.482	22	40	1.840	0.0814		
1.489	7	23	3.367	0.0468		
1.499	5	14	2.887	0.0285		
1.504	4	13	3.234	0.0264		
1.693	2	6	2.830	0.0122		
1.699	3	7	2.397	0.0142		
1.885	1929	2761	1.431	5.6226	$ 1 Tetrachloro-m-xylene (S)	
2.047	4	7	1.983	0.0142		
2.100	25	34	1.348	0.0692		
2.238	1283	1849	1.441	3.7654	2 alpha-BHC	
2.473	1183	1647	1.393	3.3540	3 gamma-BHC (Lindane)	
2.617	617	757	1.226	1.5415	4 beta-BHC	
2.647	2	8	3.493	0.0162		
2.658	3	9	3.061	0.0183		
2.712	1246	1622	1.301	3.3031	5 Heptachlor	
2.813	1208	1594	1.320	3.2461	6 delta-BHC	
2.898	13	18	1.415	0.0366		
2.923	1105	1433	1.297	2.9182	7 Aldrin	
3.084	2	6	2.469	0.0122		
3.206	4	7	1.795	0.0142		
3.280	1087	1401	1.289	2.8530	8 Heptachlor epoxide	
3.331	4	13	3.562	0.0264		
3.335	8	15	2.000	0.0305		
3.348	2	9	4.286	0.0183		
3.353	2	8	3.433	0.0162		
3.436	1097	1372	1.250	2.7940	9 gamma-Chlordane	
3.500	1075	1339	1.246	2.7268	10 alpha-Chlordane	
3.546	1023	1259	1.230	2.5638	11 Endosulfan I	
3.622	2057	2535	1.232	5.1624	12 4,4'-DDE	
3.655	4	12	3.252	0.0244		
3.663	3	8	3.030	0.0162		
3.739	2212	2765	1.250	5.6307	13 Dieldrin	
3.772	2	8	3.865	0.0162		
3.957	1890	2351	1.244	4.7876	14 Endrin	
4.017	1689	2064	1.222	4.2032	15 4,4'-DDD	
4.065	5	11	2.350	0.0224		
4.105	22	26	1.174	0.0529		
4.137	1954	2361	1.208	4.8080	16 Endosulfan II	
4.208	1840	2276	1.237	4.6349	17 4,4'-DDT	
4.290	1589	1955	1.231	3.9812	18 Endrin aldehyde	
4.428	1908	2404	1.260	4.8956	19 Endosulfan sulfate	
4.664	4702	5540	1.178	11.2890	20 Methoxychlor	
4.700	5	16	3.524	0.0325		
4.717	15	25	1.645	0.0509		
4.725	3	13	4.114	0.0264		
4.852	1997	2366	1.185	4.8182	21 Endrin ketone	
4.999	3	7	2.381	0.0142		
5.141	2	5	2.083	0.0101		
5.175	4	9	2.158	0.0183		
5.185	3	11	3.492	0.0224		
5.191	2	9	3.947	0.0183		
5.200	4	12	2.691	0.0244		
5.205	4	10	2.674	0.0203		
5.383	2	8	3.448	0.0162		
5.397	3	8	3.019	0.0162		
5.408	2	8	3.704	0.0162		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.413	3	8	2.899	0.0162		
5.436	4	17	4.645	0.0346		
5.440	5	20	4.149	0.0407		
5.443	2	18	8.911	0.0366		
5.445	3	15	4.451	0.0305		
5.584	2	7	3.286	0.0142		
5.646	1966	1865	0.949	3.7979	$ 24 Decachlorobiphenyl (S)	
5.787	2	7	3.333	0.0142		
6.027	2	8	3.306	0.0162		
6.154	2	5	2.193	0.0101		
6.233	3	8	2.395	0.0162		
6.243	3	10	3.378	0.0203		
6.247	3	9	3.409	0.0183		
6.268	2	9	3.797	0.0183		
6.292	4	9	2.267	0.0183		
6.304	3	11	3.385	0.0224		
6.310	3	10	3.460	0.0203		
6.319	3	11	3.416	0.0224		
6.325	2	11	5.000	0.0224		
6.331	3	11	3.860	0.0224		
6.369	2	10	4.831	0.0203		
6.374	2	10	4.975	0.0203		
6.396	2	11	4.825	0.0224		
6.482	2	10	4.926	0.0203		
6.494	2	10	4.902	0.0203		
6.578	2	10	4.219	0.0203		
6.590	3	12	4.706	0.0244		
6.602	5	14	3.017	0.0285		
6.612	4	10	2.451	0.0203		
6.617	4	16	4.408	0.0325		
6.623	3	16	5.654	0.0325		
6.626	2	15	6.818	0.0305		
6.628	3	18	7.059	0.0366		
6.631	2	15	6.726	0.0305		
6.635	2	13	5.830	0.0264		
6.648	5	14	3.030	0.0285		
6.653	2	12	5.556	0.0244		
6.656	2	15	6.098	0.0305		
6.661	3	15	4.934	0.0305		
6.669	3	13	3.824	0.0264		
6.684	2	9	4.265	0.0183		
6.688	2	10	5.000	0.0203		
6.694	2	11	4.721	0.0224		
6.699	2	11	5.116	0.0224		
6.710	2	6	2.521	0.0122		
6.862	2	9	3.965	0.0183		
6.877	2	11	4.681	0.0224		
6.905	2	8	3.463	0.0162		
	38551	49105		100.000		

Total unknown % height = 7.30

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m
Meth Date : 28-Jun-2019 09:23 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.885	1.884	0.001	1929	0.04000	0.0382			
2 alpha-BHC						CAS #: 319-84-6		
2.238	2.238	0.000	1283	0.02000	0.0188			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.473	2.472	0.001	1182	0.02000	0.0188			
4 beta-BHC						CAS #: 319-85-7		
2.617	2.617	0.000	617	0.02000	0.0208			
6 delta-BHC						CAS #: 76-44-8		
2.813	2.812	0.001	1207	0.02000	0.0198			
5 Heptachlor						CAS #: 319-86-8		
2.711	2.711	0.000	1246	0.02000	0.0191			
7 Aldrin						CAS #: 309-00-2		
2.923	2.922	0.001	1104	0.02000	0.0192			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.280	3.279	0.001	1086	0.02000	0.0191			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.435	3.436	-0.001	1097	0.02000	0.0193			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.500	3.499	0.001	1074	0.02000	0.0192			
11 Endosulfan I						CAS #: 959-98-8		
3.545	3.544	0.001	1023	0.02000	0.0193			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.622	3.621	0.001	2057	0.04000	0.0387			
13 Dieldrin						CAS #: 60-57-1		
3.739	3.738	0.001	2212	0.04000	0.0386			
14 Endrin						CAS #: 72-20-8		
3.957	3.957	0.000	1890	0.04000	0.0378			
15 4,4'-DDD						CAS #: 72-54-8		
4.016	4.016	0.000	1689	0.04000	0.0380			
16 Endosulfan II						CAS #: 33213-65-9		
4.137	4.137	0.000	1954	0.04000	0.0398			
17 4,4'-DDT						CAS #: 50-29-3		
4.208	4.208	0.000	1839	0.04000	0.0391			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.290	4.289	0.001	1588	0.04000	0.0379			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.428	4.428	0.000	1908	0.04000	0.0395			
20 Methoxychlor						CAS #: 72-43-5		
4.664	4.662	0.002	4701	0.20000	0.192			
21 Endrin ketone						CAS #: 53494-70-5		
4.851	4.850	0.001	1996	0.04000	0.0468			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.646	5.646	0.000	1965	0.04000	0.0395			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 27-JUN-2019 16:12
Lab File ID: 2019-06-27-016. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\062719-1.b\cf8081062719abm.m

			MIN		MAX	CURVE	QC
COMPOUND	RRF / AMOUNT	RF0.020	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS
$ 1 Tetrachloro-m-xylene (S)	50563	48225	0.000	-4.62434	20.00000	Aver	
2 alpha-BHC	68046	64150	0.000	-5.72547	20.00000	Aver	
3 gamma-BHC (Lindane)	62774	59100	0.000	-5.85246	20.00000	Aver	
4 beta-BHC	29609	30850	0.000	4.19280	20.00000	Aver	
6 delta-BHC	60955	60350	0.000	-0.99254	20.00000	Aver	
5 Heptachlor	65372	62300	0.000	-4.69981	20.00000	Aver	
7 Aldrin	57427	55200	0.000	-3.87860	20.00000	Aver	
8 Heptachlor epoxide	56896	54300	0.000	-4.56263	20.00000	Aver	
9 gamma-Chlordane	56720	54850	0.000	-3.29771	20.00000	Aver	
10 alpha-Chlordane	55773	53700	0.000	-3.71743	20.00000	Aver	
11 Endosulfan I	53111	51150	0.000	-3.69175	20.00000	Aver	
12 4,4'-DDE	53148	51425	0.000	-3.24163	20.00000	Aver	
13 Dieldrin	57235	55300	0.000	-3.38140	20.00000	Aver	
14 Endrin	50011	47250	0.000	-5.52160	20.00000	Aver	
15 4,4'-DDD	44408	42225	0.000	-4.91548	20.00000	Aver	
16 Endosulfan II	49096	48850	0.000	-0.50048	20.00000	Aver	
17 4,4'-DDT	46985	45975	0.000	-2.15061	20.00000	Aver	
18 Endrin aldehyde	41910	39700	0.000	-5.27267	20.00000	Aver	
19 Endosulfan sulfate	48268	47700	0.000	-1.17574	20.00000	Aver	
20 Methoxychlor	24471	23505	0.000	-3.94940	20.00000	Aver	
21 Endrin ketone	42660	49900	0.000	16.97108	20.00000	Aver	
$ 24 Decachlorobiphenyl (S)	49697	49125	0.000	-1.15055	20.00000	Aver	

Average %D / Drift Results.

Calculated Average %D/Drift = 2.42560
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\062719-1.b\2019-06-27-016.d

Date : 27-JUN-2019 16:12

Client ID: ICV

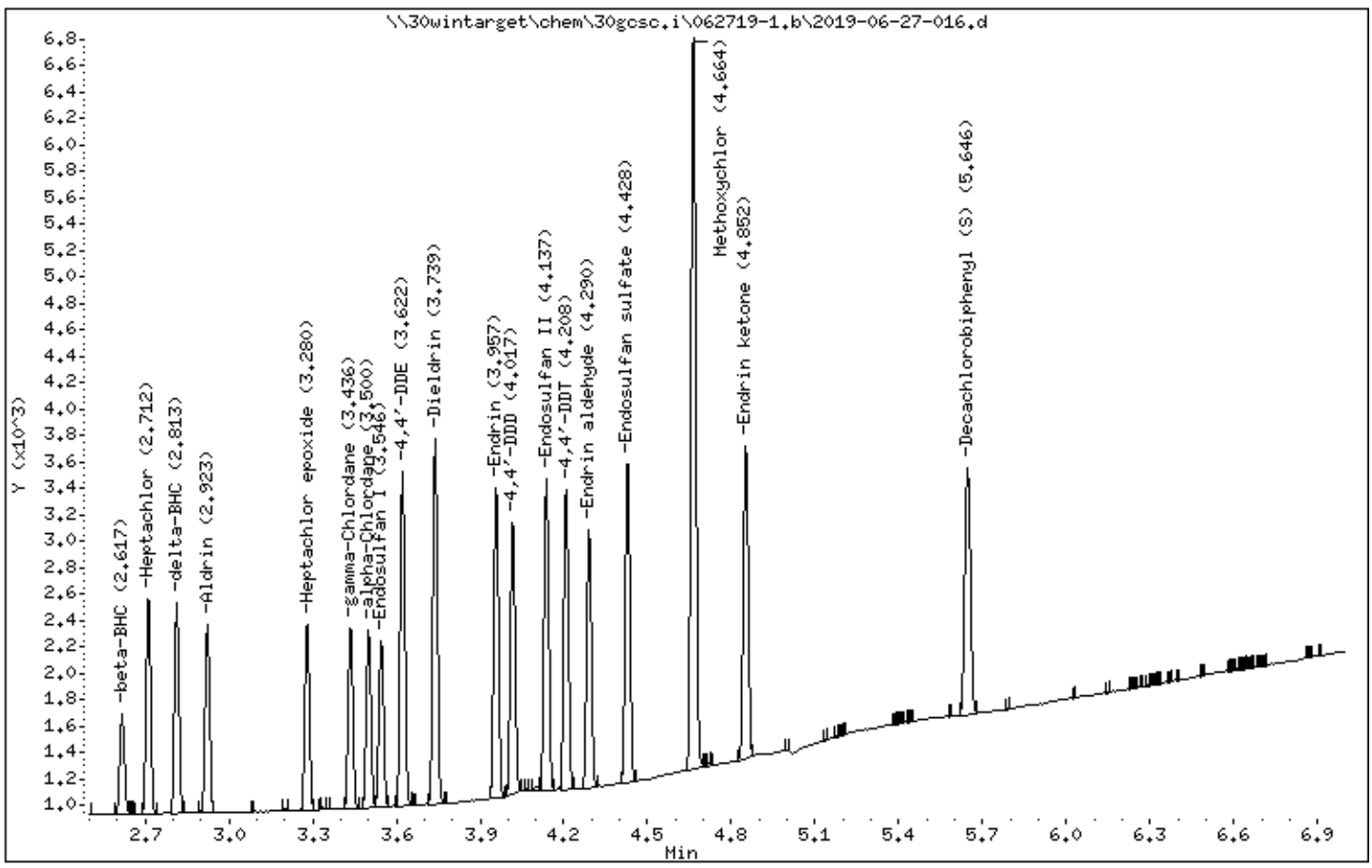
Instrument: 30gcsc.i

Sample Info: ICV, 89858:10

Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-1.b/2019-06-27-016.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:12 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: ICV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1283	1283
beta-BHC	617	617
delta-BHC	1207	1207
gamma-BHC (Lindane)	1182	1182
Heptachlor	1246	1246
Aldrin	1104	1104
Heptachlor epoxide	1086	1086
Endosulfan I	1023	1023
Dieldrin	2212	2212
4,4'-DDE	2057	2057
Endrin	1890	1890
Endosulfan II	1954	1954
4,4'-DDD	1689	1689
Endosulfan sulfate	1908	1908
4,4'-DDT	1839	1839
Methoxychlor	4701	4701
Endrin ketone	1996	1996
Endrin aldehyde	1588	1588
alpha-Chlordane	1074	1074
gamma-Chlordane	1097	1097
Tetrachloro-m-xylene (S)	1929	1929
Decachlorobiphenyl (S)	1965	1965

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.874	16	29	1.778	0.1910			
0.879	28	100	3.632	0.6588			
0.917	8	4	0.481	0.0263			
0.981	170	212	1.245	1.3967			
1.010	158	224	1.421	1.4758			
1.071	2	4	1.606	0.0263			
1.386	1	2	1.786	0.0131			
1.448	4	5	1.333	0.0329			
1.457	1	4	3.077	0.0263			
1.470	1	4	2.740	0.0263			
1.913	2	6	3.061	0.0395			
2.205	1	2	1.429	0.0131			
2.359	702	935	1.332	6.1602	$	1 Tetrachloro-m-xylene (S)	
2.569	2	5	2.451	0.0329			
2.623	448	600	1.339	3.9530		2 alpha-BHC	
2.840	412	547	1.327	3.6039		3 gamma-BHC (Lindane)	
3.001	209	271	1.297	1.7854		4 beta-BHC	
3.090	2	4	2.180	0.0263			
3.187	434	560	1.291	3.6895		5 delta-BHC	
3.225	5	7	1.284	0.0461			
3.250	410	497	1.213	3.2744		6 Heptachlor	
3.477	377	456	1.209	3.0043		7 Aldrin	
3.647	1	2	1.852	0.0131			
3.771	372	448	1.203	2.9516		8 Heptachlor epoxide	
3.851	2	3	1.899	0.0197			
3.858	1	4	3.704	0.0263			
3.984	371	445	1.199	2.9318		9 gamma-Chlordane	
4.020	370	431	1.165	2.8396		10 alpha-Chlordane	
4.053	352	412	1.172	2.7144		11 Endosulfan I	
4.099	690	839	1.216	5.5277		12 4,4'-DDE	
4.170	2	4	1.957	0.0263			
4.228	730	877	1.201	5.7780		13 Dieldrin	
4.313	1	3	2.459	0.0197			
4.329	2	4	2.594	0.0263			
4.342	1	3	2.970	0.0197			
4.389	590	699	1.184	4.6053		14 Endrin	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.452	577	708	1.227	4.6646		15 4,4'-DDD	
4.562	663	797	1.202	5.2510		16 Endosulfan II	
4.636	554	650	1.173	4.2825		17 Endrin aldehyde	
4.663	489	588	1.203	3.8740		18 4,4'-DDT	
4.826	643	733	1.141	4.8293		19 Endosulfan sulfate	
4.867	10	12	1.147	0.0790			
4.870	2	12	5.970	0.0790			
4.874	3	13	5.039	0.0856			
4.879	5	13	2.642	0.0856			
4.885	4	12	3.409	0.0790			
4.889	2	12	5.556	0.0790			
4.912	18	17	0.945	0.1120			
4.947	1434	1679	1.171	11.0652		20 Methoxychlor	
5.004	4	9	2.009	0.0592			
5.103	6	12	1.869	0.0790			
5.126	685	777	1.134	5.1192		21 Endrin ketone	
5.499	1	3	2.521	0.0197			
5.557	1	2	1.980	0.0131			
5.620	1	3	2.941	0.0197			
5.682	4	6	1.500	0.0395			
5.689	1	5	4.132	0.0329			
6.336	639	461	0.722	3.0372	$	24 Decachlorobiphenyl (S)	
6.651	1	2	1.980	0.0131			
	12627	15178		100.000			

Total unknown % height = 5.06

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 27-JUN-2019 16:12
Operator : TAW Inst ID: 30gcsc.i
Smp Info : icv, 89858:10
Misc Info : 15738,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m
Meth Date : 28-Jun-2019 11:15 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.359	2.359	0.000	701	0.04000	0.0380			
2 alpha-BHC						CAS #: 319-84-6		
2.623	2.623	0.000	447	0.02000	0.0185			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.840	2.840	0.000	412	0.02000	0.0187			
4 beta-BHC						CAS #: 319-85-7		
3.001	3.001	0.000	208	0.02000	0.0189			
5 delta-BHC						CAS #: 319-86-8		
3.187	3.187	0.000	433	0.02000	0.0195			
6 Heptachlor						CAS #: 76-44-8		
3.249	3.249	0.000	409	0.02000	0.0190			
7 Aldrin						CAS #: 309-00-2		
3.477	3.477	0.000	377	0.02000	0.0190			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.770	3.770	0.000	372	0.02000	0.0187			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.984	3.983	0.001	371	0.02000	0.0192			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.019	4.020	-0.001	369	0.02000	0.0195			
11 Endosulfan I						CAS #: 959-98-8		
4.053	4.053	0.000	351	0.02000	0.0192			

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.099	4.098	0.001	689	0.04000	0.0385			
13 Dieldrin						CAS #: 60-57-1		
4.227	4.227	0.000	730	0.04000	0.0381			
14 Endrin						CAS #: 72-20-8		
4.389	4.389	0.000	590	0.04000	0.0374			
15 4,4'-DDD						CAS #: 72-54-8		
4.451	4.451	0.000	576	0.04000	0.0380			
16 Endosulfan II						CAS #: 33213-65-9		
4.562	4.562	0.000	663	0.04000	0.0394			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.636	4.635	0.001	554	0.04000	0.0381			
18 4,4'-DDT						CAS #: 50-29-3		
4.663	4.662	0.001	488	0.04000	0.0406			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.826	4.826	0.000	642	0.04000	0.0397			
20 Methoxychlor						CAS #: 72-43-5		
4.947	4.947	0.000	1434	0.20000	0.194			
21 Endrin ketone						CAS #: 53494-70-5		
5.126	5.125	0.001	685	0.04000	0.0469			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.336	6.334	0.002	638	0.04000	0.0400			

Review Codes Legend

:

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

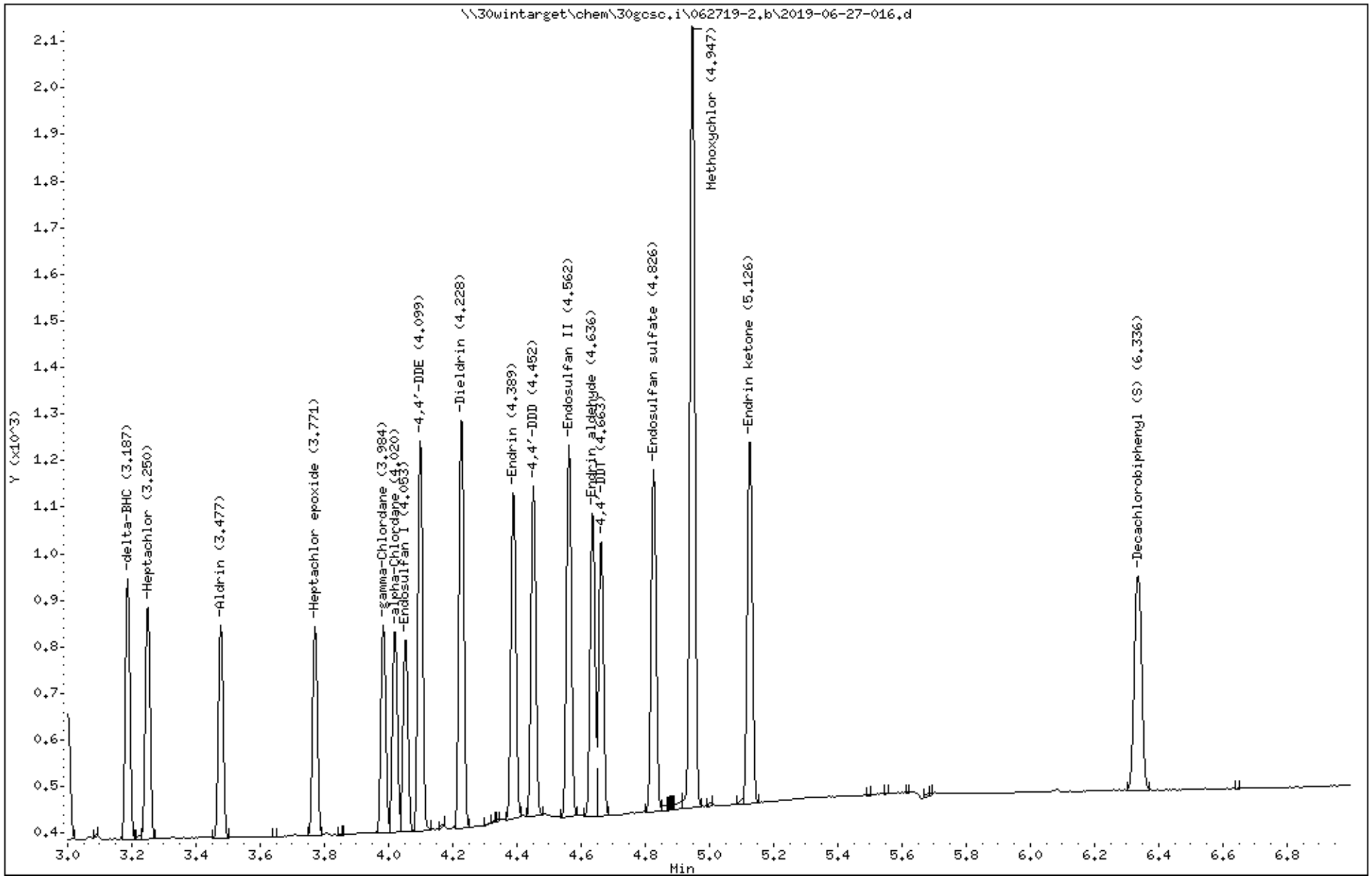
Instrument ID: 30gcsc.i Injection Date: 27-JUN-2019 16:12
Lab File ID: 2019-06-27-016. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\062719-2.b\cr8081062719abm.m

	COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
$	1 Tetrachloro-m-xylene (S)	18464	17525	0.000	-5.08704	20.00000	Aver	
	2 alpha-BHC	24103	22350	0.000	-7.27149	20.00000	Aver	
	3 gamma-BHC (Lindane)	22051	20600	0.000	-6.58202	20.00000	Aver	
	4 beta-BHC	11024	10400	0.000	-5.66282	20.00000	Aver	
	5 delta-BHC	22166	21650	0.000	-2.32663	20.00000	Aver	
	6 Heptachlor	21481	20450	0.000	-4.79938	20.00000	Aver	
	7 Aldrin	19785	18850	0.000	-4.72695	20.00000	Aver	
	8 Heptachlor epoxide	19885	18600	0.000	-6.46440	20.00000	Aver	
	9 gamma-Chlordane	19302	18550	0.000	-3.89668	20.00000	Aver	
	10 alpha-Chlordane	18942	18450	0.000	-2.59569	20.00000	Aver	
	11 Endosulfan I	18276	17550	0.000	-3.97217	20.00000	Aver	
	12 4,4'-DDE	17874	17225	0.000	-3.63315	20.00000	Aver	
	13 Dieldrin	19179	18250	0.000	-4.84526	20.00000	Aver	
	14 Endrin	15794	14750	0.000	-6.60968	20.00000	Aver	
	15 4,4'-DDD	15178	14400	0.000	-5.12346	20.00000	Aver	
	16 Endosulfan II	16826	16575	0.000	-1.49007	20.00000	Aver	
	17 Endrin aldehyde	14537	13850	0.000	-4.72525	20.00000	Aver	
	18 4,4'-DDT	12012	12200	0.000	1.56289	20.00000	Aver	
	19 Endosulfan sulfate	16163	16050	0.000	-0.70118	20.00000	Aver	
	20 Methoxychlor	7382	7170	0.000	-2.87561	20.00000	Aver	
	21 Endrin ketone	14595	17125	0.000	17.33757	20.00000	Aver	
$	24 Decachlorobiphenyl (S)	15958	15950	0.000	-0.05296	20.00000	Aver	

Data File: \\30wintarget\chem\30gcsc.i\062719-2.b\2019-06-27-016.d
Date : 27-JUN-2019 16:12
Client ID: ICV
Sample Info: ICV, 89858:10

Instrument: 30gcsc.i

Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\062719-2.b/2019-06-27-016.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 27-JUN-2019 16:12 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: ICV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	447	447
beta-BHC	208	208
delta-BHC	433	433
gamma-BHC (Lindane)	412	412
Heptachlor	409	409
Aldrin	377	377
Heptachlor epoxide	372	372
Endosulfan I	351	351
Dieldrin	730	730
4,4'-DDE	689	689
Endrin	590	590
Endosulfan II	663	663
4,4'-DDD	576	576
Endosulfan sulfate	642	642
4,4'-DDT	488	488
Methoxychlor	1434	1434
Endrin ketone	685	685
Endrin aldehyde	554	554
alpha-Chlordane	369	369
gamma-Chlordane	371	371
Tetrachloro-m-xylene (S)	701	701
Decachlorobiphenyl (S)	638	638

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-033.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 18:35
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 33 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.888	13	61	4.609	0.2293		
0.898	60	82	1.366	0.3082		
0.943	290	360	1.242	1.3532		
0.963	330	376	1.138	1.4134		
1.017	11	17	1.526	0.0639		
1.240	12	25	2.044	0.0939		
1.247	6	20	3.273	0.0751		
1.251	9	19	2.041	0.0714		
1.263	7	13	1.955	0.0488		
1.268	4	13	2.989	0.0488		
1.337	6	9	1.488	0.0338		
1.371	6	11	1.923	0.0413		
1.374	3	10	3.571	0.0375		
1.396	3	4	1.434	0.0150		
1.414	6	10	1.779	0.0375		
1.422	5	12	2.632	0.0451		
1.433	7	13	1.854	0.0488		
1.443	10	16	1.682	0.0601		
1.455	14	19	1.389	0.0714		
1.457	5	21	4.046	0.0789		
1.468	10	21	2.021	0.0789		
1.481	31	35	1.139	0.1315		
1.489	8	27	3.301	0.1014		
1.494	5	25	5.330	0.0939		
1.498	4	24	5.714	0.0902		
1.505	13	25	1.970	0.0939		
1.509	5	27	5.000	0.1014		
1.513	4	26	5.936	0.0977		
1.516	7	25	3.817	0.0939		
1.525	11	23	2.122	0.0864		
1.529	4	22	5.327	0.0827		
1.532	4	21	4.730	0.0789		
1.541	12	20	1.691	0.0751		
1.547	4	18	5.014	0.0676		
1.552	4	16	4.255	0.0601		
1.560	5	12	2.434	0.0451		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.566	3	10	3.846	0.0375		
1.592	2	8	3.941	0.0300		
1.606	4	10	2.326	0.0375		
1.621	2	6	2.586	0.0225		
1.626	3	8	2.857	0.0300		
1.634	3	9	3.010	0.0338		
1.643	3	11	3.630	0.0413		
1.649	3	11	3.385	0.0413		
1.882	1288	1586	1.231	5.9619	$ 1 Tetrachloro-m-xylene (S)	
1.927	5	13	2.524	0.0488		
1.957	3	7	2.333	0.0263		
2.076	11	16	1.524	0.0601		
2.096	4	10	2.381	0.0375		
2.118	11	17	1.557	0.0639		
2.234	884	1182	1.337	4.4432	2 alpha-BHC	
2.344	8	13	1.706	0.0488		
2.428	16	21	1.288	0.0789		
2.469	832	1059	1.273	3.9809	3 gamma-BHC (Lindane)	
2.496	4	14	3.627	0.0526		
2.515	29	31	1.055	0.1165		
2.523	13	24	1.900	0.0902		
2.535	5	14	2.840	0.0526		
2.545	2	8	3.756	0.0300		
2.550	3	8	2.395	0.0300		
2.557	3	8	2.878	0.0300		
2.615	441	443	1.005	1.6652	4 beta-BHC	
2.898	820	527	0.643	1.9810		
2.948	4	12	3.243	0.0451		
3.055	11	17	1.573	0.0639		
3.553	2	7	2.966	0.0263		
3.620	23	26	1.134	0.0977	12 4,4'-DDE	BA
3.952	3216	4001	1.244	15.0402	14 Endrin	
4.016	174	164	0.943	0.6164	15 4,4'-DDD	
4.060	3	7	2.047	0.0263		
4.116	20	19	0.972	0.0714		
4.122	3	11	4.029	0.0413		
4.179	3	8	3.089	0.0300		
4.205	5764	6301	1.093	23.6861	17 4,4'-DDT	
4.265	5	18	3.797	0.0676		
4.287	108	114	1.051	0.4285	18 Endrin aldehyde	
4.407	2	6	2.519	0.0225		
4.661	7018	7420	1.057	27.8984	20 Methoxychlor	
4.707	2	11	5.392	0.0413		
4.711	3	12	3.774	0.0451		
4.769	3	7	2.662	0.0263		
4.847	173	197	1.139	0.7405	21 Endrin ketone	BA
4.873	1	4	5.634	0.0150		
4.877	1	4	4.762	0.0150		
4.882	2	6	3.947	0.0225		
4.885	1	8	5.839	0.0300		
4.889	7	14	1.918	0.0526		
4.897	2	11	5.023	0.0413		
4.903	5	14	3.004	0.0526		
4.907	3	15	5.682	0.0563		
4.910	5	15	2.757	0.0563		
4.918	6	15	2.336	0.0563		
4.926	2	10	4.566	0.0375		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.929	3	11	4.029	0.0413		
4.934	3	9	3.226	0.0338		
5.180	3	9	2.687	0.0338		
5.190	2	8	3.883	0.0300		
5.207	2	8	3.252	0.0300		
5.224	2	7	3.084	0.0263		
5.232	2	6	2.927	0.0225		
5.423	3	8	2.740	0.0300		
5.432	4	15	3.650	0.0563		
5.436	5	15	3.158	0.0563		
5.443	3	11	3.274	0.0413		
5.640	1553	1414	0.910	5.3153	$ 24 Decachlorobiphenyl (S)	
5.679	4	13	3.066	0.0488		
6.045	2	8	3.419	0.0300		
6.134	2	4	1.896	0.0150		
6.262	2	8	3.774	0.0300		
6.354	3	9	3.586	0.0338		
6.367	2	6	2.752	0.0225		
6.385	3	7	2.632	0.0263		
	23518	26602		100.000		

Total unknown % height = 10.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-033.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 18:35
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 33 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.881	1.881	0.000	1288	0.02547	0.0255		(R)	
2 alpha-BHC						CAS #: 319-84-6		
2.234	2.233	0.001	884	0.01299	0.0130		(R)	
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.469	2.468	0.001	831	0.01324	0.0132		(R)	
4 beta-BHC						CAS #: 319-85-7		
2.615	2.613	0.002	440	0.01486	0.0149		(R)	
12 4,4'-DDE						CAS #: 72-55-9		
3.619	3.618	0.001	22	4e-004	0.000414		(M)	BA
14 Endrin						CAS #: 72-20-8		
3.951	3.952	-0.001	3215	0.06429	0.0643		(R)	
15 4,4'-DDD						CAS #: 72-54-8		
4.015	4.015	0.000	173	0.00390	0.00390			
17 4,4'-DDT						CAS #: 50-29-3		
4.204	4.204	0.000	5763	0.12265	0.123		(R)	
18 Endrin aldehyde						CAS #: 7421-36-3		
4.286	4.285	0.001	108	0.00258	0.00258			
20 Methoxychlor						CAS #: 72-43-5		
4.660	4.661	-0.001	7018	0.28678	0.287			
21 Endrin ketone						CAS #: 53494-70-5		
4.846	4.847	-0.001	172	0.00403	0.00403		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.639	5.641	-0.002	1553	0.03125	0.0312			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-081419-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0130	
58-89-9	gamma-BHC (Lindane)	0.0132	
319-85-7	beta-BHC	0.0149	
72-55-9	4,4'-DDE	0.000414	
72-20-8	Endrin	0.0643	
72-54-8	4,4'-DDD	0.00390	
50-29-3	4,4'-DDT	0.123	
7421-36-3	Endrin aldehyde	0.00258	
72-43-5	Methoxychlor	0.287	
53494-70-5	Endrin ketone	0.00403	
----------	Tetrachloro-m-xylene (S)	0.0255	
----------	Decachlorobiphenyl (S)	0.0312	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-033.d

Date : 14-AUG-2019 18:35

Client ID: PEM

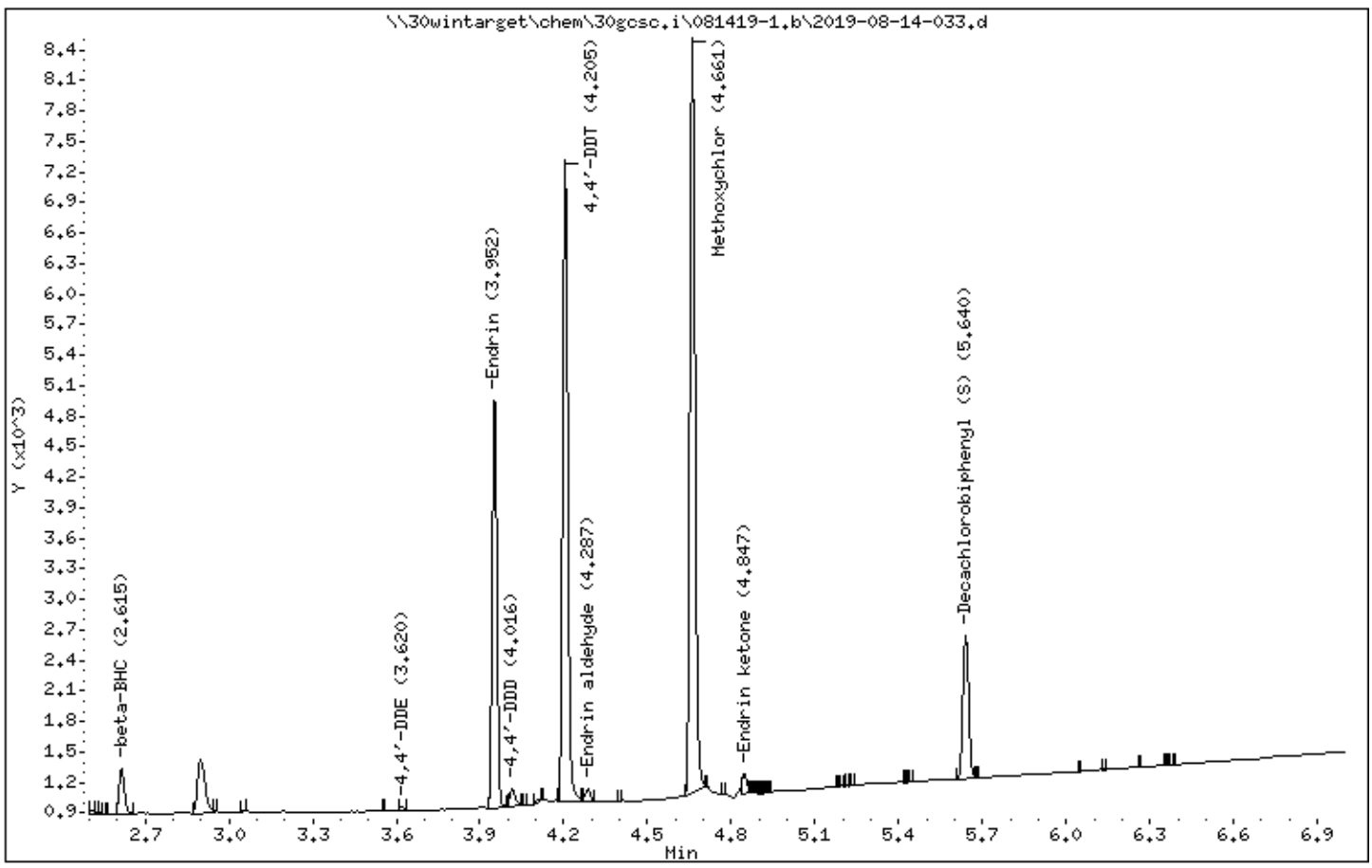
Instrument: 30gcsc.i

Sample Info: PEM, 94100:10

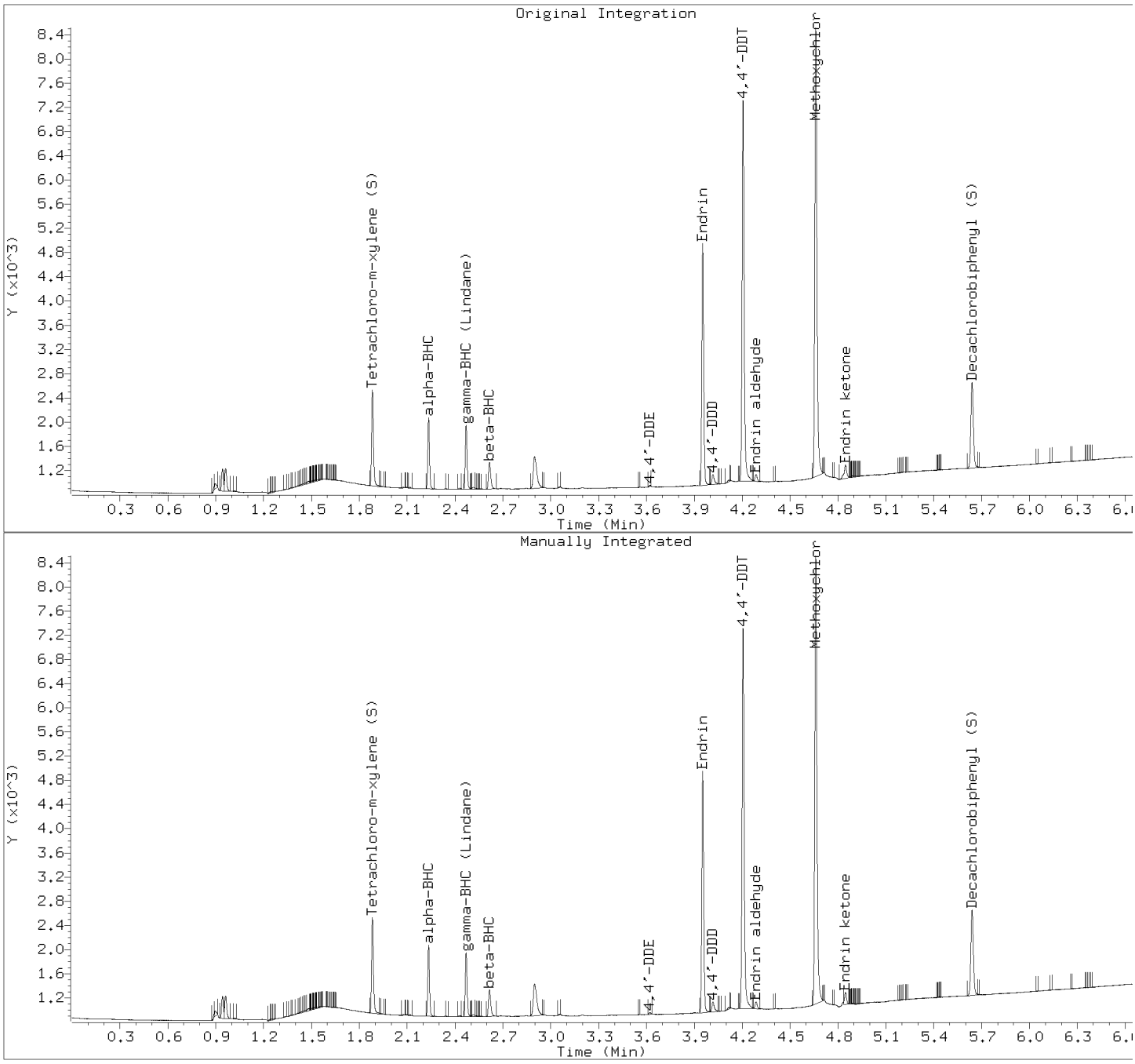
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-033.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 14-AUG-2019 18:35 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	173	173
Methoxychlor	7018	7018
gamma-BHC (Lindane)	831	831
beta-BHC	440	440
4,4'-DDE	7	22
Endrin	3215	3215
Endrin aldehyde	108	108
4,4'-DDT	5763	5763
Endrin ketone	268	172
alpha-BHC	884	884
Tetrachloro-m-xylene (S)	1288	1288
Decachlorobiphenyl (S)	1553	1553

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-033.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 18:35
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.182	1	1	0.980	0.0132			
0.880	48	157	3.239	2.0808			
0.952	7	8	1.117	0.1060			
0.982	102	114	1.121	1.5109			
1.011	92	121	1.316	1.6037			
1.074	2	5	2.587	0.0662			
1.183	1	2	1.399	0.0265			
1.435	1	3	2.609	0.0397			
1.456	2	4	2.210	0.0530			
1.463	1	4	3.670	0.0530			
1.477	1	5	3.906	0.0662			
1.508	7	6	0.894	0.0795			
1.521	3	3	0.896	0.0397			
1.554	9	5	0.551	0.0662			
1.583	1	3	2.206	0.0397			
1.682	1	3	2.830	0.0397			
1.911	3	6	1.863	0.0795			
2.332	4	8	1.909	0.1060			
2.336	2	8	4.372	0.1060			
2.356	452	568	1.257	7.5281	$	1 Tetrachloro-m-xylene (S)	
2.436	2	4	1.810	0.0530			
2.525	1	3	2.703	0.0397			
2.567	1	3	2.542	0.0397			
2.619	286	385	1.347	5.1027		2 alpha-BHC	
2.698	2	8	4.520	0.1060			
2.702	3	8	2.941	0.1060			
2.732	2	3	1.911	0.0397			
2.750	15	20	1.330	0.2650			
2.836	276	356	1.289	4.7183		3 gamma-BHC (Lindane)	
2.973	1	4	3.361	0.0530			
2.978	1	4	3.333	0.0530			
2.997	146	175	1.201	2.3194		4 beta-BHC	
3.084	22	25	1.119	0.3313			
3.125	42	52	1.241	0.6891			
3.195	235	231	0.984	3.0616			
3.326	1	3	2.857	0.0397			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.390	3	6	2.075	0.0795			
4.092	8	9	1.200	0.1192		12 4,4'-DDE	BA
4.383	945	1066	1.128	14.1285		14 Endrin	
4.412	1	6	4.545	0.0795			
4.446	59	71	1.207	0.9410		15 4,4'-DDD	
4.602	7	11	1.549	0.1457			
4.612	4	12	3.101	0.1590			
4.617	3	14	4.294	0.1855			
4.631	44	49	1.107	0.6494		17 Endrin aldehyde	
4.656	1240	1487	1.199	19.7084		18 4,4'-DDT	
4.861	5	11	2.100	0.1457			
4.876	11	11	0.979	0.1457			
4.882	1	6	5.042	0.0795			
4.940	1828	2044	1.118	27.0933		20 Methoxychlor	
5.000	3	5	1.984	0.0662			
5.096	3	6	1.992	0.0795			
5.120	46	56	1.216	0.7422		21 Endrin ketone	
5.541	1	3	2.857	0.0397			
5.629	2	3	1.676	0.0397			
6.324	485	351	0.723	4.6520	$	24 Decachlorobiphenyl (S)	
	6477	7545		100.000			

Total unknown % height = 12.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-033.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 18:35
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.355	2.354	0.001	451	0.02443	0.0244		(R)	
2 alpha-BHC						CAS #: 319-84-6		
2.618	2.618	0.000	285	0.01182	0.0118			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.835	2.834	0.001	276	0.01252	0.0125		(R)	
4 beta-BHC						CAS #: 319-85-7		
2.996	2.995	0.001	145	0.01315	0.0132		(R)	
12 4,4'-DDE						CAS #: 72-55-9		
4.091	4.092	-0.001	7	4e-004	0.000392		(M)	BA
14 Endrin						CAS #: 72-20-8		
4.382	4.383	-0.001	945	0.05983	0.0598			
15 4,4'-DDD						CAS #: 72-54-8		
4.445	4.445	0.000	58	0.00382	0.00382			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.630	4.630	0.000	44	0.00303	0.00303			
18 4,4'-DDT						CAS #: 50-29-3		
4.655	4.656	-0.001	1239	0.10314	0.103			
20 Methoxychlor						CAS #: 72-43-5		
4.940	4.941	-0.001	1828	0.24762	0.248			
21 Endrin ketone						CAS #: 53494-70-5		
5.119	5.119	0.000	46	0.00315	0.00315			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.324	6.325	-0.001	485	0.03039	0.0304			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

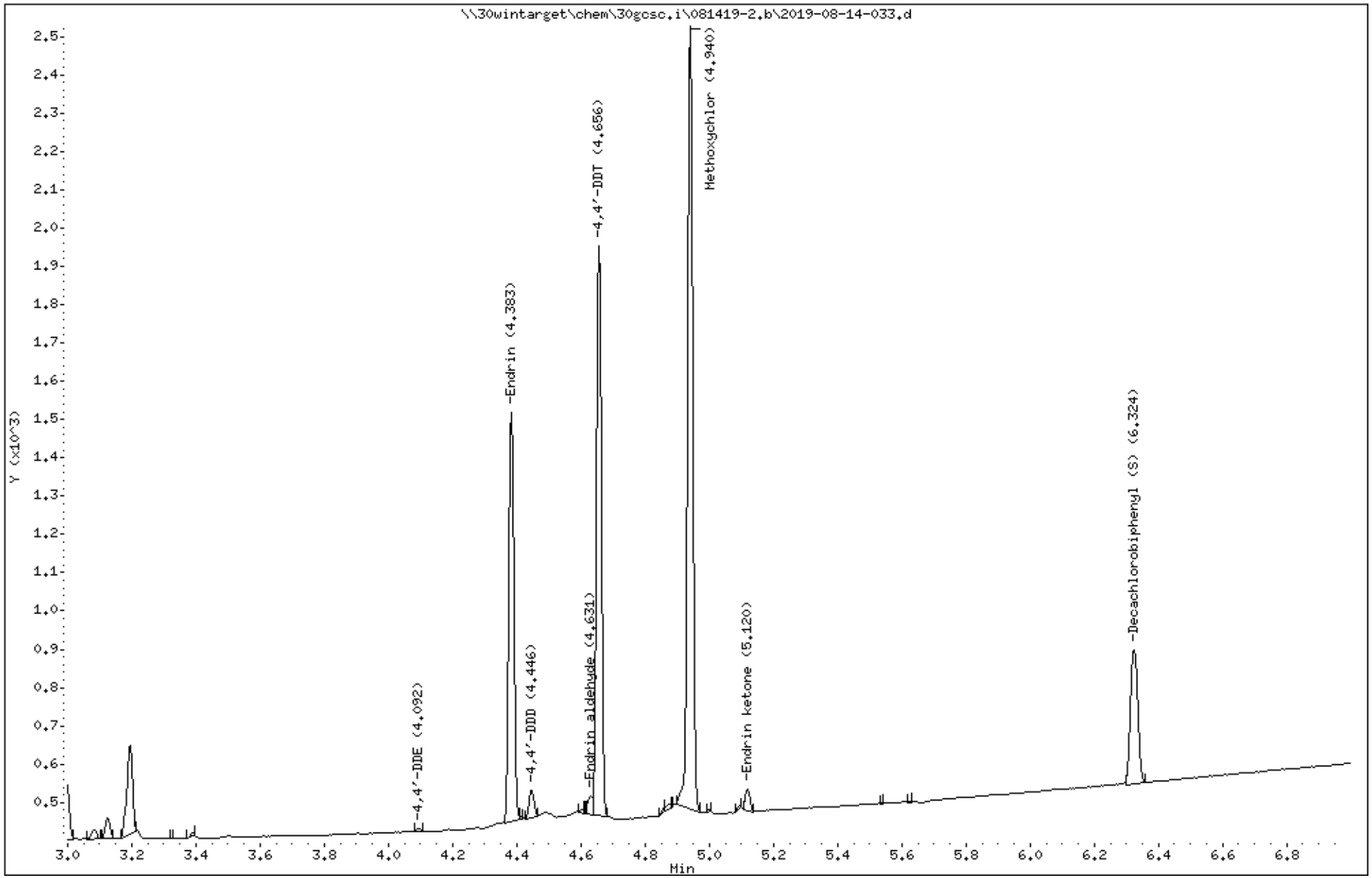
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-081419-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

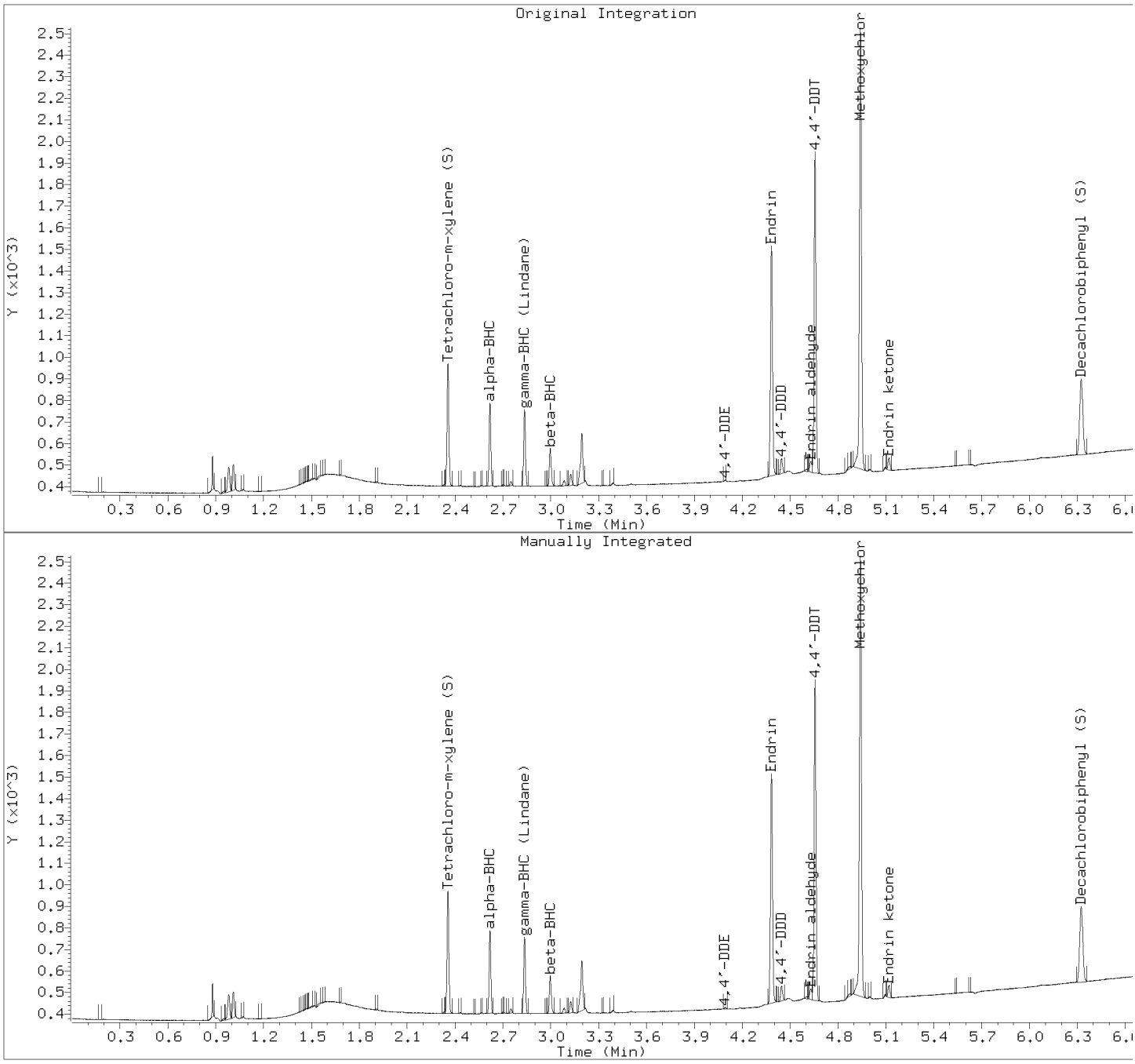
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0118	
58-89-9	gamma-BHC (Lindane)	0.0125	
319-85-7	beta-BHC	0.0132	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0598	
72-54-8	4,4'-DDD	0.00382	
7421-36-3	Endrin aldehyde	0.00303	
50-29-3	4,4'-DDT	0.103	
72-43-5	Methoxychlor	0.248	
53494-70-5	Endrin ketone	0.00315	
----------	Tetrachloro-m-xylene (S)	0.0244	
----------	Decachlorobiphenyl (S)	0.0304	

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-033.d
Date : 14-AUG-2019 18:35
Client ID: PEM
Sample Info: PEM, 94100:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-033.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 14-AUG-2019 18:35 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	285	285
beta-BHC	145	145
gamma-BHC (Lindane)	276	276
4,4'-DDE	2	7
Endrin	945	945
4,4'-DDD	58	58
4,4'-DDT	1239	1239
Methoxychlor	1828	1828
Endrin ketone	46	46
Endrin aldehyde	44	44
Tetrachloro-m-xylene (S)	451	451
Decachlorobiphenyl (S)	485	485

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-034.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 18:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.895	10263	14250	1.389	21.5601		
0.927	15	125	8.361	0.1890		
0.941	474	548	1.156	0.8288		
0.960	884	924	1.045	1.3975		
0.995	10	48	4.697	0.0726		
1.003	21	56	2.634	0.0847		
1.007	62	58	0.935	0.0877		
1.033	9	21	2.448	0.0317		
1.043	4	12	2.703	0.0181		
1.128	2	8	3.955	0.0121		
1.184	3	6	2.239	0.0090		
1.242	3	5	1.802	0.0075		
1.369	15	20	1.334	0.0302		
1.425	7	11	1.601	0.0166		
1.436	3	14	5.185	0.0211		
1.439	4	17	4.857	0.0257		
1.448	10	23	2.340	0.0347		
1.452	8	23	2.719	0.0347		
1.463	9	21	2.211	0.0317		
1.470	10	23	2.419	0.0347		
1.474	6	25	4.433	0.0378		
1.480	10	29	2.805	0.0438		
1.485	9	28	2.960	0.0423		
1.489	7	30	4.601	0.0453		
1.493	5	29	5.472	0.0438		
1.498	6	28	4.423	0.0423		
1.510	22	31	1.405	0.0468		
1.514	11	30	2.691	0.0453		
1.521	6	28	4.341	0.0423		
1.524	4	27	7.357	0.0408		
1.528	11	27	2.571	0.0408		
1.533	4	25	5.760	0.0378		
1.539	9	27	2.894	0.0408		
1.542	4	27	6.569	0.0408		
1.545	5	26	5.263	0.0393		
1.549	8	26	3.342	0.0393		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
1.555	6	24	3.721	0.0363			
1.563	14	21	1.481	0.0317			
1.569	5	17	3.704	0.0257			
1.574	3	16	5.776	0.0242			
1.580	6	13	2.145	0.0196			
1.645	3	6	2.381	0.0090			
1.674	3	8	2.685	0.0121			
1.691	3	6	2.308	0.0090			
1.789	6	13	2.167	0.0196			
1.882	2322	2930	1.262	4.4317	$	1 Tetrachloro-m-xylene (S)	
1.922	3	11	4.120	0.0166			
2.077	7	12	1.690	0.0181			
2.096	21	34	1.643	0.0514			
2.187	3	8	2.867	0.0121			
2.194	3	8	2.312	0.0121			
2.234	1596	2141	1.341	3.2383		2 alpha-BHC	
2.275	3	7	2.662	0.0105			
2.412	8	12	1.517	0.0181			
2.430	17	20	1.192	0.0302			
2.469	1450	1875	1.293	2.8360		3 gamma-BHC (Lindane)	
2.513	25	29	1.149	0.0438			
2.522	6	19	3.035	0.0287			
2.614	663	724	1.091	1.0950		4 beta-BHC	BA
2.657	3	11	3.860	0.0166			
2.706	1466	1893	1.291	2.8632		5 Heptachlor	
2.788	2	5	2.119	0.0075			
2.810	1344	1488	1.107	2.2506		6 delta-BHC	
2.842	22	37	1.698	0.0559			
2.897	439	445	1.013	0.6730			
2.918	1564	1850	1.182	2.7981		7 Aldrin	
2.951	3	11	3.188	0.0166			
3.052	2	6	2.500	0.0090			
3.155	2	6	2.532	0.0090			
3.196	11	28	2.511	0.0423			
3.199	13	28	2.105	0.0423			
3.211	3	8	2.985	0.0121			
3.275	1325	1630	1.230	2.4654		8 Heptachlor epoxide	
3.431	1311	1593	1.215	2.4094		9 gamma-Chlordane	
3.496	1283	1555	1.212	2.3519		10 alpha-Chlordane	
3.541	1225	1491	1.217	2.2551		11 Endosulfan I	
3.589	2	6	2.479	0.0090			
3.620	2248	2108	0.938	3.1884		12 4,4'-DDE	
3.733	2563	3218	1.256	4.8673		13 Dieldrin	
3.825	2	6	2.956	0.0090			
3.834	3	8	3.019	0.0121			
3.952	2167	2638	1.217	3.9900		14 Endrin	
4.017	1868	1723	0.922	2.6061		15 4,4'-DDD	BA
4.133	2344	2705	1.154	4.0914		16 Endosulfan II	
4.164	2	9	4.110	0.0136			
4.205	1930	2096	1.086	3.1702		17 4,4'-DDT	
4.246	11	21	1.918	0.0317			
4.285	1904	2188	1.149	3.3094		18 Endrin aldehyde	
4.424	2277	2634	1.157	3.9840		19 Endosulfan sulfate	
4.546	2	6	2.791	0.0090			
4.565	5	12	2.475	0.0181			
4.661	5087	5190	1.020	7.8500		20 Methoxychlor	
4.715	5	16	3.532	0.0242			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.846	2007	2214	1.103	3.3487	21 Endrin ketone	
5.009	9	18	1.940	0.0272		
5.229	2	5	2.381	0.0075		
5.246	3	8	2.920	0.0121		
5.255	2	7	3.030	0.0105		
5.277	2	5	2.381	0.0075		
5.287	2	6	2.941	0.0090		
5.302	3	8	3.175	0.0121		
5.330	6	12	1.892	0.0181		
5.434	20	33	1.626	0.0499		
5.638	2526	2181	0.863	3.2988	$ 24 Decachlorobiphenyl (S)	
5.682	4	12	2.830	0.0181		
5.701	3	6	2.048	0.0090		
5.864	2	7	2.954	0.0105		
5.963	2	8	3.265	0.0121		
6.077	2	6	2.985	0.0090		
6.095	3	8	2.417	0.0121		
6.102	3	10	3.876	0.0151		
6.112	7	11	1.507	0.0166		
6.120	4	9	2.557	0.0136		
6.135	2	10	4.000	0.0151		
6.150	2	9	3.846	0.0136		
6.155	2	10	4.386	0.0151		
6.170	2	8	3.540	0.0121		
6.576	4	7	1.994	0.0105		
6.583	3	10	2.933	0.0151		
6.591	2	13	5.804	0.0196		
6.596	4	12	3.429	0.0181		
6.601	4	11	2.910	0.0166		
6.607	2	12	5.607	0.0181		
6.615	6	12	2.051	0.0181		
6.620	2	13	5.556	0.0196		
6.625	3	13	4.235	0.0196		
6.633	6	13	2.355	0.0196		
6.642	4	13	3.023	0.0196		
6.647	3	15	4.615	0.0226		
6.652	3	12	4.152	0.0181		
6.657	5	12	2.521	0.0181		
6.708	2	10	4.444	0.0151		
6.714	3	10	2.857	0.0151		
6.730	3	11	4.280	0.0166		
6.738	3	10	3.534	0.0151		
6.970	2	7	2.846	0.0105		
6.984	3	8	2.614	0.0121		
	55247	66114		100.000		

Total unknown % height = 27.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-034.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 18:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO		REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:				
1.881	1.881	0.000	2322	0.04000	0.0459				
2 alpha-BHC					CAS #: 319-84-6				
2.233	2.233	0.000	1596	0.02000	0.0234				
3 gamma-BHC (Lindane)					CAS #: 58-89-9				
2.469	2.468	0.001	1449	0.02000	0.0231				
4 beta-BHC					CAS #: 319-85-7				
2.613	2.613	0.000	663	0.02000	0.0224			(M)	BA
6 delta-BHC					CAS #: 76-44-8				
2.809	2.809	0.000	1344	0.02000	0.0220				
5 Heptachlor					CAS #: 319-86-8				
2.706	2.706	0.000	1466	0.02000	0.0224				
7 Aldrin					CAS #: 309-00-2				
2.917	2.917	0.000	1564	0.02000	0.0272				
8 Heptachlor epoxide					CAS #: 1024-57-3				
3.275	3.275	0.000	1325	0.02000	0.0233				
9 gamma-Chlordane					CAS #: 5103-74-2				
3.430	3.430	0.000	1310	0.02000	0.0231				
10 alpha-Chlordane					CAS #: 5103-71-9				
3.495	3.495	0.000	1282	0.02000	0.0230				
11 Endosulfan I					CAS #: 959-98-8				
3.540	3.540	0.000	1224	0.02000	0.0230				

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE					CAS #: 72-55-9			
3.620	3.618	0.002	2248	0.04000	0.0423			
13 Dieldrin					CAS #: 60-57-1			
3.733	3.733	0.000	2562	0.04000	0.0448			
14 Endrin					CAS #: 72-20-8			
3.951	3.952	-0.001	2166	0.04000	0.0433			
15 4,4'-DDD					CAS #: 72-54-8			
4.016	4.015	0.001	1868	0.04000	0.0421		(M)	BA
16 Endosulfan II					CAS #: 33213-65-9			
4.132	4.133	-0.001	2344	0.04000	0.0477			
17 4,4'-DDT					CAS #: 50-29-3			
4.204	4.204	0.000	1929	0.04000	0.0410			
18 Endrin aldehyde					CAS #: 7421-36-3			
4.285	4.285	0.000	1904	0.04000	0.0454			
19 Endosulfan sulfate					CAS #: 1031-07-8			
4.423	4.424	-0.001	2276	0.04000	0.0472			
20 Methoxychlor					CAS #: 72-43-5			
4.660	4.661	-0.001	5086	0.20000	0.208			
21 Endrin ketone					CAS #: 53494-70-5			
4.846	4.847	-0.001	2006	0.04000	0.0470			
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.638	5.641	-0.003	2525	0.04000	0.0508			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 14-AUG-2019 18:45
Lab File ID: 2019-08-14-034. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m

COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$ 1 Tetrachloro-m-xylene (S)	50563	58050	0.000	14.80678	20.00000	Aver		
2 alpha-BHC	68046	79800	0.000	17.27369	20.00000	Aver		
3 gamma-BHC (Lindane)	62774	72450	0.000	15.41438	20.00000	Aver		
4 beta-BHC	29609	33150	0.000	11.96082	20.00000	Aver	(M)	
6 delta-BHC	60955	67200	0.000	10.24526	20.00000	Aver		
5 Heptachlor	65372	73300	0.000	12.12686	20.00000	Aver		
7 Aldrin	57427	78200	0.000	36.17198	20.00000	Aver		<-
8 Heptachlor epoxide	56896	66250	0.000	16.44062	20.00000	Aver		
9 gamma-Chlordane	56720	65500	0.000	15.47858	20.00000	Aver		
10 alpha-Chlordane	55773	64100	0.000	14.92948	20.00000	Aver		
11 Endosulfan I	53111	61200	0.000	15.23099	20.00000	Aver		
12 4,4'-DDE	53148	56200	0.000	5.74274	20.00000	Aver		
13 Dieldrin	57235	64050	0.000	11.90635	20.00000	Aver		
14 Endrin	50011	54150	0.000	8.27525	20.00000	Aver		
15 4,4'-DDD	44408	46700	0.000	5.16157	20.00000	Aver	(M)	
16 Endosulfan II	49096	58600	0.000	19.35869	20.00000	Aver		
17 4,4'-DDT	46985	48225	0.000	2.63810	20.00000	Aver		
18 Endrin aldehyde	41910	47600	0.000	13.57736	20.00000	Aver		
19 Endosulfan sulfate	48268	56900	0.000	17.88471	20.00000	Aver		
20 Methoxychlor	24471	25430	0.000	3.91690	20.00000	Aver		
21 Endrin ketone	42660	50150	0.000	17.55710	20.00000	Aver		
$ 24 Decachlorobiphenyl (S)	49697	63125	0.000	27.02029	20.00000	Aver		<-

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 14.23266
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-034.d

Date : 14-AUG-2019 18:45

Client ID: CCV

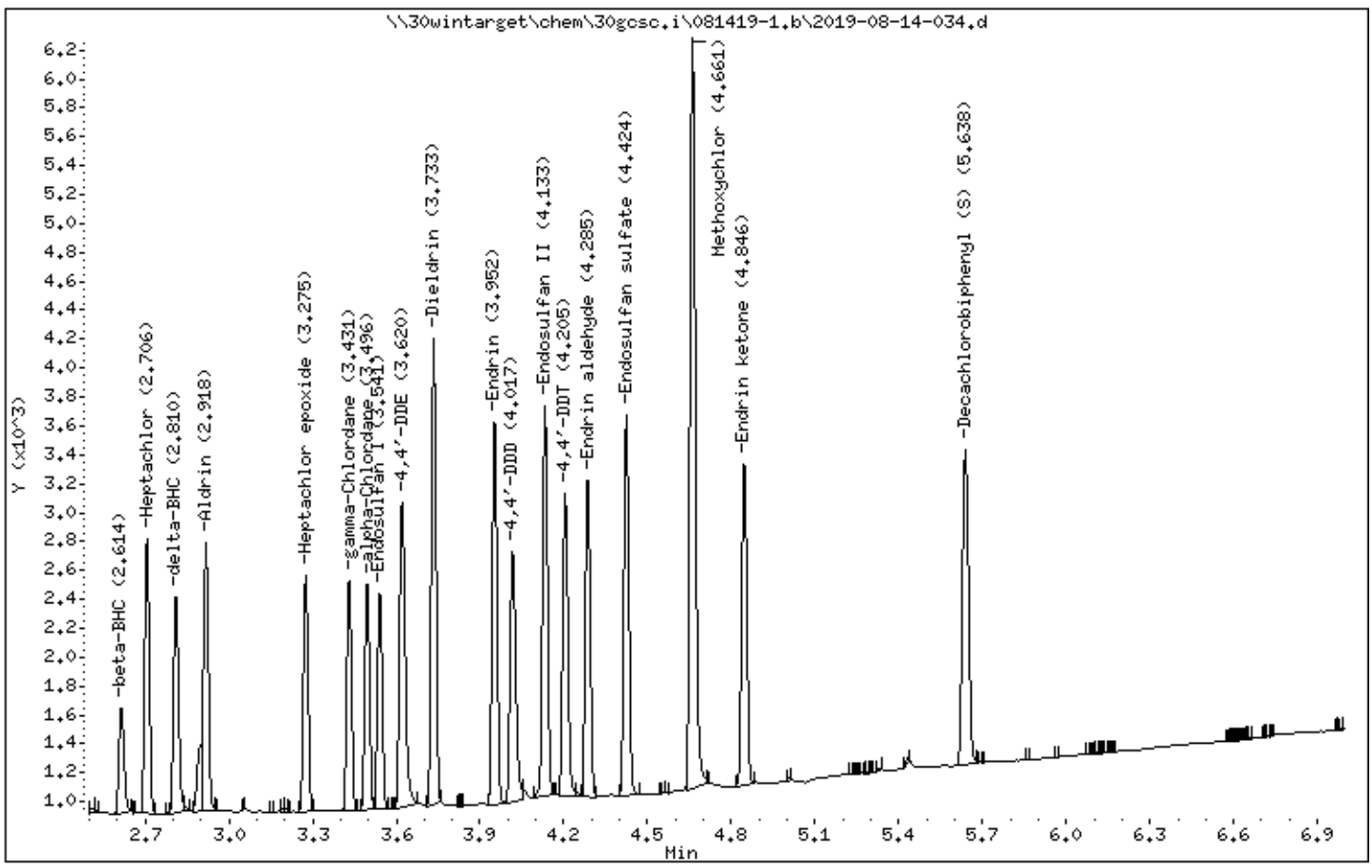
Instrument: 30gcsc.i

Sample Info: CCV, 96673:1

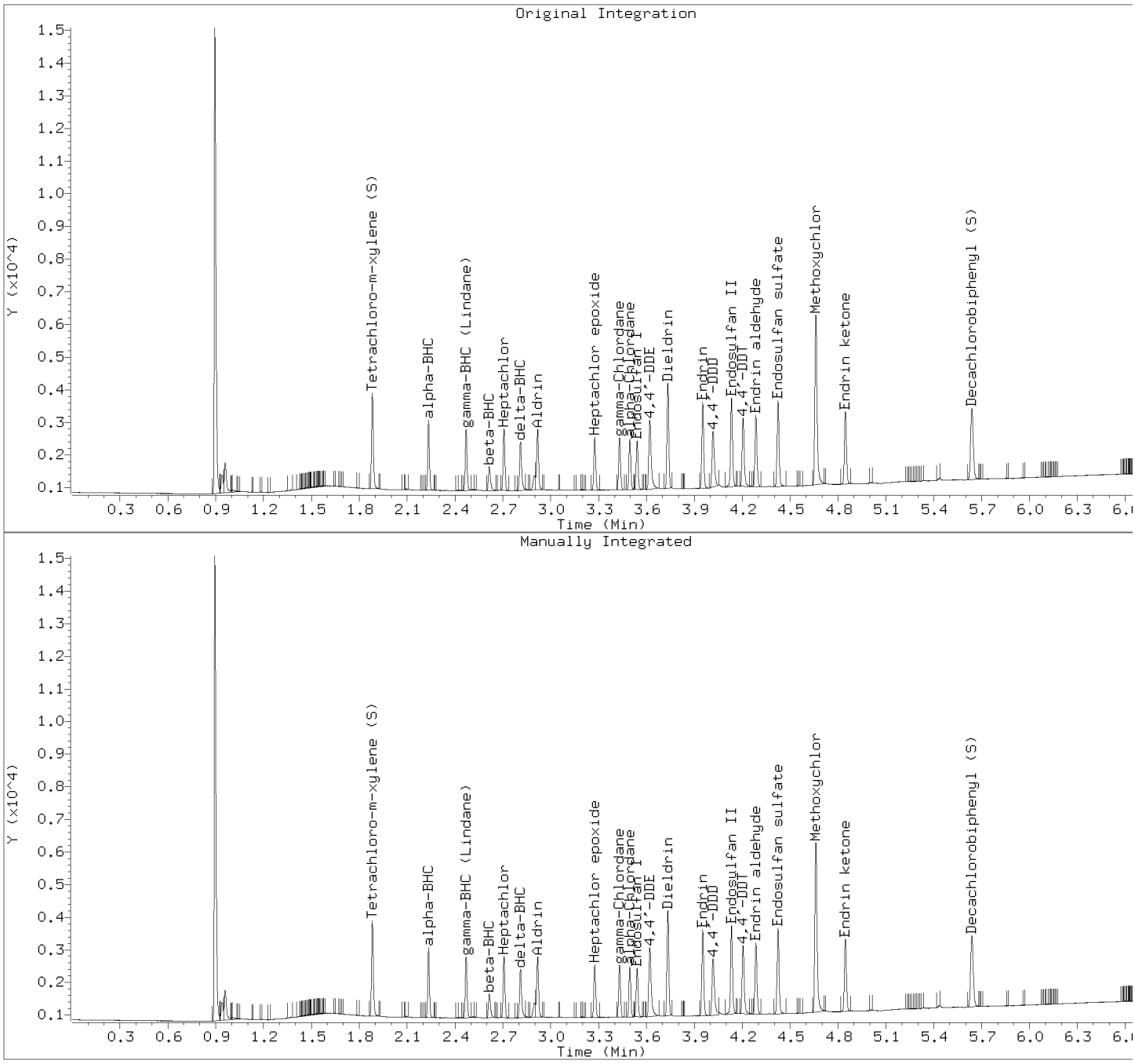
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-034.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 14-AUG-2019 18:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1596	1596
beta-BHC	695	663
delta-BHC	1344	1344
gamma-BHC (Lindane)	1449	1449
Heptachlor	1466	1466
Aldrin	1564	1564
Heptachlor epoxide	1325	1325
Endosulfan I	1224	1224
Dieldrin	2562	2562
4,4'-DDE	2248	2248
Endrin	2166	2166
Endosulfan II	2344	2344
4,4'-DDD	1742	1868
Endosulfan sulfate	2276	2276

4,4'-DDT	1929	1929
Methoxychlor	5086	5086
Endrin ketone	2006	2006
Endrin aldehyde	1904	1904
alpha-Chlordane	1282	1282
gamma-Chlordane	1310	1310
Tetrachloro-m-xylene (S)	2322	2322
Decachlorobiphenyl (S)	2525	2525

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-034.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 18:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.867	1	4	3.200	0.0151			
0.879	4399	9863	2.242	37.3152			
0.951	9	13	1.395	0.0491			
0.980	217	269	1.237	1.0176			
1.009	129	162	1.256	0.6128			
1.323	1	4	3.704	0.0151			
1.426	1	2	1.534	0.0075			
1.547	2	2	0.969	0.0075			
1.708	2	5	2.660	0.0189			
1.911	1	3	2.459	0.0113			
2.319	1	3	2.632	0.0113			
2.332	6	9	1.596	0.0340			
2.355	820	1043	1.272	3.9456	$	1 Tetrachloro-m-xylene (S)	
2.566	4	8	2.243	0.0302			
2.590	1	3	2.609	0.0113			
2.619	532	713	1.340	2.6972		2 alpha-BHC	
2.702	6	9	1.520	0.0340			
2.750	21	28	1.357	0.1059			
2.835	487	624	1.282	2.3605		3 gamma-BHC (Lindane)	
2.920	1	3	2.362	0.0113			
2.971	1	4	3.175	0.0151			
2.996	236	291	1.235	1.1008		4 beta-BHC	
3.084	8	11	1.430	0.0416			
3.125	61	72	1.174	0.2723			
3.182	545	654	1.199	2.4740		5 delta-BHC	CO
3.192	142	285	2.002	1.0781			
3.213	5	26	5.702	0.0983			
3.218	15	26	1.784	0.0983			
3.244	447	548	1.227	2.0730		6 Heptachlor	
3.310	1	3	2.830	0.0113			
3.320	1	3	2.158	0.0113			
3.390	3	5	1.982	0.0189			
3.471	429	524	1.221	1.9822		7 Aldrin	
3.705	1	2	1.370	0.0075			
3.764	434	519	1.195	1.9633		8 Heptachlor epoxide	
3.977	424	499	1.177	1.8877		9 gamma-Chlordane	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.013	421	492	1.170	1.8612	10 alpha-Chlordane	
4.046	405	479	1.182	1.8120	11 Endosulfan I	
4.093	793	932	1.176	3.5257	12 4,4'-DDE	
4.123	1	5	4.032	0.0189		
4.164	4	6	1.713	0.0226		
4.220	841	1000	1.189	3.7830	13 Dieldrin	
4.274	2	4	1.843	0.0151		
4.383	647	758	1.171	2.8675	14 Endrin	
4.445	658	792	1.203	2.9961	15 4,4'-DDD	
4.555	740	857	1.158	3.2420	16 Endosulfan II	
4.629	636	736	1.157	2.7842	17 Endrin aldehyde	
4.655	416	498	1.197	1.8839	18 4,4'-DDT	
4.819	710	826	1.164	3.1247	19 Endosulfan sulfate	
4.870	1	6	4.380	0.0226		
4.873	1	5	4.505	0.0189		
4.896	1	7	4.828	0.0264		
4.940	1339	1457	1.089	5.5118	20 Methoxychlor	
5.097	14	21	1.475	0.0794		
5.119	640	695	1.085	2.6291	21 Endrin ketone	
5.319	2	3	1.754	0.0113		
5.543	2	3	1.317	0.0113		
5.622	1	4	3.361	0.0151		
5.629	1	4	3.419	0.0151		
5.692	2	3	1.987	0.0113		
5.863	1	3	2.542	0.0113		
5.902	2	3	1.613	0.0113		
6.071	4	6	1.415	0.0226		
6.324	791	576	0.728	2.1790	$ 24 Decachlorobiphenyl (S)	
6.420	1	4	3.077	0.0151		
6.475	1	3	2.459	0.0113		
6.519	1	4	3.540	0.0151		
	18476	26434		100.000		

Total unknown % height = 41.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-034.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 18:45
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.354	2.354	0.000	820	0.04000	0.0444			
2 alpha-BHC						CAS #: 319-84-6		
2.618	2.618	0.000	532	0.02000	0.0221			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.834	2.834	0.000	486	0.02000	0.0220			
4 beta-BHC						CAS #: 319-85-7		
2.996	2.995	0.001	235	0.02000	0.0213			
5 delta-BHC						CAS #: 319-86-8		
3.182	3.182	0.000	545	0.02000	0.0246		(M)	CO
6 Heptachlor						CAS #: 76-44-8		
3.243	3.243	0.000	446	0.02000	0.0208			
7 Aldrin						CAS #: 309-00-2		
3.471	3.471	0.000	429	0.02000	0.0217			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.764	3.764	0.000	434	0.02000	0.0218			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.976	3.977	-0.001	424	0.02000	0.0220			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.013	4.013	0.000	420	0.02000	0.0222			
11 Endosulfan I						CAS #: 959-98-8		
4.046	4.046	0.000	405	0.02000	0.0222			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.092	4.092	0.000	792	0.04000	0.0443			
13 Dieldrin						CAS #: 60-57-1		
4.220	4.221	-0.001	840	0.04000	0.0438			
14 Endrin						CAS #: 72-20-8		
4.382	4.383	-0.001	647	0.04000	0.0410			
15 4,4'-DDD						CAS #: 72-54-8		
4.444	4.445	-0.001	658	0.04000	0.0434			
16 Endosulfan II						CAS #: 33213-65-9		
4.554	4.556	-0.002	739	0.04000	0.0439			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.628	4.630	-0.002	636	0.04000	0.0438			
18 4,4'-DDT						CAS #: 50-29-3		
4.655	4.656	-0.001	416	0.04000	0.0346			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.818	4.819	-0.001	709	0.04000	0.0439			
20 Methoxychlor						CAS #: 72-43-5		
4.939	4.941	-0.002	1338	0.20000	0.181			
21 Endrin ketone						CAS #: 53494-70-5		
5.118	5.119	-0.001	640	0.04000	0.0438			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.323	6.325	-0.002	790	0.04000	0.0495			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 14-AUG-2019 18:45
Lab File ID: 2019-08-14-034. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m

	COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$	1 Tetrachloro-m-xylene (S)	18464	20500	0.000	11.02515	20.00000	Aver		
	2 alpha-BHC	24103	26600	0.000	10.36145	20.00000	Aver		
	3 gamma-BHC (Lindane)	22051	24300	0.000	10.19694	20.00000	Aver		
	4 beta-BHC	11024	11750	0.000	6.58287	20.00000	Aver		
	5 delta-BHC	22166	27250	0.000	22.93761	20.00000	Aver	(M)	<-
	6 Heptachlor	21481	22300	0.000	3.81290	20.00000	Aver		
	7 Aldrin	19785	21450	0.000	8.41416	20.00000	Aver		
	8 Heptachlor epoxide	19885	21700	0.000	9.12487	20.00000	Aver		
	9 gamma-Chlordane	19302	21200	0.000	9.83237	20.00000	Aver		
	10 alpha-Chlordane	18942	21000	0.000	10.86670	20.00000	Aver		
	11 Endosulfan I	18276	20250	0.000	10.80134	20.00000	Aver		
	12 4,4'-DDE	17874	19800	0.000	10.77292	20.00000	Aver		
	13 Dieldrin	19179	21000	0.000	9.49313	20.00000	Aver		
	14 Endrin	15794	16175	0.000	2.41277	20.00000	Aver		
	15 4,4'-DDD	15178	16450	0.000	8.38327	20.00000	Aver		
	16 Endosulfan II	16826	18475	0.000	9.80217	20.00000	Aver		
	17 Endrin aldehyde	14537	15900	0.000	9.37679	20.00000	Aver		
	18 4,4'-DDT	12012	10400	0.000	-13.42180	20.00000	Aver		
	19 Endosulfan sulfate	16163	17725	0.000	9.66179	20.00000	Aver		
	20 Methoxychlor	7382	6690	0.000	-9.37766	20.00000	Aver		
	21 Endrin ketone	14595	16000	0.000	9.62927	20.00000	Aver		
$	24 Decachlorobiphenyl (S)	15958	19750	0.000	23.75887	20.00000	Aver		<-

QC Flag Legend

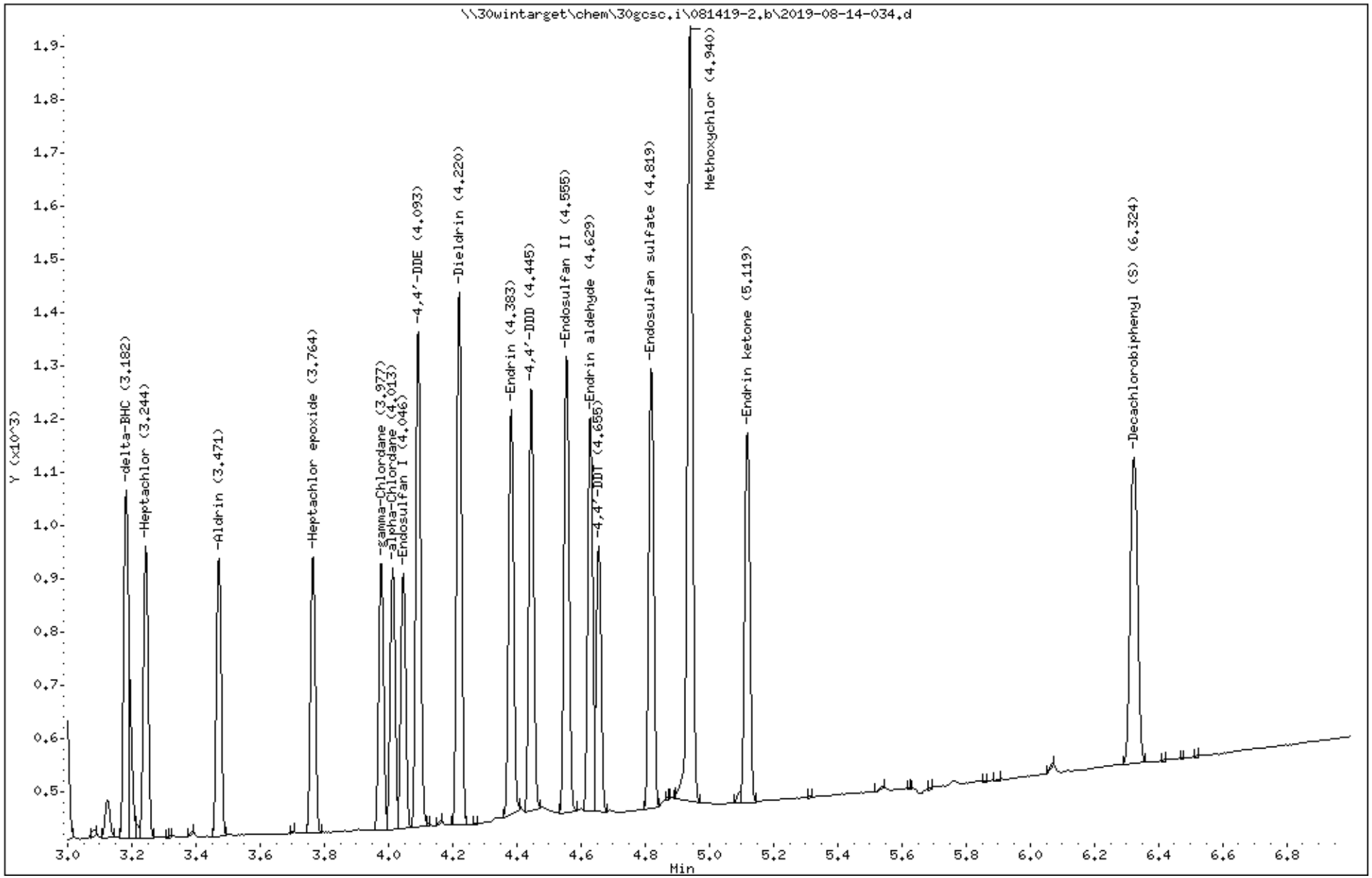
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-034.d
Date : 14-AUG-2019 18:45
Client ID: CCV
Sample Info: CCV, 96673:1

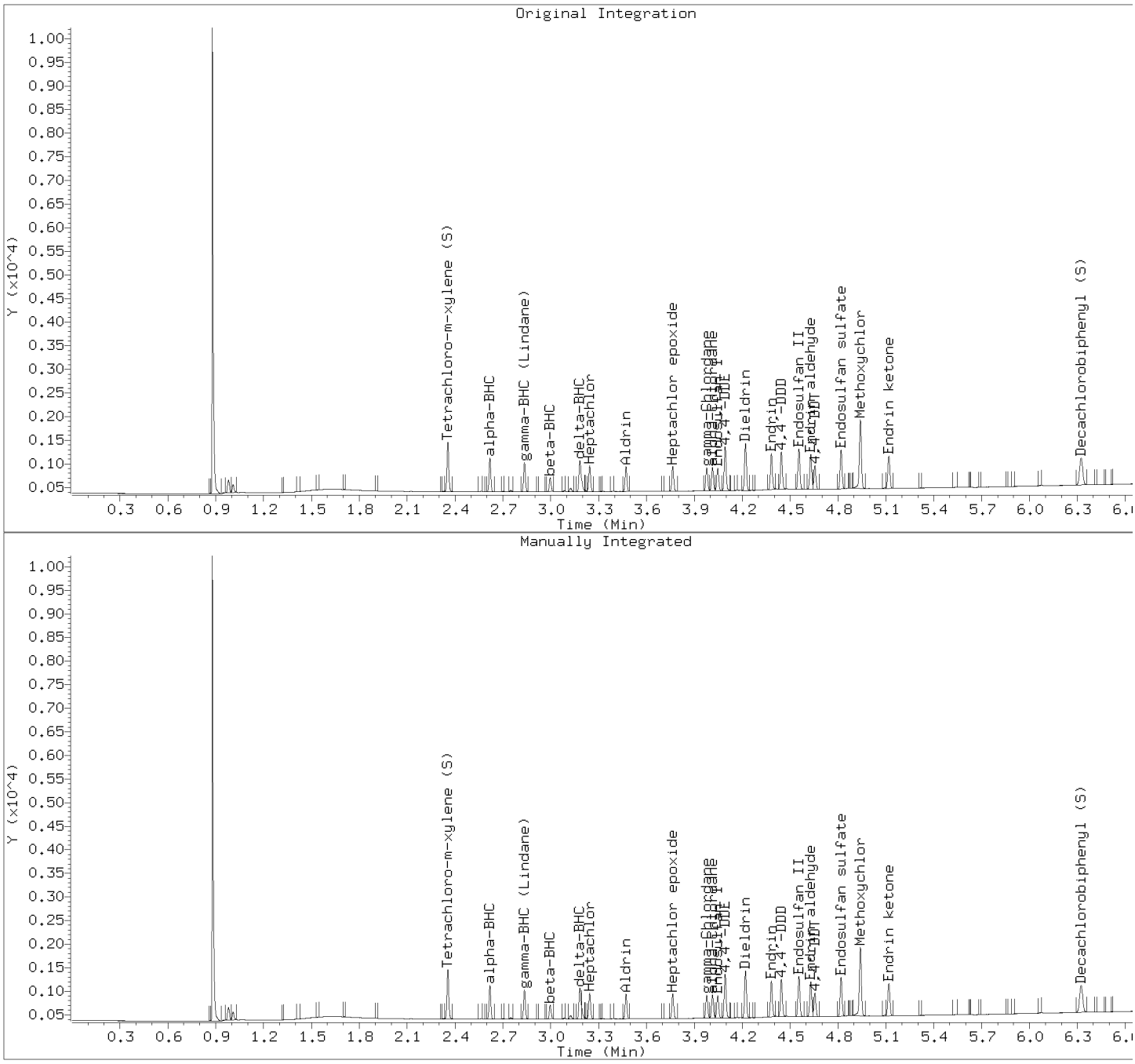
Instrument: 30gcsc.i

Operator: TAW
Column diameter: 0.53

Column phase: ZB-CLPesticides-2



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-034.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 14-AUG-2019 18:45 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	532	532
beta-BHC	235	235
delta-BHC	681	545
gamma-BHC (Lindane)	486	486
Heptachlor	446	446
Aldrin	429	429
Heptachlor epoxide	434	434
Endosulfan I	405	405
Dieldrin	840	840
4,4'-DDE	792	792
Endrin	647	647
Endosulfan II	739	739
4,4'-DDD	658	658
Endosulfan sulfate	709	709

4,4'-DDT	416	416
Methoxychlor	1338	1338
Endrin ketone	640	640
Endrin aldehyde	636	636
alpha-Chlordane	420	420
gamma-Chlordane	424	424
Tetrachloro-m-xylene (S)	820	820
Decachlorobiphenyl (S)	790	790

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-045.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 20:32
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 45 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.886	17	77	4.603	0.3033			
0.900	28	41	1.453	0.1615			
0.906	7	25	3.709	0.0984			
0.940	256	352	1.377	1.3866			
0.960	274	353	1.288	1.3905			
1.215	3	7	2.525	0.0275			
1.241	4	6	1.549	0.0236			
1.336	11	16	1.502	0.0630			
1.369	5	10	1.962	0.0393			
1.479	5	11	2.140	0.0433			
1.574	3	7	2.431	0.0275			
1.589	2	9	4.036	0.0354			
1.594	2	9	4.390	0.0354			
1.599	2	10	4.115	0.0393			
1.606	3	9	2.639	0.0354			
1.621	3	7	2.482	0.0275			
1.647	3	8	2.477	0.0315			
1.882	1386	1773	1.279	6.9844	$	1 Tetrachloro-m-xylene (S)	
2.095	14	19	1.365	0.0748			
2.234	951	1281	1.347	5.0462		2 alpha-BHC	
2.469	891	1147	1.287	4.5184		3 gamma-BHC (Lindane)	
2.616	517	497	0.962	1.9578		4 beta-BHC	
2.653	3	9	2.752	0.0354			
2.896	9	17	1.848	0.0669			
3.278	3	7	2.756	0.0275			
3.289	3	6	2.222	0.0236			
3.372	5	6	1.202	0.0236			
3.620	30	29	0.983	0.1142		12 4,4'-DDE	BA
3.718	2	6	2.956	0.0236			
3.902	2	5	2.193	0.0196			
3.952	3122	3767	1.206	14.8394		14 Endrin	
4.017	265	254	0.960	1.0005		15 4,4'-DDD	
4.112	25	44	1.792	0.1733			
4.119	40	45	1.117	0.1772			
4.131	6	33	5.925	0.1299			
4.135	21	30	1.450	0.1181			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.151	5	18	3.636	0.0709		
4.157	4	15	3.363	0.0590		
4.165	4	14	3.196	0.0551		
4.177	21	28	1.346	0.1103		
4.204	5753	5978	1.039	23.5493	17 4,4'-DDT	
4.260	18	36	1.994	0.1418		
4.286	196	208	1.064	0.8193	18 Endrin aldehyde	
4.320	2	5	2.231	0.0196		
4.406	7	13	1.929	0.0512		
4.424	2	6	2.479	0.0236		
4.660	6909	7150	1.035	28.1705	20 Methoxychlor	
4.710	7	17	2.511	0.0669		
4.846	277	301	1.086	1.1857	21 Endrin ketone	BA
4.888	4	10	2.421	0.0393		
4.895	3	9	3.586	0.0354		
5.079	3	7	2.295	0.0275		
5.091	3	8	2.299	0.0315		
5.106	4	10	2.755	0.0393		
5.114	3	9	3.346	0.0354		
5.125	2	9	4.327	0.0354		
5.128	2	9	4.167	0.0354		
5.172	2	9	3.719	0.0354		
5.176	5	12	2.620	0.0472		
5.184	4	9	2.564	0.0354		
5.195	2	9	3.766	0.0354		
5.208	3	10	3.846	0.0393		
5.227	3	8	2.749	0.0315		
5.347	2	7	3.431	0.0275		
5.437	6	11	1.961	0.0433		
5.638	1578	1423	0.902	5.6056	$ 24 Decachlorobiphenyl (S)	
5.675	3	11	3.427	0.0433		
5.681	2	9	3.629	0.0354		
6.125	2	5	2.451	0.0196		
6.305	2	7	2.991	0.0275		
6.425	2	9	3.734	0.0354		
6.458	2	8	3.721	0.0315		
6.623	3	7	2.555	0.0275		
6.640	2	7	2.857	0.0275		
6.704	2	8	3.463	0.0315		
6.860	2	8	3.704	0.0315		
6.891	3	9	2.961	0.0354		
6.933	3	7	2.662	0.0275		
	22784	25385		100.000		

Total unknown % height = 6.21

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-045.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 20:32
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 45 QC Sample: blank
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.881	1.881	0.000	1385	0.02739	0.0274		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.234	2.233	0.001	951	0.01398	0.0140		(R)	
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.469	2.468	0.001	891	0.01419	0.0142		(R)	
4 beta-BHC					CAS #: 319-85-7			
2.616	2.613	0.003	516	0.01743	0.0174		(R)	
12 4,4'-DDE					CAS #: 72-55-9			
3.620	3.618	0.002	29	5e-004	0.000546		(M)	BA
14 Endrin					CAS #: 72-20-8			
3.952	3.952	0.000	3122	0.06243	0.0624		(R)	
15 4,4'-DDD					CAS #: 72-54-8			
4.016	4.015	0.001	264	0.00594	0.00594			
17 4,4'-DDT					CAS #: 50-29-3			
4.204	4.204	0.000	5752	0.12242	0.122		(R)	
18 Endrin aldehyde					CAS #: 7421-36-3			
4.286	4.285	0.001	195	0.00465	0.00465			
20 Methoxychlor					CAS #: 72-43-5			
4.660	4.661	-0.001	6908	0.28229	0.282			
21 Endrin ketone					CAS #: 53494-70-5			
4.845	4.847	-0.002	277	0.00649	0.00649		(M)	BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
5.637	5.641	-0.004	1577	0.03173	0.0317			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-081419-1
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/ml	Q
319-84-6	alpha-BHC	0.0140	
58-89-9	gamma-BHC (Lindane)	0.0142	
319-85-7	beta-BHC	0.0174	
72-55-9	4,4'-DDE	0.000546	
72-20-8	Endrin	0.0624	
72-54-8	4,4'-DDD	0.00594	
50-29-3	4,4'-DDT	0.122	
7421-36-3	Endrin aldehyde	0.00465	
72-43-5	Methoxychlor	0.282	
53494-70-5	Endrin ketone	0.00649	
----------	Tetrachloro-m-xylene (S)	0.0274	
----------	Decachlorobiphenyl (S)	0.0317	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-045.d

Date : 14-AUG-2019 20:32

Client ID: PEM

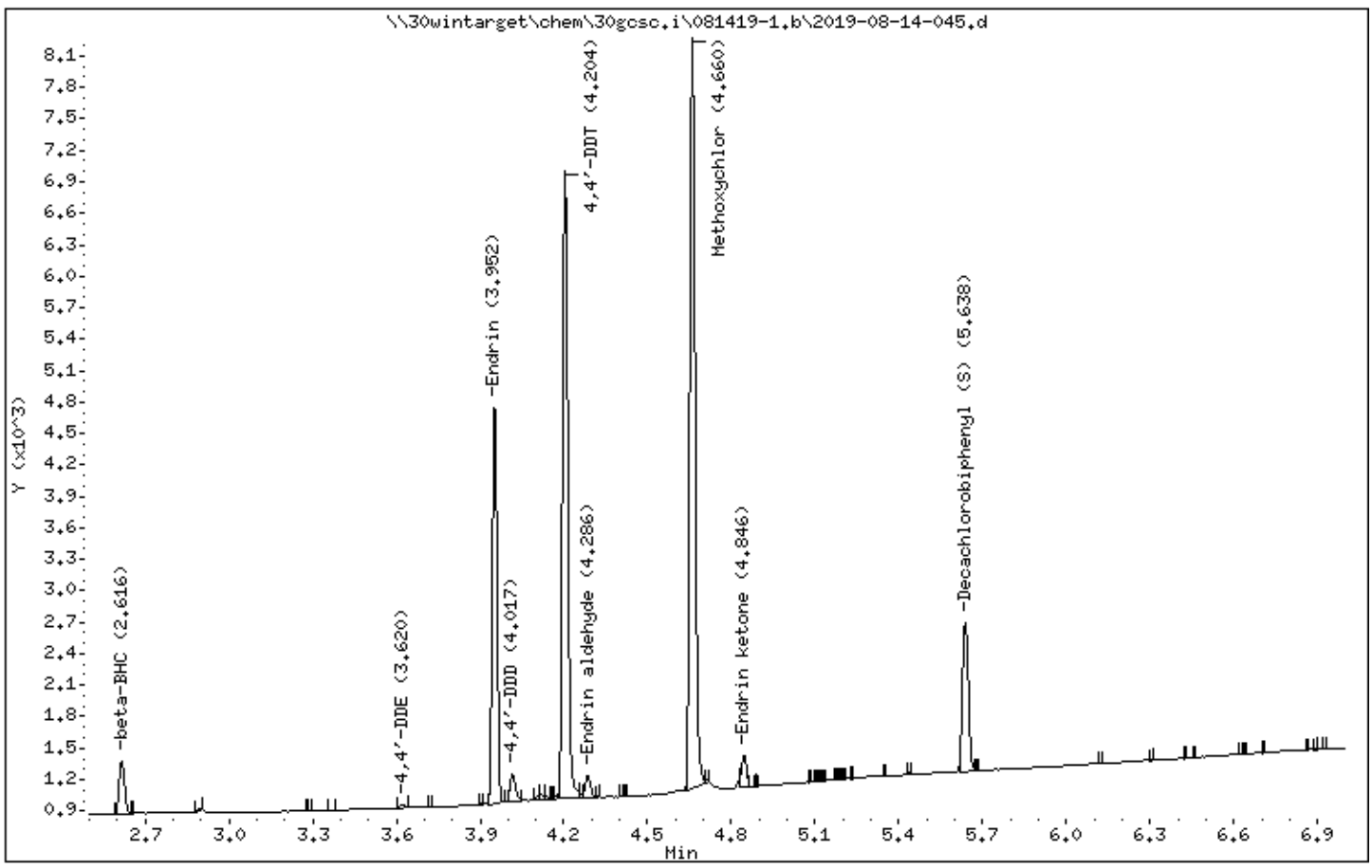
Instrument: 30gcsc.i

Sample Info: PEM, 94100:10

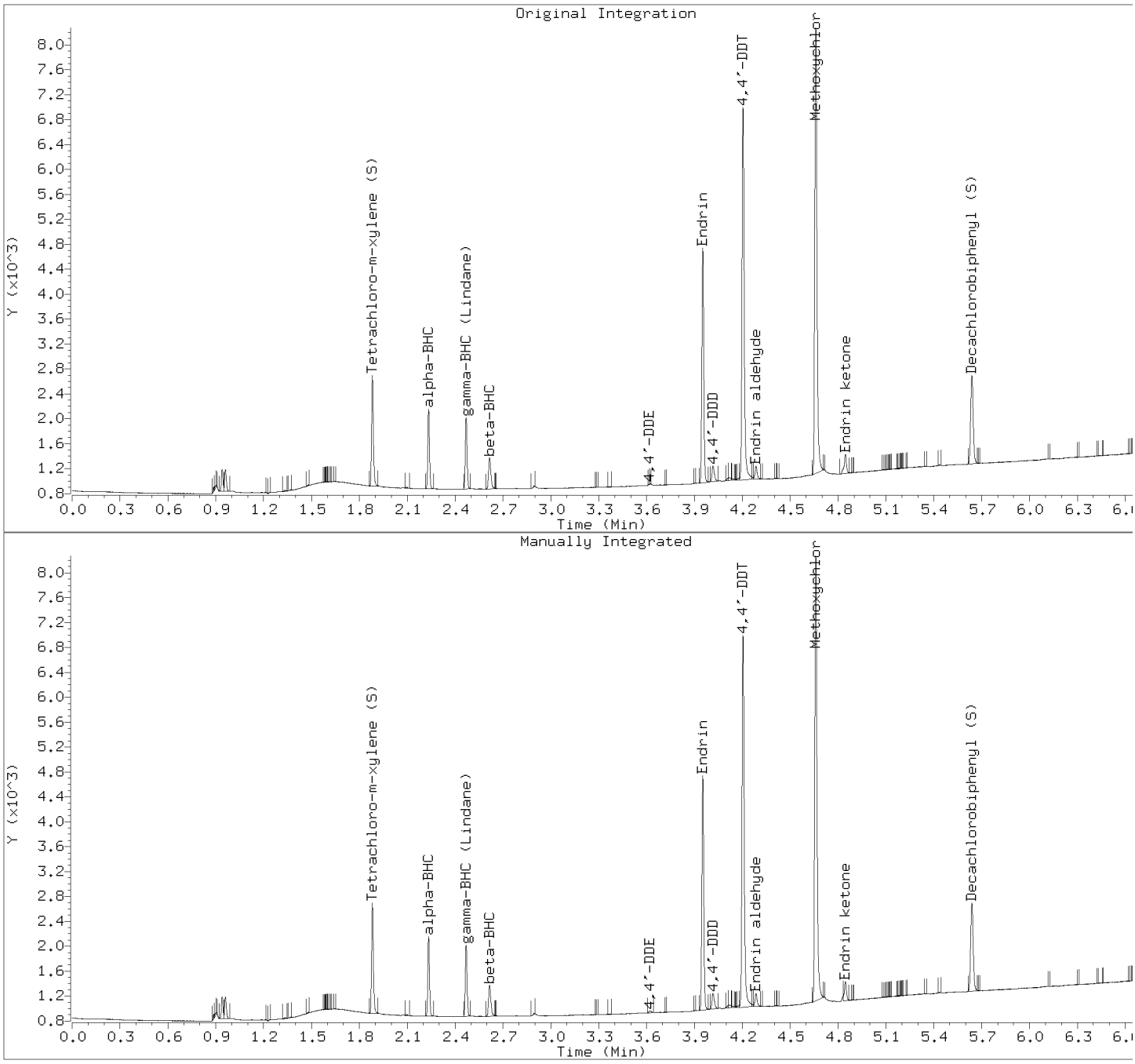
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-045.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 14-AUG-2019 20:32 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
4,4'-DDD	264	264
Methoxychlor	6908	6908
gamma-BHC (Lindane)	891	891
beta-BHC	516	516
4,4'-DDE	4	29
Endrin	3122	3122
Endrin aldehyde	195	195
4,4'-DDT	5752	5752
Endrin ketone	325	277
alpha-BHC	951	951
Tetrachloro-m-xylene (S)	1385	1385
Decachlorobiphenyl (S)	1577	1577

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-045.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 20:32
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 45 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.399	1	2	2.000	0.0266			
0.878	45	140	3.143	1.8651			
0.892	3	8	2.703	0.1065			
0.912	1	3	2.830	0.0399			
0.949	10	11	1.134	0.1465			
0.980	87	107	1.228	1.4255			
1.009	78	114	1.469	1.5187			
1.516	1	4	3.738	0.0532			
1.541	4	10	2.747	0.1332			
1.544	2	10	4.367	0.1332			
1.551	3	9	3.435	0.1199			
1.558	3	8	2.867	0.1065			
1.569	4	7	1.617	0.0932			
1.579	4	6	1.690	0.0799			
1.587	2	5	2.381	0.0666			
1.682	2	5	2.404	0.0666			
1.909	2	5	2.016	0.0666			
2.102	1	2	1.724	0.0266			
2.190	1	2	1.980	0.0266			
2.355	482	626	1.298	8.3399	$	1 Tetrachloro-m-xylene (S)	
2.619	316	420	1.328	5.5955		2 alpha-BHC	
2.750	2	4	1.852	0.0532			
2.835	296	383	1.293	5.1025		3 gamma-BHC (Lindane)	
2.996	145	186	1.279	2.4780		4 beta-BHC	
3.060	1	4	2.963	0.0532			
3.085	34	41	1.211	0.5462			
3.124	1	4	3.077	0.0532			
3.195	3	7	2.745	0.0932			
3.197	1	7	5.385	0.0932			
4.093	7	11	1.538	0.1465		12 4,4'-DDE	BA
4.245	1	2	1.587	0.0266			
4.336	2	3	1.657	0.0399			
4.383	914	1080	1.182	14.3884		14 Endrin	
4.445	94	111	1.181	1.4788		15 4,4'-DDD	
4.485	5	9	1.731	0.1199			
4.489	2	7	4.242	0.0932			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
4.494	1	6	4.286	0.0799			
4.550	1	2	1.538	0.0266			
4.553	1	2	3.704	0.0266			
4.560	1	2	3.390	0.0266			
4.572	2	3	2.000	0.0399			
4.591	3	5	1.462	0.0666			
4.595	2	7	3.763	0.0932			
4.605	4	7	1.647	0.0932			
4.611	1	5	3.650	0.0666			
4.631	61	67	1.098	0.8926		17 Endrin aldehyde	BA
4.656	1258	1500	1.192	19.9840		18 4,4'-DDT	BA
4.806	1	4	3.846	0.0532			
4.814	2	5	2.857	0.0666			
4.865	7	9	1.278	0.1199			
4.870	3	7	2.431	0.0932			
4.900	4	11	2.785	0.1465			
4.940	1862	2037	1.094	27.1409		20 Methoxychlor	
4.999	2	5	2.212	0.0666			
5.095	4	9	2.441	0.1199			
5.118	70	84	1.206	1.1191		21 Endrin ketone	
6.105	1	3	2.830	0.0399			
6.324	495	363	0.733	4.8361	$	24 Decachlorobiphenyl (S)	
	6347	7506		100.000			

Total unknown % height = 8.50

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-045.d
Lab Smp Id: PEM Client Smp ID: PEM
Inj Date : 14-AUG-2019 20:32
Operator : TAW Inst ID: 30gcsc.i
Smp Info : pem, 94100:10
Misc Info : 15737,PEM
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 45 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.355	2.354	0.001	482	0.02610	0.0261		(R)	
2 alpha-BHC					CAS #: 319-84-6			
2.618	2.618	0.000	316	0.01311	0.0131		(R)	
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.834	2.834	0.000	296	0.01342	0.0134		(R)	
4 beta-BHC					CAS #: 319-85-7			
2.996	2.995	0.001	145	0.01315	0.0132		(R)	
12 4,4'-DDE					CAS #: 72-55-9			
4.092	4.092	0.000	7	4e-004	0.000392		(M)	BA
14 Endrin					CAS #: 72-20-8			
4.382	4.383	-0.001	913	0.05781	0.0578			
15 4,4'-DDD					CAS #: 72-54-8			
4.445	4.445	0.000	93	0.00613	0.00613			
17 Endrin aldehyde					CAS #: 7421-36-3			
4.628	4.630	-0.002	61	0.00420	0.00420		(M)	BA
18 4,4'-DDT					CAS #: 50-29-3			
4.655	4.656	-0.001	1258	0.10473	0.105		(M)	BA
20 Methoxychlor					CAS #: 72-43-5			
4.940	4.941	-0.001	1862	0.25223	0.252			
21 Endrin ketone					CAS #: 53494-70-5			
5.118	5.119	-0.001	69	0.00473	0.00473			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 24 Decachlorobiphenyl (S)					CAS #:			
6.324	6.325	-0.001	495	0.03102	0.0310			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

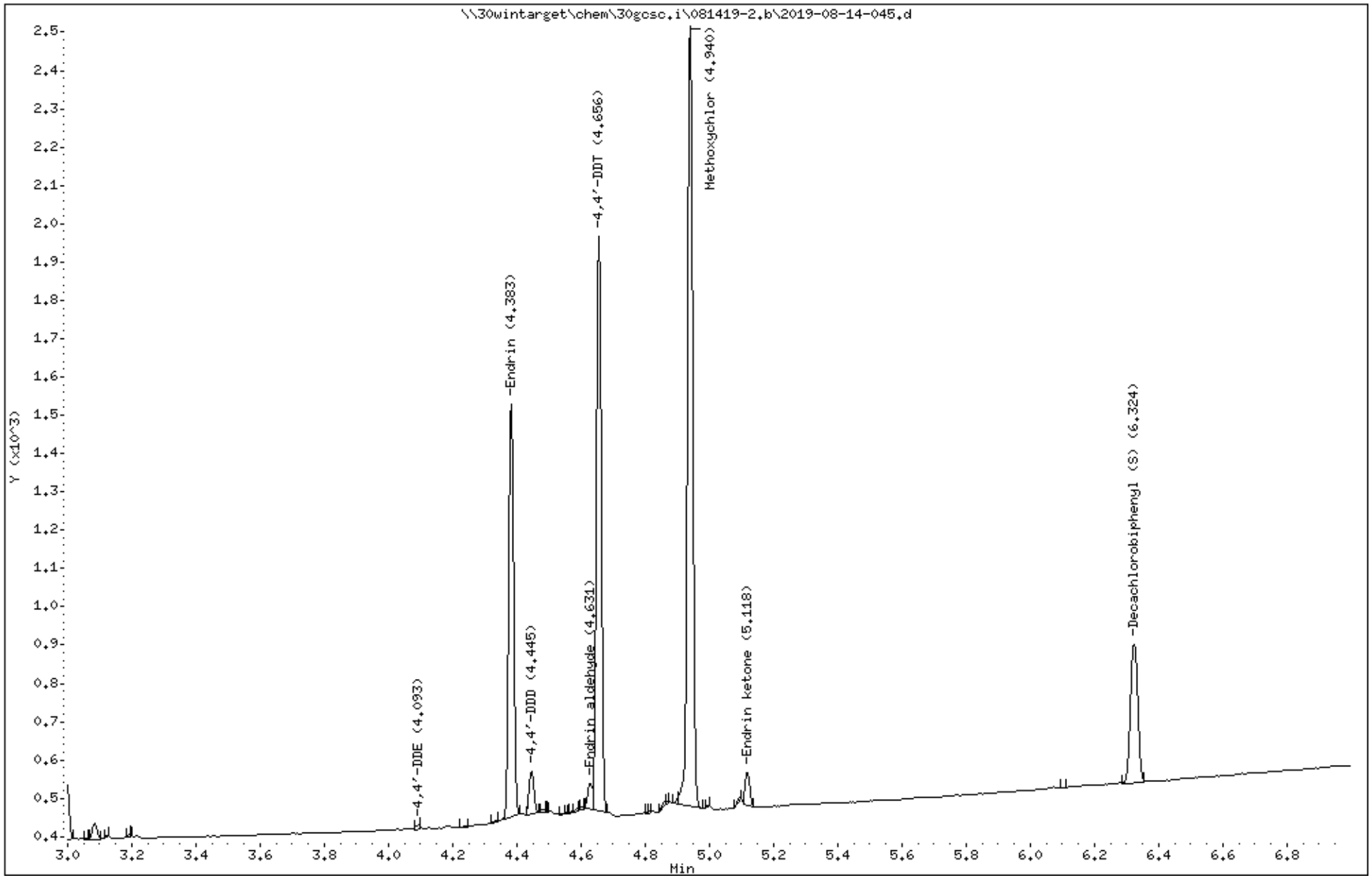
Client Name:
Lab Smp Id: PEM
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15737,PEM

Client SDG: 30GCSC-081419-2
Client Smp ID: PEM
Sample Point:
Date Received:
Quant Type: ESTD
Level:
Operator: TAW

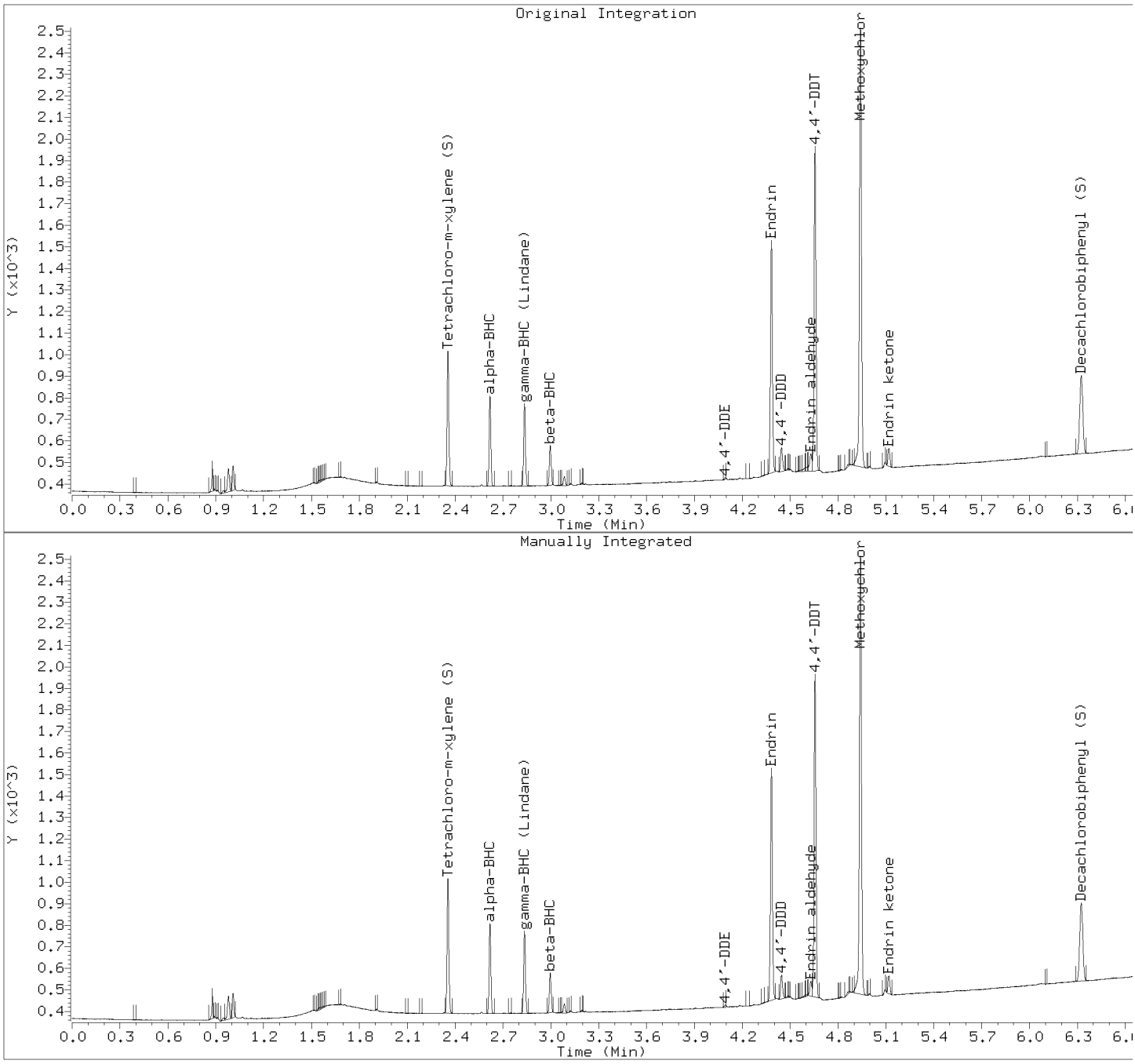
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
319-84-6	alpha-BHC	0.0131	
58-89-9	gamma-BHC (Lindane)	0.0134	
319-85-7	beta-BHC	0.0132	
72-55-9	4,4'-DDE	0.000392	
72-20-8	Endrin	0.0578	
72-54-8	4,4'-DDD	0.00613	
7421-36-3	Endrin aldehyde	0.00420	
50-29-3	4,4'-DDT	0.105	
72-43-5	Methoxychlor	0.252	
53494-70-5	Endrin ketone	0.00473	
----------	Tetrachloro-m-xylene (S)	0.0261	
----------	Decachlorobiphenyl (S)	0.0310	

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-045.d
Date : 14-AUG-2019 20:32
Client ID: PEM
Sample Info: PEM, 94100:10

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-045.d (ManInt: PEM.sub Orig: PEM.sub)
Injection Date: 14-AUG-2019 20:32 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: PEM



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	316	316
beta-BHC	145	145
gamma-BHC (Lindane)	296	296
4,4'-DDE	4	7
Endrin	913	913
4,4'-DDD	93	93
4,4'-DDT	1268	1258
Methoxychlor	1862	1862
Endrin ketone	69	69
Endrin aldehyde	78	61
Tetrachloro-m-xylene (S)	482	482
Decachlorobiphenyl (S)	495	495

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-046.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 20:41
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.894	10842	15205	1.402	22.8190			
0.940	376	446	1.187	0.6692			
0.960	795	840	1.056	1.2605			
1.000	46	54	1.168	0.0810			
1.006	6	49	8.463	0.0735			
1.016	103	77	0.747	0.1155			
1.045	5	18	3.455	0.0270			
1.050	4	15	3.394	0.0225			
1.057	3	10	3.497	0.0150			
1.093	2	5	2.304	0.0075			
1.185	4	7	1.862	0.0105			
1.337	3	6	2.256	0.0090			
1.368	8	21	2.756	0.0315			
1.370	9	22	2.384	0.0330			
1.481	2	4	1.887	0.0060			
1.509	7	13	1.917	0.0195			
1.547	3	8	2.909	0.0120			
1.557	2	7	3.167	0.0105			
1.649	7	12	1.826	0.0180			
1.674	6	13	2.012	0.0195			
1.681	3	11	3.667	0.0165			
1.789	3	7	2.059	0.0105			
1.882	2464	3001	1.218	4.5033	$	1 Tetrachloro-m-xylene (S)	
2.076	4	8	2.210	0.0120			
2.099	32	36	1.142	0.0540			
2.112	2	9	3.830	0.0135			
2.118	2	8	3.265	0.0120			
2.126	2	6	2.956	0.0090			
2.189	10	13	1.255	0.0195			
2.234	1661	2206	1.328	3.3103		2 alpha-BHC	
2.412	15	18	1.190	0.0270			
2.469	1514	1946	1.286	2.9202		3 gamma-BHC (Lindane)	
2.508	6	11	1.897	0.0165			
2.516	4	9	2.239	0.0135			
2.615	731	760	1.040	1.1404		4 beta-BHC	BA
2.653	12	23	1.856	0.0345			

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.666	4	13	3.250	0.0195		
2.672	3	8	2.807	0.0120		
2.681	3	8	2.532	0.0120		
2.707	1475	1854	1.257	2.7821	5 Heptachlor	
2.734	2	9	4.018	0.0135		
2.788	2	5	2.137	0.0075		
2.810	1413	1574	1.114	2.3619	6 delta-BHC	
2.853	3	11	4.231	0.0165		
2.898	51	61	1.186	0.0915		
2.918	1400	1769	1.264	2.6546	7 Aldrin	
3.000	3	6	2.158	0.0090		
3.196	6	15	2.459	0.0225		
3.275	1362	1681	1.234	2.5225	8 Heptachlor epoxide	
3.431	1356	1641	1.210	2.4625	9 gamma-Chlordane	
3.495	1315	1594	1.212	2.3919	10 alpha-Chlordane	
3.541	1262	1540	1.221	2.3109	11 Endosulfan I	
3.587	4	8	2.061	0.0120		
3.620	2334	2316	0.992	3.4754	12 4,4'-DDE	
3.675	2	7	3.097	0.0105		
3.734	2617	3285	1.255	4.9295	13 Dieldrin	
3.952	1969	2306	1.171	3.4604	14 Endrin	
4.016	2038	1938	0.951	2.9082	15 4,4'-DDD	
4.060	76	83	1.094	0.1245		
4.078	6	15	2.370	0.0225		
4.087	3	10	3.759	0.0150		
4.096	4	20	5.376	0.0300		
4.107	26	59	2.309	0.0885		
4.110	11	64	5.813	0.0960		
4.132	2387	2740	1.148	4.1117	16 Endosulfan II	
4.164	11	25	2.183	0.0375		
4.176	21	26	1.242	0.0390		
4.204	1803	1984	1.100	2.9772	17 4,4'-DDT	
4.244	4	15	3.521	0.0225		
4.251	5	13	2.778	0.0195		
4.286	1976	2272	1.150	3.4094	18 Endrin aldehyde	
4.373	8	11	1.445	0.0165		
4.424	2302	2672	1.161	4.0096	19 Endosulfan sulfate	
4.460	2	8	3.509	0.0120		
4.568	7	13	1.828	0.0195		
4.660	4648	4977	1.071	7.4685	20 Methoxychlor	
4.709	2	8	3.448	0.0120		
4.846	2093	2393	1.143	3.5909	21 Endrin ketone	
4.888	5	11	2.439	0.0165		
5.009	11	18	1.670	0.0270		
5.179	3	7	2.672	0.0105		
5.324	12	33	2.725	0.0495		
5.331	33	40	1.215	0.0600		
5.352	2	7	3.084	0.0105		
5.414	2	10	4.184	0.0150		
5.434	92	80	0.874	0.1200		
5.461	2	9	3.750	0.0135		
5.468	2	9	4.369	0.0135		
5.473	3	8	3.030	0.0120		
5.484	2	8	3.828	0.0120		
5.492	3	10	3.650	0.0150		
5.498	3	9	2.769	0.0135		
5.512	2	8	4.000	0.0120		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.519	2	8	3.810	0.0120		
5.538	3	7	2.473	0.0105		
5.612	3	10	3.846	0.0150		
5.637	2524	2285	0.905	3.4289	$ 24 Decachlorobiphenyl (S)	
5.679	5	15	2.727	0.0225		
5.687	3	14	4.430	0.0210		
5.708	2	6	2.941	0.0090		
5.723	2	6	2.632	0.0090		
5.739	3	8	3.187	0.0120		
5.779	3	7	2.326	0.0105		
5.796	2	7	3.226	0.0105		
5.886	2	7	3.182	0.0105		
6.898	3	7	2.229	0.0105		
6.911	2	7	3.349	0.0105		
6.917	2	8	3.791	0.0120		
6.937	3	9	2.922	0.0135		
	55457	66639		100.000		

Total unknown % height = 26.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-046.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 20:41
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
1.882	1.881	0.001	2463	0.04000	0.0487			
2 alpha-BHC						CAS #: 319-84-6		
2.234	2.233	0.001	1661	0.02000	0.0244			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.469	2.468	0.001	1513	0.02000	0.0241			
4 beta-BHC						CAS #: 319-85-7		
2.615	2.613	0.002	730	0.02000	0.0246		(M)	BA
6 delta-BHC						CAS #: 76-44-8		
2.810	2.809	0.001	1412	0.02000	0.0232			
5 Heptachlor						CAS #: 319-86-8		
2.707	2.706	0.001	1474	0.02000	0.0225			
7 Aldrin						CAS #: 309-00-2		
2.918	2.917	0.001	1399	0.02000	0.0244			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.275	3.275	0.000	1361	0.02000	0.0239			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.431	3.430	0.001	1356	0.02000	0.0239			
10 alpha-Chlordane						CAS #: 5103-71-9		
3.495	3.495	0.000	1314	0.02000	0.0236			
11 Endosulfan I						CAS #: 959-98-8		
3.540	3.540	0.000	1261	0.02000	0.0237			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
3.619	3.618	0.001	2334	0.04000	0.0439			
13 Dieldrin						CAS #: 60-57-1		
3.733	3.733	0.000	2617	0.04000	0.0457			
14 Endrin						CAS #: 72-20-8		
3.952	3.952	0.000	1968	0.04000	0.0394			
15 4,4'-DDD						CAS #: 72-54-8		
4.015	4.015	0.000	2038	0.04000	0.0459			
16 Endosulfan II						CAS #: 33213-65-9		
4.132	4.133	-0.001	2387	0.04000	0.0486			
17 4,4'-DDT						CAS #: 50-29-3		
4.204	4.204	0.000	1803	0.04000	0.0384			
18 Endrin aldehyde						CAS #: 7421-36-3		
4.285	4.285	0.000	1975	0.04000	0.0471			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.423	4.424	-0.001	2301	0.04000	0.0477			
20 Methoxychlor						CAS #: 72-43-5		
4.660	4.661	-0.001	4647	0.20000	0.190			
21 Endrin ketone						CAS #: 53494-70-5		
4.845	4.847	-0.002	2093	0.04000	0.0491			
$ 24 Decachlorobiphenyl (S)						CAS #:		
5.637	5.641	-0.004	2523	0.04000	0.0508			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 14-AUG-2019 20:41
Lab File ID: 2019-08-14-046. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m

COMPOUND	RRF / AMOUNT	RF0.020	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$ 1 Tetrachloro-m-xylene (S)	50563	61575	0.000	21.77825	20.00000	Aver		<-
2 alpha-BHC	68046	83050	0.000	22.04988	20.00000	Aver		<-
3 gamma-BHC (Lindane)	62774	75650	0.000	20.51204	20.00000	Aver		<-
4 beta-BHC	29609	36500	0.000	23.27511	20.00000	Aver	(M)	<-
6 delta-BHC	60955	70600	0.000	15.82315	20.00000	Aver		
5 Heptachlor	65372	73700	0.000	12.73874	20.00000	Aver		
7 Aldrin	57427	69950	0.000	21.80601	20.00000	Aver		<-
8 Heptachlor epoxide	56896	68050	0.000	19.60429	20.00000	Aver		
9 gamma-Chlordane	56720	67800	0.000	19.53355	20.00000	Aver		
10 alpha-Chlordane	55773	65700	0.000	17.79823	20.00000	Aver		
11 Endosulfan I	53111	63050	0.000	18.71428	20.00000	Aver		
12 4,4'-DDE	53148	58350	0.000	9.78806	20.00000	Aver		
13 Dieldrin	57235	65425	0.000	14.30871	20.00000	Aver		
14 Endrin	50011	49200	0.000	-1.62249	20.00000	Aver		
15 4,4'-DDD	44408	50950	0.000	14.73195	20.00000	Aver		
16 Endosulfan II	49096	59675	0.000	21.54829	20.00000	Aver		<-
17 4,4'-DDT	46985	45075	0.000	-4.06610	20.00000	Aver		
18 Endrin aldehyde	41910	49375	0.000	17.81265	20.00000	Aver		
19 Endosulfan sulfate	48268	57525	0.000	19.17957	20.00000	Aver		
20 Methoxychlor	24471	23235	0.000	-5.05272	20.00000	Aver		
21 Endrin ketone	42660	52325	0.000	22.65554	20.00000	Aver		<-
$ 24 Decachlorobiphenyl (S)	49697	63075	0.000	26.91968	20.00000	Aver		<-

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 14.23266
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-046.d

Date : 14-AUG-2019 20:41

Client ID: CCV

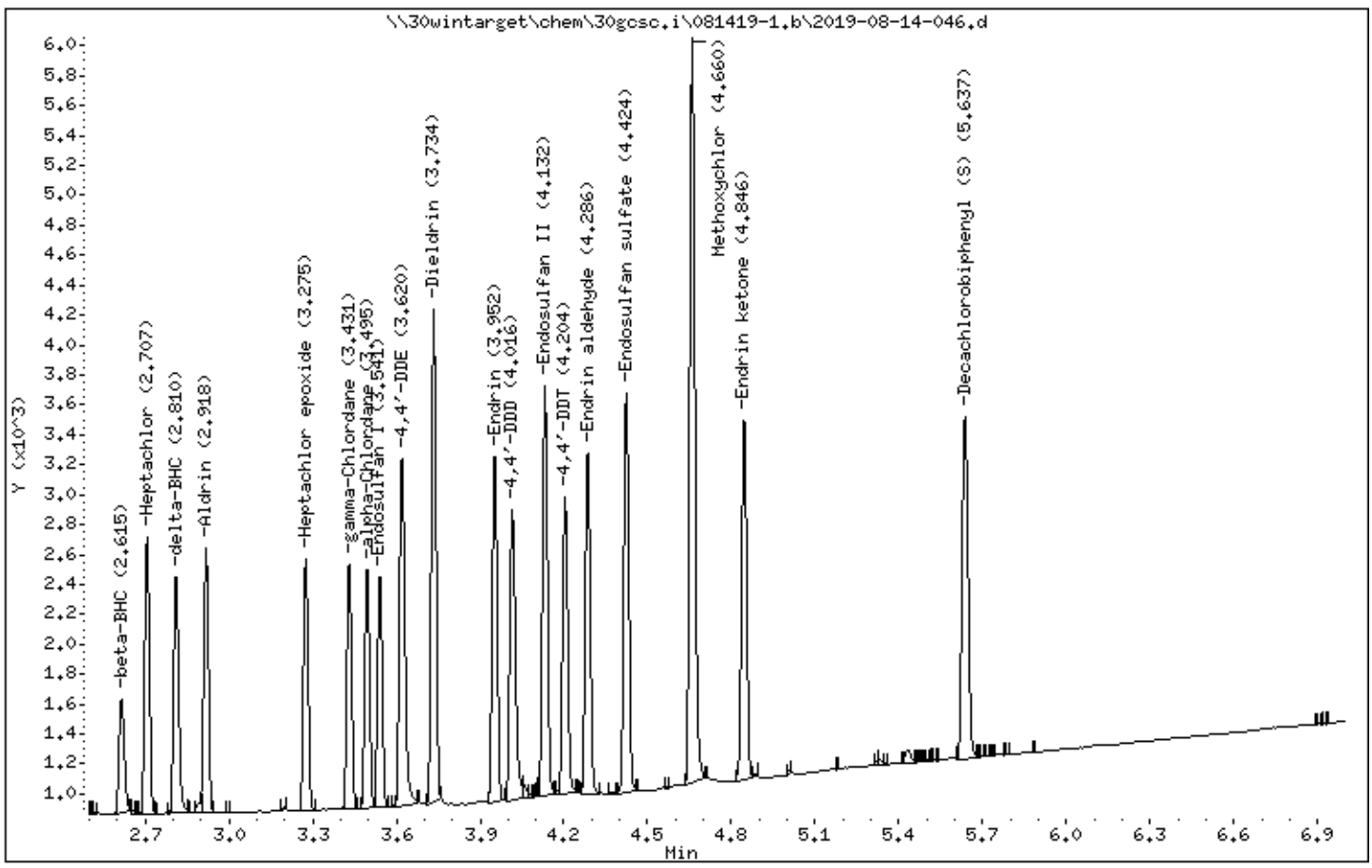
Instrument: 30gcsc.i

Sample Info: CCV, 96673:1

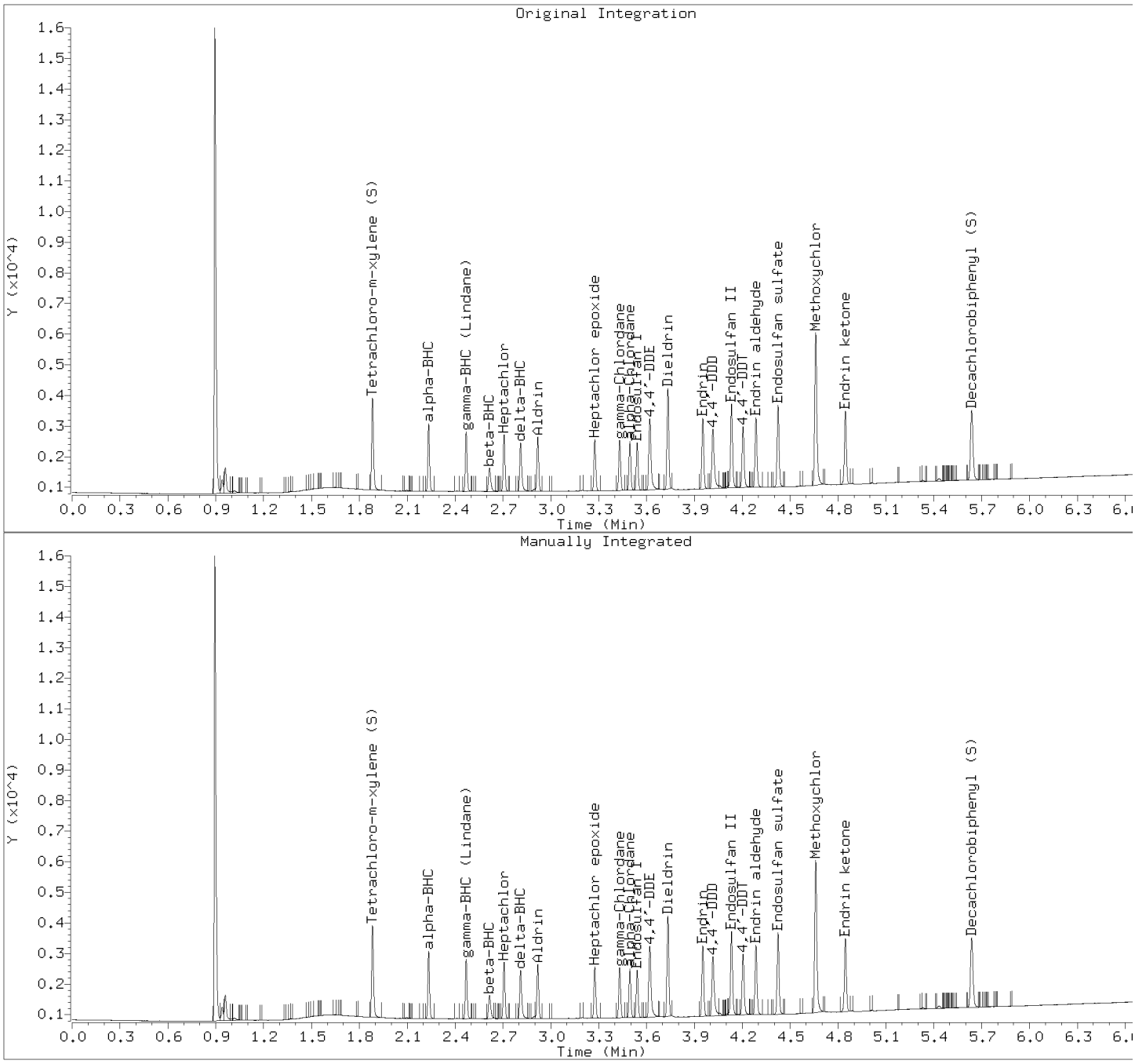
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-046.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 14-AUG-2019 20:41 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	1661	1661
beta-BHC	775	730
delta-BHC	1412	1412
gamma-BHC (Lindane)	1513	1513
Heptachlor	1474	1474
Aldrin	1399	1399
Heptachlor epoxide	1361	1361
Endosulfan I	1261	1261
Dieldrin	2617	2617
4,4'-DDE	2334	2334
Endrin	1968	1968
Endosulfan II	2387	2387
4,4'-DDD	2038	2038
Endosulfan sulfate	2301	2301

4,4'-DDT	1803	1803
Methoxychlor	4647	4647
Endrin ketone	2093	2093
Endrin aldehyde	1975	1975
alpha-Chlordane	1314	1314
gamma-Chlordane	1356	1356
Tetrachloro-m-xylene (S)	2463	2463
Decachlorobiphenyl (S)	2523	2523

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-046.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 20:41
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
0.173	1	2	1.905	0.0075			
0.865	3	9	2.671	0.0338			
0.879	4633	10570	2.282	39.7499			
0.953	13	15	1.156	0.0564			
0.980	215	248	1.156	0.9325			
1.009	114	135	1.182	0.5076			
1.057	2	3	1.579	0.0112			
1.073	4	8	2.092	0.0300			
1.520	1	2	1.408	0.0075			
1.559	1	3	2.586	0.0112			
1.575	1	2	1.709	0.0075			
1.587	2	5	2.646	0.0188			
1.596	2	4	1.869	0.0150			
1.709	4	7	1.667	0.0263			
1.772	1	4	3.509	0.0150			
1.909	2	7	2.857	0.0263			
2.127	1	3	2.778	0.0112			
2.355	843	1083	1.284	4.0725	$	1 Tetrachloro-m-xylene (S)	
2.498	1	1	0.943	0.0037			
2.566	10	14	1.362	0.0526			
2.619	547	719	1.313	2.7037		2 alpha-BHC	
2.750	3	5	1.678	0.0188			
2.835	500	653	1.307	2.4555		3 gamma-BHC (Lindane)	
2.997	245	301	1.230	1.1318		4 beta-BHC	
3.086	25	30	1.200	0.1128			
3.125	2	5	2.808	0.0188			
3.182	511	624	1.221	2.3464		5 delta-BHC	
3.216	11	15	1.326	0.0564			
3.244	443	539	1.217	2.0268		6 Heptachlor	
3.318	2	3	1.923	0.0112			
3.472	444	544	1.225	2.0456		7 Aldrin	
3.539	1	3	2.419	0.0112			
3.569	1	2	1.818	0.0075			
3.659	1	2	1.667	0.0075			
3.740	1	2	1.802	0.0075			
3.765	441	526	1.194	1.9779		8 Heptachlor epoxide	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT		COMPOUNDS	REVIEW CODE
3.978	427	505	1.184	1.8989		9 gamma-Chlordane	
4.014	424	499	1.178	1.8764		10 alpha-Chlordane	
4.047	407	481	1.183	1.8087		11 Endosulfan I	
4.093	800	939	1.174	3.5310		12 4,4'-DDE	
4.164	3	5	1.822	0.0188			
4.221	847	999	1.180	3.7566		13 Dieldrin	
4.383	571	662	1.159	2.4893		14 Endrin	
4.410	2	5	2.488	0.0188			
4.446	679	808	1.189	3.0383		15 4,4'-DDD	
4.555	742	861	1.161	3.2376		16 Endosulfan II	
4.629	647	742	1.147	2.7902		17 Endrin aldehyde	
4.656	382	448	1.172	1.6846		18 4,4'-DDT	
4.820	708	807	1.140	3.0346		19 Endosulfan sulfate	
4.861	2	4	1.896	0.0150			
4.940	1230	1357	1.103	5.1028		20 Methoxychlor	
5.097	25	32	1.302	0.1203			
5.119	657	729	1.110	2.7413		21 Endrin ketone	
5.450	1	2	1.739	0.0075			
5.537	1	6	4.167	0.0225			
5.761	3	6	2.179	0.0225			
5.918	2	4	2.247	0.0150			
6.071	3	4	1.515	0.0150			
6.297	1	6	4.959	0.0225			
6.325	787	581	0.739	2.1847	$	24 Decachlorobiphenyl (S)	
6.733	2	3	1.948	0.0112			
	18384	26593		100.000			

Total unknown % height = 42.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-046.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 14-AUG-2019 20:41
Operator : TAW Inst ID: 30gcsc.i
Smp Info : ccv, 96673:1
Misc Info : 15737,INDA
Comment   : SW846 8081A/B
Method   : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30MSS3WS10B6

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:		
2.355	2.354	0.001	843	0.04000	0.0456			
2 alpha-BHC						CAS #: 319-84-6		
2.619	2.618	0.001	547	0.02000	0.0227			
3 gamma-BHC (Lindane)						CAS #: 58-89-9		
2.835	2.834	0.001	499	0.02000	0.0226			
4 beta-BHC						CAS #: 319-85-7		
2.996	2.995	0.001	244	0.02000	0.0221			
5 delta-BHC						CAS #: 319-86-8		
3.182	3.182	0.000	511	0.02000	0.0230			
6 Heptachlor						CAS #: 76-44-8		
3.244	3.243	0.001	442	0.02000	0.0206			
7 Aldrin						CAS #: 309-00-2		
3.471	3.471	0.000	444	0.02000	0.0224			
8 Heptachlor epoxide						CAS #: 1024-57-3		
3.765	3.764	0.001	440	0.02000	0.0221			
9 gamma-Chlordane						CAS #: 5103-74-2		
3.977	3.977	0.000	426	0.02000	0.0221			
10 alpha-Chlordane						CAS #: 5103-71-9		
4.013	4.013	0.000	423	0.02000	0.0223			
11 Endosulfan I						CAS #: 959-98-8		
4.046	4.046	0.000	406	0.02000	0.0222			

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
12 4,4'-DDE						CAS #: 72-55-9		
4.093	4.092	0.001	799	0.04000	0.0447			
13 Dieldrin						CAS #: 60-57-1		
4.220	4.221	-0.001	846	0.04000	0.0441			
14 Endrin						CAS #: 72-20-8		
4.382	4.383	-0.001	571	0.04000	0.0362			
15 4,4'-DDD						CAS #: 72-54-8		
4.445	4.445	0.000	679	0.04000	0.0447			
16 Endosulfan II						CAS #: 33213-65-9		
4.555	4.556	-0.001	741	0.04000	0.0440			
17 Endrin aldehyde						CAS #: 7421-36-3		
4.629	4.630	-0.001	647	0.04000	0.0445			
18 4,4'-DDT						CAS #: 50-29-3		
4.656	4.656	0.000	382	0.04000	0.0318			
19 Endosulfan sulfate						CAS #: 1031-07-8		
4.819	4.819	0.000	708	0.04000	0.0438			
20 Methoxychlor						CAS #: 72-43-5		
4.940	4.941	-0.001	1230	0.20000	0.167			
21 Endrin ketone						CAS #: 53494-70-5		
5.118	5.119	-0.001	657	0.04000	0.0450			
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.324	6.325	-0.001	786	0.04000	0.0492			

Review Codes Legend

:

Pace Analytical Services, Inc.

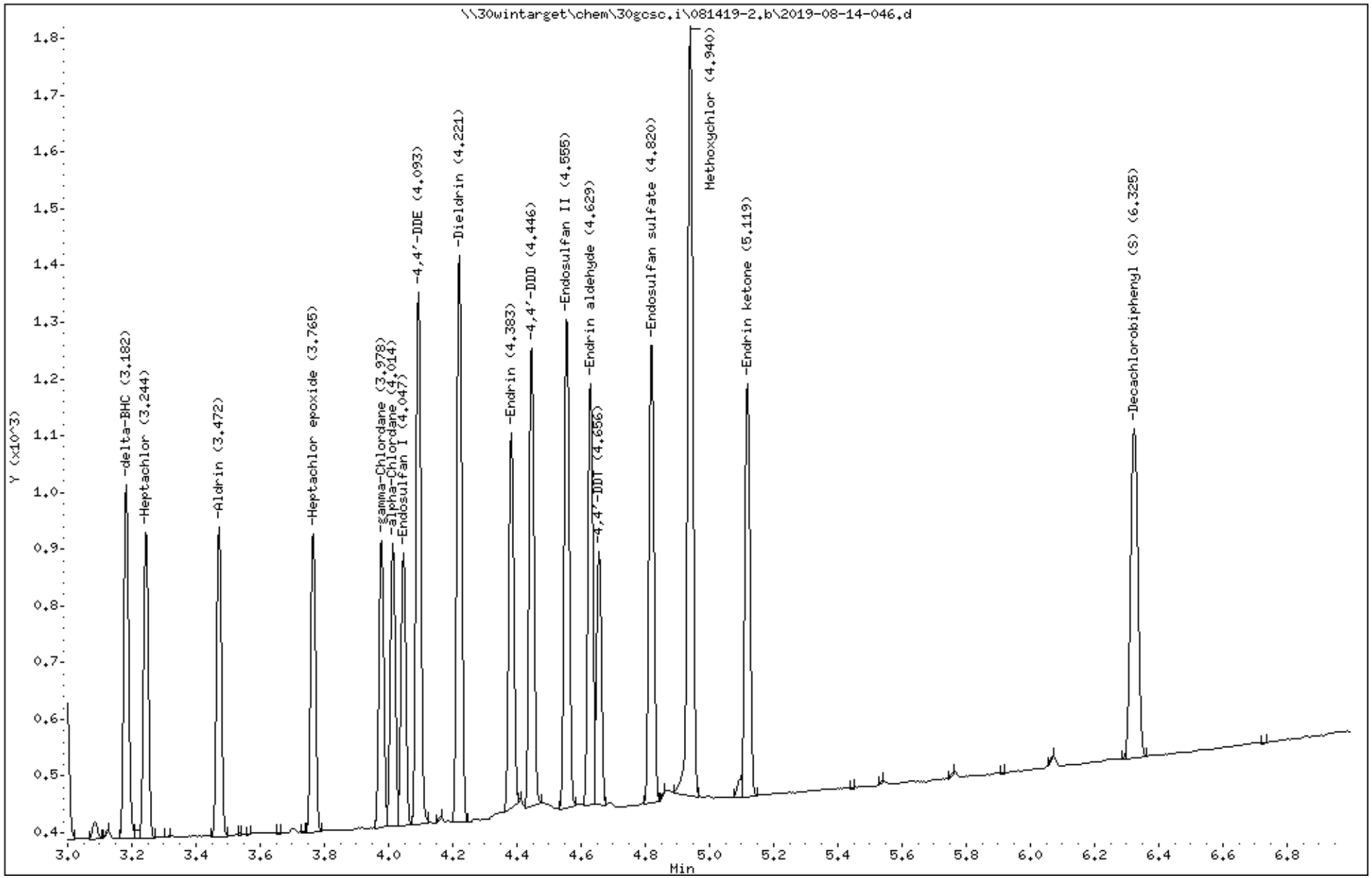
CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsc.i Injection Date: 14-AUG-2019 20:41
Lab File ID: 2019-08-14-046. Init. Cal. Date(s): 27-JUN-2019 27-JUN-2019
Analysis Type: Init. Cal. Times: 14:54 16:02
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m

	COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
$	1 Tetrachloro-m-xylene (S)	18464	21075	0.000	14.13926	20.00000	Aver		
	2 alpha-BHC	24103	27350	0.000	13.47315	20.00000	Aver		
	3 gamma-BHC (Lindane)	22051	24950	0.000	13.14460	20.00000	Aver		
	4 beta-BHC	11024	12200	0.000	10.66477	20.00000	Aver		
	5 delta-BHC	22166	25550	0.000	15.26811	20.00000	Aver		
	6 Heptachlor	21481	22100	0.000	2.88184	20.00000	Aver		
	7 Aldrin	19785	22200	0.000	12.20487	20.00000	Aver		
	8 Heptachlor epoxide	19885	22000	0.000	10.63351	20.00000	Aver		
	9 gamma-Chlordane	19302	21300	0.000	10.35044	20.00000	Aver		
	10 alpha-Chlordane	18942	21150	0.000	11.65860	20.00000	Aver		
	11 Endosulfan I	18276	20300	0.000	11.07492	20.00000	Aver		
	12 4,4'-DDE	17874	19975	0.000	11.75197	20.00000	Aver		
	13 Dieldrin	19179	21150	0.000	10.27522	20.00000	Aver		
	14 Endrin	15794	14275	0.000	-9.61717	20.00000	Aver		
	15 4,4'-DDD	15178	16975	0.000	11.84231	20.00000	Aver		
	16 Endosulfan II	16826	18525	0.000	10.09934	20.00000	Aver		
	17 Endrin aldehyde	14537	16175	0.000	11.26853	20.00000	Aver		
	18 4,4'-DDT	12012	9550	0.000	-20.49790	20.00000	Aver		<-
	19 Endosulfan sulfate	16163	17700	0.000	9.50711	20.00000	Aver		
	20 Methoxychlor	7382	6150	0.000	-16.69247	20.00000	Aver		
	21 Endrin ketone	14595	16425	0.000	12.54129	20.00000	Aver		
$	24 Decachlorobiphenyl (S)	15958	19650	0.000	23.13224	20.00000	Aver		<-

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-046.d
Date : 14-AUG-2019 20:41
Client ID: CCV
Sample Info: CCV, 96673:1

Instrument: 30gcsc.i
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-046.d (ManInt: INDA.sub Orig: INDA.sub)
Injection Date: 14-AUG-2019 20:41 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: CCV

NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Manually Integrated Compounds

Compound	Area (before)	Area (after)
alpha-BHC	547	547
beta-BHC	244	244
delta-BHC	511	511
gamma-BHC (Lindane)	499	499
Heptachlor	442	442
Aldrin	444	444
Heptachlor epoxide	440	440
Endosulfan I	406	406
Dieldrin	846	846
4,4'-DDE	799	799
Endrin	571	571
Endosulfan II	741	741
4,4'-DDD	679	679
Endosulfan sulfate	708	708
4,4'-DDT	382	382
Methoxychlor	1230	1230
Endrin ketone	657	657
Endrin aldehyde	647	647
alpha-Chlordane	423	423
gamma-Chlordane	426	426
Tetrachloro-m-xylene (S)	843	843
Decachlorobiphenyl (S)	786	786

SAMPLE NO.

LCS

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received:
Matrix: Water SDG No.: 30318799
Date Extracted: 08/13/2019 09:14
Lab Sample ID: 1730795
Date Analyzed: 08/14/2019 19:04
Lab File ID: 081419-2.B\2019-08-14-036.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.64	
72-20-8	Endrin	1.3	
76-44-8	Heptachlor	0.55	
1024-57-3	Heptachlor epoxide	0.65	
72-43-5	Methoxychlor	5.9	

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-036.d
Lab Smp Id: 1730795 Client Smp ID: MBLCS
Inj Date : 14-AUG-2019 19:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1730795,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.891	97232	292552	3.009	78.0250		
0.959	501	458	0.914	0.1221		
0.986	30	68	2.240	0.0181		
1.011	8	17	2.025	0.0045		
1.079	284	475	1.672	0.1266		
1.102	6	9	1.525	0.0024		
1.164	17	23	1.321	0.0061		
1.174	16	26	1.586	0.0069		
1.220	54	70	1.306	0.0186		
1.234	12	24	1.928	0.0064		
1.301	2	5	2.101	0.0013		
1.336	49	70	1.439	0.0186		
1.368	16	26	1.610	0.0069		
1.446	24	32	1.348	0.0085		
1.477	22	27	1.202	0.0072		
1.537	2	6	2.586	0.0016		
1.549	2	7	3.017	0.0018		
1.589	2	9	4.000	0.0024		
1.595	5	10	2.016	0.0026		
1.623	3	8	3.113	0.0021		
1.645	4	9	2.103	0.0024		
1.673	2	9	4.206	0.0024		
1.677	2	8	3.376	0.0021		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.782	3	18	5.941	0.0048		
1.786	16	28	1.749	0.0074		
1.882	3742	4895	1.308	1.3054	$ 1 Tetrachloro-m-xylene (S)	
2.075	9	12	1.373	0.0032		
2.096	43	58	1.351	0.0154		
2.116	13	16	1.270	0.0042		
2.188	197	229	1.161	0.0610		
2.234	2312	3155	1.365	0.8414		
2.338	3	6	2.400	0.0016		
2.345	3	7	2.612	0.0018		
2.403	2	9	3.879	0.0024		
2.410	12	17	1.388	0.0045		
2.428	23	25	1.079	0.0066		
2.444	3	10	3.650	0.0026		
2.469	2171	2830	1.303	0.7547	3 gamma-BHC (Lindane)	
2.512	68	57	0.844	0.0152		
2.532	7	16	2.360	0.0042		
2.541	3	11	3.235	0.0029		
2.562	39	48	1.217	0.0128		
2.615	1128	1229	1.090	0.3277		
2.652	20	26	1.310	0.0069		
2.664	5	12	2.439	0.0032		
2.673	2	10	4.608	0.0026		
2.681	4	14	3.500	0.0037		
2.686	4	13	3.601	0.0034		
2.707	1974	2560	1.297	0.6827	5 Heptachlor	
2.784	33	43	1.292	0.0114		
2.810	2173	2627	1.209	0.7005		
2.851	78	83	1.068	0.0221		
2.895	413	410	0.992	0.1093		
2.918	1849	2228	1.205	0.5941		
3.051	10	17	1.740	0.0045		
3.057	4	14	3.989	0.0037		
3.121	36	36	0.996	0.0096		
3.198	49	55	1.132	0.0146		
3.276	2003	2464	1.230	0.6571	8 Heptachlor epoxide	
3.329	24	28	1.152	0.0074		
3.353	3	5	1.946	0.0013		
3.377	2	7	3.167	0.0018		
3.384	2	6	2.521	0.0016		
3.431	1988	2428	1.221	0.6475		
3.495	1948	2402	1.233	0.6405		
3.541	1816	2244	1.236	0.5984		
3.568	2	8	3.252	0.0021		
3.587	33	41	1.230	0.0109		
3.618	3694	4090	1.107	1.0907		
3.679	11	25	2.269	0.0066		
3.688	10	19	1.945	0.0050		
3.699	3	15	5.051	0.0040		
3.702	5	15	2.747	0.0040		
3.733	3997	4919	1.231	1.3118		
3.768	4	10	2.571	0.0026		
3.804	2	5	2.049	0.0013		
3.907	10	16	1.639	0.0042		
3.952	3420	4123	1.206	1.0995	14 Endrin	
3.988	3	11	3.741	0.0029		
4.014	3145	3182	1.012	0.8486		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.058	108	95	0.879	0.0253		
4.083	6	26	4.120	0.0069		
4.107	95	92	0.973	0.0245		
4.132	3663	4208	1.149	1.1222		
4.170	8	46	5.786	0.0122		
4.173	20	47	2.350	0.0125		
4.180	8	39	4.688	0.0104		
4.203	3277	3621	1.105	0.9656		
4.249	9	29	3.237	0.0077		
4.256	6	26	4.290	0.0069		
4.259	6	28	5.009	0.0074		
4.263	6	25	3.975	0.0066		
4.285	2919	3355	1.150	0.8947		
4.339	2	7	3.057	0.0018		
4.424	3802	4430	1.165	1.1814		
4.500	2	5	2.232	0.0013		
4.575	24	25	1.051	0.0066		
4.584	4	16	3.791	0.0042		
4.634	4	10	2.681	0.0026		
4.659	8189	9019	1.101	2.4052	20 Methoxychlor	
4.713	65	68	1.045	0.0181		
4.731	3	13	4.851	0.0034		
4.736	4	12	2.844	0.0032		
4.846	3783	4266	1.128	1.1376		
4.888	6	11	1.986	0.0029		
4.943	2	6	3.000	0.0016		
5.008	5	14	3.037	0.0037		
5.013	3	12	3.960	0.0032		
5.173	3	7	2.349	0.0018		
5.179	2	8	3.376	0.0021		
5.222	4	16	3.738	0.0042		
5.225	7	18	2.449	0.0048		
5.232	3	14	4.230	0.0037		
5.432	7	18	2.597	0.0048		
5.435	5	17	3.728	0.0045		
5.638	4869	4414	0.907	1.1771	$ 24 Decachlorobiphenyl (S)	
5.679	5	20	4.115	0.0053		
5.685	5	14	3.004	0.0037		
6.653	2	6	2.620	0.0016		
6.780	2	9	4.348	0.0024		
6.867	3	8	2.920	0.0021		
6.874	2	8	3.774	0.0021		
6.913	3	6	2.290	0.0016		
	167823	374969		100.000		

Total unknown % height = 91.9

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-036.d
Lab Smp Id: 1730795 Client Smp ID: MBLCS
Inj Date : 14-AUG-2019 19:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1730795,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.881	1.881	0.000	3741	0.07399	1.48			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.469	2.468	0.001	2171	0.03458	0.692			(R)
5 Heptachlor					CAS #: 319-86-8			
2.707	2.706	0.001	1974	0.03020	0.604			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.275	3.275	0.000	2003	0.03520	0.704			
14 Endrin					CAS #: 72-20-8			
3.951	3.952	-0.001	3419	0.06836	1.37			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.658	4.661	-0.003	8188	0.33459	6.69			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

5.637 5.641 -0.004 4868 0.09795 1.96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1730795
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 081419-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 13-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.692	
319-86-8	Heptachlor	0.604	
1024-57-3	Heptachlor epoxide	0.704	
72-20-8	Endrin	1.37	
72-43-5	Methoxychlor	6.69	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.48	
----------	Decachlorobiphenyl (S)	1.96	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-036.d

Date : 14-AUG-2019 19:04

Client ID: MBLCS

Instrument: 30gcsc.i

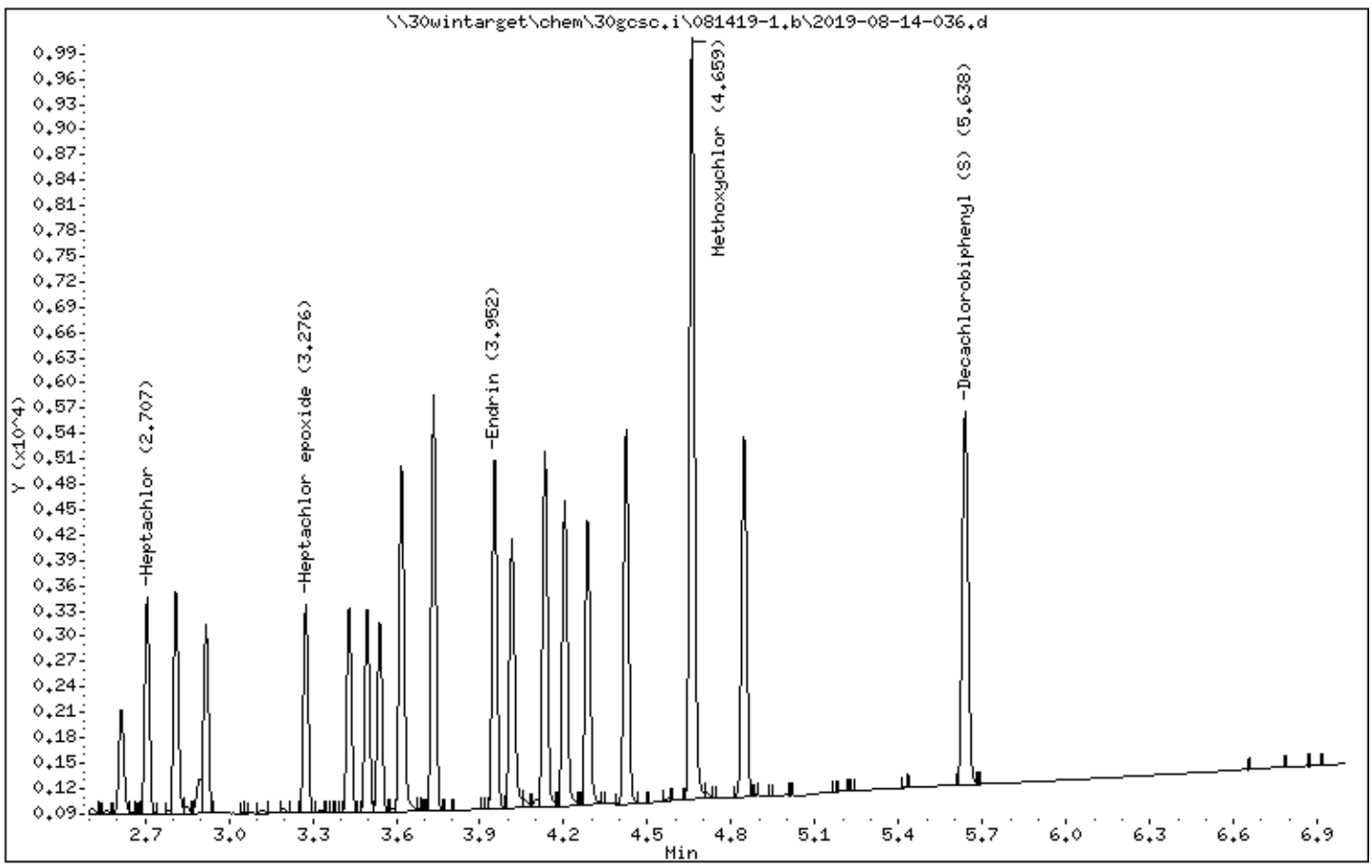
Sample Info: 1730795,

Volume Injected (uL): 1.0

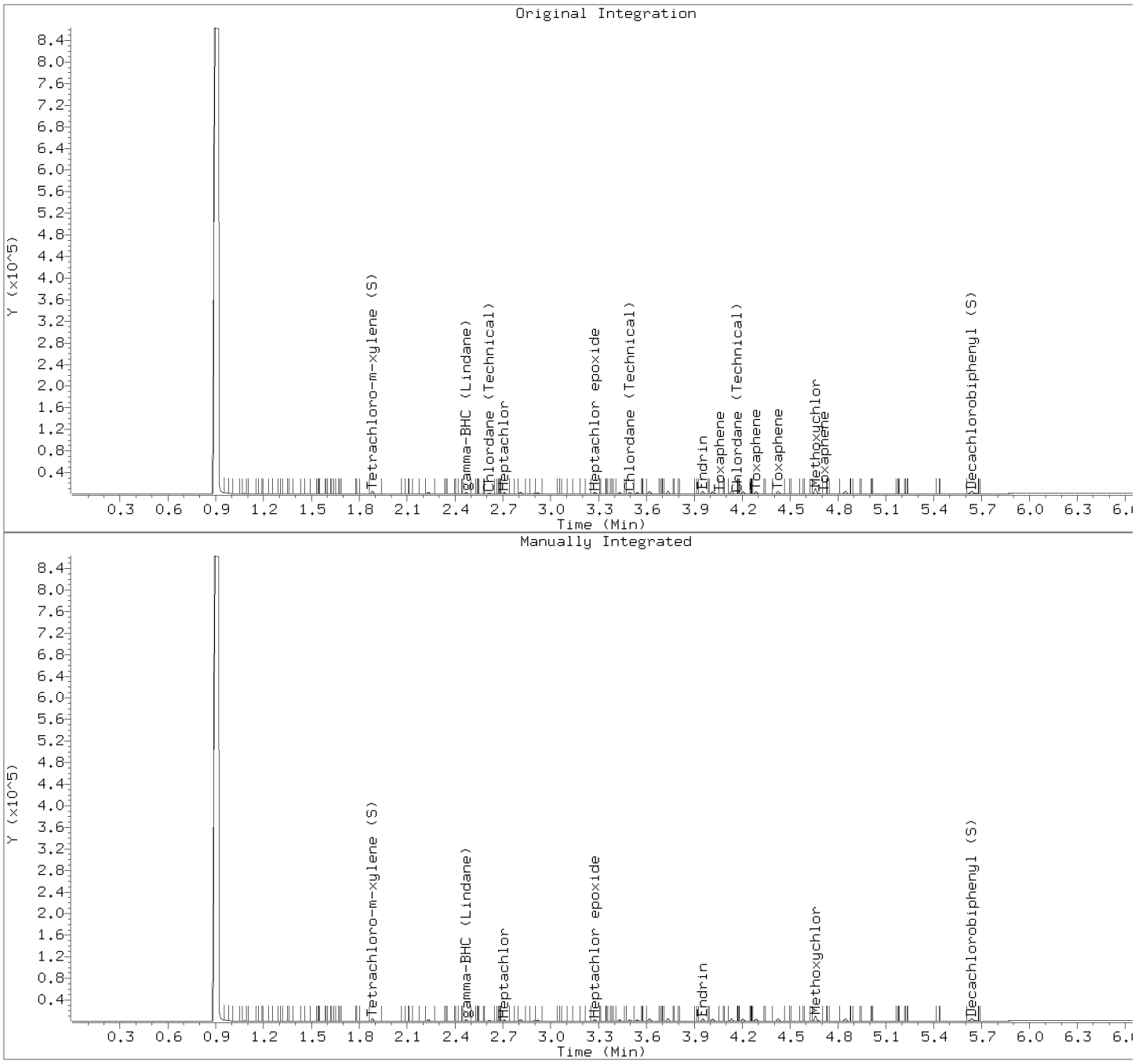
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-036.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 19:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1730795



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	2171	2171
Heptachlor	1974	1974
Heptachlor epoxide	2003	2003
Endrin	3419	3419
Methoxychlor	8188	8188
Toxaphene	108	0
Toxaphene	7	0
Toxaphene	2918	0
Toxaphene	3801	0
Toxaphene	65	0
Chlordane (Technical)	1127	0
Chlordane (Technical)	1974	0
Chlordane (Technical)	0	0
Chlordane (Technical)	1947	0

Chlordane (Technical)	7	0
Tetrachloro-m-xylene (S)	3741	3741
Decachlorobiphenyl (S)	4868	4868

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-036.d
Lab Smp Id: 1730795 Client Smp ID: MBLCS
Inj Date : 14-AUG-2019 19:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1730795,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.205	2	2	1.266	0.0030		
0.397	1	1	0.893	0.0015		
0.880	5203	32177	6.184	49.2003		
0.898	674	7227	10.722	11.0494		
0.947	189	307	1.621	0.4693		
0.980	175	244	1.391	0.3730		
1.009	374	463	1.238	0.7078		
1.071	66	87	1.320	0.1330		
1.174	51	87	1.700	0.1330		
1.188	2	7	3.057	0.0107		
1.236	1	4	3.030	0.0061		
1.274	26	30	1.138	0.0458		
1.291	13	20	1.559	0.0305		
1.316	2	3	1.742	0.0045		
1.350	1	4	3.226	0.0061		
1.453	2	3	1.881	0.0045		
1.493	1	2	1.892	0.0030		
1.518	3	3	1.163	0.0045		
1.543	2	3	1.622	0.0045		
1.566	1	3	2.264	0.0045		
1.583	2	6	2.602	0.0091		
1.682	11	16	1.515	0.0244		
1.704	1	6	4.478	0.0091		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.708	3	9	2.903	0.0137		
1.792	10	16	1.610	0.0244		
1.800	2	8	5.031	0.0122		
1.806	2	8	3.239	0.0122		
1.810	1	7	5.691	0.0107		
1.910	3	5	1.893	0.0076		
2.071	2	3	1.974	0.0045		
2.329	2	5	2.591	0.0076		
2.355	1291	1674	1.297	2.5593	$ 1 Tetrachloro-m-xylene (S)	
2.564	4	8	2.224	0.0122		
2.618	765	1013	1.324	1.5487		
2.678	64	85	1.327	0.1299		
2.749	18	24	1.313	0.0366		
2.835	707	922	1.305	1.4096	3 gamma-BHC (Lindane)	
2.916	2	4	2.105	0.0061		
2.945	1	5	4.310	0.0076		
2.996	370	449	1.213	0.6864		
3.063	2	4	2.235	0.0061		
3.085	26	31	1.175	0.0473		
3.124	47	58	1.225	0.0886		
3.182	889	985	1.108	1.5059		
3.218	22	28	1.257	0.0428		
3.244	596	714	1.198	1.0916	6 Heptachlor	
3.325	4	6	1.538	0.0091		
3.425	1	2	1.869	0.0030		
3.471	553	677	1.225	1.0350		
3.527	2	4	1.770	0.0061		
3.704	10	13	1.354	0.0198		
3.764	645	780	1.209	1.1925	8 Heptachlor epoxide	
3.800	2	6	2.804	0.0091		
3.866	1	2	1.961	0.0030		
3.977	628	758	1.207	1.1589		
4.013	633	746	1.178	1.1405		
4.046	583	692	1.188	1.0580		
4.092	1194	1421	1.190	2.1725		
4.220	1273	1527	1.200	2.3346		
4.313	2	7	3.256	0.0107		
4.319	2	7	4.192	0.0107		
4.329	3	6	1.980	0.0091		
4.346	2	5	2.463	0.0076		
4.382	1019	1178	1.156	1.8010	14 Endrin	
4.410	14	21	1.534	0.0321		
4.444	1018	1229	1.207	1.8790		
4.555	1135	1334	1.175	2.0395		
4.628	924	1068	1.156	1.6328		
4.655	680	824	1.211	1.2598		
4.749	1	3	3.000	0.0045		
4.818	1171	1377	1.176	2.1053		
4.859	12	20	1.730	0.0305		
4.873	22	28	1.258	0.0428		
4.890	33	44	1.322	0.0672		
4.894	18	44	2.469	0.0672		
4.939	2163	2343	1.083	3.5822	20 Methoxychlor	
4.999	4	7	1.680	0.0107		
5.097	17	26	1.507	0.0397		
5.118	1183	1288	1.088	1.9692		
5.673	5	8	1.521	0.0122		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.677	1	9	6.294	0.0137		
5.681	2	8	3.419	0.0122		
5.689	2	5	2.488	0.0076		
6.065	1	3	2.645	0.0045		
6.205	1	3	2.857	0.0045		
6.322	1533	1104	0.720	1.6879	$ 24 Decachlorobiphenyl (S)	
6.950	1	3	3.000	0.0045		
	28134	65406		100.000		

Total unknown % height = 86.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-036.d
Lab Smp Id: 1730795 Client Smp ID: MBLCS
Inj Date : 14-AUG-2019 19:04
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1730795,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 36 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
2.354	2.354	0.000	1290	0.06986	1.40			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
2.834	2.834	0.000	706	0.03202	0.640			(R)
6 Heptachlor					CAS #: 76-44-8			
3.243	3.243	0.000	595	0.02770	0.554			
8 Heptachlor epoxide					CAS #: 1024-57-3			
3.763	3.764	-0.001	645	0.03244	0.649			
14 Endrin					CAS #: 72-20-8			
4.381	4.383	-0.002	1018	0.06446	1.29			(R)
20 Methoxychlor					CAS #: 72-43-5			
4.938	4.941	-0.003	2162	0.29286	5.86			(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Operator disabled compound identification.

$ 24 Decachlorobiphenyl (S) CAS #:

6.322	6.325	-0.003	1533	0.09606	1.92			

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Review Codes Legend

:

Pace Analytical Services, Inc.

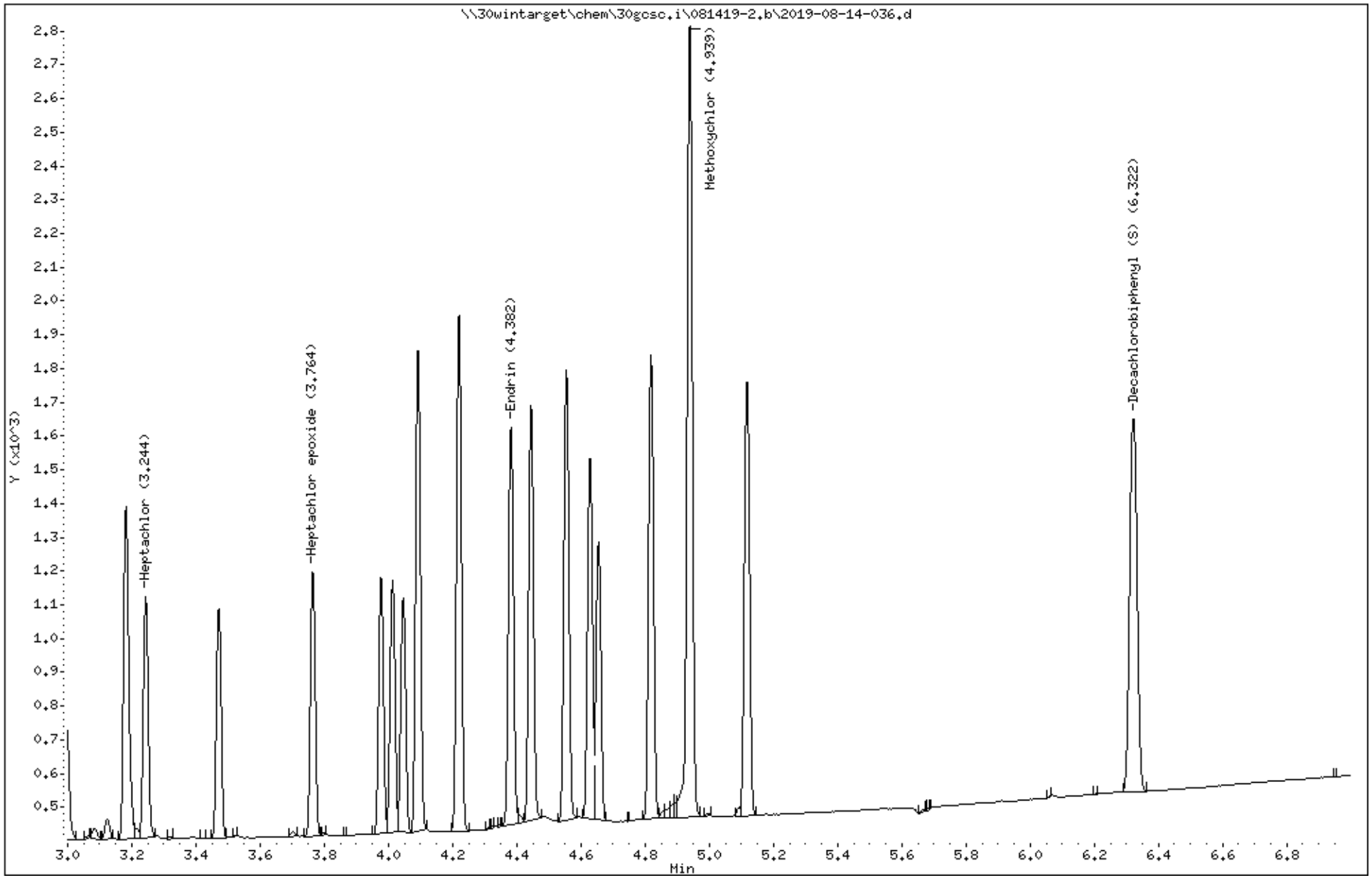
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1730795
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

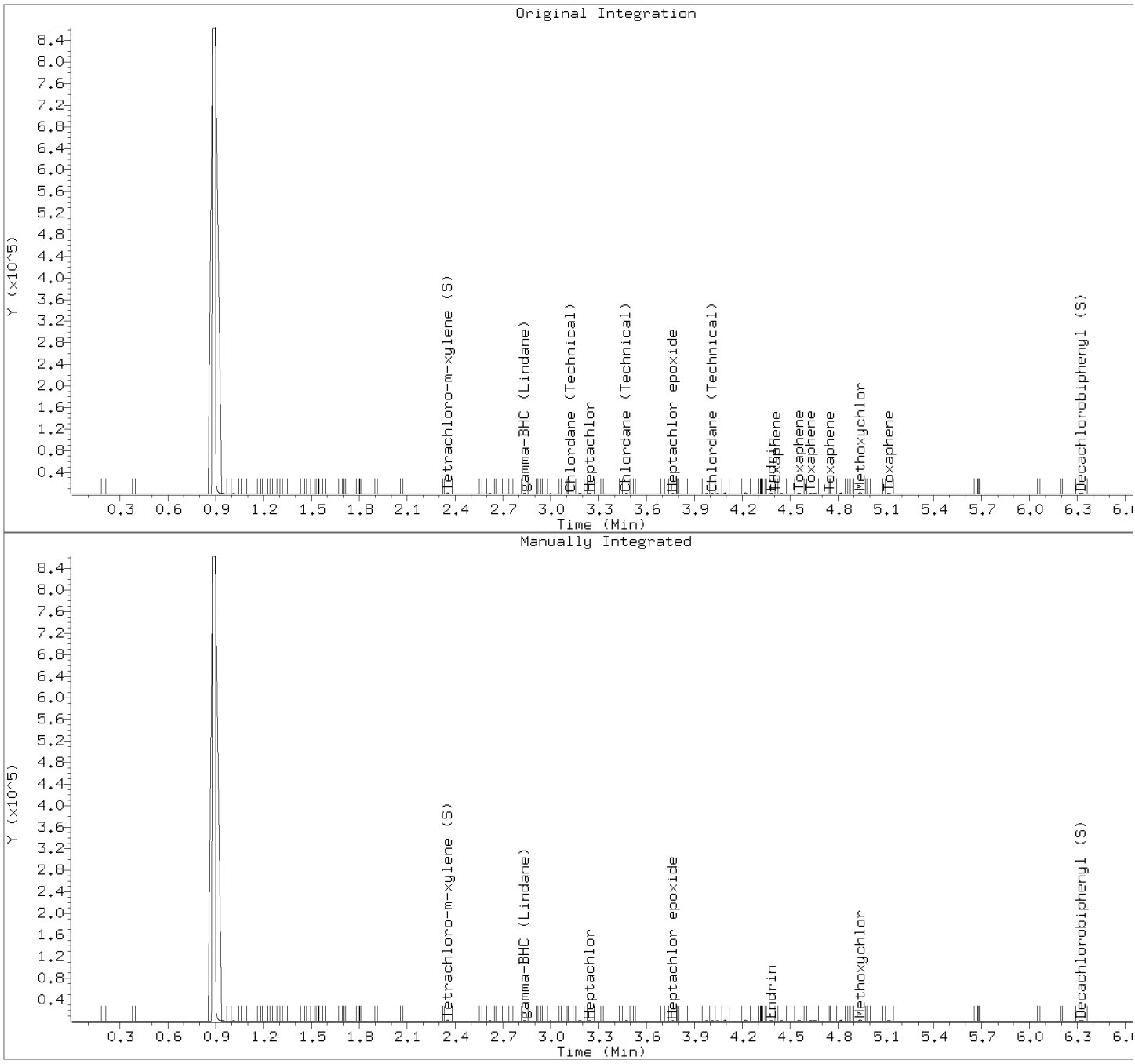
Client SDG: 081419-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 13-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.640	
76-44-8	Heptachlor	0.554	
1024-57-3	Heptachlor epoxide	0.649	
72-20-8	Endrin	1.29	
72-43-5	Methoxychlor	5.86	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.40	
----------	Decachlorobiphenyl (S)	1.92	

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-036.d
Date : 14-AUG-2019 19:04
Client ID: MBLCS
Instrument: 30gcsc.i
Sample Info: 1730795,
Volume Injected (uL): 1.0
Operator: TAW
Column phase: ZB-CLPesticides-2
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-036.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 19:04 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1730795



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	706	706
Heptachlor	595	595
Heptachlor epoxide	645	645
Endrin	1018	1018
Methoxychlor	2162	2162
Toxaphene	13	0
Toxaphene	1135	0
Toxaphene	924	0
Toxaphene	1	0
Toxaphene	1183	0
Chlordane (Technical)	47	0
Chlordane (Technical)	595	0
Chlordane (Technical)	552	0
Chlordane (Technical)	633	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1290	1290
Decachlorobiphenyl (S)	1533	1533

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/08/2019 09:02
Matrix: Water SDG No.: 30318799
Date Extracted: 08/13/2019 09:14
Lab Sample ID: 1727835
Date Analyzed: 08/14/2019 18:55
Lab File ID: 081419-1.B\2019-08-14-035.D
Initial wt/vol: 250 mL Final wt/vol: 5 mL Dilution: 1
Instrument: 30GCSC Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-035.d
Lab Smp Id: 1727835 Client Smp ID: LB for HBN 355732 [
Inj Date : 14-AUG-2019 18:55
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1727835,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.902	4068	3330	0.819	19.0688		
0.924	931	1262	1.355	7.2267		
0.940	613	732	1.194	4.1917		
0.966	1170	998	0.853	5.7149		
0.987	8	20	2.439	0.1145		
1.079	297	452	1.523	2.5883		
1.102	50	48	0.969	0.2748		
1.164	2	4	1.887	0.0229		
1.173	11	18	1.622	0.1030		
1.220	42	56	1.321	0.3206		
1.231	7	20	2.825	0.1145		
1.335	50	68	1.349	0.3893		
1.368	19	28	1.483	0.1603		
1.445	9	16	1.745	0.0916		
1.477	33	35	1.076	0.2004		
1.493	3	15	4.412	0.0858		
1.498	4	15	4.213	0.0858		
1.501	5	15	2.959	0.0858		
1.508	5	17	3.366	0.0973		
1.513	3	17	5.183	0.0973		
1.516	3	16	6.084	0.0916		
1.533	18	22	1.220	0.1259		
1.538	5	21	3.903	0.1202		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.545	8	22	2.607	0.1259		
1.550	10	22	2.209	0.1259		
1.560	10	21	2.027	0.1202		
1.569	3	14	4.416	0.0801		
1.573	3	16	5.694	0.0916		
1.575	4	15	3.713	0.0858		
1.581	2	12	6.000	0.0687		
1.586	2	11	4.661	0.0629		
1.589	3	10	3.205	0.0572		
1.624	2	7	3.465	0.0400		
1.784	4	8	2.174	0.0458		
1.881	3631	4638	1.277	26.5638	$ 1 Tetrachloro-m-xylene (S)	
1.947	3	7	2.194	0.0400		
2.096	38	51	1.358	0.2920		
2.114	3	10	2.865	0.0572		
2.188	155	187	1.207	1.0708		
2.215	2	8	3.292	0.0458		
2.236	2	7	3.252	0.0400		
2.343	4	7	1.842	0.0400		
2.426	2	7	2.846	0.0400		
2.562	29	42	1.443	0.2405		
2.603	19	24	1.265	0.1374		
2.621	94	113	1.205	0.6470		
2.685	2	6	2.715	0.0343	5 Heptachlor	
2.783	20	29	1.429	0.1660		
2.850	41	53	1.278	0.3034		
2.895	400	293	0.733	1.6778		
3.046	2	9	4.000	0.0515		
3.052	4	13	3.581	0.0744		
3.057	8	15	1.940	0.0858		
3.121	30	32	1.068	0.1832		
3.193	2	6	2.691	0.0343		
3.487	2	7	3.256	0.0400		
3.958	2	8	3.846	0.0458	14 Endrin	
4.111	42	42	1.010	0.2405		
4.119	6	23	3.549	0.1317		
4.189	2	6	2.885	0.0343		
4.191	2	9	3.879	0.0515		
4.268	3	6	2.273	0.0343		
4.306	16	34	2.163	0.1946		
4.309	16	33	2.128	0.1889		
4.590	4	8	2.266	0.0458		
4.663	3	6	2.151	0.0343	20 Methoxychlor	
4.759	2	8	3.433	0.0458		
4.771	3	9	2.647	0.0515		
4.781	3	10	3.125	0.0572		
4.789	3	8	2.540	0.0458		
4.810	2	7	3.465	0.0400		
4.935	3	6	2.335	0.0343		
4.972	3	9	2.609	0.0515		
4.978	2	9	3.689	0.0515		
4.983	5	11	2.381	0.0629		
4.991	3	11	4.348	0.0629		
5.009	12	19	1.593	0.1088		
5.017	4	14	3.204	0.0801		
5.185	3	6	1.875	0.0343		
5.433	4	10	2.833	0.0572		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.526	2	6	2.941	0.0343		
5.638	4524	4120	0.911	23.5927	$ 24 Decachlorobiphenyl (S)	
5.696	2	10	4.926	0.0572		
6.596	2	8	3.828	0.0458		
6.778	2	7	3.139	0.0400		
6.846	3	9	3.158	0.0515		
6.867	2	8	3.571	0.0458		
6.878	2	7	3.196	0.0400		
6.935	3	10	2.865	0.0572		
6.945	3	11	3.427	0.0629		
6.956	2	8	3.687	0.0458		
	16599	17463		100.000		

Total unknown % height = 49.7

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-035.d
Lab Smp Id: 1727835 Client Smp ID: LB for HBN 355732 [
Inj Date : 14-AUG-2019 18:55
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1727835,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.881	1.881	0.000	3630	0.07179	1.44			
3 gamma-BHC (Lindane)					CAS #: 58-89-9			
Compound Not Detected.								
5 Heptachlor					CAS #: 319-86-8			
2.684	2.706	-0.022	2	3e-005	0.000612			
8 Heptachlor epoxide					CAS #: 1024-57-3			
Compound Not Detected.								
14 Endrin					CAS #: 72-20-8			
3.957	3.952	0.005	2	4.e-005	0.000800			
20 Methoxychlor					CAS #: 72-43-5			
4.663	4.661	0.002	2	8e-005	0.00163			

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Peaks not detected for Quant. or Qual. signal(s).

$ 24 Decachlorobiphenyl (S) CAS #:

5.638	5.641	-0.003	4524	0.09103		1.82	

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1727835
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 081419-1.b
Client Smp ID: LB for HBN 355732 [
Sample Point:
Date Received: 08-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
319-86-8	Heptachlor	0.000612	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.000800	
72-43-5	Methoxychlor	0.00163	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.44	
----------	Decachlorobiphenyl (S)	1.82	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-035.d

Date : 14-AUG-2019 18:55

Client ID: LB for HBN 355732 [

Instrument: 30gcsc.i

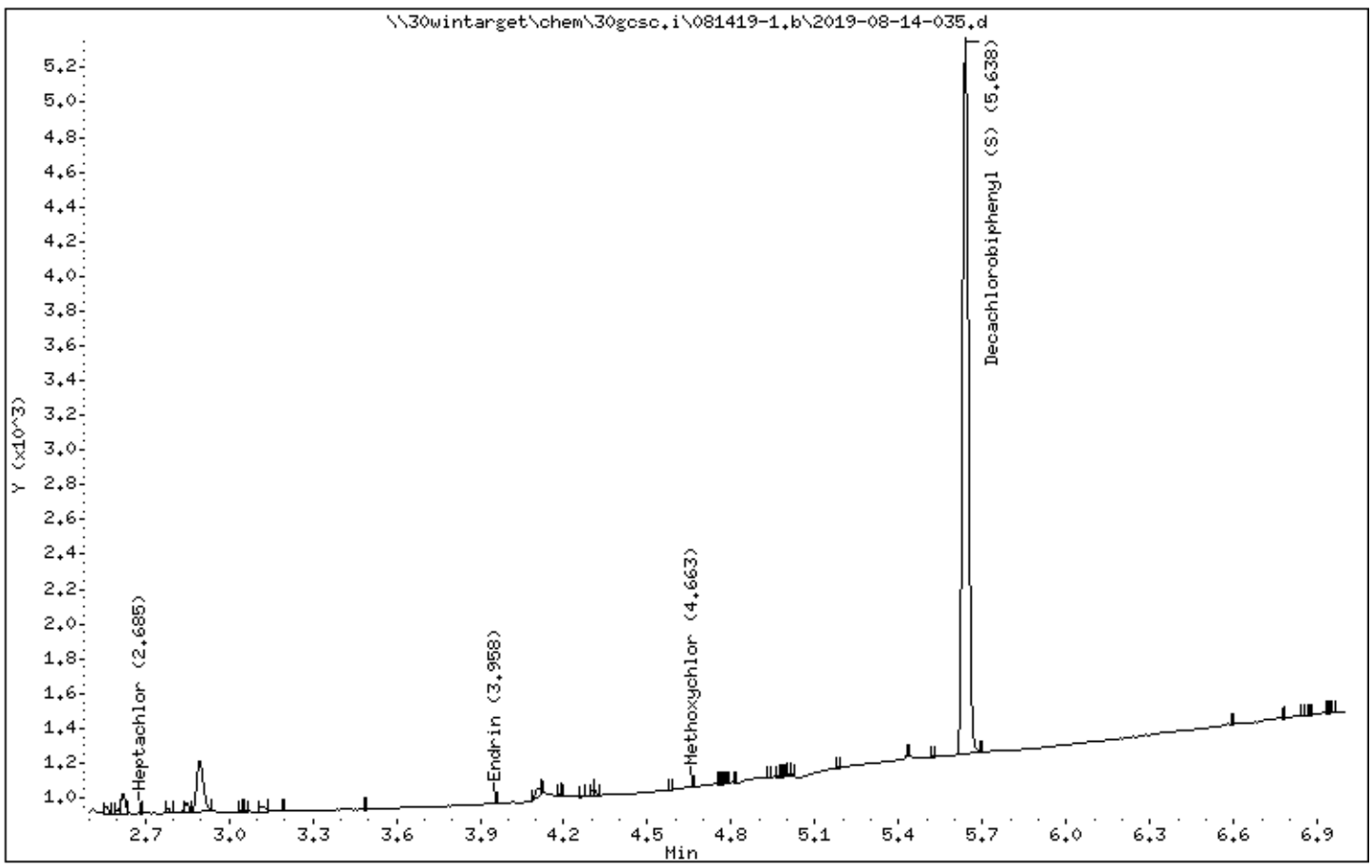
Sample Info: 1727835,

Volume Injected (uL): 1.0

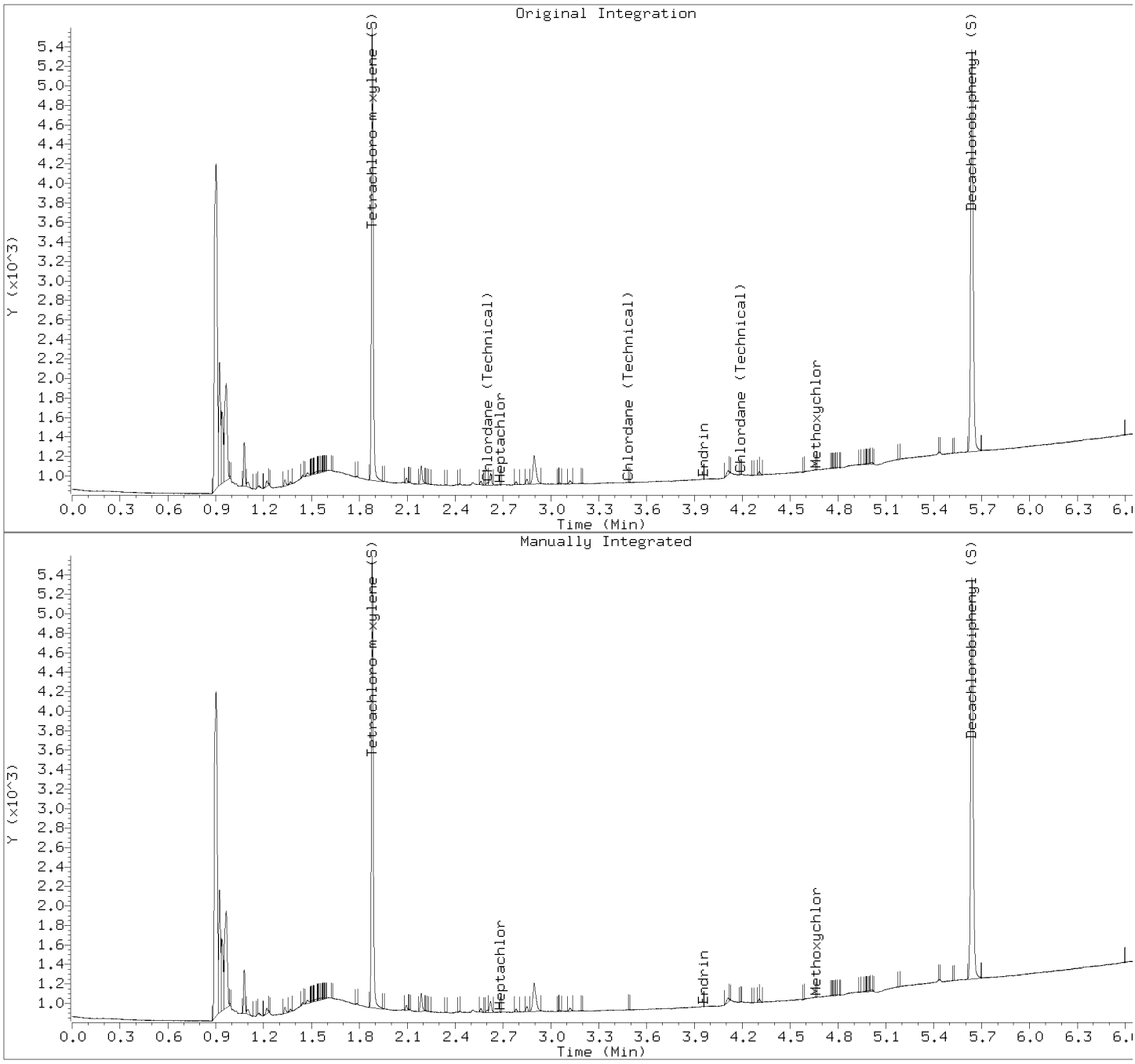
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-035.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 18:55 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1727835



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	2	2
Heptachlor epoxide	0	0
Endrin	2	2
Methoxychlor	2	2
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	18	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	2	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	3630	3630
Decachlorobiphenyl (S)	4524	4524

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/08/2019 09:02
Matrix: Water
SDG No.: 30318799
Date Extracted: 08/13/2019 09:14
Lab Sample ID: 1727835
Date Analyzed: 08/14/2019 18:55
Lab File ID: 081419-2.B\2019-08-14-035.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-035.d
Lab Smp Id: 1727835 Client Smp ID: LB for HBN 355732 [
Inj Date : 14-AUG-2019 18:55
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1727835,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.877	935	2169	2.320	28.9500		
0.904	771	815	1.057	10.8768		
0.946	359	426	1.187	5.6853		
0.979	217	249	1.146	3.3231		
1.008	420	476	1.134	6.3525		
1.050	1	7	5.109	0.0934		
1.060	5	11	2.174	0.1468		
1.070	11	16	1.500	0.2135		
1.113	2	4	1.843	0.0533		
1.173	56	85	1.528	1.1343		
1.273	4	9	2.250	0.1201		
1.291	6	11	1.988	0.1468		
1.314	2	4	2.312	0.0533		
1.355	5	7	1.386	0.0934		
1.454	3	4	1.563	0.0533		
1.515	1	2	1.706	0.0266		
1.553	3	2	0.578	0.0266		
1.682	11	17	1.496	0.2268		
1.791	2	6	2.458	0.0800		
1.910	1	3	2.586	0.0400		
2.069	3	4	1.556	0.0533		
2.321	3	6	1.948	0.0800		
2.327	1	5	3.676	0.0667		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.355	1248	1608	1.289	21.4600	$ 1 Tetrachloro-m-xylene (S)	
2.565	16	21	1.343	0.2802		
2.593	1	3	2.727	0.0400		
2.679	59	72	1.223	0.9608		
2.700	2	7	3.535	0.0934		
2.703	2	7	4.605	0.0934		
2.708	1	5	3.571	0.0667		
2.749	11	17	1.586	0.2268		
2.891	3	4	1.399	0.0533		
2.950	2	4	1.639	0.0533		
3.013	11	18	1.582	0.2402		
3.064	7	11	1.571	0.1468		
3.085	25	38	1.537	0.5071		
3.124	26	43	1.624	0.5738		
3.194	131	115	0.880	1.5347		
3.219	7	13	1.743	0.1734		
3.259	16	19	1.221	0.2535	6 Heptachlor	BA
3.332	2	3	1.596	0.0400		
3.528	7	10	1.355	0.1334		
4.182	2	2	1.105	0.0266		
4.325	2	4	1.970	0.0533		
4.332	2	5	2.793	0.0667		
4.354	3	4	1.394	0.0533	14 Endrin	
4.489	1	3	2.610	0.0400		
4.559	1	3	2.804	0.0400		
4.891	4	6	1.679	0.0800		
5.676	8	10	1.304	0.1334		
5.680	2	10	4.274	0.1334		
5.684	2	9	3.879	0.1201		
5.690	2	8	4.790	0.1067		
5.699	1	5	3.623	0.0667		
6.153	2	3	1.554	0.0400		
6.324	1419	1059	0.747	14.1331	$ 24 Decachlorobiphenyl (S)	
6.917	2	3	2.000	0.0400		
6.986	1	3	2.970	0.0400		
	5852	7493		100.000		

Total unknown % height = 64.1

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-035.d
Lab Smp Id: 1727835 Client Smp ID: LB for HBN 355732 [
Inj Date : 14-AUG-2019 18:55
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1727835,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO		REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:				
2.354	2.354	0.000	1247	0.06754	1.35				
3 gamma-BHC (Lindane)					CAS #: 58-89-9				
Compound Not Detected.									
6 Heptachlor					CAS #: 76-44-8				
3.259	3.243	0.016	15	7.e-004	0.0140			(M)	BA
8 Heptachlor epoxide					CAS #: 1024-57-3				
Compound Not Detected.									
14 Endrin					CAS #: 72-20-8				
4.354	4.383	-0.029	2	1e-004	0.00253				

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

20 Methoxychlor CAS #: 72-43-5

Compound Not Detected.

---

22 Chlordane (Technical) CAS #:

Operator disabled compound identification. BA

---

23 Toxaphene CAS #: 8001-35-2

Peaks not detected for Quant. or Qual. signal(s).

$ 24 Decachlorobiphenyl (S) CAS #:

6.323	6.325	-0.002	1418	0.08886	1.78			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

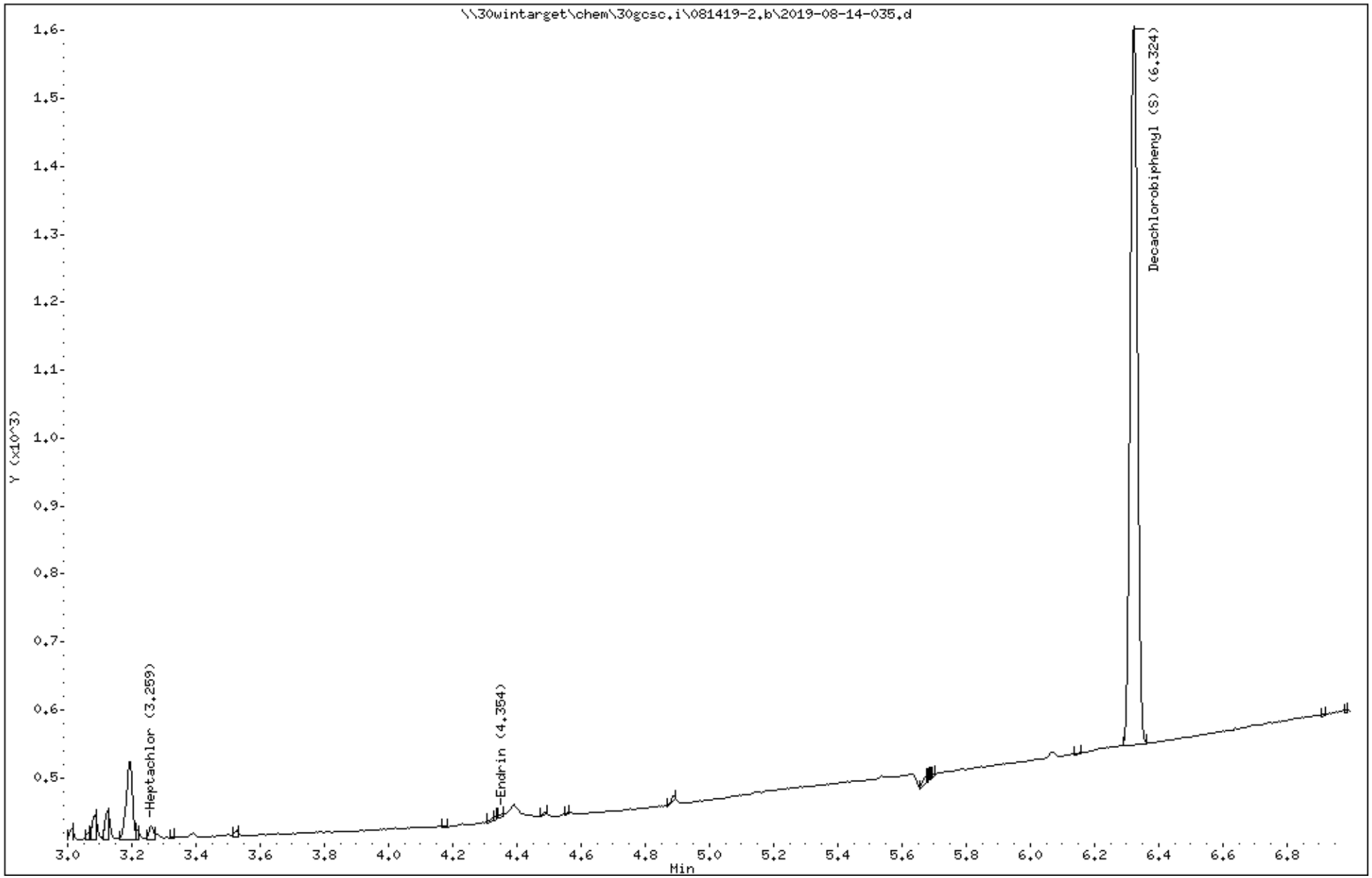
Client Name:
Lab Smp Id: 1727835
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 081419-2.b
Client Smp ID: LB for HBN 355732 [
Sample Point:
Date Received: 08-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

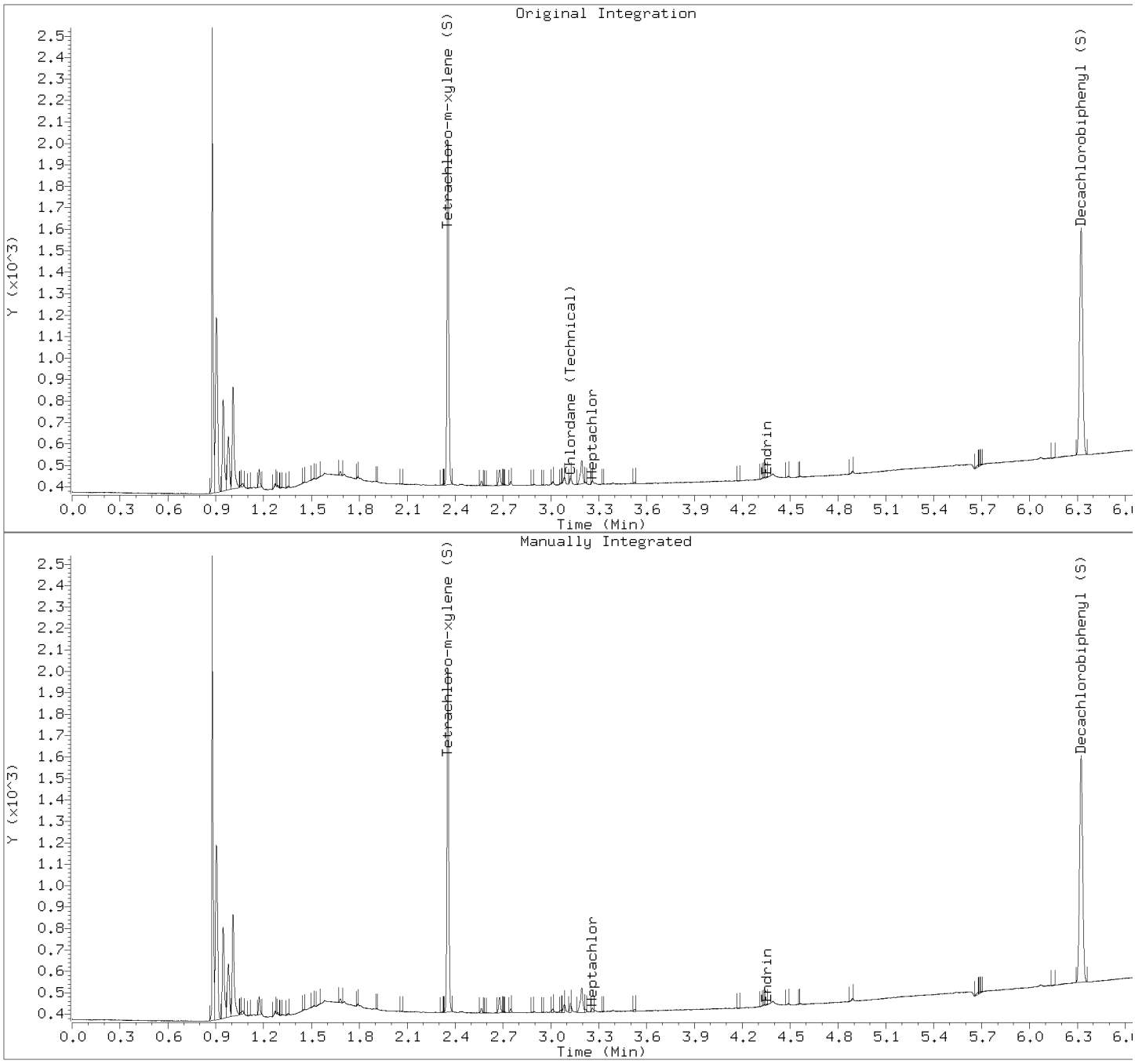
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
76-44-8	Heptachlor	0.0140	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.00253	
72-43-5	Methoxychlor	0.100	U
	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
	Tetrachloro-m-xylene (S)	1.35	
	Decachlorobiphenyl (S)	1.78	

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-035.d
Date : 14-AUG-2019 18:55
Client ID: LB for HBN 355732 [
Sample Info: 1727835,
Volume Injected (uL): 1.0
Column phase: ZB-CLPesticides-2

Instrument: 30gcsc.i
Operator: TAW
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-035.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 18:55 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1727835



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	2	15
Heptachlor epoxide	0	0
Endrin	2	2
Methoxychlor	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	6	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1247	1247
Decachlorobiphenyl (S)	1418	1418

SAMPLE NO.

LB

PESTICIDES - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/09/2019 14:41
Matrix: Water
SDG No.: 30318799
Date Extracted: 08/13/2019 09:14
Lab Sample ID: 1729490
Date Analyzed: 08/14/2019 19:14
Lab File ID: 081419-1.B\2019-08-14-037.D
Initial wt/vol: 250 mL
Final wt/vol: 5 mL
Dilution: 1
Instrument: 30GCSC
Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
58-89-9	gamma-BHC (Lindane)	ND	U
57-74-9	Chlordane (Technical)	ND	U
72-20-8	Endrin	ND	U
76-44-8	Heptachlor	ND	U
1024-57-3	Heptachlor epoxide	ND	U
72-43-5	Methoxychlor	ND	U
8001-35-2	Toxaphene	ND	U

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-037.d
Lab Smp Id: 1729490 Client Smp ID: LB for HBN 356078 [
Inj Date : 14-AUG-2019 19:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1729490,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.894	13256	15843	1.195	51.8946		
0.926	961	1254	1.305	4.1067		
0.941	631	774	1.226	2.5347		
0.965	1168	954	0.817	3.1242		
0.991	11	21	1.853	0.0687		
1.029	2	7	2.869	0.0229		
1.080	312	469	1.504	1.5359		
1.106	24	33	1.392	0.1080		
1.126	3	6	2.326	0.0196		
1.167	3	8	3.051	0.0261		
1.172	3	12	3.604	0.0392		
1.175	5	15	2.822	0.0491		
1.219	38	40	1.052	0.1309		
1.235	24	36	1.470	0.1178		
1.336	43	61	1.419	0.1997		
1.369	7	14	2.072	0.0458		
1.446	19	30	1.606	0.0982		
1.449	8	27	3.506	0.0884		
1.478	30	30	0.991	0.0982		
1.487	3	15	5.976	0.0491		
1.492	4	10	2.703	0.0327		
1.549	3	10	2.924	0.0327		
1.613	4	11	3.116	0.0360		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.617	3	11	3.254	0.0360		
1.624	5	10	2.110	0.0327		
1.734	3	7	2.381	0.0229		
1.741	2	8	3.213	0.0261		
1.787	5	15	2.879	0.0491		
1.881	3553	4547	1.280	14.8911	$ 1 Tetrachloro-m-xylene (S)	
1.925	7	17	2.464	0.0556		
1.935	3	10	3.580	0.0327		
2.046	4	8	2.025	0.0261		
2.051	5	9	1.833	0.0294		
2.061	2	8	3.509	0.0261		
2.075	18	21	1.197	0.0687		
2.096	50	59	1.185	0.1932		
2.114	2	12	6.000	0.0392		
2.118	5	12	2.667	0.0392		
2.189	11	17	1.605	0.0556		
2.219	3	9	3.343	0.0294		
2.425	2	7	3.004	0.0229		
2.430	3	7	2.187	0.0229		
2.510	6	15	2.459	0.0491		
2.512	7	16	2.192	0.0523		
2.562	25	35	1.380	0.1146		
2.603	22	27	1.233	0.0884		
2.623	83	97	1.167	0.3176		
2.782	10	18	1.781	0.0589		
2.810	4	8	2.127	0.0261		
2.851	42	52	1.235	0.1702		
2.866	2	7	3.256	0.0229		
2.897	299	204	0.683	0.6680		
2.945	2	8	3.404	0.0261		
3.051	4	10	2.538	0.0327		
3.054	3	10	2.915	0.0327		
3.119	13	33	2.629	0.1080		
3.123	27	38	1.406	0.1244		
3.197	3	8	2.454	0.0261		
3.465	4	15	3.348	0.0491		
3.474	9	19	2.159	0.0622		
3.480	8	19	2.423	0.0622		
3.487	4	19	4.232	0.0622		
3.492	5	17	3.556	0.0556		
3.498	6	16	2.488	0.0523		
3.503	6	15	2.636	0.0491		
3.513	3	13	4.037	0.0425		
3.518	5	13	2.448	0.0425		
3.529	5	14	2.917	0.0458		
3.534	6	13	2.342	0.0425		
3.542	4	12	3.324	0.0392		
3.547	4	13	3.073	0.0425		
3.553	2	11	4.641	0.0360		
3.557	3	10	3.185	0.0327		
3.563	3	10	3.205	0.0327		
3.569	4	11	2.683	0.0360		
3.579	3	8	2.572	0.0261		
3.587	2	8	3.960	0.0261		
3.602	2	7	2.954	0.0229		
3.610	3	9	2.980	0.0294		
3.625	2	6	2.679	0.0196		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.902	2	4	1.951	0.0130		
4.024	3	7	2.194	0.0229		
4.053	2	3	1.351	0.0098		
4.106	6	18	2.783	0.0589		
4.109	4	19	5.249	0.0622		
4.112	3	16	4.692	0.0523		
4.187	2	6	2.885	0.0196		
4.305	12	21	1.787	0.0687		
4.560	3	5	1.852	0.0163		
4.782	2	5	2.083	0.0163		
4.813	2	6	2.778	0.0196		
4.845	7	14	2.003	0.0458		
4.848	2	14	5.645	0.0458		
4.852	2	12	5.150	0.0392		
4.859	4	9	2.394	0.0294		
4.870	2	6	2.490	0.0196		
5.007	3	16	4.938	0.0523		
5.008	6	18	2.769	0.0589		
5.016	6	13	2.027	0.0425		
5.080	5	17	3.301	0.0556		
5.084	4	19	4.398	0.0622		
5.087	3	22	6.340	0.0720		
5.091	7	23	3.177	0.0753		
5.095	3	23	6.745	0.0753		
5.102	9	24	2.581	0.0785		
5.106	12	27	2.184	0.0884		
5.116	9	26	2.787	0.0851		
5.121	5	25	4.690	0.0818		
5.125	4	23	5.169	0.0753		
5.129	6	26	4.037	0.0851		
5.134	5	24	4.444	0.0785		
5.137	3	23	6.845	0.0753		
5.140	7	22	3.364	0.0720		
5.145	8	24	2.978	0.0785		
5.151	5	22	4.052	0.0720		
5.155	3	22	7.029	0.0720		
5.159	8	21	2.749	0.0687		
5.167	11	23	2.091	0.0753		
5.173	2	22	10.945	0.0720		
5.175	3	21	6.863	0.0687		
5.178	8	22	2.865	0.0720		
5.188	6	19	3.287	0.0622		
5.197	12	17	1.473	0.0556		
5.204	4	17	4.156	0.0556		
5.210	5	16	3.162	0.0523		
5.215	3	15	4.823	0.0491		
5.223	5	13	2.490	0.0425		
5.227	4	14	3.167	0.0458		
5.235	2	12	5.172	0.0392		
5.238	4	13	3.485	0.0425		
5.244	2	8	3.226	0.0261		
5.249	3	8	2.721	0.0261		
5.432	5	10	1.969	0.0327		
5.606	5	10	2.049	0.0327		
5.638	4446	4001	0.900	13.1029	$ 24 Decachlorobiphenyl (S)	
5.686	5	14	2.947	0.0458		
5.773	2	7	3.318	0.0229		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.801	3	9	3.285	0.0294		
6.080	2	7	2.966	0.0229		
6.094	2	10	5.000	0.0327		
6.116	4	9	2.426	0.0294		
6.120	3	10	2.994	0.0327		
6.127	4	10	2.347	0.0327		
6.140	2	11	5.473	0.0360		
6.144	2	9	3.896	0.0294		
6.155	3	10	2.907	0.0327		
6.162	3	10	3.030	0.0327		
6.173	4	9	2.535	0.0294		
6.180	2	8	3.463	0.0261		
6.190	5	10	1.862	0.0327		
6.198	3	10	3.953	0.0327		
6.209	3	10	3.922	0.0327		
6.213	2	9	3.947	0.0294		
6.219	2	11	4.762	0.0360		
6.232	4	11	2.857	0.0360		
6.237	4	11	2.696	0.0360		
6.288	4	9	2.004	0.0294		
6.305	2	10	4.255	0.0327		
6.309	3	9	2.821	0.0294		
6.330	3	9	2.932	0.0294		
6.342	2	8	3.721	0.0261		
6.348	2	9	4.327	0.0294		
6.364	3	7	2.602	0.0229		
6.395	3	9	3.383	0.0294		
6.614	3	8	2.807	0.0261		
6.641	2	9	4.167	0.0294		
6.719	3	9	3.191	0.0294		
6.726	3	10	2.950	0.0327		
	25709	30535		100.000		

Total unknown % height = 72.0

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-037.d
Lab Smp Id: 1729490 Client Smp ID: LB for HBN 356078 [
Inj Date : 14-AUG-2019 19:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1729490,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-1.b\cf8081062719abm.m
Meth Date : 15-Aug-2019 11:21 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 16:02 Cal File: 2019-06-27-015.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)					CAS #:			
1.881	1.881	0.000	3552	0.07025	1.40			

---

3 gamma-BHC (Lindane) CAS #: 58-89-9

Compound Not Detected.

---

5 Heptachlor CAS #: 319-86-8

Compound Not Detected.

---

8 Heptachlor epoxide CAS #: 1024-57-3

Compound Not Detected.

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/ml)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE

14 Endrin CAS #: 72-20-8

Compound Not Detected.

---

20 Methoxychlor CAS #: 72-43-5

Compound Not Detected.

---

22 Chlordane (Technical) CAS #:

Operator disabled compound identification.

---

23 Toxaphene CAS #: 8001-35-2

Peaks not detected for Quant. or Qual. signal(s).

$ 24 Decachlorobiphenyl (S)						CAS #:		
5.638	5.641	-0.003	4445	0.08944	1.79			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1729490
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 081419-1.b
Client Smp ID: LB for HBN 356078 [
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
319-86-8	Heptachlor	0.0100	U
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.0200	U
72-43-5	Methoxychlor	0.100	U
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.40	
----------	Decachlorobiphenyl (S)	1.79	

Data File: \\30wintarget\chem\30gcsc.i\081419-1.b\2019-08-14-037.d

Date : 14-AUG-2019 19:14

Client ID: LB for HBN 356078 [

Instrument: 30gcsc.i

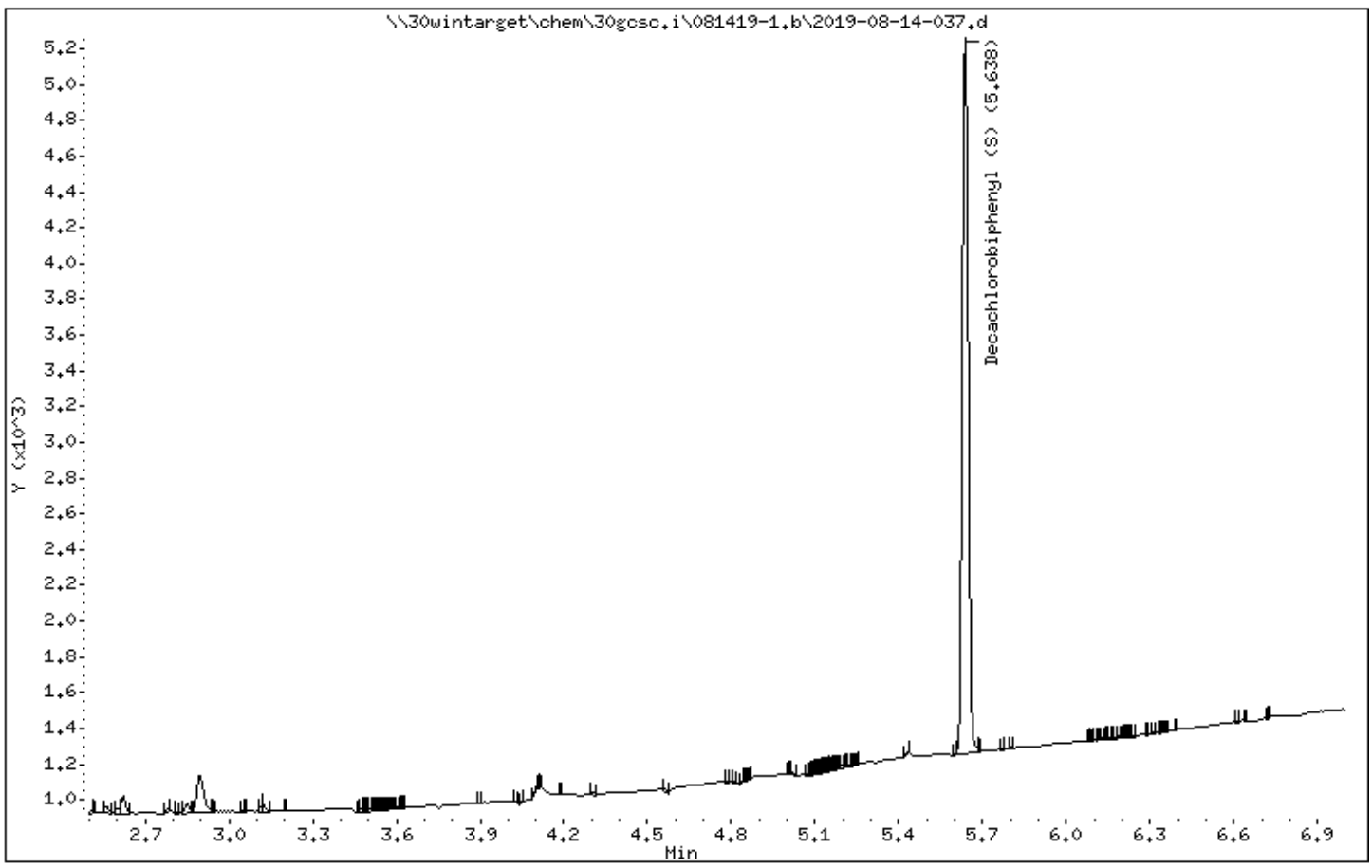
Sample Info: 1729490,

Volume Injected (uL): 1.0

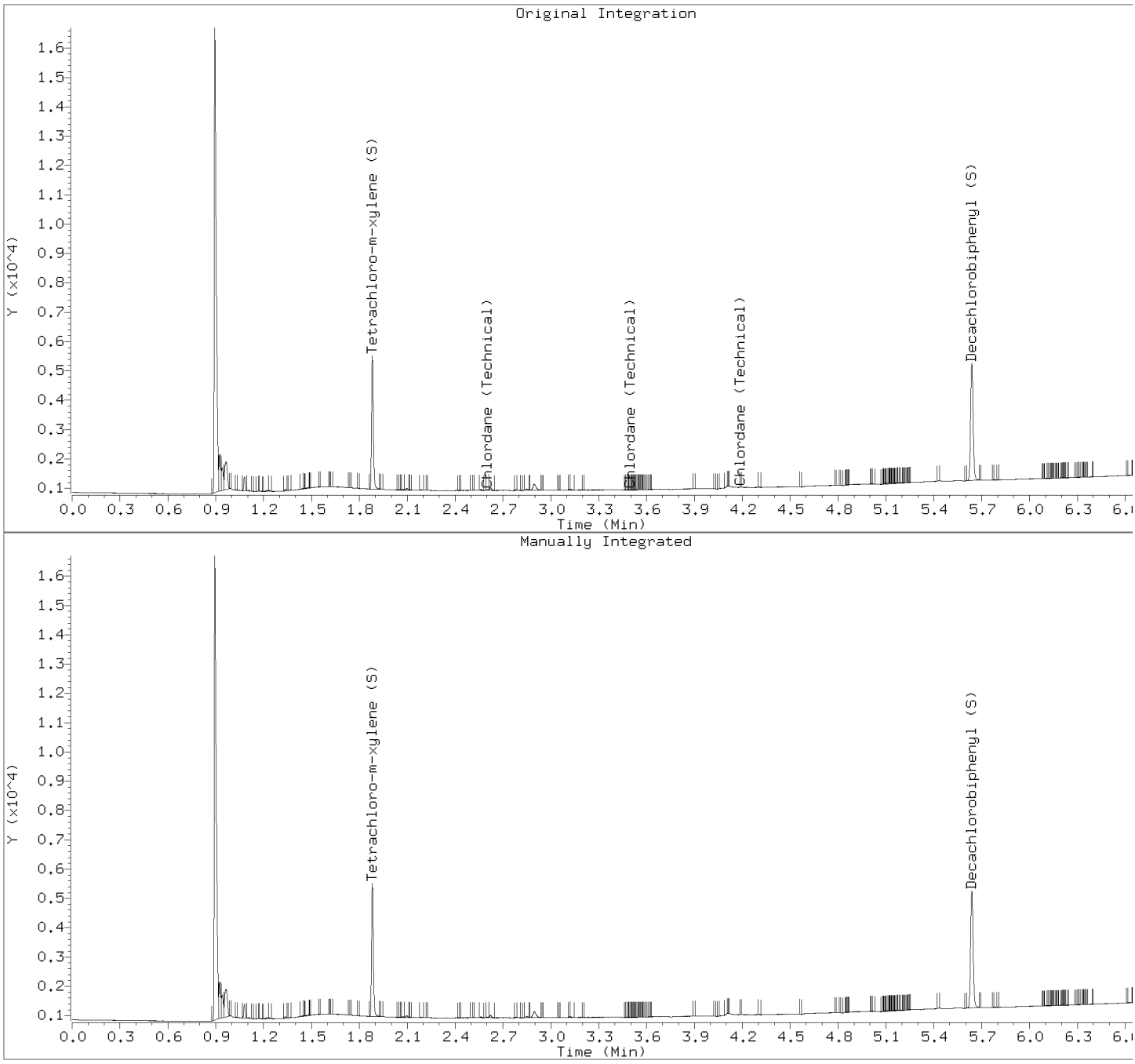
Operator: TAW

Column phase: Rtx-CLPesticides-1

Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-1.b/2019-08-14-037.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 19:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1729490



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	0	0
Heptachlor epoxide	0	0
Endrin	0	0
Methoxychlor	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	21	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0
Chlordane (Technical)	6	0

Chlordane (Technical)	2	0
Tetrachloro-m-xylene (S)	3552	3552
Decachlorobiphenyl (S)	4445	4445

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-037.d
Lab Smp Id: 1729490 Client Smp ID: LB for HBN 356078 [
Inj Date : 14-AUG-2019 19:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1729490,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: AREA%
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.879	4668	11420	2.447	69.0724		
0.905	932	952	1.021	5.7578		
0.948	351	419	1.193	2.5341		
0.980	238	269	1.129	1.6269		
1.009	416	449	1.079	2.7156		
1.072	19	16	0.852	0.0967		
1.141	1	4	3.774	0.0241		
1.174	54	85	1.560	0.5140		
1.275	12	13	1.127	0.0786		
1.292	2	5	2.538	0.0302		
1.356	4	6	1.435	0.0362		
1.432	1	2	2.000	0.0120		
1.454	2	4	2.083	0.0241		
1.484	1	3	2.381	0.0181		
1.516	1	3	2.276	0.0181		
1.540	1	4	3.152	0.0241		
1.548	1	5	3.676	0.0302		
1.583	2	3	1.584	0.0181		
1.683	13	17	1.347	0.1028		
1.707	2	6	2.778	0.0362		
2.278	2	3	1.923	0.0181		
2.355	1222	1580	1.293	9.5560	$ 1 Tetrachloro-m-xylene (S)	
2.566	17	21	1.247	0.1270		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.749	8	14	1.707	0.0846		
2.895	3	7	2.083	0.0423		
3.014	10	14	1.452	0.0846		
3.084	21	31	1.489	0.1874		
3.124	29	34	1.179	0.2056		
3.194	82	75	0.911	0.4536		
3.260	13	17	1.272	0.1028	6 Heptachlor	BA
3.280	7	11	1.576	0.0665		
3.327	1	3	2.000	0.0181		
3.335	1	3	2.381	0.0181		
3.525	1	3	2.158	0.0181		
3.703	1	3	2.041	0.0181		
3.977	1	2	1.408	0.0120		
4.134	1	3	2.632	0.0181		
4.889	2	4	2.569	0.0241		
4.951	1	2	1.835	0.0120	20 Methoxychlor	
5.394	1	3	2.174	0.0181		
5.442	1	2	1.527	0.0120		
5.671	1	2	1.754	0.0120		
5.867	1	4	3.333	0.0241		
6.071	6	7	1.199	0.0423		
6.323	1387	1001	0.722	6.0541	$ 24 Decachlorobiphenyl (S)	
	9546	16534		100.000		

Total unknown % height = 84.3

Pace Analytical Services, Inc.

SW846 8081A/B

Data file : \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-037.d
Lab Smp Id: 1729490 Client Smp ID: LB for HBN 356078 [
Inj Date : 14-AUG-2019 19:14
Operator : TAW Inst ID: 30gcsc.i
Smp Info : 1729490,
Misc Info : 15974,TCLP
Comment : SW846 8081A/B
Method : \\30wintarget\chem\30gcsc.i\081419-2.b\cr8081062719abm.m
Meth Date : 15-Aug-2019 11:53 twilson Quant Type: ESTD
Cal Date : 27-JUN-2019 15:43 Cal File: 2019-06-27-013.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TCLP.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30MSS3WS10B6

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	5000.000	Volume of final extract (uL)
Vo	250.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO		REVIEW CODE
$ 1 Tetrachloro-m-xylene (S)						CAS #:			
2.354	2.354	0.000	1222	0.06618	1.32				
3 gamma-BHC (Lindane)						CAS #: 58-89-9			
Compound Not Detected.									
6 Heptachlor						CAS #: 76-44-8			
3.260	3.243	0.017	13	6e-004	0.0121			(M)	BA
8 Heptachlor epoxide						CAS #: 1024-57-3			
Compound Not Detected.									

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
14 Endrin						CAS #: 72-20-8		
Compound Not Detected.								
20 Methoxychlor						CAS #: 72-43-5		
4.951	4.941	0.010		1	1e-004	0.00271		
22 Chlordane (Technical)						CAS #:		
Operator disabled compound identification.								BA
23 Toxaphene						CAS #: 8001-35-2		
Peaks not detected for Quant. or Qual. signal(s).								
$ 24 Decachlorobiphenyl (S)						CAS #:		
6.323	6.325	-0.002	1387	0.08691	1.74			

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

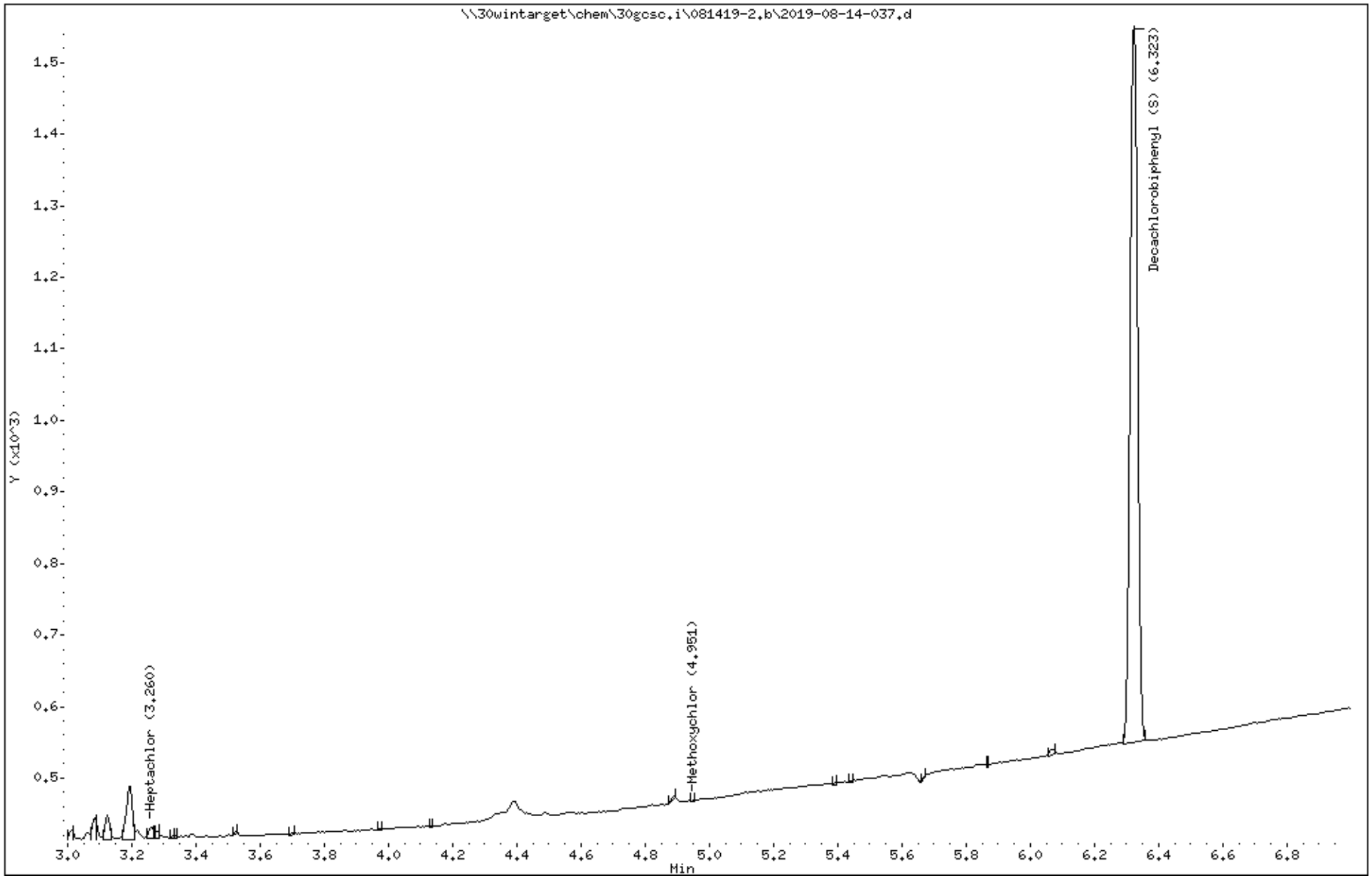
Client Name:
Lab Smp Id: 1729490
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: SV
Data Type: GC MULTI COMP
Misc Info: 15974,TCLP

Client SDG: 081419-2.b
Client Smp ID: LB for HBN 356078 [
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: TAW

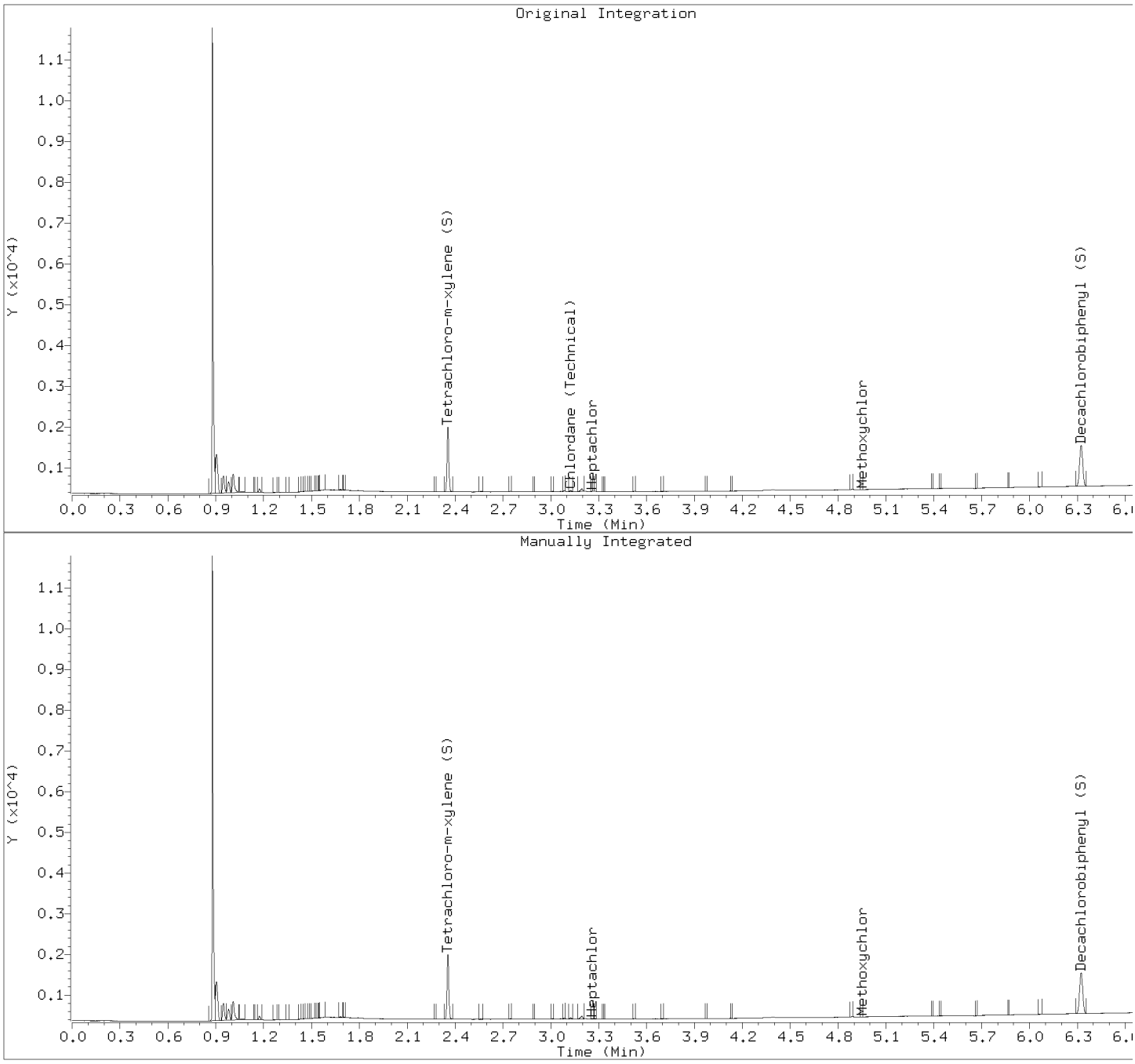
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
58-89-9	gamma-BHC (Lindane)	0.0100	U
76-44-8	Heptachlor	0.0121	
1024-57-3	Heptachlor epoxide	0.0100	U
72-20-8	Endrin	0.0200	U
72-43-5	Methoxychlor	0.00271	
----------	Chlordane (Technical)	0.100	U
8001-35-2	Toxaphene	10.0	U
----------	Tetrachloro-m-xylene (S)	1.32	
----------	Decachlorobiphenyl (S)	1.74	

Data File: \\30wintarget\chem\30gcsc.i\081419-2.b\2019-08-14-037.d
Date : 14-AUG-2019 19:14
Client ID: LB for HBN 356078 [
Sample Info: 1729490,
Volume Injected (uL): 1.0
Column phase: ZB-CLPesticides-2

Instrument: 30gcsc.i
Operator: TAW
Column diameter: 0.53



Data File: \\30wintarget\chem\30gcsc.i\081419-2.b/2019-08-14-037.d (ManInt: TCLP.sub Orig: TCLP.sub)
Injection Date: 14-AUG-2019 19:14 Operator: TAW
Instrument: 30gcsc.i
Lab Sample ID: 1729490



Manually Integrated Compounds

Compound	Area (before)	Area (after)
gamma-BHC (Lindane)	0	0
Heptachlor	2	13
Heptachlor epoxide	0	0
Endrin	0	0
Methoxychlor	1	1
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Toxaphene	0	0
Chlordane (Technical)	27	0
Chlordane (Technical)	2	0
Chlordane (Technical)	0	0
Chlordane (Technical)	0	0

Chlordane (Technical)	0	0
Tetrachloro-m-xylene (S)	1222	1222
Decachlorobiphenyl (S)	1387	1387

SAMPLE NO.

LCS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1730795 SDG No.: 30318799 Date(s) Analyzed: 08/14/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.46932	0.69	7.7
	2	2.83465	0.64	
Endrin	1	3.95198	1.4	5.9
	2	4.38165	1.3	
Heptachlor	1	2.70732	0.60	8.6
	2	3.24365	0.55	
Heptachlor epoxide	1	3.27565	0.70	8.2
	2	3.76398	0.65	
Methoxychlor	1	4.65865	6.7	13.3
	2	4.93898	5.9	

SAMPLE NO.

MS

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1730796 SDG No.: 30318799 Date(s) Analyzed: 08/14/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.47032	0.89	4.6
	2	2.83565	0.85	
Endrin	1	3.95232	1.7	7.2
	2	4.38265	1.6	
Heptachlor	1	2.70732	0.82	8.6
	2	3.24398	0.75	
Heptachlor epoxide	1	3.27565	0.90	10.2
	2	3.76465	0.81	
Methoxychlor	1	4.65798	8.3	13.0
	2	4.94032	7.3	

SAMPLE NO.

MSD

10A - FORM X PEST-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1730797 SDG No.: 30318799 Date(s) Analyzed: 08/14/2019
Instrument ID (1): 30GCSC Instrument ID (2): 30GCSC Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/L	RPD
gamma-BHC (Lindane)	1	2.46933	0.88	4.3
	2	2.83533	0.85	
Endrin	1	3.95167	1.7	7.1
	2	4.38267	1.6	
Heptachlor	1	2.70667	0.81	8.1
	2	3.24367	0.75	
Heptachlor epoxide	1	3.275	0.90	10.4
	2	3.76433	0.81	
Methoxychlor	1	4.658	8.5	10.0
	2	4.93933	7.7	

Prep Log Report

Batch Information: TCLP 8789/356078; 8790/356079

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311	Extracted By	VAK	Extracted Date/Time	08/11/2019 10:00:16:351	Tumbler Start Temp. (C)	20.5
Tumbler End Temp. (C)	22.8	Tumbler Rotational Rate (rev/min)	30	Pipette ID 1	PIP 001	Room Thermo ID	130286412 OUT
Acceptance Range:	Room Temp 21.0-25.0 C	Balance ID	30BA16	pH Meter ID	2	Hot Plate Temp (C)	55
Batch Notes	HNO3 94232	Reviewed By		Reviewed By Date			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	**1729490**	N		N	30TBL5	HP001				4.88		0	0
TCLP	PS	**30318388001**	N		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100
TCLP	PS	**30318428001**	N		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
TCLP	PS	**30318231001**	N		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
TCLP	PS	**30318712001**	N		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
TCLP	PS	**30318575003**	N		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
TCLP	PS	**30318799001**	N		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100
TCLP	PS	**30315970001**	N		U	30TBL5	HP001	Other	Y	Y	8.07	1.83	5	100
1311MET_L	LB	**1729491**	Y		N	30TBL5	HP001				4.88		0	0
1311MET_L	LB	**1729492**	Y		1	30TBL5	HP001				4.88		5	100
1311MET_L	PS	**30315970002**	Y		2	30TBL5	HP001	Other	Y	Y	7.91	1.95	5	100
1311MET_L	PS	**30317384001**	Y		3	30TBL5	HP001	Other	Y	Y	6.54	1.78	5	100
1311MET_L	PS	**30317384002**	Y		4	30TBL5	HP001	Other	Y	Y	6.19	1.77	5	100
1311MET_L	PS	**30317384003**	Y		5	30TBL5	HP001	Other	Y	Y	7.05	1.75	5	100
1311MET_L	PS	**30317384004**	Y		6	30TBL5	HP001	Other	Y	Y	7.66	1.74	5	100
1311MET_L	PS	**30317384005**	Y		7	30TBL5	HP001	Other	Y	Y	7.44	1.76	5	100
1311MET_L	PS	**30317486001**	Y		8	30TBL5	HP001	Other	Y	Y	7.13	1.73	5	100
1311MET_L	PS	**30317747003**	Y		9	30TBL5	HP001	Other	Y	Y	8.52	1.78	5	100
1311MET_L	PS	**30317660001**	Y		10	30TBL5	HP001	Other	Y	Y	7.47	1.72	5	100
1311MET_L	PS	**30318430001**	Y		11	30TBL5	HP001	Other	Y	Y	9.46	1.73	5	100
1311MET_L	PS	**30318388001**	Y		O	30TBL5	HP001	Other	Y	Y	7.08	1.83	5	100

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
1311MET_L	PS	**30318428001**	Y		P	30TBL5	HP001	Other	Y	Y	9.09	1.79	5	100
1311MET_L	PS	**30318231001**	Y		Q	30TBL5	HP001	Other	Y	Y	11.51	2.23	5	100
1311MET_L	PS	**30318712001**	Y		R	30TBL5	HP001	Other	Y	Y	7.79	1.78	5	100
1311MET_L	PS	**30318575003**	Y		S	30TBL5	HP001	Other	Y	Y	9.22	1.81	5	100
1311MET_L	PS	**30318799001**	Y		T	30TBL5	HP001	Other	Y	Y	8.5	1.85	5	100

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	LB	**1729490**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071				
TCLP	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798				
TCLP	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367				
TCLP	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063				
TCLP	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797				
TCLP	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414				
TCLP	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981				
TCLP	PS	**30315970001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.86	08/12/2019 11:45:59:124				
1311MET_L	LB	**1729491**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 08:56:23:071	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	LB	**1729492**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.68	08/12/2019 09:39:51:525	Y			
1311MET_L	PS	**30315970002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.86	08/12/2019 12:18:51:065	Y			
1311MET_L	PS	**30317384001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.63	08/12/2019 09:39:53:326	Y			
1311MET_L	PS	**30317384002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.64	08/12/2019 09:39:53:996	Y			
1311MET_L	PS	**30317384003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.65	08/12/2019 09:39:54:668	Y			
1311MET_L	PS	**30317384004**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:18:841	Y			
1311MET_L	PS	**30317384005**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.14	08/12/2019 09:54:19:554	Y			
1311MET_L	PS	**30317486001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.70	08/12/2019 09:54:20:282	Y			
1311MET_L	PS	**30317747003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.02	08/12/2019 09:54:20:986	Y			
1311MET_L	PS	**30317660001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.72	08/12/2019 09:54:21:634	Y			
1311MET_L	PS	**30318430001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.82	08/12/2019 09:54:22:257	Y			
1311MET_L	PS	**30318388001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	6.12	08/12/2019 08:56:23:798	Y			
1311MET_L	PS	**30318428001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.32	08/12/2019 08:56:24:367	Y			
1311MET_L	PS	**30318231001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	11.75	08/12/2019 08:56:26:063	Y			
1311MET_L	PS	**30318712001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	4.69	08/12/2019 09:15:41:797	Y			

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
1311MET_L	PS	**30318575003**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	7.10	08/12/2019 09:15:42:414	Y			
1311MET_L	PS	**30318799001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/11/2019 14:01:51	08/12/2019 08:04:24	5.54	08/12/2019 09:15:42:981	Y			

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
TCLP	LB	**1729490**								2000	
TCLP	PS	**30318388001**								2000	rock
TCLP	PS	**30318428001**								2000	mud/rock
TCLP	PS	**30318231001**								2000	mulch
TCLP	PS	**30318712001**								2000	sludge
TCLP	PS	**30318575003**								2000	1*
TCLP	PS	**30318799001**								2000	mulch/rock
TCLP	PS	**30315970001**								2000	soil
1311MET_L	LB	**1729491**								2000	
1311MET_L	LB	**1729492**								2000	
1311MET_L	PS	**30315970002**								2000	soil
1311MET_L	PS	**30317384001**								2000	mud/rock
1311MET_L	PS	**30317384002**								2000	mud/rock
1311MET_L	PS	**30317384003**								2000	mud/rock
1311MET_L	PS	**30317384004**								2000	dirt/rock
1311MET_L	PS	**30317384005**								2000	dirt/rock
1311MET_L	PS	**30317486001**								2000	brick
1311MET_L	PS	**30317747003**								2000	sludge

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Sample Weight (g)	Adj. Initial Sample Weight (g)	Empty Filtrate Container Weight	Filtrate Container & Filtrate A Weight (g)	Filtrate A Weight (g)	Solid Weight (g)	% Solids	Volume of Extraction (mL)	Sample Notes
1311MET_L	PS	**30317660001**								2000	sludge
1311MET_L	PS	**30318430001**								2000	mud/rock
1311MET_L	PS	**30318388001**								2000	rock
1311MET_L	PS	**30318428001**								2000	mud/rock
1311MET_L	PS	**30318231001**								2000	mulch
1311MET_L	PS	**30318712001**								2000	sludge
1311MET_L	PS	**30318575003**								2000	1*
1311MET_L	PS	**30318799001**								2000	mulch/rock

Sample Notes:

1*: rock/concrete

Prep Log Report

Batch Information: OEXT 38917/38916/38915 Pest/PCB/TCLP Pest **Template Version: F-PA-O-004-Rev.00 (5May2016)**

Prep Method	EPA 608.3 DEC 2016	Analysis Method	EPA 608.3 Dec 2016	Extracted By	JPH	Extracted Date/Time	08/13/2019 09:14:12:514
Extraction End Date/Time	08/13/2019 12:51:01:131	Dispenser ID 1	BTD011	Syringe ID 1	SYR006	Spiked By	JPH
Spiked By Date/Time	08/13/2019 09:38:35:389	Concentrated By	JPH	Concentrated By Date	08/13/2019 10:59:52:199	Conc. Method	Turbovap
Methylene Chloride	96384	Hexane	91806	Sodium Sulfate	96437	1:1 H2SO4	None Added
10N Sodium Hydroxide	None Added	Gravity Filters	95299	Reviewed By	ZEM	Reviewed By Date	08/20/2019 08:59
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
6083 WP_P	BLANK	**1730806**		TVAP006	1000	5-9	5	1*		95008 (.5)	
6083 WP_P	LCS	**1730807**		TVAP006	1000	5-9	5	1*	95899 (1)	95008 (.5)	
6083 WP_P	PS	**30318456001**		TVAP006	1000	5-9	5	1*		95008 (.5)	
6083 WP_P	PS	**30318457001**		TVAP006	1020	5-9	5	1*		95008 (.5)	
6083 WP_P	OQS	**30318805001**		TVAP006	1015	5-9	5	2*		95008 (.5)	
6083 WP_P	MS	**1730808**		TVAP006	1010	5-9	5	2*	95899 (1)	95008 (.5)	
6083 WP_P	MSD	**1730809**		TVAP005	1040	5-9	5	2*	95899 (1)	95008 (.5)	
6083 WP_P	PS	**30318813001**		TVAP005	1000	5-9	5	1*		95008 (.5)	
6083 WC_P	BLANK	**1730802**		TVAP005	1000	5-9	5	1*		95008 (.5)	
6083 WC_P	LCS	**1730803**		TVAP005	1000	5-9	5	1*		95008 (.5)	93101 (1)
6083 WC_P	PS	**30318456001**		TVAP005	1000	5-9	5	1*		95008 (.5)	
6083 WC_P	PS	**30318305001**		TVAP005	1030	5-9	5	1*		95008 (.5)	
6083 WC_P	PS	**30318457001**		TVAP003	1020	5-9	5	1*		95008 (.5)	
6083 WC_P	OQS	**30318805001**		TVAP003	1015	5-9	5	2*		95008 (.5)	
6083 WC_P	MS	**1730804**		TVAP003	1030	5-9	5	2*		95008 (.5)	93101 (1)
6083 WC_P	MSD	**1730805**		TVAP003	975	5-9	5	2*		95008 (.5)	93101 (1)
8081BST_P	LB	**1727835**		TVAP003	250	5-9	5	1*		95008 (.5)	
8081BST_P	LCS	**1730795**		TVAP003	250	5-9	5	1*	95899 (1)	95008 (.5)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Volume (mL)	Adjusted pH	Final Volume (mL)	Sample Notes	8081-SPK (mL)	8081-SS (mL)	8082-SPK (mL)
8081BST_P	LB	**1729490**		TVAP007	250	5-9	5	1*		95008 (.5)	
8081BST_P	PS	**30318386001**		TVAP007	250	5-9	5	1*		95008 (.5)	
8081BST_P	MS	**1730796**		TVAP007	200	5-9	5	3*	95899 (1)	95008 (.5)	
8081BST_P	MSD	**1730797**		TVAP007	200	5-9	5	3*	95899 (1)	95008 (.5)	
8081BST_P	PS	**30318575003**		TVAP007	250	5-9	5	1*		95008 (.5)	
8081BST_P	PS	**30318455001**		TVAP007	250	5-9	5	1*		95008 (.5)	
8081BST_P	PS	**30318063001**		TVAP004	250	5-9	5	1*		95008 (.5)	
8081BST_P	PS	**30318799001**		TVAP004	250	5-9	5	1*		95008 (.5)	

Sample Notes:

1*: SYR041 used

2*: SYR041 used. Centrifuged

3*: SYR041 used. Limited sample volume

Standard Notes:

93101: oext AROCLOR 2.5 ppm spike methanol

95008: OEXT Pesticide Surrogate 1 ppm

95899: OEXT Pesticide Spike 0.2/0.4/2 ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA

Surr. lot:
Cal. std: NA Hexanes 9/16/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-27-001.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	13:46	TAW	
1/2019-06-27-002.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	13:56	TAW	
1/2019-06-27-003.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:06	TAW	
1/2019-06-27-004.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:16	TAW	
1/2019-06-27-005.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:25	TAW	
1/2019-06-27-006.d	hexane	N/	SAMPLE	1	cf8081062719abm	6/27/19	14:35	TAW	
1/2019-06-27-007.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	6/27/19	14:45	TAW	
1/2019-06-27-008.d	CAL2S, 90773:10	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	14:54	TAW	
1/2019-06-27-009.d	CAL2S, 90771:10	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	15:04	TAW	
1/2019-06-27-010.d	CAL1, 92175:1	N/15737	CALIB_1	1	cf8081062719abm	6/27/19	15:14	TAW	
1/2019-06-27-010llc.d	CAL1, 92175:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	15:14	TAW	
1/2019-06-27-011.d	CAL2, 92176:1	N/15737	CALIB_2	1	cf8081062719abm	6/27/19	15:24	TAW	
1/2019-06-27-012.d	CAL3, 92177:1	N/15737	CALIB_3	1	cf8081062719abm	6/27/19	15:33	TAW	
1/2019-06-27-013.d	CAL4, 92178:1	N/15737	CALIB_4	1	cf8081062719abm	6/27/19	15:43	TAW	
1/2019-06-27-014.d	CAL5, 92179:1	N/15737	CALIB_5	1	cf8081062719abm	6/27/19	15:53	TAW	
1/2019-06-27-015.d	CAL6, 92180:1	N/15737	CALIB_6	1	cf8081062719abm	6/27/19	16:02	TAW	
1/2019-06-27-016.d	ICV, 89858:10	N/15738	CCALIB_4	1	cf8081062719abm	6/27/19	16:12	TAW	
1/2019-06-27-017.d	30297831001,	L/15647	SAMPLE	1	cf8081062719abm	6/27/19	16:22	TAW	
1/2019-06-27-018.d	30297831002,	L/15647	SAMPLE	1	cf8081062719abm	6/27/19	16:32	TAW	
1/2019-06-27-019.d	30297825001,	S/15634	SAMPLE	1	cf8081062719abm	6/27/19	16:41	TAW	
1/2019-06-27-020.d	30297825002,	S/15634	SAMPLE	1	cf8081062719abm	6/27/19	16:51	TAW	
1/2019-06-27-021.d	PEM, 89577:10	N/15737	blank	1	cf8081062719abm	6/27/19	17:01	TAW	
1/2019-06-27-022.d	CCV, 92178:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	17:10	TAW	
1/2019-06-27-023.d	1695571,	L/15718	BLANK	1	cf8081062719abm	6/27/19	17:20	TAW	
1/2019-06-27-024.d	1695572,	L/15718	LCS	1	cf8081062719abm	6/27/19	17:30	TAW	
1/2019-06-27-025.d	30300421001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	17:39	TAW	
1/2019-06-27-026.d	30300657001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	17:49	TAW	
1/2019-06-27-027.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	17:59	TAW	
1/2019-06-27-028.d	30300655001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	18:09	TAW	
1/2019-06-27-029.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	18:18	TAW	
1/2019-06-27-030.d	30300656001,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	18:28	TAW	
1/2019-06-27-031.d	1695573,	L/15718	MS	1	cf8081062719abm	6/27/19	18:38	TAW	
1/2019-06-27-032.d	1695574,	L/15718	MSD	1	cf8081062719abm	6/27/19	18:47	TAW	

Check Maintenance Items Performed:

- X Changed septum
- 4 Cleaned liner
- ___ Replaced/Cleaned gold seal
- ___ Clipped column
- ___ Changed trap (lot #_____)
- ___ Cleaned MS source
- ___ Changed column (lot #_____)
- X Other minor parts replaced
- ___ No maintenance performed today

Additional Comments:

Run Order Verified: DTW 6-28-19

File Path 1: \\30wintarget\chem\30gcsc.i\062719-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:44 06/28/2019

Reviewed By/Date: 6/28/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: NA Surr. lot: NA Hexanes # 91618

Tune std: NA Cal. std:

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-06-27-033.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	18:57	TAW	
1/2019-06-27-034.d	30300656002,	L/15718	SAMPLE	1	cf8081062719abm	6/27/19	19:07	TAW	
1/2019-06-27-035.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	19:17	TAW	
1/2019-06-27-036.d	1697549,	L/15729	LCS	1	cf8081062719abm	6/27/19	19:26	TAW	
1/2019-06-27-037.d	1696432,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:36	TAW	
1/2019-06-27-038.d	30300192001,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:46	TAW	
1/2019-06-27-039.d	30300768001,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	19:55	TAW	
1/2019-06-27-040.d	30300762002,	L/15729	SAMPLE	1	cf8081062719abm	6/27/19	20:05	TAW	
1/2019-06-27-041.d	1697550,	L/15729	MS	1	cf8081062719abm	6/27/19	20:15	TAW	
1/2019-06-27-042.d	1697551,	L/15729	MSD	1	cf8081062719abm	6/27/19	20:24	TAW	
1/2019-06-27-043.d	CCV, 92178:1	N/15737	CCALIB_4	1	cf8081062719abm	6/27/19	20:34	TAW	
1/2019-06-27-044.d	PEM, 89577:10	N/15455	blank	1	cf8081062719abm	6/27/19	20:44	TAW	
1/2019-06-27-045.d	CCV,92280:1	N/15455	CCALIB_4	1	cf8081chlor050319abm	6/27/19	20:54	TAW	
1/2019-06-27-046.d	1695990,	L/15724	BLANK	1	cf8081chlor050319abm	6/27/19	21:03	TAW	
1/2019-06-27-047.d	1695991,	L/15724	LCS	1	cf8081chlor050319abm	6/27/19	21:13	TAW	
1/2019-06-27-048.d	30300602001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:23	TAW	
1/2019-06-27-049.d	30300602003,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:32	TAW	
1/2019-06-27-050.d	30300602005,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:42	TAW	
1/2019-06-27-051.d	30300602006,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	21:52	TAW	
1/2019-06-27-052.d	30300602010,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:01	TAW	
1/2019-06-27-053.d	30300606001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:11	TAW	
1/2019-06-27-054.d	30300606002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:21	TAW	
1/2019-06-27-055.d	30310127001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:31	TAW	
1/2019-06-27-056.d	30310127002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:40	TAW	
1/2019-06-27-057.d	30310128001,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	22:50	TAW	
1/2019-06-27-058.d	30310128002,	L/15724	SAMPLE	1	cf8081chlor050319abm	6/27/19	23:00	TAW	
1/2019-06-27-059.d	CCV,92280:1	N/15455	CCALIB_4	1	cf8081chlor050319abm	6/27/19	23:09	TAW	
1/2019-06-27-060.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	6/27/19	23:19	TAW	

TAW 6.28.19

File Path 1: \\30wintarget\chem\30gcsc.i\062719-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 14:44 06/28/2019

Reviewed By/Date: 6/28/19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsc.i
Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA

Surr. lot:
Cal. std: NH Hexanes #9/16/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-08-14-001.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	8/14/19	13:24	TAW	
1/2019-08-14-002.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	8/14/19	13:34	TAW	
1/2019-08-14-003.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	8/14/19	13:44	TAW	
1/2019-08-14-004.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	8/14/19	13:53	TAW	
1/2019-08-14-005.d	PRIMER	N/	SAMPLE	1	cf8081062719abm	8/14/19	14:03	TAW	
1/2019-08-14-006.d	hexane	N/	SAMPLE	1	cf8081062719abm	8/14/19	14:13	TAW	
1/2019-08-14-007.d	PEM, 94100:10	N/15737	blank	1	cf8081062719abm	8/14/19	14:22	TAW	
1/2019-08-14-008.d	CAL2S, 90773:10	N/15737	CALIB_2	1	cf8081062719abm	8/14/19	14:32	TAW	
1/2019-08-14-009.d	CAL2S, 90771:10	N/15737	CALIB_2	1	cf8081062719abm	8/14/19	14:42	TAW	
1/2019-08-14-010.d	CCV, 96673:1	N/15737	CCALIB_4	1	cf8081062719abm	8/14/19	14:51	TAW	
1/2019-08-14-011.d	1729543,	L/15965	BLANK	1	cf8081062719abm	8/14/19	15:01	TAW	
1/2019-08-14-012.d	1729544,	L/15965	LCS	1	cf8081062719abm	8/14/19	15:11	TAW	
1/2019-08-14-013.d	30318087001x1000	L/15965	SAMPLE	1000	cf8081062719abm	8/14/19	15:21	TAW	
1/2019-08-14-014.d	30318087001x100,	L/15965	SAMPLE	100	cf8081062719abm	8/14/19	15:30	TAW	
1/2019-08-14-015.d	30318087001x10,	L/15965	SAMPLE	10	cf8081062719abm	8/14/19	15:40	TAW	
1/2019-08-14-016.d	30318087001,	L/15965	SAMPLE	1	cf8081062719abm	8/14/19	15:50	TAW	
1/2019-08-14-017.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	15:59	TAW	
1/2019-08-14-018.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	16:09	TAW	
1/2019-08-14-019.d	30318087002x100,	L/15965	SAMPLE	100	cf8081062719abm	8/14/19	16:19	TAW	
1/2019-08-14-020.d	30318087002x10,	L/15965	SAMPLE	10	cf8081062719abm	8/14/19	16:29	TAW	
1/2019-08-14-021.d	30318087002,	L/15965	SAMPLE	1	cf8081062719abm	8/14/19	16:38	TAW	
1/2019-08-14-022.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	16:48	TAW	
1/2019-08-14-023.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	16:58	TAW	
1/2019-08-14-024.d	30318086001x25,	L/15965	SAMPLE	25	cf8081062719abm	8/14/19	17:08	TAW	
1/2019-08-14-025.d	30318086001x20,	L/15965	SAMPLE	20	cf8081062719abm	8/14/19	17:17	TAW	
1/2019-08-14-026.d	30318086001,	L/15965	SAMPLE	1	cf8081062719abm	8/14/19	17:27	TAW	
1/2019-08-14-027.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	17:37	TAW	
1/2019-08-14-028.d	30318086002x25,	L/15965	SAMPLE	25	cf8081062719abm	8/14/19	17:47	TAW	
1/2019-08-14-029.d	30318086002x20,	L/15965	SAMPLE	20	cf8081062719abm	8/14/19	17:56	TAW	
1/2019-08-14-030.d	30318086002,	L/15965	SAMPLE	1	cf8081062719abm	8/14/19	18:06	TAW	
1/2019-08-14-031.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	18:16	TAW	
1/2019-08-14-032.d	30318086003,	L/15965	SAMPLE	1	cf8081062719abm	8/14/19	18:25	TAW	
1/2019-08-14-033.d	PEM, 94100:10	N/15737	blank	1	cf8081062719abm	8/14/19	18:35	TAW	

Check Maintenance Items Performed:

- [X] Changed septum
- [X] Cleaned liner
- [ ] Replaced/Cleaned gold seal
- [ ] Clipped column
- [ ] Changed trap (lot #_____)
- [ ] Cleaned MS source
- [ ] Changed column (lot #_____)
- [X] Other minor parts replaced glass wool
- [ ] No maintenance performed today

Additional Comments:

Run Order Verified: TAW 8-16-19

File Path 1: \\30wintarget\chem\30gcsc.i\081419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:48 08/16/2019

Reviewed By/Date: 8/16/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot:

Surr. lot:

Tune std: NA

Cal. std: NA Hexanes #9/16/18

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-08-14-034.d	CCV, 96673:1	N/15737	CCALIB_4	1	cf8081062719abm	8/14/19	18:45	TAW	
1/2019-08-14-035.d	1727835,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	18:55	TAW	
1/2019-08-14-036.d	1730795,	L/15974	LCS	1	cf8081062719abm	8/14/19	19:04	TAW	
1/2019-08-14-037.d	1729490,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	19:14	TAW	
1/2019-08-14-038.d	30318386001,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	19:24	TAW	
1/2019-08-14-039.d	1730796,	L/15974	MS	1	cf8081062719abm	8/14/19	19:33	TAW	
1/2019-08-14-040.d	1730797,	L/15974	MSD	1	cf8081062719abm	8/14/19	19:43	TAW	
1/2019-08-14-041.d	30318575003,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	19:53	TAW	
1/2019-08-14-042.d	30318455001,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	20:03	TAW	
1/2019-08-14-043.d	30318063001,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	20:12	TAW	
1/2019-08-14-044.d	30318799001,	L/15974	SAMPLE	1	cf8081062719abm	8/14/19	20:22	TAW	
1/2019-08-14-045.d	PEM, 94100:10	N/15737	blank	1	cf8081062719abm	8/14/19	20:32	TAW	
1/2019-08-14-046.d	CCV, 96673:1	N/15737	CCALIB_4	1	cf8081062719abm	8/14/19	20:41	TAW	
1/2019-08-14-047.d	30318813001,	L/15976	SAMPLE	1	cf8081062719abm	8/14/19	20:51	TAW	
1/2019-08-14-048.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	21:01	TAW	
1/2019-08-14-049.d	30318805001,	L/15976	SAMPLE	1	cf8081062719abm	8/14/19	21:10	TAW	
1/2019-08-14-050.d	1730808,	L/15976	MS	1	cf8081062719abm	8/14/19	21:20	TAW	
1/2019-08-14-051.d	1730809,	L/15976	MSD	1	cf8081062719abm	8/14/19	21:30	TAW	
1/2019-08-14-052.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	21:40	TAW	
1/2019-08-14-053.d	30318457001,	L/15976	SAMPLE	1	cf8081062719abm	8/14/19	21:49	TAW	
1/2019-08-14-054.d	30318456001,	L/15976	SAMPLE	1	cf8081062719abm	8/14/19	21:59	TAW	
1/2019-08-14-055.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/14/19	22:09	TAW	
1/2019-08-14-056.d	1730807,	L/15976	LCS	1	cf8081062719abm	8/14/19	22:18	TAW	
1/2019-08-14-057.d	1730806,	L/15976	BLANK	1	cf8081062719abm	8/14/19	22:28	TAW	
1/2019-08-14-058.d	PEM, 94100:10	N/15840	blank	1	cf8081062719abm	8/14/19	22:38	TAW	
1/2019-08-14-059.d	CCV, 96673:1	N/15737	CCALIB_4	1	cf8081062719abm	8/14/19	22:48	TAW	
1/2019-08-14-060.d	CCV, 96672:1	N/15840	CCALIB_4	1	cf8081.6083chlor071919abm	8/14/19	22:57	CWB	
1/2019-08-14-061.d	30313810026,	L/15970	SAMPLE	1	cf8081.6083chlor071919abm	8/14/19	23:07	TAW	
1/2019-08-14-062.d	30313810027,	L/15970	SAMPLE	1	cf8081.6083chlor071919abm	8/14/19	23:17	TAW	
1/2019-08-14-063.d	30313810028,	L/15970	SAMPLE	1	cf8081.6083chlor071919abm	8/14/19	23:26	TAW	
1/2019-08-14-064.d	30313810029,	L/15970	SAMPLE	1	cf8081.6083chlor071919abm	8/14/19	23:36	TAW	
1/2019-08-14-065.d	30313810030,	L/15970	SAMPLE	1	cf8081.6083chlor071919abm	8/14/19	23:46	TAW	
1/2019-08-14-066.d	30317065016x5,	S/15973	SAMPLE	5	cf8081.6083chlor071919abm	8/14/19	23:55	TAW	

File Path 1: \\30wintarget\chem\30gcsc.i\081419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:48 08/16/2019

Reviewed By/Date: 8/16/19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsc.i

Column Rtx-CLPesticides-1 30m X 0.53mm Helium Method: SW846 8081A/B

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot:

Surr. lot:

Tune std: N/A

Cal. std: N/A Hexane #91618

Instrument name..... 30GCSC

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/2019-08-15-067.d	30317065016x2,	S/15973	SAMPLE	2	cf8081.6083chlor071919abm	8/15/19	00:05	TAW	
1/2019-08-15-068.d	30317065016,	S/15973	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	00:15	TAW	
1/2019-08-15-069.d	1729422,	S/15973	LCS	1	cf8081.6083chlor071919abm	8/15/19	00:25	TAW	
1/2019-08-15-070.d	1729421,	S/15973	BLANK	1	cf8081.6083chlor071919abm	8/15/19	00:34	TAW	
1/2019-08-15-071.d	PEM, 94100:10	N/15840	blank	1	cf8081062719abm	8/15/19	00:44	TAW	
1/2019-08-15-072.d	CCV, 96672:1	N/15840	CCALIB_4	1	cf8081.6083chlor071919abm	8/15/19	00:54	TAW	
1/2019-08-15-073.d	30318423006,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:03	TAW	
1/2019-08-15-074.d	30318423005,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:13	TAW	
1/2019-08-15-075.d	30318423003,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:23	TAW	
1/2019-08-15-076.d	30318423001,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:33	TAW	
1/2019-08-15-077.d	30318422002,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:42	TAW	
1/2019-08-15-078.d	30318422001,	L/15966	SAMPLE	1	cf8081.6083chlor071919abm	8/15/19	01:52	TAW	
1/2019-08-15-079.d	1729496,	L/15966	LCS	1	cf8081.6083chlor071919abm	8/15/19	02:02	TAW	
1/2019-08-15-080.d	1729495,	L/15966	BLANK	1	cf8081.6083chlor071919abm	8/15/19	02:11	TAW	
1/2019-08-15-081.d	PEM, 94100:10	N/15872	blank	1	cf8081062719abm	8/15/19	02:21	TAW	
1/2019-08-15-082.d	CCV, 96672:1	N/15840	CCALIB_4	1	cf8081.6083chlor071919abm	8/15/19	02:31	TAW	
1/2019-08-15-083.d	CCV, 96720:1	N/15872	CCALIB_4	1	cf8081tox072419abm	8/15/19	02:41	TAW	
1/2019-08-15-084.d	30315219001,	S/15893	SAMPLE	1	cf8081tox072419abm	8/15/19	02:50	TAW	
1/2019-08-15-085.d	30315219002,	S/15893	SAMPLE	1	cf8081tox072419abm	8/15/19	03:00	TAW	
1/2019-08-15-086.d	30317065017x5,	S/15972	SAMPLE	5	cf8081tox072419abm	8/15/19	03:10	TAW	
1/2019-08-15-087.d	30317065017x2,	S/15972	SAMPLE	2	cf8081tox072419abm	8/15/19	03:19	TAW	
1/2019-08-15-088.d	30317065017,	S/15972	SAMPLE	1	cf8081tox072419abm	8/15/19	03:29	TAW	
1/2019-08-15-089.d	1729424,	S/15972	LCS	1	cf8081tox072419abm	8/15/19	03:39	TAW	
1/2019-08-15-090.d	1729423,	S/15972	BLANK	1	cf8081tox072419abm	8/15/19	03:48	TAW	
1/2019-08-15-091.d	CCV, 96720:1	N/15872	CCALIB_4	1	cf8081tox072419abm	8/15/19	03:58	TAW	
1/2019-08-15-092.d	HEXANE	N/	SAMPLE	1	cf8081062719abm	8/15/19	04:08	TAW	

TAW 8-16-19

File Path 1: \\30wintarget\chem\30gcsc.i\081419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:48 08/16/2019

Reviewed By/Date: 8/16/19

PCB - FORM II SVOA-1
SOLID SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30GCSD

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1732395	1732395BLANK	80	73
1732396	1732396LCS	84	78
30318799001	AOC 32 DITCH & AOC 35G	84	64

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(38-139)
(TCMX) = Tetrachloro-m-xylene (S)	(34-114)

* Values outside of QC Limits

PCB - FORM III SVOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1732396LCS
Date Extracted: 08/14/2019
Date Analyzed (1): 08/16/2019
Instrument: 30GCSD
LCS Lot No: 93101
Lab File ID: D081619-1.B\D081619000039.D
SDG No.: 30318799

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	167	129	78	61-105
PCB-1260 (Aroclor 1260)	167	133	80	70-100

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-1

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1732397MS
Date Extracted: 08/14/2019
Date Analyzed (1): 08/16/2019
Instrument: 30GCSD
Lab File ID: D081619-1.B\D081619000041.D
Parent Sample ID: 30317695109
SDG No.: 30318799

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1016 (Aroclor 1016)	183	ND	160	87	24-137
PCB-1260 (Aroclor 1260)	183	ND	165	82	19-156

Spike Recovery: 0 out of 2 outside limits.

PCB - FORM III SVOA-2

SOLID SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30GCSD Matrix Spike Duplicate - Sample No: 1732398MSD

Lab File ID (2): D081619-1.B\D081619000042.D Date Analyzed (2): 08/16/2019

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
PCB-1016 (Aroclor 1016)	183	262	142	48	0-25	24-137
PCB-1260 (Aroclor 1260)	183	263	135	46	0-25	19-156

RPD: 2 out of 2 outside limits.

Spike Recovery: 1 out of 2 outside limits.

SAMPLE NO.

1732395BLANK

PCB - FORM IV SVOA-1
SEMI-VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30318799 Contract: Former EPT Site-Soil

Instrument ID: 30GCSD Matrix: Solid Lab Sample ID: 1732395

Lab File ID (1): D081619-1.B\D081619000038.D Date Analyzed (1): 08/16/2019 Time (1): 20:51

Lab File ID (2): D081619-2.B\D081619000038.D Date Analyzed (2): 08/16/2019 Time (2): 20:51

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1732396LCS	1732396	D081619-1.B\D081619000039.D	08/16/2019 20:59
1732396LCS	1732396	D081619-2.B\D081619000039.D	08/16/2019 20:59
AOC 32 DITCH & AOC 35G	30318799001	D081919-1.B\D081919000027.D	08/19/2019 19:10
AOC 32 DITCH & AOC 35G	30318799001	D081919-2.B\D081919000027.D	08/19/2019 19:10

SAMPLE NO.

AOC 32 DITCH & AOC 35G

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/09/2019 09:30
Matrix: Solid SDG No.: 30318799
Date Extracted: 08/14/2019 18:52
Lab Sample ID: 30318799001
Date Analyzed: 08/19/2019 19:10
Lab File ID: D081919-1.B\D081919000027.D
Initial wt/vol: 15.08 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 20.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
11097-69-1	PCB-1254 (Aroclor 1254)	2140	
1336-36-3	PCB, Total	2140	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000027.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 19-AUG-2019 19:10
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30318799001x10,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	20.000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	216200	82270	0.381	27.235		
1.204	6559	4998	0.762	1.648	$ 10 Tetrachloro-m-xylene (S)	BA
1.685	709	485	0.684	0.159		
2.024	782	699	0.894	0.230		
2.176	305	287	0.942	0.094		
2.267	119	163	1.369	0.053		
2.363	262	272	1.039	0.089		
2.411	12805	10451	0.816	3.446	6 PCB-1254 (Aroclor 1254)	BA
2.459	4004	3559	0.889	1.173		
2.496	5635	5090	0.903	1.678	6 PCB-1254 (Aroclor 1254)	BA
2.531	3046	2666	0.875	0.879		
2.579	4038	3649	0.904	1.203		
2.628	1978	1389	0.702	0.458		
2.662	2484	2014	0.811	0.664		
2.714	2497	2341	0.937	0.771		
2.749	1632	1706	1.045	0.562		
2.777	18817	15753	0.837	5.194	6 PCB-1254 (Aroclor 1254)	BA
2.815	2966	2311	0.779	0.762		
2.850	281	541	1.926	0.178		
2.871	10375	8380	0.808	2.763		
2.909	2264	1981	0.875	0.653	6 PCB-1254 (Aroclor 1254)	BA
2.940	2101	1881	0.895	0.620		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.981	12488	9384	0.751	3.094		
3.104	10500	6926	0.660	2.283		
3.138	4330	3522	0.813	1.161		
3.175	3106	2637	0.849	0.869		
3.212	24091	17188	0.713	5.667	6 PCB-1254 (Aroclor 1254)	BA
3.270	2645	1971	0.745	0.649		
3.323	506	295	0.583	0.097		
3.352	1228	921	0.750	0.303		
3.424	954	1233	1.293	0.406		
3.444	7159	6183	0.864	2.038		
3.483	880	821	0.933	0.270		
3.519	8615	5258	0.610	1.733		
3.569	4887	3389	0.693	1.117		
3.622	976	1283	1.315	0.423		
3.710	1812	1027	0.567	0.338		
3.773	260	290	1.117	0.095		
3.789	599	663	1.107	0.218		
3.812	5096	3275	0.643	1.079		
3.904	2	19	9.091	0.006		
3.943	732	502	0.686	0.165		
3.948	220	505	2.297	0.166		
4.023	1659	1003	0.604	0.330		
4.059	426	394	0.926	0.129		
4.079	157	349	2.225	0.115		
4.086	277	381	1.374	0.125		
4.099	75	279	3.706	0.091		
4.121	65	202	3.131	0.066		
4.137	567	456	0.805	0.150		
4.158	45	145	3.248	0.047		
4.171	51	114	2.257	0.037		
4.181	23	94	4.010	0.030		
4.194	33	92	2.831	0.030		
4.203	36	98	2.737	0.032		
4.208	35	116	3.347	0.038		
4.232	3641	1875	0.515	0.618		
4.289	225	308	1.370	0.101		
4.313	119	249	2.101	0.082		
4.317	74	275	3.719	0.090		
4.330	323	340	1.052	0.112		
4.362	39	147	3.793	0.048		
4.382	72	149	2.065	0.049		
4.389	55	148	2.676	0.048		
4.399	59	145	2.450	0.047		
4.404	22	146	6.588	0.048		
4.410	93	150	1.618	0.049		
4.417	48	121	2.507	0.039		
4.425	38	88	2.298	0.029		
4.436	43	81	1.897	0.026		
4.451	26	72	2.781	0.023		
4.484	5655	4699	0.831	1.549	$ 11 Decachlorobiphenyl (S)	BA
4.524	70	198	2.847	0.065		
4.529	56	194	3.470	0.063		
4.535	67	220	3.305	0.072		
4.573	1111	799	0.719	0.263		
4.590	222	477	2.146	0.157		
4.628	32	139	4.396	0.045		
4.636	25	119	4.804	0.039		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.664	856	873	1.020	0.287		
4.687	239	376	1.570	0.123		
4.730	1738	1012	0.582	0.333		
4.769	70	160	2.286	0.052		
4.779	14	63	4.375	0.020		
4.787	9	56	5.920	0.018		
4.797	8	38	5.067	0.012		
4.802	27	90	3.354	0.029		
4.810	37	70	1.874	0.023		
4.820	20	76	3.802	0.025		
4.833	142	196	1.380	0.064		
4.840	44	197	4.492	0.064		
4.844	136	222	1.634	0.073		
4.859	132	248	1.881	0.081		
4.871	244	331	1.355	0.109		
4.883	191	364	1.905	0.120		
4.889	177	384	2.173	0.126		
4.902	128	352	2.758	0.116		
4.907	89	383	4.291	0.126		
4.912	103	403	3.907	0.132		
4.917	124	423	3.418	0.139		
4.921	201	448	2.225	0.147		
4.933	137	470	3.427	0.154		
4.942	277	549	1.984	0.181		
4.949	216	581	2.690	0.191		
4.957	365	608	1.667	0.200		
4.968	89	561	6.313	0.184		
4.971	217	582	2.679	0.191		
4.976	80	582	7.256	0.191		
4.981	178	610	3.435	0.201		
4.988	266	708	2.658	0.233		
5.014	3239	1205	0.372	0.397		
5.045	178	893	5.015	0.294		
5.056	301	897	2.982	0.295		
5.071	387	899	2.322	0.296		
5.111	209	762	3.639	0.251		
5.124	149	751	5.055	0.247		
5.129	213	775	3.644	0.255		
5.140	186	781	4.209	0.257		
5.152	330	773	2.343	0.254		
5.161	467	731	1.567	0.241		
5.171	352	695	1.977	0.229		
5.187	231	653	2.827	0.215		
5.195	487	697	1.431	0.229		
5.205	372	703	1.892	0.231		
5.213	418	702	1.681	0.231		
5.223	238	719	3.017	0.237		
5.231	274	733	2.679	0.241		
5.245	456	794	1.742	0.261		
5.251	386	820	2.127	0.270		
5.258	208	806	3.870	0.265		
5.279	104	751	7.190	0.247		
5.282	466	777	1.666	0.256		
5.314	375	635	1.692	0.209		
5.330	94	592	6.286	0.195		
5.340	161	552	3.426	0.182		
5.346	280	555	1.985	0.183		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.361	194	550	2.828	0.181		
5.372	241	559	2.318	0.184		
5.380	177	562	3.169	0.185		
5.398	213	524	2.457	0.172		
5.406	128	502	3.909	0.165		
5.415	280	531	1.893	0.175		
5.429	239	531	2.218	0.175		
5.435	136	531	3.901	0.175		
5.445	123	522	4.251	0.172		
5.456	161	548	3.413	0.180		
5.466	238	616	2.591	0.203		
5.478	149	629	4.217	0.207		
5.506	210	561	2.667	0.184		
5.520	257	572	2.223	0.188		
5.528	129	590	4.583	0.194		
5.531	218	614	2.818	0.202		
5.542	541	674	1.245	0.222		
5.550	223	665	2.976	0.219		
5.561	569	701	1.233	0.231		
5.596	122	523	4.289	0.172		
5.605	133	523	3.923	0.172		
5.608	108	554	5.143	0.182		
5.614	228	643	2.823	0.212		
5.622	362	780	2.157	0.257		
5.625	160	814	5.077	0.268		
5.629	424	838	1.976	0.276		
5.649	334	629	1.886	0.207		
5.672	176	562	3.193	0.185		
5.685	405	639	1.579	0.210		
5.688	142	654	4.598	0.215		
5.696	411	701	1.705	0.231		
5.700	222	702	3.158	0.231		
5.735	155	602	3.891	0.198		
5.745	337	650	1.931	0.214		
5.797	132	482	3.650	0.158		
5.802	135	499	3.709	0.164		
5.831	1817	1488	0.819	0.490		
5.885	335	605	1.807	0.199		
5.897	164	519	3.160	0.171		
5.917	163	462	2.835	0.152		
5.923	237	467	1.969	0.153		
5.937	75	427	5.693	0.140		
5.962	89	352	3.973	0.116		
5.969	223	360	1.617	0.118		
5.985	61	347	5.679	0.114		
5.993	167	373	2.238	0.122		
6.003	86	374	4.337	0.123		
6.007	215	358	1.662	0.118		
6.016	130	349	2.678	0.115		
6.038	52	297	5.685	0.097		
6.048	108	333	3.071	0.109		
6.055	308	346	1.122	0.114		
6.086	74	291	3.959	0.095		
6.092	188	319	1.696	0.105		
6.100	117	314	2.684	0.103		
6.106	57	326	5.729	0.107		
6.110	97	363	3.761	0.119		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.120	321	460	1.432	0.151		
6.145	154	379	2.460	0.124		
6.161	151	328	2.174	0.108		
6.173	66	307	4.664	0.101		
6.181	144	317	2.206	0.104		
6.229	145	289	1.992	0.095		
6.240	95	271	2.847	0.089		
6.257	133	238	1.784	0.078		
6.267	66	208	3.136	0.068		
6.281	30	173	5.835	0.057		
6.291	38	163	4.289	0.053		
6.297	50	192	3.876	0.063		
6.308	144	254	1.759	0.083		
6.323	118	245	2.072	0.080		
6.333	58	216	3.708	0.071		
6.357	41	180	4.407	0.059		
6.368	33	160	4.874	0.052		
6.373	46	166	3.588	0.054		
6.381	46	176	3.790	0.058		
6.388	76	179	2.369	0.059		
6.395	19	164	8.551	0.054		
6.401	56	178	3.159	0.058		
6.408	89	166	1.863	0.054		
6.447	42	114	2.708	0.037		
6.478	46	86	1.876	0.028		
6.496	29	100	3.497	0.032		
	439029	303263		100.000		

Total unknown % height = 80.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000027.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 19-AUG-2019 19:10
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30318799001x10,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	20.000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Peaks not detected for Quant. or Qual. signal(s).								
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Peaks not detected for Quant. or Qual. signal(s).								
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
2.411	2.414	-0.003	12804	0.70615	2.93	80.00- 120.00	100.00(aM)	BA
2.496	2.499	-0.003	5634	0.28529	1.18	81.82- 122.74	44.00	BA
2.777	2.780	-0.003	18817	0.59820	2.48	129.57- 194.36	146.96	BA
2.909	2.913	-0.004	2264	0.11168	0.463	82.14- 123.21	17.68	BA
3.212	3.216	-0.004	24091	0.88518	3.67	109.50- 164.25	188.15	BA
Average of Peak Concentrations =					2.14			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.203	1.204	-0.001	6558	0.01289	0.00534		(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.483	4.485	-0.002	5654	0.01684	0.00698		(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

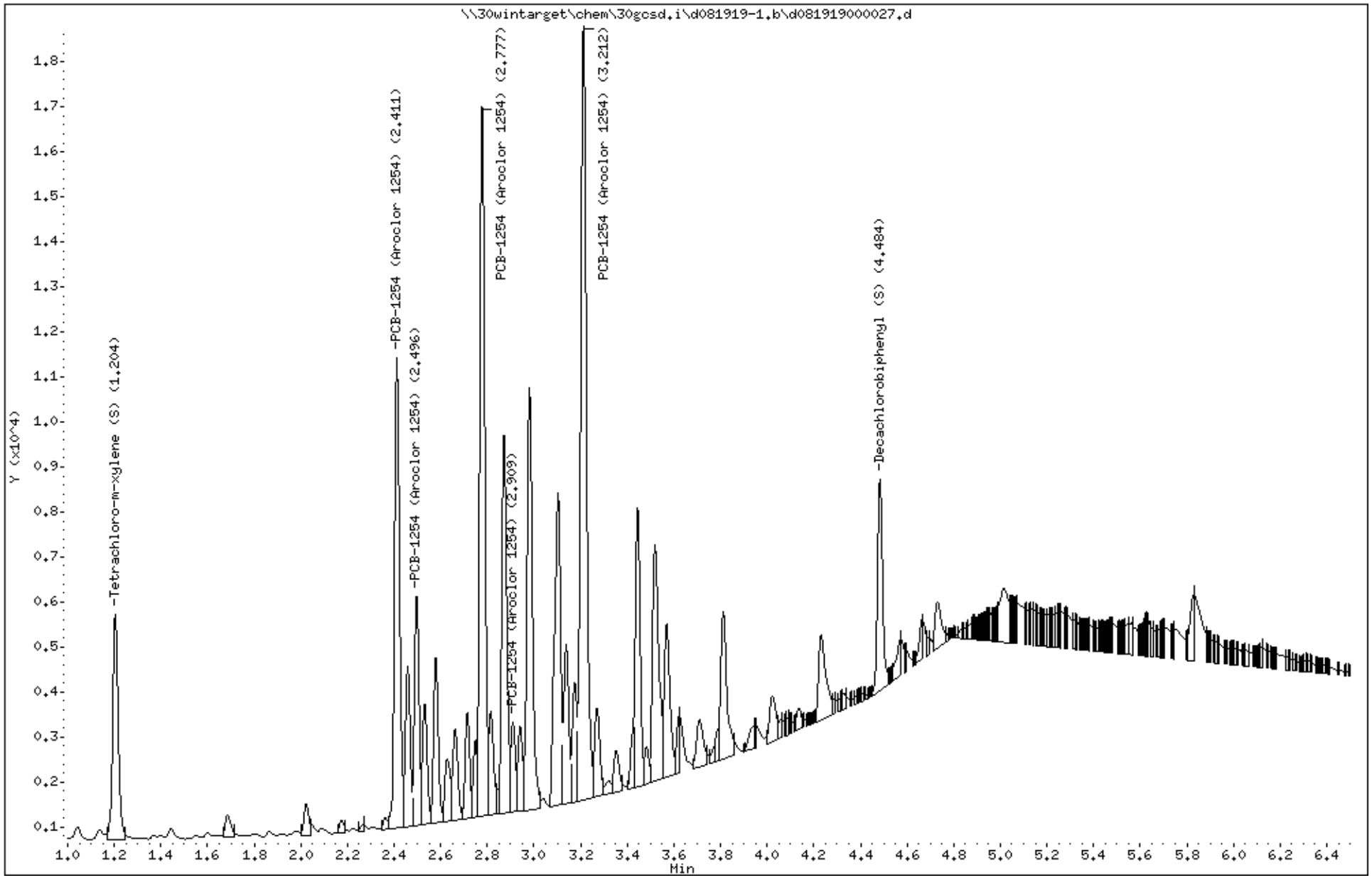
Client Name: WSP Environment & E
Lab Smp Id: 30318799001
Sample Location:
Sample Date: 08-AUG-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

Client SDG: 30318799
Client Smp ID: AOC 32 DITCH & AOC
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

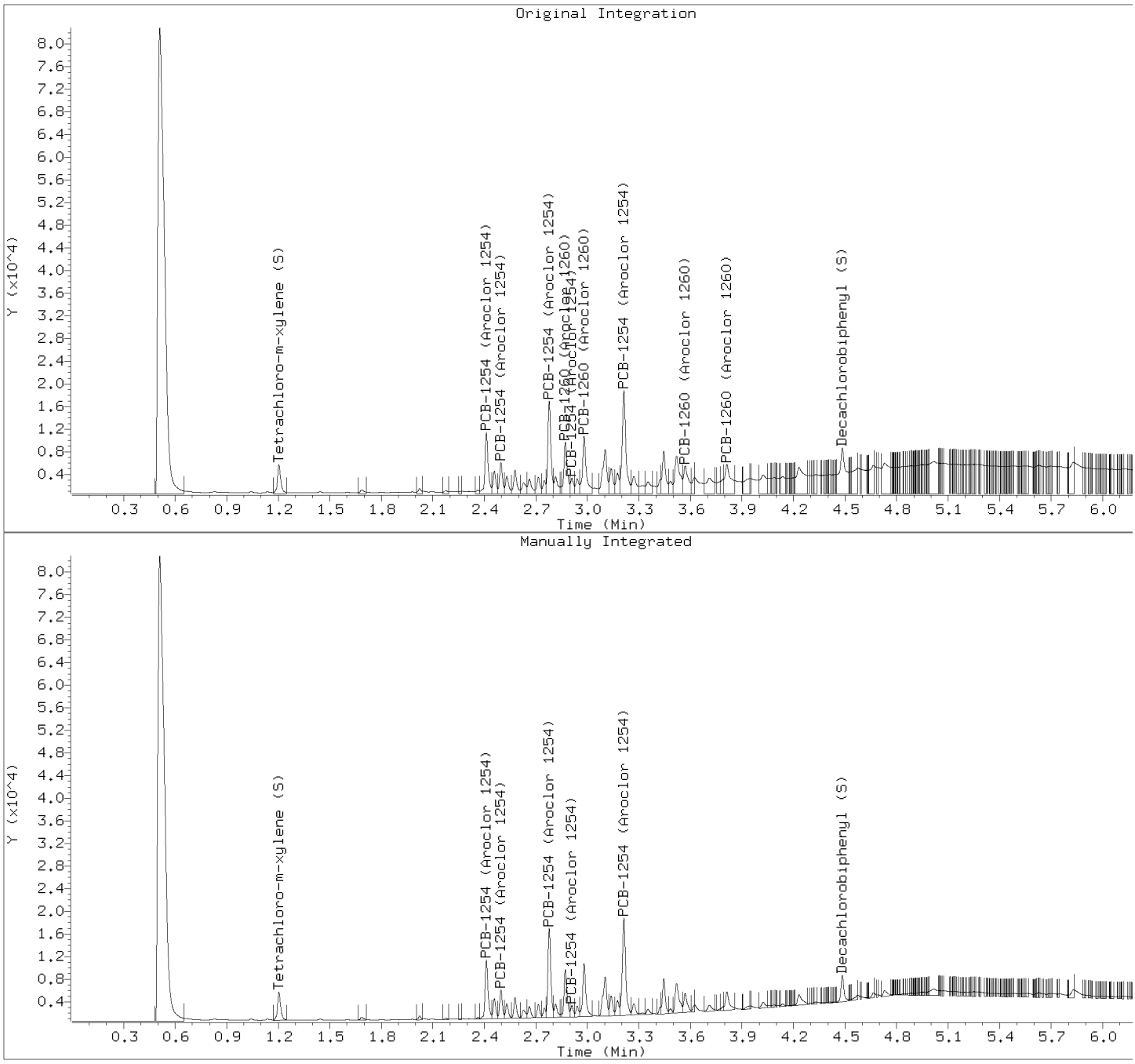
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	412	U
11104-28-2	PCB-1221 (Aroclor 1221)	838	U
11141-16-5	PCB-1232 (Aroclor 1232)	412	U
53469-21-9	PCB-1242 (Aroclor 1242)	412	U
12672-29-6	PCB-1248 (Aroclor 1248)	412	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.411	2.93	J
	Peak found at 2.496	1.18	J
	Peak found at 2.777	2.48	J
	Peak found at 2.909	0.463	J
	Peak found at 3.212	3.67	J
	Average of Peak Amounts =	2.14	J
11096-82-5	PCB-1260 (Aroclor 1260)	412	U
877-09-8	Tetrachloro-m-xylene (S)	0.00534	J
2051-24-3	Decachlorobiphenyl (S)	0.00698	J

Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000027.d
Date : 19-AUG-2019 19:10
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP1

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b/d081919000027.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 19-AUG-2019 19:10 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30318799001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	14302	12804
PCB-1254 (Aroclor 1254)	6601	5634
PCB-1254 (Aroclor 1254)	20506	18817
PCB-1254 (Aroclor 1254)	3501	2264
PCB-1254 (Aroclor 1254)	28067	24091
PCB-1260 (Aroclor 1260)	20506	0
PCB-1260 (Aroclor 1260)	12377	0
PCB-1260 (Aroclor 1260)	15961	0
PCB-1260 (Aroclor 1260)	9394	0
PCB-1260 (Aroclor 1260)	12594	0
Tetrachloro-m-xylene (S)	7121	6558
Decachlorobiphenyl (S)	19640	5654

SAMPLE NO.

AOC 32 DITCH & AOC 35G

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh
Contract: Former EPT Site-Soil IRM/31401
Date Received: 08/09/2019 09:30
Matrix: Solid SDG No.: 30318799
Date Extracted: 08/14/2019 18:52
Lab Sample ID: 30318799001
Date Analyzed: 08/19/2019 19:10
Lab File ID: D081919-2.B\D081919000027.D
Initial wt/vol: 15.08 g Final wt/vol: 5 mL Dilution: 10
Instrument: 30GCSD Percent Moisture: 20.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000027.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 19-AUG-2019 19:10
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30318799001x10,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	20.000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	210436	88650	0.421	31.004		
1.006	369	405	1.097	0.141		
1.411	354	273	0.771	0.095		
1.574	6137	5317	0.866	1.851	$ 10 Tetrachloro-m-xylene (S)	BA
1.820	145	211	1.457	0.073		
1.964	897	592	0.660	0.206		
2.199	170	161	0.945	0.056		
2.227	157	187	1.193	0.065		
2.315	97	134	1.378	0.046		
2.422	844	682	0.808	0.237		
2.544	295	262	0.888	0.091		
2.647	144	205	1.422	0.071		
2.688	2594	1520	0.586	0.529		
2.753	384	278	0.724	0.096		
2.799	10336	9240	0.894	3.217	6 PCB-1254 (Aroclor 1254)	BA
2.847	2004	1815	0.906	0.631		
2.904	1695	1661	0.980	0.578		
2.939	10481	7830	0.747	2.726	6 PCB-1254 (Aroclor 1254)	BA
2.978	3296	2834	0.860	0.986		
3.033	687	608	0.885	0.211		
3.068	2559	1749	0.683	0.608		
3.121	2351	2251	0.958	0.783		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.153	3155	2003	0.635	0.697		
3.181	13864	12649	0.912	4.404	6 PCB-1254 (Aroclor 1254)	BA
3.228	1558	1819	1.167	0.633		
3.244	3253	2059	0.633	0.716		
3.290	9266	7795	0.841	2.714		
3.338	185	348	1.886	0.121		
3.374	3418	2706	0.792	0.942	6 PCB-1254 (Aroclor 1254)	BA
3.418	1961	1762	0.898	0.613		
3.460	9425	8918	0.946	3.105		
3.484	7835	7032	0.898	2.448		
3.539	4592	3727	0.812	1.297		
3.581	1662	1570	0.945	0.546		
3.609	2714	2129	0.785	0.741		
3.643	19575	16720	0.854	5.821	6 PCB-1254 (Aroclor 1254)	BA
3.668	3909	3974	1.017	1.383		
3.703	1343	1129	0.841	0.393		
3.740	988	809	0.819	0.281		
3.785	171	176	1.032	0.061		
3.827	15757	9488	0.602	3.303		
3.921	1857	1391	0.749	0.484		
3.925	1631	1412	0.866	0.491		
3.967	36	171	4.754	0.059		
3.998	1457	1156	0.793	0.402		
4.008	361	1069	2.963	0.372		
4.015	348	1111	3.194	0.386		
4.020	415	1185	2.857	0.412		
4.040	4704	3396	0.722	1.182		
4.075	79	275	3.497	0.095		
4.105	8	35	4.408	0.012		
4.111	14	51	3.602	0.017		
4.133	535	624	1.167	0.217		
4.159	41	179	4.407	0.062		
4.175	321	482	1.503	0.167		
4.180	158	497	3.153	0.173		
4.185	237	502	2.115	0.174		
4.205	90	284	3.165	0.098		
4.228	2973	2568	0.864	0.894		
4.271	2923	1300	0.445	0.452		
4.326	25	85	3.427	0.029		
4.336	53	104	1.970	0.036		
4.350	237	246	1.037	0.085		
4.380	15	114	7.575	0.039		
4.386	46	143	3.115	0.049		
4.393	131	212	1.614	0.073		
4.407	51	122	2.379	0.042		
4.417	35	93	2.621	0.032		
4.426	16	60	3.812	0.020		
4.447	162	233	1.441	0.081		
4.458	45	136	2.994	0.047		
4.468	61	174	2.851	0.060		
4.472	49	212	4.300	0.073		
4.484	208	308	1.479	0.107		
4.507	3181	1695	0.533	0.590		
4.551	51	295	5.767	0.102		
4.562	54	276	5.147	0.096		
4.565	64	275	4.320	0.095		
4.571	88	294	3.329	0.102		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.581	69	297	4.296	0.103		
4.599	836	536	0.641	0.186		
4.627	82	143	1.744	0.049		
4.639	8	35	4.642	0.012		
4.645	11	52	4.824	0.018		
4.656	17	65	3.939	0.022		
4.659	16	77	4.736	0.026		
4.662	19	92	4.878	0.032		
4.671	63	128	2.042	0.044		
4.679	57	97	1.694	0.033		
4.686	29	101	3.452	0.035		
4.694	24	91	3.811	0.031		
4.701	68	118	1.728	0.041		
4.715	77	163	2.117	0.056		
4.720	52	176	3.377	0.061		
4.729	137	259	1.894	0.090		
4.733	112	264	2.361	0.091		
4.740	153	248	1.626	0.086		
4.760	72	154	2.148	0.053		
4.774	21	98	4.571	0.034		
4.781	43	132	3.041	0.045		
4.788	69	197	2.859	0.068		
4.791	91	198	2.185	0.068		
4.805	4	39	9.466	0.013		
4.810	7	32	4.638	0.011		
4.829	231	231	1.002	0.080		
4.835	41	218	5.268	0.075		
4.841	29	185	6.469	0.064		
4.864	977	1007	1.031	0.350		
4.895	53	149	2.836	0.051		
4.901	20	78	3.953	0.027		
4.908	14	76	5.551	0.026		
4.912	22	69	3.089	0.024		
4.938	6601	4970	0.753	1.730	$ 11 Decachlorobiphenyl (S)	BA
4.986	50	251	5.054	0.087		
4.997	238	421	1.771	0.146		
5.002	305	416	1.364	0.144		
5.019	23	109	4.789	0.037		
5.024	45	161	3.542	0.056		
5.031	75	253	3.377	0.088		
5.035	166	322	1.939	0.112		
5.066	42	136	3.250	0.047		
5.070	62	151	2.449	0.052		
5.083	44	112	2.539	0.038		
5.090	31	95	3.051	0.033		
5.097	19	116	6.144	0.040		
5.108	39	126	3.205	0.043		
5.115	68	136	2.015	0.047		
5.129	16	77	4.825	0.026		
5.137	24	93	3.826	0.032		
5.150	6	40	6.452	0.013		
5.155	28	83	2.972	0.028		
5.160	21	101	4.842	0.035		
5.167	27	111	4.045	0.038		
5.169	25	139	5.507	0.048		
5.176	129	178	1.380	0.061		
5.186	31	162	5.253	0.056		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.189	70	191	2.724	0.066		
5.200	58	213	3.702	0.074		
5.204	40	208	5.197	0.072		
5.207	46	225	4.919	0.078		
5.210	38	226	5.924	0.078		
5.213	46	245	5.345	0.085		
5.218	71	272	3.825	0.094		
5.221	58	298	5.149	0.103		
5.224	119	325	2.738	0.113		
5.232	117	373	3.182	0.129		
5.240	151	420	2.779	0.146		
5.244	67	438	6.508	0.152		
5.248	128	540	4.204	0.188		
5.254	235	620	2.636	0.215		
5.256	246	672	2.732	0.233		
5.265	286	637	2.227	0.221		
5.279	80	515	6.399	0.179		
5.285	183	530	2.901	0.184		
5.290	318	530	1.667	0.184		
5.301	188	548	2.908	0.190		
5.305	167	580	3.465	0.201		
5.310	338	634	1.876	0.220		
5.339	190	425	2.237	0.147		
5.357	182	367	2.013	0.127		
5.367	211	373	1.766	0.129		
5.375	164	339	2.069	0.118		
5.391	168	301	1.791	0.104		
5.405	87	216	2.480	0.075		
5.427	51	135	2.652	0.047		
5.430	63	160	2.541	0.055		
5.437	40	137	3.447	0.047		
5.443	39	121	3.077	0.042		
5.449	41	134	3.300	0.046		
5.456	30	127	4.174	0.044		
5.472	49	148	3.000	0.051		
5.475	57	180	3.168	0.062		
5.480	32	166	5.114	0.057		
5.483	81	197	2.444	0.068		
5.491	35	191	5.411	0.066		
5.496	67	210	3.119	0.073		
5.502	115	221	1.929	0.076		
5.511	23	198	8.730	0.068		
5.517	79	208	2.618	0.072		
5.524	55	225	4.115	0.078		
5.528	66	253	3.823	0.088		
5.535	203	293	1.444	0.102		
5.543	80	291	3.659	0.101		
5.547	68	292	4.323	0.101		
5.552	134	287	2.148	0.099		
5.569	50	234	4.681	0.081		
5.578	135	266	1.977	0.092		
5.588	130	260	1.999	0.090		
5.594	55	264	4.805	0.091		
5.600	180	281	1.557	0.097		
5.608	145	273	1.886	0.095		
5.619	159	242	1.523	0.084		
5.638	39	224	5.817	0.077		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.647	90	230	2.568	0.080		
5.654	79	247	3.126	0.086		
5.671	72	201	2.784	0.069		
5.679	88	204	2.309	0.071		
5.686	51	177	3.448	0.061		
5.692	66	198	3.022	0.068		
5.704	123	213	1.727	0.074		
5.712	87	210	2.414	0.073		
5.720	45	222	4.989	0.077		
5.725	127	235	1.849	0.081		
5.733	81	236	2.917	0.082		
5.741	87	253	2.892	0.088		
5.746	154	310	2.017	0.107		
5.753	138	318	2.304	0.110		
5.759	96	313	3.262	0.108		
5.765	138	307	2.227	0.106		
5.783	128	248	1.938	0.086		
5.793	99	233	2.349	0.081		
5.807	90	206	2.286	0.071		
5.817	74	202	2.722	0.070		
5.828	65	206	3.147	0.071		
5.834	69	230	3.353	0.080		
5.841	207	299	1.446	0.104		
5.850	79	275	3.497	0.095		
5.860	130	273	2.095	0.095		
5.875	70	150	2.141	0.052		
5.891	34	147	4.375	0.051		
5.899	59	152	2.582	0.052		
5.903	30	156	5.228	0.054		
5.908	51	169	3.292	0.058		
5.915	37	179	4.812	0.062		
5.919	51	193	3.753	0.067		
5.926	75	253	3.381	0.088		
5.937	90	208	2.300	0.072		
5.946	71	161	2.281	0.056		
5.961	29	153	5.204	0.053		
5.967	116	156	1.340	0.054		
5.983	17	113	6.616	0.039		
5.985	19	127	6.628	0.044		
5.995	114	233	2.042	0.081		
6.000	169	265	1.568	0.092		
6.013	149	268	1.799	0.093		
6.022	56	247	4.400	0.086		
6.034	34	183	5.338	0.063		
6.046	27	206	7.499	0.071		
6.059	37	245	6.561	0.085		
6.069	162	273	1.687	0.095		
6.090	49	158	3.196	0.055		
6.095	57	157	2.758	0.054		
6.101	38	136	3.589	0.047		
6.112	28	95	3.356	0.033		
6.119	23	98	4.291	0.034		
6.127	44	119	2.712	0.041		
6.134	38	123	3.260	0.042		
6.144	107	153	1.432	0.053		
6.162	53	125	2.367	0.043		
6.166	15	139	9.073	0.048		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.174	32	166	5.250	0.057		
6.179	45	193	4.247	0.067		
6.184	142	214	1.507	0.074		
6.193	35	202	5.730	0.070		
6.199	28	211	7.440	0.073		
6.205	152	259	1.700	0.090		
6.212	105	224	2.142	0.077		
6.228	83	229	2.767	0.079		
6.231	44	259	5.892	0.090		
6.238	102	287	2.804	0.099		
6.240	54	313	5.804	0.108		
6.247	58	337	5.832	0.117		
6.251	137	375	2.741	0.130		
6.256	112	433	3.872	0.150		
6.281	1520	1155	0.760	0.402		
6.316	284	491	1.730	0.170		
6.331	203	348	1.718	0.121		
6.378	24	110	4.505	0.038		
6.389	30	116	3.927	0.040		
6.399	51	99	1.959	0.034		
6.406	35	109	3.118	0.037		
6.412	40	118	2.925	0.041		
6.427	23	94	4.010	0.032		
6.434	35	131	3.768	0.045		
6.443	34	134	3.939	0.046		
6.463	79	141	1.789	0.049		
6.475	27	123	4.579	0.042		
6.489	47	118	2.500	0.041		
6.496	55	132	2.418	0.045		
	409840	287193		100.000		

Total unknown % height = 79.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000027.d
Lab Smp Id: 30318799001 Client Smp ID: AOC 32 DITCH & AOC
Inj Date : 19-AUG-2019 19:10
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 30318799001x10,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: tcl.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	10.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.080	Weigth of sample extracted (g)
M	20.000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Peaks not detected for Quant. or Qual. signal(s).									
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Peaks not detected for Quant. or Qual. signal(s).									
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
2.798	2.799	-0.001	10335	0.70249	2.91	80.00- 120.00	100.00	(aM)	BA
2.939	2.941	-0.002	10480	0.45645	1.89	128.13- 192.20	101.41		BA
3.180	3.182	-0.002	13864	0.57148	2.37	133.42- 200.12	134.15		BA
3.373	3.376	-0.003	3418	0.18341	0.760	100.62- 150.93	33.07		BA
3.642	3.645	-0.003	19574	1.02978	4.27	102.52- 153.79	189.40		BA
Average of Peak Concentrations =					2.44				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
Operator disabled compound identification.									BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.573	1.574	-0.001	6136	0.01351	0.00560			(aRM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.937	4.940	-0.003	6601	0.02079	0.00862			(aRM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

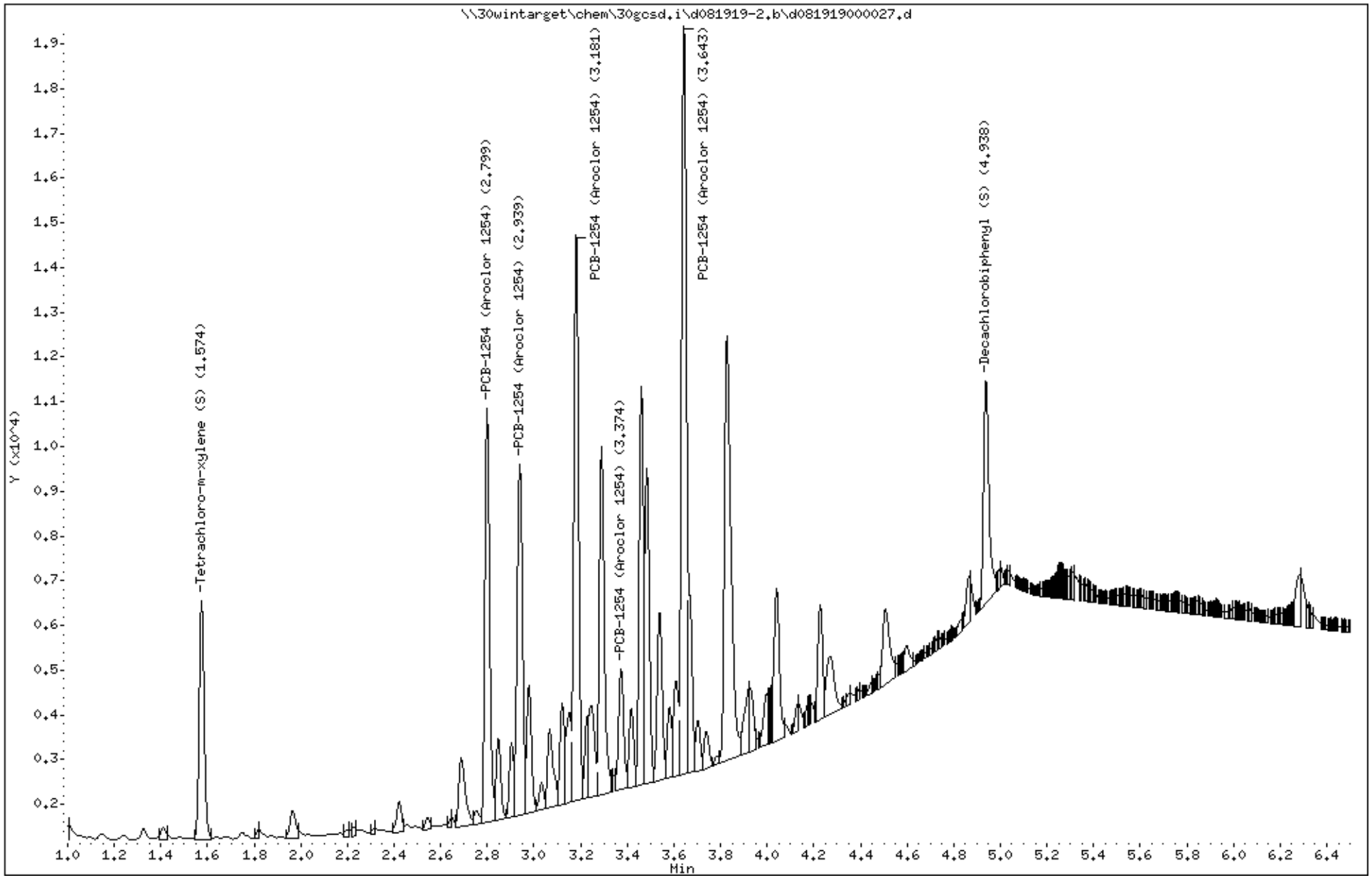
Client Name: WSP Environment & E
Lab Smp Id: 30318799001
Sample Location:
Sample Date: 08-AUG-2019
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

Client SDG: 30318799
Client Smp ID: AOC 32 DITCH & AOC
Sample Point:
Date Received: 09-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

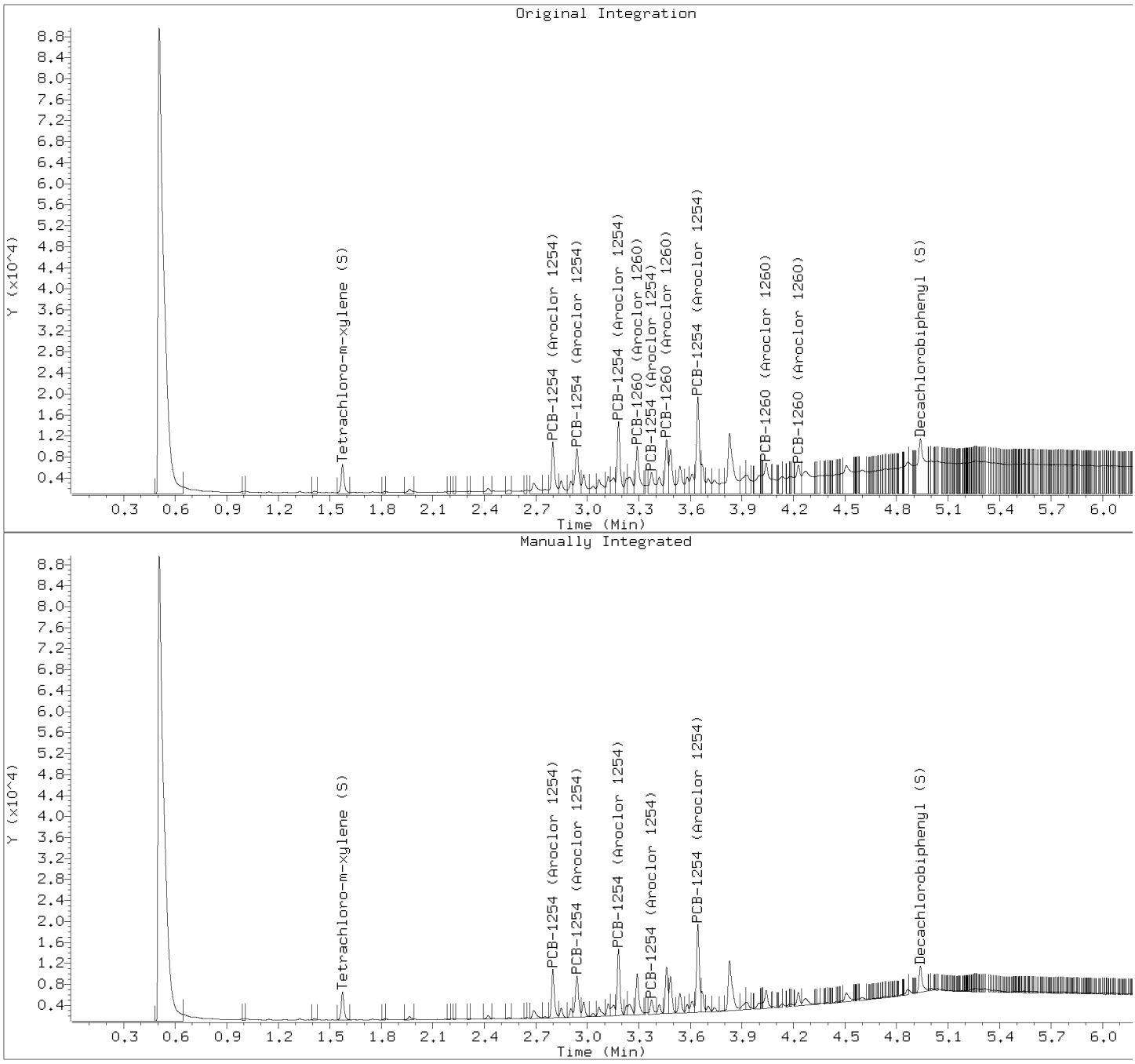
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	412	U
11104-28-2	PCB-1221 (Aroclor 1221)	838	U
11141-16-5	PCB-1232 (Aroclor 1232)	412	U
53469-21-9	PCB-1242 (Aroclor 1242)	412	U
12672-29-6	PCB-1248 (Aroclor 1248)	412	U
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.799	2.91	J
	Peak found at 2.939	1.89	J
	Peak found at 3.181	2.37	J
	Peak found at 3.374	0.760	J
	Peak found at 3.643	4.27	J
	Average of Peak Amounts =	2.44	J
11096-82-5	PCB-1260 (Aroclor 1260)	412	U
877-09-8	Tetrachloro-m-xylene (S)	0.00560	J
2051-24-3	Decachlorobiphenyl (S)	0.00862	J

Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000027.d
Date : 19-AUG-2019 19:10
Client ID: AOC 32 DITCH & AOC
Sample Info: 30318799001X10,
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b/d081919000027.d (ManInt: tcl.sub Orig: tcl.sub)
Injection Date: 19-AUG-2019 19:10 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 30318799001



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	12373	10335
PCB-1254 (Aroclor 1254)	12554	10480
PCB-1254 (Aroclor 1254)	16826	13864
PCB-1254 (Aroclor 1254)	7289	3418
PCB-1254 (Aroclor 1254)	23356	19574
PCB-1260 (Aroclor 1260)	13462	0
PCB-1260 (Aroclor 1260)	12258	0
PCB-1260 (Aroclor 1260)	23356	0
PCB-1260 (Aroclor 1260)	11936	0
PCB-1260 (Aroclor 1260)	9599	0
Tetrachloro-m-xylene (S)	6934	6136
Decachlorobiphenyl (S)	29996	6601

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	22540.0000	22230.0000	21392.0000	19192.0000	18984.0000	18890.0000
Aroclor 1016	2	Averaged	43500.0000	43750.0000	43260.0000	39226.0000	39092.0000	39181.0000
Aroclor 1016	3	Averaged	17140.0000	17250.0000	17860.0000	15984.0000	15840.0000	15863.0000
Aroclor 1016	4	Averaged	13880.0000	13740.0000	13392.0000	11948.0000	11832.0000	11847.0000
Aroclor 1016	5	Averaged	11480.0000	11670.0000	11500.0000	10462.0000	10352.0000	10413.0000
Aroclor 1260	1	Averaged	20240.0000	19880.0000	19216.0000	17454.0000	17265.3333	17209.0000
Aroclor 1260	2	Averaged	25840.0000	25620.0000	24580.0000	22258.0000	21990.6666	22006.0000
Aroclor 1260	3	Averaged	32320.0000	31990.0000	30820.0000	27894.0000	27562.6666	27470.0000
Aroclor 1260	4	Averaged	52780.0000	52700.0000	52052.0000	47812.0000	47833.3333	48049.0000
Aroclor 1260	5	Averaged	37860.0000	38060.0000	37704.0000	34632.0000	34656.0000	34551.0000
Decachlorobiphenyl		Averaged	349700.000	346600.000	343440.000	321030.000	325840.000	327295.000
Tetrachloro-m-xylene		Averaged	527100.000	528550.000	527200.000	484540.000	489013.333	495225.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	8.30			20538.00	
Aroclor 1016	2	Averaged	5.76			41334.83	
Aroclor 1016	3	Averaged	5.22			16656.16	
Aroclor 1016	4	Averaged	7.80			12773.16	
Aroclor 1016	5	Averaged	5.73			10979.50	
Aroclor 1260	1	Averaged	7.51			18544.05	
Aroclor 1260	2	Averaged	7.75			23715.77	
Aroclor 1260	3	Averaged	7.70			29676.11	
Aroclor 1260	4	Averaged	5.06			50204.38	
Aroclor 1260	5	Averaged	4.93			36243.83	
Decachlorobiphenyl		Averaged	3.66			335650.83	
Tetrachloro-m-xylene		Averaged	4.15			508604.72	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	Averaged	12380.0000	12280.0000	11732.0000	10726.0000	10609.3333	10632.0000
Aroclor 1016	2	Averaged	22240.0000	22580.0000	22892.0000	21028.0000	21001.3333	21107.0000
Aroclor 1016	3	Averaged	10820.0000	11370.0000	11380.0000	10476.0000	10508.0000	10544.0000
Aroclor 1016	4	Averaged	10860.0000	10590.0000	10408.0000	9400.00000	9325.33333	9299.00000
Aroclor 1016	5	Averaged	10460.0000	10510.0000	10324.0000	9384.00000	9380.00000	9352.00000
Aroclor 1260	1	Averaged	21400.0000	21340.0000	21336.0000	19330.0000	19288.0000	19228.0000
Aroclor 1260	2	Averaged	25740.0000	25610.0000	25440.0000	23134.0000	23177.3333	23036.0000
Aroclor 1260	3	Averaged	28140.0000	28770.0000	31652.0000	29034.0000	29032.0000	29124.0000
Aroclor 1260	4	Averaged	43820.0000	44440.0000	44696.0000	41430.0000	41808.0000	41957.0000
Aroclor 1260	5	Averaged	26460.0000	26700.0000	26908.0000	25068.0000	24990.6666	25092.0000
Decachlorobiphenyl		Averaged	329300.000	325400.000	325900.000	305140.000	308640.000	310400.000
Tetrachloro-m-xylene		Averaged	472800.000	469600.000	469140.000	433280.000	438260.000	441975.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.35			11393.22	
Aroclor 1016	2	Averaged	3.94			21808.05	
Aroclor 1016	3	Averaged	3.91			10849.66	
Aroclor 1016	4	Averaged	7.16			9980.38	
Aroclor 1016	5	Averaged	5.89			9901.66	
Aroclor 1260	1	Averaged	5.60			20320.33	
Aroclor 1260	2	Averaged	5.59			24356.22	
Aroclor 1260	3	Averaged	4.13			29292.00	
Aroclor 1260	4	Averaged	3.38			43025.16	
Aroclor 1260	5	Averaged	3.51			25869.77	
Decachlorobiphenyl		Averaged	3.31		0.00	317463.33	
Tetrachloro-m-xylene		Averaged	3.99		0.00	454175.83	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.631	1.631	1.631	1.631	1.632	1.632
Aroclor 1016	2	1.878	1.878	1.878	1.878	1.879	1.879
Aroclor 1016	3	1.932	1.932	1.932	1.932	1.933	1.932
Aroclor 1016	4	2.188	2.188	2.188	2.188	2.189	2.189
Aroclor 1016	5	2.277	2.277	2.277	2.277	2.278	2.278
Aroclor 1260	1	2.798	2.797	2.797	2.797	2.798	2.798
Aroclor 1260	2	2.885	2.885	2.885	2.885	2.886	2.886
Aroclor 1260	3	2.995	2.994	2.995	2.995	2.995	2.995
Aroclor 1260	4	3.584	3.583	3.584	3.583	3.584	3.585
Aroclor 1260	5	3.827	3.826	3.826	3.826	3.826	3.827
Decachlorobiphenyl		4.501	4.5	4.501	4.5	4.501	4.501
Tetrachloro-m-xylene		1.21	1.21	1.21	1.21	1.212	1.211

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-1.B\D052419000019. CAL2A = D052419-1.B\D052419000018. CAL3A = D052419-1.B\D052419000017.

CAL4A = D052419-1.B\D052419000016. CAL5A = D052419-1.B\D052419000015. CAL6A = D052419-1.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.631	1.601	1.661
Aroclor 1016	2	1.878	1.848	1.908
Aroclor 1016	3	1.932	1.902	1.962
Aroclor 1016	4	2.188	2.158	2.218
Aroclor 1016	5	2.277	2.247	2.307
Aroclor 1260	1	2.797	2.767	2.827
Aroclor 1260	2	2.885	2.855	2.915
Aroclor 1260	3	2.995	2.965	3.025
Aroclor 1260	4	3.584	3.554	3.614
Aroclor 1260	5	3.826	3.796	3.856
Decachlorobiphenyl		4.501	4.471	4.531
Tetrachloro-m-xylene		1.21	1.18	1.24

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Aroclor 1016	1	1.963	1.964	1.963	1.964	1.964	1.964
Aroclor 1016	2	2.286	2.286	2.286	2.286	2.287	2.286
Aroclor 1016	3	2.374	2.374	2.374	2.374	2.375	2.374
Aroclor 1016	4	2.47	2.47	2.47	2.47	2.471	2.471
Aroclor 1016	5	2.56	2.56	2.56	2.56	2.561	2.561
Aroclor 1260	1	3.309	3.309	3.309	3.308	3.309	3.309
Aroclor 1260	2	3.479	3.479	3.478	3.479	3.479	3.479
Aroclor 1260	3	3.663	3.663	3.662	3.662	3.663	3.663
Aroclor 1260	4	4.06	4.059	4.06	4.059	4.06	4.06
Aroclor 1260	5	4.247	4.247	4.247	4.247	4.248	4.248
Decachlorobiphenyl		4.959	4.959	4.96	4.959	4.959	4.961
Tetrachloro-m-xylene		1.586	1.586	1.586	1.587	1.587	1.587

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 05/24/2019 Calibration Time(s): 14:50 15:33

LAB FILE ID

CAL1A = D052419-2.B\D052419000019. CAL2A = D052419-2.B\D052419000018. CAL3A = D052419-2.B\D052419000017.

CAL4A = D052419-2.B\D052419000016. CAL5A = D052419-2.B\D052419000015. CAL6A = D052419-2.B\D052419000014.

COMPOUND	PEAK	RT	RT WINDOW	
			FROM	TO
Aroclor 1016	1	1.963	1.933	1.993
Aroclor 1016	2	2.286	2.256	2.316
Aroclor 1016	3	2.374	2.344	2.404
Aroclor 1016	4	2.47	2.44	2.5
Aroclor 1016	5	2.56	2.53	2.59
Aroclor 1260	1	3.309	3.279	3.339
Aroclor 1260	2	3.478	3.448	3.508
Aroclor 1260	3	3.662	3.632	3.692
Aroclor 1260	4	4.06	4.03	4.09
Aroclor 1260	5	4.247	4.217	4.277
Decachlorobiphenyl		4.96	4.93	4.99
Tetrachloro-m-xylene		1.586	1.556	1.616

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-1.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.344	1.314	1.374	6424.00000
Aroclor 1221	.25	2	1.4	1.37	1.43	3800.00000
Aroclor 1221	.25	3	1.44	1.41	1.47	13644.0000
Decachlorobiphenyl (S)	.05		4.499	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-1.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.44	1.41	1.47	11544.0000
Aroclor 1232	.25	2	1.631	1.601	1.661	9880.00000
Aroclor 1232	.25	3	1.878	1.848	1.908	18436.0000
Aroclor 1232	.25	4	1.932	1.902	1.962	7344.00000
Aroclor 1232	.25	5	2.188	2.158	2.218	5264.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-1.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.44	1.41	1.47	7464.00000
Aroclor 1242	.25	2	1.631	1.601	1.661	15736.0000
Aroclor 1242	.25	3	1.878	1.848	1.908	31628.0000
Aroclor 1242	.25	4	1.932	1.902	1.962	12420.0000
Aroclor 1242	.25	5	2.188	2.158	2.218	9852.00000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-1.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	1.877	1.847	1.907	23488.0000
Aroclor 1248	.25	2	2.035	2.005	2.065	15488.0000
Aroclor 1248	.25	3	2.188	2.158	2.218	15912.0000
Aroclor 1248	.25	4	2.277	2.247	2.307	13976.0000
Aroclor 1248	.25	5	2.428	2.398	2.458	22740.0000
Decachlorobiphenyl (S)	.05		4.501	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 1 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-1.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.425	2.395	2.455	18132.0000
Aroclor 1254	.25	2	2.509	2.479	2.539	19748.0000
Aroclor 1254	.25	3	2.791	2.761	2.821	31456.0000
Aroclor 1254	.25	4	2.924	2.894	2.954	20272.0000
Aroclor 1254	.25	5	3.226	3.196	3.256	27216.0000
Decachlorobiphenyl (S)	.05		4.5	4.471	4.531	343440.000
Tetrachloro-m-xylene	.05		1.209	1.18	1.24	527200.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:08

LAB FILE ID

CAL3S = D052419-2.B\D052419000009.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1221	.25	1	1.67	1.64	1.7	5224.00000
Aroclor 1221	.25	2	1.712	1.682	1.742	3332.00000
Aroclor 1221	.25	3	1.761	1.731	1.791	12984.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:16

LAB FILE ID

CAL3S = D052419-2.B\D052419000010.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.25	1	1.761	1.731	1.791	10988.0000
Aroclor 1232	.25	2	1.963	1.933	1.993	5164.00000
Aroclor 1232	.25	3	2.286	2.256	2.316	9684.00000
Aroclor 1232	.25	4	2.374	2.344	2.404	4784.00000
Aroclor 1232	.25	5	2.56	2.53	2.59	4028.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:25

LAB FILE ID

CAL3S = D052419-2.B\D052419000011.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1242	.25	1	1.761	1.731	1.791	7560.00000
Aroclor 1242	.25	2	1.963	1.933	1.993	8744.00000
Aroclor 1242	.25	3	2.286	2.256	2.316	16784.0000
Aroclor 1242	.25	4	2.374	2.344	2.404	8376.00000
Aroclor 1242	.25	5	2.56	2.53	2.59	7736.00000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.586	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:33

LAB FILE ID

CAL3S = D052419-2.B\D052419000012.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1248	.25	1	2.285	2.255	2.315	12308.0000
Aroclor 1248	.25	2	2.438	2.408	2.468	11556.0000
Aroclor 1248	.25	3	2.56	2.53	2.59	13084.0000
Aroclor 1248	.25	4	2.666	2.636	2.696	10252.0000
Aroclor 1248	.25	5	2.834	2.804	2.864	20392.0000
Decachlorobiphenyl (S)	.05		4.958	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-5

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30GCSD GC Column: Col 2 SDG No.: 30318799

Calibration Date(s): 05/24/2019 Calibration Time(s): 14:42

LAB FILE ID

CAL3S = D052419-2.B\D052419000013.

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1254	.25	1	2.816	2.786	2.846	14712.0000
Aroclor 1254	.25	2	2.958	2.928	2.988	22960.0000
Aroclor 1254	.25	3	3.198	3.168	3.228	24260.0000
Aroclor 1254	.25	4	3.392	3.362	3.422	18636.0000
Aroclor 1254	.25	5	3.66	3.63	3.69	19008.0000
Decachlorobiphenyl (S)	.05		4.959	4.93	4.99	325900.000
Tetrachloro-m-xylene	.05		1.585	1.556	1.616	469140.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.570	1203	768	0.638	1.611		
1.028	1158	867	0.749	1.819		
1.210	25243	21163	0.838	44.428	$ 10 Tetrachloro-m-xylene (S)	
1.267	572	404	0.706	0.847		
1.344	1607	1382	0.860	2.900	2 PCB-1221 (Aroclor 1221)	
1.375	317	327	1.030	0.686		
1.400	950	874	0.920	1.834	2 PCB-1221 (Aroclor 1221)	
1.440	3412	2903	0.851	6.092	2 PCB-1221 (Aroclor 1221)	
1.633	290	409	1.413	0.858		
1.693	510	501	0.982	1.051		
1.827	198	198	0.998	0.415		
1.879	442	357	0.808	0.749		
1.932	201	185	0.918	0.388		
3.369	1370	1113	0.812	2.335		
4.248	55	68	1.234	0.142		
4.343	73	117	1.608	0.245		
4.500	16180	15900	0.983	33.371	$ 11 Decachlorobiphenyl (S)	
5.557	6	20	3.425	0.041		
5.725	13	44	3.390	0.092		
6.494	11	46	4.028	0.096		
	53812	47646		100.000		

Total unknown % height = 11.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.344	1.344	0.000	1606	0.25000	0.250	80.00- 120.00	100.00	
1.400	1.400	0.000	950	0.25000	0.250	47.32- 70.98	59.12	
1.440	1.440	0.000	3411	0.25000	0.250	169.91- 254.87	212.30	
Average of Peak Amounts =					0.25000			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25242	0.05000	0.0500			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.499	4.501	-0.002	16180	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

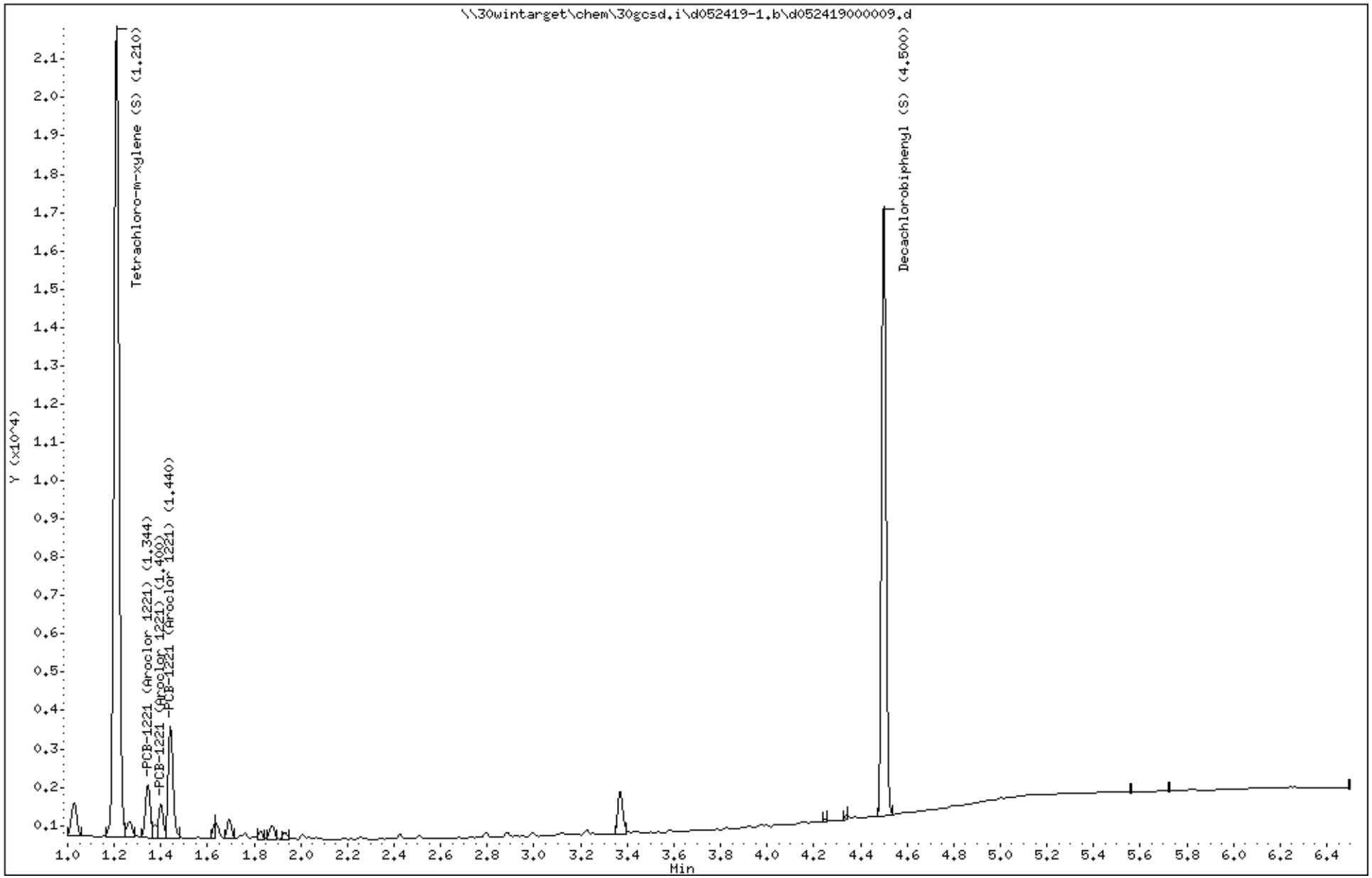
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

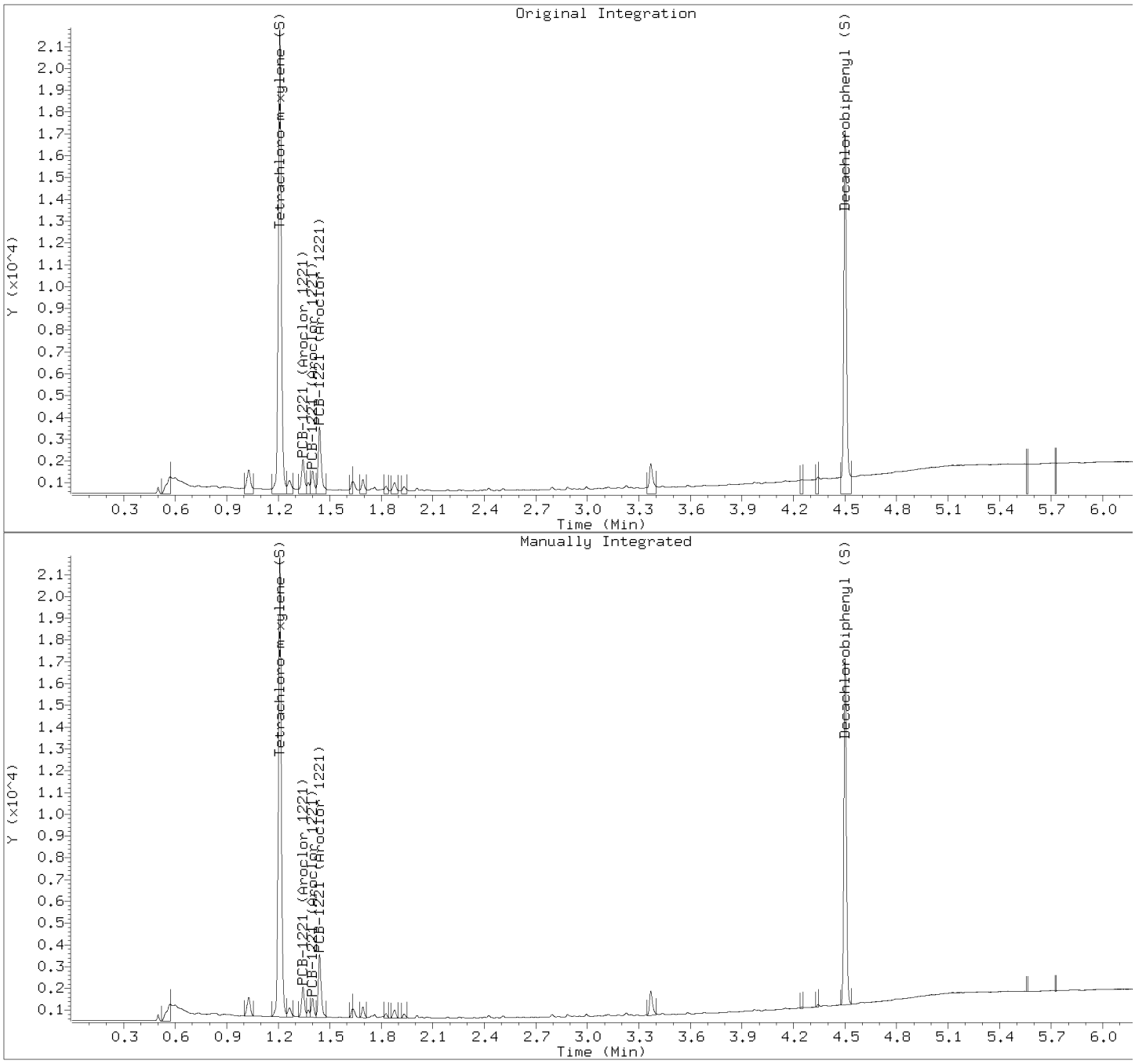
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11104-28-2	PCB-1221 (Aroclor 1221)		
	Peak found at 1.344	0.250	
	Peak found at 1.400	0.250	
	Peak found at 1.440	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0500	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000009.d (ManInt: ar1221.sub Orig: ar1221.sub)
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	2088	1606
PCB-1221 (Aroclor 1221)	1298	950
PCB-1221 (Aroclor 1221)	3973	3411
Tetrachloro-m-xylene (S)	26230	25242
Decachlorobiphenyl (S)	18966	16180

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	930	1271	1.367	2.497		
0.568	790	576	0.729	1.131		
0.591	848	789	0.930	1.550		
0.625	622	713	1.147	1.401		
0.655	595	685	1.152	1.346		
0.729	917	598	0.652	1.175		
1.076	94	119	1.261	0.233		
1.255	1060	855	0.807	1.680		
1.474	339	308	0.909	0.605		
1.527	453	408	0.900	0.801		
1.556	154	195	1.266	0.383		
1.586	22320	21120	0.946	41.532	$ 10 Tetrachloro-m-xylene (S)	
1.670	1307	954	0.730	1.874	2 PCB-1221 (Aroclor 1221)	
1.713	833	801	0.961	1.574	2 PCB-1221 (Aroclor 1221)	
1.761	3246	3023	0.931	5.940	2 PCB-1221 (Aroclor 1221)	
1.811	124	126	1.017	0.247		
1.965	169	169	1.002	0.332		
2.018	166	173	1.045	0.339		
2.076	552	503	0.911	0.988		
2.225	135	218	1.613	0.428		
2.268	104	179	1.715	0.351		
2.287	234	248	1.059	0.487		
2.307	179	184	1.026	0.361		
2.817	46	74	1.611	0.145		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.959	64	87	1.351	0.170		
3.309	50	86	1.704	0.169		
3.478	42	83	1.968	0.163		
3.662	46	77	1.691	0.151		
3.913	1159	904	0.780	1.776		
4.314	10	29	2.912	0.056		
4.491	44	81	1.820	0.159		
4.601	13	44	3.326	0.086		
4.754	18	51	2.875	0.100		
4.794	11	41	3.612	0.080		
4.808	83	119	1.437	0.233		
4.959	15365	14265	0.928	28.033	$ 11 Decachlorobiphenyl (S)	
5.105	30	61	2.012	0.119		
5.119	20	62	3.134	0.121		
5.160	7	25	3.602	0.049		
5.400	11	34	3.047	0.066		
5.588	6	31	5.228	0.060		
5.615	4	18	4.176	0.035		
5.672	4	20	5.141	0.039		
5.743	4	19	5.191	0.037		
5.808	7	26	3.969	0.051		
5.826	23	54	2.360	0.106		
5.833	13	57	4.439	0.112		
5.896	1	8	6.015	0.015		
5.958	3	16	5.128	0.031		
5.970	3	19	5.556	0.037		
5.974	7	22	3.343	0.043		
6.129	13	34	2.640	0.066		
6.139	7	32	4.378	0.062		
6.185	9	44	5.029	0.086		
6.292	14	43	2.992	0.084		
6.332	9	39	4.230	0.076		
6.379	4	17	4.156	0.033		
6.410	10	22	2.196	0.043		
6.427	5	27	5.066	0.053		
	53338	50886		100.000		

Total unknown % height = 21.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:08
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87759:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 PCB-1221 (Aroclor 1221)						CAS #: 11104-28-2		
1.670	1.670	0.000	1306	0.25000	0.250	80.00- 120.00	100.00	(a)
1.712	1.712	0.000	833	0.25000	0.250	51.03- 76.54	63.76	
1.761	1.761	0.000	3246	0.25000	0.250	198.84- 298.25	248.48	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22319	0.05000	0.0496			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	15364	0.05000	0.0489			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

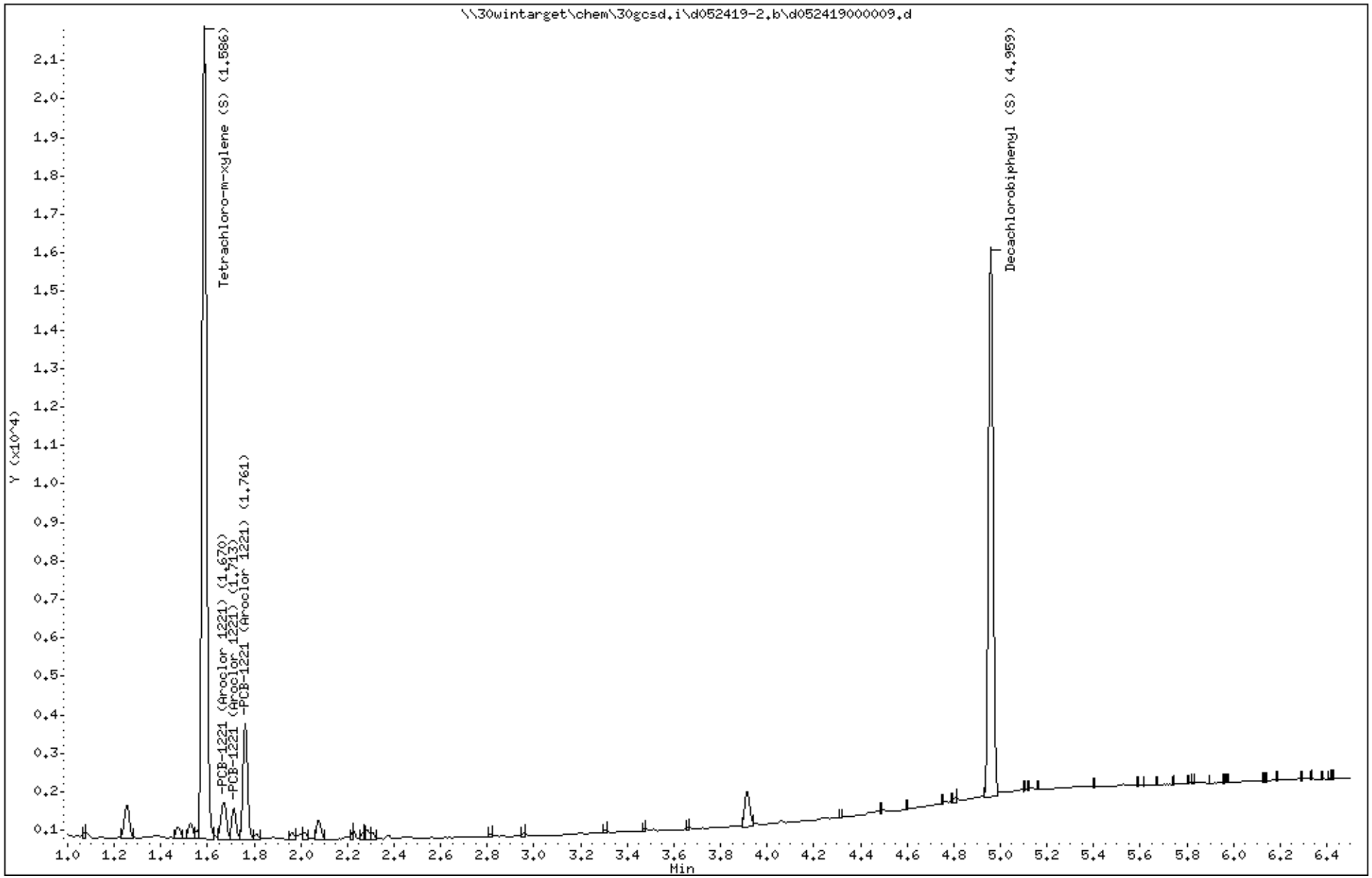
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11104-28-2	PCB-1221 (Aroclor 1221)		J
	Peak found at 1.670	0.250	J
	Peak found at 1.713	0.250	J
	Peak found at 1.761	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0496	J
2051-24-3	Decachlorobiphenyl (S)	0.0489	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000009.d
Date : 24-MAY-2019 14:08
Client ID: CAL3S
Sample Info: CAL3S, 87759:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



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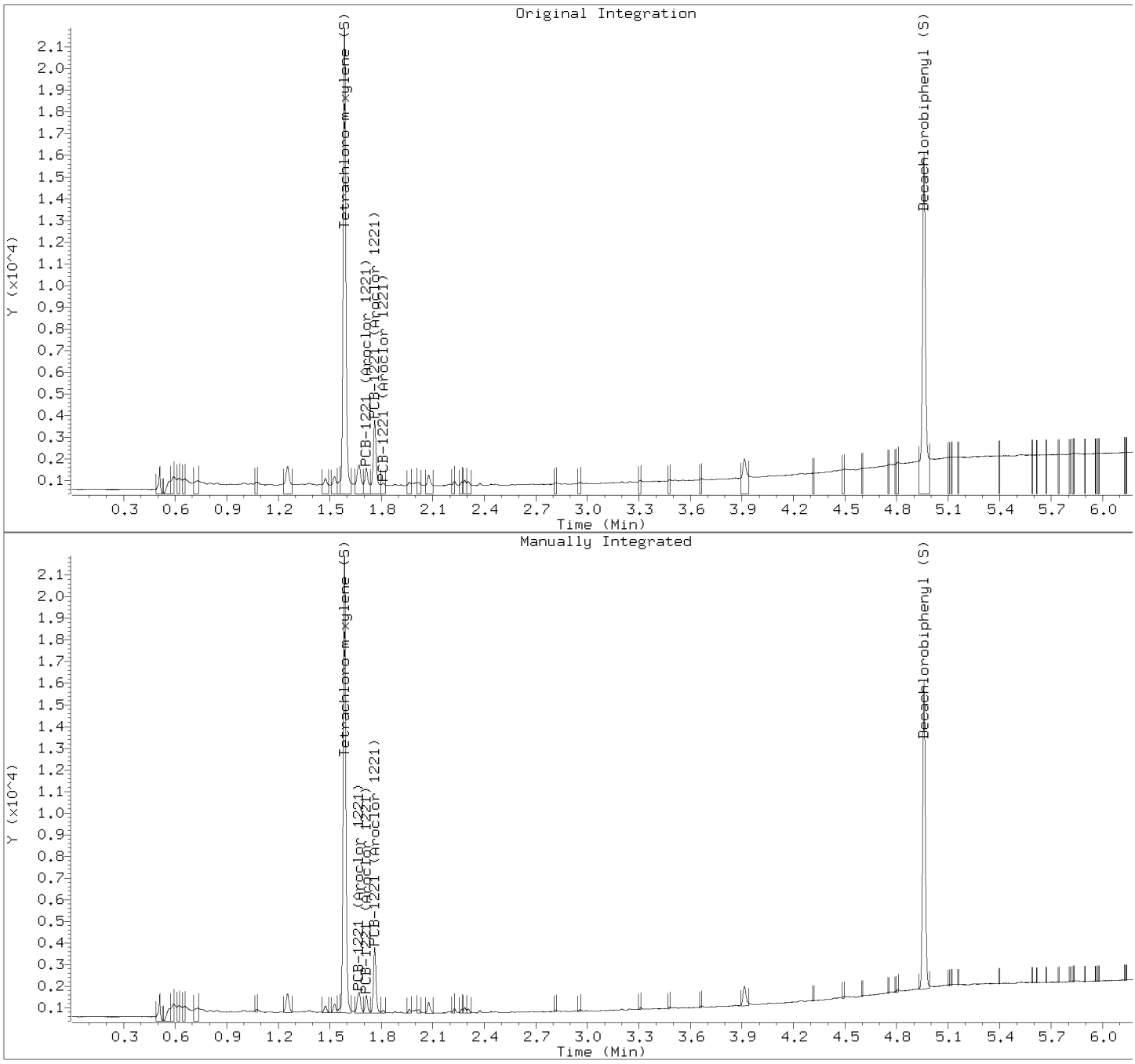
Injection Date: 24-MAY-2019 14:08 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1221 (Aroclor 1221)	1792	1306
PCB-1221 (Aroclor 1221)	4594	833
PCB-1221 (Aroclor 1221)	693	3246
Tetrachloro-m-xylene (S)	23804	22319
Decachlorobiphenyl (S)	20789	15364

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	20125	7843	0.390	10.304		
1.028	809	545	0.674	0.716		
1.209	25188	21207	0.842	27.884	$ 10 Tetrachloro-m-xylene (S)	
1.266	471	341	0.723	0.448		
1.344	1077	926	0.860	1.216		
1.399	742	690	0.930	0.906		
1.440	2887	2487	0.862	3.267	3 PCB-1232 (Aroclor 1232)	
1.631	2470	1847	0.748	2.426	3 PCB-1232 (Aroclor 1232)	
1.693	644	484	0.752	0.635		
1.745	589	717	1.218	0.942		
1.760	963	952	0.989	1.250		
1.806	422	460	1.091	0.604		
1.824	400	389	0.973	0.511		
1.878	4610	3531	0.766	4.639	3 PCB-1232 (Aroclor 1232)	
1.932	1837	1712	0.932	2.249	3 PCB-1232 (Aroclor 1232)	
2.008	1092	1208	1.106	1.587		
2.035	1232	1136	0.922	1.492		
2.062	854	936	1.095	1.229		
2.077	901	887	0.985	1.165		
2.188	1317	1413	1.073	1.856	3 PCB-1232 (Aroclor 1232)	
2.212	523	559	1.068	0.734		
2.239	386	446	1.156	0.585		
2.255	403	461	1.144	0.605		
2.277	1188	1159	0.976	1.522		
2.345	382	371	0.972	0.487		
2.375	757	821	1.085	1.078		
2.401	1308	1406	1.075	1.847		
2.429	1512	1536	1.016	2.018		
2.509	306	297	0.969	0.390		
2.560	828	762	0.920	1.001		
2.580	790	691	0.875	0.907		
2.791	397	410	1.032	0.538		
2.924	252	272	1.078	0.357		
3.147	248	264	1.067	0.346		
3.370	1075	878	0.817	1.153		
3.973	78	130	1.662	0.170		
4.037	64	109	1.705	0.143		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.342	38	76	1.999	0.099		
4.500	15691	15466	0.986	20.320	$ 11 Decachlorobiphenyl (S)	
4.812	43	65	1.527	0.085		
4.861	59	111	1.886	0.145		
5.175	25	64	2.607	0.084		
5.312	4	17	4.048	0.022		
6.022	5	19	3.862	0.024		
6.104	2	11	5.189	0.014		
	94993	76112		100.000		

Total unknown % height = 37.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)						CAS #: 11141-16-5		
1.440	1.440	0.000	2886	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	2470	0.25000	0.250	68.47- 102.70	85.58	
1.878	1.878	0.000	4609	0.25000	0.250	127.76- 191.64	159.70	
1.932	1.932	0.000	1836	0.25000	0.250	50.89- 76.34	63.64	
2.188	2.188	0.000	1316	0.25000	0.250	36.48- 54.72	45.62	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25188	0.05000	0.0499			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15691	0.05000	0.0474			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

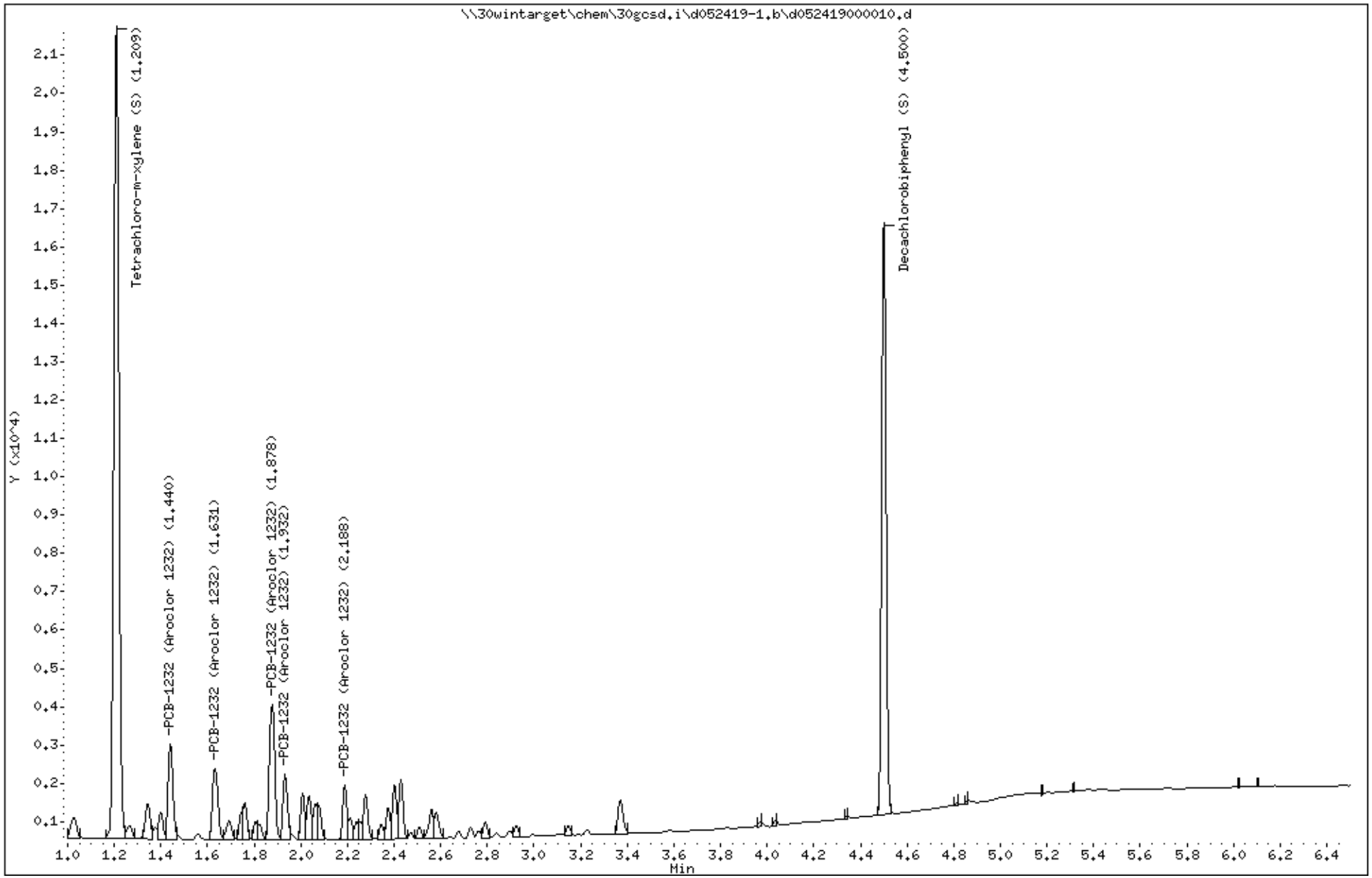
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

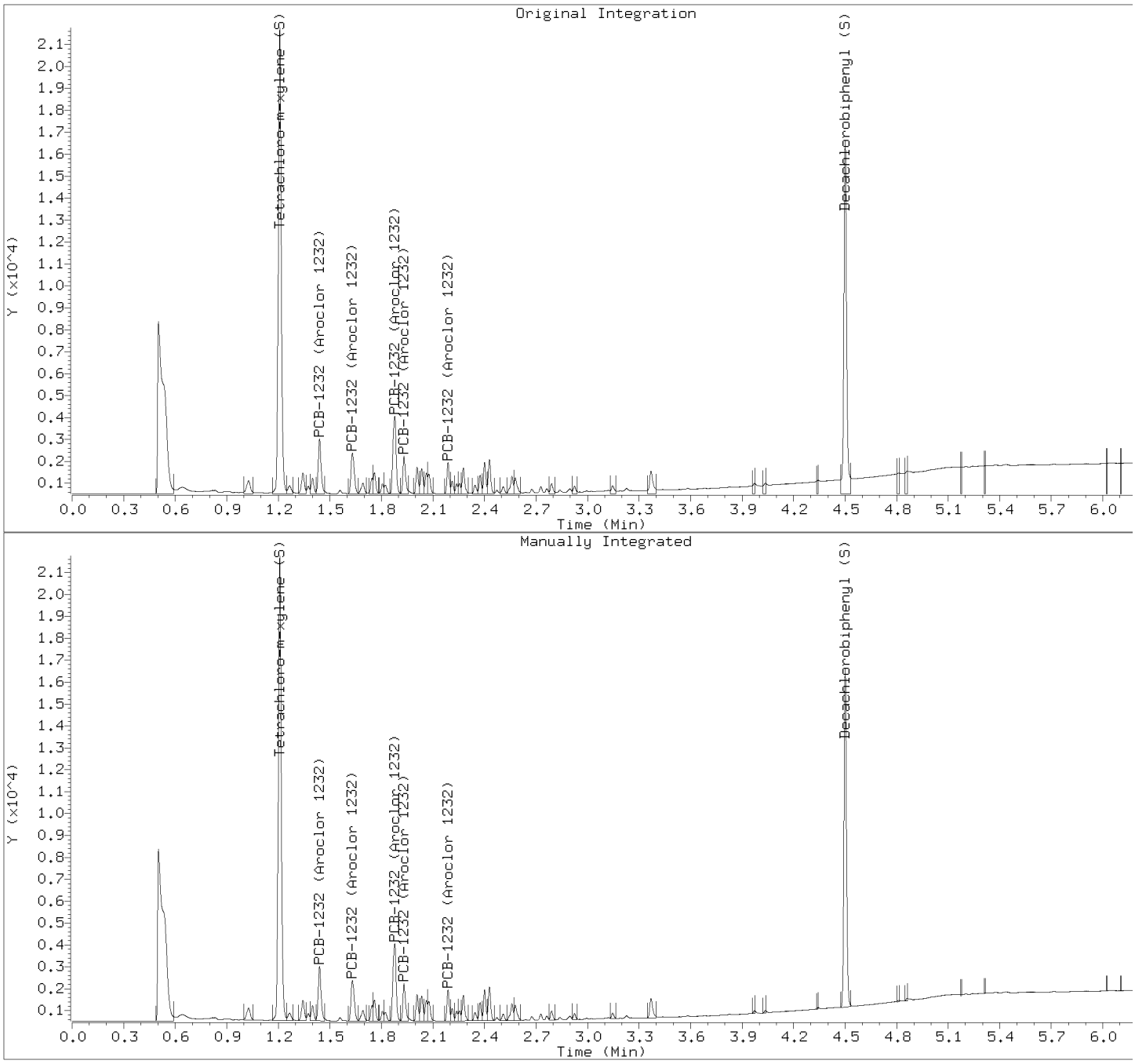
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11141-16-5	PCB-1232 (Aroclor 1232)		
	Peak found at 1.440	0.250	
	Peak found at 1.631	0.250	
	Peak found at 1.878	0.250	
	Peak found at 1.932	0.250	
	Peak found at 2.188	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0499	
2051-24-3	Decachlorobiphenyl (S)	0.0474	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Sample Info: CAL3S, 87760:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	2894	2886
PCB-1232 (Aroclor 1232)	2445	2470
PCB-1232 (Aroclor 1232)	4582	4609
PCB-1232 (Aroclor 1232)	1816	1836
PCB-1232 (Aroclor 1232)	1303	1316
Tetrachloro-m-xylene (S)	25279	25188
Decachlorobiphenyl (S)	17912	15691

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	14746	21069	1.429	24.274		
0.561	8655	3518	0.406	4.053		
1.254	664	513	0.773	0.591		
1.527	369	332	0.899	0.382		
1.585	22405	21075	0.941	24.307	$ 10 Tetrachloro-m-xylene (S)	
1.669	937	664	0.709	0.765		
1.712	651	626	0.961	0.721		
1.761	2747	2583	0.940	2.975	3 PCB-1232 (Aroclor 1232)	
1.963	1291	1344	1.041	1.548	3 PCB-1232 (Aroclor 1232)	
1.983	830	785	0.946	0.904		
2.075	1571	1091	0.695	1.256		
2.200	377	390	1.036	0.449		
2.223	372	361	0.971	0.415		
2.268	1696	1935	1.141	2.229		
2.286	2421	2469	1.020	2.844	3 PCB-1232 (Aroclor 1232)	
2.306	1587	1559	0.983	1.796		
2.375	1196	1121	0.937	1.291	3 PCB-1232 (Aroclor 1232)	
2.438	849	865	1.019	0.996		
2.470	1008	1025	1.017	1.180		
2.499	377	356	0.945	0.410		
2.561	1007	1031	1.023	1.187	3 PCB-1232 (Aroclor 1232)	
2.590	566	500	0.884	0.576		
2.616	360	372	1.035	0.428		
2.668	1274	777	0.610	0.895		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.835	1885	1254	0.665	1.444		
2.864	1157	1157	1.000	1.333		
2.953	911	826	0.906	0.951		
2.986	670	559	0.834	0.644		
3.199	313	311	0.993	0.358		
3.393	232	230	0.992	0.264		
3.563	183	195	1.068	0.224		
3.914	846	685	0.809	0.789		
4.438	69	101	1.468	0.116		
4.491	65	99	1.534	0.114		
4.809	67	78	1.172	0.089		
4.959	14837	13952	0.940	16.074	$ 11 Decachlorobiphenyl (S)	
5.070	4	19	4.241	0.021		
5.077	6	22	3.566	0.025		
5.099	2	13	5.328	0.014		
5.293	40	99	2.496	0.114		
5.298	43	122	2.851	0.140		
5.407	25	63	2.571	0.072		
5.546	18	44	2.431	0.050		
5.637	12	53	4.369	0.061		
5.698	35	58	1.657	0.066		
5.842	26	80	3.033	0.092		
5.891	23	67	2.949	0.077		
5.898	21	85	3.965	0.097		
6.074	11	34	3.134	0.039		
6.186	20	55	2.691	0.063		
6.254	11	38	3.612	0.043		
6.284	12	32	2.710	0.036		
6.351	8	31	3.865	0.035		
6.390	8	28	3.665	0.032		
6.419	8	23	2.879	0.026		
6.484	6	22	3.723	0.025		
	89528	86796		100.000		

Total unknown % height = 49.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 87760:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
1.761	1.761	0.000	2747	0.25000	0.250	80.00- 120.00	100.00(a)	
1.963	1.963	0.000	1291	0.25000	0.250	37.60- 56.40	47.00	
2.286	2.286	0.000	2421	0.25000	0.250	70.51- 105.76	88.13	
2.374	2.374	0.000	1196	0.25000	0.250	34.83- 52.25	43.54	
2.560	2.560	0.000	1007	0.25000	0.250	29.33- 43.99	36.67	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.585	1.586	-0.001	22405	0.05000	0.0497		(a)	
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	14837	0.05000	0.0475		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

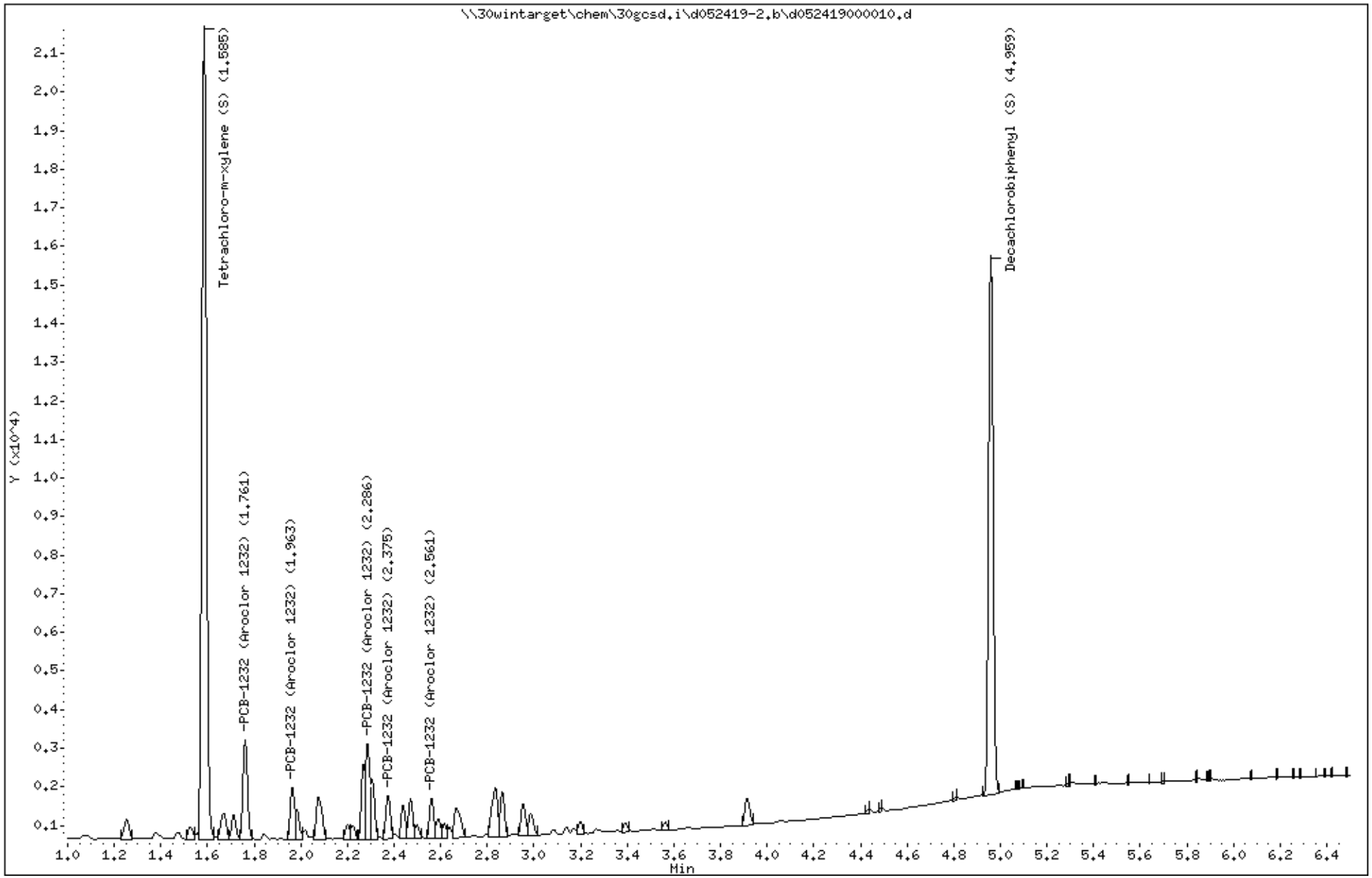
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

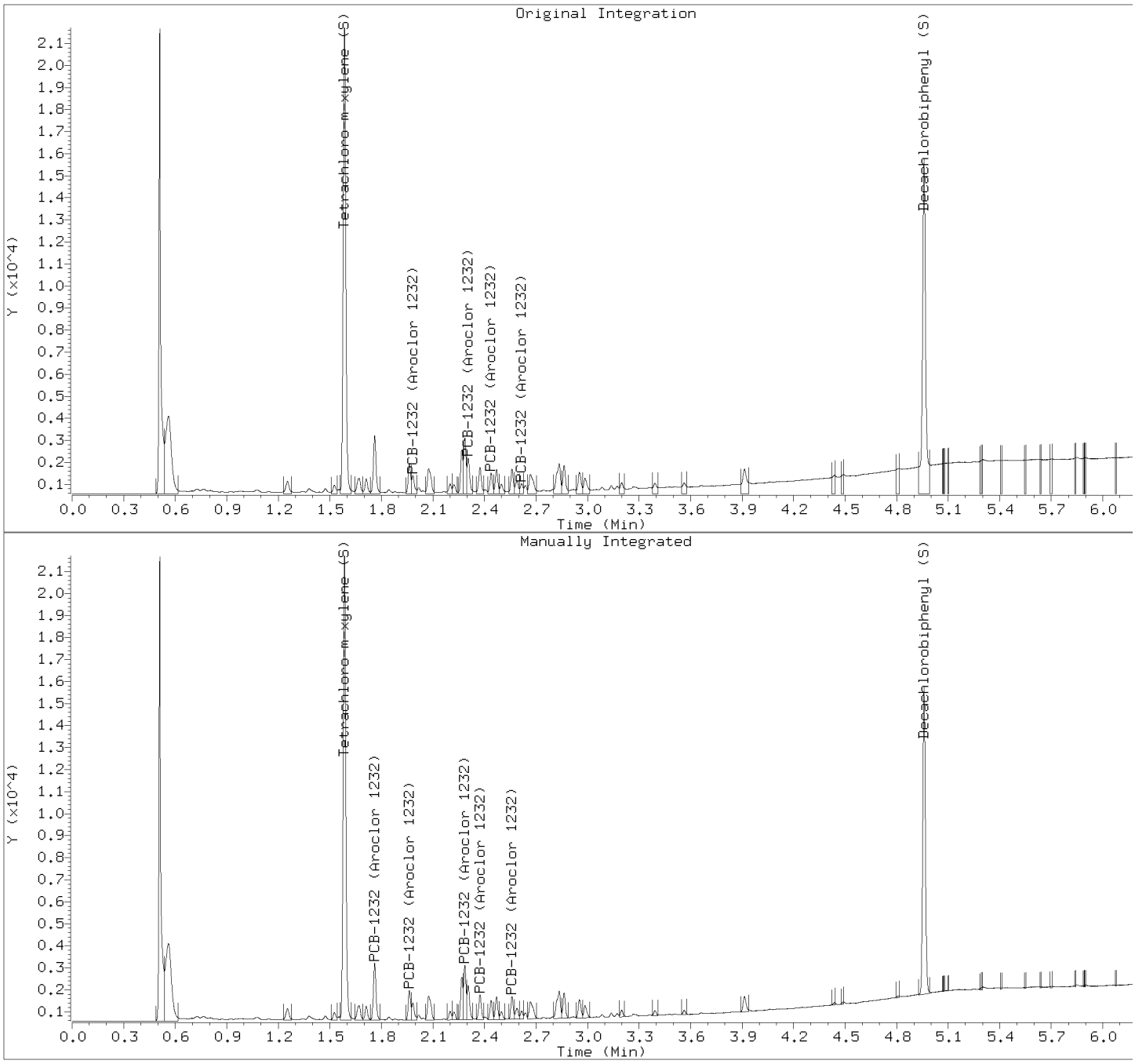
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11141-16-5	PCB-1232 (Aroclor 1232)		J
	Peak found at 1.761	0.250	J
	Peak found at 1.963	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0497	J
2051-24-3	Decachlorobiphenyl (S)	0.0475	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000010.d
Date : 24-MAY-2019 14:16
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 87760:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000010.d (ManInt: ar1232.sub Orig: ar1232.sub)
Injection Date: 24-MAY-2019 14:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1232 (Aroclor 1232)	0	2747
PCB-1232 (Aroclor 1232)	895	1291
PCB-1232 (Aroclor 1232)	1690	2421
PCB-1232 (Aroclor 1232)	977	1196
PCB-1232 (Aroclor 1232)	476	1007
Tetrachloro-m-xylene (S)	22563	22405
Decachlorobiphenyl (S)	19679	14837

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	888	1019	1.148	1.099		
0.542	3967	1653	0.417	1.783		
1.210	25115	21526	0.857	23.252	$ 10 Tetrachloro-m-xylene (S)	
1.344	482	372	0.772	0.401		
1.376	327	313	0.957	0.337		
1.400	396	377	0.952	0.406		
1.441	1866	1715	0.919	1.850	4 PCB-1242 (Aroclor 1242)	
1.632	3934	3022	0.768	3.261	4 PCB-1242 (Aroclor 1242)	
1.694	662	397	0.600	0.428		
1.745	993	1222	1.231	1.318		
1.760	1615	1594	0.987	1.720		
1.807	682	747	1.096	0.806		
1.826	848	790	0.932	0.852		
1.879	7907	6059	0.766	6.538	4 PCB-1242 (Aroclor 1242)	
1.933	3105	2897	0.933	3.126	4 PCB-1242 (Aroclor 1242)	
2.008	1829	2054	1.123	2.216		
2.036	2351	2205	0.938	2.379		
2.063	1580	1769	1.120	1.909		
2.077	1763	1705	0.967	1.839		
2.189	2463	2663	1.081	2.873	4 PCB-1242 (Aroclor 1242)	
2.213	975	1038	1.064	1.120		
2.239	728	832	1.143	0.897		
2.255	642	746	1.162	0.805		
2.278	2289	2243	0.980	2.420		
2.346	718	694	0.967	0.748		
2.375	1480	1611	1.089	1.738		
2.402	2512	2709	1.078	2.923		
2.429	2940	2945	1.002	3.178		
2.473	291	316	1.084	0.341		
2.510	678	658	0.970	0.710		
2.560	1663	1457	0.876	1.572		
2.581	1611	1355	0.841	1.462		
2.676	366	388	1.061	0.418		
2.728	605	637	1.052	0.687		
2.763	384	424	1.104	0.457		
2.791	882	936	1.061	1.010		
2.898	401	370	0.923	0.399		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.924	672	726	1.080	0.783		
3.147	634	655	1.033	0.706		
3.228	297	279	0.940	0.301		
3.369	1107	913	0.825	0.985		
3.973	80	139	1.735	0.150		
4.038	61	97	1.583	0.104		
4.344	83	130	1.571	0.140		
4.500	16201	15974	0.986	17.238	$ 11 Decachlorobiphenyl (S)	
4.815	69	85	1.225	0.091		
4.862	94	147	1.563	0.158		
5.242	35	62	1.790	0.066		
	101271	92665		100.000		

Total unknown % height = 41.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)						CAS #: 53469-21-9		
1.440	1.440	0.000	1866	0.25000	0.250	80.00- 120.00	100.00	
1.631	1.631	0.000	3934	0.25000	0.250	168.66- 252.99	210.80	
1.878	1.878	0.000	7907	0.25000	0.250	338.99- 508.49	423.71	
1.932	1.932	0.000	3105	0.25000	0.250	133.12- 199.68	166.40	
2.188	2.188	0.000	2463	0.25000	0.250	105.59- 158.39	131.98	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25115	0.05000	0.0498			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	16201	0.05000	0.0487			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

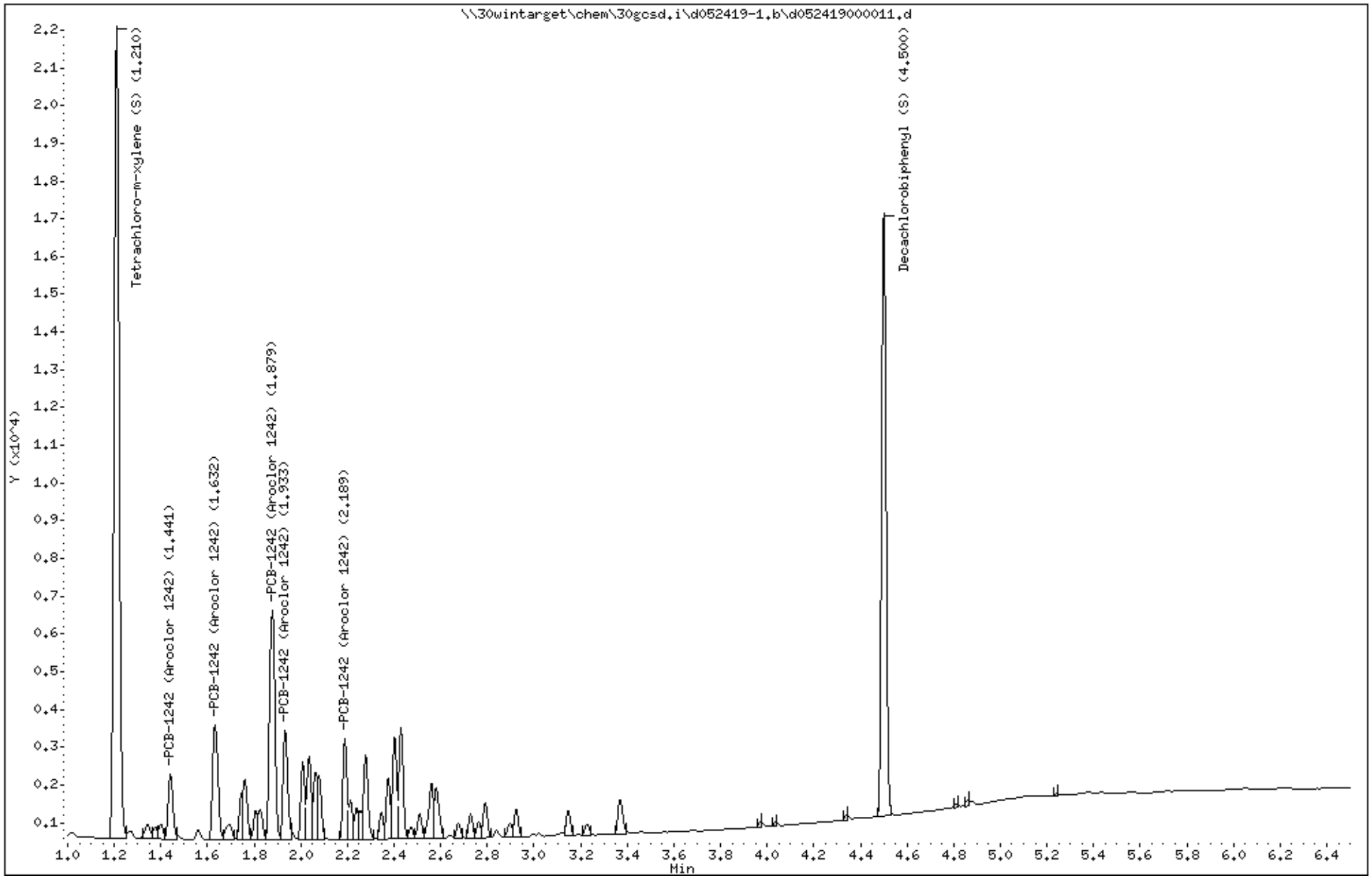
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

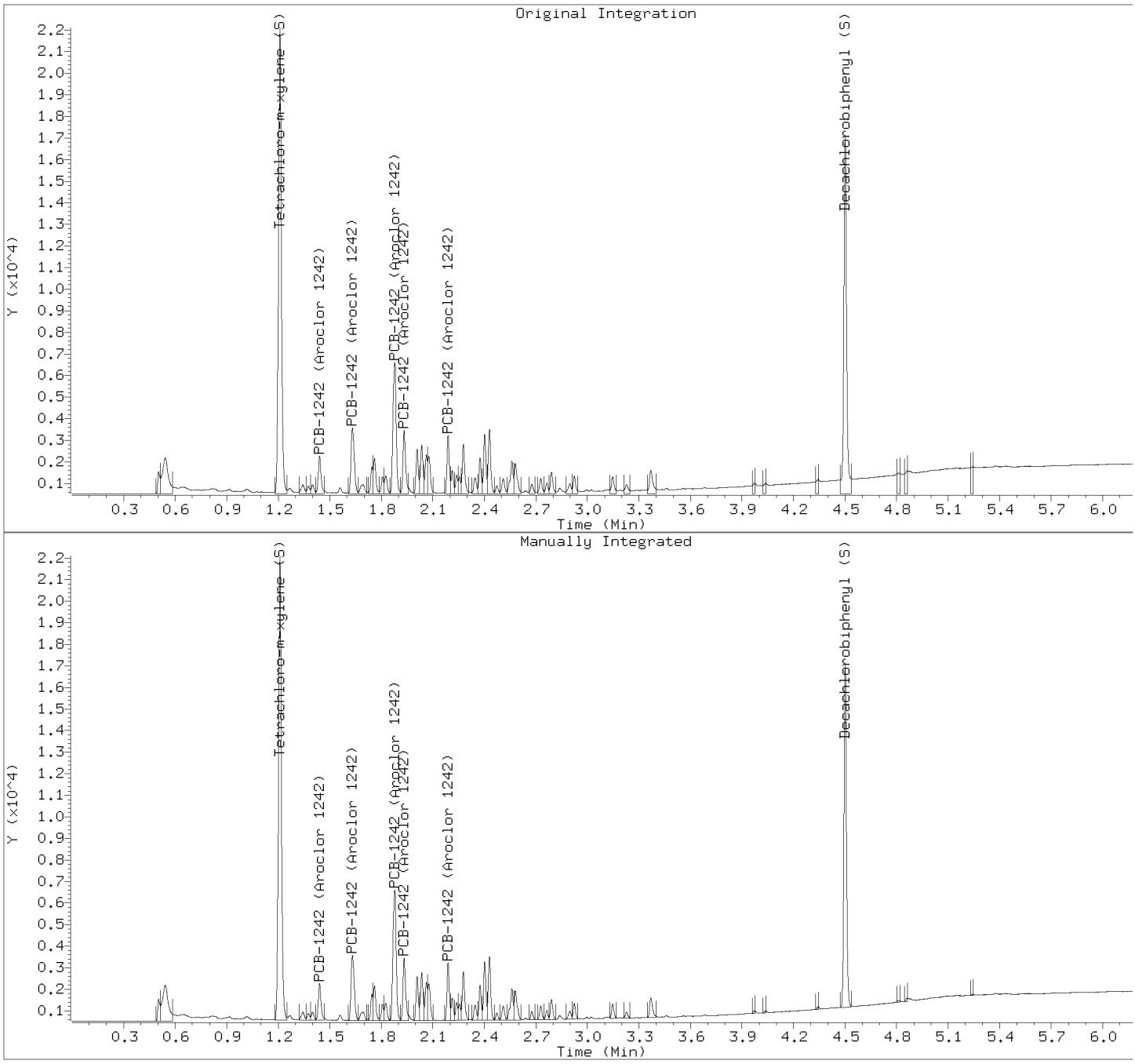
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
53469-21-9	PCB-1242 (Aroclor 1242)		
	Peak found at 1.441	0.250	
	Peak found at 1.632	0.250	
	Peak found at 1.879	0.250	
	Peak found at 1.933	0.250	
	Peak found at 2.189	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0498	
2051-24-3	Decachlorobiphenyl (S)	0.0487	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Sample Info: CAL3S, 86155:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	1944	1866
PCB-1242 (Aroclor 1242)	4007	3934
PCB-1242 (Aroclor 1242)	7984	7907
PCB-1242 (Aroclor 1242)	3160	3105
PCB-1242 (Aroclor 1242)	2499	2463
Tetrachloro-m-xylene (S)	25294	25115
Decachlorobiphenyl (S)	18530	16201

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	1852	3928	2.120	4.544		
0.565	3768	1764	0.468	2.040		
1.586	22524	21344	0.948	24.730	$ 10 Tetrachloro-m-xylene (S)	
1.713	356	335	0.941	0.387		
1.762	1891	1795	0.949	2.076	4 PCB-1242 (Aroclor 1242)	
1.964	2187	2301	1.052	2.661	4 PCB-1242 (Aroclor 1242)	
1.984	1316	1328	1.009	1.536		
2.019	286	285	0.996	0.329		
2.076	2352	1514	0.644	1.751		
2.201	608	637	1.047	0.736		
2.225	866	816	0.942	0.943		
2.269	2958	3429	1.159	3.966		
2.286	4197	4259	1.015	4.927	4 PCB-1242 (Aroclor 1242)	
2.306	2716	2634	0.970	3.047		
2.375	2094	1934	0.924	2.237	4 PCB-1242 (Aroclor 1242)	
2.439	1649	1689	1.024	1.953		
2.471	1938	1966	1.014	2.274		
2.499	738	674	0.913	0.779		
2.561	1934	1991	1.029	2.303	4 PCB-1242 (Aroclor 1242)	
2.590	1072	957	0.893	1.107		
2.617	676	703	1.039	0.813		
2.639	535	545	1.018	0.630		
2.667	2420	1515	0.626	1.752		
2.835	3753	2447	0.652	2.830		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.864	2278	2280	1.001	2.637		
2.954	1870	1662	0.889	1.922		
2.987	1403	1114	0.794	1.288		
3.086	320	304	0.950	0.351		
3.139	452	449	0.993	0.519		
3.173	373	346	0.927	0.400		
3.199	741	733	0.989	0.847		
3.268	233	244	1.048	0.282		
3.393	608	583	0.959	0.674		
3.563	511	511	0.999	0.591		
3.661	81	133	1.636	0.153		
3.914	859	703	0.819	0.813		
4.439	78	101	1.287	0.116		
4.490	42	81	1.914	0.093		
4.809	109	117	1.072	0.135		
4.960	15347	14225	0.927	16.456	$ 11 Decachlorobiphenyl (S)	
5.116	8	26	3.202	0.030		
5.250	60	70	1.165	0.080		
5.298	88	143	1.617	0.165		
5.438	19	51	2.727	0.058		
5.554	13	49	3.687	0.056		
5.564	20	57	2.830	0.065		
5.600	20	78	3.881	0.090		
5.684	26	91	3.515	0.105		
5.823	36	152	4.274	0.175		
5.846	151	242	1.607	0.279		
5.892	64	208	3.267	0.240		
5.940	42	121	2.866	0.139		
6.008	24	105	4.303	0.121		
6.058	38	88	2.313	0.101		
6.067	28	85	3.040	0.098		
6.103	30	67	2.260	0.077		
6.209	14	63	4.605	0.072		
6.215	18	57	3.120	0.065		
6.228	22	62	2.821	0.071		
6.245	29	63	2.207	0.072		
6.257	15	57	3.810	0.065		
6.395	5	26	5.000	0.030		
6.421	7	29	3.973	0.033		
6.427	7	29	4.252	0.033		
6.454	6	28	4.930	0.032		
6.487	5	18	3.333	0.020		
	90787	86441		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86155:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
1.761	1.761	0.000	1890	0.25000	0.250	80.00- 120.00	100.00	(a)
1.963	1.963	0.000	2186	0.25000	0.250	92.53- 138.79	115.68	
2.286	2.286	0.000	4196	0.25000	0.250	177.61- 266.41	221.99	
2.374	2.374	0.000	2094	0.25000	0.250	88.63- 132.95	110.77	
2.560	2.560	0.000	1934	0.25000	0.250	81.86- 122.79	102.32	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	22523	0.05000	0.0499			(a)
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.959	4.960	-0.001	15346	0.05000	0.0488			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

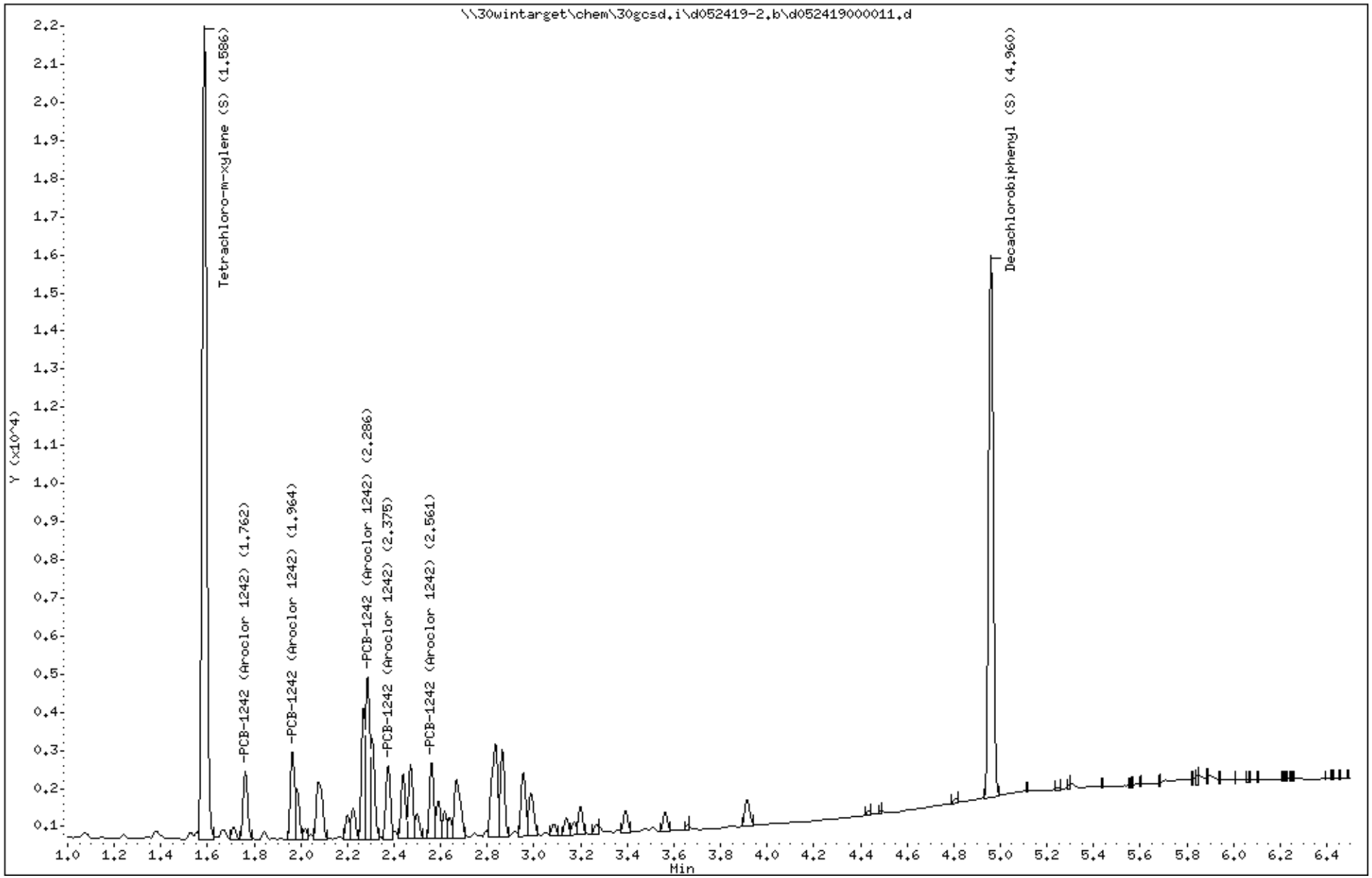
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

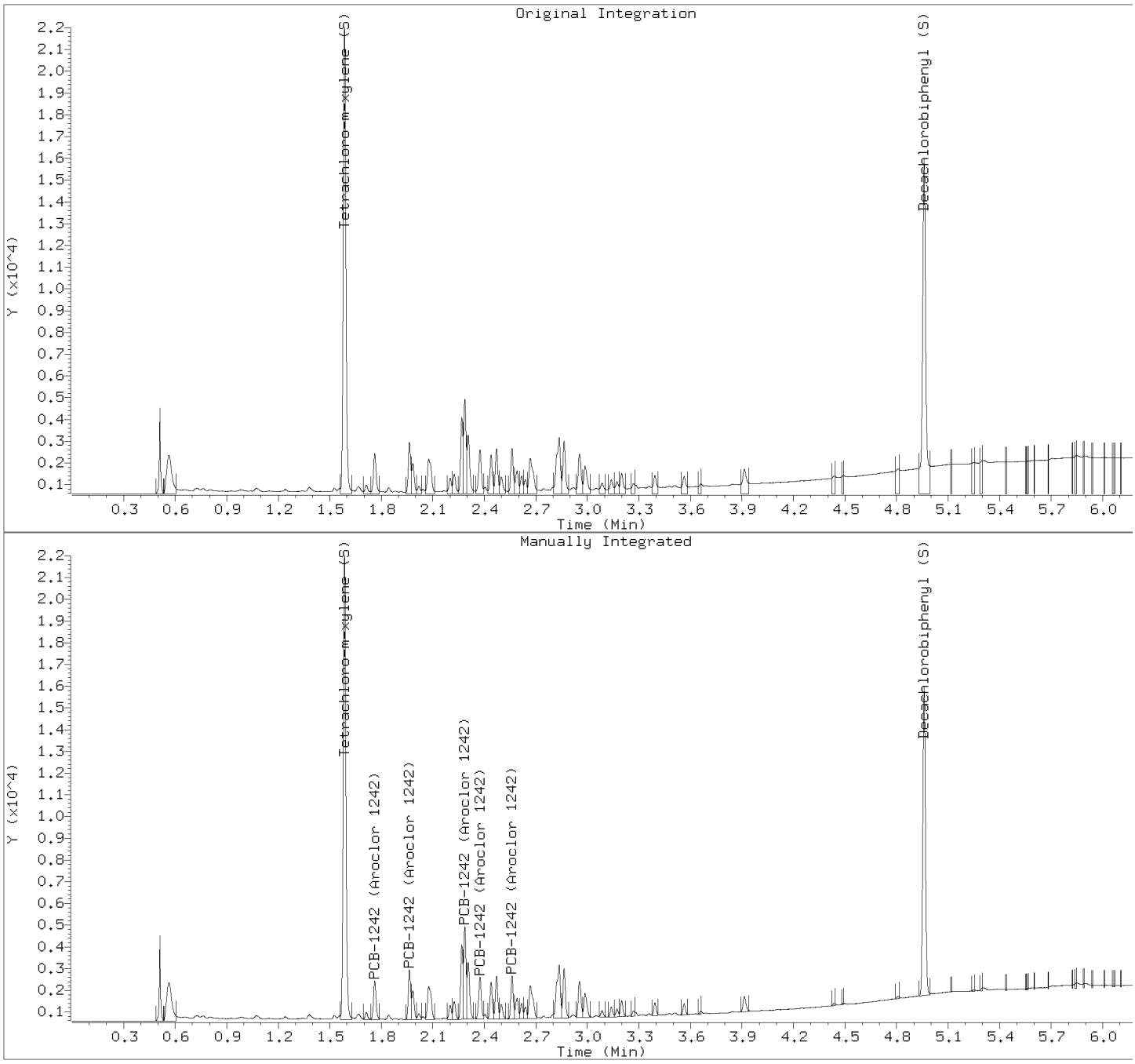
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
53469-21-9	PCB-1242 (Aroclor 1242)		J
	Peak found at 1.762	0.250	J
	Peak found at 1.964	0.250	J
	Peak found at 2.286	0.250	J
	Peak found at 2.375	0.250	J
	Peak found at 2.561	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0499	J
2051-24-3	Decachlorobiphenyl (S)	0.0488	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000011.d
Date : 24-MAY-2019 14:25
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86155:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000011.d (ManInt: ar1242.sub Orig: ar1242.sub)
Injection Date: 24-MAY-2019 14:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1242 (Aroclor 1242)	0	1890
PCB-1242 (Aroclor 1242)	0	2186
PCB-1242 (Aroclor 1242)	0	4196
PCB-1242 (Aroclor 1242)	0	2094
PCB-1242 (Aroclor 1242)	0	1934
Tetrachloro-m-xylene (S)	22784	22523
Decachlorobiphenyl (S)	19977	15346

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.547	410	285	0.696	0.272		
0.591	1961	869	0.443	0.831		
1.209	25304	21596	0.853	20.687	$ 10 Tetrachloro-m-xylene (S)	
1.375	330	314	0.953	0.300		
1.630	2043	1645	0.805	1.574		
1.745	604	688	1.140	0.658		
1.759	623	648	1.041	0.620		
1.877	5873	4432	0.755	4.241	5 PCB-1248 (Aroclor 1248)	
1.932	1842	1857	1.008	1.777		
2.008	1026	1159	1.130	1.109		
2.035	3872	3728	0.963	3.567	5 PCB-1248 (Aroclor 1248)	
2.062	2562	2771	1.082	2.651		
2.077	2603	2553	0.981	2.443		
2.188	3978	4280	1.076	4.096	5 PCB-1248 (Aroclor 1248)	
2.212	1465	1554	1.061	1.487		
2.238	1603	1404	0.876	1.343		
2.278	3494	3512	1.005	3.361	5 PCB-1248 (Aroclor 1248)	
2.345	1118	1064	0.951	1.018		
2.375	2668	2892	1.084	2.767		
2.401	4715	5070	1.075	4.852		
2.429	5685	5656	0.995	5.412	5 PCB-1248 (Aroclor 1248)	
2.473	720	754	1.047	0.721		
2.510	1507	1530	1.015	1.464		
2.546	715	1228	1.718	1.175		
2.560	2540	2575	1.014	2.464		
2.580	3063	2362	0.771	2.260		
2.676	899	932	1.037	0.891		
2.728	1487	1548	1.041	1.481		
2.763	940	1040	1.106	0.995		
2.791	2374	2440	1.028	2.335		
2.839	390	304	0.780	0.290		
2.898	1054	914	0.867	0.874		
2.924	1708	1784	1.044	1.707		
2.995	254	262	1.030	0.250		
3.147	1608	1676	1.042	1.603		
3.227	586	503	0.858	0.481		
3.369	1557	1267	0.814	1.212		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.584	218	231	1.061	0.221		
3.826	120	195	1.623	0.186		
4.152	48	83	1.731	0.079		
4.501	14933	14702	0.985	14.069	$ 11 Decachlorobiphenyl (S)	
4.814	46	73	1.584	0.069		
4.863	84	112	1.340	0.107		
	110629	104492		100.000		

Total unknown % height = 44.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
1.877	1.877	0.000	5872	0.25000	0.250	80.00- 120.00	100.00	
2.035	2.035	0.000	3872	0.25000	0.250	52.75- 79.13	65.94	
2.188	2.188	0.000	3978	0.25000	0.250	54.20- 81.29	67.75	
2.277	2.277	0.000	3494	0.25000	0.250	47.60- 71.40	59.50	
2.428	2.428	0.000	5685	0.25000	0.250	77.45- 116.18	96.81	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	25304	0.05000	0.0501			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	14932	0.05000	0.0455			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

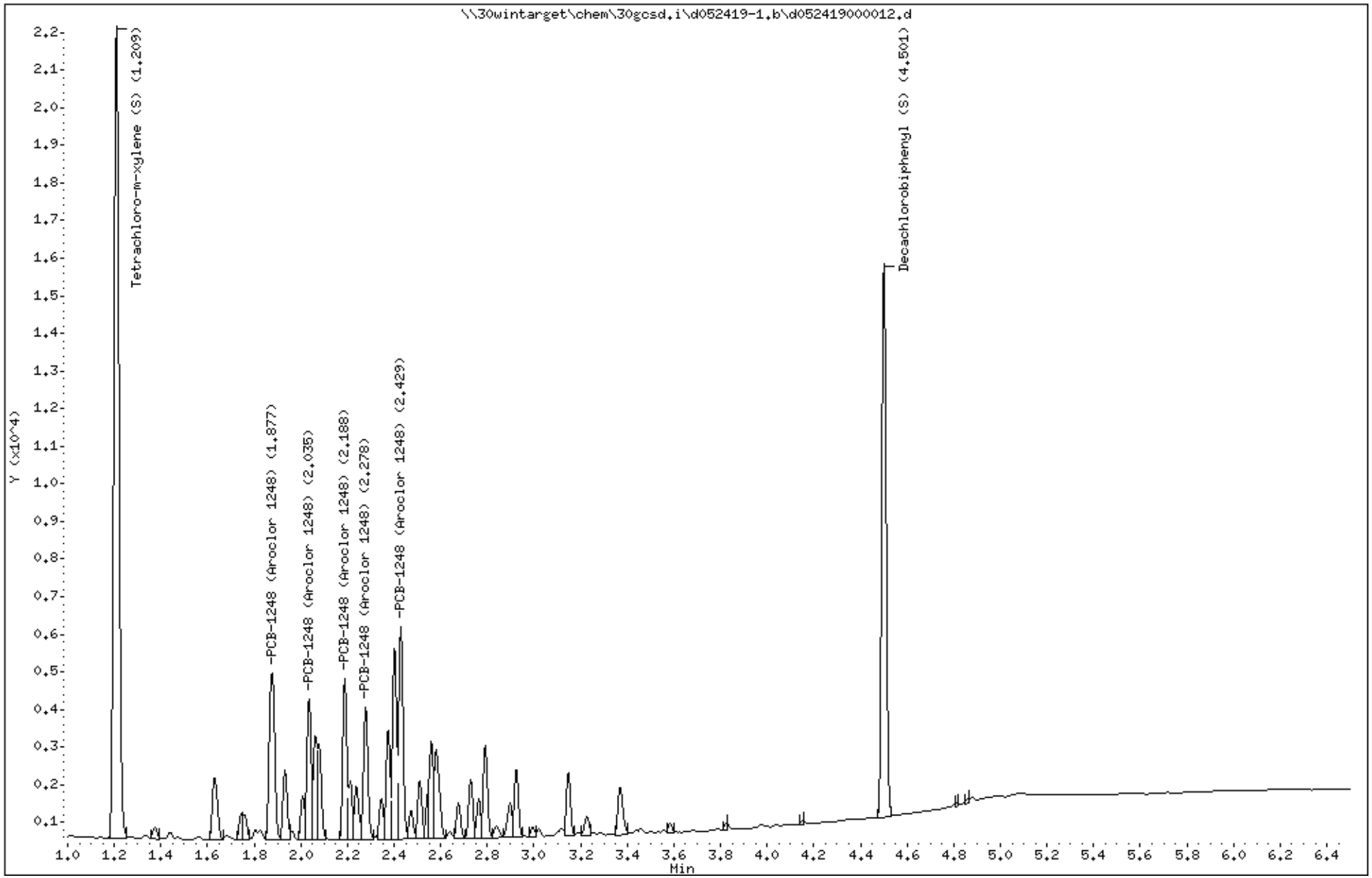
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

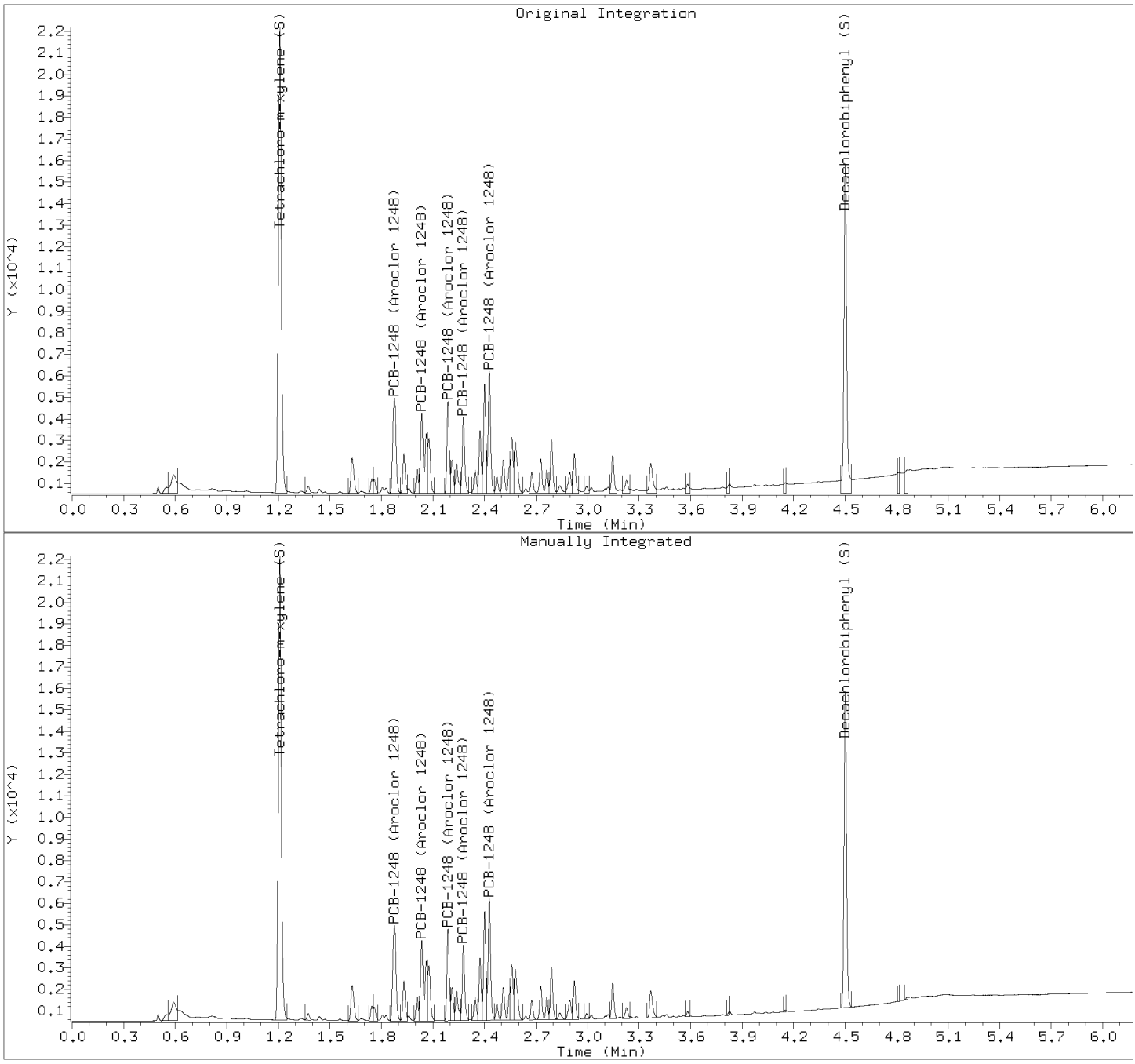
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12672-29-6	PCB-1248 (Aroclor 1248)		
	Peak found at 1.877	0.250	
	Peak found at 2.035	0.250	
	Peak found at 2.188	0.250	
	Peak found at 2.278	0.250	
	Peak found at 2.429	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0501	
2051-24-3	Decachlorobiphenyl (S)	0.0455	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Sample Info: CAL3S, 86156:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	5857	5872
PCB-1248 (Aroclor 1248)	3850	3872
PCB-1248 (Aroclor 1248)	3962	3978
PCB-1248 (Aroclor 1248)	3506	3494
PCB-1248 (Aroclor 1248)	5722	5685
Tetrachloro-m-xylene (S)	25444	25304
Decachlorobiphenyl (S)	17105	14932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	1037	1478	1.426	1.516		
0.566	599	506	0.844	0.519		
0.622	2352	967	0.411	0.991		
0.731	810	520	0.642	0.533		
1.073	437	412	0.943	0.422		
1.554	106	120	1.132	0.123		
1.586	22644	21310	0.941	21.891	$ 10 Tetrachloro-m-xylene (S)	
1.759	422	413	0.980	0.423		
1.964	1242	1288	1.037	1.321		
1.984	503	537	1.068	0.550		
2.086	1028	667	0.649	0.684		
2.200	221	228	1.033	0.233		
2.226	267	258	0.967	0.264		
2.268	2429	2724	1.122	2.794		
2.285	3077	3079	1.001	3.158	5 PCB-1248 (Aroclor 1248)	CO
2.305	1406	1362	0.968	1.397		
2.373	1495	1298	0.868	1.331		
2.404	254	256	1.007	0.262		
2.439	2890	2979	1.031	3.055	5 PCB-1248 (Aroclor 1248)	CO
2.471	2921	2975	1.018	3.051		
2.499	1241	1169	0.942	1.199		
2.560	3272	3401	1.039	3.488	5 PCB-1248 (Aroclor 1248)	CO
2.590	1462	1370	0.937	1.405		
2.616	1135	1167	1.028	1.197		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.638	638	671	1.052	0.688		
2.666	2564	2457	0.958	2.520	5 PCB-1248 (Aroclor 1248)	CO
2.682	377	1053	2.794	1.080		
2.798	144	234	1.624	0.240		
2.823	2237	3262	1.458	3.346		
2.835	5098	4585	0.899	4.703	5 PCB-1248 (Aroclor 1248)	CO
2.864	4276	4244	0.993	4.353		
2.922	278	263	0.945	0.269		
2.954	3760	3287	0.874	3.371		
2.987	2726	1999	0.733	2.050		
3.051	125	169	1.354	0.173		
3.085	771	744	0.965	0.763		
3.138	1142	1107	0.969	1.135		
3.172	934	878	0.940	0.900		
3.199	1971	1962	0.996	2.012		
3.268	821	598	0.729	0.613		
3.308	172	178	1.036	0.182		
3.357	119	197	1.662	0.202		
3.392	1463	1426	0.975	1.462		
3.478	227	214	0.943	0.219		
3.505	115	156	1.362	0.160		
3.563	1359	1348	0.992	1.382		
3.661	355	328	0.925	0.336		
3.845	84	115	1.363	0.117		
3.913	1239	992	0.800	1.017		
4.060	123	181	1.468	0.185		
4.247	90	130	1.441	0.133		
4.494	52	69	1.334	0.070		
4.617	50	86	1.709	0.088		
4.803	6	24	4.068	0.024		
4.959	14059	13126	0.934	13.464	$ 11 Decachlorobiphenyl (S)	
5.246	14	56	3.886	0.057		
5.298	55	102	1.841	0.104		
5.366	8	37	4.695	0.037		
5.489	13	44	3.364	0.045		
5.677	9	37	4.322	0.037		
5.711	15	64	4.148	0.065		
5.728	14	49	3.518	0.050		
5.767	9	43	4.694	0.044		
5.810	12	34	2.916	0.034		
5.833	12	45	3.886	0.046		
5.839	15	51	3.488	0.052		
5.891	24	69	2.844	0.070		
5.899	41	83	2.025	0.085		
6.162	9	42	4.924	0.043		
6.184	11	46	4.144	0.047		
6.233	20	50	2.498	0.051		
6.361	5	27	5.895	0.027		
6.404	5	21	4.303	0.021		
6.427	7	21	3.211	0.021		
	100918	97488		100.000		

Total unknown % height = 47.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86156:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 12 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 PCB-1248 (Aroclor 1248)						CAS #: 12672-29-6		
2.285	2.285	0.000	3077	0.25000	0.250	80.00- 120.00	100.00(aM)	CO
2.438	2.438	0.000	2889	0.25000	0.250	75.11- 112.67	93.92	CO
2.560	2.560	0.000	3271	0.25000	0.250	85.04- 127.57	106.33	CO
2.666	2.666	0.000	2563	0.25000	0.250	66.64- 99.95	83.31	CO
2.834	2.834	0.000	5098	0.25000	0.250	132.54- 198.82	165.68	CO
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22643	0.05000	0.0502			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.958	4.960	-0.002	14059	0.05000	0.0454		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

QC Flag Legend

Review Codes Legend

CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
:

Pace Analytical Services, Inc.

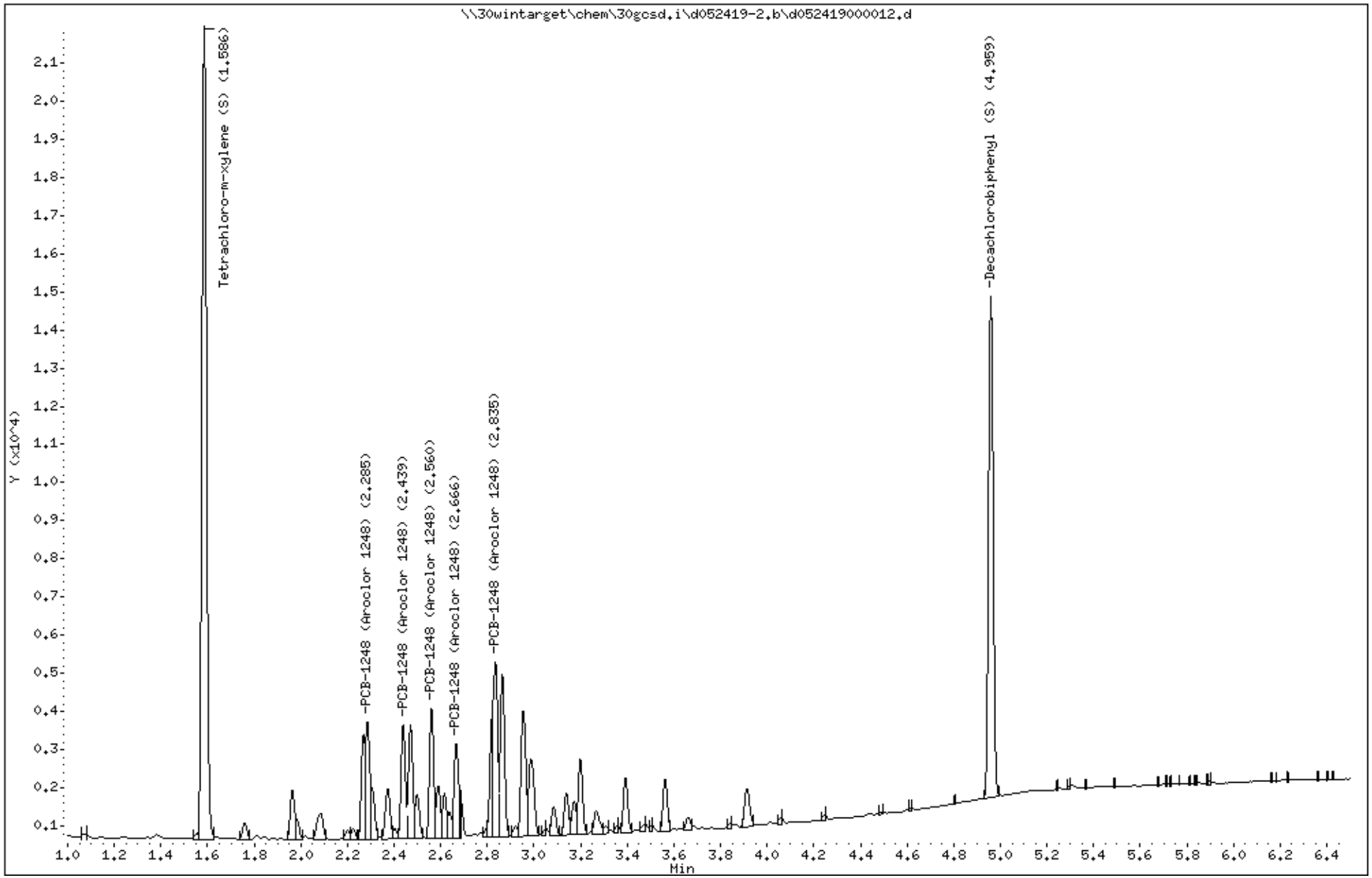
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

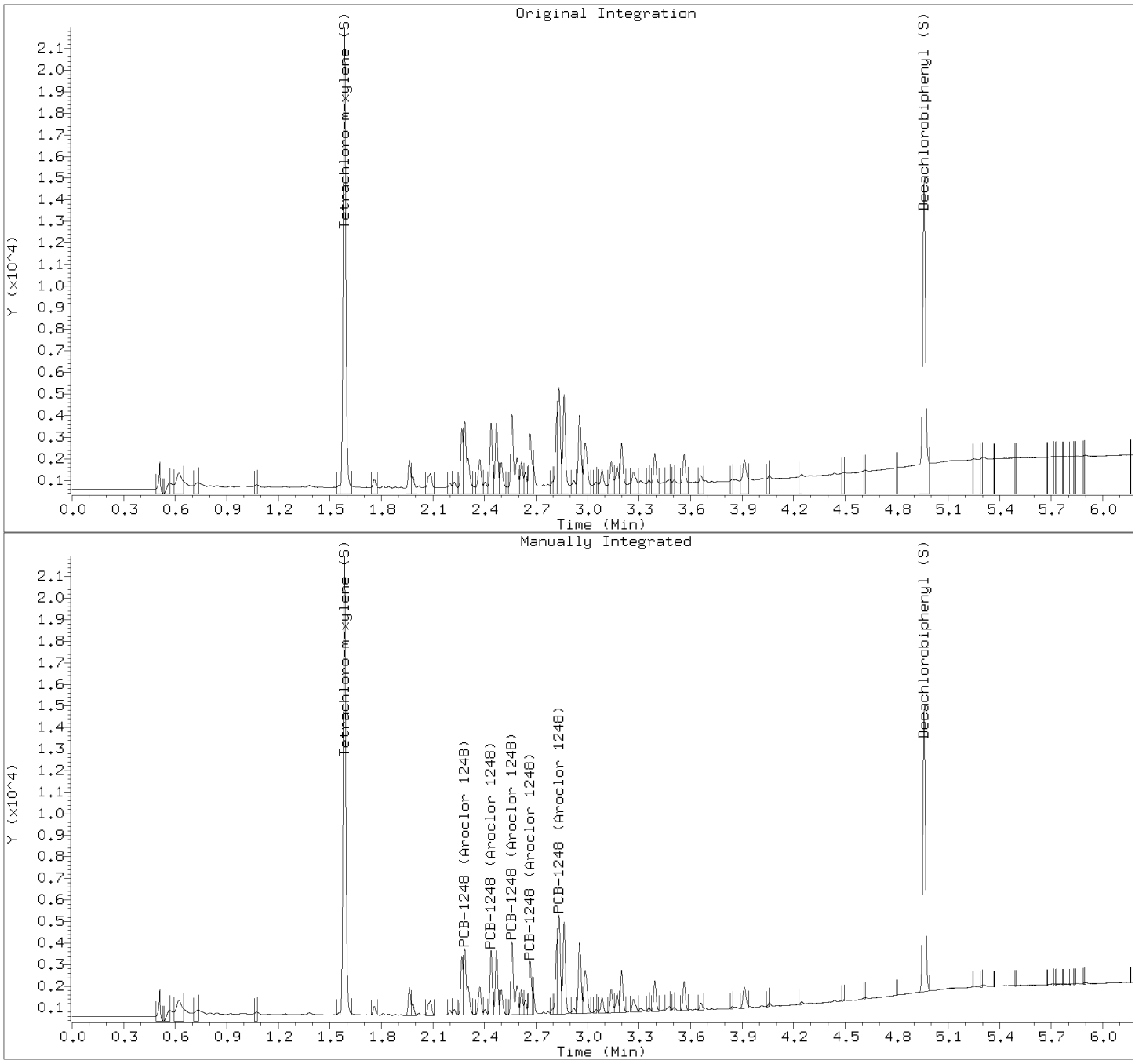
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12672-29-6	PCB-1248 (Aroclor 1248)		J
	Peak found at 2.285	0.250	J
	Peak found at 2.439	0.250	J
	Peak found at 2.560	0.250	J
	Peak found at 2.666	0.250	J
	Peak found at 2.835	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0502	
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000012.d
Date : 24-MAY-2019 14:33
Client ID: CAL3S
Instrument: 30gcsd.i
Sample Info: CAL3S, 86156:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000012.d (ManInt: ar1248.sub Orig: ar1248.sub)
Injection Date: 24-MAY-2019 14:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1248 (Aroclor 1248)	0	3077
PCB-1248 (Aroclor 1248)	0	2889
PCB-1248 (Aroclor 1248)	0	3271
PCB-1248 (Aroclor 1248)	0	2563
PCB-1248 (Aroclor 1248)	0	5098
Tetrachloro-m-xylene (S)	23722	22643
Decachlorobiphenyl (S)	18977	14059

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.502	489	461	0.942	0.405		
0.714	8162	4394	0.538	3.868		
1.021	285	217	0.761	0.191		
1.210	23752	20379	0.858	17.965	$ 10 Tetrachloro-m-xylene (S)	
1.314	813	677	0.833	0.596		
2.036	2429	2585	1.064	2.276		
2.062	911	778	0.854	0.685		
2.188	1434	1519	1.059	1.337		
2.278	529	568	1.073	0.500		
2.375	619	683	1.103	0.601		
2.402	2084	2328	1.117	2.049		
2.426	4533	4510	0.995	3.970	6 PCB-1254 (Aroclor 1254)	
2.473	1615	1715	1.062	1.510		
2.510	4937	5186	1.050	4.566	6 PCB-1254 (Aroclor 1254)	
2.545	2421	2257	0.932	1.987		
2.594	1826	1716	0.940	1.510		
2.639	369	388	1.051	0.341		
2.677	1826	1912	1.047	1.683		
2.729	3904	4052	1.038	3.567		
2.763	1190	1309	1.100	1.152		
2.792	7865	7801	0.992	6.868	6 PCB-1254 (Aroclor 1254)	
2.830	744	756	1.016	0.665		
2.852	340	303	0.890	0.266		
2.887	3770	2864	0.760	2.521		
2.924	5069	5258	1.037	4.629	6 PCB-1254 (Aroclor 1254)	
2.955	607	634	1.045	0.558		
2.995	3354	3095	0.923	2.725		
3.103	929	1210	1.302	1.065		
3.120	2124	2106	0.992	1.854		
3.148	3435	3276	0.954	2.884		
3.191	849	793	0.934	0.698		
3.227	6804	5419	0.796	4.771	6 PCB-1254 (Aroclor 1254)	
3.284	650	623	0.958	0.548		
3.369	1759	1478	0.840	1.301		
3.438	274	336	1.228	0.295		
3.460	1686	1660	0.985	1.461		
3.500	194	198	1.023	0.174		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.533	211	234	1.108	0.206		
3.558	958	1019	1.063	0.897		
3.584	945	758	0.802	0.667		
3.826	740	716	0.968	0.630		
3.973	268	265	0.987	0.233		
4.037	37	65	1.772	0.057		
4.500	15002	14730	0.982	12.969	$ 11 Decachlorobiphenyl (S)	
4.813	62	94	1.527	0.082		
4.862	99	144	1.450	0.126		
5.242	77	86	1.113	0.075		
5.666	5	19	3.740	0.016		
	122986	113574		100.000		

Total unknown % height = 44.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.425	2.425	0.000	4533	0.25000	0.250	80.00- 120.00	100.00	
2.509	2.509	0.000	4937	0.25000	0.250	87.13- 130.69	108.91	
2.791	2.791	0.000	7864	0.25000	0.250	138.79- 208.18	173.49	
2.924	2.924	0.000	5068	0.25000	0.250	89.44- 134.16	111.82	
3.226	3.226	0.000	6804	0.25000	0.250	120.08- 180.12	150.10	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.209	1.210	-0.001	23751	0.05000	0.0475			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	15001	0.05000	0.0457			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

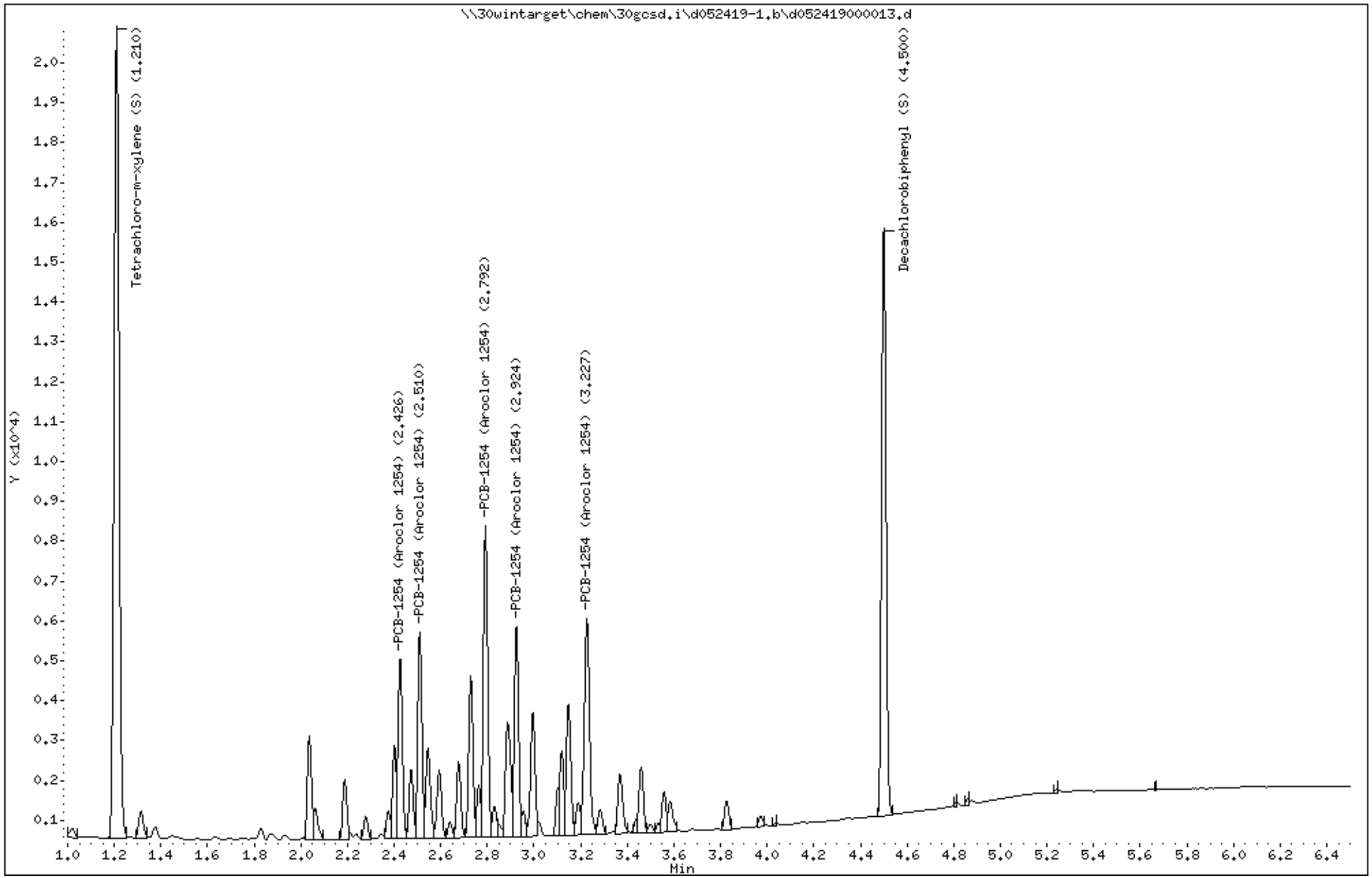
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

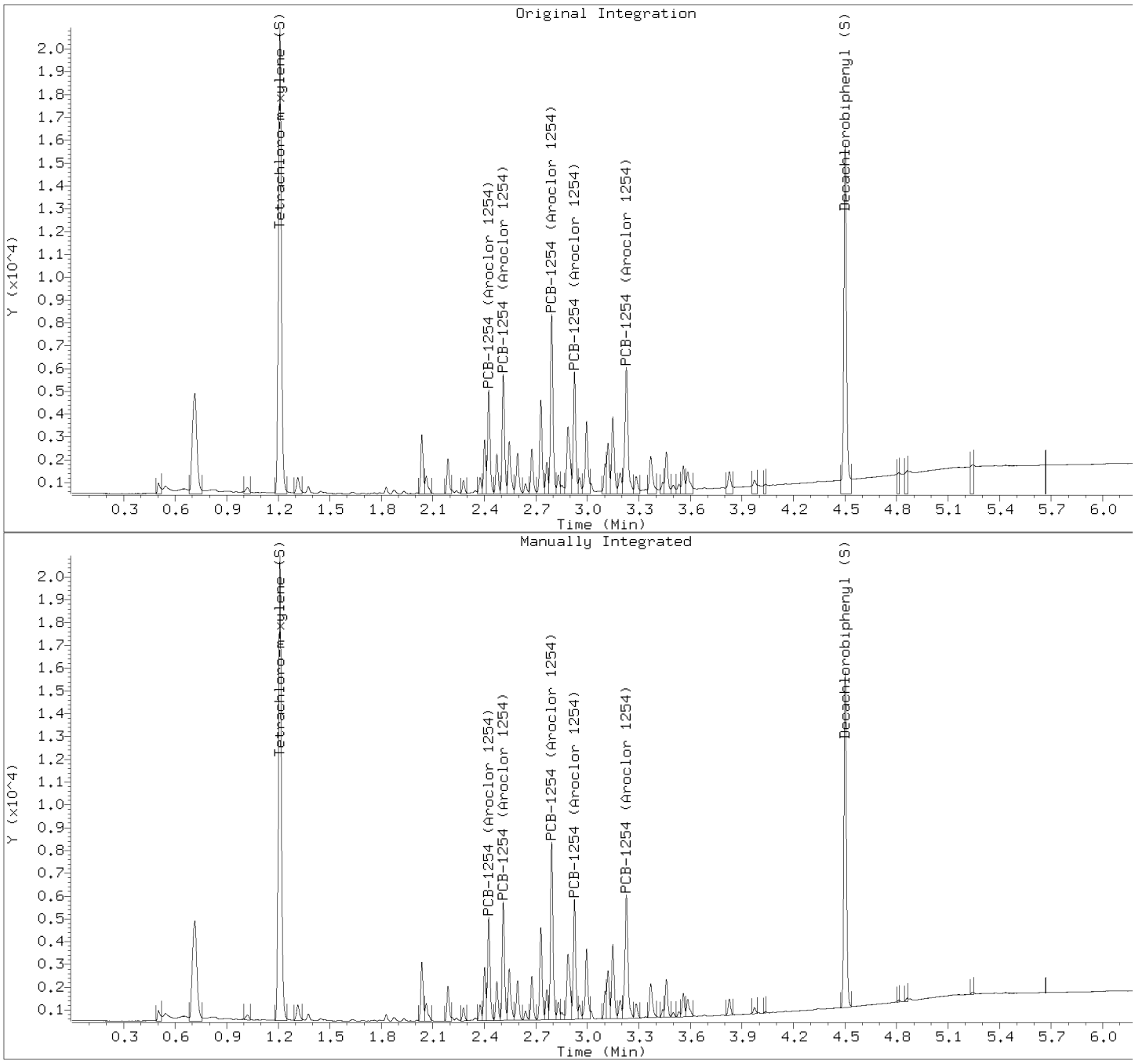
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
11097-69-1	PCB-1254 (Aroclor 1254)		
	Peak found at 2.426	0.250	
	Peak found at 2.510	0.250	
	Peak found at 2.792	0.250	
	Peak found at 2.924	0.250	
	Peak found at 3.227	0.250	
	Average of Peak Amounts =	0.250	
877-09-8	Tetrachloro-m-xylene (S)	0.0475	
2051-24-3	Decachlorobiphenyl (S)	0.0457	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	4578	4533
PCB-1254 (Aroclor 1254)	5002	4937
PCB-1254 (Aroclor 1254)	8012	7864
PCB-1254 (Aroclor 1254)	5215	5068
PCB-1254 (Aroclor 1254)	7278	6804
Tetrachloro-m-xylene (S)	23868	23751
Decachlorobiphenyl (S)	17224	15001

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	1164	1715	1.474	1.697		
0.565	444	358	0.806	0.354		
0.827	7649	4268	0.558	4.225		
1.249	181	204	1.130	0.201		
1.586	22006	20206	0.918	20.034	$ 10 Tetrachloro-m-xylene (S)	
1.759	291	293	1.006	0.290		
2.227	300	303	1.011	0.299		
2.439	2119	2167	1.023	2.145		
2.471	646	636	0.984	0.629		
2.561	1221	1245	1.020	1.232		
2.666	475	470	0.990	0.465		
2.817	3678	3626	0.986	3.589	6 PCB-1254 (Aroclor 1254)	
2.835	1933	2141	1.107	2.119		
2.865	1134	1119	0.986	1.107		
2.922	850	875	1.029	0.866		
2.959	5741	5239	0.913	5.186	6 PCB-1254 (Aroclor 1254)	
2.996	1983	1873	0.945	1.854		
3.051	384	329	0.856	0.325		
3.085	1567	1535	0.980	1.519		
3.139	3176	3105	0.978	3.073		
3.172	1572	1261	0.802	1.248		
3.199	6066	6090	1.004	6.028	6 PCB-1254 (Aroclor 1254)	
3.247	474	551	1.161	0.545		
3.266	1387	1035	0.746	1.024		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.308	2472	2083	0.843	2.062		
3.358	432	406	0.940	0.401		
3.392	4660	4537	0.974	4.491	6 PCB-1254 (Aroclor 1254)	
3.436	559	506	0.906	0.500		
3.479	2580	2455	0.952	2.430		
3.503	1726	1658	0.961	1.641		
3.562	3359	3014	0.897	2.983		
3.599	444	436	0.981	0.431		
3.628	664	535	0.805	0.529		
3.661	4753	4405	0.927	4.360	6 PCB-1254 (Aroclor 1254)	
3.686	1200	1214	1.012	1.201		
3.721	108	167	1.540	0.165		
3.758	86	144	1.673	0.142		
3.844	1446	1362	0.942	1.348		
3.914	1326	1009	0.761	0.998		
3.951	92	144	1.564	0.142		
4.015	861	845	0.981	0.836		
4.042	128	177	1.385	0.175		
4.060	624	581	0.931	0.575		
4.246	497	491	0.988	0.486		
4.437	173	179	1.036	0.177		
4.808	44	58	1.332	0.057		
4.929	5	17	3.184	0.016		
4.959	14086	13364	0.949	13.229	$ 11 Decachlorobiphenyl (S)	
5.069	7	21	3.070	0.020		
5.084	5	19	3.682	0.018		
5.237	4	21	4.839	0.020		
5.299	89	128	1.433	0.126		
5.626	7	32	4.469	0.031		
5.697	29	71	2.442	0.070		
5.701	34	85	2.468	0.084		
5.846	23	70	3.101	0.069		
5.893	65	110	1.682	0.108		
6.033	8	26	3.148	0.025		
	109038	101014		100.000		

Total unknown % height = 43.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Lab Smp Id: CAL3S Client Smp ID: CAL3S
Inj Date : 24-MAY-2019 14:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3s, 86172:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 PCB-1254 (Aroclor 1254)						CAS #: 11097-69-1		
2.816	2.816	0.000	3678	0.25000	0.250	80.00- 120.00	100.00	(a)
2.958	2.958	0.000	5740	0.25000	0.250	124.85- 187.28	156.08	
3.198	3.198	0.000	6065	0.25000	0.250	131.92- 197.88	164.91	
3.392	3.392	0.000	4659	0.25000	0.250	101.34- 152.01	126.69	
3.660	3.660	0.000	4752	0.25000	0.250	103.36- 155.04	129.22	
Average of Peak Amounts =				0.25000				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.585	1.586	-0.001	22005	0.05000	0.0490			(a)
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	14085	0.05000	0.0454			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

QC Flag Legend

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

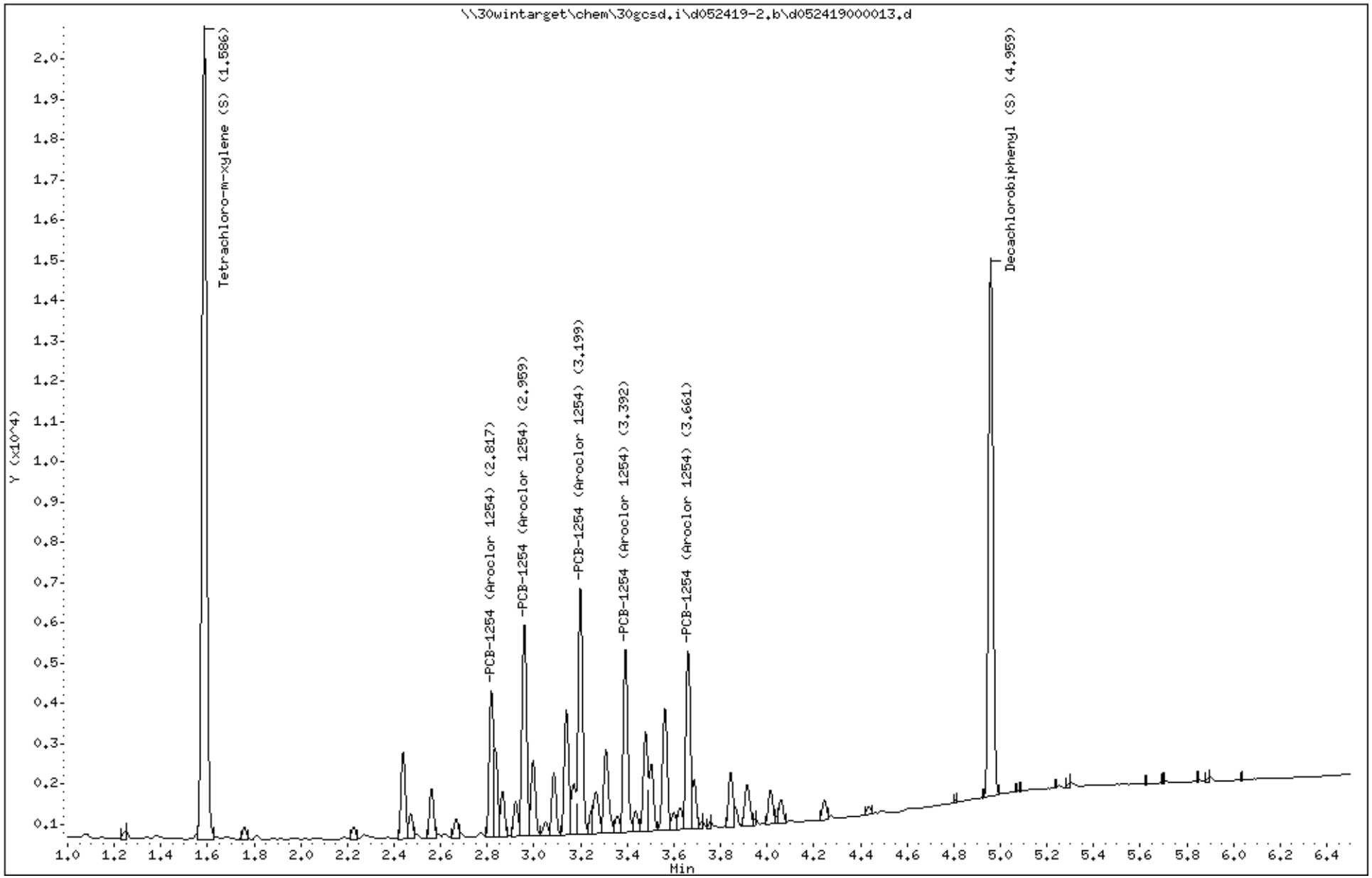
Client Name:
Lab Smp Id: CAL3S
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3S
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

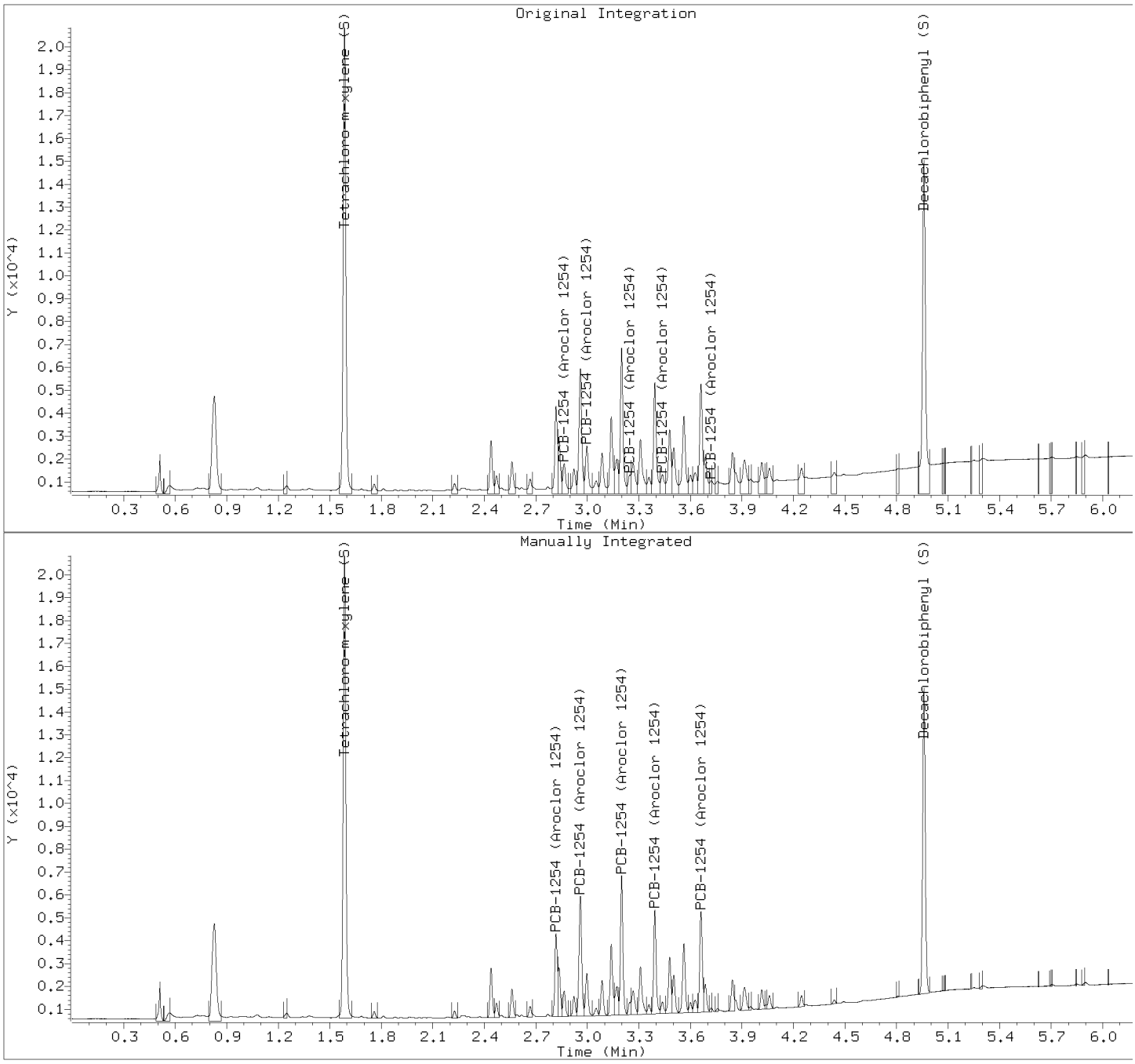
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
11097-69-1	PCB-1254 (Aroclor 1254)		J
	Peak found at 2.817	0.250	J
	Peak found at 2.959	0.250	J
	Peak found at 3.199	0.250	J
	Peak found at 3.392	0.250	J
	Peak found at 3.661	0.250	J
	Average of Peak Amounts =	0.250	J
877-09-8	Tetrachloro-m-xylene (S)	0.0490	J
2051-24-3	Decachlorobiphenyl (S)	0.0454	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000013.d
Date : 24-MAY-2019 14:42
Client ID: CAL3S
Sample Info: CAL3S, 86172:1
Volume Injected (uL): 1.0
Column phase: DB-CLP2

Instrument: 30gcsd.i
Operator: CWB
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000013.d (ManInt: ar1254.sub Orig: ar1254.sub)
Injection Date: 24-MAY-2019 14:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3S



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1254 (Aroclor 1254)	1571	3678
PCB-1254 (Aroclor 1254)	2610	5740
PCB-1254 (Aroclor 1254)	856	6065
PCB-1254 (Aroclor 1254)	1174	4659
PCB-1254 (Aroclor 1254)	461	4752
Tetrachloro-m-xylene (S)	22568	22005
Decachlorobiphenyl (S)	18623	14085

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	163989	77594	0.473	10.304		
0.837	1101	563	0.511	0.074		
1.212	99045	89696	0.906	11.946	$ 10 Tetrachloro-m-xylene (S)	
1.269	1347	988	0.734	0.131		
1.346	1767	1653	0.935	0.219		
1.377	1210	1227	1.014	0.162		
1.401	1865	1808	0.969	0.240		
1.442	9228	8406	0.911	1.116		
1.561	1227	1227	1.000	0.162		
1.632	18891	14503	0.768	1.926	1 PCB-1016 (Aroclor 1016)	
1.684	1037	1607	1.550	0.213		
1.694	2195	1812	0.826	0.240		
1.746	4850	5957	1.228	0.791		
1.761	7815	7709	0.986	1.023		
1.807	3320	3706	1.116	0.492		
1.823	2515	2601	1.034	0.345		
1.879	39182	30016	0.766	3.986	1 PCB-1016 (Aroclor 1016)	
1.933	15863	14197	0.895	1.885	1 PCB-1016 (Aroclor 1016)	
2.009	9085	10037	1.105	1.332		
2.036	11482	10735	0.935	1.425		
2.063	7459	8446	1.132	1.121		
2.078	8737	8070	0.924	1.071		
2.189	11848	12683	1.071	1.684	1 PCB-1016 (Aroclor 1016)	
2.213	4656	4939	1.061	0.655		
2.239	3692	3980	1.078	0.528		
2.255	1844	2434	1.320	0.323		
2.279	10413	10338	0.993	1.372	1 PCB-1016 (Aroclor 1016)	
2.346	2819	2803	0.994	0.372		
2.376	1617	1713	1.060	0.227		
2.402	2060	2315	1.124	0.307		
2.426	7917	7713	0.974	1.024		
2.473	1070	1132	1.058	0.150		
2.510	6862	7215	1.051	0.958		
2.594	567	441	0.778	0.058		
2.729	1046	1106	1.057	0.146		
2.798	17210	15294	0.889	2.031	7 PCB-1260 (Aroclor 1260)	
2.831	6293	6226	0.989	0.826		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	22006	22517	1.023	2.990	7 PCB-1260 (Aroclor 1260)	
2.924	1021	1052	1.030	0.139		
2.955	3598	3783	1.051	0.502		
2.996	27471	27628	1.006	3.669	7 PCB-1260 (Aroclor 1260)	
3.103	11008	12423	1.129	1.649		
3.122	14586	13517	0.927	1.795		
3.191	8268	6270	0.758	0.832		
3.228	29959	22713	0.758	3.016		
3.255	20426	20197	0.989	2.682		
3.289	11424	11438	1.001	1.519		
3.379	4271	3995	0.935	0.530		
3.440	22050	20396	0.925	2.708		
3.501	11106	11068	0.997	1.469		
3.535	8849	8475	0.958	1.125		
3.559	1841	2288	1.243	0.303		
3.586	48049	48506	1.010	6.441	7 PCB-1260 (Aroclor 1260)	
3.621	992	1027	1.036	0.136		
3.680	1684	1672	0.993	0.222		
3.759	642	695	1.082	0.092		
3.787	9403	9634	1.025	1.279		
3.828	34551	32963	0.954	4.377	7 PCB-1260 (Aroclor 1260)	
3.974	1729	1724	0.997	0.228		
4.037	405	437	1.079	0.058		
4.080	4865	4917	1.011	0.653		
4.154	11552	11199	0.969	1.487		
4.344	3935	3938	1.001	0.522		
4.393	54	96	1.788	0.012		
4.502	65460	65368	0.999	8.681	$ 11 Decachlorobiphenyl (S)	
4.815	145	149	1.026	0.019		
	874471	752975		100.000		

Total unknown % height = 49.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	18890	1.00000	0.920	80.00- 120.00	100.00	
1.879	1.878	0.001	39181	1.00000	0.948	162.66- 243.99	207.41	
1.932	1.932	0.000	15863	1.00000	0.952	63.55- 95.32	83.97	
2.189	2.188	0.001	11847	1.00000	0.927	49.13- 73.70	62.72	
2.278	2.277	0.001	10413	1.00000	0.948	42.04- 63.06	55.12	
Average of Peak Amounts =					0.93900			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	17209	1.00000	0.928	80.00- 120.00	100.00	
2.886	2.885	0.001	22006	1.00000	0.928	101.69- 152.53	127.87	
2.995	2.995	0.000	27470	1.00000	0.926	125.91- 188.87	159.62	
3.585	3.584	0.001	48049	1.00000	0.957	212.47- 318.70	279.20	
3.827	3.826	0.001	34551	1.00000	0.953	152.61- 228.91	200.77	
Average of Peak Amounts =					0.93840			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.211	1.210	0.001	99045	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	65459	0.20000	0.195			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

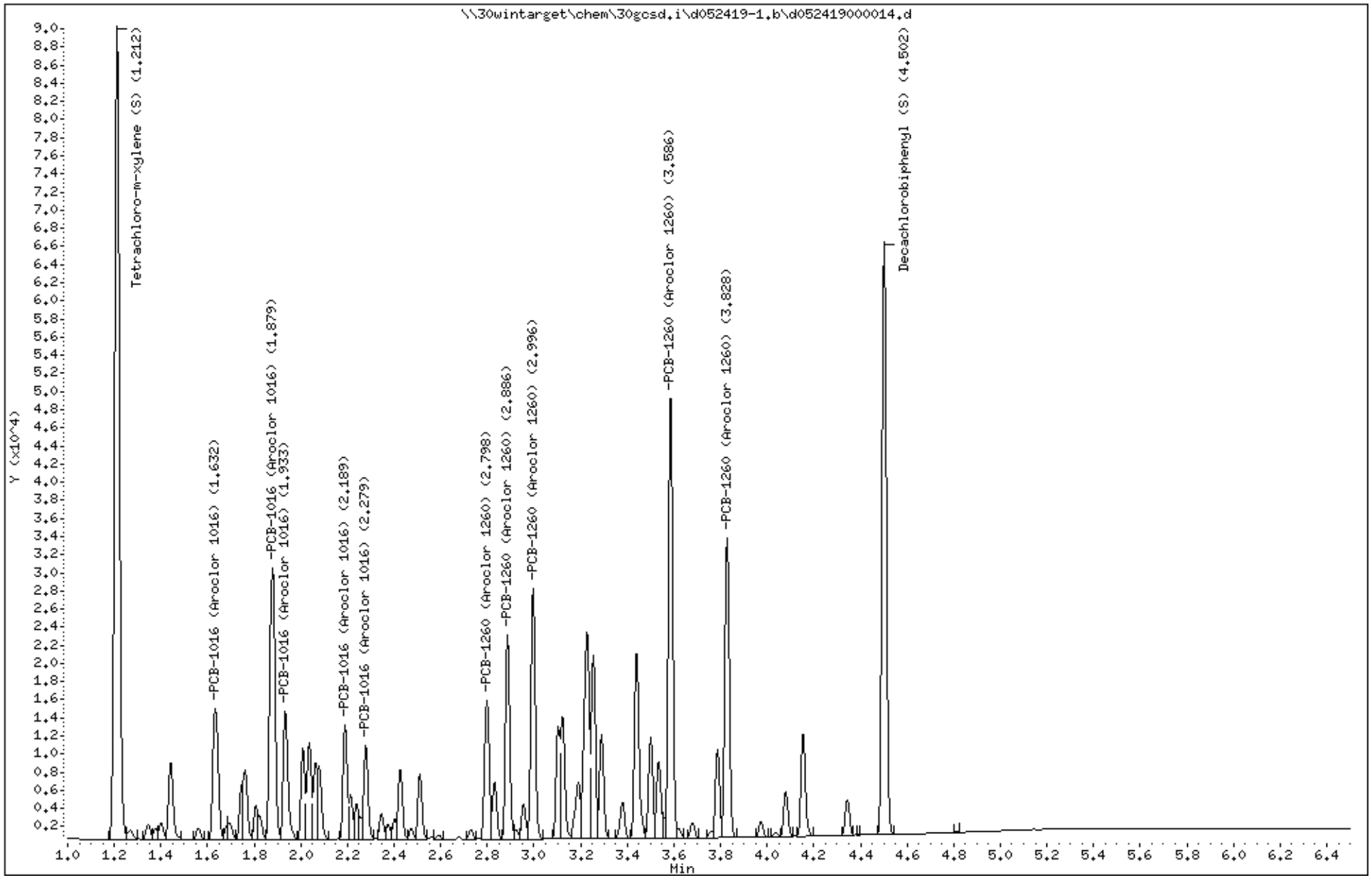
Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

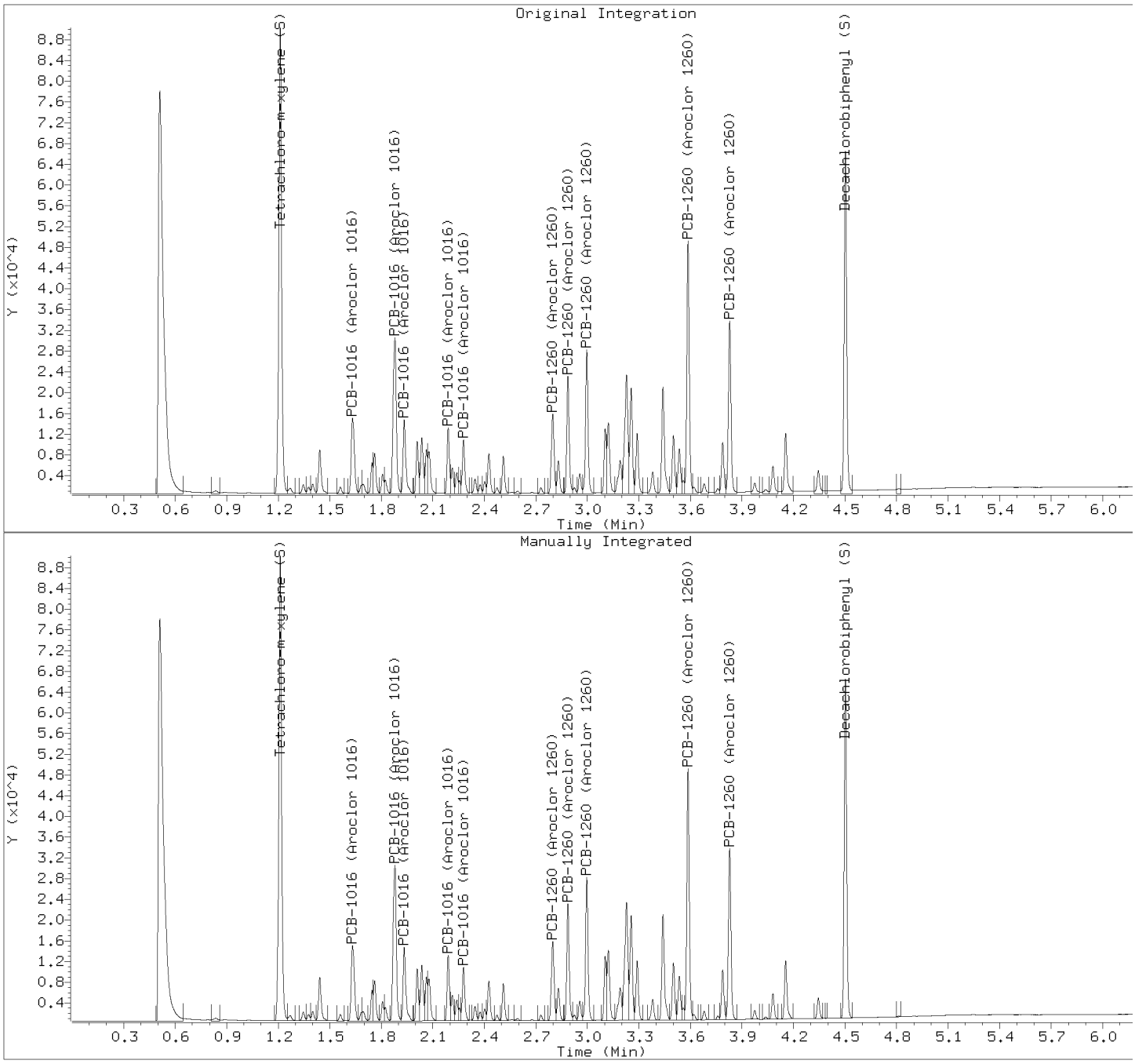
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.920	
	Peak found at 1.879	0.948	
	Peak found at 1.933	0.952	
	Peak found at 2.189	0.927	
	Peak found at 2.279	0.948	
	Average of Peak Amounts =	0.939	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.928	
	Peak found at 2.886	0.928	
	Peak found at 2.996	0.926	
	Peak found at 3.586	0.957	
	Peak found at 3.828	0.953	
	Average of Peak Amounts =	0.938	
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.195	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Sample Info: CAL6A, 87260:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	19009	18890
PCB-1016 (Aroclor 1016)	39317	39181
PCB-1016 (Aroclor 1016)	16020	15863
PCB-1016 (Aroclor 1016)	11911	11847
PCB-1016 (Aroclor 1016)	10527	10413
PCB-1260 (Aroclor 1260)	17378	17209
PCB-1260 (Aroclor 1260)	22259	22006
PCB-1260 (Aroclor 1260)	27877	27470
PCB-1260 (Aroclor 1260)	48628	48049
PCB-1260 (Aroclor 1260)	35616	34551
Tetrachloro-m-xylene (S)	99385	99045
Decachlorobiphenyl (S)	67924	65459

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.508	149851	90841	0.606	13.260		
0.649	2822	1416	0.502	0.205		
1.084	845	493	0.583	0.071		
1.528	951	877	0.923	0.127		
1.588	88396	86158	0.975	12.534	$ 10 Tetrachloro-m-xylene (S)	
1.668	1009	1195	1.185	0.173		
1.713	1695	1633	0.963	0.237		
1.763	8974	8653	0.964	1.258		
1.844	1111	1097	0.988	0.159		
1.964	10633	11154	1.049	1.622	1 PCB-1016 (Aroclor 1016)	
1.984	6311	6483	1.027	0.943		
2.019	1352	1366	1.011	0.198		
2.042	574	601	1.046	0.087		
2.076	11562	7468	0.646	1.086		
2.165	289	296	1.024	0.043		
2.201	2853	3143	1.102	0.457		
2.222	2279	2183	0.958	0.317		
2.269	14717	16943	1.151	2.464		
2.287	21107	21659	1.026	3.150	1 PCB-1016 (Aroclor 1016)	
2.306	13407	13101	0.977	1.905		
2.375	10544	9846	0.934	1.432	1 PCB-1016 (Aroclor 1016)	
2.404	988	1017	1.029	0.147		
2.439	7970	8304	1.042	1.208		
2.471	9299	9543	1.026	1.388	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	3713	3349	0.902	0.487		
2.561	9353	9634	1.030	1.401	1 PCB-1016 (Aroclor 1016)	
2.590	5197	4643	0.893	0.675		
2.617	3280	3350	1.021	0.487		
2.639	2522	2607	1.034	0.379		
2.667	10392	6925	0.666	1.007		
2.744	294	290	0.986	0.042		
2.818	8781	6460	0.736	0.939		
2.865	1455	1444	0.992	0.210		
2.922	658	673	1.023	0.097		
2.960	6563	6266	0.955	0.911		
3.139	761	891	1.171	0.129		
3.161	3301	3188	0.966	0.463		
3.199	2799	2830	1.011	0.411		
3.247	12512	9901	0.791	1.440		
3.277	2380	2630	1.105	0.382		
3.310	19229	19103	0.993	2.779	7 PCB-1260 (Aroclor 1260)	
3.391	1904	1768	0.928	0.257		
3.437	3126	3060	0.979	0.445		
3.479	23036	23099	1.003	3.360	7 PCB-1260 (Aroclor 1260)	
3.503	6549	6557	1.001	0.953		
3.557	15922	10892	0.684	1.584		
3.587	2209	2167	0.981	0.315		
3.631	2322	2097	0.903	0.305		
3.663	29125	22702	0.779	3.302	7 PCB-1260 (Aroclor 1260)	
3.722	17668	16726	0.947	2.433		
3.758	9485	9200	0.970	1.338		
3.840	3823	4234	1.107	0.615		
3.863	18296	17394	0.951	2.530		
3.897	990	1080	1.091	0.157		
3.923	8757	8535	0.975	1.241		
3.952	5402	4964	0.919	0.722		
3.981	455	478	1.051	0.069		
4.015	4872	4533	0.930	0.659		
4.061	41958	40037	0.954	5.824	7 PCB-1260 (Aroclor 1260)	
4.102	2242	2140	0.954	0.311		
4.248	25092	22192	0.884	3.228	7 PCB-1260 (Aroclor 1260)	
4.274	3303	4163	1.260	0.605		
4.296	11338	9552	0.842	1.389		
4.437	1030	983	0.954	0.143		
4.462	576	567	0.985	0.082		
4.497	4722	4354	0.922	0.633		
4.618	9821	9357	0.953	1.361		
4.660	566	524	0.926	0.076		
4.809	3678	3463	0.941	0.503		
4.909	16	48	3.015	0.006		
4.961	62081	60118	0.968	8.745	$ 11 Decachlorobiphenyl (S)	
5.251	127	144	1.132	0.020		
5.415	18	65	3.569	0.009		
5.494	26	52	1.990	0.007		
5.693	12	42	3.443	0.006		
5.700	14	47	3.431	0.006		
5.727	18	45	2.481	0.006		
5.943	5	22	4.135	0.003		
5.997	12	34	2.921	0.004		
6.051	9	26	2.975	0.003		
6.096	8	34	4.342	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.239	11	43	3.843	0.006		
6.257	9	38	4.199	0.005		
6.299	8	39	4.987	0.005		
6.319	7	33	4.694	0.004		
6.347	5	27	5.019	0.003		
6.351	6	31	4.829	0.004		
6.376	7	28	4.223	0.004		
	783395	687388		100.000		

Total unknown % height = 51.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Lab Smp Id: CAL6A Client Smp ID: CAL6A
Inj Date : 24-MAY-2019 14:50
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal6a, 87260:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 14 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	10632	1.00000	0.933	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	21107	1.00000	0.968	152.31- 228.47	198.51	
2.374	2.374	0.000	10544	1.00000	0.972	75.27- 112.91	99.17	
2.471	2.470	0.001	9299	1.00000	0.932	68.58- 102.86	87.46	
2.561	2.560	0.001	9352	1.00000	0.944	68.26- 102.40	87.96	
Average of Peak Amounts =					0.94980			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	19228	1.00000	0.946	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	23036	1.00000	0.946	88.62- 132.94	119.80	
3.663	3.662	0.001	29124	1.00000	0.994	120.10- 180.15	151.46	
4.060	4.060	0.000	41957	1.00000	0.975	171.60- 257.41	218.20	
4.248	4.247	0.001	25092	1.00000	0.970	103.64- 155.46	130.49	
Average of Peak Amounts =					0.96620			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	88395	0.20000	0.195			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.961	4.960	0.001	62080	0.20000	0.196			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

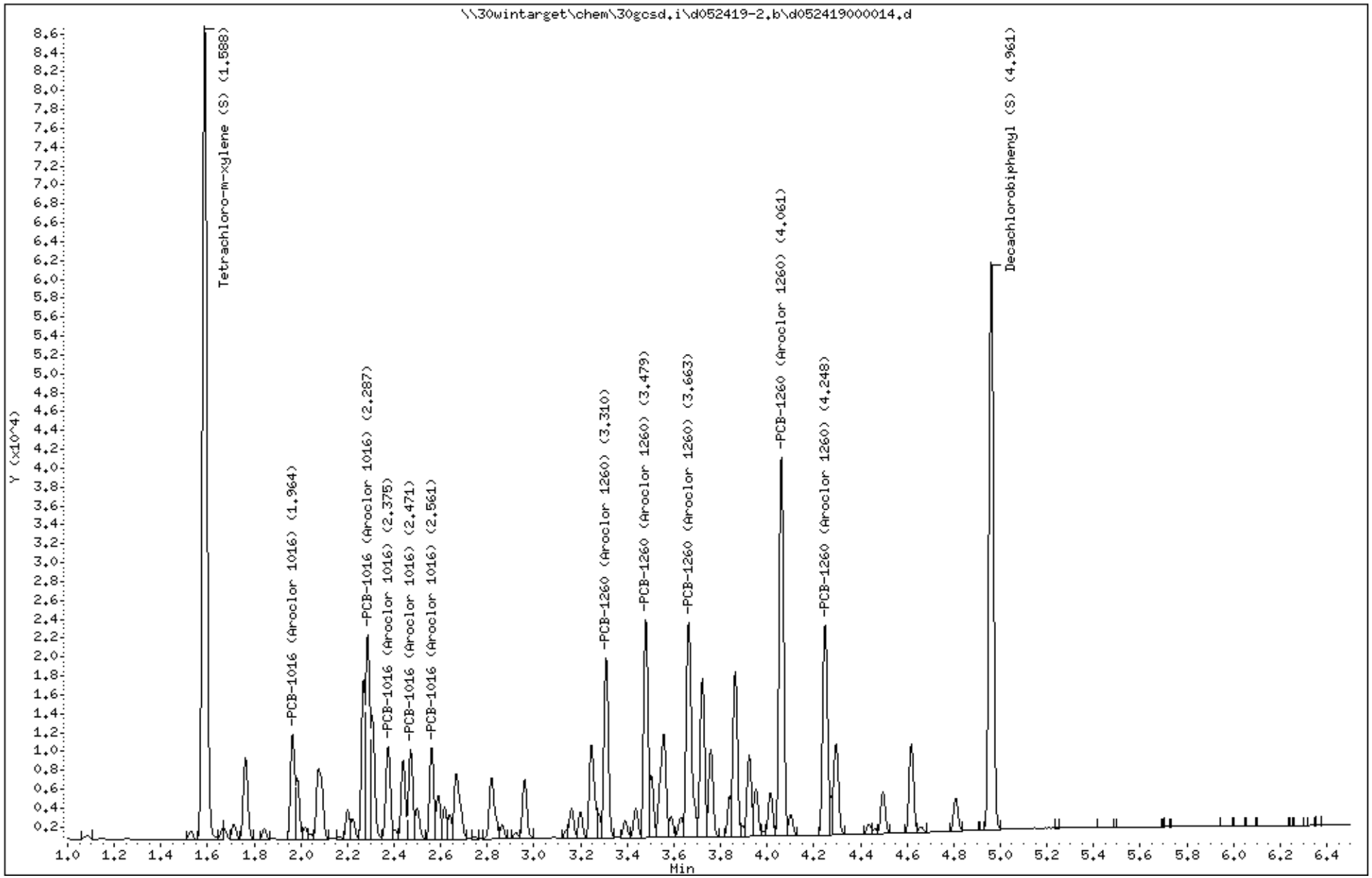
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

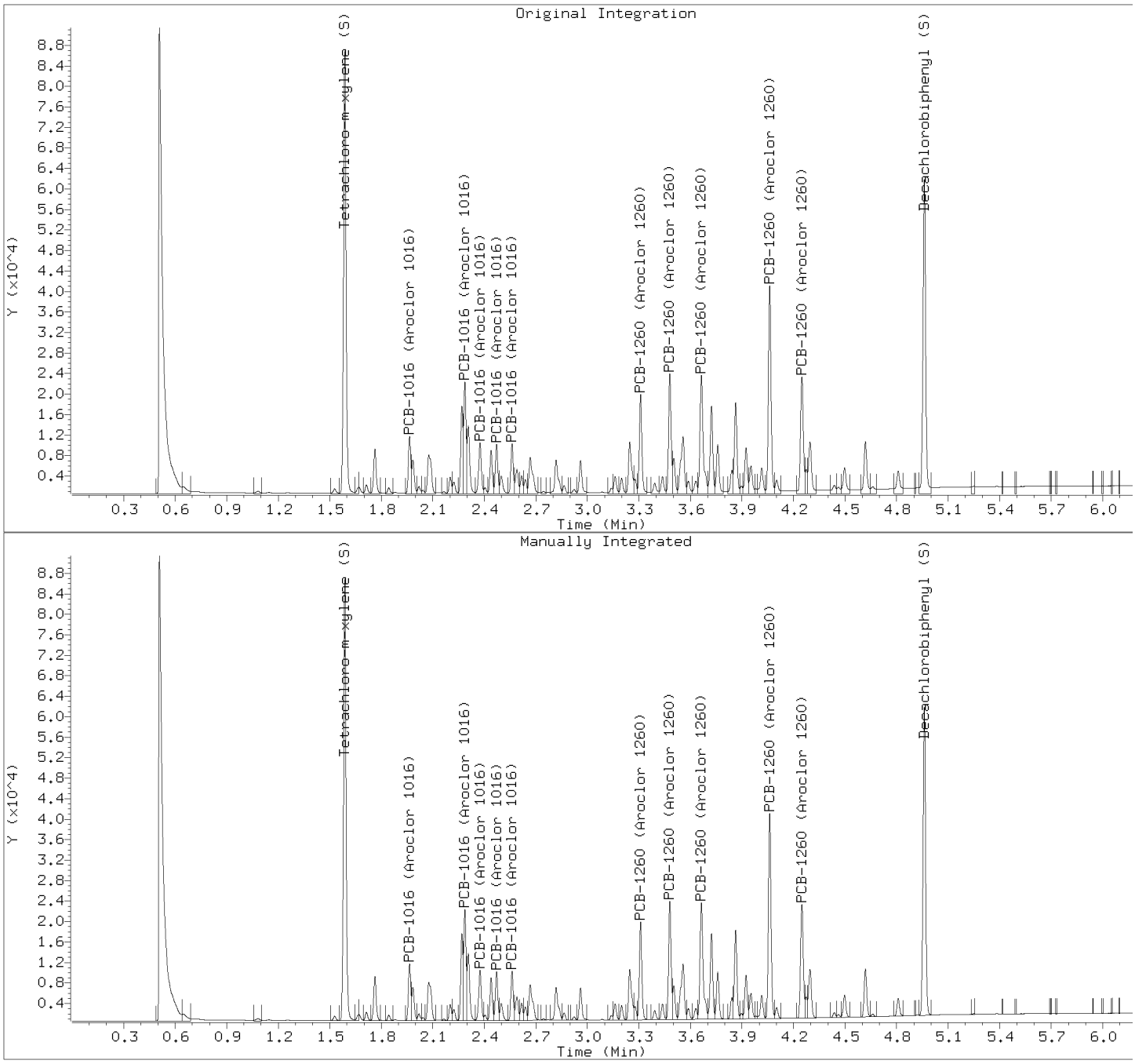
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL6A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.933	J
	Peak found at 2.287	0.968	J
	Peak found at 2.375	0.972	J
	Peak found at 2.471	0.932	J
	Peak found at 2.561	0.944	J
	Average of Peak Amounts =	0.950	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.310	0.946	J
	Peak found at 3.479	0.946	J
	Peak found at 3.663	0.994	J
	Peak found at 4.061	0.975	J
	Peak found at 4.248	0.970	J
	Average of Peak Amounts =	0.966	J
877-09-8	Tetrachloro-m-xylene (S)	0.195	
2051-24-3	Decachlorobiphenyl (S)	0.196	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000014.d
Date : 24-MAY-2019 14:50
Client ID: CAL6A
Instrument: 30gcsd.i
Sample Info: CAL6A, 87260:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000014.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:50 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL6A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	10758	10632
PCB-1016 (Aroclor 1016)	21025	21107
PCB-1016 (Aroclor 1016)	10868	10544
PCB-1016 (Aroclor 1016)	9511	9299
PCB-1016 (Aroclor 1016)	9646	9352
PCB-1260 (Aroclor 1260)	20026	19228
PCB-1260 (Aroclor 1260)	23650	23036
PCB-1260 (Aroclor 1260)	30352	29124
PCB-1260 (Aroclor 1260)	43504	41957
PCB-1260 (Aroclor 1260)	26725	25092
Tetrachloro-m-xylene (S)	88860	88395
Decachlorobiphenyl (S)	66819	62080

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.512	124890	55990	0.448	9.951		
0.838	796	485	0.609	0.086		
1.212	73352	67144	0.915	11.964	$ 10 Tetrachloro-m-xylene (S)	
1.269	1008	753	0.747	0.133		
1.346	1348	1284	0.953	0.228		
1.377	906	925	1.021	0.164		
1.401	1395	1373	0.985	0.244		
1.442	6790	6443	0.949	1.145		
1.561	909	927	1.019	0.164		
1.632	14239	11025	0.774	1.959	1 PCB-1016 (Aroclor 1016)	
1.685	808	1197	1.481	0.212		
1.694	1579	1358	0.860	0.241		
1.746	3638	4512	1.240	0.801		
1.761	5885	5863	0.996	1.042		
1.807	2448	2780	1.135	0.494		
1.823	1734	1879	1.084	0.333		
1.879	29319	22726	0.775	4.039	1 PCB-1016 (Aroclor 1016)	
1.933	11880	10655	0.897	1.893	1 PCB-1016 (Aroclor 1016)	
2.009	6798	7627	1.122	1.355		
2.036	8633	8100	0.938	1.439		
2.063	5698	6339	1.113	1.126		
2.078	6418	6130	0.955	1.089		
2.189	8874	9626	1.085	1.710	1 PCB-1016 (Aroclor 1016)	
2.213	3467	3773	1.088	0.670		
2.239	2728	2983	1.094	0.530		
2.255	1398	1825	1.306	0.324		
2.278	7765	7667	0.987	1.362	1 PCB-1016 (Aroclor 1016)	
2.345	2070	2047	0.989	0.363		
2.375	1181	1268	1.074	0.225		
2.402	1534	1748	1.140	0.310		
2.426	5909	5854	0.991	1.040		
2.473	778	842	1.082	0.149		
2.510	5144	5457	1.061	0.969		
2.594	401	322	0.803	0.057		
2.729	765	819	1.070	0.145		
2.798	12950	11669	0.901	2.073	7 PCB-1260 (Aroclor 1260)	
2.831	4691	4729	1.008	0.840		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.886	16494	17146	1.040	3.047	7 PCB-1260 (Aroclor 1260)	
2.924	741	772	1.042	0.137		
2.955	2687	2808	1.045	0.499		
2.995	20673	20619	0.997	3.664	7 PCB-1260 (Aroclor 1260)	
3.103	8216	9306	1.133	1.653		
3.121	11043	10096	0.914	1.794		
3.190	6092	4532	0.744	0.805		
3.227	22720	17189	0.757	3.054		
3.254	15319	15148	0.989	2.692		
3.289	8586	8517	0.992	1.513		
3.379	3180	3014	0.948	0.535		
3.439	16194	14815	0.915	2.633		
3.500	8372	8286	0.990	1.472		
3.533	6682	6393	0.957	1.136		
3.557	1394	1717	1.231	0.305		
3.585	35876	35949	1.002	6.389	7 PCB-1260 (Aroclor 1260)	
3.619	748	773	1.033	0.137		
3.678	1251	1255	1.003	0.223		
3.757	493	532	1.078	0.094		
3.786	7116	7261	1.020	1.290		
3.827	25993	24671	0.949	4.384	7 PCB-1260 (Aroclor 1260)	
3.973	1367	1321	0.966	0.234		
4.036	369	363	0.984	0.064		
4.078	3714	3754	1.011	0.667		
4.153	8615	8183	0.950	1.454		
4.343	2947	2931	0.994	0.520		
4.501	48876	49059	1.004	8.719	$ 11 Decachlorobiphenyl (S)	
4.814	72	101	1.409	0.017		
	655956	562655		100.000		

Total unknown % height = 48.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.632	1.631	0.001	14238	0.75000	0.693	80.00- 120.00	100.00	
1.879	1.878	0.001	29319	0.75000	0.709	162.66- 243.99	205.91	
1.933	1.932	0.001	11880	0.75000	0.713	63.55- 95.32	83.44	
2.189	2.188	0.001	8874	0.75000	0.695	49.13- 73.70	62.32	
2.278	2.277	0.001	7764	0.75000	0.707	42.04- 63.06	54.53	
Average of Peak Amounts =					0.70340			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	12949	0.75000	0.698	80.00- 120.00	100.00	
2.886	2.885	0.001	16493	0.75000	0.695	101.69- 152.53	127.37	
2.995	2.995	0.000	20672	0.75000	0.696	125.91- 188.87	159.64	
3.584	3.584	0.000	35875	0.75000	0.714	212.47- 318.70	277.04	
3.826	3.826	0.000	25992	0.75000	0.717	152.61- 228.91	200.72	
Average of Peak Amounts =					0.70400			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.212	1.210	0.002	73352	0.15000	0.144			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	48876	0.15000	0.146			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

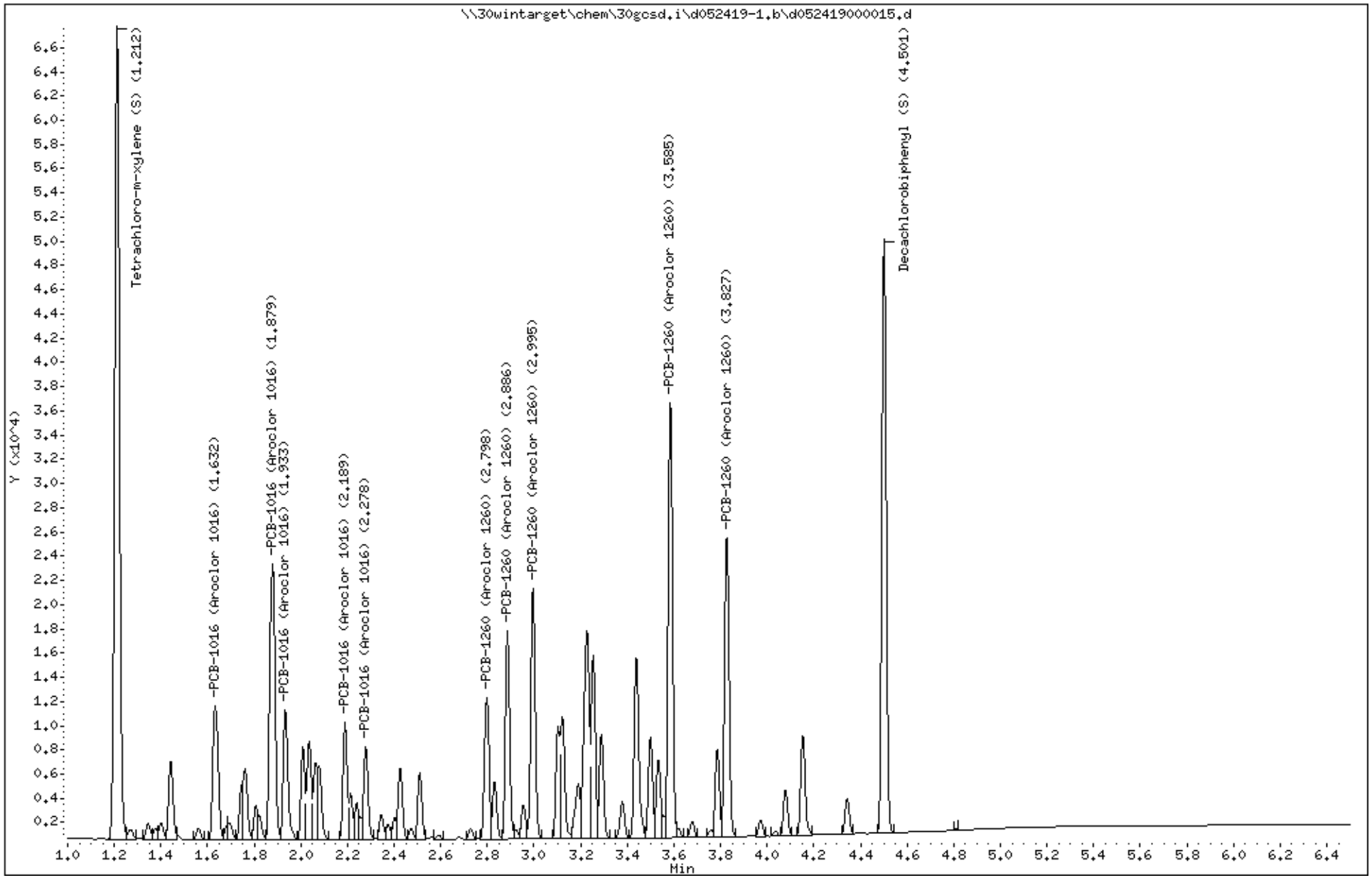
Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

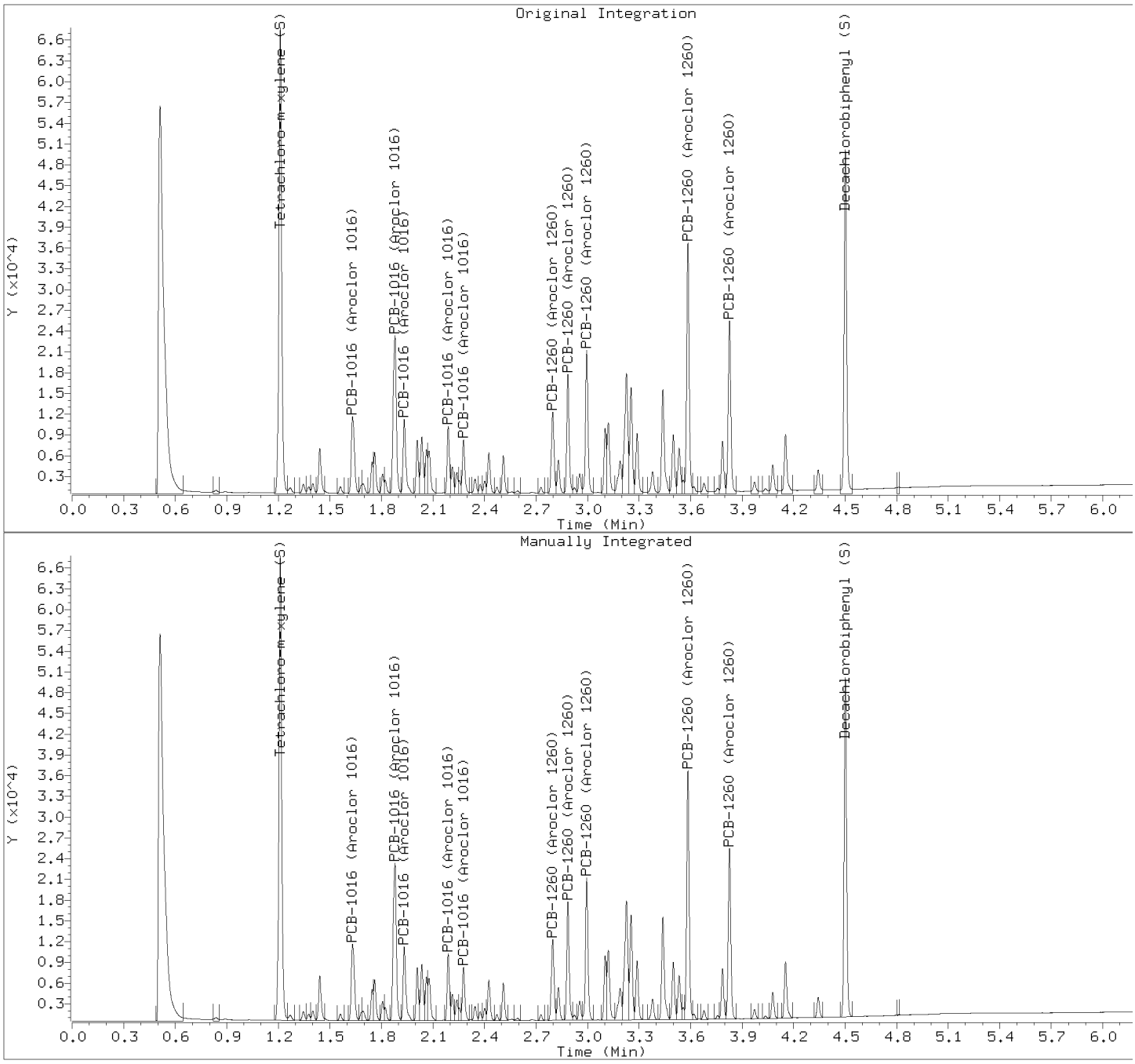
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.693	
	Peak found at 1.879	0.709	
	Peak found at 1.933	0.713	
	Peak found at 2.189	0.695	
	Peak found at 2.278	0.707	
	Average of Peak Amounts =	0.703	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.698	
	Peak found at 2.886	0.695	
	Peak found at 2.995	0.696	
	Peak found at 3.585	0.714	
	Peak found at 3.827	0.717	
	Average of Peak Amounts =	0.704	
877-09-8	Tetrachloro-m-xylene (S)	0.144	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Sample Info: CAL5A, 88856:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	14486	14238
PCB-1016 (Aroclor 1016)	29588	29319
PCB-1016 (Aroclor 1016)	12194	11880
PCB-1016 (Aroclor 1016)	9020	8874
PCB-1016 (Aroclor 1016)	7980	7764
PCB-1260 (Aroclor 1260)	13214	12949
PCB-1260 (Aroclor 1260)	16845	16493
PCB-1260 (Aroclor 1260)	21180	20672
PCB-1260 (Aroclor 1260)	36496	35875
PCB-1260 (Aroclor 1260)	27021	25992
Tetrachloro-m-xylene (S)	73821	73352
Decachlorobiphenyl (S)	51341	48876

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	114218	65304	0.572	12.804		
0.650	2510	1202	0.479	0.234		
1.084	734	427	0.582	0.083		
1.529	722	666	0.923	0.130		
1.588	65739	65002	0.989	12.702	$ 10 Tetrachloro-m-xylene (S)	
1.669	1346	896	0.666	0.175		
1.714	1284	1252	0.975	0.244		
1.763	6745	6578	0.975	1.285		
1.844	825	826	1.002	0.161		
1.965	7957	8509	1.069	1.662	1 PCB-1016 (Aroclor 1016)	
1.985	4783	4913	1.027	0.960		
2.019	1003	1022	1.019	0.199		
2.043	410	440	1.074	0.085		
2.076	8639	5590	0.647	1.092		
2.165	201	220	1.096	0.042		
2.201	2146	2347	1.094	0.458		
2.222	1467	1522	1.037	0.297		
2.269	11031	12633	1.145	2.468		
2.287	15752	16204	1.029	3.166	1 PCB-1016 (Aroclor 1016)	
2.307	10098	9870	0.977	1.928		
2.375	7882	7417	0.941	1.449	1 PCB-1016 (Aroclor 1016)	
2.405	725	756	1.042	0.147		
2.439	5999	6244	1.041	1.220		
2.471	6994	7201	1.030	1.407	1 PCB-1016 (Aroclor 1016)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.499	2726	2507	0.920	0.489		
2.561	7035	7267	1.033	1.420	1 PCB-1016 (Aroclor 1016)	
2.590	3865	3499	0.905	0.683		
2.617	2433	2488	1.023	0.486		
2.639	1890	1980	1.048	0.386		
2.667	7766	5195	0.669	1.015		
2.744	221	216	0.975	0.042		
2.818	6590	4928	0.748	0.962		
2.864	1089	1092	1.003	0.213		
2.922	491	512	1.042	0.100		
2.960	4910	4738	0.965	0.925		
3.139	582	668	1.147	0.130		
3.161	2472	2429	0.983	0.474		
3.199	2122	2122	1.000	0.414		
3.246	9390	7380	0.786	1.442		
3.277	1796	2016	1.122	0.393		
3.309	14466	14176	0.980	2.770	7 PCB-1260 (Aroclor 1260)	
3.392	1423	1327	0.933	0.259		
3.437	2372	2292	0.966	0.447		
3.479	17384	17210	0.990	3.362	7 PCB-1260 (Aroclor 1260)	
3.503	5133	5091	0.992	0.994		
3.556	11923	8241	0.691	1.610		
3.587	1680	1585	0.944	0.309		
3.631	1744	1608	0.922	0.314		
3.663	21775	16839	0.773	3.290	7 PCB-1260 (Aroclor 1260)	
3.722	13250	12501	0.943	2.442		
3.758	7099	6979	0.983	1.363		
3.840	2853	3139	1.100	0.613		
3.863	13744	13045	0.949	2.549		
3.897	729	793	1.088	0.154		
3.923	6570	6448	0.981	1.260		
3.952	4024	3768	0.936	0.736		
3.981	340	352	1.035	0.068		
4.014	3635	3408	0.938	0.665		
4.060	31357	29815	0.951	5.826	7 PCB-1260 (Aroclor 1260)	
4.101	1677	1565	0.933	0.305		
4.248	18743	17066	0.911	3.334	7 PCB-1260 (Aroclor 1260)	
4.274	2410	3136	1.301	0.612		
4.295	8545	7010	0.820	1.369		
4.437	746	718	0.962	0.140		
4.462	409	411	1.005	0.080		
4.496	3524	3244	0.921	0.633		
4.618	7393	7044	0.953	1.376		
4.661	434	402	0.927	0.078		
4.808	2780	2613	0.940	0.510		
4.908	19	45	2.330	0.008		
4.960	46297	43353	0.936	8.471	$ 11 Decachlorobiphenyl (S)	
5.109	10	33	3.337	0.006		
5.245	49	106	2.153	0.020		
5.296	25	65	2.644	0.012		
5.378	25	80	3.172	0.015		
5.503	19	46	2.429	0.008		
5.607	13	34	2.652	0.006		
5.627	8	31	3.744	0.006		
5.978	2	10	5.208	0.001		
6.195	9	23	2.447	0.004		
6.347	6	16	2.544	0.003		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	589229	511746		100.000		

Total unknown % height = 51.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Lab Smp Id: CAL5A Client Smp ID: CAL5A
Inj Date : 24-MAY-2019 14:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal5a, 88856:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	7957	0.75000	0.698	80.00- 120.00	100.00(a)	
2.287	2.286	0.001	15751	0.75000	0.722	152.31- 228.47	197.96	
2.375	2.374	0.001	7881	0.75000	0.726	75.27- 112.91	99.05	
2.471	2.470	0.001	6994	0.75000	0.701	68.58- 102.86	87.90	
2.561	2.560	0.001	7035	0.75000	0.710	68.26- 102.40	88.41	
Average of Peak Amounts =					0.71140			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	14466	0.75000	0.712	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	17383	0.75000	0.714	88.62- 132.94	120.17	
3.663	3.662	0.001	21774	0.75000	0.743	120.10- 180.15	150.52	
4.060	4.060	0.000	31356	0.75000	0.729	171.60- 257.41	216.76	
4.248	4.247	0.001	18743	0.75000	0.724	103.64- 155.46	129.56	
Average of Peak Amounts =					0.72440			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	65739	0.15000	0.145			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	46296	0.15000	0.146			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

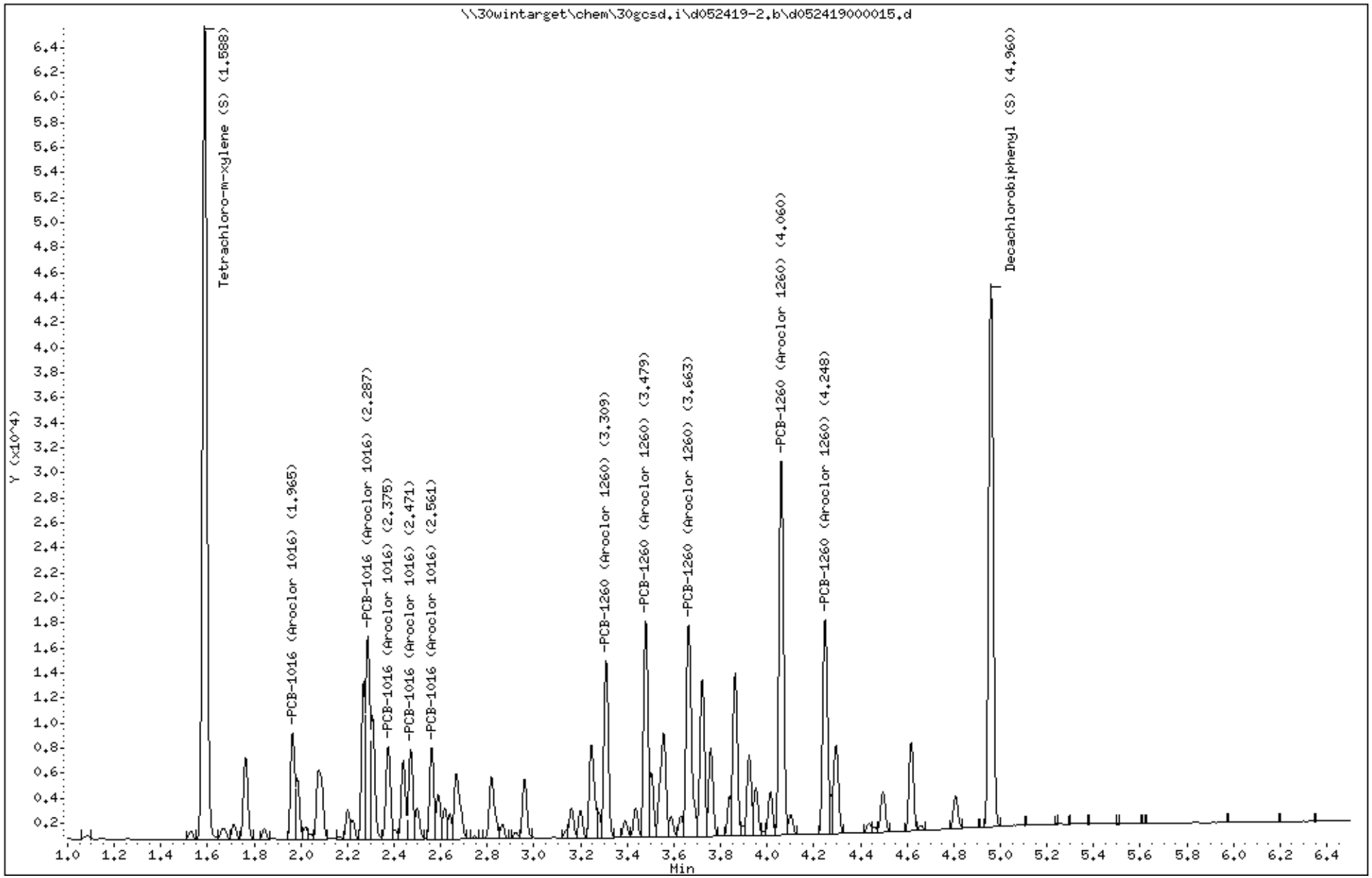
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

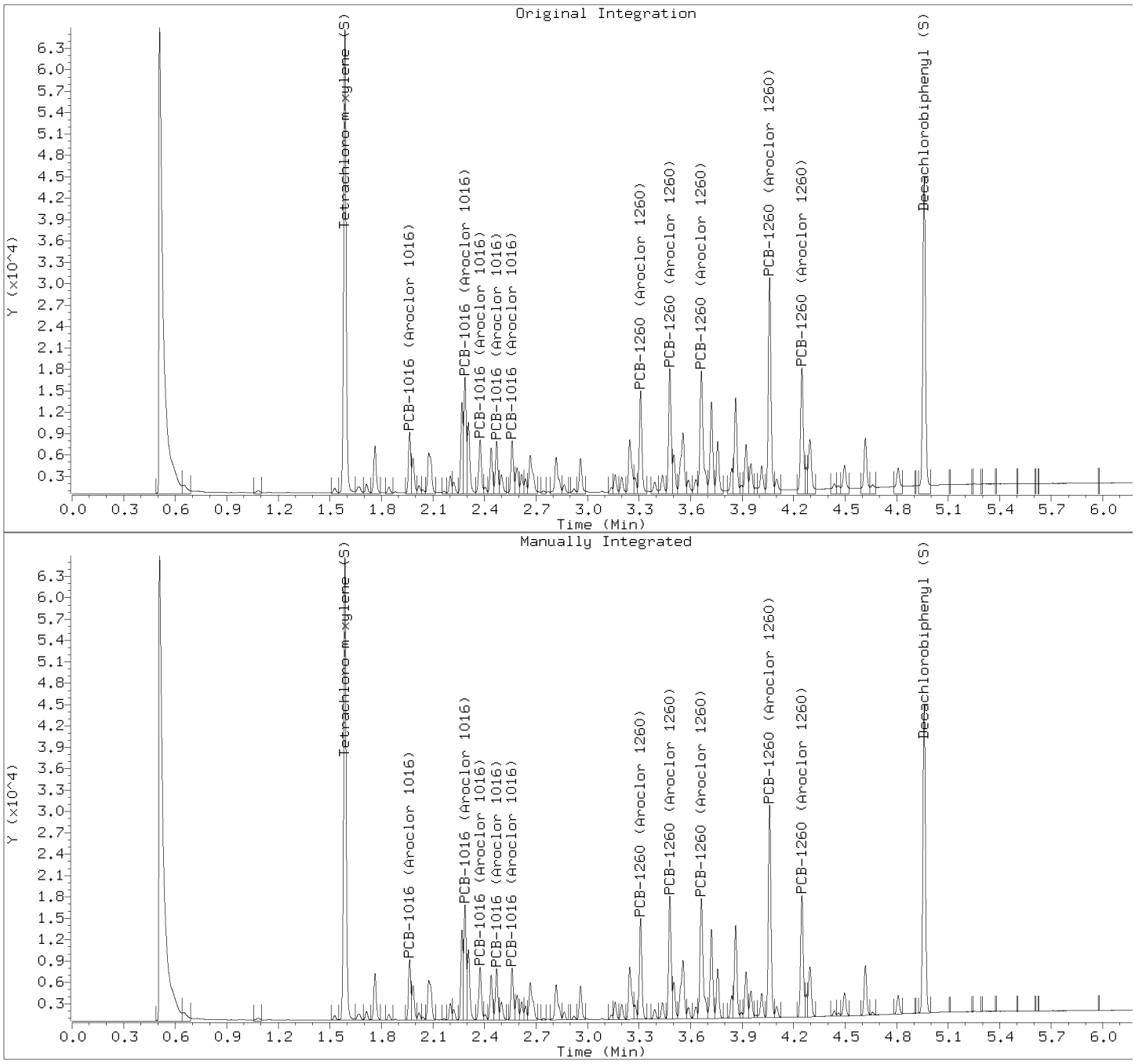
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL5A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.965	0.698	J
	Peak found at 2.287	0.722	J
	Peak found at 2.375	0.726	J
	Peak found at 2.471	0.701	J
	Peak found at 2.561	0.710	J
	Average of Peak Amounts =	0.711	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.712	J
	Peak found at 3.479	0.714	J
	Peak found at 3.663	0.743	J
	Peak found at 4.060	0.729	J
	Peak found at 4.248	0.724	J
	Average of Peak Amounts =	0.724	J
877-09-8	Tetrachloro-m-xylene (S)	0.145	
2051-24-3	Decachlorobiphenyl (S)	0.146	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000015.d
Date : 24-MAY-2019 14:59
Client ID: CAL5A
Instrument: 30gcsd.i
Sample Info: CAL5A, 88856:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000015.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 14:59 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL5A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8169	7957
PCB-1016 (Aroclor 1016)	15765	15751
PCB-1016 (Aroclor 1016)	8282	7881
PCB-1016 (Aroclor 1016)	7261	6994
PCB-1016 (Aroclor 1016)	7379	7035
PCB-1260 (Aroclor 1260)	15309	14466
PCB-1260 (Aroclor 1260)	18034	17383
PCB-1260 (Aroclor 1260)	23023	21774
PCB-1260 (Aroclor 1260)	32901	31356
PCB-1260 (Aroclor 1260)	20253	18743
Tetrachloro-m-xylene (S)	66379	65739
Decachlorobiphenyl (S)	51016	46296

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	75763	32966	0.435	8.921		
1.211	48455	42969	0.887	11.660	$ 10 Tetrachloro-m-xylene (S)	
1.269	678	504	0.743	0.136		
1.345	919	844	0.918	0.228		
1.376	592	603	1.019	0.163		
1.401	946	909	0.961	0.245		
1.441	4578	4287	0.936	1.160		
1.561	614	622	1.013	0.168		
1.632	9596	7333	0.764	1.984	1 PCB-1016 (Aroclor 1016)	
1.684	568	803	1.413	0.217		
1.694	1038	901	0.868	0.243		
1.746	2449	2986	1.219	0.808		
1.761	3945	3925	0.995	1.062		
1.807	1682	1855	1.103	0.502		
1.823	1125	1251	1.112	0.338		
1.879	19614	14933	0.761	4.041	1 PCB-1016 (Aroclor 1016)	
1.932	7993	7153	0.895	1.935	1 PCB-1016 (Aroclor 1016)	
2.009	4529	5069	1.119	1.371		
2.036	5856	5416	0.925	1.465		
2.062	3801	4273	1.124	1.156		
2.077	4393	4112	0.936	1.112		
2.189	5974	6480	1.085	1.753	1 PCB-1016 (Aroclor 1016)	
2.213	2358	2493	1.057	0.674		
2.239	1842	2020	1.097	0.546		
2.254	950	1235	1.301	0.334		
2.278	5231	5196	0.993	1.406	1 PCB-1016 (Aroclor 1016)	
2.345	1418	1428	1.007	0.386		
2.375	798	845	1.059	0.228		
2.401	1035	1181	1.141	0.319		
2.425	3994	3930	0.984	1.063		
2.473	532	576	1.084	0.155		
2.510	3489	3694	1.059	0.999		
2.729	509	560	1.099	0.151		
2.798	8727	7755	0.889	2.098	7 PCB-1260 (Aroclor 1260)	
2.830	3164	3173	1.003	0.858		
2.885	11129	11445	1.028	3.097	7 PCB-1260 (Aroclor 1260)	
2.924	512	521	1.017	0.140		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.955	1826	1922	1.053	0.520		
2.995	13948	14016	1.005	3.793	7 PCB-1260 (Aroclor 1260)	
3.103	5448	6210	1.140	1.680		
3.121	7441	6879	0.925	1.861		
3.190	4254	3180	0.748	0.860		
3.227	15419	11631	0.754	3.147		
3.254	10354	10307	0.995	2.789		
3.289	5787	5754	0.994	1.557		
3.378	2163	2010	0.929	0.543		
3.439	11320	10452	0.923	2.828		
3.500	5662	5563	0.983	1.505		
3.533	4498	4323	0.961	1.169		
3.557	913	1145	1.254	0.309		
3.584	23907	24026	1.005	6.501	7 PCB-1260 (Aroclor 1260)	
3.620	494	517	1.046	0.139		
3.679	839	850	1.013	0.230		
3.758	325	359	1.103	0.097		
3.786	4778	4853	1.016	1.313		
3.827	17316	16137	0.932	4.367	7 PCB-1260 (Aroclor 1260)	
3.973	937	900	0.960	0.243		
4.037	269	251	0.934	0.067		
4.078	2492	2459	0.987	0.665		
4.153	5882	5594	0.951	1.513		
4.343	1967	1945	0.989	0.526		
4.501	32103	31909	0.994	8.635	$ 11 Decachlorobiphenyl (S)	
4.815	58	81	1.403	0.021		
	431196	369519		100.000		

Total unknown % height = 48.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	9596	0.50000	0.467	80.00- 120.00	100.00	
1.878	1.878	0.000	19613	0.50000	0.474	162.66- 243.99	204.39	
1.932	1.932	0.000	7992	0.50000	0.480	63.55- 95.32	83.29	
2.188	2.188	0.000	5974	0.50000	0.468	49.13- 73.70	62.26	
2.277	2.277	0.000	5231	0.50000	0.476	42.04- 63.06	54.51	
Average of Peak Amounts =					0.47300			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	8727	0.50000	0.471	80.00- 120.00	100.00	
2.885	2.885	0.000	11129	0.50000	0.469	101.69- 152.53	127.52	
2.995	2.995	0.000	13947	0.50000	0.470	125.91- 188.87	159.82	
3.583	3.584	-0.001	23906	0.50000	0.476	212.47- 318.70	273.93	
3.826	3.826	0.000	17316	0.50000	0.478	152.61- 228.91	198.42	
Average of Peak Amounts =					0.47280			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	48454	0.10000	0.0953			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	32103	0.10000	0.0956			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

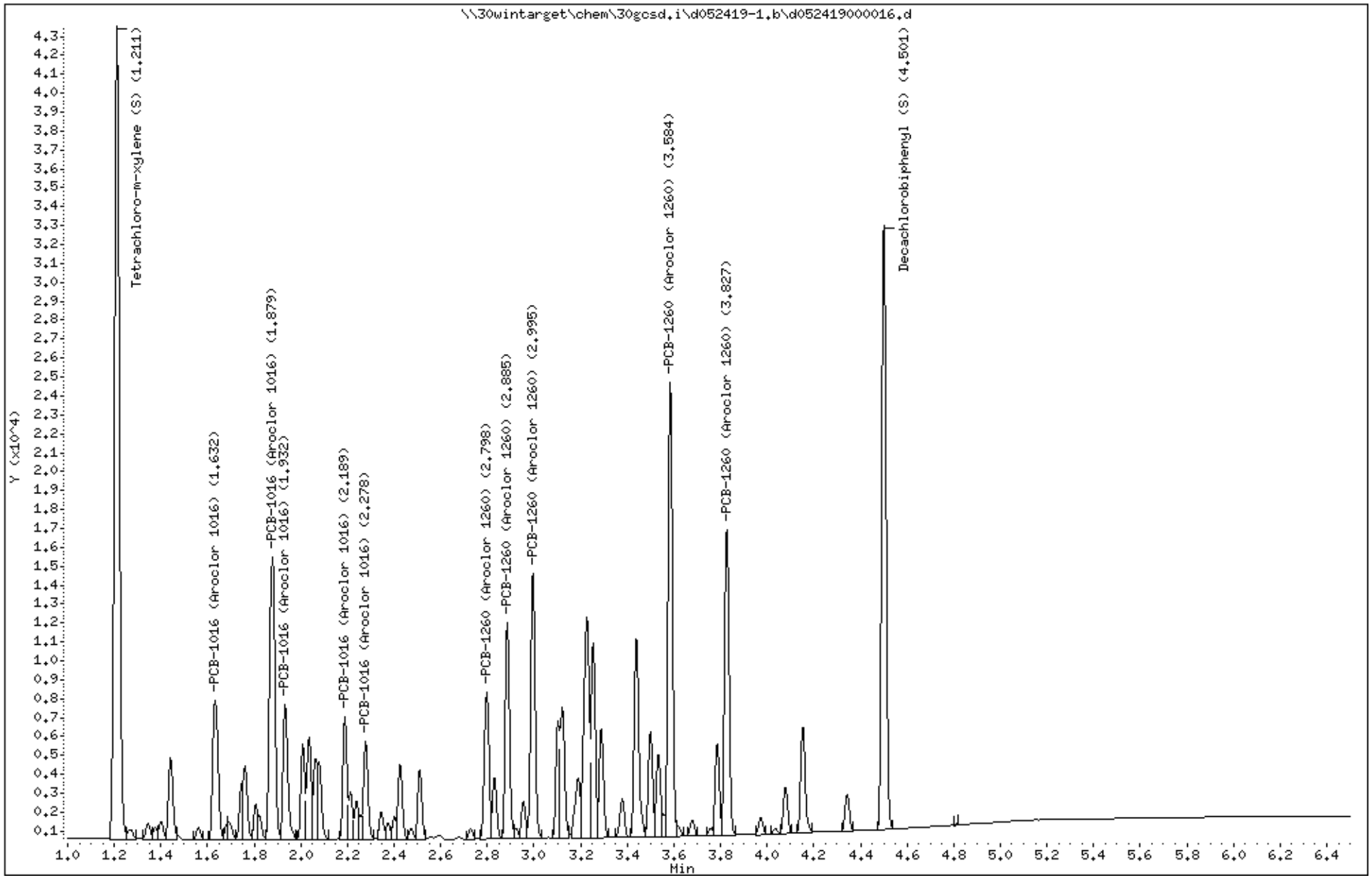
Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

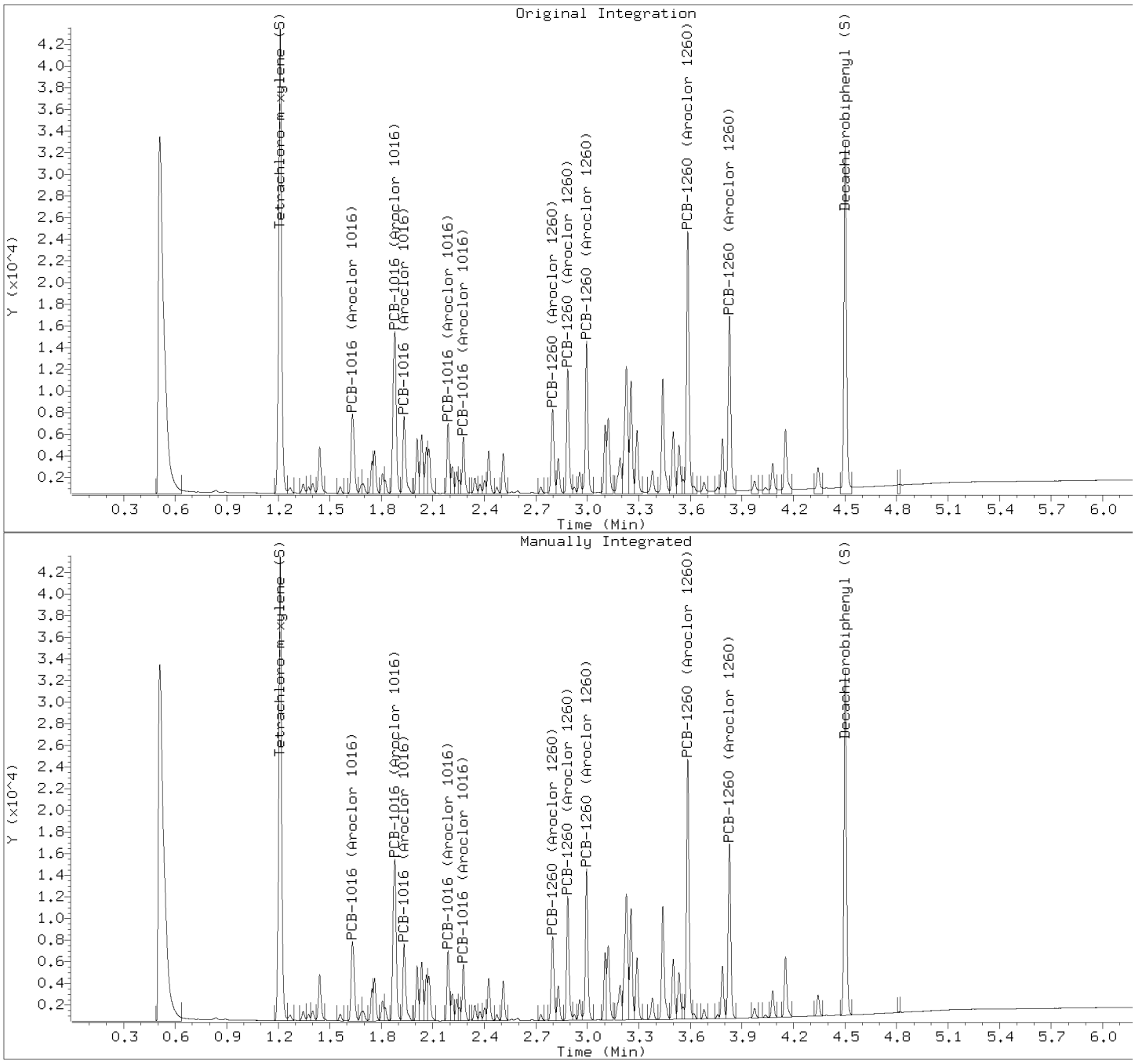
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.467	
	Peak found at 1.879	0.474	
	Peak found at 1.932	0.480	
	Peak found at 2.189	0.468	
	Peak found at 2.278	0.476	
	Average of Peak Amounts =	0.473	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.471	
	Peak found at 2.885	0.469	
	Peak found at 2.995	0.470	
	Peak found at 3.584	0.476	
	Peak found at 3.827	0.478	
	Average of Peak Amounts =	0.473	
877-09-8	Tetrachloro-m-xylene (S)	0.0953	
2051-24-3	Decachlorobiphenyl (S)	0.0956	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Sample Info: CAL4A, 88855:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	9633	9596
PCB-1016 (Aroclor 1016)	19667	19613
PCB-1016 (Aroclor 1016)	8054	7992
PCB-1016 (Aroclor 1016)	6002	5974
PCB-1016 (Aroclor 1016)	5283	5231
PCB-1260 (Aroclor 1260)	8853	8727
PCB-1260 (Aroclor 1260)	11312	11129
PCB-1260 (Aroclor 1260)	14232	13947
PCB-1260 (Aroclor 1260)	24394	23906
PCB-1260 (Aroclor 1260)	18143	17316
Tetrachloro-m-xylene (S)	48625	48454
Decachlorobiphenyl (S)	34248	32103

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.507	69759	39591	0.568	11.836		
0.649	1454	741	0.510	0.221		
1.085	410	262	0.639	0.078		
1.528	484	442	0.914	0.132		
1.587	43329	41735	0.963	12.513	$ 10 Tetrachloro-m-xylene (S)	
1.667	459	592	1.290	0.176		
1.713	855	827	0.967	0.247		
1.763	4499	4349	0.967	1.300		
1.844	546	546	1.000	0.163		
1.964	5363	5665	1.056	1.693	1 PCB-1016 (Aroclor 1016)	
1.984	3162	3255	1.030	0.973		
2.019	673	683	1.015	0.204		
2.042	270	292	1.080	0.087		
2.077	5775	3750	0.649	1.121		
2.202	1447	1551	1.072	0.463		
2.222	945	991	1.049	0.296		
2.269	7263	8396	1.156	2.510		
2.287	10514	10655	1.013	3.185	1 PCB-1016 (Aroclor 1016)	
2.307	6761	6604	0.977	1.974		
2.375	5238	4900	0.935	1.464	1 PCB-1016 (Aroclor 1016)	
2.404	487	506	1.039	0.151		
2.439	4017	4162	1.036	1.244		
2.471	4701	4761	1.013	1.423	1 PCB-1016 (Aroclor 1016)	
2.500	1820	1658	0.911	0.495		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.561	4692	4853	1.034	1.450	1 PCB-1016 (Aroclor 1016)	
2.590	2608	2329	0.893	0.696		
2.617	1626	1675	1.030	0.500		
2.638	1258	1303	1.036	0.389		
2.667	5178	3417	0.660	1.021		
2.818	4396	3270	0.744	0.977		
2.864	713	727	1.020	0.217		
2.922	326	335	1.027	0.100		
2.960	3258	3146	0.966	0.940		
3.139	391	461	1.178	0.137		
3.161	1686	1600	0.949	0.478		
3.199	1421	1409	0.991	0.421		
3.246	6272	4938	0.787	1.476		
3.278	1206	1323	1.097	0.395		
3.309	9665	9547	0.988	2.854	7 PCB-1260 (Aroclor 1260)	
3.391	979	889	0.908	0.265		
3.437	1583	1530	0.966	0.457		
3.479	11568	11638	1.006	3.479	7 PCB-1260 (Aroclor 1260)	
3.503	3562	3429	0.963	1.025		
3.556	7929	5512	0.695	1.647		
3.587	1120	1067	0.953	0.318		
3.631	1160	1068	0.920	0.319		
3.663	14518	11294	0.778	3.376	7 PCB-1260 (Aroclor 1260)	
3.722	8846	8381	0.947	2.505		
3.758	4729	4558	0.964	1.362		
3.840	1918	2060	1.074	0.615		
3.863	9126	8593	0.942	2.568		
3.897	506	541	1.070	0.161		
3.923	4396	4272	0.972	1.277		
3.951	2705	2519	0.931	0.753		
3.981	214	240	1.122	0.071		
4.014	2420	2246	0.928	0.671		
4.060	20715	20032	0.967	5.988	7 PCB-1260 (Aroclor 1260)	
4.101	1108	1036	0.935	0.309		
4.248	12535	11233	0.896	3.358	7 PCB-1260 (Aroclor 1260)	
4.273	1551	2073	1.336	0.619		
4.295	5654	4653	0.823	1.391		
4.436	491	476	0.970	0.142		
4.462	257	266	1.035	0.079		
4.496	2331	2145	0.920	0.641		
4.617	4895	4718	0.964	1.410		
4.660	272	261	0.958	0.078		
4.808	1856	1737	0.936	0.519		
4.960	30515	28490	0.934	8.517	$ 11 Decachlorobiphenyl (S)	
5.053	20	70	3.455	0.020		
5.180	10	30	2.927	0.008		
5.249	34	59	1.749	0.017		
5.550	10	29	2.906	0.008		
5.800	6	16	2.560	0.004		
5.808	4	14	3.878	0.004		
5.992	2	11	4.583	0.003		
6.134	5	24	4.388	0.007		
6.174	8	33	4.044	0.009		
	384484	334490		100.000		

Total unknown % height = 50.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Lab Smp Id: CAL4A Client Smp ID: CAL4A
Inj Date : 24-MAY-2019 15:07
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal4a, 88855:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	5363	0.50000	0.471	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	10514	0.50000	0.482	152.31- 228.47	196.04	
2.374	2.374	0.000	5238	0.50000	0.483	75.27- 112.91	97.67	
2.470	2.470	0.000	4700	0.50000	0.471	68.58- 102.86	87.65	
2.560	2.560	0.000	4692	0.50000	0.474	68.26- 102.40	87.49	
Average of Peak Amounts =					0.47620			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.308	3.309	-0.001	9665	0.50000	0.476	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	11567	0.50000	0.475	88.62- 132.94	119.68	
3.662	3.662	0.000	14517	0.50000	0.496	120.10- 180.15	150.20	
4.059	4.060	-0.001	20715	0.50000	0.481	171.60- 257.41	214.33	
4.247	4.247	0.000	12534	0.50000	0.484	103.64- 155.46	129.69	
Average of Peak Amounts =					0.48240			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.587	1.586	0.001	43328	0.10000	0.0954			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	30514	0.10000	0.0961			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

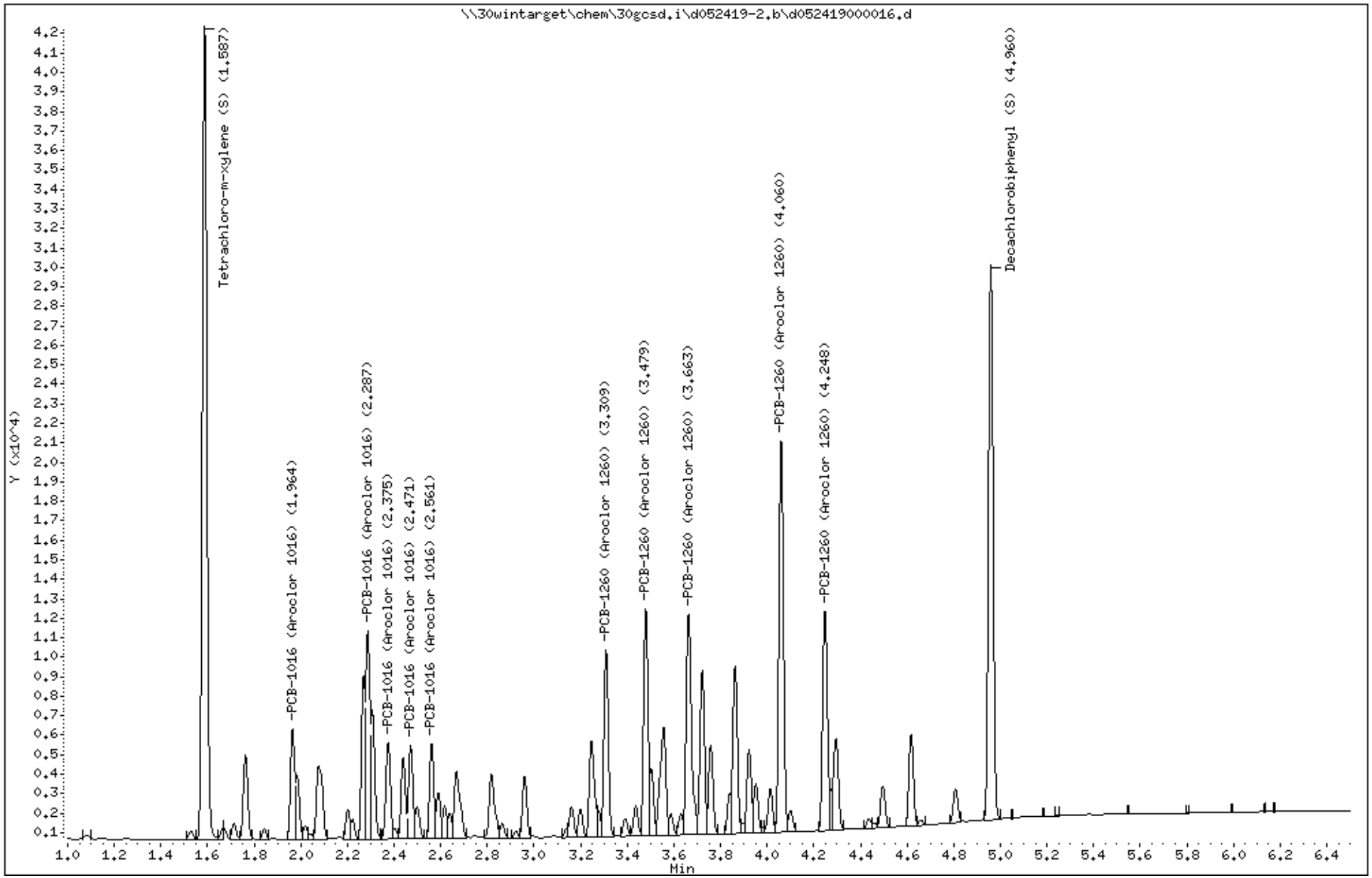
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

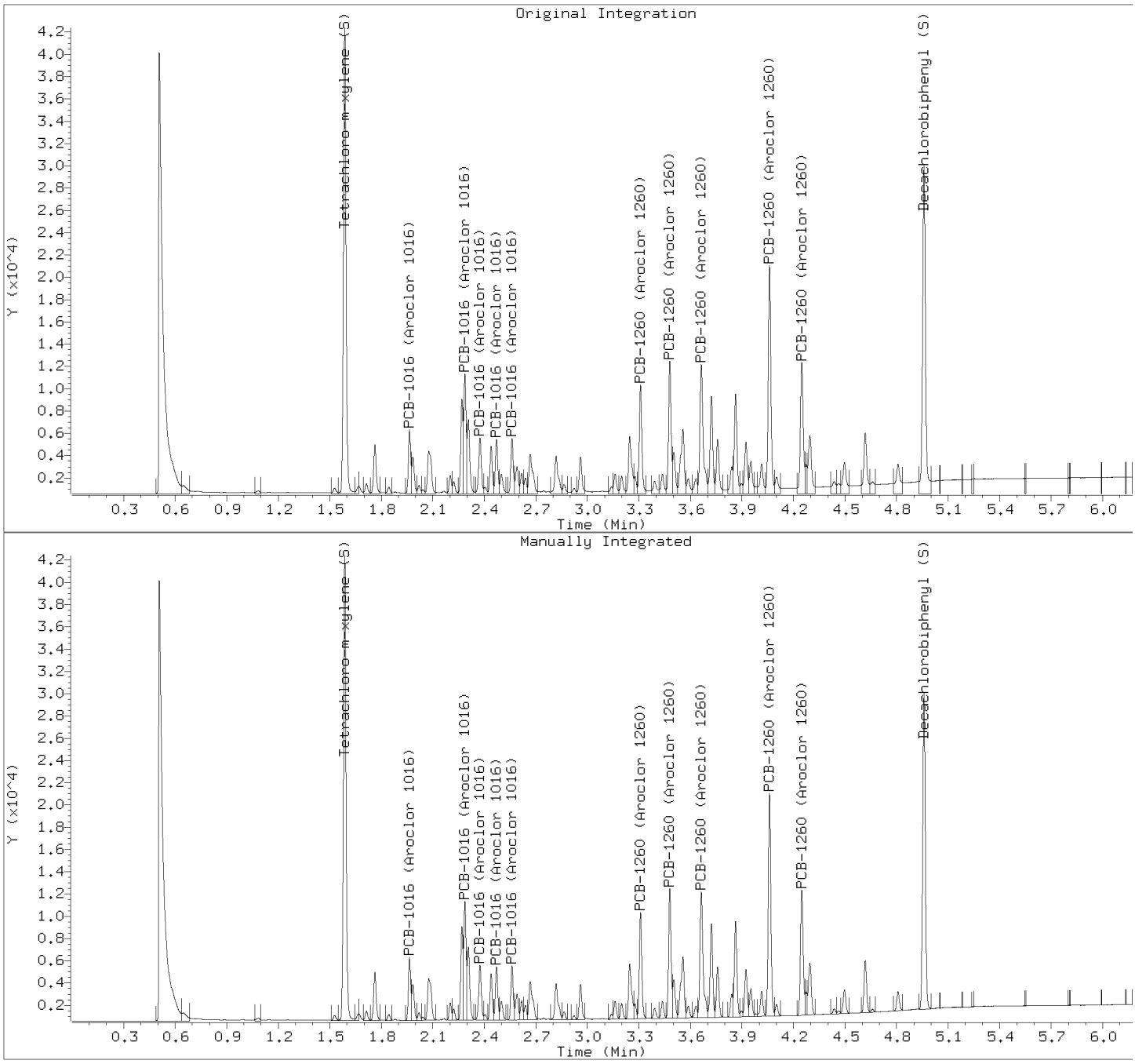
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL4A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.471	J
	Peak found at 2.287	0.482	J
	Peak found at 2.375	0.483	J
	Peak found at 2.471	0.471	J
	Peak found at 2.561	0.474	J
	Average of Peak Amounts =	0.476	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.476	J
	Peak found at 3.479	0.475	J
	Peak found at 3.663	0.496	J
	Peak found at 4.060	0.481	J
	Peak found at 4.248	0.484	J
	Average of Peak Amounts =	0.482	J
877-09-8	Tetrachloro-m-xylene (S)	0.0954	
2051-24-3	Decachlorobiphenyl (S)	0.0961	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000016.d
Date : 24-MAY-2019 15:07
Client ID: CAL4A
Instrument: 30gcsd.i
Sample Info: CAL4A, 88855:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000016.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:07 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL4A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5458	5363
PCB-1016 (Aroclor 1016)	10510	10514
PCB-1016 (Aroclor 1016)	5484	5238
PCB-1016 (Aroclor 1016)	4877	4700
PCB-1016 (Aroclor 1016)	4922	4692
PCB-1260 (Aroclor 1260)	10289	9665
PCB-1260 (Aroclor 1260)	12108	11567
PCB-1260 (Aroclor 1260)	15587	14517
PCB-1260 (Aroclor 1260)	22087	20715
PCB-1260 (Aroclor 1260)	13972	12534
Tetrachloro-m-xylene (S)	43665	43328
Decachlorobiphenyl (S)	34931	30514

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	37809	15680	0.415	7.881		
1.210	26361	23522	0.892	11.848	$ 10 Tetrachloro-m-xylene (S)	RT
1.269	368	279	0.759	0.140		
1.345	496	469	0.946	0.235		
1.401	529	510	0.965	0.256		
1.441	2529	2351	0.930	1.181		
1.631	5348	4118	0.770	2.069	1 PCB-1016 (Aroclor 1016)	RT
1.693	921	528	0.573	0.265		
1.745	1353	1662	1.228	0.835		
1.761	2215	2185	0.986	1.098		
1.807	913	1035	1.134	0.520		
1.825	945	886	0.938	0.445		
1.879	10816	8305	0.768	4.174	1 PCB-1016 (Aroclor 1016)	RT
1.933	4465	3961	0.887	1.990	1 PCB-1016 (Aroclor 1016)	RT
2.009	2518	2798	1.111	1.406		
2.036	3250	3056	0.940	1.536		
2.062	2186	2412	1.103	1.212		
2.077	2437	2297	0.942	1.154		
2.189	3349	3625	1.082	1.822	1 PCB-1016 (Aroclor 1016)	RT
2.213	1310	1411	1.077	0.709		
2.239	1066	1139	1.069	0.572		
2.255	529	692	1.309	0.347		
2.278	2876	2864	0.996	1.439	1 PCB-1016 (Aroclor 1016)	RT
2.345	789	794	1.006	0.399		
2.375	439	477	1.086	0.239		
2.402	566	641	1.132	0.322		
2.426	2197	2186	0.995	1.098		
2.510	1917	2027	1.057	1.018		
2.798	4804	4253	0.885	2.137	7 PCB-1260 (Aroclor 1260)	RT
2.831	1717	1750	1.019	0.879		
2.886	6145	6397	1.041	3.215	7 PCB-1260 (Aroclor 1260)	RT
2.924	266	281	1.056	0.141		
2.955	1004	1063	1.059	0.534		
2.995	7705	7690	0.998	3.865	7 PCB-1260 (Aroclor 1260)	RT
3.103	3017	3411	1.131	1.714		
3.121	4072	3759	0.923	1.889		
3.190	2384	1751	0.734	0.880		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.227	8392	6321	0.753	3.177		
3.254	5691	5642	0.991	2.835		
3.289	3195	3167	0.991	1.591		
3.379	1212	1098	0.906	0.551		
3.439	6270	5788	0.923	2.909		
3.500	3143	3100	0.986	1.558		
3.533	2415	2327	0.964	1.169		
3.557	500	618	1.236	0.310		
3.584	13013	13118	1.008	6.593	7 PCB-1260 (Aroclor 1260)	RT
3.620	262	279	1.065	0.140		
3.679	453	468	1.032	0.235		
3.757	176	197	1.117	0.099		
3.786	2612	2639	1.010	1.326		
3.827	9426	8673	0.920	4.359	7 PCB-1260 (Aroclor 1260)	RT
3.972	500	496	0.991	0.249		
4.036	95	147	1.545	0.073		
4.079	1377	1352	0.982	0.679		
4.153	3194	3109	0.973	1.562		
4.343	1050	1069	1.018	0.537		
4.501	17173	17078	0.994	8.584	$ 11 Decachlorobiphenyl (S)	RT
	231763	198951		100.000		

Total unknown % height = 47.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.631	1.631	0.000	5348	0.25000	0.260	80.00- 120.00	100.00	(M)	RT
1.878	1.878	0.000	10815	0.25000	0.262	162.66- 243.99	202.22		RT
1.932	1.932	0.000	4465	0.25000	0.268	63.55- 95.32	83.49		RT
2.188	2.188	0.000	3348	0.25000	0.262	49.13- 73.70	62.60		RT
2.277	2.277	0.000	2875	0.25000	0.262	42.04- 63.06	53.76		RT
Average of Peak Amounts =					0.26280				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
2.797	2.797	0.000	4804	0.25000	0.259	80.00- 120.00	100.00	(M)	RT
2.885	2.885	0.000	6145	0.25000	0.259	101.69- 152.53	127.91		RT
2.995	2.995	0.000	7705	0.25000	0.260	125.91- 188.87	160.38		RT
3.584	3.584	0.000	13013	0.25000	0.259	212.47- 318.70	270.86		RT
3.826	3.826	0.000	9426	0.25000	0.260	152.61- 228.91	196.20		RT
Average of Peak Amounts =					0.25940				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.210	1.210	0.000	26360	0.05000	0.0518			(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.501	4.501	0.000	17172	0.05000	0.0512			(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

TARGET COMPOUNDS

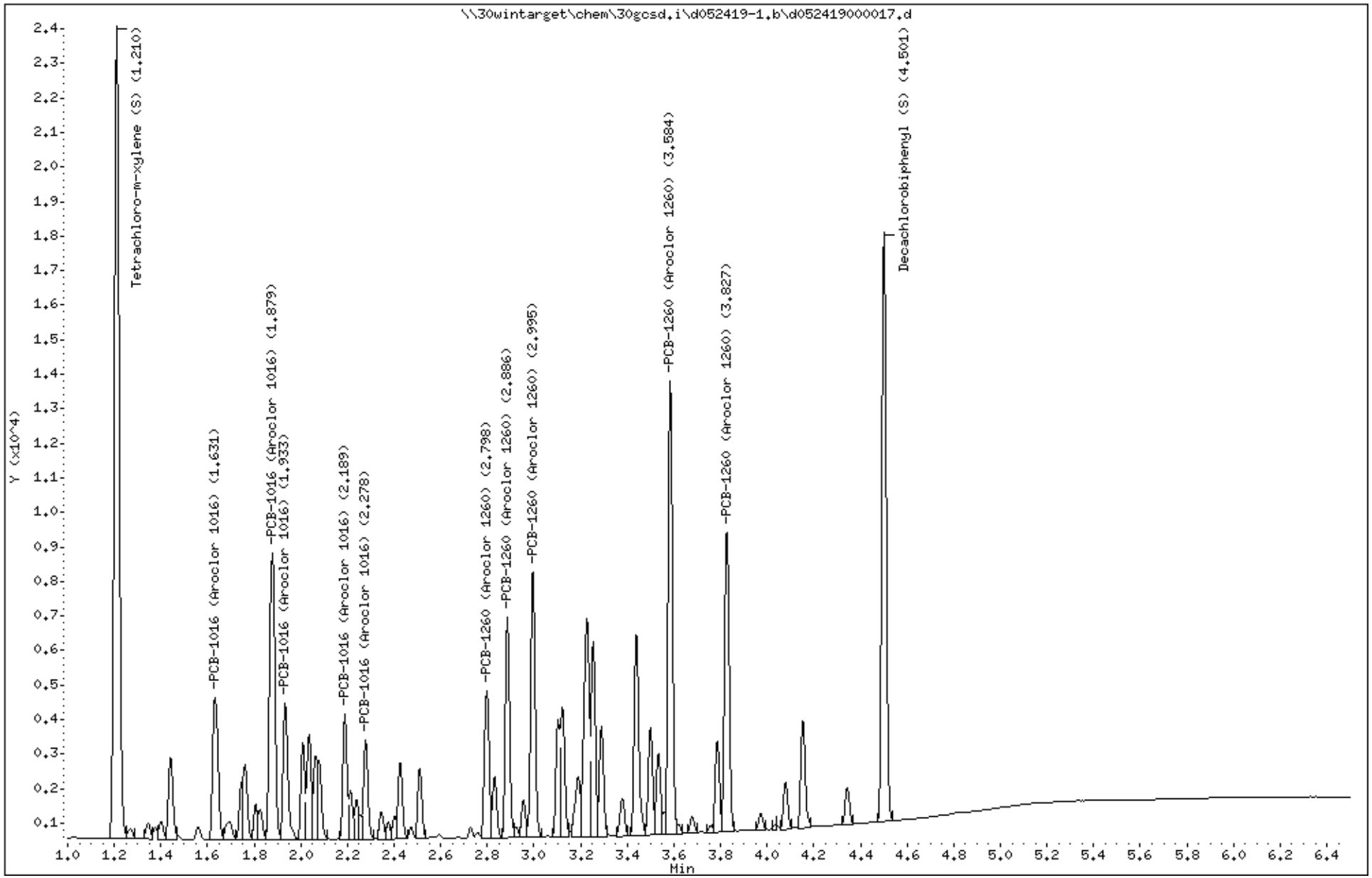
Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

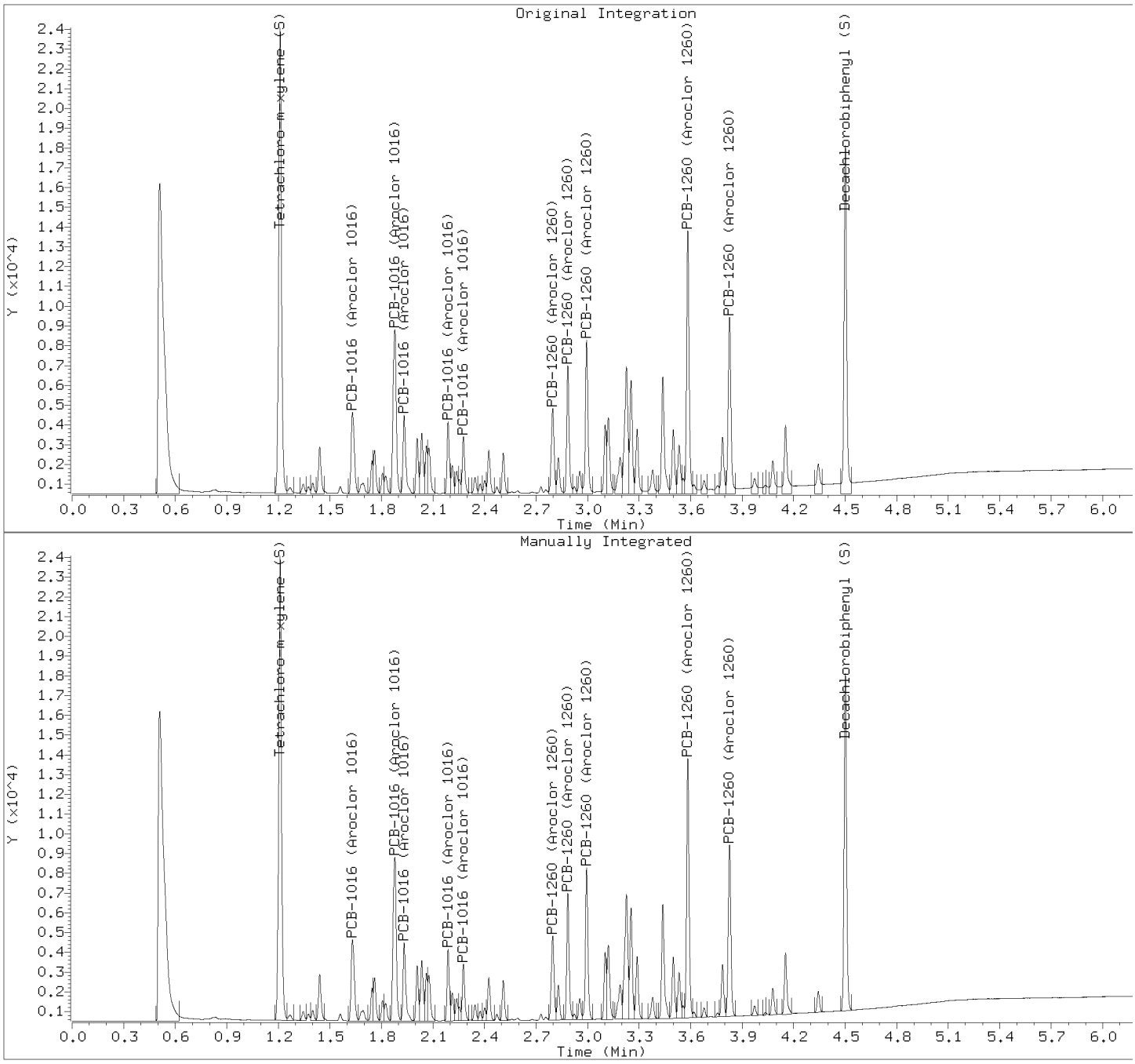
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.631	0.260	
	Peak found at 1.879	0.262	
	Peak found at 1.933	0.268	
	Peak found at 2.189	0.262	
	Peak found at 2.278	0.262	
	Average of Peak Amounts =	0.263	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.259	
	Peak found at 2.886	0.259	
	Peak found at 2.995	0.260	
	Peak found at 3.584	0.259	
	Peak found at 3.827	0.260	
	Average of Peak Amounts =	0.259	
877-09-8	Tetrachloro-m-xylene (S)	0.0518	
2051-24-3	Decachlorobiphenyl (S)	0.0512	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Sample Info: CAL3A, 88854:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5340	5348
PCB-1016 (Aroclor 1016)	10807	10815
PCB-1016 (Aroclor 1016)	4455	4465
PCB-1016 (Aroclor 1016)	3342	3348
PCB-1016 (Aroclor 1016)	2895	2875
PCB-1260 (Aroclor 1260)	4934	4804
PCB-1260 (Aroclor 1260)	6324	6145
PCB-1260 (Aroclor 1260)	7944	7705
PCB-1260 (Aroclor 1260)	13461	13013
PCB-1260 (Aroclor 1260)	10168	9426
Tetrachloro-m-xylene (S)	26476	26360
Decachlorobiphenyl (S)	19084	17172

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	35242	19909	0.565	11.087		
1.528	280	249	0.888	0.138		
1.586	23458	22708	0.968	12.680	$ 10 Tetrachloro-m-xylene (S)	RT
1.713	473	456	0.965	0.253		
1.762	2470	2400	0.972	1.336		
1.843	297	304	1.024	0.169		
1.964	2934	3126	1.065	1.740	1 PCB-1016 (Aroclor 1016)	RT
1.984	1796	1807	1.006	1.006		
2.019	374	377	1.007	0.209		
2.076	3188	2051	0.643	1.142		
2.201	774	847	1.095	0.471		
2.224	898	848	0.945	0.472		
2.268	4040	4695	1.162	2.614		
2.286	5723	5864	1.025	3.265	1 PCB-1016 (Aroclor 1016)	RT
2.306	3665	3630	0.991	2.021		
2.375	2846	2654	0.933	1.478	1 PCB-1016 (Aroclor 1016)	RT
2.404	265	274	1.033	0.152		
2.439	2246	2336	1.040	1.300		
2.471	2603	2658	1.021	1.480	1 PCB-1016 (Aroclor 1016)	RT
2.499	1007	930	0.924	0.517		
2.561	2582	2684	1.040	1.494	1 PCB-1016 (Aroclor 1016)	RT
2.589	1425	1281	0.899	0.713		
2.617	881	921	1.045	0.512		
2.639	687	716	1.043	0.398		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.667	2825	1897	0.672	1.056		
2.818	2441	1786	0.732	0.994		
2.864	396	401	1.013	0.223		
2.960	1803	1741	0.966	0.969		
3.138	232	261	1.126	0.145		
3.161	943	899	0.953	0.500		
3.199	795	781	0.982	0.434		
3.246	3441	2692	0.782	1.499		
3.277	665	735	1.106	0.409		
3.309	5335	5251	0.984	2.924	7 PCB-1260 (Aroclor 1260)	RT
3.391	540	494	0.914	0.275		
3.436	893	856	0.958	0.476		
3.479	6361	6449	1.014	3.591	7 PCB-1260 (Aroclor 1260)	RT
3.502	1884	1861	0.988	1.036		
3.556	4326	2998	0.693	1.669		
3.587	618	591	0.956	0.329		
3.631	647	581	0.898	0.323		
3.663	7914	6204	0.784	3.455	7 PCB-1260 (Aroclor 1260)	RT
3.721	4843	4626	0.955	2.576		
3.757	2568	2482	0.967	1.382		
3.839	1035	1098	1.061	0.611		
3.862	4961	4737	0.955	2.638		
3.897	274	296	1.080	0.164		
3.922	2387	2337	0.979	1.301		
3.952	1467	1327	0.905	0.739		
4.014	1268	1187	0.936	0.661		
4.060	11174	10647	0.953	5.929	7 PCB-1260 (Aroclor 1260)	RT
4.101	597	560	0.937	0.311		
4.248	6727	6099	0.907	3.396	7 PCB-1260 (Aroclor 1260)	RT
4.273	879	1104	1.256	0.614		
4.296	3021	2540	0.841	1.414		
4.437	155	250	1.616	0.139		
4.462	88	137	1.551	0.076		
4.497	1243	1157	0.931	0.644		
4.618	2663	2576	0.967	1.434		
4.660	136	157	1.153	0.087		
4.809	1011	937	0.927	0.521		
4.960	16295	15018	0.922	8.363	$ 11 Decachlorobiphenyl (S)	RT
5.729	5	18	3.797	0.010		
5.764	5	19	4.185	0.010		
5.983	4	17	4.696	0.009		
6.069	8	31	3.865	0.017		
	205024	179560		100.000		

Total unknown % height = 50.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Lab Smp Id: CAL3A Client Smp ID: CAL3A
Inj Date : 24-MAY-2019 15:16
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal3a, 88854:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:33 Cal File: d052419000019.d
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.963	1.963	0.000	2933	0.25000	0.257	80.00- 120.00	100.00(aM)	RT
2.286	2.286	0.000	5723	0.25000	0.262	152.31- 228.47	195.07	RT
2.374	2.374	0.000	2845	0.25000	0.262	75.27- 112.91	96.97	RT
2.470	2.470	0.000	2602	0.25000	0.261	68.58- 102.86	88.69	RT
2.560	2.560	0.000	2581	0.25000	0.261	68.26- 102.40	87.97	RT
Average of Peak Amounts =					0.26060			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
3.309	3.309	0.000	5334	0.25000	0.262	80.00- 120.00	100.00(aM)	RT
3.478	3.478	0.000	6360	0.25000	0.261	88.62- 132.94	119.22	RT
3.662	3.662	0.000	7913	0.25000	0.270	120.10- 180.15	148.33	RT
4.060	4.060	0.000	11174	0.25000	0.260	171.60- 257.41	209.45	RT
4.247	4.247	0.000	6727	0.25000	0.260	103.64- 155.46	126.09	RT
Average of Peak Amounts =					0.26260			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.586	1.586	0.000	23457	0.05000	0.0516		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16295	0.05000	0.0513		(M)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

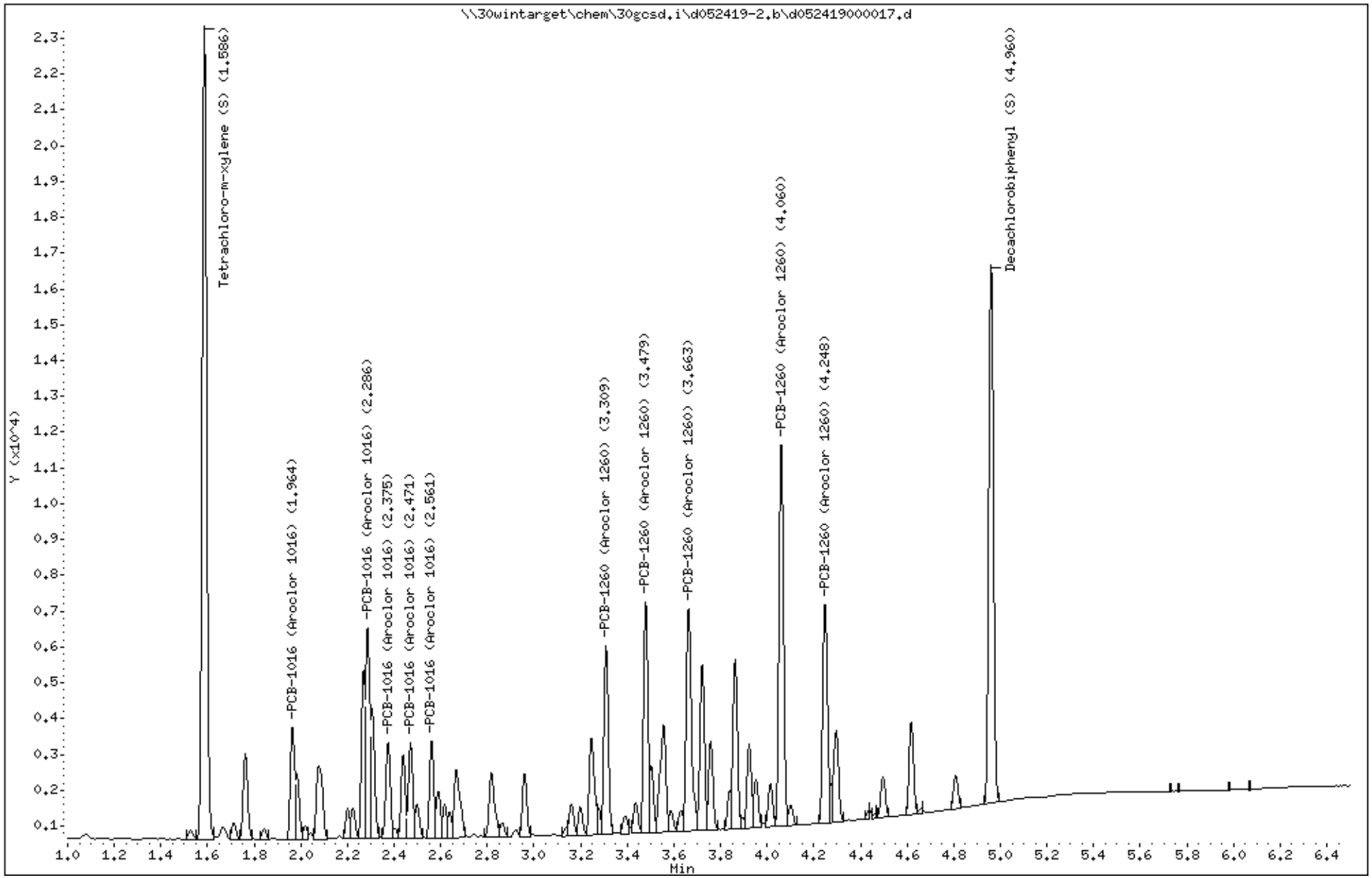
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

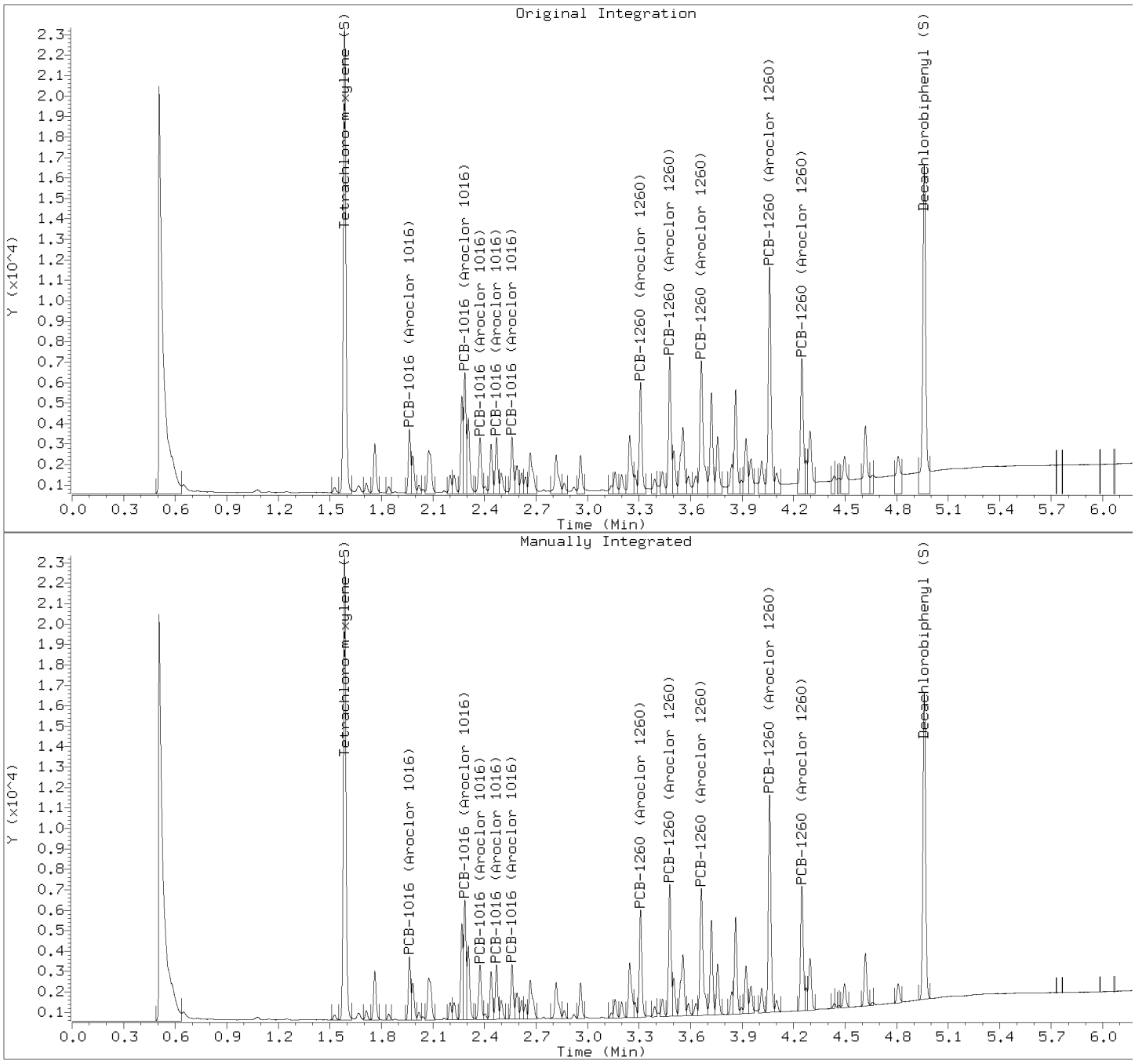
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL3A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.257	J
	Peak found at 2.286	0.262	J
	Peak found at 2.375	0.262	J
	Peak found at 2.471	0.261	J
	Peak found at 2.561	0.261	J
	Average of Peak Amounts =	0.261	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.262	J
	Peak found at 3.479	0.261	J
	Peak found at 3.663	0.270	J
	Peak found at 4.060	0.260	J
	Peak found at 4.248	0.260	J
	Average of Peak Amounts =	0.263	J
877-09-8	Tetrachloro-m-xylene (S)	0.0516	
2051-24-3	Decachlorobiphenyl (S)	0.0513	

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000017.d
Date : 24-MAY-2019 15:16
Client ID: CAL3A
Instrument: 30gcsd.i
Sample Info: CAL3A, 88854:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000017.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:16 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL3A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3009	2933
PCB-1016 (Aroclor 1016)	5753	5723
PCB-1016 (Aroclor 1016)	3054	2845
PCB-1016 (Aroclor 1016)	2756	2602
PCB-1016 (Aroclor 1016)	2779	2581
PCB-1260 (Aroclor 1260)	5883	5334
PCB-1260 (Aroclor 1260)	6861	6360
PCB-1260 (Aroclor 1260)	8895	7913
PCB-1260 (Aroclor 1260)	12486	11174
PCB-1260 (Aroclor 1260)	8067	6727
Tetrachloro-m-xylene (S)	23677	23457
Decachlorobiphenyl (S)	20662	16295

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	16733	6708	0.401	8.553		
1.211	10571	9451	0.894	12.072	$ 10 Tetrachloro-m-xylene (S)	
1.441	1046	982	0.939	1.252		
1.632	2224	1709	0.768	2.179	1 PCB-1016 (Aroclor 1016)	
1.746	554	680	1.227	0.867		
1.761	901	894	0.992	1.139		
1.807	368	423	1.150	0.539		
1.879	4376	3380	0.772	4.309	1 PCB-1016 (Aroclor 1016)	
1.932	1725	1634	0.947	2.083	1 PCB-1016 (Aroclor 1016)	
2.008	1007	1131	1.123	1.442		
2.036	1356	1260	0.929	1.606		
2.062	887	1002	1.130	1.277		
2.078	988	957	0.969	1.220		
2.188	1375	1478	1.075	1.884	1 PCB-1016 (Aroclor 1016)	
2.213	537	583	1.086	0.743		
2.239	425	463	1.089	0.590		
2.278	1167	1178	1.009	1.502	1 PCB-1016 (Aroclor 1016)	
2.425	901	914	1.014	1.165		
2.510	793	857	1.080	1.092		
2.797	1988	1762	0.886	2.246	7 PCB-1260 (Aroclor 1260)	
2.831	703	716	1.018	0.912		
2.885	2563	2622	1.023	3.343	7 PCB-1260 (Aroclor 1260)	
2.955	426	451	1.058	0.575		
2.995	3200	3162	0.988	4.031	7 PCB-1260 (Aroclor 1260)	
3.103	1224	1408	1.150	1.795		
3.122	1695	1581	0.932	2.015		
3.190	983	731	0.744	0.932		
3.227	3413	2567	0.752	3.273		
3.253	2331	2359	1.012	3.008		
3.289	1290	1278	0.990	1.629		
3.378	466	438	0.940	0.558		
3.439	2527	2297	0.909	2.928		
3.500	1281	1266	0.988	1.614		
3.533	996	965	0.969	1.230		
3.584	5271	5313	1.008	6.774	7 PCB-1260 (Aroclor 1260)	
3.786	1068	1078	1.009	1.374		
3.827	3806	3600	0.946	4.590	7 PCB-1260 (Aroclor 1260)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.973	200	202	1.009	0.257		
4.079	539	546	1.014	0.696		
4.153	1227	1221	0.995	1.556		
4.343	429	429	1.001	0.547		
4.501	6933	6747	0.973	8.603	$ 11 Decachlorobiphenyl (S)	
	92494	78423		100.000		

Total unknown % height = 46.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	2223	0.10000	0.108	80.00- 120.00	100.00	
1.878	1.878	0.000	4375	0.10000	0.106	162.66- 243.99	196.76	
1.932	1.932	0.000	1725	0.10000	0.104	63.55- 95.32	77.58	
2.188	2.188	0.000	1374	0.10000	0.108	49.13- 73.70	61.82	
2.277	2.277	0.000	1167	0.10000	0.106	42.04- 63.06	52.50	
Average of Peak Amounts =					0.10640			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.797	2.797	0.000	1988	0.10000	0.107	80.00- 120.00	100.00	
2.885	2.885	0.000	2562	0.10000	0.108	101.69- 152.53	128.89	
2.994	2.995	-0.001	3199	0.10000	0.108	125.91- 188.87	160.94	
3.583	3.584	-0.001	5270	0.10000	0.105	212.47- 318.70	265.09	
3.826	3.826	0.000	3806	0.10000	0.105	152.61- 228.91	191.43	
Average of Peak Amounts =					0.10660			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	10571	0.02000	0.0208			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.500	4.501	-0.001	6932	0.02000	0.0206			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

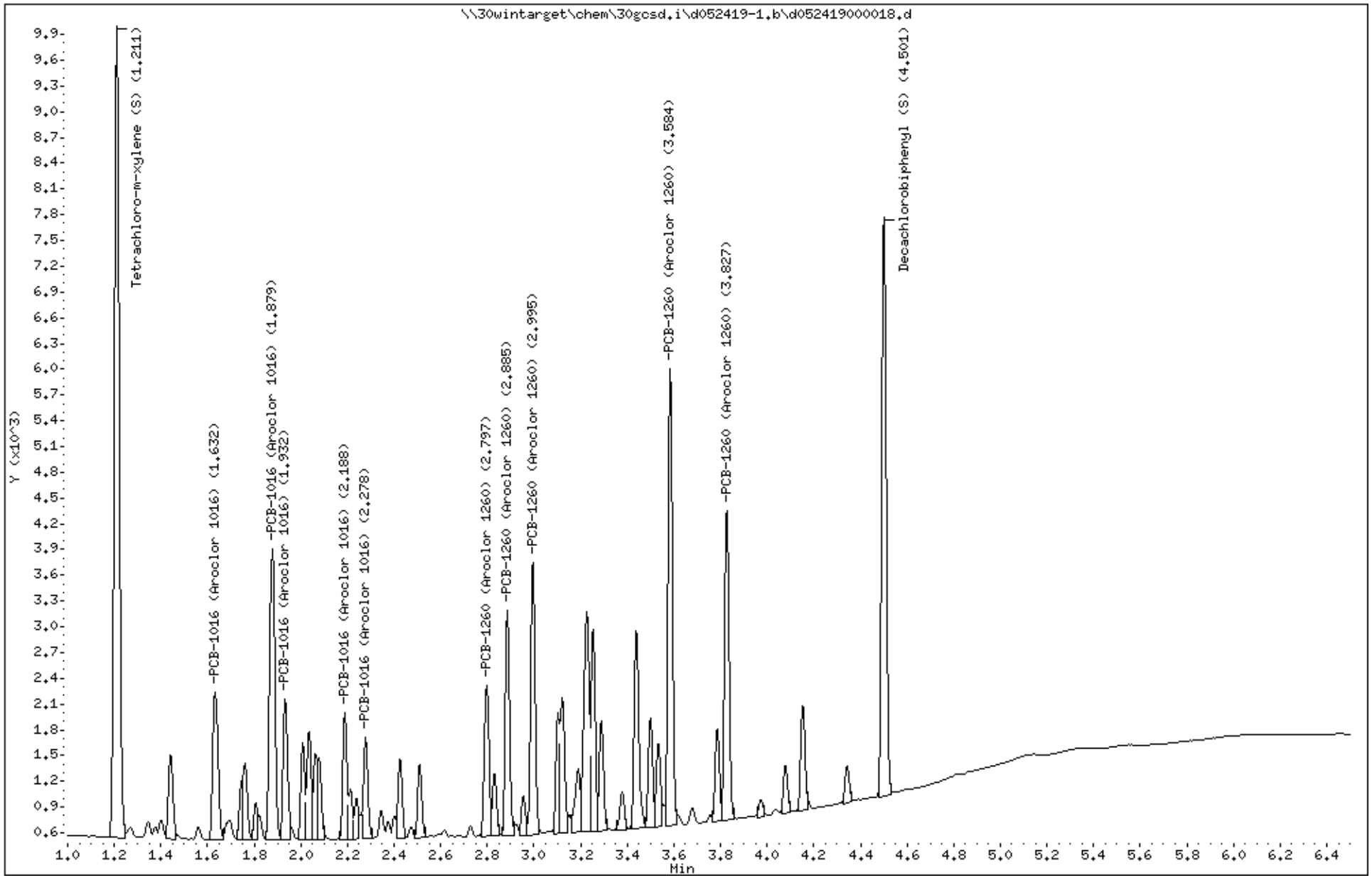
Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

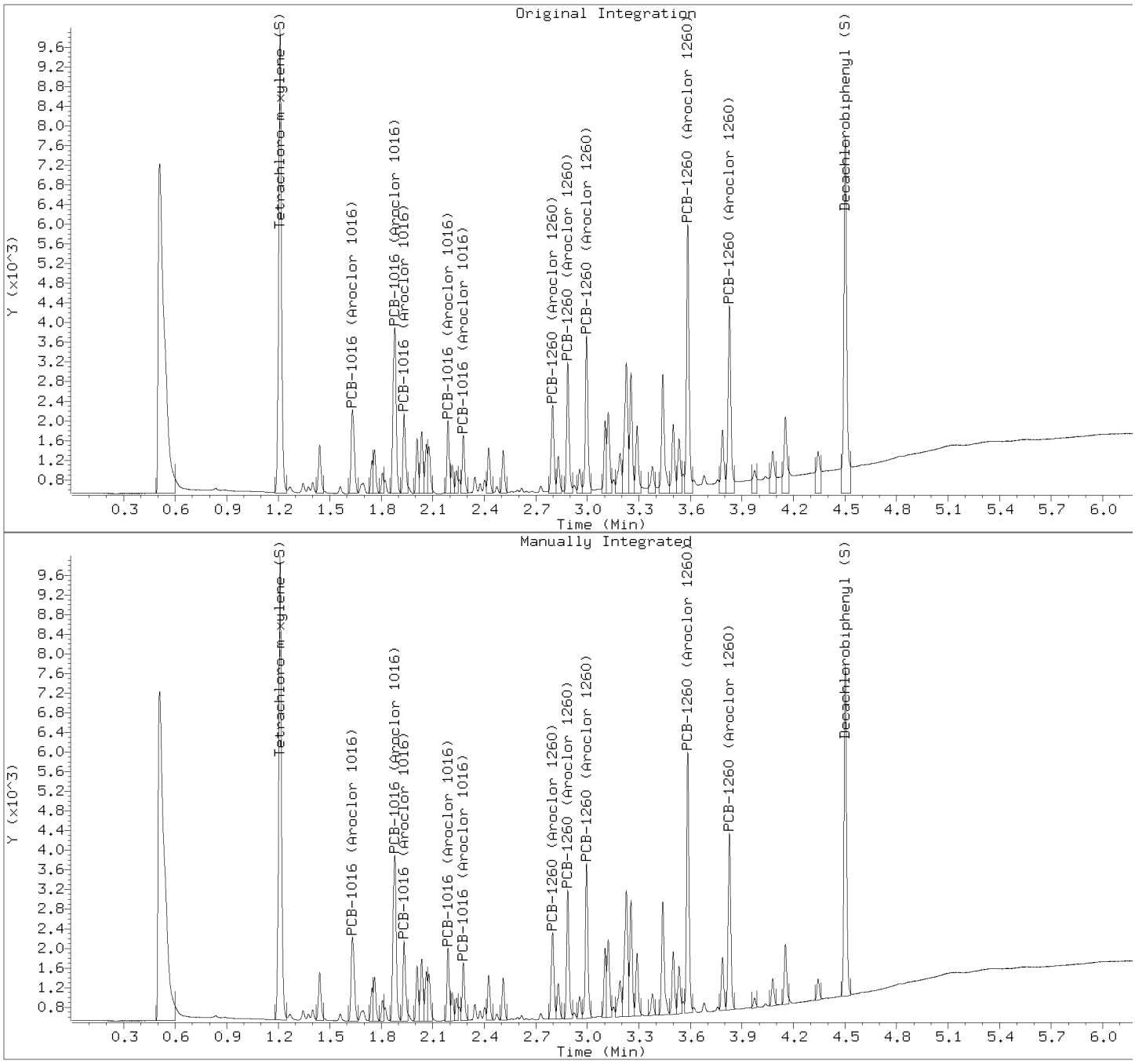
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.108	
	Peak found at 1.879	0.106	
	Peak found at 1.932	0.104	
	Peak found at 2.188	0.108	
	Peak found at 2.278	0.106	
	Average of Peak Amounts =	0.106	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.797	0.107	
	Peak found at 2.885	0.108	
	Peak found at 2.995	0.108	
	Peak found at 3.584	0.105	
	Peak found at 3.827	0.105	
	Average of Peak Amounts =	0.107	
877-09-8	Tetrachloro-m-xylene (S)	0.0208	
2051-24-3	Decachlorobiphenyl (S)	0.0206	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Sample Info: CAL2A, 88853:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2206	2223
PCB-1016 (Aroclor 1016)	4356	4375
PCB-1016 (Aroclor 1016)	1710	1725
PCB-1016 (Aroclor 1016)	1367	1374
PCB-1016 (Aroclor 1016)	1173	1167
PCB-1260 (Aroclor 1260)	2078	1988
PCB-1260 (Aroclor 1260)	2682	2562
PCB-1260 (Aroclor 1260)	3365	3199
PCB-1260 (Aroclor 1260)	5719	5270
PCB-1260 (Aroclor 1260)	4468	3806
Tetrachloro-m-xylene (S)	10649	10571
Decachlorobiphenyl (S)	8661	6932

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	12555	9011	0.718	12.185		
0.565	1251	1243	0.994	1.680		
0.583	2098	1129	0.538	1.526		
1.587	9393	9098	0.969	12.330	$ 10 Tetrachloro-m-xylene (S)	
1.762	1000	973	0.973	1.315		
1.964	1229	1297	1.055	1.753	1 PCB-1016 (Aroclor 1016)	
1.984	714	737	1.032	0.996		
2.076	807	841	1.043	1.137		
2.201	317	344	1.087	0.465		
2.269	1623	1874	1.155	2.534		
2.286	2259	2342	1.037	3.167	1 PCB-1016 (Aroclor 1016)	
2.306	1489	1437	0.965	1.943		
2.375	1137	1074	0.944	1.452	1 PCB-1016 (Aroclor 1016)	
2.439	918	949	1.033	1.283		
2.470	1060	1080	1.019	1.460	1 PCB-1016 (Aroclor 1016)	
2.499	402	378	0.940	0.511		
2.561	1052	1094	1.040	1.479	1 PCB-1016 (Aroclor 1016)	
2.590	574	512	0.893	0.692		
2.617	355	370	1.042	0.500		
2.639	275	283	1.029	0.382		
2.667	880	762	0.866	1.030		
2.818	785	712	0.907	0.962		
2.960	772	734	0.951	0.992		
3.161	369	356	0.964	0.481		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.199	296	311	1.051	0.420		
3.246	1376	1078	0.784	1.457		
3.277	243	283	1.162	0.382		
3.309	2135	2112	0.989	2.856	7 PCB-1260 (Aroclor 1260)	
3.392	207	199	0.961	0.269		
3.437	332	333	1.002	0.450		
3.480	2562	2542	0.992	3.437	7 PCB-1260 (Aroclor 1260)	
3.503	832	838	1.007	1.133		
3.556	1686	1145	0.679	1.548		
3.588	225	217	0.964	0.293		
3.632	149	223	1.497	0.301		
3.663	2877	2427	0.843	3.282	7 PCB-1260 (Aroclor 1260)	
3.722	1928	1864	0.967	2.520		
3.758	1009	1011	1.002	1.367		
3.840	396	432	1.091	0.584		
3.863	1979	1853	0.936	2.505		
3.897	102	117	1.142	0.158		
3.923	961	952	0.990	1.287		
3.952	569	531	0.933	0.718		
4.014	486	466	0.959	0.630		
4.060	4445	4204	0.946	5.685	7 PCB-1260 (Aroclor 1260)	
4.102	147	227	1.542	0.306		
4.248	2671	2363	0.885	3.195	7 PCB-1260 (Aroclor 1260)	
4.273	349	449	1.288	0.607		
4.296	1207	1022	0.847	1.382		
4.437	71	106	1.502	0.143		
4.497	488	456	0.934	0.616		
4.618	1058	1021	0.965	1.380		
4.658	37	56	1.524	0.075		
4.809	380	368	0.967	0.497		
4.960	6509	6069	0.932	8.207	$ 11 Decachlorobiphenyl (S)	
5.279	6	21	3.333	0.028		
6.139	5	20	4.348	0.027		
	81035	73946		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Lab Smp Id: CAL2A Client Smp ID: CAL2A
Inj Date : 24-MAY-2019 15:25
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal2a, 88853:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 18 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.964	1.963	0.001	1228	0.10000	0.108	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	2258	0.10000	0.104	152.31- 228.47	183.79	
2.374	2.374	0.000	1137	0.10000	0.105	75.27- 112.91	92.56	
2.470	2.470	0.000	1059	0.10000	0.106	68.58- 102.86	86.23	
2.560	2.560	0.000	1051	0.10000	0.106	68.26- 102.40	85.59	
Average of Peak Amounts =					0.10580			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	2134	0.10000	0.105	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	2561	0.10000	0.105	88.62- 132.94	120.00	
3.663	3.662	0.001	2877	0.10000	0.0982	120.10- 180.15	134.78	
4.059	4.060	-0.001	4444	0.10000	0.103	171.60- 257.41	208.19	
4.247	4.247	0.000	2670	0.10000	0.103	103.64- 155.46	125.11	
Average of Peak Amounts =					0.10284			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	9392	0.02000	0.0207		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	6508	0.02000	0.0205		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

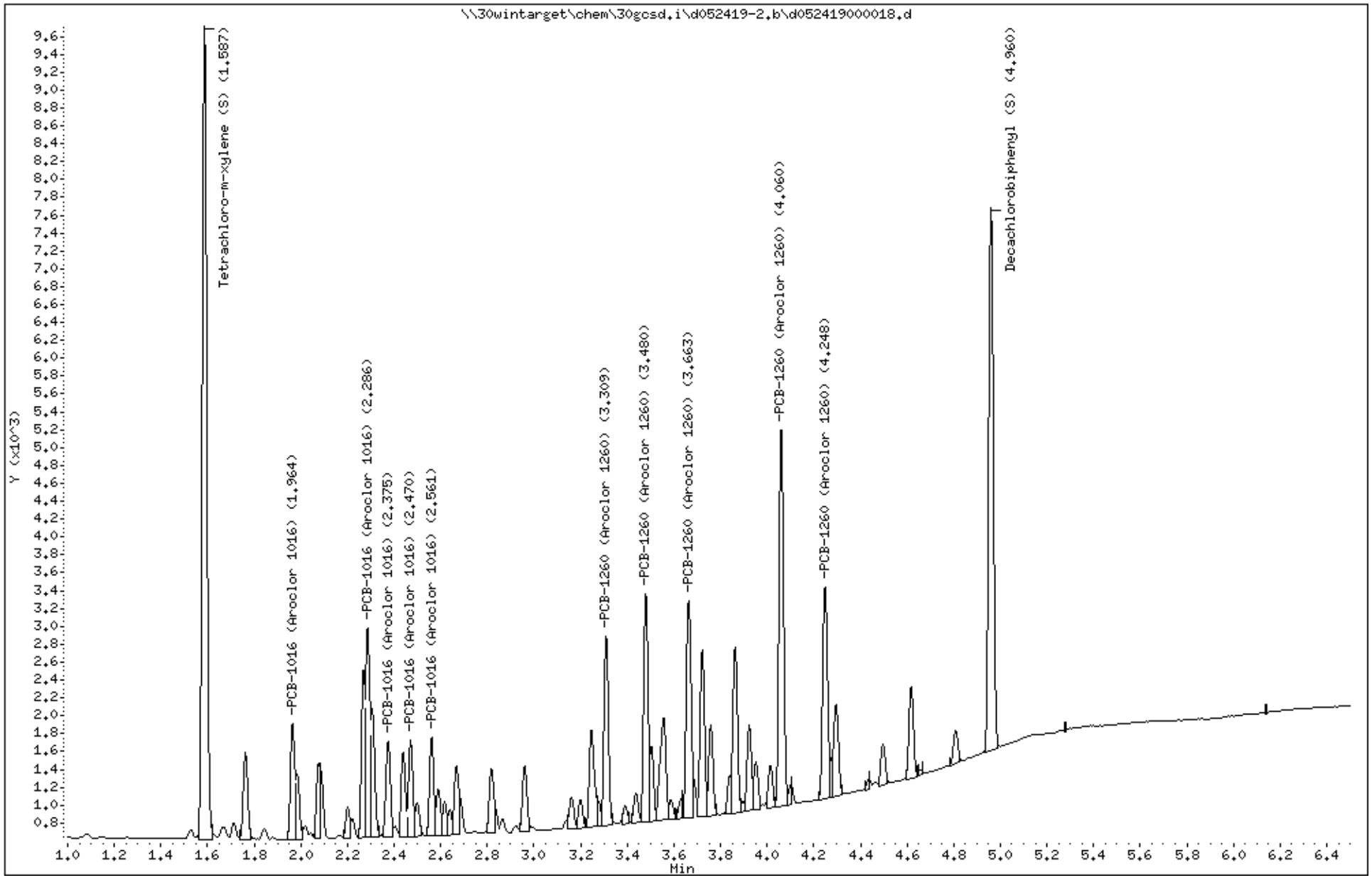
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

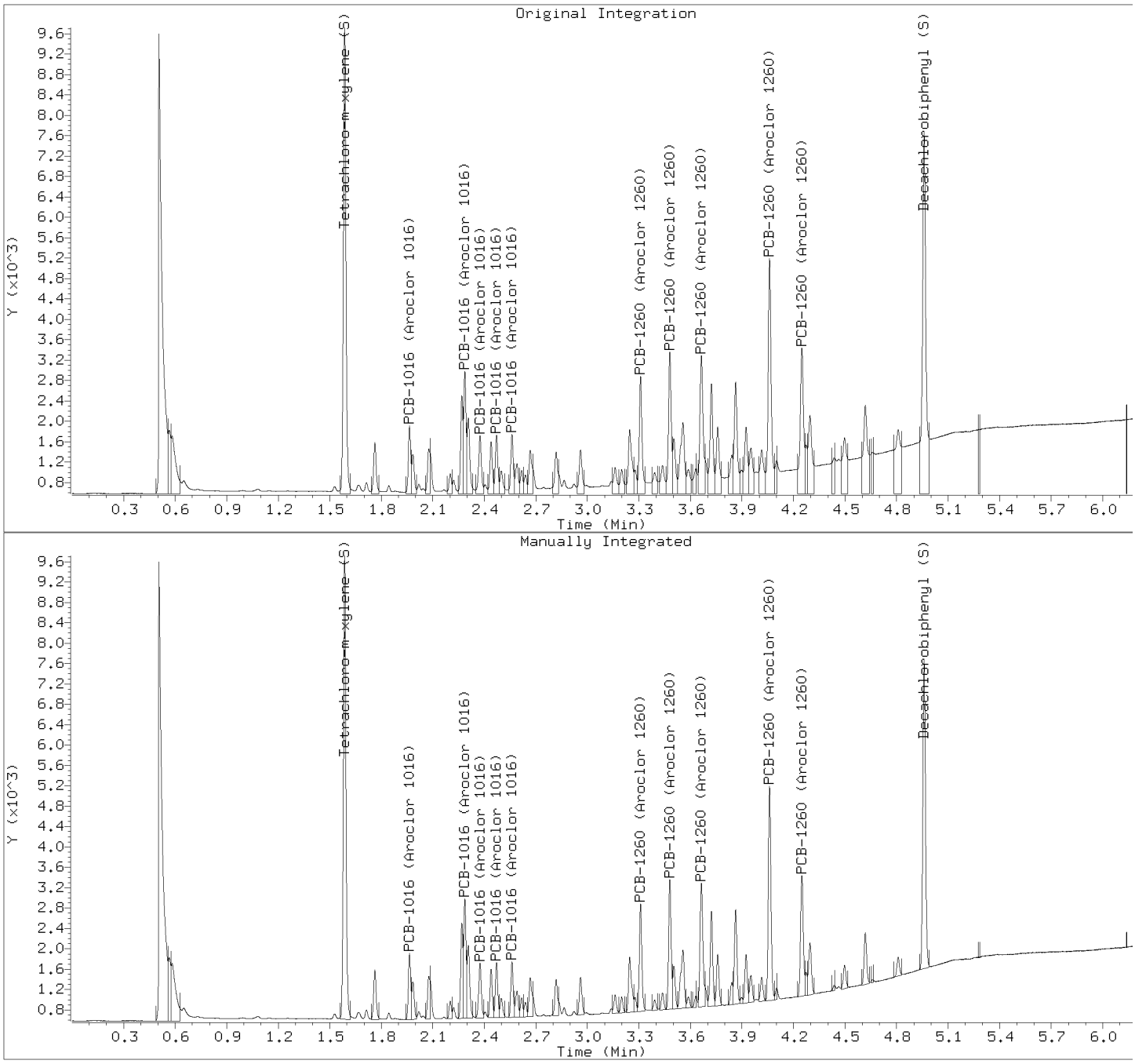
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL2A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.108	J
	Peak found at 2.286	0.104	J
	Peak found at 2.375	0.105	J
	Peak found at 2.470	0.106	J
	Peak found at 2.561	0.106	J
	Average of Peak Amounts =	0.106	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.105	J
	Peak found at 3.480	0.105	J
	Peak found at 3.663	0.0982	J
	Peak found at 4.060	0.103	J
	Peak found at 4.248	0.103	J
	Average of Peak Amounts =	0.103	J
877-09-8	Tetrachloro-m-xylene (S)	0.0207	J
2051-24-3	Decachlorobiphenyl (S)	0.0205	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000018.d
Date : 24-MAY-2019 15:25
Client ID: CAL2A
Instrument: 30gcsd.i
Sample Info: CAL2A, 88853:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000018.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:25 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL2A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1279	1228
PCB-1016 (Aroclor 1016)	2300	2258
PCB-1016 (Aroclor 1016)	1288	1137
PCB-1016 (Aroclor 1016)	1178	1059
PCB-1016 (Aroclor 1016)	1198	1051
PCB-1260 (Aroclor 1260)	2628	2134
PCB-1260 (Aroclor 1260)	3065	2561
PCB-1260 (Aroclor 1260)	3541	2877
PCB-1260 (Aroclor 1260)	5705	4444
PCB-1260 (Aroclor 1260)	3935	2670
Tetrachloro-m-xylene (S)	9501	9392
Decachlorobiphenyl (S)	9842	6508

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	9429	3422	0.363	8.960		
1.210	5272	4675	0.887	12.257	$ 10 Tetrachloro-m-xylene (S)	
1.441	524	497	0.948	1.301		
1.632	1128	871	0.772	2.280	1 PCB-1016 (Aroclor 1016)	
1.760	446	450	1.009	1.178		
1.879	2175	1662	0.764	4.351	1 PCB-1016 (Aroclor 1016)	
1.932	858	829	0.966	2.170	1 PCB-1016 (Aroclor 1016)	
2.008	500	560	1.119	1.466		
2.036	685	647	0.945	1.694		
2.063	462	509	1.102	1.332		
2.078	488	490	1.004	1.283		
2.189	695	751	1.081	1.966	1 PCB-1016 (Aroclor 1016)	
2.278	574	583	1.015	1.526	1 PCB-1016 (Aroclor 1016)	
2.426	452	460	1.017	1.204		
2.510	405	438	1.082	1.146		
2.798	1012	896	0.885	2.346	7 PCB-1260 (Aroclor 1260)	
2.831	354	364	1.030	0.953		
2.886	1293	1347	1.042	3.527	7 PCB-1260 (Aroclor 1260)	
2.955	214	224	1.044	0.586		
2.996	1617	1612	0.997	4.220	7 PCB-1260 (Aroclor 1260)	
3.103	602	681	1.131	1.783		
3.122	865	801	0.926	2.097		
3.190	501	366	0.731	0.958		
3.227	1708	1298	0.760	3.398		
3.254	1191	1181	0.992	3.092		
3.289	654	658	1.007	1.722		
3.379	219	216	0.985	0.565		
3.439	1183	1134	0.959	2.969		
3.500	640	633	0.989	1.657		
3.534	490	476	0.972	1.246		
3.584	2640	2633	0.998	6.894	7 PCB-1260 (Aroclor 1260)	
3.786	538	549	1.020	1.437		
3.827	1894	1813	0.957	4.747	7 PCB-1260 (Aroclor 1260)	
4.080	257	268	1.043	0.701		
4.153	606	615	1.016	1.610		
4.343	134	219	1.640	0.573		
4.501	3497	3363	0.962	8.805	$ 11 Decachlorobiphenyl (S)	

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
	46199	38191		100.000		

Total unknown % height = 44.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.631	1.631	0.000	1127	0.05000	0.0549	80.00- 120.00	100.00	
1.878	1.878	0.000	2175	0.05000	0.0526	162.66- 243.99	192.87	
1.932	1.932	0.000	857	0.05000	0.0514	63.55- 95.32	76.07	
2.188	2.188	0.000	694	0.05000	0.0543	49.13- 73.70	61.59	
2.277	2.277	0.000	574	0.05000	0.0523	42.04- 63.06	50.92	
Average of Peak Amounts =					0.05310			
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
2.798	2.797	0.001	1012	0.05000	0.0546	80.00- 120.00	100.00	
2.885	2.885	0.000	1292	0.05000	0.0545	101.69- 152.53	127.74	
2.995	2.995	0.000	1616	0.05000	0.0544	125.91- 188.87	159.77	
3.584	3.584	0.000	2639	0.05000	0.0526	212.47- 318.70	260.81	
3.827	3.826	0.001	1893	0.05000	0.0522	152.61- 228.91	187.11	
Average of Peak Amounts =					0.05366			
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.210	1.210	0.000	5271	0.01000	0.0104			
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.501	4.501	0.000	3497	0.01000	0.0104			

Review Codes Legend

:

Pace Analytical Services, Inc.

TARGET COMPOUNDS

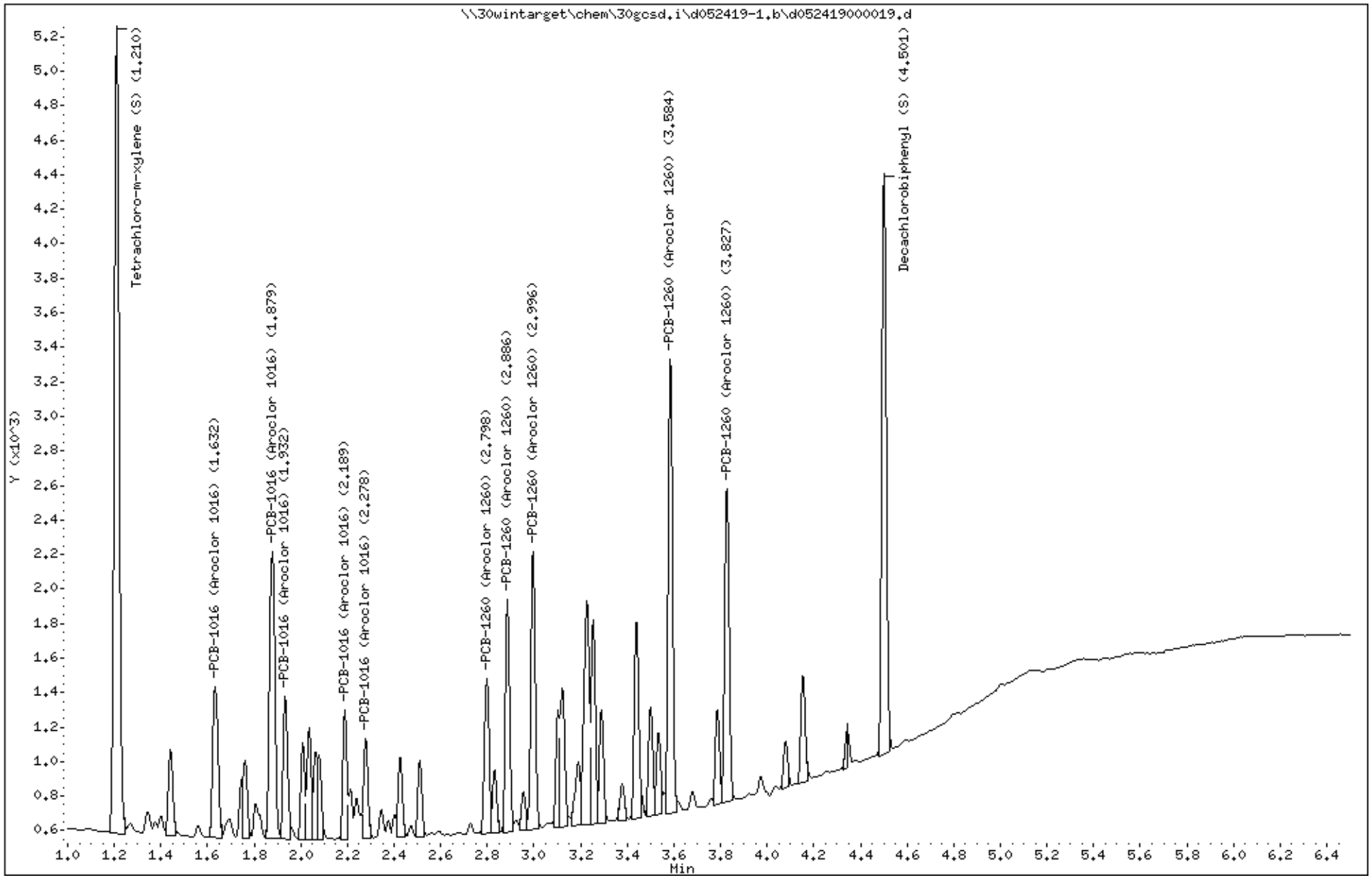
Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: None
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

Client SDG: 30GCSD-d052419-1
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level:
Operator: CWB

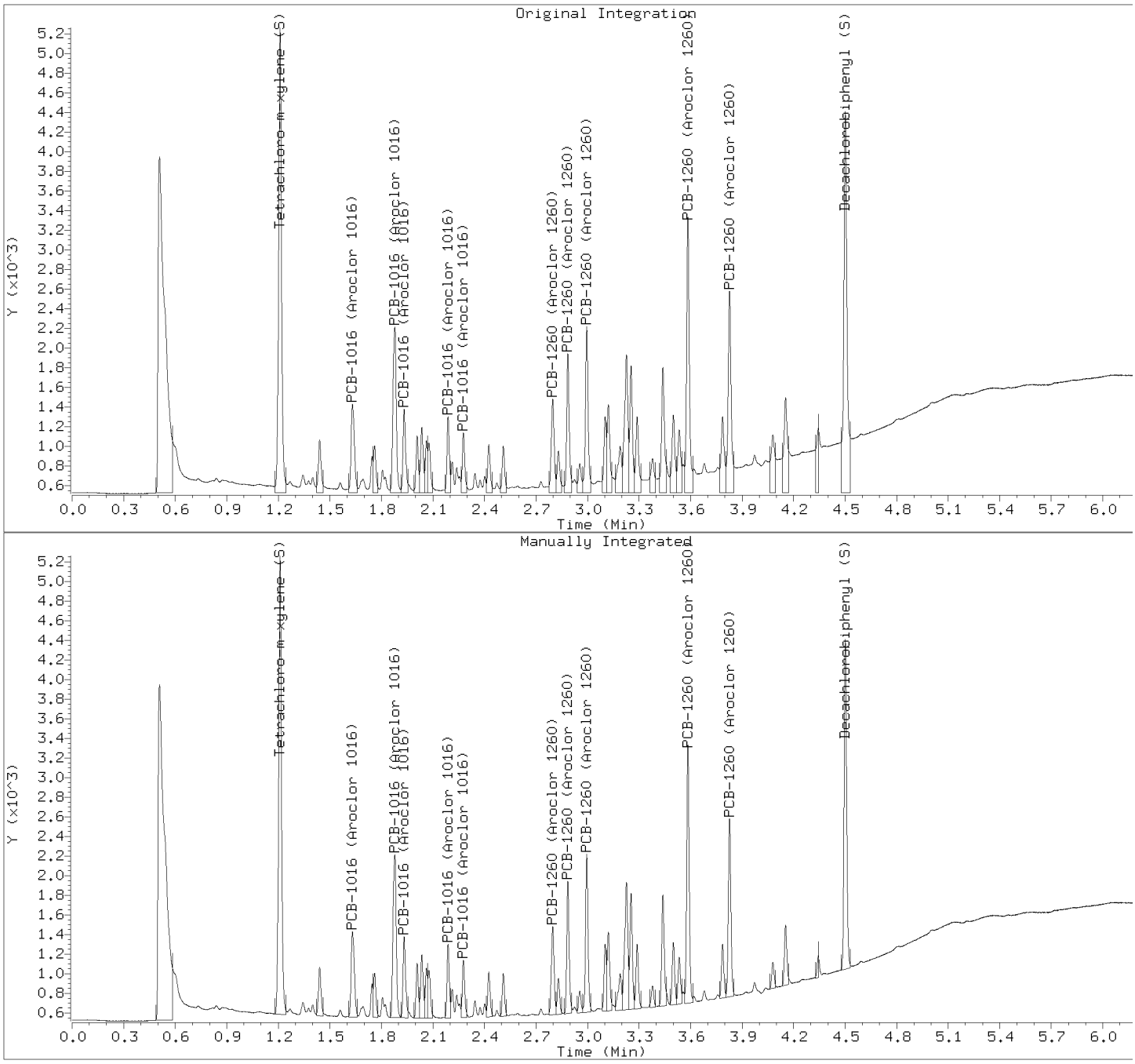
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/mL	Q
12674-11-2	PCB-1016 (Aroclor 1016)		
	Peak found at 1.632	0.0549	
	Peak found at 1.879	0.0526	
	Peak found at 1.932	0.0514	
	Peak found at 2.189	0.0543	
	Peak found at 2.278	0.0523	
	Average of Peak Amounts =	0.0531	
11096-82-5	PCB-1260 (Aroclor 1260)		
	Peak found at 2.798	0.0546	
	Peak found at 2.886	0.0545	
	Peak found at 2.996	0.0544	
	Peak found at 3.584	0.0526	
	Peak found at 3.827	0.0522	
	Average of Peak Amounts =	0.0537	
877-09-8	Tetrachloro-m-xylene (S)	0.0104	
2051-24-3	Decachlorobiphenyl (S)	0.0104	

Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Sample Info: CAL1A, 88852:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	1224	1127
PCB-1016 (Aroclor 1016)	2273	2175
PCB-1016 (Aroclor 1016)	919	857
PCB-1016 (Aroclor 1016)	737	694
PCB-1016 (Aroclor 1016)	629	574
PCB-1260 (Aroclor 1260)	1157	1012
PCB-1260 (Aroclor 1260)	1470	1292
PCB-1260 (Aroclor 1260)	1854	1616
PCB-1260 (Aroclor 1260)	3155	2639
PCB-1260 (Aroclor 1260)	2569	1893
Tetrachloro-m-xylene (S)	5489	5271
Decachlorobiphenyl (S)	5094	3497

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	6542	5060	0.773	13.893		
0.567	981	915	0.932	2.507		
0.585	1777	1034	0.582	2.834		
1.586	4728	4498	0.951	12.328	$ 10 Tetrachloro-m-xylene (S)	
1.762	486	485	0.998	1.329		
1.964	619	647	1.045	1.773	1 PCB-1016 (Aroclor 1016)	
1.984	360	373	1.036	1.022		
2.076	378	426	1.128	1.167		
2.268	797	925	1.160	2.535		
2.287	1112	1156	1.039	3.168	1 PCB-1016 (Aroclor 1016)	
2.306	723	717	0.991	1.965		
2.375	542	519	0.958	1.422	1 PCB-1016 (Aroclor 1016)	
2.439	457	475	1.039	1.301		
2.470	544	549	1.010	1.504	1 PCB-1016 (Aroclor 1016)	
2.560	524	550	1.050	1.507	1 PCB-1016 (Aroclor 1016)	
2.590	280	252	0.899	0.690		
2.667	406	373	0.920	1.022		
2.817	383	365	0.952	1.000		
2.960	355	355	1.001	0.973		
3.162	171	174	1.020	0.476		
3.246	672	537	0.799	1.471		
3.309	1071	1058	0.988	2.899	7 PCB-1260 (Aroclor 1260)	
3.479	1287	1252	0.972	3.431	7 PCB-1260 (Aroclor 1260)	
3.503	365	376	1.030	1.030		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.556	840	563	0.671	1.543		
3.632	111	108	0.976	0.296		
3.663	1408	1212	0.861	3.322	7 PCB-1260 (Aroclor 1260)	
3.722	953	906	0.951	2.483		
3.758	496	493	0.993	1.351		
3.840	201	213	1.061	0.583		
3.863	976	935	0.958	2.562		
3.923	473	459	0.970	1.258		
3.951	287	273	0.951	0.748		
4.014	235	227	0.966	0.622		
4.060	2192	2097	0.957	5.747	7 PCB-1260 (Aroclor 1260)	
4.103	87	106	1.218	0.290		
4.248	1324	1190	0.899	3.261	7 PCB-1260 (Aroclor 1260)	
4.295	596	499	0.837	1.367		
4.437	30	54	1.784	0.148		
4.497	254	234	0.921	0.641		
4.618	508	496	0.977	1.359		
4.809	195	190	0.972	0.520		
4.960	3293	3051	0.926	8.362	$ 11 Decachlorobiphenyl (S)	
5.291	7	25	3.765	0.068		
5.663	11	28	2.593	0.076		
5.787	2	8	4.494	0.021		
5.934	3	3	1.163	0.008		
6.188	7	21	2.846	0.057		
6.234	8	22	2.764	0.060		
	40055	36484		100.000		

Total unknown % height = 51.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Lab Smp Id: CAL1A Client Smp ID: CAL1A
Inj Date : 24-MAY-2019 15:33
Operator : CWB Inst ID: 30gcsd.i
Smp Info : cal1a, 88852:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 19 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2		
1.963	1.963	0.000	619	0.05000	0.0543	80.00- 120.00	100.00(a)	
2.286	2.286	0.000	1112	0.05000	0.0510	152.31- 228.47	179.71	
2.374	2.374	0.000	541	0.05000	0.0499	75.27- 112.91	87.51	
2.470	2.470	0.000	543	0.05000	0.0544	68.58- 102.86	87.83	
2.560	2.560	0.000	523	0.05000	0.0528	68.26- 102.40	84.60	
Average of Peak Amounts =				0.05248				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5		
3.309	3.309	0.000	1070	0.05000	0.0526	80.00- 120.00	100.00(a)	
3.479	3.478	0.001	1287	0.05000	0.0528	88.62- 132.94	120.24	
3.663	3.662	0.001	1407	0.05000	0.0480	120.10- 180.15	131.46	
4.060	4.060	0.000	2191	0.05000	0.0509	171.60- 257.41	204.67	
4.247	4.247	0.000	1323	0.05000	0.0511	103.64- 155.46	123.61	
Average of Peak Amounts =				0.05108				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.586	1.586	0.000	4728	0.01000	0.0104		(a)	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.959	4.960	-0.001	3293	0.01000	0.0104		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Review Codes Legend

    :

Pace Analytical Services, Inc.

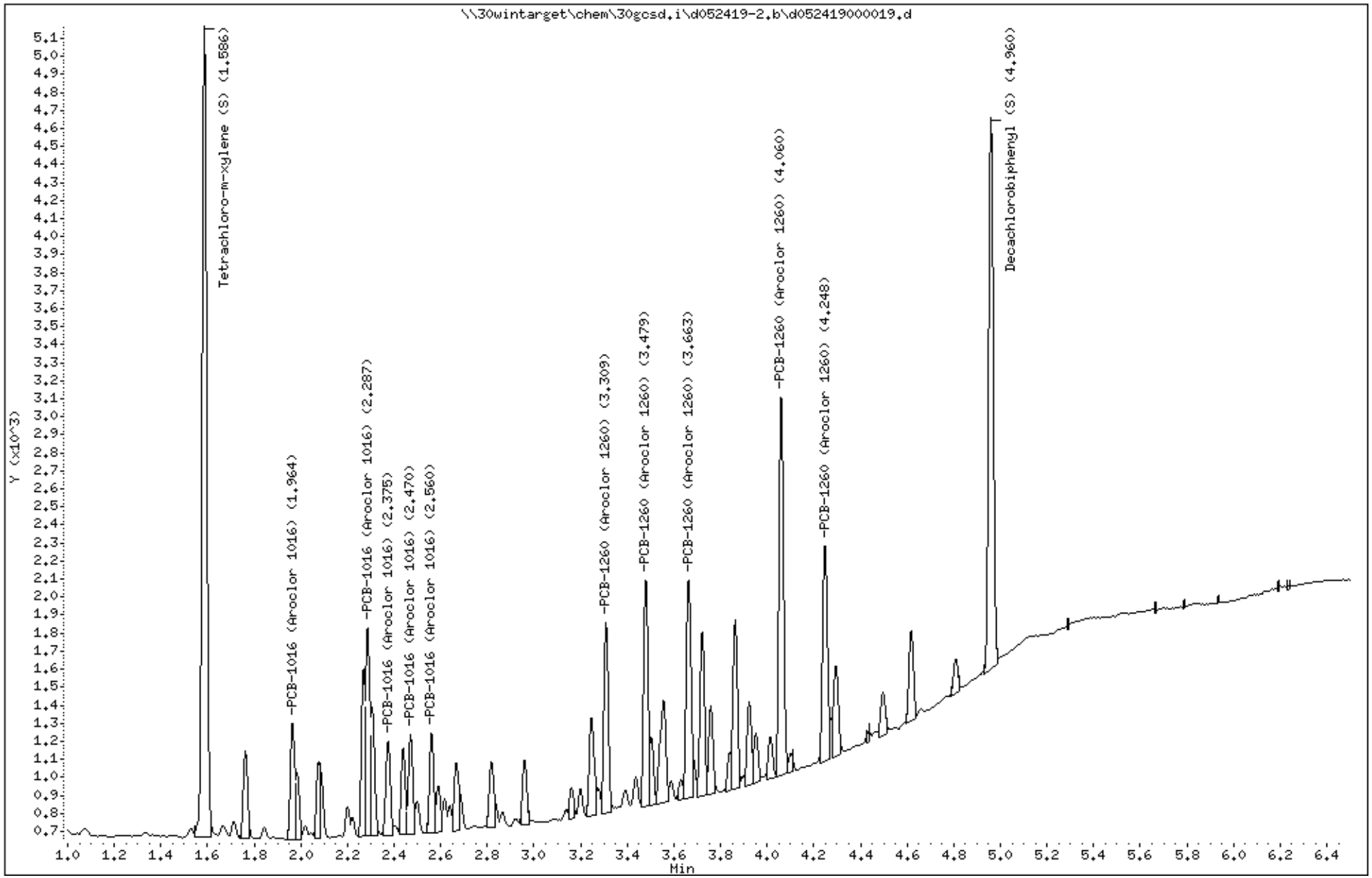
TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1A
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15570,

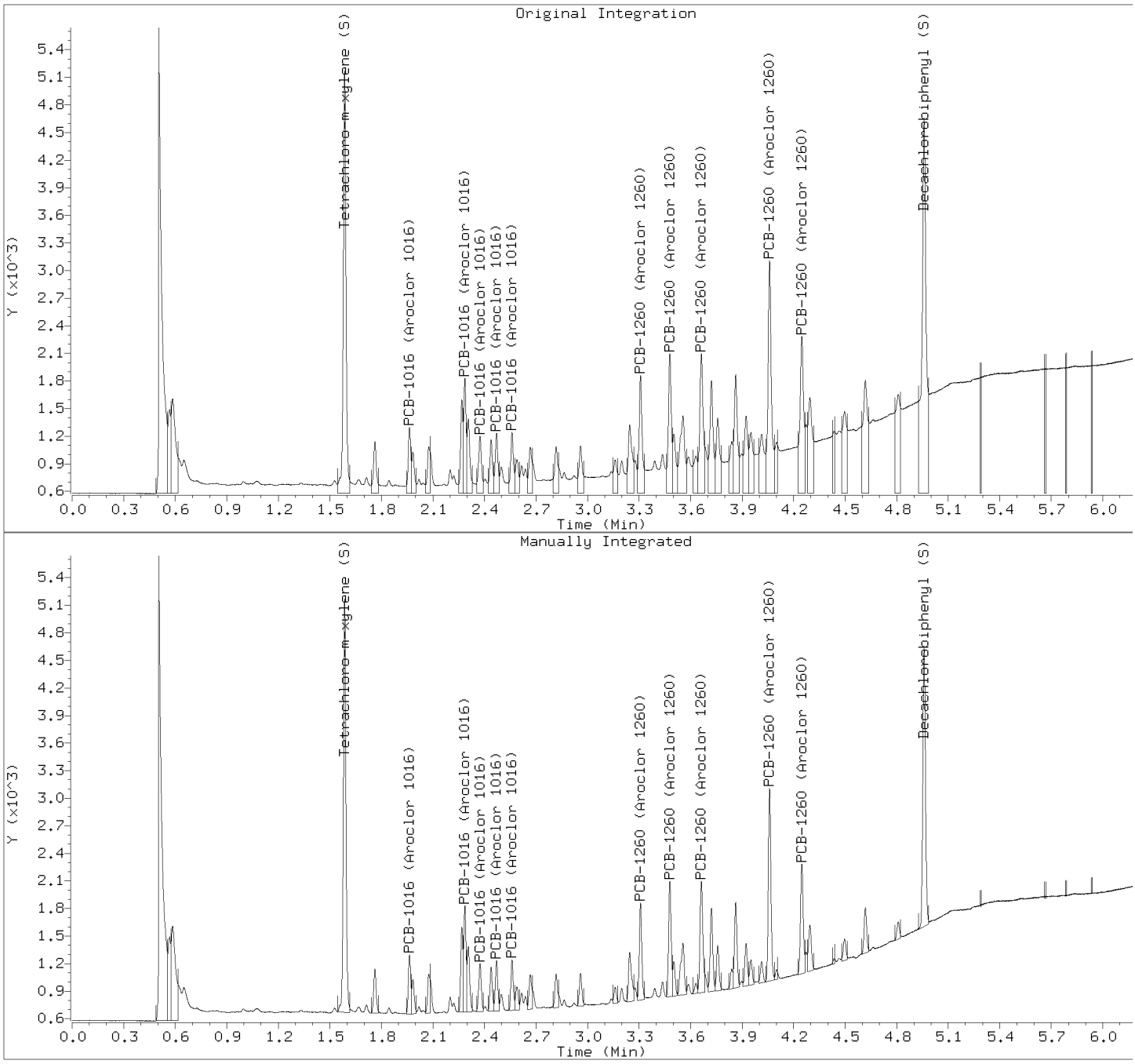
Client SDG: 30GCSD-d052419-2
Client Smp ID: CAL1A
Sample Point:
Date Received: 18-OCT-2007
Quant Type: ESTD
Level: MED
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.964	0.0543	J
	Peak found at 2.287	0.0510	J
	Peak found at 2.375	0.0499	J
	Peak found at 2.470	0.0544	J
	Peak found at 2.560	0.0528	J
	Average of Peak Amounts =	0.0525	J
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.309	0.0526	J
	Peak found at 3.479	0.0528	J
	Peak found at 3.663	0.0480	J
	Peak found at 4.060	0.0509	J
	Peak found at 4.248	0.0511	J
	Average of Peak Amounts =	0.0511	J
877-09-8	Tetrachloro-m-xylene (S)	0.0104	J
2051-24-3	Decachlorobiphenyl (S)	0.0104	J

Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000019.d
Date : 24-MAY-2019 15:33
Client ID: CAL1A
Instrument: 30gcsd.i
Sample Info: CAL1A, 88852:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000019.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:33 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CAL1A



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	750	619
PCB-1016 (Aroclor 1016)	1222	1112
PCB-1016 (Aroclor 1016)	777	541
PCB-1016 (Aroclor 1016)	749	543
PCB-1016 (Aroclor 1016)	750	523
PCB-1260 (Aroclor 1260)	1629	1070
PCB-1260 (Aroclor 1260)	1847	1287
PCB-1260 (Aroclor 1260)	2144	1407
PCB-1260 (Aroclor 1260)	3520	2191
PCB-1260 (Aroclor 1260)	2605	1323
Tetrachloro-m-xylene (S)	5104	4728
Decachlorobiphenyl (S)	6898	3293

SAMPLE NO.

10982565ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-1.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.631	1.601	1.661	20538.0000	21604.0000	5.1904
Aroclor 1016	2	Averaged	1.878	1.848	1.908	41334.8333	44156.0000	6.8252
Aroclor 1016	3	Averaged	1.931	1.902	1.962	16656.1666	17236.0000	3.4812
Aroclor 1016	4	Averaged	2.187	2.158	2.218	12773.1666	13440.0000	5.2206
Aroclor 1016	5	Averaged	2.277	2.247	2.307	10979.5000	10340.0000	-5.8245
Aroclor 1260	1	Averaged	2.796	2.767	2.827	18544.0555	20096.0000	8.3690
Aroclor 1260	2	Averaged	2.884	2.855	2.915	23715.7777	23532.0000	-0.7749
Aroclor 1260	3	Averaged	2.994	2.965	3.025	29676.1111	29232.0000	-1.4965
Aroclor 1260	4	Averaged	3.583	3.554	3.614	50204.3888	49736.0000	-0.9330
Aroclor 1260	5	Averaged	3.826	3.796	3.856	36243.8333	37228.0000	2.7154
Decachlorobiphenyl		Averaged	4.5	4.471	4.531	335650.833	344620.000	13.7909
Tetrachloro-m-xylene		Averaged	1.21	1.18	1.24	508604.722	531440.000	4.8280

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10982548ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 05/24/2019 Time: 15:42

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D052419-2.B\D052419000020.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.963	1.933	1.993	11393.2222	11928.0000	4.6938
Aroclor 1016	2	Averaged	2.286	2.256	2.316	21808.0555	23348.0000	7.0614
Aroclor 1016	3	Averaged	2.374	2.344	2.404	10849.6666	11568.0000	6.6208
Aroclor 1016	4	Averaged	2.47	2.44	2.5	9980.38889	10672.0000	6.9297
Aroclor 1016	5	Averaged	2.56	2.53	2.59	9901.66667	10468.0000	5.7196
Aroclor 1260	1	Averaged	3.309	3.279	3.339	20320.3333	20036.0000	-1.3993
Aroclor 1260	2	Averaged	3.479	3.448	3.508	24356.2222	23864.0000	-2.0209
Aroclor 1260	3	Averaged	3.662	3.632	3.692	29292.0000	28836.0000	-1.5567
Aroclor 1260	4	Averaged	4.06	4.03	4.09	43025.1666	42548.0000	-1.1090
Aroclor 1260	5	Averaged	4.248	4.217	4.277	25869.7777	26776.0000	3.5030
Decachlorobiphenyl		Averaged	4.96	4.93	4.99	317463.333	326040.000	26.1248
Tetrachloro-m-xylene		Averaged	1.586	1.556	1.616	454175.833	474220.000	5.3381

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11415600CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/16/2019 Time: 20:00

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081619-1.B\D081619000032.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.622	1.592	1.652	20538.0000	20820.0000	1.3731
Aroclor 1016	2	Averaged	1.868	1.837	1.897	41334.8333	39604.0000	-4.1873
Aroclor 1016	3	Averaged	1.921	1.891	1.951	16656.1666	16968.0000	1.8722
Aroclor 1016	4	Averaged	2.176	2.145	2.205	12773.1666	11604.0000	-9.1533
Aroclor 1016	5	Averaged	2.264	2.234	2.294	10979.5000	10936.0000	-0.3962
Aroclor 1260	1	Averaged	2.783	2.753	2.813	18544.0555	17204.0000	-7.2263
Aroclor 1260	2	Averaged	2.871	2.841	2.901	23715.7777	22240.0000	-6.2228
Aroclor 1260	3	Averaged	2.981	2.951	3.011	29676.1111	27996.0000	-5.6615
Aroclor 1260	4	Averaged	3.569	3.54	3.6	50204.3888	48040.0000	-4.3112
Aroclor 1260	5	Averaged	3.811	3.782	3.842	36243.8333	34656.0000	-4.3810
Decachlorobiphenyl		Averaged	4.483	4.454	4.514	335650.833	324500.000	-3.3222
Tetrachloro-m-xylene		Averaged	1.205	1.174	1.234	508604.722	543100.000	6.7823

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11415664CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/16/2019 Time: 20:00

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081619-2.B\D081619000032.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.948	1.918	1.978	11393.2222	11196.0000	-1.7310
Aroclor 1016	2	Averaged	2.27	2.239	2.299	21808.0555	22076.0000	1.2286
Aroclor 1016	3	Averaged	2.358	2.328	2.388	10849.6666	10440.0000	-3.7758
Aroclor 1016	4	Averaged	2.453	2.423	2.483	9980.38889	10400.0000	4.2044
Aroclor 1016	5	Averaged	2.543	2.513	2.573	9901.66667	9476.00000	-4.2989
Aroclor 1260	1	Averaged	3.29	3.259	3.319	20320.3333	20344.0000	0.1165
Aroclor 1260	2	Averaged	3.46	3.43	3.49	24356.2222	24256.0000	-0.4115
Aroclor 1260	3	Averaged	3.644	3.614	3.674	29292.0000	30240.0000	3.2364
Aroclor 1260	4	Averaged	4.04	4.011	4.071	43025.1666	45984.0000	6.8770
Aroclor 1260	5	Averaged	4.228	4.199	4.259	25869.7777	27264.0000	5.3894
Decachlorobiphenyl		Averaged	4.937	4.909	4.969	317463.333	363000.000	14.3439
Tetrachloro-m-xylene		Averaged	1.574	1.543	1.603	454175.833	475360.000	4.6643

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11415665CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/16/2019 Time: 23:41

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081619-1.B\D081619000058.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.623	1.592	1.652	20538.0000	21656.0000	5.4436
Aroclor 1016	2	Averaged	1.868	1.837	1.897	41334.8333	42648.0000	3.1769
Aroclor 1016	3	Averaged	1.922	1.891	1.951	16656.1666	17852.0000	7.1795
Aroclor 1016	4	Averaged	2.177	2.145	2.205	12773.1666	12360.0000	-3.2346
Aroclor 1016	5	Averaged	2.266	2.234	2.294	10979.5000	11480.0000	4.5585
Aroclor 1260	1	Averaged	2.784	2.753	2.813	18544.0555	17720.0000	-4.4438
Aroclor 1260	2	Averaged	2.872	2.841	2.901	23715.7777	23024.0000	-2.9170
Aroclor 1260	3	Averaged	2.982	2.951	3.011	29676.1111	28156.0000	-5.1223
Aroclor 1260	4	Averaged	3.57	3.54	3.6	50204.3888	47804.0000	-4.7812
Aroclor 1260	5	Averaged	3.812	3.782	3.842	36243.8333	33460.0000	-7.6808
Decachlorobiphenyl		Averaged	4.483	4.454	4.514	335650.833	324460.000	-3.3341
Tetrachloro-m-xylene		Averaged	1.206	1.174	1.234	508604.722	546060.000	7.3643

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11415676CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/16/2019 Time: 23:41

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081619-2.B\D081619000058.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.948	1.918	1.978	11393.2222	12012.0000	5.4311
Aroclor 1016	2	Averaged	2.27	2.239	2.299	21808.0555	23632.0000	8.3636
Aroclor 1016	3	Averaged	2.358	2.328	2.388	10849.6666	11412.0000	5.1830
Aroclor 1016	4	Averaged	2.453	2.423	2.483	9980.38889	10404.0000	4.2444
Aroclor 1016	5	Averaged	2.543	2.513	2.573	9901.66667	9924.00000	0.2256
Aroclor 1260	1	Averaged	3.289	3.259	3.319	20320.3333	20192.0000	-0.6316
Aroclor 1260	2	Averaged	3.459	3.43	3.49	24356.2222	24092.0000	-1.0848
Aroclor 1260	3	Averaged	3.644	3.614	3.674	29292.0000	29968.0000	2.3078
Aroclor 1260	4	Averaged	4.04	4.011	4.071	43025.1666	44812.0000	4.1530
Aroclor 1260	5	Averaged	4.228	4.199	4.259	25869.7777	26556.0000	2.6526
Decachlorobiphenyl		Averaged	4.936	4.909	4.969	317463.333	364500.000	14.8164
Tetrachloro-m-xylene		Averaged	1.574	1.543	1.603	454175.833	494160.000	8.8037

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11421019CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/19/2019 Time: 16:19

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081919-1.B\D081919000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.622	1.592	1.652	20538.0000	19676.0000	-4.1971
Aroclor 1016	2	Averaged	1.867	1.837	1.897	41334.8333	37576.0000	-9.0936
Aroclor 1016	3	Averaged	1.921	1.891	1.951	16656.1666	17148.0000	2.9529
Aroclor 1016	4	Averaged	2.176	2.146	2.206	12773.1666	11400.0000	-10.7504
Aroclor 1016	5	Averaged	2.264	2.234	2.294	10979.5000	10712.0000	-2.4364
Aroclor 1260	1	Averaged	2.783	2.753	2.813	18544.0555	16108.0000	-13.1366
Aroclor 1260	2	Averaged	2.871	2.841	2.901	23715.7777	20896.0000	-11.8899
Aroclor 1260	3	Averaged	2.981	2.951	3.011	29676.1111	25664.0000	-13.5197
Aroclor 1260	4	Averaged	3.57	3.54	3.6	50204.3888	42168.0000	-16.0073
Aroclor 1260	5	Averaged	3.812	3.782	3.842	36243.8333	29176.0000	-19.5008
Decachlorobiphenyl		Averaged	4.485	4.455	4.515	335650.833	285640.000	-14.8997
Tetrachloro-m-xylene		Averaged	1.204	1.174	1.234	508604.722	493440.000	-2.9816

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11421014CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/19/2019 Time: 16:19

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081919-2.B\D081919000007.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.948	1.918	1.978	11393.2222	10592.0000	-7.0324
Aroclor 1016	2	Averaged	2.27	2.24	2.3	21808.0555	20404.0000	-6.4382
Aroclor 1016	3	Averaged	2.358	2.328	2.388	10849.6666	10312.0000	-4.9556
Aroclor 1016	4	Averaged	2.453	2.423	2.483	9980.38889	9376.00000	-6.0558
Aroclor 1016	5	Averaged	2.543	2.513	2.573	9901.66667	8856.00000	-10.5605
Aroclor 1260	1	Averaged	3.289	3.259	3.319	20320.3333	18448.0000	-9.2141
Aroclor 1260	2	Averaged	3.46	3.43	3.49	24356.2222	21804.0000	-10.4787
Aroclor 1260	3	Averaged	3.645	3.615	3.675	29292.0000	26820.0000	-8.4392
Aroclor 1260	4	Averaged	4.042	4.012	4.072	43025.1666	40660.0000	-5.4972
Aroclor 1260	5	Averaged	4.229	4.199	4.259	25869.7777	24140.0000	-6.6865
Decachlorobiphenyl		Averaged	4.94	4.91	4.97	317463.333	313680.000	-1.1917
Tetrachloro-m-xylene		Averaged	1.574	1.544	1.604	454175.833	446600.000	-1.6680

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11421018CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/19/2019 Time: 19:27

Instrument ID: 30GCSD GC Column: Col 1
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081919-1.B\D081919000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.622	1.592	1.652	20538.0000	20092.0000	-2.1716
Aroclor 1016	2	Averaged	1.867	1.837	1.897	41334.8333	39500.0000	-4.4390
Aroclor 1016	3	Averaged	1.921	1.891	1.951	16656.1666	16936.0000	1.6801
Aroclor 1016	4	Averaged	2.175	2.146	2.206	12773.1666	11472.0000	-10.1867
Aroclor 1016	5	Averaged	2.264	2.234	2.294	10979.5000	10924.0000	-0.5055
Aroclor 1260	1	Averaged	2.783	2.753	2.813	18544.0555	16768.0000	-9.5775
Aroclor 1260	2	Averaged	2.87	2.841	2.901	23715.7777	21800.0000	-8.0781
Aroclor 1260	3	Averaged	2.98	2.951	3.011	29676.1111	27128.0000	-8.5864
Aroclor 1260	4	Averaged	3.569	3.54	3.6	50204.3888	45132.0000	-10.1035
Aroclor 1260	5	Averaged	3.811	3.782	3.842	36243.8333	32032.0000	-11.6208
Decachlorobiphenyl		Averaged	4.484	4.455	4.515	335650.833	309140.000	-7.8983
Tetrachloro-m-xylene		Averaged	1.204	1.174	1.234	508604.722	507440.000	-0.2290

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11421015CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh
Calibration Date: 08/19/2019 Time: 19:27

Instrument ID: 30GCSD GC Column: Col 2
Init. Calib. Date(s): 05/24/2019 05/24/2019

Lab File ID: D081919-2.B\D081919000029.D
Init. Calib. Time(s): 13:51 15:33

SDG No.: 30318799

COMPOUND	PEAK	CURVE TYPE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	1.949	1.918	1.978	11393.2222	10952.0000	-3.8727
Aroclor 1016	2	Averaged	2.271	2.24	2.3	21808.0555	21844.0000	0.1648
Aroclor 1016	3	Averaged	2.358	2.328	2.388	10849.6666	10816.0000	-0.3103
Aroclor 1016	4	Averaged	2.453	2.423	2.483	9980.38889	9764.00000	-2.1681
Aroclor 1016	5	Averaged	2.543	2.513	2.573	9901.66667	9304.00000	-6.0360
Aroclor 1260	1	Averaged	3.29	3.259	3.319	20320.3333	19496.0000	-4.0567
Aroclor 1260	2	Averaged	3.46	3.43	3.49	24356.2222	23356.0000	-4.1066
Aroclor 1260	3	Averaged	3.644	3.615	3.675	29292.0000	28616.0000	-2.3078
Aroclor 1260	4	Averaged	4.041	4.012	4.072	43025.1666	43476.0000	1.0478
Aroclor 1260	5	Averaged	4.229	4.199	4.259	25869.7777	25684.0000	-0.7181
Decachlorobiphenyl		Averaged	4.938	4.91	4.97	317463.333	341860.000	7.6849
Tetrachloro-m-xylene		Averaged	1.574	1.544	1.604	454175.833	466400.000	2.6915

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	10408	4009	0.385	2.152		
0.836	550	302	0.549	0.162		
1.210	26573	23583	0.887	12.692	$ 10 Tetrachloro-m-xylene (S)	BA
1.268	344	262	0.761	0.140		
1.345	451	425	0.942	0.228		
1.400	483	471	0.975	0.252		
1.441	2399	2234	0.931	1.199		
1.632	5401	4154	0.769	2.230	1 PCB-1016 (Aroclor 1016)	BA
1.693	564	496	0.880	0.266		
1.745	1366	1691	1.238	0.907		
1.760	2228	2203	0.989	1.182		
1.806	933	1053	1.129	0.565		
1.823	748	767	1.026	0.411		
1.878	11040	8493	0.769	4.560	1 PCB-1016 (Aroclor 1016)	BA
1.932	4310	4048	0.939	2.173	1 PCB-1016 (Aroclor 1016)	BA
2.008	2532	2834	1.119	1.521		
2.035	3429	3192	0.931	1.713		
2.062	2232	2481	1.111	1.332		
2.077	2421	2348	0.970	1.260		
2.188	3360	3631	1.081	1.949	1 PCB-1016 (Aroclor 1016)	BA
2.212	1294	1374	1.062	0.737		
2.238	988	1047	1.060	0.562		
2.278	2586	2572	0.995	1.381	1 PCB-1016 (Aroclor 1016)	BA
2.345	633	654	1.033	0.351		
2.374	395	432	1.094	0.231		
2.401	599	688	1.149	0.369		
2.425	2325	2310	0.993	1.240		
2.472	392	427	1.089	0.229		
2.510	2230	2325	1.043	1.248		
2.728	611	642	1.050	0.344		
2.796	5024	4347	0.865	2.334	7 PCB-1260 (Aroclor 1260)	BA
2.830	1719	1691	0.984	0.907		
2.885	5883	5982	1.017	3.211	7 PCB-1260 (Aroclor 1260)	BA
2.923	700	714	1.020	0.383		
2.954	1011	1047	1.035	0.562		
2.995	7309	7167	0.981	3.848	7 PCB-1260 (Aroclor 1260)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.102	2838	3226	1.137	1.732		
3.121	4001	3738	0.934	2.007		
3.189	2317	1745	0.753	0.936		
3.227	8318	6392	0.768	3.432		
3.253	5447	5442	0.999	2.922		
3.288	3066	3057	0.997	1.641		
3.378	1187	1074	0.905	0.576		
3.439	6083	5407	0.889	2.903		
3.500	2929	2843	0.971	1.526		
3.533	2272	2228	0.981	1.196		
3.557	620	717	1.157	0.384		
3.584	12435	12505	1.006	6.714	7 PCB-1260 (Aroclor 1260)	BA
3.619	244	268	1.098	0.143		
3.679	487	500	1.028	0.268		
3.758	187	208	1.114	0.111		
3.785	2820	2892	1.026	1.552		
3.827	9308	8646	0.929	4.642	7 PCB-1260 (Aroclor 1260)	BA
3.973	350	353	1.010	0.189		
4.037	36	120	3.363	0.064		
4.079	1362	1393	1.023	0.747		
4.153	3518	3396	0.965	1.823		
4.344	864	879	1.017	0.471		
4.501	17232	17116	0.993	9.190	$ 11 Decachlorobiphenyl (S)	BA
	203390	186241		100.000		

Total unknown % height = 45.1

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m
Meth Date : 28-May-2019 08:47 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.631	1.631	0.000	5401	0.25000	0.263	80.00- 120.00	100.00(M)	BA
1.878	1.878	0.000	11039	0.25000	0.267	162.66- 243.99	204.40	BA
1.931	1.932	-0.001	4309	0.25000	0.259	63.55- 95.32	79.79	BA
2.187	2.188	-0.001	3360	0.25000	0.263	49.13- 73.70	62.22	BA
2.277	2.277	0.000	2585	0.25000	0.235	42.04- 63.06	47.87	BA
		Average of Peak Amounts =			0.25740			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.796	2.797	-0.001	5024	0.25000	0.271	80.00- 120.00	100.00(M)	BA
2.884	2.885	-0.001	5883	0.25000	0.248	101.69- 152.53	117.10	BA
2.994	2.995	-0.001	7308	0.25000	0.246	125.91- 188.87	145.46	BA
3.583	3.584	-0.001	12434	0.25000	0.248	212.47- 318.70	247.49	BA
3.826	3.826	0.000	9307	0.25000	0.257	152.61- 228.91	185.26	BA
		Average of Peak Amounts =			0.25400			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.210	1.210	0.000	26572	0.05000	0.0522		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.500	4.501	-0.001	17231	0.05000	0.0513		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21536	0.010	4.85929	20.00000	Aver	(M)
(2)	41335	44144	0.010	6.79612	20.00000	Aver	(M)
(3)	16656	17228	0.010	3.43316	20.00000	Aver	(M)
(4)	12773	13456	0.010	5.34584	20.00000	Aver	(M)
(5)	10980	10404	0.010	-5.24159	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	20368	0.010	9.83574	20.00000	Aver	(M)
(2)	23716	23980	0.010	1.11412	20.00000	Aver	(M)
(3)	29676	29996	0.010	1.07793	20.00000	Aver	(M)
(4)	50204	51380	0.010	2.34165	20.00000	Aver	(M)
(5)	36244	40068	0.010	10.55122	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	533160	0.010	4.82797	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	381940	0.010	13.79087	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 5.33939
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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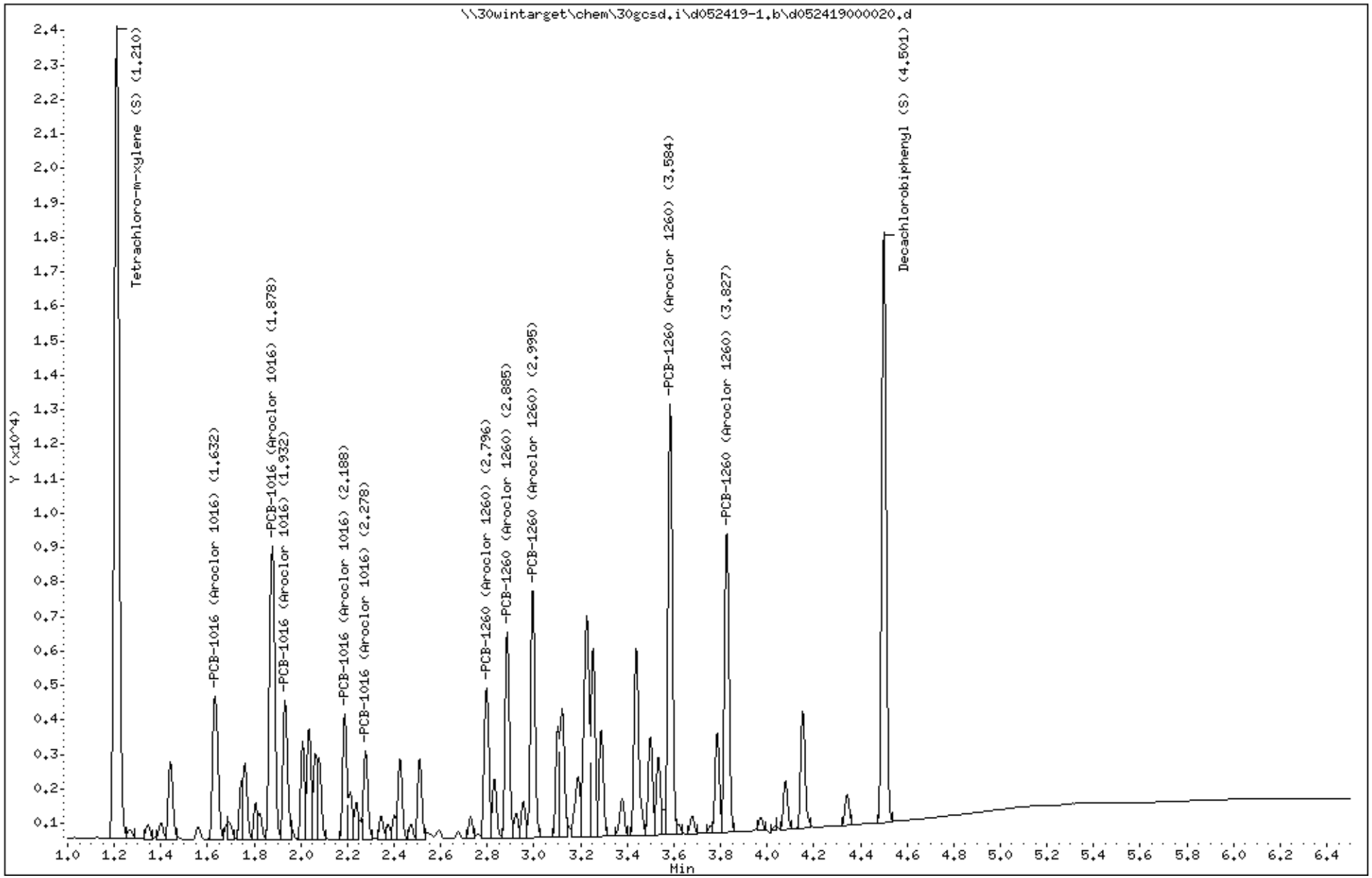
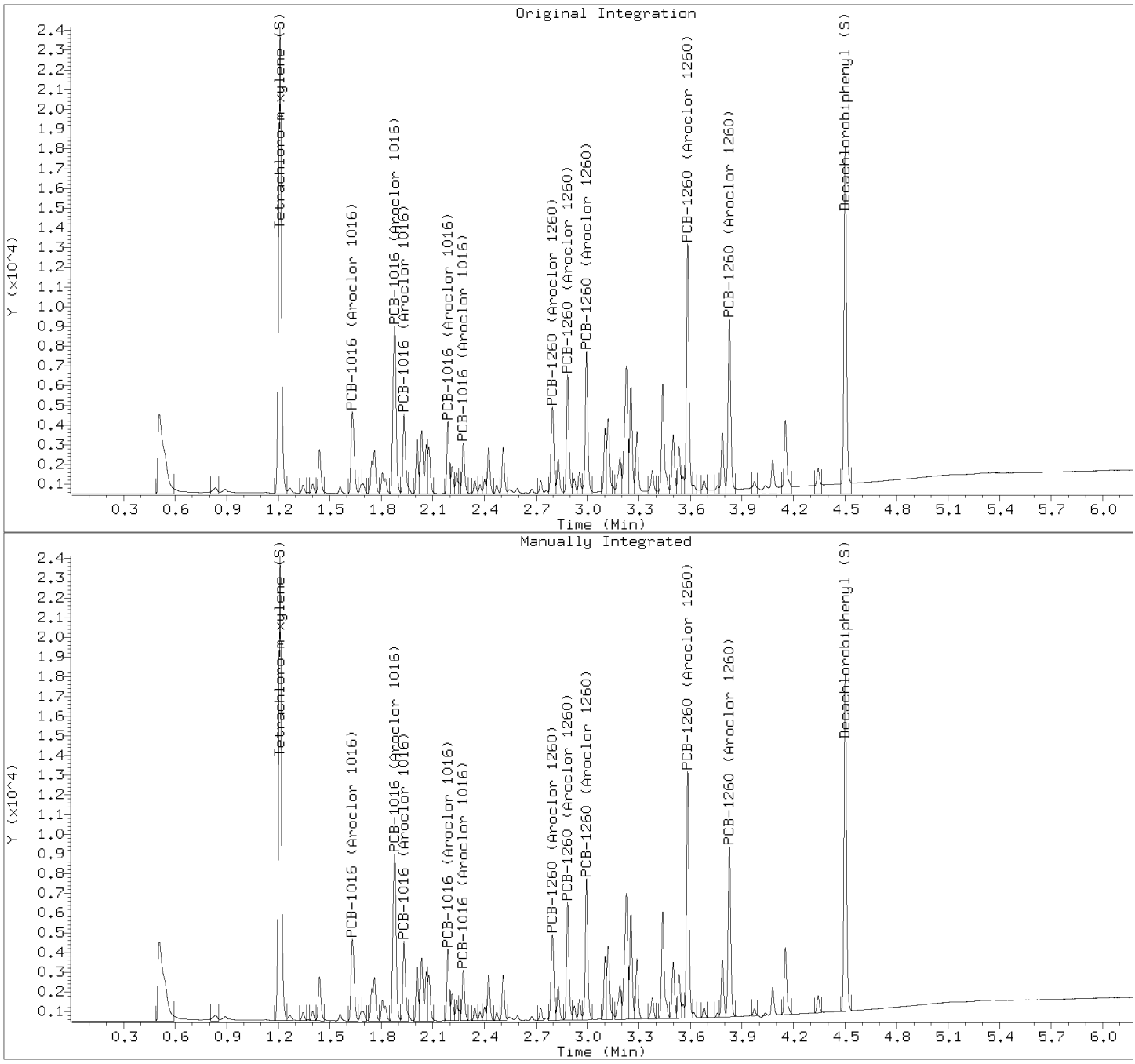
Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d052419-1.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 24-MAY-2019 15:42 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5384	5401
PCB-1016 (Aroclor 1016)	11036	11039
PCB-1016 (Aroclor 1016)	4307	4309
PCB-1016 (Aroclor 1016)	3364	3360
PCB-1016 (Aroclor 1016)	2601	2585
PCB-1260 (Aroclor 1260)	5092	5024
PCB-1260 (Aroclor 1260)	5995	5883
PCB-1260 (Aroclor 1260)	7499	7308
PCB-1260 (Aroclor 1260)	12845	12434
PCB-1260 (Aroclor 1260)	10017	9307
Tetrachloro-m-xylene (S)	26658	26572
Decachlorobiphenyl (S)	19097	17231

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.505	7506	5663	0.754	3.403		
0.567	1001	888	0.887	0.533		
0.583	1293	830	0.642	0.498		
1.084	490	306	0.625	0.183		
1.587	23711	23008	0.970	13.864	$ 10 Tetrachloro-m-xylene (S)	BA
1.713	427	423	0.991	0.254		
1.762	2107	2062	0.979	1.239		
1.844	299	302	1.011	0.181		
1.964	2982	3217	1.079	1.933	1 PCB-1016 (Aroclor 1016)	BA
1.984	1804	1824	1.011	1.096		
2.019	367	375	1.021	0.225		
2.076	3211	2053	0.639	1.234		
2.201	789	869	1.101	0.522		
2.222	669	652	0.975	0.391		
2.269	4131	4766	1.154	2.864		
2.287	5838	5985	1.025	3.597	1 PCB-1016 (Aroclor 1016)	BA
2.306	3730	3665	0.983	2.202		
2.375	2892	2731	0.944	1.641	1 PCB-1016 (Aroclor 1016)	BA
2.404	270	284	1.051	0.170		
2.439	2379	2464	1.036	1.481		
2.470	2668	2714	1.017	1.631	1 PCB-1016 (Aroclor 1016)	BA
2.499	985	940	0.954	0.565		
2.561	2618	2705	1.033	1.625	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.590	1406	1262	0.898	0.758		
2.617	824	867	1.052	0.521		
2.638	623	655	1.052	0.393		
2.667	2404	1700	0.707	1.021		
2.817	2471	1871	0.757	1.124		
2.865	407	419	1.028	0.251		
2.922	248	258	1.038	0.155		
2.959	2140	2042	0.954	1.227		
3.086	162	164	1.015	0.098		
3.139	454	498	1.096	0.299		
3.160	942	865	0.918	0.519		
3.199	1209	1215	1.005	0.730		
3.246	3223	2461	0.764	1.479		
3.277	621	701	1.128	0.421		
3.309	5010	4937	0.985	2.967	7 PCB-1260 (Aroclor 1260)	BA
3.392	874	833	0.953	0.500		
3.436	857	841	0.981	0.505		
3.479	5967	5953	0.998	3.578	7 PCB-1260 (Aroclor 1260)	BA
3.503	1838	1812	0.986	1.089		
3.557	4166	2837	0.681	1.705		
3.587	601	543	0.904	0.326		
3.631	668	587	0.879	0.352		
3.662	7210	6095	0.845	3.663	7 PCB-1260 (Aroclor 1260)	BA
3.722	4629	4373	0.945	2.628		
3.758	2440	2351	0.964	1.413		
3.841	1113	1212	1.089	0.728		
3.863	4749	4380	0.922	2.632		
3.897	309	327	1.059	0.196		
3.923	2214	2198	0.993	1.321		
3.952	1419	1300	0.916	0.781		
4.014	1364	1241	0.910	0.745		
4.060	10638	10114	0.951	6.079	7 PCB-1260 (Aroclor 1260)	BA
4.101	616	586	0.951	0.352		
4.249	6695	5905	0.882	3.549	7 PCB-1260 (Aroclor 1260)	BA
4.274	811	1103	1.360	0.662		
4.296	3285	2731	0.831	1.641		
4.438	103	151	1.467	0.090		
4.464	108	147	1.363	0.088		
4.497	1332	1222	0.917	0.734		
4.589	13	6	0.462	0.003		
4.618	2928	2811	0.960	1.689		
4.661	181	173	0.957	0.103		
4.810	815	772	0.947	0.464		
4.961	16302	15071	0.924	9.058	$ 11 Decachlorobiphenyl (S)	BA
5.307	10	24	2.434	0.014		
5.867	2	2	1.266	0.001		
6.462	7	27	3.982	0.016		
	178574	166369		100.000		

Total unknown % height = 46.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 24-MAY-2019 15:42
Operator : CWB Inst ID: 30gcsd.i
Smp Info : icv, 85333:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m
Meth Date : 28-May-2019 08:52 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.963	1.963	0.000	2982	0.25000	0.262	80.00- 120.00	100.00	(aM)	BA
2.286	2.286	0.000	5837	0.25000	0.268	152.31- 228.47	195.74		BA
2.374	2.374	0.000	2892	0.25000	0.266	75.27- 112.91	96.97		BA
2.470	2.470	0.000	2668	0.25000	0.267	68.58- 102.86	89.47		BA
2.560	2.560	0.000	2617	0.25000	0.264	68.26- 102.40	87.78		BA
Average of Peak Amounts =					0.26540				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.309	3.309	0.000	5009	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
3.479	3.478	0.001	5966	0.25000	0.245	88.62- 132.94	119.11		BA
3.662	3.662	0.000	7209	0.25000	0.246	120.10- 180.15	143.92		BA
4.060	4.060	0.000	10637	0.25000	0.247	171.60- 257.41	212.36		BA
4.248	4.247	0.001	6694	0.25000	0.259	103.64- 155.46	133.66		BA
Average of Peak Amounts =					0.24860				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.586	1.586	0.000	23711	0.05000	0.0522			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.960	4.960	0.000	16302	0.05000	0.0514		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 24-MAY-2019 15:42
Lab File ID: d052419000020.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: ICV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d052419-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
1 PCB-1016 (Aroclor 1016)	(1)	11393	12188	0.010	6.97588	20.00000	Aver	(aM)	
	(2)	21808	23452	0.010	7.53824	20.00000	Aver	(aM)	
	(3)	10850	12364	0.010	13.95742	20.00000	Aver	(aM)	
	(4)	9980	11280	0.010	13.02165	20.00000	Aver	(aM)	
	(5)	9902	11244	0.010	13.55664	20.00000	Aver	(aM)	
7 PCB-1260 (Aroclor 1260)	(1)	20320	22268	0.010	9.58482	20.00000	Aver	(aM)	
	(2)	24356	25920	0.010	6.42044	20.00000	Aver	(aM)	
	(3)	29292	31588	0.010	7.83832	20.00000	Aver	(aM)	
	(4)	43025	47496	0.010	10.39121	20.00000	Aver	(aM)	
	(5)	25870	31948	0.010	23.49546	20.00000	Aver	(aM)	<-
$ 10 Tetrachloro-m-xylene (S)		454176	478420	0.010	5.33806	20.00000	Aver	(M)	
$ 11 Decachlorobiphenyl (S)		317463	400400	0.010	26.12480	20.00000	Aver	(M)	<-

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.84432
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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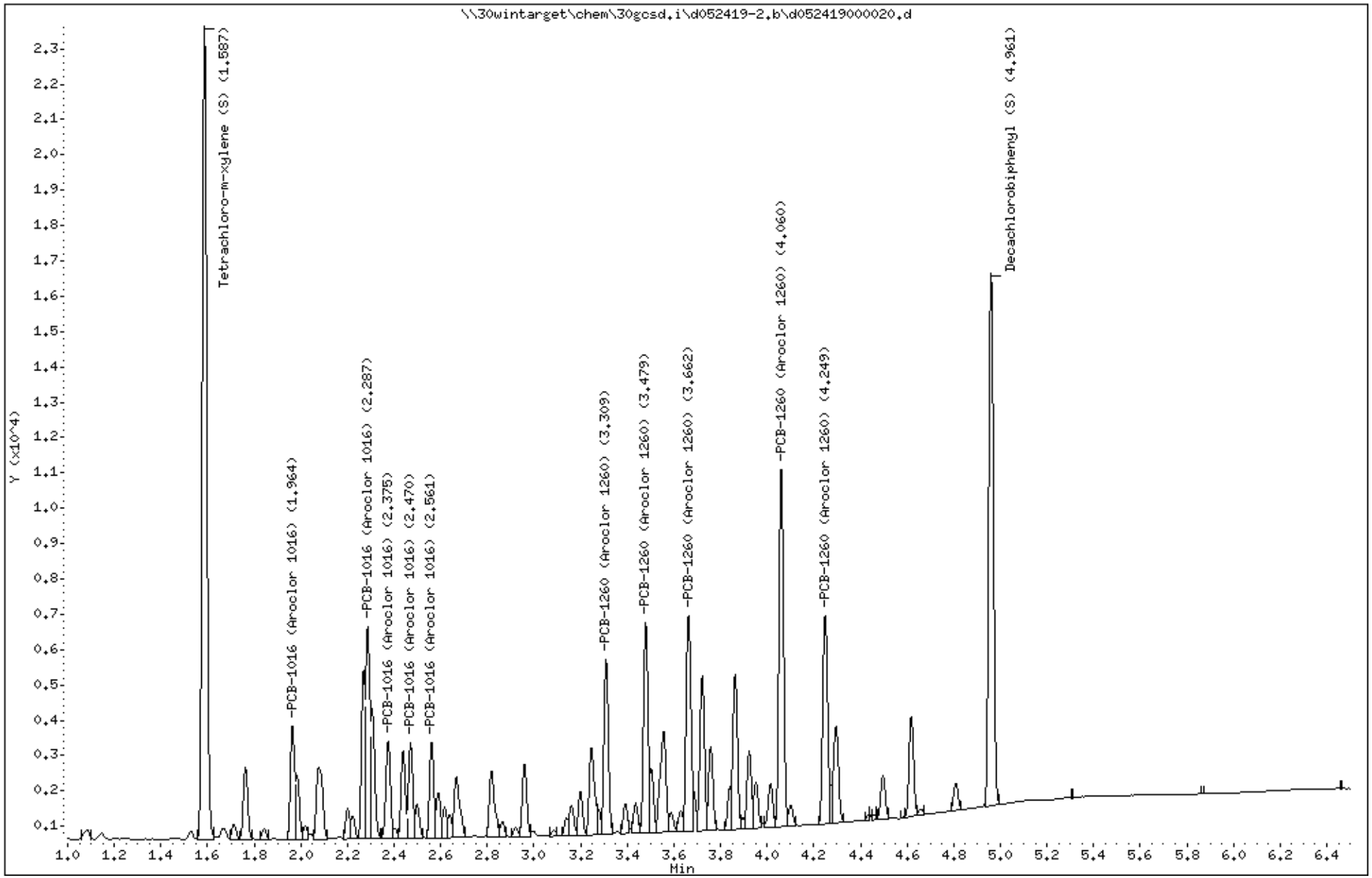
Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b\d052419000020.d
Date : 24-MAY-2019 15:42
Client ID: ICV
Instrument: 30gcsd.i
Sample Info: ICV, 85333:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32

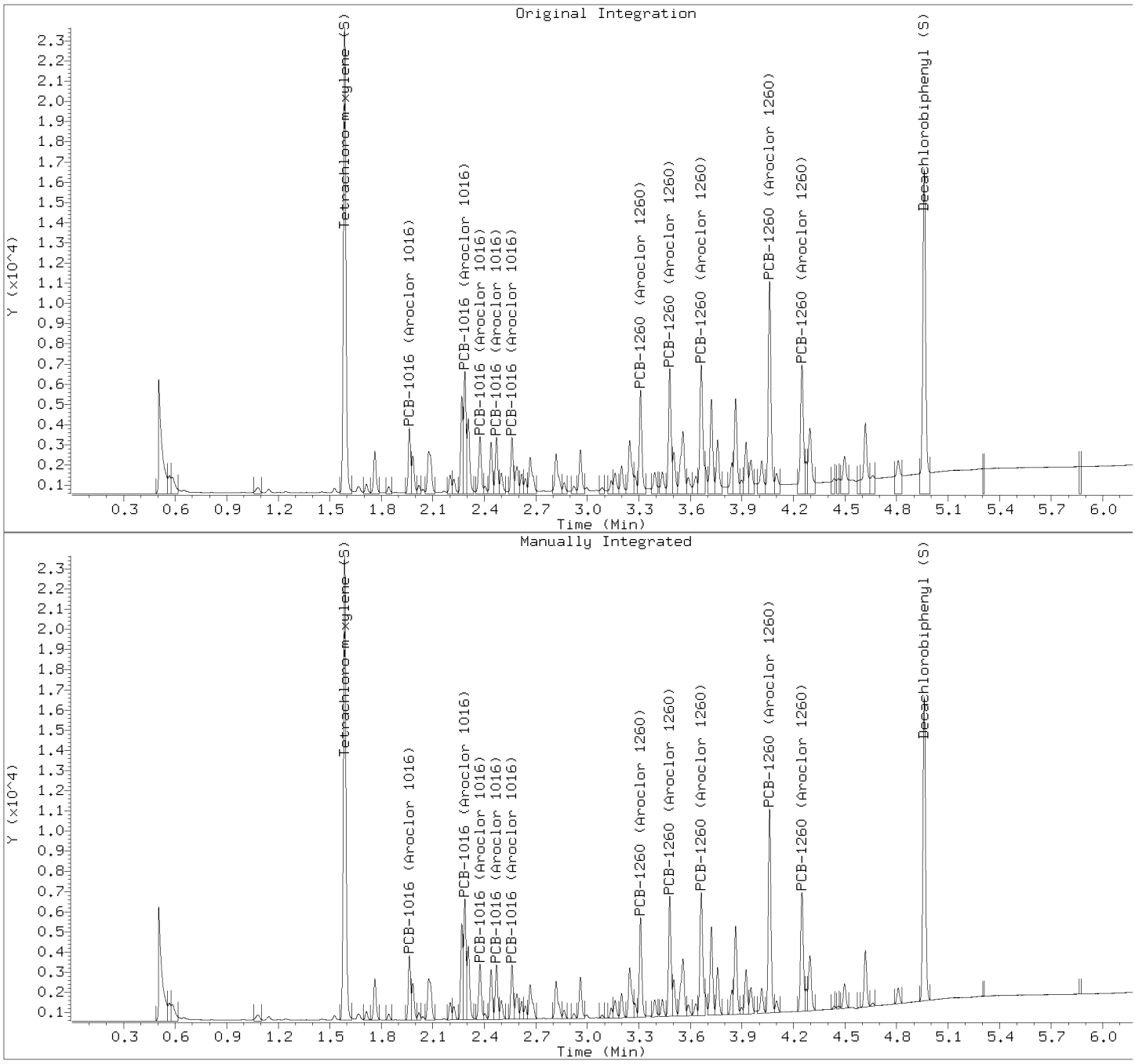


Data File: \\30wintarget\chem\30gcsd.i\d052419-2.b/d052419000020.d (ManInt: ar1660.sub Orig: ar1660.sub)

Injection Date: 24-MAY-2019 15:42 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: ICV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3047	2982
PCB-1016 (Aroclor 1016)	5863	5837
PCB-1016 (Aroclor 1016)	3091	2892
PCB-1016 (Aroclor 1016)	2820	2668
PCB-1016 (Aroclor 1016)	2811	2617
PCB-1260 (Aroclor 1260)	5567	5009
PCB-1260 (Aroclor 1260)	6480	5966
PCB-1260 (Aroclor 1260)	7897	7209
PCB-1260 (Aroclor 1260)	11874	10637
PCB-1260 (Aroclor 1260)	7987	6694
Tetrachloro-m-xylene (S)	23921	23711
Decachlorobiphenyl (S)	20020	16302

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000032.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 20:00
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	42915	12318	0.287	6.981		
0.599	2307	3708	1.607	2.101		
0.789	379	910	2.402	0.515		
0.794	273	918	3.358	0.520		
0.835	746	983	1.317	0.557		
0.875	1053	901	0.856	0.510		
1.085	594	348	0.586	0.197		
1.144	68	65	0.959	0.036		
1.205	27155	19568	0.721	11.152	$ 10 Tetrachloro-m-xylene (S)	BA
1.337	526	405	0.770	0.229		
1.371	313	277	0.885	0.156		
1.393	458	394	0.861	0.223		
1.433	2412	1851	0.767	1.049		
1.550	309	276	0.892	0.156		
1.623	5206	3437	0.660	1.947	1 PCB-1016 (Aroclor 1016)	BA
1.673	253	352	1.390	0.199		
1.684	195	383	1.968	0.217		
1.735	1251	1403	1.121	0.795		
1.750	2488	1921	0.772	1.088		
1.796	809	782	0.967	0.443		
1.812	732	677	0.925	0.383		
1.868	9902	6676	0.674	3.783	1 PCB-1016 (Aroclor 1016)	BA
1.921	4243	2973	0.701	1.684	1 PCB-1016 (Aroclor 1016)	BA
1.997	2129	2006	0.942	1.136		
2.023	3011	2493	0.828	1.412		
2.051	1752	1966	1.122	1.114		
2.064	2651	2040	0.770	1.156		
2.176	2901	2734	0.942	1.549	1 PCB-1016 (Aroclor 1016)	BA
2.199	1210	1151	0.951	0.652		
2.227	1357	886	0.653	0.502		
2.265	2735	2208	0.807	1.251	1 PCB-1016 (Aroclor 1016)	BA
2.333	672	576	0.857	0.326		
2.363	387	344	0.888	0.194		
2.390	465	478	1.029	0.270		
2.412	2080	1703	0.819	0.965		
2.459	145	234	1.619	0.132		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.497	1695	1535	0.906	0.869		
2.547	96	166	1.726	0.094		
2.577	77	130	1.696	0.073		
2.716	215	210	0.979	0.119		
2.783	4302	3528	0.820	1.999	7 PCB-1260 (Aroclor 1260)	BA
2.816	1585	1378	0.870	0.780		
2.871	5561	5073	0.912	2.875	7 PCB-1260 (Aroclor 1260)	BA
2.910	126	254	2.012	0.143		
2.941	966	842	0.872	0.477		
2.981	7000	6068	0.867	3.439	7 PCB-1260 (Aroclor 1260)	BA
3.089	2390	2679	1.121	1.518		
3.106	3749	3300	0.880	1.870		
3.138	884	868	0.982	0.491		
3.175	2003	1365	0.681	0.773		
3.212	7298	5226	0.716	2.961		
3.239	5395	4770	0.884	2.703		
3.274	2945	2589	0.879	1.467		
3.364	1036	859	0.829	0.486		
3.424	5568	4595	0.825	2.604		
3.484	2705	2473	0.914	1.401		
3.518	2152	1869	0.869	1.059		
3.544	343	488	1.423	0.276		
3.570	12011	10744	0.895	6.089	7 PCB-1260 (Aroclor 1260)	BA
3.663	426	386	0.906	0.218		
3.742	145	163	1.124	0.092		
3.770	2340	2174	0.929	1.232		
3.811	8665	7392	0.853	4.189	7 PCB-1260 (Aroclor 1260)	BA
3.931	23	68	2.997	0.038		
3.957	311	421	1.353	0.238		
4.021	125	159	1.274	0.090		
4.063	1322	1155	0.874	0.654		
4.138	2971	2528	0.851	1.432		
4.327	1013	878	0.866	0.497		
4.483	16226	14782	0.911	8.377	$ 11 Decachlorobiphenyl (S)	BA
4.583	9	30	3.509	0.017		
4.631	12	33	2.804	0.018		
4.666	10	45	4.403	0.025		
4.727	12	50	4.333	0.028		
4.752	37	65	1.738	0.036		
4.766	25	69	2.745	0.039		
4.827	13	61	4.784	0.034		
4.860	31	78	2.497	0.044		
4.885	36	95	2.617	0.053		
4.893	43	96	2.215	0.054		
4.902	34	100	2.946	0.056		
4.927	34	122	3.544	0.069		
4.938	47	125	2.664	0.070		
4.954	45	121	2.695	0.068		
4.960	34	131	3.799	0.074		
4.973	39	129	3.330	0.073		
4.980	50	139	2.754	0.078		
4.984	58	151	2.619	0.085		
5.001	56	169	3.044	0.095		
5.010	80	182	2.279	0.103		
5.013	60	194	3.230	0.109		
5.026	60	194	3.244	0.109		
5.035	47	199	4.239	0.112		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.043	65	208	3.221	0.117		
5.104	51	187	3.688	0.105		
5.134	32	140	4.318	0.079		
5.173	28	84	3.011	0.047		
5.281	25	116	4.729	0.065		
5.329	36	146	4.010	0.082		
5.417	57	103	1.799	0.058		
5.500	31	124	3.952	0.070		
5.527	25	101	4.079	0.057		
5.551	19	74	3.826	0.041		
5.584	20	63	3.180	0.035		
5.611	14	64	4.507	0.036		
5.624	21	73	3.549	0.041		
5.636	12	64	5.508	0.036		
5.645	34	67	1.998	0.037		
5.721	27	85	3.208	0.048		
5.729	15	83	5.397	0.047		
5.744	24	85	3.545	0.048		
5.778	52	100	1.922	0.056		
5.873	33	77	2.299	0.043		
5.886	24	80	3.303	0.045		
5.993	21	67	3.192	0.037		
6.069	2	14	6.931	0.007		
6.116	4	19	5.040	0.010		
6.143	7	37	5.125	0.020		
6.194	11	45	4.132	0.025		
6.201	12	36	3.010	0.020		
6.301	2	15	6.726	0.008		
6.407	12	50	4.348	0.028		
	231333	176445		100.000		

Total unknown % height = 51.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000032.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 20:00
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.622	1.622	0.000	5205	0.25000	0.253	80.00- 120.00	100.00(M)	BA
1.868	1.867	0.001	9901	0.25000	0.240	157.23- 235.85	190.22	BA
1.921	1.921	0.000	4242	0.25000	0.255	64.89- 97.33	81.50	BA
2.176	2.175	0.001	2901	0.25000	0.227	45.27- 67.90	55.74	BA
2.264	2.264	0.000	2734	0.25000	0.249	42.04- 63.06	52.54	BA
		Average of Peak Amounts =			0.24480			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.783	2.783	0.000	4301	0.25000	0.232	80.00- 120.00	100.00(M)	BA
2.871	2.871	0.000	5560	0.25000	0.234	104.26- 156.38	129.27	BA
2.981	2.981	0.000	6999	0.25000	0.236	126.75- 190.12	162.73	BA
3.569	3.570	-0.001	12010	0.25000	0.239	218.49- 327.73	279.26	BA
3.811	3.812	-0.001	8664	0.25000	0.239	160.31- 240.47	201.46	BA
		Average of Peak Amounts =			0.23600			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.205	1.204	0.001	27155	0.05000	0.0534		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.483	4.484	-0.001	16225	0.05000	0.0483		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-AUG-2019 20:00
Lab File ID: d081619000032.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20820	0.010	1.37306	20.00000	Aver	(M)
(2)	41335	39604	0.010	-4.18735	20.00000	Aver	(M)
(3)	16656	16968	0.010	1.87218	20.00000	Aver	(M)
(4)	12773	11604	0.010	-9.15330	20.00000	Aver	(M)
(5)	10980	10936	0.010	-0.39619	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17204	0.010	-7.22633	20.00000	Aver	(M)
(2)	23716	22240	0.010	-6.22277	20.00000	Aver	(M)
(3)	29676	27996	0.010	-5.66149	20.00000	Aver	(M)
(4)	50204	48040	0.010	-4.31115	20.00000	Aver	(M)
(5)	36244	34656	0.010	-4.38098	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	543100	0.010	6.78234	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	324500	0.010	-3.32215	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.

Calculated Average %D/Drift = 4.33739
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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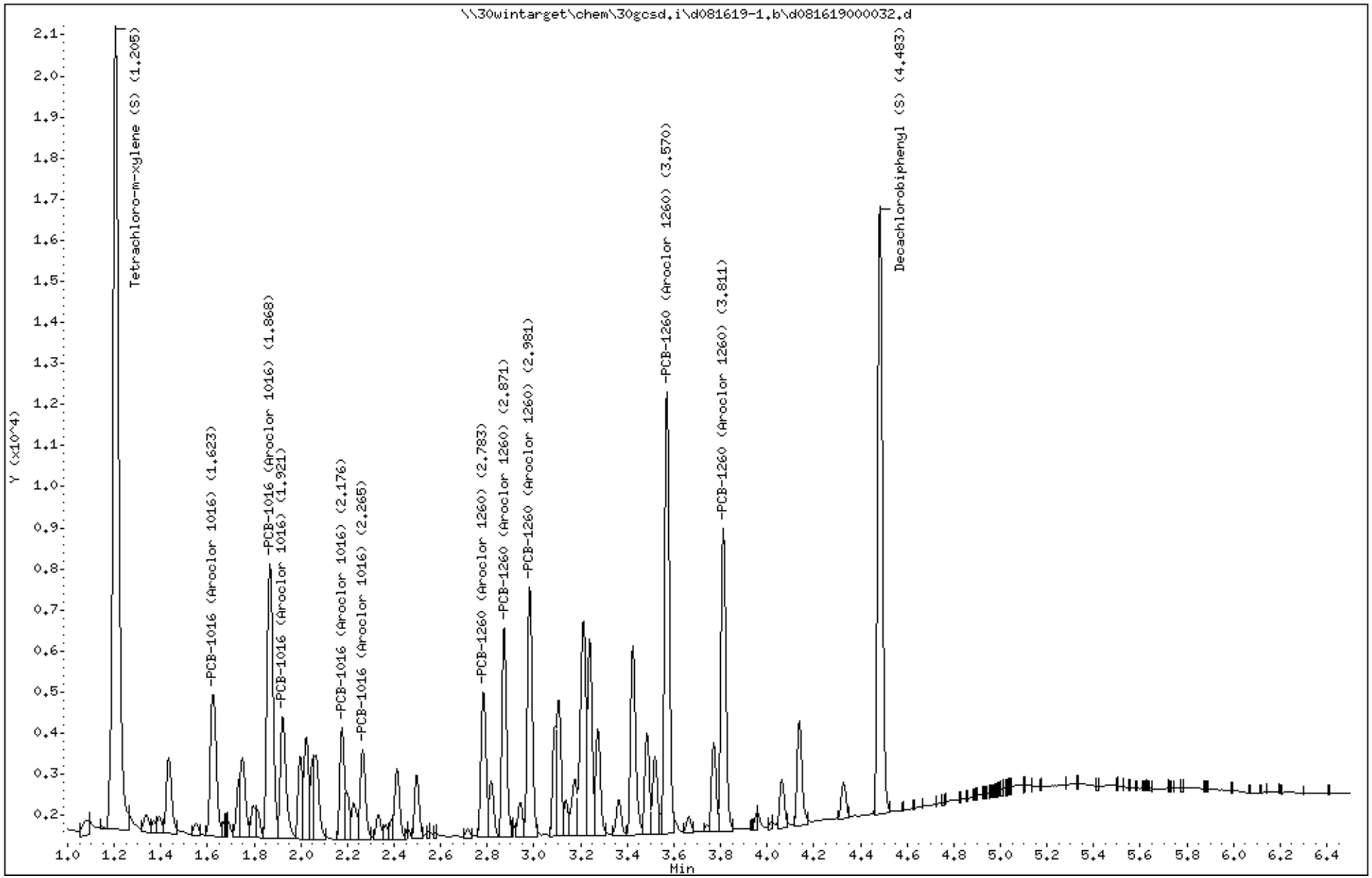
Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000032.d
Date : 16-AUG-2019 20:00
Client ID: CCV
Sample Info: CCV, 97013:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32

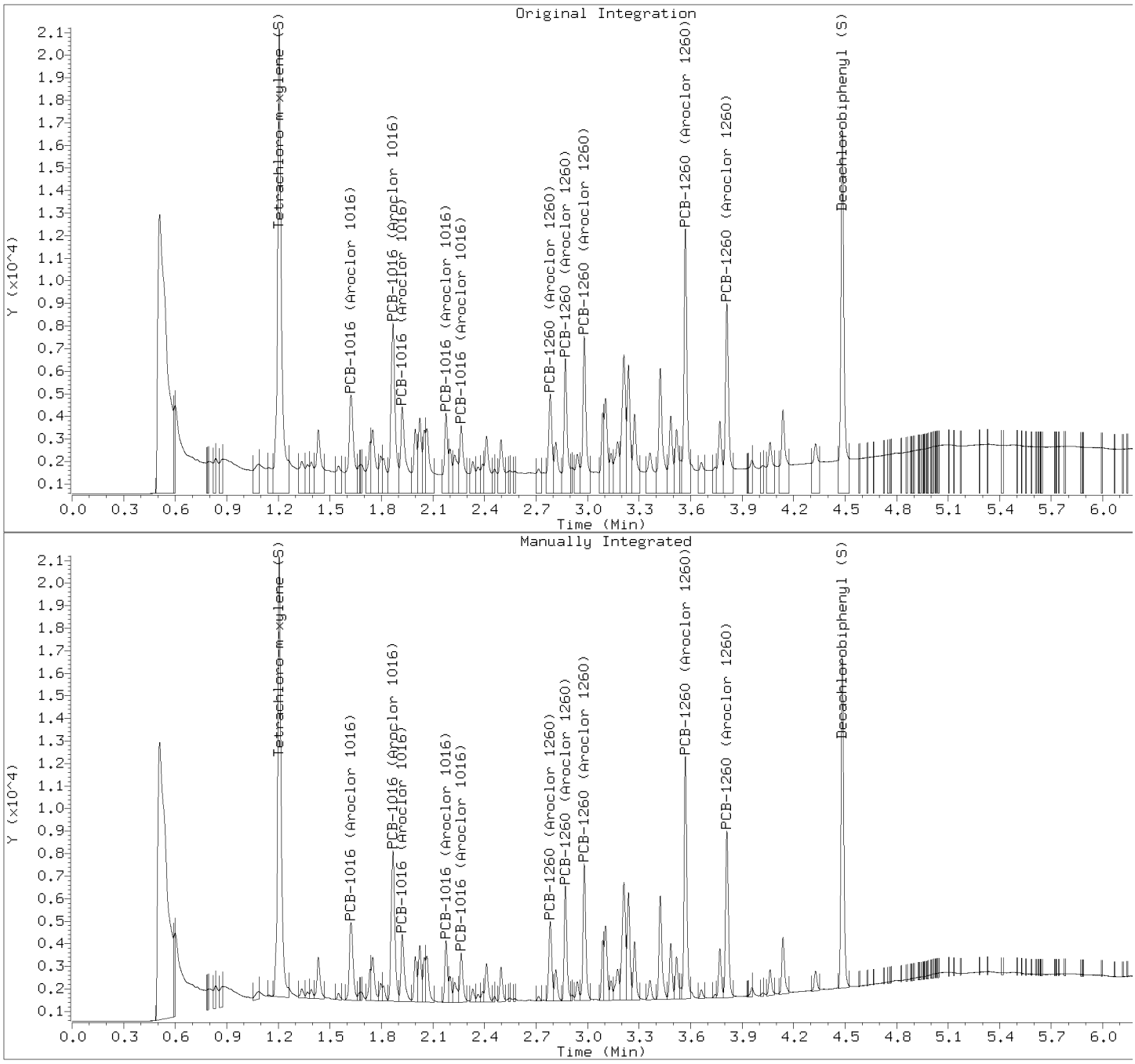


Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b/d081619000032.d (ManInt: ar1660.sub Orig: ar1660.sub)

Injection Date: 16-AUG-2019 20:00 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8987	5205
PCB-1016 (Aroclor 1016)	13298	9901
PCB-1016 (Aroclor 1016)	7964	4242
PCB-1016 (Aroclor 1016)	4674	2901
PCB-1016 (Aroclor 1016)	5108	2734
PCB-1260 (Aroclor 1260)	6692	4301
PCB-1260 (Aroclor 1260)	8369	5560
PCB-1260 (Aroclor 1260)	10200	6999
PCB-1260 (Aroclor 1260)	15040	12010
PCB-1260 (Aroclor 1260)	12282	8664
Tetrachloro-m-xylene (S)	33095	27155
Decachlorobiphenyl (S)	21874	16225

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000032.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 20:00
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	28865	14576	0.505	6.980		
0.565	11046	7981	0.723	3.822		
0.583	25136	8655	0.344	4.145		
0.646	7589	7168	0.944	3.432		
0.787	991	2175	2.194	1.041		
0.835	516	1848	3.583	0.885		
0.974	284	1103	3.882	0.528		
0.988	1474	1339	0.908	0.641		
1.025	375	1049	2.794	0.502		
1.028	295	1057	3.589	0.506		
1.042	278	998	3.589	0.477		
1.058	1281	1093	0.853	0.523		
1.174	191	481	2.519	0.230		
1.190	243	522	2.152	0.250		
1.195	202	537	2.662	0.257		
1.213	829	648	0.782	0.310		
1.320	1057	699	0.661	0.334		
1.351	408	529	1.295	0.253		
1.395	154	285	1.855	0.136		
1.420	59	179	3.040	0.085		
1.429	68	211	3.089	0.101		
1.516	285	233	0.816	0.111		
1.543	35	103	2.973	0.049		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
1.574	23768	19629	0.826	9.494	$ 10 Tetrachloro-m-xylene (S)	BA
1.652	204	242	1.184	0.115		
1.700	398	357	0.898	0.170		
1.749	2302	1981	0.861	0.948		
1.831	293	312	1.066	0.149		
1.865	64	175	2.722	0.083		
1.873	70	225	3.235	0.107		
1.920	35	77	2.196	0.036		
1.949	2800	2667	0.953	1.277	1 PCB-1016 (Aroclor 1016)	BA
1.968	1736	1644	0.947	0.787		
2.004	349	315	0.903	0.150		
2.026	81	138	1.712	0.066		
2.063	1294	1724	1.332	0.825		
2.185	643	660	1.026	0.316		
2.207	831	711	0.855	0.340		
2.253	3555	3926	1.104	1.880		
2.270	5519	5066	0.918	2.426	1 PCB-1016 (Aroclor 1016)	BA
2.289	3926	3338	0.850	1.598		
2.358	2611	2099	0.804	1.005	1 PCB-1016 (Aroclor 1016)	BA
2.422	2146	1988	0.926	0.952		
2.454	2600	2350	0.904	1.125	1 PCB-1016 (Aroclor 1016)	BA
2.481	930	801	0.861	0.383		
2.543	2370	2176	0.918	1.042	1 PCB-1016 (Aroclor 1016)	BA
2.572	1244	1087	0.874	0.520		
2.600	813	772	0.949	0.369		
2.621	668	635	0.951	0.304		
2.649	2727	1511	0.554	0.723		
2.779	62	114	1.832	0.054		
2.799	2317	1504	0.649	0.720		
2.846	245	341	1.392	0.163		
2.903	101	162	1.609	0.077		
2.941	1637	1452	0.887	0.695		
3.003	11	32	2.914	0.015		
3.121	210	228	1.088	0.109		
3.142	877	740	0.844	0.354		
3.182	817	677	0.829	0.324		
3.226	3300	2378	0.721	1.138		
3.257	631	711	1.127	0.340		
3.290	5087	4533	0.891	2.171	7 PCB-1260 (Aroclor 1260)	BA
3.373	514	391	0.761	0.187		
3.418	798	719	0.901	0.344		
3.461	6064	5721	0.943	2.739	7 PCB-1260 (Aroclor 1260)	BA
3.484	2439	2248	0.922	1.076		
3.537	4046	2640	0.652	1.264		
3.566	311	510	1.639	0.244		
3.614	580	497	0.857	0.238		
3.644	7561	5536	0.732	2.651	7 PCB-1260 (Aroclor 1260)	BA
3.702	4909	4404	0.897	2.109		
3.739	2635	2367	0.898	1.133		
3.819	936	1044	1.116	0.500		
3.843	4824	4131	0.856	1.978		
3.875	158	299	1.891	0.143		
3.903	2261	2081	0.920	0.996		
3.932	1430	1232	0.862	0.590		
3.962	88	132	1.500	0.063		
3.974	37	125	3.425	0.059		
3.996	1263	1107	0.877	0.530		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.041	11496	10283	0.894	4.924	7 PCB-1260 (Aroclor 1260)	BA
4.080	660	565	0.856	0.270		
4.162	6	27	4.279	0.012		
4.174	8	29	3.862	0.013		
4.228	6817	5768	0.846	2.762	7 PCB-1260 (Aroclor 1260)	BA
4.254	805	1188	1.475	0.568		
4.275	3564	2720	0.763	1.302		
4.326	11	37	3.429	0.017		
4.360	7	33	4.889	0.015		
4.386	9	25	2.887	0.011		
4.416	355	306	0.862	0.146		
4.443	204	180	0.884	0.086		
4.477	1470	1216	0.827	0.582		
4.516	14	53	3.696	0.025		
4.521	23	49	2.162	0.023		
4.529	13	38	2.937	0.018		
4.539	4	21	5.385	0.010		
4.553	5	22	4.472	0.010		
4.557	8	31	3.914	0.014		
4.575	12	51	4.187	0.024		
4.598	3016	2675	0.887	1.281		
4.641	174	191	1.097	0.091		
4.678	12	39	3.288	0.018		
4.705	5	31	6.432	0.014		
4.712	17	40	2.374	0.019		
4.720	5	28	5.578	0.013		
4.735	6	37	5.987	0.017		
4.740	8	41	4.869	0.019		
4.754	13	31	2.445	0.014		
4.761	4	21	5.600	0.010		
4.789	1169	1001	0.857	0.479		
4.838	11	45	4.011	0.021		
4.856	5	32	6.324	0.015		
4.875	15	55	3.783	0.026		
4.881	17	47	2.781	0.022		
4.888	10	36	3.586	0.017		
4.937	18151	16163	0.890	7.741	$ 11 Decachlorobiphenyl (S)	BA
4.992	18	53	2.994	0.025		
5.028	12	44	3.595	0.021		
5.034	22	58	2.690	0.027		
5.039	19	69	3.684	0.033		
5.045	18	67	3.698	0.032		
5.058	28	73	2.580	0.034		
5.063	37	85	2.312	0.040		
5.074	21	85	4.134	0.040		
5.087	18	96	5.405	0.045		
5.097	21	101	4.787	0.048		
5.115	50	106	2.140	0.050		
5.138	44	107	2.453	0.051		
5.149	17	97	5.822	0.046		
5.159	32	105	3.333	0.050		
5.166	27	104	3.824	0.049		
5.214	21	111	5.306	0.053		
5.229	67	139	2.074	0.066		
5.253	68	140	2.044	0.067		
5.269	89	153	1.721	0.073		
5.275	32	151	4.707	0.072		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.285	42	165	3.957	0.079		
5.291	48	165	3.449	0.079		
5.297	29	171	5.897	0.081		
5.310	57	166	2.893	0.079		
5.315	42	168	3.963	0.080		
5.324	55	162	2.927	0.077		
5.330	25	158	6.392	0.075		
5.342	54	165	3.051	0.079		
5.472	35	111	3.197	0.053		
5.485	29	104	3.547	0.049		
5.489	41	103	2.512	0.049		
5.535	32	117	3.689	0.056		
5.548	23	111	4.795	0.053		
5.557	22	107	4.807	0.051		
5.563	38	104	2.748	0.049		
5.574	24	110	4.564	0.052		
5.581	23	104	4.502	0.049		
5.599	29	103	3.585	0.049		
5.611	37	96	2.569	0.045		
5.643	20	70	3.493	0.033		
5.664	16	54	3.362	0.025		
5.669	19	61	3.228	0.029		
5.701	24	71	3.001	0.034		
5.706	22	82	3.664	0.039		
5.713	42	89	2.107	0.042		
5.732	35	98	2.778	0.046		
5.753	37	96	2.570	0.045		
5.761	38	93	2.467	0.044		
5.775	28	88	3.119	0.042		
5.781	20	91	4.470	0.043		
5.793	32	99	3.135	0.047		
5.801	27	95	3.555	0.045		
5.823	19	94	5.038	0.045		
5.859	17	90	5.239	0.043		
5.868	29	111	3.812	0.053		
5.901	23	98	4.239	0.046		
5.913	37	94	2.563	0.045		
5.962	35	102	2.941	0.048		
5.989	55	94	1.700	0.045		
6.032	29	85	2.958	0.040		
6.068	22	83	3.783	0.039		
6.087	20	67	3.425	0.032		
6.128	18	56	3.050	0.026		
6.133	14	62	4.493	0.029		
6.142	18	68	3.807	0.032		
6.198	9	40	4.556	0.019		
6.208	8	41	5.196	0.019		
6.211	14	52	3.720	0.024		
6.225	13	51	3.984	0.024		
6.230	23	60	2.653	0.028		
6.284	8	53	6.709	0.025		
6.290	21	54	2.609	0.025		
6.312	10	47	4.747	0.022		
6.316	14	58	4.258	0.027		
6.321	16	61	3.756	0.029		
6.334	17	60	3.536	0.028		
6.362	12	62	5.345	0.029		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.415	23	69	2.966	0.033		
6.444	19	66	3.477	0.031		
6.456	11	59	5.403	0.028		
6.494	15	53	3.469	0.025		
	252183	208797		100.000		

Total unknown % height = 60.6

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000032.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 20:00
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 32 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.948	1.948	0.000	2799	0.25000	0.246	80.00- 120.00	100.00	(aM)	BA
2.270	2.269	0.001	5519	0.25000	0.253	160.13- 240.20	197.18		BA
2.358	2.358	0.000	2610	0.25000	0.240	77.41- 116.12	93.25		BA
2.453	2.453	0.000	2600	0.25000	0.260	69.10- 103.64	92.89		BA
2.543	2.543	0.000	2369	0.25000	0.239	66.40- 99.60	84.66		BA
	Average of Peak Amounts =				0.24760				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.290	3.289	0.001	5086	0.25000	0.250	80.00- 120.00	100.00	(aM)	BA
3.460	3.460	0.000	6064	0.25000	0.249	95.08- 142.62	119.23		BA
3.644	3.644	0.000	7560	0.25000	0.258	119.23- 178.84	148.64		BA
4.040	4.041	-0.001	11496	0.25000	0.267	181.73- 272.60	226.03		BA
4.228	4.229	-0.001	6816	0.25000	0.263	108.55- 162.82	134.03		BA
	Average of Peak Amounts =				0.25740				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.574	1.573	0.001	23768	0.05000	0.0523			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.937	4.939	-0.002	18150	0.05000	0.0572		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-AUG-2019 20:00
Lab File ID: d081619000032.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	11196	0.010	-1.73105	20.00000	Aver	(aM)
(2)	21808	22076	0.010	1.22865	20.00000	Aver	(aM)
(3)	10850	10440	0.010	-3.77585	20.00000	Aver	(aM)
(4)	9980	10400	0.010	4.20436	20.00000	Aver	(aM)
(5)	9902	9476	0.010	-4.29894	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	20344	0.010	0.11647	20.00000	Aver	(aM)
(2)	24356	24256	0.010	-0.41149	20.00000	Aver	(aM)
(3)	29292	30240	0.010	3.23638	20.00000	Aver	(aM)
(4)	43025	45984	0.010	6.87698	20.00000	Aver	(aM)
(5)	25870	27264	0.010	5.38939	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	475360	0.010	4.66431	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	363000	0.010	14.34391	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.97716
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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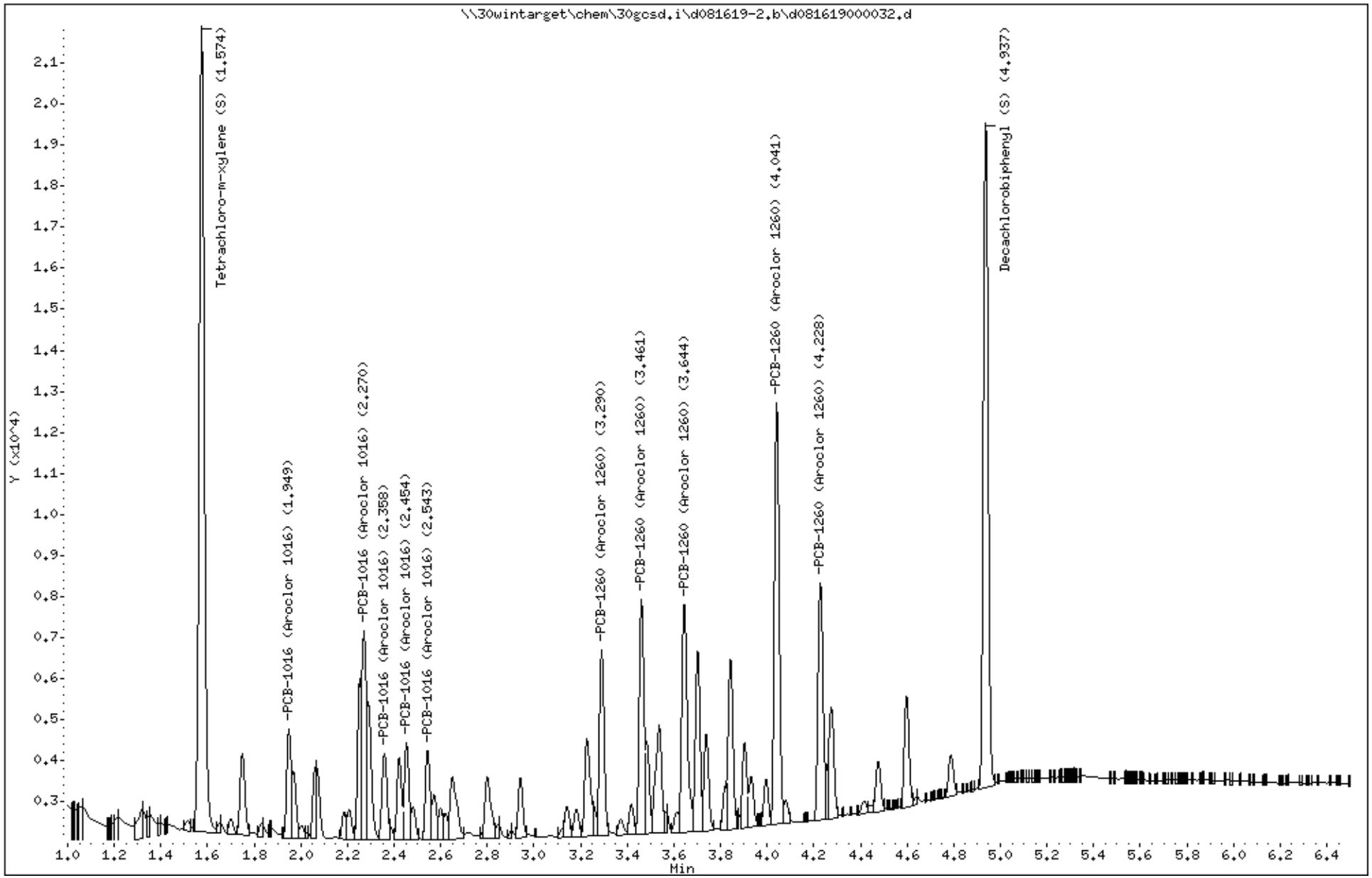
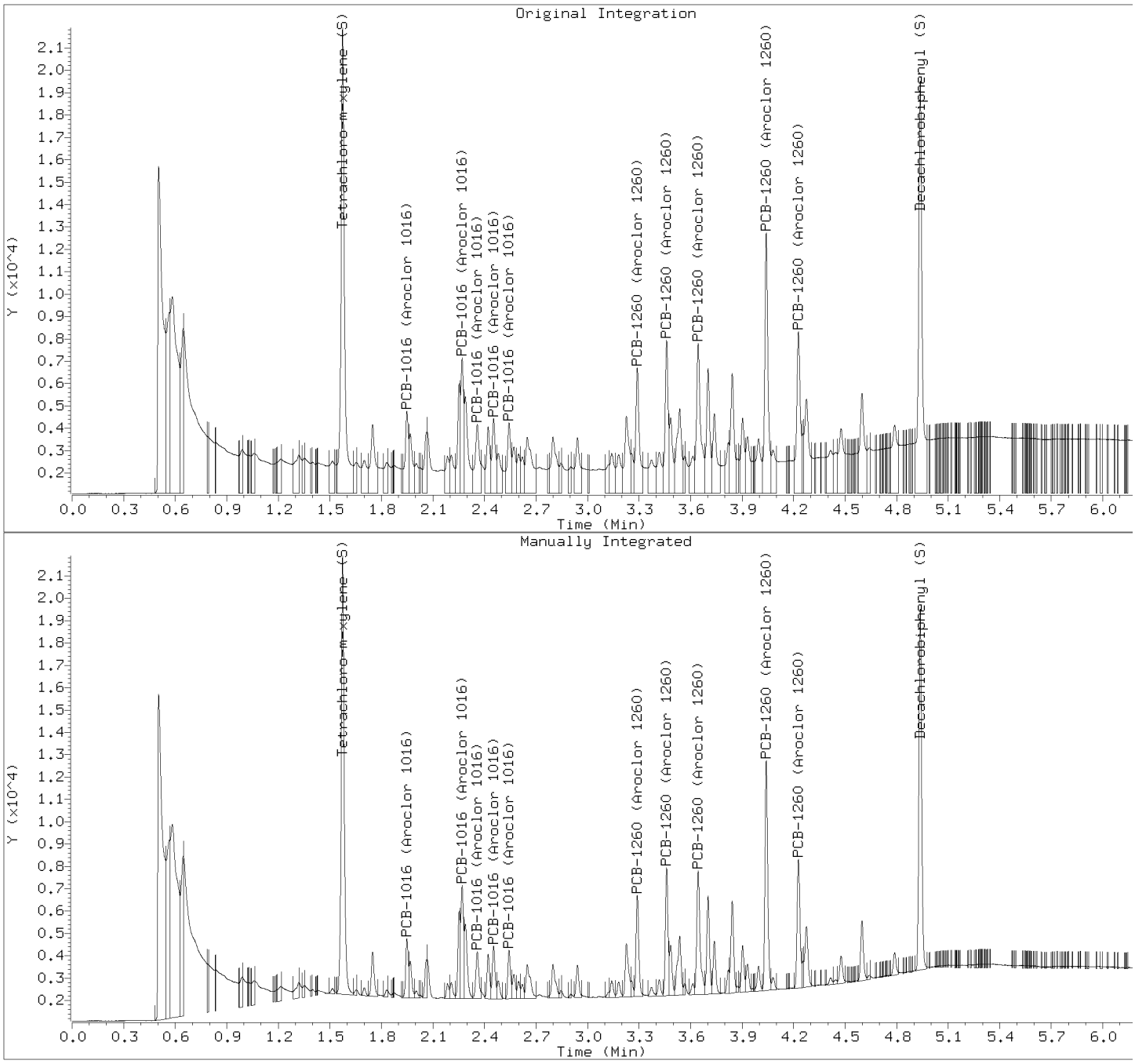
Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000032.d
Date : 16-AUG-2019 20:00
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 97013:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b/d081619000032.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 16-AUG-2019 20:00 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	4895	2799
PCB-1016 (Aroclor 1016)	6783	5519
PCB-1016 (Aroclor 1016)	5463	2610
PCB-1016 (Aroclor 1016)	4487	2600
PCB-1016 (Aroclor 1016)	4701	2369
PCB-1260 (Aroclor 1260)	8365	5086
PCB-1260 (Aroclor 1260)	8510	6064
PCB-1260 (Aroclor 1260)	11650	7560
PCB-1260 (Aroclor 1260)	15656	11496
PCB-1260 (Aroclor 1260)	10785	6816
Tetrachloro-m-xylene (S)	30401	23768
Decachlorobiphenyl (S)	27446	18150

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000058.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 23:41
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.511	41044	12772	0.311	7.347		
1.206	27304	19956	0.731	11.533	$ 10 Tetrachloro-m-xylene (S)	BA
1.370	328	294	0.897	0.169		
1.394	531	462	0.870	0.265		
1.434	2666	2014	0.755	1.158		
1.623	5415	3627	0.670	2.086	1 PCB-1016 (Aroclor 1016)	BA
1.685	573	446	0.779	0.256		
1.736	1116	1435	1.285	0.825		
1.750	2441	1984	0.813	1.141		
1.798	825	829	1.005	0.476		
1.814	836	741	0.887	0.426		
1.868	10663	7164	0.672	4.121	1 PCB-1016 (Aroclor 1016)	BA
1.922	4463	3201	0.717	1.841	1 PCB-1016 (Aroclor 1016)	BA
1.998	2313	2177	0.941	1.252		
2.024	3198	2646	0.827	1.522		
2.052	1980	2154	1.088	1.239		
2.066	2691	2152	0.800	1.237		
2.177	3091	2950	0.954	1.696	1 PCB-1016 (Aroclor 1016)	BA
2.200	1311	1238	0.944	0.712		
2.227	1341	928	0.692	0.533		
2.266	2871	2348	0.818	1.350	1 PCB-1016 (Aroclor 1016)	BA
2.333	692	619	0.895	0.356		
2.363	371	354	0.954	0.203		
2.389	452	483	1.069	0.277		
2.413	2111	1765	0.836	1.015		
2.460	224	225	1.003	0.129		
2.497	1767	1628	0.922	0.936		
2.784	4430	3608	0.814	2.075	7 PCB-1260 (Aroclor 1260)	BA
2.817	1667	1459	0.875	0.839		
2.872	5756	5180	0.900	2.979	7 PCB-1260 (Aroclor 1260)	BA
2.941	920	838	0.911	0.482		
2.982	7039	6168	0.876	3.548	7 PCB-1260 (Aroclor 1260)	BA
3.090	2324	2729	1.174	1.569		
3.106	3864	3325	0.861	1.912		
3.138	886	870	0.981	0.500		
3.175	1977	1396	0.706	0.803		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.213	7342	5257	0.716	3.024		
3.240	5324	4722	0.887	2.716		
3.275	2908	2549	0.877	1.466		
3.364	971	861	0.887	0.495		
3.424	5451	4690	0.860	2.697		
3.485	2610	2424	0.929	1.394		
3.519	2360	1817	0.770	1.045		
3.570	11952	10622	0.889	6.110	7 PCB-1260 (Aroclor 1260)	BA
3.664	427	376	0.881	0.216		
3.744	168	162	0.966	0.093		
3.772	2217	2089	0.942	1.201		
3.812	8366	7286	0.871	4.191	7 PCB-1260 (Aroclor 1260)	BA
3.957	420	371	0.883	0.213		
4.024	91	118	1.299	0.067		
4.063	1192	1042	0.874	0.599		
4.138	2778	2432	0.876	1.399		
4.328	971	866	0.891	0.498		
4.484	16224	14895	0.918	8.568	$ 11 Decachlorobiphenyl (S)	BA
4.609	24	66	2.755	0.037		
4.631	24	71	2.956	0.040		
4.657	29	82	2.861	0.047		
4.670	24	90	3.722	0.051		
4.720	55	118	2.138	0.067		
4.738	185	181	0.980	0.104		
4.750	46	196	4.265	0.112		
4.864	52	150	2.913	0.086		
4.872	37	159	4.256	0.091		
4.882	69	192	2.782	0.110		
4.892	49	195	3.987	0.112		
4.901	77	210	2.744	0.120		
4.907	76	219	2.884	0.125		
4.951	65	222	3.424	0.127		
4.966	51	218	4.263	0.125		
4.981	151	269	1.784	0.154		
5.010	695	530	0.763	0.304		
5.078	86	336	3.902	0.193		
5.090	102	322	3.159	0.185		
5.125	119	251	2.105	0.144		
5.178	63	127	2.012	0.073		
5.219	19	78	4.114	0.044		
5.298	46	112	2.422	0.064		
5.321	65	142	2.186	0.081		
5.327	76	154	2.018	0.088		
5.338	97	166	1.711	0.095		
5.365	51	140	2.742	0.080		
5.404	18	79	4.317	0.045		
5.431	18	82	4.535	0.047		
5.444	24	97	4.032	0.055		
5.456	31	116	3.788	0.066		
5.481	35	154	4.353	0.088		
5.494	65	139	2.124	0.079		
5.516	63	139	2.215	0.079		
5.545	38	135	3.527	0.077		
5.578	27	154	5.668	0.088		
5.589	58	181	3.106	0.104		
5.672	48	124	2.607	0.071		
5.678	27	130	4.734	0.074		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.712	90	152	1.687	0.087		
5.720	57	152	2.649	0.087		
5.731	35	151	4.273	0.086		
5.769	36	154	4.287	0.088		
5.817	58	186	3.194	0.106		
5.876	25	128	5.207	0.073		
5.888	53	136	2.543	0.078		
5.920	31	133	4.329	0.076		
5.936	43	137	3.152	0.078		
5.970	24	140	5.828	0.080		
5.979	52	150	2.899	0.086		
6.113	48	113	2.350	0.065		
6.123	38	124	3.263	0.071		
6.129	32	126	3.992	0.072		
6.167	69	163	2.373	0.093		
6.180	46	162	3.516	0.093		
6.308	14	56	4.029	0.032		
6.319	19	65	3.491	0.037		
6.337	14	75	5.208	0.043		
6.392	16	65	4.027	0.037		
	226938	173838		100.000		

Total unknown % height = 49.9

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000058.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 23:41
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.623	1.622	0.001	5414	0.25000	0.264	80.00- 120.00	100.00(M)	BA
1.868	1.867	0.001	10662	0.25000	0.258	157.23- 235.85	196.93	BA
1.922	1.921	0.001	4463	0.25000	0.268	64.89- 97.33	82.43	BA
2.177	2.175	0.002	3090	0.25000	0.242	45.27- 67.90	57.09	BA
2.266	2.264	0.002	2870	0.25000	0.261	42.04- 63.06	53.03	BA
Average of Peak Amounts =					0.25860			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.784	2.783	0.001	4430	0.25000	0.239	80.00- 120.00	100.00(M)	BA
2.872	2.871	0.001	5756	0.25000	0.243	104.26- 156.38	129.93	BA
2.982	2.981	0.001	7039	0.25000	0.237	126.75- 190.12	158.89	BA
3.570	3.570	0.000	11951	0.25000	0.238	218.49- 327.73	269.79	BA
3.812	3.812	0.000	8365	0.25000	0.231	160.31- 240.47	188.84	BA
Average of Peak Amounts =					0.23760			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.206	1.204	0.002	27303	0.05000	0.0537		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.483	4.484	-0.001	16223	0.05000	0.0483		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-AUG-2019 23:41
Lab File ID: d081619000058.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	21656	0.010	5.44357	20.00000	Aver	(M)
(2)	41335	42648	0.010	3.17690	20.00000	Aver	(M)
(3)	16656	17852	0.010	7.17952	20.00000	Aver	(M)
(4)	12773	12360	0.010	-3.23465	20.00000	Aver	(M)
(5)	10980	11480	0.010	4.55850	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	17720	0.010	-4.44377	20.00000	Aver	(M)
(2)	23716	23024	0.010	-2.91695	20.00000	Aver	(M)
(3)	29676	28156	0.010	-5.12234	20.00000	Aver	(M)
(4)	50204	47804	0.010	-4.78123	20.00000	Aver	(M)
(5)	36244	33460	0.010	-7.68085	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	546060	0.010	7.36432	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	324460	0.010	-3.33407	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 4.33739
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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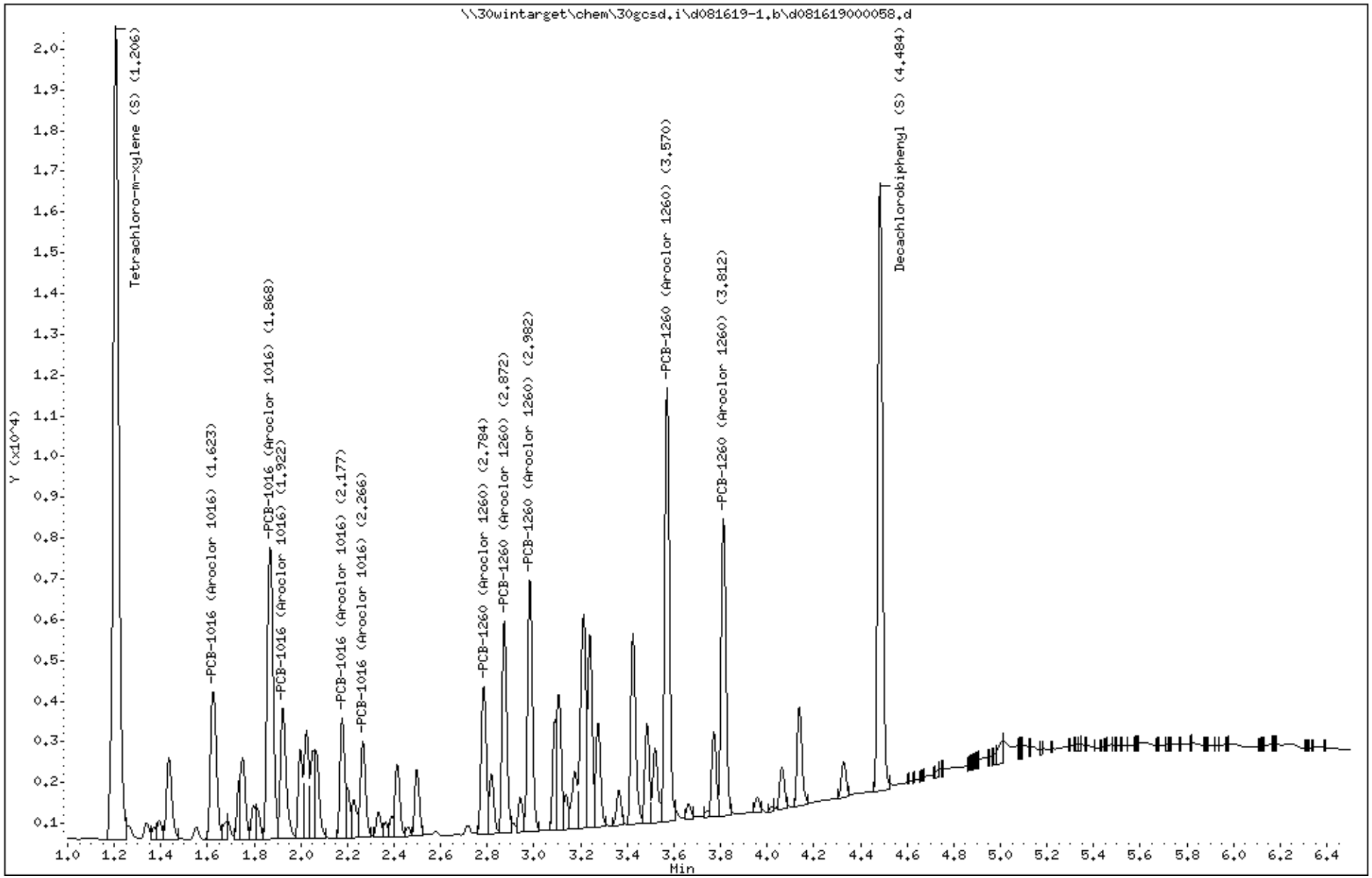
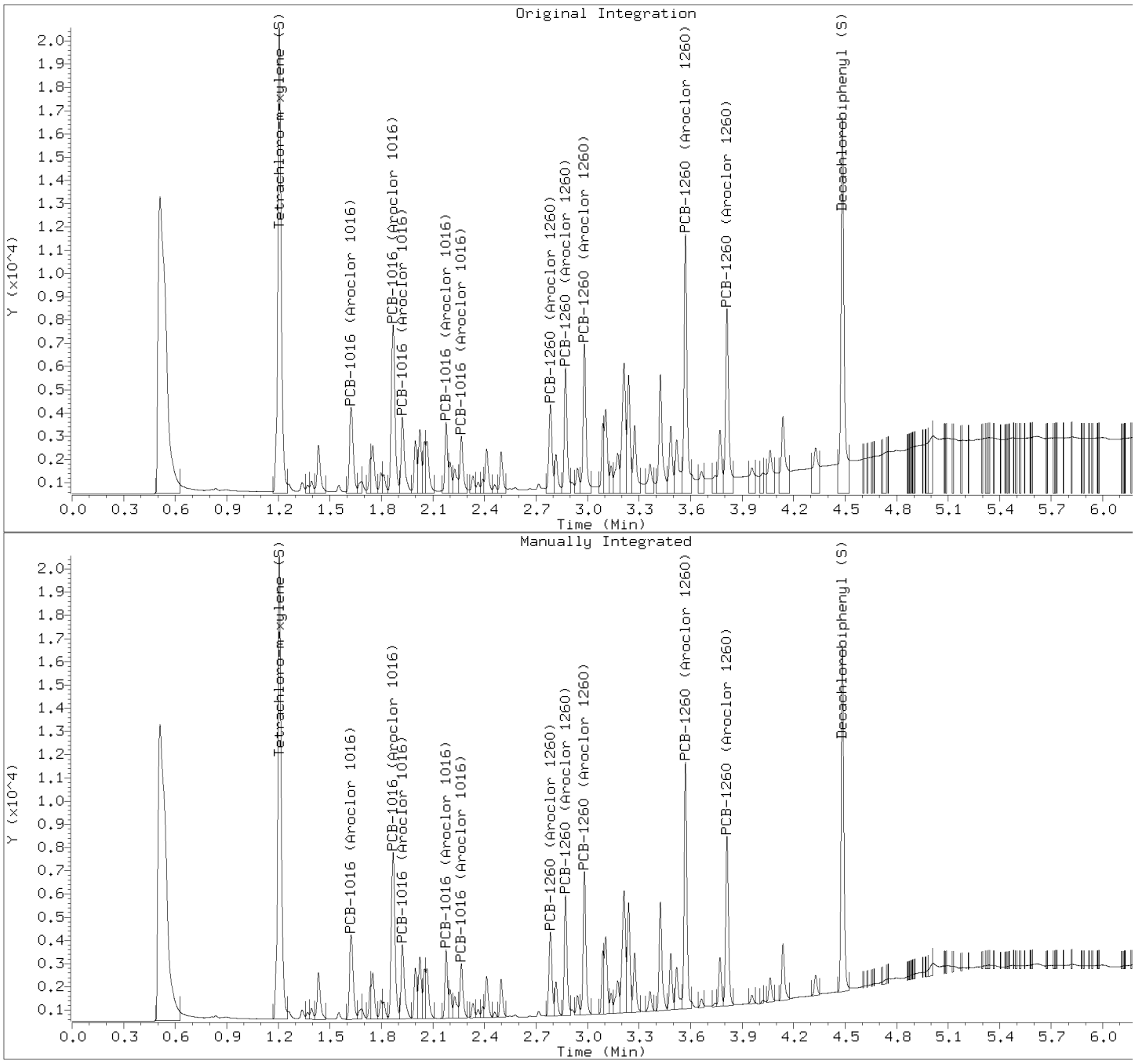
Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000058.d
Date : 16-AUG-2019 23:41
Client ID: CCV
Sample Info: CCV, 97013:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b/d081619000058.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 16-AUG-2019 23:41 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5654	5414
PCB-1016 (Aroclor 1016)	10973	10662
PCB-1016 (Aroclor 1016)	4830	4463
PCB-1016 (Aroclor 1016)	3313	3090
PCB-1016 (Aroclor 1016)	3226	2870
PCB-1260 (Aroclor 1260)	4989	4430
PCB-1260 (Aroclor 1260)	6482	5756
PCB-1260 (Aroclor 1260)	8003	7039
PCB-1260 (Aroclor 1260)	13721	11951
PCB-1260 (Aroclor 1260)	10568	8365
Tetrachloro-m-xylene (S)	27634	27303
Decachlorobiphenyl (S)	21339	16223

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000058.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 23:41
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	32377	14520	0.448	7.759		
0.561	25473	6958	0.273	3.718		
1.515	262	213	0.814	0.113		
1.574	24708	20336	0.823	10.971	$ 10 Tetrachloro-m-xylene (S)	BA
1.655	309	311	1.007	0.166		
1.700	475	400	0.843	0.213		
1.749	2540	2146	0.845	1.146		
1.828	292	271	0.927	0.144		
1.949	3003	2852	0.950	1.524	1 PCB-1016 (Aroclor 1016)	BA
1.968	1859	1779	0.957	0.950		
2.003	384	346	0.900	0.184		
2.063	1611	1901	1.180	1.015		
2.184	716	748	1.045	0.399		
2.207	906	793	0.875	0.423		
2.253	3747	4204	1.122	2.246		
2.270	5909	5353	0.906	2.860	1 PCB-1016 (Aroclor 1016)	BA
2.289	4027	3522	0.875	1.882		
2.359	2853	2284	0.801	1.220	1 PCB-1016 (Aroclor 1016)	BA
2.422	2259	2118	0.937	1.131		
2.453	2601	2347	0.902	1.254	1 PCB-1016 (Aroclor 1016)	BA
2.481	1039	863	0.831	0.461		
2.543	2482	2326	0.937	1.242	1 PCB-1016 (Aroclor 1016)	BA
2.572	1367	1154	0.844	0.616		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.600	835	800	0.958	0.427		
2.621	674	637	0.945	0.340		
2.649	2722	1620	0.595	0.865		
2.799	2273	1539	0.677	0.822		
2.847	371	333	0.897	0.177		
2.903	99	153	1.540	0.081		
2.941	1638	1474	0.900	0.787		
3.119	173	213	1.231	0.113		
3.141	919	777	0.846	0.415		
3.180	753	666	0.884	0.355		
3.227	3317	2403	0.725	1.284		
3.257	637	686	1.077	0.366		
3.289	5048	4628	0.917	2.473	7 PCB-1260 (Aroclor 1260)	BA
3.372	451	387	0.858	0.206		
3.417	782	720	0.920	0.384		
3.460	6023	5640	0.936	3.013	7 PCB-1260 (Aroclor 1260)	BA
3.483	2365	2229	0.942	1.191		
3.537	3979	2577	0.648	1.377		
3.567	547	505	0.924	0.269		
3.612	541	486	0.898	0.259		
3.644	7493	5555	0.741	2.968	7 PCB-1260 (Aroclor 1260)	BA
3.702	4815	4260	0.885	2.276		
3.738	2502	2308	0.922	1.233		
3.819	907	1012	1.115	0.540		
3.842	4710	4088	0.868	2.184		
3.875	177	302	1.708	0.161		
3.903	2227	2060	0.925	1.100		
3.931	1382	1182	0.855	0.631		
3.995	1222	1066	0.872	0.569		
4.040	11204	10040	0.896	5.365	7 PCB-1260 (Aroclor 1260)	BA
4.080	597	540	0.905	0.288		
4.228	6640	5644	0.850	3.016	7 PCB-1260 (Aroclor 1260)	BA
4.255	705	1150	1.631	0.614		
4.275	3544	2659	0.750	1.420		
4.322	11	39	3.601	0.020		
4.414	208	295	1.418	0.157		
4.443	194	170	0.876	0.090		
4.476	1441	1182	0.820	0.631		
4.522	30	76	2.533	0.040		
4.564	52	66	1.272	0.035		
4.597	3079	2661	0.864	1.422		
4.641	223	202	0.904	0.107		
4.662	15	76	4.932	0.040		
4.671	15	68	4.515	0.036		
4.680	20	66	3.303	0.035		
4.700	12	61	4.967	0.032		
4.706	23	64	2.812	0.034		
4.728	7	34	5.090	0.018		
4.735	13	43	3.308	0.022		
4.743	12	43	3.476	0.022		
4.762	7	29	4.277	0.015		
4.787	1170	1045	0.893	0.558		
4.834	16	68	4.296	0.036		
4.868	18	50	2.759	0.026		
4.877	10	43	4.119	0.022		
4.884	13	46	3.594	0.024		
4.892	21	52	2.524	0.027		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.904	17	46	2.741	0.024		
4.937	18225	16412	0.901	8.770	$ 11 Decachlorobiphenyl (S)	BA
4.988	51	83	1.641	0.044		
4.999	32	74	2.333	0.039		
5.006	11	65	6.167	0.034		
5.023	13	38	2.821	0.020		
5.033	18	44	2.423	0.023		
5.038	11	43	3.934	0.022		
5.047	7	38	5.740	0.020		
5.051	9	29	3.135	0.015		
5.056	5	33	6.762	0.017		
5.067	21	59	2.861	0.031		
5.073	21	76	3.636	0.040		
5.087	24	103	4.328	0.055		
5.110	42	134	3.154	0.071		
5.122	31	136	4.337	0.072		
5.148	72	128	1.770	0.068		
5.158	36	120	3.309	0.064		
5.190	19	63	3.244	0.033		
5.202	8	36	4.276	0.019		
5.216	5	34	7.234	0.018		
5.222	9	46	5.412	0.024		
5.239	17	66	3.864	0.035		
5.262	33	102	3.083	0.054		
5.289	38	135	3.570	0.072		
5.293	36	132	3.708	0.070		
5.299	33	144	4.412	0.076		
5.318	32	128	4.019	0.068		
5.331	47	145	3.088	0.077		
5.336	24	142	5.897	0.075		
5.343	37	149	4.056	0.079		
5.347	49	148	3.022	0.079		
5.356	34	162	4.715	0.086		
5.377	37	176	4.815	0.094		
5.395	60	169	2.836	0.090		
5.409	30	156	5.263	0.083		
5.419	33	171	5.204	0.091		
5.428	43	188	4.417	0.100		
5.439	96	209	2.183	0.111		
5.448	75	217	2.903	0.115		
5.453	91	215	2.366	0.114		
5.462	75	219	2.922	0.117		
5.499	29	190	6.597	0.101		
5.507	80	192	2.399	0.102		
5.522	104	197	1.898	0.105		
5.530	48	195	4.048	0.104		
5.534	49	197	4.024	0.105		
5.545	52	205	3.971	0.109		
5.552	66	230	3.504	0.122		
5.559	106	258	2.436	0.137		
5.567	98	289	2.947	0.154		
5.580	123	314	2.550	0.167		
5.585	115	334	2.913	0.178		
5.595	121	329	2.719	0.175		
5.665	36	186	5.187	0.099		
5.671	95	199	2.098	0.106		
5.678	90	213	2.370	0.113		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.683	46	218	4.707	0.116		
5.692	84	248	2.950	0.132		
5.699	61	239	3.928	0.127		
5.704	83	252	3.026	0.134		
5.710	51	262	5.115	0.140		
5.720	87	265	3.057	0.141		
5.725	126	257	2.044	0.137		
5.769	74	202	2.742	0.107		
5.779	96	193	2.016	0.103		
5.789	97	193	1.986	0.103		
5.799	47	183	3.900	0.097		
5.808	27	175	6.443	0.093		
5.822	82	181	2.204	0.096		
5.834	34	178	5.190	0.095		
5.844	88	186	2.103	0.099		
5.856	73	188	2.567	0.100		
5.861	63	200	3.156	0.106		
5.868	52	207	3.964	0.110		
5.910	82	146	1.772	0.078		
5.934	31	124	3.990	0.066		
5.944	37	126	3.411	0.067		
5.956	33	132	4.060	0.070		
5.964	32	142	4.479	0.075		
5.982	65	142	2.168	0.075		
5.994	48	124	2.568	0.066		
6.032	40	106	2.653	0.056		
6.038	22	96	4.428	0.051		
6.042	24	100	4.167	0.053		
6.048	25	100	4.057	0.053		
6.053	39	108	2.791	0.057		
6.077	26	95	3.678	0.050		
6.088	15	80	5.208	0.042		
6.099	24	91	3.782	0.048		
6.106	15	103	6.839	0.055		
6.115	18	108	5.973	0.057		
6.125	34	130	3.869	0.069		
6.133	43	141	3.308	0.075		
6.147	41	142	3.453	0.075		
6.168	45	127	2.841	0.067		
6.192	36	95	2.660	0.050		
6.204	28	92	3.233	0.049		
6.209	18	88	4.788	0.047		
6.214	28	95	3.437	0.050		
6.221	40	108	2.681	0.057		
6.233	29	117	4.082	0.062		
6.244	28	125	4.458	0.066		
6.253	28	116	4.152	0.061		
6.263	26	115	4.503	0.061		
6.273	51	113	2.223	0.060		
6.314	22	77	3.484	0.041		
6.324	22	90	4.110	0.048		
6.363	36	71	1.990	0.037		
6.370	14	62	4.435	0.033		
6.375	17	66	3.981	0.035		
6.388	33	65	1.961	0.034		
6.449	18	80	4.357	0.042		
6.475	25	55	2.179	0.029		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.487	9	53	5.614	0.028		
6.493	16	53	3.393	0.028		
	233431	187130		100.000		

Total unknown % height = 55.3

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000058.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-AUG-2019 23:41
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97013:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 58 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.948	1.948	0.000	3003	0.25000	0.264	80.00- 120.00	100.00	(aM)	BA
2.270	2.269	0.001	5908	0.25000	0.271	160.13- 240.20	196.74		BA
2.358	2.358	0.000	2853	0.25000	0.263	77.41- 116.12	95.00		BA
2.453	2.453	0.000	2601	0.25000	0.261	69.10- 103.64	86.61		BA
2.543	2.543	0.000	2481	0.25000	0.250	66.40- 99.60	82.64		BA
	Average of Peak Amounts =				0.26180				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.289	3.289	0.000	5048	0.25000	0.248	80.00- 120.00	100.00	(aM)	BA
3.459	3.460	-0.001	6023	0.25000	0.247	95.08- 142.62	119.31		BA
3.644	3.644	0.000	7492	0.25000	0.256	119.23- 178.84	148.42		BA
4.040	4.041	-0.001	11203	0.25000	0.260	181.73- 272.60	221.93		BA
4.228	4.229	-0.001	6639	0.25000	0.257	108.55- 162.82	131.53		BA
	Average of Peak Amounts =				0.25360				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.574	1.573	0.001	24708	0.05000	0.0544			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.936	4.939	-0.003	18225	0.05000	0.0574		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 16-AUG-2019 23:41
Lab File ID: d081619000058.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	12012	0.010	5.43110	20.00000	Aver	(aM)
(2)	21808	23632	0.010	8.36363	20.00000	Aver	(aM)
(3)	10850	11412	0.010	5.18295	20.00000	Aver	(aM)
(4)	9980	10404	0.010	4.24443	20.00000	Aver	(aM)
(5)	9902	9924	0.010	0.22555	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	20192	0.010	-0.63155	20.00000	Aver	(aM)
(2)	24356	24092	0.010	-1.08482	20.00000	Aver	(aM)
(3)	29292	29968	0.010	2.30780	20.00000	Aver	(aM)
(4)	43025	44812	0.010	4.15300	20.00000	Aver	(aM)
(5)	25870	26556	0.010	2.65260	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	494160	0.010	8.80368	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	364500	0.010	14.81641	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 6.97716
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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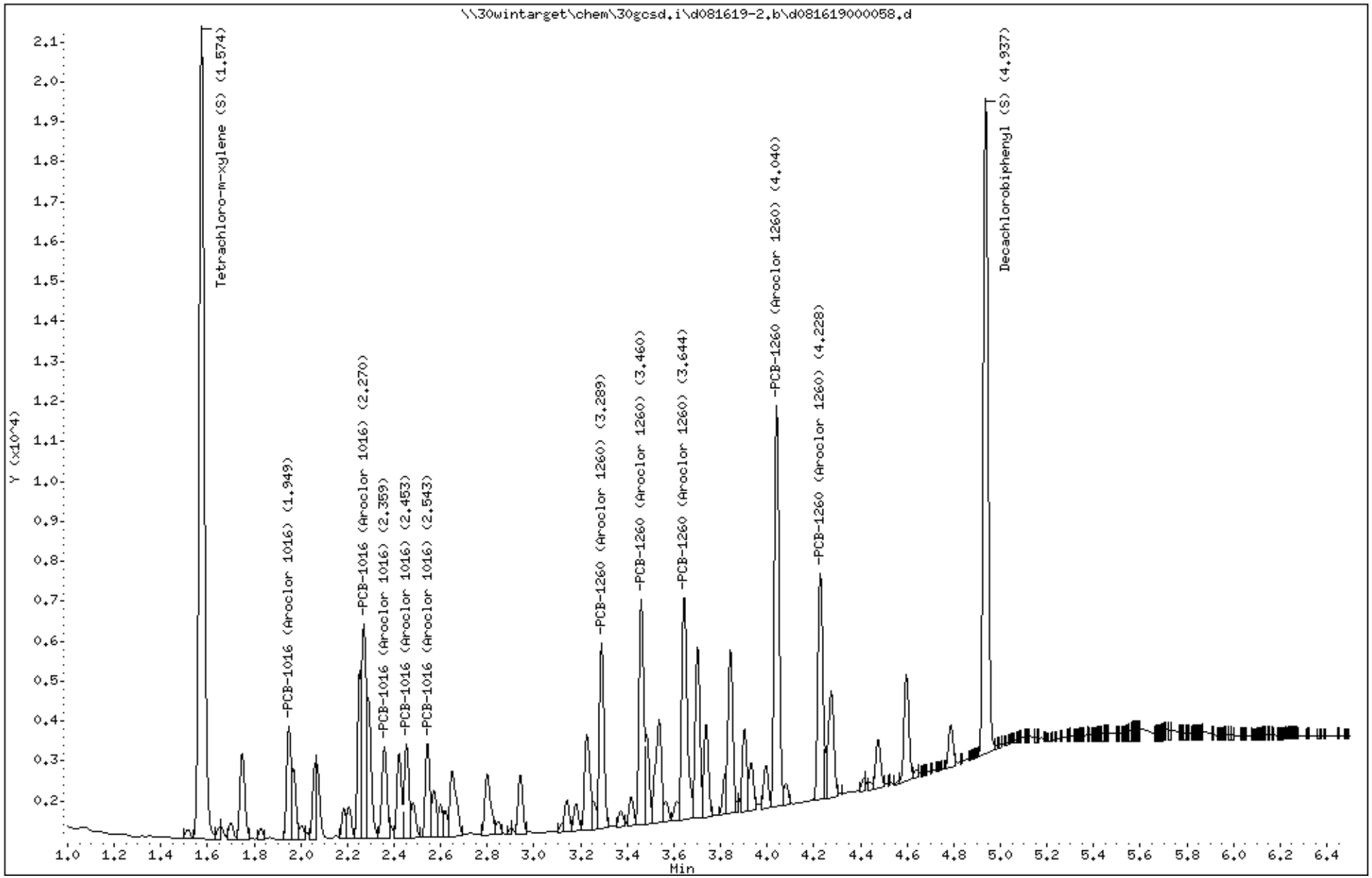
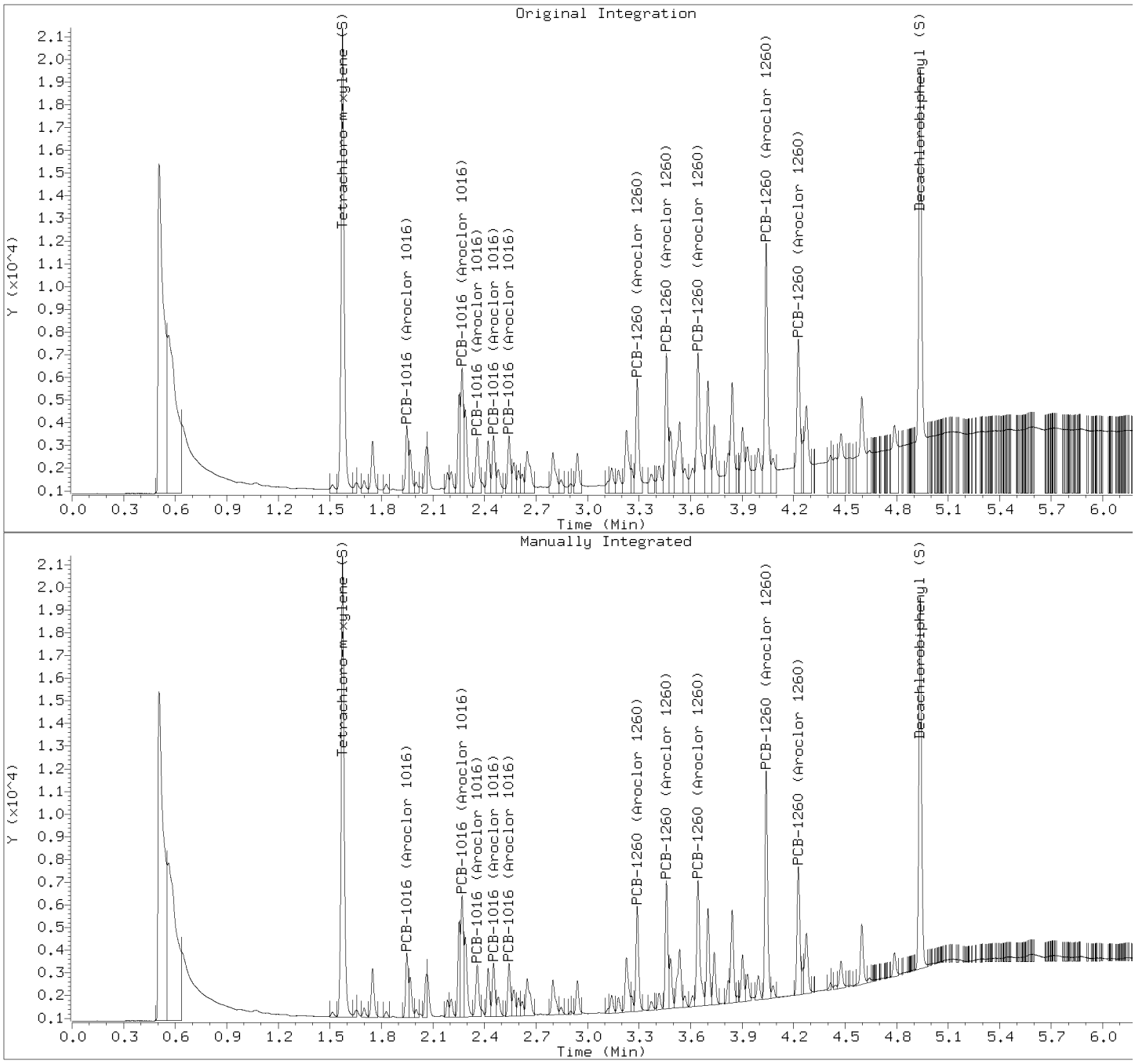
Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000058.d
Date : 16-AUG-2019 23:41
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 97013:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b/d081619000058.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 16-AUG-2019 23:41 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	3287	3003
PCB-1016 (Aroclor 1016)	6069	5908
PCB-1016 (Aroclor 1016)	3373	2853
PCB-1016 (Aroclor 1016)	2953	2601
PCB-1016 (Aroclor 1016)	2932	2481
PCB-1260 (Aroclor 1260)	6300	5048
PCB-1260 (Aroclor 1260)	7147	6023
PCB-1260 (Aroclor 1260)	9759	7492
PCB-1260 (Aroclor 1260)	14182	11203
PCB-1260 (Aroclor 1260)	9801	6639
Tetrachloro-m-xylene (S)	25599	24708
Decachlorobiphenyl (S)	28164	18225

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 16:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.509	43551	15867	0.364	7.921		
1.205	24672	17916	0.726	9.052	$ 10 Tetrachloro-m-xylene (S)	RT
1.392	470	397	0.845	0.198		
1.433	2403	1697	0.706	0.847		
1.622	4920	3246	0.660	1.620	1 PCB-1016 (Aroclor 1016)	RT
1.736	981	1286	1.312	0.642		
1.749	2265	1775	0.783	0.886		
1.796	701	712	1.015	0.355		
1.813	819	684	0.835	0.341		
1.868	9394	5947	0.633	2.969	1 PCB-1016 (Aroclor 1016)	RT
1.921	4287	2772	0.647	1.383	1 PCB-1016 (Aroclor 1016)	RT
1.997	1934	1791	0.926	0.894		
2.024	3082	2458	0.797	1.227		
2.051	1817	1945	1.070	0.971		
2.065	2551	1984	0.778	0.990		
2.176	2851	2648	0.929	1.322	1 PCB-1016 (Aroclor 1016)	RT
2.199	1201	1151	0.958	0.574		
2.226	1174	843	0.718	0.420		
2.265	2679	2110	0.788	1.053	1 PCB-1016 (Aroclor 1016)	RT
2.332	642	555	0.864	0.277		
2.363	332	301	0.907	0.150		
2.389	378	411	1.087	0.205		
2.412	1998	1620	0.811	0.808		
2.460	240	223	0.931	0.111		
2.497	1655	1458	0.881	0.727		
2.715	236	216	0.917	0.107		
2.784	4028	3199	0.794	1.597	7 PCB-1260 (Aroclor 1260)	RT
2.816	1548	1308	0.845	0.653		
2.871	5225	4642	0.888	2.317	7 PCB-1260 (Aroclor 1260)	RT
2.941	830	755	0.910	0.376		
2.981	6416	5473	0.853	2.732	7 PCB-1260 (Aroclor 1260)	RT
3.090	1999	2374	1.188	1.185		
3.106	3581	2991	0.835	1.493		
3.138	728	715	0.982	0.356		
3.175	1804	1228	0.681	0.613		
3.213	6465	4591	0.710	2.292		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.239	4850	4260	0.878	2.126		
3.275	2618	2280	0.871	1.138		
3.365	903	749	0.829	0.373		
3.424	4965	4128	0.831	2.060		
3.484	2398	2140	0.893	1.068		
3.519	2160	1620	0.750	0.808		
3.570	10543	9328	0.885	4.657	7 PCB-1260 (Aroclor 1260)	RT
3.664	469	395	0.842	0.197		
3.744	144	147	1.022	0.073		
3.772	1992	1843	0.925	0.920		
3.813	7294	6195	0.849	3.092	7 PCB-1260 (Aroclor 1260)	RT
3.891	14	46	3.181	0.022		
3.909	25	61	2.468	0.030		
3.960	583	455	0.780	0.227		
4.024	471	283	0.601	0.141		
4.065	1224	987	0.807	0.492		
4.140	2367	2066	0.873	1.031		
4.189	15	58	3.774	0.028		
4.198	21	58	2.765	0.028		
4.237	17	46	2.768	0.022		
4.292	10	35	3.349	0.017		
4.300	9	32	3.536	0.015		
4.329	955	802	0.840	0.400		
4.364	46	149	3.266	0.074		
4.374	90	167	1.847	0.083		
4.381	76	173	2.266	0.086		
4.394	69	189	2.743	0.094		
4.402	46	201	4.332	0.100		
4.418	70	213	3.054	0.106		
4.485	14282	12906	0.904	6.443	$ 11 Decachlorobiphenyl (S)	RT
4.566	43	69	1.596	0.034		
4.571	18	75	4.233	0.037		
4.580	40	81	2.010	0.040		
4.601	13	34	2.619	0.016		
4.611	9	20	2.262	0.009		
4.618	9	31	3.613	0.015		
4.630	13	37	2.846	0.018		
4.634	7	43	6.214	0.021		
4.639	16	51	3.164	0.025		
4.645	20	63	3.105	0.031		
4.650	17	67	3.833	0.033		
4.654	18	75	4.266	0.037		
4.693	479	326	0.680	0.162		
4.710	345	346	1.003	0.172		
4.725	321	377	1.174	0.188		
4.732	110	375	3.404	0.187		
4.737	108	369	3.408	0.184		
4.759	56	261	4.663	0.130		
4.764	76	256	3.391	0.127		
4.767	60	260	4.303	0.129		
4.780	46	218	4.693	0.108		
4.791	91	244	2.676	0.121		
4.804	206	274	1.328	0.136		
4.813	53	267	5.080	0.133		
4.828	190	291	1.533	0.145		
4.840	211	320	1.513	0.159		
4.843	66	340	5.162	0.169		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.878	29	131	4.590	0.065		
4.910	535	525	0.981	0.262		
4.933	1383	921	0.666	0.459		
4.953	330	926	2.804	0.462		
5.005	139	441	3.164	0.220		
5.011	144	470	3.266	0.234		
5.029	587	620	1.056	0.309		
5.040	458	712	1.555	0.355		
5.045	250	752	3.008	0.375		
5.049	397	776	1.953	0.387		
5.087	110	553	5.045	0.276		
5.098	411	625	1.522	0.312		
5.105	274	677	2.475	0.337		
5.109	179	699	3.914	0.348		
5.125	749	898	1.199	0.448		
5.134	530	983	1.853	0.490		
5.136	199	1001	5.035	0.499		
5.143	241	1007	4.186	0.502		
5.161	1038	930	0.896	0.464		
5.245	180	342	1.898	0.170		
5.252	73	343	4.677	0.171		
5.259	145	354	2.437	0.176		
5.277	54	344	6.366	0.171		
5.284	173	385	2.221	0.192		
5.296	181	404	2.232	0.201		
5.304	86	400	4.649	0.199		
5.310	113	420	3.717	0.209		
5.320	303	500	1.648	0.249		
5.333	470	625	1.329	0.312		
5.337	206	656	3.180	0.327		
5.343	256	686	2.684	0.342		
5.392	75	539	7.216	0.269		
5.431	115	391	3.393	0.195		
5.441	268	411	1.534	0.205		
5.454	67	378	5.659	0.188		
5.473	247	391	1.580	0.195		
5.488	125	338	2.694	0.168		
5.512	78	306	3.944	0.152		
5.521	200	312	1.561	0.155		
5.528	94	303	3.217	0.151		
5.536	90	313	3.496	0.156		
5.541	93	319	3.419	0.159		
5.545	93	339	3.656	0.169		
5.550	107	371	3.470	0.185		
5.558	235	409	1.744	0.204		
5.564	154	412	2.682	0.205		
5.569	90	416	4.646	0.207		
5.574	158	427	2.698	0.213		
5.579	104	443	4.265	0.221		
5.603	142	440	3.088	0.219		
5.610	276	480	1.736	0.239		
5.615	310	457	1.475	0.228		
5.628	215	419	1.952	0.209		
5.637	165	421	2.546	0.210		
5.684	165	288	1.742	0.143		
5.729	83	228	2.749	0.113		
5.732	70	242	3.450	0.120		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.741	143	247	1.731	0.123		
5.755	54	213	3.913	0.106		
5.760	72	219	3.021	0.109		
5.770	34	212	6.328	0.105		
5.783	83	245	2.946	0.122		
5.790	98	261	2.664	0.130		
5.798	120	303	2.515	0.151		
5.804	118	320	2.714	0.159		
5.813	180	358	1.992	0.178		
5.818	173	370	2.134	0.184		
5.825	136	363	2.665	0.181		
5.830	80	372	4.667	0.185		
5.842	206	391	1.896	0.195		
5.849	159	408	2.560	0.203		
5.862	210	394	1.877	0.196		
5.882	120	362	3.028	0.180		
5.890	125	336	2.684	0.167		
5.897	118	337	2.854	0.168		
5.912	114	308	2.713	0.153		
5.931	77	247	3.213	0.123		
5.961	42	156	3.681	0.077		
5.974	74	191	2.572	0.095		
5.978	54	203	3.733	0.101		
5.988	62	225	3.653	0.112		
6.008	102	219	2.145	0.109		
6.019	58	214	3.708	0.106		
6.030	201	290	1.440	0.144		
6.035	169	288	1.705	0.143		
6.053	51	260	5.122	0.129		
6.058	89	267	3.009	0.133		
6.065	116	286	2.457	0.142		
6.077	52	297	5.736	0.148		
6.089	172	276	1.607	0.137		
6.099	84	269	3.218	0.134		
6.120	64	249	3.884	0.124		
6.126	43	245	5.683	0.122		
6.144	37	192	5.156	0.095		
6.153	63	198	3.166	0.098		
6.178	40	170	4.291	0.084		
6.205	49	172	3.533	0.085		
6.215	87	177	2.036	0.088		
6.232	49	161	3.258	0.080		
6.241	73	184	2.532	0.091		
6.247	40	192	4.747	0.095		
6.251	65	209	3.232	0.104		
6.259	54	235	4.353	0.117		
6.269	73	232	3.194	0.115		
6.277	118	260	2.199	0.129		
6.300	36	211	5.782	0.105		
6.311	102	234	2.288	0.116		
6.319	72	233	3.223	0.116		
6.356	94	207	2.202	0.103		
6.363	89	197	2.212	0.098		
6.390	25	143	5.804	0.071		
6.400	82	139	1.695	0.069		
6.414	19	111	5.895	0.055		
6.427	48	136	2.810	0.067		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.434	93	134	1.443	0.066		
6.455	16	57	3.551	0.028		
6.460	9	61	6.645	0.030		
6.464	23	79	3.468	0.039		
6.469	27	87	3.240	0.043		
6.476	41	101	2.443	0.050		
6.484	40	113	2.794	0.056		
6.490	48	104	2.189	0.051		
	230735	200300		100.000		

Total unknown % height = 61.8

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 16:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.622	1.622	0.000	4919	0.25000	0.240	80.00- 120.00	100.00(M)	RT
1.867	1.867	0.000	9394	0.25000	0.227	157.83- 236.75	190.97	RT
1.921	1.921	0.000	4287	0.25000	0.257	66.70- 100.06	87.15	RT
2.176	2.176	0.000	2850	0.25000	0.223	45.33- 68.00	57.94	RT
2.264	2.264	0.000	2678	0.25000	0.244	42.44- 63.66	54.45	RT
Average of Peak Amounts =					0.23820			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.783	2.783	0.000	4027	0.25000	0.217	80.00- 120.00	100.00(M)	RT
2.871	2.871	0.000	5224	0.25000	0.220	104.51- 156.77	129.72	RT
2.981	2.981	0.000	6416	0.25000	0.216	127.87- 191.80	159.32	RT
3.570	3.570	0.000	10542	0.25000	0.210	216.92- 325.38	261.78	RT
3.812	3.812	0.000	7294	0.25000	0.201	153.78- 230.68	181.14	RT
Average of Peak Amounts =					0.21280			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.204	1.204	0.000	24672	0.05000	0.0485		(M)	RT
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.485	4.485	0.000	14282	0.05000	0.0426		(M)	RT

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

RT: Indicates that the retention time for the peak in question has shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 19-AUG-2019 16:19
Lab File ID: d081919000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	19676	0.010	-4.19710	20.00000	Aver	(M)
(2)	41335	37576	0.010	-9.09362	20.00000	Aver	(M)
(3)	16656	17148	0.010	2.95286	20.00000	Aver	(M)
(4)	12773	11400	0.010	-10.75040	20.00000	Aver	(M)
(5)	10980	10712	0.010	-2.43636	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	16108	0.010	-13.13658	20.00000	Aver	(M)
(2)	23716	20896	0.010	-11.88988	20.00000	Aver	(M)
(3)	29676	25664	0.010	-13.51967	20.00000	Aver	(M)
(4)	50204	42168	0.010	-16.00734	20.00000	Aver	(M)
(5)	36244	29176	0.010	-19.50079	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	493440	0.010	-2.98163	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	285640	0.010	-14.89966	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 7.06144
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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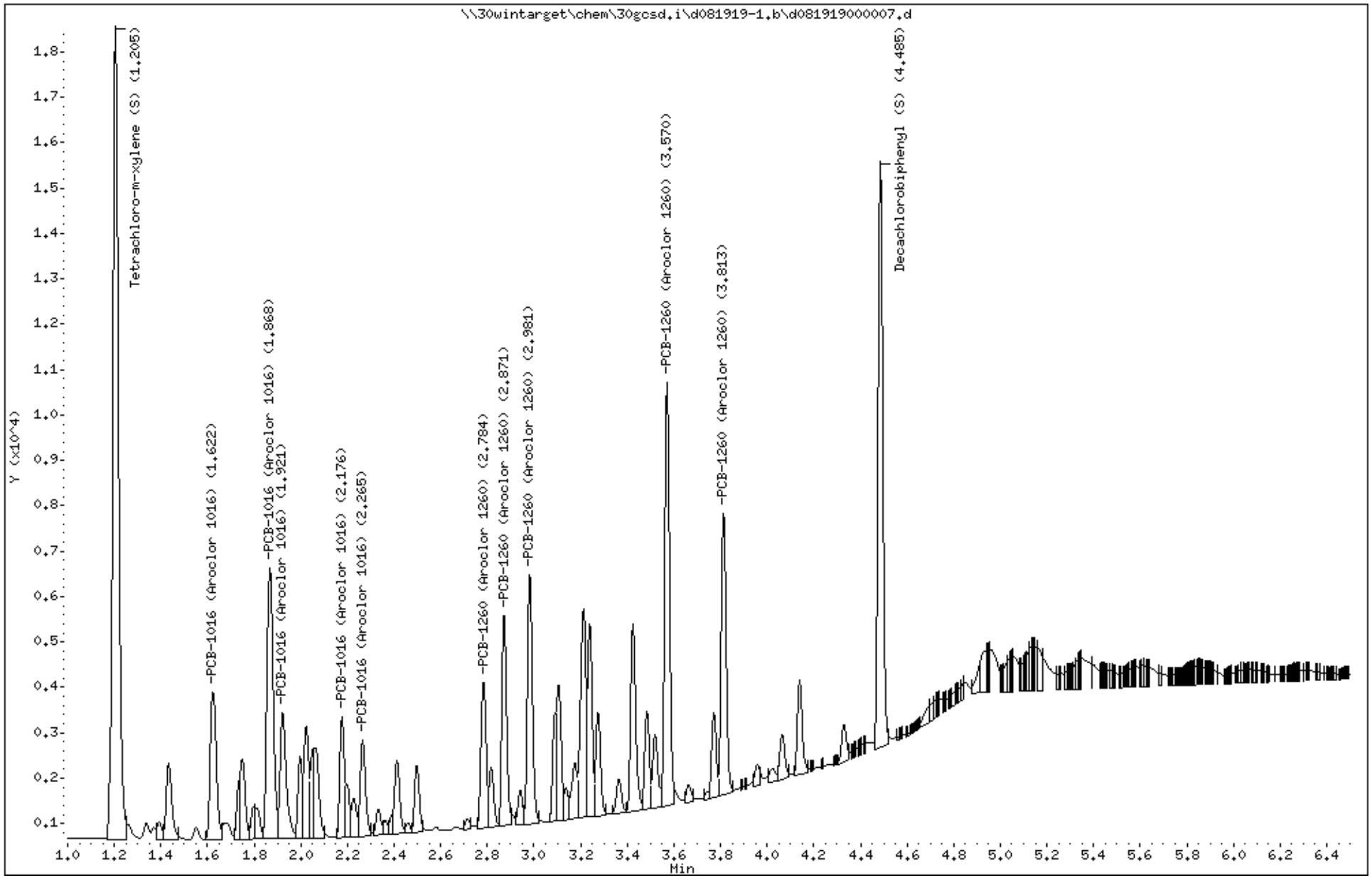
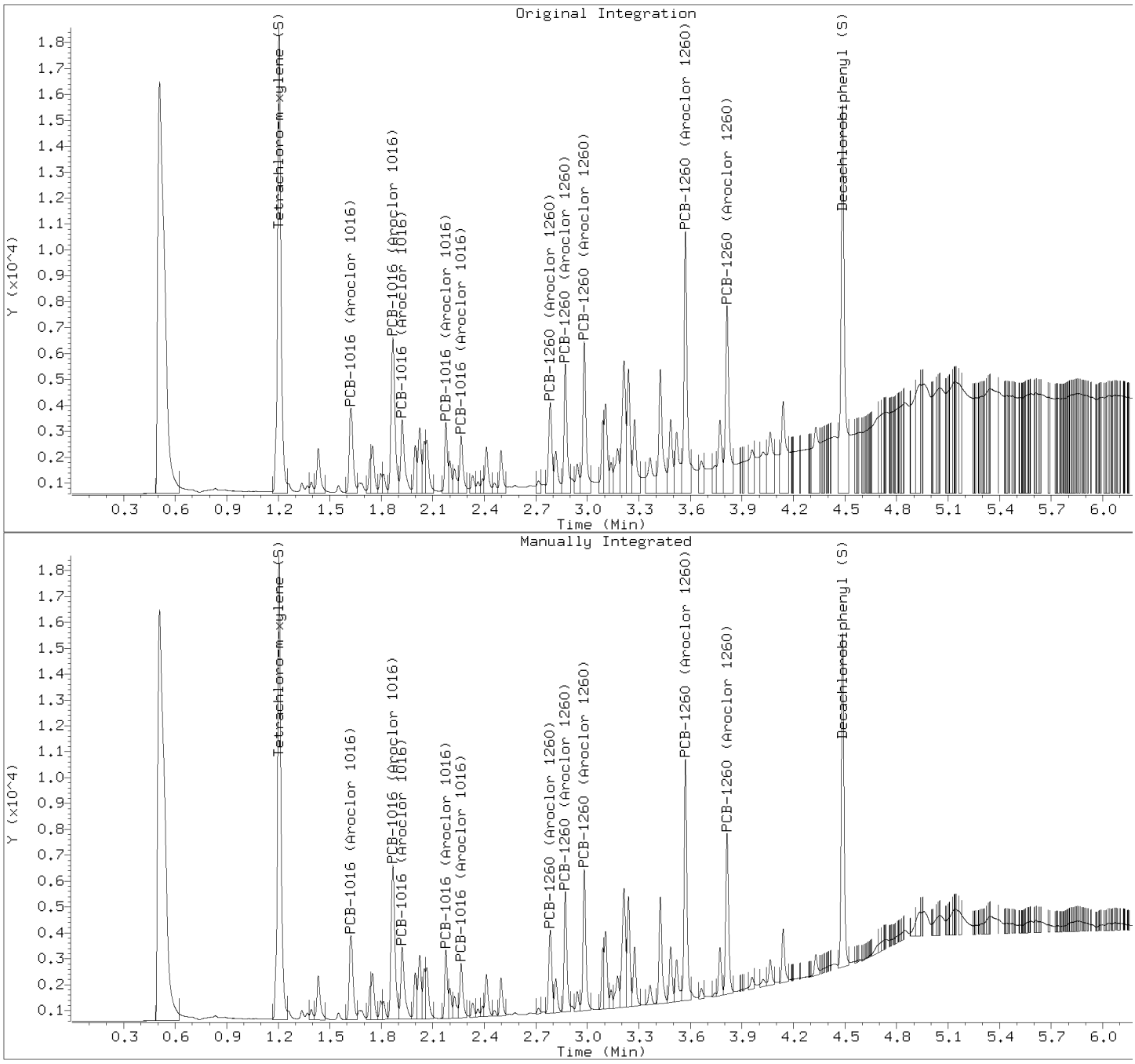
Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000007.d
Date : 19-AUG-2019 16:19
Client ID: CCV
Sample Info: CCV, 97131:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b/d081919000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 19-AUG-2019 16:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5048	4919
PCB-1016 (Aroclor 1016)	9591	9394
PCB-1016 (Aroclor 1016)	4529	4287
PCB-1016 (Aroclor 1016)	3020	2850
PCB-1016 (Aroclor 1016)	3015	2678
PCB-1260 (Aroclor 1260)	4828	4027
PCB-1260 (Aroclor 1260)	6302	5224
PCB-1260 (Aroclor 1260)	7848	6416
PCB-1260 (Aroclor 1260)	13053	10542
PCB-1260 (Aroclor 1260)	10916	7294
Tetrachloro-m-xylene (S)	24853	24672
Decachlorobiphenyl (S)	21886	14282

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 16:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	51010	18099	0.355	8.362		
1.574	22331	18166	0.814	8.532	$ 10 Tetrachloro-m-xylene (S)	RT
1.655	322	289	0.898	0.133		
1.749	2269	1803	0.795	0.833		
1.829	267	244	0.913	0.112		
1.949	2649	2527	0.954	1.167	1 PCB-1016 (Aroclor 1016)	RT
1.968	1725	1588	0.921	0.733		
2.003	356	314	0.883	0.145		
2.066	1956	1663	0.850	0.768		
2.186	617	624	1.011	0.288		
2.207	831	735	0.884	0.339		
2.254	3083	3488	1.131	1.611		
2.270	5101	4462	0.875	2.061	1 PCB-1016 (Aroclor 1016)	RT
2.289	4003	3149	0.787	1.455		
2.359	2579	1891	0.733	0.873	1 PCB-1016 (Aroclor 1016)	RT
2.422	2006	1873	0.934	0.865		
2.454	2344	2085	0.889	0.963	1 PCB-1016 (Aroclor 1016)	RT
2.481	926	760	0.820	0.351		
2.544	2215	2049	0.925	0.946	1 PCB-1016 (Aroclor 1016)	RT
2.572	1235	1024	0.829	0.473		
2.600	738	706	0.957	0.326		
2.621	593	562	0.948	0.259		
2.649	1657	1386	0.836	0.640		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.800	2018	1357	0.673	0.627		
2.846	182	283	1.558	0.130		
2.904	97	144	1.491	0.066		
2.942	1575	1356	0.861	0.626		
3.123	203	224	1.104	0.103		
3.142	886	733	0.827	0.338		
3.182	697	573	0.823	0.264		
3.228	2967	2128	0.717	0.983		
3.257	572	628	1.098	0.290		
3.290	4612	4083	0.885	1.886	7 PCB-1260 (Aroclor 1260)	RT
3.373	281	371	1.320	0.171		
3.419	839	680	0.811	0.314		
3.461	5452	5027	0.922	2.322	7 PCB-1260 (Aroclor 1260)	RT
3.484	2189	1993	0.911	0.920		
3.538	3632	2212	0.609	1.022		
3.568	548	486	0.887	0.224		
3.614	543	461	0.848	0.213		
3.646	6706	4757	0.709	2.197	7 PCB-1260 (Aroclor 1260)	RT
3.703	4459	3924	0.880	1.813		
3.739	2440	2100	0.861	0.970		
3.821	784	869	1.108	0.401		
3.844	4105	3560	0.867	1.644		
3.875	208	244	1.174	0.112		
3.904	1972	1782	0.904	0.823		
3.933	1297	1101	0.849	0.508		
3.996	1300	995	0.765	0.459		
4.042	10166	8664	0.852	4.003	7 PCB-1260 (Aroclor 1260)	RT
4.082	746	592	0.794	0.273		
4.123	12	35	2.804	0.016		
4.131	9	31	3.377	0.014		
4.160	5	23	5.111	0.010		
4.167	6	30	4.747	0.013		
4.182	17	46	2.728	0.021		
4.199	17	74	4.379	0.034		
4.206	31	87	2.806	0.040		
4.230	6035	5063	0.839	2.339	7 PCB-1260 (Aroclor 1260)	RT
4.257	617	1099	1.780	0.507		
4.277	3415	2426	0.710	1.120		
4.346	15	66	4.261	0.030		
4.363	21	82	3.839	0.037		
4.371	21	93	4.387	0.042		
4.382	79	116	1.476	0.053		
4.387	38	118	3.115	0.054		
4.391	25	122	4.837	0.056		
4.398	52	134	2.581	0.061		
4.419	653	449	0.688	0.207		
4.441	73	232	3.187	0.107		
4.444	195	248	1.274	0.114		
4.479	1568	1169	0.745	0.540		
4.518	25	86	3.479	0.039		
4.541	10	39	3.779	0.018		
4.547	6	34	5.296	0.015		
4.555	16	43	2.751	0.019		
4.563	27	71	2.635	0.032		
4.568	25	94	3.796	0.043		
4.573	38	120	3.160	0.055		
4.600	3001	2380	0.793	1.099		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.637	70	163	2.328	0.075		
4.642	87	169	1.941	0.078		
4.665	14	44	3.172	0.020		
4.672	17	57	3.289	0.026		
4.681	43	101	2.326	0.046		
4.688	56	141	2.524	0.065		
4.694	60	163	2.700	0.075		
4.701	66	173	2.605	0.079		
4.705	61	189	3.075	0.087		
4.710	61	187	3.070	0.086		
4.730	45	153	3.415	0.070		
4.734	30	142	4.809	0.065		
4.743	38	125	3.298	0.057		
4.750	22	117	5.299	0.054		
4.753	34	111	3.309	0.051		
4.761	56	74	1.320	0.034		
4.770	11	60	5.277	0.027		
4.790	901	796	0.884	0.367		
4.813	26	98	3.758	0.045		
4.824	41	99	2.390	0.045		
4.828	25	102	4.073	0.047		
4.833	42	122	2.905	0.056		
4.838	31	126	4.065	0.058		
4.842	35	131	3.767	0.060		
4.847	41	132	3.204	0.060		
4.852	33	132	4.027	0.060		
4.856	63	128	2.029	0.059		
4.864	43	104	2.430	0.048		
4.874	15	77	5.130	0.035		
4.886	7	28	4.268	0.012		
4.894	7	21	3.097	0.009		
4.901	7	32	4.318	0.014		
4.941	15685	13564	0.865	6.267	$ 11 Decachlorobiphenyl (S)	RT
4.980	80	164	2.041	0.075		
4.988	43	119	2.768	0.054		
5.002	21	103	4.914	0.047		
5.010	56	117	2.106	0.054		
5.015	47	150	3.213	0.069		
5.021	48	174	3.605	0.080		
5.027	63	194	3.069	0.089		
5.032	80	246	3.080	0.113		
5.045	239	347	1.452	0.160		
5.051	138	380	2.758	0.175		
5.061	87	410	4.699	0.189		
5.068	219	452	2.061	0.208		
5.073	120	477	3.974	0.220		
5.078	168	512	3.050	0.236		
5.085	373	529	1.418	0.244		
5.096	260	516	1.981	0.238		
5.105	159	507	3.198	0.234		
5.114	137	541	3.954	0.249		
5.118	130	552	4.255	0.255		
5.122	134	576	4.291	0.266		
5.127	119	607	5.102	0.280		
5.131	135	629	4.648	0.290		
5.135	194	662	3.405	0.305		
5.144	218	694	3.188	0.320		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.148	151	697	4.612	0.322		
5.159	189	740	3.905	0.341		
5.166	253	762	3.010	0.352		
5.172	420	762	1.815	0.352		
5.182	237	748	3.153	0.345		
5.256	68	234	3.417	0.108		
5.261	76	244	3.214	0.112		
5.265	93	257	2.751	0.118		
5.281	94	248	2.629	0.114		
5.293	84	262	3.108	0.121		
5.301	37	272	7.316	0.125		
5.305	79	299	3.805	0.138		
5.315	75	326	4.320	0.150		
5.319	85	331	3.913	0.152		
5.325	80	342	4.293	0.158		
5.328	80	374	4.693	0.172		
5.332	131	397	3.036	0.183		
5.336	75	429	5.700	0.198		
5.343	197	470	2.384	0.217		
5.349	194	508	2.623	0.234		
5.353	175	531	3.029	0.245		
5.359	192	545	2.835	0.251		
5.365	295	557	1.887	0.257		
5.371	89	562	6.317	0.259		
5.381	170	579	3.402	0.267		
5.392	194	566	2.913	0.261		
5.423	140	448	3.205	0.207		
5.435	121	414	3.424	0.191		
5.440	48	406	8.420	0.187		
5.452	227	423	1.866	0.195		
5.459	83	425	5.117	0.196		
5.468	93	430	4.644	0.198		
5.478	120	437	3.631	0.201		
5.484	231	455	1.966	0.210		
5.495	158	448	2.842	0.207		
5.504	165	446	2.706	0.206		
5.516	147	440	2.991	0.203		
5.525	72	458	6.391	0.211		
5.530	137	469	3.420	0.216		
5.537	134	486	3.637	0.224		
5.543	188	519	2.762	0.239		
5.548	179	544	3.046	0.251		
5.553	200	577	2.891	0.266		
5.556	117	594	5.069	0.274		
5.563	246	638	2.597	0.294		
5.569	295	661	2.237	0.305		
5.580	206	653	3.166	0.301		
5.587	145	669	4.620	0.309		
5.593	254	674	2.657	0.311		
5.614	401	637	1.588	0.294		
5.624	162	590	3.648	0.272		
5.629	151	590	3.920	0.272		
5.636	236	603	2.554	0.278		
5.638	97	619	6.354	0.286		
5.647	344	664	1.929	0.306		
5.650	177	697	3.946	0.322		
5.660	420	766	1.822	0.353		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.664	234	795	3.396	0.367		
5.672	383	858	2.239	0.396		
5.675	192	885	4.602	0.408		
5.681	548	927	1.693	0.428		
5.688	261	941	3.603	0.434		
5.692	432	958	2.216	0.442		
5.732	212	725	3.417	0.334		
5.753	163	594	3.634	0.274		
5.766	227	554	2.445	0.255		
5.780	153	560	3.654	0.258		
5.790	230	585	2.544	0.270		
5.793	129	594	4.610	0.274		
5.801	280	595	2.127	0.274		
5.816	242	539	2.231	0.249		
5.826	185	528	2.853	0.243		
5.838	120	506	4.214	0.233		
5.847	181	509	2.818	0.235		
5.853	91	509	5.621	0.235		
5.860	114	525	4.607	0.242		
5.871	273	498	1.827	0.230		
5.881	214	506	2.361	0.233		
5.898	283	475	1.678	0.219		
5.907	165	452	2.741	0.208		
5.930	123	374	3.032	0.172		
5.941	207	344	1.659	0.158		
5.952	119	308	2.595	0.142		
5.958	144	302	2.100	0.139		
5.966	68	292	4.284	0.134		
5.981	158	268	1.693	0.123		
5.992	60	262	4.370	0.121		
6.012	71	247	3.497	0.114		
6.022	57	240	4.218	0.110		
6.032	85	243	2.851	0.112		
6.038	100	278	2.791	0.128		
6.045	123	276	2.244	0.127		
6.071	116	238	2.060	0.109		
6.083	31	227	7.401	0.104		
6.086	64	239	3.730	0.110		
6.094	33	244	7.389	0.112		
6.145	91	219	2.398	0.101		
6.159	44	202	4.626	0.093		
6.170	45	194	4.311	0.089		
6.173	77	190	2.464	0.087		
6.193	64	162	2.528	0.074		
6.199	72	153	2.115	0.070		
6.209	50	161	3.199	0.074		
6.214	32	155	4.887	0.071		
6.218	78	157	2.016	0.072		
6.230	42	155	3.705	0.071		
6.241	70	176	2.524	0.081		
6.248	45	165	3.675	0.076		
6.254	63	181	2.882	0.083		
6.263	50	168	3.341	0.077		
6.267	31	161	5.187	0.074		
6.271	44	164	3.768	0.075		
6.282	36	167	4.675	0.077		
6.285	33	174	5.308	0.080		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.291	78	173	2.216	0.079		
6.299	71	184	2.608	0.085		
6.313	69	169	2.440	0.078		
6.323	47	148	3.138	0.068		
6.329	31	155	5.006	0.071		
6.338	26	139	5.350	0.064		
6.345	31	135	4.397	0.062		
6.363	25	122	4.809	0.056		
6.366	42	123	2.900	0.056		
6.377	12	93	7.737	0.042		
6.379	43	97	2.264	0.044		
6.387	32	83	2.602	0.038		
6.397	37	86	2.325	0.039		
6.403	10	64	6.458	0.029		
6.409	36	79	2.173	0.036		
6.416	47	94	2.000	0.043		
6.424	18	78	4.372	0.036		
6.431	23	98	4.268	0.045		
6.435	36	91	2.507	0.042		
6.454	21	67	3.227	0.030		
6.461	21	66	3.195	0.030		
6.470	28	69	2.426	0.031		
6.487	5	43	8.113	0.019		
	227515	216425		100.000		

Total unknown % height = 66.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000007.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 16:19
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2				
1.948	1.948	0.000	2648	0.25000	0.232	80.00- 120.00	100.00	(aM)	RT
2.270	2.270	0.000	5101	0.25000	0.234	160.97- 241.46	192.64		RT
2.358	2.358	0.000	2578	0.25000	0.238	77.74- 116.61	97.36		RT
2.453	2.453	0.000	2344	0.25000	0.235	70.28- 105.42	88.52		RT
2.543	2.543	0.000	2214	0.25000	0.224	67.54- 101.31	83.65		RT
Average of Peak Amounts =					0.23260				
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.289	3.289	0.000	4612	0.25000	0.227	80.00- 120.00	100.00	(aM)	RT
3.460	3.460	0.000	5451	0.25000	0.224	96.01- 144.02	118.19		RT
3.645	3.645	0.000	6705	0.25000	0.229	115.83- 173.75	145.38		RT
4.042	4.042	0.000	10165	0.25000	0.236	176.97- 265.45	220.40		RT
4.229	4.229	0.000	6035	0.25000	0.233	104.41- 156.62	130.86		RT
Average of Peak Amounts =					0.22980				
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.574	1.574	0.000	22330	0.05000	0.0492			(aM)	RT

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.940	4.940	0.000	15684	0.05000	0.0494		(aM)	RT

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

  RT: Indicates that the retention time for the peak in question has
      shifted from the expected retention time.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 19-AUG-2019 16:19
Lab File ID: d081919000007.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	10592	0.010	-7.03245	20.00000	Aver	(aM)
(2)	21808	20404	0.010	-6.43824	20.00000	Aver	(aM)
(3)	10850	10312	0.010	-4.95561	20.00000	Aver	(aM)
(4)	9980	9376	0.010	-6.05576	20.00000	Aver	(aM)
(5)	9902	8856	0.010	-10.56051	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	18448	0.010	-9.21409	20.00000	Aver	(aM)
(2)	24356	21804	0.010	-10.47873	20.00000	Aver	(aM)
(3)	29292	26820	0.010	-8.43916	20.00000	Aver	(aM)
(4)	43025	40660	0.010	-5.49717	20.00000	Aver	(aM)
(5)	25870	24140	0.010	-6.68648	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	446600	0.010	-1.66804	20.00000	Aver	(aM)
$ 11 Decachlorobiphenyl (S)	317463	313680	0.010	-1.19174	20.00000	Aver	(aM)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.66783
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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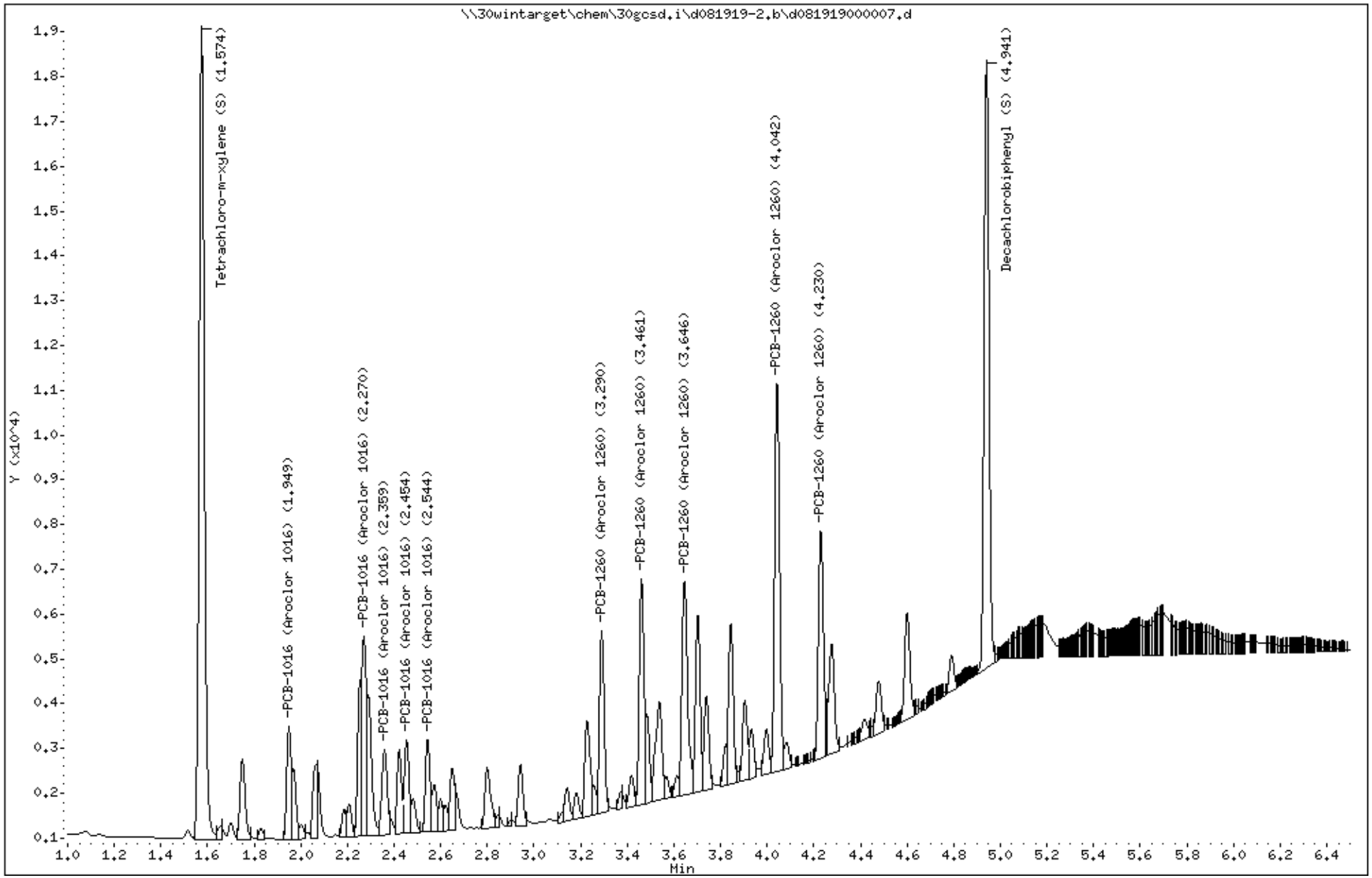
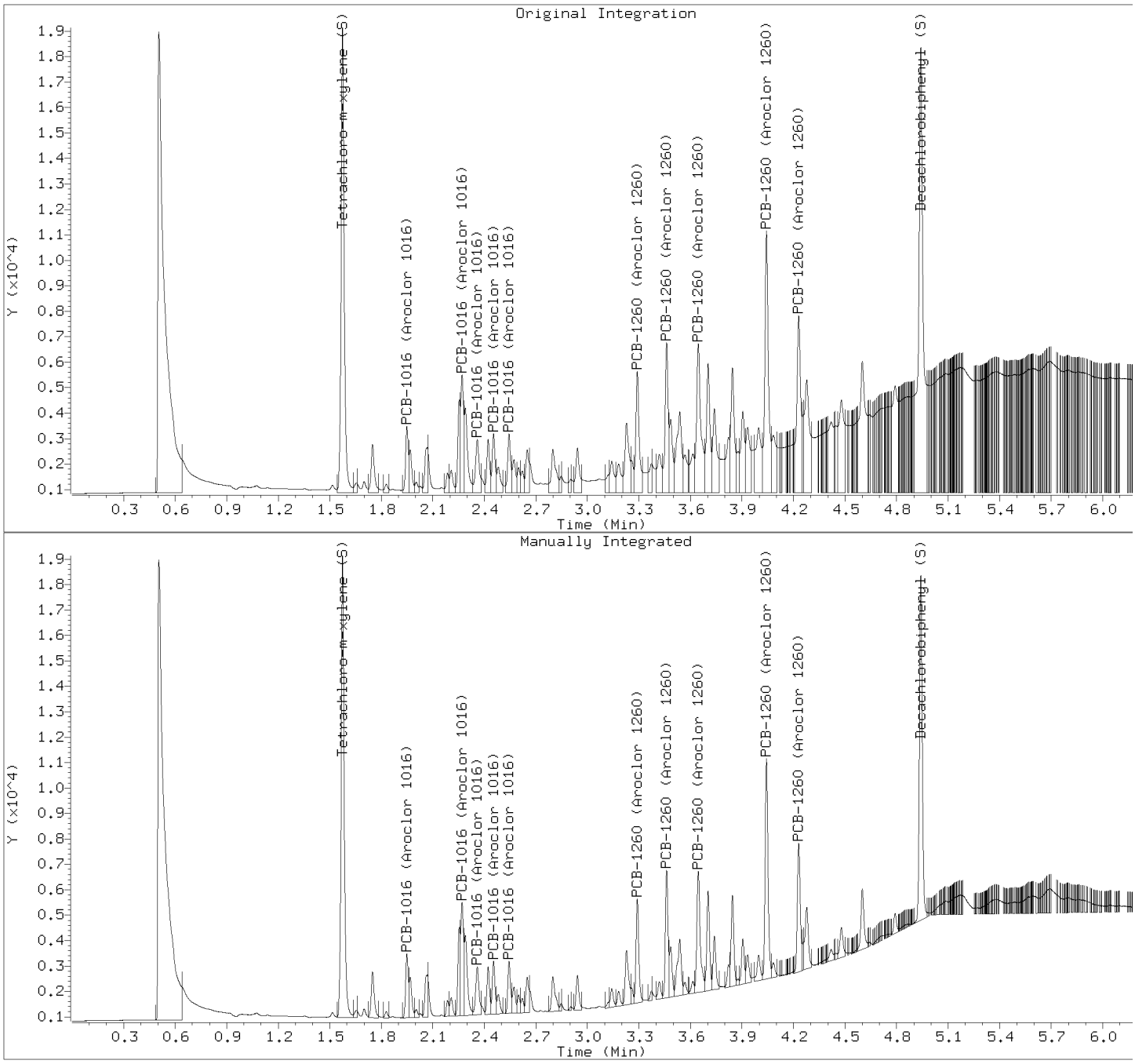
Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000007.d
Date : 19-AUG-2019 16:19
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 97131:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b/d081919000007.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 19-AUG-2019 16:19 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2817	2648
PCB-1016 (Aroclor 1016)	5269	5101
PCB-1016 (Aroclor 1016)	3147	2578
PCB-1016 (Aroclor 1016)	2778	2344
PCB-1016 (Aroclor 1016)	2796	2214
PCB-1260 (Aroclor 1260)	6659	4612
PCB-1260 (Aroclor 1260)	7391	5451
PCB-1260 (Aroclor 1260)	10549	6705
PCB-1260 (Aroclor 1260)	15254	10165
PCB-1260 (Aroclor 1260)	10946	6035
Tetrachloro-m-xylene (S)	22818	22330
Decachlorobiphenyl (S)	33712	15684

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 19:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.510	44370	15492	0.349	9.226		
1.205	25372	18625	0.734	11.165	$ 10 Tetrachloro-m-xylene (S)	BA
1.337	463	370	0.800	0.220		
1.392	481	412	0.857	0.245		
1.432	2461	1822	0.740	1.085		
1.550	295	272	0.923	0.161		
1.622	5024	3377	0.672	2.011	1 PCB-1016 (Aroclor 1016)	BA
1.735	976	1321	1.354	0.786		
1.749	2317	1830	0.790	1.089		
1.796	728	744	1.022	0.443		
1.814	906	769	0.849	0.457		
1.868	9876	6494	0.658	3.867	1 PCB-1016 (Aroclor 1016)	BA
1.921	4234	2917	0.689	1.737	1 PCB-1016 (Aroclor 1016)	BA
1.997	2042	1945	0.953	1.158		
2.023	3063	2478	0.809	1.475		
2.050	1861	1968	1.058	1.172		
2.064	2455	2018	0.822	1.201		
2.176	2868	2720	0.948	1.619	1 PCB-1016 (Aroclor 1016)	BA
2.199	1214	1162	0.957	0.692		
2.226	1216	861	0.708	0.512		
2.265	2732	2162	0.791	1.287	1 PCB-1016 (Aroclor 1016)	BA
2.331	657	579	0.882	0.344		
2.362	355	329	0.928	0.195		
2.388	422	450	1.067	0.268		
2.411	2039	1685	0.826	1.003		
2.459	256	237	0.927	0.141		
2.496	1719	1533	0.892	0.913		
2.783	4193	3394	0.810	2.021	7 PCB-1260 (Aroclor 1260)	BA
2.816	1590	1375	0.865	0.818		
2.871	5451	4924	0.903	2.932	7 PCB-1260 (Aroclor 1260)	BA
2.940	870	795	0.914	0.473		
2.981	6783	5814	0.857	3.462	7 PCB-1260 (Aroclor 1260)	BA
3.089	2159	2538	1.175	1.511		
3.105	3727	3148	0.845	1.874		
3.137	867	856	0.988	0.509		
3.175	1900	1323	0.696	0.787		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
3.212	6963	5016	0.720	2.987		
3.238	5091	4541	0.892	2.704		
3.274	2757	2415	0.876	1.438		
3.363	939	820	0.873	0.488		
3.423	5215	4393	0.842	2.616		
3.484	2518	2296	0.912	1.367		
3.518	1996	1716	0.860	1.022		
3.570	11283	10020	0.888	5.967	7 PCB-1260 (Aroclor 1260)	BA
3.662	213	342	1.604	0.203		
3.743	134	140	1.042	0.083		
3.770	2130	2011	0.944	1.197		
3.812	8008	6903	0.862	4.111	7 PCB-1260 (Aroclor 1260)	BA
3.957	473	389	0.822	0.231		
4.021	106	139	1.309	0.082		
4.063	1171	1013	0.865	0.603		
4.138	2721	2307	0.848	1.373		
4.328	958	846	0.883	0.503		
4.459	8	34	4.208	0.020		
4.484	15458	14106	0.913	8.401	$ 11 Decachlorobiphenyl (S)	BA
4.555	20	67	3.363	0.039		
4.607	17	31	1.775	0.018		
4.641	7	16	2.216	0.009		
4.681	12	36	3.109	0.021		
4.713	22	52	2.348	0.030		
4.725	34	78	2.275	0.046		
4.730	31	87	2.773	0.051		
4.743	31	97	3.118	0.057		
4.762	18	76	4.139	0.045		
4.796	71	101	1.420	0.060		
4.805	19	93	4.774	0.055		
4.810	36	90	2.510	0.053		
4.837	18	53	2.948	0.031		
4.843	21	50	2.437	0.029		
4.848	8	45	5.556	0.026		
4.878	6	37	5.836	0.022		
4.905	10	33	3.235	0.019		
4.909	11	44	3.929	0.026		
4.920	34	63	1.861	0.037		
4.929	46	88	1.908	0.052		
4.939	39	81	2.094	0.048		
4.943	14	85	5.957	0.050		
4.947	17	83	4.900	0.049		
4.964	15	70	4.563	0.041		
4.980	80	104	1.297	0.061		
5.009	478	337	0.706	0.200		
5.064	51	120	2.336	0.071		
5.087	17	84	4.850	0.050		
5.100	45	106	2.357	0.063		
5.109	31	105	3.344	0.062		
5.124	39	113	2.893	0.067		
5.133	28	134	4.834	0.079		
5.151	42	138	3.256	0.082		
5.165	58	150	2.582	0.089		
5.180	56	187	3.324	0.111		
5.188	91	208	2.293	0.123		
5.195	84	232	2.756	0.138		
5.199	89	243	2.717	0.144		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.205	93	251	2.698	0.149		
5.221	85	289	3.403	0.172		
5.227	142	301	2.119	0.179		
5.232	147	316	2.148	0.188		
5.248	115	328	2.849	0.195		
5.254	122	332	2.714	0.197		
5.290	63	267	4.217	0.159		
5.361	69	145	2.111	0.086		
5.462	20	69	3.492	0.041		
5.489	22	98	4.467	0.058		
5.498	23	92	4.082	0.054		
5.585	30	78	2.633	0.046		
5.590	13	80	6.079	0.047		
5.603	22	84	3.804	0.050		
5.615	23	111	4.793	0.066		
5.724	14	60	4.373	0.035		
5.761	15	86	5.850	0.051		
5.793	28	111	4.029	0.066		
5.800	28	114	4.086	0.067		
5.806	40	121	3.014	0.072		
5.810	32	142	4.465	0.084		
5.816	55	168	3.030	0.100		
5.824	93	194	2.097	0.115		
5.959	20	45	2.257	0.026		
5.975	8	51	6.014	0.030		
6.001	19	70	3.735	0.041		
6.042	21	52	2.434	0.030		
6.056	24	47	1.983	0.027		
6.104	3	25	7.576	0.014		
6.119	10	42	4.150	0.025		
6.134	5	25	5.435	0.014		
6.150	10	42	4.118	0.025		
6.157	11	54	4.891	0.032		
6.165	18	63	3.485	0.037		
6.174	28	79	2.799	0.047		
6.180	18	80	4.435	0.047		
6.195	18	99	5.428	0.058		
6.224	34	115	3.349	0.068		
6.235	30	121	4.041	0.072		
6.247	30	130	4.328	0.077		
6.252	51	133	2.623	0.079		
6.292	36	94	2.604	0.055		
6.305	28	92	3.281	0.054		
6.315	16	84	5.257	0.050		
6.334	20	80	4.024	0.047		
6.346	21	91	4.350	0.054		
6.354	32	97	3.062	0.057		
6.363	18	90	5.022	0.053		
6.393	14	52	3.725	0.030		
6.408	9	44	4.731	0.026		
6.462	11	30	2.768	0.017		
6.482	8	38	5.040	0.022		
	219696	167905		100.000		

Total unknown % height = 51.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 19:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m
Meth Date : 21-Aug-2019 08:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: None
Processing Host: 30GCSV10967

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.622	1.622	0.000	5023	0.25000	0.244	80.00- 120.00	100.00(M)	BA
1.867	1.867	0.000	9875	0.25000	0.239	157.83- 236.75	196.58	BA
1.921	1.921	0.000	4234	0.25000	0.254	66.70- 100.06	84.29	BA
2.175	2.176	-0.001	2868	0.25000	0.224	45.33- 68.00	57.09	BA
2.264	2.264	0.000	2731	0.25000	0.249	42.44- 63.66	54.38	BA
		Average of Peak Amounts =			0.24200			
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.783	2.783	0.000	4192	0.25000	0.226	80.00- 120.00	100.00(M)	BA
2.870	2.871	-0.001	5450	0.25000	0.230	104.51- 156.77	130.01	BA
2.980	2.981	-0.001	6782	0.25000	0.228	127.87- 191.80	161.78	BA
3.569	3.570	-0.001	11283	0.25000	0.225	216.92- 325.38	269.17	BA
3.811	3.812	-0.001	8008	0.25000	0.221	153.78- 230.68	191.04	BA
		Average of Peak Amounts =			0.22600			
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.204	1.204	0.000	25372	0.05000	0.0499		(M)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.484	4.485	-0.001	15457	0.05000	0.0460		(M)	BA

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 19-AUG-2019 19:27
Lab File ID: d081919000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081919-1.b\df8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	20538	20092	0.010	-2.17158	20.00000	Aver	(M)
(2)	41335	39500	0.010	-4.43895	20.00000	Aver	(M)
(3)	16656	16936	0.010	1.68006	20.00000	Aver	(M)
(4)	12773	11472	0.010	-10.18672	20.00000	Aver	(M)
(5)	10980	10924	0.010	-0.50549	20.00000	Aver	(M)
7 PCB-1260 (Aroclor 1260)(1)	18544	16768	0.010	-9.57749	20.00000	Aver	(M)
(2)	23716	21800	0.010	-8.07807	20.00000	Aver	(M)
(3)	29676	27128	0.010	-8.58641	20.00000	Aver	(M)
(4)	50204	45132	0.010	-10.10348	20.00000	Aver	(M)
(5)	36244	32032	0.010	-11.62083	20.00000	Aver	(M)
$ 10 Tetrachloro-m-xylene (S)	508605	507440	0.010	-0.22900	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	335651	309140	0.010	-7.89834	20.00000	Aver	(M)

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.

Calculated Average %D/Drift = 7.06144
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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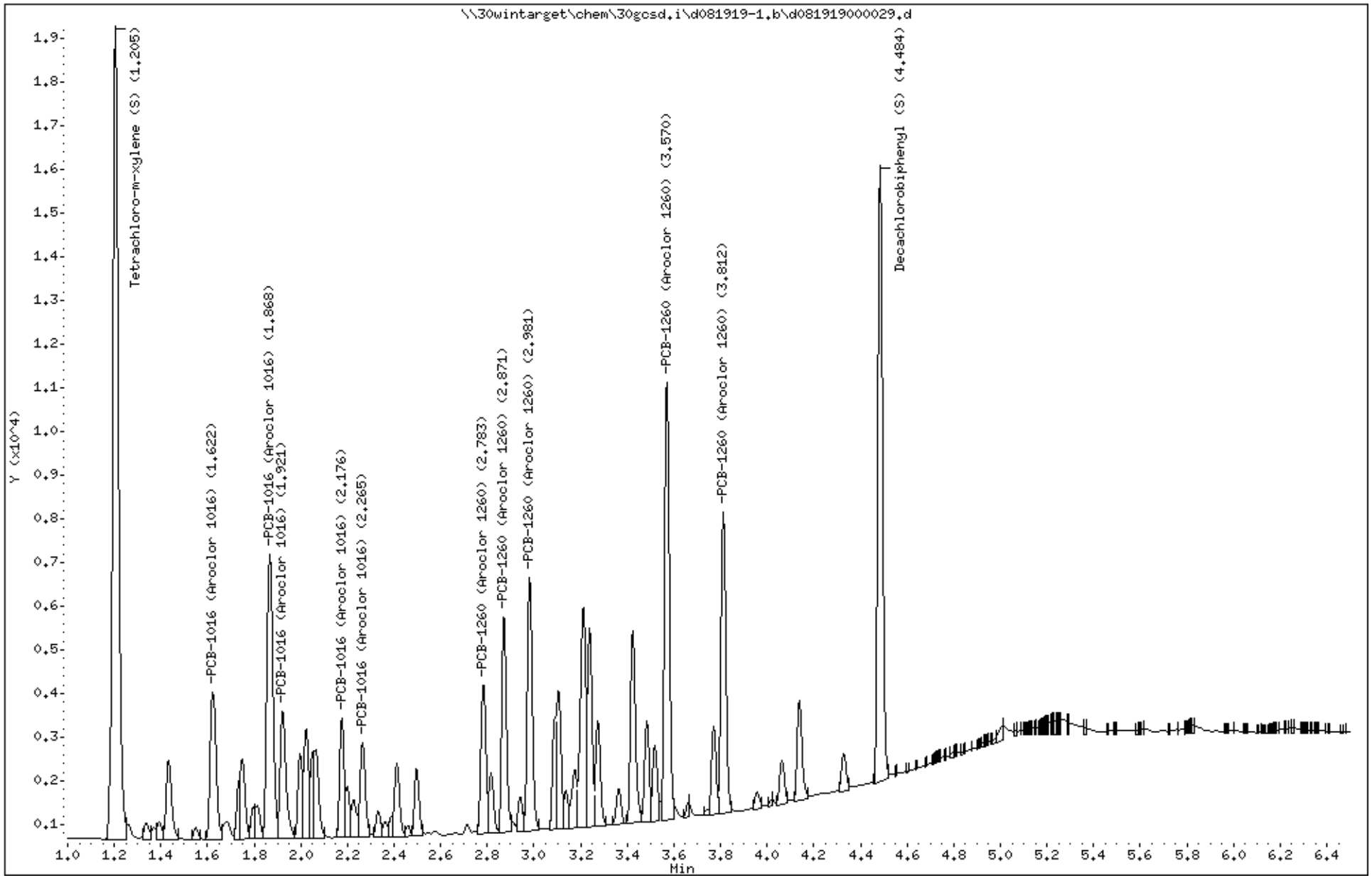
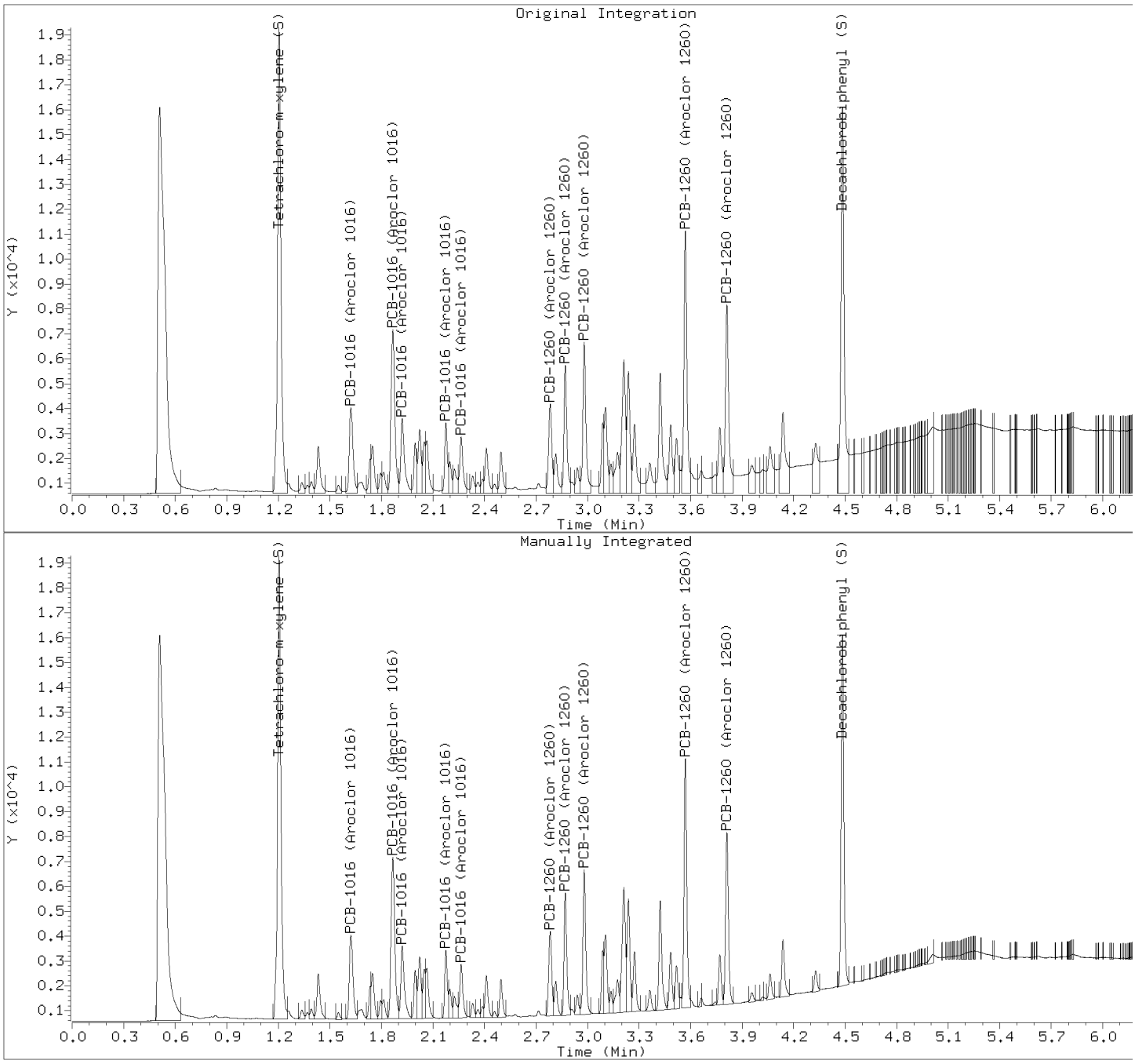
Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b\d081919000029.d
Date : 19-AUG-2019 19:27
Client ID: CCV
Sample Info: CCV, 97131:1

Instrument: 30gcsd.i
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-1.b/d081919000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 19-AUG-2019 19:27 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5246	5023
PCB-1016 (Aroclor 1016)	10180	9875
PCB-1016 (Aroclor 1016)	4596	4234
PCB-1016 (Aroclor 1016)	3099	2868
PCB-1016 (Aroclor 1016)	3071	2731
PCB-1260 (Aroclor 1260)	4715	4192
PCB-1260 (Aroclor 1260)	6154	5450
PCB-1260 (Aroclor 1260)	7748	6782
PCB-1260 (Aroclor 1260)	12904	11283
PCB-1260 (Aroclor 1260)	10251	8008
Tetrachloro-m-xylene (S)	25676	25372
Decachlorobiphenyl (S)	20675	15457

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 19:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.506	56663	18547	0.327	10.425		
0.642	1377	2384	1.731	1.340		
1.517	244	198	0.813	0.111		
1.574	23320	19226	0.824	10.915	$ 10 Tetrachloro-m-xylene (S)	BA
1.655	265	284	1.070	0.159		
1.700	429	363	0.846	0.204		
1.749	2359	1942	0.823	1.091		
1.949	2738	2648	0.967	1.488	1 PCB-1016 (Aroclor 1016)	BA
1.969	1783	1642	0.921	0.922		
2.004	361	319	0.884	0.179		
2.064	1534	1753	1.143	0.985		
2.186	644	672	1.043	0.377		
2.208	984	882	0.896	0.495		
2.254	3445	3845	1.116	2.161		
2.271	5461	4931	0.903	2.771	1 PCB-1016 (Aroclor 1016)	BA
2.289	3943	3301	0.837	1.855		
2.359	2705	2079	0.769	1.168	1 PCB-1016 (Aroclor 1016)	BA
2.422	2057	1940	0.943	1.090		
2.453	2441	2204	0.903	1.238	1 PCB-1016 (Aroclor 1016)	BA
2.482	937	788	0.841	0.442		
2.544	2326	2179	0.937	1.224	1 PCB-1016 (Aroclor 1016)	BA
2.573	1291	1079	0.836	0.606		
2.599	787	757	0.961	0.425		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.621	618	597	0.966	0.335		
2.649	2567	1485	0.578	0.834		
2.800	2159	1471	0.681	0.826		
2.847	364	313	0.860	0.175		
2.905	99	147	1.484	0.082		
2.942	1603	1426	0.890	0.801		
3.122	153	189	1.234	0.106		
3.142	831	723	0.870	0.406		
3.182	686	608	0.887	0.341		
3.227	3146	2326	0.739	1.307		
3.258	609	663	1.089	0.372		
3.290	4875	4418	0.906	2.483	7 PCB-1260 (Aroclor 1260)	BA
3.372	240	368	1.531	0.206		
3.418	743	685	0.922	0.385		
3.461	5840	5476	0.938	3.078	7 PCB-1260 (Aroclor 1260)	BA
3.484	2337	2178	0.932	1.224		
3.538	3826	2388	0.624	1.342		
3.566	506	483	0.954	0.271		
3.613	502	451	0.898	0.253		
3.645	7155	5271	0.737	2.962	7 PCB-1260 (Aroclor 1260)	BA
3.703	4656	4168	0.895	2.342		
3.739	2411	2233	0.926	1.255		
3.821	871	956	1.098	0.537		
3.843	4556	3975	0.873	2.234		
3.877	186	289	1.558	0.162		
3.903	2121	1975	0.931	1.110		
3.933	1336	1130	0.846	0.635		
3.996	1169	1001	0.856	0.562		
4.041	10869	9558	0.879	5.372	7 PCB-1260 (Aroclor 1260)	BA
4.082	676	566	0.837	0.318		
4.139	4	9	2.473	0.005		
4.196	6	20	3.390	0.011		
4.229	6421	5478	0.853	3.079	7 PCB-1260 (Aroclor 1260)	BA
4.256	675	1121	1.661	0.630		
4.276	3437	2585	0.752	1.453		
4.340	12	36	3.093	0.020		
4.363	16	54	3.446	0.030		
4.370	23	56	2.460	0.031		
4.382	11	44	4.052	0.024		
4.417	378	318	0.841	0.178		
4.445	157	149	0.948	0.083		
4.477	1361	1119	0.822	0.629		
4.523	12	40	3.279	0.022		
4.529	17	46	2.712	0.025		
4.553	17	51	2.941	0.028		
4.558	16	34	2.170	0.019		
4.571	17	43	2.553	0.024		
4.599	2796	2476	0.886	1.391		
4.641	133	155	1.166	0.087		
4.664	13	51	3.984	0.028		
4.675	13	42	3.253	0.023		
4.682	11	42	3.843	0.023		
4.704	10	30	2.964	0.016		
4.709	12	46	4.000	0.025		
4.728	9	39	4.140	0.021		
4.737	10	38	3.819	0.021		
4.758	9	30	3.386	0.016		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.790	1067	944	0.885	0.530		
4.824	21	38	1.798	0.021		
4.829	7	36	4.986	0.020		
4.841	23	40	1.714	0.022		
4.845	12	49	4.213	0.027		
4.856	16	49	3.036	0.027		
4.864	8	46	5.959	0.025		
4.886	8	35	4.237	0.019		
4.890	8	42	5.447	0.023		
4.894	8	40	4.819	0.022		
4.903	12	51	4.359	0.028		
4.938	17094	15189	0.889	8.537	$ 11 Decachlorobiphenyl (S)	BA
4.999	17	59	3.446	0.033		
5.004	9	46	5.405	0.025		
5.017	15	32	2.148	0.017		
5.027	4	16	4.051	0.008		
5.043	4	9	2.452	0.005		
5.057	9	27	3.176	0.015		
5.071	38	67	1.771	0.037		
5.078	21	72	3.495	0.040		
5.088	29	93	3.202	0.052		
5.096	53	114	2.147	0.064		
5.106	32	112	3.450	0.062		
5.141	25	97	3.883	0.054		
5.169	32	92	2.839	0.051		
5.192	17	70	4.079	0.039		
5.204	11	70	6.295	0.039		
5.211	24	82	3.402	0.046		
5.218	26	98	3.772	0.055		
5.228	54	136	2.500	0.076		
5.231	46	152	3.317	0.085		
5.243	66	175	2.670	0.098		
5.254	65	204	3.144	0.114		
5.260	32	209	6.471	0.117		
5.273	89	252	2.836	0.141		
5.277	64	263	4.085	0.147		
5.280	61	264	4.294	0.148		
5.295	86	300	3.486	0.168		
5.304	93	319	3.446	0.179		
5.312	78	331	4.253	0.186		
5.321	58	330	5.684	0.185		
5.327	152	341	2.248	0.191		
5.331	132	339	2.567	0.190		
5.344	75	322	4.282	0.181		
5.363	125	294	2.360	0.165		
5.396	50	219	4.340	0.123		
5.402	44	210	4.762	0.118		
5.417	30	192	6.413	0.107		
5.442	123	173	1.409	0.097		
5.456	64	164	2.581	0.092		
5.462	40	173	4.310	0.097		
5.471	21	156	7.365	0.087		
5.477	100	167	1.666	0.093		
5.499	60	129	2.134	0.072		
5.509	40	119	2.943	0.066		
5.515	27	108	4.033	0.060		
5.521	32	118	3.640	0.066		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.527	37	123	3.361	0.069		
5.543	29	132	4.564	0.074		
5.552	42	155	3.698	0.087		
5.564	59	176	2.960	0.098		
5.572	70	206	2.939	0.115		
5.582	97	222	2.292	0.124		
5.590	99	212	2.140	0.119		
5.610	100	179	1.789	0.100		
5.661	24	125	5.248	0.070		
5.671	57	151	2.671	0.084		
5.687	75	176	2.335	0.098		
5.693	41	183	4.420	0.102		
5.706	46	202	4.401	0.113		
5.715	57	201	3.508	0.112		
5.736	60	198	3.313	0.111		
5.752	55	174	3.159	0.097		
5.763	37	141	3.774	0.079		
5.774	43	122	2.821	0.068		
5.810	28	86	3.043	0.048		
5.819	32	87	2.738	0.048		
5.832	20	97	4.750	0.054		
5.843	53	122	2.299	0.068		
5.852	42	146	3.518	0.082		
5.859	47	149	3.189	0.083		
5.866	54	166	3.103	0.093		
5.870	50	173	3.450	0.097		
5.877	42	183	4.374	0.102		
5.890	26	190	7.364	0.106		
5.941	57	140	2.441	0.078		
5.962	44	119	2.680	0.066		
5.970	27	119	4.388	0.066		
5.980	54	112	2.074	0.062		
6.014	19	72	3.883	0.040		
6.031	21	57	2.756	0.032		
6.038	6	49	7.609	0.027		
6.043	22	68	3.091	0.038		
6.046	12	68	5.565	0.038		
6.057	21	70	3.337	0.039		
6.064	26	74	2.797	0.041		
6.072	25	79	3.180	0.044		
6.080	15	71	4.647	0.039		
6.111	11	57	5.154	0.032		
6.116	20	66	3.340	0.037		
6.120	32	63	1.974	0.035		
6.128	10	64	6.190	0.035		
6.138	26	85	3.242	0.047		
6.157	23	68	2.908	0.038		
6.182	20	47	2.391	0.026		
6.200	5	41	7.482	0.023		
6.207	5	37	7.974	0.020		
6.224	7	39	5.620	0.021		
6.230	16	50	3.209	0.028		
6.234	24	70	2.907	0.039		
6.259	24	88	3.610	0.049		
6.264	28	106	3.824	0.059		
6.276	36	121	3.324	0.068		
6.293	28	99	3.590	0.055		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.302	46	94	2.033	0.052		
6.311	18	89	4.983	0.050		
6.320	32	102	3.214	0.057		
6.326	49	115	2.362	0.064		
6.333	40	117	2.958	0.065		
6.342	33	124	3.764	0.069		
6.354	36	124	3.431	0.069		
6.362	15	110	7.392	0.061		
6.371	53	104	1.960	0.058		
6.382	37	101	2.708	0.056		
6.409	27	110	4.083	0.061		
6.419	48	127	2.654	0.071		
6.423	21	123	5.902	0.069		
6.439	37	119	3.243	0.066		
6.445	25	109	4.420	0.061		
6.491	9	49	5.606	0.027		
	224567	177899		100.000		

Total unknown % height = 55.7

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000029.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 19-AUG-2019 19:27
Operator : CWB Inst ID: 30gcsd.i
Smp Info : ccv, 97131:1
Misc Info : 15570,
Comment   : SW846 8082/8082A/608.3
Method   : \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m
Meth Date : 21-Aug-2019 08:46 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: RC10A Sample Matrix: WATER
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	1000.000	Volume of sample extracted (mL)
Vt	5000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Uf	1.000	Correction factor
Cpnd Variable		Local Compound Variable

				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
1 PCB-1016 (Aroclor 1016)						CAS #: 12674-11-2			
1.949	1.948	0.001	2738	0.25000	0.240	80.00- 120.00	100.00	(aM)	BA
2.271	2.270	0.001	5461	0.25000	0.250	160.97- 241.46	199.42		BA
2.358	2.358	0.000	2704	0.25000	0.249	77.74- 116.61	98.76		BA
2.453	2.453	0.000	2441	0.25000	0.244	70.28- 105.42	89.15		BA
2.543	2.543	0.000	2326	0.25000	0.235	67.54- 101.31	84.95		BA
	Average of Peak Amounts =				0.24360				
7 PCB-1260 (Aroclor 1260)						CAS #: 11096-82-5			
3.290	3.289	0.001	4874	0.25000	0.240	80.00- 120.00	100.00	(aM)	BA
3.460	3.460	0.000	5839	0.25000	0.240	96.01- 144.02	119.80		BA
3.644	3.645	-0.001	7154	0.25000	0.244	115.83- 173.75	146.78		BA
4.041	4.042	-0.001	10869	0.25000	0.253	176.97- 265.45	223.00		BA
4.229	4.229	0.000	6421	0.25000	0.248	104.41- 156.62	131.75		BA
	Average of Peak Amounts =				0.24500				
$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.574	1.574	0.000	23320	0.05000	0.0513			(M)	BA

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.938	4.940	-0.002	17093	0.05000	0.0538		(M)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30gcsd.i Injection Date: 19-AUG-2019 19:27
Lab File ID: d081919000029.d Init. Cal. Date(s): 24-MAY-2019 24-MAY-2019
Analysis Type: WATER Init. Cal. Times: 13:51 15:33
Lab Sample ID: CCV Quant Type: ESTD
Method: \\30wintarget\chem\30gcsd.i\d081919-2.b\dr8082.new608.052419.m

COMPOUND	RRF / AMOUNT	RF0.250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS
1 PCB-1016 (Aroclor 1016)(1)	11393	10952	0.010	-3.87267	20.00000	Aver	(aM)
(2)	21808	21844	0.010	0.16482	20.00000	Aver	(aM)
(3)	10850	10816	0.010	-0.31030	20.00000	Aver	(aM)
(4)	9980	9764	0.010	-2.16814	20.00000	Aver	(aM)
(5)	9902	9304	0.010	-6.03602	20.00000	Aver	(aM)
7 PCB-1260 (Aroclor 1260)(1)	20320	19496	0.010	-4.05669	20.00000	Aver	(aM)
(2)	24356	23356	0.010	-4.10664	20.00000	Aver	(aM)
(3)	29292	28616	0.010	-2.30780	20.00000	Aver	(aM)
(4)	43025	43476	0.010	1.04784	20.00000	Aver	(aM)
(5)	25870	25684	0.010	-0.71813	20.00000	Aver	(aM)
$ 10 Tetrachloro-m-xylene (S)	454176	466400	0.010	2.69151	20.00000	Aver	(M)
$ 11 Decachlorobiphenyl (S)	317463	341860	0.010	7.68488	20.00000	Aver	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 3.66783
Maximun Average %D/Drift = 15.00000
* Passed Average %D/Drift Test.

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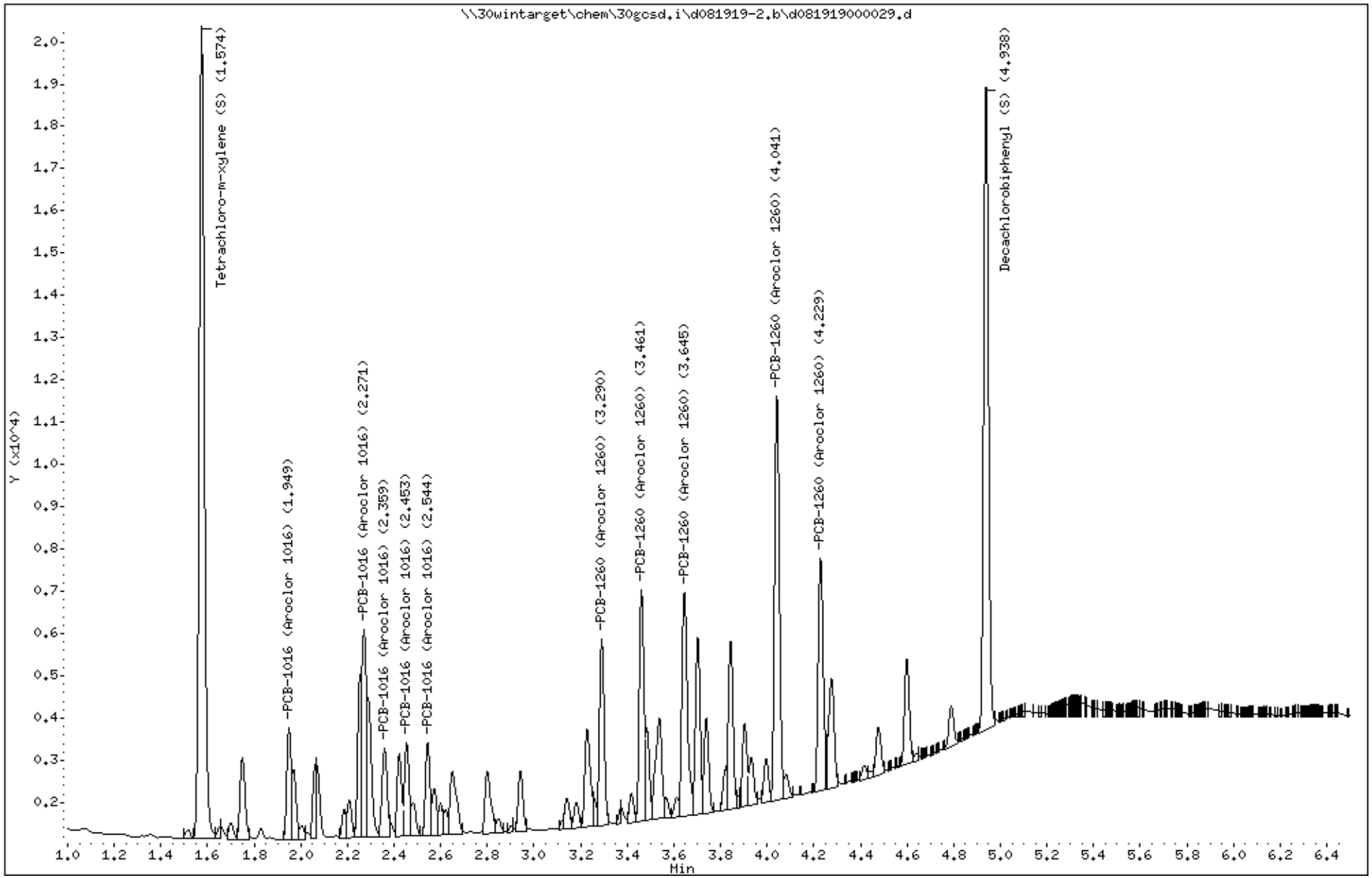
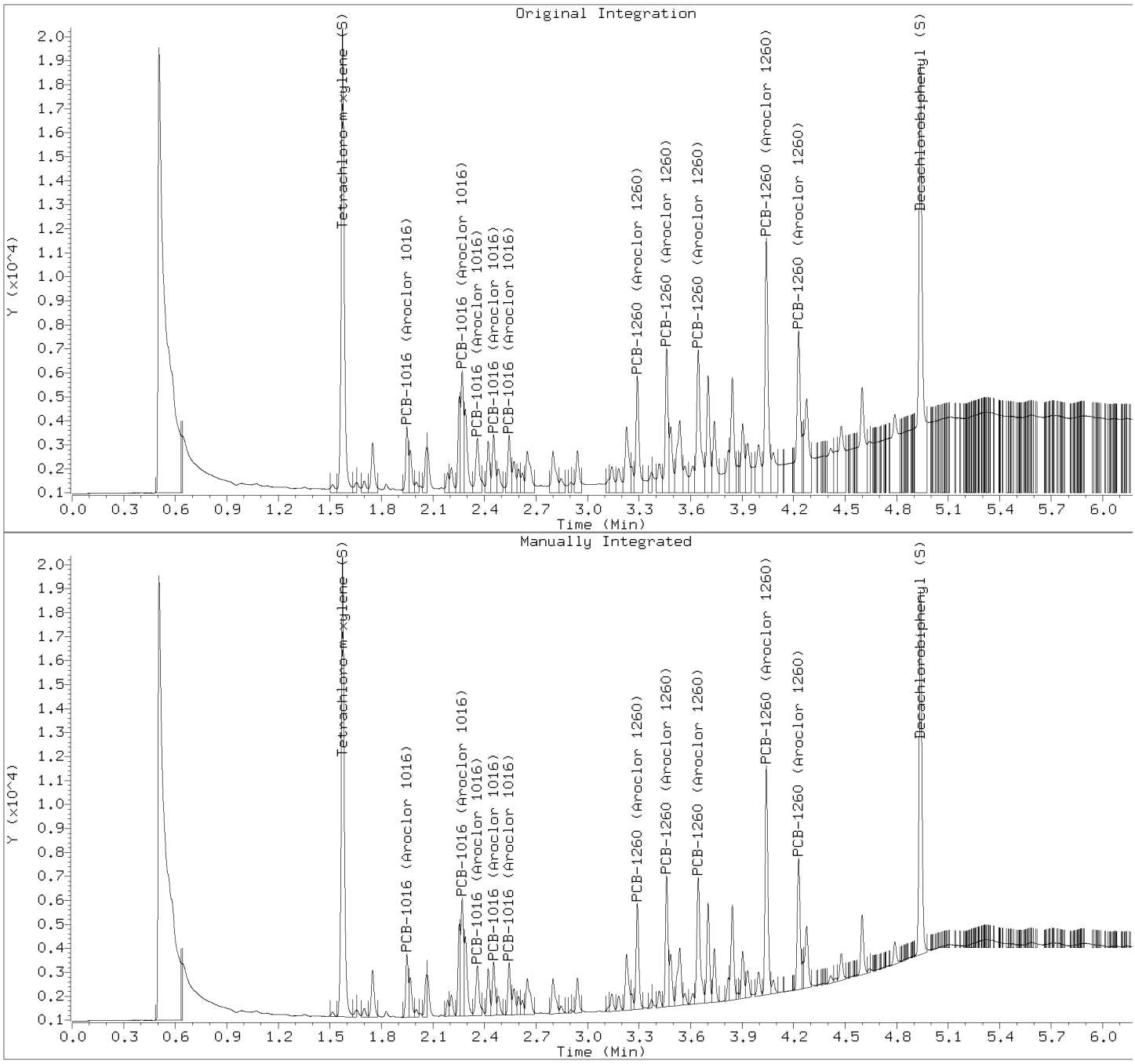
Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b\d081919000029.d
Date : 19-AUG-2019 19:27
Client ID: CCV
Instrument: 30gcsd.i
Sample Info: CCV, 97131:1
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081919-2.b/d081919000029.d (ManInt: ar1660.sub Orig: ar1660.sub)
Injection Date: 19-AUG-2019 19:27 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: CCV



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	2987	2738
PCB-1016 (Aroclor 1016)	5637	5461
PCB-1016 (Aroclor 1016)	3282	2704
PCB-1016 (Aroclor 1016)	2844	2441
PCB-1016 (Aroclor 1016)	2842	2326
PCB-1260 (Aroclor 1260)	6274	4874
PCB-1260 (Aroclor 1260)	7095	5839
PCB-1260 (Aroclor 1260)	9579	7154
PCB-1260 (Aroclor 1260)	14171	10869
PCB-1260 (Aroclor 1260)	10016	6421
Tetrachloro-m-xylene (S)	24139	23320
Decachlorobiphenyl (S)	28732	17093

SAMPLE NO.

BLANK

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 18:52 Lab Sample ID: 1732395

Date Analyzed: 08/16/2019 20:51 Lab File ID: D081619-2.B\D081619000038.D

Initial wt/vol: 15.03 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	ND	U
11104-28-2	PCB-1221 (Aroclor 1221)	ND	U
11141-16-5	PCB-1232 (Aroclor 1232)	ND	U
53469-21-9	PCB-1242 (Aroclor 1242)	ND	U
12672-29-6	PCB-1248 (Aroclor 1248)	ND	U
11097-69-1	PCB-1254 (Aroclor 1254)	ND	U
11096-82-5	PCB-1260 (Aroclor 1260)	ND	U

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000038.d
Lab Smp Id: 1732395 Client Smp ID: MB
Inj Date : 16-AUG-2019 20:51
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732395,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 38 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.030	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.499	583936	862780	1.478	47.040		
0.641	597070	862412	1.444	47.002		
1.207	74582	55019	0.738	2.998	$ 10 Tetrachloro-m-xylene (S)	BA
1.371	1012	750	0.741	0.040		
1.818	370	346	0.935	0.018		
3.211	94	121	1.291	0.006		
3.356	899	681	0.757	0.037		
3.539	100	89	0.887	0.004		
3.959	203	173	0.852	0.009		
4.025	81	27	0.335	0.001		
4.328	411	341	0.830	0.018		
4.485	53674	50706	0.945	2.763	$ 11 Decachlorobiphenyl (S)	BA
4.869	10	34	3.353	0.001		
4.882	35	75	2.166	0.004		
4.930	20	51	2.530	0.002		
4.940	20	53	2.690	0.002		
5.013	27	94	3.540	0.005		
5.113	30	88	2.933	0.004		
5.165	5	27	5.153	0.001		
5.245	17	74	4.442	0.004		
5.257	19	86	4.433	0.004		
5.276	26	91	3.501	0.004		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.438	21	41	1.998	0.002		
5.596	13	52	4.130	0.002		
5.616	21	58	2.775	0.003		
5.736	20	54	2.738	0.002		
5.850	26	56	2.183	0.003		
5.970	26	77	3.013	0.004		
6.095	15	56	3.830	0.003		
6.119	13	60	4.451	0.003		
6.128	16	61	3.724	0.003		
6.293	13	47	3.544	0.002		
6.321	10	42	4.038	0.002		
6.392	12	42	3.488	0.002		
6.410	17	43	2.503	0.002		
	1312864	1834807		100.000		

Total unknown % height = 94.2

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000038.d
Lab Smp Id: 1732395 Client Smp ID: MB
Inj Date : 16-AUG-2019 20:51
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732395,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 38 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.030	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

---

2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

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3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

4 PCB-1242 (Aroclor 1242) CAS #: 53469-21-9

Peaks not detected for Quant. or Qual. signal(s).

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5 PCB-1248 (Aroclor 1248) CAS #: 12672-29-6

Peaks not detected for Quant. or Qual. signal(s).

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6 PCB-1254 (Aroclor 1254) CAS #: 11097-69-1

Peaks not detected for Quant. or Qual. signal(s).

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7 PCB-1260 (Aroclor 1260) CAS #: 11096-82-5

Peaks not detected for Quant. or Qual. signal(s).

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8 PCB-1262 (Aroclor 1262) CAS #:

Peaks not detected for Quant. or Qual. signal(s).

---

9 PCB-1268 (Aroclor 1268) CAS #:

Peaks not detected for Quant. or Qual. signal(s).

$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8			
1.206	1.204	0.002	74581	0.14664	0.0488		(aM)	BA	
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3			
4.485	4.484	0.001	53674	0.15991	0.0532		(aM)	BA	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

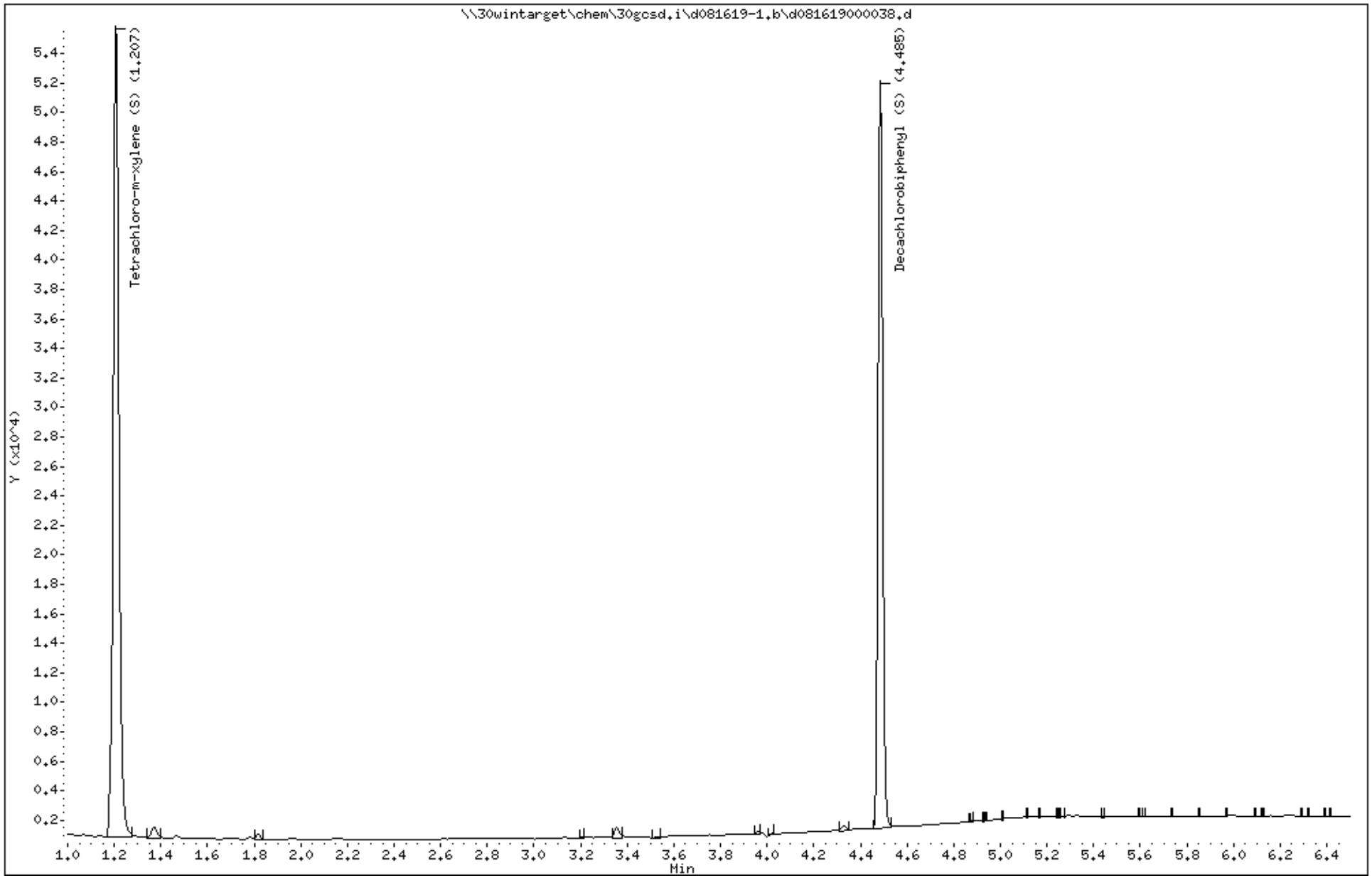
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1732395
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

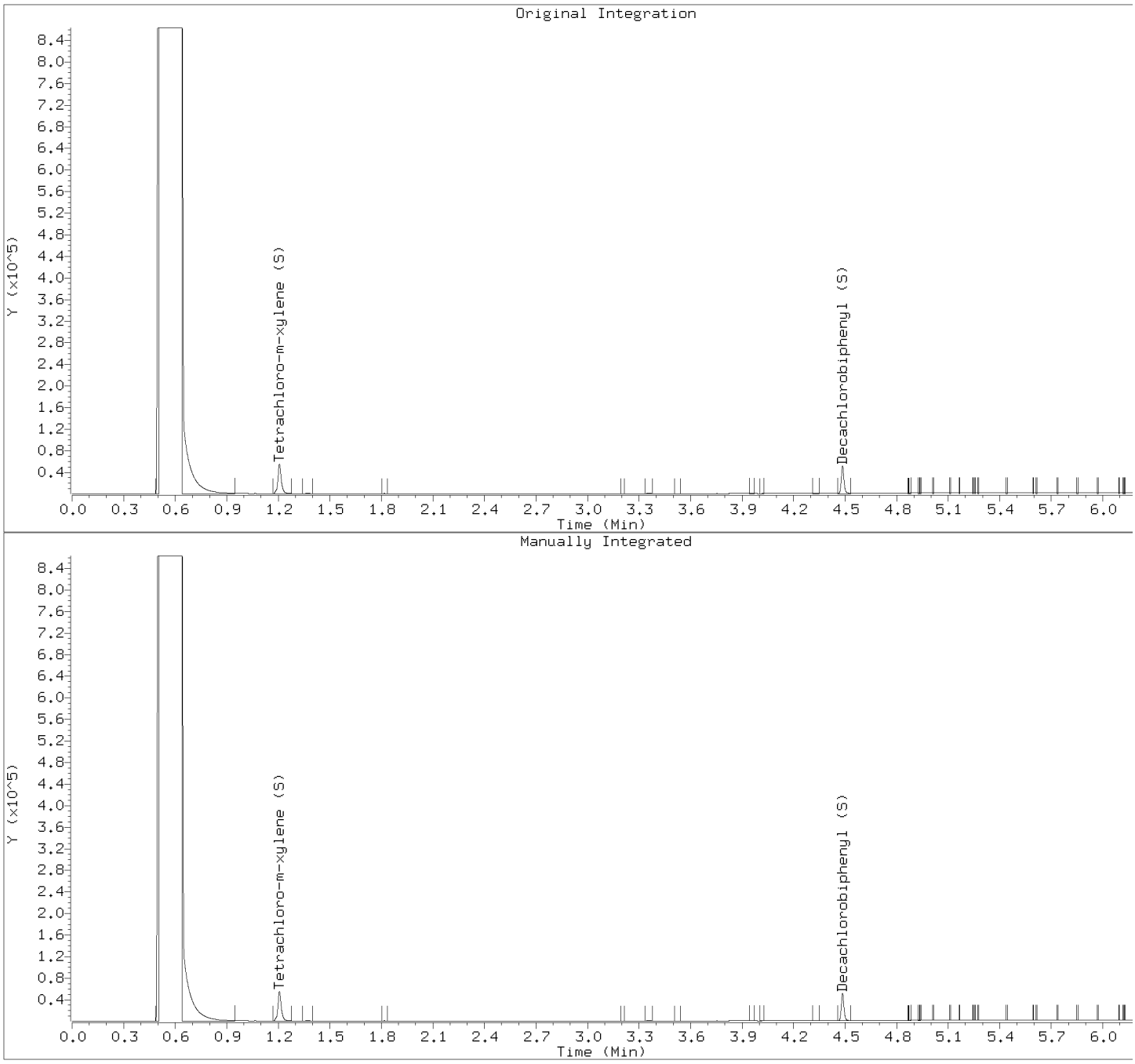
Client SDG: d081619-1.b
Client Smp ID: MB
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
----------	PCB-1262 (Aroclor 1262)	0.0200	U
----------	PCB-1268 (Aroclor 1268)	0.0200	U
877-09-8	Tetrachloro-m-xylene (S)	0.0488	J
2051-24-3	Decachlorobiphenyl (S)	0.0532	J

Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000038.d
Date : 16-AUG-2019 20:51
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1732395,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32



Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b/d081619000038.d (ManInt: all.sub Orig: all.sub)
Injection Date: 16-AUG-2019 20:51 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1732395



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
Tetrachloro-m-xylene (S)	76453	74581
Decachlorobiphenyl (S)	57794	53674

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000038.d
Lab Smp Id: 1732395 Client Smp ID: MB
Inj Date : 16-AUG-2019 20:51
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732395,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 38 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.030	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.503	277123	862622	3.113	46.631		
0.673	1298927	861945	0.664	46.549		
1.575	68289	56707	0.830	3.062	$ 10 Tetrachloro-m-xylene (S)	BA
1.745	821	715	0.871	0.038		
1.868	128	163	1.275	0.008		
1.912	30	63	2.124	0.003		
2.038	168	148	0.883	0.007		
2.171	184	182	0.987	0.009		
2.209	421	409	0.972	0.022		
2.317	51	89	1.753	0.004		
3.393	42	71	1.684	0.003		
3.577	60	100	1.678	0.005		
3.715	40	66	1.660	0.003		
3.892	1121	702	0.626	0.037		
4.238	84	135	1.606	0.007		
4.415	433	390	0.901	0.021		
4.470	560	357	0.637	0.019		
4.584	280	228	0.813	0.012		
4.621	50	171	3.394	0.009		
4.643	44	149	3.362	0.008		
4.695	36	126	3.488	0.006		
4.788	546	417	0.764	0.022		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
4.860	12	38	3.185	0.002		
4.872	12	35	2.936	0.001		
4.882	7	29	4.215	0.001		
4.899	8	34	4.111	0.001		
4.938	59753	54214	0.907	2.927	$ 11 Decachlorobiphenyl (S)	BA
5.052	37	122	3.292	0.006		
5.084	30	139	4.677	0.007		
5.113	65	165	2.531	0.008		
5.123	54	169	3.128	0.009		
5.134	37	158	4.240	0.008		
5.149	76	161	2.129	0.008		
5.167	37	161	4.305	0.008		
5.201	36	154	4.280	0.008		
5.215	49	162	3.321	0.008		
5.219	46	161	3.474	0.008		
5.226	67	167	2.504	0.009		
5.248	77	189	2.463	0.010		
5.257	81	198	2.445	0.010		
5.271	45	209	4.641	0.011		
5.312	89	241	2.708	0.013		
5.352	95	274	2.884	0.014		
5.360	180	289	1.606	0.015		
5.415	79	256	3.233	0.013		
5.422	88	253	2.868	0.013		
5.431	92	250	2.707	0.013		
5.461	43	223	5.191	0.012		
5.479	58	214	3.691	0.011		
5.513	46	215	4.671	0.011		
5.524	63	216	3.448	0.011		
5.529	90	221	2.448	0.011		
5.556	52	225	4.309	0.012		
5.598	109	227	2.083	0.012		
5.608	60	216	3.630	0.011		
5.624	54	213	3.921	0.011		
5.629	49	208	4.278	0.011		
5.634	43	202	4.694	0.010		
5.679	70	174	2.481	0.009		
5.694	77	176	2.271	0.009		
5.742	51	189	3.720	0.010		
5.750	41	189	4.666	0.010		
5.776	39	186	4.788	0.010		
5.789	38	178	4.725	0.009		
5.828	72	180	2.502	0.009		
5.836	54	175	3.254	0.009		
5.849	64	176	2.754	0.009		
5.873	81	173	2.143	0.009		
5.927	44	150	3.433	0.008		
5.937	49	150	3.063	0.008		
5.961	39	165	4.259	0.008		
5.980	61	174	2.838	0.009		
6.018	75	160	2.148	0.008		
6.028	31	157	5.131	0.008		
6.042	43	161	3.717	0.008		
6.048	61	167	2.726	0.009		
6.068	47	173	3.689	0.009		
6.106	38	163	4.278	0.008		
6.135	48	169	3.532	0.009		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
6.153	67	171	2.558	0.009		
6.237	39	144	3.708	0.007		
6.245	53	144	2.720	0.007		
6.291	33	122	3.735	0.006		
6.303	49	116	2.365	0.006		
6.307	29	118	4.036	0.006		
6.322	24	116	4.825	0.006		
6.357	54	122	2.276	0.006		
6.415	31	124	4.044	0.006		
6.443	47	122	2.621	0.006		
6.453	50	118	2.355	0.006		
6.487	28	101	3.545	0.005		
	1712882	1851666		100.000		

Total unknown % height = 94.0

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000038.d
Lab Smp Id: 1732395 Client Smp ID: MB
Inj Date : 16-AUG-2019 20:51
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732395,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 38 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.030	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

1 PCB-1016 (Aroclor 1016) CAS #: 12674-11-2

Peaks not detected for Quant. or Qual. signal(s).

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2 PCB-1221 (Aroclor 1221) CAS #: 11104-28-2

Peaks not detected for Quant. or Qual. signal(s).

---

3 PCB-1232 (Aroclor 1232) CAS #: 11141-16-5

Peaks not detected for Quant. or Qual. signal(s).

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE

4 PCB-1242 (Aroclor 1242) CAS #: 53469-21-9

Peaks not detected for Quant. or Qual. signal(s).

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5 PCB-1248 (Aroclor 1248) CAS #: 12672-29-6

Peaks not detected for Quant. or Qual. signal(s).

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6 PCB-1254 (Aroclor 1254) CAS #: 11097-69-1

Peaks not detected for Quant. or Qual. signal(s).

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7 PCB-1260 (Aroclor 1260) CAS #: 11096-82-5

Peaks not detected for Quant. or Qual. signal(s).

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8 PCB-1262 (Aroclor 1262) CAS #:

Peaks not detected for Quant. or Qual. signal(s).

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9 PCB-1268 (Aroclor 1268) CAS #:

Peaks not detected for Quant. or Qual. signal(s).

$ 10 Tetrachloro-m-xylene (S)						CAS #: 877-09-8		
1.575	1.573	0.002	68288	0.15036	0.0500		(aM)	BA
$ 11 Decachlorobiphenyl (S)						CAS #: 2051-24-3		
4.937	4.939	-0.002	59753	0.18822	0.0626		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

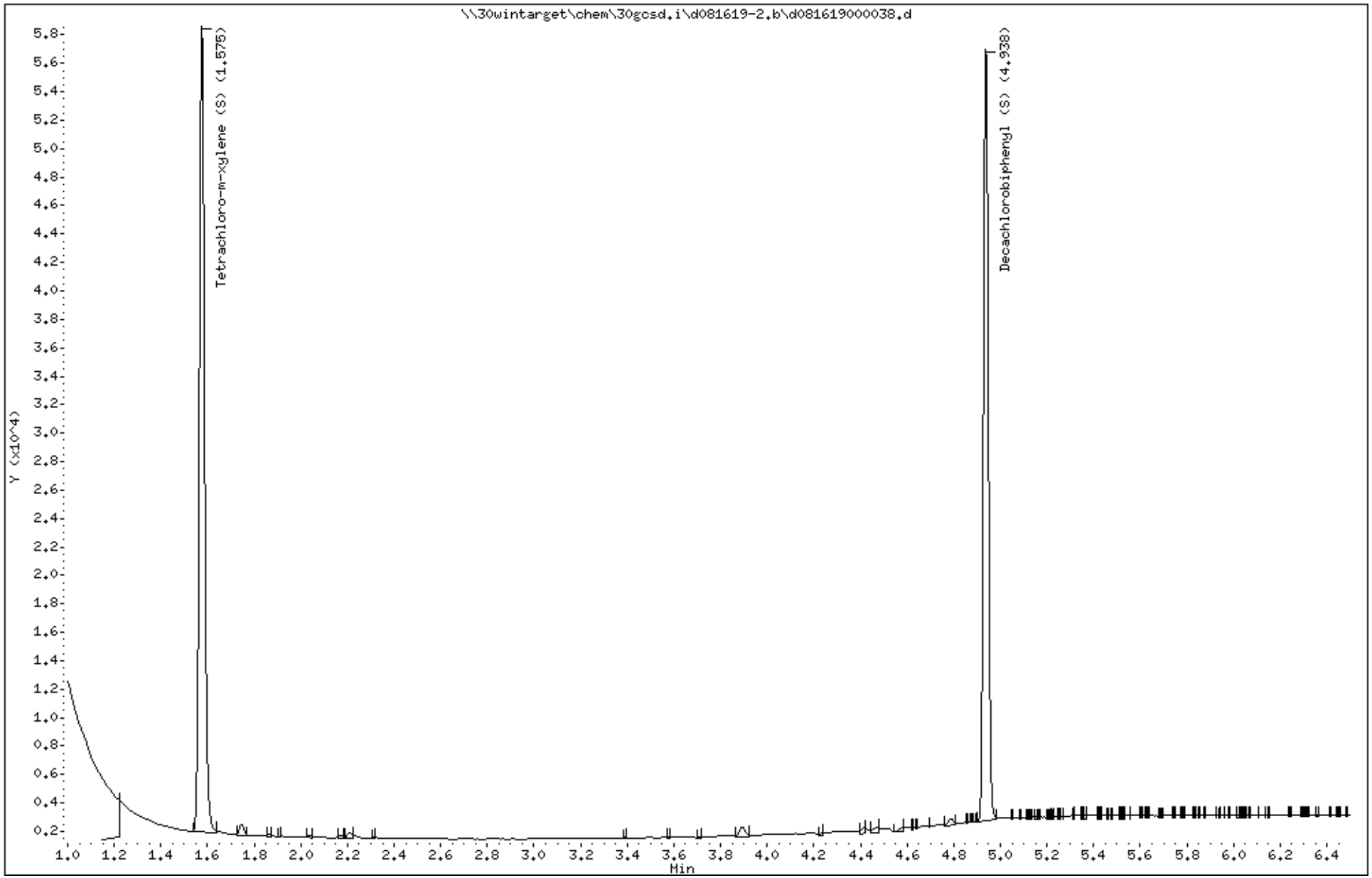
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1732395
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

Client SDG: d081619-2.b
Client Smp ID: MB
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)	33.0	U
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)	33.0	U
----------	PCB-1262 (Aroclor 1262)	0.0200	U
----------	PCB-1268 (Aroclor 1268)	0.0200	U
877-09-8	Tetrachloro-m-xylene (S)	0.0500	J
2051-24-3	Decachlorobiphenyl (S)	0.0626	J

Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000038.d
Date : 16-AUG-2019 20:51
Client ID: MB
Instrument: 30gcsd.i
Sample Info: 1732395,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32



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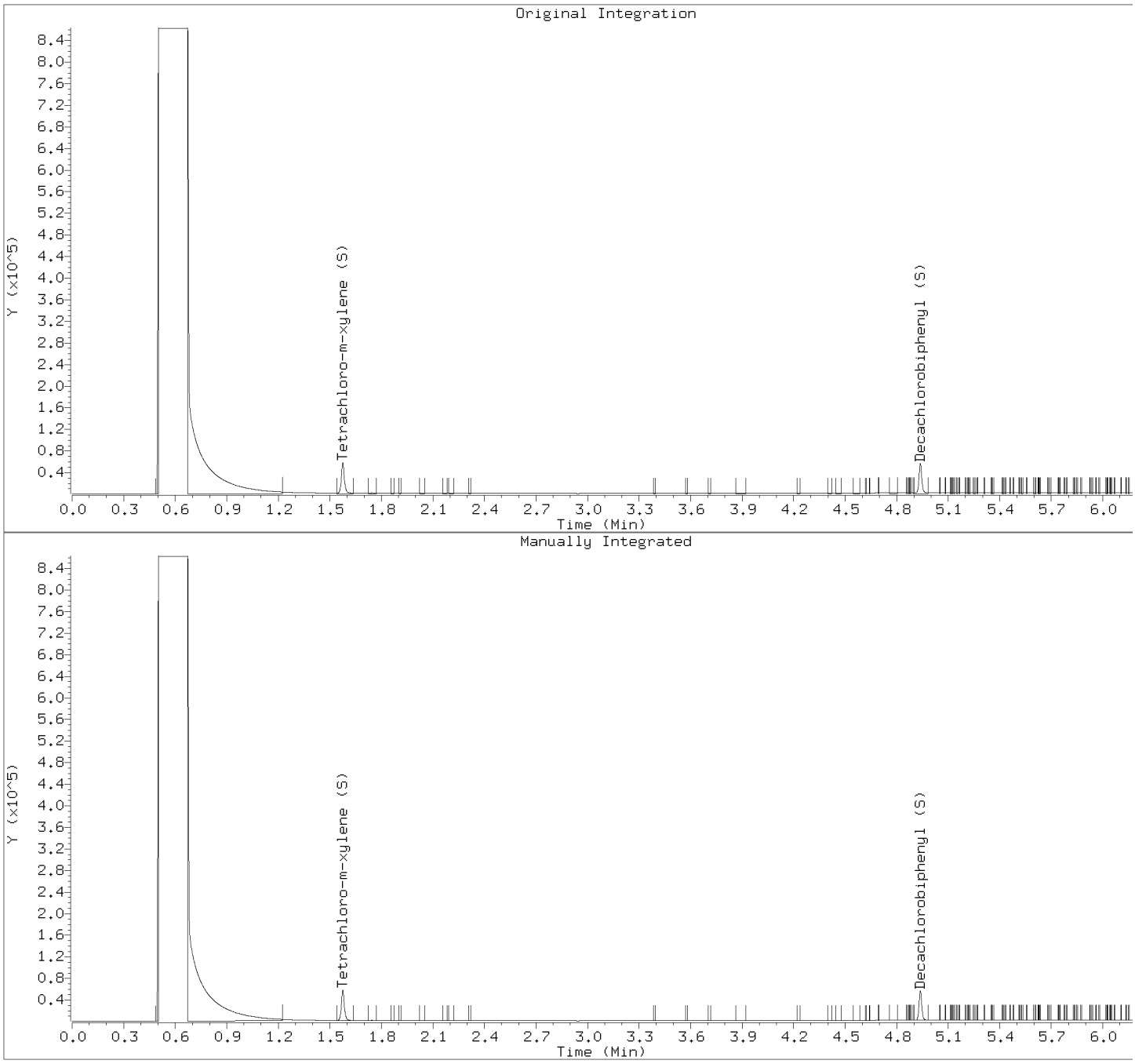
Injection Date: 16-AUG-2019 20:51 Operator: CWB
Instrument: 30gcsd.i
Lab Sample ID: 1732395



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1016 (Aroclor 1016)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1221 (Aroclor 1221)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1232 (Aroclor 1232)	0	0
PCB-1242 (Aroclor 1242)	0	0

PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1242 (Aroclor 1242)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1248 (Aroclor 1248)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1254 (Aroclor 1254)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1260 (Aroclor 1260)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1262 (Aroclor 1262)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
PCB-1268 (Aroclor 1268)	0	0
Tetrachloro-m-xylene (S)	73667	68288
Decachlorobiphenyl (S)	68826	59753

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401

Date Received: Matrix: Solid SDG No.: 30318799

Date Extracted: 08/14/2019 18:52 Lab Sample ID: 1732396

Date Analyzed: 08/16/2019 20:59 Lab File ID: D081619-1.B\D081619000039.D

Initial wt/vol: 15.01 g Final wt/vol: 5 mL Dilution: 1 Instrument: 30GCSD Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	129	
11096-82-5	PCB-1260 (Aroclor 1260)	133	

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000039.d
Lab Smp Id: 1732396 Client Smp ID: MBLCS
Inj Date : 16-AUG-2019 20:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732396,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.500	600211	862766	1.437	42.490		
0.623	548722	862287	1.571	42.428		
1.206	79730	58766	0.737	2.891	$ 10 Tetrachloro-m-xylene (S)	BA
1.338	722	563	0.780	0.027		
1.370	987	836	0.847	0.041		
1.393	791	683	0.864	0.033		
1.434	3877	2821	0.728	0.138		
1.551	449	407	0.906	0.020		
1.624	7688	5284	0.687	0.259	1 PCB-1016 (Aroclor 1016)	BA
1.684	789	647	0.820	0.031		
1.737	1595	2069	1.297	0.101		
1.750	3444	2793	0.811	0.137		
1.797	1381	1234	0.893	0.060		
1.813	1226	1080	0.881	0.053		
1.869	15691	10455	0.666	0.514	1 PCB-1016 (Aroclor 1016)	BA
1.922	6682	4739	0.709	0.233	1 PCB-1016 (Aroclor 1016)	BA
1.998	3381	3224	0.953	0.158		
2.024	4804	3935	0.819	0.193		
2.051	2819	3037	1.077	0.149		
2.065	3761	3138	0.834	0.154		
2.177	4642	4397	0.947	0.216	1 PCB-1016 (Aroclor 1016)	BA
2.200	1940	1849	0.953	0.090		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.227	1535	1423	0.927	0.070		
2.242	686	1000	1.457	0.049		
2.265	4623	3706	0.802	0.182	1 PCB-1016 (Aroclor 1016)	BA
2.333	1189	1027	0.864	0.050		
2.363	1071	992	0.926	0.048		
2.390	1464	1477	1.009	0.072		
2.413	4494	3582	0.797	0.176		
2.460	585	541	0.924	0.026		
2.498	3318	2938	0.886	0.144		
2.580	355	293	0.826	0.014		
2.715	577	531	0.920	0.026		
2.784	7534	6105	0.810	0.300	7 PCB-1260 (Aroclor 1260)	BA
2.816	2762	2357	0.853	0.115		
2.872	9447	8613	0.912	0.423	7 PCB-1260 (Aroclor 1260)	BA
2.910	572	534	0.934	0.026		
2.941	1543	1401	0.908	0.068		
2.982	11519	9929	0.862	0.488	7 PCB-1260 (Aroclor 1260)	BA
3.089	4031	4604	1.142	0.226		
3.106	6840	5748	0.840	0.282		
3.176	3326	2323	0.699	0.114		
3.213	12653	8902	0.704	0.438		
3.239	8879	7909	0.891	0.389		
3.274	4798	4183	0.872	0.205		
3.363	2389	1772	0.742	0.087		
3.424	9341	7596	0.813	0.373		
3.484	4439	4004	0.902	0.197		
3.519	3410	2962	0.869	0.145		
3.544	728	952	1.308	0.046		
3.570	20195	17207	0.852	0.846	7 PCB-1260 (Aroclor 1260)	BA
3.663	875	715	0.817	0.035		
3.743	386	348	0.902	0.017		
3.771	4326	3959	0.915	0.194		
3.812	14546	12308	0.846	0.605	7 PCB-1260 (Aroclor 1260)	BA
3.957	1036	653	0.630	0.032		
4.022	403	295	0.732	0.014		
4.064	2235	1853	0.829	0.091		
4.138	5250	4428	0.843	0.217		
4.328	1481	1289	0.871	0.063		
4.484	56121	52930	0.943	2.604	$ 11 Decachlorobiphenyl (S)	BA
4.874	42	121	2.874	0.005		
4.883	83	156	1.888	0.007		
4.928	48	150	3.106	0.007		
5.001	61	188	3.060	0.009		
5.014	63	204	3.214	0.010		
5.042	184	235	1.279	0.011		
5.066	76	240	3.170	0.011		
5.262	45	191	4.271	0.009		
5.372	41	133	3.250	0.006		
5.497	47	105	2.243	0.005		
5.506	35	98	2.775	0.004		
5.870	2	11	6.548	0.000		
5.991	17	42	2.456	0.002		
6.086	4	17	4.749	0.000		
6.155	17	38	2.286	0.001		
	1517055	2032328		100.000		

Total unknown % height = 90.4

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000039.d
Lab Smp Id: 1732396 Client Smp ID: MBLCS
Inj Date : 16-AUG-2019 20:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732396,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-1.b\df8082.new608.052419.m
Meth Date : 19-Aug-2019 11:44 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.623	1.622	0.001	7688	0.37433	0.125	80.00- 120.00	100.00(aM)	BA
1.868	1.867	0.001	15690	0.37958	0.126	157.23- 235.85	204.09	BA
1.922	1.921	0.001	6681	0.40111	0.134	64.89- 97.33	86.91	BA
2.176	2.175	0.001	4641	0.36334	0.121	45.27- 67.90	60.38	BA
2.265	2.264	0.001	4622	0.42097	0.140	42.04- 63.06	60.13	BA
		Average of Peak Concentrations =			0.129			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO	REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5			
Operator disabled compound identification.								BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9			
Operator disabled compound identification.								BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6			
Operator disabled compound identification.								BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1			
Operator disabled compound identification.								BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5			
2.783	2.783	0.000	7533	0.40622	0.135	80.00- 120.00	100.00(aM)	BA
2.871	2.871	0.000	9447	0.39834	0.133	104.26- 156.38	125.40	BA
2.981	2.981	0.000	11518	0.38812	0.129	126.75- 190.12	152.89	BA
3.570	3.570	0.000	20195	0.40226	0.134	218.49- 327.73	268.06	BA
3.811	3.812	-0.001	14545	0.40131	0.134	160.31- 240.47	193.07	BA
Average of Peak Concentrations =					0.133			
8 PCB-1262 (Aroclor 1262)					CAS #:			
Operator disabled compound identification.								BA
9 PCB-1268 (Aroclor 1268)					CAS #:			
Operator disabled compound identification.								BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8			
1.206	1.204	0.002	79729	0.15676	0.0522		(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3			
4.484	4.484	0.000	56121	0.16720	0.0557		(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

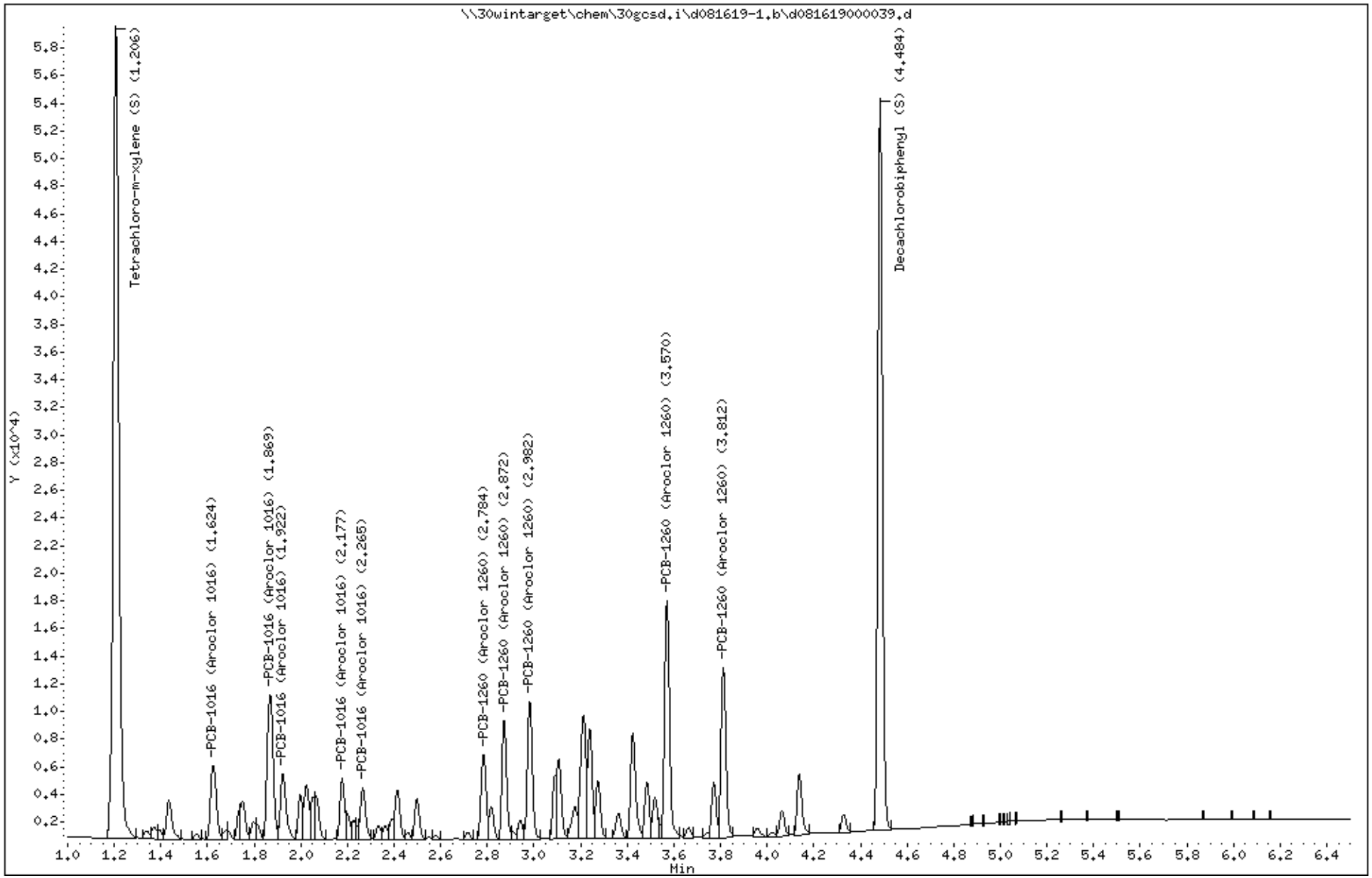
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1732396
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

Client SDG: d081619-1.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.623	0.125	J
	Peak found at 1.869	0.126	J
	Peak found at 1.922	0.134	J
	Peak found at 2.177	0.121	J
	Peak found at 2.265	0.140	J
	Average of Peak Amounts =	0.129	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 2.784	0.135	J
	Peak found at 2.872	0.133	J
	Peak found at 2.982	0.129	J
	Peak found at 3.570	0.134	J
	Peak found at 3.812	0.134	J
	Average of Peak Amounts =	0.133	J
----------	PCB-1262 (Aroclor 1262)	0.0200	U
----------	PCB-1268 (Aroclor 1268)	0.0200	U
877-09-8	Tetrachloro-m-xylene (S)	0.0522	J
2051-24-3	Decachlorobiphenyl (S)	0.0557	J

Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b\d081619000039.d
Date : 16-AUG-2019 20:59
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1732396,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP1
Column diameter: 0.32

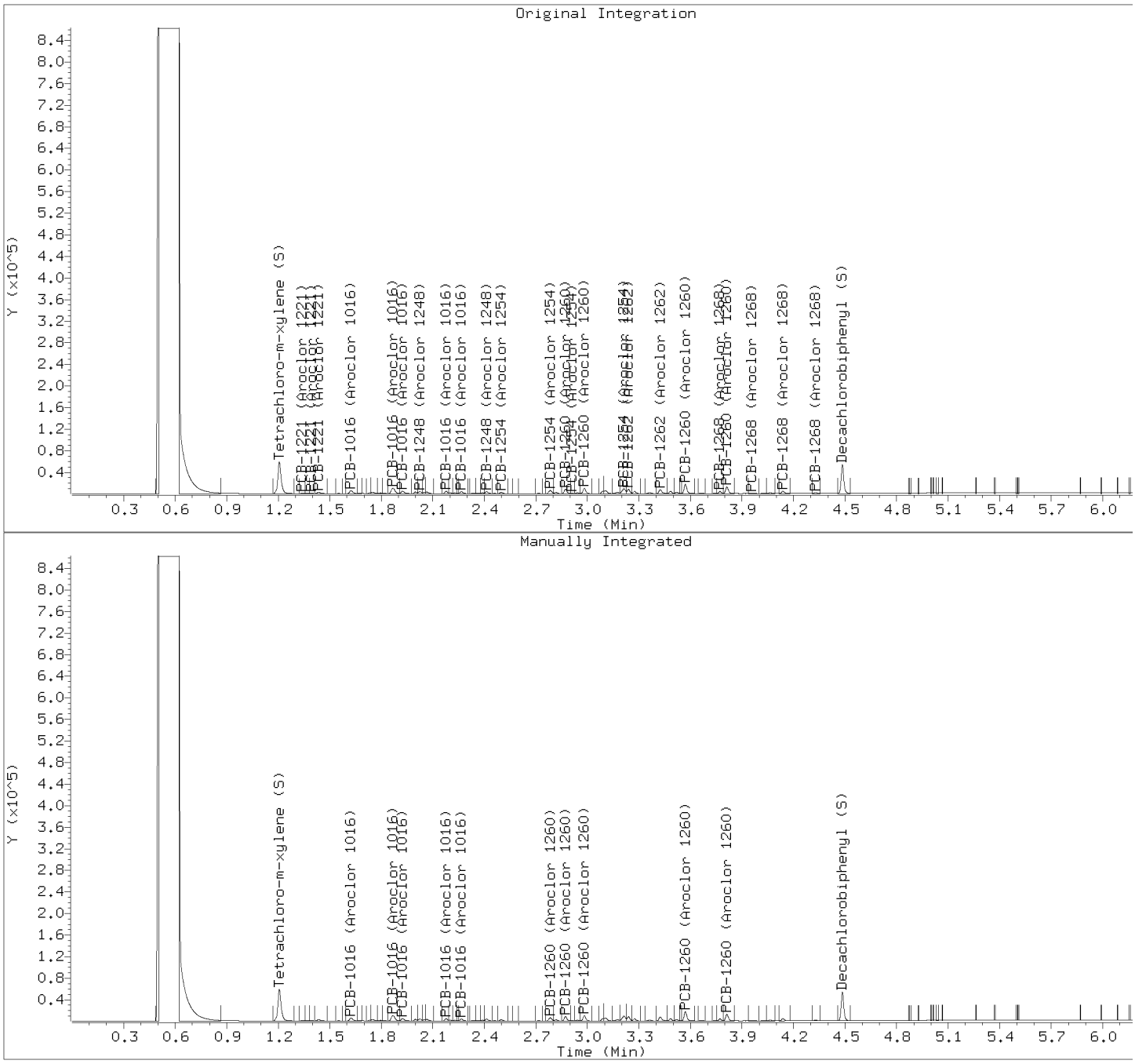


Data File: \\30wintarget\chem\30gcsd.i\d081619-1.b/d081619000039.d (ManInt: all.sub Orig: all.sub)

Injection Date: 16-AUG-2019 20:59 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 1732396



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	8351	7688
PCB-1016 (Aroclor 1016)	16334	15690
PCB-1016 (Aroclor 1016)	7397	6681
PCB-1016 (Aroclor 1016)	4992	4641
PCB-1016 (Aroclor 1016)	5123	4622
PCB-1221 (Aroclor 1221)	1185	0
PCB-1221 (Aroclor 1221)	1131	0
PCB-1221 (Aroclor 1221)	4749	0
PCB-1232 (Aroclor 1232)	4749	0
PCB-1232 (Aroclor 1232)	8351	0
PCB-1232 (Aroclor 1232)	16334	0
PCB-1232 (Aroclor 1232)	7397	0
PCB-1232 (Aroclor 1232)	4992	0
PCB-1242 (Aroclor 1242)	4749	0

PCB-1242 (Aroclor 1242)	8351	0
PCB-1242 (Aroclor 1242)	16334	0
PCB-1242 (Aroclor 1242)	7397	0
PCB-1242 (Aroclor 1242)	4992	0
PCB-1248 (Aroclor 1248)	16334	0
PCB-1248 (Aroclor 1248)	5061	0
PCB-1248 (Aroclor 1248)	4992	0
PCB-1248 (Aroclor 1248)	5123	0
PCB-1248 (Aroclor 1248)	4933	0
PCB-1254 (Aroclor 1254)	4933	0
PCB-1254 (Aroclor 1254)	3866	0
PCB-1254 (Aroclor 1254)	8000	0
PCB-1254 (Aroclor 1254)	829	0
PCB-1254 (Aroclor 1254)	13143	0
PCB-1260 (Aroclor 1260)	8000	7533
PCB-1260 (Aroclor 1260)	10009	9447
PCB-1260 (Aroclor 1260)	12299	11518
PCB-1260 (Aroclor 1260)	21436	20195
PCB-1260 (Aroclor 1260)	15730	14545
PCB-1262 (Aroclor 1262)	12299	0
PCB-1262 (Aroclor 1262)	9277	0
PCB-1262 (Aroclor 1262)	10362	0
PCB-1262 (Aroclor 1262)	21436	0
PCB-1262 (Aroclor 1262)	15730	0
PCB-1268 (Aroclor 1268)	5036	0
PCB-1268 (Aroclor 1268)	15730	0
PCB-1268 (Aroclor 1268)	2243	0
PCB-1268 (Aroclor 1268)	7113	0
PCB-1268 (Aroclor 1268)	3383	0
Tetrachloro-m-xylene (S)	81487	79729
Decachlorobiphenyl (S)	59915	56121

Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000039.d
Lab Smp Id: 1732396 Client Smp ID: MBLCS
Inj Date : 16-AUG-2019 20:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732396,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: AREA%
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
0.504	573562	862347	1.503	73.419		
1.516	321	284	0.885	0.024		
1.575	72621	60666	0.835	5.160	$ 10 Tetrachloro-m-xylene (S)	BA
1.652	449	498	1.110	0.042		
1.700	632	551	0.871	0.046		
1.749	4046	3403	0.841	0.289		
1.829	445	392	0.881	0.033		
1.867	112	171	1.528	0.014		
1.949	4395	4259	0.969	0.362	1 PCB-1016 (Aroclor 1016)	BA
1.968	2871	2635	0.918	0.224		
2.003	597	528	0.884	0.044		
2.028	208	292	1.405	0.024		
2.062	1987	2804	1.411	0.238		
2.149	81	124	1.536	0.010		
2.185	1329	1145	0.861	0.097		
2.206	1251	1028	0.822	0.087		
2.253	5525	6224	1.126	0.529		
2.270	8884	7929	0.893	0.674	1 PCB-1016 (Aroclor 1016)	BA
2.289	6208	5297	0.853	0.450		
2.359	4458	3465	0.777	0.294	1 PCB-1016 (Aroclor 1016)	BA
2.422	3347	3124	0.934	0.265		
2.454	3883	3575	0.921	0.304	1 PCB-1016 (Aroclor 1016)	BA

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
2.481	1508	1258	0.834	0.107		
2.543	3890	3607	0.927	0.306	1 PCB-1016 (Aroclor 1016)	BA
2.572	2124	1794	0.844	0.152		
2.599	1403	1315	0.937	0.111		
2.620	1075	1022	0.951	0.086		
2.649	4726	2586	0.547	0.219		
2.729	118	166	1.409	0.014		
2.800	5375	3192	0.594	0.271		
2.847	1299	1074	0.827	0.091		
2.903	435	375	0.861	0.031		
2.941	3364	2865	0.852	0.243		
3.067	135	139	1.033	0.011		
3.120	455	497	1.092	0.042		
3.141	1554	1329	0.855	0.113		
3.181	1547	1367	0.884	0.116		
3.227	5510	4030	0.731	0.342		
3.257	1064	1148	1.079	0.097		
3.289	8448	7698	0.911	0.654	7 PCB-1260 (Aroclor 1260)	BA
3.373	1006	815	0.810	0.069		
3.417	1357	1241	0.915	0.105		
3.460	10166	9389	0.924	0.798	7 PCB-1260 (Aroclor 1260)	BA
3.482	2876	2952	1.026	0.251		
3.537	6824	4397	0.644	0.374		
3.566	1000	871	0.871	0.074		
3.612	1012	879	0.869	0.074		
3.644	12982	9490	0.731	0.807	7 PCB-1260 (Aroclor 1260)	BA
3.702	7891	7140	0.905	0.607		
3.738	4095	3732	0.911	0.317		
3.821	1598	1757	1.099	0.149		
3.843	7859	6814	0.867	0.579		
3.876	575	623	1.084	0.052		
3.903	4443	3697	0.832	0.314		
3.931	2409	2001	0.831	0.170		
3.995	2280	1929	0.846	0.164		
4.041	18947	16748	0.884	1.424	7 PCB-1260 (Aroclor 1260)	BA
4.080	1301	1053	0.809	0.089		
4.229	11255	9515	0.845	0.809	7 PCB-1260 (Aroclor 1260)	BA
4.255	1369	2015	1.472	0.171		
4.276	6324	4748	0.751	0.403		
4.415	431	525	1.219	0.044		
4.445	520	417	0.801	0.035		
4.476	2932	2236	0.763	0.190		
4.598	5692	4782	0.840	0.406		
4.641	538	385	0.716	0.032		
4.788	1737	1502	0.865	0.127		
4.862	5	23	4.501	0.001		
4.880	3	15	4.438	0.001		
4.887	7	21	3.017	0.001		
4.902	9	25	2.941	0.002		
4.938	62605	57117	0.912	4.858	$ 11 Decachlorobiphenyl (S)	BA
4.985	34	122	3.551	0.010		
5.012	15	82	5.613	0.006		
5.031	27	111	4.054	0.009		
5.051	27	129	4.737	0.010		
5.092	37	160	4.292	0.013		
5.096	37	166	4.455	0.014		
5.114	66	165	2.492	0.014		

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	REVIEW CODE
5.151	54	157	2.926	0.013		
5.242	124	167	1.347	0.014		
5.261	62	190	3.063	0.016		
5.268	79	193	2.435	0.016		
5.281	64	207	3.210	0.017		
5.287	82	209	2.548	0.017		
5.323	61	226	3.678	0.019		
5.343	70	237	3.403	0.020		
5.349	97	250	2.573	0.021		
5.374	131	251	1.913	0.021		
5.412	69	235	3.410	0.019		
5.425	55	234	4.228	0.019		
5.460	89	208	2.326	0.017		
5.474	56	204	3.653	0.017		
5.491	80	207	2.584	0.017		
5.497	97	211	2.171	0.017		
5.503	50	217	4.330	0.018		
5.514	80	230	2.892	0.019		
5.531	79	239	3.018	0.020		
5.542	47	238	5.083	0.020		
5.558	58	228	3.928	0.019		
5.562	80	227	2.842	0.019		
5.574	148	232	1.573	0.019		
5.581	54	228	4.260	0.019		
5.626	52	208	4.004	0.017		
5.643	38	191	5.074	0.016		
5.653	41	191	4.654	0.016		
5.664	51	188	3.695	0.015		
5.691	58	178	3.083	0.015		
5.697	66	176	2.677	0.014		
5.741	84	180	2.153	0.015		
5.777	35	160	4.607	0.013		
5.794	77	170	2.212	0.014		
5.821	61	162	2.646	0.013		
5.883	35	141	4.019	0.011		
5.954	35	131	3.696	0.011		
5.969	50	137	2.749	0.011		
5.988	56	143	2.554	0.012		
5.998	48	136	2.862	0.011		
6.005	32	138	4.291	0.011		
6.023	31	132	4.302	0.011		
6.059	36	139	3.861	0.011		
6.124	46	141	3.087	0.011		
6.129	50	145	2.880	0.012		
6.181	65	141	2.183	0.011		
6.207	55	137	2.501	0.011		
6.237	27	138	5.176	0.011		
6.340	21	92	4.410	0.007		
6.344	24	97	4.010	0.008		
6.362	20	88	4.352	0.007		
6.366	25	98	3.987	0.008		
6.370	20	90	4.403	0.007		
6.383	35	99	2.837	0.008		
6.404	35	101	2.869	0.008		
6.436	21	84	4.033	0.007		
6.470	20	78	3.916	0.006		
	926746	1175647		100.000		

Total unknown % height = 83.6

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Pace Analytical Services, Inc.

SW846 8082/8082A/608.3

Data file : \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000039.d
Lab Smp Id: 1732396 Client Smp ID: MBLCS
Inj Date : 16-AUG-2019 20:59
Operator : CWB Inst ID: 30gcsd.i
Smp Info : 1732396,
Misc Info : 15986,
Comment : SW846 8082/8082A/608.3
Method : \\30wintarget\chem\30gcsd.i\d081619-2.b\dr8082.new608.052419.m
Meth Date : 19-Aug-2019 11:08 cbyerly Quant Type: ESTD
Cal Date : 24-MAY-2019 15:16 Cal File: d052419000017.d
Als bottle: 39 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A Sample Matrix: SOIL
Processing Host: 30GCSV10967

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndV

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.00100	Correction factor
Vt	5000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.010	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/g)	TARGET RANGE	RATIO	REVIEW CODE
1 PCB-1016 (Aroclor 1016)					CAS #: 12674-11-2			
1.948	1.948	0.000	4395	0.38576	0.128	80.00- 120.00	100.00(aM)	BA
2.270	2.269	0.001	8884	0.40737	0.136	160.13- 240.20	202.14	BA
2.358	2.358	0.000	4457	0.41080	0.137	77.41- 116.12	101.43	BA
2.453	2.453	0.000	3882	0.38896	0.130	69.10- 103.64	88.35	BA
2.542	2.543	-0.001	3890	0.39286	0.131	66.40- 99.60	88.51	BA
		Average of Peak Concentrations =			0.132			
2 PCB-1221 (Aroclor 1221)					CAS #: 11104-28-2			
Operator disabled compound identification.								BA

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/g)	TARGET RANGE	RATIO		REVIEW CODE
3 PCB-1232 (Aroclor 1232)					CAS #: 11141-16-5				
Operator disabled compound identification.									BA
4 PCB-1242 (Aroclor 1242)					CAS #: 53469-21-9				
Operator disabled compound identification.									BA
5 PCB-1248 (Aroclor 1248)					CAS #: 12672-29-6				
Operator disabled compound identification.									BA
6 PCB-1254 (Aroclor 1254)					CAS #: 11097-69-1				
Operator disabled compound identification.									BA
7 PCB-1260 (Aroclor 1260)					CAS #: 11096-82-5				
3.289	3.289	0.000	8447	0.41569	0.138	80.00- 120.00	100.00	(aM)	BA
3.459	3.460	-0.001	10165	0.41735	0.139	95.08- 142.62	120.34		BA
3.643	3.644	-0.001	12982	0.44319	0.148	119.23- 178.84	153.69		BA
4.040	4.041	-0.001	18946	0.44035	0.147	181.73- 272.60	224.29		BA
4.228	4.229	-0.001	11254	0.43502	0.145	108.55- 162.82	133.24		BA
Average of Peak Concentrations =					0.143				
8 PCB-1262 (Aroclor 1262)					CAS #:				
Operator disabled compound identification.									BA
9 PCB-1268 (Aroclor 1268)					CAS #:				
Operator disabled compound identification.									BA
$ 10 Tetrachloro-m-xylene (S)					CAS #: 877-09-8				
1.575	1.573	0.002	72620	0.15989	0.0533			(aM)	BA
$ 11 Decachlorobiphenyl (S)					CAS #: 2051-24-3				
4.938	4.939	-0.001	62605	0.19720	0.0657			(aM)	BA

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Review Codes Legend

BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Pace Analytical Services, Inc.

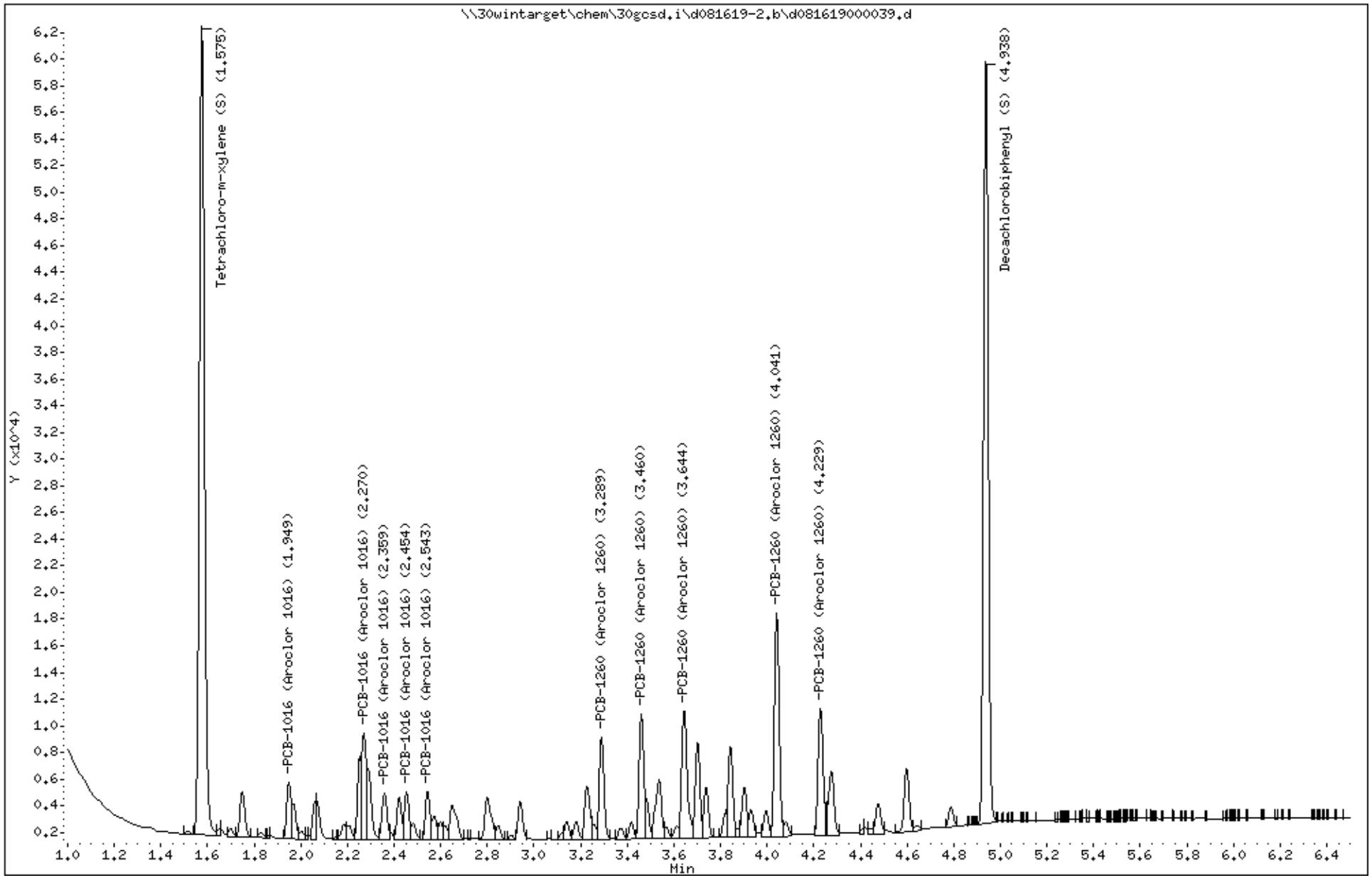
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1732396
Sample Location:
Sample Date:
Sample Matrix: SOIL
Analysis Type: GCMULT
Data Type: GC MULTI COMP
Misc Info: 15986,

Client SDG: d081619-2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 14-AUG-2019
Quant Type: ESTD
Level: LOW
Operator: CWB

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/g	Q
12674-11-2	PCB-1016 (Aroclor 1016)		J
	Peak found at 1.949	0.128	J
	Peak found at 2.270	0.136	J
	Peak found at 2.359	0.137	J
	Peak found at 2.454	0.130	J
	Peak found at 2.543	0.131	J
	Average of Peak Amounts =	0.132	J
11104-28-2	PCB-1221 (Aroclor 1221)	67.0	U
11141-16-5	PCB-1232 (Aroclor 1232)	33.0	U
53469-21-9	PCB-1242 (Aroclor 1242)	33.0	U
12672-29-6	PCB-1248 (Aroclor 1248)	33.0	U
11097-69-1	PCB-1254 (Aroclor 1254)	33.0	U
11096-82-5	PCB-1260 (Aroclor 1260)		J
	Peak found at 3.289	0.138	J
	Peak found at 3.460	0.139	J
	Peak found at 3.644	0.148	J
	Peak found at 4.041	0.147	J
	Peak found at 4.229	0.145	J
	Average of Peak Amounts =	0.143	J
----------	PCB-1262 (Aroclor 1262)	0.0200	U
----------	PCB-1268 (Aroclor 1268)	0.0200	U
877-09-8	Tetrachloro-m-xylene (S)	0.0533	J
2051-24-3	Decachlorobiphenyl (S)	0.0657	J

Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b\d081619000039.d
Date : 16-AUG-2019 20:59
Client ID: MBLCS
Instrument: 30gcsd.i
Sample Info: 1732396,
Volume Injected (uL): 1.0
Operator: CWB
Column phase: DB-CLP2
Column diameter: 0.32

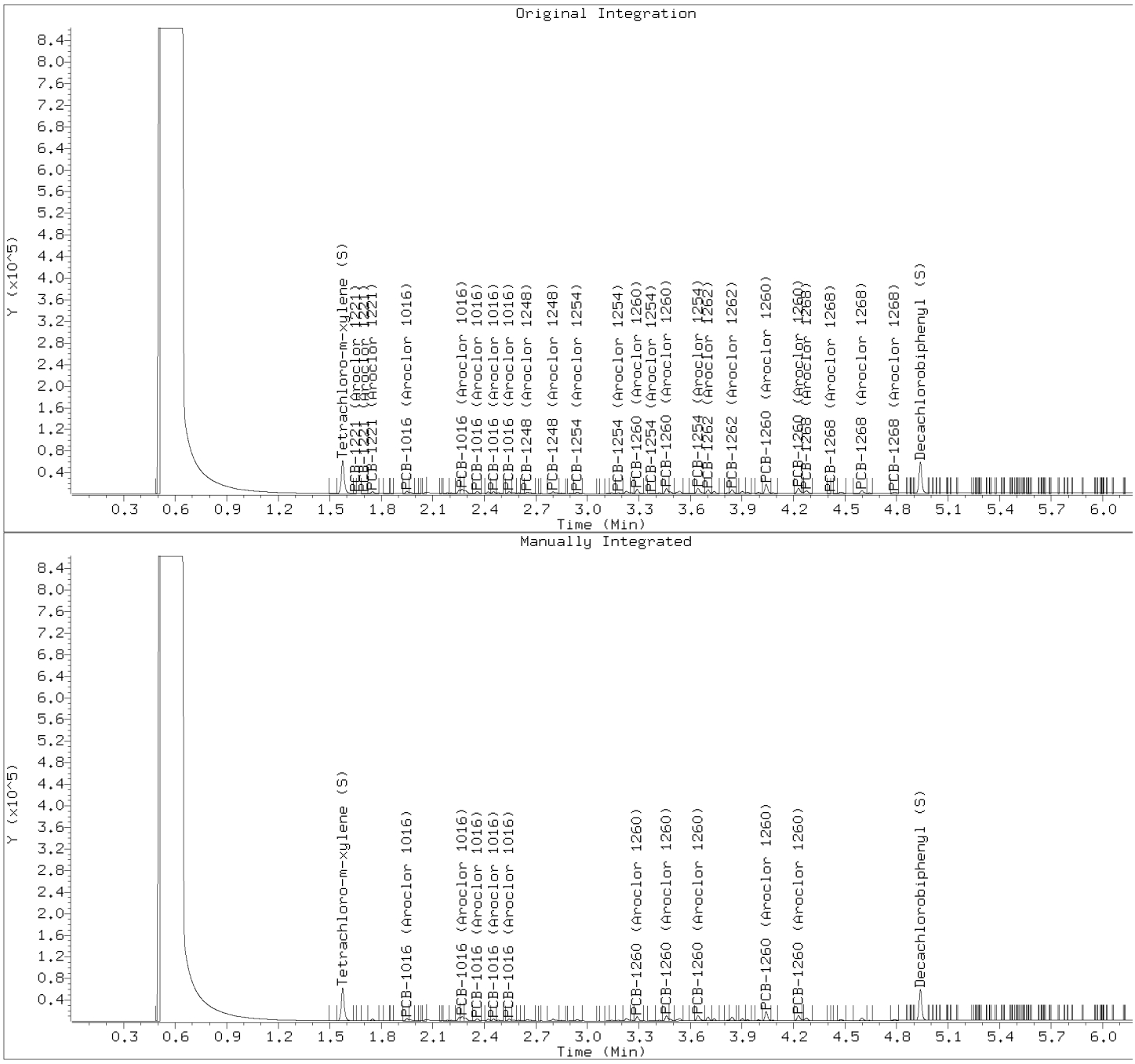


Data File: \\30wintarget\chem\30gcsd.i\d081619-2.b/d081619000039.d (ManInt: all.sub Orig: all.sub)

Injection Date: 16-AUG-2019 20:59 Operator: CWB

Instrument: 30gcsd.i

Lab Sample ID: 1732396



Manually Integrated Compounds

Compound	Area (before)	Area (after)
PCB-1016 (Aroclor 1016)	5279	4395
PCB-1016 (Aroclor 1016)	9325	8884
PCB-1016 (Aroclor 1016)	5595	4457
PCB-1016 (Aroclor 1016)	4593	3882
PCB-1016 (Aroclor 1016)	4726	3890
PCB-1221 (Aroclor 1221)	1201	0
PCB-1221 (Aroclor 1221)	2087	0
PCB-1221 (Aroclor 1221)	6223	0
PCB-1232 (Aroclor 1232)	6223	0
PCB-1232 (Aroclor 1232)	5279	0
PCB-1232 (Aroclor 1232)	9325	0
PCB-1232 (Aroclor 1232)	5595	0
PCB-1232 (Aroclor 1232)	4726	0
PCB-1242 (Aroclor 1242)	6223	0

PCB-1242 (Aroclor 1242)	5279	0
PCB-1242 (Aroclor 1242)	9325	0
PCB-1242 (Aroclor 1242)	5595	0
PCB-1242 (Aroclor 1242)	4726	0
PCB-1248 (Aroclor 1248)	9325	0
PCB-1248 (Aroclor 1248)	4593	0
PCB-1248 (Aroclor 1248)	4726	0
PCB-1248 (Aroclor 1248)	6098	0
PCB-1248 (Aroclor 1248)	6787	0
PCB-1254 (Aroclor 1254)	6787	0
PCB-1254 (Aroclor 1254)	4339	0
PCB-1254 (Aroclor 1254)	2437	0
PCB-1254 (Aroclor 1254)	2163	0
PCB-1254 (Aroclor 1254)	14714	0
PCB-1260 (Aroclor 1260)	9709	8447
PCB-1260 (Aroclor 1260)	11158	10165
PCB-1260 (Aroclor 1260)	14714	12982
PCB-1260 (Aroclor 1260)	20851	18946
PCB-1260 (Aroclor 1260)	13033	11254
PCB-1262 (Aroclor 1262)	11158	0
PCB-1262 (Aroclor 1262)	9123	0
PCB-1262 (Aroclor 1262)	9143	0
PCB-1262 (Aroclor 1262)	20851	0
PCB-1262 (Aroclor 1262)	13033	0
PCB-1268 (Aroclor 1268)	13033	0
PCB-1268 (Aroclor 1268)	8287	0
PCB-1268 (Aroclor 1268)	1425	0
PCB-1268 (Aroclor 1268)	10062	0
PCB-1268 (Aroclor 1268)	5368	0
Tetrachloro-m-xylene (S)	76608	72620
Decachlorobiphenyl (S)	70359	62605

SAMPLE NO.

LCS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1732396 SDG No.: 30318799 Date(s) Analyzed: 08/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 1

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.62332	129	2.4
	2	2.54298	132	
PCB-1260 (Aroclor 1260)	1	2.78398	133	7.5
	2	4.22865	143	

SAMPLE NO.

MS

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1732397 SDG No.: 30318799 Date(s) Analyzed: 08/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 2

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.62265	160	3.6
	2	2.54298	166	
PCB-1260 (Aroclor 1260)	1	2.78098	165	1.1
	2	4.22765	167	

SAMPLE NO.

MSD

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 1732398 SDG No.: 30318799 Date(s) Analyzed: 08/16/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 2

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1016 (Aroclor 1016)	1	1.62298	262	7.6
	2	2.54265	282	
PCB-1260 (Aroclor 1260)	1	2.77965	278	5.7
	2	4.22898	263	

SAMPLE NO.

AOC 32 DITCH & AOC 35G

10A - FORM X PCB-1
IDENTIFICATION SUMMARY

Lab Name: Pace Analytical - Pittsburgh Contract: Former EPT Site-Soil IRM/31401
Lab Sample ID: 30318799001 SDG No.: 30318799 Date(s) Analyzed: 08/19/2019
Instrument ID (1): 30GCSD Instrument ID (2): 30GCSD Dilution Factor: 10

ANALYTE	COL	RT	CONCENTRATION UNITS: ug/kg	RPD
PCB-1254 (Aroclor 1254)	1	2.41132	2140	12.9
	2	3.64298	2440	

Prep Log Report

Batch Information: OEXT 38932/ 356731 PCB-SL

Template Version: F-PA-O-005-Rev.00 (5May2016)

Curve-seq	168	Curve Date	10/24/2017 10:08	Prep Method	EPA 3546	Analysis Method	EPA 8082A
Instrument	30BA13	Extracted By	BBR	Extracted Date/Time	08/14/2019 18:52:19:408	Extraction End Date/Time	08/14/2019 22:08:31:932
Witnessed By		Spiked By	BBR	Spiked By Date/Time	08/14/2019 19:20:00:305	Concentrated By	BBR
Concentrated By Date	08/14/2019 20:42:40:996	Conc. Method	Turbovap	Dispenser ID 1	BTD012	Dispenser ID 2	BTD011
Syringe ID 1	SYR033	Methylene Chloride	96384	1:1 MeCl/Acetone	95900	Hexane	96461
Ottawa Sand	87302	Hydromatrix	84270	Sodium Sulfate	96437	Gravity Filters	95299
Reviewed By	JPH	Reviewed By Date	08/21/2019 11:28	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	BLANK	**1732395**		TVAP006	15.03	5		95008 (1)	
8082ASM_P	LCS	**1732396**		TVAP006	15.01	5		95008 (1)	93101 (1)
8082ASM_P	PS	**30317695109**		TVAP006	15.24	5		95008 (1)	
8082ASM_P	MS	**1732397**		TVAP006	15.42	5		95008 (1)	93101 (1)
8082ASM_P	MSD	**1732398**		TVAP006	15.4	5		95008 (1)	93101 (1)
8082ASM_P	PS	**30317695110**		TVAP006	15.31	5		95008 (1)	
8082ASM_P	PS	**30317695111**		TVAP005	15.1	5		95008 (1)	
8082ASM_P	PS	**30317885001**		TVAP005	0.55	5	1*	95008 (1)	
8082ASM_P	PS	**30317870001**		TVAP005	15.29	5		95008 (1)	
8082ASM_P	PS	**30317870002**		TVAP005	15.39	5		95008 (1)	
8082ASM_P	PS	**30317870003**		TVAP005	15.1	5		95008 (1)	
8082ASM_P	PS	**30317870004**		TVAP005	15.11	5		95008 (1)	
8082ASM_P	PS	**30318063001**		TVAP003	15.35	5		95008 (1)	
8082ASM_P	PS	**30318064001**		TVAP003	15.34	5		95008 (1)	
8082ASM_P	PS	**30318222002**		TVAP003	15.16	5		95008 (1)	
8082ASM_P	PS	**30318222004**		TVAP003	15.44	5		95008 (1)	
8082ASM_P	PS	**30318689001**		TVAP003	15.41	5		95008 (1)	
8082ASM_P	PS	**30318692001**		TVAP003	15.42	5		95008 (1)	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	UnBatched Sample Info	TurboVap ID	Initial Weight (g)	Final Volume (mL)	Sample Notes	8081-SS (mL)	8082-SPK (mL)
8082ASM_P	PS	**30318693001**		TVAP007	15.29	5		95008 (1)	
8082ASM_P	PS	**30318694001**		TVAP007	15.32	5		95008 (1)	
8082ASM_P	PS	**30318695001**		TVAP007	15.16	5		95008 (1)	
8082ASM_P	PS	**30318699001**		TVAP007	15.44	5		95008 (1)	
8082ASM_P	PS	**30318799001**		TVAP007	15.08	5		95008 (1)	
8082ASM_P	PS	**30318452001**		TVAP007	5.45	5	1*	95008 (1)	

Sample Notes:

1*: Low Density Matrix

Standard Notes:

93101: oext AROCLOR 2.5 ppm spike methanol

95008: OEXT Pesticide Surrogate 1 ppm

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Tune std: NA Surr. lot:
Cal. std: NA

1:1 H_2SO_4 79621
hexane 84246

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:00	CWB	
1/d052419000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:08	CWB	
1/d052419000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:17	CWB	
1/d052419000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:25	CWB	
1/d052419000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:34	CWB	
1/d052419000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	13:42	CWB	
1/d052419000007.d	CAL3S, 86571:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:51	CWB	
1/d052419000008.d	CAL3S, 86574:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	13:59	CWB	
1/d052419000009.d	CAL3S, 87759:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:08	CWB	
1/d052419000010.d	CAL3S, 87760:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:16	CWB	
1/d052419000011.d	CAL3S, 86155:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:25	CWB	
1/d052419000012.d	CAL3S, 86156:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:33	CWB	
1/d052419000013.d	CAL3S, 86172:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	14:42	CWB	
1/d052419000014.d	CAL6A, 87260:1	N/15570	CALIB_6	1	df8082.new608.052419	5/24/19	14:50	CWB	
1/d052419000015.d	CAL5A, 88856:1	N/15570	CALIB_5	1	df8082.new608.052419	5/24/19	14:59	CWB	
1/d052419000016.d	CAL4A, 88855:1	N/15570	CALIB_4	1	df8082.new608.052419	5/24/19	15:07	CWB	
1/d052419000017.d	CAL3A, 88854:1	N/15570	CALIB_3	1	df8082.new608.052419	5/24/19	15:16	CWB	
1/d052419000018.d	CAL2A, 88853:1	N/15570	CALIB_2	1	df8082.new608.052419	5/24/19	15:25	CWB	
1/d052419000019.d	CAL1A, 88852:1	N/15570	CALIB_1	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000019llc.d	CAL1A, 88852:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:33	CWB	
1/d052419000020.d	ICV, 85333:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	15:42	CWB	
1/d052419000021.d	1672979,	L/15564	BLANK	1	df8082.new608.052419	5/24/19	15:50	CWB	
1/d052419000022.d	1672980,	L/15564	LCS	1	df8082.new608.052419	5/24/19	15:59	CWB	
1/d052419000023.d	30294592008,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:07	CWB	
1/d052419000024.d	30294597001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:16	CWB	
1/d052419000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:24	CWB	
1/d052419000026.d	30294597002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:33	CWB	
1/d052419000027.d	30294597003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:41	CWB	
1/d052419000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	16:50	CWB	
1/d052419000029.d	30294598004,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	16:58	CWB	
1/d052419000030.d	30294598005,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:07	CWB	
1/d052419000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:15	CWB	
1/d052419000032.d	30295167003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:24	CWB	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
X No maintenance performed today

Additional Comments:

Run Order Verified: CwB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:23 05/28/2019

Reviewed By/Date: SJC 5-28-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot: NA

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000033.d	30294501001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	17:32	CWB	
1/d052419000034.d	1672981,	L/15564	MS	1	df8082.new608.052419	5/24/19	17:41	CWB	
1/d052419000035.d	1672982,	L/15564	MSD	1	df8082.new608.052419	5/24/19	17:49	CWB	
1/d052419000036.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	17:58	CWB	
1/d052419000037.d	30294838001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:06	CWB	
1/d052419000038.d	30295070001,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:15	CWB	
1/d052419000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:23	CWB	
1/d052419000040.d	30295070002,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:32	CWB	
1/d052419000041.d	30295070003,	L/15564	SAMPLE	1	df8082.new608.052419	5/24/19	18:40	CWB	
1/d052419000042.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	18:49	CWB	
1/d052419000043.d	30296109004X5,	L/15567	SAMPLE	5	df8082.new608.052419	5/24/19	18:57	CWB	
1/d052419000044.d	30296109006X10,	L/15567	SAMPLE	10	df8082.new608.052419	5/24/19	19:06	CWB	
1/d052419000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	19:14	CWB	
1/d052419000046.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	19:23	CWB	
1/d052419000047.d	1672973,	L/15563	BLANK	1	df8082.new608.052419	5/24/19	19:31	CWB	
1/d052419000048.d	1672974,	L/15563	LCS	1	df8082.new608.052419	5/24/19	19:40	CWB	
1/d052419000049.d	30294501003,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:48	CWB	
1/d052419000050.d	30295057002,	L/15563	SAMPLE	1	df8082.new608.052419	5/24/19	19:57	CWB	
1/d052419000051.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:05	CWB	
1/d052419000052.d	1672975,	L/15563	MS	1	df8082.new608.052419	5/24/19	20:14	CWB	
1/d052419000053.d	1672976,	L/15563	MSD	1	df8082.new608.052419	5/24/19	20:22	CWB	
1/d052419000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	20:31	CWB	
1/d052419000055.d	1671804,	L/15549	BLANK	1	df8082.new608.052419	5/24/19	20:39	CWB	
1/d052419000056.d	1671805,	L/15549	LCS	1	df8082.new608.052419	5/24/19	20:48	CWB	
1/d052419000057.d	30294948001,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	20:56	CWB	
1/d052419000058.d	30294948002,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:05	CWB	
1/d052419000059.d	30294948003,	L/15549	SAMPLE	1	df8082.new608.052419	5/24/19	21:13	CWB	
1/d052419000060.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:22	CWB	
1/d052419000061.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/24/19	21:30	CWB	
1/d052419000062.d	30295597001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:39	CWB	
1/d052419000063.d	30295596001X10,	S/15557	SAMPLE	10	df8082.new608.052419	5/24/19	21:47	CWB	
1/d052419000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	21:56	CWB	
1/d052419000065.d	30295167001X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:04	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

Reviewed By/Date: SJG 5-28-19 Page: 2 of 3

* all sample extracts were acid cleaned *

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 84246 1:1 H_2SO_4 79621

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d052419000066.d	30295167002X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:13	CWB	
1/d052419000067.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:21	CWB	
1/d052419000068.d	30295167005X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:30	CWB	
1/d052419000069.d	30295167006X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:38	CWB	
1/d052419000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	22:47	CWB	
1/d052419000071.d	30295167007X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	22:55	CWB	
1/d052419000072.d	30295167008X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:04	CWB	
1/d052419000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:12	CWB	
1/d052419000074.d	30295167009X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:21	CWB	
1/d052419000075.d	30295167010X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:29	CWB	
1/d052419000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:38	CWB	
1/d052419000077.d	30295167011X5,	S/15557	SAMPLE	5	df8082.new608.052419	5/24/19	23:46	CWB	
1/d052419000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/24/19	23:55	CWB	
1/d052419000079.d	CCV, 88854:1	N/15570	CCALIB_3	1	df8082.new608.052419	5/25/19	00:04	CWB	
1/d052419000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	5/25/19	00:12	CWB	

CWB 5-28-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d052419-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 10:23 05/28/2019

SJC 5-28-19

Reviewed By/Date: _____ Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [S]:
ISTD lot: Surr. lot: NA 1:1 H_2SO_4 95716
Tune std: NA Cal. std: NA hexane 91806

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081619000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/16/19	15:35	CWB	
1/d081619000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/16/19	15:44	CWB	
1/d081619000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/16/19	15:52	CWB	
1/d081619000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/16/19	16:01	CWB	
1/d081619000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/16/19	16:09	CWB	
1/d081619000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	16:18	CWB	
1/d081619000007.d	CCV, 97013:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/16/19	16:27	CWB	
1/d081619000008.d	1731409,	S/15979	BLANK	1	df8082.new608.052419	8/16/19	16:35	CWB	
1/d081619000009.d	1731410,	S/15979	LCS	1	df8082.new608.052419	8/16/19	16:44	CWB	
1/d081619000010.d	30317695089X2,	S/15979	SAMPLE	2	df8082.new608.052419	8/16/19	16:52	CWB	
1/d081619000011.d	1731411X2,	S/15979	MS	2	df8082.new608.052419	8/16/19	17:01	CWB	
1/d081619000012.d	1731412X2,	S/15979	MSD	2	df8082.new608.052419	8/16/19	17:09	CWB	
1/d081619000013.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	17:18	CWB	
1/d081619000014.d	30317695090,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	17:26	CWB	
1/d081619000015.d	30317695091X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	17:35	CWB	
1/d081619000016.d	30317695092X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	17:43	CWB	
1/d081619000017.d	30317695093X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	17:52	CWB	
1/d081619000018.d	30317695094,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	18:00	CWB	
1/d081619000019.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	18:09	CWB	
1/d081619000020.d	30317695095,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	18:17	CWB	
1/d081619000021.d	30317695096,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	18:26	CWB	
1/d081619000022.d	30317695097,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	18:34	CWB	
1/d081619000023.d	30317695098X2,	S/15979	SAMPLE	2	df8082.new608.052419	8/16/19	18:43	CWB	
1/d081619000024.d	30317695099X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	18:51	CWB	
1/d081619000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	19:00	CWB	
1/d081619000026.d	30317695100,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	19:08	CWB	
1/d081619000027.d	30317695101,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	19:17	CWB	
1/d081619000028.d	30317695102X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	19:25	CWB	
1/d081619000029.d	30317695103,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	19:34	CWB	
1/d081619000030.d	30317695104,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	19:43	CWB	
1/d081619000031.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	19:51	CWB	
1/d081619000032.d	CCV, 97013:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/16/19	20:00	CWB	
1/d081619000033.d	30317695105X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	20:08	CWB	
1/d081619000034.d	30317695106X5,	S/15979	SAMPLE	5	df8082.new608.052419	8/16/19	20:17	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CWB 8-19-19 * all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d081619-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 12:17 08/19/2019

Reviewed By/Date: TMW 8-19-19 Page: 1 of 3

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [S]:

ISTD lot:

Surr. lot:

Tune std: NA Cal. std: NA hexane 91806 1:1 H_2SO_4 95716

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081619000035.d	30317695107,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	20:25	CWB	
1/d081619000036.d	30317695108,	S/15979	SAMPLE	1	df8082.new608.052419	8/16/19	20:34	CWB	
1/d081619000037.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	20:42	CWB	
1/d081619000038.d	1732395,	S/15986	BLANK	1	df8082.new608.052419	8/16/19	20:51	CWB	
1/d081619000039.d	1732396,	S/15986	LCS	1	df8082.new608.052419	8/16/19	20:59	CWB	
1/d081619000040.d	30317695109X2,	S/15986	SAMPLE	2	df8082.new608.052419	8/16/19	21:08	CWB	
1/d081619000041.d	1732397X2,	S/15986	MS	2	df8082.new608.052419	8/16/19	21:16	CWB	
1/d081619000042.d	1732398X2,	S/15986	MSD	2	df8082.new608.052419	8/16/19	21:25	CWB	
1/d081619000043.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	21:33	CWB	
1/d081619000044.d	30317695110,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	21:42	CWB	
1/d081619000045.d	30317695111X5,	S/15986	SAMPLE	5	df8082.new608.052419	8/16/19	21:50	CWB	
1/d081619000046.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	21:59	CWB	
1/d081619000047.d	30317885001X5,	S/15986	SAMPLE	5	df8082.new608.052419	8/16/19	22:07	CWB	
1/d081619000048.d	30317870001,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	22:16	CWB	
1/d081619000049.d	30317870002,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	22:24	CWB	
1/d081619000050.d	30317870003,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	22:33	CWB	
1/d081619000051.d	30317870004,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	22:41	CWB	
1/d081619000052.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	22:50	CWB	
1/d081619000053.d	30318063001,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	22:58	CWB	
1/d081619000054.d	30318064001,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	23:07	CWB	
1/d081619000055.d	30318222002X10,	S/15986	SAMPLE	10	df8082.new608.052419	8/16/19	23:15	CWB	
1/d081619000056.d	30318222004X10,	S/15986	SAMPLE	10	df8082.new608.052419	8/16/19	23:24	CWB	
1/d081619000057.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/16/19	23:32	CWB	
1/d081619000058.d	CCV, 97013:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/16/19	23:41	CWB	
1/d081619000059.d	30318689001,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	23:49	CWB	
1/d081619000060.d	30318692001,	S/15986	SAMPLE	1	df8082.new608.052419	8/16/19	23:58	CWB	
1/d081619000061.d	30318693001,	S/15986	SAMPLE	1	df8082.new608.052419	8/17/19	00:06	CWB	
1/d081619000062.d	30318694001,	S/15986	SAMPLE	1	df8082.new608.052419	8/17/19	00:15	CWB	
1/d081619000063.d	30318695001,	S/15986	SAMPLE	1	df8082.new608.052419	8/17/19	00:23	CWB	
1/d081619000064.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	00:32	CWB	
1/d081619000065.d	30318699001,	S/15986	SAMPLE	1	df8082.new608.052419	8/17/19	00:40	CWB	
1/d081619000066.d	30318799001,	S/15986	SAMPLE	1	df8082.new608.052419	8/17/19	00:49	CWB	
1/d081619000067.d	30318452001X5,	S/15986	SAMPLE	5	df8082.new608.052419	8/17/19	00:57	CWB	
1/d081619000068.d	30317695046X50,	S/15969	SAMPLE	50	df8082.new608.052419	8/17/19	01:06	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d081619-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:17 08/19/2019

Reviewed By/Date: TAW 8-19-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

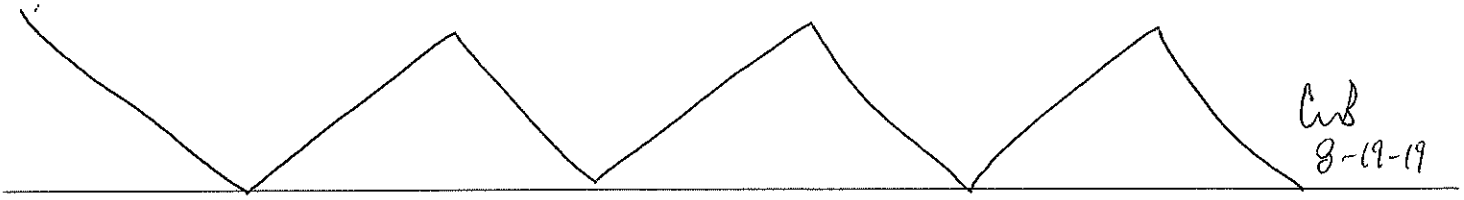
Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 91806 1:1 H_2SO_4 95716

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081619000069.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	01:14	CWB	
1/d081619000070.d	CCV, 97013:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/17/19	01:23	CWB	
1/d081619000071.d	1732941,	S/15991	BLANK	1	df8082.new608.052419	8/17/19	01:31	CWB	
1/d081619000072.d	1732942,	S/15991	LCS	1	df8082.new608.052419	8/17/19	01:40	CWB	
1/d081619000073.d	30318888001,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	01:48	CWB	
1/d081619000074.d	30318888002,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	01:57	CWB	
1/d081619000075.d	30318888003X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	02:06	CWB	
1/d081619000076.d	30318888004,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	02:14	CWB	
1/d081619000077.d	30318888005X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	02:23	CWB	
1/d081619000078.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	02:31	CWB	
1/d081619000079.d	30318888006,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	02:40	CWB	
1/d081619000080.d	30318888007X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	02:48	CWB	
1/d081619000081.d	30318888008,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	02:57	CWB	
1/d081619000082.d	30318888009X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	03:05	CWB	
1/d081619000083.d	30318888010X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	03:14	CWB	
1/d081619000084.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	03:22	CWB	
1/d081619000085.d	30318888011X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	03:31	CWB	
1/d081619000086.d	30318888012X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	03:39	CWB	
1/d081619000087.d	30318888013X5,	S/15991	SAMPLE	5	df8082.new608.052419	8/17/19	03:48	CWB	
1/d081619000088.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	03:56	CWB	
1/d081619000089.d	30319065001,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	04:05	CWB	
1/d081619000090.d	1732943,	S/15991	MS	1	df8082.new608.052419	8/17/19	04:13	CWB	
1/d081619000091.d	1732944,	S/15991	MSD	1	df8082.new608.052419	8/17/19	04:22	CWB	
1/d081619000092.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	04:31	CWB	
1/d081619000093.d	30319065002,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	04:39	CWB	
1/d081619000094.d	30319065003,	S/15991	SAMPLE	1	df8082.new608.052419	8/17/19	04:48	CWB	
1/d081619000095.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	04:56	CWB	
1/d081619000096.d	CCV, 97013:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/17/19	05:05	CWB	
1/d081619000097.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/17/19	05:13	CWB	



CWB 8-19-19

File Path 1: \\30wintarget\chem\30gcsd.i\d081619-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 12:17 08/19/2019

Reviewed By/Date: JAW 8/19/19 Page: 3 of 3

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30gcsd.i
Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: Surr. lot: NA
Tune std: NA Cal. std: NA

1:1 H_2SO_4 495716
hexanes 91806

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081919000001.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/19/19	15:28	CWB	
1/d081919000002.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/19/19	15:37	CWB	
1/d081919000003.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/19/19	15:45	CWB	
1/d081919000004.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/19/19	15:54	CWB	
1/d081919000005.d	PRIMER	N/	SAMPLE	1	df8082.new608.052419	8/19/19	16:02	CWB	
1/d081919000006.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	16:11	CWB	
1/d081919000007.d	CCV, 97131:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/19/19	16:19	CWB	
1/d081919000008.d	1732133,	L/15984	BLANK	1	df8082.new608.052419	8/19/19	16:28	CWB	
1/d081919000009.d	1732134,	L/15984	LCS	1	df8082.new608.052419	8/19/19	16:36	CWB	
1/d081919000010.d	30318161001X10,	L/15984	SAMPLE	10	df8082.new608.052419	8/19/19	16:45	CWB	
1/d081919000011.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	16:53	CWB	
1/d081919000012.d	30318385001X20,	L/15984	SAMPLE	20	df8082.new608.052419	8/19/19	17:02	CWB	
1/d081919000013.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	17:11	CWB	
1/d081919000014.d	30318389001X50,	L/15984	SAMPLE	50	df8082.new608.052419	8/19/19	17:19	CWB	
1/d081919000015.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	17:28	CWB	
1/d081919000016.d	30318757002X5,	L/15984	SAMPLE	5	df8082.new608.052419	8/19/19	17:36	CWB	
1/d081919000017.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	17:45	CWB	
1/d081919000018.d	1733132,	S/15992	BLANK	1	df8082.new608.052419	8/19/19	17:53	CWB	
1/d081919000019.d	1733133,	S/15992	LCS	1	df8082.new608.052419	8/19/19	18:02	CWB	
1/d081919000020.d	30318386001X10,	S/15992	SAMPLE	10	df8082.new608.052419	8/19/19	18:10	CWB	
1/d081919000021.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	18:19	CWB	
1/d081919000022.d	30318757001,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	18:27	CWB	
1/d081919000023.d	1733134,	S/15992	MS	1	df8082.new608.052419	8/19/19	18:36	CWB	
1/d081919000024.d	1733135,	S/15992	MSD	1	df8082.new608.052419	8/19/19	18:44	CWB	
1/d081919000025.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	18:53	CWB	
1/d081919000026.d	30318799001X20,	S/15986	SAMPLE	20	df8082.new608.052419	8/19/19	19:01	CWB	
1/d081919000027.d	30318799001X10,	S/15986	SAMPLE	10	df8082.new608.052419	8/19/19	19:10	CWB	
1/d081919000028.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	19:18	CWB	
1/d081919000029.d	CCV, 97131:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/19/19	19:27	CWB	
1/d081919000030.d	1729500,	L/15967	BLANK	1	df8082.new608.052419	8/19/19	19:35	CWB	
1/d081919000031.d	1729501,	L/15967	LCS	1	df8082.new608.052419	8/19/19	19:44	CWB	
1/d081919000032.d	30318422001,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	19:52	CWB	
1/d081919000033.d	30318422002,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	20:01	CWB	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced
___ Replaced/Cleaned gold seal ___ Cleaned MS source X No maintenance performed today

Additional Comments:

Run Order Verified: CWB 8-21-19

* all sample extracts were acid cleaned *

File Path 1: \\30wintarget\chem\30gcsd.i\d081919-1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:21 08/21/2019

Reviewed By/Date: JM 8-21-19 Page: 1 of 4

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: Surr. lot:

Tune std: NA Cal. std: NA hexanes 91806 1:1 H_2SO_4 95716

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081919000034.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	20:09	CWB	
1/d081919000035.d	30318423001,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	20:18	CWB	
1/d081919000036.d	30318423003,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	20:26	CWB	
1/d081919000037.d	30318423005,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	20:35	CWB	
1/d081919000038.d	30318423006,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	20:43	CWB	
1/d081919000039.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	20:52	CWB	
1/d081919000040.d	30318046001,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	21:00	CWB	
1/d081919000041.d	1730102,	L/15967	MS	1	df8082.new608.052419	8/19/19	21:09	CWB	
1/d081919000042.d	1730103,	L/15967	MSD	1	df8082.new608.052419	8/19/19	21:18	CWB	
1/d081919000043.d	30318046002,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	21:26	CWB	
1/d081919000044.d	30318046003,	L/15967	SAMPLE	1	df8082.new608.052419	8/19/19	21:35	CWB	
1/d081919000045.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	21:43	CWB	
1/d081919000046.d	CCV, 97131:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/19/19	21:52	CWB	
1/d081919000047.d	30318757003,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	22:00	CWB	
1/d081919000048.d	30318757004,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	22:09	CWB	
1/d081919000049.d	30318757005,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	22:17	CWB	
1/d081919000050.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	22:25	CWB	
1/d081919000051.d	30318757006,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	22:34	CWB	
1/d081919000052.d	30318757007X10,	S/15992	SAMPLE	10	df8082.new608.052419	8/19/19	22:43	CWB	
1/d081919000053.d	30318757009,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	22:51	CWB	
1/d081919000054.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	23:00	CWB	
1/d081919000055.d	30318886009,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	23:08	CWB	
1/d081919000056.d	30318886010,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	23:17	CWB	
1/d081919000057.d	30318886011,	S/15992	SAMPLE	1	df8082.new608.052419	8/19/19	23:25	CWB	
1/d081919000058.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/19/19	23:34	CWB	
1/d081919000059.d	30318886012X5,	S/15992	SAMPLE	5	df8082.new608.052419	8/19/19	23:42	CWB	
1/d081919000060.d	30318749004X5,	S/15992	SAMPLE	5	df8082.new608.052419	8/19/19	23:51	CWB	
1/d081919000061.d	30318749013X10,	S/15992	SAMPLE	10	df8082.new608.052419	8/19/19	23:59	CWB	
1/d081919000062.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	00:08	CWB	
1/d081919000063.d	30318886003,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	00:16	CWB	
1/d081919000064.d	30318886004,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	00:25	CWB	
1/d081919000065.d	30318886005,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	00:33	CWB	
1/d081919000066.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	00:42	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d081919-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:21 08/21/2019

Reviewed By/Date: 8-21-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: NA Surr. lot: NA hexane 91806 1:1 H_2SO_4 9516

Tune std: _____ Cal. std: _____

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081919000067.d	30318886006,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	00:50	CWB	
1/d081919000068.d	30318886007,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	00:59	CWB	
1/d081919000069.d	30318886008,	S/15992	SAMPLE	1	df8082.new608.052419	8/20/19	01:07	CWB	
1/d081919000070.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	01:16	CWB	
1/d081919000071.d	CCV, 97131:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/20/19	01:24	CWB	
1/d081919000072.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	01:33	CWB	
1/d081919000073.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	10:34	CWB	
1/d081919000074.d	1733133,	S/15992	LCS	1	df8082.new608.052419	8/20/19	10:43	CWB	
1/d081919000075.d	CCV, 97205:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/20/19	10:51	CWB	
1/d081919000076.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	12:14	CWB	
1/d081919000077.d	1735179,	L/16001	BLANK	1	df8082.new608.052419	8/20/19	12:22	CWB	
1/d081919000078.d	1735180,	L/16001	LCS	1	df8082.new608.052419	8/20/19	12:31	CWB	
1/d081919000079.d	30319240001,	L/16001	SAMPLE	1	df8082.new608.052419	8/20/19	12:39	CWB	
1/d081919000080.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	12:48	CWB	
1/d081919000081.d	1733357,	S/15993	BLANK	1	df8082.new608.052419	8/20/19	12:56	CWB	
1/d081919000082.d	1733358,	S/15993	LCS	1	df8082.new608.052419	8/20/19	13:05	CWB	
1/d081919000083.d	30319519001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	13:14	CWB	
1/d081919000086.d	30319519001X20,	S/15993	SAMPLE	20	df8082.new608.052419	8/20/19	13:58	CWB	
1/d081919000087.d	1733359X20,	S/15993	MS	20	df8082.new608.052419	8/20/19	14:07	CWB	
1/d081919000088.d	1733360X20,	S/15993	MSD	20	df8082.new608.052419	8/20/19	14:15	CWB	
1/d081919000089.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	14:24	CWB	
1/d081919000090.d	30319255001,	S/15993	SAMPLE	1	df8082.new608.052419	8/20/19	14:32	CWB	
1/d081919000091.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	14:41	CWB	
1/d081919000092.d	CCV, 97205:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/20/19	14:49	CWB	
1/d081919000093.d	30313810021,	L/15971	SAMPLE	1	df8082.new608.052419	8/20/19	14:58	CWB	
1/d081919000094.d	30313810022,	L/15971	SAMPLE	1	df8082.new608.052419	8/20/19	15:06	CWB	
1/d081919000095.d	30313810023,	L/15971	SAMPLE	1	df8082.new608.052419	8/20/19	15:15	CWB	
1/d081919000096.d	30313810024,	L/15971	SAMPLE	1	df8082.new608.052419	8/20/19	15:24	CWB	
1/d081919000097.d	30313810025,	L/15971	SAMPLE	1	df8082.new608.052419	8/20/19	15:32	CWB	
1/d081919000098.d	CCV, 97205:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/20/19	15:41	CWB	
1/d081919000099.d	30318886001,	S/15993	SAMPLE	1	df8082.new608.052419	8/20/19	15:49	CWB	
1/d081919000100.d	30318886002,	S/15993	SAMPLE	1	df8082.new608.052419	8/20/19	15:58	CWB	
1/d081919000101.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	16:06	CWB	

File Path 1: \\30wintarget\chem\30gcsd.i\d081919-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:21 08/21/2019

Reviewed By/Date: JM 8-21-19

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30gcsd.i

Column DB-CLP1 30m X 0.32mm Hydrogen Method: SW846 8082/8082A/608.3

Misc. Prep Info [L]:

Misc. Prep Info [S]:

ISTD lot: NA Surr. lot: NA hexane 91806 1:1 H_2SO_4 95716

Tune std: _____ Cal. std: _____

Instrument name..... 30GCSD

Path/File	Lab ID	Mtrx/Batch	Type	DF	Method	Date	Time	Oper	Comments
1/d081919000102.d	30319035003X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	16:15	CWB	
1/d081919000103.d	30319519006X20,	S/15993	SAMPLE	20	df8082.new608.052419	8/20/19	16:23	CWB	
1/d081919000104.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	16:32	CWB	
1/d081919000105.d	30319519007X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	16:40	CWB	
1/d081919000106.d	30319519008X20,	S/15993	SAMPLE	20	df8082.new608.052419	8/20/19	16:49	CWB	
1/d081919000107.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	16:58	CWB	
1/d081919000108.d	30319519009X20,	S/15993	SAMPLE	20	df8082.new608.052419	8/20/19	17:06	CWB	
1/d081919000109.d	30319677001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	17:15	CWB	
1/d081919000110.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	17:23	CWB	
1/d081919000111.d	30319439001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	17:32	CWB	
1/d081919000112.d	30319652001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	17:40	CWB	
1/d081919000113.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	17:49	CWB	
1/d081919000114.d	30319653001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	17:57	CWB	
1/d081919000115.d	30319675001X5,	S/15993	SAMPLE	5	df8082.new608.052419	8/20/19	18:06	CWB	
1/d081919000116.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	18:14	CWB	
1/d081919000117.d	CCV, 97205:1	N/15570	CCALIB_3	1	df8082.new608.052419	8/20/19	18:23	CWB	
1/d081919000118.d	hexane	N/	SAMPLE	1	df8082.new608.052419	8/20/19	18:31	CWB	

CWB 8-21-19

File Path 1: \\30wintarget\chem\30gcsd.i\d081919-1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:21 08/21/2019

Reviewed By/Date: JW 8.21.19

Prep Log Report

Batch Information: PMST 8794/356919

Template Version: F-PA-I-008-Rev.01 (11Nov2016)

Analysis Method	ASTM D2974-87	Analyzed By	VAK	Instrument	30BA12	Oven ID	OVN006
Thermometer ID	115071	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 08/15/2019 15:15 | VAK	Oven Temp Out1 (C) | Corr | Date/Time | Init	105.0 | 105.0 | 08/16/2019 12:00 | SHD
Reviewed By		Reviewed By Date		Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30317695111**	Y			71.99	28.01	08/15/2019 14:25:05	7.54	1.09	10.05	7.54	M	
DRY WEIGHT	DUP	**1733277**	Y			82.07	17.93	08/15/2019 14:25:07	9.31	1.07	11.11	9.31	M	
DRY WEIGHT	PS	**30317885001**	Y			89.47	10.53	08/15/2019 14:25:10	1.26	1.09	1.28	1.26	M	
DRY WEIGHT	DUP	**1733278**	Y			90.24	9.756	08/15/2019 14:25:13	1.43	1.06	1.47	1.43	M	
DRY WEIGHT	PS	**30318041001**	Y			89.43	10.57	08/15/2019 14:25:16	7.33	1.07	8.07	7.33	M	
DRY WEIGHT	PS	**30318283001**	Y			95.02	4.983	08/15/2019 14:25:19	17.49	1.09	18.35	17.49	M	
DRY WEIGHT	PS	**30318283002**	Y			97.58	2.422	08/15/2019 14:25:24	23.23	1.07	23.78	23.23	M	
DRY WEIGHT	PS	**30318533001**	Y			37.26	62.74	08/15/2019 14:25:27	5.49	1.09	12.9	5.49	M	
DRY WEIGHT	PS	**30318732001**	Y			74.82	25.18	08/15/2019 14:25:29	9.21	1.07	11.95	9.21	M	
DRY WEIGHT	PS	**30318732002**	Y			78.38	21.62	08/15/2019 14:25:33	10.69	1.08	13.34	10.69	M	
DRY WEIGHT	PS	**30318732003**	Y			77.03	22.97	08/15/2019 14:25:36	10.11	1.09	12.8	10.11	M	
DRY WEIGHT	PS	**30318799001**	Y			80.00	20.00	08/15/2019 14:25:39	10.73	1.09	13.14	10.73	M	
DRY WEIGHT	PS	**30318829001**	Y			2.690	97.31	08/15/2019 14:25:42	1.21	1.08	5.92	1.21	M	
DRY WEIGHT	PS	**30318830001**	Y			0.1500	99.85	08/15/2019 14:25:45	1.09	1.08	7.59	1.09	M	
DRY WEIGHT	PS	**30318940001**	Y			99.08	0.9228	08/15/2019 14:25:48	12.9	1.09	13.01	12.9	M	
DRY WEIGHT	PS	**30318940002**	Y			99.12	0.8794	08/15/2019 14:25:50	24.74	1.07	24.95	24.74	M	
DRY WEIGHT	PS	**30318940003**	Y			99.22	0.7770	08/15/2019 14:25:54	17.69	1.09	17.82	17.69	M	
DRY WEIGHT	PS	**30318940004**	Y			99.03	0.9670	08/15/2019 14:25:56	13.36	1.07	13.48	13.36	M	

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	ID	UnBatched Sample Info	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**30318940005**	Y			99.02	0.9751	08/15/2019 14:25:59	30.53	1.08	30.82	30.53	M	
DRY WEIGHT	PS	**30318940006**	Y			99.90	0.1039	08/15/2019 14:26:02	20.31	1.08	20.33	20.31	M	
DRY WEIGHT	PS	**30319005001**	Y			99.68	0.3198	08/15/2019 14:26:05	10.43	1.08	10.46	10.43	M	
DRY WEIGHT	PS	**30319006001**	Y			79.14	20.86	08/15/2019 14:26:09	13.75	1.08	17.09	13.75	M	

ANALYTICAL REPORT

August 20, 2019

Pace Analytical - Greensburg, PA

Sample Delivery Group:	L1127562
Samples Received:	08/10/2019
Project Number:	30318799
Description:	Former EPT Site-Soil IRM/31401
Site:	001
Report To:	Rachel Christner 1638 Roseytown Road Greensburg, PA 15601

Entire Report Reviewed By:

Nancy McLain
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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3_MCPP(#2) 99
4_MCPP(#2) 100
5_MCPA(#2) 101
6_MCPA(#2) 102
MS(R3441834-3) WG1329942 08/19/19 11:56 SVGC11 103
Raw Data - 0819_08 104
1_MCPP 106
2_MCPP 107

3_MCPP(#2) 108
4_MCPP(#2) 109
5_MCPA(#2) 110
6_MCPA(#2) 111
MSD(R3441834-4) WG1329942 08/19/19 12:11 SVGC11 112
Raw Data - 0819_09 113
1_MCPP 115
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AOC 32 DITCH & AOC 35G L1127562-01 Waste

Collected by	Collected date/time	Received date/time
	08/08/19 13:30	08/10/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1329341	1	08/15/19 14:02	08/15/19 14:02	CGD	Mt. Juliet, TN
Chlorinated Acid Herbicides (GC) by Method 8151A	WG1329942	1	08/16/19 12:37	08/19/19 11:41	LEL	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Project Manager

Sample Delivery Group (SDG) Narrative

Sample quantity was not sufficient to complete analysis per recommended method guidelines for the following samples.

Lab Sample ID	Project Sample ID	Method
L1127562-01	AOC 32 DITCH & AOC 35G	1311

8151A Chlorinated Acid Herbicides (GC)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8151A
Matrix: Waste
SDG: L1127562

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 *% Rec.*	TOT Out
AOC 32 DITCH & AOC 35G	L1127562-01	SVGC11	0819_07	68.2	0
MS	R3441834-3	SVGC11	0819_08	65.8	0
MSD	R3441834-4	SVGC11	0819_09	72.6	0
BLANK	R3441834-1	SVGC11	0819_05	67.6	0
LCS	R3441834-2	SVGC11	0819_06	73.2	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	2,4-Dichlorophenyl Acetic Acid	14.0 - 158

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1127562-01

SAMPLE NO.:
R3441834-3
R3441834-4

MS Sample / File ID:	R3441834-3 / 0819_08	**SDG:**	L1127562
MSD Sample / File ID:	R3441834-4 / 0819_09	**Analytical Batch:**	WG1329942
OS Sample / File ID:	L1127562-01 / 0819_07	**Matrix:**	Waste
Instrument ID:	SVGC11		
Analytical Method:	8151A		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
2,4-D	0.0500	ND	0.0363	0.0404	72.6	80.8	1	50.0 - 120	10.7	20
2,4,5-TP (Silvex)	0.0500	ND	0.0360	0.0398	72.0	79.6	1	50.0 - 125	10.0	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1127562-01

SAMPLE NO.: R3441834-2

LCS Sample / File ID:	R3441834-2 / 0819_06	**SDG:**	L1127562
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1329942
Instrument ID:	SVGC11	**Dilution Factor:**	1
Analytical Method:	8151A	**Matrix:**	Waste

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
2,4-D	0.0500	0.0376		75.2		50.0 - 120		
2,4,5-TP (Silvex)	0.0500	0.0376		75.2		50.0 - 125		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3441834-1

Lab Sample ID:	R3441834-1	**SDG:**	L1127562
Lab File ID:	0819_05	**Preparation Date/Time:**	08/16/19 12:36
Instrument ID:	SVGC11	**Analysis Date/Time:**	08/19/19 11:12
Analytical Batch:	WG1329942	**Dilution Factor:**	1
Analytical Method:	8151A	**Matrix:**	Waste

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3441834-2	SVGC11	0819_06	08/19/19 11:26
AOC 32 DITCH & AOC 35G	L1127562-01	SVGC11	0819_07	08/19/19 11:41
AOC 32 DITCH & AOC 35G	L1127562-01	SVGC11	0819_07	08/19/19 11:41
MS	R3441834-3	SVGC11	0819_08	08/19/19 11:56
MSD	R3441834-4	SVGC11	0819_09	08/19/19 12:11

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
AOC 32 DITCH & AOC 35G

Lab Sample ID:	L1127562-01	**SDG:**	L1127562
Client Sample ID:	AOC 32 DITCH & AOC 35G	**Collected Date/Time:**	08/08/19 13:30
Lab File ID:	0819_07	**Received Date/Time:**	08/10/19 09:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:37
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:41
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
2,4,5-TP (Silvex)	93-72-1	0	ND		0.000667	0.00200
2,4-D	94-75-7	0	ND		0.000667	0.00200

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 07.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 07.D\ECD2B.CH
Acq On : 19 Aug 2019 11:41 am Operator: 957
Sample : L1127562-01 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13:17 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

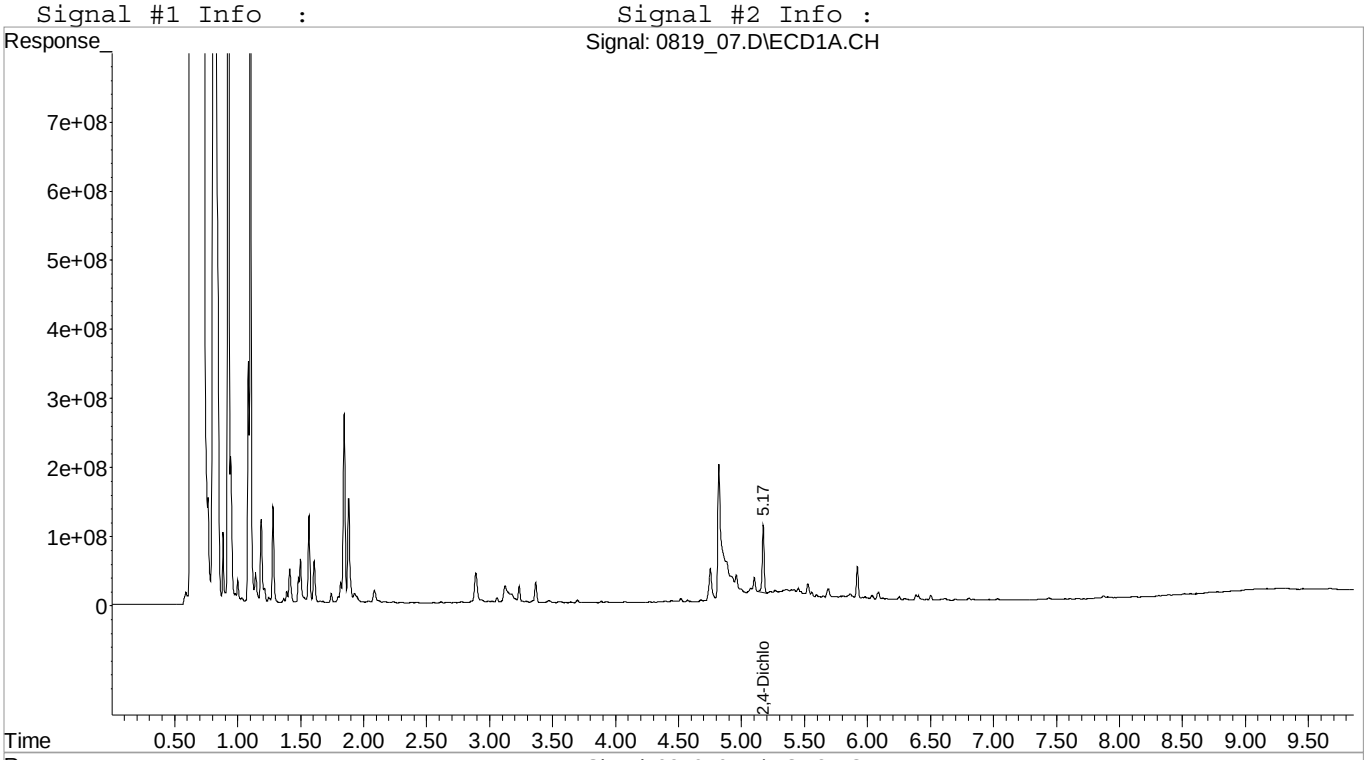
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S 2,4-Dichlorophenyl Acetic	5.1730333	1011307083	341.1991020 ppb
Spiked Amount 500.0000	Range 14 - 158	Recovery = 68.24%	
14) S 2,4-Dichlorophenyl Acetic	5.3388000	476801714	416.6291949 ppb
Spiked Amount 500.0000	Range 22 - 132	Recovery = 83.33%	
Target Compounds			

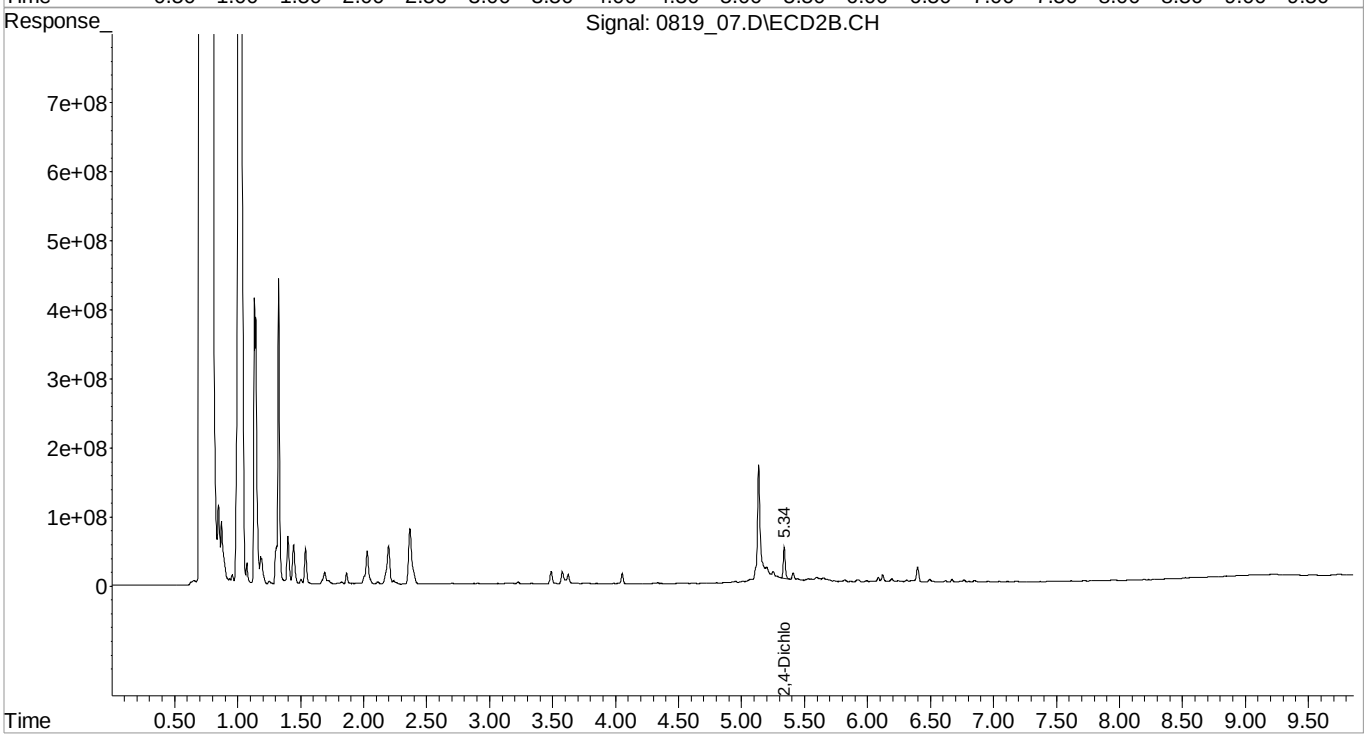
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 07.D\ECD1A.CH Vial: 3
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 07.D\ECD2B.CH
Acq On : 19 Aug 2019 11:41 am Operator: 957
Sample : L1127562-01 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

Analyte	CS: 20	CS: 50	CS: 100	CS: 200	CS: 500	CS: 1000
2,4-D	5.78	5.78	5.78	5.78	5.78	5.78
2,4,5-TP (SILVEX)	6.14	6.14	6.14	6.14	6.14	6.14
2,4-DICHLOROPHENYL ACETIC ACID	5.18	5.17	5.18	5.18	5.18	5.17
File ID:	0812_04	0812_05	0812_06	0812_03	0812_07	0812_08

6B-OR

RETENTION TIME
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

Analyte	CS: 20	CS: 50	CS: 100	CS: 200	CS: 500	CS: 1000
2,4-D	5.93	5.93	5.93	5.93	5.93	5.93
2,4,5-TP (SILVEX)	6.32	6.32	6.32	6.32	6.32	6.32
2,4-DICHLOROPHENYL ACETIC ACID	5.34	5.34	5.34	5.34	5.34	5.34
File ID:	0812_04	0812_05	0812_06	0812_03	0812_07	0812_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

Analyte	**RRF: 20**	**RRF: 50**	**RRF: 100**	**RRF: 200**	**RRF: 500**	**RRF: 1000**
2,4-D	3844000	3864000	3731000	3472000	3359000	3432000
2,4,5-TP (SILVEX)	19270000	19530000	19270000	18140000	17740000	17830000
2,4-DICHLOROPHENYL ACETIC ACID	3191000	3202000	3033000	2906000	2726000	2726000
File ID:	0812_04	0812_05	0812_06	0812_03	0812_07	0812_08

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

Analyte	RRF. Avg	%RSD	COD
2,4-D	3617209	6.15	
2,4,5-TP (SILVEX)	18630060	4.35	
2,4-DICHLOROPHENYL ACETIC ACID	2963979	7.23	

6C-OR

CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

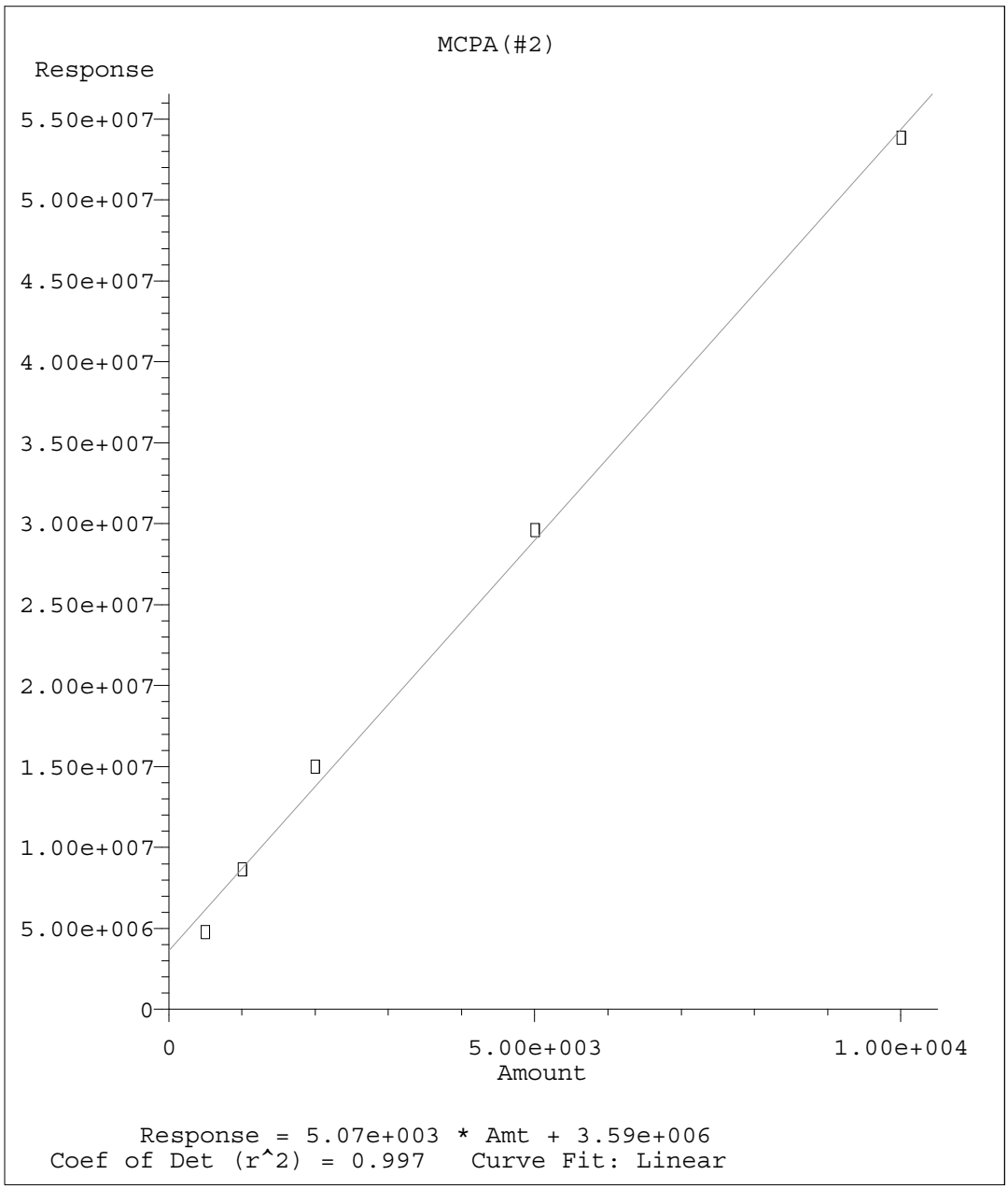
Analyte	RRF: 20	RRF: 50	RRF: 100	RRF: 200	RRF: 500	RRF: 1000
2,4-D	1824000	1755000	1594000	1474000	1305000	1268000
2,4,5-TP (SILVEX)	7521000	7827000	7777000	7613000	6860000	7013000
2,4-DICHLOROPHENYL ACETIC ACID	1313000	1270000	1172000	1155000	980000	976000
File ID:	0812_04	0812_05	0812_06	0812_03	0812_07	0812_08

6C-OR

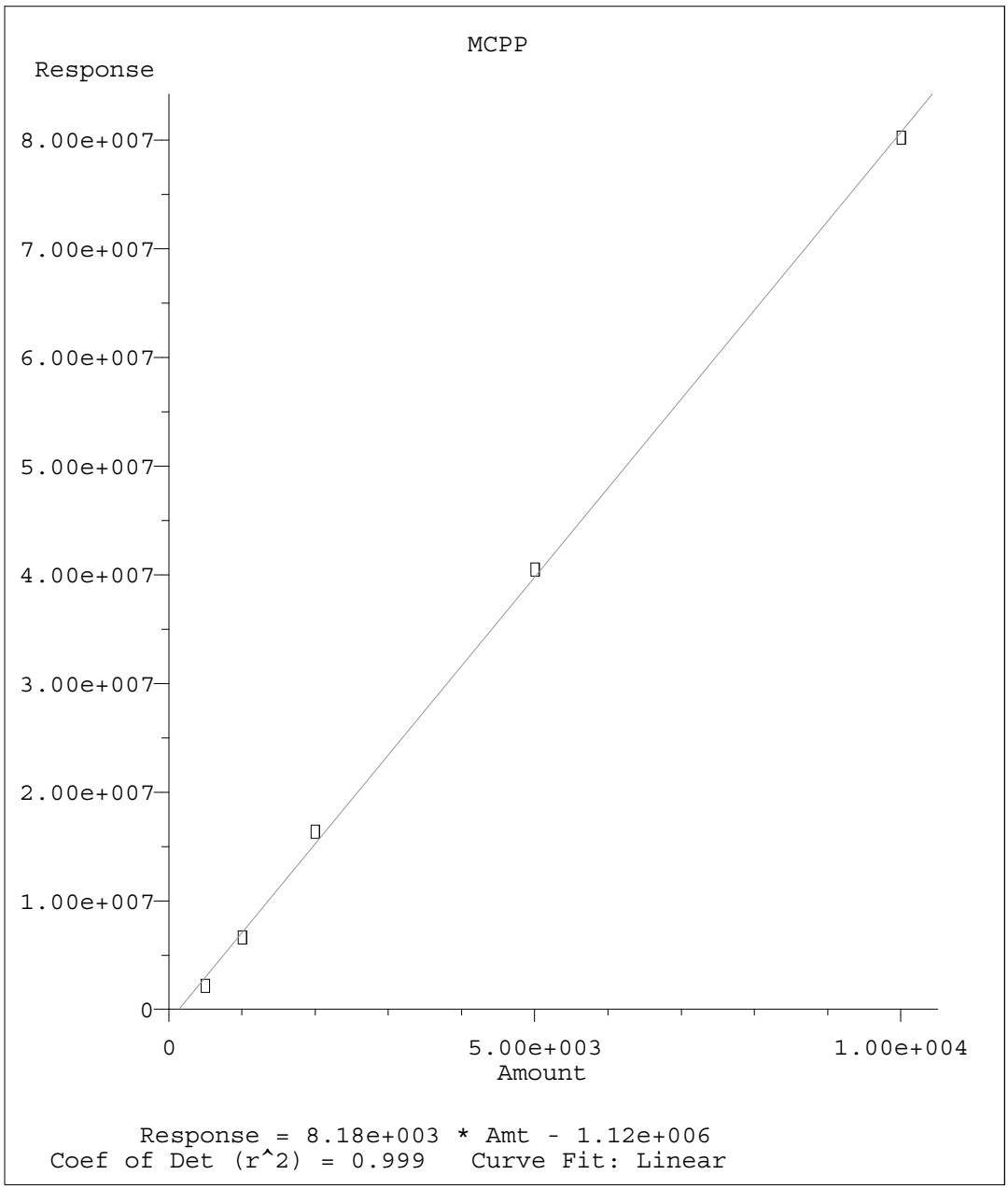
CALIBRATION FACTOR
INITIAL CALIBRATION OF
SINGLE COMPONENT ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Analytical Method:	8151A		

Analyte	RRF. Avg	%RSD	COD
2,4-D	1536700	14.93	
2,4,5-TP (SILVEX)	7434905	5.44	
2,4-DICHLOROPHENYL ACETIC ACID	1144427	12.38	



Method Name: C:\MSDCHEM\1\METHODS\HB11H12S.M



Method Name: C:\MSDCHEM\1\METHODS\HB11H12S.M

Response Factor Report SVGC11

Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019

Calibration Files
= 20 =0812 04.D 50 =0812 05.D
100 =0812_06.D 200 =0812_03.D 500 =0812_07.D

	Compound	20	50	100	200	500	Avg		%RSD
1)	T,M Dalapon	4.112	4.294	4.191	4.074	3.798	3.746	4.036 E6	5.42
2)	S 2,4-Dichlorophen	3.191	3.202	3.033	2.906	2.726	2.726	2.964 E6	7.23
3)	T,M Dicamba	1.285	1.292	1.225	1.162	1.111	1.118	1.199 E7	6.73
4)	T,M MCPP		4.323	6.572	8.172	8.089	8.022	7.035 E3	23.51
5)	T,M MCPA	1.367	1.508	1.626	1.477	1.395	1.302	1.446 E4	8.00
6)	T,M Dichloroprop	3.219	3.198	3.052	2.865	2.749	2.758	2.973 E6	7.14
7)	T,M 2,4-D	3.844	3.864	3.731	3.472	3.359	3.432	3.617 E6	6.15
8)	T,M 2,4,5-TP (Silvex	1.927	1.953	1.927	1.814	1.774	1.783	1.863 E7	4.35
9)	T,M 2,4,5-T	1.681	1.665	1.658	1.565	1.535	1.369	1.579 E7	7.53
10)	T,M 2,4-DB	2.116	2.161	2.136	2.031	1.996	2.030	2.078 E6	3.26
11)	T,M Dinoseb	1.244	1.240	1.190	1.143	1.079	1.098	1.166 E7	6.04

Signal #2 Calibration Files
= 20 =0812 04.D 50 =0812 05.D
100 =0812 06.D 200 =0812 03.D 500 =0812 07.D

	Compound	20	50	100	200	500	Avg		%RSD
1)	T,M Dalapon(#2)	1.885	1.770	1.633	1.534	1.342	1.355	1.586 E6	13.84
2)	S 2,4-Dichlorophen	1.313	1.270	1.172	1.155	0.980	0.976	1.144 E6	12.38
3)	T,M Dicamba(#2)	4.462	4.464	4.401	4.481	3.989	4.083	4.313 E6	5.07
4)	T,M MCPP(#2)		3.947	4.873	4.682	4.050	3.805	4.271 E3	11.12
5)	T,M MCPA(#2)		9.525	8.644	7.495	5.917	5.384	7.393 E3	23.75
6)	T,M Dichloroprop(#2)	1.259	1.275	1.206	1.126	1.003	1.007	1.146 E6	10.56
7)	T,M 2,4-D(#2)	1.824	1.755	1.594	1.474	1.305	1.268	1.537 E6	14.93
8)	T,M 2,4,5-TP (Silvex	7.521	7.827	7.777	7.613	6.860	7.013	7.435 E6	5.44
9)	T,M 2,4,5-T (#2)	6.992	7.100	7.005	6.978	6.179	6.325	6.763 E6	5.93
10)	T,M 2,4-DB (#2)	9.580	9.106	8.692	8.898	7.852	8.153	8.713 E5	7.25
11)	T,M Dinoseb (#2)	4.990	5.185	5.072	4.905	4.351	4.503	4.834 E6	6.88

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On : 12 Aug 2019 8:40 am Operator: 957
Sample : STD HERB 20 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46:33 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1760167	63820785	20.4744747	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery =	4.09%#			
14) S 2,4-Dichlorophenyl Acetic	5.3419000	26256245	21.9249086	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery =	4.38%#			
Target Compounds					
1) T,M Dalapon	1.3359500	82241247	19.6876589	ppb	
3) T,M Dicamba	5.2687000	257035852	21.4621866	ppb	m
4) T,M MCPP	5.3389833	121997	8.3131705	ppb	
5) T,M MCPA	5.4611500	2733367	184.8158463	ppb	m
6) T,M Dichloroprop	5.6280167	64378353	20.6734256	ppb	
7) T,M 2,4-D	5.7774000	76877244	21.4519533	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1415667	385421436	19.4536260	ppb	
9) T,M 2,4,5-T	6.3068500	336277445	20.8167422	ppb	
10) T,M 2,4-DB	6.5172333	42310943	19.4350708	ppb	
11) T,M Dinoseb	6.6462833	248783776	19.8938969	ppb	
13) T,M Dalapon(#2)	1.6030500	37695001	22.9285657	ppb	
15) T,M Dicamba(#2)	5.4426167	89248769	18.0726383	ppb	m
16) T,M MCPP(#2)	5.5511333	423458	100.1999789	ppb	
17) T,M MCPA(#2)	5.6305000	1921006	244.4575728	ppb	
18) T,M Dichloroprop(#2)	5.8189167	25188235	20.5001782	ppb	
19) T,M 2,4-D(#2)	5.9293667	36486134	22.5821217	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3173500	150413285	18.4460642	ppb	
21) T,M 2,4,5-T (#2)	6.4380667	139831075	18.4492201	ppb	
22) T,M 2,4-DB (#2)	6.6669333	19160412	18.8480775	ppb	
23) T,M Dinoseb (#2)	7.1144167	99792805	17.9992923	ppb	m

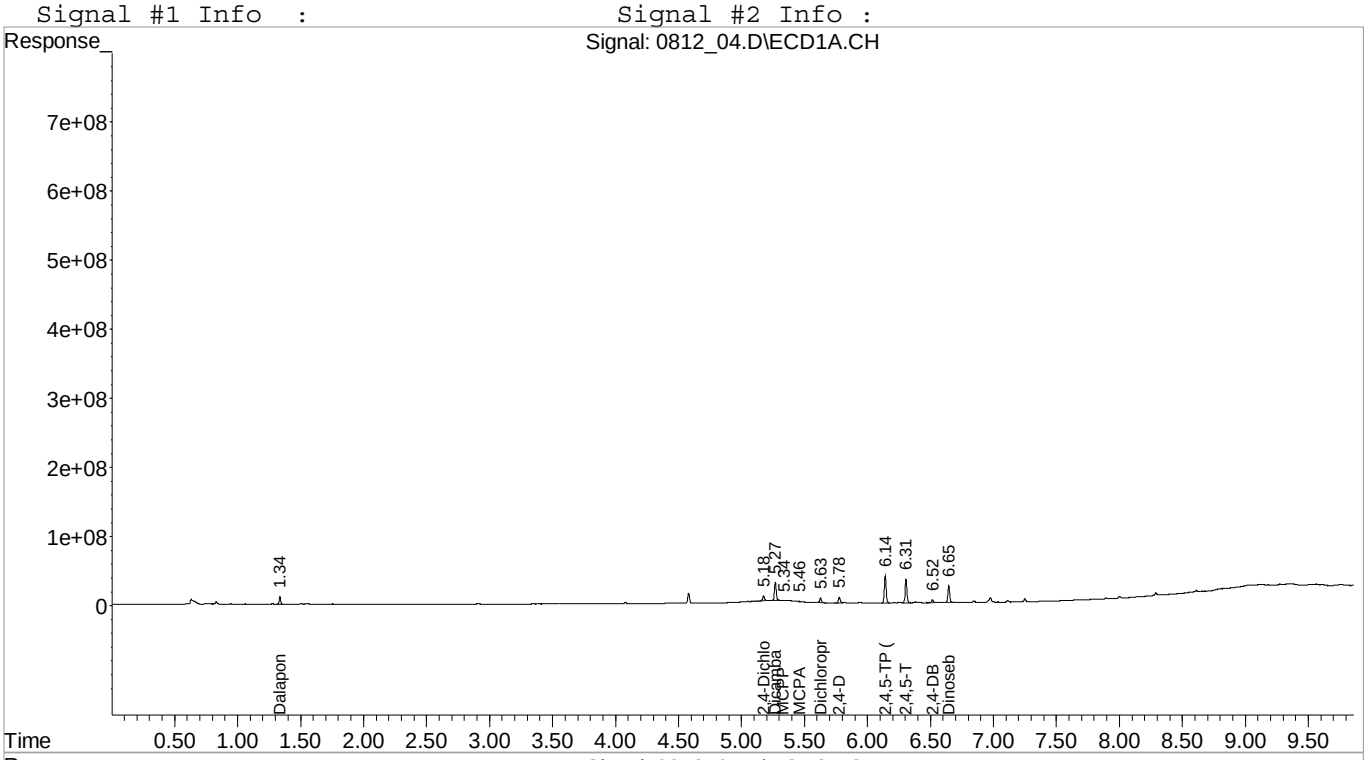
(f)=RT Delta > 1/2 Window (m)=manual int.

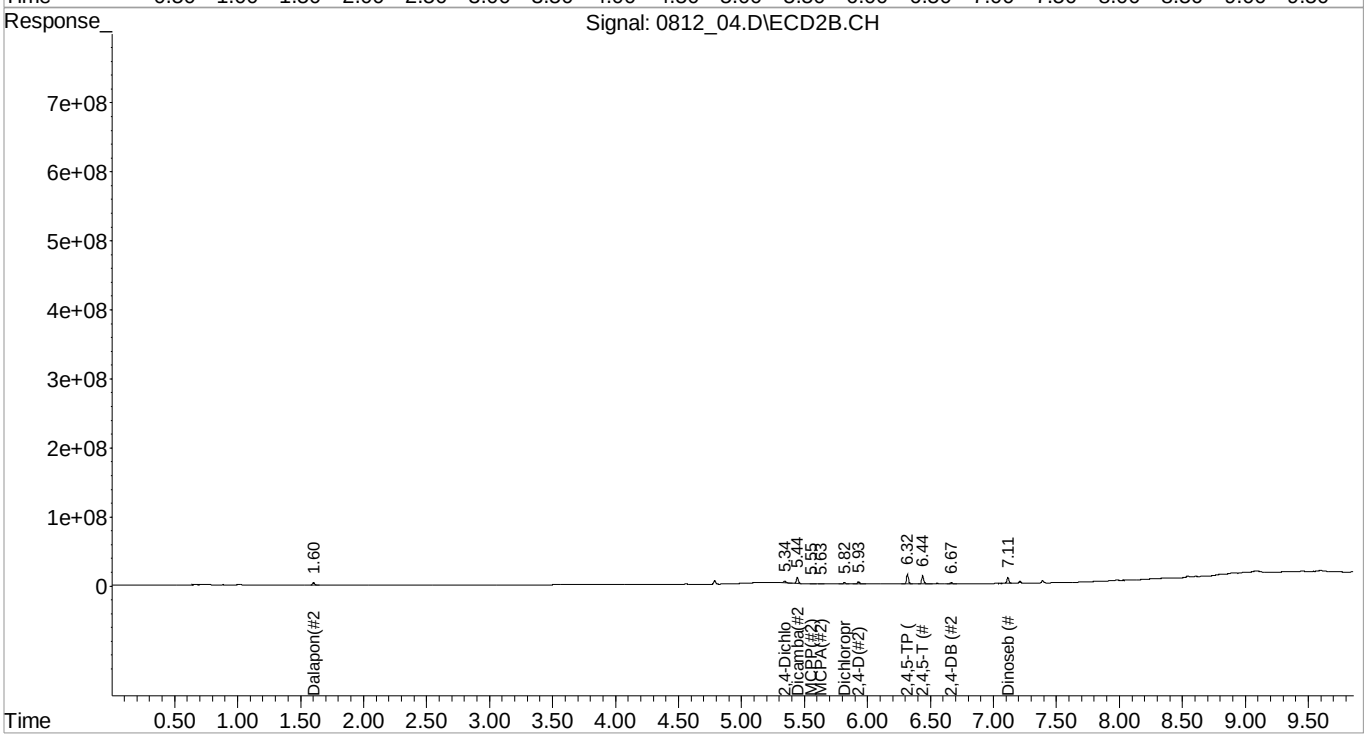
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On : 12 Aug 2019 8:40 am Operator: 957
Sample : STD HERB 20 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

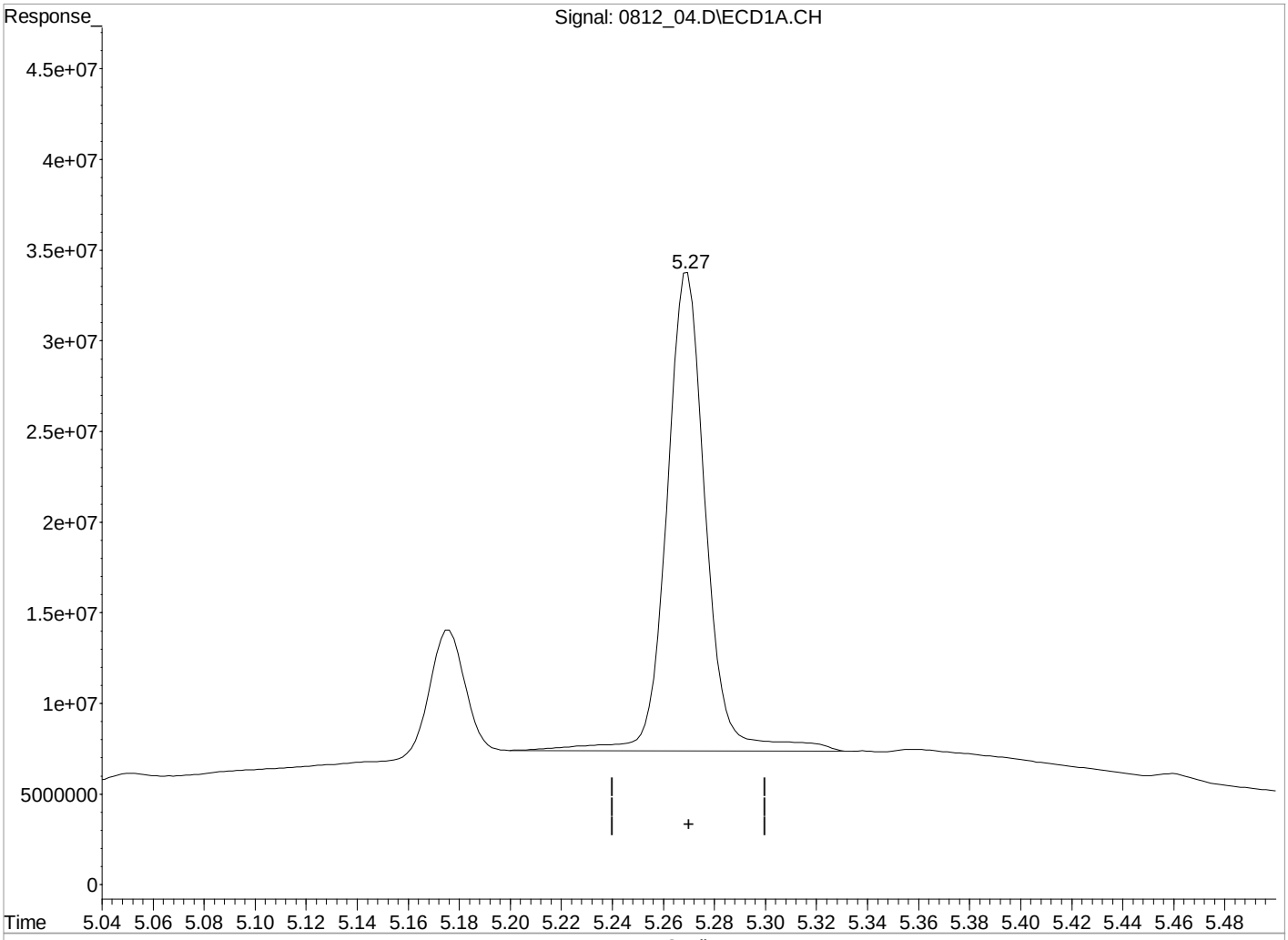




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



QEdit

(3) Dicamba (T,M)

5.27min 23.5935013 ppb

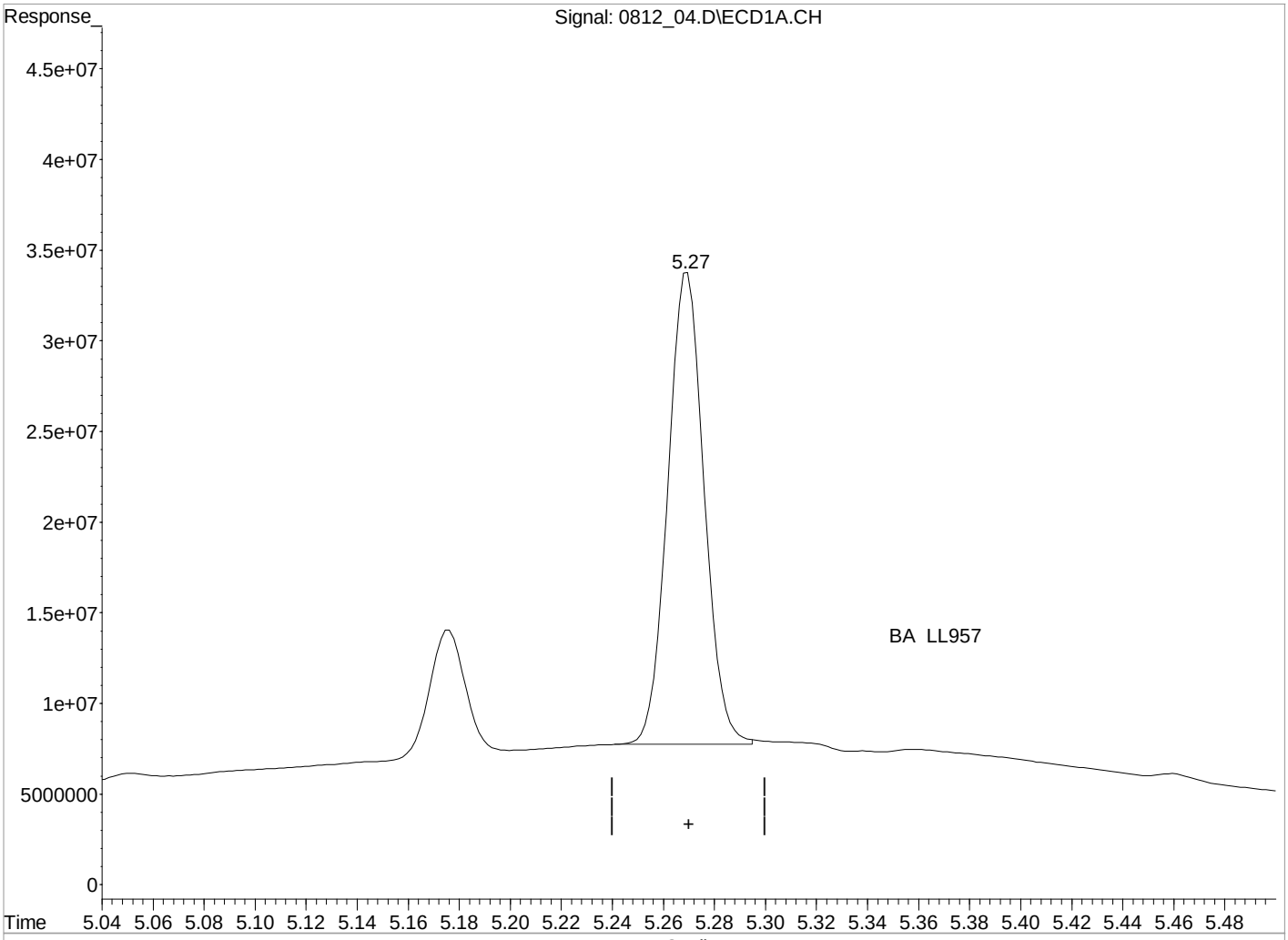
response 282560943

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:46:42 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(3) Dicamba (T,M)

5.27min 21.4621866 ppb m

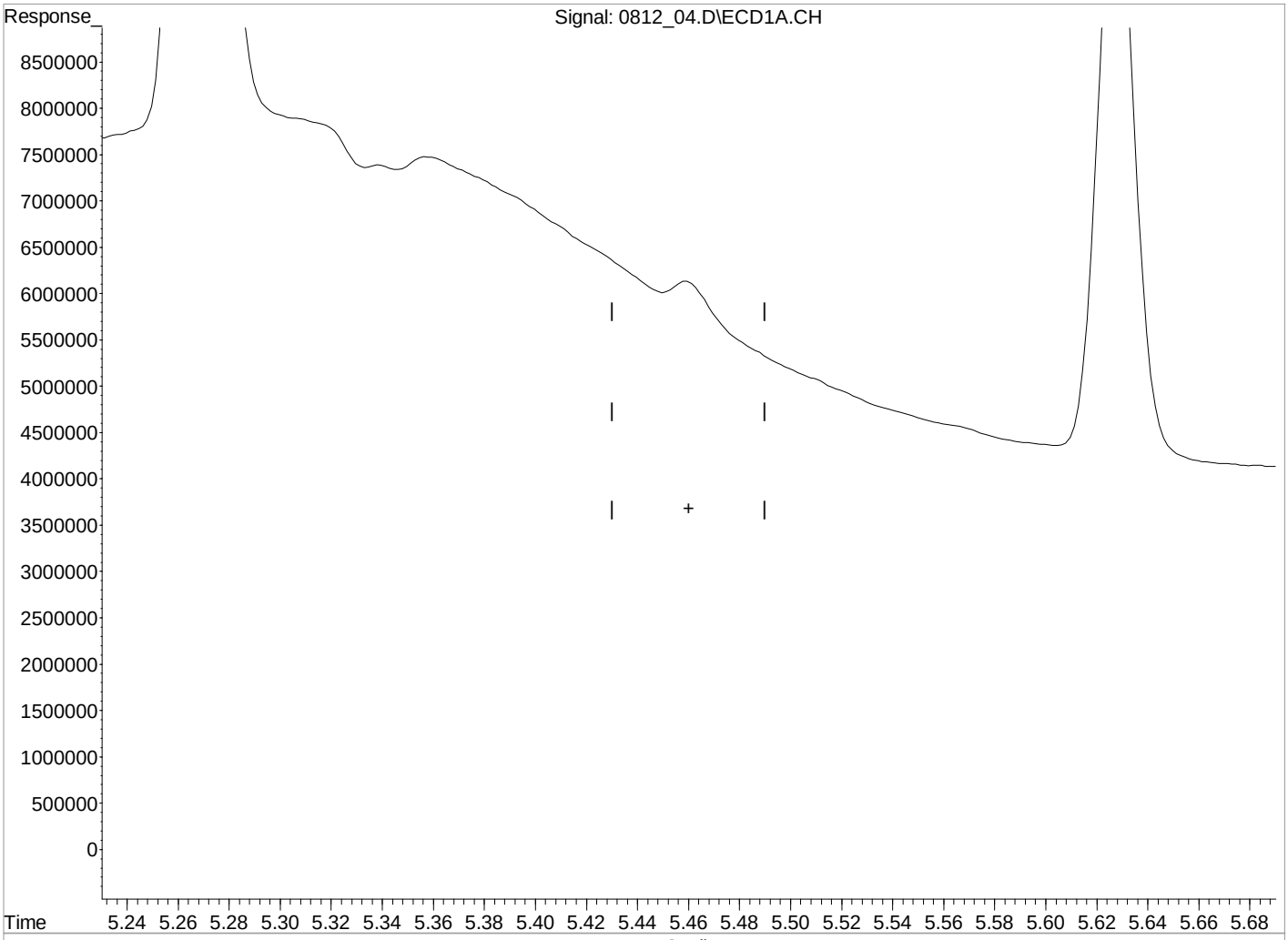
response 257035852

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:46:49 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min -1133.9097165 ppb

response -16770161

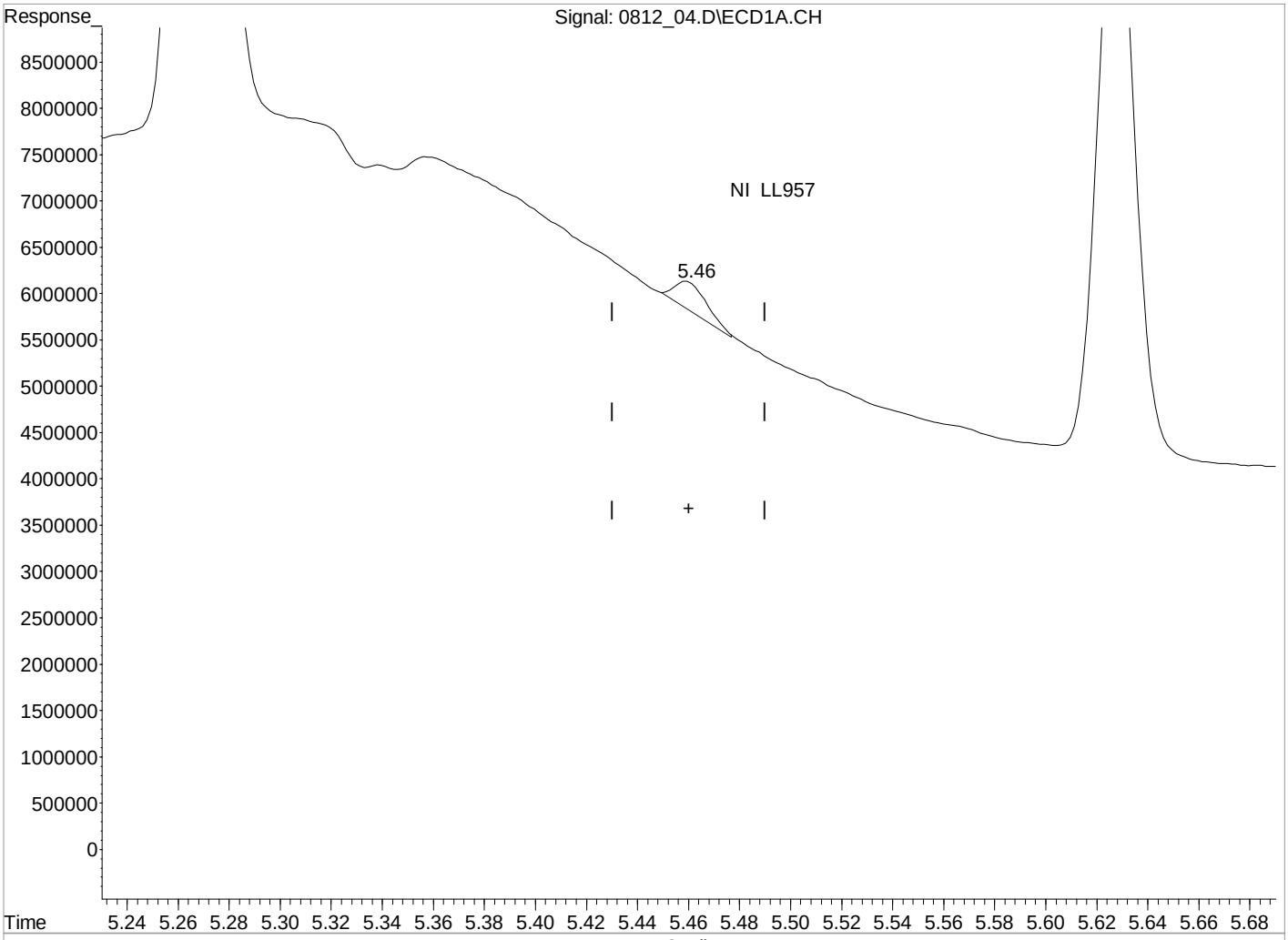
(+) = Expected Retention Time

0812_04.D HB11H12S.M Mon Aug 12 10:46:54 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 184.8158463 ppb m

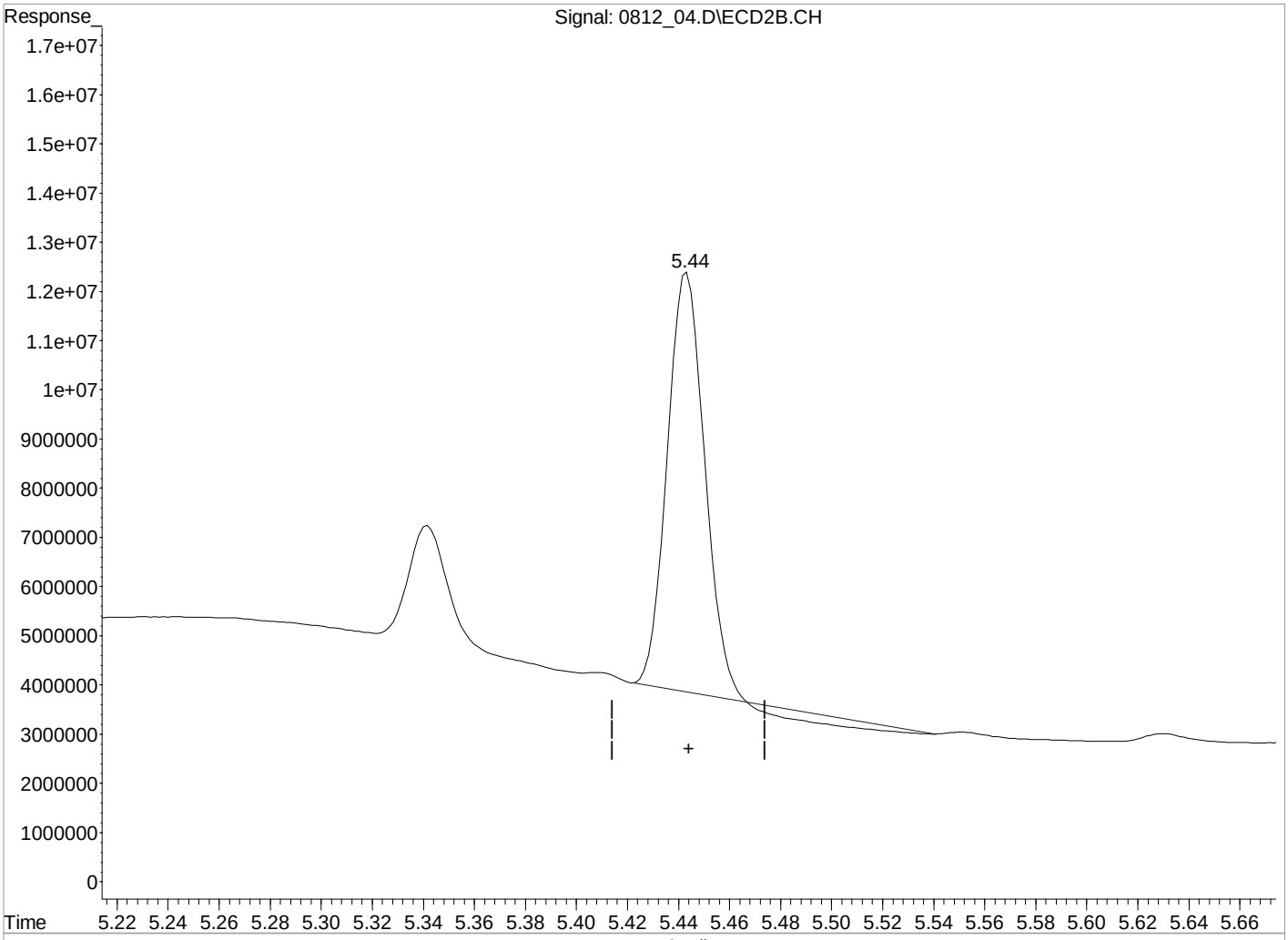
response 2733367

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:47:05 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(15) Dicamba(#2) (T,M)

5.44min 16.5774374 ppb

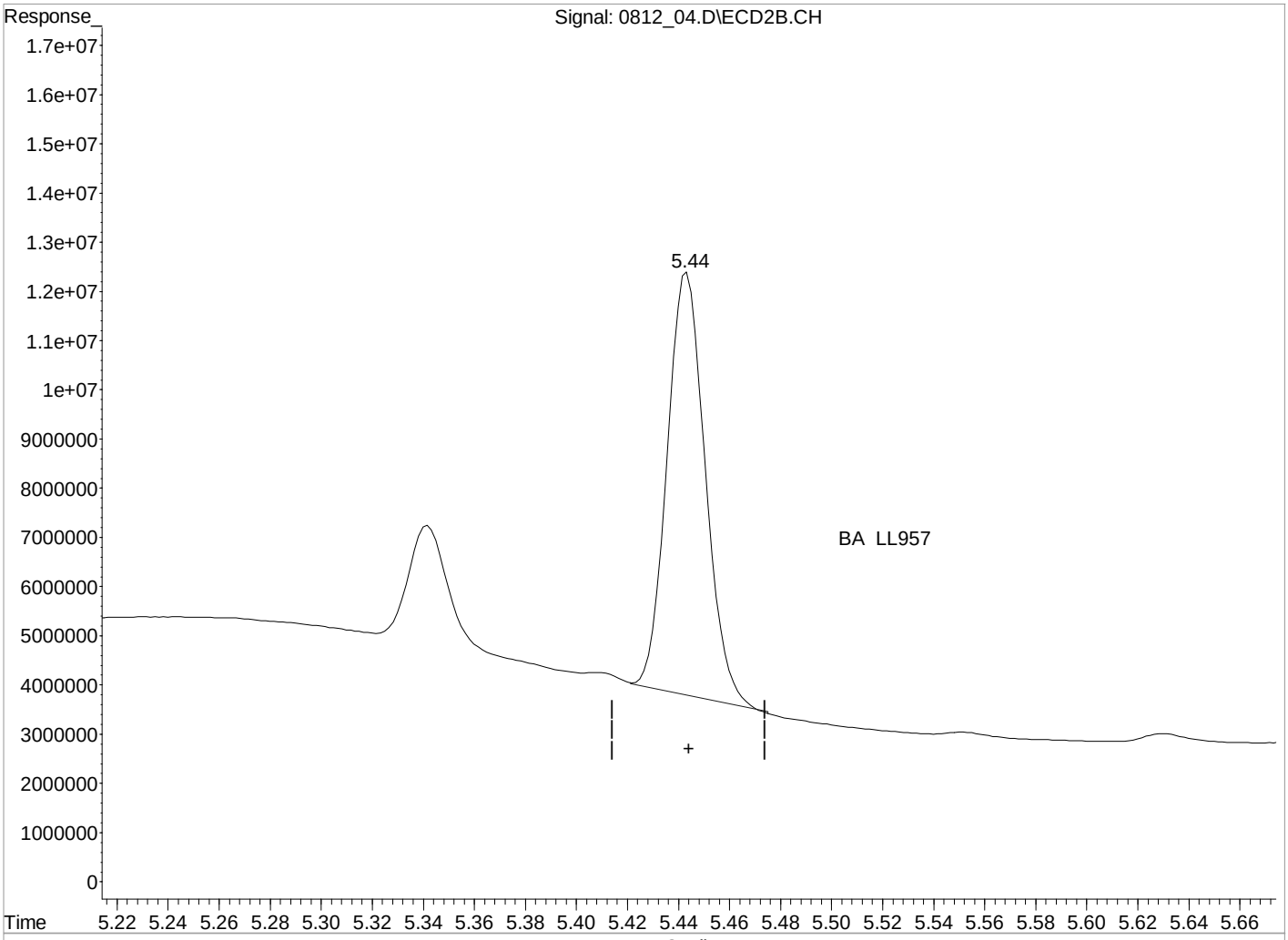
response 81864964

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:47:13 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(15) Dicamba(#2) (T,M)

5.44min 18.0726383 ppb m

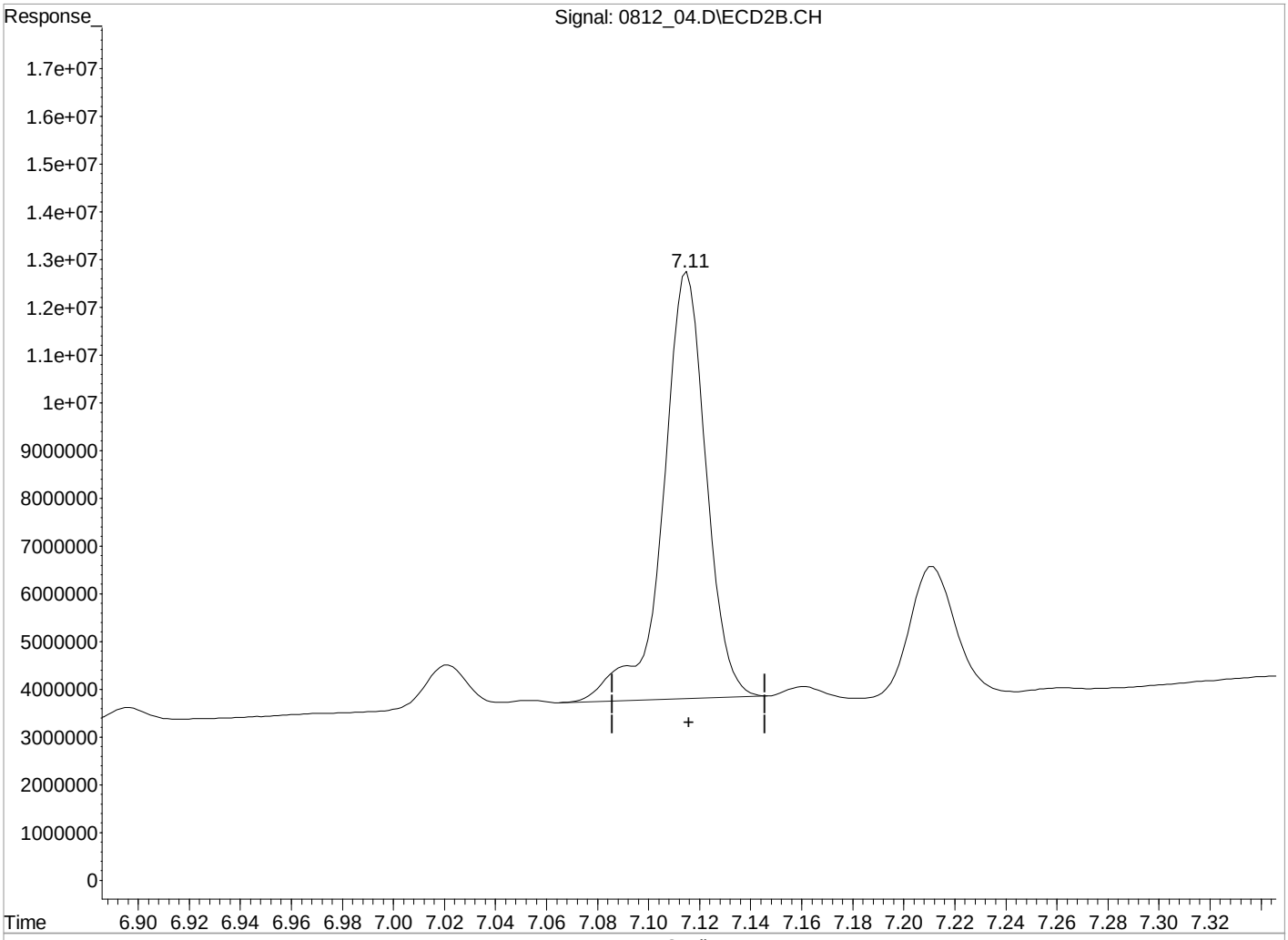
response 89248769

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:47:21 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



QEdit

(23) Dinoseb (#2) (T,M)

7.12min 19.0031861 ppb

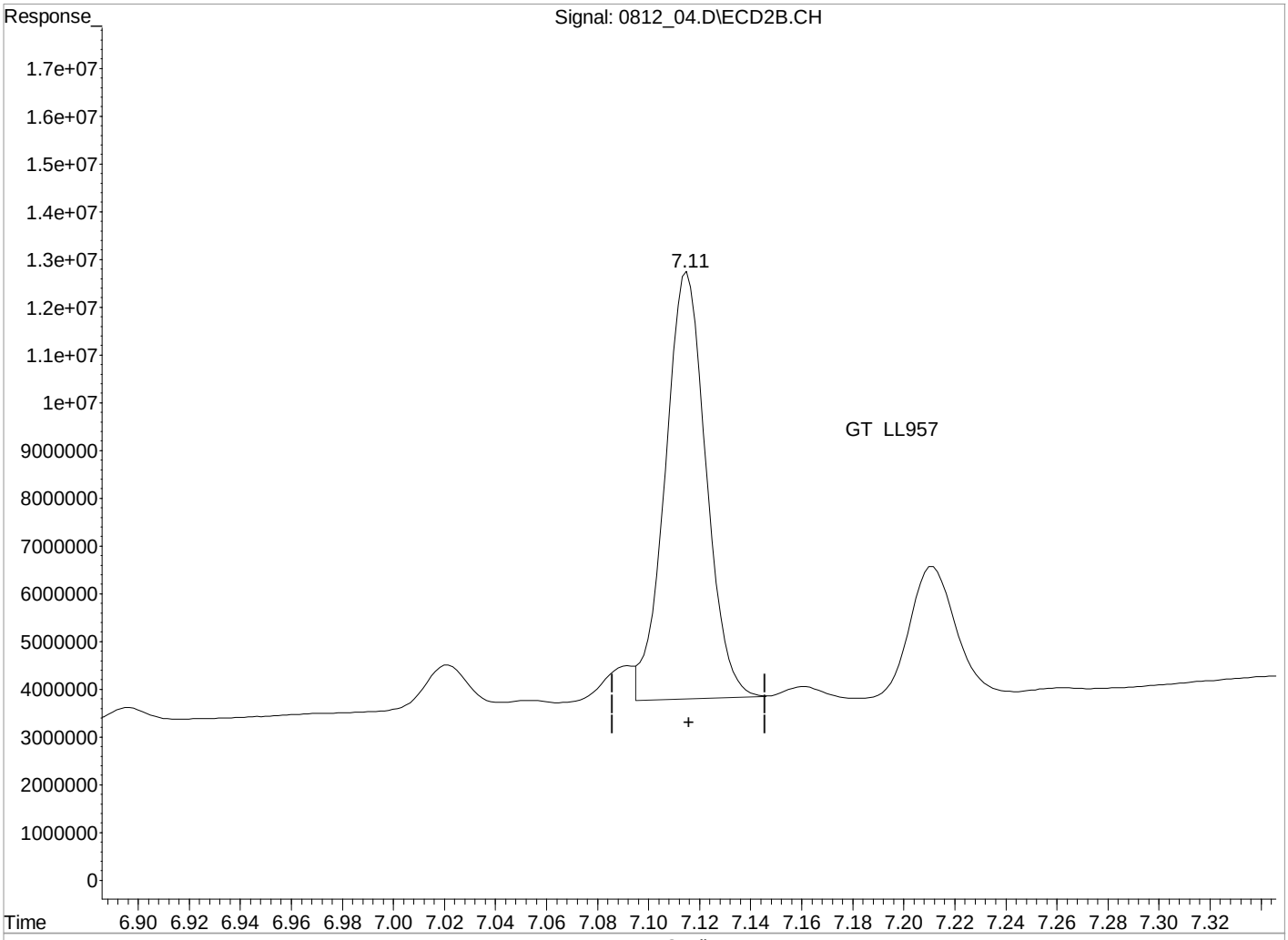
response 105358656

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:47:28 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD1A.CH Vial: 91
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 04.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:40 am   Operator: 957
Sample   : STD HERB 20 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:46 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:45:57 2019
Response via : Multiple Level Calibration



(23) Dinoseb (#2) (T,M)

7.11min 17.9992923 ppb m

response 99792805

(+) = Expected Retention Time
0812_04.D HB11H12S.M Mon Aug 12 10:47:35 2019

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On : 12 Aug 2019 8:55 am Operator: 957
Sample : STD HERB 50 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47:51 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1749333	160098453	51.3478527	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 10.27%#				
14) S 2,4-Dichlorophenyl Acetic	5.3413500	63508903	51.6635867	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 10.33%#				
Target Compounds					
1) T,M Dalapon	1.3361000	214718920	50.8952321	ppb	
3) T,M Dicamba	5.2687000	646029712	53.4140255	ppb	
4) T,M MCPP	5.3383667	2161417	175.2845447	ppb	
5) T,M MCPA	5.4591667	7540007	491.7567343	ppb	m
6) T,M Dichloroprop	5.6267000	159888713	51.0385996	ppb	m
7) T,M 2,4-D	5.7767833	193219867	52.8442753	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1412333	976431071	49.6705629	ppb	
9) T,M 2,4,5-T	6.3064500	832726872	51.1378626	ppb	
10) T,M 2,4-DB	6.5162000	108051662	49.8871742	ppb	
11) T,M Dinoseb	6.6460667	619814131	49.7453445	ppb	
13) T,M Dalapon(#2)	1.6029833	88508001	53.1986699	ppb	
15) T,M Dicamba(#2)	5.4429000	223181579	45.7566445	ppb	
16) T,M MCPP(#2)	5.5505333	1973541	509.3460344	ppb	
17) T,M MCPA(#2)	5.6297000	4762481	573.3577521	ppb	
18) T,M Dichloroprop(#2)	5.8181833	63741556	51.7459001	ppb	
19) T,M 2,4-D(#2)	5.9287667	87728474	52.6019588	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3168000	391327629	48.4028712	ppb	
21) T,M 2,4,5-T (#2)	6.4374333	355012563	47.7473324	ppb	
22) T,M 2,4-DB (#2)	6.6664167	45529701	46.7626281	ppb	
23) T,M Dinoseb (#2)	7.1148000	259270890	47.6448160	ppb	

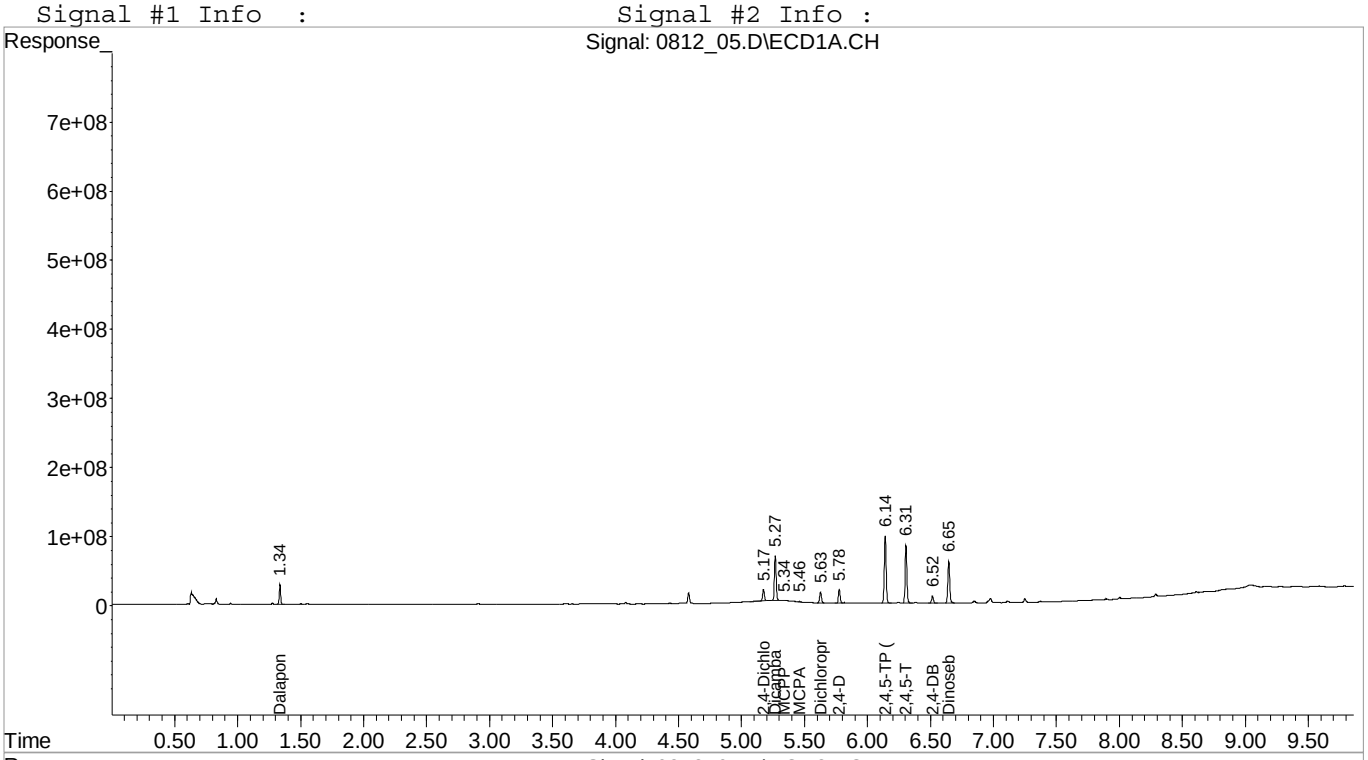
(f)=RT Delta > 1/2 Window (m)=manual int.

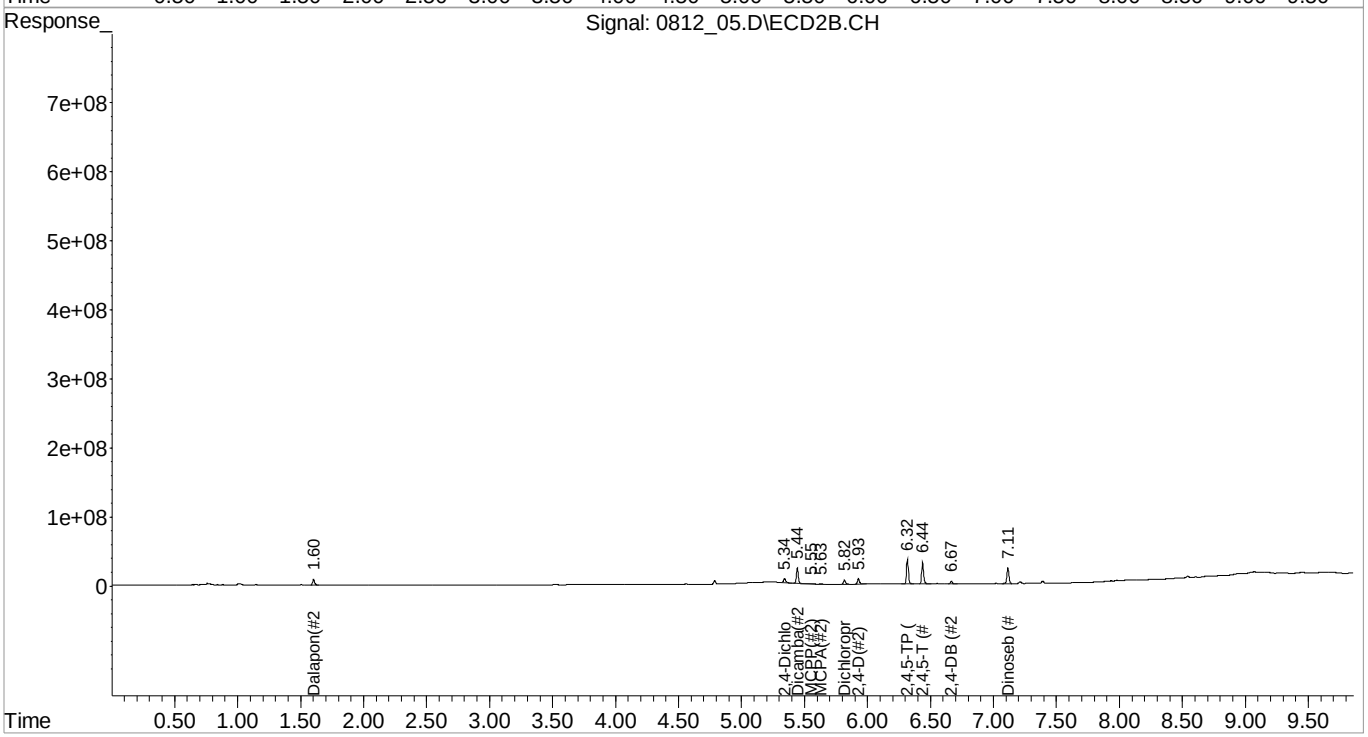
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On : 12 Aug 2019 8:55 am Operator: 957
Sample : STD HERB 50 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:48 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

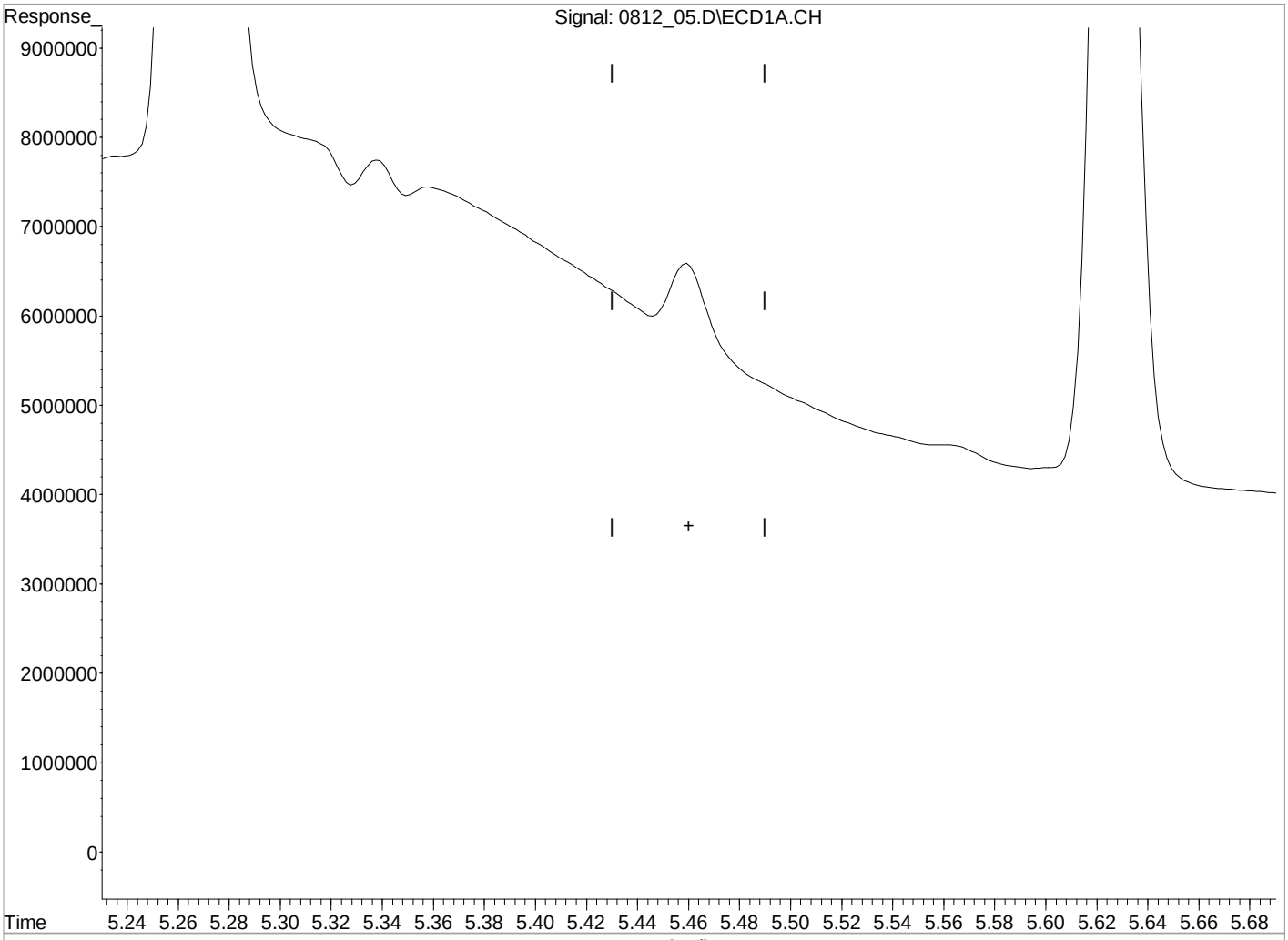




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:55 am   Operator: 957
Sample   : STD HERB 50 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min -110.2800118 ppb

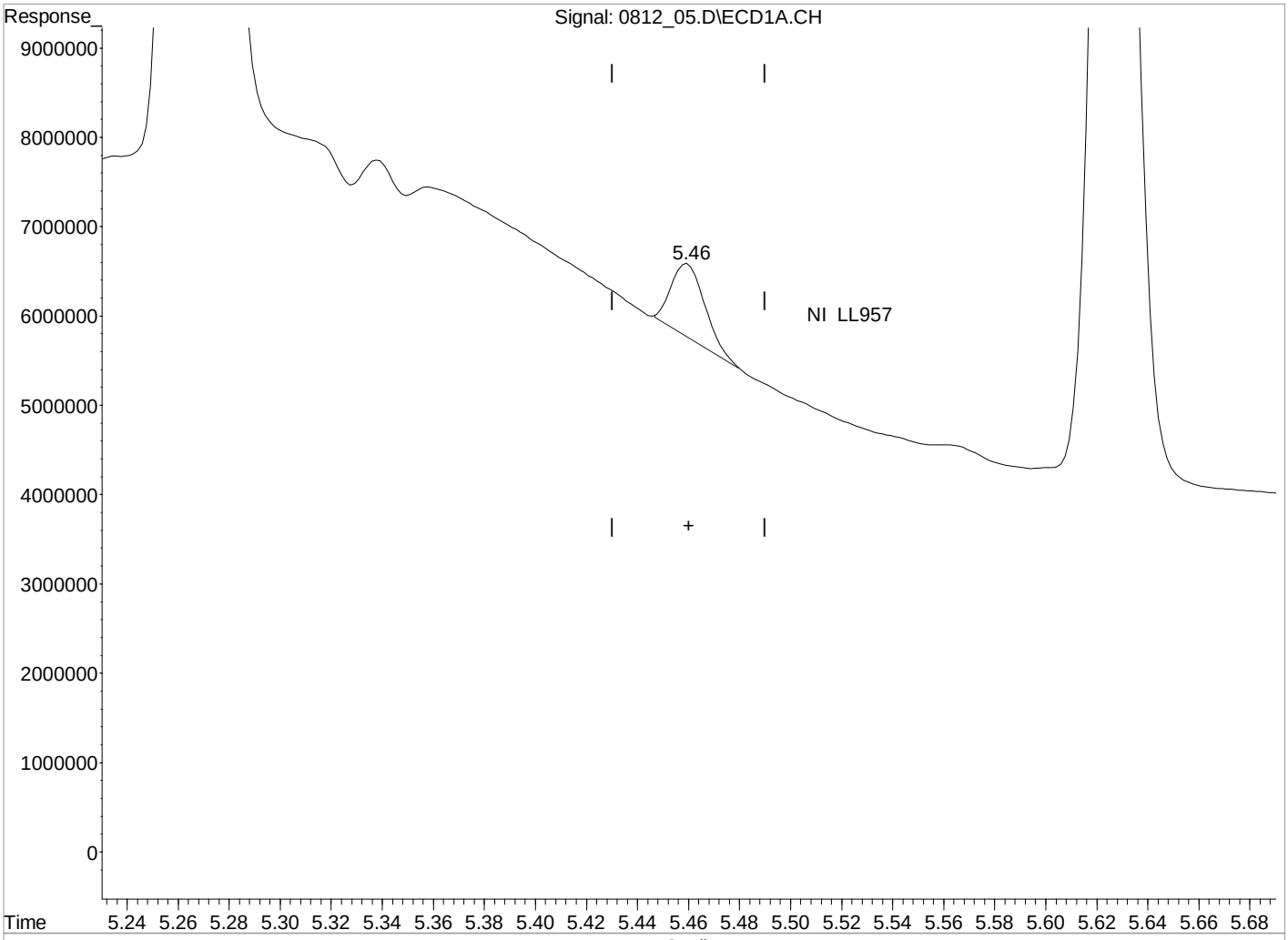
response -1690901

(+) = Expected Retention Time
0812_05.D HB11H12S.M Mon Aug 12 10:48:00 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:55 am   Operator: 957
Sample   : STD HERB 50 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Multiple Level Calibration



QEdit

(5) MCPA (T,M)

5.46min 491.7567343 ppb m

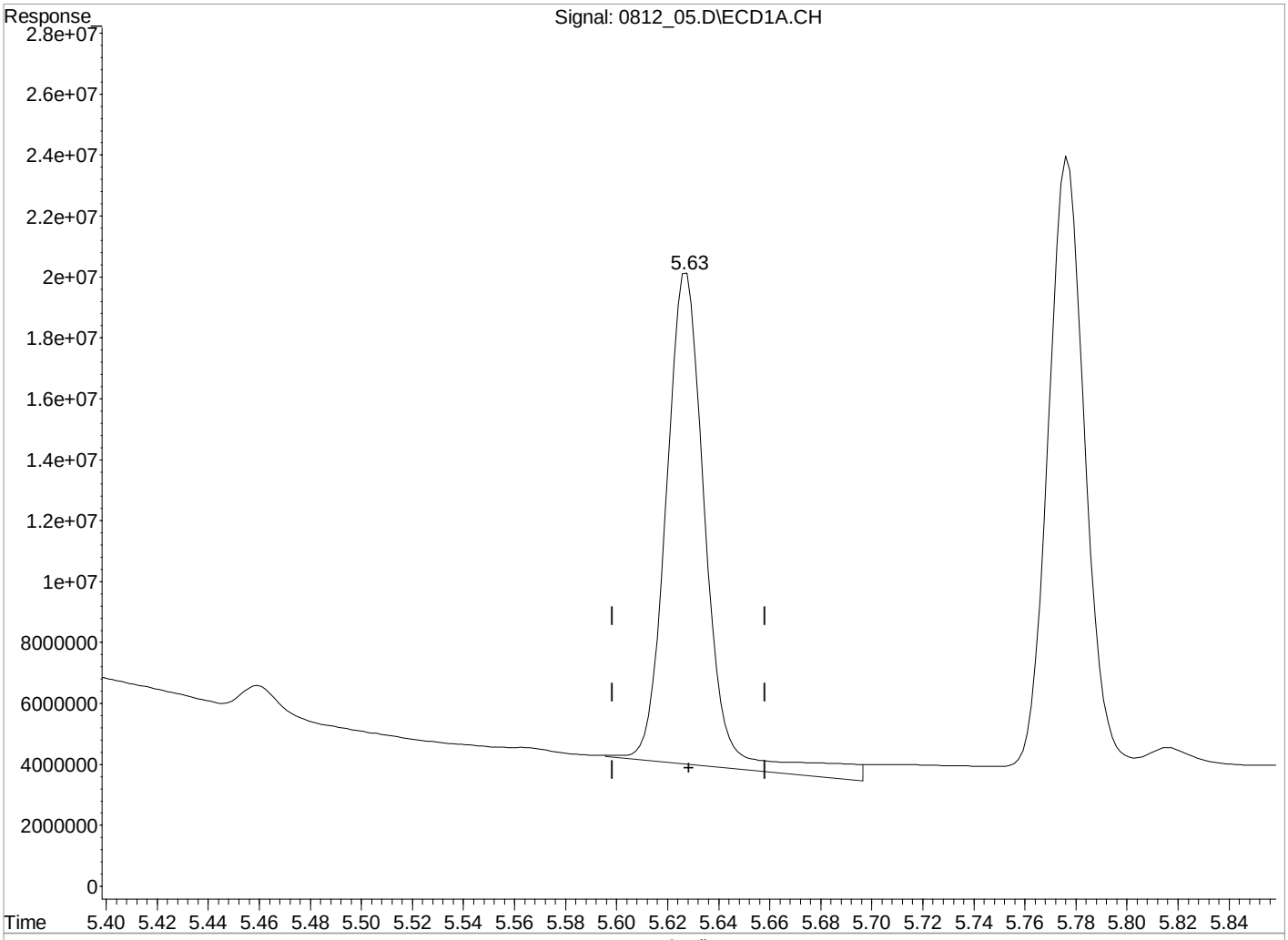
response 7540007

(+) = Expected Retention Time
0812_05.D HB11H12S.M Mon Aug 12 10:48:08 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:55 am   Operator: 957
Sample   : STD HERB 50 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Multiple Level Calibration



(6) Dichloroprop (T,M)

5.63min 56.4259787 ppb

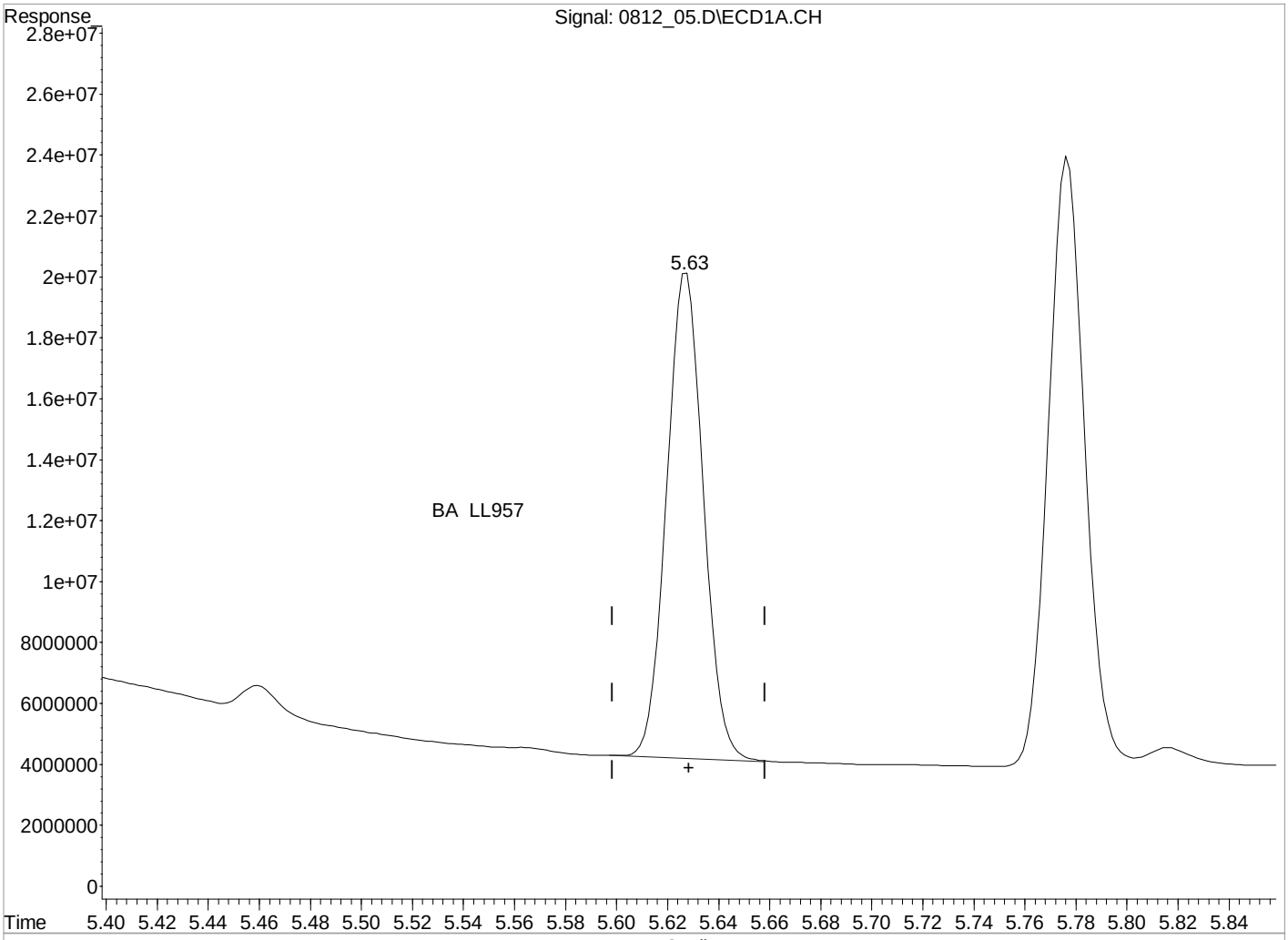
response 176765765

(+) = Expected Retention Time
0812_05.D HB11H12S.M Mon Aug 12 10:48:12 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD1A.CH Vial: 92
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 05.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:55 am   Operator: 957
Sample   : STD HERB 50 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:47 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:47:46 2019
Response via : Multiple Level Calibration



(6) Dichloroprop (T,M)

5.63min 51.0385996 ppb m

response 159888713

(+) = Expected Retention Time
0812_05.D HB11H12S.M Mon Aug 12 10:48:20 2019

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD1A.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD2B.CH
Acq On : 12 Aug 2019 9:09 am Operator: 957
Sample : STD HERB 100 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:48:43 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:48:37 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1751000	303255534	98.6115722	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 19.72%				
14) S 2,4-Dichlorophenyl Acetic	5.3413500	117215634	96.9483311	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 19.39%#				
Target Compounds					
1) T,M Dalapon	1.3360333	419106254	100.0433499	ppb	
3) T,M Dicamba	5.2691667	1225430326	101.7302859	ppb	
4) T,M MCPP	5.3382000	6571740	622.9874266	ppb	
5) T,M MCPA	5.4591167	16262684	1063.3121738	ppb	m
6) T,M Dichloroprop	5.6274167	305238945	98.3695750	ppb	
7) T,M 2,4-D	5.7766333	373129263	102.0455898	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1408500	1926712649	99.6016756	ppb	
9) T,M 2,4,5-T	6.3059000	1658261692	103.7346510	ppb	
10) T,M 2,4-DB	6.5161167	213565130	99.9768265	ppb	
11) T,M Dinoseb	6.6453500	1190016779	97.1651177	ppb	
13) T,M Dalapon(#2)	1.6029833	163294307	98.9876122	ppb	
15) T,M Dicamba(#2)	5.4428333	440107922	93.7368116	ppb	
16) T,M MCPP(#2)	5.5507167	4873392	1215.0929479	ppb	
17) T,M MCPA(#2)	5.6288833	8644351	1042.5463776	ppb	
18) T,M Dichloroprop(#2)	5.8180500	120613042	99.2705809	ppb	
19) T,M 2,4-D(#2)	5.9284500	159373368	94.1692828	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3166500	777724395	98.3318828	ppb	
21) T,M 2,4,5-T (#2)	6.4372167	700476314	96.8652872	ppb	
22) T,M 2,4-DB (#2)	6.6658667	86924289	90.7157323	ppb	
23) T,M Dinoseb (#2)	7.1140333	507183903	95.9628391	ppb	

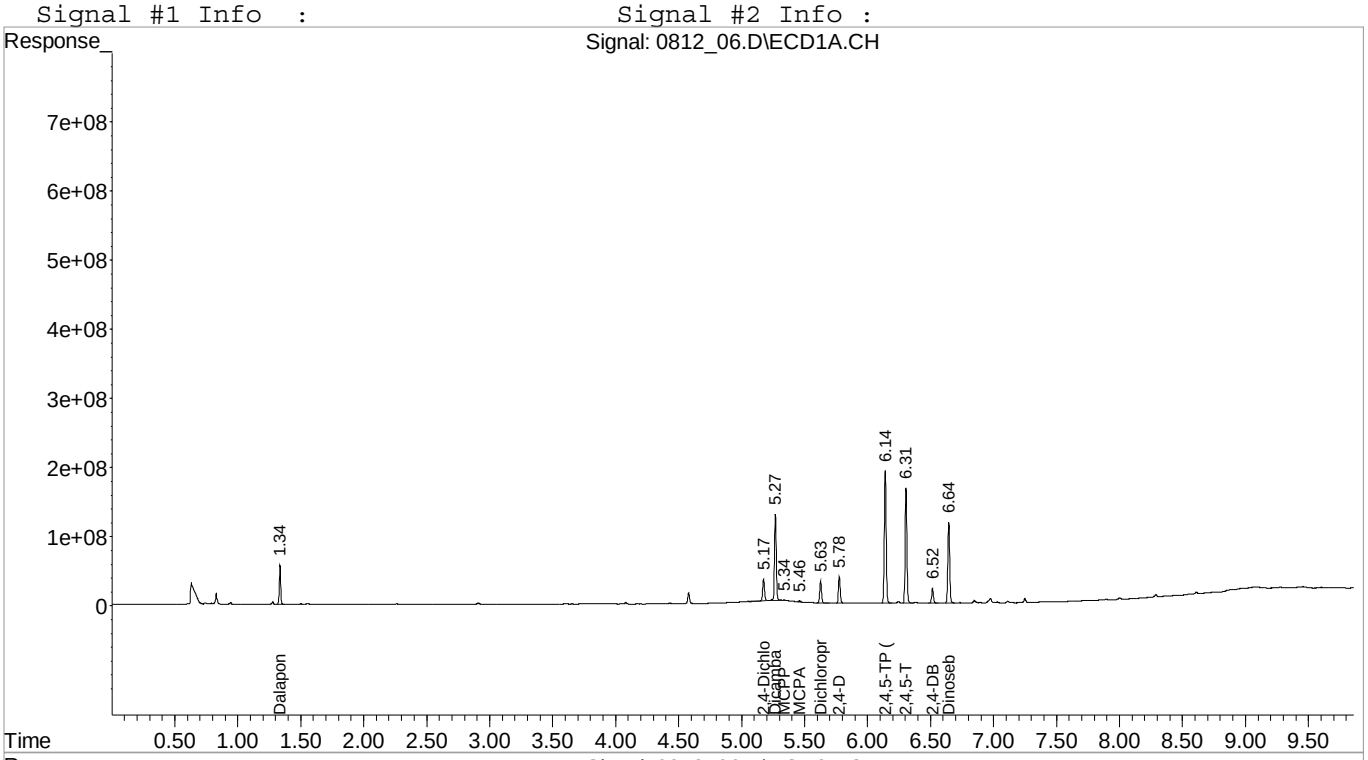
(f)=RT Delta > 1/2 Window (m)=manual int.

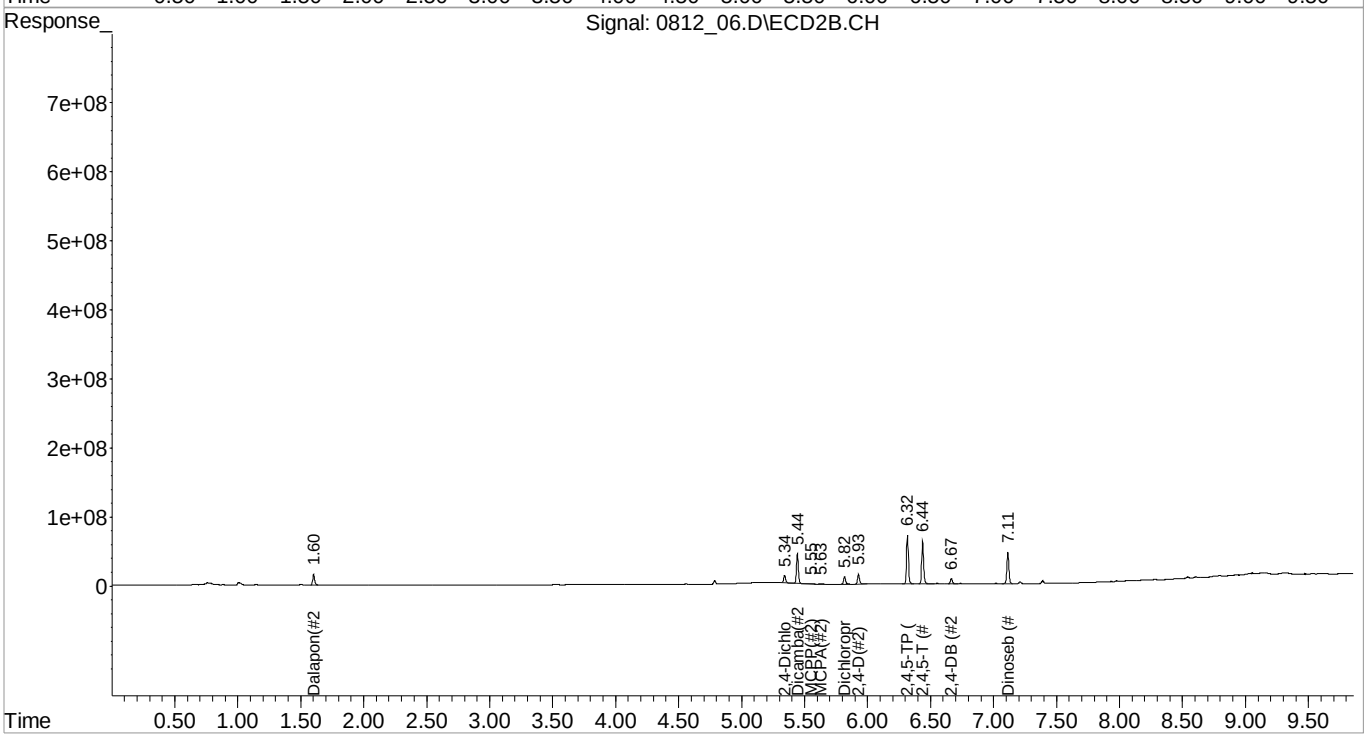
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD1A.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD2B.CH
Acq On : 12 Aug 2019 9:09 am Operator: 957
Sample : STD HERB 100 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:48 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:48:37 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

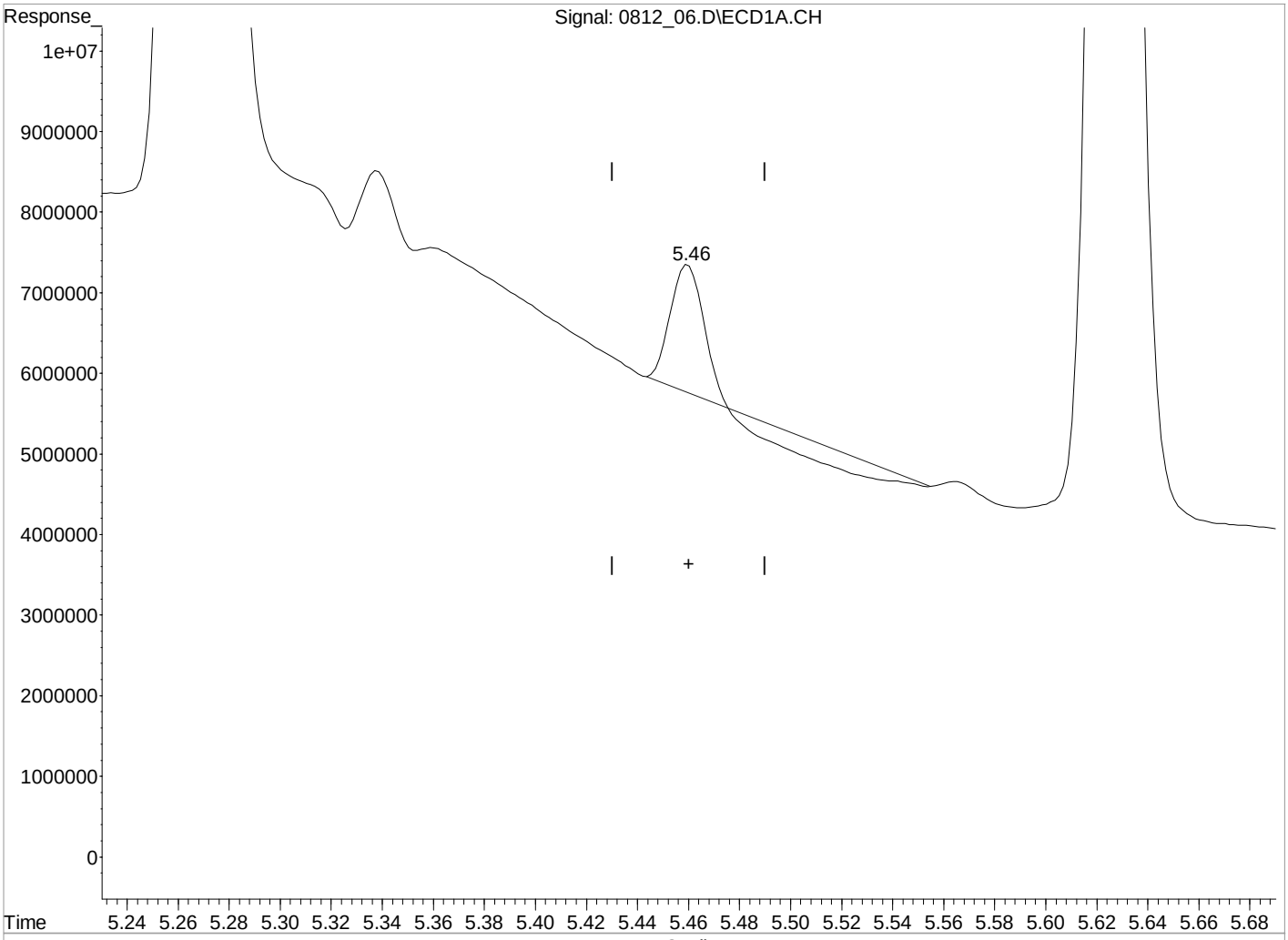




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD1A.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:09 am   Operator: 957
Sample   : STD HERB 100 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:48 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:48:37 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 469.1452746 ppb

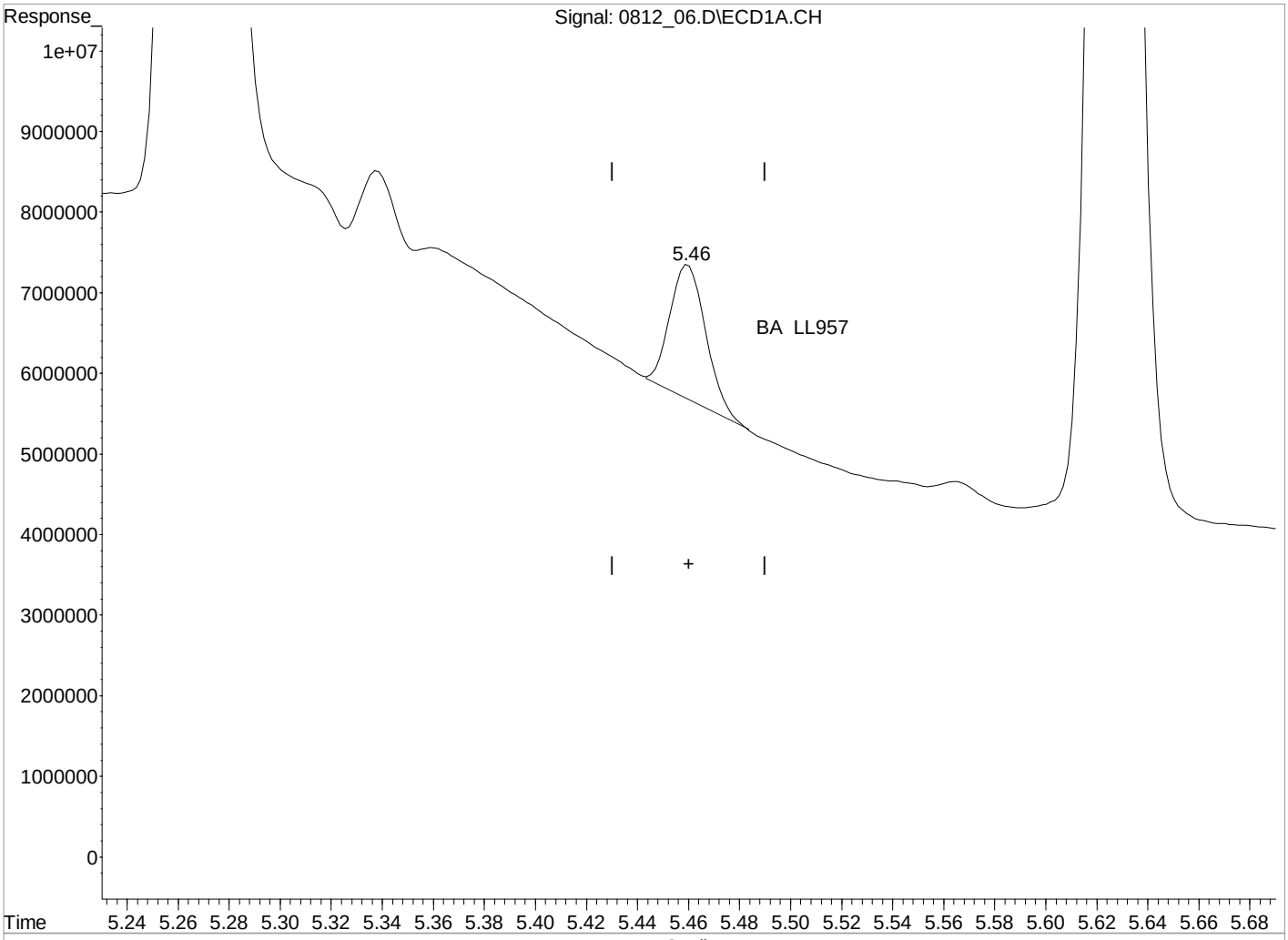
response 7175279

(+) = Expected Retention Time
0812_06.D HB11H12S.M Mon Aug 12 10:48:52 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD1A.CH Vial: 93
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 06.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:09 am   Operator: 957
Sample   : STD HERB 100 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:48 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:48:37 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 1063.3121738 ppb m

response 16262684

(+) = Expected Retention Time
0812_06.D HB11H12S.M Mon Aug 12 10:48:59 2019

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD2B.CH
Acq On : 12 Aug 2019 8:25 am Operator: 957
Sample : MSTD HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:45:13 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Wed Aug 07 07:44:04 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1760500	581176357	184.1575192	ppb	
Spiked Amount 500.0000 Range 14 - 158 Recovery = 36.83%					
14) S 2,4-Dichlorophenyl Acetic	5.3423167	231023445	190.9609356	ppb	
Spiked Amount 500.0000 Range 22 - 132 Recovery = 38.19%					
Target Compounds					
1) T,M Dalapon	1.3362167	814783068	192.7273375	ppb	
3) T,M Dicamba	5.2699167	2323322291	191.7761859	ppb	
4) T,M MCPP	5.3394333	16343454	1000.9058279	ppb	
5) T,M MCPA	5.4600833	29530073	1923.4693196	ppb	m
6) T,M Dichloroprop	5.6282667	573000703	181.4839282	ppb	
7) T,M 2,4-D	5.7774833	694386123	192.5475831	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1422000	3628150012	180.2635036	ppb	
9) T,M 2,4,5-T	6.3073000	3129946436	191.1326251	ppb	
10) T,M 2,4-DB	6.5172667	406175282	184.7591715	ppb	
11) T,M Dinoseb	6.6471000	2285027283	179.8872551	ppb	
13) T,M Dalapon(#2)	1.6035333	306706659	184.5347778	ppb	
15) T,M Dicamba(#2)	5.4440000	896146751	177.6771987	ppb	
16) T,M MCPP(#2)	5.5518167	9364114	2156.5283766	ppb	
17) T,M MCPA(#2)	5.6299667	14989143	1834.2239628	ppb	
18) T,M Dichloroprop(#2)	5.8194667	225234540	179.6654535	ppb	
19) T,M 2,4-D(#2)	5.9296500	294897182	176.4379443	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3179167	1522516889	182.7081851	ppb	
21) T,M 2,4,5-T (#2)	6.4382667	1395673703	180.4353559	ppb	
22) T,M 2,4-DB (#2)	6.6669000	177956243	169.9518741	ppb	
23) T,M Dinoseb (#2)	7.1157167	980990224	172.2414919	ppb	

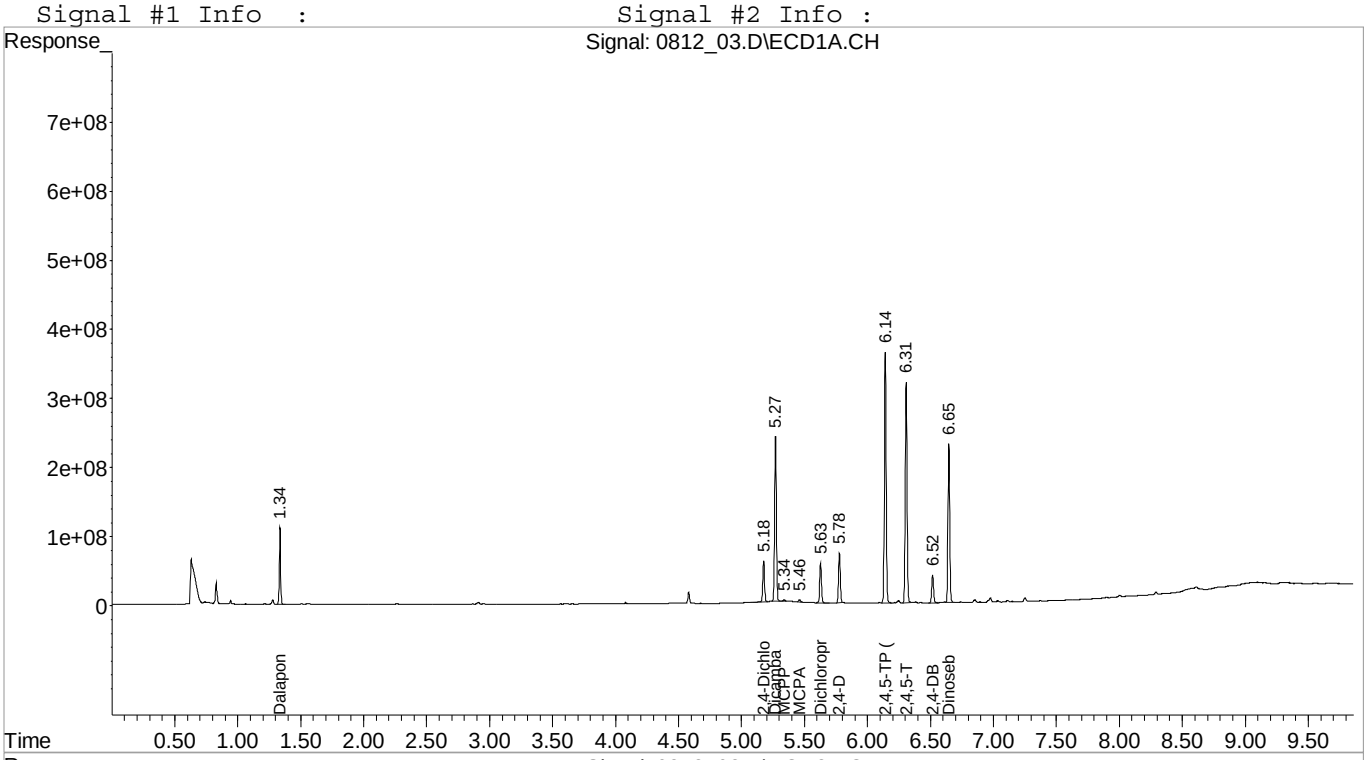
(f)=RT Delta > 1/2 Window (m)=manual int.

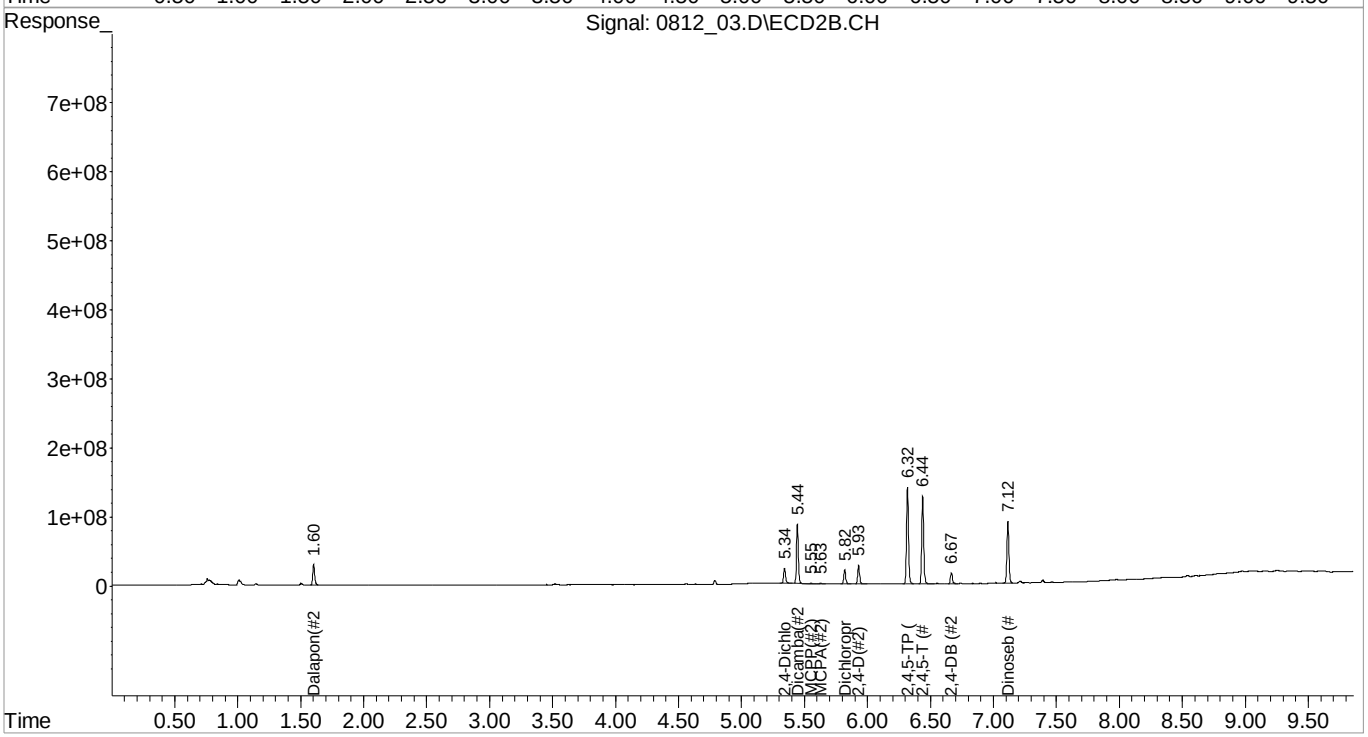
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD2B.CH
Acq On : 12 Aug 2019 8:25 am Operator: 957
Sample : MSTD HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:45 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Wed Aug 07 07:44:04 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

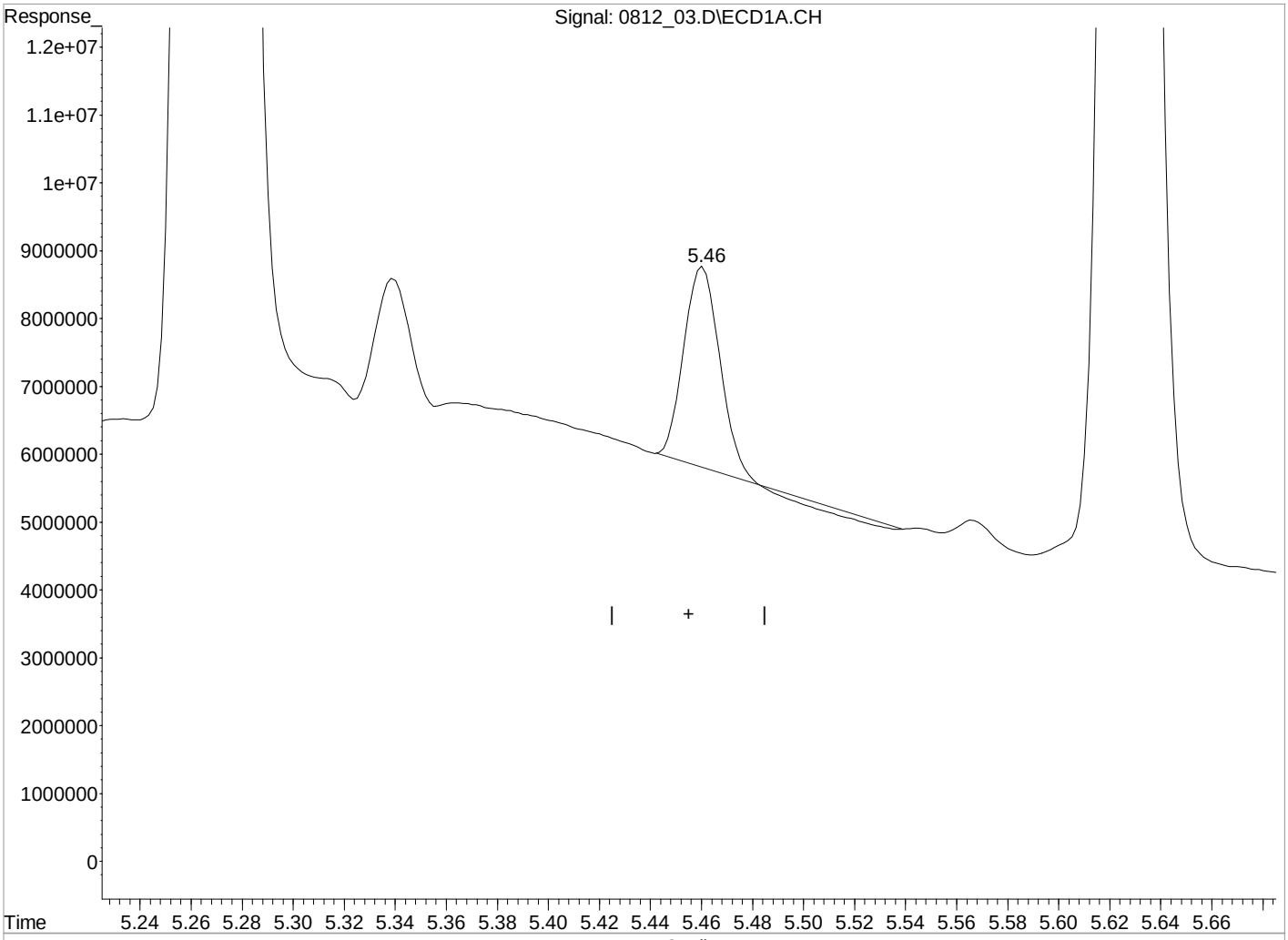




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:25 am   Operator: 957
Sample   : MSTD HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:45 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Wed Aug 07 07:44:04 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 1786.7789503 ppb

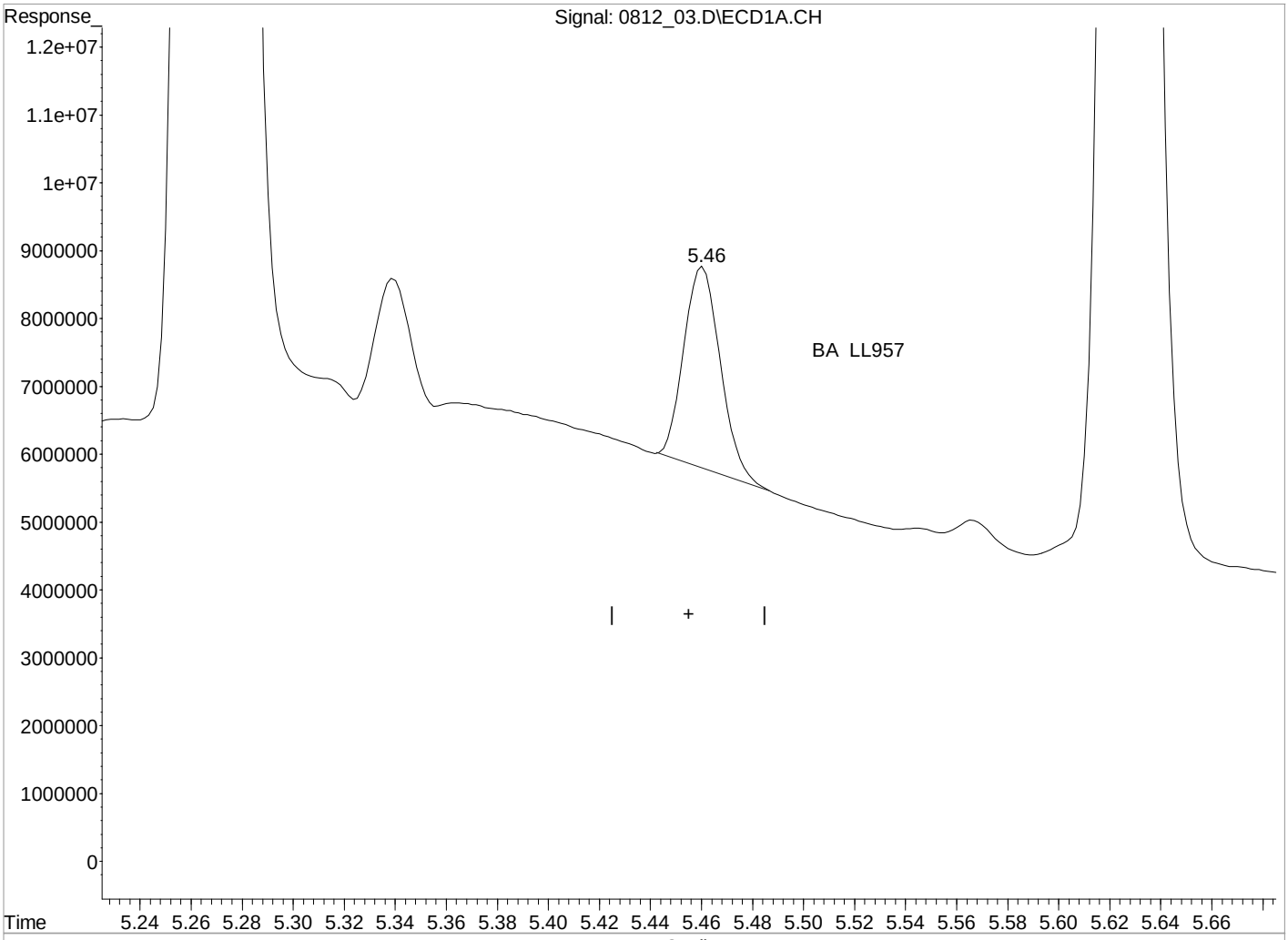
response 27431533

(+) = Expected Retention Time
0812_03.D HB11H12S.M   Mon Aug 12 10:45:23 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 03.D\ECD2B.CH
Acq On   : 12 Aug 2019   8:25 am   Operator: 957
Sample   : MSTD HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:45 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Wed Aug 07 07:44:04 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 1923.4693196 ppb m

response 29530073

(+) = Expected Retention Time
0812_03.D HB11H12S.M Mon Aug 12 10:45:31 2019

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On : 12 Aug 2019 9:24 am Operator: 957
Sample : STD HERB 500 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49:19 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1752333	1363169572	450.1947232	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 90.04%				
14) S 2,4-Dichlorophenyl Acetic	5.3419333	490026046	413.1278052	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 82.63%				
Target Compounds					
1) T,M Dalapon	1.3358833	1898863164	459.4976014	ppb	
3) T,M Dicamba	5.2694833	5554475740	466.0270164	ppb	
4) T,M MCPP	5.3377500	40443737	4984.0596456	ppb	m
5) T,M MCPA	5.4589333	69741370	4679.7750514	ppb	m
6) T,M Dichloroprop	5.6272833	1374660135	452.2908221	ppb	
7) T,M 2,4-D	5.7764000	1679713229	461.2750890	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1413833	8872015765	466.9612804	ppb	
9) T,M 2,4,5-T	6.3062833	7672571820	488.0489011	ppb	
10) T,M 2,4-DB	6.5156667	997760010	473.8889365	ppb	
11) T,M Dinoseb	6.6459667	5395458114	449.8749470	ppb	
13) T,M Dalapon(#2)	1.6026833	670975946	411.4455873	ppb	
15) T,M Dicamba(#2)	5.4437000	1994385338	439.7328757	ppb	
16) T,M MCPP(#2)	5.5512000	20249782	4895.6289562	ppb	
17) T,M MCPA(#2)	5.6289667	29587490	3589.7844078	ppb	
18) T,M Dichloroprop(#2)	5.8185333	501676875	420.1437520	ppb	
19) T,M 2,4-D(#2)	5.9288333	652490347	403.9563141	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3173167	3429892918	443.3141575	ppb	
21) T,M 2,4,5-T (#2)	6.4376833	3089697835	438.3025473	ppb	
22) T,M 2,4-DB (#2)	6.6661500	392588961	426.2657341	ppb	
23) T,M Dinoseb (#2)	7.1149833	2175361731	423.2987846	ppb	

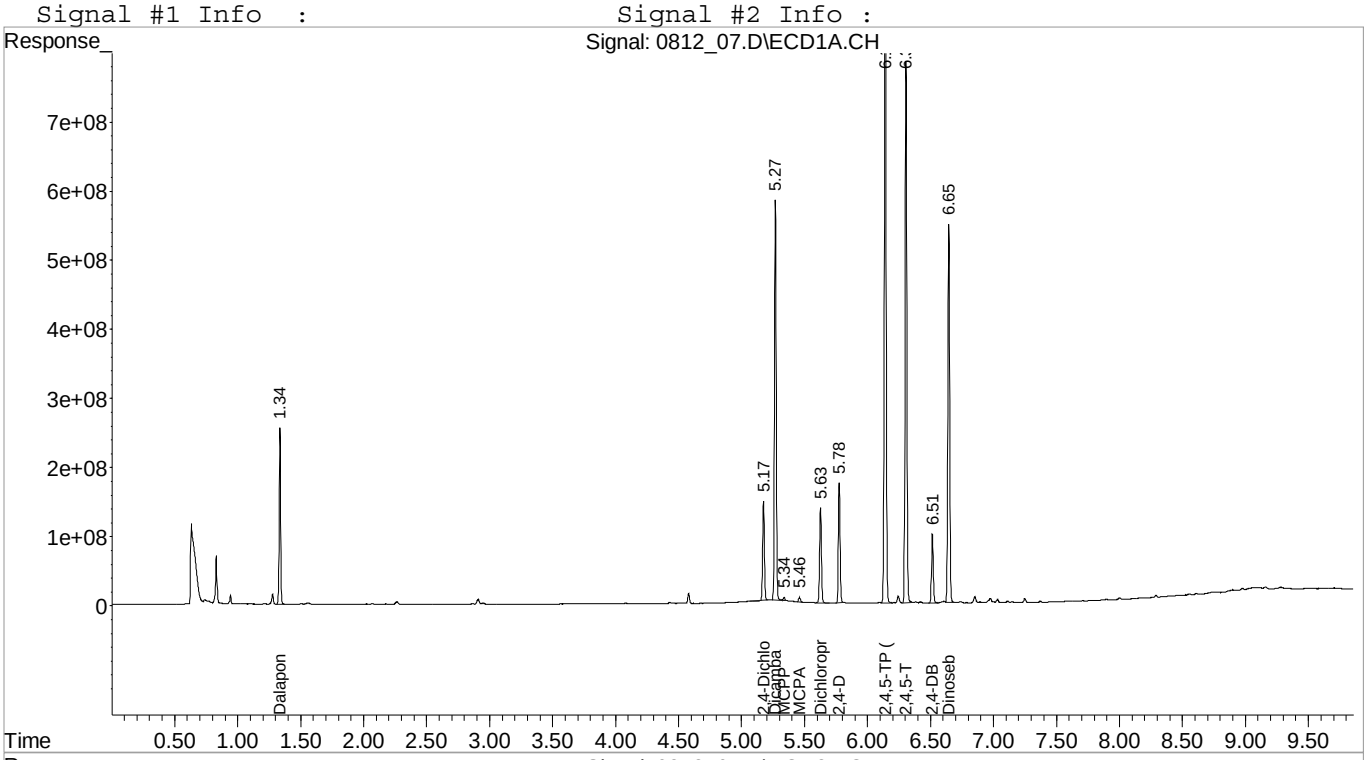
(f)=RT Delta > 1/2 Window (m)=manual int.

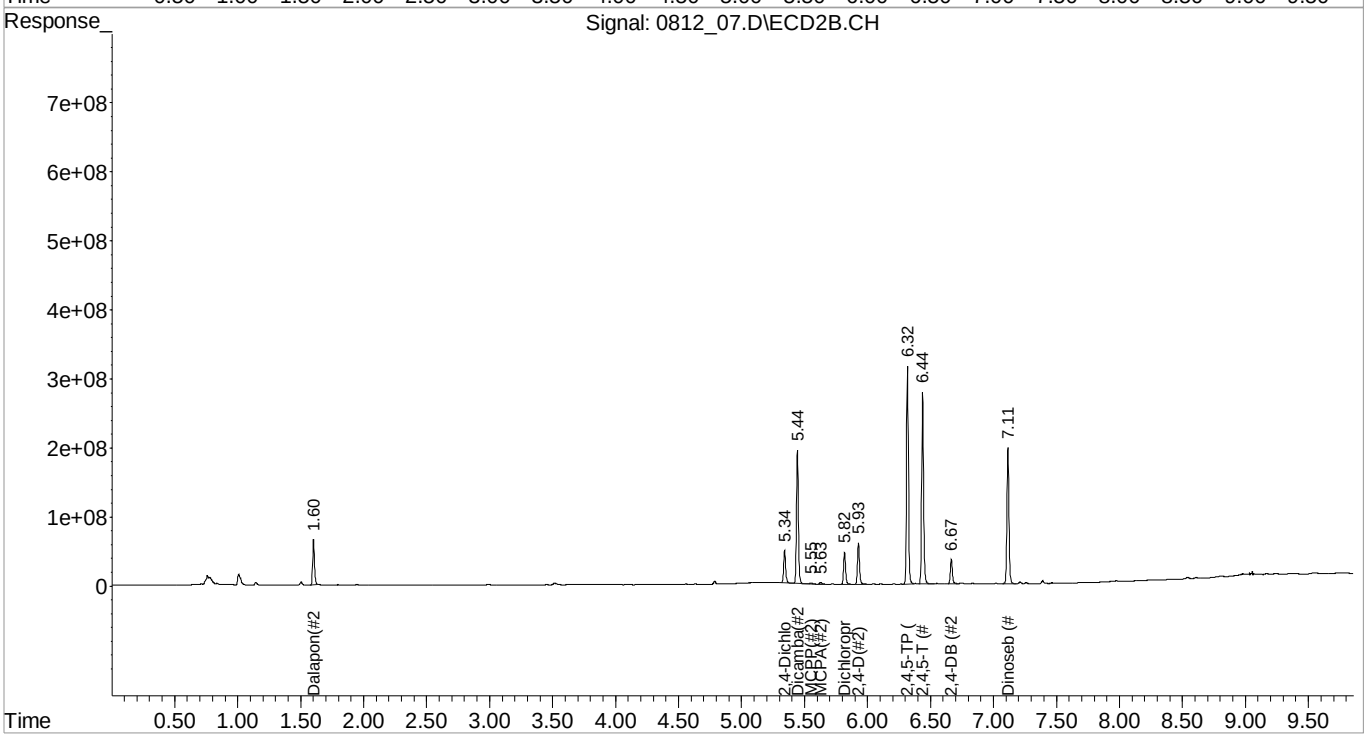
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On : 12 Aug 2019 9:24 am Operator: 957
Sample : STD HERB 500 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

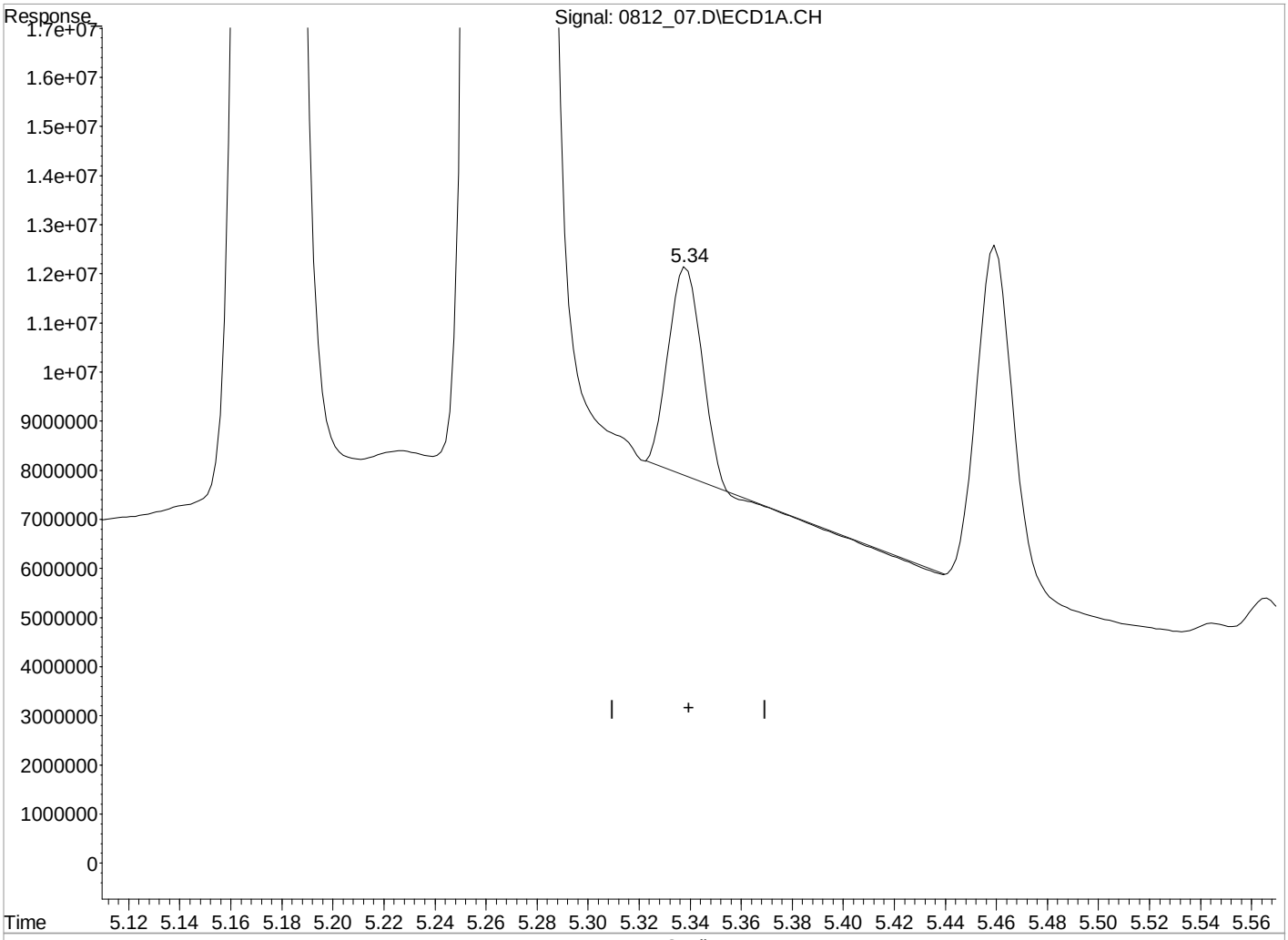




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:24 am   Operator: 957
Sample   : STD HERB 500 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Multiple Level Calibration



QEdit

(4) MCPP (T,M)

5.34min 4787.4653851 ppb

response 38848450

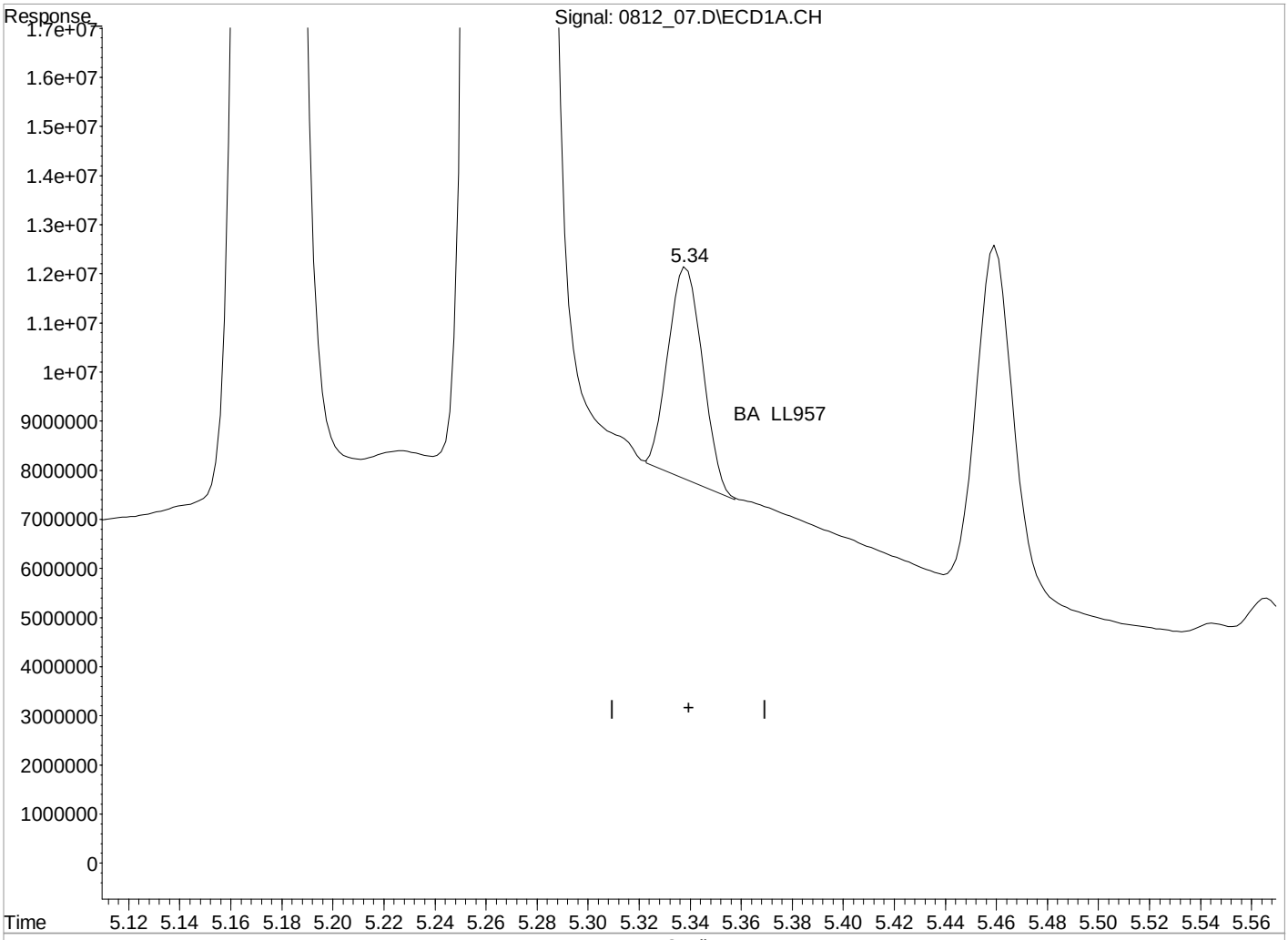
(+) = Expected Retention Time

0812_07.D HB11H12S.M Mon Aug 12 10:49:28 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:24 am   Operator: 957
Sample   : STD HERB 500 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 4984.0596456 ppb m

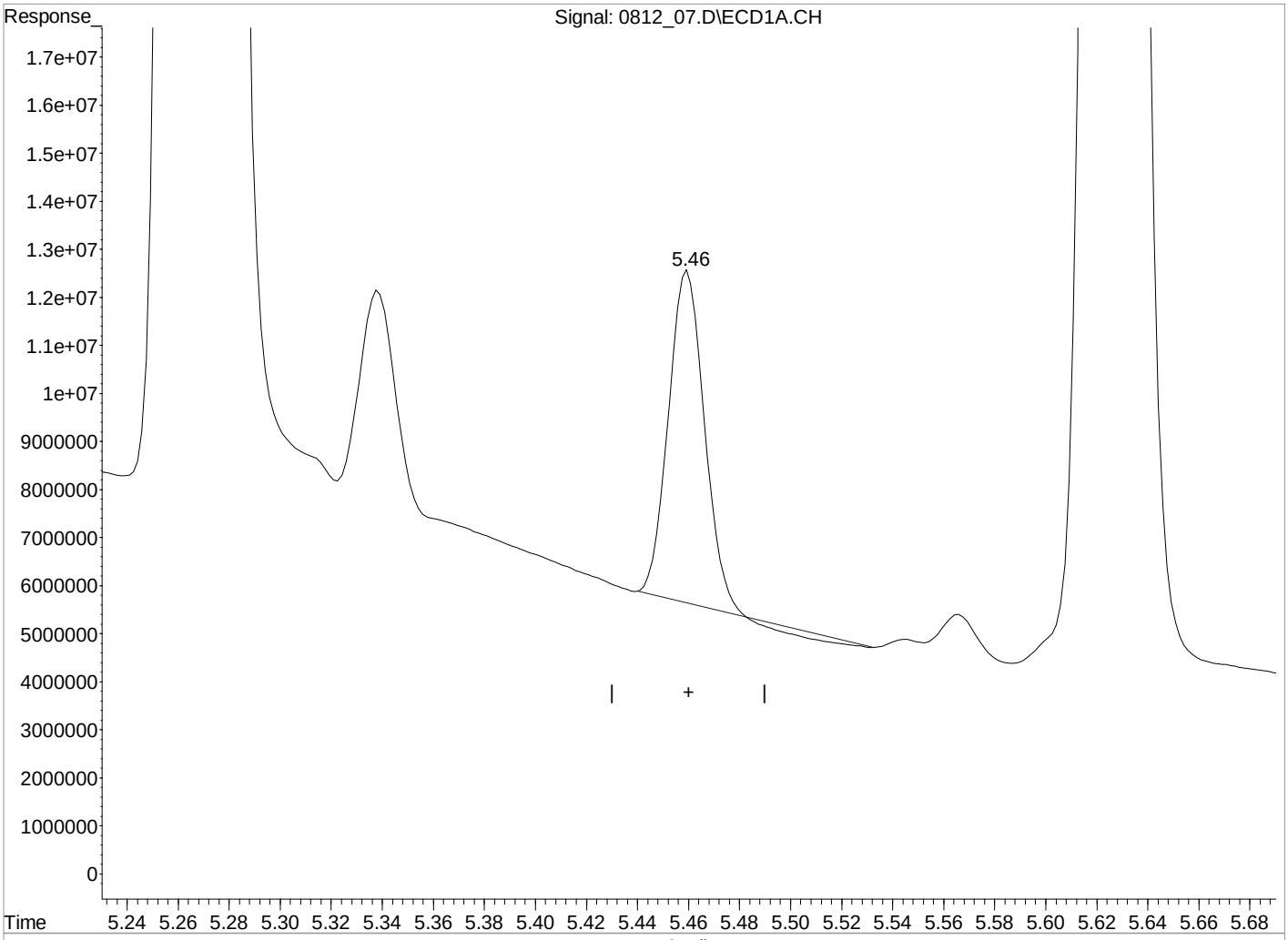
response 40443737

(+) = Expected Retention Time
0812_07.D HB11H12S.M Mon Aug 12 10:49:35 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:24 am   Operator: 957
Sample   : STD HERB 500 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 4413.6631293 ppb

response 65775579

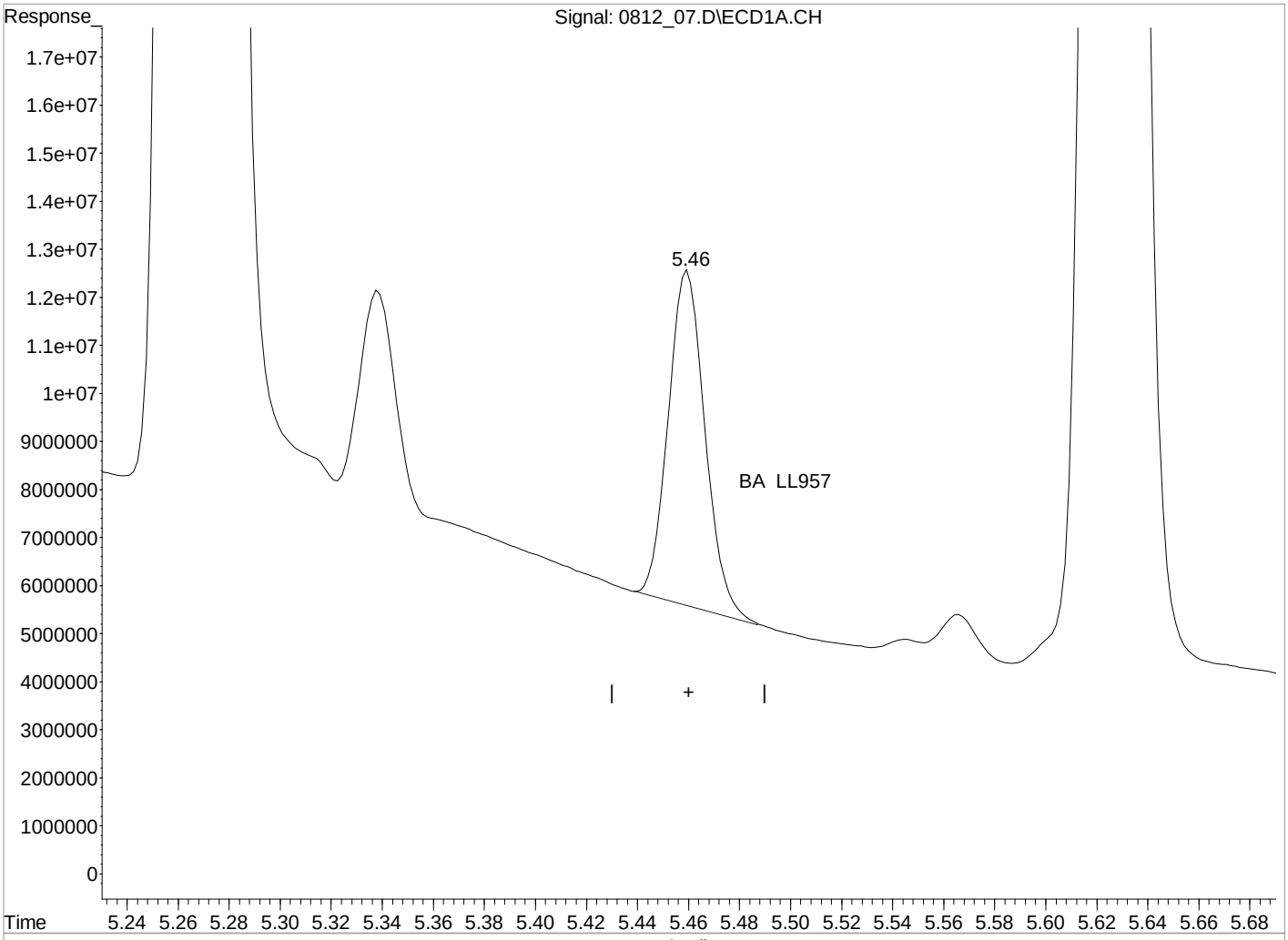
(+) = Expected Retention Time

0812_07.D HB11H12S.M Mon Aug 12 10:49:38 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD1A.CH Vial: 95
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 07.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:24 am   Operator: 957
Sample   : STD HERB 500 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:49 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:49:14 2019
Response via : Multiple Level Calibration



QEdit

(5) MCPA (T,M)

5.46min 4679.7750514 ppb m

response 69741370

(+) = Expected Retention Time
0812_07.D HB11H12S.M Mon Aug 12 10:49:45 2019

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On : 12 Aug 2019 9:39 am Operator: 957
Sample : STD HERB 1000 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50:05 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

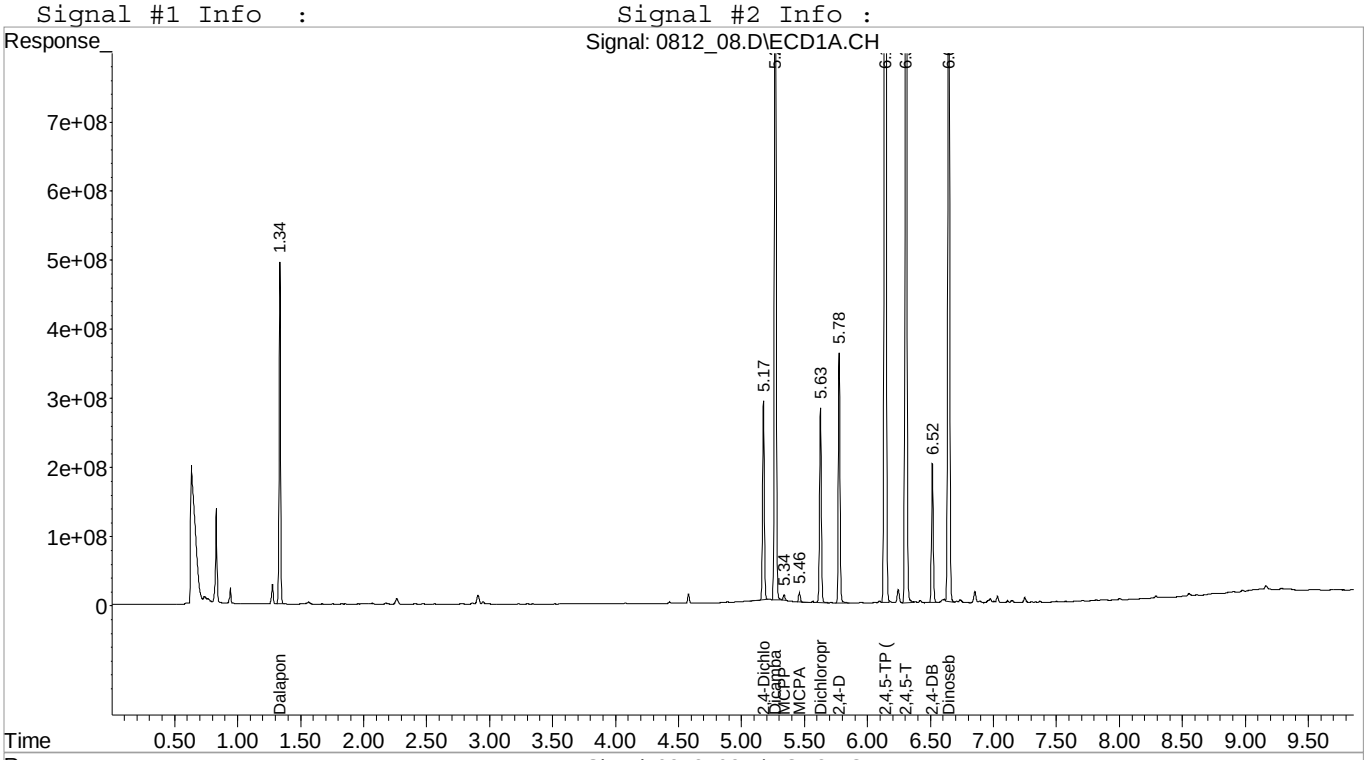
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1750000	2726091329	910.0354302	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 182.01%#				
14) S 2,4-Dichlorophenyl Acetic	5.3413667	976246246	835.0262229	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 167.01%#				
Target Compounds					
1) T,M Dalapon	1.3358333	3745914251	915.3407008	ppb	
3) T,M Dicamba	5.2697167	11176058424	944.0963467	ppb	
4) T,M MCPP	5.3378500	80219528	11957.0580634	ppb	m
5) T,M MCPA	5.4597333	130225986	8882.5863754	ppb	
6) T,M Dichloroprop	5.6271500	2757514300	916.8023659	ppb	
7) T,M 2,4-D	5.7763833	3432342635	944.5269471	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1414667	17828763770	945.2919935	ppb	m
9) T,M 2,4,5-T	6.3046000	13686979153	874.4072293	ppb	
10) T,M 2,4-DB	6.5159333	2029944510	969.3638942	ppb	
11) T,M Dinoseb	6.6465000	10983905815	928.1119958	ppb	
13) T,M Dalapon(#2)	1.6026833	1354847718	840.7793790	ppb	
15) T,M Dicamba(#2)	5.4435667	4083245770	920.8872459	ppb	
16) T,M MCPP(#2)	5.5508167	38046930	9470.3006019	ppb	
17) T,M MCPA(#2)	5.6288500	53836221	6750.4860532	ppb	
18) T,M Dichloroprop(#2)	5.8183167	1006519597	858.8248913	ppb	
19) T,M 2,4-D(#2)	5.9286667	1268121908	802.7033233	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3176000	7012597025	922.6118976	ppb	
21) T,M 2,4,5-T (#2)	6.4378833	6324710898	915.0438764	ppb	
22) T,M 2,4-DB (#2)	6.6658500	815255572	910.9053742	ppb	
23) T,M Dinoseb (#2)	7.1151333	4502699173	903.0371171	ppb	

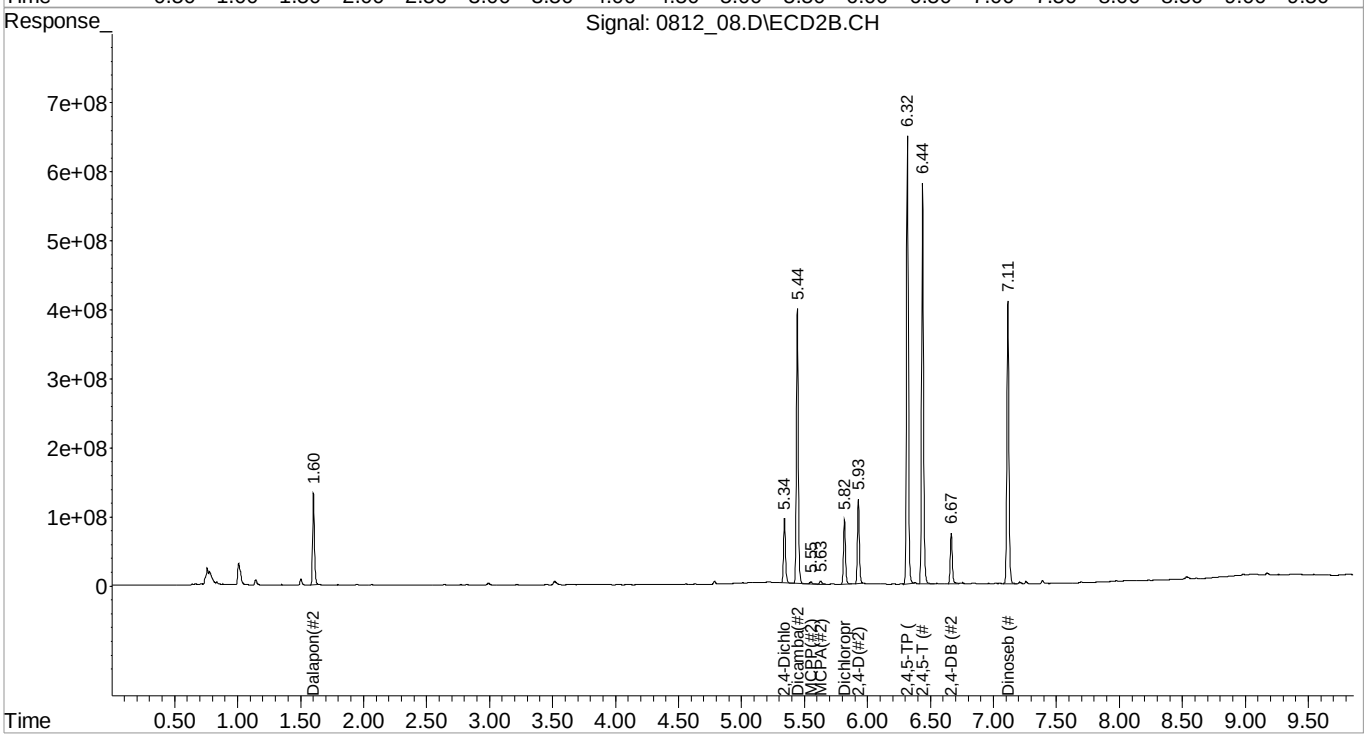
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On : 12 Aug 2019 9:39 am Operator: 957
Sample : STD HERB 1000 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

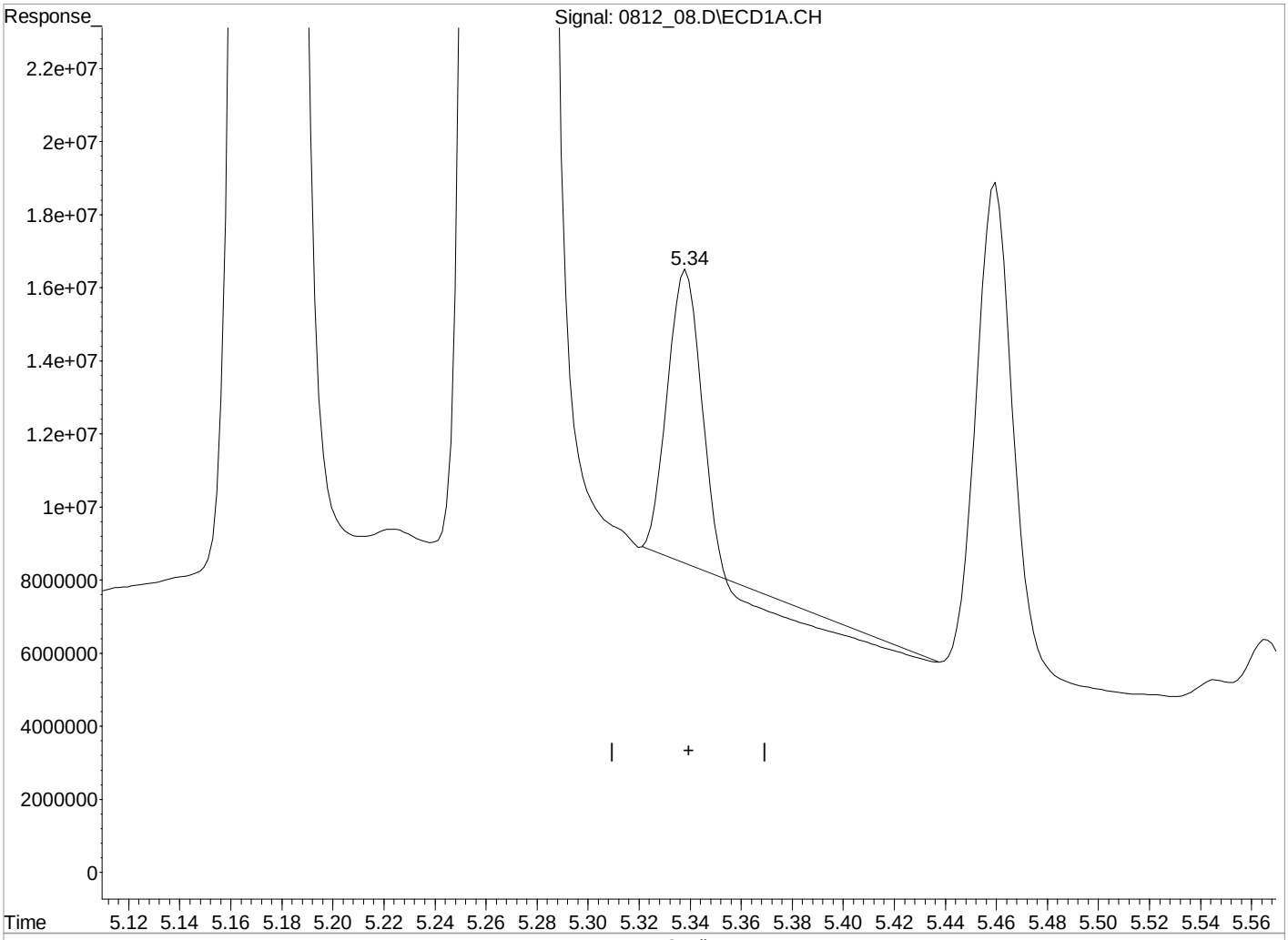




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:39 am   Operator: 957
Sample   : STD HERB 1000 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 9209.3579988 ppb

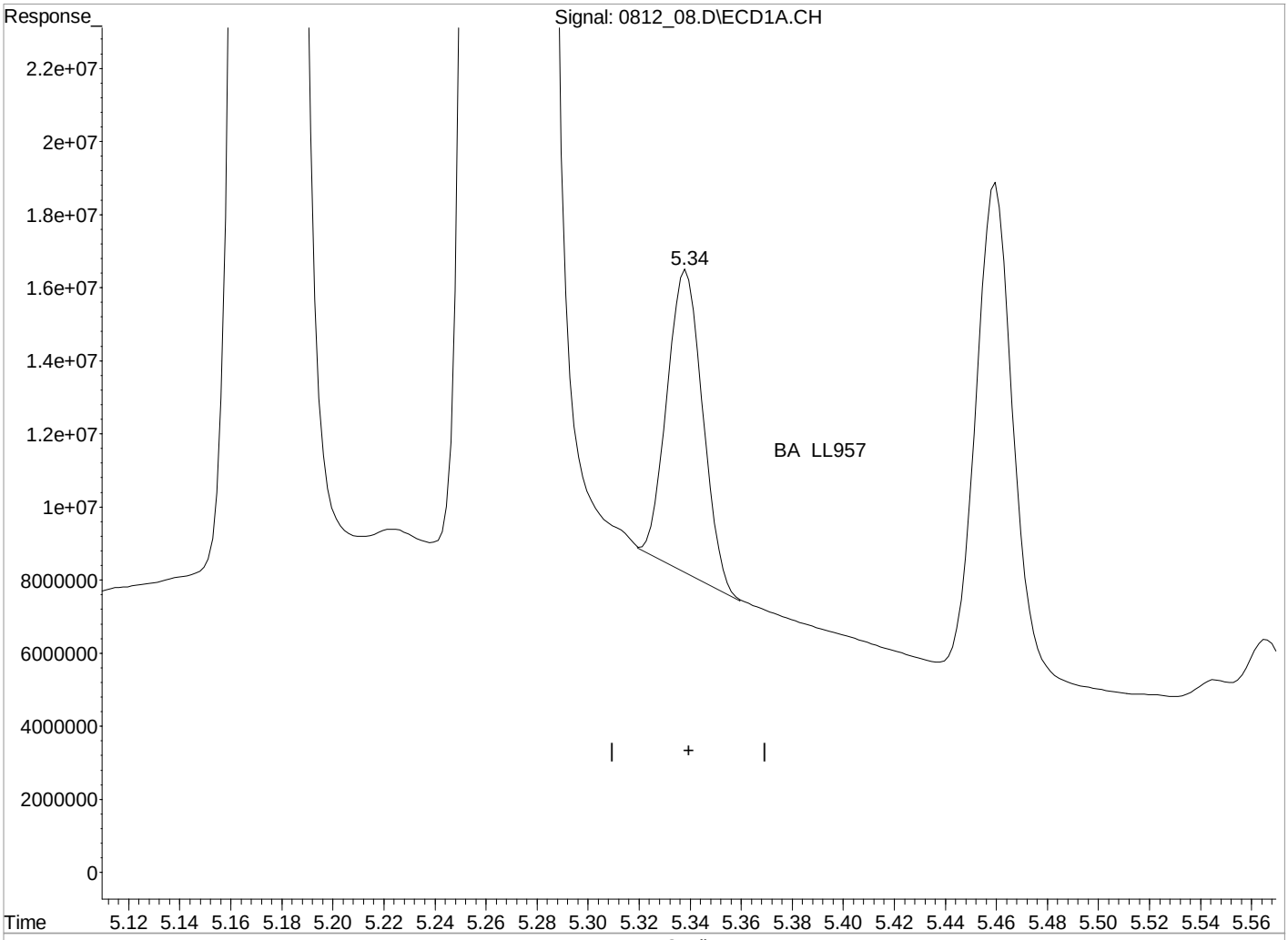
response 61785294

(+) = Expected Retention Time
0812_08.D HB11H12S.M Mon Aug 12 10:50:13 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:39 am   Operator: 957
Sample   : STD HERB 1000 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 11957.0580634 ppb m

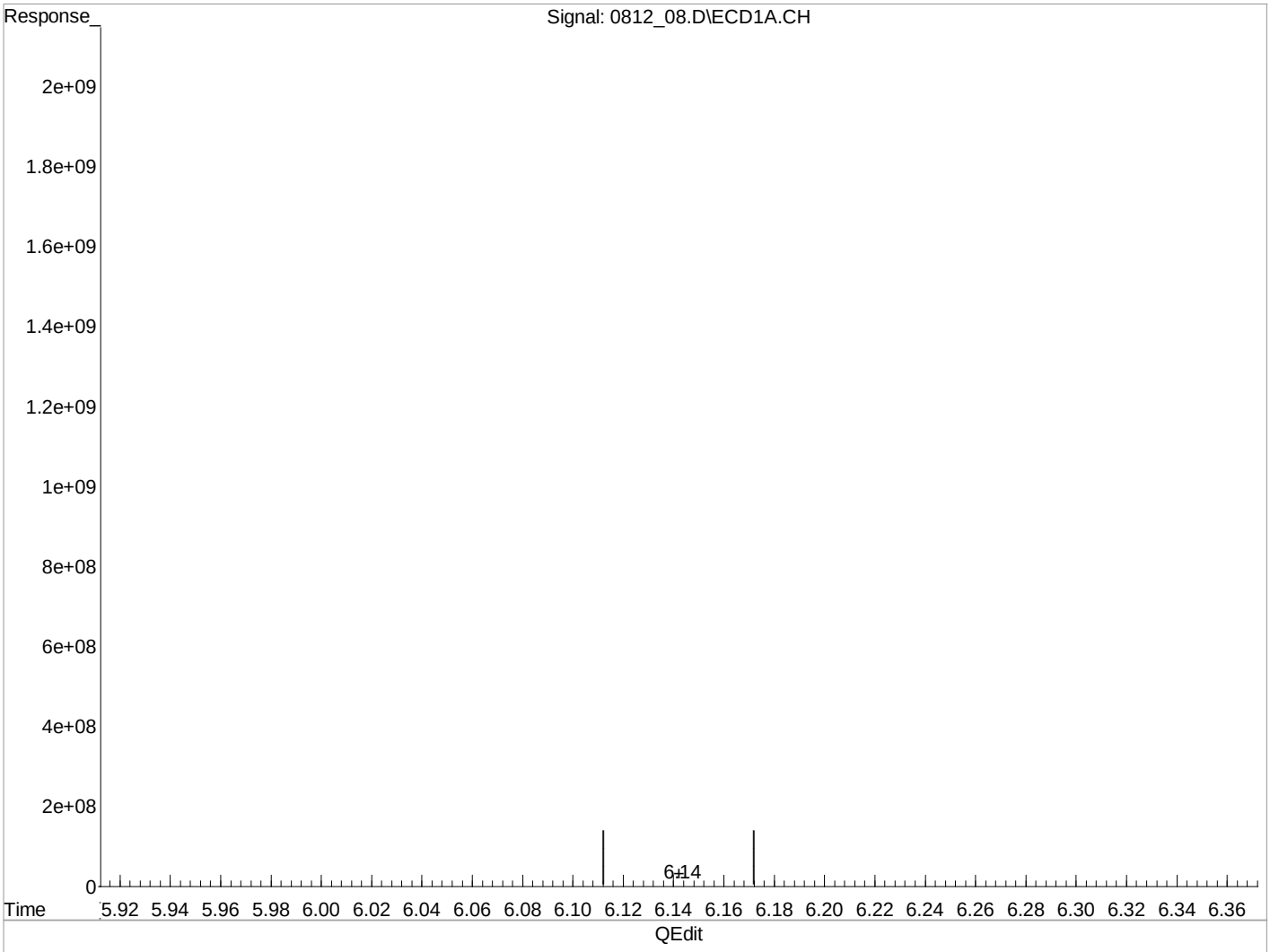
response 80219528

(+) = Expected Retention Time
0812_08.D HB11H12S.M Mon Aug 12 10:50:19 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:39 am   Operator: 957
Sample   : STD HERB 1000 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Multiple Level Calibration



(8) 2,4,5-TP (Silvex) (T,M)

6.14min 924.7336667 ppb

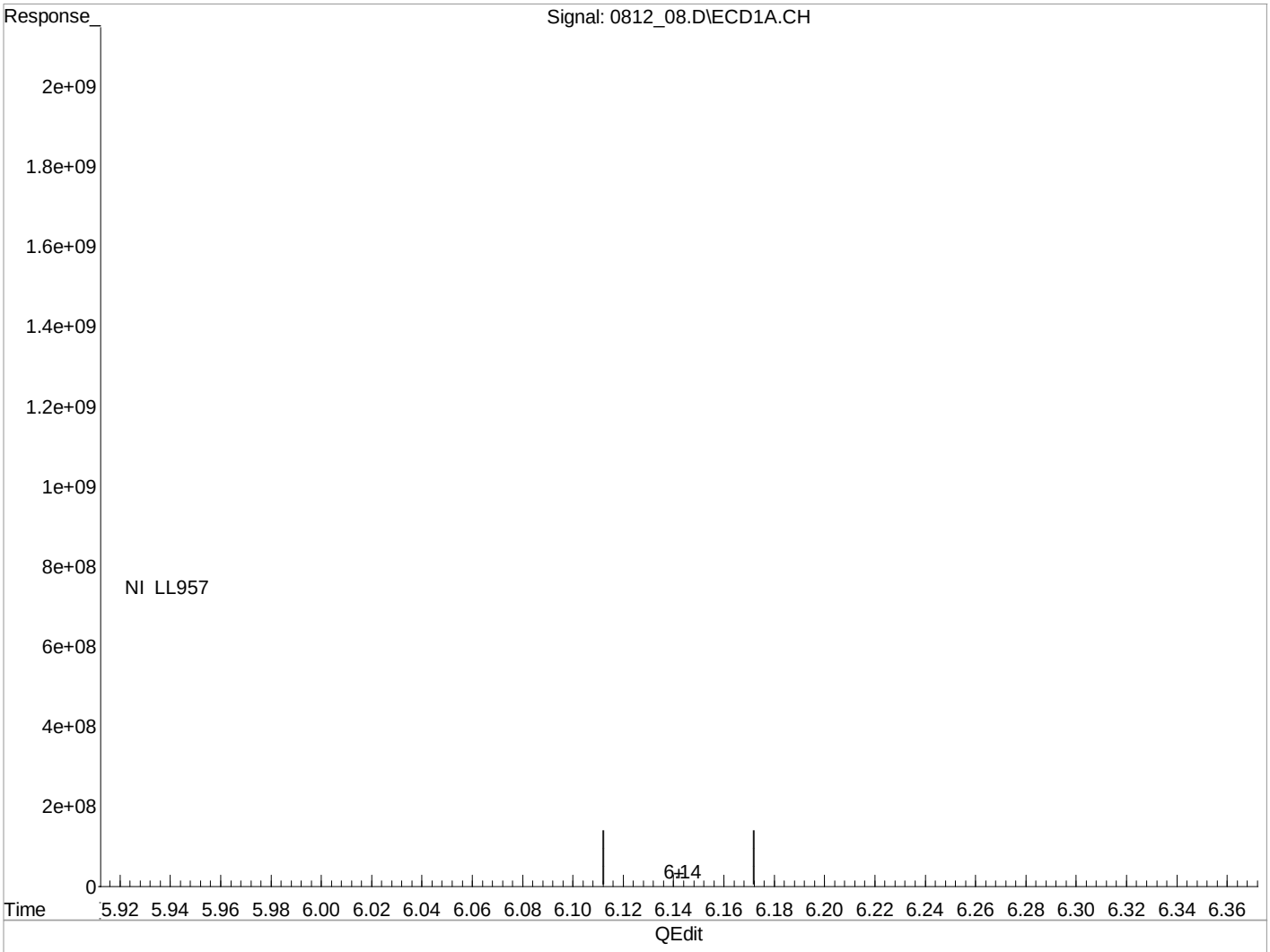
response 17441021617

(+) = Expected Retention Time
0812_08.D HB11H12S.M Mon Aug 12 10:50:24 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD1A.CH Vial: 96
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 08.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:39 am   Operator: 957
Sample   : STD HERB 1000 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:50 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:50:00 2019
Response via : Multiple Level Calibration



QEdit

(8) 2,4,5-TP (Silvex) (T,M)

6.14min 945.2919935 ppb m

response 17828763770

(+) = Expected Retention Time

0812_08.D HB11H12S.M Mon Aug 12 10:50:31 2019

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0812_09	**Analysis date/time:**	08/12/19 09:54
Analytical Method:	8151A	**Sample ID:**	SSCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.1882	94.10	80 - 120
2,4-D	0.20	0.1955	97.80	80 - 120

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0812_09	**Analysis date/time:**	08/12/19 09:54
Analytical Method:	8151A	**Sample ID:**	SSCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.1924	96.20	80 - 120
2,4-D	0.20	0.1904	95.20	80 - 120

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On : 12 Aug 2019 9:54 am Operator: 957
Sample : SSCV HERB 200 ppb 19G10398 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:51:49 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1749167	567456090	191.4507589	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 38.29%				
14) S 2,4-Dichlorophenyl Acetic	5.3413500	218036431	190.5201683	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 38.10%				
Target Compounds					
1) T,M Dalapon	1.3355667	809969202	200.6939221	ppb	
3) T,M Dicamba	5.2688167	2201597669	183.6493273	ppb	
4) T,M MCPP	5.3378167	12523053	1667.5803324	ppb	m
5) T,M MCPA	5.4585167	30040778	2077.8574772	ppb	m
6) T,M Dichloroprop	5.6267500	591411936	198.8951093	ppb	
7) T,M 2,4-D	5.7759833	707083196	195.4775810	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1405833	3506498198	188.2172167	ppb	
9) T,M 2,4,5-T	6.3057500	3238584375	205.1189188	ppb	
10) T,M 2,4-DB	6.5154667	408378375	196.5156975	ppb	
11) T,M Dinoseb	6.6451833	2132379884	182.9437330	ppb	
13) T,M Dalapon(#2)	1.6023667	308735231	194.6181106	ppb	
15) T,M Dicamba(#2)	5.4428333	830566124	192.5585820	ppb	
16) T,M MCPP(#2)	5.5482167	10800109	2528.4493046	ppb	
17) T,M MCPA(#2)	5.6285167	13951601	2042.0569710	ppb	
18) T,M Dichloroprop(#2)	5.8180167	220254206	192.1821771	ppb	
19) T,M 2,4-D(#2)	5.9281500	292578527	190.3940776	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3164500	1430223082	192.3660280	ppb	
21) T,M 2,4,5-T (#2)	6.4370000	1387800094	205.1995290	ppb	
22) T,M 2,4-DB (#2)	6.6659667	164023651	188.2418358	ppb	
23) T,M Dinoseb (#2)	7.1141500	892253084	184.5705404	ppb	

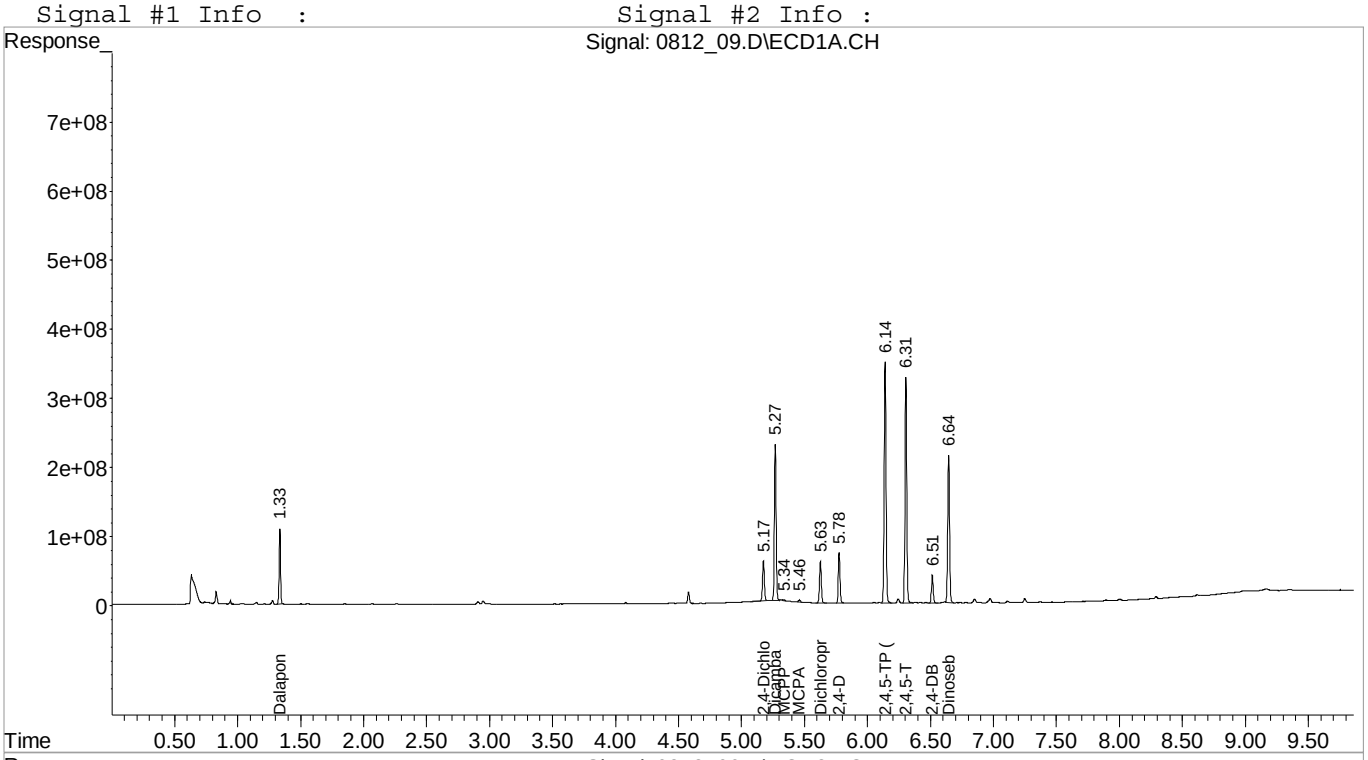
(f)=RT Delta > 1/2 Window (m)=manual int.

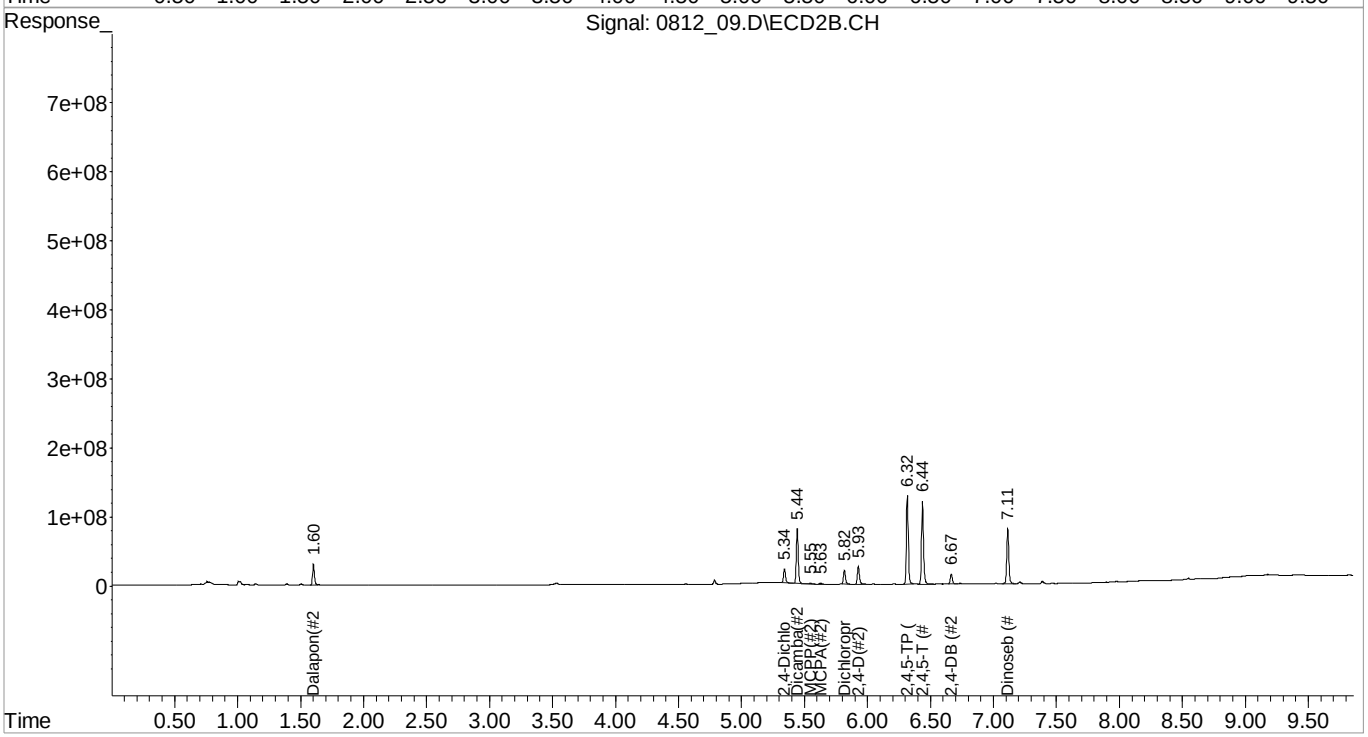
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On : 12 Aug 2019 9:54 am Operator: 957
Sample : SSCV HERB 200 ppb 19G10398 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:54 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

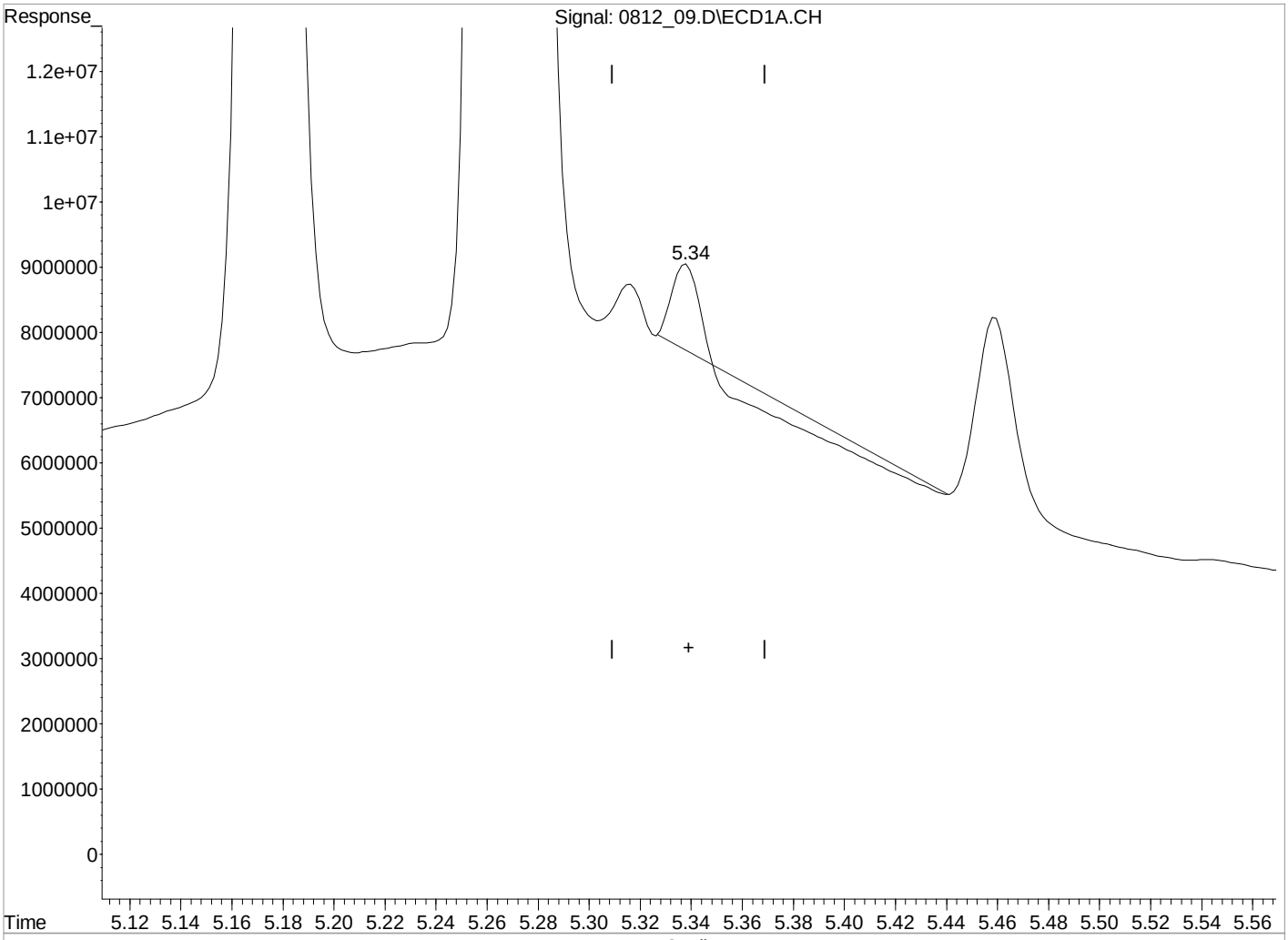




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:54 am   Operator: 957
Sample   : SSCV HERB 200 ppb 19G10398 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:51 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 170.8579822 ppb

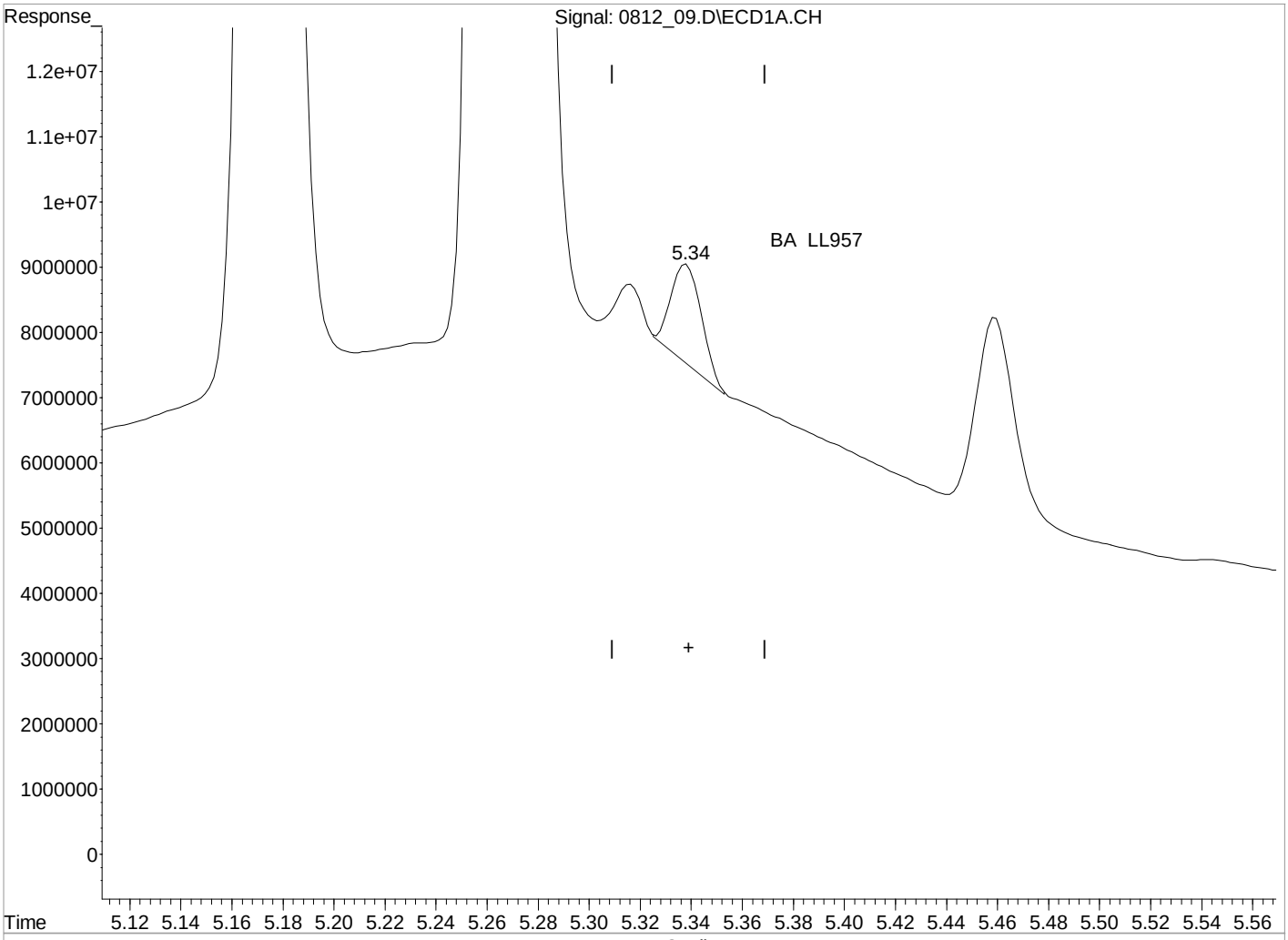
response 280063

(+) = Expected Retention Time
0812_09.D HB11H12S.M Mon Aug 12 10:54:42 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:54 am   Operator: 957
Sample   : SSCV HERB 200 ppb 19G10398 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:51 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(4) MCPP (T,M)

5.34min 1667.5803324 ppb m

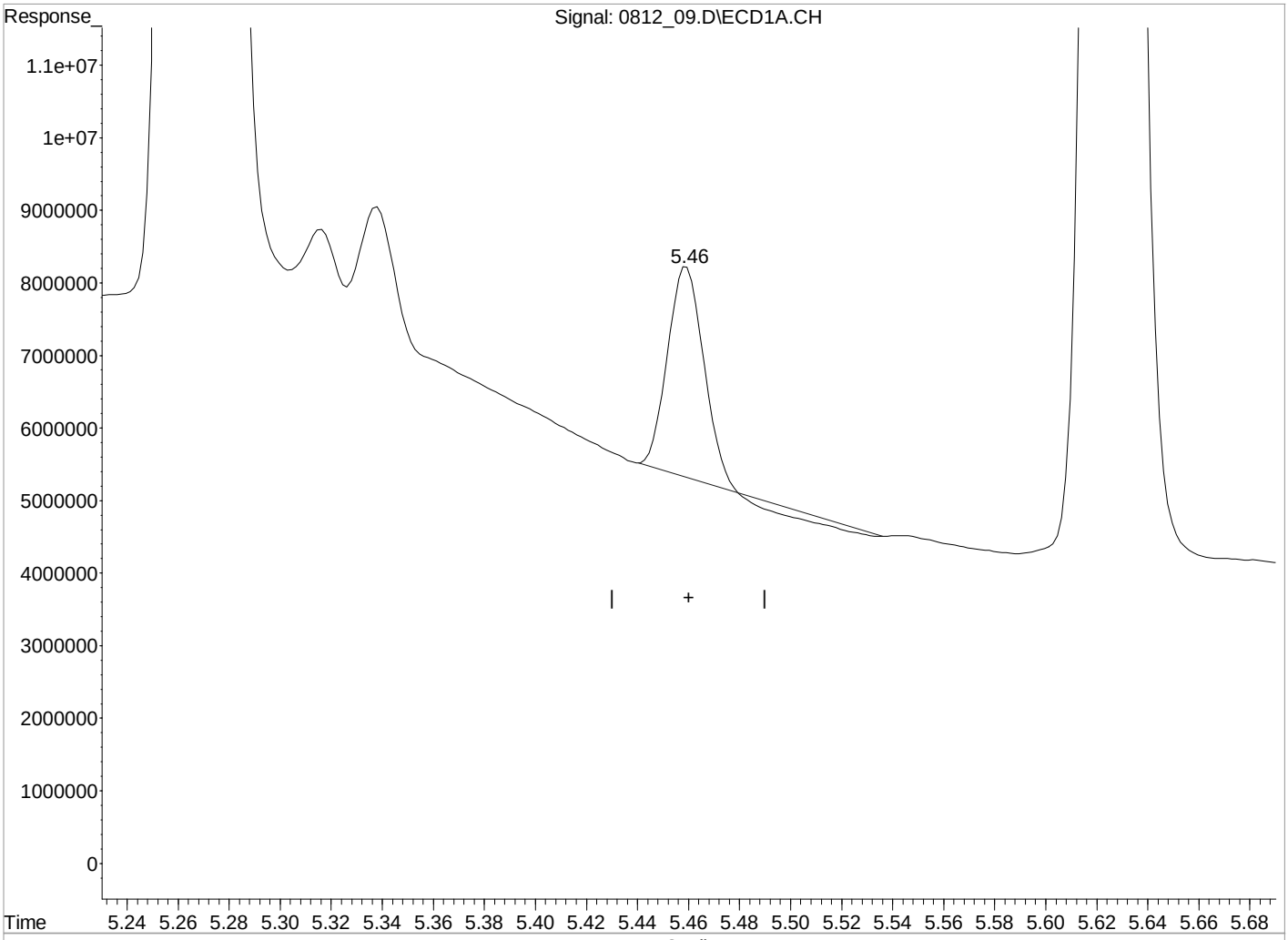
response 12523053

(+) = Expected Retention Time
0812_09.D HB11H12S.M Mon Aug 12 10:54:50 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:54 am   Operator: 957
Sample   : SSCV HERB 200 ppb 19G10398 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:51 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(5) MCPA (T,M)

5.46min 1837.7142390 ppb

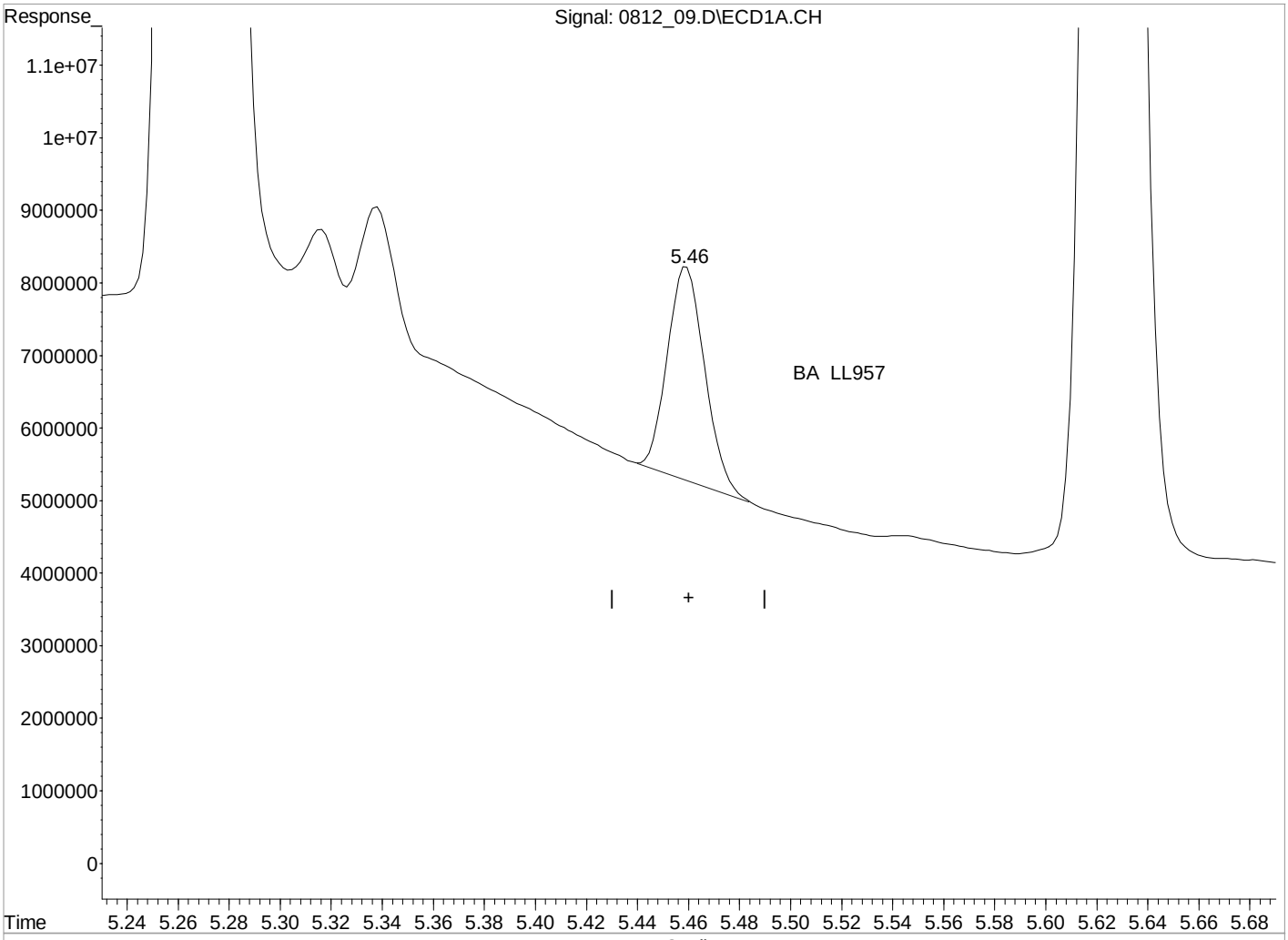
response 26568889

(+) = Expected Retention Time
0812_09.D HB11H12S.M Mon Aug 12 10:54:53 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD1A.CH Vial: 97
Signal #2 : C:\MSDCHEM\1\DATA\081219\0812 09.D\ECD2B.CH
Acq On   : 12 Aug 2019   9:54 am   Operator: 957
Sample   : SSCV HERB 200 ppb 19G10398 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 12 10:51 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 2077.8574772 ppb m

response 30040778

(+) = Expected Retention Time
0812_09.D HB11H12S.M Mon Aug 12 10:54:59 2019

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0819_03	**Analysis date/time:**	08/19/19 07:29
Analytical Method:	8151A	**Sample ID:**	CCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2076	104	85 - 115
2,4-D	0.20	0.1958	97.90	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.1991	99.60	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0819_03	**Analysis date/time:**	08/19/19 07:29
Analytical Method:	8151A	**Sample ID:**	CCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.3404	170	85 - 115
2,4-D	0.20	0.3031	152	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.2780	139	70 - 130

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On : 19 Aug 2019 7:29 am Operator: 957
Sample : CCV HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 08:16:08 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1735500	590045619	199.0721104	ppb	m
Spiked Amount 500.0000 Range 14 - 158 Recovery = 39.81%					
14) S 2,4-Dichlorophenyl Acetic	5.3400667	318095059	277.9513678	ppb	
Spiked Amount 500.0000 Range 22 - 132 Recovery = 55.59%					
Target Compounds					
1) T,M Dalapon	1.3358500	847165262	209.9103506	ppb	
3) T,M Dicamba	5.2684500	2401389019	200.3152003	ppb	
4) T,M MCPP	5.3370667	22453463	2881.5867094	ppb	m
5) T,M MCPA	5.4589833	39965752	2764.3471204	ppb	
6) T,M Dichloroprop	5.6264333	602140492	202.5031819	ppb	
7) T,M 2,4-D	5.7761167	708189692	195.7834786	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1404333	3867271712	207.5823447	ppb	
9) T,M 2,4,5-T	6.3058667	3122370423	197.7583941	ppb	
10) T,M 2,4-DB	6.5161000	370046217	178.0698855	ppb	
11) T,M Dinoseb	6.6455000	2344731020	201.1620204	ppb	
13) T,M Dalapon(#2)	1.6015667	351533567	221.5969925	ppb	
15) T,M Dicamba(#2)	5.4417000	1306993432	303.0135648	ppb	
16) T,M MCPP(#2)	5.5493000	20585575	4819.3568673	ppb	
17) T,M MCPA(#2)	5.6273167	26477060	4510.6337083	ppb	
18) T,M Dichloroprop(#2)	5.8166667	359791248	313.9348233	ppb	
19) T,M 2,4-D(#2)	5.9273167	465818954	303.1294575	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3154333	2531193368	340.4473194	ppb	
21) T,M 2,4,5-T (#2)	6.4361500	2279839103	337.0960359	ppb	
22) T,M 2,4-DB (#2)	6.6653833	256284169	294.1246710	ppb	
23) T,M Dinoseb (#2)	7.1133000	1694475362	350.5174021	ppb	

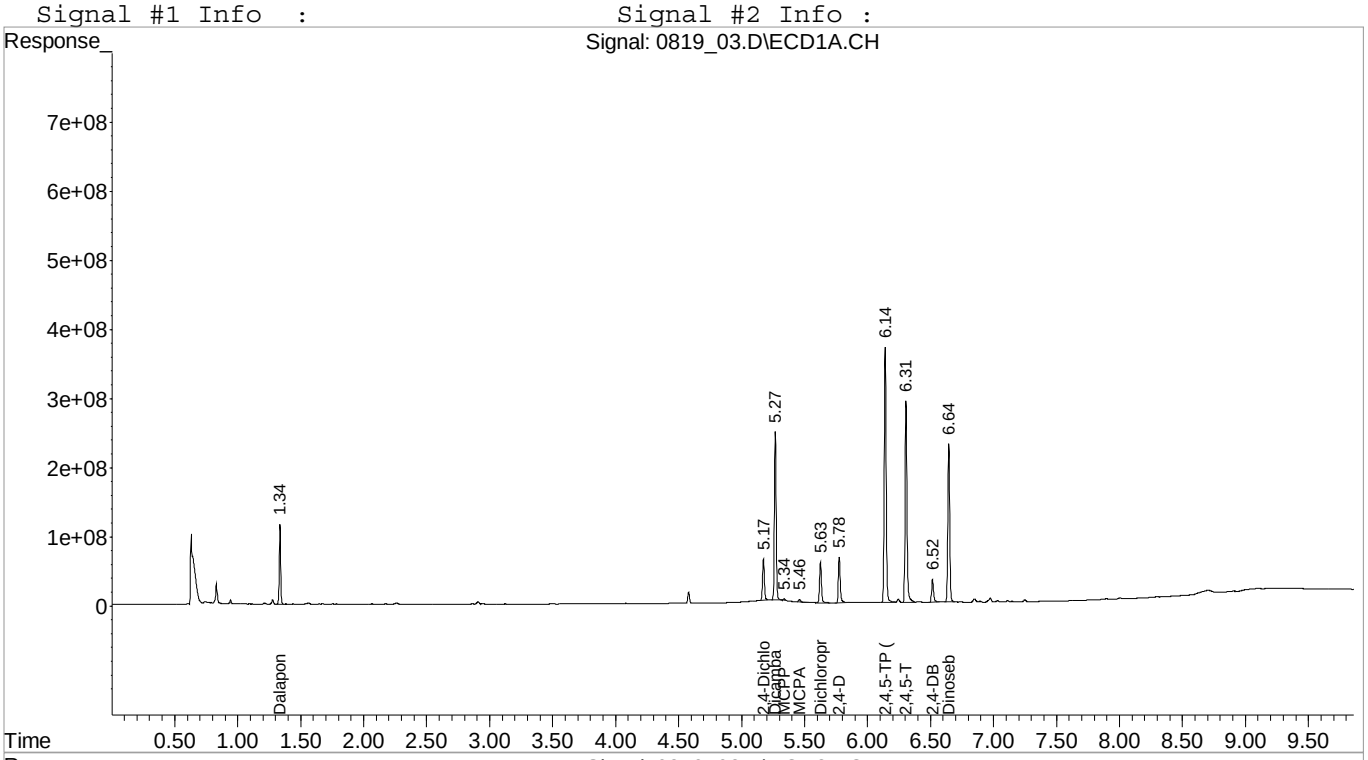
(f)=RT Delta > 1/2 Window (m)=manual int.

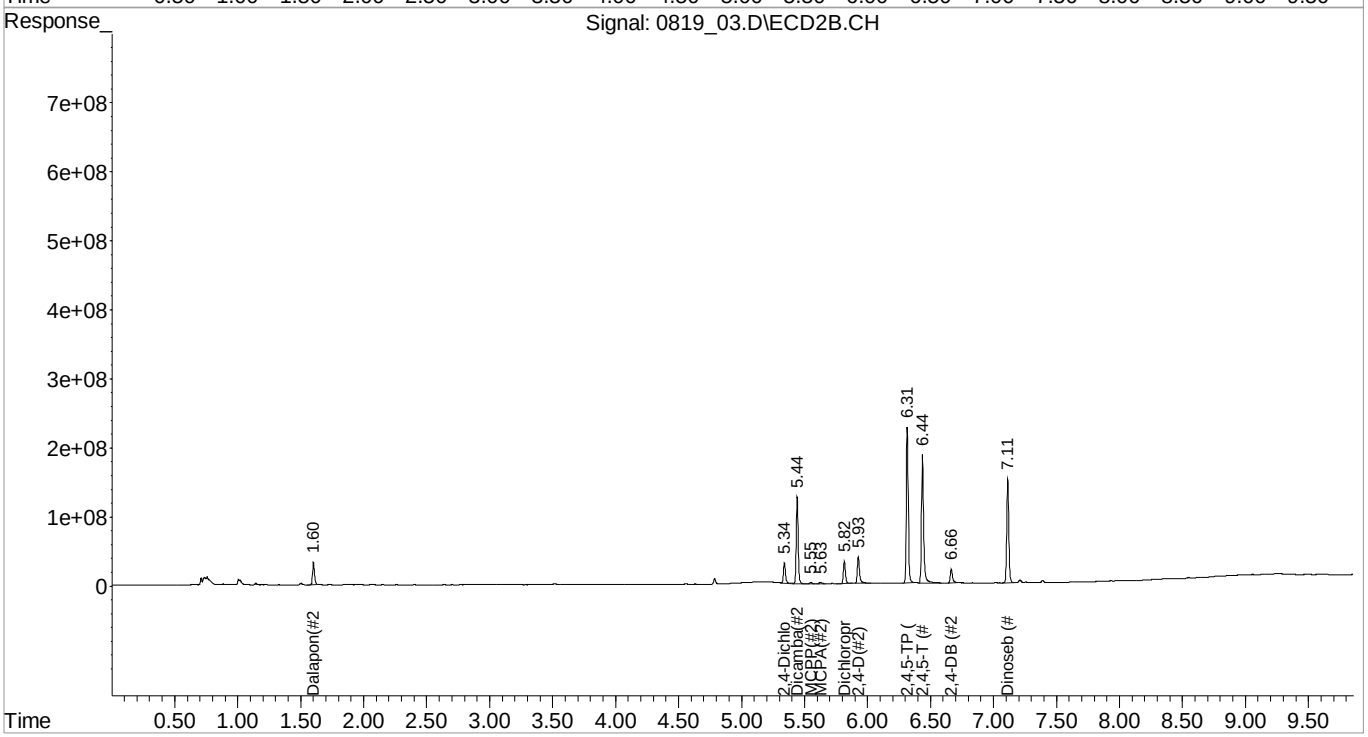
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On : 19 Aug 2019 7:29 am Operator: 957
Sample : CCV HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 11:21 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

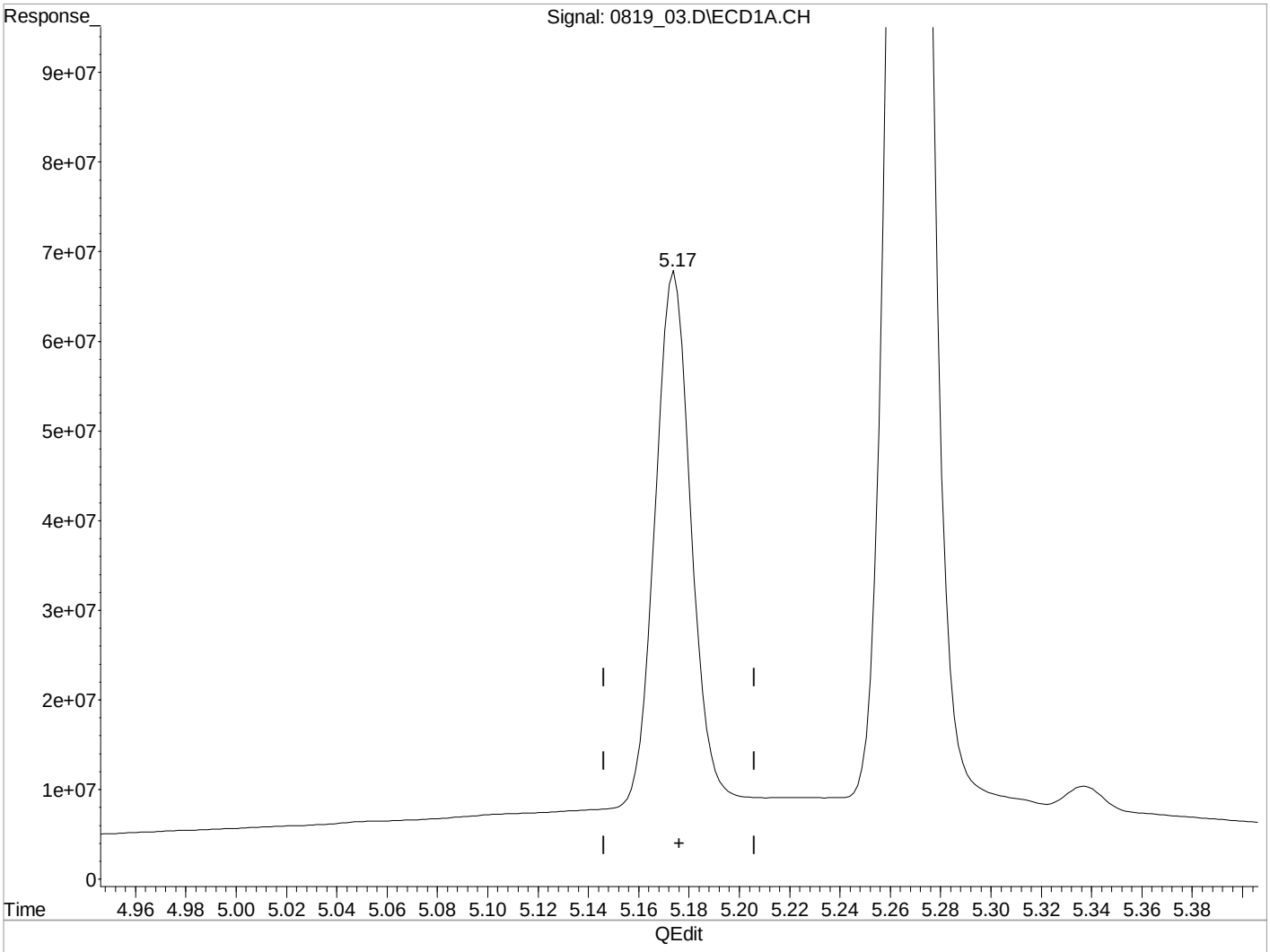




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On   : 19 Aug 2019   7:29 am   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 8:16 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(2) 2,4-Dichlorophenyl Acetic Acid (S)

5.17min 179.4824136 ppb

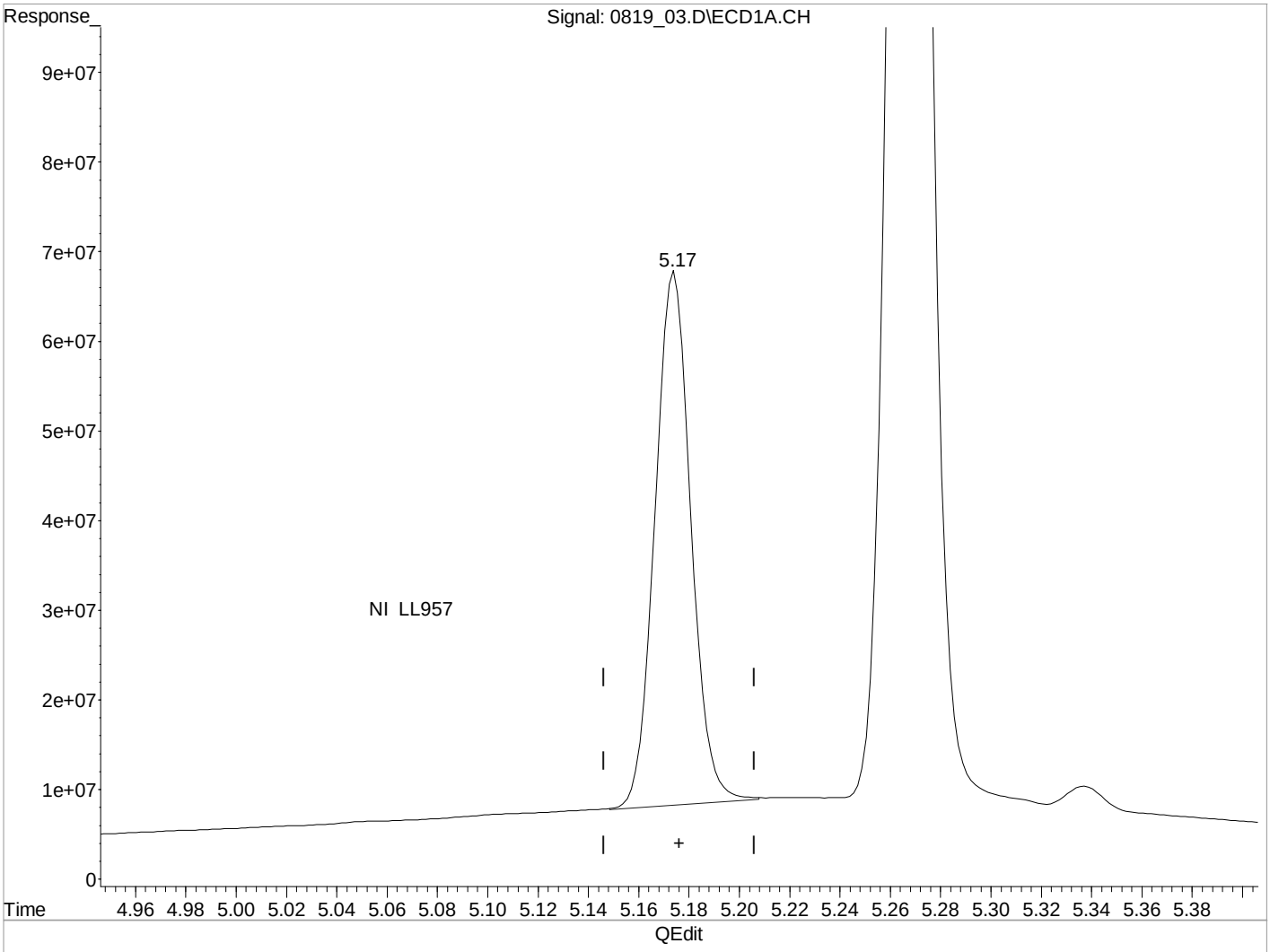
response 531982162

(+) = Expected Retention Time
0819_03.D HB11H12S.M Mon Aug 19 11:21:08 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On   : 19 Aug 2019   7:29 am   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 8:16 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(2) 2,4-Dichlorophenyl Acetic Acid (S)

5.17min 199.0721104 ppb m

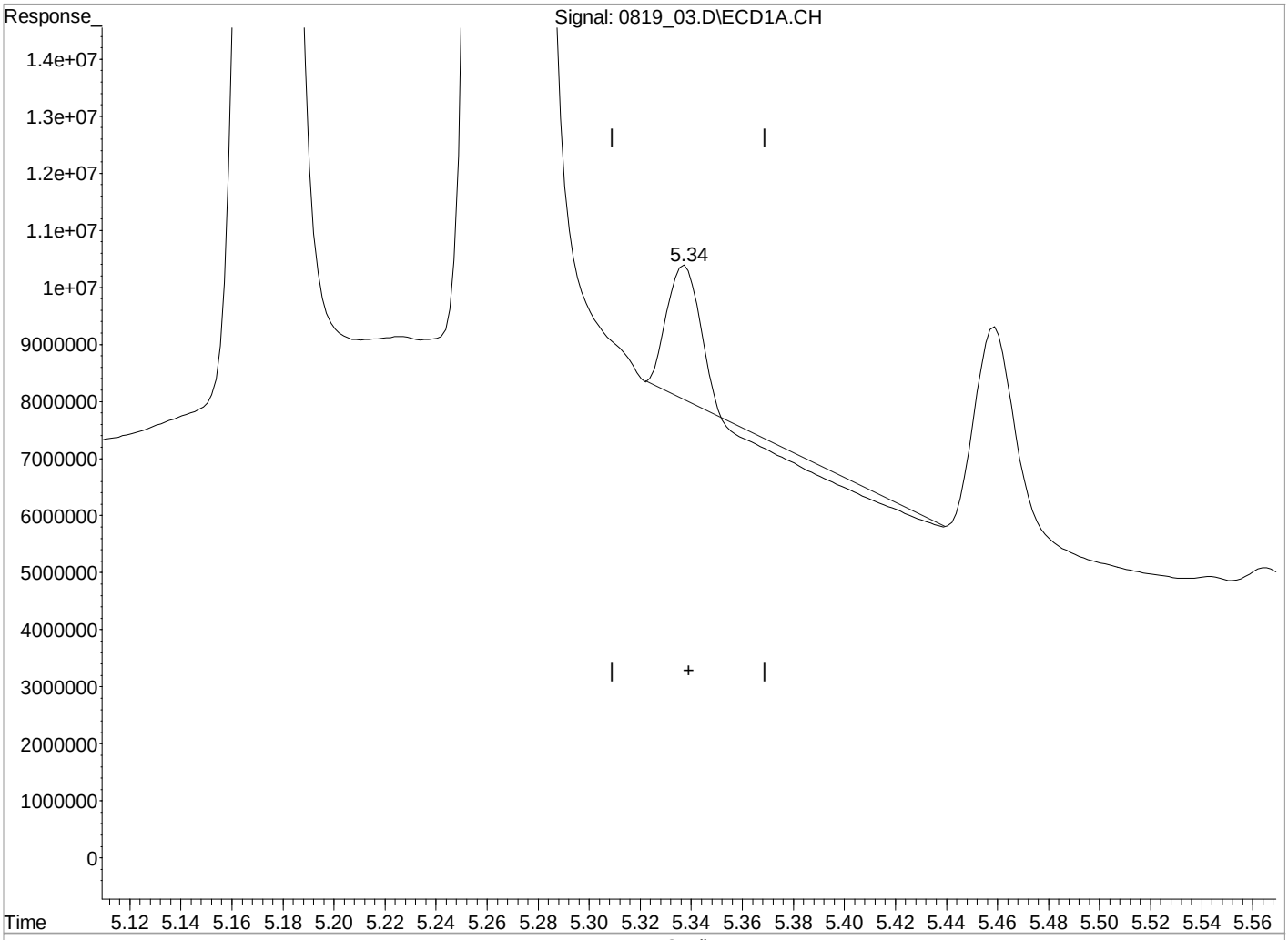
response 590045619

(+) = Expected Retention Time
0819_03.D HB11H12S.M Mon Aug 19 11:21:17 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On   : 19 Aug 2019   7:29 am   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 8:16 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 1959.1826925 ppb

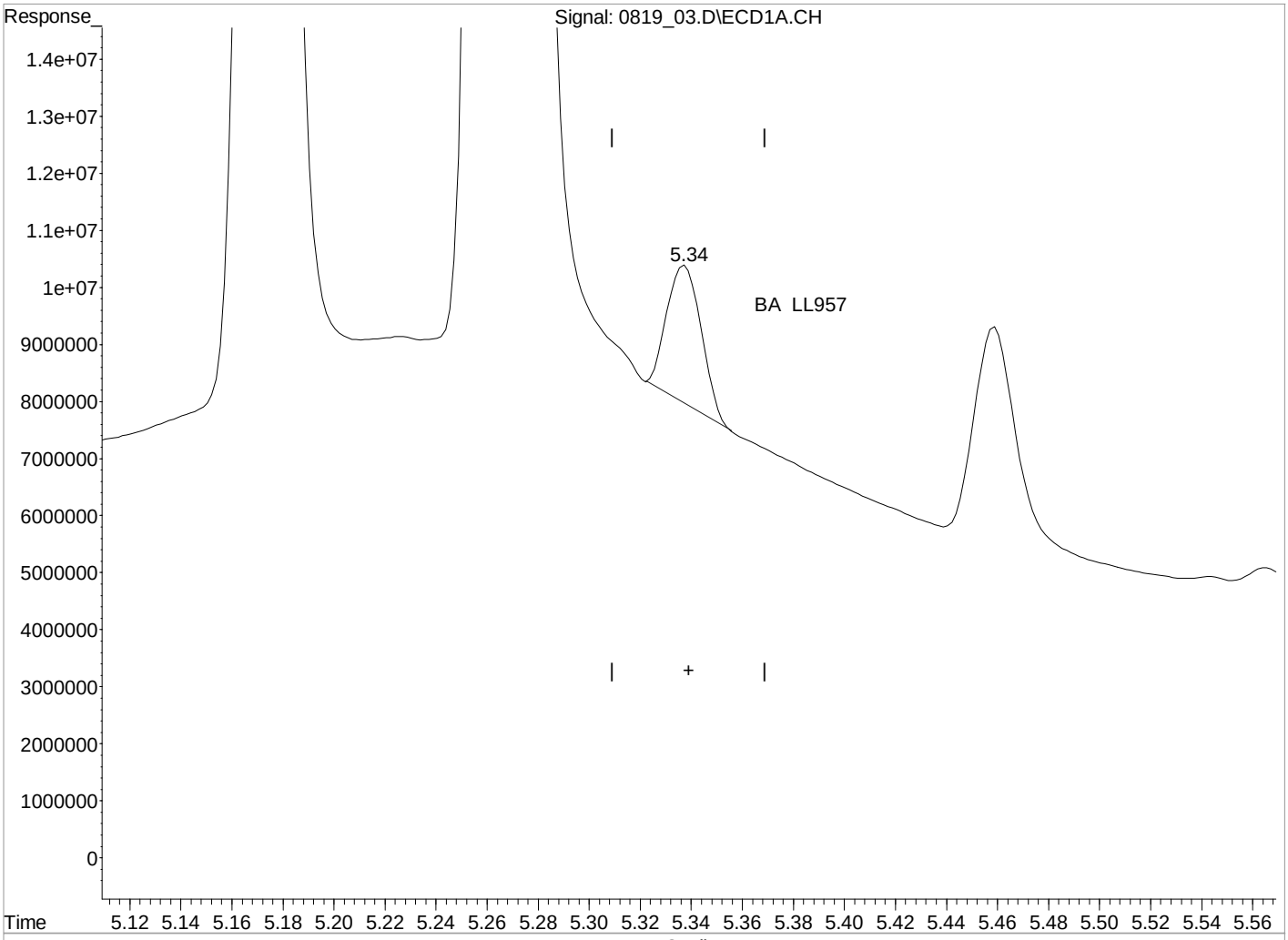
response 14908321

(+) = Expected Retention Time
0819_03.D HB11H12S.M   Mon Aug 19 11:21:20 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 03.D\ECD2B.CH
Acq On   : 19 Aug 2019   7:29 am   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 8:16 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 2881.5867094 ppb m

response 22453463

(+) = Expected Retention Time
0819_03.D HB11H12S.M Mon Aug 19 11:21:29 2019

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 1	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0819_17	**Analysis date/time:**	08/19/19 14:09
Analytical Method:	8151A	**Sample ID:**	CCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.2043	102	85 - 115
2,4-D	0.20	0.2019	101	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.1957	97.80	70 - 130

7D-OR

CONTINUING CALIBRATION VERIFICATION
DUAL COLUMN ANALYTES

SDG:	L1127562	**Calibration (begin) date/time:**	08/12/19 08:25
Instrument ID:	SVGC11 - 2	**Calibration (end) date/time:**	08/12/19 09:39
Lab File ID:	0819_17	**Analysis date/time:**	08/19/19 14:09
Analytical Method:	8151A	**Sample ID:**	CCV

Analyte	True Value	Result	Result	Limits
	mg/l	*mg/l*	*% Rec.*	*%*
2,4,5-TP (SILVEX)	0.20	0.3611	181	85 - 115
2,4-D	0.20	0.3331	167	85 - 115
2,4-DICHLOROPHENYL ACETIC ACID	0.20	0.3139	157	70 - 130

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On : 19 Aug 2019 2:09 pm Operator: 957
Sample : CCV HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24:17 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1718167	579975339	195.6745567	ppb	m
Spiked Amount 500.0000 Range 14 - 158 Recovery = 39.13%					
14) S 2,4-Dichlorophenyl Acetic	5.3382167	359234496	313.8989951	ppb	
Spiked Amount 500.0000 Range 22 - 132 Recovery = 62.78%					
Target Compounds					
1) T,M Dalapon	1.3344333	840917466	208.3622737	ppb	
3) T,M Dicamba	5.2665333	2312677288	192.9151880	ppb	
4) T,M MCPP	5.3351167	19923255	2572.2652973	ppb	m
5) T,M MCPA	5.4561500	34281245	2371.1617271	ppb	m
6) T,M Dichloroprop	5.6247667	588586118	197.9447708	ppb	
7) T,M 2,4-D	5.7741167	730361921	201.9131302	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1385167	3806615825	204.3265375	ppb	
9) T,M 2,4,5-T	6.3038833	3248316737	205.7353275	ppb	
10) T,M 2,4-DB	6.5141667	413345376	198.9058675	ppb	
11) T,M Dinoseb	6.6434833	2378311178	204.0429702	ppb	
13) T,M Dalapon(#2)	1.6014333	364379474	229.6946958	ppb	
15) T,M Dicamba(#2)	5.4398500	1398439981	324.2145473	ppb	
16) T,M MCPP(#2)	5.5476833	16211290	3795.2785764	ppb	
17) T,M MCPA(#2)	5.6257833	23277266	3880.0031455	ppb	
18) T,M Dichloroprop(#2)	5.8149667	383173163	334.3366467	ppb	
19) T,M 2,4-D(#2)	5.9258333	511854636	333.0869576	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3139667	2684661216	361.0888547	ppb	
21) T,M 2,4,5-T (#2)	6.4346833	2440692036	360.8796820	ppb	
22) T,M 2,4-DB (#2)	6.6637333	298854475	342.9805072	ppb	
23) T,M Dinoseb (#2)	7.1114167	1837470771	380.0972830	ppb	

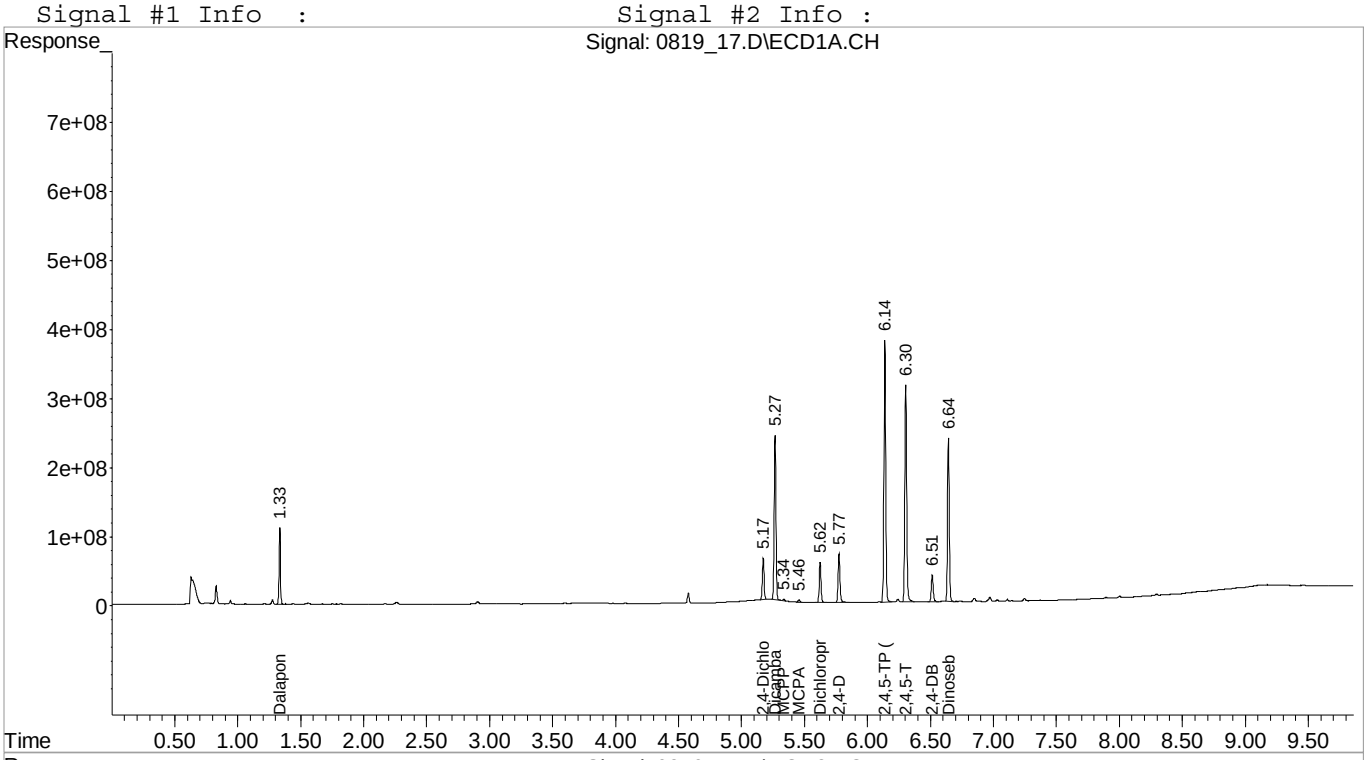
(f)=RT Delta > 1/2 Window (m)=manual int.

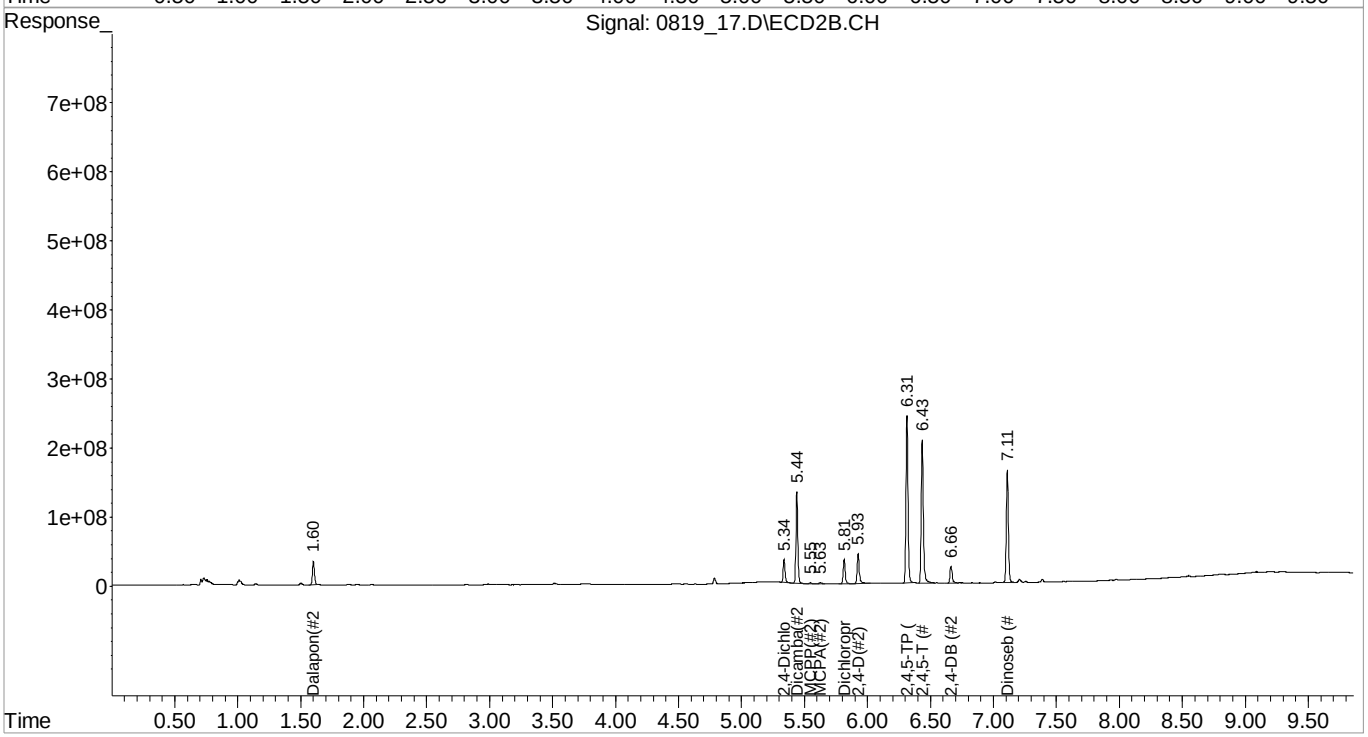
Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On : 19 Aug 2019 2:09 pm Operator: 957
Sample : CCV HERB 200 ppb 19G10386 09/18/19 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

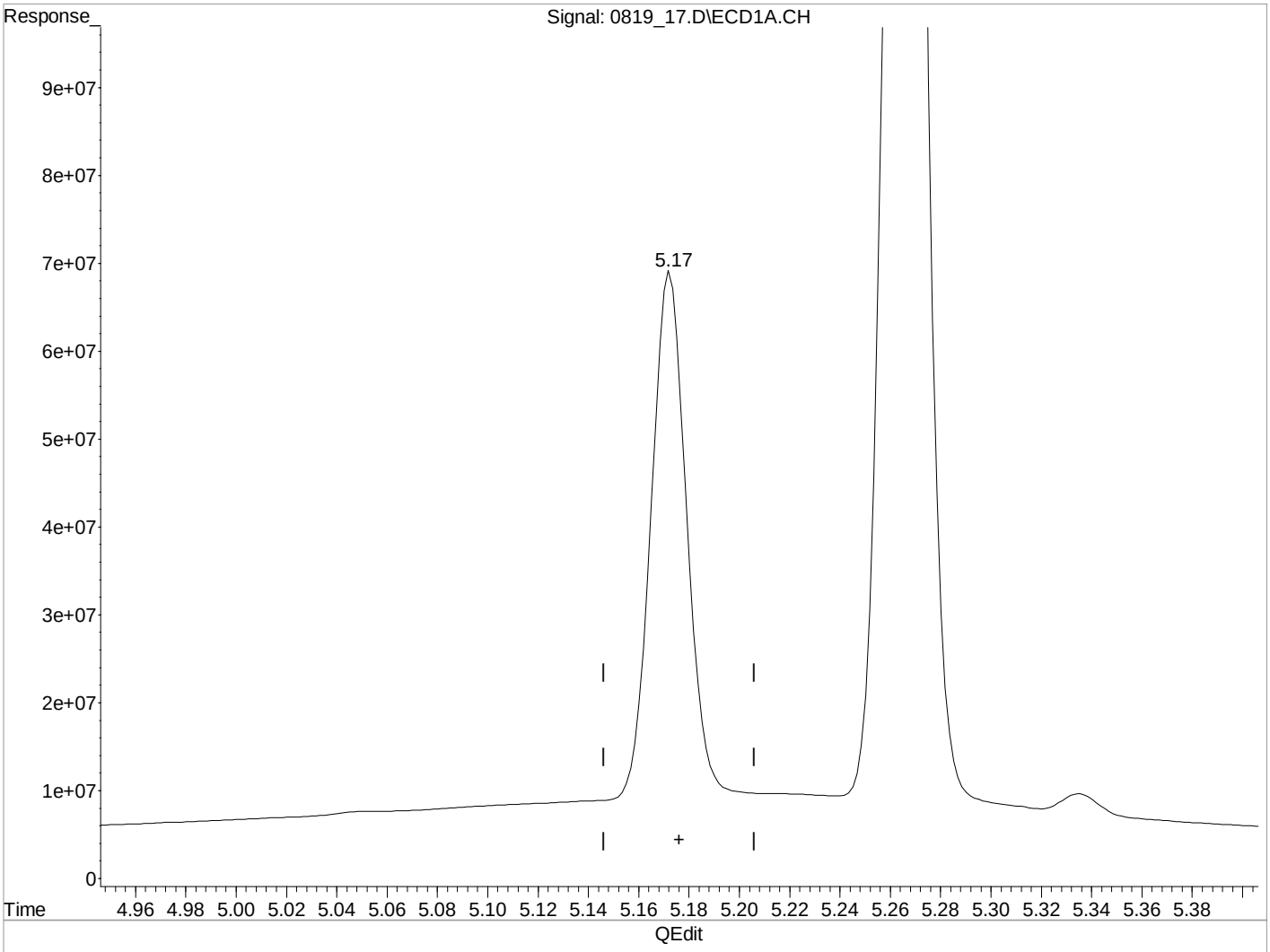




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(2) 2,4-Dichlorophenyl Acetic Acid (S)

5.17min 214.2255024 ppb

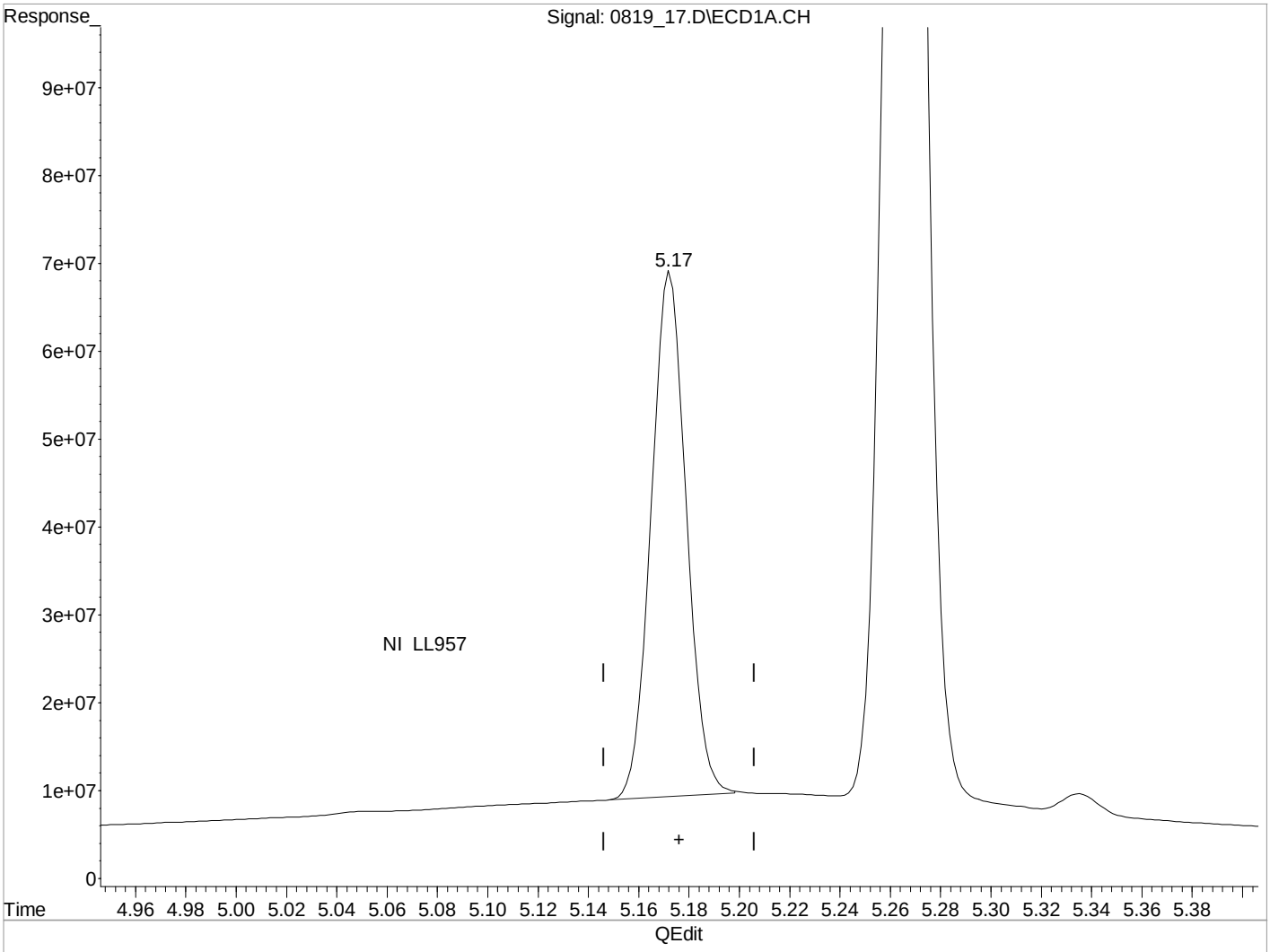
response 634959959

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:25 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(2) 2,4-Dichlorophenyl Acetic Acid (S)

5.17min 195.6745567 ppb m

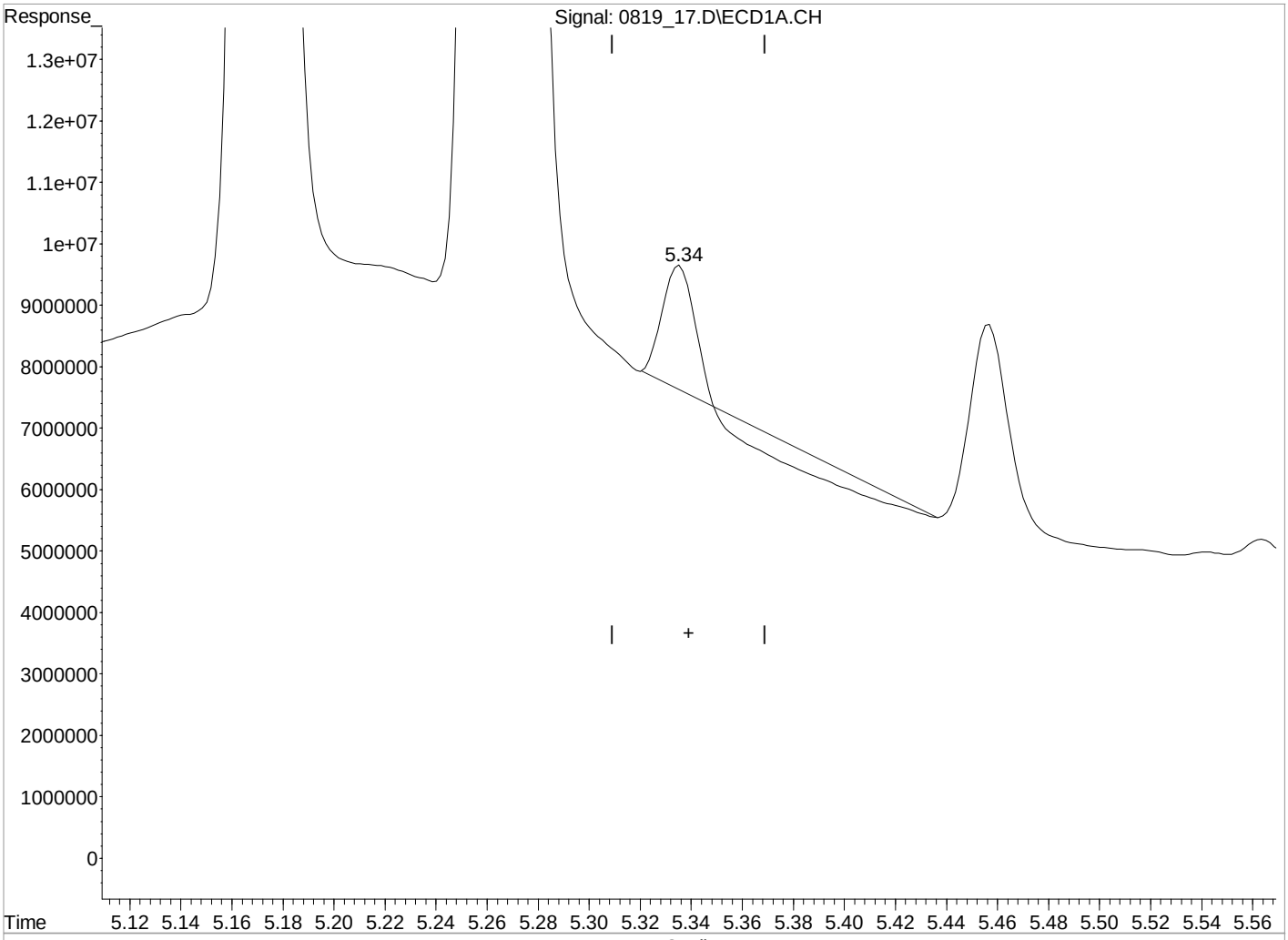
response 579975339

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:34 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 875.9122015 ppb

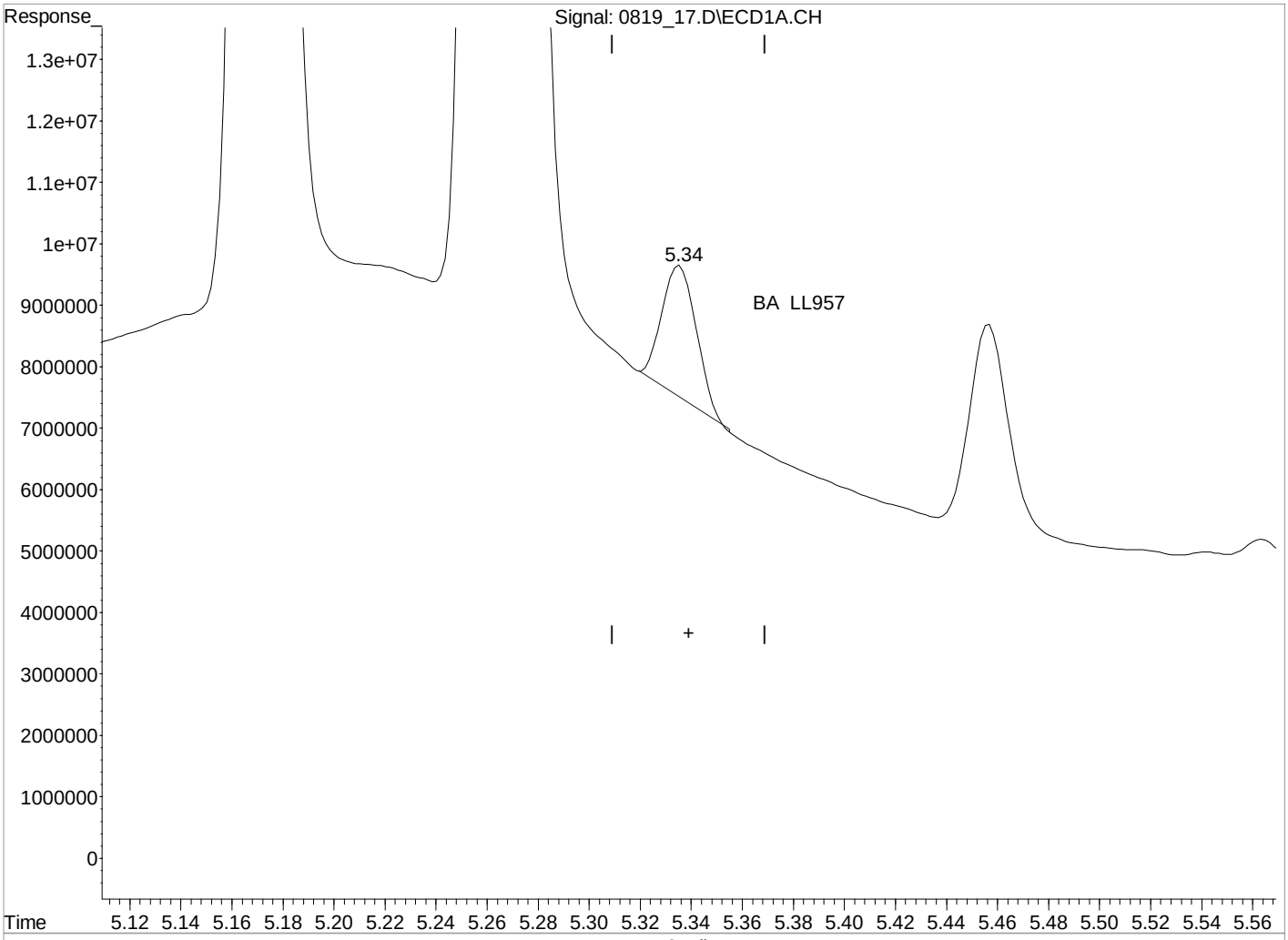
response 6047313

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:37 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 2572.2652973 ppb m

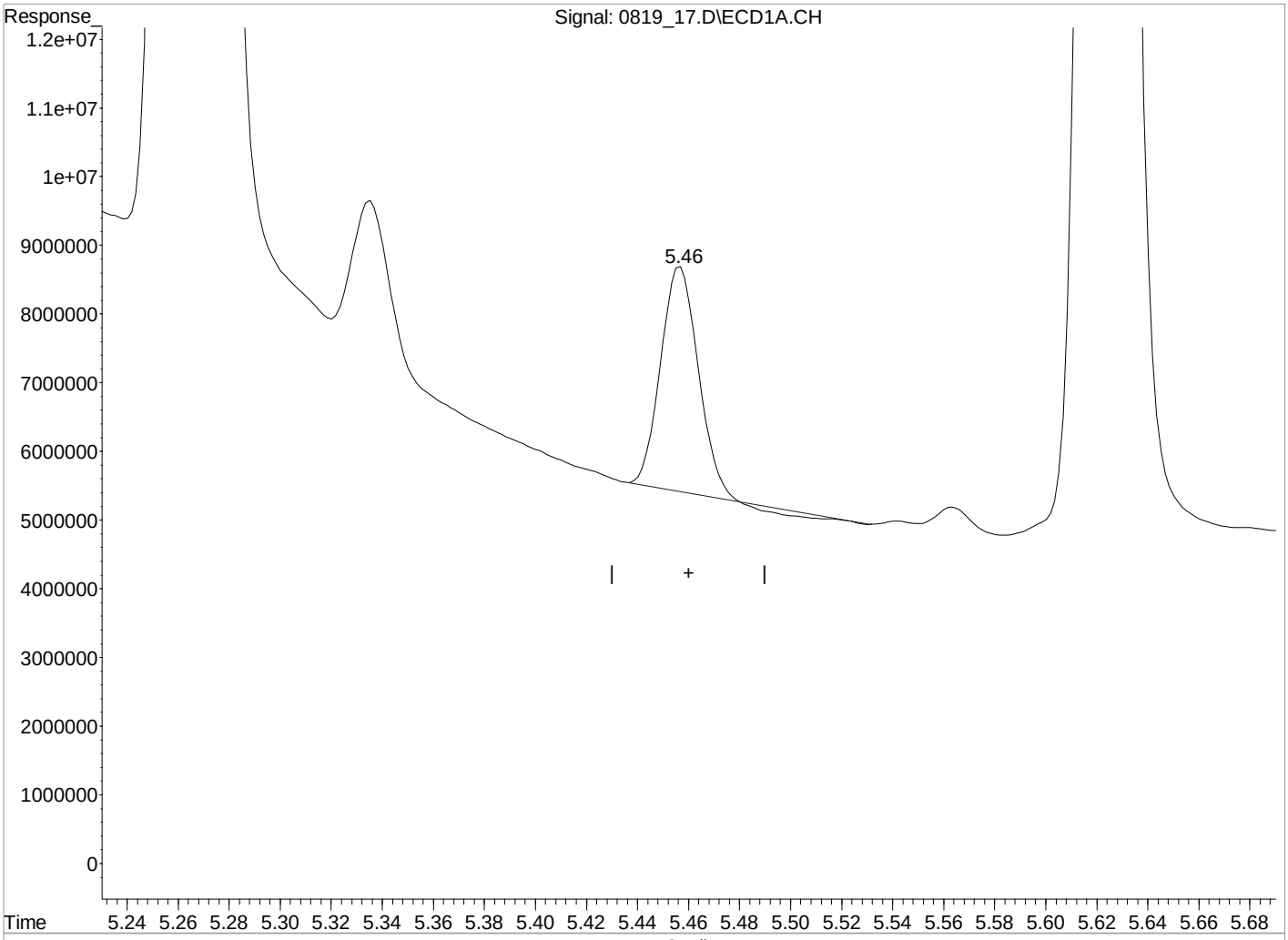
response 19923255

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:45 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(5) MCPA (T,M)

5.46min 2247.7517063 ppb

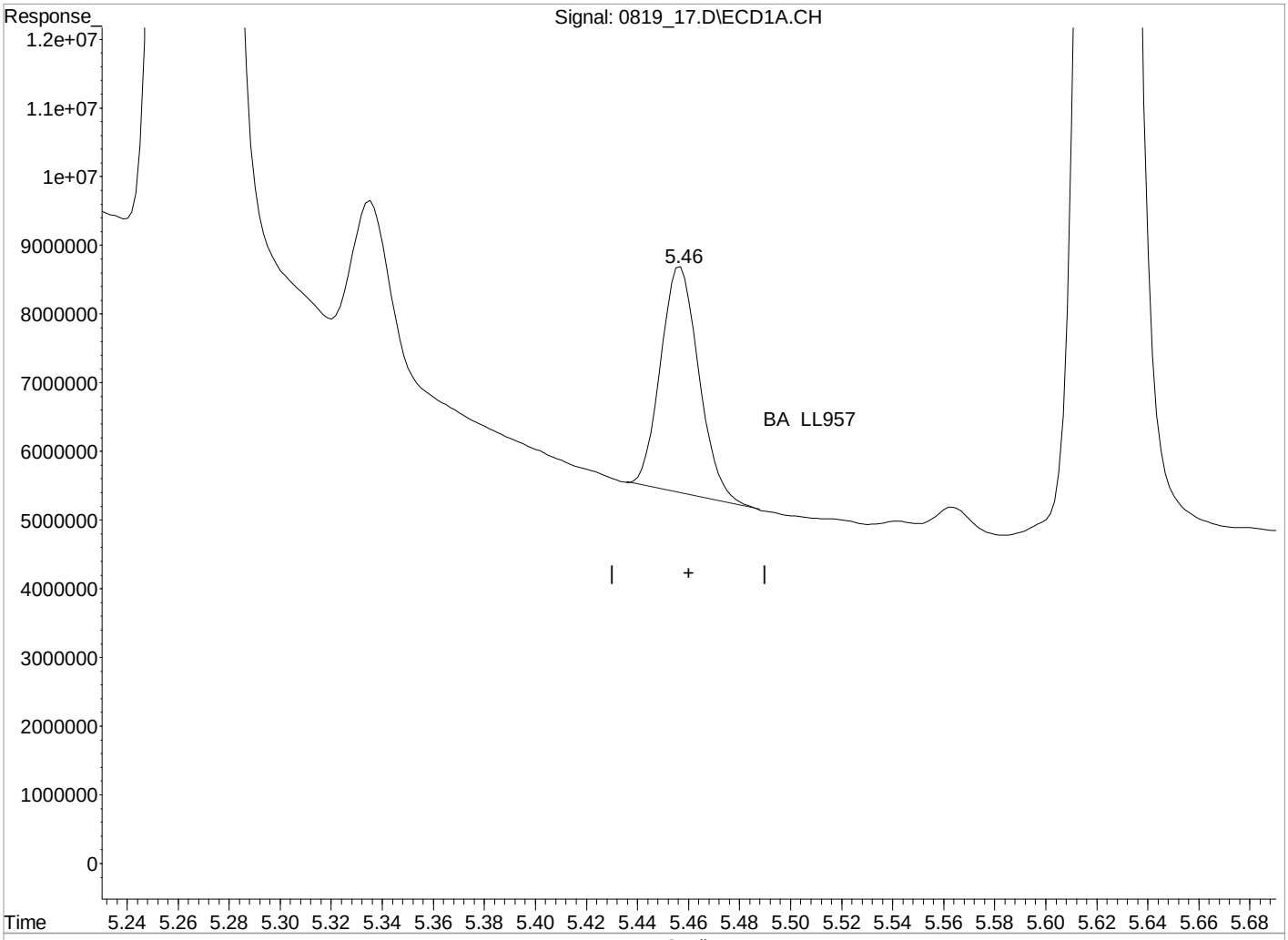
response 32497036

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:47 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD1A.CH Vial: 94
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 17.D\ECD2B.CH
Acq On   : 19 Aug 2019   2:09 pm   Operator: 957
Sample   : CCV HERB 200 ppb 19G10386 09/18/19   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 14:24 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.46min 2371.1617271 ppb m

response 34281245

(+) = Expected Retention Time
0819_17.D HB11H12S.M Mon Aug 19 14:24:55 2019

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1127562	**Analytical Method:**	8151A
Instrument ID:	SVGC11	**Calibration Start Date:**	08/12/19 08:25
		Calibration End Date:	08/12/19 09:39

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CAL	200	0812_03	08/12/19 08:25	1	
CAL	20	0812_04	08/12/19 08:40	1	
CAL	50	0812_05	08/12/19 08:55	1	
CAL	100	0812_06	08/12/19 09:09	1	
CAL	500	0812_07	08/12/19 09:24	1	
CAL	1000	0812_08	08/12/19 09:39	1	
SSCV	SVGC110812190812_09477605	0812_09	08/12/19 09:54	1	
CCV	SVGC110819190819_03477605	0819_03	08/19/19 07:29	1	
BLANK	R3441834-1	0819_05	08/19/19 11:12	1	WG1329942
LCS	R3441834-2	0819_06	08/19/19 11:26	1	WG1329942
AOC 32 DITCH & AOC 35G	L1127562-01	0819_07	08/19/19 11:41	1	WG1329942
MS	R3441834-3	0819_08	08/19/19 11:56	1	WG1329942
MSD	R3441834-4	0819_09	08/19/19 12:11	1	WG1329942
CCV	SVGC110819190819_17477605	0819_17	08/19/19 14:09	1	

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.: R3441834-1

Lab Sample ID:	R3441834-1	**SDG:**	L1127562
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0819_05	**Received Date/Time:**	
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:36
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:12
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):		**Final Wt/Vol:**	10 mL

Analyte	Column	RT	Concentration *mg/l*	% Diff.
2,4-D	1	0	U	0
2,4,5-TP (Silvex)	1	0	U	0

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.: R3441834-2

Lab Sample ID:	R3441834-2	**SDG:**	L1127562
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0819_06	**Received Date/Time:**	
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:36
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:26
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):		**Final Wt/Vol:**	10 mL

Analyte	Column	RT	Concentration *mg/l*	% Diff.
2,4-D	1	5.77	0.0376	48.6
2,4,5-TP (Silvex)	1	6.14	0.0376	52.3

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.: R3441834-3

Lab Sample ID:	R3441834-3	**SDG:**	L1127562
Client Sample ID:	MS	**Collected Date/Time:**	08/08/19 13:30
Lab File ID:	0819_08	**Received Date/Time:**	08/10/19 09:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:37
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:56
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	Column	RT	Concentration *mg/l*	% Diff.
2,4-D	1	5.77	0.0363	39.4
	2	5.93	0.0541	
2,4,5-TP (Silvex)	1	6.14	0.0360	44.1
	2	6.31	0.0564	

10A-OR

SINGLE COMPONENT ANALYSIS IDENTIFICATION

SAMPLE NO.: R3441834-4

Lab Sample ID:	R3441834-4	**SDG:**	L1127562
Client Sample ID:	MSD	**Collected Date/Time:**	08/08/19 13:30
Lab File ID:	0819_09	**Received Date/Time:**	08/10/19 09:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:37
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 12:11
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	Column	RT	Concentration *mg/l*	% Diff.
2,4-D	1	5.77	0.0404	46.6
	2	5.93	0.0649	
2,4,5-TP (Silvex)	1	6.14	0.0398	47.5
	2	6.31	0.0646	

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3441834-1

Lab Sample ID:	R3441834-1	**SDG:**	L1127562
Client Sample ID:	BLANK	**Collected Date/Time:**	_____
Lab File ID:	0819_05	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:36
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:12
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
2,4-D	94-75-7	0	U		0.000667	0.00200
2,4,5-TP (Silvex)	93-72-1	0	U		0.000667	0.00200

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 05.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 05.D\ECD2B.CH
Acq On : 19 Aug 2019 11:12 am Operator: 957
Sample : BLANK 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 11:22:11 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

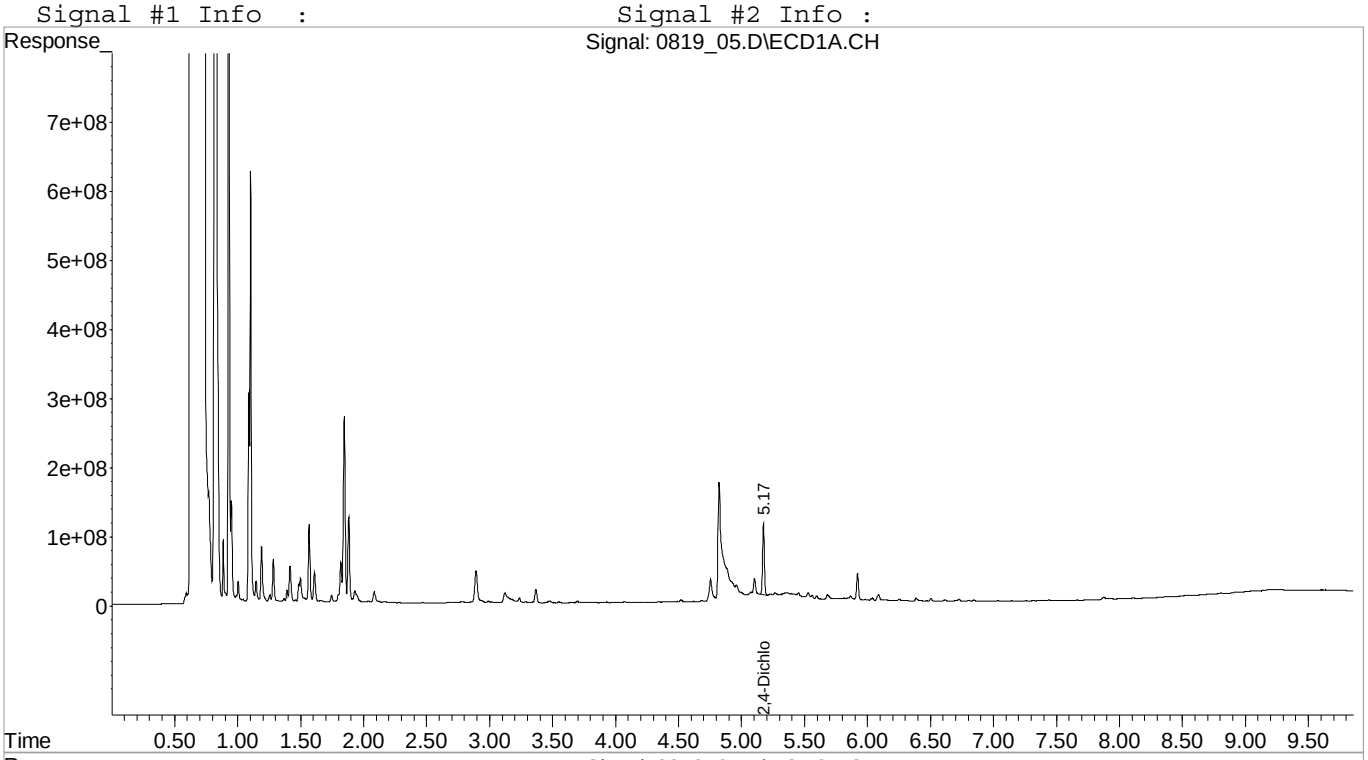
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S 2,4-Dichlorophenyl Acetic	5.1746667	1000401355	337.5196811 ppb
Spiked Amount 500.0000	Range 14 - 158	Recovery = 67.50%	
14) S 2,4-Dichlorophenyl Acetic	5.3390667	543349400	474.7785432 ppb
Spiked Amount 500.0000	Range 22 - 132	Recovery = 94.96%	
Target Compounds			

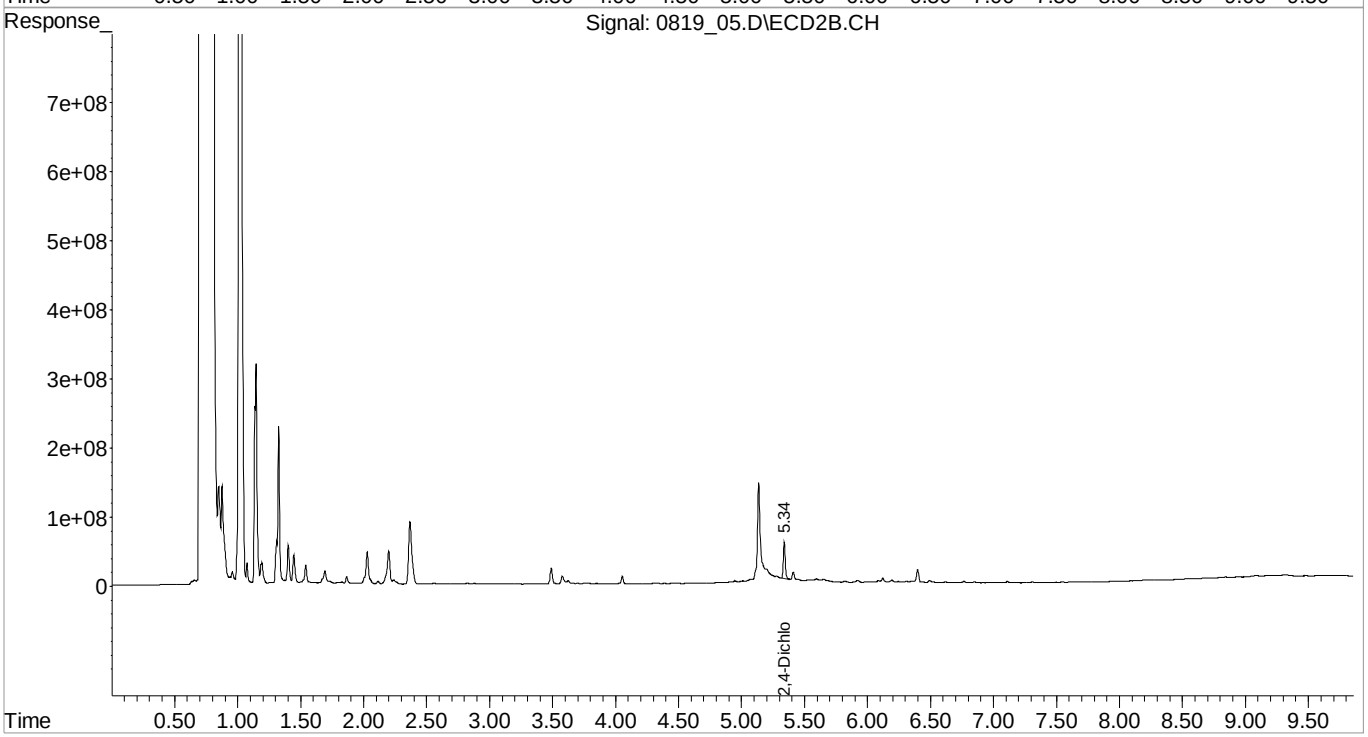
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 05.D\ECD1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 05.D\ECD2B.CH
Acq On : 19 Aug 2019 11:12 am Operator: 957
Sample : BLANK 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 11:22 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3441834-2

Lab Sample ID:	R3441834-2	**SDG:**	L1127562
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0819_06	**Received Date/Time:**	_____
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:36
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:26
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
2,4-D	94-75-7	5.77	0.0376	P	0.000667	0.00200
2,4,5-TP (Silvex)	93-72-1	6.14	0.0376	P	0.000667	0.00200

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On : 19 Aug 2019 11:26 am Operator: 957
Sample : LCS 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12:09 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

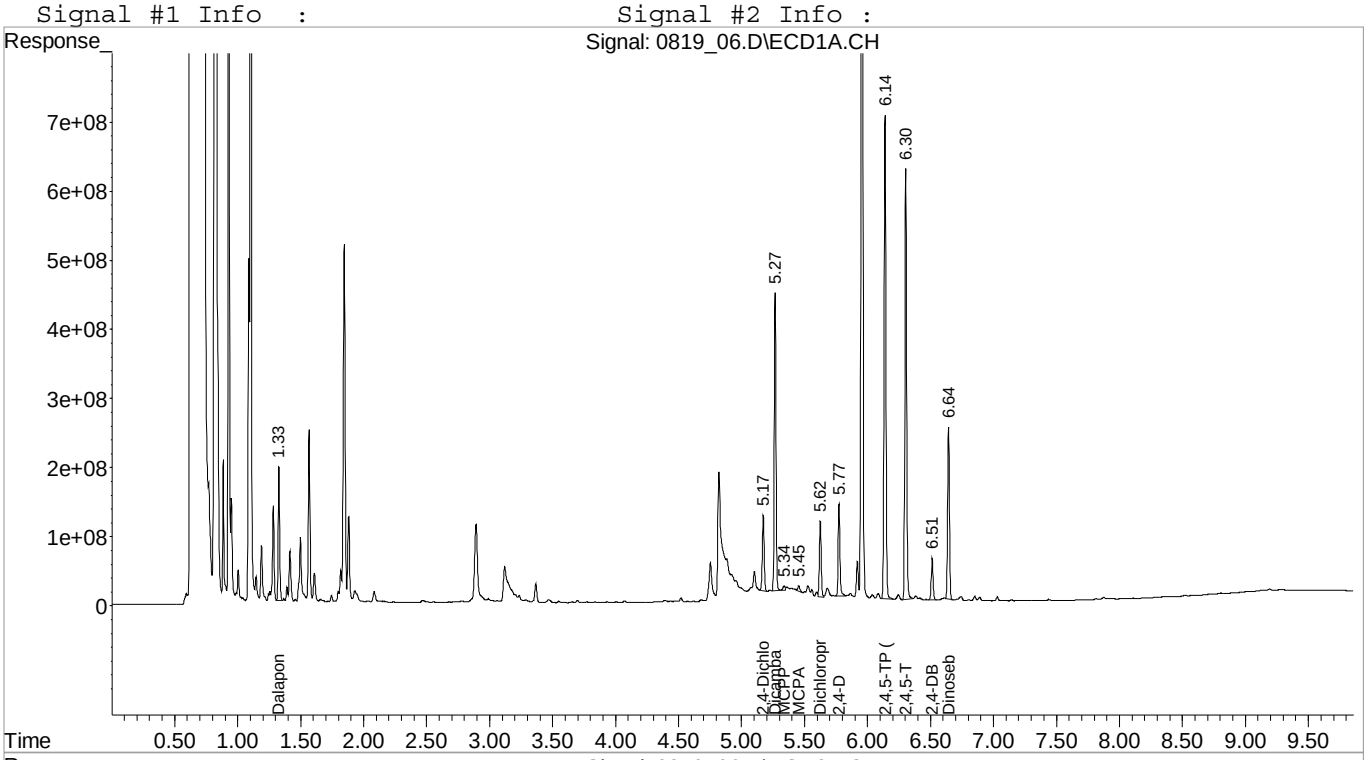
	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2)	S 2,4-Dichlorophenyl Acetic	5.1732500	1084499642	365.8931203	ppb	
	Spiked Amount 500.0000 Range 14 - 158	Recovery = 73.18%				
14)	S 2,4-Dichlorophenyl Acetic	5.3386000	552912204	483.1345185	ppb	
	Spiked Amount 500.0000 Range 22 - 132	Recovery = 96.63%				
	Target Compounds					
1)	T,M Dalapon	1.3272000	1548340512	383.6473407	ppb	
3)	T,M Dicamba	5.2674833	4146501454	345.8861779	ppb	
4)	T,M MCPP	5.3359500	65879741	8190.5089269	ppb	m
5)	T,M MCPA	5.4546333	85372356	5905.0265024	ppb	
6)	T,M Dichloroprop	5.6253500	1085696012	365.1255810	ppb	
7)	T,M 2,4-D	5.7744833	1360227168	376.0433252	ppb	
8)	T,M 2,4,5-TP (Silvex)	6.1394167	7013034865	376.4364982	ppb	
9)	T,M 2,4,5-T	6.3042667	6222612355	394.1152587	ppb	
10)	T,M 2,4-DB	6.5138500	647304218	311.4891673	ppb	
11)	T,M Dinoseb	6.6439500	2470219901	211.9281153	ppb	
13)	T,M Dalapon(#2)	1.6022500	758812232	478.3341464	ppb	
15)	T,M Dicamba(#2)	5.4404500	2284845176	529.7188684	ppb	
16)	T,M MCPP(#2)	5.5470833	26735589	6259.1569624	ppb	m
17)	T,M MCPA(#2)	5.6248833	34692022	6129.6773556	ppb	m
18)	T,M Dichloroprop(#2)	5.8152000	686882652	599.3374917	ppb	
19)	T,M 2,4-D(#2)	5.9253500	948417066	617.1778717	ppb	
20)	T,M 2,4,5-TP (Silvex) (#2)	6.3139667	4780407579	642.9682403	ppb	
21)	T,M 2,4,5-T (#2)	6.4341000	4347646514	642.8411564	ppb	
22)	T,M 2,4-DB (#2)	6.6620833	438692047	503.4651750	ppb	
23)	T,M Dinoseb (#2)	7.1115500	1874460570	387.7489541	ppb	

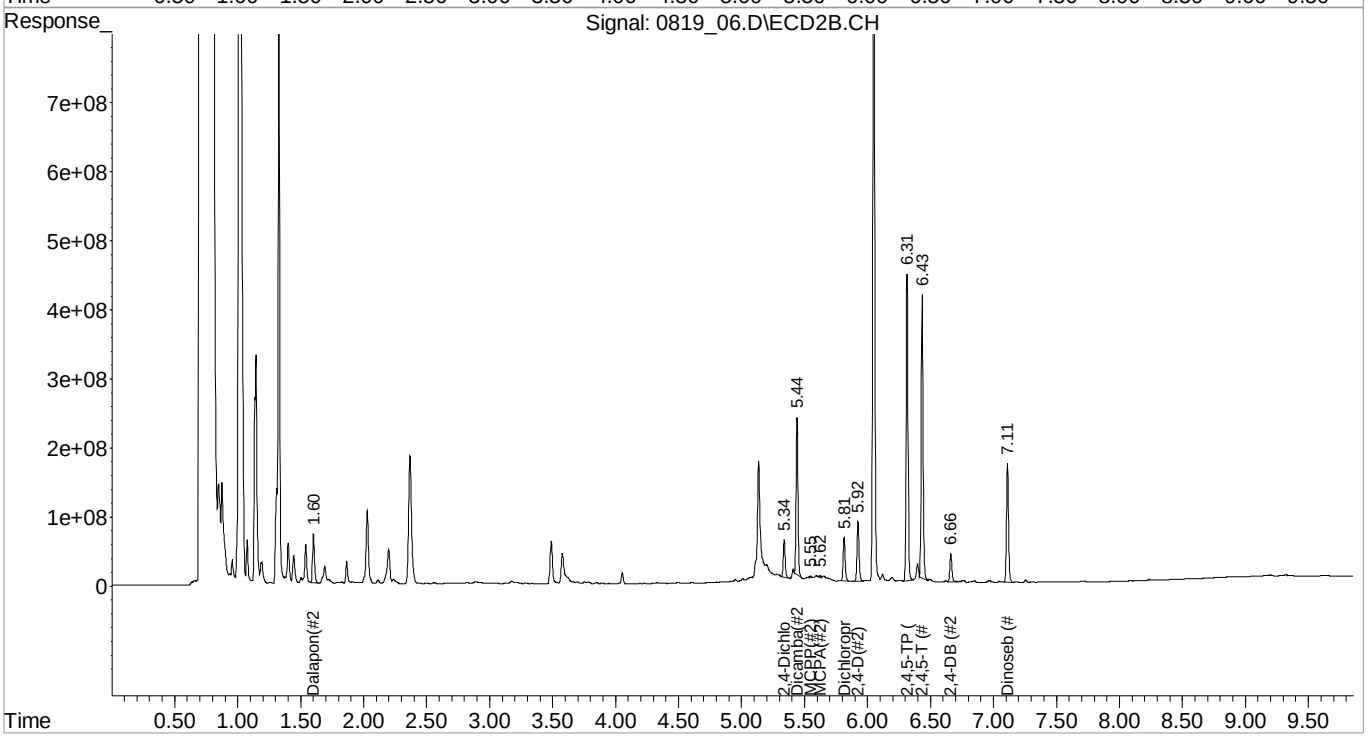
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On : 19 Aug 2019 11:26 am Operator: 957
Sample : LCS 1x WG1329942 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

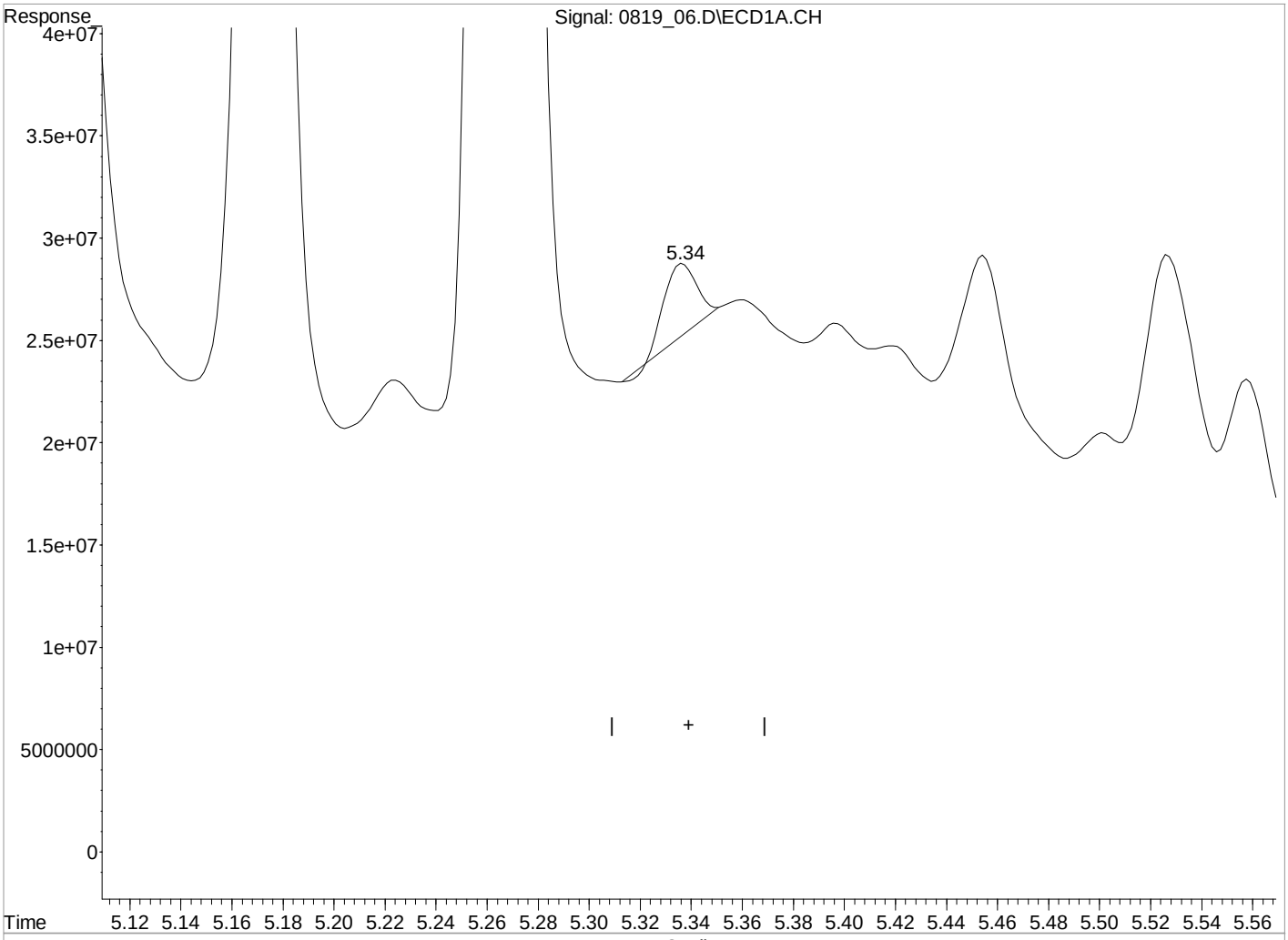




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 3734.0328043 ppb

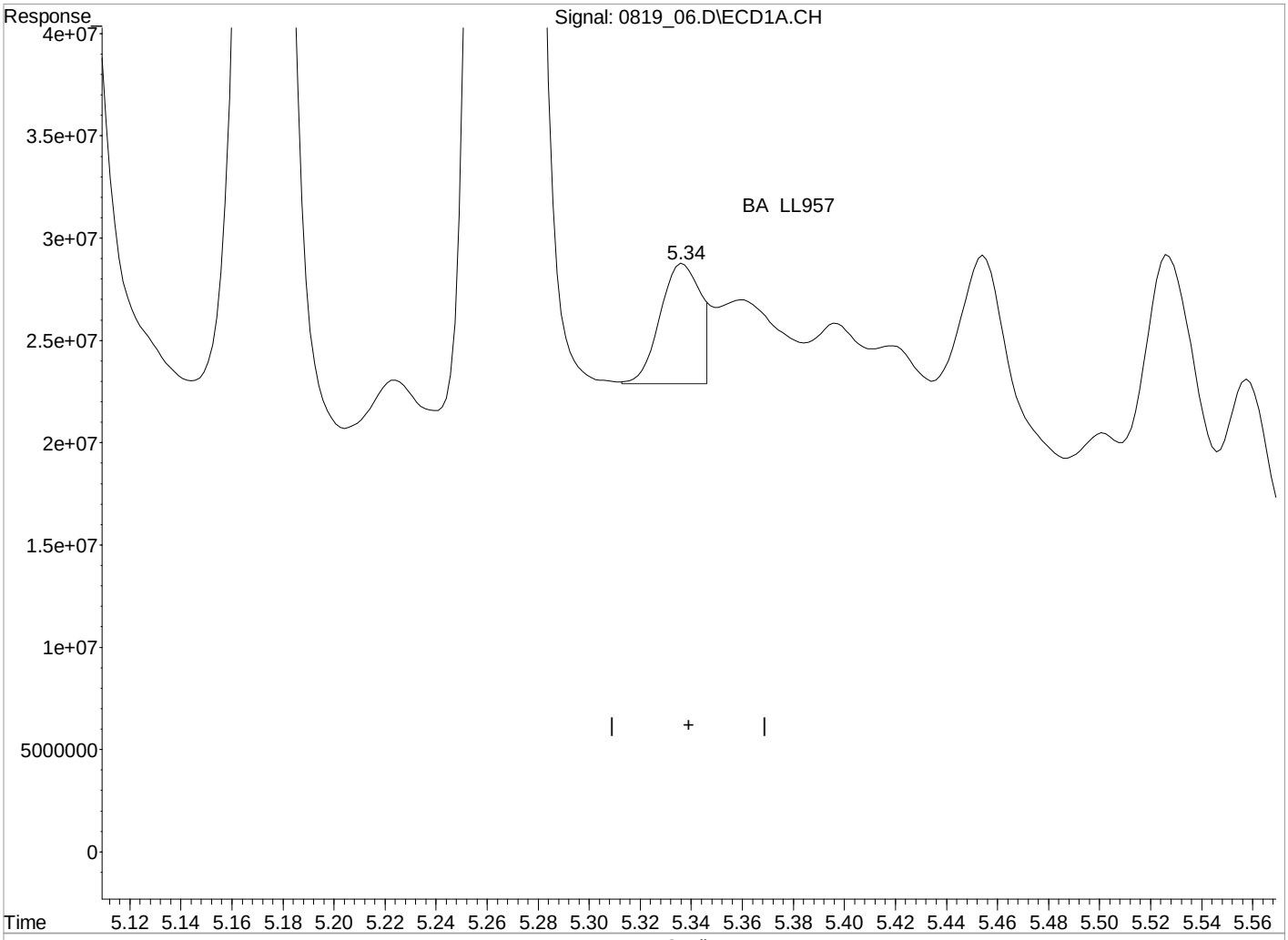
response 29426359

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:17 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 8190.5089269 ppb m

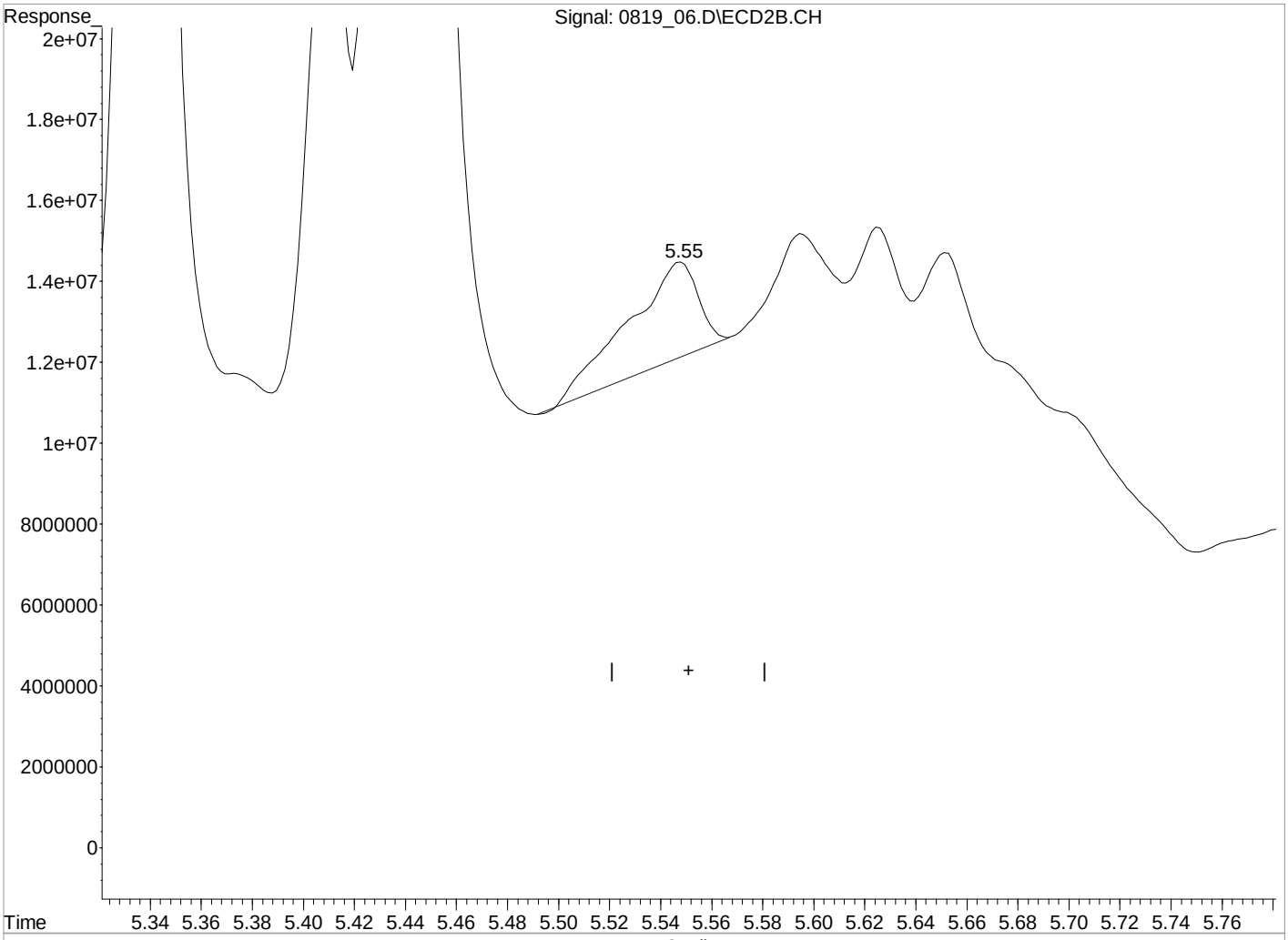
response 65879741

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:27 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(16) MCPP(#2) (T,M)

5.55min 10739.3952026 ppb

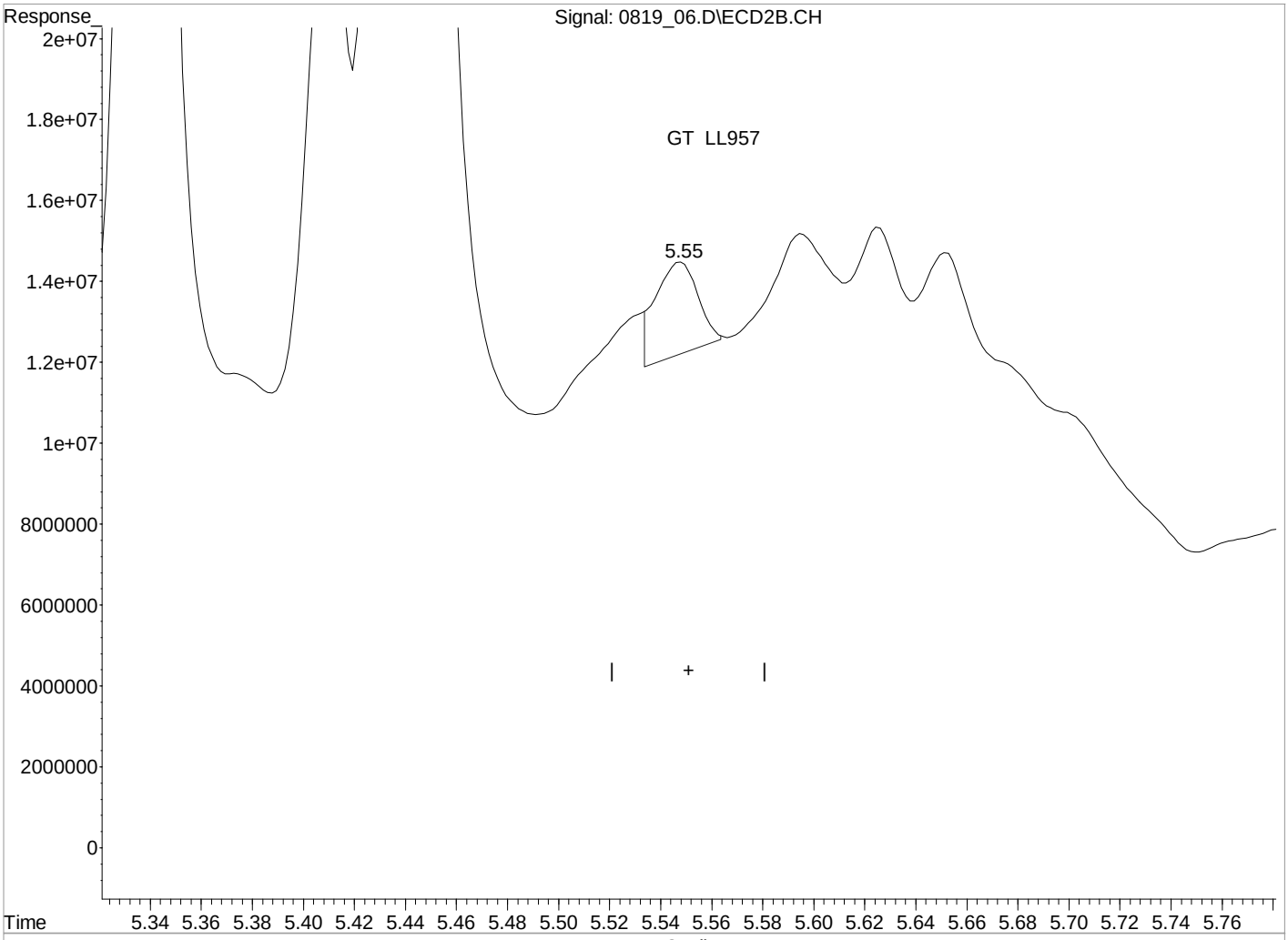
response 45872640

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:35 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(16) MCPP(#2) (T,M)

5.55min 6259.1569624 ppb m

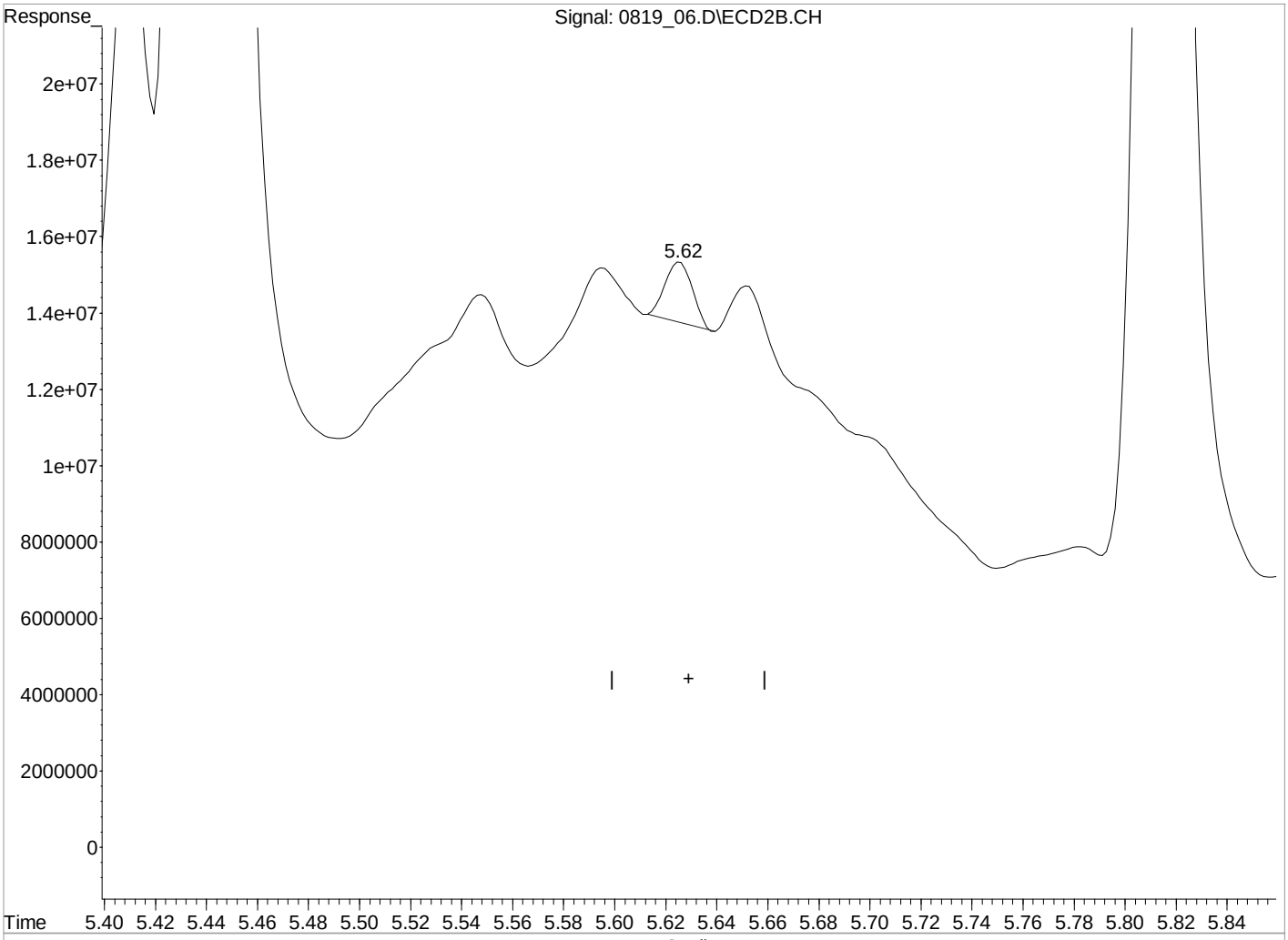
response 26735589

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:42 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(17) MCPA(#2) (T,M)

5.63min 1640.8260729 ppb

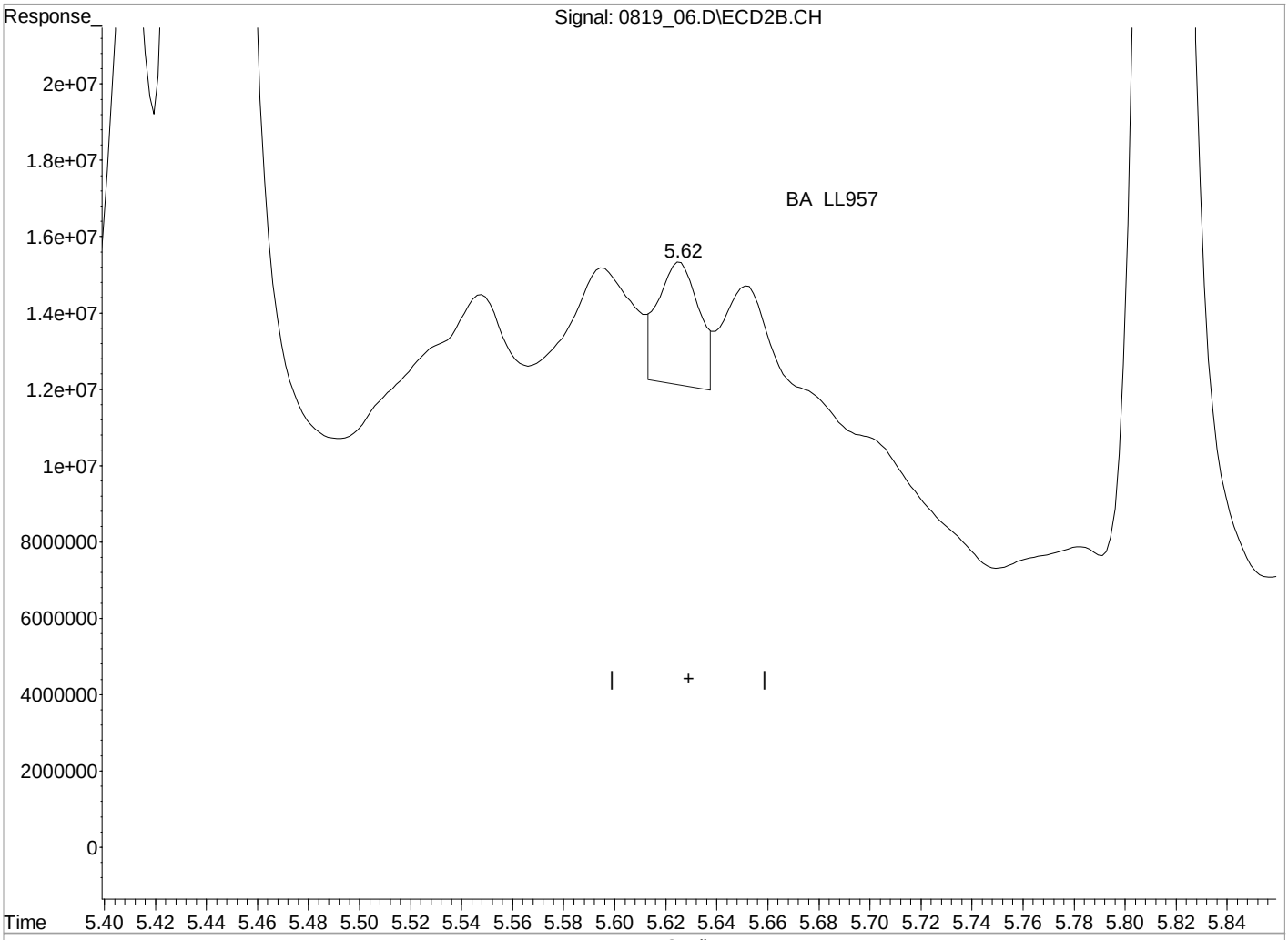
response 11915772

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:46 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 06.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:26 am   Operator: 957
Sample   : LCS 1x WG1329942   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:12 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(17) MCPA(#2) (T,M)

5.62min 6129.6773556 ppb m

response 34692022

(+) = Expected Retention Time
0819_06.D HB11H12S.M Mon Aug 19 12:12:59 2019

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3441834-3

Lab Sample ID:	R3441834-3	**SDG:**	L1127562
Client Sample ID:	MS	**Collected Date/Time:**	08/08/19 13:30
Lab File ID:	0819_08	**Received Date/Time:**	08/10/19 09:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:37
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 11:56
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
2,4-D	94-75-7	5.77	0.0363		0.000667	0.00200
2,4,5-TP (Silvex)	93-72-1	6.14	0.0360	P	0.000667	0.00200

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On : 19 Aug 2019 11:56 am Operator: 957
Sample : MS 1x WG1329942 L1127562-01 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13:46 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

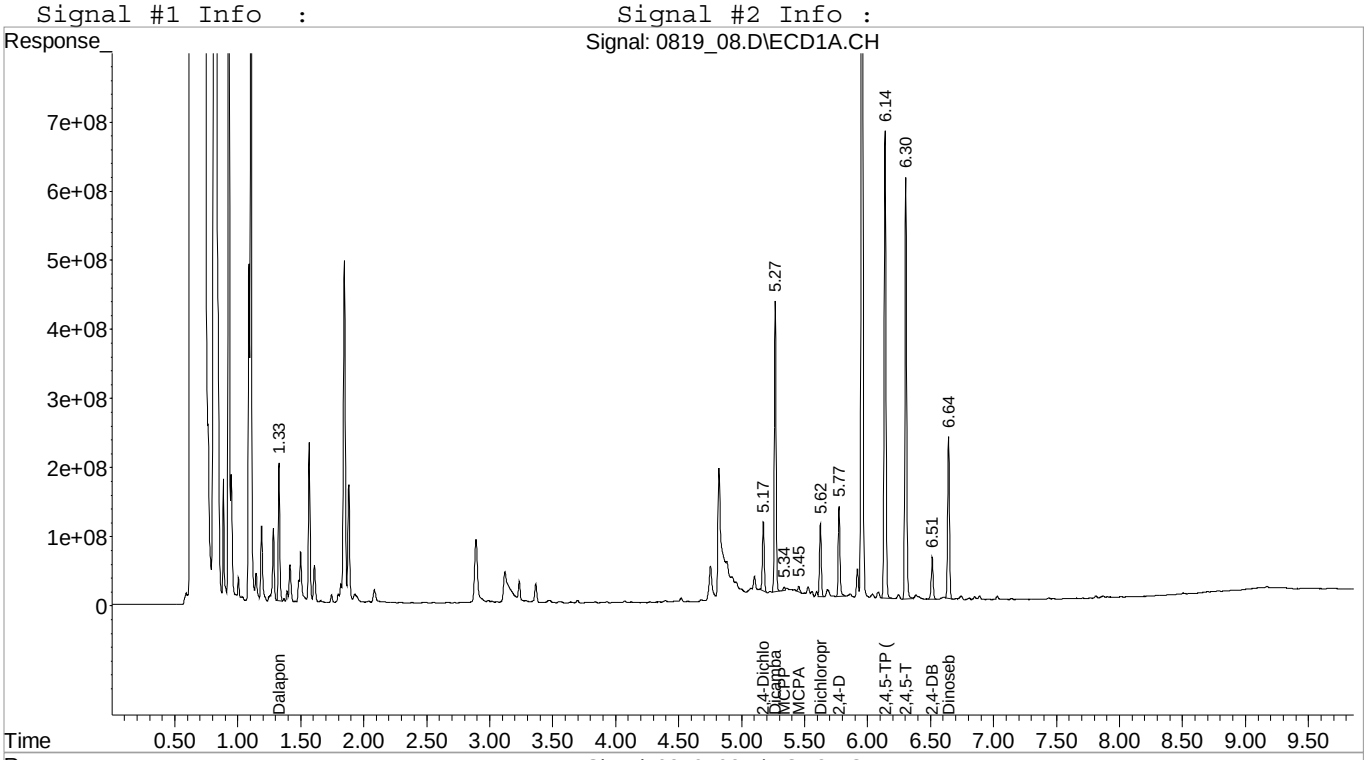
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1730667	975009245	328.9527827	ppb	
Spiked Amount 500.0000 Range 14 - 158	Recovery = 65.79%				
14) S 2,4-Dichlorophenyl Acetic	5.3389167	485359373	424.1068751	ppb	
Spiked Amount 500.0000 Range 22 - 132	Recovery = 84.82%				
Target Compounds					
1) T,M Dalapon	1.3273667	1603677564	397.3587384	ppb	
3) T,M Dicamba	5.2676167	3995099479	333.2567718	ppb	
4) T,M MCPP	5.3360333	54772066	6832.5804112	ppb	m
5) T,M MCPA	5.4541167	90815187	6281.4956978	ppb	
6) T,M Dichloroprop	5.6256833	1027815000	345.6598762	ppb	
7) T,M 2,4-D	5.7744667	1311481843	362.5673747	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1391833	6707968912	360.0615677	ppb	
9) T,M 2,4,5-T	6.3039833	6038404982	382.4483039	ppb	
10) T,M 2,4-DB	6.5137667	663317902	319.1951099	ppb	
11) T,M Dinoseb	6.6436167	2309158890	198.1101728	ppb	
13) T,M Dalapon(#2)	1.6020167	724387072	456.6334816	ppb	
15) T,M Dicamba(#2)	5.4406500	1935389548	448.7010200	ppb	
16) T,M MCPP(#2)	5.5471500	21302850	4987.2805081	ppb	m
17) T,M MCPA(#2)	5.6254833	31873766	5574.2421849	ppb	m
18) T,M Dichloroprop(#2)	5.8158500	581848223	507.6900011	ppb	
19) T,M 2,4-D(#2)	5.9259333	830749518	540.6062777	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3145000	4192733354	563.9256365	ppb	
21) T,M 2,4,5-T (#2)	6.4346500	3866371702	571.6800683	ppb	
22) T,M 2,4-DB (#2)	6.6628167	419235650	481.1360304	ppb	
23) T,M Dinoseb (#2)	7.1120500	1641479515	339.5547366	ppb	

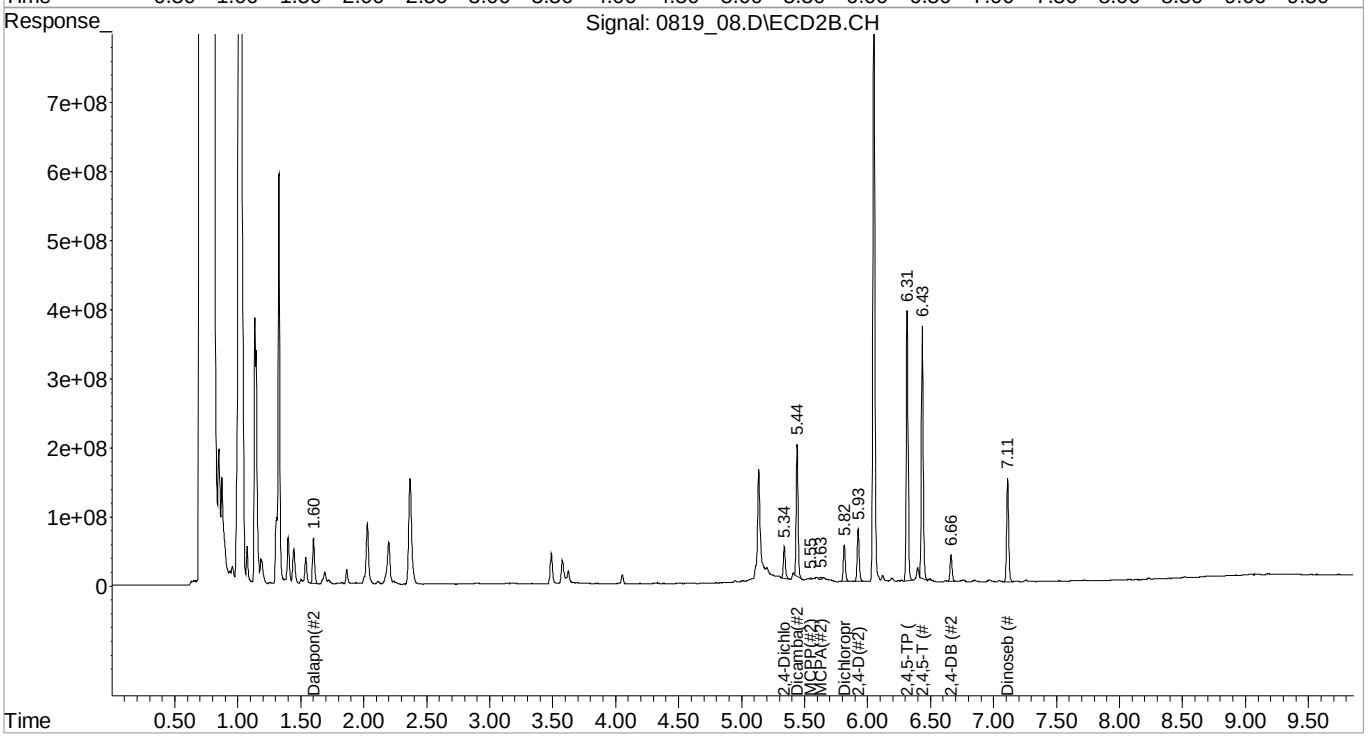
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On : 19 Aug 2019 11:56 am Operator: 957
Sample : MS 1x WG1329942 L1127562-01 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:14 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

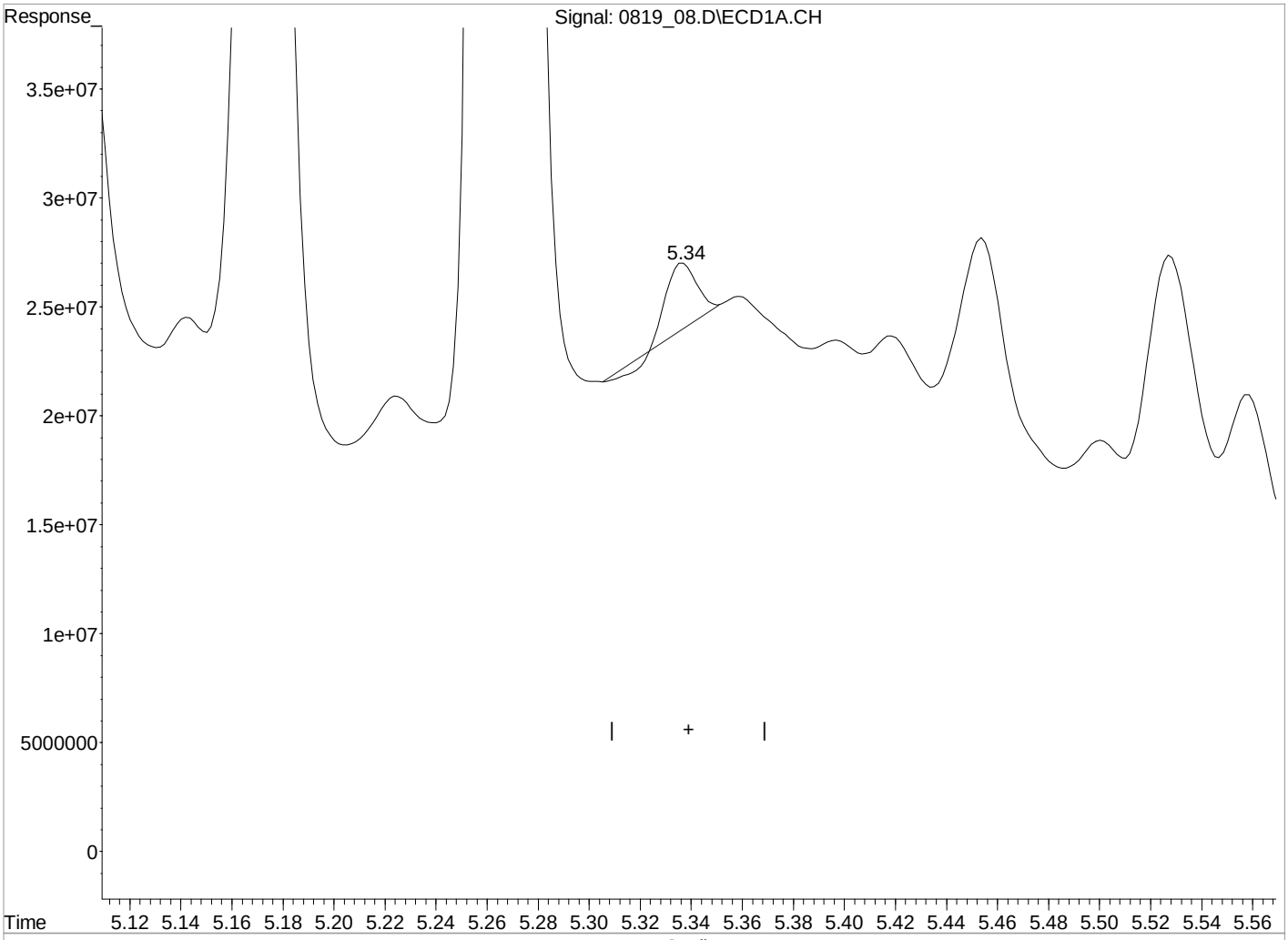




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(4) MCPP (T,M)

5.34min 2740.2923450 ppb

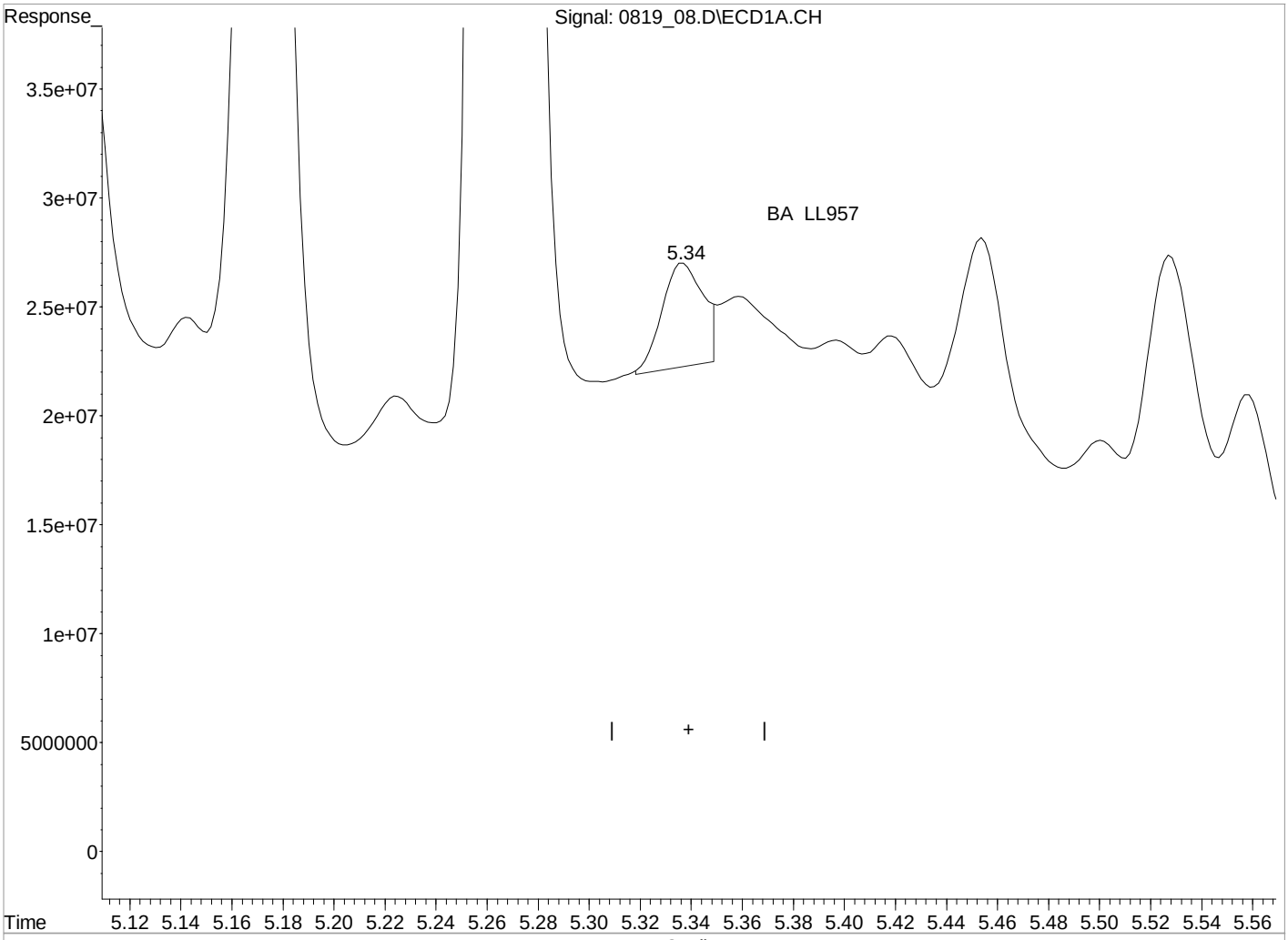
response 21297694

(+) = Expected Retention Time
0819_08.D HB11H12S.M Mon Aug 19 12:13:54 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(4) MCPP (T,M)

5.34min 6832.5804112 ppb m

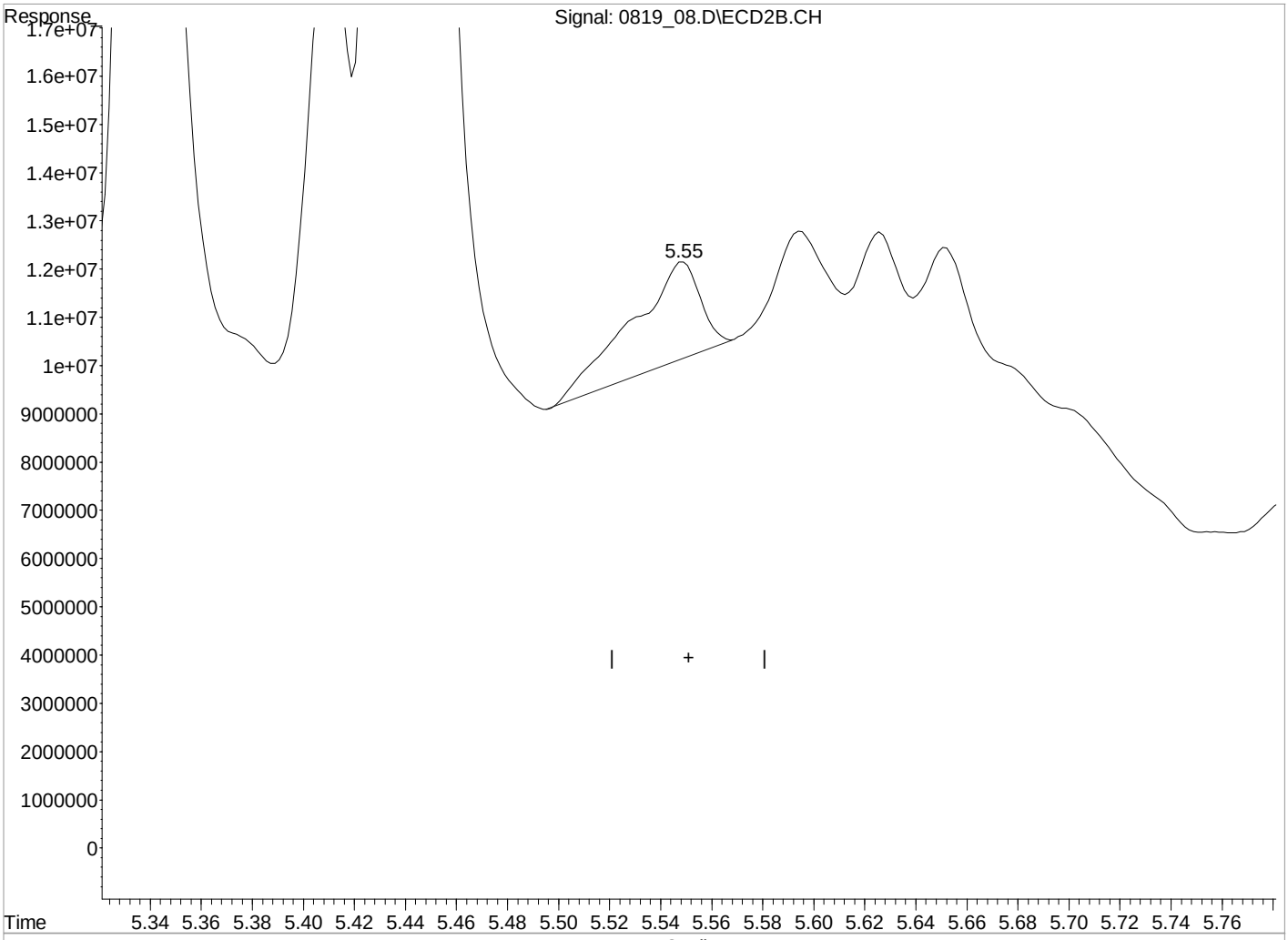
response 54772066

(+) = Expected Retention Time
0819_08.D HB11H12S.M Mon Aug 19 12:14:03 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(16) MCPP(#2) (T,M)

5.55min   8967.0441470 ppb

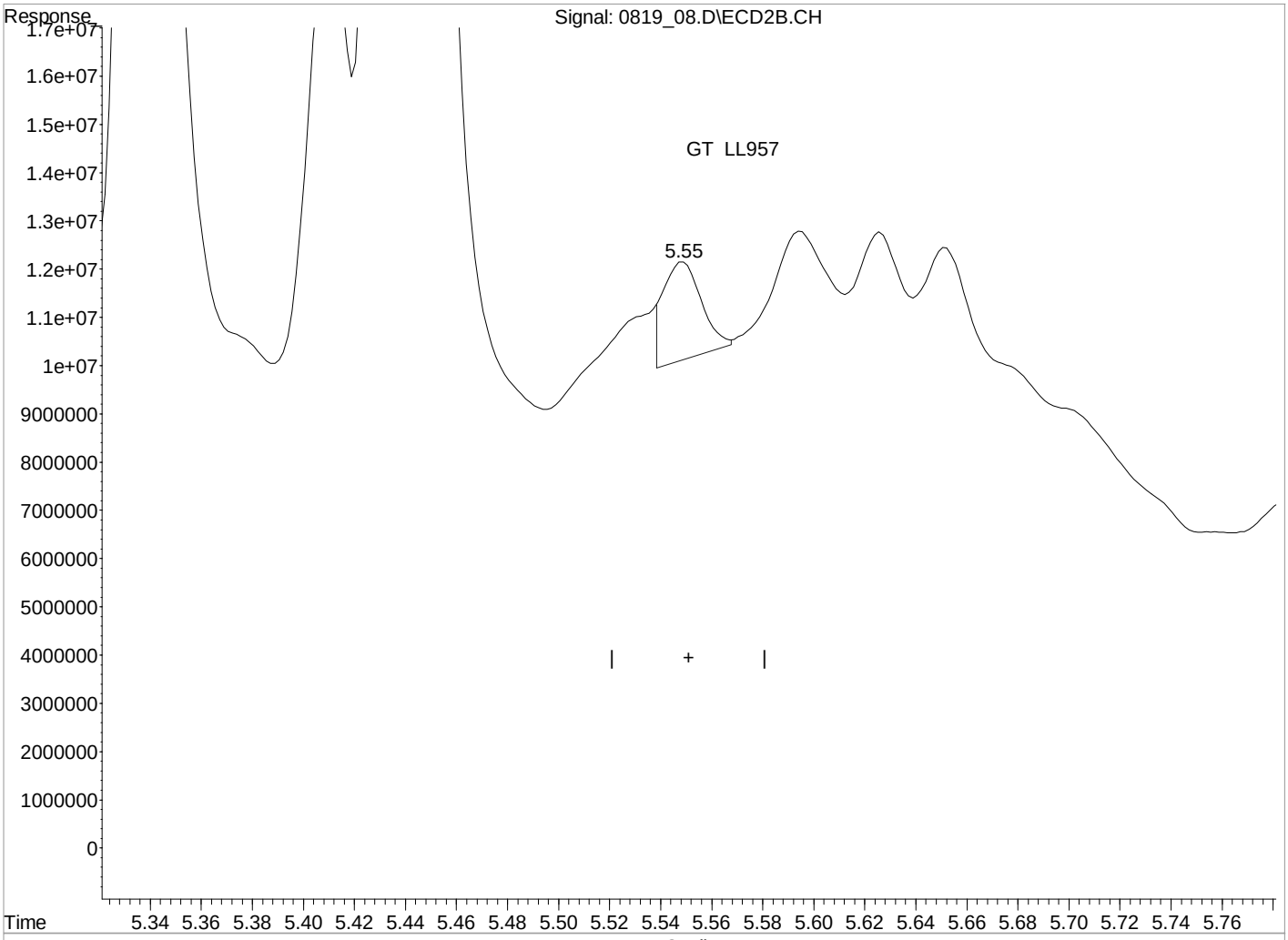
response   38302156

(+) = Expected Retention Time
0819_08.D HB11H12S.M   Mon Aug 19 12:14:10 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(16) MCPP(#2) (T,M)

5.55min 4987.2805081 ppb m

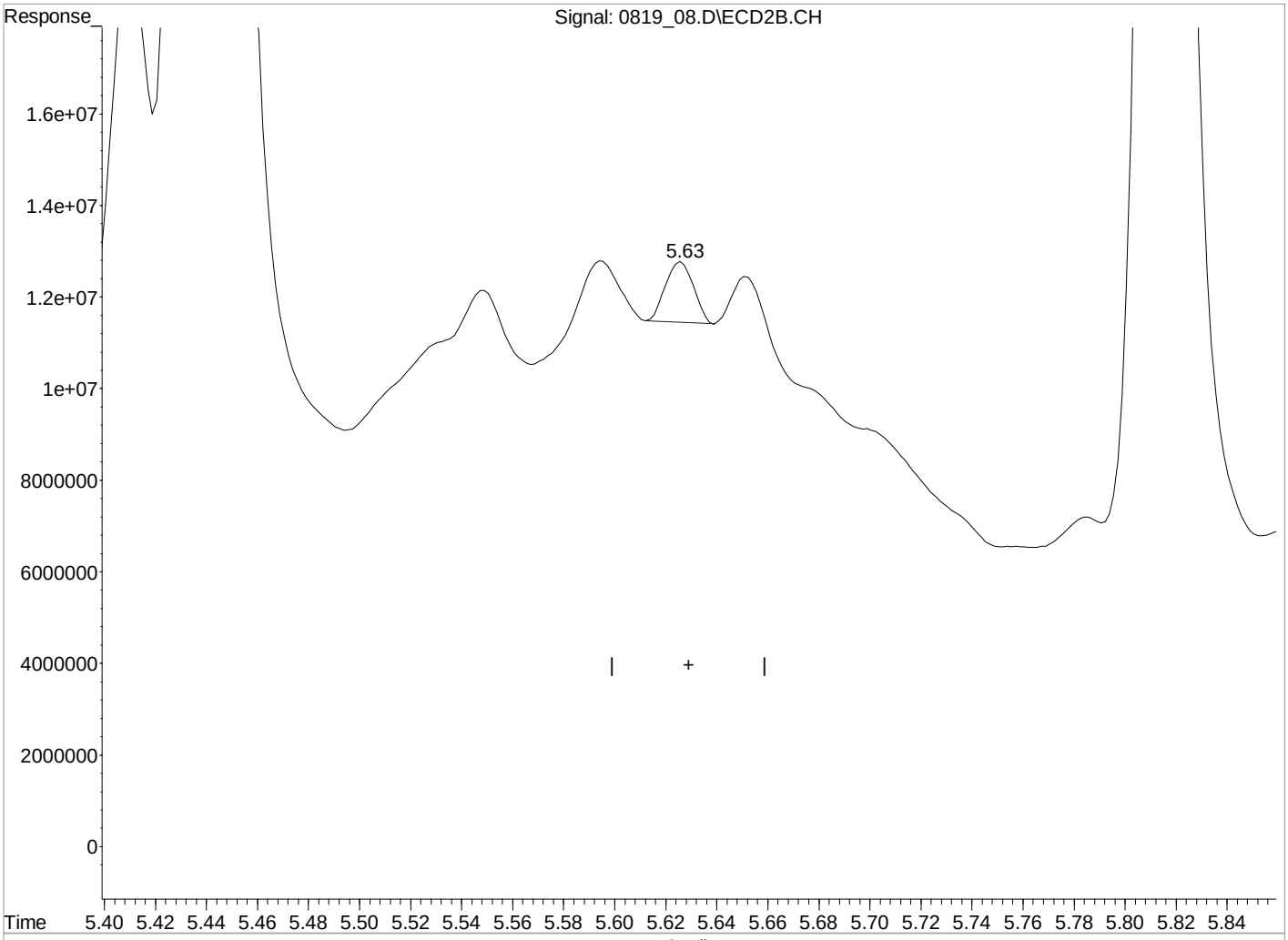
response 21302850

(+) = Expected Retention Time
0819_08.D HB11H12S.M Mon Aug 19 12:14:18 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(17) MCPA(#2) (T,M)

5.63min 1270.0708081 ppb

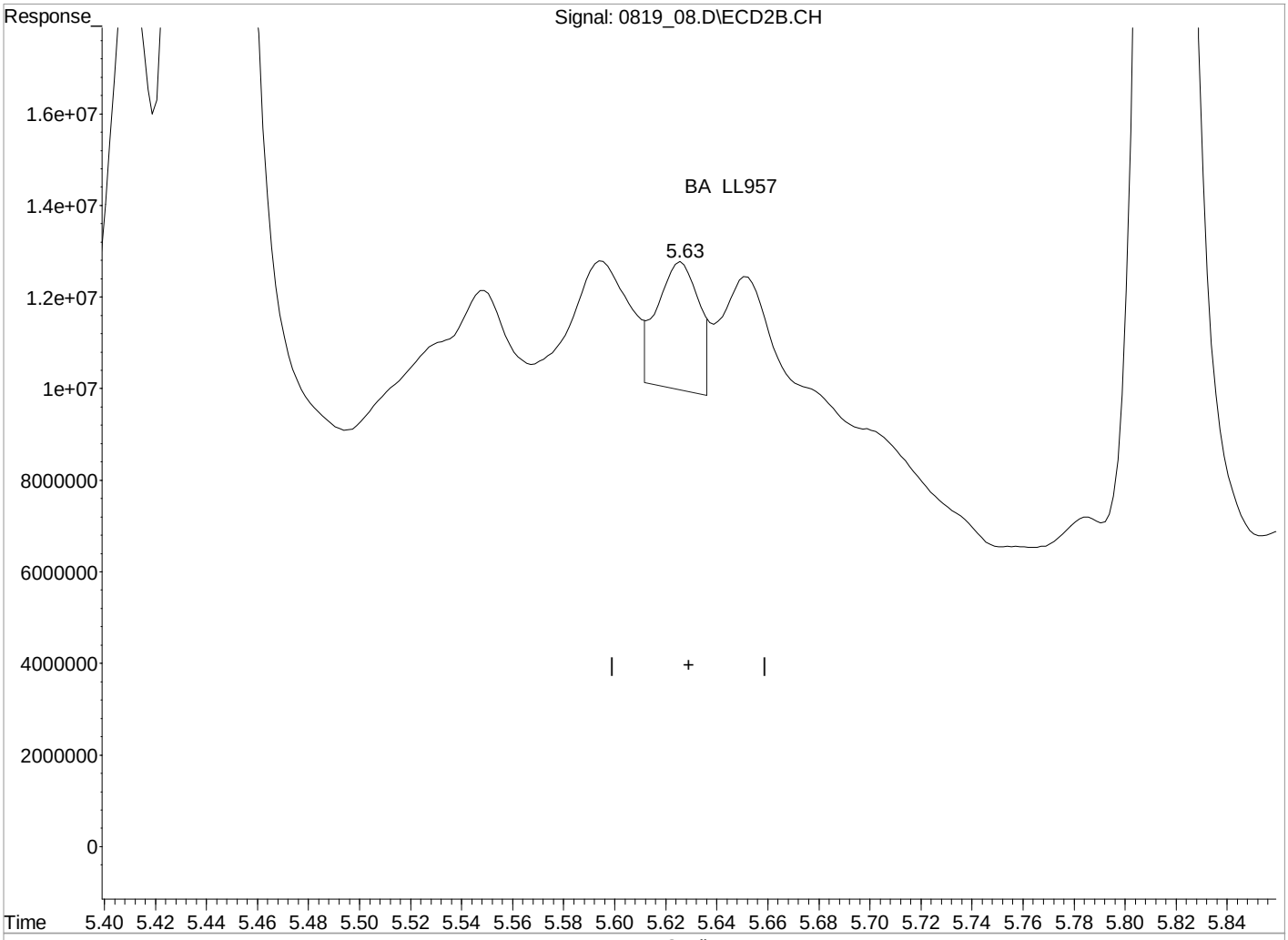
response 10034575

(+) = Expected Retention Time
0819_08.D HB11H12S.M Mon Aug 19 12:14:22 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD1A.CH Vial: 4
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 08.D\ECD2B.CH
Acq On   : 19 Aug 2019 11:56 am   Operator: 957
Sample   : MS 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 12:13 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(17) MCPA(#2) (T,M)

5.63min 5574.2421849 ppb m

response 31873766

(+) = Expected Retention Time
0819_08.D HB11H12S.M Mon Aug 19 12:14:31 2019

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3441834-4

Lab Sample ID:	R3441834-4	**SDG:**	L1127562
Client Sample ID:	MSD	**Collected Date/Time:**	08/08/19 13:30
Lab File ID:	0819_09	**Received Date/Time:**	08/10/19 09:00
Instrument ID:	SVGC11	**Preparation Date/Time:**	08/16/19 12:37
Analytical Batch:	WG1329942	**Analysis Date/Time:**	08/19/19 12:11
Dilution Factor:	1	**Prep Method:**	8151A
Analytical Method:	8151A	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	100 mL
Total Solids (%):	_____	**Final Wt/Vol:**	10 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
2,4-D	94-75-7	5.77	0.0404	P	0.000667	0.00200
2,4,5-TP (Silvex)	93-72-1	6.14	0.0398	P	0.000667	0.00200

Quantitation Report (QT Reviewed)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On : 19 Aug 2019 12:11 pm Operator: 957
Sample : MSD 1x WG1329942 L1127562-01 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06:23 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Initial Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

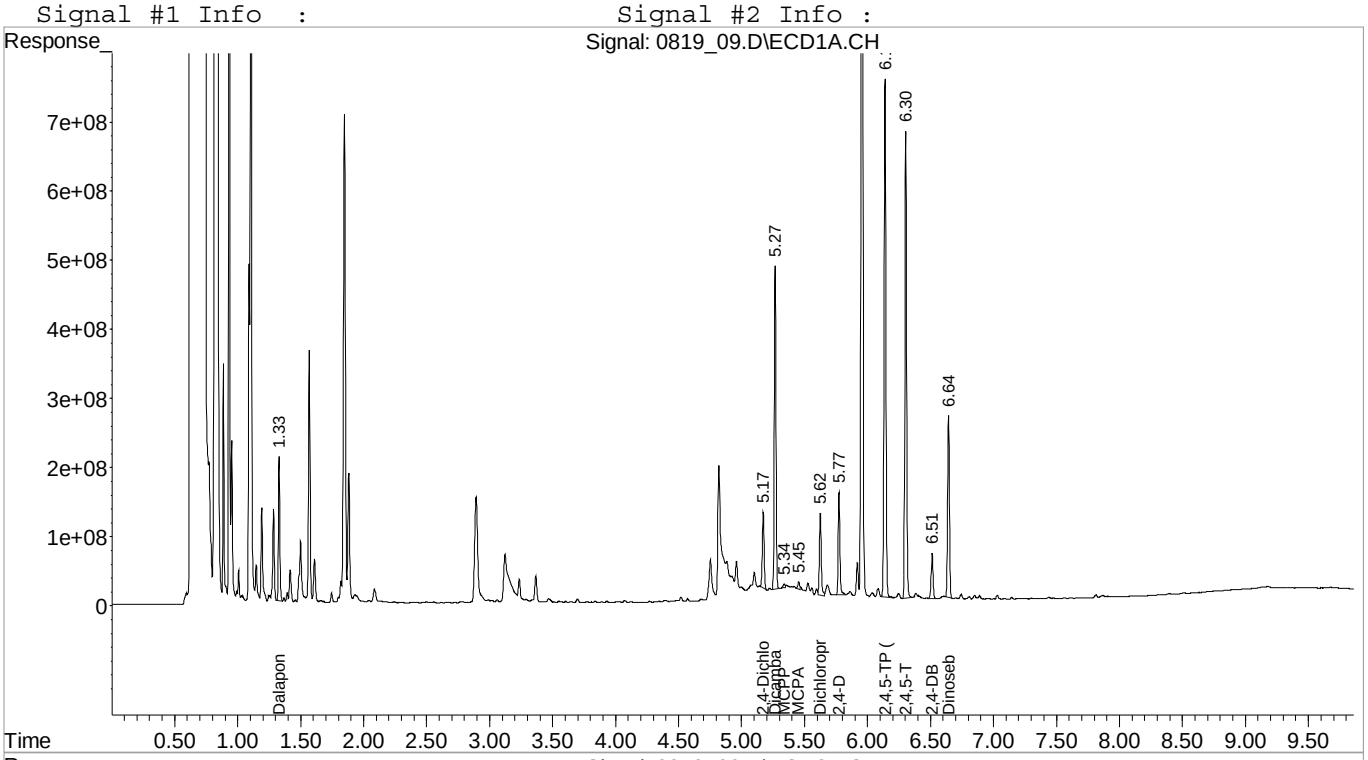
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
2) S 2,4-Dichlorophenyl Acetic	5.1729333	1076477209	363.1864777	ppb	
Spiked Amount 500.0000	Range 14 - 158	Recovery = 72.64%			
14) S 2,4-Dichlorophenyl Acetic	5.3391333	559639732	489.0130303	ppb	
Spiked Amount 500.0000	Range 22 - 132	Recovery = 97.80%			
Target Compounds					
1) T,M Dalapon	1.3287667	1562899078	387.2546577	ppb	
3) T,M Dicamba	5.2675667	4420054417	368.7049782	ppb	
4) T,M MCPP	5.3361000	56778298	7077.8450187	ppb	m
5) T,M MCPA	5.4530000	116863736	8083.2191068	ppb	m
6) T,M Dichloroprop	5.6253667	1211139073	407.3127772	ppb	
7) T,M 2,4-D	5.7744500	1459701420	403.5436054	ppb	
8) T,M 2,4,5-TP (Silvex)	6.1393167	7420019644	398.2820940	ppb	
9) T,M 2,4,5-T	6.3042667	6642946235	420.7375173	ppb	
10) T,M 2,4-DB	6.5136667	724829683	348.7951848	ppb	
11) T,M Dinoseb	6.6438167	2615138619	224.3611585	ppb	
13) T,M Dalapon(#2)	1.6032167	738874830	465.7661619	ppb	
15) T,M Dicamba(#2)	5.4408333	2293660551	531.7626264	ppb	
16) T,M MCPP(#2)	5.5476167	28898458	6765.5135020	ppb	m
17) T,M MCPA(#2)	5.6247500	44264051	8016.1782694	ppb	m
18) T,M Dichloroprop(#2)	5.8159500	682223776	595.2724033	ppb	
19) T,M 2,4-D(#2)	5.9254500	996859821	648.7017629	ppb	
20) T,M 2,4,5-TP (Silvex) (#2)	6.3144000	4804278482	646.1788938	ppb	
21) T,M 2,4,5-T (#2)	6.4344833	4308889007	637.1104880	ppb	
22) T,M 2,4-DB (#2)	6.6629500	460112080	528.0478885	ppb	
23) T,M Dinoseb (#2)	7.1119667	1864224648	385.6315621	ppb	

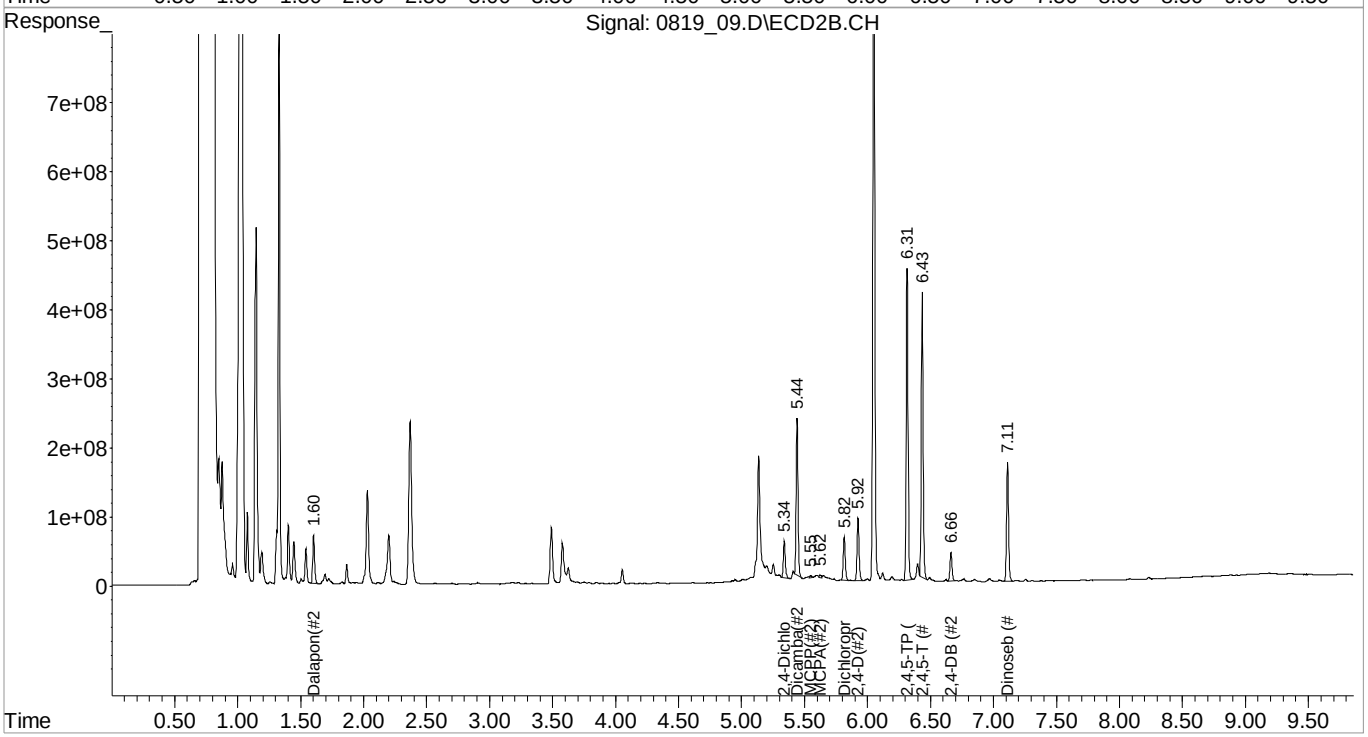
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On : 19 Aug 2019 12:11 pm Operator: 957
Sample : MSD 1x WG1329942 L1127562-01 Inst : SVGC11
Misc : Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:07 2019 Quant Results File: HB11H12S.RES

Quant Method : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration
DataAcq Meth : HERB11ZE.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

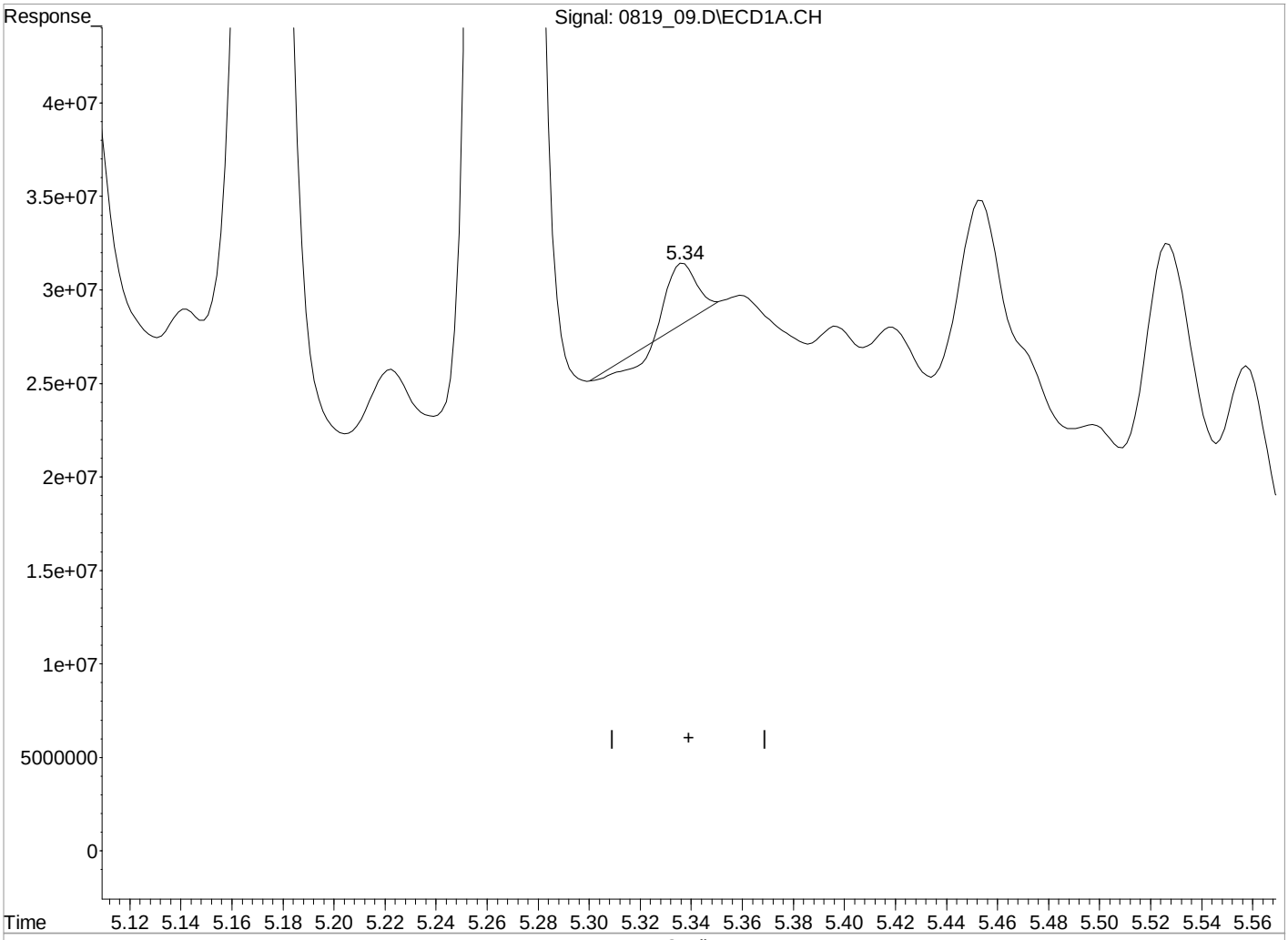




Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 2340.9153729 ppb

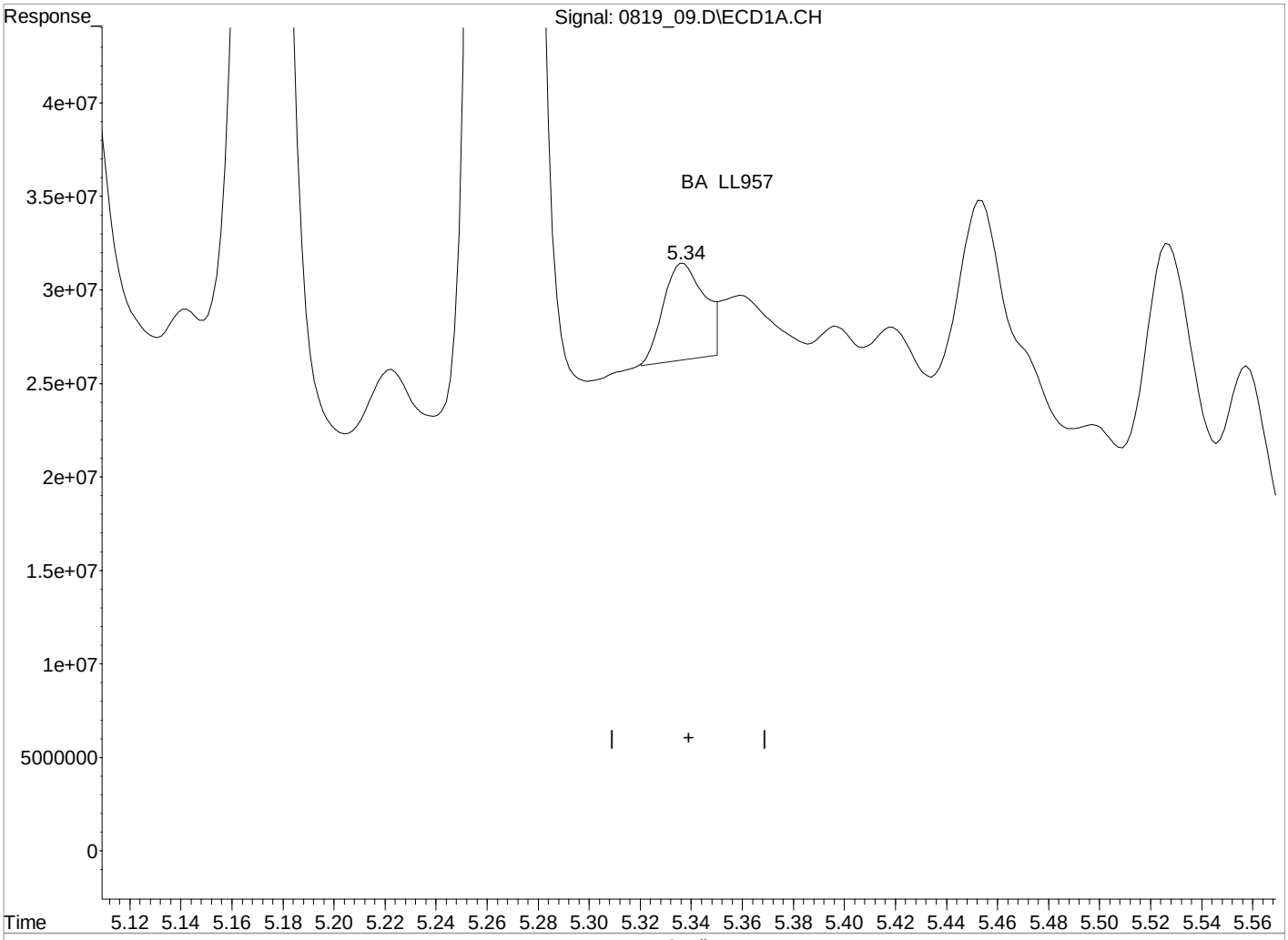
response 18030844

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:06:42 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(4) MCPP (T,M)

5.34min 7077.8450187 ppb m

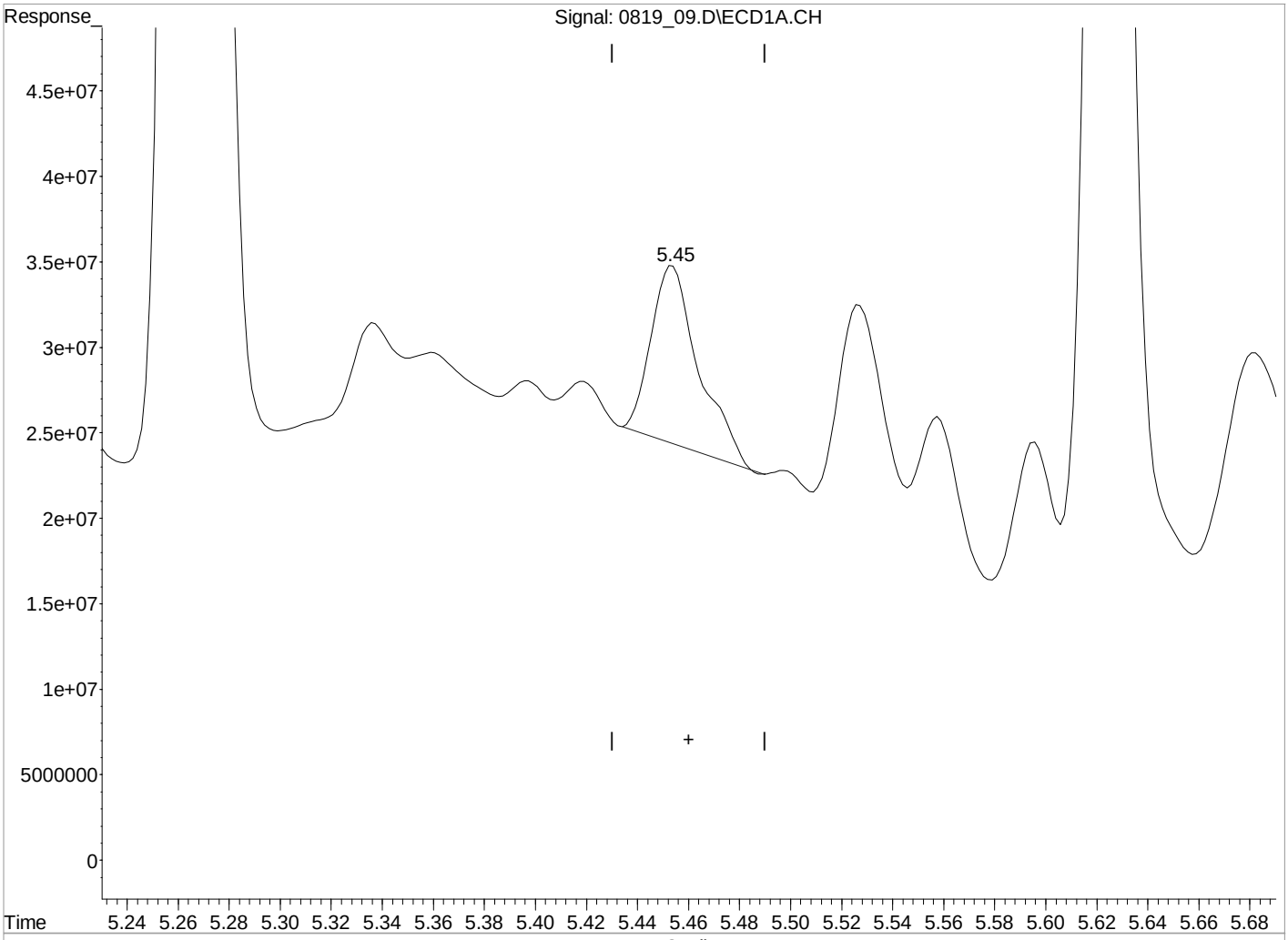
response 56778298

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:06:54 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(5) MCPA (T,M)

5.45min 9341.0672741 ppb

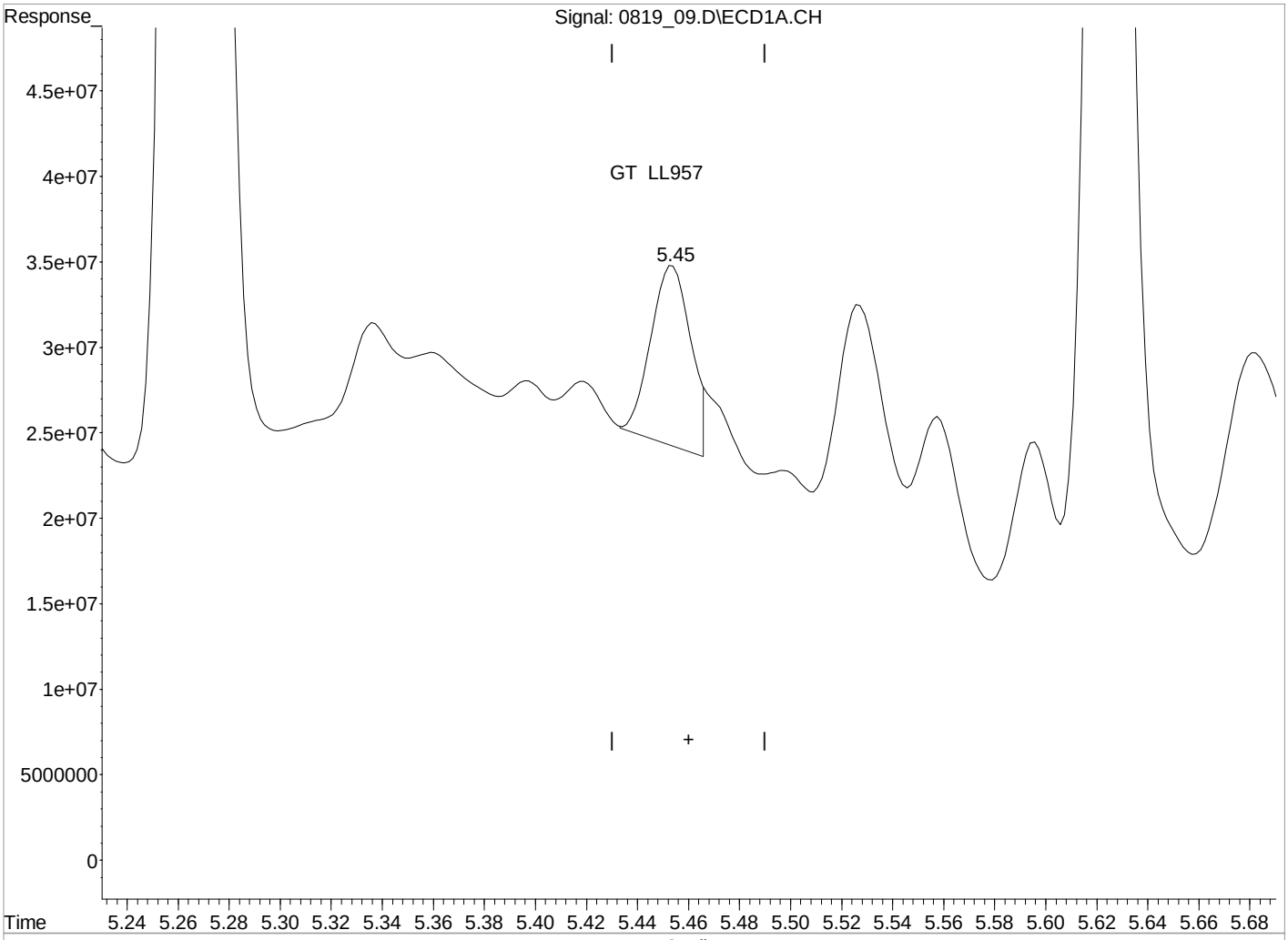
response 135049169

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:06:57 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



QEdit

(5) MCPA (T,M)

5.45min 8083.2191068 ppb m

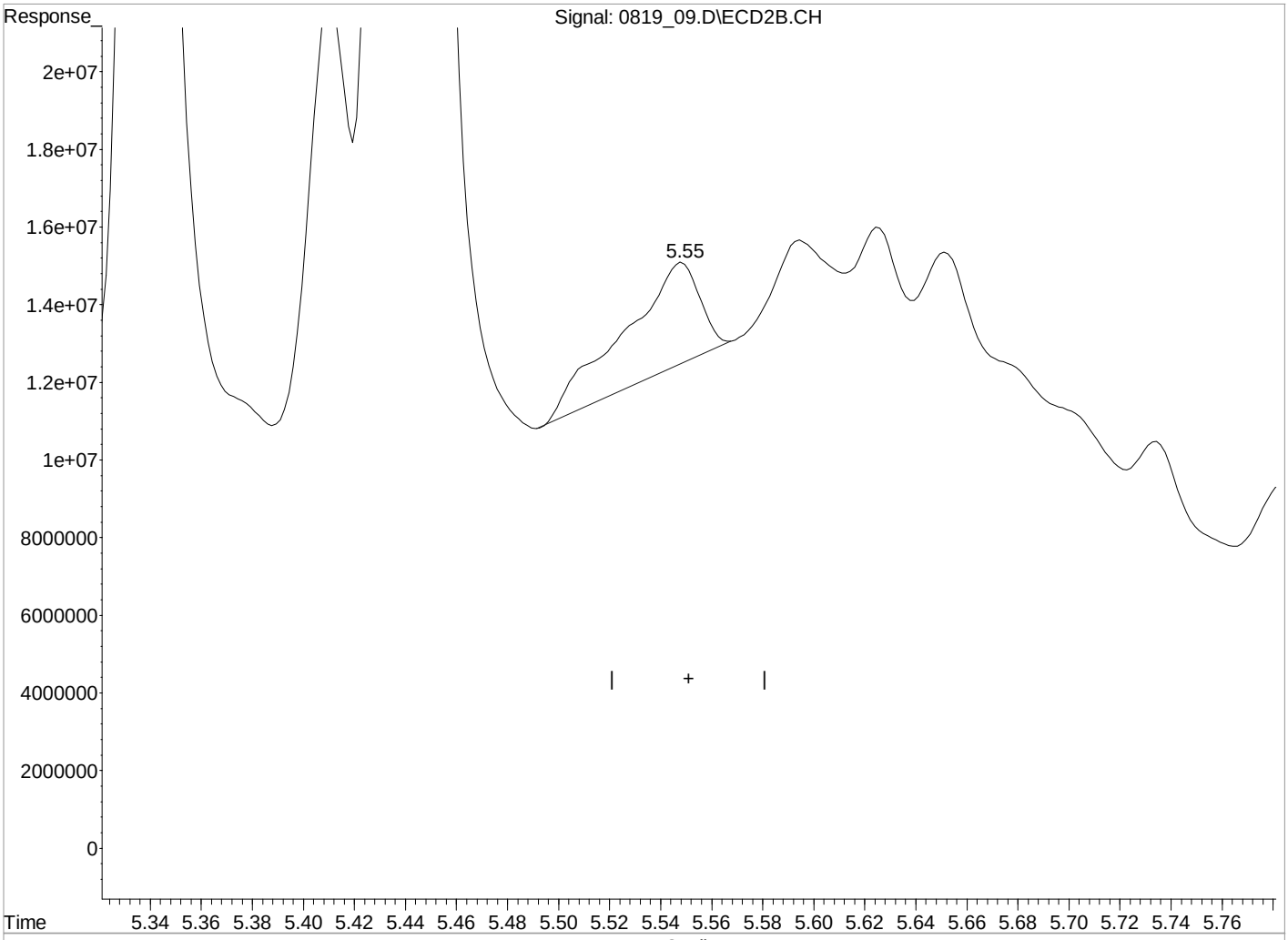
response 116863736

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:07:05 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(16) MCPP(#2) (T,M)

5.55min 12975.4298853 ppb

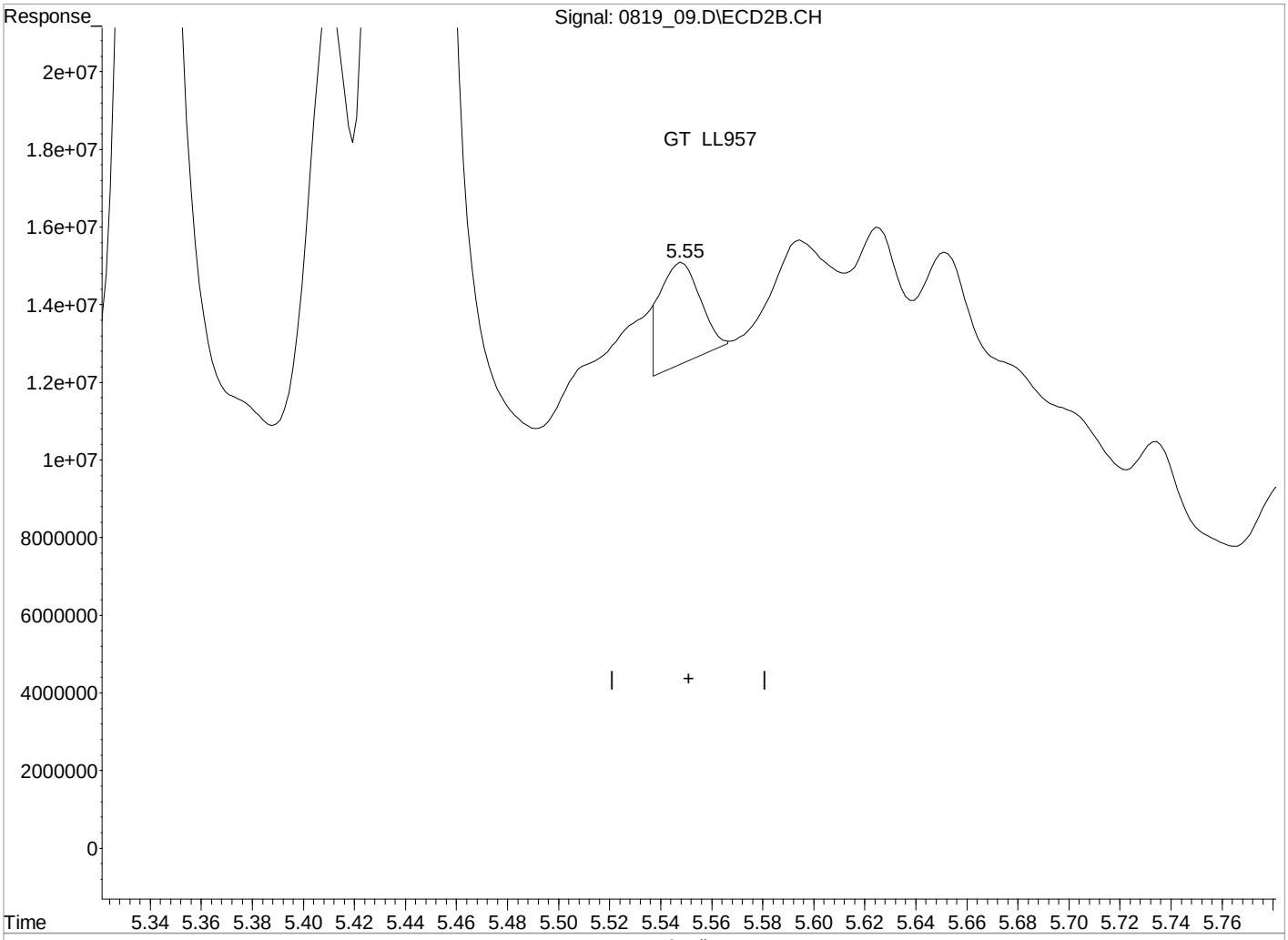
response 55423719

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:07:13 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(16) MCPP(#2) (T,M)

5.55min 6765.5135020 ppb m

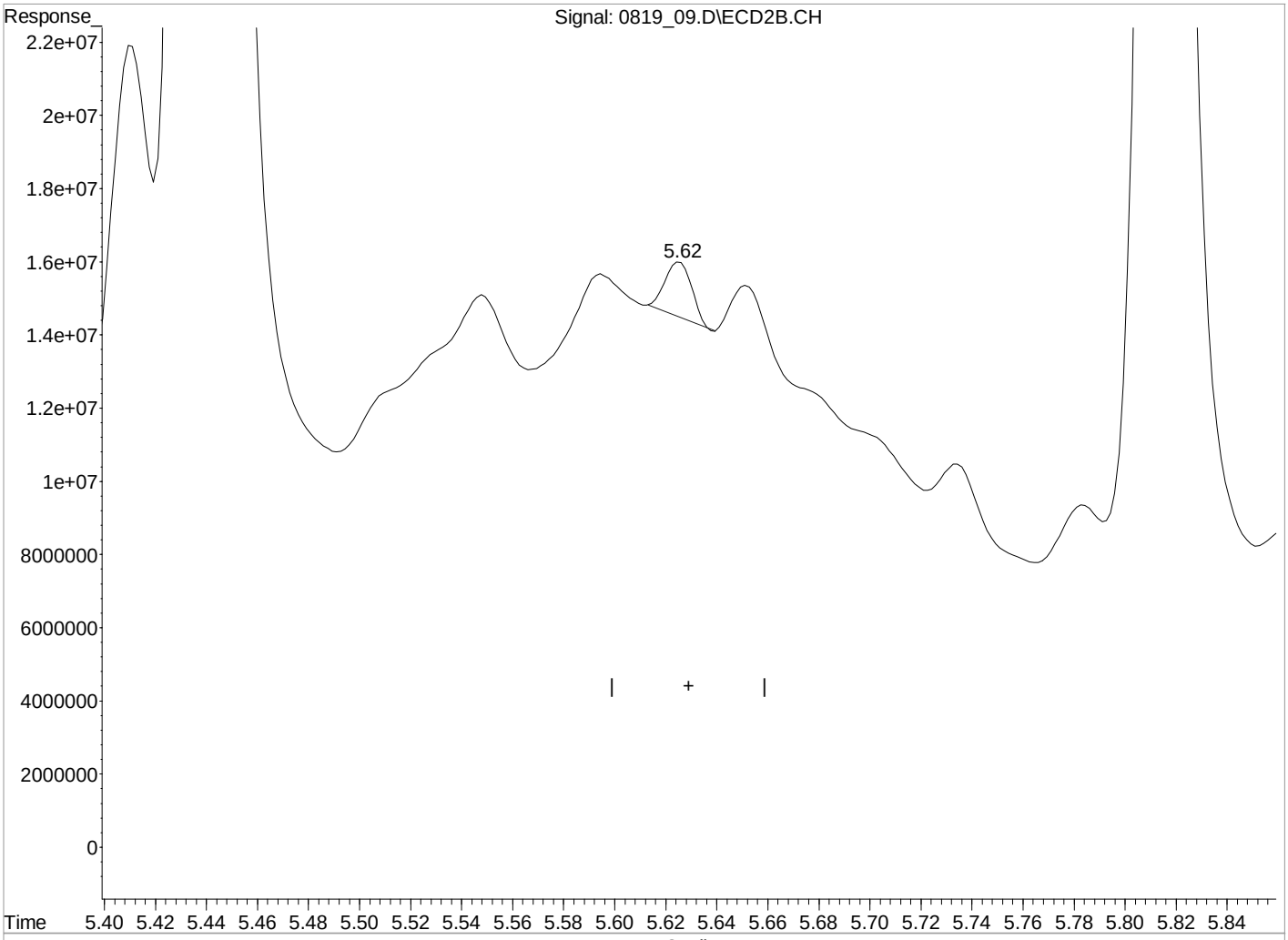
response 28898458

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:07:21 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(17) MCPA(#2) (T,M)

5.63min 1500.4555692 ppb

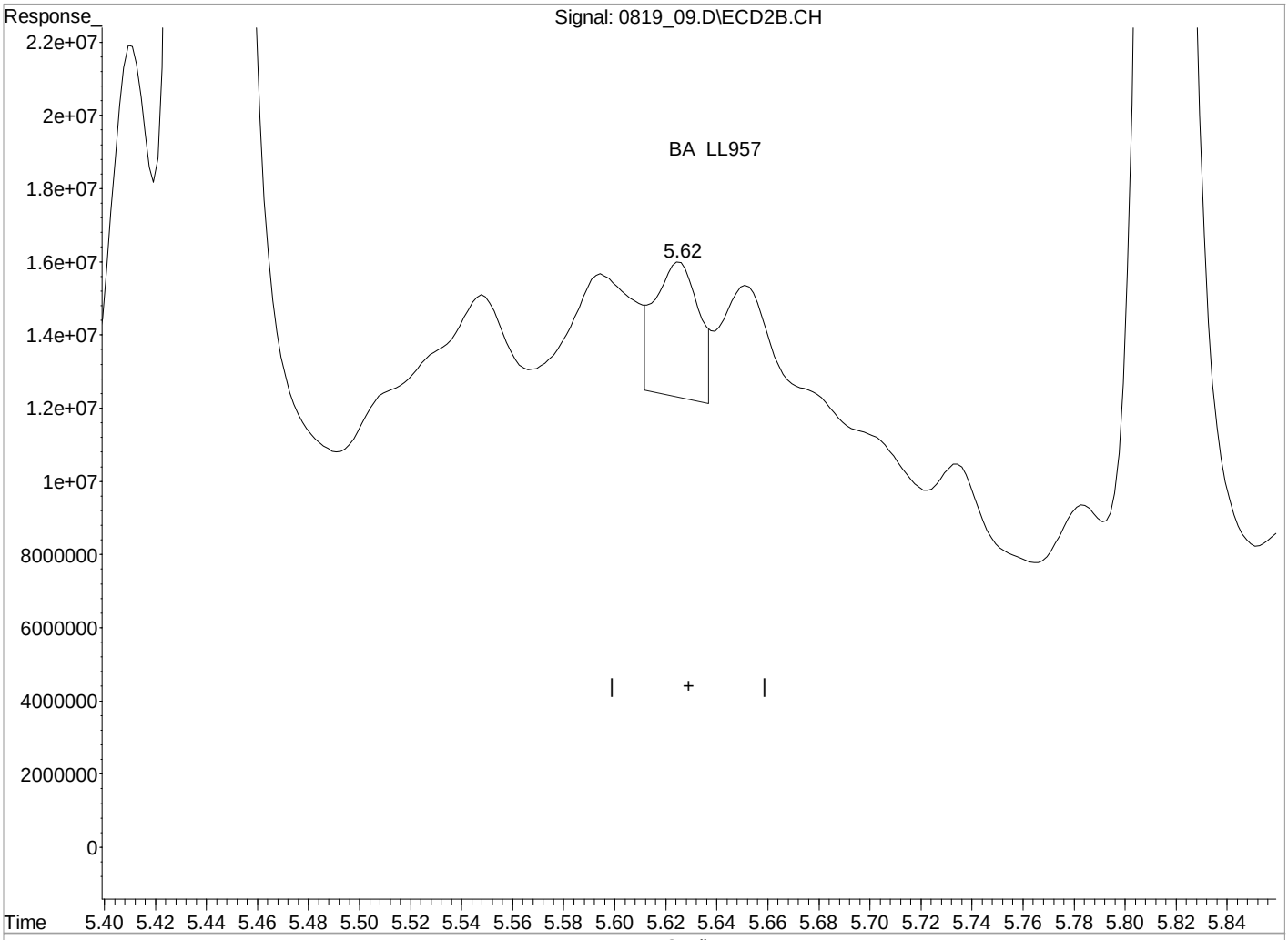
response 11203538

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:07:30 2019

Quantitation Report (Qedit)

Signal #1 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\081919\0819 09.D\ECD2B.CH
Acq On   : 19 Aug 2019 12:11 pm   Operator: 957
Sample   : MSD 1x WG1329942 L1127562-01   Inst   : SVGC11
Misc   :   Multiplr: 1.00
IntFile Signal #1: EVENTS.E   IntFile Signal #2: EVENTS2.E
Quant Time: Aug 19 13:06 2019 Quant Results File: HB11H12S.RES

Method   : C:\MSDCHEM\1\METHODS\HB11H12S.M (Chemstation Integrator)
Title   : Pesticide analysis using CLPest./Pest2 columns
Last Update : Mon Aug 12 10:51:29 2019
Response via : Multiple Level Calibration



(17) MCPA(#2) (T,M)

5.62min 8016.1782694 ppb m

response 44264051

(+) = Expected Retention Time
0819_09.D HB11H12S.M Mon Aug 19 13:07:38 2019

SV8151 TCLP Extractions Benchsheet

Batch: WG1329942

Process Analyst: AMD1015 **Transfer Analyst:** ACM720 **Prep Start Date/Time:** 08/16/19 12:36-12:37 **Prep End Date/Time:** 08/19/19 10:45
SOP: ENV-SOP-MTJL-0073 **Method:** 8151A

Na2SO4: 19H16655 Amt. Used: 1 Exp. Date:11/01/19 **3:1 H2SO4:** 19H08752 Amt. Used: 1 Exp. Date:02/08/20 **NaCl:** 19G28285 Amt. Used: 1 Exp. Date:01/28/20
Ether: 19H16716 Amt. Used: 1 Exp. Date:02/16/20 **MeCl2:** 19H13238 Amt. Used: 1 Exp. Date:02/13/20 **Diazomethane:** 19H07485 Amt. Used: 1 Exp. Date:02/07/20
MeOH: 19C18173 Amt. Used: 1 Exp. Date:09/18/19 **Iso Octane:** 19G18231 Amt. Used: 1 Exp. Date:01/18/20 **Surrogate:** 19H14281 Amt. Used: 1 mL Exp. Date:02/14/20
LCS/MS Spike: 19H05208 Amt. Used: 1 mL Exp. Date:02/05/20 **Spike Syringe ID:** 19E29912 Amt. Used: 1 Exp. Date:11/29/19
Surrogate Syringe ID: 19D23984 Amt. Used: 1 Exp. Date:10/23/19

Sample Number	Initial Sample Vol (mL)	Solvent Volume (mL)	Emulsion	Final Volume (mL)	Extract Color	Prep Factor	Prep Ratio	DL Adjustment Factor	Spike Factor	Surrogate Factor	Review Analyst	Review Date	Sample Comments
BLANK	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
LCS	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
MS(L1127562-01)	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
MSD(L1127562-01)	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
1. L1127562-01	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
2. L1127693-01	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
3. L1127693-02	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
4. L1127693-03	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
5. L1127693-04	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
6. L1127693-05	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
7. L1127693-06	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
8. L1127693-07	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
9. L1127693-08	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
10. L1127693-09	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
11. L1127693-10	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
12. L1127693-11	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
13. L1127693-12	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
14. L1127693-13	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
15. L1127693-14	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
16. L1127693-15	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	
17. L1127693-16	100	180	No Emulsion	10	Yellow	0.1	1	1	1	1	LEL957	08/19/19 10:52:06	

Comments:

Reviewed By: LEL957 on 08/19/19 10:52:06

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
NI	Manual Integration Code to indicate that the peak was not integrated at all by the computer software.
LT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area less than what it should be (i.e., peak area was cut).
GT	Manual Integration Code to indicate that the peak in question was inappropriately integrated to an area greater than it should be (i.e., peak tailing).
BA	Manual Integration Code to indicate that the baseline had to be adjusted correctly by the analyst.
WP	Manual Integration Code to indicate that the wrong peak was chosen.
CO	Manual Integration Code to indicate that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Manual Integration Code to indicate that the retention time for the peak in question has shifted from the expected retention time.
INT	Manual Integration Code to indicate that there was electronic interference (i.e., noise).

Qualifier	Description
P	RPD between the primary and confirmatory analysis exceeded 40%.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

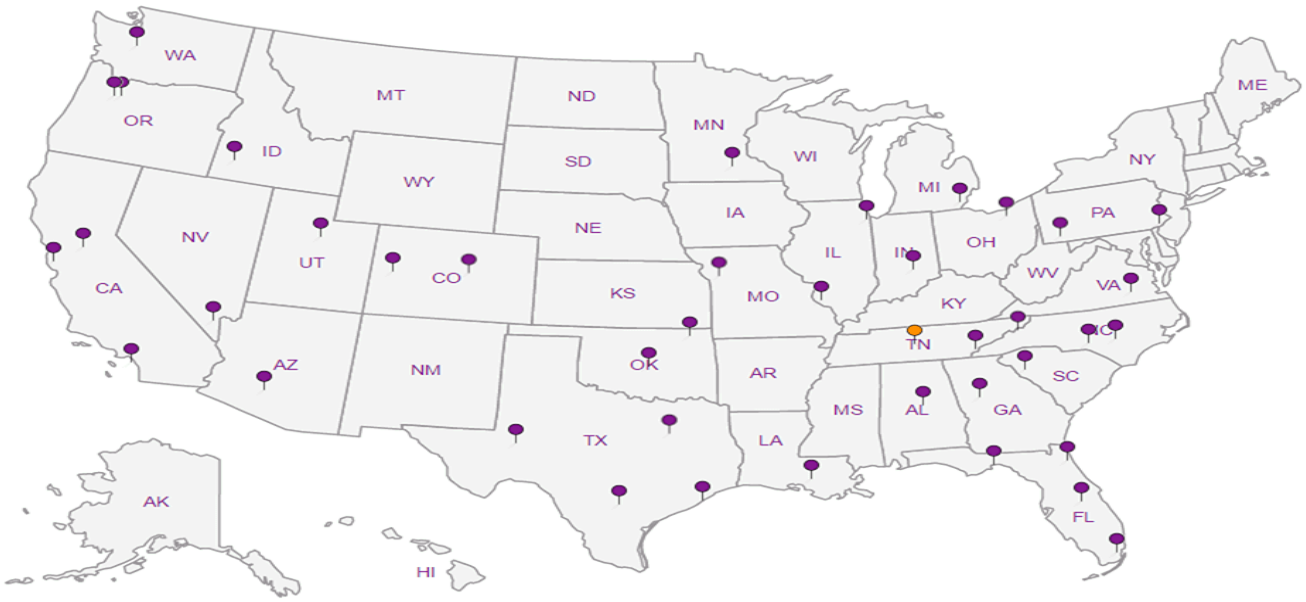
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



H159

Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: NY
Cert. Needed: [X] Yes ☐ No
Owner Received Date: 8/9/2019

ASAP or
Results Requested By: 8/16/2019

Workorder: 30318799 **Workorder Name:** Former EPT Site-Soil IRM/31401

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical National 12065 Lebanon Road Mount Juliet, TN 37122 (615)773-9756

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 8151 TCLP Herbicides	LAB USE ONLY
1	AOC 32 DITCH & AOC 35G	PS	8/8/2019 13:30	30318799001	Solid	1	X	-01
2								
3								
4								
5								

1127562

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	8/9/1600	[signature]	8-10-19
2				
3				

Comments

*Extraction to be done at National
Level IV package required

mg/L ug/L
mg/kg ug/kg
Other :
MDL reporting
ND reporting

Cooler Temperature on Receipt 26/1.2°C 42 | Custody Seal Y or N | Received on Ice (Y) or N | Samples Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

4942 9063 8638

RAD SCREEN: <0.5 mR/hr

1127562

Pace Analytical®
www.pacelabs.com

Pace Analytical National
12065 Lebanon Road
Mount Juliet, TN 37122
(615)773-9756

INTER_LABORATORY WORK ORDER # 30318799
(To be completed by sending lab)

Sending Project No:	30318799
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	08/09/19
REQUESTED COMPLETION DATE:	**8/16/2019** OR ASAP

Sending Region	IR30-Pittsburgh	Sending Project Mgr.	Rachel Christner
Receiving Region	IR850-Pace National	External Client	WSP Environment & Energy - Pittsburgh, PA
State of Sample Origin	NY	QC Deliverable	PACKAGELV4

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight _____ Cert. Needed _____

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
8151 TCLP Herbicides	WGFU		Unpreserved	1	$168.75	$168.75
					TOTAL	$168.75

Special Requirements: _____

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC Semivolatiles	31	$168.75	$135.00	$33.75
	TOTAL	$168.75	$135.00	$33.75

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Chain of Custody Included: [X] Yes [ ] No Return Samples to Sending Region: [ ] Yes [X] No

Matrix: [ ] Drinking Water [X] Soil [ ] Water [ ] Air [ ] Other (identify) _____

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE O

WO#: 30318799



ıber or

Company: WSP	Billing Information: Environmental Accounts Payable WSP 13530 Dulles Technology Drive Herndon, VA
Address: 11 Stanwix St, Suite 950, Pittsburgh, PA	
Report To: Dave.Rykaczewski@wsp.com	Email To:
Copy To: Erin.Hunter@wsp.com	Site Collection Info/Address: 620 S Aurora St,
Customer Project Name/Number: Former ERT - Soil IRM / 31401545.001	State: NY County/City: Tompkins/Ithaca Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 412-375-0282 Email: see above	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Dan Cummings	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: 5 DAY TAT Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [X] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Container Preservative Type ** | Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TCLP VOCs, SVOCs, RCRA 8 Metals	TCLP Pesticides, Herbicides	Total PCBs	Total PAHs	Corrosivity by pH	Ignitability/Flashpoint	Reactive Sulfide	Reactive Cyanide	% Solids (Moisture Content)	Lab Sample # / Comments
AOC 32 DITCH & AOC 35 FG	SL	C	—	—	8/8/19	1330		5	X	X	X	X	X	X	X	X	X	001

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

JDP 8/9/19

Customer Remarks / Special Conditions / Possible Hazards: NYASP category B data deliverable

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Bubble bag

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 8132-1030 2384103

Samples received via: (FEDEX) UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 11
Cooler 1 Temp Upon Receipt: 2.1 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 2.1 oC
Comments:

JDP 8/9/19

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature) WSP	8/8/19 1600	FedEx	8/8/19 1600
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature) PACE	Date/Time: 08/09/19 0925
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Non Conformance(s): YES / (NO)

Page: 1 of: 1

1127562

Pace Analytical Prep Log Report

Batch Information: TCLP 8785/355732; 8786/355733

Template Version: F-PA-O-011-Rev.01 (28Jun2017)

Prep Method	EPA 1311
Tumbler End Temp. (C)	22.7
Acceptance Range:	Room Temp 21.0-25.0 C
Batch Notes	HNO3 94232

Extracted By	VAK
Tumbler Rotational Rate (rev/min)	30
Balance ID	30BA16
Reviewed By	

Extracted Date/Time	08/08/2019 13:42:03:453
Pipette ID 1	PIP 001
pH Meter ID	2
Reviewed By Date	

Tumbler Start Temp. (C)	20.7
Room Thermo ID	130286412 OUT
Hot Plate Temp (C)	55

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	UnBatched Sample Info	Extraction Vessel #	Tumbler ID	Hot Plate ID	TCLP Matrix	Particle Size Requirement Met?	Particle Size for Ph Testing <1 mm?	pH (after adding 96.5mL of H2O)	pH (after adding 3.5 mL of 1N HCL)	Sample Weight for determination (g)	Actual sample Weight (g) used
TCLP	LB	1727835	Y		M	30TBL5	HP001				4.88		0	0
TCLP	PS	30316656001	Y		N	30TBL5	HP001	Other	Y	Y	7.47	4.58	5	100
TCLP	PS	30317044001	Y		O	30TBL5	HP001	Other	Y	Y	8.49	2.99	5	100
TCLP	PS	30316720001	Y		P	30TBL5	HP001	Aqueous	Y	Y	7.39	1.64	5	100
TCLP	PS	30317749001	Y		Q	30TBL5	HP001	Other	Y	Y	6.04	1.75	5	100
TCLP	PS	30318054001	Y		R	30TBL5	HP001	Other	Y	Y	9.81	1.79	5	100
TCLP	PS	30317875001	Y		S	30TBL5	HP001	Water	Y	Y	8.61	1.38	5	100
TCLP	PS	30317875002	Y		T	30TBL5	HP001	Other	Y	Y	10.5	1.64	5	100
TCLP	PS	30317570001	Y		U	30TBL5	HP001	Water	Y	Y	7.68	1.63	5	100
TCLP	PS	30318415001	Y		V	30TBL5	HP001	Other	Y	Y	7.92	1.72	5	100
TCLP	PS	30318063001	Y		A	30TBL5	HP001	Other	Y	Y	9.46	2.38	5	100
TCLP	PS	30318386001	Y		B	30TBL5	HP001	Other	Y	Y	6.74	1.8	5	100
1311MET_L	LB	1727844	Y		M	30TBL5	HP001				4.88		0	0
1311MET_L	PS	30316656001	Y		N	30TBL5	HP001	Other	Y	Y	7.47	4.58	5	100
1311MET_L	PS	30317044001	Y		O	30TBL5	HP001	Other	Y	Y	8.49	2.99	5	100
1311MET_L	PS	30316720001	Y		P	30TBL5	HP001	Aqueous	Y	Y	7.39	1.64	5	100
1311MET_L	PS	30317749001	Y		Q	30TBL5	HP001	Other	Y	Y	6.04	1.75	5	100
1311MET_L	PS	30318054001	Y		R	30TBL5	HP001	Other	Y	Y	9.81	1.79	5	100
1311MET_L	PS	30317875001	Y		S	30TBL5	HP001	Water	Y	Y	8.61	1.38	5	100
1311MET_L	PS	30317875002	Y		T	30TBL5	HP001	Other	Y	Y	10.5	1.64	5	100
1311MET_L	PS	30317570001	Y		U	30TBL5	HP001	Water	Y	Y	7.68	1.63	5	100

Fri, 9 Aug 2019 11:39:58 -0400

1127562

Pace Analytical Prep Log Report

QC Rule	Sample Type	Lab Sample ID	TCLP filters (g)	Fluid Used	TCLP Extraction Fluid 1 (L)	TCLP Extraction Fluid 2 (L)	Rotation Start Time	Rotation End Time	Final pH	Time Filtered	pH < 2	Initial Weigh Boat (g)	Final Weigh Boat (g)	Weigh Boat Difference (g)
TCLP	PS	**30317875001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	7.63	08/09/2019 08:36:36:882		476	477.6	1.6
TCLP	PS	**30317875002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.73	08/09/2019 08:36:36:882				
TCLP	PS	**30317570001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.99	08/09/2019 08:36:36:882		475.8	477.7	1.9
TCLP	PS	**30318415001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.57	08/09/2019 08:38:53:825				
TCLP	PS	**30318063001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.75	08/09/2019 08:38:53:825				
TCLP	PS	**30318386001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.35	08/09/2019 08:38:53:825				
1311MET_L	LB	**1727844**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.61	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30316656001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.33	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30317044001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	6.86	08/09/2019 08:32:00:576	Y			
1311MET_L	PS	**30316720001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.21	08/09/2019 08:34:21:210	Y	482.6	489.4	6.8
1311MET_L	PS	**30317749001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.71	08/09/2019 08:34:21:210	Y			
1311MET_L	PS	**30318054001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	5.59	08/09/2019 08:34:21:210	Y			
1311MET_L	PS	**30317875001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	7.63	08/09/2019 08:36:36:882	Y	476	477.6	1.6
1311MET_L	PS	**30317875002**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.73	08/09/2019 08:36:36:882	Y			
1311MET_L	PS	**30317570001**	92410 ()	TCLP 1	95902 ()	72915 ()	08/08/2019 15:07:08	08/09/2019 08:15:26	4.99	08/09/2019 08:36:36:882	Y	475.8	477.7	1.9

Fri, 9 Aug 2019 11:39:58 -0400

1127582

Pace Analytical Prep Log Report

Sample Notes:

1*: powder/rock

Fri, 9 Aug 2019 11:39:58 -0400

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: PACEGPA		SDG#:	112762
Cooler Received/Opened On: 8 /10 /19	Temperature:	2.7	
Received By: Lexxi Romero			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		✓	
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK 02

SGS Job Number: JC96272

Sampling Date: 10/03/19



Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com

ATTN: Amy Romano

Total number of pages in report: 133

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JC96272

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC96272-1	10/03/19	11:00	NW	10/04/19	AQ	Water	MH-A6 PURGE WATER
JC96272-2	10/03/19	11:30	NW	10/04/19	AQ	Water	MH-22 PURGE WATER
JC96272-3	10/03/19	12:00	NW	10/04/19	SO	Solid	MH-22 SOLIDS
JC96272-4	10/03/19	12:30	NW	10/04/19	AQ	Water	BD 18 SEWER
JC96272-5	10/03/19	13:00	NW	10/04/19	AQ	Water	MH-42A/B
JC96272-6	10/03/19	14:00	NW	10/04/19	SO	Solid	UTILITY SUMP SOLIDS
JC96272-7	10/03/19	14:30	NW	10/04/19	AQ	Water	UTILITY SUMP LIQUIDS
JC96272-8	10/03/19	15:00	NW	10/04/19	AQ	Water	DECON WATER

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: JC96272
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC96272-1	**MH-A6 PURGE WATER**					
Corrosivity as pH		6.54 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Barium		4.6	1.0	0.067	mg/l	SW846 6010D
JC96272-2	**MH-22 PURGE WATER**					
Corrosivity as pH		7.19 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Barium		1.6	1.0	0.067	mg/l	SW846 6010D
JC96272-3	**MH-22 SOLIDS**					
Aroclor 1254		591	47	25	ug/kg	SW846 8082A
Corrosivity as pH		7.15 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Arsenic		0.025 J	0.50	0.014	mg/l	SW846 6010D
Barium		1.7	1.0	0.067	mg/l	SW846 6010D
JC96272-4	**BD 18 SEWER**					
Corrosivity as pH		6.72 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Barium		0.12 J	1.0	0.067	mg/l	SW846 6010D
JC96272-5	**MH-42A/B**					
Corrosivity as pH		8.18 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Chromium		0.010 J	0.050	0.010	mg/l	SW846 6010D
JC96272-6	**UTILITY SUMP SOLIDS**					
Aroclor 1254 [a]		129	40	21	ug/kg	SW846 8082A
Corrosivity as pH		7.33 NC			su	SW846 9045D
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Barium		0.94 J	1.0	0.067	mg/l	SW846 6010D
Lead		0.011 J	0.50	0.0090	mg/l	SW846 6010D
JC96272-7	**UTILITY SUMP LIQUIDS**					
Aroclor 1242		160	5.6	2.6	ug/l	SW846 8082A
Corrosivity as pH		7.33 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93

Summary of Hits

Job Number: JC96272
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 10/03/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Barium		0.16 J	1.0	0.067	mg/l	SW846 6010D
JC96272-8	**DECON WATER**					
Corrosivity as pH		7.71 NC			su	SW846 9040C
Ignitability (Flashpoint)		> 200			Deg. F	SW846 1010A/ASTM D93
Arsenic		0.017 J	0.50	0.014	mg/l	SW846 6010D
Barium		0.56 J	1.0	0.067	mg/l	SW846 6010D
Chromium		0.031 J	0.050	0.010	mg/l	SW846 6010D
Lead		0.053 J	0.50	0.0090	mg/l	SW846 6010D

(a) More than 40 % RPD for detected concentrations between the two GC columns.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MH-A6 PURGE WATER		
Lab Sample ID:	JC96272-1	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149799.D	5	10/16/19 18:28	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		64-135%
2037-26-5	Toluene-D8	100%		76-117%
460-00-4	4-Bromofluorobenzene	101%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-A6 PURGE WATER		
Lab Sample ID:	JC96272-1	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108578.D	1	10/15/19 16:26	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		14-88%
4165-62-2	Phenol-d5	20%		10-110%
118-79-6	2,4,6-Tribromophenol	118%		39-149%
4165-60-0	Nitrobenzene-d5	59%		32-128%
321-60-8	2-Fluorobiphenyl	65%		35-119%
1718-51-0	Terphenyl-d14	73%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-A6 PURGE WATER		
Lab Sample ID:	JC96272-1	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185305.D	1	10/11/19 20:24	TR	10/11/19 06:30	OP23248	G2G4794
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.098	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.063	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.21	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.076	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.087	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	143%		11-166%
877-09-8	Tetrachloro-m-xylene	96%		11-166%
2051-24-3	Decachlorobiphenyl	23%		10-150%
2051-24-3	Decachlorobiphenyl	27%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-A6 PURGE WATER		
Lab Sample ID:	JC96272-1	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	4.6	D005	100	1.0	0.067	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A6 PURGE WATER		
Lab Sample ID:	JC96272-1	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	6.54 NC		su	1	10/17/19 11:43	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-22 PURGE WATER		
Lab Sample ID:	JC96272-2	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149796.D	5	10/16/19 17:12	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		64-135%
2037-26-5	Toluene-D8	101%		76-117%
460-00-4	4-Bromofluorobenzene	99%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-22 PURGE WATER		
Lab Sample ID:	JC96272-2	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108579.D	1	10/15/19 16:51	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	20%		14-88%
4165-62-2	Phenol-d5	12%		10-110%
118-79-6	2,4,6-Tribromophenol	85%		39-149%
4165-60-0	Nitrobenzene-d5	41%		32-128%
321-60-8	2-Fluorobiphenyl	47%		35-119%
1718-51-0	Terphenyl-d14	57%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-22 PURGE WATER		
Lab Sample ID:	JC96272-2	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185306.D	1	10/11/19 20:41	TR	10/11/19 06:30	OP23248	G2G4794
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.097	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.062	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.075	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.086	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.096	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		11-166%
877-09-8	Tetrachloro-m-xylene	80%		11-166%
2051-24-3	Decachlorobiphenyl	21%		10-150%
2051-24-3	Decachlorobiphenyl	25%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MH-22 PURGE WATER
Lab Sample ID: JC96272-2
Matrix: AQ - Water
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 10/03/19
Date Received: 10/04/19
Percent Solids: n/a

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	1.6	D005	100	1.0	0.067	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-22 PURGE WATER		
Lab Sample ID:	JC96272-2	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.19 NC		su	1	10/17/19 11:45	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-22 SOLIDS		
Lab Sample ID:	JC96272-3	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	67.2
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149844.D	5	10/18/19 00:23	EH	10/16/19 16:00	GP24414	V3D6404
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		64-135%
2037-26-5	Toluene-D8	101%		76-117%
460-00-4	4-Bromofluorobenzene	99%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-22 SOLIDS		
Lab Sample ID:	JC96272-3	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	67.2
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108580.D	1	10/15/19 17:17	AR	10/11/19 22:00	OP23278	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		14-88%
4165-62-2	Phenol-d5	21%		10-110%
118-79-6	2,4,6-Tribromophenol	123%		39-149%
4165-60-0	Nitrobenzene-d5	60%		32-128%
321-60-8	2-Fluorobiphenyl	67%		35-119%
1718-51-0	Terphenyl-d14	67%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-22 SOLIDS		
Lab Sample ID:	JC96272-3	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	67.2
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G91851.D	1	10/15/19 14:36	CP	10/11/19 16:20	OP23243	G5G2236
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	47	22	ug/kg	
11104-28-2	Aroclor 1221	ND	47	29	ug/kg	
11141-16-5	Aroclor 1232	ND	47	30	ug/kg	
53469-21-9	Aroclor 1242	ND	47	19	ug/kg	
12672-29-6	Aroclor 1248	ND	47	42	ug/kg	
11097-69-1	Aroclor 1254	591	47	25	ug/kg	
11096-82-5	Aroclor 1260	ND	47	20	ug/kg	
11100-14-4	Aroclor 1268	ND	47	20	ug/kg	
37324-23-5	Aroclor 1262	ND	47	31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	46%		31-146%
877-09-8	Tetrachloro-m-xylene	56%		31-146%
2051-24-3	Decachlorobiphenyl	37%		17-164%
2051-24-3	Decachlorobiphenyl	53%		17-164%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MH-22 SOLIDS
Lab Sample ID: JC96272-3
Matrix: SO - Solid
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 10/03/19
Date Received: 10/04/19
Percent Solids: 67.2

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.025 J	D004	5.0	0.50	0.014	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Barium	1.7	D005	100	1.0	0.067	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/11/19	10/11/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47609
(2) Instrument QC Batch: MA47615
(3) Prep QC Batch: MP17814
(4) Prep QC Batch: MP17818

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-22 SOLIDS		
Lab Sample ID:	JC96272-3	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
		Percent Solids:	67.2
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.15 NC		su	1	10/17/19 15:24	JW	SW846 9045D
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 16:35	RI	SW846 1010A/ASTM D93
Solids, Percent	67.2		%	1	10/24/19 11:45	RC	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BD 18 SEWER		
Lab Sample ID:	JC96272-4	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149797.D	5	10/16/19 17:38	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		64-135%
2037-26-5	Toluene-D8	100%		76-117%
460-00-4	4-Bromofluorobenzene	98%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 18 SEWER		
Lab Sample ID:	JC96272-4	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108581.D	1	10/15/19 17:42	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	19%		14-88%
4165-62-2	Phenol-d5	12%		10-110%
118-79-6	2,4,6-Tribromophenol	86%		39-149%
4165-60-0	Nitrobenzene-d5	42%		32-128%
321-60-8	2-Fluorobiphenyl	47%		35-119%
1718-51-0	Terphenyl-d14	58%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 18 SEWER		
Lab Sample ID:	JC96272-4	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185372.D	1	10/14/19 14:37	CP	10/11/19 06:30	OP23248	G2G4795
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.096	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.062	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.075	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.085	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		11-166%
877-09-8	Tetrachloro-m-xylene	78%		11-166%
2051-24-3	Decachlorobiphenyl	27%		10-150%
2051-24-3	Decachlorobiphenyl	37%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BD 18 SEWER
Lab Sample ID: JC96272-4
Matrix: AQ - Water
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 10/03/19
Date Received: 10/04/19
Percent Solids: n/a

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	0.12 J	D005	100	1.0	0.067	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	BD 18 SEWER		
Lab Sample ID:	JC96272-4	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	6.72 NC		su	1	10/17/19 11:47	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-42A/B		
Lab Sample ID:	JC96272-5	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149798.D	5	10/16/19 18:03	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		64-135%
2037-26-5	Toluene-D8	101%		76-117%
460-00-4	4-Bromofluorobenzene	99%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-42A/B		
Lab Sample ID:	JC96272-5	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108582.D	1	10/15/19 18:07	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		14-88%
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	120%		39-149%
4165-60-0	Nitrobenzene-d5	55%		32-128%
321-60-8	2-Fluorobiphenyl	65%		35-119%
1718-51-0	Terphenyl-d14	68%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-42A/B		
Lab Sample ID:	JC96272-5	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185308.D	1	10/11/19 21:15	TR	10/11/19 06:30	OP23248	G2G4794
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.099	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.12	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.064	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.21	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.077	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.087	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	48%		11-166%
877-09-8	Tetrachloro-m-xylene	43%		11-166%
2051-24-3	Decachlorobiphenyl	13%		10-150%
2051-24-3	Decachlorobiphenyl	12%		10-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MH-42A/B		
Lab Sample ID:	JC96272-5	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	0.067 U	D005	100	1.0	0.067	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.010 J	D007	5.0	0.050	0.010	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-42A/B		
Lab Sample ID:	JC96272-5	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.18 NC		su	1	10/17/19 11:51	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UTILITY SUMP SOLIDS		
Lab Sample ID:	JC96272-6	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	79.6
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149845.D	5	10/18/19 00:48	EH	10/16/19 16:00	GP24414	V3D6404
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		64-135%
2037-26-5	Toluene-D8	99%		76-117%
460-00-4	4-Bromofluorobenzene	99%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP SOLIDS		
Lab Sample ID:	JC96272-6	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	79.6
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108583.D	1	10/15/19 18:32	AR	10/11/19 22:00	OP23278	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		14-88%
4165-62-2	Phenol-d5	18%		10-110%
118-79-6	2,4,6-Tribromophenol	120%		39-149%
4165-60-0	Nitrobenzene-d5	56%		32-128%
321-60-8	2-Fluorobiphenyl	63%		35-119%
1718-51-0	Terphenyl-d14	72%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP SOLIDS		
Lab Sample ID:	JC96272-6	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	79.6
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G91808.D	1	10/14/19 14:47	CP	10/11/19 16:20	OP23243	G5G2236
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	40	18	ug/kg	
11104-28-2	Aroclor 1221	ND	40	24	ug/kg	
11141-16-5	Aroclor 1232	ND	40	25	ug/kg	
53469-21-9	Aroclor 1242	ND	40	16	ug/kg	
12672-29-6	Aroclor 1248	ND	40	35	ug/kg	
11097-69-1	Aroclor 1254 [a]	129	40	21	ug/kg	
11096-82-5	Aroclor 1260	ND	40	17	ug/kg	
11100-14-4	Aroclor 1268	ND	40	17	ug/kg	
37324-23-5	Aroclor 1262	ND	40	26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		31-146%
877-09-8	Tetrachloro-m-xylene	40%		31-146%
2051-24-3	Decachlorobiphenyl	31%		17-164%
2051-24-3	Decachlorobiphenyl	25%		17-164%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP SOLIDS		
Lab Sample ID:	JC96272-6	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
		Percent Solids:	79.6
Project:	Emersub 15, LLC, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Barium	0.94 J	D005	100	1.0	0.067	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Lead	0.011 J	D008	5.0	0.50	0.0090	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/11/19	10/11/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/11/19	10/12/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47609
(2) Instrument QC Batch: MA47615
(3) Prep QC Batch: MP17814
(4) Prep QC Batch: MP17818

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	UTILITY SUMP SOLIDS		
Lab Sample ID:	JC96272-6	**Date Sampled:**	10/03/19
Matrix:	SO - Solid	**Date Received:**	10/04/19
		Percent Solids:	79.6
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.33 NC		su	1	10/17/19 15:27	JW	SW846 9045D
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 16:35	RI	SW846 1010A/ASTM D93
Solids, Percent	79.6		%	1	10/24/19 11:45	RC	SM2540 G 18TH ED MOD

RL = Reporting Limit

Report of Analysis

Client Sample ID:	UTILITY SUMP LIQUIDS		
Lab Sample ID:	JC96272-7	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149785.D	5	10/16/19 11:27	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	98%		64-135%
2037-26-5	Toluene-D8	100%		76-117%
460-00-4	4-Bromofluorobenzene	98%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP LIQUIDS		
Lab Sample ID:	JC96272-7	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108584.D	1	10/15/19 18:58	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25%		14-88%
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	94%		39-149%
4165-60-0	Nitrobenzene-d5	52%		32-128%
321-60-8	2-Fluorobiphenyl	58%		35-119%
1718-51-0	Terphenyl-d14	43%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP LIQUIDS		
Lab Sample ID:	JC96272-7	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185432.D	10	10/15/19 08:24	TR	10/11/19 06:30	OP23248	G2G4798
Run #2							

	Initial Volume	Final Volume
Run #1	890 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	5.6	2.2	ug/l	
11104-28-2	Aroclor 1221	ND	5.6	4.7	ug/l	
11141-16-5	Aroclor 1232	ND	5.6	2.9	ug/l	
53469-21-9	Aroclor 1242	160	5.6	2.6	ug/l	
12672-29-6	Aroclor 1248	ND	5.6	1.4	ug/l	
11097-69-1	Aroclor 1254	ND	5.6	4.7	ug/l	
11096-82-5	Aroclor 1260	ND	5.6	1.7	ug/l	
11100-14-4	Aroclor 1268	ND	5.6	1.9	ug/l	
37324-23-5	Aroclor 1262	ND	5.6	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	376% [a]		11-166%
877-09-8	Tetrachloro-m-xylene	76%		11-166%
2051-24-3	Decachlorobiphenyl	40%		10-150%
2051-24-3	Decachlorobiphenyl	33%		10-150%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UTILITY SUMP LIQUIDS		
Lab Sample ID:	JC96272-7	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.014 U	D004	5.0	0.50	0.014	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	0.16 J	D005	100	1.0	0.067	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.010 U	D007	5.0	0.050	0.010	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.0090 U	D008	5.0	0.50	0.0090	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury	0.000095 U	D009	0.20	0.00020	0.000095	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	5	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	UTILITY SUMP LIQUIDS		
Lab Sample ID:	JC96272-7	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.33 NC		su	1	10/17/19 11:54	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DECON WATER		
Lab Sample ID:	JC96272-8	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8260C SW846 1311	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D149800.D	5	10/16/19 18:54	EH	10/09/19 19:45	GP24253	V3D6402
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.0025	0.0021	mg/l	
78-93-3	2-Butanone (MEK)	ND	D035	200	0.10	0.034	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.0050	0.0028	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.0050	0.0028	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.0050	0.0025	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.0050	0.0025	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.0050	0.0030	mg/l	
75-35-4	1,1-Dichloroethene	ND	D029	0.70	0.0050	0.0030	mg/l	
127-18-4	Tetrachloroethene	ND	D039	0.70	0.0050	0.0045	mg/l	
79-01-6	Trichloroethene	ND	D040	0.50	0.0050	0.0026	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.0050	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		76-120%
17060-07-0	1,2-Dichloroethane-D4	102%		64-135%
2037-26-5	Toluene-D8	101%		76-117%
460-00-4	4-Bromofluorobenzene	98%		72-122%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DECON WATER		
Lab Sample ID:	JC96272-8	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E108585.D	1	10/15/19 19:23	AR	10/11/19 22:00	OP23279	E3E4881
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.020	0.0089	mg/l	
	3&4-Methylphenol	ND	D024	200	0.020	0.0088	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.10	0.014	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	0.013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	0.0092	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.020	0.0017	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.020	0.0055	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.020	0.0033	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.010	0.0049	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	0.0039	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.020	0.0064	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.020	0.0039	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25%		14-88%
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	84%		39-149%
4165-60-0	Nitrobenzene-d5	52%		32-128%
321-60-8	2-Fluorobiphenyl	54%		35-119%
1718-51-0	Terphenyl-d14	45%		10-126%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DECON WATER		
Lab Sample ID:	JC96272-8	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
Method:	SW846 8082A SW846 3510C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2G185857.D	1	10/23/19 16:44	TR	10/23/19 07:45	OP23495	G2G4805
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.096	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.062	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.20	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.075	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.085	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	373% [a]		11-166%
877-09-8	Tetrachloro-m-xylene	49%		11-166%
2051-24-3	Decachlorobiphenyl	55%		10-150%
2051-24-3	Decachlorobiphenyl	43%		10-150%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DECON WATER		
Lab Sample ID:	JC96272-8	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.017 J	D004	5.0	0.50	0.014	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Barium	0.56 J	D005	100	1.0	0.067	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Cadmium	0.0050 U	D006	1.0	0.020	0.0050	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Chromium	0.031 J	D007	5.0	0.050	0.010	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Lead	0.053 J	D008	5.0	0.50	0.0090	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Mercury [a]	0.0029 U	D009	0.20	0.0060	0.0029	mg/l	1	10/10/19	10/10/19	LL	SW846 7470A [1]
Selenium	0.025 U	D010	1.0	0.50	0.025	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]
Silver	0.0095 U	D011	5.0	0.050	0.0095	mg/l	1	10/09/19	10/10/19	ND	SW846 6010D [2]

(1) Instrument QC Batch: MA47602
(2) Instrument QC Batch: MA47606
(3) Prep QC Batch: MP17789
(4) Prep QC Batch: MP17806

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 7/1/11) J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	DECON WATER		
Lab Sample ID:	JC96272-8	**Date Sampled:**	10/03/19
Matrix:	AQ - Water	**Date Received:**	10/04/19
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.71 NC		su	1	10/17/19 11:57	JW	SW846 9040C
Ignitability (Flashpoint)	> 200		Deg. F	1	10/17/19 14:34	RI	SW846 1010A/ASTM D93

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Parameter Certification Exceptions

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Ignitability (Flashpoint)		SW846 1010A/ASTM D93	AQ	SGS is not certified for this parameter.[a]

(a) Lab cert for analyte/method not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

WW, SOL

CHAIN-OF-CUSTODY RECORD

JC96272 Page 1 of 1

PN

No. 008857 WSP

WSP USA Office Address	7000 E GENESEE ST BD D 2ND FLOOR FAYETTEVILLE NY
Project Name	EMERSUB15, LLC
WSP USA Contact Name	AMY ROMANO
Project Location	ITHACA NY
WSP USA Contact E-mail	AMY.ROMANO @wsp.com
Project Number & Task	31401545.001/02
WSP USA Contact Phone	315-655-3900
Sampler(s) Name(s)	NATE WINSTON
Sampler(s) Signature(s)	[signature]
Laboratory Name & Location	SGS DAYTON
Laboratory Project Manager	
Requested Turn-Around-Time	[X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 TCLP	TCLP METALS	8082 PCBS	8270 TCLP	CORROSIVITY	IGN	Sample Comments
1	MH-A6 PURGE WATER	AQ	—	—	10/3/19	1100	10	X	X	X	X	X	X	E11
2	MH-22 PURGE WATER	AQ	—	—		1130	10	X	X	X	X	X	X	C27
3	MH-22 SOLIDS	S	—	—		1200	3	X	X	X	X	X		B24
4	BD 18 SEWER	AQ	—	—		1230	10	X	X	X	X	X	X	V1177
5	MH-42A/B	AQ	—	—		1300	10	X	X	X	X	X	X	G6272
6	UTILITY SUMP SOLIDS	S	—	—		1400	3	X	X	X	X	X		D7
7	UTILITY SUMP LIQUIDS	AQ	—	—		1430	10	X	X	X	X	X	X	C56 T5
8	DECON WATER	AQ	—	—		1500	10	X	X	X	X	X	X	4D3

Initial Assessment 2AQ

Label Verification

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	10/3/19	1730	FEDEX			FEDEX	1215 6025 -8620, -8630, -8641 463600566960
FEDEX	10/4/19	0920	[signature]	10/4/19	920	4	3.8, 3.5, 3.6 & IR-7 3.1

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

4.2

4

JC96272: Chain of Custody

Page 1 of 3

SGS Sample Receipt Summary

Job Number: JC96272 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 10/4/2019 9:20:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8); Cooler 2: (3.5); Cooler 3: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.7); Cooler 2: (3.4); Cooler 3: (3.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	3		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments
1) -8 TCLP Metals volume rec'd in Glass, not plastic.
2) -8 TCLP VOC volume rec'd in HCL preserved vials.

SM089-02 Rev. Date 12/1/16

Responded to by: Beth Wasserman Response Date: 10/8/19

Proceed as noted.
Per Amy Romano

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6402-MB	3D149780.D	1	10/16/19	EH	n/a	n/a	V3D6402

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	96%	76-120%
17060-07-0	1,2-Dichloroethane-D4	98%	64-135%
2037-26-5	Toluene-D8	100%	76-117%
460-00-4	4-Bromofluorobenzene	97%	72-122%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.44	5.6	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6404-MB	3D149833.D	1	10/17/19	EH	n/a	n/a	V3D6404

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	99%	64-135%
2037-26-5	Toluene-D8	100%	76-117%
460-00-4	4-Bromofluorobenzene	99%	72-122%

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2V2563-MB	2V62349.D	1	10/11/19	KC	n/a	n/a	V2V2563

The QC reported here applies to the following samples: **Method:** SW846 8260C

GP24253-18LB

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	96%	64-135%
2037-26-5	Toluene-D8	100%	76-117%
460-00-4	4-Bromofluorobenzene	97%	72-122%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Leachate Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP24253-18LB	2V62351.D	5	10/11/19	KC	10/09/19	GP24253	V2V2563

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	2.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	34	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	2.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.8	ug/l	
67-66-3	Chloroform	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	3.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	3.0	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	4.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	2.6	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	76-120%
17060-07-0	1,2-Dichloroethane-D4	100%	64-135%
2037-26-5	Toluene-D8	99%	76-117%
460-00-4	4-Bromofluorobenzene	96%	72-122%

Leachate Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP24414-1LB	3D149834.D	5	10/17/19	EH	10/16/19	GP24414	V3D6404

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.5	2.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	34	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	2.8	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.8	ug/l	
67-66-3	Chloroform	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	3.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	3.0	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	4.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	2.6	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	64-135%
2037-26-5	Toluene-D8	99%	76-117%
460-00-4	4-Bromofluorobenzene	99%	72-122%

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6402-BS	3D149778.D	1	10/16/19	EH	n/a	n/a	V3D6402

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.4	101	75-122
78-93-3	2-Butanone (MEK)	200	199	100	64-130
56-23-5	Carbon tetrachloride	50	49.8	100	75-148
108-90-7	Chlorobenzene	50	48.9	98	76-124
67-66-3	Chloroform	50	47.8	96	77-124
106-46-7	1,4-Dichlorobenzene	50	49.5	99	71-123
107-06-2	1,2-Dichloroethane	50	47.6	95	66-150
75-35-4	1,1-Dichloroethene	50	45.3	91	61-132
127-18-4	Tetrachloroethene	50	46.4	93	70-136
79-01-6	Trichloroethene	50	49.2	98	79-126
75-01-4	Vinyl chloride	50	46.5	93	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	99%	64-135%
2037-26-5	Toluene-D8	98%	76-117%
460-00-4	4-Bromofluorobenzene	102%	72-122%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6404-BS	3D149831.D	1	10/17/19	EH	n/a	n/a	V3D6404

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-3, JC96272-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	48.0	96	75-122
78-93-3	2-Butanone (MEK)	200	204	102	64-130
56-23-5	Carbon tetrachloride	50	47.0	94	75-148
108-90-7	Chlorobenzene	50	46.9	94	76-124
67-66-3	Chloroform	50	45.4	91	77-124
106-46-7	1,4-Dichlorobenzene	50	46.4	93	71-123
107-06-2	1,2-Dichloroethane	50	44.8	90	66-150
75-35-4	1,1-Dichloroethene	50	44.2	88	61-132
127-18-4	Tetrachloroethene	50	44.4	89	70-136
79-01-6	Trichloroethene	50	46.5	93	79-126
75-01-4	Vinyl chloride	50	48.7	97	56-146

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	64-135%
2037-26-5	Toluene-D8	100%	76-117%
460-00-4	4-Bromofluorobenzene	100%	72-122%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96137-9MS	3D149791.D	5	10/16/19	EH	n/a	n/a	V3D6402
JC96137-9MSD	3D149792.D	5	10/16/19	EH	n/a	n/a	V3D6402
JC96137-9	3D149786.D	5	10/16/19	EH	10/04/19	GP24152	V3D6402

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	JC96137-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	224	90	250	225	90	0	38-139/13
78-93-3	2-Butanone (MEK)	ND		1000	966	97	1000	953	95	1	58-140/14
56-23-5	Carbon tetrachloride	ND		250	218	87	250	216	86	1	50-161/18
108-90-7	Chlorobenzene	ND		250	216	86	250	218	87	1	65-128/12
67-66-3	Chloroform	ND		250	212	85	250	212	85	0	66-132/14
106-46-7	1,4-Dichlorobenzene	ND		250	218	87	250	218	87	0	63-126/13
107-06-2	1,2-Dichloroethane	ND		250	214	86	250	212	85	1	59-153/15
75-35-4	1,1-Dichloroethene	ND		250	211	84	250	209	84	1	41-144/17
127-18-4	Tetrachloroethene	ND		250	204	82	250	204	82	0	48-145/15
79-01-6	Trichloroethene	ND		250	213	85	250	216	86	1	53-141/15
75-01-4	Vinyl chloride	ND		250	228	91	250	224	90	2	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC96137-9	Limits
1868-53-7	Dibromofluoromethane	100%	99%	101%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	103%	64-135%
2037-26-5	Toluene-D8	100%	100%	99%	76-117%
460-00-4	4-Bromofluorobenzene	101%	100%	99%	72-122%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96786-1MS	3D149837.D	5	10/17/19	EH	n/a	n/a	V3D6404
JC96786-1MSD	3D149838.D	5	10/17/19	EH	n/a	n/a	V3D6404
JC96786-1	3D149836.D	5	10/17/19	EH	10/16/19	GP24414	V3D6404

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-3, JC96272-6

CAS No.	Compound	JC96786-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	235	94	250	230	92	2	38-139/13
78-93-3	2-Butanone (MEK)	ND		1000	956	96	1000	947	95	1	58-140/14
56-23-5	Carbon tetrachloride	ND		250	226	90	250	221	88	2	50-161/18
108-90-7	Chlorobenzene	ND		250	222	89	250	220	88	1	65-128/12
67-66-3	Chloroform	ND		250	219	88	250	217	87	1	66-132/14
106-46-7	1,4-Dichlorobenzene	ND		250	219	88	250	219	88	0	63-126/13
107-06-2	1,2-Dichloroethane	ND		250	218	87	250	216	86	1	59-153/15
75-35-4	1,1-Dichloroethene	ND		250	217	87	250	217	87	0	41-144/17
127-18-4	Tetrachloroethene	ND		250	208	83	250	206	82	1	48-145/15
79-01-6	Trichloroethene	ND		250	223	89	250	220	88	1	53-141/15
75-01-4	Vinyl chloride	ND		250	241	96	250	239	96	1	34-151/20

CAS No.	Surrogate Recoveries	MS	MSD	JC96786-1	Limits
1868-53-7	Dibromofluoromethane	98%	98%	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	103%	102%	64-135%
2037-26-5	Toluene-D8	99%	99%	99%	76-117%
460-00-4	4-Bromofluorobenzene	100%	102%	98%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP24253-18LS	3D149755A.D	5	10/15/19	EH	10/09/19	GP24253	V3D6401
JC96091-1A	3D149758.D	5	10/15/19	EH	10/09/19	GP24253	V3D6401

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	JC96091-1A ug/l	Q	Spike ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND		250	203	81	38-139
78-93-3	2-Butanone (MEK)	ND		1000	803	80	58-140
56-23-5	Carbon tetrachloride	ND		250	201	80	50-161
108-90-7	Chlorobenzene	ND		250	195	78	65-128
67-66-3	Chloroform	ND		250	193	77	66-132
106-46-7	1,4-Dichlorobenzene	ND		250	194	78	63-126
107-06-2	1,2-Dichloroethane	ND		250	191	76	59-153
75-35-4	1,1-Dichloroethene	ND		250	189	76	41-144
127-18-4	Tetrachloroethene	ND		250	190	76	48-145
79-01-6	Trichloroethene	3.0	J	250	199	78	53-141
75-01-4	Vinyl chloride	ND		250	216	86	34-151

CAS No.	Surrogate Recoveries	LS	JC96091-1A	Limits
1868-53-7	Dibromofluoromethane	100%	96%	76-120%
17060-07-0	1,2-Dichloroethane-D4	103%	98%	64-135%
2037-26-5	Toluene-D8	99%	100%	76-117%
460-00-4	4-Bromofluorobenzene	100%	96%	72-122%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GP24414-1LS	3D149837A.D	5	10/17/19	EH	10/16/19	GP24414	V3D6404
JC96786-1	3D149836.D	5	10/17/19	EH	10/16/19	GP24414	V3D6404

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC96272-3, JC96272-6

CAS No.	Compound	JC96786-1 ug/l	Q	Spike ug/l	LS ug/l	LS %	Limits
71-43-2	Benzene	ND		250	235	94	38-139
78-93-3	2-Butanone (MEK)	ND		1000	956	96	58-140
56-23-5	Carbon tetrachloride	ND		250	226	90	50-161
108-90-7	Chlorobenzene	ND		250	222	89	65-128
67-66-3	Chloroform	ND		250	219	88	66-132
106-46-7	1,4-Dichlorobenzene	ND		250	219	88	63-126
107-06-2	1,2-Dichloroethane	ND		250	218	87	59-153
75-35-4	1,1-Dichloroethene	ND		250	217	87	41-144
127-18-4	Tetrachloroethene	ND		250	208	83	48-145
79-01-6	Trichloroethene	ND		250	223	89	53-141
75-01-4	Vinyl chloride	ND		250	241	96	34-151

CAS No.	Surrogate Recoveries	LS	JC96786-1	Limits
1868-53-7	Dibromofluoromethane	98%	99%	76-120%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	64-135%
2037-26-5	Toluene-D8	99%	99%	76-117%
460-00-4	4-Bromofluorobenzene	100%	98%	72-122%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V2V2531-BFB
Lab File ID: 2V61590.D
Instrument ID: GCMS2V
Injection Date: 09/18/19
Injection Time: 17:11

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	13458	17.1		Pass
75	30.0 - 60.0% of mass 95	36616	46.4		Pass
95	Base peak, 100% relative abundance	78925	100.0		Pass
96	5.0 - 9.0% of mass 95	5076	6.43		Pass
173	Less than 2.0% of mass 174	701	0.89	(0.90) [a]	Pass
174	50.0 - 120.0% of mass 95	78019	98.9		Pass
175	5.0 - 9.0% of mass 174	5738	7.27	(7.35) [a]	Pass
176	95.0 - 101.0% of mass 174	76840	97.4	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	5014	6.35	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2531-IC2531	2V61591.D	09/18/19	17:51	00:40	Initial cal 0.2
V2V2531-IC2531	2V61592.D	09/18/19	18:16	01:05	Initial cal 0.5
V2V2531-IC2531	2V61593.D	09/18/19	18:42	01:31	Initial cal 1
V2V2531-IC2531	2V61594.D	09/18/19	19:07	01:56	Initial cal 2
V2V2531-IC2531	2V61595.D	09/18/19	19:33	02:22	Initial cal 4
V2V2531-IC2531	2V61596.D	09/18/19	19:59	02:48	Initial cal 8
V2V2531-IC2531	2V61597.D	09/18/19	20:25	03:14	Initial cal 20
V2V2531-ICC2531	2V61598.D	09/18/19	20:50	03:39	Initial cal 50
V2V2531-IC2531	2V61599.D	09/18/19	21:16	04:05	Initial cal 100
V2V2531-IC2531	2V61600.D	09/18/19	21:41	04:30	Initial cal 200
V2V2531-ICV2531	2V61603.D	09/18/19	22:58	05:47	Initial cal verification 50
V2V2531-ICV2531	2V61604.D	09/18/19	23:24	06:13	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V2V2563-BFB
Lab File ID: 2V62345.D
Instrument ID: GCMS2V
Injection Date: 10/11/19
Injection Time: 06:56

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15022	16.4		Pass
75	30.0 - 60.0% of mass 95	41413	45.2		Pass
95	Base peak, 100% relative abundance	91549	100.0		Pass
96	5.0 - 9.0% of mass 95	5957	6.51		Pass
173	Less than 2.0% of mass 174	640	0.70	(0.67) [a]	Pass
174	50.0 - 120.0% of mass 95	96136	105.0		Pass
175	5.0 - 9.0% of mass 174	7410	8.09	(7.71) [a]	Pass
176	95.0 - 101.0% of mass 174	94917	103.7	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	5933	6.48	(6.25) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2V2563-CC2531	2V62345.D	10/11/19	06:56	00:00	Continuing cal 20
V2V2563-BS	2V62347.D	10/11/19	07:54	00:58	Blank Spike
V2V2563-MB	2V62349.D	10/11/19	08:57	02:01	Method Blank
GP24160-LB15	2V62350.D	10/11/19	09:40	02:44	Leachate Blank
GP24222-LB15	2V62350A.D	10/11/19	09:40	02:44	Leachate Blank
GP24253-18LB	2V62351.D	10/11/19	10:06	03:10	Leachate Blank
GP24251-16LB	2V62352.D	10/11/19	10:31	03:35	Leachate Blank
ZZZZZZ	2V62353.D	10/11/19	10:57	04:01	(unrelated sample)
ZZZZZZ	2V62354.D	10/11/19	11:22	04:26	(unrelated sample)
ZZZZZZ	2V62355.D	10/11/19	11:47	04:51	(unrelated sample)
ZZZZZZ	2V62356.D	10/11/19	12:12	05:16	(unrelated sample)
ZZZZZZ	2V62357.D	10/11/19	12:38	05:42	(unrelated sample)
JC96223-1	2V62358.D	10/11/19	13:03	06:07	(used for QC only; not part of job JC96272)
ZZZZZZ	2V62359.D	10/11/19	13:29	06:33	(unrelated sample)
ZZZZZZ	2V62360.D	10/11/19	13:55	06:59	(unrelated sample)
ZZZZZZ	2V62361.D	10/11/19	14:21	07:25	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D6399-BFB
Lab File ID: 3D149702.D
Instrument ID: GCMS3D
Injection Date: 10/12/19
Injection Time: 16:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	36096	22.2		Pass
75	30.0 - 60.0% of mass 95	85568	52.7		Pass
95	Base peak, 100% relative abundance	162474	100.0		Pass
96	5.0 - 9.0% of mass 95	10985	6.76		Pass
173	Less than 2.0% of mass 174	1253	0.77	(0.89) [a]	Pass
174	50.0 - 120.0% of mass 95	140928	86.7		Pass
175	5.0 - 9.0% of mass 174	10783	6.64	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	138968	85.5	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	8688	5.35	(6.25) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6399-IC6399	3D149703.D	10/12/19	17:27	00:43	Initial cal 0.2
V3D6399-IC6399	3D149704.D	10/12/19	17:52	01:08	Initial cal 0.5
V3D6399-IC6399	3D149705.D	10/12/19	18:17	01:33	Initial cal 1
V3D6399-IC6399	3D149706.D	10/12/19	18:42	01:58	Initial cal 2
V3D6399-IC6399	3D149707.D	10/12/19	19:07	02:23	Initial cal 4
V3D6399-IC6399	3D149708.D	10/12/19	19:32	02:48	Initial cal 8
V3D6399-IC6399	3D149709.D	10/12/19	19:57	03:13	Initial cal 20
V3D6399-ICC6399	3D149710.D	10/12/19	20:22	03:38	Initial cal 50
V3D6399-IC6399	3D149711.D	10/12/19	20:47	04:03	Initial cal 100
V3D6399-IC6399	3D149712.D	10/12/19	21:12	04:28	Initial cal 200
V3D6399-ICV6399	3D149715.D	10/12/19	22:26	05:42	Initial cal verification 50
V3D6399-ICV6399	3D149716.D	10/12/19	22:51	06:07	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D6401-BFB
Lab File ID: 3D149747.D
Instrument ID: GCMS3D
Injection Date: 10/15/19
Injection Time: 06:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	38029	22.3		Pass
75	30.0 - 60.0% of mass 95	88757	52.0		Pass
95	Base peak, 100% relative abundance	170752	100.0		Pass
96	5.0 - 9.0% of mass 95	11114	6.51		Pass
173	Less than 2.0% of mass 174	1386	0.81	(0.91) [a]	Pass
174	50.0 - 120.0% of mass 95	152107	89.1		Pass
175	5.0 - 9.0% of mass 174	11596	6.79	(7.62) [a]	Pass
176	95.0 - 101.0% of mass 174	146987	86.1	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	9585	5.61	(6.52) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6401-CC6399	3D149747.D	10/15/19	06:53	00:00	Continuing cal 20
V3D6401-BS	3D149748.D	10/15/19	07:49	00:56	Blank Spike
V3D6401-MB	3D149750.D	10/15/19	09:05	02:12	Method Blank
ZZZZZZ	3D149751.D	10/15/19	09:56	03:03	(unrelated sample)
ZZZZZZ	3D149752.D	10/15/19	10:21	03:28	(unrelated sample)
ZZZZZZ	3D149753.D	10/15/19	10:46	03:53	(unrelated sample)
JC96091-1AMS	3D149755.D	10/15/19	11:36	04:43	Matrix Spike
GP24253-18LS	3D149755A.D	10/15/19	11:36	04:43	Leachate Spike
JC96091-1AMSD	3D149756.D	10/15/19	12:01	05:08	Matrix Spike Duplicate
JC96091-1A	3D149758.D	10/15/19	12:51	05:58	(used for QC only; not part of job JC96272)
ZZZZZZ	3D149759.D	10/15/19	13:15	06:22	(unrelated sample)
ZZZZZZ	3D149760.D	10/15/19	13:41	06:48	(unrelated sample)
ZZZZZZ	3D149761.D	10/15/19	14:06	07:13	(unrelated sample)
ZZZZZZ	3D149762.D	10/15/19	14:31	07:38	(unrelated sample)
ZZZZZZ	3D149763.D	10/15/19	14:56	08:03	(unrelated sample)
ZZZZZZ	3D149764.D	10/15/19	15:21	08:28	(unrelated sample)
ZZZZZZ	3D149766.D	10/15/19	16:11	09:18	(unrelated sample)
ZZZZZZ	3D149767.D	10/15/19	16:36	09:43	(unrelated sample)
ZZZZZZ	3D149768.D	10/15/19	17:01	10:08	(unrelated sample)
V3D6401-ECC6399	3D149771.D	10/15/19	18:16	11:23	Ending cal 50

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D6402-BFB
Lab File ID: 3D149777.D
Instrument ID: GCMS3D
Injection Date: 10/16/19
Injection Time: 07:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	38253	22.3		Pass
75	30.0 - 60.0% of mass 95	89363	52.1		Pass
95	Base peak, 100% relative abundance	171648	100.0		Pass
96	5.0 - 9.0% of mass 95	11306	6.59		Pass
173	Less than 2.0% of mass 174	1968	1.15	(1.29) [a]	Pass
174	50.0 - 120.0% of mass 95	153067	89.2		Pass
175	5.0 - 9.0% of mass 174	11967	6.97	(7.82) [a]	Pass
176	95.0 - 101.0% of mass 174	147840	86.1	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	9529	5.55	(6.45) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6402-CC6399	3D149777.D	10/16/19	07:05	00:00	Continuing cal 20
V3D6402-BS	3D149778.D	10/16/19	08:01	00:56	Blank Spike
V3D6402-MB	3D149780.D	10/16/19	09:02	01:57	Method Blank
ZZZZZZ	3D149781.D	10/16/19	09:39	02:34	(unrelated sample)
ZZZZZZ	3D149782.D	10/16/19	10:04	02:59	(unrelated sample)
ZZZZZZ	3D149784.D	10/16/19	10:54	03:49	(unrelated sample)
JC96272-7	3D149785.D	10/16/19	11:27	04:22	UTILITY SUMP LIQUIDS
JC96137-9	3D149786.D	10/16/19	11:52	04:47	(used for QC only; not part of job JC96272)
ZZZZZZ	3D149787.D	10/16/19	12:17	05:12	(unrelated sample)
ZZZZZZ	3D149788.D	10/16/19	12:43	05:38	(unrelated sample)
JC96137-9MS	3D149791.D	10/16/19	13:58	06:53	Matrix Spike
JC96137-9MSD	3D149792.D	10/16/19	14:23	07:18	Matrix Spike Duplicate
ZZZZZZ	3D149794.D	10/16/19	15:13	08:08	(unrelated sample)
ZZZZZZ	3D149795.D	10/16/19	15:39	08:34	(unrelated sample)
JC96272-2	3D149796.D	10/16/19	17:12	10:07	MH-22 PURGE WATER
JC96272-4	3D149797.D	10/16/19	17:38	10:33	BD 18 SEWER
JC96272-5	3D149798.D	10/16/19	18:03	10:58	MH-42A/B
JC96272-1	3D149799.D	10/16/19	18:28	11:23	MH-A6 PURGE WATER
JC96272-8	3D149800.D	10/16/19	18:54	11:49	DECON WATER

Instrument Performance Check (BFB)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D6404-BFB
Lab File ID: 3D149830.D
Instrument ID: GCMS3D
Injection Date: 10/17/19
Injection Time: 18:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	41005	22.3		Pass
75	30.0 - 60.0% of mass 95	98864	53.7		Pass
95	Base peak, 100% relative abundance	184128	100.0		Pass
96	5.0 - 9.0% of mass 95	12171	6.61		Pass
173	Less than 2.0% of mass 174	1883	1.02	(1.17) [a]	Pass
174	50.0 - 120.0% of mass 95	161045	87.5		Pass
175	5.0 - 9.0% of mass 174	12382	6.72	(7.69) [a]	Pass
176	95.0 - 101.0% of mass 174	156970	85.3	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	10552	5.73	(6.72) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6404-CC6399	3D149830.D	10/17/19	18:32	00:00	Continuing cal 50
V3D6404-BS	3D149831.D	10/17/19	18:57	00:25	Blank Spike
V3D6404-MB	3D149833.D	10/17/19	19:46	01:14	Method Blank
GP24414-1LB	3D149834.D	10/17/19	20:11	01:39	Leachate Blank
ZZZZZZ	3D149835.D	10/17/19	20:36	02:04	(unrelated sample)
JC96786-1	3D149836.D	10/17/19	21:01	02:29	(used for QC only; not part of job JC96272)
JC96786-1MS	3D149837.D	10/17/19	21:26	02:54	Matrix Spike
GP24414-1LS	3D149837A.D	10/17/19	21:26	02:54	Leachate Spike
JC96786-1MSD	3D149838.D	10/17/19	21:51	03:19	Matrix Spike Duplicate
ZZZZZZ	3D149840.D	10/17/19	22:41	04:09	(unrelated sample)
ZZZZZZ	3D149841.D	10/17/19	23:07	04:35	(unrelated sample)
ZZZZZZ	3D149842.D	10/17/19	23:32	05:00	(unrelated sample)
ZZZZZZ	3D149843.D	10/17/19	23:57	05:25	(unrelated sample)
JC96272-3	3D149844.D	10/18/19	00:23	05:51	MH-22 SOLIDS
JC96272-6	3D149845.D	10/18/19	00:48	06:16	UTILITY SUMP SOLIDS
ZZZZZZ	3D149846.D	10/18/19	01:13	06:41	(unrelated sample)
ZZZZZZ	3D149847.D	10/18/19	01:38	07:06	(unrelated sample)
ZZZZZZ	3D149848.D	10/18/19	02:04	07:32	(unrelated sample)
ZZZZZZ	3D149849.D	10/18/19	02:29	07:57	(unrelated sample)
ZZZZZZ	3D149850.D	10/18/19	02:54	08:22	(unrelated sample)
ZZZZZZ	3D149851.D	10/18/19	03:19	08:47	(unrelated sample)
ZZZZZZ	3D149852.D	10/18/19	03:45	09:13	(unrelated sample)
ZZZZZZ	3D149853.D	10/18/19	04:10	09:38	(unrelated sample)

Surrogate Recovery Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260C **Matrix:** LEACHATE

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC96272-1	3D149799.D	99	101	100	101
JC96272-2	3D149796.D	100	103	101	99
JC96272-3	3D149844.D	98	101	101	99
JC96272-4	3D149797.D	99	102	100	98
JC96272-5	3D149798.D	96	100	101	99
JC96272-6	3D149845.D	99	101	99	99
JC96272-7	3D149785.D	98	98	100	98
JC96272-8	3D149800.D	98	102	101	98
GP24253-18LB	2V62351.D	101	100	99	96
GP24253-18LS	3D149755A.D	100	103	99	100
GP24414-1LB	3D149834.D	102	102	99	99
GP24414-1LS	3D149837A.D	98	102	99	100
JC96137-9MS	3D149791.D	100	102	100	101
JC96137-9MSD	3D149792.D	99	102	100	100
JC96786-1MS	3D149837.D	98	102	99	100
JC96786-1MSD	3D149838.D	98	103	99	102
V3D6402-BS	3D149778.D	100	99	98	102
V3D6402-MB	3D149780.D	96	98	100	97
V3D6404-BS	3D149831.D	100	103	100	100
V3D6404-MB	3D149833.D	99	99	100	99
V2V2563-MB	2V62349.D	100	96	100	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	64-135%
S3 = Toluene-D8	76-117%
S4 = 4-Bromofluorobenzene	72-122%

MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-MB1	3E108526.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	27%	14-88%
4165-62-2	Phenol-d5	18%	10-110%
118-79-6	2,4,6-Tribromophenol	109%	39-149%
4165-60-0	Nitrobenzene-d5	53%	32-128%
321-60-8	2-Fluorobiphenyl	47%	35-119%
1718-51-0	Terphenyl-d14	91%	10-126%

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23279-MB1	3E108530.D	1	10/14/19	AR	10/11/19	OP23279	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	33%	14-88%
4165-62-2	Phenol-d5	22%	10-110%
118-79-6	2,4,6-Tribromophenol	116%	39-149%
4165-60-0	Nitrobenzene-d5	60%	32-128%
321-60-8	2-Fluorobiphenyl	44%	35-119%
1718-51-0	Terphenyl-d14	94%	10-126%

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-MB2	3E108530.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.17	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.39	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
110-86-1	Pyridine	ND	2.0	0.39	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	33%	14-88%
4165-62-2	Phenol-d5	22%	10-110%
118-79-6	2,4,6-Tribromophenol	116%	39-149%
4165-60-0	Nitrobenzene-d5	60%	32-128%
321-60-8	2-Fluorobiphenyl	44%	35-119%
1718-51-0	Terphenyl-d14	94%	10-126%

Leachate Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-LB23	3E108527.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	27%	14-88%
4165-62-2	Phenol-d5	18%	10-110%
118-79-6	2,4,6-Tribromophenol	116%	39-149%
4165-60-0	Nitrobenzene-d5	57%	32-128%
321-60-8	2-Fluorobiphenyl	53%	35-119%
1718-51-0	Terphenyl-d14	93%	10-126%

Leachate Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-LB20	3E108528.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	31%	14-88%
4165-62-2	Phenol-d5	20%	10-110%
118-79-6	2,4,6-Tribromophenol	114%	39-149%
4165-60-0	Nitrobenzene-d5	64%	32-128%
321-60-8	2-Fluorobiphenyl	53%	35-119%
1718-51-0	Terphenyl-d14	85%	10-126%

Leachate Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23279-LB24	3E108531.D	1	10/14/19	AR	10/11/19	OP23279	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	20	8.9	ug/l	
	3&4-Methylphenol	ND	20	8.8	ug/l	
87-86-5	Pentachlorophenol	ND	100	14	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	13	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	9.2	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	1.7	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	20	5.5	ug/l	
118-74-1	Hexachlorobenzene	ND	20	3.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.9	ug/l	
67-72-1	Hexachloroethane	ND	50	3.9	ug/l	
98-95-3	Nitrobenzene	ND	20	6.4	ug/l	
110-86-1	Pyridine	ND	20	3.9	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	32%	14-88%
4165-62-2	Phenol-d5	20%	10-110%
118-79-6	2,4,6-Tribromophenol	107%	39-149%
4165-60-0	Nitrobenzene-d5	58%	32-128%
321-60-8	2-Fluorobiphenyl	44%	35-119%
1718-51-0	Terphenyl-d14	89%	10-126%

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-BS1	3E108529.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	272	54	42-103
	3&4-Methylphenol	500	259	52	39-110
87-86-5	Pentachlorophenol	500	551	110	30-136
95-95-4	2,4,5-Trichlorophenol	500	376	75	55-116
88-06-2	2,4,6-Trichlorophenol	500	370	74	56-115
106-46-7	1,4-Dichlorobenzene	500	244	49	39-110
121-14-2	2,4-Dinitrotoluene	500	441	88	57-122
118-74-1	Hexachlorobenzene	500	376	75	49-122
87-68-3	Hexachlorobutadiene	500	165	33	24-112
67-72-1	Hexachloroethane	500	186	37	31-107
98-95-3	Nitrobenzene	500	284	57	44-116
110-86-1	Pyridine	500	89.5	18	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	38%	14-88%
4165-62-2	Phenol-d5	27%	10-110%
118-79-6	2,4,6-Tribromophenol	122%	39-149%
4165-60-0	Nitrobenzene-d5	63%	32-128%
321-60-8	2-Fluorobiphenyl	63%	35-119%
1718-51-0	Terphenyl-d14	96%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23279-BS1	3E108532.D	1	10/14/19	AR	10/11/19	OP23279	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	267	53	42-103
	3&4-Methylphenol	500	253	51	39-110
87-86-5	Pentachlorophenol	500	528	106	30-136
95-95-4	2,4,5-Trichlorophenol	500	379	76	55-116
88-06-2	2,4,6-Trichlorophenol	500	366	73	56-115
106-46-7	1,4-Dichlorobenzene	500	236	47	39-110
121-14-2	2,4-Dinitrotoluene	500	434	87	57-122
118-74-1	Hexachlorobenzene	500	391	78	49-122
87-68-3	Hexachlorobutadiene	500	158	32	24-112
67-72-1	Hexachloroethane	500	176	35	31-107
98-95-3	Nitrobenzene	500	291	58	44-116
110-86-1	Pyridine	500	128	26	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	36%	14-88%
4165-62-2	Phenol-d5	25%	10-110%
118-79-6	2,4,6-Tribromophenol	121%	39-149%
4165-60-0	Nitrobenzene-d5	65%	32-128%
321-60-8	2-Fluorobiphenyl	65%	35-119%
1718-51-0	Terphenyl-d14	92%	10-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-BS2	3E108532.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	267	53	42-103
	3&4-Methylphenol	500	253	51	39-110
87-86-5	Pentachlorophenol	500	528	106	30-136
95-95-4	2,4,5-Trichlorophenol	500	379	76	55-116
88-06-2	2,4,6-Trichlorophenol	500	366	73	56-115
106-46-7	1,4-Dichlorobenzene	500	236	47	39-110
121-14-2	2,4-Dinitrotoluene	500	434	87	57-122
118-74-1	Hexachlorobenzene	500	391	78	49-122
87-68-3	Hexachlorobutadiene	500	158	32	24-112
67-72-1	Hexachloroethane	500	176	35	31-107
98-95-3	Nitrobenzene	500	291	58	44-116
110-86-1	Pyridine	500	128	26	10-110

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	36%	14-88%
4165-62-2	Phenol-d5	25%	10-110%
118-79-6	2,4,6-Tribromophenol	121%	39-149%
4165-60-0	Nitrobenzene-d5	65%	32-128%
321-60-8	2-Fluorobiphenyl	65%	35-119%
1718-51-0	Terphenyl-d14	92%	10-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23279-MS	3E108554.D	10	10/14/19	AR	10/11/19	OP23279	E3E4880
OP23279-MSD	3E108555.D	10	10/14/19	AR	10/11/19	OP23279	E3E4880
JC96239-1	3E108556.D	10	10/14/19	AR	10/11/19	OP23279	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	JC96239-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND		500	ND	0* [a]	500	ND	0* [a]	nc	47-112/18
	3&4-Methylphenol	ND		500	ND	0* [a]	500	ND	0* [a]	nc	44-113/19
87-86-5	Pentachlorophenol	ND		500	ND	0* [a]	500	ND	0* [a]	nc	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND		500	ND	0* [a]	500	ND	0* [a]	nc	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		500	ND	0* [a]	500	ND	0* [a]	nc	53-120/21
106-46-7	1,4-Dichlorobenzene	ND		500	162	32* [a]	500	179	36* [a]	10	40-105/22
121-14-2	2,4-Dinitrotoluene	ND		500	ND	0* [a]	500	ND	0* [a]	nc	54-123/27
118-74-1	Hexachlorobenzene	ND		500	180	36* [a]	500	200	40* [a]	11	46-125/24
87-68-3	Hexachlorobutadiene	ND		500	ND	0* [a]	500	ND	0* [a]	nc	26-121/24
67-72-1	Hexachloroethane	ND		500	ND	0* [a]	500	ND	0* [a]	nc	35-111/26
98-95-3	Nitrobenzene	ND		500	ND	0* [a]	500	ND	0* [a]	nc	35-130/25
110-86-1	Pyridine	ND		500	ND	0* [a]	500	ND	0* [a]	nc	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC96239-1	Limits
367-12-4	2-Fluorophenol	20%	20%	25%	14-88%
4165-62-2	Phenol-d5	24%	18%	28%	10-110%
118-79-6	2,4,6-Tribromophenol	48%	45%	43%	39-149%
4165-60-0	Nitrobenzene-d5	69%	66%	74%	32-128%
321-60-8	2-Fluorobiphenyl	35%	37%	40%	35-119%
1718-51-0	Terphenyl-d14	0%* [c]	0%* [c]	0%* [b]	10-126%

(a) Outside control limits due to dilution and matrix interference.
(b) Outside control limits due to matrix interference, confirmed by MS/MSD.
(c) Outside control limits due to dilution.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-MS	3E108544.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880
OP23278-MSD	3E108545.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880
JC96033-4A	3E108546.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	JC96033-4A ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND		500	282	56	500	277	55	2	47-112/18
	3&4-Methylphenol	ND		500	276	55	500	280	56	1	44-113/19
87-86-5	Pentachlorophenol	ND		500	382	76	500	423	85	10	25-151/25
95-95-4	2,4,5-Trichlorophenol	ND		500	354	71	500	365	73	3	51-124/20
88-06-2	2,4,6-Trichlorophenol	ND		500	345	69	500	351	70	2	53-120/21
106-46-7	1,4-Dichlorobenzene	ND		500	267	53	500	260	52	3	40-105/22
121-14-2	2,4-Dinitrotoluene	ND		500	423	85	500	441	88	4	54-123/27
118-74-1	Hexachlorobenzene	ND		500	361	72	500	386	77	7	46-125/24
87-68-3	Hexachlorobutadiene	ND		500	170	34	500	165	33	3	26-121/24
67-72-1	Hexachloroethane	ND		500	198	40	500	196	39	1	35-111/26
98-95-3	Nitrobenzene	ND		500	329	66	500	321	64	2	35-130/25
110-86-1	Pyridine	ND		500	153	31	500	129	26	17	12-102/41

CAS No.	Surrogate Recoveries	MS	MSD	JC96033-4A	Limits
367-12-4	2-Fluorophenol	40%	38%	34%	14-88%
4165-62-2	Phenol-d5	26%	26%	24%	10-110%
118-79-6	2,4,6-Tribromophenol	112%	119%	117%	39-149%
4165-60-0	Nitrobenzene-d5	73%	70%	66%	32-128%
321-60-8	2-Fluorobiphenyl	66%	66%	67%	35-119%
1718-51-0	Terphenyl-d14	83%	86%	62%	10-126%

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23279-LS12	3E108554.D	10	10/14/19	AR	10/11/19	OP23279	E3E4880
JC96239-1	3E108556.D	10	10/14/19	AR	10/11/19	OP23279	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

CAS No.	Compound	JC96239-1 ug/l	Q	Spike ug/l	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND		500	ND	0* [a]	47-112
	3&4-Methylphenol	ND		500	ND	0* [a]	44-113
87-86-5	Pentachlorophenol	ND		500	ND	0* [a]	25-151
95-95-4	2,4,5-Trichlorophenol	ND		500	ND	0* [a]	51-124
88-06-2	2,4,6-Trichlorophenol	ND		500	ND	0* [a]	53-120
106-46-7	1,4-Dichlorobenzene	ND		500	162	32* [a]	40-105
121-14-2	2,4-Dinitrotoluene	ND		500	ND	0* [a]	54-123
118-74-1	Hexachlorobenzene	ND		500	180	36* [a]	46-125
87-68-3	Hexachlorobutadiene	ND		500	ND	0* [a]	26-121
67-72-1	Hexachloroethane	ND		500	ND	0* [a]	35-111
98-95-3	Nitrobenzene	ND		500	ND	0* [a]	35-130
110-86-1	Pyridine	ND		500	ND	0* [a]	12-102

CAS No.	Surrogate Recoveries	LS	JC96239-1	Limits
367-12-4	2-Fluorophenol	20%	25%	14-88%
4165-62-2	Phenol-d5	24%	28%	10-110%
118-79-6	2,4,6-Tribromophenol	48%	43%	39-149%
4165-60-0	Nitrobenzene-d5	69%	74%	32-128%
321-60-8	2-Fluorobiphenyl	35%	40%	35-119%
1718-51-0	Terphenyl-d14	0%* [c]	0%* [b]	10-126%

(a) Outside control limits due to dilution and matrix interference.
(b) Outside control limits due to matrix interference, confirmed by MS/MSD.
(c) Outside control limits due to dilution.

* = Outside of Control Limits.

Leachate Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23278-LS11	3E108544.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880
JC96033-4A	3E108546.D	1	10/14/19	AR	10/11/19	OP23278	E3E4880

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC96272-3, JC96272-6

CAS No.	Compound	JC96033-4A ug/l	Q	Spike ug/l	LS ug/l	LS %	Limits
95-48-7	2-Methylphenol	ND		500	282	56	47-112
	3&4-Methylphenol	ND		500	276	55	44-113
87-86-5	Pentachlorophenol	ND		500	382	76	25-151
95-95-4	2,4,5-Trichlorophenol	ND		500	354	71	51-124
88-06-2	2,4,6-Trichlorophenol	ND		500	345	69	53-120
106-46-7	1,4-Dichlorobenzene	ND		500	267	53	40-105
121-14-2	2,4-Dinitrotoluene	ND		500	423	85	54-123
118-74-1	Hexachlorobenzene	ND		500	361	72	46-125
87-68-3	Hexachlorobutadiene	ND		500	170	34	26-121
67-72-1	Hexachloroethane	ND		500	198	40	35-111
98-95-3	Nitrobenzene	ND		500	329	66	35-130
110-86-1	Pyridine	ND		500	153	31	12-102

CAS No.	Surrogate Recoveries	LS	JC96033-4A	Limits
367-12-4	2-Fluorophenol	40%	34%	14-88%
4165-62-2	Phenol-d5	26%	24%	10-110%
118-79-6	2,4,6-Tribromophenol	112%	117%	39-149%
4165-60-0	Nitrobenzene-d5	73%	66%	32-128%
321-60-8	2-Fluorobiphenyl	66%	67%	35-119%
1718-51-0	Terphenyl-d14	83%	62%	10-126%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: E3E4852-DFTPP
Lab File ID: 3E108077.D
Instrument ID: GCMS3E
Injection Date: 08/05/19
Injection Time: 11:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	110705	36.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	142397	47.5		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	159913	53.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	299797	100.0		Pass
199	5.0 - 9.0% of mass 198	21162	7.06		Pass
275	10.0 - 30.0% of mass 198	76800	25.6		Pass
365	1.0 - 100.0% of mass 198	9763	3.26		Pass
441	Present, but less than mass 443	25498	8.51	(81.9) [b]	Pass
442	40.0 - 100.0% of mass 198	161786	54.0		Pass
443	17.0 - 23.0% of mass 442	31143	10.4	(19.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4852-IC4852	3E108078.D	08/05/19	12:07	00:40	Initial cal 100
E3E4852-IC4852	3E108079.D	08/05/19	12:32	01:05	Initial cal 80
E3E4852-ICC4852	3E108080.D	08/05/19	12:58	01:31	Initial cal 50
E3E4852-IC4852	3E108081.D	08/05/19	13:23	01:56	Initial cal 25
E3E4852-IC4852	3E108082.D	08/05/19	13:48	02:21	Initial cal 10
E3E4852-IC4852	3E108083.D	08/05/19	14:13	02:46	Initial cal 5
E3E4852-IC4852	3E108084.D	08/05/19	14:38	03:11	Initial cal 2
E3E4852-IC4852	3E108085.D	08/05/19	15:03	03:36	Initial cal 1
E3E4852-ICV4852	3E108088.D	08/05/19	16:19	04:52	Initial cal verification 50
E3E4852-ICV4852	3E108089.D	08/05/19	16:44	05:17	Initial cal verification 50
E3E4852-ICV4852	3E108090.D	08/05/19	17:09	05:42	Initial cal verification 50
E3E4852-ICV4852	3E108091.D	08/05/19	17:35	06:08	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	E3E4854-DFTPP	**Injection Date:**	08/06/19
Lab File ID:	3E108101.D	**Injection Time:**	15:04
Instrument ID:	GCMS3E		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	111764	31.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	146145	41.2		Pass
70	Less than 2.0% of mass 69	562	0.16	(0.38) [a]	Pass
127	40.0 - 60.0% of mass 198	179536	50.7		Pass
197	Less than 1.0% of mass 198	512	0.14		Pass
198	Base peak, 100% relative abundance	354410	100.0		Pass
199	5.0 - 9.0% of mass 198	23932	6.75		Pass
275	10.0 - 30.0% of mass 198	84245	23.8		Pass
365	1.0 - 100.0% of mass 198	9880	2.79		Pass
441	Present, but less than mass 443	23931	6.75	(80.3) [b]	Pass
442	40.0 - 100.0% of mass 198	152560	43.0		Pass
443	17.0 - 23.0% of mass 442	29800	8.41	(19.5) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4854-ICV4852	3E108102.D	08/06/19	16:19	01:15	Initial cal verification 50
E3E4854-ICV4852	3E108103.D	08/06/19	16:44	01:40	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: E3E4880-DFTPP
Lab File ID: 3E108524.D
Instrument ID: GCMS3E
Injection Date: 10/14/19
Injection Time: 08:45

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	122604	34.9		Pass
68	Less than 2.0% of mass 69	1105	0.31	(0.88) [a]	Pass
69	Mass 69 relative abundance	125938	35.8		Pass
70	Less than 2.0% of mass 69	522	0.15	(0.41) [a]	Pass
127	40.0 - 60.0% of mass 198	181799	51.7		Pass
197	Less than 1.0% of mass 198	456	0.13		Pass
198	Base peak, 100% relative abundance	351656	100.0		Pass
199	5.0 - 9.0% of mass 198	23224	6.60		Pass
275	10.0 - 30.0% of mass 198	85605	24.3		Pass
365	1.0 - 100.0% of mass 198	11277	3.21		Pass
441	Present, but less than mass 443	33213	9.44	(86.9) [b]	Pass
442	40.0 - 100.0% of mass 198	203509	57.9		Pass
443	17.0 - 23.0% of mass 442	38217	10.9	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4880-CC4852	3E108525.D	10/14/19	08:58	00:13	Continuing cal 25
OP23278-MB1	3E108526.D	10/14/19	09:24	00:39	Method Blank
OP23173-MB2	3E108526.D	10/14/19	09:24	00:39	Method Blank
OP23278-LB23	3E108527.D	10/14/19	09:49	01:04	Leachate Blank
OP23278-LB20	3E108528.D	10/14/19	10:14	01:29	Leachate Blank
OP23173-BS2	3E108529.D	10/14/19	10:39	01:54	Blank Spike
OP23278-BS1	3E108529.D	10/14/19	10:39	01:54	Blank Spike
OP23278-MB2	3E108530.D	10/14/19	11:05	02:20	Method Blank
OP23279-MB1	3E108530.D	10/14/19	11:05	02:20	Method Blank
OP23184-MB2	3E108530.D	10/14/19	11:05	02:20	Method Blank
OP23279-LB24	3E108531.D	10/14/19	11:30	02:45	Leachate Blank
OP23184-BS2	3E108532.D	10/14/19	11:55	03:10	Blank Spike
OP23278-BS2	3E108532.D	10/14/19	11:55	03:10	Blank Spike
OP23279-BS1	3E108532.D	10/14/19	11:55	03:10	Blank Spike
ZZZZZZ	3E108533.D	10/14/19	12:20	03:35	(unrelated sample)
ZZZZZZ	3E108534.D	10/14/19	12:46	04:01	(unrelated sample)
ZZZZZZ	3E108535.D	10/14/19	13:11	04:26	(unrelated sample)
ZZZZZZ	3E108536.D	10/14/19	13:36	04:51	(unrelated sample)
ZZZZZZ	3E108541.D	10/14/19	15:43	06:58	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	E3E4880-DFTPP	**Injection Date:**	10/14/19
Lab File ID:	3E108524.D	**Injection Time:**	08:45
Instrument ID:	GCMS3E		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3E108542.D	10/14/19	16:21	07:36	(unrelated sample)
ZZZZZZ	3E108543.D	10/14/19	16:46	08:01	(unrelated sample)
OP23279-LS12	3E108554.D	10/14/19	17:12	08:27	Leachate Spike
OP23279-MS	3E108554.D	10/14/19	17:12	08:27	Matrix Spike
OP23279-MSD	3E108555.D	10/14/19	17:37	08:52	Matrix Spike Duplicate
JC96239-1	3E108556.D	10/14/19	18:02	09:17	(used for QC only; not part of job JC96272)
OP23278-MS	3E108544.D	10/14/19	18:27	09:42	Matrix Spike
OP23278-LS11	3E108544.D	10/14/19	18:27	09:42	Leachate Spike
OP23278-MSD	3E108545.D	10/14/19	18:53	10:08	Matrix Spike Duplicate
JC96033-4A	3E108546.D	10/14/19	19:18	10:33	(used for QC only; not part of job JC96272)
ZZZZZZ	3E108547.D	10/14/19	20:09	11:24	(unrelated sample)
ZZZZZZ	3E108548.D	10/14/19	20:34	11:49	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	E3E4881-DFTPP	**Injection Date:**	10/15/19
Lab File ID:	3E108559.D	**Injection Time:**	08:44
Instrument ID:	GCMS3E		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	116785	36.5		Pass
68	Less than 2.0% of mass 69	327	0.10	(0.26) [a]	Pass
69	Mass 69 relative abundance	123419	38.5		Pass
70	Less than 2.0% of mass 69	759	0.24	(0.61) [a]	Pass
127	40.0 - 60.0% of mass 198	175734	54.9		Pass
197	Less than 1.0% of mass 198	325	0.10		Pass
198	Base peak, 100% relative abundance	320353	100.0		Pass
199	5.0 - 9.0% of mass 198	21899	6.84		Pass
275	10.0 - 30.0% of mass 198	74800	23.3		Pass
365	1.0 - 100.0% of mass 198	11462	3.58		Pass
441	Present, but less than mass 443	30331	9.47	(84.5) [b]	Pass
442	40.0 - 100.0% of mass 198	191760	59.9		Pass
443	17.0 - 23.0% of mass 442	35913	11.2	(18.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
E3E4881-CC4852	3E108560.D	10/15/19	08:56	00:12	Continuing cal 50
ZZZZZZ	3E108561.D	10/15/19	09:21	00:37	(unrelated sample)
ZZZZZZ	3E108563.D	10/15/19	10:11	01:27	(unrelated sample)
ZZZZZZ	3E108564.D	10/15/19	10:36	01:52	(unrelated sample)
ZZZZZZ	3E108565.D	10/15/19	11:00	02:16	(unrelated sample)
ZZZZZZ	3E108566.D	10/15/19	11:25	02:41	(unrelated sample)
ZZZZZZ	3E108567.D	10/15/19	11:50	03:06	(unrelated sample)
ZZZZZZ	3E108568.D	10/15/19	12:15	03:31	(unrelated sample)
ZZZZZZ	3E108569.D	10/15/19	12:40	03:56	(unrelated sample)
ZZZZZZ	3E108572.D	10/15/19	13:56	05:12	(unrelated sample)
ZZZZZZ	3E108573.D	10/15/19	14:21	05:37	(unrelated sample)
ZZZZZZ	3E108574.D	10/15/19	14:46	06:02	(unrelated sample)
ZZZZZZ	3E108576.D	10/15/19	15:36	06:52	(unrelated sample)
ZZZZZZ	3E108577.D	10/15/19	16:01	07:17	(unrelated sample)
JC96272-1	3E108578.D	10/15/19	16:26	07:42	MH-A6 PURGE WATER
JC96272-2	3E108579.D	10/15/19	16:51	08:07	MH-22 PURGE WATER
JC96272-3	3E108580.D	10/15/19	17:17	08:33	MH-22 SOLIDS
JC96272-4	3E108581.D	10/15/19	17:42	08:58	BD 18 SEWER
JC96272-5	3E108582.D	10/15/19	18:07	09:23	MH-42A/B

Instrument Performance Check (DFTPP)

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	E3E4881-DFTPP	**Injection Date:**	10/15/19
Lab File ID:	3E108559.D	**Injection Time:**	08:44
Instrument ID:	GCMS3E		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC96272-6	3E108583.D	10/15/19	18:32	09:48	UTILITY SUMP SOLIDS
JC96272-7	3E108584.D	10/15/19	18:58	10:14	UTILITY SUMP LIQUIDS
JC96272-8	3E108585.D	10/15/19	19:23	10:39	DECON WATER
ZZZZZZ	3E108586.D	10/15/19	19:48	11:04	(unrelated sample)

Surrogate Recovery Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8270D **Matrix:** LEACHATE

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC96272-1	3E108578.D	32	20	118	59	65	73
JC96272-2	3E108579.D	20	12	85	41	47	57
JC96272-3	3E108580.D	32	21	123	60	67	67
JC96272-4	3E108581.D	19	12	86	42	47	58
JC96272-5	3E108582.D	27	17	120	55	65	68
JC96272-6	3E108583.D	27	18	120	56	63	72
JC96272-7	3E108584.D	25	17	94	52	58	43
JC96272-8	3E108585.D	25	17	84	52	54	45
OP23278-BS1	3E108529.D	38	27	122	63	63	96
OP23278-BS2	3E108532.D	36	25	121	65	65	92
OP23278-LB20	3E108528.D	31	20	114	64	53	85
OP23278-LB23	3E108527.D	27	18	116	57	53	93
OP23278-LS11	3E108544.D	40	26	112	73	66	83
OP23278-MB1	3E108526.D	27	18	109	53	47	91
OP23278-MB2	3E108530.D	33	22	116	60	44	94
OP23278-MS	3E108544.D	40	26	112	73	66	83
OP23278-MSD	3E108545.D	38	26	119	70	66	86
OP23279-BS1	3E108532.D	36	25	121	65	65	92
OP23279-LB24	3E108531.D	32	20	107	58	44	89
OP23279-LS12	3E108554.D	20	24	48	69	35	0* [a]
OP23279-MB1	3E108530.D	33	22	116	60	44	94
OP23279-MS	3E108554.D	20	24	48	69	35	0* [a]
OP23279-MSD	3E108555.D	20	18	45	66	37	0* [a]

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-88%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	39-149%
S4 = Nitrobenzene-d5	32-128%
S5 = 2-Fluorobiphenyl	35-119%
S6 = Terphenyl-d14	10-126%

(a) Outside control limits due to dilution.

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23248-MB1	2G185272.D	1	10/11/19	TR	10/11/19	OP23248	G2G4794

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.098	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.063	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.21	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.076	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.087	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.097	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	94%	11-166%
877-09-8	Tetrachloro-m-xylene	95%	11-166%
2051-24-3	Decachlorobiphenyl	80%	10-150%
2051-24-3	Decachlorobiphenyl	76%	10-150%

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23243-MB1	5G91813.D	1	10/14/19	CP	10/11/19	OP23243	G5G2236

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-3, JC96272-6

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	16	ug/kg	
11104-28-2	Aroclor 1221	ND	33	21	ug/kg	
11141-16-5	Aroclor 1232	ND	33	21	ug/kg	
53469-21-9	Aroclor 1242	ND	33	14	ug/kg	
12672-29-6	Aroclor 1248	ND	33	30	ug/kg	
11097-69-1	Aroclor 1254	ND	33	18	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	
11100-14-4	Aroclor 1268	ND	33	14	ug/kg	
37324-23-5	Aroclor 1262	ND	33	22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	74%	31-146%
877-09-8	Tetrachloro-m-xylene	80%	31-146%
2051-24-3	Decachlorobiphenyl	71%	17-164%
2051-24-3	Decachlorobiphenyl	74%	17-164%

Method Blank Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23495-MB1	2G185853.D	1	10/23/19	TR	10/23/19	OP23495	G2G4805

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-8

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.098	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.21	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.13	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.063	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.21	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.076	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.087	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.097	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	114%	11-166%
877-09-8	Tetrachloro-m-xylene	111%	11-166%
2051-24-3	Decachlorobiphenyl	87%	10-150%
2051-24-3	Decachlorobiphenyl	83%	10-150%

Blank Spike Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23243-BS1	5G91814.D	1	10/14/19	CP	10/11/19	OP23243	G5G2236

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-3, JC96272-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	114	85	67-157
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	106	79	63-155
11100-14-4	Aroclor 1268		ND		50-150 [a]
37324-23-5	Aroclor 1262		ND		50-150 [a]

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	79%	31-146%
877-09-8	Tetrachloro-m-xylene	83%	31-146%
2051-24-3	Decachlorobiphenyl	77%	17-164%
2051-24-3	Decachlorobiphenyl	80%	17-164%

(a) Advisory control limits.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23248-BS1	2G185273.D	1	10/11/19	TR	10/11/19	OP23248	G2G4794
OP23248-BSD	2G185274.D	1	10/11/19	TR	10/11/19	OP23248	G2G4794

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	1.8	90	1.7	85	6	37-164/43
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/20
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/20
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/20
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/20
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/20
11096-82-5	Aroclor 1260	2	1.8	90	1.8	90	0	36-155/46
11100-14-4	Aroclor 1268		ND		ND		nc	-/20
37324-23-5	Aroclor 1262		ND		ND		nc	-/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	97%	97%	11-166%
877-09-8	Tetrachloro-m-xylene	95%	93%	11-166%
2051-24-3	Decachlorobiphenyl	83%	86%	10-150%
2051-24-3	Decachlorobiphenyl	77%	78%	10-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23495-BS1	2G185854.D	1	10/23/19	TR	10/23/19	OP23495	G2G4805
OP23495-BSD	2G185855.D	1	10/23/19	TR	10/23/19	OP23495	G2G4805

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2.0	2.1	105	2.0	100	5	37-164/43
11104-28-2	Aroclor 1221		ND		ND		nc	70-130/20
11141-16-5	Aroclor 1232		ND		ND		nc	70-130/20
53469-21-9	Aroclor 1242		ND		ND		nc	70-130/20
12672-29-6	Aroclor 1248		ND		ND		nc	70-130/20
11097-69-1	Aroclor 1254		ND		ND		nc	70-130/20
11096-82-5	Aroclor 1260	2.0	2.0	100	2.0	100	0	36-155/46
11100-14-4	Aroclor 1268		ND		ND		nc	-/20
37324-23-5	Aroclor 1262		ND		ND		nc	-/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	107%	104%	11-166%
877-09-8	Tetrachloro-m-xylene	104%	103%	11-166%
2051-24-3	Decachlorobiphenyl	83%	81%	10-150%
2051-24-3	Decachlorobiphenyl	79%	76%	10-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23243-MS	5G91816.D	1	10/14/19	CP	10/11/19	OP23243	G5G2236
OP23243-MSD	5G91817.D	1	10/14/19	CP	10/11/19	OP23243	G5G2236
JC96278-4	5G91815.D	1	10/14/19	CP	10/11/19	OP23243	G5G2236

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC96272-3, JC96272-6

CAS No.	Compound	JC96278-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		148	78.8	53	161	88.3	55	11	36-191/60
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/1
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/6
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/33
11097-69-1	Aroclor 1254	ND			ND			ND		nc	70-130/38
11096-82-5	Aroclor 1260	53.7		148	138	57	161	322	167	80* [a]	15-200/68
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/17

CAS No.	Surrogate Recoveries	MS	MSD	JC96278-4	Limits
877-09-8	Tetrachloro-m-xylene	56%	57%	76%	31-146%
877-09-8	Tetrachloro-m-xylene	62%	64%	92%	31-146%
2051-24-3	Decachlorobiphenyl	66%	67%	80%	17-164%
2051-24-3	Decachlorobiphenyl	63%	67%	93%	17-164%

(a) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Surrogate Recovery Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8082A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC96272-1	2G185305.D	143	96	23	27
JC96272-2	2G185306.D	78	80	21	25
JC96272-4	2G185372.D	91	78	27	37
JC96272-5	2G185308.D	48	43	13	12
JC96272-7	2G185432.D	376* [c]	76	40	33
JC96272-8	2G185857.D	373* [c]	49	55	43
OP23248-BS1	2G185273.D	97	95	83	77
OP23248-BSD	2G185274.D	97	93	86	78
OP23248-MB1	2G185272.D	94	95	80	76
OP23495-BS1	2G185854.D	107	104	83	79
OP23495-BSD	2G185855.D	104	103	81	76
OP23495-MB1	2G185853.D	114	111	87	83

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	11-166%
S2 = Decachlorobiphenyl	10-150%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to matrix interference.

Surrogate Recovery Summary

Job Number: JC96272
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8082A **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC96272-3	5G91851.D	46	56	37	53
JC96272-6	5G91808.D	61	40	31	25
OP23243-BS1	5G91814.D	79	83	77	80
OP23243-MB1	5G91813.D	74	80	71	74
OP23243-MS	5G91816.D	56	62	66	63
OP23243-MSD	5G91817.D	57	64	67	67

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	31-146%
S2 = Decachlorobiphenyl	17-164%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/09/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.072	.23		
Antimony	0.50	.007	.024		
Arsenic	0.50	.0075	.014	0.0038	<0.50
Barium	1.0	.0025	.067	0.0052	<1.0
Beryllium	0.010	.0005	.0025		
Bismuth	0.10	.009	.02		
Boron	0.50	.004	.31		
Cadmium	0.020	.0015	.005	-0.00020	<0.020
Calcium	25	.02	.5		
Chromium	0.050	.0015	.01	0.00050	<0.050
Cobalt	0.25	.0015	.013		
Copper	0.050	.003	.03		
Iron	0.50	.013	.16		
Lead	0.50	.008	.009	0.00040	<0.50
Lithium	0.25	.011	.037		
Magnesium	25	.082	.7		
Manganese	0.075	.0005	.007		
Molybdenum	0.10	.002	.018		
Nickel	0.050	.0025	.0085		
Phosphorus	0.25	.0095	.089		
Potassium	50	.4	1		
Selenium	0.50	.015	.025	-0.00080	<0.50
Silicon	1.0	.006	.51		
Silver	0.050	.0025	.0095	-0.0013	<0.050
Sodium	50	.05	2.8		
Strontium	0.050	.0015	.005		
Sulfur	0.25	.018	.23		
Thallium	0.50	.0065	.009		
Tin	0.050	.0035	.019		
Titanium	0.050	.0025	.013		
Tungsten	0.25	.0085	.2		
Vanadium	0.25	.0025	.009		
Zinc	0.10	.001	.035		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/09/19

Metal	RL	IDL	MDL	MB raw	final
Zirconium	0.050	.0015	.021		

Associated samples MP17789: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/09/19

Metal	JC96239-1 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	101	100.	101.0	75-125
Barium	0.13	100	100.	99.9	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	98.6	100.	98.6	75-125
Calcium					
Chromium	0.090	99.4	100.	99.3	75-125
Cobalt					
Copper					
Iron					
Lead	0.0	102	100.	102.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium	0.0	101	100.	101.0	75-125
Silicon					
Silver	0.0	12.6	12.5	100.8	75-125
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/09/19

Metal	JC96239-1 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP17789: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/09/19

Metal	JC96239-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	101	100.	101.0	0.0	20
Barium	0.13	101	100.	100.9	1.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	98.1	100.	98.1	0.5	20
Calcium						
Chromium	0.090	100	100.	99.9	0.6	20
Cobalt						
Copper						
Iron						
Lead	0.0	102	100.	102.0	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium	0.0	99.0	100.	99.0	2.0	20
Silicon						
Silver	0.0	12.5	12.5	100.0	0.8	20
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/09/19

Metal	JC96239-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium						

Associated samples MP17789: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/09/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	2.0	2.0	100.0	80-120
Barium	2.0	2.0	100.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	1.9	2.0	95.0	80-120
Calcium				
Chromium	2.0	2.0	100.0	80-120
Cobalt				
Copper				
Iron				
Lead	2.0	2.0	100.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	1.9	2.0	95.0	80-120
Silicon				
Silver	0.24	0.25	96.0	80-120
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/09/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP17789: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 10/09/19

Metal	JC96239-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	2.50	0.00	100.0(a)	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	1.80	0.00	100.0(a)	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17789 Methods: SW846 6010D
Matrix Type: LEACHATE Units: ug/l

Prep Date: 10/09/19

Metal	JC96239-1 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP17789: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17806 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/10/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.000014	.000095	0.000021	<0.00020

Associated samples MP17806: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17806 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/10/19

Metal	JC96239-1 Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	0.041	0.060	68.3N(a)	75-125

Associated samples MP17806: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17806 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/10/19

Metal	JC96239-1 Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.038	0.060	63.3N(a)	7.6	20

Associated samples MP17806: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17806
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 10/10/19

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0020	0.0020	100.0	80-120

Associated samples MP17806: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/11/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	1.0	.042	.23		
Antimony	0.50	.006	.024		
Arsenic	0.50	.0075	.014	0.0010	<0.50
Barium	1.0	.0015	.067	0.0014	<1.0
Beryllium	0.010	.0005	.0025		
Bismuth	0.10	.01	.02		
Boron	0.50	.004	.31		
Cadmium	0.020	.0005	.005	0.0	<0.020
Calcium	25	.012	.5		
Chromium	0.050	.002	.01	0.00090	<0.050
Cobalt	0.25	.002	.013		
Copper	0.050	.0015	.03		
Iron	0.50	.012	.16		
Lead	0.50	.0055	.009	-0.0012	<0.50
Lithium	0.25	.0055	.037		
Magnesium	25	.068	.7		
Manganese	0.075	.0005	.007		
Molybdenum	0.10	.0035	.018		
Nickel	0.050	.0015	.0085		
Phosphorus	0.25	.0055	.089		
Potassium	50	.13	1		
Selenium	0.50	.009	.025	0.0026	<0.50
Silicon	1.0	.011	.51		
Silver	0.050	.0015	.0095	-0.00050	<0.050
Strontium	0.050	.0005	.005		
Sulfur	0.25	.011	.23		
Thallium	0.50	.0065	.009		
Tin	0.050	.0045	.019		
Titanium	0.050	.0015	.013		
Tungsten	0.25	.007	.2		
Vanadium	0.25	.0015	.009		
Zinc	0.10	.0015	.035		
Zirconium	0.050	.001	.021		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/11/19

Metal	RL	IDL	MDL	MB raw	final

Associated samples MP17814: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/11/19

Metal	JC96033-4A Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	2.1	2.0	105.0	75-125
Barium	0.49	2.5	2.0	100.5	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0074	2.1	2.0	104.6	75-125
Calcium					
Chromium	0.0	2.0	2.0	100.0	75-125
Cobalt					
Copper					
Iron					
Lead	0.24	2.2	2.0	98.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium	0.017	2.1	2.0	104.2	75-125
Silicon					
Silver	0.0	0.26	0.25	104.0	75-125
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					
Zirconium					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/11/19

Metal	JC96033-4A Original MS	Spikelot MPSPK2	% Rec	QC Limits

Associated samples MP17814: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/11/19

Metal	JC96033-4A Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.0	2.1	2.0	105.0	0.0	20
Barium	0.49	2.5	2.0	100.5	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0074	2.1	2.0	104.6	0.0	20
Calcium						
Chromium	0.0	2.0	2.0	100.0	0.0	20
Cobalt						
Copper						
Iron						
Lead	0.24	2.2	2.0	98.0	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium	0.017	2.1	2.0	104.2	0.0	20
Silicon						
Silver	0.0	0.26	0.25	104.0	0.0	20
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814 Methods: SW846 6010D
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/11/19

	JC96033-4A	Spikelot		MSD	QC
Metal	Original MSD	MPSPK2	% Rec	RPD	Limit

Associated samples MP17814: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/11/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	2.1	2.0	105.0	80-120
Barium	2.0	2.0	100.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	2.1	2.0	105.0	80-120
Calcium				
Chromium	2.0	2.0	100.0	80-120
Cobalt				
Copper				
Iron				
Lead	2.0	2.0	100.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	2.1	2.0	105.0	80-120
Silicon				
Silver	0.26	0.25	104.0	80-120
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: mg/l

Prep Date: 10/11/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits

Associated samples MP17814: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 10/11/19

Metal	JC96033-4A Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	488	487	0.3	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	7.40	8.40	13.5 (a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	236	254	7.3	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	17.4	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17814
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 10/11/19

Metal	JC96033-4A Original SDL 5:25 %DIF	QC Limits
Zirconium		

Associated samples MP17814: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17818 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/11/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.000014	.000095	0.000018	<0.00020

Associated samples MP17818: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17818
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 10/11/19

Metal	JC96033-4A Original	MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	0.0020	0.0020	100.0	75-125

Associated samples MP17818: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17818 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 10/11/19

Metal	JC96033-4A Original	MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0019	0.0020	95.0	5.1	20

Associated samples MP17818: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

QC Batch ID: MP17818
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 10/11/19

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0020	0.0020	100.0	80-120

Associated samples MP17818: JC96272-3, JC96272-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC96272
Account: WSPENYC - WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN1312	JC96272-1	su	6.54	6.63	1.4	0-5%
Corrosivity as pH	GN1337	JC96460-5A	su	7.66	7.64	0.3	0-5%
Ignitability (Flashpoint)	GN1318	JC96272-1	Deg. F	>200	>200	0.0	0-10%
Ignitability (Flashpoint)	GN1352	JC96235-2A	Deg. F	>200	>200	0.0	0-10%
Solids, Percent	GN1597	JC96789-1	%	94.1	94.9	0.8	0-5%

Associated Samples:
Batch GN1312: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8
Batch GN1318: JC96272-1, JC96272-2, JC96272-4, JC96272-5, JC96272-7, JC96272-8
Batch GN1337: JC96272-3, JC96272-6
Batch GN1352: JC96272-3, JC96272-6
Batch GN1597: JC96272-3, JC96272-6
(*) Outside of QC limits